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Phase II RCRA Facility Investigation
Fuller-O'Brien Paint Facility

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Draft Report For Phase II RCRA Facility Investigation

Fuller-O'Brien Paint Facility

450 East Grand Avenue

South San Francisco, California

Volume 1

April 25, 1994

Harza

425 Roland Way

Oakland, CA 94621

Prepared For:

The O'Brien Corporation
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South San Francisco, CA

Draft Report for Phase II RCRA Facility Investigation

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TABLE OF CONTENTS

EXECUTIVE SUMMARY i

1.0 INTRODUCTION 1

1.1 Background and Regulatory Setting 1
1.2 Site Location and History 2
1.3 Previous Environmental Investigations 2

2.0 ENVIRONMENTAL SETTING 5

2.1 Regional Geology and Hydrogeology 5
2.1.1 Regional Geology 5
2.1.2 Regional Hydrology 6
2.1.2.1 Surface Water 6
2.1.2.2 Ground Water 7

2.2 Site Geology and Hydrogeology 7
2.2.1 Site Geology 7
2.2.2 Site Hydrogeology 8
2.2.2.1 Fill Material 9
2.2.2.2 Bay Mud/Colluvium 9
2.2.2.3 Bedrock 9
2.2.3 Ground Water Flow 10
2.2.4 Tidal Influence 10

2.3 Climatology 11
2.3.1 Precipitation 11
2.3.2 Evaporation 11
2.3.3 Wind Direction and Velocity 11

3.0 METHODS OF INVESTIGATION 12

3.1 Redeveloped Site Monitoring Wells and Piezometers 13
3.2 Ecological Evaluation 14
3.3 Ground Water and Surface Water Sampling 14
3.3.1 Monitoring Wells and Piezometers 14
3.3.2 Soil Borings 14
3.3.3 Surface Water 15

3.4 Soil Boring and Sampling Program 15
3.5 Piezometer Installation 15
3.6 Sediment Sampling 16
3.7 Water Level Measurements 16

DRAFT

TABLE OF CONTENTS (Cont'd.)

4.0 CHEMICAL CHARACTERIZATION AND DISTRIBUTION 16

4.1 Source Characterization 16
4.2 Distribution of Chemicals in Surface and Ground Water 17
4.2.1 Ground Water Samples from Monitoring Wells/Piezometers and Soil Borings 17
4.2.1.1 Fill Material 17
4.2.1.2 Bay Mud/Colluvium 18
4.2.1.3 Bedrock 18

4.2.2 Surface Water 18

4.3 Distribution of Chemicals in Soil and Sediment 18
4.3.1 Soil 19
4.3.2 Sediment 20

4.4 Chemical Data Validation 20

5.0 POTENTIAL RECEPTORS 20

6.0 SUMMARY AND CONCLUSIONS 21

6.1 Environmental Setting 21
6.2 Site Geology and Hydrogeology 21
6.3 Chemical Conditions 21
6.4 Potential Receptors 22

7.0 REFERENCES 23

TABLES

1 Summary of RFI Field Activities
2 Summary of Surface and Ground Water Sample Analysis Program
3 Summary of Soil and Sediment Sample Analysis Program
4 Monitoring Well and Piezometer Construction Summary
5 Summary of Water-Level Elevations
6 Summary of Total and Dissolved Metals Analytical Results
7 Summary of Volatile Organic Compounds Analytical Results for Surface and Ground Water Samples
8 Summary of Semivolatile Organic Compounds Analytical Results for Surface and Ground Water Samples
9 Summary of Total Petroleum Hydrocarbons Analytical Results
10 Summary of Total Metals Analytical Results for Soil and Sediment Samples
11 Summary of Volatile Organic Compounds Analytical Results for Soil and Sediment Samples
12 Summary of Semivolatile Organic Compounds Analytical Results for Soil and Sediment Samples
13 Summary of Total Petroleum Hydrocarbons Analytical Results

DRAFT

TABLE OF CONTENTS (Cont'd.)

FIGURES

1 Site Location Map
2 Site Map
3 Soil boring and Sediment Sample Location Map
4 Historical Site Map
5 Site Geologic Map
6 Cross Section A - A'
7 Cross Section B - B'
8 Cross Section C - C'
9 Cross Section D - D'
10 Fill Material Water Level Elevations and Potentiometric Surface 3/18/94
11 Fill Material Water Level Elevations and Potentiometric Surface 4/8/94
12 Bay Mud / Colluvium Water Level Elevations and Potentiometric Surface 3/18/94
13 Bay Mud / Colluvium Water Level Elevations and Potentiometric Surface 4/8/94
14 Bedrock Water Level Elevations and Potentiometric Surface 3/18/94
15 Bedrock Water Level Elevations and Potentiometric Surface 4/8/94
16 Fill Material Metals Ground Water Distribution Map
17 Fill Material VOCs/SVOCs Ground Water Distribution Map
18 Bay Mud / Colluvium Metals Ground Water Distribution Map
19 Bay Mud / Colluvium VOCs/SVOCs Ground Water Distribution Map
20 Bedrock Metals Ground Water Distribution Map
21 Bedrock VOCs/SVOCs Ground Water Distribution Map
22 Total Metals Soil Distribution Map
23 VOC Soil Distribution Map
24 SVOC Soil Distribution Map

APPENDIXES

A Boring Logs and Well Completion Details
B Surface and Ground Water Quality Laboratory Reports and Chain of Custody Records
C Soil and Sediment Quality Laboratory Reports and Chain of Custody Records
D Ratech Resources - May 28, 1993 Data Needs Letter

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EXECUTIVE SUMMARY

This RCRA Facility Investigation (RFI) report describes work performed between November 1993 and April 1994 at the Fuller-O'Brien Paint manufacturing facility in South San Francisco, California pursuant to a Consent Order between the United States Government and The O'Brien Corporation. This document also incorporates data reviewed by Ratech Resources that was generated during previous investigations.

The RFI report has been prepared by Harza and describes investigatory and monitoring activities performed by Harza and others and the results of these activities.

Purpose and Scope

The purpose of the RFI is to characterize the soil and ground water quality at the site and the soil quality in the marginal wetlands and baylands.

Work was performed according to procedures described in Harza's December 28, 1993 workplan entitled: **Phase II RCRA Facility Investigation Workplan**. The work was performed under guidance from The O'Brien Corporation and under the supervision of the United States Environmental Protection Agency (EPA). The work included:

- Drilling and collecting soil and ground water samples from nine borings
- Installing one piezometer in the Fill Material
- Installing two piezometers in the Bay Mud/Colluvium
- Collecting and analyzing ground water from 15 wells and piezometers
- Compiling data generated during previous site investigations
- Calculating the ground water flow directions in the Fill Material, Bay Mud/Colluvium and Bedrock units
- Preparation of a report that presents the data and findings of these activities

Geology and Hydrogeology

In general, the southern half of the facility is underlain by artificial fill (Fill Material), and the Bay Mud and colluvium of probable Holocene age, which rests directly on the Franciscan Complex. Within the facility, the Franciscan Complex crops out from the northwestern edge of the property to the extreme northeast portion of the property. The complex extends to the south-central portion of the site.

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Three hydrostratigraphic units are identified beneath the site. These units have been identified on the basis of differences in general stratigraphy, differences in potentiometric levels, and in response to tidal influence. The two uppermost units occur within the artificial fill, and the Bay Mud and colluvial deposits. The third water bearing zone is the Franciscan Complex bedrock.

Chemical Conditions

Ground Water

Based on a review of the ground water data generated during the Phase II RFI, dissolved metals do not exceed the maximum contaminant levels (MCLs). Low levels of gasoline compounds; benzene, toluene, ethylbenzene, and xylenes (BTEX) and select SVOCs are present in the shallow water bearing zone identified as the Fill Material. Elevated chemical concentrations indicate potential source areas in the MW-21 Area, Former Still Area, Warehouse Area, and the eastern side of the Former Tank Area.

Soil

The site soil quality indicates that surficial soils in the MW-21 Area, the Former Still Area and the Warehouse Area have been impacted with metals, particularly lead. In addition, elevated levels of SVOCs were detected in the eastern portion of the Warehouse Area and in the eastern portion of the Eastern Property Area.

Soil samples collected between approximately 3-6 feet bgs, indicate elevated levels of metals, specifically lead, and SVOCs in the Warehouse Area and in the eastern portion of the Eastern Property Area. It should also be noted that elevated levels of chromium and nickel were detected in the Former Still Area.

Soil samples collected from deeper intervals indicate that the soil in the immediate vicinity of the Warehouse is impacted with lead and SVOCs.

Sediment

Sediment samples collected from the marginal wetlands and baylands, east of the Eastern Property Area, also indicate elevated levels of select SVOCs.

Receptors

The potential human receptors and ecological receptors will be discussed by Ratech Resources and JSA. Ratech Resources is responsible for completing a human health risk assessment and JSA is responsible for completing an ecological evaluation.

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Conclusions

The on-site lateral and vertical distribution of impacted ground water, soil and sediment has been functionally delineated. The ground water does not appear to be significantly impacted. The soil exhibits elevated levels of metals and SVOCs in the Warehouse Area, the Former Still Area, the eastern portion of the Eastern Property and to a lesser degree the MW-21 Area. The baylands sediment in the east of the Eastern Property Area indicates elevated levels of select SVOCs.

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1.0 INTRODUCTION

1.1 Background and Regulatory Setting

This report, prepared by Harza for The O'Brien Corporation (O'Brien), describes the work performed from November 1993 through April 1994 at the Fuller-O'Brien Paint facility located in South San Francisco, California (Figure 1) as part of facility investigation activities. In addition, this report incorporates data generated during previous investigations dating back to 1982 as presented by Ratech Resources (Appendix D). The work activities were conducted pursuant to an Administrative Order on Consent (Consent Order) dated April 16, 1991, between the United States Government and O'Brien under the supervision of the United States Environmental Protection Agency (EPA), Region IX. The Consent Order was written in accordance with Section 3008 of the Resource Conservation and Recovery Act (RCRA).

The work performed for the RFI was completed according to procedures outlined in Harza's work plan dated December 28, 1993 and entitled: **Phase II RCRA Facility Investigation Workplan**. The tasks and procedures outlined in the workplan were performed under the guidance of O'Brien.

The purpose of this RFI is to characterize the nature and extent of impacted site soil and ground water pertaining to identified solid waste management units. In addition, soil, sediment and ground water quality data was collected to support a human health risk assessment and an ecological evaluation. The human health risk assessment focuses on five areas, identified on Figures 2 and 3, as 1) Warehouse Area, 2) MW-21 Area, 3) Former Tank Farm Area/Eastern Property, 4) Former Solvent Still Area, and 5) Former Breakwater Area. These areas were identified by Ratech Resources in their May 28, 1993 letter entitled: **Data Needs Letter For A Risk Assessment /Ecological Evaluation**, using the following criteria:

- Location of Solid Waste Management Units (SWMUs), or areas of interest
- Known processes or areas that may have resulted in the release of potential compounds of interest
- Historical data that estimates the potential of compound migration based upon site topography and probable ground water flow directions.

Raytech Resource's May 28, 1993 data needs letter is presented in Appendix D of this document. The areas focused on during the ecological evaluation include the marginal wetlands, south of the facility; the baylands, west of the the facility; and an area north of the facility and west of the Former Tank Farm Area. Note that no Phase II RFI work was conducted in the Former Breakwater Area as the contamination has been deemed to have been mitigated.

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RFI activities conducted by Harza from November 1993 through April 1994 have included completion of tasks to further characterize the types and extent of soil, sediment and ground water contamination at the site, identify the distinct water bearing zones, and evaluate the ground water flow directions in the water bearing zones. The Phase II RFI tasks included the following:

- Drill and collect soil and ground water samples from nine borings.
- Install one piezometer in the Fill Material.
- Install two piezometers in the Bay Mud/Colluvium.
- Collect and analyze ground water from 15 wells and piezometers.
- Compile data generated during previous site investigations.
- Calculate the ground water flow directions in the Fill Material, Bay Mud/Colluvium and Bedrock units.
- Prepare a report presenting the data and findings of these activities.

This document was prepared for the sole use of O'Brien and the regulatory agencies that are directly involved in this project,, the only intended beneficiaries of our work. No other party should rely on the information contained herein without Harza's prior written consent.

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1.2 Site Location and Background

The Fuller-O'Brien Paint manufacturing facility is located at 450 East Grand Avenue in South San Francisco, California (Figure 1). The facility is located on Point San Bruno adjacent to the San Francisco Bay and the former San Bruno Channel (presently filled and acting as a marginal wetland). The site is approximately 28-acres in size and is bounded on the north by the former Marine Magnesium facility and Genentech, on the east by San Francisco Bay, on the south by marginal wetlands, and on the west by an air freight forwarding company. Surface elevations on-site range from 5 to 20 feet mean sea level (MSL).

The site has been operated as a paint manufacturing facility for over 100 years. O'Brien started operating the facility in 1967 and purchased the property in 1970. O'Brien is currently under a 3008(h) Consent Order with the United States Government requiring completion of specific tasks associated with Solid Waste Management Units (SWMUs). This work is being supervised by the EPA, Region IX.

1.3 Previous Investigations

O'Brien has undertaken environmental investigations at the site, beginning in 1982. A brief description of previous investigations is presented in Section 2.1 through 2.6.

At least 15 monitoring wells and 15 piezometers have been installed at the facility since 1982. Currently 11 monitoring wells and 11 piezometers exist at the site, with the balance having been abandoned or destroyed. A complete monitoring well construction summary is provided on Table 4.

1.3.1 Ecology Protection Systems, 1982-1983

In 1982, Ecology Protection Systems (EPS) installed three wells (W-1, 2, and 3) and one additional soil boring (W-4) to obtain soil and ground water samples for a preliminary investigation of site conditions. The wells were installed in the southeastern corner of the property to evaluate water quality in a former impoundment area (Figure 2). In general, the investigation indicated the presence of elevated levels of lead and trace concentrations of VOCs in random surface soil samples collected around the impoundments. However, the investigation did not indicate the presence of VOCs in ground water near the ponds. Results of the EPS investigation are presented in a report titled "Soil Contamination Investigation" dated January, 1983. Please note, the locations of monitoring well W-3 and soil boring W-4 are not plotted on Figures 2, 3, or 4.

1.3.2 Woodward Clyde Consultants, 1983-1987

Between 1983 and 1987, Woodward Clyde Consultants (WCC) performed several site characterization studies that included the installation of eight ground water monitoring wells (W-5, 6, and 7, and MW-11 through 15) and drilling several exploratory borings for soil sample collection. The wells were installed to evaluate possible potentiometric differences at the site related to different subsurface geologic units, and to provide additional ground water quality data in the former impoundment area. The WCC studies concluded that ground water in the vicinity of the former ponds was not significantly impacted by VOCs or lead, and that the elevated levels of lead in the soil were immobile and would not pose a significant threat to public health or the environment. Ground water monitoring was performed at the site from July, 1984, through May, 1985.

Results of the WCC investigations are presented in reports titled "Soil and Groundwater Quality Assessment" dated August, 1983; "Soil and Groundwater Quality Assessment Report, Addendum No. 1" dated January, 1984; "Soil and Groundwater Quality Assessment Report, Addendum No. 2" dated April, 1984; and "Water Quality Assessment Report" dated July, 1985.

In addition to the assessment investigations described above, the impoundments were closed in 1985. Details of the closure are contained in a report titled "Closure Report - Solar Evaporation Ponds - Impoundment Closure Area" dated November, 1987.

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1.3.3 The Mark Group, 1987-1989

At the request of the California Regional Water Quality Control Board, a hydrogeologic assessment report / Report of waste discharge, was performed at the site to further define the site hydrogeology and investigate specific areas of potential environmental concern. During this investigation, four monitoring wells (MW-18 through 21) and 10 piezometers (PM-1 through 11) were installed and a variety of field tests were performed to evaluate hydrologic properties and chemical quality characteristics of the site. This investigation helped define three stratigraphic, water-bearing zones; establish on-site areas of tidal influence; and provide a more detailed evaluation of the distribution of chemical constituents in soil and ground water. Details of the site investigation are contained in the "Hydrogeologic Assessment Report/Report of Waste Discharge, Former Surface Impoundments" dated December, 1987.

Several other investigations were performed by The Mark Group (MARK) to additionally address specific areas of concern at the facility. The investigations are outlined in reports titled "Pond Closure Certification Report" (April, 1987); "Breakwater Investigation" (December, 1987); "San Bruno Channel Fill Investigation" (March, 1989); and "ISD Post-Closure Monitoring Report" (November, 1989). In general, these reports did not indicate the presence of significant soil or ground water impacts related to the impoundment area. MARK investigations were concluded with issue of their "Addendum to Hydrogeological Assessment Report" dated November, 1989, which contains a detailed summary of all previous investigations at the site.

1.3.4 EPA-RCRA Facility Assessment, 1987

In December 1987, United States Environmental Protection Agency (EPA) contractors conducted a RCRA Facility Assessment (RFA) which resulted in the issuance of a RCRA 3008(h) Order in March 1989.

The Order was reviewed and reissued in April 1991. It is this revised Order that O'Brien has been adhering to for their current RFI activities.

1.3.5 EMCON Associates, 1992

In 1992, EMCON Associates performed a RCRA facility investigation (RFI) at the facility in compliance with a revised unilateral order issued by the EPA. The purpose of the RFI was to determine the nature and extent of potential releases of hazardous constituents at four specific potential source areas at the site. The investigation included chemical analysis of soil and ground water samples collected from nine exploratory borings. The results of the study, as presented in EMCON's "RCRA Facility Investigation" dated September, 1992, have helped to define the spatial distribution of chemical constituents at the Former Solvent Still Area, Former Tank Farm Area and Eastern Property Area, and the MW-21 area.

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1.3.6 EMCON Associates, March 1992

In March 1992, EMCON Associates supervised the removal of the Former Breakwater and surrounding soils. This removal action was part of an Administrative Order. Soil samples were collected and analyzed for a variety of chemical compounds. Based on these data it was determined that the contaminated material had been adequately removed.

1.3.7 Ratech Resources, 1993

In May 1993, Ratech Resources conducted a data evaluation to determine the data needs for completion of a human health risk assessment and an ecological evaluation. This work entailed reviewing historical soil, sediment and ground water quality, tabulating this information, identifying the relationship of these data with solid waste management units, and determining what additional data would be necessary for the completion of the risk assessment and ecological evaluation.

The results of this work are presented in Ratech Resource's May 28, 1993 document entitled: **Data Needs Letter For A Risk Assessment/Ecological Evaluation** (Appendix D). Please note, all soil and ground water quality data used during the Phase II RFI was generated by Harza or was obtained from Raytech Resource's May 1993 document.

2.0 ENVIRONMENTAL SETTING

2.1 Regional Geology and Hydrogeology

2.1.1 Regional Geology

The Fuller-O'Brien Paint facility lies within the Santa Cruz Mountains region of the Coast Ranges geomorphic province of California. The facility is located in the City of South San Francisco, on the east side of the San Francisco Peninsula, immediately adjacent to San Francisco Bay. The site is located on the south side of Point San Bruno, approximately 1.25 miles south of Oyster Point, and two miles north of the San Francisco International Airport.

Geologic units within the region include Franciscan Complex bedrock of Jurassic to Cretaceous age, sand deposits of the Colma Formation of Pleistocene age, estuarine bay deposits and colluvium of Holocene age, and artificial fill. The Franciscan Complex bedrock consists of a complex mix of sedimentary, metamorphic, and volcanic rocks that have been greatly affected by folding, faulting, regional metamorphism, volcanism, and plutonic intrusion during Cretaceous time. Within the area of the O'Brien facility, the Franciscan Complex consists primarily of sandstone (primarily greywacke) and shale, with altered volcanic rock (greenstone). Local outcrops of chert, limestone, and serpentinite are also common. Individual units within the Franciscan can be remarkably discontinuous and internally sheared.

Regionally, the Franciscan Complex is unconformably overlain by Quaternary age deposits. The oldest of these deposits is the Colma Formation, which crops out about 3,000 feet northwest of the O'Brien facility. In general, the Colma consists of friable, well-sorted, fine to medium sand.

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More locally, the Franciscan is unconformably overlain by colluvium, estuarine bay deposits and artificial fill. The colluvium commonly consists of loose to firm, silty, sandy clay, gravel and rock debris, in varying proportions. The estuarine bay deposits consist primarily of a blue-gray to black, highly plastic, silty clay commonly known as Bay Mud. The Bay Mud often contains abundant organic material, and may contain individual peat beds. Sand layers within the unit can vary from a few inches to several feet. The Bay Mud is generally considered impermeable.

Artificial fill is present along much of the eastern shore of the San Francisco Peninsula. The fill consists of a variable mix of sand, silt, clay, and rock, primarily derived from local sources, and is generally up 25 feet thick, but can reach local thicknesses of over 100 feet.

The nearest known, active fault is the San Andreas fault, located about four miles southwest of the facility. Other local faults, not known to be active, include the San Bruno fault, located about two miles to the southwest, and the College fault, located about four miles to the north. Bonilla (1971) has mapped a trace of the Hillside fault running northwest-southeast through the facility, based on the apparent juxtaposition of different units of the Franciscan Complex on a hill about 3,000 feet north of the facility. This fault is not zoned as an active fault by the State of California. Detailed geologic mapping and evaluation by MARK in 1987 and 1989, did not identify the presence of the Hillside fault at the site, and concluded that the potential for active faulting or ground water conduits in bedrock at the site related to a potential fault is negligible.

2.1.2 Regional Hydrology

2.1.2.1 Surface Water

A detailed analysis of surface water systems within one mile of the facility was performed by MARK in 1987, using a combination of aerial photograph review and field reconnaissance. Off-site water bodies identified during their review consist of San Francisco Bay, which borders the site on the east, and marginal wetlands bordering the site on the south. This southern area was formerly occupied by the bay, but progressive infilling has resulted in the present drainage channel and marsh system. The only on-site surface water feature identified during the MARK study was the spring located on the hillside at the north side of the facility. The apparent source for this spring was considered to be a water reservoir at the top of the hill, to the northwest of the facility. A holding tank on this hill provides water storage for the City of South San Francisco. The spring flow rate was previously estimated at approximately ½ to 1-gallon per minute, without visible seasonal change.

The hillside that borders the north side of the facility has a drainage area of less than 0.6 square miles (MARK, 1987). Potential surface water runoff at the facility is controlled by internal storm sewers and streets. The Federal Emergency Management Agency Flood Insurance Rate Map for 1981 classifies the site as "Zone C", indicating only minimal potential for flooding. The nearest mapped area of potential 100-year flood hazard is along the Colma Creek drainage, located over one mile west of the facility.

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2.1.2.2 Ground Water

In general, ground water is not a developed resource within the South San Francisco area, and very little information is available regarding the regional occurrence and movement of ground water. Previous investigations by MARK (1987, 1989) identified only three off-site wells within one mile of the facility, and all three were installed as monitoring wells. Discussions with representatives of the San Mateo County Department of Health Services performed during the present study indicates, as previously reported by MARK, there are no known wells within one mile of the facility which supply potable water for domestic, irrigation, or agricultural use.

On a regional basis, ground water is present at variable depth within all major geologic units. Shallow ground water or perched zones may be present locally within areas of colluvial infill. Where sufficiently thick, the Colma Formation can be developed as a productive ground water resource, and is known to supply domestic and municipal wells. However, no such areas are present within one mile, or downgradient of the facility. Ground water is present in the Franciscan Complex where the rock is sufficiently fractured. Where favorable secondary fracturing occurs, the complex can yield small quantities of water for small-scale irrigation, or domestic use if the water meets State water quality standards.

On a regional basis, ground water flow will follow local topography. Interconnectedness between individual geologic units will vary greatly, depending on specific local conditions.

2.2 Site Geology and Hydrogeology

Extensive analyses of on-site geology and hydrology have been previously performed by MARK, and presented in reports titled "Hydrogeological Assessment Report/Report of Waste Discharge" dated 1987, and "Addendum to Hydrogeological Assessment Report" dated 1989. Information contained in these reports, as well as evaluations performed during the present study form the basis for the following discussion of site geology and hydrogeology.

2.2.1 Site Geology

The Fuller-O'Brien Paint facility is located on the south side of Point San Bruno. In general, the southern half of the facility is underlain by artificial fill, and Bay Mud and colluvium of probable Holocene age, which rest directly on bedrock of the Franciscan Complex. A generalized geologic Map is presented on Figure 5, and subsurface cross-sections are presented on Figures 6 through 9.

Within the facility, the Franciscan Complex crops out from the northwestern edge of the property to the extreme northeast portion of the property. The complex extends to the south-central portion of the site. In the southern portion of the property, the complex is overlain by fill reportedly placed at the turn of the century (MARK, 1989).

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Based on the depth to bedrock encountered in site borings, the surface of the bedrock slopes to the south, with a colluvial-filled swale present on the west side of the property. The bedrock then forms an associated ridge in the central portion of the property before sloping under San Francisco Bay to the east.

On the northwestern portion of the site, the Franciscan Complex is unconformably overlain by colluvium of Holocene age. The colluvium is composed of loose to firm, friable, dark yellowish-brown sand, silty, sandy clay, sub-angular gravel and rock debris in varying proportions. Sand and gravel units, which form approximately 30 to 50 percent of the unit, vary in thickness from one foot to over four feet (MARK, 1987, 1989). At the Fuller-O'Brien facility, the colluvium varies from 0 to more than 40 feet thick, and is unconformably overlain by younger Bay Mud of Holocene age.

Estuarine mud of Holocene age, referred to as Bay Mud, underlies the southern half, and eastern margins of the site. The unit consists of blue-gray to black, unconsolidated, highly plastic silty clay, locally containing abundant organic matter, with interlayered lenses or layers of fine silty sand, peat, and shell fragments (MARK, 1987). As encountered in site borings, individual sand lenses within the unit vary from two inches to over four feet thick. Bay Mud deposits beneath the facility range in thickness from 0 to 20 feet.

Surficial deposits along the southern portion of the facility consist of artificial fill. These deposits were reportedly placed over time, beginning with the original construction of the facility in the 1890's (MARK, 1989). The fill consists of loose to well-consolidated sand, silt, and clay, with organic matter and man-made debris. Predominant materials within the fill consist of silty clay to clayey silt, with some sand. The fill ranges in thickness from 0 to 25 feet thick.

2.2.2 Site Hydrogeology

Previous site investigations (MARK, 1987, 1989) have identified three distinct hydrostratigraphic units, or hydrogeologic zones. Based on review of the previous work, these units have been adopted for this report. The following discussion of water-bearing units at the site is based primarily on the previous investigations. The three hydrostratigraphic units have been identified on the basis of differences in general stratigraphy, differences in potentiometric levels, and in response to tidal influence. The two uppermost zones occur within the artificial fill, and the Bay Mud and colluvial deposits. The third water-bearing zone is the Franciscan Complex bedrock. Each zone is described in the following sections.

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2.3 Climatology

Climatology at the facility has been previously evaluated in detail by MARK as part of the Hydrogeological Assessment Report/Report of Waste Discharge dated December, 1987. The conclusions of that evaluation will be presented in the following sections. Data evaluated by MARK include minimum, mean, mean maximum 100-year, and probable annual precipitation; 24-hour precipitation from a 100-year event, and a probable maximum precipitation event; and mean annual and monthly evaporation at the facility.

2.3.1 Precipitation

Data for mean annual precipitation was collected by MARK (1987) from climatological data compiled by the National Weather Service Forecast Office for the San Francisco International Airport, The Oakland International Airport, and the San Francisco Federal Building Weather Station. These stations are located 1.9, 9.2, and 9.0 miles from the site, respectively. Based on the evaluation, the mean annual precipitation at the facility was estimated to be 19.15 inches. The 100-year, 24-hour precipitation event, and probable maximum 24-hour precipitation event were estimated at 5.71 inches and 15.56 inches, respectively.

2.3.2 Evaporation

MARK estimated the mean annual evaporation at the facility from measured evaporation data from the Burlingame Climatological Station located 4.5 miles southwest of the site. The annual evaporation data, based on 23 years of record, ranged from 39.17 to 68.38 inches, with a mean value of 35.56 inches. The greatest evaporation was measured in May through September, and the least evaporation in November through February. Using a correction factor for Class A pan evaporation rates, the mean annual evaporation from the water surfaces at the Fuller-O'Brien facility was estimated to be 42.95 inches.

Comparison of estimated mean annual precipitation and evaporation at the facility indicates that the water surfaces near the facility could have a maximum net loss of about 23.6 inches per year (MARK, 1987).

2.3.3 Wind Direction and Velocity

Rose diagrams for wind direction, velocity, and frequency of occurrence for San Francisco International Airport, published by the National Oceanographic and Atmospheric Administration, were evaluated by MARK for the years 1985 and 1986. Results of the evaluation indicate the predominance of northwesterly winds at speeds of 3 to 10 miles per hour. Wind speeds were reportedly greatest in the late spring and summer months.

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3.0 METHODS OF INVESTIGATION

Existing information regarding site conditions, as they pertain to the identified solid waste management units, was assessed in EMCON's September 1992 document entitled: **RCRA Facility Investigation** and Ratech Resources May 28, 1993 document entitled: **Data Needs Letter for a Risk Assessment/Ecological Evaluation** (Appendix D). A program to provide information needed to further characterize the site environmental setting and soil, sediment and ground water quality impact was presented in Harza's December 28, 1993 workplan entitled: **Phase II RCRA Facility Investigation Workplan**. This workplan addressed the needs for additional knowledge of the vertical and horizontal extent of hydrostratigraphic units beneath the site, the vertical and horizontal distribution of chemically impacted soil, sediment and ground water beneath the site and in the site vicinity.

The field tasks that are applicable to the site RFI cover a period from late 1982 to April 1994. Work conducted at the site may be of insufficient quality for the purpose of this investigation or the details may be incomplete. Therefore, all information generated since 1982 is not presented in this document. The work conducted since 1982 included at a minimum:

1) Drilling and sampling 15 soil borings.

   - three borings in the Warehouse Area (SWB-5, SWB-7 and SWB-8)
   - two borings in the MW-21 Area (SWB-3 and SWB-4)
   - five borings in the Former Tank Farm and Eastern Property Area (B-12, B-13, B-14, SWB-9 and SWB-10)
   - four borings in the Former Solvent Still Area (SB-1, SWB-1, SWB-2 and SWB-6)
   - one boring in a background location (SWB-11)

2) Drilling and sampling six ground water borings.

   - one boring in the Warehouse Area (WB-2)
   - one boring in the MW-21 Area (WB-1)
   - three borings in the Former Tank Farm and Eastern Property Area (WB-4, WB-5 and WB-6)
   - one boring in the Former Solvent Still Area (WB-3)

3) Installing nine monitoring wells and four piezometers in the Fill Material. (Note that three monitoring wells and one piezometer have been abandoned or destroyed).

4) Installing one monitoring well and seven piezometers in the Bay Mud/Colluvium. (Note that two piezometers have been abandoned or destroyed).

5) Installing five monitoring wells and two piezometers in the Bedrock. (Note that one monitoring well and one piezometer have been abandoned or destroyed).

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6) Collecting soil samples from monitoring well and piezometer borings.

7) Collecting ground water samples from soil borings.

8) Collecting ground water samples from piezometers and monitoring wells.

9) Collecting surface water samples.

10) Collecting sediment samples from the marginal wetlands and baylands.

11) Conducting tidal influence studies.

12) Conducting aquifer tests.

12) Redeveloping monitoring wells and piezometers.

13) Conducting an ecological evaluation of the marginal wetlands and baylands.

Harza's RFI field activities, from November 1993 to April 1994, are presented in Sections 3.1 through 3.7 of this document and are summarized in Table 1. Note that soil and ground water samples collected by Harza were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals (As, Cd, Cr, Cu, Pb, Ni, Se, Ag and Zn).

Select samples that indicated elevated method reporting limits due to matrix interference were analyzed for total petroleum hydrocarbons as diesel (TPHd). Samples were analyzed by the following EPA test methods:

• VOCs	Method 8240
• SVOCs	Method 8270
• Total and Dissolved Metals	Method series 6000/7000
• TPHd	Method 5030/GC-FID.

The surface and ground sample analysis program is summarized on Table 2 and presented in Appendix B. Field data sheets are also included in Appendix B. The soil and sediment sample analysis program is summarized on Table 3 and Appendix C.

3.1 Redeveloped Site Monitoring Wells and Piezometers

During November 1993, all site monitoring wells and piezometers were redeveloped using a rig equipped with surge block and bailer. The purpose of the redevelopment was to remove naturally occurring sediment and scaling from the wells and piezometers. Ground water removed during this process was drummed and managed by the facility. Monitoring well and piezometer construction details are summarized on Table 4 and boring logs are presented in Appendix A.

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3.2 Ecological Evaluation

During November 1993, a site reconnaissance for an ecological evaluation was conducted by Jenkins, Sanders and Associates (JSA) in the marginal wetlands and the baylands. The purpose of this field task was to identify the animal and plant life that inhabits these areas in an effort to determine what impacts, if any, the site soil and ground water may have on those inhabitants. The results of this study will be presented in an forthcoming document prepared by JSA.

3.3 Ground Water and Surface Water Sampling

3.3.1 Monitoring Wells and Piezometers

Between November 9 and 15, 1993, ground water samples were collected from 7 existing monitoring wells and 6 piezometers. All samples were analyzed for VOCs, SVOCs and total metals. These sampling locations included: MW-21, M2-20, MW-19, MW-18, MW-13, W-5, W-7 PM-2, PM-3, PM-6, PM-7, PM-9, and PM-10. Ground water from the following 8 locations was analyzed for dissolved metals: MW-21, MW-19, PM-2, PM-3, PM-6, PM-7, PM-9, PM-10 were filtered and analyzed for dissolved metals.

On April 6 and 7, 1994 ground water samples were collected from MW-21, MW-13, W-5, PM-6, PM-9, PM-10 and PM-14. All samples were analyzed for dissolved metals. Samples collected from MW-21 and PM-9 were also analyzed for VOCs.

Sampling procedures included purging a minimum of three volumes of water from each piezometer/well and obtaining field measurements (pH, specific conductance, temperature and turbidity). After field readings had stabilized and the water levels had recovered to within 90 percent of their prepumping level, the wells were sampled. All samples collected for VOC, SVOC, and total metals analysis were collected with a stainless steel or Teflon bailer and decanted into the appropriate sample containers. The samples analyzed for dissolved metals were collected with a peristaltic pump and were field filtered through a 0.45 micron nitrocellulose filter. The samples were placed in iced shipping containers for delivery under chain of custody to American Environmental Network (AEN) of Pleasanton, California.

3.3.2 Soil Borings

Ground water samples were collected from soil borings SWB-3 through SWB-11 (Section 3.4) and analyzed for VOCs, SVOCs, and total metals. Samples from SWB-6, SWB-7, SWB-8, SWB-9 and SWB-11 were also analyzed for dissolved metals and samples from SWB-6, SWB-8 and SWB-9 were analyzed for TPHd.

Ground water samples were collected by lowering a Teflon or stainless steel bailer through the auger. The samples were decanted into the appropriate sample containers. Samples collected for dissolved metals analysis were placed in unpreserved bottles and filtered in the laboratory.

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3.3.3 Surface Water

A surface water sample was collected from an identified pipe discharge, located on the slope above the Former Tank Farm Area. This grab sample is identified as X-1 and was analyzed for VOCs, SVOCs and metals.

3.4 Soil Boring and Sampling Program

From December 7, 1993 through January 12, 1994, Harza drilled nine borings to characterize the soil and ground water at the site. Three borings (SWB-5, SWB-6, and SWB-7) were drilled in the Warehouse Area. Two borings (SWB-9 and SWB-10) were drilled in the Former Tank Farm and Eastern Property Area. One boring (SWB-6) was drilled in the former solvent still area. Two borings (SWB-3 and SWB-4) were drilled in the Existing Tank Farm and MW-21 Area. One boring (SWB-11) was drilled in a background location, southwest of the existing manufacturing building. No borings were drilled in the area of the former breakwater.

The borings were drilled using a CME-75 drill rig equipped with 8-inch O.D. hollow stem auger. A 5-foot long core barrel sampler was used to collect continuous soil samples, which were logged for lithology. Boring logs are presented in Appendix A. The samples were monitored using a photoionization detector (PID) to characterize the relative concentrations of volatile organic gases emanating from the soil. The air monitoring procedures included separating the soil cores at 1-foot intervals by providing a ¼-inch space between sections. The PID was inserted between these spaces to obtain the measurements.

If significant concentrations were not noted during the air monitoring, samples from the 0 to 0.5-foot and 5 to 5.5-feet range were collected for chemical analysis. If a significant variation in the air monitoring values was detected between soil sample intervals, the sample interval with the highest PID reading was selected for chemical analysis.

The soil samples collected for chemical analysis were collected by tapping a ¼-inch diameter by 6-inch long stainless steel tube through the length of the selected soil core interval. The tubes were then sealed on both ends with Teflon and plastic end caps. The samples were labeled and stored in iced shipping containers for delivery under chain of custody to AEN.

Soil samples from the two shallowest intervals were analyzed for VOCs, SVOCs, and total metals. The deeper samples were only analyzed for those compounds detected in significant concentrations in the two shallowest intervals.

3.5 Piezometer Installation

On December 10, 1993, three piezometers were installed in the Warehouse Area to provide water level data in the Fill Material and the Bay Mud/Colluvium areas. The Fill Material piezometers, identified as PM-12 and PM-14, were installed to depths of 10 and 12 feet bgs, respectively. The Bay Mud/Colluvium piezometer, identified as PM-13, was installed at a depth of 25 feet bgs.

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The piezometers were drilled with a CME-75 drill rig equipped with 8-inch hollow stem auger. Soil samples were collected at 5-foot intervals and logged for lithology. The piezometers were constructed with 2-inch, schedule 40 PVC, machine threaded screen and casing. The piezometers were installed by lowering the screen and casing through the auger to the proper depth. A sand pack was placed around the screened interval and a 1-foot thick plug of bentonite chips was placed on top of the sand pack. The remainder of the boring annulus was sealed with a cement grout. All piezometers were completed with a flush mount security casing. Boring logs for the piezometers are presented in Appendix A.

On December 12, 1993 ground water from piezometers PM-12 and PM-14 was sampled and analyzed for VOCs, SVOCs and total metals. On April 6, 1994 piezometer PM-14 was sampled for dissolved metals. Ground water sampling procedures followed those presented in Section 3.3 of this document.

3.6 Sediment Sampling

Between January 4 and April 5, 1994 sediment samples E-2, F-1, F-1A, F-1B, F-1C, F-2, F-2A, F-2B, and F-2C were collected from the marginal wetlands and the baylands. The samples were collected at low tide using a stainless steel sampling tool.

All samples were analyzed for VOCs, SVOCs and total metals with the exception of sample E-2 which was only analyzed for total metals.

3.7 Water Level Measurements

On March 18 and April 8, 1994 water level elevations were measured at all monitoring wells and piezometers, and at surface stations S-1 and S-2. Surface station S-1 is located south of the facility in the marginal wetlands and S-2 is located on the dock at the former Marine Magnesium facility. All water level elevations were measured during low tide and are presented on Table 5. Potentiometric maps, generated from these data have been prepared for the Fill Material, the Bay Mud/Colluvium, and the Bedrock hydrostratigraphic units and are presented as Figures 10 through 15.

4.0 CHEMICAL CHARACTERIZATION AND DISTRIBUTION

4.1 Source Characterization

An evaluation of the source areas that may be responsible for site soil and ground water contamination are focused on solid waste management units as defined in the Consent Agreement. These five areas include: Warehouse Area, Former Tank Farm and Eastern Property, Former Solvent Still Area, MW-21 Area, and the Former Breakwater Area. In addition, the marginal wetlands and the baylands have been identified as potential receptor areas that may be impacted by site sources.

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4.2 Distribution of Chemicals in Surface and Ground Water

4.2.1 Ground Water Samples from Monitoring Wells/Piezometers and Soil Borings

Ground water samples were collected during three separate field events from monitoring wells, piezometers and shallow borings between November 1993 through April 1994. These events included collecting samples from seven monitoring wells and six piezometers in November 1993, from nine borings and two newly installed piezometers in December 1993, and from three wells and five piezometers in April 1994.

A summary of the analytical program is presented in Table 2. Analytical results of four analyte groups are presented in Tables 6 through 9. Laboratory results are presented in Appendix B. Select samples were analyzed for total and dissolved metals (Table 6), VOCs (Table 7), SVOCs (Table 8), and TPHd (Table 9).

Dissolved metals concentrations in water samples were compared to drinking water standards, commonly referred to as Maximum Contaminant Levels (MCLs). MCLs have been developed for arsenic (0.05 milligrams per liter mg/l), cadmium (0.010 mg/l), chromium (0.05 mg/l), lead (0.05 mg/l), selenium (0.01 mg/l), and silver (0.05 mg/l). It should be noted that the shallow ground water underlying the site is not considered a drinking water source; these numbers are provided for comparison only.

4.2.1.1 Fill Material

Ground water samples were collected from two monitoring wells (MW-21 and MW-13) and three piezometers (PM-9, PM-12 and PM-14) and nine borings (SWB-3 through SWB-11) completed in the Fill Material. The samples were analyzed for total metals, VOCs and SVOCs during the November and December, 1993 sampling events. Samples collected from MW-21, PM-9, SWB-6, SW-7, SWB-8, SWB-9 and SWB-11 were field filtered and analyzed for dissolved metals. Four ground water samples (MW-13, MW-21, PM-9, and PM-14) were collected during the April 1994 sampling event and analyzed for dissolved metals. Samples collected from MW-21 and PM-9 were also analyzed for VOCs and SVOCs during the April 1994 sampling event. Figures 16 and 17 present the metals and VOCs/SVOCs ground water distribution in the Fill Material, respectively.

Based on these data, dissolved metals do not exceed the MCLs, with the exception of lead in the sample from SWB-7. Of the VOCs detected in the Fill Material ground water, only gasoline compounds; benzene, toluene, ethylbenzene, xylenes (BTEX) were detected. The SVOCs acenaphthene, anthracene, fluoranthene, 2-methylnaphthalene and phenanthrene were identified. These elevated concentrations indicate potential source areas in the vicinity of the following 4 areas: 1) Existing Tank Farm and MW-21 Area, 2) Former Still Area, 3) the Warehouse Area, 4) the eastern side of the Former Tank Farm and Eastern Property Area.

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4.2.1.2 Bay Mud/Colluvium

Ground water samples were collected from one monitoring well (W-5) and four piezometers (PM-2, PM-6, PM-7 and PM-10), completed in the Bay Mud/Colluvium. The samples were analyzed for total metals, VOCs and SVOCs during the November 1993 sampling event. Samples collected from PM-7 and PM-2 were field filtered and analyzed for dissolved metals. Three ground water samples (W-5, PM-6 and PM-10) were collected during the April 1994 sampling event and analyzed for dissolved metals. Figures 18 and 19 present the metals and VOCs/SVOCs ground water distribution in the Bay Mud/Colluvium, respectively.

Based on these data, dissolved metals did not exceed the MCLs. No VOCs or SVOCs were detected in the Bay Mud/Colluvium ground water.

4.2.1.3 Bedrock

Ground water samples were collected from four monitoring wells (W-7, MW-18, MW-19 and MW-20) and one piezometer (PM-3), completed in the Bedrock. The samples were analyzed for total metals, VOCs and SVOCs during the November 1993 sampling event. Samples collected from W-7, MW-19 and PM-3 were field filtered and analyzed for dissolved metals. Figures 20 and 21 present the metals and VOCs/SVOCs ground water distribution in the Bedrock, respectively.

Based on these data, dissolved metals did not exceed the MCLs and no VOCs or SVOCs were reported above the method reporting limit (MRL) in the Bedrock ground water.

4.2.2 Surface Water

On November 10, 1993, a surface water sample was collected from an identified pipe discharge, located on the slope above the Former Tank Farm Area. This grab sample is identified as X-1 and was analyzed for VOCs, SVOCs and total metals.

Water quality data, presented on Tables 6, 7 and 8, did not indicate total metals or SVOCs above the MRL, but did indicate 39 micrograms per liter (μg/l) chloroform in this sample.

4.3 Distribution of Chemicals in Soil and Sediment

Soil and sediment samples were collected between December 1993 and April 1994. A summary of the analytical program is presented in Table 3. Analytical results of four analyte groups are presented in Tables 10 through 13. Laboratory results are presented in Appendix C. Select samples were analyzed for total metals (Table 10), VOCs (Table 11), SVOCs (Table 12), and TPHd (Table 13).

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4.3.1 Soil

Soil samples from shallow borings were collected during December 1993. A total of 25 samples from nine borings were submitted for chemical analysis. Note that boring SWB-11 was intended to be utilized as a background location. Material was encountered at the 10 to 10.5-feet interval that may not be representative of the background conditions. The upper 5 feet of this boring appears to be representative of background conditions.

Samples were collected in an effort to define the vertical extent of impacted soil at the site. In general, the two shallowest samples were analyzed and if these samples indicated elevated concentration of chemical compounds, the deeper samples were analyzed. Concentrations were compared to background samples (SWB-11 at 0.5 and 5 feet), and were considered elevated if detected at twice the background concentration.

Surficial Soils

Nine surficial soils (0-0.5 feet bgs) were analyzed from borings SWB-3 through SWB-11. Based on a review of these data it appears that surficial soils from borings SWB-3, SWB-4, SWB-6, SWB-7, and SWB-8 have been impacted by metals, specifically lead. No surficial soils appear to be impacted with VOCs, while surficial soils from boring SWB-7 exhibits elevated concentrations of SVOCs.

Soils from Approximately 3-6 feet bgs

Nine soil samples were analyzed from borings SWB-3 through SWB-11 at a sampling interval of approximately 3-6 feet bgs. Soils from borings SWB-5, SWB-7, SWB-8, and SWB-9 indicate elevated levels of metals, specifically lead. Soil from borings SWB-3 and SWB-6 indicate slightly elevated levels of chromium and nickel. Soil from borings SWB-7, SWB-8, and SWB-9 indicate elevated concentrations of SVOCs and soil from borings SWB-7 and SWB-9 exhibit low concentrations of select VOCs.

Soils from 10-10.5 feet and 15-15.5 feet bgs

Soil samples analyzed from the 10-10.5 foot interval indicate elevated concentrations of metals in SWB-5, SWB-7 and SWB-8. Soil from SWB-11 exhibits elevated concentrations of lead and zinc. The samples from SWB-8 indicates low concentrations of the SVOC phenanthrene, while no VOCs were detected in soils from this sample interval.

Soil samples analyzed from the 15-15.5 foot interval indicate slighted elevated concentrations of metals in SWB-7 and SWB-8. No VOCs or SVOCs were detected in the samples collected from the 15-15.5 foot interval.

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4.3.2 Sediment

Sediment samples from the marginal wetlands and baylands were collected during January and April 1994. A total of nine samples from nine separate locations were submitted for chemical analysis. With the exception of the sample collected from MF-2c exhibiting copper at 160 milligrams per kilogram (mg/kg), these data do not indicate elevated metals or VOC concentrations. Samples collected from MF-1a, MF-1b, MF-1c and MF-2b indicate the presence of SVOCs at concentrations up to 860 micrograms per kilogram (μg/kg).

4.4 Chemical Data Validation

The analytical data generated during the Phase II RFI were assessed to evaluate the data quality. Analysis of laboratory method blanks indicated no evidence of laboratory contamination of soil and water samples. Analysis of transfer blank samples did not indicate contamination of samples from sample transfer, with the exception of possible minor metal contamination detected in the transfer blank collected November 15, 1993. Zinc was detected in this sample at 0.007 mg/l It is possible this contamination resulted from impurities in the water used to prepare the sample rather than from sample transfer.

The analytical precision has been acceptable, based on the relative percent differences (RPDs) between values obtained for matrix spike (MS) and matrix spike duplicate (MSD) samples. All RPDs were within laboratory-established acceptance criteria for the respective analysis.

The analytical accuracy has been acceptable, based on surrogate spike, MS, and MSD recoveries. All recoveries were within laboratory-established acceptance criteria for the respective analysis. Surrogate recoveries were not available for a small number of analyses in which sample dilution was necessitated by high analyte concentrations.

In summary, the available results of the data quality assessment indicate the analytical data is of acceptable quality.

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5.0 POTENTIAL RECEPTORS

The human and environmental receptors will be evaluated by Ratech Resources and JSA, respectively. Ratech Resources is currently conducting a human health risk assessment and JSA is currently conducting an ecological evaluation.

Land in the immediate vicinity of the facility is zoned light or heavy industrial activity. Land north of the facility is used by Genentech and was fomerly used by Marine Magnesium, which manufactured magnesium from bay water. The land west of the facility is used by an air freight forwarding company. The land to the south of the facility is a marginal wetland and the land to the east is baylands and San Francisco Bay.

6.0 SUMMARY AND CONCLUSIONS

This RFI report describes the work performed between November 1993 and April 1994 and incorporates data, verified by Ratech Resources (1993), generated since 1982 at the Fuller-O'Brien Paint manufacturing facility in South San Francisco, California. Much of this work was generated in response to a Consent Order between the United States Government and The O'Brien Corporation.

6.1 Environmental Setting

The Fuller-O'Brien Paint manufacturing facility is located at 450 East Grand Avenue in South San Francisco, California. The facility is located on Point San Bruno adjacent to the San Francisco Bay and the former San Bruno Channel (presently filled and acting as a marginal wetland). The site is approximately 28 acres in size and is bounded on the north by the former Marine Magnesium facility and Genentech, on the east by San Francisco Bay, on the south by marginal wetlands, and on the west by an air freight forwarding company. Surface elevations on-site range from 5 to 20 feet mean sea level (MSL).

6.2 Geology and Hydrogeology

In general, the southern half of the facility is underlain by artificial fill (Fill Material), and the Bay Mud and colluvium of probable Holocene age, which rests directly on the Franciscan Complex. Within the facility, the Franciscan Complex crops out from the northwestern edge of the property to the extreme northeast portion of the property. The complex extends to the south-central portion of the site.

Three hydrostratigraphic units are identified beneath the site. These units have been identified on the basis of differences in general stratigraphy, differences in potentiometric levels, and in response to tidal influence. The two uppermost units occur within the artificial fill, and the Bay Mud and colluvial deposits. The third water bearing zone is the Franciscan Complex bedrock.

6.3 Chemical Conditions

Based on a review of the ground water data generated during the Phase II RFI, dissolved metals do not exceed the MCLs. Low levels of gasoline compounds; BTEX and select SVOCs are present in the shallow water bearing zone identified as the Fill Material. Elevated chemical concentrations indicate potential source areas in the MW-21 Area, Former Still Area, Warehouse Area, and the eastern side of the Former Tank Area.

The soil quality at the site indicates that surficial soils in the MW-21 Area, the Former Still Area and the Warehouse Area have been impacted with metals, particularly lead. In addition, elevated levels of SVOCs were detected in the eastern portion of the Warehouse Area and in the eastern portion of the Eastern Property Area. Sediment samples collected from the baylands, east of the Eastern Property Area, also indicate elevated levels of SVOCs.

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Soil samples collected between approximately 3-6 feet bgs, indicate elevated levels of metals, specifically lead, and SVOCs in the Warehouse Area and in the eastern portion of the Eastern Property Area. It should also be noted that elevated levels of chromium and nickel were detected in the former Still area.

Soil samples collected form deeper intervals indicate that the soil in the immediate vicinity of the Warehouse is impacted with lead and SVOCs.

6.4 Potential Receptors

The potential human receptors and ecological receptors will be discussed by Ratech Resources and JSA. Ratech Resources is responsible for completing a human health risk assessment and JSA is responsible for completing an ecological evaluation.

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TABLES

Table 1
Summary of RFI Field Activities
November 1993 through April 1994
Fuller O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Date	Activity
November 1993	Redevelop existing monitoring wells and piezometers. Conduct an ecological evaluation of the marginal wetlands and baylands.
November 9-15, 1993	Collect ground water samples from all existing monitoring wells and piezometers.
November 10, 1993	Collect surface water sample from X-1.
December 7, 1993 - January 12, 1994	Collect soil and ground water samples from soil borings SWB-3 through SWB-11.
December 10, 1993	Install piezometers PM-12, PM-13, and PM-14.
January 4 - April 5, 1994	Collect sediment samples from marginal wetlands and baylands.
March 18, 1994	Collect water level measurements.
April 6 and 7, 1994	Collect ground water samples from select monitoring wells and piezometers.
April 8, 1994	Collect water level measurements.

Table 2
Summary of Surface and Ground Water Sample Analysis Program
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station	Sample Date	Sampled By	EPA Test Method Series 6000/7000		EPA Test Method 8240	EPA Test Method 8270	EPA Test Method 5030/GC-FID
			Dissolved	Total			
WB-1*	11/91	EMCON	--	X	X	X	--
WB-1(S)*	11/91	EMCON	--	X	X	X	--
WB-1(S)-F*	11/91	EMCON	X	--	--	--	--
WB-2*	11/91	EMCON	--	--	X	--	--
WB-2*	11/91	EMCON	--	--	X	--	--
WB-3*	11/91	EMCON	--	X	X	X	--
WB-3(S)*	11/91	EMCON	--	X	X	X	--
WB-3(S)-F*	11/91	EMCON	X	--	--	--	--
WB-4*	11/91	EMCON	--	X	X	--	--
WB-4(S)*	11/91	EMCON	--	X	X	--	--
WB-4(S)-F*	11/91	EMCON	X	--	--	--	--
WB-5*	11/91	EMCON	--	X	X	--	--
WB-5(S)*	11/91	EMCON	--	X	X	--	--
WB-5(S)-F*	11/91	EMCON	X	--	--	--	--
WB-6*	11/91	EMCON	--	X	X	--	--
WB-6(S)*	11/91	EMCON	--	X	X	--	--
WB-6(S)-F*	11/91	EMCON	X	--	--	--	--
MW-13	11/09/93	Harza	--	X	X	X	--
MW-13	04/06/94	Harza	X	--	--	--	--
MW-18	11/11/93	Harza	--	X	X	X	--
MW-19*	9/87	Mark Group	--	X	--	X	--
MW-19*	1/88	Mark Group	--	X	X	X	--
MW-19*	4/88	Mark Group	--	X	X	X	--
MW-19*	7/88	Mark Group	--	X	X	X	--
MW-19*	11/88	Mark Group	--	X	X	X	--
MW-19*	2/91	EPA	--	X	X	X	--
MW-19	11/11/93	Harza	X	X	X	X	--
MW-20	11/11/93	Harza	--	X	X	X	--
MW-21*	9/87	Mark Group	--	X	--	X	--
MW-21*	1/88	Mark Group	--	X	X	X	--
MW-21(D)	1/88	Mark Group	--	X	--	--	--
MW-21*	4/88	Mark Group	--	X	X	X	--
MW-21*	7/88	Mark Group	--	X	X	X	--
MW-21(S)*	7/88	Mark Group	--	X	X	--	--
MW-21*	11/88	Mark Group	--	X	X	X	--
MW-21*	1/89	Mark Group	--	X	X	X	--
MW-21*	2/91	EPA	--	X	X	X	--
MW-21	11/09/93	Harza	X	X	X	X	--
MW-21	04/06/94	Harza	X	--	X	--	--

Notes:
X = Sample analyzed.
-- = Data not available.
TB = Transfer blank.
*Data from Ratech Resources, May 1993.

Table 2
Summary of Surface and Ground Water Sample Analysis Program
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station	Sample Date	Sampled By	EPA Test Method Series 6000/7000 Dissolved	EPA Test Method Series 6000/7000 Total	EPA Test Method 8240	EPA Test Method 8270	EPA Test Method 5030/GC-FID
PM-2	11/09/93	Harza	X	X	X	X	--
PM-3	11/15/93	Harza	X	X	X	X	--
PM-6	11/10/93	Harza	--	X	X	X	--
PM-6	04/06/94	Harza	X	--	--	--	--
PM-7	11/09/93	Harza	X	X	X	X	--
PM-9	--	--	--	--	X	X	--
PM-9	11/10/93	Harza	X	X	X	X	--
PM-9	04/06/94	Harza	X	--	X	--	--
PM-10	11/11/93	Harza	--	X	X	X	--
PM-10	04/07/94	Harza	X	--	--	--	--
PM-12	12/10/93	Harza	--	X	X	X	--
PM-14	12/10/93	Harza	--	X	X	X	--
PM-14	04/06/94	Harza	X	--	--	--	--
W-5	11/01/93	Harza	--	X	X	X	--
W-5	04/06/94	Harza	X	--	--	--	--
W-6*	--	--	--	X	X	X	--
W-7*	--	--	--	--	X	--	--
W-7	11/15/93	Harza	X	X	X	X	--
X-1	11/10/93	Harza	--	X	X	X	--
TB	11/15/93	Harza	--	X	X	X	--
SWB-1*	11/91	EMCON	--	X	X	X	--
SWB-1*	11/91	EMCON	--	X	X	X	--
SWB-1F*	11/91	EMCON	X	--	--	--	--
SWB-2*	11/91	EMCON	--	X	X	X	--
SWB-2*	11/91	EMCON	--	X	X	X	--
SWB-3	12/09/93	Harza	--	X	X	X	--
SWB-4	12/09/93	Harza	--	X	X	X	--
SWB-5	12/09/93	Harza	--	X	X	X	--
SWB-6	12/07/93	Harza	X	X	X	X	X
SWB-7	12/09/93	Harza	X	X	X	X	--
SWB-8	12/08/93	Harza	X	X	X	X	--
SWB-9	12/07/93	Harza	X	X	X	X	X
SWB-10	12/07/93	Harza	--	X	X	X	--
SWB-11	12/09/93	Harza	X	X	X	X	--

Notes:
X = Sample analyzed.
-- = Data not available.
TB = Transfer blank.
*Data from Ratech Resources, May 1993.

Table 3
Summary of Soil and Sediment Sample Analysis Program
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station	Sample Depth	Sample Date	Sampled By	EPA Test Method Series 6000/7000	EPA Test Method 8240	EPA Test Method 8270	EPA Test Method 5030/GC-FID
SB-1*	0-0.5'	11/91	EMCON	X	X	X	--
SB-1(S)*	0-0.5'	11/91	EMCON	X	--	--	--
SB-1*	1'	11/91	EMCON	X	X	X	--
SB-1*	3.5'	11/91	EMCON	X	X	X	--
MW-19-01*	1'	9/87	Mark Group	X	--	X	--
MW-19-02*	5'	9/87	Mark Group	X	--	X	--
MW-19-03*	7.5'	9/87	Mark Group	X	--	X	--
MW-21(S1)*	0'	9/87	Mark Group	X	--	X	--
MW-21(S1S)*	0.5'	9/87	Mark Group	X	--	X	--
MW-21(S2)*	5'	9/87	Mark Group	X	--	X	--
MW-21(S2S)*	5.5'	9/87	Mark Group	X	--	X	--
MW-21(S3)*	10'	9/87	Mark Group	X	--	X	--
MW-21(S3S)*	10.5'	9/87	Mark Group	X	--	X	--
MW-21(S4)*	15'	9/87	Mark Group	X	--	X	--
MW-21(S4S)*	15.5'	9/87	Mark Group	X	--	X	--
PM-2(S-1)*	0'	9/87	Mark Group	X	--	X	--
PM-2(S-2)*	3'	9/87	Mark Group	X	--	X	--
PM-2(S-3)*	5.5'	9/87	Mark Group	X	--	X	--
PM-2(S-4)*	10.5'	9/87	Mark Group	X	--	X	--
PM-2(S-5)*	15.5'	9/87	Mark Group	X	--	X	--
PM-2(S-6)*	20'	9/87	Mark Group	X	--	X	--
PM-3(S-1)*	0'	9/87	Mark Group	X	--	X	--
PM-3(S-2)*	5'	9/87	Mark Group	X	--	X	--
PM-7(S-1)*	1'	9/87	Mark Group	X	--	X	--
PM-7(S-1S)*	1'	9/87	Mark Group	X	--	X	--
PM-7(S-2)*	5'	9/87	Mark Group	X	--	X	--
PM-7(S-2S)*	5'	9/87	Mark Group	X	--	X	--
PM-7(S-3)*	10'	9/87	Mark Group	X	--	X	--
PM-7(S-3S)*	10'	9/87	Mark Group	X	--	X	--
PM-7(S-5)*	20'	9/87	Mark Group	X	--	X	--
PM-8(S-1)*	0'	9/87	Mark Group	X	--	X	--
PM-8(S-2)*	5.5'	9/87	Mark Group	X	--	X	--
PM-8(S-4)*	15.5'	9/87	Mark Group	X	--	X	--
PM-9(S-1)*	0'	8/87	Mark Group	X	--	X	--
PM-9(S-1D)*	0'	8/87	Mark Group	X	--	--	--
PM-9(S-2)*	5'	8/87	Mark Group	X	--	X	--
PM-9(S-2D)*	5'	8/87	Mark Group	--	--	X	--
PM-9(S-4)*	15'	8/87	Mark Group	X	--	X	--
B12*	3.5'	1/91	EMCON	--	X	--	--
B12*	8'	1/91	EMCON	--	X	--	--
B13*	4'	1/91	EMCON	--	X	--	--

Notes:
X = Sample analyzed.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 3
Summary of Soil and Sediment Sample Analysis Program
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station	Sample Depth	Sample Date	Sampled By	EPA Test Method Series 6000/7000	EPA Test Method 8240	EPA Test Method 8270	EPA Test Method 5030/GC-FID
SWB-1DL*	0-0.5'	--	EMCON	--	X	X	--
SWB-1*	1'	11/91	EMCON	X	X	X	--
SWB-1*	3'	11/91	EMCON	X	X	X	--
SWB-2*	1'	11/91	EMCON	X	X	X	--
SWB-2*	3.5'	11/91	EMCON	X	X	X	--
SWB-3	0.5-1'	12/09/93	Harza	X	X	X	--
SWB-3	5-5.5'	12/09/93	Harza	X	X	X	--
SWB-4	0.5-1'	12/09/93	Harza	X	X	X	--
SWB-4	5-5.5'	12/09/93	Harza	X	X	X	--
SWB-5	0.5-1'	12/09/93	Harza	X	X	X	--
SWB-5	5.5-6'	01/12/94	Harza	X	X	X	--
SWB-5	10-10.5'	01/12/94	Harza	X	X	X	--
SWB-6	0.5-1'	12/07/93	Harza	X	X	X	--
SWB-6	5.5-6'	12/07/93	Harza	X	X	X	X
SWB-7	1-1.5'	12/09/93	Harza	X	X	X	--
SWB-7	5-5.5'	12/09/93	Harza	X	X	X	--
SWB-7	10-10.5'	01/12/94	Harza	X	X	X	--
SWB-7	15-15.5'	12/09/93	Harza	X	X	X	--
SWB-8	0.5-1'	12/08/93	Harza	X	X	X	--
SWB-8	5-5.5'	12/08/93	Harza	X	X	X	X
SWB-8	10-10.5'	12/08/93	Harza	X	--	X	--
SWB-8	15-15.5'	12/08/93	Harza	X	--	X	--
SWB-9	3-3.5'	12/07/93	Harza	X	X	X	X
SWB-9	4-4.5'	12/07/93	Harza	X	X	X	--
SWB-9	10-10.5'	12/07/93	Harza	--	X	X	--
SWB-9	15-15.5'	12/07/93	Harza	--	X	X	--
SWB-10	1-1.5'	12/07/93	Harza	X	X	X	--
SWB-10	4-4.5'	12/07/93	Harza	X	X	X	--
SWB-11	0.5-1'	12/09/93	Harza	X	X	X	--
SWB-11	5-5.5'	12/09/93	Harza	X	X	X	--
SWB-11	10-10.5'	12/09/93	Harza	X	--	--	--
SWB-11	15-15.5'	12/09/93	Harza	X	--	--	--
E-2	3'	01/04/94	Harza	X	--	--	--
MF-1	0.5-1'	01/14/94	Harza	X	--	--	--
MF-2	0.5-1'	01/14/94	Harza	X	--	--	--
MF-1A	0.5-1'	04/05/94	Harza	X	X	X	--
MF-1B	0.5-1'	04/05/94	Harza	X	X	X	--
MF-1C	0.5-1'	04/05/94	Harza	X	X	X	--
MF-2A	0.5-1'	04/05/94	Harza	X	X	X	--
MF-2B	0.5-1'	04/05/94	Harza	X	X	X	--
MF-2C	0.5-1'	04/05/94	Harza	X	X	X	--

Notes:
X = Sample analyzed.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 4
Monitoring Well and Piezometer Construction Summary
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Station Identification	Completion Date	Reference Point Elevation (ft bgs)*	Total Depth (ft bgs)	Screened Interval (ft bgs)	Filter Pack (ft bgs)	Casing Diameter (inches)	Installed By
FILL MATERIAL							
PM-9	8/28/87	10.07	25.0	8.0 - 13.0	5.00 - 13.5	2	Mark Group
PM-12	12/10/93	13.41	10.0	5.0 - 10.0	4.0 - 10.0	2	Harza
PM-14	12/10/93	9.35	12.0	7.0 - 12.0	6.0 - 10.0	2	Harza
MW-11	1/9/87	10.84	15.5	5.5 - 15.5	4.5 - 15.5	4	Woodward-Clyde
MW-12	1/10/87	13.02	15.5	5.0 - 15.0	4.0 - 15.0	4	Woodward-Clyde
MW-13	1/10/87	13.42	15.0	5.0 - 15.0	4.0 - 15.0	4	Woodward-Clyde
MW-14	1/11/87	14.04	15.0	5.0 - 15.0	3.5 - 15.0	4	Woodward-Clyde
MW-15	1/11/87	12.05	15.0	5.0 - 15.0	4.0 - 15.0	4	Woodward-Clyde
MW-21	9/2/87	12.24	25.0	13.0 - 25.0	10.0 - 25.0	4	Mark Group
BAY MUD/COLLUVIUM							
W-5	4/28/83	10.12	58.0	48.0 - 58.0	36.0 - 58.0	2	Woodward-Clyde
PM-2	8/18/87	9.82	21.5	11.0 - 16.0	8.0 - 21.5	2	Mark Group
PM-6	8/21/87	9.42	40.0	31.0 - 36.0	28.0 - 40.0	2	Mark Group
PM-7	9/3/87	10.47	37.0	25.5 - 30.5	22.0 - 37.0	2	Mark Group
PM-10	8/27/87	11.26	29.0	23.5 - 30.5	21.0 - 29.0	2	Mark Group
PM-13	12/10/93	13.05	35.0	25.0 - 35.0	24.0 - 30.0	2	Harza
BEDROCK							
W-7	4/2/84	13.34	30.5	10.0 - 30.5	9.0 - 30.5	2	Woodward-Clyde
PM-3	8/19/87	22.62	20.0	5.5 - 10.5	4.0 - 11.0	2	Mark Group
MW-18	8/20/87	22.62	72.0	56.6 - 66.5	45.0 - 72.0	4	Mark Group
MW-19	8/3/87	16.01	30.0	19.0 - 24.0	13.0 - 29.0	4	Mark Group
MW-20	9/2/87	14.21	67.0	52.0 - 62.0	49.0 - 67.0	4	Mark Group

NOTES:
Based on a review of boring logs
*Elevations are referenced to well head PM-2 (Surveyed by Harza 3/8/94)
MSL = Mean Sea Level
ft bgs = Feet below ground surface
The following wells have been abandoned or destroyed: W-1, W-2, W-3, W-6, PM-1, PM-4A, PM-8, PM-11

Table 5
Summary of Water-Level Elevations
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Station Identification	Reference Elevation*	3/18/94 DTW	3/18/94 PE	4/8/94 DTW	4/8/94 PE
FILL MATERIAL					
PM-9	10.07	5.08	4.99	5.56	4.51
PM-12	13.41	3.60	9.81	4.21	9.20
PM-14	9.35	3.71	5.64	4.04	5.31
MW-11	10.84	7.10	3.74	7.27	3.57
MW-12	13.02	9.10	3.92	9.31	3.71
MW-13	13.42	9.60	3.82	9.80	3.62
MW-14	14.04	10.42	3.62	10.62	3.42
MW-15	12.05	5.17	6.88	5.98	6.07
MW-21	12.24	5.91	6.33	6.60	5.64
BAY MUD/COLLUVIUM					
W-5	10.12	6.22	3.90	6.54	3.58
PM-2	9.82	3.95	5.87	4.23	5.59
PM-6	9.42	2.86	6.56	3.33	6.09
PM-7	10.47	3.69	6.78	3.95	6.52
PM-10	11.26	8.28	2.98	8.62	2.64
PM-13	13.05	5.60	7.45	3.76	9.29
BEDROCK					
W-7	30.85	9.64	21.21	9.08	21.77
PM-3	13.34	2.75	10.59	3.21	10.13
MW-18	22.62	8.93	13.69	8.25	14.37
MW-19	16.01	0.96	15.05	2.35	13.66
MW-20	14.21	9.50	4.71	10.15	4.06
SURFACE STATIONS					
S-1	7.29	4.25	3.04	4.26	3.03
S-2	11.09	13.38	-2.29	11.09	0.00

NOTES:
*Elevations are referenced to well head PM-2
DTW = Depth to Water
PE = Potentiometric Elevation
All measurements in feet mean sea level

Table 6
Summary of Total and Dissolved Metals Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	WB-1*	WB-1(S)*	WB-1(S)-F*	WB-3*	WB-3(S)*	WB-3(S) F*	WB-4*	WB-4(S)*	WB-4(S)-F*
			Filtered			Filtered			Filtered
Sample Date:	11/91	11/91	11/91	11/91	11/91	11/91	11/91	11/91	11/91
Analyte									
Silver (Ag)	< 0.01	< 0.02	< 0.002	< 0.01	< 0.02	< 0.002	< 10	--	--
Arsenic (As)	**0.006**	**0.0092**	**0.0052**	**0.012**	**0.0817**	**0.0114**	**6**	--	--
Cadmium (Cd)	< 0.003	< 0.05	< 0.005	< 0.003	< 0.05	< 0.005	< 3	--	--
Chromium (Cr)	< 0.005	**1.42**	< 0.004	**0.009**	**13.6**	**0.0128**	< 5	--	--
Copper (Cu)	< 0.01	**0.169**	< 0.0138	< 0.01	**1.53**	< 0.0142	**12**	--	--
Nickel (Ni)	< 0.02	**3.41**	**0.0122**	**0.030**	**23.9**	**0.0346**	< 20	--	--
Lead (Pb)	< 0.002	**0.908**	< 0.002	**0.017**	**7.37**	**0.0094**	< 2	**54.1**	< 2
Selenium (Se)	< 0.005	< 0.02	< 0.002	< 0.005	< 0.02	< 0.002	< 5	--	--
Zinc (Zn)	**0.021**	**2.66**	< 0.0164	< 0.01	**3.51**	< 0.0068	< 10	--	--

NOTES:
Concentrations in mg/l or parts per million (ppm).
All samples unfiltered unless specified.
Analytical method EPA series 6000 and 7000.
NA = Not analyzed.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 6
Summary of Total and Dissolved Metals Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	WB-5*	WB-5(S)*	WB-5(S) F*	WB-6*	WB-6(S)*	WB-6(S) F*	OPF-6*	OPF-7*	MW-13
Sample Date:	11/91	11/91	Filtered 11/91	11/91	11/91	Filtered 11/91	2/91	2/91	11/09/93
Analyte									
Silver (Ag)	< 10			NA			**0.0099**	**0.0097**	< 0.005
Arsenic (As)	< 5	--	-	NA	--	--	**0.0075**	**0.0038**	< 0.002
Cadmium (Cd)	< 3	--	-	NA	--	--	< 0.003	**0.012**	< 0.005
Chromium (Cr)	< 5	--	--	NA	--	--	< 0.003	**0.0242**	< 0.010
Copper (Cu)	< 10	--	--	NA	--	--	< 0.004	**0.0502**	< 0.010
Nickel (Ni)	< 20	--	-	NA	--	--	**0.0566**	**0.0875**	< 0.010
Lead (Pb)	**4**	**89.2**	< 2	< 2	**57.9**	< 2	**0.0014**	**0.0014**	< 0.040
Selenium (Se)	< 5	--	--	NA	--	--	< 0.0013	< 0.0013	< 0.004
Zinc (Zn)	< 10	--	--	NA	--	--	**0.0055**	**0.0445**	**0.010**

NOTES:
Concentrations in mg/l or parts per million (ppm).
All samples unfiltered unless specified.
Analytical method EPA series 6000 and 7000.
NA = Not analyzed.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 6
Summary of Total and Dissolved Metals Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MW-13 Lab Filtered	MW 18	MW-19*	MW-19*	MW-19*	MW-19*	MW-19*	MW-19*	MW-19
Sample Date:	04/06/94	11/11/93	9/87	1/88	4/88	7/88	11/88	2/91	11/11/93
Analyte									
Silver (Ag)	< 0.005	< 0.005	NA	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.005
Arsenic (As)	**0.002**	**0.014**	NA	< 0.01	< 0.01	< 0.01	< 0.01	NA	**0.004**
Cadmium (Cd)	< 0.005	< 0.005	NA	**0.03**	< 0.01	< 0.01	< 0.01	NA	< 0.005
Chromium (Cr)	< 0.01	< 0.010	NA	**0.49**	**0.04**	< 0.01	**0.81**	NA	**0.190**
Copper (Cu)	< 0.01	< 0.010	NA	**0.03**	< 0.01	< 0.01	NA	NA	< 0.010
Nickel (Ni)	< 0.01	**0.010**	NA	**0.2**	**0.61**	**0.49**	NA	NA	**0.250**
Lead (Pb)	< 0.04	< 0.040	**0.06**	**0.04**	**0.03**	< 0.05	**0.03**	< 0.005	< 0.040
Selenium (Se)	< 0.004	< 0.004	NA	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.004
Zinc (Zn)	< 0.01	**0.044**	**0.14**	**0.07**	< 0.01	< 0.01	NA	NA	**0.007**

NOTES:
Concentrations in mg/l or parts per million (ppm).
All samples unfiltered unless specified.
Analytical method EPA series 6000 and 7000.
NA = Not analyzed.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 6
Summary of Total and Dissolved Metals Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MW-19 Field Filtered	MW-20	MW-21*	MW-21*	MW-21(D)*	MW-21*	MW-21*	MW-21(S)*	MW-21*
Sample Date:	11/11/93	11/11/93	9/87	1/88	1/88	4/88	7/88	7/88	11/88
Analyte									
Silver (Ag)	< 0.005	< 0.005	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Arsenic (As)	**0.003**	< 0.002	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01
Cadmium (Cd)	< 0.005	< 0.005	NA	**0.02**	**0.02**	**0.02**	< 0.01	< 0.01	< 0.01
Chromium (Cr)	< 0.010	< 0.010	NA	< 0.05	**0.08**	< 0.02	< 0.01	< 0.01	< 0.01
Copper (Cu)	< 0.010	< 0.010	NA	**0.04**	**0.04**	**0.02**	< 0.01	NA	NA
Nickel (Ni)	**0.190**	< 0.010	NA	**0.29**	**0.29**	**0.22**	**0.09**	NA	NA
Lead (Pb)	< 0.040	< 0.040	**1.4**	**1.8**	**1.8**	**0.13**	< 0.05	< 0.05	**0.1**
Selenium (Se)	< 0.004	< 0.004	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.001	< 0.01
Zinc (Zn)	**0.006**	**0.013**	**0.46**	**0.78**	**0.71**	< 0.02	< 0.01	NA	NA

NOTES:
Concentrations in mg/l or parts per million (ppm).
All samples unfiltered unless specified.
Analytical method EPA series 6000 and 7000.
NA = Not analyzed.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 6
Summary of Total and Dissolved Metals Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MW-21*	MW-21*	MW-21	MW-21 Field Filtered	MW-21 Lab Filtered	PM-2	PM-2 Field Filtered	PM-3	PM-3 Field Filtered
Sample Date:	1/89	2/91	11/09/93	11/09/93	04/06/94	11/09/93	11/09/93	11/15/93	11/15/93
Analyte									
Silver (Ag)	< 0.01	NA	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Arsenic (As)	< 0.005	NA	**0.042**	**0.038**	**0.047**	**0.003**	**0.006**	**0.023**	**0.002**
Cadmium (Cd)	< 0.001	NA	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chromium (Cr)	< 0.01	NA	< 0.01	< 0.01	< 0.01	**0.04**	< 0.01	**0.15**	< 0.01
Copper (Cu)	NA	NA	< 0.01	< 0.01	< 0.01	**0.06**	< 0.01	**0.37**	< 0.01
Nickel (Ni)	NA	NA	< 0.01	< 0.01	< 0.01	**0.07**	< 0.01	**1.1**	**0.07**
Lead (Pb)	< 0.01	**0.24**	**0.06**	< 0.04	< 0.04	**0.04**	< 0.04	**0.09**	< 0.04
Selenium (Se)	< 0.01	NA	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
Zinc (Zn)	NA	NA	**0.043**	**0.009**	< 0.01	**0.13**	**0.011**	**0.58**	**0.039**

NOTES:
Concentrations in mg/l or parts per million (ppm).
All samples unfiltered unless specified.
Analytical method EPA series 6000 and 7000.
NA = Not analyzed.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 6
Summary of Total and Dissolved Metals Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	PM 6	PM-6 Lab Filtered	PM-7	PM-7 Field Filtered	PM-9	PM-9 Field Filtered	PM-9 Lab Filtered	PM-10	PM-10 Lab Filtered
Sample Date:	11/10/93	04/06/94	11/09/93	11/09/93	11/10/93	11/10/93	04/06/94	11/11/93	04/06/94
Analyte									
Silver (Ag)	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Arsenic (As)	**0.003**	**0.004**	**0.006**	**0.006**	**0.003**	< 0.002	< 0.002	**0.003**	**0.002**
Cadmium (Cd)	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chromium (Cr)	< 0.01	< 0.01	**0.03**	< 0.01	**0.03**	< 0.01	< 0.01	**0.01**	< 0.01
Copper (Cu)	**0.01**	< 0.01	**0.01**	< 0.01	< 0.01	< 0.01	< 0.01	**0.04**	< 0.01
Nickel (Ni)	< 0.01	< 0.01	**0.09**	< 0.01	**0.03**	< 0.01	< 0.01	< 0.01	< 0.01
Lead (Pb)	< 0.04	< 0.04	**0.15**	< 0.04	**0.28**	< 0.04	< 0.04	< 0.04	< 0.04
Selenium (Se)	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	**0.005**	< 0.004
Zinc (Zn)	**0.026**	< 0.01	**0.06**	**0.019**	**0.11**	< 0.005	**0.01**	**0.034**	< 0.01

NOTES:
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Table 6
Summary of Total and Dissolved Metals Analytical Results
for Surface and Ground Water Samples
Fuller O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	PM-12	PM-14	PM-14 Lab Filtered	W-5	W-5 Lab Filtered	W-6*	W-7	W-7 Field Filtered	X-1
Sample Date:	12/10/93	12/10/93	04/06/94	11/01/93	04/06/94	--	11/15/93	11/15/93	11/10/93
Analyte									
Silver (Ag)	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA	< 0.005	< 0.005	< 0.005
Arsenic (As)	**0.03**	**0.004**	< 0.002	< 0.002	< 0.002	NA	**0.01**	**0.003**	< 0.002
Cadmium (Cd)	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA	< 0.005	< 0.005	< 0.005
Chromium (Cr)	**0.39**	**0.43**	< 0.01	< 0.01	< 0.01	NA	**0.16**	< 0.01	< 0.01
Copper (Cu)	**0.14**	**0.08**	< 0.01	< 0.01	< 0.01	NA	**0.24**	< 0.01	< 0.01
Nickel (Ni)	**0.43**	**0.51**	< 0.01	**0.05**	**0.04**	NA	**0.3**	**0.02**	< 0.01
Lead (Pb)	**12**	**0.73**	< 0.04	< 0.04	< 0.04	< 0.005	**0.06**	< 0.04	< 0.04
Selenium (Se)	< 0.01	< 0.004	< 0.004	< 0.004	< 0.004	NA	< 0.005	< 0.004	< 0.004
Zinc (Zn)	**0.51**	**0.17**	**0.01**	< 0.005	< 0.01	**0.02**	**0.27**	< 0.005	< 0.005

NOTES:
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Table 6
Summary of Total and Dissolved Metals Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	Transfer Blank	SWB-1* Field Filtered	SWB-1*	SWB-1-F*	SWB-2* Field Filtered	SWB-2*	SWB-2-F*	SWB-3	SWB-4
Sample Date:	11/15/93	11/91	11/91	11/91	11/91	11/91	11/91	12/09/93	12/09/93
Analyte									
Silver (Ag)	< 0.005	< 0.01	**0.002**	< 0.002	< 0.01	< 0.1	< 0.002	**0.007**	**0.009**
Arsenic (As)	< 0.002	**0.006**	**0.0203**	**0.0024**	**0.021**	**0.045**	**0.0224**	**0.25**	**0.13**
Cadmium (Cd)	< 0.005	< 0.003	**0.0424**	< 0.002	< 0.003	< 0.25	< 0.005	< 0.005	< 0.005
Chromium (Cr)	< 0.01	< 0.005	**2.82**	< 0.004	< 0.005	**38.2**	< 0.004	**3.4**	**9**
Copper (Cu)	< 0.01	< 0.01	**0.529**	< 0.0123	**0.023**	**5.81**	< 0.0289	**1.2**	**1.3**
Nickel (Ni)	< 0.01	< 0.02	**3.58**	**0.009**	< 0.02	**61.1**	**0.0082**	**5.4**	**17**
Lead (Pb)	< 0.04	**0.018**	**152**	**0.0141**	**0.007**	**643**	**0.0131**	**0.68**	**0.77**
Selenium (Se)	< 0.004	< 0.005	< 0.02	< 0.002	< 0.005	< 0.02	< 0.002	< 0.1	< 0.1
Zinc (Zn)	**0.007**	< 0.01	**5**	< 0.002	< 0.01	**29.6**	< 0.002	**2.1**	**2.4**

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Table 6
Summary of Total and Dissolved Metals Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-5	SWB-6	SWB-6 Lab Filtered	SWB-7	SWB-7 Lab Filtered	SWB-8	SWB-8 Lab Filtered	SWB-9	SWB 9 Lab Filtered
Sample Date:	12/09/93	12/07/93	12/07/93	12/09/93	12/09/93	12/08/93	12/08/93	12/07/93	12/07/93
Analyte									
Silver (Ag)	**0.007**	**0.05**	< 0.005	< 0.005	< 0.005	< 0.03	< 0.005	**0.18**	< 0.005
Arsenic (As)	**0.07**	**1.2**	**0.011**	**0.022**	< 0.002	**0.04**	**0.002**	< 0.1	**0.005**
Cadmium (Cd)	**0.013**	**0.82**	< 0.005	**0.009**	< 0.005	< 0.03	< 0.005	**0.09**	< 0.005
Chromium (Cr)	**1.8**	**23**	< 0.01	**0.24**	< 0.01	**0.26**	< 0.01	**11**	< 0.01
Copper (Cu)	**0.88**	**5.4**	< 0.01	**0.11**	< 0.01	**0.26**	< 0.01	**2.4**	< 0.01
Nickel (Ni)	**3**	**15**	< 0.01	**0.55**	< 0.01	**0.64**	**0.01**	**15**	< 0.01
Lead (Pb)	**0.72**	**570**	< 0.04	**130**	**0.75**	**200**	**0.08**	**100**	< 0.04
Selenium (Se)	< 0.05	< 0.2	< 0.004	**0.02**	< 0.004	< 0.02	< 0.004	< 0.05	**0.004**
Zinc (Zn)	**1.3**	**100**	**0.2**	**1.7**	**0.041**	**2.6**	**0.05**	**62**	**0.1**

NOTES:
Concentrations in mg/l or parts per million (ppm).
All samples unfiltered unless specified.
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Table 6
Summary of Total and Dissolved Metals Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB 10	SWB-11	SWB-11 Lab Filtered
Sample Date:	12/07/93	12/09/93	12/09/93
Analyte			
Silver (Ag)	< 0.03	**0.006**	< 0.005
Arsenic (As)	< 0.03	**0.17**	**0.009**
Cadmium (Cd)	< 0.03	**0.052**	< 0.005
Chromium (Cr)	**0.63**	**2.2**	< 0.01
Copper (Cu)	**0.52**	**1.6**	< 0.01
Nickel (Ni)	**0.52**	**1**	< 0.01
Lead (Pb)	**0.64**	**52**	< 0.04
Selenium (Se)	< 0.05	**0.005**	< 0.004
Zinc (Zn)	**1.1**	**50**	**0.032**

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Revision 4/19/94

Table 7
Summary of Volatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	WB-1*	WB-1(S)*	WB-2*	WB-2*	WB-3*	WB-3(S)*
Sample Date:	11/91	11/91	11/91	11/91	11/91	11/91
Analyte						
Acetone	< 20	< 10	--	--	< 20	8
Benzene	< 1	< 5	< 0.5	< 0.2	< 1	< 5
Bromodichloromethane	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	< 10	53
Carbon Disulfide	--	--	--	--	< 1	< 5
Carbon Tetrachloride	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--
2-Chloroethylvinyl ether	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--
Ethylbenzene	< 1	< 5	< 1	< 0.2	< 1	< 5
2-Hexanone	--	--	--	--	--	--
Methylene Chloride	--	--	--	--	31	< 5
4-Methyl-2-Pentanone (MIBK)	--	--	--	--	--	--
Styrene	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--
Toluene	< 1	< 5	1	< 0.2	--	--
1,1,1-Trichloroethane	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--
Vinyl Acetate	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--
Xylenes, total	< 1	< 5	5	< 0.2	< 1	< 5

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 7
Summary of Volatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	WB-4*	WB-4(S)*	WB-5*	WB-5(S)*	WB-6*	WB-6(S)*
Sample Date:	11/91	11/91	11/91	11/91	11/91	11/91
Analyte						
Acetone	--	--	--	--	--	--
Benzene	NA	< 0.2	NA	< 0.2	NA	< 0.2
Bromodichloromethane	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--
2-Chloroethylvinyl ether	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--
Ethylbenzene	NA	< 0.2	NA	< 0.2	NA	< 0.2
2-Hexanone	--	--	--	--	--	--
Methylene Chloride	--	--	--	--	--	--
4-Methyl-2-Pentanone (MIBK)	--	--	--	--	--	--
Styrene	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--
Toluene	< 1	< 0.2	< 1	< 0.2	< 1	< 0.2
1,1,1-Trichloroethane	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--
Vinyl Acetate	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--
Xylenes, total	NA	< 0.4	NA	< 0.4	NA	< 0.4

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8240.
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Table 7
Summary of Volatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	OPF-6*	OPF-7*	MW-13	MW-18	MW-19*	MW-19*
Sample Date:	2/91	2/91	11/09/93	11/11/93	1/88	4/88
Analyte						
Acetone	**8**	< 10	< 100	< 100	NA	NA
Benzene	**10**	< 5	< 5	< 5	< 5	< 5
Bromodichloromethane	--	--	< 5	< 5	--	--
Bromoform	--	--	< 5	< 5	--	--
Bromomethane	--	--	< 10	< 10	--	--
2-Butanone (MEK)	--	--	< 100	< 100	--	--
Carbon Disulfide	--	--	< 10	< 10	--	--
Carbon Tetrachloride	--	--	< 5	< 5	--	--
Chlorobenzene	--	--	< 5	< 5	--	--
Chloroethane	--	--	< 10	< 10	--	--
2-Chloroethylvinyl ether	--	--	< 10	< 10	--	--
Chloroform	--	--	< 5	< 5	--	--
Chloromethane	--	--	< 10	< 10	--	--
Dibromochloromethane	--	--	< 5	< 5	--	--
1,1-Dichloroethane	--	--	< 5	< 5	--	--
1,2-Dichloroethane	--	--	< 5	< 5	--	--
1,1-Dichloroethene	--	--	< 5	< 5	--	--
cis-1,2-Dichloroethene	--	--	< 5	< 5	--	--
trans-1,2-Dichloroethene	--	--	< 5	< 5	--	--
1,2-Dichloropropane	--	--	< 5	< 5	--	--
cis-1,3-Dichloropropene	--	--	< 5	< 5	--	--
trans-1,3-Dichloropropene	--	--	< 5	< 5	--	--
Ethylbenzene	**39**	< 5	< 5	< 5	< 5	< 5
2-Hexanone	--	--	< 50	< 50	--	--
Methylene Chloride	--	--	< 5	< 5	--	--
4-Methyl-2-Pentanone (MIBK)	--	--	< 50	< 50	--	--
Styrene	--	--	< 5	< 5	--	--
1,1,2,2-Tetrachloroethane	--	--	< 5	< 5	--	--
Tetrachloroethene	--	--	< 5	< 5	--	--
Toluene	**11**	< 5	< 5	< 5	< 5	< 5
1,1,1-Trichloroethane	< 5	--	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	--	--	< 5	< 5	--	--
Trichloroethene	--	--	< 5	< 5	--	--
Vinyl Acetate	--	--	< 50	< 50	--	--
Vinyl Chloride	--	--	< 10	< 10	--	--
Xylenes, total	**73**	< 5	< 10	< 10	NA	NA

NOTES:
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*Data from Ratech Resources, May 1993.

Table 7
Summary of Volatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MW-19*	MW-19*	MW-19*	MW-19	MW-20	MW-21*
Sample Date:	7/88	11/88	2/91	11/11/93	11/11/93	1/88
Analyte						
Acetone	NA	NA	< 10	< 100	< 100	NA
Benzene	< 5	< 5	< 5	< 5	< 5	**19**
Bromodichloromethane	--	--	--	< 5	< 5	--
Bromoform	--	--	--	< 5	< 5	--
Bromomethane	--	--	--	< 10	< 10	--
2-Butanone (MEK)	--	--	--	< 100	< 100	--
Carbon Disulfide	--	--	--	< 10	< 10	--
Carbon Tetrachloride	--	--	--	< 5	< 5	--
Chlorobenzene	--	--	--	< 5	< 5	--
Chloroethane	--	--	--	< 10	< 10	--
2-Chloroethylvinyl ether	--	--	--	< 10	< 10	--
Chloroform	--	--	--	< 5	< 5	--
Chloromethane	--	--	--	< 10	< 10	--
Dibromochloromethane	--	--	--	< 5	< 5	--
1,1-Dichloroethane	--	--	--	< 5	< 5	--
1,2-Dichloroethane	--	--	--	< 5	< 5	--
1,1-Dichloroethene	--	--	--	< 5	< 5	--
cis-1,2-Dichloroetnene	--	--	--	< 5	< 5	--
trans-1,2-Dichloroethene	--	--	--	< 5	< 5	--
1,2-Dichloropropane	--	--	--	< 5	< 5	--
cis-1,3-Dichloropropene	--	--	--	< 5	< 5	--
trans-1,3-Dichloropropene	--	--	--	< 5	< 5	--
Ethylbenzene	< 5	< 5	< 5	< 5	< 5	**100**
2-Hexanone	--	--	--	< 50	< 50	--
Methylene Chloride	--	--	--	< 5	< 5	--
4-Methyl-2-Pentanone (MIBK)	--	--	--	< 50	< 50	--
Styrene	--	--	--	< 5	< 5	--
1,1,2,2-Tetrachloroethane	--	--	--	< 5	< 5	--
Tetrachloroetnene	--	--	--	< 5	< 5	--
Toluene	< 5	< 5	< 5	< 5	< 5	**290**
1,1,1-Trichloroethane	< 5	< 5	< 5	< 5	< 5	--
1,1,2-Trichloroethane	--	--	--	< 5	< 5	--
Trichloroethene	--	--	--	< 5	< 5	--
Vinyl Acetate	--	--	--	< 50	< 50	--
Vinyl Chloride	--	--	--	< 10	< 10	--
Xylenes, total	NA	NA	< 5	< 10	< 10	NA

NOTES:
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Table 7
Summary of Volatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MW-21*	MW-21*	MW-21(S)*	MW-21*	MW-21*	MW-21*
Sample Date:	4/88	7/88	7/88	11/88	1/89	2/91
Analyte						
Acetone	NA	NA	**120**	NA	**140**	17
Benzene	< 25	**26**	**30**	**37**	**31**	9
Bromodichloromethane	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--
2-Chloroethylvinyl ether	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--
Ethylbenzene	**120**	**120**	**160**	**180**	**180**	37
2-Hexanone	--	--	--	--	--	--
Methylene Chloride	--	--	--	--	--	--
4-Methyl-2-Pentanone (MIBK)	--	--	--	--	--	--
Styrene	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--
Toluene	**270**	**260**	**330**	**310**	**250**	9
1,1,1-Trichloroethane	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--
Vinyl Acetate	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--
Xylenes, total	NA	NA	**680**	NA	NA	**58**

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 7
Summary of Volatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MW-21	MW-21	PM-2	PM-3	PM-6	PM-7
Sample Date:	12/09/93	04/06/94	11/09/93	11/15/93	11/10/93	11/09/93
Analyte						
Acetone	< 100	< 100	< 100	< 100	< 100	< 100
Benzene	11	8	< 5	< 5	< 5	< 5
Bromodichloromethane	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	< 10	< 10	< 10	< 10	< 10	< 10
2-Butanone (MEK)	< 100	< 100	< 100	< 100	< 100	< 100
Carbon Disulfide	< 10	< 10	< 10	< 10	< 10	< 10
Carbon Tetrachloride	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	< 10	< 10	< 10	< 10	< 10	< 10
2-Chloroethylvinyl ether	< 10	< 10	< 10	< 10	< 10	< 10
Chloroform	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	< 10	< 10	< 10	< 10	< 10	< 10
Dibromochloromethane	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-Dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	7	< 5	< 5	< 5	< 5	< 5
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 50
Methylene Chloride	< 5	< 5	< 5	< 5	< 5	< 5
4-Methyl-2-Pentanone (MIBK)	< 50	< 50	< 50	< 50	< 50	< 50
Styrene	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	7	< 5	< 5	< 5	< 5	< 5
1,1,1-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethene	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	< 50	< 50	< 50	< 50	< 50	< 50
Vinyl Chloride	< 10	< 10	< 10	< 10	< 10	< 10
Xylenes, total	17	< 10	< 10	< 10	< 10	< 10

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 7
Summary of Volatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	PM-9*	PM-9	PM-9	PM-10	PM-12	PM-14
Sample Date:	--	11/10/93	04/06/94	11/11/93	12/10/93	12/10/93
Analyte						
Acetone	--	< 100	< 100	< 100	< 100	< 100
Benzene	**190**	**49**	**17**	< 5	< 5	< 5
Bromodichloromethane	--	< 5	< 5	< 5	< 5	< 5
Bromoform	--	< 5	< 5	< 5	< 5	< 5
Bromomethane	--	< 10	< 10	< 10	< 10	< 10
2-Butanone (MEK)	--	< 100	< 100	< 100	< 100	< 100
Carbon Disulfide	--	< 10	< 10	< 10	< 10	< 10
Carbon Tetrachloride	--	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	--	< 5	< 5	< 5	< 5	< 5
Chloroethane	--	< 10	< 10	< 10	< 10	< 10
2-Chloroethylvinyl ether	--	< 10	< 10	< 10	< 10	< 10
Chloroform	--	< 5	< 5	< 5	< 5	< 5
Chloromethane	--	< 10	< 10	< 10	< 10	< 10
Dibromochloromethane	--	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	--	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	--	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	--	< 5	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene	--	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	--	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	--	< 5	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene	--	< 5	< 5	< 5	< 5	< 5
trans-1,3-Dichloropropene	--	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	**300**	**28**	**13**	< 5	< 5	< 5
2-Hexanone	--	< 50	< 50	< 50	< 50	< 50
Methylene Chloride	--	< 5	< 5	< 5	< 5	< 5
4-Methyl-2-Pentanone (MIBK)	--	< 50	< 50	< 50	< 50	< 50
Styrene	--	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	--	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	--	< 5	< 5	< 5	< 5	< 5
Toluene	--	< 5	< 5	7	< 5	< 5
1,1,1-Trichloroethane	--	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	--	< 5	< 5	< 5	< 5	< 5
Trichloroethene	--	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	--	< 50	< 50	< 50	< 50	< 50
Vinyl Chloride	--	< 10	< 10	< 10	< 10	< 10
Xylenes, total	**4100**	**430**	**100**	< 10	< 10	< 10

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 7
Summary of Volatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	W-5	W-6*	W-7*	W-7	X-1
Sample Date:	11/01/93	--	--	11/15/93	11/10/93
Analyte					
Acetone	< 100	--	NA	< 100	< 100
Benzene	< 5	--	ND	< 5	< 5
Bromodichloromethane	< 5	--	--	< 5	< 5
Bromoform	< 5	--	--	< 5	< 5
Bromomethane	< 10	--	--	< 10	< 10
2-Butanone (MEK)	< 100	--	--	< 100	< 100
Carbon Disulfide	< 10	--	--	< 10	< 10
Carbon Tetrachloride	< 5	--	--	< 5	< 5
Chlorobenzene	< 5	--	--	< 5	< 5
Chloroethane	< 10	--	--	< 10	< 10
2-Chloroethylvinyl ether	< 10	--	--	< 10	< 10
Chloroform	< 5	--	--	< 5	**39**
Chloromethane	< 10	--	--	< 10	< 10
Dibromochloromethane	< 5	--	--	< 5	< 5
1,1-Dichloroethane	< 5	--	--	< 5	< 5
1,2-Dichloroethane	< 5	--	--	< 5	< 5
1,1-Dichloroethene	< 5	--	--	< 5	< 5
cis-1,2-Dichloroethene	< 5	--	--	< 5	< 5
trans-1,2-Dichloroethene	< 5	--	--	< 5	< 5
1,2-Dichloropropane	< 5	--	--	< 5	< 5
cis-1,3-Dichloropropene	< 5	--	--	< 5	< 5
trans-1,3-Dichloropropene	< 5	--	--	< 5	< 5
Ethylbenzene	< 5	**120**	NA	< 5	< 5
2-Hexanone	< 50	--	--	< 50	< 50
Methylene Chloride	< 5	--	--	< 5	< 5
4-Methyl-2-Pentanone (MIBK)	< 50	--	--	< 50	< 50
Styrene	< 5	--	--	< 5	< 5
1,1,2,2-Tetrachloroethane	< 5	--	--	< 5	< 5
Tetrachloroethene	< 5	--	--	< 5	< 5
Toluene	< 5	**7000**	ND	< 5	< 5
1,1,1-Trichloroethane	< 5	3	NA	< 5	< 5
1,1,2-Trichloroethane	< 5	--	--	< 5	< 5
Trichloroethene	< 5	--	--	< 5	< 5
Vinyl Acetate	< 50	--	--	< 50	< 50
Vinyl Chloride	< 10	--	--	< 10	< 10
Xylenes, total	< 10	--	ND	< 10	< 10

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 7
Summary of Volatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	Transfer Blank	SWB-1*	SWB-1*	SWB-2*	SWB-2*
Sample Date:	11/15/93	11/91	11/91	11/91	11/91
Analyte					
Acetone	< 100	< 20	**26**	< 20	**30**
Benzene	< 5	**12**	**15**	< 1	< 5
Bromodichloromethane	< 5	--	--	--	--
Bromoform	< 5	--	--	--	--
Bromomethane	< 10	--	--	--	--
2-Butanone (MEK)	< 100	< 10	< 10	< 10	**17**
Carbon Disulfide	< 10	< 1	< 5	**1**	< 5
Carbon Tetrachloride	< 5	--	--	--	--
Chlorobenzene	< 5	--	--	--	--
Chloroethane	< 10	--	--	--	--
2-Chloroethylvinyl ether	< 10	--	--	--	--
Chloroform	< 5	--	--	--	--
Chloromethane	< 10	--	--	--	--
Dibromochloromethane	< 5	--	--	--	--
1,1-Dichloroethane	< 5	--	--	--	--
1,2-Dichloroethane	< 5	--	--	--	--
1,1-Dichloroetnene	< 5	--	--	--	--
cis-1,2-Dichloroethene	< 5	--	--	--	--
trans-1,2-Dichloroethene	< 5	--	--	--	--
1,2-Dichloropropane	< 5	--	--	--	--
cis-1,3-Dichloropropene	< 5	--	--	--	--
trans-1,3-Dichloropropene	< 5	--	--	--	--
Ethylbenzene	< 5	**17**	**23**	< 1	< 5
2-Hexanone	< 50	--	--	--	--
Methylene Chloride	< 5	< 10	**8**	< 10	< 5
4-Methyl-2-Pentanone (MIBK)	< 50	--	--	--	--
Styrene	< 5	--	--	--	--
1,1,2,2-Tetrachloroethane	< 5	--	--	--	--
Tetrachloroethene	< 5	--	--	--	--
Toluene	< 5	--	--	--	--
1,1,1-Trichloroethane	< 5	--	--	--	--
1,1,2-Trichloroethane	< 5	--	--	--	--
Trichloroethene	< 5	--	--	--	--
Vinyl Acetate	< 50	--	--	--	--
Vinyl Chloride	< 10	--	--	--	--
Xylenes, total	< 10	**120**	**130**	< 1	< 5

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 7
Summary of Volatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-3	SWB-4	SWB-5	SWB-6	SWB-7
Sample Date:	12/09/93	12/09/93	12/09/93	12/07/93	12/09/93
Analyte					
Acetone	< 100	< 100	< 100	< 300	< 100
Benzene	< 5	< 5	< 5	< 10	< 5
Bromodichloromethane	< 5	< 5	< 5	< 10	< 5
Bromoform	< 5	< 5	< 5	< 10	< 5
Bromomethane	< 10	< 10	< 10	< 30	< 10
2-Butanone (MEK)	< 100	< 100	< 100	< 200	< 100
Carbon Disulfide	< 10	< 10	< 10	< 30	< 10
Carbon Tetrachloride	< 5	< 5	< 5	< 10	< 5
Chlorobenzene	< 5	< 5	< 5	< 10	< 5
Chloroethane	< 10	< 10	< 10	< 30	< 10
2-Chloroethylvinyl ether	< 10	< 10	< 10	< 30	< 10
Chloroform	< 5	< 5	< 5	< 10	< 5
Chloromethane	< 10	< 10	< 10	< 30	< 10
Dibromochloromethane	< 5	< 5	< 5	< 10	< 5
1,1-Dichloroethane	< 5	< 5	< 5	< 10	< 5
1,2-Dichloroethane	< 5	< 5	< 5	< 10	< 5
1,1-Dichloroethene	< 5	< 5	< 5	< 10	< 5
cis-1,2-Dichloroethene	< 5	< 5	< 5	< 10	< 5
trans-1,2-Dichloroethene	< 5	< 5	< 5	< 10	< 5
1,2-Dichloropropane	< 5	< 5	< 5	< 10	< 5
cis-1,3-Dichloropropene	< 5	< 5	< 5	< 10	< 5
trans-1,3-Dichloropropene	< 5	< 5	< 5	< 10	< 5
Ethylbenzene	< 5	< 5	< 5	< 10	< 5
2-Hexanone	< 50	< 50	< 50	< 100	< 50
Methylene Chloride	< 5	< 5	< 5	< 10	< 5
4-Methyl-2-Pentanone (MIBK)	< 50	< 50	< 50	< 100	< 50
Styrene	< 5	< 5	< 5	< 10	< 5
1,1,2,2-Tetrachloroethane	< 5	< 5	< 5	< 10	< 5
Tetrachloroethene	< 5	< 5	< 5	< 10	< 5
Toluene	< 5	< 5	< 5	< 10	< 5
1,1,1-Trichloroethane	< 5	< 5	< 5	< 10	< 5
1,1,2-Trichloroethane	< 5	< 5	< 5	< 10	< 5
Trichloroethene	< 5	< 5	< 5	< 10	< 5
Vinyl Acetate	< 50	< 50	< 50	< 100	< 50
Vinyl Chloride	< 10	< 10	< 10	< 30	< 10
Xylenes, total	< 10	< 10	< 10	< 30	< 10

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 7
Summary of Volatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-8	SWB-9	SWB-10	SWB-11
Sample Date:	12/08/93	12/07/93	12/07/93	12/09/93
Analyte				
Acetone	< 100	< 100	< 100	< 100
Benzene	< 5	< 5	< 5	< 5
Bromodichloromethane	< 5	< 5	< 5	< 5
Bromoform	< 5	< 5	< 5	< 5
Bromomethane	< 10	< 10	< 10	< 10
2-Butanone (MEK)	< 100	< 100	< 100	< 100
Carbon Disulfide	< 10	< 10	< 10	< 10
Carbon Tetrachloride	< 5	< 5	< 5	< 5
Chlorobenzene	< 5	< 5	< 5	< 5
Chloroethane	< 10	< 10	< 10	< 10
2-Chloroethylvinyl ether	< 10	< 10	< 10	< 10
Chloroform	< 5	< 5	< 5	< 5
Chloromethane	< 10	< 10	< 10	< 10
Dibromochloromethane	< 5	< 5	< 5	< 5
1,1-Dichloroethane	< 5	< 5	< 5	< 5
1,2-Dichloroethane	< 5	< 5	< 5	< 5
1,1-Dichloroethene	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	< 5	< 5	< 5	< 5
1,2-Dichloropropane	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene	< 5	< 5	< 5	< 5
trans-1,3-Dichloropropene	< 5	< 5	< 5	< 5
Ethylbenzene	< 5	**130**	< 5	< 5
2-Hexanone	< 50	< 50	< 50	< 50
Methylene Chloride	< 5	< 5	< 5	< 5
4-Methyl-2-Pentanone (MIBK)	< 50	< 50	< 50	< 50
Styrene	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	< 5	< 5	< 5	< 5
Tetrachloroethene	< 5	< 5	< 5	< 5
Toluene	< 5	6	< 5	< 5
1,1,1-Trichloroethane	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	< 5	< 5	< 5	< 5
Trichloroethene	< 5	< 5	< 5	< 5
Vinyl Acetate	< 50	< 50	< 50	< 50
Vinyl Chloride	< 10	< 10	< 10	< 10
Xylenes, total	< 10	**170**	< 10	< 10

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	WB-1*	WB-1(S)*	WB-3*	WB-3(S)*	OPF-6*	OPF-7*
Sample Date:	11/91	11/91	11/91	11/91	2/91	2/91
Analyte						
Acenaphthene	--	--	--	--	--	--
Acenaphthylene	--	--	7	NA	--	--
Anthracene	--	--	--	--	--	--
Benzidine	--	--	--	--	--	--
Benzoic Acid	< 50	< 50	--	--	--	< 50
Benzo(a)anthracene	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--
Benzyl Alcohol	--	--	--	--	--	--
Bis(2-chloroethyl)ether	--	--	--	--	--	--
Bis(2-chloroisopropyl)ether	--	--	--	--	--	--
Bis(2-ethylhexyl)phthalate	< 5	< 10	--	--	3	< 10
4-Bromophenyl phenyl ether	--	--	--	--	--	--
Butylbenzyl phthalate' p1362X	--	--	--	--	--	--
4-Chloroaniline	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--
Dibenzo(a,h)anthracene	--	--	--	--	--	--
Dibenzofuran	--	--	--	--	--	--
Di-n-butylphthalate	--	--	< 5	< 10	3	--
1,2-Dichlorobenzene	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--
Diethylphthalate	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--
Di-n-octylphthalate	--	--	--	--	--	--
1,2-Diphenylhydrazine	--	--	--	--	--	--
Fluoranthene	--	--	--	--	--	--
Fluorene	--	--	--	--	--	--

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	WB-1*	WB-1(S)*	WB-3*	WB-3(S)*	OPF-6*	OPF-7*
Sample Date:	11/91	11/91	11/91	11/91	2/91	2/91
Analyte						
Hexachlorobenzene	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--
Isophorone	< 5	< 10	--	--	**23**	< 10
2-Methylnaphthalene	--	--	< 5	< 10	--	--
Naphthalene	< 5	< 10	NA	< 10	**17**	< 10
2-Nitroaniline	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--
Nitrobenzene	--	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--
N-Nitrosodiphenylamine	< 5	< 10	--	--	< 10	< 10
N-Nitrosodi-n-propylamine	--	--	--	--	--	--
Phenanthrene	--	--	--	--	--	--
Pyrene	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--
2,4-Dimethylphenol	< 5	< 10	< 5	< 10	--	< 10
4,6-Dinitro-2-methylphenol	--	--	--	--	--	--
2,4-Dinitrophenol	--	--	--	--	--	--
2-Methylphenol	ND	< 10	--	--	--	< 10
4-Methylphenol	ND	< 10	--	--	--	< 10
2-Nitrophenol	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--
Pentachlorophenol	--	--	--	--	--	--
Phenol	< 5	< 10	--	--	--	< 10
2,4,5-Trichlorophenol	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MW-13	MW-18	MW-19*	MW-19*	MW-19*	MW-19*
Sample Date:	11/09/93	11/11/93	9/87	1/88	4/88	7/88
Analyte						
Acenaphthene	< 10	< 10	--	--	--	--
Acenaphthylene	< 10	< 10	--	--	--	--
Anthracene	< 10	< 10	--	--	--	--
Benzidine	< 50	< 50	--	--	--	--
Benzoic Acid	< 50	< 50	--	--	--	--
Benzo(a)anthracene	< 10	< 10	--	--	--	--
Benzo(b)fluoranthene	< 10	< 10	--	--	--	--
Benzo(k)fluoranthene	< 10	< 10	--	--	--	--
Benzo(g,h,i)perylene	< 10	< 10	--	--	--	--
Benzo(a)pyrene	< 10	< 10	--	--	--	--
Benzyl Alcohol	< 20	< 20	--	--	--	--
Bis(2-chloroethyl)ether	< 10	< 10	--	--	--	--
Bis(2-chloroisopropyl)ether	< 10	< 10	--	--	--	--
Bis(2-ethylhexyl)phthalate	< 10	< 10	90	< 10	< 10	< 26
4-Bromophenyl phenyl ether	< 10	< 10	--	--	--	--
Butylbenzyl phthalate	< 10	< 10	--	--	--	--
4-Chloroaniline	< 20	< 20	--	--	--	--
2-Chloronaphthalene	< 10	< 10	--	--	--	--
4-Chlorophenyl phenyl ether	< 10	< 10	--	--	--	--
Chrysene	< 10	< 10	--	--	--	--
Dibenzo(a,h)anthracene	< 10	< 10	--	--	--	--
Dibenzofuran	< 10	< 10	--	--	--	--
Di-n-butylphthalate	< 10	< 10	ND	< 10	< 10	< 10
1,2-Dichlorobenzene	< 10	< 10	--	--	--	--
1,3-Dichlorobenzene	< 10	< 10	--	--	--	--
1,4-Dichlorobenzene	< 10	< 10	--	--	--	--
3,3'-Dichlorobenzidine	< 20	< 20	--	--	--	--
Diethylphthalate	< 10	< 10	--	--	--	--
Dimethylphthalate	< 10	< 10	--	--	--	--
2,4-Dinitrotoluene	< 10	< 10	--	--	--	--
2,6-Dinitrotoluene	< 10	< 10	--	--	--	--
Di-n-octylphthalate	< 10	< 10	--	--	--	--
1,2-Diphenylhydrazine	< 10	< 10	--	--	--	--
Fluoranthene	< 10	< 10	--	--	--	--
Fluorene	< 10	< 10	--	--	--	--

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MW-13	MW-18	MW-19*	MW-19*	MW-19*	MW-19*
Sample Date:	11/09/93	11/11/93	9/87	1/88	4/88	7/88
Analyte						
Hexachlorobenzene	< 10	< 10	--	--	--	--
Hexachlorobutadiene	< 10	< 10	--	--	--	--
Hexachlorocyclopentadiene	< 10	< 10	--	--	--	--
Hexachloroethane	< 10	< 10	--	--	--	--
Indeno(1,2,3-cd)pyrene	< 10	< 10	--	--	--	--
Isophorone	< 10	< 10	ND	< 10	< 10	< 10
2-Methylnaphthalene	< 10	< 10	--	--	--	--
Naphthalene	< 10	< 10	ND	< 10	< 10	< 10
2-Nitroaniline	< 50	< 50	--	--	--	--
3-Nitroaniline	< 50	< 50	--	--	--	--
4-Nitroaniline	< 50	< 50	--	--	--	--
Nitrobenzene	< 10	< 10	--	--	--	--
N-Nitrosodimethylamine	< 10	< 10	--	--	--	--
N-Nitrosodiphenylamine	< 10	< 10	34	< 10	< 10	< 26
N-Nitrosodi-n-propylamine	< 10	< 10	--	--	--	--
Phenanthrene	< 10	< 10	--	--	--	--
Pyrene	< 10	< 10	--	--	--	--
1,2,4-Trichlorobenzene	< 10	< 10	--	--	--	--
4-Chloro-3-methylphenol	< 10	< 10	--	--	--	--
2-Chlorophenol	< 10	< 10	--	--	--	--
2,4-Dichlorophenol	< 10	< 10	--	--	--	--
2,4-Dimethylphenol	< 10	< 10	--	--	--	--
4,6-Dinitro-2-methylphenol	< 50	< 50	--	--	--	--
2,4-Dinitrophenol	< 50	< 50	--	--	--	--
2-Methylphenol	< 10	< 10	--	--	--	--
4-Methylphenol	< 10	< 10	--	--	--	--
2-Nitrophenol	< 10	< 10	--	--	--	--
4-Nitrophenol	< 50	< 50	--	--	--	--
Pentachlorophenol	< 50	< 50	--	--	--	--
Phenol	< 10	< 10	--	--	--	--
2,4,5-Trichlorophenol	< 10	< 10	--	--	--	--
2,4,6-Trichlorophenol	< 10	< 10	--	--	--	--

NOTES:
Concentrations in µg/l or parts per billion (ppb).
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NA = Not analyzed.
ND = Not detected.
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Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MW-19*	MW-19*	MW-19	MW-20	MW-21*	MW-21*
Sample Date:	11/88	2/91	11/11/93	11/11/93	9/87	1/88
Analyte						
Acenaphthene	--	--	< 10	< 10	--	--
Acenaphthylene	--	--	< 10	< 10	--	--
Anthracene	--	--	< 10	< 10	--	--
Benzidine	--	--	< 50	< 50	--	--
Benzoic Acid	--	--	< 50	< 50	< 10	NA
Benzo(a)anthracene	--	--	< 10	< 10	--	--
Benzo(b)fluoranthene	--	--	< 10	< 10	--	--
Benzo(k)fluoranthene	--	--	< 10	< 10	--	--
Benzo(g,h,i)perylene	--	--	< 10	< 10	--	--
Benzo(a)pyrene	--	--	< 10	< 10	--	--
Benzyl Alcohol	--	--	< 20	< 20	--	--
Bis(2-chloroethyl)ether	--	--	< 10	< 10	--	--
Bis(2-chloroisopropyl)ether	--	--	< 10	< 10	--	--
Bis(2-ethylhexyl)phthalate	< 11	ND	< 10	< 10	**21**	< 10
4-Bromophenyl phenyl ether	--	--	< 10	< 10	--	--
Butylbenzyl phthalate	--	--	< 10	< 10	--	--
4-Chloroaniline	--	--	< 20	< 20	--	--
2-Chloronaphthalene	--	--	< 10	< 10	--	--
4-Chlorophenyl phenyl ether	--	--	< 10	< 10	--	--
Chrysene	--	--	< 10	< 10	--	--
Dibenzo(a,h)anthracene	--	--	< 10	< 10	--	--
Dibenzofuran	--	--	< 10	< 10	--	--
Di-n-butylphthalate	< 11	--	< 10	< 10	--	--
1,2-Dichlorobenzene	--	--	< 10	< 10	--	--
1,3-Dichlorobenzene	--	--	< 10	< 10	--	--
1,4-Dichlorobenzene	--	--	< 10	< 10	--	--
3,3'-Dichlorobenzidine	--	--	< 20	< 20	--	--
Diethylphthalate	--	--	< 10	< 10	--	--
Dimethylphthalate	--	--	< 10	< 10	--	--
2,4-Dinitrotoluene	--	--	< 10	< 10	--	--
2,6-Dinitrotoluene	--	--	< 10	< 10	--	--
Di-n-octylphthalate	--	--	< 10	< 10	--	--
1,2-Diphenylhydrazine	--	--	< 10	< 10	--	--
Fluoranthene	--	--	< 10	< 10	--	--
Fluorene	--	--	< 10	< 10	--	--

NOTES:
Concentrations in ug/l or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
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*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MW-19*	MW-19*	MW-19	MW-20	MW-21*	MW-21*
Sample Date:	11/88	2/91	11/11/93	11/11/93	9/87	1/88
Analyte						
Hexachlorobenzene	--	--	< 10	< 10	--	--
Hexachlorobutadiene	--	--	< 10	< 10	--	--
Hexachlorocyclopentadiene	--	--	< 10	< 10	--	--
Hexachloroethane	--	--	< 10	< 10	--	--
Indeno(1,2,3-cd)pyrene	--	--	< 10	< 10	--	--
Isophorone	< 11	--	< 10	< 10	**90**	**240**
2-Methylnaphthalene	--	--	< 10	< 10	--	--
Naphthalene	< 11	--	< 10	< 10	**30**	**27**
2-Nitroaniline	--	--	< 50	< 50	--	--
3-Nitroaniline	--	--	< 50	< 50	--	--
4-Nitroaniline	--	--	< 50	< 50	--	--
Nitrobenzene	--	--	< 10	< 10	--	--
N-Nitrosodimethylamine	--	--	< 10	< 10	--	--
N-Nitrosodiphenylamine	< 11	ND	< 10	< 10	**45**	< 10
N-Nitrosodi-n-propylamine	--	--	< 10	< 10	--	--
Phenanthrene	--	--	< 10	< 10	--	--
Pyrene	--	--	< 10	< 10	--	--
1,2,4-Trichlorobenzene	--	--	< 10	< 10	--	--
4-Chloro-3-methylphenol	--	--	< 10	< 10	--	--
2-Chlorophenol	--	--	< 10	< 10	--	--
2,4-Dichlorophenol	--	--	< 10	< 10	--	--
2,4-Dimethylphenol	--	--	< 10	< 10	< 10	20
4,6-Dinitro-2-methylphenol	--	--	< 50	< 50	--	--
2,4-Dinitrophenol	--	--	< 50	< 50	--	--
2-Methylphenol	--	--	< 10	< 10	ND	11
4-Methylphenol	--	--	< 10	< 10	ND	45
2-Nitrophenol	--	--	< 10	< 10	--	--
4-Nitrophenol	--	--	< 50	< 50	--	--
Pentachlorophenol	--	--	< 50	< 50	--	--
Phenol	--	--	< 10	< 10	< 10	150
2,4,5-Trichlorophenol	--	--	< 10	< 10	--	--
2,4,6-Trichlorophenol	--	--	< 10	< 10	--	--

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MW-21*	MW-21*	MW-21*	MW-21*	MW-21*	MW-21
Sample Date:	4/88	7/88	11/88	1/89	2/91	12/09/93
Analyte						
Acenaphthene	--	--	--	--	--	< 10
Acenaphthylene	--	--	--	--	--	< 10
Anthracene	--	--	--	--	--	< 10
Benzidine	--	--	--	--	--	< 50
Benzoic Acid	NA	NA	NA	79	< 10	< 50
Benzo(a)anthracene	--	--	--	--	--	< 10
Benzo(b)fluoranthene	--	--	--	--	--	< 10
Benzo(k)fluoranthene	--	--	--	--	--	< 10
Benzo(g,h,i)perylene	--	--	--	--	--	< 10
Benzo(a)pyrene	--	--	--	--	--	< 10
Benzyl Alcohol	--	--	--	--	--	< 20
Bis(2-chloroethyl)ether	--	--	--	--	--	< 10
Bis(2-chloroisopropyl)ether	--	--	--	--	--	< 10
Bis(2-ethylhexyl)phthalate	< 10	< 10	< 10	ND	< 50	< 10
4-Bromophenyl phenyl ether	--	--	--	--	--	< 10
Butylbenzyl phthalate	--	--	--	--	--	< 10
4-Chloroaniline	--	--	--	--	--	< 20
2-Chloronaphthalene	--	--	--	--	--	< 10
4-Chlorophenyl phenyl ether	--	--	--	--	--	< 10
Chrysene	--	--	--	--	--	< 10
Dibenzo(a,h)anthracene	--	--	--	--	--	< 10
Dibenzofuran	--	--	--	--	--	< 10
Di-n-butylphthalate	--	--	--	--	--	< 10
1,2-Dichlorobenzene	--	--	--	--	--	< 10
1,3-Dichlorobenzene	--	--	--	--	--	< 10
1,4-Dichlorobenzene	--	--	--	--	--	< 10
3,3'-Dichlorobenzidine	--	--	--	--	--	< 20
Diethylphthalate	--	--	--	--	--	< 10
Dimethylphthalate	--	--	--	--	--	< 10
2,4-Dinitrotoluene	--	--	--	--	--	< 10
2,6-Dinitrotoluene	--	--	--	--	--	< 10
Di-n-octylphthalate	--	--	--	--	--	< 10
1,2-Diphenylhydrazine	--	--	--	--	--	< 10
Fluoranthene	--	--	--	--	--	< 10
Fluorene	--	--	--	--	--	< 10

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MW-21*	MW-21*	MW-21*	MW-21*	MW-21*	MW-21
Sample Date:	4/88	7/88	11/88	1/89	2/91	12/09/93
Analyte						
Hexachlorobenzene	--	--	--	--	--	< 10
Hexachlorobutadiene	--	--	--	--	--	< 10
Hexachlorocyclopentadiene	--	--	--	--	--	< 10
Hexachloroethane	--	--	--	--	--	< 10
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	< 10
Isophorone	190	310	430	180	< 10	< 10
2-Methylnaphthalene	--	--	--	--	--	< 10
Naphthalene	37	37	43	31	< 10	< 10
2-Nitroaniline	--	--	--	--	--	< 50
3-Nitroaniline	--	--	--	--	--	< 50
4-Nitroaniline	--	--	--	--	--	< 50
Nitrobenzene	--	--	--	--	--	< 10
N-Nitrosodimethylamine	--	--	--	--	--	< 10
N-Nitrosodiphenylamine	< 10	< 10	< 10	ND	< 10	< 10
N-Nitrosodi-n-propylamine	--	--	--	--	--	< 10
Phenanthrene	--	--	--	--	--	< 10
Pyrene	--	--	--	--	--	< 10
1,2,4-Trichlorobenzene	--	--	--	--	--	< 10
4-Chloro-3-methylphenol	--	--	--	--	--	< 10
2-Chlorophenol	--	--	--	--	--	< 10
2,4-Dichlorophenol	--	--	--	--	--	< 10
2,4-Dimethylphenol	< 10	13	< 10	18	< 10	< 10
4,6-Dinitro-2-methylphenol	--	--	--	--	--	< 50
2,4-Dinitrophenol	--	--	--	--	--	< 50
2-Methylphenol	ND	ND	ND	ND	< 10	< 10
4-Methylphenol	ND	ND	ND	19	< 10	< 10
2-Nitrophenol	--	--	--	--	--	< 10
4-Nitrophenol	--	--	--	--	--	< 50
Pentachlorophenol	--	--	--	--	--	< 50
Phenol	44	13	12	0.18	NA	< 10
2,4,5-Trichlorophenol	--	--	--	--	--	< 10
2,4,6-Trichlorophenol	--	--	--	--	--	< 10

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8270.
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ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples 70X
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	PM-2	PM-3	PM-6	PM-7	PM-9*	PM-9
Sample Date:	11/09/93	11/15/93	11/10/93	11/09/93	--	11/10/93
Analyte						
Acenaphthene	< 10	< 10	< 10	< 10	--	< 10
Acenaphthylene	< 10	< 10	< 10	< 10	--	< 10
Anthracene	< 10	< 10	< 10	< 10	--	< 10
Benzidine	< 50	< 50	< 50	< 50	--	< 50
Benzoic Acid	< 50	< 50	< 50	< 50	--	< 50
Benzo(a)anthracene	< 10	< 10	< 10	< 10	--	< 10
Benzo(b)fluoranthene	< 10	< 10	< 10	< 10	--	< 10
Benzo(k)fluoranthene	< 10	< 10	< 10	< 10	--	< 10
Benzo(g,h,i)perylene	< 10	< 10	< 10	< 10	--	< 10
Benzo(a)pyrene	< 10	< 10	< 10	< 10	--	< 10
Benzyl Alcohol	< 20	< 20	< 20	< 20	--	< 20
Bis(2-chloroethyl)ether	< 10	< 10	< 10	< 10	--	< 10
Bis(2-chloroisopropyl)ether	< 10	< 10	< 10	< 10	--	< 10
Bis(2-ethylhexyl)phthalate	< 10	< 10	< 10	< 10	--	< 10
4-Bromophenyl phenyl ether	< 10	< 10	< 10	< 10	--	< 10
Butylbenzyl phthalate	< 10	< 10	< 10	< 10	--	< 10
4-Chloroaniline	< 20	< 20	< 20	< 20	--	< 20
2-Chloronaphthalene	< 10	< 10	< 10	< 10	--	< 10
4-Chlorophenyl phenyl ether	< 10	< 10	< 10	< 10	--	< 10
Chrysene	< 10	< 10	< 10	< 10	--	< 10
Dibenzo(a,h)anthracene	< 10	< 10	< 10	< 10	--	< 10
Dibenzofuran	< 10	< 10	< 10	< 10	--	< 10
Di-n-butylphthalate	< 10	< 10	< 10	< 10	--	< 10
1,2-Dichlorobenzene	< 10	< 10	< 10	< 10	--	< 10
1,3-Dichlorobenzene	< 10	< 10	< 10	< 10	--	< 10
1,4-Dichlorobenzene	< 10	< 10	< 10	< 10	--	< 10
3,3'-Dichlorobenzidine	< 20	< 20	< 20	< 20	--	< 20
Diethylphthalate	< 10	< 10	< 10	< 10	--	< 10
Dimethylphthalate	< 10	< 10	< 10	< 10	--	< 10
2,4-Dinitrotoluene	< 10	< 10	< 10	< 10	--	< 10
2,6-Dinitrotoluene	< 10	< 10	< 10	< 10	--	< 10
Di-n-octylphthalate	< 10	< 10	< 10	< 10	--	< 10
1,2-Diphenylhydrazine	< 10	< 10	< 10	< 10	--	< 10
Fluoranthene	< 10	< 10	< 10	< 10	--	< 10
Fluorene	< 10	< 10	< 10	< 10	--	< 10

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8270.
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ND = Not detected.
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*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	PM-2	PM-3	PM-6	PM-7	PM-9*	PM-9
Sample Date:	11/09/93	11/15/93	11/10/93	11/09/93	--	11/10/93
Analyte						
Hexachlorobenzene	< 10	< 10	< 10	< 10	--	< 10
Hexachlorobutadiene	< 10	< 10	< 10	< 10	--	< 10
Hexachlorocyclopentadiene	< 10	< 10	< 10	< 10	--	< 10
Hexachloroethane	< 10	< 10	< 10	< 10	--	< 10
Indeno(1,2,3-cd)pyrene	< 10	< 10	< 10	< 10	--	< 10
Isophorone	< 10	< 10	< 10	< 10	--	< 10
2-Methylnaphthalene	< 10	< 10	< 10	< 10	**26**	**10**
Naphthalene	< 10	< 10	< 10	< 10	**90**	**24**
2-Nitroaniline	< 50	< 50	< 50	< 50	--	< 50
3-Nitroaniline	< 50	< 50	< 50	< 50	--	< 50
4-Nitroaniline	< 50	< 50	< 50	< 50	--	< 50
Nitrobenzene	< 10	< 10	< 10	< 10	--	< 10
N-Nitrosodimethylamine	< 10	< 10	< 10	< 10	--	< 10
N-Nitrosodiphenylamine	< 10	< 10	< 10	< 10	--	< 10
N-Nitrosodi-n-propylamine	< 10	< 10	< 10	< 10	--	< 10
Phenanthrene	< 10	< 10	< 10	< 10	--	< 10
Pyrene	< 10	< 10	< 10	< 10	--	< 10
1,2,4-Trichlorobenzene	< 10	< 10	< 10	< 10	--	< 10
4-Chloro-3-methylphenol	< 10	< 10	< 10	< 10	--	< 10
2-Chlorophenol	< 10	< 10	< 10	< 10	--	< 10
2,4-Dichlorophenol	< 10	< 10	< 10	< 10	--	< 10
2,4-Dimethylphenol	< 10	< 10	< 10	< 10	**38**	< 10
4,6-Dinitro-2-methylphenol	< 50	< 50	< 50	< 50	--	< 50
2,4-Dinitrophenol	< 50	< 50	< 50	< 50	--	< 50
2-Methylphenol	< 10	< 10	< 10	< 10	--	< 10
4-Methylphenol	< 10	< 10	< 10	< 10	--	< 10
2-Nitrophenol	< 10	< 10	< 10	< 10	--	< 10
4-Nitrophenol	< 50	< 50	< 50	< 50	--	< 50
Pentachlorophenol	< 50	< 50	< 50	< 50	--	< 50
Phenol	< 10	< 10	< 10	< 10	--	< 10
2,4,5-Trichlorophenol	< 10	< 10	< 10	< 10	--	< 10
2,4,6-Trichlorophenol	< 10	< 10	< 10	< 10	--	< 10

NOTES:
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Analytical method EPA 8270.
NA = Not analyzed.
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*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	PM-10	PM-12	PM-14	W-5	W-6*	W-7
Sample Date:	11/11/93	12/10/93	12/10/93	11/01/93	--	11/15/93
Analyte						
Acenaphthene	< 10	< 10	< 10	< 10	--	< 10
Acenaphthylene	< 10	< 10	< 10	< 10	--	< 10
Anthracene	< 10	< 10	< 10	< 10	--	< 10
Benzidine	< 50	< 50	< 50	< 50	--	< 50
Benzoic Acid	< 50	< 50	< 50	< 50	--	< 50
Benzo(a)anthracene	< 10	< 10	< 10	< 10	--	< 10
Benzo(b)fluoranthene	< 10	< 10	< 10	< 10	--	< 10
Benzo(k)fluoranthene	< 10	< 10	< 10	< 10	--	< 10
Benzo(g,h,i)perylene	< 10	< 10	< 10	< 10	--	< 10
Benzo(a)pyrene	< 10	< 10	< 10	< 10	--	< 10
Benzyl Alcohol	< 20	< 20	< 20	< 20	--	< 20
Bis(2-chloroethyl)ether	< 10	< 10	< 10	< 10	--	< 10
Bis(2-chloroisopropyl)ether	< 10	< 10	< 10	< 10	--	< 10
Bis(2-ethylhexyl)phthalate	< 10	< 10	< 10	< 10	ND	< 10
4-Bromophenyl phenyl ether	< 10	< 10	< 10	< 10	--	< 10
Butylbenzyl phthalate	< 10	< 10	< 10	< 10	--	< 10
4-Chloroaniline	< 20	< 20	< 20	< 20	--	< 20
2-Chloronaphthalene	< 10	< 10	< 10	< 10	--	< 10
4-Chlorophenyl phenyl ether	< 10	< 10	< 10	< 10	--	< 10
Chrysene	< 10	< 10	< 10	< 10	--	< 10
Dibenzo(a,h)anthracene	< 10	< 10	< 10	< 10	--	< 10
Dibenzofuran	< 10	< 10	< 10	< 10	--	< 10
Di-n-butylphthalate	< 10	< 10	< 10	< 10	--	< 10
1,2-Dichlorobenzene	< 10	< 10	< 10	< 10	--	< 10
1,3-Dichlorobenzene	< 10	< 10	< 10	< 10	--	< 10
1,4-Dichlorobenzene	< 10	< 10	< 10	< 10	--	< 10
3,3'-Dichlorobenzidine	< 20	< 20	< 20	< 20	--	< 20
Diethylphthalate	< 10	< 10	< 10	< 10	--	< 10
Dimethylphthalate	< 10	< 10	< 10	< 10	--	< 10
2,4-Dinitrotoluene	< 10	< 10	< 10	< 10	--	< 10
2,6-Dinitrotoluene	< 10	< 10	< 10	< 10	--	< 10
Di-n-octylphthalate	< 10	< 10	< 10	< 10	--	< 10
1,2-Diphenylhydrazine	< 10	< 10	< 10	< 10	--	< 10
Fluoranthene	< 10	< 10	< 10	< 10	--	< 10
Fluorene	< 10	< 10	< 10	< 10	--	< 10

NOTES:
Concentrations in ug/l or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	PM-10	PM-12	PM-14	W-5	W-6*	W-7
Sample Date:	11/11/93	12/10/93	12/10/93	11/01/93	--	11/15/93
Analyte						
Hexachlorobenzene	< 10	< 10	< 10	< 10	--	< 10
Hexachlorobutadiene	< 10	< 10	< 10	< 10	--	< 10
Hexachlorocyclopentadiene	< 10	< 10	< 10	< 10	--	< 10
Hexachloroethane	< 10	< 10	< 10	< 10	--	< 10
Indeno(1,2,3-cd)pyrene	< 10	< 10	< 10	< 10	--	< 10
Isophorone	< 10	< 10	< 10	< 10	--	< 10
2-Methylnaphthalene	< 10	< 10	< 10	< 10	--	< 10
Naphthalene	< 10	< 10	< 10	< 10	--	< 10
2-Nitroaniline	< 50	< 50	< 50	< 50	--	< 50
3-Nitroaniline	< 50	< 50	< 50	< 50	--	< 50
4-Nitroaniline	< 50	< 50	< 50	< 50	--	< 50
Nitrobenzene	< 10	< 10	< 10	< 10	--	< 10
N-Nitrosodimethylamine	< 10	< 10	< 10	< 10	--	< 10
N-Nitrosodiphenylamine	< 10	< 10	< 10	< 10	ND	< 10
N-Nitrosodi-n-propylamine	< 10	< 10	< 10	< 10	--	< 10
Phenanthrene	< 10	< 10	< 10	< 10	--	< 10
Pyrene	< 10	< 10	< 10	< 10	--	< 10
1,2,4-Trichlorobenzene	< 10	< 10	< 10	< 10	--	< 10
4-Chloro-3-methylphenol	< 10	< 10	< 10	< 10	--	< 10
2-Chlorophenol	< 10	< 10	< 10	< 10	--	< 10
2,4-Dichlorophenol	< 10	< 10	< 10	< 10	--	< 10
2,4-Dimethylphenol	< 10	< 10	< 10	< 10	--	< 10
4,6-Dinitro-2-methylphenol	< 50	< 50	< 50	< 50	--	< 50
2,4-Dinitrophenol	< 50	< 50	< 50	< 50	--	< 50
2-Methylphenol	< 10	< 10	< 10	< 10	--	< 10
4-Methylphenol	< 10	< 10	< 10	< 10	--	< 10
2-Nitrophenol	< 10	< 10	< 10	< 10	--	< 10
4-Nitrophenol	< 50	< 50	< 50	< 50	--	< 50
Pentachlorophenol	< 50	< 50	< 50	< 50	--	< 50
Phenol	< 10	< 10	< 10	< 10	--	< 10
2,4,5-Trichlorophenol	< 10	< 10	< 10	< 10	--	< 10
2,4,6-Trichlorophenol	< 10	< 10	< 10	< 10	--	< 10

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	X-1	Transfer Blank	SWB-1*	SWB-1*	SWB-2*	SWB-2*
Sample Date:	11/10/93	11/15/93	11/91	11/91	11/91	11/91
Analyte						
Acenaphthene	< 10	< 10	--	--	--	--
Acenaphthylene	< 10	< 10	< 50	NA	< 10	NA
Anthracene	< 10	< 10	--	--	--	--
Benzidine	< 50	< 50	--	--	--	--
Benzoic Acid	< 50	< 50	--	--	--	--
Benzo(a)anthracene	< 10	< 10	--	--	--	--
Benzo(b)fluoranthene	< 10	< 10	--	--	--	--
Benzo(k)fluoranthene	< 10	< 10	--	--	--	--
Benzo(g,h,i)perylene	< 10	< 10	--	--	--	--
Benzo(a)pyrene	< 10	< 10	--	--	--	--
Benzyl Alcohol	< 20	< 20	--	--	--	--
Bis(2-chloroethyl)ether	< 10	< 10	--	--	--	--
Bis(2-chloroisopropyl)ether	< 10	< 10	--	--	--	--
Bis(2-ethylhexyl)phthalate	< 10	< 10	--	--	--	--
4-Bromophenyl phenyl ether	< 10	< 10	--	--	--	--
Butylbenzyl phthalate	< 10	< 10	--	--	--	--
4-Chloroaniline	< 20	< 20	--	--	--	--
2-Chloronaphthalene	< 10	< 10	--	--	--	--
4-Chlorophenyl phenyl ether	< 10	< 10	--	--	--	--
Chrysene	< 10	< 10	--	--	--	--
Dibenzo(a,h)anthracene	< 10	< 10	--	--	--	--
Dibenzofuran	< 10	< 10	--	--	--	--
Di-n-butylphthalate	< 10	< 10	**390**	< 10	< 10	< 10
1,2-Dichlorobenzene	< 10	< 10	--	--	--	--
1,3-Dichlorobenzene	< 10	< 10	--	--	--	--
1,4-Dichlorobenzene	< 10	< 10	--	--	--	--
3,3'-Dichlorobenzidine	< 20	< 20	--	--	--	--
Diethylphthalate	< 10	< 10	--	--	--	--
Dimethylphthalate	< 10	< 10	--	--	--	--
2,4-Dinitrotoluene	< 10	< 10	--	--	--	--
2,6-Dinitrotoluene	< 10	< 10	--	--	--	--
Di-n-octylphthalate	< 10	< 10	--	--	--	--
1,2-Diphenylhydrazine	< 10	< 10	--	--	--	--
Fluoranthene	< 10	< 10	--	--	--	--
Fluorene	< 10	< 10	--	--	--	--

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	X-1	Transfer Blank	SWB-1*	SWB-1*	SWB-2*	SWB-2*
Sample Date:	11/10/93	11/15/93	11/91	11/91	11/91	11/91
Analyte						
Hexachlorobenzene	< 10	< 10	--	--	--	--
Hexachlorobutadiene	< 10	< 10	--	--	--	--
Hexachlorocyclopentadiene	< 10	< 10	--	--	--	--
Hexachloroethane	< 10	< 10	--	--	--	--
Indeno(1,2,3-cd)pyrene	< 10	< 10	--	--	--	--
Isophorone	< 10	< 10	--	--	--	--
2-Methylnaphthalene	< 10	< 10	**170**	< 10	**19**	< 10
Naphthalene	< 10	< 10	**480**	< 10	**21**	< 10
2-Nitroaniline	< 50	< 50	--	--	--	--
3-Nitroaniline	< 50	< 50	--	--	--	--
4-Nitroaniline	< 50	< 50	--	--	--	--
Nitrobenzene	< 10	< 10	--	--	--	--
N-Nitrosodimethylamine	< 10	< 10	--	--	--	--
N-Nitrosodiphenylamine	< 10	< 10	--	--	--	--
N-Nitrosodi-n-propylamine	< 10	< 10	--	--	--	--
Phenanthrene	< 10	< 10	--	--	--	--
Pyrene	< 10	< 10	--	--	--	--
1,2,4-Trichlorobenzene	< 10	< 10	--	--	--	--
4-Chloro-3-methylphenol	< 10	< 10	--	--	--	--
2-Chlorophenol	< 10	< 10	--	--	--	--
2,4-Dichlorophenol	< 10	< 10	--	--	--	--
2,4-Dimethylphenol	< 10	< 10	< 50	< 10	< 10	< 10
4,6-Dinitro-2-methylphenol	< 50	< 50	--	--	--	--
2,4-Dinitrophenol	< 50	< 50	--	--	--	--
2-Methylphenol	< 10	< 10	--	--	--	--
4-Methylphenol	< 10	< 10	--	--	--	--
2-Nitrophenol	< 10	< 10	--	--	--	--
4-Nitrophenol	< 50	< 50	--	--	--	--
Pentachlorophenol	< 50	< 50	--	--	--	--
Phenol	< 10	< 10	--	--	--	--
2,4,5-Trichlorophenol	< 10	< 10	--	--	--	--
2,4,6-Trichlorophenol	< 10	< 10	--	--	--	--

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-3	SWB-4	SWB-5	SWB-6	SWB-7
Sample Date:	12/09/93	12/09/93	12/09/93	12/07/93	12/09/93
Analyte					
Acenaphthene	< 10	< 10	< 10	**50**	< 10
Acenaphthylene	< 10	< 10	< 10	< 50	< 10
Anthracene	< 10	< 10	< 10	**120**	< 10
Benzidine	< 50	< 50	< 50	< 300	< 50
Benzoic Acid	< 50	< 50	< 50	< 300	< 50
Benzo(a)anthracene	< 10	< 10	< 10	< 50	< 10
Benzo(b)fluoranthene	< 10	< 10	< 10	< 50	< 10
Benzo(k)fluoranthene	< 10	< 10	< 10	< 50	< 10
Benzo(g,h,i)perylene	< 10	< 10	< 10	< 50	< 10
Benzo(a)pyrene	< 10	< 10	< 10	< 50	< 10
Benzyl Alcohol	< 20	< 20	< 20	< 100	< 20
Bis(2-chloroethyl)ether	< 10	< 10	< 10	< 50	< 10
Bis(2-chloroisopropyl)ether	< 10	< 10	< 10	< 50	< 10
Bis(2-ethylhexyl)phthalate	< 10	< 10	< 10	< 100	< 10
4-Bromophenyl phenyl ether	< 10	< 10	< 10	< 50	< 10
Butylbenzyl phthalate	< 10	< 10	< 10	< 50	< 10
4-Chloroaniline	< 20	< 20	< 20	< 100	< 20
2-Chloronaphthalene	< 10	< 10	< 10	< 50	< 10
4-Chlorophenyl phenyl ether	< 10	< 10	< 10	< 50	< 10
Chrysene	< 10	< 10	< 10	< 50	< 10
Dibenzo(a,h)anthracene	< 10	< 10	< 10	< 50	< 10
Dibenzofuran	< 10	< 10	< 10	< 50	< 10
Di-n-butylphthalate	< 10	< 10	< 10	< 50	< 10
1,2-Dichlorobenzene	< 10	< 10	< 10	< 50	< 10
1,3-Dichlorobenzene	< 10	< 10	< 10	< 50	< 10
1,4-Dichlorobenzene	< 10	< 10	< 10	< 50	< 10
3,3'-Dichlorobenzidine	< 20	< 20	< 20	< 100	< 20
Diethylphthalate	< 10	< 10	< 10	< 50	< 10
Dimethylphthalate	< 10	< 10	< 10	< 50	< 10
2,4-Dinitrotoluene	< 10	< 10	< 10	< 50	< 10
2,6-Dinitrotoluene	< 10	< 10	< 10	< 50	< 10
Di-n-octylphthalate	< 10	< 10	< 10	< 50	< 10
1,2-Diphenylhydrazine	< 10	< 10	< 10	< 50	< 10
Fluoranthene	< 10	< 10	< 10	**66**	< 10
Fluorene	< 10	< 10	< 10	< 50	< 10

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-3	SWB-4	SWB-5	SWB-6	SWB-7
Sample Date:	12/09/93	12/09/93	12/09/93	12/07/93	12/09/93
Analyte					
Hexachlorobenzene	< 10	< 10	< 10	< 50	< 10
Hexachlorobutadiene	< 10	< 10	< 10	< 50	< 10
Hexachlorocyclopentadiene	< 10	< 10	< 10	< 50	< 10
Hexachloroethane	< 10	< 10	< 10	< 50	< 10
Indeno(1,2,3-cd)pyrene	< 10	< 10	< 10	< 50	< 10
Isophorone	< 10	< 10	< 10	< 50	< 10
2-Methylnaphthalene	< 10	< 10	< 10	**620**	< 10
Naphthalene	**64**	< 10	< 10	**370**	< 10
2-Nitroaniline	< 50	< 50	< 50	< 300	< 50
3-Nitroaniline	< 50	< 50	< 50	< 300	< 50
4-Nitroaniline	< 50	< 50	< 50	< 300	< 50
Nitrobenzene	< 10	< 10	< 10	< 50	< 10
N-Nitrosodimethylamine	< 10	< 10	< 10	< 50	< 10
N-Nitrosodiphenylamine	< 10	< 10	< 10	< 50	< 10
N-Nitrosodi-n-propylamine	< 10	< 10	< 10	< 50	< 10
Phenanthrene	< 10	< 10	< 10	**110**	< 10
Pyrene	< 10	< 10	< 10	< 50	< 10
1,2,4-Trichlorobenzene	< 10	< 10	< 10	< 50	< 10
4-Chloro-3-methylphenol	< 10	< 10	< 10	< 50	< 10
2-Chlorophenol	< 10	< 10	< 10	< 50	< 10
2,4-Dichlorophenol	< 10	< 10	< 10	< 50	< 10
2,4-Dimethylphenol	< 10	< 10	< 10	< 50	< 10
4,6-Dinitro-2-methylphenol	< 50	< 50	< 50	< 300	< 50
2,4-Dinitrophenol	< 50	< 50	< 50	< 300	< 50
2-Methylphenol	< 10	< 10	< 10	< 50	< 10
4-Methylphenol	< 10	< 10	< 10	< 50	< 10
2-Nitrophenol	< 10	< 10	< 10	< 50	< 10
4-Nitrophenol	< 50	< 50	< 50	< 300	< 50
Pentachlorophenol	< 50	< 50	< 50	< 300	< 50
Phenol	< 10	< 10	< 10	< 50	< 10
2,4,5-Trichlorophenol	< 10	< 10	< 10	< 50	< 10
2,4,6-Trichlorophenol	< 10	< 10	< 10	< 50	< 10

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-8	SWB-9	SWB-10	SWB-11
Sample Date:	12/08/93	12/07/93	12/07/93	12/09/93
Analyte				
Acenaphthene	< 10	14	< 10	< 10
Acenaphthylene	< 10	< 10	< 10	< 10
Anthracene	< 10	< 10	< 10	< 10
Benzidine	< 50	< 50	< 50	< 50
Benzoic Acid	< 50	< 50	< 50	< 50
Benzo(a)anthracene	< 10	< 10	< 10	< 10
Benzo(b)fluoranthene	< 10	< 10	< 10	< 10
Benzo(k)fluoranthene	< 10	< 10	< 10	< 10
Benzo(g,h,i)perylene	< 10	< 10	< 10	< 10
Benzo(a)pyrene	< 10	< 10	< 10	< 10
Benzyl Alcohol	< 20	< 20	< 20	< 20
Bis(2-chloroethyl)ether	< 10	< 10	< 10	< 10
Bis(2-chloroisopropyl)ether	< 10	< 10	< 10	< 10
Bis(2-ethylhexyl)phthalate	< 10	< 10	< 10	< 10
4-Bromophenyl phenyl ether	< 10	< 10	< 10	< 10
Butylbenzyl phthalate	< 10	< 10	< 10	< 10
4-Chloroaniline	< 20	< 20	< 20	< 20
2-Chloronaphthalene	< 10	< 10	< 10	< 10
4-Chlorophenyl phenyl ether	< 10	< 10	< 10	< 10
Chrysene	< 10	< 10	< 10	< 10
Dibenzo(a,h)anthracene	< 10	< 10	< 10	< 10
Dibenzofuran	< 10	< 10	< 10	< 10
Di-n-butylphthalate	< 10	< 10	< 10	< 10
1,2-Dichlorobenzene	< 10	< 10	< 10	< 10
1,3-Dichlorobenzene	< 10	< 10	< 10	< 10
1,4-Dichlorobenzene	< 10	< 10	< 10	< 10
3,3'-Dichlorobenzidine	< 20	< 20	< 20	< 20
Diethylphthalate	< 10	< 10	< 10	< 10
Dimethylphthalate	< 10	< 10	< 10	< 10
2,4-Dinitrotoluene	< 10	< 10	< 10	< 10
2,6-Dinitrotoluene	< 10	< 10	< 10	< 10
Di-n-octylphthalate	< 10	< 10	< 10	< 10
1,2-Diphenylhydrazine	< 10	< 10	< 10	< 10
Fluoranthene	< 10	< 10	< 10	< 10
Fluorene	< 10	< 10	< 10	< 10

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 8
Summary of Semivolatile Organic Compounds Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-8	SWB-9	SWB-10	SWB-11
Sample Date:	12/08/93	12/07/93	12/07/93	12/09/93
Analyte				
Hexachlorobenzene	< 10	< 10	< 10	< 10
Hexachlorobutadiene	< 10	< 10	< 10	< 10
Hexachlorocyclopentadiene	< 10	< 10	< 10	< 10
Hexachloroethane	< 10	< 10	< 10	< 10
Indeno(1,2,3-cd)pyrene	< 10	< 10	< 10	< 10
Isophorone	< 10	< 10	< 10	< 10
2-Methylnaphthalene	< 10	**110**	< 10	< 10
Naphthalene	< 10	**30**	< 10	< 10
2-Nitroaniline	< 50	< 50	< 50	< 50
3-Nitroaniline	< 50	< 50	< 50	< 50
4-Nitroaniline	< 50	< 50	< 50	< 50
Nitrobenzene	< 10	< 10	< 10	< 10
N-Nitrosodimethylamine	< 10	< 10	< 10	< 10
N-Nitrosodiphenylamine	< 10	< 10	< 10	< 10
N-Nitrosodi-n-propylamine	< 10	< 10	< 10	< 10
Phenanthrene	< 10	**14**	< 10	< 10
Pyrene	< 10	< 10	< 10	< 10
1,2,4-Trichlorobenzene	< 10	< 10	< 10	< 10
4-Chloro-3-methylphenol	< 10	< 10	< 10	< 10
2-Chlorophenol	< 10	< 10	< 10	< 10
2,4-Dichlorophenol	< 10	< 10	< 10	< 10
2,4-Dimethylphenol	< 10	< 10	< 10	< 10
4,6-Dinitro-2-methylphenol	< 50	< 50	< 50	< 50
2,4-Dinitrophenol	< 50	< 50	< 50	< 50
2-Methylphenol	< 10	< 10	< 10	< 10
4-Methylphenol	< 10	< 10	< 10	< 10
2-Nitrophenol	< 10	< 10	< 10	< 10
4-Nitrophenol	< 50	< 50	< 50	< 50
Pentachlorophenol	< 50	< 50	< 50	< 50
Phenol	< 10	< 10	< 10	< 10
2,4,5-Trichlorophenol	< 10	< 10	< 10	< 10
2,4,6-Trichlorophenol	< 10	< 10	< 10	< 10

NOTES:
Concentrations in µg/l or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 9
Summary of Total Petroleum Hydrocarbons Analytical Results
for Surface and Ground Water Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-6	SWB-9
Sample Date:	12/07/93	12/07/93
Analyte		
TPH as Gasoline	**3.2**	**3.1**
TPH as Diesel	**7**	**0.3**
TPH as Oil	**2.6**	< 0.2

NOTES:
Concentrations in mg/l or parts per million (ppm).
Analytical method EPA 5030/GC-FID.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Revision 4/19/94

Table 10
Summary of Total Metals Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Station Number:	SB-1*	SB 1(S)*	SB-1*	SB-1*	MW 19-01*	MW-19-02*	MW-19-03*	MW-21 (S1)*	MW-21 (S1S)
Sample Depth:	0-0.5'	0-0.5'	1'	3.5'	1'	5'	7.5'	0'	0.5'
Sample Date:	11/91	11/91	11/91	11/91	9/87	9/87	9/87	9/87	9/87
Analyte									
Silver (Ag)	< 0.22	< 0.24	NA	NA	--	--	--	--	--
Arsenic (As)	--	--	--	--	--	--	--	--	
Cadmium (Cd)	< 0.55	**1.5**	NA	NA	--	--	--	--	--
Chromium (Cr)	**106**	**135**	NA	NA	--	--	--	--	--
Copper (Cu)	**24.4**	**35.6**	NA	NA	--	--	--	--	--
Nickel (Ni)	**109**	**127**	NA	NA	--	--	--	--	--
Lead (Pb)	**179**	**313**	**30**	**31**	**200**	**23**	**25**	**120**	**210**
Selenium (Se)	--	--	--	--	--	--	--	--	--
Zinc (Zn)	**79.8**	**381**	**59**	**76**	**59**	**60**	**74**	**65**	**92**

NOTES:
Concentrations in mg/kg or parts per million (ppm).
Analytical method EPA series 6000 and 7000.
NA = Not analyzed.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 10
Summary of Total Metals Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Station Number: *	MW-21 (S2)*	MW-21 (S2S)*	MW-21 (S3)*	MW-21 (S3S)*	MW-21 (S4)*	MW-21 (S4S)*	OPF-21*	PM-2 (S-1)*	PM-2 (S-2)*
Sample Depth:	5'	5.5'	10'	10.5'	15'	15.5'	?	0'	3'
Sample Date:	9/87	9/87	9/87	9/87	9/87	9/87	2/91	9/87	9/87
Analyte									
Silver (Ag)		--		--		--	< 1.2	--	--
Arsenic (As)	--	--	--	--		--	**7.1**	--	--
Cadmium (Cd)	--	--	--	--	--	--	< 0.58	--	--
Chromium (Cr)	--	--	--	--	--	--	**139**	--	--
Copper (Cu)	--	--	--	--	--	--	**37**	--	--
Nickel (Ni)	--	--	--	--	--	--	**212**	--	--
Lead (Pb)	**14**	**510**	**15**	**1000**	**20**	**85**	**74.3**	**340**	**51**
Selenium (Se)	--	--	--	--	--	--	< 0.2	--	--
Zinc (Zn)	**36**	**37**	**34**	**63**	**48**	**54**	**67.3**	**81**	**15**

NOTES:
Concentrations in mg/kg or parts per million (ppm).
Analytical method EPA series 6000 and 7000.
NA = Not analyzed.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 10
Summary of Total Metals Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Station Number:	PM-2 (S-3)*	PM-2 (S-4)*	PM-2 (S-5)*	PM-2 (S-6)*	PM-3 (S-1)*	PM-3 (S-2)*	PM-7 (S-1)*	PM-7 (S-1S)*	PM-7 (S-2)*
Sample Depth:	5.5'	10.5'	15.5'	20'	0'	5'	1'	1'	5'
Sample Date:	9/87	9/87	9/87	9/87	9/87	9/87	9/87	9/87	9/87
Analyte									
Silver (Ag)		--					--	--	--
Arsenic (As)	--	--	--	--	--		--	--	--
Cadmium (Cd)	--	--	--	--	--	--	--	--	--
Chromium (Cr)	--	--	--	--	--	--	--	--	--
Copper (Cu)	--	--	--	--	--	--	--	--	--
Nickel (Ni)	--	--	--	--	--	--	--	--	--
Lead (Pb)	**3**	**4**	**12**	**2**	**2**	**3**	**1**	**24**	**14**
Selenium (Se)	--	--	--	--	--	--	--	--	--
Zinc (Zn)	**19**	**19**	**33**	**35**	**41**	**40**	**10**	**15**	**70**

NOTES:
Concentrations in mg/kg or parts per million (ppm).
Analytical method EPA series 6000 and 7000.
NA = Not analyzed.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 10
Summary of Total Metals Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Station Number:	PM-7 (S-2S)*	PM-7 (S-3)*	PM-7 (S-3S)*	PM-7 (S-5)*	PM-8 (S-1)*	PM-8 (S-2)*	PM-8 (S-4)*	PM-9 (S-1)*	PM-9 (S-1D)
Sample Depth:	5'	10'	10'	20'	0'	5.5'	15.5'	0'	0'
Sample Date:	9/87	9/87	9/87	9/87	9/87	9/87	9/87	8/87	8/87
Analyte									
Silver (Ag)								NA	NA
Arsenic (As)	--	--	--	--	--	--	--	--	--
Cadmium (Cd)	--	--	--	--	--	--	--	NA	NA
Chromium (Cr)	--	--	--	--	--	--	--	NA	NA
Copper (Cu)	--	--	--	--	--	--	--	NA	NA
Nickel (Ni)	--	--	--	--	--	--	--	NA	NA
Lead (Pb)	**56**	**23000**	**18000**	**28**	**37000**	**52**	**16**	**170**	**82**
Selenium (Se)	--	--	--	--	--	--	--	--	--
Zinc (Zn)	**100**	**360**	**270**	**27**	**170**	**19**	**23**	**64**	**80**

NOTES:
Concentrations in mg/kg or parts per million (ppm).
Analytical method EPA series 6000 and 7000.
NA Not analyzed.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 10
Summary of Total Metals Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Station Number:	PM-9 (S-2)*	PM-9 (S-4)*	S-1*	S-1(S)*	S-2*	S-2(S)*	S-3*	S-3(S)*	S-4*
Sample Depth:	5'	15'							
Sample Date:	8/87	8/87	4/9/92	4/9/92	4/9/92	4/9/92	4/9/92	4/9/92	4/9/92
Analyte									
Silver (Ag)	NA	NA		--			--	--	--
Arsenic (As)	--	--		--		--		--	--
Cadmium (Cd)	NA	NA	--	--	--	--	--	--	--
Chromium (Cr)	NA	NA	--	--	--	--	--	--	--
Copper (Cu)	NA	NA	--	--	--	--	--	--	--
Nickel (Ni)	NA	NA	--	--	--	--	--	--	--
Lead (Pb)	**56**	**82**	**31**	**94.5**	**2300**	**415**	**1100**	**8880**	**12**
Selenium (Se)	--	--	--	--	--	--	--	--	--
Zinc (Zn)	**70**	**37**	--	--		--	--	--	--

NOTES:
Concentrations in mg/kg or parts per million (ppm).
Analytical method EPA series 6000 and 7000.
NA = Not analyzed.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 10
Summary of Total Metals Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Station Number:	S-4(S)*	S-5*	S-5(S)*	S-6*	S-6(S)*	S-7*	S-7(S)*	S-8*	S-8(S)*
Sample Depth:									
Sample Date:	4/9/92	4/10/92	4/10/92	4/10/92	4/10/92	4/10/92	4/10/92	4/10/92	4/10/92
Analyte									
Silver (Ag)	--	--	--	--	--	--	--	--	--
Arsenic (As)	--	--	--	--	--	--	--	--	--
Cadmium (Cd)	--	--	--	--	--	--	--	--	--
Chromium (Cr)	--	--	--	--	--	--	--	--	--
Copper (Cu)	--	--	--	--	--	--	--	--	--
Nickel (Ni)	--	--	--	--	--	--	--	--	--
Lead (Pb)	**9.1**	**44**	**19.8**	**6**	**13.9**	**70**	**3.6**	**6.8**	**4.3**
Selenium (Se)	--	--	--	--	--	--	--	--	--
Zinc (Zn)	--	--	--	--	--	--	--	--	--

NOTES:
Concentrations in mg/kg or parts per million (ppm).
Analytical method EPA series 6000 and 7000.
NA - Not analyzed.
-- - Data not available.
*Data from Ratech Resources, May 1993.

Table 10
Summary of Total Metals Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Station Number:	S-9*	S-9(S)*	S-10*	S-14*	S-15*	S-8*	S-8(S)*	S-10*	S-10(S1)*
Sample Depth:									
Sample Date:	4/10/92	4/10/92	4/10/92	4/13/92	4/13/92	4/15/92	4/15/92	4/15/92	4/15/92
Analyte									
Silver (Ag)						< 2	< 0.4	< 2	< 0.4
Arsenic (As)	--	--	--	--	--	**4**	**2.5**	**5**	**3.2**
Cadmium (Cd)	--	--	--	--	--	< 1	< 0.5	< 1	< 0.4
Chromium (Cr)	--	--	--	--	--	**33**	**31.6**	**210**	**316**
Copper (Cu)	--	--	--	--	--	**31**	**17.2**	**36**	**47.5**
Nickel (Ni)	--	--	--	--	--	**85**	**56.6**	**354**	**387**
Lead (Pb)	**39**	**182**	**20**	**10**	**41**	< 20	**4.3**	< 20	**11.2**
Selenium (Se)	--	--	--	--	--	< 1	< 0.1	< 1	< 0.1
Zinc (Zn)	--	--	--	--	--	**45**	**28.6**	**58**	**61.2**

NOTES:
Concentrations in mg/kg or parts per million (ppm).
Analytical method EPA series 6000 and 7000.
NA = Not analyzed.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 10
Summary of Total Metals Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Station Number:	SWB-1*	SWB-1*	SWB-2*	SWB 2*	SWB-3	SWB-3	SWB-4	SWB-4	SWB-5
Sample Depth:	1'	3'	1'	3.5'	0.5-1'	5-5.5'	0.5-1'	5-5.5'	0.5-1'
Sample Date:	11/91	11/91	11/91	11/91	12/09/93	12/09/93	12/09/93	12/09/93	12/09/93
Analyte									
Silver (Ag)	NA	NA	NA	NA	**0.3**	**0.2**	**0.4**	**0.1**	**0.1**
Arsenic (As)	--	--	--	--	**12**	**12**	**7**	**3**	**6**
Cadmium (Cd)	NA	NA	NA	NA	< 0.1	< 0.1	< 0.1	< 0.1	**0.1**
Chromium (Cr)	NA	NA	NA	NA	**170**	**92**	**200**	**57**	**40**
Copper (Cu)	NA	NA	NA	NA	**25**	**28**	**240**	**13**	**23**
Nickel (Ni)	NA	NA	NA	NA	**300**	**140**	**310**	**76**	**63**
Lead (Pb)	< 20	**130**	**62**	**48**	**97**	**23**	**210**	**10**	**14**
Selenium (Se)	--	-	--	--	< 2	< 2	< 2	< 2	< 2
Zinc (Zn)	**73**	**145**	**72**	**82**	**53**	**51**	**68**	**26**	**32**

NOTES:
Concentrations in mg/kg or parts per million (ppm).
Analytical method EPA series 6000 and 7000.
NA = Not analyzed.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 10
Summary of Total Metals Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Station Number:	SWB-5	SWB-5	SWB-6	SWB-6	SWB-7	SWB-7	SWB-7	SWB-7
Sample Depth:	5-5.5'	10-10.5'	0.5-1'	5.5-6'	1-1.5'	5-5.5'	10-10.5'	15-15.5'
Sample Date:	12/09/93	12/09/93	12/07/93	12/07/93	12/09/93	12/09/93	12/09/93	12/09/93
Analyte								
Silver (Ag)	**0.3**	**0.2**	**0.1**	**0.3**	**0.2**	**0.5**	**0.1**	**0.1**
Arsenic (As)	**9**	**3**	**52**	< 1	**6**	**3**	**2**	**2**
Cadmium (Cd)	**5.9**	**0.3**	< 0.1	< 0.1	**0.1**	**0.9**	< 0.1	< 0.1
Chromium (Cr)	**56**	**50**	**71**	**200**	**74**	**3**	**31**	**55**
Copper (Cu)	**79**	**110**	**33**	**69**	**41**	**120**	**16**	**23**
Nickel (Ni)	**75**	**50**	**66**	**250**	**150**	**4**	**34**	**73**
Lead (Pb)	**320**	**7**	**1200**	**61**	**270**	**32000**	**1100**	**110**
Selenium (Se)	< 2	< 2	**4**	< 2	< 2	**6**	< 2	< 2
Zinc (Zn)	**140**	**170**	**62**	**77**	**72**	**170**	**40**	**35**

NOTES:
Concentrations in mg/kg or parts per million (ppm).
Analytical method EPA series 6000 and 7000.
NA = Not analyzed.
-- -- Data not available.
*Data from Ratech Resources, May 1993.

Table 10
Summary of Total Metals Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Station Number:	SWB-8	SWB-8	SWB-8	SWB-8	SWB-9	SWB-9	SWB-10	SWB-10
Sample Depth:	0.5-1'	5-5.5'	10-10.5'	15-15.5'	3-3.5'	4-4.5'	1-1.5'	4-4.5'
Sample Date:	12/08/93	12/08/93	12/08/93	12/08/93	12/07/93	12/07/93	12/07/93	12/07/93
Analyte								
Silver (Ag)	**0.2**	**0.3**	**0.2**	**0.3**	**9**	**37**	**0.1**	**0.2**
Arsenic (As)	**6**	**9**	**3**	**7**	**16**	**27**	< 1	< 1
Cadmium (Cd)	**0.2**	**0.6**	< 0.1	**0.2**	**14**	**3.7**	< 0.1	< 0.1
Chromium (Cr)	**37**	**28**	**63**	**32**	**220**	**290**	**29**	**22**
Copper (Cu)	**48**	**37**	**45**	**99**	**230**	**200**	**40**	**57**
Nickel (Ni)	**190**	**130**	**130**	**150**	**110**	**72**	**30**	**28**
Lead (Pb)	**840**	**21000**	**32**	**160**	**19000**	**28000**	**10**	**11**
Selenium (Se)	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Zinc (Zn)	**110**	**160**	**100**	**190**	**10000**	**11000**	**65**	**80**

NOTES:
Concentrations in mg/kg or parts per million (ppm).
Analytical method EPA series 6000 and 7000.
NA = Not analyzed.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 10
Summary of Total Metals Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Station Number:	SWB-11	SWB-11	SWB-11	SWB-11	E-2	MF-1	MF-2
Sample Depth:	0.5-1'	5-5.5'	10-10.5'	15-15.5'	3'	0.5-1'	0.5-1'
Sample Date:	12/09/93	12/09/93	12/09/93	12/09/93	01/04/94	01/14/94	01/14/94
Analyte							
Silver (Ag)	< 0.1	< 0.1	**0.1**	< 0.1	**0.4**	**0.1**	**0.1**
Arsenic (As)	**9**	**9**	**3**	**2**	**8**	**1**	< 1
Cadmium (Cd)	< 0.1	< 0.1	**0.7**	**0.2**	0.5	**0.1**	< 0.1
Chromium (Cr)	**20**	**38**	**63**	**61**	**75**	**15**	**20**
Copper (Cu)	**35**	**31**	**64**	**8.8**	**83**	**18**	**10**
Nickel (Ni)	**67**	**49**	**49**	**37**	**150**	**14**	**16**
Lead (Pb)	**40**	**43**	**470**	**9**	**810**	**42**	**22**
Selenium (Se)	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Zinc (Zn)	**63**	**61**	**530**	**25**	**180**	**43**	**22**

NOTES:
Concentrations in mg/kg or parts per million (ppm).
Analytical method EPA series 6000 and 7000.
NA = Not analyzed.
-- Data not available.
*Data from Ratech Resources, May 1993.

Table 10
Summary of Total Metals Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Station Number:	MF-1A	MF-1B	MF-1C	MF-2A	MF-2B	MF-2C
Sample Depth:	0.5'	0.5'	0.5'	0.5'	0.5'	0.5'
Sample Date:	04/05/94	04/05/94	04/05/94	04/05/94	04/05/94	04/05/94
Analyte						
Silver (Ag)	**0.3**	**0.2**	**0.3**	< 0.1	**0.1**	**0.2**
Arsenic (As)	**4**	**4**	**4**	**2**	**2**	**2**
Cadmium (Cd)	**0.2**	**0.1**	**0.2**	< 0.1	< 0.1	< 0.1
Chromium (Cr)	**31**	**34**	**36**	**15**	**20**	**32**
Copper (Cu)	**67**	**47**	**71**	**65**	**39**	**160**
Nickel (Ni)	**26**	**28**	**32**	**16**	**22**	**45**
Lead (Pb)	**79**	**75**	**76**	**33**	**40**	**18**
Selenium (Se)	< 2	< 2	< 2	< 2	< 2	< 2
Zinc (Zn)	**100**	**80**	**95**	**55**	**48**	**160**

NOTES:
Concentrations in mg/kg or parts per million (ppm).
Analytical method EPA series 6000 and 7000.
NA Not analyzed.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 11
Summary of Volatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SB-1*	SB-1*	SB-1*	W-4 (S-1)*	W-4 (S-2)*	W-4 (S-3)*
Sample Depth:	0-0.5'	1'	3.5'	5-6'	10-11'	15-16'
Sample Date:	11/91	11/91	11/91	11/82	11/82	11/82
Analyte						
Acetone	--	--	--	**430**	**1300**	--
Benzene	--	--	--	--	--	**20**
Bromodichloromethane	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--
2-Butanone (MEK)	< 10	< 10	< 500	--	--	--
Carbon Disulfide	< 6	< 5	**100**	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--
2-Chloroethylvinyl ether	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--
Ethylbenzene	--	--	--	**790**	--	--
2-Hexanone	< 10	< 10	< 500	--	--	--
Methylene Chloride	--	--	--	--	--	--
4-Methyl-2-Pentanone (MIBK)	--	--	--	--	--	--
Styrene	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--
Toluene	--	--	--	--	--	--
1,1,1-Trichloroethane	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--
Vinyl Acetate	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--
Xylenes, total	< 5	**12**	< 50	--	--	--

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 11
Summary of Volatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	B12*	B12*	B13*	S-6-1*	S-6-2*	S-7-1*
Sample Depth:	3.5'	8'	4'	0'	1'	1'
Sample Date:	1/91	1/91	1/91	11/82	11/82	11/82
Analyte						
Acetone	--	--	--	**470**	--	--
Benzene	--	--	--	**610**	**3800**	**14**
Bromodichloromethane	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--
2-Butanone (MEK)	--	**230**	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--
2-Chloroethylvinyl ether	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--
Ethylbenzene	--	**120**	--	**8600**	**9200**	**5900**
2-Hexanone	--	--	--	--	--	--
Methylene Chloride	--	--	--	--	--	--
4-Methyl-2-Pentanone (MIBK)	--	--	--	--	--	--
Styrene	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--
Toluene	--	--	--	**5100**	**12000**	**680**
1,1,1-Trichloroethane	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--
Vinyl Acetate	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--
Xylenes, total	**4800**	**1100**	**17**	**18000**	**36000**	**16000**

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 11
Summary of Volatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	S-8*	S-8(S)*	S-10*	S-10(S1)*	S-10(S2)*	SWB-1DL*
Sample Depth:						0-0.5'
Sample Date:	4/15/92	4/15/92	4/15/92	4/15/92	4/15/92	--
Analyte						
Acetone	< 50	**140**	< 50	**34**	< 12	--
Benzene	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	< 10
Carbon Disulfide	--	--	--	--	--	< 5
Carbon Tetrachloride	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--
2-Chloroethylvinyl ether	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--
Ethylbenzene	**200**	< 5	< 5	< 5	< 5	--
2-Hexanone	--	--	--	--	--	< 12
Methylene Chloride	--	--	--	--	--	--
4-Methyl-2-Pentanone (MIBK)	--	--	--	--	--	--
Styrene	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	**13**	< 5	< 5	< 5	< 5	--
Tetrachloroethene	--	--	--	--	--	--
Toluene	**41**	< 5	< 5	< 5	< 5	--
1,1,1-Trichloroethane	--	--	--	--	--	--
1,1,2-Trichloroethane	**6**	< 5	< 5	< 5	< 5	--
Trichloroethene	--	--	--	--	--	--
Vinyl Acetate	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--
Xylenes, total	**380**	< 5	< 5	< 5	< 5	< 5

NOTES:
Concentrations in ug/kg or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 11
Summary of Volatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-1*	SWB-1*	SWB-2*	SWB-2*	SWB-3	SWB-3
Sample Depth:	1'	3'	1'	3.5'	0.5-1'	5-5.5'
Sample Date:	11/91	11/91	11/91	11/91	12/09/93	12/09/93
Analyte						
Acetone	--	--	--	--	< 100	< 100
Benzene	--	--	--	--	< 5	< 5
Bromodichloromethane	--	--	--	--	< 5	< 5
Bromoform	--	--	--	--	< 5	< 5
Bromomethane	--	--	--	--	< 10	< 10
2-Butanone (MEK)	< 10	< 10	< 10	**10**	< 100	< 100
Carbon Disulfide	< 5	< 5	< 5	**8**	< 10	< 10
Carbon Tetrachloride	--	--	--	--	< 5	< 5
Chlorobenzene	--	--	--	--	< 5	< 5
Chloroethane	--	--	--	--	< 10	< 10
2-Chloroethylvinyl ether	--	--	--	--	< 10	< 10
Chloroform	--	--	--	--	< 5	< 5
Chloromethane	--	--	--	--	< 10	< 10
Dibromochloromethane	--	--	--	--	< 5	< 5
1,1-Dichloroethane	--	--	--	--	< 5	< 5
1,2-Dichloroethane	--	--	--	--	< 5	< 5
1,1-Dichloroethene	--	--	--	--	< 5	< 5
cis-1,2-Dichloroethene	--	--	--	--	< 5	< 5
trans-1,2-Dichloroethene	--	--	--	--	< 5	< 5
1,2-Dichloropropane	--	--	--	--	< 5	< 5
cis-1,3-Dichloropropene	--	--	--	--	< 5	< 5
trans-1,3-Dichloropropene	--	--	--	--	< 5	< 5
Ethylbenzene	--	--	--	--	< 5	< 5
2-Hexanone	< 10	< 10	< 10	< 10	< 50	< 50
Methylene Chloride	--	--	--	--	< 5	< 5
4-Methyl-2-Pentanone (MIBK)	--	--	--	--	< 50	< 50
Styrene	--	--	--	--	< 5	< 5
1,1,2,2-Tetrachloroethane	--	--	--	--	< 5	< 5
Tetrachloroethene	--	--	--	--	< 5	< 5
Toluene	--	--	--	--	< 5	< 5
1,1,1-Trichloroethane	--	--	--	--	< 5	< 5
1,1,2-Trichloroethane	--	--	--	--	< 5	< 5
Trichloroethene	--	--	--	--	< 5	< 5
Vinyl Acetate	--	--	--	--	< 50	< 50
Vinyl Chloride	--	--	--	--	< 10	< 10
Xylenes, total	< 5	< 5	< 5	< 5	< 10	< 10

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 11
Summary of Volatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-4	SWB-4	SWB-5	SWB2-5	SWB-5	SWB-6
Sample Depth:	0.5-1'	5-5.5'	0.5-1'	5.5-6'	10-10.5'	0.5-1'
Sample Date:	12/09/93	12/09/93	12/09/93	01/12/94	01/12/94	12/07/93
Analyte						
Acetone	< 100	< 100	< 100	< 100	< 100	< 100
Benzene	< 5	< 5	< 5	< 5	< 5	< 5
Bromodichloromethane	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	< 10	< 10	< 10	< 10	< 10	< 10
2-Butanone (MEK)	< 100	< 100	< 100	< 100	< 100	< 100
Carbon Disulfide	< 10	< 10	< 10	< 10	< 10	< 10
Carbon Tetrachloride	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	< 10	< 10	< 10	< 10	< 10	< 10
2-Chloroethylvinyl ether	< 10	< 10	< 10	< 10	< 10	< 10
Chloroform	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	< 10	< 10	< 10	< 10	< 10	< 10
Dibromochloromethane	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-Dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	< 5	< 5	< 5	< 5	< 5	< 5
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 50
Methylene Chloride	< 5	< 5	< 5	< 5	< 5	< 5
4-Methyl-2-Pentanone (MIBK)	< 50	< 50	< 50	< 50	< 50	< 50
Styrene	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	< 5	< 5	< 5	< 5	< 5	< 5
1,1,1-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethene	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	< 50	< 50	< 50	< 50	< 50	< 50
Vinyl Chloride	< 10	< 10	< 10	< 10	< 10	< 10
Xylenes, total	< 10	< 10	< 10	< 10	< 10	< 10

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 11
Summary of Volatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-6	SWB-7	SWB-7	SWB2-7	SWB2-7	SWB-8
Sample Depth:	5.5-6'	1-1.5'	5-5.5'	10-10.5'	15-15.5'	0.5-1'
Sample Date:	12/07/93	12/09/93	12/09/93	01/12/94	01/12/94	12/08/93
Analyte						
Acetone	< 100	< 100	**150**	< 100	< 100	< 100
Benzene	< 5	< 5	< 5	< 5	< 5	< 5
Bromodichloromethane	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	< 10	< 10	< 10	< 10	< 10	< 10
2-Butanone (MEK)	< 100	< 100	< 100	< 100	< 100	< 100
Carbon Disulfide	< 10	< 10	< 10	< 10	< 10	< 10
Carbon Tetrachloride	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	< 10	< 10	< 10	< 10	< 10	< 10
2-Chloroethylvinyl ether	< 10	< 10	< 10	< 10	< 10	< 10
Chloroform	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	< 10	< 10	< 10	< 10	< 10	< 10
Dibromochloromethane	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-Dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	< 5	< 5	**5**	< 5	< 5	< 5
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 50
Methylene Chloride	< 5	< 5	< 5	< 10	< 10	< 5
4-Methyl-2-Pentanone (MIBK)	< 50	< 50	< 50	< 50	< 50	< 50
Styrene	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	< 5	< 5	< 5	< 5	< 5	< 5
1,1,1-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethene	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	< 50	< 50	< 50	< 50	< 50	< 50
Vinyl Chloride	< 10	< 10	< 10	< 10	< 10	< 10
Xylenes, total	< 10	< 10	**34**	**12**	< 10	< 10

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 11
Summary of Volatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-8	SWB-9	SWB-9	SWB-9	SWB-9	SWB-10
Sample Depth:	5-5.5'	3-3.5'	4-4.5'	10-10.5'	15-15.5'	1-1.5'
Sample Date:	12/08/93	12/07/93	12/07/93	12/07/93	12/07/93	12/07/93
Analyte						
Acetone	< 500	< 10000	< 10000	< 10000	< 10000	< 100
Benzene	< 30	< 500	< 500	< 500	< 500	< 5
Bromodichloromethane	< 30	< 500	< 500	< 500	< 500	< 5
Bromoform	< 30	< 500	< 500	< 500	< 500	< 5
Bromomethane	< 50	< 1000	< 1000	< 1000	< 1000	< 10
2-Butanone (MEK)	< 500	< 10000	< 10000	< 10000	< 10000	< 100
Carbon Disulfide	< 50	< 1000	< 1000	< 1000	< 1000	< 10
Carbon Tetrachloride	< 30	< 500	< 500	< 500	< 500	< 5
Chlorobenzene	< 30	< 500	< 500	< 500	< 500	< 5
Chloroethane	< 50	< 1000	< 1000	< 1000	< 1000	< 10
2-Chloroethylvinyl ether	< 50	< 1000	< 1000	< 1000	< 1000	< 10
Chloroform	< 30	< 500	< 500	< 500	< 500	< 5
Chloromethane	< 50	< 1000	< 1000	< 1000	< 1000	< 10
Dibromochloromethane	< 30	< 500	< 500	< 500	< 500	< 5
1,1-Dichloroethane	< 30	< 500	< 500	< 500	< 500	< 5
1,2-Dichloroethane	< 30	< 500	< 500	< 500	< 500	< 5
1,1-Dichloroethene	< 30	< 500	< 500	< 500	< 500	< 5
cis-1,2-Dichloroethene	< 30	< 500	< 500	< 500	< 500	< 5
trans-1,2-Dichloroethene	< 30	< 500	< 500	< 500	< 500	< 5
1,2-Dichloropropane	< 30	< 500	< 500	< 500	< 500	< 5
cis-1,3-Dichloropropene	< 30	< 500	< 500	< 500	< 500	< 5
trans-1,3-Dichloropropene	< 30	< 500	< 500	< 500	< 500	< 5
Ethylbenzene	< 30	**600**	< 500	< 500	< 500	< 5
2-Hexanone	< 300	< 5000	< 5000	< 5000	< 5000	< 50
Methylene Chloride	< 30	< 500	< 500	< 500	< 500	< 5
4-Methyl-2-Pentanone (MIBK)	< 300	< 5000	< 5000	< 5000	< 5000	< 50
Styrene	< 30	< 500	< 500	< 500	< 500	< 5
1,1,2,2-Tetrachloroethane	< 30	< 500	< 500	< 500	< 500	< 5
Tetrachloroethene	< 30	< 500	< 500	< 500	< 500	< 5
Toluene	< 30	< 500	< 500	< 500	< 500	< 5
1,1,1-Trichloroethane	< 30	< 500	< 500	< 500	< 500	< 5
1,1,2-Trichloroethane	< 30	< 500	< 500	< 500	< 500	< 5
Trichloroethene	< 30	< 500	< 500	< 500	< 500	< 5
Vinyl Acetate	< 300	< 5000	< 5000	< 5000	< 5000	< 50
Vinyl Chloride	< 50	< 1000	< 1000	< 1000	< 1000	< 10
Xylenes, total	< 50	**14000**	< 1000	< 1000	< 1000	< 10

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
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*Data from Ratech Resources, May 1993.

Table 11
Summary of Volatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-10	SWB-11	SWB-11	MF-1A	MF-1B	MF-1C
Sample Depth:	4-4.5'	0.5-1'	5-5.5'	0.5'	0.5'	0.5'
Sample Date:	12/07/93	12/09/93	12/09/93	04/06/94	04/06/94	04/06/94
Analyte						
Acetone	< 100	< 100	< 100	< 100	< 100	< 100
Benzene	< 5	< 5	< 5	< 5	< 5	< 5
Bromodichloromethane	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane	< 10	< 10	< 10	< 10	< 10	< 10
2-Butanone (MEK)	< 100	< 100	< 100	< 100	< 100	< 100
Carbon Disulfide	< 10	< 10	< 10	< 10	< 10	< 10
Carbon Tetrachloride	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane	< 10	< 10	< 10	< 10	< 10	< 10
2-Chloroethylvinyl ether	< 10	< 10	< 10	< 10	< 10	< 10
Chloroform	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	< 10	< 10	< 10	< 10	< 10	< 10
Dibromochloromethane	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-Dichloropropene	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	< 5	< 5	< 5	< 5	< 5	< 5
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 50
Methylene Chloride	< 30	< 5	< 5	< 5	< 5	< 5
4-Methyl-2-Pentanone (MIBK)	< 50	< 50	< 50	< 50	< 50	< 50
Styrene	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	< 5	< 5	< 5	< 5	< 5	< 5
1,1,1-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethene	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Acetate	< 50	< 50	< 50	< 50	< 50	< 50
Vinyl Chloride	< 10	< 10	< 10	< 10	< 10	< 10
Xylenes, total	< 10	< 10	< 10	< 10	< 10	< 10

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 11
Summary of Volatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MF-2A	MF-2B	MF-2C
Sample Depth:	0.5'	0.5'	0.5'
Sample Date:	04/06/94	04/06/94	04/06/94
Analyte			
Acetone	< 100	< 100	< 100
Benzene	< 5	< 5	< 5
Bromodichloromethane	< 5	< 5	< 5
Bromoform	< 5	< 5	< 5
Bromomethane	< 10	< 10	< 10
2-Butanone (MEK)	< 100	< 100	< 100
Carbon Disulfide	< 10	< 10	< 10
Carbon Tetrachloride	< 5	< 5	< 5
Chlorobenzene	< 5	< 5	< 5
Chloroethane	< 10	< 10	< 10
2-Chloroethylvinyl ether	< 10	< 10	< 10
Chloroform	< 5	< 5	< 5
Chloromethane	< 10	< 10	< 10
Dibromochloromethane	< 5	< 5	< 5
1,1-Dichloroethane	< 5	< 5	< 5
1,2-Dichloroethane	< 5	< 5	< 5
1,1-Dichloroethene	< 5	< 5	< 5
cis-1,2-Dichloroethene	< 5	< 5	< 5
trans-1,2-Dichloroethene	< 5	< 5	< 5
1,2-Dichloropropane	< 5	< 5	< 5
cis-1,3-Dichloropropene	< 5	< 5	< 5
trans-1,3-Dichloropropene	< 5	< 5	< 5
Ethylbenzene	< 5	< 5	< 5
2-Hexanone	< 50	< 50	< 50
Methylene Chloride	< 5	< 5	< 5
4-Methyl-2-Pentanone (MIBK)	< 50	< 50	< 50
Styrene	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	< 5	< 5	< 5
Tetrachloroethene	< 5	< 5	< 5
Toluene	< 5	< 5	< 5
1,1,1-Trichloroethane	< 5	< 5	< 5
1,1,2-Trichloroethane	< 5	< 5	< 5
Trichloroethene	< 5	< 5	< 5
Vinyl Acetate	< 50	< 50	< 50
Vinyl Chloride	< 10	< 10	< 10
Xylenes, total	< 10	< 10	< 10

NOTES:
Concentrations in ug/kg or parts per billion (ppb).
Analytical method EPA 8240.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SB-1*	SB-1*	SB-1*	MW-19-01*	MW-19-02*	MW-19-03*
Sample Depth:	0-0.5'	1'	3.5'	1'	5'	7.5'
Sample Date:	11/91	11/91	11/91	9/87	9/87	9/87
Analyte						
Acenaphthene	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	--	--
Anthracene	--	--	--	--	--	--
Benzidine	--	--	--	--	--	--
Benzoic Acid	**250**	< 2000	< 2000	--	--	--
Benzo(a)anthracene	--	--	--	--	--	--
Benzo(b)fluoranthene	< 410	< 300	< 300	--	--	--
Benzo(k)fluoranthene	< 410	< 300	< 300	--	--	--
Benzo(g,h,i)perylene	< 410	< 300	< 300	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--
Benzyl Alcohol	--	--	--	--	--	--
Bis(2-chloroethyl)ether	--	--	--	--	--	--
Bis(2-chloroisopropyl)ether	--	--	--	--	--	--
Bis(2-ethylhexyl)phthalate	**1100**	< 300	< 300	--	--	--
4-Bromophenyl phenyl ether	--	--	--	--	--	--
Butylbenzyl phthalate	< 410	< 300	< 300	--	--	--
4-Chloroaniline	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	--	--
Chrysene	< 410	< 300	< 300	--	--	--
Dibenzo(a,h)anthracene	--	--	--	--	--	--
Dibenzofuran	--	--	--	--	--	--
Di-n-butylphthalate	NA	< 300	< 300	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--
Diethylphthalate	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--
Di-n-octylphthalate	< 410	< 300	< 300	--	--	--
1,2-Diphenylhydrazine	--	--	--	--	--	--
Fluoranthene	**180**	< 300	< 300	--	--	--
Fluorene	--	--	--	--	--	--

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SB-1*	SB-1*	SB-1*	MW-19-01*	MW-19-02*	MW-19-03*
Sample Depth:	0-0.5'	1'	3.5'	1'	5'	7.5'
Sample Date:	11/91	11/91	11/91	9/87	9/87	9/87
Analyte						
Hexachlorobenzene	< 410	< 300	< 300	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	< 410	< 300	< 300	--	--	--
Isophorone	< 410	< 300	< 300	--	--	--
2-Methylnaphthalene	NA	< 300	**400**	--	--	--
Naphthalene	NA	< 300	< 300	**1100**	< 330	< 330
2-Nitroaniline	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--
Nitrobenzene	NA	< 300	< 300	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	--	--	--	--	--	--
Phenanthrene	< 410	< 300	< 300	**370**	**550**	**560**
Pyrene	< 410	< 300	< 300	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--
2,4-Dimethylphenol	NA	< 300	< 300	--	--	--
4,6-Dinitro-2-methylphenol	--	--	--	--	--	--
2,4-Dinitrophenol	--	--	--	--	--	--
2-Methylphenol	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--
4-Nitrophenol	< 2000	< 2000	< 2000	--	--	--
Pentachlorophenol	< 2000	< 2000	< 2000	--	--	--
Phenol	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--

NOTES:
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ND = Not detected.
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Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MW-21 (S1)*	MW-21 (S1S)*	MW-21 (S2)*	MW-21 (S2S)*	MW-21 (S3)*	MW-21 (S3S)*
Sample Depth:	0'	0.5'	5'	5.5'	10'	10.5'
Sample Date:	9/87	9/87	9/87	9/87	9/87	9/87
Analyte						
Acenaphthene	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	--	--
Anthracene	< 1700	< 33	< 1700	< 33	< 330	< 33
Benzidine	--	--	--	--	--	--
Benzoic Acid	--	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--
Benzyl Alcohol	--	--	--	--	--	--
Bis(2-chloroethyl)ether	--	--	--	--	--	--
Bis(2-chloroisopropyl)ether	--	--	--	--	--	--
Bis(2-ethylhexyl)phthalate	--	--	--	--	--	--
4-Bromophenyl phenyl ether	--	--	--	--	--	--
Butylbenzyl phthalate	--	--	--	--	--	--
4-Chloroaniline	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--
Dibenzo(a,h)anthracene	--	--	--	--	--	--
Dibenzofuran	--	--	--	--	--	--
Di-n-butylphthalate	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--
Diethylphthalate	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--
Di-n-octylphthalate	--	--	--	--	--	--
1,2-Diphenylhydrazine	--	--	--	--	--	--
Fluoranthene	--	--	--	--	--	--
Fluorene	--	--	--	--	--	--

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
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NA = Not analyzed.
ND = Not detected.
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*Data from Ratech Resources, May 1993.

Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MW-21 (S1)*	MW-21 (S1S)*	MW-21 (S2)*	MW-21 (S2S)*	MW-21 (S3)*	MW-21 (S3S)*
Sample Depth:	0'	0.5'	5'	5.5'	10'	10.5'
Sample Date:	9/87	9/87	9/87	9/87	9/87	9/87
Analyte						
Hexachlorobenzene	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--
Isophorone	--	--	--	--	--	--
2-Methylnaphthalene	--	--	--	--	--	--
Naphthalene	< 1700	**670**	**8200**	< 33	< 330	< 33
2-Nitroaniline	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--
Nitrobenzene	--	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	--	--	--	--	--	--
Phenanthrene	< 1700	< 33	< 1700	**58**	< 330	< 33
Pyrene	< 1700	**68**	< 1700	**950**	< 330	< 33
1,2,4-Trichlorobenzene	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--
2,4-Dimethylphenol	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	--	--	--	--	--	--
2,4-Dinitrophenol	--	--	--	--	--	--
2-Methylphenol	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--
Pentachlorophenol	--	--	--	--	--	--
Phenol	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
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NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MW-21 (S4)*	MW-21 (S4S)*	OPF-21*	S-8*	S-8(S)*	S-10*
Sample Depth:	15'	15.5'	?			
Sample Date:	9/87	9/87	2/91	4/92	4/92	4/92
Analyte						
Acenaphthene	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	--	--
Anthracene	**760**	< 33	< 20000	--	--	--
Benzidine	--	--	--	--	--	--
Benzoic Acid	--	--	--	--	--	--
Benzo(a)anthracene	--	--	**9100**	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--
Benzyl Alcohol	--	--	--	--	--	--
Bis(2-chloroethyl)ether	--	--	--	--	--	--
Bis(2-chloroisopropyl)ether	--	--	--	--	--	--
Bis(2-ethylhexyl)phthalate	--	--	**29000**	--	--	--
4-Bromophenyl phenyl ether	--	--	--	--	--	--
Butylbenzyl phthalate	--	--	--	--	--	--
4-Chloroaniline	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	--	--
Chrysene	--	--	**10000**	--	--	--
Dibenzo(a,h)anthracene	--	--	--	--	--	--
Dibenzofuran	--	--	--	--	--	--
Di-n-butylphthalate	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--
Diethylphthalate	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--
Di-n-octylphthalate	--	--	--	--	--	--
1,2-Diphenylhydrazine	--	--	--	--	--	--
Fluoranthene	--	--	**20000**	--	--	--
Fluorene	--	--	--	--	--	--

NOTES:
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*Data from Ratech Resources, May 1993.

Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MW-21 (S4)*	MW-21 (S4S)*	OPF-21*	S-8*	S-8(S)*	S-10*
Sample Depth:	15'	15.5'	?			
Sample Date:	9/87	9/87	2/91	4/92	4/92	4/92
Analyte						
Hexachlorobenzene	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--
Isophorone	--	--	--	--	--	--
2-Methylnaphthalene	--	--	--	--	--	--
Naphthalene	< 330	< 33	< 20000	--	--	--
2-Nitroaniline	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--
Nitrobenzene	--	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	--	--	--	--	--	--
Phenanthrene	< 330	< 33	< 20000	--	--	--
Pyrene	< 330	< 33	**110000**	< 0.3	< 0.81	< 0.3
1,2,4-Trichlorobenzene	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--
2,4-Dimethylphenol	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	--	--	--	--	--	--
2,4-Dinitrophenol	--	--	--	--	--	--
2-Methylphenol	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--
Pentachlorophenol	--	--	--	--	--	--
Phenol	--	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--

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Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	S-10(S1)*	PM-2 (S-1)*	PM-2 (S-2)*	PM-2 (S-3)*	PM-2 (S-4)*	PM-2 (S-5)*
Sample Depth:		0'	3'	5.5'	10.5'	15.5'
Sample Date:	4/92	9/87	9/87	9/87	9/87	9/87
Analyte						
Acenaphthene	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	--	--
Anthracene	--	--	--	--	--	--
Benzidine	--	--	--	--	--	--
Benzoic Acid	--	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--
Benzyl Alcohol	--	--	--	--	--	--
Bis(2-chloroethyl)ether	--	--	--	--	--	--
Bis(2-chloroisopropyl)ether	--	--	--	--	--	--
Bis(2-ethylhexyl)phthalate	--	**3500**	< 660	< 660	< 330	< 1700
4-Bromophenyl phenyl ether	--	--	--	--	--	--
Butylbenzyl phthalate	--	--	--	--	--	--
4-Chloroaniline	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--
Dibenzo(a,h)anthracene	--	--	--	--	--	--
Dibenzofuran	--	--	--	--	--	--
Di-n-butylphthalate	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--
Diethylphthalate	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--
Di-n-octylphthalate	--	--	--	--	--	--
1,2-Diphenylhydrazine	--	--	--	--	--	--
Fluoranthene	--	--	--	--	--	--
Fluorene	--	--	--	--	--	--

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ND = Not detected.
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Table 12
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Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	S-10(S1)*	PM-2 (S-1)*	PM-2 (S-2)*	PM-2 (S-3)*	PM-2 (S-4)*	PM-2 (S-5)*
Sample Depth:		0'	3'	5.5'	10.5'	15.5'
Sample Date:	4/92	9/87	9/87	9/87	9/87	9/87
Analyte						
Hexachlorobenzene	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--
Isophorone	--	--	--	--	--	--
2-Methylnaphthalene	--	--	--	--	--	--
Naphthalene	--	**8900**	< 660	< 660	< 330	< 1700
2-Nitroaniline	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--
Nitrobenzene	--	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	--	--	--	--	--	--
Phenanthrene	--	--	--	--	--	--
Pyrene	**0.56**	< 1700	< 660	< 660	< 330	< 1700
1,2,4-Trichlorobenzene	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--
2,4-Dimethylphenol	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	--	--	--	--	--	--
2,4-Dinitrophenol	--	--	--	--	--	--
2-Methylphenol	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--
Pentachlorophenol	--	--	--	--	--	--
Phenol	--	< 1700	< 660	< 660	< 330	< 1700
2,4,5-Trichlorophenol	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--

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Table 12
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Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	PM-2 (S-6)*	PM-3 (S-1)*	PM-3 (S-2)*	PM-7 (S-1)*	PM-7 (S-1S)*	PM-7 (S-2)*
Sample Depth:	20'	0'	5'	1'	1'	5'
Sample Date:	9/87	9/87	9/87	9/87	9/87	9/87
Analyte						
Acenaphthene	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	--	--
Anthracene	--	--	--	--	--	--
Benzidine	--	--	--	--	--	--
Benzoic Acid	--	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--
Benzyl Alcohol	--	--	--	--	--	--
Bis(2-chloroethyl)ether	--	--	--	--	--	--
Bis(2-chloroisopropyl)ether	--	--	--	--	--	--
Bis(2-ethylhexyl)phthalate	< 330	< 330	< 330	< 330	< 3300	< 330
4-Bromophenyl phenyl ether	--	--	--	--	--	--
Butylbenzyl phthalate	--	--	--	--	--	--
4-Chloroaniline	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--
Dibenzo(a,h)anthracene	--	--	--	--	--	--
Dibenzofuran	--	--	--	--	--	--
Di-n-butylphthalate	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--
Diethylphthalate	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--
Di-n-octylphthalate	--	--	--	--	--	--
1,2-Diphenylhydrazine	--	--	--	--	--	--
Fluoranthene	--	--	--	--	--	--
Fluorene	--	--	--	--	--	--

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Table 12
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for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	PM-2 (S-6)*	PM-3 (S-1)*	PM-3 (S-2)*	PM-7 (S-1)*	PM-7 (S-1S)*	PM-7 (S-2)*
Sample Depth:	20'	0'	5'	1'	1'	5'
Sample Date:	9/87	9/87	9/87	9/87	9/87	9/87
Analyte						
Hexachlorobenzene	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--
Isophorone	--	--	--	--	--	--
2-Methylnaphthalene	--	--	--	--	--	--
Naphthalene	< 330	< 330	< 330	< 330	< 33	< 330
2-Nitroaniline	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--
Nitrobenzene	--	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	--	--	--	--	--	--
Phenanthrene	--	--	--	--	--	--
Pyrene	< 330	< 330	< 330	< 330	< 33	< 330
1,2,4-Trichlorobenzene	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--
2,4-Dimethylphenol	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	--	--	--	--	--	--
2,4-Dinitrophenol	--	--	--	--	--	--
2-Methylphenol	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--
Pentachlorophenol	--	--	--	--	--	--
Phenol	< 330	< 330	**1500**	< 330	< 33	< 330
2,4,5-Trichlorophenol	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--

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Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	PM-7 (S-2S)*	PM-7 (S-3)*	PM-7 (S-3S)*	PM-7 (S-5)*	PM-8 (S-1)*	PM-8 (S-2)*
Sample Depth:	5'	10'	10'	20'	0'	5.5'
Sample Date:	9/87	9/87	9/87	9/87	9/87	9/87
Analyte						
Acenaphthene	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	--	--
Anthracene	--	--	--	--	--	--
Benzidine	--	--	--	--	--	--
Benzoic Acid	--	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--
Benzyl Alcohol	--	--	--	--	--	--
Bis(2-chloroethyl)ether	--	--	--	--	--	--
Bis(2-chloroisopropyl)ether	--	--	--	--	--	--
Bis(2-ethylhexyl)phthalate	< 3300	< 10000	< 3300	< 1700	< 330	< 330
4-Bromophenyl phenyl ether	--	--	--	--	--	--
Butylbenzyl phthalate	--	--	--	--	--	--
4-Chloroaniline	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--
Dibenzo(a,h)anthracene	--	--	--	--	--	--
Dibenzofuran	--	--	--	--	--	--
Di-n-butylphthalate	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--
Diethylphthalate	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--
Di-n-octylphthalate	--	--	--	--	--	--
1,2-Diphenylhydrazine	--	--	--	--	--	--
Fluoranthene	--	--	--	--	--	--
Fluorene	--	--	--	--	--	--

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Table 12
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for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	PM-7 (S-2S)*	PM-7 (S-3)*	PM-7 (S-3S)*	PM-7 (S-5)*	PM-8 (S-1)*	PM-8 (S-2)*
Sample Depth:	5'	10'	10'	20'	0'	5.5'
Sample Date:	9/87	9/87	9/87	9/87	9/87	9/87
Analyte						
Hexachlorobenzene	--	--	--	--	--	--
Hexachlorobutadiene	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--
Isophorone	--	--	--	--	--	--
2-Methylnaphthalene	--	--	--	--	--	--
Naphthalene	< 33	< 10000	< 33	< 1700	< 330	< 330
2-Nitroaniline	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--
Nitrobenzene	--	--	--	--	--	--
N-Nitrosodimethylamine	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	--	--	--	--	--	--
Phenanthrene	--	--	--	--	--	--
Pyrene	< 33	< 10000	< 33	< 1700	**330**	< 330
1,2,4-Trichlorobenzene	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--
2,4-Dimethylphenol	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	--	--	--	--	--	--
2,4-Dinitrophenol	--	--	--	--	--	--
2-Methylphenol	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	--
Pentachlorophenol	--	--	--	--	--	--
Phenol	< 33	< 10000	< 33	< 1700	< 330	< 330
2,4,5-Trichlorophenol	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--

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Table 12
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for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	PM-8 (S-4)*	PM-9 (S-1)*	PM-9 (S-2)*	PM-9 (S-2D)*	PM-9 (S-4)*	SWB-1DL*
Sample Depth:	15.5'	0'	5'	5'	15'	0-0.5'
Sample Date:	9/87	8/87	8/87	8/87	8/87	--
Analyte						
Acenaphthene	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	--	--
Anthracene	--	--	--	--	--	--
Benzidine	--	--	--	--	--	--
Benzoic Acid	--	--	--	--	--	< 9900
Benzo(a)anthracene	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	< 2000
Benzo(k)fluoranthene	--	--	--	--	--	< 2000
Benzo(g,h,i)perylene	--	--	--	--	--	< 2000
Benzo(a)pyrene	--	--	--	--	--	--
Benzyl Alcohol	--	--	--	--	--	--
Bis(2-chloroethyl)ether	--	--	--	--	--	--
Bis(2-chloroisopropyl)ether	--	--	--	--	--	--
Bis(2-ethylhexyl)phthalate	< 330	**520**	**620**	< 330	< 330	< 330
4-Bromophenyl phenyl ether	--	--	--	--	--	--
Butylbenzyl phthalate	--	--	--	--	--	**1800**
4-Chloroaniline	--	--	--	--	--	--
2-Chloronaphthalene	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	--	--
Chrysene	--	--	--	--	--	< 2000
Dibenzo(a,h)anthracene	--	--	--	--	--	--
Dibenzofuran	--	--	--	--	--	--
Di-n-butylphthalate	--	**680**	**1100**	**1900**	< 330	< 330
1,2-Dichlorobenzene	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	--	--
Diethylphthalate	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	--	--
Di-n-octylphthalate	--	--	--	--	--	**2000**
1,2-Diphenylhydrazine	--	--	--	--	--	--
Fluoranthene	--	--	--	--	--	< 2000
Fluorene	--	--	--	--	--	--

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Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	PM-8 (S-4)*	PM-9 (S-1)*	PM-9 (S-2)*	PM-9 (S-2D)*	PM-9 (S-4)*	SWB-1DL*
Sample Depth:	15.5'	0'	5'	5'	15'	0-0.5'
Sample Date:	9/87	8/87	8/87	8/87	8/87	--
Analyte						
Hexachlorobenzene	--	--	--	--	--	< 2000
Hexachlorobutadiene	--	--	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	< 2000
Isophorone	--	--	--	--	--	< 2000
2-Methylnaphthalene	--	NA	NA	NA	NA	< 330
Naphthalene	< 330	< 330	**3000**	**5000**	< 330	< 330
2-Nitroaniline	--	--	--	--	--	--
3-Nitroaniline	--	--	--	--	--	--
4-Nitroaniline	--	--	--	--	--	--
Nitrobenzene	--	< 330	**960**	**1500**	< 330	< 330
N-Nitrosodimethylamine	--	--	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	--	--	--	--	--	--
Phenanthrene	--	< 330	**560**	**460**	< 330	< 2000
Pyrene	< 330	--	--	--	--	< 2000
1,2,4-Trichlorobenzene	--	--	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	--	--
2-Chlorophenol	--	--	--	--	--	--
2,4-Dichlorophenol	--	--	--	--	--	--
2,4-Dimethylphenol	--	< 330	**460**	**430**	< 330	< 330
4,6-Dinitro-2-methylphenol	--	--	--	--	--	--
2,4-Dinitrophenol	--	--	--	--	--	--
2-Methylphenol	--	--	--	--	--	--
4-Methylphenol	--	--	--	--	--	--
2-Nitrophenol	--	--	--	--	--	--
4-Nitrophenol	--	--	--	--	--	< 9900
Pentachlorophenol	--	--	--	--	--	< 9900
Phenol	< 330	--	--	--	--	--
2,4,5-Trichlorophenol	--	--	--	--	--	--
2,4,6-Trichlorophenol	--	--	--	--	--	--

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Table 12
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for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-1*	SWB-1*	SWB-2*	SWB-2*	SWB-3	SWB-3
Sample Depth:	1'	3'	1'	3.5'	0.5-1'	5-5.5'
Sample Date:	11/91	11/91	11/91	11/91	12/09/93	12/09/93
Analyte						
Acenaphthene	--	--	--	--	< 330	< 330
Acenaphthylene	--	--	--	--	< 330	< 330
Anthracene	--	--	--	--	< 330	< 330
Benzidine	--	--	--	--	< 1600	< 1600
Benzoic Acid	< 2000	< 2000	< 2000	< 2000	< 1600	< 1600
Benzo(a)anthracene	--	--	--	--	< 330	< 330
Benzo(b)fluoranthene	< 300	< 300	< 300	< 300	< 330	< 330
Benzo(k)fluoranthene	< 300	< 300	< 300	< 300	< 330	< 330
Benzo(g,h,i)perylene	< 300	< 300	< 300	< 300	< 330	< 330
Benzo(a)pyrene	--	--	--	--	< 330	< 330
Benzyl Alcohol	--	--	--	--	< 660	< 660
Bis(2-chloroethyl)ether	--	--	--	--	< 330	< 330
Bis(2-chloroisopropyl)ether	--	--	--	--	< 330	< 330
Bis(2-ethylhexyl)phthalate	< 300	**3000**	**2000**	< 300	< 330	< 330
4-Bromophenyl phenyl ether	--	--	--	--	< 330	< 330
Butylbenzyl phthalate	< 300	< 300	< 300	< 300	< 330	< 330
4-Chloroaniline	--	--	--	--	< 660	< 660
2-Chloronaphthalene	--	--	--	--	< 330	< 330
4-Chlorophenyl phenyl ether	--	--	--	--	< 330	< 330
Chrysene	< 300	< 300	< 300	< 300	< 330	< 330
Dibenzo(a,h)anthracene	--	--	--	--	< 330	< 330
Dibenzofuran	--	--	--	--	< 330	< 330
Di-n-butylphthalate	< 300	< 300	< 300	< 300	< 330	< 330
1,2-Dichlorobenzene	--	--	--	--	< 330	< 330
1,3-Dichlorobenzene	--	--	--	--	< 330	< 330
1,4-Dichlorobenzene	--	--	--	--	< 330	< 330
3,3'-Dichlorobenzidine	--	--	--	--	< 660	< 660
Diethylphthalate	--	--	--	--	< 330	< 330
Dimethylphthalate	--	--	--	--	< 330	< 330
2,4-Dinitrotoluene	--	--	--	--	< 330	< 330
2,6-Dinitrotoluene	--	--	--	--	< 330	< 330
Di-n-octylphthalate	< 300	< 300	< 300	< 300	< 330	< 330
1,2-Diphenylhydrazine	--	--	--	--	< 330	< 330
Fluoranthene	< 300	< 300	< 300	< 300	< 330	< 330
Fluorene	--	--	--	--	< 330	< 330

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Table 12
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Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-1*	SWB-1*	SWB-2*	SWB-2*	SWB-3	SWB-3
Sample Depth:	1'	3'	1'	3.5'	0.5-1'	5-5.5'
Sample Date:	11/91	11/91	11/91	11/91	12/09/93	12/09/93
Analyte						
Hexachlorobenzene	< 300	< 300	< 300	< 300	< 330	< 330
Hexachlorobutadiene	--	--	--	--	< 330	< 330
Hexachlorocyclopentadiene	--	--	--	--	< 330	< 330
Hexachloroethane	--	--	--	--	< 330	< 330
Indeno(1,2,3-cd)pyrene	< 300	< 300	< 300	< 300	< 330	< 330
Isophorone	< 300	< 300	< 300	< 300	< 330	< 330
2-Methylnaphthalene	**300**	< 300	< 300	**500**	< 330	< 330
Naphthalene	< 300	< 300	< 300	< 300	< 330	< 330
2-Nitroaniline	--	--	--	--	< 330	< 330
3-Nitroaniline	--	--	--	--	< 1600	< 1600
4-Nitroaniline	--	--	--	--	< 1600	< 1600
Nitrobenzene	< 300	< 300	< 300	< 300	< 1600	< 1600
N-Nitrosodimethylamine	--	--	--	--	< 330	< 330
N-Nitrosodiphenylamine	--	--	--	--	< 330	< 330
N-Nitrosodi-n-propylamine	--	--	--	--	< 330	< 330
Phenanthrene	< 300	< 300	< 300	< 300	< 330	< 330
Pyrene	< 300	< 300	< 300	< 300	< 330	< 330
1,2,4-Trichlorobenzene	--	--	--	--	< 330	< 330
4-Chloro-3-methylphenol	--	--	--	--	< 330	< 330
2-Chlorophenol	--	--	--	--	< 330	< 330
2,4-Dichlorophenol	--	--	--	--	< 330	< 330
2,4-Dimethylphenol	< 300	< 300	< 300	< 300	< 330	< 330
4,6-Dinitro-2-methylphenol	--	--	--	--	< 1600	< 1600
2,4-Dinitrophenol	--	--	--	--	< 1600	< 1600
2-Methylphenol	--	--	--	--	< 330	< 330
4-Methylphenol	--	--	--	--	< 330	< 330
2-Nitrophenol	--	--	--	--	< 330	< 330
4-Nitrophenol	< 2000	< 2000	< 2000	< 2000	< 1600	< 1600
Pentachlorophenol	< 2000	< 2000	< 2000	< 2000	< 1600	< 1600
Phenol	--	--	--	--	< 330	< 330
2,4,5-Trichlorophenol	--	--	--	--	< 330	< 330
2,4,6-Trichlorophenol	--	--	--	--	< 330	< 330

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Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-4	SWB-4	SWB-5	SWB-5	SWB-5	SWB-6
Sample Depth:	0.5-1'	5-5.5'	0.5-1'	5.5-6'	10-10.5'	0.5-1'
Sample Date:	12/09/93	12/09/93	12/09/93	01/12/94	01/12/94	12/07/93
Analyte						
Acenaphthene	< 330	< 330	< 330	< 330	< 330	< 330
Acenaphthylene	< 330	< 330	< 330	< 330	< 330	< 330
Anthracene	< 330	< 330	< 330	< 330	< 330	< 330
Benzidine	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
Benzoic Acid	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
Benzo(a)anthracene	< 330	< 330	< 330	< 330	< 330	< 330
Benzo(b)fluoranthene	< 330	< 330	< 330	< 330	< 330	< 330
Benzo(k)fluoranthene	< 330	< 330	< 330	< 330	< 330	< 330
Benzo(g,h,i)perylene	< 330	< 330	< 330	< 330	< 330	< 330
Benzo(a)pyrene	< 330	< 330	< 330	< 330	< 330	< 330
Benzyl Alcohol	< 660	< 660	< 660	< 660	< 660	< 660
Bis(2-chloroethyl)ether	< 330	< 330	< 330	< 330	< 330	< 330
Bis(2-chloroisopropyl)ether	< 330	< 330	< 330	< 330	< 330	< 330
Bis(2-ethylhexyl)phthalate	< 4600	< 330	< 330	< 330	< 330	< 1600
4-Bromophenyl phenyl ether	< 330	< 330	< 330	< 330	< 330	< 330
Butylbenzyl phthalate	< 330	< 330	< 330	< 330	< 330	< 330
4-Chloroaniline	< 660	< 660	< 660	< 660	< 660	< 660
2-Chloronaphthalene	< 330	< 330	< 330	< 330	< 330	< 330
4-Chlorophenyl phenyl ether	< 330	< 330	< 330	< 330	< 330	< 330
Chrysene	< 330	< 330	< 330	< 330	< 330	< 330
Dibenzo(a,h)anthracene	< 330	< 330	< 330	< 330	< 330	< 330
Dibenzofuran	< 330	< 330	< 330	< 330	< 330	< 330
Di-n-butylphthalate	< 330	< 330	< 330	< 330	< 330	< 330
1,2-Dichlorobenzene	< 330	< 330	< 330	< 330	< 330	< 330
1,3-Dichlorobenzene	< 330	< 330	< 330	< 330	< 330	< 330
1,4-Dichlorobenzene	< 330	< 330	< 330	< 330	< 330	< 330
3,3'-Dichlorobenzidine	< 660	< 660	< 660	< 660	< 660	< 660
Diethylphthalate	< 330	< 330	< 330	< 330	< 330	< 330
Dimethylphthalate	< 330	< 330	< 330	< 330	< 330	< 330
2,4-Dinitrotoluene	< 330	< 330	< 330	< 330	< 330	< 330
2,6-Dinitrotoluene	< 330	< 330	< 330	< 330	< 330	< 330
Di-n-octylphthalate	< 330	< 330	< 330	< 330	< 330	< 330
1,2-Diphenylhydrazine	< 330	< 330	< 330	< 330	< 330	< 330
Fluoranthene	< 330	< 330	< 330	< 330	< 330	< 330
Fluorene	< 330	< 330	< 330	< 330	< 330	< 330

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-4	SWB-4	SWB-5	SWB-5	SWB-5	SWB-6
Sample Depth:	0.5-1'	5-5.5'	0.5-1'	5.5-6'	10-10.5'	0.5-1'
Sample Date:	12/09/93	12/09/93	12/09/93	01/12/94	01/12/94	12/07/93
Analyte						
Hexachlorobenzene	< 330	< 330	< 330	< 330	< 330	< 330
Hexachlorobutadiene	< 330	< 330	< 330	< 330	< 330	< 330
Hexachlorocyclopentadiene	< 330	< 330	< 330	< 330	< 330	< 330
Hexachloroethane	< 330	< 330	< 330	< 330	< 330	< 330
Indeno(1,2,3-cd)pyrene	< 330	< 330	< 330	< 330	< 330	< 330
Isophorone	< 330	< 330	< 330	< 330	< 330	< 330
2-Methylnaphthalene	< 330	< 330	< 330	< 330	< 330	< 330
Naphthalene	< 330	< 330	< 330	< 330	< 330	< 330
2-Nitroaniline	< 330	< 330	< 330	< 330	< 330	< 330
3-Nitroaniline	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
4-Nitroaniline	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
Nitrobenzene	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
N-Nitrosodimethylamine	< 330	< 330	< 330	< 330	< 330	< 330
N-Nitrosodiphenylamine	< 330	< 330	< 330	< 330	< 330	< 330
N-Nitrosodi-n-propylamine	< 330	< 330	< 330	< 330	< 330	< 330
Phenanthrene	< 330	< 330	< 330	< 330	< 330	< 330
Pyrene	< 330	< 330	< 330	< 330	< 330	< 330
1,2,4-Trichlorobenzene	< 330	< 330	< 330	< 330	< 330	< 330
4-Chloro-3-methylphenol	< 330	< 330	< 330	< 330	< 330	< 330
2-Chlorophenol	< 330	< 330	< 330	< 330	< 330	< 330
2,4-Dichlorophenol	< 330	< 330	< 330	< 330	< 330	< 330
2,4-Dimethylphenol	< 330	< 330	< 330	< 330	< 330	< 330
4,6-Dinitro-2-methylphenol	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
2,4-Dinitrophenol	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
2-Methylphenol	< 330	< 330	< 330	< 330	< 330	< 330
4-Methylphenol	< 330	< 330	< 330	< 330	< 330	< 330
2-Nitrophenol	< 330	< 330	< 330	< 330	< 330	< 330
4-Nitrophenol	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
Pentachlorophenol	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
Phenol	< 330	< 330	< 330	< 330	< 330	< 330
2,4,5-Trichlorophenol	< 330	< 330	< 330	< 330	< 330	< 330
2,4,6-Trichlorophenol	< 330	< 330	< 330	< 330	< 330	< 330

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-6	SWB-7	SWB-7	SWB-7	SWB-7	SWB-8
Sample Depth:	5.5-6'	1-1.5'	5-5.5'	10-10.5'	15-15.5'	0.5-1'
Sample Date:	12/07/93	12/09/93	12/09/93	01/12/94	12/09/93	12/08/93
Analyte						
Acenaphthene	< 330	**360**	**5100**	< 330	< 330	< 330
Acenaphthylene	< 330	< 330	< 1700	< 330	< 330	< 330
Anthracene	< 330	**500**	**6100**	< 330	< 330	< 330
Benzidine	< 1600	< 1600	< 8000	< 1600	< 1600	< 1600
Benzoic Acid	< 1600	< 1600	< 8000	< 1600	< 1600	< 1600
Benzo(a)anthracene	< 330	**370**	**4100**	< 330	< 330	< 330
Benzo(b)fluoranthene	< 330	**420**	**4100**	< 330	< 330	< 330
Benzo(k)fluoranthene	< 330	< 330	**2700**	< 330	< 330	< 330
Benzo(g,h,i)perylene	< 330	< 330	< 1700	< 330	< 330	< 330
Benzo(a)pyrene	< 330	< 330	**3300**	< 330	< 330	< 330
Benzyl Alcohol	< 660	< 660	< 3300	< 660	< 660	< 660
Bis(2-chloroethyl)ether	< 330	< 330	< 1700	< 330	< 330	< 330
Bis(2-chloroisopropyl)ether	< 330	< 330	< 1700	< 330	< 330	< 330
Bis(2-ethylhexyl)phthalate	< 330	< 1700	< 1700	< 330	< 330	< 330
4-Bromophenyl phenyl ether	< 330	< 330	< 1700	< 330	< 330	< 330
Butylbenzyl phthalate	< 330	< 330	< 1700	< 330	< 330	< 330
4-Chloroaniline	< 660	< 660	< 3300	< 660	< 660	< 660
2-Chloronaphthalene	< 330	< 330	< 1700	< 330	< 330	< 330
4-Chlorophenyl phenyl ether	< 330	< 330	< 1700	< 3[illegible]	< 330	< 330
Chrysene	< 330	**440**	**4400**	< 330	< 330	< 330
Dibenzo(a,h)anthracene	< 330	< 330	< 1700	< 330	< 330	< 330
Dibenzofuran	< 330	< 330	< 1700	< 330	< 330	< 330
Di-n-butylphthalate	< 330	< 330	< 1700	< 330	< 330	< 330
1,2-Dichlorobenzene	< 330	< 330	< 1700	< 330	< 330	< 330
1,3-Dichlorobenzene	< 330	< 330	< 1700	< 330	< 330	< 330
1,4-Dichlorobenzene	< 330	< 330	< 1700	< 330	< 330	< 330
3,3'-Dichlorobenzidine	< 660	< 660	< 3300	< 660	< 660	< 660
Diethylphthalate	< 330	< 330	< 1700	< 330	< 330	< 330
Dimethylphthalate	< 330	< 330	< 1700	< 330	< 330	< 330
2,4-Dinitrotoluene	< 330	< 330	< 1700	< 330	< 330	< 330
2,6-Dinitrotoluene	< 330	< 330	< 1700	< 330	< 330	< 330
Di-n-octylphthalate	< 330	< 330	< 330	< 330	< 330	< 330
1,2-Diphenylhydrazine	< 330	< 330	< 330	< 330	< 330	< 330
Fluoranthene	< 330	**1400**	**14000**	< 330	< 330	< 330
Fluorene	< 330	< 330	**2900**	< 330	< 330	< 330

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-6	SWB-7	SWB-7	SWB-7	SWB-7	SWB-8
Sample Depth:	5.5-6'	1-1.5'	5-5.5'	10-10.5'	15-15.5'	0.5-1'
Sample Date:	12/07/93	12/09/93	12/09/93	01/12/94	12/09/93	12/08/93
Analyte						
Hexachlorobenzene	< 330	< 330	< 1700	< 330	< 330	< 330
Hexachlorobutadiene	< 330	< 330	< 1700	< 330	< 330	< 330
Hexachlorocyclopentadiene	< 330	< 330	< 1700	< 330	< 330	< 330
Hexachloroethane	< 330	< 330	< 1700	< 330	< 330	< 330
Indeno(1,2,3-cd)pyrene	< 330	< 330	< 1700	< 330	< 330	< 330
Isophorone	< 330	< 330	< 1700	< 330	< 330	< 330
2-Methylnaphthalene	< 330	< 330	< 1700	< 330	< 330	< 330
Naphthalene	< 330	< 330	**1700**	< 330	< 330	< 330
2-Nitroaniline	< 330	< 330	< 1700	< 330	< 330	< 330
3-Nitroaniline	< 1600	< 1600	< 8000	< 1600	< 1600	< 1600
4-Nitroaniline	< 1600	< 1600	< 8000	< 1600	< 1600	< 1600
Nitrobenzene	< 1600	< 1600	< 8000	< 1600	< 1600	< 1600
N-Nitrosodimethylamine	< 330	< 330	< 1700	< 330	< 330	< 330
N-Nitrosodiphenylamine	< 330	< 330	< 1700	< 330	< 330	< 330
N-Nitrosodi-n-propylamine	< 330	< 330	< 1700	< 330	< 330	< 330
Phenanthrene	< 330	**1400**	**14000**	< 330	< 330	< 330
Pyrene	< 330	**810**	**8100**	< 330	< 330	< 330
1,2,4-Trichlorobenzene	< 330	< 330	< 1700	< 330	< 330	< 330
4-Chloro-3-methylphenol	< 330	< 330	< 1700	< 330	< 330	< 330
2-Chlorophenol	< 330	< 330	< 1700	< 330	< 330	< 330
2,4-Dichlorophenol	< 330	< 330	< 1700	< 330	< 330	< 330
2,4-Dimethylphenol	< 330	< 330	< 1700	< 330	< 330	< 330
4,6-Dinitro-2-methylphenol	< 1600	< 1600	< 8000	< 1600	< 1600	< 1600
2,4-Dinitrophenol	< 1600	< 1600	< 8000	< 1600	< 1600	< 1600
2-Methylphenol	< 330	< 330	< 1700	< 330	< 330	< 330
4-Methylphenol	< 330	< 330	< 1700	< 330	< 330	< 330
2-Nitrophenol	< 330	< 330	< 1700	< 330	< 330	< 330
4-Nitrophenol	< 1600	< 1600	< 8000	< 1600	< 1600	< 1600
Pentachlorophenol	< 1600	< 1600	< 8000	< 1600	< 1600	< 1600
Phenol	< 330	< 330	< 1700	< 330	< 330	< 330
2,4,5-Trichlorophenol	< 330	< 330	< 1700	< 330	< 330	< 330
2,4,6-Trichlorophenol	< 330	< 330	< 1700	< 330	< 330	< 330

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-8	SWB-8	SWB-8	SWB-9	SWB-9	SWB-9
Sample Depth:	5-5.5'	10-10.5'	15-15.5'	3-3.5'	4-4.5'	10-10.5'
Sample Date:	12/08/93	12/08/93	12/08/93	12/07/93	12/07/93	12/07/93
Analyte						
Acenaphthene	< 330	< 330	< 330	**43000**	**6800**	< 17000
Acenaphthylene	< 330	< 330	< 330	< 8300	< 3300	< 17000
Anthracene	< 330	< 330	< 330	**24000**	< 3300	< 17000
Benzidine	< 1600	< 1600	< 1600	< 42000	< 16000	< 83000
Benzoic Acid	< 1600	< 1600	< 1600	< 42000	< 16000	< 83000
Benzo(a)anthracene	< 330	< 330	< 330	**8400**	< 3300	< 17000
Benzo(b)fluoranthene	< 330	< 330	< 330	**11000**	< 3300	< 17000
Benzo(k)fluoranthene	< 330	< 330	< 330	< 8300	< 3300	< 17000
Benzo(g,h,i)perylene	< 330	< 330	< 330	< 8300	< 3300	< 17000
Benzo(a)pyrene	< 330	< 330	< 330	< 8300	< 3300	< 17000
Benzyl Alcohol	< 660	< 660	< 660	< 17000	< 6600	< 33000
Bis(2-chloroethyl)ether	< 330	< 330	< 330	< 8300	< 3300	< 17000
Bis(2-chloroisopropyl)ether	< 330	< 330	< 330	< 8300	< 3300	< 17000
Bis(2-ethylhexyl)phthalate	< 330	< 330	< 330	< 8300	< 3300	< 17000
4-Bromophenyl phenyl ether	< 330	< 330	< 330	< 8300	< 3300	< 17000
Butylbenzyl phthalate	< 330	< 330	< 330	< 8300	< 3300	< 17000
4-Chloroaniline	< 660	< 660	< 660	< 17000	< 6600	< 33000
2-Chloronaphthalene	< 330	< 330	< 330	< 8300	< 3300	< 17000
4-Chlorophenyl phenyl ether	< 330	< 330	< 330	< 8300	< 3300	< 17000
Chrysene	< 330	< 330	< 330	**9900**	< 3300	< 17000
Dibenzo(a,h)anthracene	< 330	< 330	< 330	< 8300	< 3300	< 17000
Dibenzofuran	< 330	< 330	< 330	**23000**	< 3300	< 17000
Di-n-butylphthalate	< 330	< 330	< 330	< 8300	< 3300	< 17000
1,2-Dichlorobenzene	< 330	< 330	< 330	< 8300	< 3300	< 17000
1,3-Dichlorobenzene	< 330	< 330	< 330	< 8300	< 3300	< 17000
1,4-Dichlorobenzene	< 330	< 330	< 330	< 8300	< 3300	< 17000
3,3'-Dichlorobenzidine	< 660	< 660	< 660	< 17000	< 6600	< 33000
Diethylphthalate	< 330	< 330	< 330	< 8300	< 3300	< 17000
Dimethylphthalate	< 330	< 330	< 330	< 8300	< 3300	< 17000
2,4-Dinitrotoluene	< 330	< 330	< 330	< 8300	< 3300	< 17000
2,6-Dinitrotoluene	< 330	< 330	< 330	< 8300	< 3300	< 17000
Di-n-octylphthalate	< 330	< 330	< 330	< 8300	< 3300	< 330
1,2-Diphenylhydrazine	< 330	< 330	< 330	< 8300	< 3300	< 330
Fluoranthene	**440**	< 330	< 330	**50000**	< 3300	< 330
Fluorene	< 330	< 330	< 330	**36000**	**3700**	< 330

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-8	SWB-8	SWB-8	SWB-9	SWB-9	SWB-9
Sample Depth:	5-5.5'	10-10.5'	15-15.5'	3-3.5'	4-4.5'	10-10.5'
Sample Date:	12/08/93	12/08/93	12/08/93	12/07/93	12/07/93	12/07/93
Analyte						
Hexachlorobenzene	< 330	< 330	< 330	< 8300	< 3300	< 330
Hexachlorobutadiene	< 330	< 330	< 330	< 8300	< 3300	< 330
Hexachlorocyclopentadiene	< 330	< 330	< 330	< 8300	< 3300	< 330
Hexachloroethane	< 330	< 330	< 330	< 8300	< 3300	< 330
Indeno(1,2,3-cd)pyrene	< 330	< 330	< 330	< 8300	< 3300	< 330
Isophorone	< 330	< 330	< 330	< 8300	< 3300	< 330
2-Methylnaphthalene	< 330	< 330	< 330	**75000**	**17000**	< 330
Naphthalene	< 330	< 330	< 330	**73000**	**13000**	< 330
2-Nitroaniline	< 330	< 330	< 330	< 8300	< 3300	< 330
3-Nitroaniline	< 1600	< 1600	< 1600	< 4200	< 16000	< 1600
4-Nitroaniline	< 1600	< 1600	< 1600	< 4200	< 16000	< 1600
Nitrobenzene	< 1600	< 1600	< 1600	< 4200	< 16000	< 1600
N-Nitrosodimethylamine	< 330	< 330	< 330	< 8300	< 3300	< 330
N-Nitrosodiphenylamine	< 330	< 330	< 330	< 8300	< 3300	< 330
N-Nitrosodi-n-propylamine	< 330	< 330	< 330	< 8300	< 3300	< 330
Phenanthrene	< 330	**1200**	**740**	**83000**	**6300**	< 330
Pyrene	< 330	< 330	< 330	**28000**	< 3300	< 330
1,2,4-Trichlorobenzene	< 330	< 330	< 330	< 8300	< 3300	< 330
4-Chloro-3-methylphenol	< 330	< 330	< 330	< 8300	< 3300	< 330
2-Chlorophenol	< 330	< 330	< 330	< 8300	< 3300	< 330
2,4-Dichlorophenol	< 330	< 330	< 330	< 8300	< 3300	< 330
2,4-Dimethylphenol	< 330	< 330	< 330	< 8300	< 3300	< 330
4,6-Dinitro-2-methylphenol	< 1600	< 1600	< 1600	< 42000	< 16000	< 1600
2,4-Dinitrophenol	< 1600	< 1600	< 1600	< 42000	< 16000	< 1600
2-Methylphenol	< 330	< 330	< 330	< 8300	< 3300	< 330
4-Methylphenol	< 330	< 330	< 330	< 8300	< 3300	< 330
2-Nitrophenol	< 330	< 330	< 330	< 8300	< 3300	< 330
4-Nitrophenol	< 1600	< 1600	< 1600	< 42000	< 16000	< 1600
Pentachlorophenol	< 1600	< 1600	< 1600	< 42000	< 16000	< 1600
Phenol	< 330	< 330	< 330	< 8300	< 3300	< 330
2,4,5-Trichlorophenol	< 330	< 330	< 330	< 8300	< 3300	< 330
2,4,6-Trichlorophenol	< 330	< 330	< 330	< 8300	< 3300	< 330

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-9	SWB-10	SWB-10	SWB-11	SWB-11	MF-1A
Sample Depth:	15-15.5'	1-1.5'	4-4.5'	0.5-1'	5-5.5'	0.5'
Sample Date:	12/07/93	12/07/93	12/07/93	12/09/93	12/09/93	04/05/94
Analyte						
Acenaphthene	< 1700	< 330	< 330	< 330	< 330	< 330
Acenaphthylene	< 1700	< 330	< 330	< 330	< 330	< 330
Anthracene	< 1700	< 330	< 330	< 330	< 330	< 330
Benzidine	< 8300	< 1600	< 1600	< 1600	< 1600	< 1600
Benzoic Acid	< 8300	< 1600	< 1600	< 1600	< 1600	< 1600
Benzo(a)anthracene	< 1700	< 330	< 330	< 330	< 330	< 330
Benzo(b)fluoranthene	< 1700	< 330	< 330	< 330	< 330	< 330
Benzo(k)fluoranthene	< 1700	< 330	< 330	< 330	< 330	< 330
Benzo(g,h,i)perylene	< 1700	< 330	< 330	< 330	< 330	< 330
Benzo(a)pyrene	< 1700	< 330	< 330	< 330	< 330	< 330
Benzyl Alcohol	< 3300	< 660	< 660	< 660	< 660	< 660
Bis(2-chloroethyl)ether	< 1700	< 330	< 330	< 330	< 330	< 330
Bis(2-chloroisopropyl)ether	< 1700	< 330	< 330	< 330	< 330	< 330
Bis(2-ethylhexyl)phthalate	< 1700	< 330	< 330	< 330	< 330	**690**
4-Bromophenyl phenyl ether	< 1700	< 330	< 330	< 330	< 330	< 330
Butylbenzyl phthalate	< 1700	< 330	< 330	< 330	< 330	< 330
4-Chloroaniline	< 3300	< 660	< 660	< 660	< 660	< 660
2-Chloronaphthalene	< 1700	< 330	< 330	< 330	< 330	< 330
4-Chlorophenyl phenyl ether	< 1700	< 330	< 330	< 330	< 330	< 330
Chrysene	< 1700	< 330	< 330	< 330	< 330	< 330
Dibenzo(a,h)anthracene	< 1700	< 330	< 330	< 330	< 330	< 330
Dibenzofuran	< 1700	< 330	< 330	< 330	< 330	< 330
Di-n-butylphthalate	< 1700	< 330	< 330	< 330	< 330	< 330
1,2-Dichlorobenzene	< 1700	< 330	< 330	< 330	< 330	< 330
1,3-Dichlorobenzene	< 1700	< 330	< 330	< 330	< 330	< 330
1,4-Dichlorobenzene	< 1700	< 330	< 330	< 330	< 330	< 330
3,3'-Dichlorobenzidine	< 3300	< 660	< 660	< 660	< 660	< 660
Diethylphthalate	< 1700	< 330	< 330	< 330	< 330	< 330
Dimethylphthalate	< 1700	< 330	< 330	< 330	< 330	< 330
2,4-Dinitrotoluene	< 1700	< 330	< 330	< 330	< 330	< 330
2,6-Dinitrotoluene	< 1700	< 330	< 330	< 330	< 330	< 330
Di-n-octylphthalate	< 330	< 330	< 330	< 330	< 330	< 330
1,2-Diphenylhydrazine	< 330	< 330	< 330	< 330	< 330	< 330
Fluoranthene	< 330	< 330	< 330	< 330	< 330	**430**
Fluorene	< 330	< 330	< 330	< 330	< 330	< 330

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	SWB-9	SWB-10	SWB-10	SWB-11	SWB-11	MF-1A
Sample Depth:	15-15.5'	1-1.5'	4-4.5'	0.5-1'	5-5.5'	0.5'
Sample Date:	12/07/93	12/07/93	12/07/93	12/09/93	12/09/93	04/05/94
Analyte						
Hexachlorobenzene	< 330	< 330	< 330	< 330	< 330	< 330
Hexachlorobutadiene	< 330	< 330	< 330	< 330	< 330	< 330
Hexachlorocyclopentadiene	< 330	< 330	< 330	< 330	< 330	< 330
Hexachloroethane	< 330	< 330	< 330	< 330	< 330	< 330
Indeno(1,2,3-cd)pyrene	< 330	< 330	< 330	< 330	< 330	< 330
Isophorone	< 330	< 330	< 330	< 330	< 330	< 330
2-Methylnaphthalene	< 330	< 330	< 330	< 330	< 330	< 330
Naphthalene	< 330	< 330	< 330	< 330	< 330	< 330
2-Nitroaniline	< 330	< 330	< 330	< 330	< 330	< 330
3-Nitroaniline	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
4-Nitroaniline	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
Nitrobenzene	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
N-Nitrosodimethylamine	< 330	< 330	< 330	< 330	< 330	< 330
N-Nitrosodiphenylamine	< 330	< 330	< 330	< 330	< 330	< 330
N-Nitrosodi-n-propylamine	< 330	< 330	< 330	< 330	< 330	< 330
Phenanthrene	< 330	< 330	< 330	< 330	< 330	< 330
Pyrene	< 330	< 330	< 330	< 330	< 330	**600**
1,2,4-Trichlorobenzene	< 330	< 330	< 330	< 330	< 330	< 330
4-Chloro-3-methylphenol	< 330	< 330	< 330	< 330	< 330	< 330
2-Chlorophenol	< 330	< 330	< 330	< 330	< 330	< 330
2,4-Dichlorophenol	< 330	< 330	< 330	< 330	< 330	< 330
2,4-Dimethylphenol	< 330	< 330	< 330	< 330	< 330	< 330
4,6-Dinitro-2-methylphenol	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
2,4-Dinitrophenol	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
2-Methylphenol	< 330	< 330	< 330	< 330	< 330	< 330
4-Methylphenol	< 330	< 330	< 330	< 330	< 330	< 330
2-Nitrophenol	< 330	< 330	< 330	< 330	< 330	< 330
4-Nitrophenol	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
Pentachlorophenol	< 1600	< 1600	< 1600	< 1600	< 1600	< 1600
Phenol	< 330	< 330	< 330	< 330	< 330	< 330
2,4,5-Trichlorophenol	< 330	< 330	< 330	< 330	< 330	< 330
2,4,6-Trichlorophenol	< 330	< 330	< 330	< 330	< 330	< 330

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MF-1B	MF-1C	MF-2A	MF-2B	MF-2C
Sample Depth:	0.5'	0.5'	0.5'	0.5'	0.5'
Sample Date:	04/05/94	04/05/94	04/05/94	04/05/94	04/05/94
Analyte					
Acenaphthene	< 330	< 330	< 330	< 330	< 330
Acenaphthylene	< 330	< 330	< 330	< 330	< 330
Anthracene	< 330	< 330	< 330	< 330	< 330
Benzidine	< 1600	< 1600	< 1600	< 1600	< 1600
Benzoic Acid	< 1600	< 1600	< 1600	< 1600	< 1600
Benzo(a)anthracene	< 330	< 330	< 330	< 330	< 330
Benzo(b)fluoranthene	< 330	< 330	< 330	< 330	< 330
Benzo(k)fluoranthene	< 330	< 330	< 330	< 330	< 330
Benzo(g,h,i)perylene	< 330	< 330	< 330	< 330	< 330
Benzo(a)pyrene	< 330	< 330	< 330	< 330	< 330
Benzyl Alcohol	< 660	< 660	< 660	< 660	< 660
Bis(2-chloroethyl)ether	< 330	< 330	< 330	< 330	< 330
Bis(2-chloroisopropyl)ether	< 330	< 330	< 330	< 330	< 330
Bis(2-ethylhexyl)phthalate	**860**	**590**	< 330	< 330	< 330
4-Bromophenyl phenyl ether	< 330	< 330	< 330	< 330	< 330
Butylbenzyl phthalate	< 330	< 330	< 330	< 330	< 330
4-Chloroaniline	< 660	< 660	< 660	< 660	< 660
2-Chloronaphthalene	< 330	< 330	< 330	< 330	< 330
4-Chlorophenyl phenyl ether	< 330	< 330	< 330	< 330	< 330
Chrysene	< 330	< 330	< 330	< 330	< 330
Dibenzo(a,h)anthracene	< 330	< 330	< 330	< 330	< 330
Dibenzofuran	< 330	< 330	< 330	< 330	< 330
Di-n-butylphthalate	< 330	< 330	< 330	< 330	< 330
1,2-Dichlorobenzene	< 330	< 330	< 330	< 330	< 330
1,3-Dichlorobenzene	< 330	< 330	< 330	< 330	< 330
1,4-Dichlorobenzene	< 330	< 330	< 330	< 330	< 330
3,3'-Dichlorobenzidine	< 660	< 660	< 660	< 660	< 660
Diethylphthalate	< 330	< 330	< 330	< 330	< 330
Dimethylphthalate	< 330	< 330	< 330	< 330	< 330
2,4-Dinitrotoluene	< 330	< 330	< 330	< 330	< 330
2,6-Dinitrotoluene	< 330	< 330	< 330	< 330	< 330
Di-n-octylphthalate	< 330	< 330	< 330	< 330	< 330
1,2-Diphenylhydrazine	< 330	< 330	< 330	< 330	< 330
Fluoranthene	< 330	< 330	< 330	**770**	< 330
Fluorene	< 330	< 330	< 330	< 330	< 330

NOTES:
Concentrations in µg/kg or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Table 12
Summary of Semivolatile Organic Compounds Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	MF-1B	MF-1C	MF-2A	MF-2B	MF-2C
Sample Depth:	0.5'	0.5'	0.5'	0.5'	0.5'
Sample Date:	04/05/94	04/05/94	04/05/94	04/05/94	04/05/94
Analyte					
Hexachlorobenzene	< 330	< 330	< 330	< 330	< 330
Hexachlorobutadiene	< 330	< 330	< 330	< 330	< 330
Hexachlorocyclopentadiene	< 330	< 330	< 330	< 330	< 330
Hexachloroethane	< 330	< 330	< 330	< 330	< 330
Indeno(1,2,3-cd)pyrene	< 330	< 330	< 330	< 330	< 330
Isophorone	< 330	< 330	< 330	< 330	< 330
2-Methylnaphthalene	< 330	< 330	< 330	< 330	< 330
Naphthalene	< 330	< 330	< 330	< 330	< 330
2-Nitroaniline	< 330	< 330	< 330	< 330	< 330
3-Nitroaniline	< 1600	< 1600	< 1600	< 1600	< 1600
4-Nitroaniline	< 1600	< 1600	< 1600	< 1600	< 1600
Nitrobenzene	< 1600	< 1600	< 1600	< 1600	< 1600
N-Nitrosodimethylamine	< 330	< 330	< 330	< 330	< 330
N-Nitrosodiphenylamine	< 330	< 330	< 330	< 330	< 330
N-Nitrosodi-n-propylamine	< 330	< 330	< 330	< 330	< 330
Phenanthrene	< 330	< 330	< 330	**530**	< 330
Pyrene	< 330	**430**	< 330	**720**	< 330
1,2,4-Trichlorobenzene	< 330	< 330	< 330	< 330	< 330
4-Chloro-3-methylphenol	< 330	< 330	< 330	< 330	< 330
2-Chlorophenol	< 330	< 330	< 330	< 330	< 330
2,4-Dichlorophenol	< 330	< 330	< 330	< 330	< 330
2,4-Dimethylphenol	< 330	< 330	< 330	< 330	< 330
4,6-Dinitro-2-methylphenol	< 1600	< 1600	< 1600	< 1600	< 1600
2,4-Dinitrophenol	< 1600	< 1600	< 1600	< 1600	< 1600
2-Methylphenol	< 330	< 330	< 330	< 330	< 330
4-Methylphenol	< 330	< 330	< 330	< 330	< 330
2-Nitrophenol	< 330	< 330	< 330	< 330	< 330
4-Nitrophenol	< 1600	< 1600	< 1600	< 1600	< 1600
Pentachlorophenol	< 1600	< 1600	< 1600	< 1600	< 1600
Phenol	< 330	< 330	< 330	< 330	< 330
2,4,5-Trichlorophenol	< 330	< 330	< 330	< 330	< 330
2,4,6-Trichlorophenol	< 330	< 330	< 330	< 330	< 330

NOTES:
Concentrations in ug/kg or parts per billion (ppb).
Analytical method EPA 8270.
NA = Not analyzed.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

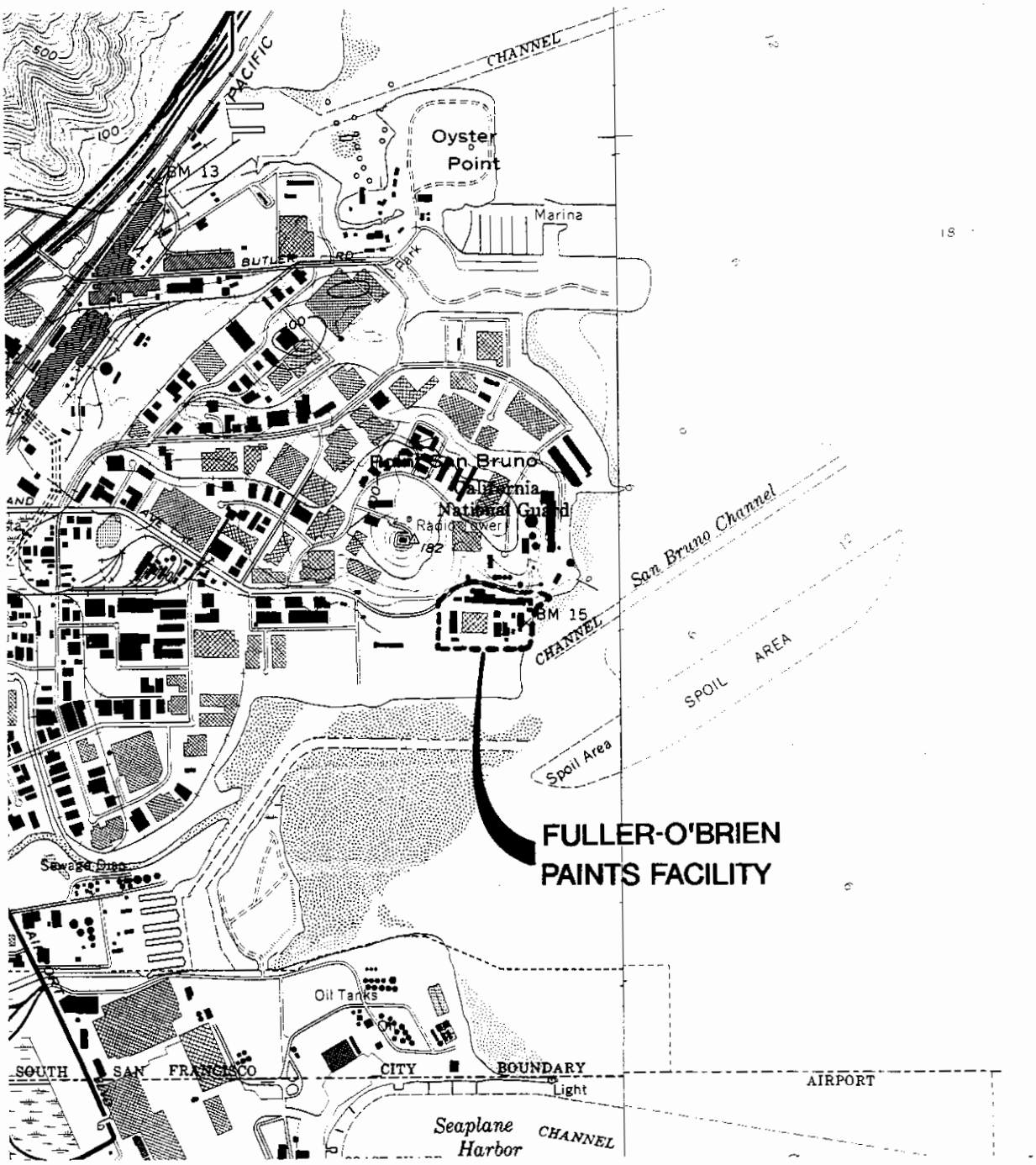
Table 13
Summary of Total Petroleum Hydrocarbons Analytical Results
for Soil and Sediment Samples
Fuller-O'Brien Paints
450 East Grand Avenue
South San Francisco, California

Sample Station:	B12*	B12*	B13*	B14*	SWB-6	SWB-8	SWB-9
Sample Depth:	3.5'	8'	4'	1.5'	5.5-6'	5-5.5'	3-3.5'
Sample Date:	1/91	1/91	1/91	1/91	12/07/93	12/08/93	12/07/93
Analyte							
TPH as Gasoline	--	--		--	**0.4**	**3**	**9000**
TPH as Diesel	**1300**	**2000**	ND	**2.8**	**18**	**220**	**1700**
TPH as Oil	**430**	ND	ND	ND	**35**	**110**	**900**

NOTES:
Concentrations in mg/kg or parts per million (ppm)
Analytical method EPA 5030/GC-FID.
ND = Not detected.
-- = Data not available.
*Data from Ratech Resources, May 1993.

Revision 4/19/94

FIGURES



APPROXIMATE SCALE IN FEET

0 2000 4000

BASE: U.S.G.S., SOUTH SAN FRANCISCO QUADRANGLE, 7.5 MINUTE SERIES, DATED 1980

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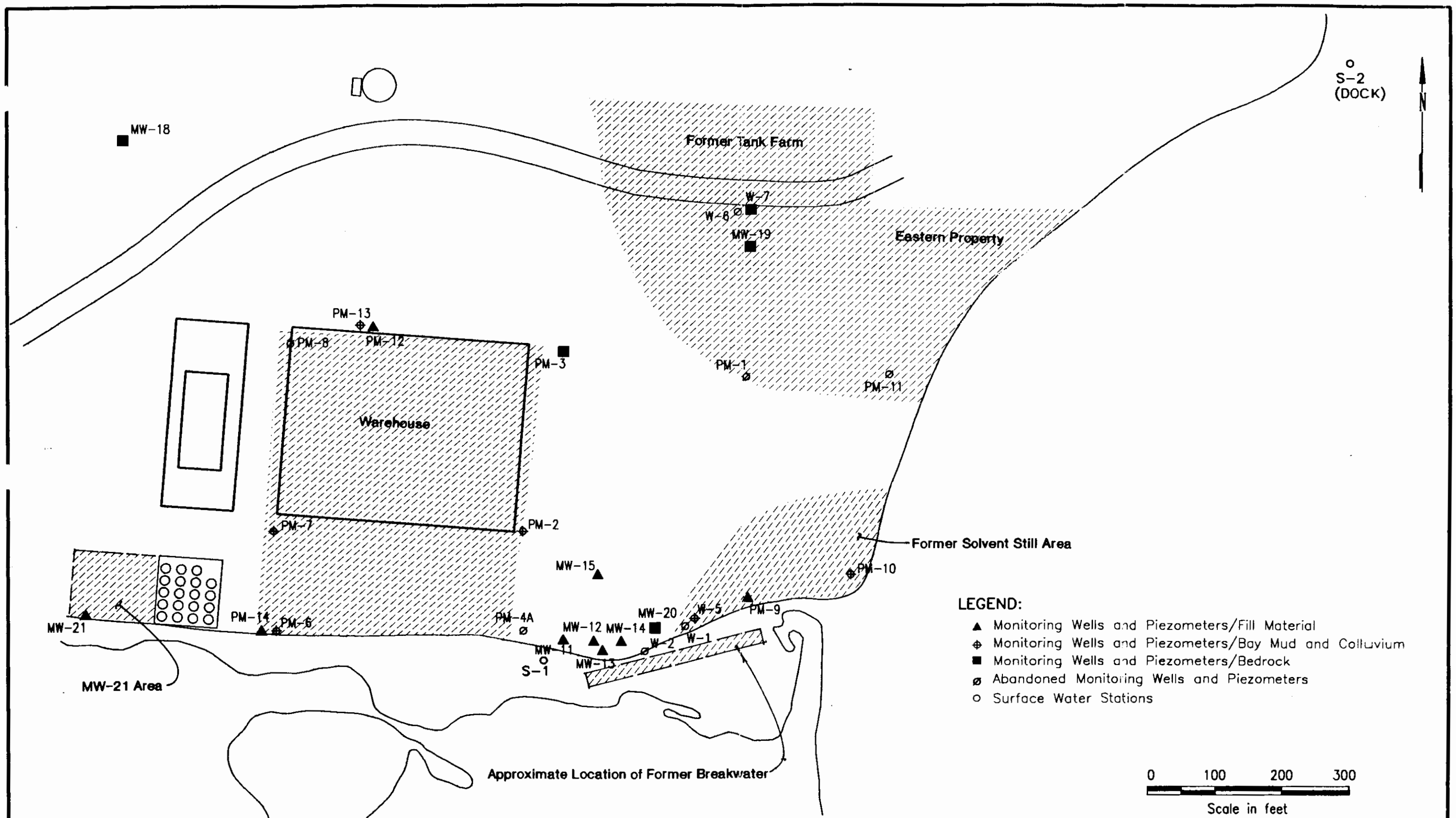
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

SITE LOCATION MAP

PROJECT NO.	DATE	
K615	April 1994	Figure 1



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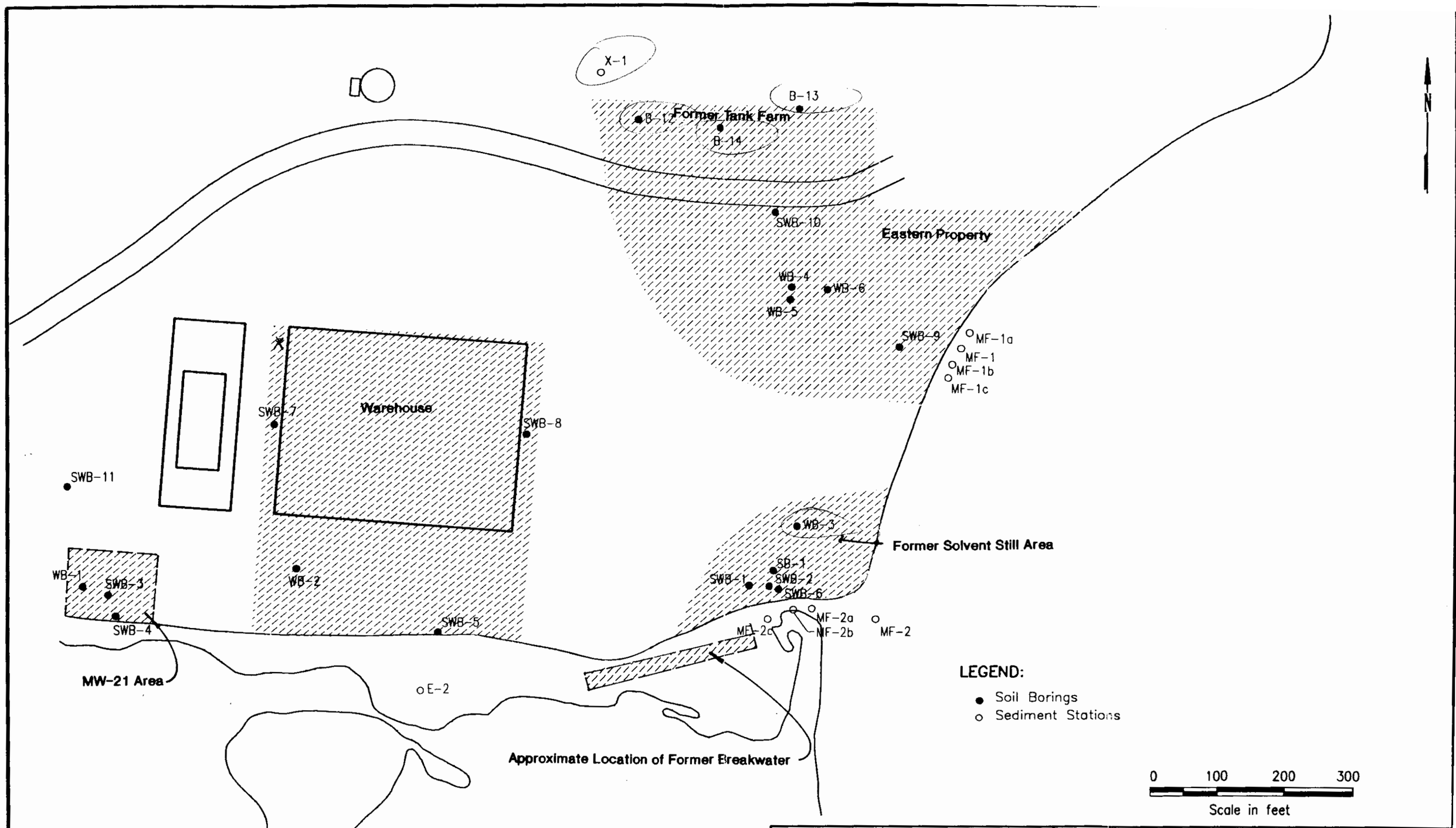
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

SITE MAP

PROJECT NUMBER	DATE	
K615J	April 1994	Figure 2

fuller1.dwg



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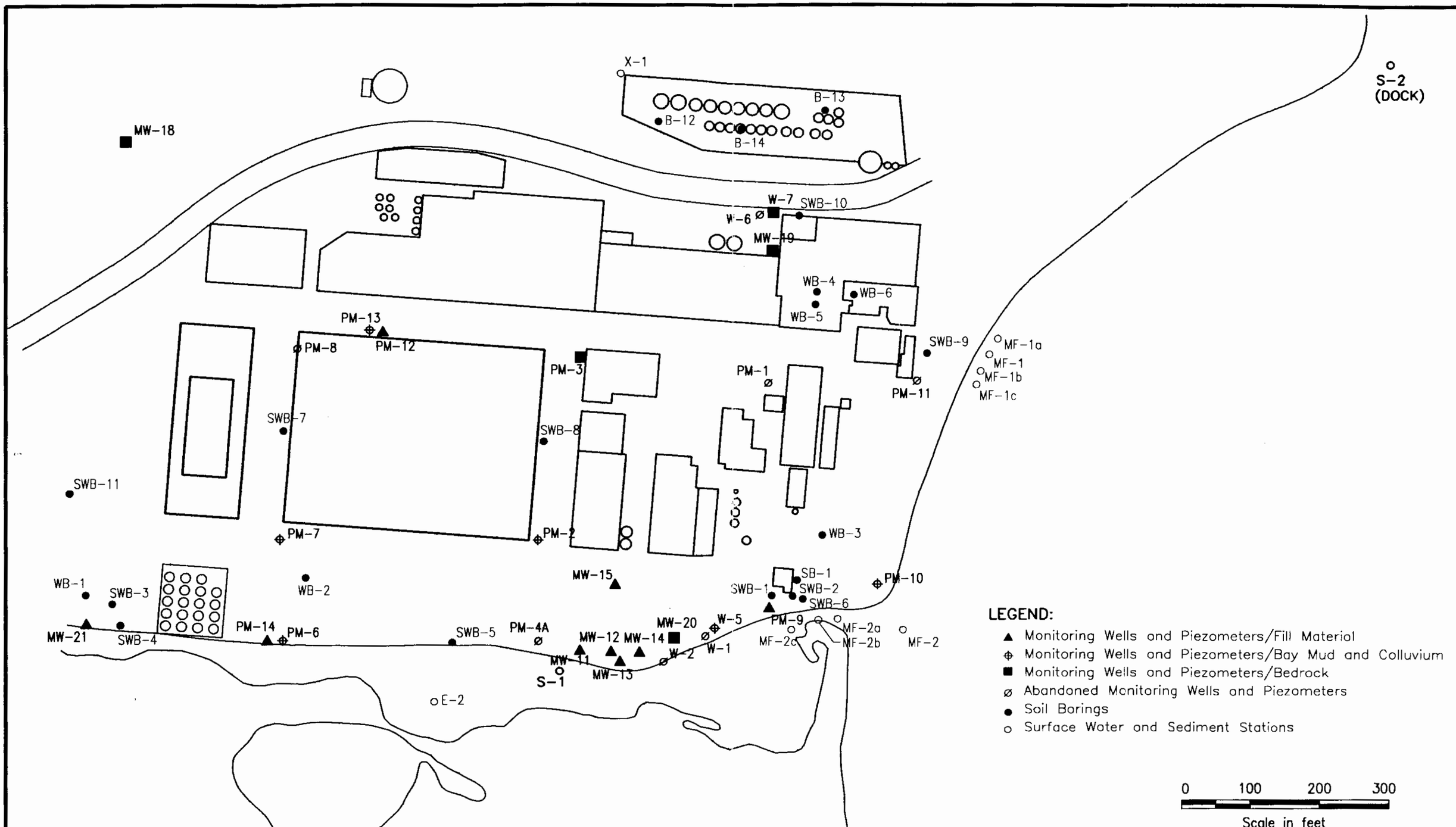
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

SOIL BORING AND SEDIMENT SAMPLE LOCATION MAP

PROJECT NUMBER	DATE	
K615J	April 1994	Figure 3

fuller2.dwg



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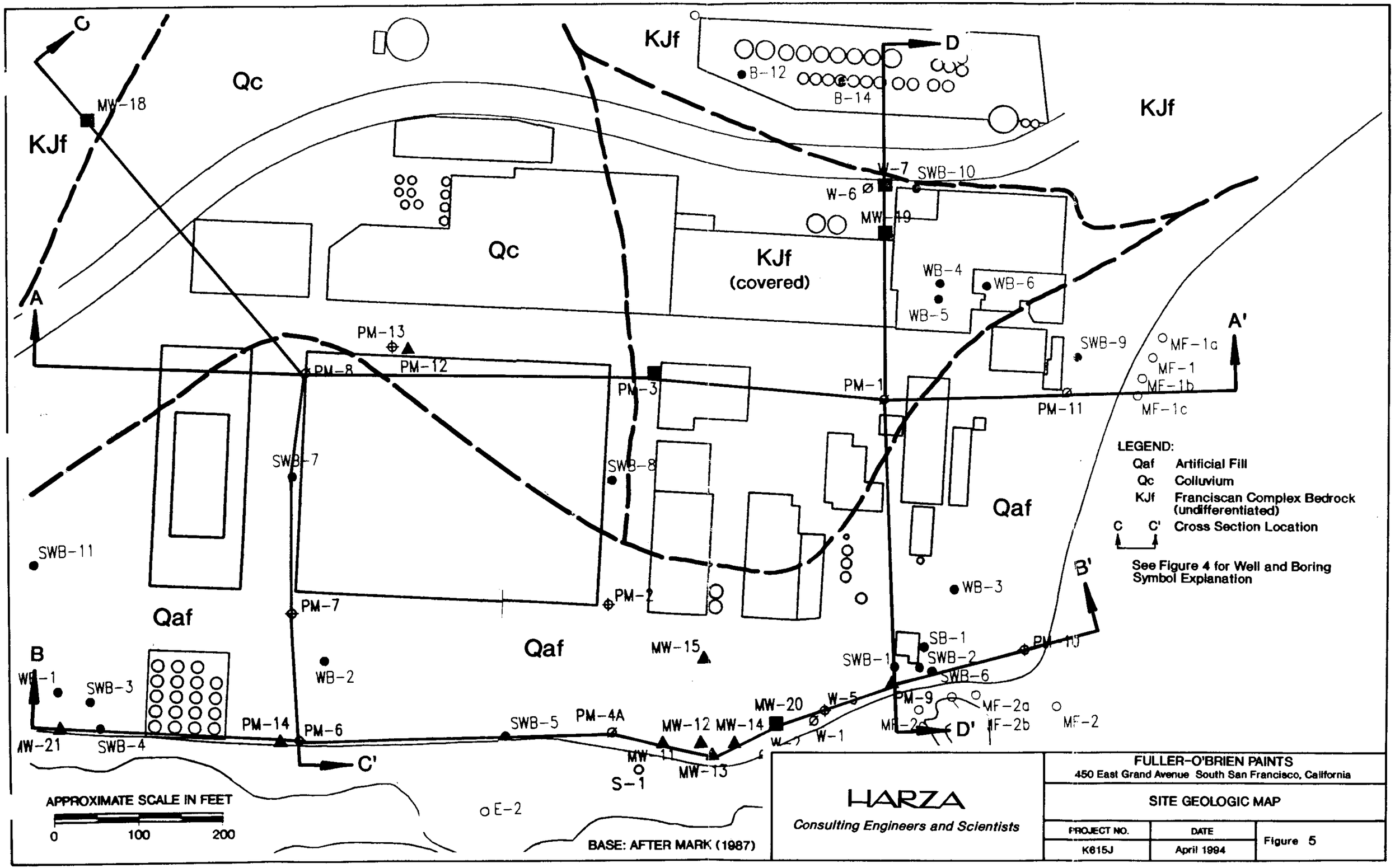
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

HISTORICAL SITE MAP

PROJECT NUMBER	DATE	
K615J	April 1994	Figure 4

fuller3.dwg


KJf
Qc
Qc
KJf
(covered)
KJf
KJf
Qaf
Qaf
Qaf
C
D
A
A'
B
B'
C'
D'
MW-18
B-12
B-14
W-7
SWB-10
W-6
MW-19
WB-4
WB-6
WB-5
SWB-9
MF-1a
MF-1
MF-1b
MF-1c
PM-13
PM-8
PM-12
PM-3
PM-1
PM-11
SWB-7
SWB-8
SWB-11
PM-7
PM-2
WB-3
SB-1
SWB-1
SWB-2
SWB-6
PM-10
MW-15
WB-2
WB-1
SWB-3
SWB-4
MW-21
PM-14
PM-6
SWB-5
PM-4A
MW-12
MW-14
MW-20
W-5
W-1
PM-9
MF-2a
MF-2b
MF-2
MW-11
MW-13
S-1
E-2
LEGEND:
Qaf Artificial Fill
Qc Colluvium
KJf Franciscan Complex Bedrock (undifferentiated)
C C' Cross Section Location
See Figure 4 for Well and Boring Symbol Explanation
APPROXIMATE SCALE IN FEET
0 100 200
BASE: AFTER MARK (1987)
HARZA
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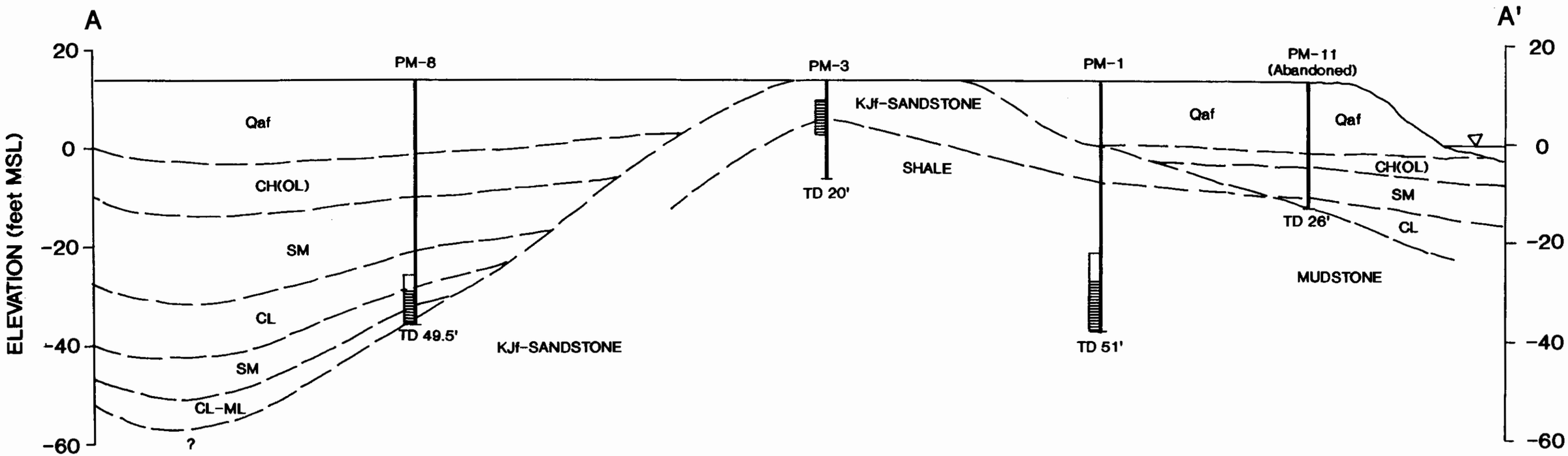
FULLER-O'BRIEN PAINTS
450 East Grand Avenue South San Francisco, California
SITE GEOLOGIC MAP
PROJECT NO.
K615J
DATE
April 1994
Figure 5



LEGEND:

Qaf	ARTIFICAL FILL
CH(OL)	SILTY CLAY - HIGH PLASTICITY (BAY MUD) (IDENTIFIED AS OL IN PREVIOUS REPORTS)
Pt	PEAT
SM	SAND AND SILTY SAND
CL	SILTY CLAY - LOW PLASTICITY
ML	SILT, CLAYEY SILT
KJf	FRANCISCAN COMPLEX BEDROCK
	MONITORING WELL OR PIEZOMETER SHOWING LOCATION OF GRAVEL PACK AND SCREENED INTERVAL

HORIZONTAL SCALE: IN FEET

0 100 200

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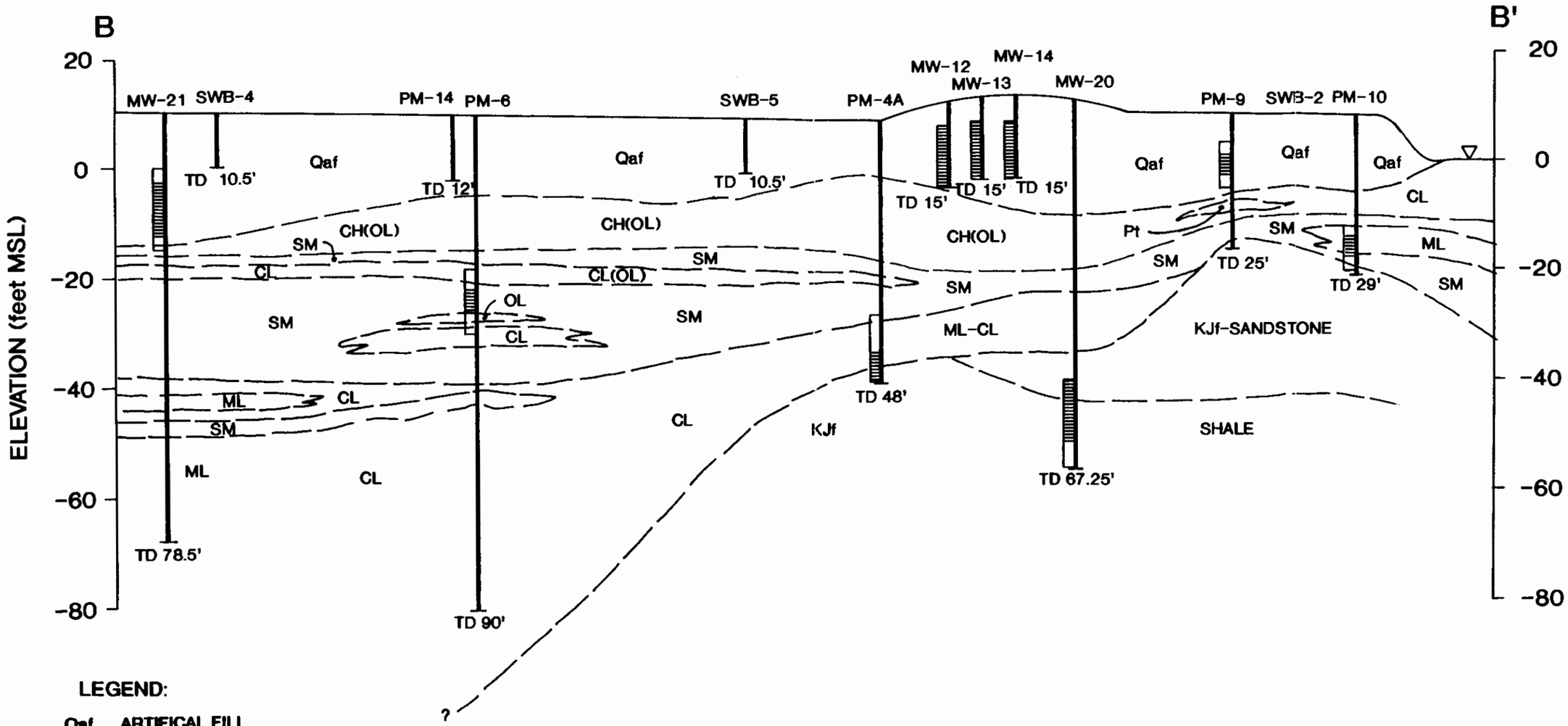
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

CROSS SECTION A - A'

PROJECT NO.	DATE	
K615J	April 1994	Figure 6



LEGEND:

Qaf	ARTIFICAL FILL
CH(OL)	SILTY CLAY - HIGH PLASTICITY (BAY MUD) (IDENTIFIED AS OL IN PREVIOUS REPORTS)
Pt	PEAT
SM	SAND AND SILTY SAND
CL	SILTY CLAY - LOW PLASTICITY
ML	SILT, CLAYEY SILT
KJf	FRANCISCAN COMPLEX BEDROCK
	MONITORING WELL OR PIEZOMETER SHOWING LOCATION OF GRAVEL PACK AND SCREENED INTERVAL

HORIZONTAL SCALE IN FEET

0 100 200

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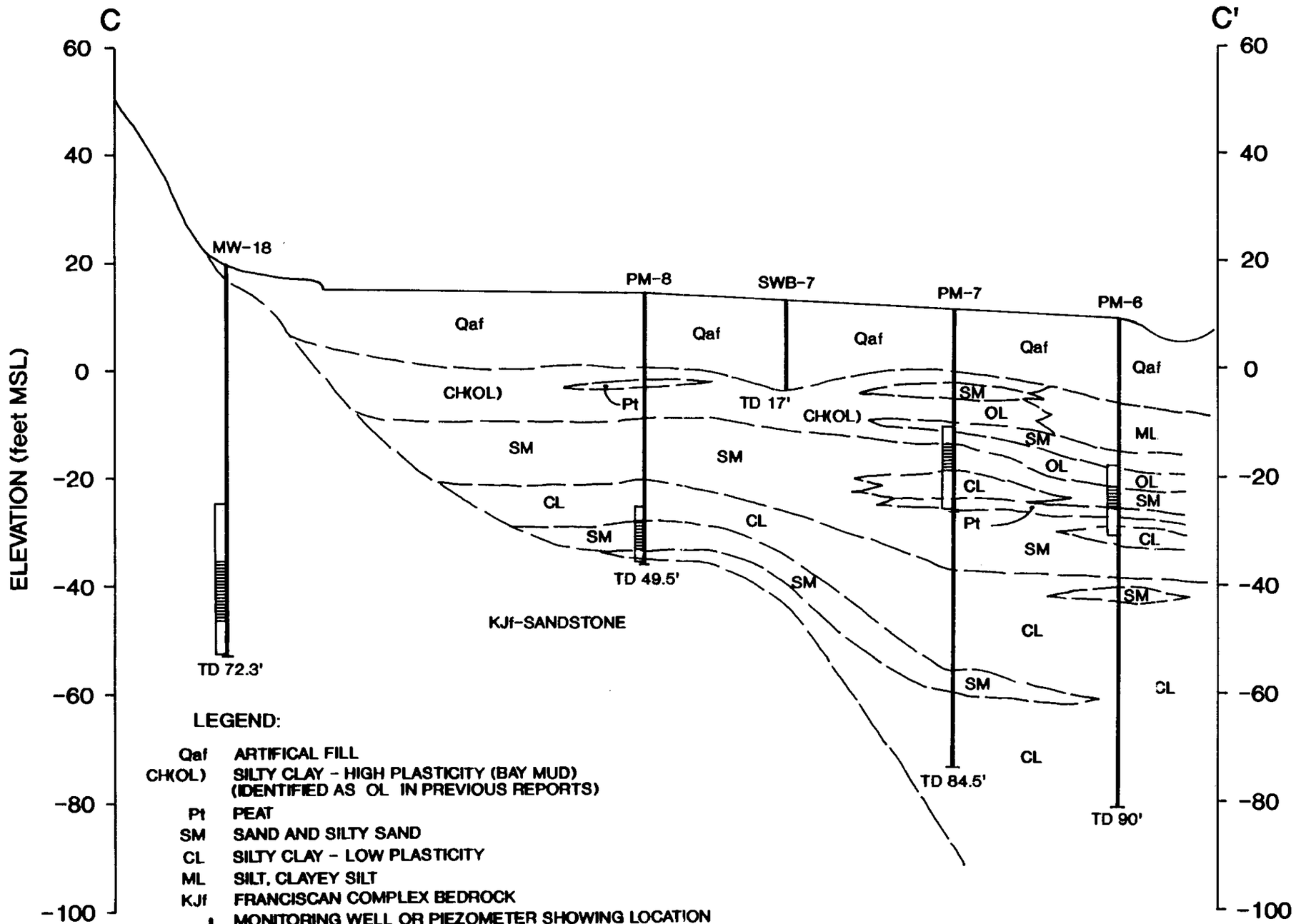
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

CROSS SECTION B - B'

PROJECT NO.	DATE	
K615J	April 1994	Figure 7



LEGEND:

Qaf	ARTIFICAL FILL
CH(OL)	SILTY CLAY - HIGH PLASTICITY (BAY MUD) (IDENTIFIED AS OL IN PREVIOUS REPORTS)
Pt	PEAT
SM	SAND AND SILTY SAND
CL	SILTY CLAY - LOW PLASTICITY
ML	SILT, CLAYEY SILT
KJf	FRANCISCAN COMPLEX BEDROCK
	MONITORING WELL OR PIEZOMETER SHOWING LOCATION OF GRAVEL PACK AND SCREENED INTERVAL

HORIZONTAL SCALE IN FEET

0 100 200

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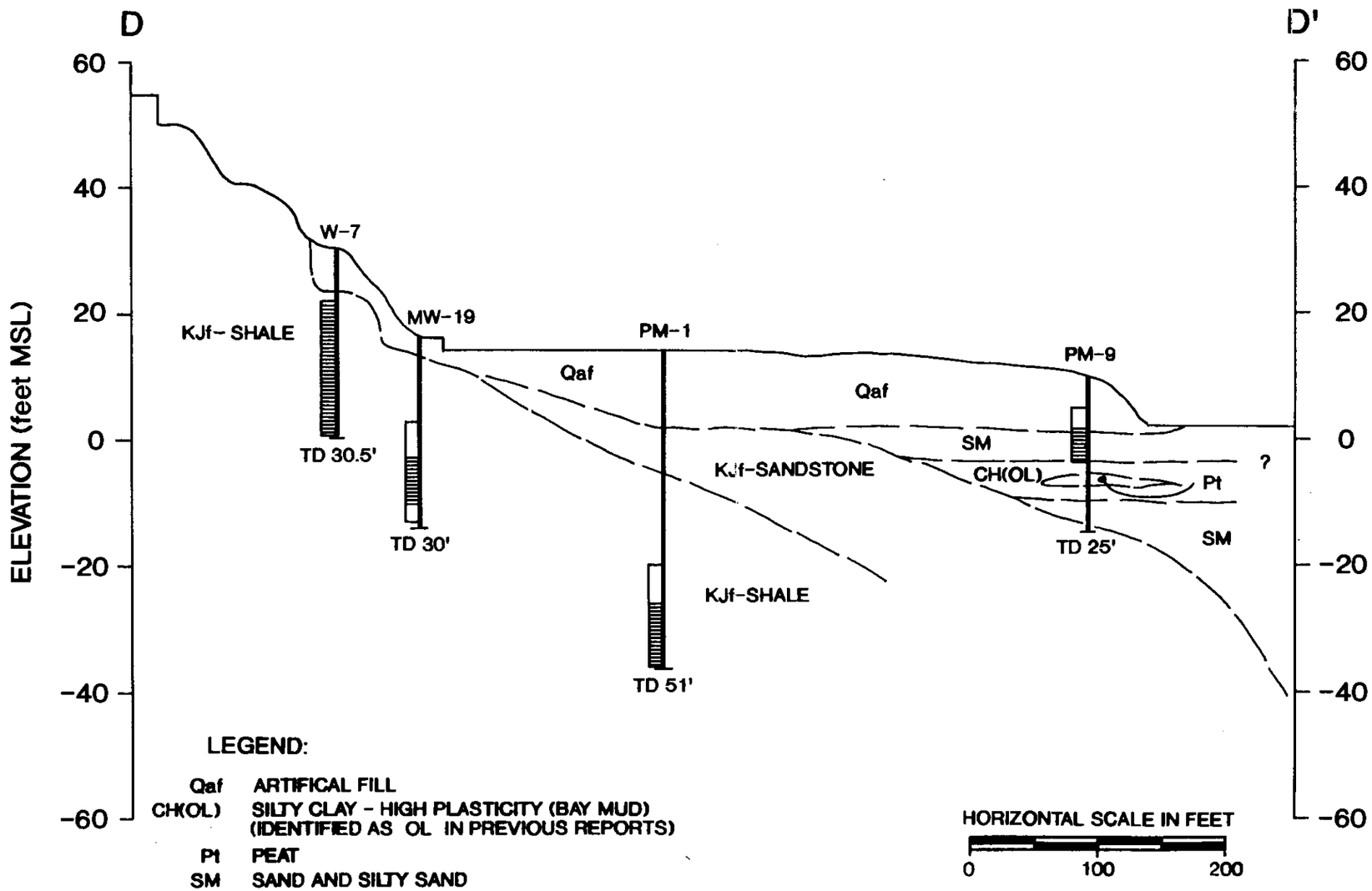
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

CROSS SECTION C - C'

PROJECT NO.	DATE	
K615J	April 1994	Figure 8



LEGEND:

Qaf	ARTIFICAL FILL
CH(OL)	SILTY CLAY - HIGH PLASTICITY (BAY MUD) (IDENTIFIED AS OL IN PREVIOUS REPORTS)
Pt	PEAT
SM	SAND AND SILTY SAND
CL	SILTY CLAY - LOW PLASTICITY
ML	SILT, CLAYEY SILT
KJf	FRANCISCAN COMPLEX BEDROCK
	MONITORING WELL OR PIEZOMETER SHOWING LOCATION OF GRAVEL PACK AND SCREENED INTERVAL

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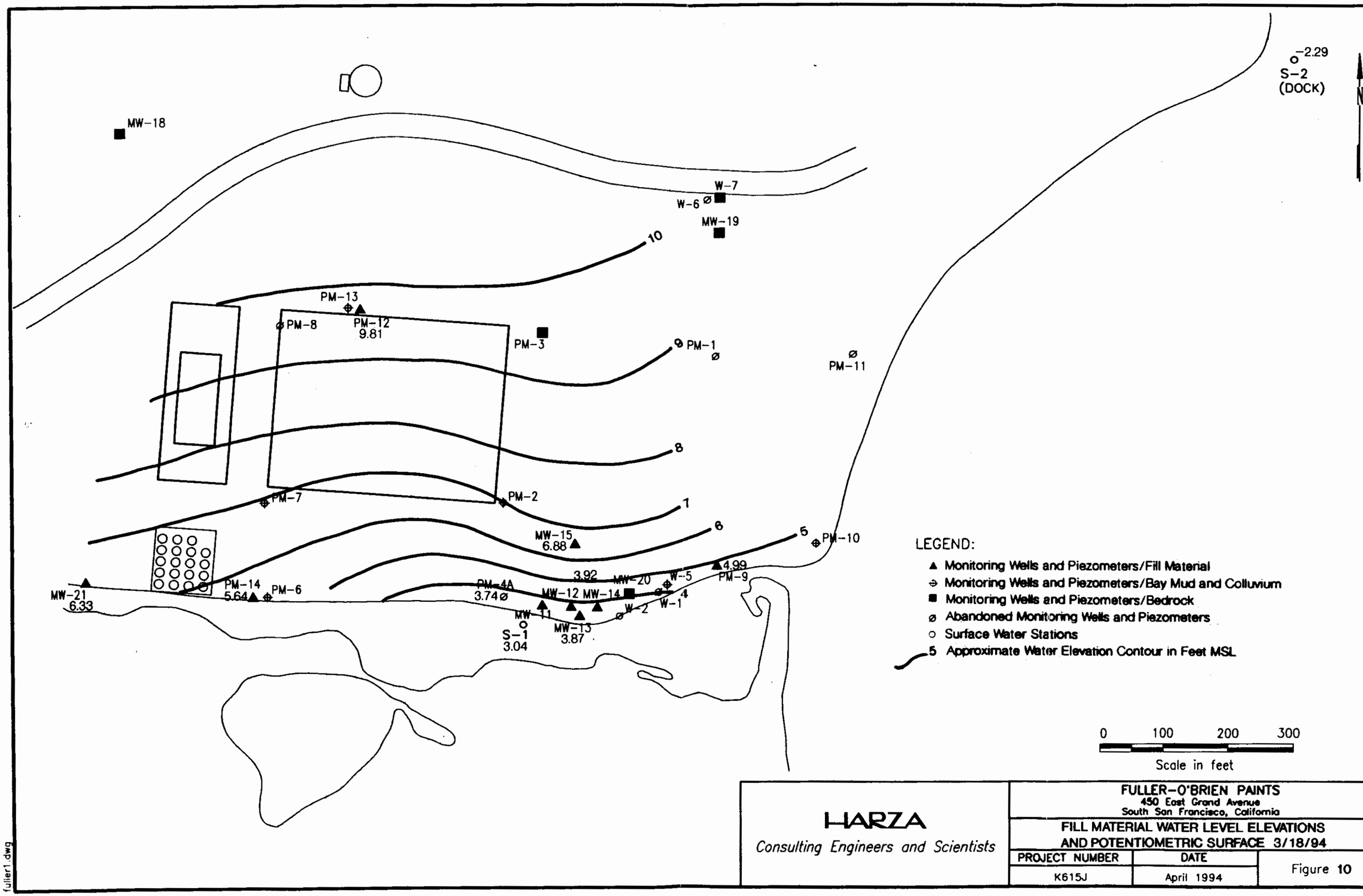
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

CROSS SECTION D - D'

PROJECT NO.	DATE	
K615J	April 1994	Figure 9



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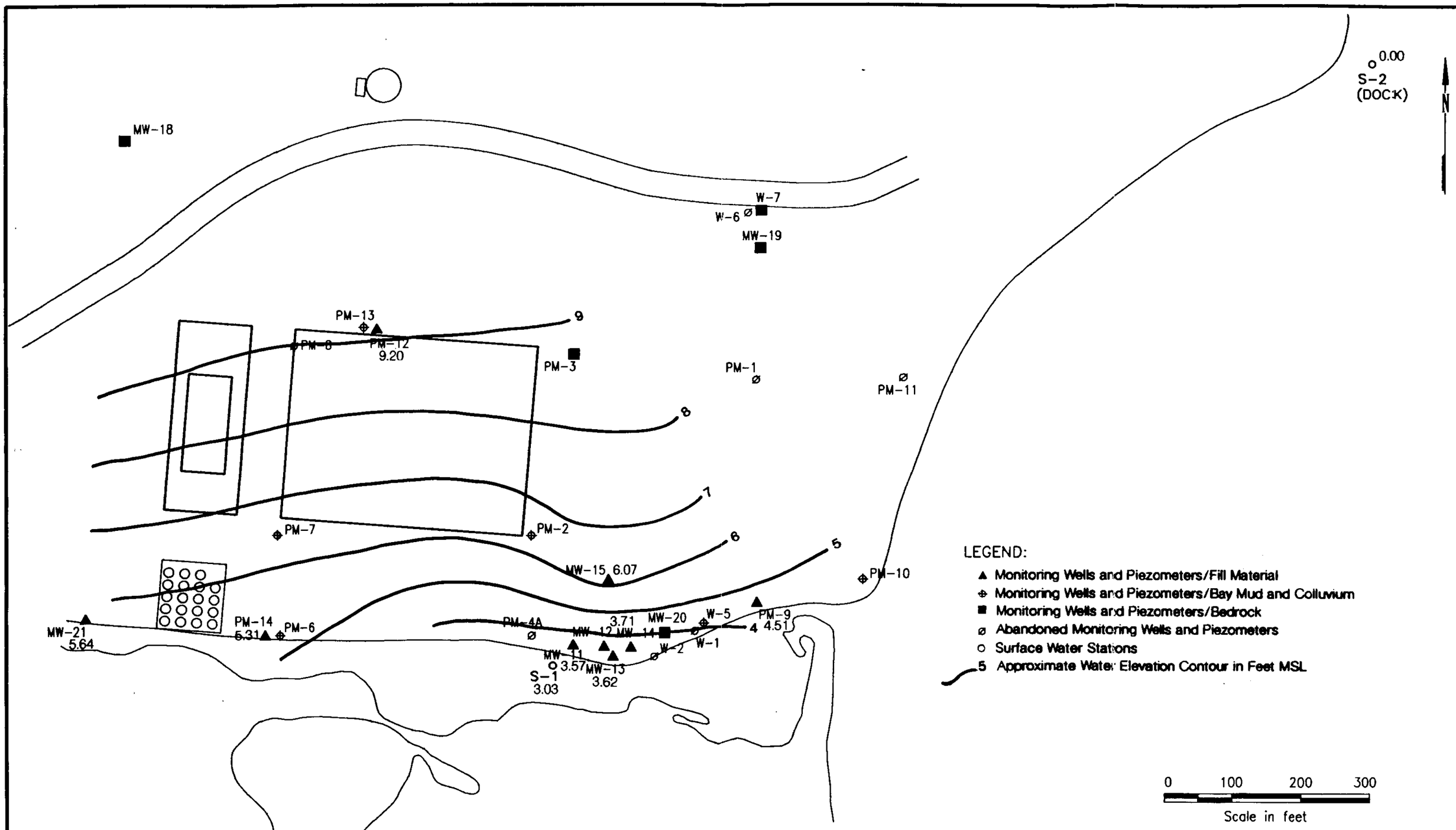
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

FILL MATERIAL WATER LEVEL ELEVATIONS AND POTENTIOMETRIC SURFACE 3/18/94

PROJECT NUMBER	DATE	
K615J	April 1994	Figure 10

fuller1.dwg



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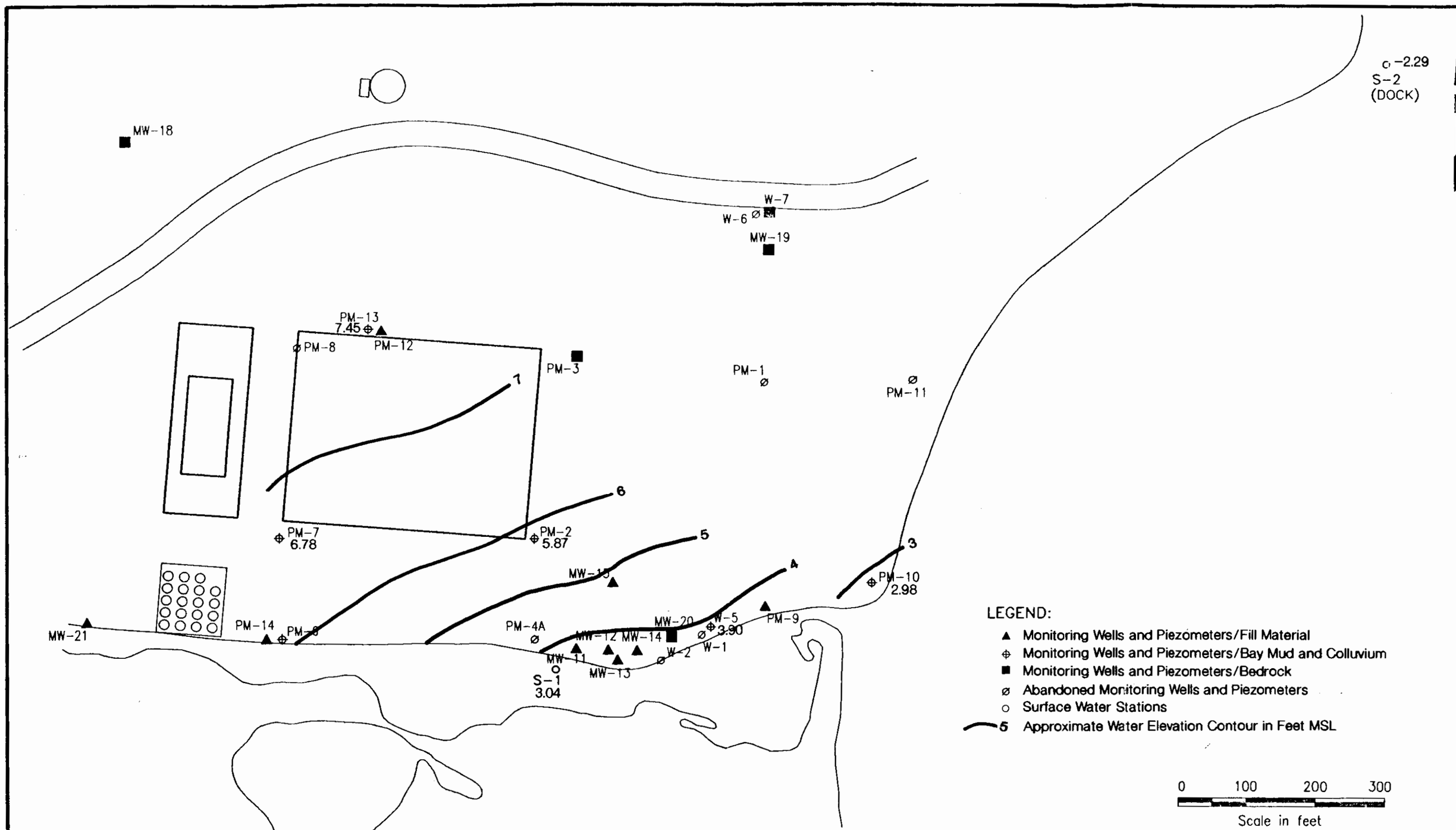
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

FILL MATERIAL WATER LEVEL ELEVATIONS AND POTENTIOMETRIC SURFACE 4/8/94

PROJECT NUMBER	DATE	
K615J	April 1994	Figure 11

fuller1.dwg



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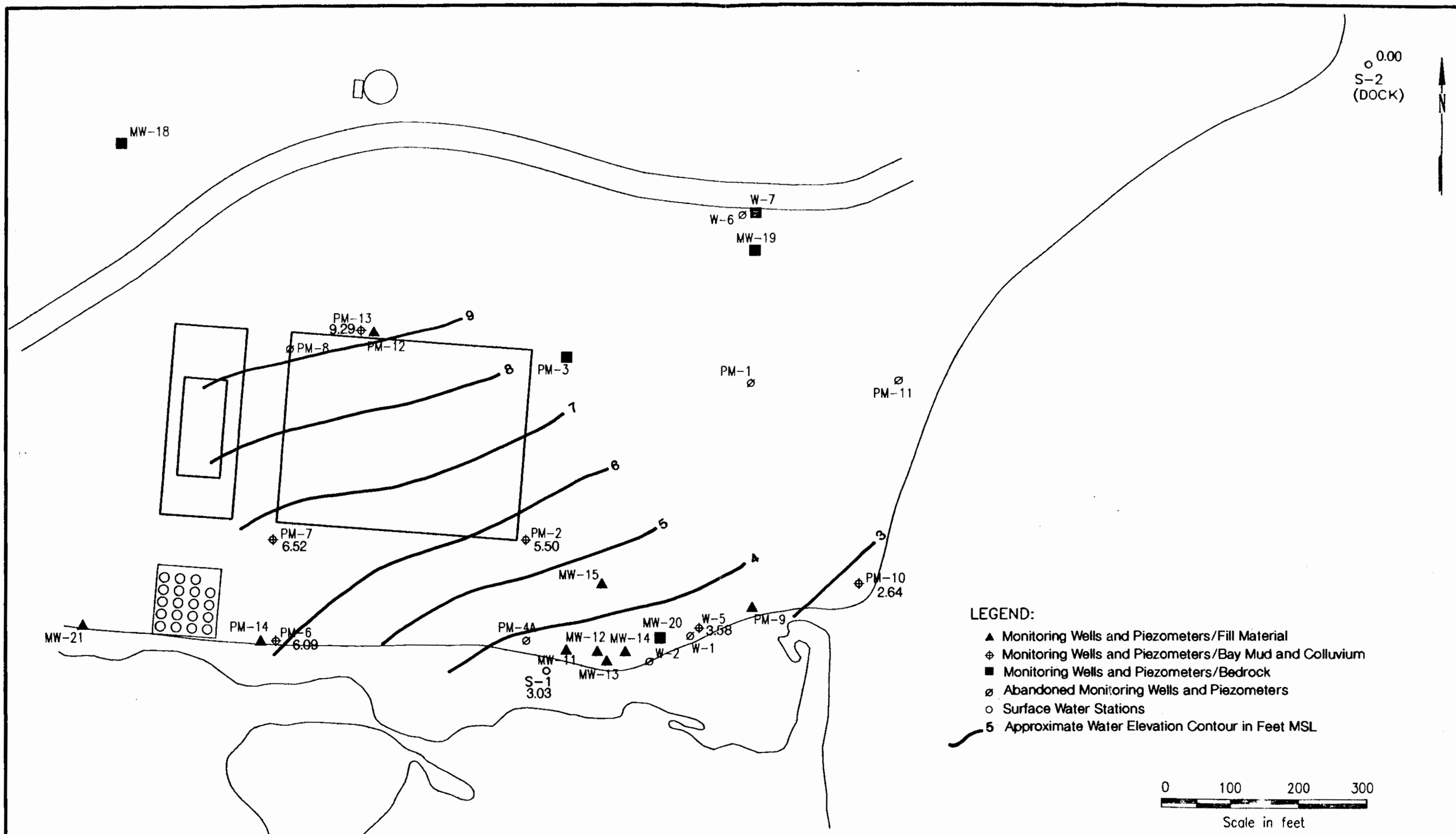
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

BAY MUD / COLLUVIUM WATER LEVEL ELEVATIONS AND POTENTIOMETRIC SURFACE 3/18/94

PROJECT NUMBER	DATE	
K615J	April 1994	Figure **12**

fuller1.dwg



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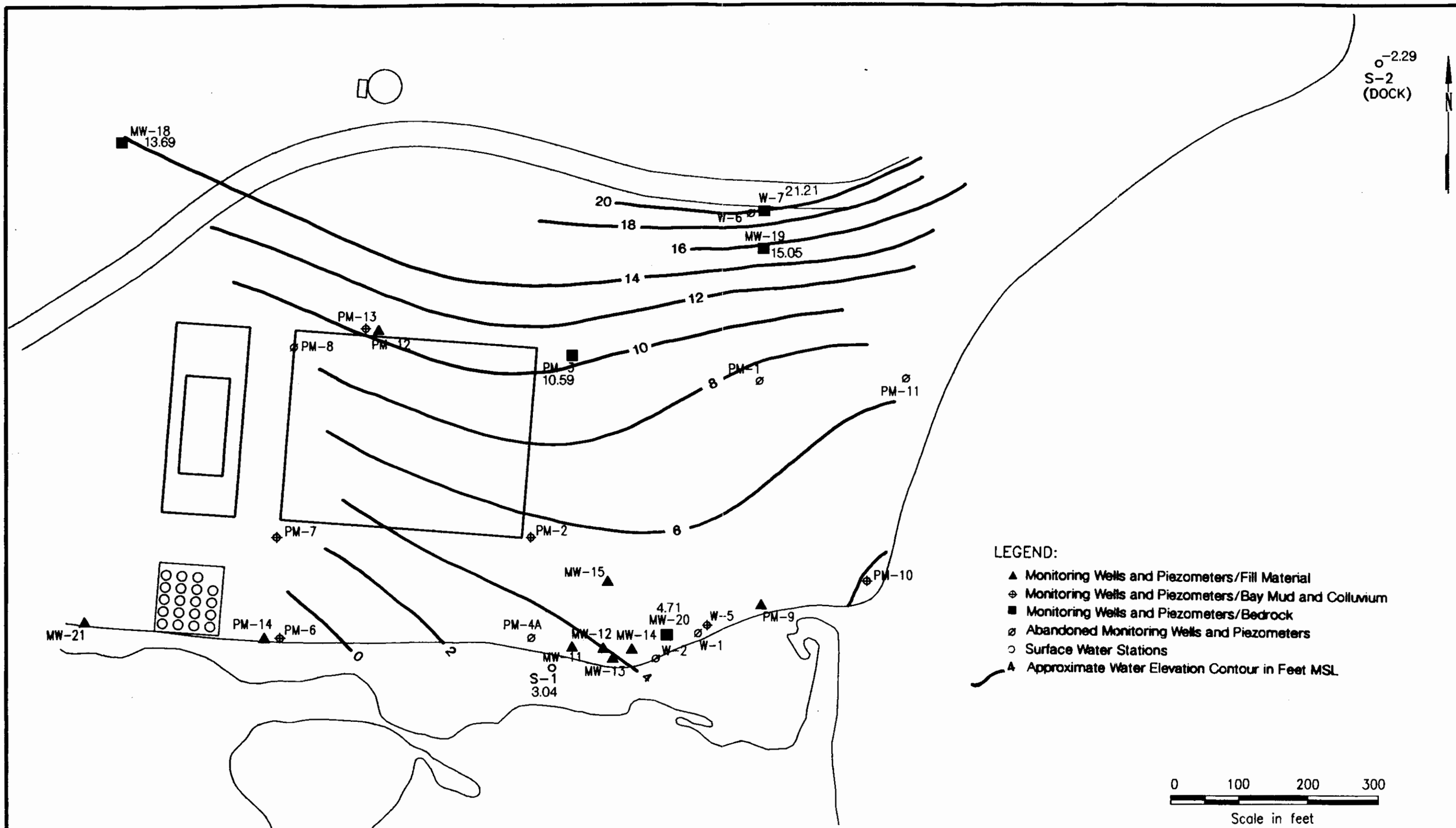
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

BAY MUD / COLLUVIUM WATER LEVEL ELEVATIONS AND POTENTIOMETRIC SURFACE 4/8/94

PROJECT NUMBER	DATE	
K615J	April 1994	Figure 13

fuller1.dwg



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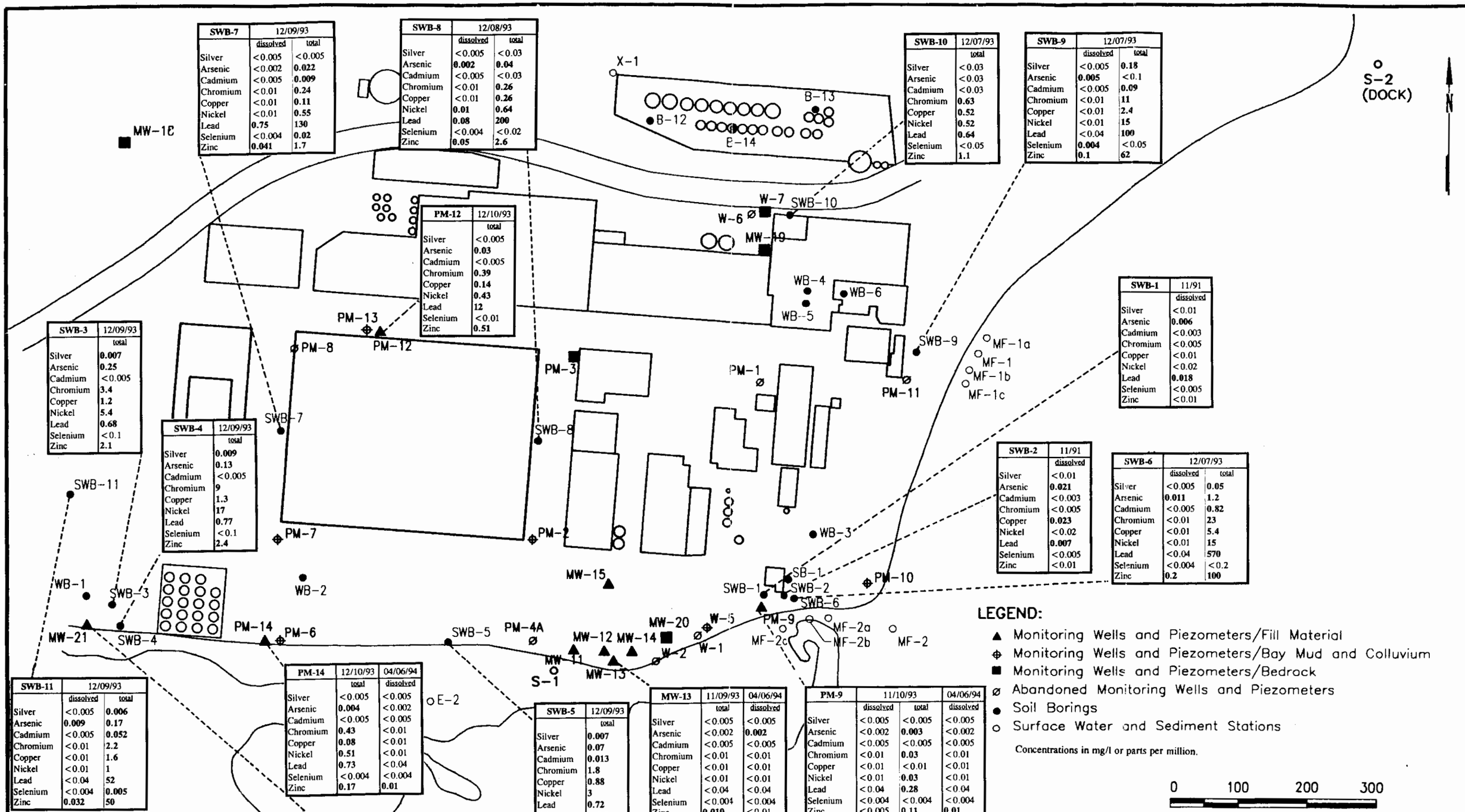
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

BEDROCK WATER LEVEL ELEVATIONS AND POTENTIOMETRIC SURFACE 3/18/94

PROJECT NUMBER	DATE	
K615J	April 1994	Figure 14

fuller1.dwg



SWB-7	12/09/93	
	dissolved	total
Silver	<0.005	<0.005
Arsenic	<0.002	**0.022**
Cadmium	<0.005	**0.009**
Chromium	<0.01	**0.24**
Copper	<0.01	**0.11**
Nickel	<0.01	**0.55**
Lead	**0.75**	**130**
Selenium	<0.004	**0.02**
Zinc	**0.041**	**1.7**

SWB-8	12/08/93	
	dissolved	total
Silver	<0.005	<0.03
Arsenic	**0.002**	**0.04**
Cadmium	<0.005	<0.03
Chromium	<0.01	**0.26**
Copper	<0.01	**0.26**
Nickel	**0.01**	**0.64**
Lead	**0.08**	**200**
Selenium	<0.004	<0.02
Zinc	**0.05**	**2.6**

SWB-10	12/07/93
	total
Silver	<0.03
Arsenic	<0.03
Cadmium	<0.03
Chromium	**0.63**
Copper	**0.52**
Nickel	**0.52**
Lead	**0.64**
Selenium	<0.05
Zinc	**1.1**

SWB-9	12/07/93	
	dissolved	total
Silver	<0.005	**0.18**
Arsenic	**0.005**	<0.1
Cadmium	<0.005	**0.09**
Chromium	<0.01	**11**
Copper	<0.01	**2.4**
Nickel	<0.01	**15**
Lead	<0.04	**100**
Selenium	**0.004**	<0.05
Zinc	**0.1**	**62**

PM-12	12/10/93
	total
Silver	<0.005
Arsenic	**0.03**
Cadmium	<0.005
Chromium	**0.39**
Copper	**0.14**
Nickel	**0.43**
Lead	**12**
Selenium	<0.01
Zinc	**0.51**

SWB-1	11/91
	dissolved
Silver	<0.01
Arsenic	**0.006**
Cadmium	<0.003
Chromium	<0.005
Copper	<0.01
Nickel	<0.02
Lead	**0.018**
Selenium	<0.005
Zinc	<0.01

SWB-3	12/09/93
	total
Silver	**0.007**
Arsenic	**0.25**
Cadmium	<0.005
Chromium	**3.4**
Copper	**1.2**
Nickel	**5.4**
Lead	**0.68**
Selenium	<0.1
Zinc	**2.1**

SWB-4	12/09/93
	total
Silver	**0.009**
Arsenic	**0.13**
Cadmium	<0.005
Chromium	**9**
Copper	**1.3**
Nickel	**17**
Lead	**0.77**
Selenium	<0.1
Zinc	**2.4**

SWB-2	11/91
	dissolved
Silver	<0.01
Arsenic	**0.021**
Cadmium	<0.003
Chromium	<0.005
Copper	**0.023**
Nickel	<0.02
Lead	**0.007**
Selenium	<0.005
Zinc	<0.01

SWB-6	12/07/93	
	dissolved	total
Silver	<0.005	**0.05**
Arsenic	**0.011**	**1.2**
Cadmium	<0.005	**0.82**
Chromium	<0.01	**23**
Copper	<0.01	**5.4**
Nickel	<0.01	**15**
Lead	<0.04	**570**
Selenium	<0.004	<0.2
Zinc	**0.2**	**100**

SWB-11	12/09/93	
	dissolved	total
Silver	<0.005	**0.006**
Arsenic	**0.009**	**0.17**
Cadmium	<0.005	**0.052**
Chromium	<0.01	**2.2**
Copper	<0.01	**1.6**
Nickel	<0.01	**1**
Lead	<0.04	**52**
Selenium	<0.004	**0.005**
Zinc	**0.032**	**50**

PM-14	12/10/93	04/06/94
	total	dissolved
Silver	<0.005	<0.005
Arsenic	**0.004**	<0.002
Cadmium	<0.005	<0.005
Chromium	**0.43**	<0.01
Copper	**0.08**	<0.01
Nickel	**0.51**	<0.01
Lead	**0.73**	<0.04
Selenium	<0.004	<0.004
Zinc	**0.17**	**0.01**

SWB-5	12/09/93
	total
Silver	**0.007**
Arsenic	**0.07**
Cadmium	**0.013**
Chromium	**1.8**
Copper	**0.88**
Nickel	**3**
Lead	**0.72**
Selenium	<0.05
Zinc	**1.3**

MW-13	11/09/93	04/06/94
	total	dissolved
Silver	<0.005	<0.005
Arsenic	<0.002	**0.002**
Cadmium	<0.005	<0.005
Chromium	<0.01	<0.01
Copper	<0.01	<0.01
Nickel	<0.01	<0.01
Lead	<0.04	<0.04
Selenium	<0.004	<0.004
Zinc	**0.010**	<0.01

PM-9	11/10/93		04/06/94
	dissolved	total	dissolved
Silver	<0.005	<0.005	<0.005
Arsenic	<0.002	**0.003**	<0.002
Cadmium	<0.005	<0.005	<0.005
Chromium	<0.01	**0.03**	<0.01
Copper	<0.01	<0.01	<0.01
Nickel	<0.01	**0.03**	<0.01
Lead	<0.04	**0.28**	<0.04
Selenium	<0.004	<0.004	<0.004
Zinc	<0.005	**0.11**	**0.01**

MW-21	9/87	1/88	4/88	7/88	11/88	1/89	2/91	11/09/93		04/06/94
	total	total	total	total	total	total	total	dissolved	total	dissolved
Silver	NA	<0.01	<0.01	<0.01	<0.01	<0.01	NA	<0.005	<0.005	<0.005
Arsenic	NA	<0.01	<0.01	<0.01	<0.01	<0.005	NA	**0.038**	**0.042**	**0.047**
Cadmium	NA	**0.02**	**0.02**	<0.01	<0.01	<0.001	NA	<0.005	<0.005	<0.005
Chromium	NA	<0.05	<0.02	<0.01	<0.01	<0.01	NA	<0.01	<0.01	<0.01
Copper	NA	**0.04**	**0.02**	<0.01	NA	NA	NA	<0.01	<0.01	<0.01
Nickel	NA	**0.29**	**0.22**	**0.09**	NA	NA	NA	<0.01	<0.01	<0.01
Lead	**1.4**	**1.8**	**0.13**	<0.05	**0.1**	<0.01	**0.24**	<0.04	**0.06**	<0.04
Selenium	NA	<0.01	<0.01	<0.01	<0.01	<0.01	NA	<0.004	<0.004	<0.004
Zinc	**0.46**	**0.78**	<0.02	<0.01	NA	NA	NA	**0.009**	**0.043**	<0.01

LEGEND:

- ▲ Monitoring Wells and Piezometers/Fill Material
- ⊕ Monitoring Wells and Piezometers/Bay Mud and Colluvium
- ■ Monitoring Wells and Piezometers/Bedrock
- ⌀ Abandoned Monitoring Wells and Piezometers
- ● Soil Borings
- ○ Surface Water and Sediment Stations

Concentrations in mg/l or parts per million.

0 100 200 300

Scale in feet

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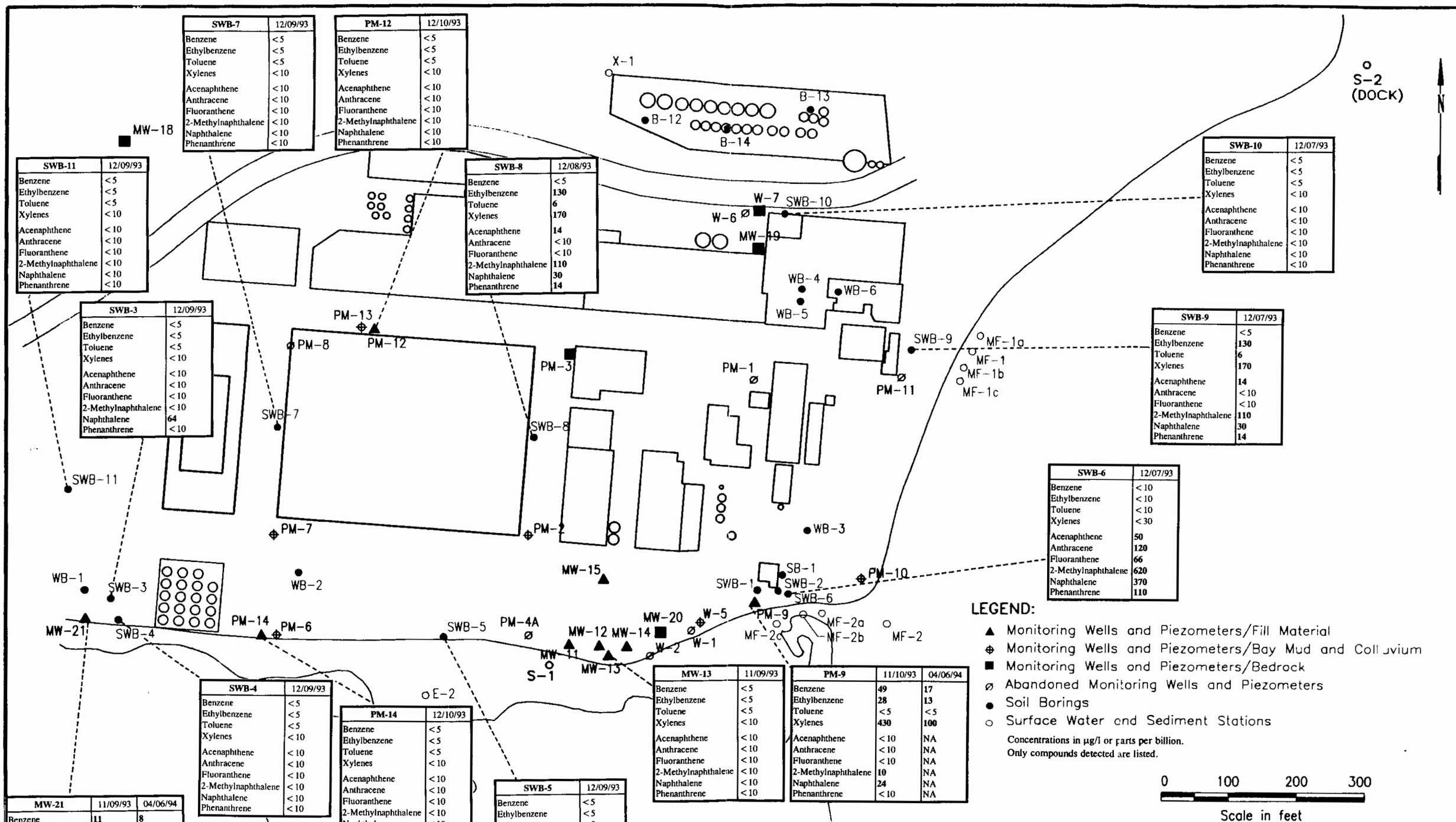
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

FILL MATERIAL
METALS GROUND WATER DISTRIBUTION MAP

PROJECT NUMBER	DATE	
K615J	April 1994	Figure 16

fuller3.dwg



SWB-7	12/09/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

PM-12	12/10/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

SWB-11	12/09/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

SWB-8	12/08/93
Benzene	<5
Ethylbenzene	**130**
Toluene	**6**
Xylenes	**170**
Acenaphthene	**14**
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	**110**
Naphthalene	**30**
Phenanthrene	**14**

SWB-10	12/07/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

SWB-3	12/09/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	**64**
Phenanthrene	<10

SWB-9	12/07/93
Benzene	<5
Ethylbenzene	**130**
Toluene	**6**
Xylenes	**170**
Acenaphthene	**14**
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	**110**
Naphthalene	**30**
Phenanthrene	**14**

SWB-6	12/07/93
Benzene	<10
Ethylbenzene	<10
Toluene	<10
Xylenes	<30
Acenaphthene	**50**
Anthracene	**120**
Fluoranthene	**66**
2-Methylnaphthalene	**620**
Naphthalene	**370**
Phenanthrene	**110**

MW-21	11/09/93	04/06/94
Benzene	**11**	**8**
Ethylbenzene	**7**	<5
Toluene	**7**	<5
Xylenes	**17**	<10
Acenaphthene	<10	NA
Anthracene	<10	NA
Fluoranthene	<10	NA
2-Methylnaphthalene	<10	NA
Naphthalene	<10	NA
Phenanthrene	<10	NA

SWB-4	12/09/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

PM-14	12/10/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

SWB-5	12/09/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

MW-13	11/09/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

PM-9	11/10/93	04/06/94
Benzene	**49**	**17**
Ethylbenzene	**28**	**13**
Toluene	<5	<5
Xylenes	**430**	**100**
Acenaphthene	<10	NA
Anthracene	<10	NA
Fluoranthene	<10	NA
2-Methylnaphthalene	**10**	NA
Naphthalene	**24**	NA
Phenanthrene	<10	NA

LEGEND:

- ▲ Monitoring Wells and Piezometers/Fill Material
- ⊕ Monitoring Wells and Piezometers/Bay Mud and Colluvium
- ■ Monitoring Wells and Piezometers/Bedrock
- ⌀ Abandoned Monitoring Wells and Piezometers
- ● Soil Borings
- ○ Surface Water and Sediment Stations

Concentrations in µg/l or parts per billion.
Only compounds detected are listed.

0 100 200 300
Scale in feet

HARZA
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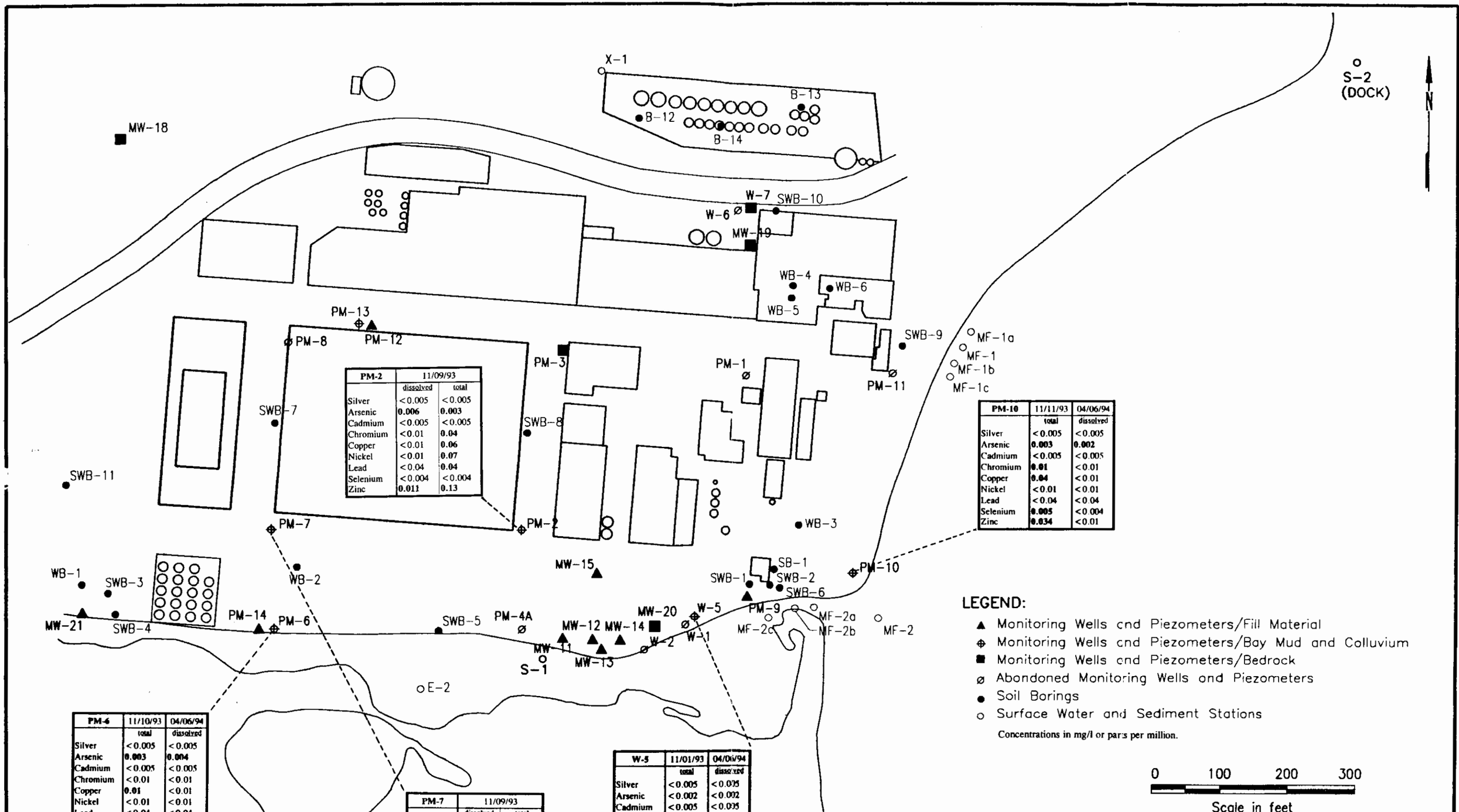
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

FILL MATERIAL
VOCs/SVOCs GROUND WATER DISTRIBUTION MAP

PROJECT NUMBER	DATE	
K615J	April 1994	Figure 17

fuller3.dwg



PM-2	11/09/93	
	dissolved	total
Silver	<0.005	<0.005
Arsenic	**0.006**	**0.003**
Cadmium	<0.005	<0.005
Chromium	<0.01	**0.04**
Copper	<0.01	**0.06**
Nickel	<0.01	**0.07**
Lead	<0.04	**0.04**
Selenium	<0.004	<0.004
Zinc	**0.011**	**0.13**

PM-10	11/11/93	04/06/94
	total	dissolved
Silver	<0.005	<0.005
Arsenic	**0.003**	**0.002**
Cadmium	<0.005	<0.005
Chromium	**0.01**	<0.01
Copper	**0.04**	<0.01
Nickel	<0.01	<0.01
Lead	<0.04	<0.04
Selenium	**0.005**	<0.004
Zinc	**0.034**	<0.01

PM-6	11/10/93	04/06/94
	total	dissolved
Silver	<0.005	<0.005
Arsenic	**0.003**	**0.004**
Cadmium	<0.005	<0.005
Chromium	<0.01	<0.01
Copper	**0.01**	<0.01
Nickel	<0.01	<0.01
Lead	<0.04	<0.04
Selenium	<0.004	<0.004
Zinc	**0.026**	<0.01

PM-7	11/09/93	
	dissolved	total
Silver	<0.005	<0.005
Arsenic	**0.006**	**0.006**
Cadmium	<0.005	<0.005
Chromium	<0.01	**0.03**
Copper	<0.01	**0.01**
Nickel	<0.01	**0.09**
Lead	<0.04	**0.15**
Selenium	<0.004	<0.004
Zinc	**0.019**	**0.06**

W-5	11/01/93	04/06/94
	total	dissolved
Silver	<0.005	<0.005
Arsenic	<0.002	<0.002
Cadmium	<0.005	<0.005
Chromium	<0.01	<0.01
Copper	<0.01	<0.01
Nickel	**0.05**	**0.04**
Lead	<0.04	<0.04
Selenium	<0.004	<0.004
Zinc	<0.005	<0.01

LEGEND:

- ▲ Monitoring Wells and Piezometers/Fill Material
- ⊕ Monitoring Wells and Piezometers/Bay Mud and Colluvium
- ■ Monitoring Wells and Piezometers/Bedrock
- ⌀ Abandoned Monitoring Wells and Piezometers
- ● Soil Borings
- ○ Surface Water and Sediment Stations

Concentrations in mg/l or parts per million.

0 100 200 300

Scale in feet

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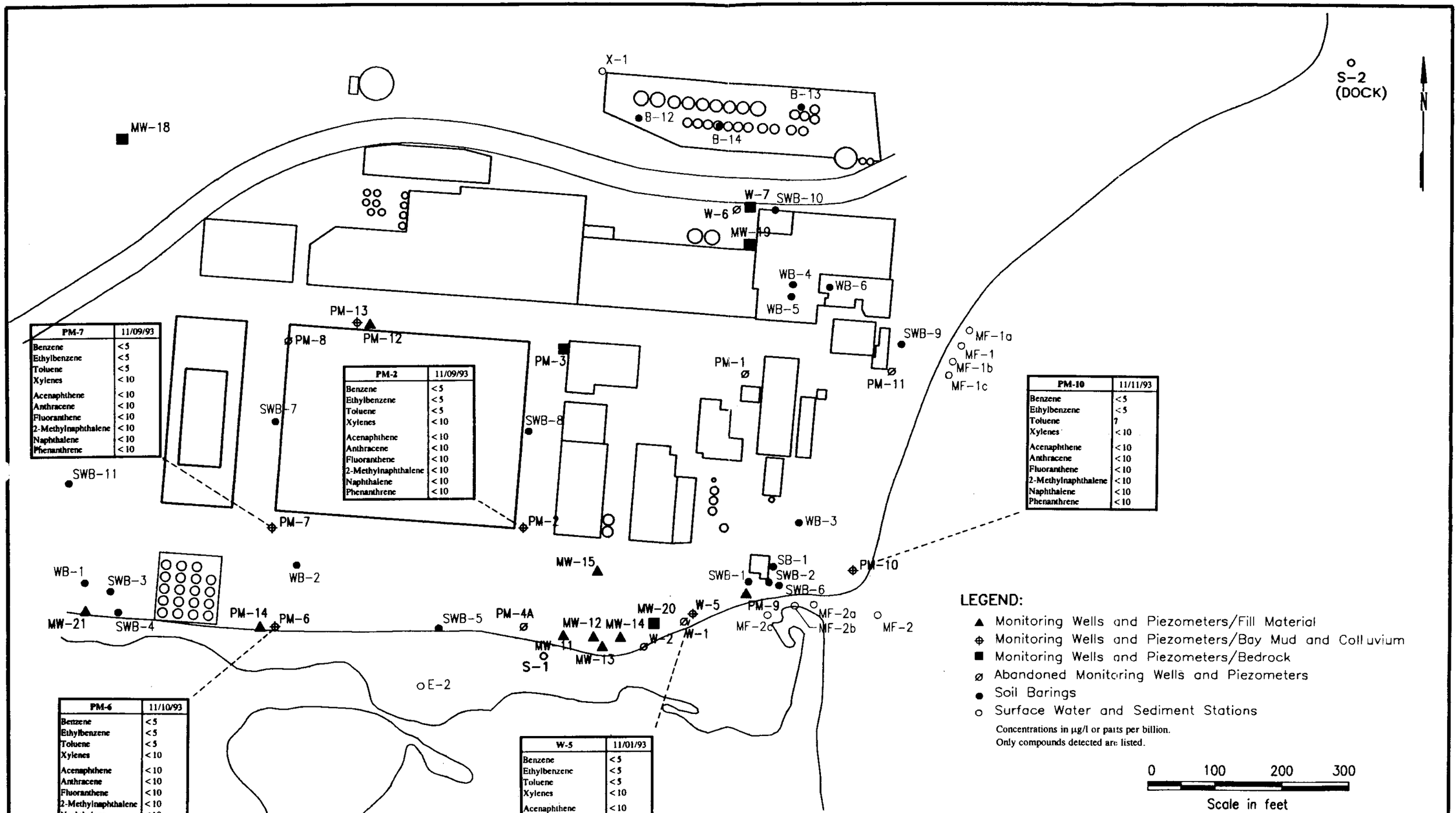
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

BAY MUD/COLLUVIUM
METALS GROUND WATER DISTRIBUTION MAP

PROJECT NUMBER	DATE	
K615J	April 1994	Figure 18

fuller3.dwg



PM-7	11/09/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

PM-2	11/09/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

PM-10	11/11/93
Benzene	<5
Ethylbenzene	<5
Toluene	7
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

PM-6	11/10/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

W-5	11/01/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

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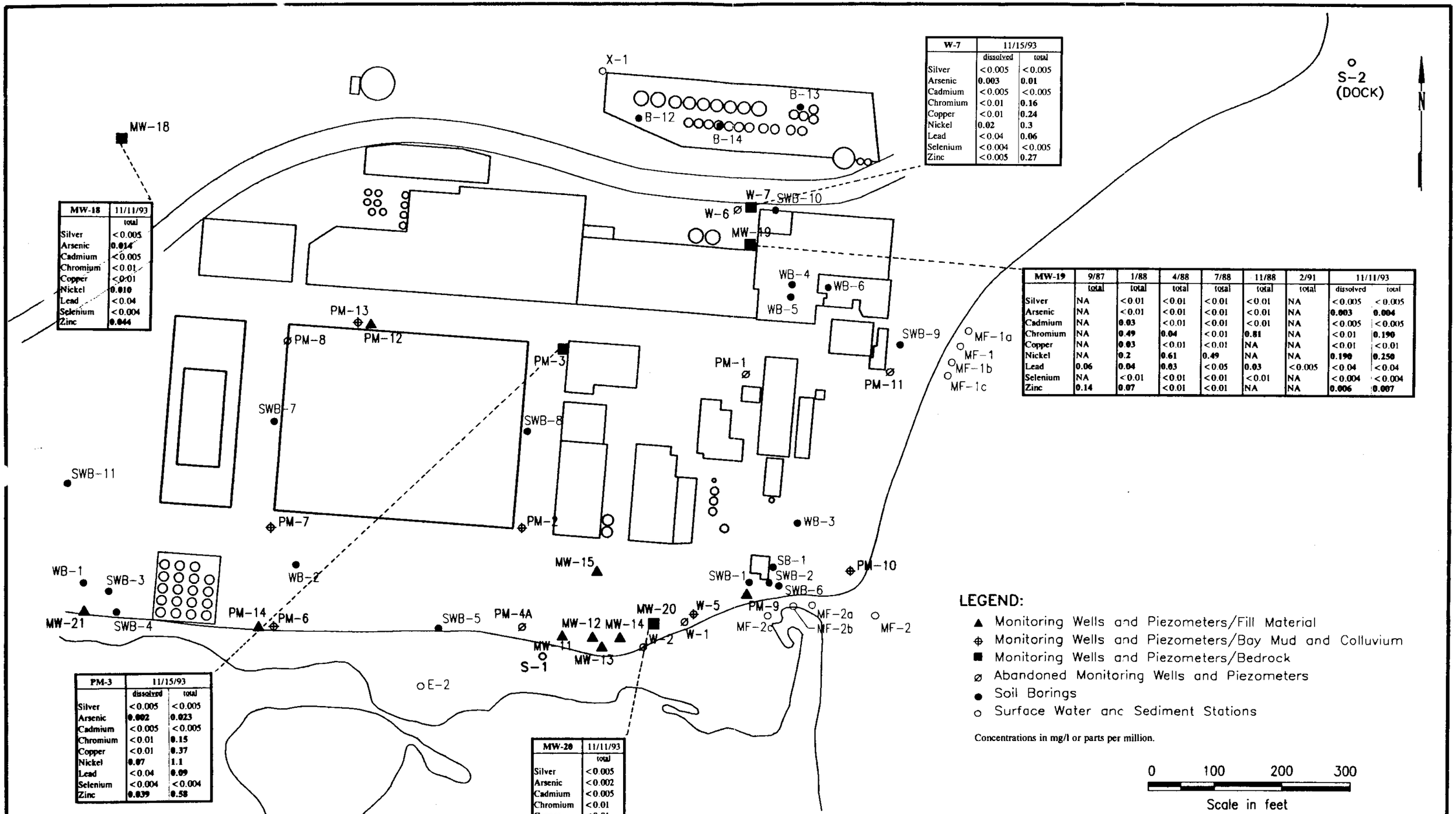
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

BAY MUD/COLLUVIUM
VOCs/SVOCs GROUND WATER DISTRIBUTION MAP

PROJECT NUMBER	DATE	
K615J	April 1994	Figure 19

fuller3.dwg



W-7	11/15/93	
	dissolved	total
Silver	<0.005	<0.005
Arsenic	**0.003**	**0.01**
Cadmium	<0.005	<0.005
Chromium	<0.01	**0.16**
Copper	<0.01	**0.24**
Nickel	**0.02**	**0.3**
Lead	<0.04	**0.06**
Selenium	<0.004	<0.005
Zinc	<0.005	**0.27**

MW-18	11/11/93
	total
Silver	<0.005
Arsenic	**0.014**
Cadmium	<0.005
Chromium	<0.01
Copper	<0.01
Nickel	**0.010**
Lead	<0.04
Selenium	<0.004
Zinc	**0.044**

MW-19	9/87	1/88	4/88	7/88	11/88	2/91	11/11/93	
	total	total	total	total	total	total	dissolved	total
Silver	NA	<0.01	<0.01	<0.01	<0.01	NA	<0.005	<0.005
Arsenic	NA	<0.01	<0.01	<0.01	<0.01	NA	**0.003**	**0.004**
Cadmium	NA	**0.03**	<0.01	<0.01	<0.01	NA	<0.005	<0.005
Chromium	NA	**0.49**	**0.04**	<0.01	**0.81**	NA	<0.01	**0.190**
Copper	NA	**0.03**	<0.01	<0.01	NA	NA	<0.01	<0.01
Nickel	NA	**0.2**	**0.61**	**0.49**	NA	NA	**0.190**	**0.250**
Lead	**0.06**	**0.04**	**0.03**	<0.05	**0.03**	<0.005	<0.04	<0.04
Selenium	NA	<0.01	<0.01	<0.01	<0.01	NA	<0.004	<0.004
Zinc	**0.14**	**0.07**	<0.01	<0.01	NA	NA	**0.006**	**0.007**

PM-3	11/15/93	
	dissolved	total
Silver	<0.005	<0.005
Arsenic	**0.002**	**0.023**
Cadmium	<0.005	<0.005
Chromium	<0.01	**0.15**
Copper	<0.01	**0.37**
Nickel	**0.07**	**1.1**
Lead	<0.04	**0.09**
Selenium	<0.004	<0.004
Zinc	**0.039**	**0.58**

MW-20	11/11/93
	total
Silver	<0.005
Arsenic	<0.002
Cadmium	<0.005
Chromium	<0.01
Copper	<0.01
Nickel	<0.01
Lead	<0.04
Selenium	<0.004
Zinc	**0.013**

LEGEND:

- ▲ Monitoring Wells and Piezometers/Fill Material
- ⊕ Monitoring Wells and Piezometers/Bay Mud and Colluvium
- ■ Monitoring Wells and Piezometers/Bedrock
- ⌀ Abandoned Monitoring Wells and Piezometers
- ● Soil Borings
- ○ Surface Water and Sediment Stations

Concentrations in mg/l or parts per million.

0 100 200 300

Scale in feet

HARZA

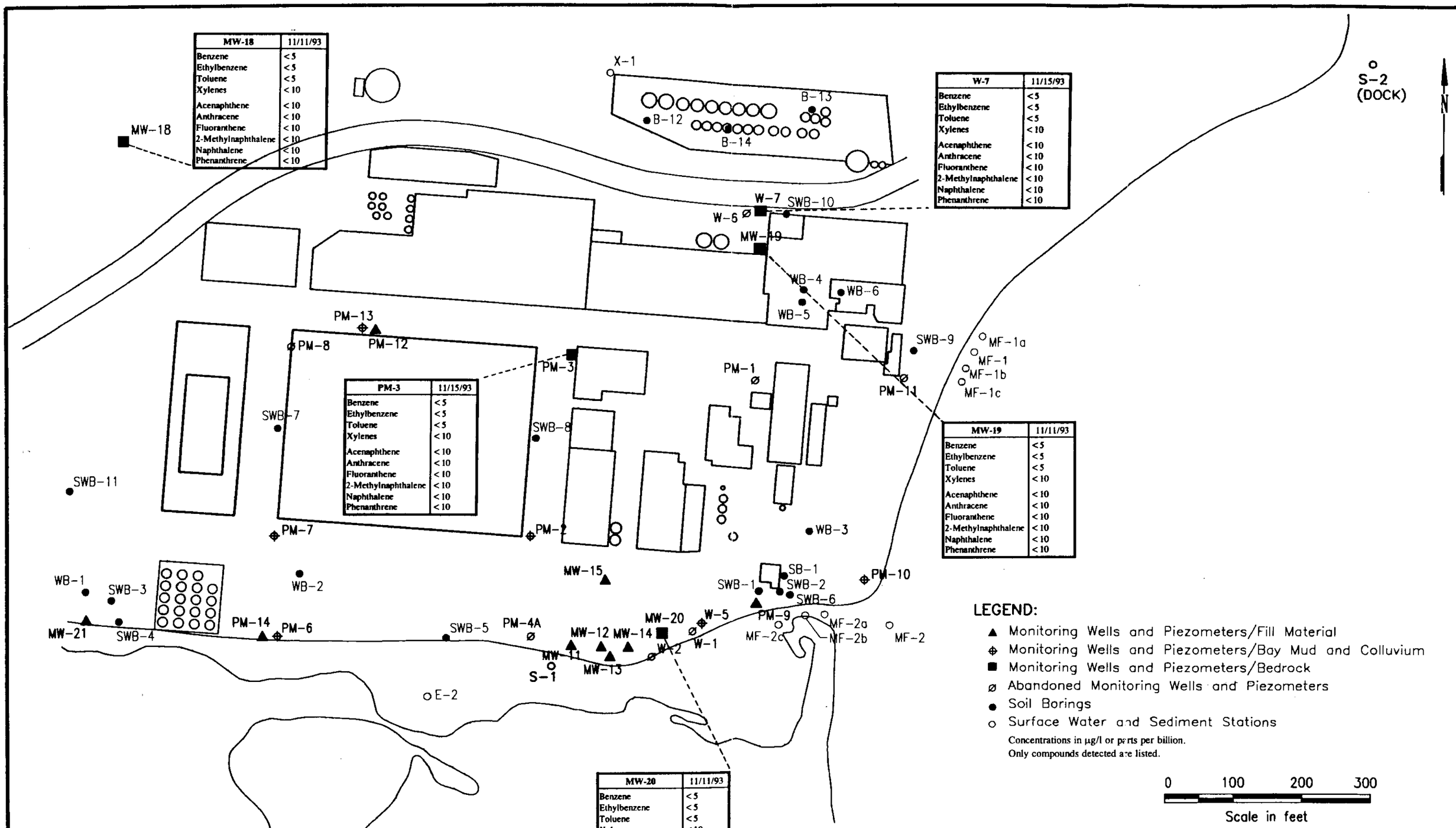
Consulting Engineers and Scientists

FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

BEDROCK
METALS GROUND WATER DISTRIBUTION MAP

PROJECT NUMBER	DATE	
K615J	April 1994	Figure 20

fuller3.dwg



MW-18	11/11/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

W-7	11/15/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

PM-3	11/15/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

MW-19	11/11/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

MW-20	11/11/93
Benzene	<5
Ethylbenzene	<5
Toluene	<5
Xylenes	<10
Acenaphthene	<10
Anthracene	<10
Fluoranthene	<10
2-Methylnaphthalene	<10
Naphthalene	<10
Phenanthrene	<10

HARZA
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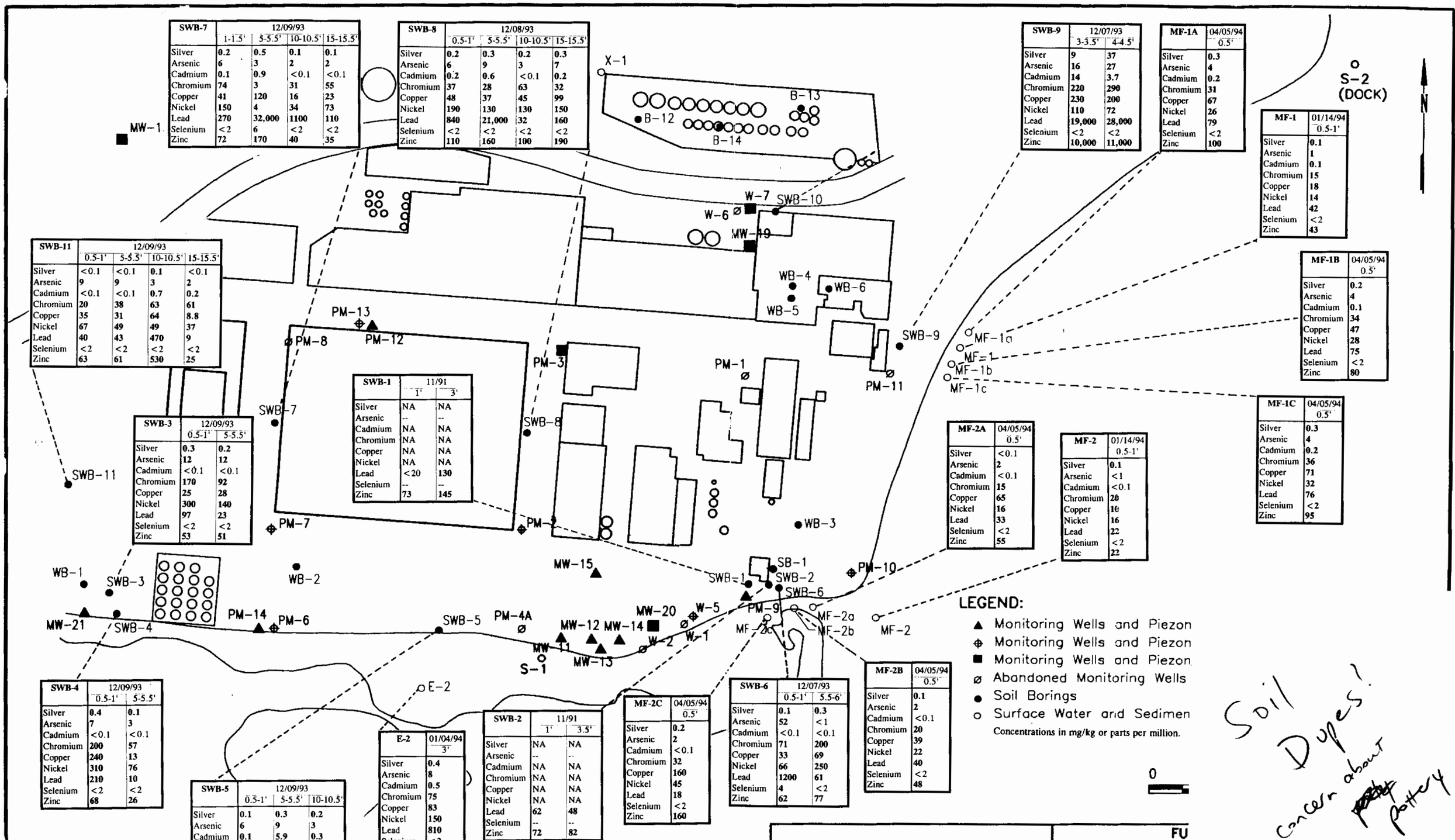
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

BEDROCK
VOCs/SVOCs GROUND WATER DISTRIBUTION MAP

PROJECT NUMBER	DATE	
K615J	April 1994	Figure 21

fuller3.dwg



SWB-7	12/09/93			
	1-1.5'	5-5.5'	10-10.5'	15-15.5'
Silver	0.2	0.5	0.1	0.1
Arsenic	6	3	2	2
Cadmium	0.1	0.9	<0.1	<0.1
Chromium	74	3	31	55
Copper	41	120	16	23
Nickel	150	4	34	73
Lead	270	32,000	1100	110
Selenium	<2	6	<2	<2
Zinc	72	170	40	35

SWB-8	12/08/93			
	0.5-1'	5-5.5'	10-10.5'	15-15.5'
Silver	0.2	0.3	0.2	0.3
Arsenic	6	9	3	7
Cadmium	0.2	0.6	<0.1	0.2
Chromium	37	28	63	32
Copper	48	37	45	99
Nickel	190	130	130	150
Lead	840	21,000	32	160
Selenium	<2	<2	<2	<2
Zinc	110	160	100	190

SWB-9	12/07/93	
	3-3.5'	4-4.5'
Silver	9	37
Arsenic	16	27
Cadmium	14	3.7
Chromium	220	290
Copper	230	200
Nickel	110	72
Lead	19,000	28,000
Selenium	<2	<2
Zinc	10,000	11,000

MF-1A	04/05/94
	0.5'
Silver	0.3
Arsenic	4
Cadmium	0.2
Chromium	31
Copper	67
Nickel	26
Lead	79
Selenium	<2
Zinc	100

MF-1	01/14/94
	0.5-1'
Silver	0.1
Arsenic	1
Cadmium	0.1
Chromium	15
Copper	18
Nickel	14
Lead	42
Selenium	<2
Zinc	43

MF-1B	04/05/94
	0.5'
Silver	0.2
Arsenic	4
Cadmium	0.1
Chromium	34
Copper	47
Nickel	28
Lead	75
Selenium	<2
Zinc	80

MF-1C	04/05/94
	0.5'
Silver	0.3
Arsenic	4
Cadmium	0.2
Chromium	36
Copper	71
Nickel	32
Lead	76
Selenium	<2
Zinc	95

SWB-11	12/09/93			
	0.5-1'	5-5.5'	10-10.5'	15-15.5'
Silver	<0.1	<0.1	0.1	<0.1
Arsenic	9	9	3	2
Cadmium	<0.1	<0.1	0.7	0.2
Chromium	20	38	63	61
Copper	35	31	64	8.8
Nickel	67	49	49	37
Lead	40	43	470	9
Selenium	<2	<2	<2	<2
Zinc	63	61	530	25

SWB-1	11/91	
	1'	3'
Silver	NA	NA
Arsenic	--	--
Cadmium	NA	NA
Chromium	NA	NA
Copper	NA	NA
Nickel	NA	NA
Lead	<20	130
Selenium	--	--
Zinc	73	145

SWB-3	12/09/93	
	0.5-1'	5-5.5'
Silver	0.3	0.2
Arsenic	12	12
Cadmium	<0.1	<0.1
Chromium	170	92
Copper	25	28
Nickel	300	140
Lead	97	23
Selenium	<2	<2
Zinc	53	51

MF-2A	04/05/94
	0.5'
Silver	<0.1
Arsenic	2
Cadmium	<0.1
Chromium	15
Copper	65
Nickel	16
Lead	33
Selenium	<2
Zinc	55

MF-2	01/14/94
	0.5-1'
Silver	0.1
Arsenic	<1
Cadmium	<0.1
Chromium	20
Copper	16
Nickel	16
Lead	22
Selenium	<2
Zinc	22

SWB-4	12/09/93	
	0.5-1'	5-5.5'
Silver	0.4	0.1
Arsenic	7	3
Cadmium	<0.1	<0.1
Chromium	200	57
Copper	240	13
Nickel	310	76
Lead	210	10
Selenium	<2	<2
Zinc	68	26

SWB-5	12/09/93		
	0.5-1'	5-5.5'	10-10.5'
Silver	0.1	0.3	0.2
Arsenic	6	9	3
Cadmium	0.1	5.9	0.3
Chromium	40	56	50
Copper	23	79	110
Nickel	63	75	50
Lead	14	320	7
Selenium	<2	<2	<2
Zinc	32	140	170

E-2	01/04/94
	3'
Silver	0.4
Arsenic	8
Cadmium	0.5
Chromium	75
Copper	83
Nickel	150
Lead	810
Selenium	<2
Zinc	180

SWB-2	11/91	
	1'	3.5'
Silver	NA	NA
Arsenic	--	--
Cadmium	NA	NA
Chromium	NA	NA
Copper	NA	NA
Nickel	NA	NA
Lead	62	48
Selenium	--	--
Zinc	72	82

MF-2C	04/05/94
	0.5'
Silver	0.2
Arsenic	2
Cadmium	<0.1
Chromium	32
Copper	160
Nickel	45
Lead	18
Selenium	<2
Zinc	160

SWB-6	12/07/93	
	0.5-1'	5.5-6'
Silver	0.1	0.3
Arsenic	52	<1
Cadmium	<0.1	<0.1
Chromium	71	200
Copper	33	69
Nickel	66	250
Lead	1200	61
Selenium	4	<2
Zinc	62	77

MF-2B	04/05/94
	0.5'
Silver	0.1
Arsenic	2
Cadmium	<0.1
Chromium	20
Copper	39
Nickel	22
Lead	40
Selenium	<2
Zinc	48

Soil Dupes! Concern about pottery

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TOTAL METALS SOIL DISTRIBUTION MAP

PROJECT NUMBER	DATE	
K615J	April 1994	Figure 22

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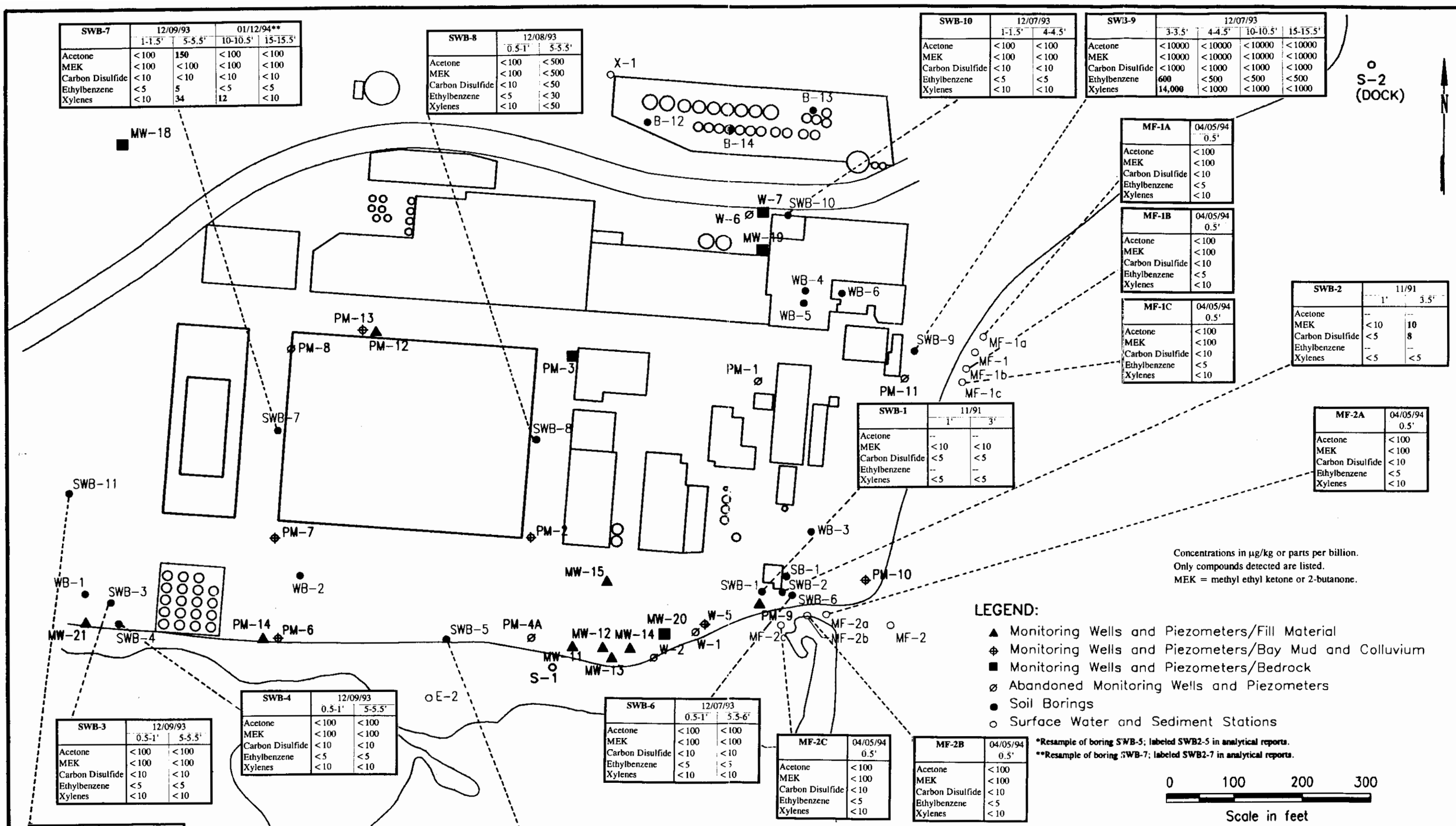

SWB-7	12/09/93		01/12/94**	
	1-1.5'	5-5.5'	10-10.5'	15-15.5'
Acetone	<100	**150**	<100	<100
MEK	<100	<100	<100	<100
Carbon Disulfide	<10	<10	<10	<10
Ethylbenzene	<5	**5**	<5	<5
Xylenes	<10	**34**	**12**	<10

SWB-8	12/08/93	
	0.5-1'	5-5.5'
Acetone	<100	<500
MEK	<100	<500
Carbon Disulfide	<10	<50
Ethylbenzene	<5	<30
Xylenes	<10	<50

SWB-10	12/07/93	
	1-1.5'	4-4.5'
Acetone	<100	<100
MEK	<100	<100
Carbon Disulfide	<10	<10
Ethylbenzene	<5	<5
Xylenes	<10	<10

SWB-9	12/07/93			
	3-3.5'	4-4.5'	10-10.5'	15-15.5'
Acetone	<10000	<10000	<10000	<10000
MEK	<10000	<10000	<10000	<10000
Carbon Disulfide	<1000	<1000	<1000	<1000
Ethylbenzene	**600**	<500	<500	<500
Xylenes	**14,000**	<1000	<1000	<1000

MF-1A	04/05/94
	0.5'
Acetone	<100
MEK	<100
Carbon Disulfide	<10
Ethylbenzene	<5
Xylenes	<10

MF-1B	04/05/94
	0.5'
Acetone	<100
MEK	<100
Carbon Disulfide	<10
Ethylbenzene	<5
Xylenes	<10

MF-1C	04/05/94
	0.5'
Acetone	<100
MEK	<100
Carbon Disulfide	<10
Ethylbenzene	<5
Xylenes	<10

SWB-2	11/91	
	1'	3.5'
Acetone	--	--
MEK	<10	**10**
Carbon Disulfide	<5	**8**
Ethylbenzene	--	--
Xylenes	<5	<5

SWB-1	11/91	
	1'	3'
Acetone	--	--
MEK	<10	<10
Carbon Disulfide	<5	<5
Ethylbenzene	--	--
Xylenes	<5	<5

MF-2A	04/05/94
	0.5'
Acetone	<100
MEK	<100
Carbon Disulfide	<10
Ethylbenzene	<5
Xylenes	<10

Concentrations in µg/kg or parts per billion.
Only compounds detected are listed.
MEK = methyl ethyl ketone or 2-butanone.

LEGEND:

- ▲ Monitoring Wells and Piezometers/Fill Material
- ⌖ Monitoring Wells and Piezometers/Bay Mud and Colluvium
- ■ Monitoring Wells and Piezometers/Bedrock
- ⌀ Abandoned Monitoring Wells and Piezometers
- ● Soil Borings
- ○ Surface Water and Sediment Stations

*Resample of boring SWB-5; labeled SWB2-5 in analytical reports.
**Resample of boring SWB-7; labeled SWB2-7 in analytical reports.

0 100 200 300
Scale in feet

SWB-3	12/09/93	
	0.5-1'	5-5.5'
Acetone	<100	<100
MEK	<100	<100
Carbon Disulfide	<10	<10
Ethylbenzene	<5	<5
Xylenes	<10	<10

SWB-4	12/09/93	
	0.5-1'	5-5.5'
Acetone	<100	<100
MEK	<100	<100
Carbon Disulfide	<10	<10
Ethylbenzene	<5	<5
Xylenes	<10	<10

SWB-6	12/07/93	
	0.5-1'	5.5-6'
Acetone	<100	<100
MEK	<100	<100
Carbon Disulfide	<10	<10
Ethylbenzene	<5	<5
Xylenes	<10	<10

MF-2C	04/05/94
	0.5'
Acetone	<100
MEK	<100
Carbon Disulfide	<10
Ethylbenzene	<5
Xylenes	<10

MF-2B	04/05/94
	0.5'
Acetone	<100
MEK	<100
Carbon Disulfide	<10
Ethylbenzene	<5
Xylenes	<10

SWB-11	12/09/93	
	0.5-1'	5-5.5'
Acetone	<100	<100
MEK	<100	<100
Carbon Disulfide	<10	<10
Ethylbenzene	<5	<5
Xylenes	<10	<10

SWB-5	12/09/93	01/12/94*	01/12/94
	0.5-1'	5.5-6'	10-10.5'
Acetone	<100	<100	<100
MEK	<100	<100	<100
Carbon Disulfide	<10	<10	<10
Ethylbenzene	<5	<5	<5
Xylenes	<10	<10	<10

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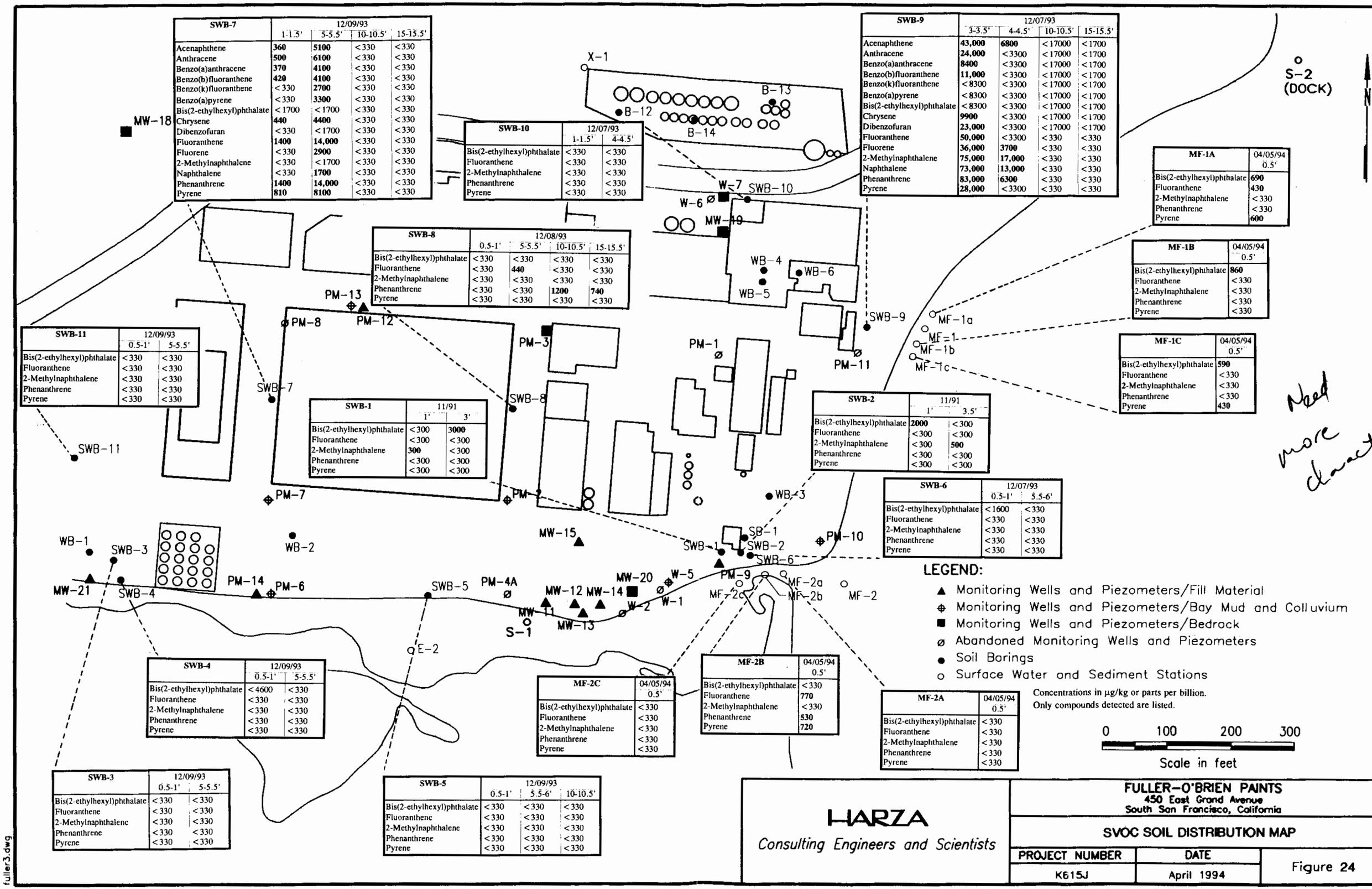
FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

VOC SOIL DISTRIBUTION MAP

PROJECT NUMBER	DATE	
K615J	April 1994	Figure 23

fuller3.dwg



SWB-7	12/09/93			
	1-1.5'	5-5.5'	10-10.5'	15-15.5'
Acenaphthene	360	5100	<330	<330
Anthracene	500	6100	<330	<330
Benzo(a)anthracene	370	4100	<330	<330
Benzo(b)fluoranthene	420	4100	<330	<330
Benzo(k)fluoranthene	<330	2700	<330	<330
Benzo(a)pyrene	<330	3300	<330	<330
Bis(2-ethylhexyl)phthalate	<1700	<1700	<330	<330
Chrysene	440	4400	<330	<330
Dibenzofuran	<330	<1700	<330	<330
Fluoranthene	1400	14,000	<330	<330
Fluorene	<330	2900	<330	<330
2-Methylnaphthalene	<330	<1700	<330	<330
Naphthalene	<330	1700	<330	<330
Phenanthrene	1400	14,000	<330	<330
Pyrene	810	8100	<330	<330

SWB-10	12/07/93	
	1-1.5'	4-4.5'
Bis(2-ethylhexyl)phthalate	<330	<330
Fluoranthene	<330	<330
2-Methylnaphthalene	<330	<330
Phenanthrene	<330	<330
Pyrene	<330	<330

SWB-9	12/07/93			
	3-3.5'	4-4.5'	10-10.5'	15-15.5'
Acenaphthene	43,000	6800	<17000	<1700
Anthracene	24,000	<3300	<17000	<1700
Benzo(a)anthracene	8400	<3300	<17000	<1700
Benzo(b)fluoranthene	11,000	<3300	<17000	<1700
Benzo(k)fluoranthene	<8300	<3300	<17000	<1700
Benzo(a)pyrene	<8300	<3300	<17000	<1700
Bis(2-ethylhexyl)phthalate	<8300	<3300	<17000	<1700
Chrysene	9900	<3300	<17000	<1700
Dibenzofuran	23,000	<3300	<17000	<1700
Fluoranthene	50,000	<3300	<330	<330
Fluorene	36,000	3700	<330	<330
2-Methylnaphthalene	75,000	17,000	<330	<330
Naphthalene	73,000	13,000	<330	<330
Phenanthrene	83,000	6300	<330	<330
Pyrene	28,000	<3300	<330	<330

MF-1A	04/05/94
	0.5'
Bis(2-ethylhexyl)phthalate	690
Fluoranthene	430
2-Methylnaphthalene	<330
Phenanthrene	<330
Pyrene	600

MF-1B	04/05/94
	0.5'
Bis(2-ethylhexyl)phthalate	860
Fluoranthene	<330
2-Methylnaphthalene	<330
Phenanthrene	<330
Pyrene	<330

MF-1C	04/05/94
	0.5'
Bis(2-ethylhexyl)phthalate	590
Fluoranthene	<330
2-Methylnaphthalene	<330
Phenanthrene	<330
Pyrene	430

SWB-8	12/08/93			
	0.5-1'	5-5.5'	10-10.5'	15-15.5'
Bis(2-ethylhexyl)phthalate	<330	<330	<330	<330
Fluoranthene	<330	440	<330	<330
2-Methylnaphthalene	<330	<330	<330	<330
Phenanthrene	<330	<330	1200	740
Pyrene	<330	<330	<330	<330

SWB-11	12/09/93	
	0.5-1'	5-5.5'
Bis(2-ethylhexyl)phthalate	<330	<330
Fluoranthene	<330	<330
2-Methylnaphthalene	<330	<330
Phenanthrene	<330	<330
Pyrene	<330	<330

SWB-1	11/91	
	1'	3'
Bis(2-ethylhexyl)phthalate	<300	3000
Fluoranthene	<300	<300
2-Methylnaphthalene	300	<300
Phenanthrene	<300	<300
Pyrene	<300	<300

SWB-2	11/91	
	1'	3.5'
Bis(2-ethylhexyl)phthalate	2000	<300
Fluoranthene	<300	<300
2-Methylnaphthalene	<300	500
Phenanthrene	<300	<300
Pyrene	<300	<300

SWB-6	12/07/93	
	0.5-1'	5.5-6'
Bis(2-ethylhexyl)phthalate	<1600	<330
Fluoranthene	<330	<330
2-Methylnaphthalene	<330	<330
Phenanthrene	<330	<330
Pyrene	<330	<330

SWB-4	12/09/93	
	0.5-1'	5-5.5'
Bis(2-ethylhexyl)phthalate	<4600	<330
Fluoranthene	<330	<330
2-Methylnaphthalene	<330	<330
Phenanthrene	<330	<330
Pyrene	<330	<330

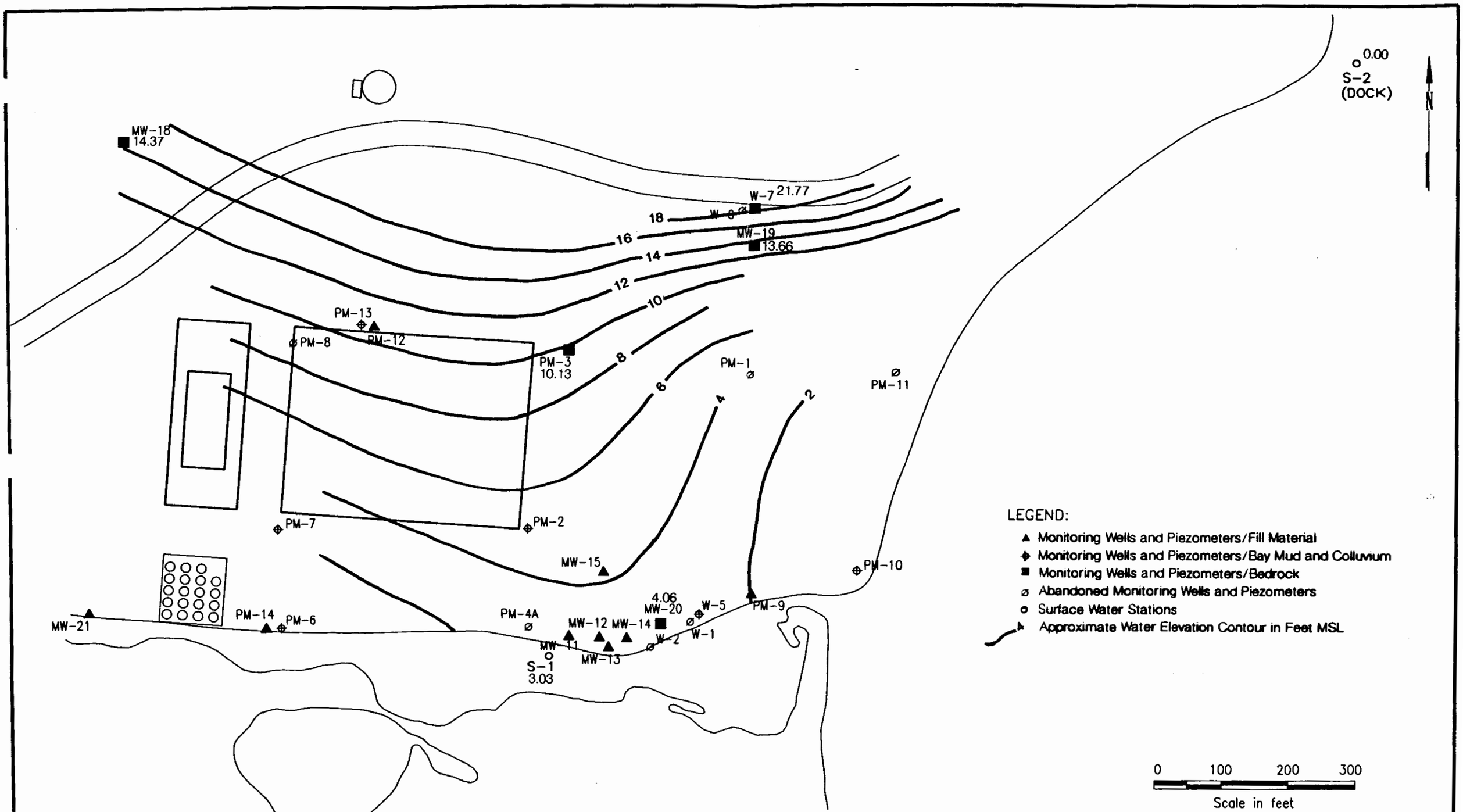
MF-2C	04/05/94
	0.5'
Bis(2-ethylhexyl)phthalate	<330
Fluoranthene	<330
2-Methylnaphthalene	<330
Phenanthrene	<330
Pyrene	<330

MF-2B	04/05/94
	0.5'
Bis(2-ethylhexyl)phthalate	<330
Fluoranthene	770
2-Methylnaphthalene	<330
Phenanthrene	530
Pyrene	720

MF-2A	04/05/94
	0.5'
Bis(2-ethylhexyl)phthalate	<330
Fluoranthene	<330
2-Methylnaphthalene	<330
Phenanthrene	<330
Pyrene	<330

SWB-3	12/09/93	
	0.5-1'	5-5.5'
Bis(2-ethylhexyl)phthalate	<330	<330
Fluoranthene	<330	<330
2-Methylnaphthalene	<330	<330
Phenanthrene	<330	<330
Pyrene	<330	<330

SWB-5	12/09/93		
	0.5-1'	5.5-6'	10-10.5'
Bis(2-ethylhexyl)phthalate	<330	<330	<330
Fluoranthene	<330	<330	<330
2-Methylnaphthalene	<330	<330	<330
Phenanthrene	<330	<330	<330
Pyrene	<330	<330	<330



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FULLER-O'BRIEN PAINTS
450 East Grand Avenue
South San Francisco, California

BEDROCK WATER LEVEL ELEVATIONS AND POTENTIOMETRIC SURFACE 4/8/94

PROJECT NUMBER	DATE	
K615J	April 1994	Figure 15

fuller1.dwg

APPENDIX A
Boring Logs and Well Completion Details

UNIFIED SOIL CLASSIFICATION SYSTEM

Major Divisions		grf	ltr	Description	Major Divisions		grf	ltr	Description
Coarse Grained Soils	Gravel And Gravely Soils		GW	Well-graded gravels or gravel sand mixtures, little or no fines	Fine Grained Soils	Silts And Clays LL < 50		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
			GP	Poorly-graded gravels or gravel sand mixture, little or no fines				CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			GM	Silty gravels, gravel-sand-silt mixtures				OL	Organic silts and organic silt-clays of low plasticity
			GC	Clayey gravels, gravel-sand-clay mixtures		Silts And Clays LL > 50		MH	Inorganic silts, micaceous or diatomaceous fine or silty soils, elastic silts
	Sand And Sandy Soils		SW	Well-graded sands or gravelly sands, little or no fines				CH	Inorganic clays of high plasticity, fat clays
			SP	Poorly-graded sands or gravelly sands, little or no fines				OH	Organic clays of medium to high plasticity
			SM	Silty sands, sand-silt mixtures					
			SC	Clayey sands, and-clay mixtures	Highly Organic Soils			PT	Peat and other highly organic soils

SYMBOLS

- Standard penetration split spoon sample
- Modified California (Porter) sample
- Shelby tube sample
- Water level observed in boring
- Stable water level
- Blank casing
- Screened Casing
- Cement grout
- Bentonite
- Filter Pack

Visual Relative Moisture Content
Increasing Moisture Content

Dry
Damp
Moist
Wet
Saturated

Note: The lines separating strata on the logs represent approximate boundaries only. No warranty is provided as to the continuity of soil strata between borings. Logs represent the soil section observed at the boring location on the date of drilling only.

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BORING LOG LEGEND

FULLER-O'BRIEN PAINTS
South San Francisco, California

PROJECT NO.	DATE	FIGURE NO
K615I	April 1994	A-1

DRILL RIG	CME 75	SURFACE ELEVATION		LOGGED BY	TCM
DEPTH TO GROUNDWATER	5 Feet	BORING DIAMETER	8-inch	DATE DRILLED	12/9/93

DESCRIPTION AND CLASSIFICATION DESCRIPTION AND REMARKS	SOIL TYPE	DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
Concrete 8 inches **Baserock** 4 inches							
FILL: CLAY (CL), blue-gray, damp, trace silt and serpentine deposits.					7 8		
FILL: Rock, gray, moist.					9		
FILL: CLAYEY SILT (ML), blue-gray, wet.					9		
FILL: Rock and Silty Clay (Bay Mud), blue-gray, saturated, trace organics.		5			9 8 8		
(As above, color change to tan)					6 8		
		10					

Bottom of Boring = 10.5 Feet

1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
2. Boring backfilled with cement grout to grade.
3. Ground water level was measured at 5 feet at time of drilling.

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EXPLORATORY BORING LOG

FULLER-O'BRIEN PAINTS
South San Francisco, California

PROJECT NO.	DATE	BORING NO	SWB-3
K615I	April 1994		

DRILL RIG	CME 75	SURFACE ELEVATION		LOGGED BY	TM
DEPTH TO GROUNDWATER	5.5 Feet	BORING DIAMETER	8-inch	DATE DRILLED	12/9/93

DESCRIPTION AND CLASSIFICATION: DESCRIPTION AND REMARKS	SOIL TYPE	DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
Concrete 8 Inches							
Baserock 4 Inches							
FILL: Construction Debris, gray, brown, tan, black, damp, with clay.					0		
FILL: SILT (ML), mottled brown, tan, orange, and black, dry/damp, trace clay and brown rootlets.					0		
FILL: CLAYEY SAND (SC), brown, saturated, fine-grained, trace serpentine.		5			0		
(As above, more clay)					0		
FILL: CLAY (CL), mottled brown, wet, trace silt and fine-grained sand.		10			0		
FILL: Silt and Weathered Rock, brown and gray, wet, with clay.							

Bottom of Boring = 10.5 Feet

Notes:

1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
2. Boring backfilled with cement grout to grade.
3. Ground water level was measured at 5.5 feet at time of drilling.

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EXPLORATORY BORING LOG

FULLER-O'BRIEN PAINTS
South San Francisco, California

PROJECT NO.	DATE	BORING NO	SWB-4
K615I	April 1994		

RIG	CME 75	SURFACE ELEVATION		LOGGED BY	TCM
J GROUNDWATER	5.5 Feet	BORING DIAMETER	8-inch	DATE DRILLED	12/9/93

DESCRIPTION AND CLASSIFICATION: DESCRIPTION AND REMARKS	SOIL TYPE	DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
FILL: CLAYEY SILT (ML), mottled brown and tan, wet, trace rootlets and fine-grained sand.					0	Boring redrilled on 1/12/94 due to laboratory error.	
FILL: SANDY CLAY (CL), tannish orange with gray interbeds, moist, trace rootlets and coarse-grained sand.					0		
(As above, mottled brown and tan)					1		
FILL: CLAY (CL), gray, damp, trace gravel (angular).		5			1		
FILL: Silty Clay and Weathered Rock, blue-gray, saturated, with serpentine and sand deposits.					0		
					0		
					0		
FILL: SILTY CLAYEY SAND (SM/SC), tan, mottled with gray, wet, coarse-grained, poorly graded.		10			0		

Bottom of Boring = 10.5 Feet

Notes:

1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
2. Boring backfilled with cement grout to grade.
3. Ground water level measured at 5.5 feet at time of drilling.

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EXPLORATORY BORING LOG

FULLER-O'BRIEN PAINTS
South San Francisco, California

PROJECT NO.	DATE	BORING NO
K615I	April 1994	SWB-5

DRILL RIG	CME 75	SURFACE ELEVATION		LOGGED BY	TCM
DEPTH TO GROUNDWATER	4 Feet	BORING DIAMETER	8-inch	DATE DRILLED	12/7/93

DESCRIPTION AND CLASSIFICATION: DESCRIPTION AND REMARKS	SOIL TYPE	DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
FILL: CLAYEY SAND (SC), brown and orange mottled, damp, trace silt, very fine-grained.					9		
(As above, no clay, with debris [wood and brick fragments])					9		
FILL: Rock, gray and multicolored, dry, some silt.					9		
(As above, wet, with clay binder)					0		
(As above)		5			0		
(As above, saturated, with clay and sand [fine-grained])					0		
FILL: SANDY CLAY (CL), grayish-black, saturated, (fine-grained), strong organic odor.					0	No recovery between 7.5 and 10 feet.	
					0		
FILL: Rock, gray and black, saturated, moderate organic odor.		10			207	30% recovery for 10 to 15 foot interval.	
					0		
SILTY CLAY (CH), gray with black staining, saturated, moderate organic odor, (Bay Mud).					0		
					0		
					0		
		15			65		

Bottom of Boring = 15.5 Feet

Notes:

1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
2. Boring backfilled with cement grout to grade.
3. Ground water level measured at 4 feet at time of drilling.

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EXPLORATORY BORING LOG

FULLER-O'BRIEN PAINTS
South San Francisco, California

PROJECT NO.	DATE	BORING NO	SWB-6
K615I	April 1994		

DRILL RIG	CME 75	SURFACE ELEVATION		LOGGED BY	TCM
DEPTH TO GROUNDWATER	6 Feet	BORING DIAMETER	8-inch	DATE DRILLED	12/9/93

DESCRIPTION AND CLASSIFICATION: DESCRIPTION AND REMARKS	SOIL TYPE	DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
Concrete 8 Inches **Baserock** 4 Inches						Boring redrilled on 1/12/94 due to laboratory error.	
FILL: CLAYEY SAND (SC), gray and brown, wet, coarse-grained, with gravel (angular).					3 3 3	30% recovery for 0 to 5 foot interval	
FILL: Debris (concrete and wood pieces), wet, some clay and coarse-grained sand.		5			3 7	30% recovery for 5 to 10 foot interval	
FILL: Silt mixed with debris (wood and concrete fragments), black, wet, trace coarse-grained sand, no odor.					0 0 0 0		
FILL: SAND (SP), brown, saturated, liquified, coarse-grained, poorly graded.		10			7 7 7	No recovery for 10 to 15 foot interval. Sampler pushed 1 foot to retrieve sample.	
FILL: CLAYEY SAND(SC)/SANDY CLAY (CL), tannish brown, saturated, coarse-grained, with debris (wood and concrete fragments). (As above, color change to orangish-brown)		15			8 8 8		

Bottom of Boring = 15.5 Feet

Notes:

1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
2. Boring backfilled with cement grout to grade.
3. Ground water level measured at 6 feet at time of drilling.

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EXPLORATORY BORING LOG

FULLER-O'BRIEN PAINTS
South San Francisco, California

PROJECT NO.	DATE	BORING NO
K615I	April 1994	SWB-7

DRILL RIG	CME 75	SURFACE ELEVATION		LOGGED BY	TCM
DEPTH TO GROUNDWATER	5 Feet	BORING DIAMETER	8-inch	DATE DRILLED	12/8/93

DESCRIPTION AND CLASSIFICATION DESCRIPTION AND REMARKS	SOIL TYPE	DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
Concrete 8 Inches							
Baserock 4 Inches					0		
SILTY SAND (SM), mottled brown and tan, damp, fine-grained, with gravel (angular).					0		
					0		
CLAYEY SILT (ML), mottled brown, tan, and gray, damp, trace gravel (angular) and sand (coarse-grained), trace white calache.					0		
		5			0		
					0		
SANDSTONE, gray, damp/wet, with clayey and silty zones, fine-grained, trace organics.					0		
(As above, wet/saturated, trace white stringers)					0		
					0		
(As above, gray and white, damp/wet, with some shell fragments)		10			0		
					0		
					0		
					0		
					0		
(As above)		15			0		

Bottom of Boring = 15.5 Feet

Notes:

1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
2. Boring backfilled with cement grout to grade.
3. Ground water level measured at 4.5 feet at time of drilling.

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EXPLORATORY BORING LOG

FULLER-O'BRIEN PAINTS
South San Francisco, California

PROJECT NO.	DATE	BORING NO	SWB-8
K615I	April 1994		

DRILL RIG	CME 75	SURFACE ELEVATION		LOGGED BY	TCM
DEPTH TO GROUNDWATER	17 Feet	BORING DIAMETER	8-inch	DATE DRILLED	12/7/93

DESCRIPTION AND CLASSIFICATION: DESCRIPTION AND REMARKS	SOIL TYPE	DEPTH (FEET)	SAMPLER PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
FILL: SANDY CLAY (CL), mottled brown, tan, and orange, wet, trace organic odor.				210		
FILL: SANDY GRAVEL (GM), brown, dry/damp, trace organics.				254		
FILL: GRAVEL (GM), gray, dry, trace sand (coarse-grained).				1218		
FILL: Debris, (glass and very fine-grained sand), black and multicolored, damp, strong solvent odor.		5		573		
FILL: CLAYEY SAND (SC), gray and black, damp, fine-grained.				132		
(As above, with slight green discoloration, with brick debris)				37		
(As above, with rock fragments and cobbles)				50		
(As above, damp, with silt)		10		177		
(As above, with weathered rock and fine-grained sand)				202		
FILL: Serpentine Rock, green, damp, weathered, with clay and sand (fine-grained).				1332		
FILL: SAND (SM), black and gray, wet, fine-grained.				83		
(As above, color change to tannish-brown)				891		
				110		
				50		
		15			<10% recovery for 15 to 20 foot interval. Rock blocked sampler.	
		20				

Bottom of Boring = 20 Feet

Notes:

1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
2. Boring backfilled with cement grout to grade.
3. Ground water level measured at 16.5 feet at time of drilling.

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EXPLORATORY BORING LOG

FULLER-O'BRIEN PAINTS
South San Francisco, California

PROJECT NO.	DATE	BORING NO
K615I	April 1994	SWB-9

DRILL RIG	CME 75	SURFACE ELEVATION		LOGGED BY	TCM
DEPTH TO GROUNDWATER	3 Feet	BORING DIAMETER	8-inch	DATE DRILLED	12/7/93

DESCRIPTION AND CLASSIFICATION DESCRIPTION AND REMARKS	SOIL TYPE	DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
FILL: SANDY CLAYEY GRAVEL (GM), yellowish brown and gray, damp, very fine-grained, angular to subangular to 1/2" diameter.					0		
(As above, grayish-brown, damp/ dry, trace clay)					0		
SANDSTONE, gray, damp.					0		
(As above, grayish-brown, wet, trace clayey and sandy zones)		5			0		
(As above, saturated)					0		
					0		
					0		
Bottom of Boring = 9 Feet					0	Auger met refusal at 9 feet.	

Notes:
1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
2. Boring backfilled with cement grout to grade.
3. Ground water level measured at 3 feet at time of drilling.

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EXPLORATORY BORING LOG

FULLER-O'BRIEN PAINTS
South San Francisco, California

PROJECT NO.	DATE	BORING NO	SWB-10
K615I	April 1994		

DRILL RIG	CME 75	SURFACE ELEVATION		LOGGED BY	TCM
DEPTH TO GROUNDWATER	7 Feet	BORING DIAMETER	8-inch	DATE DRILLED	12/9/93

DESCRIPTION AND CLASSIFICATION: DESCRIPTION AND REMARKS	SOIL TYPE	DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
Asphalt 3-4 Inches							
Baserock 4 Inches							
FILL: SILTY SAND (SM), mottled brown, orange, and gray, damp, fine-grained, trace gravel (angular).					7		
(As above, trace white rootlets)					7		
FILL: SAND (SM), dark brown, dry.		5			7		
(As above, mottled brown, tan, black, trace organics [shells and wood pieces])					8		
FILL: Weathered Serpentine, green and brown, moist, with sand (fine-grained).					8		
FILL: Debris, (nails, brick fragments), red, brown, black, with poorly graded gravel to 1" diameter, strong solvent odor.		10			50		
FILL: SAND (SM), gray, wet/saturated, coarse-grained, strong solvent odor.					13		
(As above, color change to mottled brown, tan gray, trace clay)		15			7		
					3		

Bottom of Boring = 15.5 Feet

Notes:

1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
2. Boring backfilled with cement grout to grade.
3. Ground water level measured at 5 feet at time of drilling.

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EXPLORATORY BORING LOG

FULLER-O'BRIEN PAINTS
South San Francisco, California

PROJECT NO.	DATE	BORING NO	SWB-11
K615I	April 1994		

DRILL RIG	CME 75	SURFACE ELEVATION		LOGGED BY	TCM
DEPTH TO GROUNDWATER	5 Feet	BORING DIAMETER	8-inch	DATE DRILLED	12/10/93

DESCRIPTION AND CLASSIFICATION: DESCRIPTION AND REMARKS	SOIL TYPE	DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
FILL: SAND (SM), brown and multi-colored, wet, trace baserock.					0		
(As above, brown, wet, poorly graded)					0		
(As above, color change to gray)					0		
(As above, some black and brown, mottling)		5			0		
(As above, tan-brown, saturated, coarse- to medium-grained)					0		
					0		
(As above, gray-blue, saturated, medium-grained, poorly graded)					0		
					0		
(As above, medium- to fine-grained, trace organics)		10			0		

Bottom of Boring = 10 Feet

Notes:

1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
2. Ground water level measured at 5 feet at time of drilling.
3. Well Construction Details
   - -2-inch PVC Schedule 40 solid and slotted (0.020-inch) casing
   - -2/12 washed sand filter pack
   - -bentonite pellets plug
   - -cement grout surface seal with

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EXPLORATORY BORING LOG

FULLER-O'BRIEN PAINTS
South San Francisco, California

PROJECT NO.	DATE	BORING NO	PM-12
K615I	April 1994		

DRILL RIG	CME 75	SURFACE ELEVATION		LOGGED BY	TCM
DEPTH TO GROUNDWATER	5 Feet	BORING DIAMETER	8-inch	DATE DRILLED	12/10/93

DESCRIPTION AND CLASSIFICATION DESCRIPTION AND REMARKS	SOIL TYPE	DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
FILL: Sand and Baserock, brown and multicolored, wet.					0	50% recovery for 0 to 5 foot interval.	
FILL: SAND (SP), brown, wet, poorly graded.					0		
(As above, color change to gray)					0		
(As above, some black and brown mottling)					0		
FILL: SAND (SP), tan-brown, saturated, fine- to medium-grained, poorly graded.		5			0	45% recovery for 5 to 10 foot interval.	
FILL: SAND (SP), gray-blue, saturated, medium-grained, poorly graded.					0		
					0		
					0		
(As above, medium- to fine-grained, trace organics)		10			0	40% recovery for 10 to 15 foot interval.	
					0		
					0		
					0		
(Trace gravel at 14 feet)					0		
SILTY CLAY (CH), blue-gray, wet, stiff, trace fine-grained sand and organics (roots and shell fragments), (Bay Mud).		15			0	No recovery for 15 to 20 foot interval. Pushed split spoon 1.5 feet to retrieve 80% of interval.	
					0		
					0		
					0		
					0		
(As above, some brown mottling, dry/damp, very stiff)		20			0	60% recovery for 20 to 25 foot interval.	
					0		
(As above, color change to dark blue-gray)					0		
					0		
					0		
(As above, dry/damp, trace organics [rootlets and shells])		25			0	95% recovery for 25 to 30 foot interval.	
					0		
CLAYEY SAND (SC), gray-brown, moist/damp, fine- to very fine-grained, trace weathered rock.					0		
					0		
					0		

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EXPLORATORY BORING LOG

FULLER-O'BRIEN PAINTS
South San Francisco, California

PROJECT NO.	DATE	BORING NO
K615I	April 1994	PM-13

DRILL RIG	CME 75	SURFACE ELEVATION		LOGGED BY	TCM
DEPTH TO GROUNDWATER	5 Feet	BORING DIAMETER	8-inch	DATE DRILLED	12/10/93

DESCRIPTION AND CLASSIFICATION DESCRIPTION AND REMARKS	SOIL TYPE	DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
(As above, gray-brown, wet, medium-grained)					0 0		
SANDSTONE, orange and gray mottled, wet, highly weathered.					0 0		
		35					

Bottom of Boring = 35 Feet

Notes:

1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
2. Ground water level encountered at 5 feet at time of drilling.
3. Well Construction Details
   - -2-inch PVC, Schedule 40 solid and slotted (0.020-inch) casing
   - -2/12 washed sand filter pack
   - -bentonite pellets plug
   - -cement grout surface seal with steel, traffic rated cover

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EXPLORATORY BORING LOG

FULLER-O'BRIEN PAINTS
South San Francisco, California

PROJECT NO.	DATE	BORING NO
K615I	April 1994	PM-13

DRILL RIG	CME 75	SURFACE ELEVATION		LOGGED BY	TCM
DEPTH TO GROUNDWATER	5 Feet	BORING DIAMETER	8-inch	DATE DRILLED	12/10/93

DESCRIPTION AND CLASSIFICATION		DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	PID READING	REMARKS	WELL CONSTRUCTION
DESCRIPTION AND REMARKS	SOIL TYPE						
Asphalt 3-4 Inches							
Baserock 3 Inches					0		
FILL:Gravel, gray, dry/damp, trace medium-grained sand.					0		
FILL: Silty Clay with Sand, grayish-brown, moist, fine- to medium-grained.					0		
					0		
(As above, gray, wet, less sand)		5			0		
(As above, some gravel (subangular to subround)					0		
					0		
SILTY CLAY (CH), bluish-gray, wet, trace fine-grained sand, (Bay Mud).					0		
					0		
(As above, less sand)		10			0		
					0		

Bottom of Boring = 12 Feet

Notes:

1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
2. Ground water level measured at 5 feet at time of drilling.
3. Well Construction Details
   - -2-inch PVC, Schedule 40 solid and slotted (0.020-inch) casing
   - -2/12 washed sand filter pack
   - -bentonite pellets plug
   - -cement grout seal surface seal with steel traffic rated cover

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EXPLORATORY BORING LOG

FULLER-O'BRIEN PAINTS
South San Francisco, California

PROJECT NO.	DATE	BORING NO	PM-14
K615I	April 1994		

Project: THE FULLER O'BRIEN CORPORATION
South San Francisco, California

Log of Well No. W5

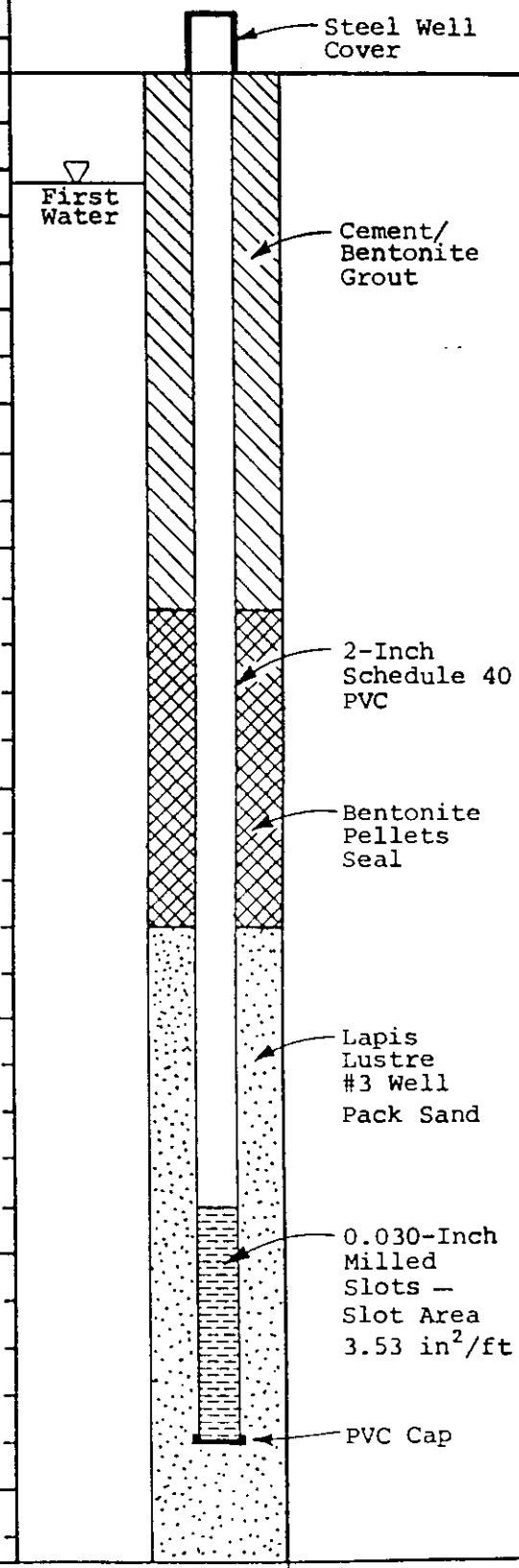
Date Drilled: April 28, 1983

Remarks: See LEGEND on Figure 3

Drilling Method: Mud Rotary

Depth, Ft.	Samples	Lithology	MATERIAL DESCRIPTION
			Surface Elevation: 10.35 MSL, Top of Casing
			SILTY SANDY GRAVEL - gray
			SILTY CLAYEY SAND - gray with 5%-10% gravel
			CLAYEY SAND - gray with some green, <5% gravel
			GRAVELLY CLAY - brown
10			CLAYEY SANDY SILT - with gravels to ½-inch, brown
			SILT interbedded with SANDY GRAVEL, brown
20			Paint odor
			CLAYEY SILT - blue-gray with some shells, barnacles
30			CLAYEY SILT interbedded with SANDY SILT, blue-gray and brown-orange, respectively
			SILTY SANDSTONE - orange
40			SANDY SILT - orange-brown
			SANDY SILT with SANDSTONE fragments - orange to orange-brown with some organic materials (wood, shells)
50			SANDSTONE - orange-brown, very fine grained, fractured with some silt, shells
			Less fractured, harder, no silt
60			SANDY SILT - gray and orange-brown, softer
			BOTTOM OF BORING @ 63'

WELL DETAILS



Proj. No. 90023A | Woodward Clyde Consultants | Figure 2

Project: THE FULLER O'BRIEN CORPORATION
South San Francisco, California

Log of Well No. W6

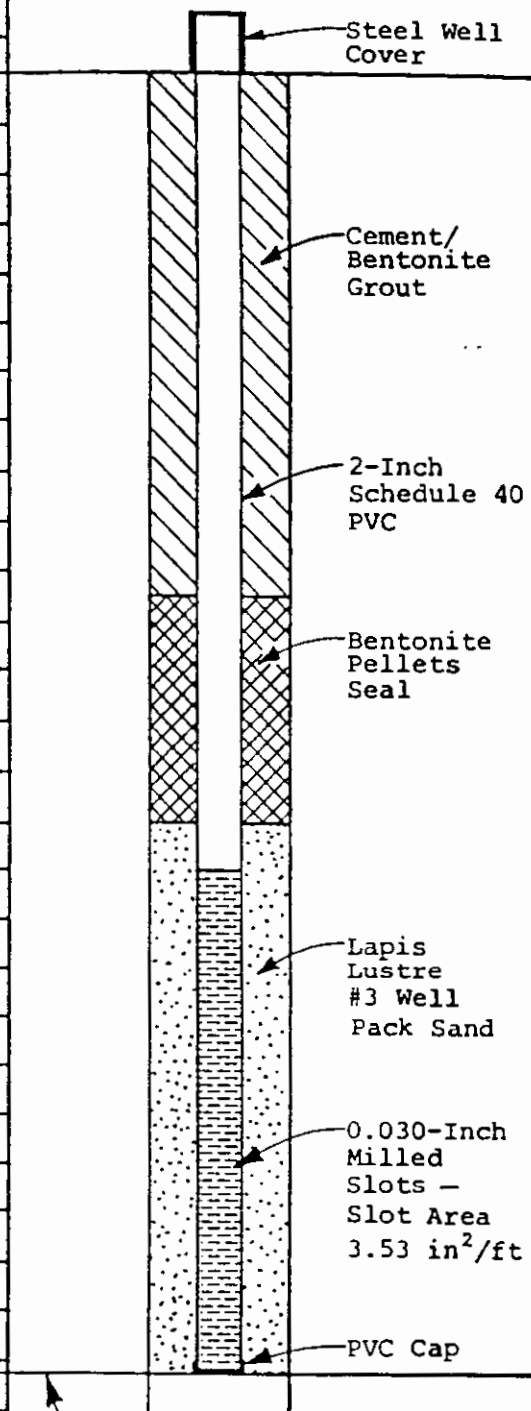
Date Drilled: April 29, 1983

Remarks: See LEGEND Below

Drilling Method: Air Rotary

NOTE: No water observed during drilling

Depth, Ft.	Samples	Lithology	MATERIAL DESCRIPTION
			Surface Elevation: 33.07 MSL, Top of Casing
			SANDY SILTY GRAVEL - brown, gravels to 1½-inch, moist
			SILTY CLAY - medium brown with <5% gravel, dry — Gray-brown
10			GRAVEL to fractured SHALE
20			
30			SHALE, unfractured (?)
40			
50			SHALE with some SANDSTONE and SERPENTINE, soft, green
60			



LEGEND:

- Sand
- Sandstone
- Silt
- Clay
- Shale
- Serpentine
- Gravel

Project: THE FULLER O'BRIEN CORP
South San Francisco, California

Log of Well No. W7

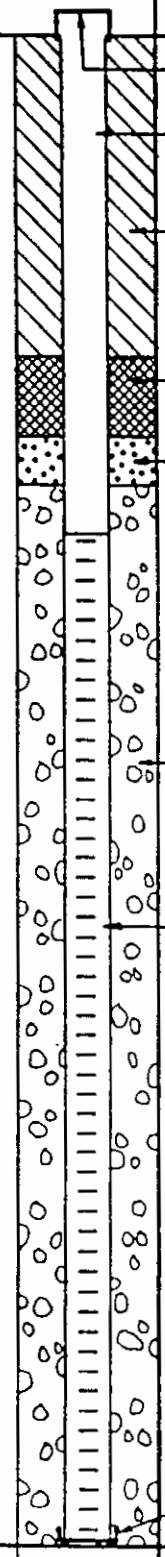
Date Drilled: April 2, 1984

Drilling Method: Air Rotary

Remarks: No Free Water Observed During Drilling

Ground Surface Elevation: 30.8 feet MSL

Depth, Ft.	Samples	Lithology	MATERIAL DESCRIPTION	WELL DETAILS	REMARKS
			SANDY CLAY (CL) Stiff, brown, moist, with gravel to 3/4" maximum size (FILL)		Steel well cap; 2-inch Schedule 40 PVC
5			SANDY CLAY (CL) Medium stiff to stiff, gray, wet, with gravel to 2" maximum size (FILL?)		Cement/ Bentonite Grout
			SHALE Highly weathered, gray-brown		Bentonite pellets; Sand
10			Color change to gray at 12 feet		
15			Less weathered with depth		Pea Gravel
20					0.020-inch milled slots-slot area ~4 IN^2/FT
25					
30			BOTTOM OF BORING @ 30.5 FT.		PVC Cap



Proj. No. 90023A

ODWARD-CLYDE CONSULTANTS WELL LOG

Project Name: FULLER O'BRIEN

ing/Well ID: F0-MW11		Date Started: 1/9/87	Date Completed: 1/9/87
Project and Task Number: 90023A-0008		Datum: Ground Surface (BGS)	No. of Samples: 2
Size and Type of Casing: 4-inch Schedule 40 PVC		Completion Depth: 15.6' BGS	Water Level Depth: 8.8' BGS
Drilling Method/Equip: Hollow Stem Auger / CME 55		Perf: 0.02-inch slot	From: 5.6' To: 15.6'
Drilling Agency: Bay Area Exploration		Pack: #3 Monterey Sand	From: 4.5' To: 15.6'
Driller: Scott Ritchee	Drill Bit: 9 5/8-inch OD	Seal 1: Bentonite Pellets	From: 2.0' To: 4.5'
Elev TOC: 10.89' MSL	Elev WL: MSL	Seal 2: Cement Grout	From: GS To: 2.0'

Depth (feet)	Sample	Blws/ft	LITHOLOGIC DESCRIPTION	Perf	Pack	Seal 1	Seal 2	WL	REMARKS
			Sandy clay fill material, dark brown, some white shell fragments, angular rock fragments approx 1/8-inch diameter.						8-inch protective casing installed at well head
5									
									Sample MW11A
									Water level measured prior to development
			Black bay muds - sticky, wet, black organic clay, some organic debris						
									Sample MW11B
15									Screw-on PVC bottom cap installed
20									
25									
30									

Logged by:
R. Kilbury

'OODWARD-CLYDE CONSULTANTS WELL LOG

Project Name: FULLER O'BRIEN

oring/Well ID: F0-MW12		Date Started: 1/10/87	Date Completed: 1/10/87
Project and Task Number: 90023A-0008		Datum: Ground Surface (BGS)	No. of Samples: 2
Size and Type of Casing: 4-inch Schedule 40 PVC		Completion Depth: 15.6' BGS	Water Level Depth: 8.2' BGS
Drilling Method/Equip: Hollow Stem Auger / CME 55		Perf: 0.02-inch slot	From: 5.0' To: 15.0'
Drilling Agency: Water Development Corp		Pack: #3 Monterey Sand	From: 4.0' To: 15.5'
Driller: Dave Maulden	Drill Bit: 11 5/8-inch OD	Seal 1: Bentonite Pellets	From: 3.0' To: 4.0'
Elev TOC: 12.96' MSL	Elev WL: MSL	Seal 2: Cement Grout	From: GS To: 3.0'

Depth (feet)	Sample	Blws/ft	LITHOLOGIC DESCRIPTION	Perf	Pack	Seal 1	Seal 2	WL	REMARKS
									8-inch protective casing installed at well head
5			Fill Material; dark brown sandy clay, shell fragments, angular rock fragments up to 1/4-inch dia.						
									Sample MW12A
									Water level measured prior to development
.0									
			Bay mud; wet brown sticky sandy clay						
									Sample MW12B
15									Screw-on PVC bottom cap installed
20									
25									
30									

Logged by:
R. Kilbury

WOODWARD-CLYDE CONSULTANTS WELL LOG

Project Name: FULLER O'BRIEN

Boring/Well ID: F0-MW13		Date Started: 1/10/87	Date Completed: 1/10/87
Project and Task Number: 90023A-0008		Datum: Ground Surface (BGS)	No. of Samples: 2
Size and Type of Casing: 4-inch Schedule 40 PVC		Completion Depth: 15.0' BGS	Water Level Depth: 8.6' BGS
Drilling Method/Equip: Hollow Stem Auger / CME 55		Perf: 0.02-inch slot	From: 5.0' To: 15.0'
Drilling Agency: Water Development Corp		Pack: #3 Monterey Sand	From: 4.0' To: 15.0'
Driller: Dave Maulden	Drill Bit: 11 5/8-inch OD	Seal 1: Bentonite Pellets	From: 3.0' To: 4.0'
Elev TOC: 13.39' MSL	Elev WL: MSL	Seal 2: Cement Grout	From: GS To: 3.0'

Depth (feet)	Sample	Blws/ft	LITHOLOGIC DESCRIPTION	Perf	Pack	Seal 1	Seal 2	WL	REMARKS
									8-inch protective casing installed at well head
5			Fill Material; dark brown sandy clay, shell fragments, angular rock fragments up to 1/4-inch dia.						
			Gravelly gray wet clay						Sample MW13A Water level measured prior to development
			Bay mud; gray wet sticky clay mixed with some sandy layers						
15									Sample MW13B Screw-on PVC bottom cap installed
20									
25									
30									

Logged by: R. Kilbury

WOODWARD-CLYDE CONSULTANTS WELL LOG

Project Name: FULLER O'BRIEN

Boring/Well ID: F0-MW14		Date Started: 1/11/87	Date Completed: 1/11/87
Project and Task Number: 90023A-0008		Datum: Ground Surface (BGS)	No. of Samples: 2
Size and Type of Casing: 4-inch Schedule 40 PVC		Completion Depth: 15.0' BGS	Water Level Depth: 8.5' BGS
Drilling Method/Equip: Hollow Stem Auger / CME 55		Perf: 0.02-inch slot	From: 5.0' To: 15.0'
Drilling Agency: Water Development Corp		Pack: #3 Monterey Sand	From: 3.5' To: 15.0'
Driller: Dave Maulden	Drill Bit: 11 5/8-inch OD	Seal 1: Bentonite Pellets	From: 2.5' To: 3.5'
Elev TOC: 13.97' MSL	Elev WL: MSL	Seal 2: Cement Grout	From: GS To: 2.5'

Depth (feet)	Sample	Blws/ft	LITHOLOGIC DESCRIPTION	Perf	Pack	Seal 1	Seal 2	WL	REMARKS
									8-inch protective casing installed at well head
5			Fill Material; dark brown sandy clay, shell fragments, angular rock fragments up to 1/4-inch dia.						
									Sample MW14A
									Water level measured prior to development
			Bay mud; gray wet sticky clay						
									Sample MW14B
15									Screw-on PVC bottom cap installed
20									
25									
30									

Logged by: R. Kilbury

WOODWARD-CLYDE CONSULTANTS WELL LOG

Project Name: FULLER O'BRIEN

..ng/Well ID: F0-MW15		Date Started: 1/11/87	Date Completed: 1/11/87
Project and Task Number: 90023A-0008		Datum: Ground Surface (BGS)	No. of Samples: 8
Size and Type of Casing: 4-inch Schedule 40 PVC		Completion Depth: 15.0' BGS	Water Level Depth: 8.2' BGS
Drilling Method/Equip: Hollow Stem Auger / CME 55		Perf: 0.02-inch slot	From: 5.0' To: 15.0'
Drilling Agency: Water Development Corp		Pack: #3 Monterey Sand	From: 4.0' To: 15.0'
Driller: Dave Maulden	Drill Bit: 11 5/8-inch OD	Seal 1: Bentonite Pellets	From: 3.0' To: 4.0'
Elev TOC: 11.93' MSL	Elev WL: MSL	Seal 2: Cement Grout	From: GS To: 3.0'

Depth (feet)	Sample	Blws/ft	LITHOLOGIC DESCRIPTION	Perf	Pack	Seal 1	Seal 2	WL	REMARKS
			Fill Material; dark brown sandy clay, shell fragments, angular rock fragments up to 1/4-inch dia.						8-inch protective casing installed at well head
									This is the upgradient well
5			Bay mud; gray silty sticky wet clay						Water level measured prior to development
									Samples: MW15A - 2.0' MW15B - 3.5' MW15C - 4.0' MW15D - 7.0' MW15E - 9.0' MW15F - 12.0' MW15G - 13.0' MW15H - 15.0'
			Brown sandy wet clay						
15									Screw-on PVC bottom cap installed
20									
25									
30									

Logged by: R. Kilbury

LOG OF BORING No.PM-1

DATE DRILLED: 8/17/87 EQUIPMENT: B-56, Failing 1250

DESCRIPTION: Rotary ELEVATION: 7.85 feet

DRILLING CONTRACTOR Exploration Drilling

DRILLER Wilbur Neufeld

BY KLH DATE 12/11/87 CHK'D BY TWC

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
S-1	2-2-3		18/18					Fill - silty sand, dry, very fine, micaceous, grey-brown, (hf), becoming moist	.2
									.1
					2.5			As above - hit hard area - cement or gravel at 3 feet. Failing 1250 set up on hole 9/9/87 set 6 inch casing through fill sand to 13 feet.	
					5				
					7.5			▽ Wet at 8 feet - fill sand saturated	
					10				
					12.5			Bedrock - Very heavily weathered and fractured sandstone to mudstone, light olive gray (5Y 5/2), soft, clayey, moist, no odor.	0
					15			As above - with zones of pale green (10G 6/2)	
Cove drilling.								As above - becoming very silty (approx. 50%).	
					17.5				
								Set casing to 20 feet, flushed sand out with air.	

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

PROJECT NO 87-01105.18

DRAWING NO

THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

LOG OF BORING No.PM-1

DATE DRILLED: 9/9/87 EQUIPMENT: Failing 1250

DESCRIPTION: Rotary ELEVATION: 7.85 feet

DRILLING CONTRACTOR Exploration Drilling

DRILLER Wilbur Neufeld

BY KLH DATE 12/11/87 CHK'D BY TWC

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
			24/20					SHALE to MUDSTONE - highly weathered, moist, laminated with occasional quartz filled fractures, greenish black (5G 2/1).	
			24/22		22.5				
			24/22		25			As above - becoming fresh at 25 feet	
			24/24		27.5			27'-28' - zone of pale bluish green shale (5BG 7/2) within greenish black. Bedding highly convoluted, 1/4 to 1/2 inch thick white mineral filled fractures common.	
			24/24		30				
					32.5				
			24/24		35				
					37.5				

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PROJECT NO 87-01105.18

THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

LOG OF BORING No.PM-1

DATE DRILLED: 9/9/87 EQUIPMENT: Failing 1250

DESCRIPTION: Rotary ELEVATION: 7.85 feet

DRILLING CONTRACTOR Exploration Drilling

DRILLER Wilbur Neufeld

SAMPLE NO. / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
								As above.	
			24/24		42.5				
								▽ 9/10/87	
					45				
					47.5				
			24/24						
					50				
					52.5			TD Boring @ 51 feet. Set 2 inch monitoring well; see Well Construction Log for details.	

BY KLH DATE 12/11/87 CHK'D BY TWC

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PROJECT NO 87-01105.18

DRAWING NO

THE MARK GROUP

Hydrogeologic Assessment
The O'Brien Corporation
South San Francisco, CA

CONSTRUCTION LOG OF WELL No. PM-1

Date Completed: 9/9/87

Well Type: Piezometer

Casing Type: Schedule 40 PVC

Casing Dia: 2 inches

Casing Lengths: 4 x 10'

Screen Size: .010 inch

Screen Length: 2 x 5'

Tailpipe Length:

Locking Cover Type:

Locking Cover Stickup (+)/Depression (−):

Filter Material: #16 Washed Filter Sand

Filter Volume: 2.76 cubic feet

Seal Material: Bentonite Pellets

Seal Volume: .69 cubic feet

Grout Material: #5 Portland Cement with 10% Bentonite Powder

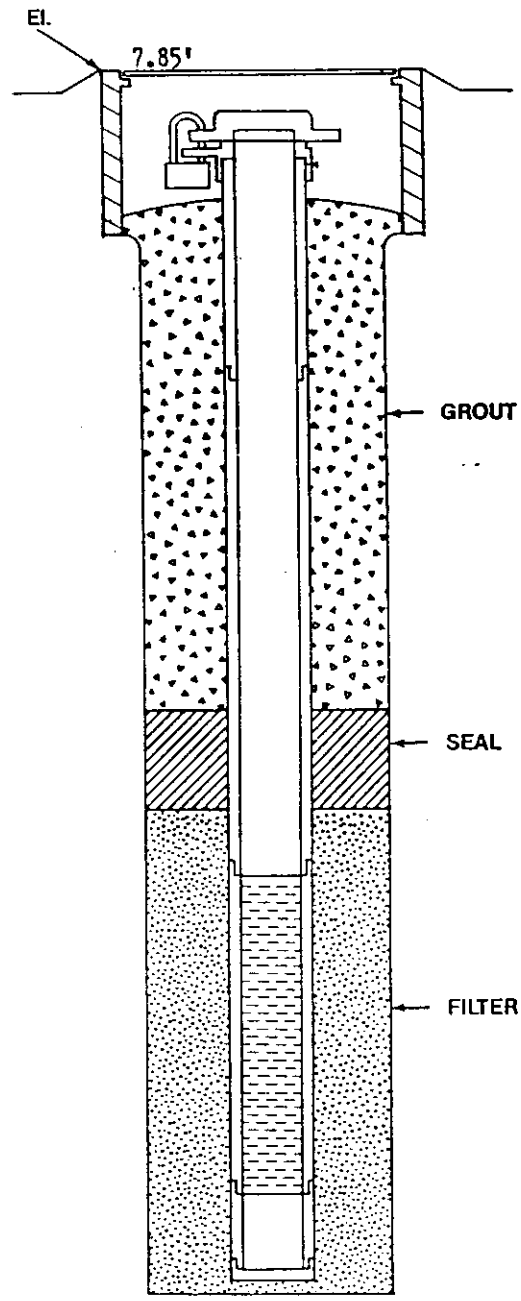
Grout Volume: 5.35 cubic feet

Bore Dia: 5 5/8 inches

Total Depth: 51 feet

Comments:

DEPTH IN FEET
.5
.8
31
35
40.5
50.5
51



Prepared By KLH App. TWC Date 12/11/87

THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS. THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS WELL AT THE TIME OF CONSTRUCTION. CONDITIONS SHOWN MAY CHANGE WITH THE PASSAGE OF TIME.

PROJECT NO. 87-01105.18

THE MARK GROUP ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO.

2/21/86

LOG OF BORING No.PM-2

DATE DRILLED: 8/18/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 4.62 feet.

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

SAMPLE NO. / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
S-1	8-6-13		18/15	3				Concrete Bits & Gravel Fill (hf) - dry, becoming clayey, dark gray, with sand and gravel.	.4
								SILTY SAND (SM) - dry to slightly moist, very fine, micaceous, loose to medium dense, grey-brown.	
			12/10						
					2.5				
S-2	6-6-6		18/13	3				As above - becoming slightly clayey (approx. 10%)	.6
	1-1		12/0					No recovery	
					5				
S-3	2-2-2		18/15	3				Wet	
								Becoming dark red brown.	
	1-2-2		18/17					Mottled with gray clayey silty sand.	1.0
					7.5				
	4-4-4		18/18					Some zones of oxidation - MnO_2 staining.	
	5-7		6/6		10			Becoming pebbly - angular 1/4-1/2" diameter.	
S-4	3-6-7		18/18					Coarser grained, gray-brown.	
	3-4-5		21/18						
					12.5			SILTY SAND (SM) - dark gray, wet, very fine, with shell fragments to 1 inch diameter, becoming clayey at 13 feet.	
	3-4-7		21/21						1.2
								SILTY CLAY (CL) - with fine sand, wet, dark gray, organic, plastic, no shell fragments, very soft.	
					15				
S-5	3-6-4		18/13	3					
								1 inch lens of shell fragments, horizontal, imbricated.	
	10-13-19		21/18						
					17.5				.6
	9-19-19		21/6					SANDSTONE - tan to light gray, very fine, highly weathered and fractured, with red-brown silty clay filling, some zones of green & black mineralization.	

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

PROJECT NO 87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

LOG OF BORING No.PM-2

DATE DRILLED: 8/11/87 EQUIPMENT: B-56

DESCRIPTION: Auger ELEVATION: 4.62 feet

SAMPLE NO. / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
S-6	6-9-15		18/10					SANDSTONE - tan to light gray, very fine, highly weathered and fractured, with red-brown silty clay filling, some zones of green & black mineralization.	
					22.5			TD Boring @ 21.5 feet.	
								Set 2 inch monitoring well, see Well Construction Log for details.	

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger.

BY KLH

DATE 12/11/87 CHK'D BY TWC

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

PROJECT NO

87-01105.18

DRAWING NO

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

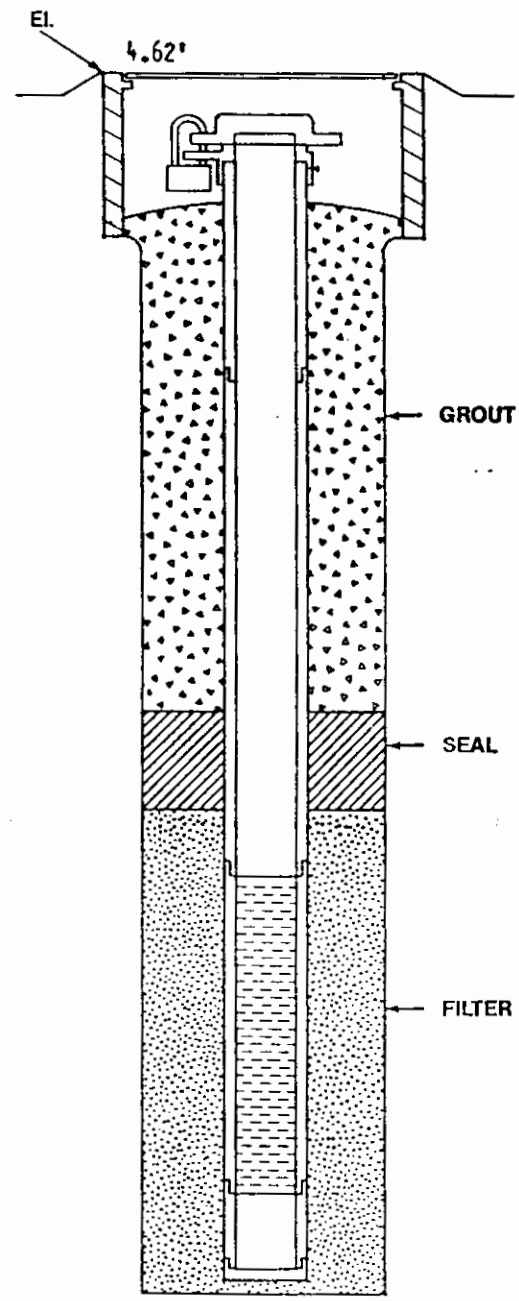
CONSTRUCTION LOG OF WELL No. PM-2

Date 12/11/87

Prepared By KLH Ap. By TWC

	DEPTH IN FEET
Well Type: Piezometer	
Casing Type: Schedule 40 PVC	
Casing Dia: 2 inches	
Casing Lengths: 1 x 5' + 1 x 10'	.5
Screen Size: .007 inch	.8
Screen Length: 5 feet	
Tailpipe Length: 5 feet	
Locking Cover Type:	
Locking Cover Stickup (+)/Depression (−):	
Filter Material: #30 Washed Filter Sand	
Filter Volume: 4.54 cubic feet	5
Seal Material: Bentonite Pellets	8
Seal Volume: .52 cubic feet	11
Grout Material: #5 Portland Cement with 10% Bentonite Powder	
Grout Volume: 1.74 cubic feet	
Bore Dia: 8 inches	
Total Depth: 21.5 feet	16
Comments:	21

Date Completed: 8/18/87



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PROJECT NO. 87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO.

PT-7 2/21/86

LOG OF BORING No.PM-3

DATE DRILLED: 8/19/87 EQUIPMENT: B-56

DESCRIPTION: Auger ELEVATION: 8.24 feet

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Hagger

BY KLH DATE 12/11/87 CHK'D BY TWC

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
S-1	9-20-46		18/15	3				SANDSTONE - dry, tan to light brown, highly fractured & weathered, very fine, soft, zones of green & black mineralization and white cementation.	.1
	18-28-21		18/15						
					2.5				
	11-34-15		18/12						
								Becoming hard.	
					5				
S-2	26-50		5"						.1
								Refusal, strong paint thinner odor, tip of sampler	
	13-87-41		18/10						200 inside auger
					7.5			MUDSTONE - highly weathered, friable, dark brown with red-brown staining in fractures, dry to slightly moist - becoming sandy - very fine, with zone of wet white cementation at 8', gray-black, no odor, very hard drilling. (hammer cracked)	
	27-50-R								10
	41-55		12/12						
					10			9/10/87 Set up on pilot hole with Exploration Drilling rig. Becoming fresh, hard, medium light gray (N6), dry.	0
					12.5				
					15				
					17.5			Becoming shaley, fractured, dry.	
								TD Boring @ 20 feet Set 2 inch monitoring well - see Well Construction Log for details.	

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PROJECT NO 87-01105.18

THE MARK GROUP ENGINEERS & GEOLOGISTS, INC

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

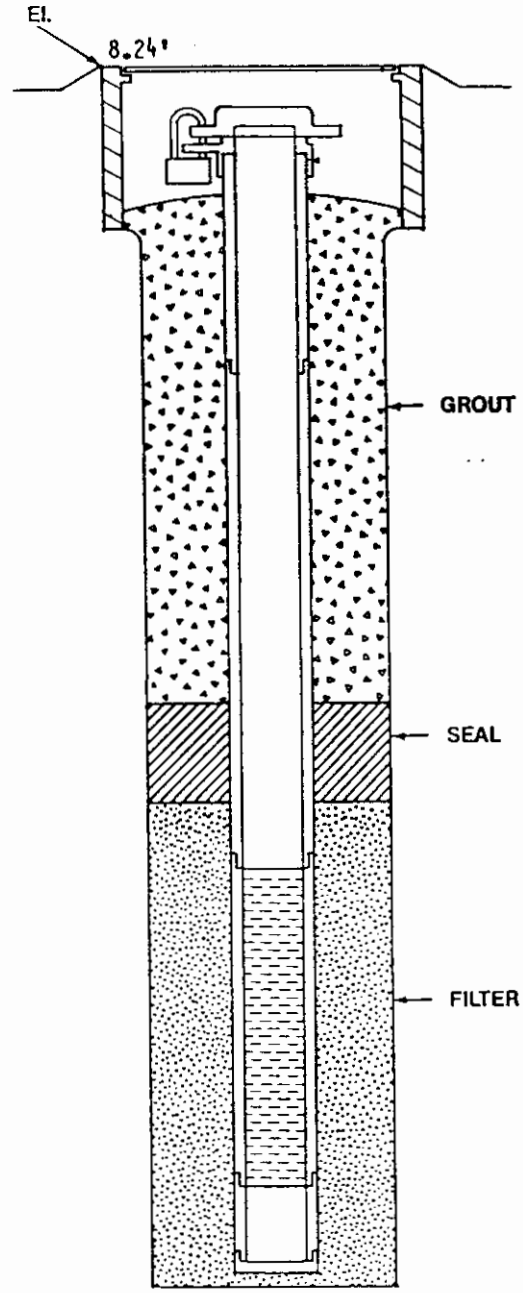
CONSTRUCTION LOG OF WELL No. PM-3

Date 12/11/87

Prepared By KLH Ap- By TWC

	DEPTH IN FEET
Well Type: Piezometer	
Casing Type: Schedule 40 PVC	
Casing Dia: 2 inches	
Casing Lengths: 1 x 5'	.5
Screen Size: .010 inch	1
Screen Length: 5 feet	
Tailpipe Length:	
Locking Cover Type:	
Locking Cover Stickup (+)/Depression (−):	
Filter Material: #16 Washed Filter Sand	
Filter Volume: 0.95 feet	2
Seal Material: Bentonite Pellets	4
Seal Volume: 0.345 cubic feet	5.5
Grout Material: #5 Portland Cement with 10% Bentonite Powder	
Grout Volume: 0.17 cubic feet	
Bore Dia: 5 5/8 inches	10.5
Total Depth: 20 feet	
Comments: Pilot Hole drilled to 20 feet then backfilled with Bentonite powder	11

Date Completed: 9/10/87



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PROJECT NO. 87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco

DRAWING NO.

T-7 2/21/86

LOG OF BORING No.PM-4

DATE DRILLED: 8/18/87 EQUIPMENT: B-56

DESCRIPTION: Auger ELEVATION: 1.86 feet

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH

DATE 12/11/87 CHK'D BY TWC

SAMPLE NO. / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
S-1	33-40-32		18/12					Fill - sandy silt with clay, dry, very dense, with shells and gravel, brown mottled with dark silty clay, moderate yellow brown (10YR 4/4)	.1
	3-4-5		18/16					Becoming soft, moist.	
					2.5				
	3-7-9		18/18						
								Garbage - glass, paper, brick, slight septic odor, coal-like appearance, moist.	
	6-9-10		18/18		5				
S-2									.1
	4-3-1		18/15					∇ Becoming saturated at 7.5 feet, black, oily, strong septic odor, highly decomposed, oily odor.	10
					7.5				
	1-1-1		18/18						
	1-1		18/12						
					10				
S-3	2-2-2		18/18					SILTY CLAY (CL) - black, organic, very soft, plastic, some peat, H_2S odor, wet, bay mud.	
	2-4-2		18/12						
					12.5				
	2-2-2		24/24						2
					15				
S-4	9-12-5		18/18					Layer of pebbles and gravel (1/8" to 2" diameter) at 16 feet.	
	2-2-2		18/18						
					17.5				
	3-1-2		24/24					Becoming dusky yellowish brown (10YR 2/2).	

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PROJECT NO 87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

LOG OF BORING No.PM-4

DATE DRILLED: 8/20/87 EQUIPMENT: B-56

DESCRIPTION: Auger ELEVATION: 1.86 feet

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

SAMPLE NO. / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG	DESCRIPTION	HNu TEST
S-5	2-1-2		18/12					SILTY CLAY With PEAT (Cl-Pt) - slight H_2S odor, dusky yellowish brown (10 YR 2/2)	
	2-2-2		18/18						
					22.5			Becoming sandy, very fine with occasional shell fragments, very soft, plastic.	
	1-1-1		24/24						
					25				
S-6	5-7-55		18/						
								SILTY SAND (SM) - with some clay, very fine to medium grained, wet, dusky yellowish brown (10 YR 2/2), dense.	
S-7	15-50-4		18/18						
					27.5			Silty Clay in toe of sampler.	
	20-35-45		24/24					Organic Silty Clay	
								SILTY SAND with little Clay, loose, wet, very fine to fine grained, dusky yellowish brown (10YR 2/2) grading to moderate brown (5YR 4/4)	
					30				
	7-22-45		18/12						
	14-48-55		18/12						
					32.5				
	17-50		42/4"						
	37-50		12/5"						
					35				
	17-27-50		18/2					Continued Silty Sand - very loose, does not stay in sampler.	
	37-50		12/8						
					37.5			SILTY CLAY (CL) - very stiff, some very fine sand, MnO_2 staining common, low plasticity, moderate brown (5YR 4/4)	
								Abandoned hole 8/20/87 - caving of fill materials. Backfilled hole with 1:1 cement/water by volume and 10% bentonite.	
								TD Boring @ 37.5 feet.	

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PROJECT NO 87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

LOG OF BORING No. PM-4A

DATE DRILLED: 8/21/87 EQUIPMENT: B-56

DESCRIPTION: Auger ELEVATION: 1.86 feet

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yeager

BY KLH DATE 12/11/87 CHK'D BY IWC

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG	HNu TESTS
					5			
					10			
					15			
					20			
					25			
					30			
					35			
	18-27-35		18/18					
S-1	22-43-34		18/18					

Fill (hf) - Silty Sand and Clay, brick, wood, glass

Saturated at 5 feet.

Bay Mud (OL) - Silty Clay to Clayey Silt, very soft, plastic, occasional peat, slight H_2S odor.

Set conductor casing at 19 feet.
Drilled pilot hole to 38 feet before sampling.

SILTY SAND (SM) - little clay, wet, dense, very fine to fine grained, well sorted, micaceous, moderate yellowish brown (10YR 5/4).

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED

PROJECT NO 87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

LOG OF BORING No. PM-4A

DATE DRILLED: 8/25/87 EQUIPMENT: B-56

DESCRIPTION: Auger ELEVATION: 1.86 feet

SAMPLE NO. / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
S-1	12-43-54		18/18					As above Silty Sand (SM).	
								SILTY CLAY to CLAYEY SILT (CL-ML) - some very fine sand approx 30%, wet, very stiff to hard, moderate yellowish brown (10YR 5/4), becoming Silty Clay, hard, mottled with gray clay, heavy MnO_2 staining, white mineralization, some highly weathered gravel.	
	17-23-30		18/18						
					42.5				
	18-28-40		24/18						
S-2	48-50		6/6					Heavy white mineralization at 44.5' to 45'.	
					45				
	48-50		6/6					Bedrock - heavily weathered, serpentonite(?), red-brown flecks of clay layered with grey-green minerals, flakey, friable, moist.	
	48-50		6/6						
	50		5						
	47-50		6						
	38-50		6					Heavily weathered, very fine fractures filled with orange-brown clay.	
					47.5				
	27-50								
								TD Boring @ 48 feet.	
					50			Installed 2 inch monitoring well. See Well Construction Log for details.	

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

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PROJECT NO 87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

CONSTRUCTION LOG OF WELL No. PM-4A

Date Completed: 8/26/87

Well Type: Piezometer

Casing Type: Schedule 40 PVC

Casing Dia: 2"

Casing Lengths: 2 x 10' + 1 x 5'

Screen Size: .007"

Screen Length: 5'

Tailpipe Length:

Well Casing Stickup: 3'

Protective Casing Stickup: 3.5'

Protective Casing Dia/Length: 5'

Filter Material: #30 Mesh sand

Filter Volume: 4.54 ft³

Seal Material: Bentonite pellets

Seal Volume: .697 ft³

Grout Material: #5 Portland Cement with 5% Bentonite powder

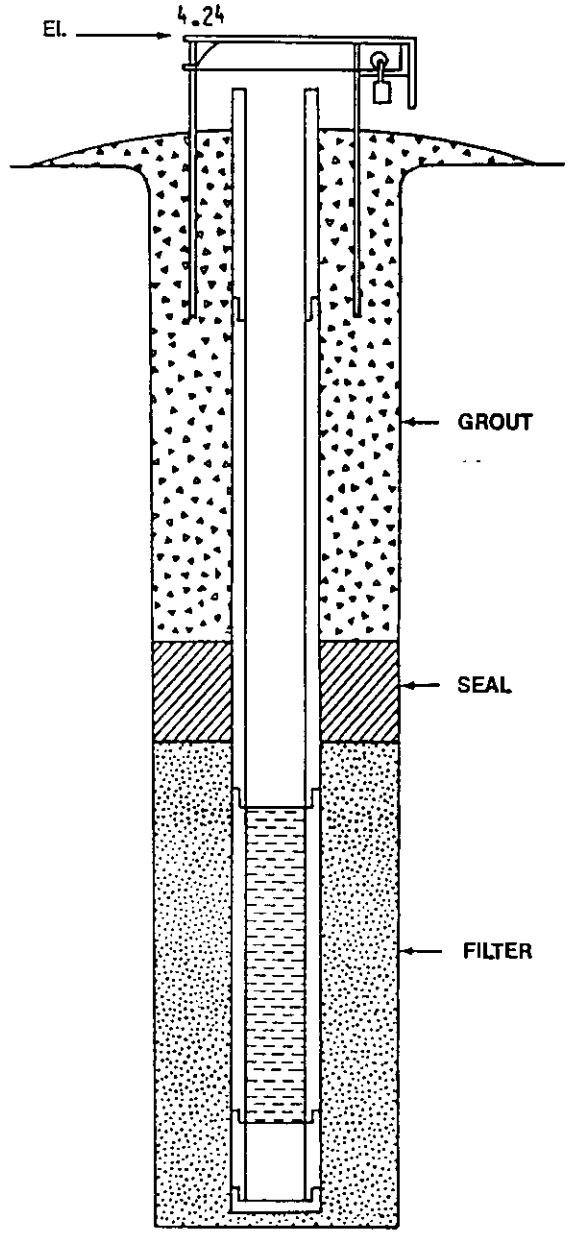
Grout Volume: 11.52 ft³

Bore Dia: 8"

Total Depth: 48'

Comments:

DEPTH IN FEET
Surface
33'
35'
41'
46'
48'



Prepared By KLH Approved By Date 12/11/87

THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS. THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS WELL AT THE TIME OF CONSTRUCTION. CONDITIONS SHOWN MAY CHANGE WITH THE PASSAGE OF TIME.

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

PROJECT NO.
87-01105.18

DRAWING NO.

4 2/21/86

LOG OF BORING No.PM-6

DATE DRILLED: 8/21/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 4.04 feet

SAMPLE NO. / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
S-1	17-27-34		18/8	3				Fill (hf) - gravel, pebbles, sand, dry.	0
	18-7-5		18/12					Fill - Silty Clay with sand, moist, medium dense, dusky yellowish brown (10YR 2/2), very fine to medium sand at 3 feet,	
					2.5				
	1-1-1		24/12					Moderate brown (5YR 4/4)	
								Light olive gray (5Y 5/2), soft, moist, medium plasticity, wet at 5 feet.	0
					5				
S-2	2-1-3		18/9					▽	
	2-2-3		18/4					Becoming mottled with orange-brown sandy clay, moist.	
					7.5				
	2-1-1		24/10					Some gravel at 8 feet, subangular to subrounded 1/4" to 1" diameter. 8/24/87	
					10				
S-3	4-6-5		18/14					Very soft, moist.	
	4-5-7		18/13					Becoming medium bluish gray (5B 5/1), with flecks of green mineralization.	
					12.5			Grayish blue green (5BG 5/2)	
	3-4-5		24/2					Very little recovery - gravel stuck in toe of sampler.	
					15				
S-4	4-6-7		18/13					CLAYEY SILT (ML) - moist, medium bluish gray (5B 5/1), with flecks of green, rock in toe of sampler.	
	4-9-13		18/12						
					17.5				
	4-4-4		24/0					Rock in toe of sampler, no recovery.	

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

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PROJECT NO 87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

LOG OF BORING No.PM-6

DATE DRILLED: 8/21/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 4.04 feet

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
S-5	13-19-23		18/17					CLAYEY SILT to SILTY CLAY - as above.	
sieve analysis									
	3-5-8		24/15						
					22.5				
	6-8-15		18/13						
					25				
S-6	5-9-20		18/18					SILTY SAND (SM) - little clay, moist to wet, very fine sand, greenish black (5G 2/1), occasional shell fragments.	
	4-5-8		18/18						
					27.5			SILTY CLAY (OL) - with peat, moist to wet, soft, greenish black (5G 2/1), plastic, lens of very fine silty sand at 28 feet.	
	4-3-5		18/18						
	3-3-3		18/18		30			Lens of very fine silty clayey sand at 29.5 feet, with shell fragemnts (2" thick). Becoming sandy at 30.5 feet.	
	2-2-8		18/0					SILTY SAND (SM) - little clay, wet, loose, very fine, well sorted, occasional shell fragments, greenish black (5G 2/1)	
					32.5				
S-7	3-3-4		18/12						
sieve analysis									
	27-35-50		18/0					No recovery	
					35				
	13-18-52		18/18					Increasing clay.	
								Peat (Pt) - strong H_2S odor.	
	3-4-5		18/18		37.5			Shell fragments, white to pink, some nacreous, silty, some very fine sand.	
								SILTY SAND (SM) - some clay, loose to dense, wet, very fine sand.	
	3-3-8		18/18					SILTY CLAY (CL) - some very fine sand (30%), hard, wet, olive gray (5Y 3/2).	

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PROJECT NO. 87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

LOG OF BORING No.PM-6

DATE DRILLED: 8/24/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 4.04 feet

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
	2-3-5		18/12					as above	
	8-27-43		18/18						
					42.5			SILTY SAND (SM) - very fine with some clay (approx, 20%), wet, very dense, very fine to medium grained, sorted, grayish olive (10Y 4/2 to 5GY 3/2).	
	9-27-51		24/3						
					45				
	13-26-37		18/6					As above - occasional shell fragments, very dense.	
S-8	6-9-12		18/12						
sieve analysis									
					47.5				
	27-39-50		18/18						
								Becoming gravelly 1/8" to 1" diameter.	
	8-15-22		18/0					SANDY SILTY CLAY (CL) - 30% very fine sand, light orange brown (10YR 6/4), mottled with greenish gray (5GY 6/1), clay, some cementation & MnO_2 staining.	
					50				
	8-16-22		18/14					Grading to Clayey Silty Sand, very fine, very dense, moist, mottled with gray clay at 49.5 feet.	
	19-28-42		18/14						
					52.5			As above - with 1/8" - 1/4" pebbles.	
S-9	30-33		6"					SANDY SILTY CLAY (CL) - very stiff to hard, mottled low plasticity, dark yellowish brown (10YR 6/6), very hard drilling.	
sieve analysis									
	9-37-50		18/14						
					55				
	20-28-60		18/10						
					57.5			occasional highly weathered sandstone fragments, friable, approx. 1/2" diameter, hard. Slurry in bottom of hole very thick - hard to hammer through, decided to drill to bedrock from 57.5 feet to save time.	

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

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PROJECT NO 87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

LOG OF BORING No.PM-6

DATE DRILLED: 8/24/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 4.04 feet

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
								as above - Description from previous page.	
					65				
					70				
					80				
								Hard, Gravelly Clay, 10% very fine sand, dark yellowish brown (10YR 4/2).	
					90				
								TD Boring @ 90 feet.	
								Installed 2 inch monitoring well; see Well Construction Log for details.	

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH

DATE 12/11/87 CHK'D BY TWC

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PROJECT NO

87-01105.18

THE MARK GROUP

ENGINEERS & GEOLOGISTS, INC

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

CONSTRUCTION LOG OF WELL No. PM-6

Well Type: Piezometer

Casing Type: Schedule 40 PVC

Casing Dia: 2 inches

Casing Lengths: 3 x 10' + 1 x 2"

Screen Size: .007 inch

Screen Length: 5 feet

Tailpipe Length:

Locking Cover Type:

Locking Cover Stickup (+)/Depression (−):

Filter Material: #30 Washed Filter Sand

Filter Volume: 3.50 cubic feet

Seal Material: Bentonite Pellets

Seal Volume: 1.74 cubic feet

Grout Material: #5 Portland Cement with 5% Bentonite Powder

Grout Volume: 25.82 cubic feet

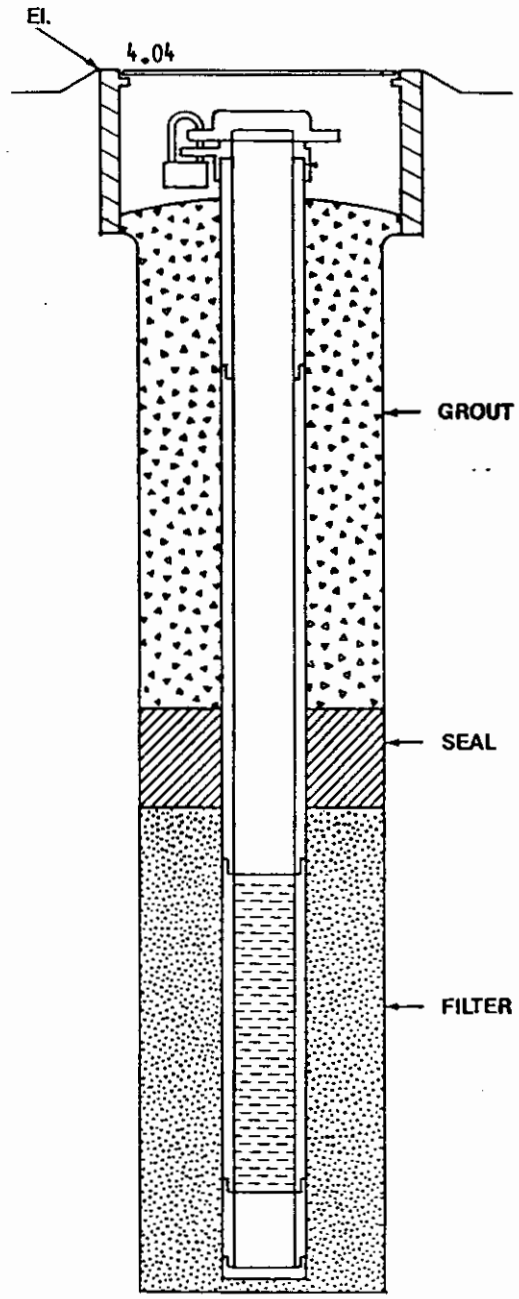
Bore Dia: 8 inches

Total Depth: 89 feet

Comments: 2 foot Bentonite Plug from 38 to 40 feet

Date Completed: 8/25/87

DEPTH IN FEET
.5
.8
25
28
31
36
38
40



Date 12/11/87

By TWC

Prepared By KLH

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THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS. THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS WELL AT THE TIME OF CONSTRUCTION. CONDITIONS SHOWN MAY CHANGE WITH THE PASSAGE OF TIME.

PROJECT NO.
87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO.

T-7 2/21/86

LOG OF BORING No.PM-7

DATE DRILLED: 9/3/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 5.64 feet

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
S-5	1/4/2		18/18					As above - becoming sandy, little peat.	
	1-2-4-4		24/24					Becoming very peaty (approx. 50%).	
								SILTY SAND (SM) - wet, fine, medium dense, dark gray (N2).	
					22.5				
	2-3-3		18/18					SILTY CLAY (OL) - with peat, soft, plastic, dark gray.	
					25				
	2-2-2		18/18						
								SILTY SAND (SM) - with little clay, wet, fine to medium, dense, bits of peat.	
	1-2-2-4		24/18						
					27.5				
	4-4-5		18/18						
					30				
								SILTY CLAY (CL) - with little peat, soft, wet, plastic, olive gray (5Y 3/2).	
	4-5-5		18/18						
					32.5				
	4-4-5		18/18						
					35			Increasing peat (OL).	
	4-5-9		18/18						
								Increasing very fine sand approximately 20%.	
					37.5				
	13-13-16		18/10					SILTY SAND (SM) - with 10% clay, very fine, wet, dense, moderate olive brown (5Y 4/4).	

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PROJECT NO. 87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

LOG OF BORING No.PM-7

DATE DRILLED: 9/3/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 5.64 feet

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
								As above.	
	21-37-48		18/18						
					42.5			Grading to moderate yellowish brown (10YR 5/4), micaceous, with occasional subangular to sub-rounded pebbles.	
	13-18-22		18/6						
					45			Increasing angular pebbles and gravel.	
	18-22-34		18/18					Increasing clay, approximately 30%.	
					47.5				
	10-15-23		18/18			slough		SILTY SANDY CLAY (CL) - approx. 20% very fine to medium sand, hard, occasional pebbles and gravel, moderate yellowish brown (10YR 5/4).	
					50				
	12-16-22		18/18						
					52.5			Decreasing sand, increasing FeO_2 staining.	
	17-21-25		18/11						
					55			Becoming mottled with gray clayey sand.	
					57.5				
	35/50		5					As above.	

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

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PROJECT NO 87-01105.18

DRAWING NO

THE MARK GROUP ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

LOG OF BORING No.PM-7

DATE DRILLED: 9/3/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 5.64 feet

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

SAMPLE NO. / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
								As above - Sandy Silty Clay (CL).	
	46-50		6		62.5			As above - increasing pebbles.	
	50		6		65				
					67.5			SILTY SAND (SM) - very fine, dense, moderate yellowish brown (10YR 5/4), micaceous.	
	12-28-50		18/12			slough			
					70			SILTY CLAY (CL) - occasional pebbles and gravel, hard, moderate yellowish brown, low plasticity.	
	47-50		5		72.5				
					75				
					77.5				
	28-35-50		18/13					Becoming mottled with olive gray clay (5Y 3/2).	

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PROJECT NO. 87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

LOG OF BORING No.PM-7

DATE DRILLED: 9/3/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 5.64 feet

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
								As above - Silty Clay (CL).	
						Slough			
					82.5				
	45-48-50		18/13					Fewer pebbles	
					85			TD Boring @ 84.5 feet.	
								Installed 2 inch monitoring well, see Well Construction Log for details.	

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH

DATE 12/11/87 CHK'D BY TWC

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PROJECT NO

87-01105.18

THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

CONSTRUCTION LOG OF WELL No. PM-7

Date Completed: 9/8/87

Well Type: Piezometer

Casing Type: Schedule 40 PVC

Casing Dia: 2 inches

Casing Lengths: 2 x 10' + 1 x 5'

Screen Size: .007 inch

Screen Length: 5 feet

Tailpipe Length:

Locking Cover Type:

Locking Cover Stickup (+)/Depression (−):

Filter Material: #30 Washed Filter Sand

Filter Volume: 4.01 cubic feet

Seal Material: Bentonite Pellers

Seal Volume: 1.22 cubic feet

Grout Material: #5 Portland Cement with 10% Bentonite Powder

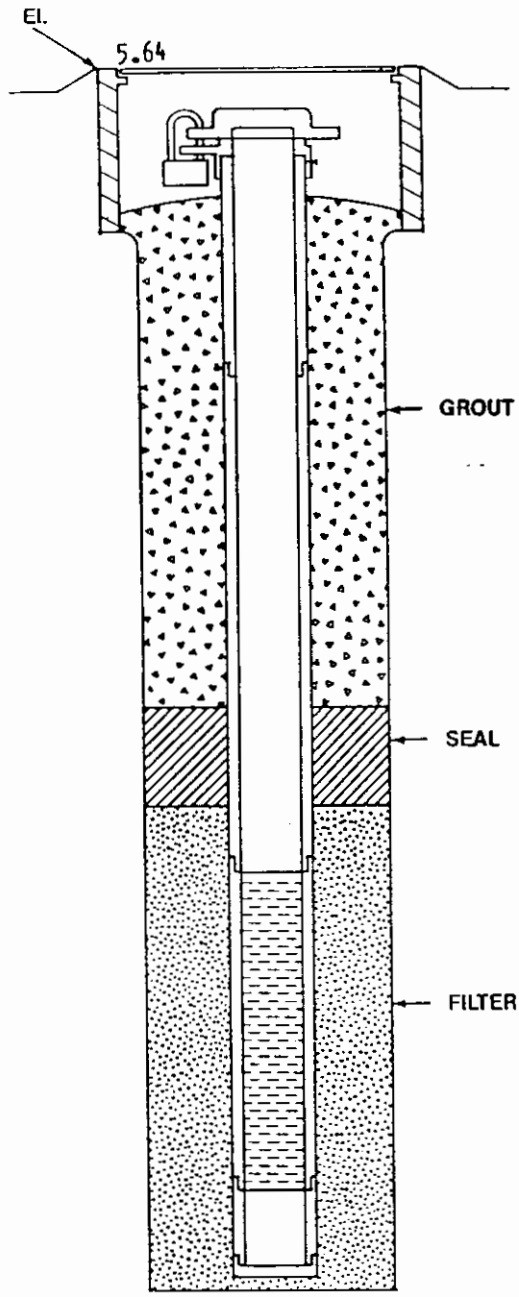
Grout Volume: 6.63 cubic feet

Bore Dia: 8 inches

Total Depth: 37 feet

Comments: Drilled pilot hole to 84.5', hole caved to 37 feet.

DEPTH IN FEET
.5
.9
19.5
22
25.5
30.5
31
37



Date 12/11/87

By TWC

Prepared By KLH

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PROJECT NO.
87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO.

7 2/21/86

LOG OF BORING No.PM-8

DATE DRILLED: 8/31/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 8.52 feet

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
S-1	15-10-11		18/16					Fill (hf) - black to dark blue-black, sandy silty clay, with chunks of wood, moist, no odor.	0
	9-15-17		18/12						
					2.5			Becoming light brown (5YR 5/6), with pockets of silty sand, very fine, highly oxidized, no odor.	.1
	4-3-2		18/2						
					5			▽ Wet	
S-2	3-3-2		18/15					Fill (hf) - silty sand with some clay, gray, very fine to medium grained, no odor.	
	2-2-4-4		24/18					Becoming moderate yellowish brown (10YR 5/4), with bits to chunks of clay, gravel, pebbles.	0
					7.5				
	4-5-2		18/NR					As above - some chunks of grayish green clay.	
					10				
S-3	5-4-9		18/17						
S.P.									
	4-4-4		18/12					Becoming dusky yellowish green (10GY 3/2), silty sand, fine, wet, loose.	0
					12.5				
	4-6-4-4		24/24						
								Occasional shell fragments. Becoming clayey at 14 feet, soft.	
					15				
S-4	3-5-5		18/18					Becoming coarse, with peat and shell fragments.	
								SILTY CLAY With PEAT (OL) - dusky green (SG 3/2), very plastic, soft.	
	4-6-6		18/18					Layer of Peat 3 inches thick at 16.5 feet.	
					17.5				
								Becoming brownish black (5YR 2/1).	
	3-3-7-2		24/24						

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PROJECT NO 87-01105.18

THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

LOG OF BORING No.PM-8

DATE DRILLED: 8/31/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 8.52 feet

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
	4-4-10		18/18					As above - Silty Clay.	
								Becoming Sandy, very fine (approx. 20%).	
	4-8-15		18/18						
					22.5				
	5-10-13		18/18					Becoming mottled grayish green (5G 5/2) to grayish olive (10Y 4/2), vertical roots, sandy, stiff, less plastic.	
	8-10-16		18/17		25			CLAYEY SILTY SAND (SM) - moist to wet, dense, very fine, light olive gray (5Y 6/1)	
	5-7-11		18/18					SILTY SAND (SM) - with little clay, wet, loose, very fine, light brown (5YR 5/6), micaceous.	
	12-24-37		18/12		27.5				
	37-30-50		18/18						
					30				
	27-50		18/18						
	36-38-48		18/16		32.5			Increasing clay at 32 feet.	
								Becoming pebbly, increasing at 33 feet.	
	10-12-35		18/18						
					35			SILTY CLAY (CL) - some very fine sand, stiff, light brown (5YR 5/6), oxidized, low plasticity, mottled with gray silty sand.	
	48/50		18/17					Becoming pebbly to gravelly, subrounded, 1/4" to 1" diameter, increasing very fine sand.	
	22-50		18/12						
					37.5			Increased mottling.	
	9-32-47		18/18						
	17		18/						

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PROJECT NO 87-01105.18

DRAWING NO

THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

LOG OF BORING No.PM-8

DATE DRILLED: 8/31/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 8.52 feet

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yeager

BY KLH DATE 12/11/87 CHK'D BY TWC

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG	DESCRIPTION	HNu TESTS
	27-28-37		18/15					As above - Silty Clay.	
	9-50		12/8						
	12-21-25		18/18		42.5				
	6-12-22		18/16					SILTY SAND (SM) - with some clay, light brown (5YR 5/6), dense, wet, heavily stained, very fine grained, well sorted. No clay, becoming loose.	
	15/50		12/12		45				
	36-50		12/12						
	44-50		12/12		47.5			Increasing clay. CLAYEY SILT TO SILTY CLAY (CL-ML) - with sand and gravel, zones of pebbles, mottled with gray and light brown (5YR 5/6). Chunks of highly weathered sandstone.	
	37-50		12/8						
	50		3"					Bedrock - Highly fractured, slightly weathered sandstone.	
	50		3"		50				

TD Boring at 49.5 feet

Installed 2 inch monitoring well, see Well Construction Log for details.

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

PROJECT NO 87-01105.18

THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

CONSTRUCTION LOG OF WELL No. PM-8

Date Completed: 9/1/87

Well Type: Piezometer

Casing Type: Schedule 40 PVC

Casing Dia: 2 inches

Casing Lengths: 1 x 5' + 2 x 10'

Screen Size: .007 inch

Screen Length: 5 feet

Tailpipe Length:

Locking Cover Type:

Locking Cover Stickup (+)/Depression (−):

Filter Material: #30 Washed Filter Sand

Filter Volume: 3.31 cubic feet

Seal Material: Bentonite Pellets

Seal Volume: .697 cubic feet

Grout Material: #5 Portland Cement with 10% Bentonite Powder

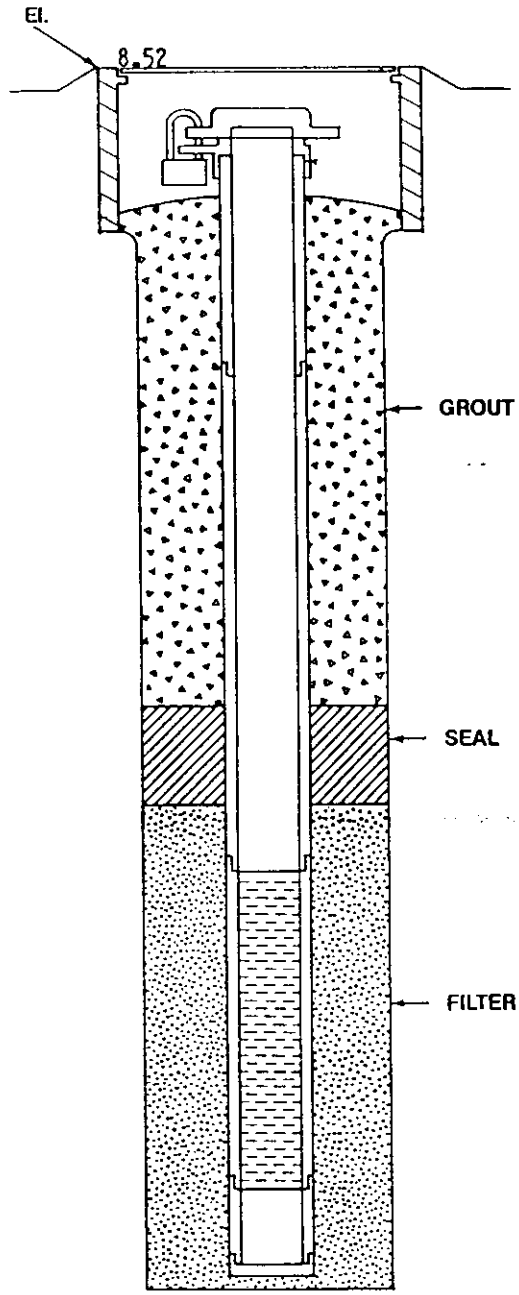
Grout Volume: 13.26 cubic feet

Bore Dia: 8 inches

Total Depth: 49.5 feet

Comments:

DEPTH IN FEET
.3
.5
38
40
42
47
49.5



Prepared By KLH Apr Date 12/11/87 By TWC

THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS. THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS WELL AT THE TIME OF CONSTRUCTION. CONDITIONS HOWN MAY CHANGE WITH THE PASSAGE OF TIME.

PROJECT NO.
87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO.

2/21/86

LOG OF BORING No.PM-9

DATE DRILLED: 8/28/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 2.62 feet

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
S-1	25-20-16		18/12					Fill (hf) - gravel, sand, silty clay, hard, dry, brick, glass	0
	13-22-9		18/12						
					2.5			Becoming moist, more clayey.	
	4-5-7		18/18						
	5		2		5			Strong paint thinner odor at 4.5 feet, dark gray.	5
S-2	5-6-8		18/12					▽ Wet at 5 feet, oily, clay pot bits.	
	9-12-15		18/14						
					7.5			Very strong vapors coming out of auger, doesn't register much on HNu	40
	10-6-4		18/18						
	5		NR		10				
	3-3-5		18/3					SILTY SAND - with little clay, black, wet, loose, very fine, did not fill liner, solvent odor.	10
								Becoming dusky green (5G 3/2), less odor at 12 feet	
S-3	2-3-3		18/12						
sieve	analysis				12.5				
	4-4-6		18/12						
								Bay Mud (OL) - silty clay with some very fine sand soft, very plastic, occasional shell fragments, dark olive gray	0
S-4	4-4-5		18/13		15				
								PEAT (Pt) - with little silty clay, strong H_2S odor.	
	2-2-2-4		24/18						
					17.5			SILTY CLAY (OL) - with little peat, very soft, very plastic, greenish black (5GY 2/1).	
	9-14-23		18/13					SILTY SAND (SM) - with little clay, medium grained, wet, shell fragments, well rounded, well sorted.	

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PROJECT NO 87-01105.18

THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

LOG OF BORING No.PM-9

DATE DRILLED: 8/28/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 2.62 feet

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		TESTS
S-5	4-17-32		18/15					As above - Silty ~~Clay~~. SAND	
	4-8-16		18/13						
					22.5			Layer of well rounded pebbles, gravel and shell fragments, with coarse quartzic sand.	
	38-50		9"					SANDSTONE & MUDSTONE - layers (convaluted), hard, heavily weathered, friable, dark yellowish orange (10YR 6/6), veins of white mineralization.	
	39-50		3"						
	50		6						
	50		6						
					25			TD Boring at 25 feet.	
								Installed 2 inch monitoring well, see Well Construction Log for details.	
					27.5				

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

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PROJECT NO 87-01105.18

THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

CONSTRUCTION LOG OF WELL No. PM-9

Well Type: Piezometer

Casing Type: Schedule 40 PVC

Casing Dia: 2"

Casing Lengths: 1 x 10'

Screen Size: .007"

Screen Length: 5'

Tailpipe Length:

Well Casing Stickup: 2'

Protective Casing Stickup: 2.5'

Protective Casing Dia/Length: .5' x 5'

Filter Material: #30 sand

Filter Volume: 3.14 ft³

Seal Material: Bentonite pellets

Seal Volume: .697 ft³

Grout Material: #5 portland cement with 10%

Grout Volume: 1.05 ft³

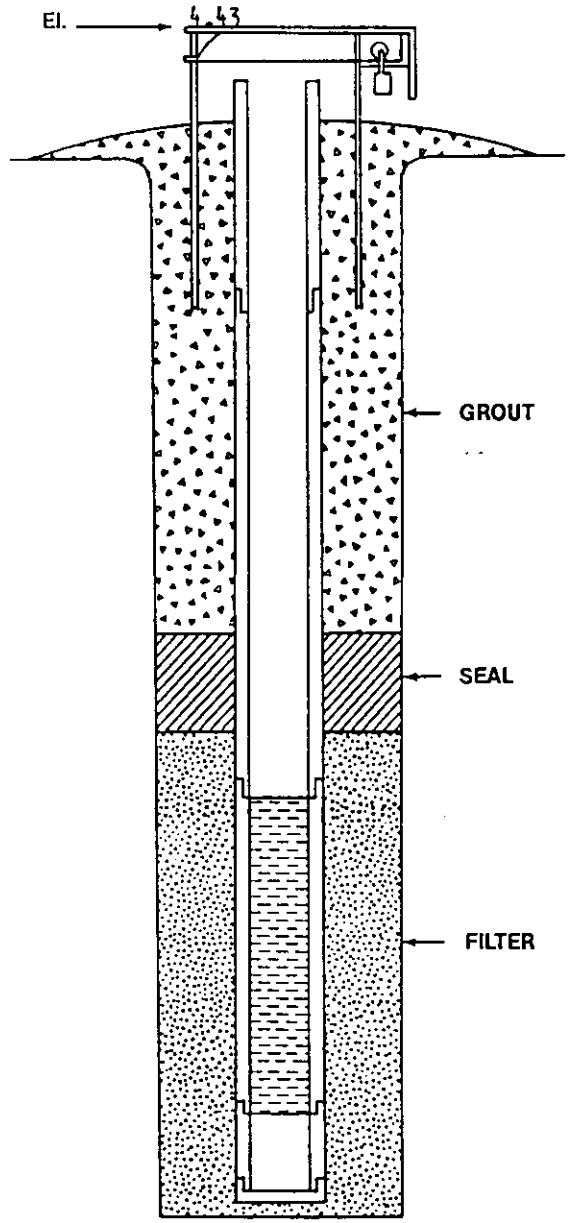
Bore Dia: 8"

Total Depth: 14'

Comments: Pilot hole drilled to 25 feet- sloughed into 15 feet.- bentonite plug placed at 14 - 15 feet.

Date Completed: 8/28/87

DEPTH IN FEET
2.5
2'
surface
3'
5'
8'
13'
14'



Prepared By KLH Approved By _____ Date 12/11/87

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PROJECT NO. 87-01105.18

DRAWING NO.

THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

4 2/21/86

LOG OF BORING No. PM-10

DATE DRILLED: 8/26/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 3.22 feet

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH

DATE 12/11/87 CHK'D BY TWC

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG	DESCRIPTION	HNu TESTS
	9-27-50		6/6					Fill - gravel, sand, silty clay, roots, brick, dry, hard.	0
	20-18-17		18/						
								Becoming moist, more clayey, soft.	
	4-4-3		18/6		2.5				
S-1	3-5-5		18/13					Becoming silty clay, dark olive brown, sand and gravel, bits of brick, soft.	
	2-3-3-4		24/18		5				.1
	1-2-2		18/6		7.5			▽ Wet	
S-2	5-3-4		18/9						0
	3-5-5-7		24/20		10				
	3-3-3		18/6		12.5			Gravel, silty clay, angular to sub-angular, 1/4" to 1" diameter.	
S-3	3-4-5		18/12						
	8-22-30		18/18		15			Bay Mud - silty clay, wet, soft, plastic, shell fragments, dusky blue green (5BG 3/2). SANDY SILTY CLAY - wet, very fine, well sorted, shell fragments, hard, dusky blue green (5BG 3/2). Becoming moderate yellowish brown (10YR 5/4).	0
	5-6-7		18/18					SILTY SAND - with some clay (10YR 5/4). Silty clay - some very fine sand, hard, (10YR 5/4), with mottling & staining, veins of gray clay, gravel layer 2" at 18 feet, subangular.	
S-4	18-28-34		18/18		17.5			SILTY SAND - with clay, very fine to fine, light olive gray (5Y 5/2), dark orange brown staining, occasional pebbles, heavily stained at 19.5 feet.	
	33-50		12/6					Clayey Silt - with little sand, heavily oxidized.	

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PROJECT NO 87-01105.18

THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

LOG OF BORING No. PM-10

DATE DRILLED: 8/27/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 3.22 feet

SAMPLE NO. / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG	DESCRIPTION	dNu TESTS
	33-50		12/6					CLAYEY SILT - medium bluish gray (5B 5/1), hard, moist.	
	50-46-50		18/					Becoming sandy at 20.5 feet.	
								Dark greenish brown, hard.	
	28-38-50		18/12		22.5				
	48-50		12/8						
	50		5"						
	50		5"		25				
	50		4"					SILTY SAND - moist, dense, very fine, micaceous, light olive gray (5Y 5/2), very dense, flecks of mineralization, (heavily weathered bedrock?)	
	50		3"						
	50		5"						
	50		4"					Becoming Clayey, gray with chunks of Silty Sand (as above), white mineralization at 27', friable.	
	50		5"		27.5			Weathered Sandstone - dark olive gray, micaceous, friable, dark mineralization. (Bedrock (?))	
	50		4"						
	50		5"						
	50		4"						
					30			TD Boring at 29 feet.	
								Installed 2 inch monitoring well, see Well Construction Log for details.	

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

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PROJECT NO 87-01105.18

THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

CONSTRUCTION LOG OF WELL No. PM-10

Date Completed: 8/27/87

Well Type: Piezometer

Casing Type: Schedule 40 PVC

Casing Dia: 2"

Casing Lengths: 2 x 10' + 1 x 5'

Screen Size: .007"

Screen Length: 5'

Tailpipe Length:

Well Casing Stickup: 3.1'

Protective Casing Stickup: 3.5'

Protective Casing Dia/Length: 6" x 5'

Filter Material: #30 washed filter sand

Filter Volume: 2.79 ft³

Seal Material: Bentonite pellets

Seal Volume: .69 ft³

Grout Material: #5 portland cement with 10% bentonite powder

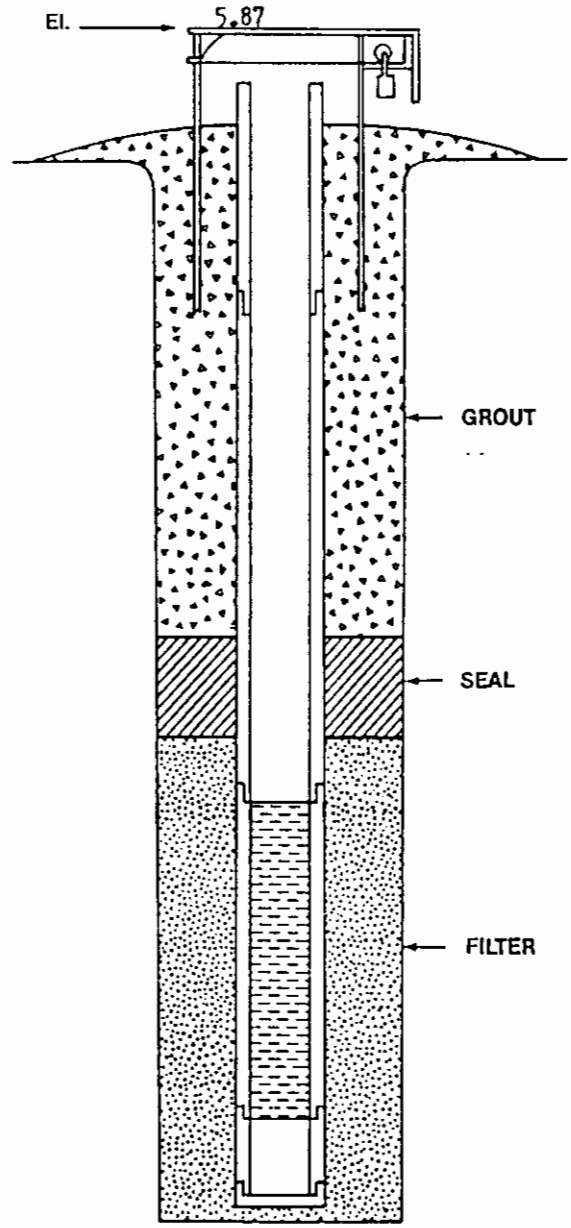
Grout Volume: 19' x 8"

Bore Dia: 8"

Total Depth: 29'

Comments:

DEPTH IN FEET
3.5'
3.1'
Surface
19'
21'
23.5'
28.5'
29'



Prepared By KLH Approved By Date 12/11/87

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THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

PROJECT NO. 87-01105.18

DRAWING NO.

4 2/21/86

LOG OF BORING No. PM-11

DATE DRILLED: 9/10/87 EQUIPMENT: Failing 1250

DESCRIPTION: Rotary ELEVATION: 8.41 feet

DRILLING CONTRACTOR Exploration Drilling

DRILLER Wilbur Neufeld

BY KLH DATE 12/11/87 CHK'D BY IWC

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
S-1								Fill (hf) - dry, gravel, sand and silty clay, hard.	0
					2.5			Becoming moist, dark greenish black, silty clay, with gravel and some sand (approx. 10%), flecks of green mineralization, slight stale solvent odor.	4
					5				
					7.5				
			36/10						
					10				
			36/24		12.5			▽ SILTY SAND (SM) - 20% clay, very strong fresh solvent odor, oily, gravels, wet, soft.	200
			36/24		15				
								Bay Mud (OL) - soft, silty clay, with little peat, greenish black (5G 2/1), occasional shell fragments	
					17.5				
			36/2					SILTY SAND (SM) - 20% clay, dense, very fine, wet.	

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PROJECT NO 87-01105.18

DRAWING NO

THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

LOG OF BORING No. PM-11

DATE DRILLED: 9/11/87 EQUIPMENT: Failing 1250

DESCRIPTION: rotary ELEVATION: 8.41 feet

SAMPLE NO. / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
								As above - decreasing clay, medium grained sand	
			24/20						
					22.5			SILTY SAND (SM) - dense, 30% clay, occasional gravels, wet, moderate yellowish brown (10YR 5/4), mottled with gray sandy clay, gravels subangular.	
					25			SILTY CLAY - hard, moderate yellowish brown (10 (10YR 5/4), mottled.	
								Mudstone - heavily weathered bedrock.	
								T D Boring at 26 feet.	
								Installed 2 inch monitoring well, see Well Construction Log for details.	

DRILLING CONTRACTOR Exploration Drilling

DRILLER Wilbur Neufeld

BY KLH

DATE 12/11/87 CHK'D BY TWC

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PROJECT NO. 87-01105.18

THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO.

CONSTRUCTION LOG OF WELL No. PM-11

Well Type: Piezometer

Casing Type: Schedule 40 PVC

Casing Dia: 2 inches

Casing Lengths: 1 x 10'

Screen Size: .007 inch

Screen Length: 5 feet

Tailpipe Length:

Locking Cover Type:

Locking Cover Stickup (+)/Depression (−):

Filter Material: #30 Washed Filter Sand

Filter Volume: 1.38 cubic feet

Seal Material: Bentonite Pellets

Seal Volume: .34 cubic feet

Grout Material: #5 Portland Cement with 10% Bentonite Powder

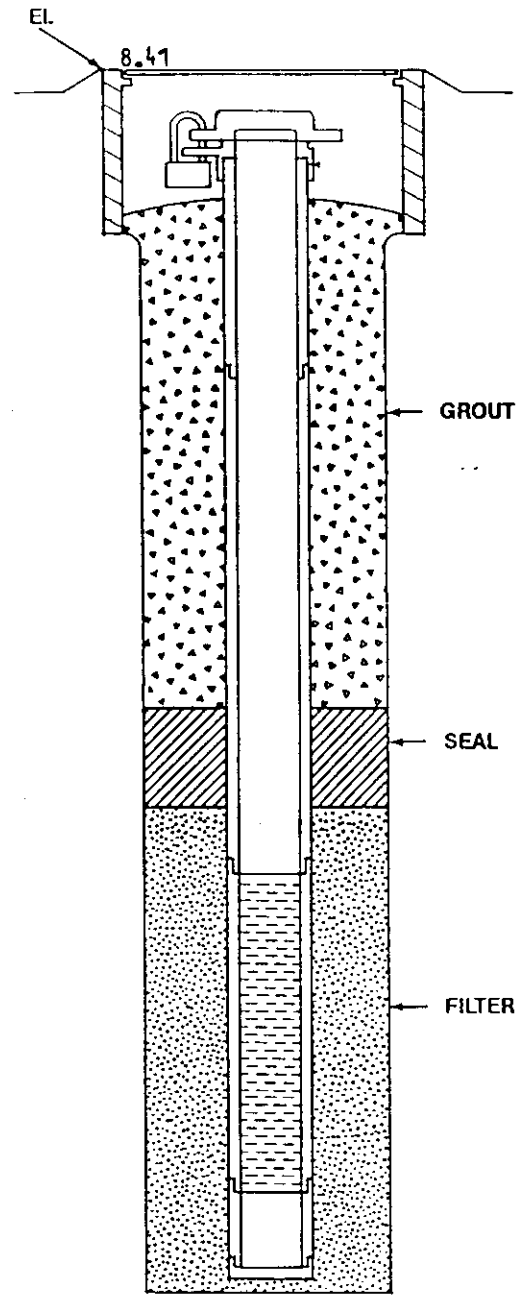
Grout Volume: .99 cubic feet

Bore Dia: 5 5/8 inches

Total Depth: 26 feet

Comments: Bentonite Plug from 16 to 26 feet

Date Completed: 9/11/87



Prepared By KLH Ap. By TWC Date 12/11/87

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PROJECT NO.
87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO.

2/21/86

LOG OF BORING No. MW-18

DATE DRILLED: 8/20/87 EQUIPMENT: Failing 1250

DESCRIPTION: rotary ELEVATION: 14.08 feet

DRILLING CONTRACTOR Exploration Drilling

DRILLER Wilbur Neufeld

BY RAC DATE 12/11/87 CHK'D BY IWC

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
1								Fill - fine to coarse grained to 6" diameter, gray (6/1), loose, dry, grains rounded to subangular.	
Core drilling with air.								SHALE - fine grained, very dark gray (5YR 3/1), soft, massive, slightly weathered.	
					5				
2								Sample liners taken 5-5.5'(MW 18-01) SHALE - fine grained, very dark gray (3/1), soft, can be scratched with blade, massive, slightly weathered, dry.	
3									
			26/15		10			Color change to dark gray (5YR 4/1), extremely soft.	
4			12/9					Sample taken 10.5-11 feet (MW 18-02), color has lustery sheen.	
5									
			30/21						
6									
					15			Sample taken 15.0-15.5 feet. (MW 18-03)	
7			30/10					SHALE - calcified, moderately hard.	
								SHALE - fine grained, black (10YR 2/1), very soft, thin platy bedding, massive, no weathering, black sheen to color.	
8			30/24						
					20			GRAYWACKE - fine grain, bluish gray (5B 6/1), moderately hard, massive, no weathering.	
9			30/26					SHALE - as at 17 feet.	
								GRAYWACKE - fine grain, bluish gray (5B5/1), moderately hard, massive, 2mm calcified lenses within, no weathering.	
10			30/24						
					25			SHALE - fine grain, dark gray (5YR 4/0), very soft, platy bedding, no weathering	
11									
			26/26					GRAYWACKE - fine grain, bluish gray (5B 5/1), moderately hard.	
12								SHALE - fine grain, black (2.5YR 2.5/0), soft, platy bedding, gradational calcification increase with depth.	
					30				
13			60/24					GRAYWACKE - fine grain, dark gray (2.5YR 4/0), moderately hard, massive, no weathering, very narrow calcite filled fracture.	
					35				
14			84/60					SHALE - fine grain, black (2.5YR 2.5/0), soft, platy bedding, no weathering.	
								GRAYWACKE - fine grain crystalline, dark gray (2.5YR 4/0), moderately hard, no weathering, narrow calcite filled fractures.	

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PROJECT NO

87-01105.18

THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

LOG OF BORING No. MW-18

DATE DRILLED: 8/20/87 EQUIPMENT: Failing 1250

DESCRIPTION: rotary ELEVATION: 14.08 feet

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
15			96/54					GRAYWACKE - as above - fine grain crystalline, dark gray (2.5YR 4/0), moderately hard, massive, no weathering, very narrow calcite filled fractures	
					45				
								End drilling 8/20 at 50'; begin 8/21/87	
					50				
16			120/28					GRAYWACKE - calcite filled fractures & nodules present; fractures 1-3mm., nodules to 5mm diameter, color change to greenish gray (5BG 5/1). Water encountered at 51' (approx.); Due to low recovery, alternating shales are suspected in section of borehole.	
					55				
					60				
17			30/18					SHALE - fine grain very dark gray (2.5Y 3/0), very soft, thin laminated bedding, paper thin splittings no weathering, vitreous sheen.	
18			16/0					GRAYWACKE - fine grain crystalline, greenish gray (5BG 5/1), moderately hard, massive, no weathering narrow calcite filled fractures.	
19			38/29		65			SHALE - fine grain, very dark gray (2.5Y 3/0), very soft, thin laminated bedding, papery splitting no weathering, vitreous sheen, bedding contact 80°	
								GRAYWACKE - fine grain crystalline, greenish gray (5BG 5/1), moderately hard, bedding 80°, narrow calcite filled fractures.	
					70			SHALE - fine grain, very dark gray (2.5Y 3/0), very soft, thin laminated bedding, papery splitting no weathering, vitreous sheen, bedding contact 80°.	
								TD Boring at 72.3 feet	
					75			Installed 4 inch monitoring well, see Well Construction Log for details.	

DRILLING CONTRACTOR Exploration Drilling

DRILLER Wilbur Neufeld

BY RAC CHK'D BY IWC

DATE 12/11/87

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PROJECT NO 87-01105.18

THE MARK GROUP ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

CONSTRUCTION LOG OF WELL No. MW-18

Well Type: Monitoring Well

Casing Type: Schedule 40 PVC

Casing Dia: 4"

Casing Lengths: 1 x 5' ; 6 x 10'

Screen Size: .01"

Screen Length: 2 x 5'

Tailpipe Length: 1 x 5'

Well Casing Stickup: 3.0'

Protective Casing Stickup: 3.5'

Protective Casing Dia: .5'

Surface Casing Type:

Surface Casing Dia/Length:

Filter Material: Monterey Sand

Filter Volume: 12.11 ft^3

Seal Material: Pel plug Bentonite plugs

Seal Volume: 1.64 ft^3

Grout Material: Permanente Type 5 Kaiser Cement 5% Bentonite

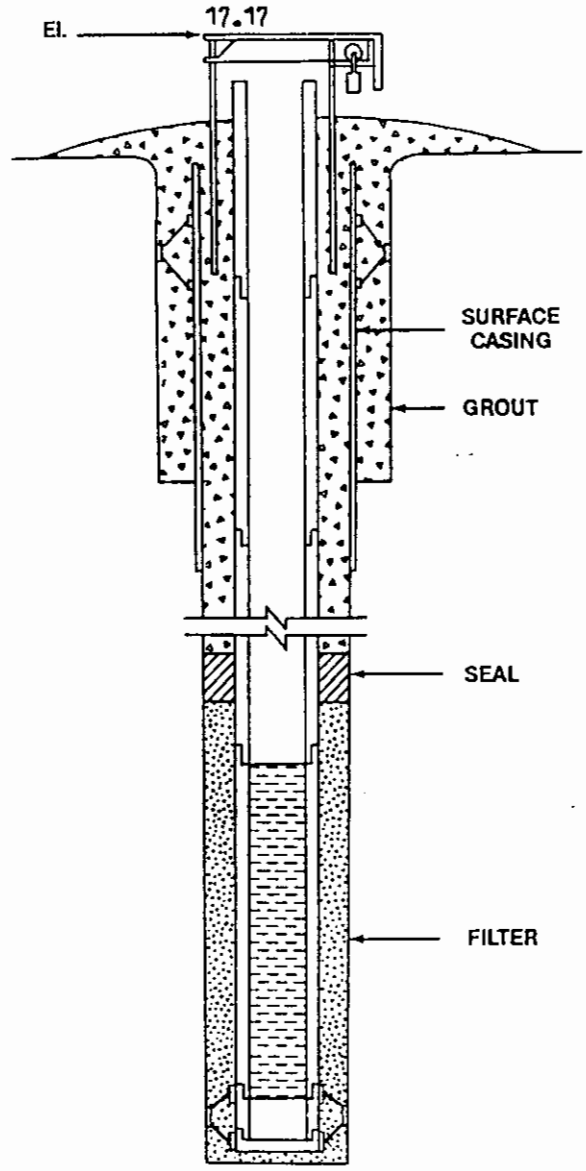
Grout Volume: 18.32 ft^3

Bore Dia: 9 7/8"

Total Depth: 72.3'

Comments:

Date Completed: 8/25/87



Prepared By RAC Approved By TWC Date 12/11/87

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THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

PROJECT NO. 87-01105.18

DRAWING NO.

-5 2/21/86

LOG OF BORING No. MW-19

DATE DRILLED: 8/3/87 EQUIPMENT: Failing 1250

DESCRIPTION: rotary ELEVATION: 10.73 feet

DRILLING CONTRACTOR Exploration Drilling

DRILLER Wilbur Neufeld

BY RAC DATE 12/11/87 CHK'D BY TWC

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
								Concrete	
1								SHALE - fine grained, brownish gray (5YR 4/1), very soft, slightly weathered, odor present solvent smell, no bedding apparent, massive, dry.	
					5				
2			24/9					As above - no odor; liner sample 5-5.5', greenish gray (5YR 6/1), serpentine nodules.	
3			30/24					As above - fine grain, brownish black (5YR 2/1), very soft, no weathering, no odor, wide fractures, calcite filling (white), massive, papery splitting	
					10				
4			30/24					As above - Shale - calcite filled fractures, wide fractures; liner sample 10.5-11 feet.	
5								As above - fine grained, brownish gray (5YR 4/1), very soft, no weathering, wide fractures, papery splitting, greenish gray (5G 6/1), serpentine nodules (20mm-15mm.)	
			30/12		15				
6			30/12					Liner sample 15.5-16 feet. Water encountered 17 feet.	
7			60/60					GRAYWACKE - fine grained, crystalline, medium gray (N5), moderately hard, massive, wide fractures calcite filled, no weathering, does not effervesce with HCl, scratched into powder does not effervesce	
					20			Color change to medium bluish gray (5B 5/1)	
8									
			60/58		25			Color change to medium gray (N5).	
					30				
								TD boring at 30.0 feet.	
								Installed 4 inch monitoring well, see Well Construction Log for details.	

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PROJECT NO 87-01105.18

THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

CONSTRUCTION LOG OF WELL No. MW-19

Well Type: Monitoring Well

Casing Type: Stainless Steel (3-16-L)

Casing Dia: 4 inches

Casing Lengths: 4 x 5' + 1 x 9'

Screen Size: .06 inch

Screen Length: 5 feet

Tailpipe Length: 5 feet

Locking Cover Type: .5 feet diameter steel

Locking Cover Stickup (+)/Depression (−): .5 feet

Filter Material: #16 Montery Sand

Filter Volume: 7.41 cubic feet

Seal Material: Bentonite Pellets

Seal Volume: 1.91 cubic feet

Grout Material: #5 Portland Cement with 5% Bentinite Powder

Grout Volume: 4 cubic feet

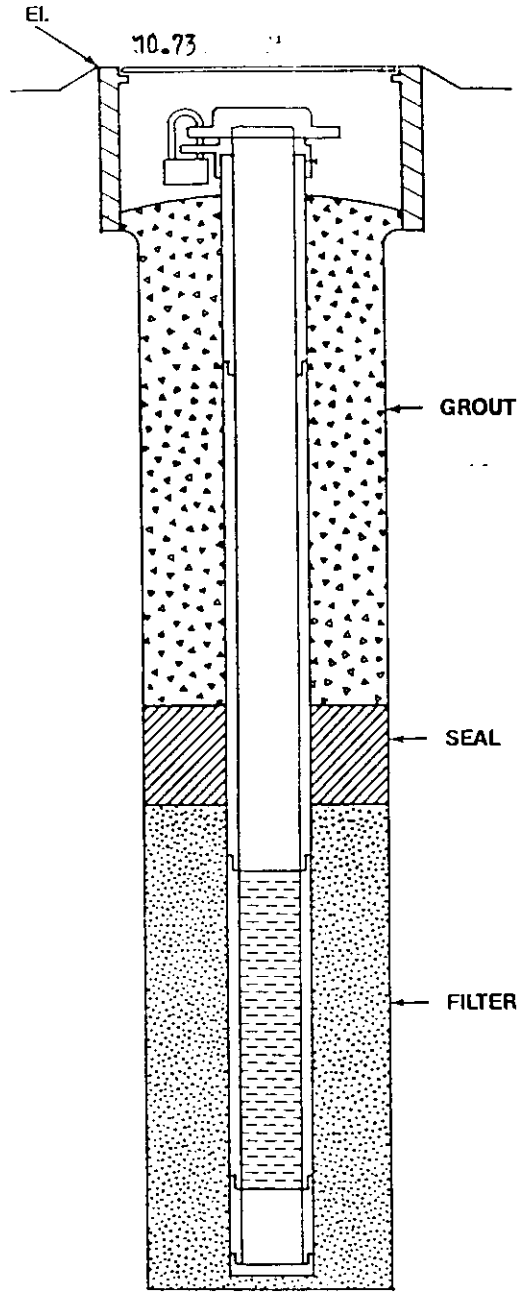
Bore Dia: 9 7/8 inches

Total Depth: 29 feet

Comments: Reamed to 30 feet

Date Completed: 9/2/87

DEPTH IN FEET: .5, .75, 9, 13, 19, 24, 29, 30



Date 12/11/87

By TWC

Prepared By RAC

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PROJECT NO. 87-01105.18

THE MARK GROUP ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO.

F-7 2/2/86

LOG OF BORING No. MW-20

DATE DRILLED: 9/2/87 EQUIPMENT: Failing 1250

DESCRIPTION: rotary ELEVATION: 5.94 feet

DRILLING CONTRACTOR Exploration Drilling

DRILLER Wilbur Neufeld

BY RAC DATE 12/11/87 CHK'D BY TWC

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
1								Fill-SILTY GRAVEL (GM) - very loose, dry, moderate yellowish brown (10YR 5/4), fine grained to gravel, sand 30%, silt 40%, clay 30%.	
MODIFIED CALIFORNIA SPLIT SPOON									
					5				
2			30/9					▽ As above - Fill. Liner sample 5.0'-5.5'	
3			30/10					As above - Fill - color change to olive gray (5Y 4/1)	
					10				
4			30/8					As above - Fill. Liner sample 10.0-10.5 feet	
5			30/8					Fill-CLAYEY GRAVEL (OC) - moderately stiff, moist, brownish black (5YR 2/1), fine grained to gravel, clay 40%, silt 40%, sand 20%. End drilling 9/2/87. Begin drilling 9/3/87.	
					15				
6			30/0						
7			30/0					As above - Fill - shale fragments, silt and clay, fine grained, moderately hard.	
					20				
			30/0						
8			30/0					Bay Mud - very soft, moist, dark greenish gray (5GY 4/1), fine grained, clay 40-60%, silt 30%, sand 10%.	
					25				
9			30/0						
10			30/0					As above - sand content increasing with depth, sand 30-50%, clay 30-50%, silt 10-20%.	
					30				
11			36/30					SAND - very loose, moist, dark greenish gray (5GY 4/1), fine & medium grained sand, sand 50-70%, silt 20%, clay 10%.	
12			30/10					Color change to olive gray (5Y 4/1), liner sample taken.	
					35			SANDY CLAY - moderately stiff, moist, light brown (5YR 5/6), fine to coarse grained, clasts to 10mm. FeO stain, well graded, sand 10-20%, silt 20-40%, clay 40-70%.	
13			30/16						
14			24/9					As above - sand content decreasing 5-15%, clay increasing 50-80%, silt 30-50%. End drilling 9-3-87	

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PROJECT NO 87-01105.18

THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

LOG OF BORING No. MW-20

DATE DRILLED: 9/4/87 EQUIPMENT: Failing 1250

DESCRIPTION: rotary ELEVATION: 5.94 feet

DRILLING CONTRACTOR Exploration Drilling

DRILLER Wilbur Neufeld

BY RAC DATE 12/11/87 CHK'D BY TWC

SAMPLE NO / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
								Begin drilling 9/4/87.	
15			30/27					As above - SANDY CLAY - fine to medium grain, FeO stain, poorly graded, sand 10-20%, silt 20-40%, clay 40-60%, liner sample 42.5'-43.0'.	
16			30/29					Color change to moderate reddish brown (10R 4/6), clasts present 1-3mm.	
					45				
17			24/17					Color change to light brown (5YR 5/6), sample liner 46-46.5', black clasts within, 1-5mm, biotite or muscovite	
18			30/19					SANDSTONE - fine grained, dark yellowish orange (10YR 6/6) & light brownish gray (5YR 6/1), 2 colors split diagonally along sample, extremely soft, completely weathered, massive, light brownish gray has biotite-muscovite grains present.	
					50				
19			30/18					End drilling 50' 9/4/87. Begin drilling 9/8/87. As above - SANDSTONE - FeO weathering stains. liner sample 51.3'-51.8'.	
20			30/20		55				
21			30/18					SHALE - fine grain, dark yellowish brown (10YR 4/2) & light olive gray (5Y 6/1), highly weathered, FeO stain present, near vertical bedding 75°-90°, thin bedded.	
22			30/20		60				
23			36/9					As above - SHALE - color change to dark gray (N3), slightly weathered, liner sample taken 63-63.5'	
24			36/30		65			As above - SHALE - dark gray (N3), slightly weathered.	
					70			TD Boring 67.25 feet	
								End of Drilling 9/8/87. Installed 4 inch monitoring well, see Well Construction Log for details.	

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PROJECT NO 87-01105.18

THE MARK GROUP

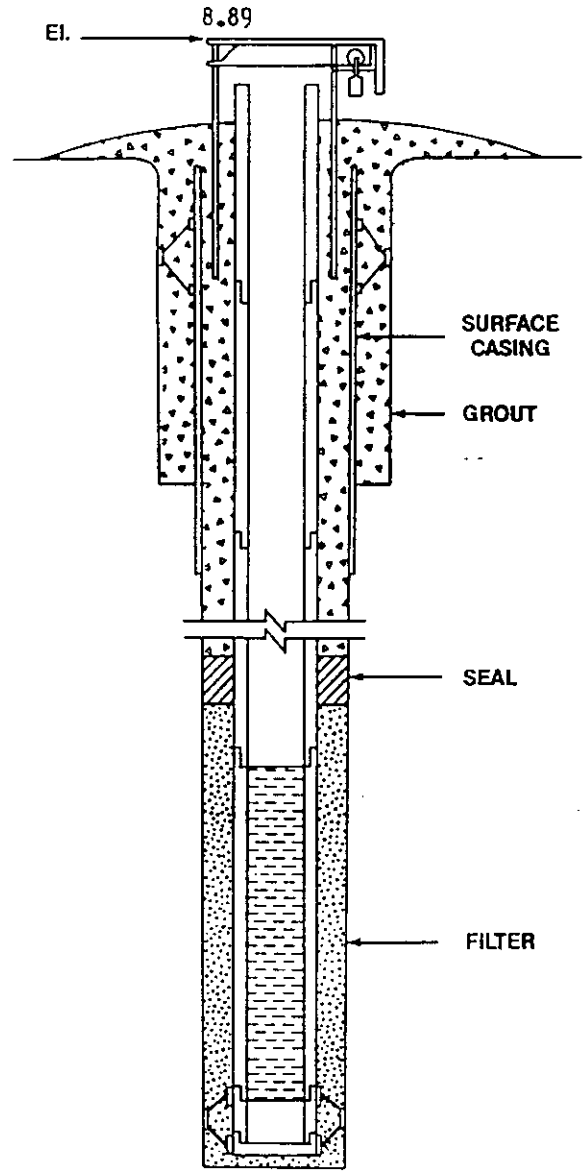
Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

CONSTRUCTION LOG OF WELL No. MW-20

Date Completed: 9/8/87

	DEPTH IN FEET
Well Type: Monitoring Well	
Casing Type: Schedule 40 PVC	
Casing Dia: 4"	3.2
Casing Lengths: 1 x 5' ; 5 x 10'	2.75
	surface
Screen Size: .007"	
Screen Length: 2 x 5'	
Tailpipe Length: 1 x 5'	
Well Casing Stickup: 2.75'	
Protective Casing Stickup: 3.2'	
Protective Casing Dia: .5'	
Surface Casing Type: Steel	43.0'
Surface Casing Dia/Length: 8"/ 50.10'	49.0'
Filter Material: 1 3/4 bag - #16 ; 2 3/4 bag - #30	50.75'
	52.25'
Filter Volume: 4.58 ft³	
Seal Material: Pel plug	
Seal Volume: 1.57 ft³	62.25'
Grout Material: Kaiser # 5 with 5% Bentonite Powder	67.25'
Grout Volume: 11.26	
Bore Dia: 1-50 = 15" 50-67" = 7 7/8	
Total Depth: 67.25	
Comments:	



Prepared By RAC Approved By ____ Date 12/11/87

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THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

PROJECT NO. 87-01105.18

DRAWING NO.

5 2/21/86

LOG OF BORING No. MW-21

DATE DRILLED: 9/1/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 5.12 feet

SAMPLE NO. / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
S-1	10-11-9		18/14					Fill (hf) - gravel, sand, silty clay, moist.	3
	4-3-2-2		24/13		2.5			Becoming softer, increasing clay, plastic, strong solvent odor - mineral spirits, dusky yellow green (5GY 5/2).	90
	2-2-3		18/12						
S-2	2-2-3		18/10		5			As above - wet.	
	3-2-4-5		24/24		7.5				
	2-2-2		18/13						
S-3	10-5-7		18/13		10				50
	8-8-8-14		24/5		12.5			As above - hit blue-green rock fragment at 11', plugged toe of sampler.	
	5-7-10		18/14						
S-4	3-4-11		18/14		15				50
	6-8-12-14		24/24		17.5				
	3-6-8		18/5					Increasing gravels	30

DRILLING CONTRACTOR Exploration Geosciences

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

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PROJECT NO 87-01105.18

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO

LOG OF BORING No. MW-21

DATE DRILLED: 9/1/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 5.12 feet

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

SAMPLE NO. / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG	DESCRIPTION	HNu TESTS
	8-12-18		18/18					Fill (hf) - as above.	20
								Sandy zone - loose, very fine.	
	5-10-19		18/16					Becoming black	
					22.5			Hit bricks and nails at 22.5 feet, continuing solvent odor.	
	6-5-3		18/NR						
								Loose, gooey, black - nails.	20
	8-8-6		18/18		25			Bay Mud-SILTY CLAY (OL) - very soft, wet, very plastic, with little peat, greenish black (5GY 2/1)	2
	4-4-6		18/12					SILTY SAND (SM) - little clay, very fine, loose, shell fragments, increasing clay with depth.	
	2-3-3		18/7		27.5			SILTY CLAY (CL) - with some sand, very soft, plastic, greenish black (5GY 2/1).	
			12/12					Becoming interbedded with lenses of silty sand, very fine, loose.	
S-5 S.A.	19-22-41		18/12		30			SILTY SAND (SM) - with some clay, very fine, loose.	
	28-32-50		18/12		32.5			Grading to dark yellowish orange (10YR 6/6), no clay, micaceous.	
S-6 S.A.	19-27-35		18/18						
	48-50		3		35				
	48-50-50		3/12					Becoming more dense.	
	45-50		6						
	33-47-50		18/18		37.5				
	48-50		12/12					Becoming mottled with greyish orange sand (10YR 7/ (10YR 7/4), some organics, very fine, becoming clayey.	

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THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

DRAWING NO.

LOG OF BORING No. MW-21

DATE DRILLED: 9/2/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 5.12 feet

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH DATE 12/11/87 CHK'D BY TWC

SAMPLE NO. / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG	DESCRIPTION	HNu TESTS
	41-50-50		15/11					As above Silty Sand	
	21-27-42		18/18						
					42.5				
	34-47-50		12/10						
			NR		45			Auger - drilled pilot hole to 45 feet.	
	47-48-47		18/18						
	42-48-50		18/18						
					47.5				
	47-50		6/3"						
	48-50		3"					SILTY CLAY (CL) - dark yellowish orange (10YR 6/6), mottled with yellow gray, hard, some very fine sand, becoming moderate olive brown.	
	45-47-50		6"		50	slough			
	48		6"						
	50		5"					CLAYEY SILT (ML) - hard, dark orange brown (10YR 6/6), with some FeO staining.	
	17-32-47		18/18					SILTY CLAY (CL) - light olive brown (5Y 5/6), hard, some organics or MnO_2 staining, becoming sandy, very fine, moderate yellowish brown (10YR 5/4).	
					52.5				
	50		5/5						
	50		6"					SILTY SAND - some clay, (10YR 5/4), very fine, dense, wet.	
								SILTY SANDY CLAY (CL) - hard, (10YR 5/4), drilled to 55.5' before sampling.	
					55				
	46-50-50		18/8					SILTY SAND (SM) - little clay, very fine, medium dense, (10YR 5/4).	
					57.5				
								CLAYEY SILT (ML) - with some very fine sand, hard, (10YR 5/4).	
	50		5/5						
	50		5/5						

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PROJECT NO 87-01105.18

DRAWING NO

THE MARK GROUP ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

LOG OF BORING No. MW-21

DATE DRILLED: 9/2/87 EQUIPMENT: B-56

DESCRIPTION: auger ELEVATION: 5.12 feet

SAMPLE NO. / SAMPLE TYPE	BLOWS PER 6 INCHES	SPT-N	INCHES DRIVEN / INCHES RECOVERED	NUMBER OF RINGS	DEPTH IN FEET	WELL OR PIEZOMETER CONSTRUCTION	GRAPHIC LOG		HNu TESTS
								Started periodic sampling to save time.	
					62.5				
	52-49-50		18/18					Becoming moderate brown (5YR 4/4), with some FeO_2 staining.	
					65				
	15-18-25		18/18					As above - some very fine sand, occasional pebbles.	
						slough			
					70				
	14-19-40		18/12		72.5			As above - Clayey Silt	
					75				
	30-28-33		18/18		77.5			Rig broke down - sampler pulled off of wire line at bottom of hole.	
								TD Boring at 78.5 feet. Installed 4 inch monitoring well, see Well Construction Log	

DRILLING CONTRACTOR Exploration Geoservices

DRILLER Dave Yaeger

BY KLH

DATE 12/11/87

CHK'D BY TWC

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PROJECT NO 87-01105.18

DRAWING NO

THE MARK GROUP
ENGINEERS & GEOLOGISTS, INC.

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

CONSTRUCTION LOG OF WELL No. MW-21

Date Completed: 9/8/87

Well Type: Monitoring Well

Casing Type: Schedule 40 PVC

Casing Dia: 4"

Casing Lengths: 1 x 10' + 1 x 5'

Screen Size: .007"

Screen Length: 10'

Tailpipe Length:

Well Casing Stickup: 2'

Protective Casing Stickup: 3.5'

Protective Casing Dia/Length: .5' x 5'

Filter Material: #30 Sand

Filter Volume: 10.21 ft^3

Seal Material: Bentonite pellets

Seal Volume: 3.14 ft^3

Grout Material: #5 Portland cement with 10% bentonite powder

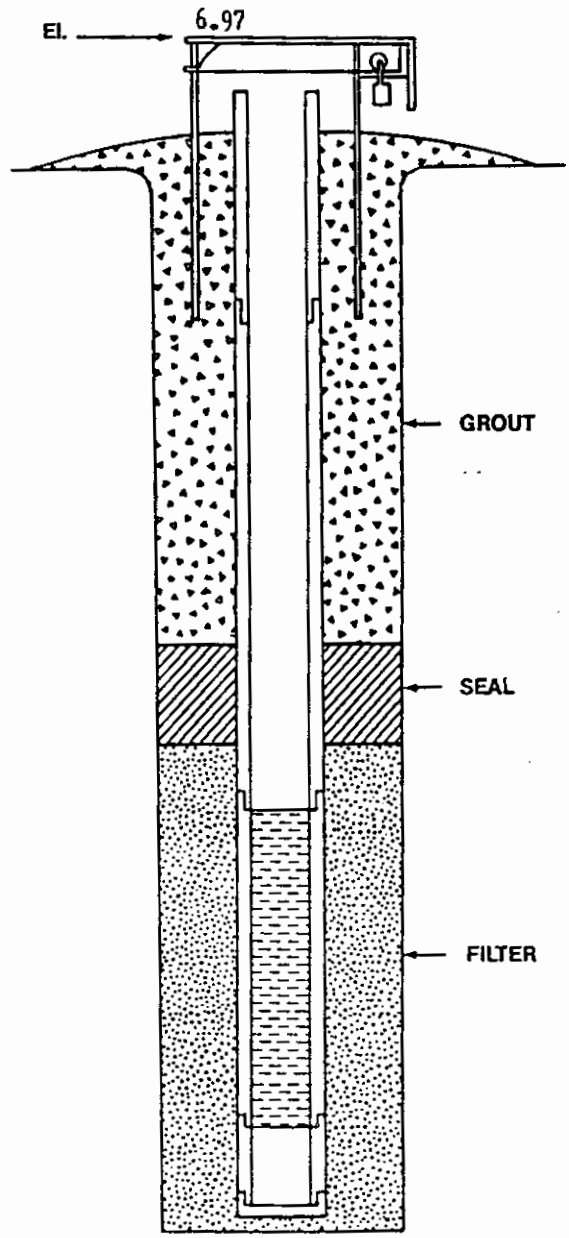
Grout Volume: 4.71 ft^3

Bore Dia: 12"

Total Depth: 25'

Comments: Pilot hole drilled and sampled to 86' - grouted into 26

DEPTH IN FEET
3.5
2
6'
10'
13'
23'
25'



Prepared By KLH Approved By Date 12/11/87

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THE MARK GROUP

Hydrogeological Assessment
The O'Brien Corporation
South San Francisco, CA

PROJECT NO. 87-01105.18

DRAWING NO.

2/21/86

Draft Report For Phase II RCRA Facility Investigation

Fuller-O'Brien Paint Facility

450 East Grand Avenue

South San Francisco, California

Volume 2

April 25, 1994

Harza

425 Roland Way

Oakland, CA 94621

HARZA *Consulting Engineers and Scientists*

April 25, 1994

Ms. Josephine Chen
H-4-4
United States Environmental Protection Agency
75 Hawthorne Street, 9th Floor
San Francisco, CA 94105

Re: Phase II RCRA Facility Investigation
Fuller-O'Brien Paint Facility of South San Francisco, California
Project No.: K615-J

Dear Ms. Chen:

Harza is pleased to submit the attached draft report for the above referenced project for The O'Brien Corporation.

Should you have any questions or require additional information, please do not hesitate to contact me.

Respectfully submitted,

Harza

Stephen R. Henshaw

Stephen R. Henshaw
Director, Environmental Services

SRH:lk/encl.
#25442

cc: Patricia Houle (Fuller-O'Brien Paints)

425 Roland Way Oakland, California 94621
Tel: (510) 568-4001 Fax: (510) 568-2205

255 North Market, Suite 248 San Jose, California 95110
Tel: (408) 288-8312 Fax: (510) 568-2205

Prepared For:

The O'Brien Corporation
395 Oyster Point Boulevard, Suite 350
South San Francisco, CA

Draft Report for Phase II RCRA Facility Investigation

Fuller-O'Brien Paint Facility
450 East Grand Avenue
South San Francisco, California

April 25, 1994

DRAFT

Prepared By:

Dennis Laduzinsky
Head, Geology and Hydrogeology, C.E.G.

Stephen R. Henshaw
Director, Environmental Services

Harza
425 Roland Way
Oakland, CA 94621

HARZA

TABLE OF CONTENTS

EXECUTIVE SUMMARY i

1.0 INTRODUCTION 1

1.1 Background and Regulatory Setting 1
1.2 Site Location and History 2
1.3 Previous Environmental Investigations 2

2.0 ENVIRONMENTAL SETTING 5

2.1 Regional Geology and Hydrogeology 5
2.1.1 Regional Geology 5
2.1.2 Regional Hydrology 6
2.1.2.1 Surface Water 6
2.1.2.2 Ground Water 7

2.2 Site Geology and Hydrogeology 7
2.2.1 Site Geology 7
2.2.2 Site Hydrogeology 8
2.2.2.1 Fill Material 9
2.2.2.2 Bay Mud/Colluvium 9
2.2.2.3 Bedrock 9
2.2.3 Ground Water Flow 10
2.2.4 Tidal Influence 10

2.3 Climatology 11
2.3.1 Precipitation 11
2.3.2 Evaporation 11
2.3.3 Wind Direction and Velocity 11

3.0 METHODS OF INVESTIGATION 12

3.1 Redeveloped Site Monitoring Wells and Piezometers 13
3.2 Ecological Evaluation 14
3.3 Ground Water and Surface Water Sampling 14
3.3.1 Monitoring Wells and Piezometers 14
3.3.2 Soil Borings 14
3.3.3 Surface Water 15

3.4 Soil Boring and Sampling Program 15
3.5 Piezometer Installation 15
3.6 Sediment Sampling 16
3.7 Water Level Measurements 16

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TABLE OF CONTENTS (Cont'd.)

4.0 CHEMICAL CHARACTERIZATION AND DISTRIBUTION 16

4.1 Source Characterization 16
4.2 Distribution of Chemicals in Surface and Ground Water 17
4.2.1 Ground Water Samples from Monitoring Wells/Piezometers and Soil Borings 17
4.2.1.1 Fill Material 17
4.2.1.2 Bay Mud/Colluvium 18
4.2.1.3 Bedrock 18

4.2.2 Surface Water 18

4.3 Distribution of Chemicals in Soil and Sediment 18
4.3.1 Soil 19
4.3.2 Sediment 20

4.4 Chemical Data Validation 20

5.0 POTENTIAL RECEPTORS 20

6.0 SUMMARY AND CONCLUSIONS 21

6.1 Environmental Setting 21
6.2 Site Geology and Hydrogeology 21
6.3 Chemical Conditions 21
6.4 Potential Receptors 22

7.0 REFERENCES 23

TABLES

1 Summary of RFI Field Activities
2 Summary of Surface and Ground Water Sample Analysis Program
3 Summary of Soil and Sediment Sample Analysis Program
4 Monitoring Well and Piezometer Construction Summary
5 Summary of Water-Level Elevations
6 Summary of Total and Dissolved Metals Analytical Results
7 Summary of Volatile Organic Compounds Analytical Results for Surface and Ground Water Samples
8 Summary of Semivolatile Organic Compounds Analytical Results for Surface and Ground Water Samples
9 Summary of Total Petroleum Hydrocarbons Analytical Results
10 Summary of Total Metals Analytical Results for Soil and Sediment Samples
11 Summary of Volatile Organic Compounds Analytical Results for Soil and Sediment Samples
12 Summary of Semivolatile Organic Compounds Analytical Results for Soil and Sediment Samples
13 Summary of Total Petroleum Hydrocarbons Analytical Results

DRAFT

HARZA

TABLE OF CONTENTS (Cont'd.)

FIGURES

1 Site Location Map
2 Site Map
3 Soil boring and Sediment Sample Location Map
4 Historical Site Map
5 Site Geologic Map
6 Cross Section A - A'
7 Cross Section B - B'
8 Cross Section C - C'
9 Cross Section D - D'
10 Fill Material Water Level Elevations and Potentiometric Surface 3/18/94
11 Fill Material Water Level Elevations and Potentiometric Surface 4/8/94
12 Bay Mud / Colluvium Water Level Elevations and Potentiometric Surface 3/18/94
13 Bay Mud / Colluvium Water Level Elevations and Potentiometric Surface 4/8/94
14 Bedrock Water Level Elevations and Potentiometric Surface 3/18/94
15 Bedrock Water Level Elevations and Potentiometric Surface 4/8/94
16 Fill Material Metals Ground Water Distribution Map
17 Fill Material VOCs/SVOCs Ground Water Distribution Map
18 Bay Mud / Colluvium Metals Ground Water Distribution Map
19 Bay Mud / Colluvium VOCs/SVOCs Ground Water Distribution Map
20 Bedrock Metals Ground Water Distribution Map
21 Bedrock VOCs/SVOCs Ground Water Distribution Map
22 Total Metals Soil Distribution Map
23 VOC Soil Distribution Map
24 SVOC Soil Distribution Map

APPENDIXES

A Boring Logs and Well Completion Details
B Surface and Ground Water Quality Laboratory Reports and Chain of Custody Records
C Soil and Sediment Quality Laboratory Reports and Chain of Custody Records
D Ratech Resources - May 28, 1993 Data Needs Letter

DISTRIBUTION

DRAFT

APPENDIX B

Surface and Ground Water Quality Laboratory Reports and Chain of Custody Records

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 94523-001

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: KE1495-1A-2112
PROJ. NAME: FULLER O'BRIEN

REPORT DATE: 12/14/93

DATE SAMPLED: 11/01/93
DATE RECEIVED: 11/01/93

ADDITIONAL ANALYSIS
REQUESTED: 12/10/93

AEN JOB NO: 9311005

PROJECT SUMMARY:

On November 1, 1993, this laboratory received one (1) water sample.

Client requested the sample be analyzed for inorganic and organic parameters. On December 10, 1993, client requested additional analysis on the sample for Copper. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Larry Klein
General Manager

Results FAXed 11/12/93

HARZA KALDVEER

SAMPLE ID: W-5
AEN LAB NO: 9311005-01
AEN WORK ORDER: 9311005
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/01/93
DATE RECEIVED: 11/01/93
REPORT DATE: 12/14/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	11/09/93
Benzene	71-43-2	ND	5	ug/L	11/09/93
Bromodichloromethane	75-27-4	ND	5	ug/L	11/09/93
Bromoform	75-25-2	ND	5	ug/L	11/09/93
Bromomethane	74-83-9	ND	10	ug/L	11/09/93
2-Butanone	78-93-3	ND	100	ug/L	11/09/93
Carbon Disulfide	75-15-0	ND	10	ug/L	11/09/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	11/09/93
Chlorobenzene	108-90-7	ND	5	ug/L	11/09/93
Chloroethane	75-00-3	ND	10	ug/L	11/09/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	11/09/93
Chloroform	67-66-3	ND	5	ug/L	11/09/93
Chloromethane	74-87-3	ND	10	ug/L	11/09/93
Dibromochloromethane	124-48-1	ND	5	ug/L	11/09/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	11/09/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	11/09/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	11/09/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	11/09/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	11/09/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	11/09/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	11/09/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	11/09/93
Ethylbenzene	100-41-4	ND	5	ug/L	11/09/93
2-Hexanone	591-78-6	ND	50	ug/L	11/09/93
Methylene Chloride	75-09-2	ND	5	ug/L	11/09/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	11/09/93
Styrene	100-42-5	ND	5	ug/L	11/09/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	11/09/93
Tetrachloroethene	127-18-4	ND	5	ug/L	11/09/93
Toluene	108-88-3	ND	5	ug/L	11/09/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	11/09/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	11/09/93
Trichloroethene	79-01-6	ND	5	ug/L	11/09/93
Vinyl Acetate	108-05-4	ND	50	ug/L	11/09/93
Vinyl Chloride	75-01-4	ND	10	ug/L	11/09/93
Xylenes, Total	1330-20-7	ND	10	ug/L	11/09/93
#Extraction for BNAs	**EPA 3520**	-		Extrn Date	11/04/93
EPA 8270 - Water Matrix	**EPA 8270**				
Acenaphthene	83-32-9	ND	10	ug/L	11/09/93

HARZA KALDVEER

SAMPLE ID: W-5
AEN LAB NO: 9311005-01
AEN WORK ORDER: 9311005
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/01/93
DATE RECEIVED: 11/01/93
REPORT DATE: 12/14/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Acenaphthylene	208-96-8	ND	10	ug/L	11/09/93
Anthracene	120-12-7	ND	10	ug/L	11/09/93
Benzidine	92-87-5	ND	50	ug/L	11/09/93
Benzoic Acid	65-85-0	ND	50	ug/L	11/09/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/09/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/09/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/09/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/09/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/09/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/09/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/09/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	11/09/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/09/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/09/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/09/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/09/93
4-Chloroaniline	106-47-8	ND	20	ug/L	11/09/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	11/09/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/09/93
Chrysene	218-01-9	ND	10	ug/L	11/09/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/09/93
Dibenzofuran	132-64-9	ND	10	ug/L	11/09/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/09/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/09/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/09/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/09/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/09/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/09/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/09/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/09/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/09/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/09/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	11/09/93
Fluoranthene	206-44-0	ND	10	ug/L	11/09/93
Fluorene	86-73-7	ND	10	ug/L	11/09/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/09/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/09/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/09/93
Hexachloroethane	67-72-1	ND	10	ug/L	11/09/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/09/93
Isophorone	78-59-1	ND	10	ug/L	11/09/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	11/09/93
Naphthalene	91-20-3	ND	10	ug/L	11/09/93

HARZA KALDVEER

SAMPLE ID: W-5
AEN LAB NO: 9311005-01
AEN WORK ORDER: 9311005
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/01/93
DATE RECEIVED: 11/01/93
REPORT DATE: 12/14/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2-Nitroaniline	88-74-4	ND	50	ug/L	11/09/93
3-Nitroaniline	99-09-2	ND	50	ug/L	11/09/93
4-Nitroaniline	100-01-6	ND	50	ug/L	11/09/93
Nitrobenzene	98-95-3	ND	10	ug/L	11/09/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	11/09/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/09/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/09/93
Phenanthrene	85-01-8	ND	10	ug/L	11/09/93
Pyrene	129-00-0	ND	10	ug/L	11/09/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/09/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/09/93
2-Chlorophenol	95-57-8	ND	10	ug/L	11/09/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/09/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/09/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/09/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/09/93
2-Methylphenol	95-48-7	ND	10	ug/L	11/09/93
4-Methylphenol	106-44-5	ND	10	ug/L	11/09/93
2-Nitrophenol	88-75-5	ND	10	ug/L	11/09/93
4-Nitrophenol	100-02-7	ND	50	ug/L	11/09/93
Pentachlorophenol	87-86-5	ND	50	ug/L	11/09/93
Phenol	108-95-2	ND	10	ug/L	11/09/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/09/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/09/93
#Digestion - water		-		Prep Date	11/04/93
Arsenic	**EPA 7060**	ND	0.002	mg/L	11/05/93
Lead	**EPA 6010**	ND	0.04	mg/L	11/08/93
Selenium	**EPA 7740**	ND	0.004	mg/L	11/05/93
Cadmium	**EPA 6010**	ND	0.005	mg/L	11/08/93
Chromium	**EPA 6010**	ND	0.01	mg/L	11/08/93
Copper	**EPA 6010**	ND	0.01	mg/L	11/08/93
Nickel	**EPA 6010**	0.05 *	0.01	mg/L	11/08/93
Silver	**EPA 6010**	ND	0.005	mg/L	11/08/93

HARZA KALDVEER

SAMPLE ID: W-5
AEN LAB NO: 9311005-01
AEN WORK ORDER: 9311005
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/01/93
DATE RECEIVED: 11/01/93
REPORT DATE: 12/14/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Zinc	EPA 6010	ND	0.005	mg/L	11/08/93

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

INSTRUMENT: 12 AEN JOB NO: 9311005

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
11/09/93	W-5	01	86.2	95.0	96.1

CURRENT QC LIMITS (Revised 08/13/91)

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(83-127)
Toluene-d8	(90-108)
p-Bromofluorobenzene	(91-109)

QUALITY CONTROL DATA

DATE ANALYZED: 11/09/93
SAMPLE SPIKED: 9310325-01
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9311005
INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Sample Result (ug/L)	MS Result (ug/L)	MSD Result (ug/L)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	ND	58.1	55.0	113.1	5.5
Trichloroethene	50.0	ND	50.7	52.6	103.3	3.7
Benzene	50.0	ND	52.3	52.4	104.7	0.2
Toluene	50.0	ND	48.4	50.1	98.5	3.5
Chlorobenzene	50.0	ND	52.9	49.7	102.6	6.2

CURRENT QC LIMITS (Revised 08/13/91)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(65-133)	14
Trichloroethene	(84-120)	9
Benzene	(84-121)	9
Toluene	(89-119)	8
Chlorobenzene	(83-116)	8

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 11/04/93 AEN JOB NO: 9311005

CLIENT PROJ. ID: K1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
11/09/93	W-5	01	72.8	104.6	67.5	69.9	70.0	81.8

CURRENT QC LIMITS (REVISED 01/08/92)

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(47-104)
2-Fluorobiphenyl	(49-106)
Terphenyl-d_{14}	(36-138)
Phenol-d_5	(46-105)
2-Fluorophenol	(40- 97)
2,4,6-Tribromophenol	(37-145)

QUALITY CONTROL DATA

DATE EXTRACTED: 11/04/93
DATE ANALYZED: 11/09/93
CLIENT PROJ. ID: K1495-1A-2112

AEN JOB NO: 9311005
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Sample Result (ug/L)	MS Result (ug/L)	MSD Result (ug/L)	Average Percent Recovery	RPD
Phenol	200	ND	194	161	88.8	18.6
2-Chlorophenol	200	ND	164	138	75.5	17.2
1,4-Dichlorobenzene	204	ND	112	98.1	51.5	13.2
N-Nitroso-di-n-propylamine	199	ND	184	171	89.2	7.3
1,2,4-Trichlorobenzene	200	ND	112	92.7	51.2	18.9
4-Chloro-3-methylphenol	196	ND	190	186	95.9	2.1
Acenaphthene	200	ND	190	177	91.8	7.1
4-Nitrophenol	198	ND	134	147	71.0	9.3
2,4-Dinitrotoluene	200	ND	169	171	85.0	1.2
Pentachlorophenol	203	ND	145	159	74.9	9.2
Pyrene	199	ND	117	112	57.5	4.4

CURRENT QC LIMITS (DEFAULT)

Analyte	Percent Recovery	RPD
Phenol	(12-110)	42
2-Chlorophenol	(27-123)	40
1,4-Dichlorobenzene	(36- 97)	28
N-Nitroso-di-n-propylamine	(41-116)	38
1,2,4-Trichlorobenzene	(39- 98)	28
4-Chloro-3-methylphenol	(23- 97)	42
Acenaphthene	(46-118)	31
4-Nitrophenol	(10- 80)	50
2,4-Dinitrotoluene	(24- 96)	38
Pentachlorophenol	(9-103)	50
Pyrene	(26-127)	31

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9311005

CLIENT PROJ. ID: KE1495-1A-2112

MATRIX SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	SAMPLE SPIKED	SAMPLE RESULT	SPIKE ADDED	OBSERVED RECOVERIES (mg/L) MS	MSD	% REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Ag, Silver	ICP/6010	9311011-02	ND	0.1	0.0956	0.0988	97	3	66-127	11
As, Arsenic	4000/7060	9311011-01	ND	0.04	0.0425	0.0446	109	5	65-146	12
Cd, Cadmium	ICP/6010	9311011-02	ND	0.05	0.0477	0.0421	90	12	64-128	15
Cr, Chromium	ICP/6010	9311011-02	ND	0.2	0.202	0.201	101	<1	75-114	7
Cu, Copper	ICP/6010	9311011-02	ND	0.25	0.245	0.248	99	1	81-114	5
Ni, Nickel	ICP/6010	9311011-02	ND	0.50	0.490	0.493	98	1	77-113	5
Pb, Lead	ICP/6010	9311011-02	ND	0.50	0.504	0.510	101	1	80-115	7
Se, Selenium	4000/7740	9311011-01	ND	0.08	0.0613	0.0611	77	<1	24-141	21
Zn, Zinc	ICP/6010	9311011-02	0.021	0.50	0.497	0.502	96	1	68-116	7

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected
< = Less Than

*** END OF REPORT ***

93 1100 S

Page 1 of 1

Lab Job # 93110

CHAIN-OF-CUSTODY RECORD

Project Number: KE1405-1A-2112

Project Name: Fuller O'Brien

Location: So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Filtered (As, Cd, Cr, Pb, Ni, Se, Ag, Zn)	Metals - Unfiltered (As, Cd, Cr, Pb, Ni, Se, Ag, Zn)	Cu			Remarks
W-5	01AB	11/1/93		X	2X 1L Amber				X									12/10 - Per Steve Henshaw - add
W-5	CD			X	2X 40mL VOAs			X										Cu analysis to samples wf filt &
W-5	E			X	1 X 500mL plastic									X	✓			W-5 unfilt.
~~W-5~~	~~F~~			X	1 X 500mL plastic								X		✓			Hold filtered metals!
																		Metals (As, Cd, Cr, Pb, Ni, Se, Ag, Zn)

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	1515 11/1/93	[signature]
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	16:00 11/1/93	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
		Gina Gillespie 11-1-93 1600

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: Tacia Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

CERTIFICATE OF ANALYSIS

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: KE1495-1A-2112
PROJ. NAME: THE O'BRIEN CORP.

REPORT DATE: 12/23/93

DATE SAMPLED: 11/05/93
DATE RECEIVED: 11/09/93

ADDITIONAL ANALYSIS
REQUESTED: 11/23,29/93
12/10/93

AEN JOB NO: 9311107

PROJECT SUMMARY:

On November 9, 1993, this laboratory received three (3) water samples.

Client requested all samples be analyzed for inorganic and organic parameters. Sample fractions for filtered metals were placed on hold. On November 23, 1993, client requested the sample fraction for filtered metals on sample PM-7 be taken off hold. On November 29, 1993, client requested the sample fraction for filtered metals on sample PM-2 be taken off hold. On December 10, 1993, client requested additional analysis on samples for Copper. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Larry Klein
General Manager

Results FAXed 11/19-12/08/93

HARZA KALDVEER

SAMPLE ID: PM-2
AEN LAB NO: 9311107-01A
AEN WORK ORDER: 9311107
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/09/93
DATE RECEIVED: 11/09/93
REPORT DATE: 12/23/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	11/12/93
Benzene	71-43-2	ND	5	ug/L	11/12/93
Bromodichloromethane	75-27-4	ND	5	ug/L	11/12/93
Bromoform	75-25-2	ND	5	ug/L	11/12/93
Bromomethane	74-83-9	ND	10	ug/L	11/12/93
2-Butanone	78-93-3	ND	100	ug/L	11/12/93
Carbon Disulfide	75-15-0	ND	10	ug/L	11/12/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	11/12/93
Chlorobenzene	108-90-7	ND	5	ug/L	11/12/93
Chloroethane	75-00-3	ND	10	ug/L	11/12/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	11/12/93
Chloroform	67-66-3	ND	5	ug/L	11/12/93
Chloromethane	74-87-3	ND	10	ug/L	11/12/93
Dibromochloromethane	124-48-1	ND	5	ug/L	11/12/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	11/12/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	11/12/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	11/12/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	11/12/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	11/12/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	11/12/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	11/12/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	11/12/93
Ethylbenzene	100-41-4	ND	5	ug/L	11/12/93
2-Hexanone	591-78-6	ND	50	ug/L	11/12/93
Methylene Chloride	75-09-2	ND	5	ug/L	11/12/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	11/12/93
Styrene	100-42-5	ND	5	ug/L	11/12/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	11/12/93
Tetrachloroethene	127-18-4	ND	5	ug/L	11/12/93
Toluene	108-88-3	ND	5	ug/L	11/12/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	11/12/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	11/12/93
Trichloroethene	79-01-6	ND	5	ug/L	11/12/93
Vinyl Acetate	108-05-4	ND	50	ug/L	11/12/93
Vinyl Chloride	75-01-4	ND	10	ug/L	11/12/93
Xylenes, Total	1330-20-7	ND	10	ug/L	11/12/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-2
AEN LAB NO: 9311107-01C
AEN WORK ORDER: 9311107
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/09/93
DATE RECEIVED: 11/09/93
REPORT DATE: 12/23/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	11/15/93
EPA 8270 - Water Matrix	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	11/17/93
Acenaphthylene	208-96-8	ND	10	ug/L	11/17/93
Anthracene	120-12-7	ND	10	ug/L	11/17/93
Benzidine	92-87-5	ND	50	ug/L	11/17/93
Benzoic Acid	65-85-0	ND	50	ug/L	11/17/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/17/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/17/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/17/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/17/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/17/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/17/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/17/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	11/17/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/17/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/17/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/17/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/17/93
4-Chloroaniline	106-47-8	ND	20	ug/L	11/17/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	11/17/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/17/93
Chrysene	218-01-9	ND	10	ug/L	11/17/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/17/93
Dibenzofuran	132-64-9	ND	10	ug/L	11/17/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/17/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/17/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/17/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/17/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/17/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/17/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/17/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/17/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/17/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/17/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	11/17/93
Fluoranthene	206-44-0	ND	10	ug/L	11/17/93
Fluorene	86-73-7	ND	10	ug/L	11/17/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/17/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/17/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/17/93

HARZA KALDVEER

SAMPLE ID: PM-2
AEN LAB NO: 9311107-01C
AEN WORK ORDER: 9311107
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/09/93
DATE RECEIVED: 11/09/93
REPORT DATE: 12/23/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	11/17/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/17/93
Isophorone	78-59-1	ND	10	ug/L	11/17/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	11/17/93
Naphthalene	91-20-3	ND	10	ug/L	11/17/93
2-Nitroaniline	88-74-4	ND	50	ug/L	11/17/93
3-Nitroaniline	99-09-2	ND	50	ug/L	11/17/93
4-Nitroaniline	100-01-6	ND	50	ug/L	11/17/93
Nitrobenzene	98-95-3	ND	10	ug/L	11/17/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	11/17/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/17/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/17/93
Phenanthrene	85-01-8	ND	10	ug/L	11/17/93
Pyrene	129-00-0	ND	10	ug/L	11/17/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/17/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/17/93
2-Chlorophenol	95-57-8	ND	10	ug/L	11/17/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/17/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/17/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/17/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/17/93
2-Methylphenol	95-48-7	ND	10	ug/L	11/17/93
4-Methylphenol	106-44-5	ND	10	ug/L	11/17/93
2-Nitrophenol	88-75-5	ND	10	ug/L	11/17/93
4-Nitrophenol	100-02-7	ND	50	ug/L	11/17/93
Pentachlorophenol	87-86-5	ND	50	ug/L	11/17/93
Phenol	108-95-2	ND	10	ug/L	11/17/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/17/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/17/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-2
AEN LAB NO: 9311107-01E
AEN WORK ORDER: 9311107
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/09/93
DATE RECEIVED: 11/09/93
REPORT DATE: 12/23/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Arsenic	EPA 7060	0.006 *	0.002	mg/L	12/02/93
Selenium	EPA 7740	ND	0.004	mg/L	12/02/93
Cadmium	EPA 6010	ND	0.005	mg/L	12/02/93
Chromium	EPA 6010	ND	0.01	mg/L	12/02/93
Copper	EPA 6010	ND	0.01	mg/L	12/02/93
Lead	EPA 6010	ND	0.04	mg/L	12/02/93
Nickel	EPA 6010	ND	0.01	mg/L	12/02/93
Silver	EPA 6010	ND	0.005	mg/L	12/02/93
Zinc	EPA 6010	0.011 *	0.005	mg/L	12/02/93
#Digestion - water		-		Prep Date	11/30/93

Note: Field filtered

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-2
AEN LAB NO: 9311107-01F
AEN WORK ORDER: 9311107
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/09/93
DATE RECEIVED: 11/09/93
REPORT DATE: 12/23/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Arsenic	EPA 7060	0.003 *	0.002	mg/L	11/15/93
Selenium	EPA 7740	ND	0.004	mg/L	11/15/93
Cadmium	EPA 6010	ND	0.005	mg/L	11/15/93
Chromium	EPA 6010	0.04 *	0.01	mg/L	11/15/93
Copper	EPA 6010	0.06 *	0.01	mg/L	11/15/93
Lead	EPA 6010	0.04 *	0.04	mg/L	11/15/93
Nickel	EPA 6010	0.07 *	0.01	mg/L	11/15/93
Silver	EPA 6010	ND	0.005	mg/L	11/15/93
Zinc	EPA 6010	0.13 *	0.005	mg/L	11/15/93
#Digestion - water		-		Prep Date	11/12/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-7
AEN LAB NO: 9311107-02A
AEN WORK ORDER: 9311107
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/09/93
DATE RECEIVED: 11/09/93
REPORT DATE: 12/23/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	11/12/93
Benzene	71-43-2	ND	5	ug/L	11/12/93
Bromodichloromethane	75-27-4	ND	5	ug/L	11/12/93
Bromoform	75-25-2	ND	5	ug/L	11/12/93
Bromomethane	74-83-9	ND	10	ug/L	11/12/93
2-Butanone	78-93-3	ND	100	ug/L	11/12/93
Carbon Disulfide	75-15-0	ND	10	ug/L	11/12/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	11/12/93
Chlorobenzene	108-90-7	ND	5	ug/L	11/12/93
Chloroethane	75-00-3	ND	10	ug/L	11/12/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	11/12/93
Chloroform	67-66-3	ND	5	ug/L	11/12/93
Chloromethane	74-87-3	ND	10	ug/L	11/12/93
Dibromochloromethane	124-48-1	ND	5	ug/L	11/12/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	11/12/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	11/12/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	11/12/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	11/12/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	11/12/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	11/12/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	11/12/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	11/12/93
Ethylbenzene	100-41-4	ND	5	ug/L	11/12/93
2-Hexanone	591-78-6	ND	50	ug/L	11/12/93
Methylene Chloride	75-09-2	ND	5	ug/L	11/12/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	11/12/93
Styrene	100-42-5	ND	5	ug/L	11/12/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	11/12/93
Tetrachloroethene	127-18-4	ND	5	ug/L	11/12/93
Toluene	108-88-3	ND	5	ug/L	11/12/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	11/12/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	11/12/93
Trichloroethene	79-01-6	ND	5	ug/L	11/12/93
Vinyl Acetate	108-05-4	ND	50	ug/L	11/12/93
Vinyl Chloride	75-01-4	ND	10	ug/L	11/12/93
Xylenes, Total	1330-20-7	ND	10	ug/L	11/12/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-7
AEN LAB NO: 9311107-02C
AEN WORK ORDER: 9311107
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/09/93
DATE RECEIVED: 11/09/93
REPORT DATE: 12/23/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	11/15/93
EPA B270 - Water Matrix	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	11/17/93
Acenaphthylene	208-96-8	ND	10	ug/L	11/17/93
Anthracene	120-12-7	ND	10	ug/L	11/17/93
Benzidine	92-87-5	ND	50	ug/L	11/17/93
Benzoic Acid	65-85-0	ND	50	ug/L	11/17/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/17/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/17/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/17/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/17/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/17/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/17/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/17/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	11/17/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/17/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/17/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/17/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/17/93
4-Chloroaniline	106-47-8	ND	20	ug/L	11/17/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	11/17/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/17/93
Chrysene	218-01-9	ND	10	ug/L	11/17/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/17/93
Dibenzofuran	132-64-9	ND	10	ug/L	11/17/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/17/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/17/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/17/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/17/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/17/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/17/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/17/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/17/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/17/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/17/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	11/17/93
Fluoranthene	206-44-0	ND	10	ug/L	11/17/93
Fluorene	86-73-7	ND	10	ug/L	11/17/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/17/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/17/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/17/93

HARZA KALDVEER

SAMPLE ID: PM-7
AEN LAB NO: 9311107-02C
AEN WORK ORDER: 9311107
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/09/93
DATE RECEIVED: 11/09/93
REPORT DATE: 12/23/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	11/17/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/17/93
Isophorone	78-59-1	ND	10	ug/L	11/17/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	11/17/93
Naphthalene	91-20-3	ND	10	ug/L	11/17/93
2-Nitroaniline	88-74-4	ND	50	ug/L	11/17/93
3-Nitroaniline	99-09-2	ND	50	ug/L	11/17/93
4-Nitroaniline	100-01-6	ND	50	ug/L	11/17/93
Nitrobenzene	98-95-3	ND	10	ug/L	11/17/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	11/17/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/17/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/17/93
Phenanthrene	85-01-8	ND	10	ug/L	11/17/93
Pyrene	129-00-0	ND	10	ug/L	11/17/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/17/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/17/93
2-Chlorophenol	95-57-8	ND	10	ug/L	11/17/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/17/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/17/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/17/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/17/93
2-Methylphenol	95-48-7	ND	10	ug/L	11/17/93
4-Methylphenol	106-44-5	ND	10	ug/L	11/17/93
2-Nitrophenol	88-75-5	ND	10	ug/L	11/17/93
4-Nitrophenol	100-02-7	ND	50	ug/L	11/17/93
Pentachlorophenol	87-86-5	ND	50	ug/L	11/17/93
Phenol	108-95-2	ND	10	ug/L	11/17/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/17/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/17/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-7
AEN LAB NO: 9311107-02E
AEN WORK ORDER: 9311107
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/09/93
DATE RECEIVED: 11/09/93
REPORT DATE: 12/23/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Arsenic	EPA 7060	0.006 *	0.002	mg/L	12/21/93
Selenium	EPA 7740	ND	0.004	mg/L	12/21/93
Cadmium	EPA 6010	ND	0.005	mg/L	12/18/93
Chromium	EPA 6010	ND	0.01	mg/L	12/18/93
Copper	EPA 6010	ND	0.01	mg/L	12/18/93
Lead	EPA 6010	ND	0.04	mg/L	12/18/93
Nickel	EPA 6010	ND	0.01	mg/L	12/18/93
Silver	EPA 6010	ND	0.005	mg/L	12/18/93
Zinc	EPA 6010	0.019 *	0.005	mg/L	12/18/93
#Digestion - water		-		Prep Date	12/17/93

Note: Field filtered

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-7
AEN LAB NO: 9311107-02F
AEN WORK ORDER: 9311107
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/09/93
DATE RECEIVED: 11/09/93
REPORT DATE: 12/23/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Arsenic	EPA 7060	0.006 *	0.002	mg/L	11/15/93
Selenium	EPA 7740	ND	0.004	mg/L	11/15/93
Cadmium	EPA 6010	ND	0.005	mg/L	11/15/93
Chromium	EPA 6010	0.03 *	0.01	mg/L	11/15/93
Copper	EPA 6010	0.01 *	0.01	mg/L	11/15/93
Lead	EPA 6010	0.15 *	0.04	mg/L	11/15/93
Nickel	EPA 6010	0.09 *	0.01	mg/L	11/15/93
Silver	EPA 6010	ND	0.005	mg/L	11/15/93
Zinc	EPA 6010	0.060 *	0.005	mg/L	11/15/93
#Digestion - water		-		Prep Date	11/12/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-13
AEN LAB NO: 9311107-03A
AEN WORK ORDER: 9311107
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/09/93
DATE RECEIVED: 11/09/93
REPORT DATE: 12/23/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	EPA 8240				
Acetone	67-64-1	ND	100	ug/L	11/12/93
Benzene	71-43-2	ND	5	ug/L	11/12/93
Bromodichloromethane	75-27-4	ND	5	ug/L	11/12/93
Bromoform	75-25-2	ND	5	ug/L	11/12/93
Bromomethane	74-83-9	ND	10	ug/L	11/12/93
2-Butanone	78-93-3	ND	100	ug/L	11/12/93
Carbon Disulfide	75-15-0	ND	10	ug/L	11/12/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	11/12/93
Chlorobenzene	108-90-7	ND	5	ug/L	11/12/93
Chloroethane	75-00-3	ND	10	ug/L	11/12/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	11/12/93
Chloroform	67-66-3	ND	5	ug/L	11/12/93
Chloromethane	74-87-3	ND	10	ug/L	11/12/93
Dibromochloromethane	124-48-1	ND	5	ug/L	11/12/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	11/12/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	11/12/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	11/12/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	11/12/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	11/12/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	11/12/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	11/12/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	11/12/93
Ethylbenzene	100-41-4	ND	5	ug/L	11/12/93
2-Hexanone	591-78-6	ND	50	ug/L	11/12/93
Methylene Chloride	75-09-2	ND	5	ug/L	11/12/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	11/12/93
Styrene	100-42-5	ND	5	ug/L	11/12/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	11/12/93
Tetrachloroethene	127-18-4	ND	5	ug/L	11/12/93
Toluene	108-88-3	ND	5	ug/L	11/12/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	11/12/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	11/12/93
Trichloroethene	79-01-6	ND	5	ug/L	11/12/93
Vinyl Acetate	108-05-4	ND	50	ug/L	11/12/93
Vinyl Chloride	75-01-4	ND	10	ug/L	11/12/93
Xylenes, Total	1330-20-7	ND	10	ug/L	11/12/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-13
AEN LAB NO: 9311107-03C
AEN WORK ORDER: 9311107
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/09/93
DATE RECEIVED: 11/09/93
REPORT DATE: 12/23/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	11/15/93
EPA 8270 - Water Matrix	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	11/17/93
Acenaphthylene	208-96-8	ND	10	ug/L	11/17/93
Anthracene	120-12-7	ND	10	ug/L	11/17/93
Benzidine	92-87-5	ND	50	ug/L	11/17/93
Benzoic Acid	65-85-0	ND	50	ug/L	11/17/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/17/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/17/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/17/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/17/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/17/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/17/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/17/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	11/17/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/17/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/17/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/17/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/17/93
4-Chloroaniline	106-47-8	ND	20	ug/L	11/17/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	11/17/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/17/93
Chrysene	218-01-9	ND	10	ug/L	11/17/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/17/93
Dibenzofuran	132-64-9	ND	10	ug/L	11/17/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/17/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/17/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/17/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/17/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/17/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/17/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/17/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/17/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/17/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/17/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	11/17/93
Fluoranthene	206-44-0	ND	10	ug/L	11/17/93
Fluorene	86-73-7	ND	10	ug/L	11/17/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/17/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/17/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/17/93

HARZA KALDVEER

SAMPLE ID: MW-13
AEN LAB NO: 9311107-03C
AEN WORK ORDER: 9311107
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/09/93
DATE RECEIVED: 11/09/93
REPORT DATE: 12/23/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	11/17/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/17/93
Isophorone	78-59-1	ND	10	ug/L	11/17/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	11/17/93
Naphthalene	91-20-3	ND	10	ug/L	11/17/93
2-Nitroaniline	88-74-4	ND	50	ug/L	11/17/93
3-Nitroaniline	99-09-2	ND	50	ug/L	11/17/93
4-Nitroaniline	100-01-6	ND	50	ug/L	11/17/93
Nitrobenzene	98-95-3	ND	10	ug/L	11/17/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	11/17/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/17/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/17/93
Phenanthrene	85-01-8	ND	10	ug/L	11/17/93
Pyrene	129-00-0	ND	10	ug/L	11/17/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/17/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/17/93
2-Chlorophenol	95-57-8	ND	10	ug/L	11/17/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/17/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/17/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/17/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/17/93
2-Methylphenol	95-48-7	ND	10	ug/L	11/17/93
4-Methylphenol	106-44-5	ND	10	ug/L	11/17/93
2-Nitrophenol	88-75-5	ND	10	ug/L	11/17/93
4-Nitrophenol	100-02-7	ND	50	ug/L	11/17/93
Pentachlorophenol	87-86-5	ND	50	ug/L	11/17/93
Phenol	108-95-2	ND	10	ug/L	11/17/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/17/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/17/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-13
AEN LAB NO: 9311107-03F
AEN WORK ORDER: 9311107
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/09/93
DATE RECEIVED: 11/09/93
REPORT DATE: 12/23/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Arsenic	EPA 7060	ND	0.002	mg/L	11/15/93
Selenium	EPA 7740	ND	0.004	mg/L	11/15/93
Cadmium	EPA 6010	ND	0.005	mg/L	11/15/93
Chromium	EPA 6010	ND	0.01	mg/L	11/15/93
Copper	EPA 6010	ND	0.01	mg/L	11/15/93
Lead	EPA 6010	ND	0.04	mg/L	11/15/93
Nickel	EPA 6010	ND	0.01	mg/L	11/15/93
Silver	EPA 6010	ND	0.005	mg/L	11/15/93
Zinc	EPA 6010	0.010 *	0.005	mg/L	11/15/93
#Digestion - water		-		Prep Date	11/12/93

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

INSTRUMENT: 12 AEN JOB NO: 9311107

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
11/12/93	PM-2	01	84	99	94
11/12/93	PM-7	02	95	102	99
11/12/93	MW-13	03	95	108	101

CURRENT QC LIMITS (Revised 08/13/91)

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(83-127)
Toluene-d8	(90-108)
p-Bromofluorobenzene	(91-109)

QUALITY CONTROL DATA

DATE ANALYZED: 11/12/93
SAMPLE SPIKED: 9311051-01
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9311107

INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	109	3
Trichloroethene	50.0	102	5
Benzene	50.0	106	4
Toluene	50.0	104	6
Chlorobenzene	50.0	105	1

CURRENT QC LIMITS (Revised 08/13/91)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(61-143)	15
Trichloroethene	(72-121)	12
Benzene	(82-123)	10
Toluene	(80-118)	12
Chlorobenzene	(82-113)	10

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 11/15/93 AEN JOB NO: 9311107

CLIENT PROJ. ID: K1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
11/17/93	PM-2	01	68	71	71	69	63	61
'/17/93	PM-7	02	63	70	67	56	63	70
'17/93	MW-13	03	68	80	76	74	70	67

CURRENT QC LIMITS (REVISED 01/08/92)

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(47-104)
2-Fluorobiphenyl	(49-106)
Terphenyl-d_{14}	(36-138)
Phenol-d_5	(46-105)
2-Fluorophenol	(40- 97)
2,4,6-Tribromophenol	(37-145)

QUALITY CONTROL DATA

DATE EXTRACTED: 11/15/93
DATE ANALYZED: 11/17/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9311107
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
Phenol	200	91	9
2-Chlorophenol	200	82	12
1,4-Dichlorobenzene	204	65	10
N-Nitroso-di-n-propylamine	199	95	6
1,2,4-Trichlorobenzene	200	67	2
4-Chloro-3-methylphenol	196	97	4
Acenaphthene	200	88	2
4-Nitrophenol	198	79	1
2,4-Dinitrotoluene	200	82	<1
Pentachlorophenol	203	83	4
Pyrene	199	84	4

CURRENT QC LIMITS (DEFAULT)

Analyte	Percent Recovery	RPD
Phenol	(12-110)	42
2-Chlorophenol	(27-123)	40
1,4-Dichlorobenzene	(36- 97)	28
4-Nitroso-di-n-propylamine	(41-116)	38
1,2,4-Trichlorobenzene	(39- 98)	28
4-Chloro-3-methylphenol	(23- 97)	42
Acenaphthene	(46-118)	31
4-Nitrophenol	(10- 80)	50
2,4-Dinitrotoluene	(24- 96)	38
Pentachlorophenol	(9-103)	50
Pyrene	(26-127)	31

RPD = Relative Percent Difference

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9311107

CLIENT PROJ. ID: KE1495-1A-2112

DATE ANALYZED: 11/15/93

METHOD BLANK AND SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	BLANK RESULT	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	ND	0.1	99	3	66-127	11
As, Arsenic	4000/7060	ND	0.04	96	1	90-115	12
Cd, Cadmium	ICP/6010	ND	0.05	95	1	71-134	12
Cr, Chromium	ICP/6010	ND	0.2	98	4	85-114	6
Ni, Nickel	ICP/6010	ND	0.5	101	3	87-114	5
Pb, Lead	ICP/6010	ND	0.5	102	3	87-115	6
Se, Selenium	4000/7740	ND	0.08	90	5	76-131	14
Zn, Zinc	ICP/6010	ND	0.5	102	2	86-115	5

RPD = Relative Percent Difference
ND = Not Detected

Reagent method blank showed no contamination

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9311107

CLIENT PROJ. ID: KE1495-1A-2112

DATE ANALYZED: 12/01/93

METHOD BLANK AND SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	BLANK RESULT	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Ag, Silver	ICP/6010	ND	0.1	102	2	66-127	11
As, Arsenic	4000/7060	ND	0.04	101	<1	90-115	12
Cd, Cadmium	ICP/6010	ND	0.05	91	2	71-134	12
Cr, Chromium	ICP/6010	ND	0.2	99	3	85-114	6
Cu, Copper	ICP/6010	ND	0.25	102	1	86-112	5
Ni, Nickel	ICP/6010	ND	0.5	99	1	87-114	5
Pb, Lead	ICP/6010	ND	0.5	105	1	87-115	6
Se, Selenium	4000/7740	ND	0.08	94	1	76-131	14
Zn, Zinc	ICP/6010	ND	0.5	102	2	86-115	5

RPD = Relative Percent Difference
ND = Not Detected
< = Less Than

Reagent method blank showed no contamination

*** END OF REPORT ***

R-3, S-2
C-1, S-1
R-7, S-L

Lab Job # 311107

CHAIN-OF-CUSTODY RECORD

Project Number: KE1495-1A-2112

Project Name: The O'Brien Corp.

Location: So. S.F., CA

Sampler's Name (printed): T. Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Filtered Metals	Metals Unfiltered				Remarks
PM-2	01AB	11/9/93		X	2x40mL VOAs			X										Hold Filtered Metals
PM-2	CD				2x1L Amber				X									11/23 - Per Tacia, pls take sample
PM-2	E				1x500mL Plastic								X					PM-7 off hold status for
PM-2	F				1x500mL Plastic									X				filt. metals and analyze
PM-7	02AB				2x40mL VOAs			X										for metals listed below on
PM-7	CD				2x1L Amber				X									a standard TAT. JKPS
PM-7	E				1x500mL Plastic								X					
PM-7	F				1x500mL Plastic									X				12/10 - Per Steve Henshaw, add
MW-13	03AB				2x40mL VOAs			X										Cu to all metals analysis.
MW-13	CD				2x1L Amber				X									JKPS
MW-13	E				1x500mL Plastic								X					
MW-13	F			↓	1x500mL Plastic									X				
																		Metals for As, Cd, Cr,
																		Pb, Ni, Se, Ag, Zn

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	11/9/93 16:30	[signature]
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	11/9/93 18:50	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	11/9/93 1850	Denise Harrington

Ship To: _____

Attention: _____

Phone No: _____

Requested Turnaround Time: Normals

Kaldveer Assoc. Contact: Tacia Miller

Remarks: Hold Filtered Metals!

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 94523-001

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: KE1495-1A-2112
PROJ. NAME: THE O'BRIAN CO.

REPORT DATE: 12/14/93

DATE SAMPLED: 11/10/93
DATE RECEIVED: 11/10/93

ADDITIONAL ANALYSIS
REQUESTED: 12/10/93

AEN JOB NO: 9311122

PROJECT SUMMARY:

On November 10, 1993, this laboratory received one (1) water sample.

Client requested the sample be analyzed for inorganic and organic parameters. On December 10, 1993, client requested additional analysis on the sample for Copper. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Larry Klein
General Manager

Results FAXed 11/19/93

HARZA KALDVEER

SAMPLE ID: X-1
AEN LAB NO: 9311122-01
AEN WORK ORDER: 9311122
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/10/93
DATE RECEIVED: 11/10/93
REPORT DATE: 12/14/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	11/12/93
Benzene	71-43-2	ND	5	ug/L	11/12/93
Bromodichloromethane	75-27-4	ND	5	ug/L	11/12/93
Bromoform	75-25-2	ND	5	ug/L	11/12/93
Bromomethane	74-83-9	ND	10	ug/L	11/12/93
2-Butanone	78-93-3	ND	100	ug/L	11/12/93
Carbon Disulfide	75-15-0	ND	10	ug/L	11/12/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	11/12/93
Chlorobenzene	108-90-7	ND	5	ug/L	11/12/93
Chloroethane	75-00-3	ND	10	ug/L	11/12/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	11/12/93
Chloroform	67-66-3	39 *	5	ug/L	11/12/93
Chloromethane	74-87-3	ND	10	ug/L	11/12/93
Dibromochloromethane	124-48-1	ND	5	ug/L	11/12/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	11/12/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	11/12/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	11/12/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	11/12/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	11/12/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	11/12/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	11/12/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	11/12/93
Ethylbenzene	100-41-4	ND	5	ug/L	11/12/93
2-Hexanone	591-78-6	ND	50	ug/L	11/12/93
Methylene Chloride	75-09-2	ND	5	ug/L	11/12/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	11/12/93
Styrene	100-42-5	ND	5	ug/L	11/12/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	11/12/93
Tetrachloroethene	127-18-4	ND	5	ug/L	11/12/93
Toluene	108-88-3	ND	5	ug/L	11/12/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	11/12/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	11/12/93
Trichloroethene	79-01-6	ND	5	ug/L	11/12/93
Vinyl Acetate	108-05-4	ND	50	ug/L	11/12/93
Vinyl Chloride	75-01-4	ND	10	ug/L	11/12/93
Xylenes, Total	1330-20-7	ND	10	ug/L	11/12/93
#Extraction for BNAs	**EPA 3520**	-		Extrn Date	11/15/93
EPA 8270 - Water Matrix	**EPA 8270**				
Acenaphthene	83-32-9	ND	10	ug/L	11/17/93

HARZA KALDVEER

SAMPLE ID: X-1
AEN LAB NO: 9311122-01
AEN WORK ORDER: 9311122
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/10/93
DATE RECEIVED: 11/10/93
REPORT DATE: 12/14/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Acenaphthylene	208-96-8	ND	10	ug/L	11/17/93
Anthracene	120-12-7	ND	10	ug/L	11/17/93
Benzidine	92-87-5	ND	50	ug/L	11/17/93
Benzoic Acid	65-85-0	ND	50	ug/L	11/17/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/17/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/17/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/17/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/17/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/17/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/17/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/17/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	11/17/93
Bis(2-chloroisopropyl) Ether	10B-60-1	ND	10	ug/L	11/17/93
Bis(2-ethylhexyl) Phthalate	117-B1-7	ND	10	ug/L	11/17/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/17/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/17/93
4-Chloroaniline	106-47-B	ND	20	ug/L	11/17/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	11/17/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/17/93
Chrysene	218-01-9	ND	10	ug/L	11/17/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/17/93
Dibenzofuran	132-64-9	ND	10	ug/L	11/17/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/17/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/17/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/17/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/17/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/17/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/17/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/17/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/17/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/17/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/17/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	11/17/93
Fluoranthene	206-44-0	ND	10	ug/L	11/17/93
Fluorene	86-73-7	ND	10	ug/L	11/17/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/17/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/17/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/17/93
Hexachloroethane	67-72-1	ND	10	ug/L	11/17/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/17/93
Isophorone	78-59-1	ND	10	ug/L	11/17/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	11/17/93
Naphthalene	91-20-3	ND	10	ug/L	11/17/93

HARZA KALDVEER

SAMPLE ID: X-1
AEN LAB NO: 9311122-01
AEN WORK ORDER: 9311122
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/10/93
DATE RECEIVED: 11/10/93
REPORT DATE: 12/14/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2-Nitroaniline	88-74-4	ND	50	ug/L	11/17/93
3-Nitroaniline	99-09-2	ND	50	ug/L	11/17/93
4-Nitroaniline	100-01-6	ND	50	ug/L	11/17/93
Nitrobenzene	98-95-3	ND	10	ug/L	11/17/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	11/17/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/17/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/17/93
Phenanthrene	85-01-8	ND	10	ug/L	11/17/93
Pyrene	129-00-0	ND	10	ug/L	11/17/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/17/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/17/93
2-Chlorophenol	95-57-8	ND	10	ug/L	11/17/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/17/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/17/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/17/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/17/93
2-Methylphenol	95-48-7	ND	10	ug/L	11/17/93
4-Methylphenol	106-44-5	ND	10	ug/L	11/17/93
2-Nitrophenol	88-75-5	ND	10	ug/L	11/17/93
4-Nitrophenol	100-02-7	ND	50	ug/L	11/17/93
Pentachlorophenol	87-86-5	ND	50	ug/L	11/17/93
Phenol	108-95-2	ND	10	ug/L	11/17/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/17/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/17/93
#Digestion - water		-		Prep Date	11/15/93
Arsenic	**EPA 7060**	ND	0.002	mg/L	11/18/93
Lead	**EPA 6010**	ND	0.04	mg/L	11/16/93
Selenium	**EPA 7740**	ND	0.004	mg/L	11/18/93
Cadmium	**EPA 6010**	ND	0.005	mg/L	11/16/93
Chromium	**EPA 6010**	ND	0.01	mg/L	11/16/93
Copper	**EPA 6010**	ND	0.01	mg/L	11/16/93
Nickel	**EPA 6010**	ND	0.01	mg/L	11/16/93
Silver	**EPA 6010**	ND	0.005	mg/L	11/16/93

HARZA KALDVEER

SAMPLE ID: X-1
AEN LAB NO: 9311122-01
AEN WORK ORDER: 9311122
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/10/93
DATE RECEIVED: 11/10/93
REPORT DATE: 12/14/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Zinc	EPA 6010	ND	0.005	mg/L	11/16/93

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

INSTRUMENT: 12

AEN JOB NO: 9311122

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY, (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
11/12/93	X-1	01	91.7	102.0	99.9

CURRENT QC LIMITS (Revised 08/13/91)

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(83-127)
Toluene-d8	(90-108)
p-Bromofluorobenzene	(91-109)

QUALITY CONTROL DATA

DATE ANALYZED: 11/12/93
SAMPLE SPIKED: 9311122-01
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9311122

INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Sample Result (ug/L)	MS Result (ug/L)	MSD Result (ug/L)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	ND	52.5	54.1	106.6	3.0
Trichloroethene	50.0	ND	52.0	50.4	102.4	3.1
Benzene	50.0	ND	50.5	52.6	103.1	4.1
Toluene	50.0	ND	49.1	50.2	99.3	2.2
Chlorobenzene	50.0	ND	51.9	51.8	103.7	0.2

CURRENT QC LIMITS (Revised 08/13/91)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(65-133)	14
Trichloroethene	(84-120)	9
Benzene	(84-121)	9
Toluene	(89-119)	8
Chlorobenzene	(83-116)	8

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 11/15/93 AEN JOB NO: 9311122

CLIENT PROJ. ID: KE1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Client Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
11/17/93	X-1	01	66.0	71.9	74.0	69.2	67.9	71.5

CURRENT QC LIMITS (REVISED 01/08/92)

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(47-104)
2-Fluorobiphenyl	(49-106)
Terphenyl-d_{14}	(38-128)
Phenol-d_5	(46-105)
2-Fluorophenol	(40- 97)
2,4,6-Tribromophenol	(30-145)

QUALITY CONTROL DATA

DATE EXTRACTED: 11/15/93
DATE ANALYZED: 11/17/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9311122
SAMPLE SPIKED: POLAR WATER
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Sample Result (ug/L)	MS Result (ug/L)	MSD Result (ug/L)	Average Percent Recovery	RPD
Phenol	200	ND	189	173	90.5	8.8
2-Chlorophenol	200	ND	174	154	82.0	12.2
1,4-Dichlorobenzene	204	ND	139	126	65.0	9.8
N-Nitroso-di-n-propylamine	199	ND	195	183	95.0	6.3
1,2,4-Trichlorobenzene	200	ND	132	134	66.5	1.5
4-Chloro-3-methylphenol	196	ND	186	193	96.7	3.7
Acenaphthene	200	ND	177	173	87.5	2.3
4-Nitrophenol	198	ND	157	155	78.8	1.3
2,4-Dinitrotoluene	200	ND	164	164	82.0	0.0
Pentachlorophenol	203	ND	166	172	83.3	3.6
Pyrene	199	ND	165	171	84.4	3.6

CURRENT QC LIMITS (DEFAULT)

Analyte	Percent Recovery	RPD
Phenol	(12-110)	42
2-Chlorophenol	(27-123)	40
1,4-Dichlorobenzene	(36- 97)	28
N-Nitroso-di-n-propylamine	(41-116)	38
1,2,4-Trichlorobenzene	(39- 98)	28
4-Chloro-3-methylphenol	(23- 97)	42
Acenaphthene	(46-118)	31
4-Nitrophenol	(10- 80)	50
2,4-Dinitrotoluene	(24- 96)	38
Pentachlorophenol	(9-103)	50
Pyrene	(26-127)	31

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9311122

CLIENT PROJ. ID: KE1495-1A-2112

DIGESTION DATE: 11/15/93

METHOD BLANK AND SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	BLANK RESULT	TRUE VALUE	OBSERVED RECOVERIES (mg/L) MS	MSD	% REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Ag, Silver	ICP/6010	ND	0.1	0.0985	0.0971	98	1	66-127	11
As, Arsenic	4000/7060	ND	0.04	0.0396	0.0408	101	3	90-115	12
Ba, Barium	ICP/6010	ND	2.0	1.92	1.93	96	1	89-109	5
Cd, Cadmium	ICP/6010	ND	0.05	0.0502	0.0510	101	2	71-134	12
Cr, Chromium	ICP/6010	ND	0.2	0.204	0.204	102	<1	85-114	6
Cu, Copper	ICP/6010	ND	0.25	0.242	0.241	97	<1	86-112	5
Ni, Nickel	ICP/6010	ND	0.5	0.488	0.491	98	1	87-114	5
Pb, Lead	ICP/6010	ND	0.5	0.488	0.493	98	1	87-115	6
Se, Selenium	4000/7740	ND	0.08	0.0724	0.0718	90	1	76-131	14
Zn, Zinc	ICP/6010	ND	0.5	0.491	0.490	98	<1	86-115	5

MS = Method Spike
MSD = Method Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected
< = Less Than

*** END OF REPORT ***

K-1,S-F
K-3,S-2
C-1,S-4

~~9312~~
9311122

Page 1 of 1

Lab Job # [illegible]

CHAIN-OF-CUSTODY RECORD

Project Number:

Project Name: The O'Brien Co.

Location: So. S.F., CA

Sampler's Name (printed): Steve Henchsen, Tricia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Unfiltered Cu				Remarks
X-1	UIAB	11/10/93		X	2x40mL VOA			X									12/10 - PCI Steve Henchsen - add
X-1	CD	↓		↓	2x1L Amber				X					↓			Cu analysis to sample X-1
X-1	E	↓		↓	1x500mL Plastic							X		↓			
																	Metals for As, Cd, Cr, Pb, Ni, Se, Ag, Zn

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tricia Miller	11/10/93 16:20	[signature]
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	11/10/93 18:10	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
		Gina Gillespie 11-10-93 1810

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 94523-001

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

REPORT DATE: 12/16/93

DATE SAMPLED: 11/10/93
DATE RECEIVED: 11/10/93

ATTN: TACIA MILLER

ADDITIONAL ANALYSIS
REQUESTED: 11/29,12/10/93

CLIENT PROJ. ID: KE1495-1A-2112
PROJ. NAME: THE O'BRIEN CORP.

AEN JOB NO: 9311123

PROJECT SUMMARY:

On November 10, 1993, this laboratory received two (2) water samples.

Client requested all samples be analyzed for inorganic and organic parameters. Sample fractions for filtered metals were placed on hold. On November 29, 1993, client requested the sample PM-9 (9311123-01E) for filtered metals be taken off hold. On December 10, 1993, client requested additional analysis on samples for Copper. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Larry Klein
General Manager

Results FAXed 11/19-12/08/93

HARZA KALDVEER

SAMPLE ID: PM-9
AEN LAB NO: 9311123-01A
AEN WORK ORDER: 9311123
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/10/93
DATE RECEIVED: 11/10/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	11/15/93
EPA 8270 - Water Matrix	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	11/17/93
Acenaphthylene	208-96-8	ND	10	ug/L	11/17/93
Anthracene	120-12-7	ND	10	ug/L	11/17/93
Benzidine	92-87-5	ND	50	ug/L	11/17/93
Benzoic Acid	65-85-0	ND	50	ug/L	11/17/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/17/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/17/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/17/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/17/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/17/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/17/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/17/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	11/17/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/17/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/17/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/17/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/17/93
4-Chloroaniline	106-47-8	ND	20	ug/L	11/17/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	11/17/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/17/93
Chrysene	218-01-9	ND	10	ug/L	11/17/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/17/93
Dibenzofuran	132-64-9	ND	10	ug/L	11/17/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/17/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/17/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/17/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/17/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/17/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/17/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/17/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/17/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/17/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/17/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	11/17/93
Fluoranthene	206-44-0	ND	10	ug/L	11/17/93
Fluorene	86-73-7	ND	10	ug/L	11/17/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/17/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/17/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/17/93

HARZA KALDVEER

SAMPLE ID: PM-9
AEN LAB NO: 9311123-01A
AEN WORK ORDER: 9311123
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/10/93
DATE RECEIVED: 11/10/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	11/17/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/17/93
Isophorone	78-59-1	ND	10	ug/L	11/17/93
2-Methylnaphthalene	91-57-6	10 *	10	ug/L	11/17/93
Naphthalene	91-20-3	24 *	10	ug/L	11/17/93
2-Nitroaniline	88-74-4	ND	50	ug/L	11/17/93
3-Nitroaniline	99-09-2	ND	50	ug/L	11/17/93
4-Nitroaniline	100-01-6	ND	50	ug/L	11/17/93
Nitrobenzene	98-95-3	ND	10	ug/L	11/17/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	11/17/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/17/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/17/93
Phenanthrene	85-01-8	ND	10	ug/L	11/17/93
Pyrene	129-00-0	ND	10	ug/L	11/17/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/17/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/17/93
2-Chlorophenol	95-57-8	ND	10	ug/L	11/17/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/17/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/17/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/17/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/17/93
2-Methylphenol	95-48-7	ND	10	ug/L	11/17/93
4-Methylphenol	106-44-5	ND	10	ug/L	11/17/93
2-Nitrophenol	88-75-5	ND	10	ug/L	11/17/93
4-Nitrophenol	100-02-7	ND	50	ug/L	11/17/93
Pentachlorophenol	87-86-5	ND	50	ug/L	11/17/93
Phenol	108-95-2	ND	10	ug/L	11/17/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/17/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/17/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-9
AEN LAB NO: 9311123-01C
AEN WORK ORDER: 9311123
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/10/93
DATE RECEIVED: 11/10/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	11/12/93
Benzene	71-43-2	49 *	5	ug/L	11/12/93
Bromodichloromethane	75-27-4	ND	5	ug/L	11/12/93
Bromoform	75-25-2	ND	5	ug/L	11/12/93
Bromomethane	74-83-9	ND	10	ug/L	11/12/93
2-Butanone	78-93-3	ND	100	ug/L	11/12/93
Carbon Disulfide	75-15-0	ND	10	ug/L	11/12/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	11/12/93
Chlorobenzene	108-90-7	ND	5	ug/L	11/12/93
Chloroethane	75-00-3	ND	10	ug/L	11/12/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	11/12/93
Chloroform	67-66-3	ND	5	ug/L	11/12/93
Chloromethane	74-87-3	ND	10	ug/L	11/12/93
Dibromochloromethane	124-48-1	ND	5	ug/L	11/12/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	11/12/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	11/12/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	11/12/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	11/12/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	11/12/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	11/12/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	11/12/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	11/12/93
Ethylbenzene	100-41-4	28 *	5	ug/L	11/12/93
2-Hexanone	591-78-6	ND	50	ug/L	11/12/93
Methylene Chloride	75-09-2	ND	5	ug/L	11/12/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	11/12/93
Styrene	100-42-5	ND	5	ug/L	11/12/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	11/12/93
Tetrachloroethene	127-18-4	ND	5	ug/L	11/12/93
Toluene	108-88-3	ND	5	ug/L	11/12/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	11/12/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	11/12/93
Trichloroethene	79-01-6	ND	5	ug/L	11/12/93
Vinyl Acetate	108-05-4	ND	50	ug/L	11/12/93
Vinyl Chloride	75-01-4	ND	10	ug/L	11/12/93
Xylenes, Total	1330-20-7	430 *	10	ug/L	11/15/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-9
AEN LAB NO: 9311123-01E
AEN WORK ORDER: 9311123
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/10/93
DATE RECEIVED: 11/10/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - water		-		Prep Date	12/06/93
Arsenic	EPA 7060	ND	0.002	mg/L	12/07/93
Lead	EPA 6010	ND	0.04	mg/L	12/07/93
Selenium	EPA 7740	ND	0.004	mg/L	12/07/93
Cadmium	EPA 6010	ND	0.005	mg/L	12/07/93
Chromium	EPA 6010	ND	0.01	mg/L	12/07/93
Copper	EPA 6010	ND	0.01	mg/L	12/07/93
Nickel	EPA 6010	ND	0.01	mg/L	12/07/93
Silver	EPA 6010	ND	0.005	mg/L	12/07/93
Zinc	EPA 6010	ND	0.005	mg/L	12/07/93

Note: Field filtered

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-9
AEN LAB NO: 9311123-01F
AEN WORK ORDER: 9311123
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/10/93
DATE RECEIVED: 11/10/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - water		-		Prep Date	11/15/93
Arsenic	EPA 7060	0.003 *	0.002	mg/L	11/19/93
Lead	EPA 6010	0.28 *	0.04	mg/L	11/16/93
Selenium	EPA 7740	ND	0.004	mg/L	11/19/93
Cadmium	EPA 6010	ND	0.005	mg/L	11/16/93
Chromium	EPA 6010	0.03 *	0.01	mg/L	11/16/93
Copper	EPA 6010	ND	0.01	mg/L	11/16/93
Nickel	EPA 6010	0.03 *	0.01	mg/L	11/16/93
Silver	EPA 6010	ND	0.005	mg/L	11/16/93
Zinc	EPA 6010	0.11 *	0.005	mg/L	11/16/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-6
AEN LAB NO: 9311123-02A
AEN WORK ORDER: 9311123
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/10/93
DATE RECEIVED: 11/10/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	11/15/93
EPA 8270 - Water Matrix	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	11/17/93
Acenaphthylene	208-96-8	ND	10	ug/L	11/17/93
Anthracene	120-12-7	ND	10	ug/L	11/17/93
Benzidine	92-87-5	ND	50	ug/L	11/17/93
Benzoic Acid	65-85-0	ND	50	ug/L	11/17/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/17/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/17/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/17/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/17/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/17/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/17/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/17/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	11/17/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/17/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/17/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/17/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/17/93
4-Chloroaniline	106-47-8	ND	20	ug/L	11/17/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	11/17/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/17/93
Chrysene	218-01-9	ND	10	ug/L	11/17/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/17/93
Dibenzofuran	132-64-9	ND	10	ug/L	11/17/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/17/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/17/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/17/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/17/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/17/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/17/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/17/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/17/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/17/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/17/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	11/17/93
Fluoranthene	206-44-0	ND	10	ug/L	11/17/93
Fluorene	86-73-7	ND	10	ug/L	11/17/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/17/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/17/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/17/93

HARZA KALDVEER

SAMPLE ID: PM-6
AEN LAB NO: 9311123-02A
AEN WORK ORDER: 9311123
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/10/93
DATE RECEIVED: 11/10/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	11/17/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/17/93
Isophorone	78-59-1	ND	10	ug/L	11/17/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	11/17/93
Naphthalene	91-20-3	ND	10	ug/L	11/17/93
2-Nitroaniline	88-74-4	ND	50	ug/L	11/17/93
3-Nitroaniline	99-09-2	ND	50	ug/L	11/17/93
4-Nitroaniline	100-01-6	ND	50	ug/L	11/17/93
Nitrobenzene	98-95-3	ND	10	ug/L	11/17/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	11/17/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/17/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/17/93
Phenanthrene	85-01-8	ND	10	ug/L	11/17/93
Pyrene	129-00-0	ND	10	ug/L	11/17/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/17/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/17/93
2-Chlorophenol	95-57-8	ND	10	ug/L	11/17/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/17/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/17/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/17/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/17/93
2-Methylphenol	95-48-7	ND	10	ug/L	11/17/93
4-Methylphenol	106-44-5	ND	10	ug/L	11/17/93
2-Nitrophenol	88-75-5	ND	10	ug/L	11/17/93
4-Nitrophenol	100-02-7	ND	50	ug/L	11/17/93
Pentachlorophenol	87-86-5	ND	50	ug/L	11/17/93
Phenol	108-95-2	ND	10	ug/L	11/17/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/17/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/17/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-6
AEN LAB NO: 9311123-02C
AEN WORK ORDER: 9311123
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/10/93
DATE RECEIVED: 11/10/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	11/12/93
Benzene	71-43-2	ND	5	ug/L	11/12/93
Bromodichloromethane	75-27-4	ND	5	ug/L	11/12/93
Bromoform	75-25-2	ND	5	ug/L	11/12/93
Bromomethane	74-83-9	ND	10	ug/L	11/12/93
2-Butanone	78-93-3	ND	100	ug/L	11/12/93
Carbon Disulfide	75-15-0	ND	10	ug/L	11/12/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	11/12/93
Chlorobenzene	108-90-7	ND	5	ug/L	11/12/93
Chloroethane	75-00-3	ND	10	ug/L	11/12/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	11/12/93
Chloroform	67-66-3	ND	5	ug/L	11/12/93
Chloromethane	74-87-3	ND	10	ug/L	11/12/93
Dibromochloromethane	124-48-1	ND	5	ug/L	11/12/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	11/12/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	11/12/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	11/12/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	11/12/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	11/12/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	11/12/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	11/12/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	11/12/93
Ethylbenzene	100-41-4	ND	5	ug/L	11/12/93
2-Hexanone	591-78-6	ND	50	ug/L	11/12/93
Methylene Chloride	75-09-2	ND	5	ug/L	11/12/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	11/12/93
Styrene	100-42-5	ND	5	ug/L	11/12/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	11/12/93
Tetrachloroethene	127-18-4	ND	5	ug/L	11/12/93
Toluene	108-88-3	ND	5	ug/L	11/12/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	11/12/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	11/12/93
Trichloroethene	79-01-6	ND	5	ug/L	11/12/93
Vinyl Acetate	108-05-4	ND	50	ug/L	11/12/93
Vinyl Chloride	75-01-4	ND	10	ug/L	11/12/93
Xylenes, Total	1330-20-7	ND	10	ug/L	11/12/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-6
AEN LAB NO: 9311123-02F
AEN WORK ORDER: 9311123
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/10/93
DATE RECEIVED: 11/10/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - water		-		Prep Date	11/15/93
Arsenic	EPA 7060	0.003 *	0.002	mg/L	11/19/93
Lead	EPA 6010	ND	0.04	mg/L	11/16/93
Selenium	EPA 7740	ND	0.004	mg/L	11/19/93
Cadmium	EPA 6010	ND	0.005	mg/L	11/16/93
Chromium	EPA 6010	ND	0.01	mg/L	11/16/93
Copper	EPA 6010	0.01 *	0.01	mg/L	11/16/93
Nickel	EPA 6010	ND	0.01	mg/L	11/16/93
Silver	EPA 6010	ND	0.005	mg/L	11/16/93
Zinc	EPA 6010	0.026 *	0.005	mg/L	11/16/93

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

INSTRUMENT: 12

AEN JOB NO: 9311123

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
11/12/93	PM-9	01C	94	104	97
11/12/93	PM-6	02C	95	98	102

CURRENT QC LIMITS (Revised 08/13/91)

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(83-127)
Toluene-d8	(90-108)
p-Bromofluorobenzene	(91-109)

QUALITY CONTROL DATA

DATE ANALYZED: 11/12/93
SAMPLE SPIKED: 9311122-01A
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9311123
INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	107	3
Trichloroethene	50.0	102	3
Benzene	50.0	103	4
Toluene	50.0	99	2
Chlorobenzene	50.0	104	<1

CURRENT QC LIMITS (Revised 08/13/91)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(61-143)	15
Trichloroethene	(72-121)	12
Benzene	(82-123)	10
Toluene	(80-118)	12
Chlorobenzene	(82-113)	10

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 11/15/93 AEN JOB NO: 9311123

CLIENT PROJ. ID: K1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
11/17/93	PM-9	01A	74	72	74	77	73	90
11/17/93	PM-6	02A	71	82	76	69	70	72

CURRENT QC LIMITS (REVISED 01/08/92)

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(47-104)
2-Fluorobiphenyl	(49-106)
Terphenyl-d_{14}	(36-138)
Phenol-d_5	(46-105)
2-Fluorophenol	(40- 97)
2,4,6-Tribromophenol	(37-145)

QUALITY CONTROL DATA

DATE EXTRACTED: 11/15/93
DATE ANALYZED: 11/17/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9311123
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
Phenol	200	91	9
2-Chlorophenol	200	82	12
1,4-Dichlorobenzene	204	65	10
N-Nitroso-di-n-propylamine	199	95	6
1,2,4-Trichlorobenzene	200	67	2
4-Chloro-3-methylphenol	196	97	4
Acenaphthene	200	88	2
4-Nitrophenol	198	79	1
2,4-Dinitrotoluene	200	82	<1
Pentachlorophenol	203	83	4
Pyrene	199	84	4

CURRENT QC LIMITS (DEFAULT)

Analyte	Percent Recovery	RPD
Phenol	(12-110)	42
2-Chlorophenol	(27-123)	40
1,4-Dichlorobenzene	(36- 97)	28
4-Nitroso-di-n-propylamine	(41-116)	38
1,2,4-Trichlorobenzene	(39- 98)	28
4-Chloro-3-methylphenol	(23- 97)	42
Acenaphthene	(46-118)	31
4-Nitrophenol	(10- 80)	50
2,4-Dinitrotoluene	(24- 96)	38
Pentachlorophenol	(9-103)	50
Pyrene	(26-127)	31

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9311123

CLIENT PROJ. ID: KE1495-1A-2112

DATE ANALYZED: 11/16-19/93

METHOD BLANK AND SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	BLANK RESULT	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	ND	0.1	98	1	66-127	11
As, Arsenic	4000/7060	ND	0.04	101	3	90-115	12
Cd, Cadmium	ICP/6010	ND	0.05	101	2	71-134	12
Cr, Chromium	ICP/6010	ND	0.2	102	<1	85-114	6
Ni, Nickel	ICP/6010	ND	0.5	98	1	87-114	5
Pb, Lead	ICP/6010	ND	0.5	98	1	87-115	6
Se, Selenium	4000/7740	ND	0.08	90	1	76-131	14
Zn, Zinc	ICP/6010	ND	0.5	98	<1	86-115	5

RPD = Relative Percent Difference
ND = Not Detected
< = Less Than

Reagent method blank showed no contamination

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9311123

CLIENT PROJ. ID: KE1495-1A-2112

DATE ANALYZED: 12/07/93

METHOD BLANK AND SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	BLANK RESULT	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	ND	0.1	99	2	66-127	11
As, Arsenic	4000/7060	ND	0.04	101	4	90-115	12
Cd, Cadmium	ICP/6010	ND	0.05	96	4	71-134	12
Cr, Chromium	ICP/6010	ND	0.2	97	1	85-114	6
Cu, Copper	ICP/6010	ND	0.25	91	2	86-112	5
Ni, Nickel	ICP/6010	ND	0.5	102	2	87-114	5
Pb, Lead	ICP/6010	ND	0.5	103	2	87-115	6
Se, Selenium	4000/7740	ND	0.08	101	6	76-131	14
Zn, Zinc	ICP/6010	ND	0.5	98	2	86-115	5

RPD = Relative Percent Difference
ND = Not Detected

Reagent method blank showed no contamination

*** END OF REPORT ***

R-1,S-B
C-1,S-4
R-3,S-2

Lab Job # 931

CHAIN-OF-CUSTODY RECORD

Project Number:

Project Name: The O'Brien Co.

Location: So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Field Filtered	Metals Unfiltered				Remarks
PM-9	01AB	11/10		X	2x1L Amber				X									10/10 - per Steve Henshaw, add Cu to all metals analysis. JKB
PM-9	CD				2x40mL VOAs			X										
PM-9	E				1x500mL Plastic								X					
PM-9	F				1x500mL plastic									X				
~~PM-6~~					~~2x1L Amber~~				~~X~~									
PM-6	02AB				2x1L Amber				X									
PM-6	CD				2x40mL VOAs			X										
PM-6	E				1x500mL plastic								X					
PM-6	F				1x500mL Plastic									X				
																		Metals for As, Cd, Cr, Pb, Ni, Se, Ag, Zn

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia J. Miller	11/10/93 1620	[signature]
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	11/10/93 18:10	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature) 11-10-93 1810
		Gina Gillespie

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks: Hold Filtered Metals

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associ
Geoscience Consul
A California Corporati

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 94523-001

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: KE1495-1
PROJ. NAME: FULLER O'BRIEN

REPORT DATE: 12/16/93

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93

ADDITIONAL ANALYSIS
REQUESTED: 11/23,12/10/93

AEN JOB NO: 9311133

PROJECT SUMMARY:

On November 11, 1993, this laboratory received five (5) water samples.

Client requested all samples be analyzed for inorganic and organic parameters. Sample fractions for filtered metals were placed on hold. On November 23, 1993, client requested samples MW-19 and MW-21 for filtered metals be taken off hold. On December 10, 1993, client requested additional analysis on samples for Copper. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Andrew Bracken for
Larry Klein
General Manager

Results FAXed 11/22-12/08/93

HARZA KALDVEER

SAMPLE ID: PM-10
AEN LAB NO: 9311133-01A
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	EPA 8240				
Acetone	67-64-1	ND	100	ug/L	11/15/93
Benzene	71-43-2	ND	5	ug/L	11/15/93
Bromodichloromethane	75-27-4	ND	5	ug/L	11/15/93
Bromoform	75-25-2	ND	5	ug/L	11/15/93
Bromomethane	74-83-9	ND	10	ug/L	11/15/93
2-Butanone	78-93-3	ND	100	ug/L	11/15/93
Carbon Disulfide	75-15-0	ND	10	ug/L	11/15/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	11/15/93
Chlorobenzene	108-90-7	ND	5	ug/L	11/15/93
Chloroethane	75-00-3	ND	10	ug/L	11/15/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	11/15/93
Chloroform	67-66-3	ND	5	ug/L	11/15/93
Chloromethane	74-87-3	ND	10	ug/L	11/15/93
Dibromochloromethane	124-48-1	ND	5	ug/L	11/15/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	11/15/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	11/15/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	11/15/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	11/15/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	11/15/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	11/15/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	11/15/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	11/15/93
Ethylbenzene	100-41-4	ND	5	ug/L	11/15/93
2-Hexanone	591-78-6	ND	50	ug/L	11/15/93
Methylene Chloride	75-09-2	ND	5	ug/L	11/15/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	11/15/93
Styrene	100-42-5	ND	5	ug/L	11/15/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	11/15/93
Tetrachloroethene	127-18-4	ND	5	ug/L	11/15/93
Toluene	108-88-3	7 *	5	ug/L	11/15/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	11/15/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	11/15/93
Trichloroethene	79-01-6	ND	5	ug/L	11/15/93
Vinyl Acetate	108-05-4	ND	50	ug/L	11/15/93
Vinyl Chloride	75-01-4	ND	10	ug/L	11/15/93
Xylenes, Total	1330-20-7	ND	10	ug/L	11/15/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-10
AEN LAB NO: 9311133-01C
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	11/17/93
EPA 8270 - Water Matrix	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	11/19/93
Acenaphthylene	208-96-8	ND	10	ug/L	11/19/93
Anthracene	120-12-7	ND	10	ug/L	11/19/93
Benzidine	92-87-5	ND	50	ug/L	11/19/93
Benzoic Acid	65-85-0	ND	50	ug/L	11/19/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/19/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/19/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/19/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/19/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/19/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/19/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/19/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	11/19/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/19/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/19/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/19/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/19/93
4-Chloroaniline	106-47-8	ND	20	ug/L	11/19/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	11/19/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/19/93
Chrysene	218-01-9	ND	10	ug/L	11/19/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/19/93
Dibenzofuran	132-64-9	ND	10	ug/L	11/19/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/19/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/19/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/19/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/19/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/19/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/19/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/19/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/19/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/19/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/19/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	11/19/93
Fluoranthene	206-44-0	ND	10	ug/L	11/19/93
Fluorene	86-73-7	ND	10	ug/L	11/19/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/19/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/19/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/19/93

HARZA KALDVEER

SAMPLE ID: PM-10
AEN LAB NO: 9311133-01C
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	11/19/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/19/93
Isophorone	78-59-1	ND	10	ug/L	11/19/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	11/19/93
Naphthalene	91-20-3	ND	10	ug/L	11/19/93
2-Nitroaniline	88-74-4	ND	50	ug/L	11/19/93
3-Nitroaniline	99-09-2	ND	50	ug/L	11/19/93
4-Nitroaniline	100-01-6	ND	50	ug/L	11/19/93
Nitrobenzene	98-95-3	ND	10	ug/L	11/19/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	11/19/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/19/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/19/93
Phenanthrene	85-01-8	ND	10	ug/L	11/19/93
Pyrene	129-00-0	ND	10	ug/L	11/19/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/19/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/19/93
2-Chlorophenol	95-57-8	ND	10	ug/L	11/19/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/19/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/19/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/19/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/19/93
2-Methylphenol	95-48-7	ND	10	ug/L	11/19/93
4-Methylphenol	106-44-5	ND	10	ug/L	11/19/93
2-Nitrophenol	88-75-5	ND	10	ug/L	11/19/93
4-Nitrophenol	100-02-7	ND	50	ug/L	11/19/93
Pentachlorophenol	87-86-5	ND	50	ug/L	11/19/93
Phenol	108-95-2	ND	10	ug/L	11/19/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/19/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/19/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-10
AEN LAB NO: 9311133-01E
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - water		-		Prep Date	11/15/93
Arsenic	EPA 7060	0.003 *	0.002	mg/L	11/19/93
Lead	EPA 6010	ND	0.04	mg/L	11/16/93
Selenium	EPA 7740	0.005 *	0.004	mg/L	11/19/93
Cadmium	EPA 6010	ND	0.005	mg/L	11/16/93
Chromium	EPA 6010	0.01 *	0.01	mg/L	11/16/93
Copper	EPA 6010	0.04 *	0.01	mg/L	11/16/93
Nickel	EPA 6010	ND	0.01	mg/L	11/16/93
Silver	EPA 6010	ND	0.005	mg/L	11/16/93
Zinc	EPA 6010	0.034 *	0.005	mg/L	11/16/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-18
AEN LAB NO: 9311133-02A
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	11/15/93
Benzene	71-43-2	ND	5	ug/L	11/15/93
Bromodichloromethane	75-27-4	ND	5	ug/L	11/15/93
Bromoform	75-25-2	ND	5	ug/L	11/15/93
Bromomethane	74-83-9	ND	10	ug/L	11/15/93
2-Butanone	78-93-3	ND	100	ug/L	11/15/93
Carbon Disulfide	75-15-0	ND	10	ug/L	11/15/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	11/15/93
Chlorobenzene	108-90-7	ND	5	ug/L	11/15/93
Chloroethane	75-00-3	ND	10	ug/L	11/15/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	11/15/93
Chloroform	67-66-3	ND	5	ug/L	11/15/93
Chloromethane	74-87-3	ND	10	ug/L	11/15/93
Dibromochloromethane	124-48-1	ND	5	ug/L	11/15/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	11/15/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	11/15/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	11/15/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	11/15/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	11/15/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	11/15/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	11/15/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	11/15/93
Ethylbenzene	100-41-4	ND	5	ug/L	11/15/93
2-Hexanone	591-78-6	ND	50	ug/L	11/15/93
Methylene Chloride	75-09-2	ND	5	ug/L	11/15/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	11/15/93
Styrene	100-42-5	ND	5	ug/L	11/15/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	11/15/93
Tetrachloroethene	127-18-4	ND	5	ug/L	11/15/93
Toluene	108-88-3	ND	5	ug/L	11/15/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	11/15/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	11/15/93
Trichloroethene	79-01-6	ND	5	ug/L	11/15/93
Vinyl Acetate	108-05-4	ND	50	ug/L	11/15/93
Vinyl Chloride	75-01-4	ND	10	ug/L	11/15/93
Xylenes, Total	1330-20-7	ND	10	ug/L	11/15/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-18
AEN LAB NO: 9311133-02C
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	11/17/93
EPA 8270 - Water Matrix	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	11/19/93
Acenaphthylene	208-96-8	ND	10	ug/L	11/19/93
Anthracene	120-12-7	ND	10	ug/L	11/19/93
Benzidine	92-87-5	ND	50	ug/L	11/19/93
Benzoic Acid	65-85-0	ND	50	ug/L	11/19/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/19/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/19/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/19/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/19/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/19/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/19/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/19/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	11/19/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/19/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/19/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/19/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/19/93
4-Chloroaniline	106-47-8	ND	20	ug/L	11/19/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	11/19/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/19/93
Chrysene	218-01-9	ND	10	ug/L	11/19/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/19/93
Dibenzofuran	132-64-9	ND	10	ug/L	11/19/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/19/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/19/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/19/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/19/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/19/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/19/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/19/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/19/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/19/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/19/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	11/19/93
Fluoranthene	206-44-0	ND	10	ug/L	11/19/93
Fluorene	86-73-7	ND	10	ug/L	11/19/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/19/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/19/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/19/93

HARZA KALDVEER

SAMPLE ID: MW-18
AEN LAB NO: 9311133-02C
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	11/19/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/19/93
Isophorone	78-59-1	ND	10	ug/L	11/19/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	11/19/93
Naphthalene	91-20-3	ND	10	ug/L	11/19/93
2-Nitroaniline	88-74-4	ND	50	ug/L	11/19/93
3-Nitroaniline	99-09-2	ND	50	ug/L	11/19/93
4-Nitroaniline	100-01-6	ND	50	ug/L	11/19/93
Nitrobenzene	98-95-3	ND	10	ug/L	11/19/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	11/19/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/19/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/19/93
Phenanthrene	85-01-8	ND	10	ug/L	11/19/93
Pyrene	129-00-0	ND	10	ug/L	11/19/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/19/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/19/93
2-Chlorophenol	95-57-8	ND	10	ug/L	11/19/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/19/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/19/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/19/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/19/93
2-Methylphenol	95-48-7	ND	10	ug/L	11/19/93
4-Methylphenol	106-44-5	ND	10	ug/L	11/19/93
2-Nitrophenol	88-75-5	ND	10	ug/L	11/19/93
4-Nitrophenol	100-02-7	ND	50	ug/L	11/19/93
Pentachlorophenol	87-86-5	ND	50	ug/L	11/19/93
Phenol	108-95-2	ND	10	ug/L	11/19/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/19/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/19/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-18
AEN LAB NO: 9311133-02E
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - water		-		Prep Date	11/15/93
Arsenic	EPA 7060	0.014 *	0.002	mg/L	11/19/93
Lead	EPA 6010	ND	0.04	mg/L	11/16/93
Selenium	EPA 7740	ND	0.004	mg/L	11/19/93
Cadmium	EPA 6010	ND	0.005	mg/L	11/16/93
Chromium	EPA 6010	ND	0.01	mg/L	11/16/93
Copper	EPA 6010	ND	0.01	mg/L	11/16/93
Nickel	EPA 6010	0.01 *	0.01	mg/L	11/16/93
Silver	EPA 6010	ND	0.005	mg/L	11/16/93
Zinc	EPA 6010	0.044 *	0.005	mg/L	11/16/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-19
AEN LAB NO: 9311133-03A
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	11/15/93
Benzene	71-43-2	ND	5	ug/L	11/15/93
Bromodichloromethane	75-27-4	ND	5	ug/L	11/15/93
Bromoform	75-25-2	ND	5	ug/L	11/15/93
Bromomethane	74-83-9	ND	10	ug/L	11/15/93
2-Butanone	78-93-3	ND	100	ug/L	11/15/93
Carbon Disulfide	75-15-0	ND	10	ug/L	11/15/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	11/15/93
Chlorobenzene	108-90-7	ND	5	ug/L	11/15/93
Chloroethane	75-00-3	ND	10	ug/L	11/15/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	11/15/93
Chloroform	67-66-3	ND	5	ug/L	11/15/93
Chloromethane	74-87-3	ND	10	ug/L	11/15/93
Dibromochloromethane	124-48-1	ND	5	ug/L	11/15/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	11/15/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	11/15/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	11/15/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	11/15/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	11/15/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	11/15/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	11/15/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	11/15/93
Ethylbenzene	100-41-4	ND	5	ug/L	11/15/93
2-Hexanone	591-78-6	ND	50	ug/L	11/15/93
Methylene Chloride	75-09-2	ND	5	ug/L	11/15/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	11/15/93
Styrene	100-42-5	ND	5	ug/L	11/15/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	11/15/93
Tetrachloroethene	127-18-4	ND	5	ug/L	11/15/93
Toluene	108-88-3	ND	5	ug/L	11/15/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	11/15/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	11/15/93
Trichloroethene	79-01-6	ND	5	ug/L	11/15/93
Vinyl Acetate	108-05-4	ND	50	ug/L	11/15/93
Vinyl Chloride	75-01-4	ND	10	ug/L	11/15/93
Xylenes, Total	1330-20-7	ND	10	ug/L	11/15/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-19
AEN LAB NO: 9311133-03C
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	11/17/93
EPA 8270 - Water Matrix	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	11/19/93
Acenaphthylene	208-96-8	ND	10	ug/L	11/19/93
Anthracene	120-12-7	ND	10	ug/L	11/19/93
Benzidine	92-87-5	ND	50	ug/L	11/19/93
Benzoic Acid	65-85-0	ND	50	ug/L	11/19/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/19/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/19/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/19/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/19/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/19/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/19/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/19/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	11/19/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/19/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/19/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/19/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/19/93
4-Chloroaniline	106-47-8	ND	20	ug/L	11/19/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	11/19/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/19/93
Chrysene	218-01-9	ND	10	ug/L	11/19/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/19/93
Dibenzofuran	132-64-9	ND	10	ug/L	11/19/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/19/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/19/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/19/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/19/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/19/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/19/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/19/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/19/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/19/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/19/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	11/19/93
Fluoranthene	206-44-0	ND	10	ug/L	11/19/93
Fluorene	86-73-7	ND	10	ug/L	11/19/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/19/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/19/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/19/93

HARZA KALDVEER

SAMPLE ID: MW-19
AEN LAB NO: 9311133-03C
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	11/19/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/19/93
Isophorone	78-59-1	ND	10	ug/L	11/19/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	11/19/93
Naphthalene	91-20-3	ND	10	ug/L	11/19/93
2-Nitroaniline	88-74-4	ND	50	ug/L	11/19/93
3-Nitroaniline	99-09-2	ND	50	ug/L	11/19/93
4-Nitroaniline	100-01-6	ND	50	ug/L	11/19/93
Nitrobenzene	98-95-3	ND	10	ug/L	11/19/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	11/19/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/19/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/19/93
Phenanthrene	85-01-8	ND	10	ug/L	11/19/93
Pyrene	129-00-0	ND	10	ug/L	11/19/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/19/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/19/93
2-Chlorophenol	95-57-8	ND	10	ug/L	11/19/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/19/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/19/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/19/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/19/93
2-Methylphenol	95-48-7	ND	10	ug/L	11/19/93
4-Methylphenol	106-44-5	ND	10	ug/L	11/19/93
2-Nitrophenol	88-75-5	ND	10	ug/L	11/19/93
4-Nitrophenol	100-02-7	ND	50	ug/L	11/19/93
Pentachlorophenol	87-86-5	ND	50	ug/L	11/19/93
Phenol	108-95-2	ND	10	ug/L	11/19/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/19/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/19/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-19
AEN LAB NO: 9311133-03E
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - water		-		Prep Date	11/15/93
Arsenic	EPA 7060	0.004 *	0.002	mg/L	11/19/93
Lead	EPA 6010	ND	0.04	mg/L	11/16/93
Selenium	EPA 7740	ND	0.004	mg/L	11/19/93
Cadmium	EPA 6010	ND	0.005	mg/L	11/16/93
Chromium	EPA 6010	0.19 *	0.01	mg/L	11/16/93
Copper	EPA 6010	ND	0.01	mg/L	11/16/93
Nickel	EPA 6010	0.25 *	0.01	mg/L	11/16/93
Silver	EPA 6010	ND	0.005	mg/L	11/16/93
Zinc	EPA 6010	0.007 *	0.005	mg/L	11/16/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-19
AEN LAB NO: 9311133-03F
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - water		-		Prep Date	11/24/93
Arsenic	EPA 7060	0.003 *	0.002	mg/L	12/01/93
Lead	EPA 6010	ND	0.04	mg/L	12/01/93
Selenium	EPA 7740	ND	0.004	mg/L	12/01/93
Cadmium	EPA 6010	ND	0.005	mg/L	12/01/93
Chromium	EPA 6010	ND	0.01	mg/L	12/01/93
Copper	EPA 6010	ND	0.01	mg/L	12/01/93
Nickel	EPA 6010	0.19 *	0.01	mg/L	12/01/93
Silver	EPA 6010	ND	0.005	mg/L	12/01/93
Zinc	EPA 6010	0.006 *	0.005	mg/L	12/01/93

Note: Field filtered

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-20
AEN LAB NO: 9311133-04A
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	EPA 8240				
Acetone	67-64-1	ND	100	ug/L	11/15/93
Benzene	71-43-2	ND	5	ug/L	11/15/93
Bromodichloromethane	75-27-4	ND	5	ug/L	11/15/93
Bromoform	75-25-2	ND	5	ug/L	11/15/93
Bromomethane	74-83-9	ND	10	ug/L	11/15/93
2-Butanone	78-93-3	ND	100	ug/L	11/15/93
Carbon Disulfide	75-15-0	ND	10	ug/L	11/15/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	11/15/93
Chlorobenzene	108-90-7	ND	5	ug/L	11/15/93
Chloroethane	75-00-3	ND	10	ug/L	11/15/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	11/15/93
Chloroform	67-66-3	ND	5	ug/L	11/15/93
Chloromethane	74-87-3	ND	10	ug/L	11/15/93
Dibromochloromethane	124-48-1	ND	5	ug/L	11/15/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	11/15/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	11/15/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	11/15/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	11/15/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	11/15/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	11/15/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	11/15/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	11/15/93
Ethylbenzene	100-41-4	ND	5	ug/L	11/15/93
2-Hexanone	591-78-6	ND	50	ug/L	11/15/93
Methylene Chloride	75-09-2	ND	5	ug/L	11/15/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	11/15/93
Styrene	100-42-5	ND	5	ug/L	11/15/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	11/15/93
Tetrachloroethene	127-18-4	ND	5	ug/L	11/15/93
Toluene	108-88-3	ND	5	ug/L	11/15/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	11/15/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	11/15/93
Trichloroethene	79-01-6	ND	5	ug/L	11/15/93
Vinyl Acetate	108-05-4	ND	50	ug/L	11/15/93
Vinyl Chloride	75-01-4	ND	10	ug/L	11/15/93
Xylenes, Total	1330-20-7	ND	10	ug/L	11/15/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-20
AEN LAB NO: 9311133-04C
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	11/17/93
EPA 8270 - Water Matrix	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	11/19/93
Acenaphthylene	208-96-8	ND	10	ug/L	11/19/93
Anthracene	120-12-7	ND	10	ug/L	11/19/93
Benzidine	92-87-5	ND	50	ug/L	11/19/93
Benzoic Acid	65-85-0	ND	50	ug/L	11/19/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/19/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/19/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/19/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/19/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/19/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/19/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/19/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	11/19/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/19/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/19/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/19/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/19/93
4-Chloroaniline	106-47-8	ND	20	ug/L	11/19/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	11/19/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/19/93
Chrysene	218-01-9	ND	10	ug/L	11/19/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/19/93
Dibenzofuran	132-64-9	ND	10	ug/L	11/19/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/19/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/19/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/19/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/19/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/19/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/19/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/19/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/19/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/19/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/19/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	11/19/93
Fluoranthene	206-44-0	ND	10	ug/L	11/19/93
Fluorene	86-73-7	ND	10	ug/L	11/19/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/19/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/19/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/19/93

HARZA KALDVEER

SAMPLE ID: MW-20
AEN LAB NO: 9311133-04C
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	11/19/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/19/93
Isophorone	78-59-1	ND	10	ug/L	11/19/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	11/19/93
Naphthalene	91-20-3	ND	10	ug/L	11/19/93
2-Nitroaniline	88-74-4	ND	50	ug/L	11/19/93
3-Nitroaniline	99-09-2	ND	50	ug/L	11/19/93
4-Nitroaniline	100-01-6	ND	50	ug/L	11/19/93
Nitrobenzene	98-95-3	ND	10	ug/L	11/19/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	11/19/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/19/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/19/93
Phenanthrene	85-01-8	ND	10	ug/L	11/19/93
Pyrene	129-00-0	ND	10	ug/L	11/19/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/19/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/19/93
2-Chlorophenol	95-57-8	ND	10	ug/L	11/19/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/19/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/19/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/19/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/19/93
2-Methylphenol	95-48-7	ND	10	ug/L	11/19/93
4-Methylphenol	106-44-5	ND	10	ug/L	11/19/93
2-Nitrophenol	88-75-5	ND	10	ug/L	11/19/93
4-Nitrophenol	100-02-7	ND	50	ug/L	11/19/93
Pentachlorophenol	87-86-5	ND	50	ug/L	11/19/93
Phenol	108-95-2	ND	10	ug/L	11/19/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/19/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/19/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-20
AEN LAB NO: 9311133-04E
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - water		-		Prep Date	11/15/93
Arsenic	EPA 7060	ND	0.002	mg/L	11/19/93
Lead	EPA 6010	ND	0.04	mg/L	11/16/93
Selenium	EPA 7740	ND	0.004	mg/L	11/19/93
Cadmium	EPA 6010	ND	0.005	mg/L	11/16/93
Chromium	EPA 6010	ND	0.01	mg/L	11/16/93
Copper	EPA 6010	ND	0.01	mg/L	11/16/93
Nickel	EPA 6010	ND	0.01	mg/L	11/16/93
Silver	EPA 6010	ND	0.005	mg/L	11/16/93
Zinc	EPA 6010	0.013 *	0.005	mg/L	11/16/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-21
AEN LAB NO: 9311133-05A
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	11/15/93
Benzene	71-43-2	11 *	5	ug/L	11/15/93
Bromodichloromethane	75-27-4	ND	5	ug/L	11/15/93
Bromoform	75-25-2	ND	5	ug/L	11/15/93
Bromomethane	74-83-9	ND	10	ug/L	11/15/93
2-Butanone	78-93-3	ND	100	ug/L	11/15/93
Carbon Disulfide	75-15-0	ND	10	ug/L	11/15/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	11/15/93
Chlorobenzene	108-90-7	ND	5	ug/L	11/15/93
Chloroethane	75-00-3	ND	10	ug/L	11/15/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	11/15/93
Chloroform	67-66-3	ND	5	ug/L	11/15/93
Chloromethane	74-87-3	ND	10	ug/L	11/15/93
Dibromochloromethane	124-48-1	ND	5	ug/L	11/15/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	11/15/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	11/15/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	11/15/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	11/15/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	11/15/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	11/15/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	11/15/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	11/15/93
Ethylbenzene	100-41-4	7 *	5	ug/L	11/15/93
2-Hexanone	591-78-6	ND	50	ug/L	11/15/93
Methylene Chloride	75-09-2	ND	5	ug/L	11/15/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	11/15/93
Styrene	100-42-5	ND	5	ug/L	11/15/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	11/15/93
Tetrachloroethene	127-18-4	ND	5	ug/L	11/15/93
Toluene	108-88-3	7 *	5	ug/L	11/15/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	11/15/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	11/15/93
Trichloroethene	79-01-6	ND	5	ug/L	11/15/93
Vinyl Acetate	108-05-4	ND	50	ug/L	11/15/93
Vinyl Chloride	75-01-4	ND	10	ug/L	11/15/93
Xylenes, Total	1330-20-7	17 *	10	ug/L	11/15/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-21
AEN LAB NO: 9311133-05C
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	11/17/93
EPA 8270 - Water Matrix	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	11/19/93
Acenaphthylene	208-96-8	ND	10	ug/L	11/19/93
Anthracene	120-12-7	ND	10	ug/L	11/19/93
Benzidine	92-87-5	ND	50	ug/L	11/19/93
Benzoic Acid	65-85-0	ND	50	ug/L	11/19/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/19/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/19/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/19/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/19/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/19/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/19/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/19/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	11/19/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/19/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/19/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/19/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/19/93
4-Chloroaniline	106-47-8	ND	20	ug/L	11/19/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	11/19/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/19/93
Chrysene	218-01-9	ND	10	ug/L	11/19/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/19/93
Dibenzofuran	132-64-9	ND	10	ug/L	11/19/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/19/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/19/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/19/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/19/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/19/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/19/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/19/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/19/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/19/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/19/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	11/19/93
Fluoranthene	206-44-0	ND	10	ug/L	11/19/93
Fluorene	86-73-7	ND	10	ug/L	11/19/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/19/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/19/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/19/93

HARZA KALDVEER

SAMPLE ID: MW-21
AEN LAB NO: 9311133-05C
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	11/19/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/19/93
Isophorone	78-59-1	ND	10	ug/L	11/19/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	11/19/93
Naphthalene	91-20-3	ND	10	ug/L	11/19/93
2-Nitroaniline	88-74-4	ND	50	ug/L	11/19/93
3-Nitroaniline	99-09-2	ND	50	ug/L	11/19/93
4-Nitroaniline	100-01-6	ND	50	ug/L	11/19/93
Nitrobenzene	98-95-3	ND	10	ug/L	11/19/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	11/19/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/19/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/19/93
Phenanthrene	85-01-8	ND	10	ug/L	11/19/93
Pyrene	129-00-0	ND	10	ug/L	11/19/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/19/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/19/93
2-Chlorophenol	95-57-8	ND	10	ug/L	11/19/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/19/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/19/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/19/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/19/93
2-Methylphenol	95-48-7	ND	10	ug/L	11/19/93
4-Methylphenol	106-44-5	ND	10	ug/L	11/19/93
2-Nitrophenol	88-75-5	ND	10	ug/L	11/19/93
4-Nitrophenol	100-02-7	ND	50	ug/L	11/19/93
Pentachlorophenol	87-86-5	ND	50	ug/L	11/19/93
Phenol	108-95-2	ND	10	ug/L	11/19/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/19/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/19/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-21
AEN LAB NO: 9311133-05E
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - water		-		Prep Date	11/15/93
Arsenic	EPA 7060	0.042 *	0.002	mg/L	11/19/93
Lead	EPA 6010	0.06 *	0.04	mg/L	11/16/93
Selenium	EPA 7740	ND	0.004	mg/L	11/19/93
Cadmium	EPA 6010	ND	0.005	mg/L	11/16/93
Chromium	EPA 6010	ND	0.01	mg/L	11/16/93
Copper	EPA 6010	ND	0.01	mg/L	11/16/93
Nickel	EPA 6010	ND	0.01	mg/L	11/16/93
Silver	EPA 6010	ND	0.005	mg/L	11/16/93
Zinc	EPA 6010	0.043 *	0.005	mg/L	11/16/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MW-21
AEN LAB NO: 9311133-05F
AEN WORK ORDER: 9311133
CLIENT PROJ. ID: KE1495-1

DATE SAMPLED: 11/11/93
DATE RECEIVED: 11/11/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - water		-		Prep Date	11/24/93
Arsenic	EPA 7060	0.038 *	0.002	mg/L	12/01/93
Lead	EPA 6010	ND	0.04	mg/L	12/01/93
Selenium	EPA 7740	ND	0.004	mg/L	12/01/93
Cadmium	EPA 6010	ND	0.005	mg/L	12/01/93
Chromium	EPA 6010	ND	0.01	mg/L	12/01/93
Copper	EPA 6010	ND	0.01	mg/L	12/01/93
Nickel	EPA 6010	ND	0.01	mg/L	12/01/93
Silver	EPA 6010	ND	0.005	mg/L	12/01/93
Zinc	EPA 6010	0.009 *	0.005	mg/L	12/01/93

Note: Field filtered

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

INSTRUMENT: 12

AEN JOB NO: 9311133

CLIENT PROJ. ID: KE1495-1

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
11/15/93	PM-10	01A	107	99	94
11/15/93	MW-18	02A	107	94	103
11/15/93	MW-19	03A	94	95	101
11/15/93	MW-20	04A	87	97	97
11/15/93	MW-21	05A	106	95	98

CURRENT QC LIMITS (Revised 08/13/91)

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(83-127)
Toluene-d8	(90-108)
p-Bromofluorobenzene	(91-109)

QUALITY CONTROL DATA

DATE ANALYZED: 11/15/93
SAMPLE SPIKED: 9311133-01A
CLIENT PROJ. ID: KE1495-1

AEN JOB NO: 9311133

INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	90	4
Trichloroethene	50.0	106	3
Benzene	50.0	105	4
Toluene	50.0	114	1
Chlorobenzene	50.0	114	2

CURRENT QC LIMITS (Revised 08/13/91)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(61-143)	15
Trichloroethene	(72-121)	12
Benzene	(82-123)	10
Toluene	(80-118)	12
Chlorobenzene	(82-113)	10

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 11/17/93 AEN JOB NO: 9311133

CLIENT PROJ. ID: K1495-1 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
11/19/93	PM-10	01C	69	79	85	73	66	97
11/19/93	MW-18	02C	49	62	69	46	49	73
11/19/93	MW-19	03C	62	70	77	63	63	85
11/19/93	MW-20	04C	64	72	79	63	61	81
11/19/93	MW-21	05C	78	82	82	92	80	105

CURRENT QC LIMITS (REVISED 01/08/92)

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(47-104)
2-Fluorobiphenyl	(49-106)
Terphenyl-d_{14}	(36-138)
Phenol-d_5	(46-105)
2-Fluorophenol	(40- 97)
2,4,6-Tribromophenol	(37-145)

QUALITY CONTROL DATA

DATE EXTRACTED: 11/17/93
DATE ANALYZED: 11/19/93
CLIENT PROJ. ID: KE1495-1

AEN JOB NO: 9311133
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
Phenol	200	88	2
2-Chlorophenol	200	83	4
1,4-Dichlorobenzene	204	67	3
N-Nitroso-di-n-propylamine	199	87	5
1,2,4-Trichlorobenzene	200	67	5
4-Chloro-3-methylphenol	196	85	1
Acenaphthene	200	87	4
4-Nitrophenol	198	74	7
2,4-Dinitrotoluene	200	81	8
Pentachlorophenol	203	80	6
Pyrene	199	81	3

CURRENT QC LIMITS (DEFAULT)

Analyte	Percent Recovery	RPD
Phenol	(12-110)	42
2-Chlorophenol	(27-123)	40
1,4-Dichlorobenzene	(36- 97)	28
4-Nitroso-di-n-propylamine	(41-116)	38
1,2,4-Trichlorobenzene	(39- 98)	28
4-Chloro-3-methylphenol	(23- 97)	42
Acenaphthene	(46-118)	31
4-Nitrophenol	(10- 80)	50
2,4-Dinitrotoluene	(24- 96)	38
Pentachlorophenol	(9-103)	50
Pyrene	(26-127)	31

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9311133

CLIENT PROJ. ID: KE1495-1

DATE ANALYZED: 11/16-18/93

METHOD BLANK AND SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	BLANK RESULT	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	ND	0.1	98	1	66-127	11
As, Arsenic	4000/7060	ND	0.04	101	3	90-115	12
Cd, Cadmium	ICP/6010	ND	0.05	101	2	71-134	12
Cr, Chromium	ICP/6010	ND	0.2	102	<1	85-114	6
Ni, Nickel	ICP/6010	ND	0.5	98	1	87-114	5
Pb, Lead	ICP/6010	ND	0.5	98	1	87-115	6
Se, Selenium	4000/7740	ND	0.08	90	1	76-131	14
Zn, Zinc	ICP/6010	ND	0.5	98	<1	86-115	5

RPD = Relative Percent Difference
ND = Not Detected
< = Less Than

Reagent method blank showed no contamination

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9311133

CLIENT PROJ. ID: KE1495-1

DATE ANALYZED: 12/01/93

METHOD BLANK AND SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	BLANK RESULT	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	ND	0.1	102	2	66-127	11
As, Arsenic	4000/7060	ND	0.04	101	<1	90-115	12
Cd, Cadmium	ICP/6010	ND	0.05	91	2	71-134	12
Cr, Chromium	ICP/6010	ND	0.2	99	3	85-114	6
Cu, Copper	ICP/6010	ND	0.25	102	1	86-112	5
Ni, Nickel	ICP/6010	ND	0.5	99	1	87-114	5
Pb, Lead	ICP/6010	ND	0.5	105	1	87-115	6
Se, Selenium	4000/7740	ND	0.08	94	1	76-131	14
Zn, Zinc	ICP/6010	ND	0.5	102	2	86-115	5

RPD = Relative Percent Difference
ND = Not Detected
< = Less Than

Reagent method blank showed no contamination

*** END OF REPORT ***

Lab Job # 311133

C-1, S-1
R-3, S-2
R-7, S-L

CHAIN-OF-CUSTODY RECORD

Project Number: KE1495-1

Project Name: Fuller O'Brien

Location: South S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Unfiltered	Metals - Field Filtered				Remarks
PM-10	D1AB	11/11/93		X	2x40mL VOAs			X										11/23 - Per Tacia pls take
PM-10	CD				2x1L Amber				X									samples MW-19 and MW-21
PM-10	E				1x500mL Plastic								X					off hold status for filt. metals
PM-10	F				1x500mL Plastic									X				and analyze for metals listed
MW-18	D2AB				2x40mL VOAs			X										below on a std TAT. JKP
MW-18	CD				2x1L Amber				X									
MW-18	E				1x500mL Plastic								X					12/10 - Per Steve Henshaw add
MW-18	F				1x500mL Plastic									X				Cu analysis to all metals
MW-19	D3AB				2x40mL VOAs			X										analysis. JKP
MW-19	CD				2x1L Amber				X									
MW-19	E				1x500mL Plastic								X					
MW-19	F				1x500mL Plastic									X				
MW-20	D4AB				2x40mL VOAs			X										
MW-20	CD				2x1L Amber				X									Metals for As, Cd, Cr, Pb, Ni,
MW-20	E				1x500mL Plastic								X					Se, Ag, Zn

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	11/11/93 16:50	[signature]
[signature]	11/11/93 18:50	

Relinquished by: (Signature) — Date/Time — Received for Laboratory by: (Signature): [signature] 11-11-93 1830

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks: Hold Field Filtered Metals!

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

Lab Job # 311133

CHAIN-OF-CUSTODY RECORD

Project Number: KE1495-1

Project Name: Fuller O'Brien

Location: So S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Dissolved Metals Fuller Filtered				Remarks
MW-20	04F	11/11/93		X	1x500mL Plastic								X				12/10 - Per Steve Henchan add Cu to all metals analysis.
MW-21	05AB				2x 40mL VOAs			X									
MW-21	CD				2x1L Amber				X								
MW-21	E				1x500mL Plastic								X				
MW-21	F				1x500mL Plastic								X				
																	Metals for As, Cd, Cu, Pb, Ni, Se, Ag, Zn

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	11/11/93 16:50	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	11/11/93 18:30	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
		Lynn Gillespie 11-11-93 1830

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks: Hold Field Filtered Metals!

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 94523-001

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: KE1495-1A-2112
PROJ. NAME: FULLER O'BRIEN

REPORT DATE: 12/16/93

DATE SAMPLED: 11/15/93
DATE RECEIVED: 11/15/93

ADDITIONAL ANALYSIS
REQUESTED: 11/29,12/10/93

AEN JOB NO: 9311149

PROJECT SUMMARY:

On November 15, 1993, this laboratory received three (3) water samples.

Client requested all samples be analyzed for inorganic and organic parameters. Sample fractions for filtered metals were placed on hold. On November 29, 1993, client requested samples W-7 and PM-3 for filtered metals be taken off hold. On December 10, 1993, client requested additional analysis on samples for Copper. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Andrew Bradeen for
Larry Klein
General Manager

Results FAXed 11/24-12/08/93

HARZA KALDVEER

SAMPLE ID: W-7
AEN LAB NO: 9311149-01A
AEN WORK ORDER: 9311149
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/15/93
DATE RECEIVED: 11/15/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	11/18/93
EPA 8270 - Water Matrix	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	11/22/93
Acenaphthylene	208-96-8	ND	10	ug/L	11/22/93
Anthracene	120-12-7	ND	10	ug/L	11/22/93
Benzidine	92-87-5	ND	50	ug/L	11/22/93
Benzoic Acid	65-85-0	ND	50	ug/L	11/22/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/22/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/22/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/22/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/22/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/22/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/22/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/22/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	11/22/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/22/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/22/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/22/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/22/93
4-Chloroaniline	106-47-8	ND	20	ug/L	11/22/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	11/22/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/22/93
Chrysene	218-01-9	ND	10	ug/L	11/22/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/22/93
Dibenzofuran	132-64-9	ND	10	ug/L	11/22/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/22/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/22/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/22/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/22/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/22/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/22/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/22/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/22/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/22/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/22/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	11/22/93
Fluoranthene	206-44-0	ND	10	ug/L	11/22/93
Fluorene	86-73-7	ND	10	ug/L	11/22/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/22/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/22/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/22/93

HARZA KALDVEER

SAMPLE ID: W-7
AEN LAB NO: 9311149-01A
AEN WORK ORDER: 9311149
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/15/93
DATE RECEIVED: 11/15/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	11/22/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/22/93
Isophorone	78-59-1	ND	10	ug/L	11/22/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	11/22/93
Naphthalene	91-20-3	ND	10	ug/L	11/22/93
2-Nitroaniline	88-74-4	ND	50	ug/L	11/22/93
3-Nitroaniline	99-09-2	ND	50	ug/L	11/22/93
4-Nitroaniline	100-01-6	ND	50	ug/L	11/22/93
Nitrobenzene	98-95-3	ND	10	ug/L	11/22/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	11/22/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/22/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/22/93
Phenanthrene	85-01-8	ND	10	ug/L	11/22/93
Pyrene	129-00-0	ND	10	ug/L	11/22/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/22/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/22/93
2-Chlorophenol	95-57-8	ND	10	ug/L	11/22/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/22/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/22/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/22/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/22/93
2-Methylphenol	95-48-7	ND	10	ug/L	11/22/93
4-Methylphenol	106-44-5	ND	10	ug/L	11/22/93
2-Nitrophenol	88-75-5	ND	10	ug/L	11/22/93
4-Nitrophenol	100-02-7	ND	50	ug/L	11/22/93
Pentachlorophenol	87-86-5	ND	50	ug/L	11/22/93
Phenol	108-95-2	ND	10	ug/L	11/22/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/22/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/22/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: W-7
AEN LAB NO: 9311149-01C
AEN WORK ORDER: 9311149
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/15/93
DATE RECEIVED: 11/15/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	11/17/93
Benzene	71-43-2	ND	5	ug/L	11/17/93
Bromodichloromethane	75-27-4	ND	5	ug/L	11/17/93
Bromoform	75-25-2	ND	5	ug/L	11/17/93
Bromomethane	74-83-9	ND	10	ug/L	11/17/93
2-Butanone	78-93-3	ND	100	ug/L	11/17/93
Carbon Disulfide	75-15-0	ND	10	ug/L	11/17/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	11/17/93
Chlorobenzene	108-90-7	ND	5	ug/L	11/17/93
Chloroethane	75-00-3	ND	10	ug/L	11/17/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	11/17/93
Chloroform	67-66-3	ND	5	ug/L	11/17/93
Chloromethane	74-87-3	ND	10	ug/L	11/17/93
Dibromochloromethane	124-48-1	ND	5	ug/L	11/17/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	11/17/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	11/17/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	11/17/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	11/17/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	11/17/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	11/17/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	11/17/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	11/17/93
Ethylbenzene	100-41-4	ND	5	ug/L	11/17/93
2-Hexanone	591-78-6	ND	50	ug/L	11/17/93
Methylene Chloride	75-09-2	ND	5	ug/L	11/17/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	11/17/93
Styrene	100-42-5	ND	5	ug/L	11/17/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	11/17/93
Tetrachloroethene	127-18-4	ND	5	ug/L	11/17/93
Toluene	108-88-3	ND	5	ug/L	11/17/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	11/17/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	11/17/93
Trichloroethene	79-01-6	ND	5	ug/L	11/17/93
Vinyl Acetate	108-05-4	ND	50	ug/L	11/17/93
Vinyl Chloride	75-01-4	ND	10	ug/L	11/17/93
Xylenes, Total	1330-20-7	ND	10	ug/L	11/17/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: W-7
AEN LAB NO: 9311149-01E
AEN WORK ORDER: 9311149
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/15/93
DATE RECEIVED: 11/15/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - water		-		Prep Date	11/22/93
Arsenic	EPA 7060	0.010 *	0.002	mg/L	11/22/93
Lead	EPA 6010	0.06 *	0.04	mg/L	11/22/93
Selenium	EPA 7740	ND	0.004	mg/L	11/22/93
Cadmium	EPA 6010	ND	0.005	mg/L	11/22/93
Chromium	EPA 6010	0.16 *	0.01	mg/L	11/22/93
Copper	EPA 6010	0.24 *	0.01	mg/L	11/22/93
Nickel	EPA 6010	0.30 *	0.01	mg/L	11/22/93
Silver	EPA 6010	ND	0.005	mg/L	11/22/93
Zinc	EPA 6010	0.27 *	0.005	mg/L	11/22/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: W-7
AEN LAB NO: 9311149-01F
AEN WORK ORDER: 9311149
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/15/93
DATE RECEIVED: 11/15/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - water		-		Prep Date	12/06/93
Arsenic	EPA 7060	0.003 *	0.002	mg/L	12/07/93
Lead	EPA 6010	ND	0.04	mg/L	12/07/93
Selenium	EPA 7740	ND	0.004	mg/L	12/07/93
Cadmium	EPA 6010	ND	0.005	mg/L	12/07/93
Chromium	EPA 6010	ND	0.01	mg/L	12/07/93
Copper	EPA 6010	ND	0.01	mg/L	12/07/93
Nickel	EPA 6010	0.02 *	0.01	mg/L	12/07/93
Silver	EPA 6010	ND	0.005	mg/L	12/07/93
Zinc	EPA 6010	ND	0.005	mg/L	12/07/93

Note: Field filtered

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-3
AEN LAB NO: 9311149-02A
AEN WORK ORDER: 9311149
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/15/93
DATE RECEIVED: 11/15/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	11/18/93
EPA 8270 - Water Matrix	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	11/22/93
Acenaphthylene	208-96-8	ND	10	ug/L	11/22/93
Anthracene	120-12-7	ND	10	ug/L	11/22/93
Benzidine	92-87-5	ND	50	ug/L	11/22/93
Benzoic Acid	65-85-0	ND	50	ug/L	11/22/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/22/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/22/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/22/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/22/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/22/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/22/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/22/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	11/22/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/22/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/22/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/22/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/22/93
4-Chloroaniline	106-47-8	ND	20	ug/L	11/22/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	11/22/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/22/93
Chrysene	218-01-9	ND	10	ug/L	11/22/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/22/93
Dibenzofuran	132-64-9	ND	10	ug/L	11/22/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/22/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/22/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/22/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/22/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/22/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/22/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/22/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/22/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/22/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/22/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	11/22/93
Fluoranthene	206-44-0	ND	10	ug/L	11/22/93
Fluorene	86-73-7	ND	10	ug/L	11/22/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/22/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/22/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/22/93

HARZA KALDVEER

SAMPLE ID: PM-3
AEN LAB NO: 9311149-02A
AEN WORK ORDER: 9311149
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/15/93
DATE RECEIVED: 11/15/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	11/22/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/22/93
Isophorone	78-59-1	ND	10	ug/L	11/22/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	11/22/93
Naphthalene	91-20-3	ND	10	ug/L	11/22/93
2-Nitroaniline	88-74-4	ND	50	ug/L	11/22/93
3-Nitroaniline	99-09-2	ND	50	ug/L	11/22/93
4-Nitroaniline	100-01-6	ND	50	ug/L	11/22/93
Nitrobenzene	98-95-3	ND	10	ug/L	11/22/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	11/22/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/22/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/22/93
Phenanthrene	85-01-8	ND	10	ug/L	11/22/93
Pyrene	129-00-0	ND	10	ug/L	11/22/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/22/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/22/93
2-Chlorophenol	95-57-8	ND	10	ug/L	11/22/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/22/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/22/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/22/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/22/93
2-Methylphenol	95-48-7	ND	10	ug/L	11/22/93
4-Methylphenol	106-44-5	ND	10	ug/L	11/22/93
2-Nitrophenol	88-75-5	ND	10	ug/L	11/22/93
4-Nitrophenol	100-02-7	ND	50	ug/L	11/22/93
Pentachlorophenol	87-86-5	ND	50	ug/L	11/22/93
Phenol	108-95-2	ND	10	ug/L	11/22/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/22/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/22/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-3
AEN LAB NO: 9311149-02C
AEN WORK ORDER: 9311149
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/15/93
DATE RECEIVED: 11/15/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	11/17/93
Benzene	71-43-2	ND	5	ug/L	11/17/93
Bromodichloromethane	75-27-4	ND	5	ug/L	11/17/93
Bromoform	75-25-2	ND	5	ug/L	11/17/93
Bromomethane	74-83-9	ND	10	ug/L	11/17/93
2-Butanone	78-93-3	ND	100	ug/L	11/17/93
Carbon Disulfide	75-15-0	ND	10	ug/L	11/17/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	11/17/93
Chlorobenzene	108-90-7	ND	5	ug/L	11/17/93
Chloroethane	75-00-3	ND	10	ug/L	11/17/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	11/17/93
Chloroform	67-66-3	ND	5	ug/L	11/17/93
Chloromethane	74-87-3	ND	10	ug/L	11/17/93
Dibromochloromethane	124-48-1	ND	5	ug/L	11/17/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	11/17/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	11/17/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	11/17/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	11/17/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	11/17/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	11/17/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	11/17/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	11/17/93
Ethylbenzene	100-41-4	ND	5	ug/L	11/17/93
2-Hexanone	591-78-6	ND	50	ug/L	11/17/93
Methylene Chloride	75-09-2	ND	5	ug/L	11/17/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	11/17/93
Styrene	100-42-5	ND	5	ug/L	11/17/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	11/17/93
Tetrachloroethene	127-18-4	ND	5	ug/L	11/17/93
Toluene	108-88-3	ND	5	ug/L	11/17/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	11/17/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	11/17/93
Trichloroethene	79-01-6	ND	5	ug/L	11/17/93
Vinyl Acetate	108-05-4	ND	50	ug/L	11/17/93
Vinyl Chloride	75-01-4	ND	10	ug/L	11/17/93
Xylenes, Total	1330-20-7	ND	10	ug/L	11/17/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-3
AEN LAB NO: 9311149-02E
AEN WORK ORDER: 9311149
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/15/93
DATE RECEIVED: 11/15/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - water		-		Prep Date	11/22/93
Arsenic	EPA 7060	0.023 *	0.002	mg/L	11/22/93
Lead	EPA 6010	0.09 *	0.04	mg/L	11/22/93
Selenium	EPA 7740	ND	0.004	mg/L	11/22/93
Cadmium	EPA 6010	ND	0.005	mg/L	11/22/93
Chromium	EPA 6010	0.15 *	0.01	mg/L	11/22/93
Copper	EPA 6010	0.37 *	0.01	mg/L	11/22/93
Nickel	EPA 6010	1.1 *	0.01	mg/L	11/22/93
Silver	EPA 6010	ND	0.005	mg/L	11/22/93
Zinc	EPA 6010	0.58 *	0.005	mg/L	11/22/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-3
AEN LAB NO: 9311149-02F
AEN WORK ORDER: 9311149
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/15/93
DATE RECEIVED: 11/15/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - water		-		Prep Date	12/06/93
Arsenic	EPA 7060	0.002 *	0.002	mg/L	12/07/93
Lead	EPA 6010	ND	0.04	mg/L	12/07/93
Selenium	EPA 7740	ND	0.004	mg/L	12/07/93
Cadmium	EPA 6010	ND	0.005	mg/L	12/07/93
Chromium	EPA 6010	ND	0.01	mg/L	12/07/93
Copper	EPA 6010	ND	0.01	mg/L	12/07/93
Nickel	EPA 6010	0.07 *	0.01	mg/L	12/07/93
Silver	EPA 6010	ND	0.005	mg/L	12/07/93
Zinc	EPA 6010	0.039 *	0.005	mg/L	12/07/93

Note: Field filtered

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: TRANSFER BLANK
AEN LAB NO: 9311149-03A
AEN WORK ORDER: 9311149
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/15/93
DATE RECEIVED: 11/15/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	11/18/93
EPA 8270 · Water Matrix	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	11/22/93
Acenaphthylene	208-96-8	ND	10	ug/L	11/22/93
Anthracene	120-12-7	ND	10	ug/L	11/22/93
Benzidine	92-87-5	ND	50	ug/L	11/22/93
Benzoic Acid	65-85-0	ND	50	ug/L	11/22/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/22/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/22/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/22/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/22/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/22/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/22/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/22/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	11/22/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/22/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/22/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/22/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/22/93
4-Chloroaniline	106-47-8	ND	20	ug/L	11/22/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	11/22/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/22/93
Chrysene	218-01-9	ND	10	ug/L	11/22/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/22/93
Dibenzofuran	132-64-9	ND	10	ug/L	11/22/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/22/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/22/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/22/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/22/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/22/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/22/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/22/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/22/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/22/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/22/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	11/22/93
Fluoranthene	206-44-0	ND	10	ug/L	11/22/93
Fluorene	86-73-7	ND	10	ug/L	11/22/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/22/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/22/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/22/93

HARZA KALDVEER

SAMPLE ID: TRANSFER BLANK
AEN LAB NO: 9311149-03A
AEN WORK ORDER: 9311149
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/15/93
DATE RECEIVED: 11/15/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	11/22/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/22/93
Isophorone	78-59-1	ND	10	ug/L	11/22/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	11/22/93
Naphthalene	91-20-3	ND	10	ug/L	11/22/93
2-Nitroaniline	88-74-4	ND	50	ug/L	11/22/93
3-Nitroaniline	99-09-2	ND	50	ug/L	11/22/93
4-Nitroaniline	100-01-6	ND	50	ug/L	11/22/93
Nitrobenzene	98-95-3	ND	10	ug/L	11/22/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	11/22/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/22/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/22/93
Phenanthrene	85-01-8	ND	10	ug/L	11/22/93
Pyrene	129-00-0	ND	10	ug/L	11/22/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/22/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/22/93
2-Chlorophenol	95-57-8	ND	10	ug/L	11/22/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/22/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/22/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/22/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/22/93
2-Methylphenol	95-48-7	ND	10	ug/L	11/22/93
4-Methylphenol	106-44-5	ND	10	ug/L	11/22/93
2-Nitrophenol	88-75-5	ND	10	ug/L	11/22/93
4-Nitrophenol	100-02-7	ND	50	ug/L	11/22/93
Pentachlorophenol	87-86-5	ND	50	ug/L	11/22/93
Phenol	108-95-2	ND	10	ug/L	11/22/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/22/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/22/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: TRANSFER BLANK
AEN LAB NO: 9311149-03C
AEN WORK ORDER: 9311149
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/15/93
DATE RECEIVED: 11/15/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	11/17/93
Benzene	71-43-2	ND	5	ug/L	11/17/93
Bromodichloromethane.	75-27-4	ND	5	ug/L	11/17/93
Bromoform	75-25-2	ND	5	ug/L	11/17/93
Bromomethane	74-83-9	ND	10	ug/L	11/17/93
2-Butanone	78-93-3	ND	100	ug/L	11/17/93
Carbon Disulfide	75-15-0	ND	10	ug/L	11/17/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	11/17/93
Chlorobenzene	108-90-7	ND	5	ug/L	11/17/93
Chloroethane	75-00-3	ND	10	ug/L	11/17/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	11/17/93
Chloroform	67-66-3	ND	5	ug/L	11/17/93
Chloromethane	74-87-3	ND	10	ug/L	11/17/93
Dibromochloromethane	124-48-1	ND	5	ug/L	11/17/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	11/17/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	11/17/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	11/17/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	11/17/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	11/17/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	11/17/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	11/17/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	11/17/93
Ethylbenzene	100-41-4	ND	5	ug/L	11/17/93
2-Hexanone	591-78-6	ND	50	ug/L	11/17/93
Methylene Chloride	75-09-2	ND	5	ug/L	11/17/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	11/17/93
Styrene	100-42-5	ND	5	ug/L	11/17/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	11/17/93
Tetrachloroethene	127-18-4	ND	5	ug/L	11/17/93
Toluene	108-88-3	ND	5	ug/L	11/17/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	11/17/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	11/17/93
Trichloroethene	79-01-6	ND	5	ug/L	11/17/93
Vinyl Acetate	108-05-4	ND	50	ug/L	11/17/93
Vinyl Chloride	75-01-4	ND	10	ug/L	11/17/93
Xylenes, Total	1330-20-7	ND	10	ug/L	11/17/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: TRANSFER BLANK
AEN LAB NO: 9311149-03E
AEN WORK ORDER: 9311149
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 11/15/93
DATE RECEIVED: 11/15/93
REPORT DATE: 12/16/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - water		-		Prep Date	11/22/93
Arsenic	EPA 7060	ND	0.002	mg/L	11/22/93
Lead	EPA 6010	ND	0.04	mg/L	11/22/93
Selenium	EPA 7740	ND	0.004	mg/L	11/22/93
Cadmium	EPA 6010	ND	0.005	mg/L	11/22/93
Chromium	EPA 6010	ND	0.01	mg/L	11/22/93
Copper	EPA 6010	ND	0.01	mg/L	11/22/93
Nickel	EPA 6010	ND	0.01	mg/L	11/22/93
Silver	EPA 6010	ND	0.005	mg/L	11/22/93
Zinc	EPA 6010	0.007 *	0.005	mg/L	11/22/93

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

INSTRUMENT: 12 AEN JOB NO: 9311149

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
11/17/93	W-7	01C	124	101	101
11/17/93	PM-3	02C	124	99	105
11/17/93	TRANSFER BLANK	03C	125	96	101

CURRENT QC LIMITS (Revised 08/13/91)

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(83-127)
Toluene-d8	(90-108)
p-Bromofluorobenzene	(91-109)

QUALITY CONTROL DATA

DATE ANALYZED: 11/17/93
SAMPLE SPIKED: 9311138-01C
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9311149
INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	111	5
Trichloroethene	50.0	103	3
Benzene	50.0	111	1
Toluene	50.0	118	2
Chlorobenzene	50.0	112	4

CURRENT QC LIMITS (Revised 08/13/91)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(61-143)	15
Trichloroethene	(72-121)	12
Benzene	(82-123)	10
Toluene	(80-118)	12
Chlorobenzene	(82-113)	10

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 11/18/93 AEN JOB NO: 9311149

CLIENT PROJ. ID: K1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
11/22/93	W-7	01A	71	79	85	72	65	96
'/22/93	PM-3	02A	75	70	68	80	67	99
/22/93	TRANSFER BLANK	03A	70	77	84	62	62	78

CURRENT QC LIMITS (REVISED 01/08/92)

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(47-104)
2-Fluorobiphenyl	(49-106)
Terphenyl-d_{14}	(36-138)
Phenol-d_5	(46-105)
2-Fluorophenol	(40- 97)
2,4,6-Tribromophenol	(37-145)

QUALITY CONTROL DATA

DATE EXTRACTED: 11/17/93
DATE ANALYZED: 11/19/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9311149
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
Phenol	200	88	2
2-Chlorophenol	200	83	4
1,4-Dichlorobenzene	204	67	3
N-Nitroso-di-n-propylamine	199	87	5
1,2,4-Trichlorobenzene	200	67	5
4-Chloro-3-methylphenol	196	85	1
Acenaphthene	200	87	4
4-Nitrophenol	198	74	7
2,4-Dinitrotoluene	200	81	8
Pentachlorophenol	203	80	6
Pyrene	199	81	3

CURRENT QC LIMITS (DEFAULT)

Analyte	Percent Recovery	RPD
Phenol	(12-110)	42
2-Chlorophenol	(27-123)	40
1,4-Dichlorobenzene	(36- 97)	28
4-Nitroso-di-n-propylamine	(41-116)	38
1,2,4-Trichlorobenzene	(39- 98)	28
4-Chloro-3-methylphenol	(23- 97)	42
Acenaphthene	(46-118)	31
4-Nitrophenol	(10- 80)	50
2,4-Dinitrotoluene	(24- 96)	38
Pentachlorophenol	(9-103)	50
Pyrene	(26-127)	31

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9311149

CLIENT PROJ. ID: KE1495-1A-2112

DATE ANALYZED: 11/22-23/93

METHOD BLANK AND SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	BLANK RESULT	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	ND	0.1	96	2	66-127	11
As, Arsenic	4000/7060	ND	0.04	107	3	90-115	12
Cd, Cadmium	ICP/6010	ND	0.05	102	5	71-134	12
Cr, Chromium	ICP/6010	ND	0.2	97	1	85-114	6
Ni, Nickel	ICP/6010	ND	0.5	97	2	87-114	5
Pb, Lead	ICP/6010	ND	0.5	98	3	87-115	6
Se, Selenium	4000/7740	ND	0.08	102	3	76-131	14
Zn, Zinc	ICP/6010	ND	0.5	96	3	86-115	5

RPD = Relative Percent Difference
ND = Not Detected

Reagent method blank showed no contamination

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9311149

CLIENT PROJ. ID: KE1495-1A-2112

DATE ANALYZED: 12/07/93

METHOD BLANK AND SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	BLANK RESULT	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Ag, Silver	ICP/6010	ND	0.1	99	2	66-127	11
As, Arsenic	4000/7060	ND	0.04	101	4	90-115	12
Cd, Cadmium	ICP/6010	ND	0.05	96	4	71-134	12
Cr, Chromium	ICP/6010	ND	0.2	97	1	85-114	6
Cu, Copper	ICP/6010	ND	0.25	91	2	86-112	5
Ni, Nickel	ICP/6010	ND	0.5	102	2	87-114	5
Pb, Lead	ICP/6010	ND	0.5	103	2	87-115	6
Se, Selenium	4000/7740	ND	0.08	101	6	76-131	14
Zn, Zinc	ICP/6010	ND	0.5	98	2	86-115	5

RPD = Relative Percent Difference
ND = Not Detected

Reagent method blank showed no contamination

*** END OF REPORT ***

C-1, S-2
R-7, -J
R-3, -3

Lab Job # 11149

CHAIN-OF-CUSTODY RECORD

Project Number: KE 1495-1A-2112

Project Name: Fuller O'Brien

Location: South S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Unfiltered	Metals - Field Filtered				Remarks
W-7	01AB	11/15/93		X	2x 1L Amber				X									12/10 - Per Steve Henshaw,
W-7	CD				2x40mL VOAs			X										pls. add Cu analysis to
W-7	E				1x500mL Plastic								X					filt + unfilt samples. JKS
W-7	F				1x500mL Plastic									X				
PM-3	02AB				2x1L Amber				X									
PM-3	CD				2x40mL VOAs			X										
PM-3	E				1x500mL Plastic								X					
PM-3	F				1x500mL Plastic									X				
Transfer Blank	03AB				2x1L Amber				X									
Transfer Blank	CD				2x40mL VOAs			X										
Transfer Blank	E				1x500mL Plastic								X					
																		Metals for As, Cd,
																		Cr, Pb, Ni, Se, Ag, Zn
																		Series 6000/7000

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	11/15/93 15:50	[signature]
[signature]	11/15/93 17:25	
		Received for Laboratory by: (Signature) Gina Gillispie 11-15-93 1725

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks: Hold Field Filtered Metals!

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

Lab Job # _____

CHAIN-OF-CUSTODY RECORD

Project Number: KE1995-1A.2112

Project Name: Fuller O'Brien

Location: So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Base-Neutral Acid Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides/PCB's	Waste Oil -	Metals - Full Filtered				Remarks
PM-2		11/29/93		X	1x500ml Poly								X				9311107-1E
* PM-3		↓		↓	↓								X				9311149-2F
PM-9													X				9311123-1E
* W-7													X				9311149-1F
																	Metals for Ag, As, Cd, Cr, Ni, Pb, Se, Zn

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	11/29/93	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Ship To: _____

Attention: _____

Phone No: _____

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates Geoscience Consultants
A California Corporation

SENT BY: 11-29-93 ; 1:58PM ; HARZA KALDVEER→ 15109300256;# 2/ 2

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: [illegible]

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: KE1495-1A-2112
PROJ. NAME: FULLER O'BRIEN

REPORT DATE: 01/17/94

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93

ADDITIONAL ANALYSIS
REQUESTED: 12/10-21/93-
01/04/94

AEN JOB NO: 9312093

PROJECT SUMMARY:

On December 7, 1993, this laboratory received eleven (11) soil samples and three (3) water samples.

Client requested six (6) soil samples and all water samples be analyzed for inorganic and organic parameters. Five (5) soil samples and sample fractions for filtered metals were placed on hold. On December 10, 1993, client requested additional analysis on samples for Copper. On December 21, 1993, client requested samples SWB-9/10-10.5' and SWB-9/15-15.5' be taken off hold and analyzed by EPA 8240 and 8270. On January 4, 1994, client requested samples SWB-6 and SWB-9 for filtered metals be taken off hold. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

Samples SWB-9/3-3.5', SWB-9/10-10.5' and SWB-9/4-4.5'(9312093-08,09,14) were analyzed dilute due to high levels of non-target compounds, and reporting limits were adjusted accordingly. Surrogate recoveries for these samples cannot be reported due to this dilution.

All other laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Larry Klein
General Manager

Results FAXed 12/20/93-01/13/94

HARZA KALDVEER

SAMPLE ID: SWB-6
AEN LAB NO: 9312093-01A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	**EPA 3520**	-		Extrn Date	12/13/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	50 *	50	ug/L	12/20/93
Acenaphthylene	208-96-8	ND	50	ug/L	12/20/93
Anthracene	120-12-7	120 *	50	ug/L	12/20/93
Benzidine	92-87-5	ND	300	ug/L	12/20/93
Benzoic Acid	65-85-0	ND	300	ug/L	12/20/93
Benzo(a)anthracene	56-55-3	ND	50	ug/L	12/20/93
Benzo(b)fluoranthene	205-99-2	ND	50	ug/L	12/20/93
Benzo(k)fluoranthene	207-08-9	ND	50	ug/L	12/20/93
Benzo(g,h,i)perylene	191-24-2	ND	50	ug/L	12/20/93
Benzo(a)pyrene	50-32-8	ND	50	ug/L	12/20/93
Benzyl Alcohol	100-51-6	ND	100	ug/L	12/20/93
Bis(2-chloroethoxy)methane	111-91-1	ND	50	ug/L	12/20/93
Bis(2-choroethyl) Ether	111-44-4	ND	50	ug/L	12/20/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	50	ug/L	12/20/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	50	ug/L	12/20/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	50	ug/L	12/20/93
Butylbenzyl Phthalate	85-68-7	ND	50	ug/L	12/20/93
4-Chloroaniline	106-47-8	ND	100	ug/L	12/20/93
2-Chloronapththalene	91-58-7	ND	50	ug/L	12/20/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	50	ug/L	12/20/93
Chrysene	218-01-9	ND	50	ug/L	12/20/93
Dibenzo(a,h)anthracene	53-70-3	ND	50	ug/L	12/20/93
Dibenzofuran	132-64-9	ND	50	ug/L	12/20/93
Di-n-butyl Phthalate	84-74-2	ND	50	ug/L	12/20/93
1,2-Dichlorobenzene	95-50-1	ND	50	ug/L	12/20/93
1,3-Dichlorobenzene	541-73-1	ND	50	ug/L	12/20/93
1,4-Dichlorobenzene	106-46-7	ND	50	ug/L	12/20/93
3,3'-Dichlorobenzidine	91-94-1	ND	100	ug/L	12/20/93
Diethyl Phthalate	84-66-2	ND	50	ug/L	12/20/93
Dimethyl Phthalate	131-11-3	ND	50	ug/L	12/20/93
2,4-Dinitrotoluene	121-14-2	ND	50	ug/L	12/20/93
2,6-Dinitrotoluene	606-20-2	ND	50	ug/L	12/20/93
Di-n-octyl Phthalate	117-84-0	ND	50	ug/L	12/20/93
1,2-Diphenylhydrazine	122-66-7	ND	50	ug/L	12/20/93
Fluoranthene	206-44-0	66 *	50	ug/L	12/20/93
Fluorene	86-73-7	ND	50	ug/L	12/20/93
Hexachlorobenzene	118-74-1	ND	50	ug/L	12/20/93
Hexachlorobutadiene	87-68-3	ND	50	ug/L	12/20/93
Hexachlorocyclopentadiene	77-47-4	ND	50	ug/L	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-6
AEN LAB NO: 9312093-01A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	50	ug/L	12/20/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	50	ug/L	12/20/93
Isophorone	78-59-1	ND	50	ug/L	12/20/93
2-Methylnaphthalene	91-57-6	620 *	50	ug/L	12/20/93
Naphthalene	91-20-3	370 *	50	ug/L	12/20/93
2-Nitroaniline	88-74-4	ND	300	ug/L	12/20/93
3-Nitroaniline	99-09-2	ND	300	ug/L	12/20/93
4-Nitroaniline	100-01-6	ND	300	ug/L	12/20/93
Nitrobenzene	98-95-3	ND	50	ug/L	12/20/93
N-Nitrosodimethylamine	62-75-9	ND	50	ug/L	12/20/93
N-Nitrosodiphenylamine	86-30-6	ND	50	ug/L	12/20/93
N-Nitrosodi-n-propylamine	621-64-7	ND	50	ug/L	12/20/93
Phenanthrene	85-01-8	110 *	50	ug/L	12/20/93
Pyrene	129-00-0	ND	50	ug/L	12/20/93
1,2,4-Trichlorobenzene	120-82-1	ND	50	ug/L	12/20/93
4-Chloro-3-methylphenol	59-50-7	ND	50	ug/L	12/20/93
2-Chlorophenol	95-57-8	ND	50	ug/L	12/20/93
2,4-Dichlorophenol	120-83-2	ND	50	ug/L	12/20/93
2,4-Dimethylphenol	105-67-9	ND	50	ug/L	12/20/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	300	ug/L	12/20/93
2,4-Dinitrophenol	51-28-5	ND	300	ug/L	12/20/93
2-Methylphenol	95-48-7	ND	50	ug/L	12/20/93
4-Methylphenol	106-44-5	ND	50	ug/L	12/20/93
2-Nitrophenol	88-75-5	ND	50	ug/L	12/20/93
4-Nitrophenol	100-02-7	ND	300	ug/L	12/20/93
Pentachlorophenol	87-86-5	ND	300	ug/L	12/20/93
Phenol	108-95-2	ND	50	ug/L	12/20/93
2,4,5-Trichlorophenol	95-95-4	ND	50	ug/L	12/20/93
2,4,6-Trichlorophenol	88-06-2	ND	50	ug/L	12/20/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-6
AEN LAB NO: 9312093-01C
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	EPA 8240				
Acetone	67-64-1	ND	300	ug/L	12/17/93
Benzene	71-43-2	ND	10	ug/L	12/17/93
Bromodichloromethane	75-27-4	ND	10	ug/L	12/17/93
Bromoform	75-25-2	ND	10	ug/L	12/17/93
Bromomethane	74-83-9	ND	30	ug/L	12/17/93
2-Butanone	78-93-3	ND	300	ug/L	12/17/93
Carbon Disulfide	75-15-0	ND	30	ug/L	12/17/93
Carbon Tetrachloride	56-23-5	ND	10	ug/L	12/17/93
Chlorobenzene	108-90-7	ND	10	ug/L	12/17/93
Chloroethane	75-00-3	ND	30	ug/L	12/17/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	30	ug/L	12/17/93
Chloroform	67-66-3	ND	10	ug/L	12/17/93
Chloromethane	74-87-3	ND	30	ug/L	12/17/93
Dibromochloromethane	124-48-1	ND	10	ug/L	12/17/93
1,1-Dichloroethane	75-34-3	ND	10	ug/L	12/17/93
1,2-Dichloroethane	107-06-2	ND	10	ug/L	12/17/93
1,1-Dichloroethene	75-35-4	ND	10	ug/L	12/17/93
cis-1,2-Dichloroethene	156-59-2	ND	10	ug/L	12/17/93
trans-1,2-Dichloroethene	156-60-5	ND	10	ug/L	12/17/93
1,2-Dichloropropane	78-87-5	ND	10	ug/L	12/17/93
cis-1,3-Dichloropropene	10061-01-5	ND	10	ug/L	12/17/93
trans-1,3-Dichloropropene	10061-02-6	ND	10	ug/L	12/17/93
Ethylbenzene	100-41-4	ND	10	ug/L	12/17/93
2-Hexanone	591-78-6	ND	100	ug/L	12/17/93
Methylene Chloride	75-09-2	ND	10	ug/L	12/17/93
4-Methyl-2-pentanone	108-10-1	ND	100	ug/L	12/17/93
Styrene	100-42-5	ND	10	ug/L	12/17/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	10	ug/L	12/17/93
Tetrachloroethene	127-18-4	ND	10	ug/L	12/17/93
Toluene	108-88-3	ND	10	ug/L	12/17/93
1,1,1-Trichloroethane	71-55-6	ND	10	ug/L	12/17/93
1,1,2-Trichloroethane	79-00-5	ND	10	ug/L	12/17/93
Trichloroethene	79-01-6	ND	10	ug/L	12/17/93
Vinyl Acetate	108-05-4	ND	100	ug/L	12/17/93
Vinyl Chloride	75-01-4	ND	30	ug/L	12/17/93
Xylenes, Total	1330-20-7	ND	30	ug/L	12/17/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-6
AEN LAB NO: 9312093-01E
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - Water		-		Prep Date	12/13/93
Arsenic	EPA 7060	1.2 *	0.1	mg/L	12/20/93
Selenium	EPA 7740	ND	0.2	mg/L	12/20/93
Cadmium	EPA 6010	0.82 *	0.03	mg/L	12/15/93
Chromium	EPA 6010	23 *	0.05	mg/L	12/15/93
Copper	EPA 6010	5.4 *	0.05	mg/L	12/15/93
Lead	EPA 6010	570 *	0.2	mg/L	12/15/93
Nickel	EPA 6010	15 *	0.05	mg/L	12/15/93
Silver	EPA 6010	0.05 *	0.005	mg/L	12/15/93
Zinc	EPA 6010	100 *	0.03	mg/L	12/16/93

Reporting limits elevated for metals due to matrix interference.

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-6
AEN LAB NO: 9312093-01F
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - Water		-		Prep Date	01/05/94
Arsenic	EPA 7060	0.011 *	0.002	mg/L	01/10/94
Selenium	EPA 7740	ND	0.004	mg/L	01/10/94
Cadmium	EPA 6010	ND	0.005	mg/L	01/07/94
Chromium	EPA 6010	ND	0.01	mg/L	01/07/94
Copper	EPA 6010	ND	0.01	mg/L	01/07/94
Lead	EPA 6010	ND	0.04	mg/L	01/07/94
Nickel	EPA 6010	ND	0.01	mg/L	01/07/94
Silver	EPA 6010	ND	0.005	mg/L	01/07/94
Zinc	EPA 6010	0.20 *	0.005	mg/L	01/11/94
#Sample Filtration	0.45 um	-		Filtr Date	12/07/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-9
AEN LAB NO: 9312093-02A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	12/13/93
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	14 *	10	ug/L	12/20/93
Acenaphthylene	208-96-8	ND	10	ug/L	12/20/93
Anthracene	120-12-7	ND	10	ug/L	12/20/93
Benzidine	92-87-5	ND	50	ug/L	12/20/93
Benzoic Acid	65-85-0	ND	50	ug/L	12/20/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	12/20/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	12/20/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	12/20/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	12/20/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	12/20/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	12/20/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	12/20/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	12/20/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	12/20/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	12/20/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	12/20/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	12/20/93
4-Chloroaniline	106-47-8	ND	20	ug/L	12/20/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	12/20/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	12/20/93
Chrysene	218-01-9	ND	10	ug/L	12/20/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	12/20/93
Dibenzofuran	132-64-9	ND	10	ug/L	12/20/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	12/20/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	12/20/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	12/20/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	12/20/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	12/20/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	12/20/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	12/20/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	12/20/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	12/20/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	12/20/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	12/20/93
Fluoranthene	206-44-0	ND	10	ug/L	12/20/93
Fluorene	86-73-7	ND	10	ug/L	12/20/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	12/20/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	12/20/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-9
AEN LAB NO: 9312093-02A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	12/20/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	12/20/93
Isophorone	78-59-1	ND	10	ug/L	12/20/93
2-Methylnaphthalene	91-57-6	110 *	10	ug/L	12/20/93
Naphthalene	91-20-3	30 *	10	ug/L	12/20/93
2-Nitroaniline	88-74-4	ND	50	ug/L	12/20/93
3-Nitroaniline	99-09-2	ND	50	ug/L	12/20/93
4-Nitroaniline	100-01-6	ND	50	ug/L	12/20/93
Nitrobenzene	98-95-3	ND	10	ug/L	12/20/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	12/20/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	12/20/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	12/20/93
Phenanthrene	85-01-8	14 *	10	ug/L	12/20/93
Pyrene	129-00-0	ND	10	ug/L	12/20/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	12/20/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	12/20/93
2-Chlorophenol	95-57-8	ND	10	ug/L	12/20/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	12/20/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	12/20/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	12/20/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	12/20/93
2-Methylphenol	95-48-7	ND	10	ug/L	12/20/93
4-Methylphenol	106-44-5	ND	10	ug/L	12/20/93
2-Nitrophenol	88-75-5	ND	10	ug/L	12/20/93
4-Nitrophenol	100-02-7	ND	50	ug/L	12/20/93
Pentachlorophenol	87-86-5	ND	50	ug/L	12/20/93
Phenol	108-95-2	ND	10	ug/L	12/20/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	12/20/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	12/20/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-9
AEN LAB NO: 9312093-02C
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	12/16/93
Benzene	71-43-2	ND	5	ug/L	12/16/93
Bromodichloromethane	75-27-4	ND	5	ug/L	12/16/93
Bromoform	75-25-2	ND	5	ug/L	12/16/93
Bromomethane	74-83-9	ND	10	ug/L	12/16/93
2-Butanone	78-93-3	ND	100	ug/L	12/16/93
Carbon Disulfide	75-15-0	ND	10	ug/L	12/16/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	12/16/93
Chlorobenzene	108-90-7	ND	5	ug/L	12/16/93
Chloroethane	75-00-3	ND	10	ug/L	12/16/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	12/16/93
Chloroform	67-66-3	ND	5	ug/L	12/16/93
Chloromethane	74-87-3	ND	10	ug/L	12/16/93
Dibromochloromethane	124-48-1	ND	5	ug/L	12/16/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	12/16/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	12/16/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	12/16/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	12/16/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	12/16/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	12/16/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	12/16/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	12/16/93
Ethylbenzene	100-41-4	130 *	5	ug/L	12/16/93
2-Hexanone	591-78-6	ND	50	ug/L	12/16/93
Methylene Chloride	75-09-2	ND	5	ug/L	12/16/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	12/16/93
Styrene	100-42-5	ND	5	ug/L	12/16/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	12/16/93
Tetrachloroethene	127-18-4	ND	5	ug/L	12/16/93
Toluene	108-88-3	6 *	5	ug/L	12/16/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	12/16/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	12/16/93
Trichloroethene	79-01-6	ND	5	ug/L	12/16/93
Vinyl Acetate	108-05-4	ND	50	ug/L	12/16/93
Vinyl Chloride	75-01-4	ND	10	ug/L	12/16/93
Xylenes, Total	1330-20-7	170 *	10	ug/L	12/16/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-9
AEN LAB NO: 9312093-02E
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - Water		-		Prep Date	12/14/93
Arsenic	EPA 7060	ND	0.1	mg/L	12/20/93
Selenium	EPA 7740	ND	0.05	mg/L	12/20/93
Cadmium	EPA 6010	0.09 *	0.03	mg/L	12/15/93
Chromium	EPA 6010	11 *	0.05	mg/L	12/15/93
Copper	EPA 6010	2.4 *	0.05	mg/L	12/15/93
Lead	EPA 6010	100 *	0.2	mg/L	12/15/93
Nickel	EPA 6010	15 *	0.05	mg/L	12/15/93
Silver	EPA 6010	0.18 *	0.005	mg/L	12/15/93
Zinc	EPA 6010	62 *	0.05	mg/L	12/15/93

Reporting limits elevated for metals due to matrix interference.

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-9
AEN LAB NO: 9312093-02F
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - Water		-		Prep Date	01/05/94
Arsenic	EPA 7060	0.005 *	0.002	mg/L	01/10/94
Selenium	EPA 7740	0.004 *	0.004	mg/L	01/10/94
Cadmium	EPA 6010	ND	0.005	mg/L	01/07/94
Chromium	EPA 6010	ND	0.01	mg/L	01/07/94
Copper	EPA 6010	ND	0.01	mg/L	01/07/94
Lead	EPA 6010	ND	0.04	mg/L	01/07/94
Nickel	EPA 6010	ND	0.01	mg/L	01/07/94
Silver	EPA 6010	ND	0.005	mg/L	01/07/94
Zinc	EPA 6010	0.10 *	0.005	mg/L	01/11/94
#Sample Filtration	0.45 um	-		Filtr Date	12/07/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-10
AEN LAB NO: 9312093-03A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	12/13/93
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	12/20/93
Acenaphthylene	208-96-8	ND	10	ug/L	12/20/93
Anthracene	120-12-7	ND	10	ug/L	12/20/93
Benzidine	92-87-5	ND	50	ug/L	12/20/93
Benzoic Acid	65-85-0	ND	50	ug/L	12/20/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	12/20/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	12/20/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	12/20/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	12/20/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	12/20/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	12/20/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	12/20/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	12/20/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	12/20/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	12/20/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	12/20/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	12/20/93
4-Chloroaniline	106-47-8	ND	20	ug/L	12/20/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	12/20/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	12/20/93
Chrysene	218-01-9	ND	10	ug/L	12/20/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	12/20/93
Dibenzofuran	132-64-9	ND	10	ug/L	12/20/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	12/20/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	12/20/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	12/20/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	12/20/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	12/20/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	12/20/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	12/20/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	12/20/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	12/20/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	12/20/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	12/20/93
Fluoranthene	206-44-0	ND	10	ug/L	12/20/93
Fluorene	86-73-7	ND	10	ug/L	12/20/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	12/20/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	12/20/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-10
AEN LAB NO: 9312093-03A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	12/20/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	12/20/93
Isophorone	78-59-1	ND	10	ug/L	12/20/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	12/20/93
Naphthalene	91-20-3	ND	10	ug/L	12/20/93
2-Nitroaniline	88-74-4	ND	50	ug/L	12/20/93
3-Nitroaniline	99-09-2	ND	50	ug/L	12/20/93
4-Nitroaniline	100-01-6	ND	50	ug/L	12/20/93
Nitrobenzene	98-95-3	ND	10	ug/L	12/20/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	12/20/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	12/20/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	12/20/93
Phenanthrene	85-01-8	ND	10	ug/L	12/20/93
Pyrene	129-00-0	ND	10	ug/L	12/20/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	12/20/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	12/20/93
2-Chlorophenol	95-57-8	ND	10	ug/L	12/20/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	12/20/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	12/20/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	12/20/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	12/20/93
2-Methylphenol	95-48-7	ND	10	ug/L	12/20/93
4-Methylphenol	106-44-5	ND	10	ug/L	12/20/93
2-Nitrophenol	88-75-5	ND	10	ug/L	12/20/93
4-Nitrophenol	100-02-7	ND	50	ug/L	12/20/93
Pentachlorophenol	87-86-5	ND	50	ug/L	12/20/93
Phenol	108-95-2	ND	10	ug/L	12/20/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	12/20/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	12/20/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-10
AEN LAB NO: 9312093-03C
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	EPA 8240				
Acetone	67-64-1	ND	100	ug/L	12/16/93
Benzene	71-43-2	ND	5	ug/L	12/16/93
Bromodichloromethane	75-27-4	ND	5	ug/L	12/16/93
Bromoform	75-25-2	ND	5	ug/L	12/16/93
Bromomethane	74-83-9	ND	10	ug/L	12/16/93
2-Butanone	78-93-3	ND	100	ug/L	12/16/93
Carbon Disulfide	75-15-0	ND	10	ug/L	12/16/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	12/16/93
Chlorobenzene	108-90-7	ND	5	ug/L	12/16/93
Chloroethane	75-00-3	ND	10	ug/L	12/16/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	12/16/93
Chloroform	67-66-3	ND	5	ug/L	12/16/93
Chloromethane	74-87-3	ND	10	ug/L	12/16/93
Dibromochloromethane	124-48-1	ND	5	ug/L	12/16/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	12/16/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	12/16/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	12/16/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	12/16/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	12/16/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	12/16/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	12/16/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	12/16/93
Ethylbenzene	100-41-4	ND	5	ug/L	12/16/93
2-Hexanone	591-78-6	ND	50	ug/L	12/16/93
Methylene Chloride	75-09-2	ND	5	ug/L	12/16/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	12/16/93
Styrene	100-42-5	ND	5	ug/L	12/16/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	12/16/93
Tetrachloroethene	127-18-4	ND	5	ug/L	12/16/93
Toluene	108-88-3	ND	5	ug/L	12/16/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	12/16/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	12/16/93
Trichloroethene	79-01-6	ND	5	ug/L	12/16/93
Vinyl Acetate	108-05-4	ND	50	ug/L	12/16/93
Vinyl Chloride	75-01-4	ND	10	ug/L	12/16/93
Xylenes, Total	1330-20-7	ND	10	ug/L	12/16/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-10
AEN LAB NO: 9312093-03E
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - Water		-		Prep Date	12/14/93
Arsenic	EPA 7060	ND	0.03	mg/L	12/20/93
Selenium	EPA 7740	ND	0.05	mg/L	12/20/93
Cadmium	EPA 6010	ND	0.03	mg/L	12/15/93
Chromium	EPA 6010	0.63 *	0.05	mg/L	12/15/93
Copper	EPA 6010	0.52 *	0.05	mg/L	12/15/93
Lead	EPA 6010	0.64 *	0.2	mg/L	12/15/93
Nickel	EPA 6010	0.52 *	0.05	mg/L	12/15/93
Silver	EPA 6010	ND	0.03	mg/L	12/15/93
Zinc	EPA 6010	1.1 *	0.03	mg/L	12/16/93

Reporting limits elevated for metals due to matrix interference.

ND = Not detected
* = Indicates value above reporting limit

PAGES 16 - 45

SOIL DATA

INCLUDED IN APPENDIX C

QUALITY CONTROL DATA

INSTRUMENT: 12 AEN JOB NO: 9312093

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
12/14/93	SWB-6/0.5-1.0'	04	111	101	95
12/14/93	SWB-6/5.5-6'	05	106	105	104
12/15/93	SWB-9/3-3.5'	08	104	97	104
12/21/93	SWB-9/10-10.5'	09	105	92	104
12/21/93	SWB-9/15-15.5'	10	104	97	98
12/14/93	SWB-10/1-1.5'	11	105	102	101
12/14/93	SWB-10/4-4.5'	12	104	102	100
12/15/93	SWB-9/4-4.5'	14	95	96	100

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d_4	(68-141)
Toluene-d_8	(89-119)
p-Bromofluorobenzene	(85-112)

QUALITY CONTROL DATA

DATE ANALYZED: 12/15/93
SAMPLE SPIKED: 9312093-11
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312093

INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	85	2
Trichloroethene	50.0	94	3
Benzene	50.0	96	2
Toluene	50.0	97	1
Chlorobenzene	50.0	95	2

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(66-143)	15
Trichloroethene	(60-127)	12
Benzene	(88-117)	10
Toluene	(70-126)	14
Chlorobenzene	(89-111)	13

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE ANALYZED: 12/23/93
SAMPLE SPIKED: 9312129-09
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312093
INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	141	1
Trichloroethene	50.0	103	<1
Benzene	50.0	116	2
Toluene	50.0	113	3
Chlorobenzene	50.0	107	<1

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(66-143)	15
Trichloroethene	(60-127)	12
Benzene	(88-117)	10
Toluene	(70-126)	14
Chlorobenzene	(89-111)	13

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

INSTRUMENT: 12 AEN JOB NO: 9312093

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
12/17/93	SWB-6	01	106	99	108
12/16/93	SWB-9	02	102	97	106
12/16/93	SWB-10	03	100	99	101

CURRENT QC LIMITS (Revised 11/21/93)

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(77-123)
Toluene-d8	(90-108)
p-Bromofluorobenzene	(89-109)

QUALITY CONTROL DATA

DATE ANALYZED: 12/16/93
SAMPLE SPIKED: 9312090-01
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312093
INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	102	9
Trichloroethene	50.0	102	2
Benzene	50.0	102	1
Toluene	50.0	103	<1
Chlorobenzene	50.0	98	<1

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(81-123)	12
Trichloroethene	(87-112)	9
Benzene	(92-116)	12
Toluene	(91-116)	12
Chlorobenzene	(92-113)	10

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/09,21/93 AEN JOB NO: 9312093

CLIENT PROJ. ID: KE1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
12/18/93	SWB-6/0.5-1.0'	04	38	60	53	51	33	66
12/20/93	SWB-6/5.5-6'	05	49	68	44	57	51	40
12/20/93	SWB-9/3-3.5'	08	D	D	D	D	D	D
01/04/94	SWB-9/10-10.5'	09	D	D	D	D	D	D
12/29/93	SWB-9/15-15.5'	10	51	113	81	30	48	50
12/18/93	SWB-10/1-1.5'	11	53	62	40	55	49	54
12/18/94	SWB-10/4-4.5'	12	59	71	50	67	57	54
12/20/93	SWB-9/4-4.5'	14	D	D	D	D	D	D

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(23-120)
2-Fluorobiphenyl	(30-115)
Terphenyl-d_{14}	(18-137)
Phenol-d_5	(24-113)
2-Fluorophenol	(25-121)
2,4,6-Tribromophenol	(19-122)

D = Surrogates diluted out

QUALITY CONTROL DATA

DATE EXTRACTED: 12/14/93
DATE ANALYZED: 12/20/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312093
SAMPLE SPIKED: 9312105-01
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
Phenol	3330	80	5
2-Chlorophenol	3330	79	2
1,4-Dichlorobenzene	3400	70	4
N-Nitroso-di-n-propylamine	3320	90	2
1,2,4-Trichlorobenzene	3330	71	3
4-Chloro-3-methylphenol	3270	102	5
Acenaphthene	3330	77	5
4-Nitrophenol	3300	71	9
2,4-Dinitrotoluene	3330	68	5
Pentachlorophenol	3380	63	6
Pyrene	3320	55	12

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(26- 90)	35
2-Chlorophenol	(25-102)	50
1,4-Dichlorobenzene	(28-104)	27
4-Nitroso-di-n-propylamine	(41-126)	38
1,2,4-Trichlorobenzene	(38-107)	23
4-Chloro-3-methylphenol	(26-103)	33
Acenaphthene	(31-137)	19
4-Nitrophenol	(11-114)	50
2,4-Dinitrotoluene	(28- 89)	47
Pentachlorophenol	(17-109)	47
Pyrene	(35-142)	36

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/13/93 AEN JOB NO: 9312093

CLIENT PROJ. ID: K1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
12/20/93	SWB-6	01	60	50	37	54	49	50
/20/93	SWB-9	02	62	54	43	77	67	62
./20/93	SWB-10	03	52	60	39	61	46	49

CURRENT QC LIMITS (REVISED 01/08/92)

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(47-104)
2-Fluorobiphenyl	(49-106)
Terphenyl-d_{14}	(36-138)
Phenol-d_5	(46-105)
2-Fluorophenol	(40- 97)
2,4,6-Tribromophenol	(37-145)

QUALITY CONTROL DATA

DATE EXTRACTED: 12/13/93
DATE ANALYZED: 12/21/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312093
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
Phenol	200	68	8
2-Chlorophenol	200	79	<1
1,4-Dichlorobenzene	204	59	7
N-Nitroso-di-n-propylamine	199	74	9
1,2,4-Trichlorobenzene	200	59	10
4-Chloro-3-methylphenol	196	93	3
Acenaphthene	200	71	9
4-Nitrophenol	198	72	8
2,4-Dinitrotoluene	200	72	4
Pentachlorophenol	203	67	8
Pyrene	199	41	12

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(12-110)	42
2-Chlorophenol	(27-123)	40
1,4-Dichlorobenzene	(36- 97)	28
4-Nitroso-di-n-propylamine	(41-116)	38
1,2,4-Trichlorobenzene	(39- 98)	28
4-Chloro-3-methylphenol	(23- 97)	42
Acenaphthene	(46-118)	31
4-Nitrophenol	(10- 80)	50
2,4-Dinitrotoluene	(24- 96)	38
Pentachlorophenol	(9-103)	50
Pyrene	(26-127)	31

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: SOIL

CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312093
SAMPLE SPIKED: SAND
DIGESTION DATE: 12/14/93

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/kg)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Ag, Silver	ICP/6010	10	54	2	50-150	20
As, Arsenic	4000/7060	20	84	<1	75-125	20
Cd, Cadmium	ICP/6010	10	84	2	75-125	20
Cr, Chromium	ICP/6010	50	92	2	75-125	20
Cu, Copper	ICP/6010	50	91	3	75-125	20
Ni, Nickel	ICP/6010	50	90	2	75-125	20
Pb, Lead	ICP/6010	50	90	3	75-125	20
Se, Selenium	4000/7740	40	91	9	73-126	14
Zn, Zinc	ICP/6010	50	87	2	75-125	20

RPD = Relative Percent Difference

Daily method blanks for all associated runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9312093

CLIENT PROJ. ID: KE1495-1A-2112

DIGESTION DATE: 12/13/93

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	0.1	101	2	66-127	11
As, Arsenic	4000/7060	0.04	105	4	90-115	12
Cd, Cadmium	ICP/6010	0.05	99	5	71-134	12
Cr, Chromium	ICP/6010	0.2	104	2	85-114	6
Cu, Copper	ICP/6010	0.25	95	2	86-112	5
Ni, Nickel	ICP/6010	0.5	99	2	87-114	5
Pb, Lead	ICP/6010	0.5	99	2	87-115	6
Se, Selenium	4000/7740	0.08	102	2	76-131	14
Zn, Zinc	ICP/6010	0.5	101	2	86-115	5

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9312093

CLIENT PROJ. ID: KE1495-1A-2112

DIGESTION DATE: 01/05-10/94

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Ag, Silver	ICP/6010	0.25	83	4	66-127	11
As, Arsenic	4000/7060	0.04	95	9	90-115	12
Cd, Cadmium	ICP/6010	0.25	103	5	71-134	12
Cr, Chromium	ICP/6010	0.2	103	3	85-114	6
Cu, Copper	ICP/6010	0.25	103	3	86-112	5
Ni, Nickel	ICP/6010	0.5	102	3	87-114	5
Pb, Lead	ICP/6010	0.5	101	6	87-115	6
Se, Selenium	4000/7740	0.08	95	1	76-131	14
Zn, Zinc	ICP/6010	0.5	108	2	86-115	5

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

*** END OF REPORT ***

R-3, S-2
C-1, S
R-1, S

Lab Job # 12093

CHAIN-OF-CUSTODY RECORD

Project Number: KEA-5-1A-2112

Project Name: Fuller O'Brien

Location: So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil	Metals filtered	Metals - To be filtered	Remarks
SWB-6	01AB	12/7/93		X	2x1L Amber			X							12/08 per Tacia pls. cancel
SWB-6	01CD				2x40ml vol's		X								Cu analysis. kps 12/10 added back
SWB-6	01E				1x500ml Plastic							X			
SWB-6	01F				↓								X		Hold!
SWB-9	02AB				2x1L Amber			X							01/04 - Per Tacia, pls. take samples
SWB-9	02CD				2x40ml vol's		X								SWB-6 and SWB-9 off hold status
SWB-9	02E				1x500ml Plastic							X			and analyze for metals listed below
SWB-9	02F				↓								X		Hold! std TAT is requested. kps
SWB-10	03AB				2x1L Amber			X							
SWB-10	03CD				2x40ml Amber		X								
SWB-10	03E				1x500ml Plastic							X			
SWB-10	03F	↓		↓	↓								X		Hold!
															Metals for As, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn, Cu kps 12/01/93

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12/7/93 19:30	[signature]
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	12/7/93 2010	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	12/7/93 2010	Denise Harrington

Ship To: _____

Attention: _____

Phone No: _____

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks: Hold Metals to be filtered

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

Lab Job # 12093

CHAIN-OF-CUSTODY RECORD

Project Number: KE1495-1A-2112

Project Name: Fuller O'Brien

Location: So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals -				Remarks
SWB-6/05-10'	04A	12/7/93	X		2"x6" Brass Liner			X	X				X				12/08 Per Tacia, pls. cancel Cu analysis. APS 12/10 add Cu 12/10/93 APS
SWB-6/5.5-6'	05A *							X	X				X				
SWB-6/10-10.5'	06A																Hold
SWB-6/15-15.5'	07A																Hold
SWB-9/3-3.5'	08A							X	X				X				
SWB-9/10-10.5'	09A							*	*								~~Hold~~ > analyze for 8240 + 8270 per Tacia 12/21 - DS
SWB-9/15-15.5'	10A							*	*								~~Hold~~
SWB-10/1-1.5'	11A							X	X				X				
SWB-10/4-4.5'	12A							X	X				X				
SWB-10/8.5-9'	13A																Hold
~~SWB-9/10-10.5~~																	1-5-94 - per client send sample SWB-9/4-4.5 to Jenkins, Sanders + Assoc. gg
SWB-9/4-4.5	14A							X	X				X				
																	Metals for As, Cd, Cr, ~~Cu~~, Pb, Ni, Se, Ag, Zn, Cu APS 12/08

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12-7-93 19:30	[signature]
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	12-7-93 20:10	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	12/7/93 2010	Denise Harrington

Ship To: * Sample SWB-6/5.5-6' returned to client 1/11 - gg

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

[illegible] - for [illegible] pls. take the following samples off hold status and analyze for requested metals (filter sample in lab). standard TAT is requested. JPr

Page 1 of 1

Lab Job # _____

SENT BY: 1- 4-94 ; 1:29PM ; HARZA KALDVEER- 15109300256;# 3/ 3

CHAIN-OF-CUSTODY RECORD

Project Number	Project Name
KE1495-1A-2412	Fuller O'Brien
	Location: So. S.F., CA

Sampler's Name (printed): Tara Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides/PCBs	Waste Oil -	Metals - Unfiltered				Remarks
SWB-6		7/4/94		X	1x500ml plastic								X				9312093 - FA 1F
SWB-7		↓		↓	Unpreserved								X				9312109 - 21F
SWB-8													X				9312104 - 5F
SWB-9		↓		↓	↓								X				9312093 - 2F

Filter & Metals in Lab!

Metals for As, Ag, Cd, Cr, Cu, Ni, Pb, Se, Zn

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tara C. Miller	7/4/94	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Ship To: _____

Attention: _____

Phone No: _____

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: KE1495-1A-2112
PROJ. NAME: FULLER O'BRIEN

REPORT DATE: 01/18/94

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93

ADDITIONAL ANALYSIS
REQUESTED: 12/10-22/93-
01/04/94

AEN JOB NO: 9312104

PROJECT SUMMARY:

On December 8, 1993, this laboratory received four (4) soil samples and one (1) water sample.

Client requested two (2) soil samples and the water sample be analyzed for inorganic and organic parameters. Two (2) soil samples and sample fraction for filtered metals were placed on hold. On December 10, 1993, client requested additional analysis on samples for Copper. On December 22, 1993, client requested samples SWB-8/10-10.5' and SWB-8/15-15.5' be taken off hold and analyzed by EPA Method 8270. On January 4, 1994, client requested sample SWB-8 for filtered metals be taken off hold. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

Sample SWB-8/5-5.5'(9312104-02) was analyzed dilute due to high levels of non-target compounds, and reporting limits were adjusted accordingly. Surrogate recoveries for this sample cannot be reported due to this dilution.

All other laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Larry Klein
General Manager

Results FAXed 12/20/93-01/13/94

PAGES 2 - 13

SOIL DATA

INCLUDED IN APPENDIX C

HARZA KALDVEER

SAMPLE ID: SWB-8
AEN LAB NO: 9312104-05A
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	EPA 8240				
Acetone	67-64-1	ND	100	ug/L	12/16/93
Benzene	71-43-2	ND	5	ug/L	12/16/93
Bromodichloromethane	75-27-4	ND	5	ug/L	12/16/93
Bromoform	75-25-2	ND	5	ug/L	12/16/93
Bromomethane	74-83-9	ND	10	ug/L	12/16/93
2-Butanone	78-93-3	ND	100	ug/L	12/16/93
Carbon Disulfide	75-15-0	ND	10	ug/L	12/16/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	12/16/93
Chlorobenzene	108-90-7	ND	5	ug/L	12/16/93
Chloroethane	75-00-3	ND	10	ug/L	12/16/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	12/16/93
Chloroform	67-66-3	ND	5	ug/L	12/16/93
Chloromethane	74-87-3	ND	10	ug/L	12/16/93
Dibromochloromethane	124-48-1	ND	5	ug/L	12/16/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	12/16/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	12/16/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	12/16/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	12/16/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	12/16/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	12/16/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	12/16/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	12/16/93
Ethylbenzene	100-41-4	ND	5	ug/L	12/16/93
2-Hexanone	591-78-6	ND	50	ug/L	12/16/93
Methylene Chloride	75-09-2	ND	5	ug/L	12/16/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	12/16/93
Styrene	100-42-5	ND	5	ug/L	12/16/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	12/16/93
Tetrachloroethene	127-18-4	ND	5	ug/L	12/16/93
Toluene	108-88-3	ND	5	ug/L	12/16/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	12/16/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	12/16/93
Trichloroethene	79-01-6	ND	5	ug/L	12/16/93
Vinyl Acetate	108-05-4	ND	50	ug/L	12/16/93
Vinyl Chloride	75-01-4	ND	10	ug/L	12/16/93
Xylenes, Total	1330-20-7	ND	10	ug/L	12/16/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-8
AEN LAB NO: 9312104-05C
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	12/13/93
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	12/20/93
Acenaphthylene	208-96-8	ND	10	ug/L	12/20/93
Anthracene	120-12-7	ND	10	ug/L	12/20/93
Benzidine	92-87-5	ND	50	ug/L	12/20/93
Benzoic Acid	65-85-0	ND	50	ug/L	12/20/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	12/20/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	12/20/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	12/20/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	12/20/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	12/20/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	12/20/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	12/20/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	12/20/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	12/20/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	12/20/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	12/20/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	12/20/93
4-Chloroaniline	106-47-8	ND	20	ug/L	12/20/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	12/20/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	12/20/93
Chrysene	218-01-9	ND	10	ug/L	12/20/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	12/20/93
Dibenzofuran	132-64-9	ND	10	ug/L	12/20/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	12/20/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	12/20/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	12/20/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	12/20/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	12/20/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	12/20/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	12/20/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	12/20/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	12/20/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	12/20/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	12/20/93
Fluoranthene	206-44-0	ND	10	ug/L	12/20/93
Fluorene	86-73-7	ND	10	ug/L	12/20/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	12/20/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	12/20/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-8
AEN LAB NO: 9312104-05C
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	12/20/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	12/20/93
Isophorone	78-59-1	ND	10	ug/L	12/20/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	12/20/93
Naphthalene	91-20-3	ND	10	ug/L	12/20/93
2-Nitroaniline	88-74-4	ND	50	ug/L	12/20/93
3-Nitroaniline	99-09-2	ND	50	ug/L	12/20/93
4-Nitroaniline	100-01-6	ND	50	ug/L	12/20/93
Nitrobenzene	98-95-3	ND	10	ug/L	12/20/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	12/20/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	12/20/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	12/20/93
Phenanthrene	85-01-8	ND	10	ug/L	12/20/93
Pyrene	129-00-0	ND	10	ug/L	12/20/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	12/20/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	12/20/93
2-Chlorophenol	95-57-8	ND	10	ug/L	12/20/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	12/20/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	12/20/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	12/20/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	12/20/93
2-Methylphenol	95-48-7	ND	10	ug/L	12/20/93
4-Methylphenol	106-44-5	ND	10	ug/L	12/20/93
2-Nitrophenol	88-75-5	ND	10	ug/L	12/20/93
4-Nitrophenol	100-02-7	ND	50	ug/L	12/20/93
Pentachlorophenol	87-86-5	ND	50	ug/L	12/20/93
Phenol	108-95-2	ND	10	ug/L	12/20/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	12/20/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	12/20/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-8
AEN LAB NO: 9312104-05E
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - Water		-		Prep Date	12/13/93
Arsenic	EPA 7060	0.04 *	0.01	mg/L	12/15/93
Selenium	EPA 7740	ND	0.02	mg/L	12/15/93
Cadmium	EPA 6010	ND	0.03	mg/L	12/15/93
Chromium	EPA 6010	0.26 *	0.05	mg/L	12/15/93
Copper	EPA 6010	0.26 *	0.05	mg/L	12/15/93
Lead	EPA 6010	200 *	0.2	mg/L	12/15/93
Nickel	EPA 6010	0.64 *	0.05	mg/L	12/15/93
Silver	EPA 6010	ND	0.03	mg/L	12/15/93
Zinc	EPA 6010	2.6 *	0.03	mg/L	12/16/93

Reporting limits elevated for metals due to matrix interference.

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-8
AEN LAB NO: 9312104-05F
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - Water		-		Prep Date	01/05/94
Arsenic	EPA 7060	0.002 *	0.002	mg/L	01/10/94
Selenium	EPA 7740	ND	0.004	mg/L	01/10/94
Cadmium	EPA 6010	ND	0.005	mg/L	01/07/94
Chromium	EPA 6010	ND	0.01	mg/L	01/07/94
Copper	EPA 6010	ND	0.01	mg/L	01/07/94
Lead	EPA 6010	0.08 *	0.04	mg/L	01/07/94
Nickel	EPA 6010	0.01 *	0.01	mg/L	01/07/94
Silver	EPA 6010	ND	0.005	mg/L	01/07/94
Zinc	EPA 6010	0.050 *	0.005	mg/L	01/12/94
#Sample Filtration	0.45 um	-		Filtr Date	12/08/93

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

INSTRUMENT: 13 AEN JOB NO: 9312104

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
12/14/93	SWB-8/0.5-1'	01	105	100	102
12/14/93	SWB-8/5-5.5'	02	116	98	110

CURRENT QC LIMITS (Revised 11/21/93)

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(68-141)
Toluene-d8	(89-119)
p-Bromofluorobenzene	(85-112)

QUALITY CONTROL DATA

DATE ANALYZED: 12/15/93
SAMPLE SPIKED: 9312093-11
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312104

INSTRUMENT: 13

SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	85	2
Trichloroethene	50.0	94	3
Benzene	50.0	96	2
Toluene	50.0	97	1
Chlorobenzene	50.0	95	2

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(66-143)	15
Trichloroethene	(60-127)	12
Benzene	(88-117)	10
Toluene	(70-126)	14
Chlorobenzene	(89-111)	13

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

INSTRUMENT: 12

AEN JOB NO: 9312104

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
12/16/93	SWB-8	05	96	103	107

CURRENT QC LIMITS (Revised 11/21/93)

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(77-123)
Toluene-d8	(90-108)
p-Bromofluorobenzene	(89-109)

QUALITY CONTROL DATA

DATE ANALYZED: 12/16/93
SAMPLE SPIKED: 9312090-01
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312104
INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	102	9
Trichloroethene	50.0	102	2
Benzene	50.0	102	1
Toluene	50.0	103	1
Chlorobenzene	50.0	98	<1

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(81-123)	12
Trichloroethene	(87-112)	9
Benzene	(92-116)	12
Toluene	(91-116)	12
Chlorobenzene	(92-113)	10

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/14,22/93 AEN JOB NO: 9312104

CLIENT PROJ. ID: KE1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
'19/93	SWB-8/0.5-1'	01	59	87	53	64	64	63
/19/93	SWB-8/5-5.5'	02	75	104	62	93	80	80
12/30/93	SWB-8/10-10.5'	03	48	57	39	49	54	68
01/04/94	SWB-8/15-15.5'	04	43	54	48	39	34	65

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(23-120)
2-Fluorobiphenyl	(30-115)
Terphenyl-d_{14}	(18-137)
Phenol-d_5	(24-113)
2-Fluorophenol	(25-121)
2,4,6-Tribromophenol	(19-122)

QUALITY CONTROL DATA

DATE EXTRACTED: 12/14/93
DATE ANALYZED: 12/20/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312104
SAMPLE SPIKED: 9312105-01A
INSTRUMENT: 11

SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
Phenol	3330	80	5
2-Chlorophenol	3330	79	2
1,4-Dichlorobenzene	3400	70	4
N-Nitroso-di-n-propylamine	3320	90	2
1,2,4-Trichlorobenzene	3330	71	3
4-Chloro-3-methylphenol	3270	102	5
Acenaphthene	3330	77	5
4-NitrophenoL	3300	71	9
2,4-Dinitrotoluene	3330	68	5
Pentachlorophenol	3380	63	6
Pyrene	3320	55	12

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(26- 90)	35
2-Chlorophenol	(25-102)	50
1,4-Dichlorobenzene	(28-104)	27
4-Nitroso-di-n-propylamine	(41-126)	38
1,2,4-Trichlorobenzene	(38-107)	23
4-Chloro-3-methylphenol	(26-103)	33
Acenaphthene	(31-137)	19
4-Nitrophenol	(11-114)	50
2,4-Dinitrotoluene	(28- 89)	47
Pentachlorophenol	(17-109)	47
Pyrene	(35-142)	36

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/15/93
DATE ANALYZED: 12/24/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312104
SAMPLE SPIKED: 9312129-11
INSTRUMENT: 11

SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
Phenol	3330	66	1
2-Chlorophenol	3330	66	7
1,4-Dichlorobenzene	3400	57	8
N-Nitroso-di-n-propylamine	3320	68	5
1,2,4-Trichlorobenzene	3330	58	5
4-Chloro-3-methylphenol	3270	84	25
Acenaphthene	3330	72	12
4-NitrophenoL	3300	68	21
2,4-Dinitrotoluene	3330	68	14
Pentachlorophenol	3380	56	4
Pyrene	3320	43	3

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(26- 90)	35
2-Chlorophenol	(25-102)	50
1,4-Dichlorobenzene	(28-104)	27
4-Nitroso-di-n-propylamine	(41-126)	38
1,2,4-Trichlorobenzene	(38-107)	23
4-Chloro-3-methylphenol	(26-103)	33
Acenaphthene	(31-137)	19
4-Nitrophenol	(11-114)	50
2,4-Dinitrotoluene	(28- 89)	47
Pentachlorophenol	(17-109)	47
Pyrene	(35-142)	36

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/13/93 AEN JOB NO: 9312104

CLIENT PROJ. ID: KE1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date alyzed	Client Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
12/20/93	SWB-8	05	67	60	41	73	59	62

CURRENT QC LIMITS (REVISED 01/08/92)

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(47-104)
2-Fluorobiphenyl	(49-106)
Terphenyl-d_{14}	(38-128)
Phenol-d_5	(46-105)
2-Fluorophenol	(40- 97)
2,4,6-Tribromophenol	(37-145)

QUALITY CONTROL DATA

DATE EXTRACTED: 12/13/93
DATE ANALYZED: 12/21/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312104
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: 11

METHOD SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
Phenol	200	68	8
2-Chlorophenol	200	79	1
1,4-Dichlorobenzene	204	59	7
N-Nitroso-di-n-propylamine	199	74	9
1,2,4-Trichlorobenzene	200	59	10
4-Chloro-3-methylphenol	196	93	3
Acenaphthene	200	71	9
4-Nitrophenol	198	72	8
2,4-Dinitrotoluene	200	72	4
Pentachlorophenol	203	67	8
Pyrene	199	41	12

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(12-110)	42
2-Chlorophenol	(27-123)	40
1,4-Dichlorobenzene	(36- 97)	28
4-Nitroso-di-n-propylamine	(41-116)	38
1,2,4-Trichlorobenzene	(39- 98)	28
4-Chloro-3-methylphenol	(23- 97)	42
Acenaphthene	(46-118)	31
4-Nitrophenol	(10- 80)	50
2,4-Dinitrotoluene	(24- 96)	38
Pentachlorophenol	(9-103)	50
Pyrene	(26-127)	31

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: SOIL

CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312104
SAMPLE SPIKED: SAND
DIGESTION DATE: 12/14/93

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/kg)	% REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	10	54	2	50-150	20
As, Arsenic	4000/7060	20	84	<1	75-125	20
Cd, Cadmium	ICP/6010	10	84	2	75-125	20
Cr, Chromium	ICP/6010	50	92	2	75-125	20
Cu, Copper	ICP/6010	50	91	3	75-125	20
Ni, Nickel	ICP/6010	50	90	2	75-125	20
Pb, Lead	ICP/6010	50	90	3	75-125	20
Se, Selenium	4000/7740	40	91	9	73-126	14
Zn, Zinc	ICP/6010	50	87	2	75-125	20

RPD = Relative Percent Difference
< = Less Than

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9312104

CLIENT PROJ. ID: KE1495-1A-2112

DIGESTION DATE: 12/13/93

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/L)	% REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	0.10	101	2	66-127	11
As, Arsenic	4000/7060	0.04	105	4	90-115	12
Cd, Cadmium	ICP/6010	0.05	99	5	71-134	12
Cr, Chromium	ICP/6010	0.20	104	2	85-114	6
Cu, Copper	ICP/6010	0.25	95	2	86-112	5
Ni, Nickel	ICP/6010	0.5	99	2	87-114	5
Pb, Lead	4000/6010	0.5	99	2	87-115	6
Se, Selenium	4000/7740	0.08	102	1	76-131	14
Zn, Zinc	ICP/6010	0.5	101	2	86-115	5

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9312104

CLIENT PROJ. ID: KE1495-1A-2112

DIGESTION DATE: 01/05-10/94

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	0.25	83	4	66-127	11
As, Arsenic	4000/7060	0.04	95	9	90-115	12
Cd, Cadmium	ICP/6010	0.25	103	5	71-134	12
Cr, Chromium	ICP/6010	0.2	103	3	85-114	6
Cu, Copper	ICP/6010	0.25	103	3	86-112	5
Ni, Nickel	ICP/6010	0.5	102	3	87-114	5
Pb, Lead	ICP/6010	0.5	101	6	87-115	6
Se, Selenium	4000/7740	0.08	95	1	76-131	14
Zn, Zinc	ICP/6010	0.5	108	2	86-115	5

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

*** END OF REPORT ***

R-3, S-2 (voas)
R-5, S-M (ambers)
R-4, S-A (soils)

Lab Job # 12104

CHAIN-OF-CUSTODY RECORD

Project Number: KE1495-1A-2112

Project Name: Fuller O'Brien

Location: So S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Unfiltered	Metals - To be filtered				Remarks
SWB-8/0.5-1'	01A	12/8/93	X	X	2x6" Brass			X	X				X					12/22 per Steve Henshaw pls.
SWB-8/5-5.5'	02A			X				X	X				X					add 8270 analysis to samples:
SWB-8/10-10.5'	03A			X					✓									~~Hold~~ SWB-8/10-10.5' &
SWB-8/15-15.5'	04A			X					✓									~~Hold~~ SWB-8/15-15.5'.
SWB-8	05AB			X	2x40mL VOAs			X										Jets
SWB-8	05CD				2x1L Ambers				X									01/04 - Per Tacia, pls take sample
SWB-8	05E				1x500mL Plastic								X					SWB-8 off hold status and analyze
SWB-8	05F			X										X				Hold for metals listed below.
																		std. TAT is requested. Jets
																		~~1-5-94 - SWB-8/5-5.5 was put on W.O.#~~
																		~~9312173, then sent out to~~
																		~~Jenkins, Sanders + Assoc per client~~
																		Metals for Ag, As, Cr, Cd,
																		Pb, Ni, Se, Ag, Zn, Cu

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12/8/93 16:40	[signature]
[signature]	12/8/93 19:00	
	12/8/93 1900	Received for Laboratory by: (Signature) Denise Harrington

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

1/4/94 - for Tacia pls. take the following samples off hold state and analyze for requested metals (filter sample in lab). standard TAT is requested. JPF

Page 1 of 1

Lab Job # _____

SENT BY:

CHAIN-OF-CUSTODY RECORD

Project Number: KE1495-1A-2412

Project Name: Fuller O'Brien

Location: So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 – TPH as Gasoline	Method 8015 – TPH as Diesel	Method 8240 – Volatile Organics	Method 8270 – Semi-Volatile Organics	Method 8010 – Halogenated Volatile Organics	Method 8080 – Organochlorine Pesticides/PCBs	Waste Oil –	Metals – Unfiltered					Remarks
SivB-6		1/4/94		X	1x500ml plastic Unpreserved								X					9312093 - 1A 1F
SivB-7													X					9312100 - 2F
SivB-8													X					9312101 - 5F
SivB-9													X					9312093 - 2F
																		Filter & Metals in Lab:
																		Metals Por As, Ag, Cd, Cr, Cu, Ni, Pb, Se, Zn

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	1/4/94	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Ship To: _____

Attention: _____

Phone No: _____

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates Geoscience Consultants
A California Corporation

1- 4-94 ; 1:28PM ; HARZA KALDVEER→ 15109300256;# 3/ 3

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation:

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: KE1495-1A-2112
PROJ. NAME: FULLER O'BRIEN

REPORT DATE: 01/17/94

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93

ADDITIONAL ANALYSIS
REQUESTED: 12/10-23/93-
01/04-07/94

AEN JOB NO: 9312129

PROJECT SUMMARY:

On December 9, 1993, this laboratory received seventeen (17) soil samples and five (5) water samples.

Client requested twelve (12) soil samples and all water samples be analyzed for inorganic and organic parameters. Five (5) soil samples and sample fractions for filtered metals were placed on hold. On December 10, 1993, client requested additional analysis on samples for Copper. On December 23, 1993, client requested sample SWB-5/10-10.5' be taken off hold and analyzed by EPA 8240. On January 4 and 7, 1994, client requested samples SWB-7 and SWB-11 for filtered metals be taken off hold. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

Due to laboratory error, samples SWB-7/10-10.5' and SWB-5/5-5.5'(9312129-09,12) was analyzed outside holding time for EPA Method 8240.

All other laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Larry Klein
General Manager

Results FAXed 12/22/93-01/13/94

PAGES 2 - 52

SOIL DATA

INCLUDED IN APPENDIX C

HARZA KALDVEER

SAMPLE ID: SWB-3
AEN LAB NO: 9312129-18A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	12/18/93
Benzene	71-43-2	ND	5	ug/L	12/18/93
Bromodichloromethane	75-27-4	ND	5	ug/L	12/18/93
Bromoform	75-25-2	ND	5	ug/L	12/18/93
Bromomethane	74-83-9	ND	10	ug/L	12/18/93
2-Butanone	78-93-3	ND	100	ug/L	12/18/93
Carbon Disulfide	75-15-0	ND	10	ug/L	12/18/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	12/18/93
Chlorobenzene	108-90-7	ND	5	ug/L	12/18/93
Chloroethane	75-00-3	ND	10	ug/L	12/18/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	12/18/93
Chloroform	67-66-3	ND	5	ug/L	12/18/93
Chloromethane	74-87-3	ND	10	ug/L	12/18/93
Dibromochloromethane	124-48-1	ND	5	ug/L	12/18/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	12/18/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	12/18/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	12/18/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	12/18/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	12/18/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	12/18/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	12/18/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	12/18/93
Ethylbenzene	100-41-4	ND	5	ug/L	12/18/93
2-Hexanone	591-78-6	ND	50	ug/L	12/18/93
Methylene Chloride	75-09-2	ND	5	ug/L	12/18/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	12/18/93
Styrene	100-42-5	ND	5	ug/L	12/18/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	12/18/93
Tetrachloroethene	127-18-4	ND	5	ug/L	12/18/93
Toluene	108-88-3	ND	5	ug/L	12/18/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	12/18/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	12/18/93
Trichloroethene	79-01-6	ND	5	ug/L	12/18/93
Vinyl Acetate	108-05-4	ND	50	ug/L	12/18/93
Vinyl Chloride	75-01-4	ND	10	ug/L	12/18/93
Xylenes, Total	1330-20-7	ND	10	ug/L	12/18/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-3
AEN LAB NO: 9312129-18C
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	12/15/93
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	12/22/93
Acenaphthylene	208-96-8	ND	10	ug/L	12/22/93
Anthracene	120-12-7	ND	10	ug/L	12/22/93
Benzidine	92-87-5	ND	50	ug/L	12/22/93
Benzoic Acid	65-85-0	ND	50	ug/L	12/22/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	12/22/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	12/22/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	12/22/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	12/22/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	12/22/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	12/22/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	12/22/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	12/22/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	12/22/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	12/22/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	12/22/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	12/22/93
4-Chloroaniline	106-47-8	ND	20	ug/L	12/22/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	12/22/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	12/22/93
Chrysene	218-01-9	ND	10	ug/L	12/22/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	12/22/93
Dibenzofuran	132-64-9	ND	10	ug/L	12/22/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	12/22/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	12/22/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	12/22/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	12/22/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	12/22/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	12/22/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	12/22/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	12/22/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	12/22/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	12/22/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	12/22/93
Fluoranthene	206-44-0	ND	10	ug/L	12/22/93
Fluorene	86-73-7	ND	10	ug/L	12/22/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	12/22/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	12/22/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	12/22/93

HARZA KALDVEER

SAMPLE ID: SWB-3
AEN LAB NO: 9312129-18C
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	12/22/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	12/22/93
Isophorone	78-59-1	ND	10	ug/L	12/22/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	12/22/93
Naphthalene	91-20-3	64 *	10	ug/L	12/22/93
2-Nitroaniline	88-74-4	ND	50	ug/L	12/22/93
3-Nitroaniline	99-09-2	ND	50	ug/L	12/22/93
4-Nitroaniline	100-01-6	ND	50	ug/L	12/22/93
Nitrobenzene	98-95-3	ND	10	ug/L	12/22/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	12/22/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	12/22/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	12/22/93
Phenanthrene	85-01-8	ND	10	ug/L	12/22/93
Pyrene	129-00-0	ND	10	ug/L	12/22/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	12/22/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	12/22/93
2-Chlorophenol	95-57-8	ND	10	ug/L	12/22/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	12/22/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	12/22/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	12/22/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	12/22/93
2-Methylphenol	95-48-7	ND	10	ug/L	12/22/93
4-Methylphenol	106-44-5	ND	10	ug/L	12/22/93
2-Nitrophenol	88-75-5	ND	10	ug/L	12/22/93
4-Nitrophenol	100-02-7	ND	50	ug/L	12/22/93
Pentachlorophenol	87-86-5	ND	50	ug/L	12/22/93
Phenol	108-95-2	ND	10	ug/L	12/22/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	12/22/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	12/22/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-3
AEN LAB NO: 9312129-18E
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - Water		-		Prep Date	12/15/93
Arsenic	EPA 7060	0.25 *	0.05	mg/L	12/22/93
Selenium	EPA 7740	ND	0.1	mg/L	12/22/93
Cadmium	EPA 6010	ND	0.005	mg/L	12/17/93
Chromium	EPA 6010	3.4 *	0.01	mg/L	12/17/93
Copper	EPA 6010	1.2 *	0.01	mg/L	12/17/93
Lead	EPA 6010	0.68 *	0.04	mg/L	12/17/93
Nickel	EPA 6010	5.4 *	0.01	mg/L	12/17/93
Silver	EPA 6010	0.007 *	0.005	mg/L	12/17/93
Zinc	EPA 6010	2.1 *	0.005	mg/L	12/17/93

Reporting limits elevated for Arsenic and Selenium due to matrix interference.

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-4
AEN LAB NO: 9312129-19A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	12/18/93
Benzene	71-43-2	ND	5	ug/L	12/18/93
Bromodichloromethane	75-27-4	ND	5	ug/L	12/18/93
Bromoform	75-25-2	ND	5	ug/L	12/18/93
Bromomethane	74-B3-9	ND	10	ug/L	12/18/93
2-Butanone	78-93-3	ND	100	ug/L	12/18/93
Carbon Disulfide	75-15-0	ND	10	ug/L	12/18/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	12/18/93
Chlorobenzene	108-90-7	ND	5	ug/L	12/18/93
Chloroethane	75-00-3	ND	10	ug/L	12/18/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	12/18/93
Chloroform	67-66-3	ND	5	ug/L	12/18/93
Chloromethane	74-87-3	ND	10	ug/L	12/18/93
Dibromochloromethane	124-48-1	ND	5	ug/L	12/18/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	12/18/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	12/18/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	12/18/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	12/18/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	12/18/93
1,2-Dichloropropane	7B-87-5	ND	5	ug/L	12/18/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	12/18/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	12/18/93
Ethylbenzene	100-41-4	ND	5	ug/L	12/18/93
2-Hexanone	591-78-6	ND	50	ug/L	12/18/93
Methylene Chloride	75-09-2	ND	5	ug/L	12/18/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	12/18/93
Styrene	100-42-5	ND	5	ug/L	12/1B/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	12/18/93
Tetrachloroethene	127-18-4	ND	5	ug/L	12/18/93
Toluene	108-88-3	ND	5	ug/L	12/18/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	12/18/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	12/18/93
Trichloroethene	79-01-6	ND	5	ug/L	12/18/93
Vinyl Acetate	108-05-4	ND	50	ug/L	12/18/93
Vinyl Chloride	75-01-4	ND	10	ug/L	12/18/93
Xylenes, Total	1330-20-7	ND	10	ug/L	12/18/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-4
AEN LAB NO: 9312129-19C
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	**EPA 3520**	-		Extrn Date	12/15/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	10	ug/L	12/23/93
Acenaphthylene	208-96-8	ND	10	ug/L	12/23/93
Anthracene	120-12-7	ND	10	ug/L	12/23/93
Benzidine	92-87-5	ND	50	ug/L	12/23/93
Benzoic Acid	65-85-0	ND	50	ug/L	12/23/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	12/23/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	12/23/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	12/23/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	12/23/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	12/23/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	12/23/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	12/23/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	12/23/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	12/23/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	12/23/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	12/23/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	12/23/93
4-Chloroaniline	106-47-8	ND	20	ug/L	12/23/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	12/23/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	12/23/93
Chrysene	218-01-9	ND	10	ug/L	12/23/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	12/23/93
Dibenzofuran	132-64-9	ND	10	ug/L	12/23/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	12/23/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	12/23/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	12/23/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	12/23/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	12/23/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	12/23/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	12/23/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	12/23/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	12/23/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	12/23/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	12/23/93
Fluoranthene	206-44-0	ND	10	ug/L	12/23/93
Fluorene	86-73-7	ND	10	ug/L	12/23/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	12/23/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	12/23/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	12/23/93

HARZA KALDVEER

SAMPLE ID: SWB-4
AEN LAB NO: 9312129-19C
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	12/23/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	12/23/93
Isophorone	78-59-1	ND	10	ug/L	12/23/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	12/23/93
Naphthalene	91-20-3	ND	10	ug/L	12/23/93
2-Nitroaniline	88-74-4	ND	50	ug/L	12/23/93
3-Nitroaniline	99-09-2	ND	50	ug/L	12/23/93
4-Nitroaniline	100-01-6	ND	50	ug/L	12/23/93
Nitrobenzene	98-95-3	ND	10	ug/L	12/23/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	12/23/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	12/23/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	12/23/93
Phenanthrene	85-01-8	ND	10	ug/L	12/23/93
Pyrene	129-00-0	ND	10	ug/L	12/23/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	12/23/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	12/23/93
2-Chlorophenol	95-57-8	ND	10	ug/L	12/23/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	12/23/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	12/23/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	12/23/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	12/23/93
2-Methylphenol	95-48-7	ND	10	ug/L	12/23/93
4-Methylphenol	106-44-5	ND	10	ug/L	12/23/93
2-Nitrophenol	88-75-5	ND	10	ug/L	12/23/93
4-Nitrophenol	100-02-7	ND	50	ug/L	12/23/93
Pentachlorophenol	87-86-5	ND	50	ug/L	12/23/93
Phenol	108-95-2	ND	10	ug/L	12/23/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	12/23/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	12/23/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-4
AEN LAB NO: 9312129-19E
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - Water		-		Prep Date	12/15/93
Arsenic	EPA 7060	0.13 *	0.05	mg/L	12/22/93
Selenium	EPA 7740	ND	0.1	mg/L	12/22/93
Cadmium	EPA 6010	ND	0.005	mg/L	12/17/93
Chromium	EPA 6010	9.0 *	0.01	mg/L	12/17/93
Copper	EPA 6010	1.3 *	0.01	mg/L	12/17/93
Lead	EPA 6010	0.77 *	0.04	mg/L	12/17/93
Nickel	EPA 6010	17 *	0.01	mg/L	12/17/93
Silver	EPA 6010	0.009 *	0.005	mg/L	12/17/93
Zinc	EPA 6010	2.4 *	0.005	mg/L	12/17/93

Reporting limits elevated for Arsenic and Selenium due to matrix interference.

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-5
AEN LAB NO: 9312129-20A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	EPA 8240				
Acetone	67-64-1	ND	100	ug/L	12/18/93
Benzene	71-43-2	ND	5	ug/L	12/18/93
Bromodichloromethane	75-27-4	ND	5	ug/L	12/18/93
Bromoform	75-25-2	ND	5	ug/L	12/18/93
Bromomethane	74-83-9	ND	10	ug/L	12/18/93
2-Butanone	78-93-3	ND	100	ug/L	12/18/93
Carbon Disulfide	75-15-0	ND	10	ug/L	12/18/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	12/18/93
Chlorobenzene	108-90-7	ND	5	ug/L	12/18/93
Chloroethane	75-00-3	ND	10	ug/L	12/18/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	12/18/93
Chloroform	67-66-3	ND	5	ug/L	12/18/93
Chloromethane	74-87-3	ND	10	ug/L	12/18/93
Dibromochloromethane	124-48-1	ND	5	ug/L	12/18/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	12/18/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	12/18/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	12/18/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	12/18/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	12/18/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	12/18/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	12/18/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	12/18/93
Ethylbenzene	100-41-4	ND	5	ug/L	12/18/93
2-Hexanone	591-78-6	ND	50	ug/L	12/18/93
Methylene Chloride	75-09-2	ND	5	ug/L	12/18/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	12/18/93
Styrene	100-42-5	ND	5	ug/L	12/18/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	12/18/93
Tetrachloroethene	127-18-4	ND	5	ug/L	12/18/93
Toluene	108-88-3	ND	5	ug/L	12/18/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	12/18/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	12/18/93
Trichloroethene	79-01-6	ND	5	ug/L	12/18/93
Vinyl Acetate	108-05-4	ND	50	ug/L	12/18/93
Vinyl Chloride	75-01-4	ND	10	ug/L	12/18/93
Xylenes, Total	1330-20-7	ND	10	ug/L	12/18/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-5
AEN LAB NO: 9312129-20C
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	12/15/93
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	12/22/93
Acenaphthylene	208-96-8	ND	10	ug/L	12/22/93
Anthracene	120-12-7	ND	10	ug/L	12/22/93
Benzidine	92-87-5	ND	50	ug/L	12/22/93
Benzoic Acid	65-85-0	ND	50	ug/L	12/22/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	12/22/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	12/22/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	12/22/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	12/22/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	12/22/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	12/22/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	12/22/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	12/22/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	12/22/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	12/22/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	12/22/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	12/22/93
4-Chloroaniline	106-47-8	ND	20	ug/L	12/22/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	12/22/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	12/22/93
Chrysene	218-01-9	ND	10	ug/L	12/22/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	12/22/93
Dibenzofuran	132-64-9	ND	10	ug/L	12/22/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	12/22/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	12/22/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	12/22/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	12/22/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	12/22/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	12/22/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	12/22/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	12/22/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	12/22/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	12/22/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	12/22/93
Fluoranthene	206-44-0	ND	10	ug/L	12/22/93
Fluorene	86-73-7	ND	10	ug/L	12/22/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	12/22/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	12/22/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	12/22/93

HARZA KALDVEER

SAMPLE ID: SWB-5
AEN LAB NO: 9312129-20C
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	12/22/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	12/22/93
Isophorone	78-59-1	ND	10	ug/L	12/22/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	12/22/93
Naphthalene	91-20-3	ND	10	ug/L	12/22/93
2-Nitroaniline	88-74-4	ND	50	ug/L	12/22/93
3-Nitroaniline	99-09-2	ND	50	ug/L	12/22/93
4-Nitroaniline	100-01-6	ND	50	ug/L	12/22/93
Nitrobenzene	98-95-3	ND	10	ug/L	12/22/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	12/22/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	12/22/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	12/22/93
Phenanthrene	85-01-8	ND	10	ug/L	12/22/93
Pyrene	129-00-0	ND	10	ug/L	12/22/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	12/22/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	12/22/93
2-Chlorophenol	95-57-8	ND	10	ug/L	12/22/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	12/22/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	12/22/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	12/22/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	12/22/93
2-Methylphenol	95-48-7	ND	10	ug/L	12/22/93
4-Methylphenol	106-44-5	ND	10	ug/L	12/22/93
2-Nitrophenol	88-75-5	ND	10	ug/L	12/22/93
4-Nitrophenol	100-02-7	ND	50	ug/L	12/22/93
Pentachlorophenol	87-86-5	ND	50	ug/L	12/22/93
Phenol	108-95-2	ND	10	ug/L	12/22/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	12/22/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	12/22/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-5
AEN LAB NO: 9312129-20E
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - Water		-		Prep Date	12/15/93
Arsenic	EPA 7060	0.07 *	0.02	mg/L	12/22/93
Selenium	EPA 7740	ND	0.05	mg/L	12/22/93
Cadmium	EPA 6010	0.013 *	0.005	mg/L	12/17/93
Chromium	EPA 6010	1.8 *	0.01	mg/L	12/17/93
Copper	EPA 6010	0.88 *	0.01	mg/L	12/17/93
Lead	EPA 6010	0.72 *	0.04	mg/L	12/17/93
Nickel	EPA 6010	3.0 *	0.01	mg/L	12/17/93
Silver	EPA 6010	0.007 *	0.005	mg/L	12/17/93
Zinc	EPA 6010	1.3 *	0.005	mg/L	12/17/93

Reporting limits elevated for Arsenic and Selenium due to matrix interference.

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-7
AEN LAB NO: 9312129-21A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	12/18/93
Benzene	71-43-2	ND	5	ug/L	12/18/93
Bromodichloromethane	75-27-4	ND	5	ug/L	12/18/93
Bromoform	75-25-2	ND	5	ug/L	12/18/93
Bromomethane	74-83-9	ND	10	ug/L	12/18/93
2-Butanone	78-93-3	ND	100	ug/L	12/18/93
Carbon Disulfide	75-15-0	ND	10	ug/L	12/18/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	12/18/93
Chlorobenzene	108-90-7	ND	5	ug/L	12/18/93
Chloroethane	75-00-3	ND	10	ug/L	12/18/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	12/18/93
Chloroform	67-66-3	ND	5	ug/L	12/18/93
Chloromethane	74-87-3	ND	10	ug/L	12/18/93
Dibromochloromethane	124-48-1	ND	5	ug/L	12/18/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	12/18/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	12/18/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	12/18/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	12/18/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	12/18/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	12/18/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	12/18/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	12/18/93
Ethylbenzene	100-41-4	ND	5	ug/L	12/18/93
2-Hexanone	591-78-6	ND	50	ug/L	12/18/93
Methylene Chloride	75-09-2	ND	5	ug/L	12/18/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	12/18/93
Styrene	100-42-5	ND	5	ug/L	12/18/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	12/18/93
Tetrachloroethene	127-18-4	ND	5	ug/L	12/18/93
Toluene	108-88-3	ND	5	ug/L	12/18/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	12/18/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	12/18/93
Trichloroethene	79-01-6	ND	5	ug/L	12/18/93
Vinyl Acetate	108-05-4	ND	50	ug/L	12/18/93
Vinyl Chloride	75-01-4	ND	10	ug/L	12/18/93
Xylenes, Total	1330-20-7	ND	10	ug/L	12/18/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-7
AEN LAB NO: 9312129-21C
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	12/15/93
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	12/22/93
Acenaphthylene	208-96-8	ND	10	ug/L	12/22/93
Anthracene	120-12-7	ND	10	ug/L	12/22/93
Benzidine	92-87-5	ND	50	ug/L	12/22/93
Benzoic Acid	65-85-0	ND	50	ug/L	12/22/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	12/22/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	12/22/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	12/22/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	12/22/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	12/22/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	12/22/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	12/22/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	12/22/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	12/22/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	12/22/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	12/22/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	12/22/93
4-Chloroaniline	106-47-8	ND	20	ug/L	12/22/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	12/22/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	12/22/93
Chrysene	218-01-9	ND	10	ug/L	12/22/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	12/22/93
Dibenzofuran	132-64-9	ND	10	ug/L	12/22/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	12/22/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	12/22/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	12/22/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	12/22/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	12/22/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	12/22/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	12/22/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	12/22/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	12/22/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	12/22/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	12/22/93
Fluoranthene	206-44-0	ND	10	ug/L	12/22/93
Fluorene	86-73-7	ND	10	ug/L	12/22/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	12/22/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	12/22/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	12/22/93

HARZA KALDVEER

SAMPLE ID: SWB-7
AEN LAB NO: 9312129-21C
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	12/22/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	12/22/93
Isophorone	78-59-1	ND	10	ug/L	12/22/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	12/22/93
Naphthalene	91-20-3	ND	10	ug/L	12/22/93
2-Nitroaniline	88-74-4	ND	50	ug/L	12/22/93
3-Nitroaniline	99-09-2	ND	50	ug/L	12/22/93
4-Nitroaniline	100-01-6	ND	50	ug/L	12/22/93
Nitrobenzene	98-95-3	ND	10	ug/L	12/22/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	12/22/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	12/22/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	12/22/93
Phenanthrene	85-01-8	ND	10	ug/L	12/22/93
Pyrene	129-00-0	ND	10	ug/L	12/22/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	12/22/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	12/22/93
2-Chlorophenol	95-57-8	ND	10	ug/L	12/22/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	12/22/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	12/22/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	12/22/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	12/22/93
2-Methylphenol	95-48-7	ND	10	ug/L	12/22/93
4-Methylphenol	106-44-5	ND	10	ug/L	12/22/93
2-Nitrophenol	88-75-5	ND	10	ug/L	12/22/93
4-Nitrophenol	100-02-7	ND	50	ug/L	12/22/93
Pentachlorophenol	87-86-5	ND	50	ug/L	12/22/93
Phenol	108-95-2	ND	10	ug/L	12/22/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	12/22/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	12/22/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-7
AEN LAB NO: 9312129-21E
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - Water		-		Prep Date	12/15/93
Arsenic	EPA 7060	0.022 *	0.005	mg/L	12/22/93
Selenium	EPA 7740	0.02 *	0.01	mg/L	12/22/93
Cadmium	EPA 6010	0.009 *	0.005	mg/L	12/17/93
Chromium	EPA 6010	0.24 *	0.01	mg/L	12/17/93
Copper	EPA 6010	0.11 *	0.01	mg/L	12/17/93
Lead	EPA 6010	130 *	0.04	mg/L	12/17/93
Nickel	EPA 6010	0.55 *	0.01	mg/L	12/17/93
Silver	EPA 6010	ND	0.005	mg/L	12/17/93
Zinc	EPA 6010	1.7 *	0.005	mg/L	12/17/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-7
AEN LAB NO: 9312129-21F
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - Water		-		Prep Date	01/05/94
Arsenic	EPA 7060	ND	0.002	mg/L	01/10/94
Selenium	EPA 7740	ND	0.004	mg/L	01/10/94
Cadmium	EPA 6010	ND	0.005	mg/L	01/07/94
Chromium	EPA 6010	ND	0.01	mg/L	01/07/94
Copper	EPA 6010	ND	0.01	mg/L	01/07/94
Lead	EPA 6010	0.75 *	0.04	mg/L	01/07/94
Nickel	EPA 6010	ND	0.01	mg/L	01/07/94
Silver	EPA 6010	ND	0.005	mg/L	01/07/94
Zinc	EPA 6010	0.041 *	0.005	mg/L	01/11/94
#Sample Filtration	0.45 um	-		Filtr Date	12/09/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-11
AEN LAB NO: 9312129-22A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	12/18/93
Benzene	71-43-2	ND	5	ug/L	12/18/93
Bromodichloromethane	75-27-4	ND	5	ug/L	12/18/93
Bromoform	75-25-2	ND	5	ug/L	12/18/93
Bromomethane	74-83-9	ND	10	ug/L	12/18/93
2-Butanone	78-93-3	ND	100	ug/L	12/18/93
Carbon Disulfide	75-15-0	ND	10	ug/L	12/18/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	12/18/93
Chlorobenzene	108-90-7	ND	5	ug/L	12/18/93
Chloroethane	75-00-3	ND	10	ug/L	12/18/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	12/18/93
Chloroform	67-66-3	ND	5	ug/L	12/18/93
Chloromethane	74-87-3	ND	10	ug/L	12/18/93
Dibromochloromethane	124-48-1	ND	5	ug/L	12/18/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	12/18/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	12/18/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	12/18/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	12/18/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	12/18/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	12/18/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	12/18/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	12/18/93
Ethylbenzene	100-41-4	ND	5	ug/L	12/18/93
2-Hexanone	591-78-6	ND	50	ug/L	12/18/93
Methylene Chloride	75-09-2	ND	5	ug/L	12/18/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	12/18/93
Styrene	100-42-5	ND	5	ug/L	12/18/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	12/18/93
Tetrachloroethene	127-18-4	ND	5	ug/L	12/18/93
Toluene	108-88-3	ND	5	ug/L	12/18/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	12/18/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	12/18/93
Trichloroethene	79-01-6	ND	5	ug/L	12/18/93
Vinyl Acetate	108-05-4	ND	50	ug/L	12/18/93
Vinyl Chloride	75-01-4	ND	10	ug/L	12/18/93
Xylenes, Total	1330-20-7	ND	10	ug/L	12/18/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-11
AEN LAB NO: 9312129-22C
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	12/15/93
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	12/22/93
Acenaphthylene	208-96-8	ND	10	ug/L	12/22/93
Anthracene	120-12-7	ND	10	ug/L	12/22/93
Benzidine	92-87-5	ND	50	ug/L	12/22/93
Benzoic Acid	65-85-0	ND	50	ug/L	12/22/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	12/22/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	12/22/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	12/22/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	12/22/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	12/22/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	12/22/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	12/22/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	12/22/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	12/22/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	12/22/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	12/22/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	12/22/93
4-Chloroaniline	106-47-8	ND	20	ug/L	12/22/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	12/22/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	12/22/93
Chrysene	218-01-9	ND	10	ug/L	12/22/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	12/22/93
Dibenzofuran	132-64-9	ND	10	ug/L	12/22/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	12/22/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	12/22/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	12/22/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	12/22/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	12/22/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	12/22/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	12/22/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	12/22/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	12/22/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	12/22/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	12/22/93
Fluoranthene	206-44-0	ND	10	ug/L	12/22/93
Fluorene	86-73-7	ND	10	ug/L	12/22/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	12/22/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	12/22/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	12/22/93

HARZA KALDVEER

SAMPLE ID: SWB-11
AEN LAB NO: 9312129-22C
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	12/22/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	12/22/93
Isophorone	78-59-1	ND	10	ug/L	12/22/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	12/22/93
Naphthalene	91-20-3	ND	10	ug/L	12/22/93
2-Nitroaniline	88-74-4	ND	50	ug/L	12/22/93
3-Nitroaniline	99-09-2	ND	50	ug/L	12/22/93
4-Nitroaniline	100-01-6	ND	50	ug/L	12/22/93
Nitrobenzene	98-95-3	ND	10	ug/L	12/22/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	12/22/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	12/22/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	12/22/93
Phenanthrene	85-01-8	ND	10	ug/L	12/22/93
Pyrene	129-00-0	ND	10	ug/L	12/22/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	12/22/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	12/22/93
2-Chlorophenol	95-57-8	ND	10	ug/L	12/22/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	12/22/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	12/22/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	12/22/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	12/22/93
2-Methylphenol	95-48-7	ND	10	ug/L	12/22/93
4-Methylphenol	106-44-5	ND	10	ug/L	12/22/93
2-Nitrophenol	88-75-5	ND	10	ug/L	12/22/93
4-Nitrophenol	100-02-7	ND	50	ug/L	12/22/93
Pentachlorophenol	87-86-5	ND	50	ug/L	12/22/93
Phenol	108-95-2	ND	10	ug/L	12/22/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	12/22/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	12/22/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-11
AEN LAB NO: 9312129-22E
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - Water		-		Prep Date	01/07/94
Arsenic	EPA 7060	0.17 *	0.002	mg/L	01/10/94
Selenium	EPA 7740	0.005 *	0.004	mg/L	01/10/94
Cadmium	EPA 6010	0.052 *	0.005	mg/L	01/10/94
Chromium	EPA 6010	2.2 *	0.01	mg/L	01/10/94
Copper	EPA 6010	1.6 *	0.01	mg/L	01/10/94
Lead	EPA 6010	52 *	0.04	mg/L	01/10/94
Nickel	EPA 6010	1.0 *	0.01	mg/L	01/10/94
Silver	EPA 6010	0.006 *	0.005	mg/L	01/10/94
Zinc	EPA 6010	50 *	0.005	mg/L	01/10/94

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-11
AEN LAB NO: 9312129-22F
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion - Water		-		Prep Date	01/07/94
Arsenic	EPA 7060	0.009 *	0.002	mg/L	01/10/94
Selenium	EPA 7740	ND	0.004	mg/L	01/10/94
Cadmium	EPA 6010	ND	0.005	mg/L	01/10/94
Chromium	EPA 6010	ND	0.01	mg/L	01/10/94
Copper	EPA 6010	ND	0.01	mg/L	01/10/94
Lead	EPA 6010	ND	0.04	mg/L	01/10/94
Nickel	EPA 6010	ND	0.01	mg/L	01/10/94
Silver	EPA 6010	ND	0.005	mg/L	01/10/94
Zinc	EPA 6010	0.032 *	0.005	mg/L	01/13/94
#Sample Filtration	0.45 um	-		Filtr Date	12/09/93

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

INSTRUMENT: 12 AEN JOB NO: 9312129

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
12/19/93	SWB-3/0.5-1'	01	102	114	100
12/19/93	SWB-3/5-5.5'	02	97	101	94
12/20/93	SWB-4/0.5-1'	04	138	110	102
12/20/93	SWB-4/5.0-5.5'	05	90	97	100
12/19/93	SWB-7/1-1.5'	07	99	100	91
12/20/93	SWB-7/5-5.5'	08	99	105	91
01/04/94	SWB-7/10-10.5'	09	100	101	93
12/19/93	SWB-7/15-15.5'	10	95	100	99
12/20/93	SWB-5/0.5-1'	11	94	105	100
01/10/94	SWB-5/5-5.5'	12	91	118	85
01/10/94	SWB-5/10-10.5'	13	105	114	100
12/19/93	SWB-11/0.5-1'	14	105	98	96
12/19/93	SWB-11/5-5.5'	15	103	89	111

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d_4	(68-141)
Toluene-d_8	(89-119)
p-Bromofluorobenzene	(85-112)

QUALITY CONTROL DATA

DATE ANALYZED: 12/19/93
SAMPLE SPIKED: 9312129-01
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129

INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	98	2
Trichloroethene	50.0	87	7
Benzene	50.0	105	<1
Toluene	50.0	96	3
Chlorobenzene	50.0	100	3

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(66-143)	15
Trichloroethene	(60-127)	12
Benzene	(88-117)	10
Toluene	(70-126)	14
Chlorobenzene	(89-111)	13

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE ANALYZED: 01/04/94
SAMPLE SPIKED: 9312129-09
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129

INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	119	<1
Trichloroethene	50.0	97	1
Benzene	50.0	102	4
Toluene	50.0	96	3
Chlorobenzene	50.0	103	10

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(66-143)	15
Trichloroethene	(60-127)	12
Benzene	(88-117)	10
Toluene	(70-126)	14
Chlorobenzene	(89-111)	13

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

INSTRUMENT: 12

AEN JOB NO: 9312129

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
12/18/93	SWB-3	18	96	91	104
12/18/93	SWB-4	19	100	100	104
12/18/93	SWB-5	20	98	91	102
12/18/93	SWB-7	21	107	96	100
12/18/93	SWB-11	22	96	101	104

CURRENT QC LIMITS (Revised 11/21/93)

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(77-123)
Toluene-d8	(90-108)
p-Bromofluorobenzene	(89-109)

QUALITY CONTROL DATA

DATE ANALYZED: 12/18/93
SAMPLE SPIKED: 9312129-1B
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129

INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	103	2
Trichloroethene	50.0	100	5
Benzene	50.0	97	7
Toluene	50.0	98	8
Chlorobenzene	50.0	96	4

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(81-123)	12
Trichloroethene	(87-112)	9
Benzene	(92-116)	12
Toluene	(91-116)	12
Chlorobenzene	(92-113)	10

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/13/93 AEN JOB NO: 9312129

CLIENT PROJ. ID: KE1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
12/23/93	SWB-3/0.5-1'	01	61	76	51	60	59	62
'23/93	SWB-3/5-5.5'	02	58	75	51	51	58	58
23/93	SWB-4/0.5-1'	04	60	78	50	61	55	64
.2/23/93	SWB-4/5.0-5-5'	05	53	75	49	49	47	54
12/24/93	SWB-7/1-1.5'	07	68	95	57	78	69	63
12/24/93	SWB-7/5-5.5'	08	52	91	64	44	50	52
01/10/94	SWB-7/10.10.5'	09	62	77	80	71	57	69
12/23/93	SWB-7/15-15.5'	10	58	81	55	48	58	60
12/23/93	SWB-5/0.5-1'	11	64	78	49	63	66	60
01/10/94	SWB-5/5-5.5'	12	77	84	94	71	71	92
01/10/94	SWB-5/10-10.5'	13	77	93	88	93	79	76
12/28/93	SWB-11/0.5-1'	14	69	99	68	85	75	63
12/23/93	SWB-11/5-5.5'	15	51	66	39	52	56	40

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(23-120)
2-Fluorobiphenyl	(30-115)
Terphenyl-d_{14}	(18-137)
Phenol-d_5	(24-113)
2-Fluorophenol	(25-121)
2,4,6-Tribromophenol	(19-122)

QUALITY CONTROL DATA

DATE EXTRACTED: 12/15/93
DATE ANALYZED: 12/24/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129
SAMPLE SPIKED: 9312129-10
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
Phenol	3330	57	2
2-Chlorophenol	3330	66	6
1,4-Dichlorobenzene	3400	57	5
N-Nitroso-di-n-propylamine	3320	64	14
1,2,4-Trichlorobenzene	3330	58	10
4-Chloro-3-methylphenol	3270	79	28
Acenaphthene	3330	70	16
4-Nitrophenol	3300	80	25
2,4-Dinitrotoluene	3330	72	8
Pentachlorophenol	3380	57	3
Pyrene	3320	44	4

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(26- 90)	35
2-Chlorophenol	(25-102)	50
1,4-Dichlorobenzene	(28-104)	27
4-Nitroso-di-n-propylamine	(41-126)	38
1,2,4-Trichlorobenzene	(38-107)	23
4-Chloro-3-methylphenol	(26-103)	33
Acenaphthene	(31-137)	19
4-Nitrophenol	(11-114)	50
2,4-Dinitrotoluene	(28- 89)	47
Pentachlorophenol	(17-109)	47
Pyrene	(35-142)	36

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/23/93
DATE ANALYZED: 01/11/94
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129
SAMPLE SPIKED: 9312129-09
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
Phenol	3330	87	20
2-Chlorophenol	3330	85	34
1,4-Dichlorobenzene	3400	74	17
N-Nitroso-di-n-propylamine	3320	87	19
1,2,4-Trichlorobenzene	3330	76	20
4-Chloro-3-methylphenol	3270	101	4
Acenaphthene	3330	89	4
4-Nitrophenol	3300	86	9
2,4-Dinitrotoluene	3330	82	2
Pentachlorophenol	3380	96	21
Pyrene	3320	75	5

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(26- 90)	35
2-Chlorophenol	(25-102)	50
1,4-Dichlorobenzene	(28-104)	27
4-Nitroso-di-n-propylamine	(41-126)	38
1,2,4-Trichlorobenzene	(38-107)	23
4-Chloro-3-methylphenol	(26-103)	33
Acenaphthene	(31-137)	19
4-Nitrophenol	(11-114)	50
2,4-Dinitrotoluene	(28- 89)	47
Pentachlorophenol	(17-109)	47
Pyrene	(35-142)	36

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/15/93 AEN JOB NO: 9312129

CLIENT PROJ. ID: K1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
12/22/93	SWB-3	18A	69	76	100	93	72	115
12/23/93	SWB-4	19A	82	86	124	75	56	62
12/22/93	SWB-5	20A	85	82	112	87	74	113
12/22/93	SWB-7	21A	79	82	106	82	68	123
12/22/93	SWB-11	22A	78	71	86	86	68	128

CURRENT QC LIMITS (REVISED 01/08/92)

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(47-104)
2-Fluorobiphenyl	(49-106)
Terphenyl-d_{14}	(36-138)
Phenol-d_5	(46-105)
2-Fluorophenol	(40- 97)
2,4,6-Tribromophenol	(37-145)

QUALITY CONTROL DATA

DATE EXTRACTED: 12/15/93
DATE ANALYZED: 12/21/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: 11

METHOD SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
Phenol	200	83	2
2-Chlorophenol	200	99	4
1,4-Dichlorobenzene	204	70	6
N-Nitroso-di-n-propylamine	199	90	7
1,2,4-Trichlorobenzene	200	72	1
4-Chloro-3-methylphenol	196	97	<1
Acenaphthene	200	82	5
4-Nitrophenol	198	79	6
2,4-Dinitrotoluene	200	80	1
Pentachlorophenol	203	78	14
Pyrene	199	47	7

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(12-110)	42
2-Chlorophenol	(27-123)	40
1,4-Dichlorobenzene	(36- 97)	28
4-Nitroso-di-n-propylamine	(41-116)	38
1,2,4-Trichlorobenzene	(39- 98)	28
4-Chloro-3-methylphenol	(23- 97)	42
Acenaphthene	(46-118)	31
4-Nitrophenol	(10- 80)	50
2,4-Dinitrotoluene	(24- 96)	38
Pentachlorophenol	(9-103)	50
Pyrene	(26-127)	31

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: SOIL

CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129
SAMPLE SPIKED: SAND
DIGESTION DATE: 12/17/93

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/kg)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	10	51	5	50-150	20
As, Arsenic	4000/7060	20	100	2	79-122	10
Cd, Cadmium	ICP/6010	10	91	4	75-125	20
Cr, Chromium	ICP/6010	50	94	3	75-125	20
Cu, Copper	ICP/6010	50	97	3	75-125	20
Ni, Nickel	ICP/6010	50	95	3	75-125	20
Pb, Lead	ICP/6010	50	96	3	75-125	20
Se, Selenium	4000/7740	40	95	3	73-126	14
Zn, Zinc	ICP/6010	50	91	3	75-125	20

RPD = Relative Percent Difference

Daily method blanks for all associated runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: SOIL

CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129
SAMPLE SPIKED: SAND
DIGESTION DATE: 01/07/94

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/kg)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	10	62	1	50-150	20
As, Arsenic	4000/7060	10	96	4	79-122	10
Cd, Cadmium	ICP/6010	10	92	1	75-125	20
Cr, Chromium	ICP/6010	50	98	1	75-125	20
Cu, Copper	ICP/6010	50	101	<1	75-125	20
Ni, Nickel	ICP/6010	50	98	1	75-125	20
Pb, Lead	ICP/6010	50	97	<1	75-125	20
Se, Selenium	4000/7740	20	92	2	73-126	14
Zn, Zinc	ICP/6010	50	96	<1	75-125	20

RPD = Relative Percent Difference
< = Less Than

Daily method blanks for all associated runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: SOIL

CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129
SAMPLE SPIKED: SAND
DIGESTION DATE: 01/10/94

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/kg)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Ag, Silver	ICP/6010	10	54	1	50-150	20
As, Arsenic	4000/7060	20	107	<1	79-122	10
Cd, Cadmium	ICP/6010	10	85	2	75-125	20
Cr, Chromium	ICP/6010	50	94	<1	75-125	20
Cu, Copper	ICP/6010	50	94	1	75-125	20
Ni, Nickel	ICP/6010	50	96	<1	75-125	20
Pb, Lead	ICP/6010	50	96	1	75-125	20
Se, Selenium	4000/7740	40	99	7	73-126	14
Zn, Zinc	ICP/6010	50	92	2	75-125	20

RPD = Relative Percent Difference

Daily method blanks for all associated runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9312129

CLIENT PROJ. ID: KE1495-1A-2112

DIGESTION DATE: 12/15/93

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	0.1	96	5	66-127	11
As, Arsenic	4000/7060	0.04	96	1	90-115	12
Cd, Cadmium	ICP/6010	0.05	101	9	71-134	12
Cr, Chromium	ICP/6010	0.2	100	6	85-114	6
Cu, Copper	ICP/6010	0.25	97	5	86-112	5
Ni, Nickel	ICP/6010	0.5	100	4	87-114	5
Pb, Lead	ICP/6010	0.5	95	4	87-115	6
Se, Selenium	4000/7740	0.08	95	3	76-131	14
Zn, Zinc	ICP/6010	0.5	98	4	86-115	5

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9312129

CLIENT PROJ. ID: KE1495-1A-2112

DIGESTION DATE: 01/05-10/94

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	0.25	B3	4	66-127	11
As, Arsenic	4000/7060	0.04	95	9	90-115	12
Cd, Cadmium	ICP/6010	0.25	103	5	71-134	12
Cr, Chromium	ICP/6010	0.2	103	3	85-114	6
Cu, Copper	ICP/6010	0.25	103	3	86-112	5
Ni, Nickel	ICP/6010	0.5	102	3	87-114	5
Pb, Lead	ICP/6010	0.5	101	6	87-115	6
Se, Selenium	4000/7740	0.08	95	1	76-131	14
Zn, Zinc	ICP/6010	0.5	108	2	86-115	5

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

*** END OF REPORT ***

-4, S-B (soils)
C-1, S-2
R-1, S-H
R-3, S-3

Lab Job # 9312

CHAIN-OF-CUSTODY RECORD

Project Number: KE1405-1A-2112

Project Name: Fuller O'Brien

Location: So. S.F.

Sampler's Name (printed): TACIA MILLER

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals -				Remarks
SWB-3/0.5'	01A (2)	12/1/93	X		1"x6" Stainless-2			X	X				X				12/10 - Per Steve Henshaw add
SWB-3/5.5'	02A (2)							X	X				X				Cu to all metals analysis.
SWB-3/10.5'	03A (2)																Hold UPS
SWB-4/0.5-1'	04A (2)							X	X				X				
SWB-4/5.5'	05A (2)							X	X				X				
SWB-4/10.5	06A (2)																Hold
SWB-5/0.5-1'	~~07A~~ 11A				2x6" Liner			X	X				X				
SWB-5/5.5'	~~08A~~ 12A							X	X				X				
SWB-5/10.5'	~~09A~~ 13A							✓									Hold 12/03 Per S Henshaw,
SWB-7/1-1.5'	~~10A~~ 07A							X	X				X				as analyze sample SWB5/10.5
SWB-7/5.5'	~~11A~~ 08A							X	X				X				for 8240. UPS
SWB-7/10.5'	~~12A~~ 09A																Hold
SWB-7/15-15.5'	~~13A~~ 10A																Hold
SWB-11/0.5-1'	14A							X	X				X				
SWB-11/5-5.5'	15A							X	X				X				~~12/5/93 per Chuck Jacobs sample SWB-5/5-5.5 to Centerline Sciences Assoc. UPS~~

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12/1/93 530	Ron Stallup
Ron Stallup	12/9/93 645	
		Received for Laboratory by: (Signature) Denise Harrington

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks: Metals for As, Cd, Cr, Pb, Ni, Se, Ag, Zn, Cu

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

R-4, S-B
C-1, S-2
R-1, S-H
R-3, S-3

Lab Job # 9312

CHAIN-OF-CUSTODY RECORD

Project Number: KE1495-1A-2112

Project Name: Fuller O'Brien

Location: So. S.F., CA

Sampler's Name (printed): TACIA MILLER

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Unfiltered	Metals - Filtered (Tube)				Remarks
SWB-11/10-10.5'	16A	12/9/93	X		2 x 6" Brass													Hold
SWB-11/15-15.5'	17A		X		↓													Hold
SWB-3	18AB			X	2 x 40mL VOAs			X										
SWB-3	CD				2 x 1L Amber			X	X									
SWB-3	E				1 x 500mL Plastic				X				X					
SWB-3	F				↓								X	X				Hold Filtered
SWB-4	19AB				2 x 40mL VOAs			X						X				
SWB-4	CD				1 x 1L Amber				X									
SWB-4	E				1 x 500mL Plastic								X					
SWB-4	F				↓									X				Hold Filtered
SWB-5	20AB				2 x 40mL VOAs			X										
SWB-5	CD				2 x 1L Amber				X									
SWB-5	E				1 x 500mL Plastic								X					
SWB-5	F				↓									X				Hold Filtered
SWB-7	21AB				2 x 40mL VOAs			X										

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12/9/93 530	Ron Stallup
Ron Stallup	12/9/93 645	
		Received for Laboratory by: (Signature) Denise Harrington

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks: Metals for As, Cd, Cr, Pb, Ni, Se, Ag, Zn, Cu

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

Lab Job # 9312

CHAIN-OF-CUSTODY RECORD

Project Number: KEAP5-14-2112

Project Name: Fuller O'Brien

Location: So. S.F., CA

Sampler's Name (printed): TACIA MILLER

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Unfiltered	Metals - To be Filtered				Remarks
SWB-7	21CD	12/9/93		X	2x1L Amber			X	X									01/04 Per Tacia pls. take sample SWB
SWB-7	E	↓		↓	1x500ml Plastic							X						hold status + analyze for metals listed
SWB-7	F	↓		↓	↓								X					Hold Filtered below
SWB-11	22AB	12/9/93		✓	2x40ml VOAS			X										TAT 16 h
↓	CD	↓		✓	2x1L ambers				X									
↓	E	↓		✓	1x500ml plast.							✓						~~Hold~~ RPP 01/07/94
↓	F	↓		✓	↓													Hold Filtered
																		01/07 Per Tacia, please take sample SWB-11 off hold status and analyze for metals listed below - 24 hr TAT.
																		Metals: For As, Cd, Cr, Pb, Ni, Se, Ag, Zn, Cu

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12/9/93 530	Ken Stallings
Ken Stallings	12/9/93 645	
		Received for Laboratory by: (Signature) Denise Harrington

Ship To: _____

Attention: _____

Phone No: _____

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

01/04 - per Tacia pls. take the following samples off hold status and analyze for requested metals (filter sample in lab). standard TAT is requested. JPF

Page 1 of ___

Lab Job # ___

CHAIN-OF-CUSTODY RECORD

Project Number: KE1495-IA-2412

Project Name: Fuller O'Brien

Location: So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides/PCBs	Waste Oil	Metals - Unfiltered					Remarks
SwB-6		1/4/94		X	1x500ml plastic unpreserved								X					9312093 - FA 1F
SwB-7													X					9312104 - 2F
SwB-8													X					9312104 - 5F
SwB-9													X					9312093 - 3F

Filter & Metals in Lab!

Metals For As, Ag, Cd, Cr, Cu, Ni, Pb, Se, Zn

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	1/4/94	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Ship To: ___

Attention: ___

Phone No: ___

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # ___ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

American Environmental Network

DOHS Certification: 1172

CERTIFICATE OF ANALYSIS

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: KE1495-1A-2112
PROJECT NAME: FULLER O'BRIEN

REPORT DATE: 01/10/94

DATE SAMPLED: 12/07/93

DATE RECEIVED: 12/07/93

AEN JOB NO: 9312274

ADDITIONAL ANALYSIS
REQUESTED: 12/22/93

PROJECT SUMMARY:

On December 7, 1993, this laboratory received two (2) water samples.

On December 22, 1993, client requested additional analysis on samples SWB-6 and SWB-9 for Purgeable Hydrocarbons as Gasoline by EPA Method 5030 GCFID, and Extractable Hydrocarbons as Diesel and Oil by EPA Method 3510 GCFID. Sample identification, results, and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Larry Klein
General Manager

Results FAXed 01/05/94

HARZA KALDVEER

SAMPLE ID: SWB-6
AEN LAB NO: 9312274-01
AEN WORK ORDER: 9312274
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/10/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
TPH as Gas in Water	5030/GC-FID	3.2 *	0.05	mg/L	12/30/93
#Extraction for Diesel/Oil	EPA 3510	-		Extrn Date	12/23/93
TPH as Diesel	GC-FID	7.0 *	0.05	mg/L	12/24/93
TPH as Oil	GC-FID	2.6 *	0.2	mg/L	12/24/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-9
AEN LAB NO: 9312274-02
AEN WORK ORDER: 9312274
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/10/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
TPH as Gas in Water	5030/GC-FID	3.1 *	0.05	mg/L	12/30/93
#Extraction for Diesel/Oil	EPA 3510	-		Extrn Date	12/23/93
TPH as Diesel	GC-FID	0.3 *	0.05	mg/L	12/24/93
TPH as Oil	GC-FID	ND	0.2	mg/L	12/24/93

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

DATE EXTRACTED: 12/23/93
DATE ANALYZED: 12/24/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312274
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: C

METHOD SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE WATERS
METHOD: EPA 3510 GCFID

ANALYTE	Spike Conc. (mg/L)	Average Percent Recovery	RPD
Diesel	2.02	85	2

CURRENT QC LIMITS (Revised 10/18/93)

Analyte	Percent Recovery	RPD
Diesel	(55-119)	8

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

INSTRUMENT: F

AEN JOB NO: 9312274

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 5030 GCFID
(WATER MATRIX)

Date Analyzed	SAMPLE IDENTIFICATION Client Id.	Lab Id.	SURROGATE RECOVERY (PERCENT) Fluorobenzene
12/30/93	SWB-6	01	87
12/30/93	SWB-9	02	85

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Fluorobenzene	(70-115)

QUALITY CONTROL DATA

DATE ANALYZED: 12/30/93
SAMPLE SPIKED: 9312258-03
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312274
INSTRUMENT: F

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 5030 GCFID
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
Hydrocarbons as Gasoline	500	90	6

CURRENT QC LIMITS (Revised 05/14/92)

Analyte	Percent Recovery	RPD
Gasoline	(72-119)	12

RPD = Relative Percent Difference

Daily method blanks for all associated anlaytical runs showed no contamination over the reporting limit.

*** END OF REPORT ***

R-4, S-A
R-3, S-2
C-1, S-3
R-1, S-G

9312274

Lab Job: ~~312093~~

CHAIN-OF-CUSTODY RECORD

Project Number: KEA95-1A-2112

Project Name: Fuller O'Brien

Location: So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals Unfiltered	Metals - To be filtered				Remarks
* SWB-6 01A	~~01AB~~	12/7/93		X	2x1L Amber				X									12/08 per Tacia pls. cancel Cu analysis. Jets 12/10 added back
* SWB-6 01B	~~01CD~~				2x40ml VOAs			X										
SWB-6	01E				1x500ml Plastic								X					
SWB-6	01F				↓									X				Hold!
* SWB-9 02A	~~02AB~~				2x1L Amber				X									
* SWB-9 02B	~~02CD~~				2x40ml VOAs			X										
SWB-9	02E				1x500ml Plastic								X					
SWB-9	02F				↓									X				Hold!
SWB-10	03AB				2x1L Amber				X									
SWB-10	03CD				2x40ml Amber			X										
SWB-10	03E				1x500ml Plastic								X					
SWB-10	03F	↓		↓	↓									X				Hold!
																		Metals for As, Cd, Cr, Pb, Ni, Se, Hg, Zn, Cu

10/10/93 JH

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12/7/93 19:30	[signature]
[signature]	12/7/93 2010	
	12/7/93 2010	Received for Laboratory by: (Signature) Denise Harrington

Ship To: per Steve Henshaw add TPH gas, diesel, oil on sample SWB-6, SWB-9.

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks: Hold Metals to be filtered

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

American Environmental Network

DOHS Certification: 1172

CERTIFICATE OF ANALYSIS

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: KE1495-1A-2112
PROJ. NAME: FULLER O'BRIEN

REPORT DATE: 12/29/93

DATE SAMPLED: 12/10/93

DATE RECEIVED: 12/10/93

AEN JOB NO: 9312148

PROJECT SUMMARY:

On December 10, 1993, this laboratory received two (2) water samples.

Client requested samples be analyzed for inorganic and organic parameters. Sample fractions for filtered metals were placed on hold. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Larry Klein
General Manager

Results FAXed 12/23/93

3440 Vincent Road • Pleasant Hill, CA 94523 • (510) 930-9090 • FAX (510) 930-0256

HARZA KALDVEER

SAMPLE ID: PM-12
AEN LAB NO: 9312148-01A
AEN WORK ORDER: 9312148
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/10/93
DATE RECEIVED: 12/10/93
REPORT DATE: 12/29/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	12/20/93
Benzene	71-43-2	ND	5	ug/L	12/20/93
Bromodichloromethane	75-27-4	ND	5	ug/L	12/20/93
Bromoform	75-25-2	ND	5	ug/L	12/20/93
Bromomethane	74-83-9	ND	10	ug/L	12/20/93
2-Butanone	78-93-3	ND	100	ug/L	12/20/93
Carbon Disulfide	75-15-0	ND	10	ug/L	12/20/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	12/20/93
Chlorobenzene	108-90-7	ND	5	ug/L	12/20/93
Chloroethane	75-00-3	ND	10	ug/L	12/20/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	12/20/93
Chloroform	67-66-3	ND	5	ug/L	12/20/93
Chloromethane	74-87-3	ND	10	ug/L	12/20/93
Dibromochloromethane	124-48-1	ND	5	ug/L	12/20/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	12/20/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	12/20/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	12/20/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	12/20/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	12/20/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	12/20/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	12/20/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	12/20/93
Ethylbenzene	100-41-4	ND	5	ug/L	12/20/93
2-Hexanone	591-78-6	ND	50	ug/L	12/20/93
Methylene Chloride	75-09-2	ND	5	ug/L	12/20/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	12/20/93
Styrene	100-42-5	ND	5	ug/L	12/20/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	12/20/93
Tetrachloroethene	127-18-4	ND	5	ug/L	12/20/93
Toluene	108-88-3	ND	5	ug/L	12/20/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	12/20/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	12/20/93
Trichloroethene	79-01-6	ND	5	ug/L	12/20/93
Vinyl Acetate	108-05-4	ND	50	ug/L	12/20/93
Vinyl Chloride	75-01-4	ND	10	ug/L	12/20/93
Xylenes, Total	1330-20-7	ND	10	ug/L	12/20/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-12
AEN LAB NO: 9312148-01C
AEN WORK ORDER: 9312148
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/10/93
DATE RECEIVED: 12/10/93
REPORT DATE: 12/29/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	12/15/93
EPA 8270 - Water Matrix	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	12/22/93
Acenaphthylene	208-96-8	ND	10	ug/L	12/22/93
Anthracene	120-12-7	ND	10	ug/L	12/22/93
Benzidine	92-87-5	ND	50	ug/L	12/22/93
Benzoic Acid	65-85-0	ND	50	ug/L	12/22/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	12/22/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	12/22/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	12/22/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	12/22/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	12/22/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	12/22/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	12/22/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	12/22/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	12/22/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	12/22/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	12/22/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	12/22/93
4-Chloroaniline	106-47-8	ND	20	ug/L	12/22/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	12/22/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	12/22/93
Chrysene	218-01-9	ND	10	ug/L	12/22/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	12/22/93
Dibenzofuran	132-64-9	ND	10	ug/L	12/22/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	12/22/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	12/22/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	12/22/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	12/22/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	12/22/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	12/22/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	12/22/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	12/22/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	12/22/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	12/22/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	12/22/93
Fluoranthene	206-44-0	ND	10	ug/L	12/22/93
Fluorene	86-73-7	ND	10	ug/L	12/22/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	12/22/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	12/22/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	12/22/93

HARZA KALDVEER

SAMPLE ID: PM-12
AEN LAB NO: 9312148-01C
AEN WORK ORDER: 9312148
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/10/93
DATE RECEIVED: 12/10/93
REPORT DATE: 12/29/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	12/22/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	12/22/93
Isophorone	78-59-1	ND	10	ug/L	12/22/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	12/22/93
Naphthalene	91-20-3	ND	10	ug/L	12/22/93
2-Nitroaniline	88-74-4	ND	50	ug/L	12/22/93
3-Nitroaniline	99-09-2	ND	50	ug/L	12/22/93
4-Nitroaniline	100-01-6	ND	50	ug/L	12/22/93
Nitrobenzene	98-95-3	ND	10	ug/L	12/22/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	12/22/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	12/22/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	12/22/93
Phenanthrene	85-01-8	ND	10	ug/L	12/22/93
Pyrene	129-00-0	ND	10	ug/L	12/22/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	12/22/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	12/22/93
2-Chlorophenol	95-57-8	ND	10	ug/L	12/22/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	12/22/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	12/22/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	12/22/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	12/22/93
2-Methylphenol	95-48-7	ND	10	ug/L	12/22/93
4-Methylphenol	106-44-5	ND	10	ug/L	12/22/93
2-Nitrophenol	88-75-5	ND	10	ug/L	12/22/93
4-Nitrophenol	100-02-7	ND	50	ug/L	12/22/93
Pentachlorophenol	87-86-5	ND	50	ug/L	12/22/93
Phenol	108-95-2	ND	10	ug/L	12/22/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	12/22/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	12/22/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-12
AEN LAB NO: 9312148-01E
AEN WORK ORDER: 9312148
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/10/93
DATE RECEIVED: 12/10/93
REPORT DATE: 12/29/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Arsenic	EPA 7060	0.030 *	0.005	mg/L	12/22/93
Selenium	EPA 7740	ND	0.01	mg/L	12/22/93
Cadmium	EPA 6010	ND	0.005	mg/L	12/20/93
Chromium	EPA 6010	0.39 *	0.01	mg/L	12/20/93
Copper	EPA 6010	0.14 *	0.01	mg/L	12/20/93
Lead	EPA 6010	12 *	0.04	mg/L	12/20/93
Nickel	EPA 6010	0.43 *	0.01	mg/L	12/20/93
Silver	EPA 6010	ND	0.005	mg/L	12/20/93
Zinc	EPA 6010	0.51 *	0.005	mg/L	12/20/93
#Digestion - water		-		Prep Date	12/16/93

Reporting limits elevated for Arsenic and Selenium due to matrix interference.

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-12
AEN LAB NO: 9312148-01F
AEN WORK ORDER: 9312148
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/10/93
DATE RECEIVED: 12/10/93
REPORT DATE: 12/29/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	12/10/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-14
AEN LAB NO: 9312148-02A
AEN WORK ORDER: 9312148
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/10/93
DATE RECEIVED: 12/10/93
REPORT DATE: 12/29/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	EPA 8240				
Acetone	67-64-1	ND	100	ug/L	12/20/93
Benzene	71-43-2	ND	5	ug/L	12/20/93
Bromodichloromethane	75-27-4	ND	5	ug/L	12/20/93
Bromoform	75-25-2	ND	5	ug/L	12/20/93
Bromomethane	74-83-9	ND	10	ug/L	12/20/93
2-Butanone	78-93-3	ND	100	ug/L	12/20/93
Carbon Disulfide	75-15-0	ND	10	ug/L	12/20/93
Carbon Tetrachloride	56-23-5	ND	5	ug/L	12/20/93
Chlorobenzene	108-90-7	ND	5	ug/L	12/20/93
Chloroethane	75-00-3	ND	10	ug/L	12/20/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	12/20/93
Chloroform	67-66-3	ND	5	ug/L	12/20/93
Chloromethane	74-87-3	ND	10	ug/L	12/20/93
Dibromochloromethane	124-48-1	ND	5	ug/L	12/20/93
1,1-Dichloroethane	75-34-3	ND	5	ug/L	12/20/93
1,2-Dichloroethane	107-06-2	ND	5	ug/L	12/20/93
1,1-Dichloroethene	75-35-4	ND	5	ug/L	12/20/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	12/20/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	12/20/93
1,2-Dichloropropane	78-87-5	ND	5	ug/L	12/20/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	12/20/93
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	12/20/93
Ethylbenzene	100-41-4	ND	5	ug/L	12/20/93
2-Hexanone	591-78-6	ND	50	ug/L	12/20/93
Methylene Chloride	75-09-2	ND	5	ug/L	12/20/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	12/20/93
Styrene	100-42-5	ND	5	ug/L	12/20/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	12/20/93
Tetrachloroethene	127-18-4	ND	5	ug/L	12/20/93
Toluene	108-88-3	ND	5	ug/L	12/20/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	12/20/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	12/20/93
Trichloroethene	79-01-6	ND	5	ug/L	12/20/93
Vinyl Acetate	108-05-4	ND	50	ug/L	12/20/93
Vinyl Chloride	75-01-4	ND	10	ug/L	12/20/93
Xylenes, Total	1330-20-7	ND	10	ug/L	12/20/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-14
AEN LAB NO: 9312148-02C
AEN WORK ORDER: 9312148
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/10/93
DATE RECEIVED: 12/10/93
REPORT DATE: 12/29/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	12/15/93
EPA 8270 - Water Matrix	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	12/22/93
Acenaphthylene	208-96-8	ND	10	ug/L	12/22/93
Anthracene	120-12-7	ND	10	ug/L	12/22/93
Benzidine	92-87-5	ND	50	ug/L	12/22/93
Benzoic Acid	65-85-0	ND	50	ug/L	12/22/93
Benzo(a)anthracene	56-55-3	ND	10	ug/L	12/22/93
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	12/22/93
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	12/22/93
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	12/22/93
Benzo(a)pyrene	50-32-8	ND	10	ug/L	12/22/93
Benzyl Alcohol	100-51-6	ND	20	ug/L	12/22/93
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	12/22/93
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	12/22/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	12/22/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	12/22/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	12/22/93
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	12/22/93
4-Chloroaniline	106-47-8	ND	20	ug/L	12/22/93
2-Chloronapththalene	91-58-7	ND	10	ug/L	12/22/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	12/22/93
Chrysene	218-01-9	ND	10	ug/L	12/22/93
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	12/22/93
Dibenzofuran	132-64-9	ND	10	ug/L	12/22/93
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	12/22/93
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	12/22/93
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	12/22/93
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	12/22/93
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	12/22/93
Diethyl Phthalate	84-66-2	ND	10	ug/L	12/22/93
Dimethyl Phthalate	131-11-3	ND	10	ug/L	12/22/93
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	12/22/93
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	12/22/93
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	12/22/93
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	12/22/93
Fluoranthene	206-44-0	ND	10	ug/L	12/22/93
Fluorene	86-73-7	ND	10	ug/L	12/22/93
Hexachlorobenzene	118-74-1	ND	10	ug/L	12/22/93
Hexachlorobutadiene	87-68-3	ND	10	ug/L	12/22/93
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	12/22/93

HARZA KALDVEER

SAMPLE ID: PM-14
AEN LAB NO: 9312148-02C
AEN WORK ORDER: 9312148
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/10/93
DATE RECEIVED: 12/10/93
REPORT DATE: 12/29/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	10	ug/L	12/22/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	12/22/93
Isophorone	78-59-1	ND	10	ug/L	12/22/93
2-Methylnaphthalene	91-57-6	ND	10	ug/L	12/22/93
Naphthalene	91-20-3	ND	10	ug/L	12/22/93
2-Nitroaniline	88-74-4	ND	50	ug/L	12/22/93
3-Nitroaniline	99-09-2	ND	50	ug/L	12/22/93
4-Nitroaniline	100-01-6	ND	50	ug/L	12/22/93
Nitrobenzene	98-95-3	ND	10	ug/L	12/22/93
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	12/22/93
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	12/22/93
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	12/22/93
Phenanthrene	85-01-8	ND	10	ug/L	12/22/93
Pyrene	129-00-0	ND	10	ug/L	12/22/93
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	12/22/93
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	12/22/93
2-Chlorophenol	95-57-8	ND	10	ug/L	12/22/93
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	12/22/93
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	12/22/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	12/22/93
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	12/22/93
2-Methylphenol	95-48-7	ND	10	ug/L	12/22/93
4-Methylphenol	106-44-5	ND	10	ug/L	12/22/93
2-Nitrophenol	88-75-5	ND	10	ug/L	12/22/93
4-Nitrophenol	100-02-7	ND	50	ug/L	12/22/93
Pentachlorophenol	87-86-5	ND	50	ug/L	12/22/93
Phenol	108-95-2	ND	10	ug/L	12/22/93
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	12/22/93
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	12/22/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-14
AEN LAB NO: 9312148-02E
AEN WORK ORDER: 9312148
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/10/93
DATE RECEIVED: 12/10/93
REPORT DATE: 12/29/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Arsenic	EPA 7060	0.004 *	0.002	mg/L	12/21/93
Selenium	EPA 7740	ND	0.004	mg/L	12/21/93
Cadmium	EPA 6010	ND	0.005	mg/L	12/20/93
Chromium	EPA 6010	0.43 *	0.01	mg/L	12/20/93
Copper	EPA 6010	0.08 *	0.01	mg/L	12/20/93
Lead	EPA 6010	0.73 *	0.04	mg/L	12/20/93
Nickel	EPA 6010	0.51 *	0.01	mg/L	12/20/93
Silver	EPA 6010	ND	0.005	mg/L	12/20/93
Zinc	EPA 6010	0.17 *	0.005	mg/L	12/20/93
#Digestion - water		-		Prep Date	12/16/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: PM-14
AEN LAB NO: 9312148-02F
AEN WORK ORDER: 9312148
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/10/93
DATE RECEIVED: 12/10/93
REPORT DATE: 12/29/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	12/10/93

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

INSTRUMENT: 12

AEN JOB NO: 9312148

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
12/20/93	PM-12	01	122	99	103
12/20/93	PM-14	02	116	104	100

CURRENT QC LIMITS (Revised 11/21/93)

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(77-123)
Toluene-d8	(90-108)
p-Bromofluorobenzene	(89-109)

QUALITY CONTROL DATA

DATE ANALYZED: 12/20/93
SAMPLE SPIKED: 9312148-02
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312148

INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	109	9
Trichloroethene	50.0	97	<1
Benzene	50.0	115	2
Toluene	50.0	107	8
Chlorobenzene	50.0	98	9

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(81-123)	12
Trichloroethene	(87-112)	9
Benzene	(92-116)	12
Toluene	(91-116)	12
Chlorobenzene	(92-113)	10

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/15/93 AEN JOB NO: 9312148

CLIENT PROJ. ID: K1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
12/22/93	PM-12	01	77	74	109	79	66	112
12/22/93	PM-14	02	84	95	118	99	85	131

CURRENT QC LIMITS (REVISED 01/08/92)

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(47-104)
2-Fluorobiphenyl	(49-106)
Terphenyl-d_{14}	(36-138)
Phenol-d_5	(46-105)
2-Fluorophenol	(40- 97)
2,4,6-Tribromophenol	(37-145)

QUALITY CONTROL DATA

DATE EXTRACTED: 12/15/93
DATE ANALYZED: 12/21/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312148
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
Phenol	200	83	2
2-Chlorophenol	200	99	4
1,4-Dichlorobenzene	204	70	6
N-Nitroso-di-n-propylamine	199	90	7
1,2,4-Trichlorobenzene	200	72	1
4-Chloro-3-methylphenol	196	97	<1
Acenaphthene	200	82	5
4-Nitrophenol	198	79	6
2,4-Dinitrotoluene	200	80	1
Pentachlorophenol	203	78	14
Pyrene	199	47	7

CURRENT QC LIMITS (DEFAULT)

Analyte	Percent Recovery	RPD
Phenol	(12-110)	42
2-Chlorophenol	(27-123)	40
1,4-Dichlorobenzene	(36- 97)	28
4-Nitroso-di-n-propylamine	(41-116)	38
1,2,4-Trichlorobenzene	(39- 98)	28
4-Chloro-3-methylphenol	(23- 97)	42
Acenaphthene	(46-118)	31
4-Nitrophenol	(10- 80)	50
2,4-Dinitrotoluene	(24- 96)	38
Pentachlorophenol	(9-103)	50
Pyrene	(26-127)	31

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9312148

CLIENT PROJ. ID: KE1495-1A-2112

DATE DIGESTED: 12/16/93

METHOD BLANK AND SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	BLANK RESULT (mg/L)	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Ag, Silver	ICP/6010	ND	0.1	100	3	66-127	11
As, Arsenic	4000/7060	ND	0.04	98	2	90-115	12
Cd, Cadmium	ICP/6010	ND	0.05	93	1	71-134	12
Cr, Chromium	ICP/6010	ND	0.2	114	3	85-114	6
Cu, Copper	ICP/6010	ND	0.25	100	1	86-112	5
Ni, Nickel	ICP/6010	ND	0.5	98	2	87-114	5
Pb, Lead	ICP/6010	ND	0.5	101	1	87-115	6
Se, Selenium	4000/7740	ND	0.08	95	4	76-131	14
Zn, Zinc	ICP/6010	ND	0.5	103	3	86-115	5

RPD = Relative Percent Difference
ND = Not Detected

Reagent method blank showed no contamination

*** END OF REPORT ***

C-1, S-3
R-1, S-D
R-3, S-3

Lab Job #: 312148

CHAIN-OF-CUSTODY RECORD

Project Number: KE195-1A-2112

Project Name: Fuller O'Brien

Location: So. S.F., CA

Sampler's Name (printed): TACIA MILLER

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Unfiltered	Metals - To be Filtered				Remarks
PM-12	01AB	12/10/93		X	2x40mL VOAs	X												
PM-12	CD				2x1L Amber		X											
PM-12	E				1x500mL Plastic							X	X					Hold Unpreserved Metals
PM-12	F																	
PM-14	02AB				2x40mL VOAs	X												
PM-14	CD				2x1L Amber		X											
PM-14	E				1x500mL Plastic							X	X					Hold Unpreserved Metals
PM-14	F																	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12/10/93 17:00	[signature]
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	12/10/93 17:55	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
		Denise Harrington

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks: Metals for Ag, As, Cd, Cu, Cr, Pb, Ni, Zn, Se

Please address correspondence and return cooler #: to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: [illegible]

HARZA
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER
CLIENT PROJ. ID: K615I
CLIENT PROJ. NAME: FULLER O'BRIEN

REPORT DATE: 04/21/94

DATE(S) SAMPLED: 04/06/94

DATE RECEIVED: 04/06/94

AEN WORK ORDER: 9404062

PROJECT SUMMARY:

On April 6, 1994, this laboratory received 7 water sample(s).

Client requested samples be analyzed for inorganic and organic parameters. Sample identification, methodologies, results and dates analyzed are summarized on the following pages.

Please see quality control report for a summary of QC data pertaining to this project.

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

Larry Klein
General Manager

3440 Vincent Road • Pleasant Hill, CA 94523 • (510) 930-9090 • FAX (510) 930-0256

HARZA

SAMPLE ID: MW-21
AEN LAB NO: 9404062-01
AEN WORK ORDER: 9404062
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/06/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/21/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/06/94
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/12/94
Arsenic	EPA 7060	0.047 *	0.002	mg/L	04/14/94
Selenium	EPA 7740	ND	0.004	mg/L	04/14/94
#Digestion, Metals by ICP	EPA 3010	-		Prep Date	04/12/94
Cadmium	EPA 6010	ND	0.005	mg/L	04/14/94
Chromium	EPA 6010	ND	0.01	mg/L	04/14/94
Copper	EPA 6010	ND	0.01	mg/L	04/14/94
Lead	EPA 6010	ND	0.04	mg/L	04/14/94
Nickel	EPA 6010	ND	0.01	mg/L	04/14/94
Silver	EPA 6010	ND	0.005	mg/L	04/14/94
Zinc	EPA 6010	ND	0.01	mg/L	04/14/94
VOCs in Water by 8240	EPA 8240				
Acetone	67-64-1	ND	100	ug/L	04/15/94
Benzene	71-43-2	8 *	5	ug/L	04/15/94
Bromodichloromethane	75-27-4	ND	5	ug/L	04/15/94
Bromoform	75-25-2	ND	5	ug/L	04/15/94
Bromomethane	74-83-9	ND	10	ug/L	04/15/94
2-Butanone	78-93-3	ND	100	ug/L	04/15/94
Carbon Disulfide	75-15-0	ND	10	ug/L	04/15/94
Carbon Tetrachloride	56-23-5	ND	5	ug/L	04/15/94
Chlorobenzene	108-90-7	ND	5	ug/L	04/15/94
Chloroethane	75-00-3	ND	10	ug/L	04/15/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	04/15/94
Chloroform	67-66-3	ND	5	ug/L	04/15/94
Chloromethane	74-87-3	ND	10	ug/L	04/15/94
Dibromochloromethane	124-48-1	ND	5	ug/L	04/15/94
1,1-Dichloroethane	75-34-3	ND	5	ug/L	04/15/94
1,2-Dichloroethane	107-06-2	ND	5	ug/L	04/15/94
1,1-Dichloroethene	75-35-4	ND	5	ug/L	04/15/94

HARZA

SAMPLE ID: MW-21
AEN LAB NO: 9404062-01
AEN WORK ORDER: 9404062
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/06/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/21/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	04/15/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	04/15/94
1,2-Dichloropropane	78-87-5	ND	5	ug/L	04/15/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	04/15/94
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	04/15/94
Ethylbenzene	100-41-4	ND	5	ug/L	04/15/94
2-Hexanone	591-78-6	ND	50	ug/L	04/15/94
Methylene Chloride	75-09-2	ND	5	ug/L	04/15/94
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	04/15/94
Styrene	100-42-5	ND	5	ug/L	04/15/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	04/15/94
Tetrachloroethene	127-18-4	ND	5	ug/L	04/15/94
Toluene	108-88-3	ND	5	ug/L	04/15/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	04/15/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	04/15/94
Trichloroethene	79-01-6	ND	5	ug/L	04/15/94
Vinyl Acetate	108-05-4	ND	50	ug/L	04/15/94
Vinyl Chloride	75-01-4	ND	10	ug/L	04/15/94
Xylenes, Total	1330-20-7	ND	10	ug/L	04/15/94

Sample fraction for metals was filtered through a 0.45 um filter and preserved with nitric acid to a pH of <2 upon receipt.

ND = Not detected at or above the reporting limit
* = Value above reporting limit

HARZA

SAMPLE ID: PM-6
AEN LAB NO: 9404062-02
AEN WORK ORDER: 9404062
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/06/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/21/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/06/94
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/12/94
Arsenic	EPA 7060	0.004 *	0.002	mg/L	04/14/94
Selenium	EPA 7740	ND	0.004	mg/L	04/14/94
#Digestion, Metals by ICP	EPA 3010	-		Prep Date	04/12/94
Cadmium	EPA 6010	ND	0.005	mg/L	04/14/94
Chromium	EPA 6010	ND	0.01	mg/L	04/14/94
Copper	EPA 6010	ND	0.01	mg/L	04/14/94
Lead	EPA 6010	ND	0.04	mg/L	04/14/94
Nickel	EPA 6010	ND	0.01	mg/L	04/14/94
Silver	EPA 6010	ND	0.005	mg/L	04/14/94
Zinc	EPA 6010	ND	0.01	mg/L	04/14/94

Sample fraction for metals was filtered through a 0.45 um filter and preserved with nitric acid to a pH of <2 upon receipt.

ND = Not detected at or above the reporting limit
* = Value above reporting limit

HARZA

SAMPLE ID: MW-13
AEN LAB NO: 9404062-03
AEN WORK ORDER: 9404062
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/06/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/21/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/06/94
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/12/94
Arsenic	EPA 7060	0.002 *	0.002	mg/L	04/14/94
Selenium	EPA 7740	ND	0.004	mg/L	04/14/94
#Digestion, Metals by ICP	EPA 3010	-		Prep Date	04/12/94
Cadmium	EPA 6010	ND	0.005	mg/L	04/14/94
Chromium	EPA 6010	ND	0.01	mg/L	04/14/94
Copper	EPA 6010	ND	0.01	mg/L	04/14/94
Lead	EPA 6010	ND	0.04	mg/L	04/14/94
Nickel	EPA 6010	ND	0.01	mg/L	04/14/94
Silver	EPA 6010	ND	0.005	mg/L	04/14/94
Zinc	EPA 6010	ND	0.01	mg/L	04/14/94

Sample fraction for metals was filtered through a 0.45 um filter and preserved with nitric acid to a pH of <2 upon receipt.

ND = Not detected at or above the reporting limit
* = Value above reporting limit

HARZA

SAMPLE ID: PM-9
AEN LAB NO: 9404062-04
AEN WORK ORDER: 9404062
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/06/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/21/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/06/94
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/12/94
Arsenic	EPA 7060	ND	0.002	mg/L	04/14/94
Selenium	EPA 7740	ND	0.004	mg/L	04/14/94
#Digestion, Metals by ICP	EPA 3010	-		Prep Date	04/12/94
Cadmium	EPA 6010	ND	0.005	mg/L	04/14/94
Chromium	EPA 6010	ND	0.01	mg/L	04/14/94
Copper	EPA 6010	ND	0.01	mg/L	04/14/94
Lead	EPA 6010	ND	0.04	mg/L	04/14/94
Nickel	EPA 6010	ND	0.01	mg/L	04/14/94
Silver	EPA 6010	ND	0.005	mg/L	04/14/94
Zinc	EPA 6010	0.01 *	0.01	mg/L	04/14/94
VOCs in Water by 8240	EPA 8240				
Acetone	67-64-1	ND	100	ug/L	04/15/94
Benzene	71-43-2	17 *	5	ug/L	04/15/94
Bromodichloromethane	75-27-4	ND	5	ug/L	04/15/94
Bromoform	75-25-2	ND	5	ug/L	04/15/94
Bromomethane	74-83-9	ND	10	ug/L	04/15/94
2-Butanone	78-93-3	ND	100	ug/L	04/15/94
Carbon Disulfide	75-15-0	ND	10	ug/L	04/15/94
Carbon Tetrachloride	56-23-5	ND	5	ug/L	04/15/94
Chlorobenzene	108-90-7	ND	5	ug/L	04/15/94
Chloroethane	75-00-3	ND	10	ug/L	04/15/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	04/15/94
Chloroform	67-66-3	ND	5	ug/L	04/15/94
Chloromethane	74-87-3	ND	10	ug/L	04/15/94
Dibromochloromethane	124-48-1	ND	5	ug/L	04/15/94
1,1-Dichloroethane	75-34-3	ND	5	ug/L	04/15/94
1,2-Dichloroethane	107-06-2	ND	5	ug/L	04/15/94
1,1-Dichloroethene	75-35-4	ND	5	ug/L	04/15/94

HARZA

SAMPLE ID: PM-9
AEN LAB NO: 9404062-04
AEN WORK ORDER: 9404062
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/06/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/21/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	04/15/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	04/15/94
1,2-Dichloropropane	78-87-5	ND	5	ug/L	04/15/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	04/15/94
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	04/15/94
Ethylbenzene	100-41-4	13 *	5	ug/L	04/15/94
2-Hexanone	591-78-6	ND	50	ug/L	04/15/94
Methylene Chloride	75-09-2	ND	5	ug/L	04/15/94
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	04/15/94
Styrene	100-42-5	ND	5	ug/L	04/15/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	04/15/94
Tetrachloroethene	127-18-4	ND	5	ug/L	04/15/94
Toluene	108-88-3	ND	5	ug/L	04/15/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	04/15/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	04/15/94
Trichloroethene	79-01-6	ND	5	ug/L	04/15/94
Vinyl Acetate	108-05-4	ND	50	ug/L	04/15/94
Vinyl Chloride	75-01-4	ND	10	ug/L	04/15/94
Xylenes, Total	1330-20-7	100 *	10	ug/L	04/15/94

Sample fraction for metals was filtered through a 0.45 um filter and preserved with nitric acid to a pH of <2 upon receipt.

ND = Not detected at or above the reporting limit
* = Value above reporting limit

HARZA

SAMPLE ID: PM-14
AEN LAB NO: 9404062-05
AEN WORK ORDER: 9404062
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/06/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/21/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/06/94
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/12/94
Arsenic	EPA 7060	ND	0.002	mg/L	04/14/94
Selenium	EPA 7740	ND	0.004	mg/L	04/14/94
#Digestion, Metals by ICP	EPA 3010	-		Prep Date	04/12/94
Cadmium	EPA 6010	ND	0.005	mg/L	04/14/94
Chromium	EPA 6010	ND	0.01	mg/L	04/14/94
Copper	EPA 6010	ND	0.01	mg/L	04/14/94
Lead	EPA 6010	ND	0.04	mg/L	04/14/94
Nickel	EPA 6010	ND	0.01	mg/L	04/14/94
Silver	EPA 6010	ND	0.005	mg/L	04/14/94
Zinc	EPA 6010	0.01 *	0.01	mg/L	04/14/94

Sample fraction for metals was filtered through a 0.45 um filter and preserved with nitric acid to a pH of <2 upon receipt.

ND = Not detected at or above the reporting limit
* = Value above reporting limit

HARZA

SAMPLE ID: PM-10
AEN LAB NO: 9404062-06
AEN WORK ORDER: 9404062
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/06/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/21/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/06/94
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/12/94
Arsenic	EPA 7060	0.002 *	0.002	mg/L	04/14/94
Selenium	EPA 7740	ND	0.004	mg/L	04/14/94
#Digestion, Metals by ICP	EPA 3010	-		Prep Date	04/12/94
Cadmium	EPA 6010	ND	0.005	mg/L	04/14/94
Chromium	EPA 6010	ND	0.01	mg/L	04/14/94
Copper	EPA 6010	ND	0.01	mg/L	04/14/94
Lead	EPA 6010	ND	0.04	mg/L	04/14/94
Nickel	EPA 6010	ND	0.01	mg/L	04/14/94
Silver	EPA 6010	ND	0.005	mg/L	04/14/94
Zinc	EPA 6010	ND	0.01	mg/L	04/14/94

Sample fraction for metals was filtered through a 0.45 um filter and preserved with nitric acid to a pH of <2 upon receipt.

ND = Not detected at or above the reporting limit
* = Value above reporting limit

HARZA

SAMPLE ID: W-5
AEN LAB NO: 9404062-07
AEN WORK ORDER: 9404062
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/06/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/21/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/06/94
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/12/94
Arsenic	EPA 7060	ND	0.002	mg/L	04/14/94
Selenium	EPA 7740	ND	0.004	mg/L	04/14/94
#Digestion, Metals by ICP	EPA 3010	-		Prep Date	04/12/94
Cadmium	EPA 6010	ND	0.005	mg/L	04/14/94
Chromium	EPA 6010	ND	0.01	mg/L	04/14/94
Copper	EPA 6010	ND	0.01	mg/L	04/14/94
Lead	EPA 6010	ND	0.04	mg/L	04/14/94
Nickel	EPA 6010	0.04 *	0.01	mg/L	04/14/94
Silver	EPA 6010	ND	0.005	mg/L	04/14/94
Zinc	EPA 6010	ND	0.01	mg/L	04/14/94

Sample fraction for metals was filtered through a 0.45 um filter and preserved with nitric acid to a pH of <2 upon receipt.

ND = Not detected at or above the reporting limit
* = Value above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9404062

CLIENT PROJECT ID: K615I

Quality Control Summary

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

Definitions

The following abbreviations are found throughout the QC report:

ND = Not Detected at or above the reporting limit
RPD = Relative Percent Difference
< = Less Than

QUALITY CONTROL DATA

INSTRUMENT: 12 AEN JOB NO: 9404062

CLIENT PROJ. ID: K615I

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
04/15/94	MW-21	01	109	100	105
04/15/94	PM-9	04	108	106	108

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(77-123)
Toluene-d8	(90-108)
p-Bromofluorobenzene	(89-109)

QUALITY CONTROL DATA

DATE ANALYZED: 04/15/94
SAMPLE SPIKED: 9404091-03
CLIENT PROJ. ID: K615I

AEN JOB NO: 9404062

INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

ANALYTE	Spike Added (ug/L)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	114	2
Trichloroethene	50.0	104	6
Benzene	50.0	116	1
Toluene	50.0	103	5
Chlorobenzene	50.0	109	5

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(81-123)	12
Trichloroethene	(87-112)	9
Benzene	(92-116)	12
Toluene	(91-116)	12
Chlorobenzene	(92-113)	10

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9404062

CLIENT PROJ. ID: K615I

DATE DIGESTED: 04/12-13/94

METHOD SPIKE RECOVERY SUMMARY

Compound	Inst./ Method	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits % Rec. Limit	QC Limits RPD Limit
Ag, Silver	ICP/6010	0.25	87	1	64-122	8
As, Arsenic	4000/7060	0.04	106	2	90-115	12
Cd, Cadmium	ICP/6010	0.25	98	2	78-119	10
Cu, Copper	ICP/6010	0.25	95	1	85-113	6
Ni, Nickel	ICP/6010	0.5	99	<1	88-116	6
Pb, Lead	ICP/6010	0.5	102	1	87-119	7
Se, Selenium	4000/7740	0.08	119	<1	76-131	14
Zn, Zinc	ICP/6010	0.5	101	3	87-117	7

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

*** END OF REPORT ***

Lab Job 404062

R-3,5

CHAIN-OF-CUSTODY RECORD

Project Number: K615I

Project Name: Fuller O'Brien Phase II RFI

Location: So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Unfiltered					Remarks
MW-21	01A	4/6/94		X	1x500 mL Plastic								X					
MW-21	BC			X	2x40 mL VOAs			X										
PM-6	02A			X	1x500 mL Plastic								X					
MW-13	03A			X	1x500 mL Plastic								X					
PM-9	04A			X	1x500 mL Plastic								X					
PM-9	BC			X	2x40 mL VOAs			X										
PM-14	05A			X	1x500 mL Plastic								X					
PM-10	06A			X	1x500 mL Plastic								X					
W-5	07A			X	1x500 mL Plastic								X					
																		Metals for Ag, As, Cd, Cu, Cr, Ni, Pb, Se, Zn

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	4/6/94 1015	Michael E. McMillan
Michael E. McMillan	4/6/94 12:50	
		Received for Laboratory by: (Signature) Lynn Gillespie 4-6-94 1250

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks: Filter & acidify metals in lab upon receipt.

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Date: 11/10/93
Project Number: K615I
Sampler: SRH
Well Number: W-5
Weather: Sunny, warm
Well Location:

Well Construction:

Date Completed: 4/28/83
Total Depth of Well: 59.2' from TOC
Diameter: 2"
Well Elevation & Reference: 10.12 TOC

Ground Water Levels:

Initial: 6.25 Feet
Final: 10.45 Feet
Reference Point: TOC
Well Volume of Water: 8.5 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Teflon bailer
Method of Cleaning: Liquinox/Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox/Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotte Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°C) °F	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity (NTU)	Odor
	8.5		6.80	70.4	3310		Clear / 0.5	None
	17		7.26	81.1	3750		Clear / 1.0	"
	25.5		7.36	81.1	3840		" / "	"
	Sampled							

Total Discharge: 25.5 Gallons
Casing Volumes Removed: 3 Volumes
Method of Disposal: To 55g drum

Comments: Well damaged. All samples collected from peristaltic pump

HARZA
Consulting Engineers and Scientists

WATER SAMPLE LOG		
Fuller-O'Brien Paints, South San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Date: 11/1/93
Project Number: K615.I
Sampler: TM
Well Number: W-7
Weather: Sunny, warm
Well Location:

Well Construction:

Date Completed: 4/2/84
Total Depth of Well: 30.5 Feet
Diameter: 2"
Well Elevation & Reference: 13.34 Feet TOC

Ground Water Levels:

Initial: 10.32 Feet
Final: 19.32 Feet 11/2 @ 0715
Reference Point: TOC
Well Volume of Water: 3.1 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Teflon bailer
Method of Cleaning: Liquinox/Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox/Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotte Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp ~~(°C)~~ °F	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/Turbidity (Ntu)	Odor
	Began Purging		7.06	77.1	3790		Clear / 24.0	None
		3	6.86	74.2	3660		" / 7.8	
		6	6.85	72.1	3530		" / 5.0	
11/2		(DRY) 7	6.66	55.1	1830		" / 59.0	

Total Discharge: 7 gallons
Casing Volumes Removed: 2 volumes
Method of Disposal: To 55g drum

Comments: Peristaltic pump having trouble pulling water

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WATER SAMPLE LOG		
Fuller-O'Brien Paints South San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Project Number: K615.I
Well Number: W-7
Well Location:

Date: 11/9/93
Sampler: TM
Weather: Sunny, warm

Well Construction:

Date Completed: 4/2/84
Total Depth of Well: 30.5 Feet
Diameter: 2"
Well Elevation & Reference: 15.34 Feet TOC

Ground Water Levels:

Initial: 26.81 Feet
Final: 26.75 Feet 11/15
Reference Point: TOC
Well Volume of Water: 0.35 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Teflon bailer
Method of Cleaning: Liquinox/Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox/Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotter Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp °F	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity (NTU)	Odor
	Began Purging		7.06	63.5	4280		Gray / 102	None
		10	7.11	63.7	4260		" / 170	
	Sampled		7.36	52.8	4230		" / >200	

Total Discharge: 1 Gallon
Casing Volumes Removed: 3 volumes
Method of Disposal: To 55g drum

Comments: Sampled after developed with Sonic rig.

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WATER SAMPLE LOG		
Fuller-O'Brien Paints South San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Project Number: K615.I
Well Number: PM-2
Well Location:

Date: 11/9/93
Sampler: JM / SCH
Weather: Sunny & warm

Well Construction:

Date Completed: 8/15/87
Total Depth of Well: 21.5 Feet
Diameter: 2"
Well Elevation & Reference: 9.82 Feet TOC

Ground Water Levels:

Initial: 4.71 Feet
Final: 9.78 Feet
Reference Point: TOC
Well Volume of Water: 2.4 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Teflon bailer
Method of Cleaning: Liquinox/Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox/Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotter Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°C) °F	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity	Odor
	Begin	Purging	7.55	67.2	5130		Tan / 144	None
	"	2.4	7.53	70.1	5330		" / 7200	
	DRY	4.8	7.81	70.4	5230		" / "	
	Sampled							

Total Discharge: 4.8 Gallons
Casing Volumes Removed: 2 Volumes
Method of Disposal: To 55g drum

Comments: Sampled after developed w/ "Sneed" rig

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WATER SAMPLE LOG		
Fuller-O'Brien Paints South San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Project Number: K615.I
Well Number: PM-3
Well Location:

Date: 11/9/93
Sampler: TM
Weather: Sunny & Warm

Well Construction:

Date Completed: 8/18/87
Total Depth of Well: 20.0 Feet
Diameter: 2"
Well Elevation & Reference: 22.62 Feet TOC

Ground Water Levels:

Initial: 8.2 Feet
Final: 9.9 Feet
Reference Point: TOC
Well Volume of Water: 0.30 Feet

Sampling Equipment & Cleaning:

Sampler Type: Teflon bailer
Method of Cleaning: Liquinox/Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox/Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotte Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp ~~(°C)~~ °F	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity	Odor
	Began	Purging	8.01	65.6	4530		Gray 19.8	None
	DRY	0.30	8.04	65.2	4420		" /100	"
11/15	Sampled		8.08	64.9	4460		" /100	"

Total Discharge: 0.30 Volumes
Casing Volumes Removed: 1 Volume
Method of Disposal: To 55g drum

Comments: Sampled after developed w/ "Sneed" Rig

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WATER SAMPLE LOG		
Fuller-O'Brien Paints South San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Project Number: K615.I
Well Number: DM-6
Well Location:

Date: 11/10/93
Sampler: TM / SEH
Weather:

Well Construction:

Date Completed: 8/21/87
Total Depth of Well: 40 Feet
Diameter: 2"
Well Elevation & Reference: 9.42 Feet TOC

Sampling Equipment & Cleaning:

Sampler Type: Peristaltic Pump / Teflon bailer
Method of Cleaning: Liquinox / Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox / Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotter Turbidimeter

Ground Water Levels:

Initial: 3.85 Feet
Final: 6.68 Feet
Reference Point: TOC
Well Volume of Water: 5.2 Gallons

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°C)	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity	Odor
	Began	Purging	7.58	60.1	2920		Clear / TDS	None
		5.2	7.52	60.6	3390		" / 556	
		DRY 6	7.47	61.4	3880		" / 7200	
	Sampled		6.05	63.4	2000		" / 148	

Total Discharge: 6 Gallons
Casing Volumes Removed: 1.2 Volumes
Method of Disposal: To 55g drum

Comments: Sampled after developed w/ "Small" rig

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WATER SAMPLE LOG		
Fuller-O'Brien Paints, South San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Date: 11/2/93
Project Number: K615.I
Sampler: TM
Well Number: PM-7
Weather: Sunny, warm
Well Location:

Well Construction:

Date Completed: 9/3/87
Total Depth of Well: 37 Feet
Diameter: 2"
Well Elevation & Reference: 10.47 Feet TOC

Ground Water Levels:

Initial: 4.21 Feet
Final:
Reference Point: TOC
Well Volume of Water: 2.9 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Peristaltic pump ~~Teflon bailer~~
Method of Cleaning: Liquinox/Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox/Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotter Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°C) °F	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity	Odor
	Began	Pumping	7.94	68.2	2,120		Clear / 68.2	None
		3	7.13	75.2	2330		Gray / 198	"

Total Discharge: 3 Gallons
Casing Volumes Removed: 1 Volume
Method of Disposal: To 55g drum

Comments: Peristaltic pump not able to pull up water

HARZA Consulting Engineers and Scientists	WATER SAMPLE LOG Fuller-O'Brien Paints South San Francisco, CA		
	Project No.	Date	Figure
	K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Project Number: K615.I
Well Number: PM-9
Well Location:

Date: 11/10/93
Sampler: JM/SRH
Weather: Sunny warm

Well Construction:

Date Completed: 8/28/87
Total Depth of Well: 25 Feet
Diameter: 2"
Well Elevation & Reference: 10.07 Feet TOC

Ground Water Levels:

Initial: 5.88 Feet
Final: 7.24 Feet
Reference Point: TOC
Well Volume of Water: 1.4 Gallons

Sampling Equipment & Cleaning:

Sampler Type: ~~Teflon Bailer~~ Peristaltic Pump
Method of Cleaning: Liquinox/Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox/Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotter Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp ~~(°C)~~ °F	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/Turbidity (NTU)	Odor
		1.4	8.5	60	1470		Clear/124	None
		2.8	7.9	62	1470		" /198	↓
		5.6	8.6	62	1540		" /186	↓
	Sampled							

Total Discharge: 5.6 Gallons
Casing Volumes Removed: 3 Volumes
Method of Disposal: To 55g drum

Comments: Sampled after developed w/ "Shred" Rig

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Consulting Engineers and Scientists

WATER SAMPLE LOG		
Fuller-O'Brien Paints South San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Project Number: K615.I
Well Number: PM-10
Well Location:

Date: 11/10/94
Sampler: SRH / TMJ
Weather: Overcast / 60°F

Well Construction:

Date Completed: 8/27/93
Total Depth of Well: 29 Feet / 26.8 Feet
Diameter: 2"
Well Elevation & Reference: 11.26 Feet TOC

Ground Water Levels:

Initial: 9.88 Feet
Final: 17.33 Feet
Reference Point: TOC
Well Volume of Water: 2.7 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Teflon bailer
Method of Cleaning: Liquinox / Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox / Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotter Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp ~~(°C)~~ °F	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity (Ntu)	Odor
	Began Purging		12.05	58.5	2210		Clear / 8.8	None
		2.7	11.85	61	1460		>200	
11/11	Sampled		10.18	62.6	1920		Clear / 21	↓

Total Discharge: 2.7 Gallons
Casing Volumes Removed: 1 Volume
Method of Disposal: To 55g drum

Comments: Sampled after developed w/ "Speed" Rig

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Consulting Engineers and Scientists

WATER SAMPLE LOG		
Fuller-O'Brien Paints South San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Project Number: K615.I
Well Number: MW-13
Well Location:

Date: 11/10/93
Sampler: TM/SRH
Weather: Sunny & windy

Well Construction:

Date Completed: 1/10/87
Total Depth of Well: 15 Feet
Diameter: 4"
Well Elevation & Reference: 13.42 Feet TOC

Ground Water Levels:

Initial: 10.1 Feet
Final: 9.3 Feet
Reference Point: TOC
Well Volume of Water: 3.2 Gallons

Sampling Equipment & Cleaning:

Sampler Type: ~~Teflon Bailer~~ Peristaltic
Method of Cleaning: Liquinox/Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox/Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotter Turbidimeter
Dedicated pump installed
Used peristaltic pump to sample

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°C) °F	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity (Ntu)	Odor
		3.2	7.83	62	4130		Clear / 6.2	
		6.4	7.80	61	4120		" / 3.5	
		9.6	7.75	59	4020		" / 2.1	
	Sampled							

Total Discharge: 9.6 Gallons
Casing Volumes Removed: 3 Volumes
Method of Disposal: To 55g drum

Comments:

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Consulting Engineers and Scientists

WATER SAMPLE LOG		
Fuller-O'Brien Paints South San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Project Number: K615.I
Well Number: MW-18
Well Location:

Date: 11/10/93
Sampler: TM
Weather: Sunny, warm

Well Construction:

Date Completed: 8/20/87
Total Depth of Well: 75 Feet
Diameter: 4"
Well Elevation & Reference: 22.62 Feet TOC

Ground Water Levels:

Initial: 69 Feet / 58.72 11/11/93
Final: 60.1 Feet
Reference Point: TOC
Well Volume of Water: —

Sampling Equipment & Cleaning:

Sampler Type: Teflon bailer
Method of Cleaning: Liquinox/Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox/Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotter Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.)		pH	Temp ~~(°C)~~ °F	Spec. Conductance (umhos/cm)		Color/ Turbidity (N/m)	Odor
	Per Time Period	Cumulative			Field	@ 25°C		
	Began	Purging	6.01	64.9	2070		clear / 7200	None
		DRY						
	Sampled		7.69	65.2	850		clear / 8.3	↓

Total Discharge: —
Casing Volumes Removed: —
Method of Disposal: To 55g drum

Comments: Sampled after developed w/ "Smeal" Rig

HARZA
Consulting Engineers and Scientists

WATER SAMPLE LOG		
Fuller-O'Brien Paints South San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Project Number: K615.I
Well Number: MW-19
Well Location:

Date: 11/2/93
Sampler: TM
Weather: Sunny & warm

Well Construction:

Date Completed: 9/2/87
Total Depth of Well: 30 Feet / 28.25 Feet
Diameter: 4"
Well Elevation & Reference: 16.01 Feet TOC

Ground Water Levels:

Initial: 5.61 Feet / 19.3 Feet
Final:
Reference Point: TOC
Well Volume of Water: 15 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Teflon bailer
Method of Cleaning: Liquinox / Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox / Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotter Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp ~~(°C)~~ °F	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity	Odor
	Began	Pumping	8.14	73.8	1920		Tan / 177	None
		15	8.25	74.3	1830		" / 110	↓

Total Discharge: 15 Gallons
Casing Volumes Removed: 1 Volume
Method of Disposal: To 55g drum

Comments: Peristaltic pump not able to pull water

HARZA
Consulting Engineers and Scientists

WATER SAMPLE LOG
Fuller-O'Brien Paints
South San Francisco, CA

Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Date: 11/10/93
Project Number: K615.I
Sampler: TM
Well Number: MW-19
Weather: Sunny & warm
Well Location:

Well Construction:

Date Completed: 9/2/87
Total Depth of Well: 30 Feet / 28.2 Feet
Diameter: 4"
Well Elevation & Reference: 16.01 Feet TOC

Ground Water Levels:

Initial: 20.5 Feet / 26.88 Feet
Final: 25.41 Feet
Reference Point: TOC
Well Volume of Water: 5.1 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Teflon bailer
Method of Cleaning: Liquinox / Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox / Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotter Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°C) °F	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity	Odor
	Began	Sampling	9.96	62.1	1460		Tan-Clear / >200	None
	DRY	5						
	Sampled		7.34	65.7	1030		Clear / 2.0	↓

Total Discharge: 5 Gallons
Casing Volumes Removed: 1 Volume
Method of Disposal: To 55g drum

Comments: Sampled after developed w/ "Smed" Rig

HARZA
Consulting Engineers and Scientists

WATER SAMPLE LOG		
Fuller-O'Brien Paints South San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Date: 11/2/93
Project Number: K615.I
Sampler: TM
Well Number: MW-20
Weather: Sunny & warm
Well Location:

Well Construction:

Date Completed: 8/2/87
Total Depth of Well: 67 Feet
Diameter: 4"
Well Elevation & Reference: 14.21 Feet TOC

Ground Water Levels:

Initial: 10.2 Feet
Final: —
Reference Point: TOC
Well Volume of Water: 40.7 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Peristaltic pump ~~Teflon bailer~~
Method of Cleaning: Liquinox/Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox/Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotter Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp ~~°C~~ °F	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity	Odor
	Began	Sampling	8.14	69.5	2510		Clear/9.8	None

Total Discharge: —
Casing Volumes Removed: —
Method of Disposal: To 55g drum

Comments: Peristaltic pump not able to pump out water

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WATER SAMPLE LOG		
Fuller-O'Brien Paints South San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Date: 11/10/93
Project Number: K615.I
Sampler: TM
Well Number: MW-2U
Weather: Sunny & warm
Well Location:

Well Construction:

Date Completed: 5/2/87
Total Depth of Well: 67 Feet
Diameter: 4"
Well Elevation & Reference: 14.21 Feet TOC

Ground Water Levels:

Initial: 11.2 Feet
Final: 19.3 Feet
Reference Point: TOC
Well Volume of Water: 41 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Teflon bailer
Method of Cleaning: Liquinox/Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox/Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotter Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp ~~(°C)~~ °F	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity	Odor
	Began	Purging	8.60	62.1	2400		Clear/ 81	None
		40	6.30	61.0	2270		" /7200	↓
	Sampled		7.69	61.4	2190		" /8	↓

Total Discharge: 41 Gallons
Casing Volumes Removed: 1 Volume
Method of Disposal: To 55g drum

Comments: Sampled after developed w/ Small Rig

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WATER SAMPLE LOG		
Fuller-O'Brien Paints South San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Date: 11/10/93
Project Number: K615.I
Sampler: TM
Well Number: MW-21
Weather: Sunny & warm
Well Location:

Well Construction:

Date Completed: 9/2/87
Total Depth of Well: 25 Feet
Diameter: 4"
Well Elevation & Reference: 12.24 Feet TOC

Ground Water Levels:

Initial: 7.48 Feet
Final: 9.21 Feet on 11/11
Reference Point: TOC
Well Volume of Water: 11.4 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Teflon bailer
Method of Cleaning: Liquinox/Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox/Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotter Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.)		pH	Temp ~~(°C)~~ °F	Spec. Conductance (umhos/cm)		Color/ Turbidity (Ntu)	Odor
	Per Time Period	Cumulative			Field	@ 25°C		
	Began	Purging	8.01	61.5	2410		Clear / 114	None
		DRY 11.4	8.22	59.5	2330		" / 164	↓
	Sampled		8.17	62.6	2190		" / 12.3	↓

Total Discharge: 11.4 Gallons
Casing Volumes Removed: 1 Volume
Method of Disposal: To 55g drum

Comments: Sampled after developed w/ "Smeal" Rig

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WATER SAMPLE LOG		
Fuller-O'Brien Paints South San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints Date: 11/10/93
Project Number: K615I Sampler: SRH
Well Number: X-1 Weather: overcast 65°F
Well Location: outfall near upper tank farm

Well Construction: N/A

Date Completed: /
Total Depth of Well:
Diameter:
Well Elevation & Reference:

Ground Water Levels: N/A

Initial:
Final:
Reference Point:
Well Volume of Water:

Sampling Equipment & Cleaning:

Sampler Type: GRAB
Method of Cleaning: –
Pump/Bailer Type: –
Method of Cleaning: –
pH Meter: Hydak
Conductivity Meter: Hydak
Comments:
GRAB SAMPLE

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°C) °F	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity NTU	Odor
1055			8.10	63	300		3.2	None
							1.8	✓
1/11/93 1200			8.14	63.9	230			

Total Discharge: N/A
Casing Volumes Removed:
Method of Disposal:

Comments:

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WATER SAMPLE LOG		
Fuller-O'Brien Paints, So. San Francisco, PA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Date: 4/8/94
Project Number: K615I
Sampler: TM/DA
Well Number: W-5
Weather: Sunny & windy
Well Location:

Well Construction:

Date Completed: 4/28/93
Total Depth of Well: 59.2 Feet
Diameter: 2"
Well Elevation & Reference: 10.12 Feet TOC

Ground Water Levels:

Initial: 6.27 Feet
Final: 7.51 Feet
Reference Point: TOC
Well Volume of Water: 9 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Peristaltic pump
Method of Cleaning: Liquinox/Rinse
Pump/Bailer Type: Peristaltic Pump
Method of Cleaning: Liquinox/Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Sampled w/ Peristaltic pump, well bent

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°C)	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity	Odor
	Begin Purging							
		9	8.79	68.6	16,480		Clear/28.3	None
		18	8.12	61.4	15,000		Clear/1.0	"
		27	7.76	67.8	17,210		Clear/1.18	"
	Sampled							

Total Discharge: 27 Gallons
Casing Volumes Removed: 3 Volumes
Method of Disposal: To 55g drum

Comments:

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WATER SAMPLE LOG		
Fuller-O'Brien Paints So. San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints Date: 4/5/94
Project Number: K615I Sampler: TM / DA
Well Number: PM-6 Weather: Sunny & windy
Well Location:

Well Construction:

Date Completed: 8/21/87
Total Depth of Well: 37.5 Feet/40'
Diameter: 2"
Well Elevation & Reference: 9.42 Feet TOC

Ground Water Levels:

Initial: 3.0 Feet 4/6 @ 0745 3.63 Feet
Final: 4.2 Feet
Reference Point: TOC
Well Volume of Water: 5.8 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Teflon bailer
Method of Cleaning: Liquinox / Rinse
Pump/Bailer Type: Teflon bailer
Method of Cleaning: Liquinox / Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: La Motte Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.)		pH	Temp (°C)	Spec. Conductance (umhos/cm)		Color/ Turbidity	Odor
	Per Time Period	Cumulative			Field	@ 25°C		
	Began	Purging						
		8	12.20	63.5	~~[illegible]~~ 6823		Clear/7200	None
1115	DRY	12	7.60	63.8	1975		Clear/87.8	"
4/6	Sampled							

Total Discharge: 12 Gallons
Casing Volumes Removed: 2.1 Volumes
Method of Disposal: To 55g drum

Comments:

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WATER SAMPLE LOG		
Fuller-O'Brien Paints So. San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Project Number: K615I
Well Number: PM-9
Well Location:

Date: 4/5/94
Sampler: TM/DJ
Weather: Sunny & windy

Well Construction:

Date Completed: 8/28/87
Total Depth of Well: 14.75 Feet
Diameter: 2"
Well Elevation & Reference: 10.07 Feet TOC

Ground Water Levels: 4/6 @ 0840

Initial: 5.60 / 5.70 Feet
Final: 5.99 Feet
Reference Point: TOC
Well Volume of Water: 1.6 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Teflon bailer
Method of Cleaning: Liquinox/Rinse
Pump/Bailer Type: Teflon bailer
Method of Cleaning: Liquinox/Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: La Motte Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°C) °F	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity	Odor
		2	7.55	64.1	8050		GRAY - BROWN	YES
1200	DRY	4	8.01	63.3	7870		GRAY	YES
4/6	Sampled							

Total Discharge: 4 Gallons
Casing Volumes Removed: 2.5 Volumes
Method of Disposal: To 55g drum

Comments:

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WATER SAMPLE LOG		
Fuller-O'Brien Paints, S. San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller - O'Brien Paints
Project Number: K615I
Well Number: DM-10
Well Location:

Date: 4/5/94
Sampler: JM/DA
Weather: Sunny & windy

Well Construction:

Date Completed: 8/27/87
Total Depth of Well: 26.8 Feet
Diameter: 2"
Well Elevation & Reference: 1.26 Feet TOC

Ground Water Levels:

Initial: 8.28 Feet / 10.21 Feet 4/6/94
Final: 9.3 Feet
Reference Point: TOC
Well Volume of Water: 3.1 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Teflon bailer
Method of Cleaning: Liquinox / Rinse
Pump/Bailer Type: Teflon bailer
Method of Cleaning: Liquinox / Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotte Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°C)	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity	Odor
	Began	Purging						
1200		3	12.08	64.3	926		Clear/34.5	None
4/6/94	Sampled							

Total Discharge: 3 Gallons
Casing Volumes Removed: 1 Volume
Method of Disposal: To 55g drum

Comments:

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WATER SAMPLE LOG		
Fuller-O'Brien Paints So San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller - O'Brien Paints
Date: 4/5/94
Project Number: K6151
Sampler: TM/DA
Well Number: PM-14
Weather: Sunny & windy
Well Location:

Well Construction:

Date Completed: 12/10/93
Total Depth of Well: 10 Feet
Diameter: 2"
Well Elevation & Reference: 9.65 Feet TOC

Ground Water Levels:

Initial: 3.74 Feet (3.72 Feet 4/6 @ 0745)
Final: 4.01 Feet
Reference Point: TOC
Well Volume of Water: 1.1 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Teflon bailer
Method of Cleaning: Liquinox / Rinse
Pump/Bailer Type: Teflon bailer
Method of Cleaning: Liquinox / Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Hamotte Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°C)	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity	Odor
	Began	Purging						
		1 gal	7.97	67.0	3130		BROWN	NONE
		2.5 gal	7.66	62.7	3780		GRAY-BROWN	NONE
		4.5	7.80	62.6	3770		"	NONE
		6.5	7.74	63.0	4240		"	"
		9.0	7.82	62.4	5460		BROWN	"
	BRK	11.0	7.46	63.1	4860		BROWN	"

Total Discharge: 11 Gallons
Casing Volumes Removed: 10 Volumes
Method of Disposal: To 55 gal drum

Comments:

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Consulting Engineers and Scientists

WATER SAMPLE LOG		
Fuller - O'Brien Paints, SE San Francisco, CA		
Project No.	Date	Figure
K615I	April 94	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Date: 4/5/94
Project Number: K615I
Sampler: TM/DA
Well Number: MW-13
Weather: Sunny Windy
Well Location:

Well Construction:

Date Completed: 1/10/87
Total Depth of Well: 15 Feet
Diameter: 4"
Well Elevation & Reference: 13.02 Feet TOC

Ground Water Levels:

Initial: 1.32 Feet ~~2.38~~ Feet
Final: 10.2 Feet
Reference Point: TOC
Well Volume of Water: 1.0 Gallon

Sampling Equipment & Cleaning:

Sampler Type: Peristaltic pump
Method of Cleaning: Liquinox/rinse
Pump/Bailer Type: Peristaltic pump
Method of Cleaning: Liquinox/Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Dedicated tubing in well

SAMPLING MEASUREMENTS

Time	Discharge (gal.) Per Time Period	Discharge (gal.) Cumulative	pH	Temp (°C)	Spec. Conductance (umhos/cm) Field	Spec. Conductance (umhos/cm) @ 25°C	Color/ Turbidity	Odor
	Began	Purging						
		1	8.77	70.3	9880		Clear/10+	SW H_2S
		2	8.59	67.6	8590		" /2.3	"
		3	8.43	65.5	8040		" /0.5	"
	Sampled							

Total Discharge: 3 Gallons
Casing Volumes Removed: 3 Volumes
Method of Disposal: To 55g drum

Comments:

HARZA
Consulting Engineers and Scientists

WATER SAMPLE LOG		
Fuller-O'Brien Paints, So San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

WATER SAMPLE LOG

Project Name: Fuller-O'Brien Paints
Date: 4/5/94
Project Number: K615.I
Sampler: TM/DA
Well Number: MW-21
Weather: Sunny & windy
Well Location:

Well Construction:

Date Completed: 9/2/87
Total Depth of Well: 25 Feet
Diameter: 4"
Well Elevation & Reference: 12.24 Feet TOC

Ground Water Levels:

Initial: 7.5 Feet
4/6 Final: 9.0 Feet
Reference Point: TOC
Well Volume of Water: 11.4 Gallons

Sampling Equipment & Cleaning:

Sampler Type: Teflon bailer
Method of Cleaning: Liquinox/Rinse
Pump/Bailer Type: Teflon Bailer
Method of Cleaning: Liquinox/Rinse
pH Meter: Hydac
Conductivity Meter: Hydac
Comments: Lamotter Turbidimeter

SAMPLING MEASUREMENTS

Time	Discharge (gal.)		pH	Temp (°C) °F	Spec. Conductance (umhos/cm)		Color/ Turbidity	Odor
	Per Time Period	Cumulative			Field	@ 25°C		
	Began	Purging	8.23	55.6	2100		Clear/56	None
		(DRY) 12	8.56	57.8	2160		Clear/114	↓
4/6	Sampled							

Total Discharge: 12 Gallons
Casing Volumes Removed: 1 Volume
Method of Disposal: To 55g drum
Comments:

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Consulting Engineers and Scientists

WATER SAMPLE LOG		
Fuller-O'Brien Paints South San Francisco, CA		
Project No.	Date	Figure
K615I	April 1994	

APPENDIX C
Soil and Sediment Quality Laboratory Reports and Chain of Custody Records

American Environmental Network

Certificate of Analysis

DHHS Certification: 1172 AIHA Accreditation

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: KE1495-1A-2112
PROJ. NAME: FULLER O'BRIEN

REPORT DATE: 01/17/94

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93

ADDITIONAL ANALYSIS
REQUESTED: 12/10-23/93-
01/04-07/94

AEN JOB NO: 9312129

PROJECT SUMMARY:

On December 9, 1993, this laboratory received seventeen (17) soil samples and five (5) water samples.

Client requested twelve (12) soil samples and all water samples be analyzed for inorganic and organic parameters. Five (5) soil samples and sample fractions for filtered metals were placed on hold. On December 10, 1993, client requested additional analysis on samples for Copper. On December 23, 1993, client requested sample SWB-5/10-10.5' be taken off hold and analyzed by EPA 8240. On January 4 and 7, 1994, client requested samples SWB-7 and SWB-11 for filtered metals be taken off hold. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

Due to laboratory error, samples SWB-7/10-10.5' and SWB-5/5-5.5'(9312129-09,12) was analyzed outside holding time for EPA Method 8240.

All other laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Larry Klein
General Manager

Results FAXed 12/22/93-01/13/94

HARZA KALDVEER

SAMPLE ID: SWB-3/0.5-1'
AEN LAB NO: 9312129-01A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/17/93
Arsenic	EPA 7060	12 *	1	mg/kg	12/22/93
Selenium	EPA 7740	ND	2	mg/kg	12/22/93
Cadmium	EPA 6010	ND	0.1	mg/kg	12/18/93
Chromium	EPA 6010	170 *	1	mg/kg	12/18/93
Copper	EPA 6010	25 *	0.5	mg/kg	12/18/93
Lead	EPA 6010	97 *	1	mg/kg	12/18/93
Nickel	EPA 6010	300 *	1	mg/kg	12/18/93
Silver	EPA 6010	0.3 *	0.1	mg/kg	12/18/93
Zinc	EPA 6010	53 *	1	mg/kg	12/18/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	12/19/93
Benzene	71-43-2	ND	5	ug/kg	12/19/93
Bromodichloromethane	75-27-4	ND	5	ug/kg	12/19/93
Bromoform	75-25-2	ND	5	ug/kg	12/19/93
Bromomethane	74-83-9	ND	10	ug/kg	12/19/93
2-Butanone	78-93-3	ND	100	ug/kg	12/19/93
Carbon Disulfide	75-15-0	ND	10	ug/kg	12/19/93
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	12/19/93
Chlorobenzene	108-90-7	ND	5	ug/kg	12/19/93
Chloroethane	75-00-3	ND	10	ug/kg	12/19/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	12/19/93
Chloroform	67-66-3	ND	5	ug/kg	12/19/93
Chloromethane	74-87-3	ND	10	ug/kg	12/19/93
Dibromochloromethane	124-48-1	ND	5	ug/kg	12/19/93
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	12/19/93
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	12/19/93
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	12/19/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	12/19/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	12/19/93
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	12/19/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	12/19/93

HARZA KALDVEER

SAMPLE ID: SWB-3/0.5-1'
AEN LAB NO: 9312129-01A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	12/19/93
Ethylbenzene	100-41-4	ND	5	ug/kg	12/19/93
2-Hexanone	591-78-6	ND	50	ug/kg	12/19/93
Methylene Chloride	75-09-2	ND	5	ug/kg	12/19/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	12/19/93
Styrene	100-42-5	ND	5	ug/kg	12/19/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	12/19/93
Tetrachloroethene	127-18-4	ND	5	ug/kg	12/19/93
Toluene	108-88-3	ND	5	ug/kg	12/19/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	12/19/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	12/19/93
Trichloroethene	79-01-6	ND	5	ug/kg	12/19/93
Vinyl Acetate	108-05-4	ND	50	ug/kg	12/19/93
Vinyl Chloride	75-01-4	ND	10	ug/kg	12/19/93
Xylenes, Total	1330-20-7	ND	10	ug/kg	12/19/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/15/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	12/23/93
Acenaphthylene	208-96-8	ND	330	ug/kg	12/23/93
Anthracene	120-12-7	ND	330	ug/kg	12/23/93
Benzidine	92-87-5	ND	1600	ug/kg	12/23/93
Benzoic Acid	65-85-0	ND	1600	ug/kg	12/23/93
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	12/23/93
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	12/23/93
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	12/23/93
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	12/23/93
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	12/23/93
Benzyl Alcohol	100-51-6	ND	660	ug/kg	12/23/93
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	12/23/93
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	12/23/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	12/23/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	12/23/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	12/23/93
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	12/23/93
4-Chloroaniline	106-47-8	ND	660	ug/kg	12/23/93
2-Chloronapththalene	91-58-7	ND	330	ug/kg	12/23/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	12/23/93
Chrysene	218-01-9	ND	330	ug/kg	12/23/93
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	12/23/93
Dibenzofuran	132-64-9	ND	330	ug/kg	12/23/93
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	12/23/93

HARZA KALDVEER

SAMPLE ID: SWB-3/0.5-1'
AEN LAB NO: 9312129-01A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	12/23/93
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	12/23/93
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	12/23/93
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	12/23/93
Diethyl Phthalate	84-66-2	ND	330	ug/kg	12/23/93
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	12/23/93
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	12/23/93
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	12/23/93
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	12/23/93
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	12/23/93
Fluoranthene	206-44-0	ND	330	ug/kg	12/23/93
Fluorene	86-73-7	ND	330	ug/kg	12/23/93
Hexachlorobenzene	118-74-1	ND	330	ug/kg	12/23/93
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	12/23/93
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	12/23/93
Hexachloroethane	67-72-1	ND	330	ug/kg	12/23/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	12/23/93
Isophorone	78-59-1	ND	330	ug/kg	12/23/93
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	12/23/93
Naphthalene	91-20-3	ND	330	ug/kg	12/23/93
2-Nitroaniline	88-74-4	ND	1600	ug/kg	12/23/93
3-Nitroaniline	99-09-2	ND	1600	ug/kg	12/23/93
4-Nitroaniline	100-01-6	ND	1600	ug/kg	12/23/93
Nitrobenzene	98-95-3	ND	330	ug/kg	12/23/93
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	12/23/93
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	12/23/93
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	12/23/93
Phenanthrene	85-01-8	ND	330	ug/kg	12/23/93
Pyrene	129-00-0	ND	330	ug/kg	12/23/93
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	12/23/93
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	12/23/93
2-Chlorophenol	95-57-8	ND	330	ug/kg	12/23/93
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	12/23/93
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	12/23/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	12/23/93
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	12/23/93
2-Methylphenol	95-48-7	ND	330	ug/kg	12/23/93
4-Methylphenol	106-44-5	ND	330	ug/kg	12/23/93
2-Nitrophenol	88-75-5	ND	330	ug/kg	12/23/93
4-Nitrophenol	100-02-7	ND	1600	ug/kg	12/23/93
Pentachlorophenol	87-86-5	ND	1600	ug/kg	12/23/93
Phenol	108-95-2	ND	330	ug/kg	12/23/93
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	12/23/93

HARZA KALDVEER

SAMPLE ID: SWB-3/0.5-1'
AEN LAB NO: 9312129-01A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	12/23/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-3/5-5.5'
AEN LAB NO: 9312129-02A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/17/93
Arsenic	EPA 7060	12 *	1	mg/kg	12/22/93
Selenium	EPA 7740	ND	2	mg/kg	12/22/93
Cadmium	EPA 6010	ND	0.1	mg/kg	12/18/93
Chromium	EPA 6010	92 *	1	mg/kg	12/18/93
Copper	EPA 6010	28 *	0.5	mg/kg	12/18/93
Lead	EPA 6010	23 *	1	mg/kg	12/18/93
Nickel	EPA 6010	140 *	1	mg/kg	12/18/93
Silver	EPA 6010	0.2 *	0.1	mg/kg	12/18/93
Zinc	EPA 6010	51 *	1	mg/kg	12/18/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	12/19/93
Benzene	71-43-2	ND	5	ug/kg	12/19/93
Bromodichloromethane	75-27-4	ND	5	ug/kg	12/19/93
Bromoform	75-25-2	ND	5	ug/kg	12/19/93
Bromomethane	74-83-9	ND	10	ug/kg	12/19/93
2-Butanone	78-93-3	ND	100	ug/kg	12/19/93
Carbon Disulfide	75-15-0	ND	10	ug/kg	12/19/93
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	12/19/93
Chlorobenzene	108-90-7	ND	5	ug/kg	12/19/93
Chloroethane	75-00-3	ND	10	ug/kg	12/19/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	12/19/93
Chloroform	67-66-3	ND	5	ug/kg	12/19/93
Chloromethane	74-87-3	ND	10	ug/kg	12/19/93
Dibromochloromethane	124-48-1	ND	5	ug/kg	12/19/93
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	12/19/93
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	12/19/93
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	12/19/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	12/19/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	12/19/93
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	12/19/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	12/19/93

HARZA KALDVEER

SAMPLE ID: SWB-3/5-5.5'
AEN LAB NO: 9312129-02A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	12/19/93
Ethylbenzene	100-41-4	ND	5	ug/kg	12/19/93
2-Hexanone	591-78-6	ND	50	ug/kg	12/19/93
Methylene Chloride	75-09-2	ND	5	ug/kg	12/19/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	12/19/93
Styrene	100-42-5	ND	5	ug/kg	12/19/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	12/19/93
Tetrachloroethene	127-18-4	ND	5	ug/kg	12/19/93
Toluene	108-88-3	ND	5	ug/kg	12/19/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	12/19/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	12/19/93
Trichloroethene	79-01-6	ND	5	ug/kg	12/19/93
Vinyl Acetate	108-05-4	ND	50	ug/kg	12/19/93
Vinyl Chloride	75-01-4	ND	10	ug/kg	12/19/93
Xylenes, Total	1330-20-7	ND	10	ug/kg	12/19/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/15/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	12/23/93
Acenaphthylene	208-96-8	ND	330	ug/kg	12/23/93
Anthracene	120-12-7	ND	330	ug/kg	12/23/93
Benzidine	92-87-5	ND	1600	ug/kg	12/23/93
Benzoic Acid	65-85-0	ND	1600	ug/kg	12/23/93
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	12/23/93
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	12/23/93
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	12/23/93
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	12/23/93
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	12/23/93
Benzyl Alcohol	100-51-6	ND	660	ug/kg	12/23/93
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	12/23/93
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	12/23/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	12/23/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	12/23/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	12/23/93
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	12/23/93
4-Chloroaniline	106-47-8	ND	660	ug/kg	12/23/93
2-Chloronapththalene	91-58-7	ND	330	ug/kg	12/23/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	12/23/93
Chrysene	218-01-9	ND	330	ug/kg	12/23/93
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	12/23/93
Dibenzofuran	132-64-9	ND	330	ug/kg	12/23/93
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	12/23/93

HARZA KALDVEER

SAMPLE ID: SWB-3/5-5.5'
AEN LAB NO: 9312129-02A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	12/23/93
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	12/23/93
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	12/23/93
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	12/23/93
Diethyl Phthalate	84-66-2	ND	330	ug/kg	12/23/93
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	12/23/93
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	12/23/93
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	12/23/93
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	12/23/93
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	12/23/93
Fluoranthene	206-44-0	ND	330	ug/kg	12/23/93
Fluorene	86-73-7	ND	330	ug/kg	12/23/93
Hexachlorobenzene	118-74-1	ND	330	ug/kg	12/23/93
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	12/23/93
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	12/23/93
Hexachloroethane	67-72-1	ND	330	ug/kg	12/23/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	12/23/93
Isophorone	78-59-1	ND	330	ug/kg	12/23/93
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	12/23/93
Naphthalene	91-20-3	ND	330	ug/kg	12/23/93
2-Nitroaniline	88-74-4	ND	1600	ug/kg	12/23/93
3-Nitroaniline	99-09-2	ND	1600	ug/kg	12/23/93
4-Nitroaniline	100-01-6	ND	1600	ug/kg	12/23/93
Nitrobenzene	98-95-3	ND	330	ug/kg	12/23/93
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	12/23/93
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	12/23/93
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	12/23/93
Phenanthrene	85-01-8	ND	330	ug/kg	12/23/93
Pyrene	129-00-0	ND	330	ug/kg	12/23/93
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	12/23/93
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	12/23/93
2-Chlorophenol	95-57-8	ND	330	ug/kg	12/23/93
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	12/23/93
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	12/23/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	12/23/93
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	12/23/93
2-Methylphenol	95-48-7	ND	330	ug/kg	12/23/93
4-Methylphenol	106-44-5	ND	330	ug/kg	12/23/93
2-Nitrophenol	88-75-5	ND	330	ug/kg	12/23/93
4-Nitrophenol	100-02-7	ND	1600	ug/kg	12/23/93
Pentachlorophenol	87-86-5	ND	1600	ug/kg	12/23/93
Phenol	108-95-2	ND	330	ug/kg	12/23/93
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	12/23/93

HARZA KALDVEER

SAMPLE ID: SWB-3/5-5.5'
AEN LAB NO: 9312129-02A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	12/23/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-4/0.5-1'
AEN LAB NO: 9312129-04A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/17/93
Arsenic	EPA 7060	7 *	1	mg/kg	12/22/93
Selenium	EPA 7740	ND	2	mg/kg	12/22/93
Cadmium	EPA 6010	ND	0.1	mg/kg	12/18/93
Chromium	EPA 6010	200 *	1	mg/kg	12/18/93
Copper	EPA 6010	240 *	0.5	mg/kg	12/18/93
Lead	EPA 6010	210 *	1	mg/kg	12/18/93
Nickel	EPA 6010	310 *	1	mg/kg	12/18/93
Silver	EPA 6010	0.4 *	0.1	mg/kg	12/18/93
Zinc	EPA 6010	68 *	1	mg/kg	12/18/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	12/20/93
Benzene	71-43-2	ND	5	ug/kg	12/20/93
Bromodichloromethane	75-27-4	ND	5	ug/kg	12/20/93
Bromoform	75-25-2	ND	5	ug/kg	12/20/93
Bromomethane	74-83-9	ND	10	ug/kg	12/20/93
2-Butanone	78-93-3	ND	100	ug/kg	12/20/93
Carbon Disulfide	75-15-0	ND	10	ug/kg	12/20/93
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	12/20/93
Chlorobenzene	108-90-7	ND	5	ug/kg	12/20/93
Chloroethane	75-00-3	ND	10	ug/kg	12/20/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	12/20/93
Chloroform	67-66-3	ND	5	ug/kg	12/20/93
Chloromethane	74-87-3	ND	10	ug/kg	12/20/93
Dibromochloromethane	124-48-1	ND	5	ug/kg	12/20/93
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	12/20/93
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	12/20/93
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	12/20/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	12/20/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	12/20/93
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	12/20/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-4/0.5-1'
AEN LAB NO: 9312129-04A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	12/20/93
Ethylbenzene	100-41-4	ND	5	ug/kg	12/20/93
2-Hexanone	591-78-6	ND	50	ug/kg	12/20/93
Methylene Chloride	75-09-2	ND	5	ug/kg	12/20/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	12/20/93
Styrene	100-42-5	ND	5	ug/kg	12/20/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	12/20/93
Tetrachloroethene	127-18-4	ND	5	ug/kg	12/20/93
Toluene	108-88-3	ND	5	ug/kg	12/20/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	12/20/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	12/20/93
Trichloroethene	79-01-6	ND	5	ug/kg	12/20/93
Vinyl Acetate	108-05-4	ND	50	ug/kg	12/20/93
Vinyl Chloride	75-01-4	ND	10	ug/kg	12/20/93
Xylenes, Total	1330-20-7	ND	10	ug/kg	12/20/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/15/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	12/23/93
Acenaphthylene	208-96-8	ND	330	ug/kg	12/23/93
Anthracene	120-12-7	ND	330	ug/kg	12/23/93
Benzidine	92-87-5	ND	1600	ug/kg	12/23/93
Benzoic Acid	65-85-0	ND	1600	ug/kg	12/23/93
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	12/23/93
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	12/23/93
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	12/23/93
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	12/23/93
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	12/23/93
Benzyl Alcohol	100-51-6	ND	660	ug/kg	12/23/93
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	12/23/93
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	12/23/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	12/23/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	4600	ug/kg	12/23/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	12/23/93
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	12/23/93
4-Chloroaniline	106-47-8	ND	660	ug/kg	12/23/93
2-Chloronapththalene	91-58-7	ND	330	ug/kg	12/23/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	12/23/93
Chrysene	218-01-9	ND	330	ug/kg	12/23/93
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	12/23/93
Dibenzofuran	132-64-9	ND	330	ug/kg	12/23/93
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	12/23/93

HARZA KALDVEER

SAMPLE ID: SWB-4/0.5-1'
AEN LAB NO: 9312129-04A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	12/23/93
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	12/23/93
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	12/23/93
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	12/23/93
Diethyl Phthalate	84-66-2	ND	330	ug/kg	12/23/93
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	12/23/93
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	12/23/93
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	12/23/93
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	12/23/93
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	12/23/93
Fluoranthene	206-44-0	ND	330	ug/kg	12/23/93
Fluorene	86-73-7	ND	330	ug/kg	12/23/93
Hexachlorobenzene	118-74-1	ND	330	ug/kg	12/23/93
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	12/23/93
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	12/23/93
Hexachloroethane	67-72-1	ND	330	ug/kg	12/23/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	12/23/93
Isophorone	78-59-1	ND	330	ug/kg	12/23/93
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	12/23/93
Naphthalene	91-20-3	ND	330	ug/kg	12/23/93
2-Nitroaniline	88-74-4	ND	1600	ug/kg	12/23/93
3-Nitroaniline	99-09-2	ND	1600	ug/kg	12/23/93
4-Nitroaniline	100-01-6	ND	1600	ug/kg	12/23/93
Nitrobenzene	98-95-3	ND	330	ug/kg	12/23/93
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	12/23/93
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	12/23/93
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	12/23/93
Phenanthrene	85-01-8	ND	330	ug/kg	12/23/93
Pyrene	129-00-0	ND	330	ug/kg	12/23/93
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	12/23/93
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	12/23/93
2-Chlorophenol	95-57-8	ND	330	ug/kg	12/23/93
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	12/23/93
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	12/23/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	12/23/93
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	12/23/93
2-Methylphenol	95-48-7	ND	330	ug/kg	12/23/93
4-Methylphenol	106-44-5	ND	330	ug/kg	12/23/93
2-Nitrophenol	88-75-5	ND	330	ug/kg	12/23/93
4-Nitrophenol	100-02-7	ND	1600	ug/kg	12/23/93
Pentachlorophenol	87-86-5	ND	1600	ug/kg	12/23/93
Phenol	108-95-2	ND	330	ug/kg	12/23/93
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	12/23/93

HARZA KALDVEER

SAMPLE ID: SWB-4/0.5-1'
AEN LAB NO: 9312129-04A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	12/23/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-4/5.0-5.5'
AEN LAB NO: 9312129-05A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/17/93
Arsenic	EPA 7060	3 *	1	mg/kg	12/22/93
Selenium	EPA 7740	ND	2	mg/kg	12/22/93
Cadmium	EPA 6010	ND	0.1	mg/kg	12/18/93
Chromium	EPA 6010	57 *	1	mg/kg	12/18/93
Copper	EPA 6010	13 *	0.5	mg/kg	12/18/93
Lead	EPA 6010	10 *	1	mg/kg	12/18/93
Nickel	EPA 6010	76 *	1	mg/kg	12/18/93
Silver	EPA 6010	0.1 *	0.1	mg/kg	12/17/93
Zinc	EPA 6010	26 *	1	mg/kg	12/18/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	12/20/93
Benzene	71-43-2	ND	5	ug/kg	12/20/93
Bromodichloromethane	75-27-4	ND	5	ug/kg	12/20/93
Bromoform	75-25-2	ND	5	ug/kg	12/20/93
Bromomethane	74-83-9	ND	10	ug/kg	12/20/93
2-Butanone	78-93-3	ND	100	ug/kg	12/20/93
Carbon Disulfide	75-15-0	ND	10	ug/kg	12/20/93
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	12/20/93
Chlorobenzene	108-90-7	ND	5	ug/kg	12/20/93
Chloroethane	75-00-3	ND	10	ug/kg	12/20/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	12/20/93
Chloroform	67-66-3	ND	5	ug/kg	12/20/93
Chloromethane	74-87-3	ND	10	ug/kg	12/20/93
Dibromochloromethane	124-48-1	ND	5	ug/kg	12/20/93
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	12/20/93
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	12/20/93
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	12/20/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	12/20/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	12/20/93
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	12/20/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-4/5.0-5.5'
AEN LAB NO: 9312129-05A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	12/20/93
Ethylbenzene	100-41-4	ND	5	ug/kg	12/20/93
2-Hexanone	591-78-6	ND	50	ug/kg	12/20/93
Methylene Chloride	75-09-2	ND	5	ug/kg	12/20/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	12/20/93
Styrene	100-42-5	ND	5	ug/kg	12/20/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	12/20/93
Tetrachloroethene	127-18-4	ND	5	ug/kg	12/20/93
Toluene	108-88-3	ND	5	ug/kg	12/20/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	12/20/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	12/20/93
Trichloroethene	79-01-6	ND	5	ug/kg	12/20/93
Vinyl Acetate	108-05-4	ND	50	ug/kg	12/20/93
Vinyl Chloride	75-01-4	ND	10	ug/kg	12/20/93
Xylenes, Total	1330-20-7	ND	10	ug/kg	12/20/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/15/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	12/23/93
Acenaphthylene	208-96-8	ND	330	ug/kg	12/23/93
Anthracene	120-12-7	ND	330	ug/kg	12/23/93
Benzidine	92-87-5	ND	1600	ug/kg	12/23/93
Benzoic Acid	65-85-0	ND	1600	ug/kg	12/23/93
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	12/23/93
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	12/23/93
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	12/23/93
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	12/23/93
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	12/23/93
Benzyl Alcohol	100-51-6	ND	660	ug/kg	12/23/93
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	12/23/93
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	12/23/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	12/23/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	12/23/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	12/23/93
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	12/23/93
4-Chloroaniline	106-47-8	ND	660	ug/kg	12/23/93
2-Chloronapththalene	91-58-7	ND	330	ug/kg	12/23/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	12/23/93
Chrysene	218-01-9	ND	330	ug/kg	12/23/93
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	12/23/93
Dibenzofuran	132-64-9	ND	330	ug/kg	12/23/93
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	12/23/93

HARZA KALDVEER

SAMPLE ID: SWB-4/5.0-5.5'
AEN LAB NO: 9312129-05A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	12/23/93
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	12/23/93
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	12/23/93
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	12/23/93
Diethyl Phthalate	84-66-2	ND	330	ug/kg	12/23/93
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	12/23/93
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	12/23/93
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	12/23/93
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	12/23/93
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	12/23/93
Fluoranthene	206-44-0	ND	330	ug/kg	12/23/93
Fluorene	86-73-7	ND	330	ug/kg	12/23/93
Hexachlorobenzene	118-74-1	ND	330	ug/kg	12/23/93
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	12/23/93
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	12/23/93
Hexachloroethane	67-72-1	ND	330	ug/kg	12/23/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	12/23/93
Isophorone	78-59-1	ND	330	ug/kg	12/23/93
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	12/23/93
Naphthalene	91-20-3	ND	330	ug/kg	12/23/93
2-Nitroaniline	88-74-4	ND	1600	ug/kg	12/23/93
3-Nitroaniline	99-09-2	ND	1600	ug/kg	12/23/93
4-Nitroaniline	100-01-6	ND	1600	ug/kg	12/23/93
Nitrobenzene	98-95-3	ND	330	ug/kg	12/23/93
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	12/23/93
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	12/23/93
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	12/23/93
Phenanthrene	85-01-8	ND	330	ug/kg	12/23/93
Pyrene	129-00-0	ND	330	ug/kg	12/23/93
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	12/23/93
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	12/23/93
2-Chlorophenol	95-57-8	ND	330	ug/kg	12/23/93
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	12/23/93
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	12/23/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	12/23/93
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	12/23/93
2-Methylphenol	95-48-7	ND	330	ug/kg	12/23/93
4-Methylphenol	106-44-5	ND	330	ug/kg	12/23/93
2-Nitrophenol	88-75-5	ND	330	ug/kg	12/23/93
4-Nitrophenol	100-02-7	ND	1600	ug/kg	12/23/93
Pentachlorophenol	87-86-5	ND	1600	ug/kg	12/23/93
Phenol	108-95-2	ND	330	ug/kg	12/23/93
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	12/23/93

HARZA KALDVEER

SAMPLE ID: SWB-4/5.0-5.5'
AEN LAB NO: 9312129-05A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	12/23/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-7/1-1.5'
AEN LAB NO: 9312129-07A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/17/93
Arsenic	EPA 7060	6 *	1	mg/kg	12/22/93
Selenium	EPA 7740	ND	2	mg/kg	12/22/93
Cadmium	EPA 6010	0.1 *	0.1	mg/kg	12/18/93
Chromium	EPA 6010	74 *	1	mg/kg	12/18/93
Copper	EPA 6010	41 *	0.5	mg/kg	12/18/93
Lead	EPA 6010	270 *	1	mg/kg	12/18/93
Nickel	EPA 6010	150 *	1	mg/kg	12/18/93
Silver	EPA 6010	0.2 *	0.1	mg/kg	12/17/93
Zinc	EPA 6010	72 *	1	mg/kg	12/18/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	12/19/93
Benzene	71-43-2	ND	5	ug/kg	12/19/93
Bromodichloromethane	75-27-4	ND	5	ug/kg	12/19/93
Bromoform	75-25-2	ND	5	ug/kg	12/19/93
Bromomethane	74-83-9	ND	10	ug/kg	12/19/93
2-Butanone	78-93-3	ND	100	ug/kg	12/19/93
Carbon Disulfide	75-15-0	ND	10	ug/kg	12/19/93
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	12/19/93
Chlorobenzene	108-90-7	ND	5	ug/kg	12/19/93
Chloroethane	75-00-3	ND	10	ug/kg	12/19/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	12/19/93
Chloroform	67-66-3	ND	5	ug/kg	12/19/93
Chloromethane	74-87-3	ND	10	ug/kg	12/19/93
Dibromochloromethane	124-48-1	ND	5	ug/kg	12/19/93
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	12/19/93
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	12/19/93
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	12/19/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	12/19/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	12/19/93
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	12/19/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	12/19/93

HARZA KALDVEER

SAMPLE ID: SWB-7/1-1.5'
AEN LAB NO: 9312129-07A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	12/19/93
Ethylbenzene	100-41-4	ND	5	ug/kg	12/19/93
2-Hexanone	591-78-6	ND	50	ug/kg	12/19/93
Methylene Chloride	75-09-2	ND	5	ug/kg	12/19/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	12/19/93
Styrene	100-42-5	ND	5	ug/kg	12/19/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	12/19/93
Tetrachloroethene	127-18-4	ND	5	ug/kg	12/19/93
Toluene	108-88-3	ND	5	ug/kg	12/19/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	12/19/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	12/19/93
Trichloroethene	79-01-6	ND	5	ug/kg	12/19/93
Vinyl Acetate	108-05-4	ND	50	ug/kg	12/19/93
Vinyl Chloride	75-01-4	ND	10	ug/kg	12/19/93
Xylenes, Total	1330-20-7	ND	10	ug/kg	12/19/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/15/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	360 *	330	ug/kg	12/24/93
Acenaphthylene	208-96-8	ND	330	ug/kg	12/24/93
Anthracene	120-12-7	500 *	330	ug/kg	12/24/93
Benzidine	92-87-5	ND	1600	ug/kg	12/24/93
Benzoic Acid	65-85-0	ND	1600	ug/kg	12/24/93
Benzo(a)anthracene	56-55-3	370 *	330	ug/kg	12/24/93
Benzo(b)fluoranthene	205-99-2	420 *	330	ug/kg	12/24/93
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	12/24/93
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	12/24/93
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	12/24/93
Benzyl Alcohol	100-51-6	ND	660	ug/kg	12/24/93
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	12/24/93
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	12/24/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	12/24/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	1700	ug/kg	12/24/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	12/24/93
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	12/24/93
4-Chloroaniline	106-47-8	ND	660	ug/kg	12/24/93
2-Chloronapththalene	91-58-7	ND	330	ug/kg	12/24/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	12/24/93
Chrysene	218-01-9	440 *	330	ug/kg	12/24/93
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	12/24/93
Dibenzofuran	132-64-9	ND	330	ug/kg	12/24/93
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	12/24/93

HARZA KALDVEER

SAMPLE ID: SWB-7/1-1.5'
AEN LAB NO: 9312129-07A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	12/24/93
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	12/24/93
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	12/24/93
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	12/24/93
Diethyl Phthalate	84-66-2	ND	330	ug/kg	12/24/93
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	12/24/93
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	12/24/93
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	12/24/93
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	12/24/93
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	12/24/93
Fluoranthene	206-44-0	1,400 *	330	ug/kg	12/24/93
Fluorene	86-73-7	ND	330	ug/kg	12/24/93
Hexachlorobenzene	118-74-1	ND	330	ug/kg	12/24/93
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	12/24/93
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	12/24/93
Hexachloroethane	67-72-1	ND	330	ug/kg	12/24/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	12/24/93
Isophorone	78-59-1	ND	330	ug/kg	12/24/93
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	12/24/93
Naphthalene	91-20-3	ND	330	ug/kg	12/24/93
2-Nitroaniline	88-74-4	ND	1600	ug/kg	12/24/93
3-Nitroaniline	99-09-2	ND	1600	ug/kg	12/24/93
4-Nitroaniline	100-01-6	ND	1600	ug/kg	12/24/93
Nitrobenzene	98-95-3	ND	330	ug/kg	12/24/93
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	12/24/93
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	12/24/93
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	12/24/93
Phenanthrene	85-01-8	1,400 *	330	ug/kg	12/24/93
Pyrene	129-00-0	810 *	330	ug/kg	12/24/93
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	12/24/93
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	12/24/93
2-Chlorophenol	95-57-8	ND	330	ug/kg	12/24/93
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	12/24/93
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	12/24/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	12/24/93
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	12/24/93
2-Methylphenol	95-48-7	ND	330	ug/kg	12/24/93
4-Methylphenol	106-44-5	ND	330	ug/kg	12/24/93
2-Nitrophenol	88-75-5	ND	330	ug/kg	12/24/93
4-Nitrophenol	100-02-7	ND	1600	ug/kg	12/24/93
Pentachlorophenol	87-86-5	ND	1600	ug/kg	12/24/93
Phenol	108-95-2	ND	330	ug/kg	12/24/93
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	12/24/93

HARZA KALDVEER

SAMPLE ID: SWB-7/1-1.5'
AEN LAB NO: 9312129-07A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	12/24/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-7/5-5.5'
AEN LAB NO: 9312129-08A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/17/93
Arsenic	EPA 7060	3 *	1	mg/kg	12/22/93
Selenium	EPA 7740	6 *	2	mg/kg	12/22/93
Cadmium	EPA 6010	0.9 *	0.1	mg/kg	12/18/93
Chromium	EPA 6010	3 *	1	mg/kg	12/18/93
Copper	EPA 6010	120 *	0.5	mg/kg	12/18/93
Lead	EPA 6010	32,000 *	1	mg/kg	12/18/93
Nickel	EPA 6010	4 *	1	mg/kg	12/18/93
Silver	EPA 6010	0.5 *	0.1	mg/kg	12/17/93
Zinc	EPA 6010	170 *	1	mg/kg	12/18/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	150 *	100	ug/kg	12/20/93
Benzene	71-43-2	ND	5	ug/kg	12/20/93
Bromodichloromethane	75-27-4	ND	5	ug/kg	12/20/93
Bromoform	75-25-2	ND	5	ug/kg	12/20/93
Bromomethane	74-83-9	ND	10	ug/kg	12/20/93
2-Butanone	78-93-3	ND	100	ug/kg	12/20/93
Carbon Disulfide	75-15-0	ND	10	ug/kg	12/20/93
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	12/20/93
Chlorobenzene	108-90-7	ND	5	ug/kg	12/20/93
Chloroethane	75-00-3	ND	10	ug/kg	12/20/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	12/20/93
Chloroform	67-66-3	ND	5	ug/kg	12/20/93
Chloromethane	74-87-3	ND	10	ug/kg	12/20/93
Dibromochloromethane	124-48-1	ND	5	ug/kg	12/20/93
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	12/20/93
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	12/20/93
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	12/20/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	12/20/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	12/20/93
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	12/20/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-7/5-5.5'
AEN LAB NO: 9312129-08A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	12/20/93
Ethylbenzene	100-41-4	5 *	5	ug/kg	12/20/93
2-Hexanone	591-78-6	ND	50	ug/kg	12/20/93
Methylene Chloride	75-09-2	ND	5	ug/kg	12/20/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	12/20/93
Styrene	100-42-5	ND	5	ug/kg	12/20/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	12/20/93
Tetrachloroethene	127-18-4	ND	5	ug/kg	12/20/93
Toluene	108-88-3	ND	5	ug/kg	12/20/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	12/20/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	12/20/93
Trichloroethene	79-01-6	ND	5	ug/kg	12/20/93
Vinyl Acetate	108-05-4	ND	50	ug/kg	12/20/93
Vinyl Chloride	75-01-4	ND	10	ug/kg	12/20/93
Xylenes, Total	1330-20-7	34 *	10	ug/kg	12/20/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/15/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	5,100 *	1700	ug/kg	12/24/93
Acenaphthylene	208-96-8	ND	1700	ug/kg	12/24/93
Anthracene	120-12-7	6,100 *	1700	ug/kg	12/24/93
Benzidine	92-87-5	ND	8000	ug/kg	12/24/93
Benzoic Acid	65-85-0	ND	8000	ug/kg	12/24/93
Benzo(a)anthracene	56-55-3	4,100 *	1700	ug/kg	12/24/93
Benzo(b)fluoranthene	205-99-2	4,100 *	1700	ug/kg	12/24/93
Benzo(k)fluoranthene	207-08-9	2,700 *	1700	ug/kg	12/24/93
Benzo(g,h,i)perylene	191-24-2	ND	1700	ug/kg	12/24/93
Benzo(a)pyrene	50-32-8	3,300 *	1700	ug/kg	12/24/93
Benzyl Alcohol	100-51-6	ND	3300	ug/kg	12/24/93
Bis(2-chloroethoxy)methane	111-91-1	ND	1700	ug/kg	12/24/93
Bis(2-choroethyl) Ether	111-44-4	ND	1700	ug/kg	12/24/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	1700	ug/kg	12/24/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	1700	ug/kg	12/24/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	1700	ug/kg	12/24/93
Butylbenzyl Phthalate	85-68-7	ND	1700	ug/kg	12/24/93
4-Chloroaniline	106-47-8	ND	3300	ug/kg	12/24/93
2-Chloronapththalene	91-58-7	ND	1700	ug/kg	12/24/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	1700	ug/kg	12/24/93
Chrysene	218-01-9	4,400 *	1700	ug/kg	12/24/93
Dibenzo(a,h)anthracene	53-70-3	ND	1700	ug/kg	12/24/93
Dibenzofuran	132-64-9	ND	1700	ug/kg	12/24/93
Di-n-butyl Phthalate	84-74-2	ND	1700	ug/kg	12/24/93

HARZA KALDVEER

SAMPLE ID: SWB-7/5-5.5'
AEN LAB NO: 9312129-08A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	1700	ug/kg	12/24/93
1,3-Dichlorobenzene	541-73-1	ND	1700	ug/kg	12/24/93
1,4-Dichlorobenzene	106-46-7	ND	1700	ug/kg	12/24/93
3,3'-Dichlorobenzidine	91-94-1	ND	3300	ug/kg	12/24/93
Diethyl Phthalate	84-66-2	ND	1700	ug/kg	12/24/93
Dimethyl Phthalate	131-11-3	ND	1700	ug/kg	12/24/93
2,4-Dinitrotoluene	121-14-2	ND	1700	ug/kg	12/24/93
2,6-Dinitrotoluene	606-20-2	ND	1700	ug/kg	12/24/93
Di-n-octyl Phthalate	117-84-0	ND	1700	ug/kg	12/24/93
1,2-Diphenylhydrazine	122-66-7	ND	1700	ug/kg	12/24/93
Fluoranthene	206-44-0	14,000 *	1700	ug/kg	12/24/93
Fluorene	86-73-7	2,900 *	1700	ug/kg	12/24/93
Hexachlorobenzene	118-74-1	ND	1700	ug/kg	12/24/93
Hexachlorobutadiene	87-68-3	ND	1700	ug/kg	12/24/93
Hexachlorocyclopentadiene	77-47-4	ND	1700	ug/kg	12/24/93
Hexachloroethane	67-72-1	ND	1700	ug/kg	12/24/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	1700	ug/kg	12/24/93
Isophorone	78-59-1	ND	1700	ug/kg	12/24/93
2-Methylnaphthalene	91-57-6	ND	1700	ug/kg	12/24/93
Naphthalene	91-20-3	1,700 *	1700	ug/kg	12/24/93
2-Nitroaniline	88-74-4	ND	8000	ug/kg	12/24/93
3-Nitroaniline	99-09-2	ND	8000	ug/kg	12/24/93
4-Nitroaniline	100-01-6	ND	8000	ug/kg	12/24/93
Nitrobenzene	98-95-3	ND	1700	ug/kg	12/24/93
N-Nitrosodimethylamine	62-75-9	ND	1700	ug/kg	12/24/93
N-Nitrosodiphenylamine	86-30-6	ND	1700	ug/kg	12/24/93
N-Nitrosodi-n-propylamine	621-64-7	ND	1700	ug/kg	12/24/93
Phenanthrene	85-01-8	14,000 *	1700	ug/kg	12/24/93
Pyrene	129-00-0	8,100 *	1700	ug/kg	12/24/93
1,2,4-Trichlorobenzene	120-82-1	ND	1700	ug/kg	12/24/93
4-Chloro-3-methylphenol	59-50-7	ND	1700	ug/kg	12/24/93
2-Chlorophenol	95-57-8	ND	1700	ug/kg	12/24/93
2,4-Dichlorophenol	120-83-2	ND	1700	ug/kg	12/24/93
2,4-Dimethylphenol	105-67-9	ND	1700	ug/kg	12/24/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	8000	ug/kg	12/24/93
2,4-Dinitrophenol	51-28-5	ND	8000	ug/kg	12/24/93
2-Methylphenol	95-48-7	ND	1700	ug/kg	12/24/93
4-Methylphenol	106-44-5	ND	1700	ug/kg	12/24/93
2-Nitrophenol	88-75-5	ND	1700	ug/kg	12/24/93
4-Nitrophenol	100-02-7	ND	8000	ug/kg	12/24/93
Pentachlorophenol	87-86-5	ND	8000	ug/kg	12/24/93
Phenol	108-95-2	ND	1700	ug/kg	12/24/93
2,4,5-Trichlorophenol	95-95-4	ND	1700	ug/kg	12/24/93

HARZA KALDVEER

SAMPLE ID: SWB-7/5-5.5'
AEN LAB NO: 9312129-08A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	1700	ug/kg	12/24/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-7/10-10.5'
AEN LAB NO: 9312129-09A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	01/10/94
Arsenic	EPA 7060	2 *	1	mg/kg	01/11/94
Selenium	EPA 7740	ND	2	mg/kg	01/11/94
Cadmium	EPA 6010	ND	0.1	mg/kg	01/11/94
Chromium	EPA 6010	31 *	1	mg/kg	01/11/94
Copper	EPA 6010	16 *	0.5	mg/kg	01/11/94
Lead	EPA 6010	1,100 *	1	mg/kg	01/11/94
Nickel	EPA 6010	34 *	1	mg/kg	01/11/94
Silver	EPA 6010	0.1 *	0.1	mg/kg	01/11/94
Zinc	EPA 6010	40 *	1	mg/kg	01/11/94
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	01/04/94
Benzene	71-43-2	ND	5	ug/kg	01/04/94
Bromodichloromethane	75-27-4	ND	5	ug/kg	01/04/94
Bromoform	75-25-2	ND	5	ug/kg	01/04/94
Bromomethane	74-83-9	ND	10	ug/kg	01/04/94
2-Butanone	78-93-3	ND	100	ug/kg	01/04/94
Carbon Disulfide	75-15-0	ND	10	ug/kg	01/04/94
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	01/04/94
Chlorobenzene	108-90-7	ND	5	ug/kg	01/04/94
Chloroethane	75-00-3	ND	10	ug/kg	01/04/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	01/04/94
Chloroform	67-66-3	ND	5	ug/kg	01/04/94
Chloromethane	74-87-3	ND	10	ug/kg	01/04/94
Dibromochloromethane	124-48-1	ND	5	ug/kg	01/04/94
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	01/04/94
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	01/04/94
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	01/04/94
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	01/04/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	01/04/94
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	01/04/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	01/04/94

HARZA KALDVEER

SAMPLE ID: SWB-7/10-10.5'
AEN LAB NO: 9312129-09A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	01/04/94
Ethylbenzene	100-41-4	ND	5	ug/kg	01/04/94
2-Hexanone	591-78-6	ND	50	ug/kg	01/04/94
Methylene Chloride	75-09-2	ND	10	ug/kg	01/04/94
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	01/04/94
Styrene	100-42-5	ND	5	ug/kg	01/04/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	01/04/94
Tetrachloroethene	127-18-4	ND	5	ug/kg	01/04/94
Toluene	108-88-3	ND	5	ug/kg	01/04/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	01/04/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	01/04/94
Trichloroethene	79-01-6	ND	5	ug/kg	01/04/94
Vinyl Acetate	108-05-4	ND	50	ug/kg	01/04/94
Vinyl Chloride	75-01-4	ND	10	ug/kg	01/04/94
Xylenes, Total	1330-20-7	ND	10	ug/kg	01/04/94
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/23/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	01/10/94
Acenaphthylene	208-96-8	ND	330	ug/kg	01/10/94
Anthracene	120-12-7	ND	330	ug/kg	01/10/94
Benzidine	92-87-5	ND	1600	ug/kg	01/10/94
Benzoic Acid	65-85-0	ND	1600	ug/kg	01/10/94
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	01/10/94
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	01/10/94
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	01/10/94
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	01/10/94
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	01/10/94
Benzyl Alcohol	100-51-6	ND	660	ug/kg	01/10/94
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	01/10/94
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	01/10/94
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	01/10/94
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	01/10/94
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	01/10/94
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	01/10/94
4-Chloroaniline	106-47-8	ND	660	ug/kg	01/10/94
2-Chloronapththalene	91-58-7	ND	330	ug/kg	01/10/94
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	01/10/94
Chrysene	218-01-9	ND	330	ug/kg	01/10/94
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	01/10/94
Dibenzofuran	132-64-9	ND	330	ug/kg	01/10/94
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	01/10/94

HARZA KALDVEER

SAMPLE ID: SWB-7/10-10.5'
AEN LAB NO: 9312129-09A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	01/10/94
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	01/10/94
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	01/10/94
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	01/10/94
Diethyl Phthalate	84-66-2	ND	330	ug/kg	01/10/94
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	01/10/94
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	01/10/94
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	01/10/94
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	01/10/94
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	01/10/94
Fluoranthene	206-44-0	ND	330	ug/kg	01/10/94
Fluorene	86-73-7	ND	330	ug/kg	01/10/94
Hexachlorobenzene	118-74-1	ND	330	ug/kg	01/10/94
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	01/10/94
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	01/10/94
Hexachloroethane	67-72-1	ND	330	ug/kg	01/10/94
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	01/10/94
Isophorone	78-59-1	ND	330	ug/kg	01/10/94
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	01/10/94
Naphthalene	91-20-3	ND	330	ug/kg	01/10/94
2-Nitroaniline	88-74-4	ND	1600	ug/kg	01/10/94
3-Nitroaniline	99-09-2	ND	1600	ug/kg	01/10/94
4-Nitroaniline	100-01-6	ND	1600	ug/kg	01/10/94
Nitrobenzene	98-95-3	ND	330	ug/kg	01/10/94
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	01/10/94
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	01/10/94
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	01/10/94
Phenanthrene	85-01-8	ND	330	ug/kg	01/10/94
Pyrene	129-00-0	ND	330	ug/kg	01/10/94
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	01/10/94
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	01/10/94
2-Chlorophenol	95-57-8	ND	330	ug/kg	01/10/94
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	01/10/94
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	01/10/94
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	01/10/94
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	01/10/94
2-Methylphenol	95-48-7	ND	330	ug/kg	01/10/94
4-Methylphenol	106-44-5	ND	330	ug/kg	01/10/94
2-Nitrophenol	88-75-5	ND	330	ug/kg	01/10/94
4-Nitrophenol	100-02-7	ND	1600	ug/kg	01/10/94
Pentachlorophenol	87-86-5	ND	1600	ug/kg	01/10/94
Phenol	108-95-2	ND	330	ug/kg	01/10/94
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	01/10/94

HARZA KALDVEER

SAMPLE ID: SWB-7/10-10.5'
AEN LAB NO: 9312129-09A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	01/10/94

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-7/15-15.5'
AEN LAB NO: 9312129-10A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/17/93
Arsenic	EPA 7060	2 *	1	mg/kg	12/22/93
Selenium	EPA 7740	ND	2	mg/kg	12/22/93
Cadmium	EPA 6010	ND	0.1	mg/kg	12/18/93
Chromium	EPA 6010	55 *	1	mg/kg	12/18/93
Copper	EPA 6010	23 *	0.5	mg/kg	12/18/93
Lead	EPA 6010	110 *	1	mg/kg	12/18/93
Nickel	EPA 6010	73 *	1	mg/kg	12/18/93
Silver	EPA 6010	0.1 *	0.1	mg/kg	12/17/93
Zinc	EPA 6010	35 *	1	mg/kg	12/18/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	12/19/93
Benzene	71-43-2	ND	5	ug/kg	12/19/93
Bromodichloromethane	75-27-4	ND	5	ug/kg	12/19/93
Bromoform	75-25-2	ND	5	ug/kg	12/19/93
Bromomethane	74-83-9	ND	10	ug/kg	12/19/93
2-Butanone	78-93-3	ND	100	ug/kg	12/19/93
Carbon Disulfide	75-15-0	ND	10	ug/kg	12/19/93
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	12/19/93
Chlorobenzene	108-90-7	ND	5	ug/kg	12/19/93
Chloroethane	75-00-3	ND	10	ug/kg	12/19/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	12/19/93
Chloroform	67-66-3	ND	5	ug/kg	12/19/93
Chloromethane	74-87-3	ND	10	ug/kg	12/19/93
Dibromochloromethane	124-48-1	ND	5	ug/kg	12/19/93
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	12/19/93
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	12/19/93
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	12/19/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	12/19/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	12/19/93
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	12/19/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	12/19/93

HARZA KALDVEER

SAMPLE ID: SWB-7/15-15.5'
AEN LAB NO: 9312129-10A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	12/19/93
Ethylbenzene	100-41-4	ND	5	ug/kg	12/19/93
2-Hexanone	591-78-6	ND	50	ug/kg	12/19/93
Methylene Chloride	75-09-2	ND	5	ug/kg	12/19/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	12/19/93
Styrene	100-42-5	ND	5	ug/kg	12/19/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	12/19/93
Tetrachloroethene	127-18-4	ND	5	ug/kg	12/19/93
Toluene	108-88-3	ND	5	ug/kg	12/19/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	12/19/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	12/19/93
Trichloroethene	79-01-6	ND	5	ug/kg	12/19/93
Vinyl Acetate	108-05-4	ND	50	ug/kg	12/19/93
Vinyl Chloride	75-01-4	ND	10	ug/kg	12/19/93
Xylenes, Total	1330-20-7	ND	10	ug/kg	12/19/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/15/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	12/23/93
Acenaphthylene	208-96-8	ND	330	ug/kg	12/23/93
Anthracene	120-12-7	ND	330	ug/kg	12/23/93
Benzidine	92-87-5	ND	1600	ug/kg	12/23/93
Benzoic Acid	65-85-0	ND	1600	ug/kg	12/23/93
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	12/23/93
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	12/23/93
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	12/23/93
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	12/23/93
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	12/23/93
Benzyl Alcohol	100-51-6	ND	660	ug/kg	12/23/93
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	12/23/93
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	12/23/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	12/23/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	12/23/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	12/23/93
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	12/23/93
4-Chloroaniline	106-47-8	ND	660	ug/kg	12/23/93
2-Chloronapththalene	91-58-7	ND	330	ug/kg	12/23/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	12/23/93
Chrysene	218-01-9	ND	330	ug/kg	12/23/93
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	12/23/93
Dibenzofuran	132-64-9	ND	330	ug/kg	12/23/93
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	12/23/93

HARZA KALDVEER

SAMPLE ID: SWB-7/15-15.5'
AEN LAB NO: 9312129-10A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	12/23/93
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	12/23/93
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	12/23/93
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	12/23/93
Diethyl Phthalate	84-66-2	ND	330	ug/kg	12/23/93
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	12/23/93
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	12/23/93
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	12/23/93
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	12/23/93
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	12/23/93
Fluoranthene	206-44-0	ND	330	ug/kg	12/23/93
Fluorene	86-73-7	ND	330	ug/kg	12/23/93
Hexachlorobenzene	118-74-1	ND	330	ug/kg	12/23/93
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	12/23/93
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	12/23/93
Hexachloroethane	67-72-1	ND	330	ug/kg	12/23/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	12/23/93
Isophorone	78-59-1	ND	330	ug/kg	12/23/93
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	12/23/93
Naphthalene	91-20-3	ND	330	ug/kg	12/23/93
2-Nitroaniline	88-74-4	ND	1600	ug/kg	12/23/93
3-Nitroaniline	99-09-2	ND	1600	ug/kg	12/23/93
4-Nitroaniline	100-01-6	ND	1600	ug/kg	12/23/93
Nitrobenzene	98-95-3	ND	330	ug/kg	12/23/93
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	12/23/93
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	12/23/93
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	12/23/93
Phenanthrene	85-01-8	ND	330	ug/kg	12/23/93
Pyrene	129-00-0	ND	330	ug/kg	12/23/93
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	12/23/93
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	12/23/93
2-Chlorophenol	95-57-8	ND	330	ug/kg	12/23/93
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	12/23/93
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	12/23/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	12/23/93
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	12/23/93
2-Methylphenol	95-48-7	ND	330	ug/kg	12/23/93
4-Methylphenol	106-44-5	ND	330	ug/kg	12/23/93
2-Nitrophenol	88-75-5	ND	330	ug/kg	12/23/93
4-Nitrophenol	100-02-7	ND	1600	ug/kg	12/23/93
Pentachlorophenol	87-86-5	ND	1600	ug/kg	12/23/93
Phenol	108-95-2	ND	330	ug/kg	12/23/93
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	12/23/93

HARZA KALDVEER

SAMPLE ID: SWB-7/15-15.5'
AEN LAB NO: 9312129-10A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	12/23/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-5/0.5-1'
AEN LAB NO: 9312129-11A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/17/93
Arsenic	EPA 7060	6 *	1	mg/kg	12/22/93
Selenium	EPA 7740	ND	2	mg/kg	12/22/93
Cadmium	EPA 6010	0.1 *	0.1	mg/kg	12/18/93
Chromium	EPA 6010	40 *	1	mg/kg	12/18/93
Copper	EPA 6010	23 *	0.5	mg/kg	12/18/93
Lead	EPA 6010	14 *	1	mg/kg	12/18/93
Nickel	EPA 6010	63 *	1	mg/kg	12/18/93
Silver	EPA 6010	0.1 *	0.1	mg/kg	12/17/93
Zinc	EPA 6010	32 *	1	mg/kg	12/18/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	12/19/93
Benzene	71-43-2	ND	5	ug/kg	12/19/93
Bromodichloromethane	75-27-4	ND	5	ug/kg	12/19/93
Bromoform	75-25-2	ND	5	ug/kg	12/19/93
Bromomethane	74-83-9	ND	10	ug/kg	12/19/93
2-Butanone	78-93-3	ND	100	ug/kg	12/19/93
Carbon Disulfide	75-15-0	ND	10	ug/kg	12/19/93
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	12/19/93
Chlorobenzene	108-90-7	ND	5	ug/kg	12/19/93
Chloroethane	75-00-3	ND	10	ug/kg	12/19/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	12/19/93
Chloroform	67-66-3	ND	5	ug/kg	12/19/93
Chloromethane	74-87-3	ND	10	ug/kg	12/19/93
Dibromochloromethane	124-48-1	ND	5	ug/kg	12/19/93
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	12/19/93
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	12/19/93
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	12/19/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	12/19/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	12/19/93
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	12/19/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	12/19/93

HARZA KALDVEER

SAMPLE ID: SWB-5/0.5-1'
AEN LAB NO: 9312129-11A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	12/19/93
Ethylbenzene	100-41-4	ND	5	ug/kg	12/19/93
2-Hexanone	591-78-6	ND	50	ug/kg	12/19/93
Methylene Chloride	75-09-2	ND	5	ug/kg	12/19/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	12/19/93
Styrene	100-42-5	ND	5	ug/kg	12/19/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	12/19/93
Tetrachloroethene	127-18-4	ND	5	ug/kg	12/19/93
Toluene	108-88-3	ND	5	ug/kg	12/19/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	12/19/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	12/19/93
Trichloroethene	79-01-6	ND	5	ug/kg	12/19/93
Vinyl Acetate	108-05-4	ND	50	ug/kg	12/19/93
Vinyl Chloride	75-01-4	ND	10	ug/kg	12/19/93
Xylenes, Total	1330-20-7	ND	10	ug/kg	12/19/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/15/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	12/23/93
Acenaphthylene	208-96-8	ND	330	ug/kg	12/23/93
Anthracene	120-12-7	ND	330	ug/kg	12/23/93
Benzidine	92-87-5	ND	1600	ug/kg	12/23/93
Benzoic Acid	65-85-0	ND	1600	ug/kg	12/23/93
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	12/23/93
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	12/23/93
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	12/23/93
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	12/23/93
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	12/23/93
Benzyl Alcohol	100-51-6	ND	660	ug/kg	12/23/93
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	12/23/93
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	12/23/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	12/23/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	12/23/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	12/23/93
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	12/23/93
4-Chloroaniline	106-47-8	ND	660	ug/kg	12/23/93
2-Chloronapththalene	91-58-7	ND	330	ug/kg	12/23/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	12/23/93
Chrysene	218-01-9	ND	330	ug/kg	12/23/93
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	12/23/93
Dibenzofuran	132-64-9	ND	330	ug/kg	12/23/93
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	12/23/93

HARZA KALDVEER

SAMPLE ID: SWB-5/0.5-1'
AEN LAB NO: 9312129-11A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	12/23/93
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	12/23/93
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	12/23/93
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	12/23/93
Diethyl Phthalate	84-66-2	ND	330	ug/kg	12/23/93
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	12/23/93
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	12/23/93
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	12/23/93
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	12/23/93
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	12/23/93
Fluoranthene	206-44-0	ND	330	ug/kg	12/23/93
Fluorene	86-73-7	ND	330	ug/kg	12/23/93
Hexachlorobenzene	118-74-1	ND	330	ug/kg	12/23/93
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	12/23/93
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	12/23/93
Hexachloroethane	67-72-1	ND	330	ug/kg	12/23/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	12/23/93
Isophorone	78-59-1	ND	330	ug/kg	12/23/93
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	12/23/93
Naphthalene	91-20-3	ND	330	ug/kg	12/23/93
2-Nitroaniline	88-74-4	ND	1600	ug/kg	12/23/93
3-Nitroaniline	99-09-2	ND	1600	ug/kg	12/23/93
4-Nitroaniline	100-01-6	ND	1600	ug/kg	12/23/93
Nitrobenzene	98-95-3	ND	330	ug/kg	12/23/93
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	12/23/93
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	12/23/93
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	12/23/93
Phenanthrene	85-01-8	ND	330	ug/kg	12/23/93
Pyrene	129-00-0	ND	330	ug/kg	12/23/93
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	12/23/93
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	12/23/93
2-Chlorophenol	95-57-8	ND	330	ug/kg	12/23/93
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	12/23/93
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	12/23/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	12/23/93
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	12/23/93
2-Methylphenol	95-48-7	ND	330	ug/kg	12/23/93
4-Methylphenol	106-44-5	ND	330	ug/kg	12/23/93
2-Nitrophenol	88-75-5	ND	330	ug/kg	12/23/93
4-Nitrophenol	100-02-7	ND	1600	ug/kg	12/23/93
Pentachlorophenol	87-86-5	ND	1600	ug/kg	12/23/93
Phenol	108-95-2	ND	330	ug/kg	12/23/93
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	12/23/93

HARZA KALDVEER

SAMPLE ID: SWB-5/0.5-1'
AEN LAB NO: 9312129-11A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	12/23/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-5/5-5.5'
AEN LAB NO: 9312129-12A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	01/07/94
Arsenic	EPA 7060	9 *	1	mg/kg	01/10/94
Selenium	EPA 7740	ND	2	mg/Kg	01/10/94
Cadmium	EPA 6010	5.9 *	0.1	mg/kg	01/10/94
Chromium	EPA 6010	56 *	1	mg/kg	01/10/94
Copper	EPA 6010	79 *	0.5	mg/kg	01/10/94
Lead	EPA 6010	320 *	1	mg/kg	01/10/94
Nickel	EPA 6010	75 *	1	mg/kg	01/10/94
Silver	EPA 6010	0.3 *	0.1	mg/kg	01/10/94
Zinc	EPA 6010	140 *	1	mg/kg	01/10/94
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	01/10/94
Benzene	71-43-2	ND	5	ug/kg	01/10/94
Bromodichloromethane	75-27-4	ND	5	ug/kg	01/10/94
Bromoform	75-25-2	ND	5	ug/kg	01/10/94
Bromomethane	74-83-9	ND	10	ug/kg	01/10/94
2-Butanone	78-93-3	ND	100	ug/kg	01/10/94
Carbon Disulfide	75-15-0	ND	10	ug/kg	01/10/94
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	01/10/94
Chlorobenzene	108-90-7	ND	5	ug/kg	01/10/94
Chloroethane	75-00-3	ND	10	ug/kg	01/10/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	01/10/94
Chloroform	67-66-3	ND	5	ug/kg	01/10/94
Chloromethane	74-87-3	ND	10	ug/kg	01/10/94
Dibromochloromethane	124-48-1	ND	5	ug/kg	01/10/94
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	01/10/94
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	01/10/94
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	01/10/94
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	01/10/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	01/10/94
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	01/10/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	01/10/94

HARZA KALDVEER

SAMPLE ID: SWB-5/5-5.5'
AEN LAB NO: 9312129-12A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	01/10/94
Ethylbenzene	100-41-4	ND	5	ug/kg	01/10/94
2-Hexanone	591-78-6	ND	50	ug/kg	01/10/94
Methylene Chloride	75-09-2	ND	5	ug/kg	01/10/94
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	01/10/94
Styrene	100-42-5	ND	5	ug/kg	01/10/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	01/10/94
Tetrachloroethene	127-18-4	ND	5	ug/kg	01/10/94
Toluene	108-88-3	ND	5	ug/kg	01/10/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	01/10/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	01/10/94
Trichloroethene	79-01-6	ND	5	ug/kg	01/10/94
Vinyl Acetate	108-05-4	ND	50	ug/kg	01/10/94
Vinyl Chloride	75-01-4	ND	10	ug/kg	01/10/94
Xylenes, Total	1330-20-7	ND	10	ug/kg	01/10/94
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/23/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	01/10/94
Acenaphthylene	208-96-8	ND	330	ug/kg	01/10/94
Anthracene	120-12-7	ND	330	ug/kg	01/10/94
Benzidine	92-87-5	ND	1600	ug/kg	01/10/94
Benzoic Acid	65-85-0	ND	1600	ug/kg	01/10/94
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	01/10/94
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	01/10/94
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	01/10/94
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	01/10/94
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	01/10/94
Benzyl Alcohol	100-51-6	ND	660	ug/kg	01/10/94
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	01/10/94
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	01/10/94
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	01/10/94
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	01/10/94
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	01/10/94
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	01/10/94
4-Chloroaniline	106-47-8	ND	660	ug/kg	01/10/94
2-Chloronapththalene	91-58-7	ND	330	ug/kg	01/10/94
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	01/10/94
Chrysene	218-01-9	ND	330	ug/kg	01/10/94
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	01/10/94
Dibenzofuran	132-64-9	ND	330	ug/kg	01/10/94
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	01/10/94

HARZA KALDVEER

SAMPLE ID: SWB-5/5-5.5'
AEN LAB NO: 9312129-12A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	01/10/94
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	01/10/94
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	01/10/94
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	01/10/94
Diethyl Phthalate	84-66-2	ND	330	ug/kg	01/10/94
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	01/10/94
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	01/10/94
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	01/10/94
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	01/10/94
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	01/10/94
Fluoranthene	206-44-0	ND	330	ug/kg	01/10/94
Fluorene	86-73-7	ND	330	ug/kg	01/10/94
Hexachlorobenzene	118-74-1	ND	330	ug/kg	01/10/94
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	01/10/94
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	01/10/94
Hexachloroethane	67-72-1	ND	330	ug/kg	01/10/94
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	01/10/94
Isophorone	78-59-1	ND	330	ug/kg	01/10/94
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	01/10/94
Naphthalene	91-20-3	ND	330	ug/kg	01/10/94
2-Nitroaniline	88-74-4	ND	1600	ug/kg	01/10/94
3-Nitroaniline	99-09-2	ND	1600	ug/kg	01/10/94
4-Nitroaniline	100-01-6	ND	1600	ug/kg	01/10/94
Nitrobenzene	98-95-3	ND	330	ug/kg	01/10/94
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	01/10/94
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	01/10/94
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	01/10/94
Phenanthrene	85-01-8	ND	330	ug/kg	01/10/94
Pyrene	129-00-0	ND	330	ug/kg	01/10/94
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	01/10/94
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	01/10/94
2-Chlorophenol	95-57-8	ND	330	ug/kg	01/10/94
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	01/10/94
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	01/10/94
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	01/10/94
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	01/10/94
2-Methylphenol	95-48-7	ND	330	ug/kg	01/10/94
4-Methylphenol	106-44-5	ND	330	ug/kg	01/10/94
2-Nitrophenol	88-75-5	ND	330	ug/kg	01/10/94
4-Nitrophenol	100-02-7	ND	1600	ug/kg	01/10/94
Pentachlorophenol	87-86-5	ND	1600	ug/kg	01/10/94
Phenol	108-95-2	ND	330	ug/kg	01/10/94
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	01/10/94

HARZA KALDVEER

SAMPLE ID: SWB-5/5-5.5'
AEN LAB NO: 9312129-12A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	01/10/94

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-5/10-10.5'
AEN LAB NO: 9312129-13A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Soil	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/kg	01/10/94
Benzene	71-43-2	ND	5	ug/kg	01/10/94
Bromodichloromethane	75-27-4	ND	5	ug/kg	01/10/94
Bromoform	75-25-2	ND	5	ug/kg	01/10/94
Bromomethane	74-83-9	ND	10	ug/kg	01/10/94
2-Butanone	78-93-3	ND	100	ug/kg	01/10/94
Carbon Disulfide	75-15-0	ND	10	ug/kg	01/10/94
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	01/10/94
Chlorobenzene	108-90-7	ND	5	ug/kg	01/10/94
Chloroethane	75-00-3	ND	10	ug/kg	01/10/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	01/10/94
Chloroform	67-66-3	ND	5	ug/kg	01/10/94
Chloromethane	74-87-3	ND	10	ug/kg	01/10/94
Dibromochloromethane	124-48-1	ND	5	ug/kg	01/10/94
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	01/10/94
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	01/10/94
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	01/10/94
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	01/10/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	01/10/94
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	01/10/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	01/10/94
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	01/10/94
Ethylbenzene	100-41-4	ND	5	ug/kg	01/10/94
2-Hexanone	591-78-6	ND	50	ug/kg	01/10/94
Methylene Chloride	75-09-2	ND	5	ug/kg	01/10/94
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	01/10/94
Styrene	100-42-5	ND	5	ug/kg	01/10/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	01/10/94
Tetrachloroethene	127-18-4	ND	5	ug/kg	01/10/94
Toluene	108-88-3	ND	5	ug/kg	01/10/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	01/10/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	01/10/94
Trichloroethene	79-01-6	ND	5	ug/kg	01/10/94
Vinyl Acetate	108-05-4	ND	50	ug/kg	01/10/94
Vinyl Chloride	75-01-4	ND	10	ug/kg	01/10/94
Xylenes, Total	1330-20-7	ND	10	ug/kg	01/10/94
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/23/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	01/10/94

HARZA KALDVEER

SAMPLE ID: SWB-5/10-10.5'
AEN LAB NO: 9312129-13A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Acenaphthylene	208-96-8	ND	330	ug/kg	01/10/94
Anthracene	120-12-7	ND	330	ug/kg	01/10/94
Benzidine	92-87-5	ND	1600	ug/kg	01/10/94
Benzoic Acid	65-85-0	ND	1600	ug/kg	01/10/94
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	01/10/94
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	01/10/94
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	01/10/94
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	01/10/94
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	01/10/94
Benzyl Alcohol	100-51-6	ND	660	ug/kg	01/10/94
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	01/10/94
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	01/10/94
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	01/10/94
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	01/10/94
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	01/10/94
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	01/10/94
4-Chloroaniline	106-47-8	ND	660	ug/kg	01/10/94
2-Chloronapththalene	91-58-7	ND	330	ug/kg	01/10/94
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	01/10/94
Chrysene	218-01-9	ND	330	ug/kg	01/10/94
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	01/10/94
Dibenzofuran	132-64-9	ND	330	ug/kg	01/10/94
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	01/10/94
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	01/10/94
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	01/10/94
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	01/10/94
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	01/10/94
Diethyl Phthalate	84-66-2	ND	330	ug/kg	01/10/94
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	01/10/94
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	01/10/94
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	01/10/94
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	01/10/94
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	01/10/94
Fluoranthene	206-44-0	ND	330	ug/kg	01/10/94
Fluorene	86-73-7	ND	330	ug/kg	01/10/94
Hexachlorobenzene	118-74-1	ND	330	ug/kg	01/10/94
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	01/10/94
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	01/10/94
Hexachloroethane	67-72-1	ND	330	ug/kg	01/10/94
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	01/10/94
Isophorone	78-59-1	ND	330	ug/kg	01/10/94
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	01/10/94
Naphthalene	91-20-3	ND	330	ug/kg	01/10/94

HARZA KALDVEER

SAMPLE ID: SWB-5/10-10.5'
AEN LAB NO: 9312129-13A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2-Nitroaniline	88-74-4	ND	1600	ug/kg	01/10/94
3-Nitroaniline	99-09-2	ND	1600	ug/kg	01/10/94
4-Nitroaniline	100-01-6	ND	1600	ug/kg	01/10/94
Nitrobenzene	98-95-3	ND	330	ug/kg	01/10/94
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	01/10/94
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	01/10/94
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	01/10/94
Phenanthrene	85-01-8	ND	330	ug/kg	01/10/94
Pyrene	129-00-0	ND	330	ug/kg	01/10/94
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	01/10/94
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	01/10/94
2-Chlorophenol	95-57-8	ND	330	ug/kg	01/10/94
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	01/10/94
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	01/10/94
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	01/10/94
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	01/10/94
2-Methylphenol	95-48-7	ND	330	ug/kg	01/10/94
4-Methylphenol	106-44-5	ND	330	ug/kg	01/10/94
2-Nitrophenol	88-75-5	ND	330	ug/kg	01/10/94
4-Nitrophenol	100-02-7	ND	1600	ug/kg	01/10/94
Pentachlorophenol	87-86-5	ND	1600	ug/kg	01/10/94
Phenol	108-95-2	ND	330	ug/kg	01/10/94
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	01/10/94
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	01/10/94

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-11/0.5-1'
AEN LAB NO: 9312129-14A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/17/93
Arsenic	EPA 7060	9 *	1	mg/kg	12/22/93
Selenium	EPA 7740	ND	2	mg/kg	12/22/93
Cadmium	EPA 6010	ND	0.1	mg/kg	12/18/93
Chromium	EPA 6010	20 *	1	mg/kg	12/18/93
Copper	EPA 6010	35 *	0.5	mg/kg	12/18/93
Lead	EPA 6010	40 *	1	mg/kg	12/18/93
Nickel	EPA 6010	67 *	1	mg/kg	12/17/93
Silver	EPA 6010	ND	0.1	mg/kg	12/17/93
Zinc	EPA 6010	63 *	1	mg/kg	12/18/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	12/19/93
Benzene	71-43-2	ND	5	ug/kg	12/19/93
Bromodichloromethane	75-27-4	ND	5	ug/kg	12/19/93
Bromoform	75-25-2	ND	5	ug/kg	12/19/93
Bromomethane	74-83-9	ND	10	ug/kg	12/19/93
2-Butanone	78-93-3	ND	100	ug/kg	12/19/93
Carbon Disulfide	75-15-0	ND	10	ug/kg	12/19/93
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	12/19/93
Chlorobenzene	108-90-7	ND	5	ug/kg	12/19/93
Chloroethane	75-00-3	ND	10	ug/kg	12/19/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	12/19/93
Chloroform	67-66-3	ND	5	ug/kg	12/19/93
Chloromethane	74-87-3	ND	10	ug/kg	12/19/93
Dibromochloromethane	124-48-1	ND	5	ug/kg	12/19/93
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	12/19/93
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	12/19/93
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	12/19/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	12/19/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	12/19/93
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	12/19/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	12/19/93

HARZA KALDVEER

SAMPLE ID: SWB-11/0.5-1'
AEN LAB NO: 9312129-14A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	12/19/93
Ethylbenzene	100-41-4	ND	5	ug/kg	12/19/93
2-Hexanone	591-78-6	ND	50	ug/kg	12/19/93
Methylene Chloride	75-09-2	ND	5	ug/kg	12/19/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	12/19/93
Styrene	100-42-5	ND	5	ug/kg	12/19/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	12/19/93
Tetrachloroethene	127-18-4	ND	5	ug/kg	12/19/93
Toluene	108-88-3	ND	5	ug/kg	12/19/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	12/19/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	12/19/93
Trichloroethene	79-01-6	ND	5	ug/kg	12/19/93
Vinyl Acetate	108-05-4	ND	50	ug/kg	12/19/93
Vinyl Chloride	75-01-4	ND	10	ug/kg	12/19/93
Xylenes, Total	1330-20-7	ND	10	ug/kg	12/19/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/15/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	12/28/93
Acenaphthylene	208-96-8	ND	330	ug/kg	12/28/93
Anthracene	120-12-7	ND	330	ug/kg	12/28/93
Benzidine	92-87-5	ND	1600	ug/kg	12/28/93
Benzoic Acid	65-85-0	ND	1600	ug/kg	12/28/93
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	12/28/93
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	12/28/93
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	12/28/93
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	12/28/93
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	12/28/93
Benzyl Alcohol	100-51-6	ND	660	ug/kg	12/28/93
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	12/28/93
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	12/28/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	12/28/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	12/28/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	12/28/93
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	12/28/93
4-Chloroaniline	106-47-8	ND	660	ug/kg	12/28/93
2-Chloronapththalene	91-58-7	ND	330	ug/kg	12/28/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	12/28/93
Chrysene	218-01-9	ND	330	ug/kg	12/28/93
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	12/28/93
Dibenzofuran	132-64-9	ND	330	ug/kg	12/28/93
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	12/28/93

HARZA KALDVEER

SAMPLE ID: SWB-11/0.5-1'
AEN LAB NO: 9312129-14A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	12/28/93
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	12/28/93
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	12/28/93
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	12/28/93
Diethyl Phthalate	84-66-2	ND	330	ug/kg	12/28/93
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	12/28/93
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	12/28/93
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	12/28/93
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	12/28/93
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	12/28/93
Fluoranthene	206-44-0	ND	330	ug/kg	12/28/93
Fluorene	86-73-7	ND	330	ug/kg	12/28/93
Hexachlorobenzene	118-74-1	ND	330	ug/kg	12/28/93
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	12/28/93
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	12/28/93
Hexachloroethane	67-72-1	ND	330	ug/kg	12/28/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	12/28/93
Isophorone	78-59-1	ND	330	ug/kg	12/28/93
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	12/28/93
Naphthalene	91-20-3	ND	330	ug/kg	12/28/93
2-Nitroaniline	88-74-4	ND	1600	ug/kg	12/28/93
3-Nitroaniline	99-09-2	ND	1600	ug/kg	12/28/93
4-Nitroaniline	100-01-6	ND	1600	ug/kg	12/28/93
Nitrobenzene	98-95-3	ND	330	ug/kg	12/28/93
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	12/28/93
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	12/28/93
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	12/28/93
Phenanthrene	85-01-8	ND	330	ug/kg	12/28/93
Pyrene	129-00-0	ND	330	ug/kg	12/28/93
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	12/28/93
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	12/28/93
2-Chlorophenol	95-57-8	ND	330	ug/kg	12/28/93
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	12/28/93
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	12/28/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	12/28/93
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	12/28/93
2-Methylphenol	95-48-7	ND	330	ug/kg	12/28/93
4-Methylphenol	106-44-5	ND	330	ug/kg	12/28/93
2-Nitrophenol	88-75-5	ND	330	ug/kg	12/28/93
4-Nitrophenol	100-02-7	ND	1600	ug/kg	12/28/93
Pentachlorophenol	87-86-5	ND	1600	ug/kg	12/28/93
Phenol	108-95-2	ND	330	ug/kg	12/28/93
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	12/28/93

HARZA KALDVEER

SAMPLE ID: SWB-11/0.5-1'
AEN LAB NO: 9312129-14A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	12/28/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-11/5-5.5'
AEN LAB NO: 9312129-15A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/17/93
Arsenic	EPA 7060	9 *	1	mg/kg	12/22/93
Selenium	EPA 7740	ND	2	mg/kg	12/22/93
Cadmium	EPA 6010	ND	0.1	mg/kg	12/18/93
Chromium	EPA 6010	38 *	1	mg/kg	12/18/93
Copper	EPA 6010	31 *	0.5	mg/kg	12/18/93
Lead	EPA 6010	43 *	1	mg/kg	12/18/93
Nickel	EPA 6010	49 *	1	mg/kg	12/18/93
Silver	EPA 6010	ND	0.1	mg/kg	12/17/93
Zinc	EPA 6010	61 *	1	mg/kg	12/18/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	12/19/93
Benzene	71-43-2	ND	5	ug/kg	12/19/93
Bromodichloromethane	75-27-4	ND	5	ug/kg	12/19/93
Bromoform	75-25-2	ND	5	ug/kg	12/19/93
Bromomethane	74-83-9	ND	10	ug/kg	12/19/93
2-Butanone	78-93-3	ND	100	ug/kg	12/19/93
Carbon Disulfide	75-15-0	ND	10	ug/kg	12/19/93
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	12/19/93
Chlorobenzene	108-90-7	ND	5	ug/kg	12/19/93
Chloroethane	75-00-3	ND	10	ug/kg	12/19/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	12/19/93
Chloroform	67-66-3	ND	5	ug/kg	12/19/93
Chloromethane	74-87-3	ND	10	ug/kg	12/19/93
Dibromochloromethane	124-48-1	ND	5	ug/kg	12/19/93
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	12/19/93
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	12/19/93
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	12/19/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	12/19/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	12/19/93
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	12/19/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	12/19/93

HARZA KALDVEER

SAMPLE ID: SWB-11/5-5.5'
AEN LAB NO: 9312129-15A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	12/19/93
Ethylbenzene	100-41-4	ND	5	ug/kg	12/19/93
2-Hexanone	591-78-6	ND	50	ug/kg	12/19/93
Methylene Chloride	75-09-2	ND	5	ug/kg	12/19/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	12/19/93
Styrene	100-42-5	ND	5	ug/kg	12/19/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	12/19/93
Tetrachloroethene	127-18-4	ND	5	ug/kg	12/19/93
Toluene	108-88-3	ND	5	ug/kg	12/19/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	12/19/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	12/19/93
Trichloroethene	79-01-6	ND	5	ug/kg	12/19/93
Vinyl Acetate	108-05-4	ND	50	ug/kg	12/19/93
Vinyl Chloride	75-01-4	ND	10	ug/kg	12/19/93
Xylenes, Total	1330-20-7	ND	10	ug/kg	12/19/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/15/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	12/23/93
Acenaphthylene	208-96-8	ND	330	ug/kg	12/23/93
Anthracene	120-12-7	ND	330	ug/kg	12/23/93
Benzidine	92-87-5	ND	1600	ug/kg	12/23/93
Benzoic Acid	65-85-0	ND	1600	ug/kg	12/23/93
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	12/23/93
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	12/23/93
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	12/23/93
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	12/23/93
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	12/23/93
Benzyl Alcohol	100-51-6	ND	660	ug/kg	12/23/93
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	12/23/93
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	12/23/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	12/23/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	12/23/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	12/23/93
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	12/23/93
4-Chloroaniline	106-47-8	ND	660	ug/kg	12/23/93
2-Chloronapththalene	91-58-7	ND	330	ug/kg	12/23/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	12/23/93
Chrysene	218-01-9	ND	330	ug/kg	12/23/93
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	12/23/93
Dibenzofuran	132-64-9	ND	330	ug/kg	12/23/93
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	12/23/93

HARZA KALDVEER

SAMPLE ID: SWB-11/5-5.5'
AEN LAB NO: 9312129-15A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	12/23/93
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	12/23/93
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	12/23/93
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	12/23/93
Diethyl Phthalate	84-66-2	ND	330	ug/kg	12/23/93
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	12/23/93
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	12/23/93
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	12/23/93
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	12/23/93
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	12/23/93
Fluoranthene	206-44-0	ND	330	ug/kg	12/23/93
Fluorene	86-73-7	ND	330	ug/kg	12/23/93
Hexachlorobenzene	118-74-1	ND	330	ug/kg	12/23/93
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	12/23/93
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	12/23/93
Hexachloroethane	67-72-1	ND	330	ug/kg	12/23/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	12/23/93
Isophorone	78-59-1	ND	330	ug/kg	12/23/93
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	12/23/93
Naphthalene	91-20-3	ND	330	ug/kg	12/23/93
2-Nitroaniline	88-74-4	ND	1600	ug/kg	12/23/93
3-Nitroaniline	99-09-2	ND	1600	ug/kg	12/23/93
4-Nitroaniline	100-01-6	ND	1600	ug/kg	12/23/93
Nitrobenzene	98-95-3	ND	330	ug/kg	12/23/93
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	12/23/93
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	12/23/93
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	12/23/93
Phenanthrene	85-01-8	ND	330	ug/kg	12/23/93
Pyrene	129-00-0	ND	330	ug/kg	12/23/93
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	12/23/93
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	12/23/93
2-Chlorophenol	95-57-8	ND	330	ug/kg	12/23/93
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	12/23/93
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	12/23/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	12/23/93
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	12/23/93
2-Methylphenol	95-48-7	ND	330	ug/kg	12/23/93
4-Methylphenol	106-44-5	ND	330	ug/kg	12/23/93
2-Nitrophenol	88-75-5	ND	330	ug/kg	12/23/93
4-Nitrophenol	100-02-7	ND	1600	ug/kg	12/23/93
Pentachlorophenol	87-86-5	ND	1600	ug/kg	12/23/93
Phenol	108-95-2	ND	330	ug/kg	12/23/93
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	12/23/93

HARZA KALDVEER

SAMPLE ID: SWB-11/5-5.5'
AEN LAB NO: 9312129-15A
AEN WORK ORDER: 9312129
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	12/23/93

ND = Not detected
* = Indicates value above reporting limit

PAGES 53 - 74

WATER DATA

INCLUDED IN APPENDIX B

QUALITY CONTROL DATA

INSTRUMENT: 12 AEN JOB NO: 9312129

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
12/19/93	SWB-3/0.5-1'	01	102	114	100
12/19/93	SWB-3/5-5.5'	02	97	101	94
12/20/93	SWB-4/0.5-1'	04	138	110	102
12/20/93	SWB-4/5.0-5.5'	05	90	97	100
12/19/93	SWB-7/1-1.5'	07	99	100	91
12/20/93	SWB-7/5-5.5'	08	99	105	91
01/04/94	SWB-7/10-10.5'	09	100	101	93
12/19/93	SWB-7/15-15.5'	10	95	100	99
12/20/93	SWB-5/0.5-1'	11	94	105	100
01/10/94	SWB-5/5-5.5'	12	91	118	85
01/10/94	SWB-5/10-10.5'	13	105	114	100
12/19/93	SWB-11/0.5-1'	14	105	98	96
12/19/93	SWB-11/5-5.5'	15	103	89	111

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d_4	(68-141)
Toluene-d_8	(89-119)
p-Bromofluorobenzene	(85-112)

QUALITY CONTROL DATA

DATE ANALYZED: 12/19/93
SAMPLE SPIKED: 9312129-01
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129

INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	98	2
Trichloroethene	50.0	87	7
Benzene	50.0	105	<1
Toluene	50.0	96	3
Chlorobenzene	50.0	100	3

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(66-143)	15
Trichloroethene	(60-127)	12
Benzene	(88-117)	10
Toluene	(70-126)	14
Chlorobenzene	(89-111)	13

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE ANALYZED: 01/04/94
SAMPLE SPIKED: 9312129-09
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129

INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
1.1-Dichloroethene	50.0	119	<1
Trichloroethene	50.0	97	1
Benzene	50.0	102	4
Toluene	50.0	96	3
Chlorobenzene	50.0	103	10

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1.1-Dichloroethene	(66-143)	15
Trichloroethene	(60-127)	12
Benzene	(88-117)	10
Toluene	(70-126)	14
Chlorobenzene	(89-111)	13

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

INSTRUMENT: 12

AEN JOB NO: 9312129

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
12/18/93	SWB-3	18	96	91	104
12/18/93	SWB-4	19	100	100	104
12/18/93	SWB-5	20	98	91	102
12/18/93	SWB-7	21	107	96	100
12/18/93	SWB-11	22	96	101	104

CURRENT QC LIMITS (Revised 11/21/93)

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(77-123)
Toluene-d8	(90-108)
p-Bromofluorobenzene	(89-109)

QUALITY CONTROL DATA

DATE ANALYZED: 12/18/93
SAMPLE SPIKED: 9312129-18
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129

INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	103	2
Trichloroethene	50.0	100	5
Benzene	50.0	97	7
Toluene	50.0	98	8
Chlorobenzene	50.0	96	4

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(81-123)	12
Trichloroethene	(87-112)	9
Benzene	(92-116)	12
Toluene	(91-116)	12
Chlorobenzene	(92-113)	10

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/13/93 AEN JOB NO: 9312129

CLIENT PROJ. ID: KE1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
12/23/93	SWB-3/0.5-1'	01	61	76	51	60	59	62
[illegible]/23/93	SWB-3/5-5.5'	02	58	75	51	51	58	58
[illegible]23/93	SWB-4/0.5-1'	04	60	78	50	61	55	64
[illegible]/23/93	SWB-4/5.0-5-5'	05	53	75	49	49	47	54
12/24/93	SWB-7/1-1.5'	07	68	95	57	78	69	63
12/24/93	SWB-7/5-5.5'	08	52	91	64	44	50	52
01/10/94	SWB-7/10.10.5'	09	62	77	80	71	57	69
12/23/93	SWB-7/15-15.5'	10	58	81	55	48	58	60
12/23/93	SWB-5/0.5-1'	11	64	78	49	63	66	60
01/10/94	SWB-5/5-5.5'	12	77	84	94	71	71	92
01/10/94	SWB-5/10-10.5'	13	77	93	88	93	79	76
12/28/93	SWB-11/0.5-1'	14	69	99	68	85	75	63
12/23/93	SWB-11/5-5.5'	15	51	66	39	52	56	40

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(23-120)
2-Fluorobiphenyl	(30-115)
Terphenyl-d_{14}	(18-137)
Phenol-d_5	(24-113)
2-Fluorophenol	(25-121)
2,4,6-Tribromophenol	(19-122)

QUALITY CONTROL DATA

DATE EXTRACTED: 12/15/93
DATE ANALYZED: 12/24/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129
SAMPLE SPIKED: 9312129-10
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
Phenol	3330	57	2
2-Chlorophenol	3330	66	6
1,4-Dichlorobenzene	3400	57	5
N-Nitroso-di-n-propylamine	3320	64	14
1,2,4-Trichlorobenzene	3330	58	10
4-Chloro-3-methylphenol	3270	79	28
Acenaphthene	3330	70	16
4-Nitrophenol	3300	80	25
2,4-Dinitrotoluene	3330	72	8
Pentachlorophenol	3380	57	3
Pyrene	3320	44	4

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(26- 90)	35
2-Chlorophenol	(25-102)	50
1,4-Dichlorobenzene	(28-104)	27
4-Nitroso-di-n-propylamine	(41-126)	38
1,2,4-Trichlorobenzene	(38-107)	23
4-Chloro-3-methylphenol	(26-103)	33
Acenaphthene	(31-137)	19
4-Nitrophenol	(11-114)	50
2,4-Dinitrotoluene	(28- 89)	47
Pentachlorophenol	(17-109)	47
Pyrene	(35-142)	36

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/23/93
DATE ANALYZED: 01/11/94
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129
SAMPLE SPIKED: 9312129-09
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
Phenol	3330	87	20
2-Chlorophenol	3330	85	34
1,4-Dichlorobenzene	3400	74	17
N-Nitroso-di-n-propylamine	3320	87	19
1,2,4-Trichlorobenzene	3330	76	20
4-Chloro-3-methylphenol	3270	101	4
Acenaphthene	3330	89	4
4-Nitrophenol	3300	86	9
2,4-Dinitrotoluene	3330	82	2
Pentachlorophenol	3380	96	21
Pyrene	3320	75	5

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(26- 90)	35
2-Chlorophenol	(25-102)	50
1,4-Dichlorobenzene	(28-104)	27
4-Nitroso-di-n-propylamine	(41-126)	38
1,2,4-Trichlorobenzene	(38-107)	23
4-Chloro-3-methylphenol	(26-103)	33
Acenaphthene	(31-137)	19
4-Nitrophenol	(11-114)	50
2,4-Dinitrotoluene	(28- 89)	47
Pentachlorophenol	(17-109)	47
Pyrene	(35-142)	36

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/15/93 AEN JOB NO: 9312129

CLIENT PROJ. ID: K1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
12/22/93	SWB-3	18A	69	76	100	93	72	115
[illegible]/23/93	SWB-4	19A	82	86	124	75	56	62
[illegible]22/93	SWB-5	20A	85	82	112	87	74	113
[illegible]/22/93	SWB-7	21A	79	82	106	82	68	123
12/22/93	SWB-11	22A	78	71	86	86	68	128

CURRENT QC LIMITS (REVISED 01/08/92)

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(47-104)
2-Fluorobiphenyl	(49-106)
Terphenyl-d_{14}	(36-138)
Phenol-d_5	(46-105)
2-Fluorophenol	(40- 97)
2,4,6-Tribromophenol	(37-145)

QUALITY CONTROL DATA

DATE EXTRACTED: 12/15/93
DATE ANALYZED: 12/21/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: 11

METHOD SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
Phenol	200	83	2
2-Chlorophenol	200	99	4
1,4-Dichlorobenzene	204	70	6
N-Nitroso-di-n-propylamine	199	90	7
1,2,4-Trichlorobenzene	200	72	1
4-Chloro-3-methylphenol	196	97	<1
Acenaphthene	200	82	5
4-Nitrophenol	198	79	6
2,4-Dinitrotoluene	200	80	1
Pentachlorophenol	203	78	14
Pyrene	199	47	7

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(12-110)	42
2-Chlorophenol	(27-123)	40
1,4-Dichlorobenzene	(36- 97)	28
4-Nitroso-di-n-propylamine	(41-116)	38
1,2,4-Trichlorobenzene	(39- 98)	28
4-Chloro-3-methylphenol	(23- 97)	42
Acenaphthene	(46-118)	31
4-Nitrophenol	(10- 80)	50
2,4-Dinitrotoluene	(24- 96)	38
Pentachlorophenol	(9-103)	50
Pyrene	(26-127)	31

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: SOIL

CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129
SAMPLE SPIKED: SAND
DIGESTION DATE: 12/17/93

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/kg)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	10	51	5	50-150	20
As, Arsenic	4000/7060	20	100	2	79-122	10
Cd, Cadmium	ICP/6010	10	91	4	75-125	20
Cr, Chromium	ICP/6010	50	94	3	75-125	20
Cu, Copper	ICP/6010	50	97	3	75-125	20
Ni, Nickel	ICP/6010	50	95	3	75-125	20
Pb, Lead	ICP/6010	50	96	3	75-125	20
Se, Selenium	4000/7740	40	95	3	73-126	14
Zn, Zinc	ICP/6010	50	91	3	75-125	20

RPD = Relative Percent Difference

Daily method blanks for all associated runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: SOIL

CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129
SAMPLE SPIKED: SAND
DIGESTION DATE: 01/07/94

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/kg)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	10	62	1	50-150	20
As, Arsenic	4000/7060	10	96	4	79-122	10
Cd, Cadmium	ICP/6010	10	92	1	75-125	20
Cr, Chromium	ICP/6010	50	98	1	75-125	20
Cu, Copper	ICP/6010	50	101	<1	75-125	20
Ni, Nickel	ICP/6010	50	98	1	75-125	20
Pb, Lead	ICP/6010	50	97	<1	75-125	20
Se, Selenium	4000/7740	20	92	2	73-126	14
Zn, Zinc	ICP/6010	50	96	<1	75-125	20

RPD = Relative Percent Difference
< = Less Than

Daily method blanks for all associated runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: SOIL

CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312129
SAMPLE SPIKED: SAND
DIGESTION DATE: 01/10/94

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/kg)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	10	54	1	50-150	20
As, Arsenic	4000/7060	20	107	<1	79-122	10
Cd, Cadmium	ICP/6010	10	85	2	75-125	20
Cr, Chromium	ICP/6010	50	94	<1	75-125	20
Cu, Copper	ICP/6010	50	94	1	75-125	20
Ni, Nickel	ICP/6010	50	96	<1	75-125	20
Pb, Lead	ICP/6010	50	96	1	75-125	20
Se, Selenium	4000/7740	40	99	7	73-126	14
Zn, Zinc	ICP/6010	50	92	2	75-125	20

RPD = Relative Percent Difference

Daily method blanks for all associated runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9312129

CLIENT PROJ. ID: KE1495-1A-2112

DIGESTION DATE: 12/15/93

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	0.1	96	5	66-127	11
As, Arsenic	4000/7060	0.04	96	1	90-115	12
Cd, Cadmium	ICP/6010	0.05	101	9	71-134	12
Cr, Chromium	ICP/6010	0.2	100	6	85-114	6
Cu, Copper	ICP/6010	0.25	97	5	86-112	5
Ni, Nickel	ICP/6010	0.5	100	4	87-114	5
Pb, Lead	ICP/6010	0.5	95	4	87-115	6
Se, Selenium	4000/7740	0.08	95	3	76-131	14
Zn, Zinc	ICP/6010	0.5	98	4	86-115	5

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9312129

CLIENT PROJ. ID: KE1495-1A-2112

DIGESTION DATE: 01/05-10/94

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	0.25	83	4	66-127	11
As, Arsenic	4000/7060	0.04	95	9	90-115	12
Cd, Cadmium	ICP/6010	0.25	103	5	71-134	12
Cr, Chromium	ICP/6010	0.2	103	3	85-114	6
Cu, Copper	ICP/6010	0.25	103	3	86-112	5
Ni, Nickel	ICP/6010	0.5	102	3	87-114	5
Pb, Lead	ICP/6010	0.5	101	6	87-115	6
Se, Selenium	4000/7740	0.08	95	1	76-131	14
Zn, Zinc	ICP/6010	0.5	108	2	86-115	5

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

*** END OF REPORT ***

R-4, S-B (soils)
C-1, S-2
R-1, S-H
R-3, S-3

Lab Job # 931

CHAIN-OF-CUSTODY RECORD

Project Number: KE1905-1A-212

Project Name: Fuller O'Brien

Location: So. S.F.

Sampler's Name (printed): TACIA MILLER

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals -					Remarks
SWB-3/0.5-1'	01A (2)	12/4/93	X		1"x6" Stainless-2			X	X				X					12/10 - Per Steve Henshaw add
SWB-3/5-5.5'	02A (2)							X	X				X					Cu to all metals analysis.
SWB-3/10-10.5	03A (2)																	Hold LKPS
SWB-4/0.5-1'	04A (2)							X	X				X					
SWB-4/5-5.5'	05A (2)							X	X				X					
SWB-4/10-10.5	06A (2)																	Hold
SWB-5/0.5-1'	~~07A~~ 11A				2x6" Liner			X	X				X					
SWB-5/5-5.5'	~~08A~~ 12A							X	X				X					
SWB-5/10-10.5'	~~09A~~ 13A							✓										Hold 12/23 Per S Henshaw
SWB-7/1-1.5'	~~10A~~ 07A							X	X				X					As analyze sample SWB5/10-10
SWB-7/5-5.5'	~~11A~~ 08A							X	X				X					for 8240 LKPS
SWB-7/10-10.5'	~~12A~~ 09A																	Hold
SWB-7/15-15.5'	~~13A~~ 10A																	Hold
SWB-11/0.5-1'	14A							X	X				X					
SWB-11/5-5.5'	15A							X	X				X					

~~12/5/93 per client and sample SWB-5/10-10.5 to Centrix, Santa Ana~~

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12/4/93 530	Ken Stallup
Ken Stallup	12/9/93 645	
		Received for Laboratory by: (Signature) Denise Harrington

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks: Metals for As, Cd, Cr, Pb, Ni, Se, Ag, Zn, Cu

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

R-4, S-B
C-1, S-2
R-1, S-H
R-3, S-3

Lab Job # 9312

CHAIN-OF-CUSTODY RECORD

Project Number	Project Name
KE1495-1A-2112	Fuller O'Brien
	Location: So. S.F., CA

Sampler's Name (printed): TACIA MILLER

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Unfiltered	Metals - Filtered (Tube)				Remarks
SWB-11/10-10.5'	16A	12/9/93	X		2 x 6" Brass													Hold
SWB-11/15-15.5'	17A		X		↓													Hold
SWB-3	18AB			X	2 x 40mL VOAs			X										
SWB-3	CD				2 x 1L Amber			X	X									
SWB-3	E				1 x 500mL Plastic				X				X					
SWB-3	F				↓								X	X				Hold Filtered
SWB-4	19AB				2 x 40mL VOAs			X						X				
SWB-4	CD				1 x 1L Amber				X									
SWB-4	E				1 x 500mL Plastic								X					
SWB-4	F				↓									X				Hold Filtered
SWB-5	20AB				2 x 40mL VOAs			X										
SWB-5	CD				2 x 1L Amber				X									
SWB-5	E				1 x 500mL Plastic								X					
SWB-5	F				↓									X				Hold Filtered
SWB-7	21AB				2 x 40mL VOAs			X										

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12/9/93 530	Ron Stallup
Ron Stallup	12/9/93 545	
		Received for Laboratory by: (Signature) Denise Harrington

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks: Metals for As, Cd, Cr, Pb, Ni, Se, Ag, Zn, Cu

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

Lab Job # 9312

CHAIN-OF-CUSTODY RECORD

Project Number: KEABS-14-2112

Project Name: Fuller O'Brien

Location: So. S.F., CA

Sampler's Name (printed): TACIA MILLER

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Unfiltered	Metals - to be filtered	Remarks
SWB-7	21CD	12/6/93		X	2x1L Amber		X	X							01/04 Per Tacia pls. take sample SWB
SWB-7	E				1x500ml Plastic							X	X		hold status + analyze for metals lis
SWB-7	F														Hold Filtered bel
SWB-11	22AB	12/9/93		✓	2x40ml VOAS		X								TAT is
	CD			✓	2x1L ambers			X							
	E			✓	1x500ml plast.							✓			~~Hold~~ RPS 01/07/94
	F			✓											Hold Filtered
															01/07 Per Tacia, please take sample SWB-11 off hold status and analyze for metals listed below - 24 hr TAT.
															Metals for As, Cd, Cr, Pb, Ni, Se, Ag, Zn, Cu

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12/9/93 530	Ken Stallings
Ken Stallings	12/9/93 645	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
		Denise Harrington

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associ
Geoscience Consul
A California Corporati

01/04 - Per Tacia pls. take the following samples off hold status and analyze for requested metals (filter sample in lab). Standard TAT is requested. JFr

Page 1 of ___

Lab Job # ___

CHAIN-OF-CUSTODY RECORD

Project Number	Project Name	Location
KE1495-1A-2412	Miller O'Brien	So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8060 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Unfiltered					Remarks
SWB-6		1/4/94		X	1x500ml plastic unpreserved								X					9312093 - 1A 1F
SWB-7		↓		↓	↓								X					9312109 - 2F
SWB-8		↓		↓	↓								X					9312104 - 5F
SWB-9		↓		↓	↓								X					9312093 - 2F

Filter & Metals in Lab!

Metals for As, Ag, Cd, Cr, Cu, Ni, Pb, Sb, Zn

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	1/4/94	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Ship To: ___

Attention: ___

Phone No: ___

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # ___ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

American Environmental Network

Certificate of Analysis

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: KE1442-2
PROJ. NAME: FULLER O'BRIEN-RESAMPLE

REPORT DATE: 01/18/94

DATE SAMPLED: 01/12/94

DATE RECEIVED: 01/13/94

AEN JOB NO: 9401108

PROJECT SUMMARY:

On January 13, 1994, this laboratory received four (4) soil samples.

Client requested three (3) samples be analyzed for Volatile Organic Compounds by EPA Method 8240. One sample was placed on hold. Sample identification, results, and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Larry Klein
General Manager

Results FAXed 01/14/94

3440 Vincent Road • Pleasant Hill, CA 94523 • (510) 930-9090 • FAX (510) 930-0256

HARZA KALDVEER

SAMPLE ID: SWB2-5/5.5-6'
AEN LAB NO: 9401108-01
AEN WORK ORDER: 9401108
CLIENT PROJ. ID: KE1442-2

DATE SAMPLED: 01/12/94
DATE RECEIVED: 01/13/94
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Soil	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/kg	01/13/94
Benzene	71-43-2	ND	5	ug/kg	01/13/94
Bromodichloromethane.	75-27-4	ND	5	ug/kg	01/13/94
Bromoform	75-25-2	ND	5	ug/kg	01/13/94
Bromomethane	74-83-9	ND	10	ug/kg	01/13/94
2-Butanone	78-93-3	ND	100	ug/kg	01/13/94
Carbon Disulfide	75-15-0	ND	10	ug/kg	01/13/94
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	01/13/94
Chlorobenzene	108-90-7	ND	5	ug/kg	01/13/94
Chloroethane	75-00-3	ND	10	ug/kg	01/13/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	01/13/94
Chloroform	67-66-3	ND	5	ug/kg	01/13/94
Chloromethane	74-87-3	ND	10	ug/kg	01/13/94
Dibromochloromethane	124-48-1	ND	5	ug/kg	01/13/94
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	01/13/94
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	01/13/94
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	01/13/94
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	01/13/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	01/13/94
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	01/13/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	01/13/94
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	01/13/94
Ethylbenzene	100-41-4	ND	5	ug/kg	01/13/94
2-Hexanone	591-78-6	ND	50	ug/kg	01/13/94
Methylene Chloride	75-09-2	ND	5	ug/kg	01/13/94
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	01/13/94
Styrene	100-42-5	ND	5	ug/kg	01/13/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	01/13/94
Tetrachloroethene	127-18-4	ND	5	ug/kg	01/13/94
Toluene	108-88-3	ND	5	ug/kg	01/13/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	01/13/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	01/13/94
Trichloroethene	79-01-6	ND	5	ug/kg	01/13/94
Vinyl Acetate	108-05-4	ND	50	ug/kg	01/13/94
Vinyl Chloride	75-01-4	ND	10	ug/kg	01/13/94
Xylenes, Total	1330-20-7	ND	10	ug/kg	01/13/94

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB2-7/10-10.5'
AEN LAB NO: 9401108-02
AEN WORK ORDER: 9401108
CLIENT PROJ. ID: KE1442-2

DATE SAMPLED: 01/12/94
DATE RECEIVED: 01/13/94
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Soil	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/kg	01/13/94
Benzene	71-43-2	ND	5	ug/kg	01/13/94
Bromodichloromethane	75-27-4	ND	5	ug/kg	01/13/94
Bromoform	75-25-2	ND	5	ug/kg	01/13/94
Bromomethane	74-83-9	ND	10	ug/kg	01/13/94
2-Butanone	78-93-3	ND	100	ug/kg	01/13/94
Carbon Disulfide	75-15-0	ND	10	ug/kg	01/13/94
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	01/13/94
Chlorobenzene	108-90-7	ND	5	ug/kg	01/13/94
Chloroethane	75-00-3	ND	10	ug/kg	01/13/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	01/13/94
Chloroform	67-66-3	ND	5	ug/kg	01/13/94
Chloromethane	74-87-3	ND	10	ug/kg	01/13/94
Dibromochloromethane	124-48-1	ND	5	ug/kg	01/13/94
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	01/13/94
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	01/13/94
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	01/13/94
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	01/13/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	01/13/94
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	01/13/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	01/13/94
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	01/13/94
Ethylbenzene	100-41-4	ND	5	ug/kg	01/13/94
2-Hexanone	591-78-6	ND	50	ug/kg	01/13/94
Methylene Chloride	75-09-2	ND	5	ug/kg	01/13/94
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	01/13/94
Styrene	100-42-5	ND	5	ug/kg	01/13/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	01/13/94
Tetrachloroethene	127-18-4	ND	5	ug/kg	01/13/94
Toluene	108-88-3	ND	5	ug/kg	01/13/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	01/13/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	01/13/94
Trichloroethene	79-01-6	ND	5	ug/kg	01/13/94
Vinyl Acetate	108-05-4	ND	50	ug/kg	01/13/94
Vinyl Chloride	75-01-4	ND	10	ug/kg	01/13/94
Xylenes, Total	1330-20-7	12 *	10	ug/kg	01/13/94

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB2-7/15-15.5'
AEN LAB NO: 9401108-03
AEN WORK ORDER: 9401108
CLIENT PROJ. ID: KE1442-2

DATE SAMPLED: 01/12/94
DATE RECEIVED: 01/13/94
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	01/13/94
Benzene	71-43-2	ND	5	ug/kg	01/13/94
Bromodichloromethane	75-27-4	ND	5	ug/kg	01/13/94
Bromoform	75-25-2	ND	5	ug/kg	01/13/94
Bromomethane	74-83-9	ND	10	ug/kg	01/13/94
2-Butanone	78-93-3	ND	100	ug/kg	01/13/94
Carbon Disulfide	75-15-0	ND	10	ug/kg	01/13/94
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	01/13/94
Chlorobenzene	108-90-7	ND	5	ug/kg	01/13/94
Chloroethane	75-00-3	ND	10	ug/kg	01/13/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	01/13/94
Chloroform	67-66-3	ND	5	ug/kg	01/13/94
Chloromethane	74-87-3	ND	10	ug/kg	01/13/94
Dibromochloromethane	124-48-1	ND	5	ug/kg	01/13/94
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	01/13/94
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	01/13/94
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	01/13/94
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	01/13/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	01/13/94
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	01/13/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	01/13/94
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	01/13/94
Ethylbenzene	100-41-4	ND	5	ug/kg	01/13/94
2-Hexanone	591-78-6	ND	50	ug/kg	01/13/94
Methylene Chloride	75-09-2	ND	5	ug/kg	01/13/94
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	01/13/94
Styrene	100-42-5	ND	5	ug/kg	01/13/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	01/13/94
Tetrachloroethene	127-18-4	ND	5	ug/kg	01/13/94
Toluene	108-88-3	ND	5	ug/kg	01/13/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	01/13/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	01/13/94
Trichloroethene	79-01-6	ND	5	ug/kg	01/13/94
Vinyl Acetate	108-05-4	ND	50	ug/kg	01/13/94
Vinyl Chloride	75-01-4	ND	10	ug/kg	01/13/94
Xylenes, Total	1330-20-7	ND	10	ug/kg	01/13/94

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

INSTRUMENT: 12

AEN JOB NO: 9401108

CLIENT PROJ. ID: KE1442-2

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
01/13/94	SWB2-5/5.5-6'	01	112	101	100
01/13/94	SWB2-7/10-10.5'	02	100	111	88
01/13/94	SWB2-7/15-15.5'	03	100	101	98

CURRENT QC LIMITS (Revised 11/21/93)

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(68-141)
Toluene-d8	(89-119)
p-Bromofluorobenzene	(85-112)

QUALITY CONTROL DATA

DATE ANALYZED: 01/11/94
SAMPLE SPIKED: 9401046-01
CLIENT PROJ. ID: KE1442-2

AEN JOB NO: 9401108

INSTRUMENT: 12

SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	119	7
Trichloroethene	50.0	100	5
Benzene	50.0	99	9
Toluene	50.0	93	7
Chlorobenzene	50.0	99	<1

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(66-143)	15
Trichloroethene	(60-127)	12
Benzene	(88-117)	10
Toluene	(70-126)	14
Chlorobenzene	(89-111)	13

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

*** END OF REPORT ***

Lab Job # 9401

R-7,S-M

CHAIN-OF-CUSTODY RECORD

Project Number: RE1442-2

Project Name: Miller O'Brien Resample

Location: S S F, CA

Sampler's Name (printed): Tuera Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals -					Remarks
SWB2-5/8 5.5-6	01A	1/12/94	X		2X6" Brass Liner			X										
SWB2-7/16 10.5	02A	↓	X		↓			X										
SWB2-7/15 15.5	03A	↓	X		↓			X										
SWB2-5/10 10.5	04A	↓	X		↓													Hold

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tuera A. Miller	1/13/94 10:50	[signature]
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	1/13/94 1355	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
		Gina Gillespie 1-13-94 1355

Ship To:

Attention:

Phone No:

Requested Turnaround Time: 24 Hr Rush

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultant
A California Corporation

American Environmental Network

Certificate of Analysis

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: KE1495-1A-2112
PROJ. NAME: FULLER O'BRIEN

REPORT DATE: 01/17/94

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93

ADDITIONAL ANALYSIS
REQUESTED: 12/10-21/93-
01/04/94

AEN JOB NO: 9312093

PROJECT SUMMARY:

On December 7, 1993, this laboratory received eleven (11) soil samples and three (3) water samples.

Client requested six (6) soil samples and all water samples be analyzed for inorganic and organic parameters. Five (5) soil samples and sample fractions for filtered metals were placed on hold. On December 10, 1993, client requested additional analysis on samples for Copper. On December 21, 1993, client requested samples SWB-9/10-10.5' and SWB-9/15-15.5' be taken off hold and analyzed by EPA 8240 and 8270. On January 4, 1994, client requested samples SWB-6 and SWB-9 for filtered metals be taken off hold. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

Samples SWB-9/3-3.5', SWB-9/10-10.5' and SWB-9/4-4.5'(9312093-08,09,14) were analyzed dilute due to high levels of non-target compounds, and reporting limits were adjusted accordingly. Surrogate recoveries for these samples cannot be reported due to this dilution.

All other laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Larry Klein
General Manager

Results FAXed 12/20/93-01/13/94

PAGES 2 - 15

WATER DATA

INCLUDED IN APPENDIX B

HARZA KALDVEER

SAMPLE ID: SWB-6/0.5-1.0'
AEN LAB NO: 9312093-04A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/14/93
Arsenic	EPA 7060	52 *	1	mg/kg	12/16/93
Selenium	EPA 7740	4 *	2	mg/kg	12/16/93
Cadmium	EPA 6010	ND	0.1	mg/kg	12/16/93
Chromium	EPA 6010	71 *	1	mg/kg	12/16/93
Copper	EPA 6010	33 *	0.5	mg/kg	12/16/93
Lead	EPA 6010	1,200 *	1	mg/kg	12/16/93
Nickel	EPA 6010	66 *	1	mg/kg	12/16/93
Silver	EPA 6010	0.1 *	0.1	mg/kg	12/16/93
Zinc	EPA 6010	62 *	1	mg/kg	12/16/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	12/14/93
Benzene	71-43-2	ND	5	ug/kg	12/14/93
Bromodichloromethane	75-27-4	ND	5	ug/kg	12/14/93
Bromoform	75-25-2	ND	5	ug/kg	12/14/93
Bromomethane	74-83-9	ND	10	ug/kg	12/14/93
2-Butanone	78-93-3	ND	100	ug/kg	12/14/93
Carbon Disulfide	75-15-0	ND	10	ug/kg	12/14/93
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	12/14/93
Chlorobenzene	108-90-7	ND	5	ug/kg	12/14/93
Chloroethane	75-00-3	ND	10	ug/kg	12/14/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	12/14/93
Chloroform	67-66-3	ND	5	ug/kg	12/14/93
Chloromethane	74-87-3	ND	10	ug/kg	12/14/93
Dibromochloromethane	124-48-1	ND	5	ug/kg	12/14/93
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	12/14/93
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	12/14/93
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	12/14/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	12/14/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	12/14/93
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	12/14/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	12/14/93

HARZA KALDVEER

SAMPLE ID: SWB-6/0.5-1.0'
AEN LAB NO: 9312093-04A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	12/14/93
Ethylbenzene	100-41-4	ND	5	ug/kg	12/14/93
2-Hexanone	591-78-6	ND	50	ug/kg	12/14/93
Methylene Chloride	75-09-2	ND	5	ug/kg	12/14/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	12/14/93
Styrene	100-42-5	ND	5	ug/kg	12/14/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	12/14/93
Tetrachloroethene	127-18-4	ND	5	ug/kg	12/14/93
Toluene	108-88-3	ND	5	ug/kg	12/14/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	12/14/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	12/14/93
Trichloroethene	79-01-6	ND	5	ug/kg	12/14/93
Vinyl Acetate	108-05-4	ND	50	ug/kg	12/14/93
Vinyl Chloride	75-01-4	ND	10	ug/kg	12/14/93
Xylenes, Total	1330-20-7	ND	10	ug/kg	12/14/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/09/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	12/18/93
Acenaphthylene	208-96-8	ND	330	ug/kg	12/18/93
Anthracene	120-12-7	ND	330	ug/kg	12/18/93
Benzidine	92-87-5	ND	1600	ug/kg	12/18/93
Benzoic Acid	65-85-0	ND	1600	ug/kg	12/18/93
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	12/18/93
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	12/18/93
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	12/18/93
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	12/18/93
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	12/18/93
Benzyl Alcohol	100-51-6	ND	660	ug/kg	12/18/93
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	12/18/93
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	12/18/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	12/18/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	1600	ug/kg	12/18/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	12/18/93
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	12/18/93
4-Chloroaniline	106-47-8	ND	660	ug/kg	12/18/93
2-Chloronapththalene	91-58-7	ND	330	ug/kg	12/18/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	12/18/93
Chrysene	218-01-9	ND	330	ug/kg	12/18/93
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	12/18/93
Dibenzofuran	132-64-9	ND	330	ug/kg	12/18/93
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	12/18/93

HARZA KALDVEER

SAMPLE ID: SWB-6/0.5-1.0'
AEN LAB NO: 9312093-04A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	12/18/93
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	12/18/93
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	12/18/93
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	12/18/93
Diethyl Phthalate	84-66-2	ND	330	ug/kg	12/18/93
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	12/18/93
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	12/18/93
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	12/18/93
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	12/18/93
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	12/18/93
Fluoranthene	206-44-0	ND	330	ug/kg	12/18/93
Fluorene	86-73-7	ND	330	ug/kg	12/18/93
Hexachlorobenzene	118-74-1	ND	330	ug/kg	12/18/93
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	12/18/93
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	12/18/93
Hexachloroethane	67-72-1	ND	330	ug/kg	12/18/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	12/18/93
Isophorone	78-59-1	ND	330	ug/kg	12/18/93
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	12/18/93
Naphthalene	91-20-3	ND	330	ug/kg	12/18/93
2-Nitroaniline	88-74-4	ND	1600	ug/kg	12/18/93
3-Nitroaniline	99-09-2	ND	1600	ug/kg	12/18/93
4-Nitroaniline	100-01-6	ND	1600	ug/kg	12/18/93
Nitrobenzene	98-95-3	ND	330	ug/kg	12/18/93
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	12/18/93
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	12/18/93
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	12/18/93
Phenanthrene	85-01-8	ND	330	ug/kg	12/18/93
Pyrene	129-00-0	ND	330	ug/kg	12/18/93
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	12/18/93
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	12/18/93
2-Chlorophenol	95-57-8	ND	330	ug/kg	12/18/93
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	12/18/93
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	12/18/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	12/18/93
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	12/18/93
2-Methylphenol	95-48-7	ND	330	ug/kg	12/18/93
4-Methylphenol	106-44-5	ND	330	ug/kg	12/18/93
2-Nitrophenol	88-75-5	ND	330	ug/kg	12/18/93
4-Nitrophenol	100-02-7	ND	1600	ug/kg	12/18/93
Pentachlorophenol	87-86-5	ND	1600	ug/kg	12/18/93
Phenol	108-95-2	ND	330	ug/kg	12/18/93
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	12/18/93

HARZA KALDVEER

SAMPLE ID: SWB-6/0.5-1.0'
AEN LAB NO: 9312093-04A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	12/18/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-6/5.5-6'
AEN LAB NO: 9312093-05A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/14/93
Arsenic	EPA 7060	ND	1	mg/kg	12/16/93
Selenium	EPA 7740	ND	2	mg/kg	12/16/93
Cadmium	EPA 6010	ND	0.1	mg/kg	12/16/93
Chromium	EPA 6010	200 *	1	mg/kg	12/16/93
Copper	EPA 6010	69 *	0.5	mg/kg	12/16/93
Lead	EPA 6010	61 *	1	mg/kg	12/16/93
Nickel	EPA 6010	250 *	1	mg/kg	12/16/93
Silver	EPA 6010	0.3 *	0.1	mg/kg	12/16/93
Zinc	EPA 6010	77 *	1	mg/kg	12/16/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	12/14/93
Benzene	71-43-2	ND	5	ug/kg	12/14/93
Bromodichloromethane	75-27-4	ND	5	ug/kg	12/14/93
Bromoform	75-25-2	ND	5	ug/kg	12/14/93
Bromomethane	74-83-9	ND	10	ug/kg	12/14/93
2-Butanone	78-93-3	ND	100	ug/kg	12/14/93
Carbon Disulfide	75-15-0	ND	10	ug/kg	12/14/93
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	12/14/93
Chlorobenzene	108-90-7	ND	5	ug/kg	12/14/93
Chloroethane	75-00-3	ND	10	ug/kg	12/14/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	12/14/93
Chloroform	67-66-3	ND	5	ug/kg	12/14/93
Chloromethane	74-87-3	ND	10	ug/kg	12/14/93
Dibromochloromethane	124-48-1	ND	5	ug/kg	12/14/93
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	12/14/93
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	12/14/93
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	12/14/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	12/14/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	12/14/93
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	12/14/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	12/14/93

HARZA KALDVEER

SAMPLE ID: SWB-6/5.5-6'
AEN LAB NO: 9312093-05A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	12/14/93
Ethylbenzene	100-41-4	ND	5	ug/kg	12/14/93
2-Hexanone	591-78-6	ND	50	ug/kg	12/14/93
Methylene Chloride	75-09-2	ND	5	ug/kg	12/14/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	12/14/93
Styrene	100-42-5	ND	5	ug/kg	12/14/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	12/14/93
Tetrachloroethene	127-18-4	ND	5	ug/kg	12/14/93
Toluene	108-88-3	ND	5	ug/kg	12/14/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	12/14/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	12/14/93
Trichloroethene	79-01-6	ND	5	ug/kg	12/14/93
Vinyl Acetate	108-05-4	ND	50	ug/kg	12/14/93
Vinyl Chloride	75-01-4	ND	10	ug/kg	12/14/93
Xylenes, Total	1330-20-7	ND	10	ug/kg	12/14/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/08/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	12/20/93
Acenaphthylene	208-96-8	ND	330	ug/kg	12/20/93
Anthracene	120-12-7	ND	330	ug/kg	12/20/93
Benzidine	92-87-5	ND	1600	ug/kg	12/20/93
Benzoic Acid	65-85-0	ND	1600	ug/kg	12/20/93
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	12/20/93
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	12/20/93
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	12/20/93
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	12/20/93
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	12/20/93
Benzyl Alcohol	100-51-6	ND	660	ug/kg	12/20/93
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	12/20/93
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	12/20/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	12/20/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	12/20/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	12/20/93
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	12/20/93
4-Chloroaniline	106-47-8	ND	660	ug/kg	12/20/93
2-Chloronapththalene	91-58-7	ND	330	ug/kg	12/20/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	12/20/93
Chrysene	218-01-9	ND	330	ug/kg	12/20/93
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	12/20/93
Dibenzofuran	132-64-9	ND	330	ug/kg	12/20/93
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-6/5.5-6'
AEN LAB NO: 9312093-05A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	12/20/93
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	12/20/93
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	12/20/93
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	12/20/93
Diethyl Phthalate	84-66-2	ND	330	ug/kg	12/20/93
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	12/20/93
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	12/20/93
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	12/20/93
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	12/20/93
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	12/20/93
Fluoranthene	206-44-0	ND	330	ug/kg	12/20/93
Fluorene	86-73-7	ND	330	ug/kg	12/20/93
Hexachlorobenzene	118-74-1	ND	330	ug/kg	12/20/93
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	12/20/93
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	12/20/93
Hexachloroethane	67-72-1	ND	330	ug/kg	12/20/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	12/20/93
Isophorone	78-59-1	ND	330	ug/kg	12/20/93
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	12/20/93
Naphthalene	91-20-3	ND	330	ug/kg	12/20/93
2-Nitroaniline	88-74-4	ND	1600	ug/kg	12/20/93
3-Nitroaniline	99-09-2	ND	1600	ug/kg	12/20/93
4-Nitroaniline	100-01-6	ND	1600	ug/kg	12/20/93
Nitrobenzene	98-95-3	ND	330	ug/kg	12/20/93
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	12/20/93
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	12/20/93
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	12/20/93
Phenanthrene	85-01-8	ND	330	ug/kg	12/20/93
Pyrene	129-00-0	ND	330	ug/kg	12/20/93
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	12/20/93
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	12/20/93
2-Chlorophenol	95-57-8	ND	330	ug/kg	12/20/93
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	12/20/93
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	12/20/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	12/20/93
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	12/20/93
2-Methylphenol	95-48-7	ND	330	ug/kg	12/20/93
4-Methylphenol	106-44-5	ND	330	ug/kg	12/20/93
2-Nitrophenol	88-75-5	ND	330	ug/kg	12/20/93
4-Nitrophenol	100-02-7	ND	1600	ug/kg	12/20/93
Pentachlorophenol	87-86-5	ND	1600	ug/kg	12/20/93
Phenol	108-95-2	ND	330	ug/kg	12/20/93
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-6/5.5-6'
AEN LAB NO: 9312093-05A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	12/20/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-9/3-3.5'
AEN LAB NO: 9312093-08A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/14/93
Arsenic	EPA 7060	16 *	1	mg/kg	12/16/93
Selenium	EPA 7740	ND	2	mg/kg	12/16/93
Cadmium	EPA 6010	14 *	1	mg/kg	12/16/93
Chromium	EPA 6010	220 *	1	mg/kg	12/16/93
Copper	EPA 6010	230 *	5	mg/kg	12/17/93
Lead	EPA 6010	19,000 *	10	mg/kg	12/16/93
Nickel	EPA 6010	110 *	10	mg/kg	12/16/93
Silver	EPA 6010	9 *	1	mg/kg	12/16/93
Zinc	EPA 6010	10,000 *	10	mg/kg	12/16/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	10000	ug/kg	12/16/93
Benzene	71-43-2	ND	500	ug/kg	12/16/93
Bromodichloromethane	75-27-4	ND	500	ug/kg	12/16/93
Bromoform	75-25-2	ND	500	ug/kg	12/16/93
Bromomethane	74-83-9	ND	1000	ug/kg	12/16/93
2-Butanone	78-93-3	ND	10000	ug/kg	12/16/93
Carbon Disulfide	75-15-0	ND	1000	ug/kg	12/16/93
Carbon Tetrachloride	56-23-5	ND	500	ug/kg	12/16/93
Chlorobenzene	108-90-7	ND	500	ug/kg	12/16/93
Chloroethane	75-00-3	ND	1000	ug/kg	12/16/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	1000	ug/kg	12/16/93
Chloroform	67-66-3	ND	500	ug/kg	12/16/93
Chloromethane	74-87-3	ND	1000	ug/kg	12/16/93
Dibromochloromethane	124-48-1	ND	500	ug/kg	12/16/93
1,1-Dichloroethane	75-34-3	ND	500	ug/kg	12/16/93
1,2-Dichloroethane	107-06-2	ND	500	ug/kg	12/16/93
1,1-Dichloroethene	75-35-4	ND	500	ug/kg	12/16/93
cis-1,2-Dichloroethene	156-59-2	ND	500	ug/kg	12/16/93
trans-1,2-Dichloroethene	156-60-5	ND	500	ug/kg	12/16/93
1,2-Dichloropropane	78-87-5	ND	500	ug/kg	12/16/93
cis-1,3-Dichloropropene	10061-01-5	ND	500	ug/kg	12/16/93

HARZA KALDVEER

SAMPLE ID: SWB-9/3-3.5'
AEN LAB NO: 9312093-08A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	500	ug/kg	12/16/93
Ethylbenzene	100-41-4	600 *	500	ug/kg	12/16/93
2-Hexanone	591-78-6	ND	5000	ug/kg	12/16/93
Methylene Chloride	75-09-2	ND	500	ug/kg	12/16/93
4-Methyl-2-pentanone	108-10-1	ND	5000	ug/kg	12/16/93
Styrene	100-42-5	ND	500	ug/kg	12/16/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	500	ug/kg	12/16/93
Tetrachloroethene	127-18-4	ND	500	ug/kg	12/16/93
Toluene	108-88-3	ND	500	ug/kg	12/16/93
1,1,1-Trichloroethane	71-55-6	ND	500	ug/kg	12/16/93
1,1,2-Trichloroethane	79-00-5	ND	500	ug/kg	12/16/93
Trichloroethene	79-01-6	ND	500	ug/kg	12/16/93
Vinyl Acetate	108-05-4	ND	5000	ug/kg	12/16/93
Vinyl Chloride	75-01-4	ND	1000	ug/kg	12/16/93
Xylenes, Total	1330-20-7	14,000 *	1000	ug/kg	12/16/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/09/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	43,000 *	8300	ug/kg	12/20/93
Acenaphthylene	208-96-8	ND	8300	ug/kg	12/20/93
Anthracene	120-12-7	24,000 *	8300	ug/kg	12/20/93
Benzidine	92-87-5	ND	42000	ug/kg	12/20/93
Benzoic Acid	65-85-0	ND	42000	ug/kg	12/20/93
Benzo(a)anthracene	56-55-3	8,400 *	8300	ug/kg	12/20/93
Benzo(b)fluoranthene	205-99-2	11,000 *	8300	ug/kg	12/20/93
Benzo(k)fluoranthene	207-08-9	ND	8300	ug/kg	12/20/93
Benzo(g,h,i)perylene	191-24-2	ND	8300	ug/kg	12/20/93
Benzo(a)pyrene	50-32-8	ND	8300	ug/kg	12/20/93
Benzyl Alcohol	100-51-6	ND	17000	ug/kg	12/20/93
Bis(2-chloroethoxy)methane	111-91-1	ND	8300	ug/kg	12/20/93
Bis(2-choroethyl) Ether	111-44-4	ND	8300	ug/kg	12/20/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	8300	ug/kg	12/20/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	8300	ug/kg	12/20/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	8300	ug/kg	12/20/93
Butylbenzyl Phthalate	85-68-7	ND	8300	ug/kg	12/20/93
4-Chloroaniline	106-47-8	ND	17000	ug/kg	12/20/93
2-Chloronapththalene	91-58-7	ND	8300	ug/kg	12/20/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	8300	ug/kg	12/20/93
Chrysene	218-01-9	9,900 *	8300	ug/kg	12/20/93
Dibenzo(a,h)anthracene	53-70-3	ND	8300	ug/kg	12/20/93
Dibenzofuran	132-64-9	23,000 *	8300	ug/kg	12/20/93
Di-n-butyl Phthalate	84-74-2	ND	8300	ug/kg	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-9/3-3.5'
AEN LAB NO: 9312093-08A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	8300	ug/kg	12/20/93
1,3-Dichlorobenzene	541-73-1	ND	8300	ug/kg	12/20/93
1,4-Dichlorobenzene	106-46-7	ND	8300	ug/kg	12/20/93
3,3'-Dichlorobenzidine	91-94-1	ND	17000	ug/kg	12/20/93
Diethyl Phthalate	84-66-2	ND	8300	ug/kg	12/20/93
Dimethyl Phthalate	131-11-3	ND	8300	ug/kg	12/20/93
2,4-Dinitrotoluene	121-14-2	ND	8300	ug/kg	12/20/93
2,6-Dinitrotoluene	606-20-2	ND	8300	ug/kg	12/20/93
Di-n-octyl Phthalate	117-84-0	ND	8300	ug/kg	12/20/93
1,2-Diphenylhydrazine	122-66-7	ND	8300	ug/kg	12/20/93
Fluoranthene	206-44-0	50,000 *	8300	ug/kg	12/20/93
Fluorene	86-73-7	36,000 *	8300	ug/kg	12/20/93
Hexachlorobenzene	118-74-1	ND	8300	ug/kg	12/20/93
Hexachlorobutadiene	87-68-3	ND	8300	ug/kg	12/20/93
Hexachlorocyclopentadiene	77-47-4	ND	8300	ug/kg	12/20/93
Hexachloroethane	67-72-1	ND	8300	ug/kg	12/20/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	8300	ug/kg	12/20/93
Isophorone	78-59-1	ND	8300	ug/kg	12/20/93
2-Methylnaphthalene	91-57-6	75,000 *	8300	ug/kg	12/20/93
Naphthalene	91-20-3	73,000 *	8300	ug/kg	12/20/93
2-Nitroaniline	88-74-4	ND	42000	ug/kg	12/20/93
3-Nitroaniline	99-09-2	ND	42000	ug/kg	12/20/93
4-Nitroaniline	100-01-6	ND	42000	ug/kg	12/20/93
Nitrobenzene	98-95-3	ND	8300	ug/kg	12/20/93
N-Nitrosodimethylamine	62-75-9	ND	8300	ug/kg	12/20/93
N-Nitrosodiphenylamine	86-30-6	ND	8300	ug/kg	12/20/93
N-Nitrosodi-n-propylamine	621-64-7	ND	8300	ug/kg	12/20/93
Phenanthrene	85-01-8	83,000 *	8300	ug/kg	12/20/93
Pyrene	129-00-0	28,000 *	8300	ug/kg	12/20/93
1,2,4-Trichlorobenzene	120-82-1	ND	8300	ug/kg	12/20/93
4-Chloro-3-methylphenol	59-50-7	ND	8300	ug/kg	12/20/93
2-Chlorophenol	95-57-8	ND	8300	ug/kg	12/20/93
2,4-Dichlorophenol	120-83-2	ND	8300	ug/kg	12/20/93
2,4-Dimethylphenol	105-67-9	ND	8300	ug/kg	12/20/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	42000	ug/kg	12/20/93
2,4-Dinitrophenol	51-28-5	ND	42000	ug/kg	12/20/93
2-Methylphenol	95-48-7	ND	8300	ug/kg	12/20/93
4-Methylphenol	106-44-5	ND	8300	ug/kg	12/20/93
2-Nitrophenol	88-75-5	ND	8300	ug/kg	12/20/93
4-Nitrophenol	100-02-7	ND	42000	ug/kg	12/20/93
Pentachlorophenol	87-86-5	ND	42000	ug/kg	12/20/93
Phenol	108-95-2	ND	8300	ug/kg	12/20/93
2,4,5-Trichlorophenol	95-95-4	ND	8300	ug/kg	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-9/3-3.5'
AEN LAB NO: 9312093-08A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	8300	ug/kg	12/20/93

Reporting limits elevated for metals due to matrix interference.

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-9/10-10.5'
AEN LAB NO: 9312093-09A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Soil	**EPA 8240**				
Acetone	67-64-1	ND	10000	ug/kg	12/21/93
Benzene	71-43-2	ND	500	ug/kg	12/21/93
Bromodichloromethane	75-27-4	ND	500	ug/kg	12/21/93
Bromoform	75-25-2	ND	500	ug/kg	12/21/93
Bromomethane	74-83-9	ND	1000	ug/kg	12/21/93
2-Butanone	78-93-3	ND	10000	ug/kg	12/21/93
Carbon Disulfide	75-15-0	ND	1000	ug/kg	12/21/93
Carbon Tetrachloride	56-23-5	ND	500	ug/kg	12/21/93
Chlorobenzene	108-90-7	ND	500	ug/kg	12/21/93
Chloroethane	75-00-3	ND	1000	ug/kg	12/21/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	1000	ug/kg	12/21/93
Chloroform	67-66-3	ND	500	ug/kg	12/21/93
Chloromethane	74-87-3	ND	1000	ug/kg	12/21/93
Dibromochloromethane	124-48-1	ND	500	ug/kg	12/21/93
1,1-Dichloroethane	75-34-3	ND	500	ug/kg	12/21/93
1,2-Dichloroethane	107-06-2	ND	500	ug/kg	12/21/93
1,1-Dichloroethene	75-35-4	ND	500	ug/kg	12/21/93
cis-1,2-Dichloroethene	156-59-2	ND	500	ug/kg	12/21/93
trans-1,2-Dichloroethene	156-60-5	ND	500	ug/kg	12/21/93
1,2-Dichloropropane	78-87-5	ND	500	ug/kg	12/21/93
cis-1,3-Dichloropropene	10061-01-5	ND	500	ug/kg	12/21/93
trans-1,3-Dichloropropene	10061-02-6	ND	500	ug/kg	12/21/93
Ethylbenzene	100-41-4	ND	500	ug/kg	12/21/93
2-Hexanone	591-78-6	ND	5000	ug/kg	12/21/93
Methylene Chloride	75-09-2	ND	500	ug/kg	12/21/93
4-Methyl-2-pentanone	108-10-1	ND	5000	ug/kg	12/21/93
Styrene	100-42-5	ND	500	ug/kg	12/21/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	500	ug/kg	12/21/93
Tetrachloroethene	127-18-4	ND	500	ug/kg	12/21/93
Toluene	108-88-3	ND	500	ug/kg	12/21/93
1,1,1-Trichloroethane	71-55-6	ND	500	ug/kg	12/21/93
1,1,2-Trichloroethane	79-00-5	ND	500	ug/kg	12/21/93
Trichloroethene	79-01-6	ND	500	ug/kg	12/21/93
Vinyl Acetate	108-05-4	ND	5000	ug/kg	12/21/93
Vinyl Chloride	75-01-4	ND	1000	ug/kg	12/21/93
Xylenes, Total	1330-20-7	ND	1000	ug/kg	12/21/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/21/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	17000	ug/kg	01/04/94

HARZA KALDVEER

SAMPLE ID: SWB-9/10-10.5'
AEN LAB NO: 9312093-09A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Acenaphthylene	208-96-8	ND	17000	ug/kg	01/04/94
Anthracene	120-12-7	ND	17000	ug/kg	01/04/94
Benzidine	92-87-5	ND	83000	ug/kg	01/04/94
Benzoic Acid	65-85-0	ND	83000	ug/kg	01/04/94
Benzo(a)anthracene	56-55-3	ND	17000	ug/kg	01/04/94
Benzo(b)fluoranthene	205-99-2	ND	17000	ug/kg	01/04/94
Benzo(k)fluoranthene	207-08-9	ND	17000	ug/kg	01/04/94
Benzo(g,h,i)perylene	191-24-2	ND	17000	ug/kg	01/04/94
Benzo(a)pyrene	50-32-8	ND	17000	ug/kg	01/04/94
Benzyl Alcohol	100-51-6	ND	33000	ug/kg	01/04/94
Bis(2-chloroethoxy)methane	111-91-1	ND	17000	ug/kg	01/04/94
Bis(2-choroethyl) Ether	111-44-4	ND	17000	ug/kg	01/04/94
Bis(2-chloroisopropyl) Ether	108-60-1	ND	17000	ug/kg	01/04/94
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	17000	ug/kg	01/04/94
4-Bromophenyl Phenyl Ether	101-55-3	ND	17000	ug/kg	01/04/94
Butylbenzyl Phthalate	85-68-7	ND	17000	ug/kg	01/04/94
4-Chloroaniline	106-47-8	ND	33000	ug/kg	01/04/94
2-Chloronapththalene	91-58-7	ND	17000	ug/kg	01/04/94
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	17000	ug/kg	01/04/94
Chrysene	218-01-9	ND	17000	ug/kg	01/04/94
Dibenzo(a,h)anthracene	53-70-3	ND	17000	ug/kg	01/04/94
Dibenzofuran	132-64-9	ND	17000	ug/kg	01/04/94
Di-n-butyl Phthalate	84-74-2	ND	17000	ug/kg	01/04/94
1,2-Dichlorobenzene	95-50-1	ND	17000	ug/kg	01/04/94
1,3-Dichlorobenzene	541-73-1	ND	17000	ug/kg	01/04/94
1,4-Dichlorobenzene	106-46-7	ND	17000	ug/kg	01/04/94
3,3'-Dichlorobenzidine	91-94-1	ND	33000	ug/kg	01/04/94
Diethyl Phthalate	84-66-2	ND	17000	ug/kg	01/04/94
Dimethyl Phthalate	131-11-3	ND	17000	ug/kg	01/04/94
2,4-Dinitrotoluene	121-14-2	ND	17000	ug/kg	01/04/94
2,6-Dinitrotoluene	606-20-2	ND	17000	ug/kg	01/04/94
Di-n-octyl Phthalate	117-84-0	ND	17000	ug/kg	01/04/94
1,2-Diphenylhydrazine	122-66-7	ND	17000	ug/kg	01/04/94
Fluoranthene	206-44-0	ND	17000	ug/kg	01/04/94
Fluorene	86-73-7	ND	17000	ug/kg	01/04/94
Hexachlorobenzene	118-74-1	ND	17000	ug/kg	01/04/94
Hexachlorobutadiene	87-68-3	ND	17000	ug/kg	01/04/94
Hexachlorocyclopentadiene	77-47-4	ND	17000	ug/kg	01/04/94
Hexachloroethane	67-72-1	ND	17000	ug/kg	01/04/94
Indeno(1,2,3-cd)pyrene	193-39-5	ND	17000	ug/kg	01/04/94
Isophorone	78-59-1	ND	17000	ug/kg	01/04/94
2-Methylnaphthalene	91-57-6	ND	17000	ug/kg	01/04/94
Naphthalene	91-20-3	ND	17000	ug/kg	01/04/94

HARZA KALDVEER

SAMPLE ID: SWB-9/10-10.5'
AEN LAB NO: 9312093-09A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2-Nitroaniline	88-74-4	ND	83000	ug/kg	01/04/94
3-Nitroaniline	99-09-2	ND	83000	ug/kg	01/04/94
4-Nitroaniline	100-01-6	ND	83000	ug/kg	01/04/94
Nitrobenzene	98-95-3	ND	17000	ug/kg	01/04/94
N-Nitrosodimethylamine	62-75-9	ND	17000	ug/kg	01/04/94
N-Nitrosodiphenylamine	86-30-6	ND	17000	ug/kg	01/04/94
N-Nitrosodi-n-propylamine	621-64-7	ND	17000	ug/kg	01/04/94
Phenanthrene	85-01-8	ND	17000	ug/kg	01/04/94
Pyrene	129-00-0	ND	17000	ug/kg	01/04/94
1,2,4-Trichlorobenzene	120-82-1	ND	17000	ug/kg	01/04/94
4-Chloro-3-methylphenol	59-50-7	ND	17000	ug/kg	01/04/94
2-Chlorophenol	95-57-8	ND	17000	ug/kg	01/04/94
2,4-Dichlorophenol	120-83-2	ND	17000	ug/kg	01/04/94
2,4-Dimethylphenol	105-67-9	ND	17000	ug/kg	01/04/94
4,6-Dinitro-2-methylphenol	534-52-1	ND	83000	ug/kg	01/04/94
2,4-Dinitrophenol	51-28-5	ND	83000	ug/kg	01/04/94
2-Methylphenol	95-48-7	ND	17000	ug/kg	01/04/94
4-Methylphenol	106-44-5	ND	17000	ug/kg	01/04/94
2-Nitrophenol	88-75-5	ND	17000	ug/kg	01/04/94
4-Nitrophenol	100-02-7	ND	83000	ug/kg	01/04/94
Pentachlorophenol	87-86-5	ND	83000	ug/kg	01/04/94
Phenol	108-95-2	ND	17000	ug/kg	01/04/94
2,4,5-Trichlorophenol	95-95-4	ND	17000	ug/kg	01/04/94
2,4,6-Trichlorophenol	88-06-2	ND	17000	ug/kg	01/04/94

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-9/15-15.5'
AEN LAB NO: 9312093-10A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Soil	**EPA 8240**				
Acetone	67-64-1	ND	10000	ug/kg	12/21/93
Benzene	71-43-2	ND	500	ug/kg	12/21/93
Bromodichloromethane	75-27-4	ND	500	ug/kg	12/21/93
Bromoform	75-25-2	ND	500	ug/kg	12/21/93
Bromomethane	74-83-9	ND	1000	ug/kg	12/21/93
2-Butanone	78-93-3	ND	10000	ug/kg	12/21/93
Carbon Disulfide	75-15-0	ND	1000	ug/kg	12/21/93
Carbon Tetrachloride	56-23-5	ND	500	ug/kg	12/21/93
Chlorobenzene	108-90-7	ND	500	ug/kg	12/21/93
Chloroethane	75-00-3	ND	1000	ug/kg	12/21/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	1000	ug/kg	12/21/93
Chloroform	67-66-3	ND	500	ug/kg	12/21/93
Chloromethane	74-87-3	ND	1000	ug/kg	12/21/93
Dibromochloromethane	124-48-1	ND	500	ug/kg	12/21/93
1,1-Dichloroethane	75-34-3	ND	500	ug/kg	12/21/93
1,2-Dichloroethane	107-06-2	ND	500	ug/kg	12/21/93
1,1-Dichloroethene	75-35-4	ND	500	ug/kg	12/21/93
cis-1,2-Dichloroethene	156-59-2	ND	500	ug/kg	12/21/93
trans-1,2-Dichloroethene	156-60-5	ND	500	ug/kg	12/21/93
1,2-Dichloropropane	78-87-5	ND	500	ug/kg	12/21/93
cis-1,3-Dichloropropene	10061-01-5	ND	500	ug/kg	12/21/93
trans-1,3-Dichloropropene	10061-02-6	ND	500	ug/kg	12/21/93
Ethylbenzene	100-41-4	ND	500	ug/kg	12/21/93
2-Hexanone	591-78-6	ND	5000	ug/kg	12/21/93
Methylene Chloride	75-09-2	ND	500	ug/kg	12/21/93
4-Methyl-2-pentanone	108-10-1	ND	5000	ug/kg	12/21/93
Styrene	100-42-5	ND	500	ug/kg	12/21/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	500	ug/kg	12/21/93
Tetrachloroethene	127-18-4	ND	500	ug/kg	12/21/93
Toluene	108-88-3	ND	500	ug/kg	12/21/93
1,1,1-Trichloroethane	71-55-6	ND	500	ug/kg	12/21/93
1,1,2-Trichloroethane	79-00-5	ND	500	ug/kg	12/21/93
Trichloroethene	79-01-6	ND	500	ug/kg	12/21/93
Vinyl Acetate	108-05-4	ND	5000	ug/kg	12/21/93
Vinyl Chloride	75-01-4	ND	1000	ug/kg	12/21/93
Xylenes, Total	1330-20-7	ND	1000	ug/kg	12/21/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/21/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	1700	ug/kg	12/30/93

HARZA KALDVEER

SAMPLE ID: SWB-9/15-15.5'
AEN LAB NO: 9312093-10A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Acenaphthylene	208-96-8	ND	1700	ug/kg	12/30/93
Anthracene	120-12-7	ND	1700	ug/kg	12/30/93
Benzidine	92-87-5	ND	8300	ug/kg	12/30/93
Benzoic Acid	65-85-0	ND	8300	ug/kg	12/30/93
Benzo(a)anthracene	56-55-3	ND	1700	ug/kg	12/30/93
Benzo(b)fluoranthene	205-99-2	ND	1700	ug/kg	12/30/93
Benzo(k)fluoranthene	207-08-9	ND	1700	ug/kg	12/30/93
Benzo(g,h,i)perylene	191-24-2	ND	1700	ug/kg	12/30/93
Benzo(a)pyrene	50-32-8	ND	1700	ug/kg	12/30/93
Benzyl Alcohol	100-51-6	ND	3300	ug/kg	12/30/93
Bis(2-chloroethoxy)methane	111-91-1	ND	1700	ug/kg	12/30/93
Bis(2-choroethyl) Ether	111-44-4	ND	1700	ug/kg	12/30/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	1700	ug/kg	12/30/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	1700	ug/kg	12/30/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	1700	ug/kg	12/30/93
Butylbenzyl Phthalate	85-68-7	ND	1700	ug/kg	12/30/93
4-Chloroaniline	106-47-8	ND	3300	ug/kg	12/30/93
2-Chloronapththalene	91-58-7	ND	1700	ug/kg	12/30/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	1700	ug/kg	12/30/93
Chrysene	218-01-9	ND	1700	ug/kg	12/30/93
Dibenzo(a,h)anthracene	53-70-3	ND	1700	ug/kg	12/30/93
Dibenzofuran	132-64-9	ND	1700	ug/kg	12/30/93
Di-n-butyl Phthalate	84-74-2	ND	1700	ug/kg	12/30/93
1,2-Dichlorobenzene	95-50-1	ND	1700	ug/kg	12/30/93
1,3-Dichlorobenzene	541-73-1	ND	1700	ug/kg	12/30/93
1,4-Dichlorobenzene	106-46-7	ND	1700	ug/kg	12/30/93
3,3'-Dichlorobenzidine	91-94-1	ND	3300	ug/kg	12/30/93
Diethyl Phthalate	84-66-2	ND	1700	ug/kg	12/30/93
Dimethyl Phthalate	131-11-3	ND	1700	ug/kg	12/30/93
2,4-Dinitrotoluene	121-14-2	ND	1700	ug/kg	12/30/93
2,6-Dinitrotoluene	606-20-2	ND	1700	ug/kg	12/30/93
Di-n-octyl Phthalate	117-84-0	ND	1700	ug/kg	12/30/93
1,2-Diphenylhydrazine	122-66-7	ND	1700	ug/kg	12/30/93
Fluoranthene	206-44-0	ND	1700	ug/kg	12/30/93
Fluorene	86-73-7	ND	1700	ug/kg	12/30/93
Hexachlorobenzene	118-74-1	ND	1700	ug/kg	12/30/93
Hexachlorobutadiene	87-68-3	ND	1700	ug/kg	12/30/93
Hexachlorocyclopentadiene	77-47-4	ND	1700	ug/kg	12/30/93
Hexachloroethane	67-72-1	ND	1700	ug/kg	12/30/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	1700	ug/kg	12/30/93
Isophorone	78-59-1	ND	1700	ug/kg	12/30/93
2-Methylnaphthalene	91-57-6	ND	1700	ug/kg	12/30/93
Naphthalene	91-20-3	ND	1700	ug/kg	12/30/93

HARZA KALDVEER

SAMPLE ID: SWB-9/15-15.5'
AEN LAB NO: 9312093-10A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2-Nitroaniline	88-74-4	ND	8300	ug/kg	12/30/93
3-Nitroaniline	99-09-2	ND	8300	ug/kg	12/30/93
4-Nitroaniline	100-01-6	ND	8300	ug/kg	12/30/93
Nitrobenzene	98-95-3	ND	1700	ug/kg	12/30/93
N-Nitrosodimethylamine	62-75-9	ND	1700	ug/kg	12/30/93
N-Nitrosodiphenylamine	86-30-6	ND	1700	ug/kg	12/30/93
N-Nitrosodi-n-propylamine	621-64-7	ND	1700	ug/kg	12/30/93
Phenanthrene	85-01-8	ND	1700	ug/kg	12/30/93
Pyrene	129-00-0	ND	1700	ug/kg	12/30/93
1,2,4-Trichlorobenzene	120-82-1	ND	1700	ug/kg	12/30/93
4-Chloro-3-methylphenol	59-50-7	ND	1700	ug/kg	12/30/93
2-Chlorophenol	95-57-8	ND	1700	ug/kg	12/30/93
2,4-Dichlorophenol	120-83-2	ND	1700	ug/kg	12/30/93
2,4-Dimethylphenol	105-67-9	ND	1700	ug/kg	12/30/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	8300	ug/kg	12/30/93
2,4-Dinitrophenol	51-28-5	ND	8300	ug/kg	12/30/93
2-Methylphenol	95-48-7	ND	1700	ug/kg	12/30/93
4-Methylphenol	106-44-5	ND	1700	ug/kg	12/30/93
2-Nitrophenol	88-75-5	ND	1700	ug/kg	12/30/93
4-Nitrophenol	100-02-7	ND	8300	ug/kg	12/30/93
Pentachlorophenol	87-86-5	ND	8300	ug/kg	12/30/93
Phenol	108-95-2	ND	1700	ug/kg	12/30/93
2,4,5-Trichlorophenol	95-95-4	ND	1700	ug/kg	12/30/93
2,4,6-Trichlorophenol	88-06-2	ND	1700	ug/kg	12/30/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-10/1-1.5'
AEN LAB NO: 9312093-11A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/14/93
Arsenic	EPA 7060	ND	1	mg/kg	12/16/93
Selenium	EPA 7740	ND	2	mg/kg	12/16/93
Cadmium	EPA 6010	ND	0.1	mg/kg	12/16/93
Chromium	EPA 6010	29 *	1	mg/kg	12/16/93
Copper	EPA 6010	40 *	0.5	mg/kg	12/16/93
Lead	EPA 6010	10 *	1	mg/kg	12/16/93
Nickel	EPA 6010	30 *	1	mg/kg	12/16/93
Silver	EPA 6010	0.1 *	0.1	mg/kg	12/16/93
Zinc	EPA 6010	65 *	1	mg/kg	12/16/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	12/14/93
Benzene	71-43-2	ND	5	ug/kg	12/14/93
Bromodichloromethane	75-27-4	ND	5	ug/kg	12/14/93
Bromoform	75-25-2	ND	5	ug/kg	12/14/93
Bromomethane	74-83-9	ND	10	ug/kg	12/14/93
2-Butanone	78-93-3	ND	100	ug/kg	12/14/93
Carbon Disulfide	75-15-0	ND	10	ug/kg	12/14/93
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	12/14/93
Chlorobenzene	108-90-7	ND	5	ug/kg	12/14/93
Chloroethane	75-00-3	ND	10	ug/kg	12/14/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	12/14/93
Chloroform	67-66-3	ND	5	ug/kg	12/14/93
Chloromethane	74-87-3	ND	10	ug/kg	12/14/93
Dibromochloromethane	124-48-1	ND	5	ug/kg	12/14/93
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	12/14/93
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	12/14/93
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	12/14/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	12/14/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	12/14/93
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	12/14/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	12/14/93

HARZA KALDVEER

SAMPLE ID: SWB-10/1-1.5'
AEN LAB NO: 9312093-11A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	12/14/93
Ethylbenzene	100-41-4	ND	5	ug/kg	12/14/93
2-Hexanone	591-78-6	ND	50	ug/kg	12/14/93
Methylene Chloride	75-09-2	ND	5	ug/kg	12/14/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	12/14/93
Styrene	100-42-5	ND	5	ug/kg	12/14/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	12/14/93
Tetrachloroethene	127-18-4	ND	5	ug/kg	12/14/93
Toluene	108-88-3	ND	5	ug/kg	12/14/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	12/14/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	12/14/93
Trichloroethene	79-01-6	ND	5	ug/kg	12/14/93
Vinyl Acetate	108-05-4	ND	50	ug/kg	12/14/93
Vinyl Chloride	75-01-4	ND	10	ug/kg	12/14/93
Xylenes, Total	1330-20-7	ND	10	ug/kg	12/14/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/09/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	12/18/93
Acenaphthylene	208-96-8	ND	330	ug/kg	12/18/93
Anthracene	120-12-7	ND	330	ug/kg	12/18/93
Benzidine	92-87-5	ND	1600	ug/kg	12/18/93
Benzoic Acid	65-85-0	ND	1600	ug/kg	12/18/93
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	12/18/93
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	12/18/93
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	12/18/93
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	12/18/93
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	12/18/93
Benzyl Alcohol	100-51-6	ND	660	ug/kg	12/18/93
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	12/18/93
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	12/18/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	12/18/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	12/18/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	12/18/93
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	12/18/93
4-Chloroaniline	106-47-8	ND	660	ug/kg	12/18/93
2-Chloronapththalene	91-58-7	ND	330	ug/kg	12/18/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	12/18/93
Chrysene	218-01-9	ND	330	ug/kg	12/18/93
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	12/18/93
Dibenzofuran	132-64-9	ND	330	ug/kg	12/18/93
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	12/18/93

HARZA KALDVEER

SAMPLE ID: SWB-10/1-1.5'
AEN LAB NO: 9312093-11A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	12/18/93
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	12/18/93
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	12/18/93
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	12/18/93
Diethyl Phthalate	84-66-2	ND	330	ug/kg	12/18/93
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	12/18/93
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	12/18/93
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	12/18/93
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	12/18/93
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	12/18/93
Fluoranthene	206-44-0	ND	330	ug/kg	12/18/93
Fluorene	86-73-7	ND	330	ug/kg	12/18/93
Hexachlorobenzene	118-74-1	ND	330	ug/kg	12/18/93
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	12/18/93
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	12/18/93
Hexachloroethane	67-72-1	ND	330	ug/kg	12/18/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	12/18/93
Isophorone	78-59-1	ND	330	ug/kg	12/18/93
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	12/18/93
Naphthalene	91-20-3	ND	330	ug/kg	12/18/93
2-Nitroaniline	88-74-4	ND	1600	ug/kg	12/18/93
3-Nitroaniline	99-09-2	ND	1600	ug/kg	12/18/93
4-Nitroaniline	100-01-6	ND	1600	ug/kg	12/18/93
Nitrobenzene	98-95-3	ND	330	ug/kg	12/18/93
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	12/18/93
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	12/18/93
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	12/18/93
Phenanthrene	85-01-8	ND	330	ug/kg	12/18/93
Pyrene	129-00-0	ND	330	ug/kg	12/18/93
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	12/18/93
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	12/18/93
2-Chlorophenol	95-57-8	ND	330	ug/kg	12/18/93
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	12/18/93
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	12/18/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	12/18/93
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	12/18/93
2-Methylphenol	95-48-7	ND	330	ug/kg	12/18/93
4-Methylphenol	106-44-5	ND	330	ug/kg	12/18/93
2-Nitrophenol	88-75-5	ND	330	ug/kg	12/18/93
4-Nitrophenol	100-02-7	ND	1600	ug/kg	12/18/93
Pentachlorophenol	87-86-5	ND	1600	ug/kg	12/18/93
Phenol	108-95-2	ND	330	ug/kg	12/18/93
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	12/18/93

HARZA KALDVEER

SAMPLE ID: SWB-10/1-1.5'
AEN LAB NO: 9312093-11A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	12/18/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-10/4-4.5'
AEN LAB NO: 9312093-12A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/14/93
Arsenic	EPA 7060	ND	1	mg/kg	12/16/93
Selenium	EPA 7740	ND	2	mg/kg	12/16/93
Cadmium	EPA 6010	ND	0.1	mg/kg	12/16/93
Chromium	EPA 6010	22 *	1	mg/kg	12/16/93
Copper	EPA 6010	57 *	0.5	mg/kg	12/16/93
Lead	EPA 6010	11 *	1	mg/kg	12/16/93
Nickel	EPA 6010	28 *	1	mg/kg	12/16/93
Silver	EPA 6010	0.2 *	0.1	mg/kg	12/16/93
Zinc	EPA 6010	80 *	1	mg/kg	12/16/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	12/14/93
Benzene	71-43-2	ND	5	ug/kg	12/14/93
Bromodichloromethane	75-27-4	ND	5	ug/kg	12/14/93
Bromoform	75-25-2	ND	5	ug/kg	12/14/93
Bromomethane	74-83-9	ND	10	ug/kg	12/14/93
2-Butanone	78-93-3	ND	100	ug/kg	12/14/93
Carbon Disulfide	75-15-0	ND	10	ug/kg	12/14/93
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	12/14/93
Chlorobenzene	108-90-7	ND	5	ug/kg	12/14/93
Chloroethane	75-00-3	ND	10	ug/kg	12/14/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	12/14/93
Chloroform	67-66-3	ND	5	ug/kg	12/14/93
Chloromethane	74-87-3	ND	10	ug/kg	12/14/93
Dibromochloromethane	124-48-1	ND	5	ug/kg	12/14/93
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	12/14/93
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	12/14/93
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	12/14/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	12/14/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	12/14/93
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	12/14/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	12/14/93

HARZA KALDVEER

SAMPLE ID: SWB-10/4-4.5'
AEN LAB NO: 9312093-12A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	12/14/93
Ethylbenzene	100-41-4	ND	5	ug/kg	12/14/93
2-Hexanone	591-78-6	ND	50	ug/kg	12/14/93
Methylene Chloride	75-09-2	ND	30	ug/kg	12/14/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	12/14/93
Styrene	100-42-5	ND	5	ug/kg	12/14/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	12/14/93
Tetrachloroethene	127-18-4	ND	5	ug/kg	12/14/93
Toluene	108-88-3	ND	5	ug/kg	12/14/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	12/14/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	12/14/93
Trichloroethene	79-01-6	ND	5	ug/kg	12/14/93
Vinyl Acetate	108-05-4	ND	50	ug/kg	12/14/93
Vinyl Chloride	75-01-4	ND	10	ug/kg	12/14/93
Xylenes, Total	1330-20-7	ND	10	ug/kg	12/14/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/09/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	12/18/93
Acenaphthylene	208-96-8	ND	330	ug/kg	12/18/93
Anthracene	120-12-7	ND	330	ug/kg	12/18/93
Benzidine	92-87-5	ND	1600	ug/kg	12/18/93
Benzoic Acid	65-85-0	ND	1600	ug/kg	12/18/93
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	12/18/93
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	12/18/93
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	12/18/93
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	12/18/93
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	12/18/93
Benzyl Alcohol	100-51-6	ND	660	ug/kg	12/18/93
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	12/18/93
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	12/18/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	12/18/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	12/18/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	12/18/93
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	12/18/93
4-Chloroaniline	106-47-8	ND	660	ug/kg	12/18/93
2-Chloronapththalene	91-58-7	ND	330	ug/kg	12/18/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	12/18/93
Chrysene	218-01-9	ND	330	ug/kg	12/18/93
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	12/18/93
Dibenzofuran	132-64-9	ND	330	ug/kg	12/18/93
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	12/18/93

HARZA KALDVEER

SAMPLE ID: SWB-10/4-4.5'
AEN LAB NO: 9312093-12A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	12/18/93
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	12/18/93
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	12/18/93
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	12/18/93
Diethyl Phthalate	84-66-2	ND	330	ug/kg	12/18/93
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	12/18/93
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	12/18/93
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	12/18/93
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	12/18/93
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	12/18/93
Fluoranthene	206-44-0	ND	330	ug/kg	12/18/93
Fluorene	86-73-7	ND	330	ug/kg	12/18/93
Hexachlorobenzene	118-74-1	ND	330	ug/kg	12/18/93
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	12/18/93
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	12/18/93
Hexachloroethane	67-72-1	ND	330	ug/kg	12/18/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	12/18/93
Isophorone	78-59-1	ND	330	ug/kg	12/18/93
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	12/18/93
Naphthalene	91-20-3	ND	330	ug/kg	12/18/93
2-Nitroaniline	88-74-4	ND	1600	ug/kg	12/18/93
3-Nitroaniline	99-09-2	ND	1600	ug/kg	12/18/93
4-Nitroaniline	100-01-6	ND	1600	ug/kg	12/18/93
Nitrobenzene	98-95-3	ND	330	ug/kg	12/18/93
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	12/18/93
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	12/18/93
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	12/18/93
Phenanthrene	85-01-8	ND	330	ug/kg	12/18/93
Pyrene	129-00-0	ND	330	ug/kg	12/18/93
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	12/18/93
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	12/18/93
2-Chlorophenol	95-57-8	ND	330	ug/kg	12/18/93
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	12/18/93
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	12/18/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	12/18/93
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	12/18/93
2-Methylphenol	95-48-7	ND	330	ug/kg	12/18/93
4-Methylphenol	106-44-5	ND	330	ug/kg	12/18/93
2-Nitrophenol	88-75-5	ND	330	ug/kg	12/18/93
4-Nitrophenol	100-02-7	ND	1600	ug/kg	12/18/93
Pentachlorophenol	87-86-5	ND	1600	ug/kg	12/18/93
Phenol	108-95-2	ND	330	ug/kg	12/18/93
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	12/18/93

HARZA KALDVEER

SAMPLE ID: SWB-10/4-4.5'
AEN LAB NO: 9312093-12A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	12/18/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-9/4-4.5'
AEN LAB NO: 9312093-14A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/14/93
Arsenic	EPA 7060	27 *	1	mg/kg	12/16/93
Selenium	EPA 7740	ND	2	mg/kg	12/16/93
Cadmium	EPA 6010	3.7 *	0.1	mg/kg	12/16/93
Chromium	EPA 6010	290 *	1	mg/kg	12/16/93
Copper	EPA 6010	200 *	0.5	mg/kg	12/16/93
Lead	EPA 6010	28,000 *	1	mg/kg	12/17/93
Nickel	EPA 6010	72 *	1	mg/kg	12/16/93
Silver	EPA 6010	37 *	0.1	mg/kg	12/16/93
Zinc	EPA 6010	11,000 *	1	mg/kg	12/17/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	10000	ug/kg	12/15/93
Benzene	71-43-2	ND	500	ug/kg	12/15/93
Bromodichloromethane	75-27-4	ND	500	ug/kg	12/15/93
Bromoform	75-25-2	ND	500	ug/kg	12/15/93
Bromomethane	74-83-9	ND	1000	ug/kg	12/15/93
2-Butanone	78-93-3	ND	10000	ug/kg	12/15/93
Carbon Disulfide	75-15-0	ND	1000	ug/kg	12/15/93
Carbon Tetrachloride	56-23-5	ND	500	ug/kg	12/15/93
Chlorobenzene	108-90-7	ND	500	ug/kg	12/15/93
Chloroethane	75-00-3	ND	1000	ug/kg	12/15/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	1000	ug/kg	12/15/93
Chloroform	67-66-3	ND	500	ug/kg	12/15/93
Chloromethane	74-87-3	ND	1000	ug/kg	12/15/93
Dibromochloromethane	124-48-1	ND	500	ug/kg	12/15/93
1,1-Dichloroethane	75-34-3	ND	500	ug/kg	12/15/93
1,2-Dichloroethane	107-06-2	ND	500	ug/kg	12/15/93
1,1-Dichloroethene	75-35-4	ND	500	ug/kg	12/15/93
cis-1,2-Dichloroethene	156-59-2	ND	500	ug/kg	12/15/93
trans-1,2-Dichloroethene	156-60-5	ND	500	ug/kg	12/15/93
1,2-Dichloropropane	78-87-5	ND	500	ug/kg	12/15/93
cis-1,3-Dichloropropene	10061-01-5	ND	500	ug/kg	12/15/93

HARZA KALDVEER

SAMPLE ID: SWB-9/4-4.5'
AEN LAB NO: 9312093-14A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	500	ug/kg	12/15/93
Ethylbenzene	100-41-4	ND	500	ug/kg	12/15/93
2-Hexanone	591-78-6	ND	5000	ug/kg	12/15/93
Methylene Chloride	75-09-2	ND	500	ug/kg	12/15/93
4-Methyl-2-pentanone	108-10-1	ND	5000	ug/kg	12/15/93
Styrene	100-42-5	ND	500	ug/kg	12/15/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	500	ug/kg	12/15/93
Tetrachloroethene	127-18-4	ND	500	ug/kg	12/15/93
Toluene	108-88-3	ND	500	ug/kg	12/15/93
1,1,1-Trichloroethane	71-55-6	ND	500	ug/kg	12/15/93
1,1,2-Trichloroethane	79-00-5	ND	500	ug/kg	12/15/93
Trichloroethene	79-01-6	ND	500	ug/kg	12/15/93
Vinyl Acetate	108-05-4	ND	5000	ug/kg	12/15/93
Vinyl Chloride	75-01-4	ND	1000	ug/kg	12/15/93
Xylenes, Total	1330-20-7	ND	1000	ug/kg	12/15/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/09/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	6,800 *	3300	ug/kg	12/20/93
Acenaphthylene	208-96-8	ND	3300	ug/kg	12/20/93
Anthracene	120-12-7	ND	3300	ug/kg	12/20/93
Benzidine	92-87-5	ND	16000	ug/kg	12/20/93
Benzoic Acid	65-85-0	ND	16000	ug/kg	12/20/93
Benzo(a)anthracene	56-55-3	ND	3300	ug/kg	12/20/93
Benzo(b)fluoranthene	205-99-2	ND	3300	ug/kg	12/20/93
Benzo(k)fluoranthene	207-08-9	ND	3300	ug/kg	12/20/93
Benzo(g,h,i)perylene	191-24-2	ND	3300	ug/kg	12/20/93
Benzo(a)pyrene	50-32-8	ND	3300	ug/kg	12/20/93
Benzyl Alcohol	100-51-6	ND	6600	ug/kg	12/20/93
Bis(2-chloroethoxy)methane	111-91-1	ND	3300	ug/kg	12/20/93
Bis(2-choroethyl) Ether	111-44-4	ND	3300	ug/kg	12/20/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	3300	ug/kg	12/20/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	3300	ug/kg	12/20/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	3300	ug/kg	12/20/93
Butylbenzyl Phthalate	85-68-7	ND	3300	ug/kg	12/20/93
4-Chloroaniline	106-47-8	ND	6600	ug/kg	12/20/93
2-Chloronapththalene	91-58-7	ND	3300	ug/kg	12/20/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	3300	ug/kg	12/20/93
Chrysene	218-01-9	ND	3300	ug/kg	12/20/93
Dibenzo(a,h)anthracene	53-70-3	ND	3300	ug/kg	12/20/93
Dibenzofuran	132-64-9	ND	3300	ug/kg	12/20/93
Di-n-butyl Phthalate	84-74-2	ND	3300	ug/kg	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-9/4-4.5'
AEN LAB NO: 9312093-14A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	3300	ug/kg	12/20/93
1,3-Dichlorobenzene	541-73-1	ND	3300	ug/kg	12/20/93
1,4-Dichlorobenzene	106-46-7	ND	3300	ug/kg	12/20/93
3,3'-Dichlorobenzidine	91-94-1	ND	6600	ug/kg	12/20/93
Diethyl Phthalate	84-66-2	ND	3300	ug/kg	12/20/93
Dimethyl Phthalate	131-11-3	ND	3300	ug/kg	12/20/93
2,4-Dinitrotoluene	121-14-2	ND	3300	ug/kg	12/20/93
2,6-Dinitrotoluene	606-20-2	ND	3300	ug/kg	12/20/93
Di-n-octyl Phthalate	117-84-0	ND	3300	ug/kg	12/20/93
1,2-Diphenylhydrazine	122-66-7	ND	3300	ug/kg	12/20/93
Fluoranthene	206-44-0	ND	3300	ug/kg	12/20/93
Fluorene	86-73-7	3,700 *	3300	ug/kg	12/20/93
Hexachlorobenzene	118-74-1	ND	3300	ug/kg	12/20/93
Hexachlorobutadiene	87-68-3	ND	3300	ug/kg	12/20/93
Hexachlorocyclopentadiene	77-47-4	ND	3300	ug/kg	12/20/93
Hexachloroethane	67-72-1	ND	3300	ug/kg	12/20/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	3300	ug/kg	12/20/93
Isophorone	78-59-1	ND	3300	ug/kg	12/20/93
2-Methylnaphthalene	91-57-6	17,000 *	3300	ug/kg	12/20/93
Naphthalene	91-20-3	13,000 *	3300	ug/kg	12/20/93
2-Nitroaniline	88-74-4	ND	16000	ug/kg	12/20/93
3-Nitroaniline	99-09-2	ND	16000	ug/kg	12/20/93
4-Nitroaniline	100-01-6	ND	16000	ug/kg	12/20/93
Nitrobenzene	98-95-3	ND	3300	ug/kg	12/20/93
N-Nitrosodimethylamine	62-75-9	ND	3300	ug/kg	12/20/93
N-Nitrosodiphenylamine	86-30-6	ND	3300	ug/kg	12/20/93
N-Nitrosodi-n-propylamine	621-64-7	ND	3300	ug/kg	12/20/93
Phenanthrene	85-01-8	6,300 *	3300	ug/kg	12/20/93
Pyrene	129-00-0	ND	3300	ug/kg	12/20/93
1,2,4-Trichlorobenzene	120-82-1	ND	3300	ug/kg	12/20/93
4-Chloro-3-methylphenol	59-50-7	ND	3300	ug/kg	12/20/93
2-Chlorophenol	95-57-8	ND	3300	ug/kg	12/20/93
2,4-Dichlorophenol	120-83-2	ND	3300	ug/kg	12/20/93
2,4-Dimethylphenol	105-67-9	ND	3300	ug/kg	12/20/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	16000	ug/kg	12/20/93
2,4-Dinitrophenol	51-28-5	ND	16000	ug/kg	12/20/93
2-Methylphenol	95-48-7	ND	3300	ug/kg	12/20/93
4-Methylphenol	106-44-5	ND	3300	ug/kg	12/20/93
2-Nitrophenol	88-75-5	ND	3300	ug/kg	12/20/93
4-Nitrophenol	100-02-7	ND	16000	ug/kg	12/20/93
Pentachlorophenol	87-86-5	ND	16000	ug/kg	12/20/93
Phenol	108-95-2	ND	3300	ug/kg	12/20/93
2,4,5-Trichlorophenol	95-95-4	ND	3300	ug/kg	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-9/4-4.5'
AEN LAB NO: 9312093-14A
AEN WORK ORDER: 9312093
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/17/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	3300	ug/kg	12/20/93

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

INSTRUMENT: 12 AEN JOB NO: 9312093

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
12/14/93	SWB-6/0.5-1.0'	04	111	101	95
12/14/93	SWB-6/5.5-6'	05	106	105	104
12/15/93	SWB-9/3-3.5'	08	104	97	104
12/21/93	SWB-9/10-10.5'	09	105	92	104
12/21/93	SWB-9/15-15.5'	10	104	97	98
12/14/93	SWB-10/1-1.5'	11	105	102	101
12/14/93	SWB-10/4-4.5'	12	104	102	100
12/15/93	SWB-9/4-4.5'	14	95	96	100

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d_4	(68-141)
Toluene-d_8	(89-119)
p-Bromofluorobenzene	(85-112)

QUALITY CONTROL DATA

DATE ANALYZED: 12/15/93
SAMPLE SPIKED: 9312093-11
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312093

INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	85	2
Trichloroethene	50.0	94	3
Benzene	50.0	96	2
Toluene	50.0	97	1
Chlorobenzene	50.0	95	2

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(66-143)	15
Trichloroethene	(60-127)	12
Benzene	(88-117)	10
Toluene	(70-126)	14
Chlorobenzene	(89-111)	13

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE ANALYZED: 12/23/93
SAMPLE SPIKED: 9312129-09
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312093
INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	141	1
Trichloroethene	50.0	103	<1
Benzene	50.0	116	2
Toluene	50.0	113	3
Chlorobenzene	50.0	107	<1

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(66-143)	15
Trichloroethene	(60-127)	12
Benzene	(88-117)	10
Toluene	(70-126)	14
Chlorobenzene	(89-111)	13

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

INSTRUMENT: 12 AEN JOB NO: 9312093

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
12/17/93	SWB-6	01	106	99	108
12/16/93	SWB-9	02	102	97	106
12/16/93	SWB-10	03	100	99	101

CURRENT QC LIMITS (Revised 11/21/93)

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(77-123)
Toluene-d8	(90-108)
p-Bromofluorobenzene	(89-109)

QUALITY CONTROL DATA

DATE ANALYZED: 12/16/93
SAMPLE SPIKED: 9312090-01
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312093
INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	102	9
Trichloroethene	50.0	102	2
Benzene	50.0	102	1
Toluene	50.0	103	<1
Chlorobenzene	50.0	98	<1

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(81-123)	12
Trichloroethene	(87-112)	9
Benzene	(92-116)	12
Toluene	(91-116)	12
Chlorobenzene	(92-113)	10

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/09,21/93 AEN JOB NO: 9312093

CLIENT PROJ. ID: KE1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
12/18/93	SWB-6/0.5-1.0'	04	38	60	53	51	33	66
12/20/93	SWB-6/5.5-6'	05	49	68	44	57	51	40
/20/93	SWB-9/3-3.5'	08	D	D	D	D	D	D
/04/94	SWB-9/10-10.5'	09	D	D	D	D	D	D
12/29/93	SWB-9/15-15.5'	10	51	113	81	30	48	50
12/18/93	SWB-10/1-1.5'	11	53	62	40	55	49	54
12/18/94	SWB-10/4-4.5'	12	59	71	50	67	57	54
12/20/93	SWB-9/4-4.5'	14	D	D	D	D	D	D

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(23-120)
2-Fluorobiphenyl	(30-115)
Terphenyl-d_{14}	(18-137)
Phenol-d_5	(24-113)
2-Fluorophenol	(25-121)
2,4,6-Tribromophenol	(19-122)

D = Surrogates diluted out

QUALITY CONTROL DATA

DATE EXTRACTED: 12/14/93
DATE ANALYZED: 12/20/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312093
SAMPLE SPIKED: 9312105-01
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
Phenol	3330	80	5
2-Chlorophenol	3330	79	2
1,4-Dichlorobenzene	3400	70	4
N-Nitroso-di-n-propylamine	3320	90	2
1,2,4-Trichlorobenzene	3330	71	3
4-Chloro-3-methylphenol	3270	102	5
Acenaphthene	3330	77	5
4-Nitrophenol	3300	71	9
2,4-Dinitrotoluene	3330	68	5
Pentachlorophenol	3380	63	6
Pyrene	3320	55	12

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(26- 90)	35
2-Chlorophenol	(25-102)	50
1,4-Dichlorobenzene	(28-104)	27
4-Nitroso-di-n-propylamine	(41-126)	38
1,2,4-Trichlorobenzene	(38-107)	23
4-Chloro-3-methylphenol	(26-103)	33
Acenaphthene	(31-137)	19
4-Nitrophenol	(11-114)	50
2,4-Dinitrotoluene	(28- 89)	47
Pentachlorophenol	(17-109)	47
Pyrene	(35-142)	36

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/13/93 AEN JOB NO: 9312093

CLIENT PROJ. ID: K1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
12/20/93	SWB-6	01	60	50	37	54	49	50
12/20/93	SWB-9	02	62	54	43	77	67	62
12/20/93	SWB-10	03	52	60	39	61	46	49

CURRENT QC LIMITS (REVISED 01/08/92)

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(47-104)
2-Fluorobiphenyl	(49-106)
Terphenyl-d_{14}	(36-138)
Phenol-d_5	(46-105)
2-Fluorophenol	(40- 97)
2,4,6-Tribromophenol	(37-145)

QUALITY CONTROL DATA

DATE EXTRACTED: 12/13/93
DATE ANALYZED: 12/21/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312093
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
Phenol	200	68	8
2-Chlorophenol	200	79	<1
1,4-Dichlorobenzene	204	59	7
N-Nitroso-di-n-propylamine	199	74	9
1,2,4-Trichlorobenzene	200	59	10
4-Chloro-3-methylphenol	196	93	3
Acenaphthene	200	71	9
4-Nitrophenol	198	72	8
2,4-Dinitrotoluene	200	72	4
Pentachlorophenol	203	67	8
Pyrene	199	41	12

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(12-110)	42
2-Chlorophenol	(27-123)	40
1,4-Dichlorobenzene	(36- 97)	28
4-Nitroso-di-n-propylamine	(41-116)	38
1,2,4-Trichlorobenzene	(39- 98)	28
4-Chloro-3-methylphenol	(23- 97)	42
Acenaphthene	(46-118)	31
4-Nitrophenol	(10- 80)	50
2,4-Dinitrotoluene	(24- 96)	38
Pentachlorophenol	(9-103)	50
Pyrene	(26-127)	31

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: SOIL

CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312093
SAMPLE SPIKED: SAND
DIGESTION DATE: 12/14/93

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/kg)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	10	54	2	50-150	20
As, Arsenic	4000/7060	20	84	<1	75-125	20
Cd, Cadmium	ICP/6010	10	84	2	75-125	20
Cr, Chromium	ICP/6010	50	92	2	75-125	20
Cu, Copper	ICP/6010	50	91	3	75-125	20
Ni, Nickel	ICP/6010	50	90	2	75-125	20
Pb, Lead	ICP/6010	50	90	3	75-125	20
Se, Selenium	4000/7740	40	91	9	73-126	14
Zn, Zinc	ICP/6010	50	87	2	75-125	20

RPD = Relative Percent Difference

Daily method blanks for all associated runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9312093

CLIENT PROJ. ID: KE1495-1A-2112

DIGESTION DATE: 12/13/93

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Ag, Silver	ICP/6010	0.1	101	2	66-127	11
As, Arsenic	4000/7060	0.04	105	4	90-115	12
Cd, Cadmium	ICP/6010	0.05	99	5	71-134	12
Cr, Chromium	ICP/6010	0.2	104	2	85-114	6
Cu, Copper	ICP/6010	0.25	95	2	86-112	5
Ni, Nickel	ICP/6010	0.5	99	2	87-114	5
Pb, Lead	ICP/6010	0.5	99	2	87-115	6
Se, Selenium	4000/7740	0.08	102	2	76-131	14
Zn, Zinc	ICP/6010	0.5	101	2	86-115	5

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9312093

CLIENT PROJ. ID: KE1495-1A-2112

DIGESTION DATE: 01/05-10/94

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Ag, Silver	ICP/6010	0.25	83	4	66-127	11
As, Arsenic	4000/7060	0.04	95	9	90-115	12
Cd, Cadmium	ICP/6010	0.25	103	5	71-134	12
Cr, Chromium	ICP/6010	0.2	103	3	85-114	6
Cu, Copper	ICP/6010	0.25	103	3	86-112	5
Ni, Nickel	ICP/6010	0.5	102	3	87-114	5
Pb, Lead	ICP/6010	0.5	101	6	87-115	6
Se, Selenium	4000/7740	0.08	95	1	76-131	14
Zn, Zinc	ICP/6010	0.5	108	2	86-115	5

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

*** END OF REPORT ***

R-4, S-A
R-3, S-2
C-1, 5
R-1, S-G

Lab Job 1312093

CHAIN-OF-CUSTODY RECORD

Project Number: KE1495-1A-2112

Project Name: Fuller O'Brien

Location: So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Unfiltered	Metals - To be filtered				Remarks
SWB-6	01AB	12/7/93		X	2x1L Amber				X									12/08 Per Tacia pls. cancel
SWB-6	01CD				2x40mL VOAs			X										Cu analysis. JKPS 12/10 added back
SWB-6	01E				1x500mL Plastic								X					
SWB-6	01F				↓									X				Hold! 12/10/93 JKPS
SWB-9	02AB				2x1L Amber				X									01/04 - Per Tacia, pls. take samples
SWB-9	02CD				2x40mL VOAs			X										SWB-6 and SWB-9 off hold status
SWB-9	02E				1x500mL Plastic								X					and analyze for metals listed below.
SWB-9	02F				↓									X				Hold! std TAT is requested. JKPS
SWB-10	03AB				2x1L Amber				X									
SWB-10	03CD				2x40mL Amber			X										
SWB-10	03E				1x500mL Plastic								X					
SWB-10	03F	↓		↓	↓									X				Hold!
																		Metals for As, Cd, Cr, Pb, Ni, Se, Ag, Zn, Cu JKPS 12/08/93

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12/7/93 1930	[signature]
[signature]	12/7/93 2010	
	12/7/93 2010	Received for Laboratory by: (Signature) Denise Harrington

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks: Hold Metals to be filtered

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

Lab Job 312093

CHAIN-OF-CUSTODY RECORD

Project Number: KE1495-1A-2112

Project Name: Fuller O'Brien

Location: So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals -				Remarks
SWB-6/05-10'	04A	12/7/93	X		2"x6" Brass Liner			X	X				X				12/08 Per Tacia, pls. cancel Cu analysis. 12/10/93 JAS
SWB-6/5.5-6'	05A *							X	X				X				12/10 add Cu
SWB-6/10-10.5'	06A																Hold
SWB-6/15-15.5'	07A																Hold
SWB-9/3-3.5'	08A							X	X				X				
SWB-9/10-10.5'	09A							*	*								~~Hold~~ > analyze for 8240 + 8270 per Tacia 12/21 - DSH
SWB-9/15-15.5'	10A							*	*								~~Hold~~
SWB-10/1-1.5'	11A							X	X				X				
SWB-10/4-4.5'	12A							X	X				X				
SWB-10/8.5-9'	13A																Hold
~~SWB-9/10-10.5~~																	1-5-94 - per client send sample SWB-9/4-4.5 to Jenkins, Sanders + Assoc. gg
SWB-9/4-4.5	14A							X	X				X				
																	Metals for As, Cd, Cr, ~~Cu~~, Pb, Ni, Se, Ag, Zn, Cu JAS 12/08

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12-7-93 1932	[signature]
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	12-7-93 2010	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	12/7/93 2010	Denise Harrington

Ship To: * Sample SWB-6/5.5-6' returned to client 1/11 - gg

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

01/04 - Per Tacia pls. take the following samples off hold status and analyze for requested metals (filter sample in lab). Standard TAT is requested. JFr

Page 1 of 1

Lab Job # _____

CHAIN-OF-CUSTODY RECORD

Project Number: KE1495-1A-242

Project Name: Fuller O'Brien

Location: So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides/PCB's	Waste Oil -	Metals - Unfiltered					Remarks
SWB-6		1/4/94		X	1x500ml plastic								X					9312093 - 1A 1F
SWB-7		↓		↓	Unpreserved								X					9312109 - 2 1F
SWB-8		↓		↓	↓								X					9312104 - 5F
SWB-9		↓		↓	↓								X					9312093 - 2F

Filter & Metals in Lab!

Metals for As, Ag, Cd, Cr, Cu, Ni, Pb, Se, Zn

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	1/4/94	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Ship To: _____

Attention: _____

Phone No: _____

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

SENT BY: 1- 4-94 ; 1:29PM ; HARZA KALDVEER→ 15109300256;# 3/ 9

American Environmental Network

JAN 13 1994

DOHS Certification: 1172

CERTIFICATE OF ANALYSIS

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER/STEVE HENSHAW

CLIENT PROJ. ID: KE1495-1A-2112
PROJ. NAME: FULLER O'BRIEN

REPORT DATE: 01/11/94

DATE SAMPLED: 12/07-08/93
DATE RECEIVED: 12/07-08/93

ADDITIONAL ANALYSIS
REQUESTED: 12/23/93

AEN JOB NO: 9312273

PROJECT SUMMARY:

On December 23, 1993, client requested additional analysis on three (3) soil samples received by this laboratory on December 7 and 8, 1993.

Client requested samples be analyzed for organic parameters. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Larry Klein
General Manager

Results FAXed 01/05/94

HARZA KALDVEER

SAMPLE ID: SWB-8/5-5.5'
AEN LAB NO: 9312273-01
AEN WORK ORDER: 9312273
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/11/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
TPH as Gas in Soil	5030/GC-FID	3 *	0.2	mg/kg	12/28/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	12/23/93
TPH as Diesel	GC-FID	220 *	1	mg/kg	12/28/93
TPH as Oil	GC-FID	110 *	5	mg/kg	12/28/93

Gasoline result appears to be either an extremely weathered Gasoline or a Mineral Spirits-type fuel.

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-6/5.5-6'
AEN LAB NO: 9312273-02
AEN WORK ORDER: 9312273
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/11/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
TPH as Gas in Soil	5030/GC-FID	0.4 *	0.2	mg/kg	12/28/93
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	12/23/93
TPH as Diesel	GC-FID	18 *	1	mg/kg	12/28/93
TPH as Oil	GC-FID	35 *	5	mg/kg	12/28/93

Gasoline result appears to be either an extremely weathered Gasoline or a Mineral Spirits-type fuel.

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-9/3-3.5'
AEN LAB NO: 9312273-03
AEN WORK ORDER: 9312273
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/07/93
DATE RECEIVED: 12/07/93
REPORT DATE: 01/11/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
TPH as Gas in Soil	5030/GC-FID	9,000 *	0.2	mg/kg	01/05/94
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	12/23/93
TPH as Diesel	GC-FID	1,700 *	1	mg/kg	12/28/93
TPH as Oil	GC-FID	900 *	5	mg/kg	12/28/93

Gasoline result appears to be either an extremely weathered Gasoline or a Mineral Spirits-type fuel.

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

DATE EXTRACTED: 12/23/93
DATE ANALYZED: 12/28/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312273
SAMPLE SPIKED: 9312116-03
INSTRUMENT: C

MATRIX SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE SOIL
METHOD: EPA 3550 GCFID

ANALYTE	Spike Conc. (mg/kg)	Average Percent Recovery	RPD
Diesel	40.4	83	3

CURRENT QC LIMITS (Revised 10/25/93)

Analyte	Percent Recovery	RPD
Diesel	(44-105)	18

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312273

INSTRUMENT: H

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 5030 GCFID
(SOIL MATRIX)

Date Analyzed	SAMPLE IDENTIFICATION Client Id.	Lab Id.	SURROGATE RECOVERY (PERCENT) Fluorobenzene
12/28/93	SWB-8/5-5.5'	01	101
12/28/93	SWB-6/5.5-6'	02	115
01/05/94	SWB-9/3-3.5'	03	91

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Fluorobenzene	(70-115)

QUALITY CONTROL DATA

DATE ANALYZED: 12/28/93
SAMPLE SPIKED: 9312272-01
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312273
INSTRUMENT: H

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 5030 GCFID
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
Hydrocarbons as Gasoline	1000	96	12

CURRENT QC LIMITS (Revised 05/14/92)

Analyte	Percent Recovery	RPD
Gasoline	(54-124)	15

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

*** END OF REPORT ***

[redacted] Lab Job # 931209

CHAIN-OF-CUSTODY RECORD

Project Number	Project Name
KE1495-1A-2112	Fuller O'Brien
	Location: So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals -					Remarks
SWB 6/05-10	04A	12/7/93	X		2"x6" Brass Liner			X	X				X					12/08 Per Tacia, pls. cancel Cu analysis. 12/10/93 JAS
SWB 6/5-6	02A ~~05A~~							X	X				X					12/10 add Cu
SWB 6/10-10.5	06A																	Hold
SWB 6/15-15.5	07A																	Hold
SWB 9/3-3.5	03A ~~08A~~							X	X				X					
~~SWB 9/10-10.5~~	~~09A~~							*	*									~~Hold~~ > analyze for 8240 + 8270 per Tacia 12/21 - DSM
SWB 9/15-15.5	10A							*	*									~~Hold~~
SWB 10/1-1.5	11A							X	X				X					
SWB 10/1-1.5	12A							X	X				X					
SWB 10/15-15.5	13A																	Hold
~~SWB 9/10-10.5~~																		
SWB 9/1-1.5	14A							X	X				X					
																		Metals for As, Cd, Cr, ~~Cu~~, Pb, Ni, Se, Ag, Zn, Cu JAS 12/10

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12-7-93 19:30	[signature]
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	12-7-93 20:10	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	12/7/93 2010	Denise Harrington

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

01/07 sample control
pls. set up sample SWB-6/5.5-6' to be del. back to Kaldveer. One of the couriers is scheduled to del 01/11 3 pm. Thanx - Koxy

Lab Job # ~~93120~~ 9312

CHAIN-OF-CUSTODY RECORD

Project Number: KE1495-1A-2112

Project Name: Fuller O'Brien

Location: Sa. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals -					Remarks
SWB 6/5.5-10'	04A	12/7/93	X		2"x6" Brass Liner			X	X				X					12/08 Per Tacia, pls. cancel Cu analysis. JKS 12/10 add Cu
SWB 6/5.5-6'	~~05A~~ 02A							X	X				X					
SWB 6/10-10.5'	06A																	Hold
SWB 6/15-15.5'	07A																	Hold
SWB 9/3-3.5'	08A							X	X				X					
SWB 9/10-10.5'	09A							*	*									~~Hold~~ analyze for 8240 + 8270 per Tacia 12/21 - DSH
SWB 9/15-15.5'	10A							*	*									~~Hold~~
SWB 10/1-1.5'	11A							X	X				X					
SWB 10/4-4.5'	12A							X	X				X					
SWB 10/8-8.5'	13A																	Hold
~~SWB 9/10-10.5'~~																		1-5-94 - per client send sample
SWB 9/4-4.5'	14A							X	X				X					SWB-9/4-4.5 to Jenkins, Sand Assoc. gpr
																		Metals for As, Cd, Cr, ~~Cu~~, Pb, Ni, Se, Ag, Zn, Cu

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12-7-93 19:30	[signature]
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	12-7-93 20:10	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	12/7/93 2010	Denise Harrington

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Re s:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associ
Geoscience Consult
A California Corporatio

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: [illegible]

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: KE1495-1A-2112
PROJ. NAME: FULLER O'BRIEN

REPORT DATE: 01/18/94

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93

ADDITIONAL ANALYSIS
REQUESTED: 12/10-22/93-
01/04/94

AEN JOB NO: 9312104

PROJECT SUMMARY:

On December 8, 1993, this laboratory received four (4) soil samples and one (1) water sample.

Client requested two (2) soil samples and the water sample be analyzed for inorganic and organic parameters. Two (2) soil samples and sample fraction for filtered metals were placed on hold. On December 10, 1993, client requested additional analysis on samples for Copper. On December 22, 1993, client requested samples SWB-8/10-10.5' and SWB-8/15-15.5' be taken off hold and analyzed by EPA Method 8270. On January 4, 1994, client requested sample SWB-8 for filtered metals be taken off hold. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

Sample SWB-8/5-5.5'(9312104-02) was analyzed dilute due to high levels of non-target compounds, and reporting limits were adjusted accordingly. Surrogate recoveries for this sample cannot be reported due to this dilution.

All other laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Larry Klein
General Manager

Results FAXed 12/20/93-01/13/94

HARZA KALDVEER

SAMPLE ID: SWB-8/0.5-1'
AEN LAB NO: 9312104-01A
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/14/93
Arsenic	EPA 7060	6 *	1	mg/kg	12/16/93
Selenium	EPA 7740	ND	2	mg/kg	12/16/93
Cadmium	EPA 6010	0.2 *	0.1	mg/kg	12/16/93
Chromium	EPA 6010	37 *	1	mg/kg	12/16/93
Copper	EPA 6010	48 *	1	mg/kg	12/16/93
Lead	EPA 6010	840 *	1	mg/kg	12/16/93
Nickel	EPA 6010	190 *	1	mg/kg	12/16/93
Silver	EPA 6010	0.2 *	0.1	mg/kg	12/16/93
Zinc	EPA 6010	110 *	1	mg/kg	12/16/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	12/14/93
Benzene	71-43-2	ND	5	ug/kg	12/14/93
Bromodichloromethane	75-27-4	ND	5	ug/kg	12/14/93
Bromoform	75-25-2	ND	5	ug/kg	12/14/93
Bromomethane	74-83-9	ND	10	ug/kg	12/14/93
2-Butanone	78-93-3	ND	100	ug/kg	12/14/93
Carbon Disulfide	75-15-0	ND	10	ug/kg	12/14/93
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	12/14/93
Chlorobenzene	108-90-7	ND	5	ug/kg	12/14/93
Chloroethane	75-00-3	ND	10	ug/kg	12/14/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	12/14/93
Chloroform	67-66-3	ND	5	ug/kg	12/14/93
Chloromethane	74-87-3	ND	10	ug/kg	12/14/93
Dibromochloromethane	124-48-1	ND	5	ug/kg	12/14/93
1,1-Dichloroethane	75-34-3	ND	5	ug/kg	12/14/93
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	12/14/93
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	12/14/93
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	12/14/93
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	12/14/93
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	12/14/93
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	12/14/93

HARZA KALDVEER

SAMPLE ID: SWB-8/0.5-1'
AEN LAB NO: 9312104-01A
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	12/14/93
Ethylbenzene	100-41-4	ND	5	ug/kg	12/14/93
2-Hexanone	591-78-6	ND	50	ug/kg	12/14/93
Methylene Chloride	75-09-2	ND	5	ug/kg	12/14/93
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	12/14/93
Styrene	100-42-5	ND	5	ug/kg	12/14/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	12/14/93
Tetrachloroethene	127-18-4	ND	5	ug/kg	12/14/93
Toluene	108-88-3	ND	5	ug/kg	12/14/93
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	12/14/93
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	12/14/93
Trichloroethene	79-01-6	ND	5	ug/kg	12/14/93
Vinyl Acetate	108-05-4	ND	50	ug/kg	12/14/93
Vinyl Chloride	75-01-4	ND	10	ug/kg	12/14/93
Xylenes, Total	1330-20-7	ND	10	ug/kg	12/14/93
#Extraction for BNAs	EPA 3550	-		Extrn Date	12/13/93
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	ND	330	ug/kg	12/20/93
Acenaphthylene	208-96-8	ND	330	ug/kg	12/20/93
Anthracene	120-12-7	ND	330	ug/kg	12/20/93
Benzidine	92-87-5	ND	1600	ug/kg	12/20/93
Benzoic Acid	65-85-0	ND	1600	ug/kg	12/20/93
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	12/20/93
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	12/20/93
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	12/20/93
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	12/20/93
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	12/20/93
Benzyl Alcohol	100-51-6	ND	660	ug/kg	12/20/93
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	12/20/93
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	12/20/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	12/20/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	12/20/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	12/20/93
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	12/20/93
4-Chloroaniline	106-47-8	ND	660	ug/kg	12/20/93
2-Chloronapththalene	91-58-7	ND	330	ug/kg	12/20/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	12/20/93
Chrysene	218-01-9	ND	330	ug/kg	12/20/93
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	12/20/93
Dibenzofuran	132-64-9	ND	330	ug/kg	12/20/93
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-8/0.5-1'
AEN LAB NO: 9312104-01A
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	12/20/93
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	12/20/93
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	12/20/93
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	12/20/93
Diethyl Phthalate	84-66-2	ND	330	ug/kg	12/20/93
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	12/20/93
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	12/20/93
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	12/20/93
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	12/20/93
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	12/20/93
Fluoranthene	206-44-0	ND	330	ug/kg	12/20/93
Fluorene	86-73-7	ND	330	ug/kg	12/20/93
Hexachlorobenzene	118-74-1	ND	330	ug/kg	12/20/93
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	12/20/93
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	12/20/93
Hexachloroethane	67-72-1	ND	330	ug/kg	12/20/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	12/20/93
Isophorone	78-59-1	ND	330	ug/kg	12/20/93
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	12/20/93
Naphthalene	91-20-3	ND	330	ug/kg	12/20/93
2-Nitroaniline	88-74-4	ND	1600	ug/kg	12/20/93
3-Nitroaniline	99-09-2	ND	1600	ug/kg	12/20/93
4-Nitroaniline	100-01-6	ND	1600	ug/kg	12/20/93
Nitrobenzene	98-95-3	ND	330	ug/kg	12/20/93
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	12/20/93
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	12/20/93
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	12/20/93
Phenanthrene	85-01-8	ND	330	ug/kg	12/20/93
Pyrene	129-00-0	ND	330	ug/kg	12/20/93
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	12/20/93
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	12/20/93
2-Chlorophenol	95-57-8	ND	330	ug/kg	12/20/93
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	12/20/93
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	12/20/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	12/20/93
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	12/20/93
2-Methylphenol	95-48-7	ND	330	ug/kg	12/20/93
4-Methylphenol	106-44-5	ND	330	ug/kg	12/20/93
2-Nitrophenol	88-75-5	ND	330	ug/kg	12/20/93
4-Nitrophenol	100-02-7	ND	1600	ug/kg	12/20/93
Pentachlorophenol	87-86-5	ND	1600	ug/kg	12/20/93
Phenol	108-95-2	ND	330	ug/kg	12/20/93
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-8/0.5-1'
AEN LAB NO: 9312104-01A
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	12/20/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-8/5-5.5'
AEN LAB NO: 9312104-02A
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	12/14/93
Arsenic	EPA 7060	9 *	1	mg/kg	12/16/93
Selenium	EPA 7740	ND	2	mg/kg	12/16/93
Cadmium	EPA 6010	0.6 *	0.1	mg/kg	12/16/93
Chromium	EPA 6010	28 *	1	mg/kg	12/16/93
Copper	EPA 6010	37 *	1	mg/kg	12/16/93
Lead	EPA 6010	21,000 *	1	mg/kg	12/17/93
Nickel	EPA 6010	130 *	1	mg/kg	12/16/93
Silver	EPA 6010	0.3 *	0.1	mg/kg	12/16/93
Zinc	EPA 6010	160 *	1	mg/kg	12/16/93
VOCs in Soil	EPA 8240				
Acetone	67-64-1	ND	500	ug/kg	12/14/93
Benzene	71-43-2	ND	30	ug/kg	12/14/93
Bromodichloromethane	75-27-4	ND	30	ug/kg	12/14/93
Bromoform	75-25-2	ND	30	ug/kg	12/14/93
Bromomethane	74-83-9	ND	50	ug/kg	12/14/93
2-Butanone	78-93-3	ND	500	ug/kg	12/14/93
Carbon Disulfide	75-15-0	ND	50	ug/kg	12/14/93
Carbon Tetrachloride	56-23-5	ND	30	ug/kg	12/14/93
Chlorobenzene	108-90-7	ND	30	ug/kg	12/14/93
Chloroethane	75-00-3	ND	50	ug/kg	12/14/93
2-Chloroethyl Vinyl Ether	110-75-8	ND	50	ug/kg	12/14/93
Chloroform	67-66-3	ND	30	ug/kg	12/14/93
Chloromethane	74-87-3	ND	50	ug/kg	12/14/93
Dibromochloromethane	124-48-1	ND	30	ug/kg	12/14/93
1,1-Dichloroethane	75-34-3	ND	30	ug/kg	12/14/93
1,2-Dichloroethane	107-06-2	ND	30	ug/kg	12/14/93
1,1-Dichloroethene	75-35-4	ND	30	ug/kg	12/14/93
cis-1,2-Dichloroethene	156-59-2	ND	30	ug/kg	12/14/93
trans-1,2-Dichloroethene	156-60-5	ND	30	ug/kg	12/14/93
1,2-Dichloropropane	78-87-5	ND	30	ug/kg	12/14/93
cis-1,3-Dichloropropene	10061-01-5	ND	30	ug/kg	12/14/93

HARZA KALDVEER

SAMPLE ID: SWB-8/5-5.5'
AEN LAB NO: 9312104-02A
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
trans-1,3-Dichloropropene	10061-02-6	ND	30	ug/kg	12/14/93
Ethylbenzene	100-41-4	ND	30	ug/kg	12/14/93
2-Hexanone	591-78-6	ND	300	ug/kg	12/14/93
Methylene Chloride	75-09-2	ND	30	ug/kg	12/14/93
4-Methyl-2-pentanone	108-10-1	ND	300	ug/kg	12/14/93
Styrene	100-42-5	ND	30	ug/kg	12/14/93
1,1,2,2-Tetrachloroethane	79-34-5	ND	30	ug/kg	12/14/93
Tetrachloroethene	127-18-4	ND	30	ug/kg	12/14/93
Toluene	108-88-3	ND	30	ug/kg	12/14/93
1,1,1-Trichloroethane	71-55-6	ND	30	ug/kg	12/14/93
1,1,2-Trichloroethane	79-00-5	ND	30	ug/kg	12/14/93
Trichloroethene	79-01-6	ND	30	ug/kg	12/14/93
Vinyl Acetate	108-05-4	ND	300	ug/kg	12/14/93
Vinyl Chloride	75-01-4	ND	50	ug/kg	12/14/93
Xylenes, Total	1330-20-7	ND	50	ug/kg	12/14/93
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	12/13/93
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	12/20/93
Acenaphthylene	208-96-8	ND	330	ug/kg	12/20/93
Anthracene	120-12-7	ND	330	ug/kg	12/20/93
Benzidine	92-87-5	ND	1600	ug/kg	12/20/93
Benzoic Acid	65-85-0	ND	1600	ug/kg	12/20/93
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	12/20/93
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	12/20/93
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	12/20/93
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	12/20/93
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	12/20/93
Benzyl Alcohol	100-51-6	ND	660	ug/kg	12/20/93
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	12/20/93
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	12/20/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	12/20/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	12/20/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	12/20/93
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	12/20/93
4-Chloroaniline	106-47-8	ND	660	ug/kg	12/20/93
2-Chloronapththalene	91-58-7	ND	330	ug/kg	12/20/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	12/20/93
Chrysene	218-01-9	ND	330	ug/kg	12/20/93
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	12/20/93
Dibenzofuran	132-64-9	ND	330	ug/kg	12/20/93
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-8/5-5.5'
AEN LAB NO: 9312104-02A
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	12/20/93
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	12/20/93
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	12/20/93
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	12/20/93
Diethyl Phthalate	84-66-2	ND	330	ug/kg	12/20/93
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	12/20/93
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	12/20/93
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	12/20/93
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	12/20/93
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	12/20/93
Fluoranthene	206-44-0	440 *	330	ug/kg	12/20/93
Fluorene	86-73-7	ND	330	ug/kg	12/20/93
Hexachlorobenzene	118-74-1	ND	330	ug/kg	12/20/93
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	12/20/93
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	12/20/93
Hexachloroethane	67-72-1	ND	330	ug/kg	12/20/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	12/20/93
Isophorone	78-59-1	ND	330	ug/kg	12/20/93
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	12/20/93
Naphthalene	91-20-3	ND	330	ug/kg	12/20/93
2-Nitroaniline	88-74-4	ND	1600	ug/kg	12/20/93
3-Nitroaniline	99-09-2	ND	1600	ug/kg	12/20/93
4-Nitroaniline	100-01-6	ND	1600	ug/kg	12/20/93
Nitrobenzene	98-95-3	ND	330	ug/kg	12/20/93
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	12/20/93
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	12/20/93
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	12/20/93
Phenanthrene	85-01-8	ND	330	ug/kg	12/20/93
Pyrene	129-00-0	ND	330	ug/kg	12/20/93
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	12/20/93
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	12/20/93
2-Chlorophenol	95-57-8	ND	330	ug/kg	12/20/93
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	12/20/93
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	12/20/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	12/20/93
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	12/20/93
2-Methylphenol	95-48-7	ND	330	ug/kg	12/20/93
4-Methylphenol	106-44-5	ND	330	ug/kg	12/20/93
2-Nitrophenol	88-75-5	ND	330	ug/kg	12/20/93
4-Nitrophenol	100-02-7	ND	1600	ug/kg	12/20/93
Pentachlorophenol	87-86-5	ND	1600	ug/kg	12/20/93
Phenol	108-95-2	ND	330	ug/kg	12/20/93
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	12/20/93

HARZA KALDVEER

SAMPLE ID: SWB-8/5-5.5'
AEN LAB NO: 9312104-02A
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	12/20/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-8/10-10.5'
AEN LAB NO: 9312104-03A
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3550	-		Extrn Date	12/22/93
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	ND	330	ug/kg	12/30/93
Acenaphthylene	208-96-8	ND	330	ug/kg	12/30/93
Anthracene	120-12-7	ND	330	ug/kg	12/30/93
Benzidine	92-87-5	ND	1600	ug/kg	12/30/93
Benzoic Acid	65-85-0	ND	1600	ug/kg	12/30/93
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	12/30/93
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	12/30/93
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	12/30/93
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	12/30/93
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	12/30/93
Benzyl Alcohol	100-51-6	ND	660	ug/kg	12/30/93
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	12/30/93
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	12/30/93
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	12/30/93
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	12/30/93
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	12/30/93
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	12/30/93
4-Chloroaniline	106-47-8	ND	660	ug/kg	12/30/93
2-Chloronapththalene	91-58-7	ND	330	ug/kg	12/30/93
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	12/30/93
Chrysene	218-01-9	ND	330	ug/kg	12/30/93
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	12/30/93
Dibenzofuran	132-64-9	ND	330	ug/kg	12/30/93
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	12/30/93
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	12/30/93
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	12/30/93
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	12/30/93
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	12/30/93
Diethyl Phthalate	84-66-2	ND	330	ug/kg	12/30/93
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	12/30/93
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	12/30/93
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	12/30/93
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	12/30/93
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	12/30/93
Fluoranthene	206-44-0	ND	330	ug/kg	12/30/93
Fluorene	86-73-7	ND	330	ug/kg	12/30/93
Hexachlorobenzene	118-74-1	ND	330	ug/kg	12/30/93
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	12/30/93
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	12/30/93

HARZA KALDVEER

SAMPLE ID: SWB-8/10-10.5'
AEN LAB NO: 9312104-03A
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	330	ug/kg	12/30/93
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	12/30/93
Isophorone	78-59-1	ND	330	ug/kg	12/30/93
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	12/30/93
Naphthalene	91-20-3	ND	330	ug/kg	12/30/93
2-Nitroaniline	88-74-4	ND	1600	ug/kg	12/30/93
3-Nitroaniline	99-09-2	ND	1600	ug/kg	12/30/93
4-Nitroaniline	100-01-6	ND	1600	ug/kg	12/30/93
Nitrobenzene	98-95-3	ND	330	ug/kg	12/30/93
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	12/30/93
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	12/30/93
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	12/30/93
Phenanthrene	85-01-8	1,200 *	330	ug/kg	12/30/93
Pyrene	129-00-0	ND	330	ug/kg	12/30/93
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	12/30/93
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	12/30/93
2-Chlorophenol	95-57-8	ND	330	ug/kg	12/30/93
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	12/30/93
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	12/30/93
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	12/30/93
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	12/30/93
2-Methylphenol	95-48-7	ND	330	ug/kg	12/30/93
4-Methylphenol	106-44-5	ND	330	ug/kg	12/30/93
2-Nitrophenol	88-75-5	ND	330	ug/kg	12/30/93
4-Nitrophenol	100-02-7	ND	1600	ug/kg	12/30/93
Pentachlorophenol	87-86-5	ND	1600	ug/kg	12/30/93
Phenol	108-95-2	ND	330	ug/kg	12/30/93
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	12/30/93
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	12/30/93

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: SWB-8/15-15.5'
AEN LAB NO: 9312104-04A
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3550	-		Extrn Date	12/22/93
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	ND	330	ug/kg	01/04/94
Acenaphthylene	208-96-8	ND	330	ug/kg	01/04/94
Anthracene	120-12-7	ND	330	ug/kg	01/04/94
Benzidine	92-87-5	ND	1600	ug/kg	01/04/94
Benzoic Acid	65-85-0	ND	1600	ug/kg	01/04/94
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	01/04/94
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	01/04/94
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	01/04/94
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	01/04/94
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	01/04/94
Benzyl Alcohol	100-51-6	ND	660	ug/kg	01/04/94
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	01/04/94
Bis(2-choroethyl) Ether	111-44-4	ND	330	ug/kg	01/04/94
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	01/04/94
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	01/04/94
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	01/04/94
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	01/04/94
4-Chloroaniline	106-47-8	ND	660	ug/kg	01/04/94
2-Chloronapththalene	91-58-7	ND	330	ug/kg	01/04/94
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	01/04/94
Chrysene	218-01-9	ND	330	ug/kg	01/04/94
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	01/04/94
Dibenzofuran	132-64-9	ND	330	ug/kg	01/04/94
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	01/04/94
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	01/04/94
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	01/04/94
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	01/04/94
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	01/04/94
Diethyl Phthalate	84-66-2	ND	330	ug/kg	01/04/94
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	01/04/94
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	01/04/94
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	01/04/94
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	01/04/94
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	01/04/94
Fluoranthene	206-44-0	ND	330	ug/kg	01/04/94
Fluorene	86-73-7	ND	330	ug/kg	01/04/94
Hexachlorobenzene	118-74-1	ND	330	ug/kg	01/04/94
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	01/04/94
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	01/04/94

HARZA KALDVEER

SAMPLE ID: SWB-8/15-15.5'
AEN LAB NO: 9312104-04A
AEN WORK ORDER: 9312104
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 01/18/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Hexachloroethane	67-72-1	ND	330	ug/kg	01/04/94
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	01/04/94
Isophorone	78-59-1	ND	330	ug/kg	01/04/94
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	01/04/94
Naphthalene	91-20-3	ND	330	ug/kg	01/04/94
2-Nitroaniline	88-74-4	ND	1600	ug/kg	01/04/94
3-Nitroaniline	99-09-2	ND	1600	ug/kg	01/04/94
4-Nitroaniline	100-01-6	ND	1600	ug/kg	01/04/94
Nitrobenzene	98-95-3	ND	330	ug/kg	01/04/94
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	01/04/94
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	01/04/94
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	01/04/94
Phenanthrene	85-01-8	740 *	330	ug/kg	01/04/94
Pyrene	129-00-0	ND	330	ug/kg	01/04/94
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	01/04/94
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	01/04/94
2-Chlorophenol	95-57-8	ND	330	ug/kg	01/04/94
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	01/04/94
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	01/04/94
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	01/04/94
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	01/04/94
2-Methylphenol	95-48-7	ND	330	ug/kg	01/04/94
4-Methylphenol	106-44-5	ND	330	ug/kg	01/04/94
2-Nitrophenol	88-75-5	ND	330	ug/kg	01/04/94
4-Nitrophenol	100-02-7	ND	1600	ug/kg	01/04/94
Pentachlorophenol	87-86-5	ND	1600	ug/kg	01/04/94
Phenol	108-95-2	ND	330	ug/kg	01/04/94
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	01/04/94
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	01/04/94

ND = Not detected
* = Indicates value above reporting limit

PAGES 14 - 18

WATER DATA

INCLUDED IN APPENDIX B

QUALITY CONTROL DATA

INSTRUMENT: 13 AEN JOB NO: 9312104

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
12/14/93	SWB-8/0.5-1'	01	105	100	102
12/14/93	SWB-8/5-5.5'	02	116	98	110

CURRENT QC LIMITS (Revised 11/21/93)

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(68-141)
Toluene-d8	(89-119)
p-Bromofluorobenzene	(85-112)

QUALITY CONTROL DATA

DATE ANALYZED: 12/15/93
SAMPLE SPIKED: 9312093-11
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312104

INSTRUMENT: 13

SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	85	2
Trichloroethene	50.0	94	3
Benzene	50.0	96	2
Toluene	50.0	97	1
Chlorobenzene	50.0	95	2

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(66-143)	15
Trichloroethene	(60-127)	12
Benzene	(88-117)	10
Toluene	(70-126)	14
Chlorobenzene	(89-111)	13

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

INSTRUMENT: 12 AEN JOB NO: 9312104

CLIENT PROJ. ID: KE1495-1A-2112

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
12/16/93	SWB-8	05	96	103	107

CURRENT QC LIMITS (Revised 11/21/93)

ANALYTE	PERCENT RECOVERY
1.2-Dichloroethane-d4	(77-123)
Toluene-d8	(90-108)
p-Bromofluorobenzene	(89-109)

QUALITY CONTROL DATA

DATE ANALYZED: 12/16/93
SAMPLE SPIKED: 9312090-01
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312104

INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	102	9
Trichloroethene	50.0	102	2
Benzene	50.0	102	1
Toluene	50.0	103	1
Chlorobenzene	50.0	98	<1

CURRENT QC LIMITS (Revised 11/21/93)

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(81-123)	12
Trichloroethene	(87-112)	9
Benzene	(92-116)	12
Toluene	(91-116)	12
Chlorobenzene	(92-113)	10

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/14,22/93 AEN JOB NO: 9312104

CLIENT PROJ. ID: KE1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Sample Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
'19/93	SWB-8/0.5-1'	01	59	87	53	64	64	63
19/93	SWB-8/5-5.5'	02	75	104	62	93	80	80
12/30/93	SWB-8/10-10.5'	03	48	57	39	49	54	68
01/04/94	SWB-8/15-15.5'	04	43	54	48	39	34	65

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(23-120)
2-Fluorobiphenyl	(30-115)
Terphenyl-d_{14}	(18-137)
Phenol-d_5	(24-113)
2-Fluorophenol	(25-121)
2,4,6-Tribromophenol	(19-122)

QUALITY CONTROL DATA

DATE EXTRACTED: 12/14/93
DATE ANALYZED: 12/20/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312104
SAMPLE SPIKED: 9312105-01A
INSTRUMENT: 11

SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
Phenol	3330	80	5
2-Chlorophenol	3330	79	2
1,4-Dichlorobenzene	3400	70	4
N-Nitroso-di-n-propylamine	3320	90	2
1,2,4-Trichlorobenzene	3330	71	3
4-Chloro-3-methylphenol	3270	102	5
Acenaphthene	3330	77	5
4-NitrophenoL	3300	71	9
2,4-Dinitrotoluene	3330	68	5
Pentachlorophenol	3380	63	6
Pyrene	3320	55	12

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(26- 90)	35
2-Chlorophenol	(25-102)	50
1,4-Dichlorobenzene	(28-104)	27
4-Nitroso-di-n-propylamine	(41-126)	38
1,2,4-Trichlorobenzene	(38-107)	23
4-Chloro-3-methylphenol	(26-103)	33
Acenaphthene	(31-137)	19
4-Nitrophenol	(11-114)	50
2,4-Dinitrotoluene	(28- 89)	47
Pentachlorophenol	(17-109)	47
Pyrene	(35-142)	36

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/15/93
DATE ANALYZED: 12/24/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312104
SAMPLE SPIKED: 9312129-11
INSTRUMENT: 11

SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

ANALYTE	Spike Conc. (ug/kg)	Average Percent Recovery	RPD
Phenol	3330	66	1
2-Chlorophenol	3330	66	7
1,4-Dichlorobenzene	3400	57	8
N-Nitroso-di-n-propylamine	3320	68	5
1,2,4-Trichlorobenzene	3330	58	5
4-Chloro-3-methylphenol	3270	84	25
Acenaphthene	3330	72	12
4-NitrophenoL	3300	68	21
2,4-Dinitrotoluene	3330	68	14
Pentachlorophenol	3380	56	4
Pyrene	3320	43	3

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(26- 90)	35
2-Chlorophenol	(25-102)	50
1,4-Dichlorobenzene	(28-104)	27
4-Nitroso-di-n-propylamine	(41-126)	38
1,2,4-Trichlorobenzene	(38-107)	23
4-Chloro-3-methylphenol	(26-103)	33
Acenaphthene	(31-137)	19
4-Nitrophenol	(11-114)	50
2,4-Dinitrotoluene	(28- 89)	47
Pentachlorophenol	(17-109)	47
Pyrene	(35-142)	36

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

DATE EXTRACTED: 12/13/93 AEN JOB NO: 9312104

CLIENT PROJ. ID: KE1495-1A-2112 INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Client Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
12/20/93	SWB-8	05	67	60	41	73	59	62

CURRENT QC LIMITS (REVISED 01/08/92)

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(47-104)
2-Fluorobiphenyl	(49-106)
Terphenyl-d_{14}	(38-128)
Phenol-d_5	(46-105)
2-Fluorophenol	(40- 97)
2,4,6-Tribromophenol	(37-145)

QUALITY CONTROL DATA

DATE EXTRACTED: 12/13/93
DATE ANALYZED: 12/21/93
CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312104
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: 11

METHOD SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Average Percent Recovery	RPD
Phenol	200	68	8
2-Chlorophenol	200	79	1
1,4-Dichlorobenzene	204	59	7
N-Nitroso-di-n-propylamine	199	74	9
1,2,4-Trichlorobenzene	200	59	10
4-Chloro-3-methylphenol	196	93	3
Acenaphthene	200	71	9
4-Nitrophenol	198	72	8
2,4-Dinitrotoluene	200	72	4
Pentachlorophenol	203	67	8
Pyrene	199	41	12

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(12-110)	42
2-Chlorophenol	(27-123)	40
1,4-Dichlorobenzene	(36- 97)	28
4-Nitroso-di-n-propylamine	(41-116)	38
1,2,4-Trichlorobenzene	(39- 98)	28
4-Chloro-3-methylphenol	(23- 97)	42
Acenaphthene	(46-118)	31
4-Nitrophenol	(10- 80)	50
2,4-Dinitrotoluene	(24- 96)	38
Pentachlorophenol	(9-103)	50
Pyrene	(26-127)	31

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: SOIL

CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9312104
SAMPLE SPIKED: SAND
DIGESTION DATE: 12/14/93

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/kg)	% REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	10	54	2	50-150	20
As, Arsenic	4000/7060	20	84	<1	75-125	20
Cd, Cadmium	ICP/6010	10	84	2	75-125	20
Cr, Chromium	ICP/6010	50	92	2	75-125	20
Cu, Copper	ICP/6010	50	91	3	75-125	20
Ni, Nickel	ICP/6010	50	90	2	75-125	20
Pb, Lead	ICP/6010	50	90	3	75-125	20
Se, Selenium	4000/7740	40	91	9	73-126	14
Zn, Zinc	ICP/6010	50	87	2	75-125	20

RPD = Relative Percent Difference
< = Less Than

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9312104

CLIENT PROJ. ID: KE1495-1A-2112

DIGESTION DATE: 12/13/93

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/L)	% REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	0.10	101	2	66-127	11
As, Arsenic	4000/7060	0.04	105	4	90-115	12
Cd, Cadmium	ICP/6010	0.05	99	5	71-134	12
Cr, Chromium	ICP/6010	0.20	104	2	85-114	6
Cu, Copper	ICP/6010	0.25	95	2	86-112	5
Ni, Nickel	ICP/6010	0.5	99	2	87-114	5
Pb, Lead	4000/6010	0.5	99	2	87-115	6
Se, Selenium	4000/7740	0.08	102	1	76-131	14
Zn, Zinc	ICP/6010	0.5	101	2	86-115	5

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

MATRIX: WATER

AEN JOB NO: 9312104

CLIENT PROJ. ID: KE1495-1A-2112

DIGESTION DATE: 01/05-10/94

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	TRUE VALUE (mg/L)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	0.25	83	4	66-127	11
As, Arsenic	4000/7060	0.04	95	9	90-115	12
Cd, Cadmium	ICP/6010	0.25	103	5	71-134	12
Cr, Chromium	ICP/6010	0.2	103	3	85-114	6
Cu, Copper	ICP/6010	0.25	103	3	86-112	5
Ni, Nickel	ICP/6010	0.5	102	3	87-114	5
Pb, Lead	ICP/6010	0.5	101	6	87-115	6
Se, Selenium	4000/7740	0.08	95	1	76-131	14
Zn, Zinc	ICP/6010	0.5	108	2	86-115	5

RPD = Relative Percent Difference

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

*** END OF REPORT ***

R-3, S-2 (voas)
R-5, S-M (ambers)
R-4, S-A (soils)

Lab Job 312104

CHAIN-OF-CUSTODY RECORD

Project Number: KE1495-1A-2112

Project Name: Fuller O'Brien

Location: So S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Unfiltered Metals To be filtered				Remarks
SWB-8/05-1'	01A	12/8/93	X	X	2x6" Brass			X	X				X				12/22 per Steve Henshaw pls.
SWB-8/5-5.5'	02A							X	X				X				add 8270 analysis to samples:
SWB-8/10-10.5'	03A								✓								~~Hold~~ SWB-8/10-10.5' &
SWB-8/15-15.5'	04A								✓								~~Hold~~ SWB-8/15-15.5'
SWB-8	05AB			X	2x40mL VOAs			X									
SWB-8	05CD				2x1L Ambers				X								01/04 - per Tacia, pls take sample
SWB-8	05E				1x500mL Plastic								X				SWB-8 off hold status and analyze
SWB-8	05F			X									X				Hold for metals listed below.
																	std. TAT is requested.
																	~~1/5/94 SWB-8/5-5.5 was put on 10.0~~
																	~~client out to~~
																	~~Jenkins, Sanders & Assoc. per client~~
																	Metals for Ag, As, Cr, Cd,
																	Pb, Ni, Se, Ag, Zn, Cu

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12/8/93 16:40	[signature]
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	12/8/93 19:00	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	12/8/93 1900	Denise Harrington

Ship To: _____

Attention: _____

Phone No: _____

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

01/04 - Per Tacia pls. take the following samples off hold status and analyze for requested metals (filter sample in lab). Standard TAT is requested. JFr

Page 1 of 1

Lab Job # _____

CHAIN-OF-CUSTODY RECORD

Project Number	Project Name
KE1495-1A-2412	Miller O'Brien
	Location: So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Unfiltered					Remarks
SivB-6		1/4/94		X	1x500ml plastic								X					9312093 - 1A 1F
SivB-7		↓		↓	Unpreserved								X					9312109 - 2F
SivB-8		↓		↓	↓								X					9312104 - 5F
SivB-9		↓		↓	↓								X					9312093 - 2F

Filter & Metals in Lab!

Metals for As, Ag, Cd, Cr, Cu, Ni, Pb, Sb, Zn

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	1/4/94	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Ship To: _____

Attention: _____

Phone No: _____

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

SENT BY: 1- 4-94 ; 1:29PM ; HARZA KALDVEER- 15109300256;# 3/ 3

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 13134

HARZA
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: KE1495-1A-2112
PROJ. NAME: FULLER O'BRIEN

REPORT DATE: 03/29/94

DATE SAMPLED: 12/08-09/93
DATE RECEIVED: 12/08-09/93

ADDITIONAL ANALYSIS
REQUESTED: 03/16/94

AEN JOB NO: 9403180

PROJECT SUMMARY:

On March 16, 1994, client requested two (2) samples be taken off hold and additional analysis on three (3) samples received by this laboratory on December 8 and 9, 1993.

Client requested samples be analyzed for inorganic parameters. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

Please see quality control report for a summary of QC data pertaining to this project.

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

Andrew Bracken for
Larry Klein
General Manager

3440 Vincent Road • Pleasant Hill, CA 94523 • (510) 930-9090 • FAX (510) 930-0256

HARZA

SAMPLE ID: SWB-8/10-10.5'
AEN LAB NO: 9403180-01
AEN WORK ORDER: 9403180
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 03/29/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/Graph. Furnace	EPA 3050	-		Prep Date	03/21/94
Arsenic	EPA 7060	3 *	1	mg/kg	03/22/94
Selenium	EPA 7740	ND	2	mg/kg	03/22/94
#Digestion	EPA 3050	-		Prep Date	03/21/94
Cadmium	EPA 6010	ND	0.1	mg/kg	03/23/94
Chromium	EPA 6010	63 *	1	mg/kg	03/23/94
Copper	EPA 6010	45 *	0.5	mg/kg	03/23/94
Lead	EPA 6010	32 *	1	mg/kg	03/23/94
Nickel	EPA 6010	130 *	1	mg/kg	03/23/94
Silver	EPA 6010	0.2 *	0.1	mg/kg	03/23/94
Zinc	EPA 6010	100 *	1	mg/kg	03/23/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

HARZA

SAMPLE ID: SWB-8/15-15.5'
AEN LAB NO: 9403180-02
AEN WORK ORDER: 9403180
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/08/93
DATE RECEIVED: 12/08/93
REPORT DATE: 03/29/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/Graph. Furnace	EPA 3050	-		Prep Date	03/21/94
Arsenic	EPA 7060	7 *	1	mg/kg	03/22/94
Selenium	EPA 7740	ND	2	mg/kg	03/22/94
#Digestion	EPA 3050	-		Prep Date	03/21/94
Cadmium	EPA 6010	0.2 *	0.1	mg/kg	03/23/94
Chromium	EPA 6010	32 *	1	mg/kg	03/23/94
Copper	EPA 6010	99 *	0.5	mg/kg	03/23/94
Lead	EPA 6010	160 *	1	mg/kg	03/23/94
Nickel	EPA 6010	150 *	1	mg/kg	03/23/94
Silver	EPA 6010	0.3 *	0.1	mg/kg	03/23/94
Zinc	EPA 6010	190 *	1	mg/kg	03/23/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

HARZA

SAMPLE ID: SWB-5/10-10.5'
AEN LAB NO: 9403180-03
AEN WORK ORDER: 9403180
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 03/29/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/Graph. Furnace	EPA 3050	-		Prep Date	03/21/94
Arsenic	EPA 7060	3 *	1	mg/kg	03/22/94
Selenium	EPA 7740	ND	2	mg/kg	03/22/94
#Digestion	EPA 3050	-		Prep Date	03/21/94
Cadmium	EPA 6010	0.3 *	0.1	mg/kg	03/23/94
Chromium	EPA 6010	50 *	1	mg/kg	03/23/94
Copper	EPA 6010	110 *	0.5	mg/kg	03/23/94
Lead	EPA 6010	7 *	1	mg/kg	03/23/94
Nickel	EPA 6010	50 *	1	mg/kg	03/23/94
Silver	EPA 6010	0.2 *	0.1	mg/kg	03/23/94
Zinc	EPA 6010	170 *	1	mg/kg	03/23/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

HARZA

SAMPLE ID: SWB-11/10-10.5'
AEN LAB NO: 9403180-04
AEN WORK ORDER: 9403180
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 03/29/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/Graph. Furnace	EPA 3050	-		Prep Date	03/21/94
Arsenic	EPA 7060	3 *	1	mg/kg	03/22/94
Selenium	EPA 7740	ND	2	mg/kg	03/22/94
#Digestion	EPA 3050	-		Prep Date	03/21/94
Cadmium	EPA 6010	0.7 *	0.1	mg/kg	03/23/94
Chromium	EPA 6010	63 *	1	mg/kg	03/23/94
Copper	EPA 6010	64 *	0.5	mg/kg	03/23/94
Lead	EPA 6010	470 *	1	mg/kg	03/23/94
Nickel	EPA 6010	49 *	1	mg/kg	03/23/94
Silver	EPA 6010	0.1 *	0.1	mg/kg	03/23/94
Zinc	EPA 6010	530 *	1	mg/kg	03/23/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

HARZA

SAMPLE ID: SWB-11/15-15.5'
AEN LAB NO: 9403180-05
AEN WORK ORDER: 9403180
CLIENT PROJ. ID: KE1495-1A-2112

DATE SAMPLED: 12/09/93
DATE RECEIVED: 12/09/93
REPORT DATE: 03/29/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/Graph. Furnace	EPA 3050	-		Prep Date	03/21/94
Arsenic	EPA 7060	2 *	1	mg/kg	03/22/94
Selenium	EPA 7740	ND	2	mg/kg	03/22/94
#Digestion	EPA 3050	-		Prep Date	03/21/94
Cadmium	EPA 6010	0.2 *	0.1	mg/kg	03/23/94
Chromium	EPA 6010	61 *	1	mg/kg	03/23/94
Copper	EPA 6010	8.8 *	0.5	mg/kg	03/23/94
Lead	EPA 6010	9 *	1	mg/kg	03/23/94
Nickel	EPA 6010	37 *	1	mg/kg	03/23/94
Silver	EPA 6010	ND	0.1	mg/kg	03/23/94
Zinc	EPA 6010	25 *	1	mg/kg	03/23/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9403180

CLIENT PROJECT ID: KE1495-1A-2112

Quality Control Summary

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

Definitions

The following abbreviations are found throughout the QC report:

ND = Not Detected at or above the reporting limit
RPD = Relative Percent Difference
< = Less Than

QUALITY CONTROL DATA

MATRIX: SOIL

CLIENT PROJ. ID: KE1495-1A-2112

AEN JOB NO: 9403180
SAMPLE SPIKED: SAND
DIGESTION DATE: 03/21/94

METHOD SPIKE RECOVERY SUMMARY

Compound	Inst./ Method	Spike Added (mg/kg)	Average Percent Recovery	RPD	QC Limits % Rec. Limit	QC Limits RPD Limit
Ag, Silver	ICP/6010	10	58	4	50-150	20
As, Arsenic	4000/7060	20	95	7	79-122	10
Cd, Cadmium	ICP/6010	10	91	1	75-125	20
Cr, Chromium	ICP/6010	50	98	3	75-125	20
Cu, Copper	ICP/6010	50	99	3	75-125	20
Ni, Nickel	ICP/6010	50	96	2	75-125	20
Pb, Lead	ICP/6010	50	95	3	75-125	20
Se, Selenium	4000/7740	40	94	6	73-126	14
Zn, Zinc	ICP/6010	50	92	4	75-125	20

Daily method blanks for all associated runs showed no contamination over the reporting limit.

*** END OF REPORT ***

R-1, S-2 (plast)
R-3, S-2 (vaas)
R-5, S-M (ambers)
R-4, S-A (soils) R-7, S-K

Page 1 of 1
9403180
Lab Job

CHAIN-OF-CUSTODY RECORD

Project Number	Project Name / Location
CE1495-1A-2112	Fuller O'Brien / So S.F., CA

Sampler's Name (printed): Tricia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Unfiltered	Metals - To be filtered	Ag, As, Cd, Cr, Cu, Ni, Pb, Se, Zn per client 3/16/94 - Standard TAT		Remarks
SWB-8/05-1'	01A	12/8/93	X	X	2x6" Brass			X	X				X				12/22 [illegible]
SWB-8/5-55'	02A							X	X				X				[illegible]
SWB-8/10-10.5'	~~03A~~ 01A								✓						*		Hold SWB-[illegible]
SWB-8/15-15.5'	~~04A~~ 02A								✓						*		Hold SWB-[illegible]
SWB-8	05AB			X	2x40mL VOAs			X									
SWB-8	05CD				2x1L Amber				X								01/24 [illegible]
SWB-8	05E				1x500mL Plastic								X				SWB-8 [illegible]
SWB-8	05F			X										X			Hold [illegible]
																	[illegible]
																	1-5-94 - [illegible]
																	9312173 [illegible]
																	[illegible]
																	Metals for Ag, As, Cr, Cd, Pb, Ni, Se, Ag, Zn, Cu

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tricia C. Miller	12/8/93 16:40	[signature]
[signature]	12/8/93 19:00	
	12/8/93 1900	Denise Harrington

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

K-4, S-B (soils)
C-1, S-2
K-1, S-
R-3, S-

9403180

Lab Jol ~~9312129~~

CHAIN-OF-CUSTODY RECORD

Project Number	Project Name
KE1495-1A-2112	Fuller O'Brien
	Location: So. S.F.

Sampler's Name (printed): TACIA MILLER

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals -	Ag, As, Cd, Cr, Cu, Ni, Pb, Se, Zn per cure 3/16/94 - Standard TAT				Remarks
SWB-3/05-1	01A (2)	12/9/93	X		1"x6" Stainless-2			X	X				X					12/10 - Per Steve Heasban add
SWB-3/5-5.5	02A (2)							X	X				X					Cu to all metals analysis.
SWB-3/10-10.5	03A (2)																	Hold
SWB-4/05-1	04A (2)							X	X				X					
SWB-4/5.5-5.5	05A (2)							X	X				X					
SWB-4/10-10.5	06A (2)																	Hold
SWB-5/05-1	~~07A~~ 11A				2x6" Liner			X	X				X					
SWB-5/5-5.5	~~08A~~ 12A							X	X				X					
SWB-5/10-10.5	~~09A~~ ~~13A~~ 03A							✓							X			Hold 12/[illegible]
SWB-7/1-1.5	~~10A~~ 07A							X	X				X					[illegible]
SWB-7/5-5.5	~~11A~~ 08A							X	X				X					[illegible]
SWB-7/10-10.5	~~12A~~ 09A																	Hold
SWB-7/15-15.5	~~13A~~ 10A																	Hold
SWB-11/05-1	14A							X	X				X					
SWB-11/5-5.5	15A							X	X				X					

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12/9/93 1530	Ron Stallup
Ron Stallup	12/9/93 1645	
		Received for Laboratory by: (Signature) Denise Harrington

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks: Metals for As, Cd, Cr, Pb, Ni, Se, Ag, Zn, Cu

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

R-4, S-B
R-1, S-2
R-1, S
R-3, S-3

Lab Jo 9403180 DS

CHAIN-OF-CUSTODY RECORD

Project Number	Project Name / Location
KE1495-1A-2112	Fuller O'Brien / So. S.F., CA

Sampler's Name (printed): TACIA MILLER

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals - Unfiltered	Metals - Filtered (Tube)	Ag, As, Cd, Cr, Cu, Ni, Pb, Se, Zn per client 3/16/94 - Standard TAT	Remarks
SWB11/10-10.5	~~16A~~ 04A	12/9/93	X		2 x 6" Brass										X	Hold
SWB-11/15-15.5	~~17A~~ 05A		X		↓										X	Hold
SWB-3	18AB			X	2 x 40mL VOAs			X								
SWB-3	CD				2 x 1L Amber			X	X							
SWB-3	E				1 x 500mL Plastic				X				X			
SWB-3	F				↓								X	X		Hold Filtered
SWB-4	19AB				2 x 40mL VOAs			X						X		
SWB-4	CD				1 x 1L Amber				X							
SWB-4	E				1 x 500mL Plastic								X			
SWB 4	F				↓									X		Hold Filtered
SWB-5	20AB				2 x 40mL VOAs			X								
SWB-5	CD				2 x 1L Amber				X							
SWB-5	E				1 x 500mL Plastic								X			
SWB-5	F				↓									X		Hold Filtered
SWB 7	21AB				2 x 40mL VOAs			X								

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	12/9/93 530	Ron Stallup
Ron Stallup	12/9/93 645	
		Received for Laboratory by: (Signature) Denise Harrington

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks: Metals for As, Cd, Cr, Pb, Ni, Se, Ag, Zn, Cu

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

American Environmental Network

Certificate of Analysis

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: KE1495-1-2112
PROJ. NAME: FULLER O'BRIEN

REPORT DATE: 01/24/94

DATE SAMPLED: 01/04/94

DATE RECEIVED: 01/04/94

AEN JOB NO: 9401011

PROJECT SUMMARY:

On January 4, 1994, this laboratory received one (1) soil sample.

Client requested the sample be analyzed for inorganic parameters. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Larry Klein
General Manager

3440 Vincent Road • Pleasant Hill, CA 94523 • (510) 930-9090 • FAX (510) 930-0256

HARZA KALDVEER

SAMPLE ID: E-2/3'
AEN LAB NO: 9401011-01
AEN WORK ORDER: 9401011
CLIENT PROJ. ID: KE1495-1-2112

DATE SAMPLED: 01/04/94
DATE RECEIVED: 01/04/94
REPORT DATE: 01/24/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion		-		Prep Date	01/06/94
Arsenic	EPA 7060	8 *	1	mg/kg	01/11/94
Selenium	EPA 7740	ND	2	mg/Kg	01/11/94
Cadmium	EPA 6010	0.5 *	0.1	mg/kg	01/11/94
Chromium	EPA 6010	75 *	1	mg/kg	01/11/94
Copper	EPA 6010	83 *	1	mg/kg	01/11/94
Lead	EPA 6010	810 *	1	mg/kg	01/11/94
Nickel	EPA 6010	150 *	1	mg/kg	01/11/94
Silver	EPA 6010	0.4 *	0.1	mg/Kg	01/11/94
Zinc	EPA 6010	180 *	1	mg/kg	01/11/94

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

MATRIX: SOIL

CLIENT PROJ. ID: KE1495-1-2112

AEN JOB NO: 9401011
SAMPLE SPIKED: SAND
DIGESTION DATE: 01/06/94

METHOD SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	SPIKE ADDED (mg/kg)	AVERAGE % REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	QC CONTROL LIMITS RPD LIMIT
Ag, Silver	ICP/6010	10	57	2	50-150	20
As, Arsenic	4000/7060	10	93	1	79-122	10
Cd, Cadmium	ICP/6010	10	89	6	75-125	20
Cr, Chromium	ICP/6010	50	100	2	75-125	20
Cu, Copper	ICP/6010	50	100	2	75-125	20
Ni, Nickel	ICP/6010	50	101	2	75-125	20
Pb, Lead	ICP/6010	50	100	1	75-125	20
Se, Selenium	4000/7740	40	99	1	73-126	14
Zn, Zinc	ICP/6010	50	97	2	75-125	20

RPD = Relative Percent Difference

Daily method blanks for all associated runs showed no contamination over the reporting limit.

*** END OF REPORT ***

Lab Job 101011

R-4,5-A

CHAIN-OF-CUSTODY RECORD

Project Number	Project Name
KE1995-1-2112	Fuller O'Brien
	Location: So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 – TPH as Gasoline	Method 8015 – TPH as Diesel	Method 8240 – Volatile Organics	Method 8270 – Semi-Volatile Organics	Method 8010 – Halogenated Volatile Organics	Method 8080 – Organochlorine Pesticides & PCB's	Waste Oil –	Metals –					Remarks
KPS 01/06 ~~X-3/3'~~ E-2/3'	01A	1/4/93	X		1"x6" Liner								X					Metals for As, Ag, Cd, Cr, Cu, Ni, Pb, Zn, Se
																		01/06 - Per Tacia pls change sample id from X-3/3' to E-2/3'. KPS

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia D. Miller	1/4/94 1230	Ron Stettler
Ron Stettler	1/4/94 100	Lori L Pruitt

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

American Environmental Network

Certificate of Analysis

HARZA KALDVEER
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER

CLIENT PROJ. ID: 615J
PROJ. NAME: FULLER O'BRIEN

REPORT DATE: 01/26/94

DATE SAMPLED: 01/14/94

DATE RECEIVED: 01/14/94

AEN JOB NO: 9401119

PROJECT SUMMARY:

On January 14, 1994, this laboratory received two (2) soil samples.

Client requested samples be analyzed for inorganic parameters. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

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

Larry Klein
General Manager

3440 Vincent Road • Pleasant Hill, CA 94523 • (510) 930-9090 • FAX (510) 930-0256

HARZA KALDVEER

SAMPLE ID: MF-1
AEN LAB NO: 9401119-01
AEN WORK ORDER: 9401119
CLIENT PROJ. ID: 615J

DATE SAMPLED: 01/14/94
DATE RECEIVED: 01/14/94
REPORT DATE: 01/26/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion	EPA 3050	-		Prep Date	01/18/94
Arsenic	EPA 7060	1 *	1	mg/kg	01/21/94
Selenium	EPA 7740	ND	2	mg/kg	01/21/94
Cadmium	EPA 6010	0.1 *	0.1	mg/kg	01/20/94
Chromium	EPA 6010	15 *	1	mg/kg	01/20/94
Copper	EPA 6010	18 *	0.5	mg/kg	01/20/94
Lead	EPA 6010	42 *	1	mg/kg	01/20/94
Nickel	EPA 6010	14 *	1	mg/kg	01/20/94
Silver	EPA 6010	0.1 *	0.1	mg/kg	01/20/94
Zinc	EPA 6010	43 *	1	mg/kg	01/20/94

ND = Not detected
* = Indicates value above reporting limit

HARZA KALDVEER

SAMPLE ID: MF-2
AEN LAB NO: 9401119-02
AEN WORK ORDER: 9401119
CLIENT PROJ. ID: 615J

DATE SAMPLED: 01/14/94
DATE RECEIVED: 01/14/94
REPORT DATE: 01/26/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion	EPA 3050	-		Prep Date	01/18/94
Arsenic	EPA 7060	ND	1	mg/kg	01/21/94
Selenium	EPA 7740	ND	2	mg/kg	01/21/94
Cadmium	EPA 6010	ND	0.1	mg/kg	01/20/94
Chromium	EPA 6010	20 *	1	mg/kg	01/20/94
Copper	EPA 6010	10 *	0.5	mg/kg	01/20/94
Lead	EPA 6010	22 *	1	mg/kg	01/20/94
Nickel	EPA 6010	16 *	1	mg/kg	01/20/94
Silver	EPA 6010	0.1 *	0.1	mg/kg	01/20/94
Zinc	EPA 6010	22 *	1	mg/kg	01/20/94

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

MATRIX: SOIL

CLIENT PROJ. ID: 615J

AEN JOB NO: 9401119
SAMPLE SPIKED: SAND
DIGESTION DATE: 01/18/94

METHOD SPIKE RECOVERY SUMMARY

Compound	Inst./ Method	Spike Added (mg/kg)	Average Percent Recovery	RPD	QC Control Limits % Rec. Limit	QC Control Limits RPD Limit
Ag, Silver	ICP/6010	10	54	2	50-150	20
As, Arsenic	4000/7060	20	95	9	79-122	10
Cd, Cadmium	ICP/6010	10	89	2	75-125	20
Cr, Chromium	ICP/6010	50	96	2	75-125	20
Cu, Copper	ICP/6010	50	97	2	75-125	20
Ni, Nickel	ICP/6010	50	96	2	75-125	20
Pb, Lead	ICP/6010	50	101	1	75-125	20
Se, Selenium	4000/7740	40	99	5	73-126	14
Zn, Zinc	ICP/6010	50	95	2	75-125	20

RPD = Relative Percent Difference

Daily method blanks for all associated runs showed no contamination over the reporting limit.

*** END OF REPORT ***

R-7, S-M

9401119

Lab Job

CHAIN-OF-CUSTODY RECORD

Project Number: 615J

Project Name: Fuller O'Brien Site

Location: So. S.F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals -					Remarks
MF-1	01A	1/14/94	X		1"x6" Stainless								X					
MF-2	02A	↓	X		Liner								X					
																		Metals for Ag, As, Cd, Cr, Cu, Ni, Pb, Se, Zn

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	1/14/94 11:[illegible]	[illegible]
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[illegible]	1/14/94 12:40	Lori L. Smith
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Ship To:

Attention:

Phone No:

Requested Turnaround Time: Normal

Kaldveer Assoc. Contact: T. Miller

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants

American Environmental Network

Certificate of Analysis

HARZA
425 ROLAND WAY
OAKLAND, CA 94621

ATTN: TACIA MILLER
CLIENT PROJ. ID: K615I
CLIENT PROJ. NAME: FULLER O'BRIEN

REPORT DATE: 04/19/94

DATE(S) SAMPLED: 04/05/94

DATE RECEIVED: 04/06/94

AEN WORK ORDER: 9404063

PROJECT SUMMARY:

On April 6, 1994, this laboratory received 6 soil sample(s).

Client requested samples be analyzed for inorganic and organic parameters. Sample identification, methodologies, results and dates analyzed are summarized on the following pages.

Please see quality control report for a summary of QC data pertaining to this project.

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

Larry Klein
General Manager

HARZA

SAMPLE ID: MF-1A
AEN LAB NO: 9404063-01
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/Graph. Furnace	EPA 3050	-		Prep Date	04/13/94
Arsenic	EPA 7060	4 *	1	mg/kg	04/14/94
Selenium	EPA 7740	ND	2	mg/kg	04/14/94
#Digestion	EPA 3050	-		Prep Date	04/13/94
Cadmium	EPA 6010	0.2 *	0.1	mg/kg	04/14/94
Chromium	EPA 6010	31 *	1	mg/kg	04/14/94
Copper	EPA 6010	67 *	0.5	mg/kg	04/14/94
Lead	EPA 6010	79 *	1	mg/kg	04/14/94
Nickel	EPA 6010	26 *	1	mg/kg	04/14/94
Silver	EPA 6010	0.3 *	0.1	mg/kg	04/14/94
Zinc	EPA 6010	100 *	1	mg/kg	04/14/94
VOCs in Soil by 8240	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	04/14/94
Benzene	71-43-2	ND	5	ug/kg	04/14/94
Bromodichloromethane	75-27-4	ND	5	ug/kg	04/14/94
Bromoform	75-25-2	ND	5	ug/kg	04/14/94
Bromomethane	74-83-9	ND	10	ug/kg	04/14/94
2-Butanone	78-93-3	ND	100	ug/kg	04/14/94
Carbon Disulfide	75-15-0	ND	10	ug/kg	04/14/94
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	04/14/94
Chlorobenzene	108-90-7	ND	5	ug/kg	04/14/94
Chloroethane	75-00-3	ND	10	ug/kg	04/14/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	04/14/94
Chloroform	67-66-3	ND	5	ug/kg	04/14/94
Chloromethane	74-87-3	ND	10	ug/kg	04/14/94
Dibromochloromethane	124-48-1	ND	5	ug/kg	04/14/94
1,1-Dichloroethane	75-43-3	ND	5	ug/kg	04/14/94
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	04/14/94
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	04/14/94
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	04/14/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	04/14/94

HARZA

SAMPLE ID: MF-1A
AEN LAB NO: 9404063-01
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	04/14/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	04/14/94
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	04/14/94
Ethylbenzene	100-41-4	ND	5	ug/kg	04/14/94
2-Hexanone	591-78-6	ND	50	ug/kg	04/14/94
Methylene Chloride	75-09-2	ND	5	ug/kg	04/14/94
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	04/14/94
Styrene	100-42-5	ND	5	ug/kg	04/14/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	04/14/94
Tetrachloroethene	127-18-4	ND	5	ug/kg	04/14/94
Toluene	108-88-3	ND	5	ug/kg	04/14/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	04/14/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	04/14/94
Trichloroethene	79-01-6	ND	5	ug/kg	04/14/94
Vinyl Acetate	108-05-4	ND	50	ug/kg	04/14/94
Vinyl Chloride	75-01-4	ND	10	ug/kg	04/14/94
Xylenes Total	1330-20-7	ND	10	ug/kg	04/14/94
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	04/07/94
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	04/12/94
Acenaphthylene	208-96-8	ND	330	ug/kg	04/12/94
Anthracene	120-12-7	ND	330	ug/kg	04/12/94
Benzidine	92-87-5	ND	1600	ug/kg	04/12/94
Benzoic Acid	65-85-0	ND	1600	ug/kg	04/12/94
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	04/12/94
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	04/12/94
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	04/12/94
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	04/12/94
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	04/12/94
Benzyl Alcohol	100-51-6	ND	660	ug/kg	04/12/94
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	04/12/94
Bis(2-chloroethyl) Ether	111-44-4	ND	330	ug/kg	04/12/94
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	04/12/94
Bis(2-ethylhexyl) Phthalate	117-81-7	690 *	330	ug/kg	04/12/94
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	04/12/94
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	04/12/94
4-Chloroaniline	106-47-8	ND	660	ug/kg	04/12/94
2-Chloronapththalene	91-58-7	ND	330	ug/kg	04/12/94
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	04/12/94
Chrysene	218-01-9	ND	330	ug/kg	04/12/94
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	04/12/94

HARZA

SAMPLE ID: MF-1A
AEN LAB NO: 9404063-01
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Dibenzofuran	132-64-9	ND	330	ug/kg	04/12/94
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	04/12/94
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	04/12/94
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	04/12/94
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	04/12/94
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	04/12/94
Diethyl Phthalate	84-66-2	ND	330	ug/kg	04/12/94
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	04/12/94
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	04/12/94
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	04/12/94
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	04/12/94
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	04/12/94
Fluoranthene	206-44-0	430 *	330	ug/kg	04/12/94
Fluorene	86-73-7	ND	330	ug/kg	04/12/94
Hexachlorobenzene	118-74-1	ND	330	ug/kg	04/12/94
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	04/12/94
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	04/12/94
Hexachloroethane	67-72-1	ND	330	ug/kg	04/12/94
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	04/12/94
Isophorone	78-59-1	ND	330	ug/kg	04/12/94
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	04/12/94
Naphthalene	91-20-3	ND	330	ug/kg	04/12/94
2-Nitroaniline	88-74-4	ND	1600	ug/kg	04/12/94
3-Nitroaniline	99-09-2	ND	1600	ug/kg	04/12/94
4-Nitroaniline	100-01-6	ND	1600	ug/kg	04/12/94
Nitrobenzene	98-95-3	ND	330	ug/kg	04/12/94
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	04/12/94
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	04/12/94
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	04/12/94
Phenanthrene	85-01-8	ND	330	ug/kg	04/12/94
Pyrene	129-00-0	600 *	330	ug/kg	04/12/94
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	04/12/94
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	04/12/94
2-Chlorophenol	95-57-8	ND	330	ug/kg	04/12/94
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	04/12/94
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	04/12/94
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	04/12/94
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	04/12/94
2-Methylphenol	95-48-7	ND	330	ug/kg	04/12/94
4-Methylphenol	106-44-5	ND	330	ug/kg	04/12/94
2-Nitrophenol	88-75-5	ND	330	ug/kg	04/12/94
4-Nitrophenol	100-02-7	ND	1600	ug/kg	04/12/94
Pentachlorophenol	87-86-5	ND	1600	ug/kg	04/12/94

HARZA

SAMPLE ID: MF-1A
AEN LAB NO: 9404063-01
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Phenol	108-95-2	ND	330	ug/kg	04/12/94
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	04/12/94
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	04/12/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

HARZA

SAMPLE ID: MF-1B
AEN LAB NO: 9404063-02
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/Graph. Furnace	EPA 3050	-		Prep Date	04/13/94
Arsenic	EPA 7060	4 *	1	mg/kg	04/14/94
Selenium	EPA 7740	ND	2	mg/kg	04/14/94
#Digestion	EPA 3050	-		Prep Date	04/13/94
Cadmium	EPA 6010	0.1 *	0.1	mg/kg	04/14/94
Chromium	EPA 6010	34 *	1	mg/kg	04/14/94
Copper	EPA 6010	47 *	0.5	mg/kg	04/14/94
Lead	EPA 6010	75 *	1	mg/kg	04/14/94
Nickel	EPA 6010	28 *	1	mg/kg	04/14/94
Silver	EPA 6010	0.2 *	0.1	mg/kg	04/14/94
Zinc	EPA 6010	80 *	1	mg/kg	04/14/94
VOCs in Soil by 8240	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	04/14/94
Benzene	71-43-2	ND	5	ug/kg	04/14/94
Bromodichloromethane	75-27-4	ND	5	ug/kg	04/14/94
Bromoform	75-25-2	ND	5	ug/kg	04/14/94
Bromomethane	74-83-9	ND	10	ug/kg	04/14/94
2-Butanone	78-93-3	ND	100	ug/kg	04/14/94
Carbon Disulfide	75-15-0	ND	10	ug/kg	04/14/94
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	04/14/94
Chlorobenzene	108-90-7	ND	5	ug/kg	04/14/94
Chloroethane	75-00-3	ND	10	ug/kg	04/14/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	04/14/94
Chloroform	67-66-3	ND	5	ug/kg	04/14/94
Chloromethane	74-87-3	ND	10	ug/kg	04/14/94
Dibromochloromethane	124-48-1	ND	5	ug/kg	04/14/94
1,1-Dichloroethane	75-43-3	ND	5	ug/kg	04/14/94
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	04/14/94
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	04/14/94
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	04/14/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	04/14/94

HARZA

SAMPLE ID: MF-1B
AEN LAB NO: 9404063-02
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	04/14/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	04/14/94
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	04/14/94
Ethylbenzene	100-41-4	ND	5	ug/kg	04/14/94
2-Hexanone	591-78-6	ND	50	ug/kg	04/14/94
Methylene Chloride	75-09-2	ND	5	ug/kg	04/14/94
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	04/14/94
Styrene	100-42-5	ND	5	ug/kg	04/14/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	04/14/94
Tetrachloroethene	127-18-4	ND	5	ug/kg	04/14/94
Toluene	108-88-3	ND	5	ug/kg	04/14/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	04/14/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	04/14/94
Trichloroethene	79-01-6	ND	5	ug/kg	04/14/94
Vinyl Acetate	108-05-4	ND	50	ug/kg	04/14/94
Vinyl Chloride	75-01-4	ND	10	ug/kg	04/14/94
Xylenes Total	1330-20-7	ND	10	ug/kg	04/14/94
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	04/07/94
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	04/12/94
Acenaphthylene	208-96-8	ND	330	ug/kg	04/12/94
Anthracene	120-12-7	ND	330	ug/kg	04/12/94
Benzidine	92-87-5	ND	1600	ug/kg	04/12/94
Benzoic Acid	65-85-0	ND	1600	ug/kg	04/12/94
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	04/12/94
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	04/12/94
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	04/12/94
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	04/12/94
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	04/12/94
Benzyl Alcohol	100-51-6	ND	660	ug/kg	04/12/94
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	04/12/94
Bis(2-chloroethyl) Ether	111-44-4	ND	330	ug/kg	04/12/94
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	04/12/94
Bis(2-ethylhexyl) Phthalate	117-81-7	860 *	330	ug/kg	04/12/94
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	04/12/94
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	04/12/94
4-Chloroaniline	106-47-8	ND	660	ug/kg	04/12/94
2-Chloronapththalene	91-58-7	ND	330	ug/kg	04/12/94
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	04/12/94
Chrysene	218-01-9	ND	330	ug/kg	04/12/94
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	04/12/94

HARZA

SAMPLE ID: MF-1B
AEN LAB NO: 9404063-02
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Dibenzofuran	132-64-9	ND	330	ug/kg	04/12/94
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	04/12/94
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	04/12/94
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	04/12/94
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	04/12/94
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	04/12/94
Diethyl Phthalate	84-66-2	ND	330	ug/kg	04/12/94
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	04/12/94
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	04/12/94
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	04/12/94
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	04/12/94
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	04/12/94
Fluoranthene	206-44-0	ND	330	ug/kg	04/12/94
Fluorene	86-73-7	ND	330	ug/kg	04/12/94
Hexachlorobenzene	118-74-1	ND	330	ug/kg	04/12/94
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	04/12/94
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	04/12/94
Hexachloroethane	67-72-1	ND	330	ug/kg	04/12/94
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	04/12/94
Isophorone	78-59-1	ND	330	ug/kg	04/12/94
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	04/12/94
Naphthalene	91-20-3	ND	330	ug/kg	04/12/94
2-Nitroaniline	88-74-4	ND	1600	ug/kg	04/12/94
3-Nitroaniline	99-09-2	ND	1600	ug/kg	04/12/94
4-Nitroaniline	100-01-6	ND	1600	ug/kg	04/12/94
Nitrobenzene	98-95-3	ND	330	ug/kg	04/12/94
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	04/12/94
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	04/12/94
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	04/12/94
Phenanthrene	85-01-8	ND	330	ug/kg	04/12/94
Pyrene	129-00-0	ND	330	ug/kg	04/12/94
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	04/12/94
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	04/12/94
2-Chlorophenol	95-57-8	ND	330	ug/kg	04/12/94
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	04/12/94
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	04/12/94
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	04/12/94
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	04/12/94
2-Methylphenol	95-48-7	ND	330	ug/kg	04/12/94
4-Methylphenol	106-44-5	ND	330	ug/kg	04/12/94
2-Nitrophenol	88-75-5	ND	330	ug/kg	04/12/94
4-Nitrophenol	100-02-7	ND	1600	ug/kg	04/12/94
Pentachlorophenol	87-86-5	ND	1600	ug/kg	04/12/94

HARZA

SAMPLE ID: MF-1B
AEN LAB NO: 9404063-02
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Phenol	108-95-2	ND	330	ug/kg	04/12/94
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	04/12/94
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	04/12/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

HARZA

SAMPLE ID: MF-1C
AEN LAB NO: 9404063-03
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/Graph. Furnace	EPA 3050	-		Prep Date	04/13/94
Arsenic	EPA 7060	4 *	1	mg/kg	04/14/94
Selenium	EPA 7740	ND	2	mg/kg	04/14/94
#Digestion	EPA 3050	-		Prep Date	04/13/94
Cadmium	EPA 6010	0.2 *	0.1	mg/kg	04/14/94
Chromium	EPA 6010	36 *	1	mg/kg	04/14/94
Copper	EPA 6010	71 *	0.5	mg/kg	04/14/94
Lead	EPA 6010	76 *	1	mg/kg	04/14/94
Nickel	EPA 6010	32 *	1	mg/kg	04/14/94
Silver	EPA 6010	0.3 *	0.1	mg/kg	04/14/94
Zinc	EPA 6010	95 *	1	mg/kg	04/14/94
VOCs in Soil by 8240	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	04/14/94
Benzene	71-43-2	ND	5	ug/kg	04/14/94
Bromodichloromethane	75-27-4	ND	5	ug/kg	04/14/94
Bromoform	75-25-2	ND	5	ug/kg	04/14/94
Bromomethane	74-83-9	ND	10	ug/kg	04/14/94
2-Butanone	78-93-3	ND	100	ug/kg	04/14/94
Carbon Disulfide	75-15-0	ND	10	ug/kg	04/14/94
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	04/14/94
Chlorobenzene	108-90-7	ND	5	ug/kg	04/14/94
Chloroethane	75-00-3	ND	10	ug/kg	04/14/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	04/14/94
Chloroform	67-66-3	ND	5	ug/kg	04/14/94
Chloromethane	74-87-3	ND	10	ug/kg	04/14/94
Dibromochloromethane	124-48-1	ND	5	ug/kg	04/14/94
1,1-Dichloroethane	75-43-3	ND	5	ug/kg	04/14/94
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	04/14/94
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	04/14/94
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	04/14/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	04/14/94

HARZA

SAMPLE ID: MF-1C
AEN LAB NO: 9404063-03
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	04/14/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	04/14/94
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	04/14/94
Ethylbenzene	100-41-4	ND	5	ug/kg	04/14/94
2-Hexanone	591-78-6	ND	50	ug/kg	04/14/94
Methylene Chloride	75-09-2	ND	5	ug/kg	04/14/94
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	04/14/94
Styrene	100-42-5	ND	5	ug/kg	04/14/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	04/14/94
Tetrachloroethene	127-18-4	ND	5	ug/kg	04/14/94
Toluene	108-88-3	ND	5	ug/kg	04/14/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	04/14/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	04/14/94
Trichloroethene	79-01-6	ND	5	ug/kg	04/14/94
Vinyl Acetate	108-05-4	ND	50	ug/kg	04/14/94
Vinyl Chloride	75-01-4	ND	10	ug/kg	04/14/94
Xylenes Total	1330-20-7	ND	10	ug/kg	04/14/94
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	04/07/94
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	04/12/94
Acenaphthylene	208-96-8	ND	330	ug/kg	04/12/94
Anthracene	120-12-7	ND	330	ug/kg	04/12/94
Benzidine	92-87-5	ND	1600	ug/kg	04/12/94
Benzoic Acid	65-85-0	ND	1600	ug/kg	04/12/94
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	04/12/94
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	04/12/94
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	04/12/94
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	04/12/94
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	04/12/94
Benzyl Alcohol	100-51-6	ND	660	ug/kg	04/12/94
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	04/12/94
Bis(2-chloroethyl) Ether	111-44-4	ND	330	ug/kg	04/12/94
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	04/12/94
Bis(2-ethylhexyl) Phthalate	117-81-7	590 *	330	ug/kg	04/12/94
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	04/12/94
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	04/12/94
4-Chloroaniline	106-47-8	ND	660	ug/kg	04/12/94
2-Chloronapththalene	91-58-7	ND	330	ug/kg	04/12/94
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	04/12/94
Chrysene	218-01-9	ND	330	ug/kg	04/12/94
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	04/12/94

HARZA

SAMPLE ID: MF-1C
AEN LAB NO: 9404063-03
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Dibenzofuran	132-64-9	ND	330	ug/kg	04/12/94
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	04/12/94
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	04/12/94
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	04/12/94
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	04/12/94
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	04/12/94
Diethyl Phthalate	84-66-2	ND	330	ug/kg	04/12/94
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	04/12/94
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	04/12/94
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	04/12/94
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	04/12/94
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	04/12/94
Fluoranthene	206-44-0	ND	330	ug/kg	04/12/94
Fluorene	86-73-7	ND	330	ug/kg	04/12/94
Hexachlorobenzene	118-74-1	ND	330	ug/kg	04/12/94
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	04/12/94
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	04/12/94
Hexachloroethane	67-72-1	ND	330	ug/kg	04/12/94
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	04/12/94
Isophorone	78-59-1	ND	330	ug/kg	04/12/94
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	04/12/94
Naphthalene	91-20-3	ND	330	ug/kg	04/12/94
2-Nitroaniline	88-74-4	ND	1600	ug/kg	04/12/94
3-Nitroaniline	99-09-2	ND	1600	ug/kg	04/12/94
4-Nitroaniline	100-01-6	ND	1600	ug/kg	04/12/94
Nitrobenzene	98-95-3	ND	330	ug/kg	04/12/94
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	04/12/94
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	04/12/94
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	04/12/94
Phenanthrene	85-01-8	ND	330	ug/kg	04/12/94
Pyrene	129-00-0	430 *	330	ug/kg	04/12/94
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	04/12/94
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	04/12/94
2-Chlorophenol	95-57-8	ND	330	ug/kg	04/12/94
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	04/12/94
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	04/12/94
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	04/12/94
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	04/12/94
2-Methylphenol	95-48-7	ND	330	ug/kg	04/12/94
4-Methylphenol	106-44-5	ND	330	ug/kg	04/12/94
2-Nitrophenol	88-75-5	ND	330	ug/kg	04/12/94
4-Nitrophenol	100-02-7	ND	1600	ug/kg	04/12/94
Pentachlorophenol	87-86-5	ND	1600	ug/kg	04/12/94

HARZA

SAMPLE ID: MF-1C
AEN LAB NO: 9404063-03
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Phenol	108-95-2	ND	330	ug/kg	04/12/94
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	04/12/94
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	04/12/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

HARZA

SAMPLE ID: MF-2A
AEN LAB NO: 9404063-04
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/Graph. Furnace	EPA 3050	-		Prep Date	04/13/94
Arsenic	EPA 7060	2 *	1	mg/kg	04/14/94
Selenium	EPA 7740	ND	2	mg/kg	04/14/94
#Digestion	EPA 3050	-		Prep Date	04/13/94
Cadmium	EPA 6010	ND	0.1	mg/kg	04/14/94
Chromium	EPA 6010	15 *	1	mg/kg	04/14/94
Copper	EPA 6010	65 *	0.5	mg/kg	04/14/94
Lead	EPA 6010	33 *	1	mg/kg	04/14/94
Nickel	EPA 6010	16 *	1	mg/kg	04/14/94
Silver	EPA 6010	ND	0.1	mg/kg	04/14/94
Zinc	EPA 6010	55 *	1	mg/kg	04/14/94
VOCs in Soil by 8240	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	04/14/94
Benzene	71-43-2	ND	5	ug/kg	04/14/94
Bromodichloromethane	75-27-4	ND	5	ug/kg	04/14/94
Bromoform	75-25-2	ND	5	ug/kg	04/14/94
Bromomethane	74-83-9	ND	10	ug/kg	04/14/94
2-Butanone	78-93-3	ND	100	ug/kg	04/14/94
Carbon Disulfide	75-15-0	ND	10	ug/kg	04/14/94
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	04/14/94
Chlorobenzene	108-90-7	ND	5	ug/kg	04/14/94
Chloroethane	75-00-3	ND	10	ug/kg	04/14/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	04/14/94
Chloroform	67-66-3	ND	5	ug/kg	04/14/94
Chloromethane	74-87-3	ND	10	ug/kg	04/14/94
Dibromochloromethane	124-48-1	ND	5	ug/kg	04/14/94
1,1-Dichloroethane	75-43-3	ND	5	ug/kg	04/14/94
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	04/14/94
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	04/14/94
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	04/14/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	04/14/94

HARZA

SAMPLE ID: MF-2A
AEN LAB NO: 9404063-04
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	04/14/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	04/14/94
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	04/14/94
Ethylbenzene	100-41-4	ND	5	ug/kg	04/14/94
2-Hexanone	591-78-6	ND	50	ug/kg	04/14/94
Methylene Chloride	75-09-2	ND	5	ug/kg	04/14/94
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	04/14/94
Styrene	100-42-5	ND	5	ug/kg	04/14/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	04/14/94
Tetrachloroethene	127-18-4	ND	5	ug/kg	04/14/94
Toluene	108-88-3	ND	5	ug/kg	04/14/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	04/14/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	04/14/94
Trichloroethene	79-01-6	ND	5	ug/kg	04/14/94
Vinyl Acetate	108-05-4	ND	50	ug/kg	04/14/94
Vinyl Chloride	75-01-4	ND	10	ug/kg	04/14/94
Xylenes Total	1330-20-7	ND	10	ug/kg	04/14/94
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	04/07/94
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	04/12/94
Acenaphthylene	208-96-8	ND	330	ug/kg	04/12/94
Anthracene	120-12-7	ND	330	ug/kg	04/12/94
Benzidine	92-87-5	ND	1600	ug/kg	04/12/94
Benzoic Acid	65-85-0	ND	1600	ug/kg	04/12/94
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	04/12/94
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	04/12/94
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	04/12/94
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	04/12/94
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	04/12/94
Benzyl Alcohol	100-51-6	ND	660	ug/kg	04/12/94
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	04/12/94
Bis(2-chloroethyl) Ether	111-44-4	ND	330	ug/kg	04/12/94
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	04/12/94
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	04/12/94
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	04/12/94
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	04/12/94
4-Chloroaniline	106-47-8	ND	660	ug/kg	04/12/94
2-Chloronapththalene	91-58-7	ND	330	ug/kg	04/12/94
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	04/12/94
Chrysene	218-01-9	ND	330	ug/kg	04/12/94
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	04/12/94

HARZA

SAMPLE ID: MF-2A
AEN LAB NO: 9404063-04
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Dibenzofuran	132-64-9	ND	330	ug/kg	04/12/94
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	04/12/94
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	04/12/94
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	04/12/94
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	04/12/94
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	04/12/94
Diethyl Phthalate	84-66-2	ND	330	ug/kg	04/12/94
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	04/12/94
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	04/12/94
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	04/12/94
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	04/12/94
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	04/12/94
Fluoranthene	206-44-0	ND	330	ug/kg	04/12/94
Fluorene	86-73-7	ND	330	ug/kg	04/12/94
Hexachlorobenzene	118-74-1	ND	330	ug/kg	04/12/94
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	04/12/94
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	04/12/94
Hexachloroethane	67-72-1	ND	330	ug/kg	04/12/94
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	04/12/94
Isophorone	78-59-1	ND	330	ug/kg	04/12/94
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	04/12/94
Naphthalene	91-20-3	ND	330	ug/kg	04/12/94
2-Nitroaniline	88-74-4	ND	1600	ug/kg	04/12/94
3-Nitroaniline	99-09-2	ND	1600	ug/kg	04/12/94
4-Nitroaniline	100-01-6	ND	1600	ug/kg	04/12/94
Nitrobenzene	98-95-3	ND	330	ug/kg	04/12/94
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	04/12/94
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	04/12/94
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	04/12/94
Phenanthrene	85-01-8	ND	330	ug/kg	04/12/94
Pyrene	129-00-0	ND	330	ug/kg	04/12/94
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	04/12/94
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	04/12/94
2-Chlorophenol	95-57-8	ND	330	ug/kg	04/12/94
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	04/12/94
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	04/12/94
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	04/12/94
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	04/12/94
2-Methylphenol	95-48-7	ND	330	ug/kg	04/12/94
4-Methylphenol	106-44-5	ND	330	ug/kg	04/12/94
2-Nitrophenol	88-75-5	ND	330	ug/kg	04/12/94
4-Nitrophenol	100-02-7	ND	1600	ug/kg	04/12/94
Pentachlorophenol	87-86-5	ND	1600	ug/kg	04/12/94

HARZA

SAMPLE ID: MF-2A
AEN LAB NO: 9404063-04
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Phenol	108-95-2	ND	330	ug/kg	04/12/94
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	04/12/94
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	04/12/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

HARZA

SAMPLE ID: MF-2B
AEN LAB NO: 9404063-05
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/Graph. Furnace	EPA 3050	-		Prep Date	04/13/94
Arsenic	EPA 7060	2 *	1	mg/kg	04/14/94
Selenium	EPA 7740	ND	2	mg/kg	04/14/94
#Digestion	EPA 3050	-		Prep Date	04/13/94
Cadmium	EPA 6010	ND	0.1	mg/kg	04/14/94
Chromium	EPA 6010	20 *	1	mg/kg	04/14/94
Copper	EPA 6010	39 *	0.5	mg/kg	04/14/94
Lead	EPA 6010	40 *	1	mg/kg	04/14/94
Nickel	EPA 6010	22 *	1	mg/kg	04/14/94
Silver	EPA 6010	0.1 *	0.1	mg/kg	04/14/94
Zinc	EPA 6010	48 *	1	mg/kg	04/14/94
VOCs in Soil by 8240	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	04/14/94
Benzene	71-43-2	ND	5	ug/kg	04/14/94
Bromodichloromethane	75-27-4	ND	5	ug/kg	04/14/94
Bromoform	75-25-2	ND	5	ug/kg	04/14/94
Bromomethane	74-83-9	ND	10	ug/kg	04/14/94
2-Butanone	78-93-3	ND	100	ug/kg	04/14/94
Carbon Disulfide	75-15-0	ND	10	ug/kg	04/14/94
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	04/14/94
Chlorobenzene	108-90-7	ND	5	ug/kg	04/14/94
Chloroethane	75-00-3	ND	10	ug/kg	04/14/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	04/14/94
Chloroform	67-66-3	ND	5	ug/kg	04/14/94
Chloromethane	74-87-3	ND	10	ug/kg	04/14/94
Dibromochloromethane	124-48-1	ND	5	ug/kg	04/14/94
1,1-Dichloroethane	75-43-3	ND	5	ug/kg	04/14/94
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	04/14/94
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	04/14/94
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	04/14/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	04/14/94

HARZA

SAMPLE ID: MF-2B
AEN LAB NO: 9404063-05
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	04/14/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	04/14/94
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	04/14/94
Ethylbenzene	100-41-4	ND	5	ug/kg	04/14/94
2-Hexanone	591-78-6	ND	50	ug/kg	04/14/94
Methylene Chloride	75-09-2	ND	5	ug/kg	04/14/94
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	04/14/94
Styrene	100-42-5	ND	5	ug/kg	04/14/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	04/14/94
Tetrachloroethene	127-18-4	ND	5	ug/kg	04/14/94
Toluene	108-88-3	ND	5	ug/kg	04/14/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	04/14/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	04/14/94
Trichloroethene	79-01-6	ND	5	ug/kg	04/14/94
Vinyl Acetate	108-05-4	ND	50	ug/kg	04/14/94
Vinyl Chloride	75-01-4	ND	10	ug/kg	04/14/94
Xylenes Total	1330-20-7	ND	10	ug/kg	04/14/94
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	04/07/94
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	04/12/94
Acenaphthylene	208-96-8	ND	330	ug/kg	04/12/94
Anthracene	120-12-7	ND	330	ug/kg	04/12/94
Benzidine	92-87-5	ND	1600	ug/kg	04/12/94
Benzoic Acid	65-85-0	ND	1600	ug/kg	04/12/94
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	04/12/94
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	04/12/94
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	04/12/94
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	04/12/94
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	04/12/94
Benzyl Alcohol	100-51-6	ND	660	ug/kg	04/12/94
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	04/12/94
Bis(2-chloroethyl) Ether	111-44-4	ND	330	ug/kg	04/12/94
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	04/12/94
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	04/12/94
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	04/12/94
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	04/12/94
4-Chloroaniline	106-47-8	ND	660	ug/kg	04/12/94
2-Chloronapththalene	91-58-7	ND	330	ug/kg	04/12/94
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	04/12/94
Chrysene	218-01-9	ND	330	ug/kg	04/12/94
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	04/12/94

HARZA

SAMPLE ID: MF-2B
AEN LAB NO: 9404063-05
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Dibenzofuran	132-64-9	ND	330	ug/kg	04/12/94
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	04/12/94
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	04/12/94
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	04/12/94
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	04/12/94
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	04/12/94
Diethyl Phthalate	84-66-2	ND	330	ug/kg	04/12/94
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	04/12/94
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	04/12/94
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	04/12/94
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	04/12/94
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	04/12/94
Fluoranthene	206-44-0	770 *	330	ug/kg	04/12/94
Fluorene	86-73-7	ND	330	ug/kg	04/12/94
Hexachlorobenzene	118-74-1	ND	330	ug/kg	04/12/94
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	04/12/94
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	04/12/94
Hexachloroethane	67-72-1	ND	330	ug/kg	04/12/94
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	04/12/94
Isophorone	78-59-1	ND	330	ug/kg	04/12/94
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	04/12/94
Naphthalene	91-20-3	ND	330	ug/kg	04/12/94
2-Nitroaniline	88-74-4	ND	1600	ug/kg	04/12/94
3-Nitroaniline	99-09-2	ND	1600	ug/kg	04/12/94
4-Nitroaniline	100-01-6	ND	1600	ug/kg	04/12/94
Nitrobenzene	98-95-3	ND	330	ug/kg	04/12/94
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	04/12/94
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	04/12/94
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	04/12/94
Phenanthrene	85-01-8	530 *	330	ug/kg	04/12/94
Pyrene	129-00-0	720 *	330	ug/kg	04/12/94
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	04/12/94
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	04/12/94
2-Chlorophenol	95-57-8	ND	330	ug/kg	04/12/94
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	04/12/94
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	04/12/94
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	04/12/94
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	04/12/94
2-Methylphenol	95-48-7	ND	330	ug/kg	04/12/94
4-Methylphenol	106-44-5	ND	330	ug/kg	04/12/94
2-Nitrophenol	88-75-5	ND	330	ug/kg	04/12/94
4-Nitrophenol	100-02-7	ND	1600	ug/kg	04/12/94
Pentachlorophenol	87-86-5	ND	1600	ug/kg	04/12/94

HARZA

SAMPLE ID: MF-2B
AEN LAB NO: 9404063-05
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Phenol	108-95-2	ND	330	ug/kg	04/12/94
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	04/12/94
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	04/12/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

HARZA

SAMPLE ID: MF-2C
AEN LAB NO: 9404063-06
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/Graph. Furnace	EPA 3050	-		Prep Date	04/13/94
Arsenic	EPA 7060	2 *	1	mg/kg	04/14/94
Selenium	EPA 7740	ND	2	mg/kg	04/14/94
#Digestion	EPA 3050	-		Prep Date	04/13/94
Cadmium	EPA 6010	ND	0.1	mg/kg	04/14/94
Chromium	EPA 6010	32 *	1	mg/kg	04/14/94
Copper	EPA 6010	160 *	0.5	mg/kg	04/14/94
Lead	EPA 6010	18 *	1	mg/kg	04/14/94
Nickel	EPA 6010	45 *	1	mg/kg	04/14/94
Silver	EPA 6010	0.2 *	0.1	mg/kg	04/14/94
Zinc	EPA 6010	160 *	1	mg/kg	04/14/94
VOCs in Soil by 8240	EPA 8240				
Acetone	67-64-1	ND	100	ug/kg	04/14/94
Benzene	71-43-2	ND	5	ug/kg	04/14/94
Bromodichloromethane	75-27-4	ND	5	ug/kg	04/14/94
Bromoform	75-25-2	ND	5	ug/kg	04/14/94
Bromomethane	74-83-9	ND	10	ug/kg	04/14/94
2-Butanone	78-93-3	ND	100	ug/kg	04/14/94
Carbon Disulfide	75-15-0	ND	10	ug/kg	04/14/94
Carbon Tetrachloride	56-23-5	ND	5	ug/kg	04/14/94
Chlorobenzene	108-90-7	ND	5	ug/kg	04/14/94
Chloroethane	75-00-3	ND	10	ug/kg	04/14/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/kg	04/14/94
Chloroform	67-66-3	ND	5	ug/kg	04/14/94
Chloromethane	74-87-3	ND	10	ug/kg	04/14/94
Dibromochloromethane	124-48-1	ND	5	ug/kg	04/14/94
1,1-Dichloroethane	75-43-3	ND	5	ug/kg	04/14/94
1,2-Dichloroethane	107-06-2	ND	5	ug/kg	04/14/94
1,1-Dichloroethene	75-35-4	ND	5	ug/kg	04/14/94
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/kg	04/14/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/kg	04/14/94

HARZA

SAMPLE ID: MF-2C
AEN LAB NO: 9404063-06
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2-Dichloropropane	78-87-5	ND	5	ug/kg	04/14/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/kg	04/14/94
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/kg	04/14/94
Ethylbenzene	100-41-4	ND	5	ug/kg	04/14/94
2-Hexanone	591-78-6	ND	50	ug/kg	04/14/94
Methylene Chloride	75-09-2	ND	5	ug/kg	04/14/94
4-Methyl-2-pentanone	108-10-1	ND	50	ug/kg	04/14/94
Styrene	100-42-5	ND	5	ug/kg	04/14/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/kg	04/14/94
Tetrachloroethene	127-18-4	ND	5	ug/kg	04/14/94
Toluene	108-88-3	ND	5	ug/kg	04/14/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/kg	04/14/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/kg	04/14/94
Trichloroethene	79-01-6	ND	5	ug/kg	04/14/94
Vinyl Acetate	108-05-4	ND	50	ug/kg	04/14/94
Vinyl Chloride	75-01-4	ND	10	ug/kg	04/14/94
Xylenes Total	1330-20-7	ND	10	ug/kg	04/14/94
#Extraction for BNAs	**EPA 3550**	-		Extrn Date	04/07/94
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	330	ug/kg	04/12/94
Acenaphthylene	208-96-8	ND	330	ug/kg	04/12/94
Anthracene	120-12-7	ND	330	ug/kg	04/12/94
Benzidine	92-87-5	ND	1600	ug/kg	04/12/94
Benzoic Acid	65-85-0	ND	1600	ug/kg	04/12/94
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	04/12/94
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	04/12/94
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	04/12/94
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	04/12/94
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	04/12/94
Benzyl Alcohol	100-51-6	ND	660	ug/kg	04/12/94
Bis(2-chloroethoxy)methane	111-91-1	ND	330	ug/kg	04/12/94
Bis(2-chloroethyl) Ether	111-44-4	ND	330	ug/kg	04/12/94
Bis(2-chloroisopropyl) Ether	108-60-1	ND	330	ug/kg	04/12/94
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	330	ug/kg	04/12/94
4-Bromophenyl Phenyl Ether	101-55-3	ND	330	ug/kg	04/12/94
Butylbenzyl Phthalate	85-68-7	ND	330	ug/kg	04/12/94
4-Chloroaniline	106-47-8	ND	660	ug/kg	04/12/94
2-Chloronapththalene	91-58-7	ND	330	ug/kg	04/12/94
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	330	ug/kg	04/12/94
Chrysene	218-01-9	ND	330	ug/kg	04/12/94
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	04/12/94

HARZA

SAMPLE ID: MF-2C
AEN LAB NO: 9404063-06
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Dibenzofuran	132-64-9	ND	330	ug/kg	04/12/94
Di-n-butyl Phthalate	84-74-2	ND	330	ug/kg	04/12/94
1,2-Dichlorobenzene	95-50-1	ND	330	ug/kg	04/12/94
1,3-Dichlorobenzene	541-73-1	ND	330	ug/kg	04/12/94
1,4-Dichlorobenzene	106-46-7	ND	330	ug/kg	04/12/94
3,3'-Dichlorobenzidine	91-94-1	ND	660	ug/kg	04/12/94
Diethyl Phthalate	84-66-2	ND	330	ug/kg	04/12/94
Dimethyl Phthalate	131-11-3	ND	330	ug/kg	04/12/94
2,4-Dinitrotoluene	121-14-2	ND	330	ug/kg	04/12/94
2,6-Dinitrotoluene	606-20-2	ND	330	ug/kg	04/12/94
Di-n-octyl Phthalate	117-84-0	ND	330	ug/kg	04/12/94
1,2-Diphenylhydrazine	122-66-7	ND	330	ug/kg	04/12/94
Fluoranthene	206-44-0	ND	330	ug/kg	04/12/94
Fluorene	86-73-7	ND	330	ug/kg	04/12/94
Hexachlorobenzene	118-74-1	ND	330	ug/kg	04/12/94
Hexachlorobutadiene	87-68-3	ND	330	ug/kg	04/12/94
Hexachlorocyclopentadiene	77-47-4	ND	330	ug/kg	04/12/94
Hexachloroethane	67-72-1	ND	330	ug/kg	04/12/94
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	04/12/94
Isophorone	78-59-1	ND	330	ug/kg	04/12/94
2-Methylnaphthalene	91-57-6	ND	330	ug/kg	04/12/94
Naphthalene	91-20-3	ND	330	ug/kg	04/12/94
2-Nitroaniline	88-74-4	ND	1600	ug/kg	04/12/94
3-Nitroaniline	99-09-2	ND	1600	ug/kg	04/12/94
4-Nitroaniline	100-01-6	ND	1600	ug/kg	04/12/94
Nitrobenzene	98-95-3	ND	330	ug/kg	04/12/94
N-Nitrosodimethylamine	62-75-9	ND	330	ug/kg	04/12/94
N-Nitrosodiphenylamine	86-30-6	ND	330	ug/kg	04/12/94
N-Nitrosodi-n-propylamine	621-64-7	ND	330	ug/kg	04/12/94
Phenanthrene	85-01-8	ND	330	ug/kg	04/12/94
Pyrene	129-00-0	ND	330	ug/kg	04/12/94
1,2,4-Trichlorobenzene	120-82-1	ND	330	ug/kg	04/12/94
4-Chloro-3-methylphenol	59-50-7	ND	330	ug/kg	04/12/94
2-Chlorophenol	95-57-8	ND	330	ug/kg	04/12/94
2,4-Dichlorophenol	120-83-2	ND	330	ug/kg	04/12/94
2,4-Dimethylphenol	105-67-9	ND	330	ug/kg	04/12/94
4,6-Dinitro-2-methylphenol	534-52-1	ND	1600	ug/kg	04/12/94
2,4-Dinitrophenol	51-28-5	ND	1600	ug/kg	04/12/94
2-Methylphenol	95-48-7	ND	330	ug/kg	04/12/94
4-Methylphenol	106-44-5	ND	330	ug/kg	04/12/94
2-Nitrophenol	88-75-5	ND	330	ug/kg	04/12/94
4-Nitrophenol	100-02-7	ND	1600	ug/kg	04/12/94
Pentachlorophenol	87-86-5	ND	1600	ug/kg	04/12/94

HARZA

SAMPLE ID: MF-2C
AEN LAB NO: 9404063-06
AEN WORK ORDER: 9404063
CLIENT PROJ. ID: K615I

DATE SAMPLED: 04/05/94
DATE RECEIVED: 04/06/94
REPORT DATE: 04/19/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Phenol	108-95-2	ND	330	ug/kg	04/12/94
2,4,5-Trichlorophenol	95-95-4	ND	330	ug/kg	04/12/94
2,4,6-Trichlorophenol	88-06-2	ND	330	ug/kg	04/12/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9404063

CLIENT PROJECT ID: K615I

Quality Control Summary

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

Definitions

The following abbreviations are found throughout the QC report:

ND = Not Detected at or above the reporting limit
RPD = Relative Percent Difference
< = Less Than

QUALITY CONTROL DATA

INSTRUMENT: 12 AEN JOB NO: 9404063

CLIENT PROJ. ID: K615I

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Client Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
04/14/94	MF-1A	01	104	106	99
04/14/94	MF-1B	02	107	115	102
04/14/94	MF-1C	03	101	114	96
04/14/94	MF-2A	04	103	103	95
04/14/94	MF-2B	05	110	113	102
04/14/94	MF-2C	06	99	107	103

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d4	(68-141)
Toluene-d8	(89-119)
p-Bromofluorobenzene	(85-112)

QUALITY CONTROL DATA

DATE ANALYZED: 04/13/94
SAMPLE SPIKED: 9404058-22
CLIENT PROJ. ID: K615I

AEN JOB NO: 9404063

INSTRUMENT: 12

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8240
(SOIL MATRIX)

ANALYTE	Spike Added (ug/kg)	Average Percent Recovery	RPD
1,1-Dichloroethene	50.0	115	3
Trichloroethene	50.0	101	4
Benzene	50.0	117	2
Toluene	50.0	99	2
Chlorobenzene	50.0	108	<1

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
1,1-Dichloroethene	(66-143)	15
Trichloroethene	(60-127)	12
Benzene	(88-117)	10
Toluene	(70-126)	14
Chlorobenzene	(89-111)	13

QUALITY CONTROL DATA

DATE EXTRACTED: 04/07/94 AEN JOB NO: 9404063

CLIENT PROJ. ID: K615I INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)					
Date Analyzed	Client Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
04/12/94	MF-1A	01	58	80	100	60	57	99
04/12/94	MF-1B	02	73	81	95	63	50	88
04/12/94	MF-1C	03	69	86	95	53	74	116
/12/94	MF-2A	04	64	83	93	46	43	111
04/12/94	MF-2B	05	51	82	90	47	39	110
04/12/94	MF-2C	06	69	87	102	57	54	93

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Nitrobenzene-d_5	(23-120)
2-Fluorobiphenyl	(30-115)
Terphenyl-d_{14}	(18-137)
Phenol-d_5	(24-113)
2-Fluorophenol	(25-121)
2,4,6-Tribromophenol	(19-122)

QUALITY CONTROL DATA

DATE EXTRACTED: 04/07/94
DATE ANALYZED: 04/12/94
CLIENT PROJ ID: K615I

AEN JOB NO: 9404063
SAMPLE SPIKED: 9404063-04
INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(SOIL MATRIX)

ANALYTE	Spike Added (ug/kg)	Average Percent Recovery	RPD
Phenol	3330	53	6
2-Chlorophenol	3330	48	22
1,4-Dichlorobenzene	3400	68	9
N-Nitroso-di-n-propylamine	3320	88	30
1,2,4-Trichlorobenzene	3330	70	4
4-Chloro-3-methylphenol	3270	90	19
Acenaphthene	3330	97	7
4-Nitrophenol	3300	96	4
2,4-Dinitrotoluene	3330	65	8
Pentachlorophenol	3380	66	24
Pyrene	3320	137	4

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(26- 90)	35
2-Chlorophenol	(25-102)	50
1,4-Dichlorobenzene	(28-104)	27
4-Nitroso-di-n-propylamine	(41-126)	38
1,2,4-Trichlorobenzene	(38-107)	23
4-Chloro-3-methylphenol	(26-103)	33
Acenaphthene	(31-137)	19
4-Nitrophenol	(11-114)	50
2,4-Dinitrotoluene	(28- 89)	47
Pentachlorophenol	(17-109)	47
Pyrene	(35-142)	36

QUALITY CONTROL DATA

MATRIX: SOIL

CLIENT PROJ. ID: K615I

AEN JOB NO: 9404063
SAMPLE SPIKED: SAND
DATE DIGESTED: 04/13/94

METHOD SPIKE RECOVERY SUMMARY

Compound	Inst./ Method	Spike Added (mg/kg)	Average Percent Recovery	RPD	QC Limits % Rec. Limit	QC Limits RPD Limit
Ag, Silver	ICP/6010	10	57	2	38- 78	7
As, Arsenic	4000/7060	20	117	6	79-122	10
Ba, Barium	ICP/6010	200	101	1	85-108	6
Cd, Cadmium	ICP/6010	10	96	2	79-102	7
Cr, Chromium	ICP/6010	50	99	2	85-107	7
Cu, Copper	ICP/6010	50	102	<1	89-107	6
Ni, Nickel	ICP/6010	50	100	2	85-107	6
Pb, Lead	ICP/6010	50	103	2	84-111	7
Se, Selenium	4000/7740	40	111	<1	73-126	14
Zn, Zinc	ICP/6010	50	98	2	82-107	8

*** END OF REPORT ***

Lab Job 940406

CHAIN-OF-CUSTODY RECORD

Project Number	Project Name	Location
K615I	Fuller O'Brien Phase II RFI	So. S. F., CA

Sampler's Name (printed): Tacia Miller

KA Sample I.D. Number	Lab Sample I.D. Number	Date	Soil	Water	Number/Type of Container	Analytical Tests: Method 8015 - TPH as Gasoline	Method 8015 - TPH as Diesel	Method 8240 - Volatile Organics	Method 8270 - Semi-Volatile Organics	Method 8010 - Halogenated Volatile Organics	Method 8080 - Organochlorine Pesticides & PCB's	Waste Oil -	Metals -					Remarks
MF-1A	01A	4/5/94	X		2x6" Brass Liner			X	X				X					
MF-1B	02A		X					X	X				X					
MF-1C	03A		X					X	X				X					
MF-2A	04A		X					X	X				X					
MF-2B	05A		X					X	X				X					
MF-2C	06A		X					X	X				X					
																		Metals for As, Ag, Cd Cr, Pb, Ni, Se, Zn, Cu

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Tacia C. Miller	4/6/94 1015	Michael E. McMillan
Michael E. McMillan	4/6/94 12:50	
		Received for Laboratory by: (Signature) Gina Gillespie 4-6-94 1250

Ship To:

Attention:

Phone No:

Requested Turnaround Time:

Kaldveer Assoc. Contact:

Remarks:

Please address correspondence and return cooler # _____ to:

Kaldveer Associates, Inc.
425 Roland Way
Oakland, California 94621
(415) 568-4001

Kaldveer Associates
Geoscience Consultants
A California Corporation

APPENDIX D
Ratech Resources - May 28, 1993 Data Needs Letter

DATA NEEDS LETTER

FOR A

RISK ASSESSMENT/ECOLOGICAL EVALUATION

prepared for:

Fuller-O'Brien Paints
395 Oyster Point Blvd., Suite 350
South San Francisco, California 94080

May 28, 1993

project number:
FOB(2)1-02

prepared by:

R E S O U R C E S

P.O. Box 397
San Lorenzo, California 94580

RATECH
RESOURCES
166 BEAVER DRIVE
MILL VALLEY, CA 94941-2202
415.389.0111

May 27, 1993

Mr. Chris Prokop
U. S. Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

Re: Data Evaluation for Risk Assessment/Ecological Evaluation
Fuller-O'Brien Paints, South San Francisco, California.

Dear Mr. Prokop:

In September 1992, RATECH Resources (RATECH), prepared the "Risk Assessment/Ecological Evaluation (RA/EE) Phase I-Site History and Data Evaluation Report" on behalf of the Fuller-O'Brien Paints (O'Brien). The purpose of this letter report was to provide the United States Environmental Protection Agency (EPA) with a summary of the existing data obtained during the RCRA Facility Investigation (RFI), other previous studies for the identified solid waste management units (SWMUs), and other associated onsite areas of interest. The summarized data represented information that was considered for use in the RA/EE as part of the RFI/Corrective Measures Study process.

The report was forwarded to your office on September 25, 1992, and a subsequent written review by EPA (dated February 8, 1993, signed on behalf of Alisa Green, Chief, Corrective Action Section) was received by O'Brien on February 9, 1993.

The review identified the concerns of the EPA and also suggested necessary changes to make the report usable for the RA/EE. Specifically, the EPA commented that the RA/EE Data Evaluation should "...present all of the existing O'Brien site data that might be used in a site-wide risk assessment, and that would discuss areas where perceived data should be gathered in order to fill 'data gaps'." The second concern the EPA stated was that all existing site data, in addition to that for the SWMUs, would need to be evaluated. Lastly, EPA identified the need for the RA/EE Data Evaluation Report to contain all EPA "split" sample data.

In RATECH's March 24, 1993 letter response to EPAs comments, it was suggested that an alternative approach to the "site-wide risk assessment" could address EPAs concerns. The approach included preparation of an additional letter report to supplement the original RA/EE Data Evaluation Report, a site diagram, and amended data tables.

In a conversation and subsequent letter from EPA dated April 28, 1993, the approach proposed by RATECH was considered acceptable to the EPA. The following agreements were reached:

- O'Brien will incorporate existing facility data into the RA/EE Report, if it is relevant to the proposed RA/EE. However, O'Brien believes that some of the additional data EPA has requested may not be relevant, or is beyond the scope of the RA/EE.
- A revised set of data, including the EPA sample splits will be tabulated.
- A site diagram that will indicate the approximate extent of SWMUs, the additional areas of concern, and their associated areas of potential impact that are proposed for inclusion in the RA/EE will be prepared.
- Data needs for the preparation of the RA/EE will be identified.

The following sections represent the components of the approach described above.

REVISED DATA TABLES

The attached data tables have been modified based on the comments and suggestions provided by the EPA in their February 8, 1993 comment letter. The tables have been revised to reflect the EPA split samples where available and applicable, and the sampling results for the Former Breakwater area have also been included. The attached data tables supersede the previous tables submitted in the RA/EE Site History and Data Evaluation, dated September 25,1992.

The existing data were evaluated for their relevance to the SWMUs and areas of interest. These data are presented in the attached data summary tables. It should be noted that some of the "site-wide" data have not been included because they are not representative of SWMUs, potential migration from SWMUs, or other areas of interest. For example, sample points near the former surface impoundments were used to evaluate the extent of potential releases from the surface impoundments only, not from other SWMUs.

Because of the work performed to date[1], the former surface impoundments are not considered as a SWMU in the RFI, and will therefore not be included in the RA/EE.

---

[1] Post-closure groundwater monitoring at the surface impoundments is currently in its fifth year of a seven year program as agreed upon with the California Environmental Protection Agency; Department of Toxic Substances Control.

SITE DIAGRAM

The attached Figure 1 illustrates the areas of interest that will be evaluated as part of the RA/EE process. These areas were identified by using the following criteria:

- Location of SWMUs, or areas of interest.
- Known processes, or areas, that may have resulted in the release of potential compounds of interest.
- Historical data that estimate the potential of compound migration based on site topography and probable groundwater flow directions.

The following sections describe the shaded areas presented on the Figure 1, the rationale for their selection, and the associated data requirements for the preparation of the RA/EE. The RA/EE will assess potential risks to human health and the environment due to releases from the SWMUs evaluated as part of the RFI. The RA/EE will be used to determine whether interim measures are appropriate prior to selecting a final remedy, or to evaluate whether no further action is warranted.

In addition to the existing data, additional data requirements at each of the SWMUs and associated areas of interest have been recommended to fill data needs. For the purpose of identifying the data needs for the RA/EE, the following steps were taken:

- Existing data relevant to the SWMUs or areas of interest were identified.
- Analytical data adequacy for identification of potential exposure pathways was evaluated.
- Analytical data adequacy for characterization of exposure pathways was evaluated.

Data needs were developed with respect to onsite location, and are compound-specific. The steps for planning the acquisition of additional data for the RA/EE will be taken once the data needs are finalized. Proposed sample locations are provided in Figure 2.

AREA 1

Description: Warehouse Area

Summary:

Four (4) soil boring locations were identified as applicable to the warehouse area. These borings are PM-2, PM-3, PM-7, and PM-8, and they were drilled in 1987 at each corner of the warehouse. The locations of the four borings are indicated on Figure 1.

EPA has indicated that the warehouse is being considered as an area of interest because of lead detected in the soils in close proximity to the warehouse. The lead may be present due to past operations or the use of imported fill material. Pigment storage buildings were present in the area prior to construction of the new warehouse in 1969, which now occupies the area of both the former lead works and pigment storage buildings.

Data were also collected from groundwater sampling boring WB-2, approximately downgradient and south of the warehouse. Although this boring was installed downgradient of a former underground storage tank location, it is included in the RA/EE because of its close proximity to the warehouse.

Data Needs:

According to the *Hydrogeological Assessment Report , Report of Waste Discharge; Former Surface Impoundment Area* (HAR) prepared by the Mark Group in December 1987, the uppermost water bearing unit beneath the warehouse is the fill material. It is not currently expected that the compounds that may be present could impact potential receptors because they are currently subsurface, beneath a building, thereby limiting the extent of potential exposure. In the event of future development, it may be possible that the currently subsurface compounds may be brought to the surface via excavation and construction activities. Therefore, exposure to soils will be considered in the RA/EE.

To determine if there are compounds of interest in the vicinity of the warehouse that may migrate two (2) soil borings and grab water samples are recommended, one on either of the west and east sides of the warehouse. The location of the proposed borings is primarily based on an evaluation of existing site data.

In addition, the RA/EE will require information on the potential impacts that compounds released from the warehouse may have had on groundwater. For this data need, it is proposed that the (1) downgradient boring and grab water sample be taken southeast of the warehouse. Because of the topograpny of the site, and probable groundwater flow direction in the artificial fill, (south-east), potential compounds of interest may migrate in a south-easterly direction.

EPA has identified the primary compound of interest at the warehouse for the RA/EE as lead. In addition to lead, other compounds such as additional metals used in pigmenting processes may also be of interest. Due to the proximity to the San Bruno Channel, filtered and unfiltered metals analyses are recommended for groundwater, and total metals are recommended for soil.

AREA 2

Description: MW-21 Area

Summary:

Two (2) sampling points are present at the MW-21 area. These points are identified as MW-21 and WB-1. Groundwater and soil samples have been obtained from MW-21, and groundwater from WB-1 was analyzed. The source of the compounds detected in MW-21 is currently unknown. The purpose of installing MW-21 was to obtain an upgradient groundwater samples for the former surface impoundments.

The data requested by EPA, and the necessary corrections have been added to the summary tables. The phenol value has been corrected, and the chloride and sulfate data have also been added. Although not all metals were analyzed for, the detection limits of those reported as not detected have been included.

Data Needs:

The corrections requested by EPA have been included in the data summary tables. It should be noted that the SOC omitted from the RA/EE report text was benzoic acid which is presented in the data summary tables.

Although it may be possible that the compounds found in MW-21 are from an upgradient source, this has not been substantiated. To date, the source of the groundwater impact is unknown. For the RA/EE to address compounds of interest, the source of the compounds must first be identified. Therefore, two (2) soil borings and grab water samples are proposed approximately southeast of MW-21. Soil and groundwater samples taken from the proposed borings will be analyzed for metals and SOCs. Unfiltered metals data will also be obtained from the grab water sample.

AREA 3

Description: Former Tank Farm Area/Eastern Property

Summary:

Three (3) groundwater samples were obtained from the Eastern Property area, and three (3) wells are located in the downgradient area of the Former Tank Farm. The groundwater samples obtained from the Eastern Property were not from developed wells, but were obtained as grab samples from soil borings drilled to a depth of 15 feet below surface level.

Soil samples were not obtained at the Eastern Property because this area is not a SWMU, and no environmental releases were anticipated. Seven (7) boring/well locations were sampled at the Former Tank Farm. Of these seven locations, three were obtained in November, 1982 and the data is of limited use in the RA/EE because of its age, and because the EPA analytical method was not specified.

The primary concern of the EPA as stated in the RFI and previous investigations was the toluene leak from an underground pipe between the unloading area and pump house, located south of the former tank farm in 1982. After detection of the leak, impacted soils were aerated and underground piping was replaced by overhead piping before operations were resumed. The tank farm was considered closed by the South San Francisco Fire Department in 1988. The Fire Department observed no evidence of tank content releases after the removal of the tanks.

The eastern property was included in the RFI to evaluate the possible migration of the toluene leak, and is not defined as a SWMU.

The former tank farm is situated over bedrock, which is the uppermost water bearing unit in the area. The groundwater flow in this unit is to the south. Because of site topography and probable groundwater flow direction, it is possible that potential compounds of interest may migrate to the south in groundwater.

Data Needs:

The data obtained in 1982 are of limited use in the RA/EE for the reasons stated above, and because they are representative of surface and near surface samples (0-1.5 feet below surface level). It also seems likely that the purpose of the 1982 sampling event was to document the location of the actual toluene spill, which has since been remediated.

To estimate the extent of potential groundwater impacts, re-sampling MW-19, and either W-6 or W-7 are suggested. One additional soil boring is proposed nearby the WB-6 soil boring (where high PID readings were detected during a previous investigation).

Groundwater samples from MW-19, and either W-6 or W-7 will be analyzed for BTEX. Soil samples from the proposed boring near WB-6 will be analyzed for toluene because this will assist in identifying the potential extent of migration of the toluene leak. Based on the detection of metals in MW-19, one additional set of filtered and unfiltered metals analyses for samples taken from MW-19 are recommended.

The corrections to the data summary tables requested by the EPA have been made. Additional data on the EPA split sample analyses have also been added. However, the HAR did not include analyses for VOCs, although the tables in the HAR indicate that these analyses were completed. The compounds analyzed for in the HAR were SOCs as indicated by the specific compounds.

AREA 4

Description: Former Solvent Still

Summary:

Four (4) soil borings are located in the area of the Former Solvent Still. Soil samples were obtained at depths ranging from 0 to 15 feet. One piezometer (PM-9) was installed in the location of the former solvent still area, and one sampling event was reported to have taken place in 1987. Two (2) additional grab water samples in the Former Solvent Still area were reported to have been taken from the borings SWB-1 and SWB-2 in November, 1991.

The EPAs concern at this SWMU is the suspicion that compound releases may have occurred as part of the operational processes of the Former Solvent Still. The Solvent Still was located on artificial fill, which is the uppermost water bearing zone beneath this area. Groundwater flow in the fill has been observed to flow in a southerly direction. Because of this groundwater flow direction, it is not likely that the site areas north and east of the Former Solvent Still have been impacted.

Data Needs:

The EPA split sample data has been included in the data summary tables, and necessary corrections have been made. Additional method detection limits for SOCs in soil samples taken from PM-9 are currently being obtained and will be inserted into the data summary tables in the appropriate location.

It is proposed that an additional soil boring be made downgradient of the Former Solvent Still to obtain a grab water sample, and soil samples at 1-, 2.5-, and 5-feet. Deeper soil samples may be collected depending on the depth to groundwater at this location.

This data will supplement the existing data at the former solvent still location. Metals analyses for soils, and unfiltered and filtered metals analyses for groundwater are recommended based on the proximity of the former solvent still area to the San Francisco Bay.

AREA 5

Description: Former Breakwater Area

Summary:

In 1992, the breakwater that protected the southern section of the O'Brien property, including the former surface impoundments, was removed. Prior to breakwater removal, several soil samples were analyzed. The results indicated the presence of metals, including lead, and some VOCs. SOCs were analyzed for but were not detected.

After removal of the breakwater, the area was re-sampled to determine the reduction on concentration of any compounds of interest. The results of the sampling indicated a significant decrease in the amount of lead detected.

Data Needs:

The breakwater has since been removed by O'Brien which has therefore eliminated the potential source of compounds that may be released into the environment.

Based on this removal action, and the compound confirmation samples taken post-excavation, no additional data are requested for the breakwater area.

ADDITIONAL DATA NEEDS

Background Samples

Background samples and/or data should be obtained to determine if there is a difference between compounds detected at the site and those that occur at background levels. Because of the location of the site, it is likely that background soil, groundwater, and Bay water samples may be required for metals.

Chromium Speciation

In the areas of interest where metals are suspected to be compounds of interest, it may be necessary to determine the valence of chromium present. If it is likely that Cr^{6+} is present, speciation of chromium in the metals analysis will be requested. This data will eliminate the use of the overly conservative assumption in the RA/EE that all chromium exists in its most toxic hexavalent form; Cr^{6+} in soils and groundwater.

If you have any questions or comments on this letter or the attached data summary tables and figures, please do not hesitate to call me at 510.782.1192, or Ms. Patricia Houle, Environmental Manager for O'Brien, at 415.871.3106.

Sincerely,

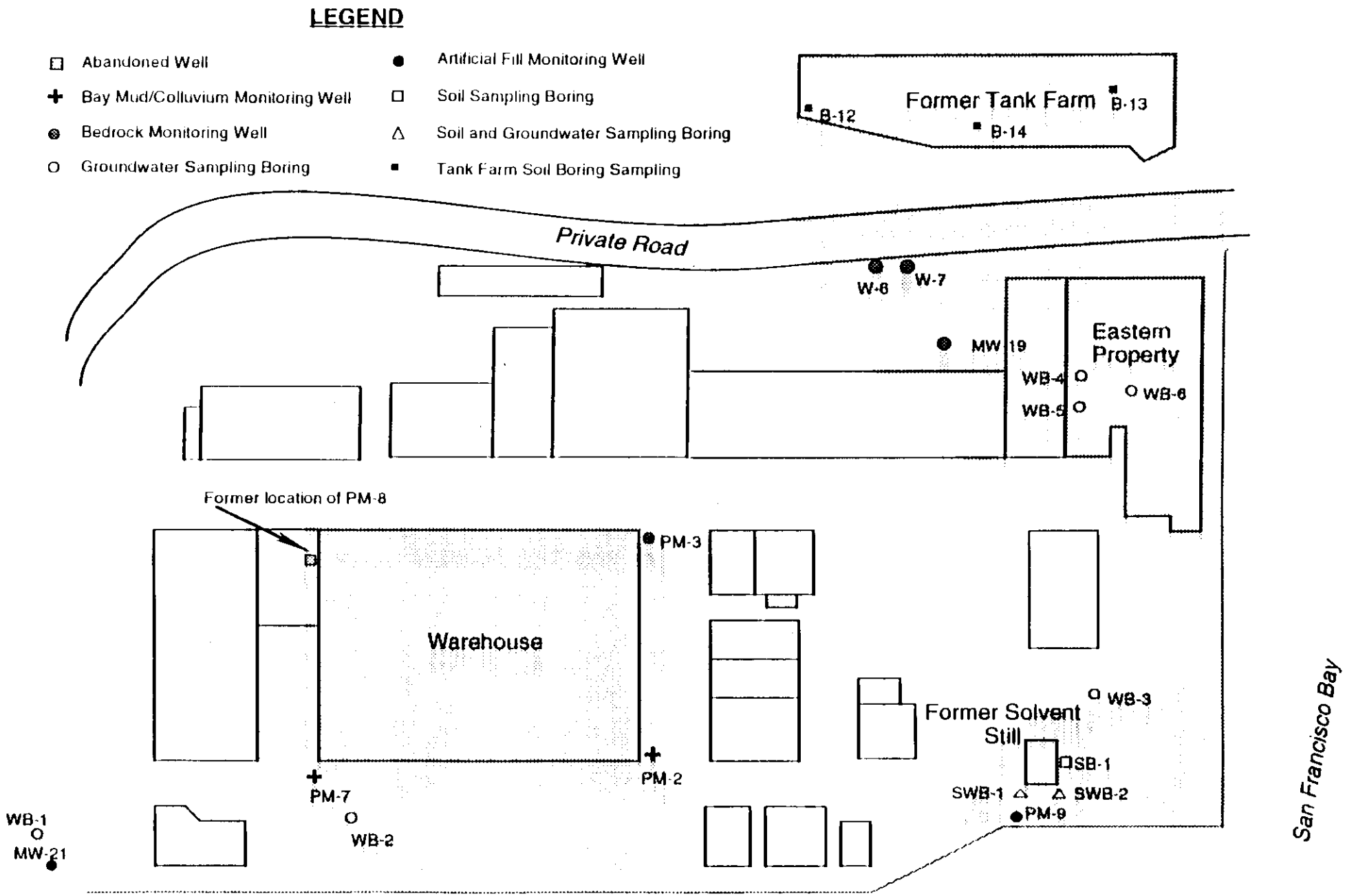
RATECH RESOURCES

Gillian I. Marks MPH,REA
Senior Risk Assessment Specialist

Attachments(2)

cc: Ms. Patricia Houle, Fuller-O'Brien, So. San Francisco
Mr. Raymond K. Saito, RATECH, Irvine

FIGURES

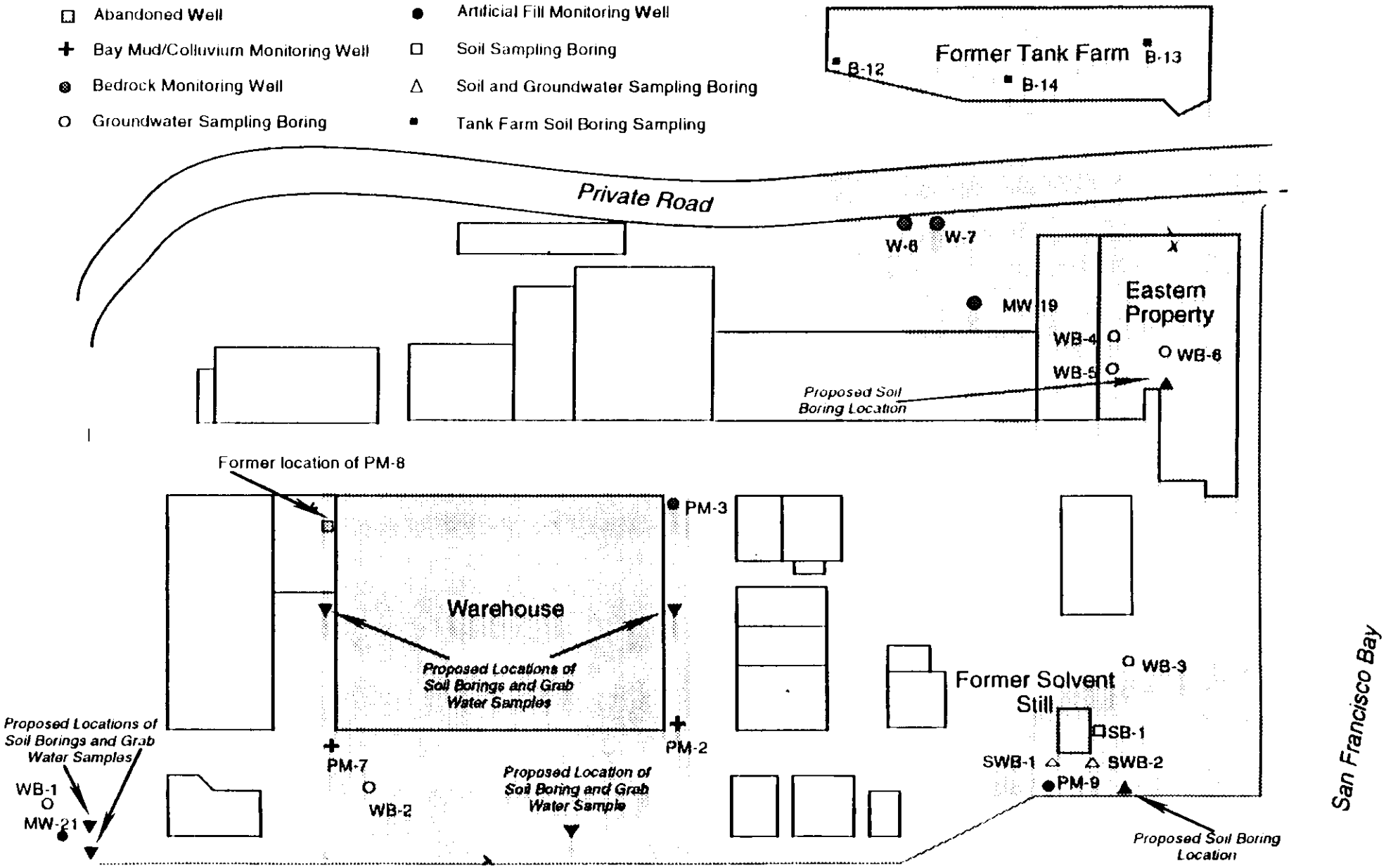


Note: Drawing not to scale

FIGURE 1
Site Diagram with Locations of SWMUs and Areas of Interest

LEGEND

- Abandoned Well
- Bay Mud/Colluvium Monitoring Well
- Bedrock Monitoring Well
- Groundwater Sampling Boring
- Artificial Fill Monitoring Well
- Soil Sampling Boring
- Soil and Groundwater Sampling Boring
- Tank Farm Soil Boring Sampling



Note: Drawing not to scale

FIGURE 2
Site Diagram with Locations of Proposed Borings

DATA SUMMARY TABLES

TABLE 1a
WAREHOUSE AREA
SUMMARY OF SOIL CHEMISTRY RESULTS

Location		PM-2	PM-2	PM-2	PM-2	PM-2	PM-2	PM-3	PM-3	PM-7	PM-7	PM-7	PM-7	PM-7	PM-7	PM-7	PM-8	PM-8	PM-8
Date		9/87	9/87	9/87	9/87	9/87	9/87	9/87	9/87	9/87	9/87	9/87	9/87	9/87	9/87	9/87	9/87	9/87	9/87
Sample ID		S-1	S-2	S-3	S-4	S-5	S-6	S-1	S-2	S-1	S-1S*	S-2	S-2S*	S-3	S-3S*	S-5	S-1	S-2	S-4
Depth (feet)		0	3	5.5	10.5	15.5	20	0	5	1	1	5	5	10	10	20	0	5.5	15.5
Analyte	Units																		
Metals																			
Barium		81	13	50	40	33	420	200	120	35	60	130	120	310	310	140	410	72	130
Lead	mg/kg	340	51	3	4	12	2	2	3	1	24	14	56	23000	18000	28	37000	52	16
Zinc		81	15	19	19	33	35	41	40	10	15	70	100	360	270	27	170	19	23
Lead (WET)	mg/l	62	8.2	na	na	na	na	na	na	na	na	na	na	na	340	na	2100	0.51	0.29
SOCs																			
Bis(2-ethylhexyl)-phthalate		3500	<660	<660	<330	<1700	<330	<330	<330	<330	<3300	<330	<3300	<10000#	<3300	<1700	<330	<330	<330
Naphthalene	all	8900	<660	<660	<330	<1700	<330	<330	<330	<330	<33	<330	<33	<10000#	<33	<1700	<330	<330	<330
Phenol	µg/kg	<1700	<660	<660	<330	<1700	<330	<330	1500	<330	<33	<330	<33	<10000#	<33	<1700	<330	<330	<330
Pyrene		<1700	<660	<660	<330	<1700	<330	<330	<330	<330	<33	<330	<33	<10000#	<33	<1700	330	<330	<330

* "S" designates sample splits.

\# Elevated detection limit due to matrix interference.

TABLE 1b
WAREHOUSE AREA*
SUMMARY OF GROUNDWATER CHEMISTRY RESULTS

Location		WB-2	WB-2
Date		11/91	11/91
Sample ID		EPA Split	EPA Split
Analyte	Units		
Benzene	all µg/l	<.5	<.2
Ethylbenzene		<1	<.2
Toluene		1	<.2
Xylenes		5	<.2

* Although this sample location was not intended to characterize releases from the warehouse, it is located downgradient from the warehouse. The intent of this sample point was to determine the extent of release from former underground storage tanks.

TABLE 2a
MW-21 AREA
SUMMARY OF SOIL CHEMISTRY RESULTS

Location		MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	OPF-21
Date		9/87	9/87	9/87	9/87	9/87	9/87	9/87	9/87	2/91
Sample ID		S1	S1S*	S2	S2S*	S3	S3S*	S4	S4S*	EPA,near MW-21
Depth (feet)		0	0.5	5	5.5	10	10.5	15	15.5	
Analyte	Units									
Metals										
Aluminum		na	na	na	na	na	na	na	na	18700
Antimony		na	na	na	na	na	na	na	na	<0.8
Arsenic		na	na	na	na	na	na	na	na	7.1
Barium	all	160	170	210	200	200	420	17	170	96.7
Beryllium		na	na	na	na	na	na	na	na	1.8
Cadmium		na	na	na	na	na	na	na	na	<0.58
Calcium		na	na	na	na	na	na	na	na	6280
Chromium		na	na	na	na	na	na	na	na	139
Cobalt		na	na	na	na	na	na	na	na	23.3
Copper		na	na	na	na	na	na	na	na	37
Iron		na	na	na	na	na	na	na	na	30200
Lead	mg/kg	120	210	14	510	15	1000	20	85	74.3
Magnesium		na	na	na	na	na	na	na	na	25500
Manganese		na	na	na	na	na	na	na	na	574
Mercury		na	na	na	na	na	na	na	na	0.2
Nickel		na	na	na	na	na	na	na	na	212
Potassium		na	na	na	na	na	na	na	na	1330
Selenium		na	na	na	na	na	na	na	na	<0.2
Silver		na	na	na	na	na	na	na	na	<1.2
Sodium		na	na	na	na	na	na	na	na	213
Thallium		na	na	na	na	na	na	na	na	<0.1
Vanadium		na	na	na	na	na	na	na	na	51.6
Zinc		65	92	36	37	34	63	48	54	67.3
Lead (WET)	mg/l	8.6	8.5	na	0.24	na	0.18	na	0.29	

TABLE 2a (continued)
MW-21 AREA
SUMMARY OF SOIL CHEMISTRY RESULTS

Location		MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	OPF-21
Date		9/87	9/87	9/87	9/87	9/87	9/87	9/87	9/87	2/91
Sample ID		S1	S1S*	S2	S2S*	S3	S3S*	S4	S4S*	EPA Split
Depth (feet)		0	0.5	5	5.5	10	10.5	15	15.5	
Analyte	Units									
SOCs										
Anthracene		<1700	<33	<1700	<33	<330	<33	760	<33	<20000
Benzo(a)anthracene	all									9100
Bis(2-ethylhexyl)phthalate	µg/kg									29000
Chrysene										10000
Fluoranthene										20000
Naphthalene		<1700	670	8200	<33	<330	<33	<330	<33	<20000
Phenanthrene		<1700	<33	<1700	58	<330	<33	<330	<33	<20000
Pyrene		<1700	68	<1700	950	<330	<33	<330	<33	110000

OPF-7 was taken and analyzed by the EPA
* "S" designates sample split

TABLE 2b (continued)
MW-21 AREA
GROUNDWATER
INVESTIGATIVE HISTORY

Location		MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	OPF-7	WB-1	WB-1(S)
Date		9/87	1/88	1/88	4/88	7/88	7/88	11/88	1/89	2/91	2/91	11/91	11/91
Sample ID				Duplicate			Split				Split		
Analyte	Units												
VOCs													
Acetone		na	na	na	na	na	120	na	140	17	<10	<20	<10
Benzene		na	19	na	<25	26	30	37	31	9	<5	<1	<5
Ethylbenzene	all	na	100	na	120	120	160	180	180	37	<5	<1	<5
Toluene	µg/l	na	290	na	270	260	330	310	250	9	<5	<1	<5
Xylenes, Total		na	na	na	na	na	680	na	na	58	<5	<1	<5
SOCs													
Benzoic Acid		<10	na	na	na	na	na	na	79	<10	<50	<50	<50
Bis-(2-ethylhexyl)phthalate		21	<10	na	<10	<10	na	<10	ND	<50	<10	<5	<10
2,4-Dimethylphenol		<10	20	na	<10	13	na	<10	18	<10	<10	<5	<10
Isophorone	all	90	240	na	190	310	na	430	180	<10	<10	<5	<10
2-Methyl phenol	µg/l	ND	11	na	ND	ND	na	ND	ND	<10	<10	ND	<10
4-Methyl phenol		ND	45	na	ND	ND	na	ND	19	<10	<10	ND	<10
Naphthalene		30	27	na	37	37	na	43	31	<10	<10	<5	<10
N-nitrosodiphenylamine		45	<10	na	<10	<10	na	<10	ND	<10	<10	<5	<10
Phenol		<10	150	na	44	13	na	12	0.18	na	<10	<5	<10

OPF-7 represents an EPA sample split.
WB-1(S) represent an EPA sample split.

na = Not Analyzed

TABLE 2b

MW-21 AREA

SUMMARY OF GROUNDWATER CHEMISTRY RESULTS

Location		MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	OPF-7	WB-1	WB-1(S)	WB-1(S)-F
Date		9/87	1/88	1/88	4/88	7/88	7/88	11/88	1/89	2/91	2/91	11/91	11/91	11/91
Sample ID				Duplicate			Split						Split	Split
Analyte	Units													
Metals														
Aluminum											0.431			na
Antimony		na	<.01	<.01	<.01	<.01	na	na	na	na	<0.0042	<0.05	<.17	<.017
Arsenic		na	<.01	<.01	<.01	<.01	<.005	<.01	<.005	na	0.0038	0.006	0.0092	0.0052
Barium		2.2	1.7	1.9	0.4	1.1	0.8	0.9	1	na	0.423	na	na	na
Beryllium		na	<.01	<.01	<.01	<.01	na	na	na	na	0.0104	<0.005	<.02	<.002
Cadmium		na	0.02	0.02	0.02	<.01	<.01	<.01	<.001	na	0.012	<0.003	<.05	<.005
Calcium		na									<0.196	na	na	na
Chromium	all	na	<0.05	0.08	<.02	<.01	<.01	<.01	<.01	na	0.0242	<0.005	1.42	<.004
Cobalt		na	0.06	0.04	0.11	<.01	na	na	na	na	0.114	na	na	na
Copper	mg/l	na	0.04	0.04	0.02	<.01	na	na	na	na	0.0502	<0.010	0.169	<.0138
Lead		1.4	1.8	1.8	0.13	<.05	<.05	0.1	<.01	0.24	0.0014	<0.002	0.908	<.002
Mercury		na	<.001	<.001	<.001	<.001	<.001	<.001	<.001	na	<0.0002	0.0005	<.0002	<.0002
Molybdenum		na	<.1	<.1	<.1	0.04	na	na	na	na	na	na	na	na
Nickel		na	0.29	0.29	0.22	0.09	na	na	na	na	0.0875	<0.02	3.41	0.0122
Potassium											0.802	na	na	na
Selenium		na	<.01	<.01	<.01	<.01	<.001	<.01	<.01	na	<0.0013	<0.005	<.02	<.002
Silver		na	<.01	<.01	<.01	<.01	<.01	<.01	<.01	na	0.0097	<0.01	<.02	<.002
Thallium		na	<.01	<.01	<.01	<.01	na	na	na	na	<0.0014	<.005	<.001	<.001
Vanadium		na	<1	<1	0.2	<.01	na	na	na	na	0.106	na	na	na
Zinc		0.46	0.78	0.71	<.02	<.01	na	na	na	na	0.0445	0.021	2.66	<.0164
Iron		na	na	na	na	na	na	0.085	<1	na	0.223	na	na	na
Magnesium		2.2	na	na	na	na	<1	17	na	na	<0.204	na	na	na
Manganese		na	na	na	na	na	na	0.021	<.01	na	0.0325	na	na	na
Sodium		1300	na	na	na	na	960	940	1100	na	<0.248	na	na	na
Others														
Chloride		na	2300	na	2100	na	2100	2700	na	na	na	na	na	na
Sulfate		na	95	na	68	na	120	93	na	na	na	na	na	na

OPF-7 represents an EPA sample split.

WB-1(S) and WB-1(S)-F represent EPA samples. "F" indicates filtered analyses.

TABLE 3a
FORMER TANK FARM AREA
SUMMARY OF SOIL CHEMISTRY RESULTS

Location		W-4	W-4	W-4	S-6	S-6	S-7	MW-19	MW-19	MW-19
Date		11/82	11/82	11/82	11/82	11/82	11/82	9/87	9/87	9/87
Sample ID		S-1	S-2	S-3	S-6-1	S-6-2	S-7-1	MW-19-01	MW-19-02	MW-19-03
Depth (feet)		5-6	10-11	15-16	0	1	1	1	5	7.5
Analyte	Units									
Metals										
Barium	all	na	na	na	na	na	na	130	150	81
Lead	mg/kg	na	na	na	na	na	na	200	23	25
Zinc		na	na	na	na	na	na	59	60	74
Lead (WET)	mg/l	na	na	na	na	na	na	13	na	na
VOCs										
Acetone		430	1300		470					
Benzene				20	610	3800	14			
Butanal					950					
C3-AlkylbenzeneS					17000	19000	12000			
C4-Alkylbenzenes					6000	11000	5900	The 1987 HAR did		
C6-Alkylalcohol					14000			not investigate		
C6-Alkylketone	all				20000			volatile compounds.		
Cellosolve Acetate	µg/kg						3000			
Cyclohexane					1600	4400				
Cyclohexanone					4700					
Dimethylcyclohexane					8100	6800	1400			
Dimethylcyclopentane						1100				
Dimethylhexene						14000				
Ethylbenzene		790			8600	9200	5900			
Ethylcyclopentane						2200				

Note: No entry indicates no detection limits were reported in original CAR

TABLE 3a (continued)
FORMER TANK FARM AREA
SUMMARY OF SOIL CHEMISTRY RESULTS

Location		W-4	W-4	W-4	S-6	S-6	S-7	MW-19	MW-19	MW-19
Date		11/82	11/82	11/82	11/82	11/82	11/82	9/87	9/87	9/87
Sample ID		S-1	S-2	S-3	S-6-1	S-6-2	S-7-1	MW-19-01	MW-19-02	MW-19-03
Depth (feet)		5-6	10-11	15-16	0	1	1	1	5	7.5
Analyte	Units									
VOCs(continued)										
Hexane				1800	1100		720			
Methylcyclohexane						18000	180	The 1987 HAR did		
Octane	all						4400	not investigate		
Pentanol	µg/kg				890			volatile compounds.		
Toluene					5100	12000	680			
Xylenes, Total					18000	36000	16000			
SOCs										
Naphthalene	all	na	na	na	na	na	na	1100	<330	<330
Phenanthrene	µg/kg	na	na	na	na	na	na	370	550	560

TABLE 3a (continued)
FORMER TANK FARM AREA
SUMMARY OF SOIL CHEMISTRY RESULTS

Location		B12	B12	B13	B13	B14	B14
Date		1/91	1/91	1/91	1/91	1/91	1/91
Depth (feet)		3.5	8	1.5	4	1.5	4.5
Analyte	Units						
VOCs							
MEK			230				
Toluene							
Xylenes	all	4800	1100		17		
Ethylbenzene	µg/kg		120				
Ethylmethyl Benzene Isomer		25000		140			
Trimethyl Benzene Isomer		24000		95			1600
Dimethyl Benzene Isomer		32000		270			3800
HBHCs							
As Diesel	all	1,300,000	2,000,000		ND	2800	
As Oil	µg/kg	430,000	ND		ND	ND	

TABLE 3b
FORMER TANK FARM AREA
SUMMARY OF GROUNDWATER CHEMISTRY RESULTS

Location		W-6	W-7	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	OPF-6
Date				9/87	1/88	4/88	7/88	11/88	2/91	2/91
		CARs Pending	CARs Pending							EPA Split
Analyte	Units									
Metals										
Aluminum										<0.033
Antimony		na	na	na	<0.01	<0.01	<0.01	na	na	0.0264
Arsenic		na	na	na	<0.01	<0.01	<0.01	<0.01	na	0.0075
Barium		<0.1	na	0.11	<0.1	<0.1	0.04	0.06	na	1.13
Beryllium		na	na	na	<0.01	<0.01	<0.01	na	na	<0.001
Cadmium		na	na	na	0.03	<0.01	<0.01	<0.01	na	<0.003
Calcium										204
Chromium	all	na	na	na	0.49	0.04	<0.01	0.81	na	<0.003
Cobalt		na	na	na	<0.02	<0.02	<0.01	na	na	0.0187
Copper	mg/l	na	na	na	0.03	<0.01	<0.01	na	na	<0.004
Lead		<0.005	na	0.06	0.04	0.03	<0.05	0.03	<.005	0.0014
Mercury		na	na	na	<0.001	<0.001	<0.001	<0.001	na	<0.0002
Molybdenum		na	na	na	<0.1	<0.1	0.05	na	na	na
Nickel		na	na	na	0.2	0.61	0.49	na	na	0.0566
Selenium		na	na	na	<0.01	<0.01	<0.01	<0.01	na	<0.0013
Silver		na	na	na	<0.01	<0.01	<0.01	<0.01	na	0.0099
Thallium		na	na	na	<0.01	<0.01	<0.01	na	na	<0.0014
Vanadium		na	na	na	<0.1	0.2	<0.01	na	na	0.0497
Zinc		0.02	na	0.14	0.07	<0.01	<0.01	na	na	0.0055
Iron		na	na	na	na	na	na	6.4	na	0.0517
Magnesium		na	na	100	na	na	na	120	na	144
Manganese		na	na	na	na	na	na	0.08	na	0.024
Sodium		na	na	350	na	na	na	410	na	815

* This sample represents an EPA split.

TABLE 3b(continued)
FORMER TANK FARM AREA
SUMMARY OF GROUNDWATER CHEMISTRY RESULTS

Location		W-6	W-7	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	OPF-6
Date				9/87	1/88	4/88	7/88	11/88	2/91	2/91
		CARs	CARs							EPA Split
Analyte	Units	Pending	Pending							
VOCs										
Acetone			na	na	na	na	na	na	<10	8
Benzene			ND	na	<5	<5	<5	<5	<5	10
Ethylbenzene	all	120	na	na	<5	<5	<5	<5	<5	39
Toluene	µg/l	7000	ND	na	<5	<5	<5	<5	<5	11
Trichloroethane		3	na	na	<5	<5	<5	<5	<5	<5
Xylenes, Total			ND	na	na	na	na	na	<5	73
SOCs										
Bis-(2-ethylhexyl)phthalate		ND	na	90	<10	<10	<26	<11	ND	3
Di-n-butylphthalate	all			ND	<10	<10	<10	<11		3
Isophorone	µg/l			ND	<10	<10	<10	<11		23
Naphthalene				ND	<10	<10	<10	<11		17
N-nitrosodiphenylamine		ND	na	34	<10	<10	<26	<11	ND	<10

TABLE 3c
EASTE PROPERTY
SUMMARY OF GROUNDWATER CHEMISTRY RESULTS

Location		WB-4	WB-4(S)	WB-4(S)-F	WB-5	WB-5(S)	WB-5(S)-F	WB-6	WB-6(S)	WB-6(S)-F
Date		11/91	11/91	11/91	11/91	11/91	11/91	11/91	11/91	11/91
Sample ID		WB-4	EPA	EPA	WB-5	EPA	EPA	WB-6	EPA	EPA
Analyte	Units									
Toluene	µg/l	<1	<.2	na	<1	<.2	na	<18	<.2	na
Metals										
Antimony		<50			<50			na		
Arsenic		6			<5			na		
Beryllium		<5			<5			na		
Cadmium		<3			<3			na		
Chromium		<5			<5			na		
Copper	all	12			<10			na		
Lead	µg/l	<2	54.1	<2	4	89.2	<2	<2	57.9	<2
Mercury		<0.5			<0.5			na		
Nickel		<20			<20			na		
Selenium		<5			<5			na		
Silver		<10			<10			na		
Thallium		<5			<5			na		
Zinc		<10			<10			na		
BTEX										
Benzene		na	<0.2		na	<0.2		na	<0.2	
Toluene	µg/l	<1	<0.2		<1	<0.2		<1	<0.2	
Ethylbenzene		na	<0.2		na	<0.2		na	<0.2	
Total Xylenes		na	<0.4		na	<0.4		na	<0.4	

Note: EPA analyses for all metals listed are not available.
WB-4(S), WB-5(S), WB-6(S) are EPA samples. "F" indicates filtered analyses.

TABLE 4a
FORMER SOLVENT STILL AREA
SUMMARY OF SOIL CHEMISTRY RESULTS

Location		PM-9	PM-9	PM-9	PM-9	PM-9	SB-1	SB-1	SB-1	SB-1	SWB-1DL	SWB-1	SWB-1	SWB-2	SWB-2
Date		8/87	8/87	8/87	8/87	8/87	11/91	11/91	11/91	11/91		11/91	11/91	11/91	11/91
Sample ID		S-1	S-1D*	S-2	S-2D*	S-4	EPA Split	EPA Split			EPA Split				
Depth (feet)		0	0	5	5	15	0-0.5	0-0.5	1	3.5	0-0.5	1	3	1	3.5
Analyte	Units														
Metals															
Antimony		na	na	na	na	na	<9.4	<10.1	na	na	na	na	na	na	na
Barium		160	112	160	na	110	na	na	86	190	na	289	186	217	144
Beryllium		na	na	na	na	na	0.25	0.27	na	na	na	na	na	na	na
Cadmium		na	na	na	na	na	<.55	1.5	na	na	na	na	na	na	na
Chromium		na	na	na	na	na	106	135	na	na	na	na	na	na	na
Copper		na	na	na	na	na	24.4	35.6	na	na	na	na	na	na	na
Lead	mg/kg	170	82	56	na	82	179	313	30	31	na	<20	130	62	48
Nickel		na	na	na	na	na	109	127	na	na	na	na	na	na	na
Silver		na	na	na	na	na	<.22	<.24	na	na	na	na	na	na	na
Zinc		64	80	70	na	37	79.8	381	59	76	na	73	145	72	82
Lead (WET)	mg/l	1.2	na	4	na	2.1	0.68	0.19	na	na	0.19	na	na	na	na
VOCs															
Carbon Disulfide	all	na	na	na	na	na	<6	na	<5	100	<5	<5	<5	<5	8
2-Hexanone		na	na	na	na	na	<10	na	<10	<500	<12	<10	<10	<10	<10
MEK	µg/kg	na	na	na	na	na	<10	na	<10	<500	<10	<10	<10	<10	10
Xylenes, Total		na	na	na	na	na	<5	na	12	<50	<5	<5	<5	<5	<5
SOCs	mg/kg	All compounds analyzed from SB-1 1' & 3.5', SWB-1 1' & 3', and SWB2-1' & 3.5'. None detected using EPA methods 3540/8270 except the following:													
2-Methylnaphthalene		na	na	na	na	na	na	na	<0.3	0.4	na	0.3	<0.3	<0.3	0.5
Bis(2-ethylhexyl) Phthalate		na	na	na	na	na	1.1	na	<0.3	<0.3	20	<0.3	3	2	<0.3

EPA Sample SB-1 appears to have been analyzed twice for metals (i.e., split)

TABLE 4a(continued)
FORMER SOLVENT STILL AREA
SUMMARY OF SOIL CHEMISTRY RESULTS

Location		PM-9	PM-9	PM-9	PM-9	PM-9	SB-1	SB-1	SB-1	SB-1	SWB-1DL	SWB-1	SWB-1	SWB-2	SWB-2
Date		8/87	8/87	8/87	8/87	8/87	11/91	11/91	11/91	11/91		11/91	11/91	11/91	11/91
Sample ID		S-1	S-1D*	S-2	S-2D*	S-4	EPA Split	EPA Split			EPA Split				
Depth (feet)		0	0	5	5	15	0-0.5	0-0.5	1	3.5	0-0.5	1	3	1	3.5
Analyte	Units														
SOCs															
Butylbenzylphthalate							<410	na	<300	<300	1800	<300	<300	<300	<300
Benzoic Acid							250	na	<2000	<2000	<9900	<2000	<2000	<2000	<2000
Di-n-octyl Phthalate							<410	na	<300	<300	2000	<300	<300	<300	<300
Fluoranthene							180	na	<300	<300	<2000	<300	<300	<300	<300
Nitrobenzene		<330		960	1500	<330	na	na	<300	<300	<330	<300	<300	<300	<300
2,4-Dimethylphenol		<330		460	430	<330	na	na	<300	<300	<330	<300	<300	<300	<300
Naphthalene	all	<330	No	3000	5000	<330	na	na	<300	<300	<330	<300	<300	<300	<300
Phenanthrene	µg/kg	<330	CAR	560	460	<330	<410	na	<300	<300	<2000	<300	<300	<300	<300
Di-n-butyl Phthalate		680		1100	1900	<330	na	na	<300	<300	<330	<300	<300	<300	<300
Bis(2-ethylhexyl) Phthalate		520		620	<330	<330	1100	na	<300	<300	<330	<300	3000	2000	<300
2-Methylnaphthalene		na		na	na	na	na	na	<300	400	<330	300	<300	<300	500
4-Nitrophenol							<2000	na	<2000	<2000	<9900	<2000	<2000	<2000	<2000
Hexachlorobenzene							<410	na	<300	<300	<2000	<300	<300	<300	<300
Isophorone							<410	na	<300	<300	<2000	<300	<300	<300	<300
Pentachlorophenol							<2000	na	<2000	<2000	<9900	<2000	<2000	<2000	<2000
Pyrene							<410	na	<300	<300	<2000	<300	<300	<300	<300
Chrysene							<410	na	<300	<300	<2000	<300	<300	<300	<300
Benzo(b)fluoranthene							<410	na	<300	<300	<2000	<300	<300	<300	<300
Benzo(k)fluoranthene							<410	na	<300	<300	<2000	<300	<300	<300	<300
Indeno(1,2,3-cd)pyrene							<410	na	<300	<300	<2000	<300	<300	<300	<300
Benzo(g,h,i)perylene							<410	na	<300	<300	<2000	<300	<300	<300	<300

* "D" represents sample split.

TABLE 4b
FORMER SOLVENT STILL AREA
SUMMARY OF GROUNDWATER CHEMISTRY RESULTS

Location		PM-9	SWB-1	SWB-1	SWB-1-F	SWB-2	SWB-2	SWB-2-F	WB-3	WB-3(e)	WB-3(e)-F
Date		est. 1987*	11/91	11/91	11/91	11/91	11/91	11/91	11/91	11/91	11/91
Sample ID			SWB-1	EPA Split	EPA Split	SWB-2	EPA Split	EPA Split	WB-3	EPA Split	EPA Split
Analyte	Units										
Metals											
Antimony		na	<0.050	na+	na+	<0.050	na+	na+	<0.050	na+	na+
Arsenic		na	0.006	0.0203	0.0024	0.021	0.045	0.0224	0.012	0.0817	0.0114
Beryllium		na	<0.005	<.002	<.002	<0.005	<.1	<.002	<0.005	<0.02	<.002
Cadmium		na	<0.003	0.0424	<.002	<0.003	<.25	<.005	<0.003	<0.05	<.005
Chromium	all	na	<0.005	2.82	<.004	<0.005	38.2	<.004	0.009	13.6	0.0128
Copper	mg/l	na	<0.010	0.529	<.0123	0.023	5.81	<.0289	<0.010	1.53	<.0142
Lead		na	0.018	152	0.0141	0.007	643	0.0131	0.017	7.37	0.0094
Mercury		na	<0.0005	0.0032	<.0002	<0.0005	0.0087	<.0002	<0.0005	0.0045	<.0002
Nickel		na	<0.020	3.58	0.009	<0.020	61.1	0.0082	0.030	23.9	0.0346
Selenium		na	<0.005	<.02	<.002	<0.005	<.02	<.002	<0.005	<0.02	<.002
Silver		na	<0.010	0.002	<.002	<0.010	<.1	<.002	<0.010	<0.02	<.002
Thallium		na	<0.005	0.0023	<.001	<0.005	0.0066	<.001	<0.005	0.0016	<.001
Zinc		na	<0.010	5	<.002	<0.010	29.6	<.002	<0.010	3.51	<.0068
VOCs											
Acetone			<20	26	na	<20	30	na	<20	8	na
2-Butanone			<10	<10	na	<10	17	na	<10	53	na
Carbon Disulfide			<1	<5	na	1	<5	na	<1	<5	na
Benzene	all	190	12	15	na	<1	<5	na	<1	<5	na
Ethylbenzene	µg/l	300	17	23	na	<1	<5	na	<1	<5	na
Methylene Chloride			<10	8	na	<10	<5	na	31	<5	na
Xylenes, Total		4100	120	130	na	<1	<5	na	<1	<5	na
SOCs											
Acenapthene			<50	na	na	<10	na	na	7	na	na
Naphthalene		90	480	<10	na	21	<10	na	na	<10	na
2-Methylnaphthalene	all	26	170	<10	na	19	<10	na	<5	<10	na
2,4-dimethylphenol	µg/l	38	<50	<10	na	<10	<10	na	<5	<10	na
Di-n-butylphthalate			390	<10	na	<10	<10	na	<5	<10	na

* No CAR available to verify date and detection limits.

na+ The lab report indicates the results are rejected and are invalid for all purposes

TABLE 5
BREAKWATER
SUMMARY OF SOIL CHEMISTRY RESULTS

Sample ID	Date	Condition of Sample	Total lead (mg/kg)	Soluble lead (mg/l) WET citrate	WET DI Water	WET BayWater	TCLP
S-1	4/9/92	dry	31.00	3.30	<0.05	<0.05	0.20
EPA Split			94.50				
S-2	4/9/92	wet	2300.00	22.00	<0.05	<0.05	0.90
EPA Split			415.00				
S-3	4/9/92	dry	1100.00	540.00	2.90	0.92	44.00
EPA Split			8880.00				
S-4	4/9/92	wet	12.00	0.57	<0.05	<0.05	<0.20
EPA Split			9.10				
S-5	4/10/92	dry	44.00				
EPA Split			19.80				
S-6	4/10/92	wet	6.00				
EPA Split			13.90				
S-7	4/10/92	dry	70.00				
EPA Split			3.60				
S-8	4/10/92	wet	6.80				
EPA Split			4.30				
S-9	4/10/92	dry	39.00				
EPA Split			182.00				
S-10	4/10/92	wet	20.00				
EPA Split							
S-14	4/13/92	dry	10.00				
S-15	4/13/92	wet	41.00				

TABLE 5(continued)
BREAKWATER
SUMMARY OF SOIL CHEMISTRY RESULTS

Sample ID	S-8	EPA Split	S-10	EPA Split 1	EPA Split 2
Date	4/15/92		4/15/92		
Volatile Organic Compounds					
Acetone	<50.00	140.00	<50.00	34.00	<12.00
Toluene	41.00	<5.00	<5.00	<5.00	<5.00
Xylenes	380.00	<5.00	<5.00	<5.00	<5.00
Ethylbenzene	200.00	<5.00	<5.00	<5.00	<5.00
1,1,2-TCA	6.00	<5.00	<5.00	<5.00	<5.00
1,1,2,2-Tetrachloroethane	13.00	<5.00	<5.00	<5.00	<5.00
Semivolatile Organic Compounds					
Pyrene	<0.30	<0.81	<0.3	0.56	na
Metals					
Sb	<10.00	1.70	<10.00	1.50	na
As	4.00	2.50	5.00	3.20	na
Be	<1.00	0.50	<1.00	0.90	na
Cd	<1.00	<0.50	<1.00	<0.40	na
Cr	33.00	31.60	210.00	316.00	na
Cu	31.00	17.20	36.00	47.50	na
Pb	<20.00	4.30	<20.00	11.20	na
Hg	0.50	0.10	1.30	0.20	na
Ni	85.00	56.60	354.00	387.00	na
Se	<1.00	<0.10	<1.00	<0.10	na
Ag	<2.00	<0.40	<2.00	<0.40	na
Th	<1.00	<0.10	<1.00	<0.10	na
Zn	45.00	28.60	58.00	61.20	na

na = not analyzed

DISTRIBUTION

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