THE FINAL DISPOSAL VOLUME OF SOIL WHICH WAS HAULED TO THE CLASS III LANDFILL IN ANDERSON, CALIFORNIA WAS APPROXIMATELY 1600 CUBIC YARDS.

I SWEAR THAT THE ABOVE STATEMENT IS TRUE TO THE BEST OF MY KNOWLEDGE.

Marc Papineau

MARC PAPINEAU

EARTH METRICS INC.

7-27-89

DATE

MARKETPLACE SITE Earth Metrics response to Vol 2-6

DRAFT RESPONSE TO ALAMEDA COUNTY LETTER (PART II) DATED JUNE 20, 1989

SOLID WASTE

No hazardous waste or extremely hazardous waste has been discharged or disposed. All surplus soil and wastes have been properly disposed or are in the process of being properly disposed.

The specific surplus material transported from the Marketplace site to the north of Judson Steel (a.k.a. Chiron) site was clean (i.e., nonhazardous) soil, used as storm sewer backfill. The specific surplus material transported to Richmond Sanitary Service's West Contra Costa Sanitary Landfill was nonhazardous bioremediated soil and bioremediated fuel manifold backfill. The specific surplus material transported to Forward Inc.'s Anderson Sanitary Landfill was nonhazardous surplus soil, excavation of which was incidental to construction of Marketplace foundation footings and new utility laterals. Other inert materials including concrete chunks, wood, asphalt pavement, trash, and import backfill were transported to various destinations for proper disposal or reuse.

The nonhazardous status of all surplus and bioremediated backfill and soil was evaluated by the Environmental Site Assessor (Earth Metrics Incorporated). For several sanitary landfills, including those in Richmond and Anderson, chemical profiling was performed and submitted to each landfill operator prior to transportation and disposal. In addition, the Regional Water Quality Control Boards and Alameda County Hazardous Materials Unit were consulted and notified.

The Class III landfill disposal acceptability criteria generally are more stringent than the California Title 22 hazardous waste classification criteria. Class III landfills adhere to disposal acceptability criteria which are permitted by the Regional Water Quality Control Board (RWQCB) and which was developed using Dr. Jon B. Marshack's designated level methodology. Each landfill has its own permit and site specific criteria. Landfill operators review chemical profiles submitted to them, and decide upon the acceptability of surplus soil, demolition spoils, or waste materials.

Each generator is responsible for performance of chemical tests required to complete the chemical profile.

The number and complexity of the chemical tests varied depending upon the volume and nature of the surplus materials or wastes. For the Marketplace site, the complexity of the chemical profiling tests in general was determined by the Environmental Site Assessor (Earth Metrics) and, in specific cases, was determined also by the landfill operator and Regional Water Quality Control Board. For acknowledged inert materials like concrete blocks, asphalt pavement, wood debris, and import backfill, testing was simple visual confirmation.

Specific chemical profiling tests for each of three (3) waste streams are described as follows:

1. Testing of Bioremediated Soil and Backfill. A chemical profile was prepared by Earth Metrics for Richmond Sanitary Services (RSS). The profile was submitted by Earth Metrics to Ms. Sharon Tuohy and, on the basis of the profile, the bioremediated soil was accepted by Richmond Sanitary for disposal at its Class III landfill. Sampling and testing of total petroleum hydrocarbons and volatile organics was performed by GTEL (Groundwater Technology Environmental Laboratory). GTEL is a subsidiary of Groundwater Technology, the firm which created and monitored the bioreclamation soil piles. Test results are provided in Exhibit #1.

Fuel concentrations and volatile organic constituents were consistent with all disposal acceptability criteria of RSS effective as of June 10, 1988. This determination was made by Richmond Sanitary. These RSS disposal acceptability criteria are listed below:

ANALYTE	DISPOSAL ACCEPTABILITY CRITERIA OF RICHMOND SANITARY SERVICE
Diesel Oil	10 ppm
Kerosene	10 ppm
Benzene	0.7 ppm
Ethyl benzene	29 ppm
Toluene	100 ppm
Xylenes	620 ppm

The subject bioremediated soil and backfill originated from source removal performed around the contaminated gasoline and diesel manifold trenches. The manifold trench backfill and surrounding native soil were excavated from the former Nielsen Freight Lines site. The Nielsen Freight Lines site is located directly north of the Marketplace and is contiguous with the northern boundary of the Marketplace.

2. Testing of Storm Sewer Backfill. Visual inspection was performed by Earth Metrics to assure that backfill brought to the Chiron (North of Judson) site was free of felt paper and asphalt. Chemical testing was performed of all material to document the nonhazardous status of metals, volatile and semivolatile organics.

Table 1 and Exhibit #2 present the test results. Tests show the soil to be nonhazardous and of similar quality to soil on the Chiron site (refer to Table 1).

Storm sewer backfill consisted of light-colored clean soil and some inert spoils (e.g., gravel, brick or concrete fragments). The subject backfill originated from the southwest corner of the Marketplace site, on the opposite end of the site away from the mapped areas of petroleum hydrocarbons and asphaltic material.

3. Testing of Surplus Soil. A chemical profile was prepared by Earth Metrics for the Richmond Sanitary Service (RSS). The chemical profile was hand delivered to Mr. Dennis Byrne (Alameda County Hazardous Materials Unit) and a duplicate was later mailed July 22, 1988, to Mr. Lowell Miller (Alameda County Hazardous Materials Unit). The same profile also was mailed July 22, 1988, to Mr. Ken Theisen (San Francisco Regional Water Quality Control Board).

Following the original chemical profile of July 22, 1988, additional tests were requested by RSS and also by the San Francisco RWQCB. RSS requested tests of reactivity and corrosivity. The RWQCB requested a variation of the California WET using deionized water as the extractant. Fish bioassay was also performed.

All supplementary test results were delivered to RSS, RWQCB, and to disposal consultants as soil disposal had by then become a matter of a competitive bid solicitation. The updated profile was telecopied September 2, 1988, to Bay Area Environmental and IT Corporation, two soil disposal consultants/transporters.

The following chemical tests were performed and reported by Sequoia Analytical Laboratory:

ANALYTE	DATE REPORTED
Asbestos	7/26/88
Heavy Metals (list of 19 including Chromium VI)	7/15/88
Volatile Organics (EPA 8420)	7/15/88
Semivolatile Organics (EPA 8270)	7/15/88
Total Cyanide	8/02/88
Reactive Sulfide	8/02/88
pH	8/02/88
Organic Lead	8/02/88
Fish Bioassay	8/02/88
Total Petroleum Hydrocarbons (as Kerosene)	7/26/88
California WET	7/15/88
Deionized Water Waste Extraction A	8/22/88

Chemical characteristics of the surplus soil are summarized in Table 2 and details of chemical waste profiling are provided in Exhibit #2.

Chemical testing was performed of two kinds of soil: with and without fragments of felt paper. The typical sequence of stockpiling and testing is outlined below:

- Excavation incidental to construction.
- Creation of separate soil stockpiles, as directed and mapped by Peregren (formerly SOS International).
- Visual inspection of each stockpile for potential asbestos containing felt paper, by Aqua Terra Technologies and Earth Metrics Incorporated.
- Double bagging of loose felt paper fragments, by Peregren.
- Chemical testing of stockpiles for semivolatile and volatile organics, metals, and other characteristics.
- Relocation and aggregation of stockpiles, after testing, as supervised by Earth Metrics, into three (3) groups:

i) Stockpiles free of felt paper
ii) Stockpiles containing the felt paper (1,554 cu yds)
iii) Storm sewer backfill

- Chemical profiling

- Offhauling

Some fragments of potential asbestos containing felt paper were found. These fragments were presumably left over from the previous historic industries at the Marketplace site. Discrete fragments in the construction zone were hand picked by SOS International (now known as Peregren), double-bagged, and then properly disposed.

Bay Area Environmental and IT Corporation submitted the chemical profile to several additional sanitary landfills. Bay Area Environmental (Transporter) was awarded the disposal/transportation contract and hauled the soil after acceptance of the profile by Forward, Inc. (operator) to the Anderson landfill.

The subject surplus soil originated from excavation that was incidental to construction of foundation footings and utility laterals. The chemical profile of the interim stored surplus soil was prepared by Earth Metrics separate and apart from the profile of asphaltic material prepared by Aqua Terra Technologies (ATT).

The latter chemical profile by ATT is not a subject of this discussion, as disposal of asphaltic material is pending a final resolution.

TABLE 1. CHEMICAL PROFILE OF SOIL HAULED FROM THE MARKETPLACE TO NORTH OF JUDSON (CHIRON) SITE

ANALYTES	CALIFORNIA TTLC	HAUL SOIL FROM MARKETPLACE SITE
Asbestos	>1% if friable	None (no felt paper)
PCBs	50 mg/kg	None
Selected Metals (see below)		
Arsenic	500 mg/kg	5.8 mg/kg
Barium	10,000	150
Cadmium	100	0.36
Chromium	2,500	38
Copper	2,500	31
Lead	1,000	100
Zinc	5,000	150
Volatile Organics	N/A	None
Semi-Volatile Organics	N/A	None
pH	≤ 2 ≥ 12.5	9.1

> Greater than
< Less than
≥ Greater than or equal to
≤ Less than or equal to

N/A Not applicable

mg/kg milligram per kilogram (same as ppm)

ppm part per million

ppb part per billion

TABLE 2. CHEMICAL PROFILE OF SURPLUS SOIL FROM THE MARKETPLACE, EMERYVILLE

ANALYTES	SOLUBLE LEVEL (mg/l)	STLC (mg/l)	TOTAL LEVEL	TTLC
Asbestos	N/A	N/A	<1%	>1% if friable
All Metals	<Title 22		<Title 22	
Selected Metals (see below):				
Arsenic	0.25 (0.014)	5	5.8 mg/kg	500 mg/kg
Barium	3.8	100	150	10,000
Copper	1.4	25	31	2,500
Lead	3.6 (0.039)	5	100	1,000
Nickel	0.28 (N.D.)	20	30	2,000
Volatile Organics	N/A	N/A	ND	N/A
Semi-Volatile Organics	N/A	N/A	ND (a)	N/A
Total Cyanide	N/A	N/A	ND	N/A
Reactive Sulfide	N/A	N/A	ND	N/A
pH	N/A	N/A	9.1	N/A
Organic Lead	N/A	N/A	1.4 mg/kg	1,300 mg/kg
Fish Bioassay	N/A	N/A	96 hour survival in 1,000 ppm = 90%	
Total Petroleum Hydrocarbons as Kerosene			100 mg/kg	

( ) Number in parentheses under "Selected Metals" refers to the soluble concentration (mg/l) in a variation of California WET which uses deionized water. The deionized water extraction test was provided at the request of RWQCB.

N/A Not Applicable.

ND None Detected.

(a) Because of the EPA 8270 detection limit attainable by Sequoia Analytical, a Fish Bioassay was requested by RWQCB.

Source: Sequoia Analytical Laboratory, 1988.

EXHIBIT #1

Final Soil Bioremediation Test Results
of the Nielsen Site

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Dave Drury
Groundwater Technology, Inc.
4080 Pike Lane
Concord, CA 94520
PROJECT#: 203-799-2728-7
LOCATION: Emeryville, CA

SAMPLED: 09/12/88 BY: D. Kaufman
RECEIVED: 09/13/88 BY: E. Larsen
ANALYZED: 09/16/88 BY: P. Hanners
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

PARAMETER	MDL	LAB # I.D.#	31531 4-1	31532 4-2	31533 4-3	31534 4-4	31535 4-5
Total Petroleum Hydrocarbons as Diesel	100		<100	<100	<100	<100	<100

MDL = Method Detection Limit.

METHOD:
Modified EPA Method 8015

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Dave Drury

PROJECT#: 203-799-2728-7
LOCATION: Emeryville, CA

MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

PARAMETER	MDL	LAB # I.D.#	31536 4-6	31538 4-8	31539 4-9	31540 4-10
Total Petroleum Hydrocarbons as Diesel	100		<100	<100	<100	<100

MDL = Method Detection Limit.

METHOD:
Modified EPA Method 8015.

Safy Khaliq/EM7

SAFY KHALIQ, Ph.D., Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Dave Drury
Groundwater Technology, Inc.
4080 Pike Ln.
Concord, CA 94520
PROJECT#: 203-799-2728-8
LOCATION: 64th & Christie St.
Emeryville, CA
SAMPLED: 09/19/88 BY: M. Czipka
RECEIVED: 09/19/88 BY: K. Fillinger
ANALYZED: 09/19/88 BY: R. Condit
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	32044 X-1	32045 X-2	32046 X-3	32047 X-4	32048 X-5
Benzene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Total BTEX	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Misc. Hydrocarbons (C4-C12)	1		<1	12	16	<1	12
Total Petroleum Hydrocarbons as Gasoline	1		<1	12	16	<1	12

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 5030/8020/8015

GTEL ENVIRONMENTAL LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Dave Drury
PROJECT#: 203-799-2728-8
LOCATION: 64th & Christie St.
Emeryville, CA

MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	32049 X-6	32050 X-7	32051 X-8	32053 X-10
Benzene	0.5		<0.5	<0.5	<0.5	<0.5
Toluene	0.5		<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5		<0.5	<0.5	<0.5	<0.5
Xylenes	0.5		<0.5	<0.5	<0.5	<0.5
Total BTEX	0.5		<0.5	<0.5	<0.5	<0.5
Misc. Hydrocarbons (C4-C12)	1		72	5	24	<1
Total Petroleum Hydrocarbons as Gasoline	1		72 *	5	24	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.
METHOD: Modified EPA Method 5030/8020/8015
* = Hydrocarbon pattern suggests the presence of diesel fuel.

Safy Khalifa/EMT

SAFY KHALIFA, Ph.D., Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

10/17/88 rw
CLIENT: Dave Drury
Groundwater Technology, Inc.
4080 Pike Lane
Concord, CA 94520
PROJECT #: 203-799-2728-9
LOCATION: Emeryville, CA

SAMPLED: 10/12/88 BY: D. Drury
RECEIVED: 10/12/88 BY: K. Biava
ANALYZED: 10/13/88 BY: R. Condit
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	33617 DIESEL	33618 GAS
Benzene	0.5		<0.5	<0.5
Toluene	0.5		<0.5	<0.5
Ethylbenzene	0.5		<0.5	<0.5
Xylenes	0.5		<0.5	<0.5
Total BTEX	0.5		<0.5	<0.5
Total Petroleum Hydrocarbons as Gasoline	1		<10*	<1
Total Petroleum Hydrocarbons as Diesel	10		31	<10

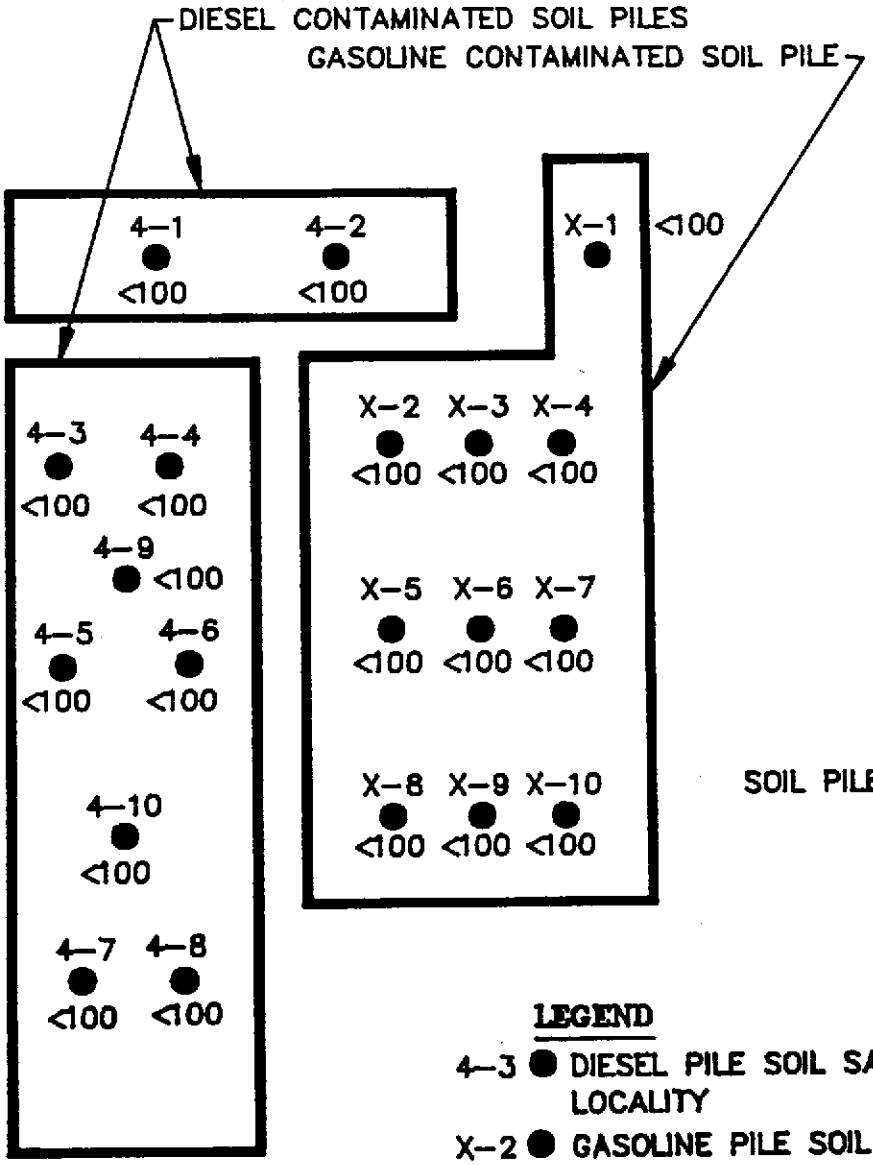
MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 5030/8020/8015
* Modified EPA 8015, direct injection.

Safy Khalifa 10/17

SAFY KHALIFA, Ph.D., Director

CHRISTIE STREET



SOIL PILE LAYOUT

LEGEND

4-3 ● DIESEL PILE SOIL SAMPLING LOCALITY

X-2 ● GASOLINE PILE SOIL SAMPLING SAMPLING LOCALITY

<100= LESS THAN 100 ppm TPH as GASOLINE OR DIESEL

Soil Samples Localities and Results for Samples Collected 9/12/88, 9/19/88, and 10/12/88

0 FEET 40

SCALE

EARTH METRICS, INC.
64th AND CRISTIE STREET
EMERYVILLE, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

MARCH 7th, 1989 - REV. 0 <0.0260>

earth metrics incorporated
859 COWAN ROAD, BURLINGAME, CALIFORNIA 94010
(415) 697-7103

TRANSMITTAL

TO: MR. LOWELL MILLER
ALAMEDA COUNTY
HAZARDOUS MATERIALS UNIT
80 SWAN WAY
OAKLAND, CA 94621

DATE: 7/22/88 EM FILE: 9570.A7

SUBJECT: MARKETPLACE SITE, EMERYVILLE
1. WASTE CHARACTERIZATION OF ASPHALT-LIKE MATERIAL
2. PROPOSAL TO DISPOSE OF EXCAVATION SPOILS

WE ARE SENDING:

☐ Enclosed
☐ Under separate cover

VIA:

☐ Regular Mail ☐ Express Mail ☐ Courier
☐ United Parcel ☐ _____

THE FOLLOWING ITEMS:

No. of Copies	Description
1	WASTE CHARACTERIZATION RESULTS BY AQUA TERRA TECH.
1	PROPOSAL TO DISPOSE OF EXCAVATION SPOILS

THESE ARE TRANSMITTED:

☑ In accordance with our agreement
☐ For your use/information
☐ For review and comment
☐ As requested
☐ For your signature
☐ For your approval
☐ Approved as submitted
☐ _____
☐ _____

REMARKS: I DELIVERED THESE MATERIALS TO MR. DENNIS BURNS AT YOUR OFFICE IN YOUR ABSENCE. PLEASE CALL ME OR DR. SHEEHAN (ATT) IF YOU HAVE ANY QUESTIONS WHEN YOU RETURN.

RETURN REQUIRED: ☑ None ☐ 1 fully executed copy ☐ Return of materials by _____

COPY TO _____

FROM M. PAPINEAU
EARTH METRICS INC.

IF ENCLOSURES ARE NOT AS NOTED, PLEASE NOTIFY US.

AD251

EXHIBIT A

Physical Description of Stockpiles

And Sampling Protocol

The subject soil and rock material was excavated by DEVCON from utility lines and foundation footings at the Marketplace construction site in Emeryville, California. The site is part of Emeryville's historic baylands, and is a site of historic industrial use. Site characterization reports have been submitted by Earth Metrics Incorporated to the Alameda County Hazardous Materials Unit on behalf of the current owner, Christie Avenue Partners.

The excavation spoils were stockpiled for interim storage, stepwise in small, discrete stockpiles, during the excavation period. An average stockpile contained 20 cubic yards. Each stockpile was plotted on a schematic diagram (see Plate 1 dated 7-19-88).

Separate stockpiles containing petroleum hydrocarbons from adjacent tank excavation projects are not subjects of this waste profile. The latter soil materials are in an active landfarm being treated on the Marketplace site.

SAMPLING PROTOCOL. Stored soil was sampled to obtain at least one sample representative of each construction excavation area. The overall sampling frequency was one sample per 70 cubic yards (70 x 23 = 1610 cubic yards). A total of twenty three (23) soil samples were composited by the DHS certified lab. Each sample of a discrete stockpile was itself a composite of random samples.

Random Sampling. A minimum of six (6) random, representative scoops were collected from a given stockpile, mixed thoroughly, and then containerized. Personnel using a pick, shovel, and trowel, obtained soil from the top, center and sides of a given stockpile. Approximately one kilogram of this mixture was placed into pre-cleaned glass jars or brass tubes (capped, foiled, and taped). Samples were labelled and refrigerated on ice in a cooler, and a Chain of Custody was kept throughout from field to lab.

Quality Assurance/Quality Control. TSP and a tub of water were used on site to clean tools between episodes of sample collection from individual stockpiles. As a quality control procedure for volatiles, several brass tubes were submitted to the DHS certified lab with instructions to test them individually without first compositing. Results of i) the "composite" test of the composite made from the 23 samples and ii) the "grab" tests of the duplicate brass tubes were compared and found to be very similar.

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 07/08/88
Date Received: 07/08/88
Date Analyzed: 07/13/88
Date Reported: 07/15/88
Project: #9570 A7, Eastshore

Sample Number: 8070563 Sample Description: Soil, B-1

VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit, µg/kg	Sample Results, µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chlorodibromomethane	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	500	N.D.
Chloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
Total-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	500	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Method of Analysis: EPA 5030/8240
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Scott Cochrane

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 07/08/88
Date Received: 07/08/88
Date Analyzed: 07/13/88
Date Reported: 07/15/88
Project: #9570 A7, Eastshore

Sample Number: 8070564

Sample Description: Soil, B-2

VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit, µg/kg	Sample Results, µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chlorodibromomethane	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	500	N.D.
Chloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
Total-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	500	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Method of Analysis: EPA 5030/8240
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 07/08/88
Date Received: 07/08/88
Date Analyzed: 07/13/88
Date Reported: 07/15/88
Project: #9570 A7, Eastshore

Sample Number: 8070565
Sample Description: Soil, B-3

VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit, µg/kg	Sample Results, µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chlorodibromomethane	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	500	N.D.
Chloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
Total-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	500	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	160
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Method of Analysis: EPA 5030/8240
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 07/08/88
Date Received: 07/08/88
Date Analyzed: 07/13/88
Date Reported: 07/15/88
Project: #9570 A7, Eastshore

Sample Number: 8070566

Sample Description: Soil, B-4

VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit, µg/kg	Sample Results, µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chlorodibromomethane	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	500	N.D.
Chloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
Total-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	500	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Method of Analysis: EPA 5030/8240
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 07/08/88
Date Received: 07/08/88
Date Analyzed: 07/13/88
Date Reported: 07/15/88
Project: #9570 A7, Eastshore

Sample Number: 8070567 Sample Description: Soil, B-5

VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit, µg/kg	Sample Results, µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chlorodibromomethane	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	500	N.D.
Chloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
Total-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	500	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Method of Analysis: EPA 5030/8240
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 07/08/88
Date Received: 07/08/88
Date Analyzed: 07/13/88
Date Reported: 07/15/88
Project: #9570 A7, Eastshore

Sample Number: 8070568

Sample Description: Soil, B-6

VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit, µg/kg	Sample Results, µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chlorodibromomethane	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	500	N.D.
Chloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
Total-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	500	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Method of Analysis: EPA 5030/8240
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

CHAIN OF CUSTODY RECORD

FOR. KNSM ANALYSIS DUE 7/15/88

PROJ. NO.	PROJECT NAME
9570 A7 ~~A6~~	EAST SHORE

SAMPLERS: Signature Gregory Gruner

	STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS Glass Jar	Tilt 22 metals Total	Tilt 22 Metals Extractable	EPA 8240	EPA 8270	Asbestos	REMARKS
S-1	~~G-1~~	6/29/88	9:20 AM		✓	"SANITARY SEWER LINE"	1						Please composite S-1 through S-23
S-2	~~G-2~~	6/29/88	9:30 AM		✓	" B8T"	1						
S-3	~~G-3~~	6/29/88	9:40 AM		✓	" EAST SIDE BLOCK BLD"	1						
S-4	~~G-4~~	6/29/88	9:45 AM		✓	"GRADE BEAM B LINE 4	1						
S-5	~~G-5~~	6/29/88	10:08 AM	✓		" A LINE 1-5"	1						
S-6	~~G-6~~	6/29/88	10:15 AM	✓		" G6"	1						
S-7	~~G-7~~	6/29/88	11:10 AM	✓		" TAILINGS"	1						
S-8	~~G-8~~	6/29/88	11:30 AM	✓		" DGT"	1						
S-9	~~G-9~~	7/1/88	10:30 AM	✓		" D-F LINE 6"	1						
S-10	~~G-10~~	7/1/88	10:45 AM	✓		" TAILINGS"	1						
S-11	~~G-11~~	7/1/88	11:10 AM	✓		" TAILINGS	1						
S-12	~~G-12~~	7/1/88	11:30 AM	✓		" B8T"	1						
S-13	~~G-13~~	7/1/88	11:40 AM	✓		" A LINE 1-5"	1						

PAGE 1 OF 2

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Gregory Gruner	7/8/88 4:35 PM	B. Day	7/8/88 4:35
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time

REMARKS:

Earth Metrics Incorporated
859 Cowan Road, 1st Floor
Burlingame, CA 94010
(415) 697-7103

(CONTINUED)

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
9570 A7 ~~AC~~	EAST SHORE

SAMPLERS: Signature: Gregory Gruner

	STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	TPH 22 Metals Total	TPH 22 Metals Extract	EPA 8240	EPA 8270	Asbestos	REMARKS
							Glass Jar						PAGE 2 OF 2
S-14	~~G-14~~	7/1/88	11:50 AM	✓		"S.S.L."	1						
S-15	~~G-15~~	7/1/88	12:50 PM	✓		"TAILINGS"	1						
S-16	~~G-16~~	7/1/88	12:50 PM	✓		"1 LINE T"	1						
S-17	~~G-17~~	7/1/88	1:20 PM	✓		"TAILINGS"	1						
S-18	~~G-18~~	7/1/88	1:40 PM	✓		"A-6"	1						
S-19	~~G-19~~	7/1/88	2:00 PM	✓		"10G"	1						
S-20	~~G-20~~	7/1/88	2:20 PM	✓		"AG"	1						
S-21	~~G-21~~	7/1/88	2:40 PM	✓		"SANITARY SEWERLINE"	1						
S-22	~~G-22~~	7/1/88	2:50 PM	✓		"D-F LINE 6"	1						
S-23	~~G-23~~	7/1/88	3:10 PM	✓		"S.S.L."	1						

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Gregory Gruner	7/8/88 4:35 PM	B. Dy	7/8/88 4:35
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time

REMARKS:

Earth Metrics Incorporated
859 Cowan Road, 1st Floor
Burlingame, CA 94010
(415) 697-7103

CHAIN OF CUSTODY RECORD

FOR RUSH ANALYSIS
DUE 7/15/88

PROJ. NO.	PROJECT NAME
9570 A7 ~~AG~~	EASTSHORE

SAMPLERS: Signature
Gregory Gruver / BRUCE JENSEN

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	EPA 8240	REMARKS
B-1	7/8/88	8:30 AM	✓		"D.F. LINE G"	1 BRASS	✓	
B-2	7/8/88	8:50 AM	✓		"T LINE PILE CAP"	1 BRASS	✓	
B-3	7/8/88	9:10 AM	✓		"BLOCK BUILDING EAST SIDE"	1 BRASS	✓	
B-4	7/8/88	9:30 AM	✓		"10 G"	1 BRASS	✓	
B-5	7/8/88	9:50 AM	✓		"TAILINGS"	1 BRASS	✓	
B-6	7/8/88	10:10 AM	✓		"S.S.L."	1 BRASS	✓	

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Gregory Gruver	7/8/88 4:35 PM	[signature]	7/8/88 4:35
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time

REMARKS:

Earth Metrics Incorporated
859 Cowan Road, 1st Floor
Burlingame, CA 94010
(415) 697-7103

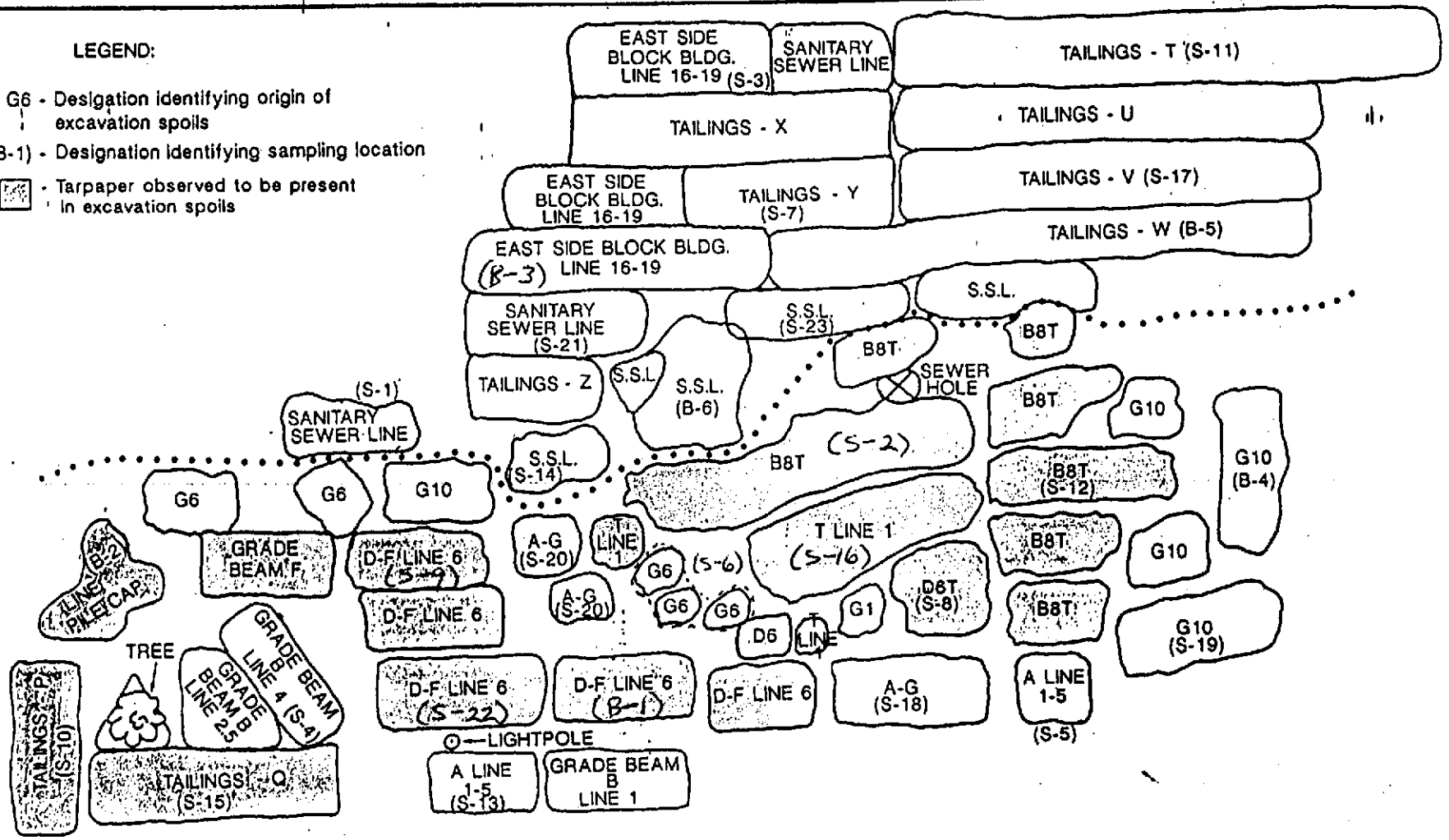


PLATE 1

ATT Aqua Terra Technologies Consulting Engineers & Scientists

Map of Excavation Spoils Piles - The Market Place Site

The Martin Company

JOB NUMBER 834

DATE 7-19-88

earth metrics incorporated

July 22, 1988

Ms. Sharon Tuohy
West Contra Costa Sanitary Landfill
205 41st Street
Richmond, CA 94805

Subject: Chemical Evaluation of Excavation Spoils from Marketplace Site
(Earth Metrics file reference 9570.A7)

Dear Ms. Tuohy:

This letter provides you with DHS certified laboratory tests of soil excavated during construction of utility lines and foundation footings for The ~~Martin~~ CHRISTIE AVENUE PARTNERS ~~Company's~~ (generator's) Marketplace development in Emeryville. It is the intent of ~~The Martin Company~~ CHRISTIE AVENUE PARTNERS to dispose of nonhazardous soil, demolition waste, and concrete and asphalt chunks at a qualified Class III landfill. Any roofing materials, which may potentially contain asbestos, will be double-bagged, labeled, and transported with an appropriate EPA waste manifest, also for disposal at a qualified Class III landfill.

The volumes and natures of materials to be brought to your disposal facility(ies) are summarized in Table 1. The undersigned parties hereby attest that, to the best of their knowledge, the subject materials are nonhazardous excavation spoils or potential asbestos containing building material (ACBM).

Please contact Mr. Walter Kaczmarek @ (415) 652-5852 or Mr. Marc Papineau @ (415) 697-7103 to confirm acceptance of these above referenced materials at your landfill(s). If there are any additional notification requirements, prior to hauling materials to your landfill, please inform us. We plan to begin hauling during July 27 to August 1.

Sincerely,

Marc Papineau
Manager, Physical Sciences

MP/ag

To the best of ~~Any~~ our knowledge we hereby attest to the accuracy and completeness of the information contained herein.

Christie Avenue Partners

by Walter Kaczmarek

by Walter Kaczmarek, Partner for ~~THE MARTIN COMPANY~~ CHRISTIE AVENUE PARTNERS

859 COWAN ROAD, BURLINGAME, CALIFORNIA 94010 (415) 697-7103

TABLE 1. EXCAVATION SPOILS AND DEMOLITION WASTE MAXIMUM VOLUME ESTIMATES

ITEM	ESTIMATED MAXIMUM VOLUME (CUBIC YARDS)
Soil and Rock	2,300
Demolition Waste (Concrete and Rebar)	75
A-C Pavement Chunks	90
Roofing Material (Potential Asbestos Containing)	5

Source: Earth Metrics Incorporated, 1988.

WEST CONTRA COSTA SANITARY LANDFILL

WASTE INFORMATION FORM

Suggested procedures for waste analysis include those in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, U.S. EPA, SW 846"; those procedures approved by the California Department of Health Services for waste analysis; and those equivalent to EPA or California DOHS waste analysis procedures.

TWO COPIES OF THIS FORM AND ADDITIONAL SHEETS CONTAINING SUPPLEMENTAL INFORMATION SHOULD BE RETURNED TO:

West Contra Costa Sanitary Landfill
P. O. Box 5006
Richmond, CA 94805

1. Generator Name: CHRISTIE AVENUE PARTNERS c/o The Martin Co.

2. Generating Facility Name/Address: MARKET PLACE
5900 SHELLMOUND STREET
EMERYVILLE, CA

3. Company Contacts:

Name: WALTER KACZMAREK Title: PARTNER Phone: (415) 652-5852

Name: _____ Title: _____ Phone: _____

4. Waste Name: EXCAVATION SPOILS SOIL, ROCK, AND MISCELLANEOUS OTHER

5. Description of Process and Circumstances Producing Waste:
CONSTRUCTION EXCAVATION

6. List all materials and chemicals used in the production process:
N/A

7. Describe the process by which the waste is collected:
BACKHOE, FRONT LOADER

8. Waste Characteristics:

A. Physical Description: Solid...(✓) Sludge...( )

Liquid...() Powder...( ) Color: _____ Odor: _____ (Describe)

B. Free Liquids: Yes...( ) No...(✓)

C. Percent: _____Solids _____Water _____Oil

D. pH: _____ How Measured: _____

E. Flash Point _____ F (Closed Cup Test)

9. Waste Composition:

A. Is this waste produced in the manufacture of pesticide or herbicide products, or does it contain pesticide or herbicide compounds?

NO

B. Toxic Metals: SEE ATTACHED LAB RESULTS. ALL METALS ARE LESS THAN TTLC, STLC OF CALIF. TITLE 22

Concentration (mg/kg or mg/l)

	Total	Extractable*
Arsenic	5.8	0.25
Antimony	<5	ND
Barium	150	3.8
Beryllium	0.2	
Cadmium	0.36	
Chromium	38	
Chromium (Hexavalent)	<0.05	
Cobalt	8.7	
Copper	31	1.4
Lead	100	3.6
Mercury	0.45	
Molybdenum	<5	
Nickel	30	0.28
Selenium	0.9	
Silver	<0.1	
Thallium	<5	
Vanadium	23	

	Total	Extractable*
Organic Lead	____	_____
Zinc	150	_____

*Indicate reference for extraction method:

C. Reactive Constituents: Other:

Total Cyanide	_____ppm	_____	_____ppm
Free Cyanide	_____ppm	_____	_____ppm
Sulfide as:	_____ppm	_____	_____ppm

D. Does this waste contain halogenated organic compounds (such as PCB's, Trichloroethylene, Chlorobenzene, etc.)? NO

If yes, please list compound(s) and concentration(s):

_____

_____

_____

Does the process generating this waste use halogenated organic compounds in any part of the process? Yes...[ ] No...[✓]

If yes, please explain: _____

_____

E. Does this waste contain non-halogenated organic solvents (such as toluene, hexane, acetone) or similar such compounds (such as petroleum naphtha, gasoline)? Yes...[✓] No...[ ]

If yes, please list compound(s) and concentration(s):

SELECTED DISCRETE STOCKPILES MAY

CONTAIN PETROLEUM HYDROCARBONS -- TOLUENE

(160 PPB) / KEROSENE. THESE WILL BE LANDFARMED ON SITE BY BIODEGRADATION.

Does the process generating this waste use non-halogenated organic solvents or similar compounds in any part of the process? Yes...[ ] No...[✓]

If yes please explain: _____

_____

10. List any other hazardous constituents not mentioned above and concentrations:

N/A

11. Hazardous Characteristics:

Reactive	Yes_____	No ✓
Ignitable	Yes_____	No ✓
Corrosive	Yes_____	No ✓
Radioactive	Yes_____	No ✓
Etiological	Yes_____	No ✓

12. List all known or suspected hazards not otherwise disclosed in this document:

CONSTRUCTION IS ON A HISTORIC INDUSTRIAL SITE. ASPHALTIC FLOOR COVERINGS AND ROOFING MATERIALS WERE MADE ON SITE. SITE CHARACTERIZATION REPORTS HAVE BEEN SUBMITTED TO THE ALAMEDA COUNTY HAZARDOUS MATERIALS UNIT.

13. USEPA Hazardous Waste? Yes___ No ✓ USEPA Codes:_____

Calif Hazardous Waste? Yes___ No ✓ California Codes_____

14. Is the information provided in Sections 8-11 based upon laboratory analysis of the waste? YES If so, please give the date of the most recent analysis: 7/15/88 If not, specify source: _____

15. Enclose two (2) copies of the lab report for the wastes including test methods used and Sample Collection Information Form.

16. Quantity proposed to be disposed at West Contra Costa Sanitary Landfill:

Anticipated Volume: 2300 CU YD Period: 500 CY / DAY
(Per day, one-time, etc.)

17. Transportation Method: Bulk Solid...[ ] Containerized Solid...[ ]

18. Is the waste stream homogeneous? Yes...[ ] No...[✓]

Explain basis of answer: EXCAVATION OCCURS IN MANY DIFFERENT LOCATIONS OF A LARGE SITE OF HISTORIC INDUSTRIAL USE

19. To generators having submitted a fully completed Waste Information Form on this waste within the last year:

Have any significant changes occurred in this waste material or the process producing this waste since the most recent Waste Information Form was prepared? Yes...[ ] No...[ ] If yes, fully describe:

_____

_____

_____

(Use additional sheets if necessary)

*Changes would also include contamination of the waste by materials not normally present in the waste.

20. GENERATOR'S CERTIFICATION: I hereby declare that all information submitted in this and all attached documents is true, complete and accurate, and that the contents of this consignment are fully and accurately described above, and the contents of the consignment meet neither the U.S. Environmental Protection Agency Resource Conservation and Recovery Act criteria for a hazardous waste as specified in 40 CFR, Part 261, nor the California Department of Health Services criteria for a hazardous waste or extremely hazardous waste as specified in Title 22, California Administrative Code, Chapter 30.

Print Name: Christie Avenue Partners by WALTER KACZMAREK Title: PARTNER

Signature: Christie Avenue Partners by Walter J. Kaczmarek Date: 7/25/91

For WCCSL Use Only

Form: Partial Complete

Satisfactory: Yes...[ ] No...[ ]

Name:_____

Date:_____

Comment:_____

Compatibility Evaluation
(Circle Appropriate)

Compatible; Incompatible;

Potentially Incompatible;

Accept: Yes...[ ] No...[ ]

Name/Date:_____

WEST CONTRA COSTA SANITARY LANDFILL
P. O. BOX 5006
RICHMOND, CA 94805

SAMPLE COLLECTION INFORMATION FORM

Instructions: In order for the WCCSL to evaluate the wastes for disposal it is necessary for the staff to evaluate the representativeness of sample(s) collected for analysis. Please complete this form after collecting a sample of waste.

Recommended procedures for collecting a representative sample are found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, U.S. EPA, SW 846." Equivalent methods may also be used.

Generator: CHRISTIE AVENUE PARTNERS C/O THE MARTIN COMPANY

Address: 6475 CHRISTIE SUITE 500 EMERYVILLE, CA 94611

Contact: WALTER KACZMAREK Telephone: 415 652-5852

Sampler Name: MARC PAPINEAU

Signature: Marc R Papineau

Witness of Sampling: _____

1. Date and time of sample collection: 6/29, 7/1, and 7/8/98

2. Description of sample collection point: SEE ATTACHED FIGURE SHOWING DISCRETE STOCKPILES

3. Sampling equipment: PICK, SHOVEL, TROWEL WATER, WIRE, BRUSH AND TSP

4. Sampling method: RANDOMIZED SCOOPS FROM EACH STOCKPILE

5. Amount of sample collected: APPROX 1 KILOGRAM PER STOCKPILE

6. Type of container: GLASS JARS AND BRASS TUBES W/ CAPS

7. Method(s) of sample preservation: ICE ICE CHEST BRASS TUBES WERE FOILED / CAPPED

8. Was sampling equipment used, and the container into which the sample was placed, themselves uncontaminated before use. Yes....[✓] No....[ ]

(Over)

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 06/29/88, 07/01/88
Date Received: 07/08/88
Date Extracted: 07/11/88
Date Reported: 07/15/88

Project: #9570 A7, Eastshore

Sample Number: 8070569
Sample Description: Soil, Composite S-1 thru S-23 (23 Samples)

WASTE EXTRACTION TEST
INORGANIC SUBSTANCES

	STLC, mg/L		TTLC, mg/kg-wet wt.	
Analysis	Limit	Result	Limit	Result
Antimony	15	-	500	< 5
Arsenic	5	0.25	500	5.8
Asbestos	-	-	10,000	-
Barium	100	3.8	10,000	150
Beryllium	0.75	-	75	0.20
Cadmium	1	-	100	0.36
Chromium (VI)	5	-	500	< 0.05
Chromium (III)	560	-	2,500	38
Cobalt	80	-	8,000	8.7
Copper	25	1.4	2,500	31
Fluoride	180	-	18,000	-
Lead	5	3.6	1,000	100
Mercury	0.2	-	20	0.45
Molybdenum	350	-	3,500	< 5
Nickel	20	0.28	2,000	30
Selenium	1	-	100	0.90
Silver	5	-	500	< 0.1
Thallium	7	-	700	< 5
Vanadium	24	-	2,400	23
Zinc	250	-	5,000	150

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 07/08/88
Date Received: 07/08/88
Date Analyzed: 07/13/88
Date Reported: 07/15/88
Project: #9570 A7, Eastshore

Sample Number: 8070569

Sample Description: Soil, Composite
S-1 thru S-23
(23 Samples)

VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit, µg/kg	Sample Results, µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chlorodibromomethane	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	500	N.D.
Chloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
Total-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	500	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Method of Analysis: EPA 5030/8240
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 06/29/88
Date Received: 07/08/88
Date Extracted: 07/12/88
Date Analyzed: 07/14/88
Date Reported: 07/15/88

Project: #9570 A7, Eastshore

Sample Number

8070569

Sample Description

Soil, Composite
S-1 thru S-23 (23 Samples)

SEMI-VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	22000	N.D.
Acenaphthylene	22000	N.D.
Anthracene	22000	N.D.
Benzidine	550000	N.D.
Benzoic acid	22000	N.D.
Benzo(a)anthracene	22000	N.D.
Benzo(b)fluoranthene	22000	N.D.
Benzo(k)fluoranthene	22000	N.D.
Benzo(g,h,i)perylene	22000	N.D.
Benzo(a)pyrene	22000	N.D.
Benzyl alcohol	22000	N.D.
Bis(2-chloroethoxy)methane	22000	N.D.
Bis(2-chloroethyl)ether	22000	N.D.
Bis(2-chloroisopropyl)ether	22000	N.D.
Bis(2-ethylhexyl)phthalate	110000	N.D.
4-Bromophenyl phenyl ether	22000	N.D.
Butyl benzyl phthalate	22000	N.D.
4-Chloroaniline	22000	N.D.
2-Chloronaphthalene	22000	N.D.
4-Chloro-3-methylphenol	22000	N.D.
2-Chlorophenol	22000	N.D.
4-Chlorophenyl phenyl ether	22000	N.D.
Chrysene	22000	N.D.
Dibenz(a,h)anthracene	22000	N.D.
Dibenzofuran	22000	N.D.
Di-N-butyl phthalate	110000	N.D.
1,3-Dichlorobenzene	22000	N.D.
1,4-Dichlorobenzene	22000	N.D.
1,2-Dichlorobenzene	22000	N.D.
3,3-Dichlorobenzidine	110000	N.D.
2,4-Dichlorophenol	22000	N.D.
Diethyl phthalate	22000	N.D.
2,4-Dimethylphenol	22000	N.D.
Dimethyl phthalate	22000	N.D.
4,6-Dinitro-2-methylphenol	110000	N.D.
2,4-Dinitrophenol	110000	N.D.
2,4-Dinitrotoluene	22000	N.D.
2,6-Dinitrotoluene	22000	N.D.

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
Sample Number

8070569

Sample Description

Soil, Composite
S-1 thru S-23
(23 Samples)

SEMI-VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Di-N-octyl phthalate	22000	N.D.
Fluoranthene	22000	N.D.
Fluorene	22000	N.D.
Hexachlorobenzene	22000	N.D.
Hexachlorobutadiene	22000	N.D.
Hexachlorocyclopentadiene	22000	N.D.
Hexachloroethane	22000	N.D.
Indeno(1,2,3-cd)pyrene	22000	N.D.
Isophorone	22000	N.D.
2-Methylnaphthalene	22000	N.D.
2-Methylphenol	22000	N.D.
4-Methylphenol	22000	N.D.
Naphthalene	22000	N.D.
2-Nitroaniline	22000	N.D.
3-Nitroaniline	22000	N.D.
4-Nitroaniline	22000	N.D.
Nitrobenzene	22000	N.D.
2-Nitrophenol	22000	N.D.
4-Nitrophenol	110000	N.D.
N-Nitrosodiphenylamine	22000	N.D.
N-Nitroso-di-N-propylamine	22000	N.D.
Pentachlorophenol	110000	N.D.
Phenanthrene	22000	N.D.
Phenol	22000	N.D.
Pyrene	22000	N.D.
1,2,4-Trichlorobenzene	22000	N.D.
2,4,5-Trichlorophenol	22000	N.D.
2,4,6-Trichlorophenol	22000	N.D.

Method of Extraction: EPA 3550 Method of Analysis: EPA 8270
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 07/08/88
Date Received: 07/08/88
Date Analyzed: 07/13/88
Date Reported: 07/15/88
Project: #9570 A7, Eastshore

Sample Number: 8070563 Sample Description: Soil, B-1

VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit, µg/kg	Sample Results, µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chlorodibromomethane	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	500	N.D.
Chloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
Total-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	500	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Method of Analysis: EPA 5030/8240
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 07/08/88
Date Received: 07/08/88
Date Analyzed: 07/13/88
Date Reported: 07/15/88
Project: #9570 A7, Eastshore

Sample Number: 8070564
Sample Description: Soil, B-2

VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit, µg/kg	Sample Results, µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chlorodibromomethane	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	500	N.D.
Chloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
Total-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	500	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Method of Analysis: EPA 5030/8240
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 07/08/88
Date Received: 07/08/88
Date Analyzed: 07/13/88
Date Reported: 07/15/88
Project: #9570 A7, Eastshore

Sample Number: 8070565 Sample Description: Soil, B-3

VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit, µg/kg	Sample Results, µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chlorodibromomethane	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	500	N.D.
Chloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
Total-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	500	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	160
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Method of Analysis: EPA 5030/8240
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 07/08/88
Date Received: 07/08/88
Date Analyzed: 07/13/88
Date Reported: 07/15/88
Project: #9570 A7, Eastshore

Sample Number: 8070566 Sample Description: Soil, B-4

VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit, µg/kg	Sample Results, µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chlorodibromomethane	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	500	N.D.
Chloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
Total-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	500	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Method of Analysis: EPA 5030/8240
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 07/08/88
Date Received: 07/08/88
Date Analyzed: 07/13/88
Date Reported: 07/15/88
Project: #9570 A7, Eastshore

Sample Number: 8070567 Sample Description: Soil, B-5

VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit, µg/kg	Sample Results, µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chlorodibromomethane	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	500	N.D.
Chloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
Total-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	500	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Method of Analysis: EPA 5030/8240
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 07/08/88
Date Received: 07/08/88
Date Analyzed: 07/13/88
Date Reported: 07/15/88
Project: #9570 A7, Eastshore

Sample Number: 8070568 Sample Description: Soil, B-6

VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit, µg/kg	Sample Results, µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chlorodibromomethane	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	500	N.D.
Chloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
Total-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	500	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Method of Analysis: EPA 5030/8240
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 06/29, 07/01/88
Date Received: 07/08/88
Date Reported: 08/02/88
Project: #9570A7, East Shore

LABORATORY ANALYSIS

Sample Number	Sample Description
8070569	Soil, Composite of 23 soils, S-1 thru S-23

Analyte	Detection Limit	Sample Result
Total Cyanide, mg/kg	0.5	N.D.
Reactive Sulfide, mg/kg	5.0	N.D.
pH	N.A.	9.1

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

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 06/29, 07/01/88
Date Received: 07/08/88
Date Analyzed: 07/28/88
Date Reported: 08/02/88

Project: #9570A7, East Shore

ORGANIC LEAD

Sample Number	Sample Description Soil	Detection Limit mg/kg	Sample Results mg/kg
8070569	Composite of 23 soils, S-1 thru S-23	0.05	1.4

Method of Analysis: CA LUFT Manual, 12/87

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

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

For: Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

SEQUOIA ANALYTICAL LABORATORY
2549 Middlefield Road
Redwood City, CA 94063
(415) 364-9222

Received 07/08/88

Reported 08/02/88

Project: 9570A7 East Shore

STATIC ACUTE BIOASSAY

S-1 thru S-23

Lab Sample No. 8070569 Sample Description Soil, Composite of 23 soils, Sampling Procedure Composite and Grab

Date Sampled 06/29, 07/01/88 Time Sampled - Sampled By - Test Begun 07/25/88 Test Ended 07/29/88

	Initial					24 Hours				48 Hours				72 Hours				96 Hours			
Test	pH	D.O.	Temp.	Alk.	Hard	No.	pH	D.O.	Temp.	No.	pH	D.O.	Temp	No.	pH	D.O.	Temp	No.	pH	D.O.	Temp
Conc.		mg/l	°C	mg/l	mg/l	Dead		mg/l	°C	Dead		mg/l	°C	Dead		mg/l	°C	Dead		mg/l	°C
Control	8.4	9.6	16	34	44	0	7.5	8.0	16	0	7.4	6.4	16	0	7.5	6.1	16	0	7.5	5.9	16
1000 ppm	8.4	9.6	16	36	44	0	7.5	7.5	16	0	7.4	4.8	16	1	7.5	5.8	16	1	7.5	7.2	16
560 ppm	8.4	9.6	16	34	44	1	7.5	7.6	16	0	7.4	5.7	16	1	7.5	5.8	16	1	7.5	8.0	16
320 ppm	8.4	9.6	16	34	44	0	7.5	8.5	16	0	7.4	6.7	16	0	7.5	6.5	16	0	7.5	6.2	16
180 ppm	8.4	9.6	16	34	44	0	7.5	8.1	16	0	7.4	6.6	16	0	7.5	6.8	16	0.	7.5	4.9	16
100 ppm	8.4	9.6	16	34	44	0	7.5	8.2	16	0	7.4	5.1	16	0	7.5	5.4	16	0	7.5	5.3	16

Test Species Rainbow Trout, Salmo gairdnerii Ave. Length 2.8 cm Max. Length 3.6 cm Min. Length 2.1 cm

Source of Test Species Sticklebacks Unlimited Ave. Weight 0.28 g Max. Weight 0.53 g Min. Weight 0.22 g

Organism/Conc. 10 Dilution Water Synthetic Freshwater (Soft) Aeration Compressed Air

Test Solution Volume 10 liters Depth 13 cm Dead in Acclimation Tank < 1 %

Acclimation Tank Water Synth. Freshwater (Soft) Acclimation Period 7 days Acclimation Temperature 18-21°C

96 Hour LC_{50} > 1000 ppm

95% Confidence Limits for LC_{50} - % wastewater

96 Hour Survival in 1000 ppm 90 %

Reference: Guidelines For Performing Static Acute Bioassays in Municipal and Industrial Wastewaters. July 1976. SWRCB and DFG

Remarks:

Investigator Brian Schwarzmann

Laboratory Director Scott Connor

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 06/29, 07/01/88
Date Received: Relogged: 7/20
Date Analyzed: 07/22/88
Date Reported: 07/26/88

Project: #9570.A7, East Shore

TOTAL PETROLEUM HYDROCARBONS

Sample Number	Sample Description Soil	Detection Limit ppm	High Boiling Point Hydrocarbons ppm	As Kerosene
8070569	S-1 thru S-23, Composite of 23 samples	1.0	100	

Method of Analysis: EPA 3550/8015

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

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 06/29, 07/01/88
Date Received: Relogged: 7/20
Date Analyzed: 07/22/88
Date Reported: 07/26/88

Project: #9570.A7, East Shore

Sample Number	Sample Description	Detection Limit %	Sample Result %	Asbestos Type (If Present)
8070569	Soil, S-1 thru S-23, Composite of 23 samples	1	N.D.	-

Method of Analysis: Polarized Light Microscopy

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

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 07/08/88
Date Received: 07/08/88
Date Analyzed: 07/13/88
Date Reported: 07/15/88
Project: #9570 A7, Eastshore

Sample Number: 8070569

Sample Description: Soil, Composite S-1 thru S-23 (23 Samples)

VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit, µg/kg	Sample Results, µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chlorodibromomethane	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	500	N.D.
Chloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
Total-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	500	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Method of Analysis: EPA 5030/8240
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 06/29/88
Date Received: 07/08/88
Date Extracted: 07/12/88
Date Analyzed: 07/14/88
Date Reported: 07/15/88

Project: #9570 A7, Eastshore

Sample Number	Sample Description
8070569	Soil, Composite S-1 thru S-23 (23 Samples)

SEMI-VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	22000	N.D.
Acenaphthylene	22000	N.D.
Anthracene	22000	N.D.
Benzidine	550000	N.D.
Benzoic acid	22000	N.D.
Benzo(a)anthracene	22000	N.D.
Benzo(b)fluoranthene	22000	N.D.
Benzo(k)fluoranthene	22000	N.D.
Benzo(g,h,i)perylene	22000	N.D.
Benzo(a)pyrene	22000	N.D.
Benzyl alcohol	22000	N.D.
Bis(2-chloroethoxy)methane	22000	N.D.
Bis(2-chloroethyl)ether	22000	N.D.
Bis(2-chloroisopropyl)ether	22000	N.D.
Bis(2-ethylhexyl)phthalate	110000	N.D.
4-Bromophenyl phenyl ether	22000	N.D.
Butyl benzyl phthalate	22000	N.D.
4-Chloroaniline	22000	N.D.
2-Chloronaphthalene	22000	N.D.
4-Chloro-3-methylphenol	22000	N.D.
2-Chlorophenol	22000	N.D.
4-Chlorophenyl phenyl ether	22000	N.D.
Chrysene	22000	N.D.
Dibenz(a,h)anthracene	22000	N.D.
Dibenzofuran	22000	N.D.
Di-N-butyl phthalate	110000	N.D.
1,3-Dichlorobenzene	22000	N.D.
1,4-Dichlorobenzene	22000	N.D.
1,2-Dichlorobenzene	22000	N.D.
3,3-Dichlorobenzidine	110000	N.D.
2,4-Dichlorophenol	22000	N.D.
Diethyl phthalate	22000	N.D.
2,4-Dimethylphenol	22000	N.D.
Dimethyl phthalate	22000	N.D.
4,6-Dinitro-2-methylphenol	110000	N.D.
2,4-Dinitrophenol	110000	N.D.
2,4-Dinitrotoluene	22000	N.D.
2,6-Dinitrotoluene	22000	N.D.

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics

Sample Number	Sample Description
8070569	Soil, Composite S-1 thru S-23 (23 Samples)

SEMI-VOLATILE ORGANICS by MASS SPECTROMETRY

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Di-N-octyl phthalate	22000	N.D.
Fluoranthene	22000	N.D.
Fluorene	22000	N.D.
Hexachlorobenzene	22000	N.D.
Hexachlorobutadiene	22000	N.D.
Hexachlorocyclopentadiene	22000	N.D.
Hexachloroethane	22000	N.D.
Indeno(1,2,3-cd)pyrene	22000	N.D.
Isophorone	22000	N.D.
2-Methylnaphthalene	22000	N.D.
2-Methylphenol	22000	N.D.
4-Methylphenol	22000	N.D.
Naphthalene	22000	N.D.
2-Nitroaniline	22000	N.D.
3-Nitroaniline	22000	N.D.
4-Nitroaniline	22000	N.D.
Nitrobenzene	22000	N.D.
2-Nitrophenol	22000	N.D.
4-Nitrophenol	110000	N.D.
N-Nitrosodiphenylamine	22000	N.D.
N-Nitroso-di-N-propylamine	22000	N.D.
Pentachlorophenol	110000	N.D.
Phenanthrene	22000	N.D.
Phenol	22000	N.D.
Pyrene	22000	N.D.
1,2,4-Trichlorobenzene	22000	N.D.
2,4,5-Trichlorophenol	22000	N.D.
2,4,6-Trichlorophenol	22000	N.D.

Method of Extraction: EPA 3550 Method of Analysis: EPA 8270
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 06/29/88, 07/01/88
Date Received: 07/08/88
Date Extracted: 07/11/88
Date Reported: 07/15/88

Project: #9570 A7, Eastshore

Sample Number: 8070569
Sample Description: Soil, Composite S-1 thru S-23 (23 Samples)

WASTE EXTRACTION TEST
INORGANIC SUBSTANCES

	STLC, mg/L		TTLC, mg/kg-wet wt.	
Analysis	Limit	Result	Limit	Result
Antimony	15	-	500	< 5
Arsenic	5	0.25	500	5.8
Asbestos	-	-	10,000	-
Barium	100	3.8	10,000	150
Beryllium	0.75	-	75	0.20
Cadmium	1	-	100	0.36
Chromium (VI)	5	-	500	< 0.05
Chromium (III)	560	-	2,500	38
Cobalt	80	-	8,000	8.7
Copper	25	1.4	2,500	31
Fluoride	180	-	18,000	-
Lead	5	3.6	1,000	100
Mercury	0.2	-	20	0.45
Molybdenum	350	-	3,500	< 5
Nickel	20	0.28	2,000	30
Selenium	1	-	100	0.90
Silver	5	-	500	< 0.1
Thallium	7	-	700	< 5
Vanadium	24	-	2,400	23
Zinc	250	-	5,000	150

SEQUOIA ANALYTICAL LABORATORY

Scott Cameron

Arthur G. Burton
Laboratory Director

SEQUOIA Analytical Laboratory
2549 Middlefield Road
Redwood City, CA 94063 • (415) 364-9222 • FAX (415) 364-9233

Earth Metrics
859 Cowan Road
Burlingame, CA 94010
Attn: Marc Papineau

Date Sampled: 06/29, 07/01/88
Date Received: Relogged: 8/9/88
Date Reported: 08/22/88

Project: 9570A7, East Shore

LABORATORY ANALYSIS

Sample Number	Sample Description
8070569	Composite of 23 samples, S1-S23

Analyte	Detection Limit	Sample Result DI Extract (STLC)
Arsenic, mg/L	0.01	0.014
Nickel, mg/L	0.05	N.D.
Lead, mg/L	0.005	0.039

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

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director

SUPERIOR ANALYTICAL LABORATORY, INC.
1385 FAIRFAX ST., STE D • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

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

LABORATORY NO. 50216
CLIENT: SOS International
CLIENT ID: EME Martin

DATE RECEIVED: 6/29/88
DATE REPORTED: 7/6/88
JOB NO.: 80137

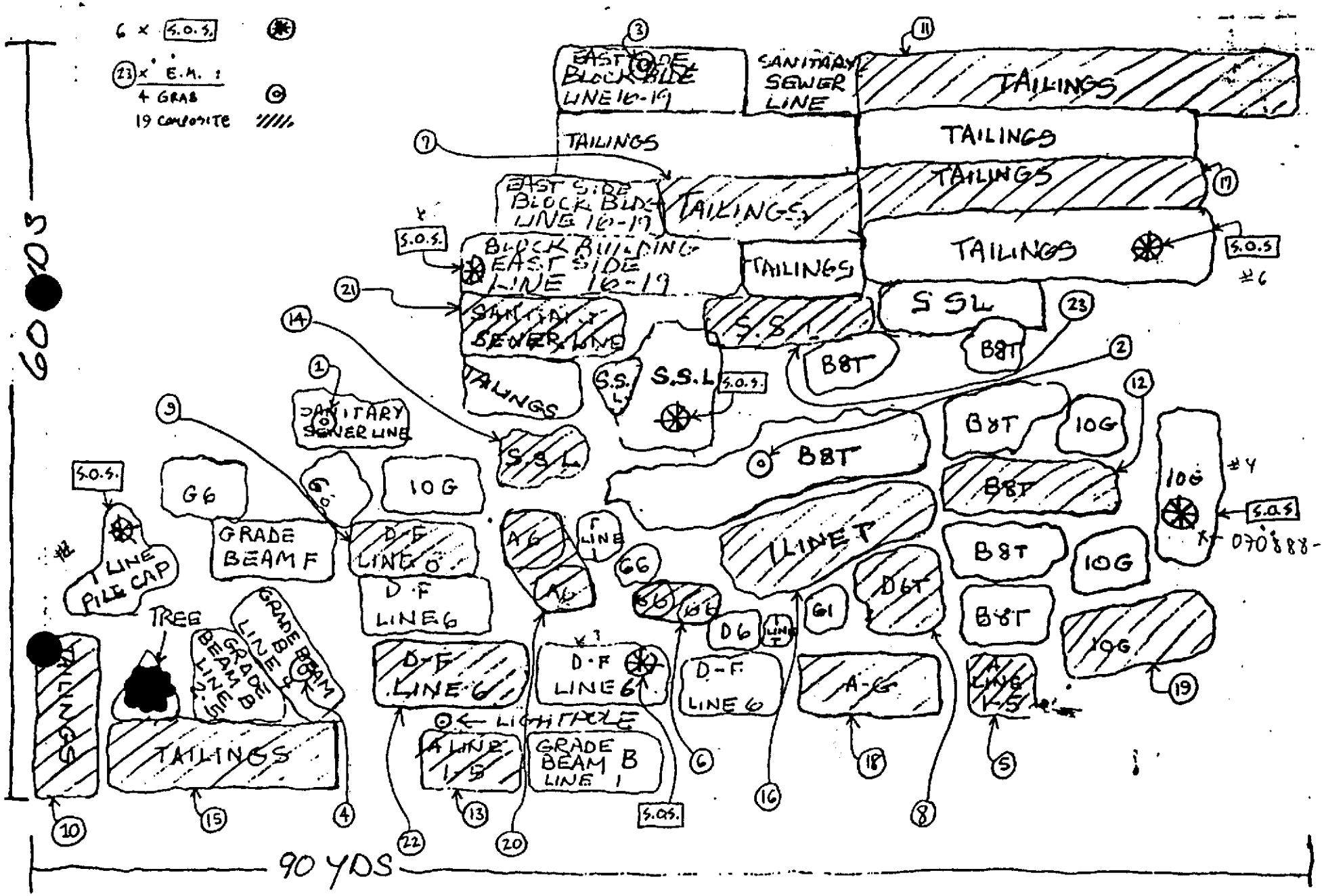
ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS
by Modified EPA SW-846 Method 8015

Sample Identification	Concentration (mg/kg)
1 Sanitary Sewer Line	ND < 10
2 1 Line Pile Cap	1315 Gasoline Range 3466 Diesel Range
3 D - F Line 6	19 Gasoline Range 217 Diesel Range
4 10 - G	ND < 10
5 Block Bldg E-Side Line 16-19	50 Gasoline Range 344 Diesel Range
6 Tailings	ND < 100 *

* Sample contained oil range components

mg/kg = part per million (ppm)

Richard F. Srna, Ph.D.
Laboratory Manager


6 x S.O.S.
23 x E.M. + 4 GRAB
19 COMPOSITE
60 YDS
90 YDS
EAST SIDE BLOCK BLDG LINE 16-19
SANITARY SEWER LINE
TAILINGS
S.O.S.
SSL
BBT
10G
GG
GRADE BEAM F
D-F LINE 6
A-G
LINE T
D6T
LINE PILE CAP
TREE
GRADE BEAM B LINE 5
GRADE BEAM B LINE 1
A LINE 1/5
LIGHTPOLE
END OF BRICK BUILDING
Contam Soil Map
Soil Samples *
070888-1
COPY P05
07/15/88 11:34

CHAIN OF CUSTODY RECORD

FOR RUSH ANALYSIS
DUE 7/15/88

PROJ. NO.	PROJECT NAME
9570 A7 ~~A6~~	EASTSHORE

SAMPLERS: Signature
Gregory Gunner / BRUCE JENSEN

STA NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	EPA 8240	REMARKS
B-1	7/8/88	8:30 AM	✓		"P.F. LINE 6"	1 BRASS	✓	
B-2	7/8/88	8:50 AM	✓		"T LINE PILE CAP"	1 BRASS	✓	
B-3	7/8/88	9:10 AM	✓		"BLOCK BUILDING EAST SIDE"	1 BRASS	✓	
B-4	7/8/88	9:30 AM	✓		"10 G"	1 BRASS	✓	
B-5	7/8/88	9:50 AM	✓		"TAILINGS"	1 BRASS	✓	
B-6	7/8/88	10:10 AM	✓		"S.S.L."	1 BRASS	✓	

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Gregory Gunner	7/8/88 4:35 PM	[signature]	7/8/88 4:35
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time

REMARKS:

Earth Metrics Incorporated
859 Cowan Road, 1st Floor
Burlingame, CA 94010
(415) 697-7103

CHAIN OF CUSTODY RECORD

FOR. RUSH ANALYSIS DUE 7/15/88

PROJ. NO.	PROJECT NAME
9570 A7 ~~A6~~	EAST SHORE

SAMPLERS: Signature Gregory Gruman

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS Glass Jar	Title 22 Metals Total	Title 22 Metals Extractable	EPA 8240	EPA 8270	Asbestos	EPA 8015	REMARKS
													PAGE 1 OF 2
1 ~~G-1~~	6/29/88	9:20 AM		✓	"SANITARY SEWER LINE"	1							Please composite S-1 through S-23
S-2 ~~G-2~~	6/29/88	9:30 AM		✓	" B8T"	1							
S-3 ~~G-3~~	6/29/88	9:40 AM		✓	" EAST SIDE BLOCK BLD"	1							
S-4 ~~G-4~~	6/29/88	9:45 AM		✓	"GRADE BEAM B, LINE 4	1							
S-5 ~~G-5~~	6/29/88	10:08 AM	✓		" A-LINE 1-5"	1							
S-6 ~~G-6~~	6/29/88	10:25 AM	✓		" G6"	1							
S-7 ~~G-7~~	6/29/88	11:10 AM	✓		" TAILINGS"	1							
S-8 ~~G-8~~	6/29/88	11:30 AM	✓		" DGT"	1							
9 ~~G-9~~	7/1/88	10:30 AM	✓		" D-F LINE 6"	1							
S-10 ~~G-10~~	7/1/88	10:45 AM	✓		" TAILINGS"	1							
S-11 ~~G-11~~	7/1/88	11:10 AM	✓		" TAILINGS	1							
S-12 ~~G-12~~	7/1/88	11:30 AM	✓		" B8T"	1							
S-13 ~~G-13~~	7/1/88	11:40 AM	✓		" A-LINE 1-5"	1							

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Gregory Gruman	7/8/88 4:35 PM	B. Day	7/8/88 4:35
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time

REMARKS:

Earth Metrics Incorporated
859 Cowan Road, 1st Floor
Burlingame, CA 94010
(415) 697-7103

(CONTINUED)

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
9570 A7	EAST SHORE

SAMPLERS: Signature Gregory Gruner

	STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	TTLC 22 Metals Total	TTLC 22 Metals Extract	EPA 8240	EPA 8270 Asbestos	EPA 8015	REMARKS
							Glass Jar						PAGE 2 OF 2
14	~~G-14~~	7/1/88	11:50 AM	✓		"S.S.L."	1						
S-15	~~G-15~~	7/1/88	12:40 PM	✓		"TAILINGS"	1						
S-16	~~G-16~~	7/1/88	12:50 PM	✓		"1 LINE T"	1						
S-17	~~G-17~~	7/1/88	1:20 PM	✓		"TAILINGS"	1						
S-18	~~G-18~~	7/1/88	1:40 PM	✓		"A-6"	1						
S-19	~~G-19~~	7/1/88	2:00 PM	✓		"10G"	1						
S-20	~~G-20~~	7/1/88	2:20 PM	✓		"AG"	1						
S-21	~~G-21~~	7/1/88	2:40 PM	✓		"SANITARY SEWERLINE"	1						
22	~~G-22~~	7/1/88	2:50 PM	✓		"D-F LINE 6"	1						
S-23	~~G-23~~	7/1/88	3:10 PM	✓		"S.S.L."	1						

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Gregory Gruner	7/8/88 4:35 PM	B Dur	7/8/88 4:35
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time

REMARKS:

Earth Metrics Incorporated
859 Cowan Road, 1st Floor
Burlingame, CA 94010
(415) 697-7103

earth metrics incorporated
859 COWAN ROAD, BURLINGAME, CALIFORNIA 94010
(415) 697-7103

TRANSMITTAL

TO: MR. KEN THEISEN
RWQCB
1111 JACKSON ST.
ROOM 6000
OAKLAND, CA 94607

DATE: 8/29/88 EM FILE: 9570.A8

SUBJECT: CHEMICAL PROFILE OF MARKETPLACE/EMERYVILLE EXCAVATION SPOILS

WE ARE SENDING:

☑ Enclosed
☐ Under separate cover

VIA:

☑ Regular Mail ☐ Express Mail ☐ Courier
☐ United Parcel ☐ _____

THE FOLLOWING ITEMS:

No. of Copies	Description
1	CHEMICAL PROFILE OF MARKETPLACE/EMERYVILLE EXCAVATION SPOILS

THESE ARE TRANSMITTED:

☐ In accordance with our agreement ☐ As requested ☐ Approved as submitted
☑ For your use/information ☐ For your signature ☐ _____
☐ For review and comment ☐ For your approval ☐ _____

REMARKS: THE VOLUME ESTIMATE HAS BEEN REVISED DOWN TO 1200 CUBIC YARDS FROM 2300 CUBIC YARDS SOIL AND ROCK (ESTIMATED 7-22-88)

RETURN REQUIRED: ☑ None ☐ 1 fully executed copy ☐ Return of materials by _____

COPY TO MS. JAN SETTLE
MS. SHARON TUOHY

FROM MARC PAPINEAU

IF ENCLOSURES ARE NOT AS NOTED, PLEASE NOTIFY US.

AD251

April 20, 1988

Mr. Walter T. Kaczmarek
Principal
The Martin Company
6425 Christie Avenue, Suite 406
Emeryville, CA 94608

Subject: Backfilling of Gasoline Tank Excavation and Waste Oil/Lube Tanks Excavation at the Former Nielsen Property
(Earth Metrics file reference 9570.A3)

Dear Walter:

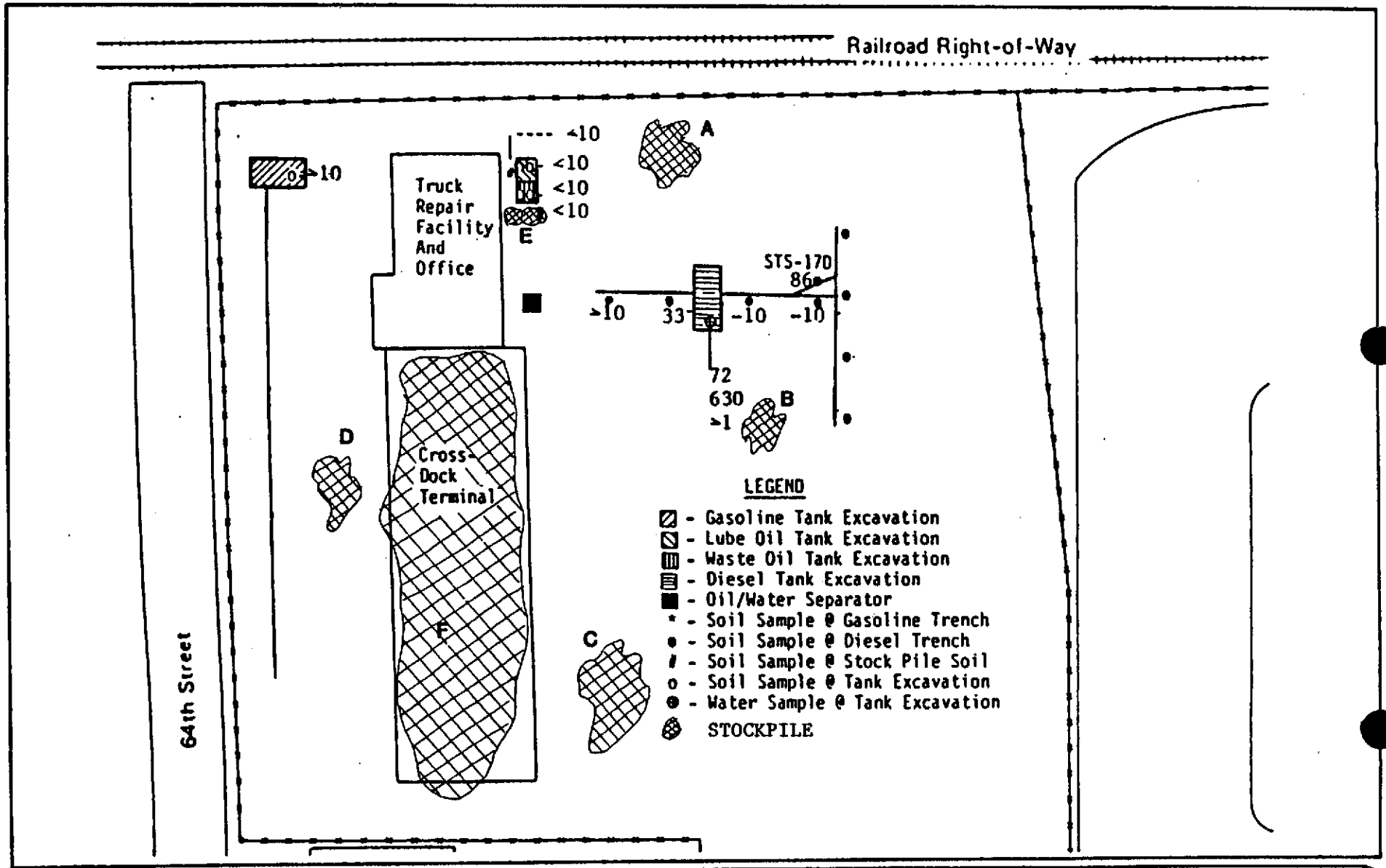
Pursuant to my meeting with Mr. Lowell Miller of Alameda County Health Agency on April 18, 1988, the subject gasoline tank and oil tank excavations are approved for backfilling. You may use i) clean imported fill, or ii) stockpiled soil pending an additional County approval to use Stockpile "D" or "F" (see Figure 1). County determination concerning use of Stockpile "D" or "F" is expected by April 26, 1988 (Tuesday).

Sincerely,

Marc Papineau
Department Manager

MP/ag

cc: Mr. Lowell Miller



earth metrics

N

SCALE
NO SCALE

FIGURE 1. EARTH METRICS INCORPORATED SAMPLING LOCATIONS ON THE NIELSEN SITE