ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
ENVIRONMENTAL HEALTH LABORATORY

ANALYTICAL REQUEST

Laboratory No. 88-093

Sample Identification: Samples from Market Place, 64th and Chrystie, Emeryville

Analyses Requested by: L.Miller

Date Collected: 6-7-88 Collected by: L.Miller

Date Received: 6-7-88 Received by: B.Chan

Analyses Requested: Headspace Analysis for Volatile Organics and compare to the previous Market Place samples.

Background Information: These are samples collected from excavations in the area of the Market Place. Previous samples LJM 032388-1 (water) and LJM 032388-2 (soil) contained methane and N.D. respectively, 88-040.

ANALYTICAL RESULTS

Parameter	Observation or Result
Volatile Organic Analysis- Headspace Analysis on samples heated at 85 C and analyzed by G.C.-FID.	LJM 060288-1 Water N.D.- no volatiles detected LJM 060288-2 Water 1.1 ug/ml of a material identical by GC to kerosene. LJM 042788-1 Soil 9.3 ug/g wet wt of a material identical by GC to kersene. ug/ml and ug/g =ppm

Conclusions:

Date Analyses Completed: 7-8-88 Chemist: B.Chan

Approved: bc

Distribution: R.Shahid, T.Shirasawa, G.Winn

BC/cdb
7/85

GROUNDWATER TECHNOLOGY, INC.
4080 Pike Lane, Suite D, Concord, CA 94520 (415) 671-2387
Fax: (415) 685-9148

June 6, 1988

Mr. Greg Zentner
California Regional Water Quality Control Board
San Francisco Bay Region
1111 Jackson Street, Room 6040
Oakland, California 94607

RE: NPDES Permit Application
Emeryville Market Place Property

Dear Mr. Zentner:

Groundwater Technology, Inc. (GTI) was retained by the Christie Avenue Partners to provide environmental consultation in regards to their Emeryville Market Place development located near the intersection of Christie and 64th streets in Emeryville, California. Development of the site requires excavation of trenches for underground utilities within the site. However, due to a suspected perched water table at the site, dewatering of these trenches during utility installation will be required.

The contractor estimates that a maximum of 525,000 gallons of water will need to be discharged over a period of about three weeks. However, this quantity will most likely be much less due to the suspected limited volume of the perched water. On behalf of the Christie Avenue Partners, GTI is submitting the attached National Pollutant Discharge Elimination Standard (NPDES) permit application package.

The application package includes the following:

1. Completed and signed copies of:
   a. EPA General Form 1
   b. EPA Application Form 2D
   c. The Signatory and Certification Statement

2. Figures:
   a. Figure 1 - Site Location map
   b. Figure 2 - Site Plan Proposed Dewatering Treatment System
   c. Figure 3 - Water Treatment System Schematic

3. Carbon Filtration System Sizing Calculations.

4. Recent Groundwater Sample Analyses.

5. Permit Fee Check - $500.

For a complete assessment of the extent of the contamination, please refer to previously submitted reports prepared by Woodward-Clyde and Earthmetrics Inc.

GTI proposes to treat the pumped water through activated-carbon filtration prior to discharge to the storm drain system. Water samples collected and analyzed for the site to date have detected only low levels of priority pollutants (EPA 625). Total oil and grease levels of 38 parts per million (ppm) were detected however. As discussed in the NPDES application, GTI will analyze effluent samples so as to be in compliance with the criteria discussed in Table 5, Case 1, of the Guidance Document: Discharge of Polluted Groundwater To Surface Waters.

Please feel free to contact our office if you have any questions or require additional information.

Sincerely,
GROUNDWATER TECHNOLOGY, INC.

Michael J. Wray
SFB Territory Manager/
Hydrogeologist

Lynn E. Pera
Registered Civil Engineer
No. 33431

LEP:lbm

cc: Larry Kolb
Greg Zentner

CHRISTIE.LP

SOIL REMEDIATION PROPOSAL
FORMER NIELSEN FREIGHT LINES SITE
EMERYVILLE, CALIFORNIA

INTRODUCTION

Groundwater Technology, Inc. (GTI) is pleased to present this cost estimate for securing permits and for implementation of a contaminated-soil remedial action program at the former Nielsen Freight Lines site in Emeryville, California. The proposal is based on treatment of a minimum of 1,000 cubic yards of soil which has been removed from an excavation on the site. The soil clean-up objective is to reduce the contamination to below 100 parts per million (ppm) total petroleum hydrocarbons (TPH) as diesel and TPH as gasoline. Based upon this clean-up objective and consideration of the site conditions, GTI has developed this remedial action plan. The excavated material will be stored on-site for active aeration via venting and land farming through modified Enhanced Natural Degradation (END^{TM}). Soil samples have been collected by GTI in order to verify the presence of hydrocarbon-utilizing bacteria. Upon attaining acceptable levels, the soil can be disposed of at a Class III sanitary landfill by Earth Metrics Inc. The proposed scope of work is based upon our understanding of the following conditions:

Please print or type in the unshaded areas only
(fill–in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved. OMB No. 2040-0086 Approval expires 7-31-88

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

F

LABEL ITEMS

- I. EPA I.D. NUMBER
- III. FACILITY NAME
- V. FACILITY MAILING ADDRESS
- VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill–in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill–in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold–faced terms.

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)		X	
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)		X	
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)			
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)	X		X
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)		X	
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	
J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP: EMeryville Market Place

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2 Mc Kay, Allen	415 652 5852

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX			
3 6425 Christie Street, Suite 406			
B. CITY OR TOWN	**C. STATE**	**D. ZIP CODE**	
4 Emeryville	CA	94608	

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER			
5 Christie and 64th Streets			
B. COUNTY NAME			
Alameda			
C. CITY OR TOWN	**D. STATE**	**E. ZIP CODE**	**F. COUNTY CODE** *(if known)*
6 Emeryville	CA	94608	

Please type or print in the unshaded areas only

EPA ID Number *(copy from Item 1 of Form 1)*

Form Approved
OMB No. 2040-0086
Approval expires 7-31-88

Form 2D NPDES

EPA New Sources and New Dischargers Application for Permit to Discharge Process Wastewater

I. Outfall Location

For each outfall, list the latitude and longitude, and the name of the receiving water.

Outfall Number *(list)*	Latitude			Longitude			Receiving Water *(name)*
	Deg	Min	Sec	Deg	Min	Sec	
01	37	53	52	122	17	50	On-site catch basin to storm main under under Shellmount Street which discharges to Temescal Creek which empties into San Francisco Bay

II. Discharge Date *(When do you expect to begin discharging?)*

June 1988

III. Flows, Sources of Pollution, and Treatment Technologies

A. For each outfall, provide a description of (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and stormwater runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

Outfall Number	1. Operations Contributing Flow *(list)*	2. Average Flow *(include units)*	3. Treatment *(Description or List Codes from Table 2D-1)*
01	Trench Dewatering	17 gpm	Activated Carbon Filtration

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
7 1500 – 1799 (specify) Building Construction	7 (specify)
C. THIRD	**D. FOURTH**
7 (specify)	7 (specify)

VIII. OPERATOR INFORMATION

A. NAME

8 Christie Avenue Partners

B. Is the name listed in Item VIII-A also the owner? [X] YES [ ] NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)

F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC (other than federal or state)
O = OTHER (specify)

P (specify) Private

D. PHONE (area code & no.)

A 415 652 5852

E. STREET OR P.O. BOX

6475 Christie Street, Suite 406

F. CITY OR TOWN

B Emeryville,

G. STATE CA

H. ZIP CODE 94608

IX. INDIAN LAND

Is the facility located on Indian lands? [ ] YES [X] NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water): 9 N Pending	**D. PSD** (Air Emissions from Proposed Sources): 9 P NA
B. UIC (Underground Injection of Fluids): 9 U NA	**E. OTHER** (specify): 9 (specify)
C. RCRA (Hazardous Wastes): 9 R NA	**E. OTHER** (specify): 9 (specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property bounderies. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

Commercial Development

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
Thomas Grain General Partner	Thomas Grain	6/7/88

COMMENTS FOR OFFICIAL USE ONLY

C

☆ U.S. Government Printing Office : 1985 - 486-785/32991

B. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item III-A. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

C. Except for storm runoff, leaks, or spills, will any of the discharges described in item III-A be intermittent or seasonal?

☒ Yes *(complete the following table)* ☐ No *(go to item IV)*

Outfall Number	1. Frequency		2. Flow		
	a. Days Per Week *(specify average)*	b. Months Per Year *(specify average)*	a. Maximum Daily Flow Rate *(in mgd)*	b. Maximum Total Volume *(specify with units)*	c. Duration *(in days)*
01	7	0.75	0.025	0.525 mgd	21

IV. Production

If there is an applicable production-based effluent guideline or NSPS, for each outfall list the estimated level of production (projection of actual production level, not design), expressed in the terms and units used in the applicable effluent guideline or NSPS, for each of the first 3 years of operation. If production is likely to vary, you may also submit alternative estimates (attach a separate sheet).

Year	a. Quantity Per Day	b. Units of Measure	c. Operation, Product, Material, etc *(specify)*
NA			NA

CONTINUED FROM THE FRONT	EPA ID Number *(copy from Item 1 of Form 1)*	Outfall Number
	NA	01

V. Effluent Characteristics

A, and B: These items require you to report estimated amounts *(both concentration and mass)* of the pollutants to be discharged from each of your outfalls. Each part of this item addresses a different set of pollutants and should be completed in accordance with the specific instructions for that part. Data for each outfall should be on a separate page. Attach additional sheets of paper if necessary.

General Instructions *(See table 2D-2 for Pollutants)*

Each part of this item requests you to provide an estimated daily maximum and average for certain pollutants and the source of information. Data for all pollutants in Group A, for all outfalls, must be submitted unless waived by the permitting authority. For all outfalls, data for pollutants in Group B should be reported only for pollutants which you believe will be present or are limited directly by an effluent limitations guideline or NSPS or indirectly through limitations on an indicator pollutant.

1. Pollutant	2. Maximum Daily Value *(include units)*	3. Average Daily Value *(include units)*	4. Source *(see instructions)*
BOD			NA
COD			NA
TOC			NA
TSS			NA
FLOW			1
AMMONIA		0.66 mg/l	1
Temperature (winter)		55°F	3
Temperature (summer)		60°F	3
pH		6.7	1
Oil and grease	38 mg/l		1
Lead	0.12 mg/l		1
Chromium	0.11 mg/l		1
Beryllium	<.01 mg/l		1
Benzene	<1 ug/l		1
Toluene	<1 ug/l		1
Ethylbenzene	<1 ug/l		1
Silver	<.01 mg/l		1
Cadmium	<.01 mg/l		1
Copper	0.04 mg/l		1
Arsenic	0.014 mg/l		1
Mercury	0.0003 mg/l		1
1,2 Dichlorethylene	<1 ug/l		1

CONTINUED FROM THE FRONT	EPA ID Number *(copy from Item 1 of Form 1)*	Outfall Number
	NA	01

V. Effluent Characteristics

A, and B: These items require you to report estimated amounts *(both concentration and mass)* of the pollutants to be discharged from each of your outfalls. Each part of this item addresses a different set of pollutants and should be completed in accordance with the specific instructions for that part. Data for each outfall should be on a separate page. Attach additional sheets of paper if necessary.

General Instructions *(See table 2D-2 for Pollutants)*

Each part of this item requests you to provide an estimated daily maximum and average for certain pollutants and the source of information. Data for all pollutants in Group A, for all outfalls, must be submitted unless waived by the permitting authority. For all outfalls, data for pollutants in Group B should be reported only for pollutants which you believe will be present or are limited directly by an effluent limitations guideline or NSPS or indirectly through limitations on an indicator pollutant.

1. Pollutant	2. Maximum Daily Value *(include units)*	3. Average Daily Value *(include units)*	4. Source (see instructions)
Zinc	0.22 mg/l		1
Selenium	<0.001 mg/l		1
Thallium	<0.1 mg/l		1
Carbon tetrachloride	<1 ug/l		1
Chloroethane	<1 ug/l		1
Bromoform	<1 ug/l		1
Chloroform	<1 ug/l		1
Vinyl Chloride	<1 ug/l		1
Acrolein	<10 ug/l		1
Methylchloride	<1 ug/l		1
Chlorobenzene	<1 ug/l		1
Chlorethane	<1 ug/l		1
Dichorobromethane	<1 ug/l		1
Ethylbenzene	<1 ug/l		1
Tetrachloroethylene	<1 ug/l		1
Trichloroethylene	<1 ug/l		1

CONTINUED FROM THE FRONT	EPA ID Number *(copy from Item 1 of Form 1)* NA	

C. Use the space below to list any of the pollutants listed in Table 2D-3 of the instructions which you know or have reason to believe will be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it will be present.

1. Pollutant	2. Reason for Discharge
NA	

VI. Engineering Report on Wastewater Treatment

A. If there is any technical evaluation concerning your wastewater treatment, including engineering reports or pilot plant studies, check the appropriate box below.

☐ Report Available ☒ No Report

B. Provide the name and location of any existing plant(s) which, to the best of your knowledge, resembles this production facility with respect to production processes, wastewater constituents, or wastewater treatments.

Name	Location
Chevron Service Station	Castro Valley, California
Armour Oil	Davis, California
City of Gilroy	Gilroy, California

CONTINUE ON NEXT PAGE

EPA ID Number *(copy from item one of Form 1)*

VII. Other Information *(Optional)*

Use the space below to expand upon any of the above questions or to bring to the attention of the reviewer any other information you feel should be considered in establishing permit limitations for the proposed facility. Attach additional sheets if necessary.

See cover letter and attachments

VIII. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name and Official Title *(type or print)*	B. Phone No.
Thomas Gram General Partner	(415)654-7500
C. Signature	D. Date Signed
Thomas Gram	6/7/88

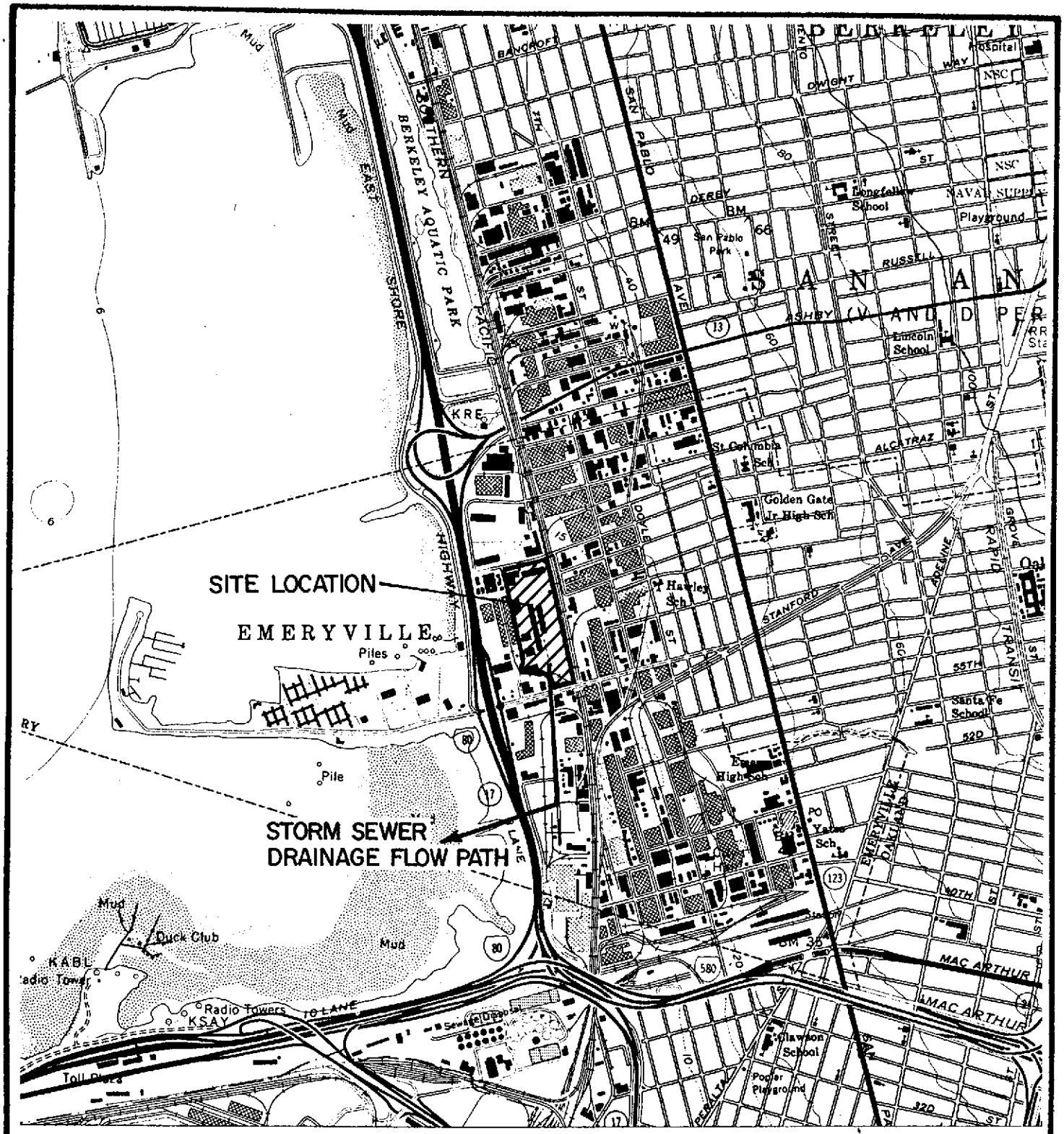

FIGURE 1

SITE LOCATION MAP

DRAINAGE FLOW PATH

N

THE MARTIN CO.
EMERYVILLE, CALIF.

0 MILES 1

GROUNDWATER TECHNOLOGY

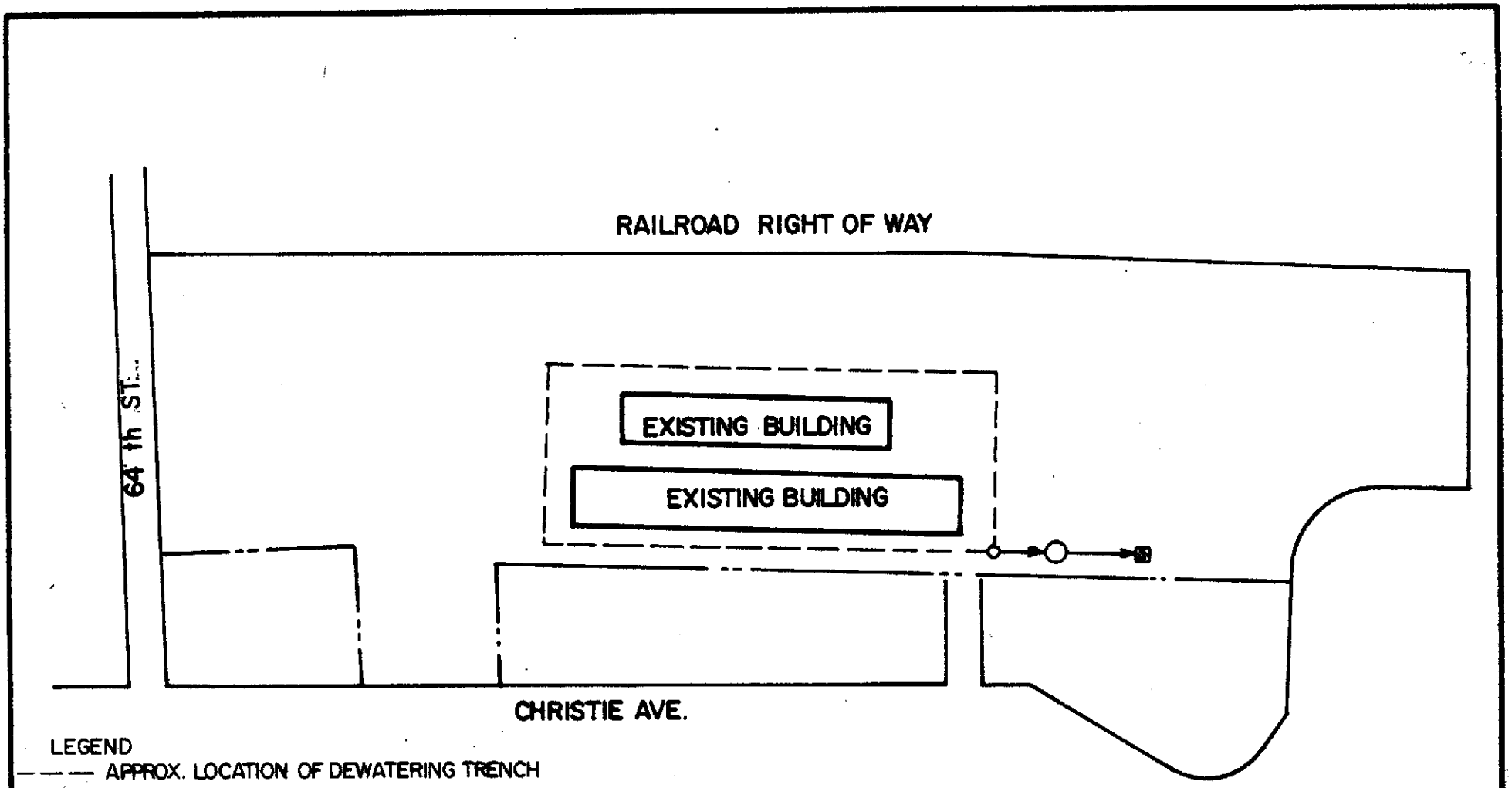

FIGURE 2

SITE PLAN

PROPOSED DEWATERING TREATMENT SYSTEM

CHRISTIE AVENUE PARTNERS
EMERYVILLE, CALIF.

GROUNDWATER TECHNOLOGY, INC.

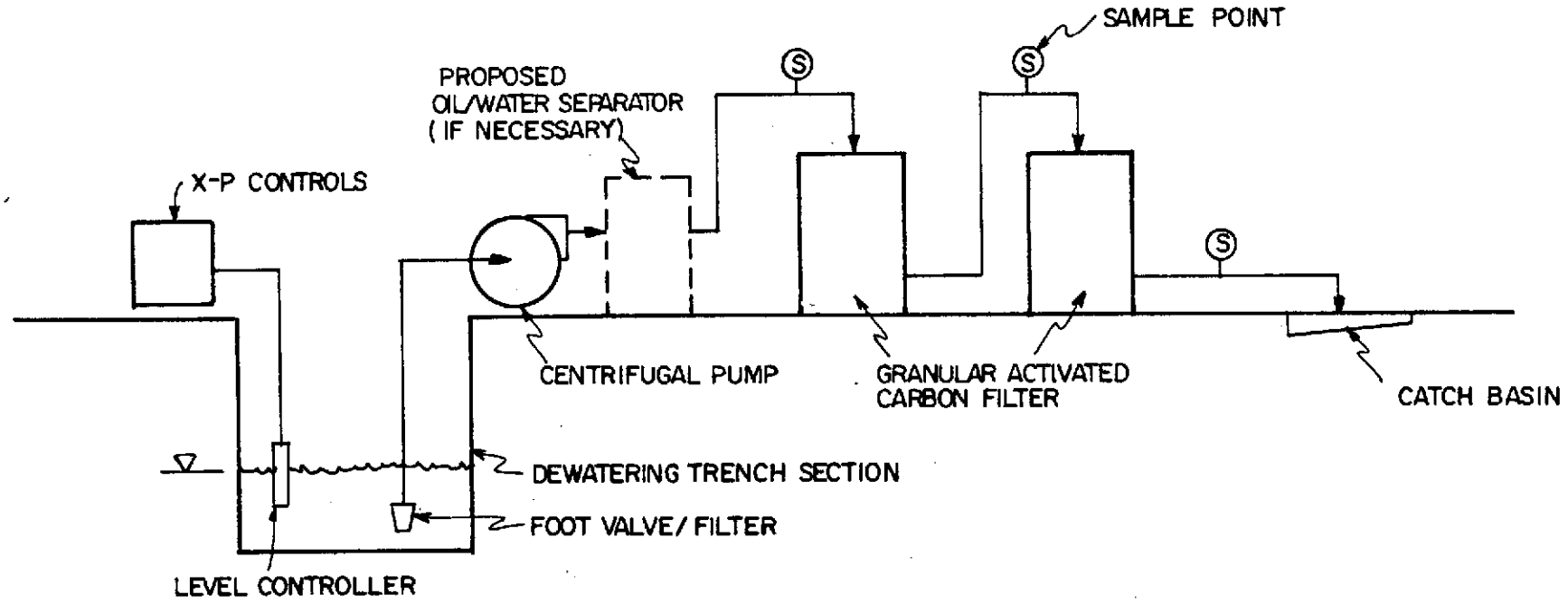

FIGURE 3

WATER TREATMENT SYSTEM SCHEMATIC

NO SCALE

CHRISTIE AVENUE PARTNERS
EMERYVILLE, CALIF.

GROUNDWATER TECHNOLOGY, INC.

WORST CASE

CARBON FILTRATION SYSTEM SIZING

Using a contaminant concentration of 11 mg/l based upon groundwater sampling analyses for total fuel hydrocarbons taken on May 24, 1988, the following carbon expenditure calculation was made:

Given: A dewatering pumping rate estimate = 17 gpm

$$17 \text{ gpm} \times 11 \frac{\text{mg}}{\text{L}} \times 3.\underline{785}\text{L} \times \frac{1 \text{ gm}}{\text{gal } 1000\text{mg}} \times 1440 \frac{\text{min}}{\text{day}} \times \frac{1\text{lb}}{454 \text{ gm}} = 2.24 \frac{\text{lbs}}{\text{day}}$$

Therefore: Approximately 2.3 lbs of contaminants need to be removed by the carbon filtration system prior to discharge.

Assuming a conservative carbon adsorbative capacity of 3 pounds of contaminants per 100 pounds of carbon (the presence of oil and grease constituents in the analyses indicates that this capacity may be more realistic), GTI proposes to use a carbon filter series of at least, two filters on each of two manifolded branch streams. Using readily available carbon filter canisters containing 150 pounds of carbon (9 pounds adsorbative capacity) a 4 day carbon filter change out will be required to prevent break through in the primary filters of the series.

GTI proposes the usage of an oil/water separator scheme between the pump and the carbon filtration for prolonged carbon life should the oil and grease constituent become a problem.

BROWN AND CALDWELL LABORATORIES

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

ANALYTICAL REPORT

LOG NO: E88-05-609

Received: 23 MAY 88
Reported: 03 JUN 88

Mr. Peter Nance
Earth Metrics
859 Cowan
Burlingame, California 94010

COPY

Project: 9570.AB

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
05-609-1	W-1E	23 MAY 88

PARAMETER	05-609-1
Beryllium, mg/L	<0.01
Cadmium, mg/L	<0.01
Chromium, mg/L	<0.02
Copper, mg/L	0.04
Lead, mg/L	0.12
Nickel, mg/L	<0.05
Silver, mg/L	<0.01
Thallium, mg/L	<0.1
Zinc, mg/L	0.22
Antimony, mg/L	0.3
Arsenic, mg/L	0.014
Selenium, mg/L	<0.001
Mercury, mg/L	0.0003
Oil and Grease, mg/L	38
Nitric Acid Digestion, Date	05.24.88
Total Fuel Hydrocarbons, mg/L	11

BROWN AND CALDWELL LABORATORIES
1255 POWELL STREET EMERYVILLE, CA 94608 • (415) 428-2300

ANALYTICAL REPORT

LOG NO: E88-05-609

Received: 23 MAY 88
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Mr. Peter Nance
Earth Metrics
859 Cowan
Burlingame, California 94010

Project: 9570.AB

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
05-609-1	W-1E	23 MAY 88

PARAMETER	05-609-1
B/N,A Ext.Pri.Poll. (EPA-625)	
Extraction	05.25.88
Date Analyzed	06.02.88
1,2,4-Trichlorobenzene, ug/L	<100
1,2-Dichlorobenzene, ug/L	<100
1,2-Diphenylhydrazine, ug/L	<100
1,3-Dichlorobenzene, ug/L	<100
1,4-Dichlorobenzene, ug/L	<100
2,4,6-Trichlorophenol, ug/L	<10
2,4-Dichlorophenol, ug/L	<10
2,4-Dimethylphenol, ug/L	<10
2,4-Dinitrotoluene, ug/L	<100
2,4-Dinitrophenol, ug/L	<100
2,6-Dinitrotoluene, ug/L	<100
2-Chloronaphthalene, ug/L	<100
2-Nitrophenol, ug/L	<10
2-Chlorophenol, ug/L	<10
2-Methyl-4,6-dinitrophenol, ug/L	<10
3,3'-Dichlorobenzidine, ug/L	<100
4-Bromophenylphenylether, ug/L	<100
4-Chloro-3-methylphenol, ug/L	<10
4-Chlorophenylphenylether, ug/L	<100
4-Nitrophenol, ug/L	<200
Acenaphthene, ug/L	<100
Acenaphthylene, ug/L	<100
Anthracene, ug/L	<100
Bis(2-ethylhexyl)phthalate, ug/L	<10000

BROWN AND CALDWELL LABORATORIES
1255 POWELL STREET EMERYVILLE, CA 94608 • (415) 428-2300

ANALYTICAL REPORT

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Mr. Peter Nance
Earth Metrics
859 Cowan
Burlingame, California 94010

COPY

Project: 9570.AB

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
05-609-1	W-1E	23 MAY 88

PARAMETER	05-609-1				
Benzidine, ug/L	<4000				
Bis(2-chloroethyl)ether, ug/L	<100				
Bis(2-chloroisopropyl)ether, ug/L	<100				
Bis(2-chloroethoxy)methane, ug/L	<100				
Benzo(a)anthracene, ug/L	<100				
Benzo(a)pyrene, ug/L	<100				
Benzo(b)fluoranthene, ug/L	<100				
Benzo(g,h,i)perylene, ug/L	<100				
Benzo(k)fluoranthene, ug/L	<100				
Butylbenzylphthalate, ug/L	<100				
Chrysene, ug/L	<100				
Di-n-octylphthalate, ug/L	<100				
Dibenzo(a,h)anthracene, ug/L	<100				
Dibutylphthalate, ug/L	<100				
Diethylphthalate, ug/L	<100				
Dimethylphthalate, ug/L	<100				
Fluorene, ug/L	<100				
Fluoranthene, ug/L	320				
Hexachlorobenzene, ug/L	<100				
Hexachlorobutadiene, ug/L	<100				
Hexachlorocyclopentadiene, ug/L	<100				
Hexachloroethane, ug/L	<100				
Indeno(1,2,3-c,d)pyrene, ug/L	<100				
Isophorone, ug/L	<100				
N-Nitrosodi-n-propylamine, ug/L	<100				
N-Nitrosodimethylamine, ug/L	<100				
N-Nitrosodiphenylamine, ug/L	<100				

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ANALYTICAL REPORT

LOG NO: E88-05-609

Received: 23 MAY 88
Reported: 03 JUN 88

Mr. Peter Nance
Earth Metrics
859 Cowan
Burlingame, California 94010

COPY

Project: 9570.AB

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
05-609-1	W-1E	23 MAY 88

PARAMETER	05-609-1
Naphthalene, ug/L	<100
Nitrobenzene, ug/L	<100
Pentachlorophenol, ug/L	420
Phenanthrene, ug/L	<100
Phenol, ug/L	220
Pyrene, ug/L	550
Other B/N,A Ext.Pri.Poll. (EPA-625)	---
Semi-Quantified Results **	
Benzene Acetic Acid, ug/L	90
C12H1602, ug/L	300
Unidentified Matrix, ug/L	500

** Quantification based upon comparison of total ion count of the compound with that of the nearest internal standard.

Linda Brack Fox
Sim D. Lessley, Ph.D., Laboratory Director

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ANALYTICAL REPORT

LOG NO: E88-05-533

Received: 19 MAY 88
Reported: 24 MAY 88

Mr. Mark Papineau
Earth Metrics
859 Cowan
Burlingame, California 94010

COPY

Project: 9570-A3

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
05-533-1	W-1D	19 MAY 88

PARAMETER	05-533-1
Purgeable Priority Pollutants	
Date Extracted	05.20.88
1,1,1-Trichloroethane, ug/L	<10
1,1,2,2-Tetrachloroethane, ug/L	<10
1,1,2-Trichloroethane, ug/L	<10
1,1-Dichloroethane, ug/L	<10
1,1-Dichloroethylene, ug/L	<10
1,2-Dichloroethane, ug/L	<10
1,2-Dichloropropane, ug/L	<10
1,3-Dichloropropene, ug/L	<10
2-Chloroethylvinylether, ug/L	<10
Acrolein, ug/L	<100
Acrylonitrile, ug/L	<100
Bromodichloromethane, ug/L	<10
Bromomethane, ug/L	<10
Benzene, ug/L	<10
Chlorobenzene, ug/L	<10
Carbon Tetrachloride, ug/L	<10
Chloroethane, ug/L	<10
Bromoform, ug/L	<10
Chloroform, ug/L	<10
Chloromethane, ug/L	<10
Dibromochloromethane, ug/L	<10
Ethylbenzene, ug/L	<10
Methylene chloride, ug/L	<10
Tetrachloroethylene, ug/L	<10
Trichloroethylene, ug/L	<10

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ANALYTICAL REPORT

LOG NO: E88-05-533

Received: 19 MAY 88
Reported: 24 MAY 88

Mr. Mark Papineau
Earth Metrics
859 Cowan
Burlingame, California 94010

COPY

Project: 9570-A3

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
05-533-1	W-1D	19 MAY 88

PARAMETER	05-533-1
Trichlorofluoromethane, ug/L	<10
Toluene, ug/L	<10
Vinyl chloride, ug/L	<10
trans-1,2-Dichloroethylene, ug/L	<10
trans-1,3-Dichloropropene, ug/L	<10

Linda Black for
Sim D. Lessley, Ph.D., Laboratory Director

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Page one continued

CLIENT: Steve Fischbein
PROJECT #:203-799-5080.01-20
LOCATION: Emeryville, CA

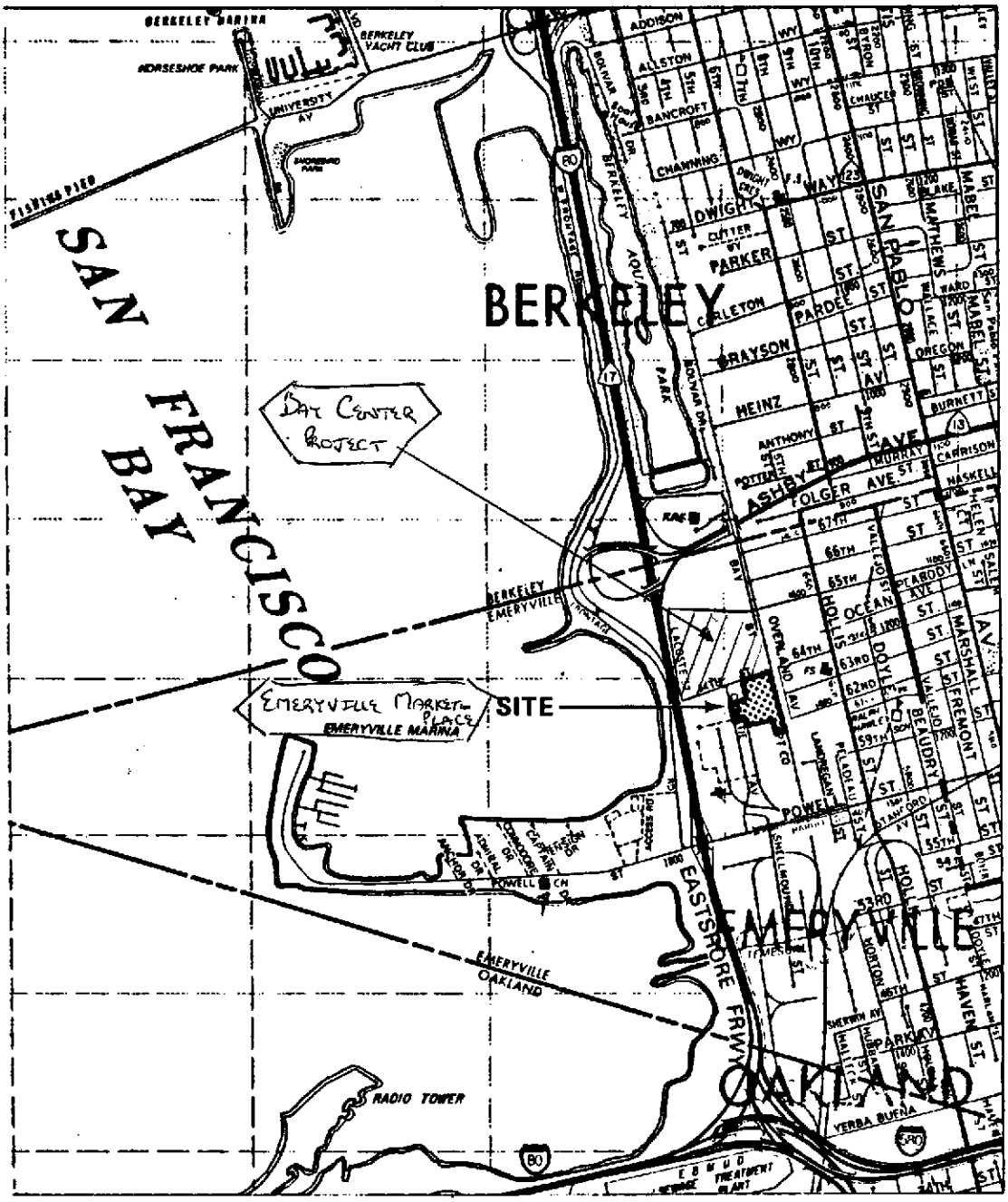
MATRIX: Water
UNITS: ug/L (ppb)

B

COMPOUNDS	MDL	LAB # / I.D.#	28709 SEP EFF	28710 CT-2		
2,4-Dinitrophenol	50		<50	<50		
4-Nitrophenol	50		<50	<50		
Dibenzofuran	10		<10	<10		
2,4-Dinitrotoluene	10		<10	<10		
2,6-Dinitrotoluene	10		<10	<10		
Diethylphthalate	10		<10	<10		
4-chlorophenyl-phenylether	10		<10	<10		
Fluorene	10		<10	<10		
4-Nitroaniline	50		<50	<50		
4,6-Dinitro-2-methylphenol	50		<50	<50		
N-Nitrosodiphenylamine (1)	10		<10	<10		
4-Bromophenyl-phenylether	10		<10	<10		
Hexachlorobenzene	10		<10	<10		
Pentachlorophenol	50		<50	<50		
Phenanthrene	10		<10	<10		
Anthracene	10		<10	<10		
Di-n-butylphthalate	10		<10	<10		
Fluoranthene	10		<10	<10		
Pyrene	10		<10	<10		
Butylbenzylphthalate	10		<10	<10		
3,3-Dichlorobenzidine	20		<20	<20		
Benzo(a)anthracene	10		<10	<10		
bis(2-Ethylhexyl)phthalate	10		<10	<10		
Chrysene	10		<10	<10		
Di-n-octylphthalate	10		<10	<10		
Benzo(b)fluoranthene	10		<10	<10		
Benzo(k)fluoranthene	10		<10	<10		
Benzidine	10		<10	<10		
Benzo(a)pyrene	10		<10	<10		
Indeno(1,2,3-cd)pyrene	10		<10	<10		
Dibenz(a,h)anthracene	10		<10	<10		
Benzo(g,h,i)perylene	10		<10	<10		

MDL = Method Detection Limit; compound below this level would not be detected. (1) Cannot be separated from diphenylamine.
METHOD: EPA 625.

SAFY KHALIFA, Ph.D., Director



Project No. 8710018A	Nielsen Freight Line Site The Martin Company	SITE LOCATION	May 1987
Woodward-Clyde Consultants			Figure 1

TABLE 1

LABORATORY RESULTS

SAMPLE	SAMPLE DATE	SAMPLE TIME	APPROXIMATE FLOW RATE	LABORATORY RESULTS (ppb) 624	625
CT-2*	7/11/88	11:15 AM		61**	ND
CT-1	7/11/88	11:20 AM		ND	--
CT-2 (Duplicate)	7/11/88	11:15 AM		ND	--
CT-2	7/21/88	3:20 PM		ND	ND
CT-2	8/04/88	11:45 AM		ND	ND

ppb = Parts per billion

*CT-2 = Sample taken from second carbon tank of two in series

CT-1 = Sample taken from first carbon tank of two in series

** = 61 ppb Tetrachloroethene

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CLIENT: Steve Fischbein
PROJECT#: 203-799-5080.01-16
LOCATION: Emeryville, CA
MATRIX: Water
UNITS: ug/L (ppb)

COMPOUNDS	MDL	LAB #	26918
		I.D.#	CT-2
Styrene	5		<5
1,2-Dichlorobenzene	5		<5
1,3-Dichlorobenzene	5		<5
1,4-Dichlorobenzene	5		<5
Total Xylenes	5		<5
Trichlorofluoromethane	5		<5
Dichlorodifluoromethane	5		<5

MDL = Method Detection Limit; compound below this level would not be detected.
METHODS: EPA 624.

SAFY KHALIFA, Ph.D., Director

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08/17/88 mh

S.V.O.A.
A TEST RESULTS

CLIENT: Steve Fischbein
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520
PROJECT#: 203-799-5080.01-20
LOCATION: Emeryville, CA

SAMPLED: 08/04/88 BY: R. Hughes
RECEIVED: 08/05/88 BY: K. Fillinger
ANALYZED: 08/11/88 BY: L. Hinson
MATRIX: Water
UNITS: ug/L (ppb)

COMPOUNDS	MDL	LAB # I.D.#	28709 SEP EFF	28710 CT-2		
Phenol	10		<10	<10		
bis(2-Chloroethyl)ether	10		<10	<10		
2-Chlorophenol	10		<10	<10		
1,3-Dichlorobenzene	10		<10	<10		
1,4-Dichlorobenzene	10		<10	<10		
Benzyl alcohol	10		<10	<10		
1,2-Dichlorobenzene	10		<10	<10		
2-Methylphenol	10		<10	<10		
bis-(2-Chloroisopropyl)ether	10		<10	<10		
4-Methylphenol	10		<10	<10		
N-Nitroso-di-n-propylamine	10		<10	<10		
Hexachloroethane	10		<10	<10		
Nitrobenzene	10		<10	<10		
Isophorone	10		<10	<10		
2-Nitrophenol	10		<10	<10		
2,4-Dimethylphenol	10		<10	<10		
Benzoic acid	50		<50	<50		
bis(2-Chloroethoxy)methane	10		<10	<10		
2,4-Dichlorophenol	10		<10	<10		
1,2,4-Trichlorobenzene	10		<10	<10		
Naphthalene	10		<10	<10		
4,Chloroaniline	10		<10	<10		
Hexachlorobutadiene	10		<10	<10		
4-Chloro-3-methylphenol	10		<10	<10		
2-Methylnaphthalene	10		<10	<10		
Hexachlorocyclopentadiene	10		<10	<10		
2,4,6-Trichlorophenol	10		<10	<10		
2,4,5-Trichlorophenol	50		<50	<50		
2-Chloronaphthalene	10		<10	<10		
2-Nitroaniline	50		<50	<50		
Dimethylphthalate	10		<10	<10		
Acenaphthylene	10		<10	<10		
3-Nitroaniline	50		<50	<50		
Acenaphthene	10		<10	<10		

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07/18/88 jp

CLIENT: Steve Fischbein
Groundwater Technology, Inc.
4080 Pike Ln.
Concord, CA 94520
PROJECT#: 203-799-5080.01-16
LOCATION: Emeryville, CA
SAMPLED: 07/11/88 BY: R. Hughes
RECEIVED: 07/11/88 BY: K. Fillinger
ANALYZED: 7/11-13/88 BY: L. Hinson
MATRIX: Water
UNITS: ug/L (ppb)

V.O.A.
A TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	26918 CT-2			
Chloromethane	10		<10			
Bromomethane	10		<10			
Vinyl Chloride	10		<10			
Chloroethane	10		<10			
Methylene Chloride	5		<5			
Acetone	10		<10			
Carbon Disulfide	5		<5			
1,1-Dichloroethene	5		<5			
1,1-Dichloroethane	5		<5			
Trans-1,2-Dichloroethene	5		<5			
Chloroform	5		<5			
1,2-Dichloroethane	5		<5			
2-Butanone	10		<10			
1,1,1-Trichloroethane	5		<5			
Carbon Tetrachloride	5		<5			
Vinyl Acetate	10		<10			
Bromodichloromethane	5		<5			
1,2-Dichloropropane	5		<5			
cis-1,3-Dichloropropene	5		<5			
Trichloroethene	5		<5			
Dibromochloromethane	5		<5			
1,1,2-Trichlorethane	5		<5			
Benzene	5		<5			
Trans-1,3-Dichloropropene	5		<5			
2-Chloroethylvinylether	10		<10			
Bromoform	5		<5			
4-Methyl-2-Pentanone	10		<10			
2-Hexanone	10		<10			
Tetrachloroethene	5		61			
1,1,2,2-Tetrachloroethane	5		<5			
Toluene	5		<5			
Chlorobenzene	5		<5			
Ethylbenzene	5		<5			

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CLIENT: Steve Fischbein
PROJECT#: 203-799-5080.01-19
LOCATION: Emeryville, CA
MATRIX: Water
UNITS: ug/L (ppb)

COMPOUNDS	MDL	LAB # / I.D.#	28518 SEP EFF	28519 CT-2		
Styrene	5		<5	<5		
1,2-Dichlorobenzene	5		<5	<5		
1,3-Dichlorobenzene	5		<5	<5		
1,4-Dichlorobenzene	5		<5	<5		
Total Xylenes	5		<5	<5		
Trichlorofluoromethane	5		<5	<5		
Dichlorodifluoromethane	5		<5	<5		

MDL = Method Detection Limit; compound below this level would not be detected.
METHODS: EPA 624

Safy Khalifa 1/8/97
SAFY KHALIFA, Ph.D., Director

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CLIENT: Steve Fischbein
PROJECT #:203-799-5080-5
LOCATION: Emeryville, CA

MATRIX: Water
UNITS: ug/L (ppb)

B

COMPOUNDS	MDL	LAB # / I.D.#	27701 / CT-2	27702 / SEP EFF		
2,4-Dinitrophenol	50		<50	<50		
4-Nitrophenol	50		<50	<50		
Dibenzofuran	10		<10	<10		
2,4-Dinitrotoluene	10		<10	<10		
2,6-Dinitrotoluene	10		<10	<10		
Diethylphthalate	10		<10	<10		
4-chlorophenyl-phenylether	10		<10	<10		
Fluorene	10		<10	<10		
4-Nitroaniline	50		<50	<50		
4,6-Dinitro-2-methylphenol	50		<50	<50		
N-Nitrosodiphenylamine (1)	10		<10	<10		
4-Bromophenyl-phenylether	10		<10	<10		
Hexachlorobenzene	10		<10	<10		
Pentachlorophenol	50		<50	<50		
Phenanthrene	10		<10	<10		
Anthracene	10		<10	<10		
Di-n-butylphthalate	10		<10	<10		
Fluoranthene	10		<10	<10		
Pyrene	10		<10	<10		
Butylbenzylphthalate	10		<10	<10		
3,3-Dichlorobenzidine	20		<20	<20		
Benzo(a)anthracene	10		<10	<10		
bis(2-Ethylhexyl)phthalate	10		<10	<10		
Chrysene	10		<10	<10		
Di-n-octylphthalate	10		<10	<10		
Benzo(b)fluoranthene	10		<10	<10		
Benzo(k)fluoranthene	10		<10	<10		
Benzidine	10		<10	<10		
Benzo(a)pyrene	10		<10	<10		
Indeno(1,2,3-cd)pyrene	10		<10	<10		
Dibenz(a,h)anthracene	10		<10	<10		
Benzo(g,h,i)perylene	10		<10	<10		

MDL = Method Detection Limit; compound below this level would not be detected. (1) Cannot be separated from diphenylamine.
METHOD: EPA 625/8270

SAFY KHALIFA, Ph.D., Director

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08/11/88 jp

CLIENT: Steve Fischbein
Groundwater Technology, Inc.
4080 Pike Ln.
Concord, CA 94520
PROJECT#: 203-799-5080.01-19
LOCATION: Emeryville, CA
SAMPLED: 08/04/88 BY: R. Hughes
RECEIVED: 08/04/88 BY: K. Fillinger
ANALYZED: 08/05/88 BY: L. Hinson
MATRIX: Water
UNITS: ug/L (ppb)

V.O.A.
A TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	28707 SEP EFF	28708 CT-2		
Chloromethane	10		<10	<10		
Bromomethane	10		<10	<10		
Vinyl Chloride	10		<10	<10		
Chloroethane	10		<10	<10		
Methylene Chloride	5		<5	<5		
Acetone	10		<10	<10		
Carbon Disulfide	5		<5	<5		
1,1-Dichloroethene	5		<5	<5		
1,1-Dichloroethane	5		<5	<5		
Trans-1,2-Dichloroethene	5		<5	<5		
Chloroform	5		<5	<5		
1,2-Dichloroethane	5		<5	<5		
2-Butanone	10		<10	<10		
1,1,1-Trichloroethane	5		<5	<5		
Carbon Tetrachloride	5		<5	<5		
Vinyl Acetate	10		<10	<10		
Bromodichloromethane	5		<5	<5		
1,2-Dichloropropane	5		<5	<5		
cis-1,3-Dichloropropene	5		<5	<5		
Trichloroethene	5		<5	<5		
Dibromochloromethane	5		<5	<5		
1,1,2-Trichlorethane	5		<5	<5		
Benzene	5		<5	<5		
Trans-1,3-Dichloropropene	5		<5	<5		
2-Chloroethylvinylether	10		<10	<10		
Bromoform	5		<5	<5		
4-Methyl-2-Pentanone	10		<10	<10		
2-Hexanone	10		<10	<10		
Tetrachloroethene	5		<5	<5		
1,1,2,2-Tetrachloroethane	5		<5	<5		
Toluene	5		<5	<5		
Chlorobenzene	5		<5	<5		
Ethylbenzene	5		<5	<5		

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08/17/88 mh

CLIENT: Steve Fischbein
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520
PROJECT#: 203-799-5080-5
LOCATION: Emeryville, CA

S.V.O.A.
A TEST RESULTS

SAMPLED: 07/21/88 BY: R. Hughes
RECEIVED: 07/22/88 BY: K. Fillinger
ANALYZED: 08/11/88 BY: L. Hinson
MATRIX: Water
UNITS: ug/L (ppb)

COMPOUNDS	MDL	LAB # I.D.#	27701 CT-2	27702 SEP EFF		
Phenol	10		<10	<10		
bis(2-Chloroethyl)ether	10		<10	<10		
2-Chlorophenol	10		<10	<10		
1,3-Dichlorobenzene	10		<10	<10		
1,4-Dichlorobenzene	10		<10	<10		
Benzyl alcohol	10		<10	<10		
1,2-Dichlorobenzene	10		<10	<10		
2-Methylphenol	10		<10	<10		
bis-(2-Chloroisopropyl)ether	10		<10	<10		
4-Methylphenol	10		<10	<10		
N-Nitroso-di-n-propylamine	10		<10	<10		
Hexachloroethane	10		<10	<10		
Nitrobenzene	10		<10	<10		
Isophorone	10		<10	<10		
2-Nitrophenol	10		<10	<10		
2,4-Dimethylphenol	10		<10	<10		
Benzoic acid	50		<50	<50		
bis(2-Chloroethoxy)methane	10		<10	<10		
2,4-Dichlorophenol	10		<10	<10		
1,2,4-Trichlorobenzene	10		<10	<10		
Naphthalene	10		<10	<10		
4,Chloroaniline	10		<10	<10		
Hexachlorobutadiene	10		<10	<10		
4-Chloro-3-methylphenol	10		<10	<10		
2-Methylnaphthalene	10		<10	<10		
Hexachlorocyclopentadiene	10		<10	<10		
2,4,6-Trichlorophenol	10		<10	<10		
2,4,5-Trichlorophenol	50		<50	<50		
2-Chloronaphthalene	10		<10	<10		
2-Nitroaniline	50		<50	<50		
Dimethylphthalate	10		<10	<10		
Acenaphthylene	10		<10	<10		
3-Nitroaniline	50		<50	<50		
Acenaphthene	10		<10	<10		

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CLIENT: Steve Fischbein
PROJECT#: 203-799-5080-4
LOCATION: Emeryville, CA
MATRIX: Water
UNITS: ug/L (ppb)

COMPOUNDS	MDL	LAB # / I.D.#	27699 / CT-2	27700 / SEP EFF		
Styrene	5		<5	<5		
1,2-Dichlorobenzene	5		<5	<5		
1,3-Dichlorobenzene	5		<5	<5		
1,4-Dichlorobenzene	5		<5	<5		
Total Xylenes	5		<5	<5		
Trichlorofluoromethane	5		<5	<5		
Dichlorodifluoromethane	5		<5	<5		

MDL = Method Detection Limit; compound below this level would not be detected.
METHODS: EPA 624

SAFY KHALIFA, Ph.D., Director

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08/04/88 jp

CLIENT: Steve Fischbein
Groundwater Technology, Inc.
4080 Pike Lane
Concord, CA 94520
PROJECT#: 203-799-5080-4
LOCATION: Emeryville, CA
SAMPLED: 07/21/88 BY: R. Hughes
RECEIVED: 07/22/88 BY: K. Fillinger
ANALYZED: 7/22,28/88 BY: L. Hinson
MATRIX: Water
UNITS: ug/L (ppb)

V.O.A.
A TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	27699 CT-2	27700 SEP EFF		
Chloromethane	10		<10	<10		
Bromomethane	10		<10	<10		
Vinyl Chloride	10		<10	<10		
Chloroethane	10		<10	<10		
Methylene Chloride	5		<5	<5		
Acetone	10		<10	<10		
Carbon Disulfide	5		<5	<5		
1,1-Dichloroethene	5		<5	<5		
1,1-Dichloroethane	5		<5	<5		
Trans-1,2-Dichloroethene	5		<5	<5		
Chloroform	5		<5	<5		
1,2-Dichloroethane	5		<5	<5		
2-Butanone	10		<10	<10		
1,1,1-Trichloroethane	5		<5	<5		
Carbon Tetrachloride	5		<5	<5		
Vinyl Acetate	10		<10	<10		
Bromodichloromethane	5		<5	<5		
1,2-Dichloropropane	5		<5	<5		
cis-1,3-Dichloropropene	5		<5	<5		
Trichloroethene	5		<5	<5		
Dibromochloromethane	5		<5	<5		
1,1,2-Trichlorethane	5		<5	<5		
Benzene	5		<5	<5		
Trans-1,3-Dichloropropene	5		<5	<5		
2-Chloroethylvinylether	10		<10	<10		
Bromoform	5		<5	<5		
4-Methyl-2-Pentanone	10		<10	<10		
2-Hexanone	10		<10	<10		
Tetrachloroethene	5		<5	<5		
1,1,2,2-Tetrachloroethane	5		<5	<5		
Toluene	5		<5	<5		
Chlorobenzene	5		<5	<5		
Ethylbenzene	5		<5	<5		

GTEL Environmental Laboratories
A division of Groundwater Technology, 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: Steve Fischbein
PROJECT#: 203-799-5080.01-18
LOCATION: Emeryville, CA
MATRIX: Water
UNITS: ug/L (ppb)

COMPOUNDS	MDL	LAB # / I.D.#	26920 / CT-2	26922 / CT-1
Styrene	5		<5	<5
1,2-Dichlorobenzene	5		<5	<5
1,3-Dichlorobenzene	5		<5	<5
1,4-Dichlorobenzene	5		<5	<5
Total Xylenes	5		<5	<5
Trichlorofluoromethane	5		<5	<5
Dichlorodifluoromethane	5		<5	<5

MDL = Method Detection Limit; compound below this level would not be detected.
METHODS: EPA 624

SAFY KHALIFA, Ph.D., Director

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Concord, CA 94520
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(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
PROJECT #:203-799-5080.01-17
LOCATION: Emeryville, CA

MATRIX: Water
UNITS: ug/L (ppb)

B

COMPOUNDS	MDL	LAB # / I.D.#	26919 CT-2			
2,4-Dinitrophenol	50		<50			
4-Nitrophenol	50		<50			
Dibenzofuran	10		<10			
2,4-Dinitrotoluene	10		<10			
2,6-Dinitrotoluene	10		<10			
Diethylphthalate	10		<10			
4-chlorophenyl-phenylether	10		<10			
Fluorene	10		<10			
4-Nitroaniline	50		<50			
4,6-Dinitro-2-methylphenol	50		<50			
N-Nitrosodiphenylamine (1)	10		<10			
4-Bromophenyl-phenylether	10		<10			
Hexachlorobenzene	10		<10			
Pentachlorophenol	50		<50			
Phenanthrene	10		<10			
Anthracene	10		<10			
Di-n-butylphthalate	10		<10			
Fluoranthene	10		<10			
Pyrene	10		<10			
Butylbenzylphthalate	10		<10			
3,3-Dichlorobenzidine	20		<20			
Benzo(a)anthracene	10		<10			
bis(2-Ethylhexyl)phthalate	10		<10			
Chrysene	10		<10			
Di-n-octylphthalate	10		<10			
Benzo(b)fluoranthene	10		<10			
Benzo(k)fluoranthene	10		<10			
Benzidine	10		<10			
Benzo(a)pyrene	10		<10			
Indeno(1,2,3-cd)pyrene	10		<10			
Dibenz(a,h)anthracene	10		<10			
Benzo(g,h,i)perylene	10		<10			

MDL = Method Detection Limit; compound below this level would not be detected. (1) Cannot be separated from diphenylamine.
METHOD: EPA 625

SAFY KHALIFA, Ph.D., Director

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08/04/88 jp

CLIENT: Steve Fischbein
Groundwater Technology, Inc.
4080 Pike Lane
Concord, CA 94520
PROJECT#: 203-799-5080.01-18
LOCATION: Emeryville, CA
SAMPLED: 07/11/88 BY: R. Hughes
RECEIVED: 07/20/88 BY: K. Biava
ANALYZED: 07/22/88 BY: L. Hinson
MATRIX: Water
UNITS: ug/L (ppb)

V.O.A.
A TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	26920 CT-2	26922 CT-1
Chloromethane	10		<10	<10
Bromomethane	10		<10	<10
Vinyl Chloride	10		<10	<10
Chloroethane	10		<10	<10
Methylene Chloride	5		<5	<5
Acetone	10		<10	<10
Carbon Disulfide	5		<5	<5
1,1-Dichloroethene	5		<5	<5
1,1-Dichloroethane	5		<5	<5
Trans-1,2-Dichloroethene	5		<5	<5
Chloroform	5		<5	<5
1,2-Dichloroethane	5		<5	<5
2-Butanone	10		<10	<10
1,1,1-Trichloroethane	5		<5	<5
Carbon Tetrachloride	5		<5	<5
Vinyl Acetate	10		<10	<10
Bromodichloromethane	5		<5	<5
1,2-Dichloropropane	5		<5	<5
cis-1,3-Dichloropropene	5		<5	<5
Trichloroethene	5		<5	<5
Dibromochloromethane	5		<5	<5
1,1,2-Trichlorethane	5		<5	<5
Benzene	5		<5	<5
Trans-1,3-Dichloropropene	5		<5	<5
2-Chloroethylvinylether	10		<10	<10
Bromoform	5		<5	<5
4-Methyl-2-Pentanone	10		<10	<10
2-Hexanone	10		<10	<10
Tetrachloroethene	5		<5	<5
1,1,2,2-Tetrachloroethane	5		<5	<5
Toluene	5		<5	<5
Chlorobenzene	5		<5	<5
Ethylbenzene	5		<5	<5

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(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

S.V.O.A.

A TEST RESULTS

07/21/88 rw
CLIENT: Steve Fischbein
Groundwater Technology, Inc.
4080 Pike Ln.
Concord, CA 94520
PROJECT#: 203-799-5080.01-17
LOCATION: Emeryville, CA

SAMPLED: 07/11/88 BY: R. Hughes
RECEIVED: 07/11/88 BY: K. Fillinger
ANALYZED: 07/14/88 BY: L. Hinson
MATRIX: Water
UNITS: ug/L (ppb)

COMPOUNDS	MDL	LAB # I.D.#	26919 CT-2			
Phenol	10		<10			
bis(2-Chloroethyl)ether	10		<10			
2-Chlorophenol	10		<10			
1,3-Dichlorobenzene	10		<10			
1,4-Dichlorobenzene	10		<10			
Benzyl alcohol	10		<10			
1,2-Dichlorobenzene	10		<10			
2-Methylphenol	10		<10			
bis-(2-Chloroisopropyl)ether	10		<10			
4-Methylphenol	10		<10			
N-Nitroso-di-n-propylamine	10		<10			
Hexachloroethane	10		<10			
Nitrobenzene	10		<10			
Isophorone	10		<10			
2-Nitrophenol	10		<10			
2,4-Dimethylphenol	10		<10			
Benzoic acid	50		<50			
bis(2-Chloroethoxy)methane	10		<10			
2,4-Dichlorophenol	10		<10			
1,2,4-Trichlorobenzene	10		<10			
Naphthalene	10		<10			
4,Chloroaniline	10		<10			
Hexachlorobutadiene	10		<10			
4-Chloro-3-methylphenol	10		<10			
2-Methylnaphthalene	10		<10			
Hexachlorocyclopentadiene	10		<10			
2,4,6-Trichlorophenol	10		<10			
2,4,5-Trichlorophenol	50		<50			
2-Chloronaphthalene	10		<10			
2-Nitroaniline	50		<50			
Dimethylphthalate	10		<10			
Acenaphthylene	10		<10			
3-Nitroaniline	50		<50			
Acenaphthene	10		<10			

SIGNATORY AND CERTIFICATION STATEMENT TO NPDES PERMIT APPLICATIONS

Please check the appropriate box

I CERTIFY THAT:

☐ (for a municipal, state, federal, or other public agency) I am a principal executive officer or ranking elected official; or

In the case of Federal agencies, I am the chief executive officer of the agency, or I am the senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

☐ (for a partnership or sole proprietorship) I am a general partner (partnership) or a proprietor (sole proprietorship).

☒ (for a corporation) I am President, Vice President, Secretary or Treasurer of the corporation and in charge of a principal business function, or I perform similar policy or decision making functions for the corporation; or,

I am the manager of one or more manufacturing, production of operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), and authority to sign documents has been has been assigned or delegated to me in accordance with corporate procedures.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

	Date of Cover Letter	Description of Document
1.	6/6/88	NPDES Permit Application
2.		
3.		
4.		
5.		

ignature Thomas Gram Date 6/7/88

ame Thomas Gram Title General Partner

ompany Name Christie Avenue Partners Phone Number (415) 654-7500