

93 SEP -3 AM 11:49

ENGEO

INCORPORATED
2401 Crow Canyon Road
Suite 200
San Ramon, CA 94583
(510) 838-1600
Fax (510) 838-7425

LETTER OF TRANSMITTAL

DATE: September 2, 1993 ENGEO PROJECT NO.: 3614-F4

TO: Alameda County Health Services Agency
 Department of Environmental Health
 80 Swan Way, Room 200
 Oakland, CA 94621

ATTENTION: Mr. Barney Chan

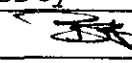
SUBJECT: 3925 Alameda Avenue, Oakland

TRANSMITTED HEREWITH: A copy of the proposed work plan for
a subsurface investigation at the subject site.

REMARKS: Please give me a call if you have any
questions.

ENGEO INCORPORATED

BY: Brian Flaherty

COPIES: 

- FOR YOUR INFORMATION
- FOR YOUR REVIEW
- RETURNING _____
- COPIES AT YOUR REQUEST

ENGEO INCORPORATED

98 SEP 24 PM 1:10
GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS

In Reply
Please Refer to:
3614-F4

August 26, 1993
Revised September 15, 1993

Alameda County Health Care Services Agency
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Attention: Mr. Barney Chan

Subject: 3925 Alameda Avenue
Oakland, California

WORK PLAN FOR SUBSURFACE INVESTIGATION

- References:
1. Alameda County, Department of Environmental Health; Request for Work Plan for Subsurface Investigation at 3925 Alameda Ave., Oakland, California; Formerly U.S. Cold Storage, January 27, 1993.
 2. Alameda County, Department of Environmental Health; Notice of Violation; Request for Work Plan For Subsurface Investigation at 3925 Alameda Avenue, Oakland, California; Formerly U.S. Cold Storage; August 2, 1993.

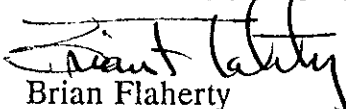
Gentlemen:

We are pleased to present our work plan for a subsurface investigation of the soil and ground water at 3925 Alameda Avenue in Oakland, California. This work plan describes the anticipated tasks necessary to study the possible soil and ground-water impacts from former underground storage tanks. This document was prepared to satisfy the County's requirements following the Regional Water Quality Control Board's "Appendix A, Tri-Regional Board Staff Recommendations for Preliminary Investigation and Evaluation of Underground Tank Sites."

We are available at your convenience to discuss the scope of our proposed work plan. Please do not hesitate to contact our office if you have any questions.

Very truly yours,

ENGEO INCORPORATED



Brian Flaherty
CEG 1256

cc: 1 - Addressee

WORK PLAN FOR SUBSURFACE INVESTIGATION

for

3925 ALAMEDA AVENUE

OAKLAND, CALIFORNIA

Submitted

to

Alameda County Health Care Services Agency
Department of Environmental Health
Oakland, California

Prepared

by

ENGEO Incorporated

Project 3614-F4

August 26, 1993

Revised September 15, 1993

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TABLE OF CONTENTS

Letter of Transmittal

Page

INTRODUCTION 1
 Scope of Work 1

BACKGROUND 2

PROPOSED SOIL AND GROUND-WATER INVESTIGATION 4
 Soil Borings 4
 Ground-Water Sampling 5
 Laboratory Testing 6
 Analysis of Data 6
 Report Preparation 7

APPENDIX

INTRODUCTION

This work plan was prepared to address the potential for soil and ground-water impacts from underground storage tanks which were located at 3925 Alameda Avenue in Oakland, California. The purpose of our study is to evaluate the possible vertical and lateral extent of petroleum hydrocarbons in the area of the excavation for the former underground tanks.

Scope of Work

The proposed scope of services includes:

1. Drilling and logging of exploratory test borings in the former tank excavation. An Organic Vapor Meter (PID) will be used during drilling to monitor for volatile vapors.
2. Collection of soil samples from the boreholes for laboratory testing. Samples will be analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline/diesel and for volatile aromatic compounds (BTEX).
3. Collection of ground-water samples from the exploratory test bore holes using the Hydropunch method of sampling. The samples will be submitted to an analytical laboratory to test for Total Petroleum Hydrocarbons as gasoline, diesel and kerosene and for volatile aromatic compounds (BTEX).
4. Review and analysis of the exploratory soil boring logs, soil vapor readings and the laboratory test results. The test data will be studied to evaluate the potential for possible soil or ground-water impacts caused by the former underground storage tanks.
5. Preparation of a report documenting the findings with recommendations for further study, if necessary.

BACKGROUND

Two underground fuel storage tanks (USTs) were removed from the site on March 10, 1988, by Blaine Tech Services Incorporated. The USTs are described as one 10,000-gallon diesel and one 1,000-gallon gasoline. The diesel tank had no observable holes while holes were apparent in the gasoline tank at the time of removal. A copy of the Uniform Hazardous Waste Manifest is included in the appendix and documents the removal of 700 gallons of gasoline, diesel and water from the USTs prior to their removal.

The results of the laboratory analyses of four soil and one ground-water sample(s) collected at the time of the tank removal are included in Table I.

<p style="text-align: center;">TABLE I Soil and Ground-Water Laboratory Analyses (Concentrations Reported in Parts Per Billion)</p>							
Sample No. depth	Location	Medium	TPHG	TPHD	Benzene	Toluene	Xylenes
No. 1 10.5'	West wall diesel tank excavation.	Soil	--	210	0.42	0.33	0.84
No. 2 10.5'	Southeast wall diesel tank excavation	Soil	--	450	ND	3.3	79
No. 3 9'	East wall gas tank excavation	Soil	720	--	6.6	110	150
No. 4 9'	West wall gas tank excavation	Soil	190	--	0.24	9.6	32
No. 5	Water from diesel tank excavation	Water Aqueous	150*	--	--	--	--

*Contained a lighter boiling point compound other than diesel

The recovery depth of the ground-water sample was not reported. A complete copy of the UST removal report is included in the Appendix.

The soil and ground-water test results show petroleum hydrocarbons in excess of 100 ppm. We propose to undertake a soil and ground-water investigation to characterize the potential impacts of the petroleum hydrocarbons and BTEX on the site. We will collect soil samples in the area of the old tank excavation with ground-water samples collected using a Hydropunch.

PROPOSED SOIL AND GROUND-WATER INVESTIGATION

Prior to drilling, we will obtain the necessary permits from Alameda County.

A. Soil Borings

We propose to drill three to four exploratory test borings to the depth of the local ground-water table. The exploratory soil borings will be drilled in the area of the former tank excavation in the approximate locations shown on Figure 2. The exploratory borings will be drilled in the area of the former tank excavation to evaluate the extent of the petroleum hydrocarbons in the excavation back fill and at the top of the ground-water table.

The exploratory borings will be advanced using a truck-mounted, 6-inch-diameter hollow stem auger. The soil samples will be collected using a 3-inch-diameter split spoon barrel sampler retaining 6-inch-long stainless steel tubes. Sampling equipment will be washed with a trisodium phosphate (TSP) and water solution and rinsed with clean water between each sampling event.

Drilling will be performed under the observation of an ENGEO Environmental Geologist who will log the borings in accordance with the Unified Soil Classification System. Soil samples will be obtained at five foot sampling intervals and from the saturated soil above the ground-water table. The depth to ground water is estimated at 5 to 10 feet below the ground surface. The samples and soil cuttings will be screened in the field using a photoionization detector (PID), a device that provides a field determination for volatile organic compounds.

We anticipate that one soil sample from the former tank back fill and one soil sample from the saturated zone soils will be collected for laboratory testing. These samples will be preserved for laboratory testing by sealing the sample tube with aluminum foil, plastic end

caps and tape. The soil samples would be selected for laboratory testing on the basis of the PID screening and visual observations. The samples will be placed in a cooled ice chest and transported under documented chain-of-custody to a certified analytical testing laboratory.

The drill cuttings will be stored in 55-gallon drums until the laboratory test results are available and a schedule for the disposal of the soil can be developed. The boreholes will be back filled in accordance with Alameda County requirements.

B. Ground-Water Sampling

Ground-water samples will be collected from the bore holes drilled within the area of the former tank excavation. The purpose is to evaluate the possible impact to the ground water and to study if off-site sources could have impacted the site.

The ground-water samples will be collected using the Hydropunch sampling methods. The Hydropunch is a 2-inch-diameter stainless steel sampling tool used for the collection of representative ground-water samples without the installation of permanent monitoring wells.

The hollow stem drill auger will be used to provide the bore hole or 'pilot hole' for the Hydropunch. After inserting the polypropylene screen and attaching the point, the Hydropunch will be fixed to the casing, lowered through the bore hole and driven to the proper depth. The tool will then be withdrawn approximately 48 inches, leaving the point in the ground and exposing the screen so that ground water can enter.

A 1-inch O.D. bailer will be lowered through the hollow stem interior of the drive casing and the Hydropunch in order to collect the representative samples. The ground-water samples will be decanted into clean 40-milliliter volatile organic analysis vials (VOA). The samples will be cooled in an ice chest until delivery under a documented chain-of-custody to an analytical testing laboratory.

Sample collection, preservation, chain-of-custody procedures and equipment decontamination will be performed in accordance with ENGEO's quality assurance/quality control procedures.

C. Laboratory Testing

The laboratory testing will be performed in accordance with test methods specified in the Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites (August 1990).

The soil and ground-water samples selected for laboratory testing will be analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline, diesel and kerosene; and for benzene, toluene, xylene and ethyl benzene (BTXE) (EPA Test Method 8015/5030 and 8020).

D. Analysis of Data

We will review the data from the exploratory boring logs, the PID readings, and the laboratory test results. A determination will be made regarding the possible vertical and lateral extent of petroleum hydrocarbons in the former tank excavation soil. The potential for ground-water contamination beneath the subject site will also be evaluated. The presence of petroleum hydrocarbons in the saturated zone soils will be studied to evaluate the extent of possible off site sources or influences to the data collected from within the former excavation.

The data will be studied to determine if the ground water beneath the site has been impacted by the leakage from the former underground storage tanks. A determination would be made regarding the need for excavation of contaminated soil ⁽⁺⁾ or for the installation of a ground-water monitoring well to satisfy regulatory requirements.

MW will be required, (+)

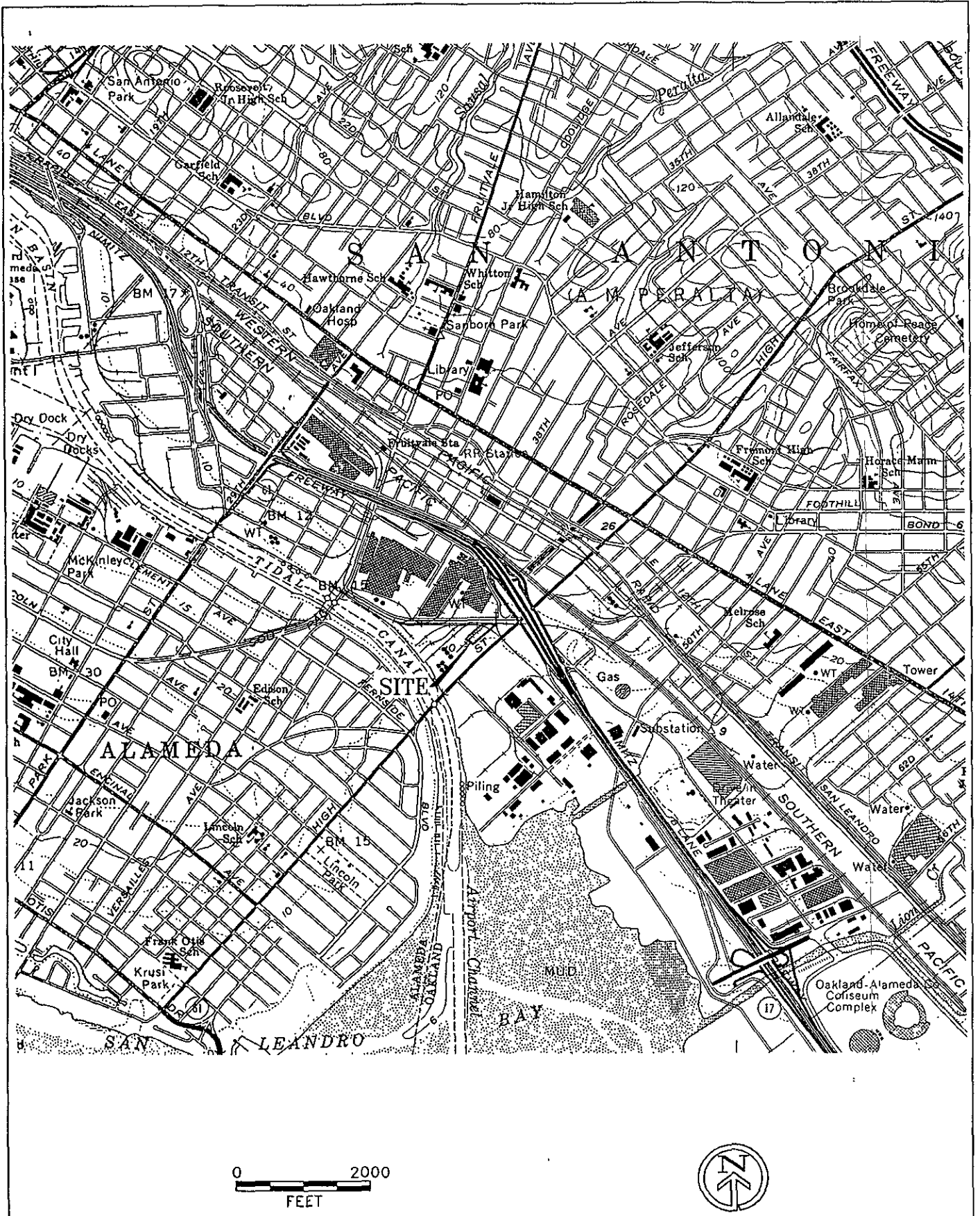
E. Report Preparation

Upon the completion of the subsurface investigation and laboratory testing, ENGEO will prepare a report documenting the work performed with a summary of the laboratory test results. The report will be prepared under the direct supervision of and will be signed by a registered engineering geologist. The report will include an analysis of the data collected and conclusions relative to the following items:

The extent of petroleum hydrocarbons in soil and ground water found within to the former tank complex

An evaluation of the extent of petroleum hydrocarbons in the saturated zone soils above the ground-water table.

A determination of the possible extent of on or off-site ground-water contamination and the need for a ground-water monitoring well(s).

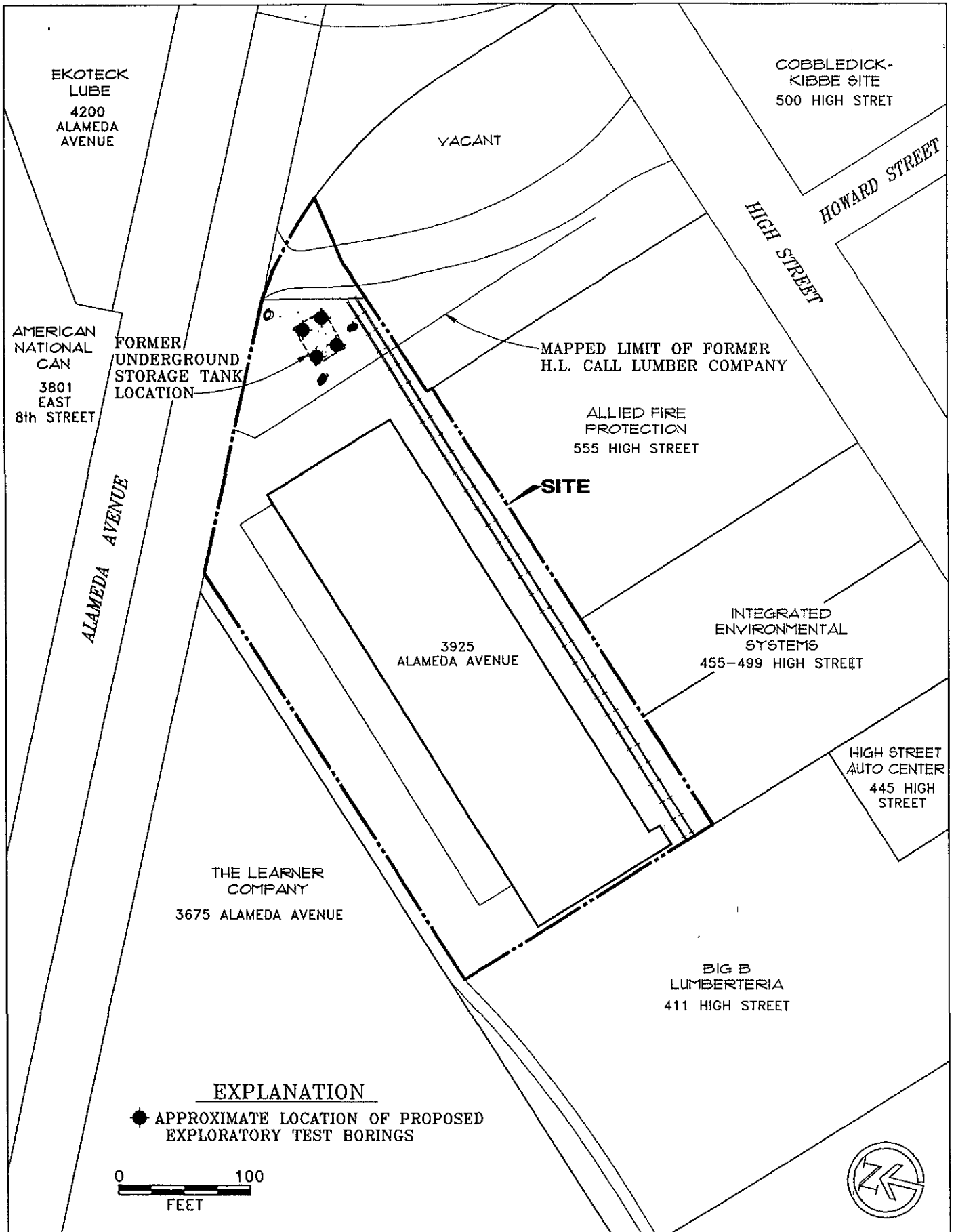


ENGEO
INCORPORATED

SITE VICINITY MAP
3925 ALAMEDA AVENUE
OAKLAND, CALIFORNIA

JOB NO.: 3614-F4	
DATE: SEPTEMBER 1993	
DRAWN BY: <i>DB</i>	CHECKED BY: <i>BE</i>

FIGURE NO.
1



ENGEO
INCORPORATED

SITE LOCATION MAP
3925 ALAMEDA AVENUE
OAKLAND, CALIFORNIA

JOB NO.: 3614-F4

DATE: SEPTEMBER 1993

DRAWN BY: *DS* CHECKED BY: *EF*

FIGURE NO.

2



BLAINE TECH SERVICES INC.

1370 TULLY RD., SUITE 505
SAN JOSE, CA 95122
(408) 995-5535

April 6, 1988

Zaccor Corp.
791 Hamilton
Menlo Park, CA 94025

Attention: Gary Zaccor

Re: Field sampling at

U.S. COLD STORAGE
3925 ALAMEDA AVENUE
OAKLAND, CA

MARCH 10, 1988

SAMPLING REPORT

Field sampling was undertaken in accordance with State and local enforcement agency standards and requirements for objective analytical information on the levels of residual contaminants found outside the primary containment structure. This project concerned the following:

Underground storage tank removal

Reason for removal -- Discontinuation of on-site storage

<u>Tank Type</u>	<u>Observable Condition</u>
One 10,000 gallon diesel	No holes
One 1,000 gallon gasoline	Holes

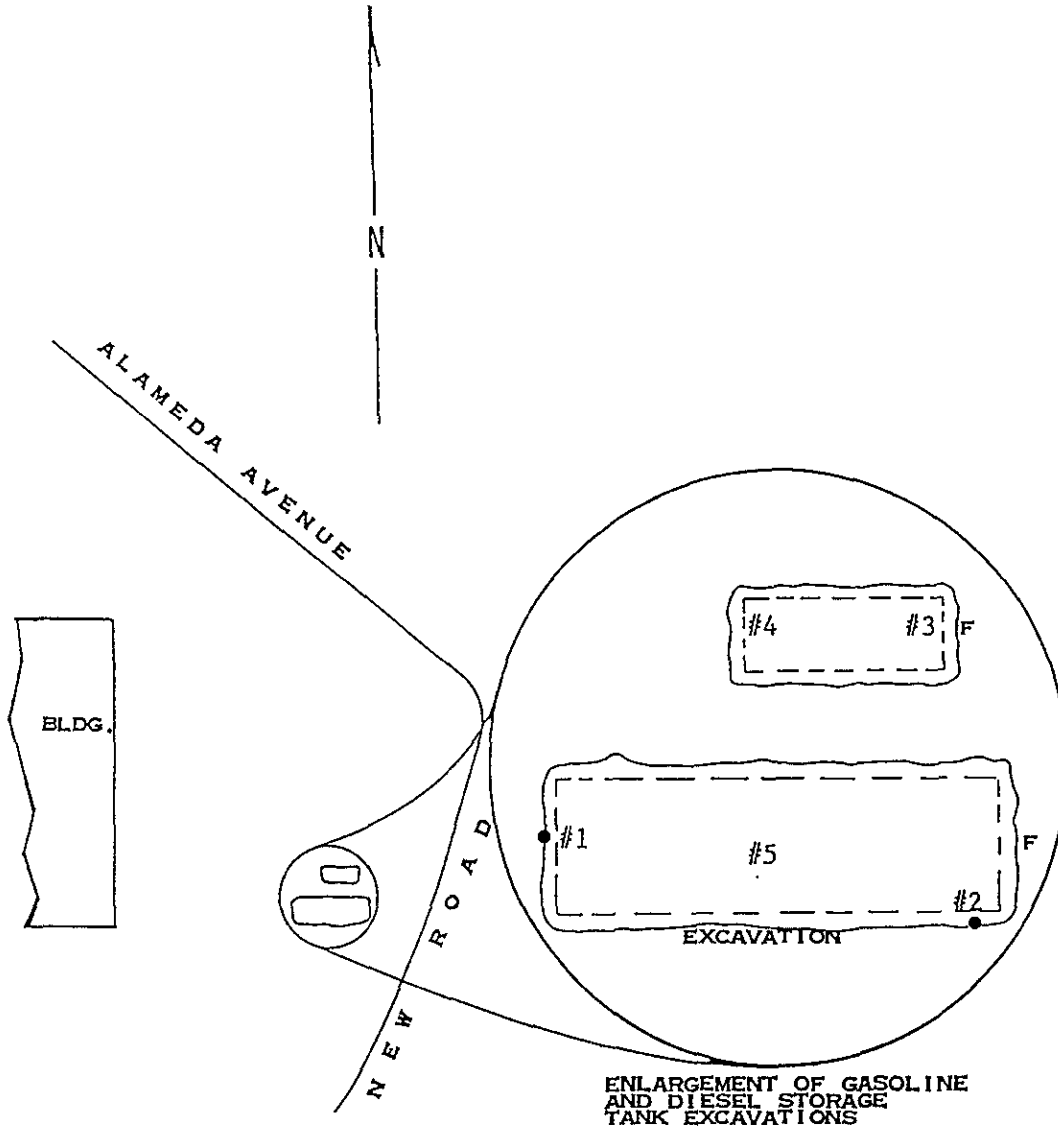
Sampling was performed in accordance with approved methodology at the locations shown on the accompanying site diagram. Additional information is presented on the diagram including our field sampling designations and the lab identification numbers which reference the analytical results which will be found in the separate laboratory report. Sample material was collected in special containers appropriate to the type of analysis intended. Sample containers were sealed, chilled, and transported to the laboratory with standard chain of custody records maintained at each transmittal. This sampling report, the chain of custody, and the analytical report comprise the formal documentation of the sampling conducted during this phase of work at the site.

MAP REF: THOMAS BROS.
ALAMEDA COUNTY

LEGEND: F = FILL END

- #1 SOIL FROM WALL AT 10.5'
ANALYSIS FOR TOTAL PETROLEUM
HYDROCARBONS (TPH) AS DIESEL
AT ANATEC LABORATORY
- #2 SOIL FROM WALL AT 10.5'
ANALYSIS FOR TPH AS DIESEL
- #3 SOIL FROM 9'
ANALYSIS FOR TPH AS GASOLINE,
AND BENZENE, TOLUENE AND XYLÉNES
(BTX)
- #4 SOIL FROM 9'
ANALYSIS FOR TPH AS GASOLINE,
AND BTX
- #5 SUBSURFACE WATER SAMPLE
ANALYSIS FOR TPH AS DIESEL

SAMPLING PERFORMED BY HELEN MAWHINNEY
DIAGRAM PREPARED BY BRENT ADAMS



SCALE: 0 30' 60'

REPORTAGE

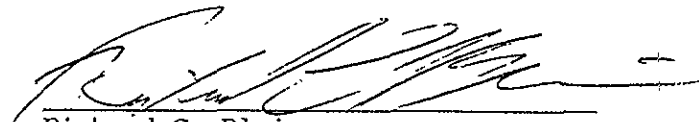
Submission to the Regional Water Quality Control Board and the local regulatory/enforcement agency should include copies of the sampling report, the chain of custody, and the laboratory report. The property owner should attach a cover letter and submit all documents together in a package.

The following addresses have been listed here for your convenience:

Water Quality Control Board
San Francisco Bay Region
1111 Jackson Street
Room 6040
Oakland, CA 94607
ATTN: Greg Zentner

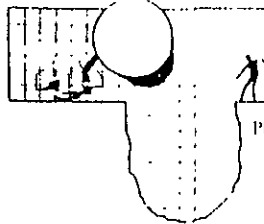
Alameda County Health
Hazardous Materials Management
420 27th Street
Oakland, Ca 94612
ATTN: Ariu Levi

Please call if we can be of any further assistance.



Richard C. Blaine

RCB/rfs



**BLAINE
TECH SERVICES INC.**

1370 TULLY RD., SUITE 505
SAN JOSE, CA 95122
(408) 995-5535

PROJECT NUMBER

SITE ADDRESS

88070 M1

Zaccor C
Us. Cold Storage
3925 Alameda Ave
Oakland, Ca

PLEASE INCLUDE PROJECT NUMBER AND SITE ADDRESS ON LAB REPORTS AND INVOICES

TURN-AROUND 48 HR

RESULTS BY 3/14

LAB USED Anatec

BILLING

SPECIAL INSTRUCTIONS

- Bill Blaine Tech Services
- BILL

I.D.	TYPE	ANALYSIS TO DETECT	LAB #	LAB RESULTS
#1	soil	Diesel		
#2	soil	Diesel		
#3	soil	Gasoline + BTX		
#4	soil	Gasoline + BTX		
#5	water	Diesel		

Field sampling completed 10:48 AM/PM 3-12-88 performed by Holly Mankin

RELEASED BY: 10:30 AM/PM 3-10-88 Holly Mankin ACCEPTED BY: 10:47 AM/PM 3-10-88 [Signature]

: : AM/PM - -88 : : AM/PM - -88

: : AM/PM - -88 : : AM/PM - -88



ANATEC
LABORATORIES
INC.

435 Tesconi Circle
Santa Rosa, CA 95401
707-526-7200
Fax 707-526-9623

Scott Zaccor
Zaccor Corporation
791 Hamilton
Menlo Park, CA 94025

March 18, 1988
ANATEC Log No: 2545 (1-5)
Series No: 427/013
Client Job #88070M1

Subject: Transmittal of Results for Five Soil Samples Identified as "US Cold Storage, Oakland" Received March 10, 1988.

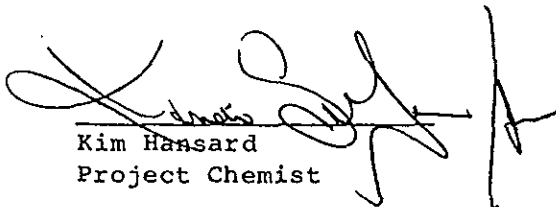
Parameter	Descriptor, Lab No. & Results (mg/Kg) ^a				
	#1 Soil 3/10 (-6414)	#2 Soil 3/10 (-6415)	#3 Soil 3/10 (-6416)	#4 Soil 3/10 (-6417)	#5 Water 3/10 (-6418)
PETROLEUM HYDROCARBONS					
Volatile, as Gasoline	NR ^b	NR	720	190	NR
Extractable, as Diesel Fuel	210	450	NR	NR	150*
Benzene	0.42	<0.005	6.6	0.24	NR
Toluene	0.33	3.3	110	9.6	NR
Xylenes, total	0.84	79	150	32	NR

^amg/Kg--Data are expressed as milligrams analyte per kilogram sample, as received basis.

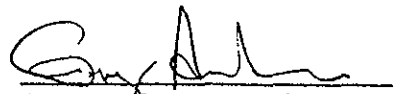
^bNR--Analysis not requested.

*Contained a lighter boiling-point compound (than Diesel).

Submitted by:


Kim Hansard
Project Chemist

Approved by:


Greg Anderson, Director
Analytical Laboratories

/hs

Enc: Sample Custody Document (Blaine Tech Services)

BLAINE TECH SERVICES INC.

1370 TULLY RD., SUITE 505
SAN JOSE, CA 95122
(408) 995-5535

PROJECT NUMBER

SITE ADDRESS

88070 M1

Zarcor C
Us. Cold Storage
3925 Alameda Ave
Oakland, Ca

PLEASE INCLUDE PROJECT NUMBER AND SITE ADDRESS ON LAB REPORTS AND INVOICES

TURN-AROUND 48 HR RESULTS BY 3/14 LAB USED Anatec

BILLING

Bill Blaine Tech Services
 BILL

SPECIAL INSTRUCTIONS

I.D.	TYPE	ANALYSIS TO DETECT	LAB #	LAB RESULTS
------	------	--------------------	-------	-------------

#1	soil	Diesel		
#2	soil	Diesel		
#3	soil	Gasoline + BTX		
#4	soil	Gasoline + BTX		
#5	water	Diesel		

2545

Field sampling completed 10:48 AM 3-10-88 performed by Haley M... ..

RELEASED BY 10:37 AM 3-10-88 Haley M... .. ACCEPTED BY 10:47 AM 3-10-88 [Signature]

13:00 AM 3-10-88 Judy Reddy

Please print or type. (Form designed for use on elite (12-pitch typewriter).)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

CA C 0000625657418611

Manifest Document No.

2: Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

SMOKE AND DOWS INVESTMENT
 P.O. Box 1311 LOS ANGELES, CA. 90053

A. State Manifest Document Number

87434861

B. State Generator's ID

4. Generator's Phone

(213) 624-8361

C. State Transporter's ID

902454

D. Transporter's Phone

(415) 543-4835

5. Transporter 1 Company Name

H&H SHIP SERVICE

6. US EPA ID Number

CA D 00047711618

E. State Transporter's ID

F. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address

H&H SHIP SERVICE
 220 CHINA BASIN ST.
 SAN FRANCISCO, CA 94107

10. US EPA ID Number

CA D 00047711618

G. State Facility's ID

38-01011-718

H. Facility's Phone

(415) 543-4835

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

a. WASTE COMBUSTIBLE LIQUID N.O.S.
 N/A 1993

12. Containers

No. Type

13. Total Quantity

0011 00700G

14. Unit

WI/VO

I. Waste No.

State 223
 EPA/Other CA/only
 State

b.

c.

d.

J. Additional Descriptions for Materials Listed Above

WATER - 99.5%
 Diesel - 2%
 GAS - .5%

K. Handling Codes for Wastes Listed Above

a. 01

15. Special Handling Instructions and Additional Information

Gloves

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name

MASON KNOWLTON ZACHOR CORP

Signature

[Signature]

Month Day Year

03/04/88

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

DANIEL GERSON

Signature

[Signature]

Month Day Year

03/04/88

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

PETER YIMBO

Signature

[Signature]

Month Day Year

10/31/78