



KAPREALIAN ENGINEERING, INC.

Consulting Engineers

P. O. BOX 913

BENICIA, CA 94510

(415) 876-8100 (707) 746-6915

KEI-J88-0616
July 20, 1988

R. W. Johnston
801 53rd Avenue
Oakland, CA 94601

Attention: Mr. Dick Burge

Re: Soil Sampling Report
Learner Company
768 46th Street *Hal*
Oakland, California

Dear Mr. Burge:

This report summarizes the soil sampling performed by Kaprealian Engineering, Inc. (KEI) at the referenced site. All work was performed in compliance with the guidelines established by the Regional Water Quality Control Board (RWQCB), and the Alameda County Department of Environmental Health.

The scope of the work performed in our investigation consisted of the following:

Collection of samples of native soil beneath the storage tanks

Delivery of soil samples with proper chain of custody to a certified analytical laboratory

Preparation of this report

FIELD ACTIVITIES

KEI's field work was conducted on June 22, 1988. One (1) underground fuel storage tank was removed from the site. The tank consisted of one 700 gallon diesel fuel tank. Tank removal and the soil sampling were performed in the presence of Mr. Calvin Choyce of the Oakland Fire Department and Mr. Ariu Levi of the Alameda County Health Department. The tank was made of steel and had a hole on its bottom part of approximately 2 inches in diameter and various other smaller holes.

Two (2) soil samples, labeled A-1 and A-2, were collected from the native soil beneath each end of the tank at a depth of 8 feet. The undisturbed samples were collected from bulk material excavated by backhoe. The samples were placed in clean, two-inch diameter brass tubes, sealed with aluminum foil and plastic caps,

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and were stored in a cooled ice chest for delivery to the state certified laboratory.

SUBSURFACE CONDITIONS

The subsurface soils exposed in the excavations consisted primarily of silty sand. No product odors were noted in the samples. The excavated soil was stockpiled on the site.

ANALYTICAL RESULTS

Both samples were analyzed by Sequoia Analytical Laboratory of Redwood City, California and were accompanied by proper chain of custody forms. The samples were analyzed for total hydrocarbon (TPH) as gasoline and as diesel, benzene, toluene, xylene and ethylbenzene (BTXE) concentrations using EPA methods 3550, 8015 and 8020. The analytical results are summarized in Table 1. Copies of the laboratory analyses and the chain of custody forms are attached to this report. Analytical results of the soil samples (as reported by the certified laboratory) from the fuel tank pit indicate non-detectable levels of TPH and BTXE for both samples.

A copy of this report should be sent to the Oakland Fire Department, to the Alameda County Department of Environmental Health, and to the Regional Water Quality Control Board.

LIMITATIONS

Soil deposits and rock formations may vary in thickness, lithology, saturation, strength and other properties across any site. In addition, environmental changes, either naturally occurring or artificially-induced, may cause changes in groundwater levels and flow paths, thereby changing the extent and concentration of any contaminants. Our studies assume that the field and laboratory data are reasonably representative of the site as a whole, and assume that subsurface conditions are reasonably conducive to interpolation and extrapolation.

The results of this study are based on the data obtained from the field and laboratory investigations. We have analyzed this data using what we believe to be currently applicable engineering techniques and principles in the Northern California region. We make no warranty, either expressed or implied, except that our services have been performed in accordance with generally accepted professional principles and practices existing for such work.

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Should you have any questions regarding this report, please feel free to call me at (707) 746-6915.

Sincerely,

Kaprealian Engineering, Inc.



Mardo Kaprealian
President

Attachments: Table 1
Location plan
Laboratory analyses
Chain of custody forms

TABLE 1

SUMMARY OF LABORATORY ANALYSES

(all analyses are in parts per million)

<u>Sample #</u>	<u>TPH as Gasoline</u>	<u>TPH as Diesel</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylene</u>	<u>Ethyl-benzene</u>
A-1	ND	ND	ND	ND	ND	ND
A-2	ND	ND	ND	ND	ND	ND

ND = Not Detected

TPH = Total Petroleum Hydrocarbons



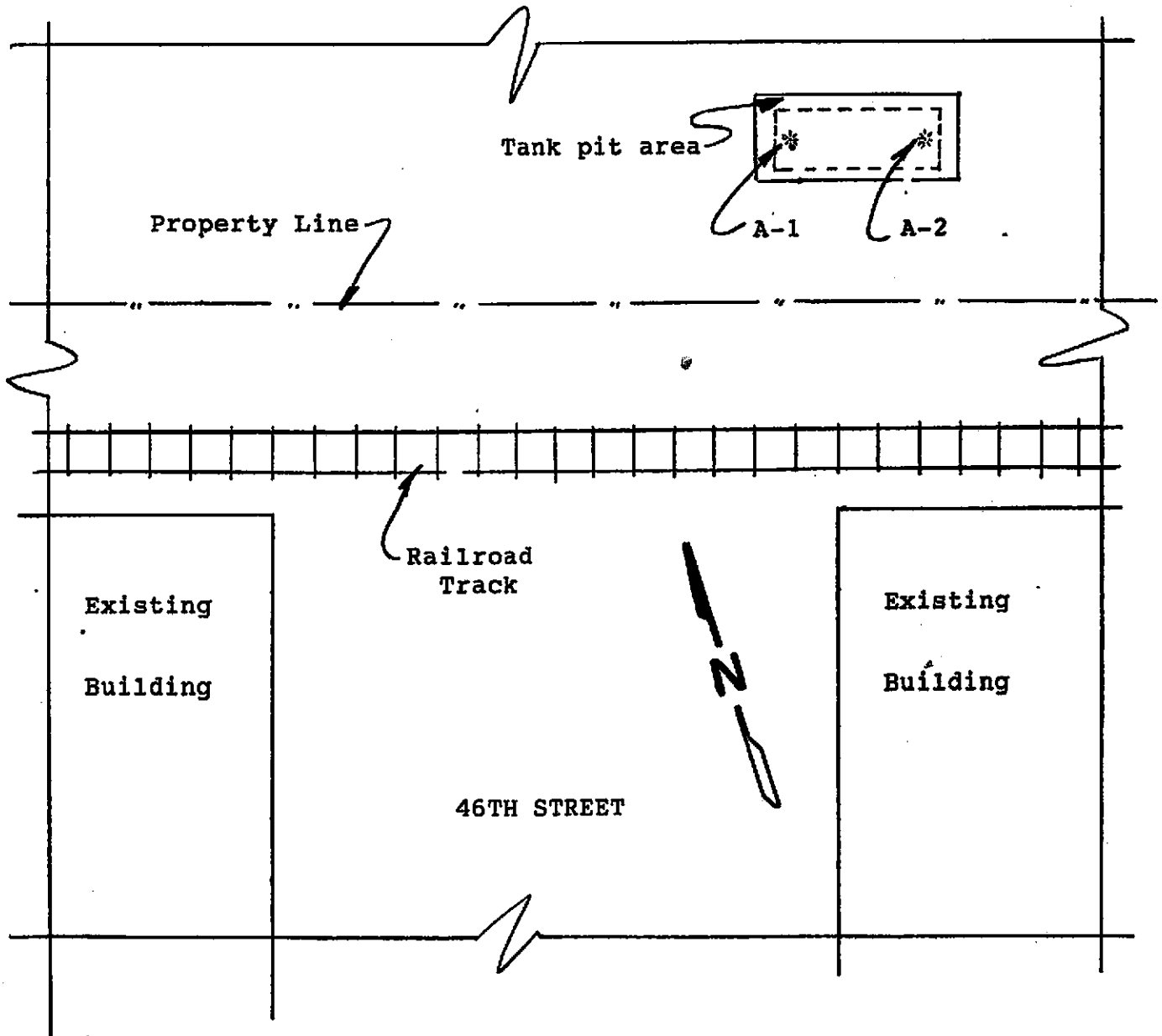
KAPREALIAN ENGINEERING, INC.

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* soil sample location

Learner Company
768, 46th Street
Oakland, California



SEQUOIA Analytical Laboratory

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

Kaprealian Engineering, Inc.
P.O. Box 913
Benicia, CA 94510
Attn: Mardo Kaprealian, P.E.
President

Date Sampled: 06/22/88
Date Received: 06/22/88
Date Analyzed: 07/05/88
Date Reported: 07/15/88

Project: R. W. Johnston,
46th St., Oakland

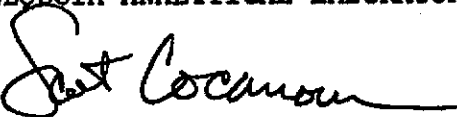
TOTAL PETROLEUM HYDROCARBONS

<u>Sample Number</u>	<u>Sample Description</u> Soil	<u>Detection Limit</u> ppm	<u>High Boiling Point Hydrocarbons</u> ppm
8061826	A-1	1.0	N.D.
8061827	A-2	1.0	N.D.

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

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Project: R. W. Johnston,
46th St., Oakland

TOTAL PETROLEUM FUEL
HYDROCARBONS WITH BTEX DISTINCTION

<u>Sample Number</u>	<u>Sample Description</u> Soil	<u>Low to Medium Boiling Point Hydrocarbons</u> ppm	<u>Benzene</u> ppm	<u>Toluene</u> ppm	<u>Ethyl Benzene</u> ppm	<u>Xylenes</u> ppm
8061826	A-1	N.D.	N.D.	N.D.	N.D.	N.D.
8061827	A-2	N.D.	N.D.	N.D.	N.D.	N.D.

Detection Limits: 1.0 0.05 0.1 0.1 0.1

Method of Analysis: EPA 5030 or 3810/8015/8020

SEQUOIA ANALYTICAL LABORATORY

Arthur G. Burton
Laboratory Director



KAPREALIAN ENGINEERING, INC.

Consulting Engineers

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(415) 876-9100 (707) 746-8915

CHAIN OF CUSTODY

SAMPLER: [Signature]
(signature)

DATE/TIME OF COLLECTION: 6/22/88

TURN AROUND TIME: Regular

SAMPLE DESCRIPTION AND PROJECT NUMBER:

R.W. Johnston - Oakland -
46th St.

SAMPLE #	ANALYSES	GRAB OR COMP.	NUMBER OF CONTAINERS	SOIL/WATER
A-1	TPH, D, BTEX	Grab	1	S
A-2	" "	"	1	S

RELINQUISHED BY*	TIME/DATE
1. <u>[Signature]</u> KEI	<u>6/22/88</u> <u>5:10</u>
2. <u>[Signature]</u>	
3.	
4.	

RECEIVED BY*	TIME/DATE
<u>[Signature]</u>	<u>5:05 P.M.</u> <u>6/22/88</u>

* STATE AFFILIATION NEXT TO SIGNATURE

REMARKS: _____