SAFETY SPECIALISTS, Inc.
The Full Service Environmental Health & Safety Corporation

P.O. Box 4420, Santa Clara, CA 95054
Telephone (408) 988-1111
Contractor's License No. 460905

2/15/89

ALAMEDA COUNTY
DEPT. OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS

February 13, 1989

Mr. Bob Smith
Tank Excavators
P.O. Box 8402
Santa Cruz, CA 95061

Reference: Safety Specialists, Inc., Project No. 510188

Dear Mr. Smith:

Safety Specialists, Inc., is pleased to submit this summary of soil and groundwater investigation for a site located at 1150 Marina Village Parkway, Alameda, California.

At the above-mentioned site one underground tank (15,000-gallon capacity) was excavated by Tank Excavators, Inc.'s, personnel on January 9, 1989. The tank stored gasoline, diesel, and/or fuel oil. Groundwater was encountered beneath the tank (12 feet from the ground surface). Accordingly, two groundwater samples (AL-1-9 and AL-1-5) were collected from beneath the tank. Also, soil samples (AL-2-10, AL-3-10, and AL-6-8.5) were collected from the excavation walls directly above the groundwater table (see Figure 1, attached, for sample location). The purpose of this sampling was to evaluate the concentrations of total hydrocarbons, if any, in the soil and in the groundwater (grab) samples, collected from beneath the excavated tank.

Brass sleeves (1.92 inch internal diameter, 6 inch long) were used for collecting relatively undisturbed soil samples. Samples from appropriate depths were collected by manually pushing the brass sleeves into the soils.

The groundwater samples (grab) were collected in 500 milliliter capacity Nalgene bottles fitted with teflon lined screw type caps.

Prior to sample collection, all sampling tools (i.e., brass sleeves) were thoroughly cleaned by washing in a trisodium phosphate solution, followed by a rinse of distilled water. All brass sleeves used to collect soil samples were wrapped in aluminum foil, capped, labeled and immediately placed on Blue Ice, in order to minimize the escape of any volatiles present in the samples. Soil and groundwater samples were subsequently sent to a State-certified laboratory accompanied by a chain of custody record.

Analysis Performed on Samples

Soil Samples AL-2-10, AL-3-10, and AL-6-8.5 were analyzed individually for Total Petroleum Hydrocarbon (TPH) as diesel using EPA Test Method 3550/8015, TPH as gasoline including Benzene, Toluene, Ethyl Benzene and Xylenes (BTEX) using EPA Test Method 5030/8015/8020, and Total Oil and Grease (TOG) using EPA Test Method 418.1.

Water samples were analyzed individually for volatile organics using EPA Test Method 8240. In addition, water sample AL-7-5 was analyzed for TPH as diesel using EPA Test Method 3510/8015 and TPH as gasoline, including BTEX, using EPA Test Method 5070/8015.

Results

A copy of the analytical results as received from the analytical laboratory is enclosed. The TPH as diesel was found to be 9.1, 5,300 and 2,300 parts per million (ppm) for Samples AL-2-10, AL-3-10 and AC-6-8.5, respectively. } Soil Diesel

The TPH as gasoline was found to be Not Detected for Soil Sample AL-2-10, and 6.9 ppm for Soil Sample AL-3-10 and 1 ppm for Soil Sample AL-6-8.5. } Soil Gasoline

The TOG was detected at 5,300, 1,400 and 34 ppm for Soil Samples AL-2-10, AL-3-10, and AL-6-8.5, respectively. } Soil TOG

No volatile organics were detected in either water sample, which is indicated by the N.D. sign in the hard copy of the analytical results. However, TPH as gasoline (270 parts per billion) and TPH as diesel (6,400 parts per billion) were detected in Water Sample AL-7-5. } Water TPHg & TPHd

Based on the "Regional Board Staff Guidelines Addressing Fuel Leaks", a guideline prepared by the California Regional Water Quality Control Board, San Francisco Bay Region, dated June 1988, this site is categorized as "Confirmed Release Site". Safety Specialists, Inc., recommends the following:

1. Drill soil borings around the excavated tank area to define the extent of contamination.
2. Excavation of all contaminated soils and disposal of these soils as hazardous waste.
3. Installation of at least three ground monitoring wells to help study the groundwater contamination.

The preparation of this report concludes our scope of work. If you have any questions or require any additional information, please call me at (408) 988-1111.

Sincerely,

SAFETY SPECIALISTS, INC.

Bruce Nyberg

Bruce Nyberg
Program Manager
Field Services

BN:ml
Enclosures

cc: Katherine Chesick, Alameda County Health Department
Alameda Fire Department

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CHAIN OF SAMPLE CUSTODY RECORD

Collector: SSI - Bruce Nyberg Date Sampled: 1/9/89 Time: 12:30

Location of Sampling: 1150 Marina Village Parkway - Alameda

Project Number: 510188 Survey Number: E -89

Sample Type: 1 - Water 2 - Soil

Container Type and Condition: ~~Teflon Bottle for Liquid~~ - New Brass Sleeves for Soil - Clean

Contract Laboratory Record/Name:

Sample ID	Field Information
AL-1-9'	Water Sample - at 9' - Floating water - Took Sample at 12:30
AL-2-10'	Soil Sample - Away from Building end of Tank at about 10' sampled at 12:40
AL-3-10'	Soil Sample - Parking lot Entrance side away from Building at about 10' Sample at 12:45
AL-4-10'	Soil Sample - As a back up same Location as AL-3-10 sample at 1130
AL-5-10'	Soil Sample - as a back up Same Location as AL-2-10 Sampled at 1:45

Analysis Requested: AL-1-9 - 8240/TPH-Diesel - low to Med Boiling Point w/BTEX and EPA 418.1 TPH - Gas Diesel & Fuel Oil

AL-2-10 & AL-3-10 - TPH Gas Diesel - Fuel Oil [redacted]
TPH-Diesel - low to Med Boiling Point w/BTEX and EPA 418.1
AL-[redacted] & AL-5 - [redacted] for Metals.
Please FAX to Kim Keely
Normal

Results Needed By: [redacted] Turnaround

Travel Blank:	☐ Yes ☐ No	Travel Blank to be Analyzed Separately:	☐ Yes ☐ No
Duplicate Samples:	☐ Yes ☐ No	Duplicates to be Analyzed Separately:	☐ Yes ☐ No
Field Blank:	☐ Yes ☐ No	Field Blank to be Analyzed Separately:	☐ Yes ☐ No
Background Soil Sample:	☐ Yes ☐ No	Background Soil Sample to be Analyzed Separately:	☐ Yes ☐ No

Chain of Custody:

Bruce Nyberg (Field Personnel)	1/9/89 (Date)	
KWG (Courier)	1/10/89 (Date)	
Kim Keely (Lab)	1/10/89 (Date)	4:20 PM

Gas + Diesel Standard Extended

8020 Soils

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CHAIN OF SAMPLE CUSTODY RECORD

Collector: SSI - Bruce Nyberg Date Sampled: 1/9/89 Time: 9

Location of Sampling: 1150 Marina Village Parkway - Alameda

Project Number: 10188 Survey Number: E-5-89

Sample Type: Soil -

Container Type and Condition:

Contract Laboratory Record/Name:

Sample ID	Field Information
AL-6-5.5'	Soil Sample of the Excavating trench Bay about 6'- taken at a Depth of 5.5' sampled at 9:35
AL-7-5'	Water Sample taken at Building side of hole Bucket dipped in to water. Sampled at 9:40

Analysis Requested: AL-6-5.5- [redacted] - TPH Diesel - Low & Mid Boiling Point w/BTEX and EPA 418.1

AL-7-5' - Water Sample - TPH Diesel - Low & Mid Boiling Point w/BTEX and 5240

Please AL 1 turn around only

Results Needed By: [redacted] Normal Turnaround.

Travel Blank:	☐ Yes ☒ No	Travel Blank to be Analyzed Separately:	☐ Yes ☒ No
Duplicate Samples:	☐ Yes ☒ No	Duplicates to be Analyzed Separately:	☐ Yes ☒ No
Field Blank:	☐ Yes ☒ No	Field Blank to be Analyzed Separately:	☐ Yes ☒ No
Background Soil Sample:	☐ Yes ☒ No	Background Soil Sample to be Analyzed Separately:	☐ Yes ☒ No

Chain of Custody:

1. Bruce Nyberg (Field Personnel)		1/9/89 (Date)
2. U.S. (Courier)		1/10/89 (Date)
3. (Lab)		1/10/89 4:20 PM (Date)

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Safety Specialists, Inc.	Client Project ID:	510188, Survey E-5-89	Sampled:	Jan 9, 1989
P.O. Box 4420	Sample Descript:	Water, AL-7-5'	Received:	Jan 10, 1989
Santa Clara, CA 95054	Analysis Method:	EPA 8240	Analyzed:	Jan 19, 1989
Attention: Bruce Nyberg	Lab Number:	901-1109	Reported:	Feb 6, 1989

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit ug/L	Sample Results ug/L
Acetone	10.0	N.D.
Benzene	2.0	N.D.
Bromodichloromethane	2.0	N.D.
Bromoform	2.0	N.D.
Bromomethane	2.0	N.D.
2-Butanone	10.0	N.D.
Carbon disulfide	2.0	N.D.
Carbon tetrachloride	2.0	N.D.
Chlorobenzene	2.0	N.D.
Chlorodibromomethane	2.0	N.D.
Chloroethane	2.0	N.D.
2-Chloroethyl vinyl ether	10.0	N.D.
Chloroform	2.0	N.D.
Chloromethane	2.0	N.D.
1,1-Dichloroethane	2.0	N.D.
1,2-Dichloroethane	2.0	N.D.
1,1-Dichloroethene	2.0	N.D.
Total 1,2-Dichloroethene	2.0	N.D.
1,2-Dichloropropane	2.0	N.D.
cis 1,3-Dichloropropene	2.0	N.D.
trans 1,3-Dichloropropene	2.0	N.D.
Ethylbenzene	2.0	N.D.
2-Hexanone	10.0	N.D.
Methylene chloride	2.0	N.D.
4-Methyl-2-pentanone	10.0	N.D.
Styrene	2.0	N.D.
1,1,2,2-Tetrachloroethane	2.0	N.D.
Tetrachloroethene	2.0	N.D.
Toluene	2.0	N.D.
1,1,1-Trichloroethane	2.0	N.D.
1,1,2-Trichloroethane	2.0	N.D.
Trichloroethene	2.0	N.D.
Trichlorofluoromethane	2.0	N.D.
Vinyl acetate	2.0	N.D.
Vinyl chloride	2.0	N.D.
Total Xylenes	2.0	N.D.

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

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Arthur G. Burton
Laboratory Director

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Safety Specialists, Inc.	Client Project ID:	510188, Survey E-5-89	Sampled:	Apr 18, 1900
P.O. Box 4420	Sample Descript:	Water, AL-1-9	Received:	Jan 10, 1989
Santa Clara, CA 95054	Analysis Method:	EPA 8240	Analyzed:	Jan 23, 1989
Attention: Bruce Nyberg	Lab Number:	901-1110	Reported:	Feb 6, 1989

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit ug/L	Sample Results ug/L
Acetone	10.0	N.D.
Benzene	2.0	N.D.
Bromodichloromethane	2.0	N.D.
Bromoform	2.0	N.D.
Bromomethane	2.0	N.D.
2-Butanone	10.0	N.D.
Carbon disulfide	2.0	N.D.
Carbon tetrachloride	2.0	N.D.
Chlorobenzene	2.0	N.D.
Chlorodibromomethane	2.0	N.D.
Chloroethane	2.0	N.D.
2-Chloroethyl vinyl ether	10.0	N.D.
Chloroform	2.0	N.D.
Chloromethane	2.0	N.D.
1,1-Dichloroethane	2.0	N.D.
1,2-Dichloroethane	2.0	N.D.
1,1-Dichloroethene	2.0	N.D.
Total 1,2-Dichloroethene	2.0	N.D.
1,2-Dichloropropane	2.0	N.D.
cis 1,3-Dichloropropene	2.0	N.D.
trans 1,3-Dichloropropene	2.0	N.D.
Ethylbenzene	2.0	N.D.
2-Hexanone	10.0	N.D.
Methylene chloride	2.0	N.D.
4-Methyl-2-pentanone	10.0	N.D.
Styrene	2.0	N.D.
1,1,2,2-Tetrachloroethane	2.0	N.D.
Tetrachloroethene	2.0	N.D.
Toluene	2.0	N.D.
1,1,1-Trichloroethane	2.0	N.D.
1,1,2-Trichloroethane	2.0	N.D.
Trichloroethene	2.0	N.D.
Trichlorofluoromethane	2.0	N.D.
Vinyl acetate	2.0	N.D.
Vinyl chloride	2.0	N.D.
Total Xylenes	2.0	N.D.

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

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Laboratory Director

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Safety Specialists, Inc.	Client Project ID:	510188, Survey E-5-89	Sampled:	Jan 9, 1989
P.O. Box 4420	Sample Descript.:	Water, AL-7-5'	Received:	Jan 10, 1989
Santa Clara, CA 95054	Analysis Method:	EPA 5030/ 8015/8020	Analyzed:	Jan 24, 1989
Attention: Bruce Nyberg	Lab Number:	901-1109	Reported:	Feb 6, 1989

TOTAL PETROLEUM FUEL HYDROCARBONS WITH BTEX DISTINCTION (EPA 8015/8020)

Analyte	Detection Limit ug/L (ppb)	Sample Results ug/L (ppb)
Low to Medium Boiling Point Hydrocarbons	50.0	270
Benzene	0.5	4.8
Toluene	0.5	5.6
Ethyl Benzene	0.5	2.2
Xylenes	0.5	12

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

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Safety Specialists, Inc.	Client Project ID:	510188, Survey E-5-89	Sampled:	Jan 9, 1989
P.O. Box 4420	Matrix Descript:	Water	Received:	Jan 10, 1989
Santa Clara, CA 95054	Analysis Method:	EPA 3510/8015		
Attention: Bruce Nyberg	First Sample #:	901-1109	Reported:	Feb 6, 1989

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons ug/L (ppb)
901-1109	AL-7-5'	6,400

Detection Limits:	50.0

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

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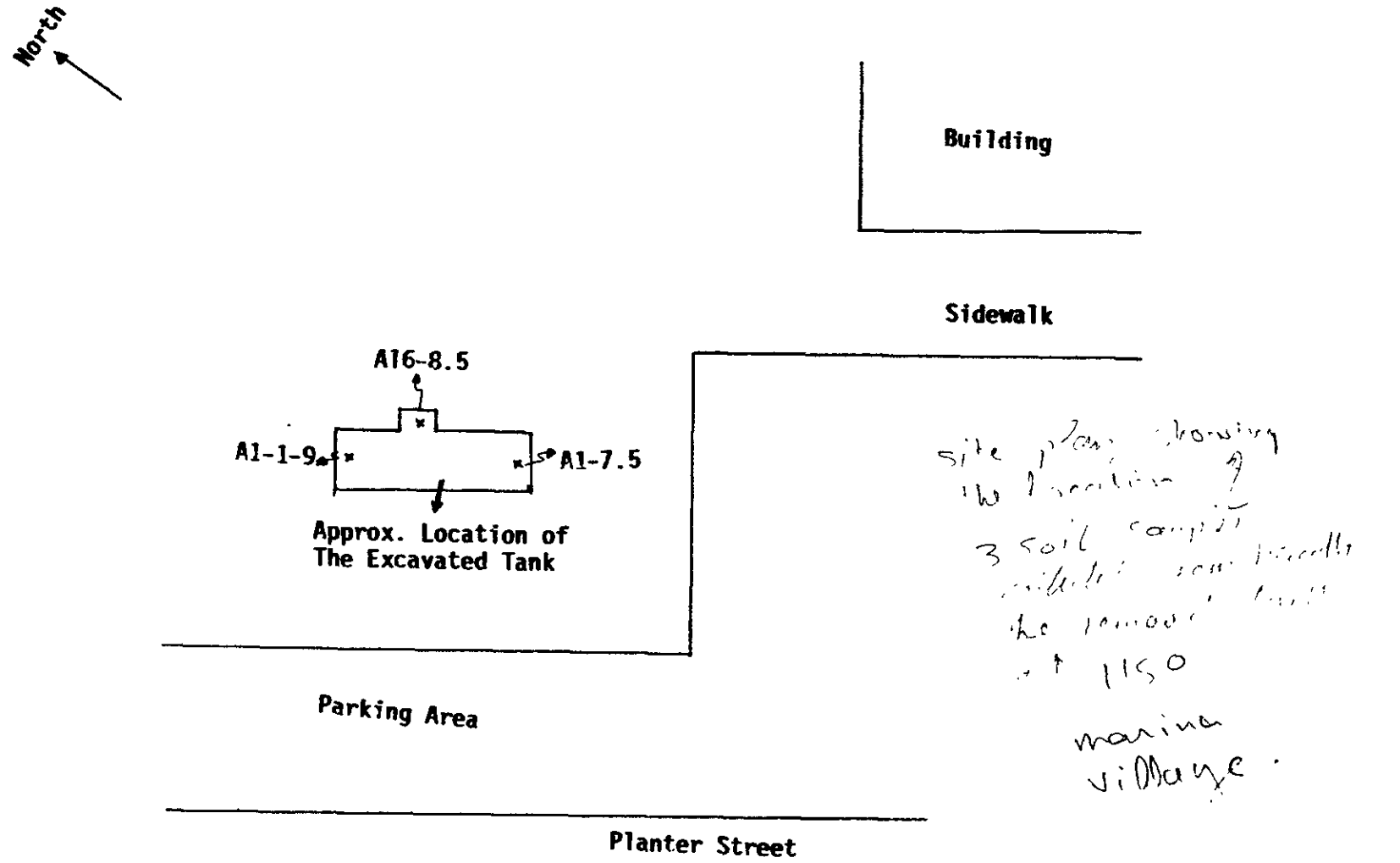
Arthur G. Burton
Laboratory Director



site plan showing
the location of
3 soil samples
collected from beneath
the removed
at 1150
marina
village.

SAFETY SPECIALISTS INC. SANTA CLARA, CA

FIGURE NO. 1

PROJECT NO.