1365 VANDER WAY SAN JOSE, CALIFORNIA 95112 (408) 297-6969 FAX (408) 297-7716

89 DEC 14 PM 4:47

TO: Citation Builders

404 Saratoga Avenue

Suite 100

Santa Clara, California 95050

DATE: December 12, 1989

PROJECT NO.: 4486/1

ATTENTION: Mr. Bryan Walsh

SUBJECT: 16109 Ashland Avenue

San Leandro, California

We are:	X	Enclosing	X Reports
		Forwarding	Drawings
		Per your request	Specifications
	2	Number of copies	Other

Description: Quarterly Ground Water Analysis - November 1989 Reports

Okada Property Fuel Leaks

Comments:

Sent by: X First Class Mail

Special Delivery

Other:

CC: Mr. Larry Sito; Alameda County Health Agency
Mr. Lester Feldman; California Regional Water Quality Control Board

Lisa Sousa
Signature of Sender

7891 WESTWOOD DR., SUITE 101 GILROY, CA 95020 (408) 842-0236 FAX (408) 842-7314
225-K CANNERY ROW MONTEREY, CA 93940 (408) 372-3716 FAX (408) 372-7481
250 W. CHANNEL RD., UNIT B BENICIA, CA 94510 (707) 746-8047 FAX (707) 746-8049

QUARTERLY GROUND WATER ANALYSIS
NOVEMBER 1989
OKADA PROPERTY FUEL LEAKS
16109 ASHLAND AVENUE
SAN LEANDRO, CALIFORNIA

PROJECT 4486/1

for

Citation Builders
404 Saratoga Avenue, Suite 100
Santa Clara, California 95050

by

TERRATECH, INC.
1365 Vander Way
San Jose, California 95112

December 12, 1989
Project 4486/1

Mr. Bryan Walsh
Citation Builders
404 Saratoga Avenue, Suite 100
Santa Clara, CA 95050

Subject: Quarterly Ground Water Analysis - November 1989
Okada Property Fuel Leaks
16109 Ashland Avenue
San Leandro, California

Dear Mr. Walsh:

This letter presents the results of our first quarterly sampling and analysis of the ground water monitoring wells (MW-1, MW-2 and MW-3) located at 16109 Ashland Avenue, in San Leandro. Attached are a Site Plan showing the latest ground water gradient, a summary table of ground water sample analysis results, the latest chain-of-custody record and the latest laboratory report.

WORK PERFORMED

On November 20, 1989 a member of our environmental staff measured the ground water levels, and purged and sampled the three monitoring wells at the subject site on Ashland Avenue. An individual Teflon bailer was used for each well to eliminate the risk of cross-contamination. The bailers were steam-cleaned at our office prior to travel to the site.

Wells MW-2 and MW-3 were purged by removing approximately seven well volumes of water. Due to poor recharging, only three well volumes were purged from MW-1. The ground water removed from the wells was placed in a 55-gallon drum and left on-site pending laboratory results.

The ground water samples were collected with the bailers and transferred to 40-ml VOA vials via a regulated spout. The vials were filled until a positive meniscus was formed, then were capped with Teflon-lined screw caps. After inverting the vials and tapping them to verify that no air bubbles were present, the vials were labeled and placed in an iced cooler.

Further details on Terratech's standard sampling procedures are described in our Project #4486/1 report dated August 31, 1989.

FINDINGS

A summary of the ground water level measurements made to date is presented in the following table:

LOCATION	CASING ELEVATION *	DATE	DEPTH TO WATER	WATER ELEVATION
MW-1	100.03'	8/21/89	8.00'	92.03'
		11/20/89	7.80'	92.23'
MW-2	100.00'	8/21/89	7.65'	92.35'
		11/20/89	7.43'	92.57'
MW-3	101.38'	8/21/89	8.63'	92.75'
		11/20/89	8.39'	92.99'

* Note: Top of MW-2 casing used as relative datum.

The water table has risen about 0.2 feet since August. The latest ground water contours are shown on Figure 1. The gradient direction is still westerly at 0.0025 ft/ft. Accordingly, MW-1 and MW-3 are downgradient from the former tanks.

No fuel odors or sheens were observed during our purging and sampling of wells MW-1 and MW-2. However, a slight fuel sheen was noticed on the bailed water from MW-3.

Table 1 presents a cumulative summary of the laboratory results. The sample from MW-3 contained trace levels (80 ppb) of total petroleum hydrocarbons (TPH) as diesel and no TPH as gasoline or benzene, toluene, ethylbenzene, and xylenes (BTEX) above detection limits. Analysis of the samples collected from MW-1 and MW-2 revealed no detectable amounts of TPH as diesel, gasoline, or BTEX compounds.

CONCLUSIONS AND RECOMMENDATIONS

The latest laboratory results indicate that the surrounding ground water being drawn into MW-3 contains trace amounts of petroleum contamination. As discussed in our August 31, 1989 report, it appears that this contamination is due to historic leakage of an old fuel oil tank formerly located in this area. The previous soil data and the latest ground water data are interrelated.

As verbally discussed, we recommend that contaminated soils in both the MW-3 area and the boiler room area (near MW-1) be removed. A cleanup goal of 10 ppm would appear reasonable for these "heavy" fuels.

To verify the lack of significant ground water impact, we recommend continuation of quarterly monitoring. The next scheduled sampling will be in late February, 1990.

LIMITATIONS

This report and the work associated with it have been provided in accordance with the general principles and practices currently employed in the environmental consulting profession. This is in lieu of all other warranties, express or implied.

Report Prepared by,

TERRATECH, INC.

Brian M. Kahl
Project Geologist

Reviewed by,

TERRATECH, INC.

Eric R. Lautenbach
CE 42437

cc: Mr. Larry Sito, Alameda County Health Agency
Mr. Lester Feldman, California Regional Water Quality Control Board

TABLE 1

SUMMARY OF GROUND WATER SAMPLE ANALYSIS RESULTS

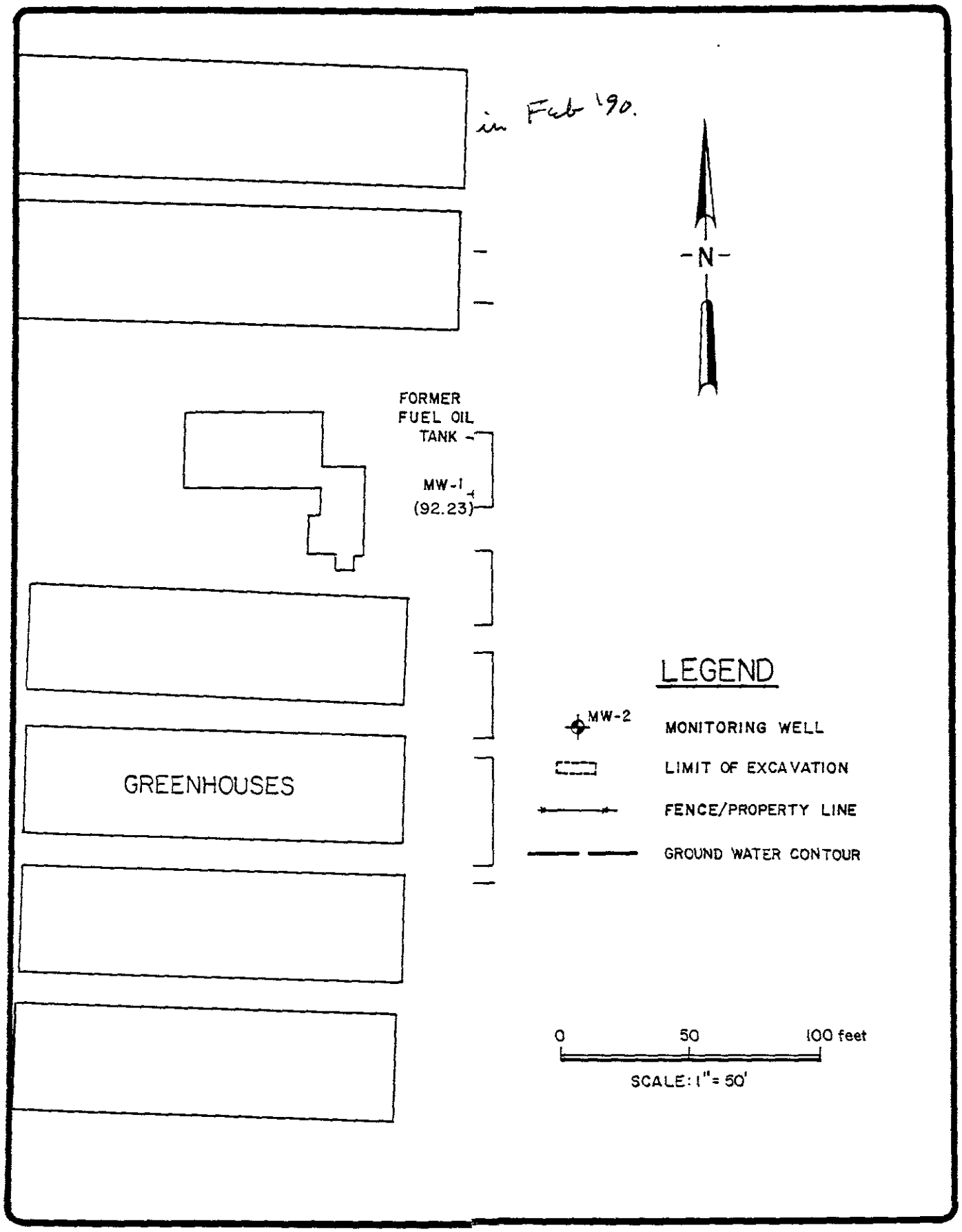
Okada Property
San Leandro, California

SAMPLE LOCATION	DATE COLLECTED	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (ppb)	BENZENE (ppb)	TOLUENE (ppb)	ETHYL-BENZENE (ppb)	XYLENES (ppb)	TOTAL PETROLEUM HYDROCARBONS AS DIESEL (ppb)
MW-1	3/31/89	< 1000	0.4	1.8	< 0.3	< 0.3	< 1000
	11/20/89	< 50	< 0.5	< 0.5	< 0.5	< 1.0	< 50
MW-2	3/31/89	< 1000	0.4	1.8	0.4	1.8	< 1000
	11/20/89	< 50	< 0.5	< 0.5	< 0.5	< 1.0	< 50
MW-3	8/21/89	< 50	< 0.5	< 0.5	< 0.5	< 1.0	< 50
	11/20/89	< 50	< 0.5	< 0.5	< 0.5	< 1.0	80
DRINKING WATER LIMITS *							
	MCL's	N/A	1.0	N/A	680	1750	N/A
	AL's	N/A	N/A	100	N/A	N/A	N/A

NOTES:

* - State Maximum Contaminant Levels (MCL's) and Action Levels (AL's), April 1989.

ppb - parts per billion



TERRATECH

)A PROPERTY
)DRO, CALIFORNIA

TE PLAN

FIGURE
1

PROJECT
4486/1

Attachment IX 8/11/89

TERRATECH

P.O. NO. 5685

CHAIN OF CUSTODY RECORD

TURNAROUND: Standard

PROJECT NUMBER: 4486/1

SAMPLERS (signature) :

Station Number	Date	Time	Comp.	Grab	Station Location	Number of Containers	Analysis Required: TPH as Gasoline	BTEX	TPH as Diesel	REMARKS	SAMPLE DEPTH
MW-1	11-20-89			X		2-liter Ambers			X		
				X		2-40ml VOA's	X	X			
MW-2				X		2-liter Ambers			X		
				X		2-40ml VOA's	X	X			
MW-3				X		2-liter Ambers			X		
				X		2-40ml VOA's	X	X			

Relinquished by(signature):	Date / Time	Received by (signature):	Relinquished by(signature):	Date / Time	Received by (signature):
Company or Agency: Terratech, Inc.	11-20-89 2:15 p.m.	Company or Agency:	Company or Agency:		Company or Agency:
Relinquished by(signature):	Date / Time	Received by (signature):	Relinquished by:	Date / Time	Received by (signature):
Company or Agency:		Company or Agency:	Company or Agency:		Company or Agency:
Relinquished by(signature):	Date / Time	Received for Laboratory by:	Date / Time	Remarks/Shipping Information	
Company or Agency: TERRATECH, INC.		(signature) Jonathan Powell	11/20/89 14:20	Send reports to: Eric Lautenbach 1365 VANDER WAY, SAN JOSE 95112	

ANAMETRIX INC
Environmental & Analytical Chemistry
1961 Concourse Drive Suite E San Jose CA 95131
(408) 432-8192 • Fax (408) 432-8198

TERRATECH

DEC 05 1989

RECEIVED

REPORT

Eric Lautenbach
Terratech, Inc.
1365 Vander Way
San Jose, CA 95112

November 30, 1989
Anametrix W.O.#: 8911157
Date Received : 11/20/89
Purchase Order#: 5685
Project No. : 4486/1

Dear Mr. Lautenbach:

Your samples have been received for analysis. The REPORT SUMMARY shows which of the following reports have been included: RESULTS and QUALITY ASSURANCE.

NOTE: Amounts reported are net values, i.e. corrected for method blank contamination.

If there is any more that we can do, please give us a call. Thank you for using ANAMETRIX, INC.

Sincerely,

Terry Cooke
TPH Supervisor

TC/lm

REPORT SUMMARY
ANAMETRIX, INC. (408) 432-8192

Client : Terratech, Inc.
Address : 1365 Vander Way
City : San Jose, CA 95112
Attn. : Eric Lautenbach

Anametrix W.O.#: 8911157
Date Received : 11/20/89
Purchase Order#: 5685
Project No. : 4486/1
Date Released : 11/30/89

Anametrix I.D.	Sample I.D.	Matrix	Date Sampled	Method	Date Extract	Date Analyzed	Inst I.D.
RESULTS							
8911157-01	MW-1	WATER	11/20/89	TPH	11/28/89	11/29/89	N/A
8911157-02	MW-2	WATER	11/20/89	TPH	11/28/89	11/29/89	N/A
8911157-03	MW-3	WATER	11/20/89	TPH	11/28/89	11/29/89	N/A
QUALITY ASSURANCE (QA)							
8911157-02	MW-2	WATER	11/20/89	TPH	11/28/89	11/29/89	N/A

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: 4486/1 MW-1	Anametrix I.D.	: 8911157-01
Matrix	: WATER	Analyst	: ml
Date sampled	: 11/20/89	Supervisor	: TC
Date anl.TPHg	: 11/21/89	Date released	: 11/30/89
Date ext.TPHd	: 11/28/89	Date ext. TOG	: N/A
Date anl.TPHd	: 11/29/89	Date anl. TOG	: N/A

CAS #	Compound Name	Detection Limit (ug/l)	Amount Found (ug/l)
71-43-2	Benzene	0.5	ND
108-88-3	Toluene	0.5	ND
100-41-4	Ethylbenzene	0.5	ND
1330-20-7	Total Xylenes	1	ND
	TPH as Gasoline	50	ND
	TPH as Diesel	50	ND

ND - Not detected at or above the practical quantitation limit for the method.

TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.

TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following either EPA Method 3510 or 3550.

BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 4486/1 MW-2
Matrix : WATER
Date sampled : 11/20/89
Date anl.TPHg: 11/21/89
Date ext.TPHd: 11/28/89
Date anl.TPHd: 11/29/89

Anametrix I.D. : 8911157-02
Analyst : mh
Supervisor : TC
Date released : 11/30/89
Date ext. TOG : N/A
Date anl. TOG : N/A

CAS #	Compound Name	Detection Limit (ug/l)	Amount Found (ug/l)
71-43-2	Benzene	0.5	ND
108-88-3	Toluene	0.5	ND
100-41-4	Ethylbenzene	0.5	ND
1330-20-7	Total Xylenes	1	ND
	TPH as Gasoline	50	ND
	TPH as Diesel	50	ND

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following either EPA Method 3510 or 3550.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: 4486/1 MW-3	Anametrix I.D.	: 8911157-03
Matrix	: WATER	Analyst	: mh
Date sampled	: 11/20/89	Supervisor	: TC
Date anl.TPHg	: 11/21/89	Date released	: 11/30/89
Date ext.TPHd	: 11/28/89	Date ext. TOG	: N/A
Date anl.TPHd	: 11/29/89	Date anl. TOG	: N/A

CAS #	Compound Name	Detection Limit (ug/l)	Amount Found (ug/l)
71-43-2	Benzene	0.5	ND
108-88-3	Toluene	0.5	ND
100-41-4	Ethylbenzene	0.5	ND
1330-20-7	Total Xylenes	1	ND
	TPH as Gasoline	50	ND
	TPH as Diesel	50	80

ND - Not detected at or above the practical quantitation limit for the method.

TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.

TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following either EPA Method 3510 or 3550.

BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

TOTAL EXTRACTABLE HYDROCARBON MATRIX SPIKE REPORT
EPA METHOD 3510 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 4486/1 MW-2
Matrix : WATER
Date sampled : 11/20/89
Date extracted: 11/28/89
Date analyzed : 11/29/89

Anametrix I.D. : 8911157-02
Analyst : ml
Supervisor : TC
Date Released : 11/30/89

COMPOUND	SPIKE AMT. (UG/L)	MS (UG/L)	%REC MS	MSD (UG/L)	%REC MSD	RPD	%REC LIMITS
Diesel	500	280	56%				32-93

* Limits established by Anametrix, Inc.