ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

February 23, 1998 LOP file
StID# 4269

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Mr. John Prall
Port of Oakland
530 Water St.
Oakland CA 94607

RE: Fuel Leak Site Case Closure Former Marriot Courtyard Site 265 Hegenberger Rd., Oakland CA 94621

Dear Mr. Prall:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with the Health and Safety Code, Chapter 6.75 (Article 4, Section 25299.37 h). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Health Services, Local Oversight Program (LOP) is required to use this case closure letter. We are also enclosing the case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site.

Site Investigation and Cleanup Summary:

Please be advised that the following conditions exist at the site:

* 19 parts per million (ppm) Total Petroleum Hydrocarbons as gasoline (TPHg), 28 ppm total petroleum hydrocarbons as diesel (TPHd) and 240 ppm oil and grease remain in the soil at the site.

Three monitoring wells were not able to be located and properly closed; MW-2, MO-W1 and MO-W2. Caution should be taken if subsurface work is done in the area of these wells.

This site should be included in the City's permit tracking system. Please contact me at (510) 567-6765 if you have any questions.

Sincerely,
Barney M Chan

Barney M. Chan,
Hazardous Materials Specialist
enclosures: Case Closure Letter, Case Closure Summary

c: Mr. L. Griffin, City of Oakland OES, 505 14th St., Suite 702, Oakland CA 94612
B. Chan, files (letter only)
trlt265

ALAMEDA COUNTY
HEALTH CARE SERVICES
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1131 Harbor Bay Parkway, Suite 250
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February 20, 1998
StID # 4269

REMEDIAL ACTION COMPLETION CERTIFICATION

Mr. John Prall
Port of Oakland
530 Water St.
Oakland, CA 94607

RE: Former Mariott Courtyard Site, 265 Hegenberger Rd., Oakland CA 94621

Dear Mr. Prall:

This letter confirms the completion of site investigation and remedial action for the one 1,000 gallon fuel and the one 2,000 gallon gasoline underground tanks removed from the above described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground tank is greatly appreciated.

Based upon the available information and with provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank releases is required.

This notice is issued pursuant to a regulation contained in Title 23, Division 3, Chapter 16, Section 2721 (e) of the California Code of Regulations.

Please contact Barney Chan at (510) 567-6765 if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung
Director, Environmental Health

c: B. Chan, Hazardous Materials Division-files
Stephen Hill, RWQCB
Mr. Dave Deaner, SWRCB Cleanup Fund
Mr. Leroy Griffin, City of Oakland OES, 505 14th St., Suite 702, Oakland CA 94612

RACC265

01-1727

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION **Date:** September 16, 1997

Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Parkway Rm 250, Alameda CA 94502**

City/State/Zip: **Alameda** Phone: **(510) 567-6700**

Responsible staff person: Barney Chan Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: Marriot Courtyard Site

Site facility address: 265 Hegenberger Rd., Oakland CA 94621

RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: 4269

ULR filing date: Not filed SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
1. Port of Oakland c/o Mr. John Prall	530 Water St. Oakland CA 94607	(510) 272-1538

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	1,000	fuel	Removed	12/12/89
2	2,000	gasoline	Removed	1/9/90

III RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: unknown

Site characterization complete? Yes

Date approved by oversight agency:

Monitoring Wells installed? Yes Number: 6

Proper screened interval? Yes, approximately 5-15' or depth of well

Leaking Underground Fuel Storage Program

Highest GW depth: 4.42′ Lowest depth: 9.71′

Flow direction: generally southerly

Most sensitive current use: commercial/industrial, site is currently vacant

Are drinking water wells affected? No Aquifer name: NA

Is surface water affected? No Nearest affected SW name: NA

Off-site beneficial use impacts (addresses/locations): NA

Report(s) on file? **Yes** Where is report(s)? Alameda County
1131 Harbor Bay Parkway,
Room 250, Alameda CA 94502-6577

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment of Disposal w/destination)	Date
Tanks & Piping	1-1,000 gallon 1-2,000 gallon	Assumed disposed by H&H, San Francisco	12/12/89 1/9/90
Soil	152 tons	Disposed to Gibson Oil	1/91
Sludge from sump	110 gallon	Disposed at Recycling Resource, Phoenix, AZ	2/16/94
Barrels	6 barrels	Disposed, Laidlaw Env.	12/93

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before[1]	After[2]	Before[3]	After[4]
TPH (gasoline)	2000	19	1500	ND
TPH (Diesel)	7100	28	36,000	ND
Benzene	ND	ND	11	ND
Toluene	ND	ND	5	ND
Ethylbenzene	1.0	ND	21	ND
Xylenes	4.0	ND	51	ND
Oil and Grease	2200	240	10,000	ND
Others: VOCs				ND
Pesticides & PCBs				ND
Semi-volatiles (bis(2-ethylhexyl phthalate)				22
Lead, chromium				13.4,15.4

Comments (Depth of Remediation, etc.):
1 Initial soil samples T-1-1 from tank T-1 and S-1 from tank T-2
2 Overexcavation samples E5 and T-2-S-8
3 Grab groundwater samples; SW from tank T-1 and SW-2-A-1 from tank T-2
4 Groundwater sampling results from MW-4

IV. **CLOSURE**
Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Undetermined

Does corrective action protect public health for current land use? YES

Site management requirements: Should any monitoring wells be unable to be located, deed notice should mention the relative location of the well and minimize groundwater infiltration to this area.

Should corrective action be reviewed if land use changes? Yes

Monitoring wells Decommisioned: No

Number Decommisioned: 0 Number Retained: 6

List enforcement actions taken: None

List enforcement actions rescinded: N A

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Barney M. Chan Title: Hazardous Materials Specialist

Signature: Barney M Chan Date: 10/1/97

Reviewed by

Name: Tom Peacock Title: Manager

Signature: Tom Peacock Date: 9-23-97

Name: Eva Chu Title: Hazardous Materials Specialist

Signature: Eva Chu Date: 9/17/97

VI. RWQCB NOTIFICATION

Date Submitted to RB: RB Response: Approved

RWQCB Staff Name: K. Graves Title: AWRCE Date:

K. Graves

10-17-97

VII. ADDITIONAL COMMENTS, DATA, ETC.

This site was initially considered as the site for a Marriot Hotel, thus the site name, Marriot Courtyard.

June 1989- A Phase II environmental site assessment was performed by the Earth Technology Corporation to identify potential problem areas at this site. The report identified the following:

1. One underground tank, KF-01, on the south side of site;
2. A former drum storage area in the northwest corner;
3. Transformers and an oil-grease trap inside the building; and
4. A decommissioned oil pipeline running across the northwest boundary of the property.

Based upon these observations, three borings were advanced and converted into monitoring wells; MO-W1 through MO-W3. Borings MO-W1 and MO-W2 were located just north and south of the tank and MO-W3 was within the drum storage area, downgradient of the decommissioned pipeline. A sludge sample was taken from the oil-grease trap for chemical analysis and PG&E was questioned about the composition of the transformers.

The north boring adjacent to the tank exhibited 87 ppm TPH. The 10' sample from the boring in the drum storage area was ND for volatile organics, semi-volatiles and pesticides and the CAM metal results for the boring were unremarkable. The groundwater sample from this well was also ND for the organic parameters. The groundwater sample from the wells adjacent to the fuel tank were ND for TPH , however low levels of BEX, chlorobenzene and dichlorobenzene were detected. The sediment sample from the oil-grease trap was impacted. It exhibited 5,100ppm TPH oil, chlorinated solvents (1,1-DCA, PCE, & 1,1,1-TCA), semi-volatiles (1,2-dichlorobenzene and butylbenzyl phthalate), pesticides (endosulfan sulfate), PCBs (Arochlor 1260) and elevated chromium and lead.

A PG&E representative stated that the transformers were either the "dry" type without PCBs, or there was no record of PCB use in them.

December 12, 1989- The southern tank (T-1, KF01) was removed under the oversight of Tom Peacock. Earth Technology collected three soil samples. (T-1, T-2 and T-3) from the excavation. Based upon the analytical results of these samples, Earth Technology returned on December 20, 1989 to overexcavate. However, since groundwater was encountered in the tank pit, only a grab groundwater sample was collected. An additional tank north of this one was found at this time.

VII. ADDITIONAL COMMENTS, DATA, ETC. (cont)

January 9, 1990- The northern tank (T-2, KF21) was removed under the oversight of Ariu Levi. Four soil samples (S-1 through S-4) were collected for analysis. Based upon elevated analytical results on these samples, on January 17, 1990, Earth Technology returned to overexcavate both pits. Nine confirmatory soil samples,(S-5 through S-13), were taken . A water sample from the tank pit of tank T-2 was collected on January 18, 1990 after the pit was purged. This water sample exhibited 36 mg/l TPHd, 570 ppb TPHg and 0.5, ND, ND, ND ppb BTEX, respectively. The confirmatory soil samples indicate that nearly all contaminated soil had been removed.

In 1993, Uribe and Associates visited the site. Well MO-W1 was sheared off and filled with debris. Well MO-W2 could not be located while MO-W3 was the only well intact and viable. Because of this situation, two additional replacement wells, MW-1 and MW-2, were installed on December 1993. MW-1 was located on the east side of the site and MW-2 located on the south, just northwest of tank T-2. The wells were installed mainly to obtain groundwater gradient. These three wells were monitored for three quarters and the gradient was verified to be southerly. Little to no soil contamination was found in the borings for these wells.

On May 21 and 24, 1993, Uribe and Associates oversaw the cleaning and removal of sludge from the sump. This was completed on June 10 and 11, 1993. The contents of the sump, approximately 110 gallons, was disposed to Recycling Resources, Inc. in Phoenix, AZ on 2/16/94. The removal of the sump was performed along with the demolition of the onsite building. Although no sample from beneath the sump was taken, the demolition of the site was overseen by the Port's resident engineer.

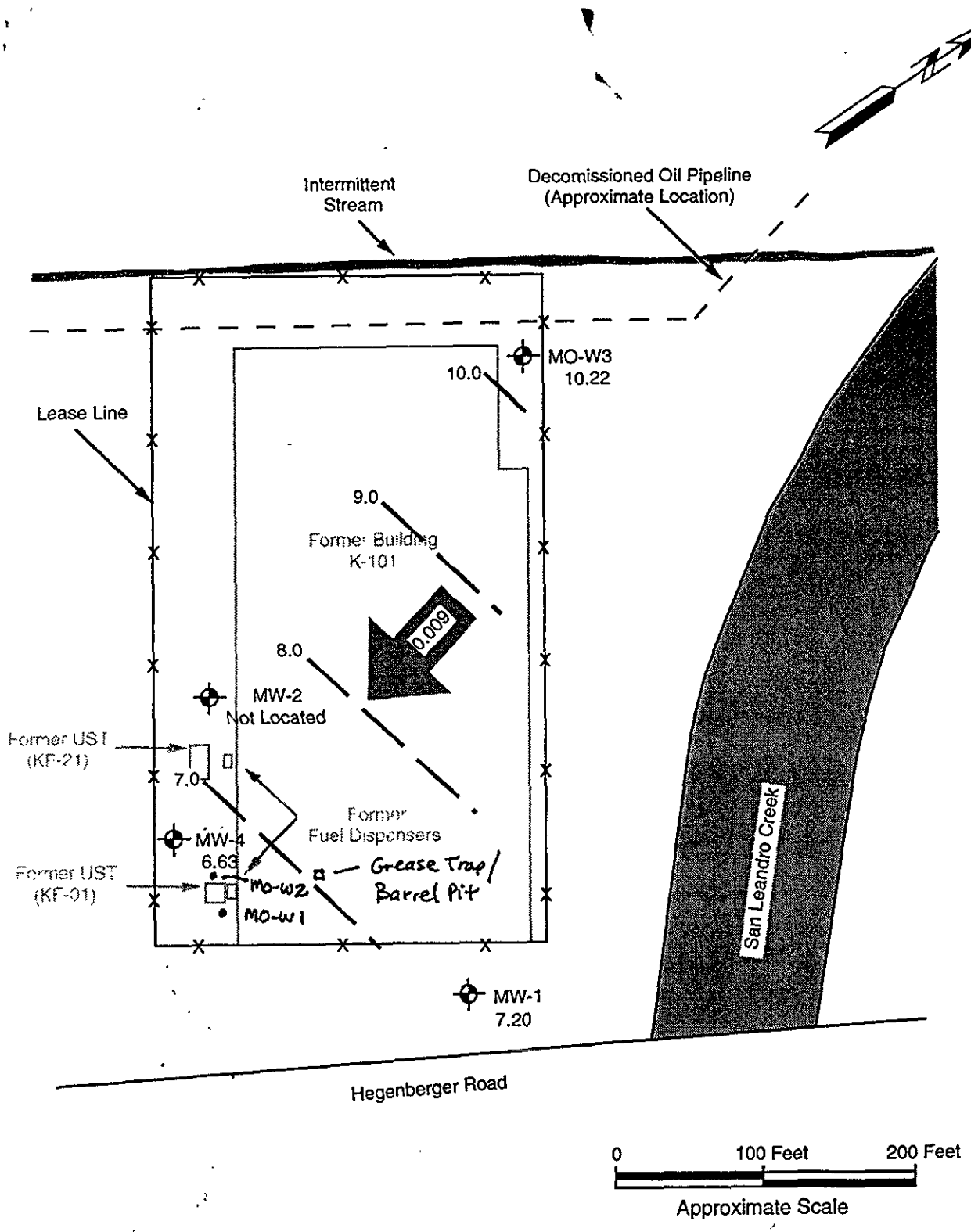
Upon determination of gradient, one additional well, MW-4, was installed downgradient to Tank T-2 on November 1995. MW-4 was monitored for petroleum contaminants and the constituents detected in the sump sample based upon its cross-gradient location relative to the sump. This sampling on 11/2/95 exhibited ND for VOC's, ND for pesticides, 22 ppb bis(2-ethyl hexyl phthalate), a common laboratory contaminant, 13.4 ppb lead and 15,4 ppb chromium. Thus, if there was a significant release from the sump, the contaminants were not detected in nearby groundwater.

Groundwater monitoring has occurred on all four wells two additional times, most recently on 1/24/97. Low to non-detectable concentration of all analytes has been observed.

Site closure is recommended based upon:

1. Adequate site characterization;
2. Underground tank and contaminated soil removal; and
3. Little to no impact to groundwater

95-113.18/F.2-GWElev



Legend

- Monitoring Well
- 10.22 Groundwater Elevation on January 24, 1997 (Port of Oakland datum, 3.2 feet below mean sea level)
- Groundwater Elevation Contour Lines
- Groundwater Flow Direction and Gradient

Source: Figure 2, Site Map, 265 Hegenberger Road, Uribe and Associates, November 6, 1995.

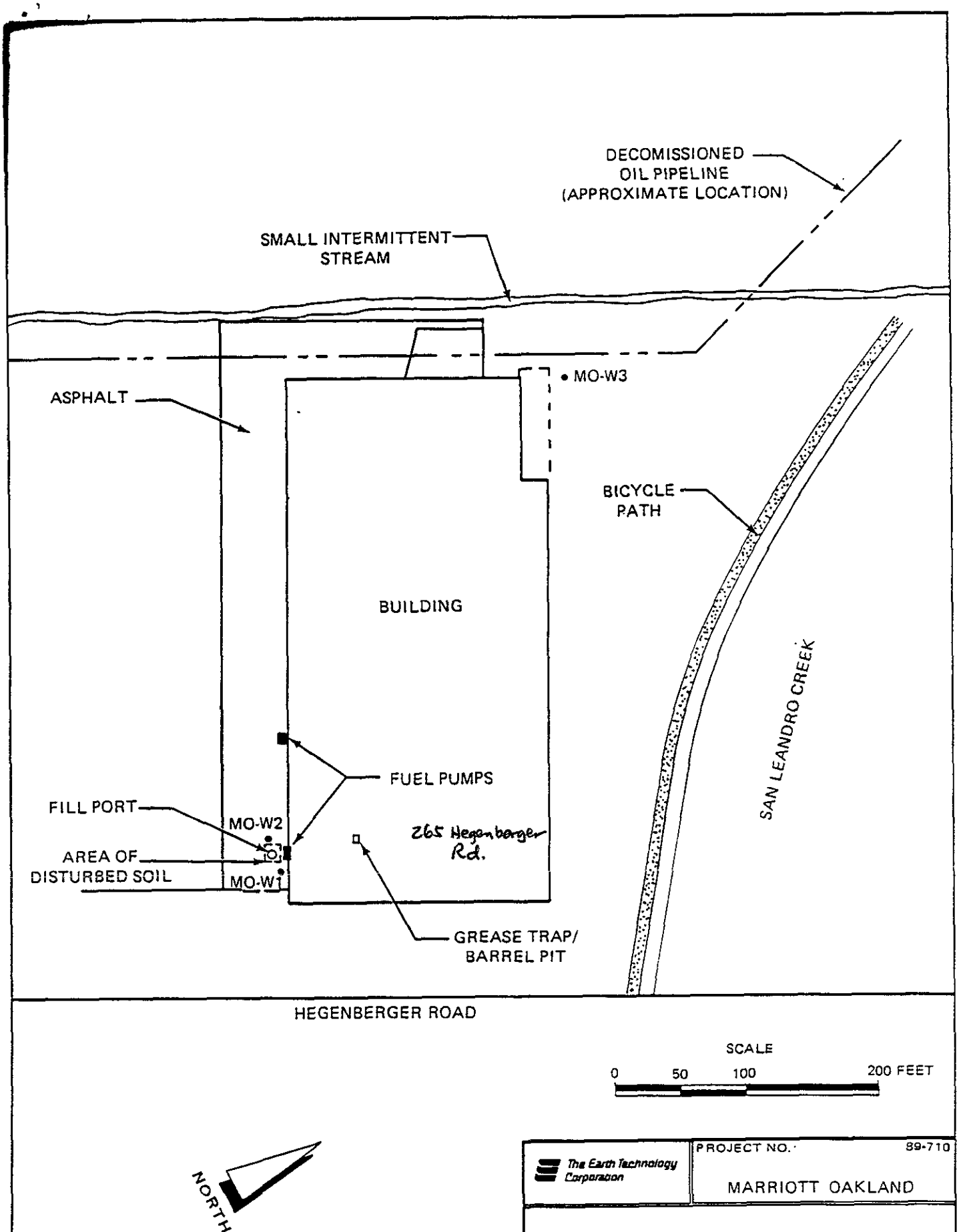
FIGURE 2

GROUNDWATER ELEVATIONS AND FLOW DIRECTION FOR JANUARY 24, 1997

265 Hegenberger Road
Oakland, California

PORT OF OAKLAND

ITSI
INNOVATIVE TECHNICAL SOLUTIONS, INC.



The Earth Technology Corporation

PROJECT NO. 89-710

MARRIOTT OAKLAND

SITE PLAN
265 HEGENBERGER ROAD

5/89

FIGURE 1

TABLE 4-1: SOIL CHEMICAL ANALYSIS RESULTS
BORINGS FROM WELLS MO-W1 THROUGH MO-W3

Analytical Method / Compound Type		MO-B1	MO-B2	MO-B3
Total Petroleum Hydrocarbons Modified EPA Method 8015 (mg/kg)		ND	87 Gasoline	---
Purgeable Priority Pollutants EPA Method 624 (mg/kg)		---	---	ND
B/N,A Extractable Priority Pollutants EPA Method 8270 (mg/kg)		---	---	ND
Pesticides/PCBs; EPA Method 8080 (mg/kg)		---	---	ND
CAM Metals (mg/kg)				
	Barium	---	---	130
	Cadmium	---	---	4
	Cobalt	---	---	7
	Chromium	---	---	46
	Copper	---	---	32
	Nickel	---	---	36
	Vanadium	---	---	39
	Zinc	---	---	43
	Arsenic	---	---	1.7

Notes:

- mg/kg is equivalent to parts per million (ppm)
- ND - not detected
- --- - not analyzed

TABLE 4-2: GROUNDWATER CHEMICAL ANALYSIS RESULTS

Analytical Method / Compound Type		MO-W1	MO-W2	MO-W3
Aromatic Hydrocarbons EPA Method 602 (ug/l)				
	Benzene	2.2	2.1	---
	Ethylbenzene	ND	18	---
	Total Xylene	1.1	1.8	---
Total Petroleum Hydrocarbons Modified EPA Method 8015 (mg/l)		ND	ND	---
Purgeable Priority Pollutants EPA Method 624 (ug/l)		---	---	ND
B/N,A Extractable Priority Pollutants EPA Method 8270 (ug/l)		---	---	ND
Pesticides/PCBs; EPA Method 8080 (ug/l)		---	---	ND
CAM Metals (mg/l)				
	Barium	---	---	0.07
	Vanadium	---	---	0.03
	Zinc	---	---	0.07
	Arsenic	---	---	0.006
	Selenium	---	---	0.001

Notes:

- ug/l is equivalent to parts per billion (ppb)
- mg/l is equivalent to parts per million (ppm)
- All results except TPH and CAM Metals are in ug/l
- ND - not detected
- --- - not analyzed

Groundwater Monitoring Wells MO-W1 through MO-W3

Laboratory Analyses Results
EPA Method 602
(Results reported in µg/l)

	WELL I.D.		
	MO-W1	MO-W2	MO-W3
Benzene	14	1.8	ND (1.0)
1,2-Dichlorobenzene	0.8	ND (1.0)	ND (1.0)
1,3-Dichlorobenzene	ND(0.5)	ND (1.0)	ND (1.0)
1,4-Dichlorobenzene	1.9	ND (1.0)	ND (1.0)
Chlorobenzene	6.6	3.2	ND (1.0)
Ethylbenzene	5.0	30	ND (1.0)
Toluene	1.2	4.9	ND (1.0)
Total Xylene	1.2	1.2	ND (1.0)

Note: ND = Not Detected, Detection Limit in Parentheses

Please call if you have any questions regarding the enclosed material.

Very truly yours,

THE EARTH TECHNOLOGY CORPORATION (Western)

Richard L. Bateman
Associate, Waste Management
and Environmental Services

Enclosures

TABLE 4-3: SEDIMENT CHEMICAL ANALYSIS RESULTS
GREASE PIT / BARREL TRAP

Analytical Method / Compound Type		Result	
Total Petroleum Hydrocarbons Modified EPA Method 8015 (mg/kg)		5,100 - as oil	
Purgeable Priority Pollutants EPA Method 624 (mg/kg)	1,1-Dichloroethane	10	
	Tetrachloroethylene	10	
	1,1,1-Trichloroethane	30	
B/N,A Extractable Priority Pollutants EPA Method 8270 (mg/kg)	1,2-Dichlorobenzene	700	
	Butylbenzylphthalate	5200	
Pesticides/PCBs; EPA Method 8080 (mg/kg)	Endosulfan sulfate	2800	pesticide
	Aroclor 1260	0.08	
CAM Metals (mg/kg)	Barium	250	
	Cadmium	0.9	
	Chromium	2100	
	Copper	68	
	Molybdenum	89	
	Nickel	3	
	Lead	6500	
	Zinc	52	
	Arsenic	1.0	
	Selenium	0.2	

Notes:
- o mg/kg is equivalent to parts per million (ppm)
- o ND - not detected
- o --- - not analyzed

BROWN AND CALDWELL LABORATORIES

1255 POWELL STREET EMERYVILLE, CA 94608 • (415) 428-2300

ANALYTICAL REPORT

LOG NO: E89-12-294

Received: 12 DEC 89
Reported: 18 DEC 89

TANK T1(KF01) SOIL RESULTS

Mr. Joe Casey
The Earth Technology Corporation
100 West Broadway, Suite 5000
Long Beach, California 90802

Project: C1183

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
12-294-1	T-1-1	12 DEC 89
12-294-2	T-1-2	12 DEC 89
12-294-3	T-1-3	12 DEC 89

PARAMETER	12-294-1	12-294-2	12-294-3
Oil-and Grease, gravimetric, mg/kg	2200	<50	<50
Petroleum Hydrocarbons by IR, mg/kg	4700	<50	1000
TPH-Volatile Hydrocarbons/BTEX			
Date Analyzed	12.12.89	12.12.89	12.12.89
Dilution Factor, Times	200	1	10
Benzene, mg/kg	<20	<0.1	<1
Ethylbenzene, mg/kg	<20	<0.1	1
Toluene, mg/kg	<20	<0.1	<1
Total Xylene Isomers, mg/kg	<20	<0.1	4
C4 to C12 Hydrocarbons, mg/kg	2000	<5	500
Other TPH-Volatile Hydrocarbons/BTEX	---	---	---
Diesel Method 3550			
Date Analyzed	12.15.89	12.15.89	12.15.89
Dilution Factor, Times	10	1	10
Fuel Hydrocarbons, mg/kg	3200	<1	57
Carbon Range, .	C12 - C25	C12 - C25	C12 - C25
Other Diesel Method 3550	---	---	---

Sim D. Lessley, Ph.D., Laboratory Director

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

ANALYTICAL REPORT

LOG NO: E89-12-505

Received: 20 DEC 89
Reported: 29 DEC 89

Mr. Jim Soukup
The Earth Technology Corporation
100 West Broadway, Suite 5000
Long Beach, California 90802

Project: 90-1113

Grab GW sample from tankpit-T1.

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, GROUND WATER SAMPLES	DATE SAMPLED
12-505-1	SW	20 DEC 89

PARAMETER	12-505-1
Oil and Grease, gravimetric, mg/L	5
Petroleum Hydrocarbons by IR, mg/L	<5
TPH-Volatile Hydrocarbons/BTEX	
Date Analyzed	12.21.89
Dilution Factor, Times	10
Benzene, ug/L	11
Ethylbenzene, ug/L	21
Toluene, ug/L	5.1
Total Xylene Isomers, ug/L	51
C4 to C12 Hydrocarbons, ug/L	1500
Other TPH-Volatile Hydrocarbons/BTEX	---
TPH - Semivolatile Hydrocarbons	
Date Analyzed	12.27.89
Dilution Factor, Times	10
C12 to C25 Hydrocarbons, ug/L	2000
C12-C25 Fuel characterization, .	DIESEL
Other TPH - Semivolatile Hydrocarbons	---

This Fuel characterization is a qualitative identification based upon a visual comparison of sample chromatograms with those from authentic standards.

Sim D. Lessley, Ph.D, Laboratory Director

Analytical Report

LOG NO: E90-01-194

Received: 09 JAN 90
Reported: 15 JAN 90

Mr. Joe Casey
The Earth Technology Corporation
100 West Broadway, Suite 5000
Long Beach, California 90802

Purchase Order: C1206

SOIL SAMPLES FROM TANK T2 (KF21)

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
01-194-1	S-1, East End	09 JAN 90
01-194-2	S-2, West End	09 JAN 90
01-194-3	S-3, Norh Wall, East End	09 JAN 90
01-194-4	S-4, Under Pump	09 JAN 90

PARAMETER	01-194-1	01-194-2	01-194-3	01-194-4
Oil and Grease, gravimetric, mg/kg	460	2100	1500	100
Petroleum Hydrocarbons by IR, mg/kg	5000	940	920	<50
TPH-Volatile Hydrocarbons/BTEX				
Date Analyzed	01.11.90	01.11.90	01.11.90	01.11.90
Dilution Factor, Times	20	2	8	1
Benzene, mg/kg	<2	<0.2	<0.8	<0.1
Ethylbenzene, mg/kg	<2	<0.2	<0.8	<0.1
Toluene, mg/kg	<2	<0.2	<0.8	<0.1
Total Xylene Isomers, mg/kg	<2	<0.2	<0.8	<0.1
C4 to C12 Hydrocarbons, mg/kg	900	130	840	7
Other TPH-Volatile Hydrocarbons/BTEX	---	---	---	---
Diesel Method 3550				
Date Analyzed	01.12.90	01.12.90	01.12.90	01.12.90
Dilution Factor, Times	50	50	50	1
Fuel Hydrocarbons, mg/kg	7100	5700	2500	13
Fuel Characterization, .	DIESEL	DIESEL	DIESEL	DIESEL
Other Diesel Method 3550	---	---	---	---

This Fuel characterization is a qualitative identification based upon a visual comparison of sample chromatograms with those from authentic standards.

Sim D. Lessley, Ph.D., Laboratory Director

1255 Powell Street
Emeryville, CA 94608

415/428-2300
Fax: 415/547-3643

BCA B C Analytical

Analytical Report

LOG NO: E90-01-512

Received: 18 JAN 90
Reported: 25 JAN 90

Mr. Joe Casey
The Earth Technology Corporation
100 West Broadway, Suite 5000
Long Beach, California 90802

Purchase Order: C1206

Jar 2 grab GW

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
01-512-2	SW-2-A-1	18 JAN 90

PARAMETER	01-512-2
Oil and Grease, gravimetric, mg/L	10
Petroleum Hydrocarbons by IR, mg/L	12
Diesel Method 3510	
Date Analyzed	01.19.90
Dilution Factor, Times	50
Fuel Hydrocarbons, mg/L	36
Fuel Characterization, .	DIESEL
Other Diesel Method 3510	--
TPH-Volatile Hydrocarbons/BTEX	
Date Analyzed	01.22.90
Dilution Factor, Times	1
Benzene, ug/L	0.5
Ethylbenzene, ug/L	<0.3
Toluene, ug/L	<0.3
Total Xylene Isomers, ug/L	<0.3
C4 to C12 Hydrocarbons, ug/L	570
Other TPH-Volatile Hydrocarbons/BTEX	---

This Fuel characterization is a qualitative identification is based upon a visual comparison of sample chromatograms with those from authentic standards.

Sim D. Lessley, Ph.D., Laboratory Director

1255 Powell Street
Emeryville, CA 94608

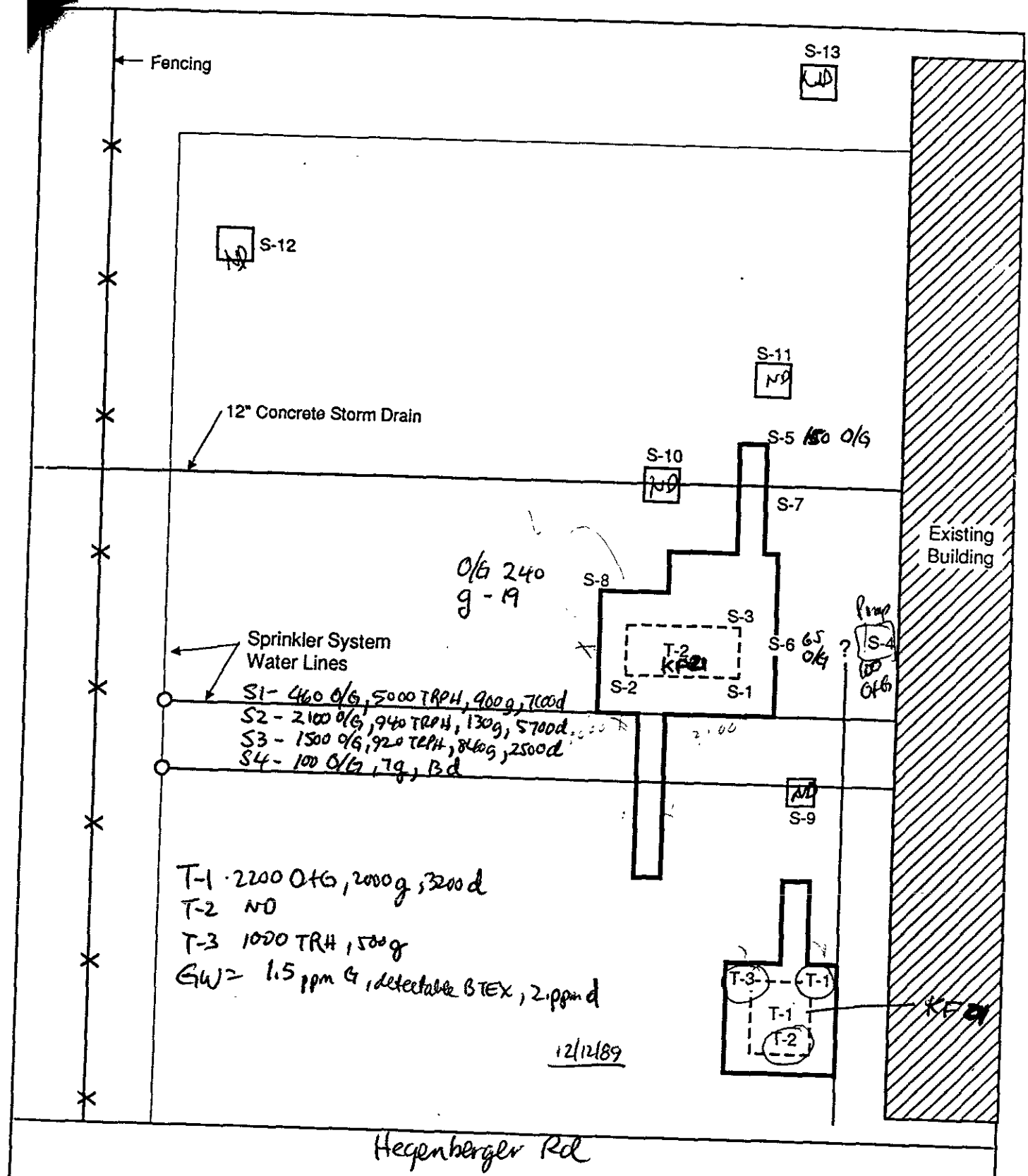
415/428-2300
Fax: 415/547-3643

BCA B C Analytical

TABLE OF ANALYTICAL RESULTS FROM TANK REMOVALS
AND OVEREXCAVATION AT 265 HEGENBERGER RD.

All Concentrations in mg/kg or mg/l (ppm)

Sample ID	Type	TPHg	TPHd	B	T	E	X	TOG	TPH
Original tank results from removal of tank T-1									
T-1-1	S	2000	3200	<20	<20	<20	<20	2200	4700
T-1-2	S	<5	<1	<0.1	<0.1	<0.1	<0.1	<50	<50
T-1-3	S	500	57	<1	<1	1	4	<50	1000
Grab groundwater sample from tank T-1 pit									
SW	W	1.5	2.0	0.011	0.005	0.021	0.051	5	<5
Overexcavation and trench samples of tank T-2									
T-2-S-7	S	ND	for volatile organics EPA 8240						
T-2-S-8	S	19	5	<0.02	<0.02	<0.02	<0.02	240	<50
Overexcavation samples from tank T-2									
S-1	S	900	7100	<2	<2	<2	<2	460	5000
S-2	S	130	5700	<0.2	<0.2	<0.2	<0.2	2100	940
S-3	S	840	2500	<0.8	<0.8	<0.8	<0.8	1500	920
S-4	S	7	13	<0.1	<0.1	<0.1	<0.1	100	<50
T-2-S-5	S	4	4	<0.02	<0.02	<0.02	<0.02	150	<50
T-2-S-6	S	<1	<1	<0.02	<0.02	<0.02	<0.02	65	<50
Grab groundwater sample from tank T-2 pit									
SW-2-A-1	W	0.57	36	~~0.5~~ .0005	<0.3	<0.3	<0.3	10	12
Pot hole samples									
S-9	S	<1	<1	<0.02	<0.02	<0.02	<0.02	--	--
S-10	S	1	<1	<0.02	<0.02	<0.02	<0.02	--	--
S-11	S	<1	2	<0.02	<0.02	<0.02	<0.02	--	--
S-12	S	2	4	<0.02	<0.02	<0.02	<0.02	--	--
S-13	S	4	<1	<0.02	<0.02	<0.02	<0.02	--	--
S-14	S	<1	<1	<0.02	<0.02	<0.02	<0.02	--	--
Overexcavation samples									
E1	S	<8	<5	ND	ND	ND	ND	<5	6
E2	S	<8	<5	ND	ND	ND	ND	13	9
E3	S	<8	<5	ND	ND	ND	ND	14	10
E4	S	<8	20	ND	ND	ND	ND	52	34
E5	S	<8	28	ND	ND	ND	ND	16	71
E6	S	<8	<5	ND	ND	ND	ND	3	8



North
Not to Scale

All Sampling Locations
Are Approximate Only

The Earth Technology Corporation

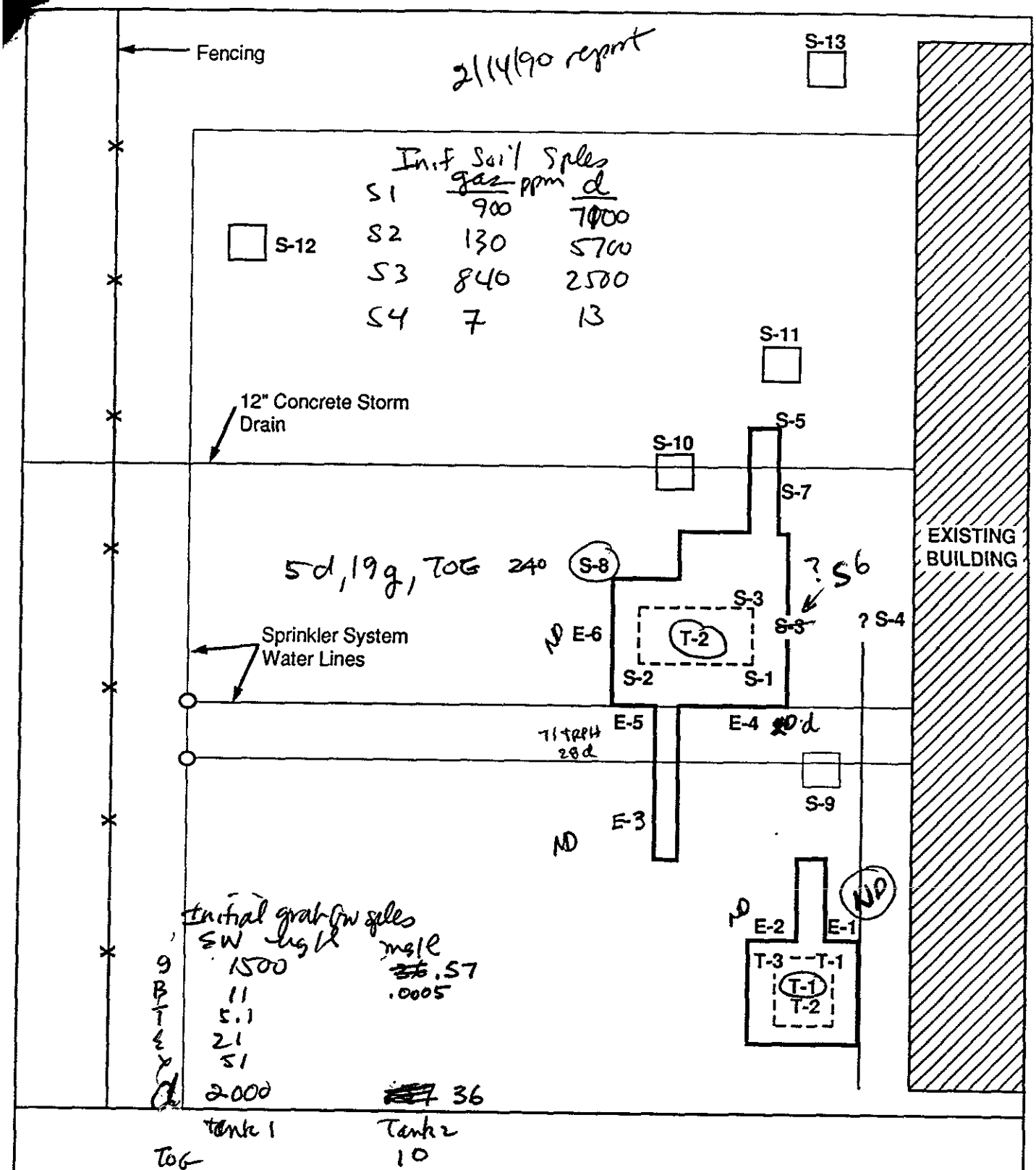
Project No.: 90-1113

Marriott Corporation

Subsurface Tank Removal
Soil Sampling Location Plan

01-90

Figure 1



The Earth Technology Corporation

Project No.: 90-1113

Marriott Corpation

Subsurface Tank Removal Soil Sampling Location Plan

02-90

Figure 1

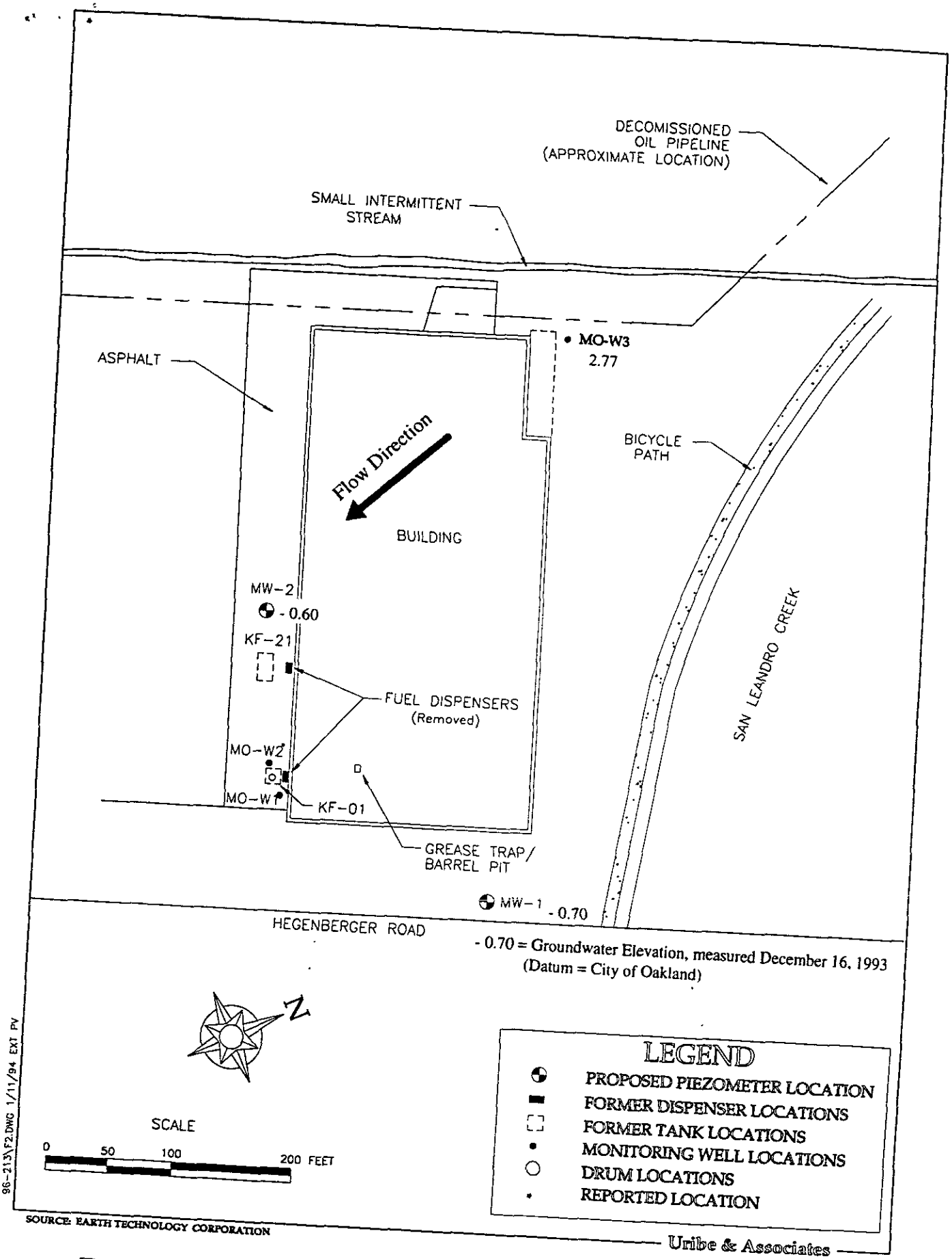


Figure 2: Site Map, 265 Hegenberger Road, Oakland, California

Table 1: Laboratory Analysis Data for
Soil Samples Collected from Boring MW-1 on December 7, 1993
Concentrations in mg/kg

Sample ID	TPH-Gasoline	TPH-Diesel [1]	TPH-Motor Oil [1]	Benzene	Toluene	Ethyl benzene	Xylenes
MW-1-2.0	<1.0	3	80	<0.005	<0.005	<0.005	<0.005
MW-1-6.5	<1.0	<1.0	<30	<0.005	<0.005	<0.005	<0.005
MW-1-10.0	<1.0	<1.0	<30	<0.005	<0.005	<0.005	<0.005
MW-1-13.0	<1.0	<1.0	<30	<0.005	<0.005	<0.005	<0.005
MW-1-16.0	<1.0	<1.0	<30	<0.005	<0.005	<0.005	<0.005

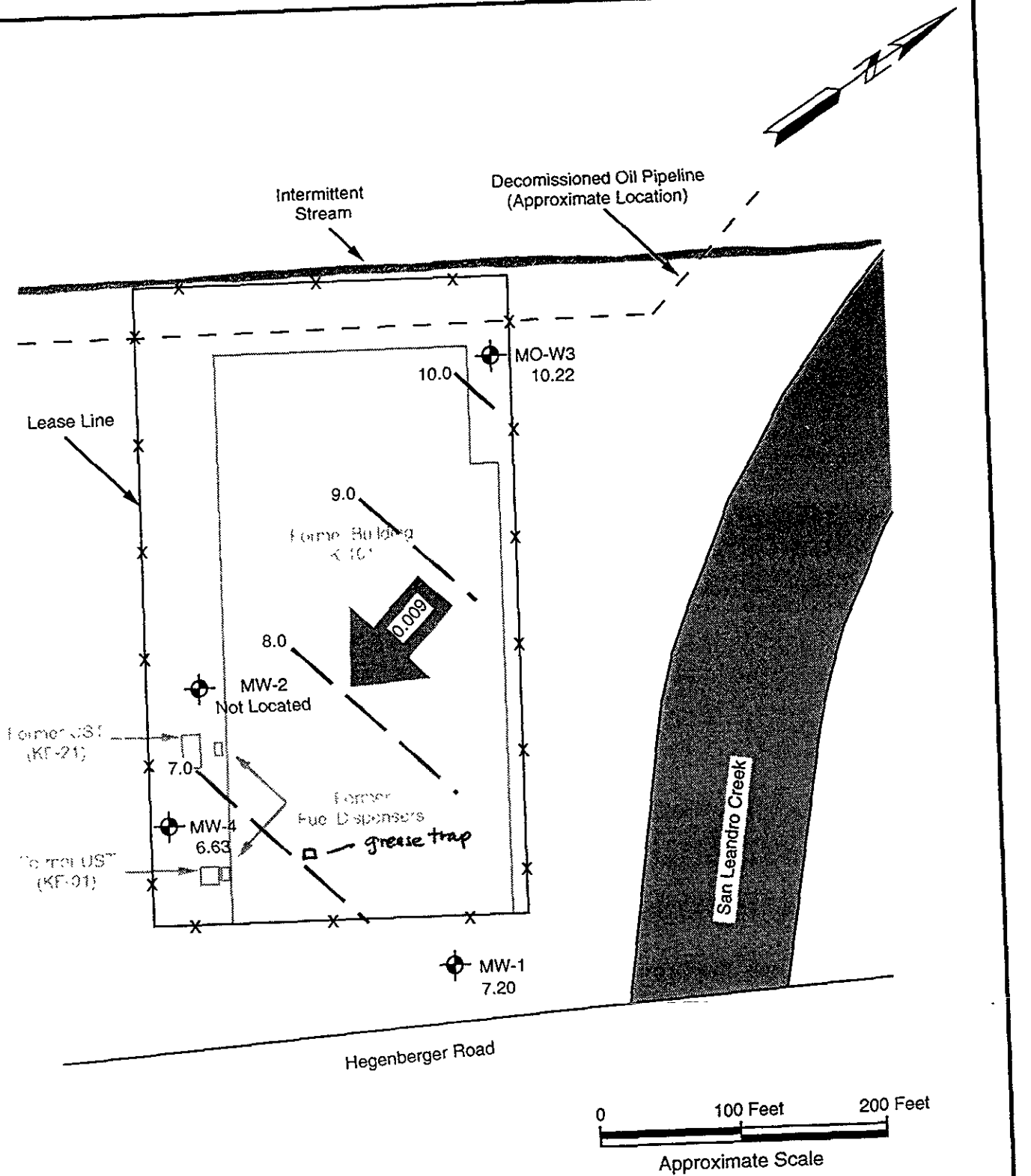
Notes:
[1] *Holding time was exceeded. It is not anticipated that this would affect motor oil concentrations.*

Table 2: Laboratory Analysis Data for
Soil Samples Collected from Boring MW-2 on December 7, 1993
Concentrations in mg/kg

Sample ID	TPH-Gasoline	TPH-Diesel [1]	TPH-Motor Oil [1]	Benzene	Toluene	Ethyl benzene	Xylenes
MW-2-3.0	<1.0	<1.0	<30	<0.005	<0.005	<0.005	<0.005
MW-2-5.5	<1.0	<1.0	<30	<0.005	<0.005	<0.005	<0.005
MW-2-9.5	<1.0	<1.0	<30	<0.005	<0.005	<0.005	<0.005
MW-2-14.5	<1.0	<1.0	<30	<0.005	<0.005	<0.005	<0.005

Notes:
[1] *Holding time was exceeded. It is not anticipated that this would affect motor oil concentrations.*

95-113.19/F. 2-GWElev



Legend

- Monitoring Well
- 10.22 Groundwater Elevation on January 24, 1997 (Port of Oakland datum, 3.2 feet below mean sea level)
- Groundwater Elevation Contour Lines
- Groundwater Flow Direction and Gradient

Source: Figure 2, Site Map, 265 Hegenberger Road, Uribe and Associates, November 6, 1995.

FIGURE 2

GROUNDWATER ELEVATIONS AND FLOW DIRECTION FOR JANUARY 24, 1997

265 Hegenberger Road
Oakland, California

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PORT OF OAKLAND

INNOVATIVE TECHNICAL SOLUTIONS, INC.

Table 1: Summary of Laboratory Analysis Results for
Soil Samples Collected from Boring MW-4 on October 23, 1995
265 Hegenberger Road, Oakland, California
Concentrations in mg/kg

Sample ID	TPH-Gasoline	TPH-Diesel	TPH-Motor Oil	Benzene	Toluene	Ethyl benzene	Xylenes
MW-4-5.0	ND(0.20)	ND(5)	ND(10)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)
MW-4-10.0	ND(0.20)	ND(5)	ND(10)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)

Notes:
ND() = Not detected at or above the indicated laboratory method detection/reporting limit.
Other samples collected from this boring (at 15 and 18 feet bgs) were not analyzed.

Table 4: Summary of Laboratory Analysis Results for BTEX and Chlorobenzene in Groundwater Monitoring Well Samples Collected from 265 Hegenberger Road, Oakland, California
(Concentrations in µg/l)

Well/ Date	Groundwater Elevation	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Chlorobenzene
MW-1						
12/17/93	-0.70	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
03/25/94	-0.75	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	na
06/03/94	-0.99	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
11/2/95	5.16	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	na
MW-2						
12/17/93	-0.60	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
03/25/94	-0.49	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	na
06/03/94	-0.73	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MO-W3						
12/17/93	2.77	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
03/25/94	2.13	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	na
06/03/94	1.38	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
11/2/95	5.31	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	na
MW-4						
11/2/95	4.87	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)

Notes:

ND() = Not detected at or above the indicated laboratory method detection/reporting limit

na = not analyzed

Groundwater Elevations relative to City of Oakland Datum

Table 5: Summary of Laboratory Analysis for Volatile Organic Compounds, PCB's, and Semi-Volatile Organic Compounds in Groundwater Monitoring Well Samples Collected from 265 Hegenberger Road, Oakland, California

(Concentrations in µg/l)

Well/ Date	Groundwater Elevation	VOC's	Pesticides & PCB's	Semi-VOC's	bis(2-ethylhexyl) phthalate	Lead	Chromium
MW-4							
11/2/95	4.87	ND(100)	ND(1)	ND(67)[1]	22[2]	13.4	15.4

Notes:

ND() = Not detected at or above the indicated laboratory method detection/reporting limit

na = not analyzed

1 = All analytes were not detected except bis(2-ethylhexyl)phthalate.

2 = Laboratory reported: Possible laboratory contaminant

Groundwater Elevations relative to City of Oakland Datum

The full list of compounds analyzed for by each method is listed on the laboratory data sheets in Appendix C.

TABLE 2

SUMMARY OF LABORATORY RESULTS (in µg/l)
265 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Monitoring Well ID	Date of Sampling	TPHg	Benzene	Toluene	Ethyl-benzene	Xylenes	TPHj	TPHd	TPHmo	TPHms	TPHk	Pb	Cr
MW-1	12/17/93[1]	<50	<0.1	<0.1	<0.1	<0.1	NA	<50	NA	NA	NA	-	-
	03/25/94[1]	<50	<0.5	<0.5	<0.5	<0.5	<50	<50	<500	<150	<50	-	-
	06/03/94[1]	<50	<0.5	<0.5	<0 5	<0.5	<50	220	<500	<150	<50	-	-
	11/02/95[1]	53	<0.5	<0.5	<0.5	<1	NA	<50	860	NA	NA	-	-
	10/24/96	<50	<0.5	<0.5	<0.5	<1	-	-	-	-	-	9.93	<7
	01/24/97	<50	<0.5	<0.5	<0.5	<1	-	<50	<250	-	-	<5	<7
MW-2	12/17/93[1]	<50	<0.1	<0.1	<0.1	<0.1	NA	1,100	NA	NA	NA	-	-
	03/25/94[1]	<50	<0.5	<0.5	<0.5	<0.5	<50	160	<500	<150	<50	-	-
	06/03/94[1]	<50	<0.5	<0.5	<0.5	<0.5	<50	260	<500	<150	<50	-	-
	11/02/95[1]	-	-	-	-	-	-	-	-	-	-	-	-
	10/24/96	-	-	-	-	-	-	-	-	-	-	-	-
	01/24/97	-	-	-	-	-	-	-	-	-	-	-	-
M0-W3	12/17/93[1]	<50	<0.1	<0.1	<0.1	<0.1	NA	130	NA	NA	NA	-	-
	03/25/94[1]	<50	<0.5	<0.5	<0.5	<0.5	<50	<50	<500	<150	<50	-	-
	06/03/94[1]	<50	<0.5	<0.5	<0.5	<0.5	<50	88	<500	<150	<50	-	-
	11/02/95[1]	<50	<0.5	<0.5	<0.5	<1	NA	570	540	NA	NA	-	-
	10/24/96	<50	<0.5	7.7	<0.5	<1	-	-	-	-	-	<5	2,430
	01/24/97	<50	<0.5	<0.5	<0.5	<1	-	<50	<250	-	-	<5	<7
MW-4	11/02/95[1]	95	<0.5	<0.5	<0.5	<1	NA	130	<260	NA	NA	13.4	15.4
	10/24/96	<50	<0.5	<0.5	<0.5	<1	-	-	-	-	-	<5	8.17
	01/24/97	<50	<0.5	<0.5	<0.5	<1	-	<50	<250	-	-	<5	<7

[1]From Table 3 and 4, Summary of Laboratory Analyses, 265 Hegenberger Road, Oakland, California, by Uribe and Associates.

TPHg = Total petroleum hydrocarbons (TPH) as gasoline, TPHj = TPH as jet fuel, TPHd = TPH as diesel, TPHmo = TPH as motor oil, TPHms = TPH as mineral spirits, and TPHk = TPH as kerosene, Pb - Lead, Cr - Chromium.