

ELMHURST LOCAL DEVELOPMENT CO.
P.O. BOX 43060
OAKLAND, CA 94624-0060

August 27, 1987

TO: Mr. Ted Gerow, Alameda County Environmental Health Engineer

Mr. Gregory Zentner, Water Resources Control Engineer, State of California

FROM: Lonnie Dillard, President of the ELDC, General Contractor License #494929

RE: Tank removal and other remedial actions to relieve hydro carbon and other contaminants at 8124 El4th Street.

CAC #000007641. Managed by Crosby and Overton BA674

Beginning 4-27-87 pumped gas and oil tanks and hauled contaminants to authorized disposal facilities, by licensed haulers.

Cleaned tanks, on site, and pumped in dry ice.


Hauled tanks to authorized disposal facility by licensed hauler.

Tested soils, and removed soil as necessary, based on tests performed by TMA.

Two ground water wells installed for continuing monitoring of contaminants. Water wells by Groundwater Technology, Inc.

Please advise: phone 415 638 3331

Lonnie Dillard, ELDC President


8-27-87

TMA/Norcal

1400 53rd Street

Suite 460

Emeryville, CA 94608-2946

(415) 652-2300

Crosby and Overton
8430 Amelia St.
Oakland, CA 94621

May 8, 1987
Report #2701-53
P.O. #3619

Attention: Dan Heath

Site Location: ELDC Corp.

RE: Five (5) soil samples submitted on May 1, 1987 for rush gasoline analysis; also one soil sample for rush waste oil analysis.

Procedure: The sample is analyzed for waste oil by following a modified EPA Method 3510 extraction procedure. The sample is extracted three (3) times with hexane. The solvent is removed from the combined extracts and carbon disulfide is added. The solution is injected into a gas chromatograph fitted with a flame ionization detector. Quantitation is performed, as total hydrocarbon response, against a solution made from a known concentration of light machine oil. The limit of detection for this method of analysis is ten parts per million (mg/kg).

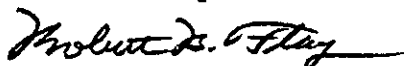
The samples are analyzed for gasoline by following the method described in Attachment 2, Analytical Procedures for Fuel Leak Investigations. The samples are concentrated on a Tekmar LSC-2 automatic sample concentrator prior to injection into a gas chromatograph fitted with a flame ionization detector. Quantitation is performed, as total hydrocarbon response, against known concentrations of gasoline. The limit of detection for this method of analysis is one part per million (mg/kg).

The results are summarized in the table below:

<u>TMA</u>	<u>Client ID</u>	<u>Concentration (mg/kg)*</u>	
		<u>Waste Oil</u>	<u>Gasoline</u>
2701-53-1	#1 Waste Oil Tank Exc.	1100	32
2701-53-2	#2 Tank Exc.	--	410
2701-53-3	#3 Tank Exc.	--	310
2701-53-4	#4 Tank Exc.	--	7.0
2701-53-5	#5 Tank Exc.	--	34

* wet weight basis

Submitted by:



Robert B. Flay
Manager, Organic Department

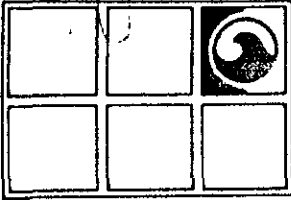
cc: Lonnie Dillard
ELDC Corp.
P.O. Box 43060
1824 E. 14th
Oakland, CA 94601

Thermo Analytical (TMA)
 1400 53rd STREET
 EMERYVILLE, CA 94608

Client: Crosby & Overton

Proj. No.		Project Name				No. of containers	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;">Waste Oil</div> <div style="border: 1px solid black; padding: 2px;">Gasoline</div> </div>				Remarks
BA674		ELDC Corp.									
Samplers: (Signature)											
Sta. No.	Date	Time	Comp.	Grab	Station Location						
	4/30	none			#1 Waste Oil Tank Excavation	2	✓	✓			3 day T.A.T. 2 Same ID on 2 cores
	4/30	"			#2 Tank Exc.	1		✓			
	4/30	"			#3 Tank	1		✓			Soil spls.
	4/30	"			#4 Tank	1		✓			
	4/30	"			#5	1		✓			
Relinquished by: (Signature)			Date/Time		Received by: (Signature)		Relinquished by: (Signature)		Date/Time		Received by: (Signature)
Richard Campbell			5/1 10:45		[Signature]						
Relinquished by: (Signature)			Date/Time		Received by: (Signature)		Relinquished by: (Signature)		Date/Time		Received by: (Signature)
Relinquished by: (Signature)			Date/Time		Received for Laboratory by: (Signature)		Date/Time		Remarks		
					[Signature]						

Chain of Custody Record



**GROUNDWATER
TECHNOLOGY, INC.**
OIL RECOVERY SYSTEMS

4080 Pike Lane, Suite D, Concord, CA 94520-1227 (415) 671-2387

June 23, 1987

Job No. 203 799 5000

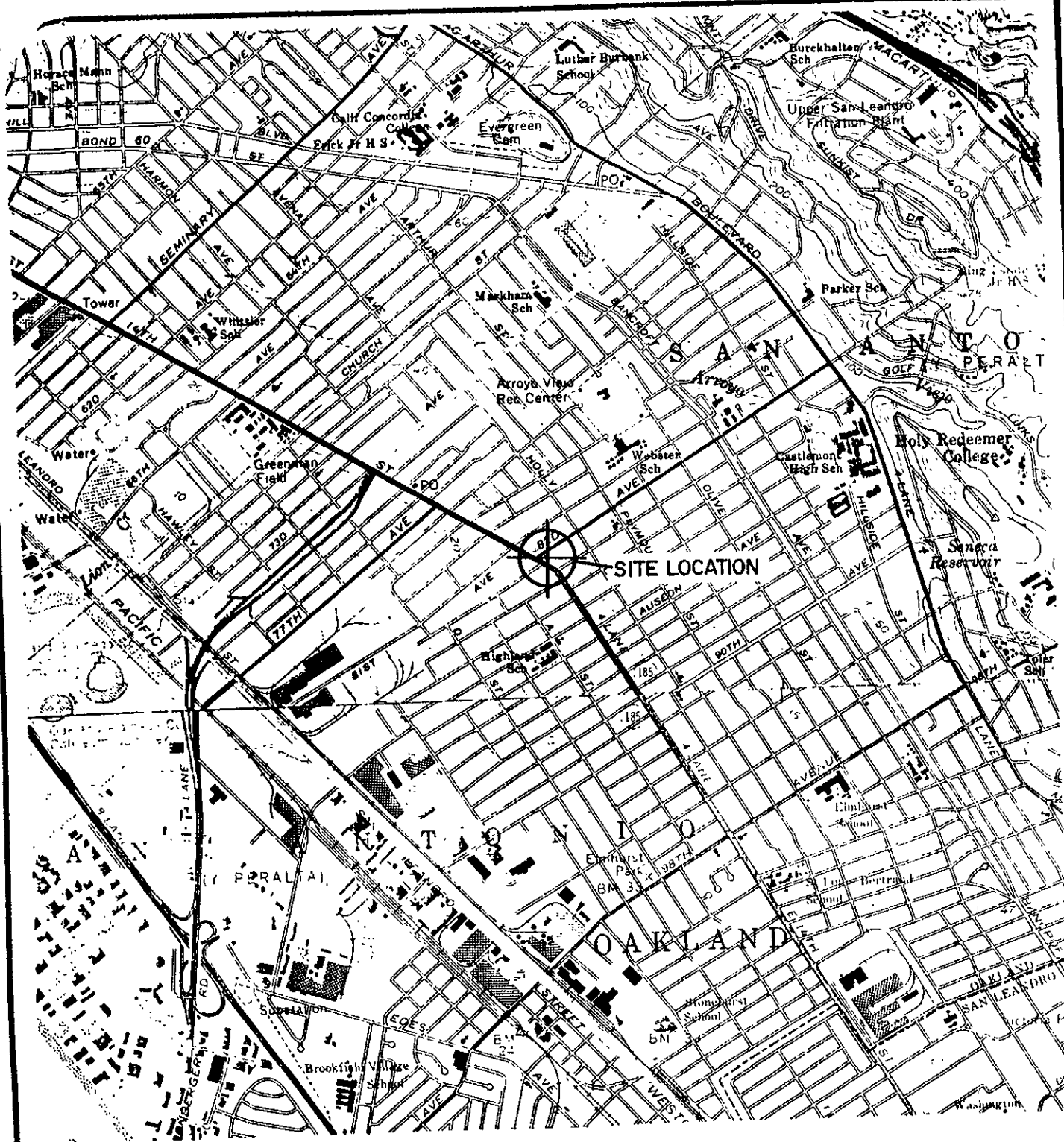
Mr. Kevin Petal
Crosby and Overton EMI
8430 Amelia Street
Oakland, California 94621

Subject: Initial Contamination Assessment, City of Oakland
property, 1884 East 14th Street, Oakland, California
for Crosby and Overton EMI

Dear Mr. Petal,

This letter presents the results of the initial contamination assessment performed by Groundwater Technology, Inc. (GTI) at the City of Oakland property located at 1824 East 14th Street in Oakland, California (See Figure 1, Site Location Map). The work was authorized by Crosby and Overton EMI on May 20, 1987, and included the installation of two groundwater observation wells, the collection and analysis of soil and groundwater samples and the preparation of a technical report regarding subsurface conditions at the site. The purpose of the assessment was to evaluate the potential of hydrocarbon contamination of the native materials underlying the former locations of underground gasoline and waste oil tanks.

Initially, two borings were drilled using a truck-mounted drill rig equipped with 7.5-inch outside diameter (OD) hollow-stem augers. These borings were drilled to 25-feet below the ground surface in the former tank pits (See Figure 2, Site Sketch). During drilling a GTI geologist maintained a continuous log of materials encountered according to the Unified Soil Classification System (See Appendix I, Drill Logs). Beginning at 3.5-feet below surface, soil samples were collected at 5-foot intervals to the bottom of each boring. Samples were collected using 2-inch by 6-inch brass tubes in a modified California split spoon sampler which was hammer driven 18-inches at each sample interval. Following collection, one soil filled brass tube was capped, sealed and placed on ice for delivery to an analytical laboratory. An appropriate Chain-of-Custody Manifest was included with the samples.



**FIGURE I
SITE LOCATION MAP**



**CROSBY & OVERTON
OAKLAND, CALIFORNIA**



**GROUNDWATER
TECHNOLOGY**

Mr. Kevin Petal
June 23, 1987
Page 3

Observation wells were installed in each boring and were constructed of 20-feet of PVC screen (.020 inch machine slotted) threaded to 5 feet of PVC pipe. After the casings were inserted in the borings, No. 2 sand was poured to pack the remaining space between the borehole wall and the casing. Sand was poured to 4-feet below surface where a sanitary seal of bentonite and cement was added. The seals were poured to just below surface where street-rated road boxes were installed to protect the well heads (See Attachment I, Drill Logs for well construction).

Following installation, the wells were developed by hand bailing to remove fine material. Groundwater samples were subsequently collected with a US Environmental Protection Agency (EPA)-approved Teflon[®] bailer. Water samples were transferred to 40-milliliter (ml) vials with Teflon[®] caps and sealed in a manner such that no headspace existed in the vials. Samples were placed on ice and delivered to an analytical laboratory accompanied by a Chain-of-Custody Manifest. Water samples collected on June 2, 1987, labeled in the field as "small pit" and "large pit" should have been labeled as MW-1 and MW-2 respectively. Water samples collected on June 8, 1987, were labeled correctly (See Attachment II, Analytical Results).

Groundwater and soil samples were delivered to Groundwater Technology Environmental Laboratory (GTEL) for analysis. Soil samples were analyzed using EPA Method 8240 for volatile organic compounds, 418.1 for total petroleum hydrocarbons (TPH), and 413.2 for total oil and grease (TOG). Analytical results for soil are presented in Table 1.

TABLE I
Soil Analysis

Sample I.D.	Benzene ppm	Toluene ppm	Ethylbenzene ppm	Xylene ppm	TPH ppm	TOG ppm
MW-1B	ND	ND	ND	ND	28	84
MW-1C	ND	ND	ND	ND	296	376
MW-2B	ND	ND	21	110	348	411
MW-2C	ND	ND	ND	ND	23	93

Notes:

Analytical Reports are presented in Attachment II
MW = Monitoring Well
ND = Non Detectable concentration
ppm = parts per million

82 nd ST.

14th AVE.

FENCE

GASOLINE TANK
(EXCAVATED)

W.O. TANK
(EXCAVATED)

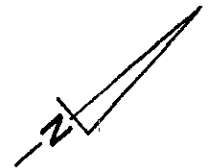


BUILDING

LEGEND

⊙ MONITORING WELL

FIGURE 2
SITE SKETCH



NO SCALE

CROSBY & OVERTON
OAKLAND, CALIFORNIA



GROUNDWATER
TECHNOLOGY

Water samples were analyzed using EPA Methods for volatile organics, 418.1 for TPH and 413.2 for TOG. Organic lead in water was analyzed by atomic absorption and flame-ionization detection. Table II presents the analytical results for groundwater.

TABLE II
Water Analysis

Sample I.D.	Benzene ppb	Toluene ppb	Ethlybenzene ppb	Xylene ppb	TPH ppb	TOG ppb	Pb (organic) ppb
1	1	2	ND	2	4900	5800	ND
2	21	25	121	1780	4600	6600	ND

Notes:

Analytical Results are presented in Attachment II
ND = Non Detectable
ppb = parts per billion
TPH and TOG originally in ppm

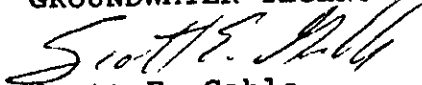
After a review of the data collected during this investigation, GTI recommends that additional work be performed at this site. Groundwater contamination by aromatic hydrocarbons, such as benzene and xylene, was found in monitoring well 2 at concentrations exceeding the California Department of Health Services (DOHS) action levels. The benzene level in monitoring well 1 slightly exceeded the DOHS action level. No action levels have been established by the state for TOG and TPH.

GTI recommends that four additional monitoring wells be installed at this site to more fully define the extent of groundwater and soil contamination. GTI would be pleased to submit a proposal to conduct this work for Crosby and Overton EMI if requested.


Mr. Kevin Petal
June 23, 1987
Page 6

We would like to thank Crosby and Overton EMI for the opportunity to conduct this investigation. If you have any questions regarding this report please feel free to contact us.

Sincerely,
GROUNDWATER TECHNOLOGY, INC.



Scott E. Gable
Project Geologist



Gary B. Taggart, C.E.G.
Senior Technical Advisor

SEG:GBT:tb
R500A



Monitoring Well 1

Drilling Log

Project Crosby and Overton Owner City of Oakland
 Location Oakland, California Project Number 203-799-5000
 Date Drilled 5/29/87 Total Depth of Hole 25.0 ft Diameter 7.5 in.
 Surface Elevation _____ Water Level, Initial 13.5 ft. 24-hrs _____
 Screen: Dia. 2 in. Length 20 ft. Slot Size 0.020 in.
 Casing: Dia. 2 in. Length 5 ft. Type P.V.C.
 Drilling Company Sierra Pacific Drilling Method Hollow Stem Auger
 Driller Ben Hunt Log by N. Farrar

Sketch Map

See Site Plan

Notes

Depth (Feet)	Well Construction	Notes	Sample Number	Graphic Log	Description/Soil Classification	
0					Blue-green clay (fill, stiff, dry, no product odor)	
2					(grades black)	
4			A	4 5 8	CH	(grades tan)
6						Tan clay (stiff, moist, no product odor)
8						(grades gravelly)
10			B	6 8 14	CH	Tan gravelly clay (soft, moist, no product odor)
12						
14			C	5 13 16	CL	▼ Encountered water 5/29/87 (1205 hrs.) (product sheen noted)
16						
18						
20						
22						
24						
End of boring, installed monitoring well.						



Monitoring Well 2

Drilling Log

Project Crosby & Overton Owner City of Oakland
 Location Oakland, California Project Number 203-799-5000
 Date Drilled 5/29/87 Total Depth of Hole 25.0 ft Diameter 7.5 in.
 Surface Elevation _____ Water Level, Initial 12.5 ft 24-hrs. _____
 Screen: Dia. 2 in. Length 20 ft. Slot Size 0.020 in.
 Casing: Dia. 2 in. Length 5 ft. Type P.V.C.
 Drilling Company Sierra Pacific Drilling Method Hollow Stem Auger
 Driller Ben Hunt Log by N. Farrar

Sketch Map

See Site Plan

Notes

Depth (Feet)	Well Construction	Notes	Sample Number	Graphic Log	Description/Soil Classification
0					Dark brown sandy clay (fill, stiff, dry, slight product odor)
2					
4			A	CH	(grades black; sandy)
6					
8			B		(grade with strong product odor)
10					
12					▼ Encountered water 5/29/87 (1415 hrs.)
14			C	5 13 16	Gray-brown coarse sandy gravel (Medium dense, wet, strong product odor)
16					
18				GP	
20					
22					
24					End of boring, installed monitoring well.



Environmental Laboratories

A division of Groundwater Technology, Inc.

Western Region
 4080-C Pike Ln., Concord, CA 94520
 (415) 685-7852
 In CA: (800) 544-3422
 Outside CA: (800) 423-7143

06/17/87
 PROJECT MGR: John Sciacca
 Groundwater Technology, Inc.
 4080-D Pike Lane
 Concord, Ca. 94520

PROJECT #: 2037995000-1
 LOCATION: Oakland, Ca.
 SAMPLED: 05/29/87 BY: N. Farrar
 RECEIVED: 05/29/87 BY: E. Foley
 ANALYZED: 06/02/87 BY: R. Craven
 MATRIX: Soil

Sep 1987

TEST RESULTS (ppm)

COMPOUNDS	LAB # I.D.#	2934A MW-1B	2935A MW-1C	2936A MW-2B	2937A MW-2C
Benzene		<0.1	<0.1	<0.1	<0.1
Bromodichloromethane		<0.1	<0.1	<0.1	<0.1
Bromoform		<0.1	<0.1	<0.1	<0.1
Bromomethane		<0.1	<0.1	<0.1	<0.1
Carbon Tetrachloride		<0.1	<0.1	<0.1	<0.1
Chlorobenzene		<0.1	<0.1	<0.1	<0.1
Chloroethane		<0.1	<0.1	<0.1	<0.1
2-Chloroethylvinyl Ether		<0.1	<0.1	<0.1	<0.1
Chloroform		<0.1	<0.1	<0.1	<0.1
Chloromethane		<0.1	<0.1	<0.1	<0.1
Dibromochloromethane		<0.1	<0.1	<0.1	<0.1
1,2 Dichlorobenzene		<0.1	<0.1	<0.1	<0.1
1,3 Dichlorobenzene		<0.1	<0.1	<0.1	<0.1
1,4 Dichlorobenzene		<0.1	<0.1	<0.1	<0.1
1,1 Dichloroethane		<0.1	<0.1	<0.1	<0.1
1,2 Dichloroethane		<0.1	<0.1	<0.1	<0.1
1,1 Dichloroethene		<0.1	<0.1	<0.1	<0.1
trans 1,2 Dichloroethane		<0.1	<0.1	<0.1	<0.1
1,2 Dichloropropane		<0.1	<0.1	<0.1	<0.1
cis,1,3 Dichloropropene		<0.1	<0.1	<0.1	<0.1
trans,1,3 Dichloropropene		<0.1	<0.1	<0.1	<0.1
Ethyl benzene		<0.1	<0.1	21	<0.1
Methylene chloride		<0.1	<0.1	<0.1	<0.1
1,1,2,2 Tetrachloroethane		<0.1	<0.1	<0.1	<0.1
Tetrachloroethene		<0.1	<0.1	<0.1	<0.1
Toluene		<0.1	<0.1	<0.1	<0.1
1,1,1 Trichloroethane		<0.1	<0.1	<0.1	<0.1
1,1,2 Trichloroethane		<0.1	<0.1	<0.1	<0.1
Trichloroethene		<0.1	<0.1	<0.1	<0.1
Trichlorofluoromethane		<0.1	<0.1	<0.1	<0.1
Vinyl Chloride		<0.1	<0.1	<0.1	<0.1
Xylenes		<0.1	<0.1	110	<0.1

-- = Not Requested MEK = Methyl Ethyl Ketone MIBK = Methyl Isobutyl Ketone
 < = Method Detection Limit-Compound below this level would not be detected.

METHODS: EPA 8240.

This report replaces one of the same number dated 06/08/87.



Environmental Laboratories

A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Ln., Concord, CA 94520
(415) 685-7852
In CA: (800) 544-3422
Outside CA: (800) 423-7143

06/17/87

PROJECT MGR: John Sciacca

Groundwater Technology, Inc.
4080-D Pike Lane
Concord, Ca. 94520

PROJECT #: 2037995000-2

LOCATION: Oakland, Ca.

SAMPLED: 05/29/87 BY: N. Farrar

RECEIVED: 05/29/87 BY: E. Foley

ANALYZED: 06/03/87 BY: R. Heines/R. Bly

MATRIX: Soil

TEST RESULTS (ug/g-ppm)

LAB #	I.D. #	2934B	2935B	2936B	2937B
		MW-1B	MW-1C	MW-2B	MW-2C

Total Petroleum Hydrocarbons EPA 418.1	28	296	348	23
Total Oil & Grease EPA 413.2	84	376	411	93

METHODS:

3550 / 413.2 & 418.1

This report replaces one of the same number dated 6/4/87.

SAFY KHALIFA, Ph.D., Director

Western Region
 4080-C Pike Ln., Concord, CA 94520
 (415) 685-7852
 In CA: (800) 544-3422
 Outside CA: (800) 423-7143

06/12/87
 PROJECT MGR: John Sciacca
 Groundwater Technology, Inc.
 4080 Pike Lane
 Concord, CA. 94520

PROJECT #: 2037995000-3
 LOCATION: Oakland, CA.
 SAMPLED: 06/02/87 BY: K.Kline
 RECEIVED: 06/03/87 BY: R.Heines
 ANALYZED: 06/09/87 BY: R.Craven
 MATRIX: Water

S.K

TEST RESULTS (ppb)

COMPOUNDS	LAB # I.D.#	2974 LG PIT 2	2975 SM PIT 1
Benzene		21	1
Bromodichloromethane		<1.0	<1.0
Bromoform		<1.0	<1.0
Bromomethane		<1.0	<1.0
Carbon Tetrachloride		<1.0	<1.0
Chlorobenzene		<1.0	<1.0
Chloroethane		<1.0	<1.0
2-Chloroethylvinyl Ether		<1.0	<1.0
Chloroform		<1.0	<1.0
Chloromethane		<1.0	<1.0
Dibromochloromethane		<1.0	<1.0
1,2 Dichlorobenzene		<1.0	<1.0
1,3 Dichlorobenzene		<1.0	<1.0
1,4 Dichlorobenzene		<1.0	<1.0
1,1 Dichloroethane		<1.0	<1.0
1,2 Dichloroethane		<1.0	<1.0
1,1 Dichloroethene		<1.0	<1.0
trans 1,2 Dichloroethane		<1.0	<1.0
1,2 Dichloropropane		<1.0	<1.0
cis,1,3 Dichloropropene		<1.0	<1.0
trans,1,3 Dichloropropene		<1.0	<1.0
Ethyl benzene		121	<1.0
Methylene chloride		<1.0	<1.0
1,1,2,2 Tetrachloroethane		<1.0	<1.0
Tetrachloroethene		<1.0	<1.0
Toluene		25	2
1,1,1 Trichloroethane		<1.0	<1.0
1,1,2 Trichloroethane		<1.0	<1.0
Trichloroethene		<1.0	<1.0
Trichlorofluoromethane		<1.0	<1.0
Vinyl Chloride		<1.0	<1.0
Xylenes		1780	2

-- = Not Requested MEK = Methyl Ethyl Ketone MIBK = Methyl Isobutyl Ketone
 * = Method Detection Limit-Compound below this level would not be detected.
 METHODS: EPA 624.



A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Ln., Concord, CA 94520
(415) 685-7852
In CA: (800) 544-3422
Outside CA: (800) 423-7143

06/08/87
PROJECT MGR: John Sciacca
Groundwater Technology, Inc.
4080 Pike Lane
Concord, CA. 94520

PROJECT #: 2037995000-5
LOCATION: Oakland, CA.
SAMPLED: 06/02/87 BY: K.Kline
RECEIVED: 06/03/87 BY: R.Heines
ANALYZED: 06/06/87 BY: P.Voitoff
MATRIX: Water

TEST RESULTS (ppm)

S.K

Table with columns: COMPOUNDS, LAB # I.D.#, 2977 LG PIT 2, 2978 SM PIT 2. Lists various elements like Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Cobalt, Copper, Gallium, Germanium, Gold, Iron, Organo Lead, Lithium, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Tungsten, Vanadium, Zinc, Zirconium.

-- = Not Requested. < = Method Detection Limit-Compound below this level would not be detected.

METHODS: Extraction with organic solvent.
AA / Flame.



A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Ln., Concord, CA 94520
(415) 685-7852
In CA: (800) 544-3422
Outside CA: (800) 423-7143

06/12/87
PROJECT MGR: John Sciacca
Groundwater Technology, Inc.
4080 Pike Lane
Concord, CA. 94520

PROJECT #: 2037995000-4
LOCATION: Oakland, CA.
SAMPLED: 06/02/87 BY: K.Kline
RECEIVED: 06/03/87 BY: R.Heines
ANALYZED: 06/11/87 BY: R.Heines/R.Bly
MATRIX: Water

TEST RESULTS (ug/ml=ppm)

SIC

LAB #:	2976					
I.D.#:	SM PIT 1					

Total
Petroleum
Hydrocarbons 4.9

Total
Oil & Grease 5.8

METHOD: 413.2 TOG
418.1 TPH



A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Ln., Concord, CA 94520
(415) 685-7852
In CA: (800) 544-3422
Outside CA: (800) 423-7143

06/12/87

PROJECT MGR: John Sciacca
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, Ca. 94520

PROJECT #: 2037995000-6

LOCATION: Oakland, Ca.

SAMPLED: 06/08/87

BY: T. Watchers

RECEIVED: 06/08/87

BY: T. Nguyen

ANALYZED: 06/11/87

BY: R.H./R.B.M.

MATRIX: Water

TEST RESULTS

(ug/ml=ppm)

S.K

LAB #:	3089	3090					
I.D.#:	MW2	MW2					

Total Petroleum Hydrocarbons	4.6	--
Total Oil & Grease	--	6.6

METHOD: TPH 418.1
TOG 413.2