APPENDIX H

SAFETY-KLEEN CORP.
ENVIRONMENTAL ASSESSMENT
REPORTS

INTERIM UPDATE REPORT
SAFETY-KLEEN FACILITY
404 MARKET STREET
OAKLAND, CALIFORNIA

SEPTEMBER 9, 1988

GROUNDWATER TECHNOLOGY, INC.
CONCORD, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

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

INTERIM UPDATE REPORT
SAFETY-KLEEN FACILITY
404 MARKET STREET
OAKLAND, CALIFORNIA
SEPTEMBER 1988

Prepared for:

Safety-Kleen Corporation
777 Big Timber Road
Elgin, Illinois

Prepared by:

Groundwater Technology, Inc.
4080 Pike Lane, Suite D
Concord, California 94520

Kelly A. Kline
Geologist

Steven A. Fischbein
Industrial Group Manager
Hydrogeologist

Lynn E. Pera
Registered Engineer
No. 33431

REGISTERED PROFESSIONAL ENGINEER
LYNN E. PERA
No. 33431
CIVIL
STATE OF CALIFORNIA

R203 680 501601B.SF

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

INTERIM UPDATE REPORT
SAFETY-KLEEN FACILITY
404 MARKET STREET
OAKLAND, CALIFORNIA
SEPTEMBER 1988

INTRODUCTION

This report presents an update of the assessment work and interim remedial action steps which have been conducted to date by Groundwater Technology, Inc. (GTI) at the Safety-Kleen Corporation's (Safety-Kleen) facility located at 404 Market Street in Oakland, California (Figure 1). The work performed at this site was conducted in response to a request by Safety-Kleen for a pre-tank closure assessment to ascertain the extent of subsurface soil and groundwater contamination.

BACKGROUND

The Safety-Kleen Corporation's commercial-cleaning products distribution facility is located in a mixed residential and industrial setting. The facility is used to distribute and store clean and spent mineral spirits solvent, various chlorinated solvents and other products used in the automotive and food-service industries.

Of primary importance at this site are the locations and use of three underground storage tanks (USTs). Two 6,000-gallon steel USTs are used to store spent-mineral spirits solvent which is sent for recycling at the Safety-Kleen recycling center in Reedley, California, and one 10,000-gallon UST is used to store clean, recycled mineral spirits solvent for distribution to customers (Figure 2).

FIGURE 1
SITE LOCATION MAP

SAFETY-KLEEN
OAKLAND, CALIFORNIA

0 MILES 1

GROUNDWATER TECHNOLOGY

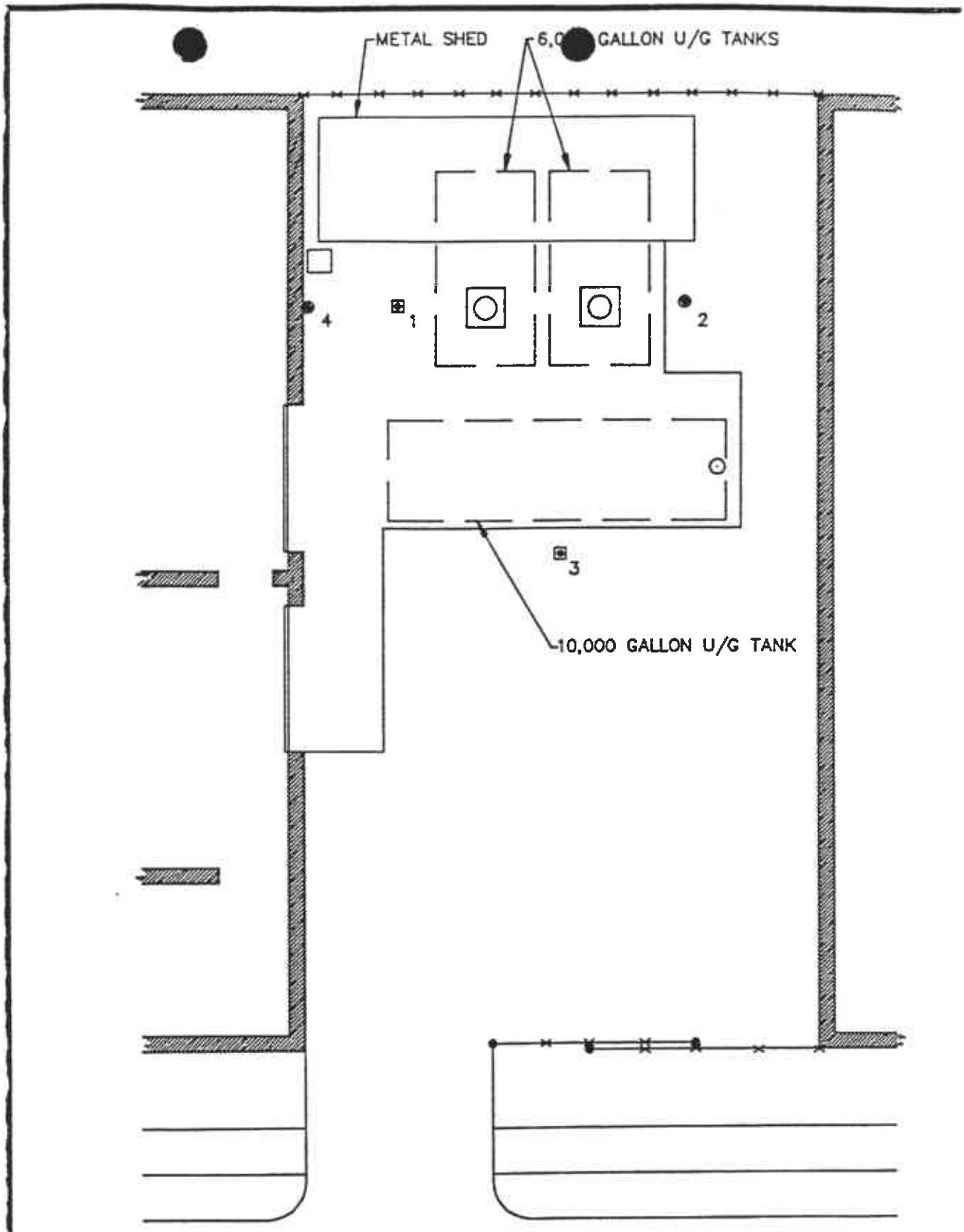


FIGURE 2
UNDERGROUND TANK LOCATION

SAFETY – KLEEN
OAKLAND, CALIFORNIA

The tanks were installed at the site in February 1970 (CWC-HDR, 1986). The site is visited on a regular basis by a tanker truck, coming from the Reedley facility, which dispensed clean, recycled product to the 10,000-gallon UST and loads spent solvent from the 6,000-gallon USTs. Clean product is then loaded from the storage tank into 16 or 30-gallon drums for subsequent delivery to customers. A clean product drum is exchanged for a spent product drum at the customer facility which is then delivered back to the storage facility for storage in one of the 6,000-gallon USTs. At the storage facility, the drums filled with spent product are unloaded into a dumpster receptacle which gravity feeds via a fill pipe and associated underground piping to the USTs.

PREVIOUS WORK

CWC-HDR Consulting Engineers were contracted to perform preliminary assessment work in May, 1986 at the Oakland Safety-Kleen facility. Three 8-inch diameter by 20-feet deep soil borings were drilled on site between May 28 and 30, 1986. Two of the three soil borings were converted into 2-inch diameter PVC monitoring wells (and are designated as SK-1 and SK-3 (Figure 3). Soil samples were collected at ground surface and from 5-feet and 10-feet below grade in each of the borings. Groundwater samples were also collected from the two monitoring wells and one unconverted boring at the site. Analytical laboratory analyses of the water and soil samples were performed by modified U.S. Environmental Protection Agency (EPA) Method 8270, flame-ionization detector (FID), for Total Petroleum Hydrocarbons (TPH)-as-mineral spirits which was the incorrect method and yielded erroneous results (See previous Safety-Kleen Santa Clara reports for a detailed explanation).

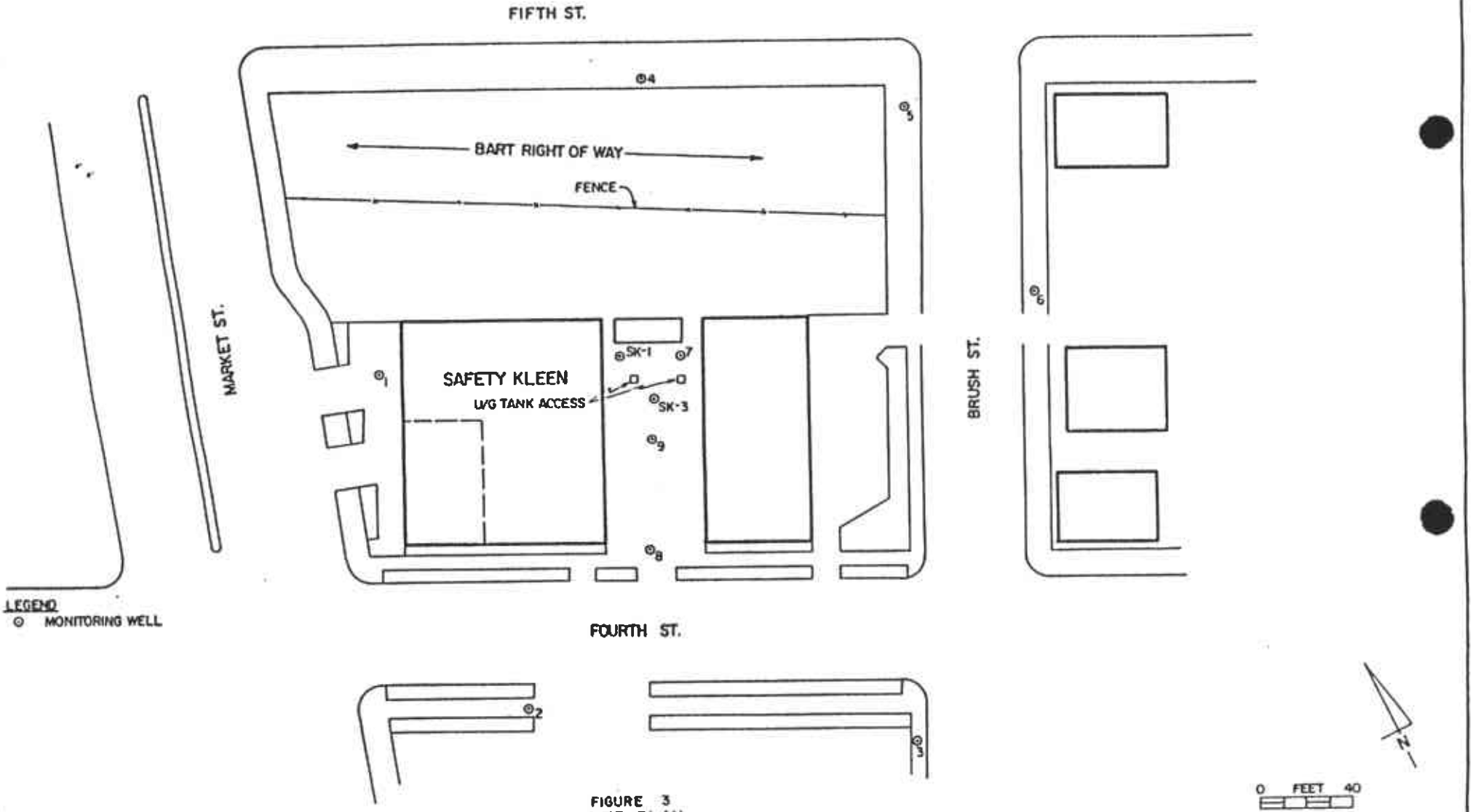


FIGURE 3
SITE PLAN

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

SITE CONDITIONS

GEOLOGY

The geologic formations underlying San Francisco Bay are divided into two distinct units that differ greatly in age and rock type. The bedrock underlying most of the San Francisco Bay is composed of Jurassic and Cretaceous sandstone, siltstone, chert, melange, and ultra-mafic rocks of the Franciscan Complex (Fisher, Brown, and Warner, 1963). The total thickness of the Franciscan Complex is unknown. Late Cenozoic continental and marine sediments of the Alameda Formation uncomformably overly the Franciscan Bedrock and are composed of gravel, sand, silt, and clay which is locally organic-rich and fossiliferous (Redbruch, 1957). Consolidation of the Alameda Formation increases with depth and the maximum known thickness is approximately 1,050 feet.

The Pleistocene-Quaternary Age Merritt sand overlies the Alameda Formation and consists of fine-grained sand and firm, clayey sand that contains bands and stringers of sandy clay and clay. One to two feet of loose sandy silt covers the surface of the sand (Redbruch, 1957). The Merritt sands were deposited by wind and water from beach and nearshore deposits. The maximum known thickness of the Merritt Sand is approximately 65 feet. Beneath the site, the Merritt Sand was encountered in the on-site soil borings and consists of interbedded silty sand and silty, clayey sand to the depths (approximately 45 feet) explored (Appendix I).

HYDROGEOLOGY

The Franciscan Complex basement rocks are the oldest beneath the study area and are considered non-water bearing. The Merritt

sand present beneath the site consists of silty sand and silty, clayey sand and are the major water yielding units in the area. Groundwater in these sediments is mainly unconfined.

Groundwater was found in the borings beneath the site at depths ranging from 10- to 17-feet below grade. Based on recent monitoring data, the groundwater gradient direction is to the south-southwest.

WORK SCOPE

To date, the following scope of work was conducted at the site to delineate the areal extent of subsurface contamination and to mitigate source areas for contamination.

- Conducted soil-gas survey to define lateral extent of subsurface vapor plume.
- Collected soil samples from selected soil-gas probe holes for analysis using U.S. Environmental Protection Agency (EPA) Methods 8010, 8015 and 8020 and for analysis of aquifer grain size distribution by sieve analysis.
- Precision tested all underground tanks and lines at the site using the Petro-Tite™ tank-testing method.
- Installed eight 2-inch diameter PVC monitoring wells and one 4-inch diameter PVC monitoring well based on the results from the soil-gas survey.
- Collected 32 soil samples for analysis by EPA Methods 8010 for chlorinated hydrocarbons and 8015 for Total Petroleum Hydrocarbons (TPH)-as-mineral spirits.
- Surveyed well-head elevations and obtained depth-to-water (DTW) and depth-to-product (DTP) measurements to produce groundwater gradient and product-thickness maps.

- Developed monitoring wells and collected water samples for analysis using EPA Methods 8010 for chlorinated hydrocarbons and 8015 for TPH-as-mineral-spirits.
- Developed and assembled interim product recovery system using probe-activated bladder pumps for use in 2-inch and 4-inch wells (to be implemented September 1988).
- Prepared this Interim Update Assessment Report.

WORK STEPS

SOIL-GAS SURVEY

A soil-gas survey was conducted at the site on June 14, 15 and 16, 1988 to begin preliminary delineation of the areal extent of subsurface contamination and to assist in the placement of monitoring wells. Upon arrival at the site on June 14, 1988, the existing wells were gauged to ascertain depth to groundwater for the resultant soil-gas survey. During the gauging event, the field geologist discovered the presence of approximately 6-feet of phase-separated product resting on top of the water table in the two existing monitoring wells on site. At this point, Safety-Kleen Corporation, as well as local agencies, were notified as to the presence of product in the subsurface.

Thirteen soil-gas probe holes were located on and around the site to a depth of 6 to 10 feet. Vapor samples were extracted from the 6-foot level in all the probe holes and analyzed by a gas chromatograph/flame ionization detector (GC/FID) for total volatilized mineral spirits in parts per million by volume (ppmv). Empirical studies conducted prior to the initiation of the soil-gas survey indicated that this would be a viable field assessment technique for mineral spirits contamination. A representative chromatogram from a sample obtained during the survey can be seen in Figure 4. During the survey it was

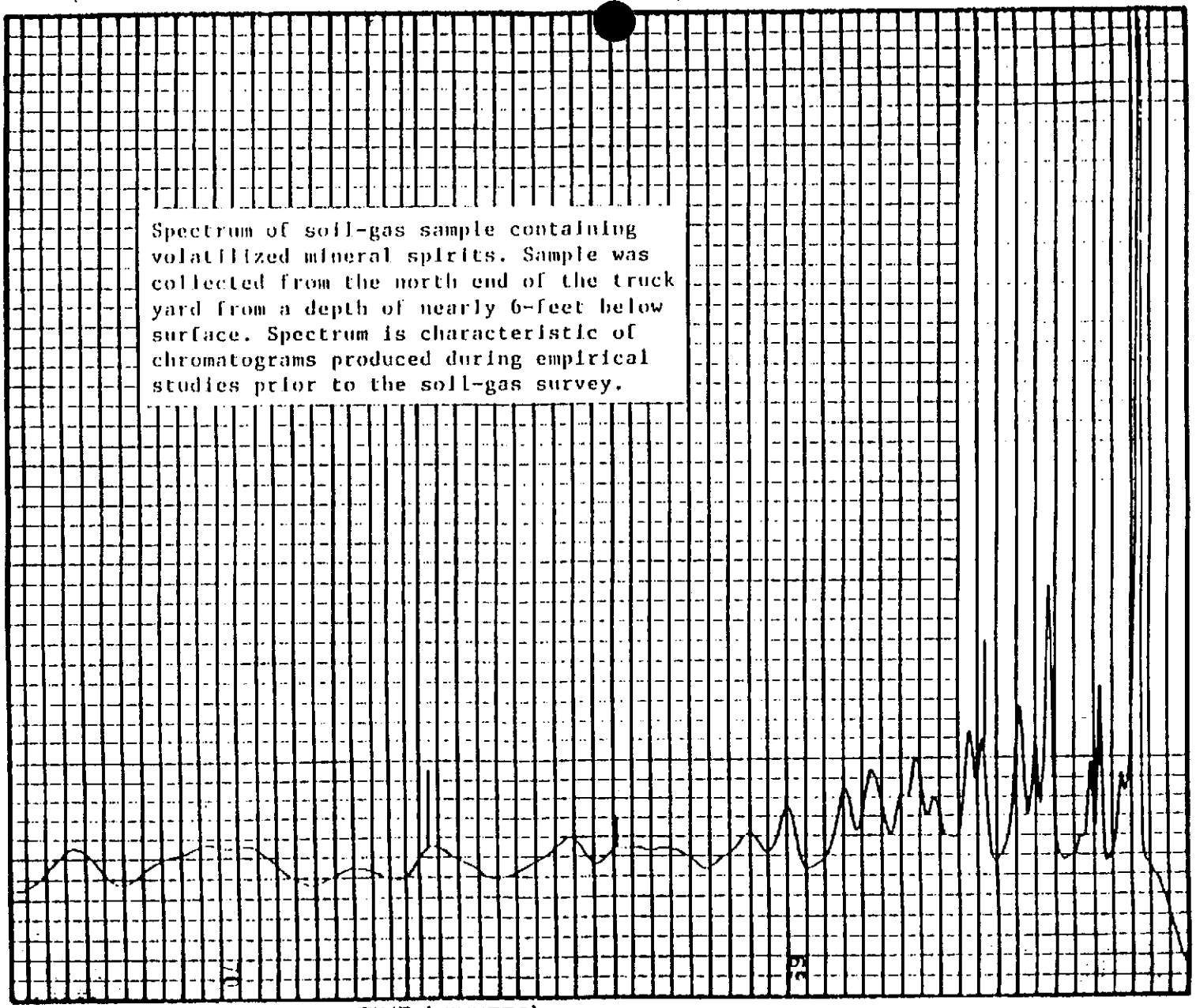


FIGURE 4
VAPOR CHROMATOGRAM

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

determined by the field geologist and geochemist that the best vapor samples were those collected within inches of the capillary fringe due to the relatively low vapor pressure of mineral spirits. The resultant vapor samples collected were analyzed and contoured to produce a subsurface vapor-plume map (Figure 5). The vapor-plume contours indicated that the subsurface plume was restricted to below the parking lot and loading dock areas at the site, and was inferred to be extending beneath both adjacent buildings and the vacant lot directly behind the site.

Seven soil samples were extracted from the capillary fringe from peripheral probe holes to verify the results obtained during the soil-gas survey. The soil samples were analyzed by EPA Methods 8010 and 8015 for chlorinated compounds and TPH-as-mineral spirits, respectively. Analyses of soil samples by EPA Method 8010 indicated levels of chlorinated compounds slightly above the method detection limits in all of the probe holes. Tetrachloroethene was the predominant compound detected with values ranging from 0.79 to 1.6 parts per million (ppm). Analyses of soil samples by Method 8015 indicated that no mineral spirits contamination was present in any of the peripheral probe holes. The analytical laboratory reports are included as part of Appendix II.

Four soil samples were extracted from the aquifer (beneath the water table) from selected probe holes for sieve analyses to determine the proper well screen slot size for monitoring well construction. Sieve analyses data indicated that the proper screen slot size would be 0.010 inch with a #30 Lonestar Sand filter pack. The sieve analyses data is included as part of Appendix II.

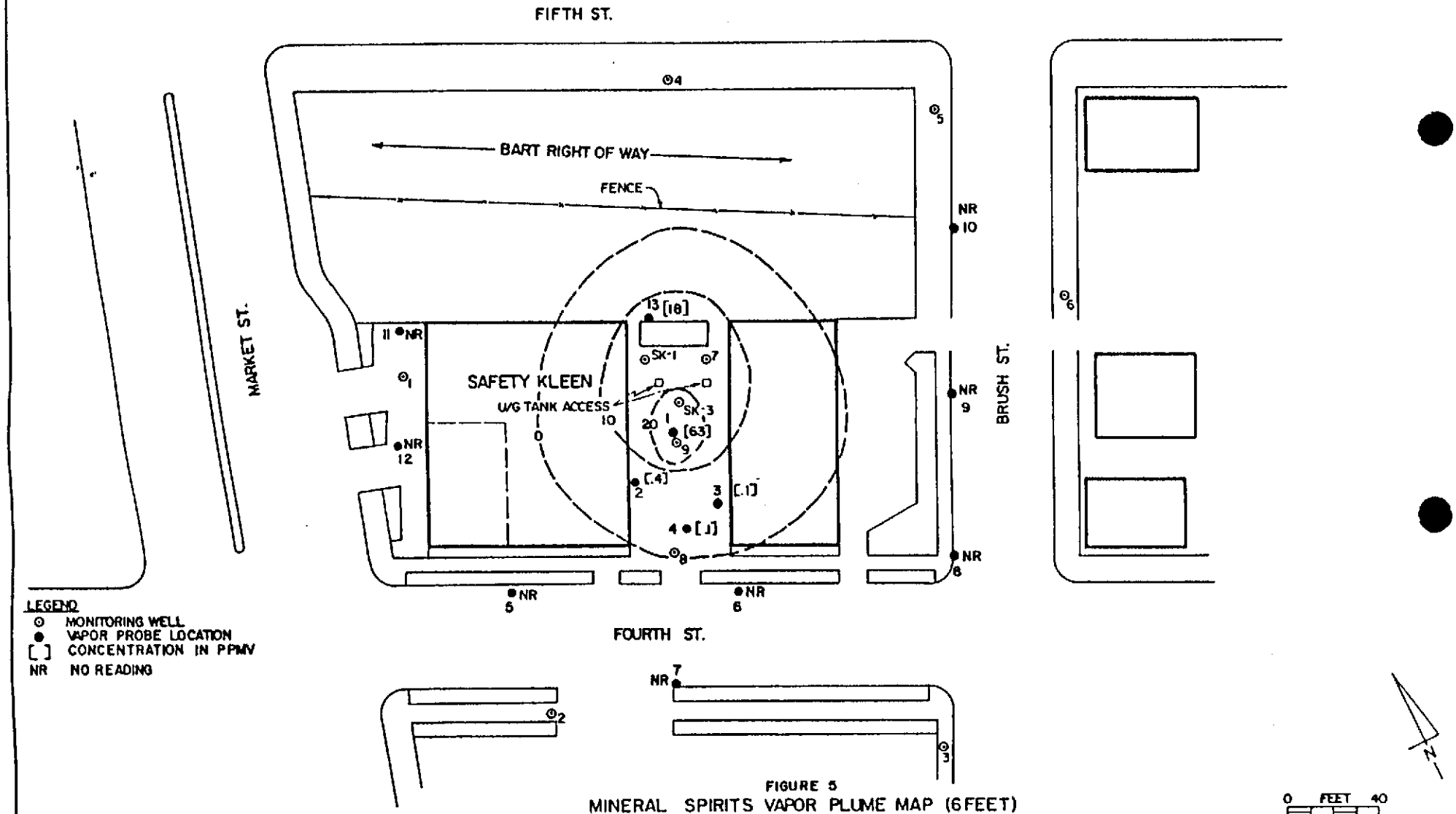


FIGURE 5
MINERAL SPIRITS VAPOR PLUME MAP (6 FEET)

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC

PRECISION TANK TESTING

Due to the large volume of free product in the pre-existing monitoring wells, GTI concluded that the best course of action following the soil-gas survey would be to precision test the USTs and make repairs and recommendations to Safety-Kleen Corporation as necessary. On June 16, 1988, GTI Precision Tank Testing Group arrived on site to ascertain UST locations and to schedule UST top-off for testing. Preliminary tests on the tanks indicated that a variety of piping and fitting leaks were present in the underground piping. During the period from June 16 to July 13, 1988, the USTs were subjected to repeated full-system testing and repair of lines and fittings until they tested "tight". A chronological assessment update was issued on July 12, 1988 by GTI to Safety-Kleen Corporation and to the respective regulatory agencies which outlined in detail the events that transpired between June 16 and July 12, 1988.

MONITORING WELL INSTALLATION

Nine monitoring wells were installed on and around the site from July 25 to July 29, 1988 (Figure 3). The placement of the wells was determined from data derived during the soil-gas survey. The borings for the monitoring wells were drilled using 10.5-inch diameter hollow-stem augers on a truck-mounted drill rig. In eight of the borings, 25 feet of 2-inch diameter 0.010-inch machine-slotted PVC well screen and 5 feet of 2-inch diameter blank PVC casing was installed. In one of the borings, located in the middle of the Safety-Kleen lot, 25 feet of 4-inch 0.010 machine-slotted PVC well screen and 5 feet of 4-inch blank casing was installed. The wells were completed with a No. 30 Lonestar sand filter pack to approximately one foot above the screened interval. In each well, the filter pack was overlain by

one-foot of bentonite and 4-feet of cement grout to surface grade where a traffic-rated street box was installed (Appendix I).

Soil samples were collected from the borings for the monitoring wells at 5-foot intervals in 2-inch diameter by 6-inch-long brass sample tubes beginning at 3.5-feet below grade and continuing to the depths explored (maximum depth approximately 45 feet). All soil samples were sealed with aluminum foil, plastic caps and duct tape, labeled with the appropriate borehole information and type of analysis, and placed on ice for subsequent delivery to GTEL Environmental Laboratories (GTEL), a state-certified laboratory. All of the samples were accompanied by a chain-of-custody manifest. The samples were analyzed by EPA Methods 8010 for chlorinated hydrocarbons and 8015 for TPH-as-mineral spirits.

MONITORING WELL DEVELOPMENT

The monitoring wells on and around the site were developed on August 1 and 2, 1988. The wells were developed by using a 40-inch acrylic bailer to purge five to ten well volumes out of the well bore, or until the water in the well bore became clear and sediment free. Water generated during the development was stored in labeled drums on site. The groundwater was allowed two days to re-equilibrate before sampling.

GROUNDWATER MONITORING AND SAMPLING

The tops of the well casings were surveyed prior to monitoring so that a reference datum could be obtained from which a groundwater gradient map could be produced. Groundwater monitoring and sampling was conducted on August 4, 1988. Prior

to sampling, depth-to-water and depth-to-product measurements were taken from the top of the well casing.

Groundwater sampling was conducted by first purging approximately five well volumes from each well bore and then allowing the wells to recover to at least eighty percent of their original static level. Groundwater samples were then obtained using an EPA-approved Teflon^{R} sampler where water from the sampler was subsequently decanted into 40 milliliter glass vials with plastic caps and Teflon^{R} septums such that no air was trapped inside. The groundwater samples were then labelled, placed on ice and delivered to GTEL under a chain-of-custody manifest for subsequent analyses by EPA Methods 8010 for chlorinated hydrocarbons and 8015 for TPH-as-mineral spirits.

RESULTS

SOIL SAMPLES

Of the thirty-two soil samples analyzed by EPA Method 8015 for TPH-as-mineral spirits, only seven showed results above method-detection limits (10 ppm). Soil collected from five, ten, fifteen, and twenty feet in the boring for MW-7 showed 520, 2400, 18, and 15 parts per million of mineral spirits contamination, respectively. Soil collected from five, ten and twenty-five feet in the boring for MW-9 showed 240, 52,000 and 25 ppm of mineral spirits contamination, respectively. These results are shown in Table 1 on the next page. The laboratory reports are presented in Appendix III.

TABLE 1
SOIL SAMPLES
ANALYTICAL LABORATORY RESULTS
TPH-AS-MINERAL SPIRITS DETECTED

SAMPLE NUMBER	DEPTH (ft)	DETECTABLE MINERAL SPIRITS CONCENTRATION (ppm)
7A	5	520
7B	10	2400
7C	15	18
7D	20	15
9A	5	240
9B	10	52,000
9E	25	25

Of the same thirty-two soil samples, analyzed by EPA Method 8010 for chlorinated hydrocarbons showed only five results above method detection limits (0.5 ppm). Soil collected from 5 feet in MW-3, five and ten feet in MW-7, and five and ten feet in MW-9 showed only slightly elevated levels of contamination. The levels of contamination detected are displayed in Table 1. The laboratory reports are included in Appendix III.

TABLE 2
SOIL SAMPLES
CHLORINATED COMPOUNDS DETECTED
(PPM)

	SOIL SAMPLE NUMBER				
COMPOUND	MW-3A*	MW-7A	MW-7B**	MW-9A	MW-9B
Methylene Chloride	1.0	ND	ND	ND	ND
Tetrachloroethene	ND	ND	1.6	ND	1.7
1,1,1-TCA	ND	0.6	2.3	ND	3.7
Trans 1,2-DCE	ND	ND	ND	ND	1.3
Chlorobenzene	ND	ND	ND	1.2	3.1

* A = 5 feet
** B = 10 feet
ND = Not Detectable

GROUNDWATER SAMPLES

Seven groundwater samples were collected on August 4, 1988 for laboratory analyses by EPA Methods 8010 for chlorinated hydrocarbons and 8015 for TPH-as-mineral spirits. Wells containing free product were not sampled as per state regulations. Detectable levels of chlorinated hydrocarbons were found in all water samples collected. However, detectable levels of mineral spirits contamination were not found in any of the samples. A summary of the analytical laboratory results are displayed in Table 2. The laboratory results are included in Appendix IV.

TABLE 3
GROUNDWATER ANALYTICAL LABORATORY RESULTS
CHLORINATED COMPOUNDS DETECTED
(PPB)

COMPOUND	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-8
Chlorobenzene	ND	ND	ND	ND	ND	ND	1.5
Chloroform	1.6	ND	ND	ND	ND	ND	ND
1, 1-DCA	ND	ND	1.9	ND	ND	ND	ND
1, 2-DCA	ND	ND	2.2	ND	ND	ND	6.8
Trans 1,2-DCA	ND	ND	0.59	32.0	ND	ND	3.7
Methylene Chloride	4.2	4.3	5.0	ND	ND	1.1	4.6
TCE	ND	ND	13.0	760	2.1	5.0	67.0

DCA = Dichloroethane
TCE = Trichloroethene
ND = Not Detected

As evidenced from the sampling data, chlorinated compound concentrations in the wells are not consistent, and are therefore not mappable, with the exception of trichloroethene (TCE). It is feasible that more consistent data will be presented in future sampling rounds. A plume map of dissolved TCE concentrations in groundwater based on the first round of water samples collected is presented in Figure 6. The item of most interest on this map is that the highest concentrations of TCE are in the present upgradient direction.

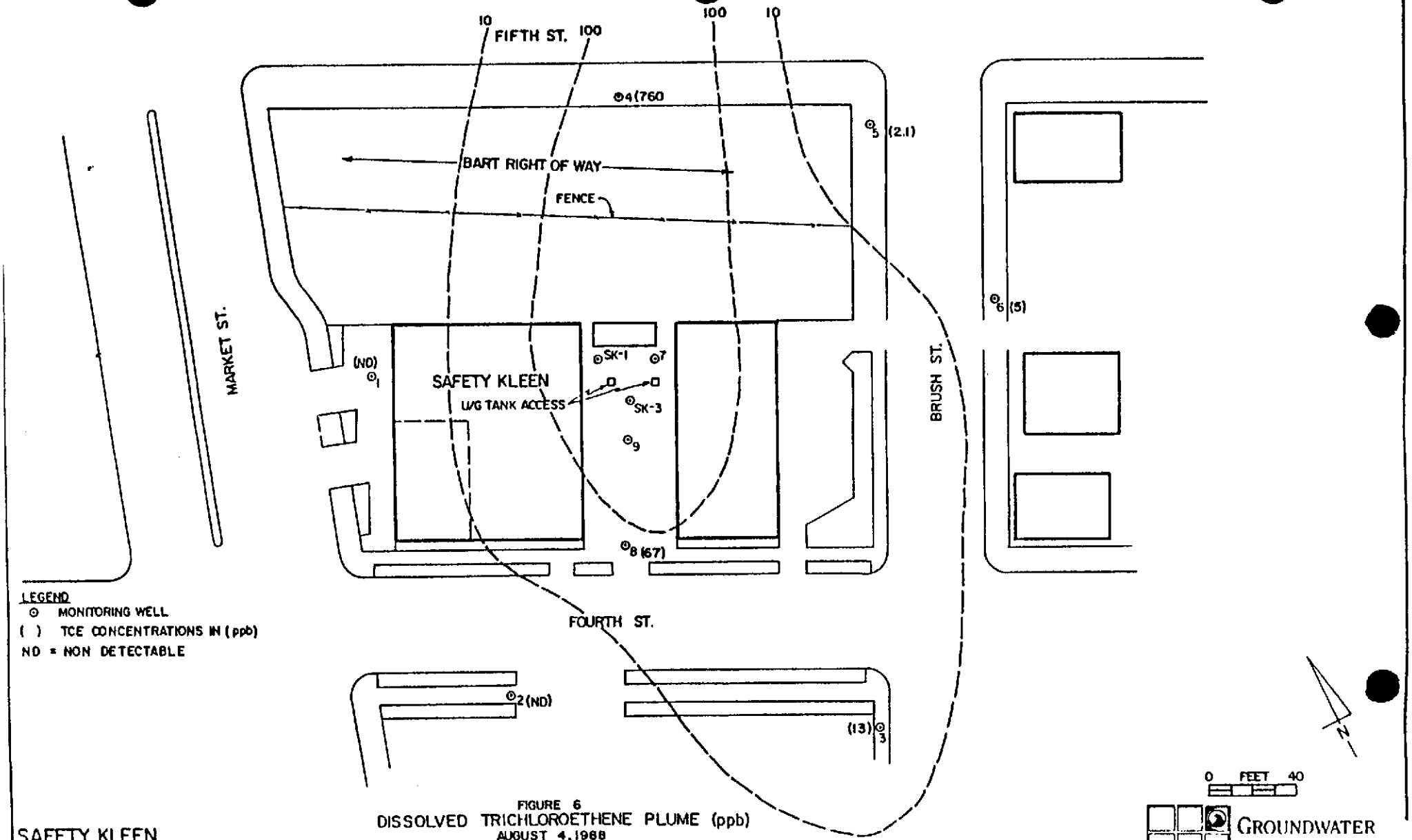


FIGURE 6
DISSOLVED TRICHLOROETHENE PLUME (ppb)
AUGUST 4, 1988

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

GROUNDWATER MONITORING

Groundwater monitoring conducted on August 4, 1988 showed that groundwater exists beneath the site at depth ranging from 7 to 12 feet below surface grade. Groundwater monitoring data (Table 4) was plotted and contoured to produce a groundwater gradient map (Figure 7). The groundwater gradient direction depicted is to the southwest.

Phase-separated product was found in four on-site wells located around the tank-pit area (Figure 2). Phase-separated product thickness data (Table 4) were collected along with groundwater monitoring data and are contoured on a separate map (Figure 8). Based on the data collected, phase-separated product accumulation appears to be restricted to within 30 feet of the tank pit area and probably extends under both buildings adjacent to the tank pit as well as beneath the vacant lot behind the property. Estimates as to the quantity of product accumulated in the subsurface may reach as high as 25,000 to 50,000 gallons based on product thickness, areal extent, and average porosity of the sediments (estimated to be 20 to 30 percent).

INTERIM PRODUCT RECOVERY SYSTEM

GTI has designed an interim product recovery system for the Oakland site. The recovery system is designed to extract only phase-separated product from the subsurface and is not designed to recover and treat contaminated water. This system will remain in use until the final remedial system is installed which will be designed to recover phase-separated product as well as to extract and treat contaminated groundwater.

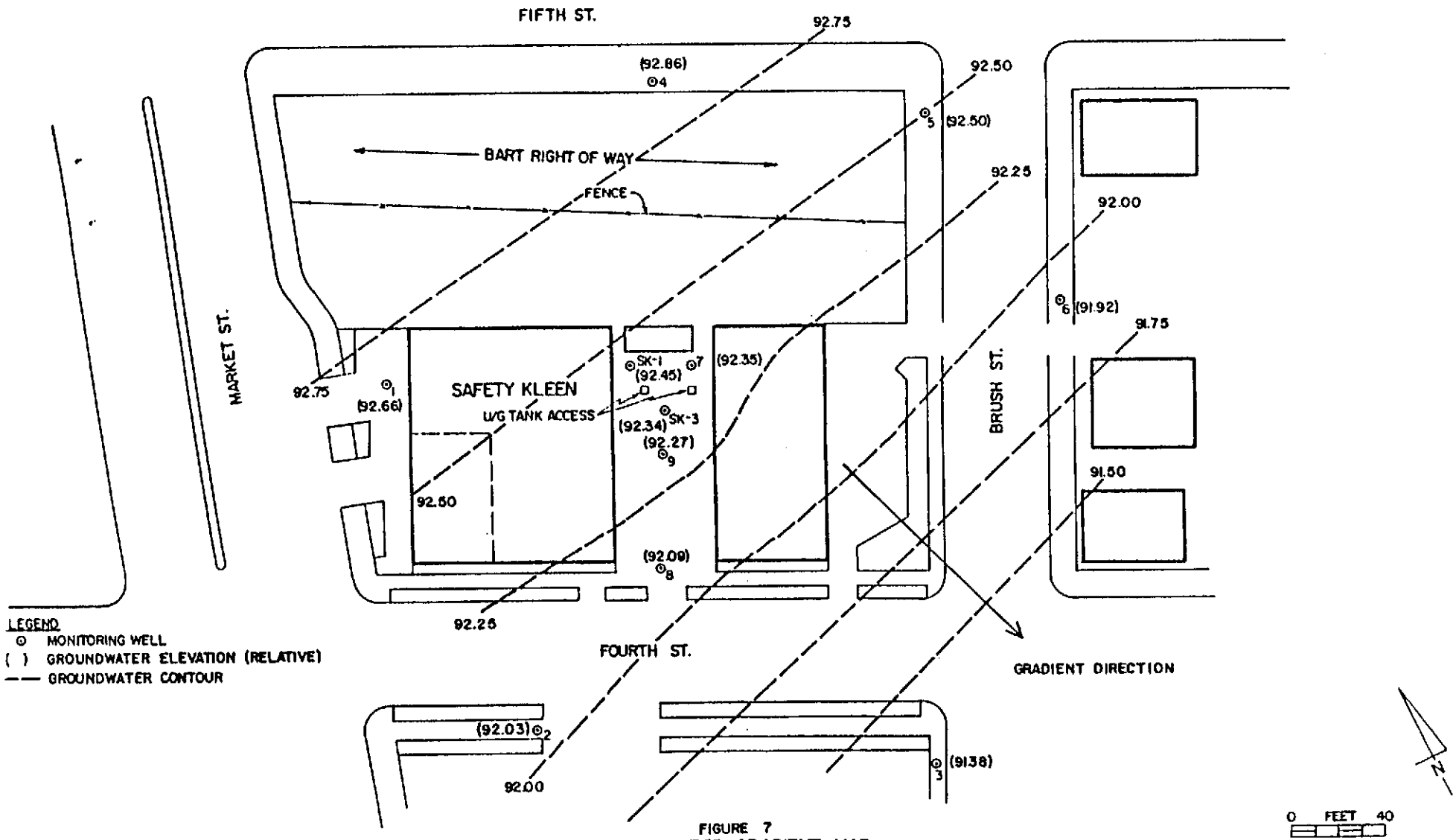


FIGURE 7
GROUNDWATER GRADIENT MAP
AUGUST 4, 1988

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

TABLE 4

MONITORING DATA

DATE		MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	SK-1	SK-3
	ELEV. (ft.)	100.13	100.40	98.84	102.47	102.48	101.12	100.77	100.00	100.41	100.64	100.64
8/04/88	DTW	7.47	8.37	7.46	9.61	9.98	9.20	10.63	7.91	9.26	12.28	12.37
	DTP	-	-	-	-	-	-	7.87	-	7.86	7.17	7.28
	PT	-	-	-	-	-	-	2.76*	-	1.40*	5.11	5.09

All Measurements in feet

* Before Development of Well

MD5016A.01

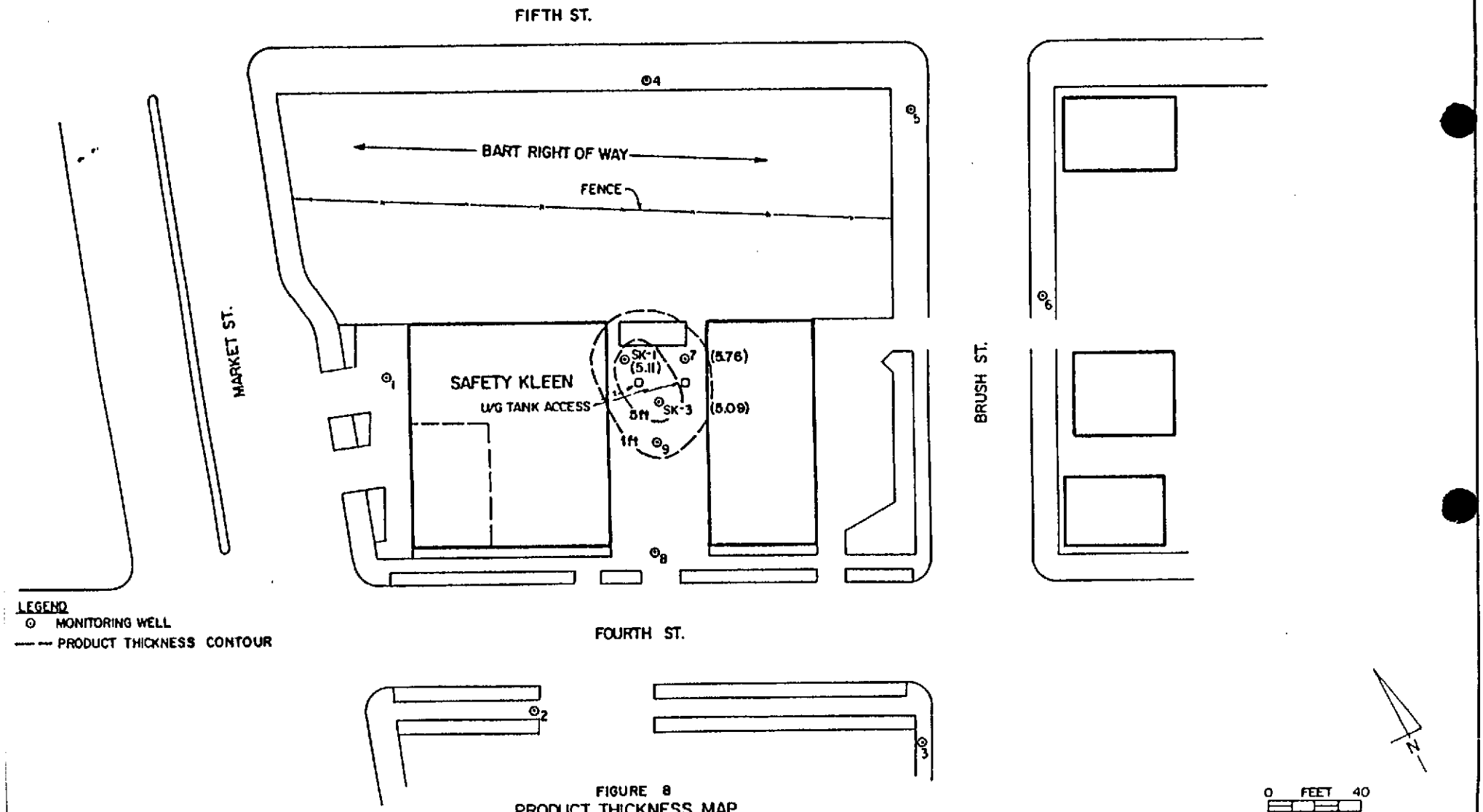


FIGURE 8
PRODUCT THICKNESS MAP
AUGUST 4,1988

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

The interim product recovery system consists of hydrocarbon sensitive, probe-activated, air bladder pumps. The probe and pump assembly are designed for use in wells as small as two inches in diameter. The product recovery pumps will be installed in the wells located in the phase-separated product plume and will recover product at a rate of 1- to 3-gallons per minute (gpm). The product lines from the pumps will be run above grade under portable speed bumps so that no damage will result to the lines from normal traffic usage in the area. The discharge of the product lines will be directed through a flow totalizer and then into the dumpster receptacles on the loading dock which subsequently feed the spent product underground storage tanks at the site (Figure 9). Directing product recovery to the UST will allow recycling of the recovered product rather than forcing implementation of waste hauling or disposal. It is anticipated that the interim product recovery system will be in operation by the end of the third week of September.

REFERENCES

Redbruch, Dorothy, H., 1957, Areal and Engineering Geology of Oakland West Quadrangle, California; U.S.G.S. Miscellaneous Map Investigations, Map I-239.

Fisher, Hugo, Brown, Edmund, G. and Warner, William E., 1963, Alameda County Investigation; The Resources Agency of California; Department of Water Resources, Bulletin No. 13.

CWE-HDR, 1986, Subsurface Investigation and Leak Monitoring Installation at the Oakland Safety-Kleen service facility.

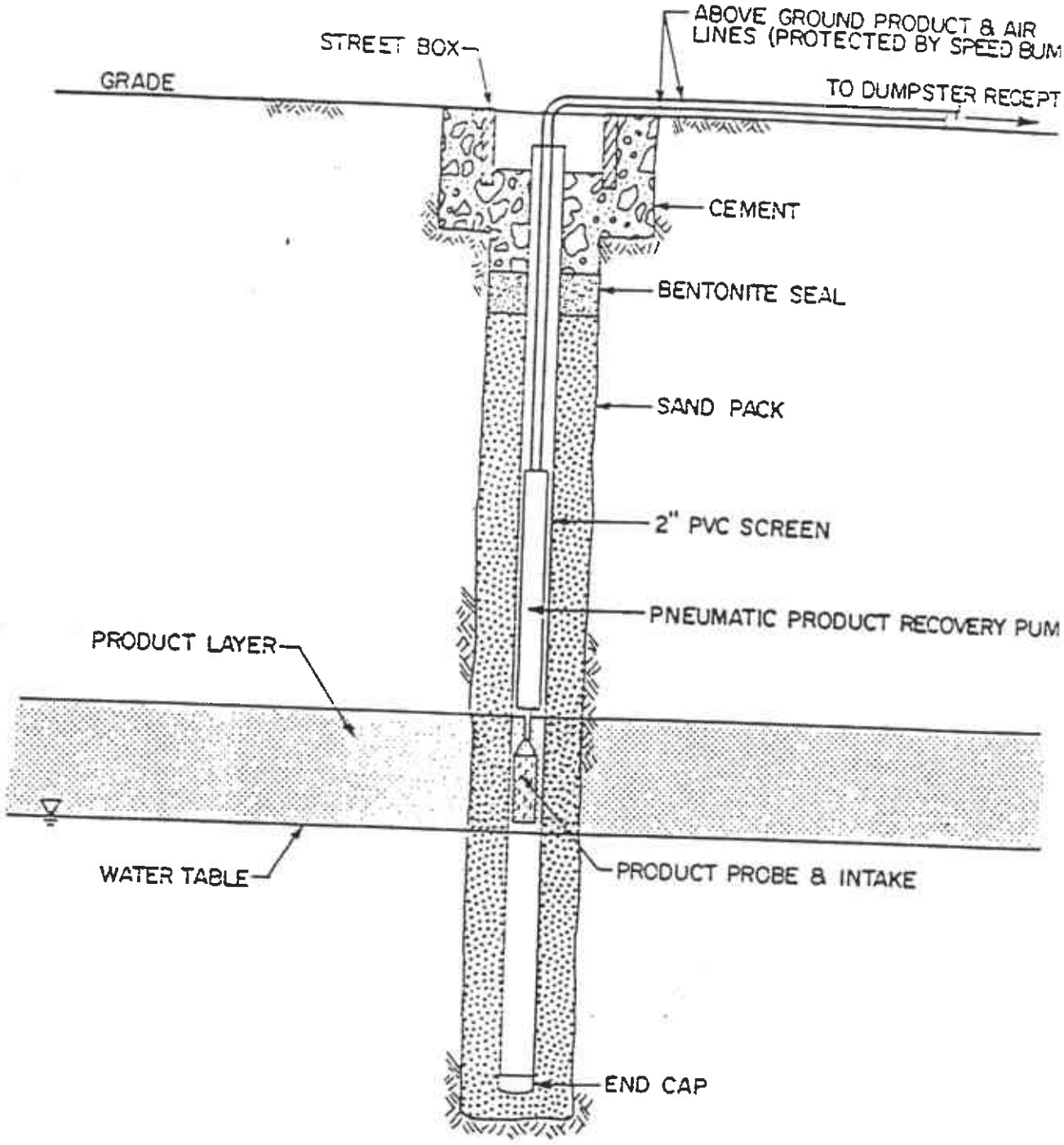


FIGURE 9

INTERIM PRODUCT RECOVERY SYSTEM

NO SCALE

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, I

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 1 — Drilling Log

Project Safety Kleen/Oakland — Owner Safety Kleen
Location Oakland, CA — Project Number 203 680 5016.01
Date Drilled 7/25/88 — Total Depth of Hole 45 ft — Diameter 10.5 in
Surface Elevation ____ — Water Level Initial 10 ft — 24-hour ____
Screen: Dia. 2 in — Length 25 ft — Slot Size .010 in
Casing: Dia. 2 in — Length 5 ft — Type PVC
Drilling Company Sierra Pacific — Drilling Method hollow stem augers
Driller Chris DeSocio — Log by Kelly A. Kline
Geologist / Engineer ____ — License No. ____

Sketch Map

See Site Plan

Notes:
Hole colapsed to 30 ft after drilling

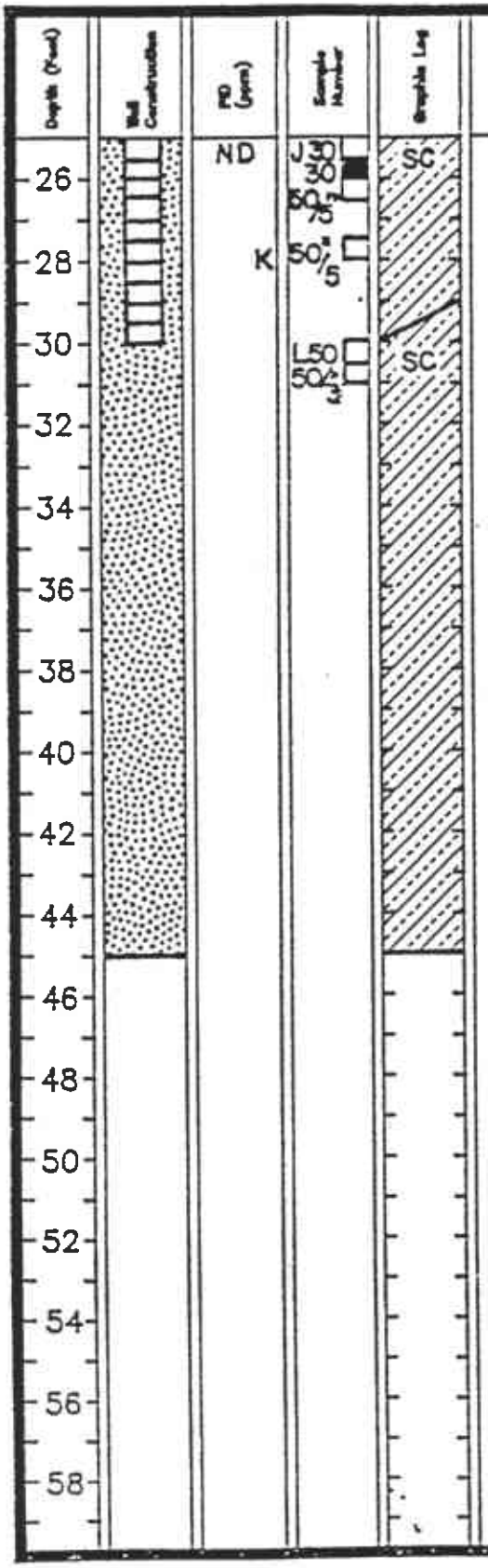
Depth (feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
0					6 in asphalt over 6 in base coarse
2		ND	A 7 8 11	SC	Dark reddish brown clayey silty sand (medium dense, moist, no product odor)
4					(grades lighter brown)
6		ND	B 7 15 19		(grades darker brown)
8			C 7 9 10		(grades more clayey)
10		ND	D 5 6 10		▼ Encountered water 7/25/88 (1141 hrs.)
12		ND	E 6 5 8	SC	Light brown silty clayey fine to medium sand (no product odor)
14					
16		ND	F 7 7 9		
18		ND	G 12 12 16		
20		ND	H 20 40 54		
22		ND	I 11 46 50/5"	CL	Light brown sandy clay (hard, wet, no product odor)
24					

6/88 REV. 0

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 1

Drilling Log



Description/Soil Classification
(Color, Texture, Structures)

Light brown clayey sand (very dense, wet, no product odor)

(grades find sand)

Grey clayey sand (very dense, wet, no product odor)

End of boring. Installed monitoring well (hole colapsed to 30 ft).

6/86 REV. 8

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 2

Drilling Log

Project Safety Kleen/Oakland Owner Safety Kleen
Location Oakland, CA Project Number 203 680 5016.01
Date Drilled 7/26/88 Total Depth of Hole 31 ft Diameter 10.5 in
Surface Elevation ____ Water Level Initial 11 ft 24-hour ____
Screen: Dia. 2 in Length 25 ft Slot Size .010 in
Casing: Dia. 2 in Length 5 ft Type PVC
Drilling Company Sierra Pacific Drilling Method hollow stem augers
Driller William Coleman Log by Kelly A. Kline
Geologist / Engineer ____ License No. ____

Sketch Map

See Site Plan

Notes:

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
0					8 in concrete over 4 in base course
2				ML	Dark brown sandy silt (soft, moist, no product odor)
4		ND	A 3 4 4	SC	Light brown clayey silty fine sand (loose, moist, no product odor)
6					(grades more clayey)
8			B 10 10 10		(grades medium dense)
10					▼ Encountered water 7/26/88 (0830 hrs.)
12					Light brown clayey silty very fine to fine sand, (medium dense, wet, no product odor)
14			C 11 12 15	SC	
16					
18			D 7 8 11		
20				CL	Light brown sandy clay (very stiff, wet, no product odor)
22				SC	Light brown clayey silty fine sand (very dense, wet, no product odor)
24			E 50/6"		

8/88 REV. 0

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 2

Drilling Lo

Depth (feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				SC	Light brown clayey silty sand (cont'd)
28					
30			F25		
			50/4"		End of boring. Installed monitoring well.
32					
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 3

Drilling Log

Project Safety Kleen/Oakland Owner Safety Kleen
Location Oakland, CA Project Number 203 680 5016.01
Date Drilled 7/26/88 Total Depth of Hole 30.5 ft Diameter 10.5 in
Surface Elevation ____ Water Level Initial 12 ft 24-hour ____
Screen: Dia. 2 in Length 25 ft Slot Size .010 in
Casing: Dia. 2 in Length 5 ft Type PVC
Drilling Company Sierra Pacific Drilling Method hollow stem augers
Driller William Coleman Log by Kelly A. Kline
Geologist / Engineer ____ License No. ____

Sketch Map

See Site Plan

Notes:

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
0					8 in concrete over 4 in base course
2				ML	Dark brown sandy silt (soft, moist, no product odor)
4		ND	A 4 5 5	SC	Light brown clayey silty very fine to fine sand (medium dense, moist, no product odor)
6					(grades more clayey)
8		ND	B 8 10 10		
10					
12					▼ Encountered water 7/26/88 (1500 hrs.)
14		ND	C 5 9 16		Light brown silty clayey very fine to fine sand (medium dense, wet, no product odor)
16				SC	
18		ND	D 7 9 11		Light brown sandy clay (very stiff, wet, no product odor)
20				CL	
22					Light brown clayey silty very fine to fine sand (dense, wet, no product odor)
24		ND	E 7 12 20	SC	

6/88 REV. 0

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 3

Drilling Log

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				SC	Light brown clayey silty sand (cont'd)
28					
30			F 15 50/1"		End of boring. Monitoring well installed.
32					
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 4

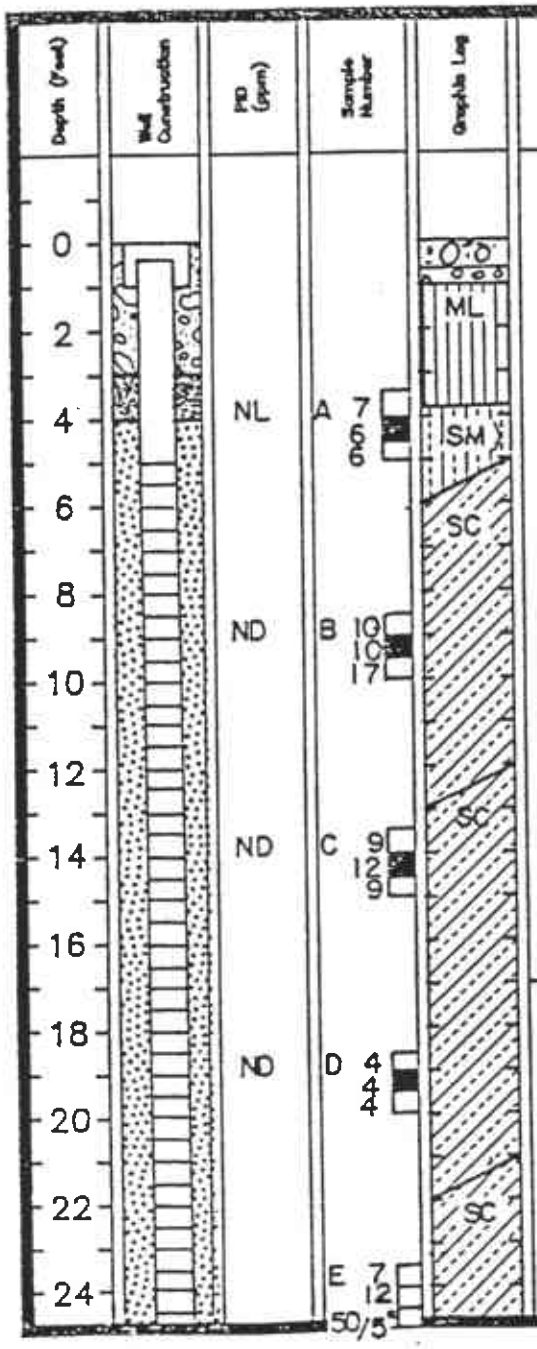
Drilling Log

Project Safety Kleen/Oakland Owner Safety Kleen
Location Oakland, CA Project Number 203 680 5016.01
Date Drilled 7/27/88 Total Depth of Hole 31 ft Diameter 10.5 in
Surface Elevation Water Level Initial 17 ft 24-hour
Screen: Dia. 2 in Length 5 ft Slot Size .010 in
Casing: Dia. 2 in Length 25 ft Type PVC
Drilling Company Sierra Pacific Drilling Method hollow stem augers
Driller William Coleman Log by Kelly A. Kline
Geologist / Engineer License No.

Sketch Map

See Site Plan

Notes:



Description/Soil Classification
(Color, Texture, Structures)

8 in concrete over 4 in base course

Dark brown sandy silt (soft, moist, no product odor)

Light brown silty fine sand (medium dense, moist, no product odor)

Light brown silty clayey medium to fine sand (medium dense, moist, no product odor)

Light brown clayey silty very fine to fine sand (medium dense, moist, no product odor)

▼ Encountered water 7/27/88 (1300 hrs.)

Light brown clayey silty fine sand (medium dense, wet, no product odor)

6/88 REV. C

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 4

Drilling Log

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				SC	Light brown clayey silty sand (cont'd)
28					
30			F	SC	Grey clayey sand (dense, wet, no product odor)
32					End of boring. Installed monitoring well.
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 5

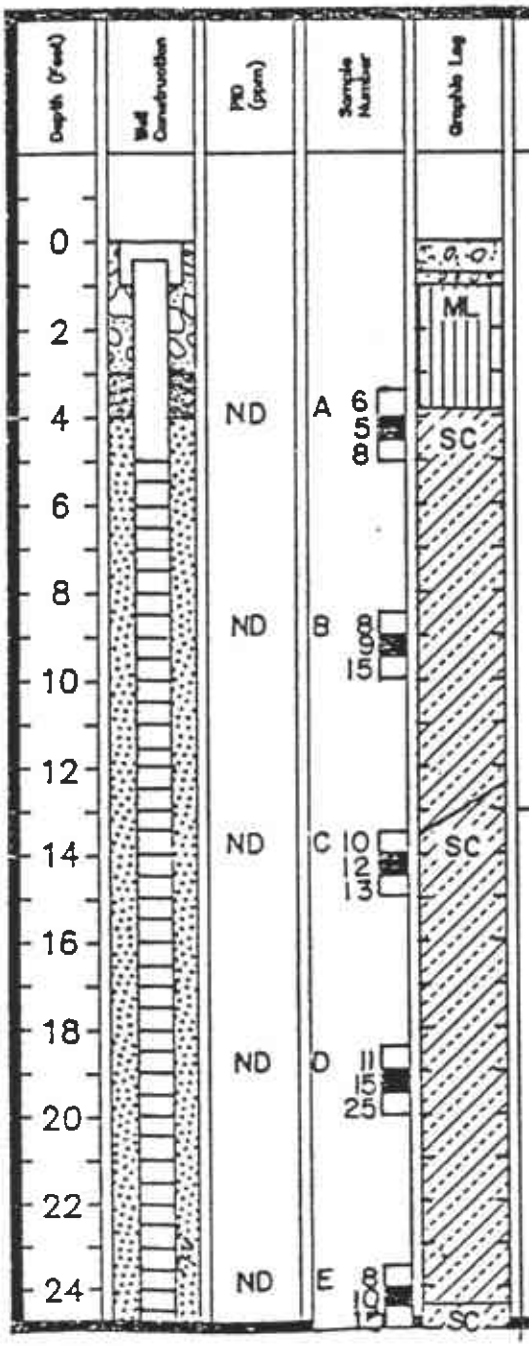
Drilling Log

Project Safety Kleen/Oakland Owner Safety Kleen
Location Oakland, CA Project Number 203 680 5016.01
Date Drilled 7/27/88 Total Depth of Hole 30.5 ft Diameter 10.5 in
Surface Elevation ____ Water Level Initial 13 ft 24-hour ____
Screen: Dia. 2 in Length 25 ft Slot Size .010 in
Casing: Dia. 2 in Length 5 ft Type PVC
Drilling Company Sierra Pacific Drilling Method hollow stem augers
Driller William Coleman Log by Kelly A. Kline
Geologist / Engineer ____ License No. ____

Sketch Map

See Site Plan

Notes:



Description/Soil Classification
(Color, Texture, Structures)

8 in concrete over 4 in base course

Dark brown sandy silt (soft, moist, no product odor)

Light brown clayey silty fine-medium sand (medium dense, moist, no product odor)

(grades more clayey)

▼ Encountered water 7/27/88 (1600 hrs.)

Light brown clayey silty fine sand (medium dense, wet, no product odor)

Light brown clayey silty fine sand (medium dense, no product odor)

6/88 REV. C

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 5

Drilling Log

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				SC	Light brown clayey silty sand (cont'd)
28					
30			F	SC	Grey clayey sand (loose, wet, no product odor)
32					End of boring. Installed monitoring well.
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

6/88 REV. B

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 6

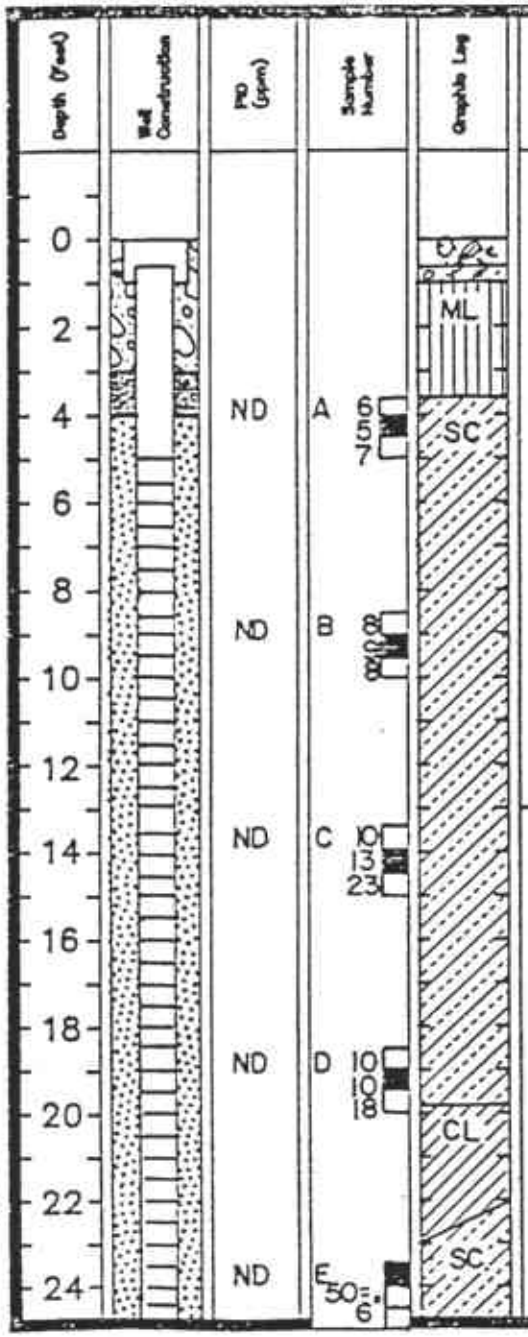
Drilling Log

Project Safety Kleen/Oakland Owner Safety Kleen
Location Oakland, CA Project Number 203 5016.01
Date Drilled 7/28/88 Total Depth of Hole 30.5 ft Diameter 10.5 in
Surface Elevation ____ Water Level Initial 13 ft 24-hour ____
Screen: Dia. 2 in Length 25 ft Slot Size .010 in
Casing: Dia. 2 in Length 5 ft Type PVC
Drilling Company Sierra Pacific Drilling Method Hollow stem augers
Driller William Coleman Log by Kelly A. Kline
Geologist / Engineer ____ License No. ____

Sketch Map

See Site Plan

Notes:



Description/Soil Classification (Color, Texture, Structures)

6 in concrete over 6 in base course

Dark brown sandy silt (soft, moist, no product odor)

Light brown clayey silty fine sand (medium dense, no product odor)

▼ Encountered water 7/28/88 (0850 hrs.)

Light brown sandy clay (stiff, wet, no product odor)

Light brown clayey silty fine sand (dense, wet, no product odor)

6/88 REV C

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 6

Drilling Log

Depth (Feet)	Well Construction	P.I.D. (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				SC	Light brown clayey silty fine sand (cont'd)
28					
30		ND	F - ■	SC	Grey clayey sand (loose, wet, no product odor)
					End of boring. Installed monitoring well.
32					
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 7

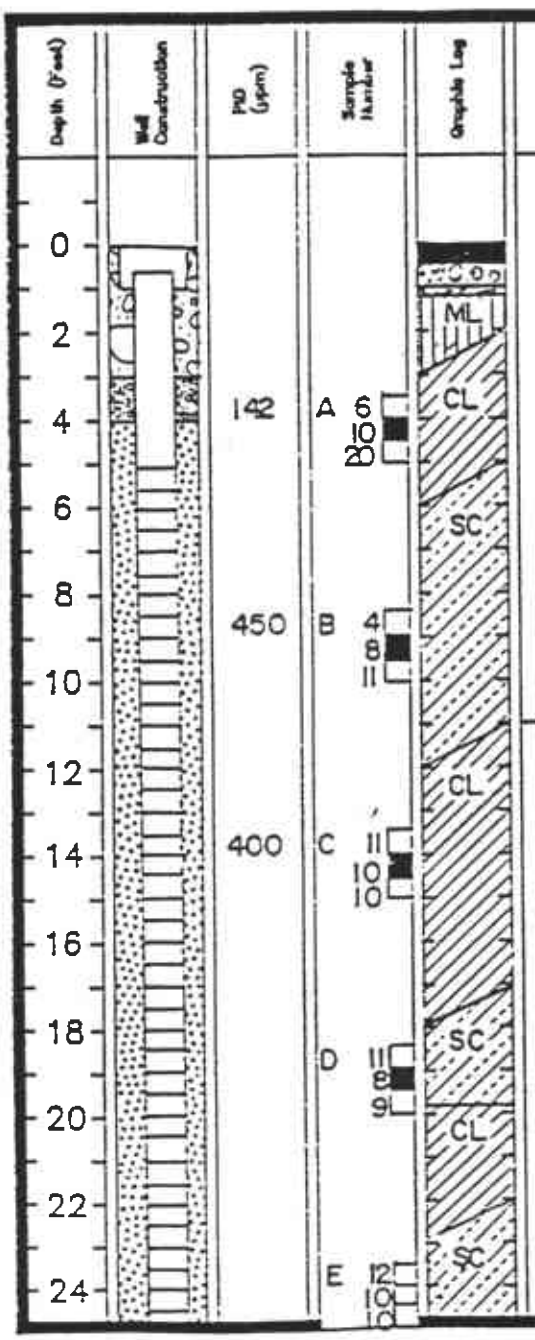
Drilling Log

Project Safety Kleen/Oakland Owner Safety Kleen
Location Oakland, CA Project Number 203 680 5016.01
Date Drilled 7/28/88 Total Depth of Hole 30.5 ft Diameter 10.5 in
Surface Elevation ____ Water Level Initial 11 ft 24-hour ____
Screen: Dia. 2 in Length 25 ft Slot Size .010 in
Casing: Dia. 2 in Length 5 ft Type PVC
Drilling Company Sierra Pacific Drilling Method hollow stem augers
Driller William Coleman Log by Kelly A. Kline
Geologist / Engineer ____ License No. ____

Sketch Map

See Site Plan

Notes:



Description/Soil Classification
(Color, Texture, Structures)

6 in asphalt over 6 in base course

2 in concrete layer

Dark black sandy silt (soft, moist, strong product odor)

Dark black clayey sand (loose, moist, strong product odor)

Light brown clayey sand (medium dense, wet, strong product odor)

▼ Encountered water 7/28/88 (1400 hrs.)

Blue-grey, tan mottled, sandy clay (very stiff, wet, strong product odor)

Blue-grey, tan mottled, clayey sand (medium dense, wet, strong product odor)

Light brown sandy clay (stiff, wet, product odor)

Light brown clayey sand (medium dense, wet, product odor)

6/88 REV. C

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 7

Drilling Log

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				SC	Light brown clayey silty fine sand (cont'd)
28					
30				SC	Grey clayey sand (loose, wet, product odor) End of boring. Installed monitoring well.
32					
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 8

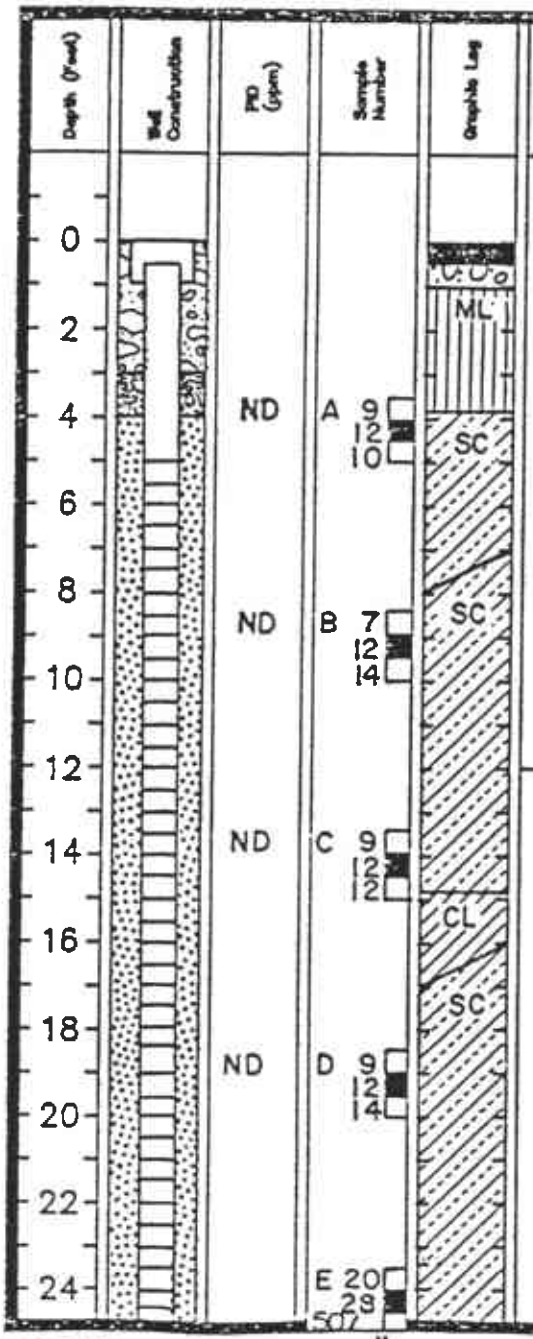
Drilling Log

Project Safety Kleen/Oakland Owner Safety Kleen
Location Oakland, CA Project Number 203 680 5016.01
Date Drilled 7/29/88 Total Depth of Hole 30.5 ft Diameter 10.5 in
Surface Elevation ____ Water Level Initial 12 ft 24-hour ____
Screen: Dia. 2 in Length 25 ft Slot Size .010 in
Casing: Dia. 2 in Length 5 ft Type PVC
Drilling Company Sierra Pacific Drilling Method hollow stem auger
Driller William Coleman Log by Kelly A. Kline
Geologist / Engineer ____ License No. ____

Sketch Map

See Site Plan

Notes:



Description/Soil Classification
(Color, Texture, Structures)

6 in asphalt over 6 in base course

Dark black sandy silt (soft, moist, no product odor)

Light brown clayey silty very fine to fine sand (medium dense, moist, no product odor)

Light brown silty clayey very fine to fine sand (medium dense, moist, no product odor)

▼ Encountered water 7/29/88 (1000 hrs.)

Light brown, grey mottled, sandy clay (very stiff, wet, no product odor)

Light brown clayey silty very fine to fine sand (medium dense, loose, wet, no product odor)

6/86 REV. C

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 9

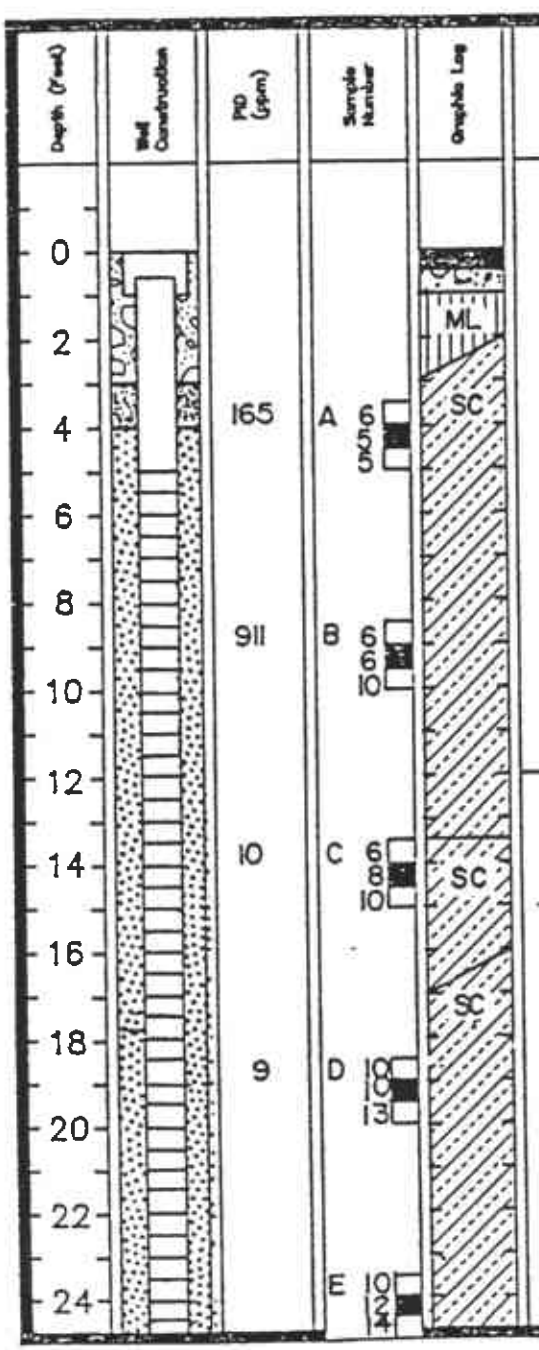
Drilling Log

Project Safety Kleen/Oakland Owner Safety Kleen
Location Oakland, CA Project Number 203 680 5016.01
Date Drilled 7/29/88 Total Depth of Hole 30.5 ft Diameter 10 in
Surface Elevation ____ Water Level Initial 12 ft 24-hour ____
Screen: Dia. 4 in Length 25 ft Slot Size .010 in
Casing: Dia. 4 in Length 5 ft Type PVC
Drilling Company Sierra Pacific Drilling Method hollow stem auger
Driller William Coleman Log by Kelly A. Kline
Geologist / Engineer ____ License No. ____

Sketch Map

See Site Plan

Notes:



Description/Soil Classification
(Color, Texture, Structures)

6 in asphalt over 6 in base course
Dark black sandy silt (soft, moist, strong product odor)

Dark brown clayey silty very fine to fine sand (loose, moist, very strong product odor)

(grades medium dense)

Encountered water 7/29/88 (1400 hrs.)

Light brown, grey mottled, clayey silty very fine, to fine sand (medium dense, wet, no product odor)

Light brown clayey, silty very fine to fine sand (medium dense, loose, wet, product odor)

6/88 REV. C

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 9

Drilling Log

Depth (feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				SC	Light brown clayey silty sand (cont'd)
28					
30			F 50/4"	SC	Grey clayey sand (dense, wet, no product odor)
32					End of boring. Installed monitoring well.
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

APPENDIX II

SOIL-GAS SAMPLE AND SIEVE ANALYSIS

GTEL
Environmental
Laboratories
division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
Groundwater Technology, Inc.
4080 Pike Ln.
Concord, CA 94520
PROJECT#: 203-680-5016-.01-2AA
LOCATION: Oakland, CA

SAMPLED: 06/16/88 BY: W. Schaal
RECEIVED: 06/17/88 BY: K. Biava
ANALYZED: 06/24/88 P. Sra
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	25557A #13	25558A #12	25559A #11	25560 #9
Benzene	0.1		<0.1	<0.1	<0.1	0.54
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.2		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.1		<0.1	<0.1	<0.1	0.54
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		0.89	1.3	1.2	1.3
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0
Xylenes	0.2		<0.2	<0.2	<0.2	2.0
Toulene	0.1		<0.1	<0.1	<0.1	0.66

MDL = Method Detection Limit.
METHOD:
EPA Method 8010/8020

GTEL
Environmental
Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
PROJECT#: 203-680-5016.01-2BB
LOCATION: Oakland, CA

MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	25561A #6	25562A #8	25563A #3
Benzene	0.1		0.15	<0.1	<0.1
Bromodichloromethane	0.5		<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5
1,1-Dichloroethene	0.5		<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5
Ethylbenzene	0.1		<0.1	<0.1	<0.1
Methylene chloride	0.5		<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5
Tetrachloroethene	0.5		0.79	1.4	1.6
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5		<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0
Xylenes	0.2		0.21	<0.2	<0.2
Toulene	0.1		0.17	<0.1	<0.1

MDL = Method Detection Limit.
METHOD:
EPA Method 8010/8020

SAFY KHALIFA, Ph.D., Director

GTEL
Environmental
Laboratories
a division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
Groundwater Technology, Inc.
4080 Pike Lane
Concord, CA 94520
PROJECT#: 203-680-5016.01-1
LOCATION: 4048 Market Street
Oakland, CA
SAMPLED: 06/16/88 BY: W. Schaal
RECEIVED: 06/17/88 BY: K. Biava
ANALYZED: 06/24/88 BY: E. Popek
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	25557 13	25558 12	25559 11	25560 9	25561 6
Total Petroleum Hydrocarbons as Mineral Spirits	10		<10	<10	<10	<10	<10

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 8015

GTEL
Environmental
Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
PROJECT#: 203-680-5016.01-1
LOCATION: 4048 Market Street
Oakland, CA

MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	25562 8	25563 3
Total Petroleum Hydrocarbons as Mineral Spirits	10		<10	<10

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 8015

SAFY KHALIFA, Ph.D., Director

SIEVE ANALYSIS

JOB NO: N8-2564-M2 JOB NAME: Saftey Kleen

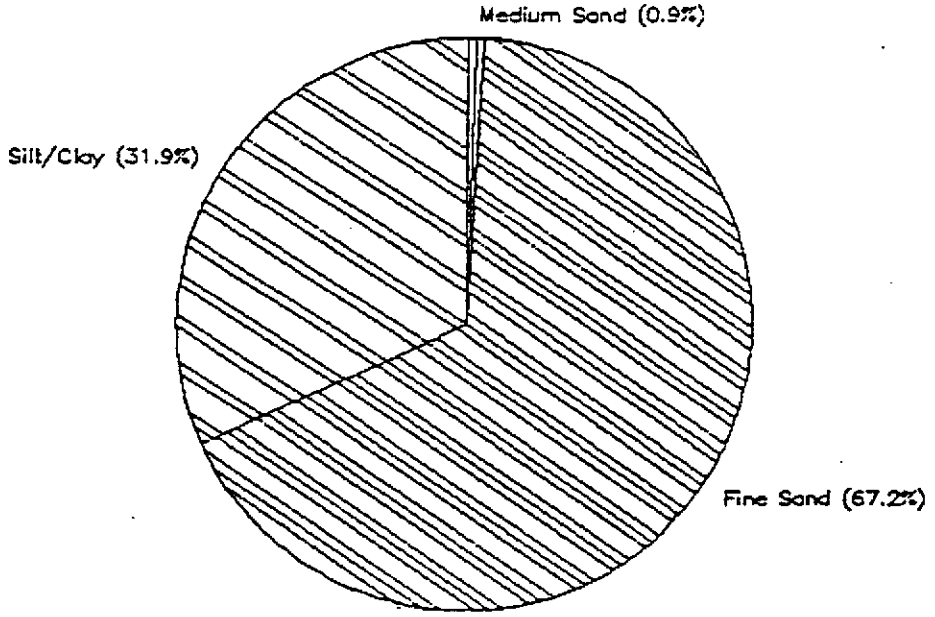
SAMPLE NO: 1 DESCRIPTION: Dark grayish brown silty fine Sand with clay

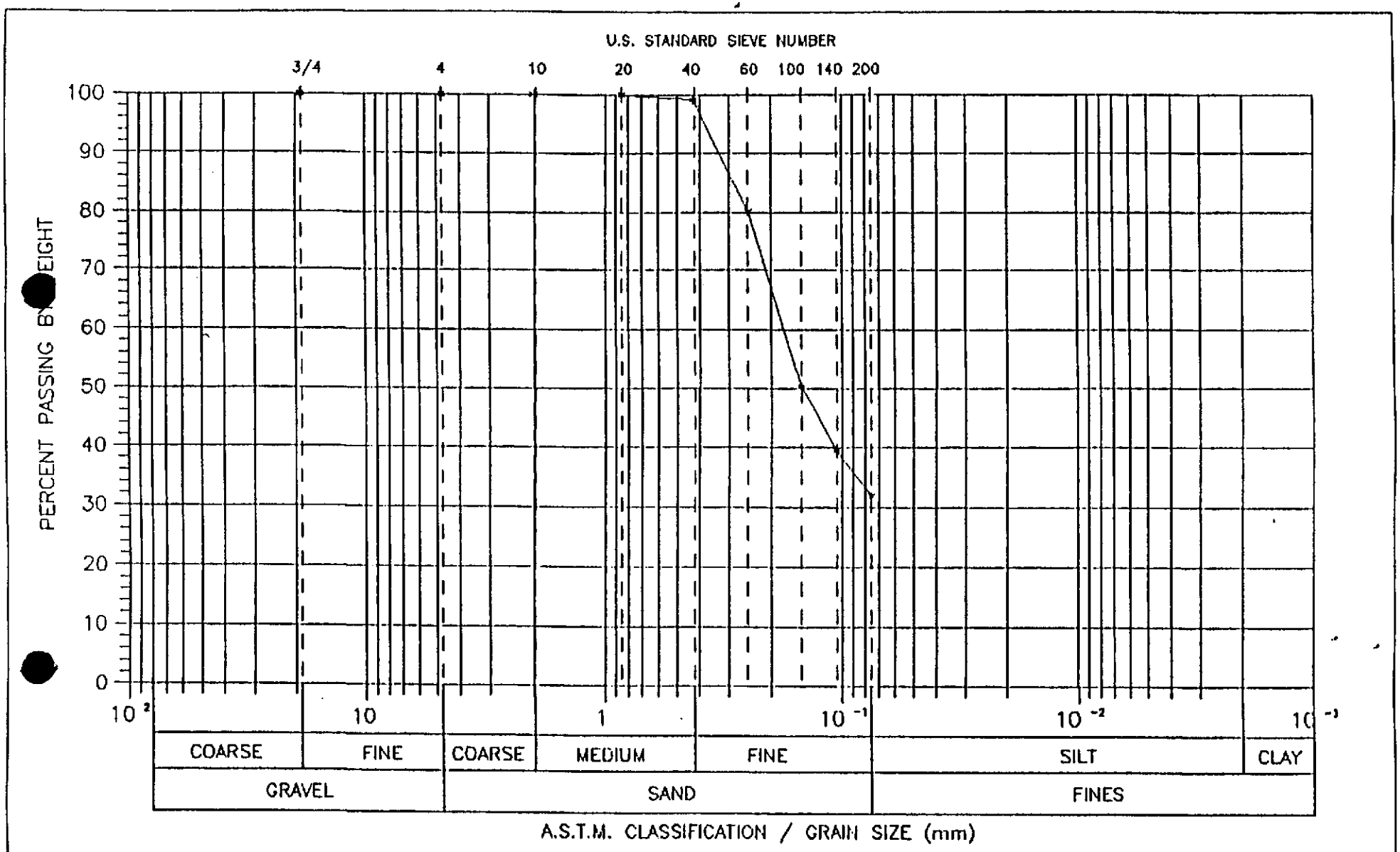
DATE: 7/19/88 PREWASH NET WT 34.09 g

SIEVE SIZE	WEIGHT RETAINED (g)	PERCENT RETAINED	CUMULATIVE PERCENT RETAINED	CUMULATIVE PERCENT PASSING
3/4 Inch	0.00	0.00%	0.00%	100.00%
No. 4	0.00	0.00%	0.00%	100.00%
No. 10	0.00	0.00%	0.00%	100.00%
No. 20	0.01	0.03%	0.03%	99.97%
No. 40	0.29	0.85%	0.86%	99.12%
No. 60	6.46	18.95%	19.83%	80.17%
No. 100	10.20	29.92%	49.75%	50.25%
No. 140	3.66	10.74%	60.49%	39.51%
No. 200	2.60	7.63%	68.11%	31.89%
PAN	10.87	31.89%	100.00%	

SIEVE ANALYSIS

(% Retained ASTM Designation)





ENGEO INCORPORATED

GRAIN SIZE DISTRIBUTION

FIGURE NO:

DATE: 7-19-88

SAMPLE NO: 1

JOB NO: 0004

APPENDIX III

LABORATORY RESULTS - SOIL

GTEL Environmental Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520
PROJECT#: 203-680-5016.01-9
LOCATION: 404 Market
Oakland, CA
SAMPLED: 07/25,26,27,28,29/88 BY: K. Kline
RECEIVED: 08/03/88 BY: K. Fillinger
ANALYZED: 08/12/88 BY: P. Sra
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	28550A MW-2A	28551A MW-2B	28552A MW-2C	28553A MW-3A
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	0.7
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	1.0
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL Environmental Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

PROJECT MGR: Steve Fischbein
PROJECT #: 203-680-5016.01-9
LOCATION: 404 Market
Oakland, CA
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	28554A MW-3B	28555A MW-3C	28556A MW-1B	28557A MW-1D
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL
Environmental
Laboratories
Division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

PROJECT MGR: Steve Fischbein
PROJECT #: 203-680-5016.01-9
LOCATION: 404 Market
Oakland, CA
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D. #	28558A MW-1F	28559A MW-4B	28560A MW-4C	28561A MW-4D
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL
Environmental
Laboratories
Division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

PROJECT MGR: Steve Fischbein
PROJECT #: 203-680-5016.01-9
LOCATION: 404 Market
Oakland, CA
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # / I.D.#	28562A / MW-5A	28563A / MW-5B	28564A / MW-5C	28565A / MW-6A
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL
Environmental
Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

PROJECT MGR: Steve Fischbein
PROJECT #: 203-680-5016.01-9
LOCATION: 404 Market
Oakland, CA
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	28566A MW-6B	28567A MW-6C	28568A MW-7A	28569A MW-7B
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	1.6
1,1,1-Trichloroethane	0.5		<0.5	<0.5	0.6	2.3
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL Environmental Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

PROJECT MGR: Steve Fischbein
PROJECT #: 203-680-5016.01-9
LOCATION: 404 Market
Oakland, CA
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	28570A MW-7C	28571A MW-7D	28572A MW-8A	28573 MW-8B
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL
Environmental
Laboratories
Division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

PROJECT MGR: Steve Fischbein
PROJECT #: 203-680-5016.01-9
LOCATION: 404 Market
Oakland, CA
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D. #	28574A MW-8C	28575A MW-8D	28576A MW-8E	28577A MW-9A
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	1.2
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL Environmental Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

PROJECT MGR: Steve Fischbein
PROJECT #: 203-680-5016.01-9
LOCATION: 404 Market
Oakland, CA
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	28578A MW-9B	28579A MW-9C	28580A MW-9D	28581 MW-9E
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		3.1	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		1.3	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		1.7	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		3.7	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

Safy Khalifa 1/8/97

SAFY KHALIFA, Ph.D., Director

GTEL
Environmental
Laboratories
division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

08/17/88 rw
CLIENT: Steve Fischbein
Groundwater Technology, Inc.
4080 Pike Lane
Concord, Ca 94520
PROJECT#: 203-680-5016.01-10
LOCATION: 404 Market
Oakland, CA
SAMPLED: 07/25,26,27,28,29/88 BY: K. Kline
RECEIVED: 08/03/88 BY: K. Fillin
ANALYZED: 08/11/88 BY: E. Popek
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D. #	28550B MW-2A	28551B MW-2B	28552B MW-2C	28553B MW-3A	28554B MW-3B
Total Petroleum Hydrocarbons as Mineral Spirits	10		<10	<10	<10	<10	<10

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 8015

GTEL Environmental Laboratories
division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
PROJECT#: 203-680-5016.01-10
LOCATION: 404 Market
Oakland, CA

TEST RESULTS

MATRIX: Soil
UNITS: mg/kg (ppm)

COMPOUNDS	MDL	LAB # I.D.#	28555B MW-3C	28556B MW-1B	28557B MW-1D	28558B MW-1F	28559B MW-4B
Total Petroleum Hydrocarbons as Mineral Spirits	10		<10	<10	<10	<10	<10

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 8015

GTEL
Environmental
Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
PROJECT#: 203-680-5016.01-10
LOCATION: 404 Market
Oakland, CA

TEST RESULTS

MATRIX: Soil
UNITS: mg/kg (ppm)

COMPOUNDS	MDL	LAB # I.D.#	28560B MW-4C	28561B MW-4D	28562B MW-5A	28563B MW-5B	28564B MW-5C
Total Petroleum Hydrocarbons as Mineral Spirits	10		<10	<10	<10	<10	<10

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 8015

GTEL
Environmental
Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
PROJECT#: 203-680-5016.01-10
LOCATION: 404 Market
Oakland, CA

MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	28565B MW-6A	28566B MW-6B	28567B MW-6C	28568B MW-7A	28569B MW-7B
Total Petroleum Hydrocarbons as Mineral Spirits	10		(10	(10	(10	520	2400

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 8015

GTEL
Environmental
Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
PROJECT#: 203-680-5016.01-10
LOCATION: 404 Market
Oakland, CA

MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	28570B MW-7C	28571B MW-7D	28572B MW-8A	28573B MW-8B	28574B MW-8C
Total Petroleum Hydrocarbons as Mineral Spirits	10		18	15	<10	<10	<10

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 8015

GTEL Environmental Laboratories
division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
PROJECT#: 203-680-5016.01-10
LOCATION: 404 Market
Oakland, CA

TEST RESULTS

MATRIX: Soil
UNITS: mg/kg (ppm)

COMPOUNDS	MDL	LAB # I.D. #	28575B MW-8D	28576B MW-8E	28577B MW-9A	28578B MW-9B	28579B MW-9C
Total Petroleum Hydrocarbons as Mineral Spirits	10		<10	<10	240	52000	<10

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 8015

GTEL
Environmental
Laboratories
Division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
PROJECT#: 203-680-5016.01-10
LOCATION: 404 Market
Oakland, CA

MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	28580B MW-9D	28581B MW-9E
Total Petroleum Hydrocarbons as Mineral Spirits	10		<10	25

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 8015

SAFY KHALIFA, Ph.D., Director

APPENDIX IV

LABORATORY RESULTS - WATER

GTEL
Environmental
Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

08/11/88 mh

CLIENT: Kelly Kline/Steve Fischbein
GROUNDWATER TECHNOLOGY, INC.
4080-D Pike Lane
Concord, CA 94520
PROJECT#: 203-680-5016.01-11
LOCATION: Oakland, CA

SAMPLED: 08/04/88 BY: M. Czipka
RECEIVED: 08/04/88 BY: E. Foley
ANALYZED: 08/09/88 BY: P. Sra
MATRIX: Water
UNITS: ug/L (ppb)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	28718 MW-4	28719 MW-5	28720 MW-6	2872: MW-3
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	1.9
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	2.2
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		32	<0.5	<0.5	0.59
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	1.1	5.0
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		760	2.1	5.0	13
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.
METHODS: EPA 8010.

GTEL Environmental Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Kelly Kline/Steve Fischbein

PROJECT#: 203-680-5016.01-11
LOCATION: Oakland, CA
MATRIX: Water
UNITS: ug/L (ppb)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	28722 MW-1	28723 MW-2	28724 MW-8
Bromodichloromethane	0.5		<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	1.5
Chloroethane	0.5		<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0
Chloroform	0.5		1.6	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	6.8
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	3.7
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5
Methylene chloride	0.5		4.2	4.3	4.6
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	67
Vinyl Chloride	1.0		<1.0	<1.0	<1.0

MDL = Method Detection Limit.
METHODS: EPA 8010.

Safy Khalifa 1/8/97
SAFY KHALIFA, Ph.D., Director

GTEL
Environmental
Laboratories
Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Kelly Kline/Steve Fischbein
Groundwater Technology, Inc.
Concord, CA 94520
203-680-5016.01-12
LOCATION: Oakland, CA

MATRIX: Water
UNITS: mg/L (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	28730 MW2-MS	28731 MW8-MS
Total Petroleum Hydrocarbons as Mineral Spirits	1.0		<1.0	<1.0

MDL = Method Detection Limit; compound below this level would not be detected.

METHOD:
Modified EPA Method 5030/8015

Safy Khalifa/EMT
SAFY KHALIFA, Ph.D., Director

GTEL Environmental Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

08/18/88 mh

CLIENT: Kelly Kline/Steve Fischbein
Groundwater Technology, Inc.
4080 Pike Ln.
Concord, CA 94520
PROJECT#: 203-680-5016.01-14
LOCATION: Oakland, CA

SAMPLED: 08/04/88 BY: M. Czipka
RECEIVED: 08/04/88 BY: E. Foley
ANALYZED: 08/16/88 BY: P. Sra
MATRIX: Water
UNITS: ug/L (ppb)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	28732 RB-4	28739 RB MW-8
Bromodichloromethane	0.5		<0.5	<0.5
Bromoform	0.5		<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0
Chloroform	0.5		<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA 8010.

SAFY KHALIFA, Ph.D. / Director

UPDATE REPORT
ADDITIONAL ASSESSMENT
404 MARKET STREET
OAKLAND, CALIFORNIA
JUNE, 1990

GROUNDWATER TECHNOLOGY, INC.
CONCORD, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.
4080-D Pike Lane, Concord, CA 94520
(415) 671-2387

UPDATE REPORT
ADDITIONAL ASSESSMENT
404 MARKET STREET
OAKLAND, CALIFORNIA
JUNE 1990

Prepared for:

Ms. Anne Lunt
Safety-Kleen Corporation
P.O. Box 1429
San Pedro, CA 90733-1429

Prepared by:

GROUNDWATER TECHNOLOGY, INC.
4080 Pike Lane, Suite D
Concord, CA 94520

Paul D. Horton
Project Manager

Allen B. Storm
Registered Geologist
No. 4394

REGISTERED GEOLOGIST
ALLEN B. STORM
No. 4394
Exp. 6-90
STATE OF CALIFORNIA

R5016D.PDH

TABLE OF CONTENTS

LIST OF APPENDICES

TABLE OF CONTENTS
(continued)

LIST OF FIGURES

LIST OF TABLES

UPDATE REPORT
ADDITIONAL ASSESSMENT
404 MARKET STREET
OAKLAND, CALIFORNIA
JUNE, 1990

INTRODUCTION

This report presents the results of additional assessment, monitoring and separate-phase hydrocarbon (product) recovery activities conducted by Groundwater Technology, Inc. at the Safety-Kleen facility located at 404 Market Street in Oakland, California (Figure 1). The report covers activities conducted from September, 1988 through April, 1990.

BACKGROUND

The Safety-Kleen facility is located in the highly industrialized area of Oakland, California and serves as the local distribution center for Safety-Kleen products. These products include mineral spirits solvents, various chlorinated solvents, and other products used in the automotive and food services industries. Approximately 97 percent of these solvents consist of mineral spirits, and the remainder is a blend of chlorinated and water-phase solvents known as immersion cleaner. All of these materials are stored on the site in clean and spent condition. The major storage volume involves the location and

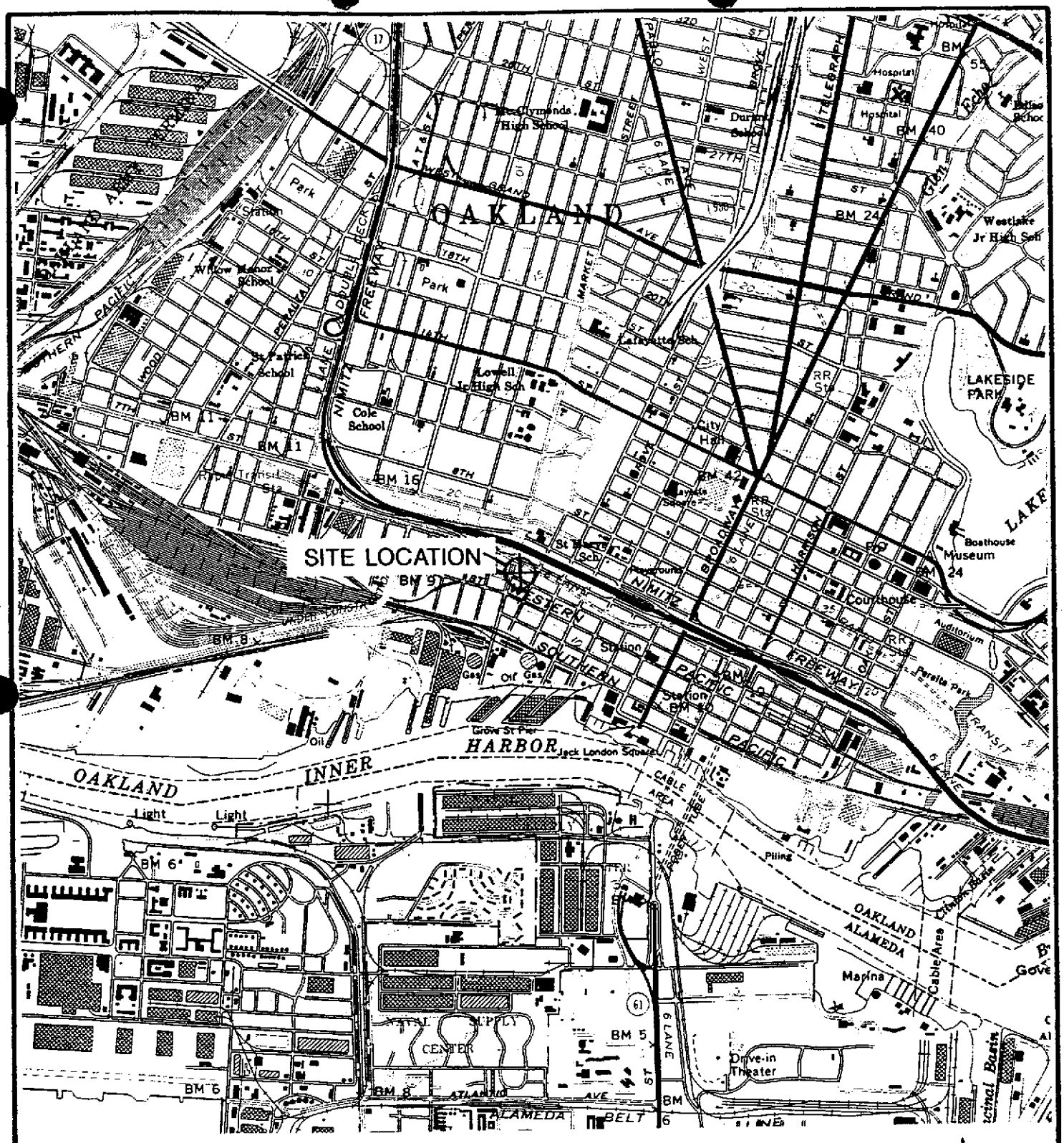


FIGURE 1. SITE LOCATION MAP

SAFETY-KLEEN
404 MARKET ST.
OAKLAND, CALIFORNIA

ML 5/90

GROUNDWATER TECHNOLOGY, INC.

use of three underground storage tanks (UST). Two 6,000-gallon steel USTs are used to store spent mineral spirits solvent prior to shipping to Safety-Kleen's recycling center in Reedly, California. A third 10,000-gallon UST holds clean mineral spirits solvent for distribution. The solvent cycle is essentially a closed loop going from the service center to the customer, from the customer to the service center, from the service center to the recycle center, and then from the recycle center back to the service center.

PREVIOUS WORK

The initial site investigation was conducted by CWC-HDR Consulting Engineers in May, 1986. Three 20-foot deep soil borings were drilled in the vicinity of the underground tanks. Two of the three borings were converted into 2-inch-diameter monitoring wells. These wells are designated as SK-1 and SK-3 on Figure 2. Separate-phase mineral spirits free product was present in each boring. Additional site assessment to define the lateral extent of groundwater contamination was conducted by Groundwater Technology beginning in June, 1988. A soil-vapor survey was conducted to define the extent of the subsurface vapor plume. Based on soil-gas survey results, eight monitoring wells were installed on and off site in July, 1988. Groundwater samples from the monitoring wells were analyzed for total petroleum hydrocarbons (TPH)-as mineral spirits and for chlorinated hydrocarbons. Additionally, the wellhead elevations were surveyed in relation to established benchmarks near the site.

Concurrent with further site assessment, the underground tanks and lines were precision tested for leaks. Leaks detected in lines and fittings were repaired, and the tanks re-certified

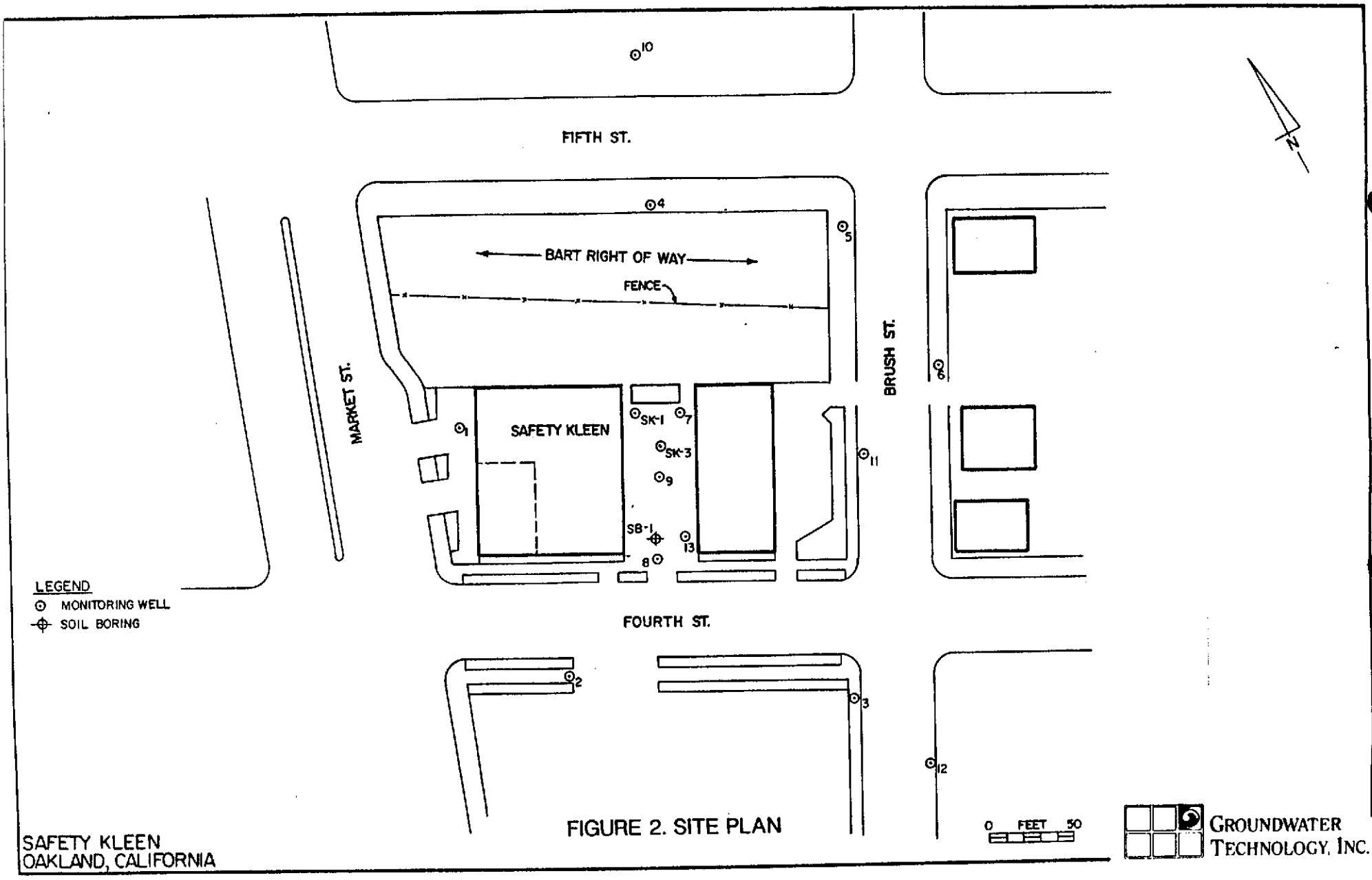


FIGURE 2. SITE PLAN

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

as tight. The details of the work conducted by Groundwater Technology are contained in the report titled "Interim Update Report, Safety-Kleen Facility, 404 Market Street, Oakland, California", dated September 9, 1988.

SITE CONDITIONS

The site is located to the north of the Oakland Inner Harbor in a topographically flat-lying industrial area. The site is immediately underlain by fine-grained sand and silty, clayey sand, called Merritt sands to a depth of approximately 65 feet. These sands are believed to be nearshore deposits from the historic San Francisco Bay (Redbruch, 1957). Unconfined groundwater exists in the Merritt sands at a shallow depth of approximately 8-feet at the site. The Merritt sands overlie the Alameda Formation which consists of gravel, sand, silt, and organically rich clay. These deposits are also known as the Older Alluvium and are present beneath all of the east bay plain. These deposits are continental and marine in origin, and become increasingly consolidated with depth to the maximum-known-thickness of approximately 1,050 feet. The Older Alluvium of the Alameda Formation is the major groundwater reservoir in the East Bay plain area. Below the Alameda Formation lies the Franciscan Basement Complex which consists of sandstone, siltstone, chert, melange and ultra-mafic rocks and is considered to be non-water bearing (Fisher, Brown, and Warner, 1963).

SCOPE OF WORK

Since September, 1988, the following work steps have been conducted at the site to further delineate the lateral and vertical extent of subsurface contamination, and to provide a data base for planning and design of remedial actions.

- Installed three off-site monitoring wells, and one deep monitoring well on site, downgradient of the mineral spirits free-product plume.

- Developed the gravel pack of the monitoring wells using surge-and-bail techniques.

- Collected eight soil samples for laboratory analyses using U.S. Environmental Protection Agency (EPA) Method 8010 to analyze for the presence of chlorinated hydrocarbons, and modified EPA Method 8015, to analyze for the presence of TPH-as-mineral spirits.

- Conducted Cone Penetrometer Testing (CPT) at two locations on the site, and attempted to collect groundwater samples using the Hydro-Punch sampling method.

- Conducted monthly groundwater-level monitoring and sampling.

- Maintained a limited product-recovery operation.

- Conducted a soil-vent feasibility test of the vadose-zone soils at the site.

- Conducted a search of available records for groundwater wells located near the site.

MONITORING WELL INSTALLATION AND DEVELOPMENT

Four additional monitoring wells (MW-10, MW-11, MW-12 and MW-13) were installed on and around the site from August 18, 1989 to September 12, 1989 (see Figure 2, Site Plan). Monitoring wells MW-10, MW-11, and MW-12 were installed to further assess the upgradient, cross-gradient, and downgradient extent of the dissolved chlorinated hydrocarbon plume. Monitoring well MW-13 was installed downgradient of the mineral spirits free-product plume to assess the vertical extent of the dissolved chlorinated hydrocarbon plume beneath the site.

Borings for monitoring wells MW-10, MW-11 and MW-12 were drilled using 7.5-inch outside-diameter (O.D.), hollow stem augers on a mobile truck-mounted drill rig. Borings for monitoring wells MW-10 through MW-12 were advanced to 30-feet below grade and wells installed. These three wells are constructed with 25 feet of 2-inch-diameter .010-inch machine-slotted polyvinyl (PVC) well screen and 5 feet of 2-inch-diameter PVC blank pipe. A sand pack of No.30 Lonestar sand was extended from 4- to 30-feet-deep in each well and capped with a 1-foot-thick layer of hydrated bentonite pellets followed by 3 feet of cement grout to surface grade where a traffic-rated street box was installed.

The boring for monitoring well MW-13 was drilled using 12-inch O.D., hollow stem augers. The boring for monitoring well MW-13 was advanced to a 74-feet below grade. The bottom 4 feet was grouted up and a monitoring well installed. The well was constructed with 5 feet of 4-inch-diameter .010-inch continuous wire-wrapped stainless steel screen and 65 feet of 4-inch-diameter stainless steel pipe. A sand pack of No. 30 Lonestar sand was extended from 63- to 70-feet below grade, capped by a 1.5-foot-thick layer of hydrated bentonite pellets, followed by

cement grout to the surface where a traffic-rated street box was installed. Details of well construction are specified in the drill logs included in Appendix A.

During drilling of the borings for monitoring wells MW-10 through MW-12, soil samples were collected at 5-foot intervals using a split spoon sampler with three 2-inch-diameter by 6-inch-long brass sampling tubes. Selected samples were sealed with aluminum foil, capped, taped, labeled, and stored on ice for subsequent delivery to GTEL Environmental Laboratories, Inc. (GTEL) observing Chain-of-Custody protocols. Soil samples were analyzed for the presence of chlorinated-hydrocarbon compounds using EPA Method 8010 and for TPH-as-mineral spirits by modified EPA Method 8015. One of the three samples collected from each sampling interval was used for field headspace analysis using a portable organic-vapor meter.

The boring for monitoring well MW-13 was continuously cored to a depth of 45-feet below grade at which time flowing sands made coring unsuccessful. During coring, samples were selected from the core for headspace analysis using a portable organic vapor meter. No soil samples were collected below a depth of 45 feet. Two soil samples collected from the core at depths of 5- and 10-feet below grade were packed in air-tight glass jars, labeled, stored on ice, and transported to GTEL under Chain-of-Custody Manifest. These samples were analyzed using EPA Methods 8010 for chlorinated hydrocarbons and modified EPA Method 8015 for TPH-as-mineral spirits concentrations. Field screening results for organic vapors are contained in the drill logs in Appendix A. Laboratory results of soil sample analyses are included in Appendix B.

The new monitoring wells were developed using a surge-and-bail technique until development water became clear of sediment or the well was dry.

CONE PENETROMETER TESTING (CPT) AND HYDRO-PUNCH™ SAMPLING

Cone penetrometer testing (CPT) in combination with the Hydro-Punch groundwater sampling system was planned to be used for collecting depth-specific groundwater samples for defining the vertical distribution of dissolved chlorinated hydrocarbons. Plans called for driving the Hydro-Punch™ sampler to a depth of 75-feet at the location where monitoring well MW-13 was eventually installed. Cone penetrometer testing was conducted on August 29, 1989. During advancement of the cone penetrometer, CPT refusal was encountered at a depth of 24-feet below grade due to a densely compacted sand unit. A copy of the cone penetrometer resistance and friction log is included in Appendix A. Due to a refusal of the unit, a deep groundwater sample could not be collected causing installation of MW-13 as a depth-specific groundwater monitoring point.

Additional use of the Hydro-Punch™ groundwater sampling system was planned to allow further delineation of the dissolved plume in the near-surface groundwater off site and upgradient. On November 30, 1989, the cone penetrometer was advanced to a depth of 25 feet where refusal was encountered due to the densely compacted sand unit. This initial sampling location was north-west of MW-7.

Following the cone penetrometer testing, a Hydro-Punch™ groundwater sampler was driven to a depth of 20 feet and opened for collection of a groundwater sample. Three attempts were made

at collecting a groundwater sample which was not laden with sediment. Due to the silty nature of the sands in the near surface, collection of an adequate groundwater sample was not possible, and the plans for further Hydro-Punch^{TM} sampling were abandoned.

GROUNDWATER MONITORING AND SAMPLING

All wellhead elevations were surveyed to mean sea level to allow determination of groundwater elevations relative to a known datum. Monitoring wells were monitored for depth-to-water and depth-to-product on a monthly basis using an electronic Interface Probe. The monitoring data are tabulated in Appendix D.

Groundwater sampling was also conducted on a monthly basis by first purging at least four well volumes from each well and then allowing the water levels in the wells to recover to at least 80 percent of their original static level. Representative groundwater samples were then collected using a clean Teflon^{R} sampler. The samples were stored in 40 milliliter glass vials, labeled, placed on ice, and delivered to GTEL with a Chain-of-Custody. The samples were then analyzed for the presence of chlorinated hydrocarbons using EPA Method 601 and for TPH-as-mineral spirits using modified EPA Method 8015. Laboratory analyses reports are included in Appendix C.

PRODUCT RECOVERY

Limited recovery of separate-phase mineral spirits (product) has been conducted along with monitoring and sampling on a monthly basis. Separate-phase mineral spirits present in on-site monitoring wells are recovered using a pump or a dedicated bailer

and discharged into the spent mineral spirits waste tanks at the site. Product recovery averages from 15- to 20-gallons of waste mineral spirits per month.

SOIL-VENT FEASIBILITY TEST

A soil-venting feasibility test was conducted on January 18, 1990, to evaluate the applicability of using soil venting as a soil remediation method. Details of the test are included in the soil-vent test feasibility report included in Appendix E.

WELL SEARCH

A search of records available at the California Department of Water Resources (DWR) was conducted to locate wells within a one-half-mile radius of the site.

RESULTS

SOIL SAMPLING

A total of eight soil samples collected from four new borings MW-10, MW-11, MW-12, and MW-13 were submitted for laboratory analyses. Table 1 lists the soil samples analyzed and the depth of collection.

TABLE 1

SOIL SAMPLE DEPTHS

SAMPLE DESIGNATION	DEPTH COLLECTED (feet)
MW-10A	4
MW-10B	9.5
MW-10C	14.5
MW-11A	4.5
MW-12A	4.5
MW-12B	10
MW-13A	4.5
MW-13B	10

Chlorinated hydrocarbons or mineral spirits were not detected in any of these soil samples. This fact may be due to the location of all these borings outside the source area. Laboratory reports are included in Appendix B.

Chlorinated hydrocarbons and mineral spirits were detected in soil samples collected from the borings for monitoring wells MW-7 and MW-9. The results of these analyses were reported in the Interim Update Report dated September 9, 1989. Table 2 contains a summary of these results. Mineral spirits in concentrations up to 52,000 parts per million (ppm) were detected in soil samples from a depth of 10-feet below grade. The maximum chlorinated hydrocarbon compound detected in the soils was 3.7 ppm of 1,1,1-Trichloroethane. Laboratory reports are included in Appendix B.

GROUNDWATER MONITORING

Water level monitoring has been conducted monthly for nineteen months. Tabulated monitoring data are included in Appendix D. Figures 3 through 8 present quarterly groundwater

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYSES RESULTS
MW-7 AND MW-9
ppm

	SOIL SAMPLE NUMBER & DEPTH (ft)							
COMPOUND	MW-3A	MW-7A	MW-7B	MW-7C	MW-7D	MW-9A	MW-9B	MW-9E
TPH-AS-MINERAL SPIRITS	-	520	2,400	18	15	240	52,000	25
METHYLENE CHLORIDE	1.0	ND	1.6	-	-	ND	1.7	-
TETRACHLOROETHENE	ND	0.6	2.3	-	-	ND	3.7	-
1,1,1-TCA	ND	ND	ND	-	-	ND	1.3	-
CHLOROBENZENE	ND	ND	ND	-	-	1.2	3.1	-

ND = Not Detectable

T5016B

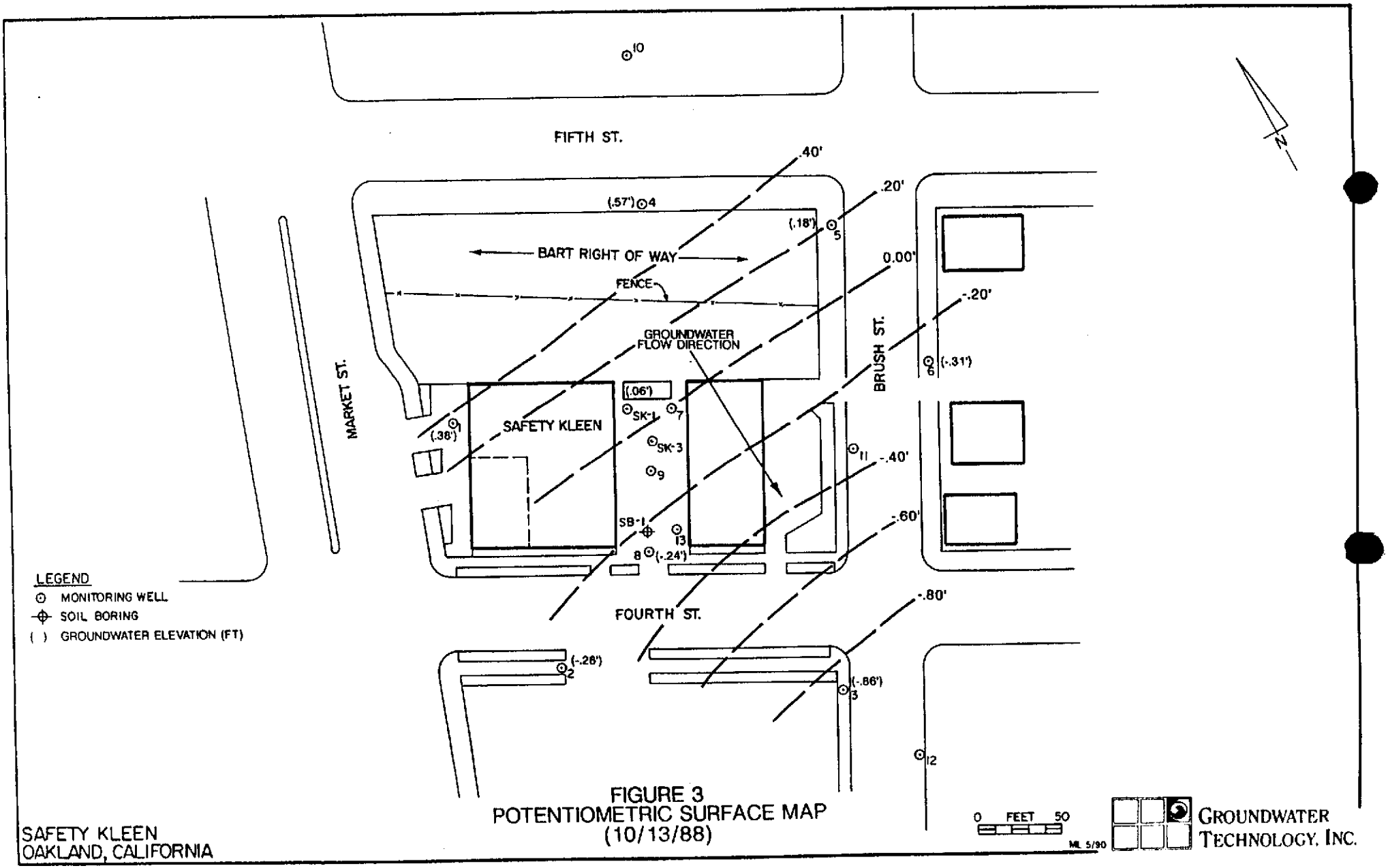


FIGURE 3
POTENTIOMETRIC SURFACE MAP
(10/13/88)

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

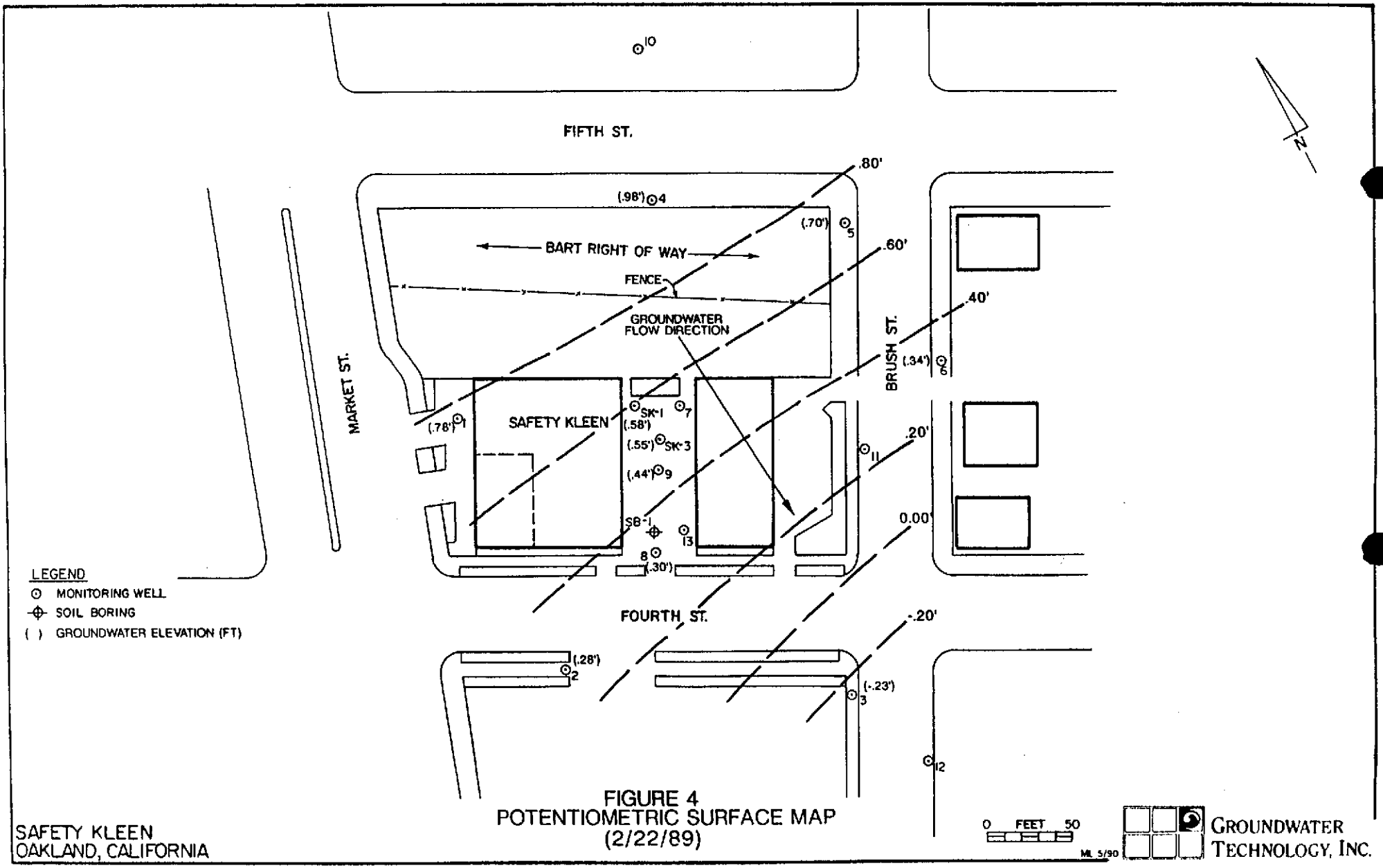


FIGURE 4
POTENTIOMETRIC SURFACE MAP
(2/22/89)

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

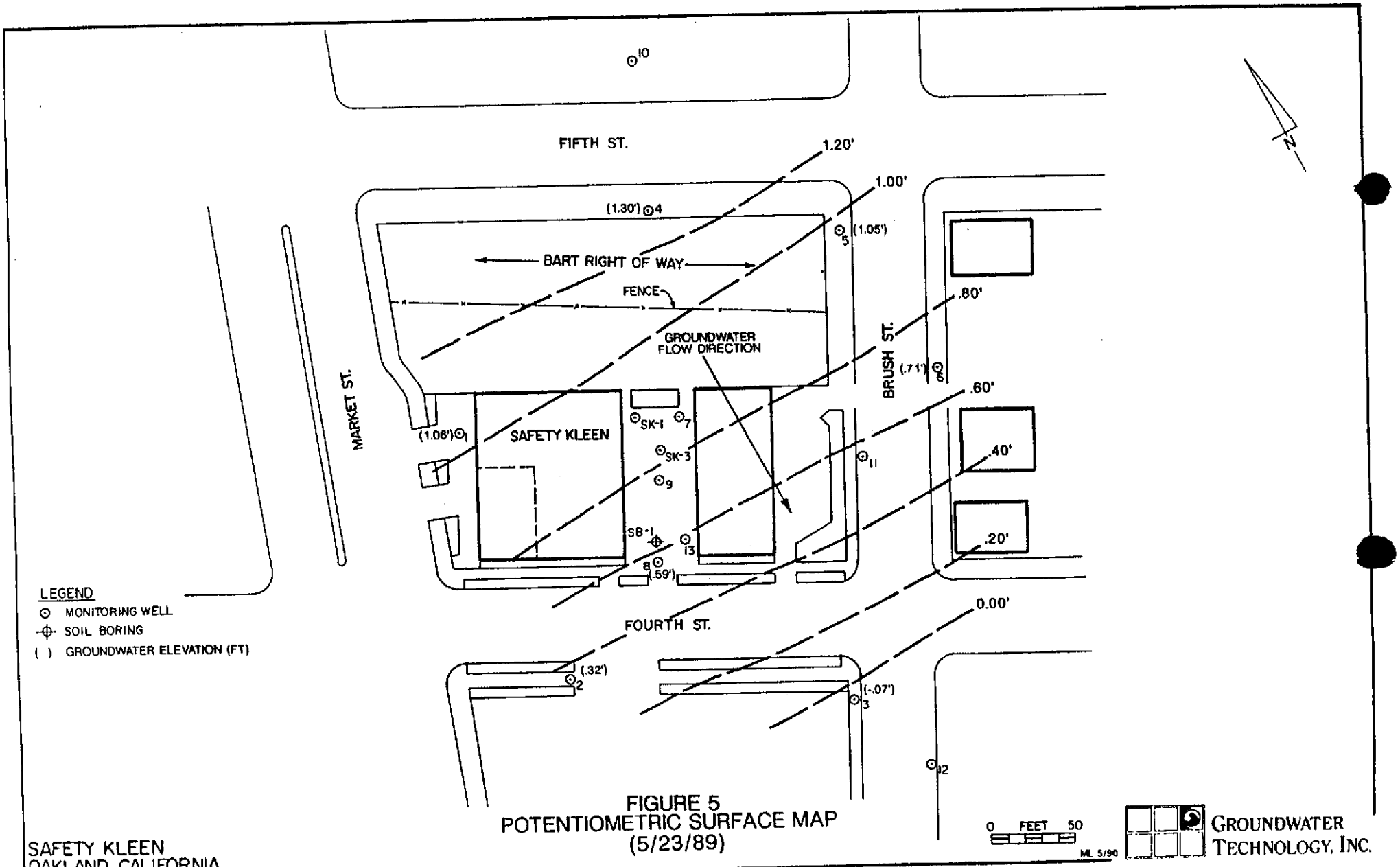


FIGURE 5
POTENTIOMETRIC SURFACE MAP
(5/23/89)

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

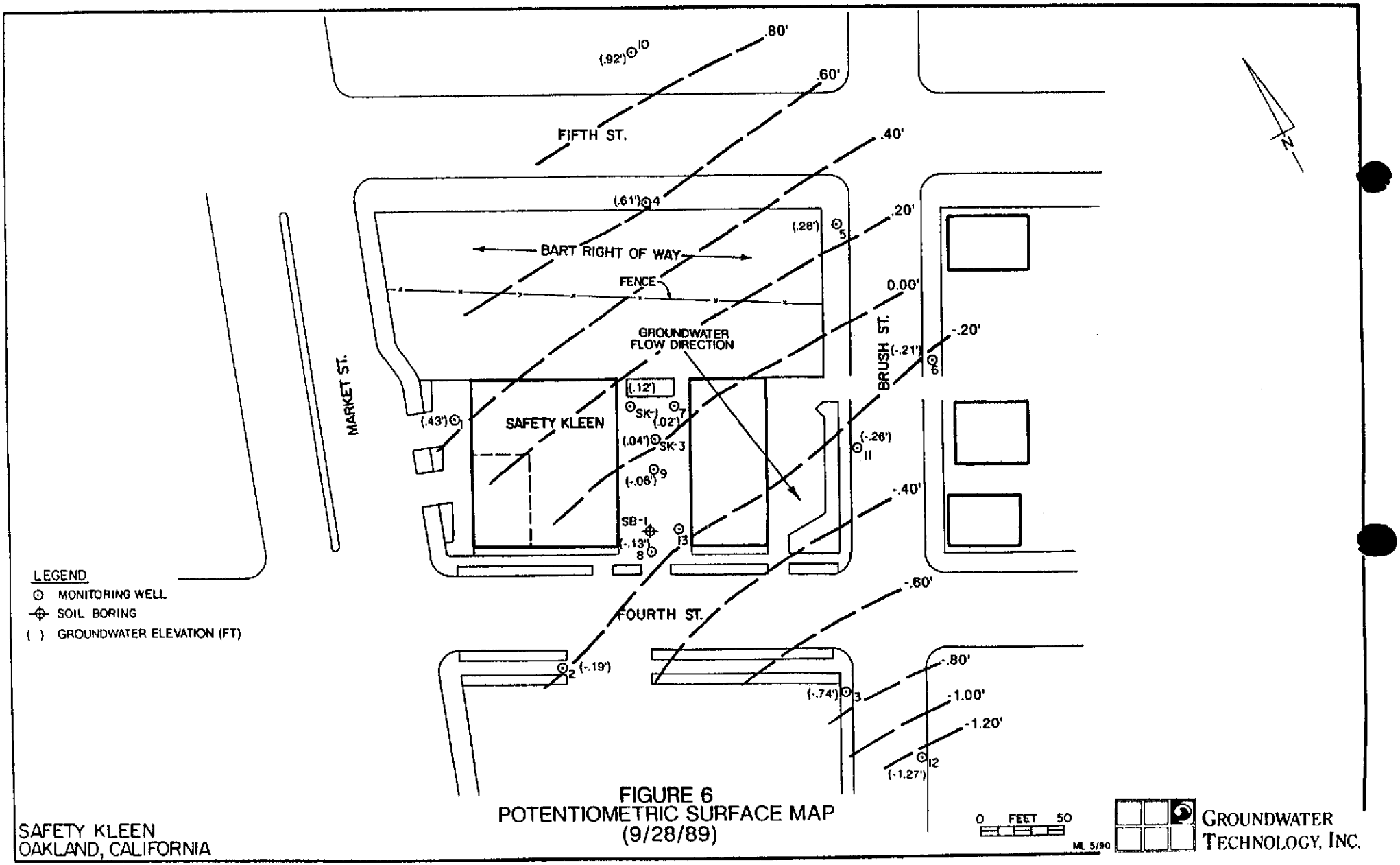


FIGURE 6
POTENTIOMETRIC SURFACE MAP
(9/28/89)

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

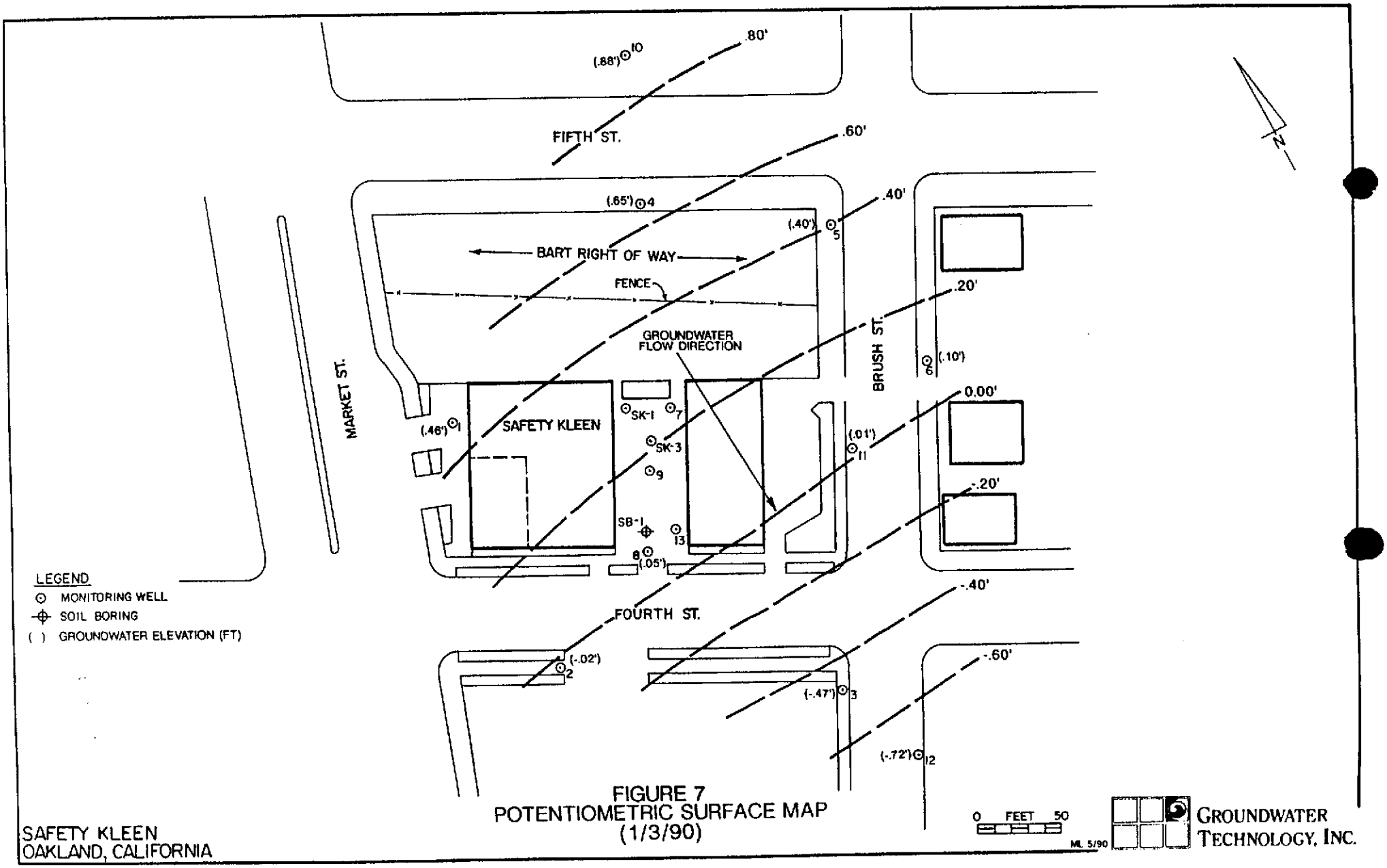


FIGURE 7
POTENTIOMETRIC SURFACE MAP
(1/3/90)

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

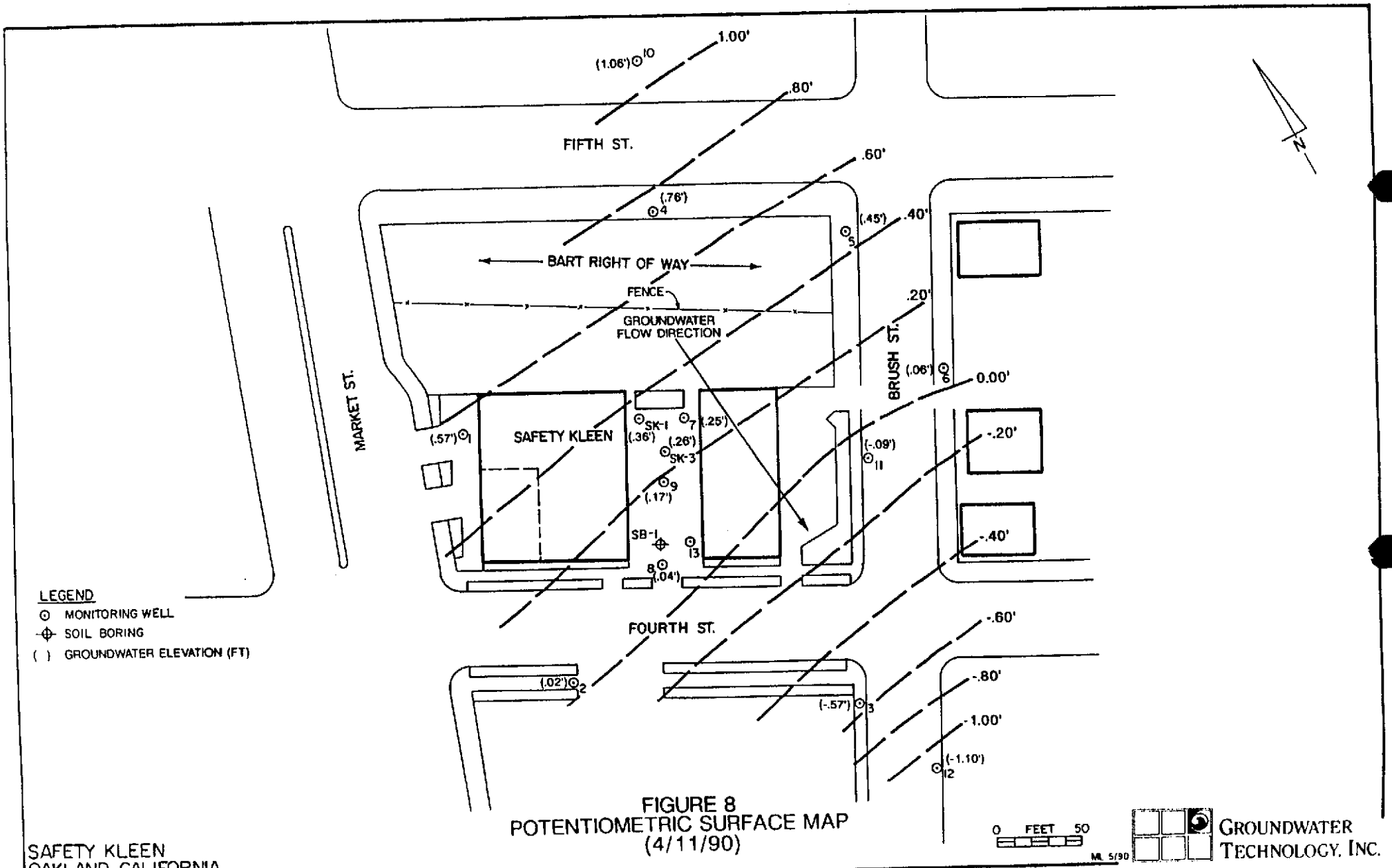


FIGURE 8
POTENTIOMETRIC SURFACE MAP
(4/11/90)

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

potentiometric surface maps. Groundwater elevation fluctuated a total of 1.5 feet during this reporting period. The overall groundwater level has fallen 0.8 feet in response to continued drought conditions in California. The lowest groundwater levels were measured in late September and early October as is typical in the San Francisco Bay area. Groundwater was at its highest in late February, March and April which is also typical. The direction of the groundwater gradient (flow direction) has remained consistently to the south throughout the seasonal variations in water level. The magnitude of the groundwater gradient (dh/dl) has also remained consistent, and does not appear to be affected by seasonal variation. The average horizontal gradient on the water table is calculated as .0041 feet/foot. Table 3 presents the calculated gradient as measured from monitoring wells MW-8 to MW-3 and MW-5 to MW-6 which line up in the direction of the gradient.

TABLE 3
GROUNDWATER GRADIENT
(dh/dl in feet/foot)

DATE	MW-8 to MW-3	MW-5 to MW-6
04/11/90	.0043	.0040
03/14/90	.0038	.0037
01/30/90	.0029	.0032
01/03/90	.0036	.0031
11/29/89	.0054	.0044
11/01/89	.0025	NA
09/28/89	.0043	.0051
07/27/89	.0034	.0042
06/30/89	.0052	.0056
05/22/89	.0046	.0035
04/20/89	.0039	.0049
03/23/89	.0043	.0039
02/22/89	.0037	.0045
10/13/88	.0043	.0051
09/07/88	.0038	.0043

Monitoring data from monitoring well MW-13, which is screened 5 feet at the base of the Merritt sand aquifer, indicate that a downward vertical groundwater gradient exists at the site at an average of .028 feet/foot.

Separate-phase spent mineral spirits solvent (free product) have been present in monitoring wells MW-7, MW-9, SK-1, and SK-3 throughout this reporting period. Free-product thickness measured in these wells is consistently 4- to 6-feet thick despite product recovery operations.

GROUNDWATER SAMPLING

A spent mineral spirits characterization study was conducted by Groundwater Technology and the results reported in a report titled "Mineral Spirits: Detection and Remedial Alternatives in Soil and Groundwater", dated May 1988. A copy of this report is included in Appendix F. The study indicated that the following chlorinated hydrocarbons (Table 4) are typically present in the spent mineral spirits temporarily stored on-site in the underground tanks at Safety-Kleen facilities.

TABLE 4

DETECTED CHLORINATED HYDROCARBON COMPOUNDS (EPA 601)

Trans-1,2-Dichloroethene
1,1-Dichloroethene
1,1-Dichloroethane
1,2-Dichloroethane
1,1,1-Trichloroethane
Trichloroethene
Tetrachloroethene
Chlorobenzene
Chloroform
Chloroethane *
Chloromethane *
Methylene Chloride *
Vinyl Chloride *

To investigate the solubility of these compounds in the site groundwater, groundwater samples were collected from directly beneath the separate-phase mineral spirits (free product) present in monitoring wells MW-7 and MW-9 on September 15, 1989. These samples were collected with a stainless steel discrete zone sampler. The results of this one time sampling are included in Appendix B. These samples were collected to characterize the chlorinated compounds which dissolve into the groundwater from contact with the spent mineral spirits source. All of the compounds listed in Table 4, except those delineated with an asterisk, were detected.

Groundwater samples were collected monthly from all wells without free product and laboratory analyzed for the presence of TPH-as-mineral spirits using modified EPA Method 8015 and for chlorinated hydrocarbons using EPA Method 601. Laboratory reports are included in Appendix B. The results of these analyses indicate that no dissolved mineral spirits were present above the detection limit of 1 ppm in the groundwater samples. All of the chlorinated hydrocarbon compounds, except those designated with an asterisk in Table 4, have been detected in the site area groundwater. All of these compounds except trichloroethene are detected at low concentrations not exceeding 100 parts per billion (ppb) and averaging less than 10 ppb. No dissolved chlorinated compounds have been detected in groundwater samples from monitoring well MW-13 which is discretely screened at the base of the impacted water-table aquifer.

Of the compounds in Table 4 detected in the site area groundwater, trichloroethene (TCE) exhibits significantly higher concentrations (up to 1300 ppb) and has the greatest lateral

distribution in regularly sampled groundwater. Due to this fact, and the relative solubility and stability of TCE, it has been chosen as the primary indicator parameter for dissolved chlorinated hydrocarbons in the groundwater. Table 5 presents a summary of the TCE concentrations detected in sampled groundwater for this reporting period. Figure 9 presents the distribution of TCE in the groundwater based on quarterly sampling results. TCE is consistently detected in upgradient monitoring wells MW-4 and MW-10 at higher concentrations then in monitoring well MW-8 which is located just downgradient of the Safety-Kleen underground storage tank system. Concentrations of TCE detected in monitoring well MW-10 have shown a steady increase since its installation, which indicates that a contaminant front may be moving through the area. These facts, combined with the consistent groundwater gradient direction and magnitude, indicate that an upgradient off-site source of chlorinated hydrocarbon compounds may be creating an additional plume that is mixing with the plume originating from the Safety-Kleen site. Analytical results showing TCE detected in the other monitoring wells have shown consistent results with neither a rising or decreasing concentrations.

Further chemical data review was conducted to delineate the interpreted mixed plumes of chlorinated hydrocarbons. Tables 6 and 7 present summaries of the chlorobenzene and chloroform concentrations detected in sampled groundwater. Figure 10 presents the dissolved chlorobenzene distribution. Chlorobenzene is regularly detected in monitoring wells MW-8 and MW-3. Chlorobenzene is not regularly detected in any other monitoring wells. Since chlorobenzene is present in the spent mineral spirits product, it may be considered an indicator parameter of the chlorinated hydrocarbon plume originating from the Safety-Kleen site.

SAFETY-KLEEN/OAKLAND
203 680 5016.05
MAY 10,1990

TABLE 5
SUMMARY OF LABORATORY DATA
TCE CONCENTRATIONS (ppb)

WELL	9/06/88	10/13/88	2/22/89	3/22/89	4/20/89	5/22/89	6/30/89	7/27/89	8/30/89	9/29/89	11/02/89	11/29/89	1/03/90	2/05/90	3/14/90	4/11/90
MW-1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	6.5	8	6.4	8.5	0.5	7	7.4	6.9	9.8	7.3	8.5	8.6	14	9.4	8.9	8.0
MW-4	540	470	620	440	410	470	380	390	490	420	600	410	430	470	490	340
MW-5	3.7	6.2	4.0	3.1	2.5	3.4	2.9	2.9	4.6	2.1	4.4	2.5	5	2.8	1.5	0.8
MW-6	5.3	8.2	5.1	2.6	5.3	5.3	6.6	4.7	6.2	5.3		2	8.3	4.6	1.7	2.8
MW-8	52	45	30	31	37	37	41	42	46	31	39	25	31	15	14	16.0
MW-10									130	290	470	610	710	820	1300	600
MW-11									28	69	74	55	67	41	44	39
MW-12									11	20	40	22	31	13	21	26.0

T5016A

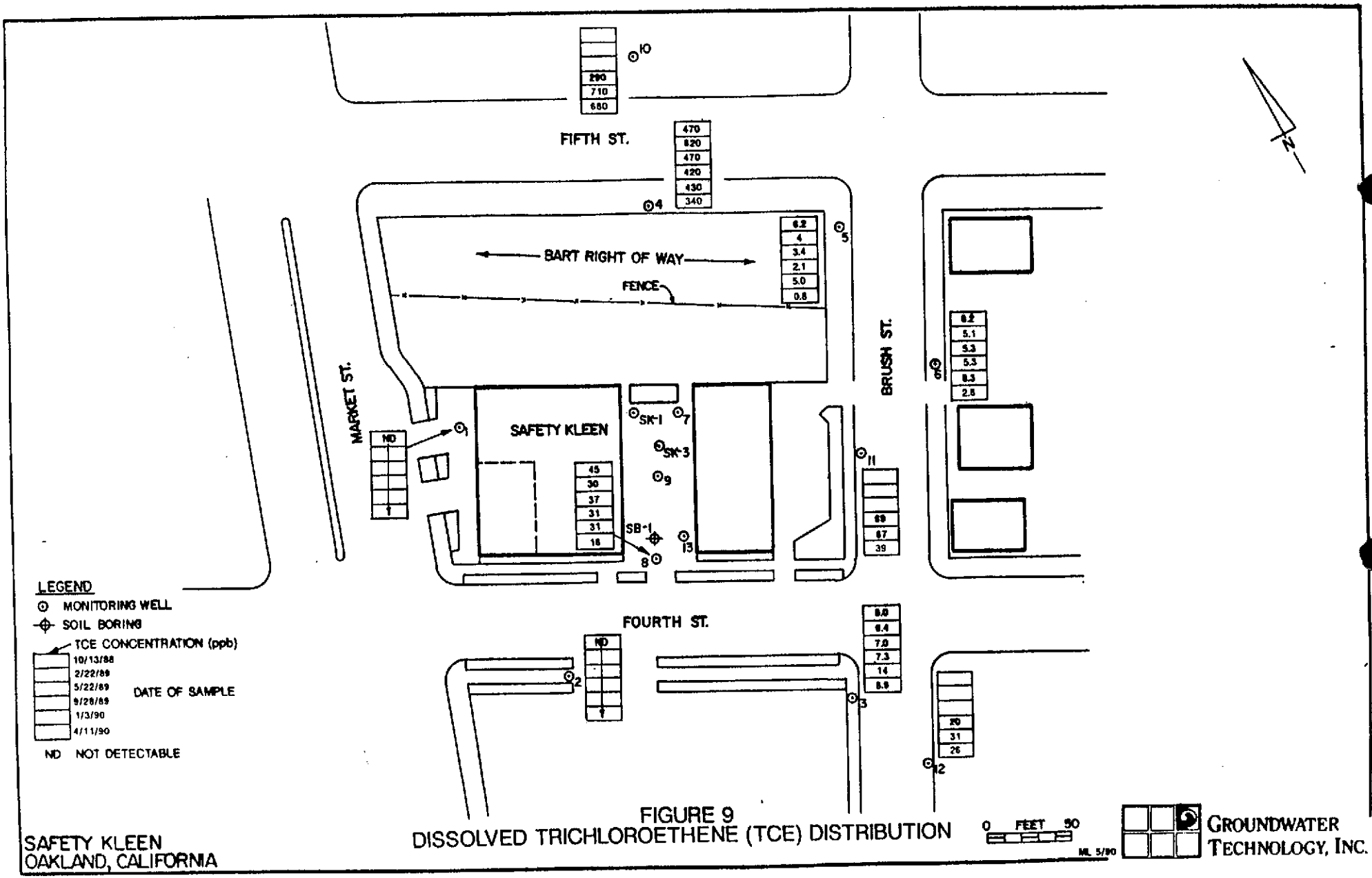


FIGURE 9
DISSOLVED TRICHLOROETHENE (TCE) DISTRIBUTION

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

SAFETY-KLEEN/OAKLAND
203 680 5016.05
MAY 10,1990

TABLE 6
SUMMARY OF LABORATORY DATA
CHLOROBENZENE (ppb)

WELL	9/06/88	10/13/88	2/22/89	3/22/89	4/20/89	5/22/89	6/30/89	7/27/89	8/30/89	9/29/89	11/02/89	11/29/89	1/03/90	2/05/90	3/14/90	4/11/90
MW-1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5
MW-3	0	0.73	0.51	0.82	0.89	0	1.4	1.4	3.4	1.9	0.69	0.73	1.5	0.7	0	1.4
MW-4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5
MW-8	0.5	1.4	0.84	1.1	1.3	1.3	0.69	<0.5	<0.5	<0.5	<0.5	0.6	0.7	1	0.6	0.9
MW-10												<0.5		<0.5	<0.5	<0.5
MW-11												<0.5	<0.5	<0.5	<0.5	<0.5
MW-12												<0.5	<0.5	<0.5	<0.5	<0.5

SAFETY-KLEEN/OAKLAND
203 680 5016.05
MAY 10,1990

TABLE 7
SUMMARY OF LABORATORY DATA
CHLOROFORM (ppb)

WELL	9/06/88	10/13/88	2/22/89	3/22/89	4/20/89	5/22/89	6/30/89	7/27/89	8/30/89	9/29/89	11/02/89	11/29/89	1/03/90	2/05/90	3/14/90	4/11/90
MW-1	0.66	0.51	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	<0.5	<0.5	<0.5	1.3	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	<0.5	<0.5	<0.5	<0.5	3.3	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4	<0.5	0.68	<0.5	<0.5	<0.5	50	0.62	1.1	0.75	<0.5	1.6	1.4	1.6	1.6	1.0	1.4
MW-5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-6	<0.5	0.74	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5	<0.5
MW-8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-10									0.93	1.5	3.6	3.7	5.1	5.5	3	2.8
MW-11									<0.5	<0.5	0.62	<0.5	<0.5	<0.5	<0.5	<0.5
MW-12									<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

T5016A-2

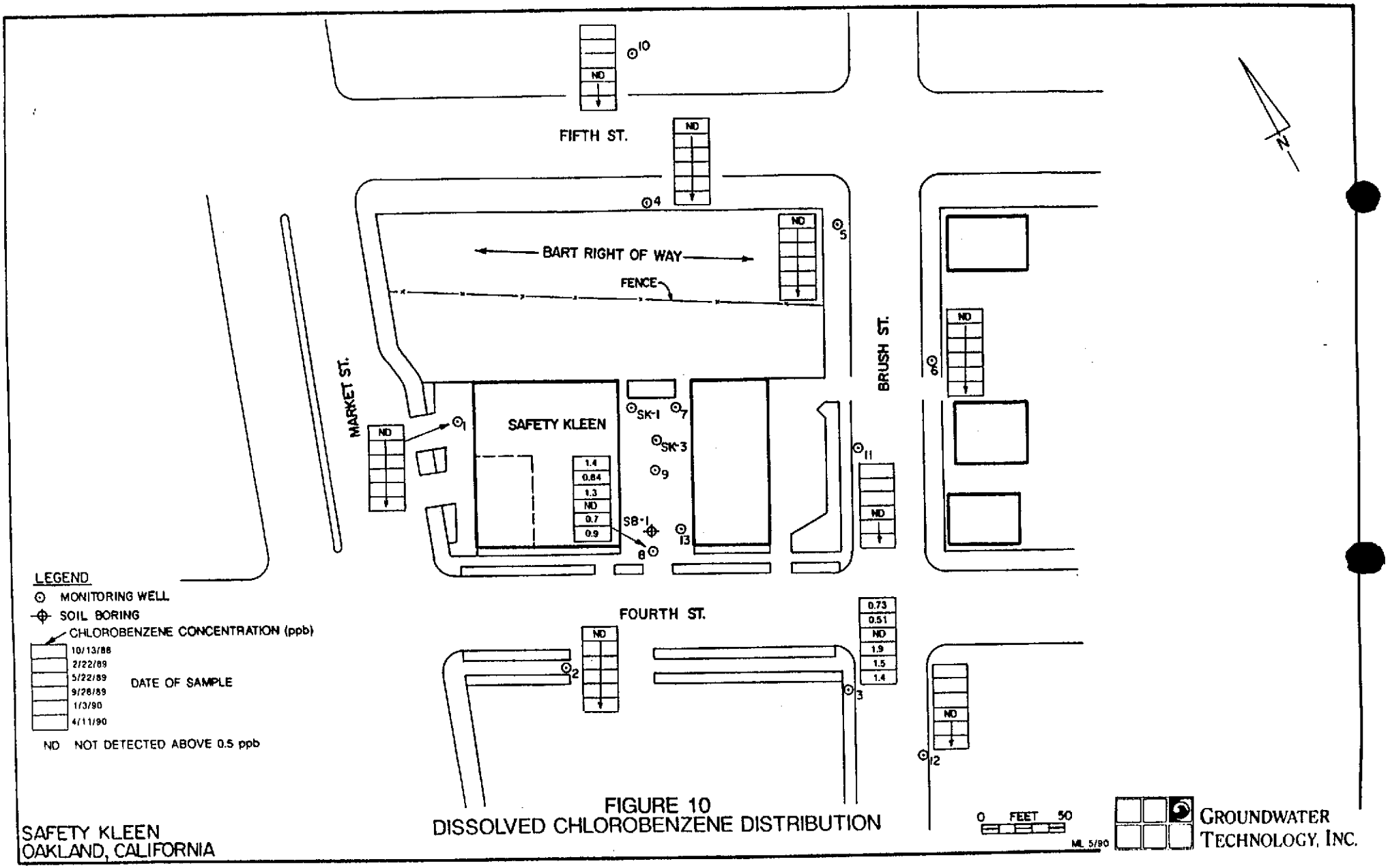


FIGURE 10
DISSOLVED CHLOROBENZENE DISTRIBUTION

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

Figure 11 presents the dissolved chloroform distribution. Chloroform is only regularly detected in monitoring well MW-10 and in MW-4, downgradient of MW-10. Chloroform was not detected in the groundwater sampled from beneath the mineral spirits free product in monitoring wells MW-7 and MW-9. Chloroform presence in the groundwater is apparently uniquely associated with an upgradient source of dissolved chlorinated hydrocarbon compounds.

SITE HYDROGEOLOGY

Groundwater at the site exists under unconfined conditions within silty and clayey fine sand of the Merritt Sands. Merritt Sands generally yield only small quantities of water to wells, and decrease in permeability with depth. Within the groundwater zone, these deposits appear to be relatively uniform and laterally continuous (See Appendix A, Drill logs). Sieve analysis of one sample from the Merritt Sands indicated an approximate distribution of 70 percent fine sand and 30 percent silt and clay. A clay layer at least 5-feet-thick was encountered at a depth of 68-feet below grade in the boring for monitoring well MW-13. This clay layer is interpreted at the base of the Merritt Sand deposits, and corresponds to the known thickness of the Merritt Sand in the area.

Groundwater elevation monitoring data indicate that the groundwater gradient is consistently due south with a consistent average magnitude of .0041. A consistent downward vertical gradient has also been documented at the site. The presence of a downward vertical gradient may indicate that the clay layer at the base of the Merritt Sand is allowing leakage into the older alluvium of the Alameda Formation below.

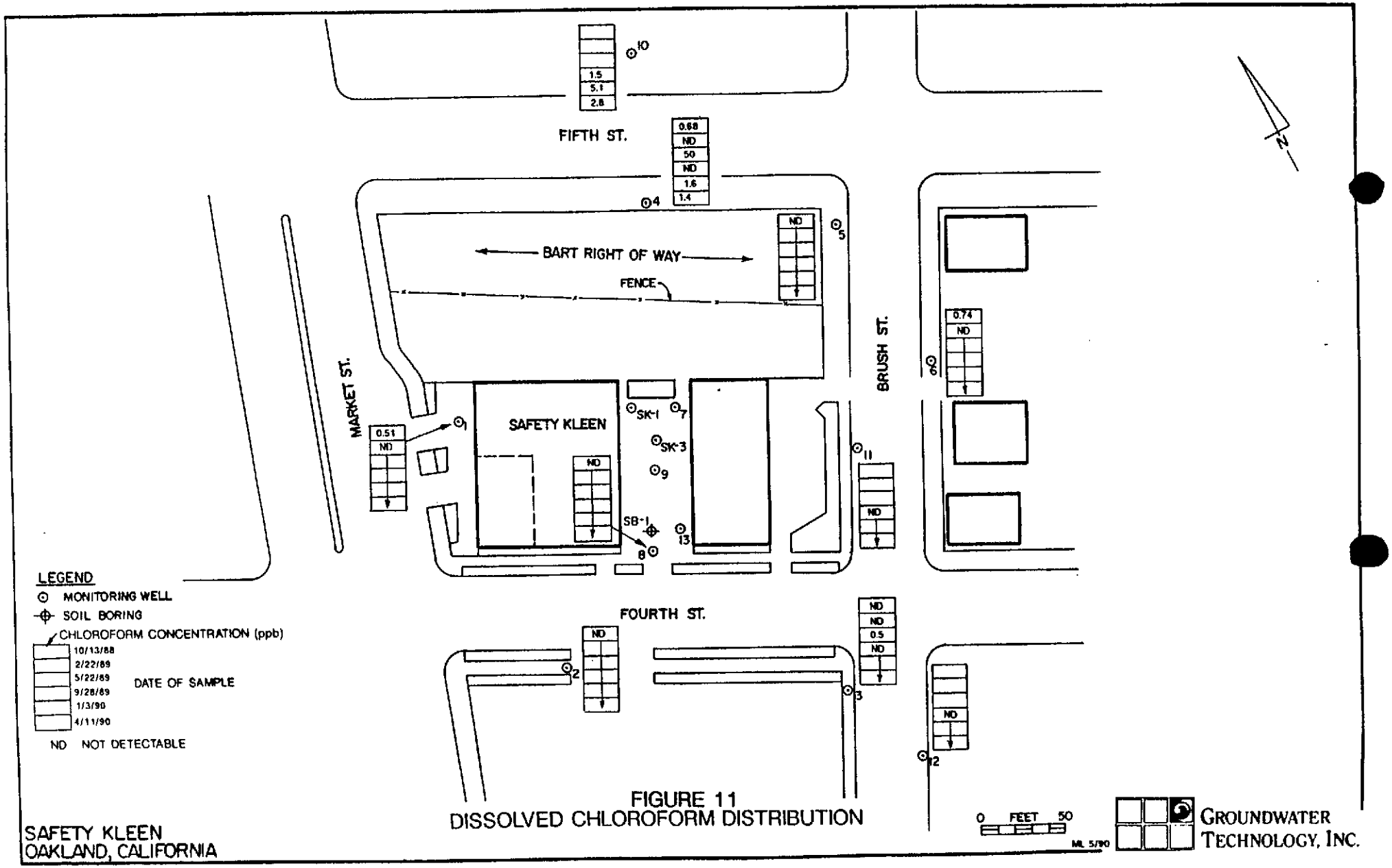


FIGURE 11
DISSOLVED CHLOROFORM DISTRIBUTION

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

SOIL-VENTING FEASIBILITY

The results of soil-vent testing indicate that application of soil-vent technology for the remediation of vadose zone soils contaminated with spent mineral spirits solvents would be feasible at this site. The test indicated that a vertical venting point could achieve a horizontal radius of influence of approximately 35 feet. The test also indicated that mineral spirits vapors could be withdrawn from the vadose-zone soils using standard vacuum-extraction techniques. The results of the soil-venting test are detailed in the report included in Appendix E.

WELL SEARCH

The results of the Department of Water Resources (DWR) well records research indicates that no private, municipal or industrial production water wells are present within a one-half-mile radius of the site. Some groundwater monitoring wells and three industrial supply wells are located outside of the one-half-mile radius. Table 8 lists the known locations of these wells as recorded by the DWR.

SUMMARY AND CONCLUSIONS

Groundwater in the site area experiences relatively little fluctuation in elevation and in gradient direction and magnitude through the seasonal hydrologic cycle. Dissolved mineral spirits are not detectable in the groundwater at the site. Dissolved chlorinated compounds present in the groundwater remained at consistent levels throughout the reporting period except near monitoring well MW-10, upgradient of the site. The extent of the

TABLE 8

INVENTORY OF WELLS LOCATED IN TOWNSHIP 15 RANGE 4W

OWNER	OWNER'S ADDRESS	WELL LOCATION	YEAR DRILLED	USE
Port of Oakland		10 NW of Brush Street at 4th	6/30/88	Test Bore
Port of Oakland	Grove St. Pier, Oakland	Calo Dog Food Plant 3rd Street Pier	1955	Industrial
Chevron Station	GTI No. 20-3235	7th and Cypress 25.5' deep	4/19/85	
Southern Pac. RR	6825 Mission, Daly City	3rd and Kirkham	1939	Industrial
Universal Foods	Oakland	1384 5th Street	8/8/69	Industrial
R.S. Eagan & Co.	333 Market St., Oakland	3rd & Market	10/13/87	Industrial
Marine Treminal Warehouse	(same as above)	(same as above)	2/88	Monitoring
Texaco	Martin Luther King	203 150 4314	1987	Monitoring
Port of Oakland	Jack London Square	10' from 1st and 20' from Washington	1987	
Port of Oakland	(same as above)	(same as above)		
Port of Oakland	(same as above)	(same as above)		
PE O'Hair	339 3rd Street, Oakland	3 total wells		

dissolved chlorinated compounds in the downgradient direction is not fully defined. However, the fact that consistent concentrations have been measured in the wells suggests that the dissolved plume may be static and at equilibrium with current conditions of the groundwater system, so that the processes of dispersion, adsorption, and biodegradation are in equilibrium with the source input rate. Data from upgradient wells suggest that an upgradient source for much greater concentrations of chlorinated hydrocarbons may also exist, and may be mixing with chlorinated compounds originating from the Safety-Kleen site. Additionally, steadily increasing levels of chlorinated hydrocarbons in the upgradient wells may indicate that the suspected upgradient source is significant in magnitude. The compounds chlorobenzene and chloroform may be indicator parameters of the impacted-groundwater contamination as a result of the interpreted different source areas.

The vertical distribution of dissolved chlorinated hydrocarbons was investigated through installation of a deep screened monitoring well on site. Results indicate that dissolved contamination has not reached the base of the water table aquifer. However, a downward vertical groundwater gradient has been found to exist at the site.

Soil venting was confirmed to be a feasible option for treating the vadose-zone contamination in the source area.

Well research indicates that no water wells are located within a one-half-mile radius of the site.

REFERENCES

1. Alameda County Flood Control District, Geohydrology and Groundwater-Quality Overview, East Bay Plain Area, Alameda County, California, June 1988.

2. Alameda County Flood Control District, Groundwater in the San Leandro and San Lorenzo Alluvial Cones of the East Bay Plain of Alameda County, 1984.

3. CWC-HDR, Subsurface Investigation and Leak Monitoring Installation at the Oakland Safety-Kleen Facility, 1986.

4. Fisher, Hugo, Brown, Edmund, G. and Warner, William E., 1963, Alameda County Investigation, The Resources Agency of California, DWR, Bulletin No. 13.

5. Groundwater Technology, Inc., Interim Update Report, September 9, 1988.

6. Redbruch, Dorothy, H., 1957, Areal and Engineering Geology of Oakland West Quadrangle, California; U.S.G.S., Miscellaneous Map Investigations, Map I-239.

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 1 — Drilling Log

Project: Safety Kleen/Oakland — Owner: Safety Kleen
Location: Oakland, CA — Project Number: 203 680 5016.01
Date Drilled: 7/25/88 — Total Depth of Hole: 45 ft — Diameter: 10.5 in
Surface Elevation: — Water Level Initial: 10 ft — 24-hour:
Screen: Dia. 2 in — Length: 25 ft — Slot Size: .010 in
Casing: Dia. 2 in — Length: 5 ft — Type: PVC
Drilling Company: Sierra Pacific — Drilling Method: hollow stem augers
Driller: Chris DeSocio — Log by: Kelly A. Kline
Geologist / Engineer: — License No.:

Sketch Map

See Site Plan

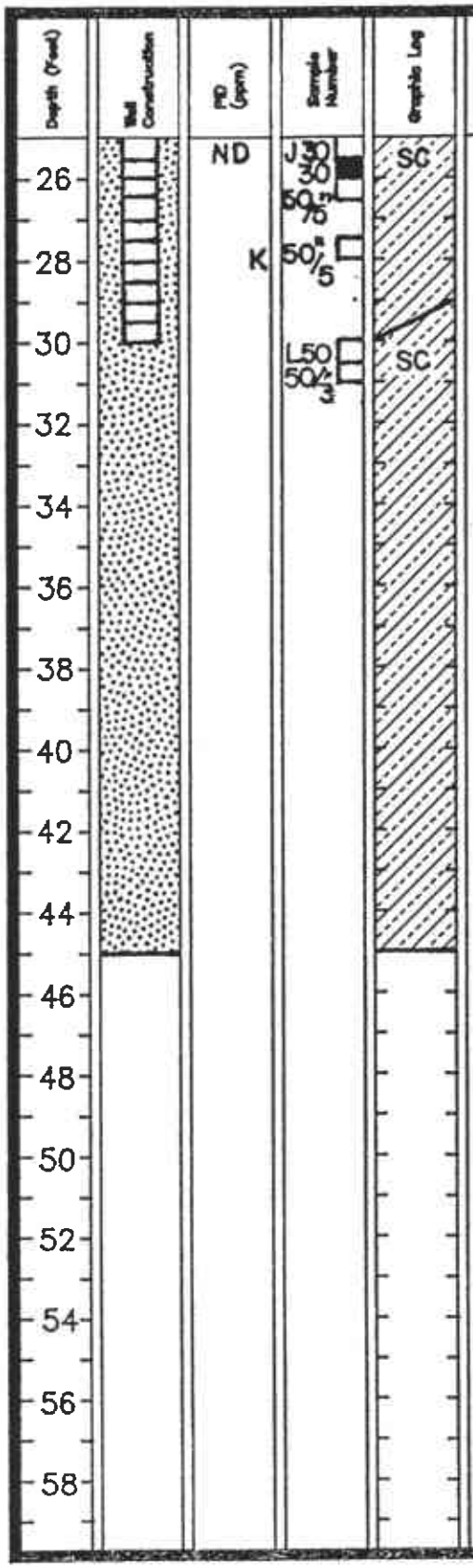
Notes:
Hole colapsed to 30 ft after drilling

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
0					6 in asphalt over 6 in base coarse
2		ND	A 7 8 11	SC	Dark reddish brown clayey silty sand (medium dense, moist, no product odor)
4					(grades lighter brown)
6		ND	B 7 15 19		(grades darker brown)
8			C 7 9 10		(grades more clayey)
10		ND	D 5 6 10		▼ Encountered water 7/25/88 (1141 hrs.)
12		ND	E 6 5 8	SC	Light brown silty clayey fine to medium sand (no product odor)
14					
16		ND	F 7 7 9		
18		ND	G 12 12 16		
20		ND	H 20 40 54		
22		ND	I 11 46		Light brown sandy clay (hard, wet, no product odor)
24			50/5"	CL	

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 1

Drilling Log



Description/Soil Classification (Color, Texture, Structures)
Light brown clayey sand (very dense, wet, no product odor)
(grades find sand)
Grey clayey sand (very dense, wet, no product odor)
End of boring. Installed monitoring well (hole colapsed to 30 ft).

5/86 REV. 8

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 2

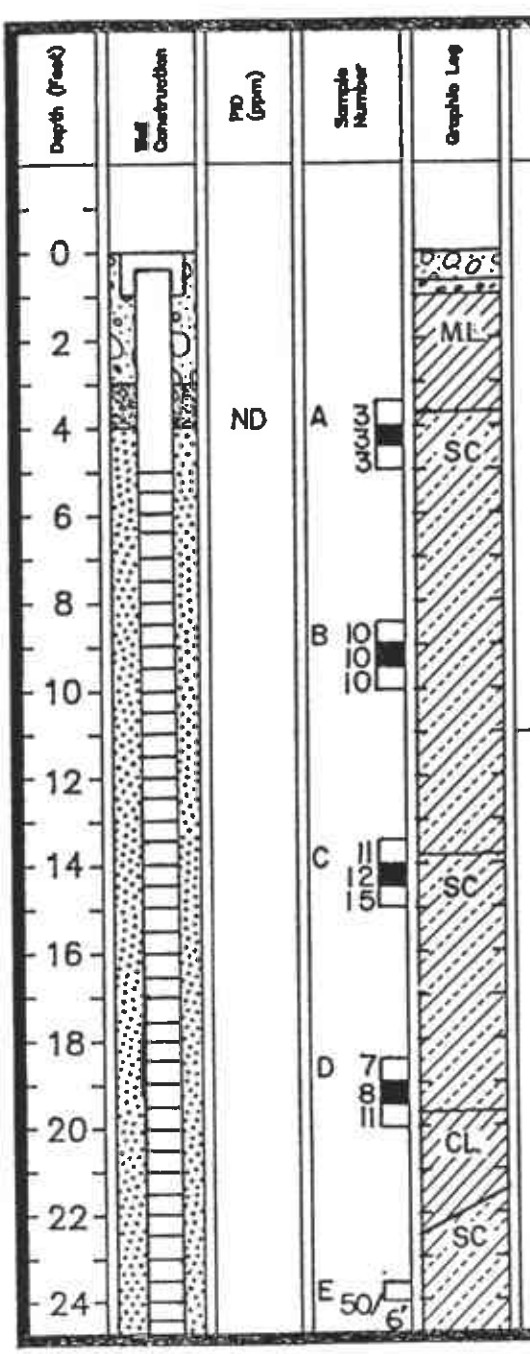
Drilling Log

Project Safety Kleen/Oakland Owner Safety Kleen
Location Oakland, CA Project Number 203 680 5016.01
Date Drilled 7/26/88 Total Depth of Hole 31 ft Diameter 10.5 in
Surface Elevation ____ Water Level Initial 11 ft 24-hour ____
Screen: Dia. 2 in Length 25 ft Slot Size .010 in
Casing: Dia. 2 in Length 5 ft Type PVC
Drilling Company Sierra Pacific Drilling Method hollow stem augers
Driller William Coleman Log by Kelly A. Kline
Geologist / Engineer ____ License No. ____

Sketch Map

See Site Plan

Notes:



Description/Soil Classification
(Color, Texture, Structures)

8 in concrete over 4 in base course

Dark brown sandy silt (soft, moist, no product odor)

Light brown clayey silty fine sand (loose, moist, no product odor)

(grades more clayey)
(grades medium dense)

▼ Encountered water 7/26/88 (0830 hrs.)

Light brown clayey silty very fine to fine sand, (medium dense, wet, no product odor)

Light brown sandy clay (very stiff, wet, no product odor)

Light brown clayey silty fine sand (very dense, wet, no product odor)

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 2

Drilling Log

Depth (feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				SC	Light brown clayey silty sand (cont'd)
28					
30			F25 50/4"		End of boring. Installed monitoring well.
32					
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 3

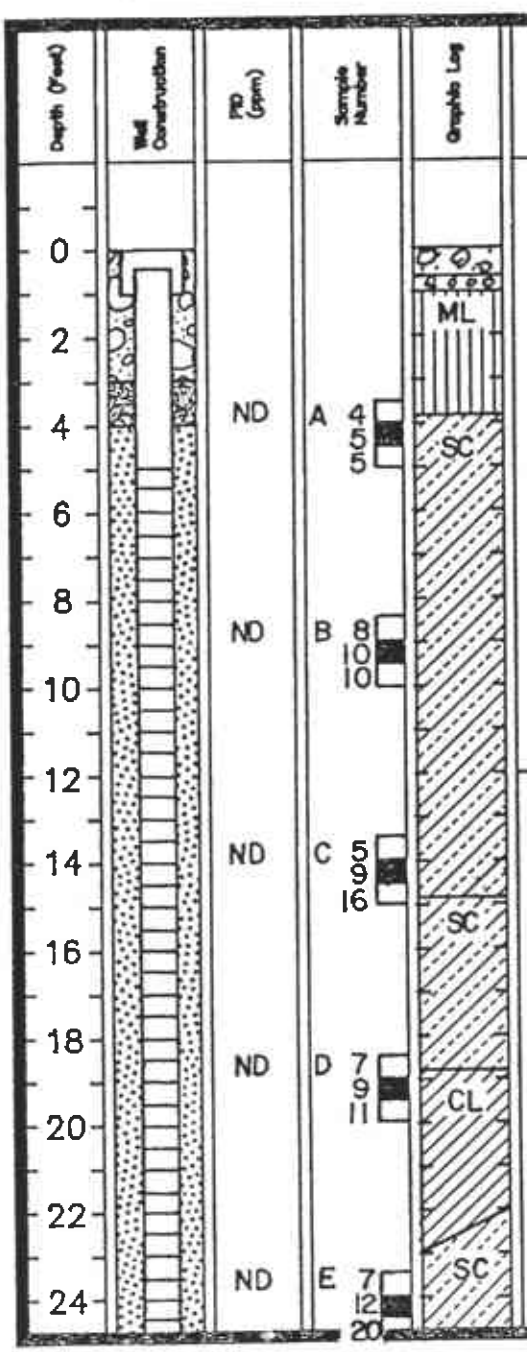
Drilling Log

Project Safety Kleen/Oakland Owner Safety Kleen
Location Oakland, CA Project Number 203 680 5016.01
Date Drilled 7/26/88 Total Depth of Hole 30.5 ft Diameter 10.5 in
Surface Elevation ____ Water Level Initial 12 ft 24-hour ____
Screen: Dia. 2 in Length 25 ft Slot Size .010 in
Casing: Dia. 2 in Length 5 ft Type PVC
Drilling Company Sierra Pacific Drilling Method hollow stem augers
Driller William Coleman Log by Kelly A. Kline
Geologist / Engineer ____ License No. ____

Sketch Map

See Site Plan

Notes:



Description/Soil Classification
(Color, Texture, Structures)

8 in concrete over 4 in base course

Dark brown sandy silt (soft, moist, no product odor)

Light brown clayey silty very fine to fine sand (medium dense, moist, no product odor)

(grades more clayey)

▼ Encountered water 7/26/88 (1500 hrs.)

Light brown silty clayey very fine to fine sand (medium dense, wet, no product odor)

Light brown sandy clay (very stiff, wet, no product odor)

Light brown clayey silty very fine to fine sand (dense, wet, no product odor)

6/88 REV. 0

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 3

Drilling Log

Depth (feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				SC	Light brown clayey silty sand (cont'd)
28					
30			F 15		End of boring. Monitoring well installed.
32			50/1"		
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 4

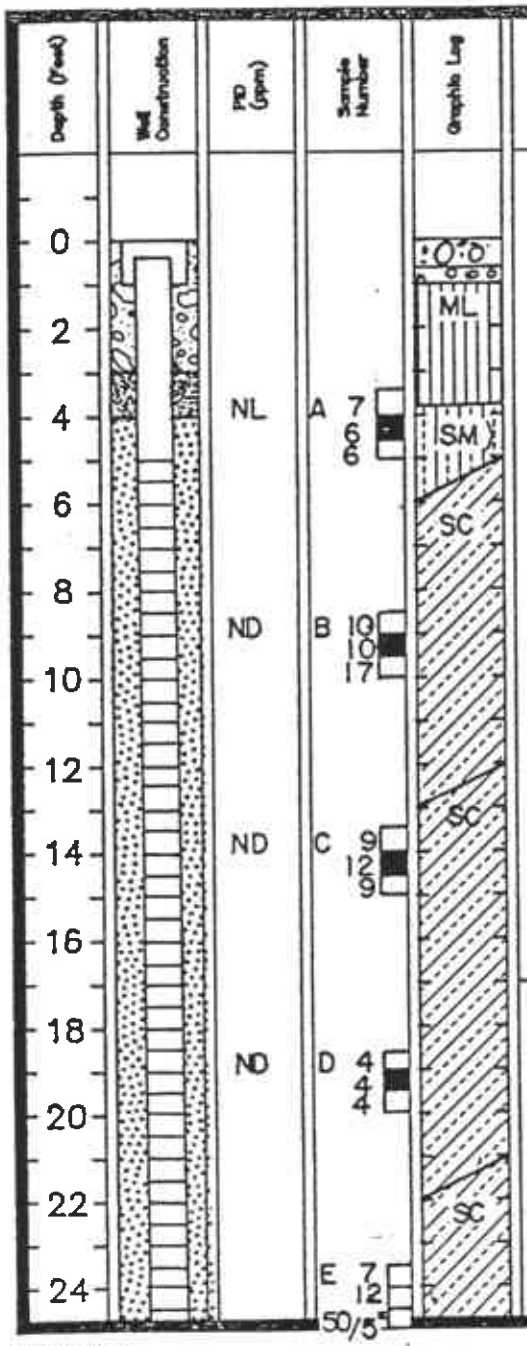
Drilling Log

Project Safety Kleen/Oakland Owner Safety Kleen
Location Oakland, CA Project Number 203 680 5016.01
Date Drilled 7/27/88 Total Depth of Hole 31 ft Diameter 10.5 in
Surface Elevation ____ Water Level Initial 17 ft 24-hour ____
Screen: Dia. 2 in Length 5 ft Slot Size .010 in
Casing: Dia. 2 in Length 25 ft Type PVC
Drilling Company Sierra Pacific Drilling Method hollow stem augers
Driller William Coleman Log by Kelly A. Kline
Geologist / Engineer ____ License No. ____

Sketch Map

See Site Plan

Notes:



Description/Soil Classification
(Color, Texture, Structures)

8 in concrete over 4 in base course

Dark brown sandy silt (soft, moist, no product odor)

Light brown silty fine sand (medium dense, moist, no product odor)

Light brown silty clayey medium to fine sand (medium dense, moist, no product odor)

Light brown clayey silty very fine to fine sand (medium dense, moist, no product odor)

▼ Encountered water 7/27/88 (1300 hrs.)

Light brown clayey silty fine sand (medium dense, wet, no product odor)

8/88 REV. C

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 4

Drilling Log

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				SC	Light brown clayey silty sand (cont'd)
28					
30			F	SC	Grey clayey sand (dense, wet, no product odor)
32					End of boring. Installed monitoring well.
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 5

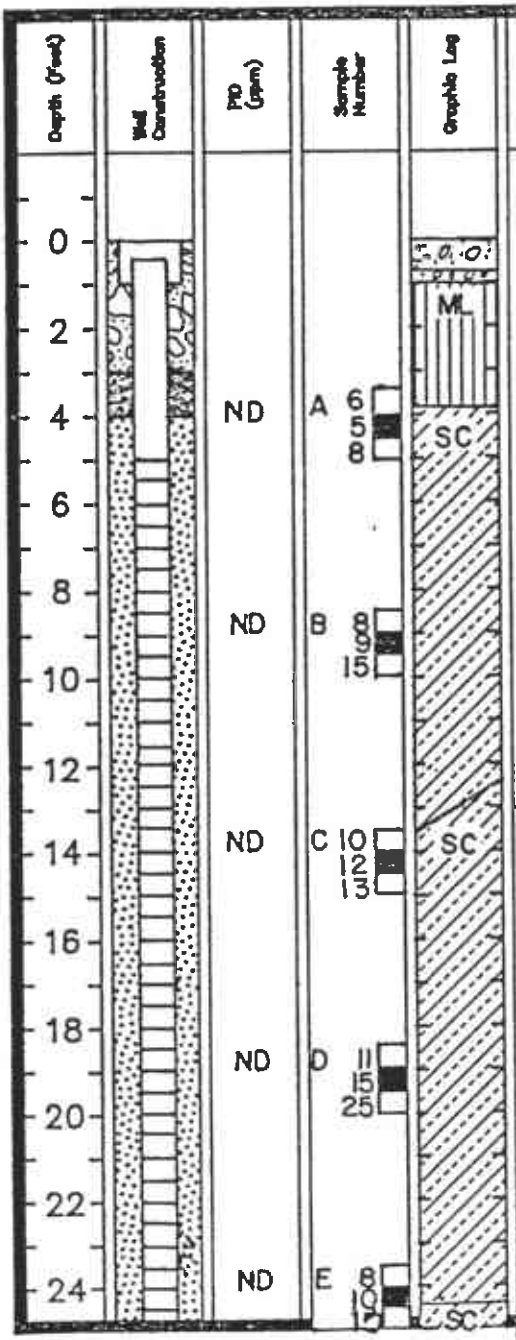
Drilling Log

Project Safety Kleen/Oakland Owner Safety Kleen
Location Oakland, CA Project Number 203 680 5016.01
Date Drilled 7/27/88 Total Depth of Hole 30.5 ft Diameter 10.5 in
Surface Elevation ____ Water Level Initial 13 ft 24-hour ____
Screen: Dia. 2 in Length 25 ft Slot Size .010 in
Casing: Dia. 2 in Length 5 ft Type PVC
Drilling Company Sierra Pacific Drilling Method hollow stem augers
Driller William Coleman Log by Kelly A. Kline
Geologist / Engineer ____ License No. ____

Sketch Map

See Site Plan

Notes:



Description/Soil Classification (Color, Texture, Structures)

8 in concrete over 4 in base course

Dark brown sandy silt (soft, moist, no product odor)

Light brown clayey silty fine-medium sand (medium dense, moist, no product odor)

(grades more clayey)

▼ Encountered water 7/27/88 (1600 hrs.)

Light brown clayey silty fine sand (medium dense, wet, no product odor)

Light brown clayey silty fine sand (medium dense, no product odor)

6/88 REV. C

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 5

Drilling Log

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				SC	Light brown clayey silty sand (cont'd)
28					
30			F □	SC	Grey clayey sand (loose, wet, no product odor)
32					End of boring. Installed monitoring well.
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

6/86 REV. B

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 6

Drilling Log

Project Safety Kleen/Oakland — Owner Safety Kleen
Location Oakland, CA — Project Number 203 5016.01
Date Drilled 7/28/88 — Total Depth of Hole 30.5 ft — Diameter 10.5 in
Surface Elevation — Water Level Initial 13 ft — 24-hour
Screen: Dia. 2 in — Length 25 ft — Slot Size .010 in
Casing: Dia. 2 in — Length 5 ft — Type PVC
Drilling Company Sierra Pacific — Drilling Method Hollow stem augers
Driller William Coleman — Log by Kelly A. Kline
Geologist / Engineer — License No.

Sketch Map

See Site Plan

Notes:

Depth (feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
0					6 in concrete over 6 in base course
2				ML	Dark brown sandy silt (soft, moist, no product odor)
4		ND	A 6 5 7	SC	Light brown clayey silty fine sand (medium dense, no product odor)
6					
8		ND	B 8 9 8		
10					
12					▼ Encountered water 7/28/88 (0850 hrs.)
14		ND	C 10 13 23		
16					
18		ND	D 10 10 18		
20				CL	Light brown sandy clay (stiff, wet, no product odor)
22				SC	Light brown clayey silty fine sand (dense, wet, no product odor)
24		ND	E 50/6"		

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 6

Drilling Log

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				SC	Light brown clayey silty fine sand (cont'd)
28					
30		ND	F - ■	SC	Grey clayey sand (loose, wet, no product odor)
32					End of boring. Installed monitoring well.
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 7

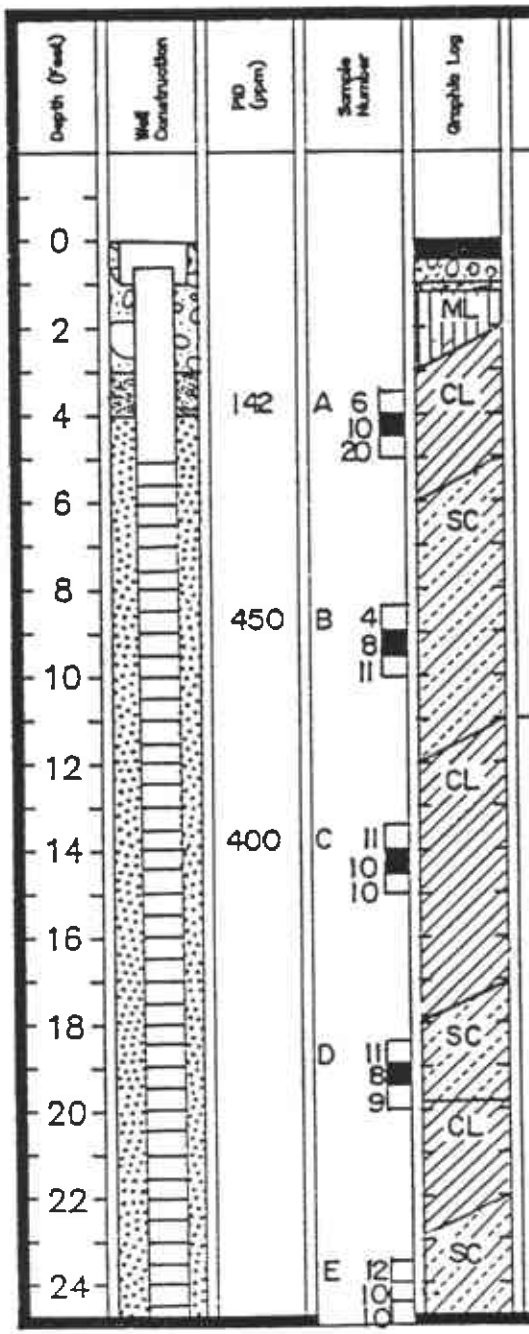
Drilling Log

Project Safety Kleen/Oakland Owner Safety Kleen
Location Oakland, CA Project Number 203 680 5016.01
Date Drilled 7/28/88 Total Depth of Hole 30.5 ft Diameter 10.5 in
Surface Elevation ____ Water Level Initial 11 ft 24-hour ____
Screen: Dia. 2 in Length 25 ft Slot Size .010 in
Casing: Dia. 2 in Length 5 ft Type PVC
Drilling Company Sierra Pacific Drilling Method hollow stem augers
Driller William Coleman Log by Kelly A. Kline
Geologist / Engineer ____ License No. ____

Sketch Map

See Site Plan

Notes:



Description/Soil Classification
(Color, Texture, Structures)

6 in asphalt over 6 in base course

2 in concrete layer

Dark black sandy silt (soft, moist, strong product odor)

Dark black clayey sand (loose, moist, strong product odor)

Light brown clayey sand (medium dense, wet, strong product odor)

▼ Encountered water 7/28/88 (1400 hrs.)

Blue-grey, tan mottled, sandy clay (very stiff, wet, strong product odor)

Blue-grey, tan mottled, clayey sand (medium dense, wet, strong product odor)

Light brown sandy clay (stiff, wet, product odor)

Light brown clayey sand (medium dense, wet, product odor)

8/88 REV. C

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 7

Drilling Log

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				SC	Light brown clayey silty fine sand (cont'd)
28					
30				SC	Grey clayey sand (loose, wet, product odor) End of boring. Installed monitoring well.
32					
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 8

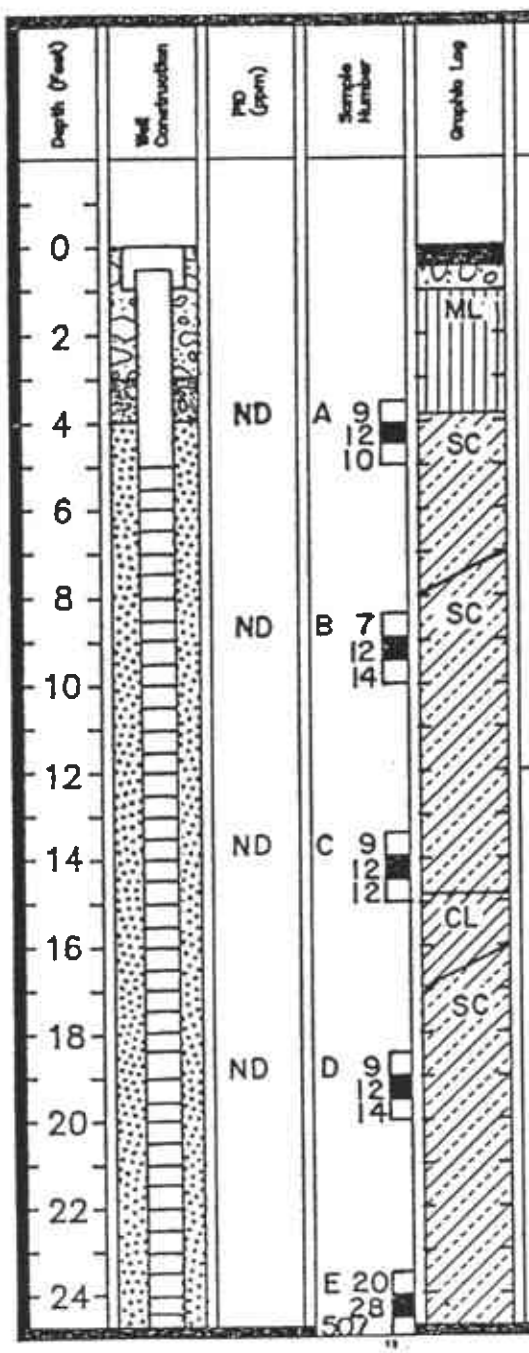
Drilling Log

Project Safety Kleen/Oakland Owner Safety Kleen
Location Oakland, CA Project Number 203 680 5016.01
Date Drilled 7/29/88 Total Depth of Hole 30.5 ft Diameter 10.5 in
Surface Elevation ____ Water Level Initial 12 ft 24-hour ____
Screen: Dia. 2 in Length 25 ft Slot Size .010 in
Casing: Dia. 2 in Length 5 ft Type PVC
Drilling Company Sierra Pacific Drilling Method hollow stem auger
Driller William Coleman Log by Kelly A. Kline
Geologist / Engineer ____ License No. ____

Sketch Map

See Site Plan

Notes:



Description/Soil Classification
(Color, Texture, Structures)

6 in asphalt over 6 in base course

Dark black sandy silt (soft, moist, no product odor)

Light brown clayey silty very fine to fine sand (medium dense, moist, no product odor)

Light brown silty clayey very fine to fine sand (medium dense, moist, no product odor)

▼ Encountered water 7/29/88 (1000 hrs.)

Light brown, grey mottled, sandy clay (very stiff, wet, no product odor)

Light brown clayey silty very fine to fine sand (medium dense, loose, wet, no product odor)

6/88 REV. 0

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 8

Drilling Log

Depth (Feet)	Well Construction	P.I. (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				SC	Light brown silty sand (cont'd)
28					
30			F 50	SC	Grey clayey sand (dense, wet, no product odor)
32					End of boring. Installed monitoring well.
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

6/88 REV. 8

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 9

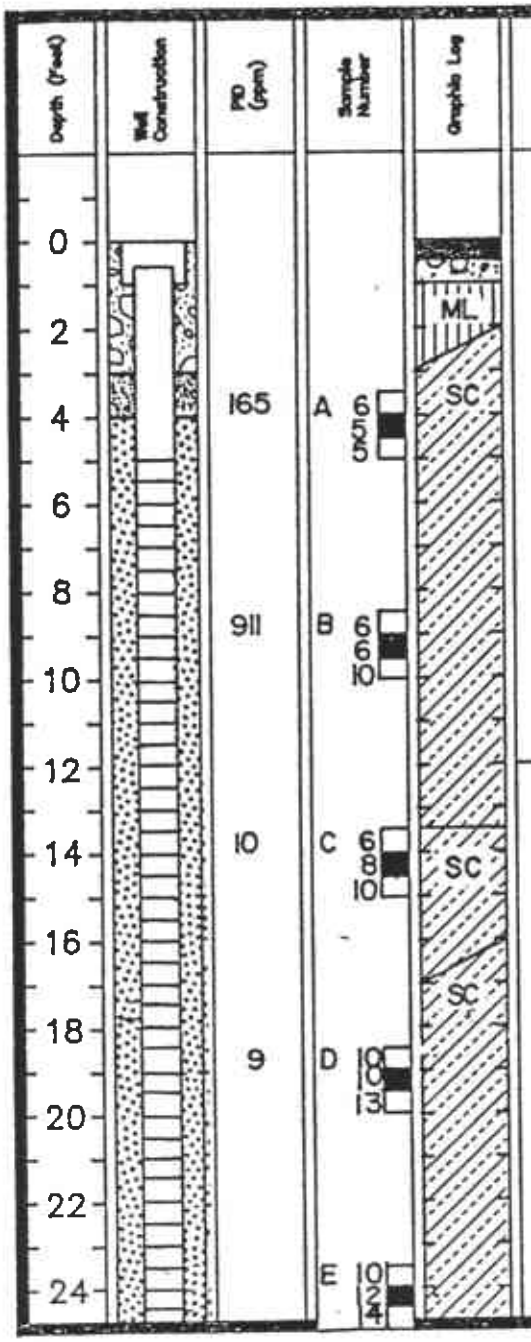
Drilling Log

Project Safety Kleen/Oakland Owner Safety Kleen
Location Oakland, CA Project Number 203 680 5016.01
Date Drilled 7/29/88 Total Depth of Hole 30.5 ft Diameter 10 in
Surface Elevation ____ Water Level Initial 12 ft 24-hour ____
Screen: Dia. 4 in Length 25 ft Slot Size .010 in
Casing: Dia. 4 in Length 5 ft Type PVC
Drilling Company Sierra Pacific Drilling Method hollow stem auger
Driller William Coleman Log by Kelly A. Kline
Geologist / Engineer ____ License No. ____

Sketch Map

See Site Plan

Notes:



Description/Soil Classification
(Color, Texture, Structures)

6 in asphalt over 6 in base course
Dark black sandy silt (soft, moist, strong product odor)

Dark brown clayey silty very fine to fine sand (loose, moist, very strong product odor)

(grades medium dense)

▼ Encountered water 7/29/88 (1400 hrs.)

Light brown, grey mottled, clayey silty very fine, to fine sand (medium dense, wet, no product odor)

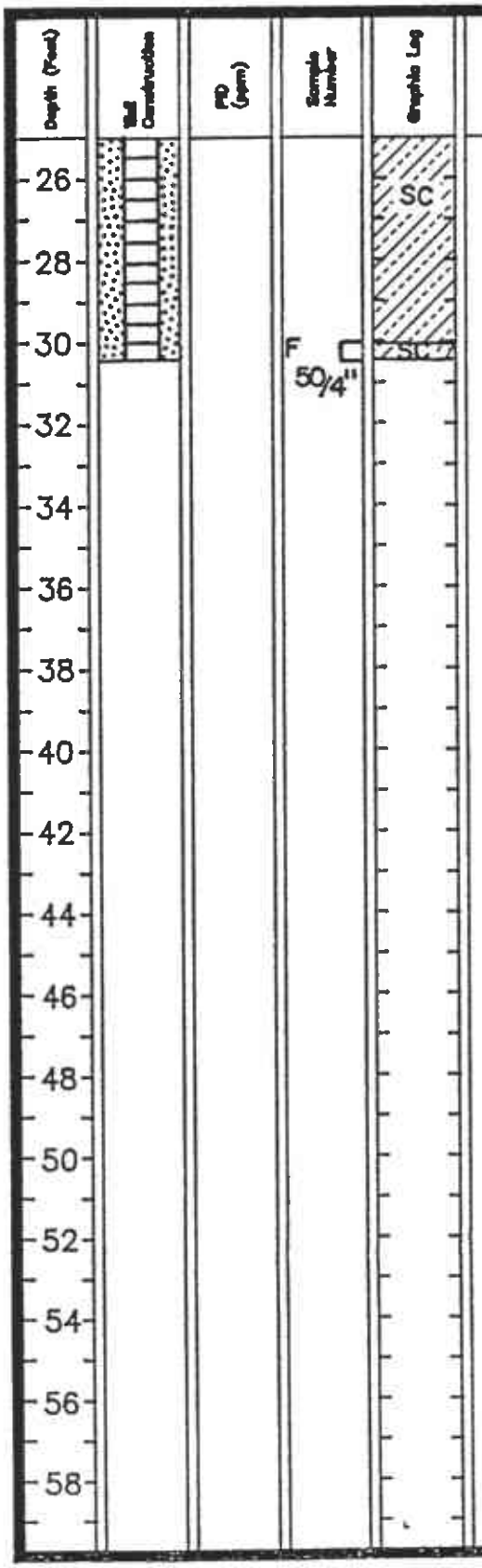
Light brown clayey, silty very fine to fine sand (medium dense, loose, wet, product odor)

6/88 REV. 0

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 9

Drilling Log



Description/Soil Classification (Color, Texture, Structures)
Light brown clayey silty sand (cont'd)
Grey clayey sand (dense, wet, no product odor)
End of boring. Installed monitoring well.

5/86 REV. 5

Drilling Log

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 10

Project Safety-Kleen/Oakland Owner Safety-Kleen Corporation
Location 404 Market Street Project Number 203 680 5016.04
Date Drilled 8/18/89 Total Depth of Hole 30' Diameter 7.5"
Surface Elevation ____ Water Level Initial 9' 24-hour ____
Screen: Dia. 2" Length 25' Slot Size .010"
Casing: Dia. 2" Length 5' Type PVC
Drilling Company Sierra Pac. Drilling Method Hollow Stem Auger
Driller Anthony Schonberger Log by Craig Robertson
Geologist/Engineer ____ License No. ____

Sketch Map

SEE SITE MAP

Notes
ND = Non detectable

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structure)
0				SM	Medium brown, silty, medium to fine sand (dense, damp, no product odor).
2					Light orange-brown, silty, fine sand with clay (very dense, moist, no product odor).
4		ND	A - 25 50	SM	
6					Medium orange-brown, silty, find sand (medium dense, saturated, no product odor).
8			B 12 15 19	SM	▼ Water encountered at 13:40 hours, 8/18/89.
10		ND			
12			C 6 8 9	SM	Medium yellow-brown, silty, find sand with clay (medium dense, saturated, no product odor).
14		ND			
16					
18			D 12 16 18	SP	Medium yellow-brown, fine sand with clay (dense, saturated, no product odor).
20		ND			
22			E 18	SP	Dark yellow-brown, fine sand with silt (very dense, saturated, no product odor).

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 10

Drilling Log

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26		ND	E 38 49	SP	Dark yellow-brown, sand with silt (cont'd)
28			F	SP	Light olive-gray, fine sand with silt (very dense, saturated, no product odor).
30		ND	18 34 50		End of boring at 30'. Installed monitoring well.
32					
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					

MARCH 21st, 1988 – REV. 0

Drilling Log

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 11

Project Safety-Kleen/Oakland Owner Safety-Kleen Corporation
Location 404 Market Street Project Number 203 680 5016.07
Date Drilled 8/18/89 Total Depth of Hole 30' Diameter 7.5"
Surface Elevation ____ Water Level Initial 8.5' 24-hour ____
Screen: Dia. 2" Length 25' Slot Size .010"
Casing: Dia. 2" Length 5' Type PVC
Drilling Company Sierra Pac. Drilling Method Hollow Stem Auger
Driller Derald Harris Log by Craig Robertson
Geologist/Engineer ____ License No. ____

Sketch Map

SEE SITE MAP

Notes
ND = Non-detectable

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structure)
0					8 inches asphalt
2					Light organge-brown, silty, fine sand with clay (very dense, damp, no product odor).
4		ND	A 15 30 32	SM	
6					Medium yellow-brown, fine sand with silt (medium dense, saturated, no product odor).
8			B 10 10 15	SP	▼ Encountered water 8/18/89 (1130 hrs.).
10		ND			
12			C 6 6 12	SC	Dusky yellow, clayey, fine sand with silt (stiff, saturated, no product odor).
14		ND			
16					Medium brown, clayey, fine sand with silt (dense, saturated, no product odor).
18			D 10 15 25	SC	(grades less clay)
20		ND			
22			E 15	SP	Dark yellow-brown, fine sand (loose, saturated, no product odor).

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 11

Drilling Log

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26		ND	E 21 35	SP	Dark yellow-brown, fine sand (dense, saturated, no product odor).
28			F 15 21 34		
30		ND			End of boring at 30'. Installed monitoring well.
32					
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					

Drilling Log

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 12

Project Safety-Kleen/Oakland Owner Safety-Kleen Corporation
Location 404 Market Street Project Number 203 680 5016,07
Date Drilled 8/18/89 Total Depth of Hole 30' Diameter 7.5"
Surface Elevation ____ Water Level Initial 12' 24-hour ____
Screen: Dia. 2" Length 25' Slot Size .010"
Casing: Dia. 2" Length 5' Type PVC
Drilling Company Sierra Pac. Drilling Method Hollow Stem Auger
Driller Derald Harris Log by Craig Robertson
Geologist/Engineer ____ License No. ____

Sketch Map

SEE SITE MAP

Notes
ND = Non-detectable

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structure)
0					12 inches asphalt
2				SM	Dark yellow-brown, fine sand (very loose, moist, no product odor).
4		ND	A 3 5 6		Medium yellow-brown, fine sand with silt (medium dense, moist, no product odor).
6				SM	
8			B 4 9 20		Medium yellow-brown, silty, fine sand with clay (medium dense, moist, no product odor.
10				SM	No recovery
12					▼ Encountered water 8/18/89 (0908 hrs.). Light brown, silty, fine sand with clay (medium dense, saturated no product odor).
14		ND	C 4 6 12	SM	
16					Medium brown, fine sand with silt (very dense, saturated, no product odor).
18			D 10 10 25	SM	
20		ND			
22					Medium brown, fine sand with silt (very dense, saturated, no product odor).
			E 17	SM	

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 12

Drilling Log

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26		ND	E 40 50	SM	Medium brown, fine sand (very dense, saturated, no product odor).
28			F 25 50	SM	Medium brown, medium sand (very dense, saturated, no product odor).
30		ND			End of boring, 30'. Installed monitoring well.
32					
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					

MARCH 21st, 1989 - REV. G

GROUNDWATER TECHNOLOGY, INC.

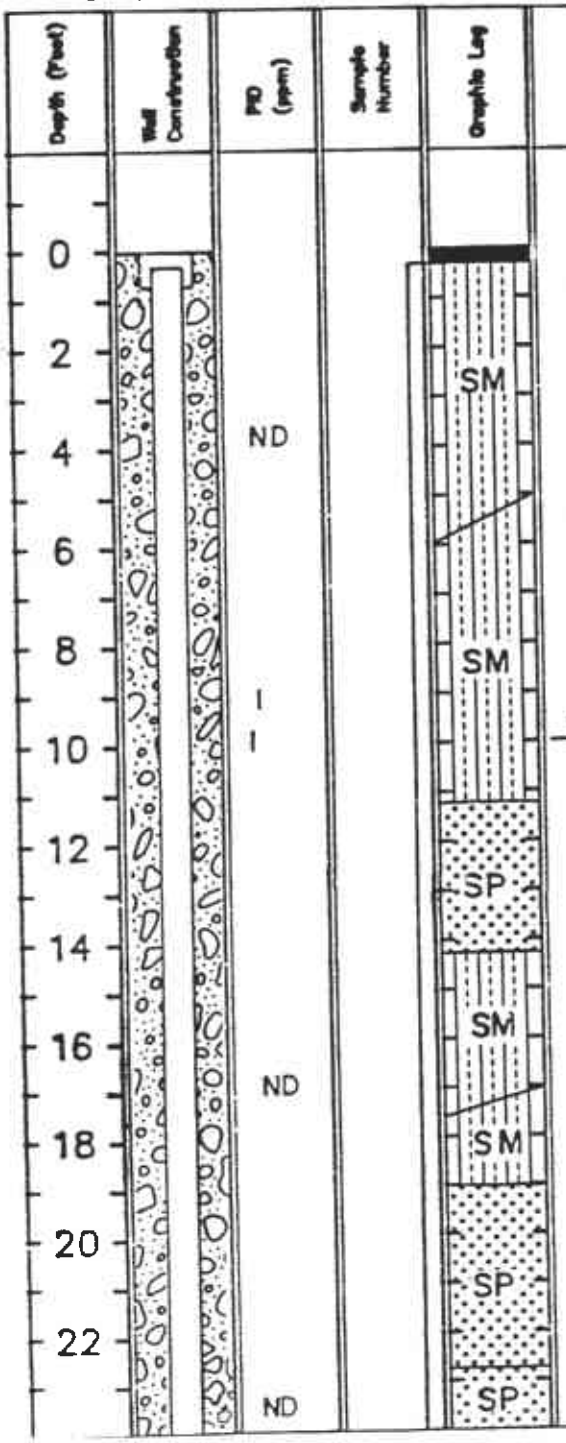
Monitoring Well 13

Project Safety-Kleen/Oakland Owner Safety-Kleen Corporation
Location 404 Market Street Project Number 203 680 5016.07
Date Drilled 9/11-12/89 Total Depth of Hole 74' Diameter 12"
Surface Elevation ____ Water Level Initial 10' 24-hour ____
Screen: Dia. 4" Length 5' Slot Size .010"
Casing: Dia. 4" Length 65' Type Stainless S.
Drilling Company All Terrain Drilling Method Hollow Stem Auger
Driller Wes Rigsby Log by Craig Robertson
Geologist/Engineer ____ License No. ____

Sketch Map

SEE SITE MAP

Notes
Continuously cored to 45'.



Description/Soil Classification (Color, Texture, Structure)

3 inches asphalt
Dark yellow-orange, silty, fine sand with trace of clay (loose, moist, no product odor).

Medium yellow-brown, silty, fine sand (1cm. partings loose, moist, no product odor).

▼ Encountered water 9/11/89 (13:15 hrs.).

Mottled, medium yellow-brown/dark yellow-orange, fine to medium sand with trace silt (loose, saturated, no product odor).

Orange-brown, silty fine sand (medium dense, saturated, no product odor).

Mottled, light grey-yellow/orange-brown, silty, fine sand with trace of clay (medium dense, saturated, no product odor).

Medium yellow-brown, medium sand (loose, saturated, no product odor).

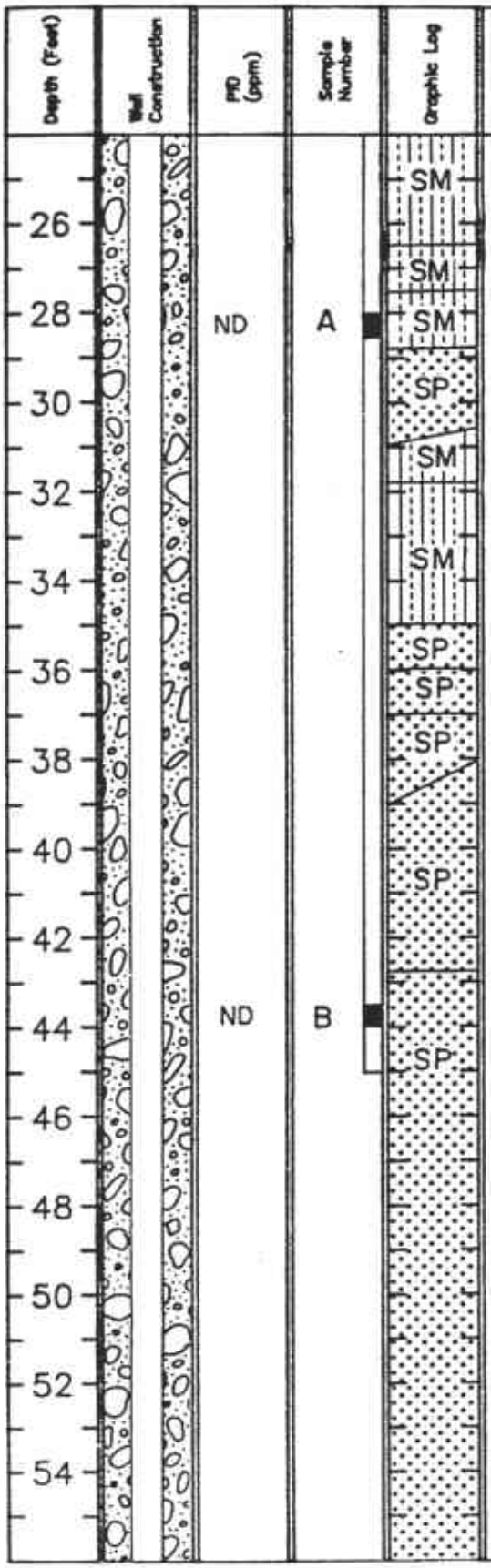
(increasing silts and clay, grades medium dense)

Medium yellow-brown, medium sand with partings (medium dense, saturated, no product odor).

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 13

Drilling Log



Description/Soil Classification
(Color, Texture, Structures)

Dark yellow-brown, fine sand (medium dense, saturated, no product odor).

Medium orange-brown, fine sand (medium dense, saturated, no product odor).

Medium brown, silty, find sand (very loose, saturated, no product odor).

Dark yellow-brown, fine sand (loose. saturated, no product odor).

Pale yellow-brown, fine sand (loose, saturated, no product odor).

Pale yellow-brown, fine sand with hematite lamella (medium dense, saturated, no product odor).

Medium gray, fine sand with trace silt (loose, saturated, no product odor).

Pale yellow-brown, fine (loose, saturated, no product odor).

Dark yellow-brown, fine (loose, saturated, no product odor).

(grades denser)

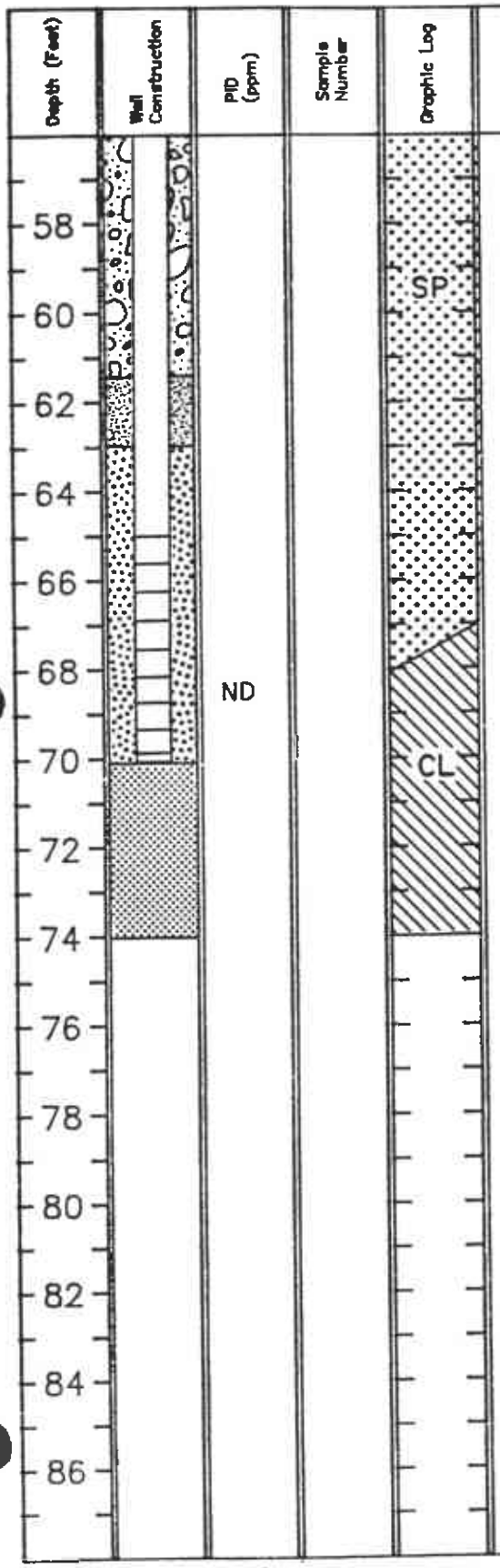
Dark yellow-brown, fine sand (loose, saturated, no product odor).

Unable to sample below 45 feet due to flowing sands. Installed plug in lead auger to continue drilling.

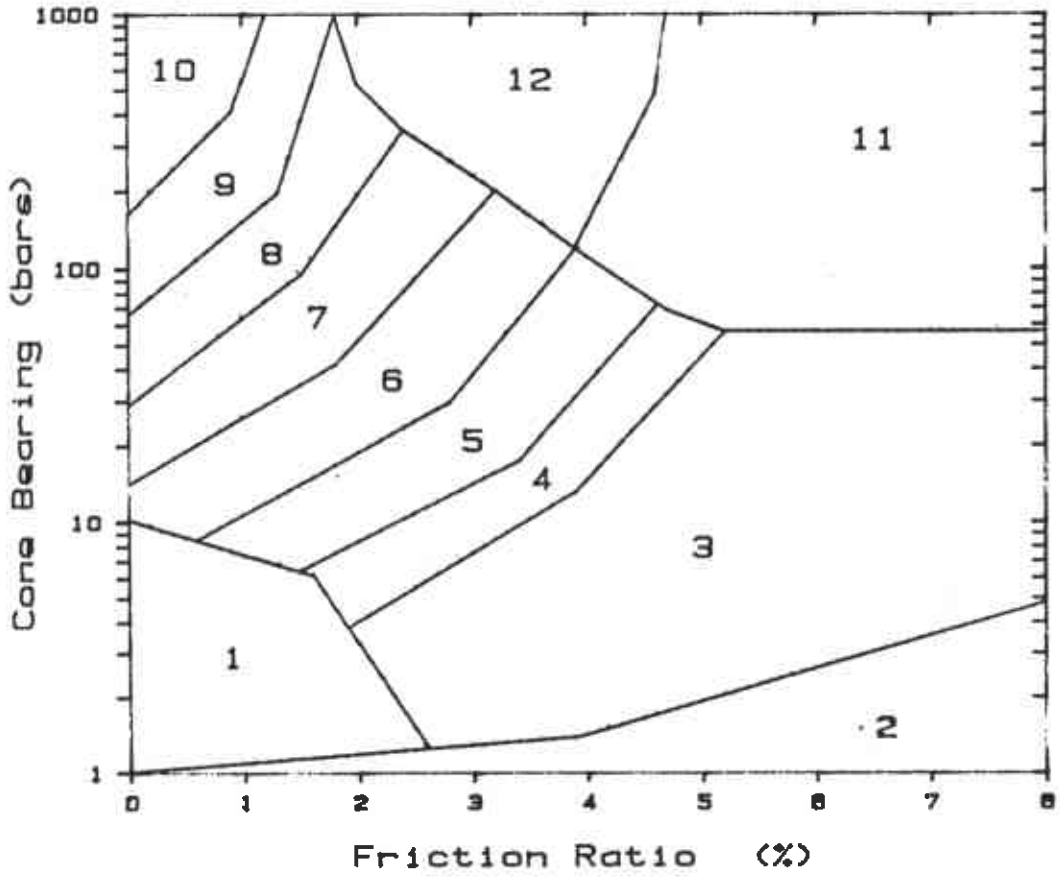
GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 13

Drilling Log



Description/Soil Classification (Color, Texture, Structures)
Gravelly sand (red chert, mafic pebbles 0.5 to 2 cm)
Light olive-grey, medium, sandy clay (soft, wet, no product odor). Occurrence was based upon bit rotation speed and penetration resistance. Sample was removed from the bit of the lead auger.
End of 8" diameter pilot boring at 74 feet. Boring caved to 68 feet. Reemed to 70 feet with 12" dia. augers. Installed monitoring well.



UBC CPT Classification Chart

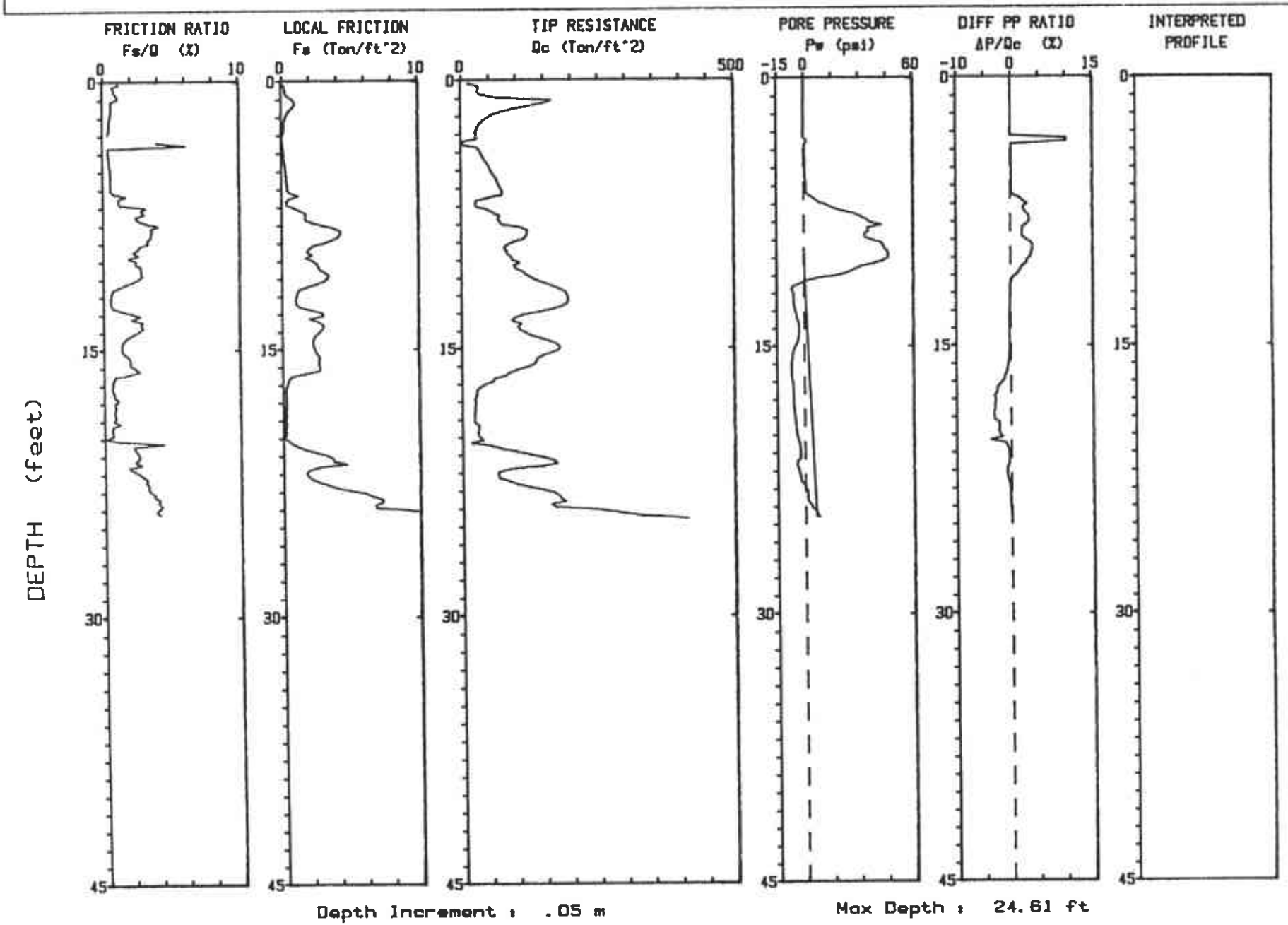
Zone	Qc/N	Soil Behaviour Type
1)	2	sensitive fine grained
2)	1	organic material
3)	1	clay
4)	1.5	silty clay to clay
5)	2	clayey silt to silty clay
6)	2.5	sandy silt to clayey silt
7)	3	silty sand to sandy silt
8)	4	sand to silty sand
9)	5	sand
10)	6	gravelly sand to sand
11)	1	very stiff fine grained (*)
12)	2	sand to clayey sand (*)

(*) overconsolidated or cemented

V B I

Operator : VIRGIL A. BAKER CPT Date : 11/30/89 10:07 Sounding : 31 Pg 1 / 1

Location : CPT-A Cone Used : 322 Job No. : 2035805016

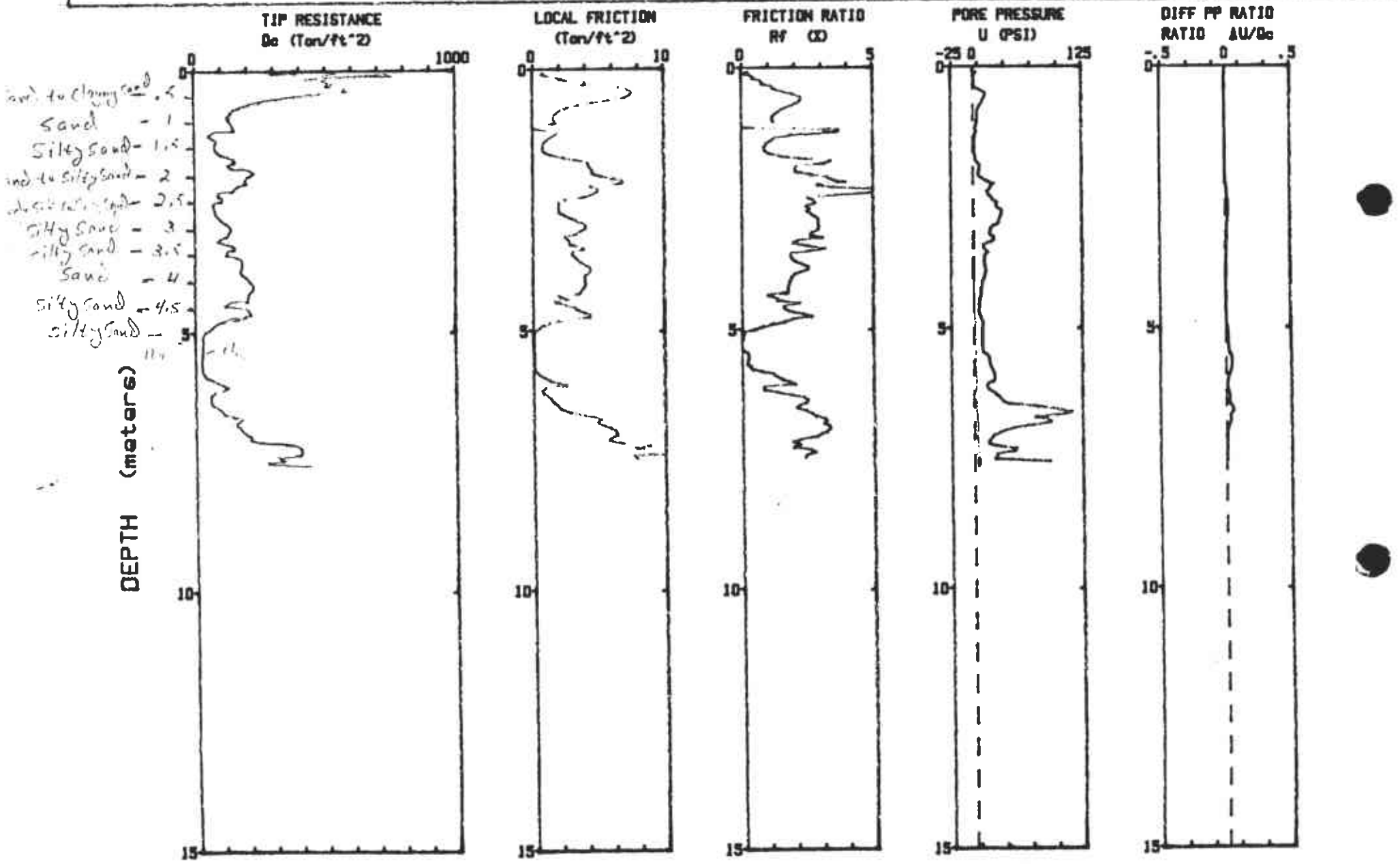


Depth Increment : .05 m Max Depth : 24.61 ft

V B I

OPERATOR VIRGIL A. BAKER | CPT Date : 08/29/89 10:15 | Page No: 1 / 1

Location : CPT-1 | Cone Used : 288 | Job No. : 20388501604



Depth Increment : .05 m

Max Depth : 7.55 m

APPENDIX B

LABORATORY REPORTS - SOIL

GTEL Environmental Laboratories
Division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520
PROJECT#: 203-680-5016.01-9
LOCATION: 404 Market
Oakland, CA
SAMPLED: 07/25,26,27,28,29/88 BY: K. Kline
RECEIVED: 08/03/88 BY: K. Fillinger
ANALYZED: 08/12/88 BY: P. Sra
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	28550A MW-2A	28551A MW-2B	28552A MW-2C	28553A MW-3A
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	0.7
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	1.0
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL
Environmental
Laboratories
Division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

PROJECT MGR: Steve Fischbein
PROJECT #: 203-680-5016.01-9
LOCATION: 404 Market
Oakland, CA
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D. #	28554A MW-3B	28555A MW-3C	28556A MW-1B	28557A MW-1D
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL Environmental Laboratories
division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

PROJECT MGR: Steve Fischbein
PROJECT #: 203-680-5016.01-9
LOCATION: 404 Market
Oakland, CA
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # / I.D.#	28558A / MW-1F	28559A / MW-4B	28560A / MW-4C	28561A / MW-4D
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL
Environmental
Laboratories
sion of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

PROJECT MGR: Steve Fischbein
PROJECT #: 203-680-5016.01-9
LOCATION: 404 Market
Oakland, CA
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	28562A MW-5A	28563A MW-5B	28564A MW-5C	28565A MW-6A
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL Environmental Laboratories
Division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

PROJECT MGR: Steve Fischbein
PROJECT #: 203-680-5016.01-3
LOCATION: 404 Market
Oakland, CA
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	28566A MW-6B	28567A MW-6C	28568A MW-7A	28569A MW-7B
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	1.6
1,1,1-Trichloroethane	0.5		<0.5	<0.5	0.6	2.3
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL
Environmental
Laboratories
Division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

PROJECT MGR: Steve Fischbein
PROJECT #: 203-680-5016.01-9
LOCATION: 404 Market
Oakland, CA
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	28570A MW-7C	28571A MW-7D	28572A MW-8A	28573A MW-8B
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL
Environmental
Laboratories
ision of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

PROJECT MGR: Steve Fischbein
PROJECT #: 203-680-5016.01-3
LOCATION: 404 Market
Oakland, CA
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	28574A MW-8C	28575A MW-8D	28576A MW-8E	28577A MW-9A
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	1.2
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL
Environmental
Laboratories
Division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

PROJECT MGR: Steve Fischbein
PROJECT #: 203-680-5016.01-9
LOCATION: 404 Market
Oakland, CA
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	28578A MW-9B	28579A MW-9C	28580A MW-9D	28581A MW-9E
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		3.1	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		1.3	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		1.7	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		3.7	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

Safy Khalifa 1/8/97

SAFY KHALIFA, Ph.D., Director

GTEL
Environmental
Laboratories
division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

08/17/88 rw
CLIENT: Steve Fischbein
Groundwater Technology, Inc.
4080 Pike Lane
Concord, Ca 94520
PROJECT#: 203-680-5016.01-10
LOCATION: 404 Market
Oakland, CA
SAMPLED: 07/25,26,27,28,29/88 BY: K. Kline
RECEIVED: 08/03/88 BY: K. Fillin
ANALYZED: 08/11/88 BY: E. Popek
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	28550B MW-2A	28551B MW-2B	28552B MW-2C	28553B MW-3A	28554B MW-3B
Total Petroleum Hydrocarbons as Mineral Spirits	10		<10	<10	<10	<10	<10

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 8015

GTEL
Environmental
Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
PROJECT#: 203-680-5016.01-10
LOCATION: 404 Market
Oakland, CA

TEST RESULTS

MATRIX: Soil
UNITS: mg/kg (ppm)

COMPOUNDS	MDL	LAB # I.D.#	28555B MW-3C	28556B MW-1B	28557B MW-1D	28558B MW-1F	28559B MW-4B
Total Petroleum Hydrocarbons as Mineral Spirits	10		<10	<10	<10	<10	<10

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 8015

GTEL
Environmental
Laboratories
division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
PROJECT#: 203-680-5016.01-10
LOCATION: 404 Market
Oakland, CA

TEST RESULTS

MATRIX: Soil
UNITS: mg/kg (ppm)

COMPOUNDS	MDL	LAB # I.D.#	28560B MW-4C	28561B MW-4D	28562B MW-5A	28563B MW-5B	28564B MW-5C
Total Petroleum Hydrocarbons as Mineral Spirits	10		<10	<10	<10	<10	<10

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 8015

GTEL Environmental Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
PROJECT#: 203-680-5016.01-10
LOCATION: 404 Market
Oakland, CA

TEST RESULTS

MATRIX: Soil
UNITS: mg/kg (ppm)

COMPOUNDS	MDL	LAB # I.D.#	28565B MW-6A	28566B MW-6B	28567B MW-6C	28568B MW-7A	28569B MW-7B
Total Petroleum Hydrocarbons as Mineral Spirits	10		<10	<10	<10	520	2400

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 8015

GTEL
Environmental
Laboratories
Division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
PROJECT#: 203-680-5016.01-10
LOCATION: 404 Market
Oakland, CA

TEST RESULTS

MATRIX: Soil
UNITS: mg/kg (ppm)

COMPOUNDS	MDL	LAB # I.D. #	28570B MW-7C	28571B MW-7D	28572B MW-8A	28573B MW-8B	28574B MW-8C
Total Petroleum Hydrocarbons as Mineral Spirits	10		18	15	<10	<10	<10

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 8015

GTEL
Environmental
Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
PROJECT#: 203-680-5016.01-10
LOCATION: 404 Market
Oakland, CA

MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D. #	28575B MW-8D	28576B MW-8E	28577B MW-9A	28578B MW-9B	28579B MW-9C
Total Petroleum Hydrocarbons as Mineral Spirits	10		<10	<10	240	52000	<10

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 8015

GTEL Environmental Laboratories
A division of Groundwater Technology, Inc.

Western Region
4080-C Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Steve Fischbein
PROJECT#: 203-680-5016.01-10
LOCATION: 404 Market
Oakland, CA

MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	28580B MW-9D	28581B MW-9E
Total Petroleum Hydrocarbons as Mineral Spirits	10		(10	25

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 8015

SAFY KHALIFA, Ph.D., Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

08/28/89 jp Page 1 of 2

WORK ORD#:C908481
CLIENT: ED PROKOP
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.04-3
LOCATION: OAKLAND, CA

SAMPLED: 08/18/89 BY: C. ROBERTSON
RECEIVED: 08/21/89
ANALYZED: 08/23/89 BY: C. MANUEL

MATRIX: SOIL
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW12A	02 MW12B	03 MW11A	04 MW10A
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1		<1	<1	<1	<1
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1		<1	<1	<1	<1
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C908481

CLIENT: ED PROKOP
PROJECT#: 203-680-5016.04-3
LOCATION: OAKLAND, CA

MATRIX: SOIL
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW12A	02 MW12B	03 MW11A	04 MW10A
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C908481

CLIENT: ED PROKOP
PROJECT#: 203-680-5016.04-3
LOCATION: OAKLAND, CA

MATRIX: SOIL
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW10B	06 MW10C		
Chloromethane	0.5		<0.5	<0.5		
Bromomethane	0.5		<0.5	<0.5		
Dichlorodifluoromethane	0.5		<0.5	<0.5		
Vinyl chloride	1		<1	<1		
Chloroethane	0.5		<0.5	<0.5		
Methylene chloride	0.5		<0.5	<0.5		
Trichlorofluoromethane	0.5		<0.5	<0.5		
1,1-Dichloroethene	0.2		<0.2	<0.2		
1,1-Dichloroethane	0.5		<0.5	<0.5		
trans-1,2-Dichloroethene	0.5		<0.5	<0.5		
Chloroform	0.5		<0.5	<0.5		
1,2-Dichloroethane	0.5		<0.5	<0.5		
1,1,1-Trichloroethane	0.5		<0.5	<0.5		
Carbon tetrachloride	0.5		<0.5	<0.5		
Bromodichloromethane	0.5		<0.5	<0.5		
1,2-Dichloropropane	0.5		<0.5	<0.5		
trans-1,3-Dichloropropene	0.5		<0.5	<0.5		
Trichloroethene	0.5		<0.5	<0.5		
Dibromochloromethane	0.5		<0.5	<0.5		
1,1,2-Trichloroethane	0.5		<0.5	<0.5		
cis-1,3-Dichloropropene	0.5		<0.5	<0.5		
2-Chloroethylvinyl ether	1		<1	<1		
Bromoform	0.5		<0.5	<0.5		
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5		
Tetrachloroethene	0.5		<0.5	<0.5		
Chlorobenzene	0.5		<0.5	<0.5		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C908481

CLIENT: ED PROKOP
PROJECT#: 203-680-5016.04-3
LOCATION: OAKLAND, CA

MATRIX: SOIL
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW10B	06 MW10C		
1,3-Dichlorobenzene	0.5		<0.5	<0.5		
1,2-Dichlorobenzene	0.5		<0.5	<0.5		
1,4-Dichlorobenzene	0.5		<0.5	<0.5		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

Emma P. Popek
EMMA P. POPEK, Laboratory Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

08/28/89 jp

WORK ORD#: C900482
CLIENT: ED PROKOP
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.04-4
LOCATION: OAKLAND, CA

SAMPLED: 08/18/89 BY: C. ROBERTSON
RECEIVED: 08/21/89
ANALYZED: 08/22/89 BY: D. VLAHOGIANI

MATRIX: Soil
UNITS: mg/Kg (ppm)

PARAMETER	MDL	SAMPLE # I.D.	01 MW12A	02 MW12B	03 MW11A	04 MW10A	05 MW10B
Total Petroleum Hydrocarbons as Mineral Spirits	10		<10	<10	<10	<10	<10

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 8015

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#: C908482

CLIENT: ED PROKOP
PROJECT#: 203-680-5016.04-4
LOCATION: OAKLAND, CA

MATRIX: Soil
UNITS: mg/Kg (ppm)

PARAMETER	MDL	SAMPLE # I.D.	06 MW10C				
Total Petroleum Hydrocarbons as Mineral Spirits	10		<10				

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 8015

Emma P. Popek
EMMA P. POPEK, Laboratory Director

GEL ENVIRONMENTAL LABORATORIES, INC

4080-C Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Ed ProKop

Phone #:

Address:

FAX #:

Project Number: 203805016 04

Project Name: Safety Kleen

Project Location: Oakland

Sampler Signature:

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	NONE	OTHER	Sampling: DATE	TIME
MW 12A					X						X			8/14/96	0853
MW 12B											X				0911
MW12C											X				0927
MW12D											X				0945
MW12E											X				1000
MW11A											X				1120
MW11B											X				1133
MW11C											X				1139
MW11D											X				1145
MW11E											X				1155
MW11F											X				1210

ANALYSIS REQUEST

BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD
							X										X
							X										X
							X										X
							X										X
							X										X
							X										X

OTHER: TPH as Mineral Spirits Only; Hold

SPECIAL HANDLING: PRIORITY ONE SERVICE (24 hr); EXPEDITED SERVICE (2-4 days); VERBALS/FAX; SPECIAL DETECTION LIMITS (SPECIFY); SPECIAL REPORTING REQUIREMENTS

Relinquished by:	Date	Time	Received by:
	8/15/96	0907	
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:

Remarks:

GTEL ENVIRONMENTAL LABORATORIES, INC.
4080-C Pike Lane
Concord, CA 94520
415-685-7852
800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Ed Prokop
Phone #:
Address:
FAX #:
Project Number: 203680 5016 04
Project Name: Safety Kleen
Project Location: Oakland
Sampler Signature:

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	Matrix: SOIL	Matrix: AIR	Matrix: SLUDGE	Matrix: OTHER	Method Preserved: HCl	Method Preserved: HNO_3	Method Preserved: ICE	Method Preserved: NONE	Method Preserved: OTHER	Sampling: DATE	Sampling: TIME
MW 10 A					X									8/[illegible]/89	1335
MW10B					↓									↓	1343
MW10C					↓									↓	1355
MW10D					↓									↓	14:00
MW10E					↓									↓	1410
MW10F					↓									↓	1425
MW11F															1240

ANALYSIS REQUEST / OTHER / SPECIAL HANDLING

Sample ID	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD	OTHER: TPH as Mineral Spirits	OTHER	OTHER	OTHER: Hold	PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBALS/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
MW 10 A								X											X								
MW10B								X											X								
MW10C								X											X			X					
MW10D																						X					
MW10E																						X					
MW10F																						X					
MW11F																											

Relinquished by	Date	Time	Received by:
[signature]	8/21/89	0907	
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:
			[illegible signature]

Remarks:

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

09/25/89 jp

WORK ORD#:C909481
CLIENT: ED PROKOP
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.04-11
LOCATION: 404 MARKET STREET

SAMPLED: 09/11/89 BY: C. ROBERTSON
RECEIVED: 09/20/89
ANALYZED: 09/21/89 BY: R. CONDIT

MATRIX: Soil
UNITS: mg/Kg (ppm)

PARAMETER	MDL	SAMPLE # I.D.	01 MW 13-A	02 MW 13-B		
Chloromethane	0.5		<0.5	<0.5		
Bromomethane	0.5		<0.5	<0.5		
Dichlorodifluoromethane	0.5		<0.5	<0.5		
Vinyl chloride	1		<1	<1		
Chloroethane	0.5		<0.5	<0.5		
Methylene chloride	0.5		<0.5	<0.5		
Trichlorofluoromethane	0.5		<0.5	<0.5		
1,1-Dichloroethene	0.2		<0.2	<0.2		
1,1-Dichloroethane	0.5		<0.5	<0.5		
trans-1,2-Dichloroethene	0.5		<0.5	<0.5		
Chloroform	0.5		<0.5	<0.5		
1,2-Dichloroethane	0.5		<0.5	<0.5		
1,1,1-Trichloroethane	0.5		<0.5	<0.5		
Carbon tetrachloride	0.5		<0.5	<0.5		
Bromodichloromethane	0.5		<0.5	<0.5		
1,2-Dichloropropane	0.5		<0.5	<0.5		
trans-1,3-Dichloropropene	0.5		<0.5	<0.5		
Trichloroethene	0.5		<0.5	<0.5		
Dibromochloromethane	0.5		<0.5	<0.5		
1,1,2-Trichloroethane	0.5		<0.5	<0.5		
cis-1,3-Dichloropropene	0.5		<0.5	<0.5		
2-Chloroethylvinyl ether	1		<1	<1		
Bromoform	0.5		<0.5	<0.5		
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5		
Tetrachloroethene	0.5		<0.5	<0.5		
Chlorobenzene	0.5		<0.5	<0.5		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 8010

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C909481

CLIENT: ED PROKOP
PROJECT#: 203-680-5016.04-11
LOCATION: 404 MARKET STREET

MATRIX: Soil
UNITS: mg/Kg (ppm)

PARAMETER	MDL	SAMPLE # I.D.	01 MW 13-A	02 MW 13-B		
1,3-Dichlorobenzene	0.5		<0.5	<0.5		
1,2-Dichlorobenzene	0.5		<0.5	<0.5		
1,4-Dichlorobenzene	0.5		<0.5	<0.5		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 8010

Emma P. Popek
EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

09/25/89 jp

WORK ORD#: C909482
CLIENT: ED PROKOP
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.04-12
LOCATION: 404 MARKET STREET

SAMPLED: 09/11/89 BY: C. ROBERTSON
RECEIVED: 09/20/89
ANALYZED: 09/21/89 BY: C. Manuel

MATRIX: Soil
UNITS: mg/Kg (ppm)

PARAMETER	MDL	SAMPLE # I.D.	01 MW 13-A	02 MW 13-B			
Total Petroleum Hydrocarbons as Mineral Spirits	10		(10	(10			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 8015

Emma P. Popek
EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080-C Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Ed Prokop

Phone #:

Address:

FAX #:

Project Number: 203 6805016 04

Project Name: Safety Kleen-Oakland

Project Location: 404 Market St

Sampler Signature:

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	NONE	OTHER	Sampling: DATE	TIME
MW13A	01	1			X						X			9/11/89	
MW13B	02	1			X						X			9/11/89	

ANALYSIS REQUEST

BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8060	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	PTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD
							X										
							X										

OTHER: X TPH as Mineral Spirits 12

SPECIAL HANDLING: PRIORITY ONE SERVICE (24 hr) | EXPEDITED SERVICE (2-4 days) | VERBALS/FAX | SPECIAL DETECTION LIMITS (SPECIFY) | SPECIAL REPORTING REQUIREMENTS

	Date	Time	
Relinquished by:	9/20/89	15:15	Received by:
Relinquished by			Received by:
Relinquished by	9-20	3:10	Received by Laboratory: Karla Williams

Remarks:

ENGEO
INCORPORATED
2280 DIAMOND BOULEVARD, SUITE 200
CONCORD, CALIFORNIA 94520
PHONE (415)687-9700

LETTER OF TRANSMITTAL

DATE: July 20, 1988 ENGEO PROJECT NO. L0004

TO: Ground-Water Technology
4080 Pike Lane
Concord, CA 94520

ATTENTION: Mr. Steve Fischbein

SUBJECT: Laboratory Testing

TRANSMITTED HEREWITH: Grain size analysis for your sample.

REMARKS: It was a pleasure providing laboratory testing services for you on this project. If we can be of further assistance, please feel free to contact us.

ENGEO INCORPORATED

BY: Eric Harrell

COPIES:

- [X] FOR YOUR INFORMATION
- [ ] FOR YOUR REVIEW
- [ ] RETURNING
- [ ] COPIES AT YOUR REQUEST

SIEVE ANALYSIS

JOB NO: NB-2564-M2 JOB NAME: Saftey Kleen

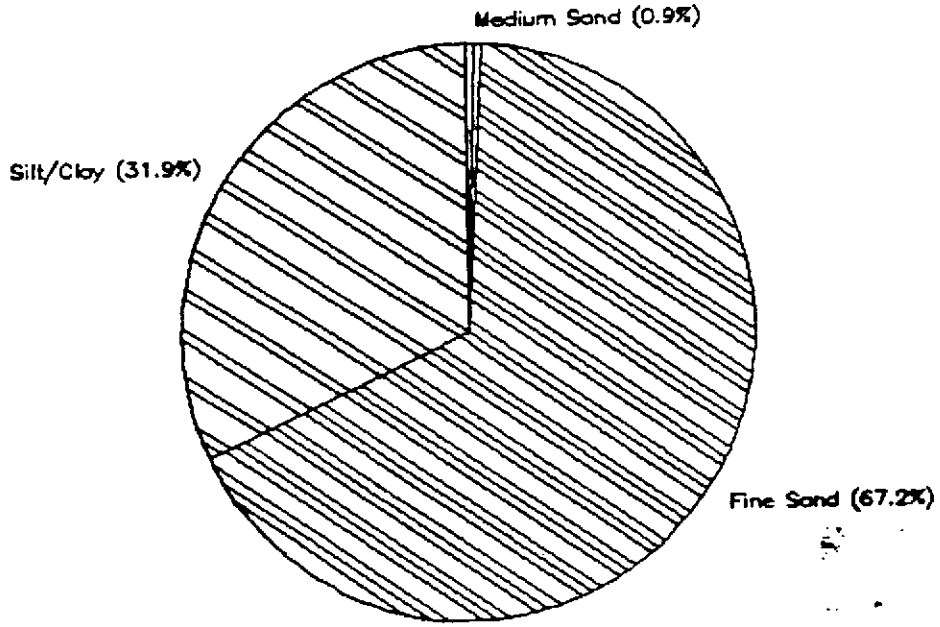
SAMPLE NO: 1 DESCRIPTION: Dark grayish brown silty fine Sand with clay

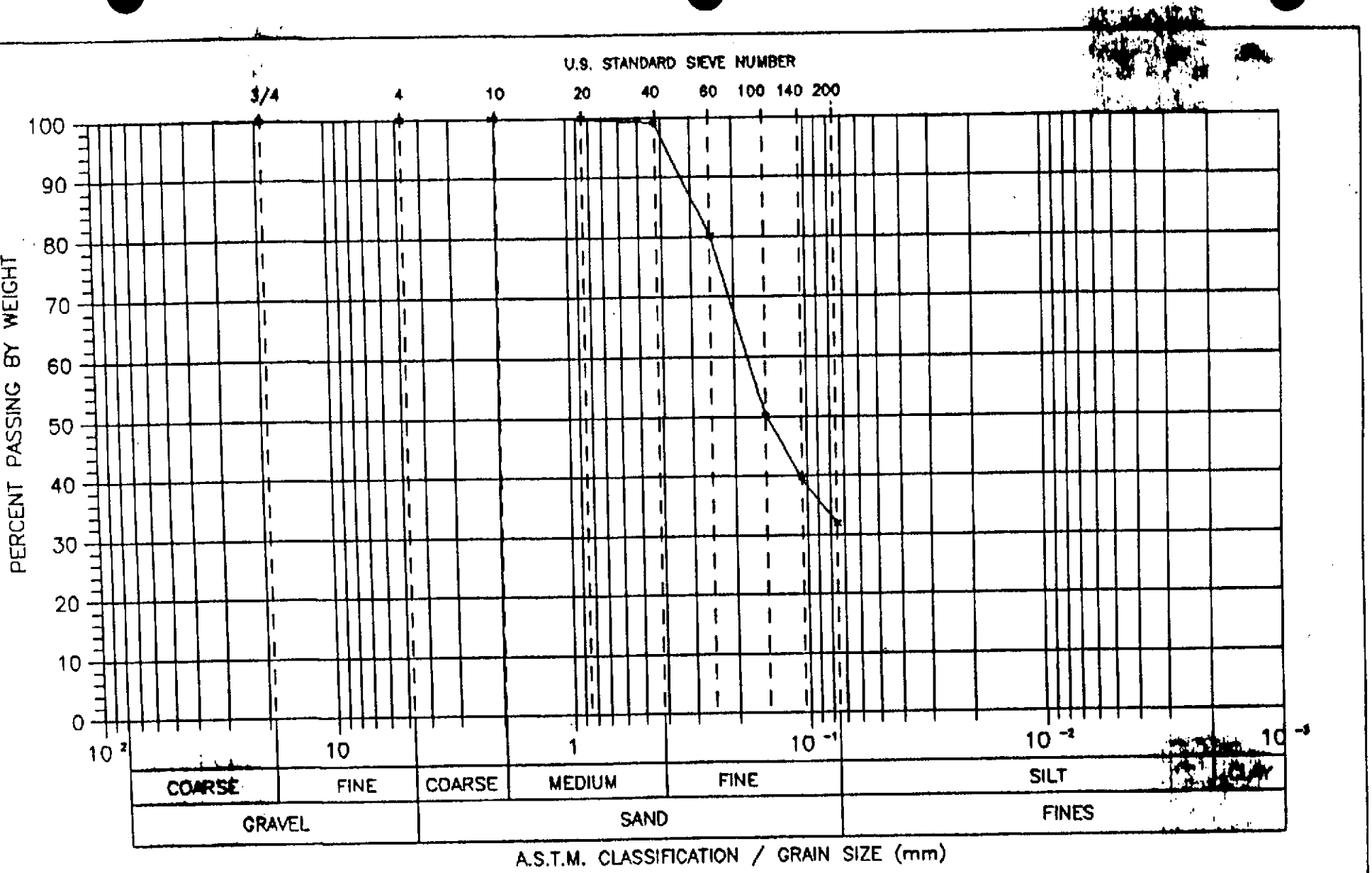
DATE: 7/19/88 PREWASH NET WT 34.09 g

SIEVE SIZE	WEIGHT RETAINED (g)	PERCENT RETAINED	CUMULATIVE PERCENT RETAINED	CUMULATIVE PERCENT PASSING
3/4 Inch	0.00	0.00%	0.00%	100.00%
No. 4	0.00	0.00%	0.00%	100.00%
No. 10	0.00	0.00%	0.00%	100.00%
No. 20	0.01	0.03%	0.03%	99.97%
No. 40	0.29	0.85%	0.88%	99.12%
No. 60	6.46	18.95%	19.83%	80.17%
No. 100	10.20	29.92%	49.75%	50.25%
No. 140	3.66	10.74%	60.49%	39.51%
No. 200	2.60	7.63%	68.11%	31.89%
PAN	10.87	31.89%	100.00%	

SIEVE ANALYSIS

(% Retained ASTM Designation)





ENGEO INCORPORATED

GRAIN SIZE DISTRIBUTION

DATE: 7-19-88
SAMPLE NO: 1

JOB NO: 0004

FIGURE NO:

APPENDIX C

LABORATORY REPORTS - WATER

MONTHLY SAMPLING RESULTS

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

09/25/89 LS Page 1 of 1

WORK ORD#: C909365
CLIENT: CHIP PROKOP
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016-7
LOCATION: OAKLAND, CA

SAMPLED: 09/15/89 BY: G. MASON
RECEIVED: 09/15/89
ANALYZED: 09/1889 BY: R. CONDIT

MATRIX: WATER
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01* MW7	02* MW9		
Chloromethane	0.5		<13	<13		
Bromomethane	0.5		<13	<13		
Dichlorodifluoromethane	0.5		<13	<13		
Vinyl chloride	1		<25	<25		
Chloroethane	0.5		<13	<13		
Methylene chloride	0.5		<13	<13		
Trichlorofluoromethane	0.5		<13	<13		
1,1-Dichloroethene	0.2		54	39		
1,1-Dichloroethane	0.5		240	160		
trans-1,2-Dichloroethene	0.5		950	1300		
Chloroform	0.5		<13	<13		
1,2-Dichloroethane	0.5		45	72		
1,1,1-Trichloroethane	0.5		740	390		
Carbon tetrachloride	0.5		<13	<13		
Bromodichloromethane	0.5		<13	<13		
1,2-Dichloropropane	0.5		<13	<13		
trans-1,3-Dichloropropene	0.5		<13	<13		
Trichloroethene	0.5		130	39		
Dibromochloromethane	0.5		<13	<13		
1,1,2-Trichloroethane	0.5		<13	<13		
cis-1,3-Dichloropropene	0.5		<13	<13		
2-Chloroethylvinyl ether	1		<13	<25		
Bromoform	0.5		<13	<13		
1,1,2,2-Tetrachloroethane	0.5		<13	<13		
Tetrachloroethene	0.5		31	<13		
Chlorobenzene	0.5		26	52		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

* Samples were run at dilution factor of 25.

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C909365

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016-7
LOCATION: OAKLAND, CA

MATRIX: WATER
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01* MW7	02* MW9		
1,3-Dichlorobenzene	0.5		<13	<13		
1,2-Dichlorobenzene	0.5		410	340		
1,4-Dichlorobenzene	0.5		<13	<13		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

* Samples were run at dilution factor of 25.

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72-1179

Project Manager: chip Prokop
Phone #:
FAX #:
Address: CONCORD
Site location: OAKLAND
Project Number: 203680501 6-7
Project Name: SAFETY KLEEN
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): Greg MASON

ANALYSIS REQUEST

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: DATE	TIME	EPA 601 ☒ 8010 ☐ DCA only ☐	HOLD-8
MW7		01	2	X					X			X			9/15		X	
MW9		02	2	X					X			X			↓		X	
MW7			4	X					X			X			↓			X
MW9			4	X					X			X			↓			X

Other analysis columns (not marked): BTEX 602 ☐ 8020 ☐ with MTBE ☐; BTEX/TPH Gas. 602/8015 ☐ 8020/8015 ☐ MTBE ☐; TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel; Product I.D. by GC (SIMDIS) ☐; Total Oil & Grease: 413.1 ☐ 413.2 ☐ 503A ☐; Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐; EPA 602 ☐ 8020 ☐; EPA 608 ☐ 8080 ☐ PCBs only ☐; EPA 610 ☐ 8310 ☐; EPA 624 ☐ 8240 ☐ NBS +15 ☐; EPA 625 ☐ 8270 ☐ NBS +25 ☐; EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐; TCLP Metals ☐ VOA ☐ Semi VOA ☐; EPA Priority Pollutant Metals ☐ HSL ☐; LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐; CAM Metals ☐ STLC ☐ TTLC; Corrosivity ☐ Flashpoint ☐ Reactivity ☐

CUSTODY RECORD

Relinquished by Sampler:	Date	Time	Received by:
Greg Mason	9/15	4:00	

Relinquished by:	Date	Time	Received by:

Relinquished by:	Date	Time	Received by Laboratory:
			[signature]

SPECIAL HANDLING
24 HOURS ☐
EXPEDITED 48 Hours ☒
SEVEN DAY ☐
OTHER ________(#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:
verbals - by mon.
cal 9/20/93 [initials]

Lab Use Only
Storage Location J
Lot #:
Work Order #: C909365

APPENDIX C

LABORATORY REPORTS - WATER

MONTHLY SAMPLING RESULTS

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

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

Project Number: 203-680-5016.05
Work Order Number: D0-04-274
Location: 404 Market Street
Date Sampled: 11-Apr-90

May 1, 1990

Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520

Enclosed please find the analytical results report prepared by GTEL for samples received on 04/12/90, under chain of custody numbers 72-5834 and 72-5837.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

If you have any question concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Emma P. Popek

Emma P. Popek
Laboratory Director

Project Number: 203-680-5016.05
Work Order Number: D0-04-274
Location: 404 Market Street
Date Sampled: 11-Apr-90

Table 1a

ANALYTICAL RESULTS

Purgeable Halocarbons in Water
EPA Method 601[a]

a Federal Register, Vol. 49, October 26, 1984.

GTEL Sample Number		01	02	03	04
Client Identification		MW1	MW2	MW13	MW5
Date Analyzed		04/19/90	04/19/90	04/19/90	04/19/90
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Chloromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	1	< 1	< 1	< 1	< 1
Chloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methylene chloride	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethene	0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,1-Dichloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,2-Dichloroethene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	0.5	0.6	< 0.5	< 0.5	< 0.5
1,1,1-Trichloroethane	0.5	0.7	< 0.5	< 0.5	1.6
Carbon tetrachloride	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloropropane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	< 0.5	< 0.5	< 0.5	0.8
Dichlorodifluoromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloroethylvinyl ether	1	< 1	< 1	< 1	< 1
Bromoform	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2,2-Tetrachloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,3-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Detection Limit Multiplier		1	1	1	1

Project Number: 203-680-5016.05
Work Order Number: D0-04-274
Location: 404 Market Street
Date Sampled: 11-Apr-90

Table 1b

ANALYTICAL RESULTS

Purgeable Halocarbons in Water
EPA Method 601[a]

a . Federal Register, Vol. 49, October 26, 1984.

GTEL Sample Number		05	06	07	08
Client Identification		MW6	MW3	MW8	MW12
Date Analyzed		04/19/90	04/19/90	04/19/90	04/19/90
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Chloromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	1	< 1	< 1	< 1	< 1
Chloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methylene chloride	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethene	0.2	< 0.2	0.9	< 0.2	< 0.2
1,1-Dichloroethane	0.5	< 0.5	8.5	< 0.5	0.8
trans-1,2-Dichloroethene	0.5	< 0.5	2.6	0.5	1.4
Chloroform	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	0.5	< 0.5	3.7	2.3	0.8
1,1,1-Trichloroethane	0.5	< 0.5	1.1	< 0.5	< 0.5
Carbon tetrachloride	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloropropane	0.5	< 0.5	0.7	< 0.5	< 0.5
cis-1,3-Dichloropropene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	2.8	8	16	26
Dichlorodifluoromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloroethylvinyl ether	1	< 1	< 1	< 1	< 1
Bromoform	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2,2-Tetrachloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	< 0.5	1.4	0.9	< 0.5
1,2-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,3-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	7.2	< 0.5	< 0.5	< 0.5
Detection Limit Multiplier		1	1	1	1

Project Number: 203-680-5016.05
Work Order Number: D0-04-274
Location: 404 Market Street
Date Sampled: 11-Apr-90

Table 1c

ANALYTICAL RESULTS

Purgeable Halocarbons in Water
EPA Method 601[a]

a Federal Register, Vol. 49, October 26, 1984.

GTEL Sample Number		09	10	11	
Client Identification		MW11	MW4	MW10	
Date Analyzed		04/19/90	04/19/90	04/19/90	
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Chloromethane	0.5	< 0.5	< 0.5	< 0.5	
Bromomethane	0.5	< 0.5	< 0.5	< 0.5	
Vinyl chloride	1	< 1	< 1	< 1	
Chloroethane	0.5	< 0.5	< 0.5	< 0.5	
Methylene chloride	0.5	< 0.5	< 0.5	< 0.5	
1,1-Dichloroethene	0.2	< 0.2	< 0.2	< 0.2	
1,1-Dichloroethane	0.5	< 0.5	< 0.5	< 0.5	
trans-1,2-Dichloroethene	0.5	2.5	52	33	
Chloroform	0.5	< 0.5	1.4	2.8	
1,2-Dichloroethane	0.5	< 0.5	< 0.5	< 0.5	
1,1,1-Trichloroethane	0.5	< 0.5	< 0.5	< 0.5	
Carbon tetrachloride	0.5	< 0.5	< 0.5	< 0.5	
Bromodichloromethane	0.5	< 0.5	< 0.5	< 0.5	
1,2-Dichloropropane	0.5	< 0.5	< 0.5	< 0.5	
cis-1,3-Dichloropropene	0.5	< 0.5	< 0.5	< 0.5	
Trichloroethene	0.5	39	340	600	
Dichlorodifluoromethane	0.5	< 0.5	< 0.5	< 0.5	
Dibromochloromethane	0.5	< 0.5	< 0.5	< 0.5	
1,1,2-Trichloroethane	0.5	< 0.5	< 0.5	< 0.5	
trans-1,3-Dichloropropene	0.5	< 0.5	< 0.5	< 0.5	
2-Chloroethylvinyl ether	1	< 1	< 1	< 1	
Bromoform	0.5	< 0.5	< 0.5	< 0.5	
Tetrachloroethene	0.5	< 0.5	< 0.5	< 0.5	
1,1,2,2-Tetrachloroethane	0.5	< 0.5	< 0.5	< 0.5	
Chlorobenzene	0.5	< 0.5	< 0.5	< 0.5	
1,2-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	
1,3-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	
1,4-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	
Trichlorofluoromethane	0.5	< 0.5	< 0.5	< 0.5	
Detection Limit Multiplier		1	1	1	

GTEL ENVIRONMENTAL LABORATORIES, INC

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

04/19/90 sp

WORK ORD#: D004273
CLIENT: Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, Ca 94520
PROJECT#: 203-680-5016.05
LOCATION: 404 Market Street

SAMPLED: 04/11/90 BY: M. Czipka
RECEIVED: 04/12/90
ANALYZED: 04/17/90 BY: R. Gonzalez

MATRIX: Water
UNITS: mg/L (ppm)

PARAMETER	MDL	SAMPLE # I.D.	01 MW1	02 MW2	03 MW13	04 MW5	05 MW6
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1	<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 8015

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#: D004273

CLIENT: Paul Horton
PROJECT#: 203-680-5016.05
LOCATION: 404 Market Street

MATRIX: Water
UNITS: mg/L (ppm)

PARAMETER	MDL	SAMPLE # I.D.	06 MW3	07 MW8	08 MW12	09 MW11	10 MW4
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1	<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 8015

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#: D004273

CLIENT: Paul Horton
PROJECT#: 203-680-5016.05
LOCATION: 404 Market Street

MATRIX: Water
UNITS: mg/L (ppm)

PARAMETER	MDL	SAMPLE # I.D.	11 MW10				
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1				

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 8015

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.
4080- Pike Lane
Concord, CA 94520
415-685-7852
800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72- 5834

Project Manager: Paul Horton
Phone #:
FAX #:
Address: G.T.I Concord
Site location: 404 Market St
Project Number: 203 680 5016 05
Project Name: Safety Kleen Oakland
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): Mark N Czipka

ANALYSIS REQUEST

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	NONE	OTHER	Sampling: DATE	TIME	BTEX 602 □ 8020 □ with MTBE □	BTEX/TPH Gas 602/8015 □ 8020/8015 □ MTBE □	TPH as □ Gas □ Diesel □ Jet Fuel ☒ Mineral Spirits	Product I.D. by GC (SIMDIS) □	Total Oil & Grease 413.1 □ 413.2 □ 503A □	Total Petroleum Hydrocarbons 418.1 □ 503E □	EPA 601 □ 8010 ☒ DCA only □	EPA 602 □ 8020 □	EPA 608 □ 8080 □ PCBs only □	EPA 610 □ 8310 □	EPA 624 □ 8240 □ NBS +15 □	EPA 625 □ 8270 □ NBS +25 □	EPTOX: Metals □ Pesticides □ Herbicides □	TCLP Metals □ VOA □ Semi VOA □	EPA Priority Pollutant Metals □ HSL □	LEAD 7420 □ 7421 □ 239.2 □ 6010 □ Org. Lead □	CAM Metals □ STLC □ TTLC □	Corrosivity □ Flashpoint □ Reactivity □		HOLD	
SB			1	✓								✓			4/11/90	1400																				X	
RB-MW1			1	✓								✓			4/11/90	1402																				X	
MW1			2	✓								✓			4/11/90	1404			X																		
MW1			2	✓								✓			4/11/90	1404							X														
RB-MW2			1	✓								✓			4/11/90	1406																				X	
MW2			2	✓								✓			4/11/90	1408			X																		
MW2			2	✓								✓			4/11/90	1408							X														
RB-MW13			1	✓								✓			4/11/90	1410																				X	
MW13			2	✓								✓			4/11/90	1413			X																		
MW13			2	✓								✓			4/11/90	1413							X														

CUSTODY RECORD

Relinquished by Sampler:	Received by:	Date	Time
[signature]			

Relinquished by:	Received by:	Date	Time

Relinquished by:	Received by Laboratory:	Date	Time	Way bill #
	[signature]	4/12/90	915	

SPECIAL HANDLING
24 HOURS □
EXPEDITED 48 Hours □
SEVEN DAY □
OTHER ______(#) BUSINESS DAYS
QA/QC CLP Level □ Blue Level □
FAX □

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: Pg 1 of 4

Lab Use Only
Lot #:
Storage Location
Work Order #:

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72-5835

Project Manager: Paul Horton

Phone #:

FAX #:

Address: G.T.I. Concord

Site location: 404 Market St.

Project Number: 203 880 5016.05

Project Name: Safety Kleen Oakland

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): Mark N. Czipka

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐ | BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐ | TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel ☒ Mineral Spirits | Product I.D. by GC (SIMDIS) ☐ | Total Oil & Grease: 413.1 ☐ 413.2 ☐ 503A ☐ | Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐ | EPA 601 ☐ 8010 ☒ DCA only ☐ | EPA 602 ☐ 8020 ☐ | EPA 608 ☐ 8080 ☐ PCBs only ☐ | EPA 610 ☐ 8310 ☐ | EPA 624 ☐ 8240 ☐ NBS +15 ☐ | EPA 625 ☐ 8270 ☐ NBS +25 ☐ | EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐ | TCLP Metals ☐ VOA ☐ Semi VOA ☐ | EPA Priority Pollutant Metals ☐ HSL ☐ | LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐ | CAM Metals ☐ STLC ☐ TTLC | Corrosivity ☐ Flashpoint ☐ Reactivity ☐ | Hold

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# Containers	Matrix: Water	Method Preserved: Ice	Sampling Date	Sampling Time	TPH as Jet Fuel/Mineral Spirits	EPA 601/8010	Hold
RB-MW5			1	✓	✓	4/11/90	1430			X
MW5			2	✓	✓	4/11/90	1433	X		
MW5			2	✓	✓	4/11/90	1433		X	
RB-MW6			1	✓	✓	4/11/90	1435			X
MW6			2	✓	✓	4/11/90	1438	X		
MW6			2	✓	✓	4/11/90	1438		X	
RB-MW3			1	✓	✓	4/11/90	1440			X
MW3			2	✓	✓	4/11/90	1442	X		
MW3			2	✓	✓	4/11/90	1442		X	

Matrix: Water, Soil, Air, Sludge, Other. Method Preserved: HCl, HNO_3, H_2SO_4, Ice, None, Other.

CUSTODY RECORD

Relinquished by Sampler: [signature]	Received by:	Date	Time
Relinquished by:	Received by:	Date	Time
Relinquished by:	Received by Laboratory: [signature]	Date 4/12/90	Time 955

Way bill #:

SPECIAL HANDLING

24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER ________(#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: Pg 2 of 4

Lab Use Only
Lot #:
Storage Location
Work Order #:

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72- 5836

CUSTODY RECORD

Project Manager: Paul Horton
Phone #:
FAX #:
Address: G.T.I. Concord
Site location: 404 Market St.
Project Number: 203 680 5016 05
Project Name: Safety Kleen Oakland
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): Mark N. Czipka

ANALYSIS REQUEST

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	Method Preserved: ICE	Sampling: DATE	Sampling: TIME	TPH as Gas	EPA 601	HOLD
RB-MW8			1	✓	✓	4/11/90				X
MW8			2	✓	✓	✓		X		
MW8			2	✓	✓	✓			X	
RB-MW12			1	✓	✓	✓				X
MW12			2	✓	✓	✓		X		
MW12			2	✓	✓	✓			X	
RB-MW11			1	✓	✓	✓				X
MW11			2	✓	✓	✓		X		
MW11			2	✓	✓	✓			X	

Matrix: WATER, SOIL, AIR, SLUDGE, OTHER. Method Preserved: HCl, HNO_3, H_2SO_4, ICE, NONE, OTHER.

Analysis request columns: BTEX 602 □ 8020 □ with MTBE □; BTEX/TPH Gas 602/8015 □ 8020/8015 □ MTBE □; TPH as □ Gas □ Diesel □ Jet Fuel ■ MINERAL SPIRITS; Product I.D. by GC (SIMDIS) □; Total Oil & Grease: 413.1 □ 413.2 □ 503A □; Total Petroleum Hydrocarbons: 418.1 □ 503E □; EPA 601 □ 8010 ■ DCA only □; EPA 602 □ 8020 □; EPA 608 □ 8080 □ PCBs only □; EPA 610 □ 8310 □; EPA 624 □ 8240 □ NBS +15 □; EPA 625 □ 8270 □ NBS +25 □; EPTOX: Metals □ Pesticides □ Herbicides □; TCLP Metals □ VOA □ Semi VOA □; EPA Priority Pollutant Metals □ HSL □; LEAD 7420 □ 7421 □ 239.2 □ 6010 □ Org. Lead □; CAM Metals □ STLC □ TTLC □; Corrosivity □ Flashpoint □ Reactivity □; HOLD

	Received by:	Received by:	Received by Laboratory:
Time			0935
Date			4/12/90
Relinquished by:	Relinquished by Sampler: [signature]	Relinquished by:	Relinquished by:

Way bill #

SPECIAL HANDLING

24 HOURS □
EXPEDITED 48 Hours □
SEVEN DAY □
OTHER ________(#) BUSINESS DAYS
QA/QC CLP Level □ Blue Level □
FAX □

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: Pg 3 of 4

Lab Use Only
Lot #:
Storage Location
Work Order #:

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

72-5837

CUSTODY RECORD

Project Manager: Paul Horton

Phone #:

FAX #:

Address: G.T.I. Concord

Site location: 404 Market St.

Project Number: 203 680 5016 05

Project Name: Safety Kleen Oakland

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): Mark N. Cinke

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: DATE	TIME
RB-MW4			1	X								X			4/11/90	
MW4			2	X												
MW4			2	X								X				
RB-MW10			1	X								X				
MW10			2	X												
MW10			2	X								X				

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel ☐ Mineral Spirits	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	
		X				X												HOLD
																		X
		X																
						X												
		X																
						X												

SPECIAL HANDLING

24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER _____(#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: Pg 4 of 4

Lab Use Only
Lot #:

Storage Location
Work Order #:

Relinquished by Sampler:	Received by:	Received by Laboratory:
Date:	Time:	Date: 4/12/90 Time: 9:55
Relinquished by:	Received by:	Relinquished by:
Date:	Time:	Date:

Wpy bill #

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

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

Project Number: 203-680-5016.05
Work Order Number: D0-03-371
Location: 404 Market Street
Date Sampled: 14-Mar-90

April 2, 1990

Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520

Enclosed please find the analytical results report prepared by GTEL for samples received on 03/14/90, under chain of custody numbers 72-3306 through 72-3309.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

If you have any question concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Emma P. Popek
Laboratory Director

Project Number: 203-660-5016.05
Work Order Number: D0-03-371
Location: 404 Market Street
Date Sampled: 14-Mar-90

Table 1a

ANALYTICAL RESULTS

Purgeable Halocarbons in Water
EPA Method 601[a]

a Federal Register, Vol. 49, October 26, 1984.

GTEL Sample Number		01	02	03	04
Client Identification		MW1	MW2	MW12	MW3
Date Analyzed		03/30/90	03/28/90	03/29/90	03/30/90
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Chloromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	1	< 1	< 1	< 1	< 1
Chloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methylene chloride	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethene	0.2	< 0.2	< 0.2	< 0.2	1.1
1,1-Dichloroethane	0.5	< 0.5	< 0.5	0.7	7.8
trans-1,2-Dichloroethene	0.5	< 0.5	< 0.5	1.5	2.9
Chloroform	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	0.5	< 0.5	< 0.5	1.4	4.8
1,1,1-Trichloroethane	0.5	< 0.5	< 0.5	< 0.5	0.6
Carbon tetrachloride	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloropropane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	< 0.5	< 0.5	21	8.9
Dichlorodifluoromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloroethylvinyl ether	1	< 1	< 1	< 1	< 1
Bromoform	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2,2-Tetrachloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	< 0.5	< 0.5	< 0.5	0.9
1,2-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,3-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Detection Limit Multiplier		1	1	1	1

Project Number: 203-680-5016.05
Work Order Number: D0-03-371
Location: 404 Market Street
Date Sampled: 14-Mar-90

Table 1b

ANALYTICAL RESULTS

Purgeable Halocarbons in Water
EPA Method 601[a]

a Federal Register, Vol. 49, October 26, 1984.

GTEL Sample Number		05	06	07	08
Client Identification		MW6	MW13	MW5	MW11
Date Analyzed		03/30/90	03/28/90	03/29/90	03/29/90
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Chloromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	1	< 1	< 1	< 1	< 1
Chloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methylene chloride	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethene	0.2	< 0.2	< 0.2	0.5	< 0.2
1,1-Dichloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,2-Dichloroethene	0.5	< 0.5	< 0.5	< 0.5	4.5
Chloroform	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,1-Trichloroethane	0.5	< 0.5	< 0.5	1.6	< 0.5
Carbon tetrachloride	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloropropane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	1.7	< 0.5	1.5	44
Dichlorodifluoromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloroethylvinyl ether	1	< 1	< 1	< 1	< 1
Bromoform	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2,2-Tetrachloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,3-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	12	< 0.5	1	< 0.5
Detection Limit Multiplier		1	1	1	1

GTEL ENVIRONMENTAL LABORATORIES, INC

Project Number: 203-680-5016.05
Work Order Number: D0-03-371
Location: 404 Market Street
Date Sampled: 14-Mar-90

Table 1c

ANALYTICAL RESULTS

Purgeable Halocarbons in Water
EPA Method 601[a]

a Federal Register, Vol. 49, October 26, 1984.

GTEL Sample Number		09	10	11	12
Client Identification		MW4	RB-MW10	MW10	MW8
Date Analyzed		03/29/90	03/29/90	03/30/90	03/29/90
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Chloromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	1	< 1	< 1	< 1	< 1
Chloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methylene chloride	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethene	0.2	< 0.2	< 0.2	0.9	< 0.2
1,1-Dichloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,2-Dichloroethene	0.5	43	< 0.5	46	0.7
Chloroform	0.5	1	< 0.5	3	< 0.5
1,2-Dichloroethane	0.5	0.8	< 0.5	< 0.5	3.7
1,1,1-Trichloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Carbon tetrachloride	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloropropane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	490	< 0.5	1300	14
Dichlorodifluoromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloroethylvinyl ether	1	< 1	< 1	< 1	< 1
Bromoform	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2,2-Tetrachloroethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	< 0.5	< 0.5	< 0.5	0.6
1,2-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,3-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dichlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Detection Limit Multiplier		1	1	1	1

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

03/28/90 sp

WORK ORD#: D003370
CLIENT: Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520
PROJECT#: 203-680-5016.05
LOCATION: 404 Market Street

SAMPLED: 03/14/90 BY: M. Czipka
RECEIVED: 03/14/90
ANALYZED: 03/24/90 BY: R. Gonzalez
MATRIX: Water
UNITS: mg/L (ppm)

TEST RESULTS

PARAMETER	MDL	SAMPLE # I.D.	01 MW1	02 MW2	03 MW12	04 MW3	05 MW6
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1	<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 5030/8015

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D003370

CLIENT: Paul Horton
PROJECT#: 203-680-5016.05
LOCATION: 404 Market Street

MATRIX: Water
UNITS: mg/L (ppm)

TEST RESULTS

PARAMETER	MDL	SAMPLE # I.D.	06 MW13	07 MW5	08 MW11	09 MW4	10 MW10
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1	<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA Method 5030/8015

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D003370

CLIENT: Paul Horton
PROJECT#: 203-680-5016.05
LOCATION: 404 Market Street

MATRIX: Water
UNITS: mg/L (ppm)

TEST RESULTS

PARAMETER	MDL	SAMPLE #/ I.D.	11 MW8				
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1				

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA Method 5030/8015

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72- 3306

Project Manager: Paul Horton
Phone #:
FAX #:
Address: G.T.I Concord
Site location: 404 Market St.
Project Number: 203 680 5016 05
Project Name: Safety Kleen Oakland
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): Mark N Czipko

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: DATE	TIME
SB			1									X			3/11/10	1230
RB-MW1			1									X				1245
MW1			2									X				"
MW1			2									X				"
RB-MW2			1									X				1255
MW2			2									X				"
MW2			2									X				"
RB-MW12			1									X				1300
MW12			2									X				"
MW12			2									X				"

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel ☐ Stoddard	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	HOLD
																		X
		X																X
						X												
																		X
		X																
						X												
		X																
																		X
		X																
						X												

CUSTODY RECORD

Relinquished by Sampler	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:	Relinquished by:	Date	Time	Received by Laboratory:	Way bill #
									3/11/10	1245		

SPECIAL HANDLING
24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER _____ (#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: Pg 1 of 4
8010, TPH AS MINERAL SPIRITS

Lab Use Only
Storage Location
Lot #:
Work Order #:

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

72-3307

Project Manager: Paul Horton
Phone #:
FAX #:
Address: G.T.I. Concord
Site location: 404 Market St.
Project Number: 203 680 5016 06
Project Name: Safety Kleen Oakland
Sampler Name (Print): Mark N Czipka

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	NONE	OTHER	Sampling: DATE	TIME
RB-MW3			1	X								X			3/14/90	1305
MW3			2	X								X				
MW3			2	X								X				
RB-MW6			1	X								X				1310
MW6			2	X								X				
MW6			2	X								X				
RB-MW13			1	X								X				1355
MW13			2	X								X				
MW13			2	X								X				

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel ☐ MINERAL SPIRITS	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	
		X				X											X HOLD
																	X
		X				X											
																	X
		X				X											
																	X
		X				X											

SPECIAL HANDLING

24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER _____(#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: Pg 2 of 4
8010, TPH as Mineral Spirits

Lab Use Only
Storage Location
Lot #:
Work Order #:

CUSTODY RECORD

Relinquished by:	Received by:	Relinquished by:	Received by:	Relinquished by:	Received by Laboratory:
Date:	Time:	Date:	Time:	Date: 3/14/90	Time: 1345

Way bill #

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72- 3308

Project Manager: Paul Horton
Phone #:
FAX #:
Address: G.T.I. Concord
Site location: 404 Market St.
Project Number: 203 680 5016 05
Project Name: Safety Kleen Oakland
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): Mark N. Czipka

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: DATE	TIME
RB-MW5			1	X								X			3/14/10	1320
MW5			2	X								X				
MW5			2	X								X				
RB-MW11			1	X								X				1315
MW11			2	X								X				
MW11			2	X								X				
RB-MW4			1	X								X				1325
MW4			2	X								X				
MW4			2	X								X				

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel ☒ MINERAL SPIRITS	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☒ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 606 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	HOLD
		X				X												X
										X								
		X				X												
										X								X

SPECIAL HANDLING
24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER _____(#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: Pg 3 of 4
8010, TPH AS MINERAL SPIRITS

Lab Use Only
Storage Location
Lot #:
Work Order #:

CUSTODY RECORD

Relinquished by:	Received by:	Relinquished by:	Received by:	Relinquished by:	Received by Laboratory:
Date	Time	Date	Time	Date	Time
				3/14/10	1320

Way bill #

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72-3309

Project Manager: Paul Horton
Phone #:
FAX #:
Address: G.T.I. Concord
Site location: 404 Market St.
Project Number: 203 680 5016 05
Project Name: Safety Kleen Oakland
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): Mark N. Czipko

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: DATE	TIME
AS-MW10			1												8/4/92	15:55
MW10			2													
MW10			2													
RB-MW8			1													13:50
MW8			2													
MW8			2													

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel ☐ MINERAL SPIRITS	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	HOLD
						X												
		X																
						X												
																		X
		X																
						X												

SPECIAL HANDLING
24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER _____(#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: Pg 4 of 4
8010, TPH AS MINERAL SPIRITS

Lab Use Only
Lot #:
Storage Location
Work Order #:

CUSTODY RECORD

Relinquished by Sampler	Received by:	Relinquished by:	Received by:	Relinquished by:	Received by Laboratory:
Date 8/4/92	Time	Date	Time	Date	Time
					Way bill #

GTEL ENVIRONMENTAL LABORATORIES, INC.
Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

02/09/90 SP Page 1 of 2
WORK ORD#:D001801
CLIENT: PAUL HORTON
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

SAMPLED: NONE GIVEN BY: G. MASON
RECEIVED: 01/31/90
ANALYZED: 02/01/90 BY: M. LY

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW1	02 MW2	03 MW3	04 MW12
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1		<1	<1	<1	<1
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	0.57	<0.2
1,1-Dichloroethane	0.5		<0.5	<0.5	5.9	<0.5
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	2.2	0.68
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	4.3	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	0.72	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	2	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	9.4	13
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1		<1	<1	<1	<1
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	0.7	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D001801

CLIENT: PAUL HORTON
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW1	02 MW2	03 MW3	04 MW12
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
[illegible]80 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

WORK ORD#:D001801

CLIENT: PAUL HORTON
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW6	06 MW11	07 MW5	08 MW8
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1		<1	<1	<1	<1
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5		6.7	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5		<0.5	2.5	<0.5	<0.5
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	3.2
1,1,1-Trichloroethane	0.5		<0.5	<0.5	0.92	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		4.6	41	2.8	15
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1		<1	<1	<1	<1
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D001801

CLIENT: PAUL HORTON
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW6	06 MW11	07 MW5	08 MW8
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

Laurence P. Peterson

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

02/09/90 SP PAGE 1 OF 2

WORK ORD#: D001882
CLIENT: PAUL HORTON
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

SAMPLED: 01/30/90 BY: G. MASON
RECEIVED: 01/31/90 BY: K. FILLINGER
ANALYZED: 02/08/90 BY: R. GONZALEZ
MATRIX: WATER
UNITS: mg/kg (ppm)

TEST RESULTS

PARAMETER	MDL	SAMPLE # I.D.	01 MW1	02 MW2	03 MW3	04 MW12	05 MW6
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1	<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA Method 5030/8015

Emma P. Popek
EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72-4281

Project Manager: PAUL HOCTON
Phone #:
FAX #:
Address: Concord GTI
Site location: OAKLAND
Project Number: 203680501605
Project Name: Safety Kleen
Sampler Name (Print): Greg MASON

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	NONE	OTHER	Sampling: DATE	TIME
MW 1			2	X					X			X				3:06
1			2													
18			1													
2			2													
2			2													
28			1													
3			2													
3			2													
38			1													
12			2													329
12			2													

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease: 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	TPH as Mineral Spirits HOLD
						X											X	
																	X	X
																	X	
						X												X
																	X	
						X											X	X
																	X	
						X												

SPECIAL HANDLING
24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER _____(#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:

Lab Use Only
Storage Location
Lot #:
Work Order #:

CUSTODY RECORD

Relinquished by:	Received by:	Received by Laboratory:
Date 1/31 Time 12:30	Date	Date 1/31 Time 8:30
Relinquished by:	Received by:	Received by:
Date	Time	Time
Relinquished by:		

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72- 4282

Project Manager: PAUL HOFTON
Phone #:
FAX #:
Address: CONCORD GTI
Site location: OAKLAND
Project Number: 203.80501605
Project Name: SAFETY KLEEN
Sampler Name (Print): Greg MADON

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: DATE	TIME
MW 12			1	X					X			X			1/30	3:25
6			2													
6			2													
6B			1													
11			2													
11			2													
11B			1													
5			2													
5			2													
5B			1													3:50
8			2													
80			1													

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	TPH as Mineral Spirits	Hold
						X											X		X
																	X		X
						X											X		X
																	X		X
						X											X		X
																	X		X

SPECIAL HANDLING

24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER _____ (#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:

Lab Use Only Storage Location
Lot #: Work Order #:

CUSTODY RECORD

Relinquished by Sampler	Received by:	Relinquished by	Received by:	Relinquished by:	Received by Laboratory:
Date 1/30/11 Time 9:30		Date Time		Date Time	1/31 8:30

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

02/08/90 sp Page 1 of 1

WORK ORD#: D002003
CLIENT: PAUL HORTON
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016
LOCATION: OAKLAND, CA

SAMPLED: 01/31/90 BY: G. MASON
RECEIVED: 01/31/90
ANALYZED: 02/02/90 BY: M. LY

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW4	02 MW10		
Chloromethane	0.5		<0.5	<0.5		
Bromomethane	0.5		<0.5	<0.5		
Dichlorodifluoromethane	0.5		<0.5	<0.5		
Vinyl chloride	1		<1	<1.0		
Chloroethane	0.5		<0.5	<0.5		
Methylene chloride	0.5		<0.5	<0.5		
Trichlorofluoromethane	0.5		<0.5	<0.5		
1,1-Dichloroethene	0.2		<0.2	0.75		
1,1-Dichloroethane	0.5		<0.5	<0.5		
trans-1,2-Dichloroethene	0.5		40	35		
Chloroform	0.5		1.6	5.5		
1,2-Dichloroethane	0.5		0.5	<0.5		
1,1,1-Trichloroethane	0.5		<0.5	<0.5		
Carbon tetrachloride	0.5		<0.5	<0.5		
Bromodichloromethane	0.5		<0.5	<0.5		
1,2-Dichloropropane	0.5		<0.5	<0.5		
trans-1,3-Dichloropropene	0.5		<0.5	<0.5		
Trichloroethene	0.5		470	820		
Dibromochloromethane	0.5		<0.5	<0.5		
1,1,2-Trichloroethane	0.5		<0.5	<0.5		
cis-1,3-Dichloropropene	0.5		<0.5	<0.5		
2-Chloroethylvinyl ether	1		<1	<1		
Bromoform	0.5		<0.5	<0.5		
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5		
Tetrachloroethene	0.5		<0.5	<0.5		
Chlorobenzene	0.5		<0.5	<0.5		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
2030 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

WORK ORD#:D002003

CLIENT: PAUL HORTON
PROJECT#: 203-680-5016
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW4	02 MW10		
1,3-Dichlorobenzene	0.5		<0.5	<0.5		
1,2-Dichlorobenzene	0.5		<0.5	<0.5		
1,4-Dichlorobenzene	0.5		<0.5	<0.5		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

Emma P. Popek
EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

02/09/90 sp Page 1 of 1

WORK ORD#: D002161
CLIENT: PAUL HORTON
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016
LOCATION: OAKLAND, CA

SAMPLED: 01/31/90 BY: G. MASON
RECEIVED: 01/31/90
ANALYZED: 02/05/90 BY: R. GONZALEZ

MATRIX: Water
UNITS: mg/L (ppm)

PARAMETER	MDL	SAMPLE # I.D.	01 MW4	02 MW10			
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 418.1

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72-4287

CUSTODY RECORD

Project Manager: PAUL HOFTON
Phone #:
FAX #:
Address: CONCORD / GTI
Site location: OAKLAND
Project Number: 2.036805016
Project Name: SAFETY KLEEN
Sampler Name (Print): Greg MASON

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	NONE	OTHER	Sampling: DATE	TIME
MW 4			2	X					X			X			1/31	11:[illegible]
4			2													11:24
4B			1													11:29
10			2													11:39
10			2													11:34
10B			1													11:37
Trave LB																

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	TPH AS MINERAL SPIRITS	HOLD	
						X												X	
																			X
						X												X	
																		X	X
																		X	

Relinquished by Sampler	Received by:	Time	Date
			1/31
Relinquished by:	Received by:	Time	Date
Relinquished by:	Received by Laboratory:	Time	Date
		1:40	1/31/90

Way bill #: [illegible]

SPECIAL HANDLING

24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER _____ (#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:

Lab Use Only
Lot #:
Storage Location
Work Order #:

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D001801

CLIENT: PAUL HORTON
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW6	06 MW11	07 MW5	08 MW8
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

Emma P. Popek
EMMA P. POPEK, Laboratory Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

02/09/90 SP PAGE 1 OF 2

WORK ORD#: D001002
CLIENT: PAUL MORTON
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

SAMPLED: 01/30/90 BY: G. MASON
RECEIVED: 01/31/90 BY: K. FILLINGER
ANALYZED: 02/08/90 BY: R. GONZALEZ
MATRIX: WATER
UNITS: mg/kg (ppm)

TEST RESULTS

PARAMETER	MDL	SAMPLE # I.D.	01 MW1	02 MW2	03 MW3	04 MW12	05 MW6
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1	<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA Method 5030/8015

Emma P. Popek
EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72-4281

Project Manager: PAUL HORTON
Phone #:
FAX #:
Address: CONCORD GTI
Site location: OAKLAND
Project Number: 203680501605
Project Name: SAFETY KLEEN
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): Greg MASON

ANALYSIS REQUEST

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	NONE	OTHER	Sampling: DATE	TIME	BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease: 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	TPH AS Mineral Spirits	HOLD	
MW1			2	X					X			X				3:06																			X		
1			2																				X														
1B			1																																	X	
2			2																																X		
2			2																				X														
2B			1																																	X	
3			2																																X		
3			2																				X														
3B			1																																	X	
12			2													3:25																			X		
12			2																				X														

CUSTODY RECORD

Relinquished by Sampler:	Date: 1/31	Time: 12:30	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date: 1/31	Time: 8:30	Received by Laboratory: [signature]

SPECIAL HANDLING

24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER ________(#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:

Lab Use Only
Lot #:
Storage Location
Work Order #:

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72- 4282

CUSTODY RECORD

Project Manager: PAUL HOFTON
Phone #:
FAX #:
Address: CONCORD GTI
Site location: OAKLAND
Project Number: 203.80501605
Project Name: SAFETY KLEEN
Sampler Name (Print): Greg MASON

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: DATE	TIME
MW 12B			1	X					X			X			1/30	3:25
6			2													
6			2													
6B			1													
11			2													
11			2													
11B			1													
5			2													
5			2													
5B			1													3:50
8			2													

80

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	TPH AS MINERAL SPIRITS HOLD
																		X
						X											X	
																	X	
						X											X	
																	X	
						X											X	
																	X	
						X											X	

SPECIAL HANDLING
24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER _____(#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:

Lab Use Only Storage Location
Lot #: Work Order #:

Relinquished by:	Received by:	Relinquished by:	Received by:	Relinquished by:	Received by Laboratory:
Date	Time	Date	Time	Date	Time
1/30/11	8:30			1/31	8:30

GTEL ENVIRONMENTAL LABORATORIES, INC.
Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

02/09/90 SP

WORK ORD#: D001801
CLIENT: PAUL HORTON
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

SAMPLED: NONE GIVEN BY: G. MASON
RECEIVED: 01/31/90
ANALYZED: 02/01/90 BY: M. LY

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW1	02 MW2	03 MW3	04 MW12
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1		<1	<1	<1	<1
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	0.57	<0.2
1,1-Dichloroethane	0.5		<0.5	<0.5	5.9	<0.5
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	2.2	0.68
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	4.3	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	0.72	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	2	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	9.4	13
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1		<1	<1	<1	<1
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	0.7	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D001801

CLIENT: PAUL HORTON
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW1	02 MW2	03 MW3	04 MW12
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL ENVIRONMENTAL LABORATORIES, INC.
Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

WORK ORD#:D001801

CLIENT: PAUL HORTON
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D. 05 MW6	06 MW11	07 MW5	08 MW8
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1	<1	<1	<1	<1
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	6.7	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	<0.5	2.5	<0.5	<0.5
Chloroform	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	3.2
1,1,1-Trichloroethane	0.5	<0.5	<0.5	0.92	<0.5
Carbon tetrachloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5	4.6	41	2.8	15
Dibromochloromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1	<1	<1	<1	<1
Bromoform	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5	<0.5	<0.5	<0.5	1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

02/08/90 sp Page 1 of 1

WORK ORD#: D002003
CLIENT: PAUL HORTON
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016
LOCATION: OAKLAND, CA

SAMPLED: 01/31/90 BY: G. MASON
RECEIVED: 01/31/90
ANALYZED: 02/02/90 BY: M. LY

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW4	02 MW10			
Chloromethane	0.5		<0.5	<0.5			
Bromomethane	0.5		<0.5	<0.5			
Dichlorodifluoromethane	0.5		<0.5	<0.5			
Vinyl chloride	1		<1	<1.0			
Chloroethane	0.5		<0.5	<0.5			
Methylene chloride	0.5		<0.5	<0.5			
Trichlorofluoromethane	0.5		<0.5	<0.5			
1,1-Dichloroethene	0.2		<0.2	0.75			
1,1-Dichloroethane	0.5		<0.5	<0.5			
trans-1,2-Dichloroethene	0.5		40	35			
Chloroform	0.5		1.6	5.5			
1,2-Dichloroethane	0.5		0.5	<0.5			
1,1,1-Trichloroethane	0.5		<0.5	<0.5			
Carbon tetrachloride	0.5		<0.5	<0.5			
Bromodichloromethane	0.5		<0.5	<0.5			
1,2-Dichloropropane	0.5		<0.5	<0.5			
trans-1,3-Dichloropropene	0.5		<0.5	<0.5			
Trichloroethene	0.5		470	820			
Dibromochloromethane	0.5		<0.5	<0.5			
1,1,2-Trichloroethane	0.5		<0.5	<0.5			
cis-1,3-Dichloropropene	0.5		<0.5	<0.5			
2-Chloroethylvinyl ether	1		<1	<1			
Bromoform	0.5		<0.5	<0.5			
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5			
Tetrachloroethene	0.5		<0.5	<0.5			
Chlorobenzene	0.5		<0.5	<0.5			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D002003

CLIENT: PAUL HORTON
PROJECT#: 203-680-5016
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW4	02 MW10		
1,3-Dichlorobenzene	0.5		<0.5	<0.5		
1,2-Dichlorobenzene	0.5		<0.5	<0.5		
1,4-Dichlorobenzene	0.5		<0.5	<0.5		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

Emma P. Popek
EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.
Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

02/09/90 sp Page 1 of 1

WORK ORD#: D002161
CLIENT: PAUL HORTON
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016
LOCATION: OAKLAND, CA

SAMPLED: 01/31/90 BY: G. MASON
RECEIVED: 01/31/90
ANALYZED: 02/05/90 BY: R. GONZALEZ

MATRIX: Water
UNITS: mg/L (ppm)

PARAMETER	MDL	SAMPLE # I.D.	01 MW4	02 MW10			
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 418.1

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

72-4287

CUSTODY RECORD

Project Manager: PAUL HOFTON
Phone #:
FAX #:
Address: CONCORD / GTI
Site location: OAKLAND
Project Number: 2036805016
Project Name: SAFETY KLEEN
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): Greg MASON

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	NONE	OTHER	Sampling: DATE	TIME
MW 4			2	X					X			X			1/31	11:[illegible]
4			2													11:26
4B			1													11:25
10			2													11:38
10			2													11:39
10B			1													11:37
Travel B																

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	TPH AS MINERAL SPIRITS	Hold
						X												X	
																		X	
						X												X	X
																		X	
																		X	

SPECIAL HANDLING
24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER _____(#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:

Lab Use Only
Storage Location
Lot #:
Work Order #:

Relinquished by Sampler	Received by:	Date 1/31	Time	Date	Time	Date	Time
Relinquished by:	Received by:						
Relinquished by:	Received by Laboratory:						

Way bill #

GTEL ENVIRONMENTAL LABORATORIES, INC.
Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

01/10/90 SP

WORK ORD#:D001066
CLIENT: PAUL HORTON
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

SAMPLED: 01/03,04/90 BY: C. ROBERTSON
RECEIVED: 01/04/90
ANALYZED: 01/05/90 BY: M. LY

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW1	02 MW2	03 MW3	04 MW8	05 MW6
Benzene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Total BTEX	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Misc. Hydrocarbons (C4-C12)	1000		<1000	<1000	<1000	<1000	<1000
Total Petroleum Hydrocarbons as Mineral Spirits	1000		<1000	<1000	<1000	<1000	<1000

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 5030/8020/8015

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
2080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#: D001066

CLIENT: PAUL HORTON
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	06 MW11	07 MW10	08 MW5	09 MW4	10 MW12
Benzene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Total BTEX	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Misc. Hydrocarbons (C4-C12)	1000		<1000	<1000	<1000	<1000	<1000
Total Petroleum Hydrocarbons as Mineral Spirits	1000		<1000	<1000	<1000	<1000	<1000

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 5030/8020/8015

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

01/19/90 rw

WORK ORD#: D001065
CLIENT: PAUL HORTON
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

SAMPLED: 01/3,4/90 BY: C. ROBERTSON
RECEIVED: 01/04/90
ANALYZED: 01/11/90 BY: R. CONDIT

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW1	02 MW2	03 MW3	04 MW8
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1		<1	<1	<1	<1
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	1.7	<0.2
1,1-Dichloroethane	0.5		<0.5	<0.5	8.2	<0.5
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	2.9	1.3
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	5.2	4.9
1,1,1-Trichloroethane	0.5		<0.5	<0.5	1.1	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	14	31
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1		<1	<1	<1	<1
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		0.51	<0.5	0.9	<0.5
Chlorobenzene	0.5		<0.5	<0.5	1.5	0.7

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D001065

CLIENT: PAUL HORTON
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW1	02 MW2	03 MW3	04 MW8
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D001065

CLIENT: PAUL HORTON
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW6	06 MW11	07 MW10	08 MW5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1		<1	<1	<1	<1
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5		15	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	0.9	0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5		<0.5	5.6	36	<0.5
Chloroform	0.5		<0.5	<0.5	5.1	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	2
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		8.3	67	710	5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1		<1	<1	<1	<1
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D001065

CLIENT: PAUL HORTON
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW6	06 MW11	07 MW10	08 MW5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D001065

CLIENT: PAUL HORTON
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	09 MW4	10 MW12		
Chloromethane	0.5		<0.5	<0.5		
Bromomethane	0.5		<0.5	<0.5		
Dichlorodifluoromethane	0.5		<0.5	<0.5		
Vinyl chloride	1		<1	<1		
Chloroethane	0.5		<0.5	<0.5		
Methylene chloride	0.5		<0.5	<0.5		
Trichlorofluoromethane	0.5		<0.5	<0.5		
1,1-Dichloroethene	0.2		<0.2	<0.2		
1,1-Dichloroethane	0.5		<0.5	<0.5		
trans-1,2-Dichloroethene	0.5		31	1.5		
Chloroform	0.5		1.6	<0.5		
1,2-Dichloroethane	0.5		0.6	1.6		
1,1,1-Trichloroethane	0.5		<0.5	<0.5		
Carbon tetrachloride	0.5		<0.5	<0.5		
Bromodichloromethane	0.5		<0.5	<0.5		
1,2-Dichloropropane	0.5		<0.5	<0.5		
trans-1,3-Dichloropropene	0.5		<0.5	<0.5		
Trichloroethene	0.5		430	31		
Dibromochloromethane	0.5		<0.5	<0.5		
1,1,2-Trichloroethane	0.5		<0.5	<0.5		
cis-1,3-Dichloropropene	0.5		<0.5	<0.5		
2-Chloroethylvinyl ether	1		<1	<1		
Bromoform	0.5		<0.5	<0.5		
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5		
Tetrachloroethene	0.5		<0.5	<0.5		
Chlorobenzene	0.5		<0.5	<0.5		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL ENVIRONMENTAL LABORATORIES, INC.
Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D001065

CLIENT: PAUL HORTON
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	09 MW4	10 MW12		
1,3-Dichlorobenzene	0.5		<0.5	<0.5		
1,2-Dichlorobenzene	0.5		<0.5	<0.5		
1,4-Dichlorobenzene	0.5		<0.5	<0.5		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

Emma P. Popek
EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72- 1410

Project Manager: Paul Horton
Phone #:
FAX #:
Address:
Site location: Oakland
Project Number: 203 680 5016.05
Project Name: Safety Kleen
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): Craig Robertson

ANALYSIS REQUEST

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	NONE	OTHER	Sampling: DATE	TIME	EPA 601/8010	BTEX TPH as Mineral Spirits	Hold
MW1B			1	X					X			X			1/3/90	[illegible]			X
MW1			2	↓					↓			↓			↓	1550	X		
MW1			2	↓					↓			↓			↓	1540		X	
MW2B			1	↓					↓			↓			↓	1600			X
MW2			2	↓					↓			↓			↓	1600	X		
MW2			2	↓					↓			↓			↓	1607		X	
MW3B			1	↓					↓			↓			↓	1607			X
MW3			2	↓					↓			↓			↓	1607	X		
MW3			2	↓					↓			↓			↓	1607		X	
MW8B			1	↓					↓			↓			↓	1615			X
MW8			2	↓					↓			↓			↓	1615	X		

Analysis request columns (printed): BTEX 602 ☐ 8020 ☐ with MTBE ☐; BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐; TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel; Product I.D. by GC (SIMDIS) ☐; Total Oil & Grease: 413.1 ☐ 413.2 ☐ 503A ☐; Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐; EPA 601 ☒ 8010 ☐ DCA only ☐; EPA 602 ☐ 8020 ☐; EPA 608 ☐ 8080 ☐ PCBs only ☐; EPA 610 ☐ 8310 ☐; EPA 624 ☐ 8240 ☐ NBS +15 ☐; EPA 625 ☐ 8270 ☐ NBS +25 ☐; EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐; TCLP Metals ☐ VOA ☐ Semi VOA ☐; EPA Priority Pollutant Metals ☐ HSL ☐; LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐; CAM Metals ☐ STLC ☐ TTLC; Corrosivity ☐ Flashpoint ☐ Reactivity ☐; BTEX TPH as Mineral Spirits; Hold

CUSTODY RECORD

Relinquished by:	Date	Time	Received by:
[signature]	1/4/90	1545	
	1-4	3:15	Received by Laboratory: [illegible]

SPECIAL HANDLING

24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER ________(#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: pg 1 of 3

Lab Use Only
Storage Location
Lot #:
Work Order #:

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72-1411

Project Manager: Paul Horton

Phone #:

FAX #:

Address:

Site location: Oakland

Project Number: 203 6805016.05.

Project Name: Safety Kleen

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): Craig Robertson

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H_2SO_4	ICE	NONE	OTHER	Sampling: DATE	TIME
MW8			2	X					X			X				1615
MW6B			1	↓					↓			↓				1645
MW6			2	↓					↓			↓				1645
MW6			2	↓					↓			↓			01/3/90	1645
MW11B			1	↓					↓			↓				1645
MW11			2	↓					↓			↓				1645
MW11			2	↓					↓			↓			↓	1645
MW10B			1	↓					↓			↓			↓	1655
MW10			2	↓					↓			↓			↓	1655
MW10			2	↓					↓			↓			↓	1655
MW5B			1	↓					↓			↓			1/4/90	1120

ANALYSIS REQUEST

Field Sample ID	BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons 418.1 ☐ 503E ☐	EPA 601 X 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	BTEX TPH as Mineral Spirits	Hold	
MW8																		X		
MW6B																			X	
MW6							X													
MW6																		X		
MW11B																			X	
MW11							X													
MW11																		X		
MW10B																			X	
MW10							X													
MW10																		X		
MW5B																			X	

CUSTODY RECORD

Relinquished by Sampler: [signature]	Date 1/4/90	Time 15:15	Received by:
Relinquished by: [signature]	Date	Time	Received by:
Relinquished by:	Date 1-4	Time 3:15	Received by Laboratory: [signature] Way bill #:

SPECIAL HANDLING

24 HOURS ☐

EXPEDITED 48 Hours ☐

SEVEN DAY ☐

OTHER ________(#) BUSINESS DAYS

QA/QC CLP Level ☐ Blue Level ☐

FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: pg 2 of 3

Lab Use Only

Lot #:

Storage Location

Work Order #:

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72- 1412

Project Manager: Paul Horton

Phone #:

FAX #:

Address:

Site location: Oakland

Project Number: 2036805016.05

Project Name: Safety Kleen

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): Craig Robertson

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐ | BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐ | TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel | Product I.D. by GC (SIMDIS) ☐ | Total Oil & Grease: 413.1 ☐ 413.2 ☐ 503A ☐ | Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐ | EPA 601 8010 ☐ DCA only ☐ | EPA 602 ☐ 8020 ☐ | EPA 608 ☐ 8080 ☐ PCBs only ☐ | EPA 610 ☐ 8310 ☐ | EPA 624 ☐ 8240 ☐ NBS +15 ☐ | EPA 625 ☐ 8270 ☐ NBS +25 ☐ | EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐ | TCLP Metals ☐ VOA ☐ Semi VOA ☐ | EPA Priority Pollutant Metals ☐ HSL ☐ | LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐ | CAM Metals ☐ STLC ☐ TTLC | Corrosivity ☐ Flashpoint ☐ Reactivity ☐ | BTEX TPH as Mineral Spirits | Hold

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: DATE	TIME	EPA 601/8010	BTEX TPH as Mineral Spirits	Hold
MW5			2	X					X			X			01/4/91	1120	X		
MW9			2	↓					↓			↓			↓	1120		X	
MW4B			1	↓					↓			↓			↓	1125			X
MW4			2	↓					↓			↓			↓	1125	X		
MW4			2	↓					↓			↓			↓	1125		X	
MW12B			1	↓					↓			↓			↓	1135			X
MW12			2	↓					↓			↓			↓	1135	X		
MW12			2	↓					↓			↓			↓	1135		X	
TB															1/3/91	0900			X

SPECIAL HANDLING

24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER ________(#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: pg 3 of 3

Lab Use Only
Lot #:
Storage Location
Work Order #:

CUSTODY RECORD

Relinquished by	Received by	Date	Time
Relinquished by Sampler: [signature]	Received by:	1/4/91	15:15
Relinquished by:	Received by:		
Relinquished by:	Received by Laboratory: [signature]	1-4	3:15

GTEL
ENVIRONMENTAL
LABORATORIES, INC.
Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

WORK ORD#: C912014
CLIENT: PAUL HORTON
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 283-680-5016.05-29
LOCATION: OAKLAND, CA

SAMPLED: 11/29,30/89 BY: C. ROBERTSON
RECEIVED: 12/01/89
ANALYZED: 12/05/89 BY: R. CONDIT

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW1	02 MW2	03 MW3	04 MW8
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1		<1	<1	<1	<1
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	0.87	<0.2
1,1-Dichloroethane	0.5		<0.5	<0.5	5.7 X	<0.5
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	2	0.68
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	3	3.7
1,1,1-Trichloroethane	0.5		<0.5	<0.5	0.95	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	1.1	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	8.6 X	25 X
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1		<1	<1	<1	<1
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	0.73	0.6

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C912014

CLIENT: PAUL HORTON
PROJECT#: 283-680-5016.05-29
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW1	02 MW2	03 MW3	04 MW8
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		0.65	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
[illegible] Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C912014

CLIENT: PAUL HORTON
PROJECT#: 283-680-5016.05-29
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D. 05 MW12	06 MW11	07 MW6	08 MW10
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1	<1	<1	<1	<1
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2	<0.2	<0.2	0.24	1
1,1-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5	1.1	3.8 ok	<0.5	31
Chloroform	0.5	<0.5	<0.5	<0.5	3.7 X
1,2-Dichloroethane	0.5	1.3	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5	22	55	2	610
Dibromochloromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1	<1	<1	<1	<1
Bromoform	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

WORK ORD#:C912014

CLIENT: PAUL HORTON
PROJECT#: 203-680-5016.05-29
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW12	06 MW11	07 MW6	08 MW10
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

WORK ORD#:C912014

CLIENT: PAUL HORTON
PROJECT#: 283-680-5016.05-29
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	09 MW5	10 MW4		
Chloromethane	0.5		<0.5	<0.5		
Bromomethane	0.5		<0.5	<0.5		
Dichlorodifluoromethane	0.5		<0.5	<0.5		
Vinyl chloride	1		<1	<1		
Chloroethane	0.5		<0.5	<0.5		
Methylene chloride	0.5		<0.5	<0.5		
Trichlorofluoromethane	0.5		<0.5	<0.5		
1,1-Dichloroethene	0.2		0.21	<0.2		
1,1-Dichloroethane	0.5		<0.5	<0.5		
trans-1,2-Dichloroethene	0.5		<0.5	25 X		
Chloroform	0.5		<0.5	1.4		
1,2-Dichloroethane	0.5		<0.5	0.6		
1,1,1-Trichloroethane	0.5		1.7	<0.5		
Carbon tetrachloride	0.5		<0.5	<0.5		
Bromodichloromethane	0.5		<0.5	<0.5		
1,2-Dichloropropane	0.5		<0.5	<0.5		
trans-1,3-Dichloropropene	0.5		<0.5	<0.5		
Trichloroethene	0.5		2.5	410		
Dibromochloromethane	0.5		<0.5	<0.5		
1,1,2-Trichloroethane	0.5		<0.5	<0.5		
cis-1,3-Dichloropropene	0.5		<0.5	<0.5		
2-Chloroethylvinyl ether	1		<1	<1		
Bromoform	0.5		<0.5	<0.5		
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5		
Tetrachloroethene	0.5		<0.5	<0.5		
Chlorobenzene	0.5		<0.5	<0.5		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C912014

CLIENT: PAUL HORTON
PROJECT#: 203-680-5016.05-29
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	09 MW5	10 MW4		
1,3-Dichlorobenzene	0.5		<0.5	<0.5		
1,2-Dichlorobenzene	0.5		<0.5	<0.5		
1,4-Dichlorobenzene	0.5		<0.5	<0.5		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

12/08/89 SP PAGE 1 OF 2

WORK ORD#: C912015
CLIENT: PAUL HORTON
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-580-5016.05-20
LOCATION: OAKLAND, CA

SAMPLED: 11/29,30/89 BY: C. ROBERTSON
RECEIVED: 12/01/89
ANALYZED: 12/04/89 BY: M. LY

MATRIX: WATER
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW1	02 MW2	03 MW3	04 MW8	05 MW12
Benzene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Total BTEX	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Total Petroleum Hydrocarbons as Mineral Spirits	1000		<1000	<1000	<1000	<1000	<1000

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 5030/8020/8015

GTEL
ENVIRONMENTAL LABORATORIES, INC.
Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

WORK ORD#: C912015

CLIENT: PAUL HORTON
PROJECT#: 283-600-5016.05-30
LOCATION: OAKLAND, CA

MATRIX: WATER
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	06 MW11	07 MW6	08 MW10	09 MW5	10 MW4
Benzene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Total BTEX	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Total Petroleum Hydrocarbons as Mineral Spirits	1000		<1000	<1000	<1000	<1000	<1000

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 5030/8020/8015

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

11/10/89 sp Page 1 of 3

WORK ORD#: C911048
CLIENT: CHIP PROKOP
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-26
LOCATION: OAKLAND, CA

SAMPLED: [redacted] BY: C. ROBERTSON
11/02/89
RECEIVED: 11/02/89
ANALYZED: 11/07/89 BY: R. CONDIT

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW1	02 MW2	03 MW3	04 MW4
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1		<1	<1	<1	<1
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	0.69	<0.2
1,1-Dichloroethane	0.5		<0.5	<0.5	5.2	<0.5
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	2.2	44
Chloroform	0.5		<0.5	<0.5	<0.5	1.6
1,2-Dichloroethane	0.5		<0.5	<0.5	3.7	0.96
1,1,1-Trichloroethane	0.5		<0.5	<0.5	1	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	8.5	600
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1		<1	<1	<1	<1
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	0.69	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.
Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C909001

CLIENT: ED PROKOP
PROJECT#: 203-680-5016.04-6
LOCATION: 404 MARKET STREET

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW6	06 MW5	07 MW4	08 MW2B
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
2080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C909001

CLIENT: ED PROKOP
PROJECT#: 203-680-5016.04-6
LOCATION: 404 MARKET STREET

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	09 MW2	10 MW8	11 MW1	
Chloromethane	0.5		<0.5	<0.5	<0.5	
Bromomethane	0.5		<0.5	<0.5	<0.5	
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	
Vinyl chloride	1		<1	<1	<1	
Chloroethane	0.5		<0.5	<0.5	<0.5	
Methylene chloride	0.5		<0.5	<0.5	<0.5	
Trichlorofluoromethane	0.5		<0.5	<0.5	<0.5	
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	
trans-1,2-Dichloroethene	0.5		<0.5	1.7	<0.5	
Chloroform	0.5		<0.5	<0.5	<0.5	
1,2-Dichloroethane	0.5		<0.5	5.8	<0.5	
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	
Trichloroethene	0.5		<0.5	46	<0.5	
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	
2-Chloroethylvinyl ether	1		<1	<1	<1	
Bromoform	0.5		<0.5	<0.5	<0.5	
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	
Chlorobenzene	0.5		<0.5	<0.5	<0.5	

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C909001

CLIENT: ED PROKOP
PROJECT#: 203-680-5016.04-6
LOCATION: 404 MARKET STREET

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	09 MW2	10 MW8	11 MW1	
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

09/07/89 JP PAGE 1 OF 3

WORK ORD#: C909002
CLIENT: ED PROKOP
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.04-7
LOCATION: 404 MARKET STREET
OAKLAND, CA
SAMPLED: 08/30/89 BY: C. ROBERTSON
RECEIVED: 08/31/89 BY: K. FILLINGER
ANALYZED: 09/05/89 BY: M. LY
MATRIX: WATER
UNITS: mg/L (ppm)

TEST RESULTS

PARAMETER	MDL	SAMPLE # I.D.	01 MW 11	02 MW 12	03 MW 10	04 MW 3	05 MW 6
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1	<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 5030/8015

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C909002

CLIENT: ED PROKOP
PROJECT#: 203-680-5016.04-7
LOCATION: 404 MARKET STREET

MATRIX: WATER
UNITS: mg/L (ppm)

TEST RESULTS

PARAMETER	MDL	SAMPLE #I.D.	06 MW 5	07 MW 4	08 MW 2	09 MW 8B	10 MW 8
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1	<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 5030/8015

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C909002

CLIENT: ED PROKOP
PROJECT#: 203-680-5016.04-7
LOCATION: 404 MARKET STREET

MATRIX: WATER
UNITS: mg/L (ppm)

TEST RESULTS

PARAMETER	MDL	SAMPLE #I.D.	11 MW 1B	12 MW 1	13 TRIPBLANK
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 5030/8015

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.
4080-C Pike Lane
Concord, CA 94520
415-685-7852
800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Ed Pickop | Phone #:

Address: GTI | FAX #:

Project Number: 203630401605 | Project Name: Safety Kleen Oakland

Project Location: 404 Market St | Sampler Signature: [illegible]

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	NONE	OTHER	Sampling: DATE	TIME
MW4		2	40	X					X		X			8/31/89	1515
MW2B		1	↓	↓					↓		↓			8/31/89	1320
MW2		2	↓	↓					↓		↓			↓	1320
MW2		2	↓	↓					↓		↓			↓	1320
MW8B		1	↓	↓					↓		↓			↓	1330
MW3		2	↓	↓					↓		↓			↓	1330
MW8		2	↓	↓					↓		↓			↓	1330
MW1B		1	↓	↓					↓		↓			↓	1340
MW1		2	↓	↓					↓		↓			↓	1340
MW1		2	↓	↓					↓		↓			↓	1340
FB		1	↓	↓					↓		↓			8/30/89	0920

ANALYSIS REQUEST / OTHER / SPECIAL HANDLING

Sample ID	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD	Other: Mod 8015 TPH as Mineral Spirits	Other: Hold	Other	Other	Other	PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBALS/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
MW4																			X									
MW2B								X																				
MW2								X																				
MW2																			X									
MW8B																			X									
MW3								X																				
MW8																			X									
MW1B																			X									
MW1								X																				
MW1																			X									
FB																			X									

Relinquished by:	Date	Time	Received by:
[illegible]	8/31/89		1536
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:
	[illegible]	[illegible]	Karla Williman

Remarks:

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080-C Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Ed Prokop

Phone #:

Address: GTI

FAX #:

Project Number: 023 650 5016 05/31

Project Name: Safety Kleen Oakland

Project Location: 404 Market St

Sampler Signature: [signature]

ANALYSIS REQUEST

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	Matrix: SOIL	Matrix: AIR	Matrix: SLUDGE	Matrix: OTHER	Method Preserved: HCl	Method Preserved: HNO3	Method Preserved: ICE	Method Preserved: NONE	Method Preserved: OTHER	Sampling: DATE	Sampling: TIME	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD (7420/7421/239.2)	ORGANIC LEAD	OTHER: 8015 TPH as Mineral Spirits	OTHER: Hold	OTHER	OTHER	OTHER	PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBALS/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
MW3B		[illegible]	[illegible]	X										8/30/99	1425																				X								
MW3		2		X											1425								X																				
MW3		2		X											1425																			X									
MW6B		1		X											1440																				X								
MW6		2													1440								X																				
MW6		2													1440																			X									
MW5B		1													1500																				X								
MW5		2													1500								X																				
MW5		2													1500																			X									
MW4B		1													1515																				X								
MW4		2													1515								X																				

Relinquished by:	Date	Time	Received by:
[signature]	8/31/99	15:37	
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:
	[illegible]	[illegible]	[illegible]

Remarks:

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#: C907626
CLIENT: CHIP PROKOP
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-19
LOCATION: OAKLAND, CA

SAMPLED: 07/27/89 BY: G. MASON
RECEIVED: 07/28/89
ANALYZED: 07/31/89 BY: R. CONDIT

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW4B	02 MW4	03 MW5	04 MW6
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1		<1	<1	<1	<1
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5		<0.5	<0.5	1.2	11
1,1-Dichloroethene	0.2		<0.2	0.37	0.32	0.37
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5		<0.5	29	<0.5	<0.5
Chloroform	0.5		<0.5	1.1	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	1.1	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	0.57	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	390	2.9	4.7
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1		<1	<1	<1	<1
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL ENVIRONMENTAL LABORATORIES, INC.
Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C907626

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016.05-19
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW4B	02 MW4	03 MW5	04 MW6
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C907626

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016.05-19
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW3	06 MW2	07 MW1	08 MW8
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1		<1	<1	<1	<1
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		1.9	<0.2	<0.2	0.27
1,1-Dichloroethane	0.5		8.7	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5		3.1	<0.5	0.79	2.1
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		5.3	<0.5	<0.5	7.1
1,1,1-Trichloroethane	0.5		2	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		0.61	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		6.9	<0.5	<0.5	42
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1		<1	<1	<1	<1
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		1.4	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C907626

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016.05
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW3	06 MW2	07 MW1	08 MW8
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

Connie P. Polek

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080-C Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: CHIP Prokop

Phone #:

Address: CONCord

FAX #:

Project Number: 203680501605

Project Name: SAfety Kleen

Project Location: OAKLAN'd

Sampler Signature: Greg M[illegible]

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	Matrix: SOIL	Matrix: AIR	Matrix: SLUDGE	Matrix: OTHER	Method Preserved: HCl	Method Preserved: HNO3	Method Preserved: ICE	Method Preserved: NONE	Method Preserved: OTHER	Sampling: DATE	Sampling: TIME
Travel B		1	40 ml	X					X		X			7/27	
MW 4B		1													
4		2													
5B		1													
5		2													
6B		1													
6		2													
3B		1													
3		2													
2B		1													
2		2													

ANALYSIS REQUEST

Sample ID	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD	OTHER: Hold	SPECIAL HANDLING: PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBAL/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
Travel B																			X					
MW 4B								X																
4								X																
5B																			X					
5								X																
6B																			X					
6								X																
3B																			X					
3								X																
2B																			X					
2								X																

Relinquished by:	Date	Time	Received by:
Greg M[illegible]	7/27		
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:

Remarks: 1 of 2

GEL ENVIRONMENTAL LABORATORIES, INC.

4080-C Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: CHIP PROUST

Phone #:

Address: CONCORD

FAX #:

Project Number: 203605016

Project Name: SAFETY KLEEN

Project Location: OAKLAND

Sampler Signature: Amy Mason

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	NONE	OTHER	Sampling: DATE	TIME
MW 13		1	40ml	X					X		X			7/27	
1		2	1L	X					X		Y				

ANALYSIS REQUEST

BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jet fuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD	OTHER: HOLD
							X											X

SPECIAL HANDLING

- PRIORITY ONE SERVICE (24 hr)
- EXPEDITED SERVICE (2-4 days)
- VERBAL/FAX
- SPECIAL DETECTION LIMITS (specify)
- SPECIAL REPORTING REQUIREMENTS

Relinquished by:	Date	Time	Received by:
	7/27		
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:

Remarks:

2 of 2

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

08/01/89 JP PAGE 1 OF 1
WORK ORD#:C907374
CLIENT: CHIP PROKOP
BROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-18
LOCATION: OAKLAND, CA

SAMPLED: 07/10/89 BY: G. MASON
RECEIVED: 07/10/89 BY: L. BOUSEK
ANALYZED: 07/27/89 BY: K. PATTON
MATRIX: OTHER
UNITS: mg/kg

TEST RESULTS

PARAMETER	MDL	SAMPLE # I.D.	01 1
Ortho Cresol	10		18000
M-P Cresol	10		11000

MDL=Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: MEOH Extraction GC/FID

Emma P. Popek
EMMA P. POPEK, DIRECTOR

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

GEL ENVIRONMENTAL LABORATORIES, INC.
2040 C Pike Lane
Concord, CA 94520
(925) 685-7852
800-544-3422 (In CA)
800-423-7143 (Outside CA)

Project Manager: [redacted] PROKOP
Phone #:
Address: CONCORD
FAX #:
Project Number: 203680501605
Project Name: SAFETY KLEEN
Project Location: OAKLAND
Sampler Signature: Greg Moore

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCL	HNO3	ICE	NONE	OTHER	Sampling: DATE	TIME
[redacted]	[redacted]	[redacted]						X		X				7/10	
2	02	2													
3	03	2													
4	04	2						V							
Trawl B		1	V								V			V	

ANALYSIS REQUEST

BTEX (8020/8021)	BTEX/TPH as Gasoline (8020/8015)	TPH as Diesel (8015)	TPH as Jet Fuel (8015)	Total Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2/601/8010	EPA 504.1/8011	EPA 505/8081	EPA 507/8141	EPA 508/8081	EPA 515.1/8150	EPA 524.2/624/8260	CAM 17 Metals	EPTOX Metals	EPA 6010/7000 Metals	Organic Lead	OTHER	EDF/EDD Report	EDF/EDD Report	SPECIAL HANDLING: STANDARD	EDF/EDD Report	SPECIAL REPORTING REQUIREMENTS
						X										X						
																		X	X	X	X	
						X												X	X	X	X	
																		X	X	X	X	
									X									X	X	X	X	

Relinquished by: [signature] Date: 7/10 Time: 3:35
Received by:

Relinquished by
Date: Time:
Received by:

Relinquished by
Date: 7/11/89 Time: 4:30
Received by Laboratory: [signature]

Remarks: * SPENT SOLVENTS

GTEL
ENVIRONMENTAL LABORATORIES, INC.
Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

07/27/89 JP

WORK ORD#: C907138
CLIENT: CHIP PROKOP
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-13
LOCATION: OAKLAND, CA

SAMPLED: 07/10/89 BY: B. MASON
RECEIVED: 07/10/89
ANALYZED: 07/17/89 BY: C. MANUEL

MATRIX: SOLVENT
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01* 1	02* 3			
Chloromethane	0.5		<2500	<1000			
Bromomethane	0.5		<2500	<1000			
Dichlorodifluoromethane	0.5		<2500	<1000			
Vinyl chloride	1		<5000	<2000			
Chloroethane	0.5		<2500	<1000			
Methylene chloride	0.5		97000	<1000			
Trichlorofluoromethane	0.5		<2500	<1000			
1,1-Dichloroethene	0.2		<1000	<400			
1,1-Dichloroethane	0.5		<2500	<1000			
trans-1,2-Dichloroethene	0.5		<2500	<1000			
Chloroform	0.5		<2500	<1000			
1,2-Dichloroethane	0.5		<2500	<1000			
1,1,1-Trichloroethane	0.5		<2500	<1000			
Carbon tetrachloride	0.5		<2500	<1000			
Bromodichloromethane	0.5		<2500	<1000			
1,2-Dichloropropane	0.5		<2500	<1000			
trans-1,3-Dichloropropene	0.5		<2500	<1000			
Trichloroethene	0.5		<2500	<1000			
Dibromochloromethane	0.5		<2500	<1000			
1,1,2-Trichloroethane	0.5		<2500	<1000			
cis-1,3-Dichloropropene	0.5		<2500	<1000			
2-Chloroethylvinyl ether	1		<5000	<2000			
Bromoform	0.5		<2500	<1000			
1,1,2,2-Tetrachloroethane	0.5		<2500	<1000			
Tetrachloroethene	0.5		<2500	610000			
Chlorobenzene	0.5		<2500	<1000			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

WORK ORD#:C907138

CLIENT: CHIP PROKOP
PROJECT#: 283-680-5016.05-13
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	@1* 1	@2* 3			
1,3-Dichlorobenzene	0.5		<2500	<1000			
1,2-Dichlorobenzene	0.5		6900	<1000			
1,4-Dichlorobenzene	0.5		4900	<1000			
Estimated Tetrachloroethene			1100	NA			
Estimated 1,3 Dichlorobenzene			2300	NA			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601
*Detection limits raised due to dilution.

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

07/28/89 jp Page 1 of 1

WORK ORD#:C907129
CLIENT: CHIP PROKOP
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-14
LOCATION: OAKLAND, CA

SAMPLED: 07/10/89 BY: S. MASON
RECEIVED: 07/10/89
ANALYZED: 07/20/89 BY: KOWALSKI

MATRIX: Other
UNITS: ug/Kg (ppb)

PARAMETER	MDL	SAMPLE # I.D. 01 4
Chloromethane	500	<500
Bromomethane	500	<500
Vinyl chloride	500	<500
Chloroethane	500	<500
Methylene chloride	250	<250
Acetone	5000	310000000
Carbon disulfide	250	<250
1,1-Dichloroethene	250	<250
1,1-Dichloroethane	250	<250
trans-1,2-Dichloroethene	250	<250
Chloroform	250	<250
1,2-Dichloroethane	250	<250
2-Butanone	5000	<5000
1,1,1-Trichloroethane	250	<250
Carbon tetrachloride	250	<250
Vinyl acetate	2500	<2500
Bromodichloromethane	250	<250
1,2-Dichloropropane	250	<250
cis-1,3-Dichloropropene	250	<250
Trichloroethene	250	<250
Dibromochloromethane	250	<250
1,1,2-Trichloroethane	250	<250
Benzene	250	<250
trans-1,3-Dichloropropene	250	<250
2-Chloroethylvinylether	500	<500
Bromoform	250	<250
4-Methyl-2-pentanone	2500	11000000
2-Hexanone	2500	<2500

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 8240

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
2080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C907129

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016.05-14
LOCATION: OAKLAND, CA

MATRIX: Other
UNITS: ug/Kg (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 4
Tetrachloroethene	250		2800000
1,1,2,2-Tetrachloroethane	250		(250
Toluene	250		220000000
Chlorobenzene	250		(250
Ethylbenzene	250		(250
Styrene	250		(250
1,2-Dichlorobenzene	250		(250
1,3-Dichlorobenzene	250		(250
1,4-Dichlorobenzene	250		(250
Xylene (total)	250		(250
Trichlorofluoromethane	250		(250

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 8240

Emma P. Popek
EMMA P. POPEK, Laboratory Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

07/21/89 jp PAGE 1 OF 1
WORK ORD#: C907131
CLIENT: CHIP PROKOP
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-15
LOCATION: OAKLAND, CA

SAMPLED: 07/10/89 BY: G. MASON
RECEIVED: 07/10/89 BY: L. SOUSEK
ANALYZED: 07/20/89 BY: R. LAPURGA
MATRIX: OTHER

TEST RESULTS

PARAMETER	UNITS	METHOD	SAMPLE # I.D.	#2	#3	#4
Flashpoint	Degrees Farenheit	EPA1010		105 F	80 F	80 F

Emma P. Popek

EMMA P. POPEK, DIRECTOR

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

07/27/89 jp PAGE 1 OF 1
WORK ORD#:C907132
CLIENT: CHIP PROKOP
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-16
LOCATION: OAKLAND, CA

SAMPLED: 07/10/89 BY: G. MASON
RECEIVED: 07/10/89 BY: L. SOUSEK
ANALYZED: 07/24/89 BY: J. THOMAS
MATRIX: SOIL
UNITS: PPM

TEST RESULTS

PARAMETER	MDL	SAMPLE # I.D.	01 #1	02 #2	03 #3	04 #4	
Arsenic	13		<13	<13	<13	<13	
Barium	0.5		2	50	54	4	
Cadmium	3		<3	<3	<3	<3	
Chromium	3		5	6	6	<3	
Lead	5		270	49	47	<5	
Mercury	0.02		<0.02	<0.02	<0.02	<0.02	
Silver	3		8	7	7	8	
Selenium	25		<25	<25	<25	<25	

METHOD: 3005/6010

Emma P. Popek
EMMA P. POPEK, DIRECTOR

GOEL ENVIRONMENTAL LABORATORIES, INC.

4080-C Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: CHIP Prokop
Phone #:

Address: CONCORD
FAX #:

Project Number: 20368050160S
Project Name: SAFETY Kleen

Project Location: OAKLAND
Sampler Signature: [signature]

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	Matrix: SOIL	Matrix: AIR	Matrix: SLUDGE	Matrix: OTHER	Method Preserved: HCl	Method Preserved: HNO3	Method Preserved: ICE	Method Preserved: NONE	Method Preserved: OTHER	Sampling: DATE	Sampling: TIME	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD	OTHER: pH - Corrosivity	OTHER:	OTHER: As Ba Cd Cr Pb Hg	OTHER: Ag Se	OTHER: HMED	SPECIAL HANDLING: IGNITABILITY	EXPEDITED SERVICE (24 days)	VERBAL/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
1		2	1/4					X			X			7/10									X											X		X	X						
2		2	↓					↓			↓			↓																						X	X		X				
3		2																					X													X	X		X				
4		2																									X									X	X		X				
Travel B		1																																				X					

Relinquished by:	Date	Time	Received by:
[signature]	7/10	13:35	
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:
	[illegible]		[illegible]

Remarks: * SPENT SOLVENTS

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

07/13/89 jp

WORK ORD#: C907007
CLIENT: CHIP PROKOP
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-11
LOCATION: OAKLAND, CA

SAMPLED: 06/30/89 BY: G. MASON
RECEIVED: 06/30/89
ANALYZED: 07/07/89 BY: R. CONDIT

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW4	02 MW5	03 MW6	04 MW3
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1		<1	<1	<1	<1
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5		<0.5	<0.5	8	<0.5
1,1-Dichloroethene	0.2		0.25	<0.2	<0.2	1.7
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	11
trans-1,2-Dichloroethene	0.5		1.7	<0.5	<0.5	<0.5
Chloroform	0.5		0.62	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		0.5	<0.5	<0.5	5.8
1,1,1-Trichloroethane	0.5		<0.5	0.54	<0.5	3
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	0.88
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		380	2.9	6.6	7.4
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1		<1	<1	<1	<1
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	0.6
Chlorobenzene	0.5		<0.5	<0.5	<0.5	1.4

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

WORK ORD#:C907007

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016.05-11
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW1	06 MW2	07 MW8		
Chloromethane	0.5		<0.5	<0.5	<0.5		
Bromomethane	0.5		<0.5	<0.5	<0.5		
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5		
Vinyl chloride	1		<1	<1	<1		
Chloroethane	0.5		<0.5	<0.5	<0.5		
Methylene chloride	0.5		<0.5	<0.5	<0.5		
Trichlorofluoromethane	0.5		<0.5	<0.5	<0.5		
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2		
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5		
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5		
Chloroform	0.5		<0.5	<0.5	<0.5		
1,2-Dichloroethane	0.5		<0.5	<0.5	6.5		
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5		
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5		
Bromodichloromethane	0.5		<0.5	<0.5	<0.5		
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5		
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5		
Trichloroethene	0.5		<0.5	<0.5	41		
Dibromochloromethane	0.5		<0.5	<0.5	<0.5		
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5		
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5		
2-Chloroethylvinyl ether	1		<1	<1	<1		
Bromoform	0.5		<0.5	<0.5	<0.5		
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5		
Tetrachloroethene	0.5		0.83	<0.5	0.58		
Chlorobenzene	0.5		<0.5	<0.5	0.69		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C907007

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016.05-11
LOCATION: OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW1	06 MW2	07 MW8	
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	
1,2-Dichlorobenzene	0.5		<0.5	<0.5	1.4	
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

Emma P. Popek
EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.
4080-C Pike Lane
Concord, CA 94520
415-685-7852
800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: CHIP Prokop

Phone #:

Address: CONCORD / GTI

FAX #:

Project Number: 0203660501C

Project Name: SAFETY KLEEN

Project Location: OAKLAND

Sampler Signature: [signature]

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	Matrix: SOIL	Matrix: AIR	Matrix: SLUDGE	Matrix: OTHER	Method Preserved: HCl	Method Preserved: HNO3	Method Preserved: ICE	Method Preserved: NONE	Method Preserved: OTHER	Sampling: DATE	Sampling: TIME
MW [illegible]			[illegible]	X					X		X			[illegible]	
3B		1		↓					↓		↓			↓	
1		2		↓					↓		↓			↓	
[illegible]				↓					↓		↓			↓	
1B		1		↓					↓		↓			↓	
2		2		↓					↓		↓			↓	
[illegible]				↓					↓		↓			↓	
2B		1		↓					↓		↓			↓	
[illegible]		2		↓					↓		↓			↓	
[illegible]				↓					↓		↓			↓	
3B		1		↓					↓		↓			↓	

ANALYSIS REQUEST

Sample ID	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD	OTHER: HOLD	SPECIAL HANDLING: PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBALS/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
MW [illegible]																								
3B																			X					
1								X																
[illegible]																								
1B																			X					
2								X																
[illegible]																								
2B																			X					
[illegible]								X																
[illegible]																								
3B																			X					

Relinquished by:	Date / Time	Received by:
[signature]	6/30	
Relinquished by	Date / Time	Received by:
Relinquished by	Date / Time	Received by Laboratory:
	6/30 1:00	[signature]

Remarks: 2 of 2

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080-C Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: CHIP Prokop
Phone #:

Address: Concord / GTI
FAX #:

Project Number: [illegible]050165DS
Project Name: SAFETY KLEEN OAKLAND

Project Location: OAKLAND
Sampler Signature: [signature]

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	NONE	OTHER	Sampling: DATE	TIME
Travel B		1	40 ml	X					X		X			1/30	
MW 4		2													
〃															
4 B		1													
5		2													
〃															
5 B		1													
6		2													
〃															
[illegible] B		1													
3		2													

ANALYSIS REQUEST

Sample ID	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 605/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD	OTHER: HOLD	SPECIAL HANDLING: PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBALS/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
Travel B																			X					
MW 4								X																
〃																								
4 B																			X					
5								X																
〃																								
5 B																			X					
6								X																
〃																								
[illegible] B																			X					
3								X																

Relinquished by:	Date	Time	Received by:
[signature]			
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:
	[illegible]		[illegible]

Remarks:

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

06/12/89 KF

WORK ORD#: C905539
CLIENT: CHIP PROKOP
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-5
LOCATION: 4TH STREET/OAKLAND, CA

SAMPLED: 05/22/89 BY: G. MASON
RECEIVED: 05/23/89
ANALYZED: 5/30/89 BY: R. CONDIT

MATRIX: WATER
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW 4	02 MW 5	03 MW 6	04 MW 1
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1		<1	<1	<1	<1
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5		<0.5	<0.5	9.4	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5		24	<0.5	<0.5	<0.5
Chloroform	0.5		5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		470	3.4	5.3	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1		<1	<1	<1	<1
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C905539

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016.05-5
LOCATION: 4TH STREET/OAKLAND, CA

MATRIX: WATER
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW 4	02 MW 5	03 MW 6	04 MW 1
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C905539

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016.05-5
LOCATION: 4TH STREET/OAKLAND, CA

MATRIX: WATER
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW 8
Chloromethane	0.5		<0.5
Bromomethane	0.5		<0.5
Dichlorodifluoromethane	0.5		<0.5
Vinyl chloride	1		<1
Chloroethane	0.5		<0.5
Methylene chloride	0.5		<0.5
Trichlorofluoromethane	0.5		<0.5
1,1-Dichloroethene	0.2		0.22
1,1-Dichloroethane	0.5		<0.5
trans-1,2-Dichloroethene	0.5		<0.5
Chloroform	0.5		<0.5
1,2-Dichloroethane	0.5		6.4
1,1,1-Trichloroethane	0.5		<0.5
Carbon tetrachloride	0.5		<0.5
Bromodichloromethane	0.5		<0.5
1,2-Dichloropropane	0.5		<0.5
trans-1,3-Dichloropropene	0.5		<0.5
Trichloroethene	0.5		37
Dibromochloromethane	0.5		<0.5
1,1,2-Trichloroethane	0.5		<0.5
cis-1,3-Dichloropropene	0.5		<0.5
2-Chloroethylvinyl ether	1		<1
Bromoform	0.5		<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5
Tetrachloroethene	0.5		<0.5
Chlorobenzene	0.5		1.3

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C905539

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016.05-5
LOCATION: 4TH STREET/OAKLAND, CA

MATRIX: WATER
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW 8
1,3-Dichlorobenzene	0.5		<0.5
1,2-Dichlorobenzene	0.5		<0.5
1,4-Dichlorobenzene	0.5		<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

This report replaces one of the same number dated 06/02/89.

METHOD: EPA 601

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

06/15/89 JP PAGE 1 OF 2

WORK ORD#: C905539.
CLIENT: CHIP PROKOP
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-5
LOCATION: 4TH STREET/OAKLAND, CA

SAMPLED: 05/22/89 BY: G. MASON
RECEIVED: 05/23/89
ANALYZED: 5/30/89 BY: R. CONDIT

MATRIX: WATER
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW 4	02 MW 5	03 MW 6	04 MW 1
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1		<1	<1	<1	<1
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5		<0.5	<0.5	9.4	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5		24	<0.5	<0.5	<0.5
Chloroform	0.5		5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		470	3.4	5.3	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1		<1	<1	<1	<1
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C905539

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016.05-5
LOCATION: 4TH STREET/OAKLAND, CA

MATRIX: WATER
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW 4	02 MW 5	03 MW 6	04 MW 1
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C905539

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016.05-5
LOCATION: 4TH STREET/OAKLAND, CA

MATRIX: WATER
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW 8
Chloromethane	0.5		<0.5
Bromomethane	0.5		<0.5
Dichlorodifluoromethane	0.5		<0.5
Vinyl chloride	1		<1
Chloroethane	0.5		<0.5
Methylene chloride	0.5		<0.5
Trichlorofluoromethane	0.5		<0.5
1,1-Dichloroethene	0.2		<0.2
1,1-Dichloroethane	0.5		<0.5
trans-1,2-Dichloroethene	0.5		<0.5
Chloroform	0.5		<0.5
1,2-Dichloroethane	0.5		6.4
1,1,1-Trichloroethane	0.5		<0.5
Carbon tetrachloride	0.5		<0.5
Bromodichloromethane	0.5		<0.5
1,2-Dichloropropane	0.5		<0.5
trans-1,3-Dichloropropene	0.5		<0.5
Trichloroethene	0.5		37
Dibromochloromethane	0.5		<0.5
1,1,2-Trichloroethane	0.5		<0.5
cis-1,3-Dichloropropene	0.5		<0.5
2-Chloroethylvinyl ether	1		<1
Bromoform	0.5		<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5
Tetrachloroethene	0.5		<0.5
Chlorobenzene	0.5		1.3

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C905539

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016.05-5
LOCATION: 4TH STREET/OAKLAND, CA

MATRIX: WATER
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D. 05 MW 8
1,3-Dichlorobenzene	0.5	<0.5
1,2-Dichlorobenzene	0.5	<0.5
1,4-Dichlorobenzene	0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

This report replaces one of the same number dated 06/12/89.

METHOD: EPA 601

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

WORK ORD#: C905539
CLIENT: CHIP PROKOP
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-5
LOCATION: 4TH STREET/OAKLAND, CA

SAMPLED: 05/22/89 BY: G. MASON
RECEIVED: 05/23/89
ANALYZED: 05/30/89 BY: R. CONDIT

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW 4	02 MW 5	03 MW 6	04 MW 1
Chloromethane	0.5		<5.0	<0.5	<0.5	<0.5
Bromomethane	0.5		<5.0	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<5.0	<0.5	<0.5	<0.5
Vinyl chloride	1		<10	<1	<1	<1
Chloroethane	0.5		<5.0	<0.5	<0.5	<0.5
Methylene chloride	0.5		<5.0	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5		<5.0	<0.5	9.4	<0.5
1,1-Dichloroethene	0.2		<2.0	<0.2	<0.2	<0.2
1,1-Dichloroethane	0.5		<5.0	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	0.5		24	<0.5	<0.5	<0.5
Chloroform	0.5		5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<5.0	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<5.0	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<5.0	<0.5	<0.5	<0.5
Bromodichloromethane	0.5		<5.0	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<5.0	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<5.0	<0.5	<0.5	<0.5
Trichloroethene	0.5		470	3.4	5.3	<0.5
Dibromochloromethane	0.5		<5.0	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<5.0	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<5.0	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1		<10	<1	<1	<1
Bromoform	0.5		<5.0	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<5.0	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<5.0	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<5.0	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C905539

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016.05-1
LOCATION: 4TH STREET/OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW 4	02 MW 5	03 MW 6	04 MW 1
1,3-Dichlorobenzene	0.5		<5.0	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<5.0	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<5.0	<0.5	<0.5	<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C905539

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016.05-1
LOCATION: 4TH STREET/OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW 8
Chloromethane	0.5		<0.5
Bromomethane	0.5		<0.5
Dichlorodifluoromethane	0.5		<0.5
Vinyl chloride	1		<1
Chloroethane	0.5		<0.5
Methylene chloride	0.5		<0.5
Trichlorofluoromethane	0.5		<0.5
1,1-Dichloroethene	0.2		0.22
1,1-Dichloroethane	0.5		<0.5
trans-1,2-Dichloroethene	0.5		<0.5
Chloroform	0.5		<0.5
1,2-Dichloroethane	0.5		6.4
1,1,1-Trichloroethane	0.5		<0.5
Carbon tetrachloride	0.5		<0.5
Bromodichloromethane	0.5		<0.5
1,2-Dichloropropane	0.5		<0.5
trans-1,3-Dichloropropene	0.5		<0.5
Trichloroethene	0.5		37
Dibromochloromethane	0.5		<0.5
1,1,2-Trichloroethane	0.5		<0.5
cis-1,3-Dichloropropene	0.5		<0.5
2-Chloroethylvinyl ether	1		<1
Bromoform	0.5		<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5
Tetrachloroethene	0.5		<0.5
Chlorobenzene	0.5		1.3

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL ENVIRONMENTAL LABORATORIES, INC.
Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C905539

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016.05-1
LOCATION: 4TH STREET/OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	05 MW 8
1,3-Dichlorobenzene	0.5		<0.5
1,2-Dichlorobenzene	0.5		<0.5
1,4-Dichlorobenzene	0.5		<0.5

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

06/02/89 jp PAGE 1 OF 1

WORK ORD#: C905540
CLIENT: CHIP PROKOP
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-6
LOCATION: 4TH STREET
OAKLAND, CA
SAMPLED: 05/22/89 BY: G. MASON
RECEIVED: 05/22/89 BY: K. FILLINGER
ANALYZED: 05/26/89 BY: C. MANUEL
MATRIX: WATER
UNITS: mg/L (ppm)

TEST RESULTS

PARAMETER	MDL	SAMPLE # I.D.	01 MW 4	02 MW 5	03 MW 6	04 MW 1	05 MW 8
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1	<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 5030/8015

Emma P. Popek

EMMA P. POPEK, Director

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080-C Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

Project Manager: CHIP Prokop

Phone #:

Address: Concord

FAX #:

Project Number: 2036805016.05

Project Name: Concord Area

Project Location: 4TH OAKLAND

Sampler Signature:

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	NONE	OTHER	Sampling: DATE	TIME
Trip B		1	40ml	X					X		X			5/4	
MW 4B		1													
4		2													
4		2													
5 B		1													
5		2													
5		2													
6 B		1													
6		2													
6		2													
1 B		1													

ANALYSIS REQUEST

BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD	OTHER: Mod 8015 TPH as Mineral Spirits	OTHER: Hold	SPECIAL HANDLING: PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBAL/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
							X											X	X					
																			X					
																			X					
							X																	
																			X					
																			X					
																			X					

Relinquished by: Date 5/4/89 Time 15:45 — Received by:

Relinquished by — Date — Time — Received by:

Relinquished by — Date — Time — Received by Laboratory:

Remarks:

GTEL ENVIRONMENTAL LABORATORIES, INC.
4080-C Pike Lane
Concord, CA 94520
415-685-7852
800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: CHIP PROKOP
Phone #:
Address: CONCORD
FAX #:
Project Number: 2036805016 05
Project Name: CONCORD [illegible]
Project Location: 4th OAKLAND
Sampler Signature: [signature]

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	NONE	OTHER	Sampling: DATE	TIME
AW 1		2	[illegible]	X					X		X			5/22	
" 1		2	"	"					"		"			"	
" 8B		1	"	"					"		"			"	
" 8		2	"	"					"		"			"	
" 8		2	"	"					"		"			"	

Sample ID	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD	Other: Mod 8015 TPH AS MINERAL SPIR	Other: HOLD	Other	Other	Special Handling: PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBALS/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
AW 1								X																			
" 1																			X								
" 8B																				X							
" 8								X																			
" 8																			X								

Relinquished by:	Date	Time	Received by:
[signature]	5/22/[illegible]	15:49	
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:
	5/22	[illegible]	[signature]

Remarks:

Page 2 of 2

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

06/06/89 JP Page 1 of 1

WORK ORD#:C905575
CLIENT: CHIP PROKOP
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-8
LOCATION: 4TH STREET, OAKLAND

SAMPLED: 05/23/89 BY: G. MASON
RECEIVED: 05/23/89
ANALYZED: 5/30/89 BY: R. CONDIT

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW-3	02 MW-2		
Chloromethane	0.5		<0.5	<0.5		
Bromomethane	0.5		<0.5	<0.5		
Dichlorodifluoromethane	0.5		<0.5	<0.5		
Vinyl chloride	1		<1	<1		
Chloroethane	0.5		<0.5	<0.5		
Methylene chloride	0.5		<0.5	<0.5		
Trichlorofluoromethane	0.5		<0.5	<0.5		
1,1-Dichloroethene	0.2		1.6	<0.2		
1,1-Dichloroethane	0.5		9	<0.5		
trans-1,2-Dichloroethene	0.5		2.5	<0.5		
Chloroform	0.5		0.5	<0.5		
1,2-Dichloroethane	0.5		5.7	<0.5		
1,1,1-Trichloroethane	0.5		2.9	<0.5		
Carbon tetrachloride	0.5		<0.5	<0.5		
Bromodichloromethane	0.5		<0.5	<0.5		
1,2-Dichloropropane	0.5		0.82	<0.5		
trans-1,3-Dichloropropene	0.5		<0.5	<0.5		
Trichloroethene	0.5		7	<0.5		
Dibromochloromethane	0.5		<0.5	<0.5		
1,1,2-Trichloroethane	0.5		<0.5	<0.5		
cis-1,3-Dichloropropene	0.5		<0.5	<0.5		
2-Chloroethylvinyl ether	1		<1	<1		
Bromoform	0.5		<0.5	<0.5		
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5		
Tetrachloroethene	0.5		0.57	<0.5		
Chlorobenzene	0.5		<0.5	<0.5		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C905575

CLIENT: CHIP PROKOP
PROJECT#: 203-680-5016.05-8
LOCATION: 4TH STREET, OAKLAND

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW-3	02 MW-2		
1,3-Dichlorobenzene	0.5		<0.5	<0.5		
1,2-Dichlorobenzene	0.5		<0.5	<0.5		
1,4-Dichlorobenzene	0.5		<0.5	<0.5		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 601

EPP / Paul Sng
EMMA P. POPEK, Laboratory Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

06/02/89 JP PAGE 1 OF 1

WORK ORD#: C905576
CLIENT: CHIP PROKOP
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-9
LOCATION: 4TH STREET
OAKLAND, CA
SAMPLED: 05/23/89 BY: G. MASON
RECEIVED: 05/23/89 BY: K. BIAVA
ANALYZED: 05/26/89 BY: C. MANUEL
MATRIX: WATER
UNITS: mg/L (ppm)

TEST RESULTS

PARAMETER	MDL	SAMPLE # I.D.	01 MW3	02 MW2			
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 5030/8015

Emma P. Popek

EMMA P. POPEK, Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080-C Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: CHIP P.

Phone #:

Address: CONCORD

FAX #:

Project Number: 2036-D5016 05-6

Project Name: SAFETY KLEEN

Project Location: 4TH OAKLAND

Sampler Signature:

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	NONE	OTHER	Sampling: DATE	TIME
TRIP B		1	40	X					X		X			5/23	
MW 3B		1	2												
MW 3		2													
3		2													
MW 2B		1													
2		2													
2		2													

ANALYSIS REQUEST

BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD	OTHER: 8015 TPH AS MINERAL SPIRITS	OTHER: HOLD	SPECIAL HANDLING: PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBAL/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
							X											X	X					
																			X					
							X											X						
																			X					
							X											X						

Relinquished by: | Date | Time | Received by:

Relinquished by | Date | Time | Received by:

Relinquished by | Date | Time | Received by Laboratory: Kathy Blum

Remarks:

5x

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

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

05/01/89 JP

WORK ORD#: C904503
CLIENT: STEVE FISCHBEIN
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-1
LOCATION: OAKLAND, CA

SAMPLED: 04/20/89 BY: R. ROBITAILLE
RECEIVED: 04/21/89 BY: K. BIAVA
ANALYZED: 04/26/89 BY: R. CONDIT
MATRIX: WATER
UNITS: ug/L (ppb)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	01A MW-4	02A MW5RB	03A MW-5	04A MW-6
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	1.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		0.78	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		40	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		410	<0.5	2.5	5.3
Trichlorofluoromethane	0.5		<0.5	<0.5	0.92	8.7
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

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

WORK ORD#:C904503
CLIENT: STEVE FISCHBEIN
PROJECT#: 203-680-5016.05-1
LOCATION: OAKLAND, CA

TEST RESULTS

MATRIX: WATER
UNITS: ug/L (ppb)

COMPOUND	MDL	LAB # I.D.# 05A MW-3	06A MW-1	07A MW-2	08A MW-8
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5	0.89	<0.5	<0.5	1.3
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5	3.3	<0.5	1.0	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	8.6	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	6.0	<0.5	<0.5	4.8
1,1-Dichloroethene	0.2	1.6	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5	2.5	<0.5	<0.5	0.96
1,2-Dichloropropane	0.5	0.80	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5	<0.5	0.55	<0.5	<0.5
1,1,1-Trichloroethane	0.5	2.4	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5	7.7	<0.5	<0.5	<0.5
Trichloroethene	0.5	<0.5	<0.5	<0.5	26
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0	<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

Emma P. Popek

EMMA P. POPEK, Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

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

05/03/89 KF

WORK ORD#: C904504
CLIENT: STEVE FISCHBEIN
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-2
LOCATION: OAKLAND, CA

SAMPLED: 04/20/89 BY: R. ROBITAILLE
RECEIVED: 04/21/89 BY: K. BIAVA
ANALYZED: 04/27/89 BY: C. MANUEL
MATRIX: WATER
UNITS: mg/L (ppm)

TEST RESULTS

PARAMETER	MDL	SAMPLE # I.D.	01A MW4	02A MW5RB	03A MW6	04A MW3	05A MW1
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1	<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 5030/8015

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

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

WORK ORD#: C904504

CLIENT: STEVE FISCHBEIN
PROJECT#: 203-680-5016.05-2
LOCATION: OAKLAND, CA

MATRIX: WATER
UNITS: mg/L (ppm)

TEST RESULTS

PARAMETER	MDL	SAMPLE #I.D.	06A MW2	07A MW8			
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 5030/8015

Emma P. Popek

EMMA P. POPEK, Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

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

05/04/89 KF PAGE 1 OF 2

WORK ORD#: C905073
CLIENT: STEVE FISCHBEIN
BROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.05-2
LOCATION: OAKLAND, CA

SAMPLED: 04/20/89 BY: R. ROBITAILLE
RECEIVED: 04/21/89
ANALYZED: 04/27/89 BY: C. MANUEL

MATRIX: WATER
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW4	02 MW5	03 MW6	04 MW3	05 MW1
Benzene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Total BTEX	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Misc. Hydrocarbons (C4-C12)	1		<1	<1	<1	<1	<1
Total Petroleum Hydrocarbons as Gasoline	1		<1	<1	<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 5030/8020/8015

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

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

WORK ORD#: C905073

CLIENT: STEVE FISCHBEIN
PROJECT#: 203-680-5016.05-2
LOCATION: OAKLAND, CA

MATRIX: WATER
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	06 MW2	07 MW8
Benzene	0.5		<0.5	<0.5
Toluene	0.5		<0.5	<0.5
Ethylbenzene	0.5		<0.5	<0.5
Xylenes	0.5		<0.5	<0.5
Total BTEX	0.5		<0.5	<0.5
Misc. Hydrocarbons (C4-C12)	1		<1	<1
Total Petroleum Hydrocarbons as Gasoline	1		<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 5030/8020/8015

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080-C Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

PROJ - C904503

Project Manager: S.A. Fischbein
Phone #: 227
Address: GTI
FAX #:
Project Number: 203 680 5016 05-1
Project Name: Safetey Kleen
Project Location: Oakland, CA.
Sampler Signature: [signature]

ANALYSIS REQUEST | OTHER | SPECIAL HANDLING

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	NONE	OTHER	Sampling: DATE	TIME	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD (Cd as per S.F.)	601 combined	8015 TPH as Mineral Spirits	Hold	PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBALS/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
Site Blank		1	40	X					X		X			4-20	3:20																					X					
MW4RB		1	"	"					"		"			"	3:21																					X					
MW4	01A	2	"	"					"		"			"	3:25																		~~X~~	X	X						
MW5RB	02A	1	"	"					"		"			"	3:27																		~~X~~	X	X						
MW5	03A	2	"	"					"		"			"	3:30																		~~X~~	X	X						
MW6RB		1	"	"					"		"			"	3:33																					X					
MW6	04A	2	"	"					"		"			"	3:35																		~~X~~	X	X						
MW3RB		1	"	"					"		"			"	3:39																					X					
MW3	05A	2	"	"					"		"			"	3:41																		~~X~~	X	X						
MW1RB		1	"	"					"		"			"	3:43																					X					
MW1	06A	2	"	"					"		"			"	3:46																		~~X~~	X	X						

Page 1 of 2

Relinquished by:	Date	Time	Received by:
Relinquished by	Date	Time	Received by:
Relinquished by [signature]	4-21-9?	?:20	Received by Laboratory: Kathy Brava

Remarks: analysis seperate 601 ~~and 602~~ combination ~~including~~ ~~mineral spirits~~ BTEX-TPH as gas & mineral spirits ~~[illegible]~~

(8015 TPH as MS) 5030/8010/8020

GTL ENVIRONMENTAL LABORATORIES, INC.

4080-C Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: S.A. Fischbein
Phone #: ext. 227
Address: GTI SFB
FAX #:
Project Number: 203 680 5016 05-1
Project Name: Safety Kleen
Project Location: Oakland CA
Sampler Signature:

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	NONE	OTHER	Sampling: DATE	TIME
MW 2RD		1	40	X					X		X			4/20	3:48
MW 2	07A	2	|	|					|	|			|	3:52
MW 8RD		1	|	|					|	|			|	3:54
MW 8	08A	2	|	|					|	|			|	3:55

ANALYSIS REQUEST

BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jethuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD	OTHER: 602 - 602 combined	8015 TPH as Mineral Spirits	Hold	SPECIAL HANDLING: PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBAL/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
																		X	X	X					
																		X	X						
																				X					
																		X	X						

Page 2 of 2

Remarks: analysis separate BTEX-TPH 602 combination as gas & mineral spirits combination including Mineral Spirits

Relinquished by:	Date	Time	Received by:
Relinquished by	Date	Time	Received by:
Relinquished by	Date: 4-21	Time: 8:20	Received by Laboratory: Kathy Brua

GTEL
ENVIRONMENTAL LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

04/06/89 jp PAGE 1 OF 2

WORK ORD#: C903538
CLIENT: STEVE FISCHBEIN
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016-6
LOCATION: 4TH STREET
OAKLAND, CA
SAMPLED: 03/22/89 BY: R. ROBITAILLE
RECEIVED: 03/23/89
ANALYZED: 04/03/89 BY: R. CONDIT

MATRIX: WATER
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01A MW4	02A MW5	03A MW6	04A MW3	05A MW1
Benzene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Total BTEX	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Misc. Hydrocarbons (C4-C12)	1		<1	<1	<1	<1	<1
Total Petroleum Hydrocarbons as Gasoline	1		<1	<1	<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 5030/8020/8015

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#: C903538

CLIENT: STEVE FISCHBEIN
PROJECT#: 203-680-5016-6
LOCATION: 4TH STREET

MATRIX: WATER
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	06A MW2	07A MW8			
Benzene	0.5		<0.5	<0.5			
Toluene	0.5		<0.5	<0.5			
Ethylbenzene	0.5		<0.5	<0.5			
Xylenes	0.5		<0.5	<0.5			
Total BTEX	0.5		<0.5	<0.5			
Misc. Hydrocarbons (C4-C12)	1		<1	<1			
Total Petroleum Hydrocarbons as Gasoline	1		<1	<1			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 5030/8020/8015

EMMA P. POPEK, Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

04/05/89 jp PAGE 1 OF 2

WORK ORD#:C903538
CLIENT: STEVE FISCHBEIN
GROUNDWATER TECHNOLOGY, INC.
~~4080-D~~ PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016-6
LOCATION: 4TH STREET
OAKLAND, CA
SAMPLED: 03/22/89 BY: R. ROBITAILLE
RECEIVED: 03/23/89
ANALYZED: 04/03/89 BY: R. CONDIT

MATRIX: WATER
UNITS: mg/L ppm

PARAMETER	MDL	SAMPLE # I.D.	01A MW4	02A MW5	03A MW6RB	04A MW3	05A MW1
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1	<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 5030/8020/8015

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#: C903538

CLIENT: STEVE FISCHBEIN
PROJECT#: 203-680-5016-6
LOCATION: 4TH STREET

MATRIX: WATER
UNITS: mg/L ppm

PARAMETER	MDL	SAMPLE # I.D.	06A MW2	07A MW8			
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 5030/8020/8015

Emma P. Popek

EMMA P. POPEK, Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

04/05/89 jp PAGE 1 OF 2

WORK ORD#: C903532
CLIENT: STEVE FISCHBEIN
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-600-5016-4
LOCATION: 4TH STREET
OAKLAND, CA
SAMPLED: 03/22/89 BY: R. ROBITAILLE
RECEIVED: 03/23/89 BY: E. LARSEN
ANALYZED: 03/26/89 BY: C. MANUEL
MATRIX: WATER
UNITS: ug/L (ppb)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	01A MW4	02A MW5	03A MW6RB	04A MW6
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		0.81	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.5	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		33	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		440	3.1	<0.5	2.6
Trichlorofluoromethane	0.5		<0.5	1.1	<0.5	3.7
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#: C903532
CLIENT: STEVE FISCHBEIN
PROJECT#: 203-680-5016-4
LOCATION: 4TH STREET
OAKLAND, CA

MATRIX: WATER
UNITS: ug/L (ppb)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	05A MW3	06A MW1	07A MW2	08A MW8
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		0.82	<0.5	<0.5	1.1
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	1.3	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		7.8	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		5.7	<0.5	<0.5	6.4
1,1-Dichloroethene	0.2		1.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		2.8	<0.5	<0.5	1.7
1,2-Dichloropropane	0.5		0.82	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		2.3	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		8.5	<0.5	<0.5	31
Trichlorofluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

Emma P. Popek

EMMA P. POPEK, Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080-C Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: [illegible]

Phone #: [illegible]

Address: GTEL SFB

FAX #:

Project Number: 03 0[illegible]0 0016

Project Name: Safety Kleen / Oakland

Project Location: [illegible] Oakland CA

Sampler Signature: [illegible]

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	NONE	OTHER	Sampling: DATE	TIME
~~[illegible]~~															
TB		1	40	X					X		X			3/22	2:50
MW4RB		1	↓	↓					↓		↓			↓	2:51
MW4		2	↓	↓					↓		↓			↓	2:53
MW5RB		1	↓	↓					↓		↓			↓	3:5[illegible]
MW5		2	↓	↓					↓		↓			↓	2:58
MW6RB		1	↓	↓					↓		↓			↓	3:01
MW6		2	↓	↓					↓		↓			↓	3:05
MW3RB		1	↓	↓					↓		↓			↓	3:06
MW3		2	↓	↓					↓		↓			↓	3:10

Sample ID	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD	OTHER: 601+602 (as[illegible]) Include MS	HOLD				PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBALS/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
~~[illegible]~~																												
TB																				X								
MW4RB																				X								
MW4																			X									
MW5RB																				X								
MW5																			X									
MW6RB																			XX									
MW6																			X									
MW3RB																				X								
MW3																			X									

Relinquished by:	Date	Time	Received by:
[illegible]	3/22/91		

Relinquished by	Date	Time	Received by:

Relinquished by	Date	Time	Received by Laboratory:
	3-22	7:10	[illegible]

Remarks: <4°

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080-C Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Steve F[illegible]

Phone #: [illegible] 2587

Address: GTI SFO

FAX #:

Project Number: 203 680 2016

Project Name: [illegible] Oakland

Project Location: 41st Oakland CA

Sampler Signature: —

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	NONE	OTHER	Sampling: DATE	TIME
MW1 RB		1	40	X					X		X			3-22	3:[illegible]
MW21		2	|	|					|		|		|	3:[illegible]
MW2 RB		1	|	|					|		|		|	3:22
MW2		2	|	|					|		|		|	3:35
MW3 RB		1	|	|					|		|		|	3:46
MW3		2	|	|					|		|		|	4:05

ANALYSIS REQUEST / OTHER / SPECIAL HANDLING

Sample ID	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD	Other: lead [illegible] inc. MS	Other: HOLD	Other	Other	PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBALS/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
MW1 RB																				X							
MW21																			X								
MW2 RB																				X							
MW2																			✓								
MW3 RB																				X							
MW3																			X								

Relinquished by:	Date	Time	Received by:
[illegible signature]	3.22.[illegible]		
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:
	3-2[illegible]	[illegible]	[illegible signature]

Remarks: <40

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

03/07/89 KB PAGE 1 OF 2

WORK ORD#: C902437
CLIENT: STEVE FISCHBEIN
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016-2
LOCATION: 4TH STREET
OAKLAND, CA
SAMPLED: 02/22/89 BY: R. ROBITAILLE
RECEIVED: 02/23/89 BY: K. BIAVA
ANALYZED: 03/01/89 BY: C. MANUEL
MATRIX: WATER
UNITS: ug/L (ppb)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	01A MW-4	02A RB5	03A MW-5	04A MW-6
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		0.94	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		52	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		620	<0.5	4.0	5.1
Trichlorofluoromethane	0.5		<0.5	<0.5	1.4	6.9
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:C902437
CLIENT: STEVE FISCHBEIN
PROJECT#: 203-680-5016-2
LOCATION: 4TH STREET
OAKLAND, CA

MATRIX: WATER
UNITS: ug/L (ppb)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	05A MW3	06A MW1	07A MW2	08A MW8
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		0.51	<0.5	<0.5	0.84
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		6.1	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		4.8	<0.5	<0.5	6.2
1,1-Dichloroethene	0.2		0.82	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		1.7	<0.5	<0.5	1.3
1,2-Dichloropropane	0.5		0.65	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		1.3	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		6.4	<0.5	<0.5	30
Trichlorofluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method 8010

EMMA P. POPEK, Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

03/14/89MT

WORK ORD#:C902436
CLIENT: STEVE FISCHBEIN
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016-1
LOCATION: 4TH STREET, OAKLAND, CA

SAMPLED: 02/22/89 BY: R. ROBITAILLE
RECEIVED: 02/23/89
ANALYZED: 02/24/89 BY: R. CONDIT

MATRIX: Water
UNITS: mg/L (PPM)

PARAMETER	MDL	SAMPLE # I.D.	01 MW-4	02 MW-5	03 MW-6	04 MW-3	05 MW-1
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1	<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 5030/8020/8015

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#: C902436

CLIENT: STEVE FISCHBEIN
PROJECT#: 203-680-5016-1
LOCATION: 4TH STREET, OAKLAND, CA

MATRIX: Water
UNITS: mg/L (PPM)

PARAMETER	MDL	SAMPLE # I.D.	06 MW-2	07 MW-8			
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 5030/8020/8015

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

03/14/89mt

WORK ORD#:C902436
CLIENT: STEVE FISCHBEIN
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016-1
LOCATION: 4TH STREET, OAKLAND, CA

SAMPLED: 02/22/89 BY: R. ROBITAILLE
RECEIVED: 02/23/89
ANALYZED: 02/24/89 BY: R. CONDIT

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW-4	02 MW-5	03 MW-6	04 MW-3	05 MW-1
Benzene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Total BTEX	0.5		<0.5	<0.5	<0.5	<0.5	<0.5
Misc. Hydrocarbons (C4-C12)	1		<1	<1	<1	<1	<1
Total Petroleum Hydrocarbons as Gasoline	1		<1	<1	<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 5030/8020/8015

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#: C902436

CLIENT: STEVE FISCHBEIN
PROJECT#: 203-680-5016-1
LOCATION: 4TH STREET, OAKLAND, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	06 MW-2	07 MW-8			
Benzene	0.5		<0.5	<0.5			
Toluene	0.5		<0.5	<0.5			
Ethylbenzene	0.5		<0.5	<0.5			
Xylenes	0.5		<0.5	<0.5			
Total BTEX	0.5		<0.5	<0.5			
Misc. Hydrocarbons (C4-C12)	1		<1	<1			
Total Petroleum Hydrocarbons as Gasoline	1		<1	<1			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 5030/8020/8015

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080-C Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Steve Fischb[illegible]

Phone #: [illegible]

Address: GTI SFB

FAX #:

Project Number: 203 680 5016

Project Name: [illegible]

Project Location: 4th street Oakl[illegible] CA

Sampler Signature: [illegible]

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	ICE	NONE	OTHER	Sampling: DATE	TIME	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD	OTHER: Hold	PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBALS/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
RB 2		1	40	X					X		X			2-22	2:43																			X					
MW 2		4	|	|					|		|		|	2:45		X						X										X						
RB 8		4	|	|					|		|		|	2:4[illegible]																			X					
MW 8		4	|	|					|		|		|	[illegible]		X						X																

Relinquished by:	Date	Time	Received by:

Relinquished by	Date	Time	Received by:

Relinquished by	Date	Time	Received by Laboratory:
[illegible signature]	2/23	[illegible]	[illegible]

Remarks: [illegible] TPH [illegible] [illegible] splits

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

10/28/88mt

Work Order#:8810140
CLIENT: Kelly Kline/Steve Fischbein
Groundwater Technology, Inc.
4080 Pike Ln.
Concord, CA 94520
PROJECT#: 203-680-5016.01-18
LOCATION: 4th & Market
Oakland, CA
SAMPLED: 10/13/88 BY: R. Hughes
RECEIVED: 10/14/88 BY: E. Larsen
ANALYZED: 10/17/88 BY: C. Manuel
MATRIX: Water
UNITS: ug/L (ppb)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	01A RB-4	02A MW-4	03A RB-5	04A MW-5
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	0.68	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	0.93	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	1.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	470	<0.5	6.2
Trichlorofluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method modified 8010

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#: 8810140
CLIENT: Kelly Kline/Steve Fischbein
PROJECT#: 203-680-5016.01-18
LOCATION: 4th & Market
Oakland, CA

MATRIX: Water
UNITS: ug/L (ppb)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	05A MW-6	06A MW-3	07A MW-1	08A MW-2
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	0.73	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		0.74	<0.5	0.51	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	5.6	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	5.7	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	0.87	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	1.0	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	1.4	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		8.2	8.0	<0.5	<0.5
Trichlorofluoromethane	0.5		1.1	<0.5	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method modified 8010

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Kelly Kline/Steve Fischbein
PROJECT#: 283-680-5016.01-18
LOCATION: 4th & Market
Oakland, CA

MATRIX: Water
UNITS: ug/L (ppb)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	09A MW-8
Bromodichloromethane	0.5		<0.5
Bromoform	0.5		<0.5
Bromomethane	0.5		<0.5
Carbon tetrachloride	0.5		<0.5
Chlorobenzene	0.5		1.4
Chloroethane	0.5		<0.5
2-Chloroethylvinyl ether	1.0		<1.0
Chloroform	0.5		<0.5
Chloromethane	0.5		<0.5
Dibromochloromethane	0.5		<0.5
1,2-Dichlorobenzene	0.5		<0.5
1,3-Dichlorobenzene	0.5		<0.5
1,4-Dichlorobenzene	0.5		<0.5
Dichlorodifluoromethane	0.5		<0.5
1,1-Dichloroethane	0.5		<0.5
1,2-Dichloroethane	0.5		7.2
1,1-Dichloroethene	0.2		<0.2
trans-1,2-Dichloroethene	0.5		<0.5
1,2-Dichloropropane	0.5		<0.5
cis-1,3-Dichloropropene	0.5		<0.5
trans-1,3-Dichloropropene	0.5		<0.5
Methylene chloride	0.5		<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5
Tetrachloroethene	0.5		0.56
1,1,1-Trichloroethane	0.5		<0.5
1,1,2-Trichloroethane	0.5		<0.5
Trichloroethene	0.5		45
Trichlorofluoromethane	0.5		<0.5
Vinyl Chloride	1.0		<1.0

MDL = Method Detection Limit.

METHOD:
EPA Method modified 8010

Emma P. Popek

EMMA P. POPEK, Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

10/20/88 rw

CLIENT: Kelly Kline/Steve Fischbein
Groundwater Technology, Inc.
4080 Pike Ln.
Concord, CA 94520

PROJECT#: 283-680-5816.01-19
LOCATION: 4th & Market
Oakland, CA

SAMPLED: 10/13/88 BY: R. Hughes
RECEIVED: 10/14/88 BY: E. Larsen
ANALYZED: 10/18/88 BY: P. Kowalski
L. Hinson
MATRIX: Water
UNITS: ug/L (ppb)

V.O.A.
°A TEST RESULTS

COMPOUNDS	MDL	LAB # / I.D.#	33763 MW5-6241	33764 MW8-6241		
Chloromethane	10		<10	<10		
Bromomethane	10		<10	<10		
Vinyl Chloride	10		<10	<10		
Chloroethane	10		<10	<10		
Methylene Chloride	5		<5	<5		
Acetone	10		<10	<10		
Carbon Disulfide	5		<5	<5		
1,1-Dichloroethene	5		<5	<5		
1,1-Dichloroethane	5		<5	<5		
Trans-1,2-Dichloroethene	5		<5	<5		
Chloroform	5		<5	<5		
1,2-Dichloroethane	5		<5	19		
2-Butanone	10		<10	<10		
1,1,1-Trichloroethane	5		<5	<5		
Carbon Tetrachloride	5		<5	<5		
Vinyl Acetate	10		<10	<10		
Bromodichloromethane	5		<5	<5		
1,2-Dichloropropane	5		<5	<5		
cis-1,3-Dichloropropene	5		<5	<5		
Trichloroethene	5		<5	80		
Dibromochloromethane	5		<5	<5		
1,1,2-Trichloroethane	5		<5	<5		
Benzene	5		<5	<5		
Trans-1,3-Dichloropropene	5		<5	<5		
2-Chloroethylvinylether	10		<10	<10		
Bromoform	5		<5	<5		
4-Methyl-2-Pentanone	10		<10	<10		
2-Hexanone	10		<10	<10		
Tetrachloroethene	5		<5	<5		
1,1,2,2-Tetrachloroethane	5		<5	<5		
Toluene	5		<5	<5		
Chlorobenzene	5		<5	<5		
Ethylbenzene	5		<5	<5		

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Kelly Kline/Steve Fischbein
PROJECT#: 283-680-5816.01-19
LOCATION: 4th & Market
Oakland, CA
MATRIX: Water
UNITS: ug/L (ppb)

COMPOUNDS	MDL	LAB # / I.D.#	33763 MW5-624	33764 MW8-624		
Styrene	5		<5	<5		
1,2-Dichlorobenzene	5		<5	<5		
1,3-Dichlorobenzene	5		<5	<5		
1,4-Dichlorobenzene	5		<5	<5		
Total Xylenes	5		<5	<5		
Trichlorofluoromethane	5		<5	<5		
Dichlorodifluoromethane	5		<5	<5		

MDL = Method Detection Limit; compound below this level would not be detected.
METHODS: EPA 624/8240.

Safy Khalifa 1/8/97

SAFY KHALIFA, Ph.D., Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Kelly Kline/Steve Fischbein
Groundwater Technology, Inc.
4080 Pike Ln.
Concord, CA 94520
PROJECT#: 203-680-5016.01-20
LOCATION: 4th & Market
Oakland, CA
SAMPLED: 10/13/88 BY: R. Hughes
RECEIVED: 10/14/88 BY: E. Larsen
ANALYZED: 10/20/88 BY: P. Hanners
MATRIX: Water
UNITS: mg/L (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	33765 MW4 MS	33766 MW5 MS	33767 MW6 MS	33768 MW3 MS	33769 MW1 MS
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1	<1	<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 5030/8015

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Kelly Kline/Steve Fischbein
PROJECT#: 203-680-5016.01-20
LOCATION: 4th & Market
Oakland, CA

MATRIX: Water
UNITS: mg/L (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	33770 MW2 MS	33771 MW8 MS
Total Petroleum Hydrocarbons as Mineral Spirits	1		<1	<1

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 5030/8015

Emma Popek (S.K).

EMMA P. POPEK, Director

GEL Environmental Laboratories
4060-C Pike Lane
Concord, CA 94520
415-685-7852
800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: [illegible] Phone #: [illegible]

Address: [illegible] FAX #:

Project Number: [illegible] Project Name: [illegible]

Project Location: [illegible] Sampler Signature: [illegible]

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	NONE	OTHER	Sampling: DATE	TIME
[illegible]		1	[illegible]	X					X		X			[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]					[illegible]		[illegible]			[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]					[illegible]		[illegible]			[illegible]	[illegible]
[illegible]		1	[illegible]	[illegible]					[illegible]		[illegible]			[illegible]	[illegible]
[illegible]		2	[illegible]	[illegible]					[illegible]		[illegible]			[illegible]	[illegible]
[illegible]		2	[illegible]	[illegible]					[illegible]		[illegible]			[illegible]	[illegible]
[illegible]		2	[illegible]	[illegible]					[illegible]		[illegible]			[illegible]	[illegible]
[illegible]		1	[illegible]	[illegible]					[illegible]		[illegible]			[illegible]	[illegible]
[illegible]		2	[illegible]	[illegible]					[illegible]		[illegible]			[illegible]	[illegible]
[illegible]		2	V	V					[illegible]		V			[illegible]	[illegible]

ANALYSIS REQUEST																								OTHER					SPECIAL HANDLING				
BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jet fuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD											PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBAL/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
[illegible]							X																			HOLD							
							X																										
																	X																
							X																										
							X																										
												X					X																
																										X							
							X																										
																	X																

Relinquished by:	Date	Time	Received by:
[illegible]	[illegible]		
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:

Remarks:
[illegible]

GTEL Environmental Laboratories

4080-C Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: [illegible] / FISHBEIN

Phone #: #22[illegible]

Address: [illegible] CONCORD

FAX #:

Project Number: 203 600 59 6 01

Project Name: SAFEWAY [illegible] OAKLAND

Project Location: 4th [illegible]

Sampler Signature: [illegible]

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	ICE	NONE	OTHER	Sampling: DATE	TIME
RB-3		1	[illegible]	X					X		X			[illegible]	3[illegible]
MW-3		2		|					|		|			
MW-3MS		2	|	|					|		|		|	"
RB-1		1	|	|					|		|		|	3[illegible]
MW-1		2	|	|					|		|		|	"
MW-1MS		2	|	|					|		|		|	"
RB-2		1	|	|					|		|		|	3[illegible]
MW-2		2	|	|					|		|		|	"
MW-2MS		2	↓	↓					↓		↓			↓	"

ANALYSIS REQUEST / OTHER / SPECIAL HANDLING

Sample ID	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240 10% confirmation	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD (7420/7421/239.2)	ORGANIC LEAD	OTHER: TPH AS MS				HOLD	PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBAL/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS
RB-3																							X					
MW-3								X																				
MW-3MS																			X									
RB-1																							X					
MW-1								X																				
MW-1MS																			X									
RB-2																							X					
MW-2								X																				
MW-2MS																			X									

Relinquished by:	Date	Time	Received by:
[illegible]	[illegible]		
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:
	[illegible]	[illegible]	[illegible]

Remarks:

PG 2 OF 2

[illegible]10

GEL Environmental Laboratories

4080-C Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: [illegible] / [illegible]

Phone #: 4224

Address: [illegible]

FAX #:

Project Number: 203680 SOIL 01

Project Name:

Project Location: [illegible]

Sampler Signature: [illegible]

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	NONE	OTHER	Sampling: DATE	TIME
[illegible]		1	[illegible]	X					X		X			[illegible]	[illegible]
MW-8		2													
MW-8 TPHs		2													
MW-5 (2)		2													
SOIL BLANK		1												[illegible]	
WATER BLANK		1												[illegible]	

ANALYSIS REQUEST	
BTEX (602/8020)	
BTEX/TPH as Gasoline (602/8020/8015)	
TPH as Diesel (8015 or 8270)	
TPH as Jet fuel (8015 or 8270)	
Total Oil & Grease (413.1)	
Total Oil & Grease (413.2)	
Total Petroleum Hydrocarbons (418.1)	
EPA 601/8010	X
EPA 602/8020	
EPA 608/8080	
EPA 608/8080-PCBs Only	
EPA 624/8240 [illegible]	X
EPA 625/8270	
CAM - 17 Metals	
EPTOX - 8 Metals	
EPA - Priority Pollutant Metals	
LEAD(7420/7421/239.2)	
ORGANIC LEAD	

OTHER	
TPH MS	X
	X HOLD
	X
	X

SPECIAL HANDLING	
PRIORITY ONE SERVICE (24 hr)	
EXPEDITED SERVICE (2-4 days)	
VERBAL/FAX	
SPECIAL DETECTION LIMITS (SPECIFY)	
SPECIAL [illegible]	

	Date	Time	
Relinquished by: [illegible]	[illegible]		Received by:
Relinquished by			Received by:
Relinquished by			Received by Laboratory:

Remarks:

PC -3 of 3

[illegible]

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Kelly Kline
Groundwater Technology, Inc.
4080 Pike Ln.
Concord, CA 94520
PROJECT#: 203-680-5016.01-15
LOCATION: Oakland, CA

SAMPLED: 09/06/88 BY: J. Mead
RECEIVED: 09/08/88 BY: K. Fillinger
ANALYZED: 09/14,15/88 BY: C. Manuel
MATRIX: Water
UNITS: ug/L (ppb)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	31142 #1	31143 RB 4	31144 #4	31145 #5
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		0.66	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	34	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	1.6	0.80	2.8
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5	540	3.7
Trichlorofluoromethane	0.5		<0.5	<0.5	<0.5	2.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD: EPA 8010

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Kelly Kline
PROJECT#: 203-680-5016.01-15
LOCATION: Oakland, CA

MATRIX: Water
UNITS: ug/L (ppb)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	31146 RB 6	31147 #6	31148 #3	31149 #2
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0	<1.0	<1.0
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	5.0	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	3.9	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2	0.58	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5	2.0	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5	1.4	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		<0.5	5.3	6.5	<0.5
Trichlorofluoromethane	0.5		<0.5	1.1	<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit.

METHOD: EPA 8010

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Kelly Kline
PROJECT#: 203-680-5016.01-15
LOCATION: Oakland, CA

MATRIX: Water
UNITS: ug/L (ppb)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	31150 #8
Bromodichloromethane	0.5		<0.5
Bromoform	0.5		<0.5
Bromomethane	0.5		<0.5
Carbon tetrachloride	0.5		<0.5
Chlorobenzene	0.5		<0.5
Chloroethane	0.5		<0.5
2-Chloroethylvinyl ether	1.0		<1.0
Chloroform	0.5		<0.5
Chloromethane	0.5		<0.5
Dibromochloromethane	0.5		<0.5
1,2-Dichlorobenzene	0.5		<0.5
1,3-Dichlorobenzene	0.5		<0.5
1,4-Dichlorobenzene	0.5		<0.5
Dichlorodifluoromethane	0.5		<0.5
1,1-Dichloroethane	0.5		<0.5
1,2-Dichloroethane	0.5		7.8
1,1-Dichloroethene	0.2		<0.2
trans-1,2-Dichloroethene	0.5		3.8
1,2-Dichloropropane	0.5		<0.5
cis-1,3-Dichloropropene	0.5		<0.5
trans-1,3-Dichloropropene	0.5		<0.5
Methylene chloride	0.5		<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5
Tetrachloroethene	0.5		<0.5
1,1,1-Trichloroethane	0.5		<0.5
1,1,2-Trichloroethane	0.5		<0.5
Trichloroethene	0.5		52
Trichlorofluoromethane	0.5		<0.5
Vinyl Chloride	1.0		<1.0

MDL = Method Detection Limit.

METHOD: 8010

Safy Khalifa 1/8/97
SAFY KHALIFA, Ph.D., Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

09/14/88mt
CLIENT: Kelly Kline kf
Groundwater Technology, Inc.
4080 Pike Ln.
Concord, CA 94520
PROJECT#: 203-680-5016.01-16
LOCATION: Oakland, CA

SAMPLED: 09/06/88 BY: J. Mead
RECEIVED: 09/08/88 BY: K. Fillinger
ANALYZED: 0.0102272 BY: P. Hanners
MATRIX: Water
UNITS: mg/L (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	31151 #1	31152 #4	31153 #5	31154 #6	31155 #3
Total Petroleum Hydrocarbons as Mineral Spirits	1.0		<1.0	<1.0	<1.0	<1.0	<1.0

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 5030/8015

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Lane, Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

CLIENT: Kelly Kline
PROJECT#: 203-680-5016.01-16
LOCATION: Oakland, CA

MATRIX: Water
UNITS: mg/L (ppm)

TEST RESULTS

COMPOUNDS	MDL	LAB # I.D.#	31156 #2	31157 #8
Total Petroleum Hydrocarbons as Mineral Spirits	1.0		<1.0	<1.0

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD:
Modified EPA Method 5030/8015

Safy Khalifa 6/27

SAFY KHALIFA, Ph.D., Director

GTEL Environmental Laboratories
4080-C Pike Lane
Concord, CA 94520
415-685-7852
800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kelly Kline	Phone #:
Address: GTI Concord	FAX #:
Project Number: 203-680-5016 01	Project Name: Sathy Klore
Project Location: Oakland	Sampler Signature: [signature]

ANALYSIS REQUEST

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	ICE	NONE	OTHER	Sampling: DATE	TIME	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD	BTEX & Mineral Spirits
Trip Blank		1									X			9/4/9[illegible]																				
Site Blank		1																																
RB 1	1	2																					X →											
1		2							X						5:42																			X
1		2													5:42								X											
RB 4		1																					X →											
4		2							X						6:05																			X
4		2													6:05								X											
~~RB 5~~ forgot it															[illegible]																			
5		2							X						6:21																			
5		2													6:21								X											

Relinquished by:	Date	Time	Received by:
[signature]	9/[illegible]	[illegible]	Kelly A. Kline
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:
Kelly A. Kline	9/8	900	[signature]

Remarks:

GTEL Environmental Laboratories

...cord 4520
415-685-7852
800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD [illegible]

Project Manager: Kelly Kline

Phone #:

Address: 6 [illegible] 1 Concord

FAX #:

Project Number: 203-680-5016-01

Project Name: Safety Kleen

Project Location: Oakland

Sampler Signature: Jessica [illegible]

ANALYSIS REQUEST

Sample ID	Lab #	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	ICE	NONE	OTHER	Sampling: DATE	TIME	BTEX (602/8020)	TPH as Gasoline (8015)	TPH as Diesel (8015/8270)	TPH as Jet fuel (8015 or 8270)	TOG (413.1)	TOG (413.2)	TPH (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080 PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD (7420/7421/239.2)	ORGANIC LEAD	[illegible]
•RB6	1	[illegible]									X			4/6/88									←											
4 6		2							X		X				6:35																			X
4 6		2									X				6.35								X											
4RB3		1																					X											
3		2							X						6:48																			X
3		2													6:48								X											
RB2		1																																
2		2							X						7:00																			X
2		2													7:00								X											

Relinquished by:	Date	Time	Received by:
[illegible]	4/[illegible]	8:11	Kelly A. Kline
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by:
Kelly A. Kline	4/8	11:00	Karla [illegible]

Remarks:

GTEL Environmental Laboratories
4080-C Pike Lane
Concord, CA 94520
415-685-7852
800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kelly Klink
Phone #: /
Address: GTI Concord
FAX #:
Project Number: 203-680-5016-01
Project Name: Sathy Kleen
Project Location: Oakland
Sampler Signature: [illegible]

ANALYSIS REQUEST

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	Matrix: SOIL	Matrix: AIR	Matrix: SLUDGE	Matrix: OTHER	Method Preserved: HCl	Method Preserved: HNO3	Method Preserved: ICE	Method Preserved: NONE	Method Preserved: OTHER	Sampling: DATE	Sampling: TIME	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel (8015 or 8270)	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease (413.1)	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA [illegible]	EPA 608/8080 PCBs Only	EPA [illegible]	EPA [illegible]	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD (239.2/7421/239.2)	ORGANIC LEAD	[illegible]	[illegible]
RB8		1									X			7/4/81									X												
8		2							X						7:10																			X	
8		2													7:10								X												

Relinquished by:	Date	Time	Received by:
[illegible]	7/[illegible]	[illegible]	Kelly A. Klink
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:
Kelly A. Klink	7/8	1100	Karla [illegible]linger

Remarks:

APPENDIX D

MONITORING DATA

Water Table Elevations

Safety-Kleen Oakland, California

Monitored April 11, 1990

Well No.	Casing Elevation	Depth to Water	Depth to Product	Water Elevation *
MW-1	7.99	7.42		0.57
MW-2	8.20	8.18		0.02
MW-3	6.66	7.23		-0.57
MW-4	10.32	9.56		0.76
MW-5	10.28	9.83		0.45
MW-6	8.97	8.91		0.06
MW-7	8.57	11.38	7.55	0.25
MW-8	7.80	7.76		0.04
MW-9	8.21	11.08	7.28	0.17
MW-10	10.43	9.37		1.06
MW-11	7.91	8.00		-0.09
MW-12	6.74	7.84		-1.10
MW-13	8.08	9.13		-1.05
SK-1	8.44	12.05	7.09	0.36
SK-3	8.45	11.48	7.37	0.26

* Elevation adjusted for product density

Water Table Elevations

Safety-Kleen Oakland, California

Monitored March 14, 1990

Well No.	Casing Elevation	Depth to Water	Depth to Product	Water Elevation *
MW-1	7.99	7.11		0.88
MW-2	8.20	7.80		0.40
MW-3	6.66	6.78		-0.12
MW-4	10.32	9.26		1.06
MW-5	10.28	9.51		0.77
MW-6	8.97	8.56		0.41
MW-7	8.57	12.18	6.9	0.61
MW-8	7.80	7.38		0.42
MW-9	8.21	10.82	6.91	0.52
MW-10	10.43	9.13		1.30
MW-11	7.91	7.58		0.33
MW-12	6.74	7.17		-0.43
MW-13	8.08	8.68		-0.60
SK-1	8.44	11.99	6.68	0.70
SK-3	8.45	11.25	7	0.60

* Elevation adjusted for product density

Water Table Elevations

Safety-Kleen Oakland, California

Monitored January 30, 1990

Well No.	Casing Elevation	Depth to Water	Depth to Product	Water Elevation *
MW-1	7.99	7.03		0.96
MW-2	8.20	7.73		0.47
MW-3	6.66	6.54		0.12
MW-4	10.32	9.18		1.14
MW-5	10.28	9.37		0.91
MW-6	8.97	8.37		0.60
MW-7	8.57	11.86	7.2	0.44
MW-8	7.80	7.26		0.54
MW-9	8.21	11.07	7.11	0.31
MW-10	10.43	9.06		1.37
MW-11	7.91	7.34		0.57
MW-12	6.74	7.38		-0.64
MW-13	8.08	NA **		NA
SK-1	8.44	12.04	6.92	0.50
SK-3	8.45	11.61	7.15	0.41

* Elevation adjusted for product density

NA ** Not Available, well inaccessible

Water Table Elevations

Safety-Kleen Oakland, California

Monitored January 3, 1990

Well No.	Casing Elevation	Depth to Water	Depth to Product	Water Elevation *
MW-1	7.99	7.53		0.46
MW-2	8.20	8.22		-0.02
MW-3	6.66	7.13		-0.47
MW-4	10.32	9.67		0.65
MW-5	10.28	9.88		0.40
MW-6	8.97	8.87		0.10
MW-7	8.57	NA **		NA
MW-8	7.80	7.75		0.05
MW-9	8.21	10.94	7.44	0.07
MW-10	10.43	9.55		0.88
MW-11	7.91	7.90		0.01
MW-12	6.74	7.46		-0.72
MW-13	8.08	9.02		-0.94
SK-1	8.44	11.50	7.39	0.23
SK-3	8.45	11.27	7.58	0.13

* Elevation adjusted for product density

NA ** Not Available, well inaccessible

Water Table Elevations

Safety-Kleen Oakland, California

Monitored November 29, 1989

Well No.	Casing Elevation	Depth to Water	Depth to Product	Water Elevation *
MW-1	7.99	7.69		0.30
MW-2	8.20	8.47		-0.27
MW-3	6.66	7.73		-1.07
MW-4	10.32	9.90		0.42
MW-5	10.28	10.25		0.03
MW-6	8.97	9.43		-0.46
MW-7	8.57	11.39	8.03	-0.13
MW-8	7.80	8.10		-0.30
MW-9	8.21	11.13	7.75	-0.22
MW-10	10.43	9.69		0.74
MW-11	7.91	8.45		-0.54
MW-12	6.74	8.55		-1.81
MW-13	8.08	9.75		-1.67
SK-1	8.44	11.79	7.65	-0.04
SK-3	8.45	11.33	7.91	-0.14

* Elevation adjusted for product density

Water Table Elevations

Safety-Kleen Oakland, California

Monitored November 1, 1989

Well No.	Casing Elevation	Depth to Water	Depth to Product	Water Elevation *
MW-1	7.99	7.23		0.76
MW-2	8.20	7.91		0.29
MW-3	6.66	6.66		0.00
MW-4	10.32	9.40		0.92
MW-5	10.28	9.55		0.73
MW-6	8.97	NA **		NA
MW-7	8.57	11.28	7.23	0.53
MW-8	7.80	7.44		0.36
MW-9	8.21	11.05	6.95	0.44
MW-10	10.43	9.29		1.14
MW-11	7.91	7.52		0.39
MW-12	6.74	6.94		-0.20
MW-13	8.08	8.62		-0.54
SK-1	8.44	11.60	6.92	0.58
SK-3	8.45	11.35	7.07	0.52

* Elevation adjusted for product density

NA ** Not Available, street box lid frozen shut

Water Table Elevations

Safety-Kleen Oakland, California

Monitored September 28, 1989

Well No.	Casing Elevation	Depth to Water	Depth to Product	Water Elevation *
MW-1	7.99	7.56		0.43
MW-2	8.20	8.39		-0.19
MW-3	6.66	7.40		-0.74
MW-4	10.32	9.71		0.61
MW-5	10.28	10.00		0.28
MW-6	8.97	9.18		-0.21
MW-7	8.57	11.61	7.79	0.02
MW-8	7.80	7.93		-0.13
MW-9	8.21	11.44	7.48	-0.06
MW-10	10.43	9.51		0.92
MW-11	7.91	8.17		-0.26
MW-12	6.74	8.01		-1.27
MW-13	8.08	9.59		-1.51
SK-1	8.44	11.86	7.43	0.12
SK-3	8.45	11.99	7.52	0.04

* Elevation adjusted for product density

Water Table Elevations

Safety-Kleen Oakland, California

Monitored July 27, 1989

Well No.	Casing Elevation	Depth to Water	Depth to Product	Water Elevation *
MW-1	7.99	7.28		0.71
MW-2	8.20	8.16		0.04
MW-3	6.66	7.00		-0.34
MW-4	10.32	9.37		0.95
MW-5	10.28	9.62		0.66
MW-6	8.97	8.72		0.25
MW-7	8.57	11.60	7.33	0.39
MW-8	7.80	7.65		0.15
MW-9	8.21	11.79	6.97	0.28
SK-1	8.44	11.69	7.02	0.49
SK-3	8.45	11.76	7.13	0.39

* Elevation adjusted for product density

Water Table Elevations

Safety-Kleen Oakland, California

Monitored June 30, 1989

Well No.	Casing Elevation	Depth to Water	Depth to Product	Water Elevation *
MW-1	7.99	7.55		0.44
MW-2	8.20	8.49		-0.29
MW-3	6.66	7.64		-0.98
MW-4	10.32	9.70		0.62
MW-5	10.28	10.05		0.23
MW-6	8.97	9.28		-0.31
MW-7	8.57	11.40	7.88	-0.01
MW-8	7.80	8.04		-0.24
MW-9	8.21	11.92	7.42	-0.11
SK-1	8.44	11.83	7.47	0.10
SK-3	8.45	11.56	7.6	0.06

* Elevation adjusted for product density

Water Table Elevations

Safety-Kleen Oakland, California

Monitored May 22, 1989

Well No.	Casing Elevation	Depth to Water	Depth to Product	Water Elevation *
MW-1	7.99	6.93		1.06
MW-2	8.20	7.88		0.32
MW-3	6.66	6.73		-0.07
MW-4	10.32	9.02		1.30
MW-5	10.28	9.23		1.05
MW-6	8.97	8.26		0.71
MW-7	8.57	10.58	7.42	0.52
MW-8	7.80	7.21		0.59
MW-9	8.21	11.38	6.83	0.47
SK-1	8.44	11.87	6.75	0.67
SK-3	8.45	11.50	6.97	0.57

* Elevation adjusted for product density

Water Table Elevations

Safety-Kleen Oakland, California

Monitored April 20, 1989

Well No.	Casing Elevation	Depth to Water	Depth to Product	Water Elevation *
MW-1	7.99	6.67		1.32
MW-2	8.20	7.48		0.72
MW-3	6.66	6.42		0.24
MW-4	10.32	8.77		1.55
MW-5	10.28	9.02		1.26
MW-6	8.97	8.09		0.88
MW-7	8.57	8.03	7.47	0.99
MW-8	7.80	7.00		0.80
MW-9	8.21	11.39	6.24	0.94
SK-1	8.44	12.07	6.12	1.13
SK-3	8.45	11.61	6.35	1.05

* Elevation adjusted for product density

Water Table Elevations

Safety-Kleen Oakland, California

Monitored March 23, 1989

Well No.	Casing Elevation	Depth to Water	Depth to Product	Water Elevation *
MW-1	7.99	6.46		1.53
MW-2	8.20	7.19		1.01
MW-3	6.66	6.25		0.41
MW-4	10.32	8.63		1.69
MW-5	10.28	8.90		1.38
MW-6	8.97	7.96		1.01
MW-7	8.57	8.45	7.12	1.18
MW-8	7.80	6.78		1.02
MW-9	8.21	10.91	6.1	1.15
SK-1	8.44	NA **		NA
SK-3	8.45	11.61	6.07	1.27

* Elevation adjusted for product density

** Not Available, truck parked over well

Water Table Elevations

Safety-Kleen Oakland, California

Monitored February 22, 1989

Well No.	Casing Elevation	Depth to Water	Depth to Product	Water Elevation *
MW-1	7.99	7.21		0.78
MW-2	8.20	7.92		0.28
MW-3	6.66	6.89		-0.23
MW-4	10.32	9.34		0.98
MW-5	10.28	9.58		0.70
MW-6	8.97	8.63		0.34
MW-7	8.57	NA **		NA
MW-8	7.80	7.50		0.30
MW-9	8.21	11.24	6.9	0.44
SK-1	8.44	12.33	6.74	0.58
SK-3	8.45	11.75	6.94	0.55

* Elevation adjusted for product density

** Not Available, pump in well

Water Table Elevations

Safety-Kleen Oakland, California

Monitored October 13, 1988

Well No.	Casing Elevation	Depth to Water	Depth to Product	Water Elevation *
MW-1	7.99	7.61		0.38
MW-2	8.20	8.46		-0.26
MW-3	6.66	7.52		-0.86
MW-4	10.32	9.75		0.57
MW-5	10.28	10.10		0.18
MW-6	8.97	9.28		-0.31
MW-7	8.57	NA **		NA
MW-8	7.80	8.04		-0.24
MW-9	8.21	11.92	7.36	-0.06
SK-1	8.44	11.90	7.5	0.06
SK-3	8.45	11.94	7.4	0.14

* Elevation adjusted for product density

NA ** Not Available, pump in well

Water Table Elevations

Safety-Kleen Oakland, California

Monitored September 7, 1988

Well No.	Casing Elevation	Depth to Water	Depth to Product	Water Elevation *
MW-1	7.99	7.32		0.67
MW-2	8.20	8.13		0.07
MW-3	6.66	7.04		-0.38
MW-4	10.32	9.40		0.92
MW-5	10.28	9.70		0.58
MW-6	8.97	8.81		0.16
MW-7	8.57	12.32	7.11	0.42
MW-8	7.80	7.64		0.16
MW-9	8.21	11.36	7.03	0.31
SK-1	8.44	12.11	8.9	-1.10
SK-3	8.45	12.23	6.97	0.43

* Elevation adjusted for product density

APPENDIX E

SOIL VENT TESTING

SOIL VENT FEASIBILITY TEST
SAFETY-KLEEN
OAKLAND SERVICE CENTER
404 MARKET STREET
OAKLAND, CA

On January 18, 1990, Groundwater Technology, Inc. conducted a Soil-Vent Feasibility Study at the Safety-Kleen Oakland Service Center. The feasibility study consisted of collecting data to determine the flow characteristics of the soil, the radius of influence for vapor extraction wells, and the concentration of hydrocarbon vapors in the soil gas.

A soil-vent remediation system operates by creating a vacuum in soil-vent points with a high-vacuum blower. This vacuum draws fresh air through the ground to the contaminated soil. The liquid hydrocarbons trapped in the soil vaporize into the air within the pore spaces and are captured by the vacuum at the soil-vent point. This air may then be treated to remove the hydrocarbon vapors and discharged to the atmosphere.

To determine the applicability of soil-vent remediation, a soil-vent feasibility study was conducted. The two criteria for determining the feasibility of soil-vent feasibility are the ability of air to move through the soil (transmissivity), and the concentration of hydrocarbon vapors in the air extracted from the soil.

To measure the transmissivity of the soil, a vacuum drawdown test was conducted. This test is similar to a pump test for a water well. The test was conducted by using an Internal Combustion Catalytic Unit (ICCU) which utilizes a 1-1/2 horsepower high-vacuum blower to evacuate air from the soil-vent point being tested. The vacuum created by the blower was measured in inches of water column by a vacuum gauge and the air-flow velocity was

measured with a hot-wire anemometer. An existing groundwater monitoring well was utilized at the Safety-Kleen site for the vacuum drawdown test and the vacuum induced in nearby monitoring wells was measured using magnehelic vacuum gauges. To determine the concentration of hydrocarbon vapors in the extracted air, samples were collected in Tedlar^{R} bags for laboratory analysis.

At the Safety-Kleen location, groundwater monitoring wells MW-9 and MW-8 were utilized as vapor extraction points for two vapor extraction tests. These monitoring wells are screened from 5 to 30 feet below surface. The depth to water in these wells was approximately 9 feet in MW-9 and 7.75 in MW-8. Several feet of free floating mineral spirits were present on top of the water in MW-9.

Lithologic data from the boring logs for the groundwater monitoring wells at the site suggests that the subsurface materials are fairly uniform across the site and consist primarily of clayey, silty, fine-grained sands in the interval above the water table.

During the first test, monitoring well MW-9 was used as the extraction point. For a second test, monitoring well MW-8 was used as the extraction point. During both of these tests, vacuum response was measured in other on-site groundwater monitoring wells. The wells labeled as "MW" wells were all installed by Groundwater Technology and are completed from 5 to 30 feet with approximately 2 to 4 feet of screened section above the water table. Two monitoring wells on the site (Sk-1 and SK-3) were installed by another consultant, and are screened from 5 to 20 feet below grade. The high vacuum blower was operated at a vacuum of approximately 60- to 70-inches of water column while venting from MW-9. Flow from this well was approximately 3.5 cubic feet per minute (CFM). While venting from MW-8, vacuum was approximately the same and flow was approximately 4.0 CFM.

During the period of each vent test, the induced vacuum in monitoring well SK-3 was monitored versus time by utilizing a Magnehelic vacuum transducer capable of detecting variations of .01" of water column. The data from this transducer along with the time of each measurement was recorded in an ORS Environmental Equipment Model DL-120 Datalogger. This data set was then downloaded at the office into an IBM-PC computer for reduction and analysis.

RESULTS

The vacuum drawdown data from monitoring well SK-3 was plotted versus time on a log-log plot and analyzed by matching with Hantush type-curves for leaky confined aquifers inn a method analogous to that used for the analysis of aquifer pumping tests. The applicability of using aquifer testing methods in the analysis of vapor extraction tests was explored by J.W. Massman in the Journal of Environmental Engineering, Vol. 115, No. 1, February, 1989. The analysis of time-drawdown data from soil vent tests offers the advantage of allowing for a more accurate determination of transmissivity to air and the opportunity to more accurately detect inhomogeneities in the subsurface materials beneath the potential soil vent test.

The data plot and type-curve fit generated for the soil vent test on Monitoring Well MW-9 are attached. The analysis of this test yielded a hydraulic conductivity to air of 0.00235 meter per second. This is a relatively low value due to the silty and clayey nature of the near surface materials at the site. Due to the distance from Monitoring Well MW-8 to SK-3 being in excess of the radius of influence for the well, no drawdown data was recorded during the vent test on MW-8

Radius of influence for the soil vent points was determined directly by plotting the induced vacuum in the observation wells against the log of the distance from the vented well. When the observation wells are at different distances from the vented well, this plot defines a straight line that can be extended to the zero vacuum intercept to estimate radius of influence. The plots of the data are attached. During the test on MW-0, a radius of influence of less than 35 feet was determined. This was based on a significant induced vacuum of 0.35-inch of water, measured in SK-3 at a distance of 18 feet, and near zero readings in monitoring wells at 38 and 40 feet from the vented well. During the test on MW-8, the closest observation well was 50 feet away and the data from this well is inconclusive, indicating that if there was an influence on this well, it was small enough to be lost in noise created by wind at the site.

Given the low flow (3.5 to 4.0 CFM) recovered during the tests, several venting wells would be required to supply an adequate volume of air for efficient cleanup of the subsurface. Since the plume at the site extends underneath buildings, and since the unsaturated zone is generally less than 8 feet in thickness, it has been recommended that a system of horizontal trenches at the perimeter of each building may be the most efficient extraction system for this site.

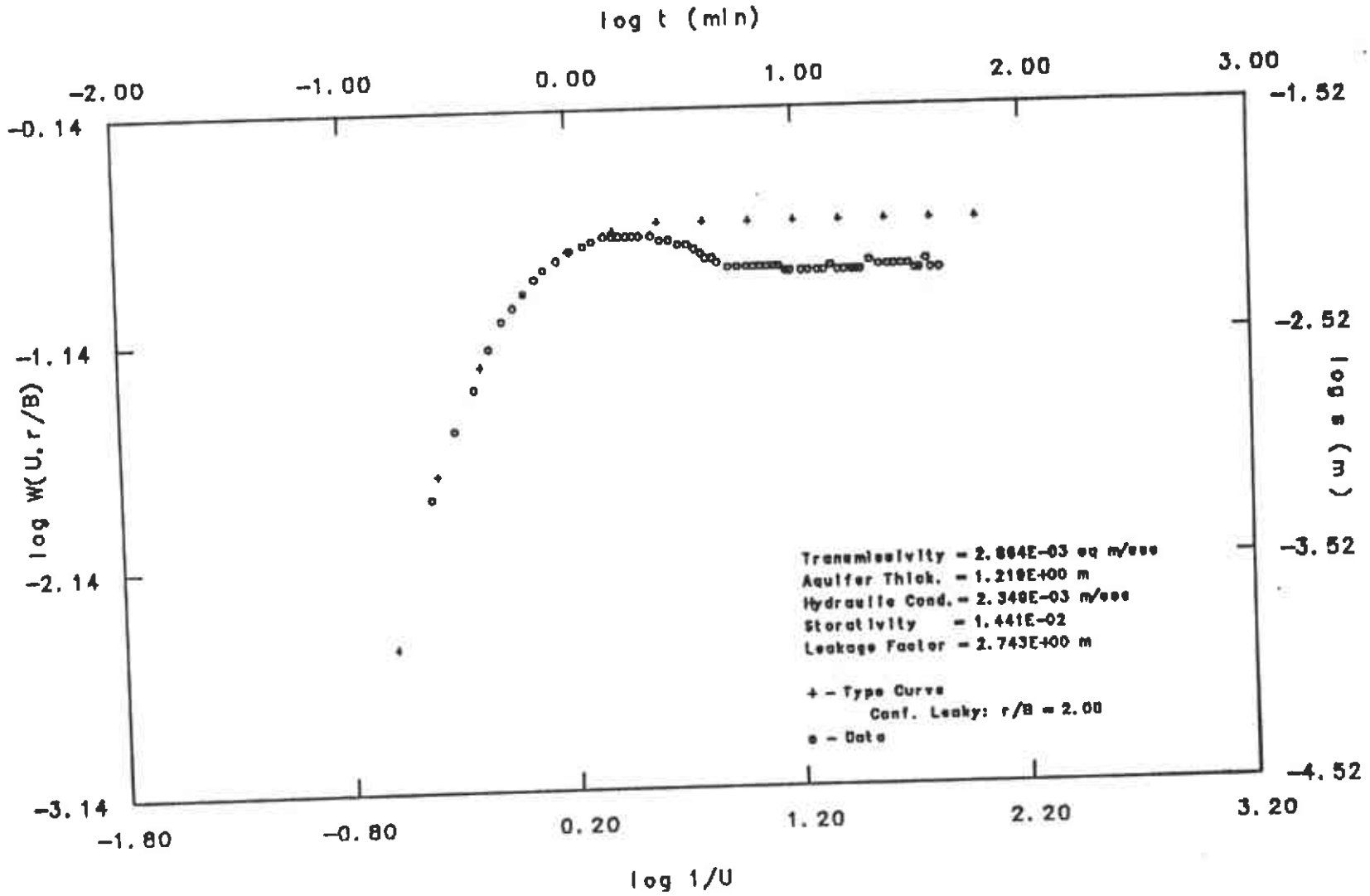
Samples of extracted air were collected during the soil vent testing conducted on MW-8, and were submitted to a California-certified laboratory for analysis. After venting from extraction point MW-8 for 20 minutes, 63 minutes, and 120 minutes, samples of the influent air to the ICCU were collected in Tedlar^{R} bags. A sample of the effluent air from the ICCU was simultaneously collected at about 20 minutes into the test. The influent and effluent samples collected at 20 minutes into the test (MW8-IN1 and MW8-OUT1) as well as the influent sample collected after 120

minutes (MW8-IN3) were submitted for laboratory analyses. The samples were analyzed within 48 hours of collection for volatile organic compounds using U.S. Environmental Protection Agency (EPA) Method 8010 to look for chlorinated components and also for Total Petroleum Hydrocarbons (TPH) as Mineral Spirits. The laboratory analyses reports are attached. No chlorinated components were detected in either the influent or effluent samples. The analyses for TPH as Mineral Spirits detected 40 micrograms per litter (ug/l) in sample MW8-IN1, 24 ug/l in sample MW8-OUT1, and 8 ug/l in sample MW8-IN3. Since monitoring contamination, it is recommended that the soil vent system be retested after installation in order to obtain the data necessary to design emission controls for the site.

EMISSION CONTROLS

This test was conducted as a pilot test for soil vapor extraction under Regulation 8, Rule 46 of the Bay Area Air Quality Management District (BAAQMD). The extracted vapors were routed through the ICCU where the hydrocarbon vapors were combusted. Effluent concentrations were monitored with a Lower Explosive Limit Meter at intervals of approximately 30 minutes while the system was operating.

SK OAKLAND * SVT MW9-SK3



GROUNDWATER TECHNOLOGY, INC.

Data for Soil Vent Test

SAFETY KLEEN OAKLAND

Well Name: MW9-SK3 Date of Test: 1/18/90

Aquifer Thickness (b) = 4.000 ft
Vented Well Discharge(Q) = 3.000 cfm
Radius of Vented Well = 0.167 ft
Distance of Observation Well from Vented Well = 18.0 ft

Entry No.	Time(t) (min)	Drawdown(s) (ft)	t / d^2 (min/sq ft)
1	0.000	0.000	
2	0.033	0.000	1.02E-04
3	0.067	0.000	2.07E-04
4	0.101	0.000	3.12E-04
5	0.167	0.000	5.15E-04
6	0.234	0.002	7.22E-04
7	0.300	0.004	9.26E-04
8	0.368	0.006	1.14E-03
9	0.434	0.009	1.34E-03
10	0.500	0.012	1.54E-03
11	0.568	0.014	1.75E-03
12	0.634	0.016	1.96E-03
13	0.700	0.018	2.16E-03
14	0.768	0.020	2.37E-03
15	0.900	0.022	2.78E-03
16	1.034	0.024	3.19E-03
17	1.167	0.025	3.60E-03
18	1.301	0.026	4.02E-03
19	1.433	0.027	4.42E-03
20	1.567	0.027	4.84E-03
21	1.701	0.028	5.25E-03
22	1.833	0.028	5.66E-03
23	1.967	0.027	6.07E-03
24	2.100	0.027	6.48E-03
25	2.350	0.027	7.25E-03
26	2.600	0.026	8.02E-03
27	2.850	0.026	8.80E-03
28	3.100	0.025	9.57E-03
29	3.350	0.025	1.03E-02
30	3.600	0.024	1.11E-02
31	3.850	0.023	1.19E-02
32	4.100	0.022	1.27E-02
33	4.350	0.022	1.34E-02
34	4.600	0.021	1.42E-02
35	5.100	0.020	1.57E-02
36	5.600	0.020	1.73E-02
37	6.100	0.020	1.88E-02
38	6.600	0.020	2.04E-02
39	7.100	0.020	2.19E-02

SAFETY KLEEN OAKLAND * SOIL VENT TEST * MW9 - SK3

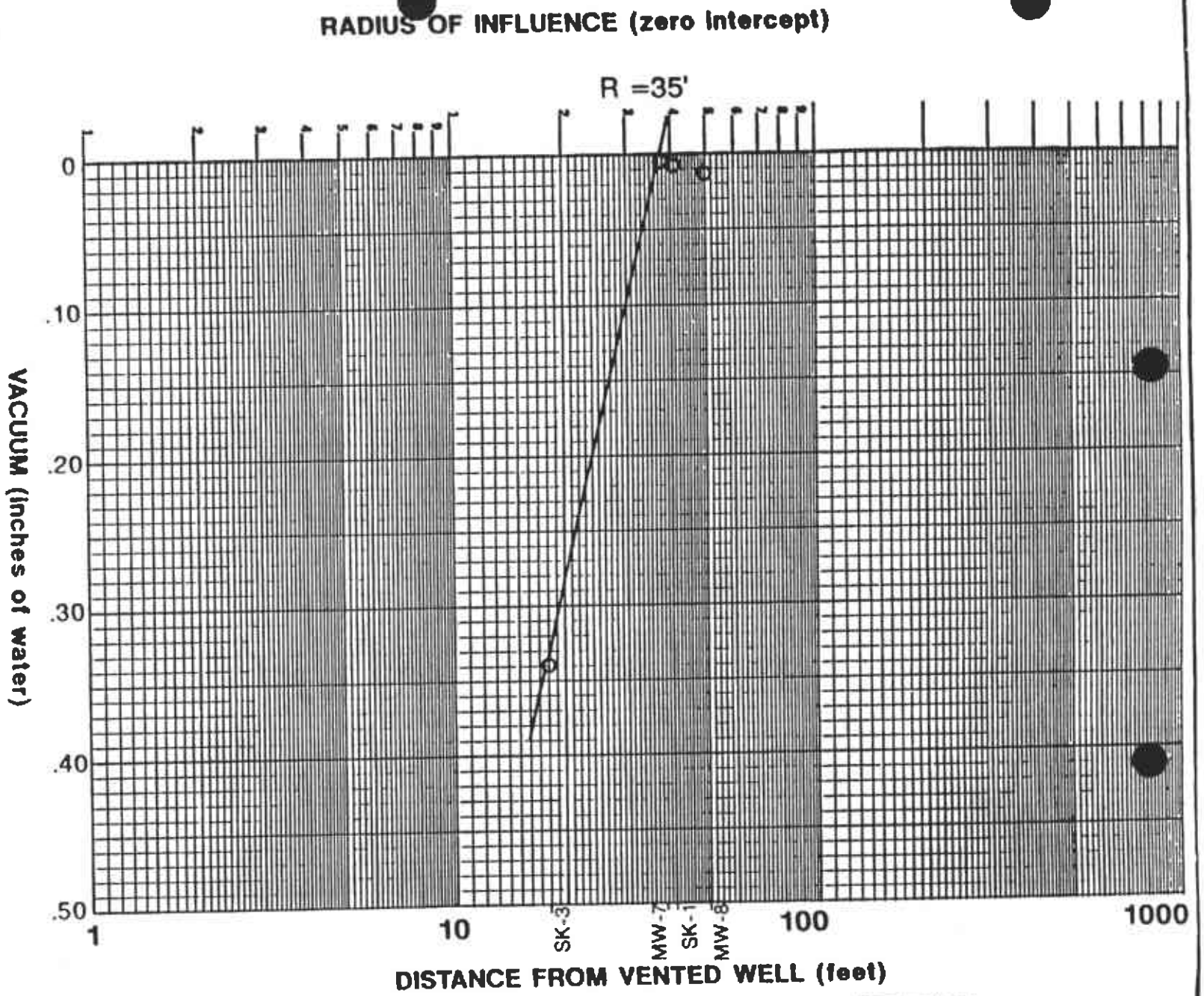
40	7.600	0.020	2.35E-02
41	8.100	0.020	2.50E-02
42	8.600	0.020	2.65E-02
43	9.100	0.019	2.81E-02
44	9.600	0.019	2.96E-02
45	10.600	0.019	3.27E-02
46	11.600	0.019	3.58E-02
47	12.600	0.019	3.89E-02
48	13.600	0.019	4.20E-02
49	14.600	0.020	4.51E-02
50	15.600	0.019	4.81E-02
51	16.600	0.019	5.12E-02
52	17.600	0.019	5.43E-02
53	18.600	0.019	5.74E-02
54	19.600	0.019	6.05E-02
55	21.600	0.021	6.67E-02
56	23.600	0.020	7.28E-02
57	25.600	0.020	7.90E-02
58	27.600	0.020	8.52E-02
59	29.600	0.020	9.14E-02
60	31.600	0.020	9.75E-02
61	33.600	0.019	1.04E-01
62	35.600	0.019	1.10E-01
63	37.600	0.021	1.16E-01
64	39.600	0.019	1.22E-01
65	43.600	0.019	1.35E-01

VENTED WELL: MW-9

APPLIED
VACUUM: 70"

FLOW: 3.5 CFM

TIME: 60 min.



SAFETY-KLEEN
OAKLAND, CALIFORNIA

DISTANCE / VACUUM PLOT

ML 2/90

GROUNDWATER TECHNOLOGY, INC.

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

01/25/90 SP

WORK ORD#: D001437
CLIENT: PAUL HORTON
GROUNDWATER TECHNOLOGY, INC
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.06
LOCATION: OAKLAND, CA

SAMPLED: 01/18/90 BY: F. SEILER
RECEIVED: 01/18/90
ANALYZED: 01/18/90 BY: R. GONZALEZ

MATRIX: Air
UNITS: ug/L

PARAMETER	MDL	SAMPLE # I.D.	01 MW8 IN 1	02 MW8 OUT 1	03 MW8 IN 3		
Benzene	0.5		<0.5	<0.5	<0.5		
Toluene	0.5		<0.5	<0.5	<0.5		
Ethylbenzene	0.5		<0.5	<0.5	<0.5		
Xylenes	0.5		<0.5	<0.5	<0.5		
Total BTEX	0.5		<0.5	<0.5	<0.5		
Misc. Hydrocarbons (C4-C12)	1		40	24	8		
Total Petroleum Hydrocarbons in the range of Mineral Spirits	1		40	24	8		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA 5030/8020/8015

Emma P. Popek
EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

01/23/90 JP

WORK ORD#: D001492
CLIENT: PAUL HORTON
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.06
LOCATION: 404 MARKET STREET
OAKLAND, CA
SAMPLED: 01/18/90 BY: F. SEILER
RECEIVED: 01/18/90 BY: K. FILLINGER
ANALYZED: 01/19/90 BY: R. GONZALEZ

MATRIX: Air
UNITS: ug/L

PARAMETER	MDL	SAMPLE # I.D.	01 MW8INLET
Total Petroleum Hydrocarbons as Mineral Spirits	10		43

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified 8015

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

01/23/90 rw PAGE 1 OF 1

WORK ORD#: D001438
CLIENT: PAUL HORTON
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.06
LOCATION: 404 MARKET STREET
OAKLAND, CA
SAMPLED: 01/18/90 BY: F. SEILER
RECEIVED: 01/18/90 BY: K. FILLINGER
ANALYZED: 01/21/90 BY: K. PATTON
MATRIX: AIR
UNITS: ug/L

TEST RESULTS

PARAMETER	MDL	SAMPLE #: 01 I.D. MWBINLET3		
Methane	20	<20		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: GC TCD

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

01/23/90 jp

WORK ORD#: D001493
CLIENT: PAUL HORTON
GROUNDWATER TECHNOLOGY, INC.
4080-D PIKE LANE
CONCORD, CA 94520
PROJECT#: 203-680-5016.06
LOCATION: 404 MARKET STREET
OAKLAND, CA
SAMPLED: 01/18/90 BY: F. SEILER
RECEIVED: 01/18/90 BY: K. FILLINGER
ANALYZED: 01/22/90 BY: R. CONDIT
MATRIX: AIR
UNITS: ug/L

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	01 MW8OUTLET1	02 MBINLET3
Bromodichloromethane	0.5		<0.5	<0.5
Bromoform	0.5		<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5
2-Chloroethylvinyl ether	1.0		<1.0	<1.0
Chloroform	0.5		<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5
1,2-Dichlorobenzene	0.5		<0.5	<0.5
1,3-Dichlorobenzene	0.5		<0.5	<0.5
1,4-Dichlorobenzene	0.5		<0.5	<0.5
Dichlorodifluoromethane	0.5		<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5
1,1-Dichloroethene	0.2		<0.2	<0.2
trans-1,2-Dichloroethene	0.5		<0.5	<0.5
1,2-Dichloropropane	0.5		<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5
Methylene chloride	0.5		<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5
Tetrachloroethene	0.5		<0.5	<0.5
1,1,1-Trichloroethane	0.5		<0.5	<0.5
1,1,2-Trichloroethane	0.5		<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5
Trichlorofluoromethane	0.5		<0.5	<0.5
Vinyl Chloride	1.0		<1.0	<1.0

MDL = Method Detection Limit.

METHOD: Modified ADDL002

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72-6441

Project Manager: PAUL HORTON
Phone #: 6712387
FAX #:
Address: 424 Market St. Oakland
Site location:
Project Number: 203680516.06
Project Name: Safety-Kleen/Oakl.
Sampler Name (Print): Frank Seiler

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	NONE	OTHER	Sampling: DATE	TIME
MW-8 Inlet 1	1		1			X								X	1/18/90	1240
MW-8 Outlet 1	1		1			X								X	"	1248
MW-8 Inlet 2	1		1			X								X	"	128
MW-8 Inlet 3	1		1			X								X	"	228

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐,	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease: 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	METHANE	FIXED
X	X																	
X	X																	
X	X																X	X
X	X																	

SPECIAL HANDLING
24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER 72 hrs (#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:

Lab Use Only
Lot #:
Storage Location
Work Order #:

CUSTODY RECORD

Relinquished by Sampler: Frank C. Seiler — Date 1/18/90 — Time —
Received by: — Date — Time —
Relinquished by: — Date — Time —
Received by: — Date — Time —
Relinquished by: — Date — Time —
Received by Laboratory: — Date 1-18 — Time 4:30

Waybill # 92

APPENDIX F

MINERAL SPIRITS REPORT

MINERAL SPIRITS: DETECTION AND REMEDIAL ALTERNATIVES IN SOIL AND GROUNDWATER

Prepared by

Steve Fischbein, M.S. and
Peter Kroopnick, Ph.D.

MAY 1988

GROUNDWATER TECHNOLOGY, INC.
CONCORD, CALIFORNIA

GROUNDWATER
TECHNOLOGY, INC.

4080 Pike Lane, Suite D, Concord, CA 94520 (415) 671-2387
Fax: (415) 685-9148

MINERAL SPIRITS; DETECTION AND REMEDIAL ALTERNATIVES IN SOIL AND GROUNDWATER

ABSTRACT

Recent work pertaining to the subsurface mitigation and remediation of free-phase, adsorbed, and dissolved, mineral spirits solvent has led to an in-depth study of the general composition of clean and dirty mineral spirits. Previous laboratory analyses by U.S. Environmental Protection Agency (EPA) Modified Method 8270 flame ionization detection (FID) (the approved method by California Department of Health Services (DHS) has erroneously indicated that dissolved mineral spirits concentrations may reach levels in the hundreds of parts per million (ppm) range.

Laboratory analyses by EPA Method 624 and 8015 indicate that virgin mineral spirits solvent generally consists of C9 to C11 aliphatic and cyclic hydrocarbons, and that mineral spirits concentrations dissolved in groundwater at ambient conditions cannot exceed 2.6 ppm.

The final results of this study show that the best available method of analysis to detect the presence of dissolved mineral spirits concentrations is EPA Modified Method 8015/FID with total area integration within the mineral spirits spectrum, and that mineral spirits is within the volatility range which can be treated by conventional-treatment technologies such as air stripping, soil ventilation, and bioreclamation.

INTRODUCTION

Safety-Kleen Corporation, an industrial solvent-distribution and recycling company, has numerous sites throughout the United States which have leaked or spilled moderate to large quantities of mineral-spirits solvent into the ground. Recent work in California for Safety-Kleen Corporation by Groundwater Technology, Inc. has brought to the forefront serious issues concerning the treatment of free, adsorbed, and dissolved-phase mineral-spirits solvent and what constituents of clean and dirty mineral-spirits-solvent are soluble.

Laboratory analysis by EPA Modified Method 8270/FID, which was the prescribed method of analysis set forth by the California Department of Health Services, has shown extremely high dissolved concentrations of mineral spirits in water. A literature search of available data on mineral spirits indicated that the solvent was insoluble (NIOSH, 1985; Crystal Refining Company MSDS, 1984; AMOCO IHTDS, 1983). This discrepancy prompted further investigation into the subject.

The initial phase of investigation was to ascertain the stepwise methodology involved in the Modified 8270 FID technique. Communication between GT Environmental Laboratories (GTEL) and Anlab (the previous testing laboratory) revealed that the Modified 8270/FID procedure called for sonically homogenizing the sample and then extracting everything present in the water with a solvent (methylene chloride). The extractable portion was then run on a Gas Chromatography (GC)/FID where everything ionizable in the mineral spirits range was quantified as "mineral spirits".

This method of analysis yielded results indicating that dissolved mineral-spirits-concentrations may reach values as high as 410 ppm.

Further investigation of this technique showed that the results were enhanced by the presence of minute amounts of free product which were dissolved by the added methylene chloride solvent and subsequently extracted. Laboratory-controlled experiments following this same procedure also yielded erroneously high results (see section on comparison of analytical methods).

This work prompted laboratory analyses of virgin mineral spirits to determine the general composition and maximum solubility at ambient conditions.

COMPOSITION OF VIRGIN MINERAL SPIRITS SOLVENT

The initial phase of research conducted was to determine the general composition of mineral-spirits solvent. The method of analysis determined to yield the most information in this area was GC/mass spectroscopy (MS).

An aliquot of virgin mineral spirits (obtained from Saftey-Kleen Corp.) was diluted in chloroform and directly injected into the GC/MS.

Analysis of the virgin solvent showed a very narrow compositional range which was restricted between C9 and C11 hydrocarbons.

Preliminary analysis only allowed for identification of the number of carbon and hydrogen ions per compound and not for specific compound name or isomers. A more detailed analysis of the solvent is presently underway and results from that study will be forthcoming.

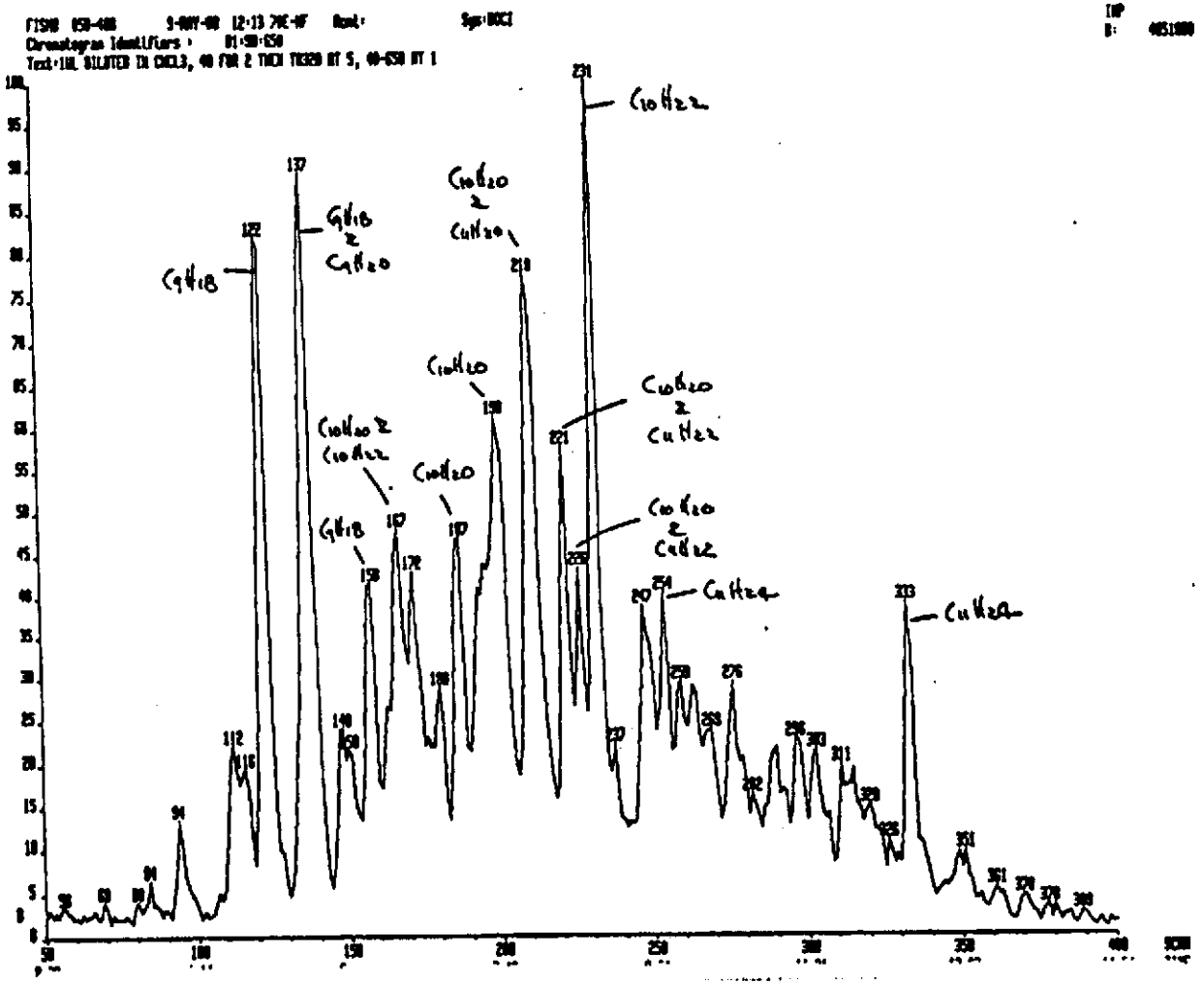
The carbon number identification was based on the ion chromatogram generated during the analysis and can be seen on Figure 1.

A tentative list of components based on carbon number is as follows:

Component
C_9 H_{18}
C_9 H_{20}
C_{10} H_{20}
C_{10} H_{22}
C_{11} H_{20}
C_{11} H_{22}
C_{11} H_{24}

Although this method was determined to be the most effective in identifying individual compounds, it was determined to not be specific enough to quantify overall solubility. This was based on the fact that quantification by this method is related to the most prominent peak intensity comparisons between standard and unknown solutions. In this study, we felt that this may lead to erroneous results, and that quantification based on total area integration in the mineral spirits spectrum would be more effective. As a result, samples were run on the GC/FID by EPA Method 8015 (purge and trap) which proved to be the best available method for quantification.

GC / MS



ION CHROMATOGRAM
OF VIRGIN MINERAL
SPIRITS SOLVENT

FIGURE 1

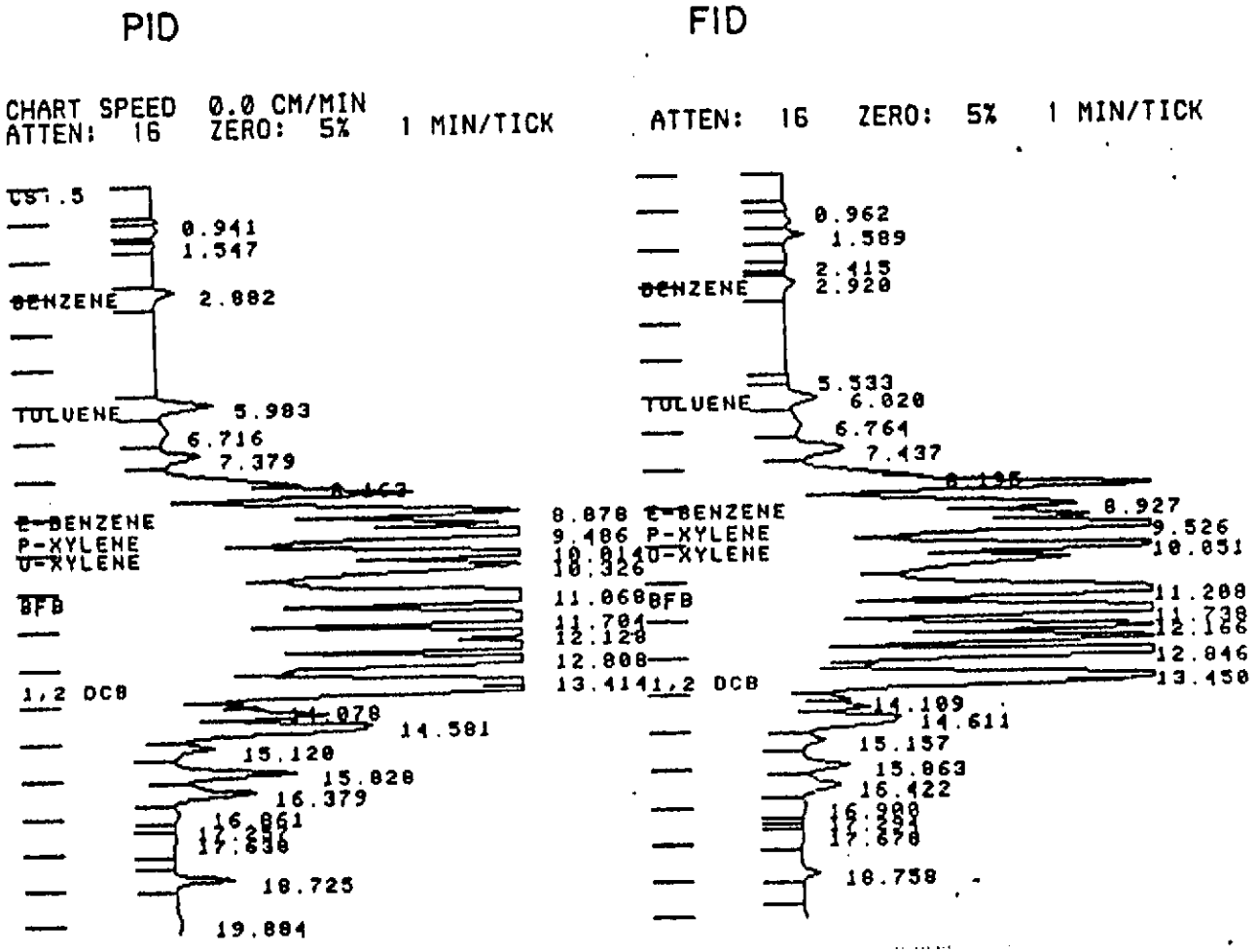
GROUNDWATER TECHNOLOGY, INC.

SOLUBILITY OF VIRGIN MINERAL SPIRITS

As previously done in the composition study, another sample was prepared by adding 5 milliliters of virgin solvent to 100 milliliters of laboratory pure water in a graduated cylinder and allowing the mixture to equilibrate for 48 hours. An aliquot of the water was then collected from below the solvent-water interface and subsequently injected into the GC/FID. The present configuration of equipment in the laboratory allows for simultaneous confirmation by GC/photo-ionization detector (PID) (EPA 602) as the detectors are in series.

Figure 2 shows the GC/FID and GC/PID chromatograms for the equilibrated water. Both the FID and PID traces show the distinct range and GC fingerprint of virgin mineral-spirits solvent. Basically, mineral spirits consists of compounds discussed above which elute with retention times between xylene and dichlorobenzene. The equilibrated water sample was run against standards of solutions with known quantities of virgin solvent spiked into them. The results of this study showed that the solubility of virgin mineral spirits in water under ambient conditions is approximately 2.6 ppm.

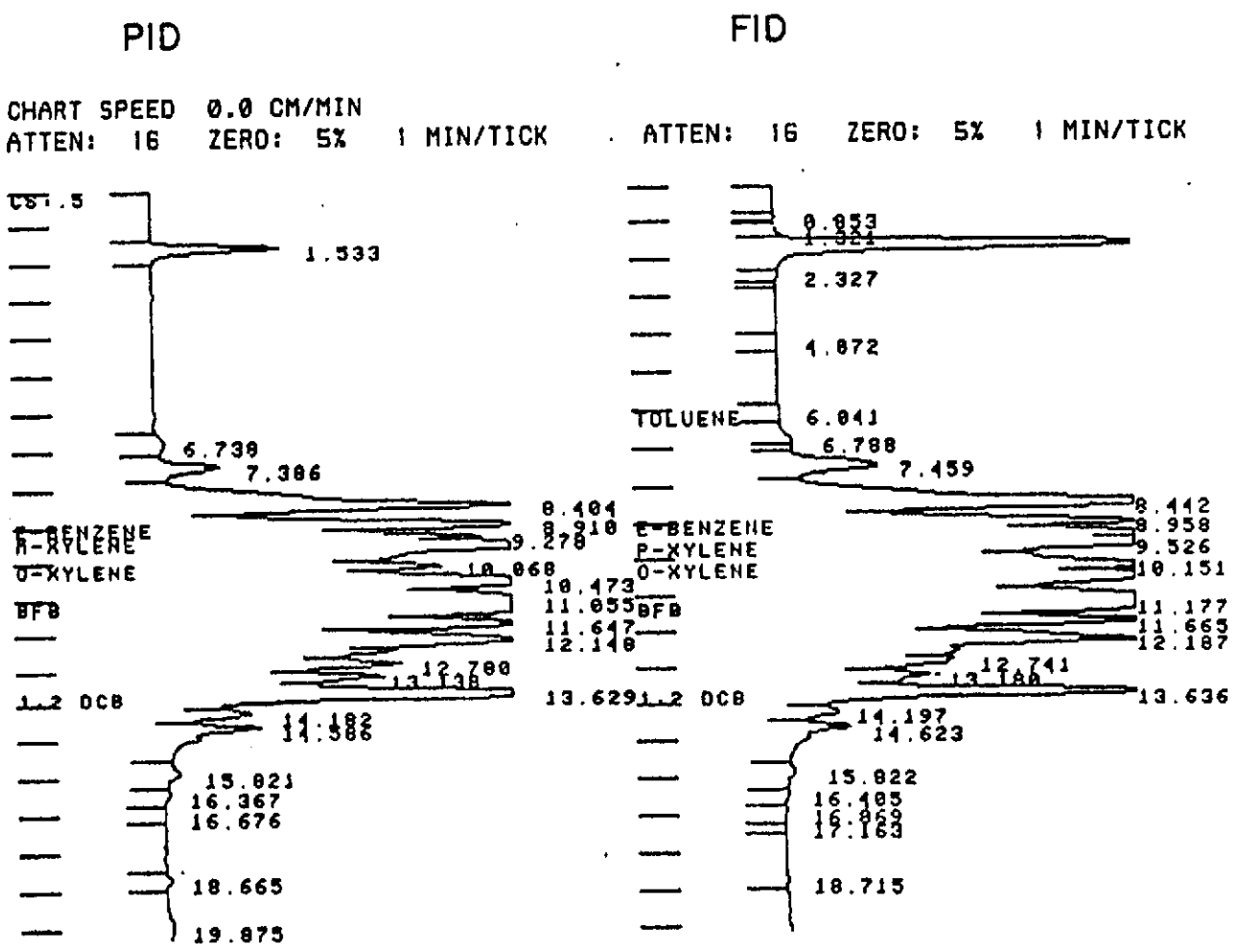
Figure 3 shows the GC/FID and GC/PID chromatograms for a standard solution of virgin mineral spirits at the level of 2800 ppb. Note the obvious similarity between the spiked trace and the equilibrated trace, which shows the very specific range that comprises the mineral-spirits solvent.



FID AND PID CHROMATOGRAMS
OF WATER EQUILIBRATED WITH
MINERAL SPIRITS

FIGURE 2

GROUNDWATER TECHNOLOGY, INC.



FID AND PID CHROMATOGRAMS OF
STANDARD SOLUTION AT 2800 ppb
VIRGIN MINERAL SPIRITS

FIGURE 3

GROUNDWATER TECHNOLOGY, INC.

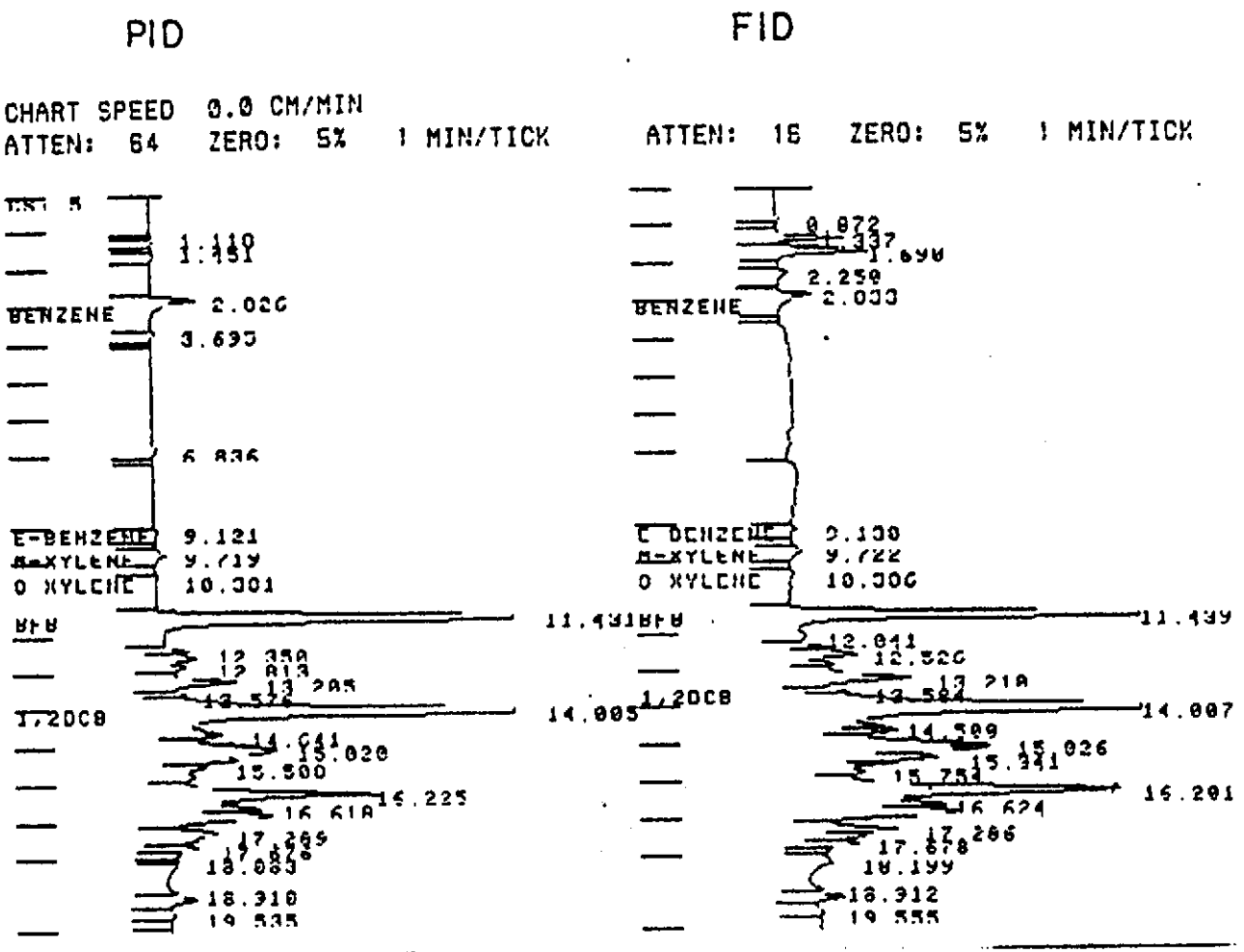
To prove that this method was effective, actual groundwater samples were obtained from the recovery well at the Safety-Kleen site in Santa Clara, California. The recovery well had approximately two inches of free-floating product in the well bore.

Water and free product were taken from the well using an acrylic bailer and poured into a separatory funnel. The water was subsequently decanted from the mixture and put into several one-liter glass bottles and several VOA's. The water was assumed to be saturated with dissolved components because of the prolonged presence (several months) of free product in the well bore while the well was not pumping.

Figure 4 shows the GC/FID and GC/PID chromatograms of the water from the site. Again note the marked similarity to the equilibrated and standard traces (Figure 2 and 3, respectively). Some differences are obvious in comparing the site-water chromatograms to those of the standard and equilibrated solutions. The discrepancies are a result of comparing dirty and degraded solvent with virgin solvent. Even though minor differences are apparent, the overall fingerprint of the chromatographs are the same. The results of this portion of the study indicated that dissolved mineral-spirits concentrations in the water from the site did not exceed 690 and 750 ppb by GC/FID and GC/PID respectively. This is interesting to note because previous water samples taken from this site and analyzed by EPA Modified Method 8270 FID indicated dissolved mineral-spirits concentrations up to 270 ppm.

COMPARISON OF ANALYTICAL METHODS

In order to prove that the 8270 FID technique was not applicable for this type of solvent, a comparison between analytical methods was conducted.



FID AND PID CHROMATOGRAMS OF
ACTUAL GROUNDWATER FROM
THE SANTA CLARA SITE

FIGURE 4

GROUNDWATER TECHNOLOGY, INC.

Water collected from the site was subjected to four different methods of analysis (EPA 8015, 624, 8270 FID, and 413.1). Two of the methods required a purge-and-trap procedure (8015 and 624) and two methods required a liquid-liquid solvent extraction (8270 FID and 413.1). The results indicated large differences in values between the purge-and-trap methods versus the liquid-liquid solvent-extraction methods. The results are shown in the table below.

METHOD	RESULT
8015	690 ppb
624	500 ppb
8270 FID	6.7 ppm
413.1	5.0 ppm

The discrepancy between analytical methods is a result of the presence of free product in the sample. Minute amounts of the free product are present in the water and are also stuck to the sides of the glassware because of the greasiness of the product. The free product present in the sample is not discernable upon visual inspection, but as can be seen by the data, can significantly bias analytical results. In the liquid-liquid solvent extraction (methylene chloride solvent for 8270 and freon solvent for 413.1), the free product is immediately dissolved in the presence of the added solvent which is subsequently extracted. The extracted solvent is then boiled down to concentrate the extract which is subsequently run on the respective detectors. Because the free product is extremely soluble in the solvent, it is detected during the final analysis and is reported as total-dissolved product in water. Based on these results, the extraction methods of analysis are believed unsuitable for a mineral-spirit type solvent.

To further justify that the 8015 method was the correct method to be used, a comparison was done on a known spiked solution to determine percentage recovery between the two methods (8015 versus 8270). The results of this portion of the study indicate that only a 76 percent recovery is achieved through the solvent extraction (8270) versus a 98 percent recovery for the purge and trap (8015). The reason the recovery for the solvent extraction is less than the purge and trap, is that during the boiling-down process the lighter-end components are volatilized and are lost. These results indicate another unsuspected reason for eliminating the solvent extraction method. The example for not using this method is, if a sample is collected, and it is KNOWN that no free product is present in the sample, then the results would yield lower values than the purge-and-trap method.

Obviously, this is a reverse of the situation that sparked the entire investigation, however it is another piece of data that indicate that the 8015 FID is the best available technology.

COMPOSITION OF RECYCLED AND DIRTY MINERAL SPIRITS

The composition and solubility of virgin mineral spirits represents only one half of the problem presented by the Safety-Kleen sites. The other half of the problem consists of the composition and soluble components in the recycled and dirty mineral spirits.

Basically the contamination of virgin mineral spirits occurs when the virgin material is sent out to the customers (gas stations, car repair shops, machine shops, etc.) and is subsequently contaminated during use as a cleaning solvent for dirty and greasy parts. At that time, other solvents (such as chlorinated hydrocarbons) and oil and grease are introduced into

the virgin material. The dirty material is then picked up from the customer and returned to a Saftey-Kleen recycling facility where it is subsequently distilled. The distillation process drives off the light-end components consisting of the virgin mineral spirits and chlorinated hydrocarbons (as well as any other light components) and the heavy ends are left behind (essentially the oil and grease). This process results in a concentration of chlorinated hydrocarbons in the recycled product.

High concentrations of chlorinated hydrocarbons are reduced by the addition of virgin mineral spirits to the recycled, thereby causing a "thinning" of chlorinated concentrations. The recycled material is then sent back out to the client to be re-used and the process repeats itself theoretically endlessly.

This information becomes imperative when considering treatment alternatives for sites contaminated with recycled and dirty mineral spirits.

In general, the composition of recycled mineral spirits consists of two major components. They are essentially virgin mineral spirits and chlorinated hydrocarbons. Also, in general, the composition of dirty mineral spirits can be said to consist of three major components. They are, virgin mineral spirits, chlorinated hydrocarbons, and oil and grease.

Of particular importance are the chlorinated hydrocarbons. The number and type of chlorinated constituents in recycled and dirty product can obviously vary widely based on the demographics of the client base for any given area. However a general statement can be made based on the analyses of chlorinated hydrocarbons in the water and product from the Santa Clara site.

Laboratory analyses of water from the Santa Clara site by EPA Method 601 indicate the following chlorinated compounds are present at concentrations ranging from 1 to 60 ppb.

COMPOUND	CONCENTRATION (ppb)
Chlorobenzene	8.1
1,2-Dichlorobenzene	13.0
1,1-Dichloroethane	59.0
1,2-Dichloroethane	1.9
1,1-Dichloroethene	0.73
Trans-1,2-Dichloroethene	37.0
Cis-1,3-Dichloropropene	4.5
Tetrachloroethane	3.0
1,1,1-Trichloroethane	23.0
Trichloroethene	1.7
Vinyl Chloride	13.0

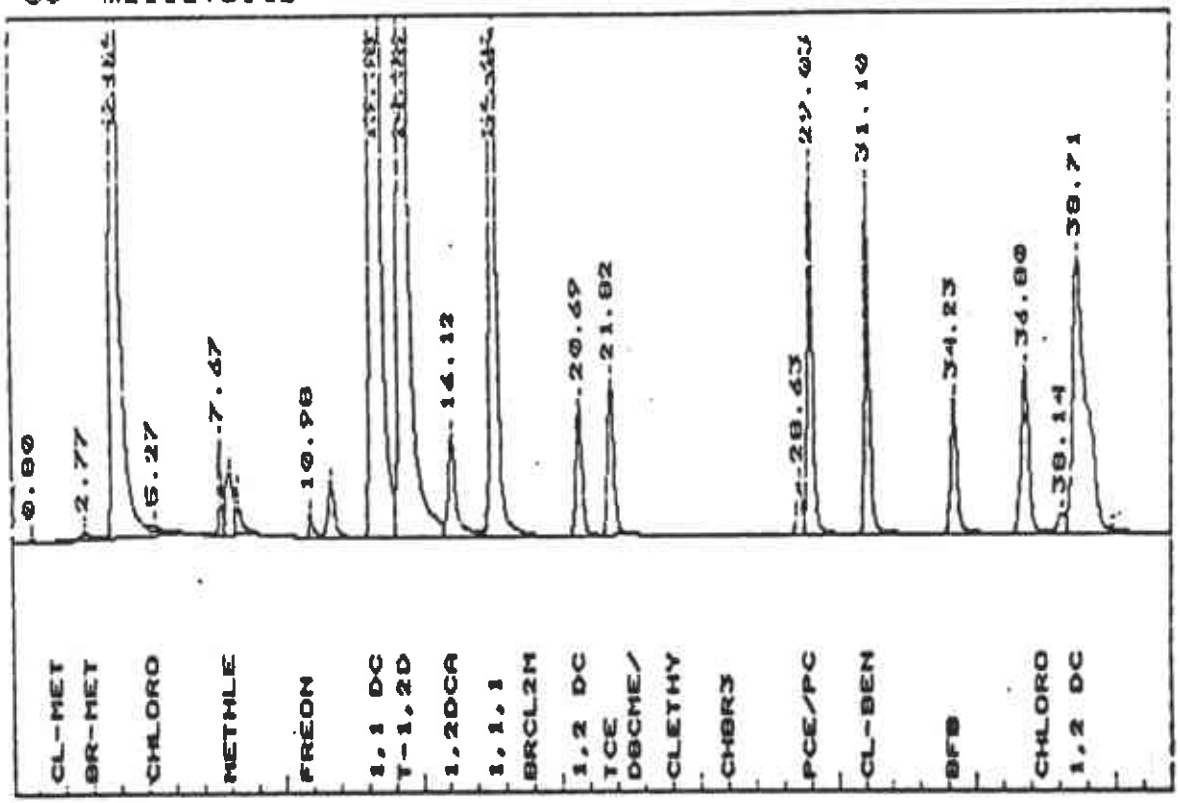
Figure 5 is a chromatograph of the water from the site by EPA 601.

Laboratory analyses of free product from the Santa Clara site by EPA 601 indicate that the following chlorinated compounds are present:

COMPOUND	CONCENTRATION (ppb)
Chlorobenzene	24.0
Chloroethane	3.3
Chloroform	11.0
Chloromethane	4.8
1,2-Dichlorobenzene	13.0
1,1-Dichloroethane	12.0
1,1-Dichloroethene	1.2
Trans-1,2-Dichloroethene	21.0
Methylene Chloride	33.0
Tetrachloroethane	2.2
1,1,1-Trichloroethane	83.0
Trichloroethene	1.1
Vinyl Chloride	4.6

HALL DETECTOR

Data File = C:A2733.PTS Printed on 04-27-1988 at 17:11:26
Start time: 0.00 min. Stop time: 42.01 min. Offset: 0 mv.
Full Range: 30 millivolts



GC/HALL CHROMATOGRAM OF
ACTUAL GROUNDWATER FROM
THE SANTA CLARA SITE (EPA 601)

FIGURE 5

GROUNDWATER TECHNOLOGY, INC.

Figure 6 is a chromatogram of the free product from the site by EPA 601.

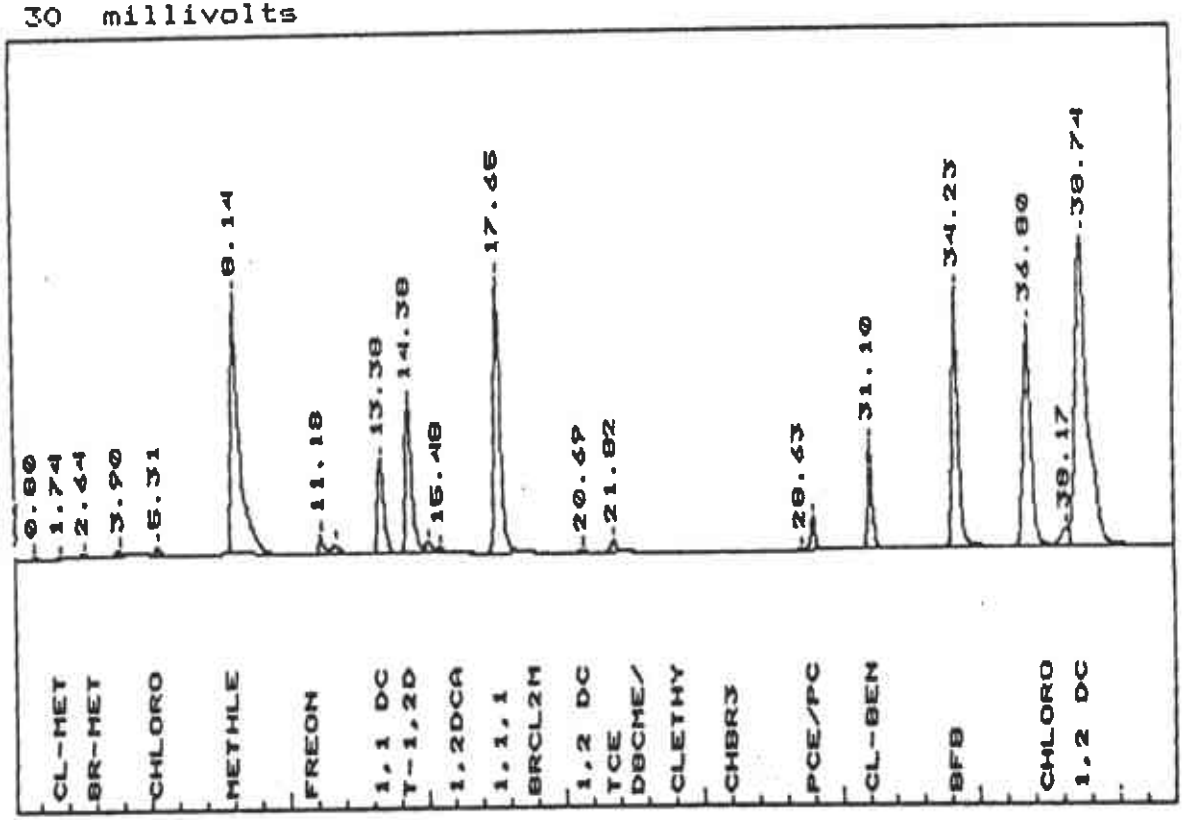
ANALYTICAL PROCEDURES FOR CONTAMINATED SOILS

Soils contaminated with mineral spirits solvent also posed a problem in handling and analysis. The main problem that existed was how to analyze for the presence of mineral spirits as well as chlorinated solvents. This was solved by utilizing EPA Methods 8010 and 8015 with a selective-solvent extraction on the soils. Soil samples are collected as normal (brass tubes) in the field and extruded in the lab. The soil cores are cut into quarters along their long axis and two quarters are used for analysis and two are saved for back-up. One of the quarters is crushed and is extracted with methanol to remove chlorinated components. The methanol extract is run by EPA Method 8010 (purge and trap). The other quarter is crushed and extracted with methylene chloride to remove any mineral spirits present. The methylene chloride extract is run by EPA Method 8015 (direct injection).

Figure 7 shows a typical chromatograph of the methylene chloride extract by EPA Method 8015. Figure 8 shows a standard of 250 ppm virgin mineral spirits in methylene chloride. Note the marked similarity between the two chromatograms.

HALL DETECTOR

Data File = D:A29B2.PTS Printed on 04-29-1988 at 18:17:35
Start time: 0.00 min. Stop time: 42.01 min. Offset: 0 mv.
Full Range: 30 millivolts

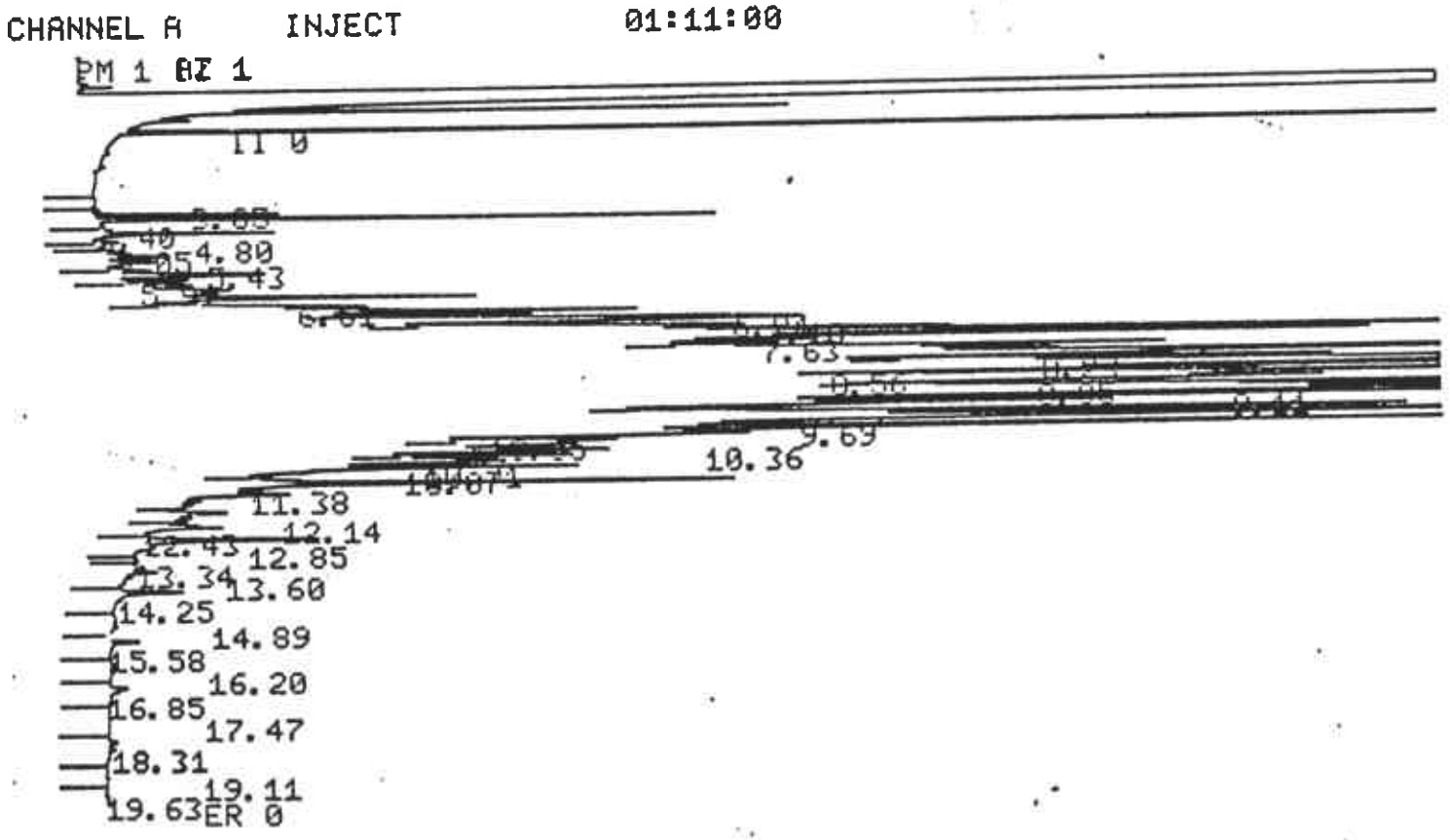


GC/HALL CHROMATOGRAM OF
ACTUAL FREE PRODUCT FROM THE
SANTA CLARA SITE (EPA 601)

FIGURE 6

GROUNDWATER TECHNOLOGY, INC.

FID

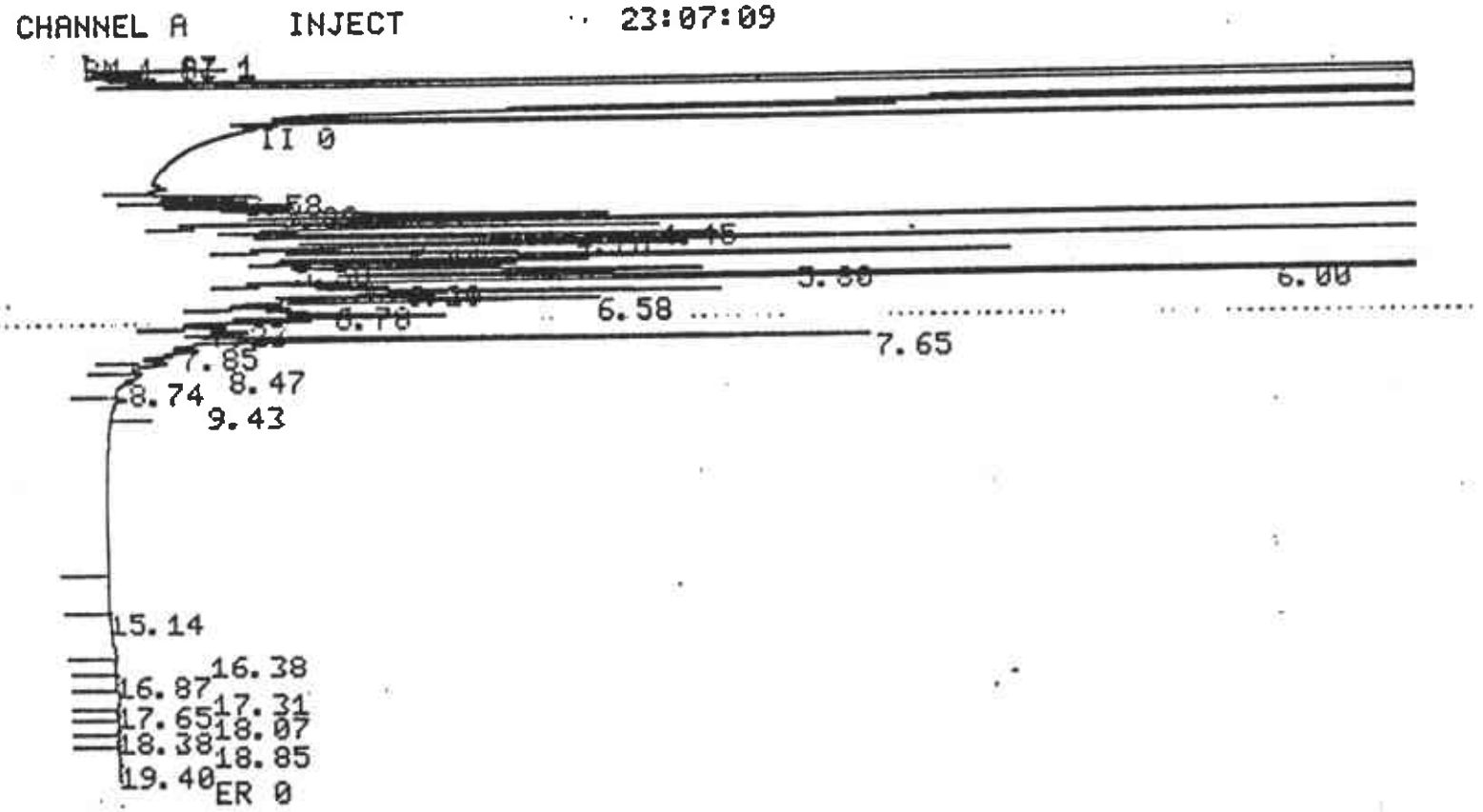


FID CHROMATOGRAM OF
METHYLENE CHLORIDE EXTRACT
FROM SOILS AT THE SANTA CLARA SITE

FIGURE 7

GROUNDWATER TECHNOLOGY, INC.

FID



FID CHROMATOGRAM OF
250 ppm STANDARD SOLUTION
OF VIRGIN MINERAL SPIRITS IN
METHYLENE CHLORIDE

FIGURE 8

GROUNDWATER TECHNOLOGY, INC.

SUMMARY

This investigation has shown that previous laboratory analyses for dissolved mineral-spirits-concentrations in water by EPA Modified Method 8270 FID were incorrect due to final data enhancement by the presence of minute amounts of free product. A liquid-liquid solvent-extraction proved impractical, time-consuming, and inaccurate for this type of contaminant in water. Determination was made that the best available method of analysis to detect dissolved mineral spirits in water is EPA Method 8015 (purge and trap) with total-area-integration in the mineral spirits range. EPA Method 624 and 602 are also available for confirmation of results. Solubility experiments conducted have shown that dissolved mineral-spirits-concentrations in water cannot exceed approximately 2.6 ppm at ambient conditions.

Soil samples contaminated with mineral spirits are best handled by two separate extractions with methanol and methylene chloride with the subsequent extracts being run by EPA Methods 8010 and 8015 (direct injection).

Based on our present understanding, mineral spirits contamination falls into the volatility range to be treated with conventional treatment technologies such as air stripping, soil venting and bioreclamation. These treatment techniques will also mitigate chlorinated hydrocarbon concentrations associated with the mineral spirit's contamination.

REFERENCES CITED

Amoco Industrial Hygiene and Toxicology Data Sheet, 1983, Petroleum Naptha.

Crystal Refining Company, Carson, City, Michigan, Material Safety Data Sheet, 1984, Stoddard Solvent.

U.S. Department of Health and Human Services, NIOSH Pocket Guide to Chemical Hazards, Publication No. 85-114, February, 1987.

Document.SAF