safety-kleen.



December 29, 1995

*Via Certified Mail No. P273444446*

Ms. Jennifer Eberle
Alameda County
Department of Environmental Health
Hazardous Materials Division
1131 Harbor Bay Parkway, Second Floor
Alameda, California 94502-6577

Re: **Safety-Kleen Corp. Service Center**
**400 Market Street**
**Oakland, California**

Dear Ms. Eberle:

Enclosed is the quarterly report which summarizes the groundwater monitoring and vapor extraction activities conducted at the above-referenced facility. This report covers the period from September through November 1995. As described in the letter submitted on July 13, 1994, and as modified and approved by Alameda County in a response letter dated July 27, 1994, Safety-Kleen is following the modified groundwater sampling schedule.

If you have any questions, please call me at (503) 655-2769.

Sincerely,

Lisa Shea for

Chip Prokop
Senior Project Manager - Remediation
Safety-Kleen Corp.

Enclosure

cc: Keith Marcott, Safety-Kleen Corp.
Scott Davies, Safety-Kleen Corp.
Branch Environmental File (7-178-01)
Robert Senga, State of California Department of Health Services - DTSC
Steven Ritchie, California Regional Water Quality Control Board
Scott Comiso, BAAQMD
Greg Hoehn, *SECOR*

OAKLAND7.L12
December 29, 1995
*SECOR* Job No. 70005-009-07

1000 NORTH RANDALL ROAD ELGIN, ILLINOIS 60123-7857 PHONE 708/697-8460 FAX 708/468-8500

December 29, 1995

*Via Certified Mail No. P273444445*

Mr. Steven Ritchie
Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

Re: **Safety-Kleen Corp. Service Center**
**400 Market Street**
**Oakland, California**

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Chip Prokop
Senior Project Manager - Remediation
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cc: Keith Marcott, Safety-Kleen Corp.
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Robert Senga, State of California Department of Health Services - DTSC
Jennifer Eberle, Alameda County Department of Environmental Health
Scott Comiso, BAAQMD
Greg Hoehn, *SECOR*

OAKLAND7.L11
December 29, 1995
*SECOR* Job No. 70005-009-07

1000 NORTH RANDALL ROAD ELGIN, ILLINOIS 60123-7857 PHONE 708/697-8460 FAX 708/468-8500

SECOR
*International Incorporated*

# QUARTERLY GROUNDWATER MONITORING AND SOIL VAPOR EXTRACTION REPORT SAFETY-KLEEN SERVICE CENTER 400 MARKET STREET OAKLAND, CALIFORNIA

***SECOR* Job No. 70005-009-07**

12-29-95

**Prepared For:**
Safety-Kleen Corp.
16540 S.E. 130th Avenue
Clackamas, Oregon 97015

**Submitted By:**
*SECOR* International Incorporated
1390 Willow Pass Road
Suite 360
Concord, California 94520

December 29, 1995

REGISTERED GEOLOGIST
PAUL D. HORTON
Exp 9/96
No. 5435
STATE OF CALIFORNIA

**Prepared By:**

Kevin Hawkins
Staff Engineer

**Reviewed By:**

Paul D. Horton, R.G.
Principal Hydrogeologist

Greg D. Hoehn
Principal Geologist

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## APPENDICES

# 1.0 INTRODUCTION

This report presents the results of groundwater monitoring and sampling activities conducted for the quarter of September through November 1995, at the Safety-Kleen Service Center located at 400 Market Street in Oakland, California (Figure 1 and Figure 2). Additionally, the soil vapor extraction (SVE) system was modified to a carbon adsorption vapor abatement system and restarted this quarter.

# 2.0 PROJECT BACKGROUND INFORMATION

The Safety-Kleen Oakland Service Center is a local distribution center for Safety-Kleen products. Three single-walled underground storage tanks (USTs) were removed and replaced with two new 12,000 gallons double-walled tanks in June and July of 1990. Product and waste mineral spirits are currently stored in the two double-walled USTs at the site. One UST is used to consolidate waste mineral spirits prior to shipment to a Safety-Kleen Recycle Center and one UST is used for storage prior to distribution of product mineral spirits to Safety-Kleen customers.

During the single-walled tank removal, mineral spirits impacted soil was excavated from the tank pit as allowable by site conditions. Additionally, a product recovery well and a vapor extraction system withdrawal network were installed in the tank pit area. Tank removal and excavation activities are documented in the *Report of Underground Storage Tank Replacement Activities* dated September 1990. The product pumping system installed in recovery well (RW-1) to remove separate-phase product from the water table began operation on January 19, 1993. The product pumping system was removed on November 20,1995, and replaced with a passive hydrocarbon skimming device. A system to extract and treat soil vapor began full-scale operation on June 1, 1993.

The SVE system consists of seven horizontal vapor extraction lines and a vapor treatment system consisting of granular activated carbon (GAC). Figure 3 depicts the layout of the vapor extraction lines and the vapor treatment system.

# 3.0 SCOPE OF WORK

Work conducted during this quarter consisted of product recovery and the monitoring of eleven groundwater monitoring wells and one recovery well and the sampling of six groundwater monitoring wells. The following sections provide a description of the work steps conducted.

## 3.1 Soil Vapor Extraction System

The SVE system had not operated since November 1994 when the system was shut down by a system fault. Subsequently, the system piping was damaged during the installation of UST cathodic protection. The damage to SVE piping was repaired in December 1994; however, the system remained non-operational pending modification to a carbon adsorption treatment system. Currently, the SVE system consists of 1,500 pound granular active carbon vessels connected in series to the seven horizontal vapor extraction lines. Operation of the SVE system was resumed on November 28. Results of the system operation will be transmitted in the next quarterly report.

SVE down 1 yr. but GW cont.

## 3.2 Mineral Spirits Recovery

The mineral spirits recovery pump that was located in recovery well RW-1 failed during this reporting period. Mineral spirits passive recovery skimmers were placed in RW-1 and monitoring well MW-9 on November 20, 1995. Mineral spirits recovered from well RW-1 and monitoring well MW-9 (Figure 2) are emptied directly to the waste mineral spirits UST at the site and is incorporated into the Safety-Kleen recycling process. The amount of recovered product is recorded each time the skimmer is emptied.

## 3.3 Groundwater Monitoring and Sampling

On October 12, 1995, on- and off-site monitoring wells were monitored for depth-to-water using a water level indicator calibrated to 0.01-foot. The depth-to-water measurements were used with well survey data to construct a potentiometric surface map (Figure 4).

On October 12, 1995, subsequent to collecting depth-to-water measurements, monitoring wells MW-1, MW-2, MW-3, MW-4, MW-8, and MW-12 (according to the quarterly sampling schedule) were purged by hand bailing until a minimum of three well volumes of groundwater had been removed, or until measurements of pH, temperature, and conductivity had stabilized. Following recovery of the groundwater levels in the wells to at least 80 percent of the original level, groundwater samples were collected using single use disposable samplers. The samples were placed into laboratory supplied sample containers, labeled with the date, time, and sample number, and placed on ice in an insulated cooler. Field data sheets that include depth-to-water measurements and well purge data are included in Appendix A.

The groundwater samples were delivered to a state-certified laboratory for analysis under chain-of-custody documentation. The groundwater samples were analyzed for the presence of benzene, toluene, ethylbenzene and xylenes (BTEX) by U.S. Environmental Protection Agency (EPA) Method 8020, for total petroleum hydrocarbons as mineral spirits (TPHms) by modified EPA Method 8015 and for halogenated volatile organic compounds (VOCs) by EPA Method 8010.

Prior to using any non-single use equipment in a groundwater monitoring well, the equipment was decontaminated by double-washing with a laboratory grade detergent in clean water, and triple-rinsed using deionized water. Purge water and decontamination water generated during well purging and sampling was placed in labeled containers pending transport for treatment at a Safety-Kleen facility.

# 4.0 RESULTS

## 4.1 Soil Vapor Extraction System

The SVE system resumed operation on November 28, 1995. No samples were collected or analyzed from the soil vapor extraction system during this reporting period.

## 4.2 Mineral Spirits Recovery

No appreciable mineral spirits recovery occurred during this reporting period. The mineral spirits passive recovery skimmer data will appear in the next quarterly report, as more data are available.

## 4.3 Groundwater Elevations

Groundwater elevations and depth-to-water measurements for the October 12, 1995, event are presented in Table 2. The average water table elevation on October 12, 1995 was 1.31 feet above mean sea level, a decrease of 0.63 feet since the July 1995 event. A potentiometric surface map prepared with the October 12, 1995, data is presented as Figure 4.

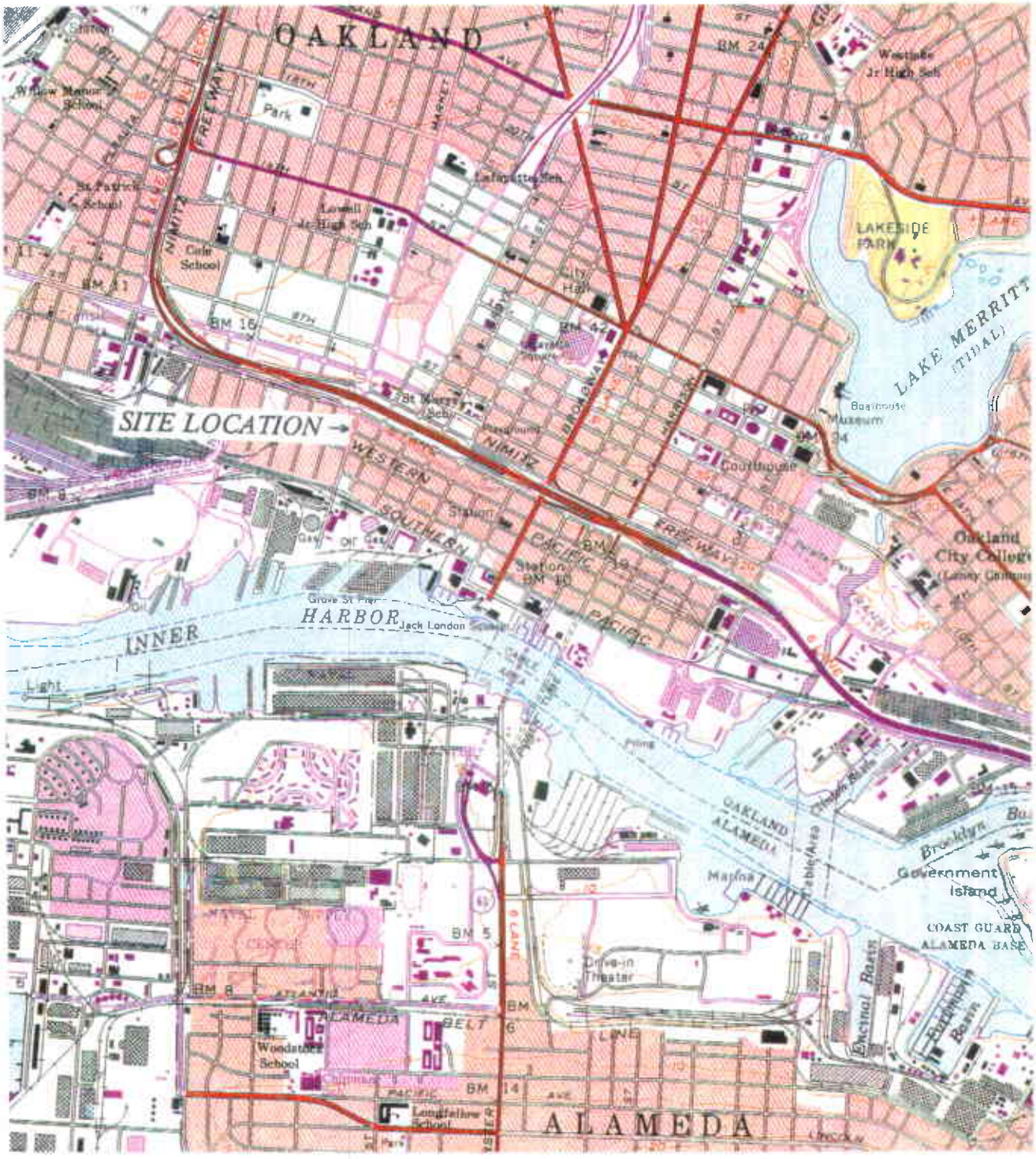
As shown in Figure 4, the groundwater flow direction remains to the southwest, consistent with historic site data. The hydraulic gradient was 0.003 feet/foot (ft/ft) across the site as measured between wells MW-4 and MW-2. The gradient is 0.001 ft/ft lower than that measured during the last event and is consistent with previous data for the site.

## 4.4 Groundwater Conditions

No concentrations of TPHms or BTEX were detected above the laboratory detection limits in any of the groundwater samples collected on October 12, 1995. Laboratory analyses of groundwater samples show that VOCs exist at concentrations exceeding the detection limits in wells MW-3, MW-4, MW-8, and MW-12. The groundwater sample from monitoring well MW-3 contained *cis*-1,2-dichloroethene (DCE) at one $\mu g/\ell$. The groundwater sample from monitoring well MW-4 contained trichloroethene (TCE) at 207 $\mu g/\ell$; 1,1-DCE at 4 $\mu g/\ell$; chloroform and trans-1,2-DCE at 3 $\mu g/\ell$; and vinyl chloride at 1 $\mu g/\ell$. The groundwater sample from monitoring well MW-8 contained TCE at 557 $\mu g/\ell$; cis-1,2-DCE at 63 $\mu g/\ell$; 1,2-DCA at 10$\mu g/\ell$; 1,1-DCE at 7 $\mu g/\ell$; trans-1,2-DCE at 6 $\mu g/\ell$; 1,1-dichloroethene (DCA) at 5 $\mu g/\ell$; vinyl chloride and chlorobenzene at 4 $\mu g/\ell$; 1,2-dichlorobenzene (DCB) at 3 $\mu g/\ell$ and tetrachloroethene (PCE) at 2 $\mu g/\ell$. The groundwater sample from monitoring well MW-12 contained

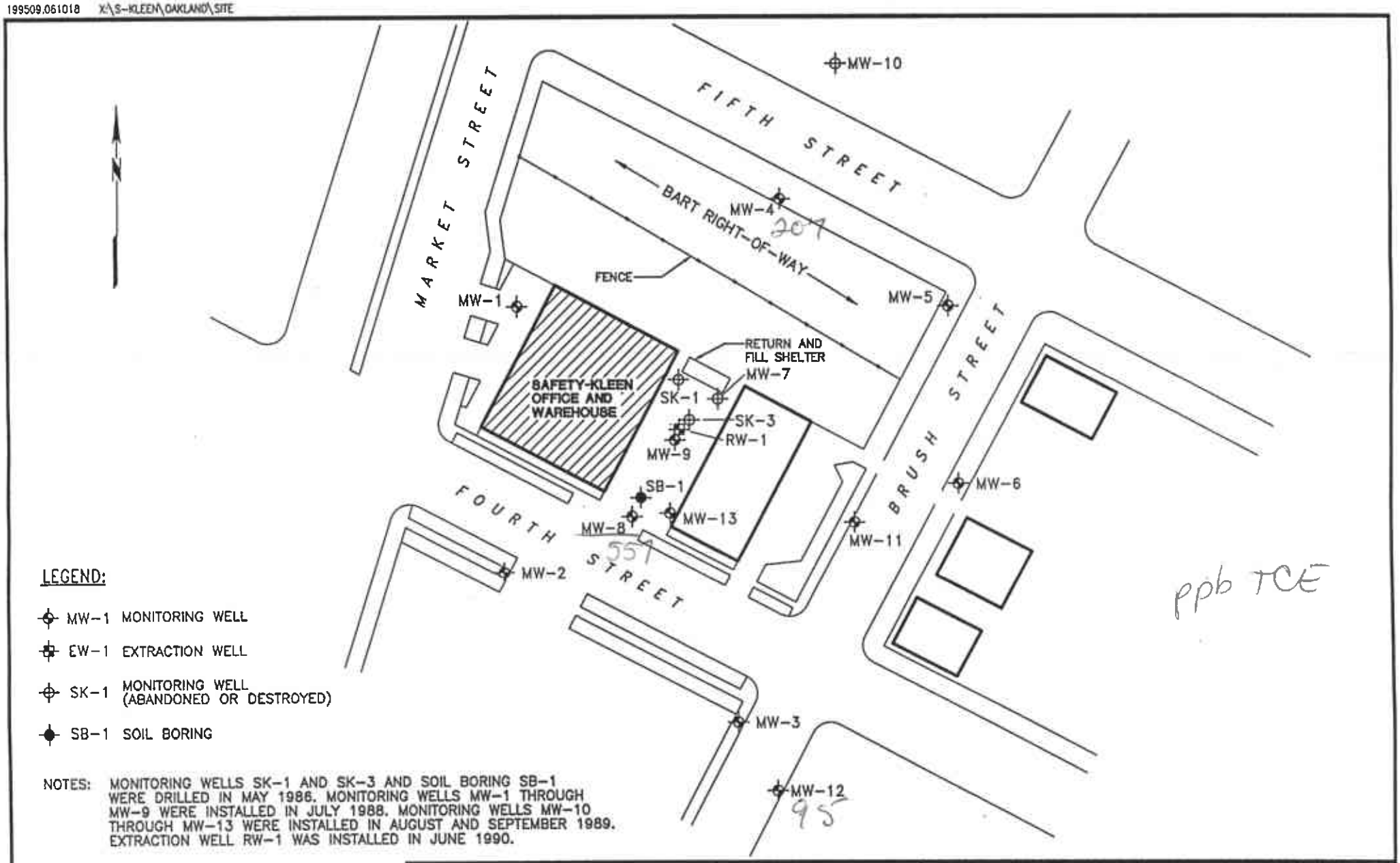
TCE at 95 $\mu g/\ell$; cis-1,2-DCE at 5 $\mu g/\ell$; 1,1-DCA at 4 $\mu g/\ell$; 1,2-DCA at 3$\mu g/\ell$; 1,1-DCE, trans-1,2-DCE and 1,2-DCPA at 2 $\mu g/\ell$. The groundwater samples collected from monitoring wells MW-1 and MW-2 did not contain detectable levels of VOCs. Analytical test results showing compounds detected since the April 20, 1993 sampling event are presented in Table 3. Copies of the groundwater laboratory analytical reports are included in Appendix B.

**OAKLAND WEST QUADRANGLE**
**California**
**7.5 Minute Series (Topographic)**




| | | | | |
|---|---|---|---|---|
| **DRAFTED BY:** TS | **CHECKED BY:** GDH | **PROJECT NO. 70005-009** | **FIGURE 1** | ***SECOR*** **1390 Willow Pass Road Suite 360 Concord, CA 94520** |
| **DWG. DATE:** 04-05-94 | **REV. DATE:** 06-15-95 | **Safety-Kleen Corp. 400 Market Street Oakland, California** | **Site Location Map** | |
| **FILE NAME:** Oakland7.F01 | | | | |

199509.061018 X:\S-KLEEN\OAKLAND\SITE

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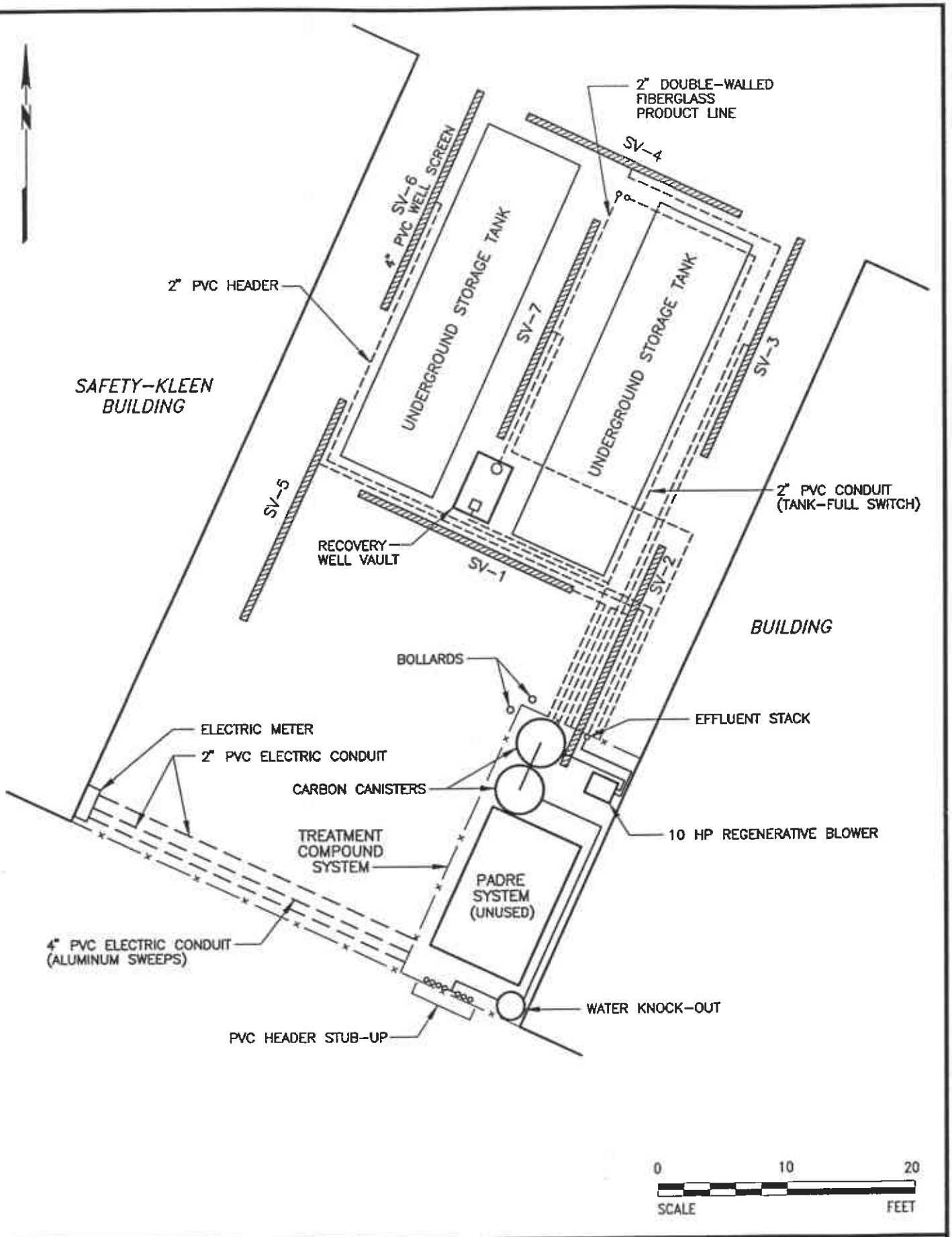
| DRAWN | CCR |
| APPR | GH |
| DATE | 05SEP95 |
| JOB NO. | 70005-009 |

FIGURE 2
SAFETY-KLEEN
400 MARKET STREET
OAKLAND, CALIFORNIA

**SITE PLAN**

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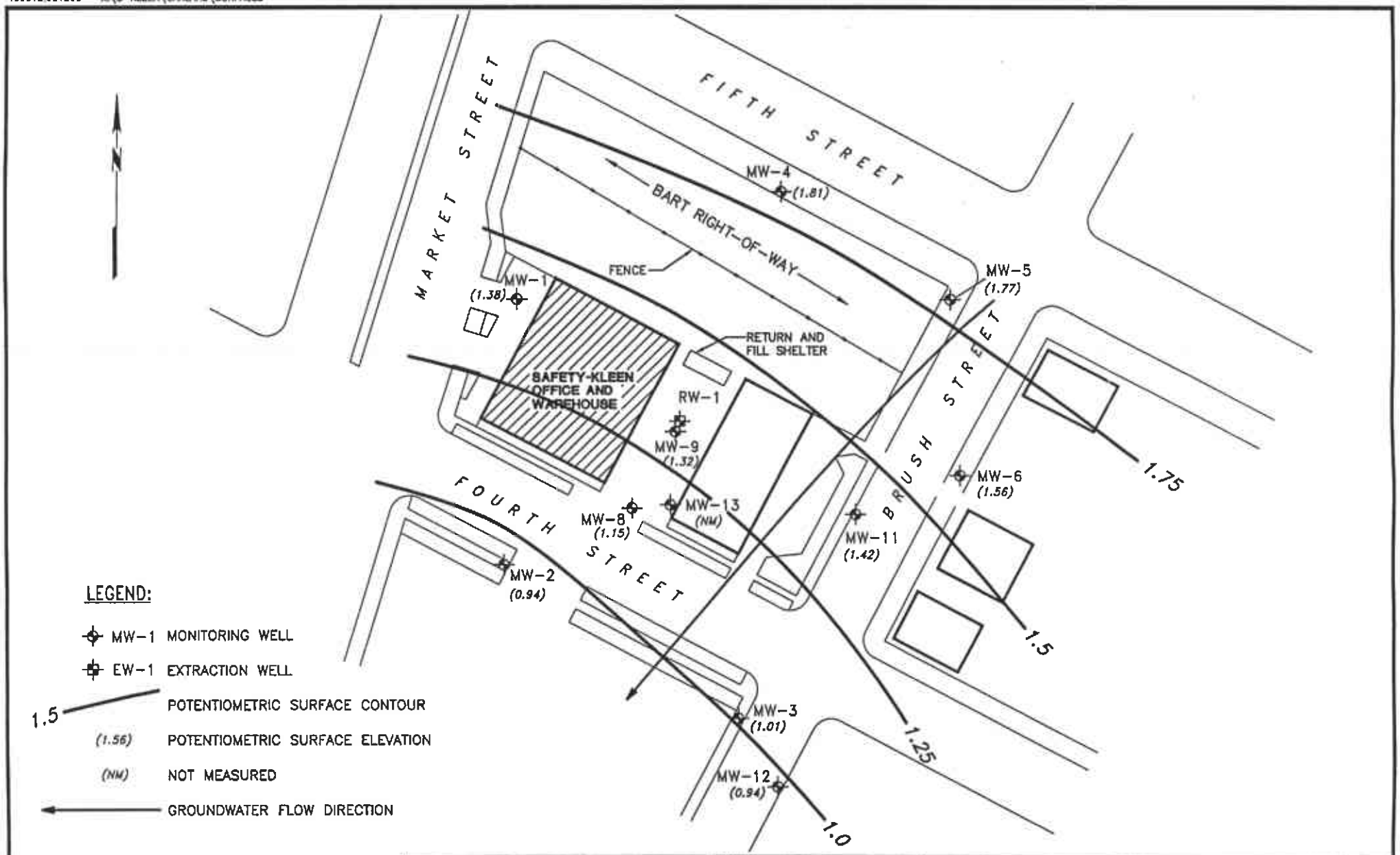
|---|---|
| SECOR INTERNATIONAL INCORPORATED | |
| DRAWN | CCR |
| APPR | GH |
| DATE | 08DEC95 |
| JOB NO. | 70005-009 |

FIGURE 3
SAFETY-KLEEN SERVICE CENTER
400 MARKET STREET
OAKLAND, CALIFORNIA

# SOIL VAPOR EXTRACTION SYSTEM LAYOUT

199512.071928 X:\IS-KLEEN\OAKLAND\SITE2

199512.081205 X:\S-KLEEN\OAKLAND\SURFACE3

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| | |
|---|---|
| DRAWN | CCR |
| APPR | GH |
| DATE | 08DEC95 |
| JOB NO. | 70005-009 |

FIGURE 4
SAFETY-KLEEN SERVICE CENTER
400 MARKET STREET
OAKLAND, CALIFORNIA

**POTENTIOMETRIC SURFACE MAP**
**OCTOBER 12, 1995**

**TABLE 1**
**Product Recovery Data**
**from Well RW-1**

| Date | Product Recovered This Period (gallons) | Cumulative Product Recovered (gallons) |
|---|---|---|
| 01-19-93 | - | - |
| 02-25-93 | 6.5 | 6.5 |
| 05-20-93 | 4.3 | 10.8 |
| 08-27-93 | - | 10.8 |
| 10-24-93 | 10.3 | 21.1 |
| 02-28-94 | 22.6 | 43.7 |
| 05-31-94 | 16.6 | 60.3 |
| 08-31-94 | 16.4 | 76.7 |
| 11-30-94 | 16.2 | 92.9 |
| 02-28-95 | 16.0 | 108.9 |
| 05-31-95 | 16.6 | 125.5 |
| 08-31-95 | 16.6 | 142.1 |
| 11-30-95 | -0- | 142.1 |

**TABLE 2**
**Groundwater Monitoring Data**
**October 12, 1995**

| Well I.D. | TOC Elevation (ft msl) | DTW (ft) | DTP (ft) | PT (ft) | Adjusted Elevation (ft msl) |
|---|---|---|---|---|---|
| MW-1 | 7.99 | 6.61 | - | - | 1.38 |
| MW-2 | 8.20 | 7.26 | - | - | 0.94 |
| MW-3 | 6.66 | 5.65 | - | - | 1.01 |
| MW-4 | 10.32 | 8.51 | - | - | 1.81 |
| MW-5 | 10.28 | 8.51 | - | - | 1.27 |
| MW-6 | 8.97 | 7.41 | - | - | 1.56 |
| MW-8 | 7.80 | 6.65 | - | - | 1.15 |
| MW-9 | 8.21 | 7.26 | 6.80 | .46 | 1.32 |
| MW-10* | 10.43 | - | - | - | - |
| MW-11 | 7.91 | 6.49 | - | - | 1.42 |
| MW-12 | 6.74 | 5.80 | - | - | 0.94 |
| MW-13 | 8.08 | 7.02 | - | - | 1.06 |

TOC = Top of casing
DTW = Depth-to-water
DTP = Depth-to-product (separate-phase hydrocarbons)
PT = product thickness
Elevation = Adjusted groundwater elevation
ft msl = Measurement in feet (ft) relative to mean sea level (msl)
* = Well destroyed July 1995

# TABLE 3
## SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
## DETECTED COMPOUNDS

**Safety-Kleen Service Center**
**400 Market Street**
**Oakland, California**

Semi ann.

| Well No. | | MW-1 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | 04-93 | 07-93 | 10-93 | 01-94 | 04-94 | 07-94 | 10-94 | 01-95 | 04-95 | 07-95 | 10-95 |
| Compound | MCL | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) |
| TPH-mineral spirits | NE | - | - | - | - | - | NS | - | NS | - | NS | - |
| Benzene | 1 | - | - | - | - | - | NS | - | NS | - | NS | - |
| Toluene | 150 | - | - | - | - | - | NS | - | NS | - | NS | - |
| Ethyl-benzene | 700 | - | - | - | - | - | NS | - | NS | - | NS | - |
| Xylenes | 1750 | - | - | - | - | - | NS | - | NS | - | NS | - |
| 1,1-Dichloroethene | 6 | - | - | - | - | - | NS | - | NS | - | NS | - |
| 1,1-Dichloroethane | 5 | - | - | - | - | - | NS | - | NS | - | NS | - |
| 1,2-Dichloroethane | 0.5 | - | - | - | - | - | NS | - | NS | - | NS | - |
| cis-1,2-Dichloroethene | 6 | - | - | - | - | - | NS | - | NS | - | NS | - |
| trans-1,2-Dichloroethene | 10 | - | - | - | - | - | NS | - | NS | - | NS | - |
| Chloroform | NE | - | - | - | - | - | NS | - | NS | - | NS | - |
| 1,1,1-Trichloroethane | 200 | - | - | - | - | - | NS | - | NS | - | NS | - |
| Trichloroethene | 5 | - | - | - | - | - | NS | - | NS | - | NS | - |
| Tetrachloroethene | 5 | - | - | - | - | - | NS | - | NS | 0.7 | NS | - |
| Chlorobenzene | 70 | - | - | - | - | - | NS | - | NS | - | NS | - |
| 1,2-Dichloropropane | 5 | - | - | - | - | - | NS | - | NS | - | NS | - |
| 1,2-Dichlorobenzene | 600 | - | - | - | - | - | NS | - | NS | - | NS | - |
| Trichlorofluoromethane | 150 | - | - | - | - | - | NS | - | NS | - | NS | - |
| Dichlorodifluoromethane | NE | - | - | - | - | - | NS | - | NS | - | NS | - |
| Vinyl chloride | 0.5 | - | - | - | - | - | NS | - | NS | - | NS | - |

| Well No. | | MW-2 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | 04-93 | 07-93 | 10-93 | 01-94 | 04-94 | 07-94 | 10-94 | 01-95 | 04-95 | 07-95 | -85 |
| Compound | MCL | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) |
| TPH-mineral spirits | NE | - | - | - | - | - | - | - | - | - | - | - |
| Benzene | 1 | - | - | - | - | - | - | - | - | - | - | - |
| Toluene | 150 | - | - | - | - | - | - | - | - | - | - | - |
| Ethyl-benzene | 700 | - | - | - | - | - | - | - | - | - | - | - |
| Xylenes | 1750 | - | - | - | - | - | - | - | - | - | - | - |
| 1,1-Dichloroethene | 6 | - | - | - | - | - | - | - | - | - | - | - |
| 1,1-Dichloroethane | 5 | - | - | - | - | - | - | - | - | - | - | - |
| 1,2-Dichloroethane | 0.5 | - | - | - | - | - | - | - | - | - | - | - |
| cis-1,2-Dichloroethene | 6 | - | - | - | - | - | - | - | - | - | - | - |
| trans-1,2-Dichloroethene | 10 | - | - | - | - | - | - | - | - | - | - | - |
| Chloroform | NE | - | - | - | - | - | - | - | - | - | - | - |
| 1,1,1-Trichloroethane | 200 | - | - | - | - | - | - | - | - | - | - | - |
| Trichloroethene | 5 | - | - | - | - | - | - | - | - | - | - | - |
| Tetrachloroethene | 5 | - | - | - | - | - | - | - | - | - | - | - |
| Chlorobenzene | 70 | - | - | - | - | - | - | - | - | - | - | - |
| 1,2-Dichloropropane | 5 | - | - | - | - | - | - | - | - | - | - | - |
| 1,2-Dichlorobenzene | 600 | - | - | - | - | - | - | - | - | - | - | - |
| Trichlorofluoromethane | 150 | - | - | - | - | - | - | - | - | - | - | - |
| Dichlorodifluoromethane | NE | - | - | - | - | - | - | - | - | - | - | - |
| Vinyl chloride | 0.5 | - | - | - | - | - | - | - | - | - | - | - |

# TABLE 3
## SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
## DETECTED COMPOUNDS

**Safety-Kleen Service Center**
**400 Market Street**
**Oakland, California**

| Well No. | | MW-3 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | 04-93 | 07-93 | 10-93 | 01-94 | 04-94 | 07-94 | 10-94 | 01-95 | 04-95 | 07-95 | 10-95 |
| Compound | MCL | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) |
| TPH-mineral spirits | NE | - | - | - | - | - | - | - | - | - | - | - |
| Benzene | 1 | - | - | - | - | - | - | - | - | - | - | - |
| Toluene | 150 | - | - | - | - | - | - | - | - | - | - | - |
| Ethyl-benzene | 700 | - | - | - | - | - | - | - | - | - | - | - |
| Xylenes | 1750 | - | - | - | - | - | - | - | - | - | - | - |
| 1,1-Dichloroethene | 6 | - | - | - | - | - | - | - | - | - | - | - |
| 1,1-Dichloroethane | 5 | - | - | - | - | - | - | - | - | - | - | - |
| 1,2-Dichloroethane | 0.5 | - | - | - | - | - | - | - | - | - | - | - |
| cis-1,2-Dichloroethene | 6 | - | - | - | - | - | - | - | - | - | - | 1 |
| trans-1,2-Dichloroethene | 10 | - | - | - | - | - | - | - | - | - | - | - |
| Chloroform | NE | - | - | - | - | - | - | - | - | - | - | - |
| 1,1,1-Trichloroethane | 200 | - | - | - | - | - | - | - | - | - | - | - |
| Trichloroethene | 5 | 0.7 | - | - | - | - | - | - | - | - | - | - |
| Tetrachloroethene | 5 | - | - | - | - | - | - | - | - | - | - | - |
| Chlorobenzene | 70 | - | - | - | - | - | - | - | - | - | - | - |
| 1,2-Dichloropropane | 5 | - | - | - | - | - | - | - | - | - | - | - |
| 1,2-Dichlorobenzene | 600 | - | - | - | - | - | - | - | - | - | - | - |
| Trichlorofluoromethane | 150 | - | - | - | - | 1.8 | - | - | - | - | - | - |
| Dichlorodifluoromethane | NE | - | - | - | - | - | - | - | - | - | - | - |
| Vinyl chloride | 0.5 | - | - | - | - | - | - | - | - | - | - | - |

| Well No. | | MW-4 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | 04-93 | 07-93 | 10-93 | 01-94 | 04-94 | 07-94 | 10-94 | 01-95 | 04-95 | 07-95 | 10-95 |
| Compound | MCL | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) |
| TPH-mineral spirits | NE | - | - | * 400 | * 270 | * 760 | * 200 | * 330 | ** - | - | - | - |
| Benzene | 1 | - | - | - | - | - | - | - | - | - | - | - |
| Toluene | 150 | - | - | - | - | - | - | - | - | 1.2 | - | - |
| Ethyl-benzene | 700 | - | - | - | - | - | - | - | - | - | - | - |
| Xylenes | 1750 | - | - | - | - | - | - | - | - | - | - | - |
| 1,1-Dichloroethene | 6 | - | - | - | - | - | - | - | 0.7 | 0.8 | 5.2 | 4 |
| 1,1-Dichloroethane | 5 | - | - | - | - | - | - | - | - | - | - | - |
| 1,2-Dichloroethane | 0.5 | - | - | - | - | - | - | - | - | - | - | - |
| cis-1,2-Dichloroethene | 6 | - | - | - | - | - | - | - | - | - | 11.8 | - |
| trans-1,2-Dichloroethene | 10 | - | 53 | 0.6 | 1.1 | 1.7 | - | - | 1.4 | 1 | 3.2 | 3 |
| Chloroform | NE | 7.6 | - | 1.9 | - | 5.0 | - | - | - | - | - | 3 |
| 1,1,1-Trichloroethane | 200 | - | - | - | - | - | - | - | - | - | - | - |
| ~~Trichloroethene~~ TCE | 5 | 2400 | 1100 | - | 790 | 1600 | 410 | 650 | 700 | 440 | 247 | 207 |
| Tetrachloroethene | 5 | - | - | - | - | - | - | - | - | - | - | - |
| Chlorobenzene | 70 | - | - | - | - | - | - | - | - | - | - | - |
| 1,2-Dichloropropane | 5 | - | - | - | - | - | - | - | - | - | - | - |
| 1,2-Dichlorobenzene | 600 | - | - | - | - | - | - | - | - | - | - | - |
| Trichlorofluoromethane | 150 | - | - | - | - | - | - | - | - | - | - | - |
| Dichlorodifluoromethane | NE | - | - | - | - | - | - | - | - | - | - | - |
| Vinyl chloride | 0.5 | - | - | - | - | - | - | - | - | - | - | 1 |

# TABLE 3
## SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
## DETECTED COMPOUNDS

**Safety-Kleen Service Center**
**400 Market Street**
**Oakland, California**

| Well No. | | MW-5 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | 04-93 | 07-93 | 10-93 | 01-94 | 04-94 | 07-94 | 10-94 | 01-95 | 04-95 | 07-95 | 10-95 |
| Compound | MCL | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) |
| TPH-mineral spirits | NE | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Benzene | 1 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Toluene | 150 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Ethyl-benzene | 700 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Xylenes | 1750 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| 1,1-Dichloroethene | 6 | 1.5 | 0.6 | - | - | - | NS | NS | NS | - | NS | NS |
| 1,1-Dichloroethane | 5 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| 1,2-Dichloroethane | 0.5 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| cis-1,2-Dichloroethene | 6 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| trans-1,2-Dichloroethene | 10 | - | - | - | 4.3 | 3.5 | NS | NS | NS | - | NS | NS |
| Chloroform | NE | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| 1,1,1-Trichloroethane | 200 | 4 | 6 | 12 | - | 7.2 | NS | NS | NS | 9.1 | NS | NS |
| Trichloroethene | 5 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Tetrachloroethene | 5 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Chlorobenzene | 70 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| 1,2-Dichloropropane | 5 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| 1,2-Dichlorobenzene | 600 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Trichlorofluoromethane | 150 | 18 | 19 | - | - | 7.9 | NS | NS | NS | - | NS | NS |
| Dichlorodifluoromethane | NE | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Vinyl chloride | 0.5 | - | - | - | - | - | NS | NS | NS | 16 | NS | NS |

| Well No. | | MW-6 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | 04-93 | 07-93 | 10-93 | 01-94 | 04-94 | 07-94 | 10-94 | 01-95 | 04-95 | 07-95 | 10-95 |
| Compound | MCL | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) |
| TPH-mineral spirits | NE | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Benzene | 1 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Toluene | 150 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Ethyl-benzene | 700 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Xylenes | 1750 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| 1,1-Dichloroethene | 6 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| 1,1-Dichloroethane | 5 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| 1,2-Dichloroethane | 0.5 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| cis-1,2-Dichloroethene | 6 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| trans-1,2-Dichloroethene | 10 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Chloroform | NE | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| 1,1,1-Trichloroethane | 200 | - | 5 | 1.3 | - | 1 | NS | NS | NS | 0.4 | NS | NS |
| Trichloroethene | 5 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Tetrachloroethene | 5 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Chlorobenzene | 70 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| 1,2-Dichloropropane | 5 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| 1,2-Dichlorobenzene | 600 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Trichlorofluoromethane | 150 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Dichlorodifluoromethane | NE | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Vinyl chloride | 0.5 | - | - | - | - | - | NS | NS | NS | - | NS | NS |

# TABLE 3
## SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
## DETECTED COMPOUNDS

**Safety-Kleen Service Center**
**400 Market Street**
**Oakland, California**

| Well No. | | MW-8 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | 04-93 | 07-93 | 10-93 | 01-94 | 04-94 | 07-94 | 10-94 | 01-95 | 04-95 | 07-95 | 10-95 |
| Compound | MCL | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) |
| TPH-mineral spirits | NE | - | - | - | * 60 | - | NS | - | - | - | - | - |
| Benzene | 1 | - | - | - | - | - | NS | - | - | - | - | - |
| Toluene | 150 | - | - | - | - | - | NS | - | - | - | - | - |
| Ethyl-benzene | 700 | - | - | - | - | - | NS | - | - | - | - | - |
| Xylenes | 1750 | - | - | - | - | - | NS | - | - | - | - | - |
| 1,1-Dichloroethene | 6 | - | - | - | - | - | NS | - | - | - | 3.5 | 7 |
| 1,1-Dichloroethane | 5 | 3.4 | - | - | 8.6 | 3.7 | NS | 5.5 | - | - | 6.2 | 5 |
| 1,2-Dichloroethane | 0.5 | 7.4 | 5 | 5.2 | 11 | 7.1 | NS | - | - | - | 9.8 | 10 |
| cis-1,2-Dichloroethene | 6 | - | - | - | - | - | NS | - | - | - | 25.57 | 63 |
| trans-1,2-Dichloroethene | 10 | - | 1 | - | - | - | NS | - | - | - | 2.3 | 6 |
| Chloroform | NE | - | - | - | - | - | NS | - | - | - | - | - |
| 1,1,1-Trichloroethane | 200 | - | - | - | 2.5 | 1.5 | NS | - | - | - | - | - |
| ~~Trichloroethene~~ TCE | 5 | 14 | 31 | 15 | 22 | 18 | NS | 23 | 2.6 | 15 | 163 | 557 |
| Tetrachloroethene | 5 | 1.8 | - | - | 2 | 0.8 | NS | - | - | 0.4 | 3.2 | 2 |
| Chlorobenzene | 70 | 11 | - | 5.4 | 16 | - | NS | 2.4 | 1.2 | - | 6.9 | 4 |
| 1,2-Dichloropropane | 5 | 0.6 | - | - | - | 0.8 | NS | - | - | - | - | - |
| 1,2-Dichlorobenzene | 600 | 2.6 | - | - | 4.8 | - | NS | - | - | - | 3.8 | 3 |
| Trichlorofluoromethane | 150 | - | - | - | - | - | NS | - | - | - | - | - |
| Dichlorodifluoromethane | NE | - | - | - | - | - | NS | - | - | - | - | - |
| Vinyl chloride | 0.5 | - | - | - | - | - | NS | - | - | - | 2.6 | 4 |

| Well No. | | MW-10 | | (Abandoned) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | 04-93 | 07-93 | 10-93 | 01-94 | 04-94 | 07-94 | 10-94 | 01-95 | 04-95 | 07-95 | 10-95 |
| Compound | MCL | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) |
| TPH-mineral spirits | NE | - | - | - | - | NS | NS | NS | NS | NS | NS | NS |
| Benzene | 1 | - | - | - | - | NS | NS | NS | NS | NS | NS | NS |
| Toluene | 150 | - | - | - | - | NS | NS | NS | NS | NS | NS | NS |
| Ethyl-benzene | 700 | - | - | - | - | NS | NS | NS | NS | NS | NS | NS |
| Xylenes | 1750 | - | - | - | - | NS | NS | NS | NS | NS | NS | NS |
| 1,1-Dichloroethene | 6 | - | 2 | - | - | NS | NS | NS | NS | NS | NS | NS |
| 1,1-Dichloroethane | 5 | - | - | - | - | NS | NS | NS | NS | NS | NS | NS |
| 1,2-Dichloroethane | 0.5 | - | - | - | - | NS | NS | NS | NS | NS | NS | NS |
| cis-1,2-Dichloroethene | 6 | - | - | - | - | NS | NS | NS | NS | NS | NS | NS |
| trans-1,2-Dichloroethene | 10 | - | 17 | 3 | 0.4 | NS | NS | NS | NS | NS | NS | NS |
| Chloroform | NE | 1.2 | 0.5 | - | - | NS | NS | NS | NS | NS | NS | NS |
| 1,1,1-Trichloroethane | 200 | - | 0.8 | - | - | NS | NS | NS | NS | NS | NS | NS |
| Trichloroethene | 5 | 45 | 54 | 42 | 67 | NS | NS | NS | NS | NS | NS | NS |
| Tetrachloroethene | 5 | - | - | - | - | NS | NS | NS | NS | NS | NS | NS |
| Chlorobenzene | 70 | - | - | - | - | NS | NS | NS | NS | NS | NS | NS |
| 1,2-Dichloropropane | 5 | - | - | - | - | NS | NS | NS | NS | NS | NS | NS |
| 1,2-Dichlorobenzene | 600 | - | - | - | - | NS | NS | NS | NS | NS | NS | NS |
| Trichlorofluoromethane | 150 | - | - | - | - | NS | NS | NS | NS | NS | NS | NS |
| Dichlorodifluoromethane | NE | - | - | - | - | NS | NS | NS | NS | NS | NS | NS |
| Vinyl chloride | 0.5 | - | - | - | - | NS | NS | NS | NS | NS | NS | NS |

# TABLE 3
## SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
## DETECTED COMPOUNDS

**Safety-Kleen Service Center**
**400 Market Street**
**Oakland, California**

| Well No. | | MW-11 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | 04-93 | 07-93 | 10-93 | 01-94 | 04-94 | 07-94 | 10-94 | 01-95 | 04-95 | 07-95 | 10-95 |
| Compound | MCL | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) |
| TPH-mineral spirits | NE | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Benzene | 1 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Toluene | 150 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Ethyl-benzene | 700 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Xylenes | 1750 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| 1,1-Dichloroethene | 6 | - | 2 | - | - | - | NS | NS | NS | - | NS | NS |
| 1,1-Dichloroethane | 5 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| 1,2-Dichloroethane | 0.5 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| cis-1,2-Dichloroethene | 6 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| trans-1,2-Dichloroethene | 10 | - | 3 | - | - | - | NS | NS | NS | - | NS | NS |
| Chloroform | NE | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| 1,1,1-Trichloroethane | 200 | - | 2 | - | - | - | NS | NS | NS | - | NS | NS |
| Trichloroethene | 5 | 9.1 | 36 | 11 | 2.6 | 3.1 | NS | NS | NS | 3.4 | NS | NS |
| Tetrachloroethene | 5 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Chlorobenzene | 70 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| 1,2-Dichloropropane | 5 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| 1,2-Dichlorobenzene | 600 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Trichlorofluoromethane | 150 | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Dichlorodifluoromethane | NE | - | - | - | - | - | NS | NS | NS | - | NS | NS |
| Vinyl chloride | 0.5 | - | - | - | - | - | NS | NS | NS | 1.4 | NS | NS |

| Well No. | | MW-12 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | 04-93 | 07-93 | 10-93 | 01-94 | 04-94 | 07-94 | 10-94 | 01-95 | 04-95 | 07-95 | 10-95 |
| Compound | MCL | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) |
| TPH-mineral spirits | NE | - | - | - | - | - | NS | - | NS | - | NS | - |
| Benzene | 1 | - | - | - | - | - | NS | - | NS | - | NS | - |
| Toluene | 150 | - | - | - | - | - | NS | - | NS | - | NS | - |
| Ethyl-benzene | 700 | - | - | - | - | - | NS | - | NS | - | NS | - |
| Xylenes | 1750 | - | - | - | - | - | NS | - | NS | - | NS | - |
| 1,1-Dichloroethene | 6 | - | - | - | - | - | NS | - | NS | - | NS | 2 |
| 1,1-Dichloroethane | 5 | 2.6 | 2 | - | 2.3 | 1.7 | NS | 1.6 | NS | 3.8 | NS | 4 |
| 1,2-Dichloroethane | 0.5 | - | 2 | - | 1.2 | 1.9 | NS | - | NS | - | NS | 3 |
| cis-1,2-Dichloroethene | 6 | - | - | - | - | - | NS | - | NS | - | NS | 5 |
| trans-1,2-Dichloroethene | 10 | - | 3 | - | - | - | NS | - | NS | - | NS | 2 |
| Chloroform | NE | - | - | - | - | - | NS | - | NS | - | NS | - |
| 1,1,1-Trichloroethane | 200 | - | - | - | - | - | NS | - | NS | - | NS | - |
| Trichloroethene | 5 | 17 | 30 | 34 | 11 | 44 | NS | 24 | NS | 59 | NS | 95 |
| Tetrachloroethene | 5 | - | - | - | - | - | NS | - | NS | - | NS | - |
| Chlorobenzene | 70 | - | - | - | - | - | NS | - | NS | - | NS | - |
| 1,2-Dichloropropane | 5 | - | - | - | - | - | NS | - | NS | - | NS | 2 |
| 1,2-Dichlorobenzene | 600 | - | - | - | - | - | NS | - | NS | - | NS | - |
| Trichlorofluoromethane | 150 | - | - | - | - | - | NS | - | NS | - | NS | - |
| Dichlorodifluoromethane | NE | - | - | - | - | - | NS | - | NS | - | NS | - |
| Vinyl chloride | 0.5 | - | - | - | - | - | NS | - | NS | - | NS | - |

# TABLE 3
## SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
## DETECTED COMPOUNDS

**Safety-Kleen Service Center**
**400 Market Street**
**Oakland, California**

deep well - ann. screened 65' bgs.

| Well No. | | MW-13 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | | 04-93 | 07-93 | 10-93 | 01-94 | 04-94 | 07-94 | 10-94 | 01-95 | 04-95 | 07-95 | 10-95 |
| Compound | MCL | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) |
| TPH-mineral spirits | NE | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| Benzene | 1 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| Toluene | 150 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| Ethyl-benzene | 700 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| Xylenes | 1750 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| 1,1-Dichloroethene | 6 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| 1,1-Dichloroethane | 5 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| 1,2-Dichloroethane | 0.5 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| cis-1,2-Dichloroethene | 6 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| trans-1,2-Dichloroethene | 10 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| Chloroform | NE | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| 1,1,1-Trichloroethane | 200 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| Trichloroethene | 5 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| Tetrachloroethene | 5 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| Chlorobenzene | 70 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| 1,2-Dichloropropane | 5 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| 1,2-Dichlorobenzene | 600 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| Trichlorofluoromethane | 150 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| Dichlorodifluoromethane | NE | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |
| Vinyl chloride | 0.5 | - | NS | NS | NS | - | NS | NS | NS | - | NS | NS |

### LEGEND

MCL = Maximum contaminant level for primary drinking water constituents
NE = Not Established
NS = Not Sampled
- = Not Detected
* The TPH as mineral spirits result is the result of an unknown hydrocarbon consisting of a single peak.

### NOTE

Only compounds detected in one or more samples are included. See the laboratory reports for a complete list of analytes.

# *APPENDIX A*

## *Field Data Sheets*

*SECOR*

# HYDROLOGIC DATA SHEET

| | | | |
|---|---|---|---|
| **PROJECT:** | SAFETY-KLEEN<br>400 MARKET STREET<br>OAKLAND, CALIFORNIA | **PROJECT NO.:** 70005-009-07<br>**TASK:** 001 | |
| **DATE:** OCTOBER 12, 1995 | **TIME START:** 0730 | **TIME END:** 0830 | |
| **EVENT:** | SEMI-ANNUAL MONITORING AND SAMPLING | **PERSONNEL:** | GARY CLIFT |

| WELL ID | TOC | DTW | DTP | PT | TD | ELEV. | COMMENTS |
|---|---|---|---|---|---|---|---|
| MW-1 | 7.99 | 6.61 | - | - | 19.91 | 1.38 | 2" - sampled |
| MW-2 | 8.20 | 7.26 | - | - | 29.20 | 0.94 | 2" - sampled |
| MW-3 | 6.66 | 5.65 | - | - | 29.34 | 1.01 | 2" - sampled |
| MW-4 | 10.32 | 8.51 | - | - | 25.45 | 1.81 | 2" - sampled |
| MW-5 | 10.28 | 8.51 | - | - | - | 1.77 | 2" |
| MW-6 | 8.97 | 7.41 | - | - | - | 1.56 | 2" |
| MW-8 | 7.80 | 6.65 | - | - | 28.90 | 1.15 | 2" - sampled |
| MW-9 | 8.21 | 7.26 | 6.80 | 0.46 | - | 1.32 | 4" |
| MW-11 | 7.91 | 6.49 | - | - | - | 1.42 | 2" |
| MW-12 | 6.74 | 5.80 | - | - | 28.48 | 0.94 | 2" - sampled |
| MW-13 | 8.08 | 7.02 | - | - | - | 1.06 | 4" deep well |
| RW-1 | - | 6.18 | 5.95 | 0.23 | - | - | 10" |

**NOTES:** S-K Laboratory P.O. Number - E11819

TOC = TOP OF CASING (FEET RELATIVE TO MEAN SEA LEVEL)
DTW = DEPTH TO WATER (FEET)
DTP = DEPTH TO PRODUCT (FEET)
PT = PRODUCT THICKNESS (FEET)
TD = TOTAL DEPTH (FEET)
ELEV. = GROUNDWATER ELEVATION (FEET RELATIVE TO MEAN SEA LEVEL)

PROJECT #: 70005-004 PURGED BY: GC WELL I.D.: MW-1

CLIENT NAME: Safety Kleen SAMPLED BY: GC SAMPLE I.D.: MW-1

LOCATION: Oakland QA SAMPLES: —

DATE PURGED 10/12 START (2400hr) 10:45 END (2400hr) 11:10

DATE SAMPLED 10/12 SAMPLE TIME (2400hr) 11:15

SAMPLE TYPE: Groundwater X Surface Water ___ Treatment Effluent ___ Other ___

| CASING DIAMETER: | 2" | 3" | 4" | 5" | 6" | 8" | Other |
|---|---|---|---|---|---|---|---|
| Casing Volume: (gallons per foot) | X (0.17) | ___ (0.38) | ___ (0.67) | ___ (1.02) | ___ (1.50) | ___ (2.60) | ___ ( ) |

DEPTH TO BOTTOM (feet) = 19.91 CASING VOLUME (gal) = 2.26

DEPTH TO WATER (feet) = 6.61 CALCULATED PURGE (gal) = 6.78

WATER COLUMN HEIGHT (feet) = 13.3 ACTUAL PURGE (gal) = 7.00

## FIELD MEASUREMENTS

| DATE | TIME (2400hr) | VOLUME (gal) | TEMP. (degrees F) | CONDUCTIVITY (umhos/cm) | pH (units) | COLOR (visual) | TURBIDITY (~~DEPTH~~ visual) |
|---|---|---|---|---|---|---|---|
| 10/12 | 10:53 | 2.0 | 64.5 | 504 | 8.10 | TAN | med |
| 10/12 | 10:59 | 5.0 | 64.4 | 495 | 8.31 | Cloudy | med |
| 10/12 | 11:05 | 7.0 | 64.1 | 483 | 8.32 | TAN | med |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

## SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: ___ SAMPLE TURBIDITY: —

100% RECHARGE: X YES ___ NO ANALYSES: TPH as MS BTEX 8015, 8021

ODOR: None SAMPLE VESSEL / PRESERVATIVE: 6 HCL VOAs

### PURGING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (PVC)
___ Submersible Pump ___ Bailer (Stainless Steel)
___ Peristaltic Pump X Dedicated ___

Other: ___

Pump Depth: ___

### SAMPLING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump X Bailer ( ___ PVC or X disposable)
___ Submersible Pump ___ Bailer (Stainless Steel)
___ Peristaltic Pump ___ Dedicated ___

Other: ___

WELL INTEGRITY: Good LOCK#: ___

REMARKS: ___

SIGNATURE: JRC

# WATER SAMPLE FIELD DATA SHEET

PROJECT #: 70005-009 | PURGED BY: GC | WELL I.D.: MW-2
CLIENT NAME: Safety Kleen | SAMPLED BY: GC | SAMPLE I.D.: MW-2
LOCATION: Oakland | QA SAMPLES: —

DATE PURGED 10/12 | START (2400hr) 9:35 | END (2400hr) 10:05
DATE SAMPLED 10/12 | SAMPLE TIME (2400hr) 10:10

SAMPLE TYPE: Groundwater X | Surface Water ___ | Treatment Effluent ___ | Other ___

| CASING DIAMETER: | 2" | 3" | 4" | 5" | 6" | 8" | Other |
|---|---|---|---|---|---|---|---|
| Casing Volume: (gallons per foot) | X (0.17) | ___ (0.38) | ___ (0.67) | ___ (1.02) | ___ (1.50) | ___ (2.60) | ___ ( ) |

DEPTH TO BOTTOM (feet) = 29.20 | CASING VOLUME (gal) = 3.72
DEPTH TO WATER (feet) = 7.26 | CALCULATED PURGE (gal) = 11.18
WATER COLUMN HEIGHT (feet) = 21.94 | ACTUAL PURGE (gal) = 11.50

## FIELD MEASUREMENTS

| DATE | TIME (2400hr) | VOLUME (gal) | TEMP. (degrees F) | CONDUCTIVITY (umhos/cm) | pH (units) | COLOR (visual) | TURBIDITY (~~NTU~~) Visual |
|---|---|---|---|---|---|---|---|
| 10/12 | 9:46 | 4.0 | 66.1 | 421 | 7.24 | TAN | med |
| 10/12 | 9:53 | 8.0 | 66.2 | 444 | 7.39 | TAN | med |
| 10/12 | 10:01 | 11.50 | 65.1 | 456 | 7.23 | TAN | med |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |
| | | | | | | | |

## SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: — | SAMPLE TURBIDITY: —

80% RECHARGE: X YES ___ NO | ANALYSES: TPH gs MS BTEX 8015 8021

ODOR: None | SAMPLE VESSEL / PRESERVATIVE: 6 HCL VOAs

### PURGING EQUIPMENT

___ Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
___ Peristaltic Pump
___ Bailer (Teflon)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
X Dedicated DISPOS
Other: ___
Pump Depth: ___

### SAMPLING EQUIPMENT

___ Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
___ Peristaltic Pump
___ Bailer (Teflon)
X Bailer ( ___ PVC or X disposable)
___ Bailer (Stainless Steel)
___ Dedicated ___
Other: ___

WELL INTEGRITY: Good | LOCK#: None

REMARKS: ___

SIGNATURE: JRC

# WATER SAMPLE FIELD DATA SHEET

PROJECT #: 70005-009 | PURGED BY: GC | WELL I.D.: MW-3

CLIENT NAME: Safety Kleen | SAMPLED BY: GC | SAMPLE I.D.: MW-3

LOCATION: Oakland | QA SAMPLES: None

DATE PURGED 10/12 | START (2400hr) 12:30 | END (2400hr) 12:59

DATE SAMPLED 10/12 | SAMPLE TIME (2400hr) 13:10

SAMPLE TYPE: Groundwater Y | Surface Water ____ | Treatment Effluent ____ | Other ____

| CASING DIAMETER: / Casing Volume: (gallons per foot) | 2" X (0.17) | 3" ____ (0.38) | 4" ____ (0.67) | 5" ____ (1.02) | 6" ____ (1.50) | 8" ____ (2.60) | Other ____ ( ) |
|---|---|---|---|---|---|---|---|

DEPTH TO BOTTOM (feet) = 29.34 | CASING VOLUME (gal) = 4.02

DEPTH TO WATER (feet) = 5.65 | CALCULATED PURGE (gal) = 12.08

WATER COLUMN HEIGHT (feet) = 23.69 | ACTUAL PURGE (gal) = 12.50

## FIELD MEASUREMENTS

| DATE | TIME (2400hr) | VOLUME (gal) | TEMP. (degrees F) | CONDUCTIVITY (umhos/cm) | pH (units) | COLOR (visual) | TURBIDITY ~~OBSV~~ Visual |
|---|---|---|---|---|---|---|---|
| 10/12 | 12:36 | 4.00 | 71.1 | 283 | 7.91 | TAN | med |
| 10/12 | 12:45 | 8.00 | 69.6 | 273 | 7.89 | TAN | med |
| 10/12 | 12:55 | 12.50 | 68.9 | 268 | 7.89 | TAN | med |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |
| | | | | | | | |

## SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: — | SAMPLE TURBIDITY: —

% RECHARGE: X YES __ NO | ANALYSES: TPH as MS, BTEX, 8015, 8021

ODOR: ____ | SAMPLE VESSEL / PRESERVATIVE: 6 HCL VOAs

### PURGING EQUIPMENT

___ Bladder Pump | ___ Bailer (Teflon)

___ Centrifugal Pump | ___ Bailer (PVC)

___ Submersible Pump | ___ Bailer (Stainless Steel)

___ Peristaltic Pump | X Dedicated Sirlos

Other: ____

Pump Depth: ____

### SAMPLING EQUIPMENT

___ Bladder Pump | ___ Bailer (Teflon)

___ Centrifugal Pump | X Bailer ( ___ PVC or X disposable)

___ Submersible Pump | ___ Bailer (Stainless Steel)

___ Peristaltic Pump | ___ Dedicated ____

Other: ____

WELL INTEGRITY: Good | LOCK#: ____

REMARKS: ____

SIGNATURE: JRC

# WATER SAMPLE FIELD DATA SHEET

PROJECT #: 70005-009 | PURGED BY: GC | WELL I.D.: MW-4

CLIENT NAME: Safety Kleen | SAMPLED BY: GC | SAMPLE I.D.: MW-4

LOCATION: Oakland | QA SAMPLES: —

DATE PURGED 10/12 | START (2400hr) 11:35 | END (2400hr) 11:57

DATE SAMPLED 10/12 | SAMPLE TIME (2400hr) 12:10

SAMPLE TYPE: Groundwater X | Surface Water ___ | Treatment Effluent ___ | Other ___

| CASING DIAMETER: | 2" | 3" | 4" | 5" | 6" | 8" | Other |
|---|---|---|---|---|---|---|---|
| Casing Volume: (gallons per foot) | X (0.17) | ___ (0.38) | ___ (0.67) | ___ (1.02) | ___ (1.50) | ___ (2.60) | ___ ( ) |

DEPTH TO BOTTOM (feet) = 25.45 | CASING VOLUME (gal) = 2.87

DEPTH TO WATER (feet) = 8.51 | CALCULATED PURGE (gal) = 8.63

WATER COLUMN HEIGHT (feet) = 16.94 | ACTUAL PURGE (gal) = 9.00

## FIELD MEASUREMENTS

| DATE | TIME (2400hr) | VOLUME (gal) | TEMP. (degrees F) | CONDUCTIVITY (umhos/cm) | pH (units) | COLOR (visual) | TURBIDITY (visual) |
|---|---|---|---|---|---|---|---|
| 10/12 | 11:40 | 3.0 | 66.7 | 820 | 7.88 | TAN | High |
| 10/12 | 11:45 | 6.0 | 69.9 | 8.24 | 7.99 | TAN | High |
| 10/12 | 11:52 | 9.0 | 71.0 | 834 | 8.00 | TAN | High |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

## SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: — | SAMPLE TURBIDITY: —

80% RECHARGE: X YES ___ NO | ANALYSES: TPH as MS DRO 8015, 8021

ODOR: None | SAMPLE VESSEL / PRESERVATIVE: 6 HCL VOAs

### PURGING EQUIPMENT

___ Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
___ Peristaltic Pump
___ Bailer (Teflon)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
X Dedicated DIS/VOS

Other: ___

Pump Depth: ___

### SAMPLING EQUIPMENT

___ Bladder Pump
___ Centrifugal Pump
___ Submersible Pump
___ Peristaltic Pump
___ Bailer (Teflon)
X Bailer ( ___ PVC or X disposable)
___ Bailer (Stainless Steel)
___ Dedicated ___

Other: ___

WELL INTEGRITY: Good | LOCK#: ___

REMARKS: ___

SIGNATURE: GRC

PROJECT #: 70005-009 PURGED BY: GC WELL I.D.: MW-8

CLIENT NAME: Safety Kleen SAMPLED BY: GC SAMPLE I.D.: MW-8

LOCATION: Oakland QA SAMPLES: —

DATE PURGED 10/12 START (2400hr) 13:35 END (2400hr) 13:57

DATE SAMPLED 10/12 SAMPLE TIME (2400hr) 14:00

SAMPLE TYPE: Groundwater X Surface Water ___ Treatment Effluent ___ Other ___

| CASING DIAMETER: | 2" | 3" | 4" | 5" | 6" | 8" | Other |
|---|---|---|---|---|---|---|---|
| Casing Volume: (gallons per foot) | X (0.17) | ___ (0.38) | ___ (0.67) | ___ (1.02) | ___ (1.50) | ___ (2.60) | ___ ( ) |

DEPTH TO BOTTOM (feet) = 28.90 CASING VOLUME (gal) = 3.78

DEPTH TO WATER (feet) = 6.65 CALCULATED PURGE (gal) = 11.34

WATER COLUMN HEIGHT (feet) = 22.25 ACTUAL PURGE (gal) = 11.50

## FIELD MEASUREMENTS

| DATE | TIME (2400hr) | VOLUME (gal) | TEMP. (degrees F) | CONDUCTIVITY (umhos/cm) | pH (units) | COLOR (visual) | TURBIDITY (~~NTU~~) visual |
|---|---|---|---|---|---|---|---|
| 10/12 | 13:37 | 3.5 | 67.8 | 600 | 7.86 | Clear | low |
| 10/12 | 13:43 | 7.5 | 66.8 | 635 | 7.78 | Clear | low |
| 10/12 | 13:50 | 11.5 | 66.2 | 637 | 7.77 | Clear | low |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

## SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: — SAMPLE TURBIDITY: —

100% RECHARGE: X YES ___ NO ANALYSES: TPHgas MS, BTEX 8015, 8021

ODOR: None SAMPLE VESSEL / PRESERVATIVE: 6 HCL 1 HCL

### PURGING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump ___ Bailer (PVC)
___ Submersible Pump ___ Bailer (Stainless Steel)
___ Peristaltic Pump X Dedicated ~~DISP~~

Other: ___

Pump Depth: ___

### SAMPLING EQUIPMENT

___ Bladder Pump ___ Bailer (Teflon)
___ Centrifugal Pump X Bailer ( ___ PVC or X disposable)
___ Submersible Pump ___ Bailer (Stainless Steel)
___ Peristaltic Pump ___ Dedicated ___

Other: ___

WELL INTEGRITY: Good LOCK#: ___

REMARKS: ___

SIGNATURE: JRC

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 70005-009 | PURGED BY: GC | WELL I.D.: MW-12

CLIENT NAME: Safety Kleen | SAMPLED BY: GC | SAMPLE I.D.: MW-12

LOCATION: Oakland | QA SAMPLES: —

DATE PURGED 10/12 | START (2400hr) 8:55 | END (2400hr) 9:20

DATE SAMPLED 10/12 | SAMPLE TIME (2400hr) 9:30

SAMPLE TYPE: Groundwater X | Surface Water ___ | Treatment Effluent ___ | Other ___

| CASING DIAMETER: | 2" | 3" | 4" | 5" | 6" | 8" | Other |
|---|---|---|---|---|---|---|---|
| Casing Volume: (gallons per foot) | X (0.17) | ___ (0.38) | ___ (0.67) | ___ (1.02) | ___ (1.50) | ___ (2.60) | ___ ( ) |

DEPTH TO BOTTOM (feet) = 28.48 | CASING VOLUME (gal) = 3.85

DEPTH TO WATER (feet) = 5.80 | CALCULATED PURGE (gal) = 11.56

WATER COLUMN HEIGHT (feet) = 22.68 | ACTUAL PURGE (gal) = 12.75

FIELD MEASUREMENTS

| DATE | TIME (2400hr) | VOLUME (gal) | TEMP. (degrees F) | CONDUCTIVITY (umhos/cm) | pH (units) | COLOR (visual) | TURBIDITY (~~HACH~~ visual) |
|---|---|---|---|---|---|---|---|
| 10/12 | 9:05 | 4.0 | 63.4 | 916 | 7.10 | Cloudy | low |
| 10/12 | 9:11 | 8.0 | 63.4 | 888 | 7.06 | Cloudy | low |
| 10/12 | 9:18 | 11.75 | 62.8 | 870 | 7.04 | Cloudy | low |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: — | SAMPLE TURBIDITY: —

% RECHARGE: X YES ___ NO | ANALYSES: TPH 15 MS 8015 BTEX 8021

PRESERVATIVE: None | SAMPLE VESSEL / PRESERVATIVE: 6 HCL VOAs

PURGING EQUIPMENT

___ Bladder Pump | ___ Bailer (Teflon)
___ Centrifugal Pump | ___ Bailer (PVC)
___ Submersible Pump | ___ Bailer (Stainless Steel)
___ Peristaltic Pump | X Dedicated Disp

Other: ___

Pump Depth: —

SAMPLING EQUIPMENT

___ Bladder Pump | ___ Bailer (Teflon)
___ Centrifugal Pump | X Bailer ( ___ PVC or X disposable)
___ Submersible Pump | ___ Bailer (Stainless Steel)
___ Peristaltic Pump | ___ Dedicated ___

Other: ___

WELL INTEGRITY: Good | LOCK#: ___

REMARKS: ___

SIGNATURE: GRC

*APPENDIX B*

*Laboratory Reports - Groundwater*

safety-kleen®

October 30, 1995

Mr. Greg Hoehn
Secor International
1390 Willow Pass Road
Suite 360
Concord, CA 94520

Re: SK Lab Project #95-200
Project ID Name: Oakland, CA
Project #: 70005-009-007

Dear Greg:

Enclosed please find the analytical results for the sample received by SK Environmental Laboratory on 10/16/95.

A formal Quality Control/Quality Assurance program is maintained by Safety-Kleen, which is designed to meet or exceed the EPA requirements. This information is available upon request.

If you have any questions concerning this analysis, or if we can be of further assistance, please contact Rick Cook at 312-825-7351.

Sincerely,

Mark A. Hartwig
Environmental Lab Manager

MAH:jt

cc: Chip Prokop

Allan A. Manteuffel Technical Center

P.O. Box 92050
Elk Grove Village, IL
60009-2050

12555 W. Old Higgins Rd.
Elk Grove Village, IL 60007
Telephone: 312/694-2700
Fax: 312/825-7850

Project ID #: 70005-009-007
Project ID Name: Oakland, CA
SK Lab Project #: 95-200
Date Reported: 10/30/95

# ANALYTICAL RESULTS

## Total Petroleum Hydrocarbons as Mineral Spirits in Water

Modified EPA Method 8015

Extraction By EPA Method 5030

| Work Order # | Collector's Sample # | Date Sampled | Date Extracted | Date Analyzed | Concentration ug/L |
|---|---|---|---|---|---|
| 01 | MW-1 | 10/12/95 | 10/19/95 | 10/19/95 | <50 |
| 02 | MW-2 | 10/12/95 | 10/26/95 | 10/26/95 | <50 |
| 03 | MW-3 | 10/12/95 | 10/19/95 | 10/19/95 | <50 |
| 04 | MW-4 | 10/12/95 | 10/26/95 | 10/26/95 | <50 |
| 05 | MW-8 | 10/12/95 | 10/26/95 | 10/26/95 | <50 |
| 06 | MW-12 | 10/12/95 | 10/26/95 | 10/26/95 | <50 |

Analytical Review / Date: 10/30/95

Project ID #: 70005-009-007
Project ID Name: Oakland, CA
SK Lab Project #: 95-200
Date Reported: 10/30/95

# ANALYTICAL RESULTS

## Volatile Organics in Water

EPA Method 8021

| | Work Order # | 01 | 02 | 03 | 04 | 05 | 06 |
|---|---|---|---|---|---|---|---|
| | Collector's Sample # | MW-1 | MW-2 | MW-3 | MW-4 | MW-8 | MW-12 |
| | Date Sampled | 10/12/95 | 10/12/95 | 10/12/95 | 10/12/95 | 10/12/95 | 10/12/95 |
| | Date Analyzed | 10/20/95 | 10/20/95 | 10/20/95 | 10/20/95 | 10/20/95 | 10/20/95 |
| | Dilution Factor | 1 | 1 | 1 | 1 | 1 | 1 |
| Analyte | Report Limit µg/L | Concentration µg/L | | | | | |
| Benzene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromobenzene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromochloromethane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromodichloromethane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromoform | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Bromomethane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| n-Butylbenzene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| sec-Butylbenzene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| tert-Butylbenzene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Carbon Tetrachloride | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chlorobenzene | 1 | <1 | <1 | <1 | <1 | 4 | <1 |
| Chlorodibromomethane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroethane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Chloroform | 1 | <1 | <1 | <1 | 3 | <1 | <1 |
| Chloromethane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 2-Chlorotoluene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 4-Chlorotoluene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-Dibromo-3-chloropropane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-Dibromoethane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Dibromomethane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2-Dichlorobenzene | 1 | <1 | <1 | <1 | <1 | 3 | <1 |
| 1,3-Dichlorobenzene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |

Project ID #: 70005-009-007
Project ID Name: Oakland, CA
SK Lab Project #: 95-200
Date Reported: 10/30/95

# ANALYTICAL RESULTS

## Volatile Organics in Water

EPA Method 8021

| | Work Order # | 01 | 02 | 03 | 04 | 05 | 06 |
|---|---|---|---|---|---|---|---|
| | Collector's Sample # | MW-1 | MW-2 | MW-3 | MW-4 | MW-8 | MW-12 |
| | Date Sampled | 10/12/95 | 10/12/95 | 10/12/95 | 10/12/95 | 10/12/95 | 10/12/95 |
| | Date Analyzed | 10/20/95 | 10/20/95 | 10/20/95 | 10/20/95 | 10/20/95 | 10/20/95 |
| | Dilution Factor | 1 | 1 | 1 | 1 | 1 | 1 |
| Analyte | Report Limit µg/L | Concentration µg/L | | | | | |
| 1,4-Dichlorobenzene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| ichlorodifluoromethane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-Dichloroethane | 1 | <1 | <1 | <1 | <1 | 5 | 4 |
| ,2-Dichloroethane | 1 | <1 | <1 | <1 | <1 | 10 | 3 |
| 1,1-Dichloroethene | 1 | <1 | <1 | <1 | 4 | 7 | 2 |
| is-1,2-Dichloroethene | 1 | <1 | <1 | 1 | <1 | 63** | 5 |
| trans-1,2-Dichloroethene | 1 | <1 | <1 | <1 | 3 | 6 | 2 |
| ,2-Dichloropropane | 1 | <1 | <1 | <1 | <1 | <1 | 2 |
| 1,3-Dichloropropane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| ,2-Dichloropropane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1-Dichloropropene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| is-1,3-dichloropropene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| trans-1,3-dichloropropene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| thylbenzene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Hexachlorobutadiene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| sopropylbenzene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| p-Isopropyltoluene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Methylene Chloride | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Naphthalene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| -Propylbenzene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Styrene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| ,1,1,2-Tetrachloroethane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |

Project ID #: 70005-009-007
Project ID Name: Oakland, CA
SK Lab Project #: 95-200
Date Reported: 10/30/95

# ANALYTICAL RESULTS

## Volatile Organics in Water

EPA Method 8021

| Work Order # | | 01 | 02 | 03 | 04 | 05 | 06 |
|---|---|---|---|---|---|---|---|
| Collector's Sample # | | MW-1 | MW-2 | MW-3 | MW-4 | MW-8 | MW-12 |
| Date Sampled | | 10/12/95 | 10/12/95 | 10/12/95 | 10/12/95 | 10/12/95 | 10/12/95 |
| Date Analyzed | | 10/20/95 | 10/20/95 | 10/20/95 | 10/20/95 | 10/20/95 | 10/20/95 |
| Dilution Factor | | 1 | 1 | 1 | 1 | 1 | 1 |
| Analyte | Report Limit µg/L | Concentration µg/L | | | | | |
| 1,1,2,2-Tetrachloroethane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Tetrachloroethene | 1 | <1 | <1 | <1 | <1 | 2 | <1 |
| Toluene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2,3-Trichlorobenzene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2,4-Trichlorobenzene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,1-Trichloroethane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,1,2-Trichloroethane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Trichloroethene | 1 | <1 | <1 | <1 | 207* | 557* | 95*** |
| Trichlorofluoromethane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2,3-Trichloropropane | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,2,4-Trimethylbenzene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 1,3,5-Trimethylbenzene | 1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Vinyl Chloride | 1 | <1 | <1 | <1 | 1 | 4 | <1 |
| Xylenes (Total) | 1 | <1 | <1 | <1 | <1 | <1 | <1 |

* Analyzed on 10/26/95 with a 1:100 dilution.

** Analyzed on 10/26/95 with a 1:25 dilution.

*** Analyzed on 10/26/95 with a 1:10 dilution.

Analytical Review / Date: 10/30/95

Project ID #: 70005-009-007
Project ID Name: Oakland, CA
SK Lab Project #: 95-200
Date Reported: 10/30/95

# ANALYTICAL RESULTS

## Volatile Organics in Water

EPA Method 8021

| | | |
|---|---|---|
| | **Work Order #** | 07 |
| | **Collector's Sample #** | Trip Blank |
| | **Date Sampled** | 10/12/95 |
| | **Date Analyzed** | 10/20/95 |
| | **Dilution Factor** | 1 |
| **Analyte** | **Report Limit µg/L** | **Concentration µg/L** |
| Benzene | 1 | <1 |
| Bromobenzene | 1 | <1 |
| Bromochloromethane | 1 | <1 |
| Bromodichloromethane | 1 | <1 |
| Bromoform | 1 | <1 |
| Bromomethane | 1 | <1 |
| n-Butylbenzene | 1 | <1 |
| sec-Butylbenzene | 1 | <1 |
| tert-Butylbenzene | 1 | <1 |
| Carbon Tetrachloride | 1 | <1 |
| Chlorobenzene | 1 | <1 |
| Chlorodibromomethane | 1 | <1 |
| Chloroethane | 1 | <1 |
| Chloroform | 1 | <1 |
| Chloromethane | 1 | <1 |
| 2-Chlorotoluene | 1 | <1 |
| 4-Chlorotoluene | 1 | <1 |
| 1,2-Dibromo-3-chloropropane | 1 | <1 |
| 1,2-Dibromoethane | 1 | <1 |
| Dibromomethane | 1 | <1 |
| 1,2-Dichlorobenzene | 1 | <1 |
| 1,3-Dichlorobenzene | 1 | <1 |

Project ID #: 70005-009-007
Project ID Name: Oakland, CA
SK Lab Project #: 95-200
Date Reported: 10/30/95

# ANALYTICAL RESULTS

## Volatile Organics in Water

EPA Method 8021

| | | |
|---|---|---|
| | **Work Order #** | 07 |
| | **Collector's Sample #** | Trip Blank |
| | **Date Sampled** | 10/12/95 |
| | **Date Analyzed** | 10/20/95 |
| | **Dilution Factor** | 1 |
| **Analyte** | **Report Limit µg/L** | **Concentration µg/L** |
| 1,4-Dichlorobenzene | 1 | <1 |
| Dichlorodifluoromethane | 1 | <1 |
| 1,1-Dichloroethane | 1 | <1 |
| 1,2-Dichloroethane | 1 | <1 |
| 1,1-Dichloroethene | 1 | <1 |
| cis-1,2-Dichloroethene | 1 | <1 |
| trans-1,2-Dichloroethene | 1 | <1 |
| 1,2-Dichloropropane | 1 | <1 |
| 1,3-Dichloropropane | 1 | <1 |
| 2,2-Dichloropropane | 1 | <1 |
| 1,1-Dichloropropene | 1 | <1 |
| cis-1,3-dichloropropene | 1 | <1 |
| trans-1,3-dichloropropene | 1 | <1 |
| Ethylbenzene | 1 | <1 |
| Hexachlorobutadiene | 1 | <1 |
| Isopropylbenzene | 1 | <1 |
| p-Isopropyltoluene | 1 | <1 |
| Methylene Chloride | 1 | <1 |
| Naphthalene | 1 | <1 |
| n-Propylbenzene | 1 | <1 |
| Styrene | 1 | <1 |
| 1,1,1,2-Tetrachloroethane | 1 | <1 |

Project ID #: 70005-009-007
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# ANALYTICAL RESULTS

## Volatile Organics in Water

EPA Method 8021

| | |
|---|---|
| **Work Order #** | 07 |
| **Collector's Sample #** | Trip Blank |
| **Date Sampled** | 10/12/95 |
| **Date Analyzed** | 10/20/95 |
| **Dilution Factor** | 1 |

| Analyte | Report Limit µg/L | Concentration µg/L |
|---|---|---|
| 1,1,2,2-Tetrachloroethane | 1 | <1 |
| Tetrachloroethene | 1 | <1 |
| Toluene | 1 | <1 |
| 1,2,3-Trichlorobenzene | 1 | <1 |
| 1,2,4-Trichlorobenzene | 1 | <1 |
| 1,1,1-Trichloroethane | 1 | <1 |
| 1,1,2-Trichloroethane | 1 | <1 |
| Trichloroethene | 1 | <1 |
| Trichlorofluoromethane | 1 | <1 |
| 1,2,3-Trichloropropane | 1 | <1 |
| 1,2,4-Trimethylbenzene | 1 | <1 |
| 1,3,5-Trimethylbenzene | 1 | <1 |
| Vinyl Chloride | 1 | <1 |
| Xylenes (Total) | 1 | <1 |

Analytical Review / Date: 10/30/95