93-e39

DEPARTMENT OF ECOLOGY WA-12-1115GW

November 22, 1993

TO: Martha Maggi, Toxics Cleanup Program

FROM: Pam Marti, Environmental Investigations & Laboratory Services

SUBJECT: Lakewood/Plaza Cleaners Long-term Monitoring Round VI

Attached are your copies of the technical memo which summarizes the findings of Sample Round VI for Lakewood/Plaza Cleaners, conducted May 3-4, 1993. The analytical quantitation limits were above the Model Toxics Control Act (MTCA) cleanup levels for ground water, therefore, contaminants were detected in only a few of the wells this sample round. I have contacted the laboratory and quantitation limits for future sampling events should be below MTCA cleanup levels. Low levels of tetrachloroethylene (PERC) and 1,2-dichloroethylene (1,2-DCE) were detected in monitoring wells MW-16A and MW-21. Concentrations of PERC increased in well MW-20B from 340 ppb in December 1992 to 700 ppb in May 1993. Two soil samples were collected from a nearby drainage ditch due to concern of runoff from on-site contaminated soil stockpiles. No volatile organics were detected in the soil samples.

I will be conducting Sample Round VII in November 1993. If you have any questions or comments please call me at 407-6768 or stop by my cubicle #C2D-05.

PM:krc
Attachment

cc: Lynn Singleton
Bill Yake
Kathy Reed, TCP Library
Bob Kievit, EPA
Tim Nord, TCP Site Cleanup Section Supervisor
Bert Bowen, Water Quality

LAKEWOOD/PLAZA CLEANERS
LONG-TERM MONITORING ROUND VI
MAY 3-4, 1993

by Pamela B. Marti
November 22, 1993

Washington State Department of Ecology
Environmental Investigations and Laboratory Services Program
Toxics, Compliance and Ground Water Investigations Section
Olympia, Washington 98504-7710

Water Body No. WA-12-1115
(Segment No. 05-12-GW)

ABSTRACT

Routine monitoring was conducted at Lakewood/Plaza Cleaners on May 3-4, 1993, in compliance with the Record of Decision (ROD). Ground water samples were collected from eight monitoring wells. The analytical quantitation limits used were above the Model Toxics Control Act (MTCA) cleanup levels for ground water, therefore contaminants were detected in only a few wells this sample round. Low levels of tetrachloroethylene and 1,2-dichloroethylene were detected in monitoring wells MW-16A and MW-21. Well MW-20B continues to have the highest concentrations of any of the wells sampled. Tetrachloroethylene concentrations increased in well MW-20B from 340 ppb in December 1992 to 700 ppb in May 1993. Tetrachloroethylene concentrations are similar to those reported in previous sample rounds. Two soil samples were collected from a nearby drainage ditch due to concern of runoff from on-site contaminated soil stockpiles. No volatile organics were detected in the soil samples.

OBJECTIVES

The Toxics Cleanup Program (TCP) requested that the Toxics, Compliance, and Ground Water Investigations Section conduct long-term monitoring of ground water at the Lakewood/Plaza Cleaners Site on a semi-annual basis. Monitoring objectives are as follows:

1. Collect ground water quality data that can be used to evaluate the effectiveness of continued operation of wells H1 and H2 to contain and remove contaminated ground water from the aquifer.

2. Monitor ground water upgradient of the site annually to determine if contaminants are migrating toward H1 and H2 from McChord Air Force Base (MCAFB).

SITE BACKGROUND

In 1981, tetrachloroethylene (PERC), trichloroethylene (TCE), and 1,2-dichloroethylene (1,2-DCE) were detected in two Lakewood Water District supply wells (wells H1 and H2), as shown on Figure 1. On-site disposal of waste solvents and sludges at Plaza Cleaners, located 800 feet north of the wells, was identified as the source of contamination. Site remediation consisted of removal of contaminated sludge and soils, soil-vapor extraction and installation of two air-stripping towers for wells H1 and H2.

Results from on-site monitoring wells between 1985 to 1990 showed that the pump and treat system had contained and reduced the level of ground water contamination (CH2M Hill, 1990a). A 1986 concentration contour map showed a portion of the contaminated plume located northwest of the site was not being captured by remedial pumping (CH2M Hill, 1988). However, contaminant concentrations in the uncaptured plume were decreasing; possibly due to biodegradation, dispersion and/or dilution. Additional soil was excavated from Plaza Cleaners in the summer of 1992.

Upgradient monitoring wells were installed to detect possible contaminant migration from the adjacent McChord Air Force Base (MCAFB). Previous studies (EPA, 1985) indicated potential contamination sources from MCAFB are located within the long-term capture zone of wells H1 and H2. Possible contaminants from MCAFB include hydrocarbons, pesticides, and heavy metals. Upgradient monitoring wells MW-19A and MW-40 have been sampled annually.

Geology of the study area was defined in the Final Draft Remedial Investigation Report for Ponder's Corner, Washington, (EPA, 1985) as consisting of four geologic units which are listed in order of increased depth; the Steilacoom Gravel, Vashon Till, Advance Outwash, and the Colvos Sands. The main units of interest are the Steilacoom Gravel, Vashon Till and Advance Outwash. The Steilacoom Gravel is found throughout most of the study area and ranges in thickness from 1 to 58 feet. This unit often contains perched water. The Vashon Till underlies the Steilacoom Gravel and ranges in thickness from 8 to 92 feet. Over most of the site the till (a mixture of clay, silt, sand and gravel) forms an aquitard separating the Steilacoom Gravel, above, from the Advance Outwash, below. The Advance Outwash is the primary aquifer for the area. The predominant horizontal flow in the Advance Outwash is west-northwest when production wells H1 and H2 are not in use. When in use, the wells create a large cone of depression. Previous studies showed that drawdowns occur in shallow monitoring wells drilled in the Steilacoom gravel when H1 and H2 are pumping (EPA, 1985). This indicates some hydraulic interconnection between the Steilacoom Gravel and the Advance Outwash.

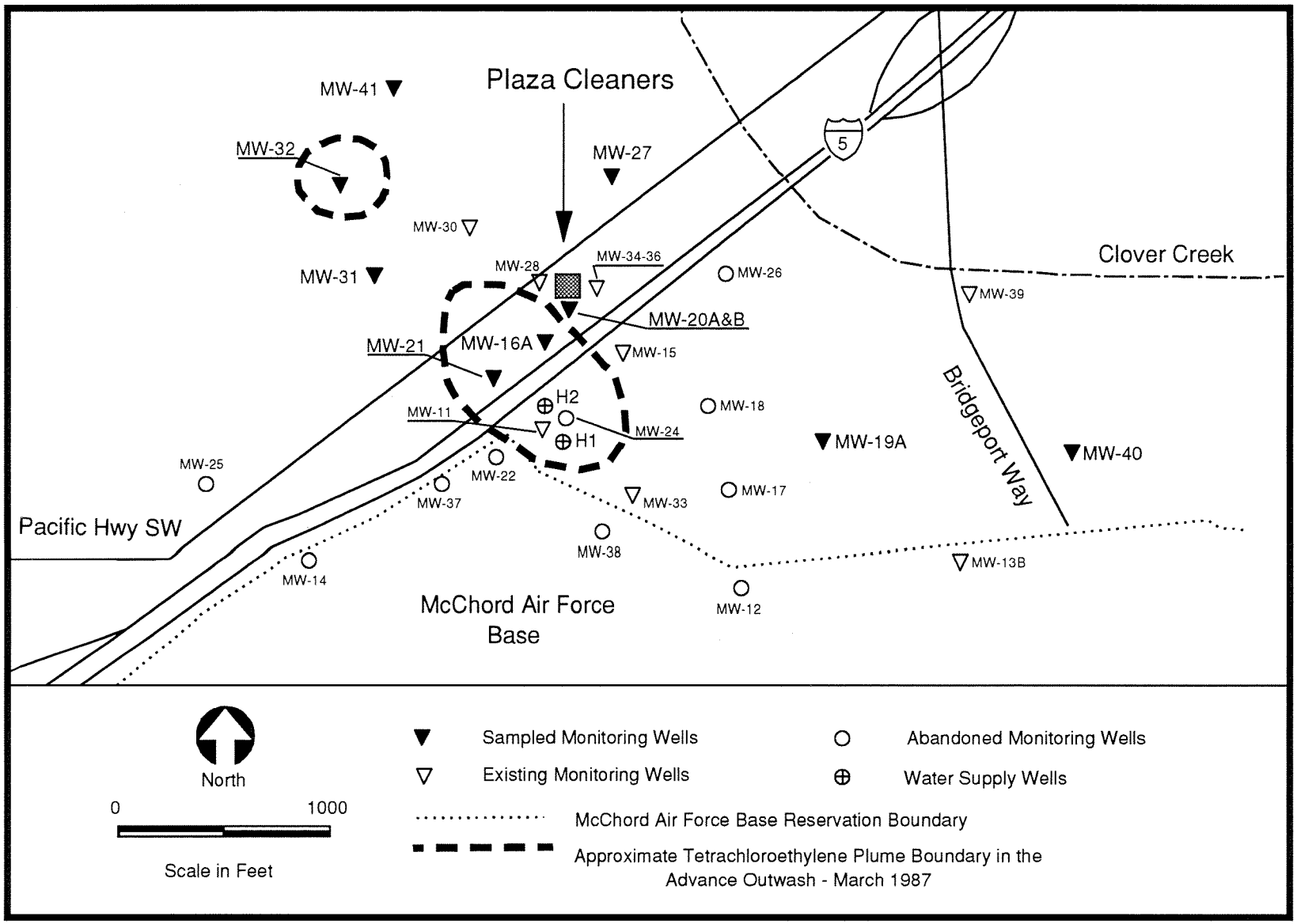

Figure 1: Well Location Map - Lakewood/Plaza Cleaners

METHODS

Ground Water Sampling

Samples were collected on May 3-4, 1993, from MW-16A, MW-20A, MW-20B, MW-21, MW-27, MW-31, MW-32, and MW-41 (Figure 2). Prior to sample collection, static water level measurements were obtained using an electronic water level indicator which was rinsed with deionized water after each use. All monitoring wells were purged until a minimum of three well volumes had been removed and pH, temperature, and specific conductance readings stabilized. Purge water was discharged to storm drains or to the ground near each monitoring well. All wells but one (MW-20B) were purged and sampled using dedicated bladder pumps. Well MW-20B was purged and sampled with a decontaminated teflon bailer.

Wells were sampled from the least to most contaminated. Samples collected for volatile organics were free of headspace and preserved with two drops of 1:1 hydrochloric acid. Volatile organic samples were analyzed using EPA SW-846 Method 8240 (EPA, 1986).

The bailer was pre-cleaned with a Liquinox® wash and sequential rinses of hot tap water, 10% nitric acid, distilled/deionized water, and pesticide-grade acetone. After cleaning, the bailer was air-dried and wrapped in aluminum foil. Chain-of-custody procedures were followed in accordance with Manchester Laboratory protocol (Ecology, 1991).

Soil Sampling

Two shallow soil samples were collected from the drainage ditch between Plaza Cleaners and Interstate-5. Prior to sampling all vegetation was removed with a shovel. Soil beneath the vegetation layer was removed with a stainless steel spoon, and placed in the appropriate containers. Samples were collected with a minimum of headspace and analyzed for volatile organics using EPA SW-846 Method 8240 (EPA, 1986).

Quality Assurance Samples

In general the quality of the data is acceptable for use, however, the quantitation limits were above the Model Toxics Control Act (MTCA) cleanup levels for ground water.

Quality control samples collected in the field for the ground water monitoring consisted of a transfer blank, transport blank, a blind duplicate, and a replicate sample. A transfer blank was collected by pouring organic-free water through a decontaminated bailer. A transport blank was carried unopened throughout the sampling event. A blind duplicate sample, labeled MW-16B, was collected from well MW-16A. Duplicate samples are two sets of samples collected from a well simultaneously and submitted to the laboratory with different identification. A replicate sample, labeled MW-20A**, was collected from well MW-20A. Replicate samples are two sets of samples collected from a well at different times. In

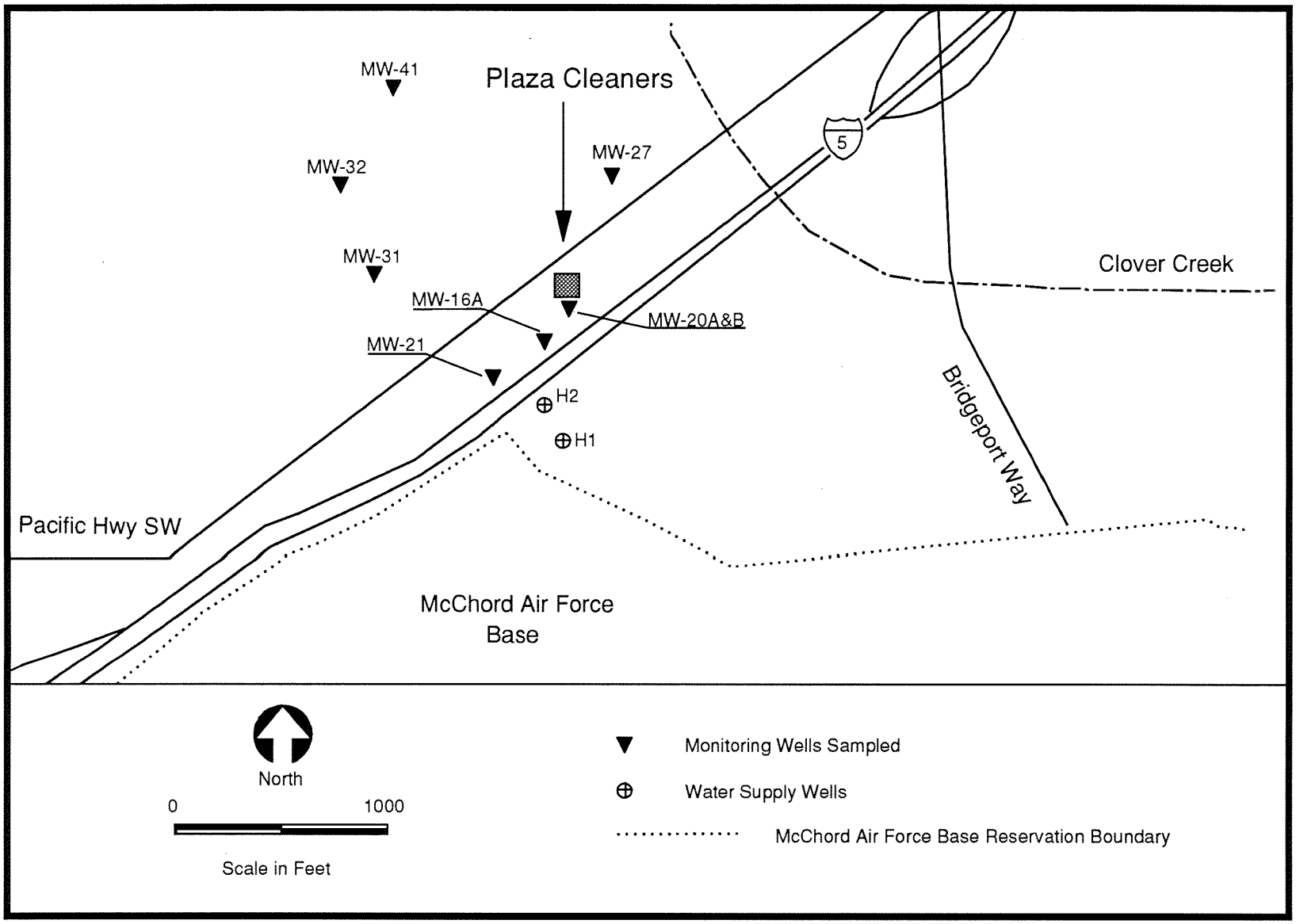

Figure 2: Lakewood/Plaza Cleaners Sample Locations for May 1993

addition to quality control samples collected in the field, laboratory quality assurance samples consisted of matrix spikes, matrix spike duplicates and surrogate compound recoveries.

Volatile organic analyses were performed by Weyerhaeuser Analytical and Testing Services. Karin Feddersen of the Manchester Laboratory conducted the quality assurance review, which has been included in Appendix A. Acetone was detected in the transfer blank as well as in one sample. The presence of acetone is probably due to the bailer cleaning procedures.

Duplicate samples collected at MW-16A provide an estimate of combined sampling and laboratory precision. The numeric comparison of duplicate results is expressed as the relative percent difference or RPD. RPDs are the ratio of the difference and the mean of the duplicate results expressed as a percentage. The RPDs for tetrachloroethylene (PERC) and 1,2-dichloroethylene were 0%. Matrix spike and spike duplicate recoveries for volatile organics are within the QC limits of $\pm 25\%$ for water sample analysis.

RESULTS

Field Observations

Table 1 lists field observation data including well depth, geologic unit, static water level, pH, specific conductance, temperature, and purged volume in order the wells were sampled. Depth to water ranged from 27.95 to 60.03 feet. Stabilized field measurements for pH, specific conductance and temperature ranged as follows: pH from 6.8 to 7.5 standard units, specific conductance from 185 to 700 umhos/cm and temperature from 11.4 to 13.8 °C. Well MW-20A had a pH reading of 8.8 standard units, which is consistent with previous measurements. High pH readings in MW-20A are most likely related to well construction. Well MW-20B had a higher specific conductance reading (700 umhos/cm) than other wells. A higher specific conductance is expected for samples from the Vashon Till compared to samples from the Advance Outwash.

Analytical Results

Table 2 summarizes analytical results for sample Round VI conducted on May 3-4, 1993. Tetrachloroethylene (PERC) was detected in well MW-16A at a concentration of 44 ppb. This is the highest PERC concentration in this well since the beginning of Ecology's monitoring in January 1991. Tetrachloroethylene was detected in well MW-21 and 1,2-dichloroethylene (1,2-DCE) was detected in well MW-16A, at concentrations below the quantitation limit. Both wells are screened in the Advance Outwash. Maximum PERC (700 ppb), 1,2-DCE (21 ppb), and trichloroethylene (TCE, 12 ppb) concentrations for this sample round were detected in well MW-20B, which is screened in the Vashon Till. Volatile organics were not detected in the soil samples.

Laboratory reporting sheets are presented in Appendix A. Data were managed using the ENVIS database software package.

Table 1: Field Parameter Results for May 3-4, 1993

Monitoring Well	Total Depth From Top of PVC Casing As Measured	Geologic Unit Screened	Depth to Water	pH (st. units)	Specific Conductance (umhos/cm)	Temperature (°C)	Purge Volume (gallons)
MW-41	96.8	Advance Outwash	27.95	6.9	203	11.4	34
MW-27	96.4	Advance Outwash	++	6.8	192	12.3	22
MW-20A	97.3	Advance Outwash	30.87	8.8	223	13.4	33
MW-32	114.4	Advance Outwash	60.03	7.5	195	12.0	27
MW-31	91.5	Advance Outwash	++	7.2	185	11.9	33
MW-21	92.1	Advance Outwash	37.19	7.0	208	12.5	27
MW-16A	109	Advance Outwash	38.96	7.3	220	13.8	137
MW-20B	50.4	Vashon Till	32.48	7.0	700	14.0	9

++ = Dedicated pump obstructs water-level measurement.

Table 2: Summary of Analytes Detected in Samples Collected During May 3-4, 1993

Geologic Unit Screened	Vashon Till	Advance Outwash										
											Upgradient Wells	
Monitoring Well	MW-20B	MW-16A	MW-16B*	MW-20A	MW-20A**	MW-21	MW-27	MW-31	MW-32	MW-41	MW-19A	MW-40
Volatile Organics: (ug/L)												
Tetrachloroethylene (PERC)	700 D	44	44	10 U	10 U	1 J	10 U	10 U	10 U	10 U	NT	NT
Trichloroethylene (TCE)	12	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NT	NT
1,2-Dichloroethylene (1,2-DCE)	21	2 J	2 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NT	NT

* = Duplicate
** = Replicate
J = The analyte was positively identified. The associated numerical result is an estimate.
D = Result was obtained from a dilution of the original sample.

DISCUSSION AND CONCLUSIONS

Table 3 shows PERC, TCE, and 1,2-DCE concentrations for January 1991 through May 1993. Well MW-20B continues to have the highest concentrations of any of the wells sampled. Historical maximum concentrations for PERC and TCE recorded in well MW-20B occurred in March 1985 at 4,856 ppb and 103 ppb respectively. Well MW-20B is close to Plaza Cleaners, and is screened in the Vashon Till. PERC and TCE concentrations measured at the Lakewood site over the history of the project are presented in Appendix B (CH2M Hill, 199b). During this sample round concentrations of PERC, TCE and 1,2-DCE in MW-20B were 700 ppb, 12 ppb, and 21 ppb respectively. PERC concentration increased from the December 1992 measurement of 340 ppb.

Low concentrations of PERC and 1,2-DCE were also detected in MW-16A with concentrations of 44 ppb and 2 ppb, respectively. Concentrations in MW-16A continue to be higher in this well than those measured in MW-20A. Both wells are screened in the Advance Outwash below the contaminated Vashon Till, however, MW-16A is further from the source (See Figure 2). Higher contaminant concentrations in MW-16A are evidence that more permeable materials (lenses) in the overlying contaminated Vashon Till may be allowing downward migration of contaminants to the Advance Outwash.

Upgradient monitoring wells MW-19A and MW-40 were not sampled during this round. These wells are sampled annually and will be sampled in November 1993.

In addition to ground water monitoring, two soil samples were collected during this sample round. In the summer of 1992 additional soil was excavated from Plaza Cleaners and stockpiled on-site for several months. Soil samples were collected from a nearby drainage ditch due to concern of runoff from the stockpiles. No volatile organics were detected in the soil samples.

Table 3: Summary of Sampling Results from January 1991 to May 1993

Well Number	January 1991			May 1991			November 1991			May 1992			December 1992			May 1993		
	PERC	TCE	1,2-DCE	PERC	TCE	1,2-DCE	PERC	TCE	1,2-DCE	PERC	TCE	1,2-DCE	PERC	TCE	1,2-DCE	PERC	TCE	1,2-DCE
MW-16A	28	1 J	2.4 J	26	0.6 J	2	2.7 J	1 U	0.6 J	7	1 U	1	9 J	0.3 J	0.8 J	44	10 U	2 J
MW-20A	1 U	1 U	1 U	0.4 J	1 U	1 U	0.4 J	1 U	1 U	0.5 J	1 U	1 U	0.8 J	1 UJ	1 UJ	10 U	10 U	10 U
MW-20B	1100 D	18	33	752	16	30	120	2.6 J	6.7	940	13	32	340 J	14 J	20 J	700 D	12	21
MW-21	2.1 J	1 U	1 J	2	1 U	0.7 J	2.2 J	1 U	1.0 J	2	1 U	0.6 J	2	0.2 J	0.3 J	1 J	10 U	10 U
MW-27	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	10 U	10 U	10 U
MW-31	1 J	1 U	1.9 J	0.6 J	1 U	2	0.9 J	1 U	2.2 J	0.8 J	1 U	1	0.5 J	1 UJ	0.9 J	10 U	10 U	10 U
MW-32	1 J	1 U	1.1 J	1	1 U	2	0.6 J	1 U	0.6 J	0.7 J	1 U	1	0.7 J	1 UJ	0.5 J	10 U	10 U	10 U
MW-41	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	10 U	10 U	10 U
MW-19A	--	--	--	--	--	--	1 U	0.5 J	1 U	--	--	--	1 UJ	1 UJ	1 UJ	--	--	--
MW-40	1 U	1 U	1 U	--	--	--	1 U	1 U	1 U	--	--	--	1 UJ	1 UJ	1 UJ	--	--	--

U = The analyte was not detected at or above the reported result.
J = The analyte was positively identified. The associated numerical result is an estimate.
UJ = The analyte was not detected at or above the reported estimated result.
D = Analysis performed at secondary dilution.
-- = Not Tested

REFERENCES

CH2M HILL, 1988. Final Aquifer Cleanup Assessment Report, Ponders Corner, Washington.

CH2M HILL, 1990a. Sampling and Analysis Plan Remedial Action - Lakewood RA.

CH2M HILL, 1990b. Technical Memorandum from Lisa Dally Wilson to Ann Williamson RE: Groundwater Sampling at Lakewood (April 1990). Project No. SEA69018RA.FQ.

Washington State Department of Ecology, 1991. Manchester Environmental Laboratory - Laboratory Users Manual. Edited by D. Huntamer and J. Hyre.

U.S. Environmental Protection Agency, 1983. Methods for Chemical Analysis of Water and Wastes. Environmental Monitoring and Support Laboratory Cincinnati, Ohio, EPA 600/4-79-020.

U.S. Environmental Protection Agency, 1985. Final Draft Remedial Investigation Report - Ponder's Corner, Washington. EPA 112-0L22.

U.S. Environmental Protection Agency, 1986. Test Methods for Evaluating Solid Waste, SW-846. Office of Emergency Response, Washington D.C.

APPENDIX A

Analytical Results
Lakewood/Plaza Cleaners
May 3–4, 1993

State of Washington Department of Ecology
Manchester Environmental Laboratory
7411 Beach Dr. East Port Orchard WA. 98366

Data Review
June 17, 1993

Project: **Lakewood Plaza Cleaners**

Sample(s): 198020, 198021, 198022

Laboratory: Weyerhaeuser Analytical and Testing Services 11790

By: Karin Feddersen KF

Case Summary

These samples were received at the Manchester Environmental Laboratory on May 5, 1993, and transported to Weyerhaeuser on May 6, 1993 for VOC analysis.

This data was reviewed for qualitative and quantitative accuracy, validity, and usefulness.

There is no need to assimilate the "dilution factor" or "sample wt/vol" into the final values reported; these calculations have already been figured into the reported values.

"EPA SAMPLE NO." should read as "DOE SAMPLE NO."

DATA QUALIFIER DEFINITIONS

U - The analyte was not detected at or above the reported result.

UJ - The analyte was not detected at or above the reported estimated result.

J - The associated numerical result is an estimated quantity.

NJ or JN - There is evidence that the analyte is present. The associated numerical result is an estimate.

D - Weyerhaeuser's qualifier indicating the result was obtained from a dilution of the original sample.

VOA

Holding Times:

These samples were analyzed within the SW-846 recommended holding time.

Method Blank:

No target analytes were detected in any of the method blanks.

GC/MS Tuning and Calibration:

Calibration against Bromofluorobenzene (BFB) is acceptable for the initial calibration, continuing calibration and all associated sample analyses.

Initial Calibration:

The initial calibrations met the minimum response criteria of greater than 0.05 for the average relative responses. The % Relative Standard Deviations were within the maximum of 30%.

Continuing Calibration:

The average relative response factors for all target analytes were above the minimums, and the percent deviations between the initial and continuing calibration standards were within the maximum of 25% with one exception on May 12, 1993, Acetone. Positive results for Acetone have been qualified with a "J", and non-detected results have been qualified with a "UJ" in the corresponding samples.

Surrogates:

All surrogate recoveries for these samples and the associated method blanks are reasonable, acceptable, and within QC limits.

Sample Data:

Use the results from the original analysis of sample 198088 for all analytes except for Tetrachloroethene. Use the results from the dilution analysis of this sample (DL suffix) for this analyte. Use the results from the dilution analysis of sample 198090 for Acetone. The results from the original analysis of sample 198090 have been included for your information.
This data is acceptable for use without the need for additional qualification.

Weyerhaeuser

32901 Weyerhaeuser Way South
Federal Way, Washington 98003
Analytical Chemistry Laboratories
Tacoma, Washington 98477
Tel (206) 924 6872
Fax (206) 924 6654

CASE NARRATIVE

WEYERHAEUSER (WEYER)
ANALYTICAL AND TESTING SERVICES

Case Number: 11790
SDG Number: 198080
Contract Number: 046-5751

Samples from this case (11790) were received on 5/6/93. This case was composed of twelve waters and two soils for analysis by 8240. The requested analyses were as follows:

SAMPLE ID	MATRIX	ANALYSIS REQUESTED
198080	Water	VOA
198081	Water	VOA
198082	Water	VOA
198083	Water	VOA
198084	Water	VOA
198085	Water	VOA
198085	Water	VOA
198086	Water	VOA
198087	Water	VOA
198088	Water	VOA
198088DL	Water	VOA
198089	Water	VOA
198090	Water	VOA
198090DL	Water	VOA
198091	Water	VOA
198080MS	Water	VOA
198080MSD	Water	VOA
198092	Soil	VOA
198093	Soil	VOA
198093MS	Soil	VOA
198093MSD	Soil	VOA

Several anomalies existed with this sample set that are listed below. The anomalies are broken up into categories for ease of explanation.

1. VOA

   a) All samples and blanks contain a peak at approximately scan #100 that is >10% of the nearest internal standard. This peak is carbon dioxide and is not searched in any of the samples. A spectrum of this peak is on file at the laboratory for review.

b) The water samples, 198088 and 198090, required dilution to quantitate all target compound hits within the calibrated range.

c) Both soil samples experienced poor internal standard recoveries when analyzed at 5 gm. 1 gram samples were used for sample and MS/MSD analysis.

d) It was not noted that a MS/MSD pair was required for the water samples until after the samples had been analyzed. A separate shift was run for this pair. Method 8240 allows a 14 day hold time which was met by this shift.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Randy Eatherton 6/9/93

Randy Eatherton
VOA/Dioxin Team Leader

Date

Please feel free to contact me with any questions concerning this data report. I can be reached at (206) 924-6431.

Sincerely,

Randy Eatherton
Weyerhaeuser Analytical & Testing Services

Flag Qualifiers For Organic Analysis Reports

Indicates that the compound was analyzed for but not detected. The sample quantitation limit corrected for dilution and percent moisture is reported.

Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds or when the data indicates the presence of a compound but the result is less than the sample quantitation limit but greater than zero.

Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search.

This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two GC columns. The lower of the two results is reported.

This flag is used for pesticide results that have been confirmed by GC/MS

This flag is used when the analyte is detected in the associated blank as well as the sample.

This flag is used for compounds whose concentrations exceed the calibration range of the instrument.

This flag identifies all compounds identified in an analysis at a secondary dilution. This flag alerts the data user that any discrepancies between the concentrations reported in the two runs may be due to dilution errors.

This flag is used for tentatively identified compounds that suspected to be aldol-condensation products.

This flag is assigned by the computer when the program has been manually adjusted by the operator. It has no significance to the number itself.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198080

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8574

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0289

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198080

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8574

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0289

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

198080

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8574

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0289

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198081

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8575

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0290

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198081

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8575

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0290

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

198081

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8575

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0290

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 541059	HEXAMETHYLCYCLOTRISILOXANE	22.19	22	JN
2. 556672	Cyclotetrasiloxane, octameth	29.06	31	JN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198082

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8576

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0291

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198082

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8576

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0291

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

198082

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8576

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0291

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 541059	HEXAMETHYLCYCLOTRISILOXANE	22.18	56	JN
2. 556672	Cyclotetrasiloxane, octameth	29.03	67	JN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198083

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8577

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0302

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	UJ KF
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198083

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8577

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0302

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

198083

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8577

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0302

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198084

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8578

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0304

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	10	U	
67-64-1	Acetone	10	U J	KF
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	10	U	
10061-02-6	Trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Total Xylenes	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198084

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8578

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0304

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

198084

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8578

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0304

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 556672~~	~~Cyclotetrasiloxane, octameth~~	~~29.02~~	~~11~~	~~JN~~

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198085

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8579

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0294

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	1	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198085

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8579

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0294

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

198085

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8579

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0294

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198086

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8580

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0295

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	18	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	2	J KF
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	44	
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198086

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8580

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0295

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

198086

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8580

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0295

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198087

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8581

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0296

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	10	U	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	2	~~JX~~	KF
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	10	U	
10061-02-6	Trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	44		
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Total Xylenes	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198087

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8581

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0296

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

198087

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8581

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0296

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198088

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8582

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0297

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	10	U	
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	21	~~X~~	KF
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	12		
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	10	U	
10061-02-6	Trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	600	~~E~~ J	KF
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Total Xylenes	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198088

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8582

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0297

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

198088

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8582

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0297

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198088DL

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8582DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0303

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	50	U	
74-83-9	Bromomethane	50	U	
75-01-4	Vinyl Chloride	50	U	
75-00-3	Chloroethane	50	U	
75-09-2	Methylene Chloride	50	U	
67-64-1	Acetone	50	UJ	KF
75-15-0	Carbon Disulfide	50	U	
75-35-4	1,1-Dichloroethene	50	U	
75-34-3	1,1-Dichloroethane	50	U	
540-59-0	1,2-Dichloroethene (total)	22	DJ	KF
67-66-3	Chloroform	50	U	
107-06-2	1,2-Dichloroethane	50	U	
78-93-3	2-Butanone	50	U	
71-55-6	1,1,1-Trichloroethane	50	U	
56-23-5	Carbon Tetrachloride	50	U	
75-27-4	Bromodichloromethane	50	U	
78-87-5	1,2-Dichloropropane	50	U	
10061-01-5	cis-1,3-Dichloropropene	50	U	
79-01-6	Trichloroethene	12	DJ	
124-48-1	Dibromochloromethane	50	U	
79-00-5	1,1,2-Trichloroethane	50	U	
71-43-2	Benzene	50	U	
10061-02-6	Trans-1,3-Dichloropropene	50	U	
75-25-2	Bromoform	50	U	
108-10-1	4-Methyl-2-Pentanone	50	U	
591-78-6	2-Hexanone	50	U	
127-18-4	Tetrachloroethene	700	D	
79-34-5	1,1,2,2-Tetrachloroethane	50	U	
108-88-3	Toluene	50	U	
108-90-7	Chlorobenzene	50	U	
100-41-4	Ethylbenzene	50	U	
100-42-5	Styrene	50	U	
1330-20-7	Total Xylenes	50	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198088DL

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8582DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0303

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	50	U
106-46-7	1,4-Dichlorobenzene	50	U
95-50-1	1,2-Dichlorobenzene	50	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

198088DL

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8582DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0303

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198089

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8583

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0298

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198089

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8583

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0298

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

198089

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8583

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0298

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 556672~~	~~Cyclotetrasiloxane, octameth~~	~~29.16~~	~~7~~	~~JN~~
1. 556672	Cyclotetrasiloxane, octamem	29.16	7	NJ

FORM I VOA-TIC 3/90

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198090

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8584

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0306

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	10	U	
67-64-1	Acetone	2400	~~E~~ J	KF
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	10	U	
10061-02-6	Trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Total Xylenes	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198090

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8584

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0306

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

198090

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8584

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0306

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 556672~~	~~Cyclotetrasiloxane, octameth~~	~~29.00~~	~~10~~	~~JN~~

KF

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198090DL

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8584DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0307

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 50.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	500	U
74-83-9	Bromomethane	500	U
75-01-4	Vinyl Chloride	500	U
75-00-3	Chloroethane	500	U
75-09-2	Methylene Chloride	500	U
67-64-1	Acetone	3600	~~B~~ J KF
75-15-0	Carbon Disulfide	500	U
75-35-4	1,1-Dichloroethene	500	U
75-34-3	1,1-Dichloroethane	500	U
540-59-0	1,2-Dichloroethene (total)	500	U
67-66-3	Chloroform	500	U
107-06-2	1,2-Dichloroethane	500	U
78-93-3	2-Butanone	500	U
71-55-6	1,1,1-Trichloroethane	500	U
56-23-5	Carbon Tetrachloride	500	U
75-27-4	Bromodichloromethane	500	U
78-87-5	1,2-Dichloropropane	500	U
10061-01-5	cis-1,3-Dichloropropene	500	U
79-01-6	Trichloroethene	500	U
124-48-1	Dibromochloromethane	500	U
79-00-5	1,1,2-Trichloroethane	500	U
71-43-2	Benzene	500	U
10061-02-6	Trans-1,3-Dichloropropene	500	U
75-25-2	Bromoform	500	U
108-10-1	4-Methyl-2-Pentanone	500	U
591-78-6	2-Hexanone	500	U
127-18-4	Tetrachloroethene	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U
108-88-3	Toluene	500	U
108-90-7	Chlorobenzene	500	U
100-41-4	Ethylbenzene	500	U
100-42-5	Styrene	500	U
1330-20-7	Total Xylenes	500	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198090DL

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8584DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0307

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 50.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	500	U
106-46-7	1,4-Dichlorobenzene	500	U
95-50-1	1,2-Dichlorobenzene	500	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

198090DL

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8584DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0307

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 50.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 541059	HEXAMETHYLCYCLOTRISILOXANE	22.28	250	JN
~~2. 556672~~	~~Cyclotetrasiloxane, octameth~~	~~29.12~~	~~500~~	~~JN~~

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198091

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8585

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0305

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	UJ KF
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198091

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8585

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0305

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

198091

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8585

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0305

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198092

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) SOIL Lab Sample ID: 8586

Sample wt/vol: 1.0 (g/mL) G Lab File ID: A4407

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. 22 Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	64	U
74-83-9	Bromomethane	64	U
75-01-4	Vinyl Chloride	64	U
75-00-3	Chloroethane	64	U
75-09-2	Methylene Chloride	64	U
67-64-1	Acetone	64	U
75-15-0	Carbon Disulfide	64	U
75-35-4	1,1-Dichloroethene	64	U
75-34-3	1,1-Dichloroethane	64	U
540-59-0	1,2-Dichloroethene (total)	64	U
67-66-3	Chloroform	64	U
107-06-2	1,2-Dichloroethane	64	U
78-93-3	2-Butanone	64	U
71-55-6	1,1,1-Trichloroethane	64	U
56-23-5	Carbon Tetrachloride	64	U
75-27-4	Bromodichloromethane	64	U
78-87-5	1,2-Dichloropropane	64	U
10061-01-5	cis-1,3-Dichloropropene	64	U
79-01-6	Trichloroethene	64	U
124-48-1	Dibromochloromethane	64	U
79-00-5	1,1,2-Trichloroethane	64	U
71-43-2	Benzene	64	U
10061-02-6	Trans-1,3-Dichloropropene	64	U
75-25-2	Bromoform	64	U
108-10-1	4-Methyl-2-Pentanone	64	U
591-78-6	2-Hexanone	64	U
127-18-4	Tetrachloroethene	64	U
79-34-5	1,1,2,2-Tetrachloroethane	64	U
108-88-3	Toluene	64	U
108-90-7	Chlorobenzene	64	U
100-41-4	Ethylbenzene	64	U
100-42-5	Styrene	64	U
1330-20-7	Total Xylenes	64	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198092

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) SOIL Lab Sample ID: 8586

Sample wt/vol: 1.0 (g/mL) G Lab File ID: A4407

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. 22 Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
541-73-1	1,3-Dichlorobenzene	64	U
106-46-7	1,4-Dichlorobenzene	64	U
95-50-1	1,2-Dichlorobenzene	64	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

198092

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) SOIL Lab Sample ID: 8586

Sample wt/vol: 1.0 (g/mL) G Lab File ID: A4407

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. 22 Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198093

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) SOIL Lab Sample ID: 8587

Sample wt/vol: 1.0 (g/mL) G Lab File ID: A4408

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. 29 Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	70	U
74-83-9	Bromomethane	70	U
75-01-4	Vinyl Chloride	70	U
75-00-3	Chloroethane	70	U
75-09-2	Methylene Chloride	70	U
67-64-1	Acetone	70	U
75-15-0	Carbon Disulfide	70	U
75-35-4	1,1-Dichloroethene	70	U
75-34-3	1,1-Dichloroethane	70	U
540-59-0	1,2-Dichloroethene (total)	70	U
67-66-3	Chloroform	70	U
107-06-2	1,2-Dichloroethane	70	U
78-93-3	2-Butanone	70	U
71-55-6	1,1,1-Trichloroethane	70	U
56-23-5	Carbon Tetrachloride	70	U
75-27-4	Bromodichloromethane	70	U
78-87-5	1,2-Dichloropropane	70	U
10061-01-5	cis-1,3-Dichloropropene	70	U
79-01-6	Trichloroethene	70	U
124-48-1	Dibromochloromethane	70	U
79-00-5	1,1,2-Trichloroethane	70	U
71-43-2	Benzene	70	U
10061-02-6	Trans-1,3-Dichloropropene	70	U
75-25-2	Bromoform	70	U
108-10-1	4-Methyl-2-Pentanone	70	U
591-78-6	2-Hexanone	70	U
127-18-4	Tetrachloroethene	70	U
79-34-5	1,1,2,2-Tetrachloroethane	70	U
108-88-3	Toluene	70	U
108-90-7	Chlorobenzene	70	U
100-41-4	Ethylbenzene	70	U
100-42-5	Styrene	70	U
1330-20-7	Total Xylenes	70	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198093

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) SOIL Lab Sample ID: 8587

Sample wt/vol: 1.0 (g/mL) G Lab File ID: A4408

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. 29 Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
541-73-1	1,3-Dichlorobenzene	70	U
106-46-7	1,4-Dichlorobenzene	70	U
95-50-1	1,2-Dichlorobenzene	70	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

198093

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) SOIL Lab Sample ID: 8587

Sample wt/vol: 1.0 (g/mL) G Lab File ID: A4408

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. 29 Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKS1

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) SOIL Lab Sample ID: VBLKS1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: A4404

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKS1

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) SOIL Lab Sample ID: VBLKS1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: A4404

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKS1

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) SOIL Lab Sample ID: VBLKS1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: A4404

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW1

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: VBLKW1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0284

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW1

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: VBLKW1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0284

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKW1

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: VBLKW1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0284

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW2

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: VBLKW2

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0301

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	10	U	
67-64-1	Acetone	10	U J	KF
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10	U	
540-59-0	1,2-Dichloroethene (total)	10	U	
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	10	U	
56-23-5	Carbon Tetrachloride	10	U	
75-27-4	Bromodichloromethane	10	U	
78-87-5	1,2-Dichloropropane	10	U	
10061-01-5	cis-1,3-Dichloropropene	10	U	
79-01-6	Trichloroethene	10	U	
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	10	U	
10061-02-6	Trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10	U	
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Total Xylenes	10	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW2

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: VBLKW2

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0301

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKW2

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: VBLKW2

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0301

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/12/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW3

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: VBLKW3

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0398

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/20/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW3

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: VBLKW3

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0398

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/20/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKW3

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: VBLKW3

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0398

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 05/20/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 541059	HEXAMETHYLCYCLOTRISILOXANE	21.99	7	JN
2. 556672	Cyclotetrasiloxane, octameth	28.86	12	JN

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198080MS

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8574MS

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0399

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/20/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	49	
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	54	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	52	
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	48	
108-90-7	Chlorobenzene	50	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198080MS

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8574MS

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0399

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/20/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198080MSD

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8574MSD

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0400

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/20/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	51	
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	52	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	52	
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	50	
108-90-7	Chlorobenzene	52	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198080MSD

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) WATER Lab Sample ID: 8574MSD

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B0400

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. Date Analyzed: 05/20/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198093MS

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) SOIL Lab Sample ID: 8587MS

Sample wt/vol: 1.0 (g/mL) G Lab File ID: A4409

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. 29 Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	70	U
74-83-9	Bromomethane	70	U
75-01-4	Vinyl Chloride	70	U
75-00-3	Chloroethane	70	U
75-09-2	Methylene Chloride	70	U
67-64-1	Acetone	70	U
75-15-0	Carbon Disulfide	70	U
75-35-4	1,1-Dichloroethene	330	
75-34-3	1,1-Dichloroethane	70	U
540-59-0	1,2-Dichloroethene (total)	70	U
67-66-3	Chloroform	70	U
107-06-2	1,2-Dichloroethane	70	U
78-93-3	2-Butanone	70	U
71-55-6	1,1,1-Trichloroethane	70	U
56-23-5	Carbon Tetrachloride	70	U
75-27-4	Bromodichloromethane	70	U
78-87-5	1,2-Dichloropropane	70	U
10061-01-5	cis-1,3-Dichloropropene	70	U
79-01-6	Trichloroethene	330	
124-48-1	Dibromochloromethane	70	U
79-00-5	1,1,2-Trichloroethane	70	U
71-43-2	Benzene	350	
10061-02-6	Trans-1,3-Dichloropropene	70	U
75-25-2	Bromoform	70	U
108-10-1	4-Methyl-2-Pentanone	70	U
591-78-6	2-Hexanone	70	U
127-18-4	Tetrachloroethene	70	U
79-34-5	1,1,2,2-Tetrachloroethane	70	U
108-88-3	Toluene	360	
108-90-7	Chlorobenzene	350	
100-41-4	Ethylbenzene	70	U
100-42-5	Styrene	70	U
1330-20-7	Total Xylenes	70	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198093MS

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) SOIL Lab Sample ID: 8587MS

Sample wt/vol: 1.0 (g/mL) G Lab File ID: A4409

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. 29 Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
541-73-1	1,3-Dichlorobenzene	70	U
106-46-7	1,4-Dichlorobenzene	70	U
95-50-1	1,2-Dichlorobenzene	70	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198093MSD

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) SOIL Lab Sample ID: 8587MSD

Sample wt/vol: 1.0 (g/mL) G Lab File ID: A4410

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. 29 Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	70	U
74-83-9	Bromomethane	70	U
75-01-4	Vinyl Chloride	70	U
75-00-3	Chloroethane	70	U
75-09-2	Methylene Chloride	70	U
67-64-1	Acetone	70	U
75-15-0	Carbon Disulfide	70	U
75-35-4	1,1-Dichloroethene	340	
75-34-3	1,1-Dichloroethane	70	U
540-59-0	1,2-Dichloroethene (total)	70	U
67-66-3	Chloroform	70	U
107-06-2	1,2-Dichloroethane	70	U
78-93-3	2-Butanone	70	U
71-55-6	1,1,1-Trichloroethane	70	U
56-23-5	Carbon Tetrachloride	70	U
75-27-4	Bromodichloromethane	70	U
78-87-5	1,2-Dichloropropane	70	U
10061-01-5	cis-1,3-Dichloropropene	70	U
79-01-6	Trichloroethene	340	
124-48-1	Dibromochloromethane	70	U
79-00-5	1,1,2-Trichloroethane	70	U
71-43-2	Benzene	370	
10061-02-6	Trans-1,3-Dichloropropene	70	U
75-25-2	Bromoform	70	U
108-10-1	4-Methyl-2-Pentanone	70	U
591-78-6	2-Hexanone	70	U
127-18-4	Tetrachloroethene	70	U
79-34-5	1,1,2,2-Tetrachloroethane	70	U
108-88-3	Toluene	390	
108-90-7	Chlorobenzene	360	
100-41-4	Ethylbenzene	70	U
100-42-5	Styrene	70	U
1330-20-7	Total Xylenes	70	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

198093MSD

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix: (soil/water) SOIL Lab Sample ID: 8587MSD

Sample wt/vol: 1.0 (g/mL) G Lab File ID: A4410

Level: (low/med) LOW Date Received: 05/06/93

% Moisture: not dec. 29 Date Analyzed: 05/11/93

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
541-73-1	1,3-Dichlorobenzene	70	U
106-46-7	1,4-Dichlorobenzene	70	U
95-50-1	1,2-Dichlorobenzene	70	U

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	198080	104	102	99	0	0
02	198081	105	103	103	0	0
03	198082	101	100	103	0	0
04	198083	100	99	93	0	0
05	198084	100	99	97	0	0
06	198085	103	106	105	0	0
07	198086	102	106	106	0	0
08	198087	105	101	106	0	0
09	198088	108	108	110	0	0
10	198088DL	105	102	91	0	0
11	198089	110	104	109	0	0
12	198090	97	98	101	0	0
13	198090DL	99	99	99	0	0
14	198091	100	98	93	0	0
15	198080MS	98	99	96	0	0
16	198080MSD	100	100	97	0	0
17	VBLKW1	103	99	99	0	0
18	VBLKW2	100	96	95	0	0
19	VBLKW3	98	100	98	0	0

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(88-110)
SMC2 (BFB)	= Bromofluorobenzene	(86-115)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	198092	110	78	109	0	0
02	198093	115	72	108	0	0
03	198093MS	111	76	111	0	0
04	198093MSD	114	73	112	0	0
05	VBLKS1	103	85	108	0	0

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(84-138)
SMC2 (BFB)	= Bromofluorobenzene	(59-113)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix Spike - EPA Sample No.: 198080

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.00	0	48.90	98	61-145
Trichloroethene	50.00	0	54.20	108	71-120
Benzene	50.00	0	51.90	104	76-127
Toluene	50.00	0	48.50	97	76-125
Chlorobenzene	50.00	0	50.40	101	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.00	50.90	102	4	14	61-145
Trichloroethene	50.00	52.10	104	4	14	71-120
Benzene	50.00	51.60	103	1	11	76-127
Toluene	50.00	50.50	101	4	13	76-125
Chlorobenzene	50.00	52.10	104	3	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS:

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Matrix Spike - EPA Sample No.: 198093 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	352.0	0	328.9	93	59-172
Trichloroethene	352.0	0	326.1	93	62-137
Benzene	352.0	0	348.6	99	66-142
Toluene	352.0	0	361.3	103	59-139
Chlorobenzene	352.0	0	345.8	98	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	352.0	343.0	97	4	22	59-172
Trichloroethene	352.0	340.1	97	4	24	62-137
Benzene	352.0	369.7	105	6	21	66-142
Toluene	352.0	390.1	111	7	21	59-139
Chlorobenzene	352.0	362.7	103	5	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKS1

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Lab File ID: A4404 Lab Sample ID: VBLKS1

Date Analyzed: 05/11/93 Time Analyzed: 1205

GC Column: CAP ID: 0.530(mm) Heated Purge: (Y/N) Y

Instrument ID: VOA1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	198092	8586	A4407	1437
02	198093	8587	A4408	1526
03	198093MS	8587MS	A4409	1610
04	198093MSD	8587MSD	A4410	1655

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKW1

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Lab File ID: B0284 Lab Sample ID: VBLKW1

Date Analyzed: 05/11/93 Time Analyzed: 1239

GC Column: CAP ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: VOA2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	198080	8574	B0289	1700
02	198081	8575	B0290	1741
03	198082	8576	B0291	1822
04	198085	8579	B0294	2026
05	198086	8580	B0295	2107
06	198087	8581	B0296	2149
07	198088	8582	B0297	2230
08	198089	8583	B0298	2317

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKW2

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Lab File ID: B0301 Lab Sample ID: VBLKW2

Date Analyzed: 05/12/93 Time Analyzed: 1152

GC Column: CAP ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: VOA2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	198083	8577	B0302	1240
02	198084	8578	B0304	1414
03	198088DL	8582DL	B0303	1327
04	198090	8584	B0306	1558
05	198090DL	8584DL	B0307	1700
06	198091	8585	B0305	1515

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKW3

Lab Name: WEYERHAEUSER Contract: 046-5751

Lab Code: WEYER Case No.: 11790 SAS No.: SDG No.: 198080

Lab File ID: B0398 Lab Sample ID: VBLKW3

Date Analyzed: 05/20/93 Time Analyzed: 1121

GC Column: CAP ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: VOA2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	198080MS	8574MS	B0399	1215
02	198080MSD	8574MSD	B0400	1257

COMMENTS: VBLKW1
INSTR. ID: VOA 2

APPENDIX B

Historical TCE and PERC Data

Table B-1
TCE Concentrations Measured in Monitoring Wells
Ponders Corner, Washington

Well No.	2/12/85 Through 2/14/85	3/18/85 Through 3/22/85	4/25/85	5/14/85 Through 5/20/85	6/17/85 Through 6/21/85	8/20/85 Through 8/23/85[a]	11/5/85 Through 11/7/85[a]	8/25/86 Through 8/28/87	12/16/86 Through 12/17/86	3/17/87 Through 3/20/87	7/7/87	10/5/87 Through 10/6/87	1/28/88 Through 1/29/88	4/25/88 Through 4/26/88	10/4/88 Through 11/28/88	5/22/89 Through 5/25/89	4/23/90 Through 4/24/90
11A	ND	ND	NM	ND	ND	D	ND	ND	NM	NM		NM	NM	NM	NM	NM	
11B	NM	NM	NM	NM	NM	ND	NM	NM	NM	NM		NM	NM	NM	NM	NM	
12	ND	ND	ND	ND	ND	ND	ND	1[d]	ND	ND	ND	ND	ND	ND	NM	NM	
13A	NM	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
13B	NM	NM	NM	NM	NM	D	ND	1[d]	1[d]	2	ND	D	J	ND	NM	NM	
14	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
15A	ND	ND	NM	ND	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
15B	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
16A	6.3	3.9	NM	3.4	2.0	D/D[b]	2[d]	1[d]	1[d]	ND	NM	ND	NM	D	NM	ND	1
16B	NM	ND	NM	ND	ND	NM	NM	ND	NM	NM	NM	NM	NM	NM	NM	NM	
17A	ND	ND	NM	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	NM	
17B	NM	ND	NM	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	NM	
18	ND	ND	NM	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	NM	
19A	ND	ND	NM	ND	ND	ND	ND	ND	NM	ND	ND	ND	J	ND	ND	ND	ND
19B	NM	ND	NM	ND	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
19C												NM	J	ND	NM	NM	
20A	NM	ND	NM	NM	ND	D	ND	ND	ND	ND	NM	ND	NM	D	NM	ND	ND
20B	NM	103	32	12	ND	D[c]	29	100	NM	NM	NM	ND	NM	NM	NM	29	24/23
21	1.5	ND	NM	ND	ND	D	6	1[d]	1[d]	1[d]	NM	ND	NM	D	NM	ND	0.2J
22	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
24A	ND	ND	NM	ND	ND	1.2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
24B	NM	ND	NM	ND	ND	D	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
25	ND	ND	NM	ND	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
26	ND	ND	NM	ND	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
27	ND	NM	NM	ND	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
28A	ND	ND	NM	ND	ND	NM	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
29	ND	ND	NM	ND	ND	ND	ND	ND	1[d]	ND	NM	ND	NM	D	ND	ND	ND
30	1.6	ND	NM	ND	D	NM	ND	1[d]	ND	ND	NM	ND	NM	D	ND	NM	
31	ND	ND	NM	ND	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
32	ND	ND	ND	ND	ND	D	ND	1[d]	ND	ND	NM	ND	NM	ND	ND	ND	ND

Table B-1
TCE Concentrations Measured in Monitoring Wells
Flanders Corner, Washington

Well No.	2/12/85 Through 2/14/85	3/18/85 Through 3/22/85	4/25/85	5/16/85 Through 5/20/85	6/17/85 Through 6/21/85	8/20/85 Through 8/23/85[a]	11/5/85 Through 11/7/85[a]	8/25/86 Through 8/28/87	12/16/86 Through 12/17/86	3/17/87 Through 3/20/87	7/7/87	10/5/87 Through 10/6/87	1/28/88 Through 1/29/88	4/25/88 Through 4/26/88	10/4/88 Through 11/28/88	5/22/89 Through 5/25/89	4/23/90 Through 4/24/90
33	ND	ND	NM	ND	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
34	ND	NM	NM	NM	NM	ND	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
35	ND	ND	NM	ND	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
36	42	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
37[c]										ND	ND	ND	J	ND	ND	ND	ND
38[c]										15	ND	NM	NM	NM	NM	NM	
39A[c]										J	ND	ND	ND	ND	ND	NM	
39B[c]										ND	ND	NM	ND	ND	ND	NM	
39C												NM	NM	ND	NM	NM	
40[c]										ND	ND	ND	ND	ND	ND	ND	ND
41[c]										ND		NM	NM	NM	NM	ND	ND

[a]Exceeded acceptable holding time.
[b]Duplicate analysis.
[c]Detection limit = 100 µg/l.
[d]Estimated value. Compound present but at less than the specified detection limit.
[e]Wells constructed 2/87 through 3/87.

Notes: Units in parts per billion.
NM = Not measured.
ND = Not detected.
D = Detected, not quantified.
J = Estimated value. Value not accurate.

Table B-2
PERC Concentrations Measured in Monitoring Wells
Pendera Corner, Washington

Well No.	2/12/85 Through 2/14/85	3/18/85 Through 3/22/85	4/25/85	5/14/85 Through 5/20/85	6/17/85 Through 6/21/85	8/20/85 Through 8/23/85[a]	11/5/85 Through 11/7/85[a]	8/25/86 Through 8/28/86	12/14/86 Through 12/17/87	3/17/87 Through 3/20/87	7/7/87	10/5/87 Through 10/6/87	1/28/88 Through 1/29/88	4/25/88 Through 4/26/88	10/7/88 Through 11/28/88	5/22/89 Through 5/25/89	4/23/90 Through 4/24/90
11A	6.2	5.6	NM	6.1	2.7	4.3	2	1.4	NM	NM	NM	NM	NM	NM	NM	NM	
11B	NM	NM	NM	NM	NM	2.4	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NM	NM	
13A	ND	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
13B	NM	NM	NM	NM	NM	ND	ND	ND	ND	ND	ND	ND	J	ND	NM	NM	
14	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
15A	NM	0.5	NM	ND	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
15B	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
16A	110	70	NM	46	33	12/11[b]	19	16	17	49	NM	8	NM	7.3-8.0	NM	5(16)	74
16B	NM	15	NM	13	5	NM	4[c]	4.5	NM	NM	NM	NM	NM	NM	NM	NM	
17A	ND	ND	NM	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	NM	
17B	NM	ND	NM	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	NM	
18	ND	ND	NM	ND	ND	D	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
19A	ND	ND	NM	ND	ND	ND	ND	ND	NM	ND	ND	ND	J	ND	ND	ND	ND
19B	NM	ND	NM	ND	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
19C												NM	J	ND	NM	NM	
20A	NM	5.1	NM	NM	2.8	4.0	ND	2.1	1.5	ND	NM	ND	NM	1.2	NM	ND	0.6J
20B	NM	4,856	2,200	570	1,220	1,060	350	745	NM	NM	NM	ND	NM	NM	NM	1,100 (880)	550 (1,300)
21	27	2.2	NM	13	11	10	ND	ND	4.6	4	NM	6	NM	4.0	NM	2 J	3
22	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
24A	8.5	1.5	NM	7.2	4.4	16	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
24B	NM	9.5	NM	0.9	4.0	4.9	ND	2.9	NM	NM	NM	NM	NM	NM	NM	NM	
25	ND	ND	NM	ND	ND	ND	13	ND	NM	NM	NM	NM	NM	NM	NM	NM	
26	ND	ND	NM	NM	ND	ND	9	ND	NM	NM	NM	NM	NM	NM	NM	NM	
27	ND	NM	NM	NM	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
28A	ND	0.7	NM	ND	ND	NM	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
29	5.8	0.9	NM	5.4	1.1	3.4	ND	1.2	2.8	ND	NM	ND	NM	1.8	ND	1J	0.8J
30	38	24.1	NM	17.2	13	NM	10	5.3	2.2	ND	NM	5	NM	3.8-4.7	3J	NM	
31	ND	ND	NM	ND	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
32	ND	4.3	5	6.9	3.3	3.7	ND	2	1.5	2	NM	ND	NM	D	ND	1J	1

Table B-2
PERC Concentrations Measured in Monitoring Wells
Pondera Corner, Washington

Well No.	2/12/85 Through 2/14/85	3/18/85 Through 3/22/85	4/25/85	5/16/85 Through 5/20/85	6/17/85 Through 6/21/85	8/20/85 Through 8/23/85[a]	11/5/85 Through 11/7/85[a]	8/25/86 Through 8/28/86	12/16/86 Through 12/17/87	3/17/87 Through 3/20/87	7/7/87	10/5/87 Through 10/6/87	1/28/88 Through 1/29/88	4/25/88 Through 4/26/88	10/7/88 Through 11/28/88	5/22/89 Through 5/25/89	4/23/90 Through 4/24/90
33	ND	ND	NM	ND	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
34	83	NM	NM	NM	NM	1.2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
35	ND	ND	NM	ND	ND	ND	ND	ND	NM	NM	NM	NM	NM	NM	NM	NM	
36	139	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
37[d]										ND	ND	ND	J	ND	ND	ND	D
38[d]										ND	ND	NM	NM	NM	NM	NM	
39A[d]										ND	ND	ND	J	D	ND	NM	
39B[d]										ND	ND	NM	NM	J	ND	ND	
39C												NM	NM	ND	NM	NM	
40[d]										ND	ND	ND	J	ND	ND	ND	ND
41[d]										ND	ND	NM	NM	NM	NM	ND	ND

[a]Exceeded acceptable holding time.
[b]Duplicate analysis.
[c]Estimated value. Compound present but at less than the specified detection limit.
[d]Wells constructed 2/87 through 3/87.

Notes: Units in µg/l.
NM = Not measured.
ND = Not detected.
D = Detected, not quantified.
J = Estimated value. Value not accurate.