A Department of Ecology Report

WASHINGTON STATE DEPARTMENT OF ECOLOGY

LAKEWOOD/PLAZA CLEANERS ROUND VIII, APRIL 18-20, 1994

Introduction

This document is one of a series describing the results of ground water sampling at Lakewood/Plaza Cleaners. The sampling program was designed by U.S. Environmental Protection Agency's contractor, CH2M Hill, as part of the Lakewood Remedial Action (CH2M Hill 1990a&b). Ecology has conducted the semi-annual ground water sampling at the site since 1991. The objective of this sampling is to collect ground water quality data for the Toxics Cleanup Program to evaluate the effectiveness of Lakewood supply wells H1 and H2 (Figure 1) to contain and remove contaminated ground water caused by Plaza Cleaners. Samples were collected on April 18-20, 1994 from twelve monitoring wells: MW-13B, MW-16A, MW-19A, MW-19B, MW-20A, MW-20B, MW-21, MW-27, MW-31, MW-32, MW-40, and MW-41 (Figure 1). All samples were analyzed for volatile organics (VOA's). The quality assurance review and laboratory reporting sheets are presented in Appendix A.

Results

Field Observations

Table 1 lists field observation data; static water level, pH, specific conductance, temperature, purged volume, well depth, and the geologic unit for each of the sampled wells. Well MW-20A had a pH reading of 9.1 standard units, which is consistent with previous measurements. The high pH readings in MW-20A are most likely related to well construction. The specific conductance (590 umhos/cm) in well MW-20B, which is screened in a fine-grained till unit, was two to three times greater than the other wells. A higher specific conductance is expected for water from a fine-grained unit.

During this sample round I also inventoried of all the remaining monitoring wells to assess the condition of the wells and dedicated pumps. Part of the protective casing for MW-21 had been removed and filled with gravel. A protective casing should be re-installed. MW-13A and MW-13B, which are located on McChord AFB, are in the way of a road expansion (Burdette,

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by Pamela B. Marti
December 1994

Waterbody No. WA-12-1115GW
(Segment No. 05-12-GW)

Ecology Report #94-198

1994). These wells should be refurbished or decommissioned. I could not locate wells MW-34, MW-35, and MW-36 behind Plaza Cleaners. I suspect these wells have been covered with fill during a parking lot regrading. I was also unable to locate MW-30 which is in a residential area. Wells MW-30, MW-34, MW-35, and MW-36 should be located and either refurbished or decommissioned.

Laboratory Results

Table 2 summarizes laboratory results. The highest concentrations of tetrachloroethylene (PERC), trichloroethylene (TCE) and cis-1,2-dichloroethylene (cis-1,2-DCE) occurred in well MW-20B with 472 ppb, 8.6 ppb, and 12.6 ppb, respectively. PERC and cis-1,2-DCE were detected in wells MW-16A, MW-20A, MW-21, MW-31, and MW-32 at concentrations near the practical quantitation limit of 0.2 ppb. TCE was detected in wells MW-16A, MW-21, and upgradient well MW-19A near the quantitation limit of 0.2 ppb. Carbon tetrachloride was detected in wells MW-19A and MW-20A at concentrations below the quantitation limit of 0.2 ppb.

Upgradient wells MW-13B and MW-19B were also sampled this round. Both wells are screened in the Vashon Till. PERC was detected in MW-19B below the quantitation limit and TCE was detected in MW-13B near the quantitation limit.

Table 3 shows PERC, TCE, and cis-1,2-DCE concentrations for January 1991 through April 1994. PERC and cis-1,2-DCE continue to be detected at or near the detection limit in most of the wells screened in the Advance Outwash. Well MW-20B, which is screened in the Vashon Till, continues to have the highest concentrations. Figures 2 and 3 show PERC concentrations at wells MW-20B and MW-16A between 1984 and 1994, respectively. Since 1984 PERC concentrations in both wells have varied substantially. PERC concentrations decreased initially in MW-20B from March 1985 (4800 ppb) to May 1985 (570 ppb). After May 1985 concentrations ranged between 120 ppb to 1200 ppb. Over the monitoring period PERC concentrations in MW-16A varied between 3 ppb and 110 ppb.

Methods

Ground Water Sampling

Samples were collected on April 18-20, 1994 from MW-13B, MW-16A, MW-19A, MW-19B, MW-20A, MW-20B, MW-21, MW-27, MW-31, MW-32, MW-40, and MW-41. Prior to sample collection, static water level measurements were obtained using an electronic water level indicator. The meter was rinsed with deionized water after each use. All monitoring wells were purged a minimum of three well volumes and until pH, temperature, and specific conductance readings stabilized. Purge water was discharged to storm drains or to the ground near each monitoring well. All wells were purged and sampled using dedicated bladder

pumps, except for MW-19B and MW-20B. Wells MW-19B and MW-20B were purged and sampled with decontaminated teflon bailers.

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 8260 (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, 1994).

Data were managed using the ENVIS database software package.

Quality Assurance Samples

In general the quality of the data is acceptable for use.

Quality control samples collected in the field for the ground water monitoring consisted of a transfer blank, a blind duplicate, and a replicate sample. A transfer blank was collected by pouring organic-free water through a decontaminated bailer. A blind duplicate sample 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 was collected from well MW-20A. Replicate samples are two sets of samples collected from a well at different times. In 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 the Manchester Laboratory. Dickey Huntamer of the Manchester Laboratory conducted the quality assurance review. Low levels of common laboratory solvents such as acetone and methylene chloride were detected in the laboratory blanks. However, these analytes were not detected in the field samples.

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, trichloroethylene and cis-1,2-dichloroethylene were 1%, 10%, and 13%, respectively. Matrix spike and spike duplicate recoveries for volatile organics are within the QC limits of $\pm 25\%$ for water sample analysis.

References

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

Washington State Department of Ecology, 1994. Manchester Environmental Laboratory - Laboratory Users Manual. Edited by D. Huntamer and J. Hyre.

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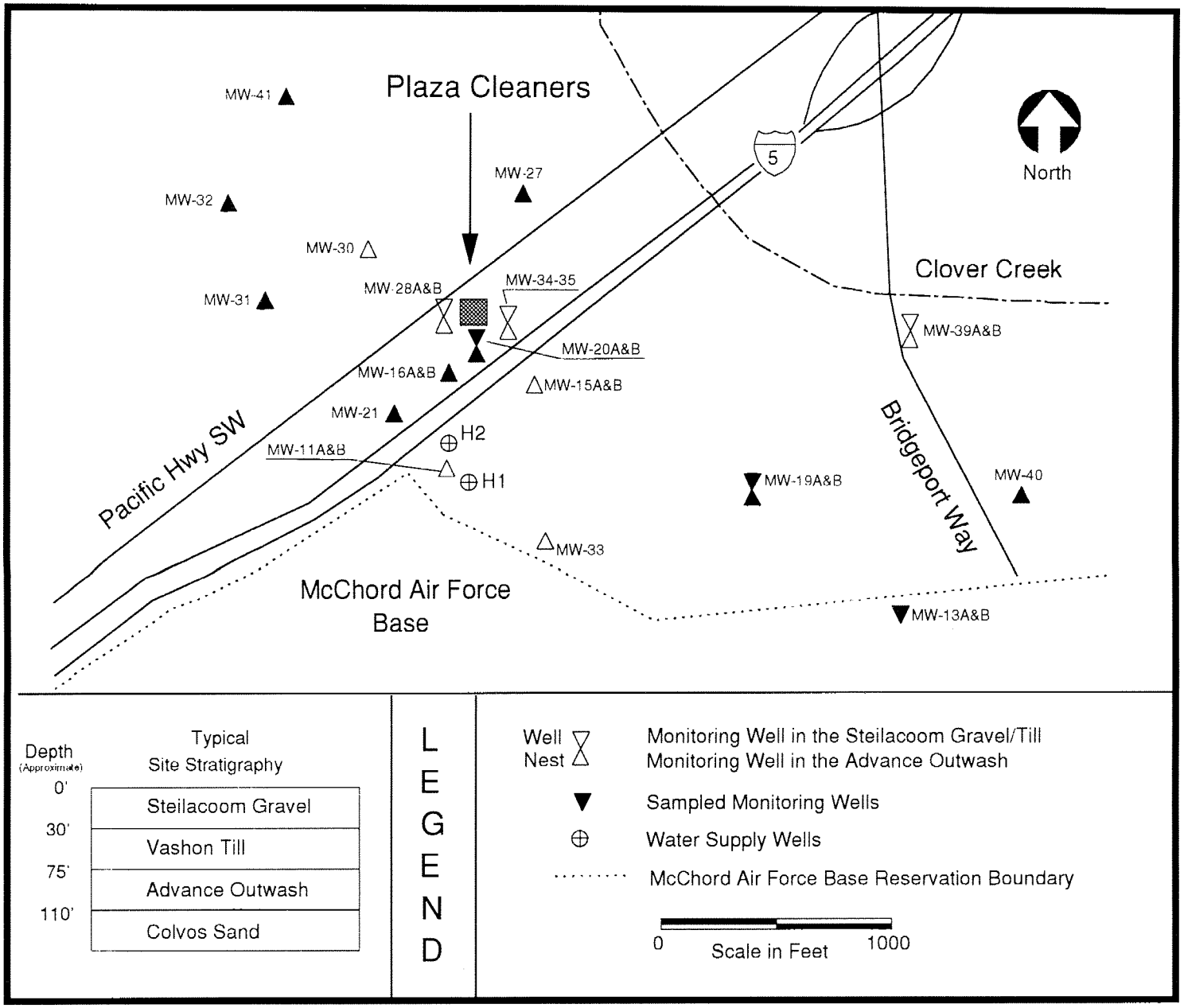

Figure 1: Well Location Map - Lakewood/Plaza Cleaners

Figure 2: PERC Concentrations for Well MW-20B from 1984 to 1994

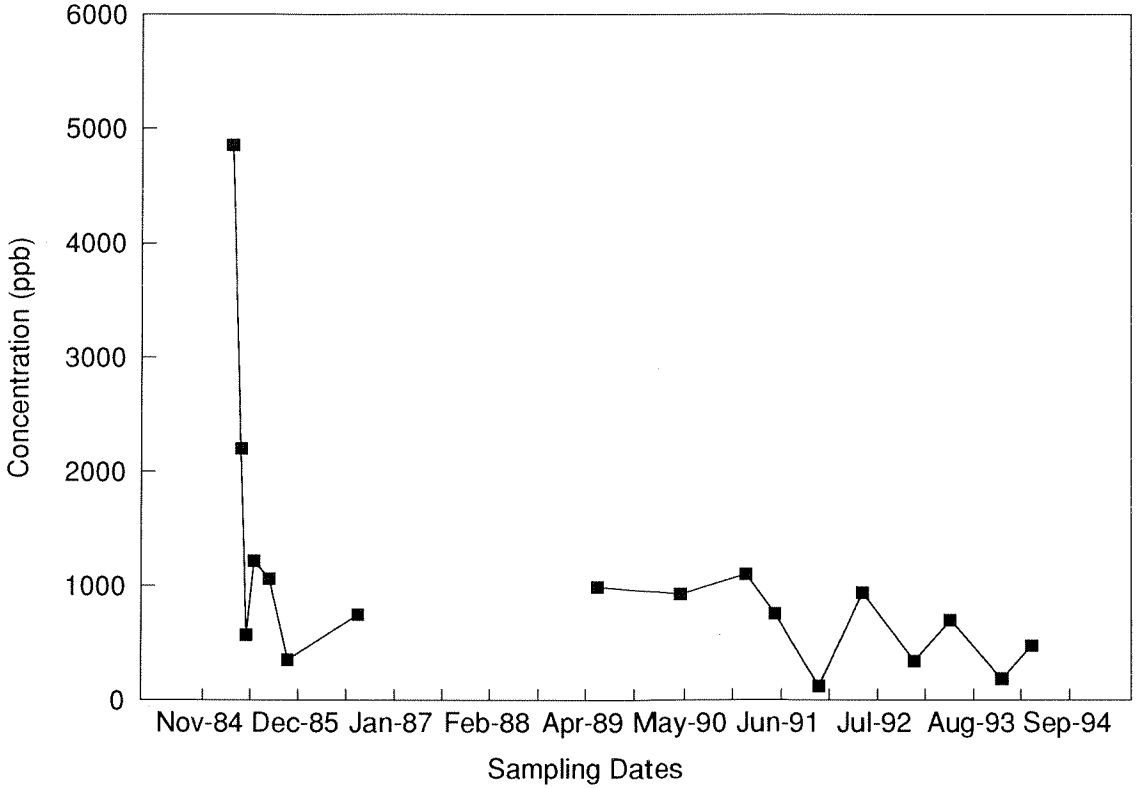

Figure 3: PERC Concentrations for Well MW-16A from 1984 to 1994

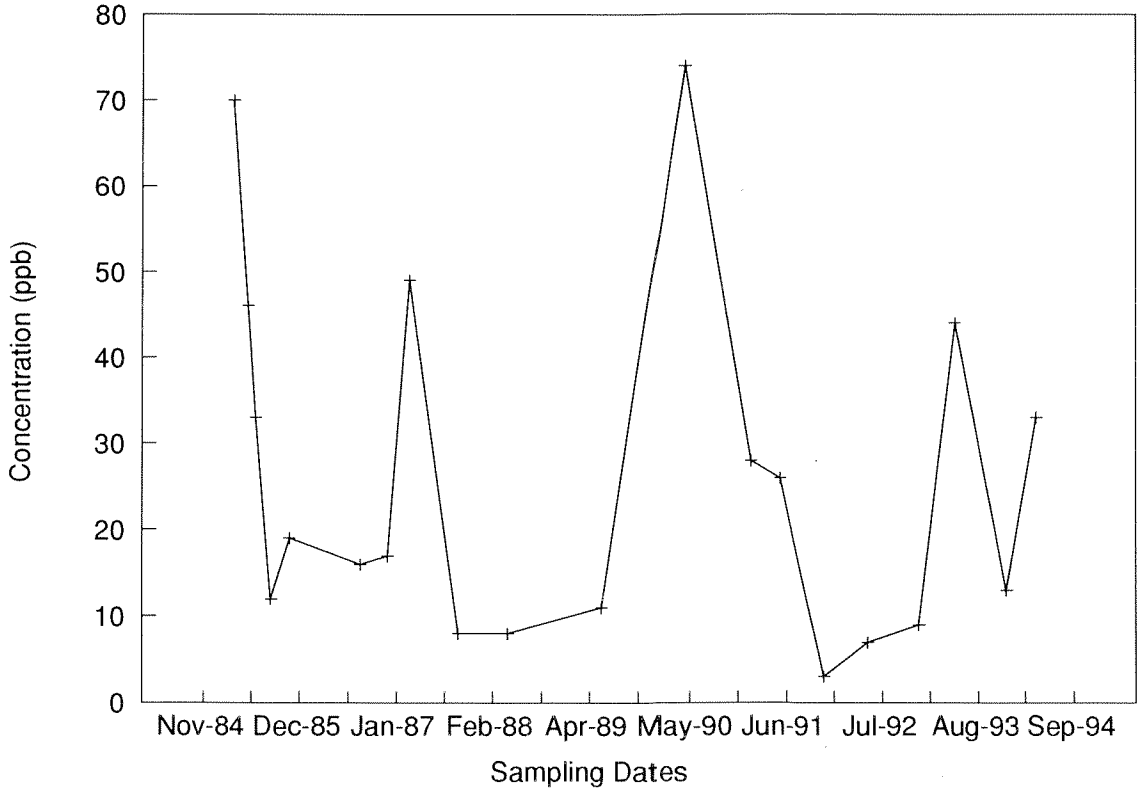

Table 1: Field Parameter Results for April 18-20, 1994

Monitoring Well	Total Depth From Top of PVC Casing As Measured	Geologic Unit Screened	Depth to Water (Feet)	pH (st. units)	Specific Conductance (umhos/cm)	Temperature (°C)	Purge Volume (gallons)
MW-40	75.1	Advance Outwash	34.20	7.5	260	11.1	21
MW-19A	97.5	Advance Outwash	38.62	6.9	200	11.8	30
MW-19B	61.2	Vashon Till	37.16	6.5	158	12.4	12
MW-41	96.8	Advance Outwash	29.40	7.1	202	11.6	33
MW-27	96.4	Advance Outwash	++	6.9	180	12.2	24
MW-20A	97.3	Advance Outwash	33.27	9.1	200	12.9	33
MW-32	114.4	Advance Outwash	61.44	7.1	188	11.9	27
MW-31	91.5	Advance Outwash	++	6.9	161	11.4	26
MW-21	92.1	Advance Outwash	40.09	7.0	190	12.6	26
MW-16A	109	Advance Outwash	41.67	7.3	218	12.7	132
MW-20B	50.4	Vashon Till	35.49	6.8	590	14.3	7.5
MW-13B	55.7	Vashon Till	37.0	6.7	220	11.6	11

++ = Dedicated pump obstructs water-level measurement.

Table 2: Summary of Analytes Detected in Samples Collected During April 18-20, 1994

Geologic Unit Screened	Vashon Till			Advance Outwash								
Monitoring Well	Upgradient Wells										Upgradient Wells	
	MW-13B	MW-19B	MW-20B	MW-16A	MW-20A	MW-21	MW-27	MW-31	MW-32	MW-41	MW-19A	MW-40
Volatile Organics: (ug/L)												
Tetrachloroethylene (PERC)	0.2 U	0.07 J	472	32.8	0.37	1.5	0.2 U	0.69	0.72	0.2 U	0.2 U	0.2 U
Trichloroethylene (TCE)	0.98	0.2 U	8.6 J	0.56	0.2 U	0.17 J	0.2 U	0.2 U	0.2 U	0.2 U	0.52	0.2 U
cis-1,2-Dichloroethylene (cis-1,2-DCE)	0.2 U	0.2 U	12.6	1.4	0.2 U	0.29	0.2 U	1.0	0.6	0.2 U	0.2 U	0.2 U
Carbon Tetrachloride	0.2 U	0.2 U	10 U	0.2 U	0.11 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.18 J	0.2 U

U = The analyte was not detected at or above the reported value.
J = The analyte was positively identified. The associated numerical result is an estimate.

Table 3: Summary of Sampling Results from January 1991 to April 1994

Well	January 1991			May 1991			November 1991			May 1992			December 1992			May 1993		
Number	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 U	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 U	1 UJ	1 UJ	10 U	10 U	10 U
MW-19A	--	--	--	--	--	--	1 U	0.5 J	1 U	--	--	--	1 U	1 UJ	1 UJ	--	--	--
MW-40	1 U	1 U	1 U	--	--	--	1 U	1 U	1 U	--	--	--	1 U	1 UJ	1 UJ	--	--	--

Well	December 1993			April 1994		
Number	PERC	TCE	1,2-DCE	PERC	TCE	1,2-DCE
MW-16A	13	0.3 J	0.7 J	33	0.6	1.4
MW-20A	0.3 J	1 U	1 U	0.4	0.2 U	0.2 U
MW-20B	187	50 U	8.2 J	472	8.6 J	12.6
MW-21	1.6	1 U	0.4 J	1.5	0.2 J	0.3
MW-27	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U
MW-31	0.8 J	1 U	1.2 J	0.7	0.2 U	1.0
MW-32	0.7 J	1 U	0.6 J	0.7	0.2 U	0.6
MW-41	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U
MW-19A	1 U	0.4	1 U	0.2 U	0.5	0.2 U
MW-40	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U

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

APPENDIX A

Analytical Results
Lakewood/Plaza Cleaners
April 18–20, 1994

MANCHESTER ENVIRONMENTAL LABORATORY
7411 Beach Drive E , Port Orchard Washington 98366

CASE NARRATIVE

May 25, 1994

Subject: Lakewood Plaza Cleaners

Samples: 94 - 168080 to -168094

Case No. DOE-083X

Officer: Pam Marti

By: Dickey D. Huntamer
Organics Analysis Unit

VOLATILE ORGANIC ANALYSIS

ANALYTICAL METHODS:

Volatile organic compounds were analyzed using Manchester modification of the EPA SW 846 Method 8260 purge-trap procedure with capillary GC/MS analysis. Normal QA/QC procedures were performed on the samples.

BLANKS:

Low levels of the common laboratory solvents acetone and methylene chloride were detected in the laboratory blanks along with traces of some other compounds. The EPA five times rule was applied to all target compounds which were found in the blank. Compounds that were found in the sample and in the blank were considered real and not the result of contamination if the levels in the sample are greater than or equal to five times the amount of compounds in the associated method blank.

SURROGATES:

Surrogate recoveries were within acceptable limits for water samples.

HOLDING TIMES:

Both the water and soil samples were analyzed within the recommended 14 day holding time.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE:

Water matrix spikes were within acceptable QC limits for both percent recovery and Relative Percent Differences (RPD) for most compounds. Tetrachloroethene was outside due to high native concentrations, while cis and trans -1,3-dichloropropene and m+p xylene had low recoveries and the "J" qualifier was added to the results for these compounds.

ANALYTICAL COMMENTS:

No analytical problems were encountered in the analysis. The data is acceptable for use as qualified.

DATA QUALIFIER CODES:

U	-	The analyte was not detected at or above the reported value.
J	-	The analyte was positively identified. The associated numerical value is an estimate.
UJ	-	The analyte was not detected at or above the reported estimated result.
REJ	-	The data are unusable for all purposes.
EXP	-	The result is equal to the number before EXP times 10 to the power of the number after EXP. As an example 3EXP6 equals 3×10^6.
NAF	-	Not analyzed for.
N	-	For organic analytes there is evidence the analyte is present in this sample.
NJ	-	There is evidence that the analyte is present. The associated numerical result is an estimate.
E	-	This qualifier is used when the concentration of the associated value exceeds the known calibration range.
*	-	The analyte was present in the sample. (Visual Aid to locate detected compound on report sheet.)

Washington State Department of Ecology
Sample/Project Analysis Results

Project: DOE-083X LAKEWOOD PLAZA CLEANERS Officer: PZM Account: D3P11

Laboratory: Ecology, Manchester

Sample No: 94 168080 Description: MW-40 Source: Well (Test/Observation)

Begin Date: 94/04/18

VOA - PP Scan	Water-Total Result	Units
Carbon Tetrachloride	0.20U	ug/l
Acetone	10.0U	ug/l
Chloroform	0.20U	ug/l
Benzene	1.0U	ug/l
1,1,1-Trichloroethane	1.0U	ug/l
Bromomethane	5.0U	ug/l
Chloromethane	1.0U	ug/l
Dibromomethane	0.20U	ug/l
Bromochloromethane	1.0U	ug/l
Chloroethane	1.0U	ug/l
Vinyl Chloride	1.0U	ug/l
Methylene Chloride	10.0U	ug/l
Carbon Disulfide	2.0U	ug/l
Bromoform	1.0U	ug/l
Bromodichloromethane	0.20U	ug/l
1,1-Dichloroethane	0.20U	ug/l
1,1-Dichloroethene	1.0U	ug/l
Trichlorofluoromethane	1.0U	ug/l
Methane, Dichlorodiflu+	1.0U	ug/l
1,2-Dichloropropane	0.20U	ug/l
2-Butanone	1.0U	ug/l
1,1,2-Trichloroethane	0.20U	ug/l
Ethene, trichloro-	0.20U	ug/l
ETHANE, 1,1,2,2-TETRAC+	0.20U	ug/l
1,2,3-Trichlorobenzene	0.20U	ug/l
Hexachlorobutadiene	0.20U	ug/l
Naphthalene	0.20U	ug/l
o-XYLENE	0.20U	ug/l
2-Chlorotoluene	0.20U	ug/l
1,2-Dichlorobenzene	0.20U	ug/l
1,2,4-Trimethylbenzene	0.20U	ug/l
1,2-Dibromo-3-chloropr+	1.0U	ug/l
1,2,3-Trichloropropane	1.0U	ug/l
Tert-Butylbenzene	0.20U	ug/l
Isopropylbenzene (Cume+	1.0U	ug/l
p-Isopropyltoluene	0.20U	ug/l
Ethylbenzene	0.20U	ug/l
BENZENE, ETHENYL-(STYR+	0.20U	ug/l
BENZENE, PROPYL-	0.20U	ug/l
Butylbenzene	0.20U	ug/l
4-Chlorotoluene	0.20U	ug/l
1,4-Dichlorobenzene	0.20U	ug/l
1,2-Dibromoethane (EDB)	0.20U	ug/l
1,2-Dichloroethane	0.20U	ug/l
4-Methyl-2-Pentanone(M+	1.0U	ug/l

VOA - PP Scan *** Continued ***	Water-Total Result	Units
1,3,5-Trimethylbenzene	0.20U	ug/l
Bromobenzene	0.20U	ug/l
Toluene	0.20U	ug/l
Chlorobenzene	1.0U	ug/l
1,2,4-Trichlorobenzene	0.20U	ug/l
Dibromochloromethane	0.20U	ug/l
Tetrachloroethene	0.20U	ug/l
Sec-Butylbenzene	0.20U	ug/l
1,3-Dichloropropane	0.20U	ug/l
Cis-1,2-Dichloroethene	0.20U	ug/l
trans-1,2-Dichloroethe+	0.20U	ug/l
1,3-Dichlorobenzene	0.20U	ug/l
1,1-Dichloropropene	0.20U	ug/l
2-Hexanone	1.0U	ug/l
2,2-Dichloropropane	1.0U	ug/l
Ethane, 1,1,1,2-Tetrac+	0.20U	ug/l
Total Xylenes	0.60U	ug/l
m p-XYLENE	0.40U	ug/l
cis-1,3-Dichloropropene	0.11U	ug/l
trans-1,3-Dichloroprop+	0.094U	ug/l
p-BROMOFLUOROBENZENE	101	% Recov
FLUOROBENZENE	101	% Recov
TOLUENE-D8	101	% Recov
1,2-DICHLOROBENZENE-D4	101	% Recov
1,2-DICHLOROETHANE-D4	101	% Recov

(Sample Complete)

Washington State Department of Ecology
Sample/Project Analysis Results

Project: DOE-083X LAKEWOOD PLAZA CLEANERS Officer: PZM Account: D3P11

Laboratory: Ecology, Manchester

Sample No: 94 168081 Description: MW-19A Source: Well (Test/Observation)

Begin Date: 94/04/18 :

VOA - PP Scan	Water-Total Result	Units
Carbon Tetrachloride	0.18J*	ug/l
Acetone	10.0U	ug/l
Chloroform	0.20U	ug/l
Benzene	1.0U	ug/l
1,1,1-Trichloroethane	1.0U	ug/l
Bromomethane	5.0U	ug/l
Chloromethane	1.0U	ug/l
Dibromomethane	0.20U	ug/l
Bromochloromethane	1.0U	ug/l
Chloroethane	1.0U	ug/l
Vinyl Chloride	1.0U	ug/l
Methylene Chloride	10.0U	ug/l
Carbon Disulfide	2.0U	ug/l
Bromoform	1.0U	ug/l
Bromodichloromethane	0.20U	ug/l
1,1-Dichloroethane	0.20U	ug/l
1,1-Dichloroethene	1.0U	ug/l
Trichlorofluoromethane	1.0U	ug/l
Methane, Dichlorodiflu+	1.0U	ug/l
1,2-Dichloropropane	0.20U	ug/l
2-Butanone	1.0U	ug/l
1,1,2-Trichloroethane	0.20U	ug/l
Ethene, trichloro-	0.52 *	ug/l
ETHANE, 1,1,2,2-TETRAC+	0.20U	ug/l
1,2,3-Trichlorobenzene	0.20U	ug/l
Hexachlorobutadiene	0.20U	ug/l
Naphthalene	0.20U	ug/l
o-XYLENE	0.20U	ug/l
2-Chlorotoluene	0.20U	ug/l
1,2-Dichlorobenzene	0.20U	ug/l
1,2,4-Trimethylbenzene	0.20U	ug/l
1,2-Dibromo-3-chloropr+	1.0U	ug/l
1,2,3-Trichloropropane	1.0U	ug/l
Tert-Butylbenzene	0.20U	ug/l
Isopropylbenzene (Cume+	1.0U	ug/l
p-Isopropyltoluene	0.20U	ug/l
Ethylbenzene	0.20U	ug/l
BENZENE, ETHENYL-(STYR+	0.20U	ug/l
BENZENE, PROPYL-	0.20U	ug/l
Butylbenzene	0.20U	ug/l
4-Chlorotoluene	0.20U	ug/l
1,4-Dichlorobenzene	0.20U	ug/l
1,2-Dibromoethane (EDB)	0.20U	ug/l
1,2-Dichloroethane	0.20U	ug/l
4-Methyl-2-Pentanone(M+	1.0U	ug/l

VOA - PP Scan *** Continued ***	Water-Total Result	Units
1,3,5-Trimethylbenzene	0.20U	ug/l
Bromobenzene	0.20U	ug/l
Toluene	0.20U	ug/l
Chlorobenzene	1.0U	ug/l
1,2,4-Trichlorobenzene	0.20U	ug/l
Dibromochloromethane	0.20U	ug/l
Tetrachloroethene	0.20U	ug/l
Sec-Butylbenzene	0.20U	ug/l
1,3-Dichloropropane	0.20U	ug/l
Cis-1,2-Dichloroethene	0.20U	ug/l
trans-1,2-Dichloroethe+	0.20U	ug/l
1,3-Dichlorobenzene	0.20U	ug/l
1,1-Dichloropropene	0.20U	ug/l
2-Hexanone	1.0U	ug/l
2,2-Dichloropropane	1.0U	ug/l
Ethane, 1,1,1,2-Tetrac+	0.20U	ug/l
Total Xylenes	0.60U	ug/l
m p-XYLENE	0.40U	ug/l
cis-1,3-Dichloropropene	0.11U	ug/l
trans-1,3-Dichloroprop+	0.094U	ug/l
p-BROMOFLUOROBENZENE	98	% Recov
FLUOROBENZENE	100	% Recov
TOLUENE-D8	102	% Recov
1,2-DICHLOROBENZENE-D4	99	% Recov
1,2-DICHLOROETHANE-D4	101	% Recov

(Sample Complete)

Project: DOE-083X LAKEWOOD PLAZA CLEANERS Officer: PZM Account: D3P11

Laboratory: Ecology, Manchester

Sample No: 94 168082 Description: MW-19B Source: Well (Test/Observation)

Begin Date: 94/04/18 :

VOA - PP Scan	Water-Total Result	Units
Carbon Tetrachloride	0.20U	ug/l
Acetone	10.0U	ug/l
Chloroform	0.20U	ug/l
Benzene	1.0U	ug/l
1,1,1-Trichloroethane	1.0U	ug/l
Bromomethane	5.0U	ug/l
Chloromethane	1.0U	ug/l
Dibromomethane	0.20U	ug/l
Bromochloromethane	1.0U	ug/l
Chloroethane	1.0U	ug/l
Vinyl Chloride	1.0U	ug/l
Methylene Chloride	10.0U	ug/l
Carbon Disulfide	2.0U	ug/l
Bromoform	1.0U	ug/l
Bromodichloromethane	0.20U	ug/l
1,1-Dichloroethane	0.20U	ug/l
1,1-Dichloroethene	1.0U	ug/l
Trichlorofluoromethane	1.0U	ug/l
Methane, Dichlorodiflu+	1.0U	ug/l
1,2-Dichloropropane	0.20U	ug/l
2-Butanone	1.0U	ug/l
1,1,2-Trichloroethane	0.20U	ug/l
Ethene, trichloro-	0.20U	ug/l
ETHANE, 1,1,2,2-TETRAC+	0.20U	ug/l
1,2,3-Trichlorobenzene	0.20U	ug/l
Hexachlorobutadiene	0.20U	ug/l
Naphthalene	0.20U	ug/l
o-XYLENE	0.20U	ug/l
2-Chlorotoluene	0.20U	ug/l
1,2-Dichlorobenzene	0.20U	ug/l
1,2,4-Trimethylbenzene	0.20U	ug/l
1,2-Dibromo-3-chloropr+	1.0U	ug/l
1,2,3-Trichloropropane	1.0U	ug/l
Tert-Butylbenzene	0.20U	ug/l
Isopropylbenzene (Cume+	1.0U	ug/l
p-Isopropyltoluene	0.20U	ug/l
Ethylbenzene	0.20U	ug/l
BENZENE, ETHENYL-(STYR+	0.20U	ug/l
BENZENE, PROPYL-	0.20U	ug/l
Butylbenzene	0.20U	ug/l
4-Chlorotoluene	0.20U	ug/l
1,4-Dichlorobenzene	0.20U	ug/l
1,2-Dibromoethane (EDB)	0.20U	ug/l
1,2-Dichloroethane	0.20U	ug/l
4-Methyl-2-Pentanone(M+	1.0U	ug/l

VOA - PP Scan *** Continued ***	Water-Total Result	Units
1,3,5-Trimethylbenzene	0.20U	ug/l
Bromobenzene	0.20U	ug/l
Toluene	0.20U	ug/l
Chlorobenzene	1.0U	ug/l
1,2,4-Trichlorobenzene	0.20U	ug/l
Dibromochloromethane	0.20U	ug/l
Tetrachloroethene	0.070J*	ug/l
Sec-Butylbenzene	0.20U	ug/l
1,3-Dichloropropane	0.20U	ug/l
Cis-1,2-Dichloroethene	0.20U	ug/l
trans-1,2-Dichloroethe+	0.20U	ug/l
1,3-Dichlorobenzene	0.20U	ug/l
1,1-Dichloropropene	0.20U	ug/l
2-Hexanone	1.0U	ug/l
2,2-Dichloropropane	1.0U	ug/l
Ethane, 1,1,1,2-Tetrac+	0.20U	ug/l
Total Xylenes	0.60U	ug/l
m p-XYLENE	0.40U	ug/l
cis-1,3-Dichloropropene	0.11U	ug/l
trans-1,3-Dichloroprop+	0.094U	ug/l
p-BROMOFLUOROBENZENE	98	% Recov
FLUOROBENZENE	102	% Recov
TOLUENE-D8	101	% Recov
1,2-DICHLOROBENZENE-D4	99	% Recov
1,2-DICHLOROETHANE-D4	102	% Recov

(Sample Complete)

Project: DOE-083X LAKEWOOD PLAZA CLEANERS Officer: PZM Account: D3P11

Laboratory: Ecology, Manchester

Sample No: 94 168083 Description: MW-41 Source: Well (Test/Observation)

Begin Date: 94/04/18 :

VOA - PP Scan	Water-Total Result	Units
Carbon Tetrachloride	0.20U	ug/l
Acetone	10.0U	ug/l
Chloroform	0.20U	ug/l
Benzene	1.0U	ug/l
1,1,1-Trichloroethane	1.0U	ug/l
Bromomethane	5.0U	ug/l
Chloromethane	1.0U	ug/l
Dibromomethane	0.20U	ug/l
Bromochloromethane	1.0U	ug/l
Chloroethane	1.0U	ug/l
Vinyl Chloride	1.0U	ug/l
Methylene Chloride	10.0U	ug/l
Carbon Disulfide	2.0U	ug/l
Bromoform	1.0U	ug/l
Bromodichloromethane	0.20U	ug/l
1,1-Dichloroethane	0.20U	ug/l
1,1-Dichloroethene	1.0U	ug/l
Trichlorofluoromethane	1.0U	ug/l
Methane, Dichlorodiflu+	1.0U	ug/l
1,2-Dichloropropane	0.20U	ug/l
2-Butanone	1.0U	ug/l
1,1,2-Trichloroethane	0.20U	ug/l
Ethene, trichloro-	0.20U	ug/l
ETHANE, 1,1,2,2-TETRAC+	0.20U	ug/l
1,2,3-Trichlorobenzene	0.20U	ug/l
Hexachlorobutadiene	0.20U	ug/l
Naphthalene	0.20U	ug/l
o-XYLENE	0.20U	ug/l
2-Chlorotoluene	0.20U	ug/l
1,2-Dichlorobenzene	0.20U	ug/l
1,2,4-Trimethylbenzene	0.20U	ug/l
1,2-Dibromo-3-chloropr+	1.0U	ug/l
1,2,3-Trichloropropane	1.0U	ug/l
Tert-Butylbenzene	0.20U	ug/l
Isopropylbenzene (Cume+	1.0U	ug/l
p-Isopropyltoluene	0.20U	ug/l
Ethylbenzene	0.20U	ug/l
BENZENE, ETHENYL-(STYR+	0.20U	ug/l
BENZENE, PROPYL-	0.20U	ug/l
Butylbenzene	0.20U	ug/l
4-Chlorotoluene	0.20U	ug/l
1,4-Dichlorobenzene	0.20U	ug/l
1,2-Dibromoethane (EDB)	0.20U	ug/l
1,2-Dichloroethane	0.20U	ug/l
4-Methyl-2-Pentanone(M+	1.0U	ug/l

VOA - PP Scan *** Continued ***	Water-Total Result	Units
1,3,5-Trimethylbenzene	0.20U	ug/l
Bromobenzene	0.20U	ug/l
Toluene	0.20U	ug/l
Chlorobenzene	1.0U	ug/l
1,2,4-Trichlorobenzene	0.20U	ug/l
Dibromochloromethane	0.20U	ug/l
Tetrachloroethene	0.20U	ug/l
Sec-Butylbenzene	0.20U	ug/l
1,3-Dichloropropane	0.20U	ug/l
Cis-1,2-Dichloroethene	0.20U	ug/l
trans-1,2-Dichloroethe+	0.20U	ug/l
1,3-Dichlorobenzene	0.20U	ug/l
1,1-Dichloropropene	0.20U	ug/l
2-Hexanone	1.0U	ug/l
2,2-Dichloropropane	1.0U	ug/l
Ethane, 1,1,1,2-Tetrac+	0.20U	ug/l
Total Xylenes	0.60U	ug/l
m p-XYLENE	0.40U	ug/l
cis-1,3-Dichloropropene	0.11U	ug/l
trans-1,3-Dichloroprop+	0.094U	ug/l
p-BROMOFLUOROBENZENE	99	% Recov
FLUOROBENZENE	101	% Recov
TOLUENE-D8	103	% Recov
1,2-DICHLOROBENZENE-D4	101	% Recov
1,2-DICHLOROETHANE-D4	100	% Recov

(Sample Complete)

Project: DOE-083X LAKEWOOD PLAZA CLEANERS Officer: PZM Account: D3P11

Laboratory: Ecology, Manchester

Sample No: 94 168084 Description: MW-27 Source: Well (Test/Observation)

Begin Date: 94/04/18 :

VOA - PP Scan	Water-Total Result	Units
Carbon Tetrachloride	0.20U	ug/l
Acetone	10.0U	ug/l
Chloroform	0.20U	ug/l
Benzene	1.0U	ug/l
1,1,1-Trichloroethane	1.0U	ug/l
Bromomethane	5.0U	ug/l
Chloromethane	1.0U	ug/l
Dibromomethane	0.20U	ug/l
Bromochloromethane	1.0U	ug/l
Chloroethane	1.0U	ug/l
Vinyl Chloride	1.0U	ug/l
Methylene Chloride	10.0U	ug/l
Carbon Disulfide	2.0U	ug/l
Bromoform	1.0U	ug/l
Bromodichloromethane	0.20U	ug/l
1,1-Dichloroethane	0.20U	ug/l
1,1-Dichloroethene	1.0U	ug/l
Trichlorofluoromethane	1.0U	ug/l
Methane, Dichlorodiflu+	1.0U	ug/l
1,2-Dichloropropane	0.20U	ug/l
2-Butanone	1.0U	ug/l
1,1,2-Trichloroethane	0.20U	ug/l
Ethene, trichloro-	0.20U	ug/l
ETHANE, 1,1,2,2-TETRAC+	0.20U	ug/l
1,2,3-Trichlorobenzene	0.20U	ug/l
Hexachlorobutadiene	0.20U	ug/l
Naphthalene	0.20U	ug/l
o-XYLENE	0.20U	ug/l
2-Chlorotoluene	0.20U	ug/l
1,2-Dichlorobenzene	0.20U	ug/l
1,2,4-Trimethylbenzene	0.20U	ug/l
1,2-Dibromo-3-chloropr+	1.0U	ug/l
1,2,3-Trichloropropane	1.0U	ug/l
Tert-Butylbenzene	0.20U	ug/l
Isopropylbenzene (Cume+	1.0U	ug/l
p-Isopropyltoluene	0.20U	ug/l
Ethylbenzene	0.20U	ug/l
BENZENE, ETHENYL-(STYR+	0.20U	ug/l
BENZENE, PROPYL-	0.20U	ug/l
Butylbenzene	0.20U	ug/l
4-Chlorotoluene	0.20U	ug/l
1,4-Dichlorobenzene	0.20U	ug/l
1,2-Dibromoethane (EDB)	0.20U	ug/l
1,2-Dichloroethane	0.20U	ug/l
4-Methyl-2-Pentanone(M+	1.0U	ug/l

VOA - PP Scan *** Continued ***	Water-Total Result	Units
1,3,5-Trimethylbenzene	0.20U	ug/l
Bromobenzene	0.20U	ug/l
Toluene	0.20U	ug/l
Chlorobenzene	1.0U	ug/l
1,2,4-Trichlorobenzene	0.20U	ug/l
Dibromochloromethane	0.20U	ug/l
Tetrachloroethene	0.20U	ug/l
Sec-Butylbenzene	0.20U	ug/l
1,3-Dichloropropane	0.20U	ug/l
Cis-1,2-Dichloroethene	0.20U	ug/l
trans-1,2-Dichloroethe+	0.20U	ug/l
1,3-Dichlorobenzene	0.20U	ug/l
1,1-Dichloropropene	0.20U	ug/l
2-Hexanone	1.0U	ug/l
2,2-Dichloropropane	1.0U	ug/l
Ethane, 1,1,1,2-Tetrac+	0.20U	ug/l
Total Xylenes	0.60U	ug/l
m p-XYLENE	0.40U	ug/l
cis-1,3-Dichloropropene	0.11U	ug/l
trans-1,3-Dichloroprop+	0.094U	ug/l
p-BROMOFLUOROBENZENE	99	% Recov
FLUOROBENZENE	101	% Recov
TOLUENE-D8	102	% Recov
1,2-DICHLOROBENZENE-D4	100	% Recov
1,2-DICHLOROETHANE-D4	103	% Recov

Tent Ident - VOA Sca	Water-Total Result	Units
2-BUTENOIC ACID, METHY+	4.4NJ*	ug/l

(Sample Complete)

Project: DOE-083X LAKEWOOD PLAZA CLEANERS Officer: PZM Account: D3P11

Laboratory: Ecology, Manchester

Sample No: 94 168085 Description: MW-20A Source: Well (Test/Observation)

Begin Date: 94/04/18 :

VOA - PP Scan	Water-Total Result	Units
Carbon Tetrachloride	0.11J*	ug/l
Acetone	10.0U	ug/l
Chloroform	0.20U	ug/l
Benzene	1.0U	ug/l
1,1,1-Trichloroethane	1.0U	ug/l
Bromomethane	5.0U	ug/l
Chloromethane	1.0U	ug/l
Dibromomethane	0.20U	ug/l
Bromochloromethane	1.0U	ug/l
Chloroethane	1.0U	ug/l
Vinyl Chloride	1.0U	ug/l
Methylene Chloride	10.0U	ug/l
Carbon Disulfide	2.0U	ug/l
Bromoform	1.0U	ug/l
Bromodichloromethane	0.20U	ug/l
1,1-Dichloroethane	0.20U	ug/l
1,1-Dichloroethene	1.0U	ug/l
Trichlorofluoromethane	1.0U	ug/l
Methane, Dichlorodiflu+	1.0U	ug/l
1,2-Dichloropropane	0.20U	ug/l
2-Butanone	1.0U	ug/l
1,1,2-Trichloroethane	0.20U	ug/l
Ethene, trichloro-	0.20U	ug/l
ETHANE, 1,1,2,2-TETRAC+	0.20U	ug/l
1,2,3-Trichlorobenzene	0.20U	ug/l
Hexachlorobutadiene	0.20U	ug/l
Naphthalene	0.20U	ug/l
o-XYLENE	0.20U	ug/l
2-Chlorotoluene	0.20U	ug/l
1,2-Dichlorobenzene	0.20U	ug/l
1,2,4-Trimethylbenzene	0.20U	ug/l
1,2-Dibromo-3-chloropr+	1.0U	ug/l
1,2,3-Trichloropropane	1.0U	ug/l
Tert-Butylbenzene	0.20U	ug/l
Isopropylbenzene (Cume+	1.0U	ug/l
p-Isopropyltoluene	0.20U	ug/l
Ethylbenzene	0.20U	ug/l
BENZENE, ETHENYL-(STYR+	0.20U	ug/l
BENZENE, PROPYL-	0.20U	ug/l
Butylbenzene	0.20U	ug/l
4-Chlorotoluene	0.20U	ug/l
1,4-Dichlorobenzene	0.20U	ug/l
1,2-Dibromoethane (EDB)	0.20U	ug/l
1,2-Dichloroethane	0.20U	ug/l
4-Methyl-2-Pentanone(M+	1.0U	ug/l

VOA - PP Scan *** Continued ***	Water-Total Result	Units
1,3,5-Trimethylbenzene	0.20U	ug/l
Bromobenzene	0.20U	ug/l
Toluene	0.20U	ug/l
Chlorobenzene	1.0U	ug/l
1,2,4-Trichlorobenzene	0.20U	ug/l
Dibromochloromethane	0.20U	ug/l
Tetrachloroethene	0.37 *	ug/l
Sec-Butylbenzene	0.20U	ug/l
1,3-Dichloropropane	0.20U	ug/l
Cis-1,2-Dichloroethene	0.20U	ug/l
trans-1,2-Dichloroethe+	0.20U	ug/l
1,3-Dichlorobenzene	0.20U	ug/l
1,1-Dichloropropene	0.20U	ug/l
2-Hexanone	1.0U	ug/l
2,2-Dichloropropane	1.0U	ug/l
Ethane, 1,1,1,2-Tetrac+	0.20U	ug/l
Total Xylenes	0.60U	ug/l
m p-XYLENE	0.40U	ug/l
cis-1,3-Dichloropropene	0.11U	ug/l
trans-1,3-Dichloroprop+	0.094U	ug/l
p-BROMOFLUOROBENZENE	96	% Recov
FLUOROBENZENE	101	% Recov
TOLUENE-D8	102	% Recov
1,2-DICHLOROBENZENE-D4	102	% Recov
1,2-DICHLOROETHANE-D4	100	% Recov

(Sample Complete)

Project: DOE-083X LAKEWOOD PLAZA CLEANERS

Officer: PZM

Account: D3P11

Laboratory: Ecology, Manchester

Sample No: 94 168086

Description: MW-32

Source: Well (Test/Observation)

Begin Date: 94/04/18 :

VOA - PP Scan	Water-Total Result	Units
Carbon Tetrachloride	0.20U	ug/l
Acetone	10.0U	ug/l
Chloroform	0.20U	ug/l
Benzene	1.0U	ug/l
1,1,1-Trichloroethane	1.0U	ug/l
Bromomethane	5.0U	ug/l
Chloromethane	1.0U	ug/l
Dibromomethane	0.20U	ug/l
Bromochloromethane	1.0U	ug/l
Chloroethane	1.0U	ug/l
Vinyl Chloride	1.0U	ug/l
Methylene Chloride	10.0U	ug/l
Carbon Disulfide	2.0U	ug/l
Bromoform	1.0U	ug/l
Bromodichloromethane	0.20U	ug/l
1,1-Dichloroethane	0.20U	ug/l
1,1-Dichloroethene	1.0U	ug/l
Trichlorofluoromethane	1.0U	ug/l
Methane, Dichlorodiflu+	1.0U	ug/l
1,2-Dichloropropane	0.20U	ug/l
2-Butanone	1.0U	ug/l
1,1,2-Trichloroethane	0.20U	ug/l
Ethene, trichloro-	0.20U	ug/l
ETHANE, 1,1,2,2-TETRAC+	0.20U	ug/l
1,2,3-Trichlorobenzene	0.20U	ug/l
Hexachlorobutadiene	0.20U	ug/l
Naphthalene	0.20U	ug/l
o-XYLENE	0.20U	ug/l
2-Chlorotoluene	0.20U	ug/l
1,2-Dichlorobenzene	0.20U	ug/l
1,2,4-Trimethylbenzene	0.20U	ug/l
1,2-Dibromo-3-chloropr+	1.0U	ug/l
1,2,3-Trichloropropane	1.0U	ug/l
Tert-Butylbenzene	0.20U	ug/l
Isopropylbenzene (Cume+	1.0U	ug/l
p-Isopropyltoluene	0.20U	ug/l
Ethylbenzene	0.20U	ug/l
BENZENE, ETHENYL-(STYR+	0.20U	ug/l
BENZENE, PROPYL-	0.20U	ug/l
Butylbenzene	0.20U	ug/l
4-Chlorotoluene	0.20U	ug/l
1,4-Dichlorobenzene	0.20U	ug/l
1,2-Dibromoethane (EDB)	0.20U	ug/l
1,2-Dichloroethane	0.20U	ug/l
4-Methyl-2-Pentanone(M+	1.0U	ug/l

VOA - PP Scan *** Continued ***	Water-Total Result	Units
1,3,5-Trimethylbenzene	0.20U	ug/l
Bromobenzene	0.20U	ug/l
Toluene	0.20U	ug/l
Chlorobenzene	1.0U	ug/l
1,2,4-Trichlorobenzene	0.20U	ug/l
Dibromochloromethane	0.20U	ug/l
Tetrachloroethene	0.72 *	ug/l
Sec-Butylbenzene	0.20U	ug/l
1,3-Dichloropropane	0.20U	ug/l
Cis-1,2-Dichloroethene	0.60 *	ug/l
trans-1,2-Dichloroethe+	0.20U	ug/l
1,3-Dichlorobenzene	0.20U	ug/l
1,1-Dichloropropene	0.20U	ug/l
2-Hexanone	1.0U	ug/l
2,2-Dichloropropane	1.0U	ug/l
Ethane, 1,1,1,2-Tetrac+	0.20U	ug/l
Total Xylenes	0.60U	ug/l
m p-XYLENE	0.40U	ug/l
cis-1,3-Dichloropropene	0.11U	ug/l
trans-1,[illegible]loroprop+	0.094U	ug/l
p-BROMO[illegible]ENZENE	98	% Recov
FLUOROBE[illegible]	100	% Recov
TOLUENE-D8	102	% Recov
1,2-DICHLOR[illegible]ENE-D4	101	% Recov
1,2-DICHLOROETHANE-D4	101	% Recov

Tent Ident - VOA Sca	Water-Total Result	Units
2-BUTENOIC ACID, METHY+	4.5NJ*	ug/l

(Sample Complete)

Project: DOE-083X LAKEWOOD PLAZA CLEANERS Officer: PZM Account: D3P11

Laboratory: Ecology, Manchester

Sample No: 94 168087 Description: MW-31 Source: Well (Test/Observation)

Begin Date: 94/04/19 :

VOA - PP Scan	Water-Total Result	Units
Carbon Tetrachloride	0.20U	ug/l
Acetone	10.0U	ug/l
Chloroform	0.20U	ug/l
Benzene	1.0U	ug/l
1,1,1-Trichloroethane	1.0U	ug/l
Bromomethane	5.0U	ug/l
Chloromethane	1.0U	ug/l
Dibromomethane	0.20U	ug/l
Bromochloromethane	1.0U	ug/l
Chloroethane	1.0U	ug/l
Vinyl Chloride	1.0U	ug/l
Methylene Chloride	10.0U	ug/l
Carbon Disulfide	2.0U	ug/l
Bromoform	1.0U	ug/l
Bromodichloromethane	0.20U	ug/l
1,1-Dichloroethane	0.20U	ug/l
1,1-Dichloroethene	1.0U	ug/l
Trichlorofluoromethane	1.0U	ug/l
Methane, Dichlorodiflu+	1.0U	ug/l
1,2-Dichloropropane	0.20U	ug/l
2-Butanone	1.0U	ug/l
1,1,2-Trichloroethane	0.20U	ug/l
Ethene, trichloro-	0.20U	ug/l
ETHANE, 1,1,2,2-TETRAC+	0.20U	ug/l
1,2,3-Trichlorobenzene	0.20U	ug/l
Hexachlorobutadiene	0.20U	ug/l
Naphthalene	0.20U	ug/l
o-XYLENE	0.20U	ug/l
2-Chlorotoluene	0.20U	ug/l
1,2-Dichlorobenzene	0.20U	ug/l
1,2,4-Trimethylbenzene	0.20U	ug/l
1,2-Dibromo-3-chloropr+	1.0U	ug/l
1,2,3-Trichloropropane	1.0U	ug/l
Tert-Butylbenzene	0.20U	ug/l
Isopropylbenzene (Cume+	1.0U	ug/l
p-Isopropyltoluene	0.20U	ug/l
Ethylbenzene	0.20U	ug/l
BENZENE, ETHENYL-(STYR+	0.20U	ug/l
BENZENE, PROPYL-	0.20U	ug/l
Butylbenzene	0.20U	ug/l
4-Chlorotoluene	0.20U	ug/l
1,4-Dichlorobenzene	0.20U	ug/l
1,2-Dibromoethane (EDB)	0.20U	ug/l
1,2-Dichloroethane	0.20U	ug/l
4-Methyl-2-Pentanone(M+	1.0U	ug/l

VOA - PP Scan *** Continued ***	Water-Total Result	Units
1,3,5-Trimethylbenzene	0.20U	ug/l
Bromobenzene	0.20U	ug/l
Toluene	0.20U	ug/l
Chlorobenzene	1.0U	ug/l
1,2,4-Trichlorobenzene	0.20U	ug/l
Dibromochloromethane	0.20U	ug/l
Tetrachloroethene	0.69 *	ug/l
Sec-Butylbenzene	0.20U	ug/l
1,3-Dichloropropane	0.20U	ug/l
Cis-1,2-Dichloroethene	1.0 *	ug/l
trans-1,2-Dichloroethe+	0.20U	ug/l
1,3-Dichlorobenzene	0.20U	ug/l
1,1-Dichloropropene	0.20U	ug/l
2-Hexanone	1.0U	ug/l
2,2-Dichloropropane	1.0U	ug/l
Ethane, 1,1,1,2-Tetrac+	0.20U	ug/l
Total Xylenes	0.60U	ug/l
m p-XYLENE	0.40U	ug/l
cis-1,3-Dichloropropene	0.11U	ug/l
trans-1,3-Dichloroprop+	0.094U	ug/l
p-BROMOFLUOROBENZENE	98	% Recov
FLUOROBENZENE	101	% Recov
TOLUENE-D8	103	% Recov
1,2-DICHLOROBENZENE-D4	101	% Recov
1,2-DICHLOROETHANE-D4	102	% Recov

Tent Ident - VOA Sca	Water-Total Result	Units
2-Butenoic acid, methy+	4.5NJ*	ug/l

(Sample Complete)

Project: DOE-083X LAKEWOOD PLAZA CLEANERS Officer: PZM Account: D3P11

Laboratory: Ecology, Manchester

Sample No: 94 168088 Description: MW-21 Source: Well (Test/Observation)

Begin Date: 94/04/19 :

VOA - PP Scan	Water-Total Result	Units
Carbon Tetrachloride	0.20U	ug/l
Acetone	10.0U	ug/l
Chloroform	0.20U	ug/l
Benzene	1.0U	ug/l
1,1,1-Trichloroethane	1.0U	ug/l
Bromomethane	5.0U	ug/l
Chloromethane	1.0U	ug/l
Dibromomethane	0.20U	ug/l
Bromochloromethane	1.0U	ug/l
Chloroethane	1.0U	ug/l
Vinyl Chloride	1.0U	ug/l
Methylene Chloride	10.0U	ug/l
Carbon Disulfide	2.0U	ug/l
Bromoform	1.0U	ug/l
Bromodichloromethane	0.20U	ug/l
1,1-Dichloroethane	0.20U	ug/l
1,1-Dichloroethene	1.0U	ug/l
Trichlorofluoromethane	1.0U	ug/l
Methane, Dichlorodiflu+	1.0U	ug/l
1,2-Dichloropropane	0.20U	ug/l
2-Butanone	1.0U	ug/l
1,1,2-Trichloroethane	0.20U	ug/l
Ethene, trichloro-	0.17J*	ug/l
ETHANE, 1,1,2,2-TETRAC+	0.20U	ug/l
1,2,3-Trichlorobenzene	0.20U	ug/l
Hexachlorobutadiene	0.20U	ug/l
Naphthalene	0.20U	ug/l
o-XYLENE	0.20U	ug/l
2-Chlorotoluene	0.20U	ug/l
1,2-Dichlorobenzene	0.20U	ug/l
1,2,4-Trimethylbenzene	0.20U	ug/l
1,2-Dibromo-3-chloropr+	1.0U	ug/l
1,2,3-Trichloropropane	1.0U	ug/l
Tert-Butylbenzene	0.20U	ug/l
Isopropylbenzene (Cume+	1.0U	ug/l
p-Isopropyltoluene	0.20U	ug/l
Ethylbenzene	0.20U	ug/l
BENZENE, ETHENYL-(STYR+	0.20U	ug/l
BENZENE, PROPYL-	0.20U	ug/l
Butylbenzene	0.20U	ug/l
4-Chlorotoluene	0.20U	ug/l
1,4-Dichlorobenzene	0.20U	ug/l
1,2-Dibromoethane (EDB)	0.20U	ug/l
1,2-Dichloroethane	0.20U	ug/l
4-Methyl-2-Pentanone(M+	1.0U	ug/l

VOA - PP Scan *** Continued ***	Water-Total Result	Units
1,3,5-Trimethylbenzene	0.20U	ug/l
Bromobenzene	0.20U	ug/l
Toluene	0.20U	ug/l
Chlorobenzene	1.0U	ug/l
1,2,4-Trichlorobenzene	0.20U	ug/l
Dibromochloromethane	0.20U	ug/l
Tetrachloroethene	1.5 *	ug/l
Sec-Butylbenzene	0.20U	ug/l
1,3-Dichloropropane	0.20U	ug/l
Cis-1,2-Dichloroethene	0.29 *	ug/l
trans-1,2-Dichloroethe+	0.20U	ug/l
1,3-Dichlorobenzene	0.20U	ug/l
1,1-Dichloropropene	0.20U	ug/l
2-Hexanone	1.0U	ug/l
2,2-Dichloropropane	1.0U	ug/l
Ethane, 1,1,1,2-Tetrac+	0.20U	ug/l
Total Xylenes	0.60U	ug/l
m p-XYLENE	0.40U	ug/l
cis-1,3-Dichloropropene	0.11U	ug/l
trans-1,3-Dichloroprop+	0.094U	ug/l
p-BROMOFLUOROBENZENE	96	% Recov
FLUOROBENZENE	101	% Recov
TOLUENE-D8	102	% Recov
1,2-DICHLOROBENZENE-D4	101	% Recov
1,2-DICHLOROETHANE-D4	101	% Recov

Tent Ident - VOA Sca	Water-Total Result	Units
2-BUTENOIC ACID, METHY+	4.5NJ*	ug/l

(Sample Complete)

Project: DOE-083X LAKEWOOD PLAZA CLEANERS Officer: PZM Account: D3P11

Laboratory: Ecology, Manchester

Sample No: 94 168089 Description: MW-13B Source: Well (Test/Observation)

Begin Date: 94/04/19 :

VOA - PP Scan	Water-Total Result	Units
Carbon Tetrachloride	0.20U	ug/l
Acetone	10.0U	ug/l
Chloroform	0.20U	ug/l
Benzene	1.0U	ug/l
1,1,1-Trichloroethane	1.0U	ug/l
Bromomethane	5.0U	ug/l
Chloromethane	1.0U	ug/l
Dibromomethane	0.20U	ug/l
Bromochloromethane	1.0U	ug/l
Chloroethane	1.0U	ug/l
Vinyl Chloride	1.0U	ug/l
Methylene Chloride	10.0U	ug/l
Carbon Disulfide	2.0U	ug/l
Bromoform	1.0U	ug/l
Bromodichloromethane	0.20U	ug/l
1,1-Dichloroethane	0.20U	ug/l
1,1-Dichloroethene	1.0U	ug/l
Trichlorofluoromethane	1.0U	ug/l
Methane, Dichlorodiflu+	1.0U	ug/l
1,2-Dichloropropane	0.20U	ug/l
2-Butanone	1.0U	ug/l
1,1,2-Trichloroethane	0.20U	ug/l
Ethene, trichloro-	0.98 *	ug/l
ETHANE, 1,1,2,2-TETRAC+	0.20U	ug/l
1,2,3-Trichlorobenzene	0.20U	ug/l
Hexachlorobutadiene	0.20U	ug/l
Naphthalene	0.20U	ug/l
o-XYLENE	0.20U	ug/l
2-Chlorotoluene	0.20U	ug/l
1,2-Dichlorobenzene	0.20U	ug/l
1,2,4-Trimethylbenzene	0.20U	ug/l
1,2-Dibromo-3-chloropr+	1.0U	ug/l
1,2,3-Trichloropropane	1.0U	ug/l
Tert-Butylbenzene	0.20U	ug/l
Isopropylbenzene (Cume+	1.0U	ug/l
p-Isopropyltoluene	0.20U	ug/l
Ethylbenzene	0.20U	ug/l
BENZENE, ETHENYL-(STYR+	0.20U	ug/l
BENZENE, PROPYL-	0.20U	ug/l
Butylbenzene	0.20U	ug/l
4-Chlorotoluene	0.20U	ug/l
1,4-Dichlorobenzene	0.20U	ug/l
1,2-Dibromoethane (EDB)	0.20U	ug/l
1,2-Dichloroethane	0.20U	ug/l
4-Methyl-2-Pentanone(M+	1.0U	ug/l

VOA - PP Scan *** Continued ***	Water-Total Result	Units
1,3,5-Trimethylbenzene	0.20U	ug/l
Bromobenzene	0.20U	ug/l
Toluene	0.20U	ug/l
Chlorobenzene	1.0U	ug/l
1,2,4-Trichlorobenzene	0.20U	ug/l
Dibromochloromethane	0.20U	ug/l
Tetrachloroethene	0.20U	ug/l
Sec-Butylbenzene	0.20U	ug/l
1,3-Dichloropropane	0.20U	ug/l
Cis-1,2-Dichloroethene	0.20U	ug/l
trans-1,2-Dichloroethe+	0.20U	ug/l
1,3-Dichlorobenzene	0.20U	ug/l
1,1-Dichloropropene	0.20U	ug/l
2-Hexanone	1.0U	ug/l
2,2-Dichloropropane	1.0U	ug/l
Ethane, 1,1,1,2-Tetrac+	0.20U	ug/l
Total Xylenes	0.60U	ug/l
m p-XYLENE	0.40U	ug/l
cis-1,3-Dichloropropene	0.11U	ug/l
trans-1,3-Dichloroprop+	0.094U	ug/l
p-BROMOFLUOROBENZENE	95	% Recov
FLUOROBENZENE	102	% Recov
TOLUENE-D8	101	% Recov
1,2-DICHLOROBENZENE-D4	102	% Recov
1,2-DICHLOROETHANE-D4	101	% Recov

(Sample Complete)

Project: DOE-083X LAKEWOOD PLAZA CLEANERS Officer: PZM Account: D3P11

Laboratory: Ecology, Manchester

Sample No: 94 168090 Description: MW-20B Source: Well (Test/Observation)

Begin Date: 94/04/19 :

VOA - PP Scan	Water-Total Result	Units
Carbon Tetrachloride	10.0U	ug/l
Acetone	500U	ug/l
Chloroform	10.0U	ug/l
Benzene	50.0U	ug/l
1,1,1-Trichloroethane	50.0U	ug/l
Bromomethane	250U	ug/l
Chloromethane	50.0U	ug/l
Dibromomethane	10.0U	ug/l
Bromochloromethane	50.0U	ug/l
Chloroethane	50.0U	ug/l
Vinyl Chloride	50.0U	ug/l
Methylene Chloride	500U	ug/l
Carbon Disulfide	100U	ug/l
Bromoform	50.0U	ug/l
Bromodichloromethane	10.0U	ug/l
1,1-Dichloroethane	10.0U	ug/l
1,1-Dichloroethene	50.0U	ug/l
Trichlorofluoromethane	50.0U	ug/l
Methane, Dichlorodiflu+	50.0U	ug/l
1,2-Dichloropropane	10.0U	ug/l
2-Butanone	50.0U	ug/l
1,1,2-Trichloroethane	10.0U	ug/l
Ethene, trichloro-	8.6J*	ug/l
ETHANE, 1,1,2,2-TETRAC+	10.0U	ug/l
1,2,3-Trichlorobenzene	10.0U	ug/l
Hexachlorobutadiene	10.0U	ug/l
Naphthalene	10.0U	ug/l
o-XYLENE	10.0U	ug/l
2-Chlorotoluene	10.0U	ug/l
1,2-Dichlorobenzene	10.0U	ug/l
1,2,4-Trimethylbenzene	10.0U	ug/l
1,2-Dibromo-3-chloropr+	50.0U	ug/l
1,2,3-Trichloropropane	50.0U	ug/l
Tert-Butylbenzene	10.0U	ug/l
Isopropylbenzene (Cume+	50.0U	ug/l
p-Isopropyltoluene	10.0U	ug/l
Ethylbenzene	10.0U	ug/l
BENZENE, ETHENYL-(STYR+	10.0U	ug/l
BENZENE, PROPYL-	10.0U	ug/l
Butylbenzene	10.0U	ug/l
4-Chlorotoluene	10.0U	ug/l
1,4-Dichlorobenzene	10.0U	ug/l
1,2-Dibromoethane (EDB)	10.0U	ug/l
1,2-Dichloroethane	10.0U	ug/l
4-Methyl-2-Pentanone(M+	50.0U	ug/l

VOA - PP Scan *** Continued ***	Water-Total Result	Units
1,3,5-Trimethylbenzene	10.0U	ug/l
Bromobenzene	10.0U	ug/l
Toluene	10.0U	ug/l
Chlorobenzene	50.0U	ug/l
1,2,4-Trichlorobenzene	10.0U	ug/l
Dibromochloromethane	10.0U	ug/l
Tetrachloroethene	472 *	ug/l
Sec-Butylbenzene	10.0U	ug/l
1,3-Dichloropropane	10.0U	ug/l
Cis-1,2-Dichloroethene	12.6 *	ug/l
trans-1,2-Dichloroethe+	10.0U	ug/l
1,3-Dichlorobenzene	10.0U	ug/l
1,1-Dichloropropene	10.0U	ug/l
2-Hexanone	50.0U	ug/l
2,2-Dichloropropane	50.0U	ug/l
Ethane, 1,1,1,2-Tetrac+	10.0U	ug/l
Total Xylenes	30.0U	ug/l
m p-XYLENE	20.0UJ	ug/l
cis-1,3-Dichloropropene	5.3UJ	ug/l
trans-1,3-Dichloroprop+	4.7UJ	ug/l
p-BROMOFLUOROBENZENE	96	% Recov
FLUOROBENZENE	101	% Recov
TOLUENE-D8	102	% Recov
1,2-DICHLOROBENZENE-D4	101	% Recov
1,2-DICHLOROETHANE-D4	100	% Recov

VOA - PP Scan Matrix Spike #1	Water-Total Result	Units
Carbon Tetrachloride	90.27	% Recov
Acetone	86.15	% Recov
Chloroform	96.95	% Recov
Benzene	97.36	% Recov
1,1,1-Trichloroethane	101.11	% Recov
Bromomethane	121.93	% Recov
Chloromethane	92.84	% Recov
Dibromomethane	96.65	% Recov
Bromochloromethane	98.73	% Recov
Chloroethane	91.38	% Recov
Vinyl Chloride	99.26	% Recov
Methylene Chloride	115.09	% Recov
Carbon Disulfide	86.24	% Recov
Bromoform	85.28	% Recov

VOA - PP Scan *** Continued *** Matrix Spike #1	Water-Total Result	Units
Bromodichloromethane	90.82	% Recov
1,1-Dichloroethane	94.55	% Recov
1,1-Dichloroethene	101.79	% Recov
Trichlorofluoromethane	81.09	% Recov
Methane, Dichlorodiflu+	86.85	% Recov
1,2-Dichloropropane	97.51	% Recov
2-Butanone	80.87	% Recov
1,1,2-Trichloroethane	96.98	% Recov
Ethene, trichloro-	98.58	% Recov
ETHANE, 1,1,2,2-TETRAC+	92.50	% Recov
1,2,3-Trichlorobenzene	93.28	% Recov
Hexachlorobutadiene	83.22	% Recov
Naphthalene	93.43	% Recov
o-XYLENE	93.48	% Recov
2-Chlorotoluene	93.83	% Recov
1,2-Dichlorobenzene	97.81	% Recov
1,2,4-Trimethylbenzene	94.76	% Recov
1,2-Dibromo-3-chloropr+	80.61	% Recov
1,2,3-Trichloropropane	102.02	% Recov
Tert-Butylbenzene	90.82	% Recov
Isopropylbenzene (Cume+	98.10	% Recov
p-Isopropyltoluene	90.82	% Recov
Ethylbenzene	93.56	% Recov
BENZENE, ETHENYL-(STYR+	88.20	% Recov
BENZENE, PROPYL-	96.81	% Recov
Butylbenzene	90.23	% Recov
4-Chlorotoluene	93.83	% Recov
1,4-Dichlorobenzene	96.60	% Recov
1,2-Dibromoethane (EDB)	94.14	% Recov
1,2-Dichloroethane	94.97	% Recov
4-Methyl-2-Pentanone(M+	96.95	% Recov
1,3,5-Trimethylbenzene	94.14	% Recov
Bromobenzene	95.43	% Recov
Toluene	94.39	% Recov
Chlorobenzene	98.00	% Recov
1,2,4-Trichlorobenzene	90.42	% Recov
Dibromochloromethane	87.70	% Recov
Tetrachloroethene	288.62	% Recov
Sec-Butylbenzene	94.50	% Recov
1,3-Dichloropropane	94.12	% Recov
Cis-1,2-Dichloroethene	104.99	% Recov
trans-1,2-Dichloroethe+	89.37	% Recov
p-BROMOFLUOROBENZENE	97.25	% Recov
FLUOROBENZENE	101.00	% Recov

(Continued on next page)

Project: DOE-083X LAKEWOOD PLAZA CLEANERS Officer: PZM Account: D3P11

Laboratory: Ecology, Manchester

Sample No: 94 168090 Description: MW-20B Source: Well (Test/Observation)

Begin Date: 94/04/19 :

VOA - PP Scan *** Continued *** Matrix Spike #1	Water-Total Result	Units
1,3-Dichlorobenzene	97.08	% Recov
1,1-Dichloropropene	95.09	% Recov
2 Hexanone	72.53	% Recov
2,2-Dichloropropane	75.69	% Recov
Ethane, 1,1,1,2-Tetrac+	88.27	% Recov
Total Xylenes	30.70	% Recov
TOLUENE-D8	102.52	% Recov
1,2-DICHLOROBENZENE-D4	100.99	% Recov
cis-1,3-Dichloropropene	175.34	% Recov
trans-1,3-Dichloroprop+	175.33	% Recov
1,2-DICHLOROETHANE-D4	98.52	% Recov
m p-XYLENE	45.71	% Recov

VOA - PP Scan *** Continued *** Matrix Spike #2	Water-Total Result	Units
Carbon Tetrachloride	88.83	% Recov
Acetone	78.34	% Recov
Chloroform	95.05	% Recov
Benzene	99.47	% Recov
1,1,1-Trichloroethane	100.28	% Recov
Bromomethane	124.51	% Recov
Chloromethane	90.37	% Recov
Dibromomethane	92.44	% Recov
Bromochloromethane	96.82	% Recov
Chloroethane	104.85	% Recov
Vinyl Chloride	103.75	% Recov
Methylene Chloride	110.53	% Recov
Carbon Disulfide	88.14	% Recov
Bromoform	86.24	% Recov
Bromodichloromethane	93.60	% Recov
1,1-Dichloroethane	96.70	% Recov
1,1-Dichloroethene	101.09	% Recov
Trichlorofluoromethane	84.88	% Recov
Methane, Dichlorodiflu+	88.92	% Recov
1,2-Dichloropropane	102.39	% Recov
2-Butanone	83.42	% Recov
1,1,2-Trichloroethane	95.61	% Recov
Ethene, trichloro-	100.18	% Recov
ETHANE, 1,1,2,2-TETRAC+	97.39	% Recov
1,2,3-Trichlorobenzene	91.83	% Recov
Hexachlorobutadiene	86.84	% Recov
Naphthalene	94.29	% Recov

VOA - PP Scan *** Continued *** Matrix Spike #2	Water-Total Result	Units
o-XYLENE	93.01	% Recov
2-Chlorotoluene	91.91	% Recov
1,2-Dichlorobenzene	94.48	% Recov
1,2,4-Trimethylbenzene	90.87	% Recov
1,2-Dibromo-3-chloropr+	85.05	% Recov
1,2,3-Trichloropropane	96.35	% Recov
Tert-Butylbenzene	90.95	% Recov
Isopropylbenzene (Cume+	96.64	% Recov
p-Isopropyltoluene	90.95	% Recov
Ethylbenzene	95.41	% Recov
BENZENE, ETHENYL-(STYR+	89.71	% Recov
BENZENE, PROPYL-	95.20	% Recov
Butylbenzene	90.72	% Recov
4-Chlorotoluene	93.70	% Recov
1,4-Dichlorobenzene	93.51	% Recov
1,2-Dibromoethane (EDB)	96.36	% Recov
1,2-Dichloroethane	94.98	% Recov
4-Methyl-2-Pentanone(M+	94.93	% Recov
1,3,5-Trimethylbenzene	91.46	% Recov
Bromobenzene	94.01	% Recov
Toluene	95.88	% Recov
Chlorobenzene	96.60	% Recov
1,2,4-Trichlorobenzene	90.36	% Recov
Dibromochloromethane	84.37	% Recov
Tetrachloroethene	285.46	% Recov
Sec-Butylbenzene	91.72	% Recov
1,3-Dichloropropane	94.06	% Recov
Cis-1,2-Dichloroethene	99.99	% Recov
trans-1,2-Dichloroethe+	84.11	% Recov
p-BROMOFLUOROBENZENE	97.15	% Recov
FLUOROBENZENE	101.07	% Recov
1,3-Dichlorobenzene	94.48	% Recov
1,1-Dichloropropene	96.58	% Recov
2-Hexanone	81.07	% Recov
2,2-Dichloropropane	80.28	% Recov
Ethane, 1,1,1,2-Tetrac+	90.12	% Recov
Total Xylenes	30.98	% Recov
TOLUENE-D8	101.96	% Recov
1,2-DICHLOROBENZENE-D4	100.14	% Recov
cis-1,3-Dichloropropene	168.14	% Recov
trans-1,3-Dichloroprop+	188.56	% Recov
1,2-DICHLOROETHANE-D4	98.53	% Recov
m p-XYLENE	46.45	% Recov

(Sample Complete)

Project: DOE-083X LAKEWOOD PLAZA CLEANERS Officer: PZM Account: D3P11

Laboratory: Ecology, Manchester

Sample No: 94 168091 Description: MW-20A** Source: Well (Test/Observation)

Begin Date: 94/04/19 :

VOA - PP Scan	Water-Total Result	Units
Carbon Tetrachloride	0.2U	ug/l
Acetone	10.0U	ug/l
Chloroform	0.20U	ug/l
Benzene	1.0U	ug/l
1,1,1-Trichloroethane	1.0U	ug/l
Bromomethane	5.0U	ug/l
Chloromethane	1.0U	ug/l
Dibromomethane	0.20U	ug/l
Bromochloromethane	1.0U	ug/l
Chloroethane	1.0U	ug/l
Vinyl Chloride	1.0U	ug/l
Methylene Chloride	10.0U	ug/l
Carbon Disulfide	2.0U	ug/l
Bromoform	1.0U	ug/l
Bromodichloromethane	0.20U	ug/l
1,1-Dichloroethane	0.20U	ug/l
1,1-Dichloroethene	1.0U	ug/l
Trichlorofluoromethane	1.0U	ug/l
Methane, Dichlorodiflu+	1.0U	ug/l
1,2-Dichloropropane	0.20U	ug/l
2-Butanone	1.0U	ug/l
1,1,2-Trichloroethane	0.20U	ug/l
Ethene, trichloro-	0.20U	ug/l
ETHANE, 1,1,2,2-TETRAC+	0.20U	ug/l
1,2,3-Trichlorobenzene	0.20U	ug/l
Hexachlorobutadiene	0.20U	ug/l
Naphthalene	0.20U	ug/l
o-XYLENE	0.20U	ug/l
2-Chlorotoluene	0.20U	ug/l
1,2-Dichlorobenzene	0.20U	ug/l
1,2,4-Trimethylbenzene	0.20U	ug/l
1,2-Dibromo-3-chloropr+	1.0U	ug/l
1,2,3-Trichloropropane	1.0U	ug/l
Tert-Butylbenzene	0.20U	ug/l
Isopropylbenzene (Cume+	1.0U	ug/l
p-Isopropyltoluene	0.20U	ug/l
Ethylbenzene	0.20U	ug/l
BENZENE, ETHENYL-(STYR+	0.20U	ug/l
BENZENE, PROPYL-	0.20U	ug/l
Butylbenzene	0.20U	ug/l
4-Chlorotoluene	0.20U	ug/l
1,4-Dichlorobenzene	0.20U	ug/l
1,2-Dibromoethane (EDB)	0.20U	ug/l
1,2-Dichloroethane	0.20U	ug/l
4-Methyl-2-Pentanone(M+	1.0U	ug/l

VOA - PP Scan *** Continued ***	Water-Total Result	Units
1,3,5-Trimethylbenzene	0.20U	ug/l
Bromobenzene	0.20U	ug/l
Toluene	0.20U	ug/l
Chlorobenzene	1.0U	ug/l
1,2,4-Trichlorobenzene	0.20U	ug/l
Dibromochloromethane	0.20U	ug/l
Tetrachloroethene	0.31 *	ug/l
Sec-Butylbenzene	0.20U	ug/l
1,3-Dichloropropane	0.20U	ug/l
Cis-1,2-Dichloroethene	0.20U	ug/l
trans-1,2-Dichloroethe+	0.20U	ug/l
1,3-Dichlorobenzene	0.20U	ug/l
1,1-Dichloropropene	0.20U	ug/l
2-Hexanone	1.0U	ug/l
2,2-Dichloropropane	1.0U	ug/l
Ethane, 1,1,1,2-Tetrac+	0.20U	ug/l
Total Xylenes	0.60U	ug/l
m p-XYLENE	0.40U	ug/l
cis-1,3-Dichloropropene	0.11U	ug/l
trans-1,3-Dichloroprop+	0.094U	ug/l
p-BROMOFLUOROBENZENE	97	% Recov
FLUOROBENZENE	100	% Recov
TOLUENE-D8	101	% Recov
1,2-DICHLOROBENZENE-D4	99	% Recov
1,2-DICHLOROETHANE-D4	100	% Recov

(Sample Complete)

Project: DOE-083X LAKEWOOD PLAZA CLEANERS Officer: PZM Account: D3P11

Laboratory: Ecology, Manchester

Sample No: 94 168092 Description: MW-16A Source: Well (Test/Observation)

Begin Date: 94/04/20 :

VOA - PP Scan	Water-Total Result	Units
Carbon Tetrachloride	0.20U	ug/l
Acetone	10.0U	ug/l
Chloroform	0.20U	ug/l
Benzene	1.0U	ug/l
1,1,1-Trichloroethane	1.0U	ug/l
Bromomethane	5.0U	ug/l
Chloromethane	1.0U	ug/l
Dibromomethane	0.20U	ug/l
Bromochloromethane	1.0U	ug/l
Chloroethane	1.0U	ug/l
Vinyl Chloride	1.0U	ug/l
Methylene Chloride	10.0U	ug/l
Carbon Disulfide	2.0U	ug/l
Bromoform	1.0U	ug/l
Bromodichloromethane	0.20U	ug/l
1,1-Dichloroethane	0.20U	ug/l
1,1-Dichloroethene	1.0U	ug/l
Trichlorofluoromethane	1.0U	ug/l
Methane, Dichlorodiflu+	1.0U	ug/l
1,2-Dichloropropane	0.20U	ug/l
2-Butanone	1.0U	ug/l
1,1,2-Trichloroethane	0.20U	ug/l
Ethene, trichloro-	0.56 *	ug/l
ETHANE, 1,1,2,2-TETRAC+	0.20U	ug/l
1,2,3-Trichlorobenzene	0.20U	ug/l
Hexachlorobutadiene	0.20U	ug/l
Naphthalene	0.20U	ug/l
o-XYLENE	0.20U	ug/l
2-Chlorotoluene	0.20U	ug/l
1,2-Dichlorobenzene	0.20U	ug/l
1,2,4-Trimethylbenzene	0.20U	ug/l
1,2-Dibromo-3-chloropr+	1.0U	ug/l
1,2,3-Trichloropropane	1.0U	ug/l
Tert-Butylbenzene	0.20U	ug/l
Isopropylbenzene (Cume+	1.0U	ug/l
p-Isopropyltoluene	0.20U	ug/l
Ethylbenzene	0.20U	ug/l
BENZENE, ETHENYL-(STYR+	0.20U	ug/l
BENZENE, PROPYL-	0.20U	ug/l
Butylbenzene	0.20U	ug/l
4-Chlorotoluene	0.20U	ug/l
1,4-Dichlorobenzene	0.20U	ug/l
1,2-Dibromoethane (EDB)	0.20U	ug/l
1,2-Dichloroethane	0.20U	ug/l
4-Methyl-2-Pentanone(M+	1.0U	ug/l

VOA - PP Scan *** Continued ***	Water-Total Result	Units
1,3,5-Trimethylbenzene	0.20U	ug/l
Bromobenzene	0.20U	ug/l
Toluene	0.20U	ug/l
Chlorobenzene	1.0U	ug/l
1,2,4-Trichlorobenzene	0.20U	ug/l
Dibromochloromethane	0.20U	ug/l
Tetrachloroethene	32.8 *	ug/l
Sec-Butylbenzene	0.20U	ug/l
1,3-Dichloropropane	0.20U	ug/l
Cis-1,2-Dichloroethene	1.4 *	ug/l
trans-1,2-Dichloroethe+	0.20U	ug/l
1,3-Dichlorobenzene	0.20U	ug/l
1,1-Dichloropropene	0.20U	ug/l
2-Hexanone	1.0U	ug/l
2,2-Dichloropropane	1.0U	ug/l
Ethane, 1,1,1,2-Tetrac+	0.20U	ug/l
Total Xylenes	0.60U	ug/l
m p-XYLENE	0.40U	ug/l
cis-1,3-Dichloropropene	0.11U	ug/l
trans-1,3-Dichloroprop+	0.094U	ug/l
p-BROMOFLUOROBENZENE	96	% Recov
FLUOROBENZENE	103	% Recov
TOLUENE-D8	102	% Recov
1,2-DICHLOROBENZENE-D4	101	% Recov
1,2-DICHLOROETHANE-D4	102	% Recov

(Sample Complete)

Project: DOE-083X LAKEWOOD PLAZA CLEANERS Officer: PZM Account: D3P11

Laboratory: Ecology, Manchester

Sample No: 94 168093 Description: MW-16B Source: Well (Test/Observation)

Begin Date: 94/04/20 :

VOA - PP Scan	Water-Total Result	Units
Carbon Tetrachloride	0.20U	ug/l
Acetone	10.0U	ug/l
Chloroform	0.20U	ug/l
Benzene	1.0U	ug/l
1,1,1-Trichloroethane	1.0U	ug/l
Bromomethane	5.0U	ug/l
Chloromethane	1.0U	ug/l
Dibromomethane	0.20U	ug/l
Bromochloromethane	1.0U	ug/l
Chloroethane	1.0U	ug/l
Vinyl Chloride	1.0U	ug/l
Methylene Chloride	10.0U	ug/l
Carbon Disulfide	2.0U	ug/l
Bromoform	1.0U	ug/l
Bromodichloromethane	0.20U	ug/l
1,1-Dichloroethane	0.20U	ug/l
1,1-Dichloroethene	1.0U	ug/l
Trichlorofluoromethane	1.0U	ug/l
Methane, Dichlorodiflu+	1.0U	ug/l
1,2-Dichloropropane	0.20U	ug/l
2-Butanone	1.0U	ug/l
1,1,2-Trichloroethane	0.20U	ug/l
Ethene, trichloro-	0.62 *	ug/l
ETHANE, 1,1,2,2-TETRAC+	0.20U	ug/l
1,2,3-Trichlorobenzene	0.20U	ug/l
Hexachlorobutadiene	0.20U	ug/l
Naphthalene	0.20U	ug/l
o-XYLENE	0.20U	ug/l
2-Chlorotoluene	0.20U	ug/l
1,2-Dichlorobenzene	0.20U	ug/l
1,2,4-Trimethylbenzene	0.20U	ug/l
1,2-Dibromo-3-chloropr+	1.0U	ug/l
1,2,3-Trichloropropane	1.0U	ug/l
Tert-Butylbenzene	0.20U	ug/l
Isopropylbenzene (Cume+	1.0U	ug/l
p-Isopropyltoluene	0.20U	ug/l
Ethylbenzene	0.20U	ug/l
BENZENE, ETHENYL-(STYR+	0.20U	ug/l
BENZENE, PROPYL-	0.20U	ug/l
Butylbenzene	0.20U	ug/l
4-Chlorotoluene	0.20U	ug/l
1,4-Dichlorobenzene	0.20U	ug/l
1,2-Dibromoethane (EDB)	0.20U	ug/l
1,2-Dichloroethane	0.20U	ug/l
4-Methyl-2-Pentanone(M+	1.0U	ug/l

VOA - PP Scan *** Continued ***	Water-Total Result	Units
1,3,5-Trimethylbenzene	0.20U	ug/l
Bromobenzene	0.20U	ug/l
Toluene	0.20U	ug/l
Chlorobenzene	1.0U	ug/l
1,2,4-Trichlorobenzene	0.20U	ug/l
Dibromochloromethane	0.20U	ug/l
Tetrachloroethene	33.2 *	ug/l
Sec-Butylbenzene	0.20U	ug/l
1,3-Dichloropropane	0.20U	ug/l
Cis-1,2-Dichloroethene	1.6 *	ug/l
trans-1,2-Dichloroethe+	0.20U	ug/l
1,3-Dichlorobenzene	0.20U	ug/l
1,1-Dichloropropene	0.20U	ug/l
2-Hexanone	1.0U	ug/l
2,2-Dichloropropane	1.0U	ug/l
Ethane, 1,1,1,2-Tetrac+	0.20U	ug/l
Total Xylenes	0.60U	ug/l
m p-XYLENE	0.40U	ug/l
cis-1,3-Dichloropropene	0.11U	ug/l
trans-1,3-Dichloroprop+	0.094U	ug/l
p-BROMOFLUOROBENZENE	96	% Recov
FLUOROBENZENE	102	% Recov
TOLUENE-D8	102	% Recov
1,2-DICHLOROBENZENE-D4	101	% Recov
1,2-DICHLOROETHANE-D4	101	% Recov

(Sample Complete)

Project: DOE-083X LAKEWOOD PLAZA CLEANERS Officer: PZM Account: D3P11

Laboratory: Ecology, Manchester

Sample No: 94 168094 Description: TRANSFER Source: Water (General)

Begin Date: 94/04/20 :

VOA - PP Scan	Water-Total Result	Units
Carbon Tetrachloride	0.20U	ug/l
Acetone	180 *	ug/l
Chloroform	0.20U	ug/l
Benzene	1.0U	ug/l
1,1,1-Trichloroethane	1.0U	ug/l
Bromomethane	5.0U	ug/l
Chloromethane	1.0U	ug/l
Dibromomethane	0.20U	ug/l
Bromochloromethane	1.0U	ug/l
Chloroethane	1.0U	ug/l
Vinyl Chloride	1.0U	ug/l
Methylene Chloride	10.0U	ug/l
Carbon Disulfide	2.0U	ug/l
Bromoform	1.0U	ug/l
Bromodichloromethane	0.20U	ug/l
1,1-Dichloroethane	0.20U	ug/l
1,1-Dichloroethene	1.0U	ug/l
Trichlorofluoromethane	1.0U	ug/l
Methane, Dichlorodiflu+	1.0U	ug/l
1,2-Dichloropropane	0.20U	ug/l
2-Butanone	50.1 *	ug/l
1,1,2-Trichloroethane	0.20U	ug/l
Ethene, trichloro-	0.20U	ug/l
ETHANE, 1,1,2,2-TETRAC+	0.20U	ug/l
1,2,3-Trichlorobenzene	0.20U	ug/l
Hexachlorobutadiene	0.20U	ug/l
Naphthalene	0.20U	ug/l
o-XYLENE	0.20U	ug/l
2-Chlorotoluene	0.20U	ug/l
1,2-Dichlorobenzene	0.20U	ug/l
1,3,4-Trimethylbenzene	0.20U	ug/l
1,2-Dibromo-3-chloropr+	1.0U	ug/l
1,2,3-Trichloropropane	1.0U	ug/l
Tert-Butylbenzene	0.20U	ug/l
Isopropylbenzene (Cume+	1.0U	ug/l
p-Isopropyltoluene	0.20U	ug/l
Ethylbenzene	0.20U	ug/l
BENZENE, ETHENYL-(STYR+	0.20U	ug/l
BENZENE, PROPYL-	0.20U	ug/l
Butylbenzene	0.20U	ug/l
4-Chlorotoluene	0.20U	ug/l
1,4-Dichlorobenzene	0.20U	ug/l
1,2-Dibromoethane (EDB)	0.20U	ug/l
1,2-Dichloroethane	0.20U	ug/l
4-Methyl-2-Pentanone(M+	0.96J*	ug/l

VOA - PP Scan *** Continued ***	Water-Total Result	Units
1,3,5-Trimethylbenzene	0.20U	ug/l
Bromobenzene	0.20U	ug/l
Toluene	0.20U	ug/l
Chlorobenzene	1.0U	ug/l
1,2,4-Trichlorobenzene	0.20U	ug/l
Dibromochloromethane	0.20U	ug/l
Tetrachloroethene	0.20U	ug/l
Sec-Butylbenzene	0.20U	ug/l
1,3-Dichloropropane	0.20U	ug/l
Cis-1,2-Dichloroethene	0.20U	ug/l
trans-1,2-Dichloroethe+	0.20U	ug/l
1,3-Dichlorobenzene	0.20U	ug/l
1,1-Dichloropropene	0.20U	ug/l
2-Hexanone	8.8 *	ug/l
2,2-Dichloropropane	1.0U	ug/l
Ethane, 1,1,1,2-Tetrac+	0.20U	ug/l
Total Xylenes	0.60U	ug/l
m p-XYLENE	0.40U	ug/l
cis-1,3-Dichloropropene	0.11U	ug/l
trans-1,3-Dichloroprop+	0.094U	ug/l
p-BROMOFLUOROBENZENE	98	% Recov
FLUOROBENZENE	101	% Recov
TOLUENE-D8	100	% Recov
1,2-DICHLOROBENZENE-D4	101	% Recov
1,2-DICHLOROETHANE-D4	101	% Recov

Tent Ident - VOA Sca	Water-Total Result	Units
2-PROPANOL, 2-METHYL-	4.8NJ*	ug/l
2-BUTANONE, 3,3-DIMETH+	13.8NJ*	ug/l
3-HEPTANONE	1.1J*	ug/l
2-PENTANONE	0.95J*	ug/l
Cyclohexane	0.95NJ*	ug/l
3-HEXANONE	2.8J*	ug/l
2-BUTENOIC ACID, METHY+	4.5NJ*	ug/l
Butanedial	1.0NJ*	ug/l
2-NONANONE	2.1NJ*	ug/l
UNKNOWN HYDROCARBON 1	9.1J*	ug/l
UNKNOWN HYDROCARBON 3	0.97J*	ug/l

(Sample Complete)

Project: DOE-083X LAKEWOOD PLAZA CLEANERS Officer: PZM Account: D3P11

Blank ID: vbw4111

VOA - PP Scan Blank #1	Water-Total Result	Units
Carbon Tetrachloride	0.20U	ug/l
Acetone	2.7J*	ug/l
Chloroform	0.2U	ug/l
Benzene	1.0U	ug/l
1,1,1-Trichloroethane	0.17J*	ug/l
Bromomethane	5.0U	ug/l
Chloromethane	1.0U	ug/l
Dibromomethane	0.20U	ug/l
Bromochloromethane	1.0U	ug/l
Chloroethane	1.0U	ug/l
Vinyl Chloride	1.0U	ug/l
Methylene Chloride	1.1J*	ug/l
Carbon Disulfide	2.0U	ug/l
Bromoform	1.0U	ug/l
Bromodichloromethane	0.20U	ug/l
1,1-Dichloroethane	0.20U	ug/l
1,1-Dichloroethene	1.0U	ug/l
Trichlorofluoromethane	1.0U	ug/l
Methane, Dichlorodiflu+	1.0U	ug/l
1,2-Dichloropropane	0.20U	ug/l
2-Butanone	1.0U	ug/l
1,1,2-Trichloroethane	0.20U	ug/l
Ethene, trichloro-	0.20U	ug/l
ETHANE, 1,1,2,2-TETRAC+	0.20U	ug/l
1,2,3-Trichlorobenzene	0.20U	ug/l
Hexachlorobutadiene	0.20U	ug/l
Naphthalene	0.20U	ug/l
o-XYLENE	0.20U	ug/l
2-Chlorotoluene	0.20U	ug/l
1,2-Dichlorobenzene	0.20U	ug/l
1,2,4-Trimethylbenzene	0.073J*	ug/l
1,2-Dibromo-3-chloropr+	1.0U	ug/l
1,2,3-Trichloropropane	1.0U	ug/l
Tert-Butylbenzene	0.20U	ug/l
Isopropylbenzene (Cume+	0.2U	ug/l
p-Isopropyltoluene	0.20U	ug/l
Ethylbenzene	0.2U	ug/l
BENZENE, ETHENYL-(STYR+	0.2U	ug/l
BENZENE, PROPYL-	0.2U	ug/l
Butylbenzene	0.2U	ug/l
4-Chlorotoluene	0.20U	ug/l
1,4-Dichlorobenzene	0.20U	ug/l
1,2-Dibromoethane (EDB)	0.20U	ug/l
1,2-Dichloroethane	0.20U	ug/l
4-Methyl-2-Pentanone(M+	1.0U	ug/l

VOA - PP Scan *** Continued *** Blank #1	Water-Total Result	Units
1,3,5-Trimethylbenzene	0.2U	ug/l
Bromobenzene	0.20U	ug/l
Toluene	0.20U	ug/l
Chlorobenzene	1.0U	ug/l
1,2,4-Trichlorobenzene	0.20U	ug/l
Dibromochloromethane	0.20U	ug/l
Tetrachloroethene	0.20U	ug/l
Sec-Butylbenzene	0.20U	ug/l
1,3-Dichloropropane	0.20U	ug/l
Cis-1,2-Dichloroethene	0.20U	ug/l
trans-1,2-Dichloroethe+	0.20U	ug/l
1,3-Dichlorobenzene	0.20U	ug/l
1,1-Dichloropropene	0.2U	ug/l
2-Hexanone	1.0U	ug/l
2,2-Dichloropropane	1.0U	ug/l
Ethane, 1,1,1,2-Tetrac+	0.20U	ug/l
Total Xylenes	0.6U	ug/l
m p-XYLENE	0.2U	ug/l
cis-1,3-Dichloropropene	0.11U	ug/l
trans-1,3-Dichloroprop+	0.094U	ug/l
p-BROMOFLUOROBENZENE	98	% Recov
FLUOROBENZENE	100	% Recov
TOLUENE-D8	100	% Recov
1,2-DICHLOROBENZENE-D4	101	% Recov
1,2-DICHLOROETHANE-D4	101	% Recov

Tent Ident - VOA Sca Blank #1	Water-Total Result	Units
2-Butenoic acid, methy+	2.6NJ*	ug/l

(Sample Complete)