

# GREAT WESTERN MALTING CO. SOIL GAS SURVEY PHASE II, VANCOUVER, WASHINGTON, AUGUST 1993

## Summary

Soil gas samples were collected for a preliminary Site Hazard Assessment (SHA) in August 1993, north of the Great Western Malting Co. (GWMC) in Vancouver, Washington. This was Phase II of a two part survey. The survey was conducted to determine the source of volatile organics (tetrachloroethylene and trichloroethylene) that had been detected in GWMC production wells since 1989. The Phase I soil gas survey was conducted to identify potential on-site sources (Marti 1993). Phase II was conducted to investigate off-site sources.

Soil gas samples were collected from 35 stations. A portable gas chromatograph was used to analyze the soil gas samples in the field. Tetrachloroethylene (PERC) was tentatively identified at about half of the stations with estimated concentrations ranging from 20 ppb to 40,000 ppb. Although PERC was detected throughout the study area, a likely source of the contamination appears to be the former Vancouver Drum Site. The drum site was located about 1,800 feet north of GWMC. In the past the Vancouver Drum Site had been occupied by a dry cleaners and electrical components manufacturers. Both PERC and trichloroethylene (TCE) are commonly used in these industries. TCE was tentatively identified at 3 of the 35 soil gas sample stations (8% detection frequency). Estimated TCE concentrations ranged from 80 to about 8,000 ppb. Peaks for other organic compounds were recorded on the gas chromatograph but could not be identified.

Based on soil gas results two soil samples were collected from the former Vancouver Drum Site and analyzed in the laboratory. Tetrachloroethylene was the primary contaminant found in the soil, with lesser amounts of trichloroethylene, cis-1,2-dichloroethylene, and trans-1,2-dichloroethylene. PERC was detected at about 2,500 ppb in the soil samples. This exceeds the cleanup standards as established by the Washington State Model Toxics Control Act (MTCA) Cleanup Regulations, WAC 173-340. A ground water sample was collected from a production well at the West Vancouver Wastewater Treatment Plant. Trichloroethylene, tetrachloroethylene, cis-1,2-dichloroethylene, and 1,1-dichloroethylene were detected in the water sample. TCE was detected at about 7 ppb in the water sample. This exceeds the MTCA cleanup standard for ground water.

Based on the soil gas and soil results it appears that the former Vancouver Drum Site is a likely source of ground water contamination. However, because this is an industrial area contamination at GWMC is possibly the result of multiple sources.

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## Introduction

The study objectives, background and site hydrogeology are discussed below.

### Objectives

The Phase II survey objective was to investigate potential source areas north of Great Western Malting Company (GWMC) for volatile organics, particularly tetrachloroethylene (PERC) and trichloroethylene (TCE). Tasks to meet this objective were:

- Conduct a Phase II soil gas survey north of GWMC using a portable gas chromatograph to provide information on possible source areas of TCE and PERC contamination.
- Collect ground water samples for volatile organics analysis from one well located at the West Vancouver Wastewater Treatment Plant. This was the closest well known to exist directly north of GWMC.
- Based on field soil gas results, collect and test soil samples for volatile organics from suspected contaminated areas.

### Background

In 1989, trichloroethylene (TCE) and tetrachloroethylene (PERC) were detected in two Great Western Malting Co. (GWMC) production wells, #4 and #5. GWMC produces barley malt. Both wells, which are used in the production process, pump continuously at approximately 2,500 gpm. GWMC has been testing these wells, in addition to two other wells (#2 and #3) on its property, since 1989. To date TCE and PERC have only been found in wells #4 and #5.

GWMC, located in Vancouver, Washington, has been leasing property from the Port of Vancouver since the 1930's. There is no evidence that either substance has ever been used by GWMC or by any prior occupant of the property. A soil gas survey (Phase I) was conducted by Ecology in September 1992 at GWMC to investigate on-site occurrences of volatile organics (Marti, 1993). Although contaminants were detected at GWMC, the concentrations did not appear to indicate an on-site source. To prove that the contamination came from off-site sources, the facility installed four monitoring wells north of its property along West 16th Street (Figure 1). High TCE concentrations were detected in one monitoring well (DMMW-3).

The facility also investigated effects of the GWMC production wells on local ground water flow using a ground water model (Dames & Moore, 1993). The model estimated that the wellfield radius of influence was about 4,000 feet, with the Columbia River acting as a primary source of recharge to the wells. Two facilities with known contamination lie within the probable area of influence of the well field. General American Transport Company (GATX) is northwest of GWMC and has documented ground water contamination of PERC (9,100 ppb) and TCE (940 ppb). The second facility is north of GWMC on Roosevelt Street and is known as the Vancouver Drum Site. Previous occupants of the facility were Good-ee Potato Chip (early 1970's), A-1 Dry Cleaners (early 1970's to 1980), the Syndyne Corporation (mid-1970's to the mid-1980's) and then ISSPRO (mid-1980's to 1989). A-1 Dry Cleaners operated in the northeast corner of the building at the same time as other occupants. Reportedly the dry cleaners moved to the adjacent property from 1980 to 1984. Syndyne and ISSPRO used the facility to manufacture heat sensing probes and electrical switches and to assemble electrical components and circuit boards. Abandoned drums and other waste were reported in 1990. Solvents and metal contamination were found on-site in building sumps, abandoned drums and in the

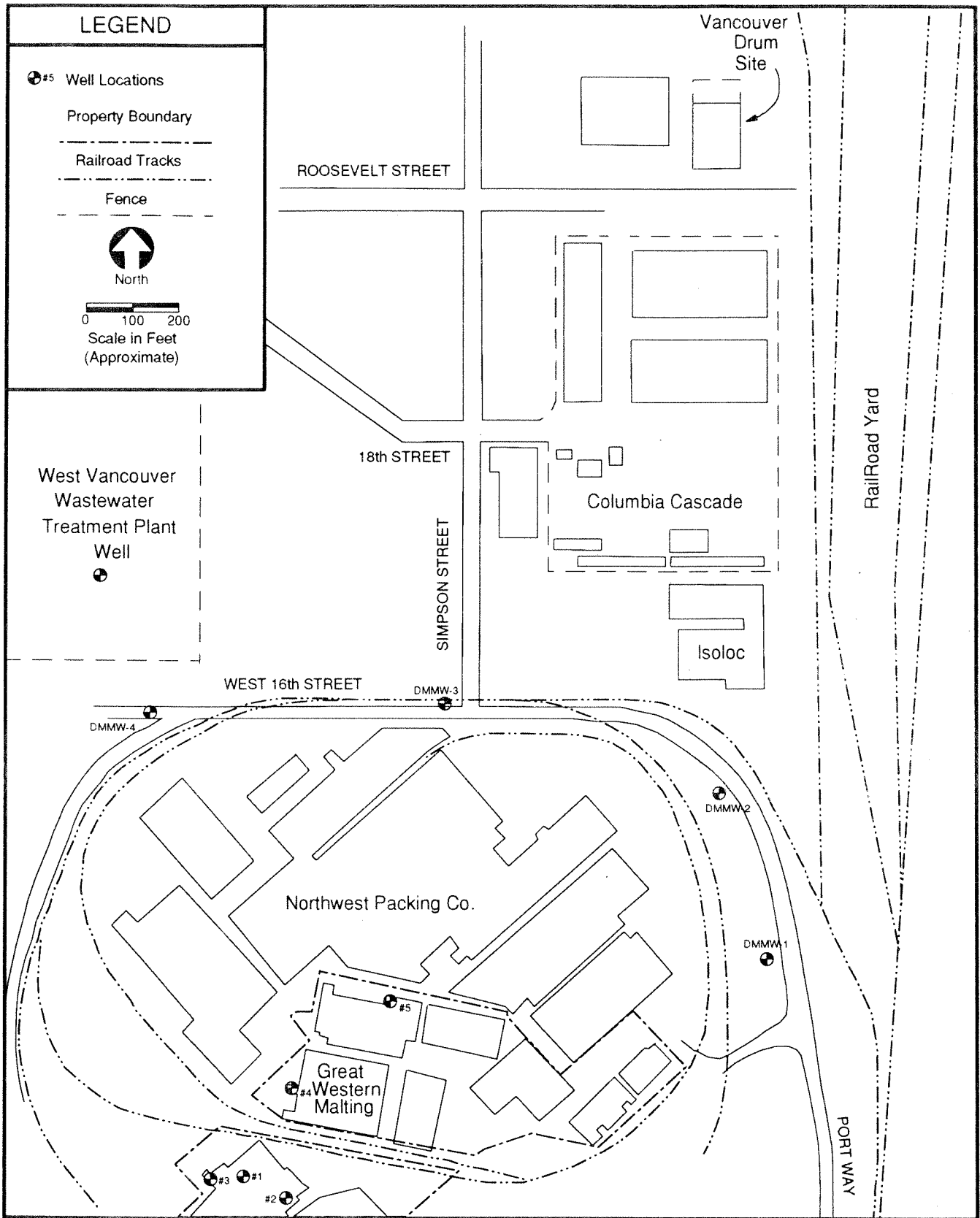


Figure 1: Site Map

soil. Drums and soil were removed from the site in March 1991. In addition to the Vancouver Drum Site, other potential source areas exist to the north. Based on Phase I (Marti, 1993) results Ecology conducted a Phase II soil gas survey north of GWMC.

An interview was conducted with Joseph D. Wendlick, Occupational Health and Safety Officer for ISSPRO following the Phase II soil gas survey. Evidence presented during the interview indicates that ISSPRO did not use either PERC or TCE in its manufacturing process (Wendlick, 1994).

### **Site Hydrogeology**

The site hydrogeology consists of a shallow alluvial aquifer at a depth of 20 to 40 feet which overlies the Troutdale Formation. Portions of the Troutdale Formation represent a regionally extensive aquifer and a major source of drinking water in the area. Static water level is about 30 feet below ground surface. Great Western's production wells are thought to be screened in the upper Troutdale Formation. This member of the formation consists of cemented sandy gravel. Four on-site monitoring wells were installed approximately 1,000 feet north of GWMC and appear to be screened in the upper Troutdale Formation. Regional ground water flow is generally southward towards the Columbia River. The Columbia River is about 200 feet south of GWMC.

Great Western's four production wells pump continuously at 1,500 to 2,500 gallons per minute (gpm). The production wells probably have a significant influence on local ground water flow direction. Given the high pumping rates, the proximity of the wells to the Columbia River, and the absence of the confining layer in monitoring well DMMW-3; the alluvial aquifer, the upper Troutdale Formation and the Columbia River are probably hydraulically connected.

## **Methods**

### **Sample Collection**

Pam Marti, Denis Erickson, and Bernard Strong conducted the soil gas sampling on August 23-26, 1993. Weather conditions were warm and clear for all sampling.

### **Soil Gas Sampling**

Soil gas samples were obtained from 35 stations using portable sampling equipment. Samples were collected along four east-west transects from north of Roosevelt Street to West 16th Street and one north-south transect adjacent to the railroad yard (Figure 2). Sample stations in paved areas were first drilled with an electric percussion drill equipped with a 1½ inch asphalt bit. A pilot hole was advanced to the required depth by driving a 1/2-inch diameter, solid steel rod. After removing the pilot hole rod, a stainless steel retractable soil gas sampling tip (Retract-a-Tip) was driven into the pilot hole. The retractable tip was then pulled back (about 2 inches) to expose the sampling screen. A bentonite plug was installed at the surface to prevent air flow from the atmosphere to the sample area. Soil gas samples were withdrawn using a suction pump through 3/16-inch ID teflon tubing and collected under vacuum pressure in 1 liter Tedlar bags.

Depth profile sampling was conducted at sample stations #2 and #24 to determine an appropriate sample depth. Depth profile samples were collected at approximately three foot intervals down to nine and twelve feet, respectively. Based on depth profile results and considering survey efficiency, soil gas samples were obtained from a depth of three feet.

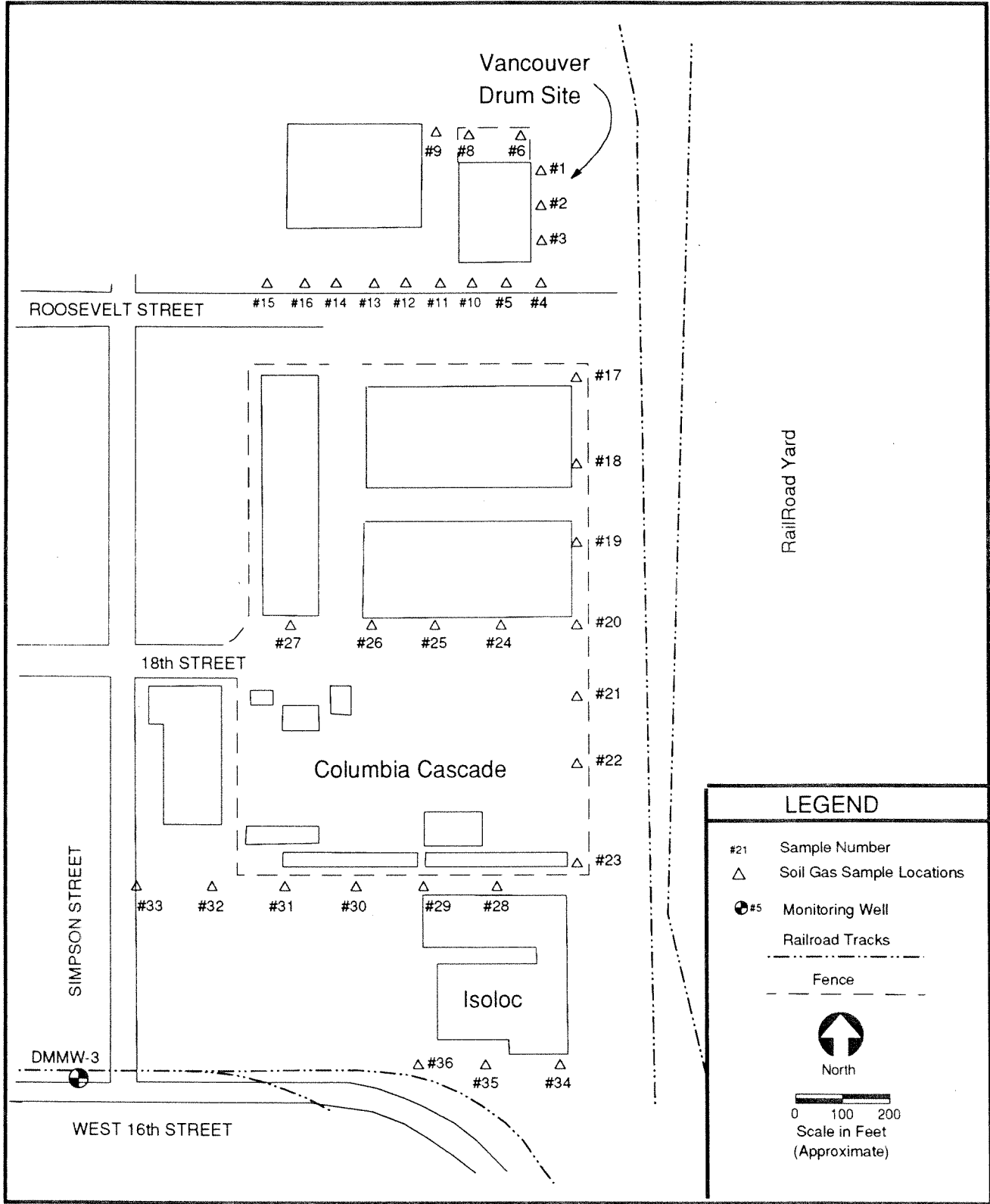


Figure 2: Great Western Malting - Phase II Sample Locations

Soil gas samples were analyzed in the field using a portable gas chromatograph (Sentex Scentograph Plus), equipped with an Argon Ionization Detector (AID) and a 12' 10% SP-1000 (80/100 mesh) packed column. Prior to sample analysis the gas chromatograph was calibrated using a mixture of 1.01 ppm benzene and 1.52 ppm trichloroethylene. An industrial solvents chemical compound library (Sentex) was used to identify on-site contaminants. Only the 19 compounds that exist on the library could potentially be identified. These compounds are listed in Appendix A. Operating parameters such as sample time, temperature, and chart duration were adjusted in the field to maximize results. Data from all soil gas analyses, as well as operating parameter information are included in Appendix A.

All non-dedicated down-hole equipment was decontaminated between test holes using sequential washes of tap water with Liquinox® detergent, de-ionized water, and laboratory grade methanol. Retractable tips were completely disassembled for cleaning and decontaminated between holes. Teflon® tubing was discarded between test holes.

Test holes were plugged using hydrated bentonite. Overlying fill and asphalt cover (cold mix) were placed as necessary.

### Soil Sampling

Based on the soil gas results, two soil samples were collected from sample station #1 and tested for volatile organics (Figure 2). The samples were collected using a JMC portable soil sampler. A hollow, 3-foot-long, one-inch diameter sampling tube fitted with a stainless steel liner was driven through the soil column. For a deeper sample, an extension was attached to the sampling tube and driven to the required depth. The sampling tube was then pulled from the hole and the liner removed. Soil samples corresponding to the soil gas sample depth were extracted from the liner, emptied into a stainless steel beaker, mixed and then transferred to 4-ounce glass jars. All downhole soil sampling equipment and stainless steel beakers were decontaminated using a tap water/Liquinox® wash and sequential rinses with deionized water and methanol. Test holes were plugged using hydrated bentonite. Overlying fill and asphalt cover (cold mix) were placed as necessary.

Upon sample collection and proper labeling, the soil samples were stored on ice in an ice chest and transported to the laboratory. Chain-of-custody was maintained on all samples using Manchester Laboratory protocols (Ecology, 1994). Soil samples were analyzed for volatile organic compounds (VOCs) using EPA SW-846 Method #8240.

### Ground Water Sampling

A ground water sample was collected from a production well at the City of Vancouver Wastewater Treatment Plant. This is the only well known to exist directly north of GWMC. The sample was collected from a tap on a storage tank, free of headspace, and preserved with 1:1 hydrochloric acid. Upon sample collection and proper labeling, the sample was stored on ice in an ice chest and transported to the laboratory. Chain-of-custody was maintained on all samples using Manchester Laboratory protocols (Ecology, 1994). The ground water sample was analyzed for volatile organic compounds (VOCs) using EPA SW-846 Method #8260 (EPA 1986).

## Quality Assurance/Quality Control

### Soil Gas

Soil gas results obtained during the study, are considered to be good and usable. Soil gas quality assurance samples consisted of calibration, duplicates, and blanks. The gas chromatograph was calibrated at least once every five analytical runs with a standard pressurized mixture of 1.01 ppm benzene and 1.52 ppm trichloroethylene. Duplicate samples (repeat analyses of the same sample) were analyzed for approximately 10% of all soil gas samples. Duplicate results were considered qualitative and within expected ranges. Blank samples of ambient air were run frequently to ensure that equipment contamination had not occurred.

1,1,2,2-Tetrachloroethane was identified in several of the soil gas samples north of GWMC. This compound was also detected near GWMC during the Phase I study (Marti, 1993). Based on several factors I believe this compound is actually PERC. The evidence supporting this is as follows:

- PERC was the primary contaminant detected in the two soil samples collected from the same sample location and depth that soil gas results showed high concentrations of 1,1,2,2-tetrachloroethane. (See Soil Results)
- PERC is not on the portable GC's chemical library. However, based on chromatographs from the column manufacturer (Supelco), PERC would elute in the same sequence as 1,1,2,2-tetrachloroethane relative to other identified organic solvents.
- Chromatographs from subsequent testing of a benzene/PERC mixture were similar to chromatographs in which 1,1,2,2-tetrachloroethane was identified. Although chromatographic operating parameters were the same as in the field, the same operating conditions could not be replicated, therefore it was not expected that identical results would be achieved.
- PERC is a primary contaminant detected in ground water samples from the GWMC production wells, West 16th Street monitoring wells, and the West Vancouver Waste-Water Treatment Plant production well. 1,1,2,2-Tetrachloroethane has not been identified in any ground water samples collected from these wells.

### Soil and Ground Water Samples

Dickey Huntamer and Greg Perez of the Manchester Laboratory evaluated quality assurance of laboratory results for the soil and water samples (Appendix B). The quality of the results are good and acceptable for use. Due to the difficulty in obtaining the soil samples, a duplicate sample was not collected. Low levels of common laboratory solvents, such as acetone and methylene chloride were detected in both the water and sediment laboratory blanks. Compounds detected in the blanks were not detected in the samples with the exception of TCE in the sediment blank. However, TCE concentrations in the soil samples were greater than five times the blank concentrations and are not qualified. Spike recoveries were within acceptable limits of 75-125%.

## Results

### Soil Gas

Two primary compounds were tentatively identified in soil gas samples north of GWMC, tetrachloroethylene (PERC) and trichloroethylene (TCE). Peaks for other organic compounds were observed on the chromatographs but could not be identified using the gas chromatograph chemical library. Table 1 presents a summary of the soil gas survey results. The distribution of the compounds is discussed below.

#### Tetrachloroethylene (PERC)

PERC was tentatively identified at about 50% of the soil gas stations. PERC was detected primarily north of Roosevelt Street and parallel to the railroad tracks on the east side of the study area (Figure 3). The highest soil gas concentrations were detected in the area of the former Vancouver Drum Site. Estimated concentrations ranged from 20 ppb to 40,000 ppb. PERC was detected at soil gas profile sample station #2 at a depth of nine feet (230 ppb).

#### Trichloroethylene (TCE)

TCE was tentatively identified at 3 (8%) of the 35 sample stations. Estimated TCE concentrations ranged from 80 to 7,950 ppb. TCE was detected primarily around the former Vancouver Drum Site in samples from stations #1, #10, and #15 at concentrations of 1,000 ppb, 7,950 ppb, and 80 ppb, respectively.

### Soil Samples

Based on the soil gas results, two soil samples were collected from sample station #1. TCE, PERC, cis-1,2-dichloroethylene, and trans-1,2-dichloroethylene were detected in the two soil samples. Maximum concentrations were as follows: TCE, 164 ppb; PERC, 2,850 ppb; cis-1,2-dichloroethylene, 53.9 ppb; and trans-1,2-dichloroethylene, 0.98J ppb. 2-Butanone was detected in one soil sample at a concentration of 11.2 ppb. Sample results are shown in Table 2. PERC was detected above the MTCA 0.5 mg/kg cleanup standard.

### Ground Water Samples

Contaminants detected in the West Vancouver Wastewater Treatment Plant well were: trichloroethylene, 7.1 ppb; tetrachloroethylene, 1.9 ppb; cis-1,2,-dichloroethylene, 5.1 ppb; and 1,1-dichloroethylene, 0.11 ppb. Sample results are also shown in Table 2. TCE was detected above the MTCA 5.0 ug/l cleanup standard.

## Conclusions

- 1) Based on soil gas and soil sample results, the former Vancouver Drum Site is a likely source of ground water contamination. Maximum PERC concentrations in the soil gas of 40,000 ppb and soil of 2,800 ppb were observed on and near the site. TCE was also detected primarily in the area of the former Vancouver Drum Site. Estimated concentrations ranged from 80 ppb to 8,000 ppb. In the past the Vancouver Drum Site had been occupied by a dry cleaners and electrical components manufacturers. Both PERC and TCE are commonly used for dry cleaning and metal degreasing. TCE is also used for cleaning and drying electronic parts.



Table 1: Summary of Soil-Gas Results collected August, 1993 north of Great Western Malting Vancouver, WA

**NOTE:** Reported results were determined using a Sentex portable gas chromatograph.  
 Analytes are considered tentatively identified and concentrations are estimates.

Trace #	Station I.D. (GWII-)	Depth (feet)	Trichloroethylene		Tetrachloroethylene (See Note)		Unknowns		BTEX	
			Retention Time (seconds)	Conc. (ppb) (estimate)	Retention Time (seconds)	Conc. (ppb) (estimate)	Retention Time (seconds)	Conc. (ppb) (estimate)	Retention Time (seconds)	Conc. (ppb) (estimate)
7	2a	3	-	-	380	450	189	40	-	-
9	2b	6	-	-	381	430	-	-	-	-
10	2c	9	-	-	383	230	-	-	-	-
14	3	3	-	-	390	40	125	60	-	-
							484	10		
							553	0		
16	10	3	334	7950	393	730	586	0	673(x)	0
							766	0		
							830	0		
24	5	3	-	-	384	20	196	0	-	-
27	11	3	-	-	-	-	120	10	283(b)	10
							130	10	420(t)	10
							153	0	617(e)	0
							170	0	664(x)	10
							387*	50		
36	8	3	-	-	394	3190	193	0	688(x)	0
							299	0		
							570	20		
54	13	3	-	-	387	6500	171	0	-	-
60/(30)	6	1.7	-	-	387	2190/(3090)	53	-	-	-
63/(45)	9	3	-	-	388	600/(1170)	-	-	-	-
70	15	3	324	80	-	-	235	0	413(t)	0
							392*	60		
							488	10		
73	14	3	-	-	-	-	395*	50	426(t)	10
78	32	3	-	-	381	60	112	10	285(b)	60
							156	10		
							197	10		
							240	20		
							350	20		
							426	50		
							479	100		
98	24a	3	-	-	381	110	-	-	412(t)	0
113	21	3	-	-	-	-	398*	140	-	-
114	20	3	-	-	-	-	397*	220	-	-
125	16	3	-	-	386	100	121	10	-	-
137/(95)	35	3	-	-	392	790/(2600)	225	0	-	-
139/(122)	28	3	-	-	393	180/(840)	-	-	-	-
140/(127)	1	3	331	1000	391	50130/(40040)	100	10		

Note: Based on laboratory results of soil samples, compounds identified as 1,1,2,2-tetrachloroethane using the GC's chemical library are, in Ecology's opinion, tetrachloroethylene.

\* Compound thought to be tetrachloroethylene

() Compound not identified by GC's chemical library, but is probably tetrachloroethylene

(b) = benzene; (t) = toluene; (e) = ethylbenzene; (x) = xylenes

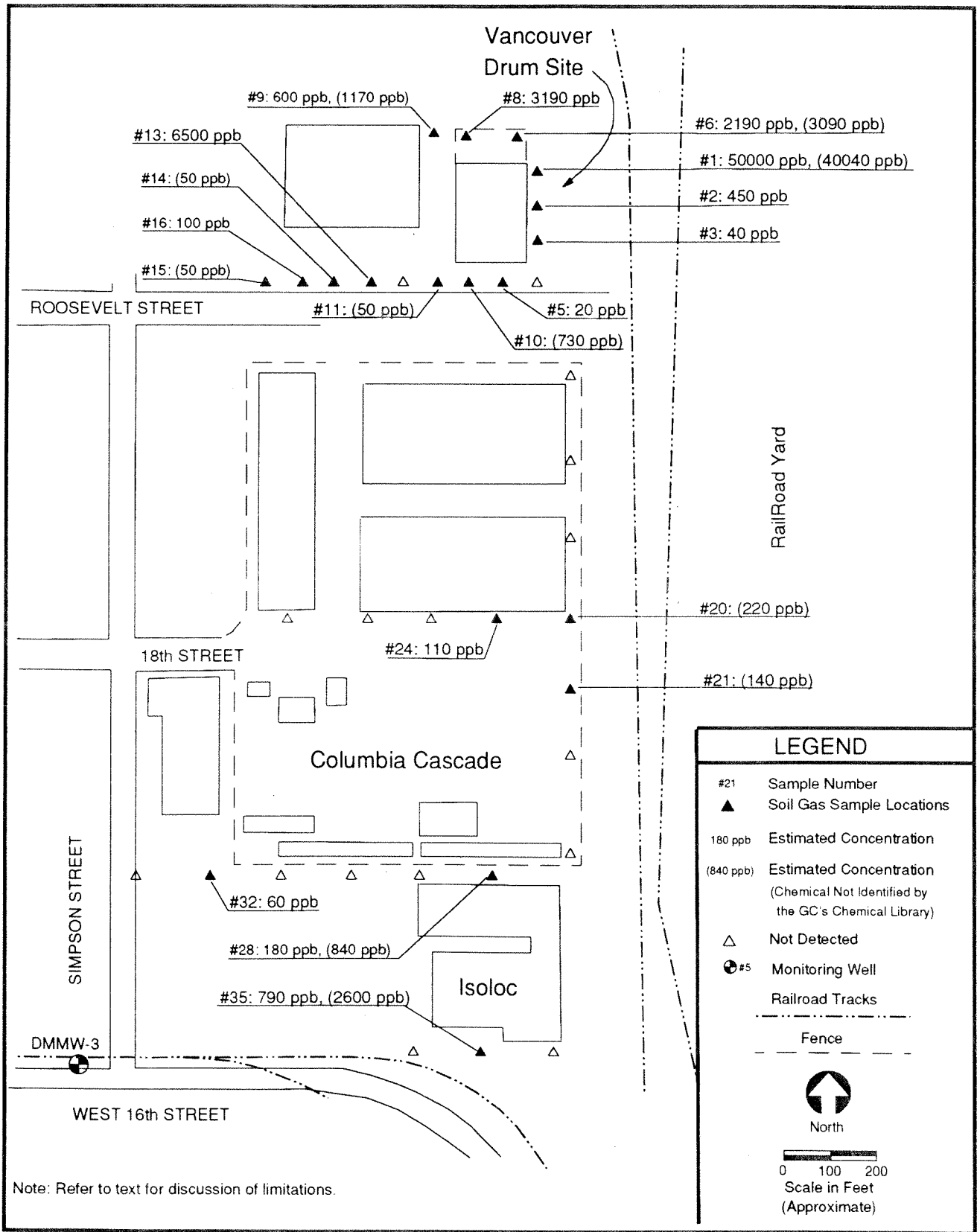


Figure 3: Great Western Malting - Phase II Tetrachloroethylene (PERC) Results

Table 2: Summary of Volatile Organic Results from Ground Water and Soil Samples collected August 1993 North of Great Western Malting Vancouver, Washington

Sample Identification	West Vancouver Treatment Plant Well	GWII-1AS	GWII-1BS
Matrix	Water	Soil	Soil
Sample Depth Units	-- (ppb)	2-3' (ppb)	5-6' (ppb)
Trichloroethylene	7.1	164	78.4
Tetrachloroethylene	1.9	2850	2250
cis,1,2-dichloroethylene	5.1	53.9	51.7
1,1-Dichloroethylene	0.11 J	2.2 U	2.1
Trans-1,2-Dichloroethylene	1.0 U	0.98 J	1.2 J
2-Butanone	1.0 U	11.2	3.2 UJ

U: The analyte was not detected at or above the associated value.

J: The associated numerical value is an estimated quantity.

- 2) Based on soil gas results, contamination appears to be migrating north to south from the former Vancouver Drum Site toward GWMC. This is consistent with the ground water flow direction estimated by Dames & Moore (1993).
- 3) Maximum PERC concentrations in the soil of 2,800 ppb (2.8 ppm) exceeded the MTCA cleanup standard of 0.5 ppm for industrial soil. The soil contamination is a potential ongoing source of contaminant loading to ground water.
- 4) TCE and PERC were detected in the West Vancouver Wastewater Treatment Plant well. This is consistent with previous data that volatile organics are widespread in the area. Because this is a heavy industrial area, it is possible that the contamination at GWMC is the result of multiple sources.

## **Recommendations**

- 1) Additional characterization of the former Vancouver Drum Site should be conducted to identify the extent of soil contamination and possible ground water contamination.
- 2) Due to difficulty in gaining property access from the Union Pacific Railroad Co., Ecology was unable to obtain any samples from the adjacent upgradient property located north of the former Vancouver Drum site. Future site characterization should include collection of samples from the Union Pacific property, and perhaps other upgradient properties.
- 3) In the area investigated during the Phase II soil gas survey, the former Vancouver Drum Site appears to be the only likely source of ground water contamination. This property was occupied by a dry cleaners and electrical components manufacturers, both of which commonly use PERC and TCE. However, because this is a heavy industrial area other sources may be contributing to the contamination at GWMC. I recommend that GATX be investigated further due to its proximity to GWMC. According to a ground water flow model (Dames & Moore, 1993) of GWMC production wells, GATX lies within the likely area of influence. GATX has documented ground water contamination of PERC (9,100 ppb) and TCE (940 ppb). Characterization of a potential pathway between GATX and GWMC should be conducted.

## References

- Dames & Moore, 1993. Monitoring Well Installation and Groundwater Assessment Great Western Malting Company Vancouver, Washington.
- EPA, 1986. Test Methods for Evaluating Solid Waste, SW-846. Office of Emergency Response, Washington, D.C.
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- Washington State Department of Ecology, Great Western Malting Files. Southwest Regional Office, Olympia, WA.
- Washington State Department of Ecology, General American Transport Company (GATX) Files. Southwest Regional Office, Olympia, WA.
- Washington State Department of Ecology, 1994. Manchester Environmental Laboratory - Laboratory Users Manual.
- Wendlick, Joseph D., 1994. Occupational Health and Safety Officer. Personal Communication, February 22, 1994.
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# APPENDIX A

Great Western Malting – Phase II  
Select Soil Gas Chromatograms  
August 1993

## INDUSTRIAL SOLVENT COMPOUND LIBRARY

<u>Order of Compound Elution</u>		<u>Retention Time</u>
Isooctane	(ISOOCTAN)	103 sec
1,1 Dichloroethylene	(1,1 DCE )	116 sec
Carbon Disulfide	(CARB DS )	124 sec
Acetone	(ACETONE )	146 sec
t-1,2 Dichloroethylene	(T1,2 DCE)	161 sec
Carbon Tetrachloride	(CARB TET)	181 sec
Methyl Ethyl Ketone	(MEK )	192 sec
Methylene Chloride	(METH CL )	207 sec
Benzene	(BENZENE )	236 sec
Trichloroethylene	(TCE )	272 sec
Chloroform	(CH FORM )	288 sec
1,1,2,2 Tetrachloroethane	(1122 TCA)	318 sec
Toluene	(TOLUENE )	351 sec
Ethylbenzene	(ETH BENZ)	515 sec
p-Xylene	(p-XYLENE)	547 sec
m-Xylene	(m-XYLENE)	568 sec
o-Xylene	(o-XYLENE)	704 sec
1,1,2-Trichloroethane	(112 TCA )	961 sec
Styrene	(STYRENE )	997 sec

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
1	Aug 23,93	14:48	C	BENZENE	1.04 PPM	280	545538	BTX
1			C	TOLUENE	1.43 PPM	417	833753	
1			C	XYLENE	1.50 PPM	637	663684	
2	Aug 23,93	15:06	A	BENZENE	0.01 PPM	278	3827	ambient
3	Aug 23,93	15:18	C	BENZENE	1.01 PPM	278	512475	BTCE
3			C	TCE	1.52 PPM	320	39924	
3			C	XYLENE	1.50 PPM	631	495830	
4	Aug 23,93	15:32	C	BENZENE	1.01 PPM	279	490832	BTCE
4			C	TCE	1.52 PPM	321	194039	
4			C	UNKNOWN 2	10.00 PPB	413	155000	
5	Aug 23,93	15:41	A	UNKNOWN	0.01 PPM	87	6370	GWII-2a
5			A	<del>UNKNOWN</del> UNK	0.20 PPM	144	97116	PBM
5			A	BENZENE	0.01 PPM	279	6308	
5			A	<del>UNKNOWN</del> PERC	0.28 PPM	380	136828	PBM
6	Aug 23,93	15:53	C	BENZENE	1.01 PPM	278	1477745	BTCE
6			C	TCE	1.52 PPM	321	923762	
7	Aug 23,93	16:00	A	UNKNOWN	0.01 PPM	85	9635	GWII-2a2
7			A	<del>UNKNOWN</del> UNK	0.04 PPM	189	62628	PBM
7			A	BENZENE	0.01 PPM	278	13409	
7			A	<del>UNKNOWN</del> PERC	0.45 PPM	380	658925	PBM
8	Aug 23,93	16:14	A	UNKNOWN	0.00 PPM	85	6412	ambient

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
9	Aug 23,93	16:21	A	UNKNOWN	0.01 PPM	85	12810	GWII-2b
9			A	<del>UNKNOWN</del> PERC	0.43 PPM	381	629250	PBM
10	Aug 23,93	16:38	A	UNKNOWN	0.00 PPM	85	6602	GWII-2c
10			A	BENZENE	0.00 PPM	281	3525	
10			A	<del>UNKNOWN</del> PERC	0.23 PPM	383	343669	PBM
11	Aug 23,93	16:54	A	UNKNOWN	0.00 PPM	85	3614	ambient
12	Aug 23,93	17:58	A	<del>UNKNOWN</del>	<del>0.00 PPM</del>	<del>85</del>	<del>3614</del>	GWII-3
12			A	UNKNOWN	0.01 PPM	285	7777	
12			A	UNKNOWN	0.04 PPM	389	60823	
12			A	UNKNOWN	0.02 PPM	426	28810	
13	Aug 23,93	18:11	C	BENZENE	1.01 PPM	287	1693318	BTCE
13			C	TCE	1.52 PPM	331	1092232	
13			C	UNKNOWN 2	10.00 PPB	425	121503	
14	Aug 23,93	18:20	A	UNKNOWN	0.01 PPM	90	11580	GWII-3(2)
14			A	<del>UNKNOWN</del> UNK	0.06 PPM	125	98765	PBM
14			A	BENZENE	0.01 PPM	286	16836	
14			A	<del>UNKNOWN</del> PERC	0.04 PPM	390	63025	PBM
14			A	UNKNOWN	0.01 PPM	484	10501	
14			A	UNKNOWN	0.00 PPM	553	2007	
15	Aug 23,93	18:47	A	UNKNOWN	0.00 PPM	88	7143	GWII-4
15			A	BENZENE	0.00 PPM	288	4021	

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
16	Aug 23,93	19:07	A	UNKNOWN	0.01 PPM	88	11298	GWII-10
16			A	TCE	7.95 PPM	334	5714365	
16			A	<del>UNKNOWN</del> PERC	0.73 PPM	393	1218898	PBM



16		A UNKNOWN	0.00 PPM	586	6616	
16		A #P-XYLENE	0.00 PPM	673	6450	
16		A UNKNOWN	0.00 PPM	766	7316	
16		A UNKNOWN	0.00 PPM	830	3477	
17	Aug 23,93 19:22	A UNKNOWN	0.00 PPM	88	2505	ambient
18	Aug 23,93 21:13	A UNKNOWN	0.00 PPM	91	1286	GW11-10(2)
18		A <del>XXXXXXXXXX</del> UNK	0.00 PPM	354	4454	PBM
18		A UNKNOWN	0.74 PPM	461	1238583	
18		A UNKNOWN	0.00 PPM	551	5756	
19	Aug 24,93 11:46	A UNKNOWN	0.00 PPM	86	5200	ambient
19		A <del>XXXXXXXXXX</del> UNK	0.00 PPM	177	3158	PBM
19		A UNKNOWN	0.00 PPM	226	7567	
19		A <del>XXXXXX</del> UNK	0.00 PPM	235	2873	PBM
19		A UNKNOWN	0.27 PPM	296	445202	
19		A <del>XXXXXXXXXX</del> UNK	0.14 PPM	343	235639	PBM
19		A UNKNOWN	0.02 PPM	376	27378	
19		A UNKNOWN	0.15 PPM	408	258468	
19		A UNKNOWN	0.18 PPM	443	294669	

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
20	Aug 24,93	11:55	A	UNKNOWN	0.01 PPM	89	9301	ambient
20			A	UNKNOWN	0.46 PPM	158	770203	
21	Aug 24,93	12:04	A	UNKNOWN	0.01 PPM	90	10444	ambient
21			A	<del>XXXXXXXXXX</del> UNK	0.01 PPM	192	10157	PBM
22	Aug 24,93	12:11	A	UNKNOWN	0.01 PPM	91	8593	ambient
23	Aug 24,93	12:16	C	BENZENE	1.01 PPM	280	4207851	BTCE
23			C	TCE	1.52 PPM	323	3192096	
24	Aug 24,93	12:23	A	UNKNOWN	0.00 PPM	85	9543	GW11-5
24			A	UNKNOWN	0.00 PPM	196	10932	
24			A	BENZENE	0.00 PPM	281	12471	
24			A	TCE	0.00 PPM	323	3190	
24			A	<del>XXXXXXXXXX</del> PERC	0.02 PPM	384	86559	PBM
25	Aug 24,93	12:37	A	UNKNOWN	0.00 PPM	85	1611	ambient
25			A	TCE	0.00 PPM	325	3844	
25			A	UNKNOWN	0.00 PPM	389	16601	
26	Aug 24,93	12:45	A	UNKNOWN	0.00 PPM	67	191	GW11-5(2)
26			A	UNKNOWN	0.00 PPM	88	9785	
26			A	<del>XXXXXX</del> UNK	0.00 PPM	224	5703	PBM
26			A	UNKNOWN	0.02 PPM	387	89731	
27	Aug 24,93	12:55	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del> PBM
27			A	<del>XXXXXXXXXX</del> UNK	0.01 PPM	120	31896	PBM

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
27			A	UNKNOWN	0.01 PPM	130	26417	
27			A	UNKNOWN	0.00 PPM	153	19123	
27			A	<del>XXXXXXXXXX</del> UNK	0.00 PPM	170	3845	PBM
27			A	BENZENE	0.01 PPM	283	50144	
27			A	<del>XXXXXXXXXX</del> PERC	0.05 PPM	387	210091	PBM
27			A	#TOLUENE	0.01 PPM	420	44937	
27			A	#ETHBENZ	0.00 PPM	617	7319	
27			A	#M-XYLENE	0.01 PPM	664	60040	
28	Aug 24,93	13:11	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del> PBM
28			A	UNKNOWN	0.00 PPM	77	5581	

28		A TCE	0.00 PPM	326	4746	
28		A UNKNOWN	0.00 PPM	386	16682	
29	Aug 24,93 13:19	A UNKNOWN	0.00 PPM	78	6158	ambient
30	Aug 24,93 13:27	<del>A UNKNOWN</del>	<del>0.00 PPM</del>	<del>386</del>	<del>16682</del>	<del>ambient</del> P3m
30		A <del>UNKNOWN</del> PERC	3.09 PPM	390	12890634	GwII-6 P3m
31	Aug 24,93 13:40	A UNKNOWN	0.00 PPM	72	14467	ambient
31		A <del>UNKNOWN</del> PERC	0.06 PPM	385	255641	P3m
32	Aug 24,93 13:49	A UNKNOWN	0.01 PPM	72	23975	ambient
32		A UNKNOWN	0.00 PPM	331	14358	
32		A <del>UNKNOWN</del> PERC	0.01 PPM	385	54698	P3m
33	Aug 24,93 13:57	A UNKNOWN	0.01 PPM	73	22712	ambient

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
33				A UNKNOWN	0.00 PPM	386	17976	
34	Aug 24,93	14:05		A UNKNOWN	0.01 PPM	73	23367	ambient
34				A UNKNOWN	0.00 PPM	386	9520	
35	Aug 24,93	14:13		C BENZENE	1.01 PPM	289	4454740	BTCE
35				C UNKNOWN 1	10.00 PPB	333	3435744	
36	Aug 24,93	14:21		A UNKNOWN	0.00 PPM	89	2421	GWII-8
36				A <del>UNKNOWN</del> UNK	0.00 PPM	193	2351	P3m
36				A BENZENE	0.00 PPM	288	20690	
36				A UNKNOWN	0.00 PPM	299	2084	
36				A BTCE	0.00 PPM	331	5981	
36				A <del>UNKNOWN</del> PERC	3.19 PPM	394	14082226	P3m
36				A UNKNOWN	0.02 PPM	570	71032	
36				A <del>UNKNOWN</del> XYLENE	0.00 PPM	688	7664	
37	Aug 24,93	14:37		A UNKNOWN	0.00 PPM	72	20881	ambient
37				A <del>UNKNOWN</del> PERC	0.33 PPM	388	1459935	P3m
38	Aug 24,93	14:46		A UNKNOWN	0.02 PPM	73	77141	ambient
38				A <del>UNKNOWN</del> PERC	0.09 PPM	388	393709	P3m
39	Aug 24,93	14:56		A UNKNOWN	0.05 PPM	74	225149	ambient
39				A UNKNOWN	0.00 PPM	104	18842	
39				A <del>UNKNOWN</del> PERC	0.04 PPM	388	191987	P3m
40	Aug 24,93	15:04		A UNKNOWN	0.00 PPM	74	16036	ambient

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
40				A UNKNOWN	0.00 PPM	79	8531	
40				A UNKNOWN	0.00 PPM	369	18010	
40				A <del>UNKNOWN</del> PERC	0.03 PPM	392	118206	P3m
41	Aug 24,93	15:12		A UNKNOWN	0.00 PPM	74	16166	ambient
41				A UNKNOWN	0.00 PPM	79	10776	
41				A UNKNOWN	0.00 PPM	245	9147	
41				A BENZENE	0.00 PPM	285	4519	
41				A <del>UNKNOWN</del> PERC	0.02 PPM	392	75568	P3m
42	Aug 24,93	15:21		A UNKNOWN	0.00 PPM	74	11247	ambient
42				A UNKNOWN	0.00 PPM	79	10923	
42				A <del>UNKNOWN</del> PERC	0.01 PPM	392	47787	P3m
43	Aug 24,93	15:29		A UNKNOWN	0.00 PPM	91	8383	BLANK
43				A UNKNOWN	0.00 PPM	365	8458	
43				A UNKNOWN	0.03 PPM	401	122917	
44	Aug 24,93	15:37		A UNKNOWN	0.01 PPM	400	24810	ambient
45	Aug 24,93	15:46		A UNKNOWN	0.00 PPM	90	2001	GWII-9
45				A <del>UNKNOWN</del> PERC	1.17 PPM	400	5166539	P3m

46	Aug 24,93 15:58	A UNKNOWN	0.00 PPM	75	5897	ambient
46		A UNKNOWN	0.01 PPM	377	57336	
46		A UNKNOWN	0.00 PPM	408	16616	
47	Aug 24,93 16:06	A UNKNOWN	0.00 PPM	69	7357	ambient

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
47				A UNKNOWN	0.00 PPM	74	3925	
47				A <del>UNKNOWN</del> UNK	0.00 PPM	258	9080	PBm
47				A UNKNOWN	0.01 PPM	375	24159	
48	Aug 24,93 16:15			A UNKNOWN	0.00 PPM	69	10694	GWII-12
48				A UNKNOWN	0.00 PPM	74	1618	
48				A UNKNOWN	0.01 PPM	376	46516	
48				A UNKNOWN	0.01 PPM	409	28139	
49	Aug 24,93 16:25			A UNKNOWN	0.00 PPM	86	6594	ambient
49				A <del>UNKNOWN</del> UNK	0.00 PPM	219	6233	PBm
49				A UNKNOWN	0.00 PPM	370	4741	
49				A <del>UNKNOWN</del> UNK	0.01 PPM	383	43045	PBm
50	Aug 24,93 16:34			A UNKNOWN	0.00 PPM	86	4140	GWII-13
50				A UNKNOWN	0.00 PPM	247	3718	
50				A <del>UNKNOWN</del> UNK	6.86 PPM	348	30272515	PBm
51	Aug 24,93 16:47			A UNKNOWN	0.01 PPM	93	31802	ambient
51				A UNKNOWN	0.00 PPM	314	11474	
51				A <del>UNKNOWN</del> PERC	0.01 PPM	385	41079	PBm
51				A UNKNOWN	0.00 PPM	465	9453	
51				A UNKNOWN	0.00 PPM	533	4313	
52	Aug 24,93 16:57			A <del>UNKNOWN</del> PERC	0.00 PPM	386	13357	ambient PBm
53	Aug 24,93 17:06			C BENZENE	1.01 PPM	283	1737695	BTCE

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
53				C TCE	1.52 PPM	326	1248663	
54	Aug 24,93 17:14			A <del>UNKNOWN</del> UNK	0.00 PPM	171	2079	GWII-13(2) PBm
54				A BENZENE	0.01 PPM	282	9724	
54				A <del>UNKNOWN</del> PERC	6.50 PPM	387	11183884	PBm
55	Aug 24,93 17:24			A UNKNOWN	0.04 PPM	97	66679	ambient
55				A <del>UNKNOWN</del> PERC	0.01 PPM	388	21471	PBm
56	Aug 24,93 17:31			A UNKNOWN	0.00 PPM	94	4171	ambient
56				A UNKNOWN	0.00 PPM	114	2951	
56				A UNKNOWN	0.00 PPM	127	4727	
56				A <del>UNKNOWN</del> UNK	0.01 PPM	232	9206	PBm
56				A <del>UNKNOWN</del> PERC	0.01 PPM	388	14775	PBm
57	Aug 24,93 17:38			<del>A UNKNOWN</del>	<del>0.00 PPM</del>	<del>388</del>	<del>14775</del>	ambient PBm
57				A <del>UNKNOWN</del> PERC	0.01 PPM	387	11052	PBm
58	Aug 24,93 17:46			A <del>UNKNOWN</del> UNK	0.00 PPM	123	2137	GWII-14 PBm
58				A UNKNOWN	0.03 PPM	390	44488	
58				A UNKNOWN	0.00 PPM	406	5609	
58				A #TOLUENE	0.00 PPM	416	7617	
59	Aug 24,93 17:56			<del>A UNKNOWN</del>	<del>0.00 PPM</del>	<del>246</del>	<del>5817</del>	GWII-15 PBm
59				A <del>UNKNOWN</del> UNK	0.00 PPM	246	5817	PBm
59				A TCE	0.02 PPM	323	16702	
59				A UNKNOWN	0.06 PPM	391	99432	

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
60	Aug 24, 93	18:06		<del>UNKNOWN</del>	<del>0.00 PPM</del>	<del>94</del>	<del>1340</del>	GWII-6(2) PBM
60			A	UNKNOWN	0.00 PPM	94	1340	
60			A	<del>UNKNOWN</del> PERC	<del>2.19 PPM</del>	<del>387</del>	<del>3768959</del>	PBM
61	Aug 24, 93	18:15		<del>UNKNOWN</del>	<del>0.00 PPM</del>	<del>94</del>	<del>1340</del>	ambient PBM
61			A	TCE	0.01 PPM	324	6502	
61			A	<del>UNKNOWN</del> PERC	<del>0.12 PPM</del>	<del>389</del>	<del>209860</del>	PBM
62	Aug 24, 93	18:22	A	<del>UNKNOWN</del> PERC	<del>0.03 PPM</del>	<del>389</del>	<del>47534</del>	ambient PBM
63	Aug 24, 93	18:30	A	<del>UNKNOWN</del> PERC	<del>0.60 PPM</del>	<del>388</del>	<del>1030751</del>	GWII-9(2) PBM
64	Aug 24, 93	18:38	A	UNKNOWN	0.00 PPM	95	3708	ambient
64			A	UNKNOWN	0.00 PPM	108	5604	
64			A	<del>UNKNOWN</del> UNK	<del>0.00 PPM</del>	<del>219</del>	<del>5487</del>	PBM
64			A	UNKNOWN	0.01 PPM	360	10224	
64			A	<del>UNKNOWN</del> PERC	<del>0.02 PPM</del>	<del>387</del>	<del>38556</del>	PBM
65	Aug 24, 93	18:45	A	<del>UNKNOWN</del> PERC	<del>0.01 PPM</del>	<del>389</del>	<del>18657</del>	ambient PBM
66	Aug 24, 93	18:52	C	BENZENE	1.01 PPM	284	4592520	BTCE
66			C	TCE	1.52 PPM	327	3567599	
67	Aug 24, 93	19:00		<del>UNKNOWN</del>	<del>0.00 PPM</del>	<del>283</del>	<del>8505</del>	GWII-30 PBM
67			A	BENZENE	0.00 PPM	283	8505	
67			A	<del>UNKNOWN</del> UNK	<del>0.00 PPM</del>	<del>387</del>	<del>20024</del>	PBM
68	Aug 24, 93	19:08		<del>UNKNOWN</del>	<del>0.00 PPM</del>	<del>388</del>	<del>28672</del>	ambient PBM
68			A	<del>UNKNOWN</del> UNK	<del>0.01 PPM</del>	<del>388</del>	<del>28672</del>	PBM

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
68			A	UNKNOWN	0.00 PPM	401	4397	
69	Aug 24, 93	19:17		<del>UNKNOWN</del>	<del>0.00 PPM</del>	<del>130</del>	<del>1239</del>	GWII-31 PBM
69			A	UNKNOWN	0.00 PPM	130	1239	
69			A	BENZENE	0.01 PPM	284	27129	
70	Aug 24, 93	19:25		<del>UNKNOWN</del>	<del>0.00 PPM</del>	<del>235</del>	<del>12363</del>	GWII-15(2) PBM
70			A	<del>UNKNOWN</del> UNK	<del>0.00 PPM</del>	<del>235</del>	<del>12363</del>	PBM
70			A	TCE	0.08 PPM	324	176377	
70			A	<del>UNKNOWN</del> PERC	<del>0.06 PPM</del>	<del>392</del>	<del>284226</del>	PBM
70			A	#TOLUENE	0.00 PPM	413	3670	
70			A	UNKNOWN	0.01 PPM	488	67045	
71	Aug 24, 93	19:37		<del>UNKNOWN</del>	<del>0.00 PPM</del>	<del>262</del>	<del>5087</del>	ambient PBM
71			A	UNKNOWN	0.00 PPM	262	5087	
71			A	BENZENE	0.00 PPM	284	4222	
71			A	UNKNOWN	0.01 PPM	392	24609	
71			A	UNKNOWN	0.00 PPM	736	11942	
71			A	UNKNOWN	0.00 PPM	874	9827	
72	Aug 24, 93	19:54	A	UNKNOWN	0.00 PPM	114	3839	ambient
72			A	BENZENE	0.00 PPM	282	17190	
72			A	UNKNOWN	0.01 PPM	396	33203	
73	Aug 24, 93	20:01		<del>UNKNOWN</del>	<del>0.05 PPM</del>	<del>395</del>	<del>227289</del>	GWII-14(2) PBM
73			A	<del>UNKNOWN</del> PERC	<del>0.05 PPM</del>	<del>395</del>	<del>227289</del>	PBM

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
73			A	#TOLUENE	0.01 PPM	426	50372	
74	Aug 25, 93	10:41	C	BENZENE	1.01 PPM	280	2094639	BTCE
74			C	TCE	1.52 PPM	325	1716500	
74			C	XYLENE	1.50 PPM	649	19554	

75	Aug 25, 93 10:55							ambient	
75		A BENZENE	0.01 PPM	280	18467				
75		A TCE	0.00 PPM	323	5461				
75		A UNKNOWN	0.01 PPM	387	11501				
76	Aug 25, 93 11:03	A UNKNOWN	0.00 PPM	80	5901			ambient	
76		A UNKNOWN	0.01 PPM	368	17930				
77	Aug 25, 93 11:12	A UNKNOWN	0.00 PPM	83	4908			ambient	
77		A UNKNOWN	0.00 PPM	390	5478				
78	Aug 25, 93 11:24	A UNKNOWN	0.00 PPM	86	1722			GW11-32	
78		A UNKNOWN	0.01 PPM	112	22525				
78		A UNKNOWN	0.01 PPM	156	29345				
78		A UNKNOWN	0.01 PPM	197	26094				
78		A <del>UNKNOWN</del> UNK	0.02 PPM	240	45885				PBM
78		A BENZENE	0.06 PPM	285	120311				
78		A UNKNOWN	0.02 PPM	350	50335				
78		A <del>UNKNOWN</del> PERC	0.06 PPM	381	125958				PBM
78		A UNKNOWN	0.05 PPM	426	97479				

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME	
78				A UNKNOWN	0.10 PPM	479	212639		
79	Aug 25, 93	11:38		A UNKNOWN	0.03 PPM	396	54397	BLANK	
80	Aug 25, 93	11:47		A UNKNOWN	0.00 PPM	396	3364	ambient	
81	Aug 25, 93	11:57		A UNKNOWN	0.00 PPM	86	2683	BLANK	
81				A UNKNOWN	0.02 PPM	397	39404		
82	Aug 25, 93	12:05		<del>A UNKNOWN</del>	<del>0.03 PPM</del>	<del>306</del>	<del>102</del>	ambient	PBM
83	Aug 25, 93	12:12		A UNKNOWN	0.01 PPM	114	16692	GW11-32(2)	
83				A <del>UNKNOWN</del> UNK	0.00 PPM	123	4783		PBM
83				A UNKNOWN	0.02 PPM	159	37781		
83				A <del>UNKNOWN</del> UNK	0.00 PPM	174	5755		PBM
83				A UNKNOWN	0.02 PPM	200	37639		
83				A UNKNOWN	0.00 PPM	222	8533		
83				A <del>UNKNOWN</del> UNK	0.03 PPM	244	60861		PBM
83				A UNKNOWN	0.06 PPM	289	125143		
83				A UNKNOWN	0.03 PPM	354	56327		
83				A UNKNOWN	0.06 PPM	386	121493		
83				A UNKNOWN	0.06 PPM	432	117535		
83				A UNKNOWN	0.01 PPM	446	15970		
83				A UNKNOWN	0.12 PPM	484	244575		
84	Aug 25, 93	12:23		A UNKNOWN	0.00 PPM	306	938	ambient	
84				A <del>UNKNOWN</del> UNK	0.00 PPM	373	6988		PBM

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME	
84				A UNKNOWN	0.01 PPM	398	15655		
85	Aug 25, 93	12:32		<del>A UNKNOWN</del>	<del>0.01 PPM</del>	<del>306</del>	<del>102</del>	ambient	PBM
85				A <del>UNKNOWN</del> UNK	0.01 PPM	342	16117		PBM
85				A UNKNOWN	0.00 PPM	400	8242		
86	Aug 25, 93	12:40		C BENZENE	1.01 PPM	283	5852025	BTCE	
86				C TCE	1.52 PPM	326	4041826		
87	Aug 25, 93	12:48		<del>A UNKNOWN</del>	<del>0.01 PPM</del>	<del>306</del>	<del>102</del>	GW11-33	PBM
87				A UNKNOWN	0.00 PPM	158	9022		
87				A BENZENE	0.00 PPM	282	25230		
87				A TCE	0.00 PPM	326	5949		
87				A <del>UNKNOWN</del> UNK	0.00 PPM	389	5035		PBM

87		A #TOLUENE	0.00 PPM	419	14080		
88	Aug 25,93 12:59	A <del>UNKNOWN</del>	0.00 PPM	213	696	GWII-29	PBM
88		A <del>UNKNOWN</del>	0.00 PPM	388	27859		PBM
89	Aug 25,93 13:15	<del>UNKNOWN</del>	<del>0.00 PPM</del>	<del>88</del>	<del>1470</del>	GWII-34	PBM
89		A UNKNOWN	0.01 PPM	392	43507		
90	Aug 25,93 13:31	A UNKNOWN	0.00 PPM	393	28079	GWII-33(2)	
90		A #TOLUENE	0.00 PPM	423	13939		
91	Aug 25,93 13:44	A	0.00 PPM	30	0	GWII-32(3)	
92	Aug 25,93 13:45	<del>UNKNOWN</del>	<del>0.00 PPM</del>	<del>81</del>	<del>800</del>	GWII-32(3)	PBM
92		A UNKNOWN	0.00 PPM	113	11199		

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
92			A	<del>UNKNOWN</del>	0.00 PPM	121	4420	PBM
92			A	UNKNOWN	0.00 PPM	155	8698	
92			A	<del>UNKNOWN</del>	0.00 PPM	197	10636	PBM
92			A	UNKNOWN	0.00 PPM	239	17618	
92			A	BENZENE	0.01 PPM	284	80712	
92			A	<del>UNKNOWN</del>	0.00 PPM	348	28071	PBM
92			A	<del>UNKNOWN</del> PERC	0.00 PPM	378	25484	PBM
92			A	#TOLUENE	0.01 PPM	423	73891	
92			A	UNKNOWN	0.01 PPM	476	41172	
93	Aug 25,93 13:54		<del>UNKNOWN</del>	<del>UNKNOWN</del>	<del>0.00 PPM</del>	<del>199</del>	<del>900</del>	ambient PBM
93			A	<del>UNKNOWN</del> UNK	0.00 PPM	249	4460	PBM
93			A	UNKNOWN	0.00 PPM	392	6615	
94	Aug 25,93 14:04		<del>UNKNOWN</del>	<del>UNKNOWN</del>	<del>0.00 PPM</del>	<del>80</del>	<del>800</del>	ambient PBM
94			A	UNKNOWN	0.00 PPM	394	6868	
95	Aug 25,93 14:12		<del>UNKNOWN</del>	<del>UNKNOWN</del>	<del>0.00 PPM</del>	<del>80</del>	<del>1470</del>	GWII-35 PBM
95			A	<del>UNKNOWN</del> UNK	0.01 PPM	225	52410	PBM
95			A	<del>UNKNOWN</del> UNK	0.00 PPM	254	8568	PBM
95			A	<del>UNKNOWN</del> PERC	2.60 PPM	391	15070365	PBM
96	Aug 25,93 14:26		A	UNKNOWN	0.00 PPM	95	18143	ambient
96			A	UNKNOWN	0.01 PPM	392	55821	
97	Aug 25,93 14:35		A	UNKNOWN	0.00 PPM	168	7271	GWII-36

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
97			A	UNKNOWN	0.00 PPM	391	15017	
98	Aug 25,93 16:39		A	UNKNOWN	0.00 PPM	82	195	GWII-24a
98			A	<del>UNKNOWN</del> PERC	0.11 PPM	381	611635	PBM
98			A	#TOLUENE	0.00 PPM	412	15456	
99	Aug 25,93 16:54		A	<del>UNKNOWN</del> PERC	0.00 PPM	381	23898	GWII-24b PBM
100	Aug 25,93 17:07		A	UNKNOWN	0.00 PPM	83	1200	GWII-24d
100			A	<del>UNKNOWN</del> PERC	0.00 PPM	383	27673	PBM
100			A	#P-XYLENE	0.00 PPM	642	15312	
100			A	UNKNOWN	0.00 PPM	885	10667	
101	Aug 25,93 17:24		A	<del>UNKNOWN</del> PERC	0.01 PPM	384	29664	ambient PBM
102	Aug 25,93 17:33		<del>UNKNOWN</del>	<del>UNKNOWN</del>	<del>0.00 PPM</del>	<del>85</del>	<del>800</del>	GWII-24a(2) PBM
102			A	<del>UNKNOWN</del> PERC	0.00 PPM	385	14815	PBM.
102			A	UNKNOWN	0.00 PPM	469	9700	
103	Aug 25,93 17:55		A	UNKNOWN	0.00 PPM	57	1286	GWII-35(2)
103			A	UNKNOWN	0.00 PPM	72	26717	
103			A	UNKNOWN	0.00 PPM	113	11799	
103			A	<del>UNKNOWN</del> UNK	0.01 PPM	225	46887	PBM
103			A	<del>UNKNOWN</del> UNK	0.00 PPM	253	7261	PBM

103			A UNKNOWN	1.96 PPM	391	11221244	
104	Aug 25, 93 18:07		A UNKNOWN	0.02 PPM	98	87182	ambient
104			A UNKNOWN	0.00 PPM	271	10586	

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
104			A	UNKNOWN	0.00 PPM	393	27556	
104			A	#TOLUENE	0.00 PPM	416	7512	
105	Aug 25, 93 18:16		A	UNKNOWN	0.00 PPM	107	3198	ambient
105			A	<del>UNKNOWN</del> UNK	0.00 PPM	228	6036	PBM
106	Aug 25, 93 18:23		A	<del>UNKNOWN</del>	0.00 PPM	393	27556	GWII-26 PBM
106			A	UNKNOWN	0.00 PPM	395	2626	
107	Aug 25, 93 18:37		A	UNKNOWN	0.00 PPM	107	3587	GWII-25
107			A	<del>UNKNOWN</del> UNK	0.00 PPM	352	10377	PBM
107			A	UNKNOWN	0.00 PPM	396	12639	
108	Aug 25, 93 18:55		A	<del>UNKNOWN</del>	0.00 PPM	393	27556	GWII-27 PBM
108			A	UNKNOWN	0.00 PPM	359	5583	
108			A	UNKNOWN	0.01 PPM	398	32727	
108			A	UNKNOWN	0.00 PPM	718	7258	
109	Aug 26, 93 11:13		C	BENZENE	1.01 PPM	285	4247702	BTCE
109			C	TCE	1.52 PPM	329	3142708	
110	Aug 26, 93 11:21		A	UNKNOWN	0.00 PPM	87	9742	GWII-17
110			A	UNKNOWN	0.00 PPM	130	11012	
110			A	<del>UNKNOWN</del> UNK	0.00 PPM	254	13113	PBM
110			A	BENZENE	0.00 PPM	285	19689	
110			A	<del>UNKNOWN</del> UNK	0.00 PPM	350	12531	PBM
110			A	<del>UNKNOWN</del> UNK	0.00 PPM	391	8226	PBM

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
110			A	UNKNOWN	0.00 PPM	591	20610	
111	Aug 26, 93 11:34		A	UNKNOWN	0.00 PPM	87	2730	GWII-18
111			A	UNKNOWN	0.00 PPM	395	15231	
112	Aug 26, 93 11:51		A	UNKNOWN	0.00 PPM	88	7157	GWII-19
112			A	<del>UNKNOWN</del> UNK	0.00 PPM	230	9820	PBM
112			A	UNKNOWN	0.00 PPM	364	9835	
112			A	UNKNOWN	0.01 PPM	396	45975	
112			A	#P-XYLENE	0.01 PPM	663	26981	
112			A	#M-XYLENE	0.00 PPM	693	9959	
112			A	UNKNOWN	0.00 PPM	770	6838	
112			A	UNKNOWN	0.00 PPM	797	13142	
112			A	UNKNOWN	0.00 PPM	889	8589	
113	Aug 26, 93 12:07		A	UNKNOWN	0.00 PPM	87	250	GWII-21
113			A	<del>UNKNOWN</del> PERC	0.14 PPM	398	581682	PBM
114	Aug 26, 93 12:21		A	#TCE	0.00 PPM	322	4605	GWII-20
114			A	<del>UNKNOWN</del> PERC	0.22 PPM	397	945442	PBM
115	Aug 26, 93 12:38		A	UNKNOWN	0.01 PPM	396	28074	ambient
116	Aug 26, 93 12:46		A	UNKNOWN	0.00 PPM	397	2317	GWII-22
117	Aug 26, 93 12:57		A	UNKNOWN	0.00 PPM	120	577	GWII-23
117			A	UNKNOWN	0.00 PPM	226	8026	
117			A	<del>UNKNOWN</del> UNK	0.00 PPM	377	8300	PBM

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
117			A	UNKNOWN	0.01 PPM	398	38027	
117			A	UNKNOWN	0.00 PPM	758	16019	
118	Aug 26,93	13:14	A	<del>UNKNOWN</del> UNK	0.01 PPM	229	36218	GW11-35(3) PBM
118			A	UNKNOWN	0.00 PPM	256	7315	
118			A	UNKNOWN	2.00 PPM	398	8421951	
119	Aug 26,93	13:26	A	UNKNOWN	0.01 PPM	100	48207	ambient
119			A	<del>UNKNOWN</del> UNK	0.00 PPM	195	6068	PBM
119			A	UNKNOWN	0.01 PPM	399	40190	
119			A	UNKNOWN	0.00 PPM	767	15432	
119			A	UNKNOWN	0.00 PPM	811	5448	
119			A	UNKNOWN	0.00 PPM	916	7718	
120	Aug 26,93	13:46	A	UNKNOWN	0.00 PPM	73	2896	ambient
120			A	<del>UNKNOWN</del> UNK	0.00 PPM	198	10059	PBM
120			A	UNKNOWN	0.00 PPM	305	6790	
120			A	UNKNOWN	0.01 PPM	403	50759	
121	Aug 26,93	13:54	A	<del>UNKNOWN</del> UNK	0.00 PPM	138	5014	ambient PBM
121			A	UNKNOWN	0.00 PPM	185	6914	
121			A	UNKNOWN	0.00 PPM	361	6810	
121			A	UNKNOWN	0.00 PPM	395	7170	
122	Aug 26,93	14:01	A	<del>UNKNOWN</del> UNK	0.00 PPM	251	6837	GW11-28 PBM
122			A	<del>UNKNOWN</del> UNK	0.00 PPM	251	6837	PBM

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
122			A	<del>UNKNOWN</del> PERC	0.84 PPM	399	3520028	PBM
123	Aug 26,93	15:30	A	UNKNOWN	0.00 PPM	277	8078	ambient
123			A	<del>UNKNOWN</del> PERC	0.09 PPM	384	382727	PBM
124	Aug 26,93	15:38	A	<del>UNKNOWN</del> PERC	0.00 PPM	383	6904	ambient PBM
124			A	<del>UNKNOWN</del> PERC	0.00 PPM	383	6904	PBM
125	Aug 26,93	15:51	A	<del>UNKNOWN</del> UNK	0.01 PPM	121	30119	GW11-16 PBM
125			A	<del>UNKNOWN</del> PERC	0.10 PPM	386	409550	PBM
126	Aug 26,93	16:02	A	UNKNOWN	0.00 PPM	93	3829	ambient
126			A	UNKNOWN	0.00 PPM	264	6394	
126			A	<del>UNKNOWN</del> PERC	0.00 PPM	386	15525	PBM
127	Aug 26,93	16:18	A	TCE	1.46 PPM	326	3022659	GW11-1
127			A	<del>UNKNOWN</del> PERC	40.04 PPM	375	168408001	PBM
127			A	UNKNOWN	0.11 PPM	586	474274	
128	Aug 26,93	16:36	A	<del>UNKNOWN</del> PERC	0.01 PPM	326	15657	ambient PBM
128			A	<del>UNKNOWN</del> PERC	0.01 PPM	326	15657	PBM
128			A	<del>UNKNOWN</del> PERC	0.39 PPM	387	1640137	PBM
129	Aug 26,93	16:47	A	<del>UNKNOWN</del> PERC	0.15 PPM	387	650615	ambient PBM
130	Aug 26,93	16:54	A	<del>UNKNOWN</del> PERC	0.08 PPM	387	352551	ambient PBM
130			A	<del>UNKNOWN</del> PERC	0.08 PPM	387	352551	PBM
131	Aug 26,93	17:02	A	UNKNOWN	0.00 PPM	106	9596	ambient
131			A	<del>UNKNOWN</del> PERC	0.06 PPM	388	234624	PBM

\*\*\* ANALYSIS \*\*\* PRESS <esc> TO STOP OR ANY OTHER KEY TO CONTINUE \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
132	Aug 26,93	17:10	A	UNKNOWN	0.00 PPM	84	13883	ambient
132			A	UNKNOWN	0.00 PPM	108	4935	
132			A	UNKNOWN	0.00 PPM	119	4950	
132			A	<del>UNKNOWN</del> PERC	0.04 PPM	385	187535	PBM
133	Aug 26,93	17:18	C	BENZENE	1.01 PPM	285	4397896	BTCE



133			C TCE	1.52 PPM	329	3542055	
133			C UNKNOWN 2	10.00 PPB	389	53298	
134	Aug 26,93	17:25	A UNKNOWN	0.00 PPM	87	1845	ambient
134			A BENZENE	0.00 PPM	283	9697	
134			A TCE	0.00 PPM	326	3215	
134			A <del>112270</del> PERC	0.03 PPM	389	123344	PBM
135	Aug 26,93	17:35	A BENZENE	0.00 PPM	283	939	ambient
135			A <del>112270</del> PERC	0.03 PPM	389	111958	PBM
136	Aug 26,93	17:43	C BENZENE	1.01 PPM	287	1769265	BTCE
136			C TCE	1.52 PPM	330	1306678	
136			C UNKNOWN 2	10.00 PPB	391	41588	
137	Aug 26,93	17:50	A <del>112270</del> UNK	0.00 PPM	225	1465	GW11-35(4) PBM
137			A BENZENE	0.00 PPM	286	6577	
137			A TCE	0.00 PPM	330	2976	
137			A <del>112270</del> PERC	0.79 PPM	392	1383423	PBM
138	Aug 26,93	17:59	A UNKNOWN	0.02 PPM	99	27400	ambient

\*\*\* ANALYSIS \*\*\* PRESS ANY KEY TO RETURN TO MENU \*\*\*

TRACE	DATE	TIME	C/A	PEAK	CONCNT	RT	AREA	NAME
138			A TCE	0.00 PPM	326	744		
138			A <del>112270</del> PERC	0.05 PPM	393	87481		PBM
139	Aug 26,93	18:07	A <del>112270</del> PERC	0.18 PPM	393	317856		GW11-28(2) PBM
140	Aug 26,93	18:15	A UNKNOWN	0.01 PPM	100	20761		GW11-1(2)
140			A #BENZENE	0.00 PPM	293	7896		
140			A TCE	1.00 PPM	331	856382		
140			A <del>112270</del> PERC	29.79 PPM	387	52188425		PBM
140			A <del>112270</del> PERC	20.34 PPM	395	35633596		PBM
141	Aug 26,93	18:24	A UNKNOWN	0.00 PPM	98	4915		ambient
141			A TCE	0.03 PPM	331	29169		
141			A <del>112270</del> PERC	1.04 PPM	392	1828105		PBM
141			A UNKNOWN	0.01 PPM	835	15970		

TRACE PRINTOUT

TRACE #7      DATE: Mon Aug 23 16:00:45 1993

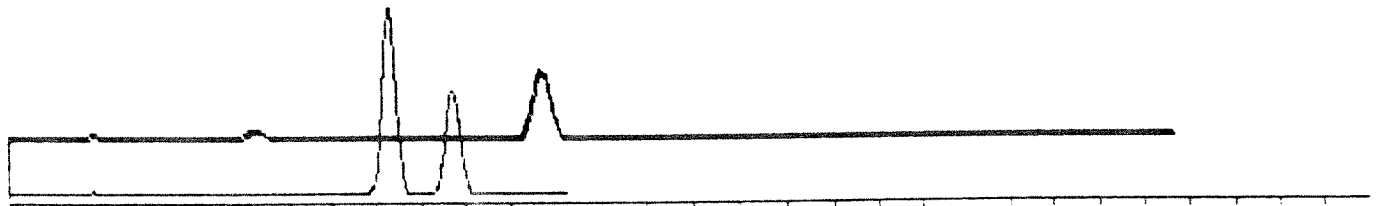
NAME:      GWII-2a2      CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 23      SAMPLE TIME:      10  
TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	UNKNOWN	85	9635	0.007 PPM
2	<del>PERC</del> UNK	189	62628	0.043 PPM PPM
3	BENZENE	278	13409	0.009 PPM
4	<del>PERC</del> PERC	380	658925	0.450 PPM PPM

TOTAL AREA: 744597

NAME: GWII-2a2  
UPPER TRACE #2      30.95% Aug 23, 93 16:00  
LOWER TRACE #6      100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 23  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 10  
DURATION: 15 Minutes



TRACE PRINTOUT

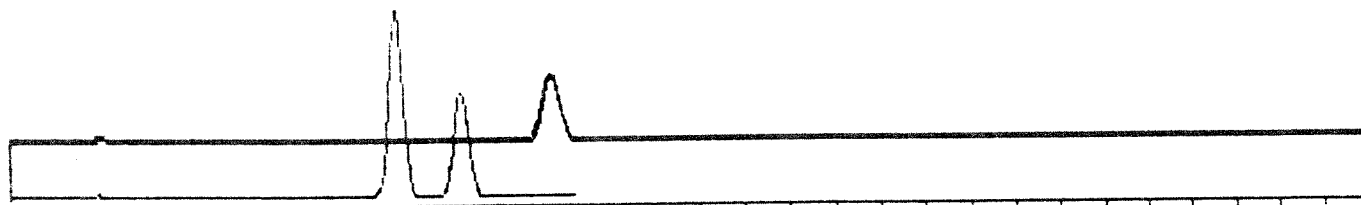
TRACE #9      DATE: Mon Aug 23 16:21:46 1993

NAME:      GWII-2b      CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 23      SAMPLE TIME:      10  
TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	UNKNOWN	85	12810	0.009 PPM
2	<del>1112270N</del> PERC	381	629250	0.430 PPM P3M
TOTAL AREA:			642060	

UPPER TRACE #9      NAME: GWII-2b      26.69%      Aug 23, 93 16:21  
LOWER TRACE #6      100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 23  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 10  
GAIN: 1.000  
DURATION: 15 Minutes



TRACE PRINTOUT

TRACE #10      DATE: Mon Aug 23 16:38:36 1993

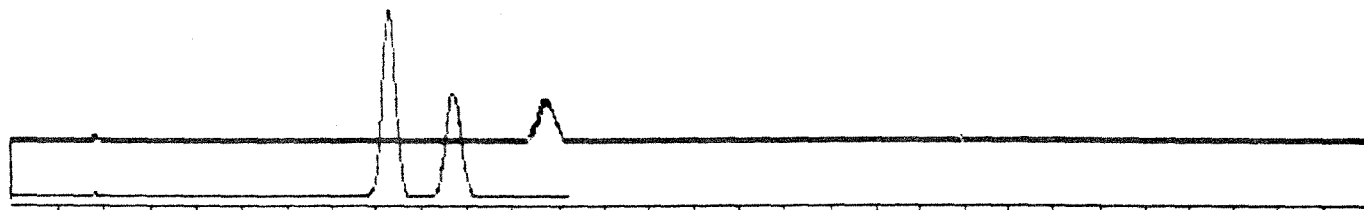
NAME:      GWII-2c      CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 23      SAMPLE TIME:      10  
TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	UNKNOWN	85	6602	0.005 PPM
2	BENZENE	281	3525	0.002 PPM
3	<del>1,1,1,2,2,2</del> PERC	383	343669	0.235 PPM PBM

TOTAL AREA: 353796

NAME: GWII-2c  
UPPER TRACE #10      14.71%      Aug 23, 93 16:38  
LOWER TRACE #6      100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 23  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 10  
GAIN: 1.000  
DURATION: 15 Minutes



TRACE PRINTOUT

TRACE #14      DATE: Mon Aug 23 18:20:20 1993

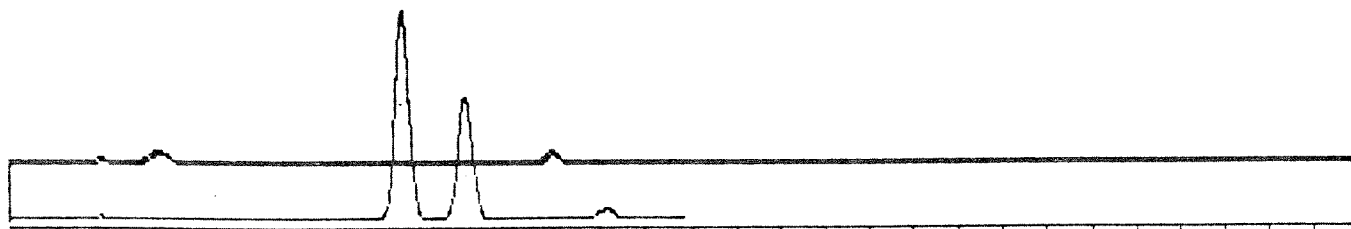
NAME:      GWII-3(2)      CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 23      SAMPLE TIME:      10  
TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	UNKNOWN	90	11580	0.007 PPM
2	<del>PERC</del> UNK	125	98765	0.059 PPM PPM
3	BENZENE	286	16836	0.010 PPM
4	<del>PERC</del> PERC	390	63025	0.038 PPM PPM
5	UNKNOWN	484	10501	0.006 PPM
6	UNKNOWN	553	2007	0.001 PPM

TOTAL AREA: 202714

NAME: GWII-3(2)  
UPPER TRACE #14      6.96% Aug 23, 93 18:20  
LOWER TRACE #13      100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 23  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 10  
GAIN: 1.000  
DURATION: 15 Minutes



TRACE PRINTOUT

TRACE #16      DATE: Mon Aug 23 19:07:24 1993

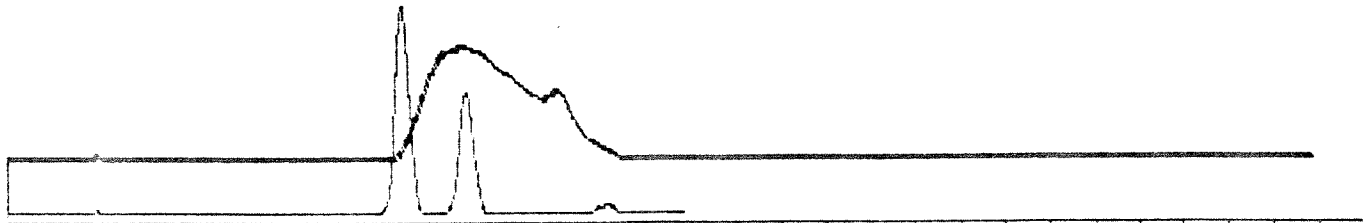
NAME:      GWII-10      CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 23      SAMPLE TIME:      10  
TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	UNKNOWN	88	11298	0.007 PPM
2	TCE	334	5714365	7.952 PPM
3	<del>1,1,1-TCE</del> PERC	393	1218898	0.727 PPM pbm
4	UNKNOWN	586	6616	0.004 PPM
5	#P-XYLENE	673	6450	0.004 PPM
6	UNKNOWN	766	7316	0.004 PPM
7	UNKNOWN	830	3477	0.002 PPM

TOTAL AREA: 6968420

NAME: GWII-10  
UPPER TRACE #16 232.23% Aug 23, 93 19:07  
LOWER TRACE #13 100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 23  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 10  
GAIN: 1.000  
DURATION: 15 Minutes



TRACE PRINTOUT

TRACE #24      DATE: Tue Aug 24 12:23:30 1993

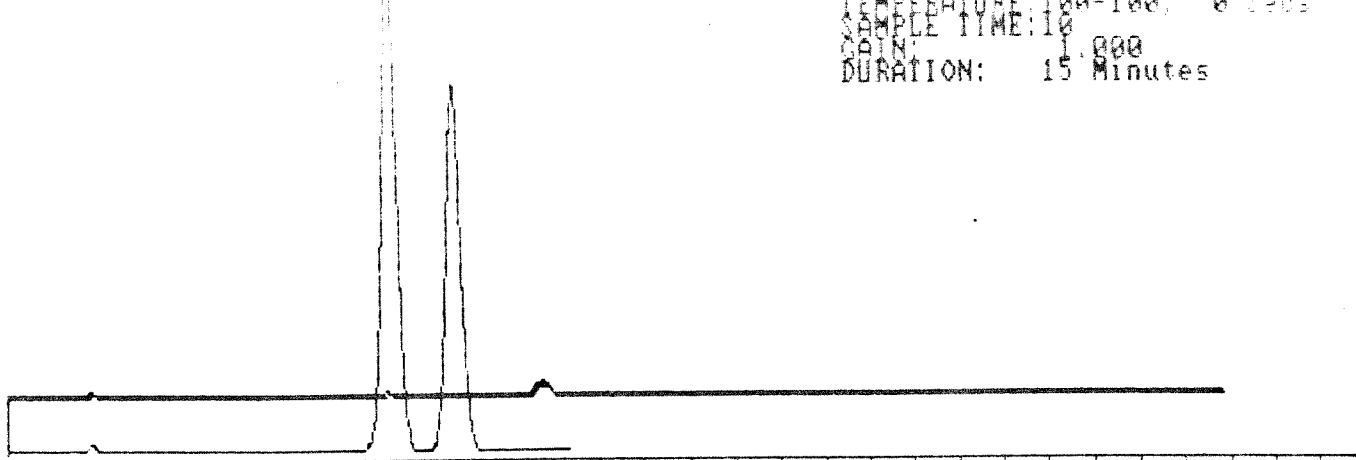
NAME:      GWII-5              CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 26      SAMPLE TIME:              10  
TEMPERATURE:      100      INHIBIT TIME:              30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	UNKNOWN	85	9543	0.002 PPM
2	UNKNOWN	196	10932	0.003 PPM
3	BENZENE	281	12471	0.003 PPM
4	TCE	323	3190	0.002 PPM
5	<del>PERC</del> PERC	384	86559	0.021 PPM <i>PRM</i>

TOTAL AREA: 122695

NAME: GWII-5  
UPPER TRACE #24      1.65% Aug 24, 93 12:23  
LOWER TRACE #23      100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 26  
DETECTOR: AID  
TEMPERATURE: 100-100, 8 Secs  
SAMPLE TIME: 10  
GAIN: 1.000  
DURATION: 15 Minutes



TRACE PRINTOUT

TRACE #27      DATE: Tue Aug 24 12:55:14 1993

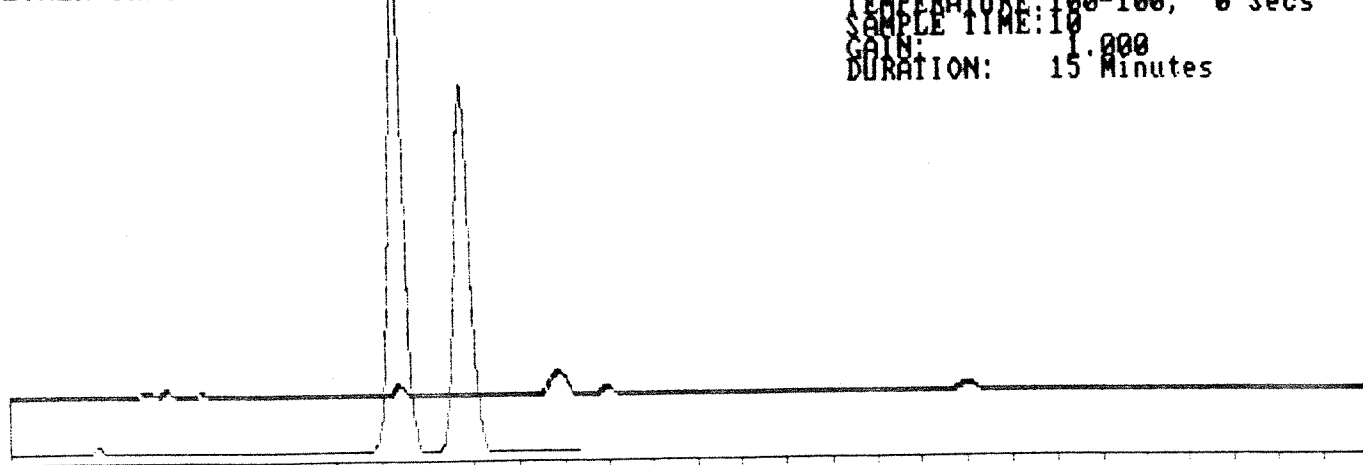
NAME:      GWII-11      CHART DURATION:      15  
 COLUMN: 10%SP1000      DETECTOR: AID  
 COLUMN PRESSURE: 26      SAMPLE TIME:      10  
 TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	<del>UNKNOWN</del>	<del>88</del>	<del>2013</del>	<del>1000.910 PPM</del> PPM
2	<del>1,2-DICHLOROBENZENE</del> UNK	120	31896	0.008 PPM PPM
3	UNKNOWN	130	26417	0.006 PPM
4	UNKNOWN	153	19123	0.005 PPM
5	<del>1,2-DICHLOROBENZENE</del> UNK	170	3845	0.001 PPM PPM
6	BENZENE	283	50144	0.012 PPM
7	UNKNOWN	387	210091	0.050 PPM
8	#TOLUENE	420	44937	0.011 PPM
9	#ETHBENZ	617	7319	0.002 PPM
10	#M-XYLENE	664	60040	0.014 PPM

TOTAL AREA: 451793

NAME: GWII-11  
 UPPER TRACE #27      6.89% Aug 24, 93 12:55  
 LOWER TRACE #23      100.00%

COLUMN: 10%SP1000  
 COLUMN PRESSURE: 26  
 DETECTOR: AID  
 TEMPERATURE: 100-100, 0 Secs  
 SAMPLE TIME: 10  
 GAIN: 1.000  
 DURATION: 15 Minutes





TRACE PRINTOUT

TRACE #30      DATE: Tue Aug 24 13:27:16 1993

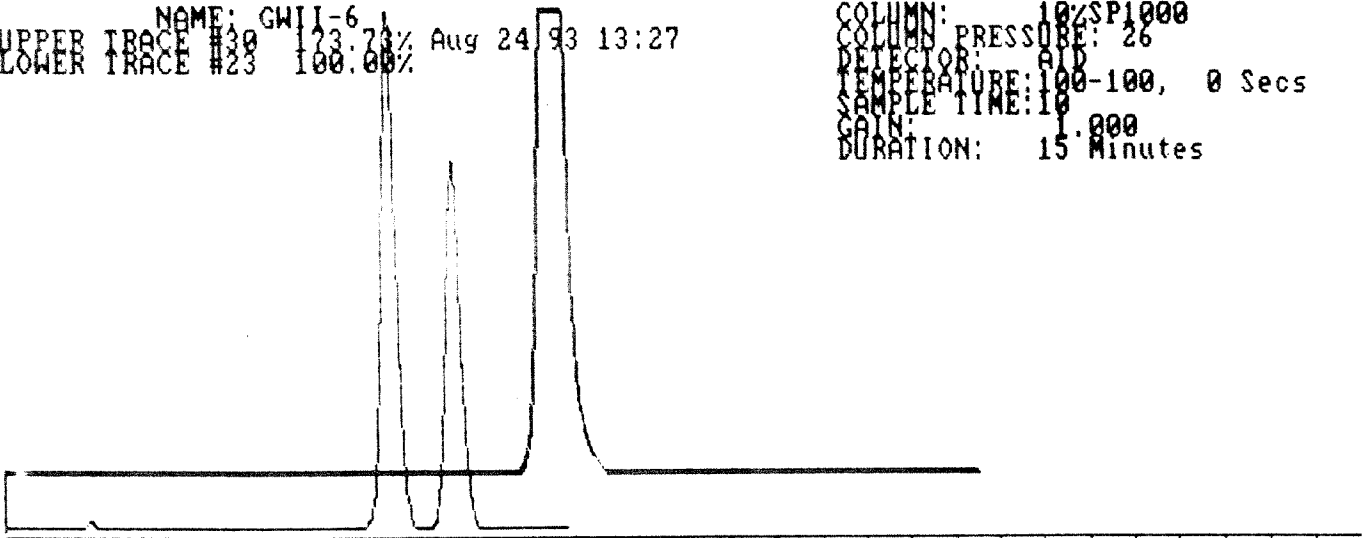
NAME:      GWII-6              CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 26      SAMPLE TIME:      10  
TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	<del>UNKNOWN</del>	<del>67</del>	<del>45</del>	<del>1000-910 PPM</del> PBM
2	<del>UNKNOWN</del> PERC	390	12890634	3.094 PPM PBM

TOTAL AREA: 12890589

NAME: GWII-6  
UPPER TRACE #30      23.73%      Aug 24 93 13:27  
LOWER TRACE #23      100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 26  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 10  
GAIN: 1.000  
DURATION: 15 Minutes



TRACE PRINTOUT

TRACE #60      DATE: Tue Aug 24 18:06:23 1993

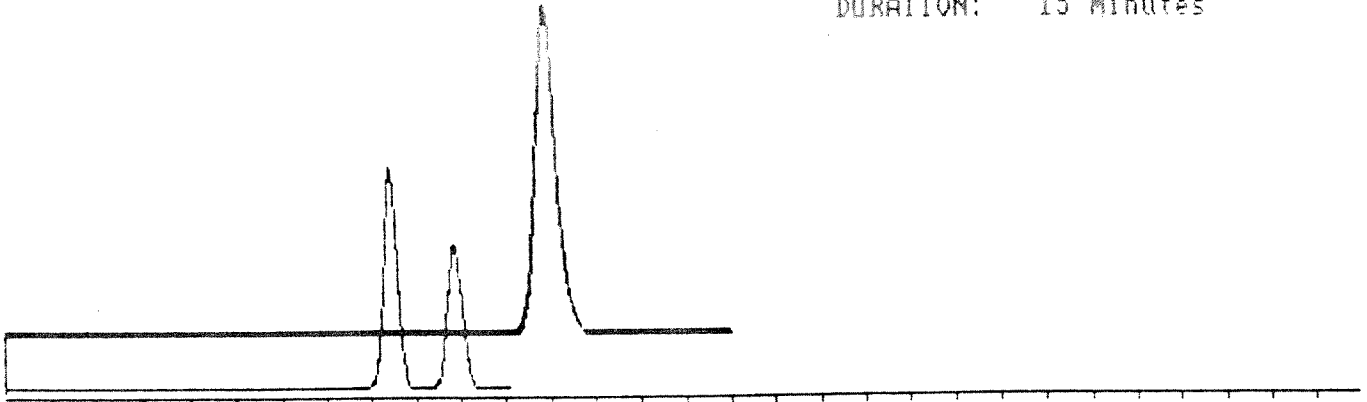
NAME:      GWII-6(2)      CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 26      SAMPLE TIME:      5  
TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	<del>UNKNOWN</del>	<del>50</del>	<del>1991</del>	<del>2496.261 PPM</del> P3m
2	UNKNOWN	94	1340	0.001 PPM
3	<del>1122701</del> PERC	387	3768959	2.191 PPM P3m

TOTAL AREA: 3768378

NAME: GWII-6(2)  
UPPER TRACE #60 126.15% Aug 24, 93 18:06  
LOWER TRACE #53 100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 26  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 5  
GAIN: 1.000  
DURATION: 15 Minutes



TRACE PRINTOUT

TRACE #36      DATE: Tue Aug 24 14:21:46 1993

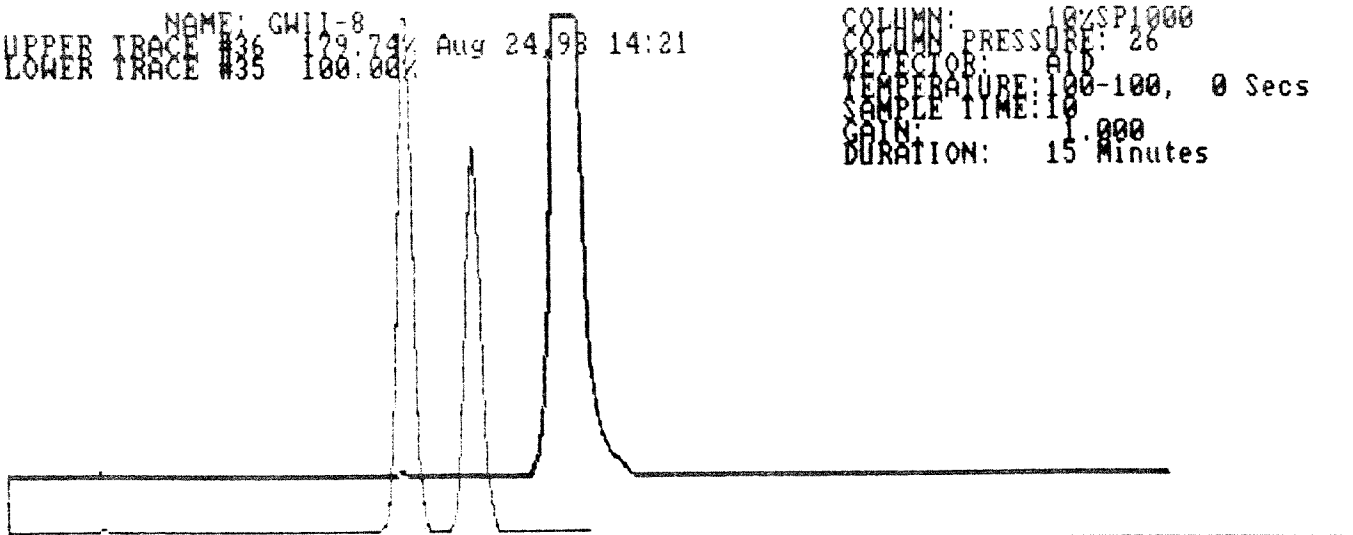
NAME:      GWII-8              CHART DURATION:      15  
 COLUMN: 10%SP1000      DETECTOR: AID  
 COLUMN PRESSURE: 26      SAMPLE TIME:          10  
 TEMPERATURE:      100      INHIBIT TIME:          30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	UNKNOWN	89	2421	0.001 PPM
2	<del>111222</del> unk	193	2351	0.001 PPM P3m
3	BENZENE	288	20690	0.005 PPM
4	UNKNOWN	299	2084	0.000 PPM
5	#TCE	331	5981	0.001 PPM
6	<del>111222</del> PERC	394	14082226	3.193 PPM P3m
7	UNKNOWN	570	71032	0.016 PPM
8	#M-XYLENE	688	7664	0.002 PPM

TOTAL AREA: 14194449

NAME: GWII-8  
 UPPER TRACE #36 129.74% Aug 24 1993 14:21  
 LOWER TRACE #35 100.00%

COLUMN: 10%SP1000  
 COLUMN PRESSURE: 26  
 DETECTOR: AID  
 TEMPERATURE: 100-100, 0 Secs  
 SAMPLE TIME: 10  
 GAIN: 1.000  
 DURATION: 15 Minutes



TRACE PRINTOUT

TRACE #45      DATE: Tue Aug 24 15:46:20 1993

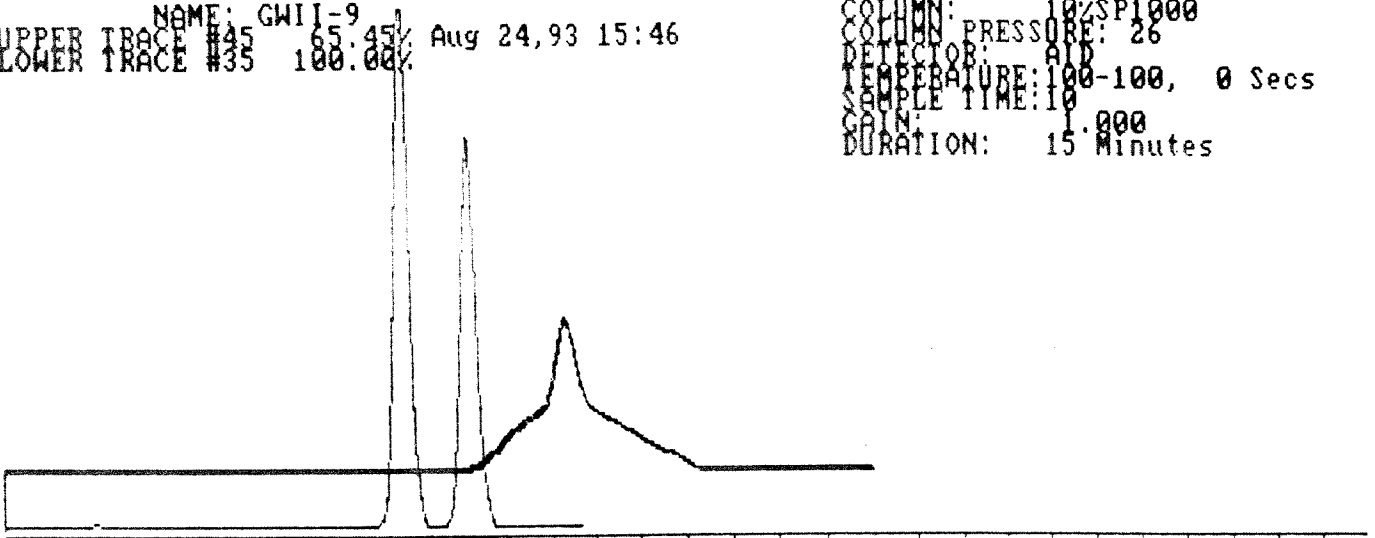
NAME:      GWII-9              CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE:    26    SAMPLE TIME:            10  
TEMPERATURE:        100    INHIBIT TIME:          30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	UNKNOWN	90	2001	0.000 PPM
2	<del>UNKNOWN</del> P <sub>rec</sub>	400	5166539	1.171 PPM P <sub>Bm</sub>

TOTAL AREA: 5168540

NAME: GWII-9  
UPPER TRACE #45      65.45%      Aug 24, 93 15:46  
LOWER TRACE #35    100.00%

COLUMN:            10%SP1000  
COLUMN PRESSURE: 26  
DETECTOR:        AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 10  
GAIN:             1.000  
DURATION:        15 Minutes



TRACE PRINTOUT

TRACE #63      DATE: Tue Aug 24 18:30:23 1993

NAME:      GWII-9(2)      CHART DURATION:      15

COLUMN: 10%SP1000      DETECTOR: AID

COLUMN PRESSURE: 26      SAMPLE TIME:      5

TEMPERATURE:      100      INHIBIT TIME:      30

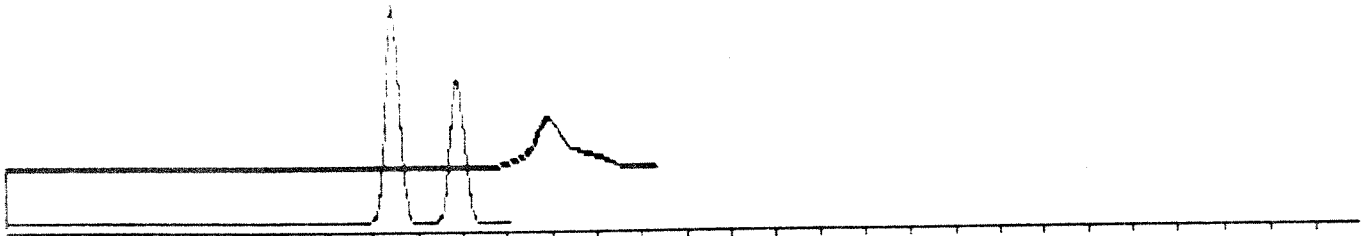
PEAK#	NAME	RT	AREA	CONCENTRATION
-------	------	----	------	---------------

1	<del>PERC</del> PERC	388	1030751	0.599 PPM LNK
---	----------------------	-----	---------	---------------

TOTAL AREA: 1030751

NAME: GWII-9(2)  
 UPPER TRACE #63      34.51%      Aug 24, 93 18:30  
 LOWER TRACE #53      100.00%

COLUMN: 10%SP1000  
 COLUMN PRESSURE: 26  
 DETECTOR: AID  
 TEMPERATURE: 100-100, 0 Secs  
 SAMPLE TIME: 5  
 GAIN: 1.000  
 DURATION: 15 Minutes



TRACE PRINTOUT

TRACE #54      DATE: Tue Aug 24 17:14:27 1993

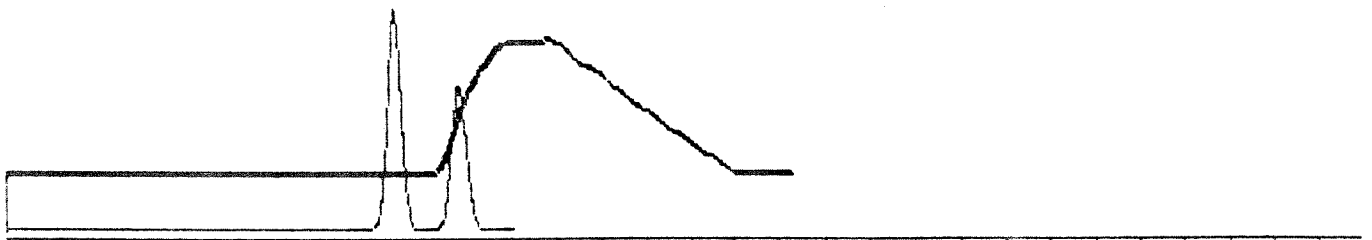
NAME:      GWII-13(2)      CHART DURATION:      15  
COLUMN:    10%SP1000      DETECTOR:    AID  
COLUMN PRESSURE:    26    SAMPLE TIME:      5  
TEMPERATURE:      100    INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	<del>PROPANE</del> UNK	171	2079	0.001 PPM Ppm
2	BENZENE	282	9724	0.006 PPM
3	<del>1,1,1,2,2,2</del> PERC	387	11183884	6.500 PPM P3m

TOTAL AREA: 11195687

NAME: GWII-13(2)  
UPPER TRACE #54 374.79% Aug 24, 93 17:14  
LOWER TRACE #53 100.00%

COLUMN:      10%SP1000  
COLUMN PRESSURE:    26  
DETECTOR:      AID  
TEMPERATURE:    100-100,    0 Secs  
SAMPLE TIME:      5  
GAIN:          1.000  
DURATION:      15 Minutes



TRACE PRINTOUT

TRACE #70      DATE: Tue Aug 24 19:25:04 1993

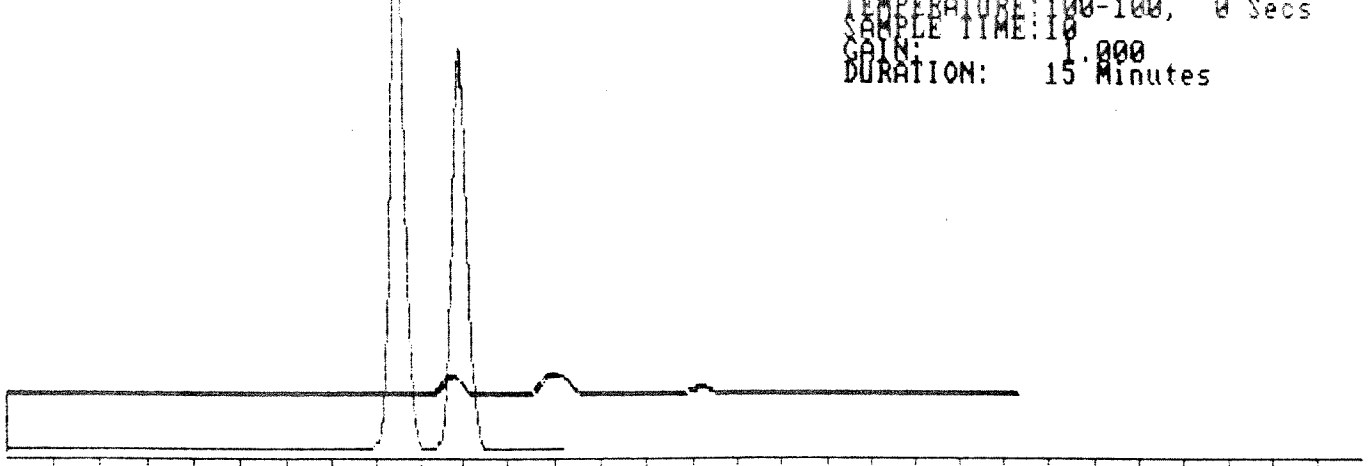
NAME:      GWII-15(2)      CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 26      SAMPLE TIME:      10  
TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	<del>UNKNOWN</del>	<del>95</del>	<del>445</del>	<del>0.11561 PPM</del> P3M
2	<del>HEX</del> UNK	235	12363	0.003 PPM P3M
3	TCE	324	176377	0.075 PPM
4	UNKNOWN	392	284226	0.063 PPM
5	#TOLUENE	413	3670	0.001 PPM
6	UNKNOWN	488	67045	0.015 PPM

TOTAL AREA: 543236

NAME: GWII-15(2)  
UPPER TRACE #70      6.88% Aug 24, 93 19:25  
LOWER TRACE #66      100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 26  
DETECTOR: AID  
TEMPERATURE: 100-100, @ Secs  
SAMPLE TIME: 10  
GAIN: 1.000  
DURATION: 15 Minutes



TRACE PRINTOUT

TRACE #73      DATE: Tue Aug 24 20:01:29 1993

NAME:      GWII-14(2)      CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 26      SAMPLE TIME:      10  
TEMPERATURE:      100      INHIBIT TIME:      30

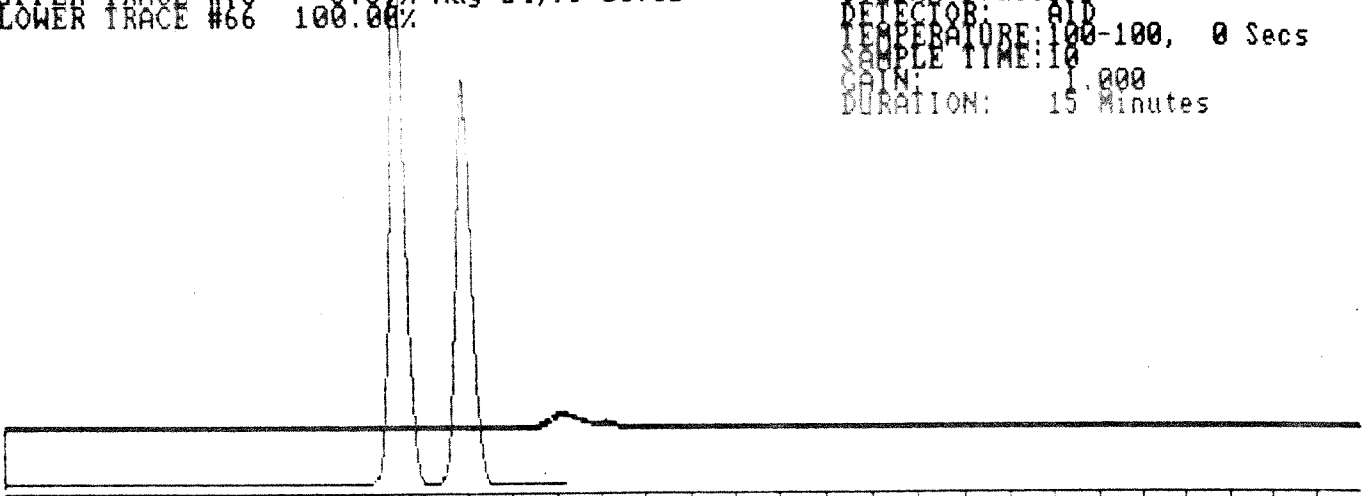
PEAK#    NAME                      RT      AREA      CONCENTRATION

1	<del>UNKNOWN</del>	<del>66</del>	<del>1565</del>	<del>311.561 PPM</del>	P3M
2	UNKNOWN	395	227289	0.050 PPM	
3	#TOLUENE	426	50372	0.011 PPM	

TOTAL AREA: 276096

NAME: GWII-14(2)  
UPPER TRACE #73      3.33%      Aug 24, 93 20:01  
LOWER TRACE #66      100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 26  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 10  
GAIN: 1.000  
DURATION: 15 Minutes





TRACE PRINTOUT

TRACE #78      DATE: Wed Aug 25 11:24:13 1993

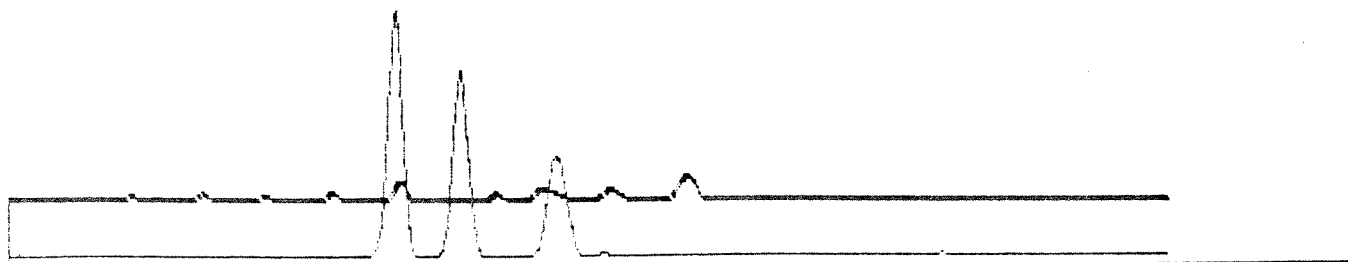
NAME:      GWII-32      CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 26      SAMPLE TIME:      10  
TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	UNKNOWN	86	1722	0.001 PPM
2	UNKNOWN	112	22525	0.011 PPM
3	UNKNOWN	156	29345	0.014 PPM
4	UNKNOWN	197	26094	0.013 PPM
5	<del>UNKNOWN</del> UNK	240	45885	0.022 PPM PBM
6	BENZENE	285	120311	0.058 PPM
7	UNKNOWN	350	50335	0.024 PPM
8	<del>UNKNOWN</del> PERC	381	125958	0.061 PPM PBM
9	UNKNOWN	426	97479	0.047 PPM
10	UNKNOWN	479	212639	0.103 PPM

TOTAL AREA: 732293

NAME: GWII-32  
UPPER TRACE #78      14.74%      Aug 25, 93 11:24  
LOWER TRACE #74      100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 26  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 10  
GAIN: 1.000  
DURATION: 15 Minutes



TRACE PRINTOUT

TRACE #95      DATE: Wed Aug 25 14:12:38 1993

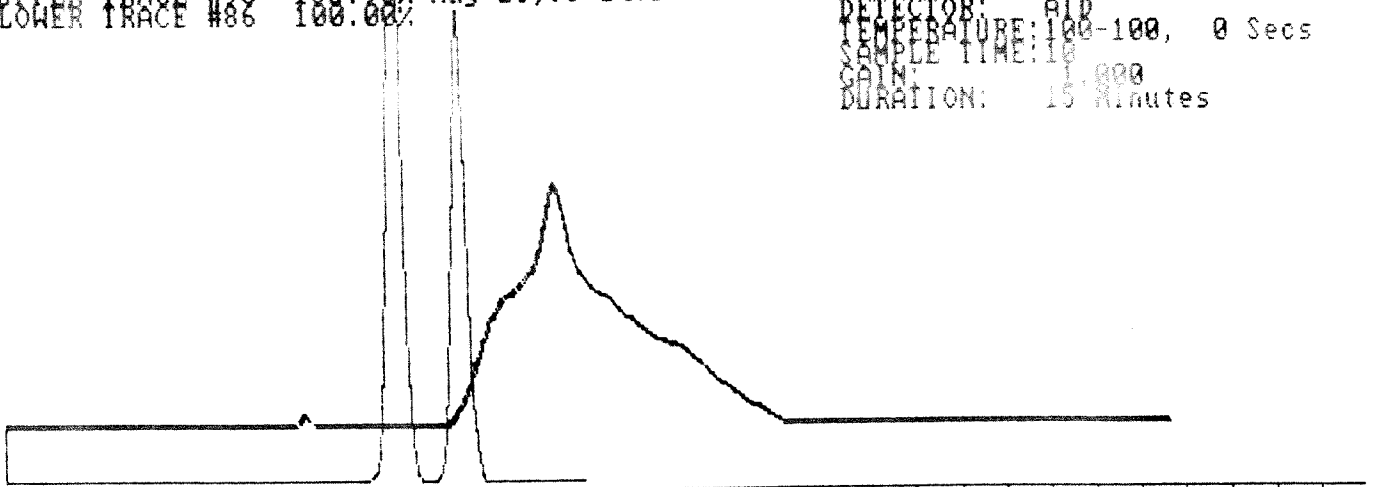
NAME:      GWII-35      CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 26      SAMPLE TIME:      10  
TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	<del>UNKNOWN</del>	<del>06</del>	<del>1757</del>	<del>741.067 PPM</del> P3m
2	<del>HEX</del> UNK	225	52410	0.009 PPM P3m
3	<del>METH CL</del> UNK	254	8568	0.001 PPM P3m
4	<del>UNKNOWN</del> PERC	391	15070365	2.601 PPM P3m

TOTAL AREA: 15129586

NAME: GWII-35  
UPPER TRACE #95 152.98% Aug 25, 93 14:12  
LOWER TRACE #86 100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 26  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 10  
DURATION: 15 Minutes



TRACE PRINTOUT

TRACE #137      DATE: Thu Aug 26 17:50:57 1993

NAME:    GWII-35(4)      CHART DURATION:    15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE:    26    SAMPLE TIME:        5  
TEMPERATURE:        100    INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	<del>CHLOROFORM</del> UNK	225	1465	0.001 PPM P3M
2	BENZENE	286	6577	0.004 PPM
3	TCE	330	2976	0.003 PPM
4	<del>1,1,1,2,2,2</del> PERC	392	1383423	0.790 PPM P3M

TOTAL AREA: 1394441

NAME: GWII-35(4)  
UPPER TRACE #137 44.77% Aug 26, 93 17:50  
LOWER TRACE #136 100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 26  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 5  
GAIN: 1.000  
DURATION: 15 Minutes



TRACE PRINTOUT

TRACE #98      DATE: Wed Aug 25 16:39:45 1993

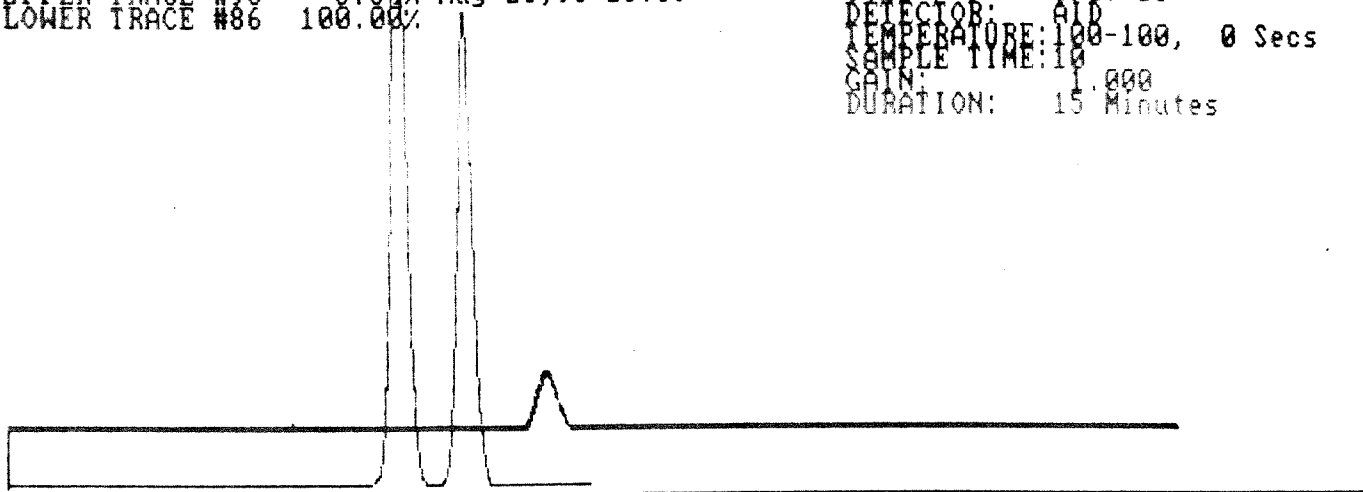
NAME:      GWII-24a      CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 26      SAMPLE TIME:      10  
TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	UNKNOWN	82	195	0.000 PPM
2	<del>UNKNOWN</del> PERC	381	611635	0.106 PPM PBM
3	#TOLUENE	412	15456	0.003 PPM

TOTAL AREA: 627286

NAME: GWII-24a  
UPPER TRACE #98      6.38%      Aug 25, 93 16:39  
LOWER TRACE #86      100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 26  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 10  
GAIN: 1.000  
DURATION: 15 Minutes



TRACE PRINTOUT

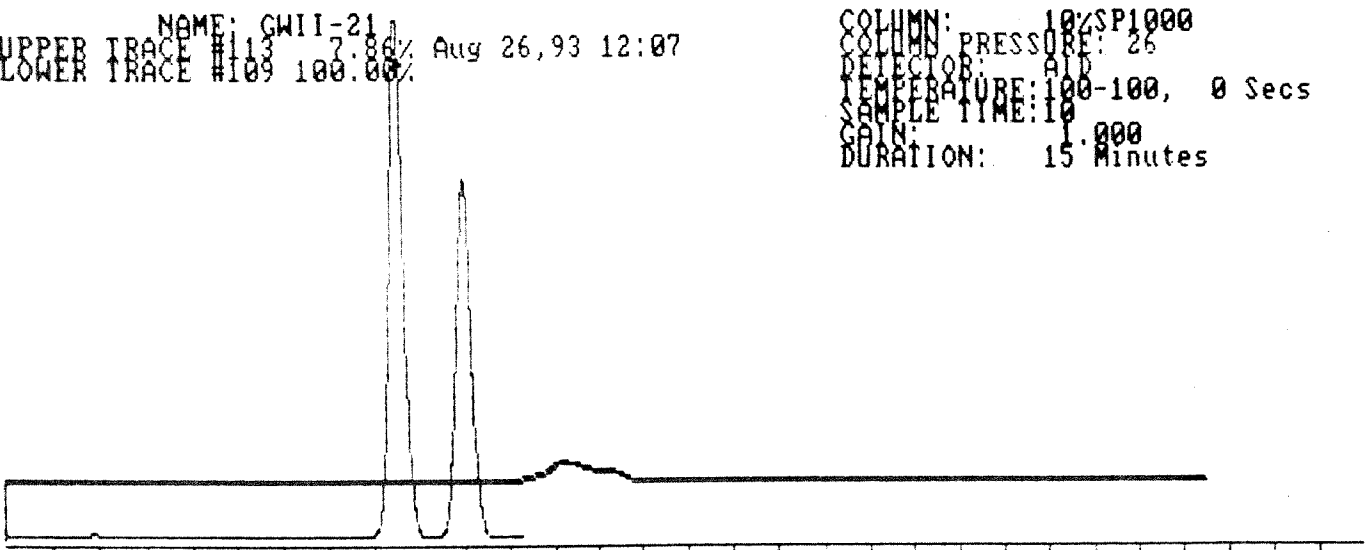
TRACE #113      DATE: Thu Aug 26 12:07:03 1993

NAME:      GWII-21              CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 26      SAMPLE TIME:      10  
TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	UNKNOWN	87	250	0.000 PPM
2	UNKNOWN	398	581682	0.138 PPM
TOTAL AREA:			581932	

NAME: GWII-21  
UPPER TRACE #113      7.86%      Aug 26, 93 12:07  
LOWER TRACE #109      100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 26  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 10  
GAIN: 1.000  
DURATION: 15 Minutes



TRACE PRINTOUT

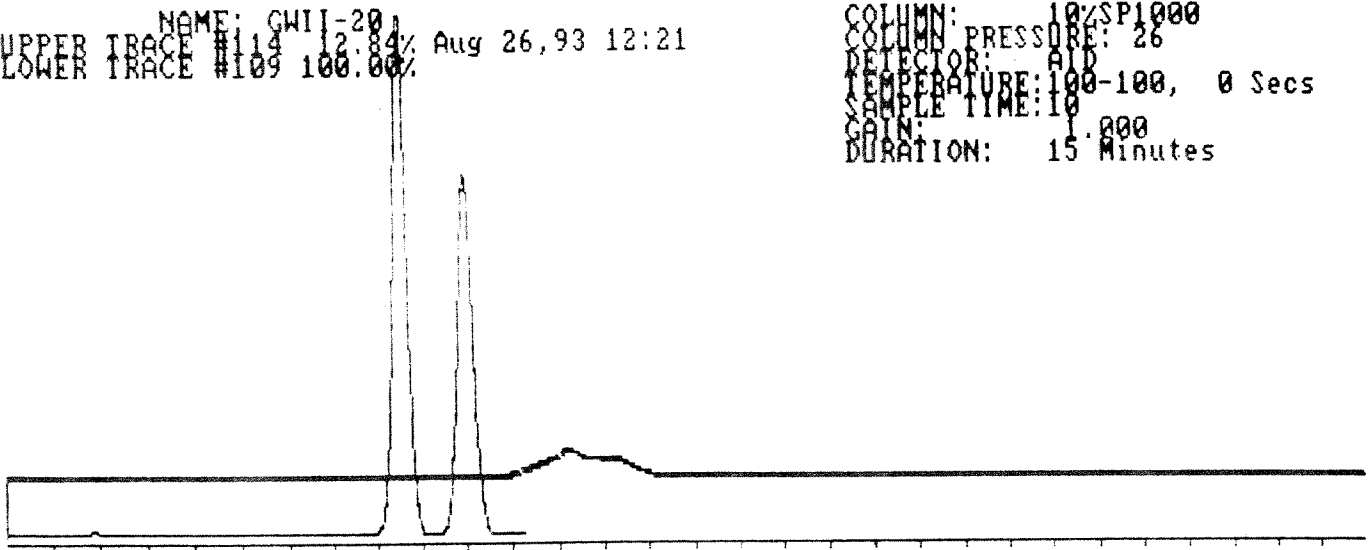
TRACE #114      DATE: Thu Aug 26 12:21:22 1993

NAME:      GWII-20      CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 26      SAMPLE TIME:      10  
TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	#TCE	322	4605	0.001 PPM
2	UNKNOWN	397	945442	0.225 PPM
TOTAL AREA:		950047		

NAME: GWII-20  
UPPER TRACE #114 12.84% Aug 26, 93 12:21  
LOWER TRACE #109 100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 26  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 10  
GAIN: 1.000  
DURATION: 15 Minutes



TRACE PRINTOUT

TRACE #122      DATE: Thu Aug 26 14:01:57 1993

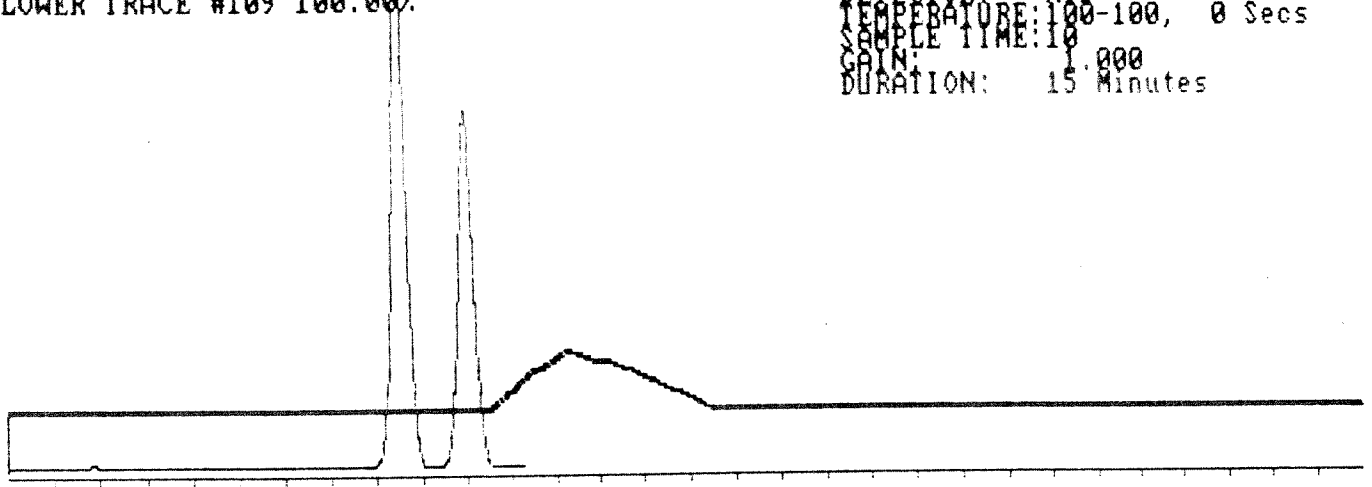
NAME:      GWII-28      CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 26      SAMPLE TIME:      10  
TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	<del>UNKNOWN</del>	<del>98</del>	<del>754</del>	<del>1011.250 PPM</del> P3m
2	<del>METH</del> UNK	251	6837	0.002 PPM P3m
3	<del>UNKNOWN</del> PERC	399	3520028	0.837 PPM P3m

TOTAL AREA: 3526111

NAME: GWII-28  
UPPER TRACE #122 47.64% Aug 26, 93 14:01  
LOWER TRACE #109 100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 26  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 10  
GAIN: 1.000  
DURATION: 15 Minutes



TRACE PRINTOUT

TRACE #139      DATE: Thu Aug 26 18:07:00 1993

NAME:      GWII-28(2)      CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 26      SAMPLE TIME:      5  
TEMPERATURE:      100      INHIBIT TIME:      30

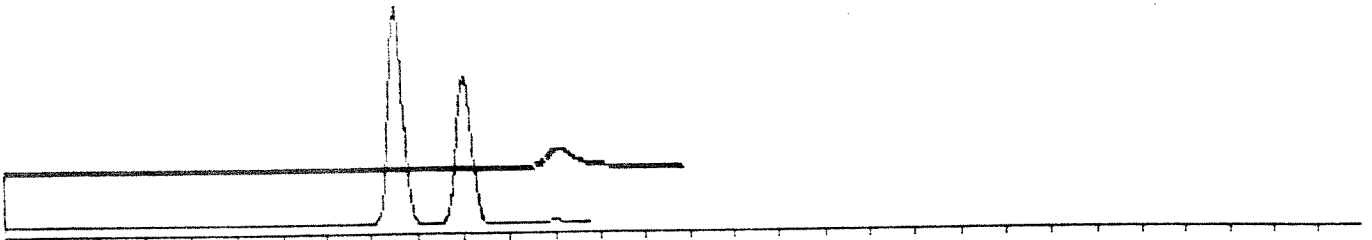
PEAK#	NAME	RT	AREA	CONCENTRATION
-------	------	----	------	---------------

1	<del>1122701</del> Perc	393	317856	0.181 PPM P3M
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TOTAL AREA: 317856

NAME: GWII-28(2)  
UPPER TRACE #139 10.20% Aug 26, 93 18:07  
LOWER TRACE #136 100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 26  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 5  
GAIN: 1.000  
DURATION: 15 Minutes





TRACE PRINTOUT

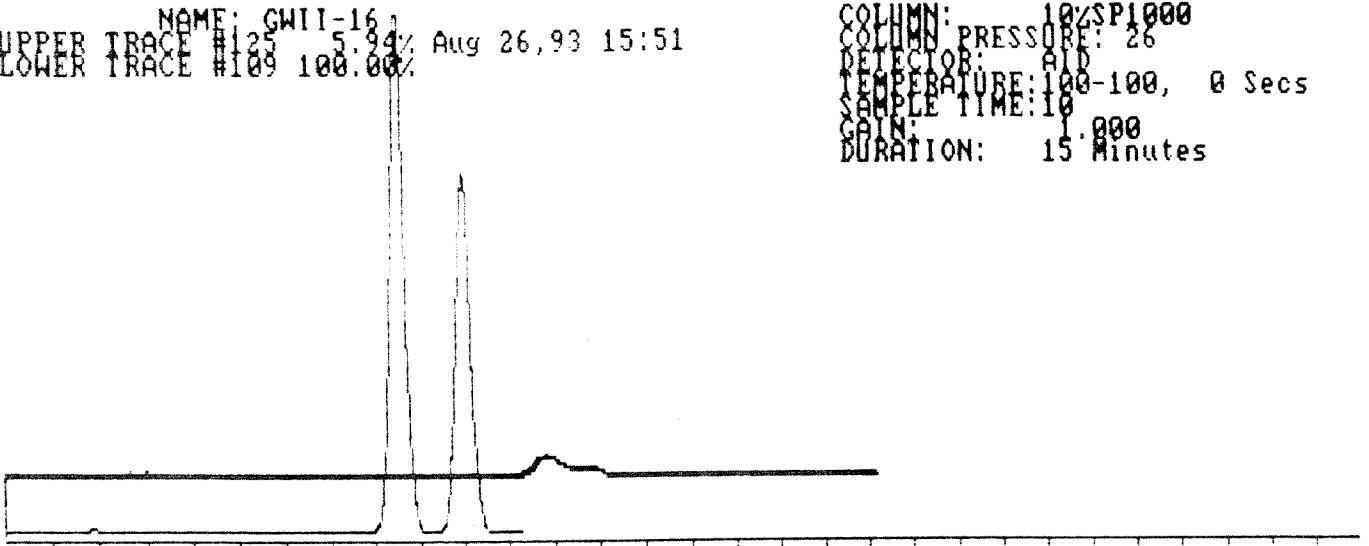
TRACE #125      DATE: Thu Aug 26 15:51:29 1993

NAME:      GWII-16      CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 26      SAMPLE TIME:      10  
TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	<del>10000000</del> unk	121	30119	0.007 PPM P3M
2	<del>11111000</del> PERC	386	409550	0.097 PPM P3M
TOTAL AREA:			439669	

NAME: GWII-16  
UPPER TRACE #125      5.94%      Aug 26, 93 15:51  
LOWER TRACE #109      100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 26  
DETECTOR: AID  
TEMPERATURE: 100-100, 0 Secs  
SAMPLE TIME: 10  
GAIN: 1.000  
DURATION: 15 Minutes



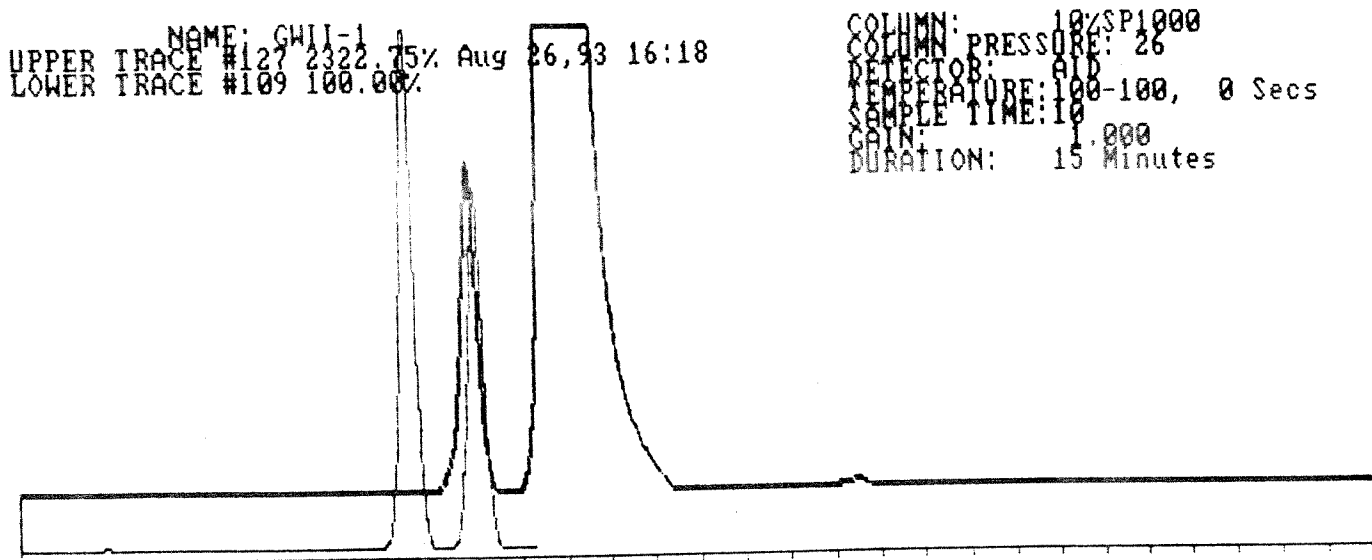
TRACE PRINTOUT

TRACE #127      DATE: Thu Aug 26 16:18:59 1993

NAME:      GWII-1              CHART DURATION:      15  
COLUMN: 10%SP1000      DETECTOR: AID  
COLUMN PRESSURE: 26      SAMPLE TIME:              10  
TEMPERATURE:      100      INHIBIT TIME:              30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	TCE	326	3022659	1.462 PPM
2	<del>UNKNOWN</del> PRC	375	168408001	40.043 PPM P3M
3	UNKNOWN	586	474274	0.113 PPM

TOTAL AREA: 171904934



TRACE PRINTOUT

TRACE #140      DATE: Thu Aug 26 18:15:24 1993

NAME:      GWII-1(2)      CHART DURATION:      15

COLUMN: 10%SP1000      DETECTOR: AID

COLUMN PRESSURE: 26      SAMPLE TIME:      5

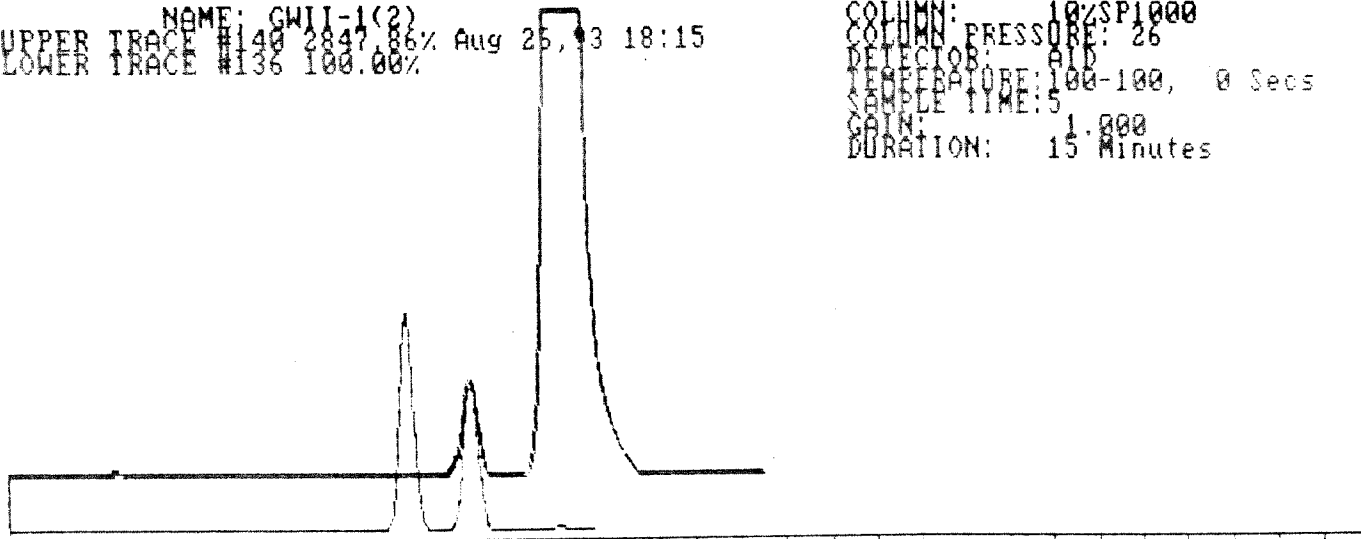
TEMPERATURE:      100      INHIBIT TIME:      30

PEAK#	NAME	RT	AREA	CONCENTRATION
1	UNKNOWN	100	20761	0.012 PPM
2	BENZENE	293	7896	0.005 PPM
3	TCE	331	856382	0.996 PPM
4	<del>1122701</del> PERC	387	52188425	29.792 PPM PBM
5	<del>1122701</del> PERC	395	35633596	20.342 PPM PBM

TOTAL AREA: 88707060

NAME: GWII-1(2)  
UPPER TRACE #140 2847.86% Aug 25, 93 18:15  
LOWER TRACE #138 100.00%

COLUMN: 10%SP1000  
COLUMN PRESSURE: 26  
DETECTOR: AID  
TEMPERATURE: 100-100, @ Secs  
SAMPLE TIME: 5  
GAIN: 1.000  
DURATION: 15 Minutes



# APPENDIX B

Great Western Malting – Phase II  
Soil and Ground Water Sample Results  
August 1993



## Manchester Environmental Laboratory

7411 Beach Dr E, Port Orchard Washington 98366

### CASE NARRATIVE

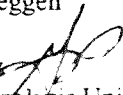
October 19, 1993

Subject: Great Western Malting Phase II

Samples: 348042 - 348043

Case No. DOE-850Y

Officer: Richard Heggen

By: Greg Perez   
Organics Analysis Unit

### VOLATILE ORGANICS ANALYSIS

#### ANALYTICAL METHODS:

These samples were analyzed by Method 8240, Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency, SW-846, 3rd Ed., 1986

#### BLANKS:

Low levels of the common laboratory solvents acetone and methylene chloride were detected in the laboratory blanks. 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 all surrogate compounds except for Bromofluorobenzene (BFB). BFB recoveries were just below the lower recovery limits in a number of the samples. This can be attributed to degradation of the column by a series of highly contaminated samples. Brominated compounds tend to be susceptible to column contamination. None of the target compounds found in the samples were affected by the problems encountered with bromofluorobenzene. The surrogate compounds chemically similar to the targets found were within acceptable limits.

#### HOLDING TIMES:

The samples were extracted and analyzed within recommended holding times.

**MATRIX SPIKE AND MATRIX SPIKE DUPLICATE:**

Matrix spike and matrix spike duplicate recoveries and precision data were acceptable and within limits.

**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  $3 \times 10^6$ .
- 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.)

Project: DOE-850Y GREAT WESTERN PHASE II

Officer: PZM Account: D3J05

Laboratory: Ecology, Manchester

Source: Well (General)

Sample No: 93 358040 Description: W-1

Begin Date: 93/08/23

VOA	PP Scan	Water-Total Result	Units	VOA	PP Scan	Water-Total Result	Units	VOA	PP Scan	Water-Total Result	Units
Carbon Tetrachloride		1.00	ug/l								
Acetone		10.00	ug/l	1,3,5-Trimethylbenzene		1.00	ug/l	Bromodichloromethane		90	† Recov
Chloroform		1.00	ug/l	Bromobenzene		1.00	ug/l	1,1-Dichloroethane		101J	† Recov
Benzene		1.00	ug/l	Toluene		1.00	ug/l	1,1-Dichloroethane		97	† Recov
1,1,1-Trichloroethane		1.00	ug/l	Chlorobenzene		1.00	ug/l	Trichlorofluoromethane		84	† Recov
Bromomethane		1.00	ug/l	1,2,4-Trichlorobenzene		1.00	ug/l	Methane, Dichlorodifluo		92J	† Recov
Chloromethane		1.00	ug/l	Dibromochloromethane		1.00	ug/l	1,2-Dichloropropane		92	† Recov
Bromochloromethane		1.00	ug/l	Tetrachloroethene		1.9	ug/l	2-Butanone		101	† Recov
Chloroethane		1.00	ug/l	Sec-Butylbenzene		1.00	ug/l	1,1,2-Trichloroethane		92	† Recov
Vinyl Chloride		1.00	ug/l	1,3-Dichloropropane		1.00	ug/l	Ethene, trichloro-		102	† Recov
Methylene Chloride		1.00	ug/l	Cis-1,2-Dichloroethene		5.1	ug/l	ETHANE, 1,1,2,2-TETRAC		88	† Recov
Carbon Disulfide		1.00	ug/l	trans-1,2-Dichloroethene		1.00	ug/l	1,2,3-Trichlorobenzene		93	† Recov
Bromodichloromethane		1.00	ug/l	1,3-Dichlorobenzene		1.00	ug/l	Hexachlorobutadiene		93	† Recov
1,1-Dichloroethane		1.00	ug/l	1,1-Dichloropropene		1.00	ug/l	Naphthalene		92	† Recov
1,1-Dichloroethane		1.00	ug/l	2-Hexanone		1.00	ug/l	O-XYLENE		89	† Recov
1,1-Dichloroethane		1.00	ug/l	2,2-Dichloropropane		1.00	ug/l	2-Chlorotoluene		95	† Recov
Trichlorofluoromethane		0.11J	ug/l	Ethane, 1,1,1,2 Tetrac		1.00	ug/l	1,2-Dichlorobenzene		98	† Recov
Methane, Dichlorodifluo		2.00J	ug/l	Total Xylenes		1.00	ug/l	1,2,4-Trimethylbenzene		91	† Recov
1,2-Dichloropropane		1.00	ug/l	m p-XYLENE		1.00	ug/l	1,2-Dibromo-3-chloropr		78	† Recov
1,1,2-Trichloroethane		1.00	ug/l	cis-1,3-Dichloropropene		1.00	ug/l	Tert-Butylbenzene		94	† Recov
Ethene, trichloro-		7.1	ug/l	p-BROMOFLUOROBENZENE		91	† Recov	Isopropylbenzene (Cume		92	† Recov
ETHANE, 1,1,2,2-TETRAC		1.00	ug/l	FLUOROBENZENE		96	† Recov	p-Isopropyltoluene		94	† Recov
1,2,3-Trichlorobenzene		1.00	ug/l	TOLUENE-D8		95	† Recov	Ethylbenzene		91	† Recov
Hexachlorobutadiene		1.00	ug/l	1,2-DICHLOROBENZENE-D4		101	† Recov	BENZENE, ETHENYL-(STYR		85	† Recov
Naphthalene		1.00	ug/l	d4-1,2-Dichloroethane		97	† Recov	BENZENE, PROPYL-		91	† Recov
O-XYLENE		1.00	ug/l					Butylbenzene		89	† Recov
2-Chlorotoluene		1.00	ug/l					4-Chlorotoluene		89	† Recov
1,2-Dichlorobenzene		1.00	ug/l					1,4-Dichlorobenzene		101	† Recov
1,2,4-Trimethylbenzene		1.00	ug/l					1,2-Dibromoethane (EDB)		87	† Recov
1,2-Dibromo-3-chloropr		1.00	ug/l					1,2-Dichloroethane		92	† Recov
1,2,3-Trichloropropane		2.00	ug/l					4-Methyl-2-pentanone (M		104	† Recov
Tert-Butylbenzene		1.00	ug/l	Carbon Tetrachloride		92	† Recov	1,3,5-Trimethylbenzene		91	† Recov
Isopropylbenzene (Cume		1.00	ug/l	Acetone		115	† Recov	Bromobenzene		NAF	† Recov
p-Isopropyltoluene		1.00	ug/l	Chloroform		96	† Recov	Toluene		93	† Recov
Ethylbenzene		1.00	ug/l	Benzene		92	† Recov	Chlorobenzene		99	† Recov
BENZENE, ETHENYL-(STYR		1.00	ug/l	Bromomethane		99	† Recov	1,2,4-Trichlorobenzene		94	† Recov
BENZENE, PROPYL-		1.00	ug/l	Dibromomethane		92	† Recov	Dibromochloromethane		89	† Recov
4-Chlorotoluene		1.00	ug/l	Dibromomethane		95	† Recov	Tetrachloroethene		92	† Recov
1,4-Dichlorobenzene		1.00	ug/l	Bromochloromethane		98	† Recov	Sec-Butylbenzene		93	† Recov
1,2-Dibromoethane (EDB)		1.00	ug/l	Chloroethane		62J	† Recov	1,3-Dichloropropane		90	† Recov
1,2-Dichloroethane		1.00	ug/l	Vinyl Chloride		90	† Recov	Cis-1,2-Dichloroethene		96	† Recov
4-Methyl-2-pentanone (M		1.00	ug/l	Methylene Chloride		96	† Recov	trans-1,2-Dichloroethe		100	† Recov
		1.00	ug/l	Carbon Disulfide		110J	† Recov	P-BROMOFLUOROBENZENE		97	† Recov
		1.00	ug/l	Bromoform		90	† Recov	FLUOROBENZENE		98	† Recov

(Continued on next page)





Project: DOE-850Y GREAT WESTERN PHASE II

Officer: PZM Account: D3J05

Laboratory: Ecology, Manchester

Source: Water (General)

Sample No: 93 358041 Description: BLANK

Begin Date: 93/08/23

VOA - PP Scan	Water-Total Result	Units	VOA - PP Scan	Water-Total Result	Units
Carbon Tetrachloride	1.00	ug/l	1,3,5-Trimethylbenzene	1.00	ug/l
Acetone	10.00	ug/l	Bromobenzene	1.00	ug/l
Chloroform	1.00	ug/l	Toluene	1.00	ug/l
Benzene	1.00	ug/l	Chlorobenzene	1.00	ug/l
Bromomethane	1.00	ug/l	1,2,4-Trichlorobenzene	1.00	ug/l
Chloromethane	1.00	ug/l	Dibromochloromethane	1.00	ug/l
Dibromomethane	1.00	ug/l	Tetrachloroethene	1.00	ug/l
Bromochloromethane	1.00	ug/l	Sec-Butylbenzene	1.00	ug/l
Chloroethane	1.00UJ	ug/l	1,3-Dichloropropane	1.00	ug/l
Vinyl Chloride	1.40UJ	ug/l	Cis-1,2-Dichloroethene	1.00	ug/l
Methylene Chloride	1.00UJ	ug/l	trans-1,2-Dichloroethene	1.00	ug/l
Carbon Disulfide	1.00UJ	ug/l	1,3-Dichlorobenzene	1.00	ug/l
Bromoform	1.00	ug/l	1,1-Dichloropropene	1.00	ug/l
Bromodichloromethane	1.00	ug/l	2-Hexanone	1.00	ug/l
1,1 Dichloroethane	1.00UJ	ug/l	2,2-Dichloropropane	1.00	ug/l
1,1 Dichloroethene	1.00	ug/l	Ethane, 1,1,1,2-Tetrac	1.00	ug/l
Trichlorofluoromethane	1.00	ug/l	Total Xylenes	1.00	ug/l
Methane, Dichlorodiflu+	2.00UJ	ug/l	m p-XYLENE	1.00	ug/l
1,2 Dichloropropane	1.00	ug/l	cis-1,3-Dichloropropene	1.00	ug/l
2 Butanone	1.00	ug/l	trans-1,3-Dichloroprop+	96	† Recov
1,1,2-Trichloroethane	1.00	ug/l	p-BROMOFLUOROBENZENE	98	† Recov
Ethene, trichloro-	1.00	ug/l	FLUOROBENZENE	98	† Recov
ETHANE, 1,1,2,2-TETRAC+	1.00	ug/l	TOLUENE-D8	103	† Recov
1,2,3-Trichlorobenzene	1.00	ug/l	1,2-DICHLOROBENZENE-D4	98	† Recov
Hexachlorobutadiene	1.00	ug/l	d4-1,2-Dichloroethane		
Naphthalene	1.00	ug/l			
o-XYLENE	1.00	ug/l			
p-Chlorotoluene	1.00	ug/l			
1,2 Dichlorobenzene	1.00	ug/l			
1,2,4-Trimethylbenzene	1.00UJ	ug/l			
1,2-Dibromo-3-chloropr+	2.00	ug/l			
1,2,3-Trichloropropane	1.00	ug/l			
Tert-Butylbenzene	1.00	ug/l			
Isopropylbenzene (Cume+	1.00	ug/l			
p-Isopropyltoluene	1.00	ug/l			
Ethylbenzene	1.00	ug/l			
BENZENE, ETHENYL-(STYR+	1.00	ug/l			
BENZENE, PROPYL-	1.00	ug/l			
Butylbenzene	1.00	ug/l			
4-Chlorotoluene	1.00	ug/l			
1,4-Dichlorobenzene	1.00	ug/l			
1,2-Dibromoethane (EDB)	1.00	ug/l			
1,2-Dichloroethane	1.00	ug/l			
4 Methyl-2-Pentanone(M+	1.00	ug/l			

(Sample Complete)

Washington State Department of Ecology  
Sample/Project Analysis Results

Project: DOE-850Y GREAT WESTERN PHASE II

Officer: PZM Account: D3J05

Laboratory: Ecology, Manchester

Sample No: 93 358042 Description: GWII-1AS

Source: Soil (General)

Begin Date: 93/08/26

VOA	PP Scan	Sediment Result	Units	*** Continued ***	VOA	PP Scan	Sediment Result	Units	*** Continued ***	Matrix Spike #1	Sediment Result	Units
Carbon Tetrachloride		2.20	ug/kg									
Acetone		71.50J	ug/kg									
Chloroform		2.20	ug/kg									
Benzene		2.20J	ug/kg									
1,1,1 Trichloroethane		2.20	ug/kg									
Bromomethane		2.20	ug/kg									
Chloromethane		2.20	ug/kg									
Dibromomethane		2.20	ug/kg									
Bromochloromethane		2.20	ug/kg									
Chloroethane		2.20	ug/kg									
Vinyl Chloride		2.20J	ug/kg									
Methylene Chloride		2.20J	ug/kg									
Carbon Disulfide		2.20J	ug/kg									
Bromoform		2.20	ug/kg									
Bromodichloromethane		2.20	ug/kg									
1,1-Dichloroethane		2.20	ug/kg									
1,1-Dichloroethene		2.20	ug/kg									
Trichlorofluoromethane		2.20	ug/kg									
Methane, Dichlorodiflu		2.20	ug/kg									
1,2-Dichloropropane		2.20	ug/kg									
2-Butanone		11.2 *	ug/kg									
1,1,2-Trichloroethane		2.20	ug/kg									
Ethene, trichloro-		164 *	ug/kg									
ETHANE, 1,1,2,2-TETRAC		2.20	ug/kg									
1,2,3-Trichlorobenzene		2.20	ug/kg									
Hexachlorobutadiene		2.20	ug/kg									
Naphthalene		2.20	ug/kg									
o-XYLENE		2.20	ug/kg									
2-Chlorotoluene		2.20	ug/kg									
1,2-Dichlorobenzene		2.20	ug/kg									
1,2,4-Trimethylbenzene		2.20	ug/kg									
1,2-Dibromo-3-chloropr		4.50	ug/kg									
1,2,3-Trichloropropane		2.20	ug/kg									
Tert-Butylbenzene		2.20	ug/kg									
Isopropylbenzene (Cume		2.20	ug/kg									
p-Isopropyltoluene		2.20	ug/kg									
Ethylbenzene		2.20	ug/kg									
BENZENE, ETHENYL-(STYR		2.20	ug/kg									
BENZENE, PROPYL-		2.20	ug/kg									
Butylbenzene		2.20J	ug/kg									
4-Chlorotoluene		2.20J	ug/kg									
1,4-Dichlorobenzene		2.20	ug/kg									
1,2-Dibromoethane (EDB)		2.20	ug/kg									
1,2-Dichloroethane		2.20	ug/kg									
1,2-Dichloroethane		2.20	ug/kg									
1,2-Dichloroethane		2.20	ug/kg									
1,2-Dichloroethane		2.20	ug/kg									
4-Methyl-2-Pentanone (M		2.20	ug/kg									

(Continued on next page)

Washington State Department of Ecology  
Sample/Project Analysis Results

20 OCT 93  
14:48:37

Officer: PZM Account: D3J05

Project: DOE-850Y GREAT WESTERN PHASE II

Laboratory: Ecology, Manchester

Source: Soil (General)

Sample No: 93 350042 Description: GWII-1AS

Begin Date: 93/08/26

VOA	PP Scan	Sediment	VOA	PP Scan	Sediment	Tent Ident	VOA Sca	Sediment
Matrix Spike #1	*** Continued ***	Result	Matrix Spike #2	*** Continued ***	Result			Units
1,3-Dichlorobenzene		107	o-XYLENE		97			Recov
1,1-Dichloropropene		108	2-Chlorotoluene		112			Recov
Hexanone		REJ	1,2-Dichlorobenzene		109			Recov
2,2-Dichloropropene		103	1,2,4-Trimethylbenzene		115			Recov
Ethane, 1,1,1,2-Tetrac+		104	1,2-Dibromo-3-chloropr+		74			Recov
Total Xylenes		93	1,2,3-Trichloropropane		85			Recov
TOLUENE-D8		106	Tert-Butylbenzene		117			Recov
1,2-DICHLOROBENZENE-D4		102	Isopropylbenzene (Cume+		114			Recov
cis-1,3-Dichloropropene		100	P-Isopropyltoluene		116			Recov
trans-1,3-Dichloroprop+		99	Ethylbenzene		101			Recov
d4 1,2-Dichloroethane		99	BENZENE, ETHENYL (STYR+		88			Recov
m p-XYLENE		91	BENZENE, PROPYL		109			Recov
			Butylbenzene		86			Recov
			4-Chlorotoluene		113			Recov
			1,4-Dichlorobenzene		105			Recov
			1,2-Dibromoethane (EDB)		94			Recov
			1,2-Dichloroethane		104			Recov
			4-Methyl-2-Pentanone (M+		76			Recov
			1,3,5-Trimethylbenzene		119			Recov
			Bromobenzene		105			Recov
			Toluene		108			Recov
			Chlorobenzene		108			Recov
			1,2,4-Trichlorobenzene		75			Recov
			Dibromochloromethane		75			Recov
			Tetrachloroethene		155			Recov
			sec-Butylbenzene		116			Recov
			1,3-Dichloropropane		104			Recov
			Cis-1,2-Dichloroethene		109			Recov
			trans-1,2-Dichloroethe+		105			Recov
			p-BROMOFLUOROBENZENE		96			Recov
			FLUOROBENZENE		101			Recov
			1,3-Dichlorobenzene		105			Recov
			1,1-Dichloropropene		112			Recov
			2-Hexanone		REJ			Recov
			2,2-Dichloropropane		109			Recov
			Ethane, 1,1,1,2-Tetrac+		103			Recov
			Total Xylenes		99			Recov
			TOLUENE-D8		105			Recov
			1,2-DICHLOROBENZENE-D4		99			Recov
			cis-1,3-Dichloropropene		107			Recov
			trans-1,3-Dichloroprop+		100			Recov
			d4-1,2-Dichloroethane		99			Recov
			m p-XYLENE		100			Recov
			Naphthalene		74			Recov

(Sample Complete)

Project: DOE-850Y GREAT WESTERN PHASE II

Officer: PZM

Account: D3J05

Laboratory: Ecology, Manchester

Source: Soil (General)

Sample No: 93 358043 Description: GWII-1BS

Begin Date: 93/08/26

VOA	PP Scan	Sediment Result	Units	VOA	PP Scan	Sediment Result	Units
		Carbon Tetrachloride	2.10				
		Acetone	17.30J				
		Chloroform	2.10				
		Benzene	2.10J				
		1,1,1-Trichloroethane	2.10J				
		Bromomethane	2.10				
		Chloromethane	2.10				
		Dibromomethane	2.10				
		Bromochloromethane	2.10				
		Chloroethane	2.10				
		Vinyl Chloride	2.10				
		Methylene Chloride	2.10J				
		Carbon Disulfide	2.10J				
		Bromoform	2.10				
		Bromodichloromethane	2.10				
		1,1-Dichloroethane	2.10				
		1,1-Dichloroethene	2.10				
		Trichlorofluoromethane	2.10				
		Methane, Dichlorodiflu+	2.10				
		1,2-Dichloropropane	2.10				
		2-Butanone	3.20J				
		1,1,2-Trichloroethane	2.10				
		Ethene, trichloro-	78.4 *				
		ETHANE, 1,1,2,2-TETRAC+	2.10				
		1,2,3-Trichlorobenzene	2.10				
		Hexachlorobutadiene	2.10				
		Naphthalene	2.10				
		o XYLENE	2.10				
		2-Chlorotoluene	2.10				
		1,2-Dichlorobenzene	2.10				
		1,2,4-Trimethylbenzene	2.10				
		1,2-Dibromo-3-chloropr+	4.20				
		1,2,3-Trichloropropane	2.10				
		Tert-Butylbenzene	2.10				
		Isopropylbenzene (Cume+	2.10				
		p-Isopropyltoluene	2.10				
		Ethylbenzene	2.10				
		BENZENE, ETHENYL-(STYR+	2.10				
		BENZENE, PROPYL-	2.10				
		Butylbenzene	2.10				
		4-Chlorotoluene	2.10				
		1,4-Dichlorobenzene	2.10				
		1,2-Dibromoethane (EDB)	2.10				
		1,2-Dichloroethane	2.10				
		4-Methyl-2-Pentanone(M+	2.10				
		1,3,5-Trimethylbenzene	2.10				
		Bromobenzene	2.10				
		Toluene	2.10				
		Chlorobenzene	2.10				
		1,2,4-Trichlorobenzene	2.10				
		Dibromochloromethane	2.10				
		Tetrachloroethene	2250 *				
		Sec-Butylbenzene	2.10				
		1,3-Dichloropropane	2.10				
		Cis-1,2-Dichloroethene	51.7 *				
		trans-1,2-Dichloroethe+	1.2J *				
		1,3-Dichlorobenzene	2.10				
		1,1-Dichloropropene	2.10				
		2-Hexanone	42.40				
		2,2-Dichloropropane	2.10				
		Ethane, 1,1,1,2-Tetrac+	2.10				
		Total Xylenes	2.10				
		m p-XYLENE	2.10				
		cis-1,3-Dichloropropene	2.10				
		trans-1,3-Dichloroprop+	2.10				
		p-BROMOFLUOROBENZENE	98				Recov
		FLUOROBENZENE	99				Recov
		TOLUENE-D8	101				Recov
		1,2-DICHLOROBENZENE-D4	98				Recov
		d4-1,2-Dichloroethane	108				Recov

(Sample Complete)

Washington State Department of Ecology  
Sample/Project Analysis Results

Account: D3J05

Officer: PZM

20 OCT-93  
14:46:37

Project: DOE-850Y GREAT WESTERN PHASE II

Blank ID: bw3236

VOA	PP Scan	Water-Total	VOA	PP Scan	Water-Total
Blank #1	Blank #1	Result	Blank #1	Blank #1	Result
Carbon Tetrachloride		1.00 ug/l			1.00 ug/l
Acetone		1.9J* ug/l	1,3,5-Trimethylbenzene		1.00 ug/l
Chloroform		1.00 ug/l	Bromobenzene		1.00 ug/l
Benzene		1.00 ug/l	Toluene		0.083J* ug/l
1,1,1-Trichloroethane		1.00 ug/l	Chlorobenzene		0.21J* ug/l
Bromomethane		1.00 ug/l	1,2,4-Trichlorobenzene		1.00 ug/l
Chloromethane		1.00 ug/l	Dibromochloromethane		1.00 ug/l
Dibromomethane		1.00 ug/l	Tetrachloroethene		1.00 ug/l
Bromochloromethane		1.00 ug/l	Sec-Butylbenzene		1.00 ug/l
Chloroethane		1.00J ug/l	1,3-Dichloropropane		1.00 ug/l
Vinyl Chloride		1.00 ug/l	Cis-1,2-Dichloroethene		1.00 ug/l
Methylene Chloride		0.37J* ug/l	trans-1,2-Dichloroethene		1.00 ug/l
Carbon Disulfide		0.42J* ug/l	1,3-Dichlorobenzene		1.00 ug/l
Bromoform		1.00 ug/l	1,1-Dichloropropene		1.00 ug/l
Bromodichloromethane		1.00 ug/l	2-Hexanone		1.00 ug/l
1,1-Dichloroethane		1.00J ug/l	2,2-Dichloropropane		1.00 ug/l
1,1-Dichloroethene		1.00 ug/l	Ethane, 1,1,1,2-Tetrac		1.00 ug/l
Trichlorofluoromethane		1.00 ug/l	Total Xylenes		0.026J* ug/l
Methane, Dichlorodiflu		2.00J ug/l	m,p-XYLENE		0.026J* ug/l
1,2-Dichloropropane		1.00 ug/l	cis-1,3-Dichloropropene		1.00 ug/l
2-Butanone		1.00 ug/l	trans-1,3-Dichloroprop		1.00 ug/l
1,1,2-Trichloroethane		1.00 ug/l	p-BROMOFLUOROBENZENE		94
Ethene, trichloro-		1.00 ug/l	FLUOROBENZENE		99
ETHANE, 1,1,2,2-TETRAC		1.00 ug/l	1,2,4-Trichlorobenzene		95
1,2,3-Trichlorobenzene		0.16J* ug/l	1,2-DICHLOROBENZENE-D4		102
Hexachlorobutadiene		1.00 ug/l	d4-1,2-Dichloroethane		100
Naphthalene		0.35J* ug/l			
o-XYLENE		1.00 ug/l			
2-Chlorotoluene		1.00 ug/l			
1,2-Dichlorobenzene		1.00 ug/l			
1,2,4-Trimethylbenzene		1.00 ug/l			
1,2-Dibromo-3-chloropr		2.00 ug/l			
1,2,3-Trichloropropane		1.00 ug/l			
Tert-Butylbenzene		1.00J ug/l			
Isopropylbenzene (Cume		1.00 ug/l			
p-Isopropyltoluene		1.00 ug/l			
Ethylbenzene		1.00 ug/l			
BENZENE, ETHENYL- (STYR		1.00 ug/l			
BENZENE, PROPYL-		1.00 ug/l			
Butylbenzene		1.00 ug/l			
4-Chlorotoluene		1.00 ug/l			
1,4-Dichlorobenzene		1.00 ug/l			
1,2-Dibromomethane (EDB)		1.00 ug/l			
1,2-Dichloroethane		1.00 ug/l			
4-Methyl-2-Pentanone (M		1.00 ug/l			

(Sample Complete)

Project: DOE-850Y GREAT WESTERN PHASE II

Officer: PZM

Account: D3J05

Blank ID: vbs3250

VOA - PP Scan Blank #1	Sediment Result Units	VOA - PP Scan Blank #1	Sediment Result Units
Carbon Tetrachloride	1.00 ug/kg	1,3,5-Trimethylbenzene	1.00 ug/kg
Acetone	11.5J* ug/kg	Bromobenzene	1.00 ug/kg
Chloroform	1.00 ug/kg	Toluene	0.14J* ug/kg
Benzene	0.50J* ug/kg	Chlorobenzene	0.19J* ug/kg
1,1,1-Trichloroethane	0.76J* ug/kg	1,2,4-Trichlorobenzene	0.22J* ug/kg
Bromomethane	1.00 ug/kg	Dibromochloromethane	1.00 ug/kg
Chloromethane	1.00 ug/kg	Tetrachloroethene	1.00 ug/kg
Dibromomethane	1.00 ug/kg	Sec-Butylbenzene	0.072J* ug/kg
Bromochloromethane	1.00 ug/kg	1,3-Dichloropropane	1.00 ug/kg
Chloroethane	1.00 ug/kg	Cis-1,2-Dichloroethene	1.00 ug/kg
Vinyl Chloride	1.00 ug/kg	trans-1,2-Dichloroethene	1.00 ug/kg
Methylene Chloride	0.70J* ug/kg	1,3-Dichlorobenzene	1.00 ug/kg
Methylene Chloride	1.4J* ug/kg	1,1-Dichloropropene	1.00 ug/kg
Carbon Disulfide	1.00 ug/kg	2-Hexanone	20.00J ug/kg
Bromoform	1.00 ug/kg	2,2-Dichloropropane	1.00 ug/kg
Bromodichloromethane	1.00 ug/kg	Ethane, 1,1,1,2-Tetrac	1.00 ug/kg
1,1-Dichloroethane	1.00 ug/kg	Total Xylenes	0.15J* ug/kg
1,1-Dichloroethene	1.00 ug/kg	m,p-XYLENE	1.00 ug/kg
Trichlorofluoromethane	1.00 ug/kg	cis-1,3-Dichloropropene	1.00 ug/kg
Methane, Dichlorodiflu	1.00 ug/kg	trans-1,3-Dichloroprop	1.00 ug/kg
1,2-Dichloropropane	2.2J* ug/kg	p-BROMOFLUOROBENZENE	84 ug/kg
2-Butanone	1.00 ug/kg	FLUOROBENZENE	100 ug/kg
1,1,2-Trichloroethane	1.00 ug/kg	TOLUENE-D8	98 ug/kg
Ethene, trichloro-	0.19J* ug/kg	1,2-DICHLOROBENZENE-D4	91 ug/kg
ETHANE, 1,1,2,2-TETRAC	1.00 ug/kg	d4-1,2-Dichloroethane	92 ug/kg
1,2,3-Trichlorobenzene	0.41J* ug/kg		
Hexachlorobutadiene	0.19J* ug/kg		
Naphthalene	0.97J* ug/kg		
o-XYLENE	0.14J* ug/kg		
2-Chlorotoluene	1.00 ug/kg		
1,2-Dichlorobenzene	1.00 ug/kg		
1,2,4-Trimethylbenzene	0.15J* ug/kg		
1,2-Dibromo-3-chloropr	2.00 ug/kg		
1,2,3-Trichloropropane	1.00 ug/kg		
Tert-Butylbenzene	1.00 ug/kg		
Isopropylbenzene (Cume	0.096J* ug/kg		
p-Isopropyltoluene	1.00 ug/kg		
Ethylbenzene	0.050J* ug/kg		
BENZENE, ETHENYL-(STYR	1.00 ug/kg		
BENZENE, PROPYL-	1.00 ug/kg		
Butylbenzene	1.00J ug/kg		
4-Chlorotoluene	1.00J ug/kg		
1,4-Dichlorobenzene	0.090J* ug/kg		
1,2-Dibromoethane (EDB)	1.00 ug/kg		
1,2-Dichloroethane	1.00 ug/kg		
4-Methyl-2-Pentanone (M	1.00 ug/kg		

(Sample Complete)

Project: DOE-850Y GREAT WESTERN PHASE II

Officer: PZM

Account: D3J05

Blank ID: vbw3256

VOA #	PP Scan	Water-Total	VOA - PP Scan	Water-Total
Blank #2		Result	*** Continued ***	Result
		Units	Blank #2	Units
Carbon Tetrachloride		1.00 ug/l		
Acetone		2.8J* ug/l	1,3,5 Trimethylbenzene	0.080J* ug/l
Chloroform		1.00 ug/l	Bromobenzene	1.00 ug/l
Benzene		0.12J* ug/l	Toluene	0.038J* ug/l
1,1,1-Trichloroethane		1.00 ug/l	Chlorobenzene	0.18J* ug/l
Bromomethane		1.00 ug/l	1,2,4-Trichlorobenzene	1.00 ug/l
Chloromethane		1.00 ug/l	Dibromochloromethane	2.00 ug/l
Bromochloromethane		1.00 ug/l	Tetrachloroethene	1.00 ug/l
Chloroethane		1.00 ug/l	Sec-Butylbenzene	0.090J* ug/l
Vinyl Chloride		1.00 ug/l	1,3-Dichloropropane	1.00 ug/l
Methylene Chloride		0.39J* ug/l	Cis-1,2-Dichloroethene	1.00 ug/l
Carbon Disulfide		1.00 ug/l	trans-1,2-Dichloroethene	1.00 ug/l
Bromodichloromethane		10.00 ug/l	1,3-Dichlorobenzene	0.12J* ug/l
1,1-Dichloroethane		1.00 ug/l	1,1-Dichloropropene	1.00 ug/l
1,1-Dichloroethene		1.00 ug/l	2-Hexanone	10.00 ug/l
Trichlorofluoromethane		1.00J ug/l	2,2-Dichloropropane	1.00 ug/l
Methane, Dichlorodifluo		1.00J ug/l	Ethane, 1,1,1,2 Tetracl	1.00 ug/l
1,2-Dichloropropane		1.00 ug/l	Total Xylenes	0.052J* ug/l
2-Butanone		0.34J* ug/l	m,p-XYLENE	0.040J* ug/l
1,1,2-Trichloroethane		1.00 ug/l	cis-1,3-Dichloropropene	0.53U ug/l
Ethene, trichloro-		1.00 ug/l	trans-1,3-Dichloroprop	0.47U ug/l
ETHANE, 1,1,2,2-TETRAC		1.00 ug/l	p-BROMOFLUOROBENZENE	80 † Recov
1,2,3-Trichlorobenzene		1.00 ug/l	FLUOROBENZENE	103 † Recov
Hexachlorobutadiene		0.25J* ug/l	TOLUENE-D8	105 † Recov
Naphthalene		1.00 ug/l	1,2-DICHLOROBENZENE-D4	105 † Recov
o-XYLENE		0.012J* ug/l	d4-1,2-Dichloroethane	88 † Recov
2-Chlorotoluene		1.00 ug/l		
1,2-Dichlorobenzene		0.12J* ug/l		
1,2,4-Trimethylbenzene		0.11J* ug/l		
1,2-Dibromo-3-chloropr		1.00 ug/l		
Tert-Butylbenzene		1.00 ug/l		
Isopropylbenzene (Cume		0.080J* ug/l		
p-Isopropyltoluene		0.10J* ug/l		
Ethylbenzene		0.036J* ug/l		
BENZENE, ETHENYL-(STYR		1.00 ug/l		
BENZENE, PROPYL-		1.00 ug/l		
Butylbenzene		1.00 ug/l		
4-Chlorotoluene		1.00 ug/l		
1,4-Dichlorobenzene		0.14J* ug/l		
1,2-Dibromoethane (BDB)		1.00 ug/l		
1,2-Dichloroethane		1.00 ug/l		
4-Methyl-2-Pentanone(M+		1.00 ug/l		

(Sample Complete)



