SDMS US EPA REGION V -1

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REF 15g

157436

ORGANIC DATA VALIDATION REPORT

1.0 INTRODUCTION

Site:	Sauget Area 1
Laboratory:	Ecology and Environment, Inc.
Validation:	PRC Environmental Management, Inc.
Review Date:	May 1993
Case Number:	U-4465
Sample Numbers:	DC-SS-01 through DC-SS-23
Analyses:	Volatiles, Semivolatiles, Pesticides/Polychlorinated Biphenyls
Collection Dates:	November 10 and 11, 1986

The data for these 23 soil samples were reviewed according to the EPA document "Laboratory Data Validation Functional Guidelines for Evaluating Organics Analysis" (February 1988). Data sheets (Form I) with appropriate qualifiers are provided in Appendix A. The justifications for qualification of sample results are discussed in the following section.

2.0 DATA REVIEW REQUIREMENTS

This section discusses the various data review requirements are discussed in turn. Some items are omitted from these data packages. The comments include specific notes on those omissions.

2.1 HOLDING TIMES

All holding time requirements were met. As detailed below, some volatile organic analyses (VOA) were reanalyzed. Some of those later runs exceeded the holding time limit by a day or two, but this should not affect the quality of the results.

2.2 INSTRUMENT PERFORMANCE

In the VOA and semivolatile organic analysis (SVOA), all requirements for gas chromatography/mass spectroscopy (GC/MS) tuning were met. In the pesticide/polychlorinated biphenyl (P/PCB) assays, all requirements were met. However, dibutylchlorendate (the surrogate used in these analyses) was diluted out of most samples, so its retention time could not be checked.

2.3 INITIAL AND CONTINUING CALIBRATION

All raw data for the calibration samples were omitted. The following results are derived from Forms VI and VII only.

2.3.1 Volatile Organic Analyses

In the initial VOA calibration, bromomethane had a percent relative standard deviation (%RSD) for its response factor (RF) of 31.0, slightly above the quality control (QC) limit of 30. In the analyses done with this initial calibration, all results for bromomethane are considered estimates and qualified "J" (if detected) or "UJ" (if not detected).

In the continuing calibrations, an assortment of chemicals had an RF for which the percent difference (%D) from the initial calibration exceeded the QC limit of 25. These chemicals are considered estimates and flagged "J" or "UJ," as detailed on Table 1.

2.3.2 Semivolatile Organic Analyses

All initial calibration results on both machines used for the SVOA were within QC limits. The usual percent difference (%D) exceedances were encountered during continuing calibrations. These problems, detailed in Table 2, required flags of "J" or "UJ." In addition, in one continuing calibration (at 1148 on December 19), the RF for 4-chloroaniline was only 0.03; positive results in the affected samples are flagged "J" and negative results "R," as unusable and possible false negatives.

TABLE 1

VOLATILE ORGANIC ANALYSIS CONTINUING CALIBRATIONS

Initial Calibration	Continuing Calibration		Chemical (%D)		Samples Affected
Date	Date	Time			
July 14, 1986	November 18, 1986	1107	Chloromethane (25.1)	Styrene (37.7)	DC-SS-14, DC-SS-15, DC-SS-16, DC-SS-17, and DC-SS-19
			Carbon disulfide (36.0)	Methylene chloride (41.4)	
			Tetrachloroethene (25.5)	2-Chloroethylvinylether (39.7)	
			Bromomethane (27.5)	Xylene (30.6)	
			2-Butanone (33.1)		
July 14, 1986	November 18, 1986	2142	Methylene chloride (31.1)	Acetone (68.4)	DC-SS-20, DC-SS-21, and DC-SS-23
			2-Chloroethylvinylether (56.6)	Bromoform (30.6)	
			4-Methyl-2-pentanone (28.4)	2-Hexanone (40.7)	
			Styrene (48.7)	Xylene (37.0)	
July 14, 1986	November 21, 1986	1028	Acetone (48.6)	Bromoform (31.7)	DC-SS-01, DC-SS-02, and DC-SS-03
			2-Chloroethylvinylether (55.4)	2-Hexanone (32.0)	
			4-Methyl-2-pentanone (41.2)	cis-1,3-Dichloropropene (27.1)	
			2-Butanone (33.6)		
July 14, 1986	November 21, 1986	2110	Vinyl chloride (25.9)	2-Hexanone (35.9)	DC-SS-04, DC-SS-05, DC-SS-06, DC-SS-07, DC-SS-09, DC-SS-10 and DC-SS-12
			2-Chloroethylvinylether (56.5)	Acetone (63.1)	
			Chloroethane (35.6)		
July 14, 1986	November 24, 1986	2306	2-Butanone (37.1)	2-Chloroethylvinylether (45.6)	DC-SS-08, DC-SS-11, and DC-SS-13
			Bromoform (25.9)	4-Methyl-2-pentanone (31.1)	
			Toluene (25.3)	2-Hexanone (29.2)	

TABLE 1 (Continued)

VOLATILE ORGANIC ANALYSIS CONTINUING CALIBRATIONS

Initial Calibration	Continuing Calibration		Chemical (%D)		Samples Affected
Date	Date	Time			
July 14, 1986	November 25, 1986	0958	Acetone (42.6)	Carbon disulfide (32.4)	DC-SS-14RE, DC-SS-15RE, DC-SS-19RE, DC-SS-20RE, and DC-SS-22
			2-Chloroethylvinylether (39.3)	Styrene (68.6)	
			Xylene (62.2)	2-Butanone (53.5)	
July 14, 1986	November 25, 1986	2207	Chloromethane (31.8)	Bromomethane (34.2)	DC-SS-18 and DC-SS-22RE
			Chloroethane (53.8)	Methylene chloride (58.0)	
			Carbon disulfide (35.1)	2-Butanone (41.2)	
			2-Chloroethylvinylether (50.7)	Vinyl chloride (42.4)	
			2-Hexanone (27.5)	Acetone (67.4) 4-Methyl-2-pentanone (25.8)	
July 14, 1986	November 26, 1986	2057	Chloromethane (40.7)	Bromomethane (27.7)	DC-SS-12RE and DC-SS-21RE
			Chloroethane (30.6)	Methylene chloride (38.7)	
			Carbon disulfide (29.4)	Acetone (39.8)	
			2-Chloroethylvinylether (38.6)		

TABLE 2

SEMIVOLATILE ORGANIC CONTINUING CALIBRATION

Continuing Calibration		Chemical (%D)		Samples Affected
Date	Times[a]			
December 1, 1986	1032/1128	4-Nitrophenol (33.1)	4-Nitroaniline (37.2)	DC-SS-09
		bis(2-Chloroisopropyl)ether (28.0)	Pyrene (31.5)	
		2-Nitroaniline (29.8)	Dibenz(a,h)anthracene (25.9)	
		2,4-Dinitrotoluene (29.9)	bis(2-Chloroethyl)ether (26.5)	
		Indeno (1,2,3-cd)pyrene (36.7)	3-Nitroaniline (82.3)	
		Aniline (29.6)	3-3'-Dichlorobenzidine (35.7)	
		N-Nitroso-di-n-propylamine (28.3)		
December 1, 1986	1546/1642	Benzoic acid (44.2)	4-Nitroaniline (39.6)	DC-SS-01, DC-SS-02, DC-SS-03, DC-SS-04, DC-SS-05, DC-SS-06
		Hexachlorocyclopentadiene (30.0)	Benzidine (66.4)	
		2,4-Dinitrotoluene (30.3)	4-Nitrophenol (72.9)	
		3-3'-Dichlorobenzidine (35.7)	3-Nitroaniline (43.8)	
		2,4-Dinitrophenol (61.6)	Pyrene (42.7)	
December 2, 1986	1111/1210	4-Nitrophenol (44.3)	3-Nitroaniline (42.2)	DC-SS-11, DC-SS-12, DC-SS-13, DC-SS-14, DC-SS-17, DC-SS-18
		4-Chloroaniline (33.0)		
December 2, 1986	1158/1059	2,4-Dinitrophenol (32.1)	Hexachlorocyclopentadiene (35.3)	DC-SS-10, DC-SS-23
		4-Nitrophenol (65.0)		
December 3, 1986	1202/1303	2,4-Dinitrophenol (26.2)	3,3'-Dichlorobenzidine (77.8)	DC-SS-07, DC-SS-08, DC-SS-20, DC-SS-21, DC-SS-22
		Pyrene (44.3)	Hexachlorocyclopentadiene (36.0)	
		4-Nitrophenol (64.7)		
December 19, 1986	1352/1148	Benzoic acid (27.1)	4-Chloroaniline (92.0)	DC-SS-15, DC-SS-16, DC-SS-19
		Benzyl alcohol (30.2)	Aniline (37.5)	
		4-Nitrophenol (45.6)	Hexachlorobenzene (26.9)	

Note:

[a] The times shown represents when the two standards, acids/phenols and bases/neutrals, were used for calibration.

2.3.3 Pesticide/Polychlorinated Biphenyl Analyses

The first initial calibration was fully acceptable. During the second, the %RSD for 4,4'-DDT was 38, well above the QC limit of 10. The other chemicals had acceptable %RSDs. Therefore, only the 4,4'-DDT results for the samples in this run (namely DC-SS-02, DC-SS-03, DC-SS-04, DC-SS-05, DC-SS-09, DC-SS-12, DC-SS-13, DC-SS-18, DC-SS-20, and DC-SS-21) are considered estimates and flagged "J" or "UJ."

The continuing calibration results were satisfactory. The proper analytical sequences was followed.

2.4 BLANKS

A number of common laboratory chemicals and some other chemicals, including nontarget chemicals (tentatively identified compounds [TIC]), were found in the various blanks run during these analyses. All sample concentrations up to 5 times the maximum blank concentrations (10 times for common laboratory contaminants), corrected for dilution, are considered artifacts and flagged "U" for nondetected. The chain of custody forms indicated a field blank (DC-SS-45) was included in this case, but the data package for it was not included so it could not be considered here. The blank contaminants and related items are given in Table 3.

2.5 SURROGATE RECOVERY

In the VOA, one surrogate in each of seven samples was out of QC limits, and two surrogates in sample DC-SS-22 were out of limits. These samples were reassayed within a few days; these second runs are indicated on each Form I by the "RE" suffix. All surrogates for sample DC-SS-21RE were within QC limits. However, one surrogate in three samples, two surrogates in another three samples, and all three surrogates in sample DC-SS-12RE were out of limits. Therefore results for DC-SS-21RE should be used in lieu of those for DC-SS-21, while the original results are preferred for all others. The high concentrations of other organic chemicals may have produced these effects.

TABLE 3

BLANK CONTAMINATION

Analysis	Chemical	Concentration (micrograms/kilograms)		Samples Qualified
		Blank	Action Level	
VOA	Methylene chloride	24	240	All samples
VOA	Acetone	11	110	All samples except DC-SS-04, DC-SS-10, DC-SS-14RE, DC-SS-22, and DC-SS-22RE
VOA	2-Butanone	18	180	DC-SS-02, DC-SS-05, DC-SS-07, DC-SS-09, DC-SS-13, DC-SS-13RE, DC-SS-15, DC-SS-15RE, DC-SS-16, DC-SS-19, DC-SS-20, DC-SS-21, DC-SS-22, and DC-SS-23
VOA	4-Methyl-2-pentanone	1	5	DC-SS-09, DC-SS-10, DC-SS-11, and DC-SS-13
VOA	2-Hexanone	2	10	DC-SS-14RE, DC-SS-19RE, DC-SS-21RE, DC-SS-22RE, and DC-SS-23
VOA	Toluene	7.2	72	DC-SS-08, DC-SS-11, and DC-SS-15
VOA	Hexene isomer (17.4)[a]	2	10	DC-SS-16, DC-SS-17, and DC-SS-23
VOA	Unknown ketone (19.7)	2.4	12	DC-SS-01, DC-SS-02, DC-SS-03, DC-SS-07, DC-SS-08, DC-SS-09, DC-SS-10, DC-SS-11, DC-SS-12, DC-SS-13, DC-SS-16, DC-SS-18, DC-SS-20, DC-SS-22, and DC-SS-23
VOA	Hexane isomer (21.3)	6	30	DC-SS-01, DC-SS-02, DC-SS-07, DC-SS-08, DC-SS-09, DC-SS-10, DC-SS-11, DC-SS-13, DC-SS-14RE, DC-SS-15, DC-SS-16, DC-SS-17, DC-SS-19, DC-SS-20, and DC-SS-23
VOA	Unknown (24.7)	3	15	DC-SS-14RE, DC-SS-18, DC-SS-22 AND DC-SS-22RE
SVOA	Diethylphthalate	360	3,600	None
SVOA	Di-n-butylphthalate	1,400	14,000	DC-SS-04, DC-SS-05, DC-SS-07, DC-SS-08, DC-SS-20, DC-SS-22, and DC-SS-23
SVOA	Di-n-octylphthalate	180	1,800	DC-SS-10, DC-SS-11, DC-SS-12, DC-SS-14, DC-SS-22, and DC-SS-23
SVOA	Unknown (7.1)	730	3,650	DC-SS-03, DC-SS-05, DC-SS-06, and DC-SS-08

TABLE 3 (Continued)

BLANK CONTAMINATION

Analysis	Chemical	Concentration (micrograms/kilograms)		Samples Qualified
		Blank	Action Level	
SVOA	Unknown (20.5)	520	2,600	None
SVOA	Unknown (34.3)	910	4,550	DC-SS-02, DC-SS-03, DC-SS-04, DC-SS-05, DC-SS-06, DC-SS-10, and DC-SS-11
SVOA	Unknown (35.1)	980	4,900	None
P/PCB	None			None

Notes:

[a] Nontarget compound; number is approximate retention time in minutes.

In the SVOA, surrogates were diluted out. The usable results were acceptable, with an occasional single surrogate somewhat out of QC limits. In the P/PCB analyses, one surrogate was within limits and the rest were diluted out.

2.6 MATRIX SPIKE/MATRIX SPIKE DUPLICATES

The VOA matrix spike/matrix spike duplicate (MS/MSD) results were within QC limits. The SVOA results, using sample DC-SS-03, had 1,4-dichlorobenzene recoveries of 32 and 20 percent, compared to QC limits of 28 to 104 percent. No action is warranted for this minor deviation. All P/PCB MS/MSD results were within limits.

2.7 FIELD DUPLICATES

There were no field duplicates in these samples.

2.8 INTERNAL STANDARDS

The data package omitted the summary of internal standards on Form VIII. Inspection of the raw data revealed no problems.

2.9 COMPOUND IDENTIFICATION

The VOA and SVOA raw data omitted mass spectra, so identification could not be verified. However, there is some evidence of care in confirming the identify of the compounds. In the P/PCB analyses, the PCB found in these samples did not match the standards well. Therefore, the laboratory used pattern recognition rather than windows for identifying the various species of Aroclor. The chemical identity of PCB was often confirmed by MS, as noted in the TIC lists. There may be some small errors in the amounts of PCB in each Aroclor, but the total PCB figures will be accurate.

2.10 COMPOUND QUANTITATION

Spot checks revealed no problems except for one inconsistency. SVOA results are presented in the usual way, corrected to dry weight. However, VOA and P/PCB results are given on an "as received" basis. To correct these wet weights to dry weights, multiply them by the factors listed in Table 4.

2.11 SYSTEM PERFORMANCE

There is no evidence of sudden shifts in system performance or similar problems. The difficulties in these analyses seem to be related to the high concentrations of semivolatile organic compounds in the samples.

3.0 OVERALL ASSESSMENT

On the whole, these analyses were as successful as practical in producing results equivalent to Data Quality Level IV. The main problem is that the samples themselves contained large concentrations of semivolatile organic compounds, mostly nontarget. The dilutions required by these concentrations will obscure relatively minor concentrations of target compounds which may be present in the samples. For the final validated results, see Appendix A.

TABLE 4

WEIGHT CORRECTION FACTORS

Sample	Percent Moisture	Factor
DC-SS-01	22	1.28
DC-SS-02	23	1.30
DC-SS-03	15	1.18
DC-SS-04	19	1.23
DC-SS-05	44	1.79
DC-SS-06	39	1.64
DC-SS-07	30	1.43
DC-SS-08	13	1.15
DC-SS-09	30	1.43
DC-SS-10	24	1.32
DC-SS-11	36	1.56
DC-SS-12	36	1.56
DC-SS-13	32	1.47
DC-SS-14	35	1.54
DC-SS-15	19	1.23
DC-SS-16	23	1.30
DC-SS-17	28	1.39
DC-SS-18	23	1.30
DC-SS-19	31	1.45
DC-SS-20	33	1.49
DC-SS-21	21	1.27
DC-SS-22	21	1.27
DC-SS-23	22	1.28

APPENDIX A

CORRECTED FORMS I

CASE NUMBER U-4465

Sample Number
DC-SS-01

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465

Lab Sample ID No: 9748 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Stoytowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-21-86

Conc/Dil Factor: 3 pH 7.6

Percent Moisture: (Not Decanted) 22

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	~~34 B~~ U
67-64-1	Acetone 30	~~28 BJ~~ UJ
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u J
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u J
108-10-1	4-Methyl-2-Pentanone	30u J
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

IV
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Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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recycled paper ecology and environment

Laboratory Name Ecology & Environment Inc.

Case No V-4465

Sample Number DC-SS-01

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-1-86

Conc/Dil Factor 2

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	420	U
111-44-4	bis(-2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1 3-Dichlorobenzene	420	U
106-46-7	1 4-Dichlorobenzene	420	U
100-51-6	Benzyl Alcohol	420	U
95-50-1	1 2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
39638-32-9	bis(2-chloroisopropyl)Ether	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2, 4-Dimethylphenol	420	U
65-85-0	Benzoic Acid	2000	UJ
111-91-1	bis(-2-Chloroethoxy)Methane	420	U
120-83-2	2, 4-Dichlorophenol	420	U
120-82-1	1, 2, 4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	UJ
88-06-2	2 4 6-Trichlorophenol	420	U
95-95-4	2, 4, 5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethyl Phthalate	420	U
208-96-8	Acenaphthylene	420	U
99-09-2	3-Nitroaniline	2000	UJ

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	420	U
51-28-5	2, 4-Dinitrophenol	2000	UJ
100-02-7	4-Nitrophenol	2000	UJ
132-64-9	Dibenzofuran	420	U
121-14-2	2 4-Dinitrotoluene	420	U
606-20-2	2 6-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2000	UJ
534-52-1	4, 6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
84-74-2	Di-n-Butylphthalate	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	UJ
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3, 3'-Dichlorobenzidine	850	UJ
56-55-3	Benzo(a)Anthracene	420	U
117-81-7	bis(2-Ethylhexyl)Phthalate	420	U
218-01-9	Chrysene	420	U
117-84-0	Di-n-Octyl Phthalate	420	U
205-99-2	Benzo(b)Fluoranthene	420	U
207-08-9	Benzo(k)Fluoranthene	420	U
50-32-8	Benzo(a)Pyrene	420	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	420	U
53-70-3	Dibenzo(a h)Anthracene	420	U
191-24-2	Benzo(g h i)Perylene	420	U

(1)-Cannot be separated from diphenylamine

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Form I 13

Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-01

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 5

Percent Moisture (decanted) 22.3

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	80 U
319-85-7	Beta-BHC	80 U
319-86-8	Delta-BHC	80 U
58-89-9	Gamma-BHC (Lindane)	80 U
76-44-8	Heptachlor	80 U
309-00-2	Aldrin	80 U
1024-57-3	Heptachlor Epoxide	80 U
959-98-8	Endosulfan I	80 U
60-57-1	Dieldrin	160 U
72-55-9	4,4'-DDE	160 U
72-20-8	Endrin	160 U
33213-65-9	Endosulfan II	160 U
72-54-8	4,4'-DDD	160 U
1031-07-8	Endosulfan Sulfate	160 U
50-29-3	4,4'-DDT	160 U
72-43-5	Methoxychlor	800 U
53494-70-5	Endrin Ketone	160 U
57-74-9	Chlordane	800 U
8001-35-2	Toxaphene	1600 U
12674-11-2	Aroclor-1016	800 U
11104-28-2	Aroclor-1221	800 U
11141-16-5	Aroclor-1232	800 U
53469-21-9	Aroclor-1242	800 U
12672-29-6	Aroclor-1248	800 U
11097-69-1	Aroclor-1254	1600 U
11096-82-5	Aroclor-1260	1600 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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ecology and environment

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-01

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Unknown Ketone	VOA	19.6	~~12 BJ~~ U
2.	Hexane Isomer	VOA	21.2	~~2 BJ~~ U
3.				
4.	UNKNOWN	BNA	9.2	2800 J
5.	UNKNOWN	BNA	24.7	110 J
6.	UNKNOWN	BNA	37.0	180 J
7.	UNKNOWN	BNA	40.7	180 J
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Sample Number
DC-SS-02

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc.
Case No. U-4465
Lab Sample ID No. 9749
QC Report No.
Sample Matrix: Soil
Contract No. IL-3140
Data Release Authorized By: C Stoztowicz
Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-21-86
Conc./Dil Factor: 3 pH 7.4
Percent Moisture: (Not Decanted) 23

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	32 ~~8~~ U
67-64-1	Acetone	30 ~~23 BJ~~ UJ
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	43 ~~8~~ U J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u J
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u J
108-10-1	4-Methyl-2-Pentanone	30u J
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Form I

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ecology and environment

Laboratory Name: Ecology & Environment Inc.

Case No: V-4465

Sample Number: DC-SS-02

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 12-1-86

Conc/Dil Factor: 2

Percent Moisture (Decanted): 23

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	430	U
111-44-4	bis(-2-Chloroethyl)Ether	430	U
95-57-8	2-Chlorophenol	430	U
541-73-1	1 3-Dichlorobenzene	430	U
106-46-7	1 4-Dichlorobenzene	430	U
100-51-6	Benzyl Alcohol	430	U
95-50-1	1 2-Dichlorobenzene	430	U
95-48-7	2-Methylphenol	430	U
39638-32-9	bis(2-chloroisopropyl)Ether	430	U
106-44-5	4-Methylphenol	430	U
621-64-7	N-Nitroso-Di-n-Propylamine	430	U
67-72-1	Hexachloroethane	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U
88-75-5	2-Nitrophenol	430	U
105-67-9	2. 4-Dimethylphenol	430	U
65-85-0	Benzoic Acid	2100	U
111-91-1	bis(-2-Chloroethoxy)Methane	430	U
120-83-2	2 4-Dichlorophenol	430	U
120-82-1	1 2. 4-Trichlorobenzene	430	U
91-20-3	Naphthalene	430	U
106-47-8	4-Chloroaniline	430	U
87-68-3	Hexachlorobutadiene	430	U
59-50-7	4-Chloro-3-Methylphenol	430	U
91-57-6	2-Methylnaphthalene	430	U
77-47-4	Hexachlorocyclopentadiene	430	U
88-06-2	2 4 6-Trichlorophenol	430	U
95 95-4	2. 4. 5-Trichlorophenol	2100	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethyl Phthalate	430	U
208-96-8	Acenaphthylene	430	U
99-09-2	3-Nitroaniline	2100	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	430	U
51-28-5	2. 4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	430	U
121-14-2	2 4-Dinitrotoluene	430	U
606-20-2	2 6-Dinitrotoluene	430	U
84-66-2	Diethylphthalate	430	U
7005-72-3	4-Chlorophenyl-phenylether	430	U
86-73-7	Fluorene	430	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4. 6-Dinitro-2-Methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	430	U
101-55-3	4-Bromophenyl-phenylether	430	U
118-74-1	Hexachlorobenzene	430	U
87-86-5	Pentachlorophenol	2100	U
85-01-8	Phenanthrene	430	U
120-12-7	Anthracene	430	U
84-74-2	Di-n-Butylphthalate	430	U
206-44-0	Fluoranthene	430	U
129-00-0	Pyrene	430	U
85-68-7	Butylbenzylphthalate	430	U
91-94-1	3 3'-Dichlorobenzidine	860	U
56-55-3	Benzo(a)Anthracene	430	U
117-81-7	bis(2-Ethylhexyl)Phthalate	910	
218-01-9	Chrysene	430	U
117-84-0	Di-n-Octyl Phthalate	430	U
205-99-2	Benzo(b)Fluoranthene	430	U
207-08-9	Benzo(k)Fluoranthene	430	U
50-32-8	Benzo(a)Pyrene	430	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	430	U
53-70-3	Dibenz(a h)Anthracene	430	U
191-24-2	Benzo(g h. i)Perylene	430	U

(1)-Cannot be separated from diphenylamine

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ecology and environment

Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-02

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1

Percent Moisture (decanted) 22.6

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16 U
319-85-7	Beta-BHC	16 U
319-86-8	Delta-BHC	16 U
58-89-9	Gamma-BHC (Lindane)	16 U
76-44-8	Heptachlor	16 U
309-00-2	Aldrin	16 U
1024-57-3	Heptachlor Epoxide	16 U
959-98-8	Endosulfan I	16 U
60-57-1	Dieldrin	32 U
72-55-9	4,4'-DDE	31 J
72-20-8	Endrin	32 U
33213-65-9	Endosulfan II	32 U
72-54-8	4,4'-DDD	32 U
1031-07-8	Endosulfan Sulfate	32 U
50-29-3	4,4'-DDT	32 UJ
72-43-5	Methoxychlor	160 U
53494-70-5	Endrin Ketone	32 U
57-74-9	Chlordane	160 U
8001-35-2	Toxaphene	320 U
12674-11-2	Aroclor-1016	160 U
11104-28-2	Aroclor-1221	160 U
11141-16-5	Aroclor-1232	160 U
53469-21-9	Aroclor-1242	160 U
12672-29-6	Aroclor-1248	160 U
11097-69-1	Aroclor-1254	320 U
11096-82-5	Aroclor-1260	450

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Form 1

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ecology and environment

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-02

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Unknown ketone	VOA	19.5	~~28 J~~ U
2.	Hexane isomer	VOA	21.2	~~1 B J~~ U
3.				
4.	UNKNOWN	BNA	9.2	4000 J
5.	UNKNOWN	BNA	34.2	~~250 B J~~ U
6.	UNKNOWN HYDROCARBON	BNA	35.3	170 J
7.	UNKNOWN HYDROCARBON	BNA	37.0	280 J
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Form 1, Part B

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ecology and environment

Sample Number
DC-SS-C3

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc.
Case No: U-4465
Lab Sample ID No: 9750
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Szytowicz
Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-21-86

Conc./Dil Factor: 3 pH 8.1

Percent Moisture: (Not Decanted) 15

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	33 ~~B~~ U
67-64-1	Acetone 30uJ	~~325 B J~~
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u J
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u J
108-10-1	4-Methyl-2-Pentanone	30u J
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number DC-SS-03

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed: 12-1-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 15

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	390	U
111-44-4	bis(-2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1 3-Dichlorobenzene	390	U
106-46-7	1 4-Dichlorobenzene	390	U
100-51-6	Benzyl Alcohol	390	U
95-50-1	1 2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
39638-32-9	bis(2-chloroisopropyl)Ether	390	U
106-44-5	4-Methylpheno	390	U
621-64-7	N-Nitroso-Di-n-Propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2, 4-Dimethylphenol	390	U
65-85-0	Benzoic Acid	1900	UJ
111-91-1	bis(-2-Chloroethoxy)Methane	390	U
120-83-2	2 4-Dichlorophenol	390	U
120-82-1	1 2, 4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	UJ
88-06-2	2 4 6-Trichlorophenol	390	U
95 95-4	2, 4, 5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethyl Phthalate	390	U
208-96-8	Acenaphthylene	390	U
99-09-2	3-Nitroaniline	1900	UJ

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	390	U
51-28-5	2, 4-Dinitrophenol	1900	UJ
100-02-7	4-Nitrophenol	1900	UJ
132-64-9	Dibenzofuran	390	U
121-14-2	2 4-Dinitrotoluene	390	UJ
606-20-2	2 6-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	1900	UJ
534-52-1	4, 6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-Butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	UJ
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3 3'-Dichlorobenzidine	780	UJ
56-55-3	Benzo(a)Anthracene	390	U
117-81-7	bis(2-Ethylhexyl)Phthalate	230	J
218-01-9	Chrysene	390	U
117-84-0	Di-n-Octyl Phthalate	390	U
205-99-2	Benzo(b)Fluoranthene	390	U
207-08-9	Benzo(k)Fluoranthene	390	U
50-32-8	Benzo(a)Pyrene	390	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	390	U
53-70-3	Dibenz(a h)Anthracene	390	U
191-24-2	Benzo(g h, i)Perylene	390	U

(1)-Cannot be separated from diphenylamine

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Form I 21

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-03

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1

Percent Moisture (decanted) 15.2

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16 U
319-85-7	Beta-BHC	16 U
319-86-8	Delta-BHC	16 U
58-89-9	Gamma-BHC (Lindane)	16 U
76-44-8	Heptachlor	16 U
309-00-2	Aldrin	16 U
1024-57-3	Heptachlor Epoxide	16 U
959-98-8	Endosulfan I	16 U
60-57-1	Dieldrin	32 U
72-55-9	4,4'-DDE	32 U
72-20-8	Endrin	32 U
33213-65-9	Endosulfan II	32 U
72-54-8	4,4'-DDD	32 U
1031-07-8	Endosulfan Sulfate	32 U
50-29-3	4,4'-DDT	32 U
72-43-5	Methoxychlor	160 U
53494-70-5	Endrin Ketone	32 U
57-74-9	Chlordane	160 U
8001-35-2	Toxaphene	320 U
12674-11-2	Aroclor-1016	160 U
11104-28-2	Aroclor-1221	160 U
11141-16-5	Aroclor-1232	160 U
53469-21-9	Aroclor-1242	160 U
12672-29-6	Aroclor-1248	160 U
11097-69-1	Aroclor-1254	320 U
11096-82-5	Aroclor-1260	320 U

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May 93

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Form 1

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ecology and environment

Laboratory Name Ecology & Environment, Inc

Case No U-465

Sample Number DC-SS-03

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Unknown Ketone	VOA	19.6	~~3 BJ~~ U
2.				
3.	UNKNOWN	BNA	7.0	~~1100 BJ~~ U
4.	UNKNOWN	BNA	9.2	2200 J
5.	UNKNOWN	BNA	34.2	~~400 BJ~~ U
6.	UNKNOWN	BNA	35.3	360 J
7.	UNKNOWN	BNA	37.0	320 J
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HE May 93

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ecology and environment

Sample Number
DC-SS-04

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9751 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-22-86
Conc./Dil Factor: 3 pH 7.8
Percent Moisture: (Not Decanted) 19

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u J
75-00-3	Chloroethane	30u J
75-09-2	Methylene Chloride	35 B u
67-64-1	Acetone	30u J
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

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Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No V-4465

Sample Number DC-SS-04

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-1-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 19

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	410	U
111-44-4	bis(-2-Chloroethyl)Ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1 3-Dichlorobenzene	410	U
106-46-7	1 4-Dichlorobenzene	410	U
100-51-6	Benzyl Alcohol	410	U
95-50-1	1 2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
39638-32-9	bis(2-chloroisopropyl)Ether	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-Propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2. 4-Dimethylphenol	410	U
65-85-0	Benzoic Acid	2000	UJ
111-91-1	bis(-2-Chloroethoxy)Methane	410	U
120-83-2	2 4-Dichlorophenol	410	U
120-82-1	1 2. 4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-Methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	UJ
88-06-2	2 4 6-Trichlorophenol	410	U
95-95-4	2. 4 5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethyl Phthalate	410	U
208-96-8	Acenaphthylene	410	U
99-09-2	3-Nitroaniline	2000	UJ

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	410	U
51-28-5	2. 4-Dinitrophenol	2000	UJ
100-02-7	4-Nitrophenol	2000	UJ
132-64-9	Dibenzofuran	410	U
121-14-2	2 4-Dinitrotoluene	410	UJ
606-20-2	2 6-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	2000	UJ
534-52-1	4 6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
84-74-2	Di-n-Butylphthalate	~~170 BJ~~ 410	U
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	UJ
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3 3-Dichlorobenzidine	810	UJ
56-55-3	Benzo(a)Anthracene	410	U
117-81-7	bis(2-Ethylhexyl)Phthalate	470	
218-01-9	Chrysene	410	U
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	410	U
207-08-9	Benzo(k)Fluoranthene	410	U
50-32-8	Benzo(a)Pyrene	410	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	410	U
53-70-3	Dibenz(a h)Anthracene	410	U
191-24-2	Benzo(g h i)Perylene	410	U

(1)-Cannot be separated from diphenylamine

Form I 25

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Laboratory Name ecology and environment, inc.

Case No V-4465

Sample Number DC-SS-04

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 2

Percent Moisture (decanted) 18.6

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	32 u
319-85-7	Beta-BHC	32 u
319-86-8	Delta-BHC	32 u
58-89-9	Gamma-BHC (Lindane)	32 u
76-44-8	Heptachlor	32 u
309-00-2	Aldrin	32 u
1024-57-3	Heptachlor Epoxide	32 u
959-98-8	Endosulfan I	32 u
60-57-1	Dieldrin	64 u
72-55-9	4, 4'-DDE	64 u
72-20-8	Endrin	64 u
33213-65-9	Endosulfan II	64 u
72-54-8	4, 4'-DDD	64 u
1031-07-8	Endosulfan Sulfate	64 u
50-29-3	4, 4'-DDT	64 uJ
72-43-5	Methoxychlor	320 u
53494-70-5	Endrin Ketone	64 u
57-74-9	Chlordane	320 u
8001-35-2	Toxaphene	640 u
12674-11-2	Aroclor-1016	320 u
11104-28-2	Aroclor-1221	320 u
11141-16-5	Aroclor-1232	320 u
53469-21-9	Aroclor-1242	320 u
12672-29-6	Aroclor-1248	320 u
11097-69-1	Aroclor-1254	640 u
11096-82-5	Aroclor-1260	751

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Form 1

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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-04

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.	UNKNOWN	BNA	9.2	2500 J
4.	UNKNOWN	BNA	34.2	~~320 BJ~~ U
5.	UNKNOWN HYDROCARBON	BNA	35.3	320 J
6.	UNKNOWN HYDROCARBON	BNA	37.0	300 J
7.	UNKNOWN	BNA	39.0	160 J
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Sample Number
DC-SS-05

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9752 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-21-86
Conc./Dil Factor: 3 pH 6.8
Percent Moisture: (Not Decanted) 44

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u J
75-00-3	Chloroethane	30u J
75-09-2	Methylene Chloride	42 Bu
67-64-1	Acetone	48 Bu J
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	51 Bu
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

III
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Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Form I

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Laboratory Name Ecology & Environment Inc.

Case No V-4465

Sample Number DC-SS-05

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-1-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 44

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	590	U
111-44-4	bis(-2-Chloroethyl)Ether	590	U
95-57-8	2-Chlorophenol	590	U
541-73-1	1 3-Dichlorobenzene	590	U
106-46-7	1 4-Dichlorobenzene	590	U
100-51-6	Benzyl Alcohol	590	U
95-50-1	1 2-Dichlorobenzene	590	U
95-48-7	2-Methylphenol	590	U
39638-32-9	bis(2-chloroisopropyl)Ether	590	U
106-44-5	4-Methylpheno	590	U
621-64-7	N-Nitroso-Di-n-Propylamine	590	U
67-72-1	Hexachloroethane	590	U
98-95-3	Nitrobenzene	590	U
78-59-1	Isophorone	590	U
88-75-5	2-Nitrophenol	590	U
105-67-9	2. 4-Dimethylphenol	590	U
65-85-0	Benzoic Acid	2900	U J
111-91-1	bis(-2-Chloroethoxy)Methane	590	U
120-83-2	2. 4-Dichlorophenol	590	U
120-82-1	1 2. 4-Trichlorobenzene	590	U
91-20-3	Naphthalene	590	U
106-47-8	4-Chloroaniline	590	U
87-68-3	Hexachlorobutadiene	590	U
59-50-7	4-Chloro-3-Methylphenol	590	U
91-57-6	2-Methylnaphthalene	590	U
77-47-4	Hexachlorocyclopentadiene	590	U J
88-06-2	2 4 6-Trichlorophenol	590	U
95-95-4	2. 4. 5-Trichlorophenol	2900	U
91-58-7	2-Chloronaphthalene	590	U
88-74-4	2-Nitroaniline	2900	U
131-11-3	Dimethyl Phthalate	590	U
208-96-8	Acenaphthylene	590	U
99-09-2	3-Nitroaniline	2900	U J

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	590	U
51-28-5	2. 4-Dinitrophenol	2900	U J
100-02-7	4-Nitrophenol	2900	U J
132-64-9	Dibenzofuran	590	U
121-14-2	2 4-Dinitrotoluene	590	U J
606-20-2	2 6-Dinitrotoluene	590	U
84-66-2	Diethylphthalate	590	U
7005-72-3	4-Chlorophenyl-phenylether	590	U
86-73-7	Fluorene	590	U
100-01-6	4-Nitroaniline	2900	U J
534-52-1	4. 6-Dinitro-2-Methylphenol	2900	U
86-30-6	N-Nitrosodiphenylamine (1)	590	U
101-55-3	4-Bromophenyl-phenylether	590	U
118-74-1	Hexachlorobenzene	590	U
87-86-5	Pentachlorophenol	2900	U
85-01-8	Phenanthrene	590	U
120-12-7	Anthracene	590	U
84-74-2	Di-n-Butylphthalate	2800	~~B~~ U
206-44-0	Fluoranthene	590	U
129-00-0	Pyrene	590	U J
85-68-7	Butylbenzylphthalate	590	U
91-94-1	3. 3 -Dichlorobenzidine	1200	U J
56-55-3	Benzo(a)Anthracene	590	U
117-81-7	bis(2-Ethylhexyl)Phthalate	590	U
218-01-9	Chrysene	590	U
117-84-0	Di-n-Octyl Phthalate	590	U
205-99-2	Benzo(b)Fluoranthene	590	U
207-08-9	Benzo(k)Fluoranthene	590	U
50-32-8	Benzo(a)Pyrene	590	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	590	U
53-70-3	Dibenz(a h)Anthracene	590	U
191-24-2	Benzo(g h i)Perylene	590	U

(1)-Cannot be separated from diphenylamine

Form I 29

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Laboratory Name ecology and environment, inc.

Case No V-4465

Sample Number DC-SS-05

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 2

Percent Moisture (decanted) 44

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	32	U
319-85-7	Beta-BHC	32	U
319-86-8	Delta-BHC	32	U
58-89-9	Gamma-BHC (Lindane)	32	U
76-44-8	Heptachlor	32	U
309-00-2	Aldrin	32	U
1024-57-3	Heptachlor Epoxide	32	U
959-98-8	Endosulfan I	32	U
60-57-1	Dieldrin	64	U
72-55-9	4,4'-DDE	79	
72-20-8	Endrin	64	U
33213-65-9	Endosulfan II	64	U
72-54-8	4,4'-DDD	64	U
1031-07-8	Endosulfan Sulfate	64	U
50-29-3	4,4'-DDT	64	UJ
72-43-5	Methoxychlor	320	U
53494-70-5	Endrin Ketone	64	U
57-74-9	Chlordane	320	U
8001-35-2	Toxaphene	640	U
12674-11-2	Aroclor-1016	320	U
11104-28-2	Aroclor-1221	320	U
11141-16-5	Aroclor-1232	320	U
53469-21-9	Aroclor-1242	320	U
12672-29-6	Aroclor-1248	320	U
11097-69-1	Aroclor-1254	640	U
11096-82-5	Aroclor-1260	990	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

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V_s _____ or W_s 30 V_t 1000 V_i 4

Form 1 30

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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DG-SS-05

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)	
1.	No TIC's in VOA fraction				
2.					
3.	UNKNOWN	BNA	7.0	~~1800 BJ~~	U
4.	UNKNOWN		8.1	500 J	
5.	UNKNOWN		9.2	3700 J	
6.	UNKNOWN		10.5	2200 J	
7.	UNKNOWN HYDROCARBON		26.7	490 J	
8.	UNKNOWN		34.2	~~720 BJ~~	U
9.	UNKNOWN HYDROCARBON		35.3	860 J	
10.	UNKNOWN HYDROCARBON		37.0	940 J	
11.	UNKNOWN		39.0	480 J	
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ecology and environment

Sample Number
DC-SS-06

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No. U-4465
Lab Sample ID No: 9753 QC Report No:
Sample Matrix: Soil Contract No. IL-3140
Data Release Authorized By: C Hojtowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-22-86
Conc./Dil Factor: 3 pH 6.7
Percent Moisture: (Not Decanted) 39

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u J
75-00-3	Chloroethane	30u J
75-09-2	Methylene Chloride	63 ~~B~~ 4
67-64-1	Acetone	41 ~~B~~ UJ
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution, action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Form I

11/85

Laboratory Name: Ecology & Environment Inc.

Case No: V-4465

Sample Number: DC-SS-06

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 12-1-86

Conc/Dil Factor: 2

Percent Moisture (Decanted): 39

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	540	U
111-44-4	bis(-2-Chloroethyl)Ether	540	U
95-57-8	2-Chlorophenol	540	U
541-73-1	1 3-Dichlorobenzene	540	U
106-46-7	1 4-Dichlorobenzene	540	U
100-51-6	Benzyl Alcohol	540	U
95-50-1	1 2-Dichlorobenzene	540	U
95-48-7	2-Methylphenol	540	U
39638-32-9	bis(2-chloroisopropyl)Ether	540	U
106-44-5	4-Methylphenol	540	U
621-64-7	N-Nitroso-Di-n-Propylamine	540	U
67-72-1	Hexachloroethane	540	U
98-95-3	Nitrobenzene	540	U
78-59-1	Isophorone	540	U
88-75-5	2-Nitrophenol	540	U
105-67-9	2, 4-Dimethylphenol	540	U
65-85-0	Benzoic Acid	2600	U
111-91-1	bis(-2-Chloroethoxy)Methane	540	U
120-83-2	2 4-Dichlorophenol	540	U
120-82-1	1 2, 4-Trichlorobenzene	540	U
91-20-3	Naphthalene	540	U
106-47-8	4-Chloroaniline	540	U
87-68-3	Hexachlorobutadiene	540	U
59-50-7	4-Chloro-3-Methylphenol	540	U
91-57-6	2-Methylnaphthalene	540	U
77-47-4	Hexachlorocyclopentadiene	540	U
88-06-2	2 4 6-Trichlorophenol	540	U
95-95-4	2, 4, 5-Trichlorophenol	2600	U
91-58-7	2-Chloronaphthalene	540	U
88-74-4	2-Nitroaniline	2600	U
131-11-3	Dimethyl Phthalate	540	U
208-96-8	Acenaphthylene	540	U
99-09-2	3-Nitroaniline	2600	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	540	U
51-28-5	2, 4-Dinitrophenol	2600	U
100-02-7	4-Nitrophenol	2600	U
132-64-9	Dibenzofuran	540	U
121-14-2	2 4-Dinitrotoluene	540	U
606-20-2	2 6-Dinitrotoluene	540	U
84-66-2	Diethylphthalate	540	U
7005-72-3	4-Chlorophenyl-phenylether	540	U
86-73-7	Fluorene	540	U
100-01-6	4-Nitroaniline	2600	U
534-52-1	4 6-Dinitro-2-Methylphenol	2600	U
86-30-6	N-Nitrosodiphenylamine (1)	540	U
101-55-3	4-Bromophenyl-phenylether	540	U
118-74-1	Hexachlorobenzene	540	U
87-86-5	Pentachlorophenol	2600	U
85-01-8	Phenanthrene	540	U
120-12-7	Anthracene	540	U
84-74-2	Di-n-Butylphthalate	540	U
206-44-0	Fluoranthene	540	U
129-00-0	Pyrene	540	U
85-68-7	Butylbenzylphthalate	540	U
91-94-1	3 3 -Dichlorobenzidine	1100	U
56-55-3	Benzo(a)Anthracene	540	U
117-81-7	bis(2-Ethylhexyl)Phthalate	540	U
218-01-9	Chrysene	540	U
117-84-0	Di-n-Octyl Phthalate	540	U
205-99-2	Benzo(b)Fluoranthene	540	U
207-08-9	Benzo(k)Fluoranthene	540	U
50-32-8	Benzo(a)Pyrene	540	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	540	U
53-70-3	Dibenzo(a h)Anthracene	540	U
191-24-2	Benzo(g h i)Perylene	540	U

(1)-Cannot be separated from diphenylamine

Form I 33

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Laboratory Name ecology and environment, inc.

Case No V-4465

Sample Number DC-SS-06

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1

Percent Moisture (decanted) 39.2

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16 U
319-85-7	Beta-BHC	16 U
319-86-8	Delta-BHC	16 U
58-89-9	Gamma-BHC (Lindane)	16 U
76-44-8	Heptachlor	16 U
309-00-2	Aldrin	16 U
1024-57-3	Heptachlor Epoxide	16 U
959-98-8	Endosulfan I	16 U
60-57-1	Dieldrin	32 U
72-55-9	4,4'-DDE	51
72-20-8	Endrin	32 U
33213-65-9	Endosulfan II	32 U
72-54-8	4,4'-DDD	32 U
1031-07-8	Endosulfan Sulfate	32 U
50-29-3	4,4'-DDT	32 U
72-43-5	Methoxychlor	160 U
53494-70-5	Endrin Ketone	32 U
57-74-9	Chlordane	160 U
8001-35-2	Toxaphene	320 U
12674-11-2	Aroclor-1016	160 U
11104-28-2	Aroclor-1221	160 U
11141-16-5	Aroclor-1232	160 U
53469-21-9	Aroclor-1242	160 U
12672-29-6	Aroclor-1248	160 U
11097-69-1	Aroclor-1254	320 U
11096-82-5	Aroclor-1260	740

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-06

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Unknown	VOA	18.0	3 J
2.	Dimethyl butene isomer	VOA	18.7	9 J
3.				
4.	UNKNOWN	BNA	7.0	~~1300 BJ~~ U
5.	UNKNOWN		8.0	3500 J
6.	UNKNOWN HYDROCARBON		26.7	360 J
7.	UNKNOWN		34.2	~~860 BJ~~ U
8.	UNKNOWN HYDROCARBON		37.0	330 J
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
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30				

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ecology and environment, inc

Sample Number
DC-SS-07

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9754 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-22-86
Conc./Dil Factor: 3 pH 7.0
Percent Moisture: (Not Decanted) 30

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	30u	
74-83-9	Bromomethane	30u J	
75-01-4	Vinyl Chloride	30u J	
75-00-3	Chloroethane	30u J	
75-09-2	Methylene Chloride	61 ~~B~~	U
67-64-1	Acetone	30 ~~25 5B~~	UJ
75-15-0	Carbon Disulfide	15u	
75-35-4	1, 1-Dichloroethene	15u	
75-34-3	1, 1-Dichloroethane	15u	
156-60-5	Trans-1, 2-Dichloroethene	15u	
67-66-3	Chloroform	15u	
107-06-2	1, 2-Dichloroethane	15u	
78-93-3	2-Butanone	51 ~~B~~ u	
71-55-6	1, 1, 1-Trichloroethane	15u	
56-23-5	Carbon Tetrachloride	15u	
108-05-4	Vinyl Acetate	30u	
75-27-4	Bromodichloromethane	15u	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name: Ecology & Environment Inc.

Case No: V-4465

Sample Number: DC-SS-07

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 12-3-86

Conc/Dil Factor: 2

Percent Moisture (Decanted): 30

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	470	U
111-44-4	bis(-2-Chloroethyl)Ether	470	U
95-57-8	2-Chlorophenol	470	U
541-73-1	1 3-Dichlorobenzene	470	U
106-46-7	1 4-Dichlorobenzene	470	U
100-51-6	Benzyl Alcohol	470	U
95-50-1	1 2-Dichlorobenzene	470	U
95-48-7	2-Methylphenol	470	U
39638-32-9	bis(2-chloroisopropyl)Ether	470	U
106-44-5	4-Methylphenol	470	U
621-64-7	N-Nitroso-Di-n-Propylamine	470	U
67-72-1	Hexachloroethane	470	U
98-95-3	Nitrobenzene	470	U
78-59-1	Isophorone	470	U
88-75-5	2-Nitrophenol	470	U
105-67-9	2, 4-Dimethylphenol	470	U
65-85-0	Benzoic Acid	2300	U
111-91-1	bis(-2-Chloroethoxy)Methane	470	U
120-83-2	2 4-Dichlorophenol	470	U
120-82-1	1 2, 4-Trichlorobenzene	470	U
91-20-3	Naphthalene	470	U
106-47-8	4-Chloroaniline	470	U
87-68-3	Hexachlorobutadiene	470	U
59-50-7	4-Chloro-3-Methylphenol	470	U
91-57-6	2-Methylnaphthalene	470	U
77-47-4	Hexachlorocyclopentadiene	470	U
88-06-2	2 4 6-Trichlorophenol	470	U
95-95-4	2, 4 5-Trichlorophenol	2300	U
91-58-7	2-Chloronaphthalene	470	U
88-74-4	2-Nitroaniline	2300	U
131-11-3	Dimethyl Phthalate	470	U
208-96-8	Acenaphthylene	470	U
99-09-2	3-Nitroaniline	2300	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	470	U
51-28-5	2, 4-Dinitrophenol	2300	U
100-02-7	4-Nitrophenol	2300	U
132-64-9	Dibenzofuran	470	U
121-14-2	2 4-Dinitrotoluene	470	U
606-20-2	2 6-Dinitrotoluene	470	U
84-66-2	Diethylphthalate	470	U
7005-72-3	4-Chlorophenyl-phenylether	470	U
86-73-7	Fluorene	470	U
100-01-6	4-Nitroaniline	2300	U
534-52-1	4, 6-Dinitro-2-Methylphenol	2300	U
86-30-6	N-Nitrosodiphenylamine (1)	470	U
101-55-3	4-Bromophenyl-phenylether	470	U
118-74-1	Hexachlorobenzene	470	U
87-86-5	Pentachlorophenol	2300	U
85-01-8	Phenanthrene	470	U
120-12-7	Anthracene	470	U
84-74-2	Di-n-Butylphthalate	~~460 B J~~	470U
206-44-0	Fluoranthene	480	
129-00-0	Pyrene	290	J
85-68-7	Butylbenzylphthalate	470	U
91-94-1	3, 3'-Dichlorobenzidine	940	U
56-55-3	Benzo(a)Anthracene	220	J
117-81-7	bis(2-Ethylhexyl)Phthalate	170	J
218-01-9	Chrysene	310	J
117-84-0	Di-n-Octyl Phthalate	470	U
205-99-2	Benzo(b)Fluoranthene	610	
207-08-9	Benzo(k)Fluoranthene	470	U
50-32-8	Benzo(a)Pyrene	190	J
193-39-5	Indeno(1 2, 3-cd)Pyrene	280	J
53-70-3	Dibenz(a h)Anthracene	84	J
191-24-2	Benzo(g h i)Perylene	230	J

(1)-Cannot be separated from diphenylamine

May 93

Form I 37

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-07

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 5

Percent Moisture (decanted) 29.6

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	80 U
319-85-7	Beta-BHC	80 U
319-86-8	Delta-BHC	80 U
58-89-9	Gamma-BHC (Lindane)	80 U
76-44-8	Heptachlor	80 U
309-00-2	Aldrin	80 U
1024-57-3	Heptachlor Epoxide	80 U
959-98-8	Endosulfan I	80 U
60-57-1	Dieldrin	160 U
72-55-9	4,4'-DDE	290
72-20-8	Endrin	160 U
33213-65-9	Endosulfan II	160 U
72-54-8	4,4'-DDD	160 U
1031-07-8	Endosulfan Sulfate	160 U
50-29-3	4,4'-DDT	160 U
72-43-5	Methoxychlor	800 U
53494-70-5	Endrin Ketone	160 U
57-74-9	Chlordane	800 U
8001-35-2	Toxaphene	1600 U
12674-11-2	Aroclor-1016	800 U
11104-28-2	Aroclor-1221	800 U
11141-16-5	Aroclor-1232	800 U
53469-21-9	Aroclor-1242	800 U
12672-29-6	Aroclor-1248	800 U
11097-69-1	Aroclor-1254	1600 U
11096-82-5	Aroclor-1260	3800

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 4,000 V_i 4

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4465

Sample Number DC-SS-07

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)	
1.		HEXENE ISOMER	VOA	17.1	7	J
2.		UNKNOWN KETONE	|	19.5	~~5~~	~~BJ~~ U
3.		HEXANE ISOMER	|	21.2	~~27~~	~~BJ~~ U
4.						
5.		UNKNOWN	BNA	8.0	680	J
6.		UNKNOWN	|	22.9	230	J
7.		UNKNOWN HYDROCARBON	|	23.9	60	J
8.		UNKNOWN	|	26.3	150	J
9.		UNKNOWN	|	34.3	290	J
10.		UNKNOWN HYDROCARBON	|	35.4	750	J
11.		UNKNOWN	|	36.9	860	J
12.		UNKNOWN HYDROCARBON	|	37.1	1100	J
13.	59029	VITAMIN E	|	37.5	470	J
14.		UNKNOWN HYDROCARBON	|	38.8	370	J
15.		UNKNOWN	|	39.0	84	J
16.		UNKNOWN	|	39.2	1600	J
17.		UNKNOWN	|	39.6	410	J
18.		UNKNOWN	|	40.0	330	J
19.		~~STEROID~~ STEROID	|	40.4	940	J
20.		UNKNOWN	|	40.8	88	J
21.		UNKNOWN	|	41.0	270	J
22.		UNKNOWN	|	41.4	100	J
23.		UNKNOWN	|	42.6	120	J
24.						
25.						
26.						
27.						
28.						
29.						
30.						

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ecology and environment

Sample Number
DC-SS-08

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9755 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-25-86
Conc./Dil Factor: 3 pH 7.7
Percent Moisture: (Not Decanted) 13

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	~~27 Be~~ 4
67-64-1	Acetone	30u
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	~~37 Be~~ 4 J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u J
108-10-1	4-Methyl-2-Pentanone	30u J
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	~~18 B~~ 4 J
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

May 93

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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ecology and environment

Laboratory Name: Ecology & Environment Inc.

Case No: V-4465

Sample Number: DC-SS-08

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 12-3-86

Conc/Dil Factor: 2

Percent Moisture (Decanted): 13

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	380	U
111-44-4	bis(-2-Chloroethyl)Ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1 3-Dichlorobenzene	380	U
106-46-7	1 4-Dichlorobenzene	380	U
100-51-6	Benzyl Alcohol	380	U
95-50-1	1 2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
39638-32-9	bis(2-chloroisopropyl)Ether	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-Di-n-Propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2. 4-Dimethylphenol	380	U
65-85-0	Benzoic Acid	1800	U
111-91-1	bis(-2-Chloroethoxy)Methane	380	U
120-83-2	2 4-Dichlorophenol	380	U
120-82-1	1 2. 4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-Methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2 4 6-Trichlorophenol	380	U
95-95-4	2. 4. 5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethyl Phthalate	380	U
208-96-8	Acenaphthylene	380	U
99-09-2	3-Nitroaniline	1800	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	380	U
51-28-5	2. 4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	380	U
121-14-2	2 4-Dinitrotoluene	380	U
606-20-2	2 6-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4. 6-Dinitro-2-Methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
84-74-2	Di-n-Butylphthalate	320	BJ
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3. 3'-Dichlorobenzidine	760	U
56-55-3	Benzo(a)Anthracene	380	U
117-81-7	bis(2-Ethylhexyl)Phthalate	140	J
218-01-9	Chrysene	380	U
117-84-0	Di-n-Octyl Phthalate	380	U
205-99-2	Benzo(b)Fluoranthene	380	U
207-08-9	Benzo(k)Fluoranthene	160	J
50-32-8	Benzo(a)Pyrene	47	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	380	U
53-70-3	Dibenzo(a h)Anthracene	380	U
191-24-2	Benzo(g h i)Perylene	380	U

380 U

(1)-Cannot be separated from diphenylamine

May 93

Form I 41

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-08

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-26-86

Conc/Dil Factor 2

Percent Moisture (decanted) 13.1

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	32 U
319-85-7	Beta-BHC	32 U
319-86-8	Delta-BHC	32 U
58-89-9	Gamma-BHC (Lindane)	32 U
76-44-8	Heptachlor	32 U
309-00-2	Aldrin	32 U
1024-57-3	Heptachlor Epoxide	32 U
959-98-8	Endosulfan I	32 U
60-57-1	Dieldrin	64 U
72-55-9	4,4'-DDE	84
72-20-8	Endrin	64 U
33213-65-9	Endosulfan II	64 U
72-54-8	4,4'-DDD	64 U
1031-07-8	Endosulfan Sulfate	64 U
50-29-3	4,4'-DDT	64 U
72-43-5	Methoxychlor	320 U
53494-70-5	Endrin Ketone	64 U
57-74-9	Chlordane	320 U
8001-35-2	Toxaphene	640 U
12674-11-2	Aroclor-1016	320 U
11104-28-2	Aroclor-1221	320 U
11141-16-5	Aroclor-1232	320 U
53469-21-9	Aroclor-1242	320 U
12672-29-6	Aroclor-1248	320 U
11097-69-1	Aroclor-1254	1430
11096-82-5	Aroclor-1260	1830

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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ecology and environment

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number
DC-SS-08

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)	
1.	Unknown Ketone	VOA	19.5	~~7 BJ~~	4
2.	Hexane Isomer	VOA	21.2	~~9 BJ~~	4
3.					
4.	UNKNOWN HYDROCARBON	BNA	5.5	900 J	
5.	UNKNOWN HYDROCARBON		5.7	660 J	
6.	UNKNOWN		7.0	~~400 BJ~~	4
7.	UNKNOWN		9.2	870 J	
8.	UNKNOWN HYDROCARBON		31.6	160 J	
9.	UNKNOWN HYDROCARBON		33.5	290 J	
10.	UNKNOWN HYDROCARBON		34.5	120 J	
11.	UNKNOWN HYDROCARBON		35.4	560 J	
12.	UNKNOWN HYDROCARBON		37.1	500 J	
13.	UNKNOWN HYDROCARBON		38.8	220 J	
14.					
15.					
16.					
17.					
18.					
19.					
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25.					
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27.					
28.					
29.					
30					

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May 93

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ecology and environment

Sample Number
DC-SS-09

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9756 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-22-86
Conc./Dil Factor: 3 pH 7.1
Percent Moisture: (Not Decanted) 30

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u J
75-00-3	Chloroethane	30u J
75-09-2	Methylene Chloride	51 BU
67-64-1	Acetone	55 BUJ
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	57 B U
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	~~9 J~~ 30 U
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	22
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

HE May 93

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Form I 11/85

Laboratory Name: ECOLOGY & ENVIRONMENT INC.

Case No: V-4465

Sample Number: DC-SS-09

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 12-1-86

Conc/Dil Factor: 10

Percent Moisture (Decanted): 30

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	2400	U
111-44-4	bis(-2-Chloroethyl)Ether	2400	U
95-57-8	2-Chlorophenol	2400	U
541-73-1	1 3-Dichlorobenzene	2400	U
106-46-7	1 4-Dichlorobenzene	2400	U
100-51-6	Benzyl Alcohol	2400	U
95-50-1	1 2-Dichlorobenzene	2400	U
95-48-7	2-Methylphenol	2400	U
39638-32-9	bis(2-chloroisopropyl)Ether	2400	U
106-44-5	4-Methylphenol	2400	U
621-64-7	N-Nitroso-Di-n-Propylamine	2400	U
67-72-1	Hexachloroethane	2400	U
98-95-3	Nitrobenzene	2400	U
78-59-1	Isophorone	2400	U
88-75-5	2-Nitrophenol	2400	U
105-67-9	2 4-Dimethylphenol	2400	U
65-85-0	Benzoic Acid	11000	U
111-91-1	bis(-2-Chloroethoxy)Methane	2400	U
120-83-2	2 4-Dichlorophenol	2400	U
120-82-1	1 2 4-Trichlorobenzene	2400	U
91-20-3	Naphthalene	810	J
106-47-8	4-Chloroaniline	2400	U
87-68-3	Hexachlorobutadiene	2400	U
59-50-7	4-Chloro-3-Methylphenol	2400	U
91-57-6	2-Methylnaphthalene	2400	U
77-47-4	Hexachlorocyclopentadiene	2400	U
88-06-2	2 4 6-Trichlorophenol	2400	U
95-95-4	2 4 5-Trichlorophenol	11000	U
91-58-7	2-Chloronaphthalene	2400	U
88-74-4	2-Nitroaniline	11000	U
131-11-3	Dimethyl Phthalate	2400	U
208-96-8	Acenaphthylene	2400	U
99-09-2	3-Nitroaniline	11000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	2400	U
51-28-5	2 4-Dinitrophenol	11000	U
100-02-7	4-Nitrophenol	11000	U
132-64-9	Dibenzofuran	2400	U
121-14-2	2 4-Dinitrotoluene	2400	U
606-20-2	2 6-Dinitrotoluene	2400	U
84-66-2	Diethylphthalate	2400	U
7005-72-3	4-Chlorophenyl-phenylether	2400	U
86-73-7	Fluorene	2400	U
100-01-6	4-Nitroaniline	11000	U
534-52-1	4 6-Dinitro-2-Methylphenol	11000	U
86-30-6	N-Nitrosodiphenylamine (1)	2400	U
101-55-3	4-Bromophenyl-phenylether	2400	U
118-74-1	Hexachlorobenzene	2400	U
87-86-5	Pentachlorophenol	2600	J
85-01-8	Phenanthrene	2400	U
120-12-7	Anthracene	2400	U
84-74-2	Di-n-Butylphthalate	2400	U
206-44-0	Fluoranthene	540	J
129-00-0	Pyrene	2400	U
85-68-7	Butylbenzylphthalate	2400	U
91-94-1	3 3 -Dichlorobenzidine	4700	U
56-55-3	Benzo(a)Anthracene	950	J
117-81-7	bis(2-Ethylhexyl)Phthalate	240	J
218-01-9	Chrysene	2400	U
117-84-0	Di-n-Octyl Phthalate	2400	U
205-99-2	Benzo(b)Fluoranthene	750	J
207-08-9	Benzo(k)Fluoranthene	2400	U
50-32-8	Benzo(a)Pyrene	2400	U
193-39-5	Indeno(1 2 3-cd)Pyrene	2400	U
53-70-3	Dibenz(a h)Anthracene	2400	U
191-24-2	Benzo(g h i)Perylene	1100	J

(1)-Cannot be separated from diphenylamine

Form I 45

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ecology and environment

Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number
DC-SS-09

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-26-86

Conc/Dil Factor 2,000

Percent Moisture (decanted) 30.1

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	32,000 U
319-85-7	Beta-BHC	32,000 U
319-86-8	Delta-BHC	32,000 U
58-89-9	Gamma-BHC (Lindane)	32,000 U
76-44-8	Heptachlor	32,000 U
309-00-2	Aldrin	32,000 U
1024-57-3	Heptachlor Epoxide	32,000 U
959-98-8	Endosulfan I	32,000 U
60-57-1	Dieldrin	64,000 U
72-55-9	4,4'-DDE	64,000 U
72-20-8	Endrin	64,000 U
33213-65-9	Endosulfan II	64,000 U
72-54-8	4,4'-DDD	64,000 U
1031-07-8	Endosulfan Sulfate	64,000 U
50-29-3	4,4'-DDT	64,000 U J
72-43-5	Methoxychlor	320,000 U
53494-70-5	Endrin Ketone	64,000 U
57-74-9	Chlordane	320,000 U
8001-35-2	Toxaphene	640,000 U
12674-11-2	Aroclor-1016	320,000 U
11104-28-2	Aroclor-1221	320,000 U
11141-16-5	Aroclor-1232	320,000 U
53469-21-9	Aroclor-1242	320,000 U
12672-29-6	Aroclor-1248	2,730,000 C
11097-69-1	Aroclor-1254	640,000 U
11096-82-5	Aroclor-1260	640,000 U

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May 93

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Form 1

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ecology and environment

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-09

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	563780	2,3-Dimethyl-1-Butene	VOA	18.0	7 J
2.		Methyl pentene isomer	VOA	18.7	17 J
3.		Unknown Ketone	VOA	19.5	~~5 BJ~~ 4
4.		Hexane isomer	VOA	21.2	~~4 BJ~~ 4
5.					
6.		TRIMETHYL PROPYL BENZENE ISOMER	BNA	21.1	38000 J
7.		TRIMETHYL PROPYL BENZENE ISOMER		21.3	71000 J
8.	448400	(1-ETHYL-1-METHYLBUTYL) BENZENE		21.4	31000 J
9.	5519/258	(1,1-DIMETHYL NONYL) BENZENE		21.8	90000 J
10.		UNKNOWN - AROMATIC		21.9	58000 J
11.		UNKNOWN - AROMATIC		22.0	98000 J
12.		UNKNOWN		22.1	71000 J
13.		(DIMETHYLDECYL) BENZENE ISOMER		22.4	180000 J
14.		UNKNOWN		22.5	98000 J
15.		DIMETHYL NONYL BENZENE ISOMER		22.7	170000 J
16.		DIMETHYL NONYL BENZENE ISOMER		22.8	140000 J
17.		DIMETHYL NONYL BENZENE ISOMER		22.9	90000 J
18.		PCB	✓	23.8-27.6	—
19.					
20.					
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ecology and environment

Sample Number
DC-SS-10

Organics Analysis Data Sheet
(Page 1)

Laboratory Name Ecology & Environment, Inc. Case No U-4465

Lab Sample ID No 9757 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By [signature] Date Sample Received 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-22-86

Conc/Dil Factor: 3 pH 6.4

Percent Moisture: (Not Decanted) 24

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u J
75-00-3	Chloroethane	30u J
75-09-2	Methylene Chloride	59 B UJ
67-64-1	Acetone	30u
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2 Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	~~8 J~~ 30 U
591-78-6	2 Hexanone	30u J
127-18-4	Tetrachloroethene	11 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Form I 11/85

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ecology and environment

Laboratory Name: Ecology & Environment Inc.

Case No: V-4465

Sample Number: DC-SS-10

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 12-2-86

Conc/Dil Factor: 10

Percent Moisture (Decanted): 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	2200	U
111-44-4	bis(-2-Chloroethyl)Ether	2200	U
95-57-8	2-Chlorophenol	2200	U
541-73-1	1 3-Dichlorobenzene	2200	U
106-46-7	1 4-Dichlorobenzene	2200	U
100-51-6	Benzyl Alcohol	2200	U
95-50-1	1 2-Dichlorobenzene	2200	U
95-48-7	2-Methylphenol	2200	U
39638-32-9	bis(2-chloroisopropyl)Ether	2200	U
106-44-5	4-Methylphenol	2200	U
621-64-7	N-Nitroso-Di-n-Propylamine	2200	U
67-72-1	Hexachloroethane	2200	U
98-95-3	Nitrobenzene	2200	U
78-59-1	Isophorone	2200	U
88-75-5	2-Nitrophenol	2200	U
105-67-9	2, 4-Dimethylphenol	2200	U
65-85-0	Benzoic Acid	10000	U
111-91-1	bis(-2-Chloroethoxy)Methane	2200	U
120-83-2	2 4-Dichlorophenol	2200	U
120-82-1	1 2, 4-Trichlorobenzene	2200	U
91-20-3	Naphthalene	2200	U
106-47-8	4-Chloroaniline	2200	U
87-68-3	Hexachlorobutadiene	2200	U
59-50-7	4-Chloro-3-Methylphenol	2200	U
91-57-6	2-Methylnaphthalene	2200	U
77-47-4	Hexachlorocyclopentadiene	2200	U J
88-06-2	2 4 6-Trichlorophenol	2200	U
95-95-4	2, 4, 5-Trichlorophenol	10000	U
91-58-7	2-Chloronaphthalene	2200	U
88-74-4	2-Nitroaniline	10000	U
131-11-3	Dimethyl Phthalate	2200	U
208-96-8	Acenaphthylene	2200	U
99-09-2	3-Nitroaniline	10000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2200	U
51-28-5	2, 4-Dinitrophenol	10000	U J
100-02-7	4-Nitrophenol	10000	U J
132-64-9	Dibenzofuran	2200	U
121-14-2	2 4-Dinitrotoluene	2200	U
606-20-2	2 6-Dinitrotoluene	2200	U
84-66-2	Diethylphthalate	2200	U
7005-72-3	4-Chlorophenyl-phenylether	2200	U
86-73-7	Fluorene	2200	U
100-01-6	4-Nitroaniline	10000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	10000	U
86-30-6	N-Nitrosodiphenylamine (1)	2200	U
101-55-3	4-Bromophenyl-phenylether	2200	U
118-74-1	Hexachlorobenzene	2200	U
87-86-5	Pentachlorophenol	10000	U
85-01-8	Phenanthrene	2200	U
120-12-7	Anthracene	2200	U
84-74-2	Di-n-Butylphthalate	2200	U
206-44-0	Fluoranthene	2200	U
129-00-0	Pyrene	2200	U
85-68-7	Butylbenzylphthalate	2200	U
91-94-1	3 3-Dichlorobenzidine	4300	U
56-55-3	Benzo(a)Anthracene	2200	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2200	U
218-01-9	Chrysene	2200	U
117-84-0	Di-n-Octyl Phthalate	~~610 B J~~	2700 U
205-99-2	Benzo(b)Fluoranthene	2200	U
207-08-9	Benzo(k)Fluoranthene	2200	U
50-32-8	Benzo(a)Pyrene	2200	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	2200	U
53-70-3	Dibenz(a h)Anthracene	2200	U
191-24-2	Benzo(g h i)Perylene	2200	U

(1)-Cannot be separated from diphenylamine

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May 93

Form I 49

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-10

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 100

Percent Moisture (decanted) 24

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	1,600 u
319-85-7	Beta-BHC	1,600 u
319-86-8	Delta-BHC	1,600 u
58-89-9	Gamma-BHC (Lindane)	1,600 u
76-44-8	Heptachlor	1,600 u
309-00-2	Aldrin	1,600 u
1024-57-3	Heptachlor Epoxide	1,600 u
959-98-8	Endosulfan I	1,600 u
60-57-1	Dieldrin	3,200 u
72-55-9	4, 4'-DDE	3,200 u
72-20-8	Endrin	3,200 u
33213-65-9	Endosulfan II	3,200 u
72-54-8	4, 4'-DDD	3,200 u
1031-07-8	Endosulfan Sulfate	3,200 u
50-29-3	4 4'-DDT	3,200 u
72-43-5	Methoxychlor	16,000 u
53494-70-5	Endrin Ketone	3,200 u
57-74-9	Chlordane	16,000 u
8001-35-2	Toxaphene	32,000 u
12674-11-2	Aroclor-1016	16,000 u
11104-28-2	Aroclor-1221	16,000 u
11141-16-5	Aroclor-1232	16,000 u
53469-21-9	Aroclor-1242	16,000 u
12672-29-6	Aroclor-1248	44,000
11097-69-1	Aroclor-1254	32,000 u
11096-82-5	Aroclor-1260	32,000 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-10

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.		Hexene isomer	VOA	18.0	110 J
2.		Unknown Ketone	VOA	19.5	~~5 BJ~~
3.		Unknown (methylene pentane?)	VOA	19.9	28 J
4.		Hexane isomer	VOA	21.1	~~2 JB~~
5.		Hexene isomer	VOA	18.7	260 J
6.					
7.		UNKNOWN	BNA	21.8	780,000 J
8.		UNKNOWN		23.7	68,000 J
9.	84651	9,10-ANTHRACENEDIONE		25.5	43000 J
10.		UNKNOWN HYDROCARBON		26.1	64000 J
11.	10544500	MOLECULAR SULFUR		26.2	41000 J
12.	81845	1H, 3H-NAPHTHO[1,8-CD]PYRAN-1,3-DIONE		26.4	37000 J
13.		ANTHRACENEDIONE		28.7	31000 J
14.		UNKNOWN		29.5	13000 J
15.		UNKNOWN		31.6	5300 J
16.	82451	1-AMINO-9,10-ANTHRACENEDIONE		32.2	39000 J
17.		UNKNOWN		32.5	6600 J
18.	482235	3-(3-OXO-1(3H)-ISOBENZOFURANYLIDENE)-		32.8	35000 J
19.		1(3H)-ISOBENZOFURANONE			
20.		UNKNOWN		33.3	23000 J
21.		UNKNOWN		34.3	13000 BJ
22.		UNKNOWN		36.8	28000 J
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30					

HVE
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ecology and environment

Sample Number
DC-SS-11

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9758 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-25-86
Conc./Dil Factor: 3 pH 4.3
Percent Moisture: (Not Decanted) 36

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	59 B-U
67-64-1	Acetone	37 B-U
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u J
108-10-1	4-Methyl-2-Pentanone	~~Hold~~ 30 u J
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	63
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	36 B-U J
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

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Value: If the result is a value greater than or equal to the detection limit, report the value.

U: Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J: Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C: This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B: This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other: Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number DC-SS-11

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-2-86

Conc/Dil Factor 20

Percent Moisture (Decanted) 36

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	5200	U
111-44-4	bis(-2-Chloroethyl)Ether	5200	U
95-57-8	2-Chlorophenol	5200	U
541-73-1	1 3-Dichlorobenzene	5200	U
106-46-7	1 4-Dichlorobenzene	5200	U
100-51-6	Benzyl Alcohol	5200	U
95-50-1	1 2-Dichlorobenzene	5200	U
95-48-7	2-Methylphenol	5200	U
39638-32-9	bis(2-chloroisopropyl)Ether	5200	U
106-44-5	4-Methylphenol	5200	U
621-64-7	N-Nitroso-Di-n-Propylamine	5200	U
67-72-1	Hexachloroethane	5200	U
98-95-3	Nitrobenzene	5200	U
78-59-1	Isophorone	5200	U
88-75-5	2-Nitrophenol	5200	U
105-67-9	2, 4-Dimethylphenol	5200	U
65-85-0	Benzoic Acid	25000	U
111-91-1	bis(-2-Chloroethoxy)Methane	5200	U
120-83-2	2 4-Dichlorophenol	5200	U
120-82-1	1 2, 4-Trichlorobenzene	5200	U
91-20-3	Naphthalene	14000	
106-47-8	4-Chloroaniline	5200	U J
87-68-3	Hexachlorobutadiene	5200	U
59-50-7	4-Chloro-3-Methylphenol	5200	U
91-57-6	2-Methylnaphthalene	1000	J
77-47-4	Hexachlorocyclopentadiene	5200	U
88-06-2	2 4 6-Trichlorophenol	5200	U
95-95-4	2, 4, 5-Trichlorophenol	25000	U
91-58-7	2-Chloronaphthalene	5200	U
88-74-4	2-Nitroaniline	25000	U
131-11-3	Dimethyl Phthalate	5200	U
208-96-8	Acenaphthylene	5200	U
99-09-2	3-Nitroaniline	25000	U J

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	570	J
51-28-5	2, 4-Dinitrophenol	25000	U
100-02-7	4-Nitrophenol	25000	U J
132-64-9	Dibenzofuran	920	J
121-14-2	2 4-Dinitrotoluene	5200	U
606-20-2	2 6-Dinitrotoluene	5200	U
84-66-2	Diethylphthalate	5200	U
7005-72-3	4-Chlorophenyl-phenylether	5200	U
86-73-7	Fluorene	5200	U
100-01-6	4-Nitroaniline	25000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	25000	U
86-30-6	N-Nitrosodiphenylamine (1)	5200	U
101-55-3	4-Bromophenyl-phenylether	5200	U
118-74-1	Hexachlorobenzene	5200	U
87-86-5	Pentachlorophenol	4700	J
85-01-8	Phenanthrene	4800	J
120-12-7	Anthracene	5200	U
84-74-2	Di-n-Butylphthalate	5200	U
206-44-0	Fluoranthene	5200	U
129-00-0	Pyrene	5200	U
85-68-7	Butylbenzylphthalate	5200	U
91-94-1	3, 3-Dichlorobenzidine	10000	U
56-55-3	Benzo(a)Anthracene	5200	U
117-81-7	bis(2-Ethylhexyl)Phthalate	6000	
218-01-9	Chrysene	5200	U
117-84-0	Di-n-Octyl Phthalate	~~2600 8 J~~	5200 U
205-99-2	Benzo(b)Fluoranthene	5200	U
207-08-9	Benzo(k)Fluoranthene	5200	U
50-32-8	Benzo(a)Pyrene	5200	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	5200	U
53-70-3	Dibenz(a h)Anthracene	5200	U
191-24-2	Benzo(g h i)Perylene	5200	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-11

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-26-86

Conc/Dil Factor 50,000

Percent Moisture (decanted) 35.9

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	800,000 U	
319-85-7	Beta-BHC	800,000 U	
319-86-8	Delta-BHC	800,000 U	
58-89-9	Gamma-BHC (Lindane)	800,000 U	
76-44-8	Heptachlor	800,000 U	
309-00-2	Aldrin	800,000 U	
1024-57-3	Heptachlor Epoxide	800,000 U	
959-98-8	Endosulfan I	800,000 U	
60-57-1	Dieldrin	1,600,000 U	
72-55-9	4,4'-DDE	1,600,000 U	
72-20-8	Endrin	1,600,000 U	
33213-65-9	Endosulfan II	1,600,000 U	
72-54-8	4,4'-DDD	1,600,000 U	
1031-07-8	Endosulfan Sulfate	1,600,000 U	
50-29-3	4,4'-DDT	1,600,000 U	
72-43-5	Methoxychlor	8,000,000 U	
53494-70-5	Endrin Ketone	1,600,000 U	
57-74-9	Chlordane	8,000,000 U	
8001-35-2	Toxaphene	16,000,000 U	
12674-11-2	Aroclor-1016	8,000,000 U	
11104-28-2	Aroclor-1221	8,000,000 U	
11141-16-5	Aroclor-1232	8,000,000 U	
53469-21-9	Aroclor-1242	8,000,000 U	
12672-29-6	Aroclor-1248	24,000,000	C
11097-69-1	Aroclor-1254	29,000,000	C
11096-82-5	Aroclor-1260	21,000,000	C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4465

Sample Number DC-SS-11

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number MN	Estimated Concentration (ug/l or ug/kg)
1.		UNKNOWN KETONE	VOA	19.6	~~10 BJ~~ U
2.		HEXANE ISOMER	VOA	21.2	~~19 BJ~~ U
3.					
4.	85449	1,3-ISOBENZOFURANDIONE	BNA	16.7	590000 J
5.	87412	1(3H)-ISOBENZOFURANONE		17.2	40,000 J
6.	271896	BENZOFURAN		18.7	64000 J
7.		UNKNOWN - AROMATIC		21.8	120000 J
8.		UNKNOWN - AROMATIC		22.0	24000 J
9.		UNKNOWN - AROMATIC		22.4	43000 J
10.		DIMETHYL NONYLBENZENE ISOMER		22.7	22000 J
11.		DIMETHYL NONYLBENZENE ISOMER		22.8	15000 J
12.		UNKNOWN (PHENANTHRENEDIONE & PCB)		23.2	18000 J
13.		PCB		23.9-24.4	—
14.		PENTAMETHYLHEPTYLBENZENE		24.5	32000 J
15.	81845	1H,3H-NAPHTHO(1,8CD)PYRAN-1,3-DIONE		24.7	72000 J
16.		PCB		24.9-26.2	—
17.	84651	9,10-ANTHRACENEDIONE		26.4	56000 J
18.		PCB		26.6-29.5	—
19.		ANTHRACENEDIONE		29.6	73000 J
20.		PCB		29.7-33.4	—
21.	482235	3-(3-OXO-1(3H)-ISOBENZOFURANYL)DIENE-		33.8	80000 J
22.		1(3H)-ISOBENZOFURANONE			
23.		UNKNOWN		34.1	~~42000 J~~ U
24.		PCB		34.5	—
25.		UNKNOWN		36.3	75000 J
26.		UNKNOWN		37.7	53000 J
27.					
28.					
29.					
30.					

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ecology and environment

Sample No. DC-SS-12

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465

Lab Sample ID No: 9759 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-22-86

Conc./Dil Factor: 3 pH 5.6

Percent Moisture: (Not Decanted) 36

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u J
75-00-3	Chloroethane	30u J
75-09-2	Methylene Chloride	105B U
67-64-1	Acetone 30U	~~27 BJ~~ UJ
75-15-0	Carbon Disulfide	15u
75-35-4	1,1-Dichloroethene	15u
75-34-3	1,1-Dichloroethane	15u
156-60-5	Trans-1,2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1,2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1,1,1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	15u
10061-02-6	Trans-1,3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1,1,2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1,3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	110
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	7 J
79-34-5	1,1,2,2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, etc. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in such a definition attached to the data summary report.

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Sample Number
DC-SS-12-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4465
Lab Sample ID No: 9759 RE QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: C Stoytowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-27-86

Conc/Dil Factor: 3 pH 5.6

Percent Moisture: (Not Decanted) 36

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	30u J	
74-83-9	Bromomethane	30u J	
75-01-4	Vinyl Chloride	30u	
75-00-3	Chloroethane	30u J	
75-09-2	Methylene Chloride	~~1058~~	UJ
67-64-1	Acetone	3027 ~~8J~~	UJ
75-15-0	Carbon Disulfide	15u J	
75-35-4	1, 1-Dichloroethene	15u	
75-34-3	1, 1-Dichloroethane	15u	
156-60-5	Trans-1, 2-Dichloroethene	15u	
67-66-3	Chloroform	15u	
107-06-2	1, 2-Dichloroethane	15u	
78-93-3	2-Butanone	30u	
71-55-6	1, 1, 1-Trichloroethane	15u	
56-23-5	Carbon Tetrachloride	15u	
108-05-4	Vinyl Acetate	30u	
75-27-4	Bromodichloromethane	15u	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	280
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	50
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

HW
May 93

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, etc. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name: Ecology & Environment Inc.

Case No: U-4465

Sample Number: DC-SS-12

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 12-2-86

Conc/Dil Factor: 10

Percent Moisture (Decanted): 36

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	2600	U
111-44-4	bis(2-Chloroethyl)Ether	2600	U
95-57-8	2-Chlorophenol	2600	U
541-73-1	1,3-Dichlorobenzene	2600	U
106-46-7	1,4-Dichlorobenzene	2600	U
100-51-6	Benzyl Alcohol	2600	U
95-50-1	1,2-Dichlorobenzene	2600	U
95-48-7	2-Methylphenol	2600	U
39638-32-9	bis(2-chloroisopropyl)Ether	2600	U
106-44-5	4-Methylphenol	2600	U
621-64-7	N-Nitroso-Di-n-Propylamine	2600	U
67-72-1	Hexachloroethane	2600	U
98-95-3	Nitrobenzene	2600	U
78-59-1	Isophorone	2600	U
88-75-5	2-Nitrophenol	2600	U
105-67-9	2,4-Dimethylphenol	2600	U
65-85-0	Benzoic Acid	12000	U
111-91-1	bis(2-Chloroethoxy)Methane	2600	U
120-83-2	2,4-Dichlorophenol	2600	U
120-82-1	1,2,4-Trichlorobenzene	2600	U
91-20-3	Naphthalene	2600	U
106-47-8	4-Chloroaniline	2600	U J
87-68-3	Hexachlorobutadiene	2600	U
59-50-7	4-Chloro-3-Methylphenol	2600	U
91-57-6	2-Methylnaphthalene	2600	U
77-47-4	Hexachlorocyclopentadiene	2600	U
88-06-2	2,4,6-Trichlorophenol	2600	U
95-95-4	2,4,5-Trichlorophenol	12000	U
91-58-7	2-Chloronaphthalene	2600	U
88-74-4	2-Nitroaniline	12000	U
131-11-3	Dimethyl Phthalate	2600	U
208-96-8	Acenaphthylene	2600	U
99-09-2	3-Nitroaniline	12000	U J

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2600	U
51-28-5	2,4-Dinitrophenol	12000	U
100-02-7	4-Nitrophenol	12000	U J
132-64-9	Dibenzofuran	2600	U
121-14-2	2,4-Dinitrotoluene	2600	U
606-20-2	2,6-Dinitrotoluene	2600	U
84-66-2	Diethylphthalate	2600	U
7005-72-3	4-Chlorophenyl-phenylether	2600	U
86-73-7	Fluorene	2600	U
100-01-6	4-Nitroaniline	12000	U
534-52-1	4,6-Dinitro-2-Methylphenol	12000	U
86-30-6	N-Nitrosodiphenylamine (1)	2600	U
101-55-3	4-Bromophenyl-phenylether	2600	U
118-74-1	Hexachlorobenzene	2600	U
87-86-5	Pentachlorophenol	7800	J
85-01-8	Phenanthrene	2600	U
120-12-7	Anthracene	2600	U
84-74-2	Di-n-Butylphthalate	2600	U
206-44-0	Fluoranthene	1300	J
129-00-0	Pyrene	1100	J
85-68-7	Butylbenzylphthalate	2600	U
91-94-1	3,3'-Dichlorobenzidine	2600	U
56-55-3	Benzo(a)Anthracene	2600	U
117-81-7	bis(2-Ethylhexyl)Phthalate	820	J
218-01-9	Chrysene	2600	U
117-84-0	Di-n-Octyl Phthalate	3100	~~B~~ U
205-99-2	Benzo(b)Fluoranthene	1200	J
207-08-9	Benzo(k)Fluoranthene	2600	U
50-32-8	Benzo(a)Pyrene	520	J
193-39-5	Indeno(1,2,3-cd)Pyrene	2600	U
53-70-3	Dibenz(a,h)Anthracene	2600	U
191-24-2	Benzo(g,h,i)Perylene	2600	U

(1)-Cannot be separated from diphenylamine

Form I

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ecology and environment

Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-12

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-24-86

Conc/Dil Factor 1,000

Percent Moisture (decanted) 36.4

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16,000 u
319-85-7	Beta-BHC	16,000 u
319-86-8	Delta-BHC	16,000 u
58-89-9	Gamma-BHC (Lindane)	16,000 u
76-44-8	Heptachlor	16,000 u
309-00-2	Aldrin	16,000 u
1024-57-3	Heptachlor Epoxide	16,000 u
959-98-8	Endosulfan I	16,000 u
60-57-1	Dieldrin	32,000 u
72-55-9	4 4'-DDE	32,000 u
72-20-8	Endrin	32,000 u
33213-65-9	Endosulfan II	32,000 u
72-54-8	4 4'-DDD	32,000 u
1031-07-8	Endosulfan Sulfate	32,000 u
50-29-3	4 4'-DDT	32,000 u
72-43-5	Methoxychlor	160,000 u
53494-70-5	Endrin Ketone	32,000 u
57-74-9	Chlordane	160,000 u
8001-35-2	Toxaphene	320,000 u
12674-11-2	Aroclor-1016	160,000 u
11104-28-2	Aroclor-1221	160,000 u
11141-16-5	Aroclor-1232	160,000 u
53469-21-9	Aroclor-1242	160,000 u
12672-29-6	Aroclor-1248	160,000 u
11097-69-1	Aroclor-1254	320,000 u
11096-82-5	Aroclor-1260	174,000 J C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

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V_s _____ or W_s 30 V_t 1000 V_i 4

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Form 1

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ecology and environment, inc.

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number
DC-SS-12

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	74209	Acetic acid methyl ester	VOA	11.2	150 J
2.		Hexene isomer	VOA	18.0	57 J
3.		Hexene isomer	VOA	18.5	36 J
4.		Hexene isomer	VOA	18.7	160
5.		Unknown Ketone	VOA	19.6	~~1 BJ~~ U
6.		Hexane isomer	VOA	19.8	19 J
7.					
8.	85449	1,3-ISOBENZOFURANDIONE	BNA	16.6	15000 J
9.	27854406	(1,1-DIMETHYLDECYL) BENZENE	|	20.4	20,000 J
10.		UNKNOWN	|	21.4	160,000 J
11.		UNKNOWN - AROMATIC		22.2	85,000 J
12.		UNKNOWN - AROMATIC		22.4	180,000 J
13.		UNKNOWN -		22.8	1,400,000 J
14.		PENTAMETHYL HEPTYL BENZENE		22.9	250,000 J
15.		UNKNOWN		24.5	53000 J
16.	81845	1H,3H-NAPHTHO(1,8-CD)PYRAN-1,3-DIONE		24.7	49000 J
17.	84651	9,10-ANTHRACENEDIONE		26.4	29000 J
18.		UNKNOWN		26.9	200,000 J
19.	10544500	MOLECULAR SULFUR		27.1	210,000 J
20.		PCB		27.6-29.1	-
21.		ANTHRACENEDIONE		29.6	46000 J
22.		DIMETHYL NONYL BENZENE		29.9	49000 J
23.		PCB		30.3-30.9	-
24.		UNKNOWN		32.5	8300 J
25.	482235	3-(3-oxo-1(3H)-ISOBENZOFURANYLIDENE -	|	33.1	16000 J
26.		1(3H)-ISOBENZOFURANONE	|		
27.		AN ISOBENZOFURANONE	|	33.8	25000 J
28.		UNKNOWN HYDROCARBON	|	34.7	18000 J
29.		UNKNOWN	|	37.7	76000 J
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Laboratory Name [illegible]

Case No u-4465

Sample Number DC-SS-12-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1. 79209	Acetic acid, methyl ester	VOA	11.3	270 J
2.	Hexene isomer	VOA	18.0	2800 J
3.	Hexene isomer	VOA	18.7	6700 J
4.	Hexene isomer	VOA	19.5	270 J
5.	Hexene isomer	VOA	19.9	1600 J
6.	Unknown hydrocarbon	VOA	26.8	81 J
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8.				
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30.				

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Sample Number
DC-SS-13

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9760 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-25-86
Conc./Dil Factor: 3 pH 8.0
Percent Moisture: (Not Decanted) 32

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	43 BU
67-64-1	Acetone	32 BU
75-15-0	Carbon Disulfide	15u
75-35-4	1,1-Dichloroethene	15u
75-34-3	1,1-Dichloroethane	15u
156-60-5	Trans-1,2-Dichloroethene	15u
67-66-3	Chloroform	15
107-06-2	1,2-Dichloroethane	15u
78-93-3	2-Butanone	42 BU J
71-55-6	1,1,1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	15u
10061-02-6	Trans-1,3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1,1,2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1,3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u J
108-10-1	4-Methyl-2-Pentanone	30u J
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	15u
79-34-5	1,1,2,2-Tetrachloroethane	15u
108-88-3	Toluene	30 BU J
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, etc. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name: Ecology & Environment Inc.

Case No: V-4465

Sample Number: DC-SS-13

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 12-2-86

Conc/Dil Factor: 10

Percent Moisture (Decanted): 32

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	2400	U
111-44-4	bis(-2-Chloroethyl)Ether	2400	U
95-57-8	2-Chlorophenol	2400	U
541-73-1	1 3-Dichlorobenzene	2400	U
106-46-7	1 4-Dichlorobenzene	2400	U
100-51-6	Benzyl Alcohol	2400	U
95-50-1	1 2-Dichlorobenzene	2400	U
95-48-7	2-Methylphenol	2400	U
39638-32-9	bis(2-chloroisopropyl)Ether	2400	U
106-44-5	4-Methylphenol	2400	U
621-64-7	N-Nitroso-Di-n-Propylamine	2400	U
67-72-1	Hexachloroethane	2400	U
98-95-3	Nitrobenzene	2400	U
78-59-1	Isophorone	2400	U
88-75-5	2-Nitrophenol	2400	U
105-67-9	2. 4-Dimethylphenol	2400	U
65-85-0	Benzoic Acid	12000	U
111-91-1	bis(-2-Chloroethoxy)Methane	2400	U
120-83-2	2 4-Dichlorophenol	2400	U
120-82-1	1 2. 4-Trichlorobenzene	2400	U
91-20-3	Naphthalene	2400	U
106-47-8	4-Chloroaniline	2400	U J
87-68-3	Hexachlorobutadiene	2400	U
59-50-7	4-Chloro-3-Methylphenol	2400	U
91-57-6	2-Methylnaphthalene	2400	U
77-47-4	Hexachlorocyclopentadiene	2400	U
88-06-2	2 4 6-Trichlorophenol	2400	U
95 95-4	2. 4 5-Trichlorophenol	12000	U
91-58-7	2-Chloronaphthalene	2400	U
88-74-4	2-Nitroaniline	12000	U
131-11-3	Dimethyl Phthalate	2400	U
208-96-8	Acenaphthylene	2400	U
99-09-2	3-Nitroaniline	12000	U J

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2400	U
51-28-5	2. 4-Dinitrophenol	12000	U
100-02-7	4-Nitrophenol	12000	U J
132-64-9	Dibenzofuran	2400	U
121-14-2	2 4-Dinitrotoluene	2400	U
606-20-2	2 6-Dinitrotoluene	2400	U
84-66-2	Diethylphthalate	2400	U
7005-72-3	4-Chlorophenyl-phenylether	2400	U
86-73-7	Fluorene	2400	U
100-01-6	4-Nitroaniline	12000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	12000	U
86-30-6	N-Nitrosodiphenylamine (1)	2400	U
101-55-3	4-Bromophenyl-phenylether	2400	U
118-74-1	Hexachlorobenzene	2400	U
87-86-5	Pentachlorophenol	12000	U
85-01-8	Phenanthrene	2400	U
120-12-7	Anthracene	2400	U
84-74-2	Di-n-Butylphthalate	2400	U
206-44-0	Fluoranthene	2400	U
129-00-0	Pyrene	2400	U
85-68-7	Butylbenzylphthalate	2400	U
91-94-1	3 3 -Dichlorobenzidine	4800	U
56-55-3	Benzo(a)Anthracene	2400	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2400	U
218-01-9	Chrysene	2400	U
117-84-0	Di-n-Octyl Phthalate	2400	U
205-99-2	Benzo(b)Fluoranthene	2400	U
207-08-9	Benzo(k)Fluoranthene	2400	U
50-32-8	Benzo(a)Pyrene	2400	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	2400	U
53-70-3	Dibenzo(a h)Anthracene	2400	U
191-24-2	Benzo(g h i)Perylene	2400	U

(1)-Cannot be separated from diphenylamine

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Form I 63

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-13

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1,000

Percent Moisture (decanted) 32.3

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	16,000 u
319-85-7	Beta-BHC	16,000 u
319-86-8	Delta-BHC	16,000 u
58-89-9	Gamma-BHC (Lindane)	16,000 u
76-44-8	Heptachlor	16,000 u
309-00-2	Aldrin	16,000 u
1024-57-3	Heptachlor Epoxide	16,000 u
959-98-8	Endosulfan I	16,000 u
60-57-1	Dieldrin	32,000 u
72-55-9	4 4'-DDE	32,000 u
72-20-8	Endrin	32,000 u
33213-65-9	Endosulfan II	32,000 u
72-54-8	4, 4'-DDD	32,000 u
1031-07-8	Endosulfan Sulfate	32,000 u
50-29-3	4 4'-DDT	32,000 u J
72-43-5	Methoxychlor	160,000 u
53494-70-5	Endrin Ketone	32,000 u
57-74-9	Chlordane	160,000 u
8001-35-2	Toxaphene	320,000 u
12674-11-2	Aroclor-1016	160,000 u
11104-28-2	Aroclor-1221	160,000 u
11141-16-5	Aroclor-1232	160,000 u
53469-21-9	Aroclor-1242	160,000 u
12672-29-6	Aroclor-1248	160,000 u
11097-69-1	Aroclor-1254	320,000 u
11096-82-5	Aroclor-1260	165,000 J

HVE May 93

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Form 1

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ecology and environment

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-13

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Unknown Ketone	VOA	19.6	~~8BJ~~ U
2.	Hexane isomer	VOA	21.2	~~10BJ~~ U
3.				
4.	UNKNOWN - AROMATIC	BNA	20.0	16000 J
5.	UNKNOWN - AROMATIC		20.3	8100 J
6.	DIMETHYL DECYL BENZENE		20.4	17000 J
7.	UNKNOWN - AROMATIC		20.7	14000 J
8.	METHYL PROPYL PENTYL BENZENE		20.9	14000 J
9.	UNKNOWN - AROMATIC		21.0	16000 J
10.	TRIMETHYL PROPYL BENZENE		21.2	30000 J
11.	UNKNOWN - AROMATIC		21.3	10000 J
12.	UNKNOWN		21.4	57000 J
13.	UNKNOWN - AROMATIC		21.5	12000 J
14.	DIMETHYL DECYL BENZENE		21.7	30000 J
15.	UNKNOWN - AROMATIC		21.8	94000 J
16.	UNKNOWN		21.9	34000 J
17.	PENTAMETHYL HEPTYL BENZENE		22.0	64000 J
18.	UNKNOWN - AROMATIC		22.1	33000 J
19.	UNKNOWN - AROMATIC		22.4	120,000 J
20.	UNKNOWN		22.5	16,000 J
21.	DIMETHYL DECYL BENZENE		22.7	81,000 J
22.	PENTAMETHYL HEPTYL BENZENE		22.8	100,000 J
23.	DIMETHYL NONYL BENZENE		23.0	52,000 J
24.				
25.				
26.				
27.				
28.				
29.				
30.				

May 93

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Form 1, Part B

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ecology and environment

Sample Number
DC-SS-14

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9761 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: CBojtowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-18-86
Conc./Dil Factor: 1.5 pH 7.0
Percent Moisture: (Not Decanted) 35

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	15u J
74-83-9	Bromomethane	15u J
75-01-4	Vinyl Chloride	15u
75-00-3	Chloroethane	15u
75-09-2	Methylene Chloride	46 ~~B-U~~ J
67-64-1	Acetone	26 ~~B-U~~
75-15-0	Carbon Disulfide	8u J
75-35-4	1,1-Dichloroethene	8u
75-34-3	1,1-Dichloroethane	8u
156-60-5	Trans-1,2-Dichloroethene	8u
67-66-3	Chloroform	8u
107-06-2	1,2-Dichloroethane	8u
78-93-3	2-Butanone	15u J
71-55-6	1,1,1-Trichloroethane	8u
56-23-5	Carbon Tetrachloride	8u
108-05-4	Vinyl Acetate	15u
75-27-4	Bromodichloromethane	8u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	8u
10061-02-6	Trans-1,3-Dichloropropene	8u
79-01-6	Trichloroethene	8u
124-48-1	Dibromochloromethane	8u
79-00-5	1,1,2-Trichloroethane	8u
71-43-2	Benzene	8u
10061-01-5	cis-1,3-Dichloropropene	8u
110-75-8	2-Chloroethylvinylether	15u J
75-25-2	Bromoform	8u
108-10-1	4-Methyl-2-Pentanone	15u
591-78-6	2-Hexanone	15u
127-18-4	Tetrachloroethene	8u J
79-34-5	1,1,2,2-Tetrachloroethane	8u
108-88-3	Toluene	8u
108-90-7	Chlorobenzene	8u
100-41-4	Ethylbenzene	8u
100-42-5	Styrene	8u J
	Total Xylenes	8u J

HP
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May 93

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Form I

11/85

Sample Number
DC-SS-14-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4465
Lab Sample ID No: 9761-RE
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Nojtowicz
Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-25-86
Conc./Dil Factor: 3 pH 7.0
Percent Moisture: (Not Decanted) 35

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	95 BU
67-64-1	Acetone	30u J
75-15-0	Carbon Disulfide	15u J
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	61 B-U J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	~~22 B~~ 30U
127-18-4	Tetrachloroethene	24
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u J
	Total Xylenes	15u J

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

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May 93

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number DC-SS-14

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-2-86

Conc/Dil Factor 50

Percent Moisture (Decanted) 35

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	13000 U
111-44-4	bis(-2-Chloroethyl)Ether	13000 U
95-57-8	2-Chlorophenol	13000 U
541-73-1	1 3-Dichlorobenzene	13000 U
106-46-7	1 4-Dichlorobenzene	13000 U
100-51-6	Benzyl Alcohol	13000 U
95-50-1	1 2-Dichlorobenzene	13000 U
95-48-7	2-Methylphenol	13000 U
39638-32-9	bis(2-chloroisopropyl)Ether	13000 U
106-44-5	4-Methylphenol	13000 U
621-64-7	N-Nitroso-Di-n-Propylamine	13000 U
67-72-1	Hexachloroethane	13000 U
98-95-3	Nitrobenzene	13000 U
78-59-1	Isophorone	13000 U
88-75-5	2-Nitrophenol	13000 U
105-67-9	2 4-Dimethylphenol	13000 U
65-85-0	Benzoic Acid	62000 U
111-91-1	bis(-2-Chloroethoxy)Methane	13000 U
120-83-2	2 4-Dichlorophenol	13000 U
120-82-1	1 2, 4-Trichlorobenzene	13000 U
91-20-3	Naphthalene	13000 U
106-47-8	4-Chloroaniline	13000 U J
87-68-3	Hexachlorobutadiene	13000 U
59-50-7	4-Chloro-3-Methylphenol	13000 U
91-57-6	2-Methylnaphthalene	13000 U
77-47-4	Hexachlorocyclopentadiene	13000 U
88-06-2	2 4 6-Trichlorophenol	13000 U
95-95-4	2, 4, 5-Trichlorophenol	62000 U
91-58-7	2-Chloronaphthalene	13000 U
88-74-4	2-Nitroaniline	62000 U
131-11-3	Dimethyl Phthalate	13000 U
208-96-8	Acenaphthylene	13000 U
99-09-2	3-Nitroaniline	62000 U J

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	13000 U
51-28-5	2, 4-Dinitrophenol	62000 U
100-02-7	4-Nitrophenol	62000 U J
132-64-9	Dibenzofuran	13000 U
121-14-2	2 4-Dinitrotoluene	13000 U
606-20-2	2 6-Dinitrotoluene	13000 U
84-66-2	Diethylphthalate	13000 U
7005-72-3	4-Chlorophenyl-phenylether	13000 U
86-73-7	Fluorene	13000 U
100-01-6	4-Nitroaniline	62000 U
534-52-1	4, 6-Dinitro-2-Methylphenol	62000 U
86-30-6	N-Nitrosodiphenylamine (1)	13000 U
101-55-3	4-Bromophenyl-phenylether	13000 U
118-74-1	Hexachlorobenzene	13000 U
87-86-5	Pentachlorophenol	62000 U
85-01-8	Phenanthrene	13000 U
120-12-7	Anthracene	13000 U
84-74-2	Di-n-Butylphthalate	13000 U
206-44-0	Fluoranthene	13000 U
129-00-0	Pyrene	13000 U
85-68-7	Butylbenzylphthalate	13000 U
91-94-1	3 3-Dichlorobenzidine	25000 U
56-55-3	Benzo(a)Anthracene	13000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	13000 U
218-01-9	Chrysene	4400 J
117-84-0	Di-n-Octyl Phthalate	14000 ~~B~~ U
205-99-2	Benzo(b)Fluoranthene	13000 U
207-08-9	Benzo(k)Fluoranthene	13000 U
50-32-8	Benzo(a)Pyrene	13000 U
193-39-5	Indeno(1 2 3-cd)Pyrene	13000 U
53-70-3	Dibenz(a h)Anthracene	13000 U
191-24-2	Benzo(g h i)Perylene	13000 U

(1)-Cannot be separated from diphenylamine

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Form I 68

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-14

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1,000

Percent Moisture (decanted) 34.6

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16,000 u
319-85-7	Beta-BHC	16,000 u
319-86-8	Delta-BHC	16,000 u
58-89-9	Gamma-BHC (Lindane)	16,000 u
76-44-8	Heptachlor	16,000 u
309-00-2	Aldrin	16,000 u
1024-57-3	Heptachlor Epoxide	16,000 u
959-98-8	Endosulfan I	16,000 u
60-57-1	Dieldrin	32,000 u
72-55-9	4,4'-DDE	32,000 u
72-20-8	Endrin	32,000 u
33213-65-9	Endosulfan II	32,000 u
72-54-8	4,4'-DDD	32,000 u
1031-07-8	Endosulfan Sulfate	32,000 u
50-29-3	4,4'-DDT	32,000 u
72-43-5	Methoxychlor	160,000 u
53494-70-5	Endrin Ketone	32,000 u
57-74-9	Chlordane	160,000 u
8001-35-2	Toxaphene	320,000 u
12674-11-2	Aroclor-1016	160,000 u
11104-28-2	Aroclor-1221	160,000 u
11141-16-5	Aroclor-1232	160,000 u
53469-21-9	Aroclor-1242	160,000 u
12672-29-6	Aroclor-1248	160,000 u
11097-69-1	Aroclor-1254	320,000 u
11096-82-5	Aroclor-1260	887,000

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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ecology and environment

Laboratory Name: Ecology & Environment Inc.

Case No: U-4465

Sample Number: DC-SS-14

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.		UNKNOWN	VOA	18.2	4 J
2.		HEXENE ISOMER		19.0	9 J
3.		HEXANE ISOMER		21.4	~~8 BJ~~ 4
4.		UNKNOWN		23.2	7 J
5.	589344	3-METHYL HEXANE		24.5	84 J
6.		UNKNOWN		24.9	12 J
7.					
8.		UNKNOWN	BNA	16.3	5500 J
9.		UNKNOWN - BENZENE BASED		20.7	27000 J
10.		DIMETHYL DECYL BENZENE		21.2	48000 J
11.		UNKNOWN - BENZENE BASED		21.4	47000 J
12.		UNKNOWN - BENZENE BASED		21.8	200,000 J
13.		PENTAMETHYL HEPTYL BENZENE		22.0	160,000 J
14.		UNKNOWN - BENZENE BASED		22.1	100,000 J
15.		UNKNOWN - BENZENE BASED		22.4	140,000 J
16.		DIMETHYL DECYL BENZENE		22.7	100,000 J
17.		UNKNOWN HYDROCARBON		22.8	75000 J
18.		UNKNOWN HYDROCARBON		24.2	110,000 J
19.		UNKNOWN HYDROCARBON		25.3	50000 J
20.		UNKNOWN HYDROCARBON		26.5	27000 J
21.		UNKNOWN HYDROCARBON		27.8	89000 J
22.		UNKNOWN HYDROCARBON		28.3	67000 J
23.		UNKNOWN HYDROCARBON		28.9	130000 J
24.		UNKNOWN HYDROCARBON		29.5	270000 J
25.		UNKNOWN HYDROCARBON		30.4	160000 J
26.		UNKNOWN HYDROCARBON		33.9	190000 J
27.					
28.					
29.					
30.					

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ecology and environment

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-14-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexane isomer	VOA	21.1	~~11 J~~ U
2.	Unknown hydrocarbon	VOA	22.9	7 J
3.	Unknown hydrocarbon	VOA	24.2	14 J
4.	Unknown hydrocarbon	VOA	24.7	~~9 J~~ U
5.				
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ecology and environment

Sample Number
DC-SS-15

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9762 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-18-86
Conc./Dil Factor: 1.5 pH 6.5
Percent Moisture: (Not Decanted) 19

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	15u J
74-83-9	Bromomethane	15u J
75-01-4	Vinyl Chloride	15u
75-00-3	Chloroethane	15u
75-09-2	Methylene Chloride	26 BU J
67-64-1	Acetone	18 BU
75-15-0	Carbon Disulfide	8u J
75-35-4	1,1-Dichloroethene	8u
75-34-3	1,1-Dichloroethane	8u
156-60-5	Trans-1,2-Dichloroethene	8u
67-66-3	Chloroform	8u
107-06-2	1,2-Dichloroethane	8u
78-93-3	2-Butanone	16 BU J
71-55-6	1,1,1-Trichloroethane	8u
56-23-5	Carbon Tetrachloride	8u
108-05-4	Vinyl Acetate	15u
75-27-4	Bromodichloromethane	8u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	8u
10061-02-6	Trans-1,3-Dichloropropene	8u
79-01-6	Trichloroethene	8u
124-48-1	Dibromochloromethane	8u
79-00-5	1,1,2-Trichloroethane	8u
71-43-2	Benzene	8u
10061-01-5	cis-1,3-Dichloropropene	8u
110-75-8	2-Chloroethylvinylether	15u J
75-25-2	Bromoform	8u
108-10-1	4-Methyl-2-Pentanone	14 J
591-78-6	2-Hexanone	15u
127-18-4	Tetrachloroethene	8u J
79-34-5	1,1,2,2-Tetrachloroethane	8u
108-88-3	Toluene	12 U
108-90-7	Chlorobenzene	8u
100-41-4	Ethylbenzene	8u
100-42-5	Styrene	8u J
	Total Xylenes	8u J

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

HVS III
May 93

Value — If the result is a value greater than or equal to the detection limit report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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ecology and environment

Sample Number
DC-SS-15-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc
Case No: U-4465
Lab Sample ID No: 9762 RE
QC Report No:
Sample Matrix: Soil
Contract No.: IL-3140
Data Release Authorized By: C Hoytowicz
Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-25-86

Conc/Dil Factor: 3 pH 6.5

Percent Moisture: (Not Decanted) 19

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	49 BU
67-64-1	Acetone	92 BU J
75-15-0	Carbon Disulfide	15u J
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	40 BU J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u J
	Total Xylenes	15u J

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Form I

11/85

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ecology and environment

Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number DC-SS-15

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-19-86

Conc/Dil Factor 200

Percent Moisture (Decanted) 19

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	41000 U
111-44-4	bis(-2-Chloroethyl)Ether	41000 U
95-57-8	2-Chlorophenol	41000 U
541-73-1	1 3-Dichlorobenzene	41000 U
106-46-7	1 4-Dichlorobenzene	41000 U
100-51-6	Benzyl Alcohol	41000 U J
95-50-1	1 2-Dichlorobenzene	41000 U
95-48-7	2-Methylphenol	41000 U
39638-32-9	bis(2-chloroisopropyl)Ether	41000 U
106-44-5	4-Methylpheno	41000 U
621-64-7	N-Nitroso-Di-n-Propylamine	41000 U
67-72-1	Hexachloroethane	41000 U
98-95-3	Nitrobenzene	41000 U
78-59-1	Isophorone	41000 U
88-75-5	2-Nitrophenol	41000 U
105-67-9	2, 4-Dimethylphenol	41000 U
65-85-0	Benzoic Acid	200000 U J
111-91-1	bis(-2-Chloroethoxy)Methane	41000 U
120-83-2	2 4-Dichlorophenol	41000 U
120-82-1	1 2, 4-Trichlorobenzene	41000 U
91-20-3	Naphthalene	41000 U
106-47-8	4-Chloroaniline	41000 U
87-68-3	Hexachlorobutadiene	41000 U
59-50-7	4-Chloro-3-Methylphenol	41000 U
91-57-6	2-Methylnaphthalene	41000 U
77-47-4	Hexachlorocyclopentadiene	41000 U
88-06-2	2 4 6-Trichlorophenol	41000 U
95-95-4	2, 4 5-Trichlorophenol	200000 U
91-58-7	2-Chloronaphthalene	41000 U
88-74-4	2-Nitroaniline	200000 U
131-11-3	Dimethyl Phthalate	41000 U
208-96-8	Acenaphthylene	41000 U
99-09-2	3-Nitroaniline	200000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	41000 U
51-28-5	2, 4-Dinitrophenol	200000 U
100-02-7	4-Nitrophenol	200000 U J
132-64-9	Dibenzofuran	41000 U
121-14-2	2 4-Dinitrotoluene	41000 U
606-20-2	2 6-Dinitrotoluene	41000 U
84-66-2	Diethylphthalate	41000 U
7005-72-3	4-Chlorophenyl-phenylether	41000 U
86-73-7	Fluorene	41000 U
100-01-6	4-Nitroaniline	200000 U
534-52-1	4, 6-Dinitro-2-Methylphenol	200000 U
86-30-6	N-Nitrosodiphenylamine (1)	41000 U
101-55-3	4-Bromophenyl-phenylether	41000 U
118-74-1	Hexachlorobenzene	41000 U J
87-86-5	Pentachlorophenol	1200000
85-01-8	Phenanthrene	40000 J
120-12-7	Anthracene	41000 U
84-74-2	Di-n-Butylphthalate	41000 U
206-44-0	Fluoranthene	44000
129-00-0	Pyrene	85000
85-68-7	Butylbenzylphthalate	41000 U
91-94-1	3 3-Dichlorobenzidine	81000 U
56-55-3	Benzo(a)Anthracene	41000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	41000 U
218-01-9	Chrysene	39000 J
117-84-0	Di-n-Octyl Phthalate	41000 U
205-99-2	Benzo(b)Fluoranthene	47000
207-08-9	Benzo(k)Fluoranthene	41000 U
50-32-8	Benzo(a)Pyrene	22000 J
193-39-5	Indeno(1 2, 3-cd)Pyrene	41000 U
53-70-3	Dibenz(a h)Anthracene	41000 U
191-24-2	Benzo(g h i)Perylene	41000 U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No V-4465

Sample Number DC-SS-15

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1,000

Percent Moisture (decanted) 19.4

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	16,000 u
319-85-7	Beta-BHC	16,000 u
319-86-8	Delta-BHC	16,000 u
58-89-9	Gamma-BHC (Lindane)	16,000 u
76-44-8	Heptachlor	16,000 u
309-00-2	Aldrin	16,000 u
1024-57-3	Heptachlor Epoxide	16,000 u
959-98-8	Endosulfan I	16,000 u
60-57-1	Dieldrin	32,000 u
72-55-9	4,4'-DDE	32,000 u
72-20-8	Endrin	32,000 u
33213-65-9	Endosulfan II	32,000 u
72-54-8	4,4'-DDD	32,000 u
1031-07-8	Endosulfan Sulfate	32,000 u
50-29-3	4,4'-DDT	32,000 u
72-43-5	Methoxychlor	160,000 u
53494-70-5	Endrin Ketone	32,000 u
57-74-9	Chlordane	160,000 u
8001-35-2	Toxaphene	320,000 u
12674-11-2	Aroclor-1016	160,000 u
11104-28-2	Aroclor-1221	160,000 u
11141-16-5	Aroclor-1232	160,000 u
53469-21-9	Aroclor-1242	160,000 u
12672-29-6	Aroclor-1248	184,000
11097-69-1	Aroclor-1254	320,000 u
11096-82-5	Aroclor-1260	305,000 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Form 1

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Laboratory Name ECOLOGY & ENVIRONMENT INC

Case No U-4465

Sample Number DC-SS-15

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	563780	2,3-DIMETHYL-1-BUTENE	VOA	18.2	15 J
2.	558372	3,3-DIMETHYL-1-BUTENE		19.0	35 J
3.	110543	HEXANE		21.4	~~4 BJ~~ U
4.		UNKNOWN		21.9	7 J
5.		UNKNOWN HYDROCARBON		24.5	32 J
6.		UNKNOWN HYDROCARBON		25.0	21 J
7.					
8.		UNKNOWN AROMATIC	BNA	20.4	37000 J
9.		UNKNOWN AROMATIC		20.8	88000 J
10.		UNKNOWN AROMATIC		20.9	54000 J
11.		UNKNOWN		21.0	24000 J
12.		UNKNOWN AROMATIC		21.3	30000 J
13.		UNKNOWN		21.7	24000 J
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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-15-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Unknown Ketone	VOA	18.0	17 J
2.	Hexene Isomer	VOA	18.9	31 J
3.				
4.				
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ecology and environment

Sample Number
DC-SS-16

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc.
Case No: U-4465
Lab Sample ID No: 9763
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Stojtowicz
Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-18-86

Conc/Dil Factor: 3 pH 6.4

Percent Moisture: (Not Decanted) 23

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u J
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	56 B U J
67-64-1	Acetone	30 ~~28 B J~~ U
75-15-0	Carbon Disulfide	15u J
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2 Butanone	46 B U J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2 Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2 Hexanone	30u
127-18-4	Tetrachloroethene	15u J
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u J
	Total Xylenes	15u J

HVE
May 93

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Form I

11/85

Laboratory Name: Ecology & Environment Inc.

Case No: U-4465

Sample Number: DC-SS-16

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 12-19-86

Conc/Dil Factor: 200

Percent Moisture (Decanted): 23

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	43000	U
111-44-4	bis(-2-Chloroethyl)Ether	43000	U
95-57-8	2-Chlorophenol	43000	U
541-73-1	1,3-Dichlorobenzene	43000	U
106-46-7	1,4-Dichlorobenzene	43000	U
100-51-6	Benzyl Alcohol	43000	U J
95-50-1	1,2-Dichlorobenzene	43000	U
95-48-7	2-Methylphenol	43000	U
39638-32-9	bis(2-chloroisopropyl)Ether	43000	U
106-44-5	4-Methylphenol	43000	U
621-64-7	N-Nitroso-Di-n-Propylamine	43000	U
67-72-1	Hexachloroethane	43000	U
98-95-3	Nitrobenzene	43000	U
78-59-1	Isophorone	43000	U
88-75-5	2-Nitrophenol	43000	U
105-67-9	2,4-Dimethylphenol	43000	U
65-85-0	Benzoic Acid	210000	U J
111-91-1	bis(-2-Chloroethoxy)Methane	43000	U
120-83-2	2,4-Dichlorophenol	43000	U
120-82-1	1,2,4-Trichlorobenzene	43000	U
91-20-3	Naphthalene	43000	U
106-47-8	4-Chloroaniline	43000	U J
87-68-3	Hexachlorobutadiene	43000	U
59-50-7	4-Chloro-3-Methylphenol	43000	U
91-57-6	2-Methylnaphthalene	43000	U
77-47-4	Hexachlorocyclopentadiene	43000	U
88-06-2	2,4,6-Trichlorophenol	43000	U
95-95-4	2,4,5-Trichlorophenol	210000	U
91-58-7	2-Chloronaphthalene	43000	U
88-74-4	2-Nitroaniline	210000	U
131-11-3	Dimethyl Phthalate	43000	U
208-96-8	Acenaphthylene	43000	U
99-09-2	3-Nitroaniline	210000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	1800	J
51-28-5	2,4-Dinitrophenol	210000	U
100-02-7	4-Nitrophenol	210000	U J
132-64-9	Dibenzofuran	43000	U
121-14-2	2,4-Dinitrotoluene	43000	U
606-20-2	2,6-Dinitrotoluene	43000	U
84-66-2	Diethylphthalate	43000	U
7005-72-3	4-Chlorophenyl-phenylether	43000	U
86-73-7	Fluorene	43000	U
100-01-6	4-Nitroaniline	210000	U
534-52-1	4,6-Dinitro-2-Methylphenol	210000	U
86-30-6	N-Nitrosodiphenylamine (1)	43000	U
101-55-3	4-Bromophenyl-phenylether	43000	U
118-74-1	Hexachlorobenzene	43000	U J
87-86-5	Pentachlorophenol	1,400,000	
85-01-8	Phenanthrene	37000	J
120-12-7	Anthracene	43000	U
84-74-2	Di-n-Butylphthalate	43000	U
206-44-0	Fluoranthene	45000	
129-00-0	Pyrene	71000	
85-68-7	Butylbenzylphthalate	43000	U
91-94-1	3,3'-Dichlorobenzidine	86000	
56-55-3	Benzo(a)Anthracene	27000	J
117-81-7	bis(2-Ethylhexyl)Phthalate	43000	U
218-01-9	Chrysene	39000	J
117-84-0	Di-n-Octyl Phthalate	43000	U
205-99-2	Benzo(b)Fluoranthene	48000	
207-08-9	Benzo(k)Fluoranthene	43000	U
50-32-8	Benzo(a)Pyrene	20000	J
193-39-5	Indeno(1,2,3-cd)Pyrene	43000	U
53-70-3	Dibenzo(a,h)Anthracene	43000	U
191-24-2	Benzo(g,h,i)Perylene	43000	U

(1)-Cannot be separated from diphenylamine

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Form I

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-16

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1,000

Percent Moisture (decanted) 22.6

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16,000 U
319-85-7	Beta-BHC	16,000 U
319-86-8	Delta-BHC	16,000 U
58-89-9	Gamma-BHC (Lindane)	16,000 U
76-44-8	Heptachlor	16,000 U
309-00-2	Aldrin	16,000 U
1024-57-3	Heptachlor Epoxide	16,000 U
959-98-8	Endosulfan I	16,000 U
60-57-1	Dieldrin	32,000 U
72-55-9	4,4'-DDE	32,000 U
72-20-8	Endrin	32,000 U
33213-65-9	Endosulfan II	32,000 U
72-54-8	4,4'-DDD	32,000 U
1031-07-8	Endosulfan Sulfate	32,000 U
50-29-3	4,4'-DDT	32,000 U
72-43-5	Methoxychlor	160,000 U
53494-70-5	Endrin Ketone	32,000 U
57-74-9	Chlordane	160,000 U
8001-35-2	Toxaphene	320,000 U
12674-11-2	Aroclor-1016	160,000 U
11104-28-2	Aroclor-1221	160,000 U
11141-16-5	Aroclor-1232	160,000 U
53469-21-9	Aroclor-1242	160,000 U
12672-29-6	Aroclor-1248	171,000
11097-69-1	Aroclor-1254	320,000 U
11096-82-5	Aroclor-1260	232,000 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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ecology and environment

Laboratory Name Ecology & Environment Inc

Case No U-4465

Sample Number DC-SS-16

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.4	~~4 BJ~~ U
2.	UNKNOWN KETONE	VOA	19.7	~~9 BJ~~ U
3.	HEXANE ISOMER	VOA	21.3	~~11 BJ~~ U
4.				
5.	UNKNOWN AROMATIC	BNA	20.4	610,000 J
6.	UNKNOWN AROMATIC		20.8	1,200,000 J
7.	UNKNOWN AROMATIC		21.0	760,000 J
8.	UNKNOWN AROMATIC		21.1	110,000 J
9.	UNKNOWN AROMATIC		21.3	440,000 J
10.	UNKNOWN AROMATIC		21.6	290,000 J
11.	UNKNOWN AROMATIC		21.7	360,000 J
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13.				
14.				
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ecology and environment

Sample Number
DC-SS-17

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9764 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: C Skytowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-18-86
Conc./Dil Factor: 3 pH 7.2
Percent Moisture: (Not Decanted) 28

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u J
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	90 B u J
67-64-1	Acetone	30 ~~13 BJ~~ U
75-15-0	Carbon Disulfide	15u J
75-35-4	1,1-Dichloroethene	15u
75-34-3	1,1-Dichloroethane	15u
156-60-5	Trans-1,2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1,2-Dichloroethane	15u
78-93-3	2-Butanone	30u J
71-55-6	1,1,1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	15u
10061-02-6	Trans-1,3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1,1,2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1,3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u J
79-34-5	1,1,2,2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u J
	Total Xylenes	15u J

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name: Ecology & Environment Inc.

Case No: U-4465

Sample Number: DC-SS-17

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 12-2-86

Conc./Dil Factor: 100

Percent Moisture (Decanted): 28

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	23000	U
111-44-4	bis(-2-Chloroethyl)Ether	23000	U
95-57-8	2-Chlorophenol	23000	U
541-73-1	1 3-Dichlorobenzene	23000	U
106-46-7	1 4-Dichlorobenzene	23000	U
100-51-6	Benzyl Alcohol	23000	U
95-50-1	1 2-Dichlorobenzene	23000	U
95-48-7	2-Methylphenol	23000	U
39638-32-9	bis(2-chloroisopropyl)Ether	23000	U
106-44-5	4-Methylphenol	23000	U
621-64-7	N-Nitroso-Di-n-Propylamine	23000	U
67-72-1	Hexachloroethane	23000	U
98-95-3	Nitrobenzene	23000	U
78-59-1	Isophorone	23000	U
88-75-5	2-Nitrophenol	23000	U
105-67-9	2, 4-Dimethylphenol	23000	U
65-85-0	Benzoic Acid	110000	U
111-91-1	bis(2-Chloroethoxy)Methane	23000	U
120-83-2	2 4-Dichlorophenol	23000	U
120-82-1	1 2, 4-Trichlorobenzene	990	J
91-20-3	Naphthalene	120000	
106-47-8	4-Chloroaniline	23000	U
87-68-3	Hexachlorobutadiene	23000	U
59-50-7	4-Chloro-3-Methylphenol	23000	U
91-57-6	2-Methylnaphthalene	23000	U
77-47-4	Hexachlorocyclopentadiene	23000	U
88-06-2	2 4 6-Trichlorophenol	23000	U
95 95-4	2 4 5-Trichlorophenol	110000	U
91-58-7	2-Chloronaphthalene	23000	U
88-74-4	2-Nitroaniline	110000	U
131-11-3	Dimethyl Phthalate	23000	U
208-96-8	Acenaphthylene	23000	U
99-09-2	3-Nitroaniline	110000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	1100	J
51-28-5	2, 4-Dinitrophenol	110000	U
100-02-7	4-Nitrophenol	110000	U
132-64-9	Dibenzofuran	23000	U
121-14-2	2 4-Dinitrotoluene	23000	U
606-20-2	2 6-Dinitrotoluene	23000	U
84-66-2	Diethylphthalate	23000	U
7005-72-3	4-Chlorophenyl-phenylether	23000	U
86-73-7	Fluorene	23000	U
100-01-6	4-Nitroaniline	110000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	110000	U
86-30-6	N-Nitrosodiphenylamine (1)	23000	U
101-55-3	4-Bromophenyl-phenylether	23000	U
118-74-1	Hexachlorobenzene	10000	J
87-86-5	Pentachlorophenol	110000	U
85-01-8	Phenanthrene	8700	J
120-12-7	Anthracene	23000	U
84-74-2	Di-n-Butylphthalate	23000	U
206-44-0	Fluoranthene	23000	U
129-00-0	Pyrene	3800	J
85-68-7	Butylbenzylphthalate	23000	U
91-94-1	3 3 -Dichlorobenzidine	46000	U
56-55-3	Benzo(a)Anthracene	23000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	23000	U
218-01-9	Chrysene	23000	U
117-84-0	Di-n-Octyl Phthalate	23000	U
205-99-2	Benzo(b)Fluoranthene	23000	U
207-08-9	Benzo(k)Fluoranthene	23000	U
50-32-8	Benzo(a)Pyrene	23000	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	23000	U
53-70-3	Dibenz(a h)Anthracene	23000	U
191-24-2	Benzo(g h i)Perylene	23000	U

(1)-Cannot be separated from diphenylamine

May 93

Form I 83

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-17

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 10,000

Percent Moisture (decanted) 28.3

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	160,000 U
319-85-7	Beta-BHC	160,000 U
319-86-8	Delta-BHC	160,000 U
58-89-9	Gamma-BHC (Lindane)	160,000 U
76-44-8	Heptachlor	160,000 U
309-00-2	Aldrin	160,000 U
1024-57-3	Heptachlor Epoxide	160,000 U
959-98-8	Endosulfan I	160,000 U
60-57-1	Dieldrin	320,000 U
72-55-9	4,4'-DDE	320,000 U
72-20-8	Endrin	320,000 U
33213-65-9	Endosulfan II	320,000 U
72-54-8	4,4'-DDD	320,000 U
1031-07-8	Endosulfan Sulfate	320,000 U
50-29-3	4,4'-DDT	320,000 U
72-43-5	Methoxychlor	1,600,000 U
53494-70-5	Endrin Ketone	320,000 U
57-74-9	Chlordane	1,600,000 U
8001-35-2	Toxaphene	3,200,000 U
12674-11-2	Aroclor-1016	1,600,000 U
11104-28-2	Aroclor-1221	1,600,000 U
11141-16-5	Aroclor-1232	1,600,000 U
53469-21-9	Aroclor-1242	1,600,000 U
12672-29-6	Aroclor-1248	1,600,000 U
11097-69-1	Aroclor-1254	3,200,000 U
11096-82-5	Aroclor-1260	2,700,000 J C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4 ~~3~~ 5

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Form 1

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ecology and environment

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-17

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4 min	~~4 BJ~~ 4
2.	Hexane isomer	VOA	21.4 min	~~12 BJ~~ 4
3.				
4.	UNKNOWN AROMATIC	BNA	21.2	17000 J
5.	UNKNOWN AROMATIC		21.4	48000 J
6.	UNKNOWN AROMATIC		21.8	110,000 J
7.	UNKNOWN		21.9	5300 J
8.	UNKNOWN AROMATIC		22.0	71000 J
9.	UNKNOWN AROMATIC		22.1	45000 J
10.	UNKNOWN AROMATIC		22.4	75000 J
11.	UNKNOWN AROMATIC		22.5	10000 J
12.	PENTAMETHYLHEPTYL BENZENE		22.7	62000 J
13.	PENTAMETHYL HEPTYL BENZENE		22.8	64000 J
14.	DIMETHYL DECYL BENZENE		23.0	41000 J
15.	UNKNOWN AROMATIC		23.4	15000 J
16.	UNKNOWN AROMATIC		24.1	8600 J
17.	UNKNOWN AROMATIC		25.3	12000 J
18.	UNKNOWN AROMATIC		25.6	10000 J
19.	PCB		29.6 - 32.4	—
20.	UNKNOWN		38.5	9800 J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

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ecology and environment

Sample Number
DC-SS-18

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465

Lab Sample ID No: 9765 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-26-86

Conc/Dil Factor: 3 pH 7.1

Percent Moisture: (Not Decanted) 23

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u J
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u J
75-00-3	Chloroethane	30u J
75-09-2	Methylene Chloride	36 BU J
67-64-1	Acetone	67 BU J
75-15-0	Carbon Disulfide	15u J
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	55
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Form I 11/85

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Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number DC-SS-18

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-2-86

Conc/Dil Factor 100

Percent Moisture (Decanted) 23

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	21000 U
111-44-4	bis(-2-Chloroethyl)Ether	21000 U
95-57-8	2-Chlorophenol	21000 U
541-73-1	1 3-Dichlorobenzene	21000 U
106-46-7	1 4-Dichlorobenzene	21000 U
100-51-6	Benzyl Alcohol	21000 U
95-50-1	1 2-Dichlorobenzene	21000 U
95-48-7	2-Methylphenol	21000 U
39638-32-9	bis(2-chloroisopropyl)Ether	21000 U
106-44-5	4-Methylphenol	21000 U
621-64-7	N-Nitroso-Di-n-Propylamine	21000 U
67-72-1	Hexachloroethane	21000 U
98-95-3	Nitrobenzene	21000 U
78-59-1	Isophorone	21000 U
88-75-5	2-Nitrophenol	21000 U
105-67-9	2, 4-Dimethylphenol	21000 U
65-85-0	Benzoic Acid	100000 U
111-91-1	bis(-2-Chloroethoxy)Methane	21000 U
120-83-2	2 4-Dichlorophenol	21000 U
120-82-1	1 2, 4-Trichlorobenzene	21000 U
91-20-3	Naphthalene	21000 U
106-47-8	4-Chloroaniline	21000 U
87-68-3	Hexachlorobutadiene	21000 U
59-50-7	4-Chloro-3-Methylphenol	21000 U
91-57-6	2-Methylnaphthalene	21000 U
77-47-4	Hexachlorocyclopentadiene	21000 U
88-06-2	2 4 6-Trichlorophenol	21000 U
95-95-4	2, 4, 5-Trichlorophenol	100000 U
91-58-7	2-Chloronaphthalene	21000 U
88-74-4	2-Nitroaniline	100000 U
131-11-3	Dimethyl Phthalate	21000 U
208-96-8	Acenaphthylene	21000 U
99-09-2	3-Nitroaniline	100000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	21000 U
51-28-5	2, 4-Dinitrophenol	100000 U
100-02-7	4-Nitrophenol	100000 U
132-64-9	Dibenzofuran	21000 U
121-14-2	2 4-Dinitrotoluene	21000 U
606-20-2	2 6-Dinitrotoluene	21000 U
84-66-2	Diethylphthalate	21000 U
7005-72-3	4-Chlorophenyl-phenylether	21000 U
86-73-7	Fluorene	21000 U
100-01-6	4-Nitroaniline	100000 U
534-52-1	4, 6-Dinitro-2-Methylphenol	100000 U
86-30-6	N-Nitrosodiphenylamine (1)	21000 U
101-55-3	4-Bromophenyl-phenylether	21000 U
118-74-1	Hexachlorobenzene	21000 U
87-86-5	Pentachlorophenol	100000 U
85-01-8	Phenanthrene	21000 U
120-12-7	Anthracene	21000 U
84-74-2	Di-n-Butylphthalate	21000 U
206-44-0	Fluoranthene	21000 U
129-00-0	Pyrene	21000 U
85-68-7	Butylbenzylphthalate	21000 U
91-94-1	3 3-Dichlorobenzidine	43000 U
56-55-3	Benzo(a)Anthracene	21000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	21000 U
218-01-9	Chrysene	21000 U
117-84-0	Di-n-Octyl Phthalate	21000 U
205-99-2	Benzo(b)Fluoranthene	21000 U
207-08-9	Benzo(k)Fluoranthene	21000 U
50-32-8	Benzo(a)Pyrene	21000 U
193-39-5	Indeno(1 2 3-cd)Pyrene	21000 U
53-70-3	Dibenz(a h)Anthracene	21000 U
191-24-2	Benzo(g h i)Perylene	21000 U

(1)-Cannot be separated from diphenylamine

~~376~~ May 93

Form I 87

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-18

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 5,000

Percent Moisture (decanted) 22.9

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	80,000 u
319-85-7	Beta-BHC	80,000 u
319-86-8	Delta-BHC	80,000 u
58-89-9	Gamma-BHC (Lindane)	80,000 u
76-44-8	Heptachlor	80,000 u
309-00-2	Aldrin	80,000 u
1024-57-3	Heptachlor Epoxide	80,000 u
959-98-8	Endosulfan I	80,000 u
60-57-1	Dieldrin	160,000 u
72-55-9	4, 4'-DDE	160,000 u
72-20-8	Endrin	160,000 u
33213-65-9	Endosulfan II	160,000 u
72-54-8	4, 4'-DDD	160,000 u
1031-07-8	Endosulfan Sulfate	160,000 u
50-29-3	4, 4'-DDT	160,000 u J
72-43-5	Methoxychlor	800,000 u
53494-70-5	Endrin Ketone	160,000 u
57-74-9	Chlordane	800,000 u
8001-35-2	Toxaphene	1,600,000 u
12674-11-2	Aroclor-1016	800,000 u
11104-28-2	Aroclor-1221	800,000 u
11141-16-5	Aroclor-1232	800,000 u
53469-21-9	Aroclor-1242	800,000 u
12672-29-6	Aroclor-1248	1,700,000
11097-69-1	Aroclor-1254	1,600,000 u
11096-82-5	Aroclor-1260	1,600,000 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

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May 93

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Form 1

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ecology and environment

Laboratory Name: Ecology and Environment, Inc.

Case No: U mOE

Sample Number: DC-SS-18

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	18.0	310 J
2.	Hexene isomer	VOA	18.7	780 J
3.	Hexene isomer	VOA	19.9	86 J
4.	Unknown Ketone	VOA	19.4	~~24 J~~ U
5.	Unknown hydrocarbon	VOA	23.8	41 J
6.	Unknown hydrocarbon	VOA	24.2	40 J
7.	Unknown hydrocarbon	VOA	24.7	~~29 J~~ U
8.				
9.	DIMETHYLNONYL BENZENE	BNA	20.4	88000 J
10.	UNKNOWN AROMATIC		20.7	98000 J
11.	UNKNOWN AROMATIC		21.0	96000 J
12.	DIMETHYL DECYL BENZENE		21.2	190000 J
13.	UNKNOWN AROMATIC		21.3	76000 J
14.	UNKNOWN AROMATIC		21.4	430000 J
15.	UNKNOWN AROMATIC		21.6	76000 J
16.	PENTAMETHYLHEPTYL BENZENE		21.7	200000 J
17.	UNKNOWN AROMATIC		21.8	690000 J
18.	DIMETHYL DECYL BENZENE		22.0	330000 J
19.	PENTAMETHYL HEPTYL BENZENE		22.1	430000 J
20.	UNKNOWN AROMATIC		22.2	220000 J
21.	UNKNOWN AROMATIC		22.4	720000 J
22.	UNKNOWN		22.5	130,000 J
23.	PENTAMETHYL HEPTYL BENZENE		22.7	820000 J
24.	DIMETHYL DECYL BENZENE		22.8	810000 J
25.	UNKNOWN AROMATIC		23.0	420000 J
26.	UNKNOWN		24.4	200000 J
27.	UNKNOWN		25.6	210,000 J
28.	UNKNOWN		26.8	98000 J
29.				
30.				

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ecology and environment

Sample No. DC-SS-19

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4465
Lab Sample ID No: 9766 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: C Stoytowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-18-86
Conc/Dil Factor: 10 pH 4.4
Percent Moisture: (Not Decanted) 31

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	100u J
74-83-9	Bromomethane	100u J
75-01-4	Vinyl Chloride	100u
75-00-3	Chloroethane	100u
75-09-2	Methylene Chloride	230 ~~B~~ UJ
67-64-1	Acetone 100	~~91 BJ~~ U
75-15-0	Carbon Disulfide	50u J
75-35-4	1,1-Dichloroethene	50u
75-34-3	1,1-Dichloroethane	50u
156-60-5	Trans-1,2-Dichloroethene	50u
67-66-3	Chloroform	50u
107-06-2	1,2-Dichloroethane	50u
78-93-3	2-Butanone	180 ~~B~~ UJ
71-55-6	1,1,1-Trichloroethane	50u
56-23-5	Carbon Tetrachloride	50u
108-05-4	Vinyl Acetate	100u
75-27-4	Bromodichloromethane	50u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	50u
10061-02-6	Trans-1,3-Dichloropropene	50u
79-01-6	Trichloroethene	50u
124-48-1	Dibromochloromethane	50u
79-00-5	1,1,2-Trichloroethane	50u
71-43-2	Benzene	50u
10061-01-5	cis-1,3-Dichloropropene	50u
110-75-8	2-Chloroethylvinylether	100u J
75-25-2	Bromoform	50u
108-10-1	4-Methyl-2-Pentanone	560
591-78-6	2-Hexanone	100u
127-18-4	Tetrachloroethene	50u J
79-34-5	1,1,2,2-Tetrachloroethane	50u
108-88-3	Toluene	50u
108-90-7	Chlorobenzene	50u
100-41-4	Ethylbenzene	50u
100-42-5	Styrene	50u J
	Total Xylenes	50u J

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Sample Number
DC-SS-19RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 97766 RE QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-26-86
Conc/Dil Factor: 3 pH: 4.4
Percent Moisture: (Not Decanted) 31

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	81 B U
67-64-1	Acetone	140 B U
75-15-0	Carbon Disulfide	15u J
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	220 B
591-78-6	2-Hexanone	17 BJ 30 U
127-18-4	Tetrachloroethene	13 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u J
	Total Xylenes	15u J

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, etc. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number DC-SS-19

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-19-86

Conc/Dil Factor 200

Percent Moisture (Decanted) 32

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	48000 U
111-44-4	bis(-2-Chloroethyl)Ether	48000 U
95-57-8	2-Chlorophenol	48000 U
541-73-1	1 3-Dichlorobenzene	48000 U
106-46-7	1 4-Dichlorobenzene	48000 U
100-51-6	Benzyl Alcohol	48000 U
95-50-1	1 2-Dichlorobenzene	48000 U
95-48-7	2-Methylphenol	48000 U
39638-32-9	bis(2-chloroisopropyl)Ether	48000 U
106-44-5	4-Methylpheno	48000 U
621-64-7	N-Nitroso-Di-n-Propylamine	48000 U
67-72-1	Hexachloroethane	48000 U
98-95-3	Nitrobenzene	48000 U
78-59-1	Isophorone	48000 U
88-75-5	2-Nitrophenol	48000 U
105-67-9	2, 4-Dimethylphenol	48000 U
65-85-0	Benzoic Acid	240000 U
111-91-1	bis(-2-Chloroethoxy)Methane	48000 U
120-83-2	2 4-Dichlorophenol	48000 U
120-82-1	1 2, 4-Trichlorobenzene	48000 U
91-20-3	Naphthalene	48000 U
106-47-8	4-Chloroaniline	48000 U
87-68-3	Hexachlorobutadiene	48000 U
59-50-7	4-Chloro-3-Methylphenol	48000 U
91-57-6	2-Methylnaphthalene	48000 U
77-47-4	Hexachlorocyclopentadiene	48000 U
88-06-2	2 4 6-Trichlorophenol	48000 U
95-95-4	2 4 5-Trichlorophenol	240000 U
91-58-7	2-Chloronaphthalene	48000 U
88-74-4	2-Nitroaniline	240000 U
131-11-3	Dimethyl Phthalate	48000 U
208-96-8	Acenaphthylene	48000 U
99-09-2	3-Nitroaniline	240000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	48000 U
51-28-5	2, 4-Dinitrophenol	240000 U
100-02-7	4-Nitrophenol	240000 U
132-64-9	Dibenzofuran	48000 U
121-14-2	2 4-Dinitrotoluene	48000 U
606-20-2	2 6-Dinitrotoluene	48000 U
84-66-2	Diethylphthalate	48000 U
7005-72-3	4-Chlorophenyl-phenylether	48000 U
86-73-7	Fluorene	48000 U
100-01-6	4-Nitroaniline	240000 U
534-52-1	4, 6-Dinitro-2-Methylphenol	240000 U
86-30-6	N-Nitrosodiphenylamine (1)	48000 U
101-55-3	4-Bromophenyl-phenylether	48000 U
118-74-1	Hexachlorobenzene	48000 U
87-86-5	Pentachlorophenol	240000 U
85-01-8	Phenanthrene	48000 U
120-12-7	Anthracene	48000 U
84-74-2	Di-n-Butylphthalate	48000 U
206-44-0	Fluoranthene	48000 U
129-00-0	Pyrene	48000 U
85-68-7	Butylbenzylphthalate	48000 U
91-94-1	3 3-Dichlorobenzidine	97000 U
56-55-3	Benzo(a)Anthracene	48000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	48000 U
218-01-9	Chrysene	48000 U
117-84-0	Di-n-Octyl Phthalate	48000 U
205-99-2	Benzo(b)Fluoranthene	48000 U
207-08-9	Benzo(k)Fluoranthene	48000 U
50-32-8	Benzo(a)Pyrene	48000 U
193-39-5	Indeno(1 2 3-cd)Pyrene	48000 U
53-70-3	Dibenz(a h)Anthracene	48000 U
191-24-2	Benzo(g h i)Perylene	48000 U

(1)-Cannot be separated from diphenylamine

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Laboratory Name: ecology and environment, inc.

Case No.: U-4465

Sample Number: DC-SS-19

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 11-25-86

Conc/Dil Factor: 10,000

Percent Moisture (decanted): 31.5

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	160,000 U	
319-85-7	Beta-BHC	160,000 U	
319-86-8	Delta-BHC	160,000 U	
58-89-9	Gamma-BHC (Lindane)	160,000 U	
76-44-8	Heptachlor	160,000 U	
309-00-2	Aldrin	160,000 U	
1024-57-3	Heptachlor Epoxide	160,000 U	
959-98-8	Endosulfan I	160,000 U	
60-57-1	Dieldrin	320,000 U	
72-55-9	4,4'-DDE	320,000 U	
72-20-8	Endrin	320,000 U	
33213-65-9	Endosulfan II	320,000 U	
72-54-8	4,4'-DDD	320,000 U	
1031-07-8	Endosulfan Sulfate	320,000 U	
50-29-3	4,4'-DDT	320,000 U	
72-43-5	Methoxychlor	1,600,000 U	
53494-70-5	Endrin Ketone	320,000 U	
57-74-9	Chlordane	1,600,000 U	
8001-35-2	Toxaphene	3,200,000 U	
12674-11-2	Aroclor-1016	1,600,000 U	
11104-28-2	Aroclor-1221	1,600,000 U	
11141-16-5	Aroclor-1232	1,600,000 U	
53469-21-9	Aroclor-1242	1,600,000 U	
12672-29-6	Aroclor-1248	3,600,000	C
11097-69-1	Aroclor-1254	7,500,000	C
11096-82-5	Aroclor 1260	8,000,000	C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-19

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	18.2	140 J
2.	Hexene isomer	VOA	19.0	400 J
3.	Unknown hydrocarbon	VOA	20.1	47 J
4.	Unknown hydrocarbon	VOA	21.4	~~48 BJ~~ U
5.	Unknown alcohol	VOA	24.0	430 J
6.				
7.	UNKNOWN AROMATIC	BNA	20.3	280000 J
8.	UNKNOWN AROMATIC		20.8	360000 J
9.	UNKNOWN AROMATIC		20.9	280000 J
10.	UNKNOWN AROMATIC		21.1	180000 J
11.	UNKNOWN AROMATIC		21.3	380000 J
12.	UNKNOWN AROMATIC		21.5	47000 J
13.	UNKNOWN AROMATIC		21.7	290000 J
14.	UNKNOWN AROMATIC		21.8	390000 J
15.	UNKNOWN AROMATIC		21.9	150000 J
16.	UNKNOWN AROMATIC		22.2	25000 J
17.	UNKNOWN AROMATIC		22.3	64000 J
18.	UNKNOWN AROMATIC		22.4	68000 J
19.	UNKNOWN AROMATIC		22.8	68000 J
20.	UNKNOWN AROMATIC		23.0	64000 J
21.	UNKNOWN AROMATIC		23.2	110000 J
22.	UNKNOWN AROMATIC		23.3	150000 J
23.	UNKNOWN AROMATIC		23.4	61000 J
24.	PCB		24.1-	—
25.	UNKNOWN AROMATIC		24.3	92000 J
26.	PCB		28.6-30.2	—
27.				
28.				
29.				
30.				

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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-19RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.9	360 J
2.	Hexene isomer	VOA	18.7	950 J
3.	Unknown hydrocarbon	VOA	19.4	25 J
4.	Unknown hydrocarbon	VOA	19.8	130 J
5.	Unknown alcohol	VOA	23.7	180 J
6.	~~Tetrachloroethene~~	~~VOA~~	~~24.7~~	~~13~~ au
7.				
8.				
9.				
10.				
11.				
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30				

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Sample Number
DC-SS-20

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9767 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-18-86
Conc./Dil Factor: 3 pH 6.2
Percent Moisture: (Not Decanted) 33

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	61 B UJ
67-64-1	Acetone	41 UJ
75-15-0	Carbon Disulfide	15u
75-35-4	1,1-Dichloroethene	15u
75-34-3	1,1-Dichloroethane	15u
156-60-5	Trans-1,2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1,2-Dichloroethane	15u
78-93-3	2-Butanone	49 U
71-55-6	1,1,1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	15u
10061-02-6	Trans-1,3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1,1,2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1,3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u J
108-10-1	4-Methyl-2-Pentanone	75 J
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	15u
79-34-5	1,1,2,2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u J
	Total Xylenes	15u J

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

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Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J if limit of detection is 10 µg/l and a concentration of 5 µg/l is calculated, report as 5J).

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Sample Number
DC-SS-2C-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc
Case No: U-4465
Lab Sample ID No: 9767 RE
CC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 11-15-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-25-86

Conc/Dil Factor: 3 pH 6.2

Percent Moisture (Not Decanted): 33

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	73 BU
67-64-1	Acetone	99 BUJ
75-15-0	Carbon Disulfide	15u J
75-35-4	1,1-Dichloroethene	15u
75-34-3	1,1-Dichloroethane	15u
156-60-5	Trans-1,2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1,2-Dichloroethane	15u
78-93-3	2-Butanone	30u J
71-55-6	1,1,1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	15u
10061-02-6	Trans-1,3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1,1,2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1,3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	510 BU
591-78-6	2-Hexanone	58 BU
127-18-4	Tetrachloroethene	15u
79-34-5	1,1,2,2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u J
	Total Xylenes	15u J

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number DC-SS-20

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-3-86

Conc/Dil Factor 100

Percent Moisture (Decanted) 33

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	25000 U
111-44-4	bis(-2-Chloroethyl)Ether	25000 U
95-57-8	2-Chlorophenol	25000 U
541-73-1	1,3-Dichlorobenzene	25000 U
106-46-7	1,4-Dichlorobenzene	25000 U
100-51-6	Benzyl Alcohol	25000 U
95-50-1	1,2-Dichlorobenzene	25000 U
95-48-7	2-Methylphenol	25000 U
39638-32-9	bis(2-chloroisopropyl)Ether	25000 U
106-44-5	4-Methylpheno	25000 U
621-64-7	N-Nitroso-Di-n-Propylamine	25000 U
67-72-1	Hexachloroethane	25000 U
98-95-3	Nitrobenzene	25000 U
78-59-1	Isophorone	25000 U
88-75-5	2-Nitrophenol	25000 U
105-67-9	2,4-Dimethylphenol	25000 U
65-85-0	Benzoic Acid	120000 U
111-91-1	bis(-2-Chloroethoxy)Methane	25000 U
120-83-2	2,4-Dichlorophenol	25000 U
120-82-1	1,2,4-Trichlorobenzene	25000 U
91-20-3	Naphthalene	1800 J
106-47-8	4-Chloroaniline	25000 U
87-68-3	Hexachlorobutadiene	25000 U
59-50-7	4-Chloro-3-Methylphenol	25000 U
91-57-6	2-Methylnaphthalene	25000 U
77-47-4	Hexachlorocyclopentadiene	25000 U J
88-06-2	2,4,6-Trichlorophenol	25000 U
95-95-4	2,4,5-Trichlorophenol	120000 U
91-58-7	2-Chloronaphthalene	25000 U
88-74-4	2-Nitroaniline	120000 U
131-11-3	Dimethyl Phthalate	25000 U
208-96-8	Acenaphthylene	25000 U
99-09-2	3-Nitroaniline	120000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	25000 U
51-28-5	2,4-Dinitrophenol	120000 U J
100-02-7	4-Nitrophenol	120000 U J
132-64-9	Dibenzofuran	25000 U
121-14-2	2,4-Dinitrotoluene	25000 U
606-20-2	2,6-Dinitrotoluene	25000 U
84-66-2	Diethylphthalate	25000 U
7005-72-3	4-Chlorophenyl-phenylether	25000 U
86-73-7	Fluorene	25000 U
100-01-6	4-Nitroaniline	120000 U
534-52-1	4,6-Dinitro-2-Methylphenol	120000 U
86-30-6	N-Nitrosodiphenylamine (1)	25000 U
101-55-3	4-Bromophenyl-phenylether	25000 U
118-74-1	Hexachlorobenzene	25000 U
87-86-5	Pentachlorophenol	120000 U
85-01-8	Phenanthrene	25000 U
120-12-7	Anthracene	25000 U
84-74-2	Di-n-Butylphthalate	~~3800 B J~~ 25,000 U
206-44-0	Fluoranthene	25000 U
129-00-0	Pyrene	25000 U J
85-68-7	Butylbenzylphthalate	25000 U
91-94-1	3,3'-Dichlorobenzidine	49000 U J
56-55-3	Benzo(a)Anthracene	25000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	25000 U
218-01-9	Chrysene	25000 U
117-84-0	Di-n-Octyl Phthalate	25000 U
205-99-2	Benzo(b)Fluoranthene	25000 U
207-08-9	Benzo(k)Fluoranthene	25000 U
50-32-8	Benzo(a)Pyrene	25000 U
193-39-5	Indeno(1,2,3-cd)Pyrene	25000 U
53-70-3	Dibenz(a,h)Anthracene	25000 U
191-24-2	Benzo(g,h,i)Perylene	25000 U

(1)-Cannot be separated from diphenylamine

~~3/7~~ May 93

Form I 98

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-20

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 1-25-86

Conc/Dil Factor 1,000

Percent Moisture (decanted) 33.3

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	16,000 u
319-85-7	Beta-BHC	16,000 u
319-86-8	Delta-BHC	16,000 u
58-89-9	Gamma-BHC (Lindane)	16,000 u
76-44-8	Heptachlor	16,000 u
309-00-2	Aldrin	16,000 u
1024-57-3	Heptachlor Epoxide	16,000 u
959-98-8	Endosulfan I	16,000 u
60-57-1	Dieldrin	32,000 u
72-55-9	4,4'-DDE	32,000 u
72-20-8	Endrin	32,000 u
33213-65-9	Endosulfan II	32,000 u
72-54-8	4,4'-DDD	32,000 u
1031-07-8	Endosulfan Sulfate	32,000 u
50-29-3	4,4'-DDT	32,000 u
72-43-5	Methoxychlor	160,000 u
53494-70-5	Endrin Ketone	32,000 u
57-74-9	Chlordane	160,000 u
8001-35-2	Toxaphene	320,000 u
12674-11-2	Aroclor-1016	160,000 u
11104-28-2	Aroclor-1221	160,000 u
11141-16-5	Aroclor-1232	160,000 u
53469-21-9	Aroclor-1242	160,000 u
12672-29-6	Aroclor-1248	160,000 u
11097-69-1	Aroclor-1254	320,000 u
11096-82-5	Aroclor-1260	639,000

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

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May 93

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V_s _____ or W_s 30 V_t 1000 V_i 4

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Form 1

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ecology and environment

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-20

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.		Hexene isomer	VOA	18.3	53 J
2.		Hexene isomer	VOA	19.0	140 J
3.		Hexene isomer	VOA	19.8	~~6 JB~~ U
4.		Hexene isomer	VOA	20.1	19 J
5.		Hexane isomer	VOA	21.4	~~15 JB~~ U
6.		Unknown alcohol	VOA	24.0	26 J
7.		Unknown hydrocarbon	VOA	24.5	41 J
8.		Unknown hydrocarbon	VOA	25.0	38 J
9					
10.		UNKNOWN AROMATIC	BNA	20.5	30000 J
11.		UNKNOWN		20.6	100000 J
12.		UNKNOWN AROMATIC		20.9	48000 J
13.		UNKNOWN AROMATIC		21.1	250000 J
14.		UNKNOWN AROMATIC		21.2	110000 J
15.		UNKNOWN AROMATIC		21.3	220000 J
16.		UNKNOWN AROMATIC		21.6	520000 J
17.		UNKNOWN AROMATIC		21.4	180000 J
18.		UNKNOWN		21.8	710000 J
19.		UNKNOWN AROMATIC		21.9	580000 J
20.		UNKNOWN AROMATIC		22.0	440000 J
21.		UNKNOWN AROMATIC		22.2	440000 J
22.		UNKNOWN AROMATIC		22.4	140000 J
23.		UNKNOWN AROMATIC		22.5	110000 J
24.		UNKNOWN AROMATIC		22.6	210000 J
25.		UNKNOWN AROMATIC		22.8	160000 J
26.		UNKNOWN AROMATIC		23.1	220000 J
27.		UNKNOWN AROMATIC		23.3	190000 J
28.		UNKNOWN AROMATIC		23.4	87000 J
29.		UNKNOWN AROMATIC		23.7	580000 J
30					

III
May 93

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ecology and environment

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-20 RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.9	3200 J
2.	Hexene isomer	VOA	18.7	8600 J
3.	Hexene isomer	VOA	19.8	2000 J
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ecology and environment

Sample Number
DC-SS-21

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9768 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-19-86
Conc./Dil Factor: 3 pH 6.9
Percent Moisture: (Not Decanted) 21

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	52 B U J
67-64-1	Acetone	310 B U J
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	40 B U
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u J
108-10-1	4-Methyl-2-Pentanone	40 J
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	19
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u J
	Total Xylenes	15u J

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

May 93

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take judgment/action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Sample Number
DC-SS-21-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4465
Lab Sample ID No: 9768 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: C Stoytowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-27-86
Conc./Dil Factor: 10 pH 6.9
Percent Moisture: (Not Decanted) 21

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	100u J
74-83-9	Bromomethane	100u J
75-01-4	Vinyl Chloride	100u
75-00-3	Chloroethane	100u J
75-09-2	Methylene Chloride	160 ~~B~~ UJ
67-64-1	Acetone	400 ~~B~~ UJ
75-15-0	Carbon Disulfide	50u J
75-35-4	1, 1-Dichloroethene	50u
75-34-3	1, 1-Dichloroethane	50u
156-60-5	Trans-1, 2-Dichloroethene	50u
67-66-3	Chloroform	50u
107-06-2	1, 2-Dichloroethane	50u
78-93-3	2-Butanone	100u
71-55-6	1, 1, 1-Trichloroethane	50u
56-23-5	Carbon Tetrachloride	50u
108-05-4	Vinyl Acetate	100u
75-27-4	Bromodichloromethane	50u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	50u
10061-02-6	Trans-1, 3-Dichloropropene	50u
79-01-6	Trichloroethene	50u
124-48-1	Dibromochloromethane	50u
79-00-5	1, 1, 2-Trichloroethane	50u
71-43-2	Benzene	50u
10061-01-5	cis-1, 3-Dichloropropene	50u
110-75-8	2-Chloroethylvinylether	100u J
75-25-2	Bromoform	50u
108-10-1	4-Methyl-2-Pentanone	160
591-78-6	2-Hexanone	~~23 B J~~ 30 U
127-18-4	Tetrachloroethene	40 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	50u
108-88-3	Toluene	50u
108-90-7	Chlorobenzene	50u
100-41-4	Ethylbenzene	50u
100-42-5	Styrene	50u
	Total Xylenes	50u

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May 93

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Form I 11/85

Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number DC-SS-21

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-4-86

Conc./Dil Factor 10,000

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	2,000,000 U
111-44-4	bis(-2-Chloroethyl)Ether	2,000,000 U
95-57-8	2-Chlorophenol	2,000,000 U
541-73-1	1 3-Dichlorobenzene	2,000,000 U
106-46-7	1 4-Dichlorobenzene	22,000,000
100-51-6	Benzyl Alcohol	2,000,000 U
95-50-1	1 2-Dichlorobenzene	2,000,000 U
95-48-7	2-Methylphenol	2,000,000 U
39638-32-9	bis(2-chloroisopropyl)Ether	2,000,000 U
106-44-5	4-Methylphenol	2,000,000 U
621-64-7	N-Nitroso-Di-n-Propylamine	2,000,000 U
67-72-1	Hexachloroethane	2,000,000 U
98-95-3	Nitrobenzene	2,000,000 U
78-59-1	Isophorone	2,000,000 U
88-75-5	2-Nitrophenol	2,000,000 U
105-67-9	2, 4-Dimethylphenol	2,000,000 U
65-85-0	Benzoic Acid	10,000,000 U
111-91-1	bis(-2-Chloroethoxy)Methane	2,000,000 U
120-83-2	2 4-Dichlorophenol	2,000,000 U
120-82-1	1 2, 4-Trichlorobenzene	2,000,000 U
91-20-3	Naphthalene	2,000,000 U
106-47-8	4-Chloroaniline	2,000,000 U
87-68-3	Hexachlorobutadiene	2,000,000 U
59-50-7	4-Chloro-3-Methylphenol	2,000,000 U
91-57-6	2-Methylnaphthalene	2,000,000 U
77-47-4	Hexachlorocyclopentadiene	2,000,000 U J
88-06-2	2 4 6-Trichlorophenol	2,000,000 U
95-95-4	2, 4, 5-Trichlorophenol	10,000,000 U
91-58-7	2-Chloronaphthalene	2,000,000 U
88-74-4	2-Nitroaniline	10,000,000 U
131-11-3	Dimethyl Phthalate	2,000,000 U
208-96-8	Acenaphthylene	2,000,000 U
99-09-2	3-Nitroaniline	10,000,000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	2,000,000 U
51-28-5	2, 4-Dinitrophenol	10,000,000 U J
100-02-7	4-Nitrophenol	10,000,000 U J
132-64-9	Dibenzofuran	2,000,000 U
121-14-2	2 4-Dinitrotoluene	2,000,000 U
606-20-2	2 6-Dinitrotoluene	2,000,000 U
84-66-2	Diethylphthalate	2,000,000 U
7005-72-3	4-Chlorophenyl-phenylether	2,000,000 U
86-73-7	Fluorene	2,000,000 U
100-01-6	4-Nitroaniline	10,000,000 U
534-52-1	4, 6-Dinitro-2-Methylphenol	10,000,000 U
86-30-6	N-Nitrosodiphenylamine (1)	2,000,000 U
101-55-3	4-Bromophenyl-phenylether	2,000,000 U
118-74-1	Hexachlorobenzene	2,000,000 U
87-86-5	Pentachlorophenol	10,000,000 U
85-01-8	Phenanthrene	2,000,000 U
120-12-7	Anthracene	2,000,000 U
84-74-2	Di-n-Butylphthalate	2,000,000 U
206-44-0	Fluoranthene	2,000,000 U
129-00-0	Pyrene	2,000,000 U J
85-68-7	Butylbenzylphthalate	2,000,000 U
91-94-1	3, 3'-Dichlorobenzidine	4,000,000 U J
56-55-3	Benzo(a)Anthracene	2,000,000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	2,000,000 U
218-01-9	Chrysene	2,000,000 U
117-84-0	Di-n-Octyl Phthalate	2,000,000 U
205-99-2	Benzo(b)Fluoranthene	2,000,000 U
207-08-9	Benzo(k)Fluoranthene	2,000,000 U
50-32-8	Benzo(a)Pyrene	2,000,000 U
193-39-5	Indeno(1 2, 3-cd)Pyrene	2,000,000 U
53-70-3	Dibenz(a h)Anthracene	2,000,000 U
191-24-2	Benzo(g h i)Perylene	2,000,000 U

(1)-Cannot be separated from diphenylamine

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Form I 104

Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-21

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 5,000

Percent Moisture (decanted) 21.1

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	80,000 u
319-85-7	Beta-BHC	80,000 u
319-86-8	Delta-BHC	80,000 u
58-89-9	Gamma-BHC (Lindane)	80,000 u
76-44-8	Heptachlor	80,000 u
309-00-2	Aldrin	80,000 u
1024-57-3	Heptachlor Epoxide	80,000 u
959-98-8	Endosulfan I	80,000 u
60-57-1	Dieldrin	160,000 u
72-55-9	4,4'-DDE	160,000 u
72-20-8	Endrin	160,000 u
33213-65-9	Endosulfan II	160,000 u
72-54-8	4,4'-DDD	160,000 u
1031-07-8	Endosulfan Sulfate	160,000 u
50-29-3	4,4'-DDT	160,000 u
72-43-5	Methoxychlor	800,000 u
53494-70-5	Endrin Ketone	160,000 u
57-74-9	Chlordane	800,000 u
8001-35-2	Toxaphene	1,600,000 u
12674-11-2	Aroclor-1016	800,000 u
11104-28-2	Aroclor-1221	800,000 u
11141-16-5	Aroclor-1232	800,000 u
53469-21-9	Aroclor-1242	800,000 u
12672-29-6	Aroclor-1248	800,000 u
11097-69-1	Aroclor-1254	2,700,000
11096-82-5	Aroclor-1260	1,600,000 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

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May 93

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Form 1

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ecology and environment

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-21

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1. 106467	1,4-Dichlorobenzene	VOA	39.4	49000 J
2.				
3.	No Semi-Volatile Compounds Found			
4.				
5.				
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Laboratory Name ecology and environment, inc.

Case No 4-4465

Sample Number DC-SS-21-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	18.0	42 J
2.	Hexene isomer	VOA	18.8	94 J
3. 106467	1,4-Dichlorobenzene	VOA	38.5	130000 J
4				
5				
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Form 1, Part B

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491095

Sample Number
DC - SS - 2

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4465
Lab Sample ID No: 9769 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-25-86
Conc/Dil Factor: 3 pH 7.2
Percent Moisture: (Not Decanted) 21

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	62 B-4
67-64-1	Acetone	30u J
75-15-0	Carbon Disulfide	15u J
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2 Butanone	30u J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2 Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3 Dichloropropene	15u
110-75-8	2 Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	49 B
591-78-6	2 Hexanone	28 B J 30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u J
	Total Xylenes	15u J

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U based on necessary concentration, dilution, etc.). (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum applicable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

May 93

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Form I 11/85

Sample Number
DC-SS-22-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc
Case No: U-4465
Lab Sample ID No: 9769
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Sztowicz
Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-26-86

Conc/Dil Factor: 3 pH 7.2

Percent Moisture: (Not Decanted) 21

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u J
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u J
75-00-3	Chloroethane	30u J
75-09-2	Methylene Chloride	22B U J
67-64-1	Acetone	15u J
75-15-0	Carbon Disulfide	15u J
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	26 J
591-78-6	2-Hexanone	~~17 J~~ 30u J
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

May 93

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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recycled paper ecology and environment

Laboratory Name: Ecology & Environment Inc.

Case No: V-4465

Sample Number: DC-SS-22

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 12-3-86

Conc/Dil Factor: 10

Percent Moisture (Decanted): 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)		
108-95-2	Phenol	2100	U	
111-44-4	bis(2-Chloroethyl)Ether	2100	U	
95-57-8	2-Chlorophenol	2100	U	
541-73-1	1,3-Dichlorobenzene	2100	U	
106-46-7	1,4-Dichlorobenzene	2100	U	
100-51-6	Benzyl Alcohol	2100	U	
95-50-1	1,2-Dichlorobenzene	2100	U	
95-48-7	2-Methylphenol	2100	U	
39638-32-9	bis(2-chloroisopropyl)Ether	2100	U	
106-44-5	4-Methylphenol	2100	U	
621-64-7	N-Nitroso-Di-n-Propylamine	2100	U	
67-72-1	Hexachloroethane	2100	U	
98-95-3	Nitrobenzene	2100	U	
78-59-1	Isophorone	2100	U	
88-75-5	2-Nitrophenol	2100	U	
105-67-9	2,4-Dimethylphenol	2100	U	
65-85-0	Benzoic Acid	10000	U	
111-91-1	bis(2-Chloroethoxy)Methane	2100	U	
120-83-2	2,4-Dichlorophenol	2100	U	
120-82-1	1,2,4-Trichlorobenzene	2100	U	
91-20-3	Naphthalene	2100	U	
106-47-8	4-Chloroaniline	2100	U	
87-68-3	Hexachlorobutadiene	2100	U	
59-50-7	4-Chloro-3-Methylphenol	2100	U	
91-57-6	2-Methylnaphthalene	2100	U	
77-47-4	Hexachlorocyclopentadiene	2100	U	J
88-06-2	2,4,6-Trichlorophenol	2100	U	
95-95-4	2,4,5-Trichlorophenol	10000	U	
91-58-7	2-Chloronaphthalene	2100	U	
88-74-4	2-Nitroaniline	10000	U	
131-11-3	Dimethyl Phthalate	2100	U	
208-96-8	Acenaphthylene	2100	U	
99-09-2	3-Nitroaniline	10000	U	

CAS Number		ug/l or ug/Kg (Circle One)		
83-32-9	Acenaphthene	2100	U	
51-28-5	2,4-Dinitrophenol	10000	U	J
100-02-7	4-Nitrophenol	10000	U	J
132-64-9	Dibenzofuran	2100	U	
121-14-2	2,4-Dinitrotoluene	2100	U	
606-20-2	2,6-Dinitrotoluene	2100	U	
84-66-2	Diethylphthalate	2100	U	
7005-72-3	4-Chlorophenyl-phenylether	2100	U	
86-73-7	Fluorene	2100	U	
100-01-6	4-Nitroaniline	10000	U	
534-52-1	4,6-Dinitro-2-Methylphenol	10000	U	
86-30-6	N-Nitrosodiphenylamine (1)	2100	U	
101-55-3	4-Bromophenyl-phenylether	2100	U	
118-74-1	Hexachlorobenzene	2100	U	
87-86-5	Pentachlorophenol	10000	U	
85-01-8	Phenanthrene	2100	U	
120-12-7	Anthracene	2100	U	
84-74-2	Di-n-Butylphthalate	~~360 BJ~~		2100 U
206-44-0	Fluoranthene	2100	U	
129-00-0	Pyrene	2100	U	J
85-68-7	Butylbenzylphthalate	2100	U	
91-94-1	3,3'-Dichlorobenzidine	~~4200~~	U	J
56-55-3	Benzo(a)Anthracene	2100	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	2100	U	
218-01-9	Chrysene	2100	U	
117-84-0	Di-n-Octyl Phthalate	~~140 BJ~~		2100 U
205-99-2	Benzo(b)Fluoranthene	2100	U	
207-08-9	Benzo(k)Fluoranthene	2100	U	
50-32-8	Benzo(a)Pyrene	2100	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	2100	U	
53-70-3	Dibenz(a,h)Anthracene	2100	U	
191-24-2	Benzo(g,h,i)Perylene	2100	U	

(1)-Cannot be separated from diphenylamine

Form 1

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ecology and environment

Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-22

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1,000

Percent Moisture (decanted) 21.2

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16,000 u
319-85-7	Beta-BHC	16,000 u
319-86-8	Delta-BHC	16,000 u
58-89-9	Gamma-BHC (Lindane)	16,000 u
76-44-8	Heptachlor	16,000 u
309-00-2	Aldrin	16,000 u
1024-57-3	Heptachlor Epoxide	16,000 u
959-98-8	Endosulfan I	16,000 u
60-57-1	Dieldrin	32,000 u
72-55-9	4,4'-DDE	32,000 u
72-20-8	Endrin	32,000 u
33213-65-9	Endosulfan II	32,000 u
72-54-8	4,4'-DDD	32,000 u
1031-07-8	Endosulfan Sulfate	32,000 u
50-29-3	4,4'-DDT	32,000 u
72-43-5	Methoxychlor	160,000 u
53494-70-5	Endrin Ketone	32,000 u
57-74-9	Chlordane	160,000 u
8001-35-2	Toxaphene	320,000 u
12674-11-2	Aroclor-1016	160,000 u
11104-28-2	Aroclor-1221	160,000 u
11141-16-5	Aroclor-1232	160,000 u
53469-21-9	Aroclor-1242	160,000 u
12672-29-6	Aroclor-1248	145,000 J C
11097-69-1	Aroclor-1254	320,000 u
11096-82-5	Aroclor-1260	547,000 C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4 ~~42~~

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Form 1

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ecology and environment

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-22

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	18.0	170 J
2.	Hexene isomer	VOA	18.7	420 J
3.	Unknown Ketone	VOA	19.6	~~5 J~~ U
4.	Hexene isomer	VOA	19.9	54 J
5.	Unknown alcohol	VOA	23.8	31 J
6.	Unknown hydrocarbon	VOA	24.3	22 J
7.	Unknown hydrocarbon	VOA	24.7	~~13 J~~ U
8.				
9	UNKNOWN AROMATIC	BNA	20.5	4000 J
10.	UNKNOWN AROMATIC		20.7	14000 J
11.	UNKNOWN AROMATIC		21.1	13000 J
12.	DIMETHYL DECYL BENZENE		21.3	14000 J
13.	UNKNOWN AROMATIC		21.4	11000 J
14.	UNKNOWN AROMATIC		21.6	13000 J
15.	UNKNOWN		21.8	72000 J
16.	UNKNOWN AROMATIC		21.9	9300 J
17.	DIMETHYL DECYL BENZENE		22.0	12000 J
18.	UNKNOWN		23.7	4100 J
19.	UNKNOWN		26.1	11000 J
20.	PCB		26.9-32.4	—
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30				

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ecology and environment

Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-22-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.9	54
2.	Hexene isomer	VOA	18.7	130
3.	Hexene isomer	VOA	19.8	15
4.	Unknown Ketone	VOA	19.4	6
5.	Unknown hydrocarbon	VOA	23.7	14
6.	Unknown hydrocarbon	VOA	24.2	7
7.	Unknown Hydrocarbon	VOA	24.7	~~4~~
8.				
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Form 1, Part B

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ecology and environment

Sample Number
DC-SS-23

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No. U-4465
Lab Sample ID No: 9770 QC Report No.
Sample Matrix: Soil Contract No. IL-3140
Data Release Authorized By: C Wojtowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-19-86
Conc./Dil Factor: 3 pH 7.0
Percent Moisture: (Not Decanted) 22

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	58 ~~B~~ UJ
67-64-1	Acetone	41 UJ
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	42 U
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u J
108-10-1	4-Methyl-2-Pentanone	30u J
591-78-6	2-Hexanone	~~20 J~~ 30 UJ
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u J
	Total Xylenes	15u J

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

HE May 93

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Form I 11/85

Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number DC-SS-23

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-2-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	78 J
111-44-4	bis(-2-Chloroethyl)Ether	420 U
95-57-8	2-Chlorophenol	420 U
541-73-1	1 3-Dichlorobenzene	420 U
106-46-7	1 4-Dichlorobenzene	420 U
100-51-6	Benzyl Alcohol	420 U
95-50-1	1 2-Dichlorobenzene	89 J
95-48-7	2-Methylphenol	420 U
39638-32-9	bis(2-chloroisopropyl)Ether	420 U
106-44-5	4-Methylpheno	420 U
621-64-7	N-Nitroso-Di-n-Propylamine	420 U
67-72-1	Hexachloroethane	420 U
98-95-3	Nitrobenzene	420 U
78-59-1	Isophorone	420 U
88-75-5	2-Nitrophenol	420 U
105-67-9	2, 4-Dimethylphenol	420 U
65-85-0	Benzoic Acid	2000 U
111-91-1	bis(-2-Chloroethoxy)Methane	420 U
120-83-2	2, 4-Dichlorophenol	120 J
120-82-1	1, 2, 4-Trichlorobenzene	180 J
91-20-3	Naphthalene	110 J
106-47-8	4-Chloroaniline	420 U
87-68-3	Hexachlorobutadiene	420 U
59-50-7	4-Chloro-3-Methylphenol	420 U
91-57-6	2-Methylnaphthalene	420 U
77-47-4	Hexachlorocyclopentadiene	420 U J
88-06-2	2 4 6-Trichlorophenol	420 U
95-95-4	2, 4, 5-Trichlorophenol	2000 U
91-58-7	2-Chloronaphthalene	420 U
88-74-4	2-Nitroaniline	1000 J
131-11-3	Dimethyl Phthalate	420 U
208-96-8	Acenaphthylene	420 U
99-09-2	3-Nitroaniline	2000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	70 J
51-28-5	2, 4-Dinitrophenol	2000 U J
100-02-7	4-Nitrophenol	2000 U J
132-64-9	Dibenzofuran	420 U
121-14-2	2 4-Dinitrotoluene	420 U
606-20-2	2 6-Dinitrotoluene	420 U
84-66-2	Diethylphthalate	420 U
7005-72-3	4-Chlorophenyl-phenylether	420 U
86-73-7	Fluorene	420 U
100-01-6	4-Nitroaniline	2000 U
534-52-1	4, 6-Dinitro-2-Methylphenol	2000 U
86-30-6	N-Nitrosodiphenylamine (1)	420 U
101-55-3	4-Bromophenyl-phenylether	420 U
118-74-1	Hexachlorobenzene	420 U
87-86-5	Pentachlorophenol	12000
85-01-8	Phenanthrene	1200
120-12-7	Anthracene	300 J
84-74-2	Di-n-Butylphthalate	~~1700 B~~ 2200 U
206-44-0	Fluoranthene	2200
129-00-0	Pyrene	850
85-68-7	Butylbenzylphthalate	420 U
91-94-1	3, 3'-Dichlorobenzidine	850 U
56-55-3	Benzo(a)Anthracene	960
117-81-7	bis(2-Ethylhexyl)Phthalate	660
218-01-9	Chrysene	1100
117-84-0	Di-n-Octyl Phthalate	~~99 B J~~ 2200 U
205-99-2	Benzo(b)Fluoranthene	1800
207-08-9	Benzo(k)Fluoranthene	420 U
50-32-8	Benzo(a)Pyrene	840
193-39-5	Indeno(1 2, 3-cd)Pyrene	1100
53-70-3	Dibenz(a h)Anthracene	430
191-24-2	Benzo(g h i)Perylene	1200

(1)-Cannot be separated from diphenylamine

May 93

~~4~~ 9
7 85

Form I 115

Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-23

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 500

Percent Moisture (decanted) 22.4

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	8000 U	
319-85-7	Beta-BHC	8,000 U	
319-86-8	Delta-BHC	8,000 U	
58-89-9	Gamma-BHC (Lindane)	8,000 U	
76-44-8	Heptachlor	8,000 U	
309-00-2	Aldrin	8,000 U	
1024-57-3	Heptachlor Epoxide	8,000 U	
959-98-8	Endosulfan I	8,000 U	
60-57-1	Dieldrin	16,000 U	
72-55-9	4,4'-DDE	16,000 U	
72-20-8	Endrin	16,000 U	
33213-65-9	Endosulfan II	16,000 U	
72-54-8	4,4'-DDD	16,000 U	
1031-07-8	Endosulfan Sulfate	16,000 U	
50-29-3	4,4'-DDT	16,000 U	
72-43-5	Methoxychlor	80,000 U	
53494-70-5	Endrin Ketone	16,000 U	
57-74-9	Chlordane	80,000 U	
8001-35-2	Toxaphene	160,000 U	
12674-11-2	Aroclor-1016	80,000 U	
11104-28-2	Aroclor-1221	80,000 U	
11141-16-5	Aroclor-1232	80,000 U	
53469-21-9	Aroclor-1242	80,000 U	
12672-29-6	Aroclor-1248	110,000	C
11097-69-1	Aroclor-1254	160,000 U	
11096-82-5	Aroclor-1260	218,000	C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

116

~~310~~

Form 1

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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-23

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4	~~5 BJ~~ U
2.	Unknown Ketone	VOA	19.8	~~8 BJ~~ U
3.	Hexane isomer	VOA	21.5	~~14 BJ~~ U
4.	Unknown	VOA	24.5	9 J
5.	Unknown	VOA	25.0	8 J
6.	Dichlorobenzene isomer	VOA	41.1	~~890 BJ~~ * U
7.				
8.	UNKNOWN	BNA	9.3	650 J
9.	UNKNOWN		20.0	4600 J
10.	UNKNOWN AROMATIC		20.5	5700 J
11.	UNKNOWN AROMATIC		20.7	8800 J
12.	UNKNOWN AROMATIC		21.1	4500 J
13.	UNKNOWN AROMATIC		21.3	13000 J
14.	UNKNOWN AROMATIC		21.4	10000 J
15.	UNKNOWN AROMATIC		21.6	12000 J
16.	UNKNOWN		21.8	1500 J
17.	UNKNOWN AROMATIC		21.9	6600 J
18.	UNKNOWN AROMATIC		22.0	10000 J
19. 10544500	MOLECULAR SULFUR		26.2	8900 J
20.	UNKNOWN AROMATIC		29.1	15000 J
21.	PCB		24.3-31.7	—
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

* note: Dichlorobenzene was observed in the accompanying blank. This sample was analyzed prior to the blank. The dichlorobenzene is present in this sample as a carryover artifact from the previously run sample, which is is supported by the late retention time (should be 39 min)

Form 1, Part B

411 7/85

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ATTACHMENT A

FORMS I

CASE NUMBER U-4465

L16302000S
ST CLAIR
SAUGET-SAUGET
LAB DATA

SURFACE SOIL
ORGANICS

SURFACE SOIL ORGANICS

CASE NARRATIVE

481095

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PCBs identified in some of the samples are outside the established retention time windows (Form X). In the case of PCBs, identification is primarily based on pattern recognition. Retention time windows are utilized as guides.

The response factor for vinyl chloride exceeded the 25% difference limit in the continuing calibration check for November 21, 1986 (File C5660) and November 25, 1986 (File C5710). Since vinyl chloride was not detected in any of the samples, data quality has not been affected.

If you have any questions, please contact me at (716)-631-0360.

Andrew P. Clifton, Director
Analytical Services Center

APC/drb

Enclosures

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International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.: 1L3140
Project Name: DEAD CREEK
Project Manager: M. MILLER
Samplers: (Signatures) Kevin Phillips
Field Team Leader: KEVIN PHILLIPS

STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	GRAB	AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	1-8 oz. HSL ORGANIC	1-8 oz. METAL TUMBLE	2-120 ml. VOA	REMARKS
DC-5501	11-10-86	1615		X		UNKNOWN	GRID NO. C-1	4	1	1	2	
DC-5502	11-10-86	1645		X			G-1	4	1	1	2	
DC-5503	11-11-86	1015		X			B-2	4	1	1	2	
DC-5504		1115		X			E-2	4	1	1	2	
DC-5505		1430		X		MAY CONTAIN HIGHER CONC.	H-2	4	1	1	2	
DC-5506		1430		X			H-2	4	1	1	2	
DC-5507		1450		X			I-2	4	1	1	2	
DC-5508		1500		X			J-2	4	1	1	2	
DC-5509		1005		X			A-3	4	1	1	2	
DC-5510		1015		X			B-3	4	1	1	2	
DC-5511		1030		X			C-3	4	1	1	2	
DC-5512		1045		X			D-3	4	1	1	2	

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)
Kevin Phillips	11-12-86 / 1900	Fed Express			
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)
Relinquished By: (Signature)	Date/Time	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time	Received For Laboratory By: (Signature)
Fed. Express	11-12-86 / 0930	[illegible]			

Ship Via: FEDERAL EXPRESS
BL/Airbill Number: 2279748300 ~~2219748296~~ KP
Date: 11-12-86

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files
*See CONCENTRATION RANGE on back of form.

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International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project No.: IL3140
Project Name: DEAD CREEK
Project Manager: M. MILLER
Samplers: (Signatures) Kevin Phillips
Field Team Leader: KEVIN PHILLIPS

STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE TYPE AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	1-8oz HSL ORGANIC	1-8oz METAL+CYANIDE	2-40ml VOA				REMARKS
DC-5513	11-11-86	1115		X		UNKNOWN MAY CONTAIN HIGHER CONC AND/OR OILS	GRID # E-3	4	1	1	2				
DC-5514		1130		X			F-3	4	1	1	2				
DC-5515		1400		X			G-3	4	1	1	2				
DC-5516		1400		X			G-3	4	1	1	1				SECOND VOA BROKEN DURING PACKAGING
DC-5517		1430		X			H-3	4	1	1	2				
DC-5518		1100		X			A-4	4	1	1	2				
DC-5519		1110		X			B-4	4	1	1	2				
DC-5520		1120		X			C-4	4	1	1	2				
DC-5521		1130		X			D-4	4	1	1	2				
DC-5522		1140		X			E-4	4	1	1	2				
DC-5523		1150		X			F-4	4	1	1	2				
DC-5545		1700		X			BLANK	4	1	1	2				

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Ship Via
Kevin Phillips	11-12-86/1900	Fed Express				FEDERAL EXPRESS
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	BL/Airbill Number: 2219748300 — Date: 11-12-86
Relinquished By: (Signature) Fed Express	Date/Time 11-12-86 1900	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time	Received For Laboratory By: (Signature)	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files
*See CONCENTRATION RANGE on back of form.

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DRAFT

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. U-4465 Contract Laboratory ECOLOGY & ENVIRONMENT INC. Contract No. IL-3140

Low X Medium _____

SMO TRAFFIC NO.	VOLATILE: TOLUENE-D8 (81-117)	VOLATILE: BFB (74-121)	VOLATILE: 1,2 DICHLOROETHANE-D4 (70-121)	SEMI-VOLATILE: NITROBENZENE-D5 (23-120)	SEMI-VOLATILE: 2-FLUOROBIPHENYL (30-115)	SEMI-VOLATILE: TERPHENYL-D14 (18-137)			SEMI-VOLATILE: PHENOL-D5 (24-113)	SEMI-VOLATILE: 2-FLUOROPHENOL (25-121)	SEMI-VOLATILE: 2,4,6 TRIBROMOPHENOL (19-122)	PESTICIDE: DIBUTYL-CHLORENDATE** (20-150)
DC-SS-01	112	94	108	67	77	92			60	56	52	INF
DC-SS-02	101	100	100	86	80	94			78	70	53	INF
DC-SS-03	108	99	104	85	83	104			72	70	46	INF
DC-SS-04	101	91	93	68	73	96			65	60	41	INF
DC-SS-05	94	98	84	60	62	72			56	42	21	INF
DC-SS-06	104	74	83	45	49	73			50	41	43	INF
DC-SS-07	101	85	80	87	112	81			69	70	61	INF
DC-SS-08	103	90	96	100	128*	114			77	66	32	INF
DC-SS-09	103	88	116	71	102	80			44	67	39	DE
DC-SS-10	105	78	82	DE	36	62			DE	53	32	DE
DC-SS-11	115	86	110	48	126*	104			22*	51	55	DE
DC-SS-12	112	69*	79	85	112	88			44	65	62	DE
DC-SS-13	106	98	96	DE	DE	DE			DE	DE	DE	DE
DC-SS-14	142*	75	79	DE	DE	DE			DE	DE	DE	DE
DC-SS-15	131*	92	98	DE	DE	DE			DE	DE	DE	DE
DC-SS-16	109	86	88	DE	DE	DE			DE	DE	DE	DE
DC-SS-17	116	80	84	DE	DE	DE			DE	DE	DE	DE
DC-SS-18	107	81	100	DE	DE	DE			DE	DE	DE	DE
DC-SS-19	104	40*	80	DE	DE	DE			DE	DE	DE	DE
DC-SS-20	112	59*	91	DE	68	41			DE	32	DE	DE
DC-SS-21	107	62*	92	DE	DE	DE			DE	DE	DE	DE
DC-SS-22	119*	71*	95	DE	DE	DE			DE	DE	DE	DE
DC-SS-23	94	104	114	94	116*	62			67	75	55	DE
DC-SS-45	97	70*	87	85	94	74			65	91	40	83+

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: _____ out of _____ ; outside of QC limits

Semi-Volatiles: _____ out of _____ ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

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page 1 of 2

Comments: INF = INTERFERENCE
DE = DILUTED OUT
+ = PEAK HEIGHT

FORM II

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SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. V-4465 Contract Laboratory ECOLOGY & ENVIRONMENT INC. Contract No. IL-3140

Low X Medium ____

SMO TRAFFIC NO.	VOLATILE: TOLUENE-D8 (81-117)	VOLATILE: BFB (74-121)	VOLATILE: 1,2 DICHLORO-ETHANE-D4 (70-121)	SEMI-VOLATILE: NITRO-BENZENE-D5 (23-120)	SEMI-VOLATILE: 2-FLUORO-BIPHENYL (30-115)	SEMI-VOLATILE: TERPHENYL-D14 (18-137)	SEMI-VOLATILE:	SEMI-VOLATILE:	SEMI-VOLATILE: PHENOL-D5 (24-113)	SEMI-VOLATILE: 2-FLUORO-PHENOL (25-121)	SEMI-VOLATILE: 2,4,6 TRIBROMO PHENOL (19-122)	PESTICIDE: DIBUTYL-CHLORENDATE** (20-150)
DC-SS03MS	NR	NR	NR	64	72	85			63	61	50	NR
DC-SS-03MSD	NR	NR	NR	62	63	81			59	54	43	NR
DC-SS-12RE	136*	71*	69*	NR	—	—	—	—	—	—	—	NR
DC-SS-14RE	134*	67*	90	NR	—	—	—	—	—	—	—	NR
DC-SS-15RE	134*	98	114	NR	—	—	—	—	—	—	—	NR
DC-SS-19RE	164*	89	124*	NR	—	—	—	—	—	—	—	NR
DC-SS-20RE	160*	94	132*	NR	—	—	—	—	—	—	—	NR
DC-SS-45RE	82	63*	88	NR	—	—	—	—	—	—	—	NR
DC-SS-22RE	100	83	130*	NR	—	—	—	—	—	—	—	NR
DC-SS-21RE	83	92	74	NR	—	—	—	—	—	—	—	NR
C5574	95	90	75	NR	—	—	—	—	—	—	—	NR
C5592	95	74	82	NR	—	—	—	—	—	—	—	NR
C5666	98	96	117	NR	—	—	—	—	—	—	—	NR
C5649	110	120	109	NR	—	—	—	—	—	—	—	NR
C5687	99	98	88	NR	—	—	—	—	—	—	—	NR
C5715	97	99	94	NR	—	—	—	—	—	—	—	NR
C5698	100	91	98	NR	—	—	—	—	—	—	—	NR
C5811	104	103	78	NR	—	—	—	—	—	—	—	NR
D1175	NR	NR	NR	95	107	77			71	62	35	~~INF~~ NR
B3153	NR	NR	NR	108	112	106			64	51	30	~~INF~~ NR
BLANK.MA	NR	←	—	—	—	—	—	—	—	—	NR	98
BLANK.MB	NR	←	—	—	—	—	—	—	—	—	NR	108

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 21 out of 120 ; outside of QC limits

Semi-Volatiles: 4 out of 168 ; outside of QC limits

Pesticides: 0 out of 29 ; outside of QC limits

7/85

page 2 of 2

Comments: INF = INTERFERENCE

NR = NOT REQUIRED

FORM II

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SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. U-4465 Contract Laboratory Ecology & Environment Inc. Contract No. IL-3140

Low _____ Medium X

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (81-117)	B/B (74-121)	1,2 DICHLORO-ETHANE-D4 (70-121)	NITRO-BENZENE-D5 (23-120)	2-FLUORO-BIPHENYL (30-115)	TERPHENYL-D14 (18-137)			PHENOL-D5 (24-113)	2-FLUORO-PHENOL (25-121)	2,4,6 TRIBROMO PHENOL (19-122)	DIBUTYL-CHLORENDATE ** (20-150)
DC-SS-03MS	94	92	90									
DC-SS-03MSD	92	90	90									
C5546	94	92	90									

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 9 ; outside of QC limits

Semi-Volatiles: _____ out of _____ ; outside of QC limits

Pesticides: _____ out of _____ ; outside of QC limits

7/85

Comments: _____

FORM II

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MS/MSD SUMMARY

481095

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. U-4465 Contractor Ecology & Environment Inc Contract No. IL-3140

Low Level X Medium Level _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO.	1,1-Dichloroethene								22	59-172
	Trichloroethene								24	62-137
	Chlorobenzene								21	60-133
	Toluene								21	59-139
	Benzene								21	66-142
B/N SMO SAMPLE NO. DC-SS-03	1,2,4-Trichlorobenzene	3900	0	2000	51	1600	41	22	23	38-107
	Acenaphthene	3900	0	2900	74	2700	69	7.1	19	31-137
	2,4 Dinitrotoluene	3900	0	2500	64	2600	67	3.9	47	28-89
	Pyrene	3900	0	3700	95	3400	87	8.4	36	35-142
	N-Nitrosodi-n-Propylamine	3900	0	2700	69	2600	67	3.8	38	41-126
	1,4-Dichlorobenzene	3900	0	1250	32	800	20*	44*	27	28-104
ACID SMO SAMPLE NO. DC-SS-03	Pentachlorophenol	7800	0	3100	40	2400	31	25	47	17-109
	Phenol	7800	0	5200	67	5200	67	0	35	26-90
	2-Chlorophenol	7800	0	4700	60	4400	56	6.6	50	25-102
	4-Chloro-3-Methylphenol	7800	0	5000	64	4700	60	6.2	33	26-103
	4-Nitrophenol	7800	0	3200	41	3000	38	3.2	50	11-114
PEST SMO SAMPLE NO. DC-SS-03	Lindane	31.4	0	27.2	87	22.4	71	19	50	46-127
	Heptachlor	31.4	0	INF	—	INF	—	—	31	35-130
	Aldrin	31.4	0	26.2	83	22.3	71	16	43	34-132
	Dieldrin	78.6	0	79.8	101	67.7	86	16	38	31-134
	Endrin	78.6	0	83.8	107	70.0	89	18	45	42-139
	4,4'-DDT	78.6	0	INF	—	INF	—	—	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs ___ out of ___; outside QC limits
B/N 1 out of 6; outside QC limits
ACID 0 out of 3; outside QC limits
PEST 0 out of 6; outside QC limits

RECOVERY: VOAs ___ out of ___; outside QC limits
B/N 1 out of 12; outside QC limits
ACID 0 out of 10; outside QC limits
PEST 0 out of 12; outside QC limits

Comments:
INF = INTERFERENCE

FORM III

7/85

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SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 11-4465 Contractor Ecology & Environment Inc. Contract No. IL-3140

Low Level _____ Medium Level X

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS * RPD	QC LIMITS * RECOVERY
VOA SMO SAMPLE NO. DC-SS-03	1,1-Dicholorethene	14000	0	9600	69	9000	64	6	22	59-172
	Trichloroethene	↓	↓	12000	86	11000	79	9	24	62-137
	Chlorobenzene	↓	↓	13000	93	12000	86	8	21	60-133
	Toluene	↓	↓	12000	86	11000	79	9	21	59-139
	Benzene	↓	↓	12000	86	11000	79	9	21	66-142
B/N SMO SAMPLE NO.	1,2,4-Trichlorobenzene								23	38-107
	Acenaphthene								19	31-137
	2,4 Dinitrotoluene								47	28-89
	Pyrene								36	35-142
	N-Nitrosodi-n-Propylamine								38	41-126
_____	1,4-Dichlorobenzene								27	28-104
ACID SMO SAMPLE NO.	Pentachlorophenol								47	17-109
	Phenol								35	26-90
	2-Chlorophenol								50	25-102
	4-Chloro-3-Methylphenol								33	26-103
_____	4-Nitrophenol								50	11-114
PEST SMO SAMPLE NO.	Lindane								50	46-127
	Heptachlor								31	35-130
	Aldrin								43	34-132
	Dieldrin								38	31-134
	Endrin								45	42-139
_____	4,4'-DDT								50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5; outside QC limits
B/N _____ out of _____; outside QC limits
ACID _____ out of _____; outside QC limits
PEST _____ out of _____; outside QC limits

RECOVERY: VOAs 0 out of 10; outside QC limits
B/N _____ out of _____; outside QC limits
ACID _____ out of _____; outside QC limits
PEST _____ out of _____; outside QC limits

Comments: _____

FORM III

7/85

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STANDARDS DATA

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INITIAL CALIBRATION DATA

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Initial Calibration Data
HSL Compounds

Case No: U-4465 Instrument ID: HP-5995C

Contractor: E & E INC. Calibration Date: 07/14/86

Contract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .3 Maximum % RSD for CCC is 30%

Compound		RF 100.00 (Laboratory ID: >C3505)	RF 250.00 (>C3500)	RF 500.00 (>C3501)	RF 750.00 (>C3502)	RF 1000.00 (>C3503)	$\overline{RF}$	% RSD	CCC	SPCC	
CHLOROMETHANE	50	1.83030	2.98119	2.68303	1.98464	2.03565	2.30296	21.718		**	
BROMOMETHANE	94	1.12916	2.03110	1.78724	1.13974	1.07212	1.43187	31.072			
VINYL CHLORIDE	62	1.29793	2.25090	1.81480	1.33200	1.32627	1.60438	26.217	*		
CHLOROETHANE	64	.63087	.90688	.69912	.60274	.61992	.69191	18.156			
METHYLENE CHLORIDE	84	2.02322	1.43855	1.20025	1.26031	.97834	1.38013	28.644			
ACETONE	43	1.82548	2.34411	1.47396	1.33672	1.11317	1.61869	29.708			
TRICHLOROFLUOROMETHANE	101	3.86178	3.31082	2.95608	2.88263	2.68368	3.13900	14.758			
CARBON DISULFIDE	76	4.78482	3.89176	3.40709	3.72181	3.34401	3.82990	15.125			
1,1-DICHLOROETHENE	61	3.28335	3.33314	3.06918	2.76682	2.68799	3.02810	9.682	*		
1,1-DICHLOROETHANE	63	3.41019	3.92213	3.61341	2.93357	2.94262	3.36439	12.773		**	
TRANS-1,2-DICHLOROETHENE	96	1.57932	1.84750	1.68174	1.33898	1.34149	1.55781	14.152			
CHLOROFORM	83	3.76351	4.28933	3.89481	2.94600	2.94612	3.56796	16.810	*		
1,2-DICHLOROETHANE	62	3.71406	4.39110	3.91144	2.88767	2.87971	3.55680	18.611			
1,2-DICHLOROETHANE-D4(SURR)	65	2.49928	3.43723	3.57775	2.73884	2.73981	2.99858	15.920			(Conc=250.0,250.0,250.0,250.0,2
2-BUTANONE	72	.08583	.06613	.07162	.05146	.06484	.06798	18.283			
1,1,1-TRICHLOROETHANE	97	.80804	.54601	.53518	.59001	.51014	.59787	20.236			
CARBON TETRACHLORIDE	117	.80174	.53704	.52968	.57726	.50644	.59043	20.469			
VINYL ACETATE	43	1.11275	1.25689	1.26570	1.09893	1.21686	1.19023	6.667			
BROMODICHLOROMETHANE	83	.84389	.62463	.59798	.63866	.57245	.65552	16.525			
1,2-DICHLOROPROPANE	63	.49204	.49341	.47136	.44626	.44491	.46960	5.026	*		
TRANS-1,3-DICHLOROPROPENE	75	.81912	.69538	.68300	.69776	.62213	.70348	10.178			
TRICHLOROETHENE	130	.44634	.42371	.39853	.38452	.36368	.40336	8.047			
DIBROMOCHLOROMETHANE	129	.71128	.56494	.52585	.53419	.45559	.55837	16.903			
1,1,2-TRICHLOROETHANE	97	.44527	.37334	.34812	.35174	.29571	.36284	14.939			
BENZENE	78	1.33421	1.20242	1.13581	1.12616	1.03138	1.16600	9.612			
CIS-1,3-DICHLOROPROPENE	75	.67756	.52506	.49322	.50605	.42953	.52628	17.453			
2-CHLOROETHYLVINYLETHER	63	.35845	.34245	.33476	.30801	.31038	.33081	6.505			
BROMOFORM	173	.66385	.64313	.63732	.57829	.58969	.62246	5.895		**	
4-METHYL-2-PENTANONE	43	.90759	1.26859	1.32155	.96430	1.15534	1.12348	16.246			
2-HEXANONE	43	.77024	1.05625	1.09202	.77051	.95286	.92838	16.482			
TETRACHLOROETHENE	164	.50876	.52353	.48547	.41857	.41486	.47024	10.787			
1,1,2,2-TETRACHLOROETHANE	83	.87842	.82654	.81458	.77936	.70534	.80085	8.008		**	
TOLUENE-D8 (SURR)	98	1.32339	1.38280	1.45130	1.33957	1.31679	1.36277	4.093			(Conc=250.0,250.0,250.0,250.0,2
TOLUENE	92	1.05387	.94123	.86637	.82455	.79257	.89572	11.662	*		
CHLOROBENZENE	112	1.29244	1.13242	1.05881	1.03357	1.00289	1.10402	10.480		**	
ETHYLBENZENE	91	2.21736	1.84487	1.78724	1.76922	1.65807	1.85535	11.501	*		

- Response Factor (Subscript is amount in NGS)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No: U-4465 Instrument ID: HP-5995C

Contractor: E & E INC. Calibration Date: 07/14/86

Contract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .3 Maximum % RSD for CCC is 30%

Laboratory ID:	>C3505	>C3500	>C3501	>C3502	>C3503				
	RF	RF	RF	RF	RF				
Compound	100.00	250.00	500.00	750.00	1000.00	$\overline{RF}$	% RSD	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR) 95	.70434	.69639	.76293	.69405	.69743	.71103	4.116		(Conc=250.0,250.0,250.0,250.0,2
STYRENE 104	1.16847	.95414	.94402	.94119	.90518	.98260	10.741		
TOTAL XYLENES 91	1.72862	1.35739	1.34084	1.33821	1.30097	1.41320	12.562		

- Response Factor (Subscript is amount in NGS)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No: U-4465 Instrument ID: HP-5995C

Contractor: E & E, INC. Calibration Date: 08/27/86

Contract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .3 Maximum % RSD for CCC is 30%

Laboratory ID:		>C4686 RF 20.00	>C4687 RF 50.00	>C4688 RF 100.00	>C4689 RF 150.00	>C4690 RF 200.00	$\overline{RF}$	% RSD	CCC	SPCC	
CHLOROMETHANE	50	1.51261	1.36840	1.38855	1.59462	1.27699	1.42823	8.775		**	
BROMOMETHANE	94	1.10195	.64400	.65596	.67527	.88877	.79319	25.172			
VINYL CHLORIDE	62	.59555	.59313	.51670	.86164	.50281	.61396	23.593	*		
CHLOROETHANE	64	.54660	.41755	.42217	.51621	.27098	.43470	24.782			
METHYLENE CHLORIDE	84	2.70137	2.01268	1.84853	1.83985	1.65935	2.01235	20.123			
ACETONE	43	.70413	.54300	.43570	.42038	.42083	.50481	24.290			
TRICHLOROFLUOROMETHANE	101	2.95527	2.76905	2.77094	3.00577	2.59619	2.81945	5.825			
CARBON DISULFIDE	76	4.47571	4.27118	4.37298	4.71046	4.13194	4.39246	4.975			
1,1-DICHLOROETHENE	61	3.05700	2.94252	2.96034	3.20994	2.81701	2.99736	4.882	*		
1,1-DICHLOROETHANE	63	3.31645	3.14080	3.18457	3.45580	3.04764	3.22905	4.939		**	
TRANS-1,2-DICHLOROETHENE	96	1.54663	1.48573	1.49992	1.63148	1.42083	1.51692	5.160			
CHLOROFORM	83	3.27718	3.10039	3.11003	3.32612	2.98113	3.15897	4.459	*		
1,2-DICHLOROETHANE	62	2.71789	2.71336	2.71294	2.54085	2.69616	2.67624	2.845			
1,2-DICHLOROETHANE-D4(SURR)	65	2.36053	2.49545	2.60707	2.53585	2.83050	2.56588	6.743			(Conc=50.0,50.0,50.0,50.0,50.0)
2-BUTANONE	72	.04297	.03739	.03140	.02315	.03315	.03361	21.881			
1,1,1-TRICHLOROETHANE	97	.55645	.54439	.54279	.54039	.52853	.54251	1.838			
CARBON TETRACHLORIDE	117	.53155	.52778	.51992	.51554	.49734	.51843	2.579			
VINYL ACETATE	43	.58349	.57735	.56023	.49965	.54462	.55307	6.058			
BROMODICHLOROMETHANE	83	.61487	.60306	.59880	.56560	.60562	.59759	3.150			
1,2-DICHLOROPROPANE	63	.46335	.46387	.45272	.42721	.44731	.45089	3.328	*		
TRANS-1,3-DICHLOROPROPENE	75	.77766	.77132	.75522	.70766	.75337	.75304	3.639			
TRICHLOROETHENE	130	.40368	.39124	.37168	.36700	.35459	.37764	5.201			
DIBROMOCHLOROMETHANE	129	.48448	.48927	.45953	.37680	.43233	.44848	10.267			
1,1,2-TRICHLOROETHANE	97	.32361	.33708	.31349	.24522	.30582	.30504	11.616			
BENZENE	78	1.20688	1.15514	1.11285	1.07162	1.05278	1.11985	5.593			
CIS-1,3-DICHLOROPROPENE	75	.40793	.40307	.38548	.35067	.36868	.38317	6.232			
2-CHLOROETHYLVINYLETHER	63	.05797	.03012	.02283	.05812	.01766	.03734	51.985			
BROMOFORM	173	.46077	.52902	.51955	.37555	.53655	.48429	13.987		**	
4-METHYL-2-PENTANONE	43	.35724	.41899	.40640	.38059	.46595	.40583	10.149			
2-HEXANONE	43	.31485	.34100	.31768	.26628	.35929	.31982	10.946			
TETRACHLOROETHENE	164	.49236	.47235	.45158	.46337	.41058	.45805	6.645			
1,1,2,2-TETRACHLOROETHANE	83	.57441	.66566	.66212	.46259	.68781	.61052	15.292		**	
TOLUENE-D8 (SURR)	98	1.44881	1.45525	1.48425	1.54822	1.52029	1.49136	2.852			(Conc=50.0,50.0,50.0,50.0,50.0)
TOLUENE	92	.97767	.91986	.89142	.91055	.86557	.91301	4.566	*		
CHLOROBENZENE	112	1.09059	1.03528	1.02098	1.01667	.98461	1.02963	3.767		**	
ETHYLBENZENE	91	1.93098	1.85270	1.81066	1.86300	1.79389	1.85025	2.889	*		

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RF}$ - Average Response Factor

RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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Initial Calibration Data
HSL Compounds

Case No: U-4465 Instrument ID: HP-5995C

Co...actor: E & E, INC. Calibration Date: 08/27/86

Contract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .3 Maximum % RSD for CCC is 30%

Laboratory ID:	>C4686	>C4687	>C4688	>C4689	>C4690				
	RF	RF	RF	RF	RF				
Compound	20.00	50.00	100.00	150.00	200.00	$\overline{RF}$	% RSD	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR) 95	.87576	.87437	.88850	.88341	.93945	.89230	3.024		(Conc=50.0,50.0,50.0,50.0,50.0)
STYRENE 104	1.05690	.98537	.96584	.98433	.97498	.99348	3.656		
TOTAL XYLENES 91	1.52761	1.39765	1.39801	1.44575	1.40835	1.43547	3.842		

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Case No: U-4465 Instrument ID: HP-5970 B

Contractor: E & E, INC. Calibration Date: 07/30/86

Contract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Laboratory ID:		>82318	>82317	>82320	>82321	>82322				
		RF	RF	RF	RF	RF				
Compound		20.00	50.00	80.00	120.00	160.00	$\overline{RF}$	% RSD	CCC	SPCC
ANILINE	93	1.53020	1.25644	1.62634	1.62245	1.58163	1.52341	10.122		
BIS(-2-CHLOROETHYL)ETHER	93	1.34445	1.22081	1.26618	1.07095	1.29722	1.23992	8.441		
1,3-DICHLOROBENZENE	146	1.46014	1.37957	1.42964	1.30860	1.33586	1.38276	4.559		
1,4-DICHLOROBENZENE	146	1.66736	1.29358	1.43871	1.25577	1.18343	1.36777	14.007	*	
BENZYL ALCOHOL	79	.98994	1.18557	1.00496	1.07361	1.14382	1.07958	7.887		
1,2-DICHLOROBENZENE	146	1.61074	1.48247	1.44441	1.30085	1.30196	1.42808	9.176		
BIS(2-CHLOROISOPROPYL)ETHER	45	3.10167	2.81979	3.04493	2.94413	2.94039	2.97018	3.652		
N-NITROSO-DI-N-PROPYLAMINE	70	1.28828	1.23766	1.29486	1.34328	1.29730	1.29228	2.904		**
HEXACHLOROETHANE	117	.79392	.72848	.72662	.65702	.63961	.70913	8.755		
NITROBENZENE-D5 (SURR)	82	.38965	.37305	.41065	.42325	.40762	.40084	4.898		
NITROBENZENE	77	.42892	.38234	.41415	.43943	.43255	.41948	5.417		
ISOPHORONE	82	.84007	.76477	.79107	.82839	.82546	.80995	3.848		
BIS(-2-CHLOROETHOXY)METHANE	93	.46623	.44982	.45355	.46561	.44362	.45577	2.178		
1,2,4-TRICHLOROBENZENE	180	.39238	.38210	.37397	.37375	.37036	.37851	2.345		
NAPHTHALENE	128	1.10454	.97856	1.02942	.88370	.92738	.98472	8.778		
4-CHLOROANILINE	127	.38955	.37023	.40760	.39766	.40786	.39458	3.953		
HEXACHLOROBUTADIENE	225	.28342	.26841	.25835	.24760	.23237	.25803	7.555	*	
2-METHYLNAPHTHALENE	142	.70829	.65392	.61126	.58244	.56184	.62355	9.404		
HEXACHLOROCYCLOPENTADIENE	237	.42682	.38196	.48139	.49313	.48657	.45397	10.605		**
2-FLUOROBIPHENYL (SURR)	172	1.43778	1.49608	1.31182	1.22836	1.17905	1.33061	10.128		
2-CHLORONAPHTHALENE	162	1.26208	1.35393	1.18900	1.10195	1.13384	1.20816	8.413		
2-NITROANILINE	65	.39563	.49064	.43475	.41930	.45448	.43896	8.209		
DIMETHYL PHTHALATE	163	1.53551	1.62787	1.36166	1.32005	1.34038	1.43709	9.517		
4-NITROANILINE	138	.22174	.31144	.26162	.25592	.24885	.25992	12.546		
DIBENZOFURAN	168	1.77467	1.85500	1.58680	1.39667	1.46174	1.61498	12.194		
ACENAPHTHYLENE	152	1.97143	2.08657	1.83063	1.60600	1.52393	1.80371	13.185		
FLUORENE	166	1.35721	1.41769	1.10410	1.09087	1.00139	1.19425	15.240		
3-NITROANILINE	138	.13030	.18696	.13633	.16461	.15450	.15454	14.725		
ACENAPHTHENE	153	1.32952	1.38687	1.10696	1.08827	1.02367	1.18706	13.524	*	
2,4-DINITROTOLUENE	165	.35218	.43871	.35920	.36773	.39158	.38188	9.185		
2,6-DINITROTOLUENE	165	.33892	.38691	.34388	.34507	.33955	.35087	5.793		
DIETHYLPHTHALATE	149	1.54518	1.59131	1.28601	1.21661	1.31157	1.39014	12.017		
4-CHLOROPHENYL-PHENYLETHER	204	.69494	.72268	.58641	.55946	.56319	.62534	12.397		
N-NITROSODIPHENYLAMINE	169	.46709	.47088	.43295	.40737	.34790	.42524	11.873	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26935	.26406	.28047	.26087	.25818	.26659	3.303		
HEXACHLOROBENZENE	284	.36253	.33008	.33921	.34540	.32747	.34094	4.119		

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RF}$ - Average Response Factor

RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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Case No: U-4465 Instrument ID: HP-5970 B

Contractor: E & E, INC. Calibration Date: 07/30/86

ntract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Laboratory ID:		>82318	>82317	>82320	>82321	>82322				
		RF	RF	RF	RF	RF				
Compound		20.00	50.00	80.00	120.00	160.00	$\overline{RF}$	% RSD	CCC	SPCC
PHENANTHRENE	178	1.04931	1.01512	.98050	.95298	.88999	.97758	6.231		
ANTHRACENE	178	1.12091	1.02625	1.04493	.93788	.90233	1.00646	8.678		
DI-N-BUTYLPHTHALATE	149	1.27178	1.10891	1.06851	1.11508	1.07179	1.12721	7.409		
FLUORANTHENE	202	.93206	.85951	.80155	.77543	.70727	.81517	10.452	*	
BENZIDINE		-	-	-	-	-	-	-		
PYRENE	202	1.67420	1.68596	1.76714	1.46297	1.41935	1.60192	9.479		
TERPHENYL-D14 (SURR)	244	1.14639	1.09283	1.18955	1.06562	1.05822	1.11052	5.053		
BUTYLBENZYLPHTHALATE	149	.65885	.67321	.68349	.67508	.67739	.67361	1.353		
3,3'DICHLOROBENZIDINE	252	.27363	.29497	.31038	.35282	.36231	.31882	11.871		
BENZO(A)ANTHRACENE	228	1.11295	1.16545	1.14131	1.09826	1.08387	1.12037	2.943		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.89359	.90143	.88579	.90223	.92113	.90083	1.461		
CHRYSENE	228	1.21768	1.19377	1.18843	.98625	1.04715	1.12666	9.164		
DI-N-OCTYL PHTHALATE	149	1.66258	1.75298	1.71967	1.71622	1.68266	1.70682	2.056	*	
BENZO(B)FLUORANTHENE	252	1.07961	1.23626	1.14532	1.32040	1.29211	1.21474	8.303		
BENZO(K)FLUORANTHENE	252	1.41040	1.33474	1.35790	1.08149	1.00129	1.23716	14.793		
BENZO(A)PYRENE	252	1.10805	1.15079	1.13626	1.11791	1.09145	1.12089	2.078	*	
INDENO(1,2,3-CD)PYRENE	276	.91950	1.10814	1.04174	1.09403	1.04427	1.04154	7.135		
DIBENZ(A,H)ANTHRACENE	278	.98398	1.11071	1.10486	1.07317	1.06502	1.06755	4.748		
BENZO(G,H,I)PERYLENE	276	1.10921	1.20556	1.17094	1.16451	1.14309	1.15866	3.073		

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RF}$ - Average Response Factor

SD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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HSL Compounds

Case No: U-4465 Instrument ID: HP-5970 B

Contractor: E & E, INC. Calibration Date: ~~12/31/86~~ 7/30/86

Contract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Compound	Laboratory ID: >82323 RF 20.00	>82324 RF 50.00	>82325 RF 80.00	>82326 RF 120.00	>82327 RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
PHENOL-D5 (SURR) 99	1.33554	1.32424	1.47714	1.37903	1.37876	1.37894	4.369		
PENTAFLUOROPHENOL 184	-	-	-	-	-	-	-		
2-FLUOROPHENOL (SURR) 112	.86601	.96224	.81732	.89616	.80413	.86917	7.349		
PHENOL 94	1.21969	1.30210	1.34366	1.27248	1.24820	1.27723	3.756	*	
2-METHYL PHENOL 108	.95956	1.15622	1.11972	1.02900	1.04621	1.06214	7.299		
2-CHLOROPHENOL 128	1.03433	1.21901	1.21545	1.19049	1.20231	1.17232	6.650		
4-METHYL PHENOL 108	.99078	1.16029	1.06554	1.03758	1.09053	1.06894	5.901		
2-NITROPHENOL 139	.16395	.20209	.20713	.20379	.18968	.19333	9.154	*	
2,4-DIMETHYLPHENOL 122	.24782	.29464	.30384	.29645	.25225	.27900	9.574		
BENZOIC ACID 105	-	.22663	.22609	.24641	.25765	.23920	6.486		
2,4-DICHLOROPHENOL 162	.27062	.28484	.33611	.32608	.29302	.30213	9.219	*	
4-CHLORO-3-METHYLPHENOL 107	.29131	.34908	.34637	.34264	.32554	.33099	7.251	*	
2,4,6-TRICHLOROPHENOL 196	.39345	.50875	.46278	.44935	.41174	.44521	10.146	*	
2,4,5-TRICHLOROPHENOL 196	.42313	.61321	.54332	.51580	.50391	.51987	13.220		
2,4,6-TRIBROMOPHENOL(SURR) 330	.29141	.38528	.33464	.31533	.31443	.32822	10.781		
2,4-DINITROPHENOL 184	-	.16377	.13943	.16124	.18313	.16189	11.045		**
4-NITROPHENOL 139	-	.19015	.15858	.14172	.15885	.16233	12.448		**
4,6-DINITRO-2-METHYLPHENOL 198	-	.13952	.13065	.14342	.15487	.14211	7.067		
PENTACHLOROPHENOL 266	-	.17560	.16016	.16451	.18549	.17144	6.650	*	

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RF}$ - Average Response Factor

SD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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CONTINUING CALIBRATION DATA

Continuing Calibration Check
HSL Compounds

Case No: U-4465 Calibration Date: 11/17/86

Contractor: E & E, INC. Time: 09:58

Contract No: IL-3140 Laboratory ID: >C5545

Instrument ID: HP-5995C Initial Calibration Date: 08/27/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	1.42823	1.37925	3.43		**
BROMOMETHANE	94	.79319	.53259	32.86		
VINYL CHLORIDE	62	.61396	.72429	17.97	*	
CHLOROETHANE	64	.43470	.61214	40.82		
METHYLENE CHLORIDE	84	2.81235	2.56736	27.58		
ACETONE	43	.50481	.68282	35.26		
TRICHLOROFLUOROMETHANE	101	2.81945	3.30346	17.17		
CARBON DISULFIDE	76	4.39246	5.70913	29.98		
1,1-DICHLOROETHENE	61	2.99736	2.86171	4.53	*	
1,1-DICHLOROETHANE	63	3.22905	3.01989	6.48		**
TRANS-1,2-DICHLOROETHENE	96	1.51692	1.66102	9.50		
CHLOROFORM	83	3.15897	3.24495	2.72	*	
1,2-DICHLOROETHANE	62	2.67624	2.53903	5.13		
1,2-DICHLOROETHANE-D4(SURR)	65	2.56588	2.25353	12.17		
2-BUTANONE	72	.03361	.04176	24.25		
1,1,1-TRICHLOROETHANE	97	.54251	.61122	12.67		
CARBON TETRACHLORIDE	117	.51843	.59723	15.20		
VINYL ACETATE	43	.55307	.81365	47.12		
BROMODICHLOROMETHANE	83	.59759	.58875	1.48		
1,2-DICHLOROPROPANE	63	.45089	.40544	10.08	*	
TRANS-1,3-DICHLOROPROPENE	75	.75304	.76341	1.38		
TRICHLOROETHENE	130	.37764	.41508	9.91		
DIBROMOCHLOROMETHANE	129	.44848	.47198	5.24		
1,1,2-TRICHLOROETHANE	97	.30504	.31378	2.86		
BENZENE	78	1.11985	1.17625	5.04		
CIS-1,3-DICHLOROPROPENE	75	.38317	.42599	11.18		
2-CHLOROETHYLVINYLETHER	63	.03734	.13104	250.93		
BROMOFORM	173	.48429	.39367	18.71		**
4-METHYL-2-PENTANONE	43	.40583	.43900	8.17		
2-HEXANONE	43	.31982	.29827	6.74		
TETRACHLOROETHENE	164	.45805	.51246	11.88		
1,1,2,2-TETRACHLOROETHANE	83	.61052	.58452	4.26		**
TOLUENE-D8 (SURR)	98	1.49136	1.56039	4.63		
TOLUENE	92	.91301	1.02879	12.68	*	
CHLOROBENZENE	112	1.02963	1.23660	20.10		**
ETHYLBENZENE	91	1.85025	2.05179	10.89	*	

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: U-4465 Calibration Date: 11/17/86

Contractor: E & E, INC. Time: 09:58

Contract No: IL-3140 Laboratory ID: >C5545

Instrument ID: HP-5995C Initial Calibration Date: 08/27/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.89230	.76445	14.33		
STYRENE	104	.99348	1.20958	21.75		
TOTAL XYLENES	91	1.43547	1.60482	11.80		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

recycled paper
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Continuing Calibration Check
HSL Compounds

Ca o: U-4465 | Calibration Date: 11/18/86

Contractor: E & EM INC. | Time: 11:07

Contract No: IL-3140 | Laboratory ID: >C5573

Instrument ID: HP-5995C | Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 | Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.30296	2.88106	25.10		**
BROMOMETHANE	94	1.43187	1.82627	27.54		
VINYL CHLORIDE	62	1.60438	1.97325	22.99	*	
CHLOROETHANE	64	.69191	.84458	22.07		
METHYLENE CHLORIDE	84	1.38013	1.95089	41.36		
ACETONE	43	1.61869	1.54667	4.45		
TRICHLOROFLUOROMETHANE	101	3.13900	3.59151	14.42		
CARBON DISULFIDE	76	3.82990	5.20660	35.95		
1,1-DICHLOROETHENE	61	3.02810	3.57703	18.13	*	
1,1-DICHLOROETHANE	63	3.36439	3.86455	14.87		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.86944	20.00		
CHLOROFORM	83	3.56796	4.07274	14.15	*	
1,2-DICHLOROETHANE	62	3.55680	3.68783	3.68		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.90794	3.02		
2-BUTANONE	72	.06798	.09048	33.10		
1,1,1-TRICHLOROETHANE	97	.59787	.64077	7.17		
CARBON TETRACHLORIDE	117	.59043	.61357	3.92		
VINYL ACETATE	43	1.19023	1.25592	5.52		
BROMODICHLOROMETHANE	83	.65552	.66236	1.04		
1,2-DICHLOROPROPANE	63	.46960	.50135	6.76	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.87179	23.92		
TRICHLOROETHENE	130	.40336	.46669	15.70		
DIBROMOCHLOROMETHANE	129	.55837	.52904	5.25		
1,1,2-TRICHLOROETHANE	97	.36284	.38995	7.47		
BENZENE	78	1.16600	1.31987	13.20		
CIS-1,3-DICHLOROPROPENE	75	.52628	.49389	6.15		
2-CHLOROETHYLVINYLETHER	63	.33081	.19945	39.71		
BROMOFORM	173	.62246	.52650	15.42		**
4-METHYL-2-PENTANONE	43	1.12348	.93972	16.36		
2-HEXANONE	43	.92838	.74584	19.66		
TETRACHLOROETHENE	164	.47024	.58997	25.46		
1,1,2,2-TETRACHLOROETHANE	83	.80085	.88617	10.65		**
TOLUENE-D8 (SURR)	98	1.36277	1.57699	15.72		
TOLUENE	92	.89572	1.10008	22.82	*	
CHLOROBENZENE	112	1.10402	1.36314	23.47		**
ETHYLBENZENE	91	1.85535	2.26908	22.30	*	

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Ca o: V-4465

Calibration Date: 11/18/86

Contractor: E & EM INC.

Time: 11:07

Contract No: IL-3140

Laboratory ID: >C5573

Instrument ID: HP-5995C

Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.71103	.82881	16.57		
STYRENE	104	.98260	1.35336	37.73		
TOTAL XYLENES	91	1.41320	1.84537	30.58		

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Ca : U-4465 Calibration Date: 11/18/86

Contractor: E & EM INC. Time: 21:42

Contract No: IL-3140 Laboratory ID: >C5585

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.30296	2.27773	1.10		**
BROMOMETHANE	94	1.43187	1.40251	2.05		
VINYL CHLORIDE	62	1.60438	1.45379	9.39	*	
CHLOROETHANE	64	.69191	.57839	16.41		
METHYLENE CHLORIDE	84	1.38013	1.80915	31.09		
ACETONE	43	1.61869	.51211	68.36		
TRICHLOROFLUOROMETHANE	101	3.13900	3.04107	3.12		
CARBON DISULFIDE	76	3.82990	4.63494	21.02		
1,1-DICHLOROETHENE	61	3.02810	2.90079	4.20	*	
1,1-DICHLOROETHANE	63	3.36439	3.07433	8.62		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.55938	.10		
CHLOROFORM	83	3.56796	3.27884	8.10	*	
1,2-DICHLOROETHANE	62	3.55680	2.78789	21.62		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.47256	17.54		
2-BUTANONE	72	.06798	.08058	18.54		
1,1,1-TRICHLOROETHANE	97	.59787	.52614	12.00		
CARBON TETRACHLORIDE	117	.59043	.52061	11.83		
VINYL ACETATE	43	1.19023	.98374	17.35		
BROMODICHLOROMETHANE	83	.65552	.56426	13.92		
1,2-DICHLOROPROPANE	63	.46960	.42193	10.15	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.72489	3.04		
TRICHLOROETHENE	130	.40336	.38769	3.88		
DIBROMOCHLOROMETHANE	129	.55837	.44435	20.42		
1,1,2-TRICHLOROETHANE	97	.36284	.33083	8.82		
BENZENE	78	1.16600	1.12150	3.82		
CIS-1,3-DICHLOROPROPENE	75	.52628	.40137	23.74		
2-CHLOROETHYLVINYLETHER	63	.33081	.14344	56.64		
BROMOFORM	173	.62246	.43269	30.49		**
4-METHYL-2-PENTANONE	43	1.12348	.80476	28.37		
2-HEXANONE	43	.92838	.63098	32.03		
TETRACHLOROETHENE	164	.47024	.48315	2.75		
1,1,2,2-TETRACHLOROETHANE	83	.80085	.77050	3.79		**
TOLUENE-D8 (SURR)	98	1.36277	1.49187	9.47		
TOLUENE	92	.89572	.94602	5.62	*	
CHLOROBENZENE	112	1.10402	1.17413	6.35		**
ETHYLBENZENE	91	1.85535	1.93682	4.39	*	

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Biology and environment

Continuing Calibration Check
HSL Compounds

Ca No: U-4465 Calibration Date: 11/18/86

Contractor: E & EM INC. Time: 21:42

Contract No: IL-3140 Laboratory ID: >C5585

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.71103	.89671	26.11		
STYRENE	104	.98260	1.46125	48.71		
TOTAL XYLENES	91	1.41320	1.93557	36.96		

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

...logy and environment

Continuing Calibration Check
HSL Compounds

Ca No: U-4465 Calibration Date: 11/21/86

Contractor: E & EM INC. Time: 10:28

Contract No: IL-3140 Laboratory ID: >C5648

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.30296	2.58864	12.40		**
BROMOMETHANE	94	1.43187	1.57427	9.95		
VINYL CHLORIDE	62	1.60438	1.69532	5.67	*	
CHLOROETHANE	64	.69191	.73080	5.62		
METHYLENE CHLORIDE	84	1.38013	1.67520	21.38		
ACETONE	43	1.61869	.83167	48.62		
TRICHLOROFLUOROMETHANE	101	3.13900	2.86302	8.79		
CARBON DISULFIDE	76	3.82990	4.38662	14.54		
1,1-DICHLOROETHENE	61	3.02810	2.68488	11.33	*	
1,1-DICHLOROETHANE	63	3.36439	2.73912	18.58		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.37089	12.00		
CHLOROFORM	83	3.56796	3.01762	15.42	*	
1,2-DICHLOROETHANE	62	3.55680	2.67078	24.91		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.48070	17.27		
2-BUTANONE	72	.06798	.08683	27.73		
1,1,1-TRICHLOROETHANE	97	.59787	.50761	15.10		
CARBON TETRACHLORIDE	117	.59043	.50950	13.71		
VINYL ACETATE	43	1.19023	.92806	22.03		
BROMODICHLOROMETHANE	83	.65552	.53715	18.06		
1,2-DICHLOROPROPANE	63	.46960	.37743	19.63	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.66506	5.46		
TRICHLOROETHENE	130	.40336	.34874	13.54		
DIBROMOCHLOROMETHANE	129	.55837	.44497	20.31		
1,1,2-TRICHLOROETHANE	97	.36284	.31816	12.31		
BENZENE	78	1.16600	1.03981	10.82		
CIS-1,3-DICHLOROPROPENE	75	.52628	.38395	27.05		
2-CHLOROETHYLVINYLETHER	63	.33081	.14753	55.40		
BROMOFORM	173	.62246	.42539	31.66		**
4-METHYL-2-PENTANONE	43	1.12348	.66013	41.24		
2-HEXANONE	43	.92838	.55063	40.69		
TETRACHLOROETHENE	164	.47024	.37426	20.41		
1,1,2,2-TETRACHLOROETHANE	83	.80085	.72637	9.30		**
TOLUENE-D8 (SURR)	98	1.36277	1.42770	4.76		
TOLUENE	92	.89572	.85124	4.97	*	
CHLOROBENZENE	112	1.10402	1.02652	7.02		**
ETHYLBENZENE	91	1.85535	1.83861	.90	*	

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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Continuing Calibration Check
HSL Compounds

C No: V-4465 Calibration Date: 11/21/86

Contractor: E & EM INC. Time: 10:28

Contract No: IL-3140 Laboratory ID: >C5648

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.71103	.73997	4.07		
STYRENE	104	.98260	1.10078	12.03		
TOTAL XYLENES	91	1.41320	1.51512	7.21		

k - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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Continuing Calibration Check
HSL Compounds

Case No: U-4465 Calibration Date: 11/21/86

Contractor: E & EM INC. Time: 21:10

Contract No: IL-3140 Laboratory ID: >C5660

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.30296	2.11109	8.33		**
BROMOMETHANE	94	1.43187	1.33193	6.98		
VINYL CHLORIDE	62	1.60438	1.18940	25.87	*	
CHLOROETHANE	64	.69191	.44588	35.56		
METHYLENE CHLORIDE	84	1.38013	1.58686	14.98		
ACETONE	43	1.61869	.58183	64.06		
TRICHLOROFLUOROMETHANE	101	3.13900	2.90631	7.41		
CARBON DISULFIDE	76	3.82990	4.35989	13.84		
1,1-DICHLOROETHENE	61	3.02810	2.68989	11.17	*	
1,1-DICHLOROETHANE	63	3.36439	3.01051	10.52		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.46619	5.88		
CHLOROFORM	83	3.56796	3.38212	5.21	*	
1,2-DICHLOROETHANE	62	3.55680	3.11109	12.53		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.65163	11.57		
2-BUTANONE	72	.06798	.06566	3.40		
1,1,1-TRICHLOROETHANE	97	.59787	.49398	17.38		
CARBON TETRACHLORIDE	117	.59043	.48474	17.90		
VINYL ACETATE	43	1.19023	.94171	20.88		
BROMODICHLOROMETHANE	83	.65552	.58932	10.10		
1,2-DICHLOROPROPANE	63	.46960	.41874	10.83	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.77053	9.53		
TRICHLOROETHENE	130	.40336	.36346	9.89		
DIBROMOCHLOROMETHANE	129	.55837	.50185	10.12		
1,1,2-TRICHLOROETHANE	97	.36284	.37020	2.03		
BENZENE	78	1.16600	1.14788	1.55		
CIS-1,3-DICHLOROPROPENE	75	.52628	.44568	15.32		
2-CHLOROETHYLVINYLETHER	63	.33081	.14390	56.50		
BROMOFORM	173	.62246	.48972	21.33		**
4-METHYL-2-PENTANONE	43	1.12348	.78676	29.97		
2-HEXANONE	43	.92838	.59526	35.88		
TETRACHLOROETHENE	164	.47024	.42368	9.90		
1,1,2,2-TETRACHLOROETHANE	83	.80085	.80977	1.11		**
TOLUENE-D8 (SURR)	98	1.36277	1.40574	3.15		
TOLUENE	92	.89572	.91569	2.23	*	
CHLOROBENZENE	112	1.10402	1.12501	1.90		**
ETHYLBENZENE	91	1.85535	1.90292	2.56	*	

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

e No: V-4465 Calibration Date: 11/21/86

Contractor: E & EM INC. Time: 21:10

Contract No: IL-3140 Laboratory ID: >C5660

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.71103	.72299	1.68		
STYRENE	104	.98260	1.17756	19.84		
TOTAL XYLENES	91	1.41320	1.56184	10.52		

- Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

.e No: U-4465 Calibration Date: 11/24/86

Contractor: E & EM INC. Time: 23:06

Contract No: IL-3140 Laboratory ID: >C5685

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.30296	2.09830	8.89		**
BROMOMETHANE	94	1.43187	1.32417	7.52		
VINYL CHLORIDE	62	1.60438	1.26573	21.11	*	
CHLOROETHANE	64	.69191	.53284	22.99		
METHYLENE CHLORIDE	84	1.38013	1.56332	13.27		
ACETONE	43	1.61869	1.40209	13.38		
TRICHLOROFLUOROMETHANE	101	3.13900	2.62456	16.39		
CARBON DISULFIDE	76	3.82990	4.24752	10.90		
1,1-DICHLOROETHENE	61	3.02810	2.61429	13.67	*	
1,1-DICHLOROETHANE	63	3.36439	3.05814	9.10		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.44568	7.20		
CHLOROFORM	83	3.56796	3.34959	6.12	*	
1,2-DICHLOROETHANE	62	3.55680	3.11807	12.33		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.58757	13.71		
2-BUTANONE	72	.06798	.09317	37.05		
1,1,1-TRICHLOROETHANE	97	.59787	.51674	13.57		
CARBON TETRACHLORIDE	117	.59043	.48802	17.35		
VINYL ACETATE	43	1.19023	1.09800	7.75		
BROMODICHLOROMETHANE	83	.65552	.59091	9.86		
1,2-DICHLOROPROPANE	63	.46960	.42367	9.78	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.75043	6.67		
TRICHLOROETHENE	130	.40336	.36192	10.27		
DIBROMOCHLOROMETHANE	129	.55837	.48059	13.93		
1,1,2-TRICHLOROETHANE	97	.36284	.34764	4.19		
BENZENE	78	1.16600	1.10875	4.91		
CIS-1,3-DICHLOROPROPENE	75	.52628	.43617	17.12		
2-CHLOROETHYLVINYLETHER	63	.33081	.17998	45.59		
BROMOFORM	173	.62246	.46099	25.94		**
4-METHYL-2-PENTANONE	43	1.12348	.77400	31.11		
2-HEXANONE	43	.92838	.65761	29.17		
TETRACHLOROETHENE	164	.47024	.39207	16.62		
1,1,2,2-TETRACHLOROETHANE	83	.80085	.78740	1.68		**
TOLUENE-D8 (SURR)	98	1.36277	1.42065	4.25		
TOLUENE	92	.89572	1.12208	25.27	*	
CHLOROBENZENE	112	1.10402	1.09422	.89		**
ETHYLBENZENE	91	1.85535	1.87332	.97	*	

- Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

recycled paper

Continuing Calibration Check
HSL Compounds

e No: V-4465 Calibration Date: 11/24/86

Contractor: E & EM INC. Time: 23:06

Contract No: IL-3140 Laboratory ID: :C5685

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.71103	.70318	1.10		
STYRENE	104	.98260	1.15335	17.38		
TOTAL XYLENES	91	1.41320	1.55499	10.03		

- Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

recycled paper

Continuing Calibration Check
HSL Compounds

Ca· No: U-4465 Calibration Date: 11/25/86

Contractor: E & EM INC. Time: 09:58

Contract No: IL-3140 Laboratory ID: >C5697

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.30296	2.18012	5.33		**
BROMOMETHANE	94	1.43187	1.40044	2.20		
VINYL CHLORIDE	62	1.60438	1.43675	10.45	*	
CHLOROETHANE	64	.69191	.55169	20.26		
METHYLENE CHLORIDE	84	1.38013	1.44370	4.61		
ACETONE	43	1.61869	.92859	42.63		
TRICHLOROFLUOROMETHANE	101	3.13900	3.45583	10.09		
CARBON DISULFIDE	76	3.82990	5.06948	32.37		
1,1-DICHLOROETHENE	61	3.02810	3.24600	7.20	*	
1,1-DICHLOROETHANE	63	3.36439	3.49743	3.95		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.70996	9.77		
CHLOROFORM	83	3.56796	3.76267	5.46	*	
1,2-DICHLOROETHANE	62	3.55680	3.37036	5.24		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.51274	16.20		
2-BUTANONE	72	.06798	.10435	53.50		
1,1,1-TRICHLOROETHANE	97	.59787	.65846	10.13		
CARBON TETRACHLORIDE	117	.59043	.64423	9.11		
VINYL ACETATE	43	1.19023	1.15544	2.92		
BROMODICHLOROMETHANE	83	.65552	.67986	3.71		
1,2-DICHLOROPROPANE	63	.46960	.47484	1.12	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.85174	21.08		
TRICHLOROETHENE	130	.40336	.46262	14.69		
DIBROMOCHLOROMETHANE	129	.55837	.56007	.30		
1,1,2-TRICHLOROETHANE	97	.36284	.39743	9.53		
BENZENE	78	1.16600	1.29478	11.05		
CIS-1,3-DICHLOROPROPENE	75	.52628	.48277	8.27		
2-CHLOROETHYLVINYLETHER	63	.33081	.20872	39.33		
BROMOFORM	173	.62246	.56474	9.27		**
4-METHYL-2-PENTANONE	43	1.12348	1.02816	8.48		
2-HEXANONE	43	.92838	.83046	10.55		
TETRACHLOROETHENE	164	.47024	.54105	15.06		
1,1,2,2-TETRACHLOROETHANE	83	.80085	.86173	7.60		**
TOLUENE-D8 (SURR)	98	1.36277	1.42593	4.63		
TOLUENE	92	.89572	1.08577	21.22	*	
CHLOROBENZENE	112	1.10402	1.27994	15.93		**
ETHYLBENZENE	91	1.85535	2.19459	18.28	*	

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

recycled paper
ecology and environment

Continuing Calibration Check
HSL Compounds

Case No: V-4465 Calibration Date: 11/25/86

Contractor: E & EM INC. Time: 09:58

Contract No: IL-3140 Laboratory ID: >C5697

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.71103	.80569	13.31		
STYRENE	104	.98260	1.65642	68.58		
TOTAL XYLENES	91	1.41320	2.29163	62.16		

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

recycled paper
ecology and environment

Continuing Calibration Check
HSL Compounds

Case No: U-4465 Calibration Date: 11/25/86

Contractor: E & EM INC. Time: 22:07

Contract No: IL-3140 Laboratory ID: >C5710

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.30296	1.57132	31.77		**
BROMOMETHANE	94	1.43187	.94206	34.21		
VINYL CHLORIDE	62	1.60438	.92489	42.35	*	
CHLOROETHANE	64	.69191	.31986	53.77		
METHYLENE CHLORIDE	84	1.38013	2.18028	57.98		
ACETONE	43	1.61869	.52711	67.44		
TRICHLOROFLUOROMETHANE	101	3.13900	3.10321	1.14		
CARBON DISULFIDE	76	3.82990	5.17306	35.07		
1,1-DICHLOROETHENE	61	3.02810	2.77406	8.39	*	
1,1-DICHLOROETHANE	63	3.36439	2.91123	13.47		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.50940	3.11		
CHLOROFORM	83	3.56796	3.17297	11.07	*	
1,2-DICHLOROETHANE	62	3.55680	2.72980	23.25		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.33030	22.29		
2-BUTANONE	72	.06798	.09601	41.24		
1,1,1-TRICHLOROETHANE	97	.59787	.59408	.63		
CARBON TETRACHLORIDE	117	.59043	.58105	1.59		
VINYL ACETATE	43	1.19023	.93630	21.33		
BROMODICHLOROMETHANE	83	.65552	.63185	3.61		
1,2-DICHLOROPROPANE	63	.46960	.43748	6.84	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.78795	12.01		
TRICHLOROETHENE	130	.40336	.39267	2.65		
DIBROMOCHLOROMETHANE	129	.55837	.51495	7.78		
1,1,2-TRICHLOROETHANE	97	.36284	.37217	2.57		
BENZENE	78	1.16600	1.19742	2.69		
CIS-1,3-DICHLOROPROPENE	75	.52628	.45471	13.60		
2-CHLOROETHYLVINYLETHER	63	.33081	.16304	50.71		
BROMOFORM	173	.62246	.47975	22.93		**
4-METHYL-2-PENTANONE	43	1.12348	.83348	25.81		
2-HEXANONE	43	.92838	.67300	27.51		
TETRACHLOROETHENE	164	.47024	.44397	5.59		
1,1,2,2-TETRACHLOROETHANE	83	.80085	.81164	1.35		**
TOLUENE-D8 (SURR)	98	1.36277	1.48370	8.87		
TOLUENE	92	.89572	.94587	5.60	*	
CHLOROBENZENE	112	1.10402	1.13040	2.39		**
ETHYLBENZENE	91	1.85535	1.95504	5.37	*	

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

recycled paper

Continuing Calibration Check
HSL Compounds

Case No: U-4465

Calibration Date: 11/25/86

Contractor: E & EM INC.

Time: 22:07

Contract No: IL-3140

Laboratory ID: >C5710

Instrument ID: HP-5995C

Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.71103	.73862	3.88		
STYRENE	104	.98260	1.16413	18.48		
TOTAL XYLENES	91	1.41320	1.58305	12.02		

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

recycled paper

Continuing Calibration Check
HSL Compounds

Case No: U-4465 Calibration Date: 11/26/86

Contractor: E & EM INC. Time: 20:57

Contract No: IL-3140 Laboratory ID: >C5810

Instrument ID: HP-5995C Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.30296	3.23934	40.66		**
BROMOMETHANE	94	1.43187	1.82947	27.77		
VINYL CHLORIDE	62	1.60438	1.85666	15.72	*	
CHLOROETHANE	64	.69191	.90329	30.55		
METHYLENE CHLORIDE	84	1.38013	1.91469	38.73		
ACETONE	43	1.61869	.97385	39.84		
TRICHLOROFLUOROMETHANE	101	3.13900	3.54199	12.84		
CARBON DISULFIDE	76	3.82990	4.95725	29.44		
1,1-DICHLOROETHENE	61	3.02810	3.26705	7.89	*	
1,1-DICHLOROETHANE	63	3.36439	3.54180	5.27		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.71281	9.95		
CHLOROFORM	83	3.56796	4.00615	12.28	*	
1,2-DICHLOROETHANE	62	3.55680	4.05845	14.10		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	3.04005	1.38		
2-BUTANONE	72	.06798	.07221	6.23		
1,1,1-TRICHLOROETHANE	97	.59787	.53650	10.27		
CARBON TETRACHLORIDE	117	.59043	.54360	7.93		
VINYL ACETATE	43	1.19023	.94767	20.38		
BROMODICHLOROMETHANE	83	.65552	.58175	11.25		
1,2-DICHLOROPROPANE	63	.46960	.42375	9.76	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.75241	6.96		
TRICHLOROETHENE	130	.40336	.45141	11.91		
DIBROMOCHLOROMETHANE	129	.55837	.50743	9.12		
1,1,2-TRICHLOROETHANE	97	.36284	.35851	1.19		
BENZENE	78	1.16600	1.15837	.65		
CIS-1,3-DICHLOROPROPENE	75	.52628	.44459	15.52		
2-CHLOROETHYLVINYLETHER	63	.33081	.28307	38.61		
BROMOFORM	173	.62246	.52285	16.00		**
4-METHYL-2-PENTANONE	43	1.12348	.95043	15.40		
2-HEXANONE	43	.92838	.72768	21.62		
TETRACHLOROETHENE	164	.47024	.50840	8.12		
1,1,2,2-TETRACHLOROETHANE	83	.80085	.68100	14.97		**
TOLUENE-D8 (SURR)	98	1.36277	1.33640	1.94		
TOLUENE	92	.89572	.95443	6.55	*	
CHLOROBENZENE	112	1.10402	1.15542	4.65		**
ETHYLBENZENE	91	1.85535	1.94955	5.08	*	

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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Continuing Calibration Check
HSL Compounds

Case No: V-4465

Calibration Date: 11/26/86

Contractor: E & EM INC.

Time: 20:57

Contract No: IL-3140

Laboratory ID: >C5810

Instrument ID: HP-5995C

Initial Calibration Date: 07/14/86

Minimum $\overline{RF}$ for SPCC is .3

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.71103	.66839	6.00		
STYRENE	104	.98260	1.15971	18.03		
TOTAL XYLENES	91	1.41320	1.59302	12.72		

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

recycled paper
ecology and environment

Continuing Calibration Check
HSL Compounds

Case No: U-4465 Calibration Date: 12/01/86

Contractor: E & E, INC. Time: 10:32

Contract No: II-3140 Laboratory ID: >B3134

Instrument ID: HP-5970 Initial Calibration Date: 07/31/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5	(SURR) 99	1.37894	1.19774	13.14		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL	(SURR) 112	.86917	.73524	15.41		
PHENOL	94	1.27723	1.05248	17.60	*	
2-METHYL PHENOL	108	1.06214	.93000	12.44		
2-CHLOROPHENOL	128	1.17232	.99974	14.72		
4-METHYL PHENOL	108	1.06894	.95046	11.08		
2-NITROPHENOL	139	.19333	.21171	9.51	*	
2,4-DIMETHYLPHENOL	122	.27900	.29812	3.99		
BENZOIC ACID	105	.23920	.21189	11.42		
2,4-DICHLOROPHENOL	162	.30213	.32770	8.46	*	
4-CHLORO-3-METHYLPHENOL	107	.33099	.30214	8.72	*	
2,4,6-TRICHLOROPHENOL	196	.44521	.50978	14.50	*	
2,4,5-TRICHLOROPHENOL	196	.51987	.55293	6.36		
2,4,6-TRIBROMOPHENOL	(SURR) 330	.32822	.25054	23.67		
2,4-DINITROPHENOL	184	.16189	.15258	5.76		**
4-NITROPHENOL	139	.16233	.10857	33.12		**
4,6-DINITRO-2-METHYLPHENOL	198	.14211	.16152	13.65		
PENTACHLOROPHENOL	266	.17144	.16472	3.92	*	

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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ecology and environment

Continuing Calibration Check
HSL Compounds

Case No: U-4465 Calibration Date: 12/01/86

Contractor: E & E, INC. Time: 11:28

Contract No: II-3140 Laboratory ID: >83135

Instrument ID: HP-5970 Initial Calibration Date: 07/30/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.52341	1.07182	29.64		
BIS(-2-CHLOROETHYL)ETHER	93	1.23992	.91166	26.47		
1,3-DICHLOROBENZENE	146	1.38276	1.21320	12.26		
1,4-DICHLOROBENZENE	146	1.36777	1.19731	12.46	*	
BENZYL ALCOHOL	79	1.07958	.84966	22.13		
1,2-DICHLOROBENZENE	146	1.42808	1.31979	7.58		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.97018	2.13959	27.96		
N-NITROSO-DI-N-PROPYLAMINE	70	1.29228	.92613	28.33		**
HEXACHLOROETHANE	117	.70913	.59412	16.22		
NITROBENZENE-D5 (SURR)	82	.40084	.32706	18.41		
NITROBENZENE	77	.41948	.31755	24.30		
ISOPHORONE	82	.80995	.65938	18.59		
BIS(-2-CHLOROETHOXY)METHANE	93	.45577	.37549	17.61		
1,2,4-TRICHLOROBENZENE	180	.37851	.36546	3.45		
NAPHTHALENE	128	.98472	.93078	5.48		
4-CHLOROANILINE	127	.39458	.32779	16.93		
HEXACHLOROBUTADIENE	225	.25803	.25402	1.55	*	
2-METHYLNAPHTHALENE	142	.62355	.56434	9.50		
HEXACHLOROCYCLOPENTADIENE	237	.45397	.46686	2.84		**
2-FLUOROBIPHENYL (SURR)	172	1.33061	1.53503	15.36		
2-CHLORONAPHTHALENE	162	1.20816	1.21970	.95		
2-NITROANILINE	65	.43896	.30816	29.80		
DIMETHYL PHTHALATE	163	1.43709	1.42791	.64		
4-NITROANILINE	138	.25992	.16322	37.20		
DIBENZOFURAN	168	1.61498	1.48572	8.00		
ACENAPHTHYLENE	152	1.80371	1.87374	3.88		
FLUORENE	166	1.19425	1.09894	7.98		
3-NITROANILINE	138	.15454	.05415	64.96		
ACENAPHTHENE	153	1.18706	1.33022	12.06	*	
2,4-DINITROTOLUENE	165	.38183	.26782	29.87		
2,6-DINITROTOLUENE	165	.35087	.33241	5.26		
DIETHYLPHTHALATE	149	1.39014	1.42708	2.66		
4-CHLOROPHENYL-PHENYLETHER	204	.62534	.52877	15.44		
N-NITROSODIPHENYLAMINE	169	.42524	.48050	13.00	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26659	.27589	3.49		
HEXACHLOROBENZENE	284	.34094	.37530	10.08		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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Continuing Calibration Check
HSL Compounds

Case No: V-4465 Calibration Date: 12/01/86

Contractor: E & E, INC. Time: 11:29

Contract No: IL-3140 Laboratory ID: >83135

Instrument ID: HP-5970 Initial Calibration Date: 07/30/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	.97758	.96721	1.06		
ANTHRACENE	178	1.00646	.93566	7.03		
DI-N-BUTYLPHTHALATE	149	1.12721	1.26177	11.94		
FLUORANTHENE	202	.81517	.71556	12.22	*	
BENZIDINE		-	-	-		
PYRENE	202	1.60192	2.10706	31.53		
TERPHENYL-D14 (SURR)	244	1.11052	1.01485	8.61		
BUTYLBENZYLPHTHALATE	149	.67361	.73182	8.64		
3,3'DICHLOROBENZIDINE	252	.31882	.20516	35.65		
BENZO(A)ANTHRACENE	228	1.12037	.90019	19.65		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.90083	1.00510	11.57		
CHRYSENE	228	1.12666	1.12361	.27		
DI-N-OCTYL PHTHALATE	149	1.70682	1.89323	10.92	*	
BENZO(B)FLUORANTHENE	252	1.21474	1.01014	16.84		
BENZO(K)FLUORANTHENE	252	1.23716	1.30544	5.52		
BENZO(A)PYRENE	252	1.12089	1.00875	10.00	*	
INDENO(1,2,3-CD)PYRENE	276	1.04154	.65918	36.71		
DIBENZ(A,H)ANTHRACENE	279	1.06755	.79079	25.92		
BENZO(G,H,I)PERYLENE	276	1.15866	.87737	24.28		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

recycled paper

Continuing Calibration Check
HSL Compounds

Case No: U-4465

Calibration Date: 12/01/86

C tractor: E & E, INC.

Time: 15:46

Contract No: IL-3140

Laboratory ID: >D1151

Instrument ID: HP-5970D

Initial Calibration Date: 06/20/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5 (SURR)	99	1.40059	1.41412	.97		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.92130	.95399	3.55		
PHENOL	94	1.34105	1.29795	3.21	*	
2-METHYL PHENOL	108	1.03158	1.06189	2.94		
2-CHLOROPHENOL	128	1.13833	1.20233	5.62		
4-METHYL PHENOL	108	1.07582	1.06778	.75		
2-NITROPHENOL	139	.20262	.18654	7.93	*	
2,4-DIMETHYLPHENOL	122	.28916	.27366	5.36		
BENZOIC ACID	105	.20401	.11383	44.21		
2,4-DICHLOROPHENOL	162	.31568	.27990	11.33	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.25907	22.84	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.48861	7.28	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.44451	9.15		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32584	.25583	21.49		
2,4-DINITROPHENOL	184	.17071	.06552	61.62		**
4-NITROPHENOL	139	.32314	.08748	72.93		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.10085	16.25		
PENTACHLOROPHENOL	266	.18773	.14310	23.77	*	

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

recycled paper

Continuing Calibration Check
HSL Compounds

Case No: U-4465

Calibration Date: 12/01/86

.tractor: E & E, INC.

Time: 16:42

Contract No: IL-3140

Laboratory ID: >D1152

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.54043	1.28751	16.42		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.06653	9.94		
1,3-DICHLOROBENZENE	146	1.47624	1.30606	11.53		
1,4-DICHLOROBENZENE	146	1.46874	1.40856	4.10	*	
BENZYL ALCOHOL	79	1.13473	1.00552	11.39		
1,2-DICHLOROBENZENE	146	1.49193	1.38421	7.22		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	2.79725	4.32		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.12613	4.66		**
HEXACHLOROETHANE	117	.70841	.65661	7.31		
NITROBENZENE-D5 (SURR)	82	.37437	.34698	7.32		
NITROBENZENE	77	.37969	.35403	6.76		
ISOPHORONE	82	.75594	.71279	5.71		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.38896	5.74		
1,2,4-TRICHLOROBENZENE	180	.38442	.35121	8.64		
NAPHTHALENE	128	.96668	.93341	3.44		
4-CHLOROANILINE	127	.37796	.31550	16.53		
HEXACHLOROBUTADIENE	225	.25908	.24516	5.37	*	
2-METHYLNAPHTHALENE	142	.64484	.58735	8.91		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.39772	30.00		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.67283	3.70		
2-CHLORONAPHTHALENE	162	1.37281	1.32634	3.38		
2-NITROANILINE	65	.47645	.35960	24.53		
DIMETHYL PHTHALATE	163	1.71954	1.47068	14.47		
4-NITROANILINE	138	.25828	.15598	39.61		
DIBENZOFURAN	168	1.90873	1.58730	16.84		
ACENAPHTHYLENE	152	2.10065	1.96967	6.24		
FLUORENE	166	1.34670	1.11966	16.86		
3-NITROANILINE	138	.09246	.05198	43.78		
ACENAPHTHENE	153	1.37857	1.29916	5.76	*	
2,4-DINITROTOLUENE	165	.33212	.23152	30.29		
2,6-DINITROTOLUENE	165	.37112	.28154	24.14		
DIETHYLPHTHALATE	149	1.58664	1.36068	14.24		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.54049	23.24		
N-NITROSODIPHENYLAMINE	169	.51771	.48835	5.67	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.28094	16.09		
HEXACHLOROBENZENE	284	.43791	.35763	18.33		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{R}_F$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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ecology and environment

Continuing Calibration Check
HSL Compounds

Case No: U-4465

Calibration Date: 12/01/86

Contractor: E & E, INC.

Time: 16:42

Contract No: IL-340

Laboratory ID: >D1152

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	1.01505	.95833	5.59		
ANTHRACENE	178	.99874	.93494	6.39		
DI-N-BUTYLPHTHALATE	149	.97124	1.10773	14.05		
FLUORANTHENE	202	.62146	.73604	18.44	*	
BENZIDINE		.65247	.21896	66.44		
PYRENE	202	2.68642	1.54062	42.65		
TERPHENYL-D14 (SURR)	244	1.48172	.89654	39.49		
BUTYLBENZYLPHTHALATE	149	.68277	.59265	13.20		
3,3'DICHLOROBENZIDINE	252	.13263	.17498	31.93		
BENZO(A)ANTHRACENE	228	.91524	.94793	3.57		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.80288	1.58		
CHRYSENE	228	1.19137	1.02246	14.18		
DI-N-OCTYL PHTHALATE	149	1.64173	1.58084	3.71	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.10676	2.47		
BENZO(K)FLUORANTHENE	252	1.55063	1.21370	21.73		
BENZO(A)PYRENE	252	1.10877	1.03452	6.70	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	.97130	1.92		
DIBENZ(A,H)ANTHRACENE	278	.81159	.90624	11.66		
BENZO(G,H,I)PERYLENE	276	1.10886	1.05506	4.85		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

ase No: V-4465 Calibration Date: 12/02/86

on tor: E & E, INC. Time: 11:11

ontract No: IL-3140 Laboratory ID: >B3148

nstrument ID: HP-5970 Initial Calibration Date: 07/31/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
HENOL-D5 (SURR)	99	1.37894	1.34714	2.31		
ENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.86917	1.02819	18.30		
HENOL	94	1.27723	1.32925	4.07	*	
2-METHYL PHENOL	108	1.06214	1.13278	6.65		
2-CHLOROPHENOL	128	1.17232	1.28978	10.02		
4-METHYL PHENOL	108	1.06894	1.12806	5.53		
2-NITROPHENOL	139	.19333	.21760	12.55	*	
,4-DIMETHYLPHENOL	122	.27900	.30725	10.13		
ENZOIC ACID	105	.23920	.23780	.59		
,4-DICHLOROPHENOL	162	.30213	.35135	16.29	*	
-CHLORO-3-METHYLPHENOL	107	.33099	.31167	5.84	*	
,4,6-TRICHLOROPHENOL	196	.44521	.55386	24.40	*	
,4,5-TRICHLOROPHENOL	196	.51987	.57670	10.93		
,4,6-TRIBROMOPHENOL(SURR)	330	.32822	.24740	24.62		
,4-DINITROPHENOL	184	.16189	.15125	6.57		**
-NITROPHENOL	139	.16233	.09040	44.31		**
,6-DINITRO-2-METHYLPHENOL	198	.14211	.16366	15.16		
ENTACHLOROPHENOL	266	.17144	.13511	21.19	*	

F - Response Factor from daily standard file at 50.00 UG/L

F - Average Response Factor from Initial Calibration Form VI

Diff - % Difference from original average or curve

CC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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Continuing Calibration Check
HSL Compounds

ase No: U-4465 Calibration Date: 12/02/86

on .or: E & E, INC. Time: 12:10

ontract No: IL-3140 Laboratory ID: >B3149

nstrument ID: HP-5970 Initial Calibration Date: 07/30/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
NILINE	93	1.52341	1.30284	14.48		
IS(-2-CHLOROETHYL)ETHER	93	1.23992	1.07204	13.54		
,3-DICHLOROBENZENE	146	1.38276	1.35038	2.34		
,4-DICHLOROBENZENE	146	1.36777	1.34745	1.49	*	
ENZYL ALCOHOL	79	1.07958	.88202	18.30		
,2-DICHLOROBENZENE	146	1.42808	1.42105	.49		
IS(2-CHLOROISOPROPYL)ETHER	45	2.97018	2.29828	22.62		
-NITROSO-DI-N-PROPYLAMINE	70	1.29228	1.01907	21.14		**
EXACHLOROETHANE	117	.70913	.63000	11.16		
ITROBENZENE-D5 (SURR)	82	.40084	.32571	18.74		
ITROBENZENE	77	.41948	.32377	22.82		
SOPHORONE	82	.80995	.66639	17.72		
IS(-2-CHLOROETHOXY)METHANE	93	.45577	.37860	16.93		
,2,4-TRICHLOROBENZENE	180	.37851	.35750	5.55		
APHTHALENE	128	.98472	.90852	7.74		
-CHLOROANILINE	127	.39458	.26425	33.03		
EXACHLOROBUTADIENE	225	.25803	.23983	7.05	*	
-METHYLNAPHTHALENE	142	.62355	.56830	8.86		
EXACHLOROCYCLOPENTADIENE	237	.45397	.34691	23.58		**
-FLUOROBIPHENYL (SURR)	172	1.33061	1.50855	13.37		
-CHLORONAPHTHALENE	162	1.20816	1.22526	1.41		
-NITROANILINE	65	.43896	.35257	19.68		
IMETHYL PHTHALATE	163	1.43709	1.57339	9.48		
-NITROANILINE	138	.25992	.19697	24.22		
IBENZOFURAN	168	1.61498	1.56023	3.39		
CENAPHTHYLENE	152	1.80371	1.87367	3.88		
LUORENE	166	1.19425	1.13353	5.08		
-NITROANILINE	138	.15454	.08932	42.20		
CENAPHTHENE	153	1.18706	1.24885	5.21	*	
,4-DINITROTOLUENE	165	.38188	.32122	15.89		
,6-DINITROTOLUENE	165	.35087	.35179	.26		
IETHYLPHTHALATE	149	1.39014	1.35288	2.68		
-CHLOROPHENYL-PHENYLETHER	204	.62534	.54478	12.88		
-NITROSODIPHENYLAMINE	169	.42524	.50807	19.48	*	
-BROMOPHENYL-PHENYL ETHER	248	.26659	.27018	1.35		
EXACHLOROBENZENE	284	.34094	.32338	5.15		

F - Response Factor from daily standard file at 50.00 UG/L

$\overline{F}$ - Average Response Factor from Initial Calibration Form VI

Diff - % Difference from original average or curve

CC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

ase No: U-4465 Calibration Date: 12/02/86

on tor: E & E, INC. Time: 12:10

ontract No: IL-3140 Laboratory ID: >B3149

nstrument ID: HP-5970 Initial Calibration Date: 07/30/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	.97758	.95021	2.80		
ANTHRACENE	178	1.00646	1.01537	.89		
DI-N-BUTYLPHTHALATE	149	1.12721	1.17098	3.88		
FLUORANTHENE	202	.81517	.77297	5.18	*	
BENZIDINE		-	-	-		
PYRENE	202	1.60192	1.52657	4.70		
TERPHENYL-D14 (SURR)	244	1.11052	.89388	19.51		
BUTYLBENZYLPHTHALATE	149	.67361	.68404	1.55		
3,3'DICHLOROBENZIDINE	252	.31882	.28215	11.50		
BENZO(A)ANTHRACENE	228	1.12037	.98334	12.23		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.90083	.92812	3.03		
CHRYSENE	228	1.12666	1.04931	6.87		
DI-N-OCTYL PHTHALATE	149	1.70682	1.86889	9.50	*	
BENZO(B)FLUORANTHENE	252	1.21474	.94140	22.50		
BENZO(K)FLUORANTHENE	252	1.23716	1.34014	8.32		
BENZO(A)PYRENE	252	1.12089	1.02066	8.94	*	
INDENO(1,2,3-CD)PYRENE	276	1.04154	.79496	23.67		
DIBENZ(A,H)ANTHRACENE	278	1.06755	.86695	18.79		
BENZO(G,H,I)PERYLENE	276	1.15866	.92822	19.89		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: U-4465 Calibration Date: 12/02/86

ntractor: E & E, INC. Time: 11:58

Contract No: IL-3140 Laboratory ID: >D1170

Instrument ID: HP-5970D Initial Calibration Date: 10/17/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	1.01505	.93891	7.50		
ANTHRACENE	178	.99874	.90915	8.97		
DI-N-BUTYLPHTHALATE	149	.97124	.99092	2.03		
FLUORANTHENE	202	.62146	.55811	10.19	*	
BENZIDINE		.65247	.49453	24.21		
PYRENE	202	2.68642	2.17695	18.96		
TERPHENYL-D14 (SURR)	244	1.48172	1.25953	15.00		
BUTYLBENZYLPHTHALATE	149	.68277	.70712	3.57		
3,3'DICHLOROBENZIDINE	252	.13263	.11539	13.00		
BENZO(A)ANTHRACENE	228	.91524	.91723	.22		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.85912	5.31		
CHRYSENE	228	1.19137	1.03252	13.33		
DI-N-OCTYL PHTHALATE	149	1.64173	1.83134	11.55	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.05961	6.63		
BENZO(K)FLUORANTHENE	252	1.55063	1.51540	2.27		
BENZO(A)PYRENE	252	1.10877	1.03481	6.67	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	.81524	17.68		
DIBENZ(A,H)ANTHRACENE	278	.81159	.78991	2.67		
BENZO(G,H,I)PERYLENE	276	1.10886	.97888	11.72		

RF - Response Factor from daily standard file at 50.00 UG/L

Rf - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: V-4465

Calibration Date: 12/02/86

ıtractor: E & E, INC.

Time: 11:58

Contract No: IL-3140

Laboratory ID: >D1170

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.54043	1.52317	1.12		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.18100	.28		
1,3-DICHLOROBENZENE	146	1.47624	1.39037	5.82		
1,4-DICHLOROBENZENE	146	1.46874	1.41710	3.52	*	
BENZYL ALCOHOL	79	1.13473	1.18948	4.83		
1,2-DICHLOROBENZENE	146	1.49193	1.41669	5.04		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	3.08646	15.11		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.34132	13.56		**
HEXACHLOROETHANE	117	.70841	.68394	3.45		
NITROBENZENE-D5 (SURR)	82	.37437	.37971	1.43		
NITROBENZENE	77	.37969	.38514	1.43		
ISOPHORONE	82	.75594	.78405	3.72		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.43625	5.72		
1,2,4-TRICHLOROBENZENE	180	.38442	.34076	11.36		
NAPHTHALENE	128	.96668	.91162	5.70		
4-CHLOROANILINE	127	.37796	.38787	2.62		
HEXACHLOROBUTADIENE	225	.25908	.22075	14.80	*	
2-METHYLNAPHTHALENE	142	.64484	.62442	3.17		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.36784	35.26		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.58918	1.49		
2-CHLORONAPHTHALENE	162	1.37281	1.31275	4.37		
2-NITROANILINE	65	.47645	.44433	6.74		
DIMETHYL PHTHALATE	163	1.71954	1.58098	8.06		
4-NITROANILINE	138	.25828	.20899	19.08		
DIBENZOFURAN	168	1.90873	1.63959	14.10		
ACENAPHTHYLENE	152	2.10065	1.98854	5.34		
FLUORENE	166	1.34670	1.15202	14.46		
3-NITROANILINE	138	.09246	.07181	22.34		
ACENAPHTHENE	153	1.37857	1.29080	6.37	*	
2,4-DINITROTOLUENE	165	.33212	.25844	22.18		
2,6-DINITROTOLUENE	165	.37112	.31656	14.70		
DIETHYLPHTHALATE	149	1.58664	1.44436	8.97		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.56263	20.10		
N-NITROSODIPHENYLAMINE	169	.51771	.53103	2.57	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.31467	6.02		
HEXACHLOROBENZENE	284	.43791	.39252	10.36		

RF - Response Factor from daily standard file at 50.00 UG/L

Rr - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: U-4465

Calibration Date: 12/02/86

(tractor: E & E, INC.

Time: 10:59

Contract No: IL-3140

Laboratory ID: >D1169

Instrument ID: HP-5970D

Initial Calibration Date: 06/20/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5 (SURR)	99	1.40059	1.51492	8.16		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.92130	1.10933	20.41		
PHENOL	94	1.34105	1.44875	8.03	*	
2-METHYL PHENOL	108	1.03158	1.18001	14.39		
2-CHLOROPHENOL	128	1.13833	1.30706	14.82		
4-METHYL PHENOL	108	1.07582	1.17465	9.19		
2-NITROPHENOL	139	.20262	.21927	8.22	*	
2,4-DIMETHYLPHENOL	122	.28916	.30238	4.57		
BENZOIC ACID	105	.20401	.16028	21.43		
2,4-DICHLOROPHENOL	162	.31568	.31378	.60	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.31131	7.28	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.52906	16.16	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.53180	8.68		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32584	.32674	.28		
2,4-DINITROPHENOL	184	.17071	.11595	32.08		**
4-NITROPHENOL	139	.32314	.11315	64.98		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.12848	6.70		
PENTACHLOROPHENOL	266	.18773	.14680	21.80	*	

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{R_F}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: U-4465

Calibration Date: 12/03/86

ıtractor: E & E, INC.

Time: 12:02

Contract No: IL-3140

Laboratory ID: >D1181

Instrument ID: HP-5970D

Initial Calibration Date: 06/20/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5 (SURR)	99	1.40059	1.36392	2.62		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.92130	1.01987	10.70		
PHENOL	94	1.34105	1.42399	6.18	*	
2-METHYL PHENOL	108	1.03158	1.12167	8.73		
2-CHLOROPHENOL	128	1.13833	1.23758	8.72		
4-METHYL PHENOL	108	1.07582	1.10925	3.11		
2-NITROPHENOL	139	.20262	.20674	2.04	*	
2,4-DIMETHYLPHENOL	122	.28916	.28522	1.36		
BENZOIC ACID	105	.20401	.17942	12.05		
2,4-DICHLOROPHENOL	162	.31568	.28633	9.30	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.29275	12.81	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.49033	7.66	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.48328	1.23		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32584	.31069	4.65		
2,4-DINITROPHENOL	184	.17071	.12594	26.23		**
4-NITROPHENOL	139	.32314	.11416	64.67		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.14393	19.53		
PENTACHLOROPHENOL	266	.18773	.16304	13.15	*	

RF - Response Factor from daily standard file at 50.00 UG/L

Rr - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: U-4465

Calibration Date: 12/03/86

C tractor: E & E, INC.

Time: 13:03

Contract No: IL-3140

Laboratory ID: >D1182

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.54043	1.44132	6.43		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.12532	4.98		
1,3-DICHLOROBENZENE	146	1.47624	1.38215	6.37		
1,4-DICHLOROBENZENE	146	1.46874	1.41768	3.48	*	
BENZYL ALCOHOL	79	1.13473	1.17849	3.86		
1,2-DICHLOROBENZENE	146	1.49193	1.42061	4.78		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	2.97619	11.00		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.29600	9.72		**
HEXACHLOROETHANE	117	.70841	.68184	3.75		
NITROBENZENE-D5 (SURR)	82	.37437	.38440	2.68		
NITROBENZENE	77	.37969	.38119	.39		
ISOPHORONE	82	.75594	.77636	2.70		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.42414	2.78		
1,2,4-TRICHLOROBENZENE	180	.38442	.34005	11.54		
NAPHTHALENE	128	.96668	.90185	6.71		
4-CHLOROANILINE	127	.37796	.36543	3.31		
HEXACHLOROBUTADIENE	225	.25908	.22019	15.01	*	
2-METHYLNAPHTHALENE	142	.64484	.64063	.65		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.36338	36.04		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.52892	5.23		
2-CHLORONAPHTHALENE	162	1.37281	1.26412	7.92		
2-NITROANILINE	65	.47645	.49626	4.16		
DIMETHYL PHTHALATE	163	1.71954	1.63921	4.67		
4-NITROANILINE	138	.25828	.22722	12.03		
DIBENZOFURAN	168	1.90873	1.68742	11.59		
ACENAPHTHYLENE	152	2.10065	1.95975	6.71		
FLUORENE	166	1.34670	1.19712	11.11		
3-NITROANILINE	138	.09246	.09975	7.89		
ACENAPHTHENE	153	1.37857	1.28275	6.95	*	
2,4-DINITROTOLUENE	165	.33212	.31082	6.41		
2,6-DINITROTOLUENE	165	.37112	.33881	8.70		
DIETHYLPHTHALATE	149	1.58664	1.50234	5.31		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.59278	15.82		
N-NITROSODIPHENYLAMINE	169	.51771	.52473	1.36	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.31044	7.28		
HEXACHLOROBENZENE	284	.43791	.37096	15.29		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: U-4465

Calibration Date: 12/03/86

(tractor: E & E, INC.

Time: 13:03

Contract No: IL-3140

Laboratory ID: >D1182

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	1.01505	.94235	7.16		
ANTHRACENE	178	.99874	.96212	3.67		
DI-N-BUTYLPHTHALATE	149	.97124	1.08139	11.34		
FLUORANTHENE	202	.62146	.69605	12.00	*	
BENZIDINE		.65247	-	-		
PYRENE	202	2.68642	1.49699	44.28		
TERPHENYL-D14 (SURR)	244	1.48172	.96372	34.96		
BUTYLBENZYLPHTHALATE	149	.68277	.65061	4.71		
3,3'DICHLOROBENZIDINE	252	.13263	.23583	77.81		
BENZO(A)ANTHRACENE	228	.91524	.94048	2.76		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.87309	7.02		
CHRYSENE	228	1.19137	1.01168	15.08		
DI-N-OCTYL PHTHALATE	149	1.64173	1.61582	1.58	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.03950	8.40		
BENZO(K)FLUORANTHENE	252	1.55063	1.20848	22.06		
BENZO(A)PYRENE	252	1.10877	1.02225	7.80	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	.92656	6.44		
DIBENZ(A,H)ANTHRACENE	278	.81159	.92825	14.37		
BENZO(G,H,I)PERYLENE	276	1.10886	1.03617	6.56		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

Continuing Calibration Check

recycled paper

Continuing Calibration Check
HSL Compounds

Case : U-4465 Calibration Date: 12/19/86

Contractor: E & E, INC. Time: 11:48

Contract No: IL-3140 Laboratory ID: >83184

Instrument ID: HP-5970 Initial Calibration Date: 07/30/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.52341	.95203	37.51		
BIS(-2-CHLOROETHYL)ETHER	93	1.23992	.95203	23.22		
1,3-DICHLOROBENZENE	146	1.38276	1.29419	6.41		
1,4-DICHLOROBENZENE	146	1.36777	1.33202	2.61	*	
BENZYL ALCOHOL	79	1.07958	.75381	30.18		
1,2-DICHLOROBENZENE	146	1.42808	1.38815	2.80		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.97018	2.27213	23.50		
N-NITROSO-DI-N-PROPYLAMINE	70	1.29228	1.03539	19.88		**
HEXACHLOROETHANE	117	.70913	.63405	10.59		
NITROBENZENE-D5 (SURR)	82	.40084	.33614	16.14		
NITROBENZENE	77	.41948	.33591	19.92		
ISOPHORONE	82	.80995	.67808	16.28		
BIS(-2-CHLOROETHOXY)METHANE	93	.45577	.39740	12.81		
1,2,4-TRICHLOROBENZENE	180	.37851	.34330	9.30		
NAPHTHALENE	128	.98472	.93894	4.65		
4-CHLOROANILINE	127	.39458	.03145	92.03		
HEXACHLOROBUTADIENE	225	.25803	.21425	16.97	*	
2-METHYLNAPHTHALENE	142	.62355	.58466	6.24		
HEXACHLOROCYCLOPENTADIENE	237	.45397	.40440	10.92		**
2-FLUOROBIPHENYL (SURR)	172	1.33061	1.55190	16.63		
2-CHLORONAPHTHALENE	162	1.20816	1.31473	8.82		
2-NITROANILINE	65	.43896	.39949	8.99		
DIMETHYL PHTHALATE	163	1.43709	1.42937	.54		
4-NITROANILINE	138	.25992	.19982	23.12		
DIBENZOFURAN	168	1.61498	1.64853	2.08		
ACENAPHTHYLENE	152	1.80371	1.96848	9.13		
FLUORENE	166	1.19425	1.15179	3.56		
3-NITROANILINE	138	.15454	.12739	17.57		
ACENAPHTHENE	153	1.18706	1.24097	4.54	*	
2,4-DINITROTOLUENE	165	.38188	.34986	8.39		
2,6-DINITROTOLUENE	165	.35087	.32646	6.96		
DIETHYLPHTHALATE	149	1.39014	1.30896	5.84		
4-CHLOROPHENYL-PHENYLETHER	204	.62534	.55230	11.68		
N-NITROSODIPHENYLAMINE	169	.42524	.45971	8.11	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26659	.22981	13.80		
HEXACHLOROBENZENE	284	.34094	.24936	26.86		

RF Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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Continuing Calibration Check
HSL Compounds

Ca lo: U-4465 Calibration Date: 12/19/86

Contractor: E & E, INC. Time: 11:48

Contract No: IL-3140 Laboratory ID: >83184

Instrument ID: HP-5970 Initial Calibration Date: 07/30/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	.97758	.97611	.15		
ANTHRACENE	178	1.00646	1.00086	.56		
DI-N-BUTYLPHTHALATE	149	1.12721	1.23309	9.39		
FLUORANTHENE	202	.81517	.95515	17.17	*	
BENZIDINE		-	-	-		
PYRENE	202	1.60192	1.24664	22.18		
TERPHENYL-D14 (SURR)	244	1.11052	.75240	32.25		
BUTYLBENZYLPHTHALATE	149	.67361	.65625	2.58		
3,3'DICHLOROBENZIDINE	252	.31882	.30181	5.34		
BENZO(A)ANTHRACENE	228	1.12037	1.02235	8.75		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.90083	.91745	1.84		
CHRYSENE	228	1.12666	1.04136	7.57		
DI-N-OCTYL PHTHALATE	149	1.70682	1.76162	3.21	*	
BENZO(B)FLUORANTHENE	252	1.21474	1.18053	2.82		
BENZO(K)FLUORANTHENE	252	1.23716	1.06001	14.32		
BENZO(A)PYRENE	252	1.12089	1.02038	8.97	*	
INDENO(1,2,3-CD)PYRENE	276	1.04154	.99872	4.11		
DIBENZ(A,H)ANTHRACENE	278	1.06755	.94721	11.27		
BENZO(G,H,I)PERYLENE	276	1.15866	1.07114	7.55		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Ca: ,: U-4465 Calibration Date: 12/19/86

Contractor: E & E, INC. Time: 13:52

Contract No: IL-3140 Laboratory ID: >83186

Instrument ID: HP-5970 Initial Calibration Date: 07/31/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5	(SURR) 99	1.37894	1.43002	3.70		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL	(SURR) 112	.86917	~~.37906~~	~~56.05~~	BJK RF = 1.1184 % DIFF = 28.67	
PHENOL	94	1.27723	1.44125	12.84	*	
2-METHYL PHENOL	108	1.06214	1.07387	1.10		
2-CHLOROPHENOL	128	1.17232	1.26496	7.90		
4-METHYL PHENOL	108	1.06894	1.07728	.78		
2-NITROPHENOL	139	.19333	.21739	12.45	*	
2,4-DIMETHYLPHENOL	122	.27900	.28956	3.79		
BENZOIC ACID	105	.23920	.17445	27.07		
2,4-DICHLOROPHENOL	162	.30213	.32864	8.77	*	
4-CHLORO-3-METHYLPHENOL	107	.33099	.28964	12.49	*	
2,4,6-TRICHLOROPHENOL	196	.44521	.51136	14.86	*	
2,4,5-TRICHLOROPHENOL	196	.51987	.50532	2.80		
2,4,6-TRIBROMOPHENOL	(SURR) 330	.32822	.21937	33.16		
2,4-DINITROPHENOL	184	.16189	.13403	17.21		**
4-NITROPHENOL	139	.16233	.08825	45.63		**
4,6-DINITRO-2-METHYLPHENOL	198	.14211	.14215	.02		
PENTACHLOROPHENOL	266	.17144	~~.12650~~	~~26.21~~ *	BJK	
			.12969	24.35		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

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PESTICIDE STANDARDS

1. FORM [illegible]
2. FORM [illegible]
3. FORM [illegible]

Pesticide Evaluation Standards Summary
(Page 1)

Case No: U-4465 Region: _____
Contract No: IL-3140
Date of Analysis 11-24-86 11-25-86 11-26-86

Laboratory: Ecology-Environmental, Inc.
GC Column: OV-1
Instrument ID: Varian 6000 GC #2

Evaluation Check for Linearity

Laboratory ID	Run 1	Run 2	Run 3	
Pesticide	Calibration Factor Eval. Mix A	Calibration Factor Eval. Mix B	Calibration Factor Eval. Mix C	% RSD (≤10%)
Aldrin	545	556	529	2.5
Endrin	483	497	472	2.6
4,4'- DDT(1)	242	270	290	9.0
Dibutyl Chlorendate	372	384	378	1.6

Evaluation Check for 4,4'- DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

	Laboratory I.D.	Time of Analysis	Endrin	4,4'- DDT	Combined(2)
Eval Mix B 72 Hour					
Eval Mix B	Run 2	13:57			15
Eval Mix B	Run 19	1:46			18
Eval Mix B	Run 32	10:14			17
Eval Mix B	Run 44	20:25			13
Eval Mix B	Run 56	14:59			14
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E, Section 7.5.4
(2) See Exhibit E, Section 7.3.1.2.2.1

Pesticide Evaluation Standards Summary
(Page 2)
Evaluation of Retention Time Shift for Dibutyl Chlorendate
Report all standards, blanks and samples

SMO Sample No	Lab ID	Time of Analysis	Percent Diff	SMO Sample No	Lab ID	Time of Analysis	Percent Diff
EVAL Mix A	Run #1	13:23	—	9755	Run #53	10:41	INF
EVAL Mix B	Run #2	13:57	0.04	9756	Run #54	12:06	*
EVAL Mix C	Run #3	14:30	0.04	9758	Run #55	13:49	*
Ind Mix A	Run #4	15:19	0.04	EVAL Mix B	Run 56	14:59	0.85
Ind Mix B	Run #5	15:52	0.07	PCB 1016/1260	Run 57	15:37	0.70
Toxaphene	Run #6	16:46	0.18				
Chlordane	Run #7	17:43	0.07				
PCB 1016/1260	Run #8	19:09	0.15				
PCB 1221	Run #9	19:43	0.07				
PCB 1232	Run #10	20:10	0.04				
PCB 1242	Run #11	20:50	0				
PCB 1248	Run #12	21:49	0.11				
PCB 1254	Run #13	22:23	0.04				
9756	Run #14	22:57	*				
9759	Run #15	23:31	*				
9760	Run #16	0:05	*				
9761	Run #17	0:38	*				
9762	Run #18	1:12	*				
Eval mix B	Run #19	1:46	0.04				
9763	Run #20	2:19	*				
9764	Run #21	2:53	*				
9765	Run #22	3:27	*				
9766	Run #23	4:00	*				
9767	Run #24	4:34	*				
Ind mix A	Run #25	5:08	0.18				
Ind mix B	Run #26	5:41	0.22				
9768	Run #27	6:15	*				
9769	Run #28	6:48	*				
9770	Run #29	7:22	*				
9757	Run #30	7:56	*				
9758	Run #31	8:30	*				
Eval mix B	Run #32	10:14	0.04				
Blank 11-14	Run #33	10:48	0.15				
Blank A 11-14	Run #34	11:28	0.33				
Blank B 11-14	Run #35	12:03	0.30				
9748	Run #36	13:46	0.70				
9749	Run #37	14:23	0.33				
PCB 1016/1260	Run #38	15:22	0.41				
9750	Run #39	16:03	Inf.				
9750 MSD	Run #40	17:06	0.70				
9750 MS	Run #41	17:44	0.26				
9751	Run #42	18:29	0.55				
9752	Run #43	19:02	0.89				
Eval mix B	Run #44	20:25	0.37				
9753	Run #45	21:13	0.85				
9754	Run #46	22:07	INF				
9771	Run #47	22:54	0.26				
9771 R1	Run #48	23:47	0.15				
9755	Run #49	0:39	AUTO				
PCB 1254	Run #50	1:27	0.22				
9756	Run #51	2:16	AUTO				
9758	Run #52	3:06	*				

Form VIII (Continued)

SCC095
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*=SURROGATE DILUTED OUT INF = INTERFERENCE AUTO = AUTOSAMPLER ERROR

Pesticide Evaluation Standards Summary
(Page 1)

Case No: U-4465 Region: _____
Contract No: JL-3140
Date of Analysis 12-1-86
12-2-86

Laboratory: Ecology + Environment, Inc.
GC Column: SP 2250/SP 2401
Instrument ID: VARIAN 6000 GC #2

Evaluation Check for Linearity

Laboratory ID	Run 1	Run 2	Run 3	
Pesticide	Calibration Factor Eval. Mix A	Calibration Factor Eval. Mix B	Calibration Factor Eval. Mix C	% RSD (≤10%)
Aldrin	728	734	769	3.0
Endrin	588	593	715	11
4,4'- DDT(1)	196	303	430	38
Dibutyl Chlorendate	460	478	485	2.7

Evaluation Check for 4,4'- DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

	Laboratory I.D.	Time of Analysis	Endrin	4,4'- DDT	Combined(2)
Eval Mix B 72 Hour					
Eval Mix B	Run 2	12:20	<1	4.3	NA
Eval Mix B	Run 20	2:11	<1	6.5	NA
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E, Section 7 5 4
(2) See Exhibit E, Section 7.3.1.2.2 1

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503095 7 85

Pesticide Evaluation Standards Summary
(Page 2)
Evaluation of Retention Time Shift for Dibutyl Chlorendate
Report all standards, blanks and samples

SMO Sample No	Lab ID	Time of Analysis	Percent Diff	SMO Sample No	Lab ID	Time of Analysis	Percent Diff
EVAL MIX A	RUN 1	11:47	—				
EVAL MIX B	2	12:20	0.13				
EVAL MIX C	3	12:54	0.04				
IND MIX A	4	16:34	0.18				
IND MIX B	5	17:08	0.13				
PCB 1016/1260	6	18:01	Ø				
PCB 1248	7	18:35	Ø				
PCB 1254	8	19:08	0.04				
9749	9	19:45	0.18				
9750	10	20:21	0.94				
9751	11	20:57	1.13				
9752	12	21:34	0.40				
9756	13	22:10	INF.				
PCB 1248	14	22:44	0.36				
9759	15	23:23	DL				
9760	16	23:56	DL				
9765	17	0:30	DL				
9767	18	1:04	DL				
9768	19	1:37	DL				
EVAL MIX B	20	2:11	0.58				
BLANK. 19A1	21	2:44	0.67				
BLANK. 19A1	22	3:18	0.49				
BLANK. 19A1	23	3:52	0.58				
IND MIX A	24	4:26	0.47				
IND MIX B	25	5:00	0.40				

Form VIII (Continued)

303095
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DL = Diluted out

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4465 Laboratory Ecology + Environment, Inc.

Contract No. IL-3140 GC Column OV-1 GC Instrument ID VARIAN 6000 GC #2

11-24-86
Run #8 Run #12 Run 13
19:09 21:49 22:23

	DATE OF ANALYSIS 11-24-86				DATE OF ANALYSIS 11-25-86			
	TIME OF ANALYSIS 15:19 15:52				TIME OF ANALYSIS 5:08 5:41			
	LABORATORY ID Run #4 Run #5				LABORATORY ID Run #25 Run #26			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.07	2.03-2.11	595		2.07	599		0.67
beta-BHC	2.21	2.17-2.25	219		2.20	220		0.46
delta-BHC	2.49	2.45-2.53	504		2.49	516		2.4
gamma-BHC	2.42	2.40-2.44	511		2.42	510		0.20
Heptachlor	3.85	3.81-3.89	438		3.85	415		5.3
Aldrin	4.75	4.70-4.80	524		4.74	522		0.38
Heptachlor Epoxide	5.76	5.69-5.83	488		5.76	502		2.9
Endosulfan I	7.15	7.05-7.25	460 *		7.14	470 *		2.2
Dieldrin	8.33	8.21-8.45	503	QUANT.	8.32	542		5.8
4,4'-DDE	8.22	8.06-8.38	471		8.21	483		2.5
Endrin	9.28	9.09-9.47	354		9.27	365		3.1
Endosulfan II	9.48	9.36-9.60	409		9.47	449		9.8
4,4'-DDD	10.33	10.12-10.54	425		10.31	453		6.6
Endosulfan Sulfate	12.11	11.85-12.37	345		12.10	320		7.2
4,4'-DDT	13.47	13.30-13.64	215		13.46	241		12
Methoxychlor	19.82	19.52-20.12	138		19.78	143		3.6
Endrin Ketone	15.53	15.21-15.85	493		15.51	506		2.6
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	5.88	5.71-6.05	149	QUANT.				
Aroclor - 1254	13.93	13.62-14.24	201	QUANT.				
Aroclor - 1260	22.11	21.47-22.75	207	QUANT.				

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* SEE EXHIBIT E, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

* PEAK HEIGHT

FORM IX

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. V-4465 Laboratory ECOLOGY + ENVIRONMENT, INC.

Contract No. IL-3140 GC Column OV-1 GC Instrument ID VARIAN 6000 GC #2

11-24-86
19:09 21:49 22.23
RUN 8 RUN 12 RUN 13

DATE OF ANALYSIS 11-24-86
TIME OF ANALYSIS 15:19 15:52
LABORATORY ID RUN #4 RUN #5

DATE OF ANALYSIS 11-25-86
TIME OF ANALYSIS 15:22
LABORATORY ID RUN # 38

COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.07	2.03-2.11	595					
beta-BHC	2.21	2.17-2.25	219					
delta-BHC	2.49	2.45-2.53	504					
gamma-BHC	2.42	2.40-2.44	511					
Heptachlor	3.85	3.81-3.89	438					
Aldrin	4.75	4.70-4.80	524					
Heptachlor Epoxide	5.76	5.69-5.83	488					
Endosulfan I	7.15	7.05-7.25	461					
Dieldrin	8.33	8.21-8.45	503					
4,4'-DDE	8.22	8.06-8.38	471	QUANT.				
Endrin	9.28	9.09-9.47	354					
Endosulfan II	9.48	9.36-9.60	409					
4,4'-DDD	10.33	10.12-10.54	425					
Endosulfan Sulfate	12.11	11.85-12.37	345					
4,4'-DDT	13.47	13.30-13.64	215					
Methoxychlor	19.82	19.52-20.12	138					
Endrin Ketone	15.53	15.21-15.85	493					
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	5.88	5.71-6.05	149	QUANT.				
Aroclor - 1254	13.93	13.62-14.24	201	QUANT.				
Aroclor - 1260	22.11	21.47-22.75	207	QUANT.	22.07	185		11

* SEE EXHIBIT E, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. V-4465 Laboratory ECOLOGY + ENVIRONMENT, INC.

Contract No. IL-3140 GC Column OV-1 GC Instrument ID VARIAN 6000 GC #2

11-24-86
19:09 21:49 22:23
RUN 8 RUN 12 RUN 13

DATE OF ANALYSIS	11-24-86				DATE OF ANALYSIS	11-26-86		
TIME OF ANALYSIS	15:19	15:52			TIME OF ANALYSIS	1:27		
LABORATORY ID	RUN #4	RUN #5			LABORATORY ID	RUN 50		
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.07	2.03-2.11	595					
beta-BHC	2.21	2.17-2.25	219					
delta-BHC	2.49	2.45-2.53	504					
gamma-BHC	2.42	2.40-2.44	511					
Heptachlor	3.85	3.81-3.89	438					
Aldrin	4.75	4.70-4.80	524					
Heptachlor Epoxide	5.76	5.69-5.83	488					
Endosulfan I	7.15	7.05-7.25	461					
Dieldrin	8.33	8.21-8.45	503					
4,4'-DDE	8.22	8.06-8.38	471	QUANT.				
Endrin	9.28	9.09-9.47	354					
Endosulfan II	9.48	9.36-9.60	409					
4,4'-DDD	10.33	10.12-10.54	425					
Endosulfan Sulfate	12.11	11.85-12.37	345					
4,4'-DDT	13.47	13.30-13.64	215					
Methoxychlor	19.82	19.52-20.12	138					
Endrin Ketone	15.53	15.21-15.85	493					
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	5.88	5.71-6.05	149	QUANT.				
Aroclor - 1254	13.93	13.62-14.24	201	QUANT.	13.91	197		2.0
Aroclor - 1260	22.11	21.47-22.75	207	QUANT.				

* SEE EXHIBIT E, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. V-4465 Laboratory ECOLOGY + ENVIRONMENT, INC.

Contract No. IL-2140 GC Column OV-1 GC Instrument ID VARIAN 6000 GC #2

11-24-86 19:09 21:49 22:23
RUN 8 RUN 12 RUN 13

DATE OF ANALYSIS	11-24-86				DATE OF ANALYSIS	11-26-86		
TIME OF ANALYSIS	15:19	15:52			TIME OF ANALYSIS	15:37		
LABORATORY ID	RUN #4	RUN #5			LABORATORY ID	RUN 57		
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.07	2.03-2.11	595					
beta-BHC	2.21	2.17-2.25	219					
delta-BHC	2.49	2.45-2.53	504					
gamma-BHC	2.42	2.40-2.44	511					
Heptachlor	3.85	3.81-3.89	438					
Aldrin	4.75	4.70-4.80	524					
Heptachlor Epoxide	5.76	5.69-5.83	488					
Endosulfan I	7.15	7.05-7.25	461					
Dieldrin	8.33	8.21-8.45	503					
4,4'-DDE	8.22	8.06-8.38	471	QUANT.				
Endrin	9.28	9.09-9.47	354					
Endosulfan II	9.48	9.36-9.60	409					
4,4'-DDD	10.33	10.12-10.54	425					
Endosulfan Sulfate	12.11	11.85-12.37	345					
4,4'-DDT	13.47	13.30-13.64	215					
Methoxychlor	19.82	19.52-20.12	138					
Endrin Ketone	15.53	15.21-15.85	493					
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	5.88	5.71-6.05	149	QUANT.				
Aroclor - 1254	13.93	13.62-14.24	201	QUANT.				
Aroclor - 1260	22.11	21.47-22.75	207	QUANT.	22.02	213		2.9

* SEE EXHIBIT E, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

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FORM IX

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. V-4465 Laboratory ECOLOGY + ENVIRONMENT, INC.

Contract No. IL-3140 GC Column SP 2250/SP 2401 GC Instrument ID VARIAN 600 GC #2

12-1-86	DATE OF ANALYSIS 12-1-86		DATE OF ANALYSIS 12-1-86
18:01 18:35 19:08	TIME OF ANALYSIS 16:34 17:08		TIME OF ANALYSIS 22:44
Run 6 Run 7 Run 8	LABORATORY ID Run 4 Run 5		LABORATORY ID Run 14

COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	1.67	1.64-1.70	934					
beta-BHC	2.40	2.35-2.45	294					
delta-BHC	2.80	2.75-2.85	562					
gamma-BHC	2.11	2.09-2.13	721					
Heptachlor	2.59	2.54-2.64	708					
Aldrin	3.13	3.10-3.16	742					
Heptachlor Epoxide	4.70	4.65-4.75	659					
Endosulfan I	5.92	5.85-5.99	624					
Dieldrin	7.23	7.14-7.32	669					
4,4'-DDE	6.80	6.66-6.94	624	CONF.				
Endrin	8.78	8.60-8.96	449					
Endosulfan II	10.63	10.47-10.79	589					
4,4'-DDD	10.41	10.19-10.63	438					
Endosulfan Sulfate	16.94	16.64-17.24	250					
4,4'-DDT	12.53	12.33-12.73	370					
Methoxychlor	24.00	23.56-24.44	138					
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	4.80	4.66-4.94	210	CONF.	4.78	194		7.6
Aroclor - 1254	12.30	12.05-12.55	286	CONF.				
Aroclor - 1260	19.25	18.68-19.82	298	CONF.				

* SEE EXHIBIT E, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4465 Laboratory ECOLOGY + ENVIRONMENT, INC.

Contract No. IL-3140 GC Column SP2250/SP2401 GC Instrument ID VARIAN 600 GC#2

12-1-86
18:01 18:35 19:08
RUN 6 RUN 7 RUN 8

	DATE OF ANALYSIS	TIME OF ANALYSIS	LABORATORY ID
	12-1-86	16:34 17:08	RUN 4 RUN 5
	12-2-86	4:26 5:00	RUN 24 RUN 25

COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	1.67	1.64-1.70	934		1.67	983		5.2
beta-BHC	2.40	2.35-2.45	294		2.40	310		5.4
delta-BHC	2.80	2.75-2.85	562		2.99	633		13
gamma-BHC	2.11	2.09-2.13	721		2.10	717		0.55
Heptachlor	2.59	2.54-2.64	708		2.59	707		0.14
Aldrin	3.13	310-3.16	742		3.12	729		1.8
Heptachlor Epoxide	4.70	4.65-4.75	659		4.68	658		0.15
Endosulfan I	5.92	5.85-5.99	624		5.89	613		1.4
Dieldrin	7.23	7.14-7.32	669		7.20	672		0.45
4,4'-DDE	6.80	6.66-6.94	624	CONF.	6.77	671		7.5
Endrin	8.78	8.60-8.96	449		8.74	527		17
Endosulfan II	10.63	10.47-10.79	589		10.57	588		0.17
4,4'-DDD	10.41	10.19-10.63	438		10.36	529		20
Endosulfan Sulfate	16.94	16.64-17.24	250		16.84	288		15
4,4'-DDT	12.53	12.33-12.73	370		12.47	306		17
Methoxychlor	24.00	23.56-24.44	138		23.85	169		22
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	4.80	4.66-4.94	210	CONF.				
Aroclor - 1254	12.30	12.05-12.55	286	CONF.				
Aroclor - 1260	19.25	18.68-19.82	298	CONF.				

* SEE EXHIBIT E, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

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FORM IX

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Pesticide/PCB Identification

Case No. V-4465 Laboratory ECOLOGY + ENVIRONMENT, INC.

Contract No. IL-3140

SAMPLE ID	PRIMARY COLUMN	PESTICIDE/ PCB	RT OF TENTATIVE ID	RT WINDOW OF APPROPRIATE STANDARD	CONFIRMATION COLUMN	RT ON CONFIRMATORY COLUMN	RT WINDOW OF APPROPRIATE STANDARD	GC/MS CONFIRMED (Y or N)
9749	OV-1	PCB 1260	22.10	21.47-22.75	SP 2250/SP2401	19.18	18.68-19.82	N
9749	↓	4,4'DDE	8.23	8.06-8.38	↓	6.78	6.66-6.94	N
9751		PCB 1260	13.91	21.47-22.75		19.21	18.68-19.82	N
9752		4,4'DDE	8.24	8.06-8.38		6.79	6.66-6.94	N
9752		PCB 1260	22.08	21.47-22.75	↓	19.23	18.68-19.82	N
9753		4,4'DDE	8.24	8.06-8.38				N
9753		PCB 1260	22.08	21.47-22.75				N
9754		PCB 1260	22.10	21.47-22.75				N
9755		4,4'DDE	8.19	8.06-8.38				N
9755		PCB 1254	13.83	13.62-14.24				N
9755		PCB 1260	22.05	21.47-22.75				N
9756		PCB 1248	5.85	5.71-6.05	SP2250/SP2401	4.78	4.66-4.94	Y
9757		PCB 1248	5.87	5.71-6.05				N
9758		PCB 1248	5.88	5.71-6.05				Y
9758		PCB 1254	10.07	13.62-14.24				Y
9758		PCB 1260	22.03	21.47-22.75				Y
9759		PCB 1260	22.11	21.47-22.75	SP2250/SP2401	19.21	18.68-19.82	Y
9760		PCB 1260	22.12	21.47-22.75	↓	19.19	18.68-19.82	N
9761		PCB 1260	22.10	21.47-22.75				N
9762		PCB 1248	5.94	5.71-6.05				N
9762		PCB 1260	22.10	21.47-22.75				N
9763		PCB 1248	5.92	5.71-6.05				N
9763		PCB 1260	22.10	21.47-22.75				N
9764		PCB 1260	22.11	21.47-22.75				Y
9765		PCB 1248	5.87	5.71-6.05	SP2250/SP2401	4.78	4.66-4.94	N
9766		PCB 1248	5.91	5.71-6.05				Y
9766		PCB 1254	10.11	13.62-14.24				Y
9766		PCB 1260	22.09	21.47-22.75				Y
9767		PCB 1260	22.09	21.47-22.75	SP2250/SP2401	19.19	18.68-19.82	N
9768		PCB 1254	10.11	13.62-14.24	↓	12.24	12.05-12.55	N
9769	↓	PCB 1248	5.92	5.71-6.05				Y

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FORM X

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ecology and environment

Pesticide/PCB Identification

Case No. U4465

Laboratory Ecology + Environment, Inc

Contract No. IL-3140

SAMPLE ID	PRIMARY COLUMN	PESTICIDE/ PCB	RT OF TENTATIVE ID	RT WINDOW OF APPROPRIATE STANDARD	CONFIRMATION COLUMN	RT ON CONFIRMATORY COLUMN	RT WINDOW OF APPROPRIATE STANDARD	GC/MS CONFIRMED (Y or N)
9269	OV-1	PCB 1246	22.08	21.47-22.75				Y
9270	↓	PCB 1248	5.90	5.71-6.05				Y
9270	↓	PCB 1260	22.08	21.47-22.75				Y
9754	↓	4,4'-DDE	8.23	8.06-8.38				N

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FORM X

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Decafluorotriphenylphosphine (DFTPP)

Case No. U-4465 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970B Date 7-30-86 Time 1051

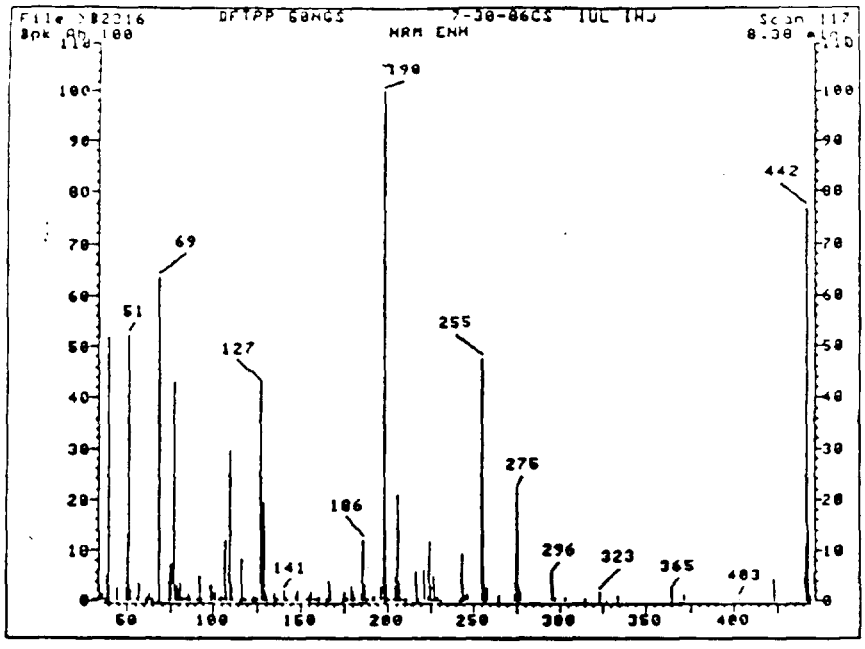
Lab ID B2316 Data Release Authorized By: C Wojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	52.4
68	less than 2.0% of mass 69	NONE PRESENT (0)[1]
69	mass 69 relative abundance	63.5
70	less than 2.0% of mass 69	NONE PRESENT (0)[1]
127	40.0 - 60.0% of mass 198	42.6
197	less than 1.0% of mass 198	NONE PRESENT
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.54
275	10.0 - 30.0% of mass 198	22.1
365	greater than 1.00% of mass 198	2.32
441	present, but less than mass 443	10.8
442	greater than 40.0% of mass 198	76.7
443	17.0 - 23.0% of mass 442	14.5 (18.9)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	BN STD - 50 ng	B2317	7-30-86	1108
	20 ng	B2318		1207
	80 ng	B2320		1414
	120 ng	B2321		1505
	160 ng	B2322		1557
	AP STD - 20 ng	B2323		1657
	50 ng	B2324		1748
	80 ng	B2325		1839
	120 ng	B2326		1931
	160 ng	B2327		2022



>B2316 DFTPP 50NGS 7-30-86CS 1UL INJ
117 NRM ENH

File: >B2316 Scan #: 117 Retn. time: 8.38

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	1.46	91.10	.41	137.10	.39	191.05	.20	244.05	9.41
38.15	.49	92.00	.52	141.00	2.08	191.95	.73	245.05	1.02
39.15	5.09	93.00	4.94	142.10	.36	192.95	.62	246.05	1.49
40.05	51.88	94.00	.24	143.00	.28	196.05	2.98	255.05	47.58
44.05	2.55	98.00	3.16	147.10	.97	197.95	100.00	256.05	6.77
49.05	2.49	99.00	2.89	148.00	1.99	198.95	6.54	257.00	.27
50.05	13.27	101.00	1.69	153.00	.44	199.95	.28	258.00	2.64
51.15	52.38	103.00	.35	154.00	.36	201.35	.26	265.00	.91
52.10	2.35	104.00	.66	155.05	.90	202.95	.36	273.00	1.41
56.00	.87	104.90	.71	156.05	1.52	204.05	2.91	274.00	3.64
57.00	3.48	107.00	12.01	158.05	.26	205.05	4.95	275.00	22.14
61.10	.36	108.00	1.77	159.95	.35	206.05	20.98	276.00	2.79
62.10	.35	110.00	29.62	161.05	.58	207.05	4.00	276.90	1.69
63.00	1.39	111.00	3.98	164.95	.45	207.95	.42	296.00	5.45
65.10	.47	112.00	.28	166.05	.39	210.25	.26	297.10	.75
69.00	63.51	116.10	.39	167.05	4.02	211.05	.51	303.10	.57
73.10	.22	117.00	8.26	168.05	1.77	216.95	5.83	315.00	.48
74.10	3.84	118.10	.34	174.05	.73	217.95	.43	323.00	1.78
75.00	7.43	122.10	.46	174.95	1.54	221.05	6.08	326.90	.16
77.10	42.88	123.10	.70	176.05	.35	223.05	1.08	334.00	.96
78.10	2.86	124.00	.34	176.95	.78	224.05	11.72	364.95	2.32
79.10	3.13	125.00	.25	178.95	3.03	225.05	2.92	371.95	.89
80.00	2.00	127.00	42.62	180.05	1.56	226.15	.18	402.95	.53
81.00	3.61	128.10	2.95	181.05	.83	227.05	4.81	423.05	4.16
82.00	.44	129.00	19.25	185.05	1.25	227.95	.54	423.95	.76
83.00	.58	129.90	1.48	186.05	11.94	229.05	.84	441.05	10.76
84.90	.58	131.00	.18	187.05	3.14	230.95	.21	442.05	76.66
86.00	1.30	135.10	1.37	188.05	.18	242.05	.34	443.05	14.52
87.00	.26	136.00	.27	188.95	.45	243.05	.32	444.05	1.19

MS data file header from : >B2316

Sample: DFTPP 50NGS Operator: USER8 MS 7/30/86 10:51
Misc : 7-30-86CS 1UL INJ
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPP8 Tuning file: MTBON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures :	120.	280.	0.	0.	0.
Chromatographic times, min. :	0.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

recycled paper

GC/MS TUNING AND MASS CALIBRATION

Decafluorotriphenylphosphine (DFTPP)

Case No. U-4465 Contractor ECOLOGY & ENVIRONMENT INC. Contract No. IL-3140

Instrument ID HP5970B Date 12/1/86 Time 1011

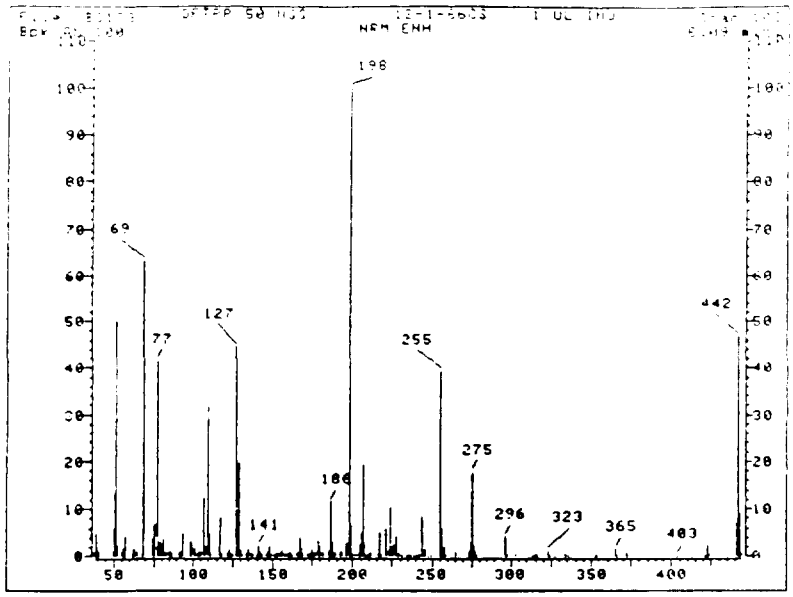
Lab ID B3133 Data Release Authorized By: [signature]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	50.0
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	63.1
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	44.6
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.61
275	10.0 - 30.0% of mass 198	17.8
365	greater than 1.00% of mass 198	1.59
441	present, but less than mass 443	7.04
442	greater than 40.0% of mass 198	46.7
443	17.0 - 23.0% of mass 442	9.11 (19.5)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69.
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	AP STD-50ng	B3134	12-1-86	1032
	BN STD-50ng	B3135		1128
DC-SS-09	9756	B3145		2048



>B3133 DFTPP 50 NGS 12-1-86CS 1 UL INJ
103 NRM ENH

File: >B3133 Scan #: 103 Retn. time: 8.09

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.15	.63	107.00	12.21	160.05	.59	210.05	.38	276.00	2.13
39.15	5.04	108.00	1.92	160.95	.83	210.95	.60	277.00	1.02
40.05	1.54	110.00	31.68	161.95	.04	216.05	.39	278.00	.04
41.15	.87	111.00	4.42	164.95	.65	216.95	5.36	285.00	.05
49.15	1.04	112.10	.48	166.05	.57	217.95	.44	293.00	.05
50.05	13.14	117.00	8.17	166.95	3.93	221.05	5.82	296.00	4.19
51.15	50.04	118.10	.46	167.95	1.79	223.05	1.19	297.00	.54
52.00	2.47	122.10	.72	168.95	.27	224.05	10.37	303.00	.33
55.00	1.11	123.00	1.29	172.05	.30	225.05	2.54	314.00	.04
56.00	1.81	124.10	.53	173.05	.36	227.05	4.33	315.00	.40
57.00	4.19	125.10	.44	174.05	.71	228.05	.50	316.00	.05
62.10	.49	127.00	44.55	175.05	1.42	228.95	.69	323.00	1.14
63.10	1.68	128.10	3.47	176.15	.51	231.05	.05	324.00	.05
65.00	.74	129.00	19.66	177.05	.72	233.95	.04	327.00	.05
67.30	.03	130.10	1.25	178.95	3.33	234.95	.04	334.10	.54
69.00	63.13	131.10	.36	179.95	1.87	236.05	.03	335.10	.04
74.00	3.95	134.00	.39	181.05	.85	237.05	.05	345.90	.05
75.00	6.78	135.00	1.25	185.05	1.19	239.05	.03	352.10	.08
77.10	41.54	136.10	.49	186.05	11.60	241.05	.24	353.00	.05
78.10	2.88	137.10	.56	187.05	3.11	242.05	.39	354.00	.24
79.00	2.93	140.20	.22	188.15	.27	243.05	.09	364.95	1.59
80.00	2.21	141.10	2.12	189.05	.59	244.05	8.32	365.95	.06
81.00	3.56	142.10	.68	192.05	.76	245.05	1.02	371.95	.72
82.10	.74	143.10	.39	193.05	.89	246.05	1.28	372.85	.03
83.10	.83	146.00	.39	196.05	2.81	247.05	.21	382.95	.04
85.10	.59	147.00	.94	197.95	100.00	249.05	.24	401.95	.05
86.00	1.04	148.10	2.03	198.95	6.61	255.05	39.16	403.05	.09
87.10	.34	149.00	.40	200.05	.35	256.05	5.87	403.95	.04
91.10	.69	151.20	.27	201.55	.46	257.10	.30	421.05	.08
92.10	.63	151.70	.26	203.05	.47	258.00	2.09	422.05	.06
93.00	4.86	153.10	.65	204.05	2.52	259.00	.06	423.05	2.37
98.00	3.32	154.00	.47	205.05	4.94	265.00	.59	424.05	.37
99.00	2.87	155.05	.88	206.05	19.33	272.00	.03	441.05	7.04
101.00	1.70	156.05	1.42	207.05	2.72	273.00	1.13	442.05	46.73
103.00	.49	157.15	.35	207.95	.09	274.00	2.95	443.05	9.11
104.00	.94	157.95	.34	209.05	.03	275.00	17.76	444.05	.60
105.10	.87	159.05	.27						

MS data file header from : >B3133

Sample: DFTPP 50 NGS Operator: USER6 MS 12/01/86 10:11
Misc .: 12-1-86CS 1 UL INJ
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPB Tuning file: MTBON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures :	120.	280.	0.	0.	0.
Chromatographic times, min. :	0.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

recycled paper

GC/MS TUNING AND MASS CALIBRATION

Decafluorotriphenylphosphine (DFTPP)

Case No. U-4465 Contractor: Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 12/1/86 Time 1524

Lab ID D1150 Data Release Authorized By: [signature]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	59.6
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	66.7
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	43.2
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.33
275	10.0 - 30.0% of mass 198	19.3
365	greater than 1.00% of mass 198	1.77
441	present, but less than mass 443	6.91
442	greater than 40.0% of mass 198	45.8
443	17.0 - 23.0% of mass 442	8.56 (18.7)[2]

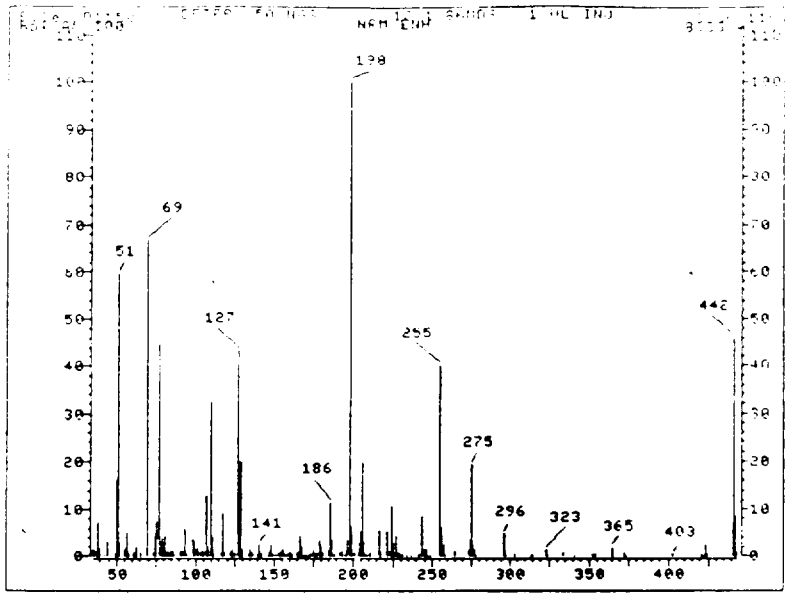
THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	APSTD - 50ng	D1151	12-1-86	1546
	BNSTD - 50ng	D1152		1642
DC-SS-01	9748	D1154		1842
DC-SS-02	9749	D1155		1935
DC-SS-04	9751	D1156		2027
DC-SS-05	~~9543~~ 9752	D1157		2132
DC-SS-06	9753	D1158		2224
DC-SS-03	9750	D1159		2317
DC-SS-03 MS	9750 MS	D1160	12-2-86	0010
DC-SS-03-MSD	9750 MSD	D1161		0102

FORM V

7/85



>D1150 DFTPP 50 NGS 12/1/86MDS 1 UL INJ
116 NRM ENH

File: >D1150 Scan #: 116 Retn. time: 8.33

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
35.95	1.29	94.00	.38	153.05	.67	197.95	100.00	259.10	.22
38.05	1.03	98.00	3.63	154.05	.58	198.95	6.33	264.95	.95
39.05	6.99	99.00	3.06	155.05	1.11	201.55	.56	273.05	1.38
40.05	1.62	101.00	1.55	156.05	1.73	203.15	.34	274.05	3.40
42.85	.20	103.00	.57	157.05	.28	204.05	2.57	275.05	19.26
44.05	2.95	104.10	1.00	157.95	.20	205.00	5.09	275.95	2.24
49.15	.41	105.00	.99	159.05	.26	206.00	19.76	276.95	1.47
50.00	16.22	107.10	12.74	160.05	.70	207.00	3.04	277.95	.18
51.00	59.63	108.05	1.97	161.05	.72	208.00	.47	296.00	4.88
52.00	2.68	110.05	32.47	162.05	.18	209.00	.14	297.00	.48
55.10	1.38	111.05	4.39	165.05	.72	211.00	.72	303.05	.36
56.10	1.62	112.05	.30	166.00	.66	217.00	5.45	313.95	.20
57.00	4.75	116.15	.82	167.00	4.14	217.90	.60	314.95	.47
58.10	.34	117.05	9.20	168.00	1.96	221.00	5.31	323.10	1.29
61.00	.65	118.05	.66	169.00	.20	223.00	1.18	324.00	.21
61.90	.68	122.05	.83	170.90	.14	224.05	10.57	327.00	.20
63.10	2.10	123.05	1.34	172.00	.28	225.05	2.75	334.10	.87
65.10	.70	123.95	.49	173.00	.43	225.85	.16	340.85	.16
68.95	66.68	124.95	.60	174.10	.51	227.05	4.37	352.05	.25
73.15	.56	127.00	43.21	175.00	1.44	227.95	.38	353.05	.20
74.05	4.26	128.00	3.50	176.00	.33	228.95	.60	354.05	.30
75.05	7.56	129.00	20.01	177.10	.75	230.95	.25	365.00	1.77
77.05	44.44	130.00	1.50	179.00	3.25	233.85	.21	365.80	.15
78.05	3.05	134.00	.47	180.00	2.10	236.95	.19	372.00	.65
79.05	3.45	135.10	1.30	181.00	.88	242.05	.31	373.00	.13
80.05	2.52	136.00	.57	185.05	1.39	243.10	.64	401.90	.25
81.05	4.26	137.00	.73	186.05	11.42	244.00	8.53	403.00	.30
82.05	.56	140.10	.14	187.05	3.24	245.00	1.22	420.95	.26
83.05	1.06	141.00	2.32	188.05	.18	246.00	1.41	421.95	.23
83.95	.17	142.00	.73	188.95	.50	247.00	.19	423.05	2.47
85.05	.92	143.00	.46	191.15	.23	249.00	.23	424.05	.50
86.05	1.06	146.15	.20	192.05	.79	255.00	40.03	441.00	6.91
87.05	.49	147.05	1.10	193.05	1.00	256.00	6.03	442.00	45.77
91.00	.90	148.05	2.21	195.05	.18	257.10	.34	443.00	8.56
92.00	.97	148.95	.30	196.05	3.13	258.00	2.40	444.00	.75
93.00	5.72	151.05	.38						

MS data file header from : >D1150

Sample: DFTPP 50 NGS Operator: USER6 MS 12/01/86 15:24
Misc : 12/1/86MDS 1 UL INJ BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPD Tuning file: MTDON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures : 120. 280. 0. 0. 0.
Chromatographic times, min. : 0.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 10.0 0.0 0.0 0.0 0.0

recycled paper

ecology and environment

Decafluorotriphenylphosphine (DFTPP)

Case No. V-4465 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 12/2/86 Time 1038

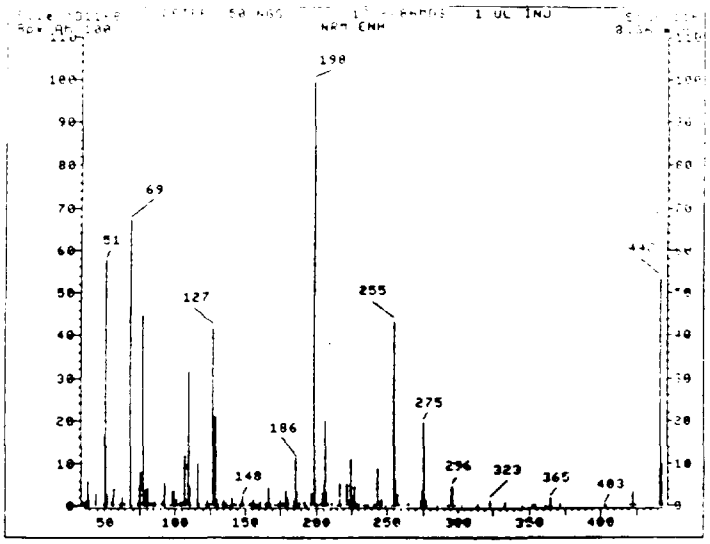
Lab ID D1168 Data Release Authorized By: [signature]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	57.7
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	67.2
70	less than 2.0% of mass 69	0.20 (0.30)[1]
127	40.0 - 60.0% of mass 198	41.8
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.11
275	10.0 - 30.0% of mass 198	19.6
365	greater than 1.00% of mass 198	1.88
441	present, but less than mass 443	8.63
442	greater than 40.0% of mass 198	53.3
443	17.0 - 23.0% of mass 442	10.1 (18.9)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69.
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	AP STD - 50 ng	D1169	12-2-86	1059
	BN STD - 50 ng	D1170		1158
DC-SS-45	9771	D1172		1356
DC-SS-23	9770	D1174		1541
-	BLANK	D1175		1634
DC-SS-10	9757	D1176		1734



>D1168 DFTPP 50 NGS 12/2/86MDS 1 UL INJ
116 NRM ENH

File: >D1168 Scan #: 116 Retn. time: 8.36

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	1.05	98.00	3.70	151.15	.15	197.95	100.00	257.00	.29
38.05	1.24	99.00	3.50	151.45	.17	198.95	6.11	258.00	2.67
39.05	5.76	100.20	.19	153.05	.58	199.95	.24	259.00	.29
39.95	1.91	101.00	1.70	153.95	.51	201.55	.48	264.95	.86
44.05	2.88	103.00	.51	155.05	1.14	203.05	.57	273.05	1.29
48.95	.34	104.00	.98	156.05	1.73	204.05	2.86	273.95	3.62
50.00	16.01	105.00	1.00	157.05	.38	205.00	4.92	275.05	19.64
51.00	57.66	107.10	11.96	158.05	.31	206.00	19.96	276.05	2.62
52.00	2.49	107.95	1.70	159.05	.19	207.00	3.26	277.05	1.40
55.00	.91	109.95	31.43	160.05	.34	208.10	.76	278.05	.18
56.00	1.88	111.05	4.65	161.05	.99	211.00	.83	284.90	.23
57.00	4.36	111.95	.46	165.05	.82	215.00	.19	293.00	.32
61.00	.41	117.05	10.09	166.00	.68	216.00	.31	296.00	4.81
61.90	.61	118.05	.76	167.00	4.17	217.00	5.30	297.00	.46
63.00	1.88	122.05	.73	168.00	2.12	217.90	.35	302.95	.28
65.10	.83	122.95	1.36	169.00	.33	221.00	5.25	313.95	.14
68.95	67.21	123.95	.55	171.90	.30	223.10	1.25	315.05	.48
69.95	.20	125.15	.56	173.00	.51	224.05	10.83	323.00	1.43
72.95	.68	127.00	41.81	173.90	.77	225.05	2.45	333.10	.13
74.05	4.44	128.10	3.40	175.00	1.35	226.95	4.70	334.00	.93
75.05	8.11	129.00	20.78	176.10	.33	228.05	.60	345.95	.21
77.05	44.52	130.00	1.68	177.00	.83	229.05	.50	352.05	.51
78.05	3.14	131.00	.41	178.10	.38	231.05	.25	352.95	.21
79.05	4.01	134.00	.31	179.00	3.47	233.95	.19	354.15	.32
80.05	2.62	135.00	1.50	180.10	2.11	234.95	.17	364.90	1.88
81.05	4.39	136.00	.55	181.10	1.03	235.95	.15	366.00	.19
82.05	.78	137.10	.61	184.20	.17	237.05	.28	372.00	.69
83.05	.80	137.80	.11	185.05	1.46	241.05	.18	402.90	.30
84.05	.39	139.90	.10	186.05	11.22	242.05	.40	403.90	.15
85.15	.67	141.00	2.11	187.05	3.32	244.00	8.60	420.95	.25
86.15	.98	142.10	.78	188.05	.24	245.10	1.08	422.95	3.19
87.05	.54	143.10	.38	188.95	.68	246.00	1.64	424.05	.36
91.00	.97	146.00	.42	191.95	1.04	249.00	.21	441.00	8.63
92.00	.88	146.95	1.18	193.05	.85	252.90	.13	442.00	53.28
93.00	5.60	147.95	2.29	194.05	.16	255.00	43.38	443.00	10.11
93.90	.20	148.95	.27	196.05	3.01	256.00	6.02	444.00	.85
96.90	.27	150.85	.15						

MS data file header from : >D1168

Sample: DFTPP 50 NGS Operator: USER6 MS 12/02/86 10:38
Misc : 12/2/86MDS 1 UL INJ BTI # 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPD Tuning file: MTCON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures : 120. 280. 0. 0. 0.
Chromatographic times, min. : 0.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 10.0 0.0 0.0 0.0 0.0

81

recycled paper
ecology and environment

Decafluorotriphenylphosphine (DFTPP)

Case No. U-4465 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970B Date 12/2/86 Time 1051

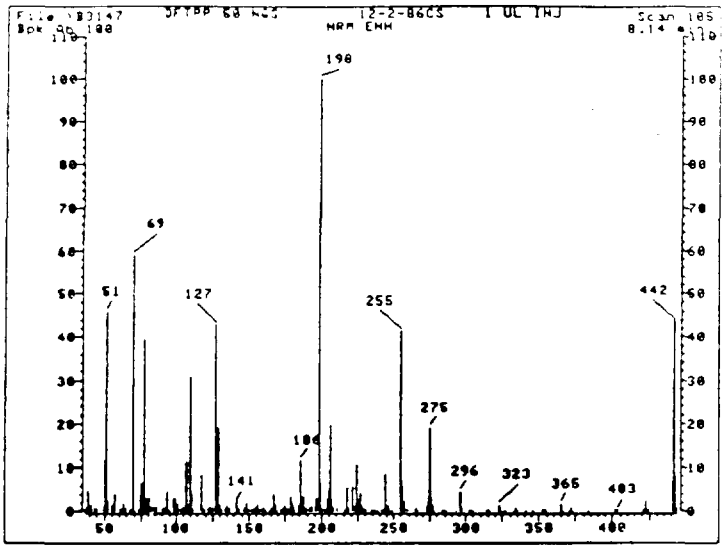
Lab ID B3147 Data Release Authorized By: [signature]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	46.0
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	59.2
70	less than 2.0% of mass 69	0.13 (0.22)[1]
127	40.0 - 60.0% of mass 198	42.9
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.63
275	10.0 - 30.0% of mass 198	19.1
365	greater than 1.00% of mass 198	1.80
441	present, but less than mass 443	6.73
442	greater than 40.0% of mass 198	43.6
443	17.0 - 23.0% of mass 442	8.05 (18.5)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	AP STD-50ng	B3148	12-2-86	1111
	BN-STD-50ng	B3149		1210
DC-SS-11	9758	B3151		1407
DC-SS-12	9759	B3152		1459
-	BLANK	B3153		1551
DC-SS-13	9760	B3155		1752
DC-SS-14	9761	B3156		1844
DC-SS-17	9764	B3157		1941
DC-SS-18	9765	B3158		2032



>83147 DFTPP 50 NGS 12-2-86CS 1 UL INJ
105 NRM ENH

File: >83147 Scan #: 105 Retn. time: 8.14

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.05	.26	99.00	2.84	156.05	1.65	207.05	2.58	277.00	1.48
38.15	.81	100.10	.13	157.05	.41	207.95	.59	278.00	.18
39.15	5.04	101.00	1.57	157.95	.34	210.95	.85	283.00	.12
41.15	1.43	103.20	.52	160.05	.59	215.15	.10	285.00	.17
43.15	.86	104.10	.87	161.05	.84	216.15	.34	293.00	.21
44.15	.76	105.00	1.12	161.95	.16	216.95	5.42	296.00	4.60
49.05	1.07	106.00	.16	164.05	.11	218.05	.62	297.00	.64
50.05	11.57	107.00	11.42	164.95	.79	221.05	5.85	303.10	.49
51.15	45.96	108.00	1.71	166.05	.62	222.95	1.16	304.10	.11
52.00	2.17	110.00	30.83	167.05	3.89	224.05	10.79	314.00	.15
55.10	1.49	111.00	4.10	167.95	1.76	225.05	2.64	315.00	.49
56.00	1.55	112.00	.42	169.05	.14	227.05	4.29	316.10	.23
57.00	3.97	117.00	8.39	171.95	.36	228.05	.56	323.10	1.48
61.00	.55	118.00	.57	173.05	.45	228.95	.92	324.10	.21
62.00	.47	119.10	.53	173.95	.92	231.05	.40	327.00	.20
63.10	1.58	122.00	.74	175.05	1.41	234.05	.17	333.00	.13
63.90	.21	123.10	1.09	176.15	.52	235.05	.31	334.10	.85
65.00	.75	124.00	.58	177.05	.78	236.05	.09	335.00	.17
67.20	.36	125.10	.58	177.95	.16	237.05	.23	341.10	.13
69.00	59.15	127.00	42.87	178.95	3.14	239.05	.11	346.00	.24
70.10	.13	128.10	3.34	180.05	1.97	241.05	.16	352.10	.36
73.20	.29	129.00	18.87	181.05	.93	241.95	.53	353.00	.21
74.10	3.61	130.00	1.47	184.15	.25	243.05	.55	354.00	.36
75.00	6.53	131.00	.39	185.05	1.38	244.05	8.43	364.95	1.80
76.10	1.91	134.10	.40	186.05	11.69	245.05	1.08	365.85	.17
77.10	39.57	135.10	1.28	187.05	3.25	246.05	1.46	371.05	.10
78.10	2.53	136.10	.50	188.15	.27	247.05	.20	371.95	.68
79.00	3.02	137.10	.63	188.95	.67	249.05	.23	373.05	.13
80.00	2.11	141.00	2.21	191.05	.34	255.05	41.30	382.95	.14
81.00	3.44	142.10	.79	192.05	.93	256.05	5.81	401.95	.25
82.10	.75	143.00	.48	193.05	.95	257.00	.44	403.05	.30
83.10	.93	146.10	.32	196.05	3.12	258.00	2.25	421.05	.25
85.00	.63	147.00	.96	197.95	100.00	259.00	.25	422.15	.24
86.10	1.05	148.10	1.96	198.95	6.63	265.00	.84	423.05	2.36
91.00	.87	149.00	.49	200.05	.46	265.90	.09	424.05	.38
92.10	.77	151.10	.29	201.45	.51	273.00	1.22	441.05	6.73
93.00	4.65	151.70	.12	203.05	.45	274.00	3.25	442.05	43.57
94.00	.15	153.10	.64	204.05	2.89	275.00	19.09	443.05	8.05
95.10	.12	154.10	.44	205.05	5.02	276.00	2.56	444.05	.60
98.10	3.38	155.05	1.09	206.05	19.56				

MS data file header from : >83147

Sample: DFTPP 50 NGS Operator:.USER6 MS 12/02/86 10:51
Misc : 12-2-86CS 1 UL INJ
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPP8 Tuning file: MTBON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures : 120. 280. 0. 0. 0.
Chromatographic times, min. : 0.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 10.0 0.0 0.0 0.0 0.0

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Decafluorotriphenylphosphine (DFTPP)

Case No. V-4465 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 12/3/86 Time 1138

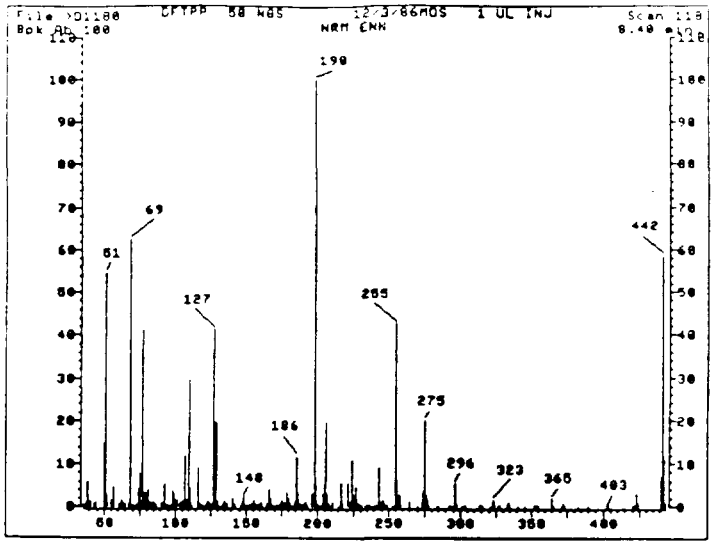
Lab ID D1180 Data Release Authorized By: [signature]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	54.6
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	62.5
70	less than 2.0% of mass 69	0.31 (0.50)[1]
127	40.0 - 60.0% of mass 198	41.4
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.47
275	10.0 - 30.0% of mass 198	19.9
365	greater than 1.00% of mass 198	1.90
441	present, but less than mass 443	6.84
442	greater than 40.0% of mass 198	58.5
443	17.0 - 23.0% of mass 442	11.0 (18.8)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	AP STD-50 ng	D1181	12-3-86	1202
	BN-STD-50 ng	D1182		1303
DC-SS-07	9754	D1185		1613
DC-SS-08	9755	D1186		1713
DC-SS-22	9769	D1188		1900
DC-SS-20	9767	D1189		1953
DC-SS-21	9768	D1190		2058



>D1180 DFTPP 50 NGS 12/3/86MDS 1 UL INJ
118 NRM ENH

File: >D1180 Scan #: 118 Retn. time: 8.40

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	.39	99.00	3.04	157.95	.36	210.20	.22	292.90	.30
36.95	.30	100.10	.15	159.05	.30	211.10	.94	293.90	.11
37.95	1.19	101.00	1.64	160.05	.63	215.00	.15	294.90	.15
39.05	5.72	103.00	.68	161.05	.91	217.00	5.50	296.00	5.45
40.05	.94	104.00	.93	161.95	.22	218.00	.70	297.00	.62
41.05	1.48	105.00	1.21	165.05	.87	221.00	5.62	301.65	.07
43.05	.85	107.00	11.84	166.00	.69	223.00	1.30	302.05	.08
44.15	1.13	108.05	1.78	167.00	4.06	224.05	10.96	302.95	.55
50.10	14.67	109.95	29.47	168.00	1.88	224.95	2.67	303.85	.13
51.00	54.60	110.95	4.25	168.90	.28	226.95	4.67	314.05	.25
52.00	2.54	111.95	.42	170.60	.07	227.95	.61	315.05	.46
55.10	1.34	116.15	.82	171.90	.35	229.05	.85	316.05	.21
56.00	1.77	117.05	9.20	173.00	.39	230.95	.35	321.00	.09
57.00	4.59	118.05	.69	174.00	.88	234.05	.16	323.00	1.69
61.00	.68	119.05	.35	175.00	1.55	234.95	.30	324.00	.31
62.10	.51	120.05	.06	176.10	.52	235.95	.11	326.90	.25
63.10	1.81	122.05	.88	177.00	.97	236.95	.26	327.90	.09
64.10	.12	123.05	1.37	179.00	3.26	239.05	.14	333.00	.12
65.10	.84	124.05	.71	180.00	1.93	241.05	.13	334.00	.99
67.20	.65	125.05	.64	181.10	.92	242.05	.50	335.00	.18
68.95	62.46	127.00	41.37	182.00	.10	243.10	.70	340.65	.08
69.95	.31	128.10	3.31	183.00	.07	244.00	8.96	345.95	.21
70.85	.34	129.00	19.53	184.00	.17	245.00	1.19	352.05	.43
71.05	.07	130.00	1.50	185.05	1.33	246.00	1.62	352.95	.32
73.15	.63	130.70	.17	186.05	11.71	247.00	.36	353.95	.46
74.05	4.26	131.00	.18	187.05	3.03	249.00	.28	354.85	.08
75.05	7.64	132.90	.07	188.05	.17	253.00	.16	364.90	1.90
77.05	41.17	134.00	.51	188.95	.65	255.00	42.65	366.00	.18
78.05	2.97	135.00	1.27	190.95	.41	256.00	6.20	371.00	.12
79.05	3.42	135.90	.46	191.95	.92	257.10	.50	372.10	.83
79.95	2.27	137.10	.64	193.05	1.01	258.00	2.61	373.00	.26
81.05	4.05	141.00	2.09	193.95	.13	259.10	.39	382.95	.23
82.05	.88	142.00	.72	196.05	2.99	264.95	.90	390.05	.09
83.05	1.05	143.00	.51	197.95	100.00	270.95	.09	401.90	.31
85.05	1.06	146.10	.31	198.95	6.47	272.95	1.36	402.90	.32
86.05	.81	147.05	1.12	199.95	.41	274.05	3.54	420.95	.37
87.05	.35	147.95	2.18	201.55	.37	275.05	19.94	422.05	.47
91.00	1.11	149.05	.42	203.05	.51	276.05	2.66	422.95	2.92
92.10	.67	151.05	.32	204.05	2.82	277.05	1.61	424.05	.64
93.00	5.34	152.95	.88	205.00	5.32	278.05	.17	441.00	6.84
94.00	.37	154.05	.55	206.00	19.74	284.10	.07	442.00	58.48
95.10	.34	155.05	1.10	207.00	2.82	285.00	.20	443.00	11.00
97.10	.48	155.95	1.56	208.00	.62	292.20	.08	443.90	.88
98.00	3.63	157.15	.35	208.90	.14				

MS data file header from : >D1180

Sample: DFTPP 50 NGS Operator: USER6 MS 12/03/86 11:38
Misc : 12/3/86MDS 1 UL INJ BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPD Tuning file: MTDON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures : 120. 280. 0. 0. 0.
Chromatographic times, min. : 0.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 10.0 0.0 0.0 0.0 0.0

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Decafluorotriphenylphosphine (DFTPP)

Case No. U-4465 Contractor Ecology & Environment Inc. Contract No IL-3140

Instrument ID HP5970B Date 12/19/86 Time 1125

Lab ID B3183 Data Release Authorized By: C Stojowa

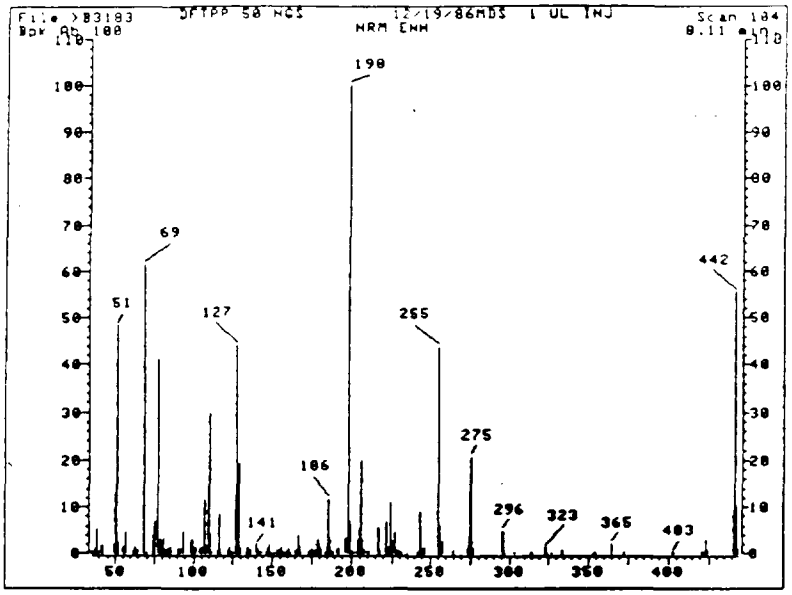
m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	48.4
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	61.4
70	less than 2.0% of mass 69	0.18 (0.29)[1]
127	40.0 - 60.0% of mass 198	44.3
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.67
275	10.0 - 30.0% of mass 198	20.7
365	greater than 1.00% of mass 198	2.10
441	present, but less than mass 443	8.25
442	greater than 40.0% of mass 198	55.4
443	17.0 - 23.0% of mass 442	10.0 (18.0)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69.
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	BN STD-50ng	B3184	12-19-86	1148
	AP STD-50ng	B3186		1352
DC-SS-15	9762	B3188		1604
DC-SS-16	9763	B3189		1702
DC-SS-19	9766	B3190		1802

86



>B3183 DFTPP 50 NGS 12/19/86MDS 1 UL INJ
104 NRM ENH

File: >B3183 Scan #: 104 Retn. time: 8.11

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	.46	98.00	3.11	151.00	.21	192.05	.89	256.05	6.28
38.15	.91	99.10	2.95	153.00	.64	193.05	.99	257.00	.29
39.15	5.35	100.10	.22	154.00	.34	196.05	3.33	258.00	2.53
40.05	.49	101.00	1.45	154.95	1.09	197.95	100.00	265.00	.80
41.15	1.59	104.00	.93	156.05	1.43	198.95	6.67	273.00	1.20
43.05	1.54	105.10	1.39	156.95	.26	200.05	.30	274.00	3.53
49.05	2.03	107.00	11.51	158.05	.17	201.55	.34	275.00	20.66
50.05	12.74	108.00	1.64	160.05	.60	202.95	.40	276.00	2.52
51.15	48.37	110.00	30.01	161.05	.94	204.05	2.81	276.90	.98
52.10	2.32	111.00	4.32	161.95	.20	205.05	5.18	296.00	4.94
55.00	1.41	112.00	.45	165.05	.75	206.05	20.08	297.00	.45
56.00	1.44	116.00	.36	165.95	.38	207.05	2.89	303.00	.35
57.10	4.65	117.00	8.27	166.95	4.01	207.95	.63	314.00	.17
62.10	.52	118.00	.56	168.05	1.58	210.15	.47	315.00	.31
63.10	1.48	122.00	.68	168.95	.22	211.15	.48	323.00	1.30
65.10	.81	123.00	1.46	173.05	.30	216.95	5.53	324.00	.17
69.00	61.35	124.10	.56	174.05	.76	217.95	.65	326.90	.21
70.00	.18	125.10	.29	175.05	1.18	221.05	6.66	334.00	.67
74.00	4.01	127.00	44.26	175.95	.30	222.95	1.23	352.90	.21
75.00	6.73	128.10	3.40	176.15	.29	224.05	10.93	354.10	.30
77.10	41.15	129.00	19.41	176.95	.66	225.05	2.64	364.95	2.10
78.10	2.72	130.10	1.33	177.95	.17	227.05	4.49	372.05	.45
79.00	3.01	134.00	.23	178.95	2.95	228.05	.42	401.95	.26
80.00	2.26	135.00	1.46	180.05	1.96	229.05	.59	403.05	.28
81.00	3.40	136.00	.31	181.05	.96	231.05	.26	420.95	.27
82.10	.83	137.10	.59	184.15	.17	234.95	.23	422.05	.26
83.20	.86	141.00	1.93	185.15	1.50	242.05	.41	423.05	3.01
83.90	1.04	142.00	.77	186.05	11.68	243.05	.40	424.05	.60
85.00	.90	143.10	.48	187.05	2.95	244.05	9.08	441.15	8.25
86.00	1.24	146.10	.22	188.05	.20	245.05	1.01	442.05	55.35
91.00	.96	147.10	.92	189.15	.40	246.05	1.45	443.05	10.01
92.10	.65	148.00	1.89	191.35	.24	255.05	43.79	444.05	.91
93.10	4.57	149.10	.24						

MS data file header from : >B3183

Sample: DFTPP 50 NGS Operator: USER8 MS 12/19/86 11:25
Misc : 12/19/86MDS 1 UL INJ
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPB Tuning file: MTBON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures :	120.	280.	0.	0.	0.
Chromatographic times, min. :	0.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

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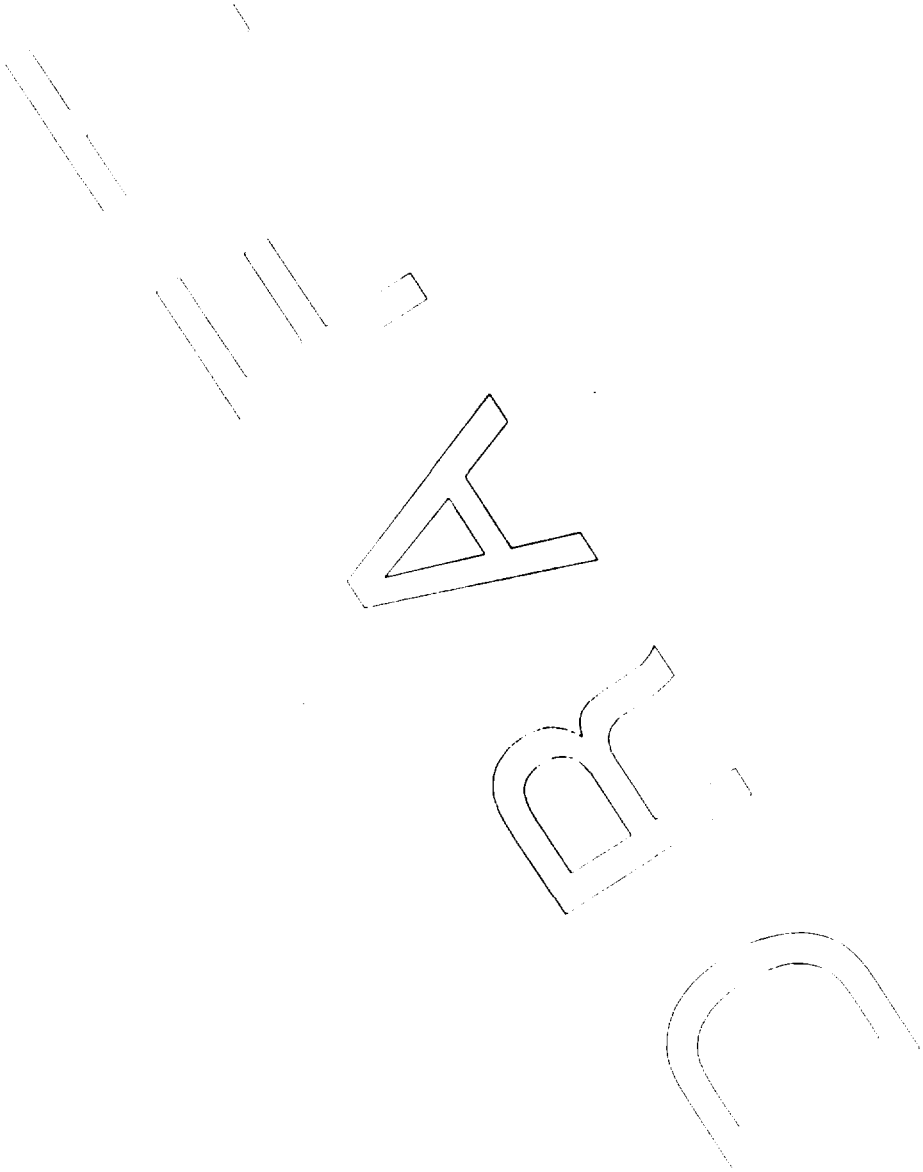

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4465 Contractor ~~Ecology~~ ECOLOGY & ENVIRONMENT INC. Contract No IL-3140

Instrument ID HP5995C Date 7-14-86 Time 1426

Lab ID C3498 Data Release Authorized By: C Sojourney

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	28.2
75	30.0 - 60.0% of the base peak	54.4
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	8.01
173	Less than 1.0% of the base peak	NONE PRESENT
174	Greater than 50.0% of the base peak	92.7
175	5.0 - 9.0% of mass 174	7.74 (8.35)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	90.9 (98.0)[1]
177	5.0 - 9.0% of mass 176	6.77 (7.45)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
-	VOA STD - 250 ng C3500	7-14-86	1553
-	- 500 ng C3501		1649
-	- 750 ng C3502		1744
-	- 1000 ng C3503		1839
-	- 100 ng C3505		2051

FORM V

7/85

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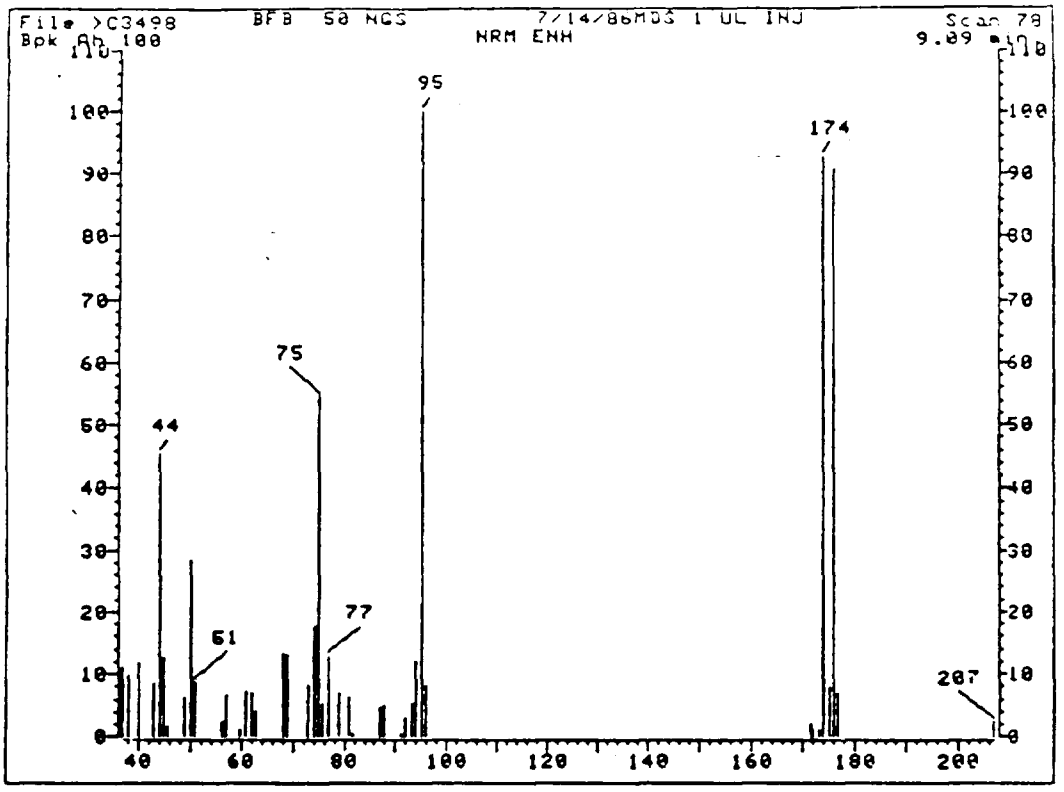

>C3498 BFB 50 NGS 7/14/86MDS 1 UL INJ
78 NRM ENH

File: >C3498 Scan #: 78 Retn. time: 9.09

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	11.06	51.05	8.60	73.15	8.12	87.00	4.44	171.70	2.10
38.10	9.79	55.95	2.40	74.05	17.82	88.00	4.79	172.00	1.15
40.00	11.49	57.05	6.57	75.05	54.39	91.20	.35	173.00	.89
43.10	8.50	59.95	.91	75.95	5.13	92.00	2.89	173.90	92.72
44.00	45.24	61.05	7.01	76.95	12.72	93.00	5.31	175.00	7.74
45.00	12.63	62.05	6.81	78.95	6.69	94.00	11.83	175.90	90.86
45.90	1.68	62.85	3.98	80.95	6.07	95.00	100.00	176.90	6.77
49.10	6.23	68.05	13.30	81.95	.49	96.00	8.01	206.95	2.20
50.00	28.25	69.05	12.87						

MS data file header from : >C3498

Sample: BFB 50 NGS Operator: USER8 MS 7/14/86 14:26
Misc : 7/14/86MDS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCU4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4465 Contractor Ecology & Environment Inc. Contract No IL-3140

Instrument ID HP5995C Date 8-26-86 Time 2211

Lab ID C4684 Data Release Authorized By C Wojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	21.2
75	30.0 - 60.0% of the base peak	46.7
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.15
173	Less than 1.0% of the base peak	NONE PRESENT
174	Greater than 50.0% of the base peak	83.9
175	5.0 - 9.0% of mass 174	5.45 (6.50) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	84.6 (100.8) [1]
177	5.0 - 9.0% of mass 176	6.26 (7.40) [2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
—	VOA-STD-20 ug/L C4686	8-26-86	2334
—	VOA STD-50 ug/L C4687	8-27-86	0032
-	" 100 ug/L C4688		0131
-	" 150 ug/L C4689		0231
-	" 200 ug/L C4690		0332

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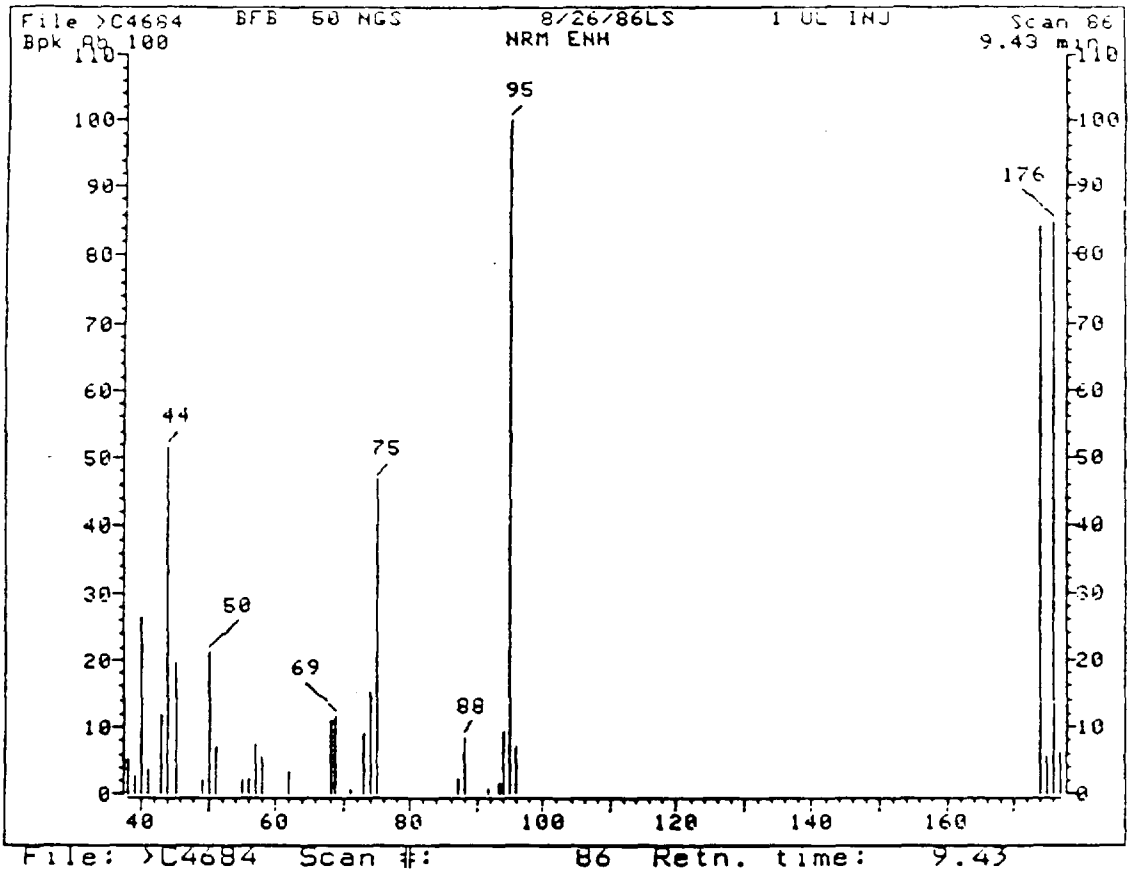

File: >C4684 Scan #: 86 Retn. time: 9.43

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.10	5.34	49.00	2.07	61.95	3.34	75.05	46.71	95.05	100.0
39.10	2.64	50.00	21.23	68.05	11.11	87.05	2.38	96.05	7.1
40.00	26.21	51.10	7.22	68.95	11.71	88.05	8.43	173.95	83.8
41.00	3.58	54.90	2.15	71.05	.79	91.85	.72	174.95	5.4
43.00	11.79	56.00	2.32	72.95	8.96	93.35	1.79	175.95	84.6
44.00	51.65	57.10	7.54	74.05	15.22	94.05	9.33	176.95	6.2
45.10	19.50	58.00	5.60						

MS data file header from : >C4684

Sample: BFB 50 NGS Operator: USER6 MS 8/26/86 22
Misc : 8/26/86LS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCU4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4465 Contractor Ecology & Environment Contract No EL-3140

Instrument ID HP5995C Date 11-17-86 Time 09:25

Lab ID >C5544 Data Release Authorized By: [illegible]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	25.3
75	30.0 - 60.0% of the base peak	51.8
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	5.25
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	95.64
175	5.0 - 9.0% of mass 174	6.90 (7.22)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	95.9 (100.3)[1]
177	5.0 - 9.0% of mass 176	5.78 (6.03)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check >C5545	11-17-86	09:58
BLKC5546	Method Blank >C5546	11-17-86	11:11
DC-SS-03	9750 >C5551	11-17-86	15:43
DC-SS-03-MS	9750 MS >C5555	11-17-86	19:04
DC-SS-03-MSD	9750 MSD >C5556	11-17-86	19:54

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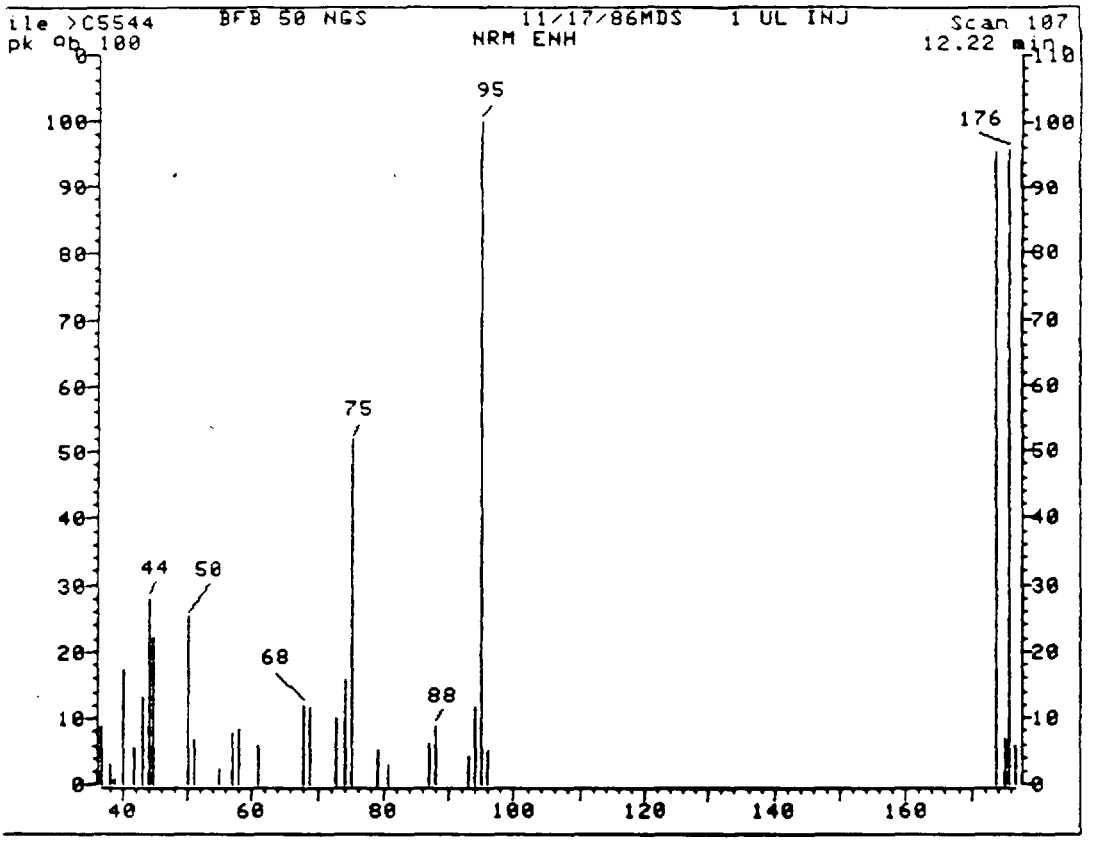

>C5544 BFB 50 NGS 11/17/86MDS 1 UL INJ
107 NRM ENH

File: >C5544 Scan #: 107 Retn. time: 12.22

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.90	8.81	44.90	22.23	60.80	5.89	78.95	5.08	94.95	100.00
38.00	2.92	49.90	25.35	67.95	12.08	80.65	3.02	95.95	5.25
38.90	.73	50.90	6.75	68.95	11.70	86.85	6.05	173.85	95.64
40.00	17.52	55.00	2.36	72.95	9.95	87.85	8.78	174.95	6.90
41.80	5.53	57.10	7.64	73.95	15.92	92.95	4.40	175.85	95.91
43.00	13.35	58.00	8.55	74.95	51.83	93.95	11.46	176.85	5.78
44.00	28.04								

MS data file header from : >C5544

Sample: BFB 50 NGS Operator: USER8 MS 11/17/86 9:25
Misc : 11/17/86MDS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4465 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP5995C Date 11-18-86 Time 09:28

Lab ID >C5571 Data Release Authorized By: C Hojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	23.8
75	30.0 - 60.0% of the base peak	50.9
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.18
173	Less than 1.0% of the base peak	0
174	Greater than 50.0% of the base peak	91.4
175	5.0 - 9.0% of mass 174	4.73 (5.17)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	90.9 (99.5)[1]
177	5.0 - 9.0% of mass 176	6.83 (7.51)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174

[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check >C5573	11-18-86	11:07
	Method Blank >C5574	11-18-86	11:57
DC-SS-16	9763 >C5579	11-18-86	16:42
DC-SS-17	9764 >C5580	11-18-86	17:38
DC-SS-14	9761 >C5577	11-18-86	14:51
DC-SS-15	9762 >C5578	11-18-86	15:47
DC-SS-19	9766 >C5582	11-18-86	19:29

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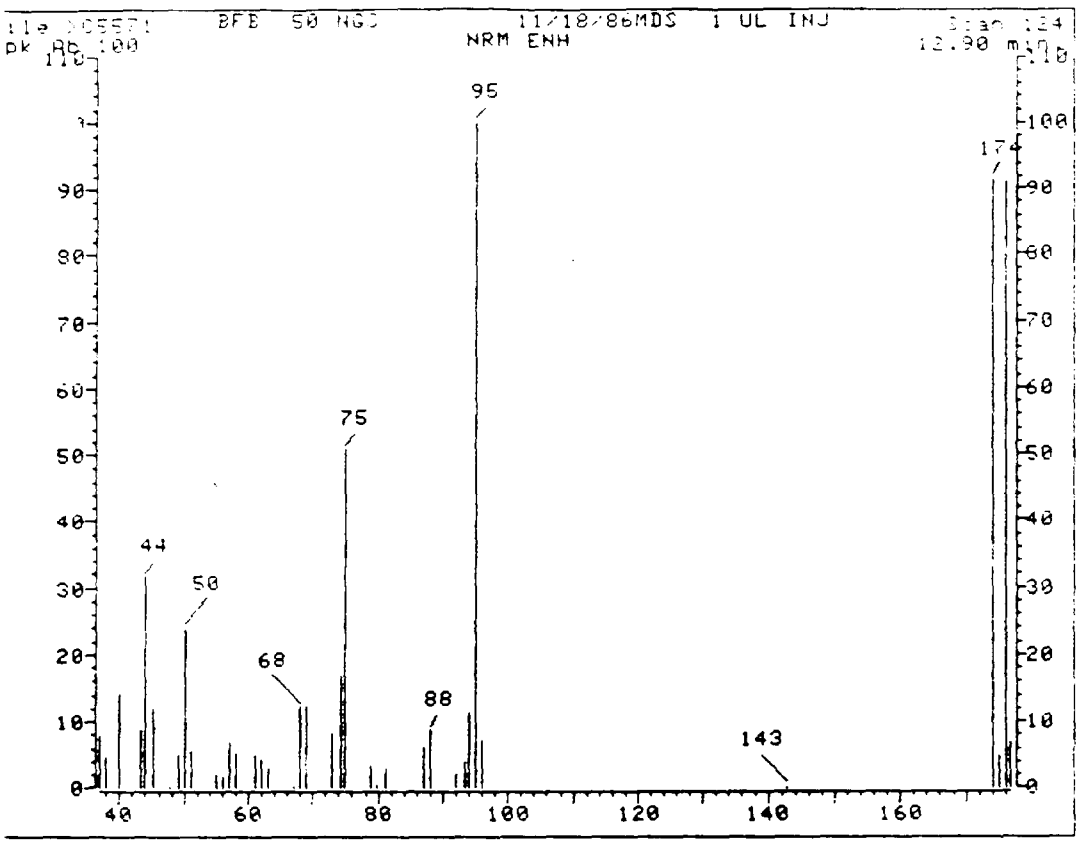

:5571 BFB 50 NGS 11/18/86MDS 1 UL INJ
124 NRM ENH

le: >C5571 Scan #: 124 Retn. time: 12.90

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
7.00	7.80	50.00	23.79	62.85	2.90	79.75	.35	95.05	100.00
8.00	4.50	51.10	5.64	66.95	.24	80.95	2.99	96.05	7.18
0.00	14.31	55.20	2.00	67.95	12.25	86.95	6.15	142.85	.12
3.10	8.67	55.90	1.72	69.05	12.24	88.05	8.68	173.95	91.36
4.00	31.76	57.00	6.80	72.95	8.01	91.95	1.97	174.95	4.73
5.10	11.91	58.00	5.08	74.05	16.75	93.15	3.78	175.95	90.94
7.80	.10	60.95	4.96	74.95	50.90	94.05	11.41	176.85	6.83
9.00	4.95	61.95	4.14	78.95	3.32				

data file header from : >C5571

mple: BFB 50 NGS Operator: USER8 MS 11/18/86 9:28
sc : 11/18/86MDS 1 UL INJ
s. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
ource temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures : 220. 225. 0. 0. 0.
Chromatographic times, min. : 10.0 10.0 0.0 0.0 0.0
romatographic rate, deg/min: 5.0 0.0 0.0 0.0 0.0

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4465 Contractor Ecology & Environment Contract No IL-3140

Instrument ID #5995C Date 11-18-86 Time 20:22

Lab ID >C5583 Data Release Authorized By: C Stojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	26.5
75	30.0 - 60.0% of the base peak	52.2
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	5.58
173	Less than 1.0% of the base peak	0
174	Greater than 50.0% of the base peak	90.8
175	5.0 - 9.0% of mass 174	7.13 (7.86)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	90.0 (99.2)[1]
177	5.0 - 9.0% of mass 176	5.11 (5.68)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check >C5585	11-18-86	21:42
DC-SS-23	9770 >C5590	11-19-86	02:21
BLKC5592	Method Blank >C5592	11-19-86	4:12
DC-SS-20	9767 >C5587	11-18-86	23:33
DC-SS-21	9768 >C5588	11-19-86	00:29
DC-SS-45	9771 >C5591	11-19-86	03:16

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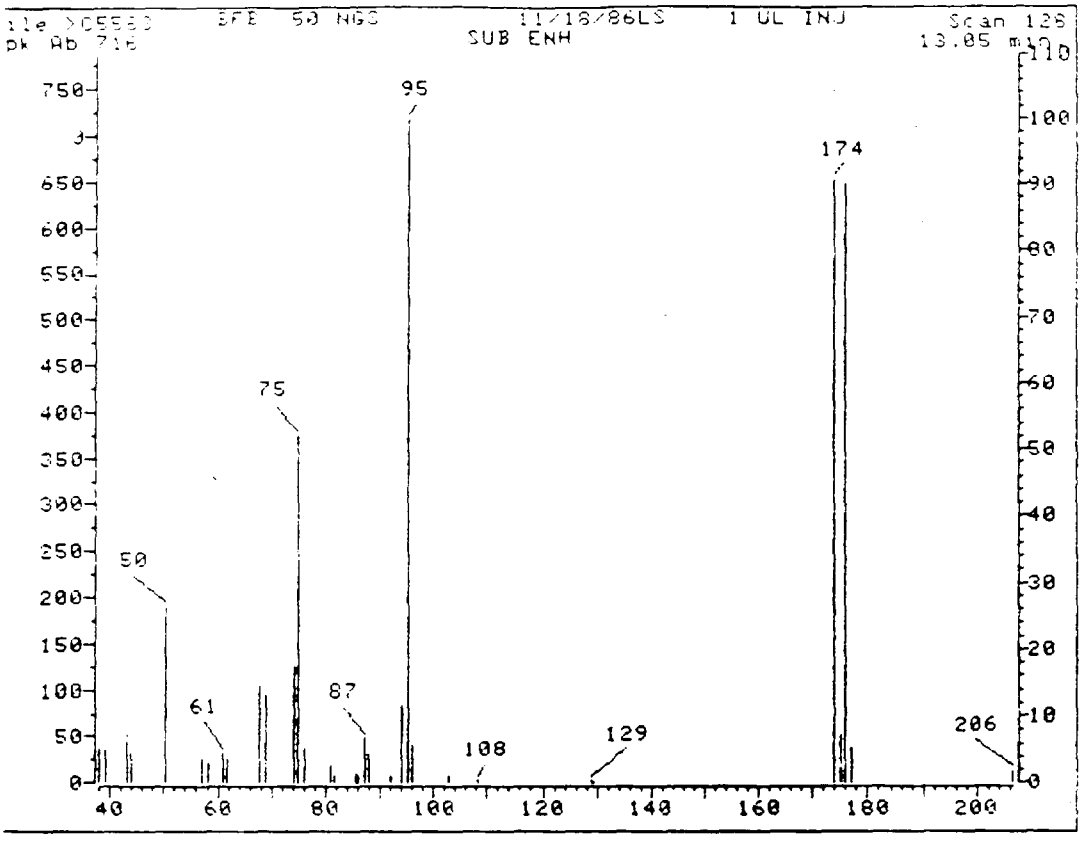

C5583 BFB 50 NGS 11/18/86LS 1 UL INJ
128 SUB ENH

ile: >C5583 Scan #: 128 Retn. time: 13.05

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
58.00	36.22	60.95	32.44	76.05	36.78	92.05	7.67	129.50	1.67
59.00	35.89	61.65	25.00	80.75	20.00	94.15	82.67	173.95	650.56
63.00	52.89	61.95	20.22	81.65	6.94	95.05	716.44	174.95	51.11
64.00	32.00	67.85	104.56	85.75	9.22	96.05	40.00	175.95	645.00
50.10	189.50	69.05	94.94	86.05	6.78	102.70	7.67	177.05	36.61
57.10	24.94	74.05	124.89	87.05	47.61	108.20	2.11	206.60	12.11
58.00	22.28	75.05	374.00	88.05	31.44	129.10	1.94		

; data file header from : >C5583

mple: BFB 50 NGS Operator: USER8 MS 11/18/86 20:22
sc : 11/18/86LS 1 UL INJ
s. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4465 Contractor Ecology & Environment Contract No IL-3140

Instrument ID HP5995C Date 11-21-86 Time 09:50

Lab ID >C 5647 Data Release Authorized By: D Stoytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	24.1
75	30.0 - 60.0% of the base peak	52.7
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	6.74
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	95.2
175	5.0 - 9.0% of mass 174	7.57 (7.95)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	94.7 (99.5)[1]
177	5.0 - 9.0% of mass 176	6.70 (7.07)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check >C5648	11-21-86	10:28
BLK C5649	method Blank >C5649	11-21-86	11:28
DC-SS-01	9748 >C5653	11-21-86	15:11
DC-SS-02	9749 >C5654	11-21-86	16:06
DC-SS-03	9750 >C5655	11-21-86	17:01

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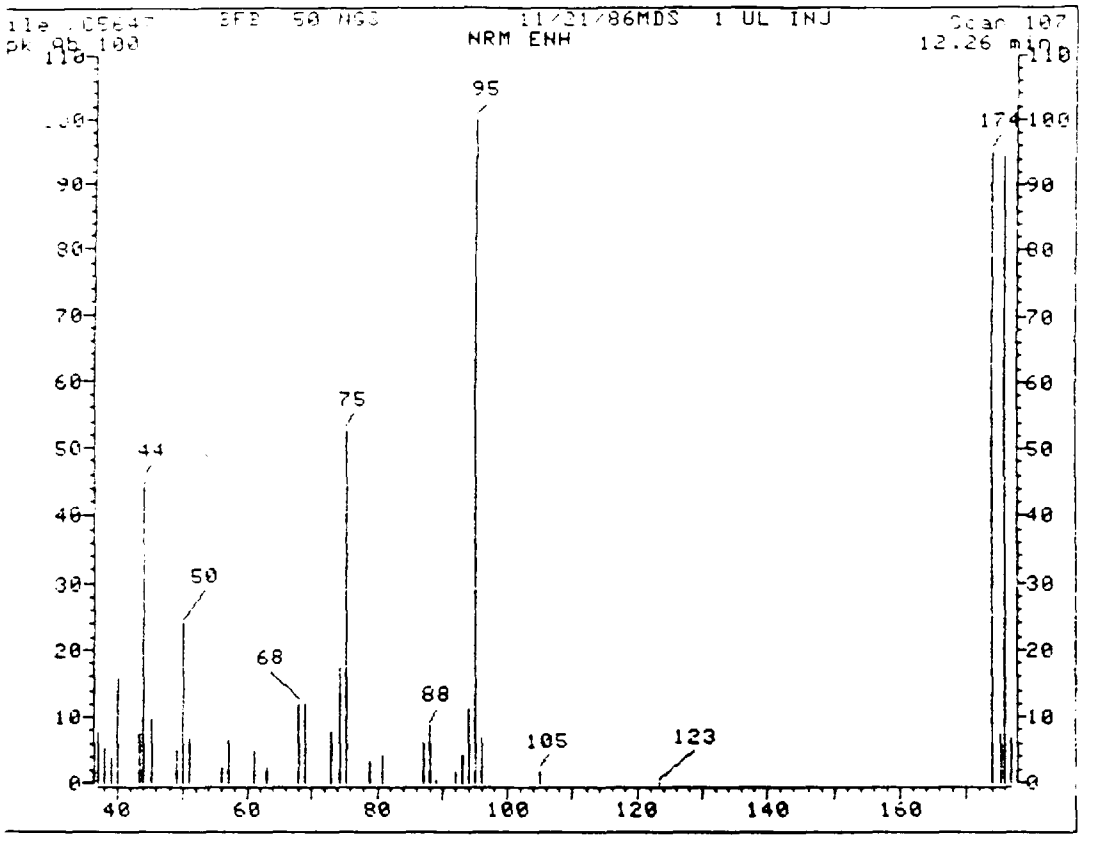

C5647 BFB 50 NGS 11/21/86MDS 1 UL INJ
107 NRM ENH

File: >C5647 Scan #: 107 Retn. time: 12.26

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	7.87	49.00	4.80	68.05	11.94	87.05	6.03	96.15	6.74
38.00	5.34	50.00	24.05	68.95	11.90	88.05	8.68	105.00	1.71
39.00	3.45	51.10	6.85	73.05	7.74	89.15	.46	123.50	.08
40.00	15.79	56.00	2.19	74.05	17.30	92.05	1.83	173.95	95.21
43.10	7.59	57.00	6.40	75.05	52.67	93.05	4.15	175.05	7.57
44.00	44.97	60.95	4.74	78.95	3.30	94.05	11.25	175.95	94.70
45.10	9.74	63.05	2.42	80.95	4.15	95.05	100.00	176.95	6.70

MS data file header from : >C5647

Sample: BFB 50 NGS Operator: USER8 MS 11/21/86 9:50
Disc : 11/21/86MDS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-11465 Contractor Ecology & Environment Contract No IL-3140

Instrument ID HP5995C Date 11-21-86 Time 20:44

Lab ID >C 5659 Data Release Authorized By: C Slotowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	24.2
75	30.0 - 60.0% of the base peak	52.9
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.30
173	Less than 1.0% of the base peak	0
174	Greater than 50.0% of the base peak	98.1
175	5.0 - 9.0% of mass 174	7.01 (7.14)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	98.7 (100.5%)[1]
177	5.0 - 9.0% of mass 176	5.88 (5.96)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check >C5660	11-21-86	21:10
DC-SS-05	9752 >C5662	11-21-86	23:18
DC-SS-06	9753 >C5663	11-22-86	00:14
DC-SS-07	9754 >C5664	11-22-86	01:10
DC-SS-09	9756 >C5665	11-22-86	02:05
BLK C 5666	Method Blank >C5666	11-22-86	03:01
DC-SS-10	9757 >C5668	11-22-86	04:52
DC-SS-04	9751 >C5670	11-22-86	06:43
DC-SS-12	9759 >C5669	11-22-86	05:48

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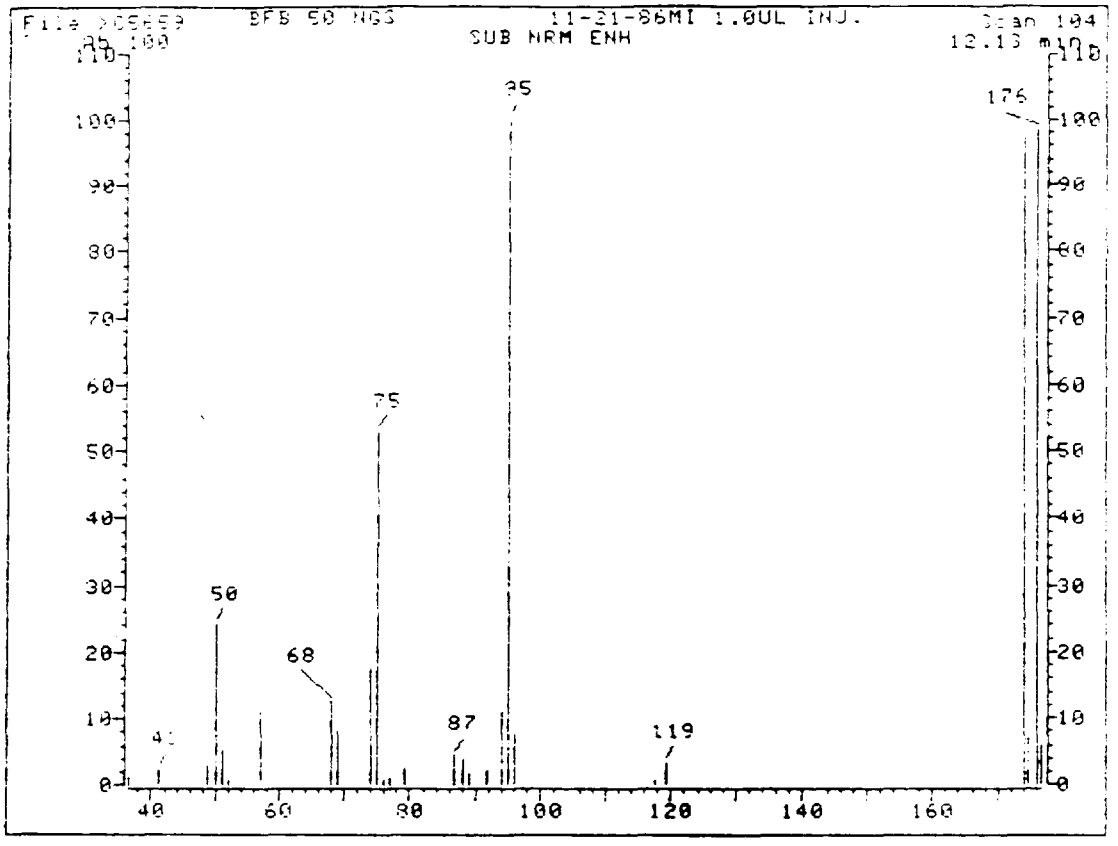

>C5659 BFB 50 NGS 11-21-86MI 1.0UL INJ.
104 SUB NRM ENH

File: >C5659 Scan #: 104 Retn. time: 12.13

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.60	1.02	57.10	11.04	76.95	.96	91.85	2.35	119.10	3.42
41.00	2.22	67.95	12.54	79.15	2.49	94.15	10.94	173.95	98.13
48.90	3.07	69.05	8.05	86.85	4.44	95.05	100.00	174.85	7.01
50.10	24.17	74.05	17.75	88.15	4.06	95.95	7.30	175.95	98.66
51.00	5.24	74.95	52.94	89.05	1.60	117.70	.88	176.85	5.88
52.20	.83	75.85	.88						

MS data file header from : >C5659

Sample: BFB 50 NGS Operator: USER8 MS 11/21/86 10:44
Misc : 11-21-86MI 1.0UL INJ.
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCU4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4465 Contractor Ecology & Environment Contract No IL-3140

Instrument ID HP5995C Date 11-24-86 Time 21:11

Lab ID >C5683 Data Release Authorized By: C Stojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	26.5
75	30.0 - 60.0% of the base peak	51.8
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.75
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	89.1
175	5.0 - 9.0% of mass 174	6.96 (7.81)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	89.7 (100.66)[1]
177	5.0 - 9.0% of mass 176	5.90 (6.58)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Std >C5685	11-24-86	23:06
BLK C5687	Method Blank >C5687	11-25-86	00:50
DC-SS-13	9760 >C5688	11-25-86	01:43
DC-SS-08	9755 >C5689	11-25-86	02:37
DC-SS-11	9758 >5690	11-25-86	03:32

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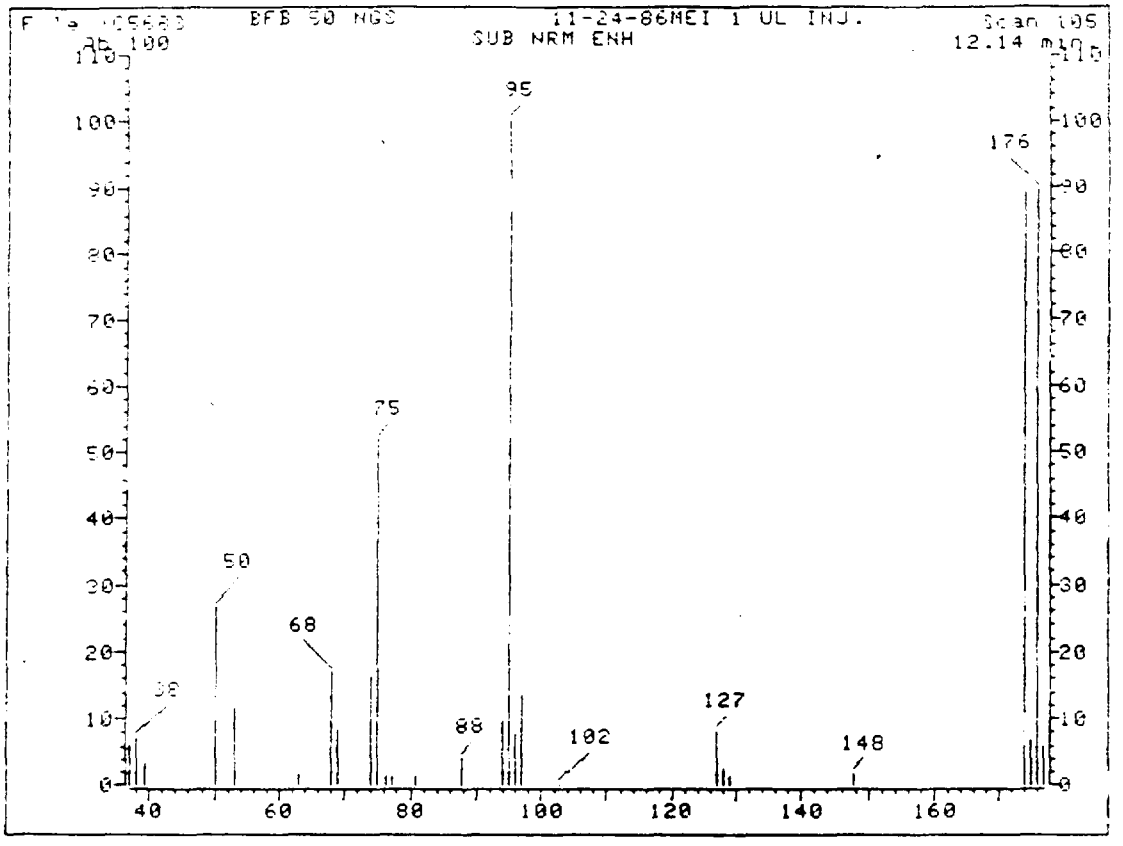

>C5683 BFB 50 NGS 11-24-86MEI 1 UL INJ.
105 SUB NRM ENH

File: >C5683 Scan #: 105 Retn. time: 12.14

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	6.02	63.05	1.73	77.05	1.31	97.05	13.38	147.95	1.78
38.00	7.20	67.95	17.00	80.95	1.42	102.60	.13	173.95	89.13
39.10	3.41	69.05	8.44	87.85	4.17	127.10	8.10	174.95	6.96
50.00	26.51	73.95	16.47	93.95	9.72	128.10	2.64	175.95	89.72
53.00	11.65	74.95	51.81	95.05	100.00	129.00	1.22	176.95	5.90
58.90	.15	76.05	1.27	95.95	7.75				

MS data file header from : >C5683

Sample: BFB 50 NGS Operator: USER6 MS 11/24/86 21:11
Misc : 11-24-86MEI 1 UL INJ.
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4465 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP5995C Date 11-25-86 Time 09:26

Lab ID >C 5696 Data Release Authorized By: C Hoytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	24.6
75	30.0 - 60.0% of the base peak	54.1
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.67
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	97.9
175	5.0 - 9.0% of mass 174	7.74 (7.91)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	97.2 (99.3)[1]
177	5.0 - 9.0% of mass 176	7.3 (7.48)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib. Check >C5697	11-25-86	09:58
BLK C5698	Method Blank >C5698	11-25-86	11:05
DC-SS-14-RE	9761-RE >C5699	11-25-86	12:10
DC-SS-15-RE	9762-RE >C5700	11-25-86	13:05
DC-SS-19-RE	9766-RE >C5702	11-25-86	14:53
DC-SS-20-RE	9767-RE >C5703	11-25-86	15:48
DC-SS-22	9769 >C5704	11-25-86	16:42
DC-SS-45-RE	9771 RE >C5706	11-25-86	18:55

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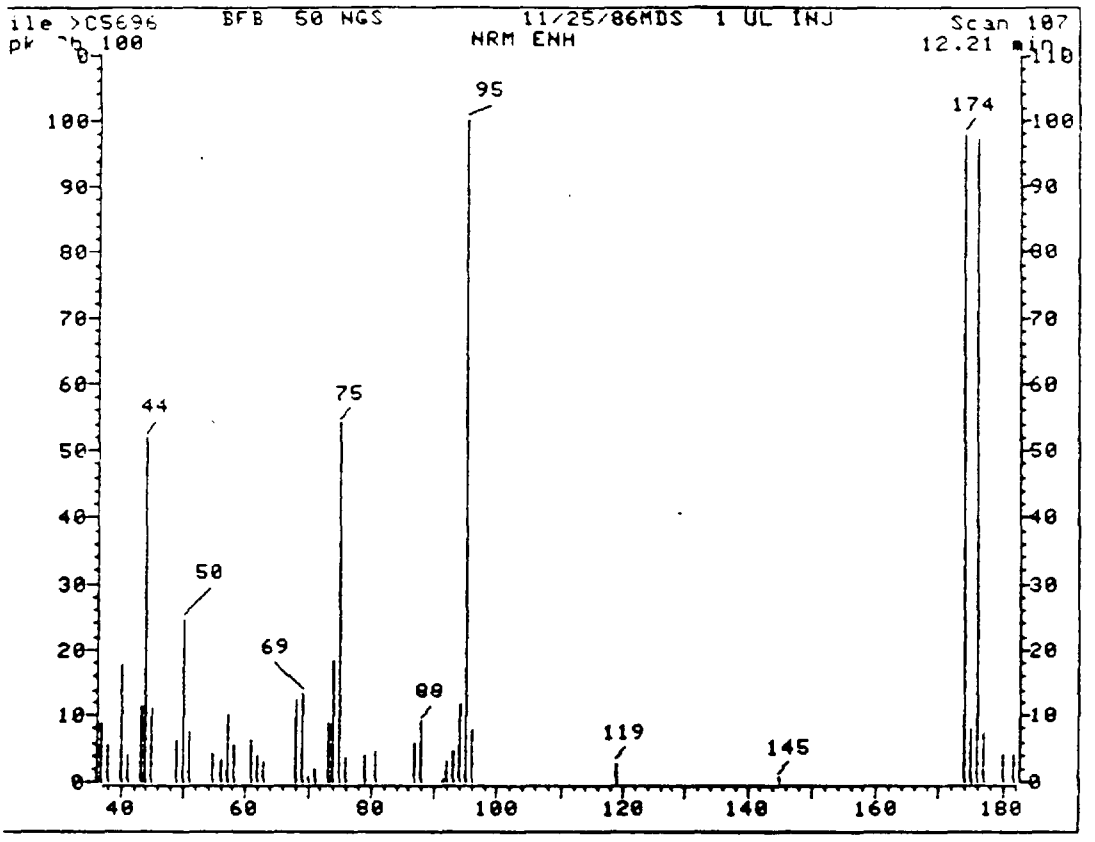

>C5696 BFB 50 NGS 11/25/86MDS 1 UL INJ
107 NRM ENH

File: >C5696 Scan #: 107 Retn. time: 12.21

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.10	8.81	51.00	7.59	68.05	12.36	80.85	4.47	119.00	2.77
38.00	5.68	54.90	4.17	68.95	13.30	86.95	5.75	145.05	.57
40.00	17.62	56.10	3.43	70.05	.73	88.05	9.02	173.95	97.85
41.10	3.84	56.30	.70	71.05	2.16	91.45	.25	175.05	7.74
43.10	11.27	57.10	9.89	73.05	8.75	92.05	2.86	175.95	97.20
44.00	51.84	58.10	5.69	74.05	18.26	93.05	4.62	177.05	7.27
45.00	11.04	60.95	6.28	75.05	54.05	94.05	11.62	179.90	3.89
49.10	6.22	62.05	3.99	76.05	3.56	95.05	100.00	181.90	3.86
50.10	24.56	62.95	2.87	78.95	4.01	95.95	7.67		

MS data file header from : >C5696

Sample: BFB 50 NGS Operator: USER6 MS 11/25/86 9:26
1 : 11/25/86MDS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures : 220. 225. 0. 0. 0.
Chromatographic times, min. : 10.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 5.0 0.0 0.0 0.0 0.0

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4465 Contractor Ecology & Environment Contract No IL-3140

Instrument ID HP5995C Date 11-25-86 Time 20:40

Lab ID >C5708 Data Release Authorized By: C Stojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	20.3
75	30.0 - 60.0% of the base peak	54.3
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	6.96
173	Less than 1.0% of the base peak	0 00
174	Greater than 50.0% of the base peak	94.6
175	5.0 - 9.0% of mass 174	7.91 (8.36)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	94.9 (100.4)[1]
177	5.0 - 9.0% of mass 176	6.22 (6.55)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check >C5710	11-25-86	22:07
BLK C 5715	Method Blank >C5715	11-26-86	02:47
DC-SS-18	9765 >C5716	11-26-86	03:42
DC-SS-22 RE	9769 RE >C5719	11-26-86	06:27

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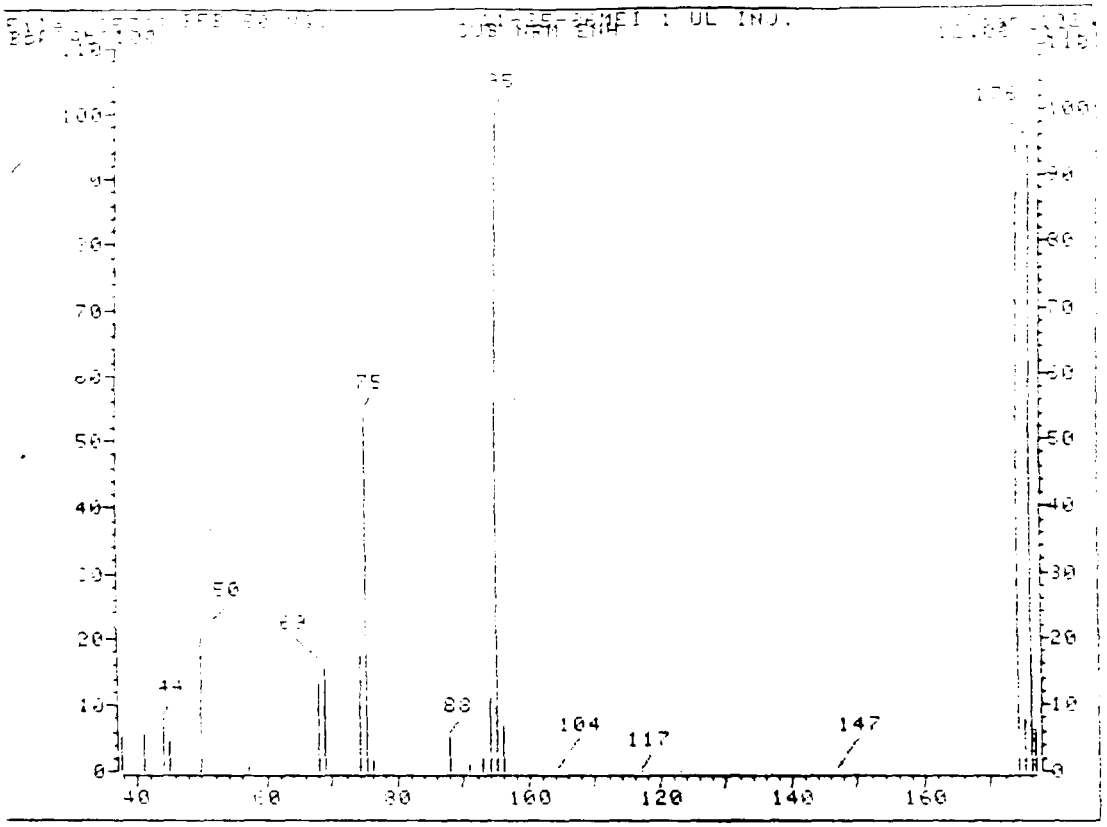

C5708 BFB 50 NGS 11-25-86MEI 1 UL INJ. S

100 SUB NRM ENH

File: >C5708 Scan #: 102 Retn. time: 12.06

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.80	5.25	57.10	.70	76.15	1.68	95.05	100.00	146.85	.04
41.10	5.59	68.05	13.16	87.95	5.09	96.05	6.96	173.35	94.57
44.10	8.06	68.95	15.36	90.95	.90	104.30	.05	174.95	7.91
45.00	4.61	74.05	17.37	92.85	1.88	117.10	.07	175.35	94.94
49.40	.04	75.05	54.30	94.05	11.12	122.90	.05	176.85	6.22
50.00	20.33								

MS data file header from : >C5708

Sample: BFB 50 NGS Operator: USER6 MS 11-25-86 10:40
Misc : 11-25-86MEI 1 UL INJ. S
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

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GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4465 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP 5995C Date 11-26-86 Time 20:27

Lab ID >C5809 Data Release Authorized By: C Stojowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	26.4
75	30.0 - 60.0% of the base peak	51.6
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	8.49
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	98.8
175	5.0 - 9.0% of mass 174	8.78 (8.89)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	98.4 (99.6)[1]
177	5.0 - 9.0% of mass 176	4.99 (5.07)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check >C5810	11-26-86	20:57
BLKC5811	Method Blank >C5811	11-26-86	22:03
DC-SS-12-RE	9759 RE >C5813	11-27-86	00:05
DC SS-21-RE	9768 RE >C5818	11-27-86	04:41

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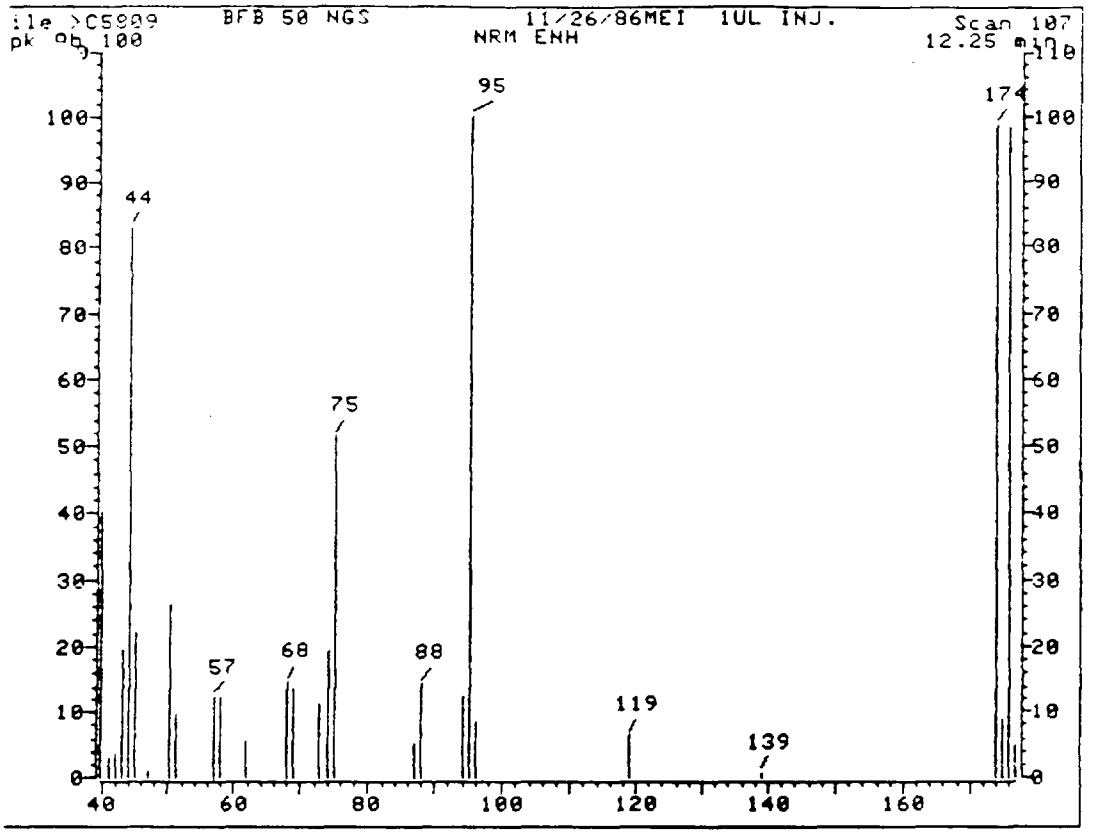

>C5809 BFB 50 NGS 11/26/86MEI 1UL INJ.
107 NRM ENH

File: >C5809 Scan #: 107 Retn. time: 12.25

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
39.90	40.27	47.00	.92	67.95	14.74	88.05	14.40	138.90	.83
41.10	3.04	50.10	26.36	69.05	13.45	94.05	12.38	173.95	98.78
42.20	3.65	51.10	9.68	72.85	11.31	95.05	100.00	174.95	8.78
43.10	19.70	57.10	12.40	73.95	19.14	95.95	8.49	175.95	98.37
44.00	83.15	58.00	12.31	75.05	51.63	119.00	6.44	176.95	4.99
45.10	22.08	61.95	5.37	86.85	5.33				

MS data file header from : >C5809

Sample: BFB 50 NGS Operator: USER6 MS 11/26/86 20:27
Misc : 11/26/86MEI 1UL INJ.
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

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SAMPLE DATA

SAMPLE NUMBER DC-SS-01

481095

Sample Number
DC-SS-01

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465

Lab Sample ID No: 9748 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Stoytowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-21-86

Conc./Dil Factor: 3 pH 7.6

Percent Moisture: (Not Decanted) 22

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	34 B
67-64-1	Acetone	28 BJ
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4465

Sample Number DC-SS-01

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-1-86

Conc/Dil Factor 2

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	420	U
111-44-4	bis(-2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1 3-Dichlorobenzene	420	U
106-46-7	1 4-Dichlorobenzene	420	U
100-51-6	Benzyl Alcohol	420	U
95-50-1	1 2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
39638-32-9	bis(2-chloroisopropyl)Ether	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2, 4-Dimethylphenol	420	U
65-85-0	Benzoic Acid	2000	U
111-91-1	bis(-2-Chloroethoxy)Methane	420	U
120-83-2	2, 4-Dichlorophenol	420	U
120-82-1	1 2, 4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2 4 6-Trichlorophenol	420	U
95-95-4	2 4, 5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethyl Phthalate	420	U
208-96-8	Acenaphthylene	420	U
99-09-2	3-Nitroaniline	2000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	420	U
51-28-5	2, 4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2 4-Dinitrotoluene	420	U
606-20-2	2 6-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
84-74-2	Di-n-Butylphthalate	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3 3 -Dichlorobenzidine	850	U
56-55-3	Benzo(a)Anthracene	420	U
117-81-7	bis(2-Ethylhexyl)Phthalate	420	U
218-01-9	Chrysene	420	U
117-84-0	Di-n-Octyl Phthalate	420	U
205-99-2	Benzo(b)Fluoranthene	420	U
207-08-9	Benzo(k)Fluoranthene	420	U
50-32-8	Benzo(a)Pyrene	420	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	420	U
53-70-3	Dibenzo(a h)Anthracene	420	U
191-24-2	Benzo(g h i)Perylene	420	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-01

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 5

Percent Moisture (decanted) 22.3

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	80 U
319-85-7	Beta-BHC	80 U
319-86-8	Delta-BHC	80 U
58-89-9	Gamma-BHC (Lindane)	80 U
76-44-8	Heptachlor	80 U
309-00-2	Aldrin	80 U
1024-57-3	Heptachlor Epoxide	80 U
959-98-8	Endosulfan I	80 U
60-57-1	Dieldrin	160 U
72-55-9	4,4'-DDE	160 U
72-20-8	Endrin	160 U
33213-65-9	Endosulfan II	160 U
72-54-8	4,4'-DDD	160 U
1031-07-8	Endosulfan Sulfate	160 U
50-29-3	4,4'-DDT	160 U
72-43-5	Methoxychlor	800 U
53494-70-5	Endrin Ketone	160 U
57-74-9	Chlordane	800 U
8001-35-2	Toxaphene	1600 U
12674-11-2	Aroclor-1016	800 U
11104-28-2	Aroclor-1221	800 U
11141-16-5	Aroclor-1232	800 U
53469-21-9	Aroclor-1242	800 U
12672-29-6	Aroclor-1248	800 U
11097-69-1	Aroclor-1254	1600 U
11096-82-5	Aroclor-1260	1600 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-01

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Unknown Ketone	VOA	19.6	12 BJ
2.	Hexane Isomer	VOA	21.2	2 BJ
3.				
4.	UNKNOWN	BNA	9.2	2800 J
5.	UNKNOWN	BNA	24.7	110 J
6.	UNKNOWN	BNA	37.0	180 J
7.	UNKNOWN	BNA	40.7	180 J
8.				
9				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
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25.				
26.				
27.				
28.				
29.				
30				

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Sample Number
DC-SS-02

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465

Lab Sample ID No: 9749 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Stoglowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-21-86

Conc./Dil Factor: 3 pH 7.4

Percent Moisture: (Not Decanted) 23

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30µ
74-83-9	Bromomethane	30µ
75-01-4	Vinyl Chloride	30µ
75-00-3	Chloroethane	30µ
75-09-2	Methylene Chloride	32 B
67-64-1	Acetone	23 BJ
75-15-0	Carbon Disulfide	15µ
75-35-4	1, 1-Dichloroethene	15µ
75-34-3	1, 1-Dichloroethane	15µ
156-60-5	Trans-1, 2-Dichloroethene	15µ
67-66-3	Chloroform	15µ
107-06-2	1, 2-Dichloroethane	15µ
78-93-3	2 Butanone	43 B
71-55-6	1, 1, 1-Trichloroethane	15µ
56-23-5	Carbon Tetrachloride	15µ
108-05-4	Vinyl Acetate	30µ
75-27-4	Bromodichloromethane	15µ

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15µ
10061-02-6	Trans-1, 3-Dichloropropene	15µ
79-01-6	Trichloroethene	15µ
124-48-1	Dibromochloromethane	15µ
79-00-5	1, 1, 2-Trichloroethane	15µ
71-43-2	Benzene	15µ
10061-01-5	cis-1, 3-Dichloropropene	15µ
110-75-8	2-Chloroethylvinylether	30µ
75-25-2	Bromoform	15µ
108-10-1	4-Methyl-2-Pentanone	30µ
591-78-6	2 Hexanone	30µ
127-18-4	Tetrachloroethene	15µ
79-34-5	1, 1, 2, 2-Tetrachloroethane	15µ
108-88-3	Toluene	15µ
108-90-7	Chlorobenzene	15µ
100-41-4	Ethylbenzene	15µ
100-42-5	Styrene	15µ
	Total Xylenes	15µ

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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ecology and environment

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4465

Sample Number DC-SS-02

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-1-86

Conc/Dil Factor 2

Percent Moisture (Decanted) 23

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	430	U
111-44-4	bis(-2-Chloroethyl)Ether	430	U
95-57-8	2-Chlorophenol	430	U
541-73-1	1 3-Dichlorobenzene	430	U
106-46-7	1 4-Dichlorobenzene	430	U
100-51-6	Benzyl Alcohol	430	U
95-50-1	1 2-Dichlorobenzene	430	U
95-48-7	2-Methylphenol	430	U
39638-32-9	bis(2-chloroisopropyl)Ether	430	U
106-44-5	4-Methylphenol	430	U
621-64-7	N-Nitroso-Di-n-Propylamine	430	U
67-72-1	Hexachloroethane	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U
88-75-5	2-Nitrophenol	430	U
105-67-9	2 4-Dimethylphenol	430	U
65-85-0	Benzoic Acid	2100	U
111-91-1	bis(-2-Chloroethoxy)Methane	430	U
120-83-2	2 4-Dichlorophenol	430	U
120-82-1	1 2 4-Trichlorobenzene	430	U
91-20-3	Naphthalene	430	U
106-47-8	4-Chloroaniline	430	U
87-68-3	Hexachlorobutadiene	430	U
59-50-7	4-Chloro-3-Methylphenol	430	U
91-57-6	2-Methylnaphthalene	430	U
77-47-4	Hexachlorocyclopentadiene	430	U
88-06-2	2 4 6-Trichlorophenol	430	U
95 95-4	2 4 5-Trichlorophenol	2100	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethyl Phthalate	430	U
208-96-8	Acenaphthylene	430	U
99-09-2	3-Nitroaniline	2100	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	430	U
51-28-5	2, 4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	430	U
121-14-2	2 4-Dinitrotoluene	430	U
606-20-2	2 6-Dinitrotoluene	430	U
84-66-2	Diethylphthalate	430	U
7005-72-3	4-Chlorophenyl-phenylether	430	U
86-73-7	Fluorene	430	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4, 6-Dinitro-2-Methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	430	U
101-55-3	4-Bromophenyl-phenylether	430	U
118-74-1	Hexachlorobenzene	430	U
87-86-5	Pentachlorophenol	2100	U
85-01-8	Phenanthrene	430	U
120-12-7	Anthracene	430	U
84-74-2	Di-n-Butylphthalate	430	U
206-44-0	Fluoranthene	430	U
129-00-0	Pyrene	430	U
85-68-7	Butylbenzylphthalate	430	U
91-94-1	3 3 -Dichlorobenzidine	860	U
56-55-3	Benzo(a)Anthracene	430	U
117-81-7	bis(2-Ethylhexyl)Phthalate	910	
218-01-9	Chrysene	430	U
117-84-0	Di-n-Octyl Phthalate	430	U
205-99-2	Benzo(b)Fluoranthene	430	U
207-08-9	Benzo(k)Fluoranthene	430	U
50-32-8	Benzo(a)Pyrene	430	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	430	U
53-70-3	Dibenz(a h)Anthracene	430	U
191-24-2	Benzo(g h i)Perylene	430	U

(1)-Cannot be separated from diphenylamine

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ecology and environment

Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-02

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1

Percent Moisture (decanted) 22.6

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16 U
319-85-7	Beta-BHC	16 U
319-86-8	Delta-BHC	16 U
58-89-9	Gamma-BHC (Lindane)	16 U
76-44-8	Heptachlor	16 U
309-00-2	Aldrin	16 U
1024-57-3	Heptachlor Epoxide	16 U
959-98-8	Endosulfan I	16 U
60-57-1	Dieldrin	32 U
72-55-9	4,4'-DDE	31 J
72-20-8	Endrin	32 U
33213-65-9	Endosulfan II	32 U
72-54-8	4,4'-DDD	32 U
1031-07-8	Endosulfan Sulfate	32 U
50-29-3	4,4'-DDT	32 U
72-43-5	Methoxychlor	160 U
53494-70-5	Endrin Ketone	32 U
57-74-9	Chlordane	160 U
8001-35-2	Toxaphene	320 U
12674-11-2	Aroclor-1016	160 U
11104-28-2	Aroclor-1221	160 U
11141-16-5	Aroclor-1232	160 U
53469-21-9	Aroclor-1242	160 U
12672-29-6	Aroclor-1248	160 U
11097-69-1	Aroclor-1254	320 U
11096-82-5	Aroclor-1260	450

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name Ecology & Environment, Inc
Case No U-4465

Sample Number
DC-SS-02

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Unknown ketone	VOA	19.5	2 B J
2.	Hexane isomer	VOA	21.2	1 B J
3.				
4.	UNKNOWN	BNA	9.2	4000 J
5.	UNKNOWN	BNA	34.2	250 B J
6.	UNKNOWN HYDROCARBON	BNA	35.3	170 J
7.	UNKNOWN HYDROCARBON	BNA	37.0	280 J
8.				
9.				
10.				
11.				
12.				
13.				
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16.				
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27.				
28.				
29.				
30				

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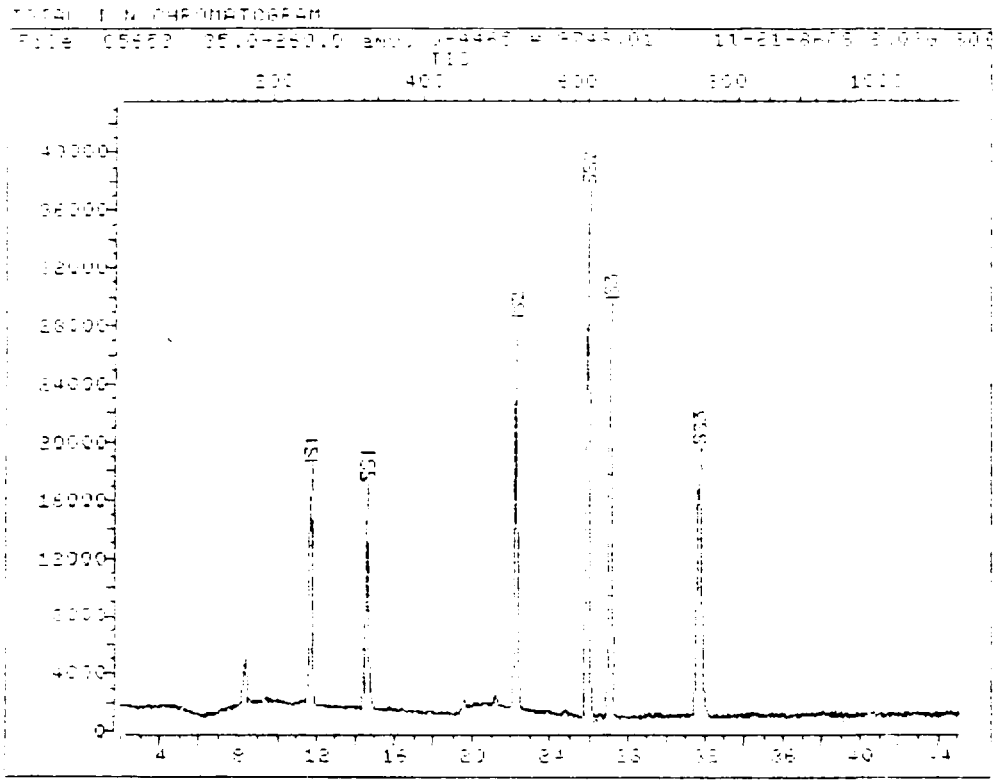

Data File: VDH653::03
Name: U-4465 # 9743.01 DC-SS-01
Misc: 11-21-86CS 2.93G SOIL IN 5ML DI + 10UL IS SS

Id File: VOHCPS::02
Title: VOA ID FILE FOR HP-5996 (COUNT. CAL.
Last Calibration: 861121 11:51

Operator ID: JSERR
Quant Time: 861121 15:55
Injected at: 861121 15:11

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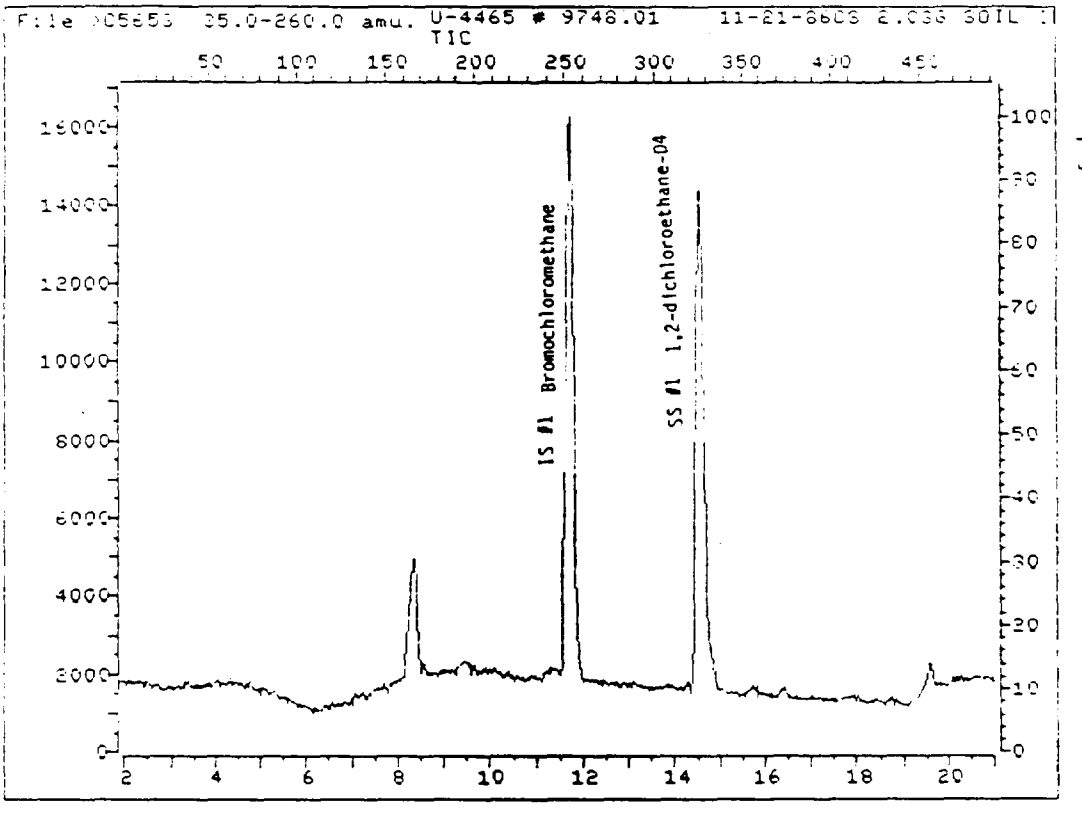
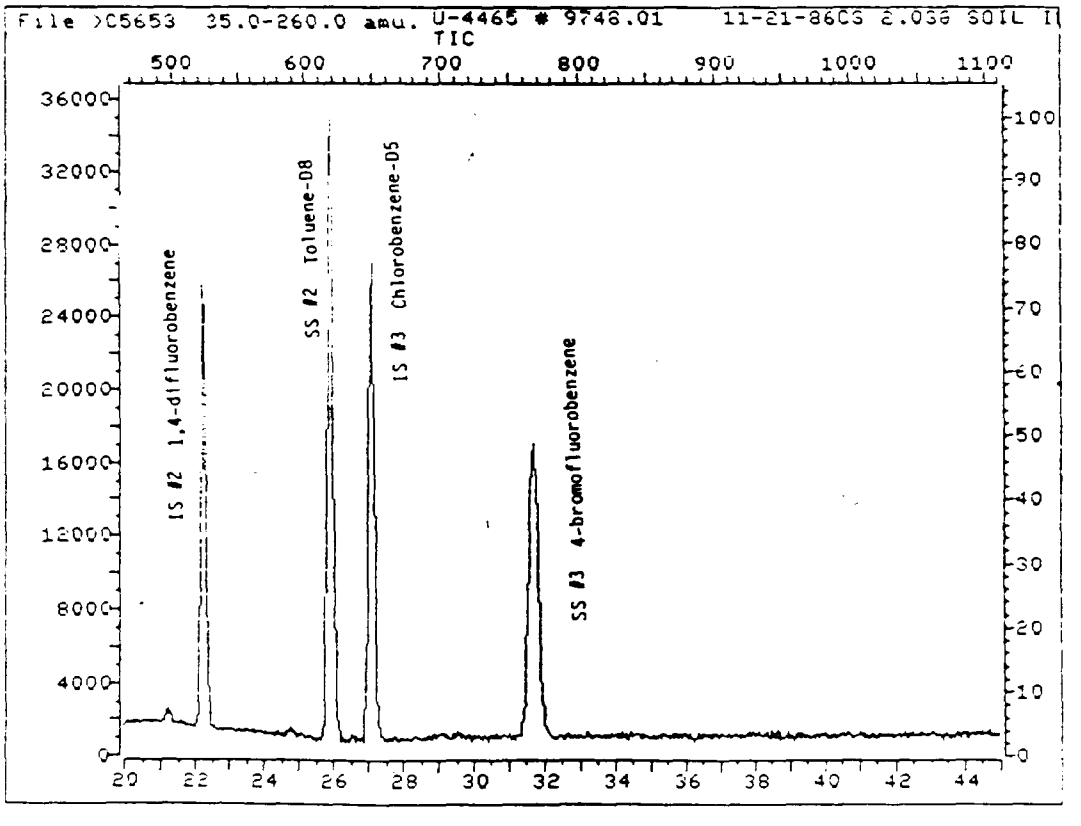


DC-SS-01



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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861121 [illegible]
Output File: C5653::D2 Injected at: 861121 [illegible]
Data File: C5653::D3 Dilution Factor: [illegible]
Name: U-4465 # 9748.01 DC-SS-01
Misc: 11-21-86CS 2.03G SOIL IN 5ML DI + 10UL IS SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 11:51

	Compound		m/E	R.T.	Scan#	Area	Conc	Units		
1)	*BROMOCHLOROMETHANE	(IS)	128	11.69	252	20009	[illegible]	NGS		[illegible]
6)	METHYLENE CHLORIDE		84	8.35	166	7174	53.51	NGS		[illegible]
7)	ACETONE		43	9.32	191	2921	43.38	NGS		[illegible]
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.56	326	53348	263.69	NGS	100	[illegible]
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.25	524	97446	250.00	NGS		[illegible]
31)	*CHLOROBENZENE-D5	(IS)	117	27.10	649	85129	[illegible]	NGS		[illegible]
36)	TOLUENE-D8	(SURR)	98	25.93	[illegible]	[illegible]	[illegible]	[illegible]	97	[illegible]
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.68	767	59448	[illegible]	[illegible]	94	[illegible]

* Compound is ISTD

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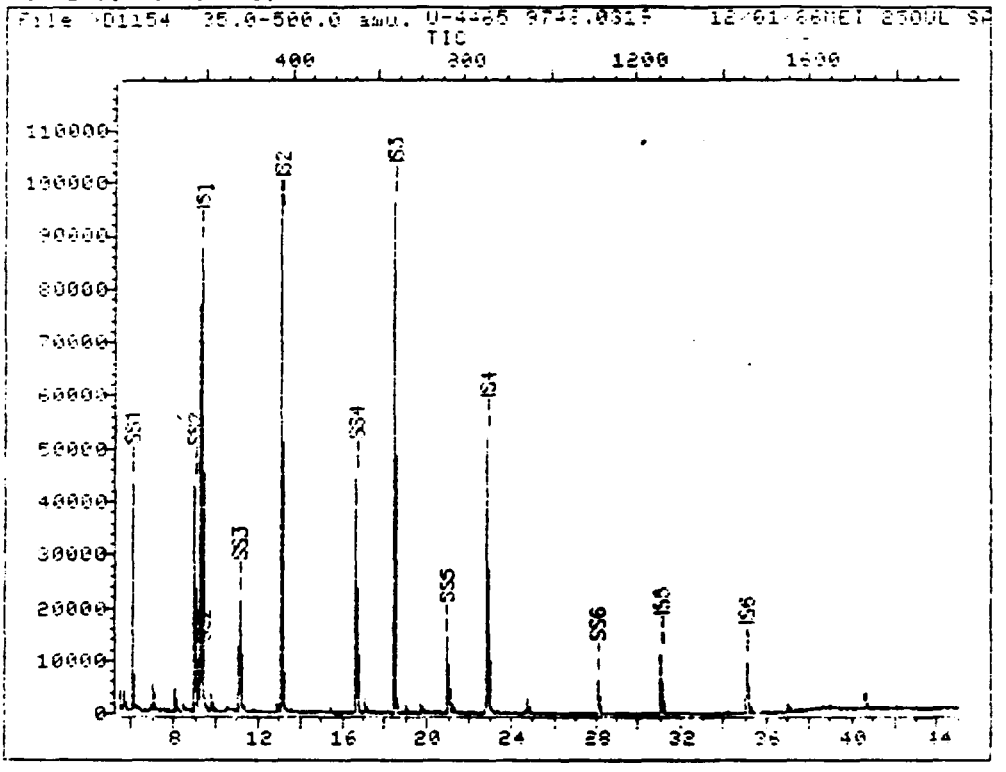
TOTAL ION CHROMATOGRAM



Data File: >D1154::D3
Name: U-4465 9748.0319 **DC-SS-01**
Misc: 12/01/86MEI 250UL SAMPLE + 250UL MFLL2 + 5UL IS ST.# 2

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 17:43

Operator ID: USER6
Quant Time: 861201 19:30
Injected at: 861201 18:42

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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861201 18:30
Output File: ^D1154::Q2 Injected at: 861201 18:42
Data File: >D1154::D3 Dilution Factor: 2.00
Name: U-4465 9748.0319 DC-SS-01
Misc: 12/01/86MEI 250UL SAMPLE + 250UL MECL2 + 5UL IS BTL# 2

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 17:43

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.30	189	43478	40.00	UG/L	85
2)	PHENOL-D5	(SURR)	99	8.94	171	46467	60.46	UG/L	99
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~9.36~~	~~192~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~ No GJ/L	~~[illegible]~~
5)	2-FLUOROPHENOL	(SURR)	112	6.00	27	28945	55.83	UG/L	85
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.09~~	~~277~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~ No GJ/L	~~[illegible]~~
19)	*NAPHTHALENE-D8	(IS)	136	13.07	374	152446	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.09	277	22309	33.74	UG/L	97
34)	*ACENAPHTHENE-D10	(IS)	162	18.45	638	60926	40.00	UG/L	96
38)	2-FLUOROBIPHENYL	(SURR)	172	16.61	548	49237	38.65	UG/L	96
~~41)~~	~~DIMETHYL-PHTHALATE~~		~~163~~	~~18.45~~	~~638~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~ No GJ/L	~~100~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.91	759	10071	51.69	UG/L	95
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.45~~	~~638~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~ No GJ/L	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.87	855	74474	40.00	UG/L	95
65)	*CHRYSENE-D12	(IS)	240	31.02	1255	24790	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.06	1110	12840	46.22	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.07	1454	22738	40.00	UG/L	100

* Compound is ISTD

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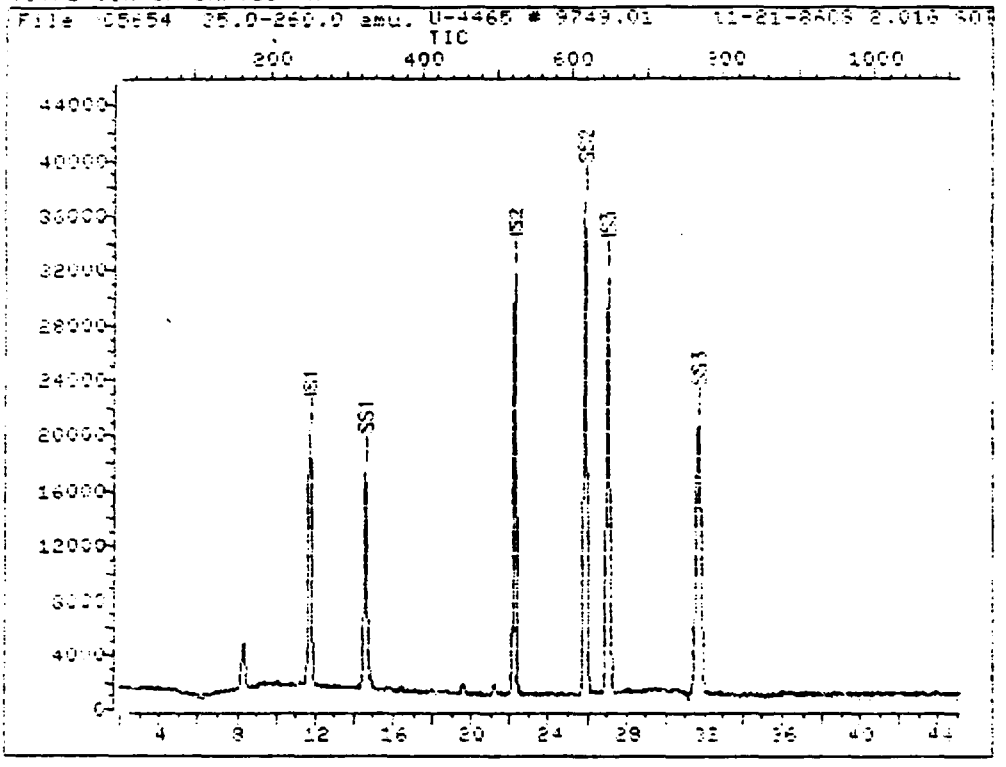
SAMPLE NUMBER DC-SS-02

TOTAL ION CHROMATOGRAM



Data File: >C5654::D3
Name: U-4465 # 9749.01 DC-SS-02
Misc: 11-21-86CS 2.01G SOIL IN 5ML DI + 10UL 15/SS

Id File: VOACPS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 11:51

Operator ID: USER8
Quant Time: 861121 16:52
Injected at: 861121 16:06

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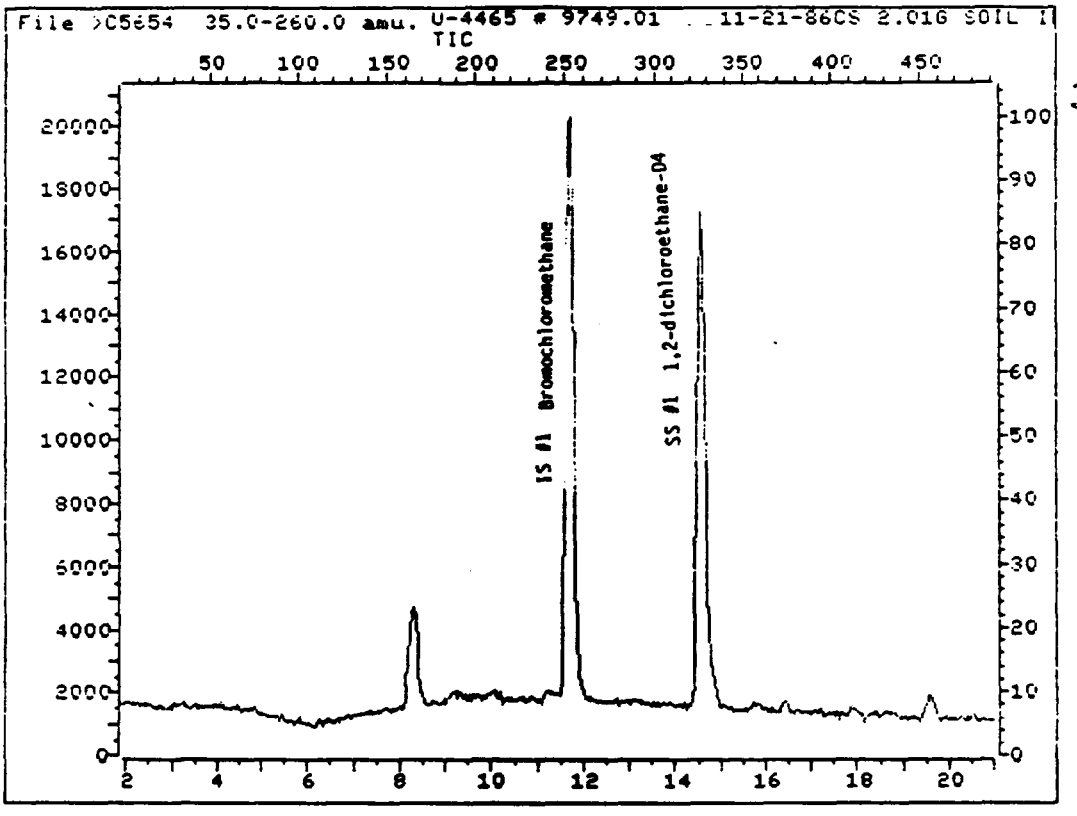
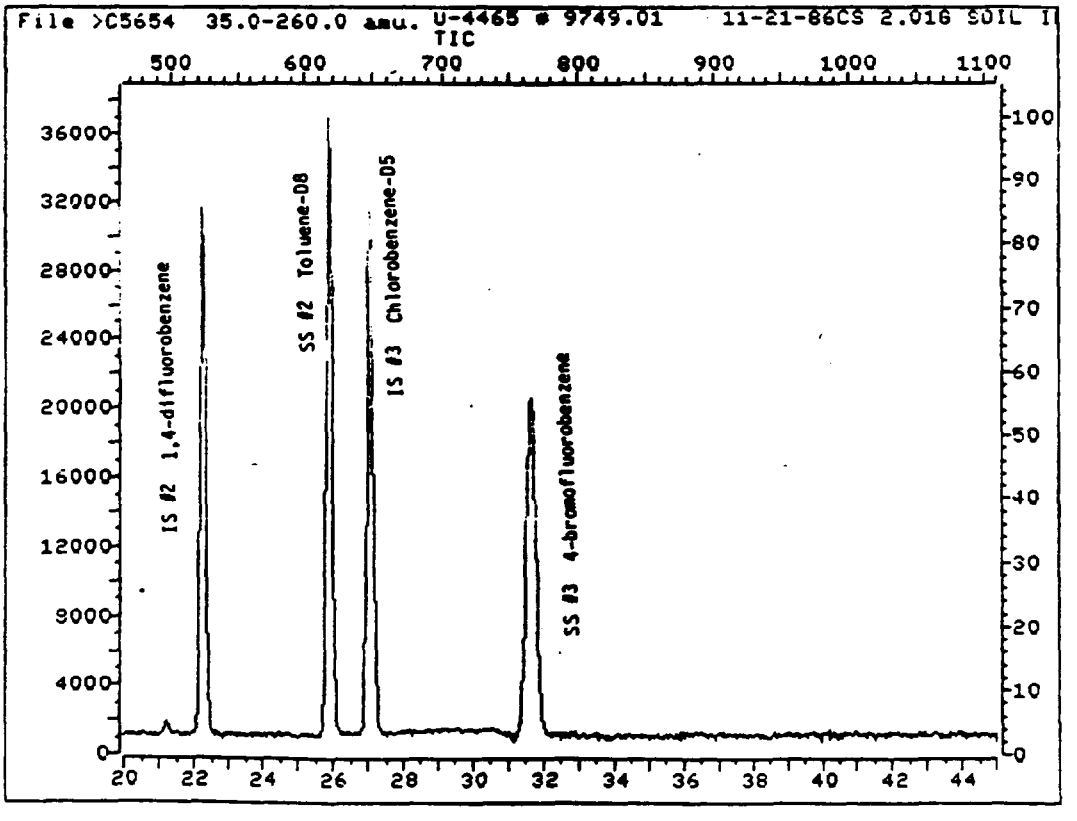

File >C5654 35.0-260.0 amu. U-4465 # 9749.01 11-21-86CS 2.016 SOIL I
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4

DC-SS-02


File >C5654 35.0-260.0 amu. U-4465 # 9749.01 11-21-86CS 2.016 SOIL I
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861121 1[illegible]:51
Output File: >C5654::02 Injected at: 861121 1[illegible]:06
Data File: >C5654::03 Dilution Factor: 1.00
Name: U-4469 # 9749.01 DC-SS-02
Misc: 11-21-86CS 2.01G SOIL IN 5ML DI + 100UL IS/SS

ID File: VOACRS::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 11:51

	Compound		R.T.	Scan#	Area	Conc	Units	%
1)	*BROMOCHLOROMETHANE	(IS)	128	11.69	252	26232	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.32	165	8683	49.40	NGS	130
7)	ACETONE		43	9.29	190	3138	35.96	NGS	101
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.56	326	64930	249.45	NGS	100
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.25	524	125523	250.00	NGS	100
17)	2-BUTANONE		72	14.72	330	2959	65.58	NGS	101
30)	*CHLOROBENZENE-D5	(IS)	117	27.06	648	94855	250.00	NGS	100
33)	2-HEXANONE		[illegible]	24.69	[illegible]	[illegible]	[illegible]	NGS	[illegible]
36)	TOLUENE-D8	(SURR)	98	25.89	618	136967	250.65	NGS	[illegible]
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.65	766	69828	248.71	NGS	100

* Compound is ISTD

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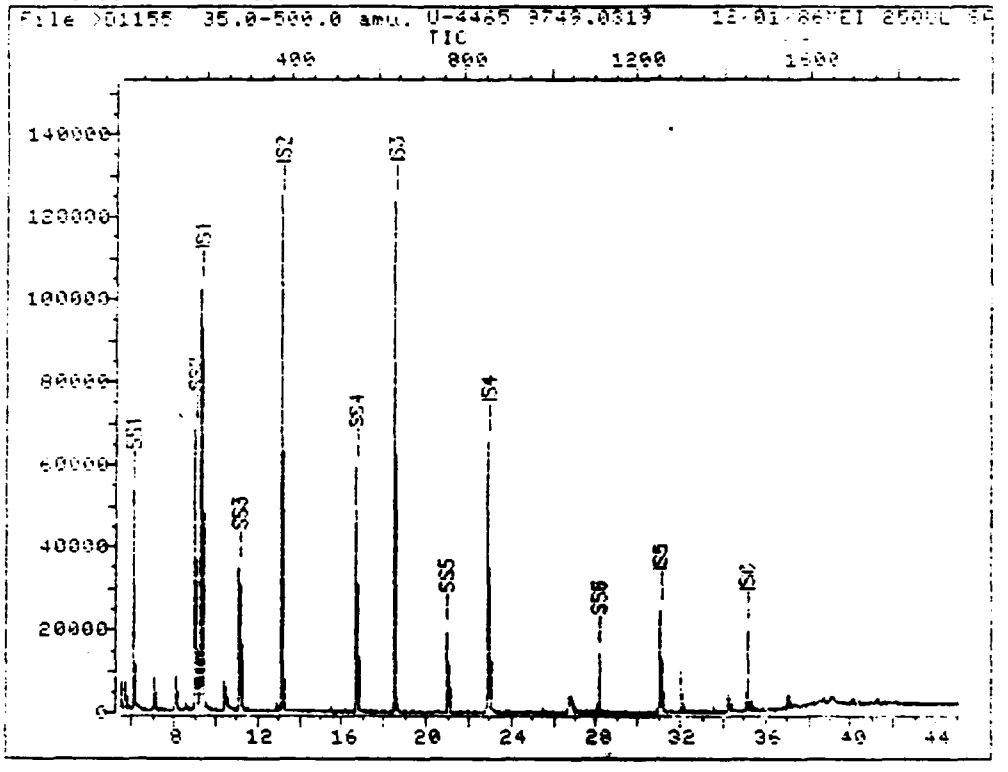
TOTAL ION CHROMATOGRAM



Data File: >D1155::D3
Name: U-4465 9749.0319 DC-SS-02
Misc: 12/01/86MEI 250UL SAMPLE + 250UL MECL2 + 5UL IS RT # 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 17:43

Operator ID: USER6
Quant Time: 861201 20:22
Injected at: 861201 19:35

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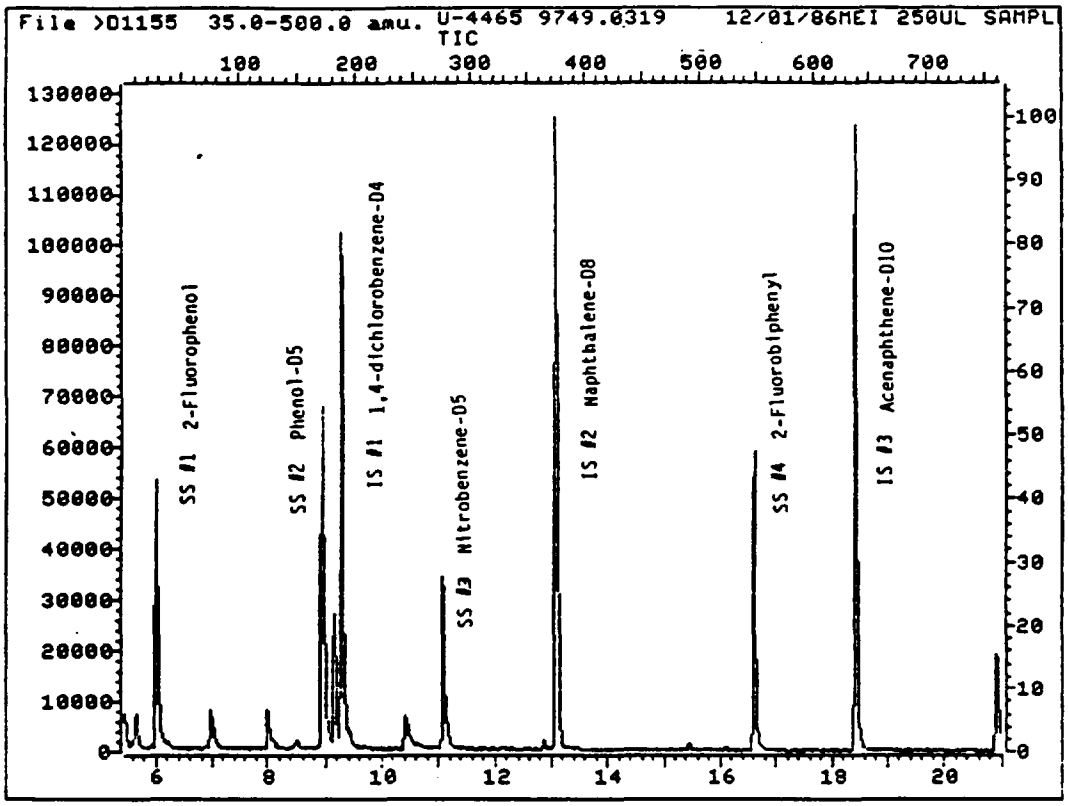
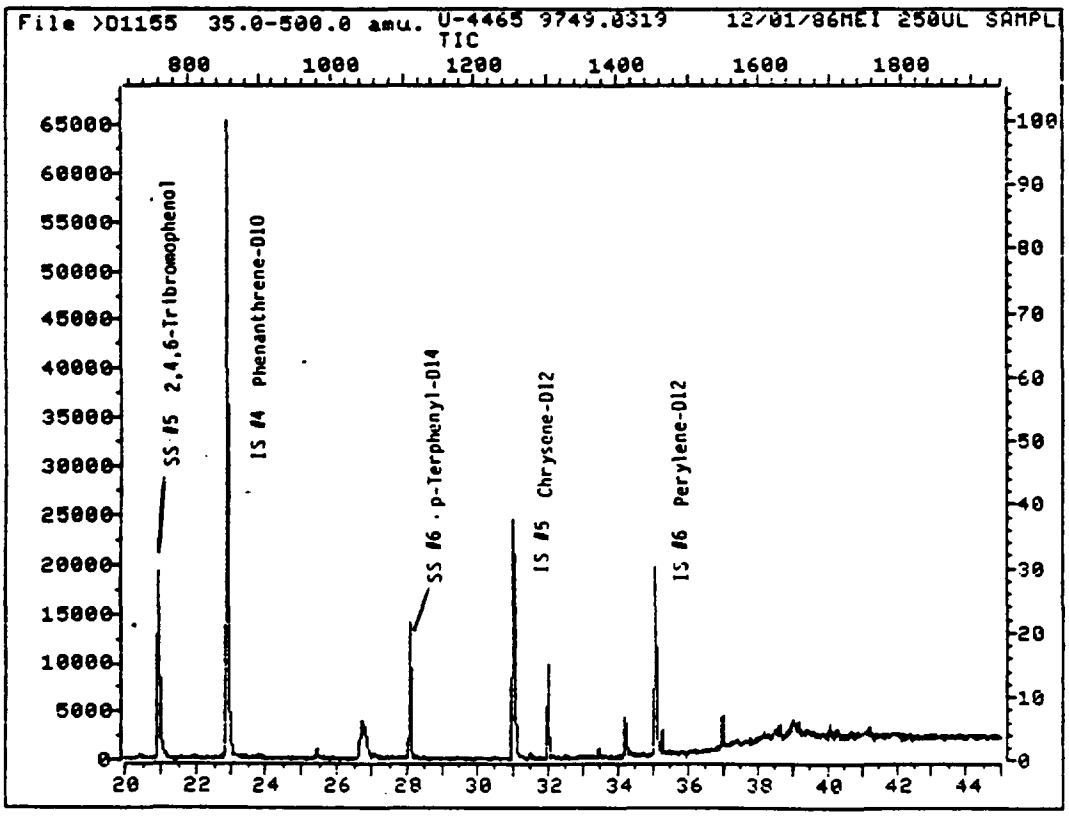
DC-SS-02





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861201 20:2[illegible]
Output File: ^D1155::02 Injected at: 861201 19:35
Data File: >D1155::D3 Dilution Factor: 2.00
Name: U-4465 9749.0319 DC-SS-02
Misc: 12/01/86ME1`250UL SAMPLE + 250UL MECL2 + 5UL IS BT # 3

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 17:43

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	c
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.28	188	50280	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	8.94	171	69599	18.31	UG/L	97
5)	2-FLUOROPHENOL	(SURR)	112	6.00	27	42260	71.48	UG/L	95
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.44~~	~~245~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.61~~	~~253~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.65~~	~~255~~	~~127~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.77~~	~~2[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.93~~	~~26[illegible]~~	~~167~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.07~~	~~27[illegible]~~	~~5850~~	~~[illegible]~~	~~UG/L~~	~~85~~
19)	*NAPHTHALENE-D8	(IS)	136	13.07	374	186821	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.07	276	35015	43.21	UG/L	97
34)	*ACENAPHTHENE-D10	(IS)	162	18.45	638	76036	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.61	548	63635	40.02	UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.45~~	~~632~~	~~22817~~	~~[illegible]~~	~~UG/L~~	~~100~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.91	759	12994	53.44	UG/L	99
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.45~~	~~630~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.87	855	90587	40.00	UG/L	99
65)	*CHRYSENE-D12	(IS)	240	31.02	1255	39569	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.06	1110	20749	46.79	UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.99	1303	8356	21.34	UG/L	91
74)	*PERYLENE-D12	(IS)	264	35.07	1454	33162	40.00	UG/L	100
~~76)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.17~~	~~1410~~	~~15[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.17~~	~~1410~~	~~15[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~

No BFR

No BFR

No BFR

* Compound is ISTD

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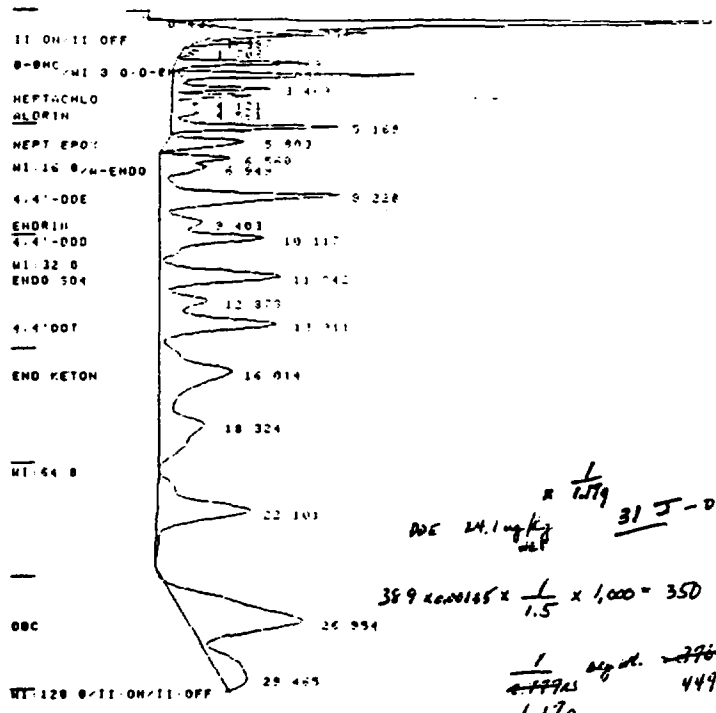
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DDE 24.1 ug/kg wet × 1/1.179 31 J - DRY

389 × 0.00185 × 1/1.5 × 1,000 = 350 ug/kg 1260

1/1.179 ug/kg 1260 449

CHANNEL: 1A - 1 TITLE: RUN# 37 14:23 25 NOV 86

SAMPLE: 9749.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

DC-SS-02

PEAK NO	PEAK NAME	RESULT UG/~~kg~~ WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.387		32417	BB	4.13
2	~~B-BHC~~	0.0135	2.269	0.069	177622	BB	7.89
3		0.0000	2.838		55958	VV	? 7.50
4		0.0000	2.957		242842	VV	6.75
5		0.0000	3.469		133077	VV	8.13
6	~~HEPTACHLO~~	0.00384	3.806	-0.034	99912	VV	6.81
7		0.0000	4.121		65248	VV	? 10.75
8	~~ALDRIN~~	0.0017	4.561	-0.179	53613	VV	? 18.01
9		0.0000	5.169		241005	VB	10.69
10	~~HEPT EPOX~~	0.00784	5.803	0.043	227915	BV	22.19
11		0.0000	6.560		159094	VV	19.05
12	~~A-ENDO~~	0.0057	6.949	-0.201	156720	VV	? 38.81
Confirm 13	4,4'-DDE YES	0.0241	6.228	0.008	5[illegible]462	VV	23.75
14	~~B-ENDO~~	0.0073	9.403	-0.077	1[illegible]407	VV	? 31.21
15	~~4,4'-DDD~~	0.0170	10.117	-0.213	4[illegible]501	VV	25.06
16	~~ENDO SO4~~	0.0265	11.642	-0.269	5[illegible]7442	VV	32.63
17		0.0000	12.879		210357	VV	37.63
DBD 18	~~4,4'DDT~~	0.0442	13.911	0.441 389	570034	VV	34.13
19	~~END KETON~~	0.0243	16.014	0.494	719475	VV	60.34
20		0.0000	19.324		4[illegible]629	VB	58.25
21		0.0000	22.101		7[illegible]2932	BB	50.25
INF. ~~22~~	~~DBC~~ 63.5	~~0.0623~~	26.954	-0.076	1225267	BV	98.13
23		0.0000	29.465		238697	VB	?149.28
TOTALS:		0.2292		0.007	7761988		

DETECTED PKS: 34 REJECTED PKS: 11

DIVISOR: 1.50000 MULTIPLIER: ~~1.02222~~ 1,000

NOISE: 45.7 OFFSET: -20

NOTES:
NOTEBOOK:259-41 ANALYST: K.JUPEK R.SAMSON
SECURE AREA: D JOB#:U-4465
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: RAW SL/495

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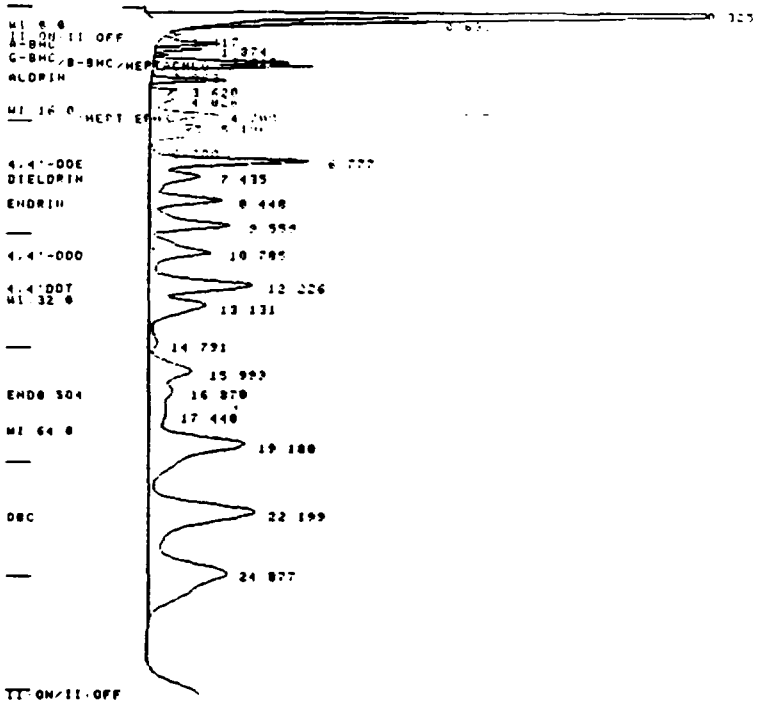
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 1B - 1 TITLE: RUNS 9 19:45 1 DEC 86

SAMPLE: 9749 METHOD: PEPA CALCULATION: ES - ANALYS

DC-SS-02

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	1.417		25236	BV		3.94
2		0.0000	1.538		59174	VV	?	4.38
3	~~A-BHC~~	1.5243	1.616	-0.054	85331	VV	?	4.38
4		0.0000	1.874		84904	VV		4.69
5		0.0000	2.315		82235	VV	?	6.31
6	~~B-BHC~~	15.0522	2.420	0.028	255234	VV		6.60
7	~~HEPTACHLO~~	7.3087	2.530	0.000	314939	VB		7.06
8	~~ALDRIN~~	4.0833	3.178	0.048	181875	VB		8.06
9		0.0000	3.620		67830	BV	?	8.44
10		0.0000	3.765		51460	VV	?	19.38
11		0.0000	4.826		113610	VV	?	20.44
12	~~HEPT EPOX~~	8.5278	4.708	0.008	337115	VV		15.80
13		0.0000	5.196		188635	VV	?	14.25
14		0.0000	5.482		320961	VV	?	25.44
15	~~A-ENDO~~	0.5563	6.288	0.378	20933	VV	?	19.56
16	4,4'-DDE	20.7747	6.777	-0.023	778417	VV		16.56
17	~~DIELDRIN~~	9.7940	7.435	0.205	393072	VV		25.81
18	~~ENDRIN~~	16.9789	8.448	-0.332	457649	VV		21.75
19		0.0000	9.559		616979	VV		23.88
20	~~B-ENDOSUL~~	17.8148	10.785	0.165	629971	VV		30.81
21	~~4,4'DDT~~	40.1688	12.226	-0.294	890914	VV		29.69
22		0.0000	13.131		651125	VV		43.13
23		0.0000	14.791		103471	VV		45.63
24		0.0000	15.999		538936	VV		49.31
25	~~ENDO SO4~~	19.4438	16.870	-0.070	231705	VV	?	60.00
26		0.0000	17.440		224593	VV	?	
27		0.0000	19.180		1603112	VV		40.50
28	DBC	62.2015	22.199	-0.001	1786054	VV		55.06
29	METHOXYCH	216.9852	24.877	0.877	1794172	VB		94.56
TOTALS:		441.2127		0.935	12962041			

DETECTED PKS: 41 REJECTED PKS: 12

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 80.0 OFFSET: -2

NOTES:

NOTEBOOK: 259-44 ANALYST: RICHARD SAMSON
SECURE AREA: D JGB#:U-4465
INST: VARIAN 600GC B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATION
DEAD CREEK

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SAMPLE NUMBER DC-SS-03

Sample Number
DC-SS-03

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No. U-4465

Lab Sample ID No: 9750 QC Report No:

Sample Matrix: Soil Contract No. IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-21-86

Conc/Dil Factor: 3 pH 8.1

Percent Moisture: (Not Decanted) 15

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	33 B
67-64-1	Acetone	25 BJ
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No V-4465

Sample Number DC-SS-03

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 12-1-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 15

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	390	U
111-44-4	bis(-2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1 3-Dichlorobenzene	390	U
106-46-7	1. 4-Dichlorobenzene	390	U
100-51-6	Benzyl Alcohol	390	U
95-50-1	1. 2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
39638-32-9	bis(2-chloroisopropyl)Ether	390	U
106-44-5	4-Methylpheno	390	U
621-64-7	N-Nitroso-Di-n-Propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2. 4-Dimethylphenol	390	U
65-85-0	Benzoic Acid	1900	U
111-91-1	bis(-2-Chloroethoxy)Methane	390	U
120-83-2	2. 4-Dichlorophenol	390	U
120-82-1	1. 2. 4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2 4 6-Trichlorophenol	390	U
95-95-4	2. 4. 5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethyl Phthalate	390	U
208-96-8	Acenaphthylene	390	U
99-09-2	3-Nitroaniline	1900	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	390	U
51-28-5	2. 4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2 4-Dinitrotoluene	390	U
606-20-2	2. 6-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4. 6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-Butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3. 3'-Dichlorobenzidine	780	U
56-55-3	Benzo(a)Anthracene	390	U
117-81-7	bis(2-Ethylhexyl)Phthalate	230	J
218-01-9	Chrysene	390	U
117-84-0	Di-n-Octyl Phthalate	390	U
205-99-2	Benzo(b)Fluoranthene	390	U
207-08-9	Benzo(k)Fluoranthene	390	U
50-32-8	Benzo(a)Pyrene	390	U
193-39-5	Indeno(1. 2. 3-cd)Pyrene	390	U
53-70-3	Dibenz(a. h)Anthracene	390	U
191-24-2	Benzo(g. h. i)Perylene	390	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-03

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1

Percent Moisture (decanted) 15.2

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16 U
319-85-7	Beta-BHC	16 U
319-86-8	Delta-BHC	16 U
58-89-9	Gamma-BHC (Lindane)	16 U
76-44-8	Heptachlor	16 U
309-00-2	Aldrin	16 U
1024-57-3	Heptachlor Epoxide	16 U
959-98-8	Endosulfan I	16 U
60-57-1	Dieldrin	32 U
72-55-9	4, 4'-DDE	32 U
72-20-8	Endrin	32 U
33213-65-9	Endosulfan II	32 U
72-54-8	4, 4'-DDD	32 U
1031-07-8	Endosulfan Sulfate	32 U
50-29-3	4 4 -DDT	32 U
72-43-5	Methoxychlor	160 U
53494-70-5	Endrin Ketone	32 U
57-74-9	Chlordane	160 U
8001-35-2	Toxaphene	320 U
12674-11-2	Aroclor-1016	160 U
11104-28-2	Aroclor-1221	160 U
11141-16-5	Aroclor-1232	160 U
53469-21-9	Aroclor-1242	160 U
12672-29-6	Aroclor-1248	160 U
11097-69-1	Aroclor-1254	320 U
11096-82-5	Aroclor-1260	320 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-03

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Unknown ketone	VOA	19.6	3 BJ
2.				
3.	UNKNOWN	BNA	7.0	1100 BJ
4.	UNKNOWN	BNA	9.2	2200 J
5.	UNKNOWN	BNA	34.2	400 BJ
6.	UNKNOWN	BNA	35.3	360 J
7.	UNKNOWN	BNA	37.0	320 J
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
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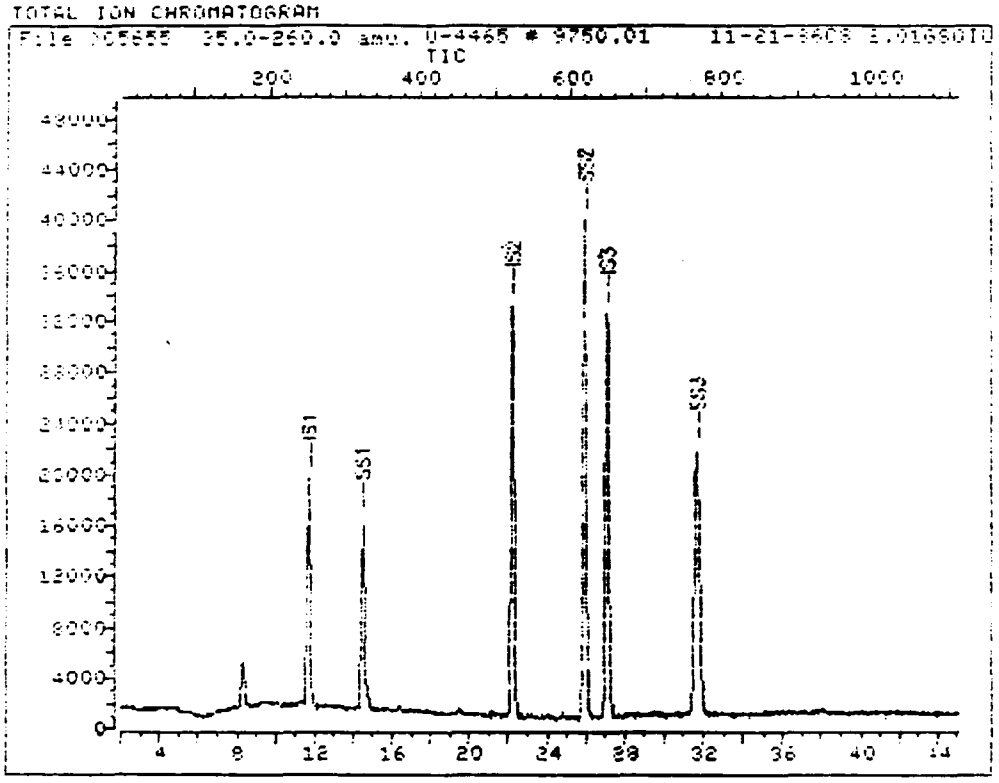
28.				
29.				
30				

TOTAL ION CHROMATOGRAM



Data File: >C5655::D3
Name: U-4465 # 9750.01 DC-SS-03
Misc: 11-21-86CS 2.01GSOIL IN 5ML DI + 10UL IS SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 11:51

Operator ID: USER8
Quant Time: 861121 17:47
Injected at: 861121 17:01

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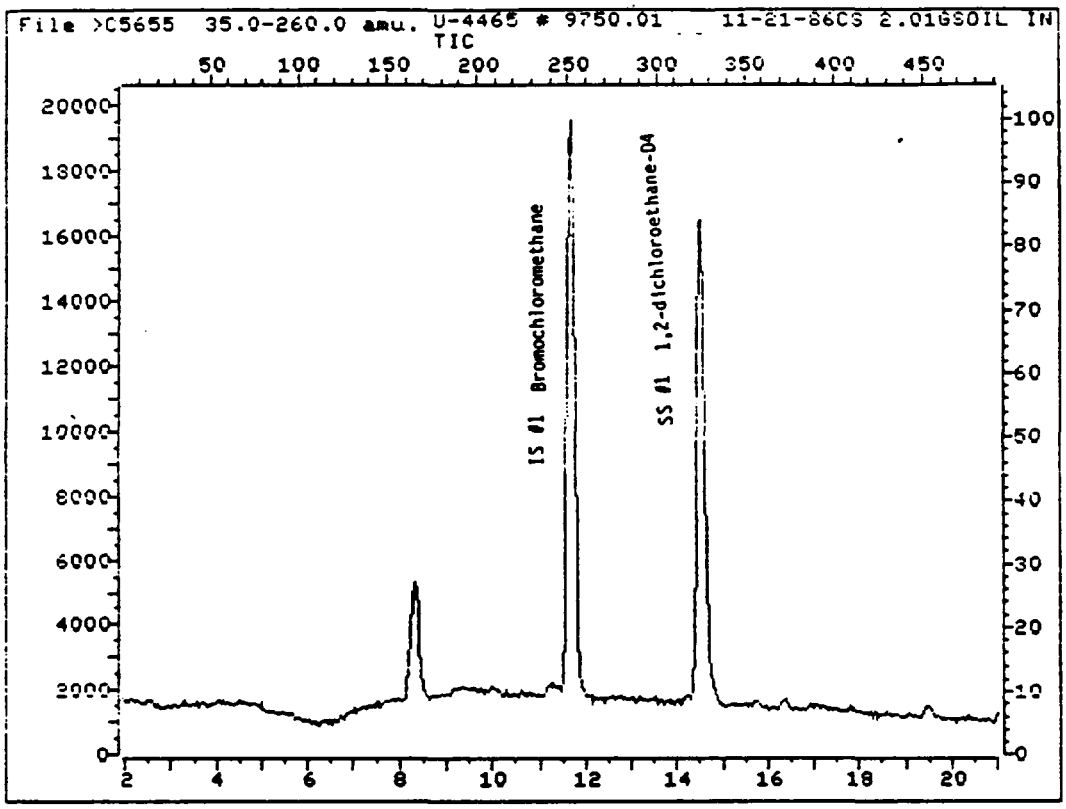
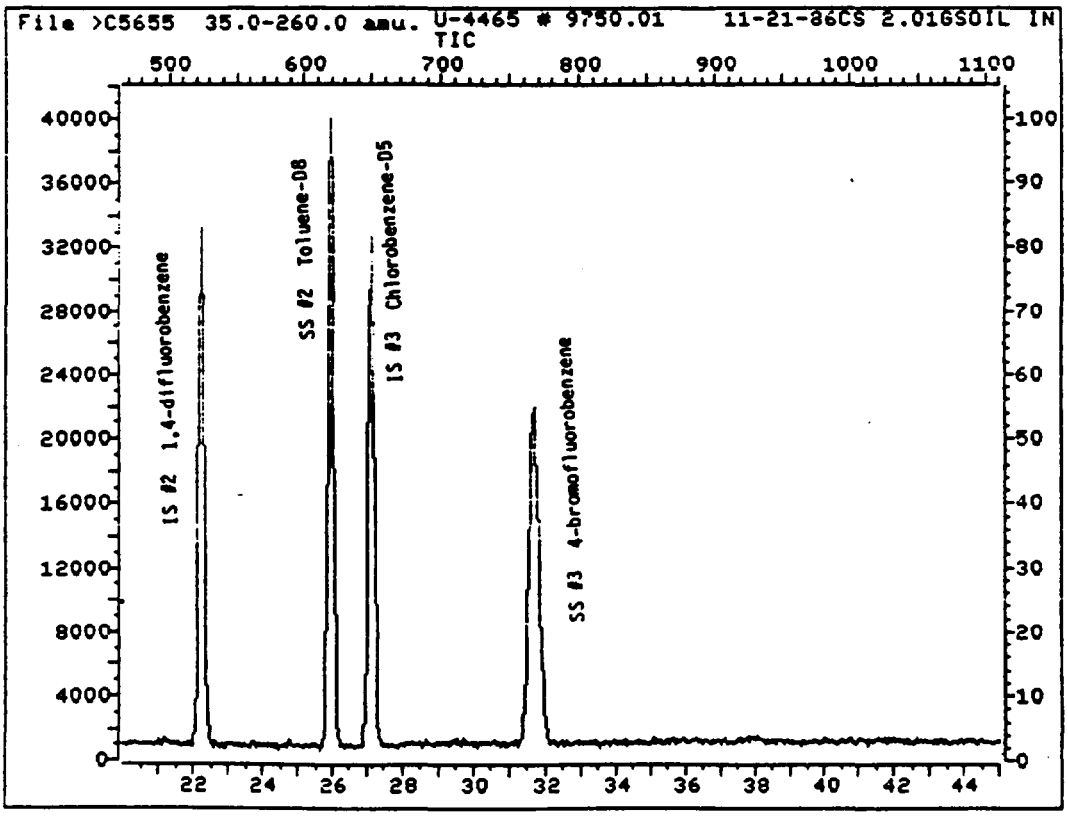


DC-SS-03



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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861121 1[illegible]:47
Output File: [illegible]C5655::Q2 Injected at: 861121 1[illegible]:01
Data File: [illegible]L5655::U3 Dilution Factor: 1.00
Name: U-4465 # 9750.01 DC-SS-03
Misc: 11-21-86CS 2.01GSOIL IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 11:51

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	Q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.70	252	24335	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.32	165	9151	56.12	NGS	100
7)	ACETONE		43	9.29	190	3468	42.84	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.49	324	62738	259.82	NGS	87
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.21	523	139261	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.10	649	101530	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.94	619	156681	[illegible]	NGS	91
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.69	767	74335	247.36	NGS	100

* Compound is ISTD

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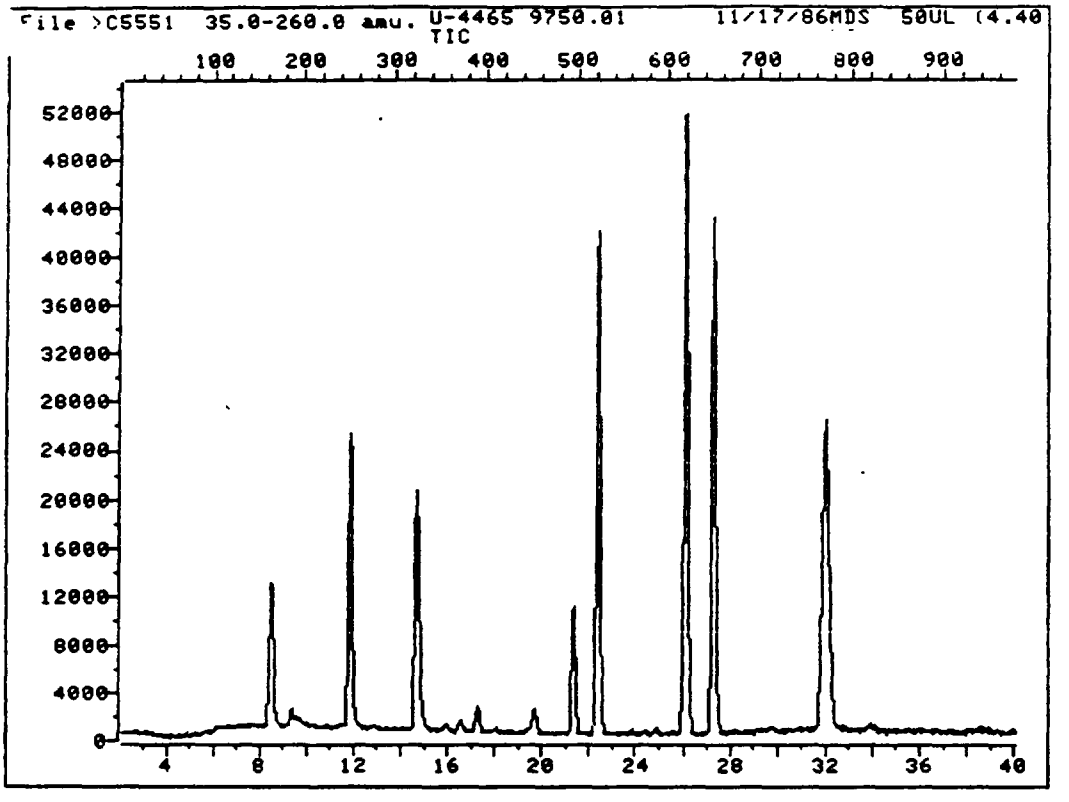

DC-SS-03
Methanol Extract

MS data file header from : >C5551

Sample: U-4465 9750.01 Operator: USER8 MS 11/17/86 15:43
Misc : 11/17/86MDS 50UL (4.40G/10MLS MEOH) + 10UL IS/SS
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: METH99 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	40.	225.	225.	0.	0.
Chromatographic times, min. :	4.0	20.0	20.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	1.0	0.0	0.0	0.0

Operator ID: USER8 Quant Rev: 4 Quant Time: 861117 16:24
Output File: ^C5551::D2 Injected at: 861117 15:43
Data File: >C5551::D3 Dilution Factor: 1.000
Name: U-4465 9750.01 DC-SS-03 Methanol Extract
Misc: 11/17/86MDS 50UL (4.40G/10MLS MEOH) + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861117 11:28

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.84	251	39463	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.47	164	34123	16.84	UG/L	100
7)	ACETONE		43	9.36	187	13682	25.39	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.67	324	83018	46.68	UG/L	90
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.39	523	188855	50.00	UG/L	100
17)	2-BUTANONE		72	14.83	328	6414	40.66	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.25	648	141075	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.08	618	216228	49.11	UG/L	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.02	771	103095	47.80	UG/L	100

* Compound is ISTD

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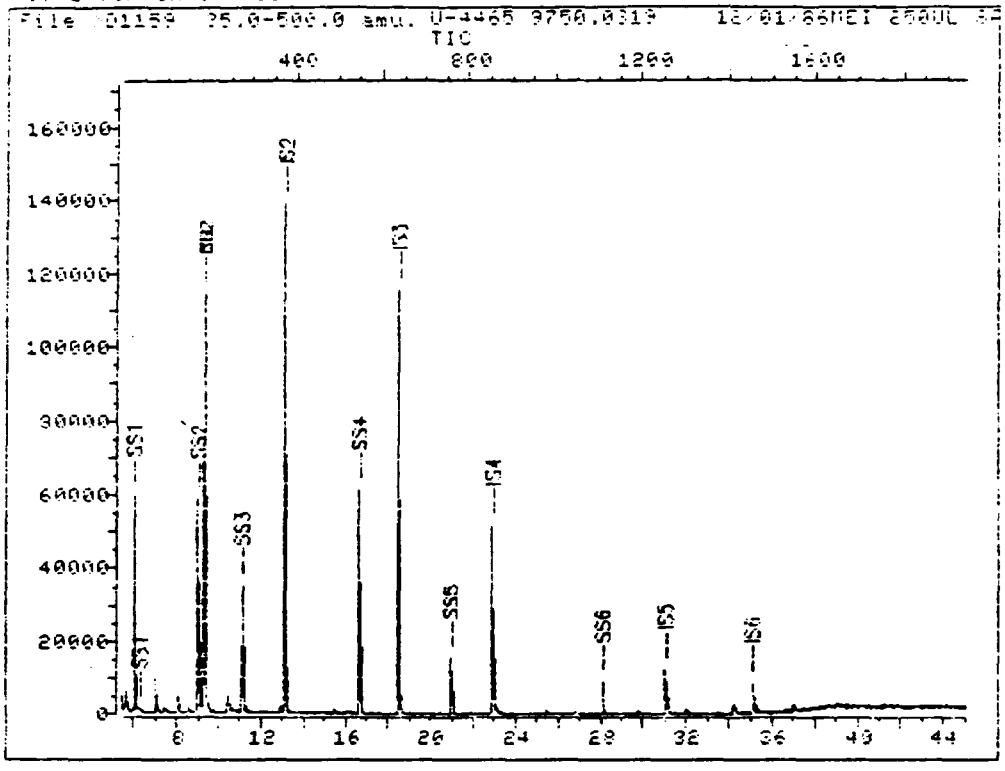
TOTAL ION CHROMATOGRAM



Data File: >D1159::D3
Name: U-4465 9750.0319 DC-SS-03
Misc: 12/01/86MEI 250UL SAMPLE + 250UL MECL2 + 5UL IS

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 17:43

Operator ID: USER6
Quant Time: 861202 00:05
Injected at: 861201 23:17

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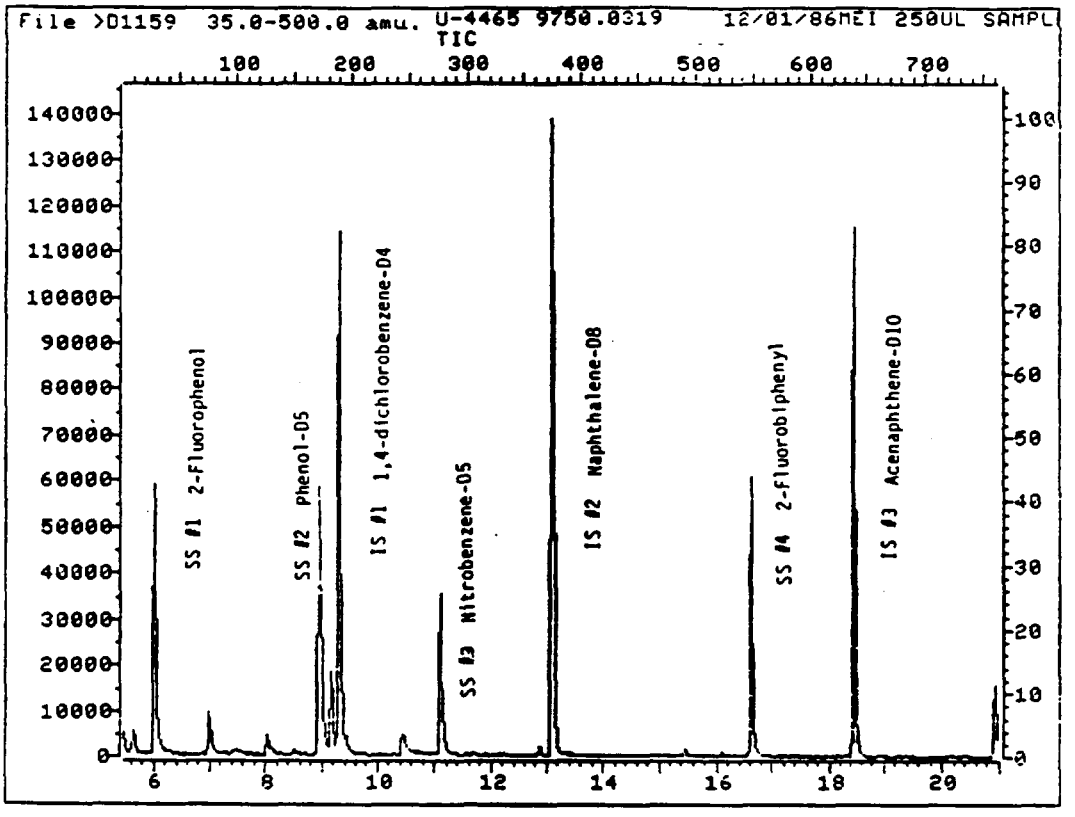
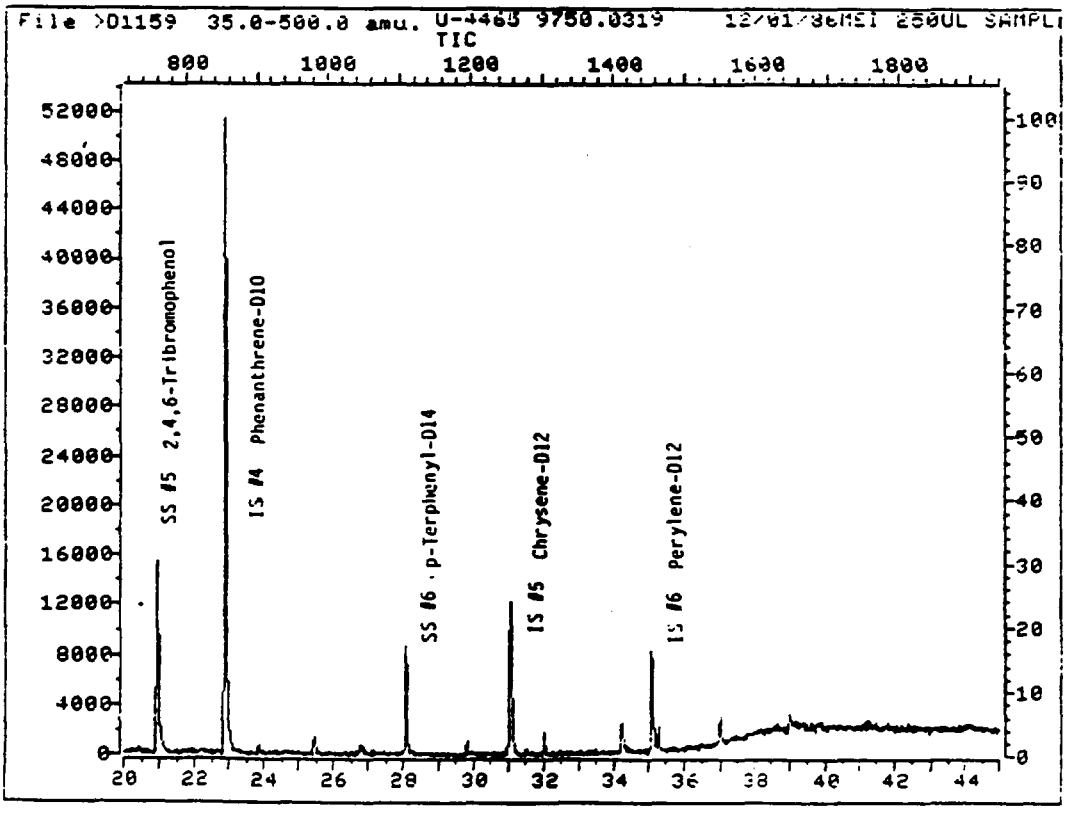
DC-SS-03





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4.. Quant Time: 861202 00:05
Output File: ^D1159::D2 Injected at: 861201 23:17
Data File: >D1159::D3 Dilution Factor: 2.00
Name: U-4465 9750.0319 DC-SS-03
Misc: 12/01/86MEI 250UL SAMPLE + 250UL MECL2 + 5UL IS BTL# 7

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 17:43

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.30	189	51080	40.00	UG/L	8[illegible]
2)	PHENOL-D5	(SURR)	99	8.96	172	64737	71.70	UG/L	[illegible]
~~3)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~9.30~~	~~189~~	~~1241~~	~~1.[illegible]~~	~~UG/L~~	No BTL
5)	2-FLUOROPHENOL	(SURR)	112	6.00	27	42589	69.92	UG/L	8[illegible]
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.27~~	~~40~~	~~1967~~	~~3.23~~	~~UG/L~~	[illegible]
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.44~~	~~245~~	~~451~~	~~.25~~	~~UG/L~~	No BTL
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.10~~	~~277~~	~~5510~~	~~7.66~~	~~UG/L~~	[illegible]
19)	*NAPHTHALENE-D8	(IS)	136	13.09	375	182154	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.10	277	33488	42.39	UG/L	92
34)	*ACENAPHTHENE-D10	(IS)	162	18.45	638	70891	40.00	UG/L	[illegible]
38)	2-FLUOROBIPHENYL	(SURR)	172	16.62	548	61311	41.36	UG/L	[illegible]
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.45~~	~~638~~	~~22371~~	~~17.17~~	~~UG/L~~	No BTL
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.93	760	10430	46.01	UG/L	[illegible]
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.45~~	~~638~~	~~8360~~	~~33.91~~	~~UG/L~~	No BTL
55)	*PHENANTHRENE-D10	(IS)	188	22.89	856	77559	40.00	UG/L	[illegible]
65)	*CHRYSENE-D12	(IS)	240	31.04	1256	23697	40.00	UG/L	[illegible]
68)	TERPHENYL-D14	(SURR)	244	28.08	1111	13870	52.23	UG/L	[illegible]
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.01	1304	1395	5.87	UG/L	[illegible]
74)	*PERYLENE-D12	(IS)	264	35.09	1455	16758	40.00	UG/L	[illegible]

* Compound is ISTD

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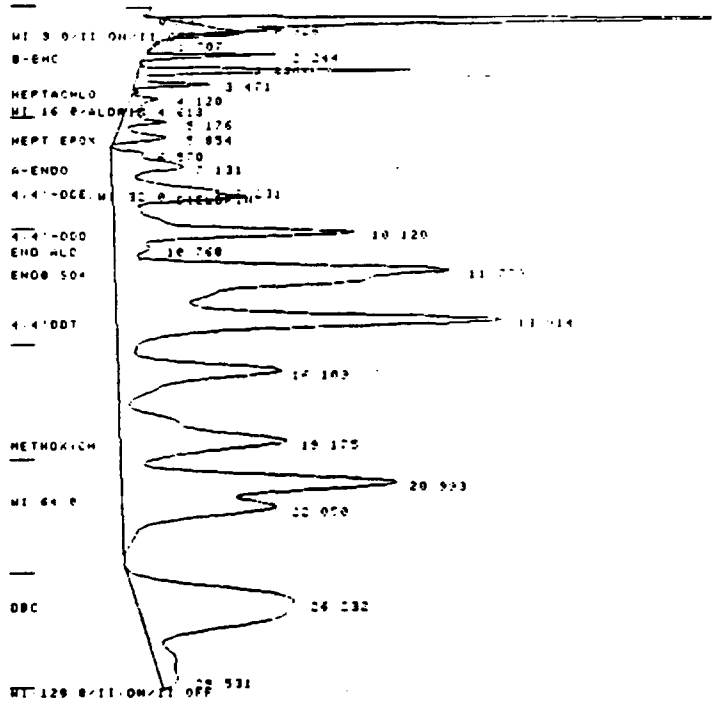
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TIC



CHANNEL: 1A - 1 TITLE: RUN# 39 16:03 25 NOV 85

SAMPLE: 9750.03.15A1 DF=1 WET METHOD: CEPA CALCULATION: ES - ANALYS

DC-SS-03

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.253		42743	EB	5.31
2	~~B-BHC~~	9.6935	2.244	0.044	127202	EB	6.25
3		0.0000	2.826		62875	BV	? 7.13
4		0.0000	2.961		286095	VV	6.69
5		0.0000	3.471		[illegible]	VB	[illegible]
6	~~HEPTACHLO~~	1.6578	4.120	0.280	43586	VV	12.61
7		0.0000	4.281		21569	VV	? 19.94
8	~~ALDRIN~~	0.9869	4.618	-0.122	31025	VV	? 12.63
9		0.0000	4.844		24352	VV	? 10.31
10		0.0000	5.176		78226	VV	10.00
11	~~HEPT EPOX~~	5.0373	5.854	0.094	147602	VV	16.13
12		0.0000	6.570		62432	VV	? 19.59
13	~~A-ENDO~~	11.9391	7.131	-0.019	[illegible]	VV	? 35.69
~~CONFIRM~~	~~4,4'-DDE~~	12.4738	8.231	0.011	252606	VV	? 35.81
15	~~DIELDRIN~~	13.0605	8.520	0.200	[illegible]	VV	? 28.84
~~CONFIRM~~	~~4,4'-DDD~~	41.9020	10.120	-0.210	[illegible]	VV	25.29
17	~~END ALD~~	5.9846	10.768	0.348	113357	VV	? 41.94
18	~~ENDO SO4~~	130.2437	11.779	-0.331	2692434	VV	58.31
19	~~4,4'DDT~~	173.8482	13.914	0.444	2240201	VV	37.13
20	~~END KETON~~	37.9077	16.109	0.589	1121224	VV	44.50
21	~~METHOXYCH~~	182.0475	19.175	-0.635	1505348	VV	58.51
22		0.0000	20.993		1907406	VV	52.38
23		0.0000	22.050		1075244	VV	? 67.75
24	~~DBC~~ ENTER FEMALE	37.0718	26.232	-0.798	2135134	VV	116.69
25		0.0000	29.531		236341	VB	? 218.44

TOTALS: 723.8544 -0.105 16153246

DETECTED PKS: 24 REJECTED PKS: 9

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 137.1 OFFSET: 5

NOTES:
NOTEBOOK:259-41 ANALYST: [illegible]
SECURE AREA: D [illegible]:U-4465
INST:VARIAN E000[illegible] A ECD [illegible]
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% SV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:220 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

[illegible]

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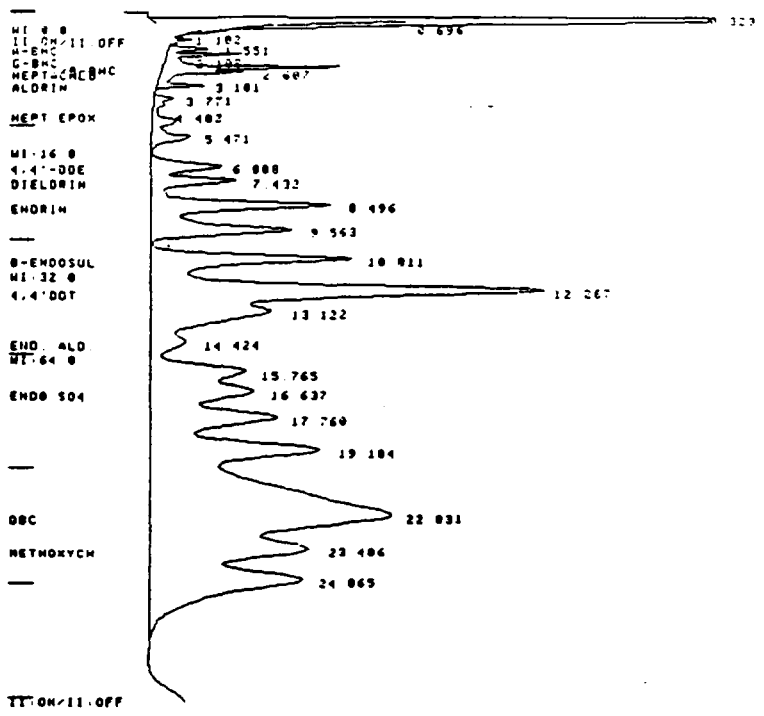
CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 10 - 1 TITLE: RUN# 14 20:21 1 DEC 86

SAMPLE: 9758 METHOD: PEPA CALCULATION: ES - ANALYS

DC-SS-03

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	1.540		36221	VV	?	4.13
2	~~A-BHC~~	1.1116	1.593	-0.077	62268	VV	?	6.19
3		0.0000	1.868		133232	VV		4.56
4	~~G-BHC~~	0.6455	2.107	0.007	27924	VV	?	7.44
5		0.0000	2.290		61542	VV	?	8.75
6	~~B-BHC~~	19.0588	2.425	0.025	353854	VV		5.75
7	~~HEPTACHLO~~	5.3186	2.607	0.017	226026	VV	?	7.38
8	~~ALDRIN~~	2.2351	3.181	0.051	93554	VB		6.21
9		0.0000	3.771		62858	BV		11.38
10		0.0000	4.026		34436	VV	?	12.19
11		0.0000	4.482		25398	VV	?	9.38
12	~~HEPT EPOX~~	3.2787	4.743	0.043	129623	VV		19.94
13		0.0000	5.471		263090	VB		21.31
14	~~4,4'-DDE~~	11.7001	6.888	0.008	441396	BV		22.13
15	~~DIELDRIN~~	11.2042	7.432	0.202	445666	VV		18.56
16	~~ENDRIN~~	45.2169	8.496	-0.284	1218778	VV		21.88
17		0.0000	9.563		1106841	VV		24.56
18	~~B-ENDOSUL~~	45.9258	10.811	0.191	1624046	VV		26.19
19	~~4,4'-DDT~~	174.0720	12.267	-0.253	3860868	VV		32.38
20		0.0000	13.122		1464899	VV	?	65.44
21	~~END. ALD.~~	13.7779	14.424	0.434	382150	VV	?	50.06
22		0.0000	15.765		1093752	VV	?	41.75
23	~~ENDO SO4~~	84.0200	16.637	-0.303	1263507	VV	?	59.38
24		0.0000	17.760		1586238	VV		48.56
25		0.0000	19.184		2467217	VV		53.06
26	DBC	255.9156	22.031	-0.169	7348278	VV	?	123.75
27	~~METHOXYCH~~	290.1067	23.406	-0.514	2333787	VV	?	77.56
28		0.0000	24.865		2975525	VB	?	69.69

TOTALS: 964.4678 -0.622 31195676

DETECTED PKS: 37 REJECTED PKS: 9

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 91.4 OFFSET: -14

NOTES:
NOTEBOOK: 259-44 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#:U-4465
INST: VARIAN 6000#2 @ ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

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SAMPLE NUMBER DC-SS-04

Sample Number
DC-SS-04

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9751 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-22-86
Conc/Dil Factor: 3 pH 7.8
Percent Moisture: (Not Decanted) 19

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	35 B
67-64-1	Acetone	30u
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No V-4465

Sample Number DC-SS-04

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed: 12-1-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 19

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	410	U
111-44-4	bis(-2-Chloroethyl)Ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1 3-Dichlorobenzene	410	U
106-46-7	1 4-Dichlorobenzene	410	U
100-51-6	Benzyl Alcohol	410	U
95-50-1	1 2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
39638-32-9	bis(2-chloroisopropyl)Ether	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-Propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2. 4-Dimethylphenol	410	U
65-85-0	Benzoic Acid	2000	U
111-91-1	bis(-2-Chloroethoxy)Methane	410	U
120-83-2	2. 4-Dichlorophenol	410	U
120-82-1	1 2. 4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-Methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2 4 6-Trichlorophenol	410	U
95-95-4	2. 4. 5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethyl Phthalate	410	U
208-96-8	Acenaphthylene	410	U
99-09-2	3-Nitroaniline	2000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	410	U
51-28-5	2. 4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2 4-Dinitrotoluene	410	U
606-20-2	2 6-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
84-74-2	Di-n-Butylphthalate	170	BJ
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3. 3'-Dichlorobenzidine	810	U
56-55-3	Benzo(a)Anthracene	410	U
117-81-7	bis(2-Ethylhexyl)Phthalate	470	
218-01-9	Chrysene	410	U
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	410	U
207-08-9	Benzo(k)Fluoranthene	410	U
50-32-8	Benzo(a)Pyrene	410	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	410	U
53-70-3	Dibenz(a h)Anthracene	410	U
191-24-2	Benzo(g h i)Perylene	410	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No V-4465

Sample Number DC-SS-04

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 2

Percent Moisture (decanted) 18.6

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	32 U
319-85-7	Beta-BHC	32 U
319-86-8	Delta-BHC	32 U
58-89-9	Gamma-BHC (Lindane)	32 U
76-44-8	Heptachlor	32 U
309-00-2	Aldrin	32 U
1024-57-3	Heptachlor Epoxide	32 U
959-98-8	Endosulfan I	32 U
60-57-1	Dieldrin	64 U
72-55-9	4,4'-DDE	64 U
72-20-8	Endrin	64 U
33213-65-9	Endosulfan II	64 U
72-54-8	4,4'-DDD	64 U
1031-07-8	Endosulfan Sulfate	64 U
50-29-3	4,4'-DDT	64 U
72-43-5	Methoxychlor	320 U
53494-70-5	Endrin Ketone	64 U
57-74-9	Chlordane	320 U
8001-35-2	Toxaphene	640 U
12674-11-2	Aroclor-1016	320 U
11104-28-2	Aroclor-1221	320 U
11141-16-5	Aroclor-1232	320 U
53469-21-9	Aroclor-1242	320 U
12672-29-6	Aroclor-1248	320 U
11097-69-1	Aroclor-1254	640 U
11096-82-5	Aroclor-1260	751

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-04

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.	UNKNOWN	BNA	9.2	2500 J
4.	UNKNOWN	BNA	34.2	320 BJ
5.	UNKNOWN HYDROCARBON	BNA	35.3	320 J
6.	UNKNOWN HYDROCARBON	BNA	37.0	300 J
7.	UNKNOWN	BNA	39.0	160 J
8.				
9.				
10.				
11.				
12.				
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28.				
29.				
30.				

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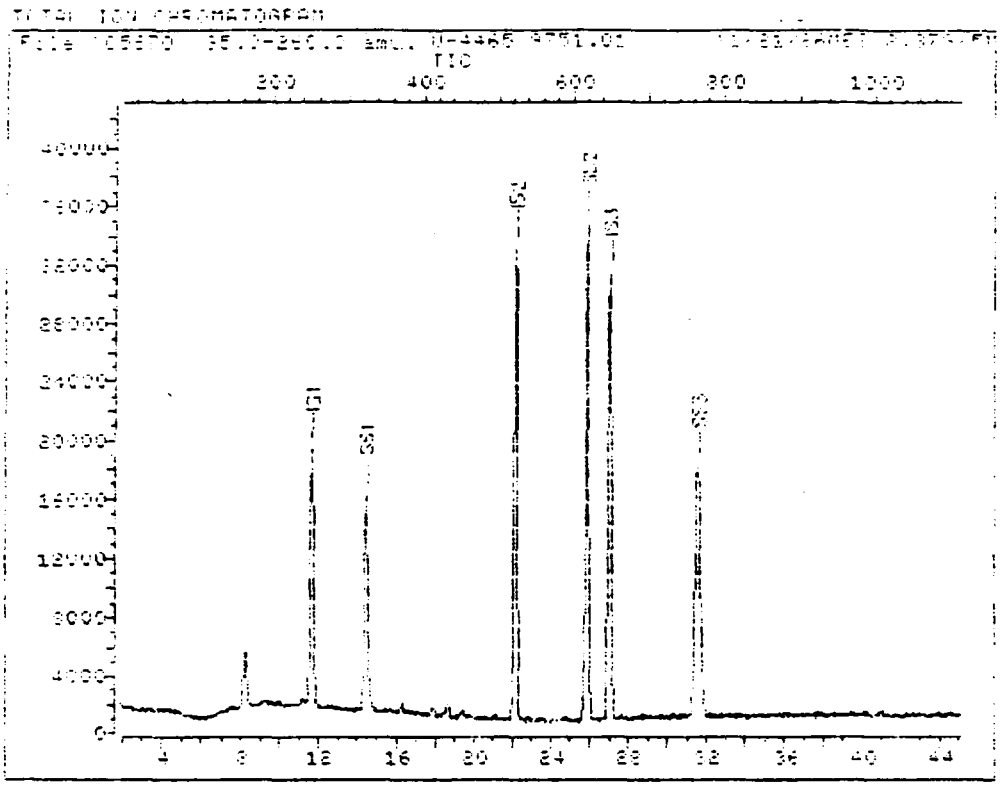

Data File: DC670::03
Name: U-4465 4751.01 DC-SS-04
Misc: 11/21 86MCI 2.37G/5MLS D1 + 100UL IS SS

Id File: VOADRS::U2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 22:21

Operator ID: USE98
Quant Time: 861122 07:29
Injected at: 861122 06:43

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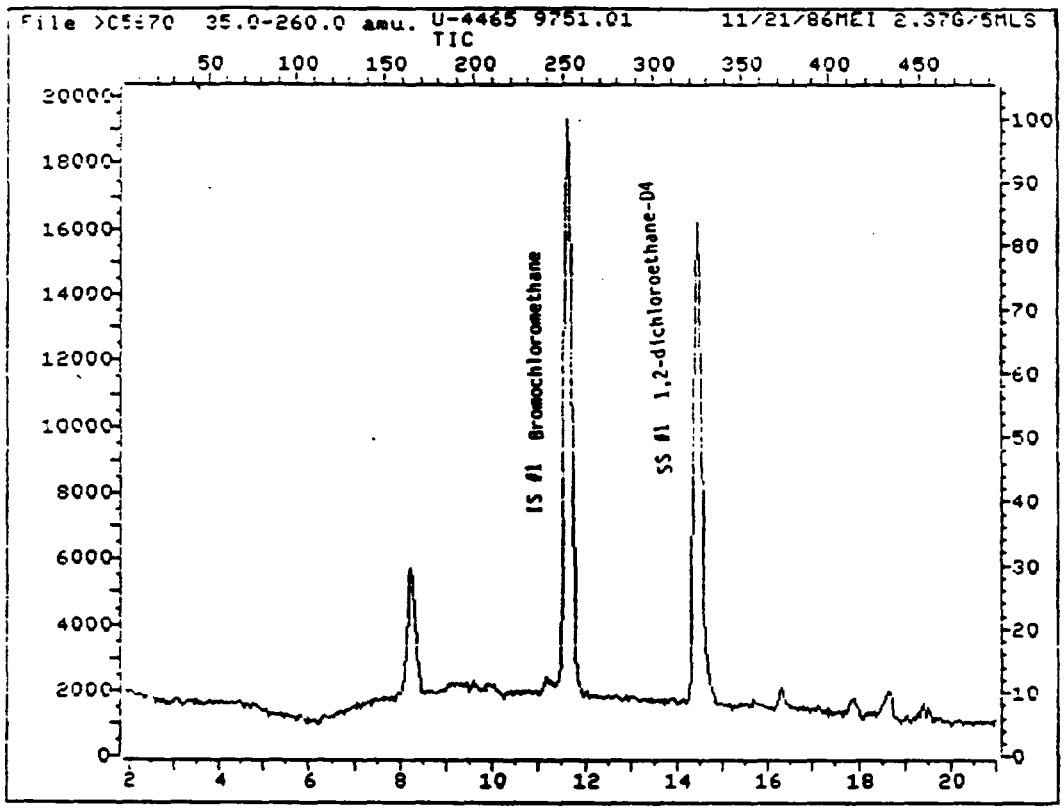
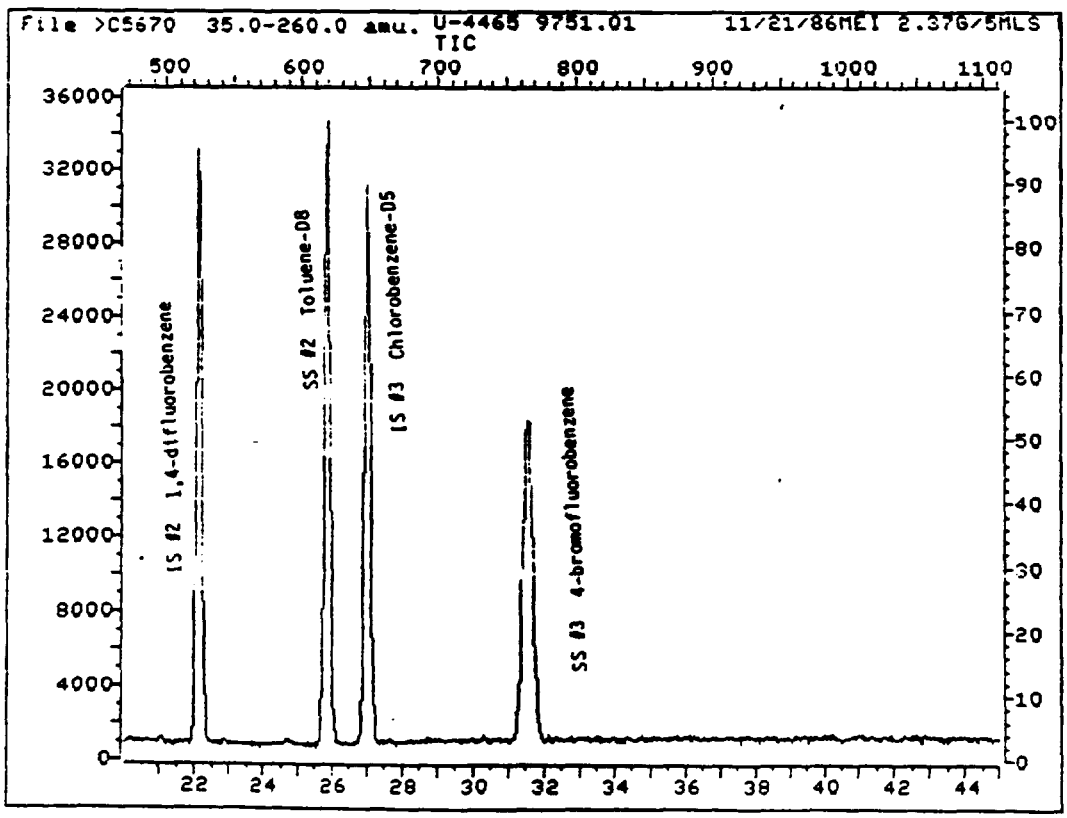
DC-SS-04





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861122 [illegible]
Output File: ^C5670::Q2 Injected at: 861122 06:4[illegible]
Data File: >C5670::D3 Dilution Factor: [illegible]
Name: U-4465 9751.01 DC SS-04
Misc: 11/21/86MEI 2.37G/5MLS UI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 22:21

	Compound		M/E	P. .	Scan#	Area	Conc	Units	%
1)	*BROMOCHLOROMETHANE	(IS)	128	11.62	252	24050	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.25	165	10194	[illegible]	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.46	325	59263	[illegible]	NGS	8[illegible]
36)	*1,4-DIFLUOROBENZENE	(IS)	114	22.14	523	133778	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.03	649	94646	250.00	NGS	10[illegible]
36)	TOLUENE-D8	(SURR)	98	25.86	619	133859	251.52	NGS	91
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.57	766	62329	22[illegible].72	NGS	10[illegible]

* Compound is ISTD

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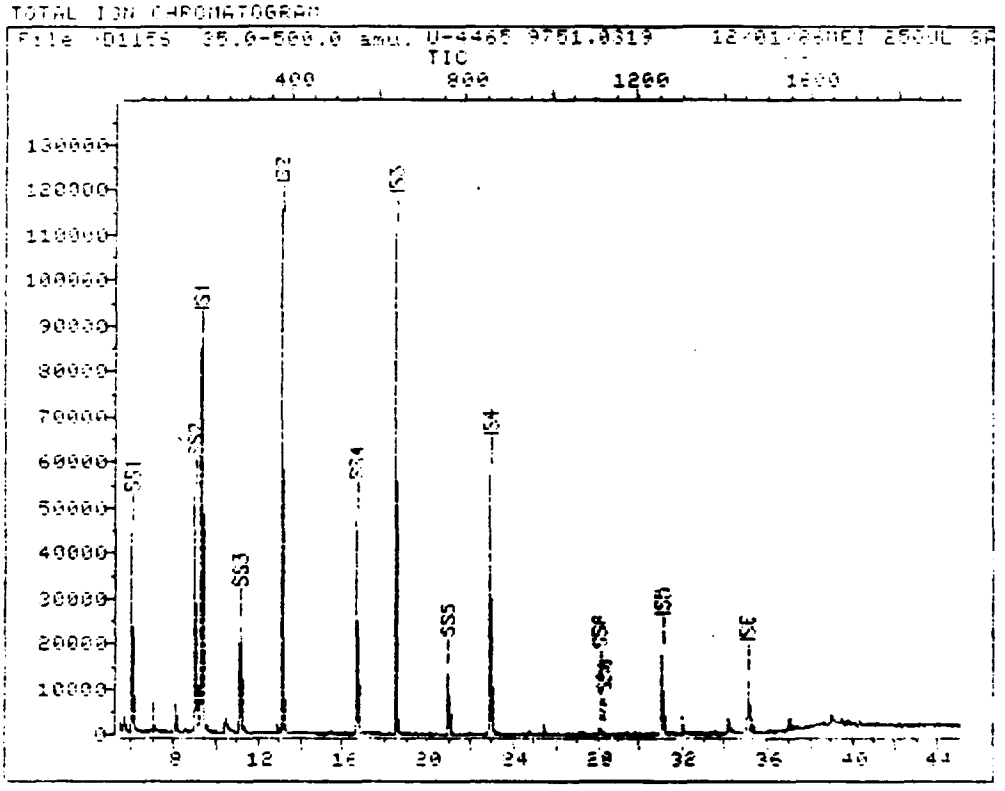
TOTAL ION CHROMATOGRAM



Data File: >D1156::D3
Name: U-4465 9751.0319 DC-SS-04
Misc: 12/01/86MEI 250UL SAMPLE + 250UL MEOL2 + 5UL IS FIL# ..

Id File: BNADF::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 17:43

Operator ID: USER6
Quant Time: 861201 21:15
Injected at: 861201 20:27

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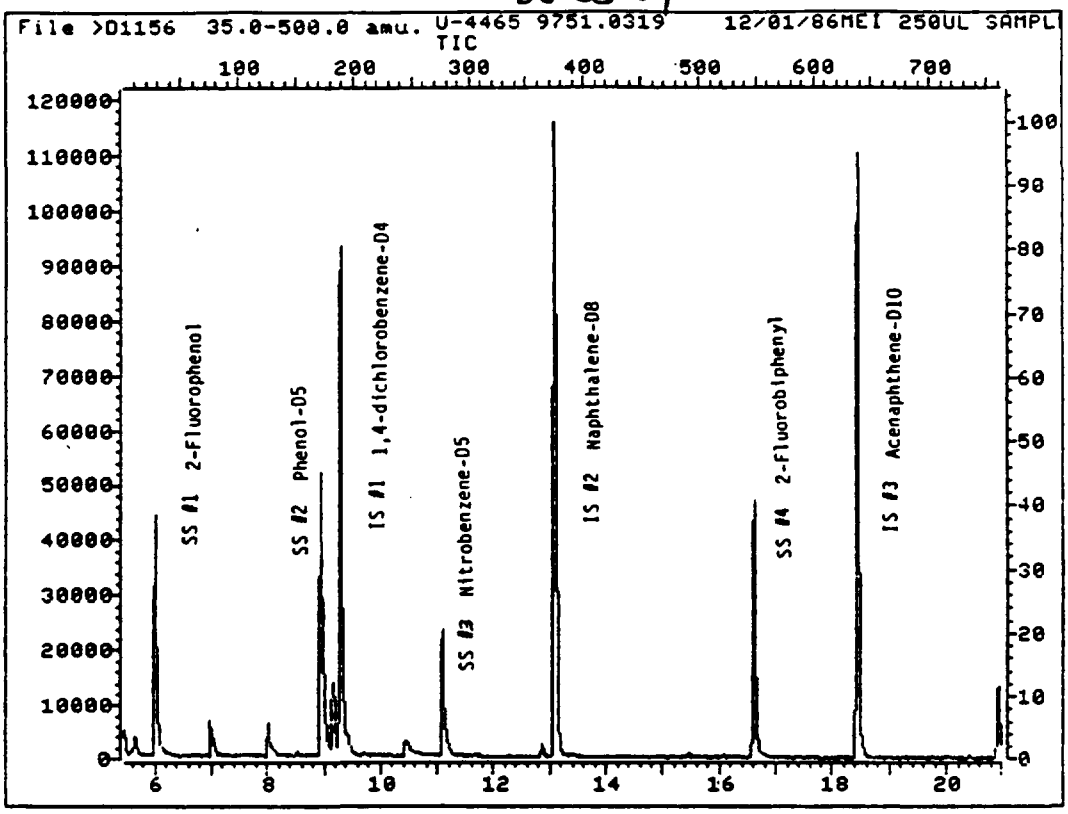
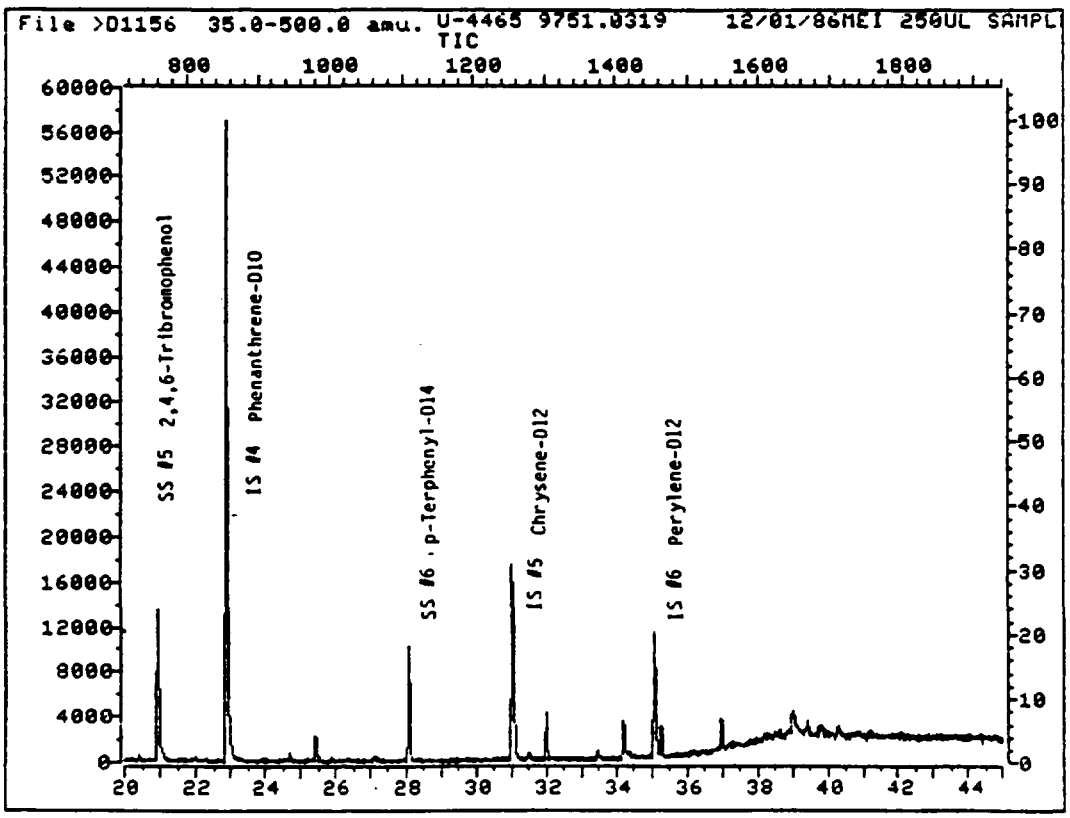
DC-SS-04





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4.. Quant Time: 861201 21:15
Output File: ^D1156::Q2 Injected at: 861201 20:27
Data File: >D1156::D3 Dilution Factor: 2.00
Name: U-4465.9751.0319 DC-SS-04
Misc: 12/01/86MEI 250UL SAMPLE + 250UL MECL2 + 5UL IS BTL# 4

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 17:43

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.28	138	46575	40.00	UG/L	8
2)	PHENOL-D5	(SURR)	99	8.94	171	53656	65.17	UG/L	98
5)	2-FLUOROPHENOL	(SURR)	112	6.01	27	33361	60.07	UG/L	78
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.43~~	~~244~~	~~255~~	~~.16~~	~~UG/L~~	[illegible]
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.49~~	~~247~~	~~235~~	~~.14~~	~~UG/L~~	[illegible]
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.10~~	~~277~~	~~4381~~	~~6.68~~	~~UG/L~~	91
19)	*NAPHTHALENE-D8	(IS)	136	13.07	374	175209	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.10	277	25690	33.81	UG/L	97
34)	*ACENAPHTHENE-D10	(IS)	162	18.45	638	70384	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	16.62	548	53687	36.48	UG/L	97
~~41)~~	~~DIMETHYL-PHTHALATE~~		~~163~~	~~18.45~~	~~638~~	~~21975~~	~~10.91~~	~~UG/L~~	[illegible]
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.92	759	9299	41.32	UG/L	99
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.45~~	~~638~~	~~8786~~	~~35.47~~	~~UG/L~~	[illegible]
55)	*PHENANTHRENE-D10	(IS)	188	22.87	855	79006	40.00	UG/L	99
63)	DI-N-BUTYLPHTHALATE		149	25.44	981	4499	4.11	UG/L	9[illegible]
65)	*CHRYSENE-D12	(IS)	240	31.02	1255	30771	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.07	1110	16550	47.99	UG/L	[illegible]
~~68)~~	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~28.27~~	~~1120~~	~~165~~	~~.49~~	~~UG/L~~	[illegible]
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.00	1303	3542	11.47	UG/L	94
74)	*PERYLENE-D12	(IS)	264	35.07	1454	21929	40.00	UG/L	100

No BPH

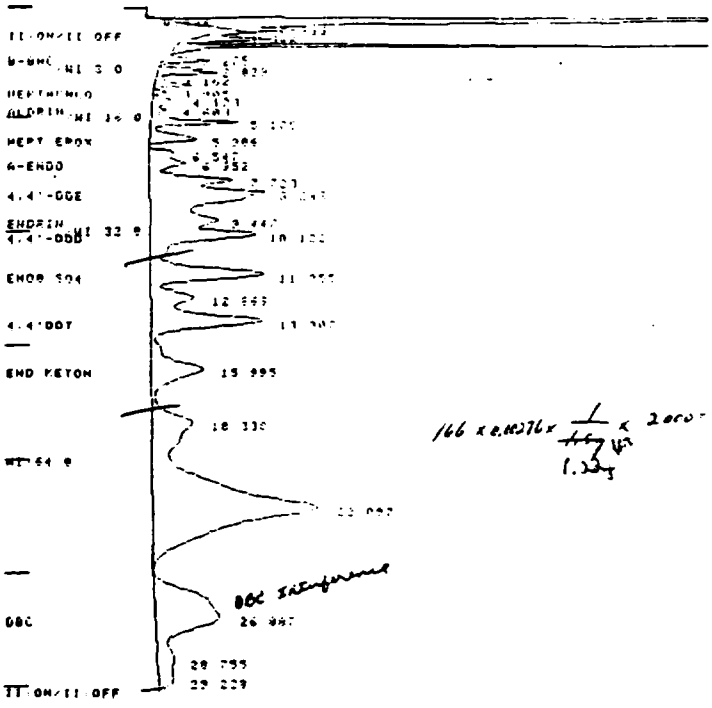
No BPH

No BPH

* Compound is ISTD

161

CHART SPEED 0.5 CM/MIN
ATTEN: 6 ZERO: 10% 5 MIN/TICK



166 x 0.10376 x 1/1.33 x 2000 = 751 ppb wet mg/kg dw

CHANNEL: 1A - 1 TITLE: RUN# 42 16:29 25 NOV 86

SAMPLE: 9751 of 2 METHOD: CEPA CALCULATION: ES - ANALYS

DC-SS-04

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.246		119960	BB	3.25
2		0.0000	1.674		882492	BB	4.19
3	~~B-BHC~~	7.7585	2.275	0.075	52905	BB	6.21
4		0.0000	2.823		23321	BV ?	6.31
5		0.0000	2.957		56256	VV ?	7.44
6		0.0000	3.467		52663	VV	7.94
7	~~HEPTACHLO~~	3.5642	4.123	0.283	46854	VV	20.44
8	~~ALDRIN~~	1.6561	4.603	-0.137	26031	VV ?	14.31
9		0.0000	5.175		156528	VV	10.94
10	~~HEPT EPOX~~	8.7586	5.906	0.146	126907	VV	19.25
11		0.0000	6.547		52690	VV ?	16.69
12	~~A-ENDO~~	8.6656	6.952	-0.196	115641	VV ?	28.13
13		0.0000	7.723		231024	VV ?	20.25
14	4,4'-DDE	~~43.3460~~	8.249	0.328	6.20705	VV	41.75
15	B-ENDO } PLUS	25.4006	9.447	-0.833	311350	VV ?	35.69
16	A,4'-DDD }	37.9715	10.122	-0.208	480223	VV	31.13
17	~~ENDO SO4~~	50.5408	11.655	-0.255	531397	VV	33.38
18		0.0000	12.663		183222	VV ?	33.69
19	~~4,4'DDT~~	67.2902	13.507	0.437	592383	VV	23.38
20	~~END KETON~~	26.2611	15.355	0.475	331772	VV	50.25
21		0.0000	18.333		453663	VV	185.86
22		0.0000	22.057		2375142	VV	94.50
23	~~DDC~~ int.	75.7654	26.887	-0.143	857120	VV	7115.83
24		0.0000	28.755		125477	VV ?	62.63
25		0.0000	29.226		78586	VB ?	

166 166

TOTALS: 377.5468 0.470 8716571

DETECTED PKS: 34 REJECTED PKS: 9

DIVISOR: 1.50000 MULTIPLIER: 2000.00000

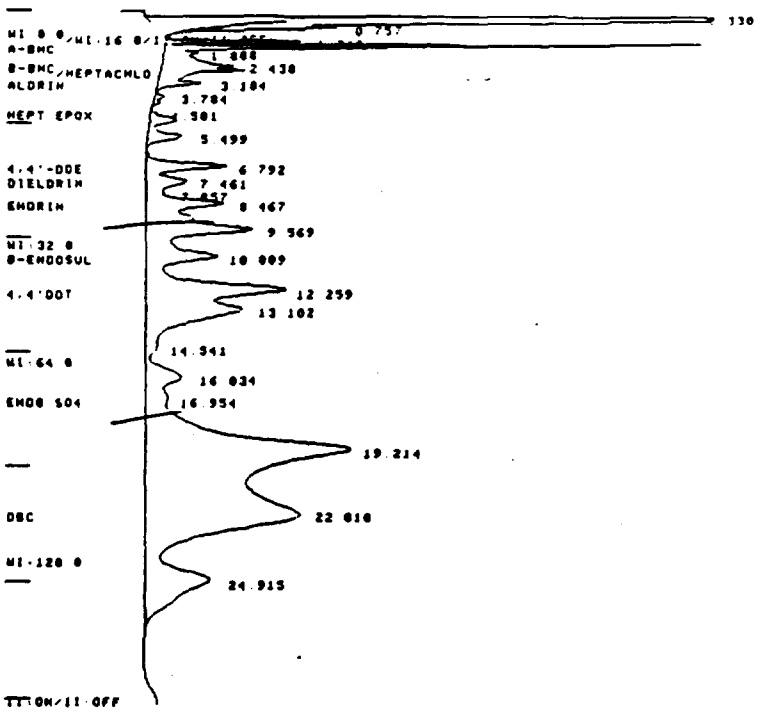
NOISE: 57.1 OFFSET: 10

NOTES:
NOTEBOOK:259-41 ANALYST: A.JUREK/R.BANSON
SECURE AREA: D JOB#:U-4455
INST:VARIAN 6000#2 A ECD 1CA1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: ana

162

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 1B - 1 TITLE: RUN8 // 20:57 1 DEC 86

SAMPLE: 9751 METHOD: PEPA CALCULATION: ES - ANALYS

DC-SS-04

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.339		204410	BV	4.44
2	A-BHC	30.6224	1.574	-0.096	857713	VV	4.63
3		0.0000	1.870		102566	VV	? 7.94
4	B-BHC	3.2854	2.126	0.026	69333	VV	? 10.75
5		0.0000	2.301		113309	VV	? 13.63
6	B-BHC	19.2955	2.432	0.032	170451	VV	? 9.44
7	HEPTACHLO	16.4795	2.602	0.012	350168	VV	? 12.38
8	ALDRIN	6.0184	3.180	0.050	134033	VB	8.81
9		0.0000	3.779		25587	BV	8.69
10	HEPT EPOX	6.9346	4.773	0.073	137080	VV	18.31
11		0.0000	5.491		220147	VB	28.00
12	4,4'-DDE	22.5791	6.792	-0.008	423014	BV	17.44
13	DIELDRIN	14.7803	7.461	0.231	296756	VV	27.75
14		0.0000	7.857		47702	VV	?
15	ENDRIN	39.4252	8.467	-0.313	531334	VV	25.44
16		0.0000	9.569		1154384	VV	29.63
17	B-ENDOSUL	41.9500	10.009	0.189	741737	VV	32.44
18	4,4'-DDT	139.3252	12.259	-0.261	1545097	VV	41.13
19		0.0000	13.102		1364306	VV	? 63.75
20	END. ALD.	6.7294	14.541	0.561	93324	VV	? 64.13
21		0.0000	16.034		464801	VV	58.50
22	ENDO SO4	26.5600	16.954	0.014	199233	VV	? 32.06
23		0.0000	19.214		5524059	VV	106.50
24	DBC @ INF.	322.1546	22.010	-0.190	4625121	VV	?144.50
25	METHOXYCH.	343.9505	24.915	0.915	1422001	VB	77.81
TOTALS:		1040.019		1.225	20817668		

DETECTED PKS: 35 REJECTED PKS: 10

DIVISOR: 1.50000 MULTIPLIER: 2000.00000

NOISE: 68.6 OFFSET: -4

NOTES:
NOTEBOOK: 259-44 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#:U-4465
INST: VARIAN 6000#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL . 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

POST RUN:
SAVE FILE: RAW CREEK201

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SAMPLE NUMBER DC-SS-05

481095

Sample Number
DC-SS-05

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465

Lab Sample ID No: 9752 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Stojkowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-21-86

Conc/Dil Factor: 3 pH 6.8

Percent Moisture: (Not Decanted) 44

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	42 B
67-64-1	Acetone	48 B
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	51 B
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No V-4465

Sample Number DC-SS-05

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed: 12-1-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 44

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	590	U
111-44-4	bis(-2-Chloroethyl)Ether	590	U
95-57-8	2-Chlorophenol	590	U
541-73-1	1 3-Dichlorobenzene	590	U
106-46-7	1. 4-Dichlorobenzene	590	U
100-51-6	Benzyl Alcohol	590	U
95-50-1	1. 2-Dichlorobenzene	590	U
95-48-7	2-Methylphenol	590	U
39638-32-9	bis(2-chloroisopropyl)Ether	590	U
106-44-5	4-Methylpheno	590	U
621-64-7	N-Nitroso-Di-n-Propylamine	590	U
67-72-1	Hexachloroethane	590	U
98-95-3	Nitrobenzene	590	U
78-59-1	Isophorone	590	U
88-75-5	2-Nitrophenol	590	U
105-67-9	2. 4-Dimethylphenol	590	U
65-85-0	Benzoic Acid	2900	U
111-91-1	bis(-2-Chloroethoxy)Methane	590	U
120-83-2	2. 4-Dichlorophenol	590	U
120-82-1	1. 2. 4-Trichlorobenzene	590	U
91-20-3	Naphthalene	590	U
106-47-8	4-Chloroaniline	590	U
87-68-3	Hexachlorobutadiene	590	U
59-50-7	4-Chloro-3-Methylphenol	590	U
91-57-6	2-Methylnaphthalene	590	U
77-47-4	Hexachlorocyclopentadiene	590	U
88-06-2	2 4 6-Trichlorophenol	590	U
95-95-4	2. 4. 5-Trichlorophenol	2900	U
91-58-7	2-Chloronaphthalene	590	U
88-74-4	2-Nitroaniline	2900	U
131-11-3	Dimethyl Phthalate	590	U
208-96-8	Acenaphthylene	590	U
99-09-2	3-Nitroaniline	2900	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	590	U
51-28-5	2. 4-Dinitrophenol	2900	U
100-02-7	4-Nitrophenol	2900	U
132-64-9	Dibenzofuran	590	U
121-14-2	2 4-Dinitrotoluene	590	U
606-20-2	2. 6-Dinitrotoluene	590	U
84-66-2	Diethylphthalate	590	U
7005-72-3	4-Chlorophenyl-phenylether	590	U
86-73-7	Fluorene	590	U
100-01-6	4-Nitroaniline	2900	U
534-52-1	4. 6-Dinitro-2-Methylphenol	2900	U
86-30-6	N-Nitrosodiphenylamine (1)	590	U
101-55-3	4-Bromophenyl-phenylether	590	U
118-74-1	Hexachlorobenzene	590	U
87-86-5	Pentachlorophenol	2900	U
85-01-8	Phenanthrene	590	U
120-12-7	Anthracene	590	U
84-74-2	Di-n-Butylphthalate	2800	B
206-44-0	Fluoranthene	590	U
129-00-0	Pyrene	590	U
85-68-7	Butylbenzylphthalate	590	U
91-94-1	3. 3'-Dichlorobenzidine	1200	U
56-55-3	Benzo(a)Anthracene	590	U
117-81-7	bis(2-Ethylhexyl)Phthalate	590	U
218-01-9	Chrysene	590	U
117-84-0	Di-n-Octyl Phthalate	590	U
205-99-2	Benzo(b)Fluoranthene	590	U
207-08-9	Benzo(k)Fluoranthene	590	U
50-32-8	Benzo(a)Pyrene	590	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	590	U
53-70-3	Dibenz(a h)Anthracene	590	U
191-24-2	Benzo(g h. i)Perylene	590	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-05

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 2

Percent Moisture (decanted) 44

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	32	U
319-85-7	Beta-BHC	32	U
319-86-8	Delta-BHC	32	U
58-89-9	Gamma-BHC (Lindane)	32	U
76-44-8	Heptachlor	32	U
309-00-2	Aldrin	32	U
1024-57-3	Heptachlor Epoxide	32	U
959-98-8	Endosulfan I	32	U
60-57-1	Dieldrin	64	U
72-55-9	4, 4'-DDE	79	
72-20-8	Endrin	64	U
33213-65-9	Endosulfan II	64	U
72-54-8	4, 4'-DDD	64	U
1031-07-8	Endosulfan Sulfate	64	U
50-29-3	4, 4'-DDT	64	U
72-43-5	Methoxychlor	320	U
53494-70-5	Endrin Ketone	64	U
57-74-9	Chlordane	320	U
8001-35-2	Toxaphene	640	U
12674-11-2	Aroclor-1016	320	U
11104-28-2	Aroclor-1221	320	U
11141-16-5	Aroclor-1232	320	U
53469-21-9	Aroclor-1242	320	U
12672-29-6	Aroclor-1248	320	U
11097-69-1	Aroclor-1254	640	U
11096-82-5	Aroclor-1260	990	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DS-SS-05

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.	UNKNOWN	BNA	7.0	1800 BJ
4.	UNKNOWN		8.1	500 J
5.	UNKNOWN		9.2	3700 J
6.	UNKNOWN		10.5	2200 J
7.	UNKNOWN HYDROCARBON		26.7	490 J
8.	UNKNOWN		34.2	720 BJ
9.	UNKNOWN HYDROCARBON		35.3	860 J
10.	UNKNOWN HYDROCARBON		37.0	940 J
11.	UNKNOWN		39.0	400 J
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

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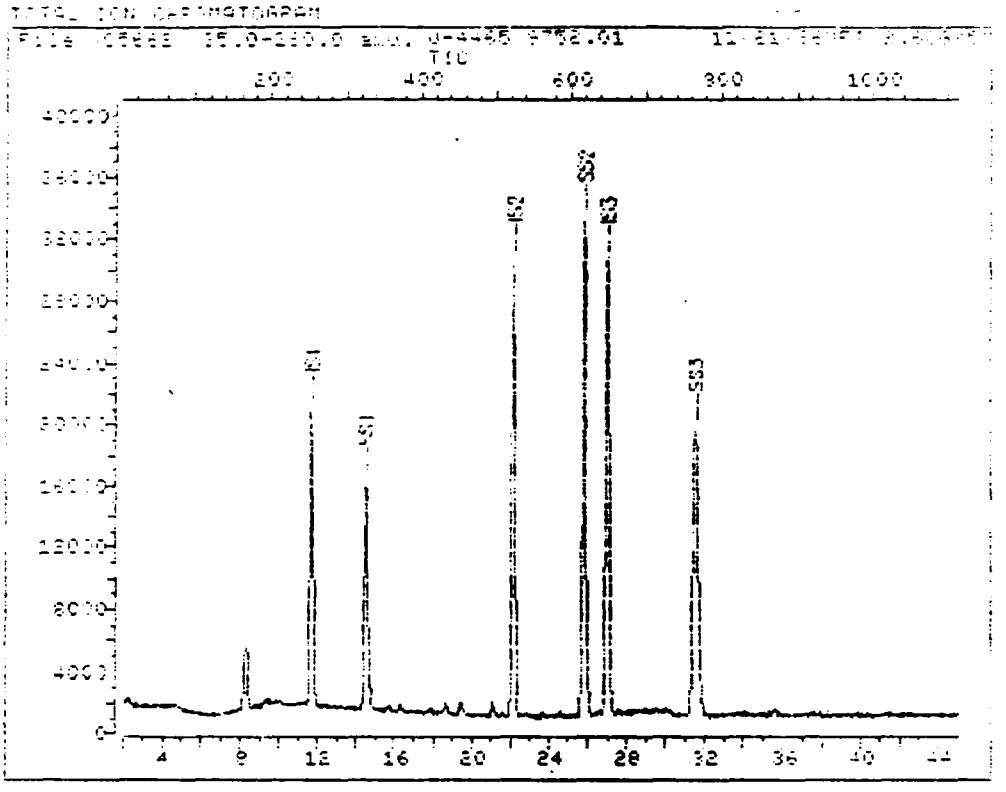

Data File: C5662::03
Name: U-4465 9752.01 DC-SS-05
Misc: 11/21/86MEI 2.68G/5MLS DI + 10UL IS SS

Id File: VOACRS::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 22:21

Operator ID: USER8
Quant Time: 861122 00:04
Injected at: 861121 23:18

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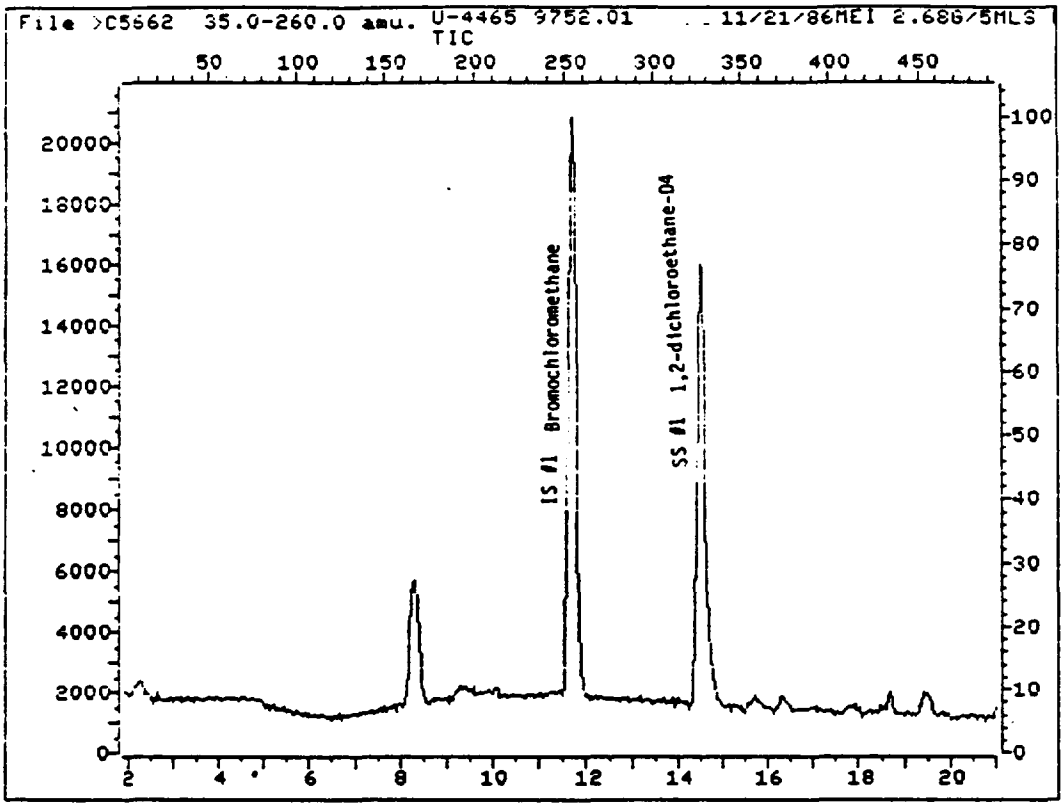
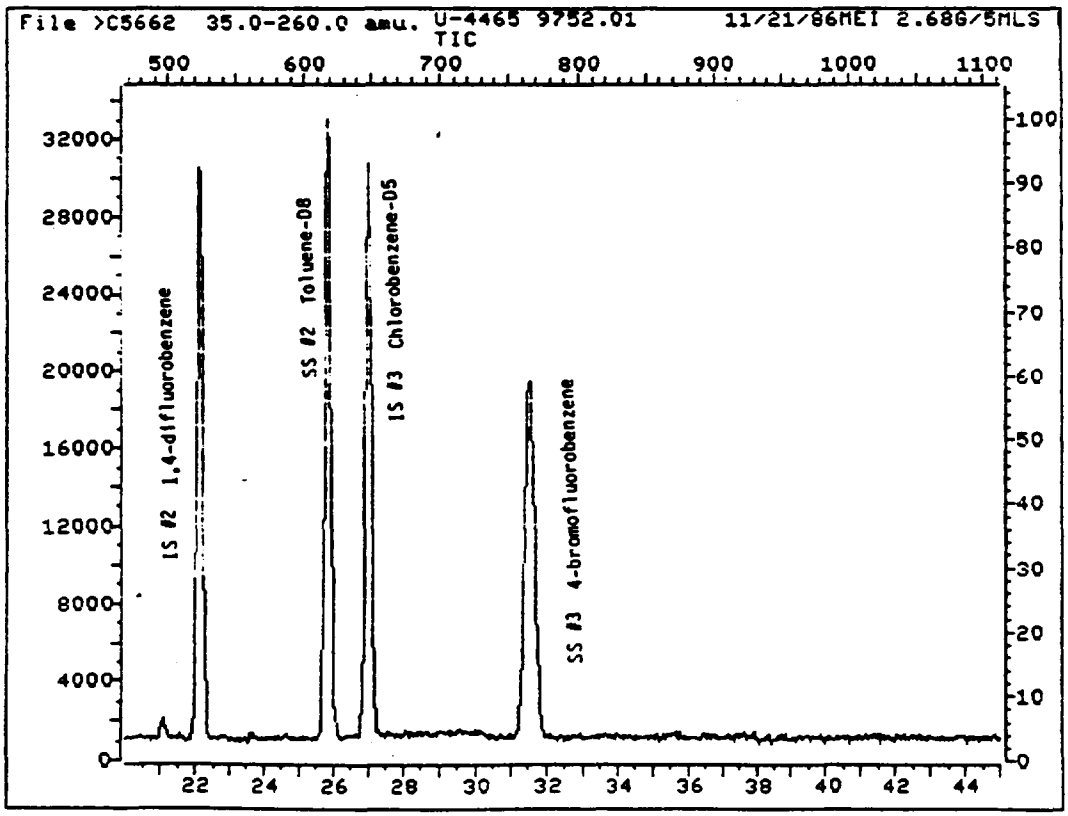
DC-SS-05





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861122 00:[illegible]
Output File: ^C5662::Q2 Injected at: 861121 [illegible]:18
Data File: ^C5662::D3 Dilution Factor: 1.[illegible]
Name: J-4465 9752.01 DC-SS-05
Misc: 11/21/86MEI 2.68G/5MLS DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 22:21

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	[illegible]
[illegible]	*BROMOCHLOROMETHANE (IS)	128	11.70	254	26794	[illegible]	[illegible]	[illegible]
[illegible]	ME HYLENE CHLORIDE	84	8.29	166	10743	[illegible]	[illegible]	[illegible]
[illegible]	ACETONE	43	9.30	[illegible]	4458	[illegible]	[illegible]	[illegible]
[illegible]	~~ACETONE~~	~~43~~	~~9.49~~	~~197~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	[illegible]
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.50	326	59539	[illegible]	NGS	[illegible]
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.14	523	123121	250.00	NGS	[illegible]
17)	2-BUTANONE	72	14.65	330	2488	[illegible]	NGS	[illegible]
[illegible]	*CHLOROBENZENE-D5 (IS)	117	26.99	648	[illegible]	250.0[illegible]	[illegible]	[illegible]
[illegible]	TOLUENE-D8 (SURR)	98	25.83	618	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	4-BROMOFLUOROBENZENE(SURR)	95	31.54	765	[illegible]	[illegible]	[illegible]	[illegible]

no CW

* Compound is ISTD

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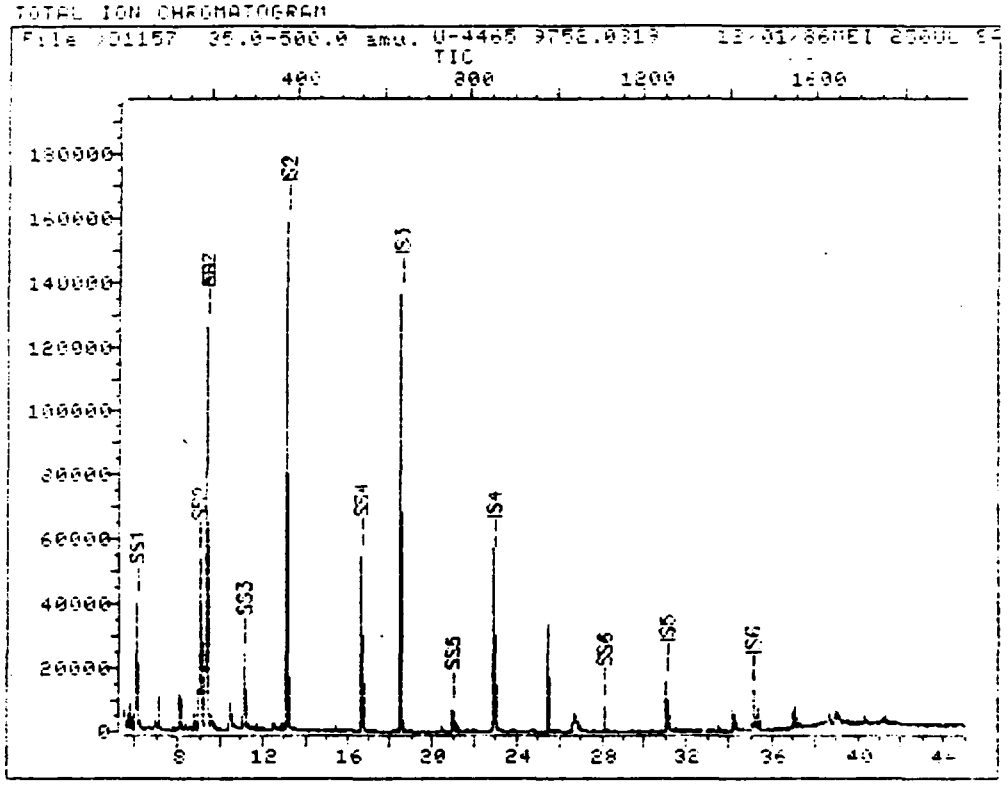
TOTAL ION CHROMATOGRAM



Data File: >01157::D3
Name: U-4465 9752.0319 DC-SS-05
Misc: 12/01/86MEI 250UL SAMPLE + 250UL MECL2 + 5UL IS

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 17:43

Operator ID: USER6
Quant Time: 861201 22:19
Injected at: 861201 21:32

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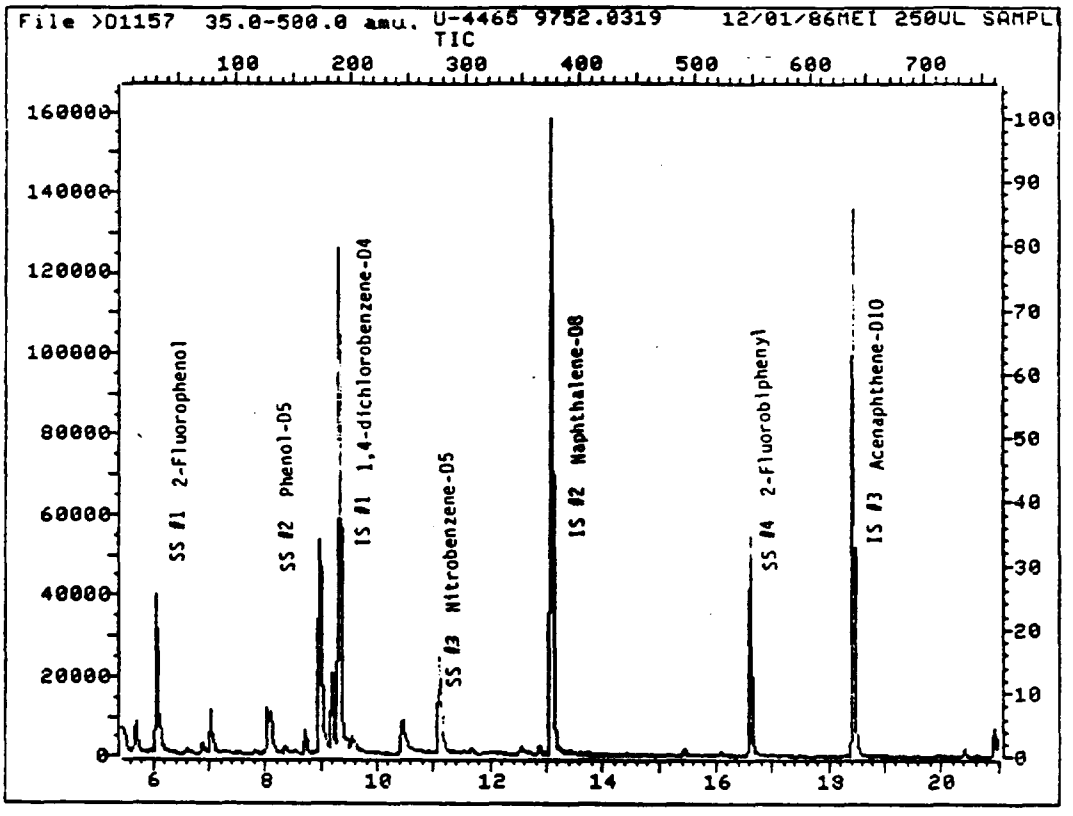
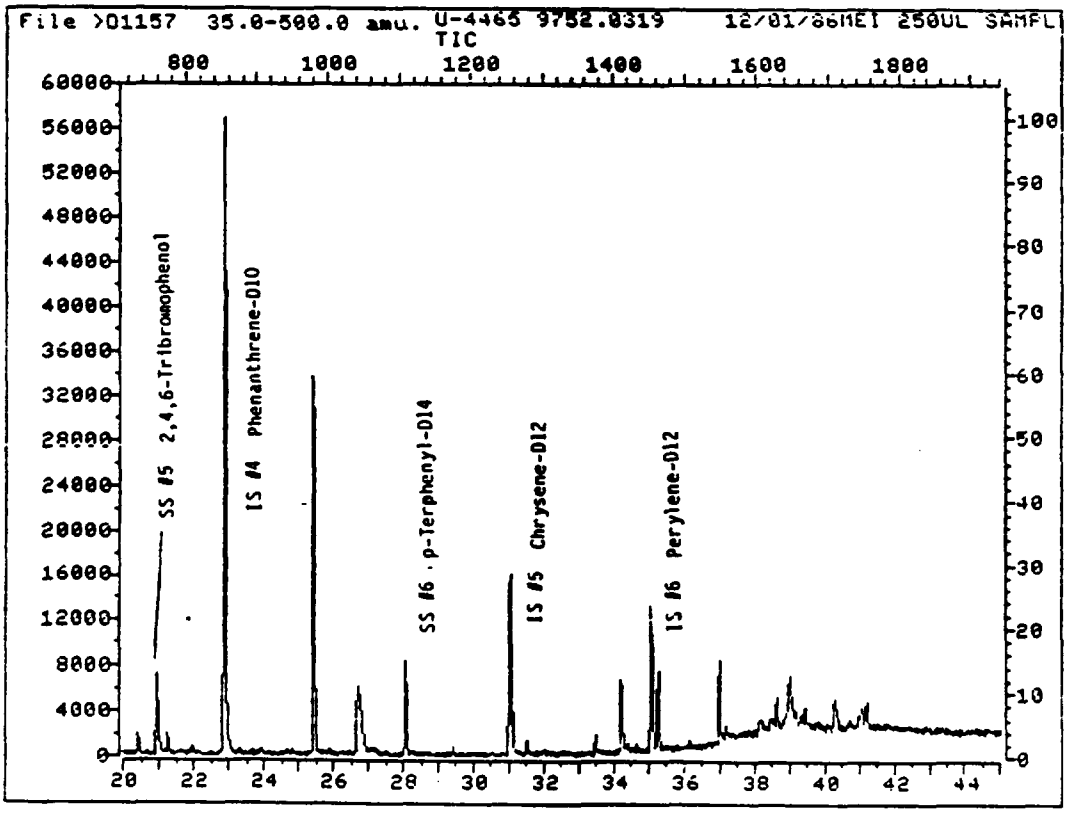
DC-SS-05





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4.. Quant Time: 861201 [illegible]
Output File: ^01157::02 Injected at: 8-120: 21:3[illegible]
Data File: :01157::03 Dilution Factor: 2.00
Name: U-4465 9752.0319 DC-SS-05
Misc: 12/01/86MEI 250UL SAMPLE + 250UL MEOL2 + 5UL IS BT. # 5

ID File: BNADR::02
Title: BNA ID FILE FOR THE HP 5970 (8)
Last Calibration: 861201 17:43

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	Q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.32	190	55392	40.00	UG/L	8[illegible]
2)	PHENOL-D5	(SURR)	99	8.97	173	54491	55.65	UG/L	97
~~3)~~	~~PHENOL-D6~~	~~(SURR)~~	~~99~~	~~9.32~~	~~190~~	~~10[illegible]~~	~~1.00~~	~~UG/L~~	~~8[illegible]~~
5)	2-FLUOROPHENOL	(SURR)	112	6.06	30	27445	41.55	UG/L	90
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.46~~	~~246~~	~~1005~~	~~.97~~	~~UG/L~~	~~100~~
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.6[illegible]~~	~~255~~	~~699~~	~~.34~~	~~UG/L~~	~~100~~
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.73~~	~~260~~	~~936~~	~~.[illegible]~~	~~UG/L~~	~~100~~
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.81~~	~~263~~	~~198~~	~~.10~~	~~UG/L~~	~~100~~
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.11~~	~~279~~	~~4930~~	~~5.49~~	~~UG/L~~	~~89~~
19)	*NAPHTHALENE-D8	(IS)	136	13.09	375	200378	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.09	277	25888	29.79	UG/L	98
~~29)~~	~~NAPHTHALENE~~		~~128~~	~~13.15~~	~~379~~	~~324~~	~~.14~~	~~UG/L~~	~~100~~
34)	*ACENAPHTHENE-D10	(IS)	162	18.45	638	79644	40.00	UG/L	99
38)	2-FLUOROBIPHENYL	(SURR)	172	16.61	548	51906	31.17	UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.45~~	~~638~~	~~24759~~	~~16.9[illegible]~~	~~UG/L~~	~~100~~
43)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.93	760	5248	20.61	UG/L	99
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.45~~	~~638~~	~~10374~~	~~37.8[illegible]~~	~~UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.87	855	83092	40.00	UG/L	97
63)	DI-N-BUTYLPHTHALATE		149	25.43	981	54384	47.27	UG/L	98
65)	*CHRYSENE-D12	(IS)	240	31.03	1256	29069	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.08	1111	11733	36.02	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.07	1454	23938	40.00	UG/L	100
~~76)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.13~~	~~1408~~	~~275~~	~~.33~~	~~UG/L~~	~~100~~
~~76)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.21~~	~~1412~~	~~129~~	~~.39~~	~~UG/L~~	~~100~~
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.13~~	~~1408~~	~~275~~	~~.76~~	~~UG/L~~	~~100~~
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.21~~	~~1412~~	~~129~~	~~.36~~	~~UG/L~~	~~100~~

* Compound is ISTD

No Sig

No Sig

No Sig

No Sig

No Sig

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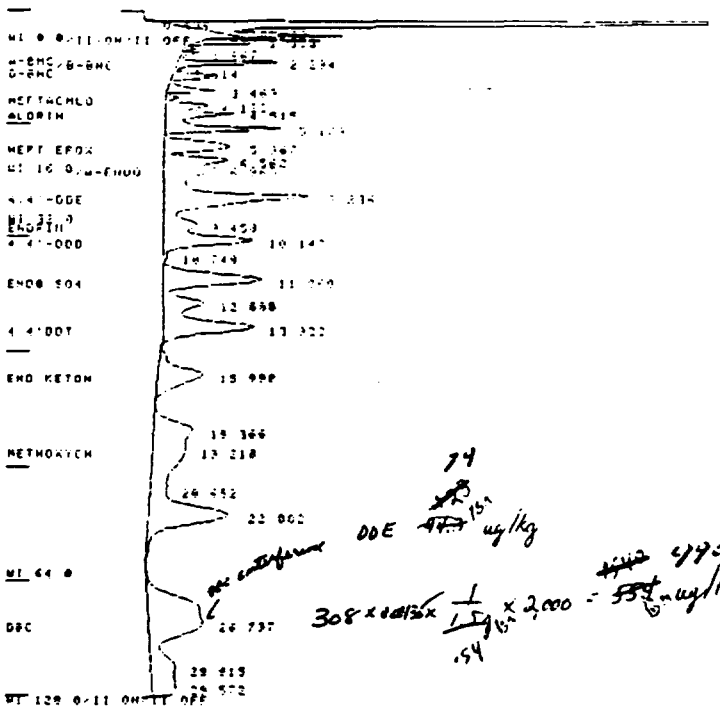
CHART SPEED 0.5 CM/MIN
ATTEN: 6 ZERO: 10% 5 MIN/TICK



DDE 74 ug/kg

308 x 0.0135 x 1/1.5 x 2,000 = 440 ug/kg 126

CHANNEL: 1A - 1 TITLE: RUN# 43 19.02 25 NOV 86

SAMPLE: 9752 9752 METHOD: CEPA CALCULATION: ES - ANALYS

DC-SS-05

PEAK NO	PEAK NAME	RESULT UG/KG wet	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.353		107329	BV	6.56
2	~~B-BHC~~	17.3533	2.294	0.094	113858	VV	5.94
3		0.0000	2.930		41918	VV	? 6.31
4		0.0000	2.556		32896	VV	? 6.94
5		0.0000	3.469		71815	VV	9.50
6	~~HEPTACHLO~~	6.1513	4.122	0.282	80995	VV	? 11.00
7	~~ALDRIN~~	9.6804	4.515	-0.225	152157	VV	15.83
8		0.0000	5.179		222190	VV	11.44
9	~~HEPT EPOX~~	15.0171	5.367	0.207	220013	VV	? 27.69
10		0.0000	6.562		155550	VV	? 16.19
11	~~A-ENDO~~	15.3950	6.965	-0.185	212820	VV	? 42.44
Confirm 12	4,4'-DDE +	44.2725	8.226	0.016	625716	VV	25.50
13	~~B-ENDO~~	10.7981	9.456	-0.022	122631	VV	? 22.63
14	~~4,4'-DDD~~	25.7641	10.142	-0.188	322380	VV	25.50
15	~~ENDO SO4~~	42.9156	11.860	-0.250	440562	VV	32.13
16		0.0000	12.828		190151	VV	34.44
17	~~4,4'DDT~~	66.2111	13.922	0.452	426597	VB	32.98
18	~~END KETON~~	20.5901	15.998	0.478 308	304504	BV	44.19
19		0.0000	18.366		270841	VV	? 46.06
20	~~METHOXYCH~~	80.2768	19.218	-0.592	332265	VV	?124.19
21		0.0000	20.652		60013	VV	?
22		0.0000	22.382		600904	VB	48.44
23	~~DDE~~ Int.	67.5438	26.797	-0.233	764070	BV	111.56
24		0.0000	28.815		175081	VV	? 89.83
25		0.0000	29.572		141766	VB	?115.44

TOTALS: 421.9804 -0.166 6204122

DETECTED PKS: 39 REJECTED PKS: 14

DIVISOR: 1.50000 MULTIPLIER: 2000.00000

NOISE: 34.3 OFFSET: -19

NOTES:
NOTEBOOK:259-41 ANALYST: K.JUREK/R.SAMSON
SECURE AREA: D JOB#:U-4465
INST:VARIAN 600082 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

PORT RUN:
SAVE FILE: RAW PLOT:

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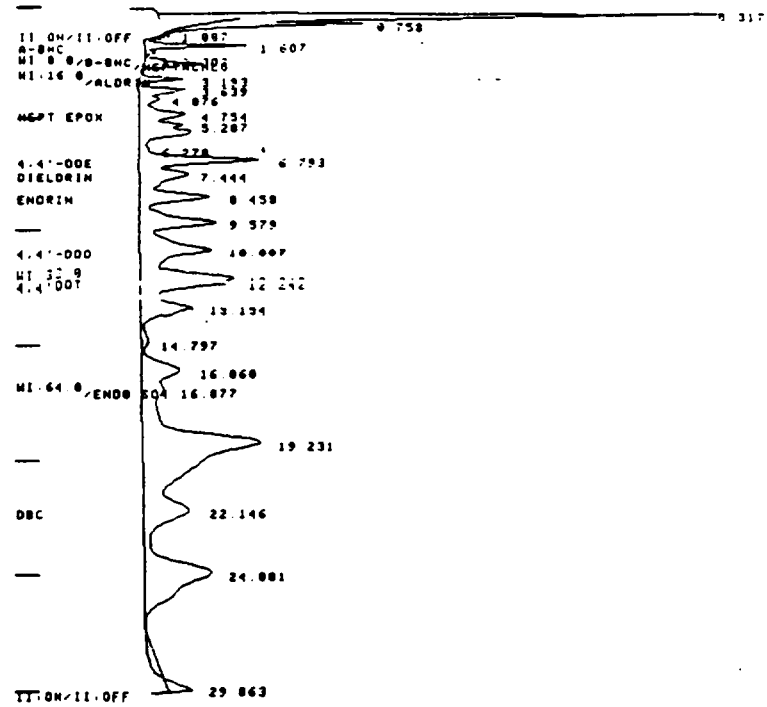
CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 18 - 1 TITLE: RUN# 12 21:34 1 DEC 86

SAMPLE: 9752 METHOD: PEPA CALCULATION: ES - ANALYS

DC-SS-05

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1	~~B-BHC~~	7.1524	1.607	-0.063	200333	BV	6.94
2		0.0000	1.879		31176	VB	8.88
3		0.0000	2.302		35429	BV	? 5.88
4	~~G-BHC~~	21.5884	2.478	0.078	190706	VB	12.94
5	~~ALDRIN~~	4.5943	3.193	0.063	102318	BV	8.13
6		0.0000	3.639		212991	VV	18.13
7		0.0000	4.076		94105	VV	? 21.75
8	~~HEPT EPOX~~	14.5545	4.754	0.054	287706	VV	21.44
9		0.0000	5.207		157400	VV	? 16.19
10	~~A-ENDO~~	18.5650	5.548	-0.362	347617	VV	? 27.63
11		0.0000	6.278		38137	VV	? 17.58
12	4,4'-DDE	33.3317	6.793	-0.007	524462	VV	17.69
13	DIELDRIN	22.1038	7.444	0.214	443554	VV	32.88
14	~~ENDRIN~~	34.0950	8.458	-0.322	459499	VV	23.69
15		0.0000	9.579		609304	VV	25.36
16	~~B-ENDOSOL~~	50.9769	10.007	0.187	901327	VV	? 38.50
17	~~4,4'DDT~~	76.7139	12.242	-0.278	850746	VV	32.38
18		0.0000	13.154		573593	VV	45.31
19		0.0000	14.797		73539	VV	? 61.44
20		0.0000	16.060		454902	VV	? 49.25
21	~~ENDO SO4~~	34.2187	16.877	-0.063	256682	VV	? 77.19
22		0.0000	19.231		1892722	VV	80.44
23	DBC	55.6340	22.146	-0.054	798728	VV	? 75.94
24	~~METHOXYCH~~	355.3246	24.881	0.081	1469025	VV	86.69
TOTALS:		728.8530		0.328	12105999		

DETECTED PKS: 38 REJECTED PKS: 14

DIVISOR: 1.50000 MULTIPLIER: 2000.00002

NOISE: 102.9 OFFSET: -2

NOTES:
NOTEBOOK: 259-44 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#:U-4465
INST: VARIAN 6000#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

POST RUN:
SAVE FILE: RAW CREEK

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SAMPLE NUMBER DC-SS-06

481095

Sample Number
DC-SS-06

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No. U-4465

Lab Sample ID No: 9753 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Hojtowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-22-86

Conc/Dil Factor: 3 pH 6.7

Percent Moisture: (Not Decanted) 39

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	63 B
67-64-1	Acetone	41 B
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No V-4465

Sample Number DC-SS-06

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 12-1-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 39

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	540	U
111-44-4	bis(-2-Chloroethyl)Ether	540	U
95-57-8	2-Chlorophenol	540	U
541-73-1	1 3-Dichlorobenzene	540	U
106-46-7	1 4-Dichlorobenzene	540	U
100-51-6	Benzyl Alcohol	540	U
95-50-1	1 2-Dichlorobenzene	540	U
95-48-7	2-Methylphenol	540	U
39638-32-9	bis(2-chloroisopropyl)Ether	540	U
106-44-5	4-Methylphenol	540	U
621-64-7	N-Nitroso-Di-n-Propylamine	540	U
67-72-1	Hexachloroethane	540	U
98-95-3	Nitrobenzene	540	U
78-59-1	Isophorone	540	U
88-75-5	2-Nitrophenol	540	U
105-67-9	2 4-Dimethylphenol	540	U
65-85-0	Benzoic Acid	2600	U
111-91-1	bis(-2-Chloroethoxy)Methane	540	U
120-83-2	2 4-Dichlorophenol	540	U
120-82-1	1 2 4-Trichlorobenzene	540	U
91-20-3	Naphthalene	540	U
106-47-8	4-Chloroaniline	540	U
87-68-3	Hexachlorobutadiene	540	U
59-50-7	4-Chloro-3-Methylphenol	540	U
91-57-6	2-Methylnaphthalene	540	U
77-47-4	Hexachlorocyclopentadiene	540	U
88-06-2	2 4 6-Trichlorophenol	540	U
95-95-4	2 4 5-Trichlorophenol	2600	U
91-58-7	2-Chloronaphthalene	540	U
88-74-4	2-Nitroaniline	2600	U
131-11-3	Dimethyl Phthalate	540	U
208-96-8	Acenaphthylene	540	U
99-09-2	3-Nitroaniline	2600	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	540	U
51-28-5	2 4-Dinitrophenol	2600	U
100-02-7	4-Nitrophenol	2600	U
132-64-9	Dibenzofuran	540	U
121-14-2	2 4-Dinitrotoluene	540	U
606-20-2	2 6-Dinitrotoluene	540	U
84-66-2	Diethylphthalate	540	U
7005-72-3	4-Chlorophenyl-phenylether	540	U
86-73-7	Fluorene	540	U
100-01-6	4-Nitroaniline	2600	U
534-52-1	4 6-Dinitro-2-Methylphenol	2600	U
86-30-6	N-Nitrosodiphenylamine (1)	540	U
101-55-3	4-Bromophenyl-phenylether	540	U
118-74-1	Hexachlorobenzene	540	U
87-86-5	Pentachlorophenol	2600	U
85-01-8	Phenanthrene	540	U
120-12-7	Anthracene	540	U
84-74-2	Di-n-Butylphthalate	540	U
206-44-0	Fluoranthene	540	U
129-00-0	Pyrene	540	U
85-68-7	Butylbenzylphthalate	540	U
91-94-1	3 3 -Dichlorobenzidine	1100	U
56-55-3	Benzo(a)Anthracene	540	U
117-81-7	bis(2-Ethylhexyl)Phthalate	540	U
218-01-9	Chrysene	540	U
117-84-0	Di-n-Octyl Phthalate	540	U
205-99-2	Benzo(b)Fluoranthene	540	U
207-08-9	Benzo(k)Fluoranthene	540	U
50-32-8	Benzo(a)Pyrene	540	U
193-39-5	Indeno(1 2 3-cd)Pyrene	540	U
53-70-3	Dibenzo(a h)Anthracene	540	U
191-24-2	Benzo(g h i)Perylene	540	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-06

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1

Percent Moisture (decanted) 39.2

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16 U
319-85-7	Beta-BHC	16 U
319-86-8	Delta-BHC	16 U
58-89-9	Gamma-BHC (Lindane)	16 U
76-44-8	Heptachlor	16 U
309-00-2	Aldrin	16 U
1024-57-3	Heptachlor Epoxide	16 U
959-98-8	Endosulfan I	16 U
60-57-1	Dieldrin	32 U
72-55-9	4,4'-DDE	51
72-20-8	Endrin	32 U
33213-65-9	Endosulfan II	32 U
72-54-8	4,4'-DDD	32 U
1031-07-8	Endosulfan Sulfate	32 U
50-29-3	4,4'-DDT	32 U
72-43-5	Methoxychlor	160 U
53494-70-5	Endrin Ketone	32 U
57-74-9	Chlordane	160 U
8001-35-2	Toxaphene	320 U
12674-11-2	Aroclor-1016	160 U
11104-28-2	Aroclor-1221	160 U
11141-16-5	Aroclor-1232	160 U
53469-21-9	Aroclor-1242	160 U
12672-29-6	Aroclor-1248	160 U
11097-69-1	Aroclor-1254	320 U
11096-82-5	Aroclor-1260	740

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

280

✓

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-06

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Unknown	VOA	18.0	3 J
2.	Dimethyl butene isomer	VOA	18.7	9 J
3.				
4.	UNKNOWN	BNA	7.0	1300 BJ
5.	UNKNOWN		8.0	3500 J
6.	UNKNOWN HYDROCARBON		26.7	360 J
7.	UNKNOWN		34.2	860 BJ
8.	UNKNOWN HYDROCARBON		37.0	330 J
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
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20.				
21.				
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27.				
28.				
29.				
30.				

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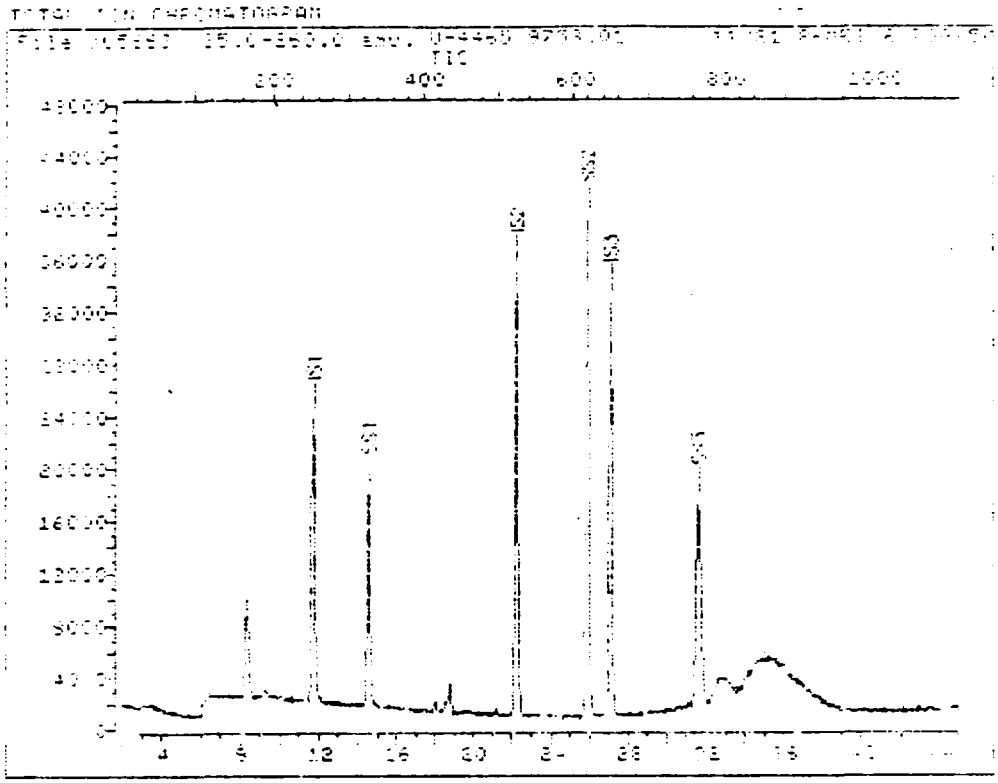

Data File: [illegible]663::D3
Name: U-4465 9753.01 DC-SS-06
Misc: 11/21/86MEI 2.70G/5MLS DI - [illegible]

Id File: VOAORS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.
Last Calibration: 861121 22:21

Operator ID: USEPA
Quant Time: 861122 01:[illegible]
Injected at: 861122 00:14

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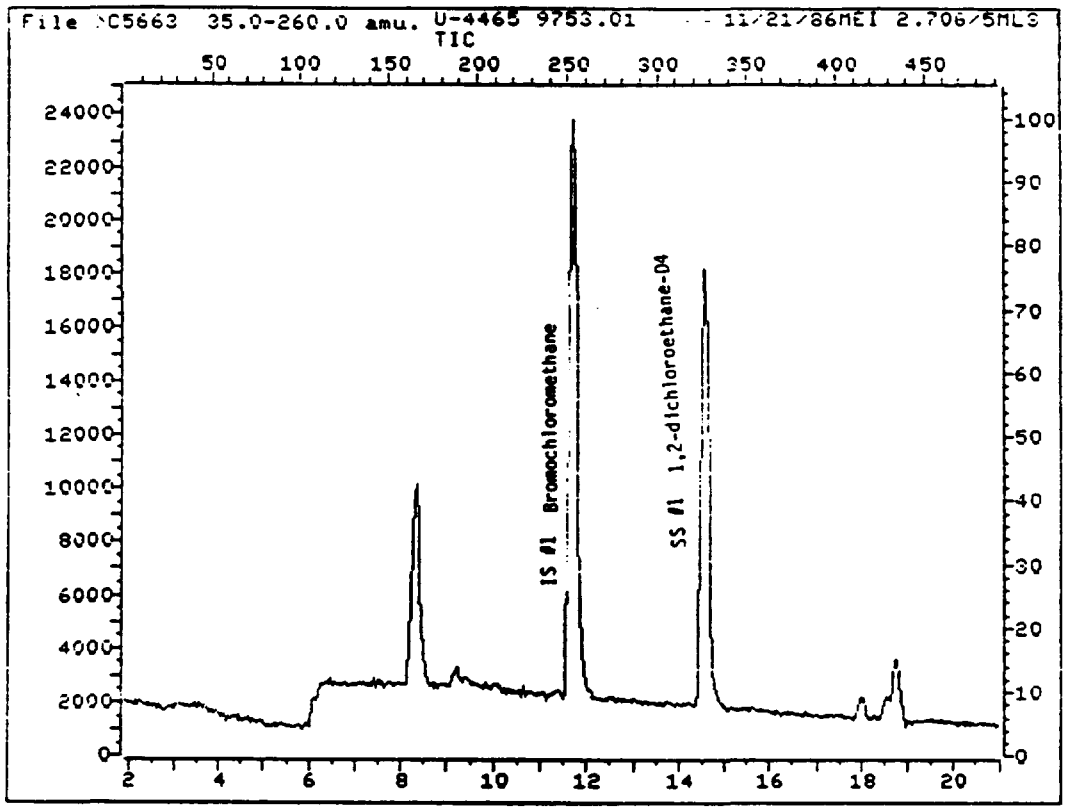
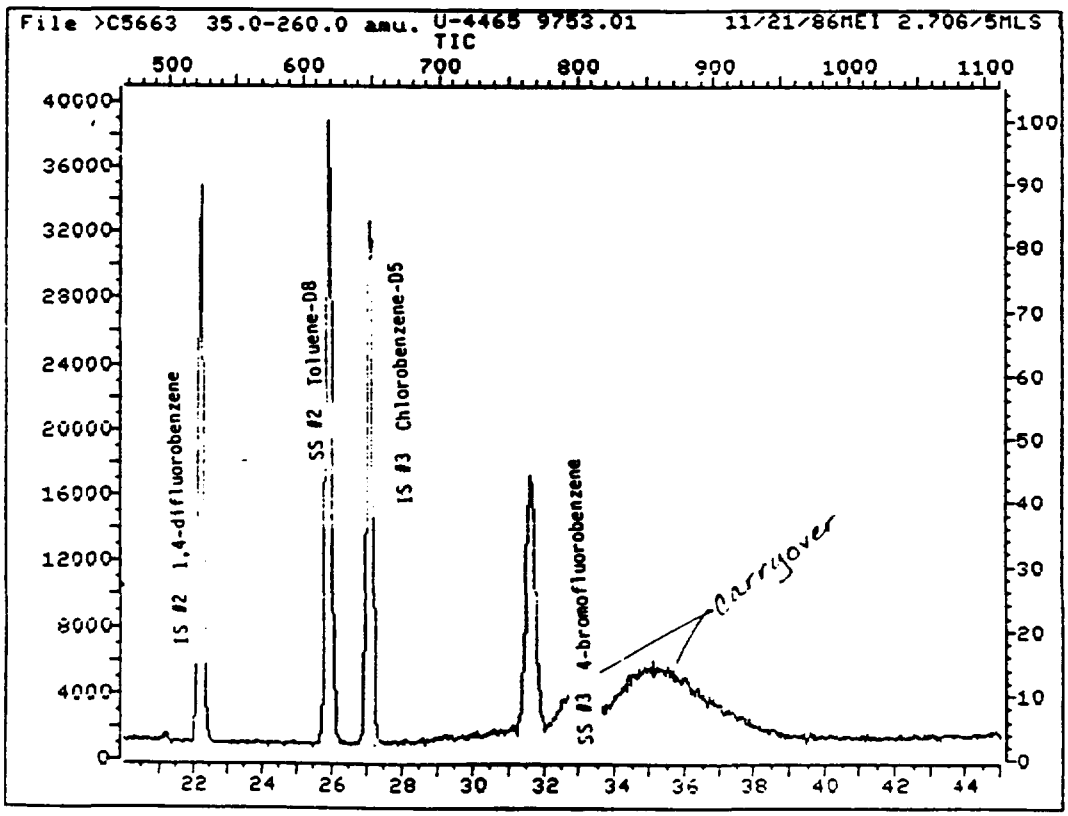
DC-SS-06





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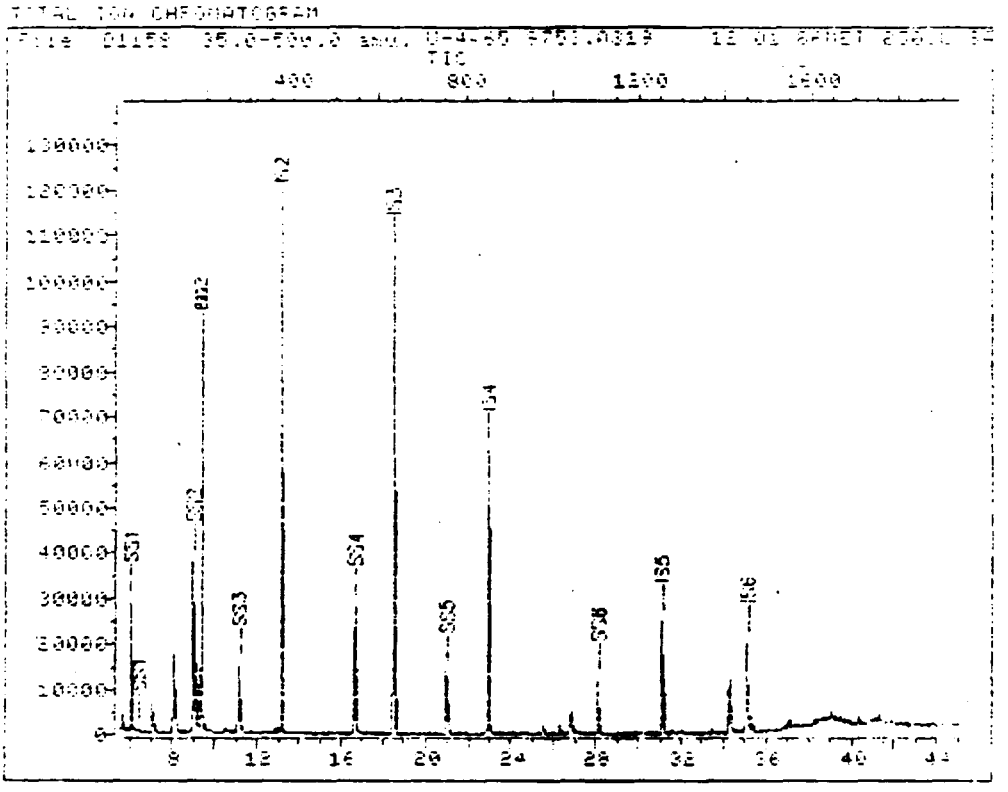
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861122 01:00
Output File: ^C5663::Q2 Injected at: 861122 00:14
Data File: >C5663::D3 Dilution Factor: 1.00
Name: U-4465 9753.01 DC-SS-06
Misc: 11/21/86MEI 2.70G/5MLS DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 22:21

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.71	253	33030	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.34	166	21715	103.57	NGS	100
7)	ACETONE		43	9.23	189	5221	67.92	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.59	327	72382	206.61	NGS	85
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.23	524	143596	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.08	649	102163	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.92	619	149159	259.65	NGS	93
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.63	766	54770	185.38	NGS	100

* Compound is ISTD



Data File: >01158::D3
Name: U-4465 9763.0319 DC-SS-06
Misc: 12/01/86MEI 250UL SAMPLE + 250UL MeCl2 + 5UL IS

Id File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 17:43

Operator ID: USER6
Quant Time: 861201 23:12
Injected at: 861201 22:24

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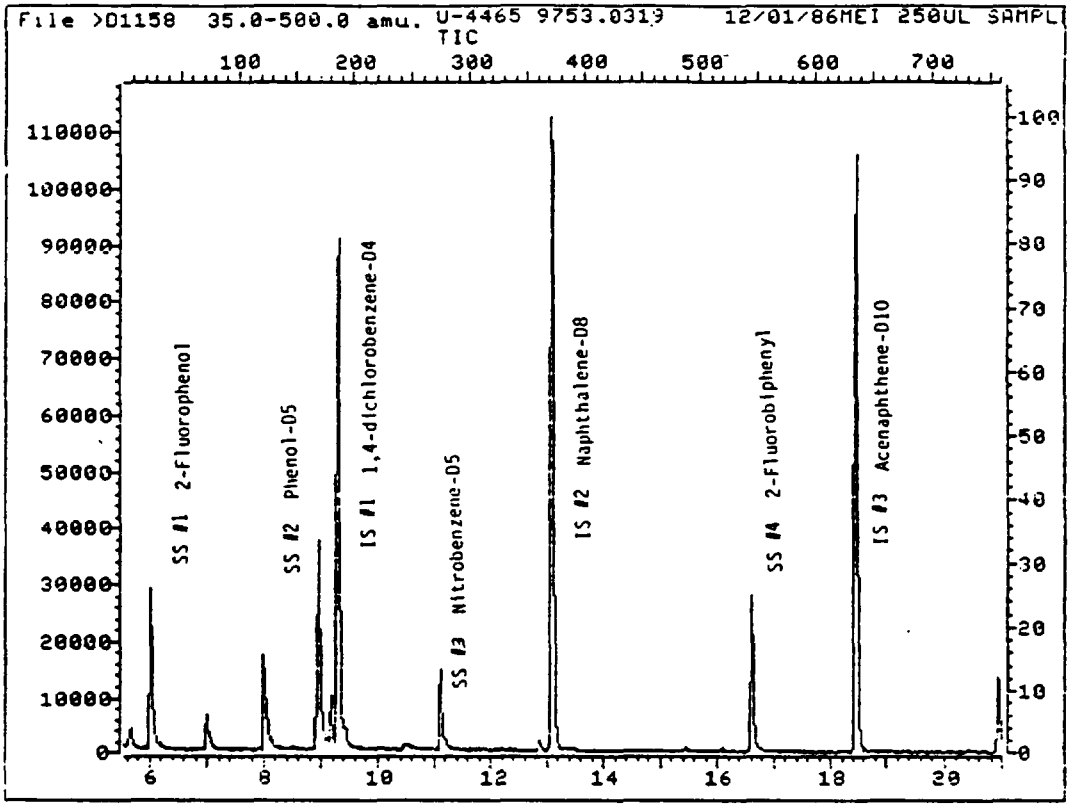
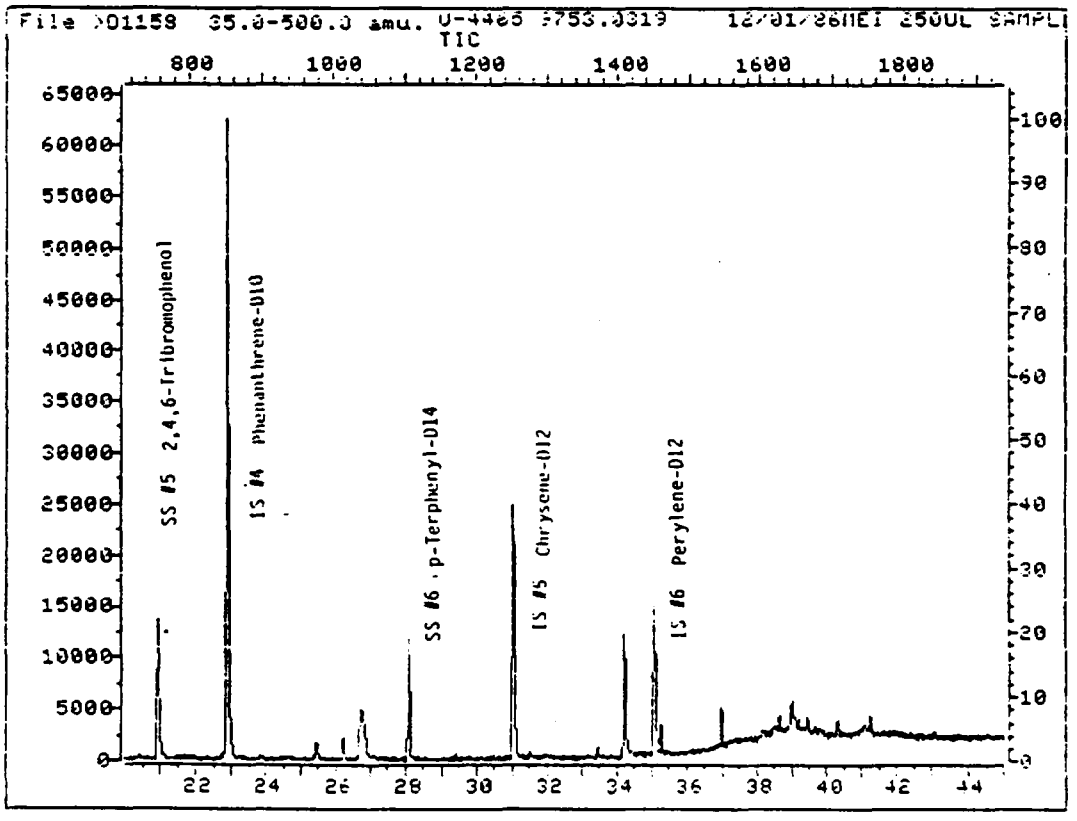
DC-SS-06


File >D1158 35.0-500.0 amu. U-4465 9753.0319 12/01/86MEI 250UL SAMPL
TIC
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


File >D1159 35.0-500.0 amu. U-4465 9753.0319 12/01/86MEI 250UL SAMPL
TIC
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

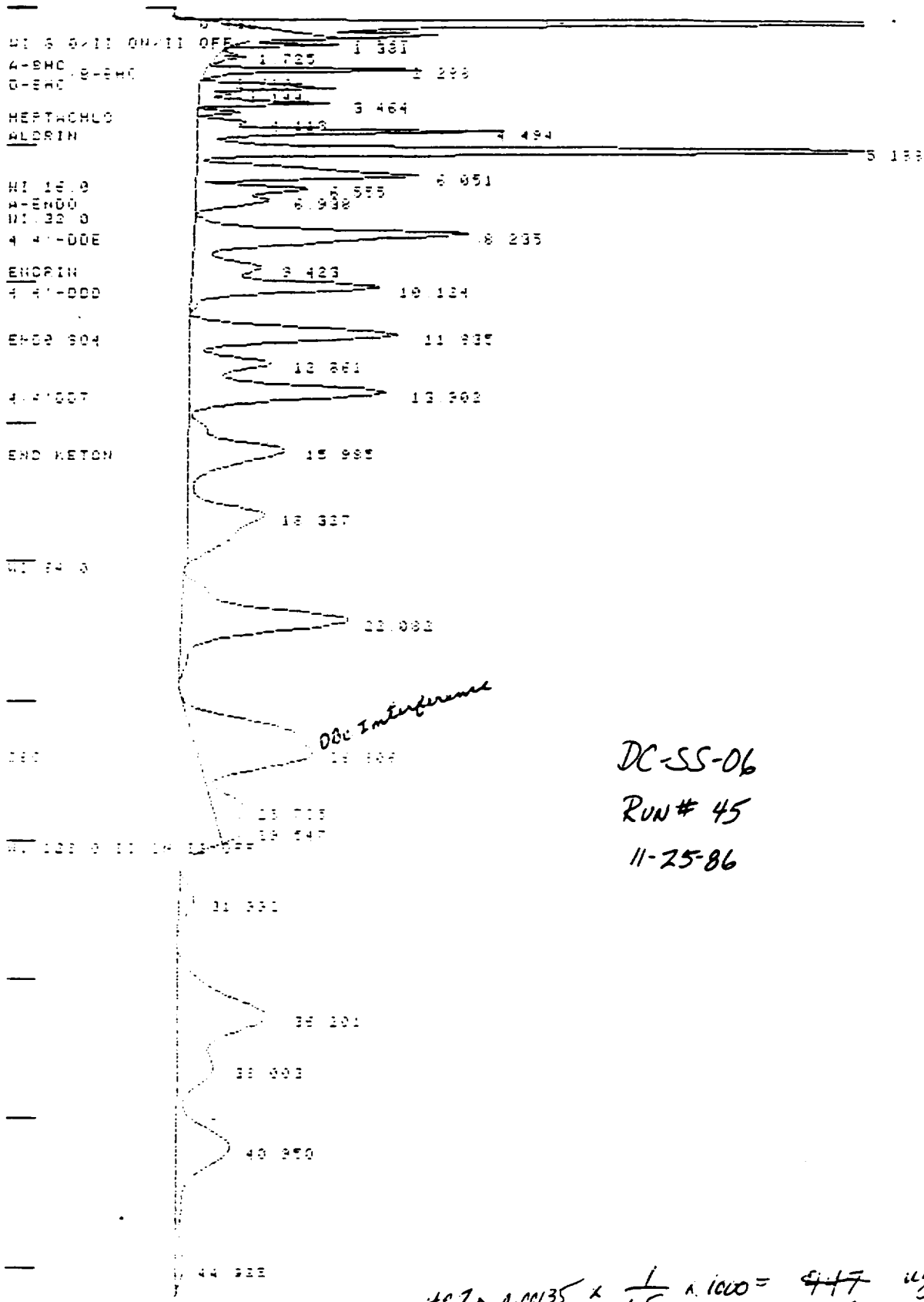
Operator ID: USER6 Quant Rev: 4 Quant Time: 861201 23:12
Output File: ^D1158::Q2 Injected at: 861201 22:24
Data File: >D1158::D3 Dilution Factor: 2.00
Name: U-4465 9753.0319 DC-SS-06
Misc: 12/01/86MEI 250UL SAMPLE + 250UL MECL2 + 5UL IS BTL# 6

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 17:43

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.29	185	46869	40.00	UG/L	88
2)	PHENOL-D5	(SURR)	99	8.94	168	41027	49.52	UG/L	97
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~9.29~~	~~185~~	~~863~~	~~1.02~~	~~UG/L~~ No Bfk	67
5)	2-FLUOROPHENOL	(SURR)	112	6.01	24	23007	41.16	UG/L	75
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.40~~	~~43~~	~~957~~	~~46~~	~~UG/L~~ No Bfk	78
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.18~~	~~274~~	~~2607~~	~~3.95~~	~~UG/L~~	92
19)	*NAPHTHALENE-D8	(IS)	136	13.08	371	168714	40.00	UG/L	100
10)	NITROBENZENE-D5	(SURR)	82	11.10	274	16502	22.55	UG/L	94
4)	*ACENAPHTHENE-D10	(IS)	162	18.46	635	66958	40.00	UG/L	97
8)	2-FLUOROBIPHENYL	(SURR)	172	16.62	545	34638	24.74	UG/L	94
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.46~~	~~635~~	~~23827~~	~~16.92~~	~~UG/L~~ No Bfk	100
8)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.92	756	9201	42.97	UG/L	96
~~2)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~18.46~~	~~635~~	~~8805~~	~~36.82~~	~~UG/L~~ No Bfk	100
5)	*PHENANTHRENE-D10	(IS)	188	22.88	852	84902	40.00	UG/L	99
5)	*CHRYSENE-D12	(IS)	240	31.02	1252	39784	40.00	UG/L	100
8)	TERPHENYL-D14	(SURR)	244	28.07	1107	16337	36.64	UG/L	100
4)	*PERYLENE-D12	(IS)	264	35.08	1451	32536	40.00	UG/L	100

* Compound is ISTD

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-SS-06
RUN # 45
11-25-86

$497 \times 0.00135 \times \frac{1}{.91} \times 1000 = \cancel{447}$ 737 ug/Kg DDE

DDE ~~30.9~~ 51 ug/Kg

363

CHANNEL: 1A - 1 TITLE: RUN# ~~32~~ 45 [illegible] 25 NOV 88

SAMPLE: 9753 DF=1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT US/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.381		62716	BB	5.18
2	~~2 SAC~~	14.7412	2.288	0.088	193439	VV	6.44
3		0.0000	2.827		71216	VV	? 6.44
4		0.0000	2.954		99215	VV	? 7.75
5		0.0000	3.144		23928	VV	7.44
6		0.0000	3.464		146952	VV	9.19
7	~~HEPTACHLO~~	1.3949	3.605	-0.035	36673	VV	7.94
8		0.0000	4.118		70823	VV	? 10.69
9	~~ALDRIN~~	13.7404	4.494	-0.246	431946	VV	11.44
10		0.0000	5.188		1266011	VV	12.50
11	~~HEPT EPOX~~	19.1177	6.051	0.291	530879	VV	? 19.69
12		0.0000	6.555		211439	VV	19.63
13	~~A-ENDO~~	6.3552	6.938	-0.212	175697	VB	? 30.81
CONFIRM 14	4,4'-DDE	30.8904	8.235	0.015	873203	BV	26.38
15	~~B ENDO~~	9.7269	9.423	-0.057	238946	VV	? 31.69
16	~~4,4'-DDD~~	22.2153	10.124	-0.206	586295	VV	25.44
17	~~ENDO SO4~~	39.9043	11.835	-0.275	762995	VV	32.50
18		0.0000	12.861		285484	VV	33.25
1260 19	~~4,4'-DDT~~	60.0986	13.902	0.432 497	774428	VV	33.75
20	~~END KETON~~	20.0054	15.985	0.465	591713	VV	47.88
21		0.0000	18.327		632742	VB	79.13
22		0.0000	22.082		[illegible]	BB	51.05
23	~~BB~~ INF.	55.1329	26.806	-0.224	1289974	BV	[illegible]
24		0.0000	28.795		178505	VV	? 88.26
25		0.0000	29.547		90009	VB	?102.84
26		0.0000	31.992		112014	BV	54.44
27		0.0000	36.201		1015357	VV	94.94
28		0.0000	38.003		291931	VV	? 91.13
29		0.0000	40.950		592147	VV	99.81
30		0.0000	44.995		99151	VB	[illegible]

TOTALS: 290.3229 0.035 12786742

DETECTED PKS: 41 REJECTED PKS: 11

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 45.7 OFFSET: -19

NOTES:
NOTEBOOK:259-41 ANALYST: K.JUREK/R.SAMSON
SECURE AREA: 2 JOB#:J-4465
INST:VARIAN 8000#2 A ECD 10/1 DC-SS-06
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: PAW SLY507

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SAMPLE NUMBER DC-SS-07

481095

Sample Number
DC-SS-07

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9754 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-22-86
Conc/Dil Factor: 3 pH 7.0
Percent Moisture: (Not Decanted) 30

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	61 B
67-64-1	Acetone	25 JB
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	51 B
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number DC-SS-07

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed: 12-3-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 30

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	470	U
111-44-4	bis(-2-Chloroethyl)Ether	470	U
95-57-8	2-Chlorophenol	470	U
541-73-1	1 3-Dichlorobenzene	470	U
106-46-7	1. 4-Dichlorobenzene	470	U
100-51-6	Benzyl Alcohol	470	U
95-50-1	1 2-Dichlorobenzene	470	U
95-48-7	2-Methylphenol	470	U
39638-32-9	bis(2-chloroisopropyl)Ether	470	U
106-44-5	4-Methylphenc	470	U
621-64-7	N-Nitroso-Di-n-Propylamine	470	U
67-72-1	Hexachloroethane	470	U
98-95-3	Nitrobenzene	470	U
78-59-1	Isophorone	470	U
88-75-5	2-Nitrophenol	470	U
105-67-9	2. 4-Dimethylphenol	470	U
65-85-0	Benzoic Acid	2300	U
111-91-1	bis(-2-Chloroethoxy)Methane	470	U
120-83-2	2. 4-Dichlorophenol	470	U
120-82-1	1. 2. 4-Trichlorobenzene	470	U
91-20-3	Naphthalene	470	U
106-47-8	4-Chloroaniline	470	U
87-68-3	Hexachlorobutadiene	470	U
59-50-7	4-Chloro-3-Methylphenol	470	U
91-57-6	2-Methylnaphthalene	470	U
77-47-4	Hexachlorocyclopentadiene	470	U
88-06-2	2 4 6-Trichlorophenol	470	U
95-95-4	2. 4. 5-Trichlorophenol	2300	U
91-58-7	2-Chloronaphthalene	470	U
88-74-4	2-Nitroaniline	2300	U
131-11-3	Dimethyl Phthalate	470	U
208-96-8	Acenaphthylene	470	U
99-09-2	3-Nitroaniline	2300	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	470	U
51-28-5	2. 4-Dinitrophenol	2300	U
100-02-7	4-Nitrophenol	2300	U
132-64-9	Dibenzofuran	470	U
121-14-2	2 4-Dinitrotoluene	470	U
606-20-2	2. 6-Dinitrotoluene	470	U
84-66-2	Diethylphthalate	470	U
7005-72-3	4-Chlorophenyl-phenylether	470	U
86-73-7	Fluorene	470	U
100-01-6	4-Nitroaniline	2300	U
534-52-1	4. 6-Dinitro-2-Methylphenol	2300	U
86-30-6	N-Nitrosodiphenylamine (1)	470	U
101-55-3	4-Bromophenyl-phenylether	470	U
118-74-1	Hexachlorobenzene	470	U
87-86-5	Pentachlorophenol	2300	U
85-01-8	Phenanthrene	470	U
120-12-7	Anthracene	470	U
84-74-2	Di-n-Butylphthalate	460	BJ
206-44-0	Fluoranthene	480	
129-00-0	Pyrene	290	J
85-68-7	Butylbenzylphthalate	470	U
91-94-1	3. 3'-Dichlorobenzidine	940	U
56-55-3	Benzo(a)Anthracene	220	J
117-81-7	bis(2-Ethylhexyl)Phthalate	170	J
218-01-9	Chrysene	310	J
117-84-0	Di-n-Octyl Phthalate	470	U
205-99-2	Benzo(b)Fluoranthene	610	
207-08-9	Benzo(k)Fluoranthene	470	U
50-32-8	Benzo(a)Pyrene	190	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	280	J
53-70-3	Dibenz(a h)Anthracene	84	J
191-24-2	Benzo(g h. i)Perylene	230	J

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-07

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 5

Percent Moisture (decanted) 29.6

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	80 U
319-85-7	Beta-BHC	80 U
319-86-8	Delta-BHC	80 U
58-89-9	Gamma-BHC (Lindane)	80 U
76-44-8	Heptachlor	80 U
309-00-2	Aldrin	80 U
1024-57-3	Heptachlor Epoxide	80 U
959-98-8	Endosulfan I	80 U
60-57-1	Dieldrin	160 U
72-55-9	4,4'-DDE	290
72-20-8	Endrin	160 U
33213-65-9	Endosulfan II	160 U
72-54-8	4,4'-DDD	160 U
1031-07-8	Endosulfan Sulfate	160 U
50-29-3	4,4'-DDT	160 U
72-43-5	Methoxychlor	800 U
53494-70-5	Endrin Ketone	160 U
57-74-9	Chlordane	800 U
8001-35-2	Toxaphene	1600 U
12674-11-2	Aroclor-1016	800 U
11104-28-2	Aroclor-1221	800 U
11141-16-5	Aroclor-1232	800 U
53469-21-9	Aroclor-1242	800 U
12672-29-6	Aroclor-1248	800 U
11097-69-1	Aroclor-1254	1600 U
11096-82-5	Aroclor-1260	3800

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

Laboratory Name Ecology & Environment Inc.
Case No V-4465

Sample Number DC-SS-07

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)	
1.		HEXENE ISOMER	VOA	17.1	7	J
2.		UNKNOWN KETONE		19.5	5	BJ
3.		HEXANE ISOMER		21.2	27	BJ
4.						
5.		UNKNOWN	BNA	8.0	680	J
6.		UNKNOWN		22.9	230	J
7.		UNKNOWN HYDROCARBON		23.9	60	J
8.		UNKNOWN		26.3	150	J
9.		UNKNOWN		34.3	290	J
10.		UNKNOWN HYDROCARBON		35.4	750	J
11.		UNKNOWN		36.9	860	J
12.		UNKNOWN HYDROCARBON		37.1	1100	J
13.	59029	VITAMIN E		37.5	470	J
14.		UNKNOWN HYDROCARBON		38.8	370	J
15.		UNKNOWN		39.0	84	J
16.		UNKNOWN		39.2	1600	J
17.		UNKNOWN		39.6	410	J
18.		UNKNOWN		40.0	330	J
19.		~~STERIOD~~ STEROID		40.4	940	J
20.		UNKNOWN		40.8	88	J
21.		UNKNOWN		41.0	270	J
22.		UNKNOWN		41.4	100	J
23.		UNKNOWN		42.6	120	J
24.						
25.						
26.						
27.						
28.						
29.						
30.						

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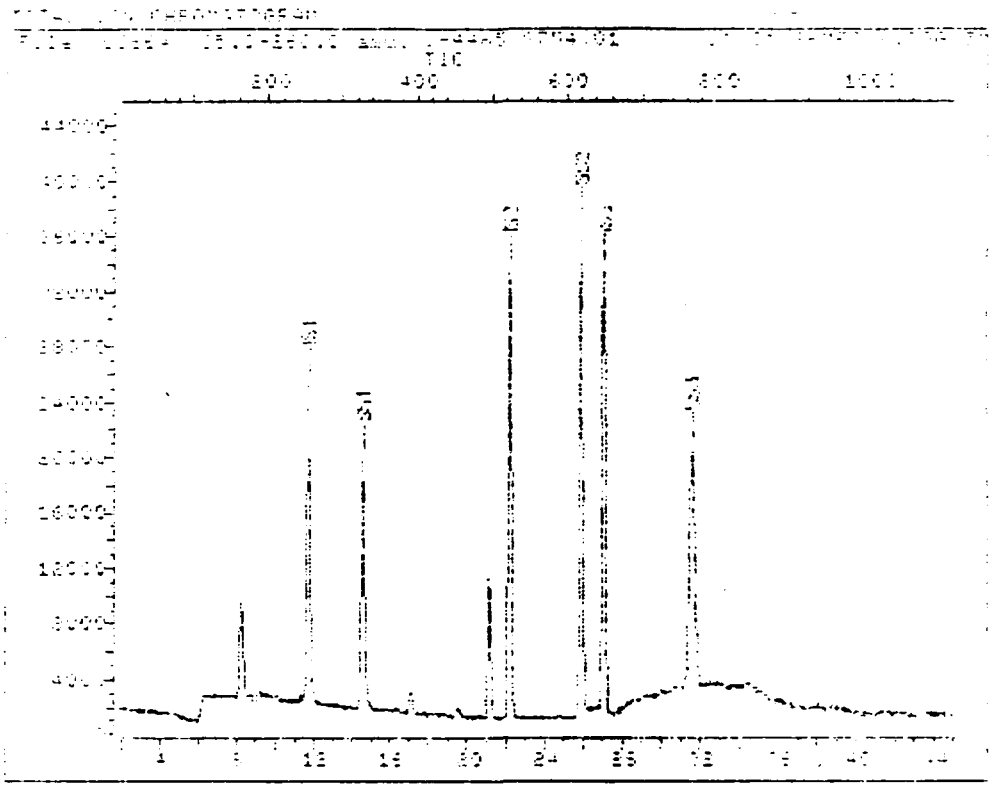
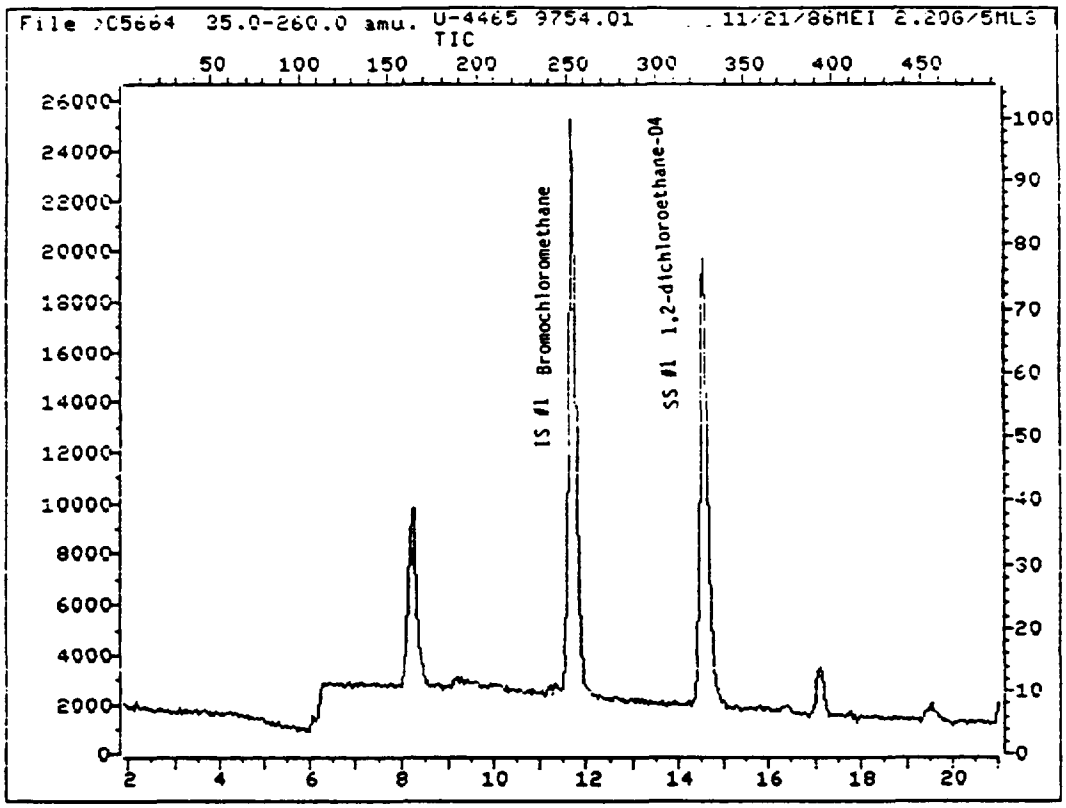


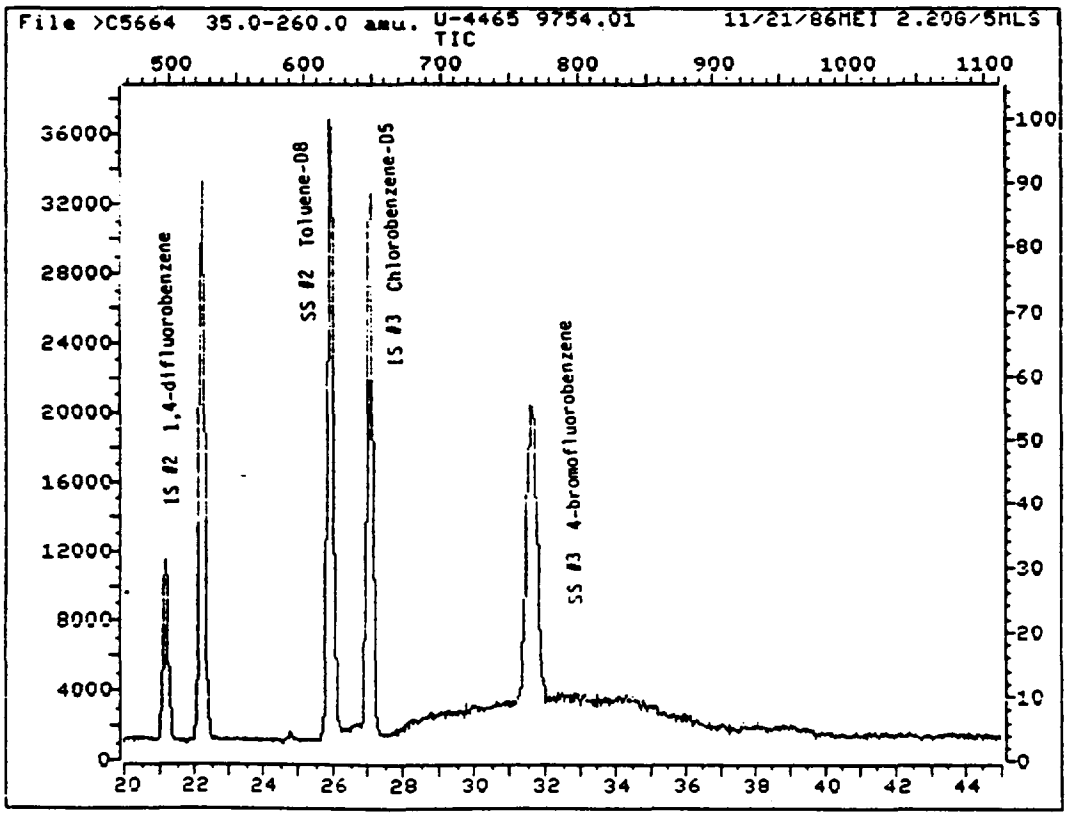
Data File: [illegible]
Name: U-4465 [illegible] DC-SS-07
Misc: 11/21/86 [illegible] 2.20G/5MLS [illegible]

In File: VOALPS::D2
Title: VOA ID FILE FOR HP-5995 [illegible]
Last Calibration: 861121 22:21

Operator ID: USER9
Quant Time: 861122 01:56
Injected at: 861122 01:10

DC-SS-07





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QUANT REPORT

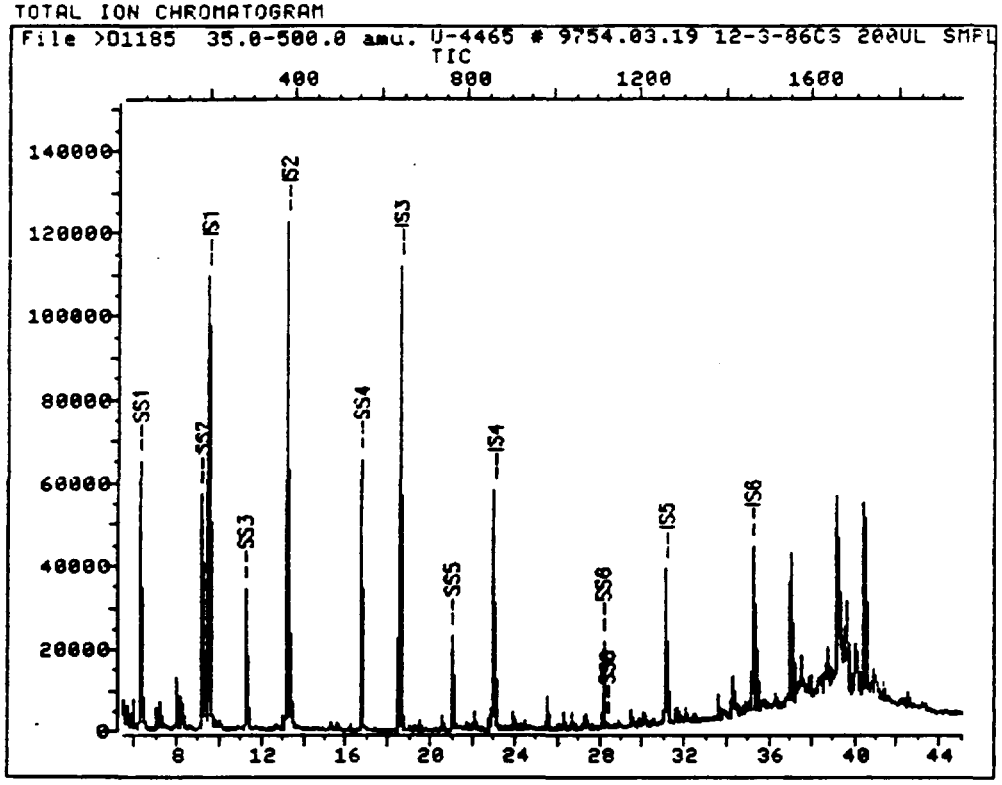
Operator ID: USER8 Quant Rev: 4 Quant Time: 861122 01:56
Output File: ^C5664::D2 Injected at: 861122 01:10
Data File: >C5664::D3 Dilution Factor: 1.00
Name: U-4465 9754.01 DC-SS-07
Misc: 11/21/86MEI 2.20G/5MLS DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 22:21

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.68	253	35436	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.23	164	20994	93.34	NGS	100
7)	ACETONE		43	9.20	189	3163	38.35	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.55	327	74826	199.08	NGS	87
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	524	144215	250.00	NGS	100
17)	2-BUTANONE		72	14.67	330	2952	77.93	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.05	649	102813	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.88	619	145622	251.89	NGS	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.60	766	62948	211.71	NGS	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >D1185::D3
Name: U-4465 # 9754.03.19 DC-SS-07
Misc: 12-3-86CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 2

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861203 14:16

Operator ID: USER6
Quant Time: 861203 17:00
Injected at: 861203 16:13

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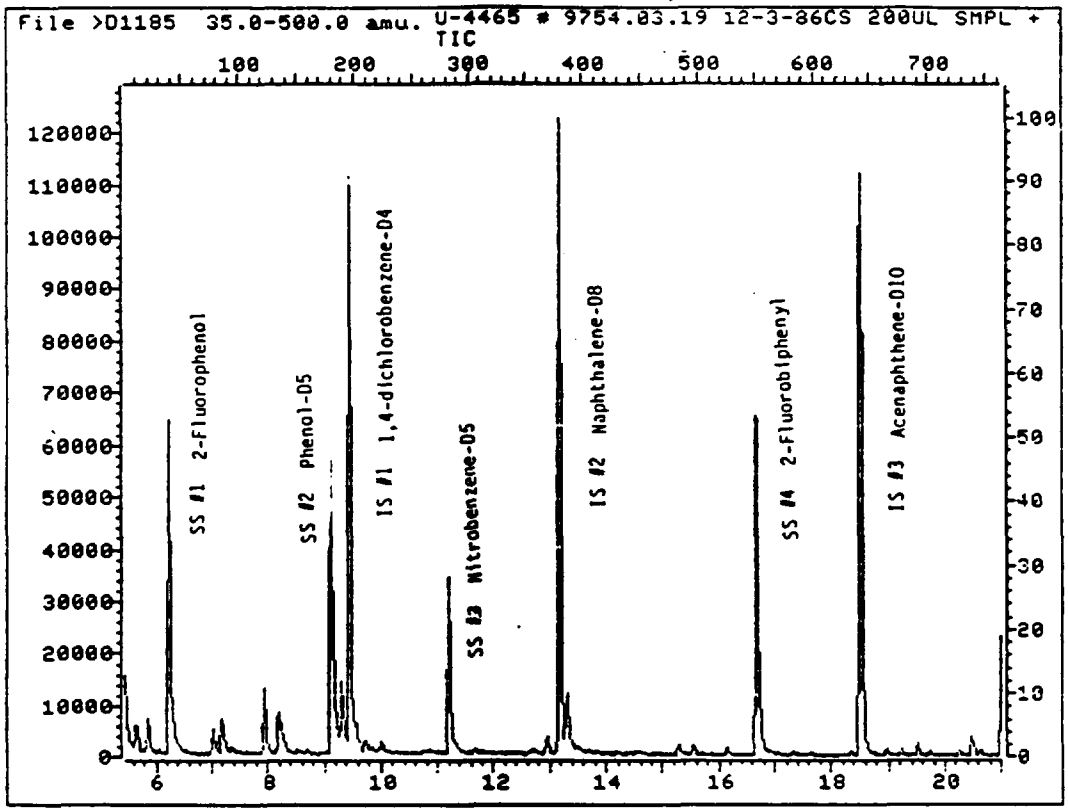
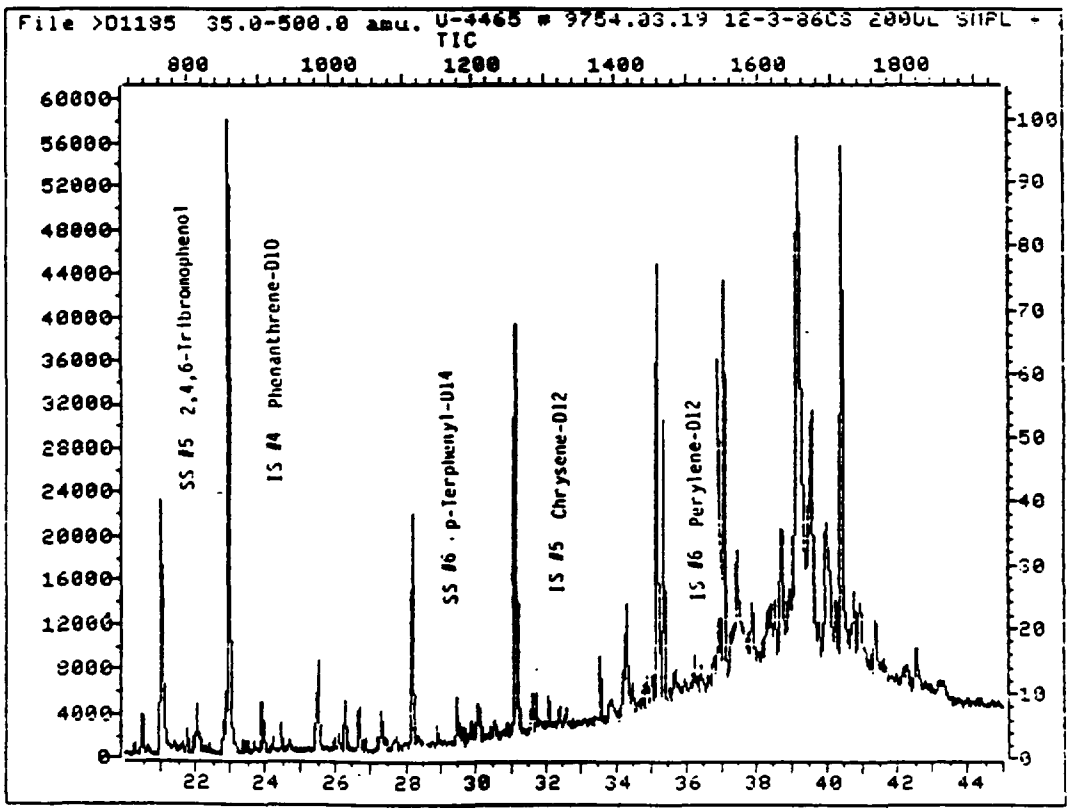
DC-SS-07





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861203 17:00
Output File: ^D1185::Q2 Injected at: 861203 16:13
Data File: >D1185::D3 Dilution Factor: 2.00
Name: U-4465 # 9754.03.19 DC-SS-07
Misc: 12-3-86CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 2

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861203 14:16

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.45	196	57289	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	9.12	180	67351	68.96	UG/L	98
5)	2-FLUOROPHENOL	(SURR)	112	6.23	38	51498	70.51	UG/L	96
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.30~~	~~238~~	~~451~~	~~.21~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.39~~	~~242~~	~~530~~	~~.25~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.73~~	~~259~~	~~440~~	~~.21~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.90~~	~~267~~	~~448~~	~~.21~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.08~~	~~276~~	~~560~~	~~.27~~	~~UG/L~~	100
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.22~~	~~283~~	~~6346~~	~~6.84~~	~~UG/L~~	86
19)	*NAPHTHALENE-D8	(IS)	136	13.18	379	188410	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.22	283	39506	43.64	UG/L	96
~~29)~~	~~NAPHTHALENE~~		~~128~~	~~13.24~~	~~382~~	~~652~~	~~.31~~	~~UG/L~~	100
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.38~~	~~487~~	~~367~~	~~.24~~	~~UG/L~~	95
34)	*ACENAPHTHENE-D10	(IS)	162	18.54	642	78889	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.68	551	84754	56.21	UG/L	91
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.54~~	~~642~~	~~24666~~	~~15.26~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.00	763	18735	61.15	UG/L	91
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.54~~	~~642~~	~~9920~~	~~29.69~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.96	859	86798	40.00	UG/L	92
63)	DI-N-BUTYLPHTHALATE		149	25.52	985	11415	9.73	UG/L	96
64)	FLUORANTHENE		202	26.69	1042	7606	10.07	UG/L	94
65)	*CHRYSENE-D12	(IS)	240	31.11	1259	58742	40.00	UG/L	100
67)	PYRENE		202	27.30	1072	6623	6.03	UG/L	92
68)	TERPHENYL-D14	(SURR)	244	28.15	1114	28609	40.43	UG/L	100
~~68)~~	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~28.34~~	~~1123~~	~~152~~	~~.21~~	~~UG/L~~	100
69)	BUTYLBENZYLPHTHALATE		149	30.05	1207	460	.96	UG/L	66
71)	BENZO(A)ANTHRACENE		228	31.07	1257	3211	4.65	UG/L	93
~~71)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.17~~	~~1262~~	~~4825~~	~~6.99~~	~~UG/L~~	93
~~72)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~31.70~~	~~1292~~	~~1141~~	~~1.70~~	~~UG/L~~	97
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.09	1307	2298	3.58	UG/L	94
~~73)~~	~~CHRYSENE~~		~~228~~	~~31.07~~	~~1257~~	~~3211~~	~~4.32~~	~~UG/L~~	92
73)	CHRYSENE		228	31.17	1262	4825	6.50	UG/L	92
74)	*PERYLENE-D12	(IS)	264	35.17	1458	63213	40.00	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.90~~	~~1396~~	~~643~~	~~.50~~	~~UG/L~~	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.17~~	~~1409~~	~~227~~	~~.18~~	~~UG/L~~	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.27~~	~~1414~~	~~372~~	~~.29~~	~~UG/L~~	100
76)	BENZO(B)FLUORANTHENE		252	34.21	1411	10457	12.73	UG/L	100
~~76)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.48~~	~~1424~~	~~956~~	~~1.16~~	~~UG/L~~	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.21~~	~~1411~~	~~10457~~	~~10.95~~	~~UG/L~~	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.48~~	~~1424~~	~~956~~	~~1.00~~	~~UG/L~~	100
~~78)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.88~~	~~1444~~	~~4446~~	~~5.50~~	~~UG/L~~	100
78)	BENZO(A)PYRENE		252	35.03	1451	3140	3.89	UG/L	100
~~8)~~	~~BENZO(A)PYRENE~~		~~252~~	~~35.23~~	~~1461~~	~~1756~~	~~2.17~~	~~UG/L~~	100
~~79)~~	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~37.58~~	~~1576~~	~~882~~	~~1.20~~	~~UG/L~~	100
79)	INDENO(1,2,3-CD)PYRENE		276	37.78	1586	4248	5.80	UG/L	100
~~79)~~	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~38.09~~	~~1601~~	~~205~~	~~.28~~	~~UG/L~~	100

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
~~9)~~	~~INDENO(1,2,3-CD)PYRENE~~	~~276~~	~~38.17~~	~~1605~~	~~190~~	~~.26~~	~~UG/L~~	100
~~80)~~	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~37.60~~	~~1577~~	~~930~~	~~1.27~~	~~UG/L~~	100
~~80)~~	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~37.70~~	~~1586~~	~~209~~	~~.28~~	~~UG/L~~	100
80)	DIBENZ(A,H)ANTHRACENE	278	37.87	1590	1293	1.76	UG/L	100
~~80)~~	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~38.11~~	~~1602~~	~~566~~	~~.77~~	~~UG/L~~	100
~~80)~~	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~38.19~~	~~1606~~	~~875~~	~~1.19~~	~~UG/L~~	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.09~~	~~1601~~	~~205~~	~~.25~~	~~UG/L~~	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.17~~	~~1605~~	~~170~~	~~.23~~	~~UG/L~~	100
81)	BENZO(G,H,I)PERYLENE	276	38.32	1612	3919	4.79	UG/L	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.40~~	~~1620~~	~~139~~	~~.17~~	~~UG/L~~	100

* Compound is ISTD

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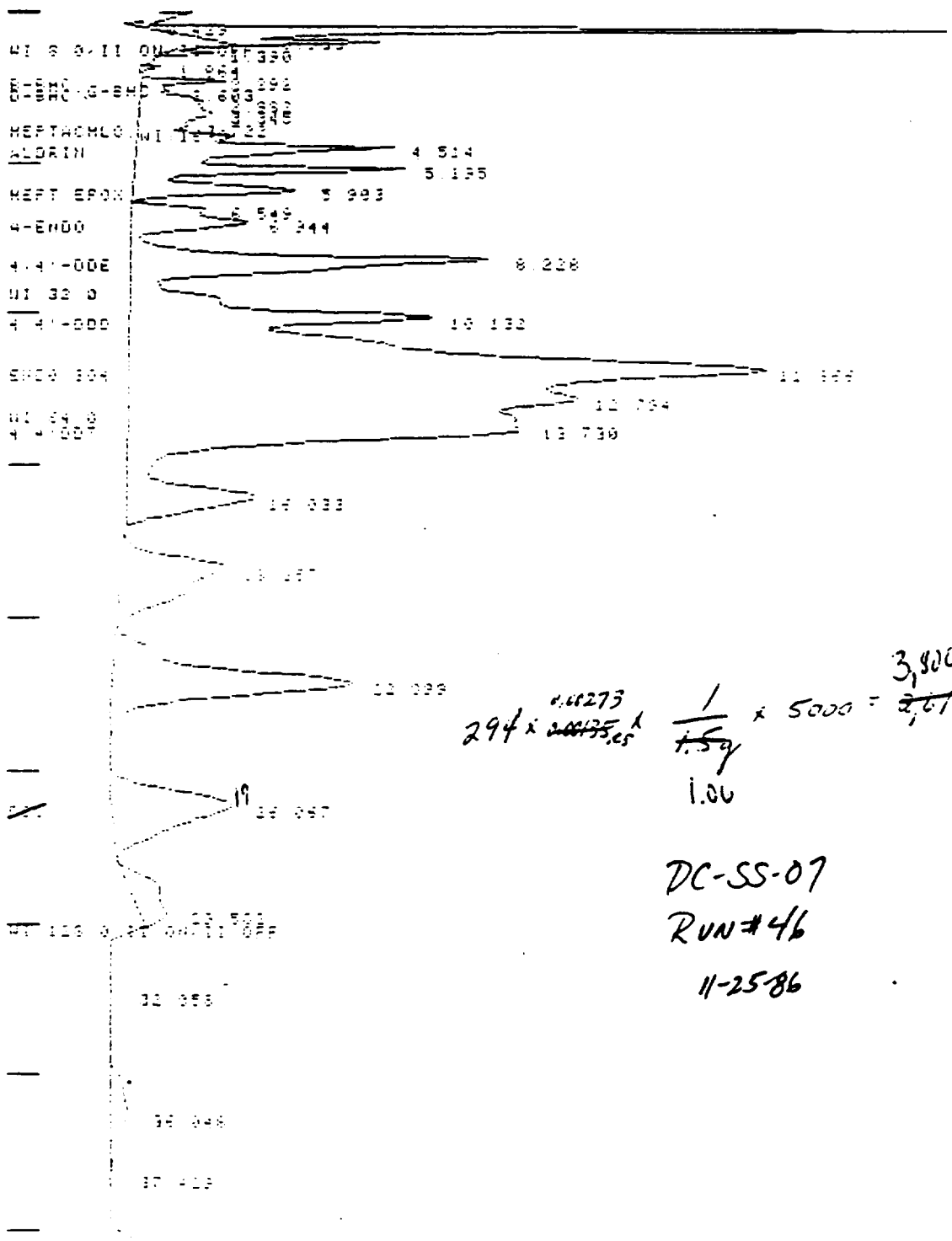
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



$294 \times \frac{0.00273}{\cancel{0.00135}\ .65} \times \frac{1}{\cancel{1.5g}\ 1.00} \times 5000 = \cancel{2,675}\ 3,800$ ug/kg 1266

DC-SS-07
RUN #46
11-25-86

CHANNEL: 1A - 1 TITLE: RUN# ~~33~~ 46 22:07 25 NOV 85

SAMPLE: 9754 PF=5 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.390		25846	BB	5.19
2	~~B-BHC~~	25.3449	2.292	0.092	66517	BV	6.83
3	~~B-BHC~~	3.3659	2.603	0.113	20375	VV	? 8.75
4		0.0000	2.982		108428	VV	? 15.94
5		0.0000	3.345		226231	VV	? 31.63
6	~~HEPTACHLO~~	9.9075	3.722	-0.118	52097	VV	?
7		0.0000	4.129		151931	VV	? 14.55
8	~~ALDRIN~~	88.1805	4.514	-0.226	554411	VV	18.94
9		0.0000	5.195		420304	VV	12.94
10	~~HEPT-EPOX~~	55.6220	5.903	0.143	325964	VV	19.25
11		0.0000	6.549		110894	VV	? 16.25
12	~~A-ENDO~~	55.2171	6.944	-0.206	305308	VV	? 30.58
CONFIRM 13	4,4'-DDE 290	202.3905	8.228	0.008	1144227	VV	31.44
14	~~4,4'-DDD~~	231.0725	10.132	-0.198	1178065	VV	30.75
15	~~ENDO-SO4~~	1073.683	11.866	-0.244	4439095	VV	? 66.19
16		0.0000	12.794		1766900	VV	? 93.00
17	~~4,4'-DDT~~	920.1022	13.730	0.260	2371280	VV	? 93.63
18	~~END-KETON~~	106.1332	16.033	0.513	639667	VB	46.94
1260 19		0.0000	16.357	294	832779	BV	83.88
20		0.0000	22.099		1473711	VB	50.31
21	~~DDD~~	200.5555	26.067	-0.953	907510	BV	77.00
22		0.0000	29.582		255645	VB	?145.33
23		0.0000	32.058		93603	BV	? 50.31
24		0.0000	35.048		440217	VV	?179.13
25		0.0000	37.429		83196	VV	?175.55

TOTALS: 2973.579 -0.829 17994204

DETECTED PKS. 24 REJECTED PKS. 9

DIVISOR: 1.50000 MULTIPLIER: 5000.00000

NOISE: 194.3 OFFSET: -21

NOTES:
NOTEBOOK:258-41 ANALYST: K.JUREK/R.SAMSON
SECURE AREA: D JOB#:U-4485 DC-SS-07
INST:VARIAN 5000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 14 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: RAW SL:508

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SAMPLE NUMBER DC-SS-08

481095

Sample Number
DC-SS-08

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9755 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-25-86
Conc./Dil Factor: 3 pH 7.7
Percent Moisture: (Not Decanted) 13

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	27B
67-64-1	Acetone	30u
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	37B
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	18B
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single-component pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No V-4465

Sample Number DC-SS-08

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-3-86

Conc/Dil Factor 2

Percent Moisture (Decanted) 13

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	380	U
111-44-4	bis(-2-Chloroethyl)Ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1 3-Dichlorobenzene	380	U
106-46-7	1 4-Dichlorobenzene	380	U
100-51-6	Benzyl Alcohol	380	U
95-50-1	1 2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
39638-32-9	bis(2-chloroisopropyl)Ether	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-Di-n-Propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2, 4-Dimethylphenol	380	U
65-85-0	Benzoic Acid	1800	U
111-91-1	bis(-2-Chloroethoxy)Methane	380	U
120-83-2	2 4-Dichlorophenol	380	U
120-82-1	1 2, 4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-Methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2 4 6-Trichlorophenol	380	U
95-95-4	2, 4, 5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethyl Phthalate	380	U
208-96-8	Acenaphthylene	380	U
99-09-2	3-Nitroaniline	1800	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	380	U
51-28-5	2, 4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	380	U
121-14-2	2 4-Dinitrotoluene	380	U
606-20-2	2 6-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4, 6-Dinitro-2-Methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
84-74-2	Di-n-Butylphthalate	320	BJ
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3, 3'-Dichlorobenzidine	760	U
56-55-3	Benzo(a)Anthracene	380	U
117-81-7	bis(2-Ethylhexyl)Phthalate	140	J
218-01-9	Chrysene	380	U
117-84-0	Di-n-Octyl Phthalate	380	U
205-99-2	Benzo(b)Fluoranthene	380	U
207-08-9	Benzo(k)Fluoranthene	160	J
50-32-8	Benzo(a)Pyrene	47	J
193-39-5	Indeno(1 2, 3-cd)Pyrene	380	U
53-70-3	Dibenz(a h)Anthracene	380	U
191-24-2	Benzo(g h, i)Perylene	380	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-08

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-26-86

Conc/Dil Factor 2

Percent Moisture (decanted) 13.1

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	32 U
319-85-7	Beta-BHC	32 U
319-86-8	Delta-BHC	32 U
58-89-9	Gamma-BHC (Lindane)	32 U
76-44-8	Heptachlor	32 U
309-00-2	Aldrin	32 U
1024-57-3	Heptachlor Epoxide	32 U
959-98-8	Endosulfan I	32 U
60-57-1	Dieldrin	64 U
72-55-9	4,4'-DDE	84
72-20-8	Endrin	64 U
33213-65-9	Endosulfan II	64 U
72-54-8	4,4'-DDD	64 U
1031-07-8	Endosulfan Sulfate	64 U
50-29-3	4,4'-DDT	64 U
72-43-5	Methoxychlor	320 U
53494-70-5	Endrin Ketone	64 U
57-74-9	Chlordane	320 U
8001-35-2	Toxaphene	640 U
12674-11-2	Aroclor-1016	320 U
11104-28-2	Aroclor-1221	320 U
11141-16-5	Aroclor-1232	320 U
53469-21-9	Aroclor-1242	320 U
12672-29-6	Aroclor-1248	320 U
11097-69-1	Aroclor-1254	1430
11096-82-5	Aroclor-1260	1830

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number
DC-SS-08

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Unknown Ketone	VOA	19.5	7BJ
2.	Hexane Isomer	VOA	21.2	9BJ
3.				
4.	UNKNOWN HYDROCARBON	BNA	5.5	900 J
5.	UNKNOWN HYDROCARBON		5.7	660 J
6.	UNKNOWN		7.0	1100 BJ
7.	UNKNOWN		9.2	870 J
8.	UNKNOWN HYDROCARBON		31.6	160 J
9.	UNKNOWN HYDROCARBON		33.5	290 J
10.	UNKNOWN HYDROCARBON		34.5	120 J
11.	UNKNOWN HYDROCARBON		35.4	560 J
12.	UNKNOWN HYDROCARBON		37.1	500 J
13.	UNKNOWN HYDROCARBON		38.8	220 J
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

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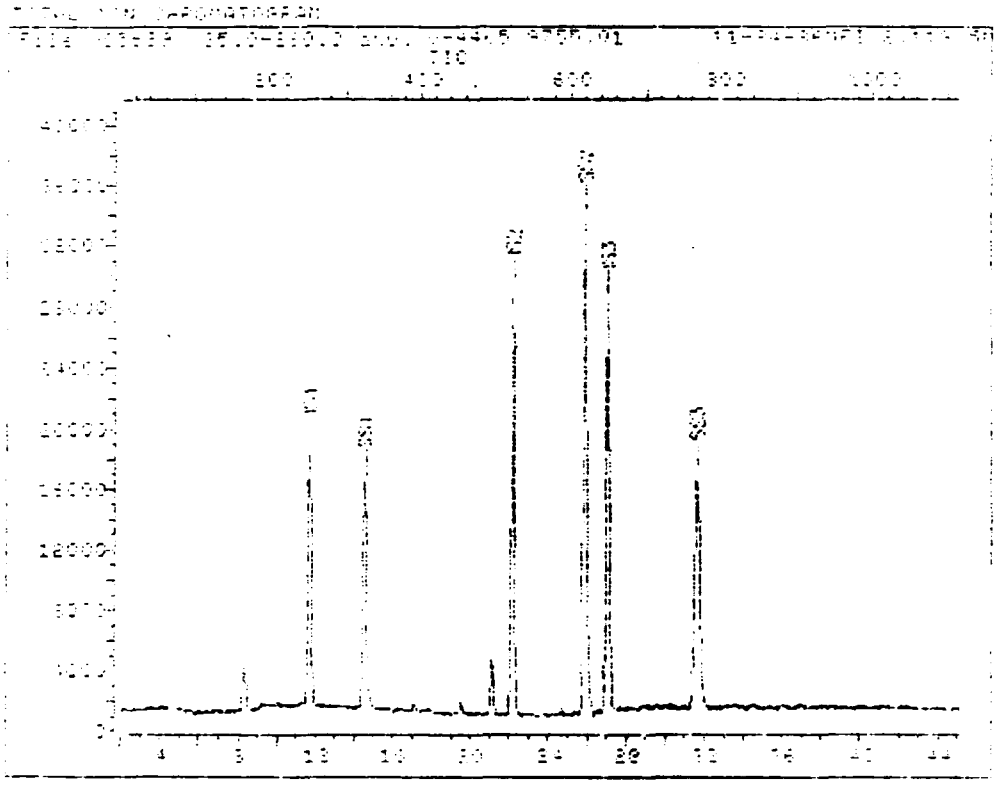
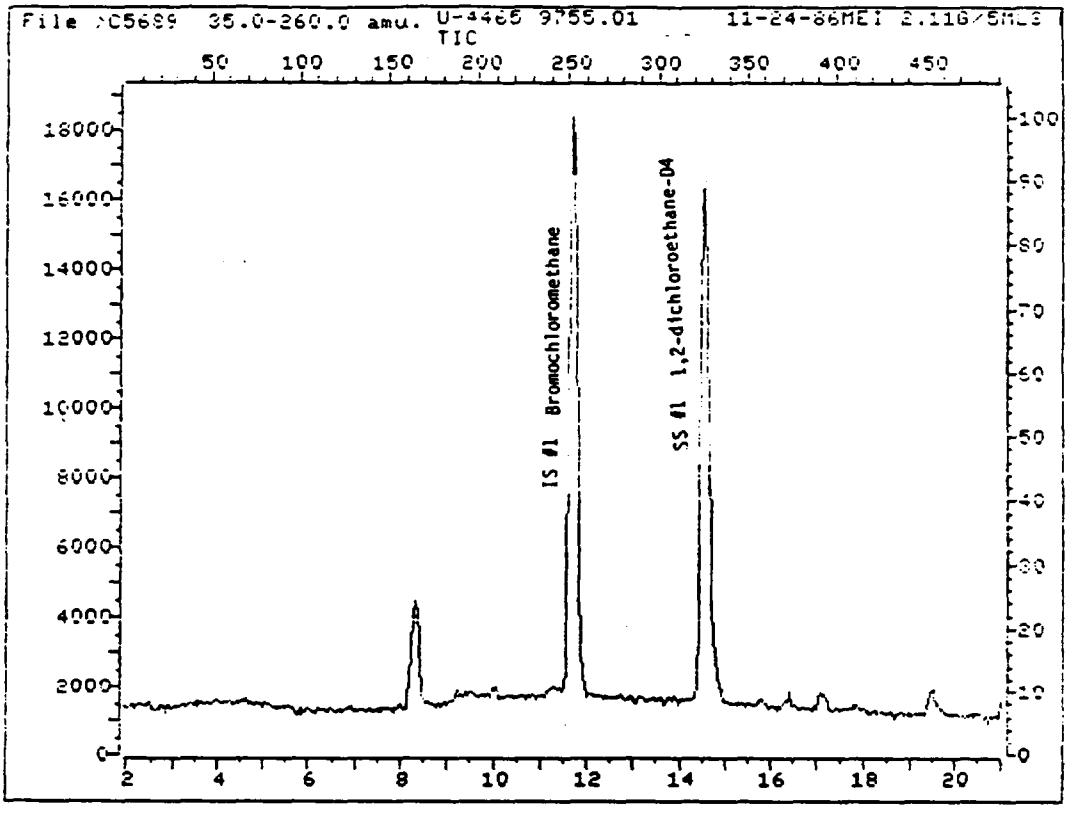


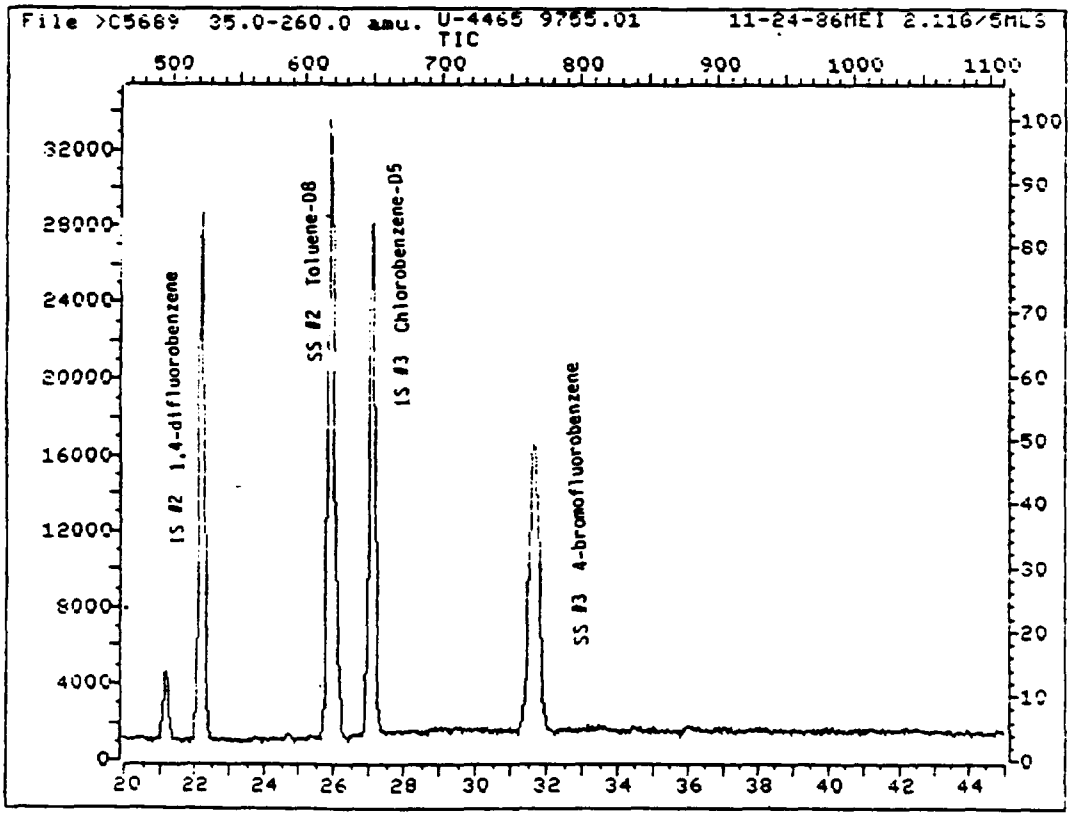
Data File: [illegible]
Name: U-4465 [illegible] DC-SS-08
Misc: 11-24-86MCI 2.11G/5MLS DI + 10UL IS SS

In File: QUALYS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861124 03:52

Operator ID: [illegible]
Quant Time: 861125 03:23
Injected at: 861125 02:37

DC-SS-08





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QUANT REPORT

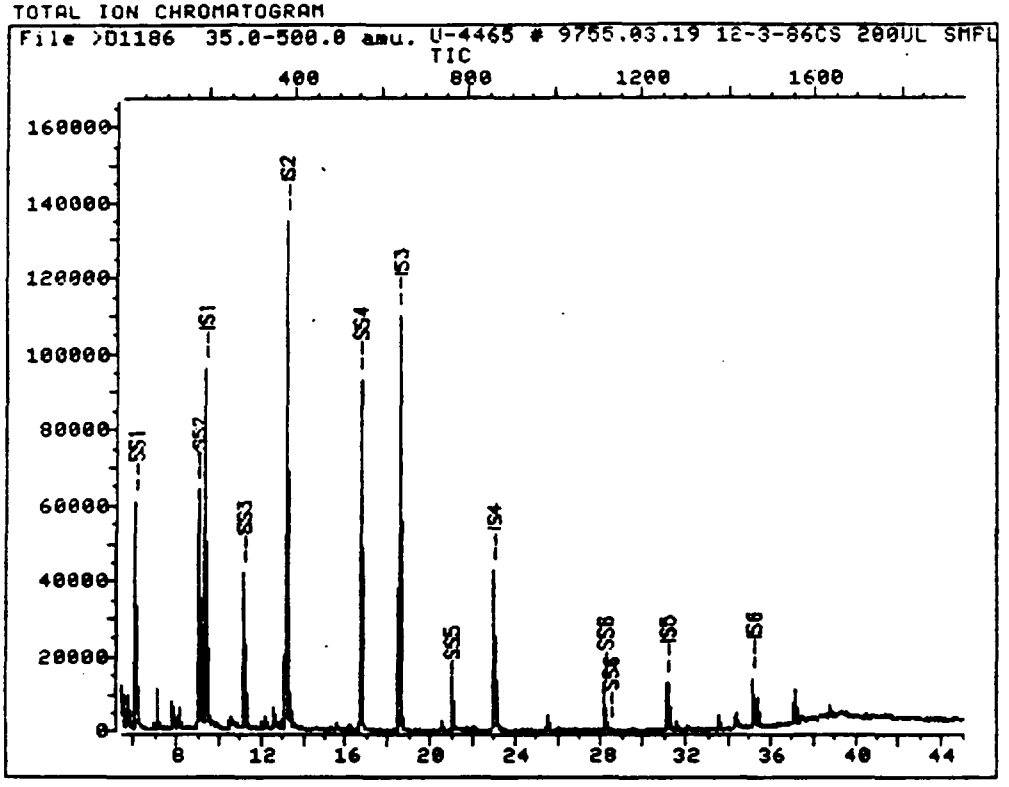
Operator ID: USER6 Quant Rev: 4 Quant Time: 861125 03:23
Output File: ^C5689::Q2 Injected at: 861125 02:37
Data File: >C5689::D3 Dilution Factor: 1.00
Name: U-4465 9755.01 DC-SS-08
Misc: 11-24-86MEI 2.11G/5MLS DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861124 23:52

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.68	252	24394	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	9.31	165	7435	48.74	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	325	60688	240.36	NGS 96	85
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	523	116468	250.00	NGS	100
17)	2-BUTANONE		72	14.67	329	2968	69.38	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.05	649	85832	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.88	619	125708	257.73	NGS 103	94
37)	TOLUENE		92	26.08	623	12623	32.77	NGS	97
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.64	766	53988	223.62	NGS 90	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >D1186::D3
Name: U-4465 # 9755.03.19 DC-SS-08
Misc: 12-3-86CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861203 14:16

Operator ID: USER6
Quant Time: 861203 18:00
Injected at: 861203 17:13

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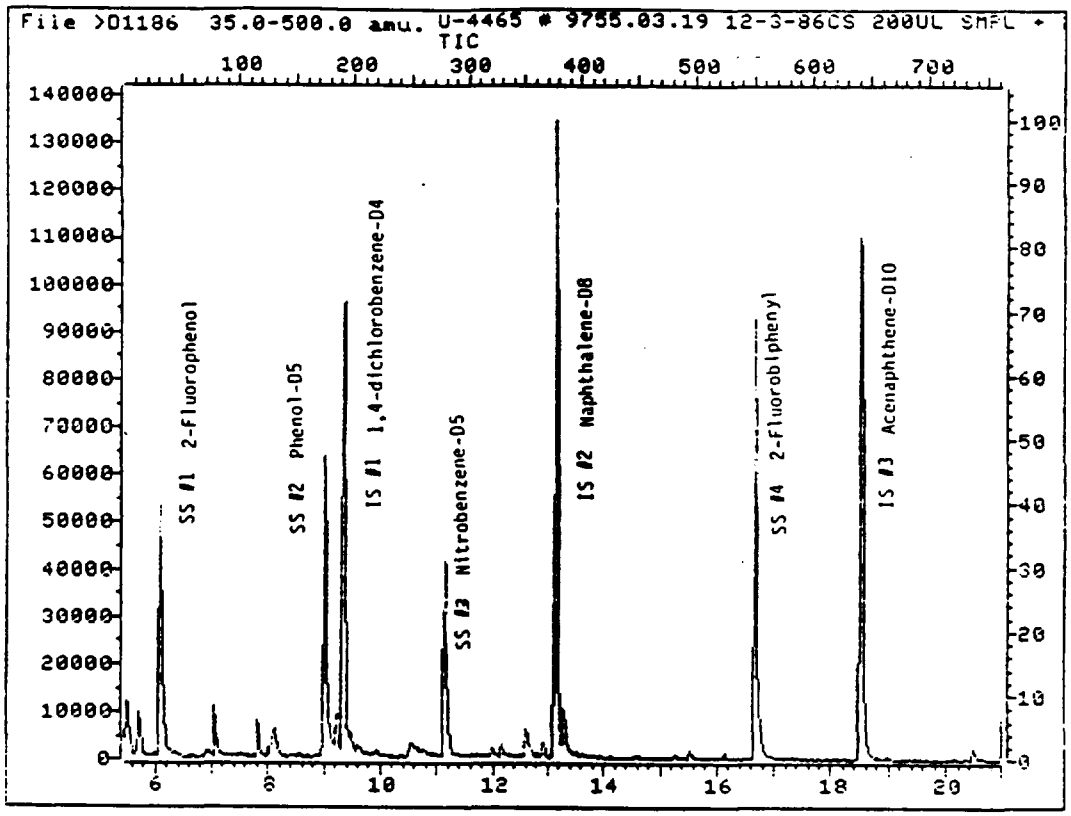
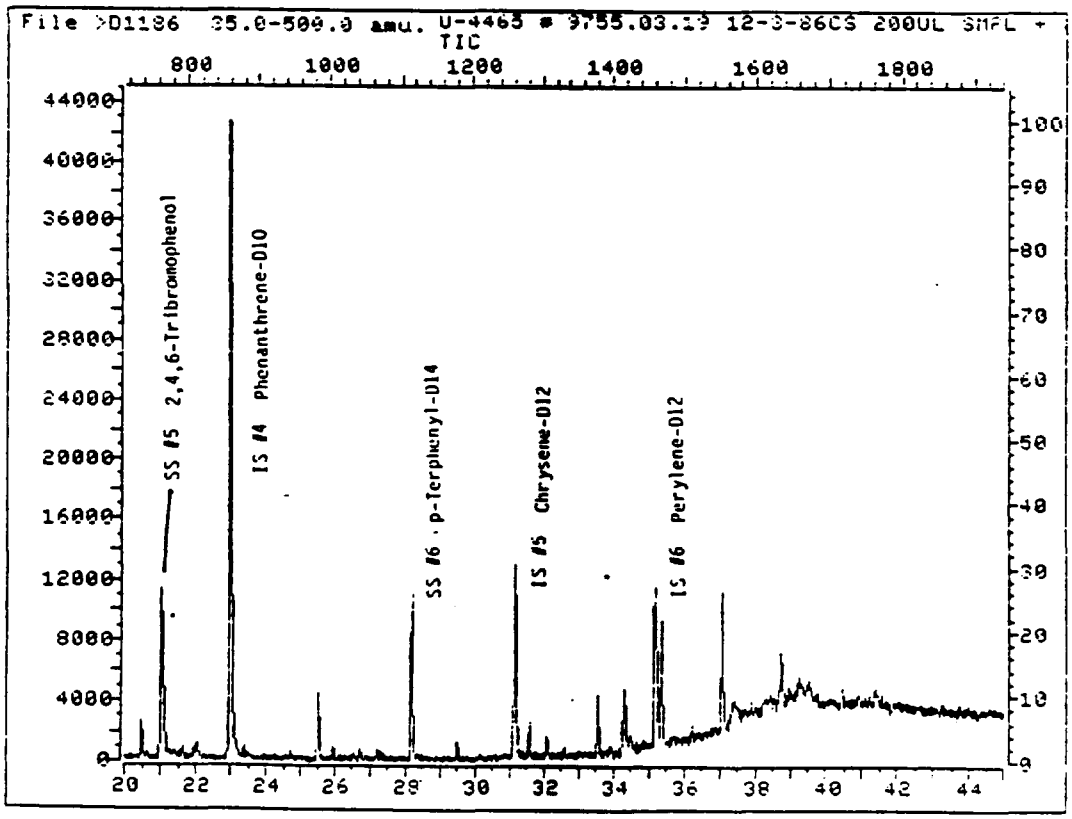
DC-SS-08





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861203 18:00
Output File: ^D1186::Q2 Injected at: 861203 17:13
Data File: >D1186::D3 Dilution Factor: 2.00
Name: U-4465 # 9755.03.19 DC-SS-08
Misc: 12-3-86CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 3

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861203 14:16

	Compound		m/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.34	191	53820	40.00	UG/L	89
2)	PHENOL-D5	(SURR)	99	9.02	175	71056	77.44	UG/L	91
5)	2-FLUOROPHENOL	(SURR)	112	6.08	31	45450	66.24	UG/L	94
~~12)~~	~~1,2-DICHLOROBENZENE~~		~~146~~	~~9.93~~	~~220~~	~~221~~	~~.23~~	~~UG/L~~	88
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.53~~	~~249~~	~~271~~	~~.14~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.69~~	~~252~~	~~332~~	~~.17~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.71~~	~~258~~	~~129~~	~~.06~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.03~~	~~274~~	~~173~~	~~.09~~	~~UG/L~~	100
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.16~~	~~280~~	~~7572~~	~~8.68~~	~~UG/L~~	91
19)	*NAPHTHALENE-D8	(IS)	136	13.15	378	187509	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.14	279	45119	50.08	UG/L	97
~~29)~~	~~NAPHTHALENE~~		~~128~~	~~13.19~~	~~380~~	~~793~~	~~.38~~	~~UG/L~~	100
34)	*ACENAPHTHENE-D10	(IS)	162	18.51	641	85035	40.00	UG/L	96
38)	2-FLUOROBIPHENYL	(SURR)	172	16.68	551	103605	63.75	UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.53~~	~~642~~	~~27002~~	~~15.50~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.00	763	10674	32.32	UG/L	98
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.51~~	~~641~~	~~10859~~	~~30.15~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.95	859	81993	40.00	UG/L	91
63)	DI-N-BUTYLPHTHALATE		149	25.52	985	9259	8.35	UG/L	92
65)	*CHRYSENE-D12	(IS)	240	31.12	1260	29955	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.17	1115	20626	57.16	UG/L	100
~~69)~~	~~TERPHENYL-D14~~	(SURR)	~~244~~	~~28.45~~	~~1129~~	~~172~~	~~.48~~	~~UG/L~~	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.10	1308	1240	3.79	UG/L	99
74)	*PERYLENE-D12	(IS)	264	35.17	1459	29810	40.00	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.91~~	~~1397~~	~~204~~	~~.34~~	~~UG/L~~	100
~~76)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.24~~	~~1413~~	~~1922~~	~~4.96~~	~~UG/L~~	100
77)	BENZO(K)FLUORANTHENE		252	34.24	1413	1922	4.27	UG/L	100
~~78)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.91~~	~~1446~~	~~793~~	~~2.06~~	~~UG/L~~	100
78)	BENZO(A)PYRENE		252	35.03	1452	465	1.22	UG/L	100
~~79)~~	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~37.03~~	~~1589~~	~~577~~	~~1.67~~	~~UG/L~~	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~37.03~~	~~1589~~	~~577~~	~~1.49~~	~~UG/L~~	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~38.34~~	~~1614~~	~~224~~	~~.58~~	~~UG/L~~	100

* Compound is ISTD

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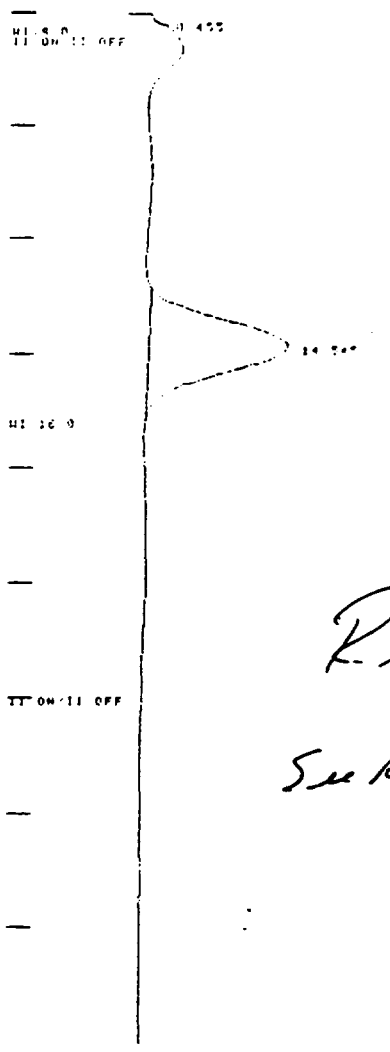
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN TIL



Rerun - AUTOSAMPLER ERROR
B/PL

See Run 53

CHANNEL: 1A - 1 TITLE: RUN# 49 [illegible] 26 NOV 85

SAMPLE: 9755 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	14.545		[illegible]	[illegible]	[illegible]

TOTALS: 0.0000 [illegible]

DC-SS-08

DETECTED PKS: 5 REJECTED PKS: 4

DIVISOR: 1.50000 MULTIPLIER: 2000.[illegible]

NOISE: 57.1 OFFSET: 27

RACK: 1 VIAL: 2 INJ: 1

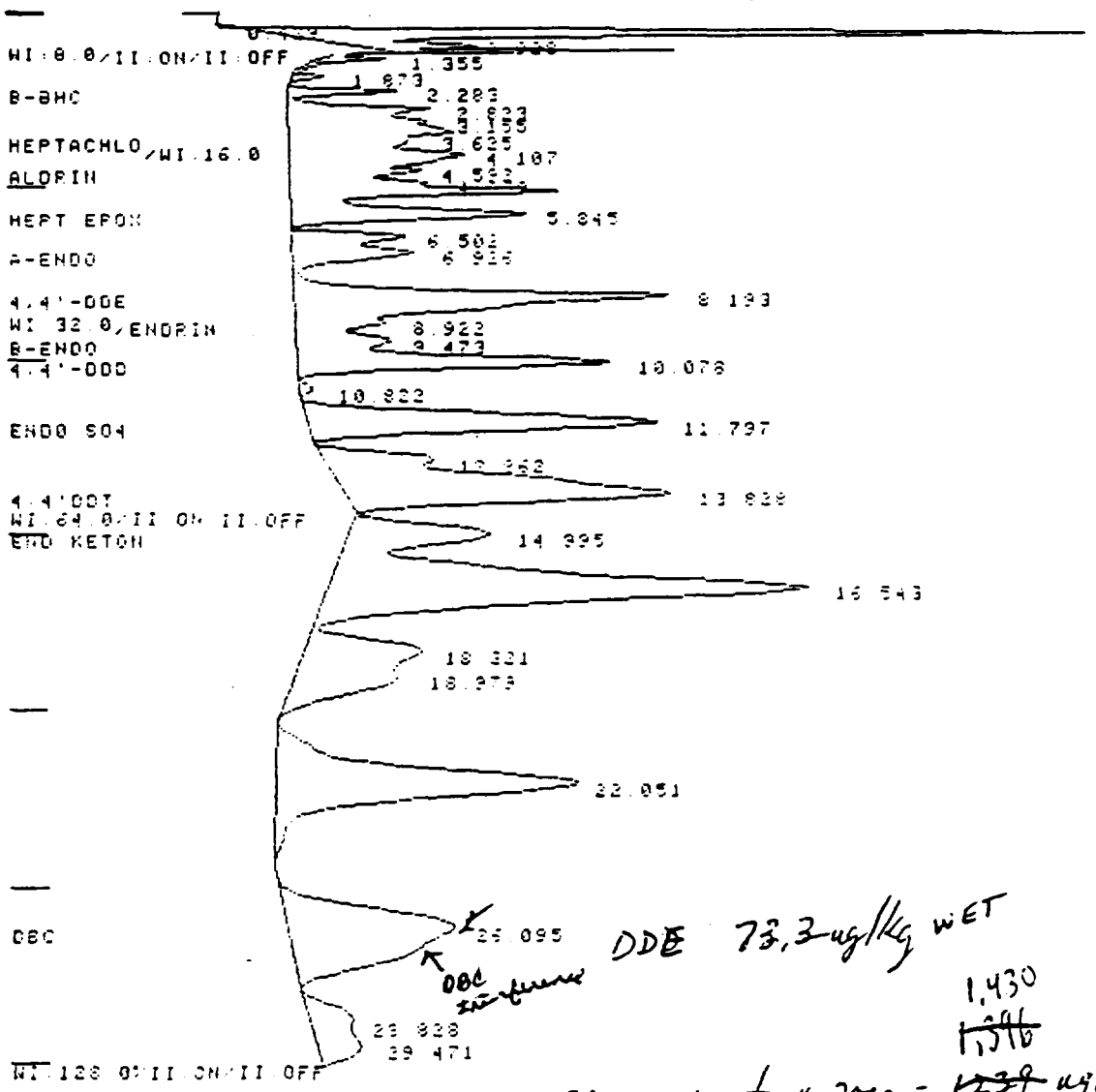
NOTES:
NOTEBOOK:259-41 ANALYST: K.JUREK/R.S-MSCN
SECURE AREA: D JOB#:U-4455
INST:VARIAN 6000#2 A ECD 10-1
COLUMN: 6' GLASS 4MM ID 100 120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:320 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
[illegible]

215

DC-SS-08
RUN #53
11-26-86

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DDE 73.3 ug/kg WET

313.0 x 0.0257 x $\frac{1}{\cancel{1.5}\ 1.3}$ x 2000 = ~~1,239~~ ~~1,396~~ 1,430 ug/kg 1254

207 x .00575 x $\frac{1}{\cancel{1.5}\ 1.3}$ x 2000 = ~~1,587~~ 1,831 ug/kg 1260

216

RECALCULATE ON FILE: SLY515

CHANNEL: 1A - 1 TITLE: RUN# ~~57~~ 53 10:41 26 NOV 86

DF=2

SAMPLE: 9755.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.355		32314	BV	5.06
2	~~A BHC~~	1.3163	1.873	-0.197	23481	VB	8.00
3	~~B BHC~~	13.4148	2.283	0.083	88017	BV	8.19
4		0.0000	2.623		212248	VV	? 11.13
5		0.0000	3.155		131690	VV	? 15.69
6		0.0000	3.445		294012	VV	? 25.94
7		0.0000	3.625		70620	VV	?
8	~~HEPTACHLO~~	7.2710	3.744	-0.096	95583	VV	?
9		0.0000	4.107		412679	VV	? 37.25
10	~~ALDRIN~~	10.8216	4.592	-0.148	170094	VV	? 20.94
11		0.0000	4.939		126688	VV	? 17.75
12		0.0000	5.150		334386	VV	14.06
13	~~HEPT EPOX~~	31.3063	5.845	0.085	458664	VV	20.88
14		0.0000	6.502		165236	VV	? 15.00
15	~~A ENDO~~	18.2369	6.926	-0.224	252090	VV	? 28.75
16	4,4'-DDE	73.3616	8.193	-0.027	1036866	VV	33.50
17	~~ENDRIN~~	18.0367	8.922	-0.358	191537	VV	? 43.69
18	~~B ENDO~~	15.2087	9.473	-0.007	186805	VV	? 25.88
19	~~4,4' DDD~~	51.0161	10.078	-0.252	650232	VV	23.83
20	~~ENDO SO4~~	93.3626	11.797	-0.313	956009	VV	33.38
21		0.0000	12.862		219972	VV	? 33.53
22	~~4,4'DDT~~	202.2491	13.828	0.358	1303087	VB	54.44
23	~~END KETON~~	31.6642	14.995	-0.525	458277	BV	38.44
24		0.0000	16.543		2230050	VV	45.44
25		0.0000	18.321		508422	VV	? 42.56
26	~~METHOXYCH~~	88.8550	~~18.878~~	-0.831	~~[illegible]~~	VV	? 32.13
27		0.0000	22.051		1556069	VB	51.55
28	~~DDT~~ INF	114.3201	26.095	-0.835	1300000	BV	102.34
29		0.0000	28.828		135148	VV	? 33.23
30		0.0000	29.471		179350	VB	?1023.21
TOTALS:		771.0509		-3.387	14156448		

DETECTED PKS: 40 REJECTED PKS: 10

DIVISOR: 1.50000 MULTIPLIER: 2000.00000

NOISE: 34.3 OFFSET: -8

NOTES:
NOTEBOOK:259-41 ANALYST: K.JUREK/R.SAMSON
SECURE AREA: D JOB#:U-4465 DC-SS-08
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C. INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

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SAMPLE NUMBER DC-SS-09

481095

Sample Number
DC-SS-09

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465

Lab Sample ID No: 9756 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-22-86

Conc./Dil Factor: 3 pH 7.1

Percent Moisture: (Not Decanted) 30

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	51 B
67-64-1	Acetone	55 B
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	57 B
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	9 J
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	22
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No V-4465

Sample Number DC-SS-09

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed: 12-1-86

Conc./Dil Factor: 10

Percent Moisture (Decanted) 30

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	2400	U
111-44-4	bis(-2-Chloroethyl)Ether	2400	U
95-57-8	2-Chlorophenol	2400	U
541-73-1	1 3-Dichlorobenzene	2400	U
106-46-7	1, 4-Dichlorobenzene	2400	U
100-51-6	Benzyl Alcohol	2400	U
95-50-1	1 2-Dichlorobenzene	2400	U
95-48-7	2-Methylphenol	2400	U
39638-32-9	bis(2-chloroisopropyl)Ether	2400	U
106-44-5	4-Methylpheno	2400	U
621-64-7	N-Nitroso-Di-n-Propylamine	2400	U
67-72-1	Hexachloroethane	2400	U
98-95-3	Nitrobenzene	2400	U
78-59-1	Isophorone	2400	U
88-75-5	2-Nitrophenol	2400	U
105-67-9	2, 4-Dimethylphenol	2400	U
65-85-0	Benzoic Acid	11000	U
111-91-1	bis(-2-Chloroethoxy)Methane	2400	U
120-83-2	2 4-Dichlorophenol	2400	U
120-82-1	1 2, 4-Trichlorobenzene	2400	U
91-20-3	Naphthalene	810	J
106-47-8	4-Chloroaniline	2400	U
87-68-3	Hexachlorobutadiene	2400	U
59-50-7	4-Chloro-3-Methylphenol	2400	U
91-57-6	2-Methylnaphthalene	2400	U
77-47-4	Hexachlorocyclopentadiene	2400	U
88-06-2	2 4 6-Trichlorophenol	2400	U
95-95-4	2, 4, 5-Trichlorophenol	11000	U
91-58-7	2-Chloronaphthalene	2400	U
88-74-4	2-Nitroaniline	11000	U
131-11-3	Dimethyl Phthalate	2400	U
208-96-8	Acenaphthylene	2400	U
99-09-2	3-Nitroaniline	11000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2400	U
51-28-5	2, 4-Dinitrophenol	11000	U
100-02-7	4-Nitrophenol	11000	U
132-64-9	Dibenzofuran	2400	U
121-14-2	2 4-Dinitrotoluene	2400	U
606-20-2	2 6-Dinitrotoluene	2400	U
84-66-2	Diethylphthalate	2400	U
7005-72-3	4-Chlorophenyl-phenylether	2400	U
86-73-7	Fluorene	2400	U
100-01-6	4-Nitroaniline	11000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	11000	U
86-30-6	N-Nitrosodiphenylamine (1)	2400	U
101-55-3	4-Bromophenyl-phenylether	2400	U
118-74-1	Hexachlorobenzene	2400	U
87-86-5	Pentachlorophenol	2600	J
85-01-8	Phenanthrene	2400	U
120-12-7	Anthracene	2400	U
84-74-2	Di-n-Butylphthalate	2400	U
206-44-0	Fluoranthene	540	J
129-00-0	Pyrene	2400	U
85-68-7	Butylbenzylphthalate	2400	U
91-94-1	3, 3'-Dichlorobenzidine	4700	U
56-55-3	Benzo(a)Anthracene	950	J
117-81-7	bis(2-Ethylhexyl)Phthalate	240	J
218-01-9	Chrysene	2400	U
117-84-0	Di-n-Octyl Phthalate	2400	U
205-99-2	Benzo(b)Fluoranthene	750	J
207-08-9	Benzo(k)Fluoranthene	2400	U
50-32-8	Benzo(a)Pyrene	2400	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	2400	U
53-70-3	Dibenzo(a h)Anthracene	2400	U
191-24-2	Benzo(g h, i)Perylene	1100	J

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-09

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-26-86

Conc/Dil Factor 2,000

Percent Moisture (decanted) 30.1

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	32,000 U
319-85-7	Beta-BHC	32,000 U
319-86-8	Delta-BHC	32,000 U
58-89-9	Gamma-BHC (Lindane)	32,000 U
76-44-8	Heptachlor	32,000 U
309-00-2	Aldrin	32,000 U
1024-57-3	Heptachlor Epoxide	32,000 U
959-98-8	Endosulfan I	32,000 U
60-57-1	Dieldrin	64,000 U
72-55-9	4,4'-DDE	64,000 U
72-20-8	Endrin	64,000 U
33213-65-9	Endosulfan II	64,000 U
72-54-8	4,4'-DDD	64,000 U
1031-07-8	Endosulfan Sulfate	64,000 U
50-29-3	4,4'-DDT	64,000 U
72-43-5	Methoxychlor	320,000 U
53494-70-5	Endrin Ketone	64,000 U
57-74-9	Chlordane	320,000 U
8001-35-2	Toxaphene	640,000 U
12674-11-2	Aroclor-1016	320,000 U
11104-28-2	Aroclor-1221	320,000 U
11141-16-5	Aroclor-1232	320,000 U
53469-21-9	Aroclor-1242	320,000 U
12672-29-6	Aroclor-1248	2,730,000 C
11097-69-1	Aroclor-1254	640,000 U
11096-82-5	Aroclor-1260	640,000 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-09

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1. 563780	2,3-Dimethyl-1-Butene	VOA	18.0	7 J
2.	Methyl pentene isomer	VOA	18.7	17 J
3.	Unknown ketone	VOA	19.5	5 BJ
4.	Hexane isomer	VOA	21.2	4 BJ
5.				
6.	TRIMETHYL PROPYL BENZENE ISOMER	BNA	21.1	38000 J
7.	TRIMETHYL PROPYL BENZENE ISOMER		21.3	71000 J
8. 4448400	(1-ETHYL-1-METHYLBUTYL) BENZENE		21.4	31000 J
9. 5519/258	(1,1-DIMETHYL NONYL) BENZENE		21.8	90000 J
10.	UNKNOWN - AROMATIC		21.9	58000 J
11.	UNKNOWN - AROMATIC		22.0	98000 J
12.	UNKNOWN		22.1	71000 J
13.	(DIMETHYLDECYL) BENZENE ISOMER		22.4	180000 J
14.	UNKNOWN		22.5	98000 J
15.	DIMETHYL NONYL BENZENE ISOMER		22.7	170000 J
16.	DIMETHYL NONYL BENZENE ISOMER		22.8	140000 J
17.	DIMETHYL NONYL BENZENE ISOMER		22.9	90000 J
18.	PCB	✓	23.8-27.6	—
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

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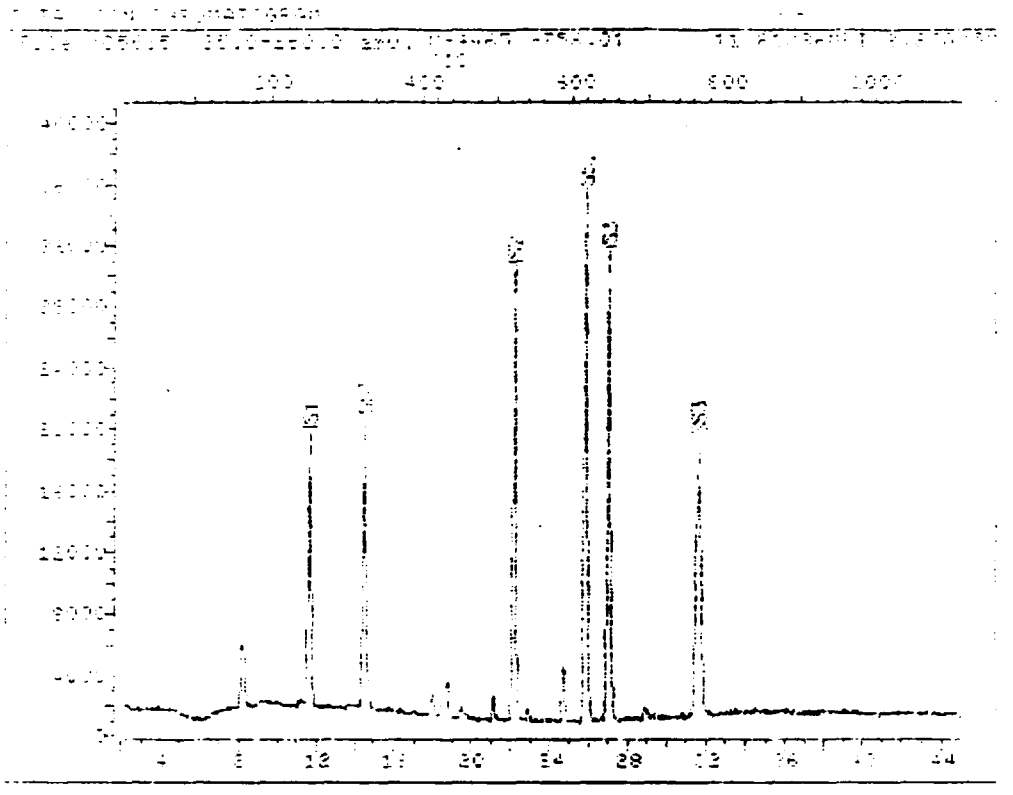

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Misc: 11/21/86MDI 2.27G/5MLS DI + [illegible]

Id File: [illegible]
Title: [illegible] ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 22:21

Operator ID: [illegible]
Quant Time: 861122 02:52
Injected at: 861122 02:05

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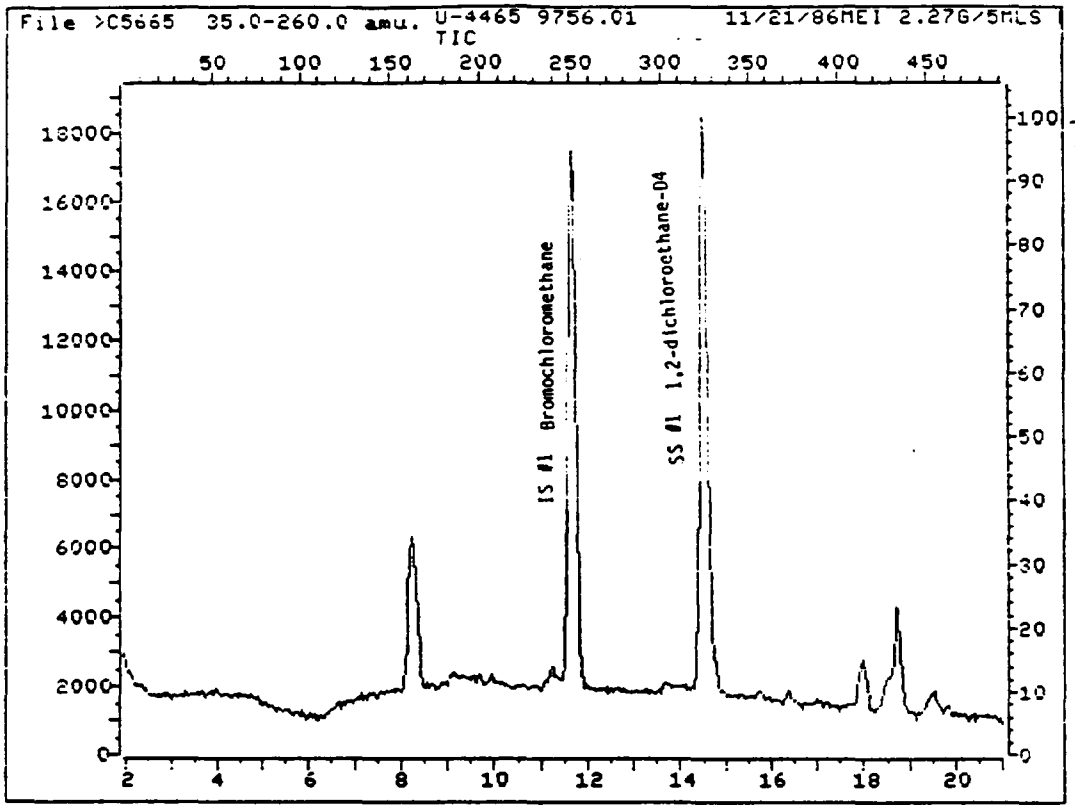
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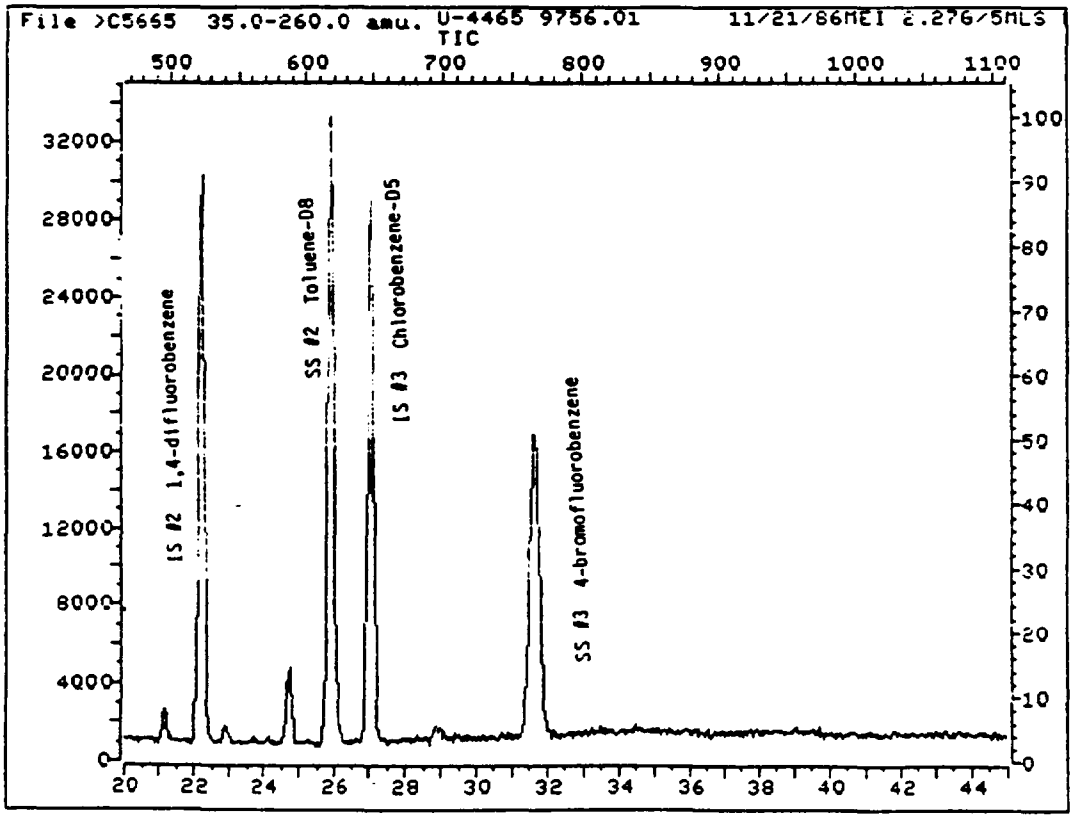
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4

DC-SS-09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TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

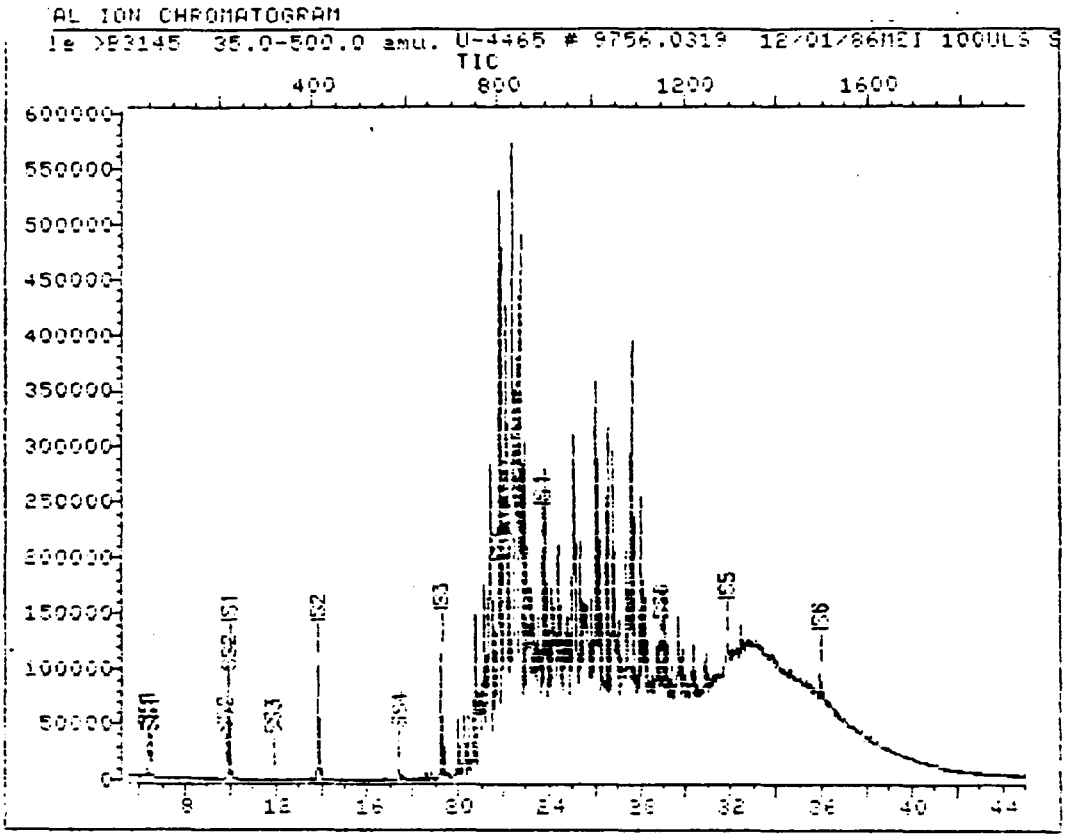
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861122 02:52
Output File: ^C5665::Q2 Injected at: 861122 02:05
Data File: >C5665::D3 Dilution Factor: 1.00
Name: U-4465 9756.01 DC-SS-09
Misc: 11/21/86MEI 2.27G/5MLS DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 22:21

	Compound		m/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.65	251	22306	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.24	163	11465	80.98	NGS	100
7)	ACETONE		43	9.25	189	4553	87.70	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.48	324	68918	291.30	NGS	87
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.17	522	124694	250.00	NGS	100
17)	2-BUTANONE		72	14.64	328	2963	90.47	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.06	648	90517	250.00	NGS	100
32)	4-METHYL-2-PENTANONE		43	22.87	540	3878	13.61	NGS	97
34)	TETRACHLOROETHENE		164	24.73	588	5364	34.97	NGS	73
36)	TOLUENE-D8	(SURR)	98	25.89	619	131494	258.35	NGS	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.60	765	57435	219.41	NGS	100

* Compound is ISTD

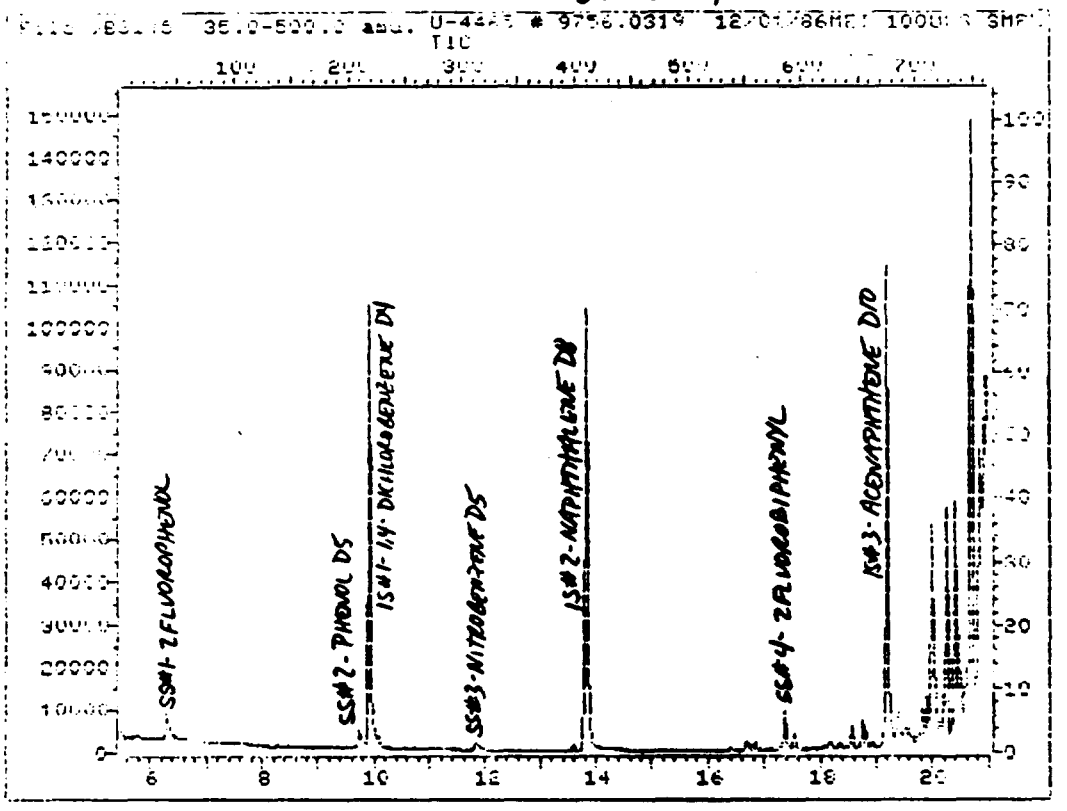


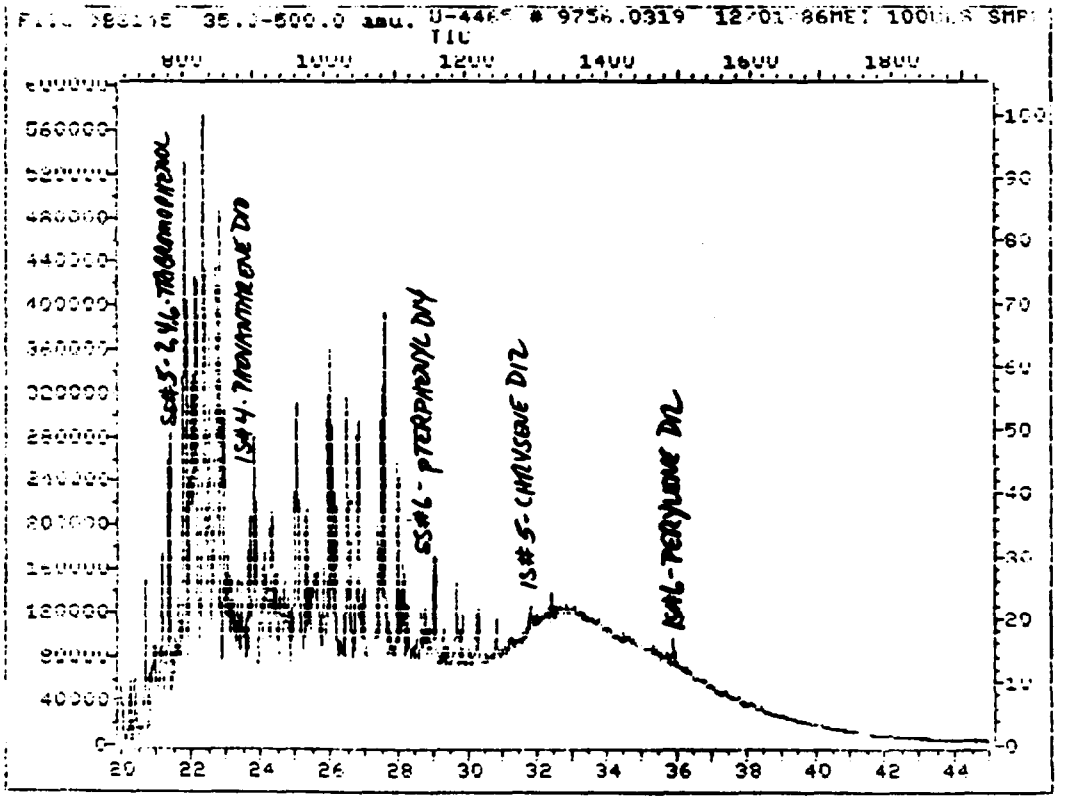
Data File: >B3145::04 DC-SS-09
Name: U-4465 # 9756.0319
Misc: 12/01/86MEI 100ULS SMPL + 900 ULS MECL2 + 10ULS IS (1

Id File: BNABR::02
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 13:31

Operator ID: USEPA
Quant Time: 861201 21:36
Injected at: 861201 20:48

DC-SS-09





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QUANT REPORT

p ator ID: USER6 Quant Rev: 4 Quant Time: 861201 21:36
utput File: ^83145::Q2 Injected at: 861201 20:48
ata File: >83145::D4 Dilution Factor: 10.00
ame: U-4465 # 9756.0319 DC-SS-09
isc: 12/01/86MEI 100ULS SMPL + 900 ULS MECL2 + 10ULS IS (1

D File: BNABR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 861201 13:31

	Compound		m/z	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.91	219	51886	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	9.73	210	6918	44.53	UG/L	95
3)	~~PHENOL-D6~~	~~(SURR)~~	~~99~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~83~~ No Spk
5)	2-FLUOROPHENOL	(SURR)	112	6.29	41	6357	66.66	UG/L	80
5)	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~99~~ No Spk
5)	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~[illegible]~~	~~[illegible]~~	~~511~~	~~5.34~~	~~UG/L~~	~~54~~
9)	*NAPHTHALENE-D8	(IS)	136	13.81	411	168801	40.00	UG/L	100
0)	NITROBENZENE-D5	(SURR)	82	11.84	314	4909	35.57	UG/L	94
9)	NAPHTHALENE		128	13.85	413	6678	17.00	UG/L	100
4)	*ACENAPHTHENE-D10	(IS)	162	19.20	676	63801	40.00	UG/L	98
8)	2-FLUOROBIPHENYL	(SURR)	172	17.37	586	12482	50.98	UG/L	95
[illegible]	~~DIMETHYL PHTHALATE~~		~~163~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~00~~ No Spk
[illegible]	~~DIMETHYL PHTHALATE~~		~~163~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
8)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.75	801	1547	38.71	UG/L	95
2)	~~2,4-DINITROTOLUENE~~		~~165~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~00~~ No Spk
5)	*PHENANTHRENE-D10	(IS)	188	23.67	895	57328	40.00	UG/L	93
0)	PENTACHLOROPHENOL		266	23.51	887	1272	53.82	UG/L	[illegible]
[illegible]	~~DI-N-BUTYLPHTHALATE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~ No Spk
[illegible]	~~DI-N-BUTYLPHTHALATE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~54~~
4)	FLUORANTHENE		202	27.39	1077	1164	11.35	UG/L	1
5)	*CHRYSENE-D12	(IS)	240	31.82	1293	30727	40.00	UG/L	100
[illegible]	~~BENZIDINE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
[illegible]	~~BENZIDINE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~ No Spk
[illegible]	~~BENZIDINE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
[illegible]	~~BENZIDINE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
[illegible]	~~BENZIDINE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
[illegible]	~~P-TERPHENYL~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
[illegible]	~~P-TERPHENYL~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~74~~
8)	TERPHENYL-D14	(SURR)	244	28.87	1149	3128	40.12	UG/L	100
[illegible]	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~52~~
[illegible]	~~3,3'-DICHLOROBENZIDINE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~ No Spk
[illegible]	~~3,3'-DICHLOROBENZIDINE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
[illegible]	~~3,3'-DICHLOROBENZIDINE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
1)	BENZO(A)ANTHRACENE		228	31.88	1296	1386	20.04	UG/L	76
[illegible]	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~ No Spk
[illegible]	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
2)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.81	1341	382	4.95	UG/L	92
[illegible]	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~147~~	~~1.90~~	~~UG/L~~	~~[illegible]~~ No Spk
[illegible]	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~145~~	~~1.88~~	~~UG/L~~	~~[illegible]~~
[illegible]	~~CHRYSENE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
4)	*PERYLENE-D12	(IS)	264	35.90	1492	27741	40.00	UG/L	100
[illegible]	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~332~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
[illegible]	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~ No Spk
[illegible]	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
[illegible]	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
[illegible]	~~[illegible]~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
76)	BENZO(B)FLUORANTHENE	252	34.96	1446	1101	15.72	UG/L	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~	~~252~~	~~34.96~~	~~1446~~	~~1101~~	~~12.11~~	~~UG/L~~	100
~~78)~~	~~BENZO(A)PYRENE~~	~~252~~	~~35.64~~	~~1479~~	~~1026~~	~~14.15~~	~~UG/L~~	100
~~79)~~	~~BENZO(A)PYRENE~~	~~252~~	~~35.76~~	~~1485~~	~~532~~	~~7.69~~	~~UG/L~~	
~~80)~~	~~INDENO(1,2,3-CD)PYRENE~~	~~276~~	~~38.54~~	~~1621~~	~~321~~	~~2.33~~	~~UG/L~~	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.54~~	~~1621~~	~~381~~	~~6.26~~	~~UG/L~~	100
81)	BENZO(G,H,I)PERYLENE	276	39.07	1647	1403	23.06	UG/L	100

No ogu

* Compound is ISTD

CHART SPEED 2.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN TICK

Rerun - AutoSampler Error
See Run 54

CHANNEL: 1A - 1 TITLE: RUN# ~~55~~ 61 2:18 20 NOV 86

SAMPLE: 9756 METHOD: CEPA CALCULATION: ES - ANALYS

DC-SS-09

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	[illegible] (SEC)
TOTALS:		0.0000					

DETECTED PKS: 2 REJECTED PKS: 2

DIVISOR: 1.50000 MULTIPLIER: 2000000.00

NOISE: 57.1 OFFSET: -3

RACK: 1 VIAL: 4 INJ: 1

NOTES:
NOTEBOOK:259-41 ANALYST: K.JUREK/R.SAMSON
SECURE AREA: D JOB#:U-4465
INST:VARIAN 600042 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 0 60 ML/MIN.
DET:200 C INJ:220 C
220 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
[illegible] FILE: [illegible]

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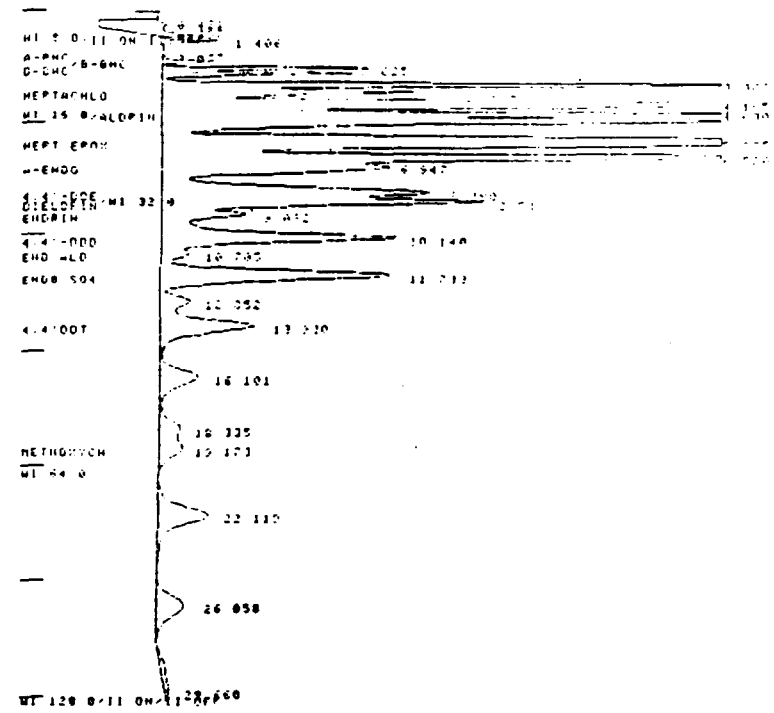

Surface 54 CALC AS PCB1248 only

DC-SS-09

CHANNEL: 1A - 1 TITLE: RUN# 14 [illegible]

SAMPLE: 9756 DF= 1000 METHOD: CEPA CALIBRATION: [illegible]

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA	SEP CODE	WIDTH
1		0.0000	1.406		[illegible]	PB	[illegible]
2	B-BHC	2973.169	[illegible]	0.104	[illegible]	[illegible]	[illegible]
3	D-BHC	7054.631	[illegible]	0.135	[illegible]	[illegible]	[illegible]
4		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
5		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
6	HEPTACHLO	20151.16	3.647	-0.153	[illegible]	[illegible]	[illegible]
7		0.0000	4.155		[illegible]	[illegible]	[illegible]
8	ALDRIN	40855.36	4.570	-0.110	[illegible]	[illegible]	[illegible]
9		0.0000	4.945		[illegible]	[illegible]	[illegible]
10	HEPT EPOX	109909.6	5.855	0.125	[illegible]	[illegible]	[illegible]
11		0.0000	6.519		[illegible]	[illegible]	[illegible]
12	A-ENDO	26303.67	6.947	-0.283	[illegible]	[illegible]	[illegible]
13	4,4'-DDE	36779.41	[illegible]	-0.140	[illegible]	[illegible]	[illegible]
14	DIELDRIN	30669.50	9.546	0.216	[illegible]	[illegible]	[illegible]
15	ENDRIN	10795.74	9.042	-0.199	[illegible]	[illegible]	[illegible]
16	4,4'-DDD	36265.75	10.140	-0.190	[illegible]	[illegible]	[illegible]
17	END.ALD.	4289.293	10.795	0.355	[illegible]	[illegible]	[illegible]
18	ENDO SO4	45246.09	11.733	-0.377	[illegible]	[illegible]	[illegible]
19		0.0000	12.652		[illegible]	[illegible]	[illegible]
20	4,4'DDT	38773.36	13.970	0.450	[illegible]	[illegible]	[illegible]
21	END KETON	8323.731	16.101	0.561	[illegible]	[illegible]	[illegible]
22		0.0000	16.335		[illegible]	[illegible]	[illegible]
23	METHOXYCH	18274.64	19.173	-0.637	[illegible]	[illegible]	[illegible]
24		0.0000	22.119		[illegible]	[illegible]	[illegible]
25	[illegible]	10893.79	26.058	-0.972	[illegible]	[illegible]	[illegible]
26		0.0000	29.650		[illegible]	[illegible]	[illegible]

TOTALS: 446160.1 -0.954 [illegible]

DETECTED PKS: 37 REJECTED PKS: 11

DIVISOR: 1.50000 MULTIPLIER: [illegible]

NOISE: 34.3 OFFSET: -15

RACK: 1 VIAL: 14 INJ: 1

NOTES:
NOTEBOOK:[illegible]
SOURCE AREA: [illegible]
INST:VARIAN [illegible]
COLUMN: [illegible] GLASS 4MM ID [illegible]
LIQUID PHASE:[illegible]
CARRIER GAS: N2 @ 50 ML/MIN.
DET:300 C INJ:220 C
220 C ISOTHERMAL 4 UL INJECTION
[illegible]
[illegible]

recycled paper

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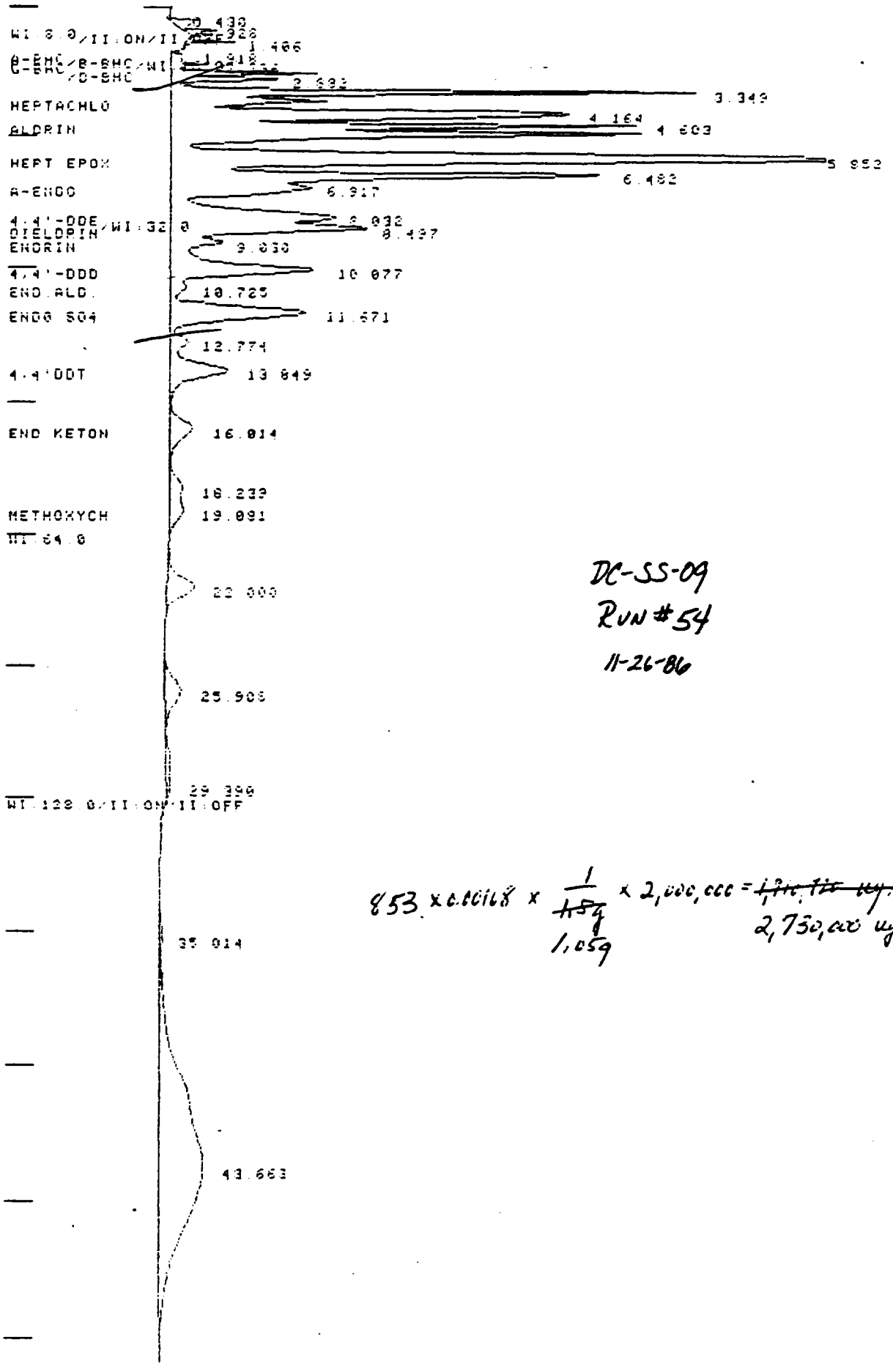
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-SS-09
RUN #54
11-26-86

$853 \times 0.00168 \times \frac{1}{\cancel{1.5g}\ 1.05g} \times 2{,}000{,}000 = \cancel{1{,}710{,}720\ ug/kg}\ 1248$
2,730,000 ug/kg

recycled paper

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CHANNEL: 1A - 1 TITLE: RUN# 54 12:06 28 NOV 85

DF=2,000

SAMPLE: 9756.03.13A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.406		21690	BB	3.63
2	~~2-BHC~~	5409.352	2.256	0.096	35492	VV	6.59
3	~~B-BHC~~	6349.325	2.616	0.126	126353	VV	6.81
4		0.0000	2.862		105555	VV	6.81
5		0.0000	3.349		538440	VV	8.13
6	~~HEPTACHLO~~	21331.08	3.670	-0.170	280414	VV	? 19.31
7		0.0000	4.164		865917	VV	19.38
8	~~ALDRIN~~	42571.14	4.603	-0.137	675424	VV	13.05
9		0.0000	4.916		757070	VV	12.13
10	~~HEPT EPOX~~	120511.8	5.852	0.092	1765602	VV	20.55
11		0.0000	6.482		858208	VV	15.75
12	~~A-ENDO~~	26549.01	6.917	-0.233	394635	VV	? 35.19
13	~~4,4'-DDE~~	33355.30	8.032	-0.188	555244	VV	? 32.13
14	~~DIELDRIN~~	32169.85	8.497	0.167	485473	VV	? 26.50
15	~~ENDRIN~~	11737.95	9.030	-0.250	124649	VV	? 24.13
16	~~4,4'-DDD~~	37415.20	10.077	-0.253	476880	VV	24.75
17	~~ENDRIN.~~	4412.303	10.725	0.305	46788	VV	? 32.13
18	~~ENDO SUL~~	46336.12	11.671	-0.439	485159	VV	29.44
19		0.0000	12.774		64749	VV	31.75
20	~~4,4'-DDT~~	40039.12	13.849	0.379	257778	VV	34.25
21	~~ENG KETON~~	8962.031	16.014	0.454	131834	VV	48.55
22		0.0000	18.239		70772	VV	? 48.13
23	~~METHOXYCH~~	20027.75	19.081	-0.729	81934	VB	? 81.83
24		0.0000	22.000		161512	BB	45.55
25	~~DDD~~	11418.63	25.509	-1.122	129170	BV	68.75
26		0.0000	29.350		53744	VB	?172.33
27		0.0000	35.014		30157	BV	? 82.53
28		0.0000	43.663		1804213	VB	157.13
TOTALS:		479538.1		-1.862	11332355		

PCB 1248

DETECTED PKS: 38 REJECTED PKS: 10

DIVISOR: 1.50000 MULTIPLIER: 2000000.00

NOISE: 34.3 OFFSET: -8

NOTES:
NOTEBOOK:259-41 ANALYST: K.JUREK/R.SAMSON
SECURE AREA: C JOB#:U-4465 DC-SS-09
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: RAW SLY516

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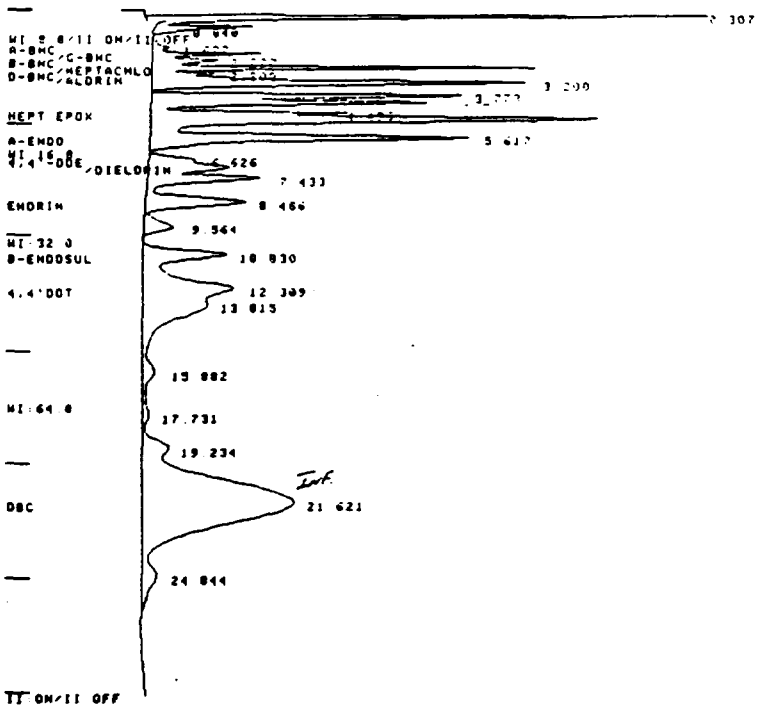
CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 18 - 1 TITLE: RUN# 13 22:10 1 DEC 86

SAMPLE: ~~9151~~ 9156 METHOD: PEPA CALCULATION: ES - ANALYS

DC-SS-09

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1	~~A-BHC~~	1.8145	1.622	-0.048	54824	BV		9.63
2		0.0000	1.827		25899	VV	?	8.94
3		0.0000	1.961		189297	VV		5.31
4	~~G-BHC~~	7.8011	2.227	0.127	169739	VV		9.06
5	~~HEPTACHLO~~	34.6050	2.545	-0.045	735309	VV		6.06
6	~~D-BHC~~	7.9277	2.608	0.008	133669	VV	?	9.13
7		0.0000	2.968		150814	VV	?	9.75
8	~~ALDRIN~~	53.8627	3.200	0.070	1199555	VB		11.63
9		0.0000	3.778		835713	BV		9.69
10		0.0000	4.046		808989	VV		11.00
11		0.0000	4.496		548069	VV	?	10.75
12	~~HEPT EPOX~~	97.1081	4.778	0.078	1919588	VV		14.81
13	~~A-ENDO~~	79.8019	5.617	-0.293	1494236	VB		14.75
14		0.0000	6.626		169495	BV	?	18.88
15	~~4,4'-DDE~~	25.1380	6.927	0.127	470954	VV	?	26.06
16	~~DIELDRIN~~	29.2013	7.433	0.203	585979	VV		18.00
17	~~ENDRIN~~	51.3183	8.486	-0.294	631510	VV		24.19
18		0.0000	9.564		225764	VB		24.31
19	~~B-ENDOSUL~~	34.9974	10.830	0.210	618793	BV		25.68
20	~~4,4'-DDT~~	112.5320	12.309	-0.211	1247964	VV	?	45.63
21		0.0000	13.015		951098	VV	?	80.63
22		0.0000	15.882		170156	VV		53.94
23	~~ENDO-SUL~~	14.4411	17.731	0.791	108326	VV	?	53.50
24		0.0000	19.234		325346	VV	?	48.25
25	~~DBC~~	361.6099	21.621	-0.579	5191575	VV		127.38
26	~~METHOXYCH~~	67.6046	24.844	0.044	279499	VB		64.81

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TOTALS: 979.7556 0.988 19297962

DETECTED PKS: 31 REJECTED PKS: 5

DIVISOR: 1.50000 MULTIPLIER: 2000.00000

NOISE: 91.4 OFFSET: -18

RACK: 1 VIAL: 9 INJ: 1

NOTES:
NOTEBOOK: 259-44 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#:U-4465
INST: VARIAN 6000#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:320 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

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SAMPLE NUMBER DC-SS-10

Sample Number
DC-SS-10

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465

Lab Sample ID No: 9757 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-22-86

Conc./Dil Factor: 3 pH 6.4

Percent Moisture: (Not Decanted) 24

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	59 B
67-64-1	Acetone	30u
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	8 J
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	11 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No V-4465

Sample Number DC-SS-10

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 12-2-86

Conc/Dil Factor: 10

Percent Moisture (Decanted) 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	2200	U
111-44-4	bis(-2-Chloroethyl)Ether	2200	U
95-57-8	2-Chlorophenol	2200	U
541-73-1	1 3-Dichlorobenzene	2200	U
106-46-7	1 4-Dichlorobenzene	2200	U
100-51-6	Benzyl Alcohol	2200	U
95-50-1	1 2-Dichlorobenzene	2200	U
95-48-7	2-Methylphenol	2200	U
39638-32-9	bis(2-chloroisopropyl)Ether	2200	U
106-44-5	4-Methylpheno	2200	U
621-64-7	N-Nitroso-Di-n-Propylamine	2200	U
67-72-1	Hexachloroethane	2200	U
98-95-3	Nitrobenzene	2200	U
78-59-1	Isophorone	2200	U
88-75-5	2-Nitrophenol	2200	U
105-67-9	2. 4-Dimethylphenol	2200	U
65-85-0	Benzoic Acid	10000	U
111-91-1	bis(-2-Chloroethoxy)Methane	2200	U
120-83-2	2 4-Dichlorophenol	2200	U
120-82-1	1 2. 4-Trichlorobenzene	2200	U
91-20-3	Naphthalene	2200	U
106-47-8	4-Chloroaniline	2200	U
87-68-3	Hexachlorobutadiene	2200	U
59-50-7	4-Chloro-3-Methylphenol	2200	U
91-57-6	2-Methylnaphthalene	2200	U
77-47-4	Hexachlorocyclopentadiene	2200	U
88-06-2	2 4 6-Trichlorophenol	2200	U
95-95-4	2. 4. 5-Trichlorophenol	10000	U
91-58-7	2-Chloronaphthalene	2200	U
88-74-4	2-Nitroaniline	10000	U
131-11-3	Dimethyl Phthalate	2200	U
208-96-8	Acenaphthylene	2200	U
99-09-2	3-Nitroaniline	10000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2200	U
51-28-5	2. 4-Dinitrophenol	10000	U
100-02-7	4-Nitrophenol	10000	U
132-64-9	Dibenzofuran	2200	U
121-14-2	2 4-Dinitrotoluene	2200	U
606-20-2	2 6-Dinitrotoluene	2200	U
84-66-2	Diethylphthalate	2200	U
7005-72-3	4-Chlorophenyl-phenylether	2200	U
86-73-7	Fluorene	2200	U
100-01-6	4-Nitroaniline	10000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	10000	U
86-30-6	N-Nitrosodiphenylamine (1)	2200	U
101-55-3	4-Bromophenyl-phenylether	2200	U
118-74-1	Hexachlorobenzene	2200	U
87-86-5	Pentachlorophenol	10000	U
85-01-8	Phenanthrene	2200	U
120-12-7	Anthracene	2200	U
84-74-2	Di-n-Butylphthalate	2200	U
206-44-0	Fluoranthene	2200	U
129-00-0	Pyrene	2200	U
85-68-7	Butylbenzylphthalate	2200	U
91-94-1	3 3'-Dichlorobenzidine	4300	U
56-55-3	Benzo(a)Anthracene	2200	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2200	U
218-01-9	Chrysene	2200	U
117-84-0	Di-n-Octyl Phthalate	610	BJ
205-99-2	Benzo(b)Fluoranthene	2200	U
207-08-9	Benzo(k)Fluoranthene	2200	U
50-32-8	Benzo(a)Pyrene	2200	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	2200	U
53-70-3	Dibenz(a h)Anthracene	2200	U
191-24-2	Benzo(g h i)Perylene	2200	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-10

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 100

Percent Moisture (decanted) 24

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	1,600 U
319-85-7	Beta-BHC	1,600 U
319-86-8	Delta-BHC	1,600 U
58-89-9	Gamma-BHC (Lindane)	1,600 U
76-44-8	Heptachlor	1,600 U
309-00-2	Aldrin	1,600 U
1024-57-3	Heptachlor Epoxide	1,600 U
959-98-8	Endosulfan I	1,600 U
60-57-1	Dieldrin	3,200 U
72-55-9	4,4'-DDE	3,200 U
72-20-8	Endrin	3,200 U
33213-65-9	Endosulfan II	3,200 U
72-54-8	4,4'-DDD	3,200 U
1031-07-8	Endosulfan Sulfate	3,200 U
50-29-3	4,4'-DDT	3,200 U
72-43-5	Methoxychlor	16,000 U
53494-70-5	Endrin Ketone	3,200 U
57-74-9	Chlordane	16,000 U
8001-35-2	Toxaphene	32,000 U
12674-11-2	Aroclor-1016	16,000 U
11104-28-2	Aroclor-1221	16,000 U
11141-16-5	Aroclor-1232	16,000 U
53469-21-9	Aroclor-1242	16,000 U
12672-29-6	Aroclor-1248	44,000
11097-69-1	Aroclor-1254	32,000 U
11096-82-5	Aroclor-1260	32,000 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-10

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.		Hexene isomer	VOA	18.0	110 J
2.		Unknown Ketone	VOA	19.5	5 BJ
3.		Unknown (methylene pentane?)	VOA	19.9	28 J
4.		Hexane isomer	VOA	21.1	2 JB
5.		Hexene isomer	VOA	18.7	260 J
6.					
7.		UNKNOWN	BNA	21.8	780,000 J
8.		UNKNOWN		23.7	68,000 J
9.	84651	9,10-ANTHRACENEDIONE		25.5	43000 J
10.		UNKNOWN HYDROCARBON		26.1	64000 J
11.	10544500	MOLECULAR SULFUR		26.2	41000 J
12.	81845	1H, 3H-NAPHTHO[1,8-CD]PYRAN-1,3-DIONE		26.4	37000 J
13.		ANTHRACENEDIONE		28.7	31000 J
14.		UNKNOWN		29.5	13000 J
15.		UNKNOWN		31.6	5300 J
16.	82451	1-AMINO-9,10-ANTHRACENEDIONE		32.2	39000 J
17.		UNKNOWN		32.5	6600 J
18.	482235	3-(3-OXO-1(3H)-ISOBENZOFURANYLIDENE)-		32.8	35000 J
19.		1(3H)-ISOBENZOFURANONE			
20.		UNKNOWN		33.3	23000 J
21.		UNKNOWN		34.3	13000 BJ
22.		UNKNOWN		36.8	28000 J
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30					

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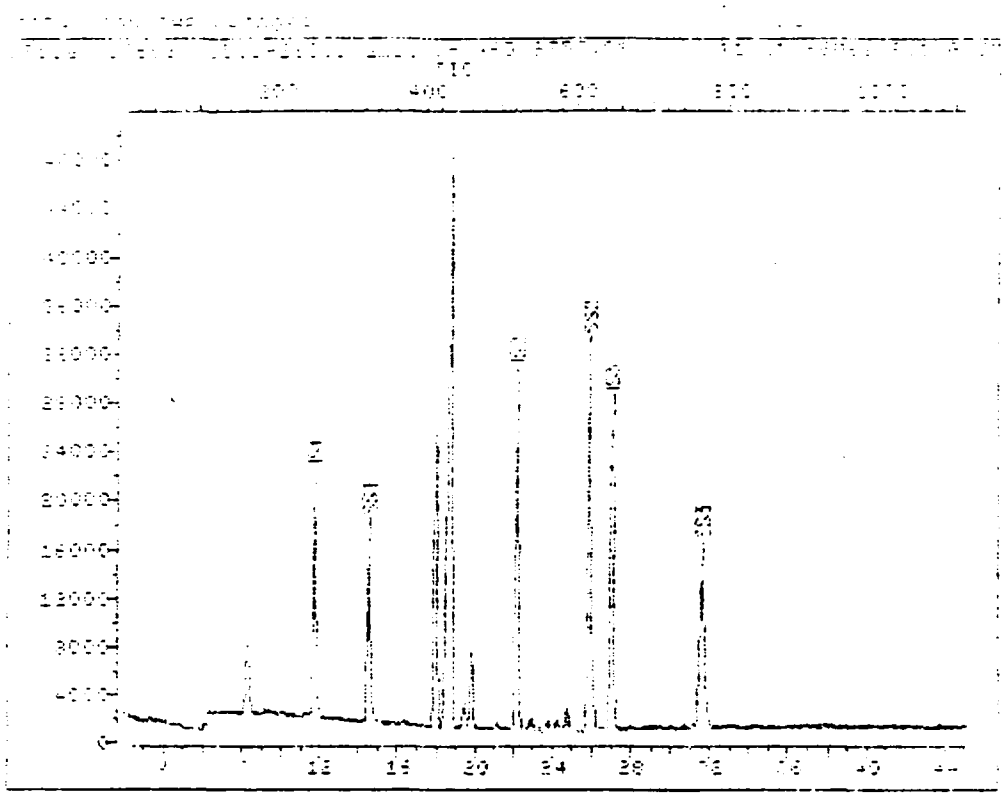

Data File: [illegible]
Name: [illegible] DC-SS-10
Misc: [illegible]

In File: [illegible]
Title: [illegible]
Last Calibration: 861121 22:21

Operator ID: [illegible]
Quant Time: 861122 09:38
Injected at: 861122 [illegible]

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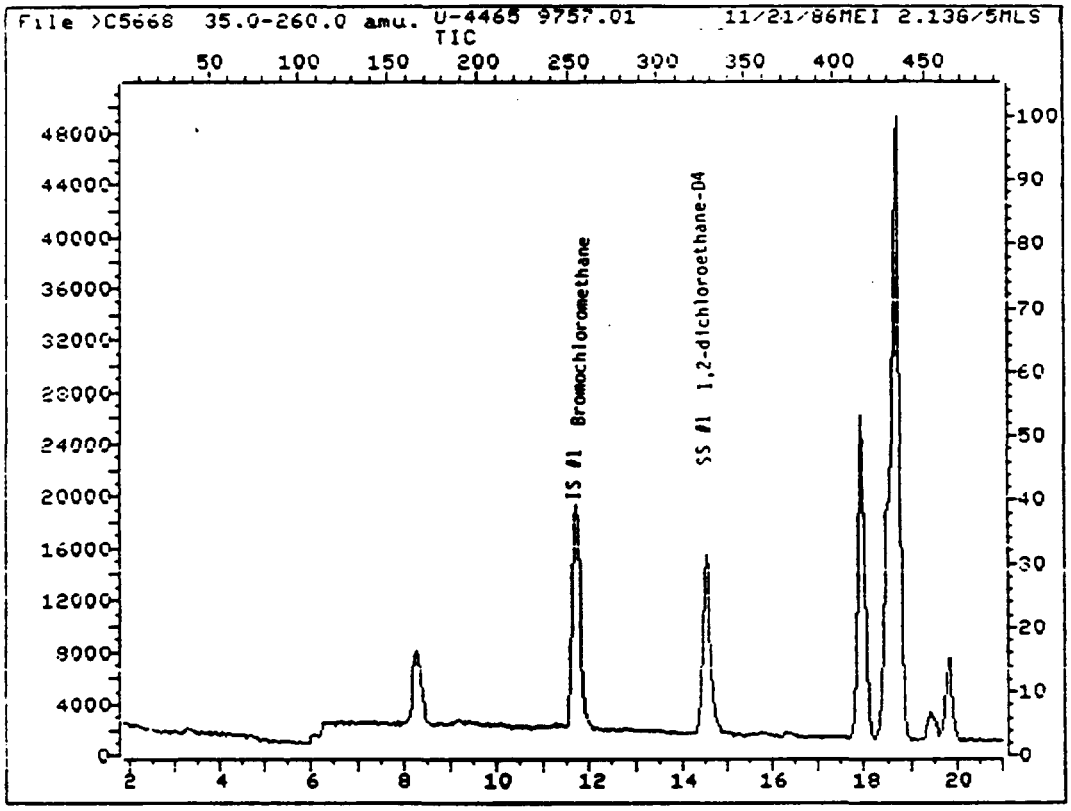
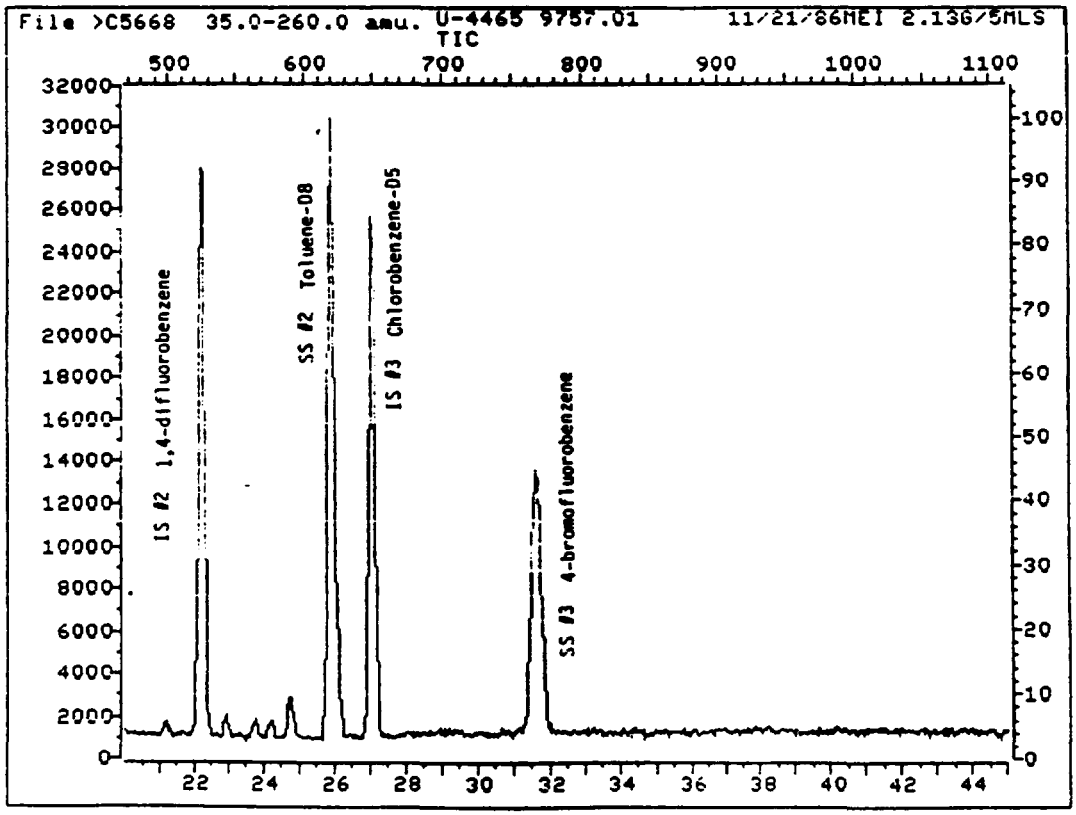
DC-SS-10





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QUANT REPORT

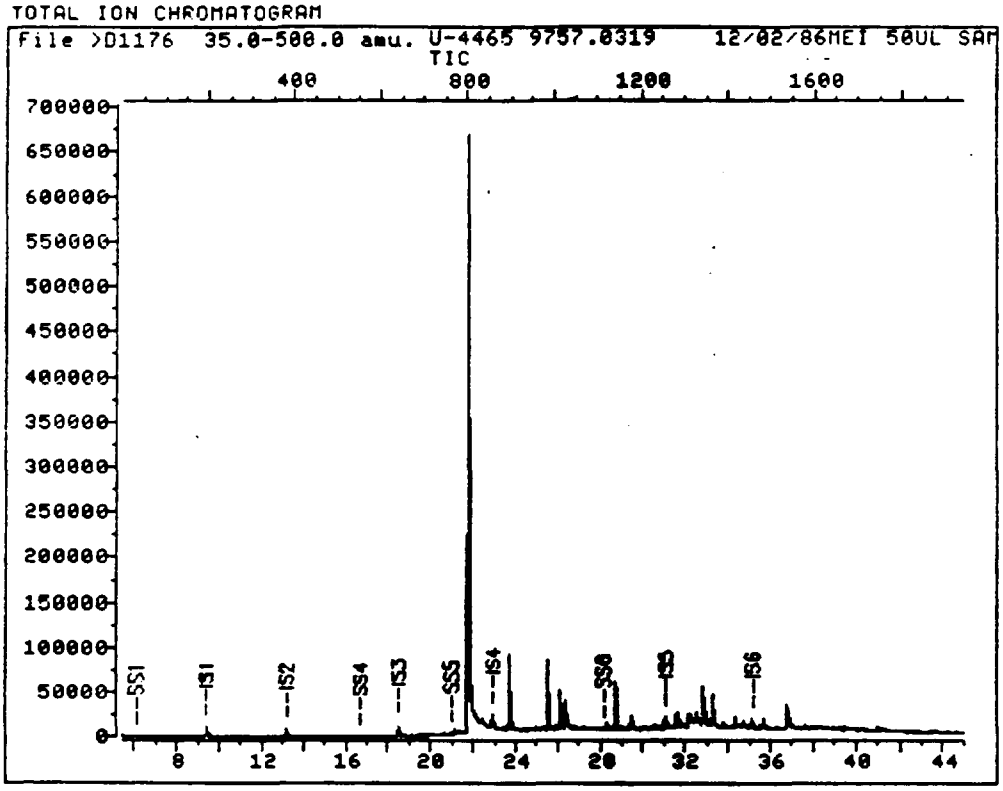
Operator ID: USERS Quant Rev: 4 Quant Time: 861122 05:38
Output File: ^C5668::02 Injected at: 861122 04:52
Data File: >C5668::03 Dilution Factor: 1.00
Name: U-4465 9757.01 DC-SS-1D
Misc: 11/21/86MEI 2.13G/5MLS DI + 10UL IS/SS

ID File: VOACRS::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 22:21

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.71	254	26817	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.29	166	16375	96.20	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.54	327	58149	204.44	NGS	87
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.18	524	116745	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.03	649	80322	250.00	NGS	100
32)	4-METHYL-2-PENTANONE		43	22.92	543	3443	13.62	NGS	79
34)	TETRACHLOROETHENE		164	24.74	590	2505	18.40	NGS	83
36)	TOLUENE-D8	(SURR)	98	25.87	619	118444	262.25	NGS	93
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.62	767	45112	194.21	NGS	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >D1176::D3
Name: U-4465 9757.0319 DC-SS-10
Misc: 12/02/86MEI 50UL SAMPL. + 450UL MECL2 + 5UL IS (10X) BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:13

Operator ID: USER6
Quant Time: 861202 18:21
Injected at: 861202 17:34

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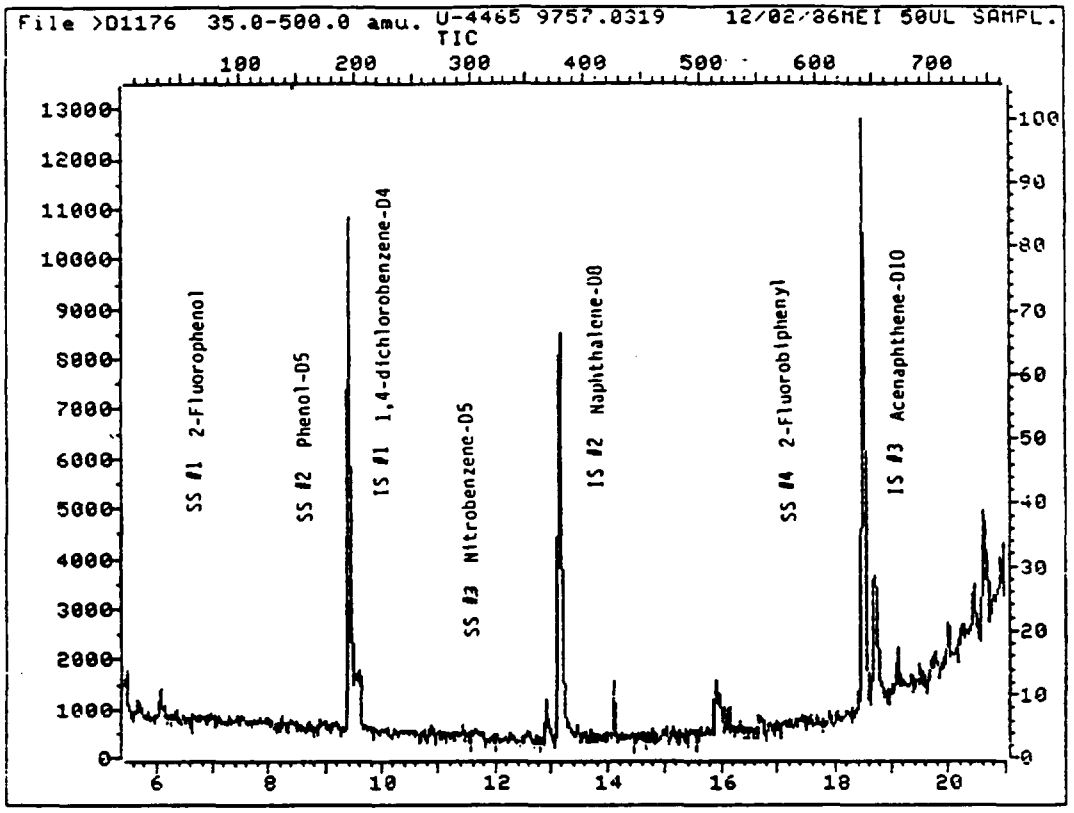
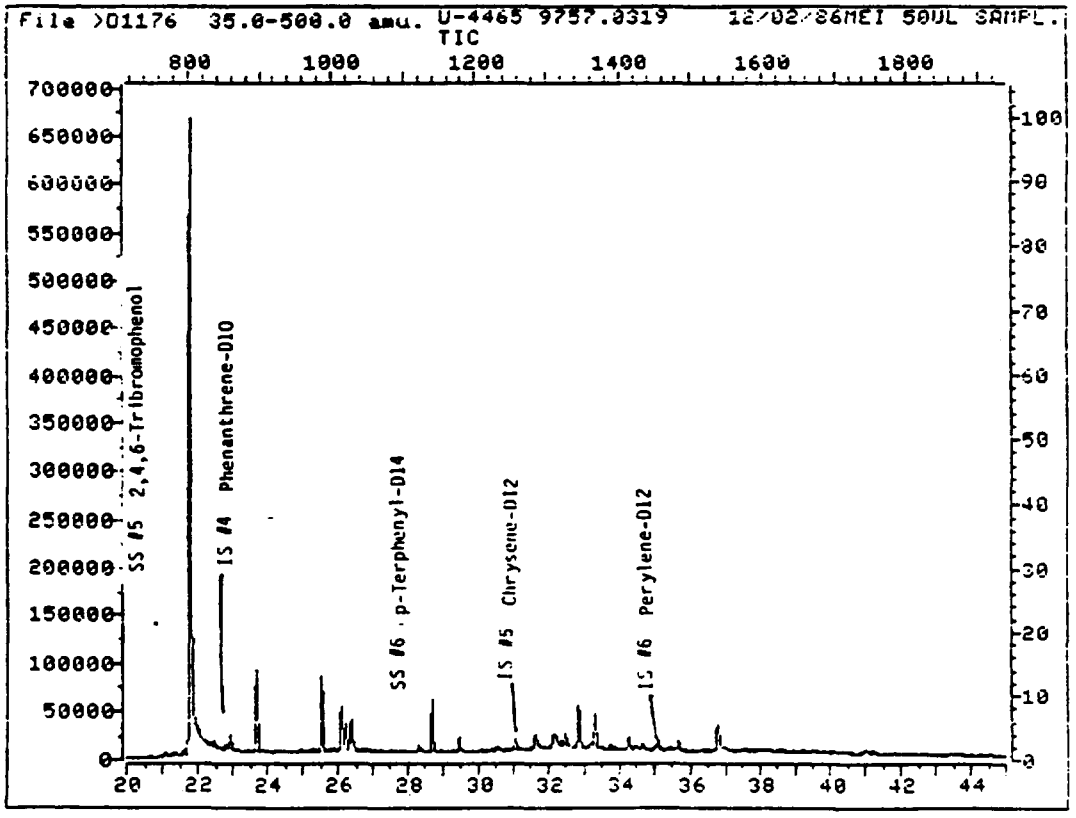
DC-SS-10





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861202 18:21
Output File: ^D1176::Q2 Injected at: 861202 17:34
Data File: >D1176::D3 Dilution Factor: 10.00
Name: U-4465 9757.0319 DC-SS-10
Misc: 12/02/86MEI 50UL SAMPL. + 450UL MECL2 + 5UL IS (10X) BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:13

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.40	194	5544	40.00	UG/L	84
5)	2-FLUOROPHENOL	(SURR)	112	6.08	31	812	52.81	UG/L	99
19)	*NAPHTHALENE-D8	(IS)	136	13.17	379	16943	40.00	UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162	18.51	641	7458	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.69	552	545	18.39	UG/L	85
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.51~~	~~641~~	~~2243~~	~~76.09~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.99	763	192	31.52	UG/L	93
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.51~~	~~641~~	~~914~~	~~154.85~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.93	858	13463	40.00	UG/L	93
65)	*CHRYSENE-D12	(IS)	240	31.08	1257	12882	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.14	1113	1254	30.91	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.14	1456	13722	40.00	UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	33.88	1394	879	13.99	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.04~~	~~1402~~	~~204~~	~~3.25~~	~~UG/L~~	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.10~~	~~1405~~	~~490~~	~~7.80~~	~~UG/L~~	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.20~~	~~1410~~	~~241~~	~~3.84~~	~~UG/L~~	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.33~~	~~1416~~	~~300~~	~~4.78~~	~~UG/L~~	100

* Compound is ISTD

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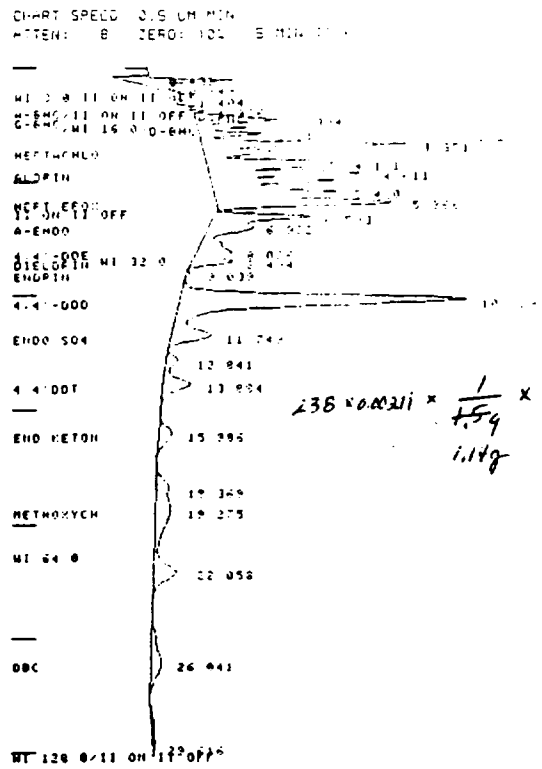

238 × 0.00211 × $\frac{1}{1.5g}$ × 100,000 = ~~[illegible]~~ ng/kg 1248

1.14g

= 44,000

RECALCULATE ON FILE: SLY490

CHANNEL: 1A - 1 TITLE: RUN# ~~[illegible]~~ 30 7:55 [illegible] 96

SAMPLE: 9757 ~~[illegible]~~ 100 METHOD: CEPA CALCULATION: ES - ANALYST

DC-SS-10

PEAK NO	PEAK NAME	RESULT UG/~~[illegible]~~	TIME (MIN)	TIME OFFSET	[illegible]	[illegible]	[illegible]
1	~~G-BHC~~	0.0053	2.168	-0.032	[illegible]	[illegible]	[illegible]
2		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
3	~~G-BHC~~	0.0029	2.624	0.124	[illegible]	[illegible]	[illegible]
4		0.0000	2.915		[illegible]	[illegible]	[illegible]
5		0.0000	3.351		[illegible]	[illegible]	[illegible]
6	~~HEPTACHLO~~	0.0091	3.672	-0.165	[illegible]	[illegible]	[illegible]
7		0.0000	4.161		[illegible]	[illegible]	[illegible]
8	~~ALDRIN~~	0.0128	4.611	-0.129	[illegible]	[illegible]	[illegible]
9		0.0000	4.9[illegible]		[illegible]	[illegible]	[illegible]
10		0.0000	5.420		[illegible]	[illegible]	[illegible]
11	~~HEPT EPOX~~	0.0231	5.866	0.106	[illegible]	[illegible]	[illegible]
12		0.0000	6.5[illegible]		[illegible]	[illegible]	[illegible]
13	~~A-ENDO~~	0.0083	6.322	-0.229	[illegible]	[illegible]	[illegible]
14	~~4,4'-DDE~~	0.0090	8.026	-0.194	[illegible]	[illegible]	[illegible]
15	~~DIELDRIN~~	0.0066	8.491	0.164	[illegible]	[illegible]	[illegible]
16	~~4,4'-DDD~~	0.0721	10.224	-0.105	[illegible]	[illegible]	[illegible]
17	~~ENDO SO4~~	0.0136	11.749	-0.361	[illegible]	[illegible]	[illegible]
18		0.0000	12.841		[illegible]	[illegible]	[illegible]
19	~~4,4'-DDT~~	0.0143	13.[illegible]	0.414	[illegible]	[illegible]	[illegible]
20	~~END KETON~~	0.0037	15.[illegible]	0.465	[illegible]	[illegible]	[illegible]
21		0.0000	18.[illegible]		[illegible]	[illegible]	[illegible]
22	~~METHOXYCH~~	0.0334	19.[illegible]	-0.535	[illegible]	[illegible]	[illegible]
23		0.0000	22.[illegible]		[illegible]	[illegible]	[illegible]
24	~~DBC~~	0.0087	26.[illegible]	-0.985	[illegible]	[illegible]	[illegible]
25		0.0000	29.616		[illegible]	[illegible]	[illegible]
TOTALS:		0.2229		-1.459	[illegible]		

1248 238

DETECTED PKS: 39 REJECTED PKS: 14

DIVISOR: ~~[illegible]~~ 1.5 MULTIPLIER: ~~[illegible]~~ 100,000

NOISE: 34.3 OFFSET: -33

RACK: 2 VIAL: 15 INJ: 1

NOTES:
NOTEBOOK:259-41 ANALYST: [illegible]
SECOND AREA: [illegible]
INST:VARIAN 6200#2 H ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 [illegible]
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:200 C INJ:220 C
[illegible]
[illegible]

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SAMPLE NUMBER DC-SS-11

Sample Number
DC-SS-11

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No. U-4465

Lab Sample ID No: 9758 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Stoytowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-25-86

Conc./Dil Factor: 3 pH 4.3

Percent Moisture: (Not Decanted) 36

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	59 B
67-64-1	Acetone	37 B
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	16 J
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	63
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	36 B
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, etc. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No V-4465

Sample Number DC-SS-11

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed: 12-2-86

Conc/Dil Factor: 20

Percent Moisture (Decanted) 36

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	5200	U
111-44-4	bis(-2-Chloroethyl)Ether	5200	U
95-57-8	2-Chlorophenol	5200	U
541-73-1	1 3-Dichlorobenzene	5200	U
106-46-7	1 4-Dichlorobenzene	5200	U
100-51-6	Benzyl Alcohol	5200	U
95-50-1	1 2-Dichlorobenzene	5200	U
95-48-7	2-Methylphenol	5200	U
39638-32-9	bis(2-chloroisopropyl)Ether	5200	U
106-44-5	4-Methylphenol	5200	U
621-64-7	N-Nitroso-Di-n-Propylamine	5200	U
67-72-1	Hexachloroethane	5200	U
98-95-3	Nitrobenzene	5200	U
78-59-1	Isophorone	5200	U
88-75-5	2-Nitrophenol	5200	U
105-67-9	2. 4-Dimethylphenol	5200	U
65-85-0	Benzoic Acid	25000	U
111-91-1	bis(-2-Chloroethoxy)Methane	5200	U
120-83-2	2 4-Dichlorophenol	5200	U
120-82-1	1 2. 4-Trichlorobenzene	5200	U
91-20-3	Naphthalene	14000	
106-47-8	4-Chloroaniline	5200	U
87-68-3	Hexachlorobutadiene	5200	U
59-50-7	4-Chloro-3-Methylphenol	5200	U
91-57-6	2-Methylnaphthalene	1000	J
77-47-4	Hexachlorocyclopentadiene	5200	U
88-06-2	2 4 6-Trichlorophenol	5200	U
95-95-4	2. 4. 5-Trichlorophenol	25000	U
91-58-7	2-Chloronaphthalene	5200	U
88-74-4	2-Nitroaniline	25000	U
131-11-3	Dimethyl Phthalate	5200	U
208-96-8	Acenaphthylene	5200	U
99-09-2	3-Nitroaniline	25000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	570	J
51-28-5	2. 4-Dinitrophenol	25000	U
100-02-7	4-Nitrophenol	25000	U
132-64-9	Dibenzofuran	420	J
121-14-2	2 4-Dinitrotoluene	5200	U
606-20-2	2 6-Dinitrotoluene	5200	U
84-66-2	Diethylphthalate	5200	U
7005-72-3	4-Chlorophenyl-phenylether	5200	U
86-73-7	Fluorene	5200	U
100-01-6	4-Nitroaniline	25000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	25000	U
86-30-6	N-Nitrosodiphenylamine (1)	5200	U
101-55-3	4-Bromophenyl-phenylether	5200	U
118-74-1	Hexachlorobenzene	5200	U
87-86-5	Pentachlorophenol	4700	J
85-01-8	Phenanthrene	4800	J
120-12-7	Anthracene	5200	U
84-74-2	Di-n-Butylphthalate	5200	U
206-44-0	Fluoranthene	5200	U
129-00-0	Pyrene	5200	U
85-68-7	Butylbenzylphthalate	5200	U
91-94-1	3. 3 -Dichlorobenzidine	10000	U
56-55-3	Benzo(a)Anthracene	5200	U
117-81-7	bis(2-Ethylhexyl)Phthalate	6000	
218-01-9	Chrysene	5200	U
117-84-0	Di-n-Octyl Phthalate	2600	BJ
205-99-2	Benzo(b)Fluoranthene	5200	U
207-08-9	Benzo(k)Fluoranthene	5200	U
50-32-8	Benzo(a)Pyrene	5200	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	5200	U
53-70-3	Dibenzo(a h)Anthracene	5200	U
191-24-2	Benzo(g h. i)Perylene	5200	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-11

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-26-86

Conc/Dil Factor 50,000

Percent Moisture (decanted) 35.9

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	800,000 U	
319-85-7	Beta-BHC	800,000 U	
319-86-8	Delta-BHC	800,000 U	
58-89-9	Gamma-BHC (Lindane)	800,000 U	
76-44-8	Heptachlor	800,000 U	
309-00-2	Aldrin	800,000 U	
1024-57-3	Heptachlor Epoxide	800,000 U	
959-98-8	Endosulfan I	800,000 U	
60-57-1	Dieldrin	1,600,000 U	
72-55-9	4,4'-DDE	1,600,000 U	
72-20-8	Endrin	1,600,000 U	
33213-65-9	Endosulfan II	1,600,000 U	
72-54-8	4,4'-DDD	1,600,000 U	
1031-07-8	Endosulfan Sulfate	1,600,000 U	
50-29-3	4,4'-DDT	1,600,000 U	
72-43-5	Methoxychlor	8,000,000 U	
53494-70-5	Endrin Ketone	1,600,000 U	
57-74-9	Chlordane	8,000,000 U	
8001-35-2	Toxaphene	16,000,000 U	
12674-11-2	Aroclor-1016	8,000,000 U	
11104-28-2	Aroclor-1221	8,000,000 U	
11141-16-5	Aroclor-1232	8,000,000 U	
53469-21-9	Aroclor-1242	8,000,000 U	
12672-29-6	Aroclor-1248	24,000,000	C
11097-69-1	Aroclor-1254	29,000,000	C
11096-82-5	Aroclor-1260	21,000,000	C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 4,000 V_i 4

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4465

Sample Number DC-SS-11

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number MN	Estimated Concentration (ug/l or ug/kg)
1.		UNKNOWN KETONE	VOA	19.6	10 BJ
2.		HEXANE ISOMER	VOA	21.2	19 BJ
3.					
4.	85449	1,3-ISOBENZOFURANDIONE	BNA	16.7	590000 J
5.	87412	1(3H)-ISOBENZOFURANONE		17.2	40,000 J
6.	271896	BENZOFURAN		18.7	64000 J
7.		UNKNOWN - AROMATIC		21.8	120000 J
8.		UNKNOWN - AROMATIC		22.0	24000 J
9.		UNKNOWN - AROMATIC		22.4	43000 J
10.		DIMETHYLNONYLBENZENE ISOMER		22.7	22000 J
11.		DIMETHYL NONYLBENZENE ISOMER		22.8	15000 J
12.		UNKNOWN (PHENANTHRENEDIONE & PCB)		23.2	18000 J
13.		PCB		23.9-24.4	—
14.		PENTAMETHYLHEPTYLBENZENE		24.5	32000 J
15.	81845	1H,3H-NAPHTHO(1,8CD)PYRAN-1,3-DIONE		24.7	72000 J
16.		PCB		24.9-26.2	—
17	84651	9,10-ANTHRACENEDIONE		26.4	56000 J
18.		PCB		26.6-29.5	—
19.		ANTHRACENEDIONE		29.6	73000 J
20.		PCB		29.7-33.4	—
21.	483235	3-(3-OXO-1(3H)-ISOBENZOFURANYL)DIENE-		33.8	80000 J
22.		1(3H)-ISOBENZOFURANONE			
23.		UNKNOWN		34.1	42000 J
24		PCB		34.5	—
25		UNKNOWN		36.3	75000 J
26		UNKNOWN		37.7	53000 J
27.					
28.					
29.					
30					

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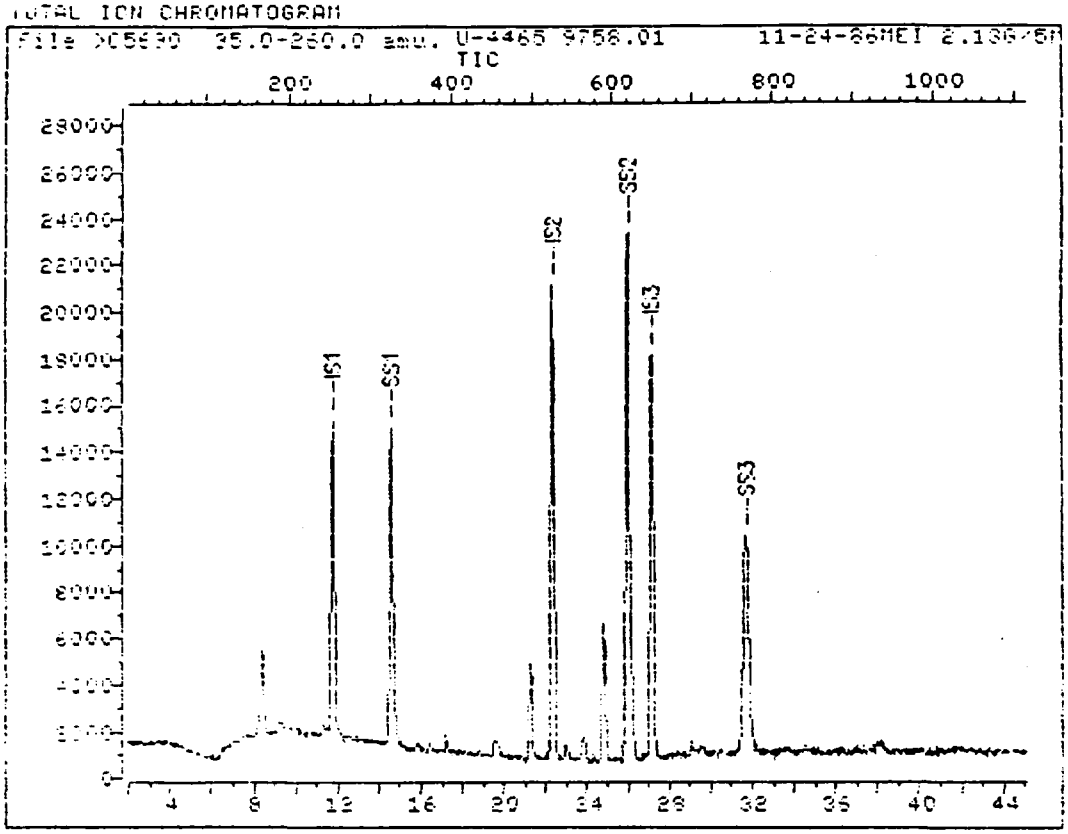
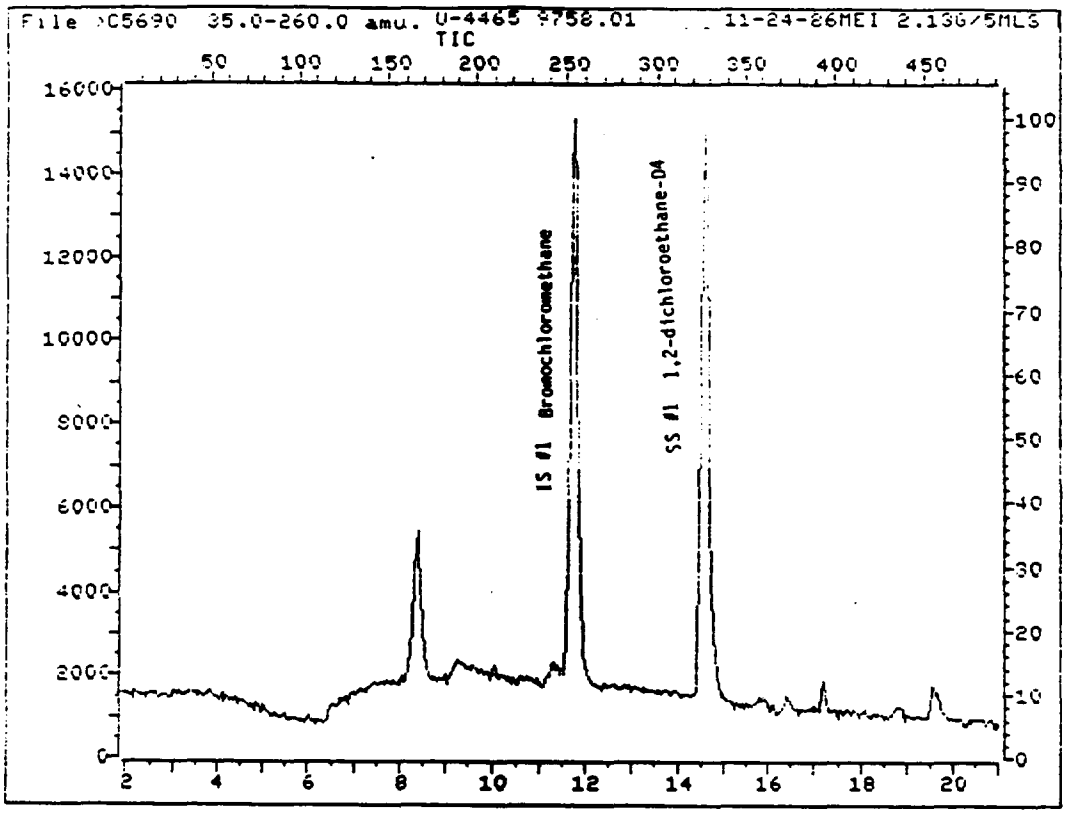
TOTAL ION CHROMATOGRAM



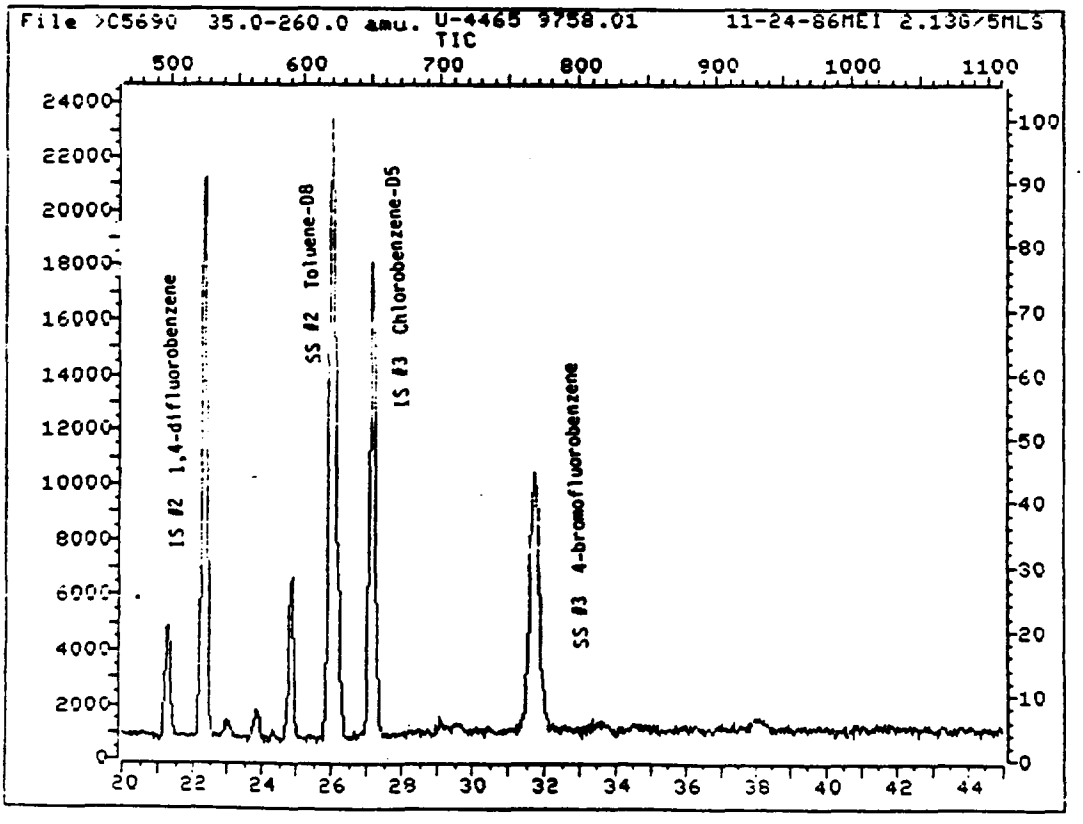
Data File: >C5690::D3
Name: U-4465 9758.01 DC-SS-11
Misc: 11-24-86MEI 2.13G/5MLE D1 - 10UL 10/88

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CON . CA...
Last Calibration: 861124 23:52

Operator ID: [illegible]
Quant Time: 861125 04:19
Injected at: 861125 03:32



DC-SS-11



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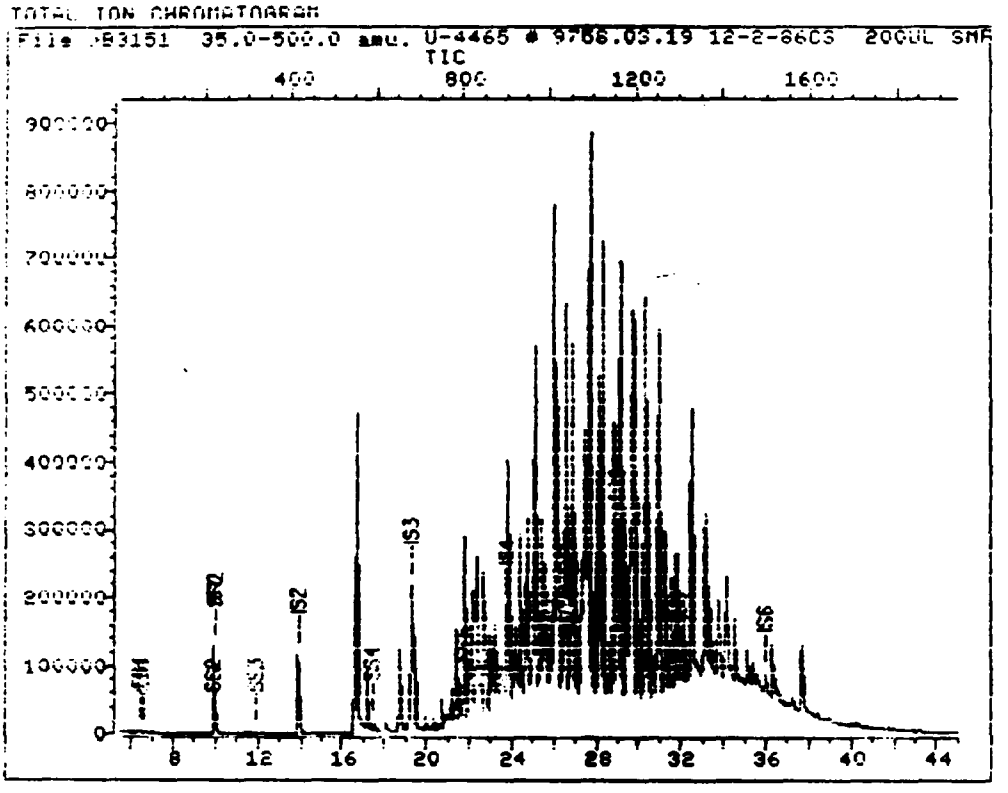
QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861125 04:19
Output File: ^C5690::Q2 Injected at: 861125 03:32
Data File: >C5690::D3 Dilution Factor: 1.00
Name: U-4465 9758.01 DC-SS-11
Misc: 11-24-86MEI 2.13G/5MLS DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861124 23:52

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.76	254	19140	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.39	167	9721	81.22	NGS	100
7)	ACETONE	43	9.28	190	5512	51.35	NGS	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.59	327	54439	274.80	NGS 110	86
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.28	525	87879	250.00	NGS	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.13	650	56692	250.00	NGS	100
32)	4-METHYL-2-PENTANONE	43	23.01	544	3936	22.42	NGS	85
34)	TETRACHLOROETHENE	164	24.80	590	7660	86.16	NGS	93
36)	TOLUENE-D8 (SURR)	98	25.96	620	92756	287.92	NGS 115	90
37)	TOLUENE	92	26.16	625	12423	48.82	NGS	96
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.71	768	34065	213.67	NGS 60	100

* Compound is ISTD



Data File: >B3151::D4
Name: U-4465 # 9758.03.19 DC-SS-11
Misc: 12-2-86CS 200UL SMPL + 200UL MEOL2 + 4UL IS (2X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:14

Operator ID: USER6
Quant Time: 861202 14:55
Injected at: 861202 14:07

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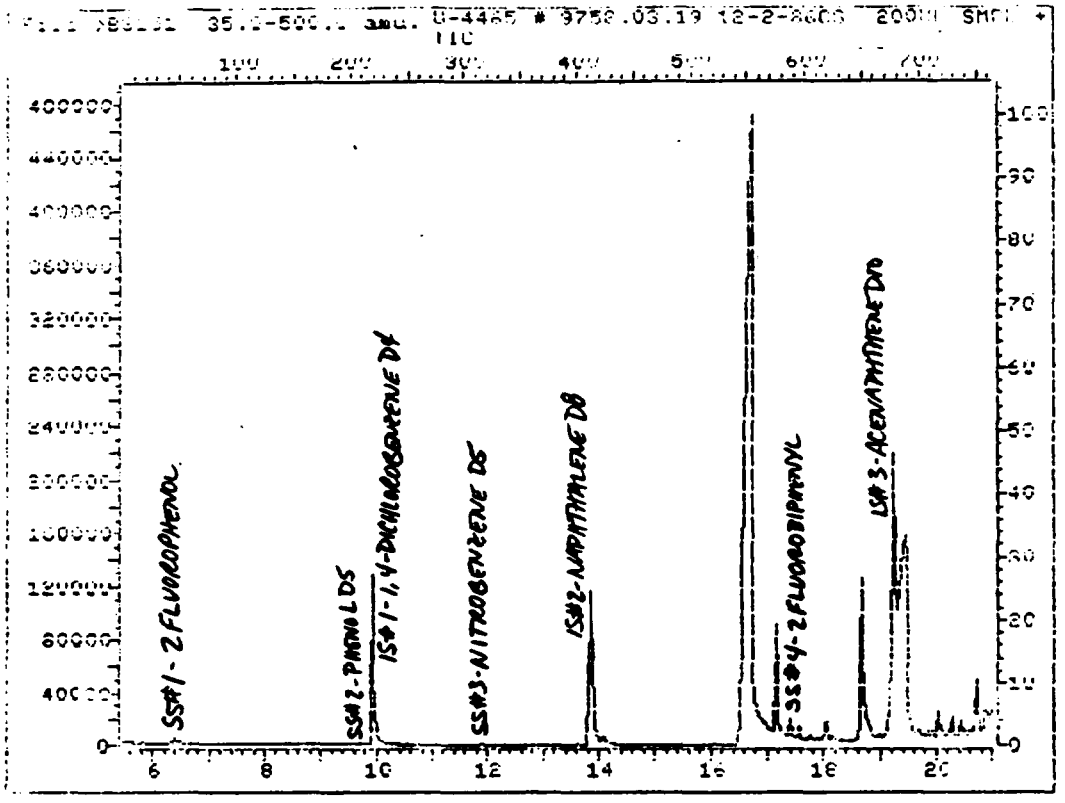
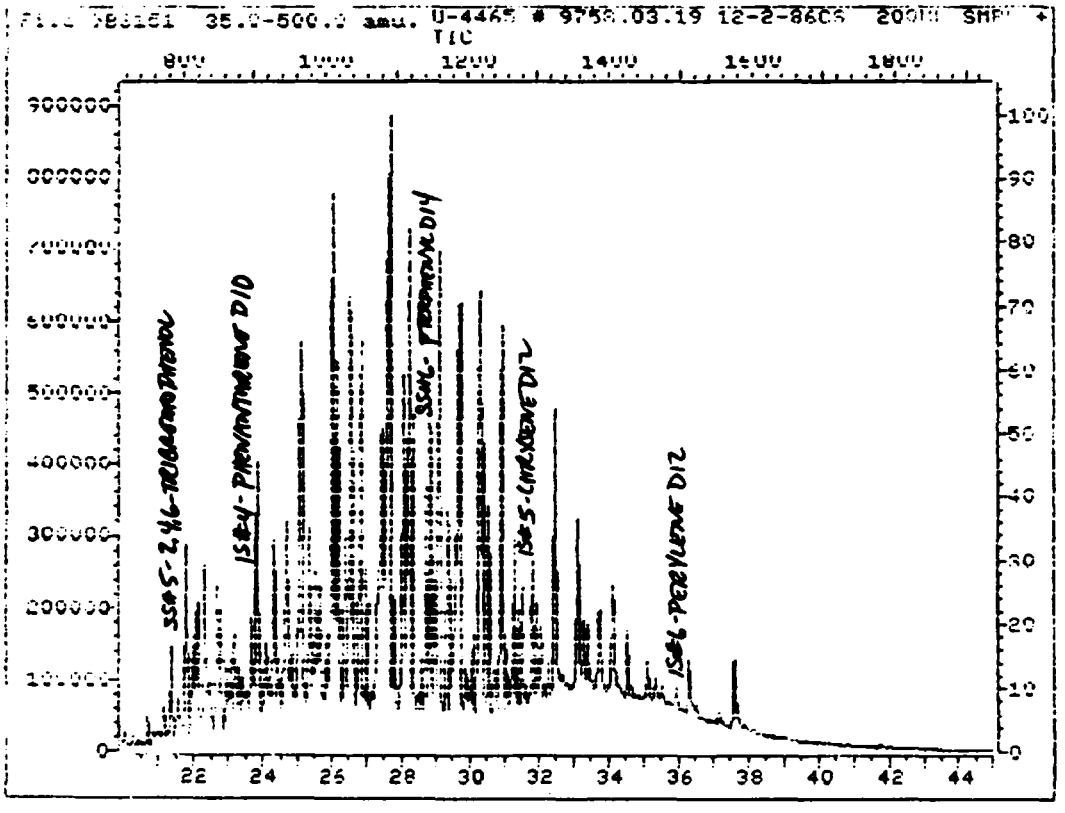
DC-SS-11





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861202 14:55
Output File: ^B8151::Q2 Injected at: 861202 14:07
Data File: ^B8151::D4 Dilution Factor: 2.00
Name: D-465 # 9258.03.19 DC-SS-11
Misc: 12-2-86CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X)

FINAL VOLUME = 10 ml

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:14

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.94	228	56729	40.00	UG/L	89
2)	PHENOL-D5	(SURR)	99	9.85	216	2853	2.15	UG/L	98
~~3)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~9.94~~	~~228~~	~~1716~~	~~1.80~~	~~UG/L~~	53
5)	2-FLUOROPHENOL	(SURR)	112	6.38	45	3734	5.12	UG/L	97
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.54~~	~~51~~	~~550~~	~~.77~~	~~UG/L~~	98
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.54~~	~~53~~	~~163~~	~~.22~~	~~UG/L~~	44
19)	*NAPHTHALENE-D8	(IS)	136	13.84	412	200215	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.89	316	1943	2.58	UG/L	94
~~26)~~	~~BENZOIC ACID~~		~~105~~	~~14.10~~	~~426~~	~~5567~~	~~8.32~~	~~UG/L~~	98
~~27)~~	~~1,2,4-TRICHLOROBENZENE~~		~~180~~	~~13.88~~	~~418~~	~~777~~	~~.07~~	~~UG/L~~	100
29)	NAPHTHALENE		128	13.90	415	59695	26.25	UG/L	100
33)	2-METHYLNAPHTHALENE		142	16.08	522	2284	1.96	UG/L	96
~~34)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~16.36~~	~~536~~	~~570~~	~~.41~~	~~UG/L~~	95
37)	*ACENAPHTHENE-D10	(IS)	162	19.25	678	69832	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	17.40	58[illegible]	8229	6.32	UG/L	97
~~40)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.95~~	~~6[illegible]8~~	~~20637~~	~~15.20~~	~~UG/L~~	100
41)	DIBENZOFURAN		168	19.84	707	2388	1.77	UG/L	100
42)	ACENAPHTHENE		153	19.33	682	1175	1.09	UG/L	91
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.76	80[illegible]	1181	5.53	UG/L	89
~~50)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~19.95~~	~~678~~	~~8546~~	~~28.48~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	23.70	896	70078	40.00	UG/L	93
60)	PENTACHLOROPHENOL		266	23.53	888	1178	9.11	UG/L	100
61)	PHENANTHRENE		178	23.76	899	7675	9.22	UG/L	92
~~62)~~	~~ANTHRACENE~~		~~178~~	~~23.76~~	~~899~~	~~7675~~	~~8.63~~	~~UG/L~~	92
65)	*CHRYSENE-D12	(IS)	240	31.89	1296	35609	40.00	UG/L	100
~~66)~~	~~BENZIDINE~~		~~184~~	~~27.81~~	~~1097~~	~~1[illegible]558~~	~~13558.00~~	~~NO CAL~~	100
~~67)~~	~~BENZIDINE~~		~~184~~	~~28.00~~	~~1110~~	~~47754~~	~~47754.00~~	~~NO CAL~~	100
~~68)~~	~~BENZIDINE~~		~~184~~	~~28.16~~	~~1114~~	~~21653~~	~~21653.00~~	~~NO CAL~~	100
~~69)~~	~~BENZIDINE~~		~~184~~	~~28.26~~	~~1119~~	~~70576~~	~~70576.00~~	~~NO CAL~~	100
~~70)~~	~~BENZIDINE~~		~~184~~	~~28.46~~	~~1124~~	~~32972~~	~~32972.00~~	~~NO CAL~~	100
71)	TERPHENYL-D14	(SURR)	244	28.96	1153	2074	5.21	UG/L	100
~~72)~~	~~BUTYL BENZYL PHTHALATE~~		~~149~~	~~30.40~~	~~1223~~	~~6[illegible]40~~	~~31.79~~	~~UG/L~~	39
~~73)~~	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~31.03~~	~~1203~~	~~17052~~	~~13[illegible].77~~	~~UG/L~~	100
~~74)~~	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~31.03~~	~~1203~~	~~9836~~	~~78.32~~	~~UG/L~~	100
~~75)~~	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~31.04~~	~~1204~~	~~6620~~	~~51.12~~	~~UG/L~~	100
~~76)~~	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~32.49~~	~~1325~~	~~35928~~	~~286.07~~	~~UG/L~~	100
~~77)~~	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~32.61~~	~~1331~~	~~3963~~	~~31.55~~	~~UG/L~~	100
~~78)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.43~~	~~1293~~	~~673~~	~~1.54~~	~~UG/L~~	59
~~79)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.96~~	~~1299~~	~~1408~~	~~3.26~~	~~UG/L~~	71
~~80)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.65~~	~~1340~~	~~2622~~	~~6.18~~	~~UG/L~~	27
~~81)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.76~~	~~1338~~	~~1826~~	~~4.42~~	~~UG/L~~	44
82)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.84	1342	4800	11.62	UG/L	89
~~83)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~33.23~~	~~1361~~	~~177~~	~~.43~~	~~UG/L~~	15
~~84)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~33.43~~	~~1366~~	~~911~~	~~1.96~~	~~UG/L~~	86
~~85)~~	~~CHRYSENE~~		~~228~~	~~31.83~~	~~1293~~	~~673~~	~~1.44~~	~~UG/L~~	60
~~86)~~	~~CHRYSENE~~		~~228~~	~~31.96~~	~~1299~~	~~1428~~	~~3.06~~	~~UG/L~~	72

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
[illegible]	*PERYLENE-D12	(IS)	264	35.96	1494	30136	411.00	UG/L	100
[illegible]	~~DI-N-BUTYL PHTHALATE~~		~~149~~	~~34.15~~	~~1446~~	~~493~~	~~1.62~~	~~UG/L~~	~~100~~
[illegible]	~~DI-N-BUTYL PHTHALATE~~		~~149~~	~~34.39~~	~~1461~~	~~314~~	~~.95~~	~~UG/L~~	~~100~~
[illegible]	~~DI-N-BUTYL PHTHALATE~~		~~149~~	~~34.56~~	~~1476~~	~~178~~	~~.58~~	~~UG/L~~	~~100~~
[illegible]	DI-N-BUTYL PHTHALATE		149	34.66	143[illegible]	3551	5.06	UG/L	100
[illegible]	~~DI-N-BUTYL PHTHALATE~~		~~149~~	~~35.41~~	~~1466~~	~~489~~	~~1.27~~	~~UG/L~~	~~100~~
[illegible]	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.38~~	~~1441~~	~~125~~	~~.35~~	~~UG/L~~	~~100~~
[illegible]	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.56~~	~~1476~~	~~1143~~	~~3.65~~	~~UG/L~~	~~100~~
[illegible]	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.66~~	~~1461~~	~~546~~	~~1.56~~	~~UG/L~~	~~100~~
[illegible]	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.97~~	~~1466~~	~~1476~~	~~4.84~~	~~UG/L~~	~~100~~
[illegible]	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~35.36~~	~~1465~~	~~883~~	~~2.27~~	~~UG/L~~	~~100~~
[illegible]	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.56~~	~~1476~~	~~1143~~	~~3.27~~	~~UG/L~~	~~100~~
[illegible]	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.66~~	~~1461~~	~~546~~	~~1.89~~	~~UG/L~~	~~100~~
[illegible]	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.97~~	~~1466~~	~~1976~~	~~2.14~~	~~UG/L~~	~~100~~
[illegible]	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~35.36~~	~~1465~~	~~883~~	~~1.68~~	~~UG/L~~	~~100~~
[illegible]	~~BENZO(A)PYRENE~~		~~252~~	~~35.36~~	~~1465~~	~~883~~	~~2.10~~	~~UG/L~~	~~100~~
[illegible]	~~BENZO(A)PYRENE~~		~~252~~	~~35.53~~	~~1473~~	~~131~~	~~.34~~	~~UG/L~~	~~100~~
[illegible]	~~BENZO(A)PYRENE~~		~~252~~	~~35.67~~	~~1480~~	~~478~~	~~1.25~~	~~UG/L~~	~~100~~
[illegible]	~~BENZO(A)PYRENE~~		~~252~~	~~35.96~~	~~1494~~	~~220~~	~~.59~~	~~UG/L~~	~~100~~

* Compound is ISTD

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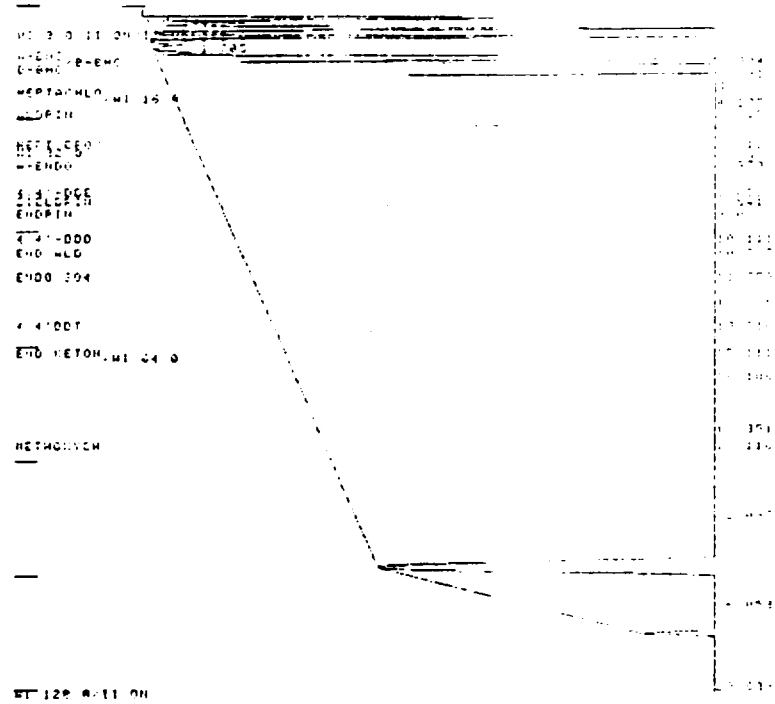


See Run 55

CHANNEL: 1A - 1 TITLE: RUN# 31

SAMPLE: 9753 [illegible] METHOD: CFPA CALCULATION: [illegible]

DC-SS-11

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	[illegible]
1		0.0000	1.400		[illegible]	[illegible]	[illegible]
2	A-BHC	39.2746	[illegible]	0.012	[illegible]	[illegible]	[illegible]
3	B-BHC	12699.26	[illegible]	0.104	[illegible]	[illegible]	[illegible]
4	D-BHC	14027.34	[illegible]	0.132	[illegible]	[illegible]	[illegible]
5		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
6		0.0000	3.760		[illegible]	[illegible]	[illegible]
7	HEPTACHLO	45954.80	[illegible]	-0.155	[illegible]	[illegible]	[illegible]
8		0.0000	4.175		[illegible]	[illegible]	[illegible]
9	ALDRIN	59043.32	4.615	-0.125	[illegible]	[illegible]	[illegible]
10		0.0000	4.941		[illegible]	[illegible]	[illegible]
11	HEPT EPOX	147665.9	[illegible]	0.152	[illegible]	[illegible]	[illegible]
12		0.0000	5.537		[illegible]	[illegible]	[illegible]
13	A-ENDO	129782.6	5.953	-0.197	[illegible]	[illegible]	[illegible]
14	4,4'-DDE	136002.9	[illegible]	-0.161	[illegible]	[illegible]	[illegible]
15	DIELDRIN	121694.8	8.541	0.211	[illegible]	[illegible]	[illegible]
16	ENDRIN	47635.55	[illegible]	-0.198	[illegible]	[illegible]	[illegible]
17	4,4'-DDD	264232.0	10.111	-0.219	[illegible]	[illegible]	[illegible]
18	END.ALD.	57345.05	10.755	0.335	[illegible]	[illegible]	[illegible]
19	ENDO SO4	289275.5	11.759	-0.351	[illegible]	[illegible]	56.00
20		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
21	4,4'DDT	551619.5	13.316	0.446	[illegible]	[illegible]	[illegible]
22	END KETON	12397.15	15.111	-0.409	[illegible]	[illegible]	[illegible]
23		0.0000	16.104		[illegible]	[illegible]	[illegible]
24		0.0000	18.351		[illegible]	[illegible]	[illegible]
25	METHOXYCH	446469.7	19.116	-0.694	[illegible]	[illegible]	[illegible]
26		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
27	DBC	203941.3	[illegible]	-0.977	[illegible]	[illegible]	[illegible]
28		0.0000	[illegible]		[illegible]	[illegible]	[illegible]

TOTALS: 2539825. -3.094 [illegible]

DETECTED PKS: 42 REJECTED PKS: 14

DIVISOR: 1.50000 MULTIPLIER: 50000.0000

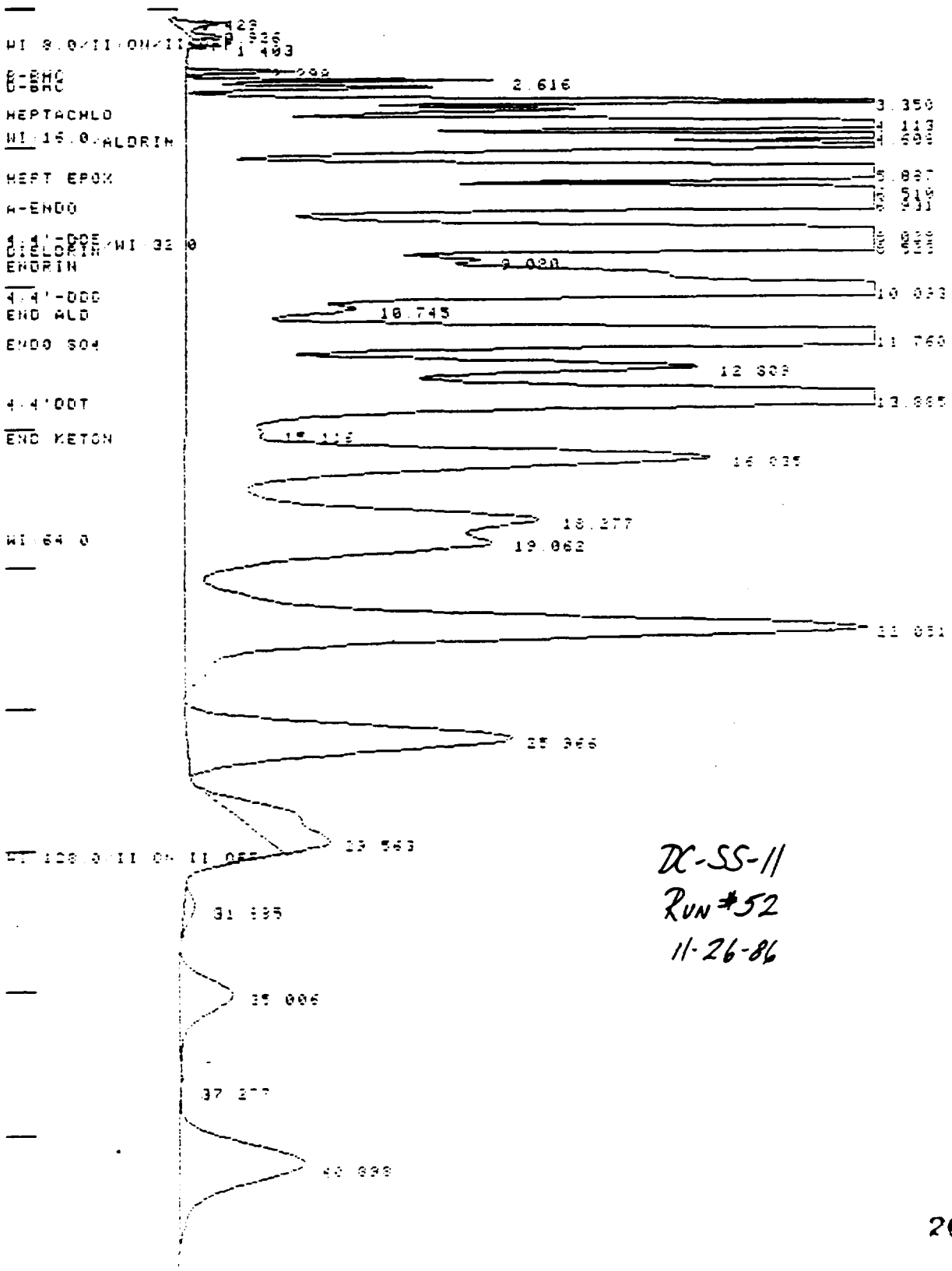
NOISE: 34.3 OFFSET: -116

RACK: 3 VIAL: 1 INJ: [illegible]

NOTES:
NOTEBOOK:[illegible]-41 ANALYST: [illegible] R.SAMSON
SECURE AREA: [illegible]
INST:VARIAN [illegible] A ECD 10+1
COLUMN: [illegible] GLASS 4MM ID 100/120 CHEMICOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2:0.60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
[illegible]
[illegible]

259

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-SS-11
Run #52
11-26-86

See Run 55

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CHANNEL: 1A - 1 TITLE: RUN# 2552 3:08 28 NOV 88

SAMPLE: 5758 DF=5,000 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	B-BHC	24737.75	2.238	0.058	65081	BV	5.13
2	D-BHC	38155.69	2.616	0.126	230975	VV	6.58
3		0.0000	2.884		211409	VV	6.56
4		0.0000	3.350		1252317	VV	8.13
5	HEPTACHLO	126755.4	3.674	-0.165	666520	VV	? 18.75
6		0.0000	4.113		2569385	VV	18.08
7	ALDRIN	302285.6	4.608	-0.132	1900540	VV	12.88
8		0.0000	4.928		1951084	VV	12.38
9	HEPT EPOX	1070741.	5.887	0.127	6274910	VV	22.19
10		0.0000	6.510		2441578	VV	? 18.50
11	A-ENDO	679468.6	6.931	-0.219	3756937	VV	? 31.38
12	4,4'-DDE	634009.6	8.028	-0.152	3584412	VV	? 28.94
13	DIELDRIN	675828.8	8.523	0.193	4078347	VV	? 25.05
14	ENDRIN	107249.9	9.080	-0.200	455568	VV	? 15.69
15	4,4'-DDD	1248114.	10.093	-0.237	6363197	VV	25.50
16	END.ALD.	109066.1	10.745	0.325	413177	VV	? 32.63
17	ENDO SO4	1480870.	11.760	-0.350	6122592	VV	34.50
18		0.0000	12.809		1805710	VV	35.89
19	4,4'DDT	2275029.	13.885	0.415	5863187	VV	35.94
20	END KETON	25903.78	15.116	-0.404	153235	VV	? 15.94
21		0.0000	16.035		3107000	VV	51.99
22		0.0000	18.277		2099585	VV	? 51.88
23	METHOXYCH	969544.6	19.062	-0.748	1605134	VV	? 70.55
24		0.0000	22.051		4374512	VB	52.31
25	DBC	498557.1	25.966	-1.064	2255914	BV	64.13
26		0.0000	29.563		612357	VB	?145.83
27		0.0000	31.885		59791	BV	147.83
28		0.0000	35.006		469985	VV	79.31
29		0.0000	40.893		1290527	VB	81.13
TOTALS:		++++++++		-2.428	68034556		

DETECTED PKS: 39 REJECTED PKS: 10

DIVISOR: 1.50000 MULTIPLIER: 5000000.00

NOISE: 57.1 OFFSET: -12

RACK: 1 VIAL: 3 INJ: 1

NOTES:
NOTEBOOK:2S9-41 ANALYST: K.JUREK/R.SAMSON
SECURE AREA: D JOB#:U-4465 DC-SS-1!
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 8' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: RAW SLYS14

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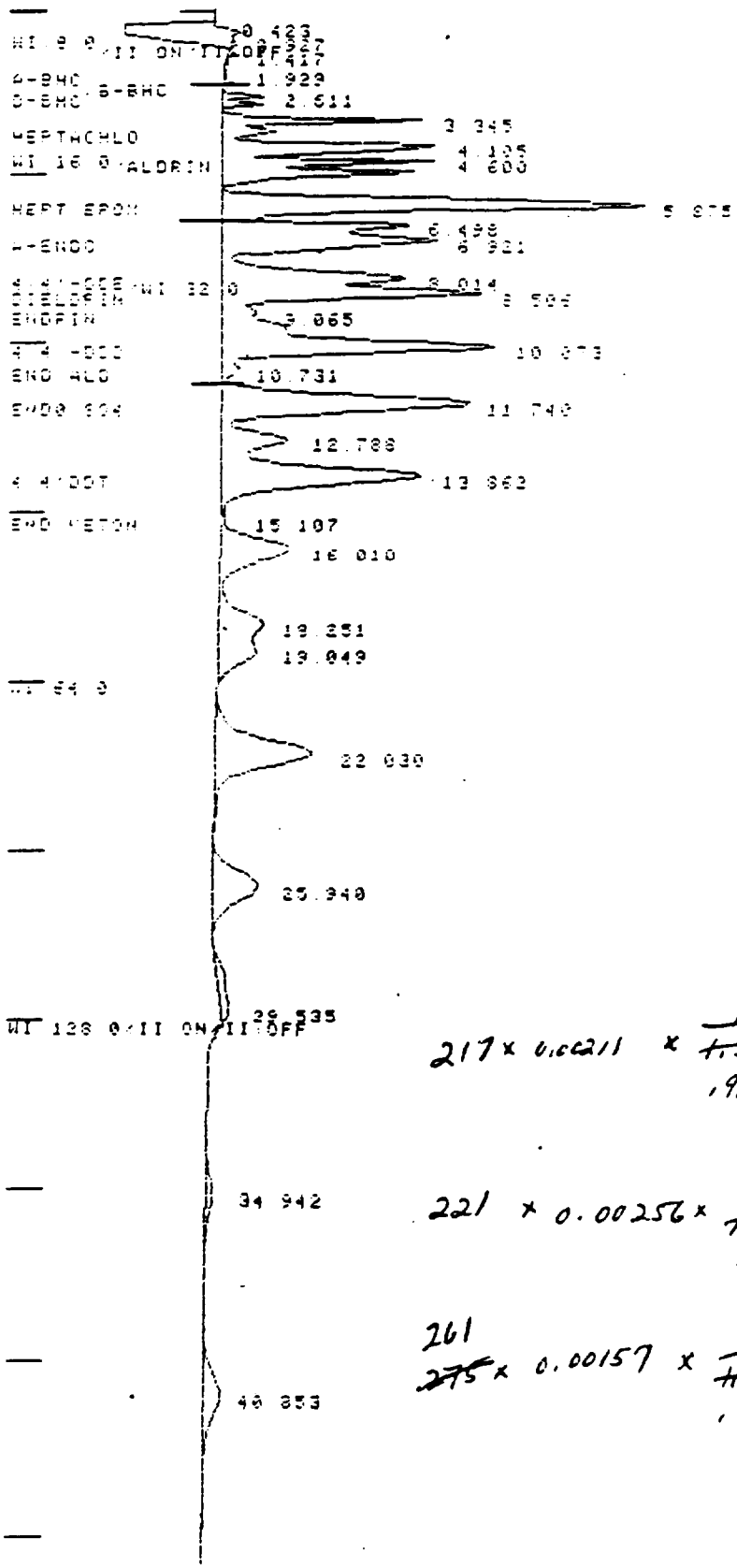
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-SS-11
RUN #55
11-26-86

$217 \times 0.00211 \times \frac{1}{\cancel{1.5}\ .96} \times 50{,}000{,}000 = \cancel{15{,}262{,}330}$ ug/kg (24.
24,000,000

$221 \times 0.00256 \times \frac{1}{\cancel{1.5}\ .96} \times 50{,}000{,}000 = \cancel{18{,}155{,}115}$ ug/kg (2.
29,500,000

261
$\cancel{275} \times 0.00157 \times \frac{1}{\cancel{1.5}\ .96} \times 50{,}000{,}000 = \cancel{13{,}157{,}000}\ \cancel{10{,}858{,}065}$ ug/kg (.
21,000,000

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CHANNEL: 1A - 1 TITLE: RUN# 55 13:49 28 NOV 88

DF=50,000

SAMPLE: 9758.03.1SA1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	D-BHC	46993.98	2.611	0.121	28447	VV	8.31
2		0.0000	2.679		24860	VV	8.19
3		0.0000	3.345		154833	VV	7.81
4	HEPTACHLO	142703.4	3.668	-0.172	75038	VV	? 17.19
5		0.0000	4.105		324268	VV	17.31
6	ALDRIN	375810.4	4.600	-0.140	236155	VV	12.06
7		0.0000	4.920		226182	VV	11.63
8	HEPT EPOX	1381707.	5.875	0.115	806728	VV	20.84
9		0.0000	6.498		294454	VV	? 15.63
10	A-ENDO	821903.2	6.921	-0.229	454445	VV	? 28.31
11	4,4'-DDE	745153.4	8.014	-0.206	421277	VV	? 27.38
12	DIELDRIN	822881.6	8.506	0.176	456722	VV	24.31
13	ENDRIN	104339.4	9.065	-0.215	44346	VV	? 15.88
14	4,4'-DDD	1491955.	10.073	-0.257	760636	VV	23.88
15	END.ALD.	81635.21	10.731	0.311	30926	VV	? 25.75
16	ENDO SO4	1777375.	11.740	-0.370	734846	VV	32.50
17		0.0000	12.788		1187753	VV	31.00
18	4,4'DDT	2625415.	13.862	0.392	676620	VV	32.94
19	END KETON	521285.9	16.010	0.490	308369	VV	47.19
20		0.0000	18.251		195125	VV	? 45.44
21	METHOXYCH	876473.9	~~19.849~~	-0.761	~~[illegible]~~	VB	? 84.38
22		0.0000	22.030		456794	BV	50.50
23	DBC	578582.0	25.940	-1.090	280942	VV	62.13
24		0.0000	29.535		68703	VB	?144.31
25		0.0000	34.942		50362	BB	72.19
26		0.0000	40.653		154610	BB	91.31
TOTALS:		********		-1.835	7691558		

DETECTED PKS: 40 REJECTED PKS: 14

DIVISOR: 1.50000 MULTIPLIER: ~~[illegible]~~ 50,000,000

NOISE: 22.9 OFFSET: 4

NOTES:
NOTEBOOK:259-41 ANALYST: K.JUREK/R.SAMSON
SECURE AREA: D JOB#:U-4465 DC-SS-11
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 8' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: RAW SLY517

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SAMPLE NUMBER DC-SS-12

Sample Number
DC-SS-12

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9759 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-22-86

Conc./Dil Factor: 3 pH 5.6

Percent Moisture: (Not Decanted) 36

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	105B
67-64-1	Acetone	27 BJ
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	110
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	7 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Form I 11/85

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Sample Number
DC-SS-12-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc
Case No: U-4465
Lab Sample ID No: 9759 RE
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Stoytowicz
Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-27-86

Conc./Dil Factor: 3 pH 5.6

Percent Moisture: (Not Decanted) 36

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	105B
67-64-1	Acetone	27BJ
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	280
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	50
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution, etc. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ [illegible] ng/µl in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number DC-SS-12

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-2-86

Conc/Dil Factor 10

Percent Moisture (Decanted) 36

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	2600	U
111-44-4	bis(-2-Chloroethyl)Ether	2600	U
95-57-8	2-Chlorophenol	2600	U
541-73-1	1 3-Dichlorobenzene	2600	U
106-46-7	1 4-Dichlorobenzene	2600	U
100-51-6	Benzyl Alcohol	2600	U
95-50-1	1 2-Dichlorobenzene	2600	U
95-48-7	2-Methylphenol	2600	U
39638-32-9	bis(2-chloroisopropyl)Ether	2600	U
106-44-5	4-Methylpheno	2600	U
621-64-7	N-Nitroso-Di-n-Propylamine	2600	U
67-72-1	Hexachloroethane	2600	U
98-95-3	Nitrobenzene	2600	U
78-59-1	Isophorone	2600	U
88-75-5	2-Nitrophenol	2600	U
105-67-9	2. 4-Dimethylphenol	2600	U
65-85-0	Benzoic Acid	12000	U
111-91-1	bis(-2-Chloroethoxy)Methane	2600	U
120-83-2	2 4-Dichlorophenol	2600	U
120-82-1	1 2. 4-Trichlorobenzene	2600	U
91-20-3	Naphthalene	2600	U
106-47-8	4-Chloroaniline	2600	U
87-68-3	Hexachlorobutadiene	2600	U
59-50-7	4-Chloro-3-Methylphenol	2600	U
91-57-6	2-Methylnaphthalene	2600	U
77-47-4	Hexachlorocyclopentadiene	2600	U
88-06-2	2 4 6-Trichlorophenol	2600	U
95-95-4	2. 4 5-Trichlorophenol	12000	U
91-58-7	2-Chloronaphthalene	2600	U
88-74-4	2-Nitroaniline	12000	U
131-11-3	Dimethyl Phthalate	2600	U
208-96-8	Acenaphthylene	2600	U
99-09-2	3-Nitroaniline	12000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2600	U
51-28-5	2, 4-Dinitrophenol	12000	U
100-02-7	4-Nitrophenol	12000	U
132-64-9	Dibenzofuran	2600	U
121-14-2	2 4-Dinitrotoluene	2600	U
606-20-2	2 6-Dinitrotoluene	2600	U
84-66-2	Diethylphthalate	2600	U
7005-72-3	4-Chlorophenyl-phenylether	2600	U
86-73-7	Fluorene	2600	U
100-01-6	4-Nitroaniline	12000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	12000	U
86-30-6	N-Nitrosodiphenylamine (1)	2600	U
101-55-3	4-Bromophenyl-phenylether	2600	U
118-74-1	Hexachlorobenzene	2600	U
87-86-5	Pentachlorophenol	7800	J
85-01-8	Phenanthrene	2600	U
120-12-7	Anthracene	2600	U
84-74-2	Di-n-Butylphthalate	2600	U
206-44-0	Fluoranthene	1300	J
129-00-0	Pyrene	1100	J
85-68-7	Butylbenzylphthalate	2600	U
91-94-1	3 3 -Dichlorobenzidine	2600	U
56-55-3	Benzo(a)Anthracene	2600	U
117-81-7	bis(2-Ethylhexyl)Phthalate	820	J
218-01-9	Chrysene	2600	U
117-84-0	Di-n-Octyl Phthalate	3100	B
205-99-2	Benzo(b)Fluoranthene	1200	J
207-08-9	Benzo(k)Fluoranthene	2600	U
50-32-8	Benzo(a)Pyrene	520	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	2600	U
53-70-3	Dibenz(a h)Anthracene	2600	U
191-24-2	Benzo(g h. i)Perylene	2600	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-12

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 11-24-86

Conc/Dil Factor: 1,000

Percent Moisture (decanted) 36.4

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16,000 u
319-85-7	Beta-BHC	16,000 u
319-86-8	Delta-BHC	16,000 u
58-89-9	Gamma-BHC (Lindane)	16,000 u
76-44-8	Heptachlor	16,000 u
309-00-2	Aldrin	16,000 u
1024-57-3	Heptachlor Epoxide	16,000 u
959-98-8	Endosulfan I	16,000 u
60-57-1	Dieldrin	32,000 u
72-55-9	4,4'-DDE	32,000 u
72-20-8	Endrin	32,000 u
33213-65-9	Endosulfan II	32,000 u
72-54-8	4,4'-DDD	32,000 u
1031-07-8	Endosulfan Sulfate	32,000 u
50-29-3	4,4'-DDT	32,000 u
72-43-5	Methoxychlor	160,000 u
53494-70-5	Endrin Ketone	32,000 u
57-74-9	Chlordane	160,000 u
8001-35-2	Toxaphene	320,000 u
12674-11-2	Aroclor-1016	160,000 u
11104-28-2	Aroclor-1221	160,000 u
11141-16-5	Aroclor-1232	160,000 u
53469-21-9	Aroclor-1242	160,000 u
12672-29-6	Aroclor-1248	160,000 u
11097-69-1	Aroclor-1254	320,000 u
11096-82-5	Aroclor-1260	174,000 J C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Form 1

7 85
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ecology and environment

Laboratory Name Ecology & Environment, Inc
Case No U-4465

Sample Number
DC-SS-12

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1. 74209	Acetic acid methyl ester	VOA	11.2	150 J
2.	Hexene isomer	VOA	18.0	57 J
3.	Hexene isomer	VOA	18.5	36 J
4.	Hexene isomer	VOA	18.7	160
5.	Unknown ketone	VOA	19.6	1 BJ
6.	Hexane isomer	VOA	19.8	19 J
7.				
8. 85449	1,3-ISOBENZOFURANDIONE	BNA	16.6	15,000 J
9. 27854406	(1,1-DIMETHYLDECYL) BENZENE		20.4	20,000 J
10.	UNKNOWN		21.4	160,000 J
11.	UNKNOWN - AROMATIC		22.2	85,000 J
12.	UNKNOWN - AROMATIC		22.4	180,000 J
13.	UNKNOWN -		22.8	1,400,000 J
14.	PENTAMETHYL HEPTYL BENZENE		22.9	250,000 J
15.	UNKNOWN		24.5	53000 J
16. 81845	1H,3H-NAPHTHO(1,8-CD)PYRAN-1,3-DIONE		24.7	49000 J
17. 84651	9,10-ANTHRACENEDIONE		26.4	29000 J
18.	UNKNOWN		26.9	200,000 J
19. 10544500	MOLECULAR SULFUR		27.1	210,000 J
20.	PCB		27.6-29.1	-
21.	ANTHRACENEDIONE		29.6	46000 J
22.	DIMETHYL NONYL BENZENE		29.9	49000 J
23.	PCB		30.3-30.9	-
24.	UNKNOWN		32.5	8300 J
25. 482235	3-(3-OXO-1(3H)-ISOBENZOFURANYLIDENE-		33.1	16000 J
26.	1(3H)-ISOBENZOFURANONE			
27.	AN ISOBENZOFURANONE		33.8	25000 J
28.	UNKNOWN HYDROCARBON		34.7	18000 J
29.	UNKNOWN		37.7	76000 J
30				

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Laboratory Name ecology and environment, inc.

Case No u-4465

Sample Number DC-SS-12-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1. 79209	Acetic acid, methyl ester	VOA	11.3	270 J
2.	Hexene isomer	VOA	18.0	2800 J
3.	Hexene isomer	VOA	18.7	6700 J
4.	Hexene isomer	VOA	19.5	270 J
5.	Hexene isomer	VOA	19.9	1600 J
6.	Unknown hydrocarbon	VOA	26.8	81 J
7.				
8.				
9.				
10.				
11.				
12.				
13.				
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15.				
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30				

Form 1, Part B

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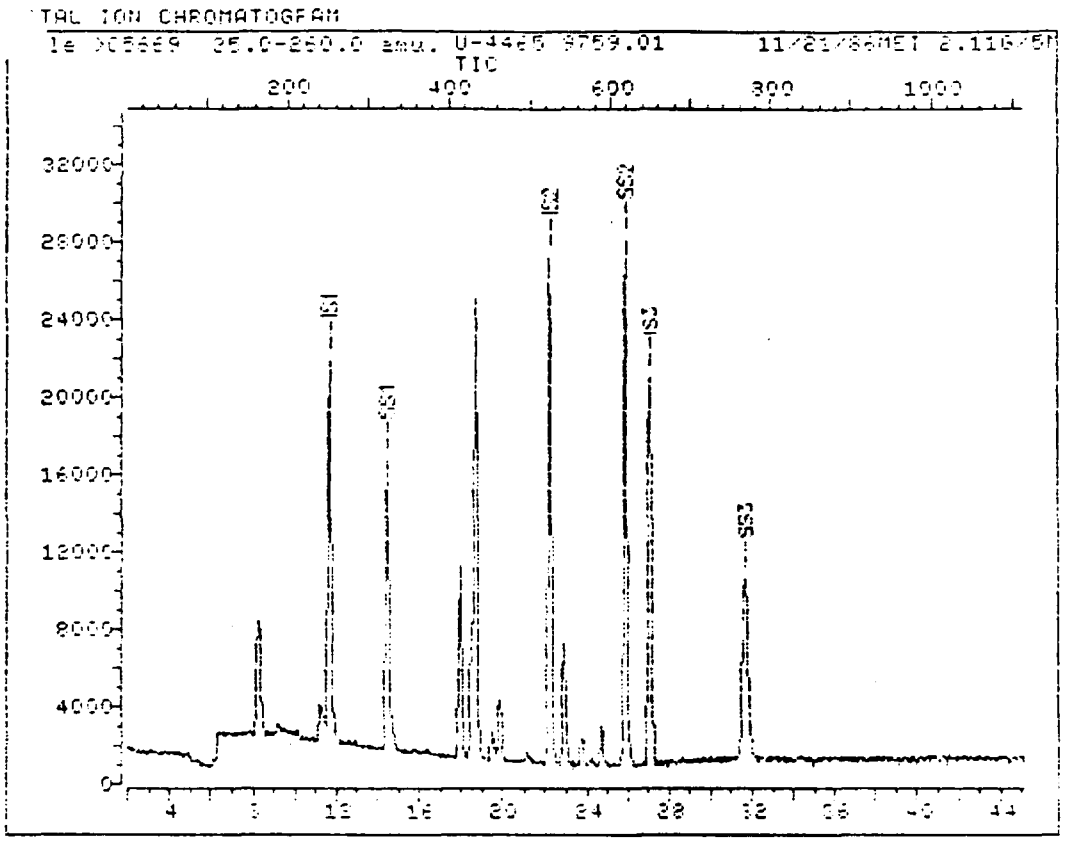
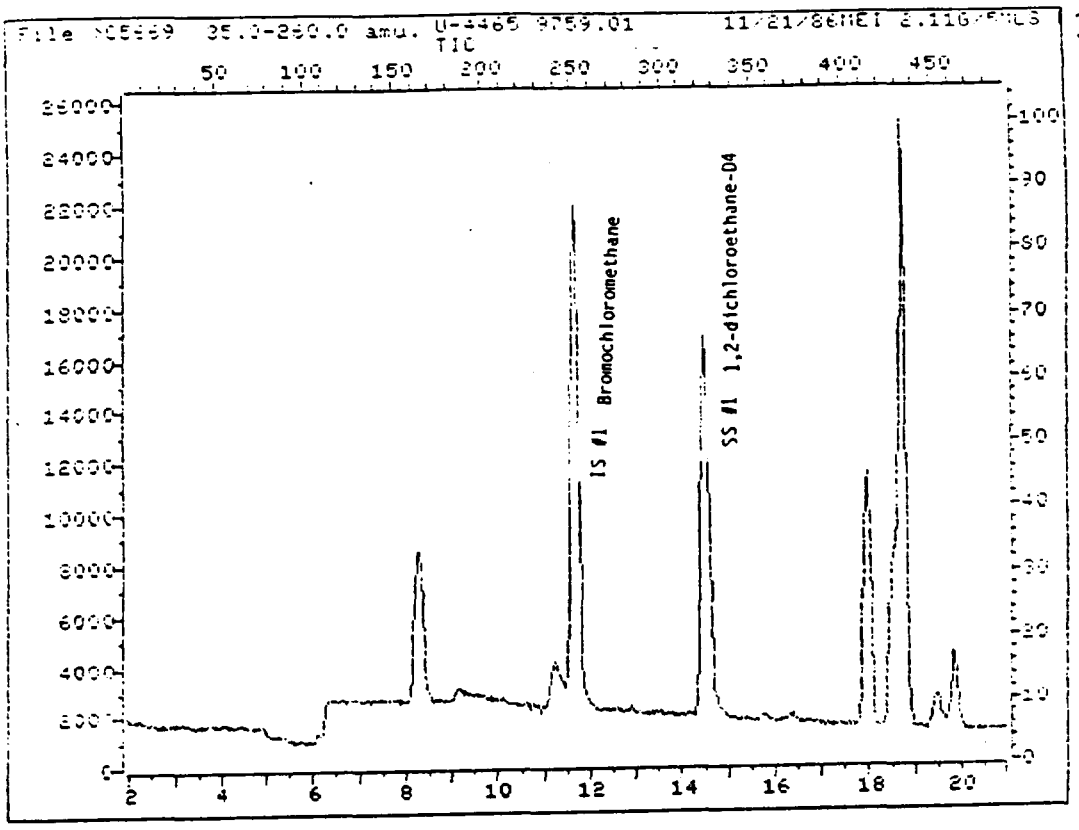


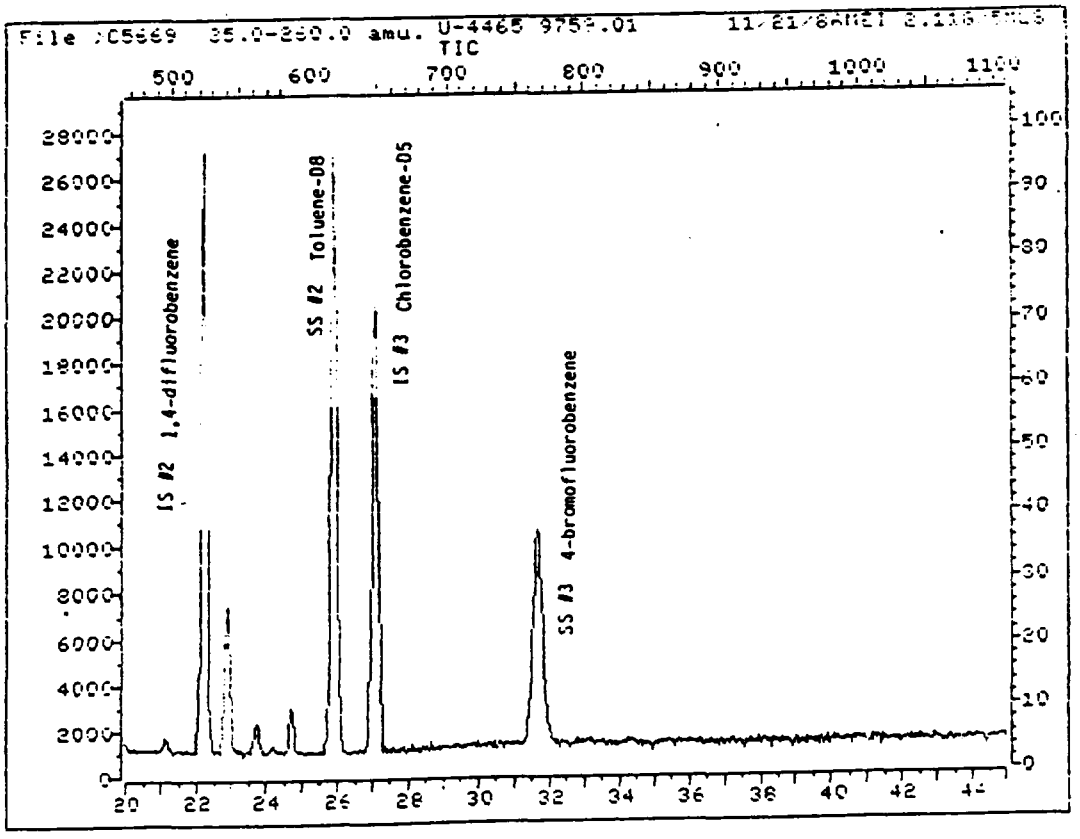
Data File: >C5669::D3
Name: U-4465 9759.01 DC-SS-12
Misc: 11/21/96MEI 2.11G/5MLS DI + 10UL IS/SS

Id File: VOACPS::D2
Title: VOH ID FILE FOR HP-5999 (CONT. CAL.)
Last Calibration: 961121 22:01

Operator ID: USE99
Quant Time: 961122 06:34
Injected at: 961122 05:48

DC-SS-12





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861122 06:34
Output File: ^C9669::D2 Injected at: 861122 05:48
Data File: >C9669::D3 Dilution Factor: 1.00
Name: U-4465 9759.01 DC-SS-12
Misc: 11/21/86ME! 2.11G/5MLS DI + 10UL IS/SS

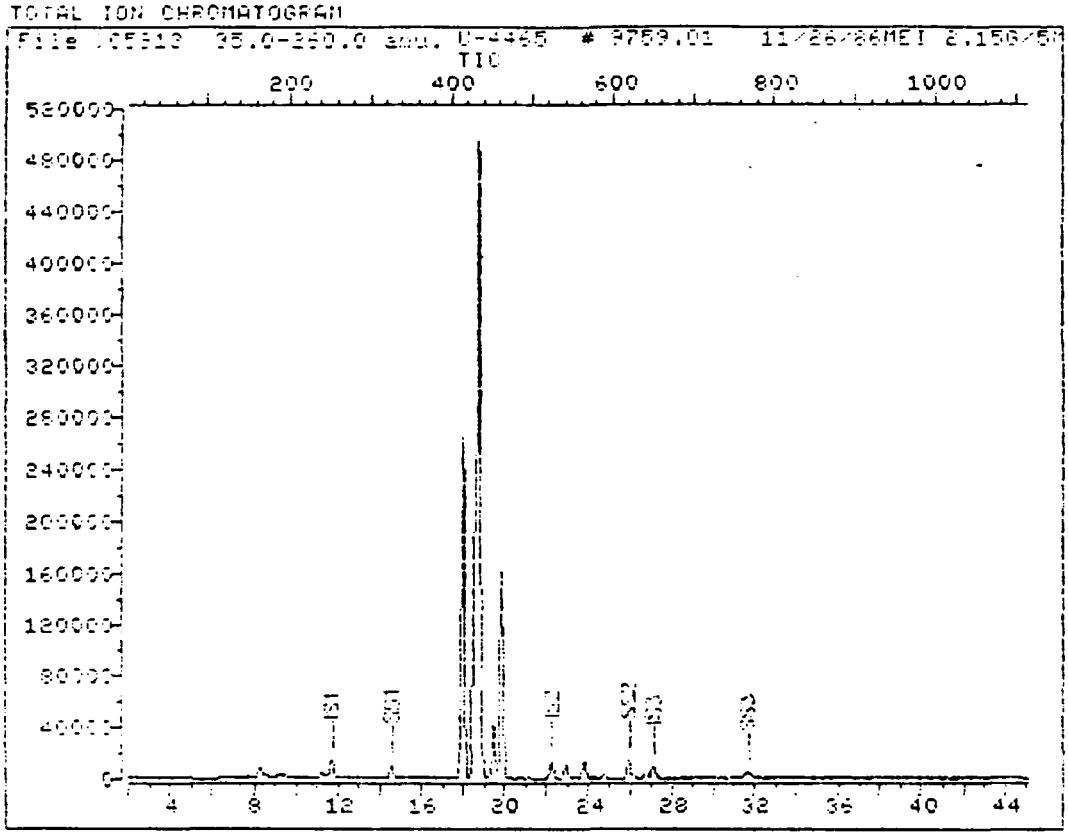
ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 22:21

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	%
1)	*BROMOCHLOROMETHANE	(IS)	128	11.65	251	30182	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.24	163	18011	94.01	NGS	100
7)	ACETONE		43	9.13	186	5426	77.25	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.48	324	63254	197.59	NGS	90
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.21	523	109747	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.06	648	68640	250.00	NGS	100
32)	4-METHYL-2-PENTANONE		43	22.90	541	31346	145.11	NGS	92
33)	~~2-HEXANONE~~		~~43~~	~~23.76~~	~~563~~	~~[illegible]~~	~~[illegible]~~	~~NGS~~ no cal	100
36)	TOLUENE-D8	(SURR)	98	25.89	618	107819	279.35	NGS	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.66	756	34780	177.23	NGS	100
**	TETRACHLOROETHENE		166	24.73	588	2723	7ug/kg		

* Compound is ISTD

** observed in TIC

TOTAL ION CHROMATOGRAM

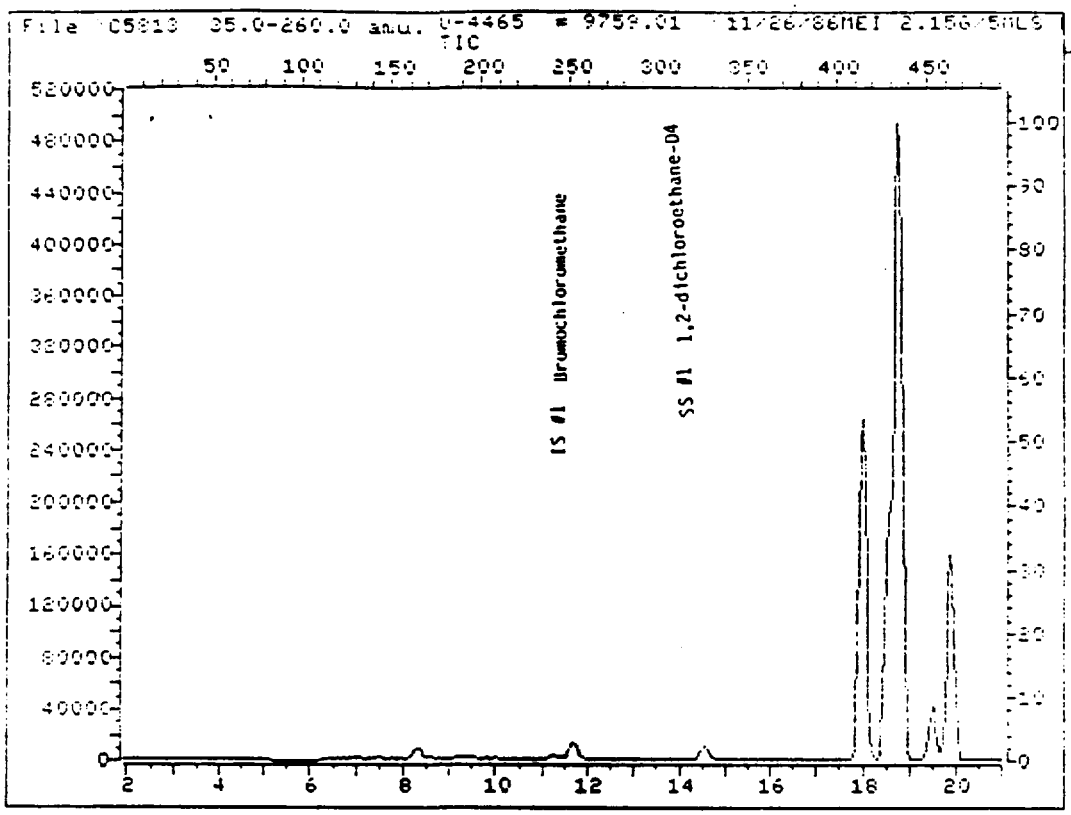


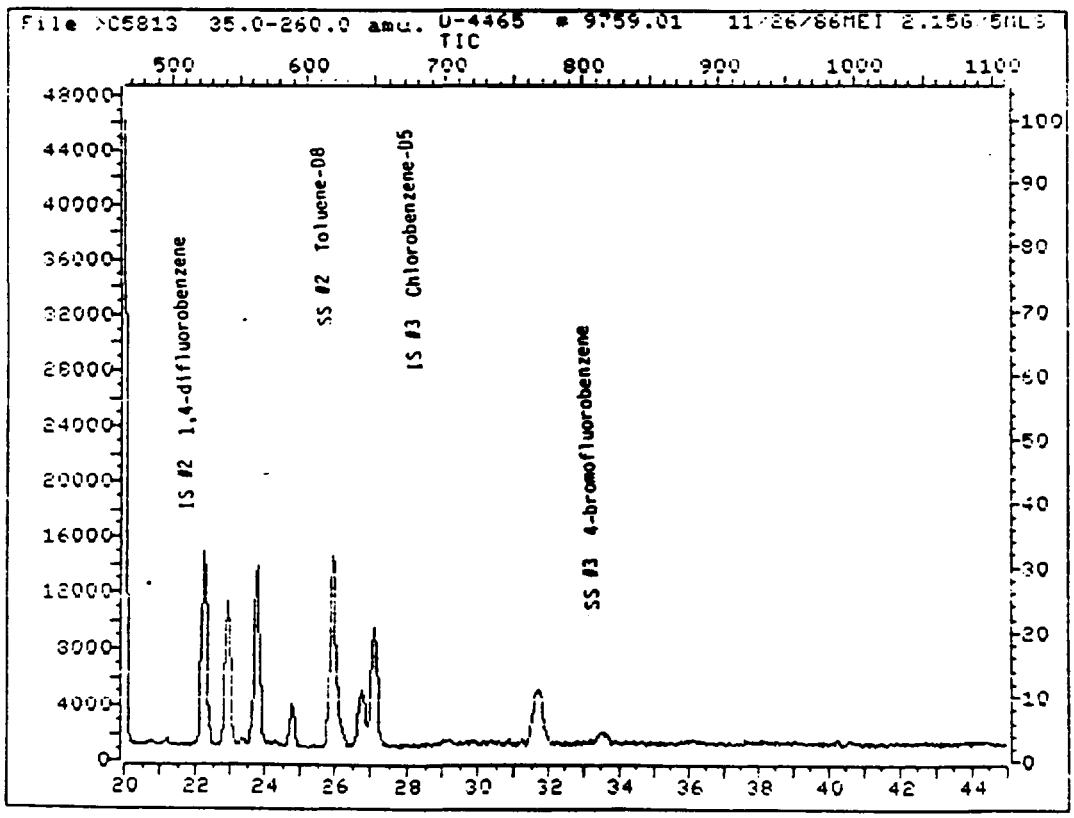
Data File: >C5813::D3
Name: U-4465 # 9759.01 DC-SS-12-RE
Misc: 11/26/86MEI 2.15G/5MLS DI - 10UL IS/SS

Id File: VOACPS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861126 21:46

Operator ID: USER6
Quant Time: 861127 00:51
Injected at: 861127 00:05

DC-SS-12-RE





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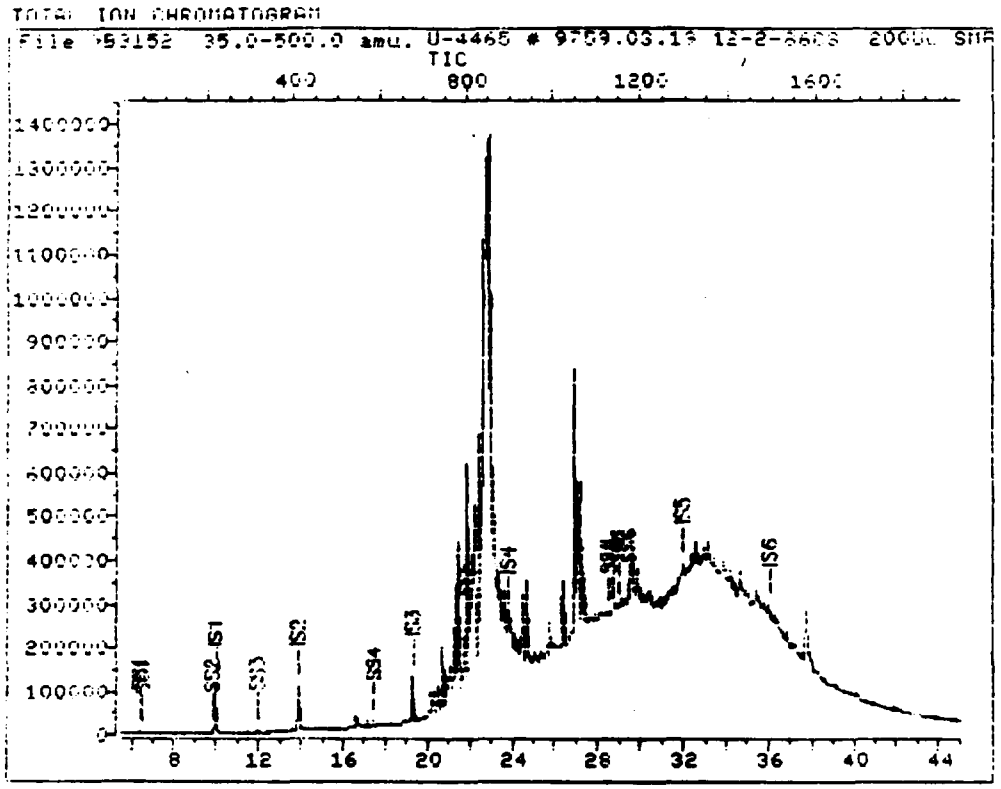
QUANT REPORT

perator ID: USER6 Quant Rev: 4 Quant Time: 861127 00:51
utput File: ^C5813::Q2 Injected at: 861127 00:05
ata File: >C5813::D3 Dilution Factor: 1.00
ame: U-4465 # 9759.01 DC-SS-12-RE
isc: 11/26/86MEI 2.15G/5MLS DI + 10UL IS/SS

D File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861126 21:46

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	%
1)	*BROMOCHLOROMETHANE	(IS)	128	11.69	252	19628	250.00	NGS	100
5)	METHYLENE CHLORIDE		84	8.31	165	21866	145.45	NGS	100
7)	ACETONE		43	9.20	188	2805	36.69	NGS	100
6)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.56	326	40955	171.59	NGS	84
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.24	524	60772	250.00	NGS	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.09	649	30830	250.00	NGS	100
2)	4-METHYL-2-PENTANONE		43	22.94	542	49252	385.46	NGS	84
3)	~~4-METHYL-2-PENTANONE~~		~~43~~	~~23.77~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~NGS~~	~~93~~
7)	~~2-HEXANONE~~		~~43~~	~~27.79~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~NGS~~	~~100~~
4)	TETRACHLOROETHENE		164	24.76	589	4356	69.37	NGS	99
5)	TOLUENE-D8	(SURR)	98	25.93	619	56446	341.94	NGS	94
1)	4-BROMOFLUOROBENZENE	(SURR)	95	31.68	767	14689	177.92	NGS	100

* Compound is ISTD



Data File: >B1152::D4
Name: U-4465 # 9759.03.19 DC-SS-12
Misc: 12-2-86 IS 200UL SMPL + 200UL MECL2 + 40UL IS (2X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:14

Operator ID: USER6
Quant Time: 861202 15:47
Injected at: 861202 14:59

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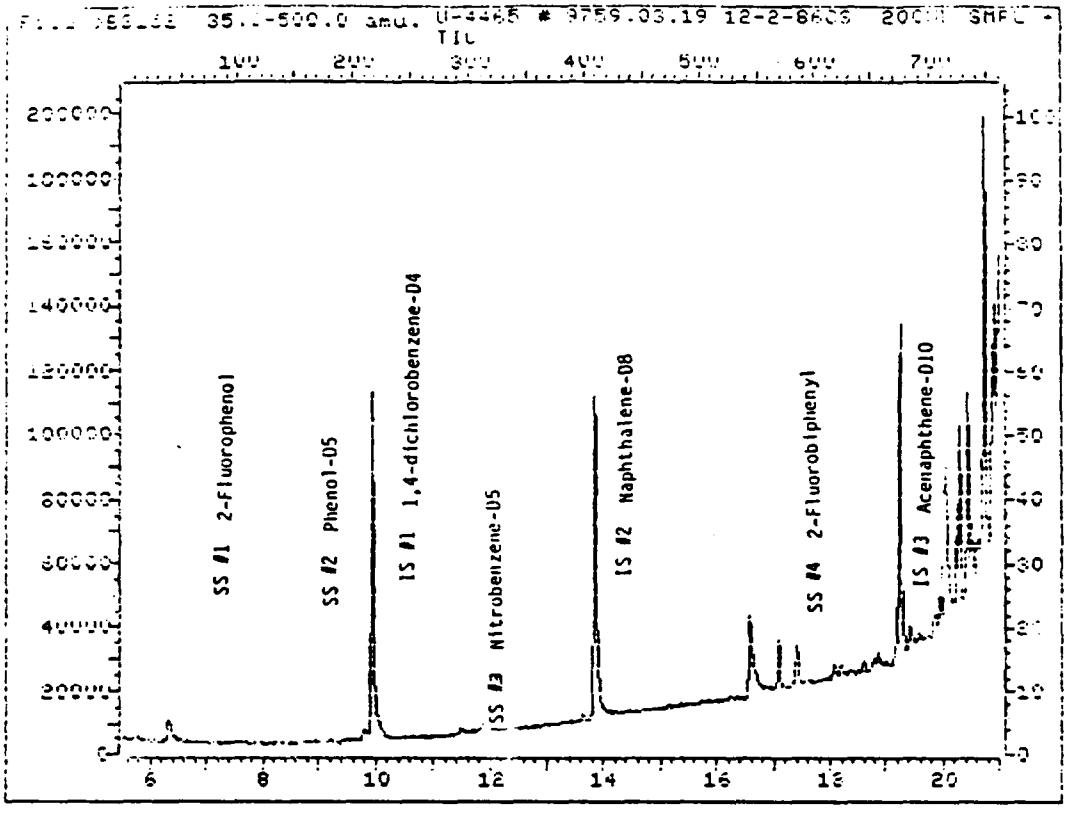
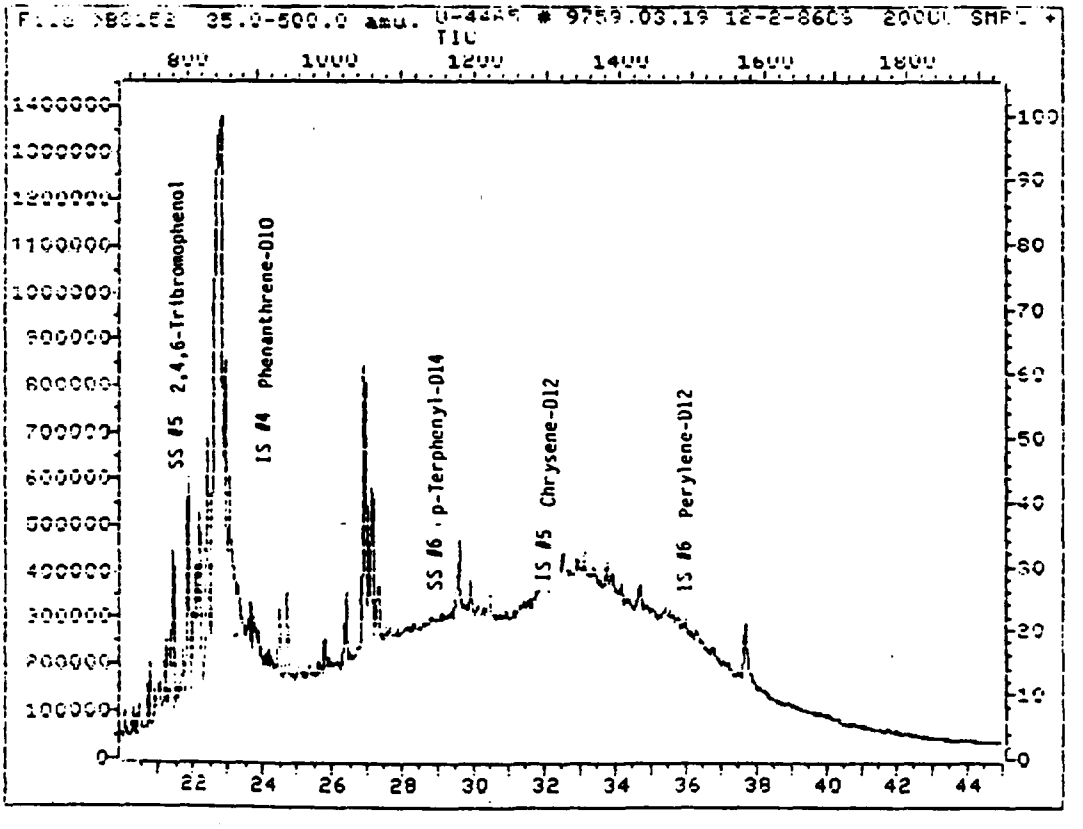
DC-SS-12





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861202 15:47
Output File: ^B41F2::Q2 Injected at: 861202 14:59
Data File: >B41F2::D4 Dilution Factor: 2.00
Name: U-4465 # 9759.03.19 DC-SS-12
Misc: 12-2-86LS 2000UL SMPL + 200UL MECL2 + 4UL IS (2X)

FINAL VOLUME = 5.0ml

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:14

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.95	218	58075	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	9.79	210	8578	8.74	UG/L	88
5)	2-FLUOROPHENOL	(SURR)	112	6.33	40	9680	12.92	UG/L	68
~~4)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.47~~	~~42~~	~~1523~~	~~2.10~~	~~UG/L~~	96
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.09~~	~~274~~	~~572~~	~~.34~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.21~~	~~290~~	~~340~~	~~.20~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.50~~	~~296~~	~~307~~	~~.18~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.60~~	~~299~~	~~340~~	~~.20~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.70~~	~~304~~	~~269~~	~~.16~~	~~UG/L~~	100
~~14)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.80~~	~~313~~	~~2497~~	~~1.40~~	~~UG/L~~	54
19)	*NAPHTHALENE-D8	(IS)	136	13.86	418	184337	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.88	313	6148	8.50	UG/L	92
~~20)~~	~~NAPHTHALENE~~		~~128~~	~~13.92~~	~~417~~	~~398~~	~~.17~~	~~UG/L~~	100
24)	*ACENAPHTHENE-D10	(IS)	162	19.27	676	61784	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	17.42	585	13853	11.20	UG/L	99
~~42)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.97~~	~~676~~	~~12048~~	~~1.69~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.80	808	2359	12.35	UG/L	99
~~49)~~	~~2,4,6-TRINITROTOLUENE~~		~~165~~	~~19.95~~	~~675~~	~~2406~~	~~20.29~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	23.76	896	68641	40.00	UG/L	88
61)	PENTACHLOROPHENOL		266	23.58	887	3260	28.12	UG/L	100
61)	PENTACHLOROPHENOL		266	23.68	892	198	1.71	UG/L	100
64)	FLUORANTHENE		202	27.47	1077	3287	4.96	UG/L	94
~~63)~~	~~FLUORANTHENE~~		~~202~~	~~27.04~~	~~1048~~	~~661~~	~~1.00~~	~~UG/L~~	1
~~63)~~	~~FLUORANTHENE~~		~~202~~	~~27.46~~	~~1101~~	~~540~~	~~.81~~	~~UG/L~~	19
65)	*CHRYSENE-D12	(IS)	240	31.93	1294	41572	40.00	UG/L	100
~~66)~~	~~BENZIDINE~~		~~184~~	~~28.02~~	~~1104~~	~~73~~	~~773.00~~	~~NO CAL~~	~~B100~~
~~66)~~	~~BENZIDINE~~		~~184~~	~~28.13~~	~~1109~~	~~643~~	~~643.00~~	~~NO CAL~~	~~B100~~
~~66)~~	~~BENZIDINE~~		~~184~~	~~28.21~~	~~1113~~	~~1641~~	~~1641.00~~	~~NO CAL~~	~~B100~~
~~66)~~	~~BENZIDINE~~		~~184~~	~~28.33~~	~~1119~~	~~622~~	~~622.00~~	~~NO CAL~~	~~B100~~
~~66)~~	~~BENZIDINE~~		~~184~~	~~28.72~~	~~1138~~	~~44~~	~~44.00~~	~~NO CAL~~	~~B100~~
~~67)~~	~~PYRENE~~		~~202~~	~~27.72~~	~~1099~~	~~516~~	~~.65~~	~~UG/L~~	
~~67)~~	~~PYRENE~~		~~202~~	~~27.98~~	~~1109~~	~~461~~	~~.13~~	~~UG/L~~	19
~~67)~~	~~PYRENE~~		~~202~~	~~27.96~~	~~1108~~	~~540~~	~~.66~~	~~UG/L~~	60
67)	PYRENE		202	28.09	1107	3299	4.16	UG/L	90
~~67)~~	~~PYRENE~~		~~202~~	~~28.27~~	~~1116~~	~~1010~~	~~1.27~~	~~UG/L~~	74
~~68)~~	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~28.46~~	~~1125~~	~~301~~	~~.41~~	~~UG/L~~	
~~68)~~	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~28.64~~	~~1134~~	~~304~~	~~.65~~	~~UG/L~~	100
68)	TERPHENYL-D14	(SURR)	244	28.93	1148	4168	8.76	UG/L	100
~~68)~~	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~29.42~~	~~1172~~	~~156~~	~~.34~~	~~UG/L~~	100
~~70)~~	~~BUTYLBENZYL PHTHALATE~~		~~149~~	~~31.23~~	~~1260~~	~~450~~	~~1.25~~	~~UG/L~~	64
~~70)~~	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~31.85~~	~~1288~~	~~778~~	~~5.25~~	~~UG/L~~	100
~~70)~~	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~31.97~~	~~1296~~	~~564~~	~~3.85~~	~~UG/L~~	
~~70)~~	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~32.20~~	~~1307~~	~~306~~	~~2.05~~	~~UG/L~~	100
~~70)~~	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~32.40~~	~~1316~~	~~452~~	~~3.05~~	~~UG/L~~	100
~~70)~~	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~32.51~~	~~1320~~	~~2054~~	~~14.47~~	~~UG/L~~	100
~~71)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~32.20~~	~~1307~~	~~45~~	~~1.05~~	~~UG/L~~	75

No Bph

No Bph

No Bph

No Bph

No Bph

No Bph

No Bph

279

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
[illegible]	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.71	1342	331	.69	UG/L	78
[illegible]	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.79	1336	3298	7.97	UG/L	45
[illegible]	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.90	1341	1516	3.14	UG/L	78
[illegible]	BIS(2-ETHYLHEXYL)PHTHALATE		149	33.46	1349	928	1.72	UG/L	39
[illegible]	BIS(2-ETHYLHEXYL)PHTHALATE		149	33.34	1363	641	1.33	UG/L	[illegible]
[illegible]	FLUORENE			32.28	1307	645	1.55	UG/L	76
24)	*PERYLENE-D12	(IS)	264	36.01	1492	36046	40.00	UG/L	100
[illegible]	DI-N-OCTYL PHTHALATE		149	34.19	1414	1581	1.90	UG/L	[illegible]
[illegible]	DI-N-OCTYL PHTHALATE		149	34.49	1415	1779	2.11	UG/L	100
[illegible]	DI-N-OCTYL PHTHALATE		149	34.69	1428	10120	12.02	UG/L	100
[illegible]	DI-N-OCTYL PHTHALATE		149	34.96	1441	375	.45	UG/L	100
[illegible]	DI-N-OCTYL PHTHALATE		149	35.46	1446	3243	3.40	UG/L	100
[illegible]	BENZO(B)FLUORANTHENE		252	34.96	1441	137	.32	UG/L	100
[illegible]	BENZO(B)FLUORANTHENE		252	35.14	1445	1993	4.20	UG/L	100
[illegible]	BENZO(B)FLUORANTHENE		252	35.28	1451	154	.36	UG/L	100
[illegible]	BENZO(B)FLUORANTHENE		252	35.31	1458	139	.33	UG/L	100
[illegible]	BENZO(B)FLUORANTHENE		252	35.37	1461	162	.38	UG/L	100
[illegible]	BENZO(K)FLUORANTHENE		252	34.96	1441	137	.43	UG/L	100
[illegible]	BENZO(K)FLUORANTHENE		252	35.84	1485	1993	3.38	UG/L	100
[illegible]	BENZO(K)FLUORANTHENE		252	35.28	1453	158	.25	UG/L	100
[illegible]	BENZO(K)FLUORANTHENE		252	35.31	1458	139	.23	UG/L	100
[illegible]	BENZO(K)FLUORANTHENE		252	35.37	1461	162	.27	UG/L	100
[illegible]	BENZO(A)PYRENE		252	35.37	1461	162	.35	UG/L	100
[illegible]	BENZO(A)PYRENE		252	35.74	1479	917	1.99	UG/L	100
[illegible]	BENZO(A)PYRENE		252	35.84	1484	677	1.42	UG/L	100
[illegible]	BENZO(A)PYRENE		252	36.01	1492	161	.35	UG/L	100
[illegible]	INDENO(1,2,3-CD)PYRENE		276	38.62	1614	596	1.66	UG/L	[illegible]
[illegible]	DIBENZO(A,H,I)PHENANTHRENE		276	39.18	1646	497	1.19	UG/L	100

* Compound is ISTD

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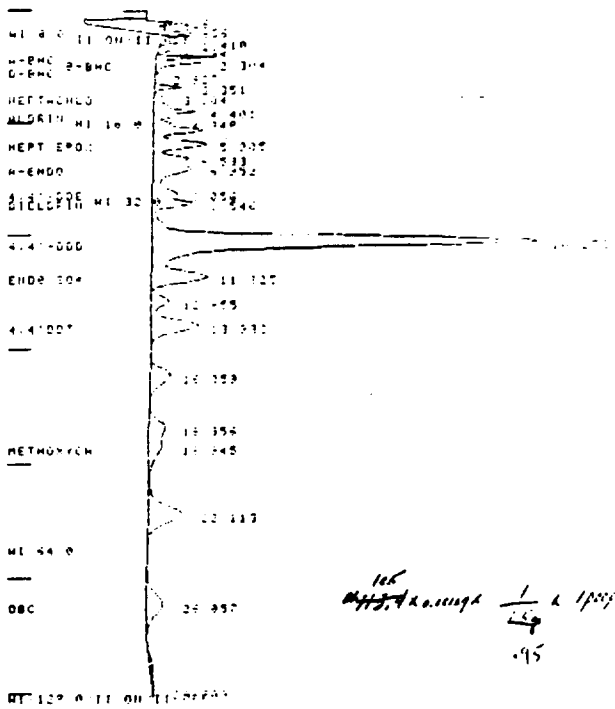

~~[illegible]~~ 1 x 1 ppm = ~~[illegible]~~ ug/kg 1260
.95
174 ppm

CHANNEL: 1A - 1 TITLE: [illegible] 15

SAMPLE: 9759 [illegible] MET-OD: TEPA CALC [illegible]

DC-SS-12

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA [illegible]	[illegible] CODE	[illegible]
1	~~[illegible]~~	1225.942	2.265	-0.025	[illegible]	[illegible]	[illegible]
2	~~[illegible]~~	4155.160	2.704	0.104	[illegible]	[illegible]	[illegible]
3		0.0000	3.351		[illegible]	[illegible]	[illegible]
4		0.0000	4.401		[illegible]	[illegible]	[illegible]
5	~~ALDRIN~~	1119.202	4.613	-0.177	[illegible]	[illegible]	[illegible]
6		0.0000	4.346		[illegible]	[illegible]	[illegible]
7		0.0000	4.237		[illegible]	[illegible]	[illegible]
8	~~HEPT EPOX~~	5422.584	5.305	0.445	[illegible]	[illegible]	[illegible]
9		0.0000	5.533		[illegible]	[illegible]	[illegible]
10	~~[illegible]~~	5455.575	5.952	-0.198	[illegible]	[illegible]	[illegible]
11	~~[illegible]~~	3255.399	6.256	-0.164	[illegible]	[illegible]	[illegible]
12	~~DIELDRIN~~	4015.804	6.546	0.216	[illegible]	[illegible]	[illegible]
13	~~[illegible]~~	[illegible]	[illegible]	-0.229	[illegible]	[illegible]	[illegible]
14	~~ENDO SO4~~	12020.44	11.475	-0.295	[illegible]	[illegible]	[illegible]
15		0.0000	12.455		[illegible]	[illegible]	[illegible]
16	~~[illegible]~~	17572.49	13.932	0.452	[illegible]	[illegible]	[illegible]
17	~~[illegible]~~	4225.526	16.259	0.579	[illegible]	[illegible]	[illegible]
18		0.0000	18.355		[illegible]	[illegible]	[illegible]
19	METHOXYCH	10133.65	[illegible]	-0.665	[illegible]	[illegible]	[illegible]
20		0.0000	22.113		[illegible]	[illegible]	[illegible]
21	~~OBC~~	5542.257	25.857	-0.973	[illegible]	[illegible]	[illegible]
22		0.0000	29.709		[illegible]	[illegible]	[illegible]

Common

1260

TOTALS: 14 254.9 -1.229 [illegible]

DETECTED PKS: 37 REJECTED PKS: 15

DIVISOR: 1.50000 MULTIPLIER: 1000000.00

NOISE: 34.3 OFFSET: 2

RACK: 1 VIAL: 5 INJ: [illegible]

NOTES:
NOTEBOOK:259-41 ANALYST: [illegible] R.SAMSON
SECURE AREA: D JOB#: [illegible]-4455
INST:VARIAN 6000#2 - ECD [illegible]
COLUMN: 5' GLASS [illegible] ID [illegible] SUPELCOPORT
LIQUID PHASE:3% OV-[illegible]
CARRIER GAS: N2 @ 50 ML/MIN
DET:300 C INJ:220 [illegible]
200 C ISOTHERMAL [illegible] INJECTION
AUTOSAMPLER
PEST:PCB ANALYSIS

POST RUN:
SAVE FILE: [illegible]

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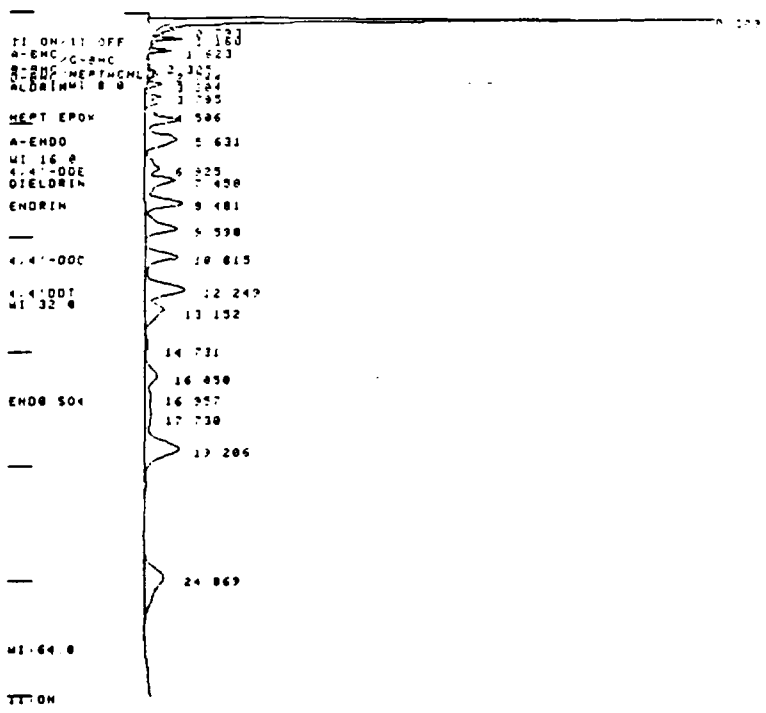
CHART SPEED 0.5 CM/MIN
ATTEN: 5 ZERO: 10% 5 MIN TICK



CHANNEL: 18 - 1 TITLE: RUN# 15 23:23 1 DEC 86

SAMPLE: 9759 METHOD: PEPA CALCULATION: ES - ANALYS

DC-SS-12

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~A-BHC~~	587.5723	1.623	-0.047	32915	BB	3.58
2	HEPTACHLO	534.5754	2.549	-0.041	22718	VV	5.81
3	~~G-BHC~~	840.1004	2.744	-0.056	28330	VB	6.25
4	ALDRIN	1028.553	3.204	0.074	45813	BB	10.25
5		0.0000	3.785		43763	BV	10.19
6		0.0000	4.049		40331	VV	11.25
7		0.0000	4.506		31188	VV	? 10.25
8	HEPT EPOX	4059.062	4.794	0.094	160507	VV	19.19
9	~~A-ENDO~~	7094.676	5.631	-0.279	265686	VV	? 34.75
10	~~4,4'-DDE~~	2977.593	6.925	0.125	111569	VV	? 31.13
11	DIELDRIN	5097.512	7.458	0.228	204181	VV	22.25
12	~~ENDRIN~~	8951.719	8.481	-0.299	241285	VV	22.75
13		0.0000	9.590		233078	VV	23.81
14	~~B-ENDOSUL~~	6792.365	10.815	0.195	240193	VV	26.00
15	~~4,4'-DDT~~	15657.59	12.249	-0.271	347281	VV	29.86
16		0.0000	13.152		199677	VV	47.38
17	ENDO ~~SO4~~.	942.6248	14.731	0.741	26145	VV	? 65.19
18		0.0000	16.050		140066	VV	46.50
19	~~ENDO SO4~~	3817.373	16.957	0.017	57270	VV	? 22.50
20		0.0000	17.730		82200	VV	? 73.69
21		0.0000	19.206		422014	VB	46.19
22	~~METOXYCH~~	46539.34	24.869	0.869	384817	BB	71.65

1260

TOTALS: 104911.4 1.350 3361027

DETECTED PKS: 33 REJECTED PKS: 11

DIVISOR: 1.50000 MULTIPLIER: 1000000.00

NOISE: 58.6 OFFSET: 6

RACK: 1 VIAL: 13 INJ: 1

NOTES:
NOTEBOOK: 259-44 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#:U-4465
INST: VARIAN 6000#2 B ECD 10% ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.35% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C DEOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

POST RUN:
SAVE FILE: RAW

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SAMPLE NUMBER DC-SS-13

Sample Number
DC-SS-13

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No. U-4465

Lab Sample ID No: 9760 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-25-86

Conc./Dil Factor: 3 pH 8.0

Percent Moisture: (Not Decanted) 32

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	43 B
67-64-1	Acetone	32 B
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	42 B
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	30 B
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, etc. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No V-4465

Sample Number DC-SS-13

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed: 12-2-86

Conc/Dil Factor: 10

Percent Moisture (Decanted) 32

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	2400	U
111-44-4	bis(-2-Chloroethyl)Ether	2400	U
95-57-8	2-Chlorophenol	2400	U
541-73-1	1 3-Dichlorobenzene	2400	U
106-46-7	1 4-Dichlorobenzene	2400	U
100-51-6	Benzyl Alcohol	2400	U
95-50-1	1 2-Dichlorobenzene	2400	U
95-48-7	2-Methylphenol	2400	U
39638-32-9	bis(2-chloroisopropyl)Ether	2400	U
106-44-5	4-Methylphenol	2400	U
621-64-7	N-Nitroso-Di-n-Propylamine	2400	U
67-72-1	Hexachloroethane	2400	U
98-95-3	Nitrobenzene	2400	U
78-59-1	Isophorone	2400	U
88-75-5	2-Nitrophenol	2400	U
105-67-9	2, 4-Dimethylphenol	2400	U
65-85-0	Benzoic Acid	12000	U
111-91-1	bis(-2-Chloroethoxy)Methane	2400	U
120-83-2	2, 4-Dichlorophenol	2400	U
120-82-1	1, 2, 4-Trichlorobenzene	2400	U
91-20-3	Naphthalene	2400	U
106-47-8	4-Chloroaniline	2400	U
87-68-3	Hexachlorobutadiene	2400	U
59-50-7	4-Chloro-3-Methylphenol	2400	U
91-57-6	2-Methylnaphthalene	2400	U
77-47-4	Hexachlorocyclopentadiene	2400	U
88-06-2	2 4 6-Trichlorophenol	2400	U
95-95-4	2, 4, 5-Trichlorophenol	12000	U
91-58-7	2-Chloronaphthalene	2400	U
88-74-4	2-Nitroaniline	12000	U
131-11-3	Dimethyl Phthalate	2400	U
208-96-8	Acenaphthylene	2400	U
99-09-2	3-Nitroaniline	12000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2400	U
51-28-5	2, 4-Dinitrophenol	12000	U
100-02-7	4-Nitrophenol	12000	U
132-64-9	Dibenzofuran	2400	U
121-14-2	2 4-Dinitrotoluene	2400	U
606-20-2	2 6-Dinitrotoluene	2400	U
84-66-2	Diethylphthalate	2400	U
7005-72-3	4-Chlorophenyl-phenylether	2400	U
86-73-7	Fluorene	2400	U
100-01-6	4-Nitroaniline	12000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	12000	U
86-30-6	N-Nitrosodiphenylamine (1)	2400	U
101-55-3	4-Bromophenyl-phenylether	2400	U
118-74-1	Hexachlorobenzene	2400	U
87-86-5	Pentachlorophenol	12000	U
85-01-8	Phenanthrene	2400	U
120-12-7	Anthracene	2400	U
84-74-2	Di-n-Butylphthalate	2400	U
206-44-0	Fluoranthene	2400	U
129-00-0	Pyrene	2400	U
85-68-7	Butylbenzylphthalate	2400	U
91-94-1	3, 3'-Dichlorobenzidine	4800	U
56-55-3	Benzo(a)Anthracene	2400	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2400	U
218-01-9	Chrysene	2400	U
117-84-0	Di-n-Octyl Phthalate	2400	U
205-99-2	Benzo(b)Fluoranthene	2400	U
207-08-9	Benzo(k)Fluoranthene	2400	U
50-32-8	Benzo(a)Pyrene	2400	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	2400	U
53-70-3	Dibenzo(a, h)Anthracene	2400	U
191-24-2	Benzo(g, h, i)Perylene	2400	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-13

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1,000

Percent Moisture (decanted) 32.3

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16,000 U
319-85-7	Beta-BHC	16,000 U
319-86-8	Delta-BHC	16,000 U
58-89-9	Gamma-BHC (Lindane)	16,000 U
76-44-8	Heptachlor	16,000 U
309-00-2	Aldrin	16,000 U
1024-57-3	Heptachlor Epoxide	16,000 U
959-98-8	Endosulfan I	16,000 U
60-57-1	Dieldrin	32,000 U
72-55-9	4,4'-DDE	32,000 U
72-20-8	Endrin	32,000 U
33213-65-9	Endosulfan II	32,000 U
72-54-8	4,4'-DDD	32,000 U
1031-07-8	Endosulfan Sulfate	32,000 U
50-29-3	4,4'-DDT	32,000 U
72-43-5	Methoxychlor	160,000 U
53494-70-5	Endrin Ketone	32,000 U
57-74-9	Chlordane	160,000 U
8001-35-2	Toxaphene	320,000 U
12674-11-2	Aroclor-1016	160,000 U
11104-28-2	Aroclor-1221	160,000 U
11141-16-5	Aroclor-1232	160,000 U
53469-21-9	Aroclor-1242	160,000 U
12672-29-6	Aroclor-1248	160,000 U
11097-69-1	Aroclor-1254	320,000 U
11096-82-5	Aroclor-1260	165,000 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-13

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Unknown Ketone	VOA	19.6	8 BJ
2.	Hexane isomer	VOA	21.2	10 BJ
3.				
4.	UNKNOWN - AROMATIC	BNA	20.0	16000 J
5.	UNKNOWN - AROMATIC		20.3	8100 J
6.	DIMETHYL DECYL BENZENE		20.4	17000 J
7.	UNKNOWN - AROMATIC		20.7	14000 J
8.	METHYL PROPYL PENTYL BENZENE		20.9	14000 J
9.	UNKNOWN - AROMATIC		21.0	16000 J
10.	TRIMETHYL PROPYL BENZENE		21.2	30000 J
11.	UNKNOWN - AROMATIC		21.3	10000 J
12.	UNKNOWN		21.4	57000 J
13.	UNKNOWN - AROMATIC		21.5	12000 J
14.	DIMETHYL DECYL BENZENE		21.7	30000 J
15.	UNKNOWN - AROMATIC		21.8	94000 J
16.	UNKNOWN		21.9	34000 J
17.	PENTAMETHYL HEPTYL BENZENE		22.0	64000 J
18.	UNKNOWN - AROMATIC		22.1	33000 J
19.	UNKNOWN - AROMATIC		22.4	120,000 J
20.	UNKNOWN		22.5	16,000 J
21.	DIMETHYL DECYL BENZENE		22.7	81,000 J
22.	PENTAMETHYL HEPTYL BENZENE		22.8	100,000 J
23.	DIMETHYL NONYL BENZENE		23.0	52,000 J
24.				
25.				
26.				
27.				
28.				
29.				
30				

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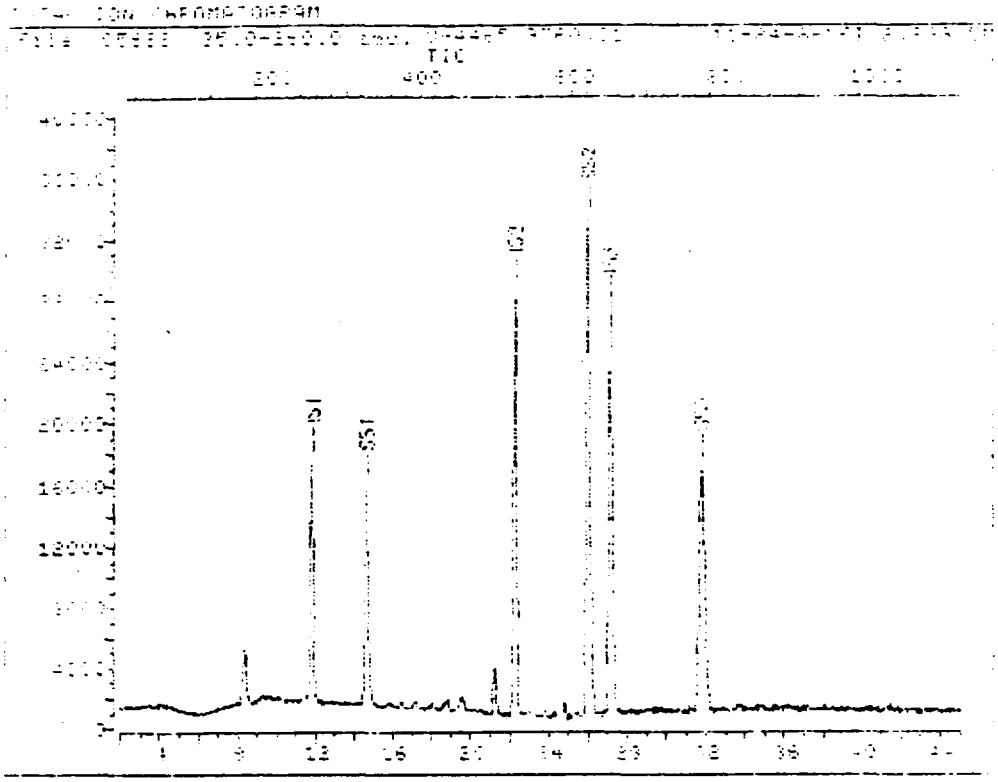

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Misc: 11-24-86MEI 2.2[illegible]

Id File: [illegible]
Title: [illegible] ID FILE FOR [illegible]
Last Calibration: 861124 [illegible]

Operator ID: [illegible]
Quant Time: 861125 02:29
Injected at: 861125 01:43

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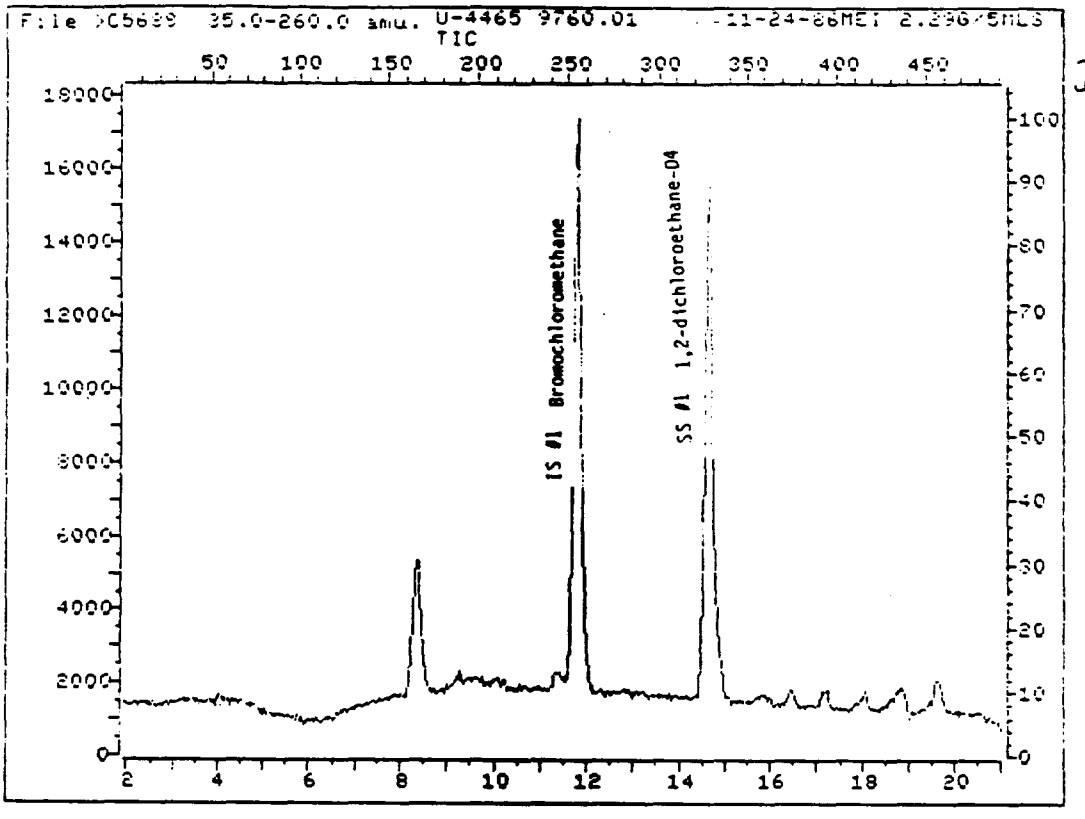
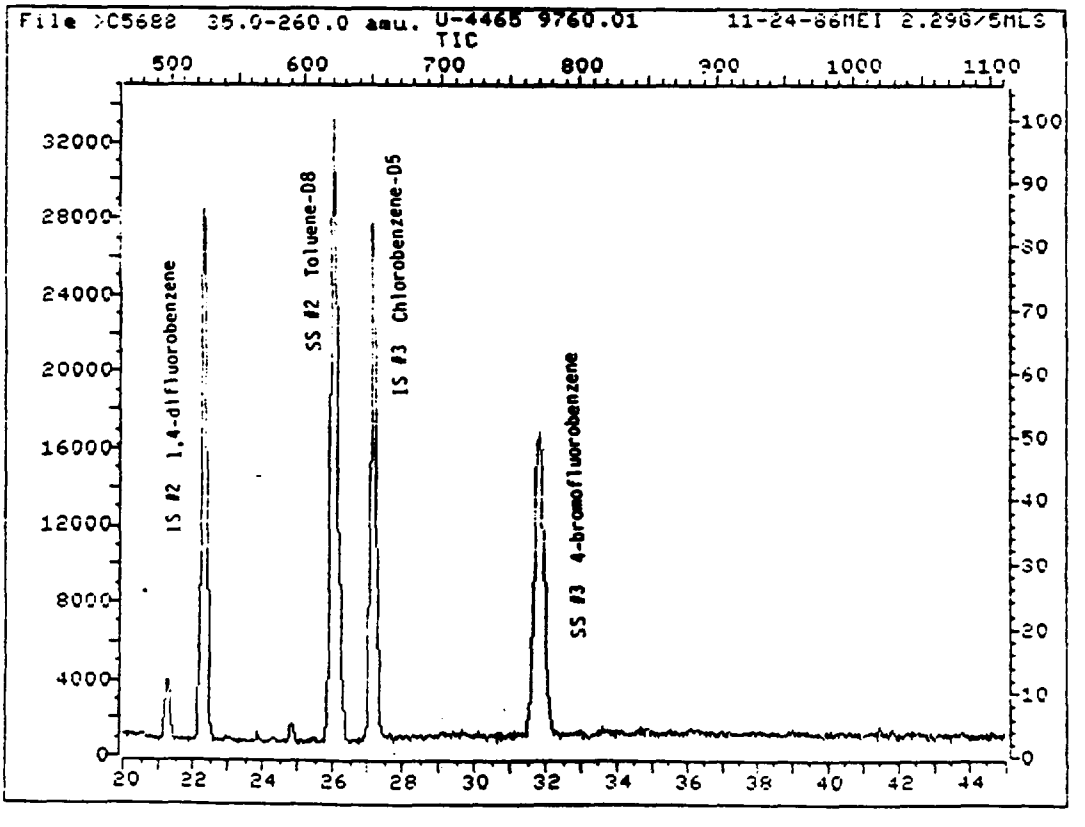
ecology and environment

DC-SS-13





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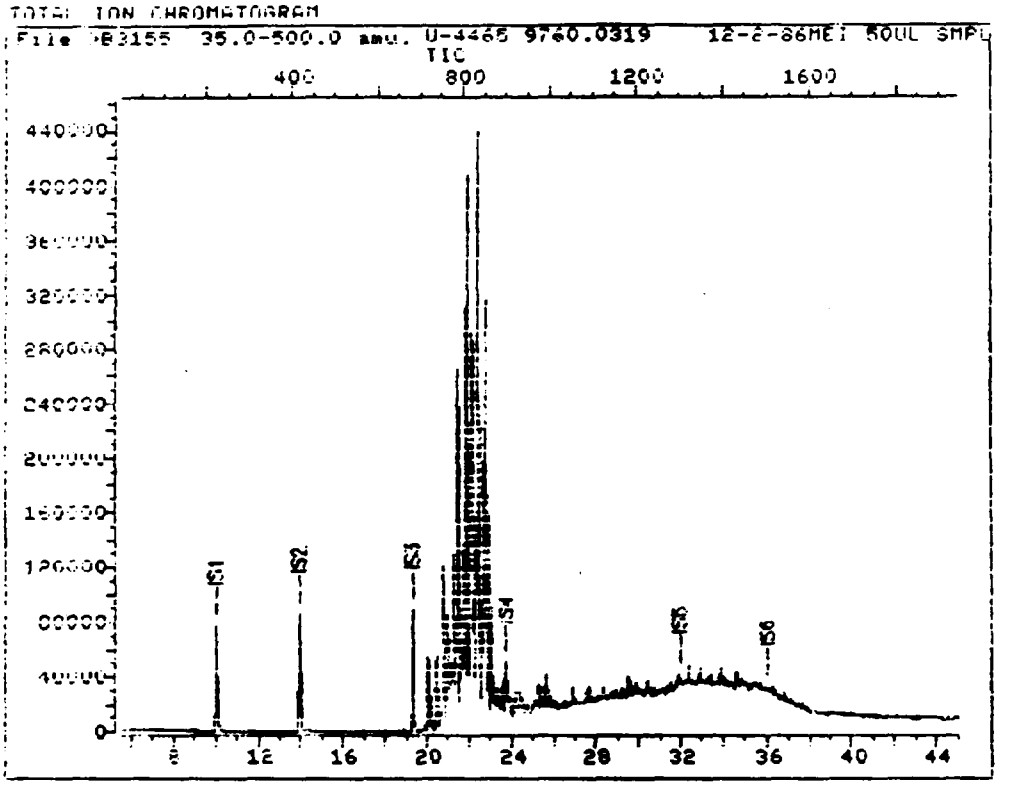
QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861125 02:29
Output File: ^C5688::Q2 Injected at: 861125 01:43
Data File: >C5688::D3 Dilution Factor: 1.00
Name: U-4465 9760.01 DC-SS-13
Misc: 11-24-86MEI 2.29G/5MLS DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861124 23:52

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.80	255	22294	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.35	166	9314	66.81	NGS	100
7)	ACETONE		43	9.28	190	6264	50.10	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.63	328	55334	239.80	NGS 96	85
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.28	525	118786	250.00	NGS	100
17)	2-BUTANONE		72	14.79	332	2928	66.14	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.13	650	87289	250.00	NGS 100	100
36)	TOLUENE-D8	(SURR)	98	26.00	621	131463	265.07	NGS	91
37)	TOLUENE		92	26.16	625	18272	46.64	NGS	91
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.79	770	60059	244.62	NGS 98	100

* Compound is ISTD



Data File: >83155::D4
Name: U-4465 9760.0319 DC-SS-13
Misc: 12-2-86MEI 50UL SMPL + 450UL MECL2 + 5UL IS (10X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:14

Operator ID: USER6
Quant Time: 861202 18:39
Injected at: 861202 17:52

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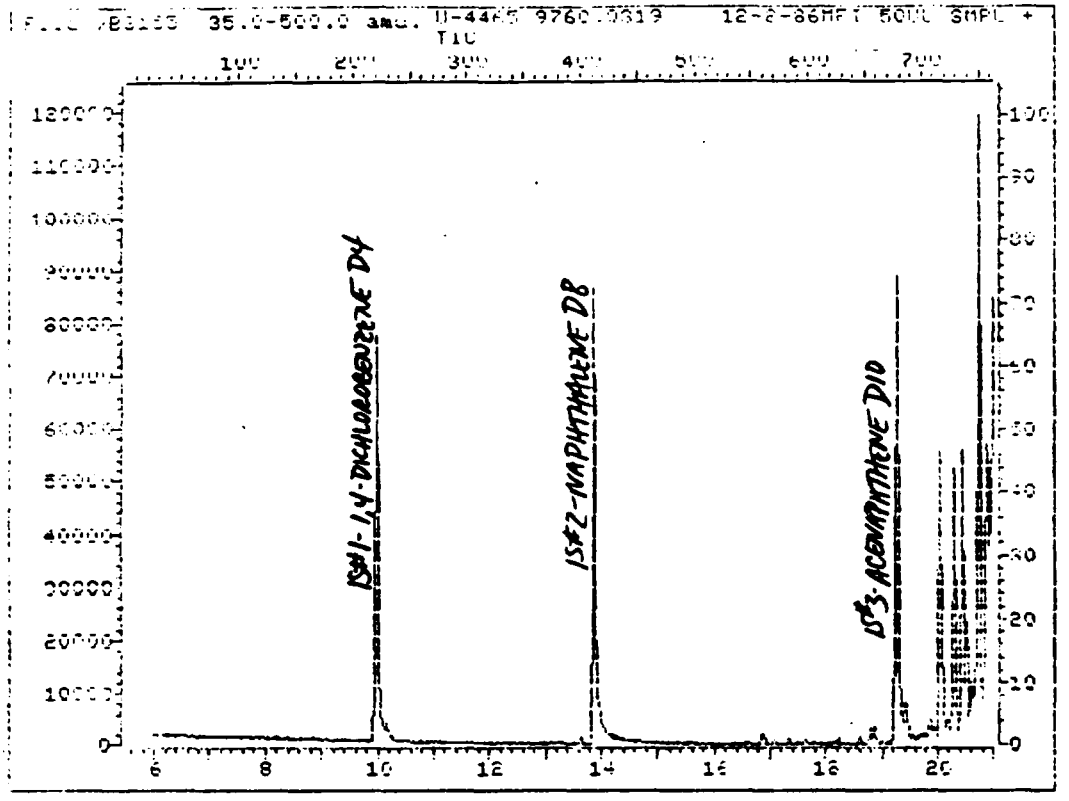
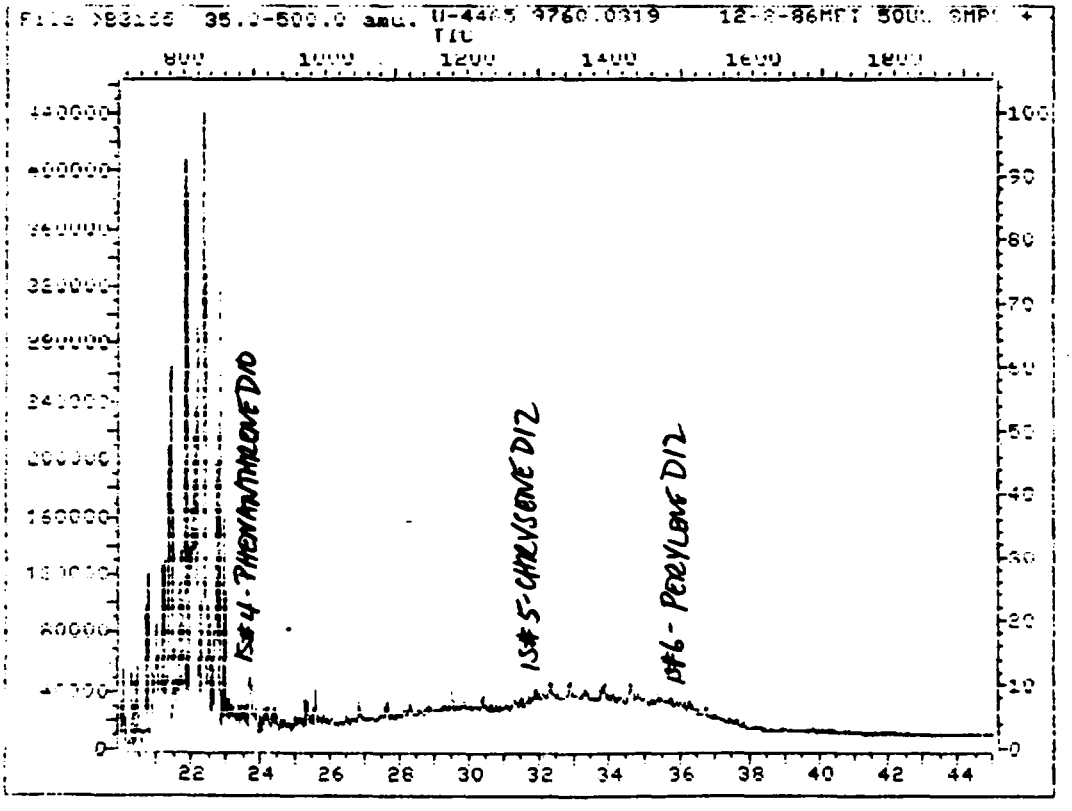
DC-SS-13





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861202 18:39
Output File: ^B3155::Q2 Injected at: 861202 17:52
Data File: >B3155::D4 Dilution Factor: 10.00
Name: U-4465 9760.0319 DC-SS-13
Mtrs: 12-2-86MEI 50UL SMPL + 450UL MECL2 + 5UL IS (10X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:14

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
[illegible]	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.96	221	49997	40.00	UG/L	88
19)	*NAPHTHALENE-D8	(IS)	136	13.87	413	156419	40.00	UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162	19.25	678	66776	40.00	UG/L	98
~~[illegible]~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.27~~	~~679~~	~~19394~~	~~73.84~~	~~UG/L~~	100
~~[illegible]~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.25~~	~~678~~	~~8289~~	~~14[illegible].14~~	~~UG/L~~	100
[illegible]	*PHENANTHRENE-D10	(IS)	188	23.71	897	51541	40.00	UG/L	97
65)	*CHRYSENE-D12	(IS)	240	31.91	1299	15708	40.00	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.99	1499	13576	40.00	UG/L	100
~~[illegible]~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.38~~	~~1420~~	~~198~~	~~3.12~~	~~UG/L~~	100
~~[illegible]~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.63~~	~~1432~~	~~439~~	~~6.92~~	~~UG/L~~	100
~~[illegible]~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.69~~	~~1435~~	~~385~~	~~6.07~~	~~UG/L~~	100
~~[illegible]~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.89~~	~~1445~~	~~217~~	~~3.42~~	~~UG/L~~	100
~~[illegible]~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.99~~	~~1450~~	~~624~~	~~9.84~~	~~UG/L~~	100

No [illegible]

No [illegible]

* Compound is ISTD

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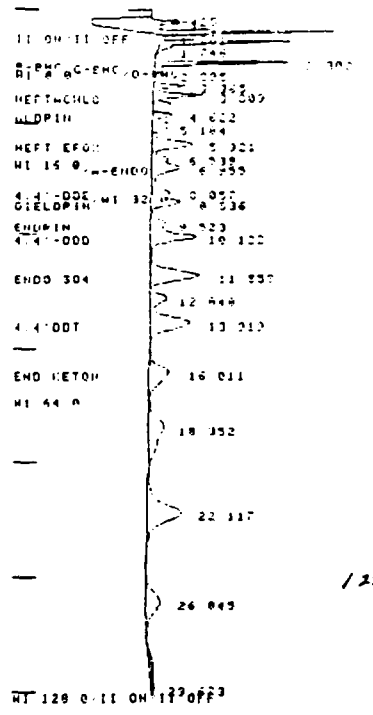

125 x 0.00135 x 1/1.07 x 1,000,000 = 140,500 wifly liter / 1650 g

CHANNEL: 1A - 1 TITLE: PUR8 16 0:05 5/09/85

SAMPLE: 9760 DF=1000 METHOD: EPPA CALCULATION: ES - 0.00135 DC-SS-13

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	HT
1		0.0000	1.332		[illegible]	VV	4.50
2		0.0000	1.554		[illegible]	VB	[illegible]
3	~~B-BHC~~	7951.694	2.302	0.102	[illegible]	BV	4.13
4		0.0000	3.265		[illegible]	VV	7.69
5	~~HEPTACHLO~~	2735.625	3.899	-0.031	[illegible]	VV	9.15
6		0.0000	[illegible]		[illegible]	VV	16.19
7	~~ALDRIN~~	1015.600	4.522	-0.116	[illegible]	VV	11.13
8		0.0000	4.940		[illegible]	VV	[illegible]
9		0.0000	5.184		[illegible]	VB	[illegible]
10	~~HEPT EPOX~~	3909.804	5.921	0.161	[illegible]	BV	15.75
11		0.0000	6.579		[illegible]	VV	15.44
12	~~a-ENDO~~	3715.269	6.955	-0.155	[illegible]	VV	[illegible]
13	~~4,4'-DDE~~	2440.975	8.057	-0.153	[illegible]	VV	[illegible]
14	~~DIELDRIN~~	2824.217	8.575	0.285	[illegible]	VV	[illegible]
15	~~B-ENDO~~	2141.655	9.503	0.043	[illegible]	VV	[illegible]
16	~~4,4'-DDD~~	6265.800	10.122	-0.208	[illegible]	VV	[illegible]
17	~~ENDO 304~~	9560.293	11.458	-0.252	[illegible]	VV	[illegible]
18		0.0000	12.548		[illegible]	VV	[illegible]
19	~~4,4'-DDT~~	14696.38	13.919	0.449	[illegible]	VV	[illegible]
20	~~END KETON~~	4594.302	16.011	0.451	[illegible]	VB	43.56
21		0.0000	18.352		[illegible]	BV	[illegible]
22		0.0000	[illegible]		[illegible]	VV	[illegible]
23	~~ODC~~	5314.831	25.845	-0.995	[illegible]	VV	43.05
24		0.0000	29.673		[illegible]	VB	7144.91

TOTALS: 67777.47 -0.500 [illegible]

DETECTED PKS: 40 REJECTED PKS: 16

DIVISOR: 1.50000 MULTIPLIER: 1000000.00

NOISE: 34.3 OFFSET: -24

RACK: 2 VIAL: 1 INJ: 1

NOTES:
NOTEBOOK:259-41 ANALYST: K.DUFFY/R.SAMSON
SECURE AREA: O JOB#:U-4465
INST:VARIAN 8200#2 A ECD 10+1
COLUMN: 6' GLASS 4MM ID 10%/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:270 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

PRINT PROC
SAVE FILE: PRV

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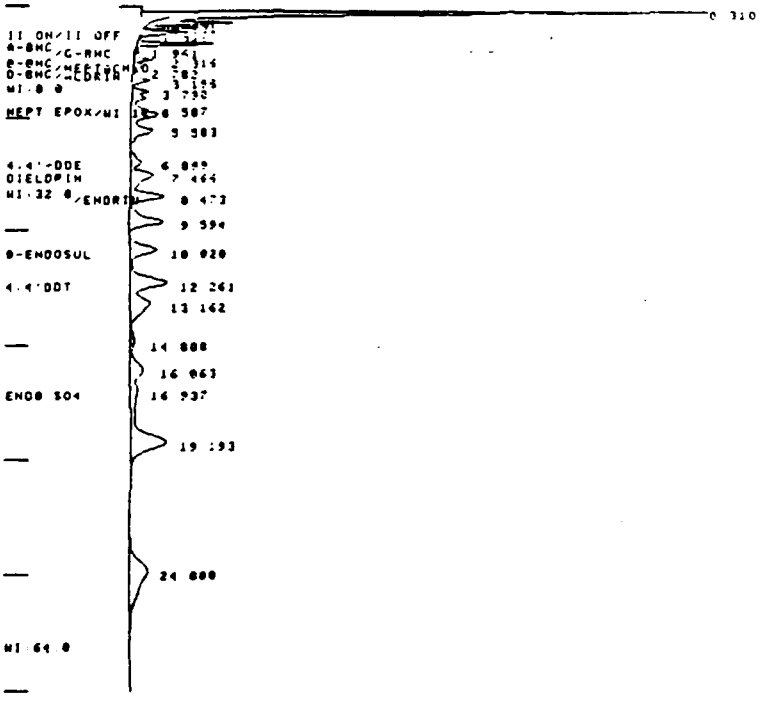
CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 12% 5 MIN/TICK



CHANNEL: 18 - 1 TITLE: RUN# 16 23:56 1 DEC 86

SAMPLE: 9760 METHOD: PEPA CALCULATION: ES - ANALYS

DC-SS-13

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~A-BHC~~	2009.474	1.623	-0.047	112568	VB	3.88
2	~~B-BHC~~	2066.855	2.316	-0.064	36516	VV	6.38
3	~~HEPTACHLO~~	817.9583	2.550	-0.040	34761	VB	5.69
4	~~ALDRIN~~	1273.518	3.198	0.068	56724	VB	? 11.13
5		0.0000	3.790		51549	BV	10.63
6		0.0000	4.055		48494	VV	? 13.63
7		0.0000	4.507		39860	VV	? 13.50
8	~~HEPT EPOX~~	3748.215	4.806	0.106	148186	VV	20.75
9		0.0000	5.503		152551	VV	21.44
10	~~4,4'-DDE~~	1978.034	6.899	0.099	[illegible]	VV	24.75
11	~~DIELDRIN~~	4431.231	7.466	0.236	177942	VV	25.81
12	~~ENDRIN~~	7205.339	8.473	-0.307	194213	VV	21.19
13		0.0000	9.594		235219	VV	22.81
14	~~9-ENDOSUL~~	5552.709	10.020	0.200	196236	VV	25.89
15	~~4,4'DDT~~	14044.81	12.261	-0.259	311510	VV	30.00
16		0.0000	13.162		237595	VV	46.50
17		0.0000	14.808		46666	VV	? 55.63
18		0.0000	16.063		152016	VV	45.75
19	~~ENDO SO4~~	9187.826	16.937	-0.003	137940	VV	? 58.56
20		0.0000	19.193		435137	VB	45.13
21	~~METHOXYCH~~	47803.52	24.880	0.680	395270	BB	76.88

1260

TOTALS: 100119.5 0.649 3274179

DETECTED PKS: 34 REJECTED PKS: 13

DIVISOR: 1.50000 MULTIPLIER: 1000000.00

NOISE: 68.6 OFFSET: -11

RACK: 1 VIAL: 14 INJ: 1

NOTES:
NOTEBOOK: 259-44 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#:U-4465
INST: VARIAN 6000#2 B ECD 10x1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2421
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

POST RUN:
SAVE FILE: RAW CREEK 16

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SAMPLE NUMBER DC-SS-14

Sample Number
DC-SS-14

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: 9761 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: C Bojtowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-18-86
Conc./Dil Factor: 1.5 pH 7.0
Percent Moisture: (Not Decanted) 35

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	15u
74-83-9	Bromomethane	15u
75-01-4	Vinyl Chloride	15u
75-00-3	Chloroethane	15u
75-09-2	Methylene Chloride	46 B
67-64-1	Acetone	26 B
75-15-0	Carbon Disulfide	8u
75-35-4	1, 1-Dichloroethene	8u
75-34-3	1, 1-Dichloroethane	8u
156-60-5	Trans-1, 2-Dichloroethene	8u
67-66-3	Chloroform	8u
107-06-2	1, 2-Dichloroethane	8u
78-93-3	2-Butanone	15u
71-55-6	1, 1, 1-Trichloroethane	8u
56-23-5	Carbon Tetrachloride	8u
108-05-4	Vinyl Acetate	15u
75-27-4	Bromodichloromethane	8u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	8u
10061-02-6	Trans-1, 3-Dichloropropene	8u
79-01-6	Trichloroethene	8u
124-48-1	Dibromochloromethane	8u
79-00-5	1, 1, 2-Trichloroethane	8u
71-43-2	Benzene	8u
10061-01-5	cis-1, 3-Dichloropropene	8u
110-75-8	2-Chloroethylvinylether	15u
75-25-2	Bromoform	8u
108-10-1	4-Methyl-2-Pentanone	15u
591-78-6	2-Hexanone	15u
127-18-4	Tetrachloroethene	8u
79-34-5	1, 1, 2, 2-Tetrachloroethane	8u
108-88-3	Toluene	8u
108-90-7	Chlorobenzene	8u
100-41-4	Ethylbenzene	8u
100-42-5	Styrene	8u
	Total Xylenes	8u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Sample Number
DC-SS-14-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4465
Lab Sample ID No: 9761-RE
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Nojtowicz
Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-25-86

Conc/Dil Factor: 3 pH 7.0

Percent Moisture: (Not Decanted) 35

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	95 B
67-64-1	Acetone	30u
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	61 B
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	22 B
127-18-4	Tetrachloroethene	24
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4465

Sample Number DC-SS-14

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-2-86

Conc/Dil Factor 50

Percent Moisture (Decanted) 35

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	13000	U
111-44-4	bis(2-Chloroethyl)Ether	13000	U
95-57-8	2-Chlorophenol	13000	U
541-73-1	1,3-Dichlorobenzene	13000	U
106-46-7	1,4-Dichlorobenzene	13000	U
100-51-6	Benzyl Alcohol	13000	U
95-50-1	1,2-Dichlorobenzene	13000	U
95-48-7	2-Methylphenol	13000	U
39638-32-9	bis(2-chloroisopropyl)Ether	13000	U
106-44-5	4-Methylphenol	13000	U
621-64-7	N-Nitroso-Di-n-Propylamine	13000	U
67-72-1	Hexachloroethane	13000	U
98-95-3	Nitrobenzene	13000	U
78-59-1	Isophorone	13000	U
88-75-5	2-Nitrophenol	13000	U
105-67-9	2,4-Dimethylphenol	13000	U
65-85-0	Benzoic Acid	62000	U
111-91-1	bis(2-Chloroethoxy)Methane	13000	U
120-83-2	2,4-Dichlorophenol	13000	U
120-82-1	1,2,4-Trichlorobenzene	13000	U
91-20-3	Naphthalene	13000	U
106-47-8	4-Chloroaniline	13000	U
87-68-3	Hexachlorobutadiene	13000	U
59-50-7	4-Chloro-3-Methylphenol	13000	U
91-57-6	2-Methylnaphthalene	13000	U
77-47-4	Hexachlorocyclopentadiene	13000	U
88-06-2	2,4,6-Trichlorophenol	13000	U
95-95-4	2,4,5-Trichlorophenol	62000	U
91-58-7	2-Chloronaphthalene	13000	U
88-74-4	2-Nitroaniline	62000	U
131-11-3	Dimethyl Phthalate	13000	U
208-96-8	Acenaphthylene	13000	U
99-09-2	3-Nitroaniline	62000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	13000	U
51-28-5	2,4-Dinitrophenol	62000	U
100-02-7	4-Nitrophenol	62000	U
132-64-9	Dibenzofuran	13000	U
121-14-2	2,4-Dinitrotoluene	13000	U
606-20-2	2,6-Dinitrotoluene	13000	U
84-66-2	Diethylphthalate	13000	U
7005-72-3	4-Chlorophenyl-phenylether	13000	U
86-73-7	Fluorene	13000	U
100-01-6	4-Nitroaniline	62000	U
534-52-1	4,6-Dinitro-2-Methylphenol	62000	U
86-30-6	N-Nitrosodiphenylamine (1)	13000	U
101-55-3	4-Bromophenyl-phenylether	13000	U
118-74-1	Hexachlorobenzene	13000	U
87-86-5	Pentachlorophenol	62000	U
85-01-8	Phenanthrene	13000	U
120-12-7	Anthracene	13000	U
84-74-2	Di-n-Butylphthalate	13000	U
206-44-0	Fluoranthene	13000	U
129-00-0	Pyrene	13000	U
85-68-7	Butylbenzylphthalate	13000	U
91-94-1	3,3'-Dichlorobenzidine	25000	U
56-55-3	Benzo(a)Anthracene	13000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	13000	U
218-01-9	Chrysene	4400	J
117-84-0	Di-n-Octyl Phthalate	14000	B
205-99-2	Benzo(b)Fluoranthene	13000	U
207-08-9	Benzo(k)Fluoranthene	13000	U
50-32-8	Benzo(a)Pyrene	13000	U
193-39-5	Indeno(1,2,3-cd)Pyrene	13000	U
53-70-3	Dibenzo(a,h)Anthracene	13000	U
191-24-2	Benzo(g,h,i)Perylene	13000	U

(1)-Cannot be separated from diphenylamine

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ecology and environment

Laboratory Name ecology and environment, inc.

Case No V-4465

Sample Number DC-SS-14

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1,000

Percent Moisture (decanted) 34.6

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16,000 u
319-85-7	Beta-BHC	16,000 u
319-86-8	Delta-BHC	16,000 u
58-89-9	Gamma-BHC (Lindane)	16,000 u
76-44-8	Heptachlor	16,000 u
309-00-2	Aldrin	16,000 u
1024-57-3	Heptachlor Epoxide	16,000 u
959-98-8	Endosulfan I	16,000 u
60-57-1	Dieldrin	32,000 u
72-55-9	4, 4'-DDE	32,000 u
72-20-8	Endrin	32,000 u
33213-65-9	Endosulfan II	32,000 u
72-54-8	4, 4'-DDD	32,000 u
1031-07-8	Endosulfan Sulfate	32,000 u
50-29-3	4, 4'-DDT	32,000 u
72-43-5	Methoxychlor	160,000 u
53494-70-5	Endrin Ketone	32,000 u
57-74-9	Chlordane	160,000 u
8001-35-2	Toxaphene	320,000 u
12674-11-2	Aroclor-1016	160,000 u
11104-28-2	Aroclor-1221	160,000 u
11141-16-5	Aroclor-1232	160,000 u
53469-21-9	Aroclor-1242	160,000 u
12672-29-6	Aroclor-1248	160,000 u
11097-69-1	Aroclor-1254	320,000 u
11096-82-5	Aroclor-1260	887,000

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

300

Form 1

7 85
491095

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ecology and environment

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4465

Sample Number DC-SS-14

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	UNKNOWN	VOA	18.2	4 J
2.	HEXENE ISOMER		19.0	9 J
3.	HEXANE ISOMER		21.4	8 BJ
4.	UNKNOWN		23.2	7 J
5. 589344	3-METHYL HEXANE		24.5	84 J
6.	UNKNOWN		24.9	12 J
7.				
8.	UNKNOWN	BNA	16.3	5500 J
9.	UNKNOWN - BENZENE BASED		20.7	27000 J
10.	DIMETHYL DECYL BENZENE		21.2	48000 J
11.	UNKNOWN - BENZENE BASED		21.4	47000 J
12.	UNKNOWN - BENZENE BASED		21.8	200,000 J
13.	PENTAMETHYL HEPTYL BENZENE		22.0	160,000 J
14.	UNKNOWN - BENZENE BASED		22.1	100,000 J
15.	UNKNOWN - BENZENE BASED		22.4	140,000 J
16.	DIMETHYL DECYL BENZENE		22.7	100,000 J
17.	UNKNOWN HYDROCARBON		22.8	75000 J
18.	UNKNOWN HYDROCARBON		24.2	110,000 J
19.	UNKNOWN HYDROCARBON		25.3	50000 J
20.	UNKNOWN HYDROCARBON		26.5	27000 J
21.	UNKNOWN HYDROCARBON		27.8	89000 J
22.	UNKNOWN HYDROCARBON		28.3	67000 J
23.	UNKNOWN HYDROCARBON		28.9	130000 J
24.	UNKNOWN HYDROCARBON		29.5	270000 J
25.	UNKNOWN HYDROCARBON		30.4	160000 J
26.	UNKNOWN HYDROCARBON		33.9	190000 J
27.				
28.				
29.				
30.				

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-14-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexane isomer	VOA	21.1	11 J
2.	Unknown hydrocarbon	VOA	22.9	7 J
3.	Unknown hydrocarbon	VOA	24.2	14 J
4.	Unknown hydrocarbon	VOA	24.7	9 J
5.				
6.				
7.				
8.				
9.				
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11.				
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21.				
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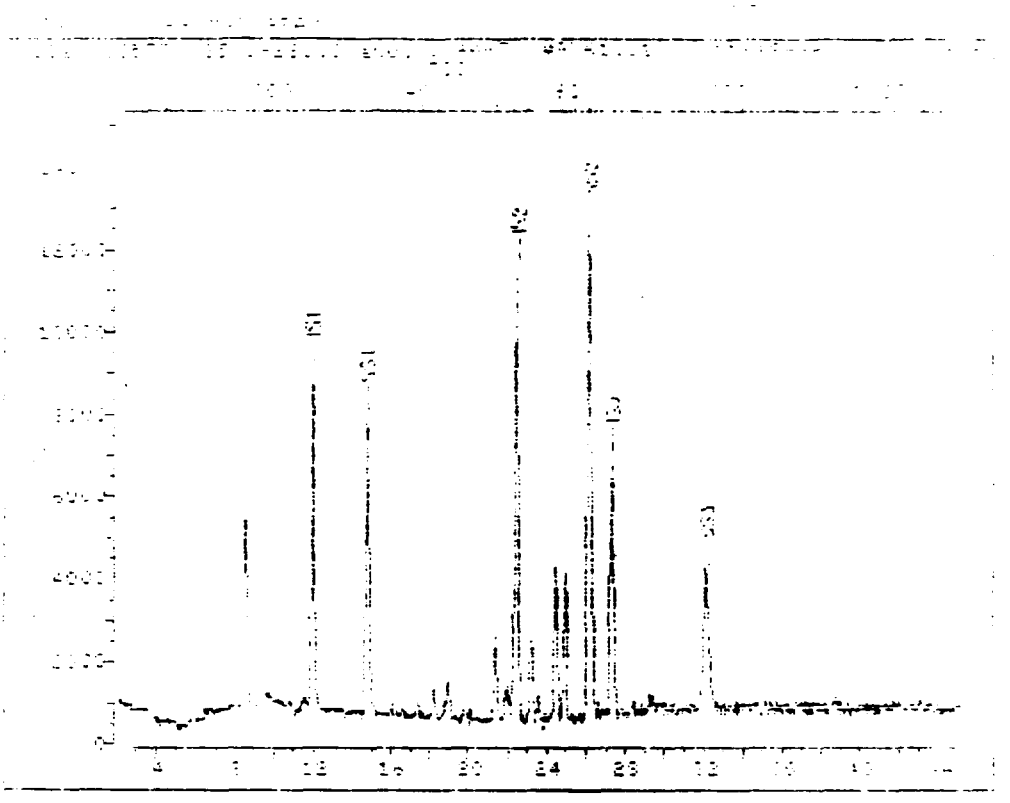
26.				
27.				
28				
29.				
30				



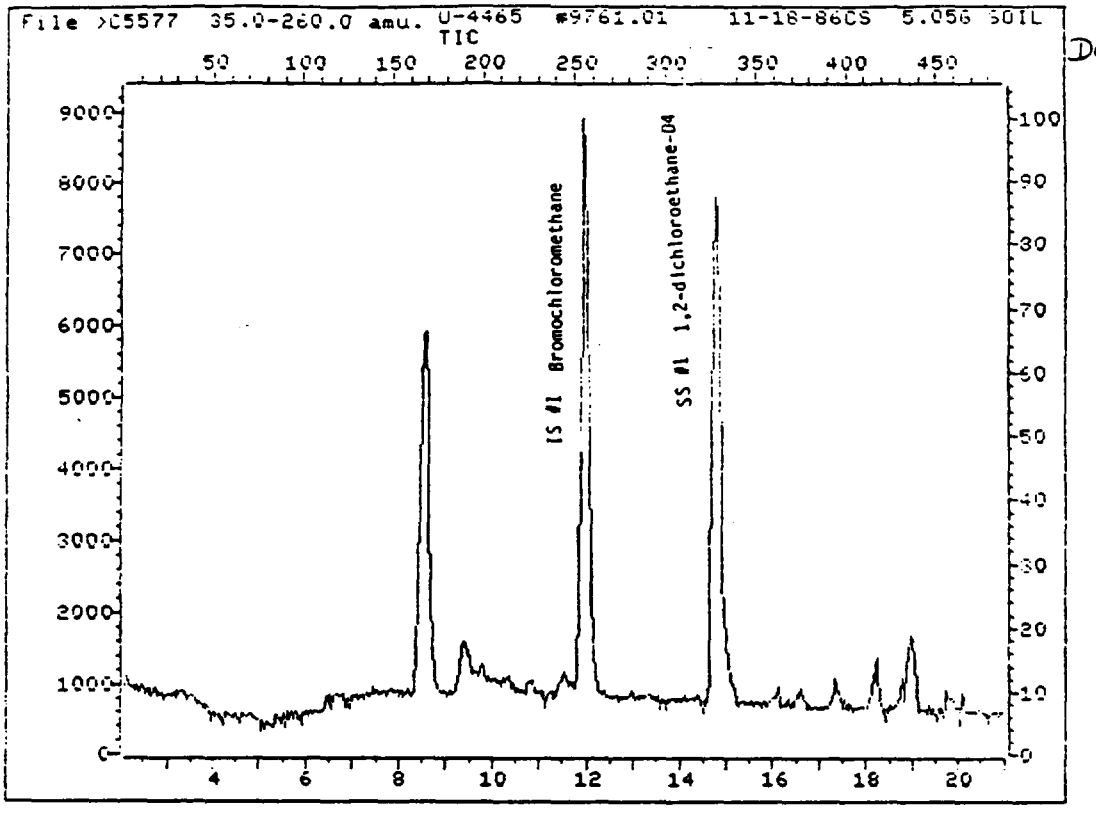
Data File: [illegible]
Name: [illegible] DC-SS-14
Misc: [illegible]

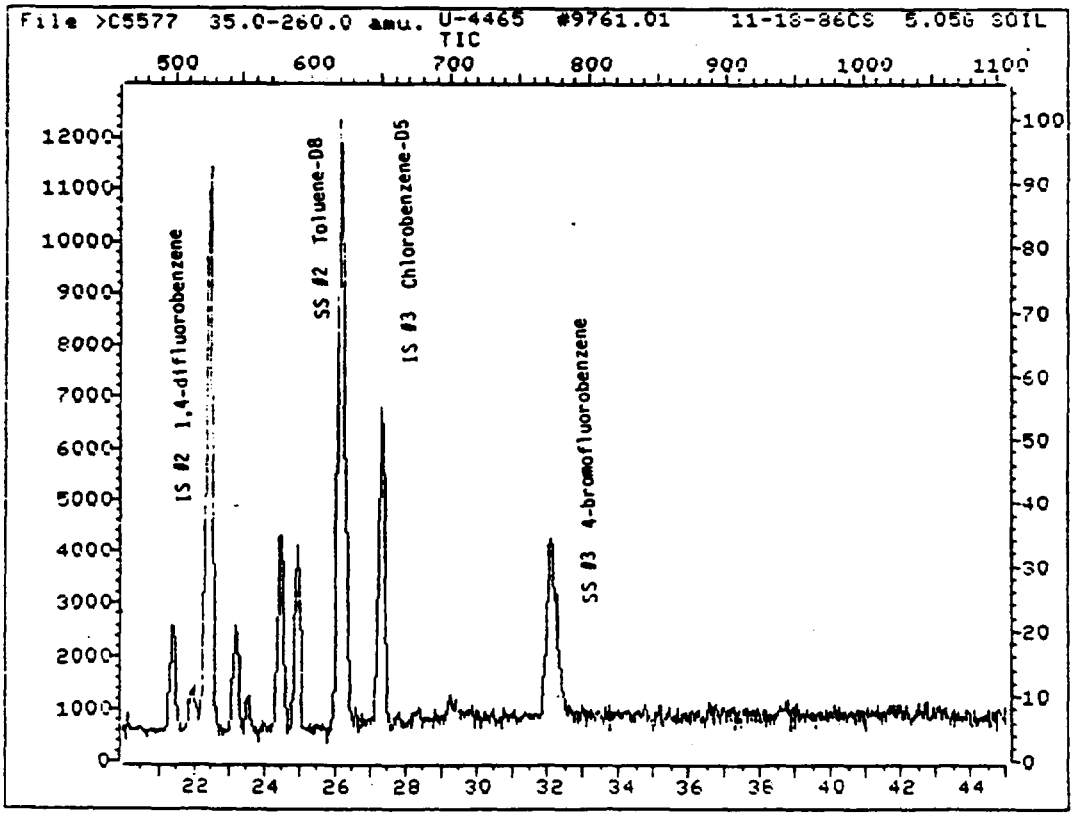
Id File: [illegible]
Title: [illegible] ID FILE FOR HP-5995 [illegible]
Last Calibration: 861118 12:02

Operator ID: [illegible]
Quant Time: 861118 15:[illegible]
Injected at: 861118 14:51

recycled paper

DC-SS-14





recycled paper

ecology and environment

QUANT REPORT

erator ID: USER8 Quant Re : 4 Quant Time: 861118 15:37
Output File: 5C5577::D2 Injected at: 861118 14:51
Data File: 5C5577::D3 Dilution Factor: 1.00
Name: U-4465 #9761.01 DC-SS-14
Misc: 11-18-86CS 5.05G SOIL IN 5ML DI + 100L 1S/SS

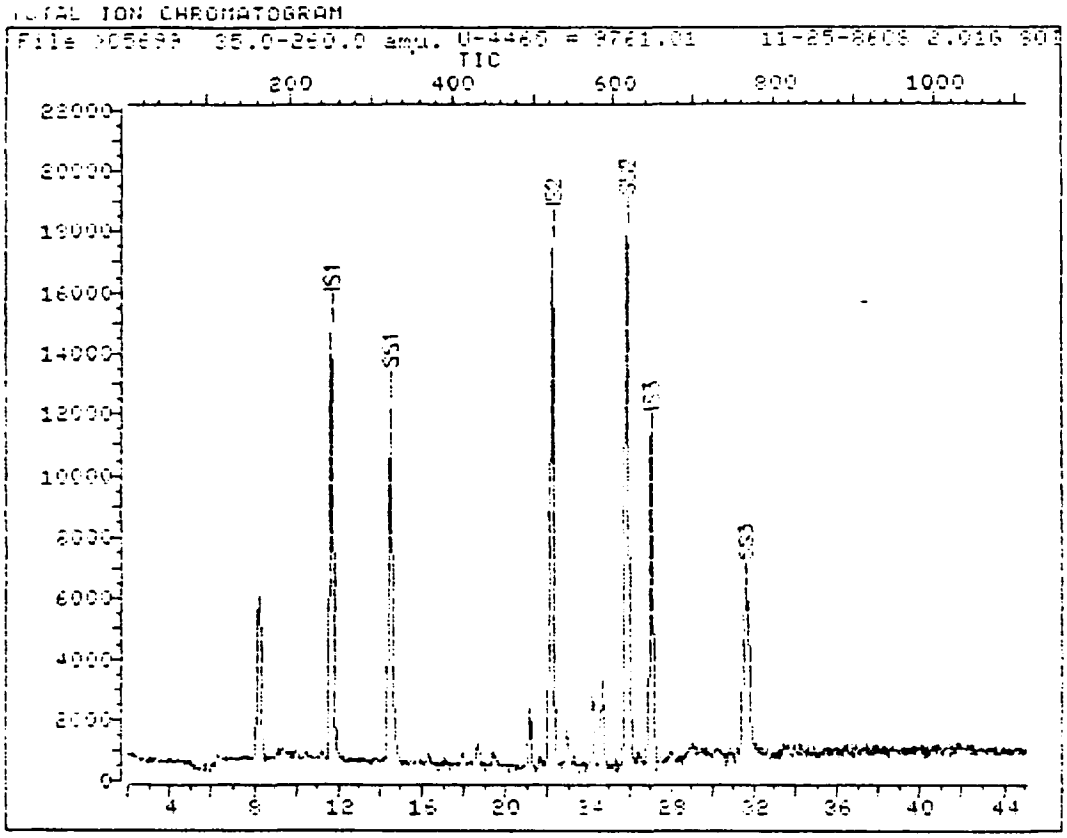
ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861118 12:02

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.95	255	12905	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.53	167	15319	152.12	NGS	100
7)	ACETONE		43	9.39	189	6742	84.45	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.78	328	29497	196.51	NGS	89
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.46	526	46712	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.33	650	21213	250.00	NGS	100
33)	~~2-HEXANONE~~		~~43~~	~~24.46~~	~~578~~	~~10252~~	~~161.99~~	~~NGS~~	~~100~~
33)	~~2-HEXANONE~~		~~43~~	~~24.95~~	~~590~~	~~7666~~	~~121.13~~	~~NGS~~	~~100~~
36)	TOLUENE-D8	(SURR)	98	26.15	621	47521	355.13	NGS	97
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.14	774	13125	186.63	NGS	100

TB
no cw
142/1/16/H
TB

* Compound is ISTD

TOTAL ION CHROMATOGRAM

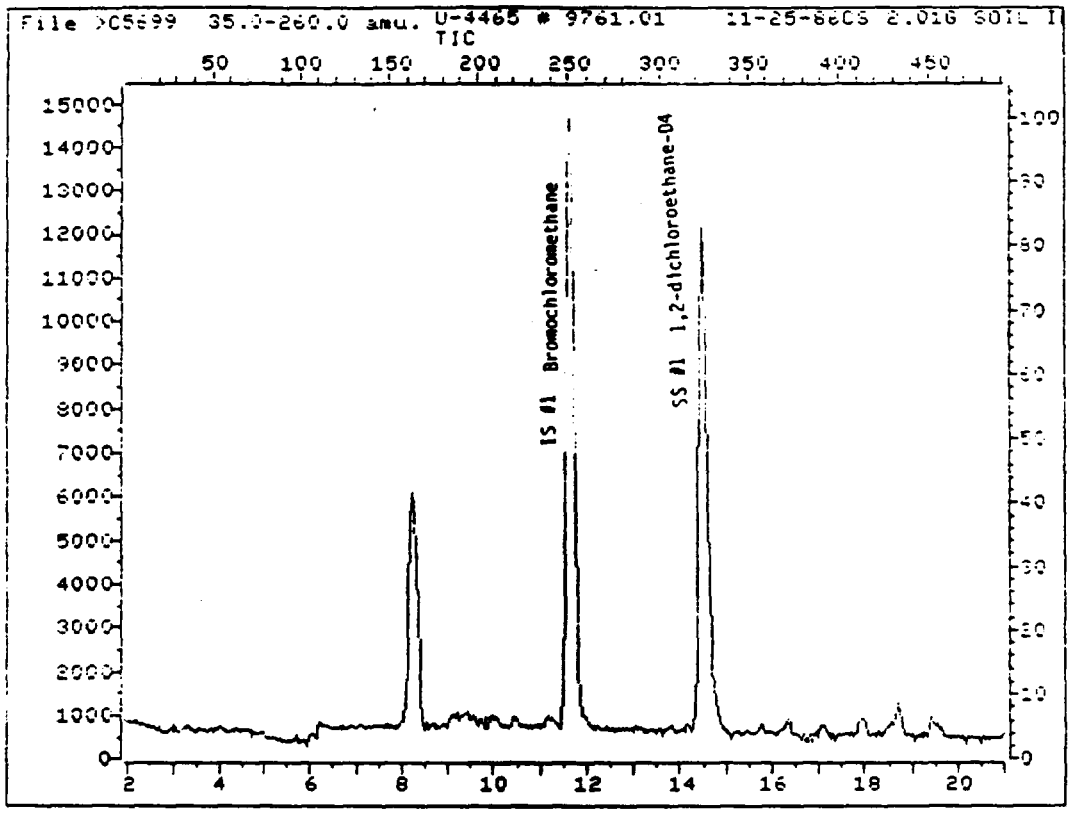


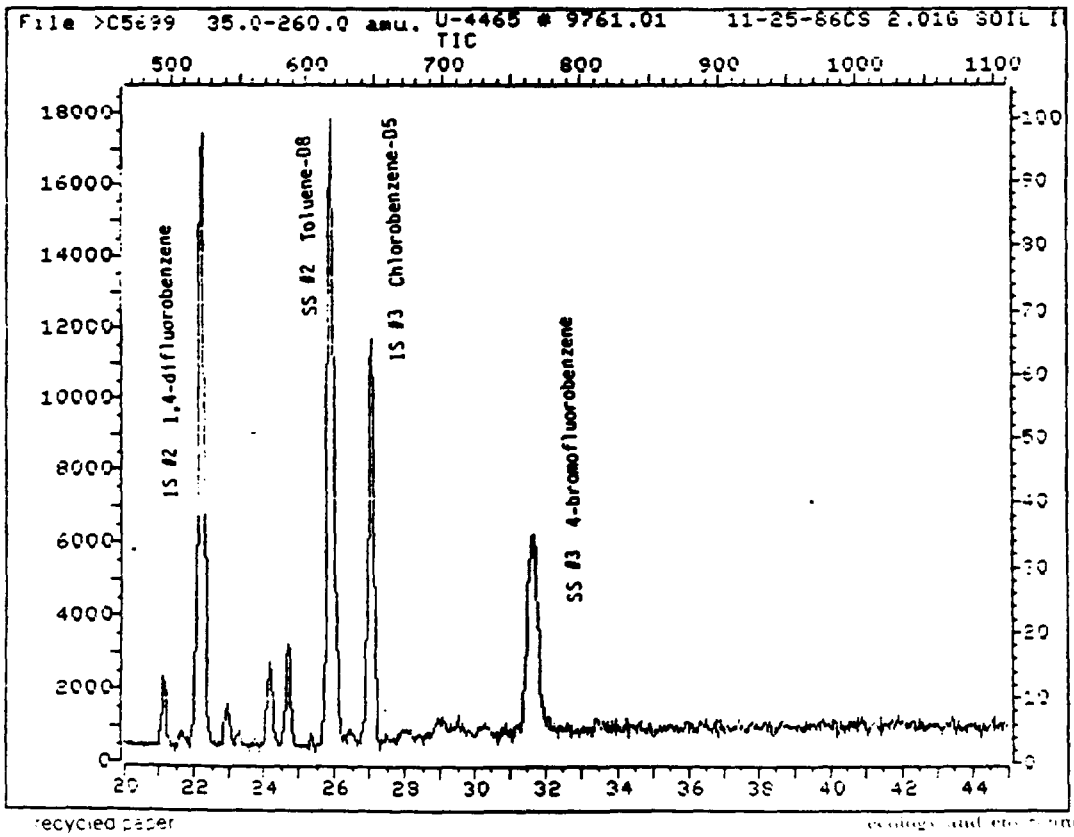
Data File: >C5699::D2
Name: U-4465 # 9761.01 DC-SS-14-RE
Misc: 11-25-86CS 2.01G SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 12:50

Operator ID: USER6
Quant Time: 861125 12:56
Injected at: 861125 12:10

DC-SS-14RE





recycled paper

QUANT REPORT

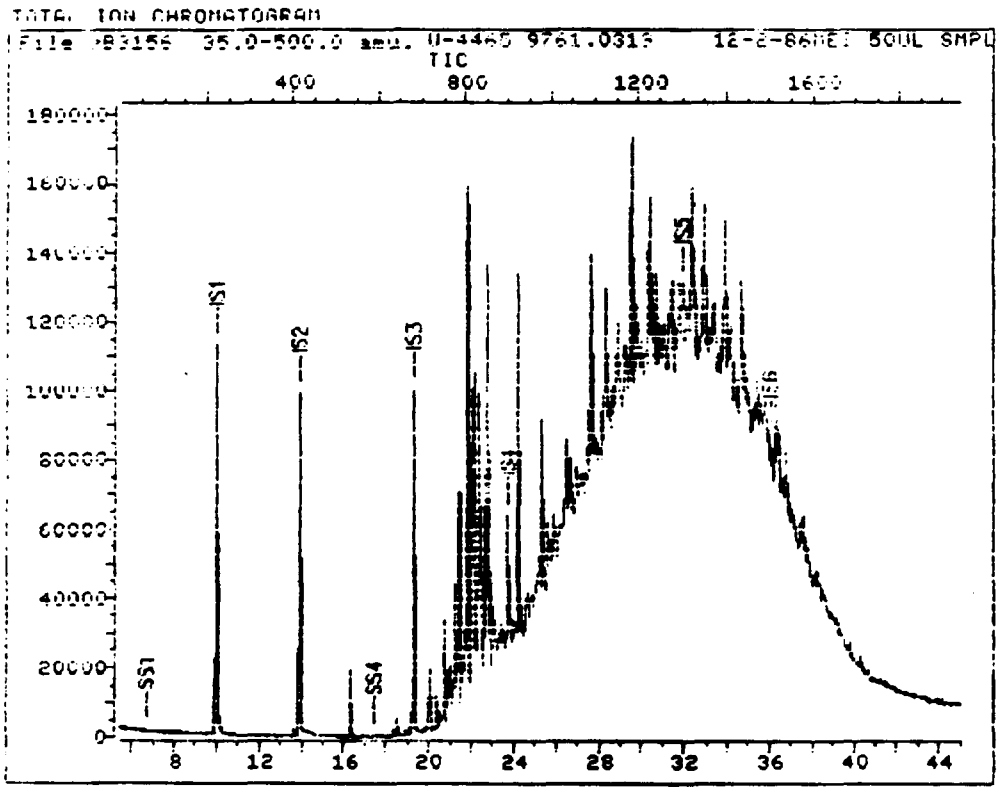
Operator ID: USER6 Quant Rev: 4 Quant Time: 861125 12:56
Output File: ^C5699::Q2 Injected at: 861125 12:10
Data File: >C5699::D2 Dilution Factor: 1.00
Name: U-4465 # 9761.01 DC-SS-14 RE
Misc: 11-25-86CS 2.01G SOIL IN 5ML DI + 10UL IS/SS

D File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 10:50

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.65	251	21930	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.24	163	15690	123.89	NGS	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.48	324	49441	224.31	NGS 90	87
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.21	523	73022	250.00	NGS	100
7)	2-BUTANONE		72	14.64	328	2446	80.25	NGS	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.02	647	36534	250.00	NGS	100
3)	~~2-HEXANONE~~		~~43~~	~~24.18~~	~~574~~	~~5170~~	~~42.80~~	~~NGS~~ no cw	100
3)	2-HEXANONE		43	24.69	587	3483	28.70	NGS	100
4)	TETRACHLOROETHENE		164	24.69	587	2535	32.06	NGS	
6)	TOLUENE-D8	(SURR)	98	25.85	617	69903	335.46	NGS 134 HIGH	92
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.56	764	19640	166.81	NGS 67	100

LOW

* Compound is ISTD



Data File: >B3156::D4
Name: U-4465 9761.0319 DC-SS-14
Misc: 12-2-86MEI 50UL SMPL + 450UL MEOL2 + 5UL IS (10X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:14

Operator ID: USER6
Quant Time: 861202 19:31
Injected at: 861202 18:44

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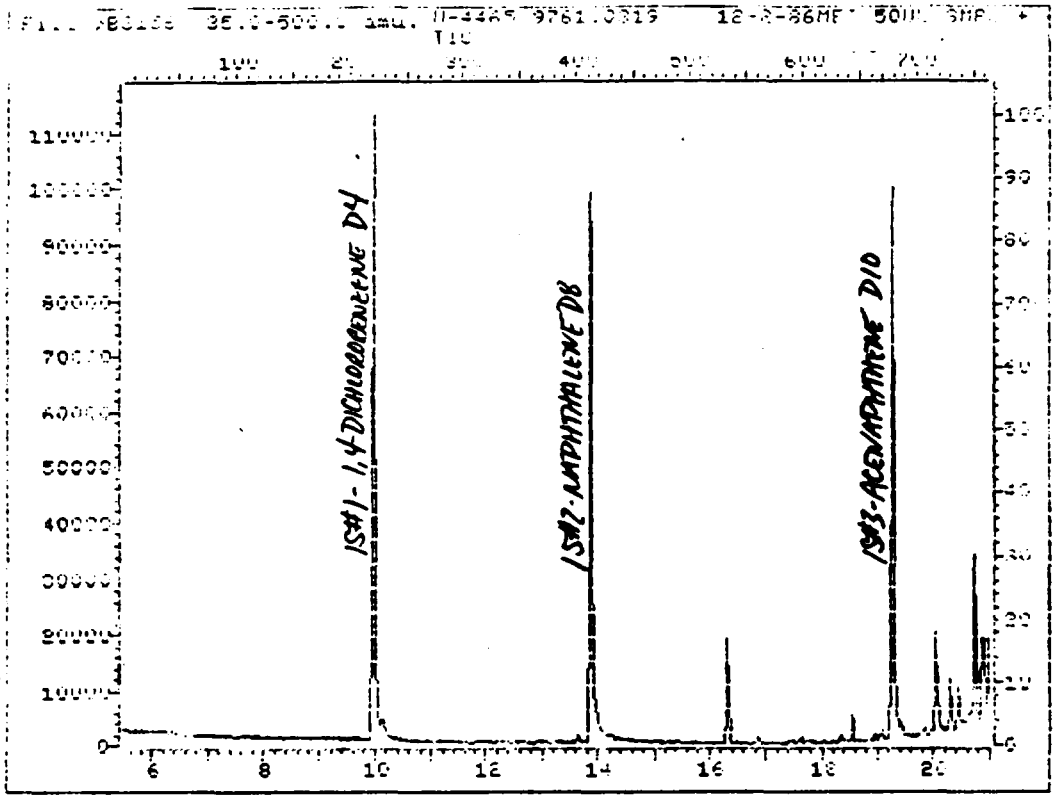
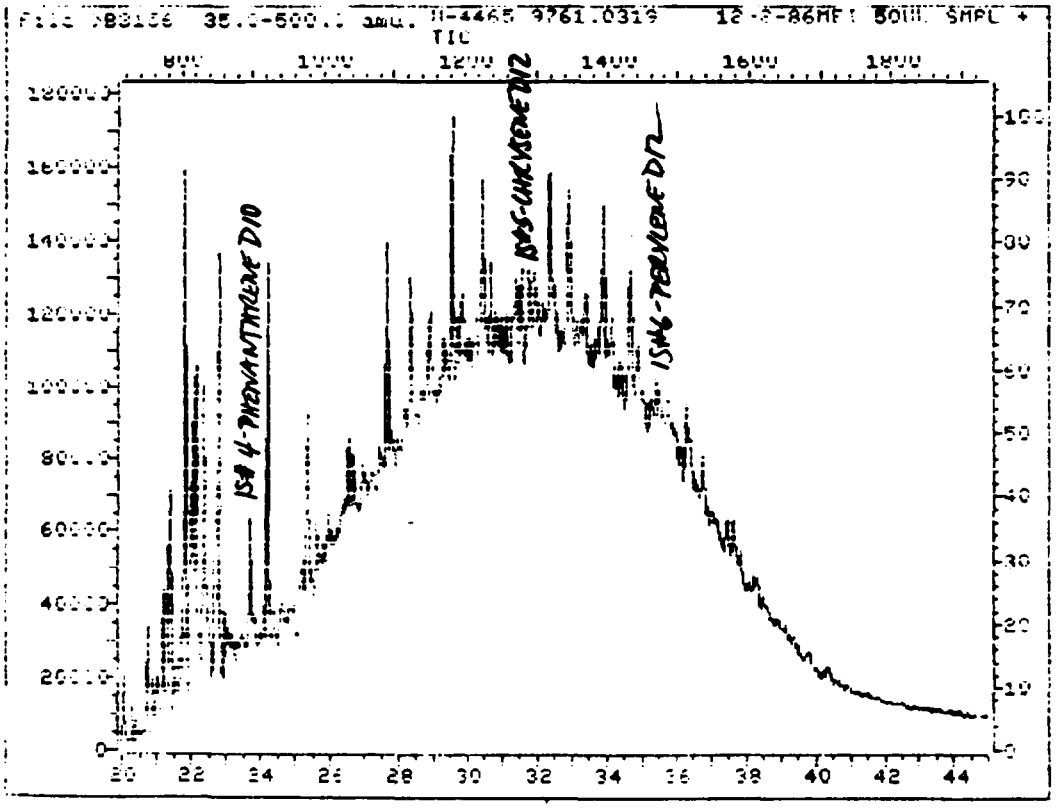
ecology and environment

DC-SS-14


TIC
ISM1-1,4-DICHLOROBENZENE D4
ISM2-NAPHTHALENE D8
ISM3-ACENAPHTHENE D10


TIC
ISM 4-PHENANTHRENE D10
DNS-CHRYSENE D12
ISM4-PERYLENE D12

310

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861202 19:31
Output File: ^B4156::N2 Injected at: 861202 18:44
Data File: B4156::D4 Dilution Factor: 10.00
Name: U-4465 9761.0319 DC-SS-14
Mass: 10-U-86 (SI * UL SMPL + 450UL MEOL2 + 50UL IS (10X)

FINAL VOLUME - 5.0 ml

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:14

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.95	221	58550	40.00	UG/L	87
5)	2-FLUOROPHENOL	(SURR)	112	6.66	59	475	2.49	UG/L	69
19)	*NAPHTHALENE-D8	(IS)	136	13.86	413	122712	40.00	UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162	19.26	679	64162	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	17.45	590	1786	7.38	UG/L	94
47)	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.76~~	~~479~~	~~14498~~	~~76.06~~	~~UG/L~~	100
48)	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.26~~	~~679~~	~~8125~~	~~14.99~~	~~UG/L~~	100
51)	~~2,4-DINITROTOLUENE~~		~~165~~	~~19.49~~	~~695~~	~~201~~	~~1.56~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	23.70	897	52599	40.00	UG/L	93
62)	~~DI-N-OCTYLPHTHALATE~~		~~149~~	~~25.49~~	~~1004~~	~~317~~	~~2.06~~	~~UG/L~~	1
63)	~~DI-N-BUTYLPHTHALATE~~		~~149~~	~~26.28~~	~~1024~~	~~832~~	~~5.40~~	~~UG/L~~	87
64)	~~DI-N-OCTYLPHTHALATE~~		~~149~~	~~26.34~~	~~1026~~	~~247~~	~~1.60~~	~~UG/L~~	25
64)	~~DI-N-BUTYLPHTHALATE~~		~~149~~	~~26.40~~	~~1029~~	~~349~~	~~2.27~~	~~UG/L~~	1
64)	~~DI-N-OCTYLPHTHALATE~~		~~149~~	~~26.43~~	~~1045~~	~~284~~	~~1.84~~	~~UG/L~~	1
65)	*CHRYSENE-D12	(IS)	240	31.90	1298	16847	40.00	UG/L	100
65)	~~BENZIDINE~~		~~184~~	~~28.18~~	~~1116~~	~~[illegible]~~	~~545.00~~	~~NG/GAL~~	~~B100~~
66)	~~BENZIDINE~~		~~184~~	~~28.58~~	~~1132~~	~~274~~	~~2[illegible].00~~	~~NG/GAL~~	~~B100~~
69)	~~BUTYLBENZYLPHTHALATE~~		~~149~~	~~30.46~~	~~1242~~	~~472~~	~~16.38~~	~~UG/L~~	1
69)	~~BUTYLBENZYLPHTHALATE~~		~~149~~	~~31.27~~	~~1277~~	~~242~~	~~8.67~~	~~UG/L~~	34
70)	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~31.92~~	~~1294~~	~~441~~	~~33.24~~	~~UG/L~~	~~100~~
70)	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~32.34~~	~~1319~~	~~127~~	~~10.69~~	~~UG/L~~	~~B100~~
70)	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~32.48~~	~~1326~~	~~971~~	~~73.29~~	~~UG/L~~	~~B100~~
71)	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.97~~	~~1301~~	~~764~~	~~1[illegible].45~~	~~UG/L~~	75
72)	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.64~~	~~1329~~	~~242~~	~~6.19~~	~~UG/L~~	88
73)	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.77~~	~~1340~~	~~1433~~	~~36.66~~	~~UG/L~~	43
73)	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.85~~	~~1344~~	~~294~~	~~7.52~~	~~UG/L~~	83
73)	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~33.28~~	~~1365~~	~~374~~	~~9.57~~	~~UG/L~~	40
23)	CHRYSENE		228	31.97	1301	764	1[illegible].29	UG/L	77
24)	*PERYLENE-D12	(IS)	264	36.00	1498	14126	40.00	UG/L	100
26)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.42~~	~~1416~~	~~1444~~	~~20.36~~	~~UG/L~~	~~100~~
26)	DI-N-OCTYL PHTHALATE		149	34.67	1423	3657	55.41	UG/L	100
26)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.81~~	~~1430~~	~~330~~	~~4.48~~	~~UG/L~~	100
26)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.99~~	~~1435~~	~~168~~	~~2.56~~	~~UG/L~~	~~B100~~
26)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~35.02~~	~~1450~~	~~1057~~	~~16.02~~	~~UG/L~~	~~B100~~

No BN

No BN

No BN

No BN

No BN

* Compound is ISTD

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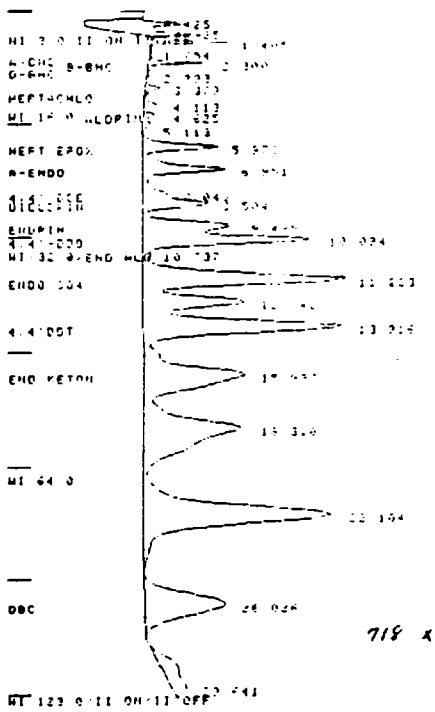
CHART SPEED: 0.5 CM/MIN
ATTEN: 8 [illegible]



718 x 6.00121 x 1/15g x 1,000,000 = ~~[illegible]~~ /Kg 1260
887,000

CHANNEL: 1A - 1 TITLE: RUN# 17 [illegible]

SAMPLE: 9761 DF=1,000 METHOD: CFPA CALCULATION: ES - ANALYS

DC-SS-14

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	[illegible]
1		0.0000	[illegible]		[illegible]	VV	[illegible]
2	~~B-BHC~~	3085.877	[illegible]	0.100	[illegible]	VB	[illegible]
3		0.0000	[illegible]		[illegible]	VV	[illegible]
4	~~HEPTACHLO~~	995.4786	[illegible]	[illegible]	[illegible]	VV	[illegible]
5	~~HEPT EPOX~~	5896.016	[illegible]	0.215	[illegible]	VV	[illegible]
6	~~A-ENDO~~	9141.529	[illegible]	-0.195	[illegible]	VV	[illegible]
7	~~4,4'-DDE~~	2537.303	[illegible]	-0.172	[illegible]	VV	[illegible]
8	~~DIELDRIN~~	6606.318	[illegible]	0.174	[illegible]	VV	[illegible]
9	~~B-ENDO~~	12344.19	[illegible]	0.005	[illegible]	VV	[illegible]
10	~~4,4'-DDD~~	21752.45	10.094	-0.236	[illegible]	VV	[illegible]
11	~~ENDO ALD.~~	1284.155	[illegible]	0.317	[illegible]	VV	[illegible]
12	~~ENDO SO4~~	43516.17	[illegible]	-0.227	[illegible]	VV	[illegible]
13		0.0000	[illegible]		[illegible]	VV	[illegible]
14	~~4,4'-DDT~~	74934.50	13.916	0.445	[illegible]	VV	[illegible]
15	~~END KETON~~	27784.66	[illegible]	0.472	[illegible]	VV	[illegible]
16		0.0000	[illegible]		[illegible]	VV	[illegible]
17		0.0000	[illegible]		[illegible]	VV	[illegible]
18	~~DBC~~	30178.13	[illegible]	-1.004	[illegible]	VV	[illegible]
19		0.0000	29.641		[illegible]	VB	7147.06

1260 718

TOTALS: 240052.0 0.167 [illegible]

DETECTED PKS: 39 REJECTED PKS: 20

DIVISOR: 1.50000 MULTIPLIER: 1000000.00

NOISE: 34.3 OFFSET: -26

RACK: 2 VIAL: 2 INJ: 1

NOTES:
NOTEBOOK:259-41 ANALYST: K.JURFK/R.SAMSON
SECURE AREA: D JOB#:U-4465
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 50 ML/MIN.
DET:300 C INJ:200 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: RAW [illegible]

recycled paper ecology and environment

SAMPLE NUMBER DC-SS-15

481095

Sample Number
DC-SS-15

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465

Lab Sample ID No: 9762 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-18-86

Conc/Dil Factor: 1.5 pH 6.5

Percent Moisture: (Not Decanted) 19

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	15u
74-83-9	Bromomethane	15u
75-01-4	Vinyl Chloride	15u
75-00-3	Chloroethane	15u
75-09-2	Methylene Chloride	26 B
67-64-1	Acetone	18 B
75-15-0	Carbon Disulfide	8u
75-35-4	1, 1-Dichloroethene	8u
75-34-3	1, 1-Dichloroethane	8u
156-60-5	Trans-1, 2-Dichloroethene	8u
67-66-3	Chloroform	8u
107-06-2	1, 2-Dichloroethane	8u
78-93-3	2-Butanone	16 B
71-55-6	1, 1, 1-Trichloroethane	8u
56-23-5	Carbon Tetrachloride	8u
108-05-4	Vinyl Acetate	15u
75-27-4	Bromodichloromethane	8u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	8u
10061-02-6	Trans-1, 3-Dichloropropene	8u
79-01-6	Trichloroethene	8u
124-48-1	Dibromochloromethane	8u
79-00-5	1, 1, 2-Trichloroethane	8u
71-43-2	Benzene	8u
10061-01-5	cis-1, 3-Dichloropropene	8u
110-75-8	2-Chloroethylvinylether	15u
75-25-2	Bromoform	8u
108-10-1	4-Methyl-2-Pentanone	14 J
591-78-6	2-Hexanone	15u
127-18-4	Tetrachloroethene	8u
79-34-5	1, 1, 2, 2-Tetrachloroethane	8u
108-88-3	Toluene	12
108-90-7	Chlorobenzene	8u
100-41-4	Ethylbenzene	8u
100-42-5	Styrene	8u
	Total Xylenes	8u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Sample Number
DC-SS-15-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4465
Lab Sample ID No: 9762 RE QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-25-86

Conc/Dil Factor: 3 pH 6.5

Percent Moisture: (Not Decanted) 19

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	49 B
67-64-1	Acetone	92 B
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	40 B
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4465

Sample Number DC-SS-15

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-19-86

Conc/Dil Factor 200

Percent Moisture (Decanted) 19

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	41000	U
111-44-4	bis(-2-Chloroethyl)Ether	41000	U
95-57-8	2-Chlorophenol	41000	U
541-73-1	1 3-Dichlorobenzene	41000	U
106-46-7	1. 4-Dichlorobenzene	41000	U
100-51-6	Benzyl Alcohol	41000	U
95-50-1	1. 2-Dichlorobenzene	41000	U
95-48-7	2-Methylphenol	41000	U
39638-32-9	bis(2-chloroisopropyl)Ether	41000	U
106-44-5	4-Methylpheno	41000	U
621-64-7	N-Nitroso-Di-n-Propylamine	41000	U
67-72-1	Hexachloroethane	41000	U
98-95-3	Nitrobenzene	41000	U
78-59-1	Isophorone	41000	U
88-75-5	2-Nitrophenol	41000	U
105-67-9	2. 4-Dimethylphenol	41000	U
65-85-0	Benzoic Acid	200000	U
111-91-1	bis(-2-Chloroethoxy)Methane	41000	U
120-83-2	2. 4-Dichlorophenol	41000	U
120-82-1	1. 2. 4-Trichlorobenzene	41000	U
91-20-3	Naphthalene	41000	U
106-47-8	4-Chloroaniline	41000	U
87-68-3	Hexachlorobutadiene	41000	U
59-50-7	4-Chloro-3-Methylphenol	41000	U
91-57-6	2-Methylnaphthalene	41000	U
77-47-4	Hexachlorocyclopentadiene	41000	U
88-06-2	2 4 6-Trichlorophenol	41000	U
95-95-4	2. 4. 5-Trichlorophenol	200000	U
91-58-7	2-Chloronaphthalene	41000	U
88-74-4	2-Nitroaniline	200000	U
131-11-3	Dimethyl Phthalate	41000	U
208-96-8	Acenaphthylene	41000	U
99-09-2	3-Nitroaniline	200000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	41000	U
51-28-5	2. 4-Dinitrophenol	200000	U
100-02-7	4-Nitrophenol	200000	U
132-64-9	Dibenzofuran	41000	U
121-14-2	2 4-Dinitrotoluene	41000	U
606-20-2	2 6-Dinitrotoluene	41000	U
84-66-2	Diethylphthalate	41000	U
7005-72-3	4-Chlorophenyl-phenylether	41000	U
86-73-7	Fluorene	41000	U
100-01-6	4-Nitroaniline	200000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	200000	U
86-30-6	N-Nitrosodiphenylamine (1)	41000	U
101-55-3	4-Bromophenyl-phenylether	41000	U
118-74-1	Hexachlorobenzene	41000	U
87-86-5	Pentachlorophenol	1200000	
85-01-8	Phenanthrene	40000	J
120-12-7	Anthracene	41000	U
84-74-2	Di-n-Butylphthalate	41000	U
206-44-0	Fluoranthene	44000	
129-00-0	Pyrene	85000	
85-68-7	Butylbenzylphthalate	41000	U
91-94-1	3. 3'-Dichlorobenzidine	81000	U
56-55-3	Benzo(a)Anthracene	41000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	41000	U
218-01-9	Chrysene	39000	J
117-84-0	Di-n-Octyl Phthalate	41000	U
205-99-2	Benzo(b)Fluoranthene	47000	
207-08-9	Benzo(k)Fluoranthene	41000	U
50-32-8	Benzo(a)Pyrene	22000	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	41000	U
53-70-3	Dibenzo(a h)Anthracene	41000	U
191-24-2	Benzo(g h. i)Perylene	41000	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-15

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 11-25-86

Conc/Dil Factor: 1,000

Percent Moisture (decanted) 19.4

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16,000 u
319-85-7	Beta-BHC	16,000 u
319-86-8	Delta-BHC	16,000 u
58-89-9	Gamma-BHC (Lindane)	16,000 u
76-44-8	Heptachlor	16,000 u
309-00-2	Aldrin	16,000 u
1024-57-3	Heptachlor Epoxide	16,000 u
959-98-8	Endosulfan I	16,000 u
60-57-1	Dieldrin	32,000 u
72-55-9	4,4'-DDE	32,000 u
72-20-8	Endrin	32,000 u
33213-65-9	Endosulfan II	32,000 u
72-54-8	4,4'-DDD	32,000 u
1031-07-8	Endosulfan Sulfate	32,000 u
50-29-3	4,4'-DDT	32,000 u
72-43-5	Methoxychlor	160,000 u
53494-70-5	Endrin Ketone	32,000 u
57-74-9	Chlordane	160,000 u
8001-35-2	Toxaphene	320,000 u
12674-11-2	Aroclor-1016	160,000 u
11104-28-2	Aroclor-1221	160,000 u
11141-16-5	Aroclor-1232	160,000 u
53469-21-9	Aroclor-1242	160,000 u
12672-29-6	Aroclor-1248	184,000
11097-69-1	Aroclor-1254	320,000 u
11096-82-5	Aroclor-1260	305,000 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name ECOLOGY & ENVIRONMENT INC

Case No U-4465

Sample Number DC-SS-15

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1. 563780	2,3-DIMETHYL-1-BUTENE	VOA	18.2	15 J
2. 558372	3,3-DIMETHYL-1-BUTENE		19.0	35 J
3. 110543	HEXANE		21.4	4 BJ
4.	UNKNOWN		21.9	7 J
5.	UNKNOWN HYDROCARBON		24.5	32 J
6.	UNKNOWN HYDROCARBON		25.0	21 J
7.				
8.	UNKNOWN AROMATIC	BNA	20.4	37000 J
9.	UNKNOWN AROMATIC		20.8	88000 J
10.	UNKNOWN AROMATIC		20.9	54000 J
11.	UNKNOWN		21.0	24000 J
12.	UNKNOWN AROMATIC		21.3	30000 J
13.	UNKNOWN		21.7	24000 J
14.				
15.				
16.				
17.				
18.				
19.				
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22.				
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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-15-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Unknown Ketone	VOA	18.0	17 J
2.	Hexene Isomer	VOA	18.9	31 J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
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30				

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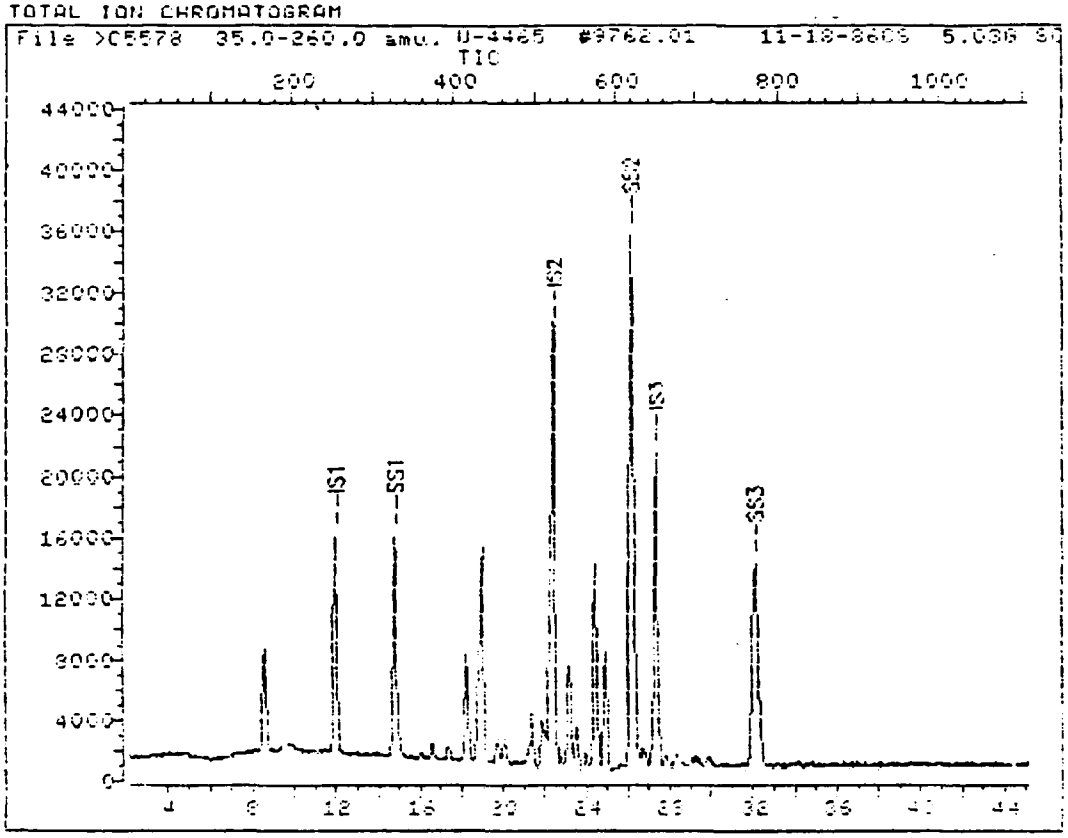
TOTAL ION CHROMATOGRAM

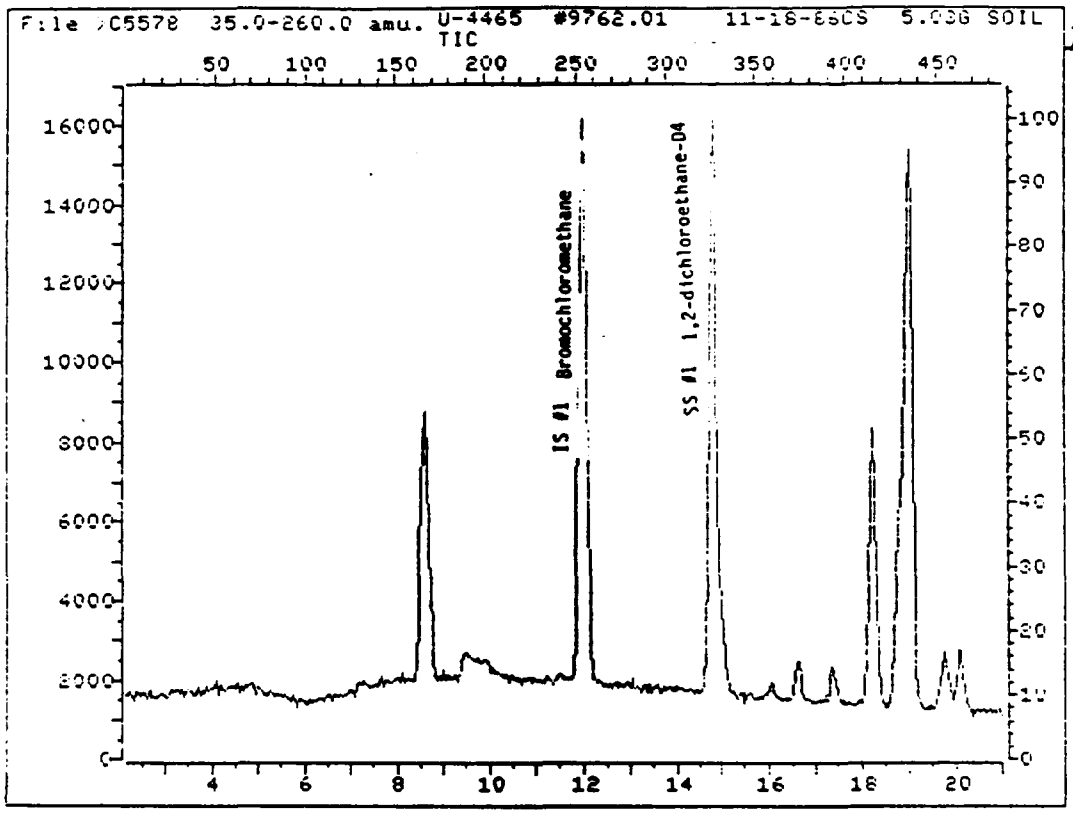


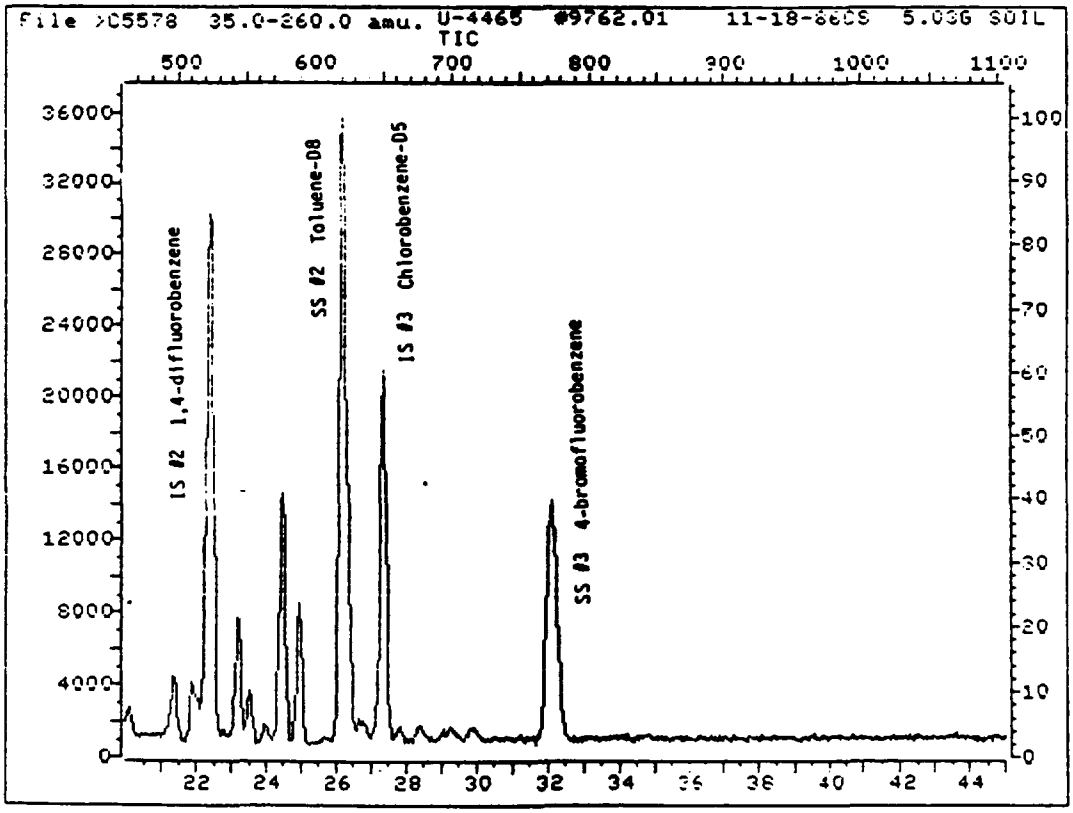
Data File: >C5578::D3
Name: U-4465 #9762.01 DC-SS-15
Misc: 11-18-8609 5.036 SOIL IN 5ML DI + 10UL .8/SS

Id File: VOACRS::02
Title: VOA ID FILE FOR HP-5995 (CLNT. CAL.)
Last Calibration: 861.18 12:02

Operator ID: USEP8
Quant Time: 861118 16:33
Injected at: 861118 15:47

DC-SS-15





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QUANT REPORT

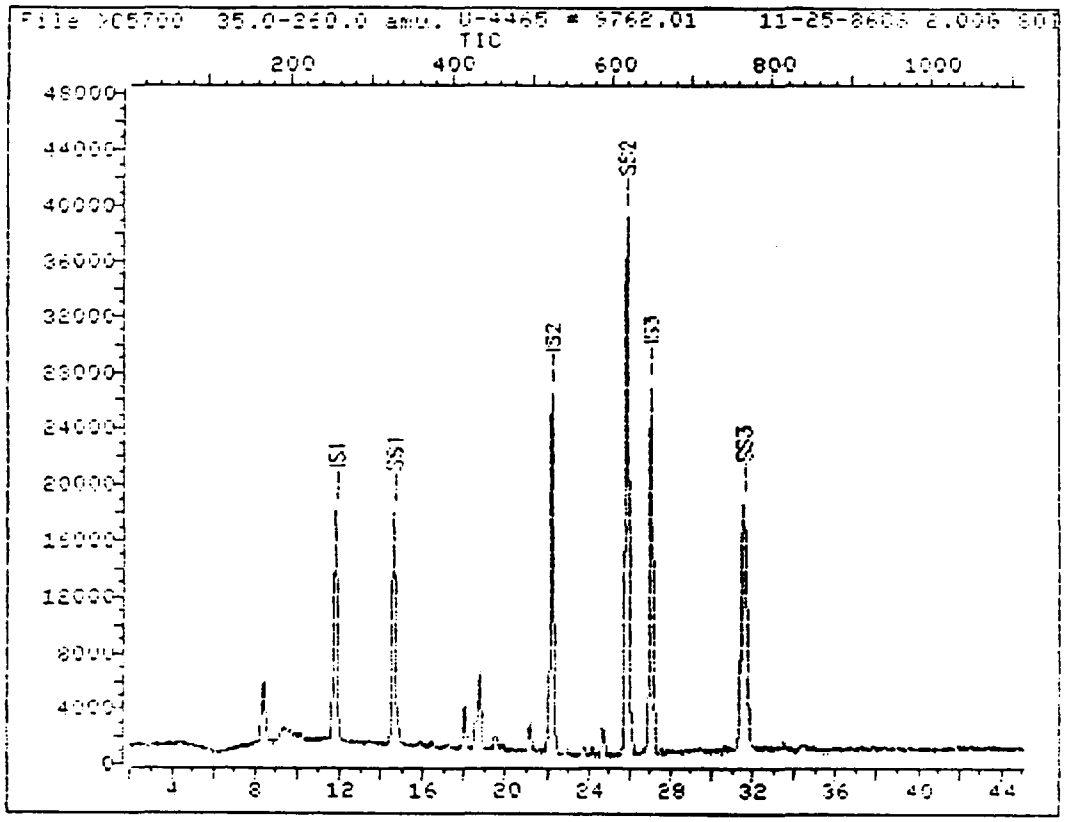
Operator ID: USER8 Quant Rev: 4 Quant Time: 861118 16:33
Output File: ^C5578::D2 Injected at: 861118 15:47
Data File: >C5578::D3 Dilution Factor: 1.00
Name: U-4465 #9762.01 DC-SS-15
Misc: 11-18-86CS 5.03G SOIL IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861118 12:02

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.97	254	20306	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.60	167	16803	106.04	NGS	100
7)	ACETONE		43	9.57	192	9186	73.12	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.80	327	57661	244.12	NGS	85
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.45	524	110444	250.00	NGS	100
17)	2-BUTANONE		72	14.96	331	2558	63.99	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.35	650	67705	250.00	NGS	100
32)	4-METHYL-2-PENTANONE		43	23.19	543	14469	56.85	NGS	44
33)	~~2-HEXANONE~~		~~43~~	~~24.47~~	~~576~~	~~35165~~	~~174.09~~	~~NGS~~	~~100~~
35)	~~2-HEXANONE~~		~~43~~	~~24.97~~	~~588~~	~~22648~~	~~112.17~~	~~NGS~~	~~100~~
36)	TOLUENE-D8	(SURR)	98	26.17	620	139704	327.11	NGS	91
37)	TOLUENE		92	26.33	624	14915	50.06	NGS	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.12	773	51360	228.82	NGS	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

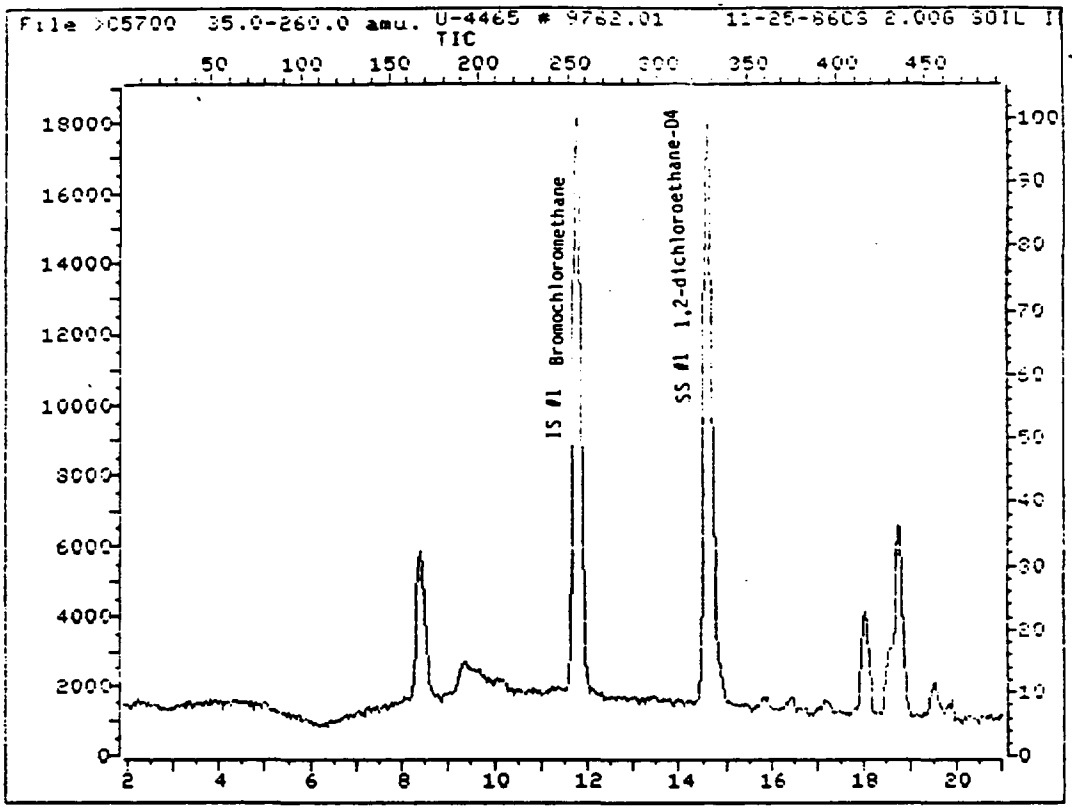


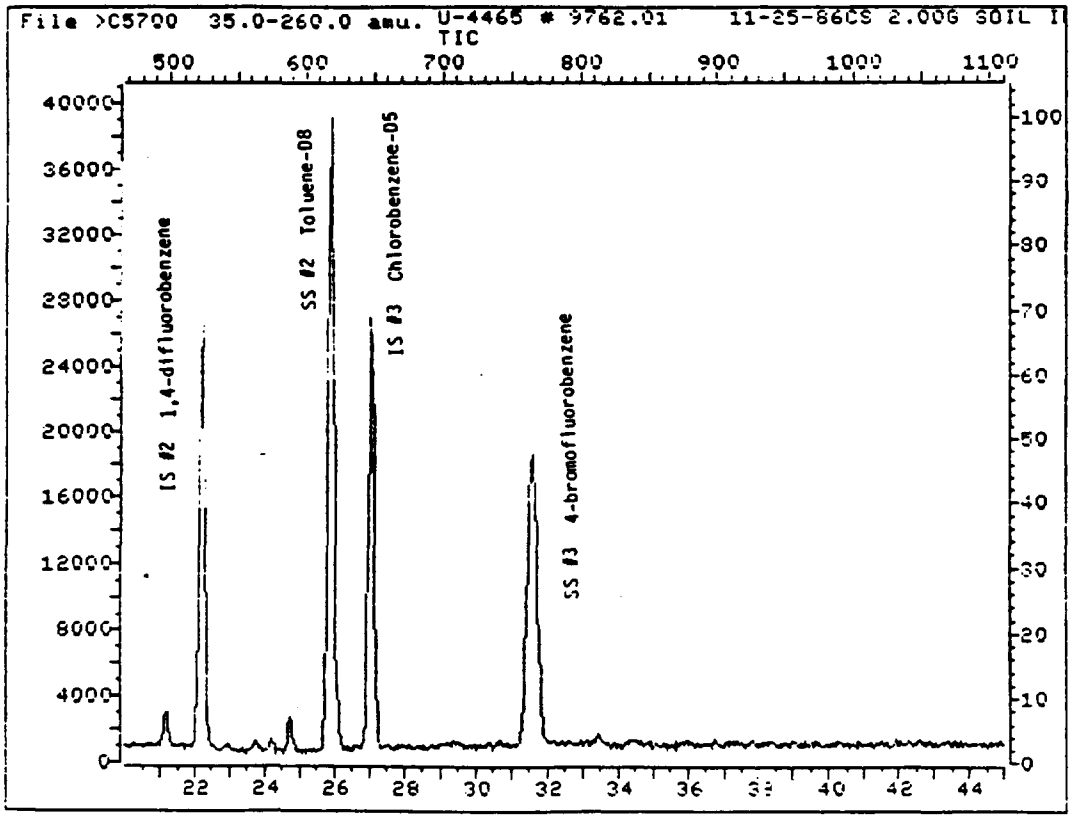
Data File: >C5700::D2
Name: U-4465 # 9762.01 DC-SS-15-RE
Misc: 11-25-86CS 2.00G SOIL IN 5ML DI + 10UL ISTDS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 10:50

Operator ID: USER6
Quant Time: 861125 13:51
Injected at: 861125 13:05

DC-SS-15RE





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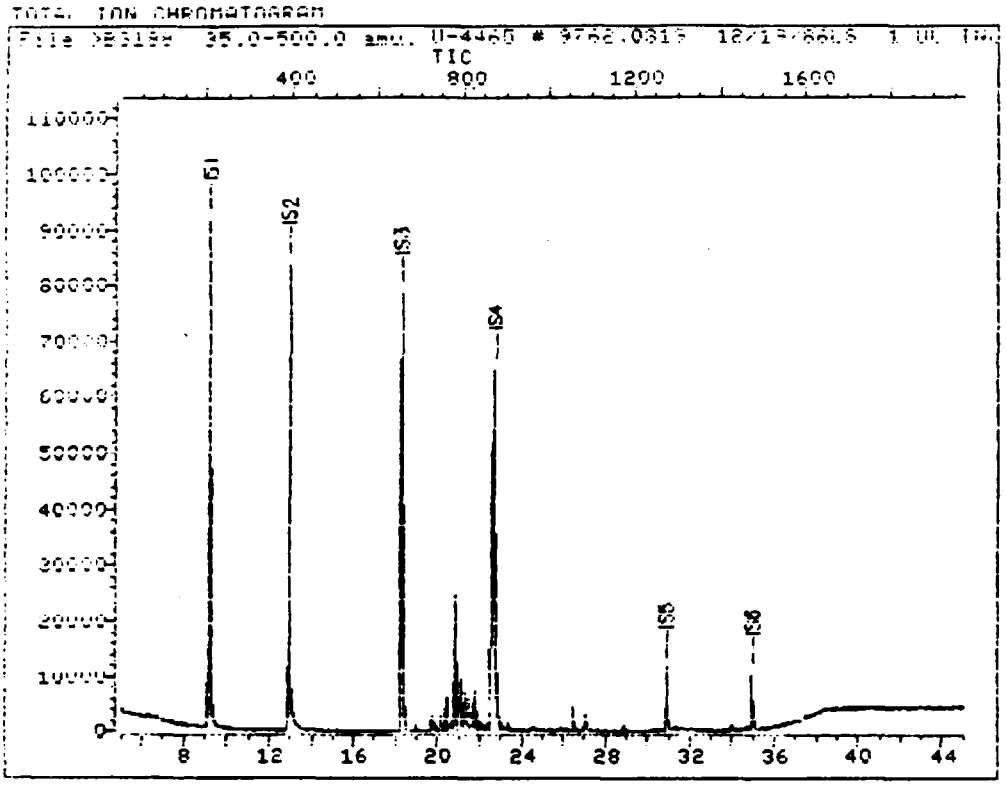
QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861125 13:51
Output File: ^C5700::Q2 Injected at: 861125 13:05
Data File: >C5700::D2 Dilution Factor: 1.00
Name: U-4465 # 9762.01 DC-SS-15-RE
Misc: 11-25-86CS 2.00G SOIL IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 10:50

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.78	255	23113	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.37	167	10606	79.46	NGS	100
7)	ACETONE		43	9.38	193	12792	149.00	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.62	328	66036	284.26	NGS 114✓	88
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.22	524	102031	250.00	NGS	100
17)	2-BUTANONE		72	14.81	333	2731	64.13	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.03	648	80359	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.87	618	153784	335.52	NGS 134 HIGH	92
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.58	765	63526	2[illegible]	NGS 98✓	100

* Compound is ISTD



Data File: >B2188::D4
Name: U-4465 # 9762.0319 DC 55-15
Misc: 12/19/86LS 1 UL INJ (200X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861219 16:50

Operator ID: USER8
Quant Time: 861219 16:51
Injected at: 861219 16:04

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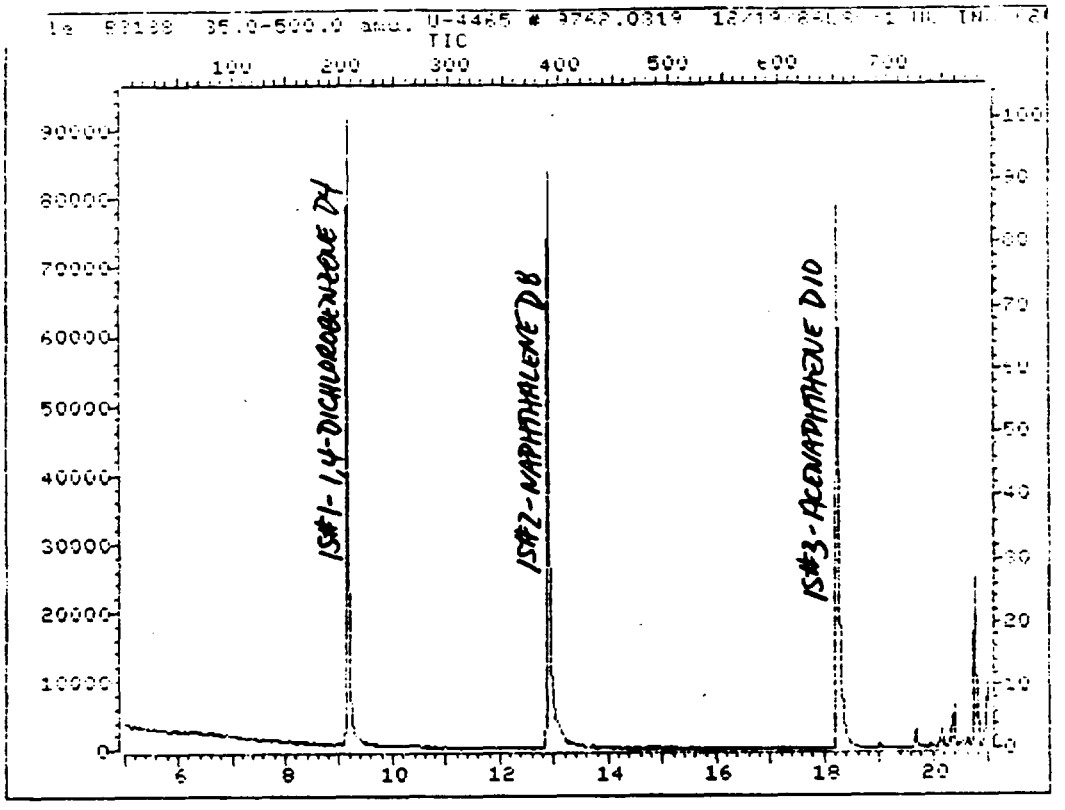
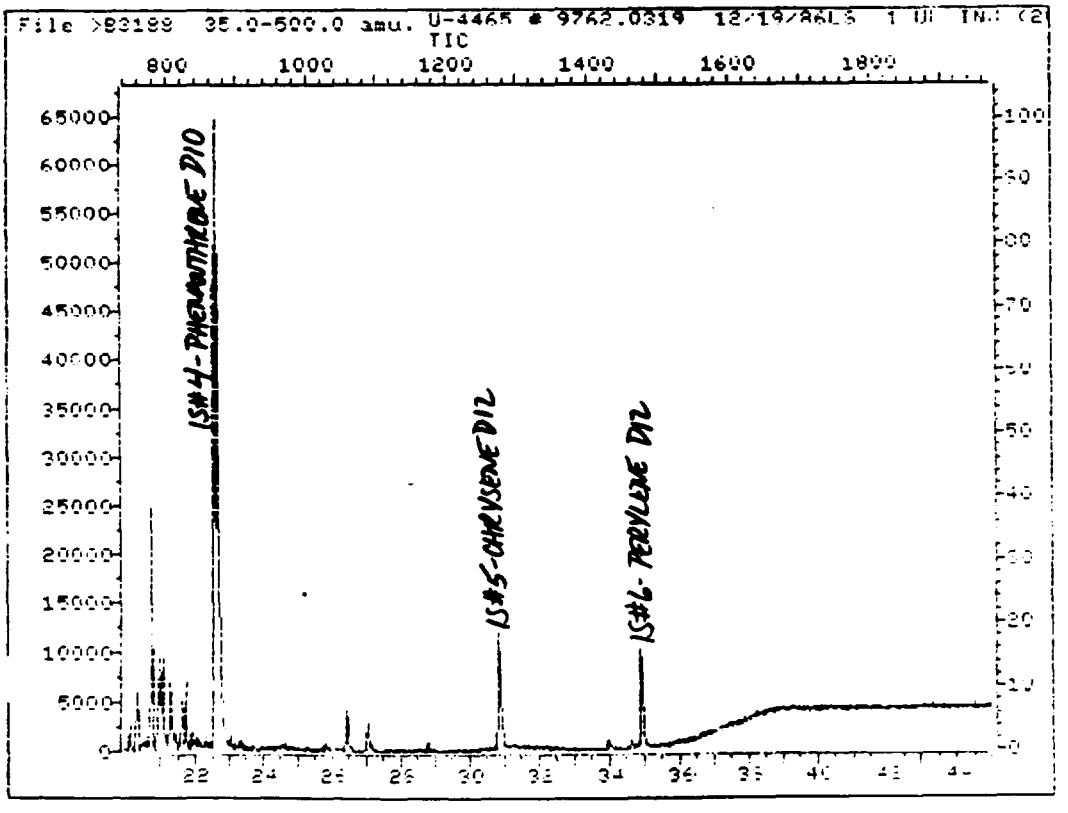
DC-SS-15





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861224 12:46
Output File: ^B3188::Q2 Injected at: 861219 16:04
Data File: >B3188::D4 Dilution Factor: 200.00
Name: U-4465 # 9762.0319 DC SS-15
Misc: 12/19/86LS 1 UL INJ (200X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (E
Last Calibration: 861224 12:42

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.16	206	50518	40.00	UG/L	86
19)	*NAPHTHALENE-D8	(IS)	136	12.90	390	158408	40.00	UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162	18.24	653	70930	40.00	UG/L	98
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.24~~	~~653~~	~~20686~~	~~1625.96~~	~~UG/L~~	100
~~47)~~	~~ACENAPHTHENE~~		~~153~~	~~18.32~~	~~657~~	~~385~~	~~34.99~~	~~UG/L~~	96
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.24~~	~~653~~	~~8798~~	~~3039.61~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.67	871	81978	40.00	UG/L	99
60)	PENTACHLOROPHENOL		266	22.55	865	38552	29008.36	UG/L	100
61)	PHENANTHRENE		178	22.73	874	9659	965.67	UG/L	95
~~62)~~	~~ANTHRACENE~~		~~178~~	~~22.73~~	~~874~~	~~9659~~	~~941.78~~	~~UG/L~~	95
64)	FLUORANTHENE		202	26.41	1055	10515	1074.32	UG/L	95
65)	*CHRYSENE-D12	(IS)	240	30.84	1273	23625	40.00	UG/L	100
67)	PYRENE		202	27.04	1086	7585	2060.31	UG/L	88
~~71)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~30.92~~	~~1277~~	~~2914~~	~~947.56~~	~~UG/L~~	94
73)	CHRYSENE		228	30.92	1277	2914	947.56	UG/L	96
74)	*PERYLENE-D12	(IS)	264	34.93	1474	20639	40.00	UG/L	100
76)	BENZO(B)FLUORANTHENE		252	33.99	1428	3483	1143.61	UG/L	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.99~~	~~1428~~	~~3483~~	~~1273.64~~	~~UG/L~~	100
~~78)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.67~~	~~1461~~	~~1240~~	~~471.84~~	~~UG/L~~	100
78)	BENZO(A)PYRENE		252	34.79	1467	1404	533.34	UG/L	100
~~78)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.99~~	~~1477~~	~~256~~	~~97.25~~	~~UG/L~~	100
~~79)~~	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~37.61~~	~~1606~~	~~786~~	~~305.06~~	~~UG/L~~	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~37.61~~	~~1606~~	~~786~~	~~284.43~~	~~UG/L~~	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~38.14~~	~~1632~~	~~786~~	~~284.43~~	~~UG/L~~	100

No BNA

* Compound is ISTD

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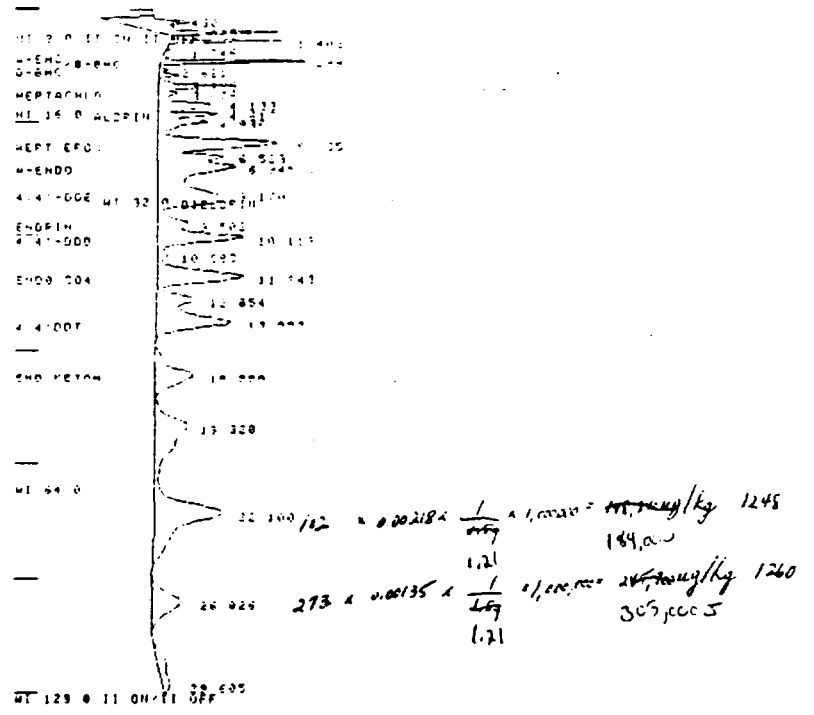

CHANNEL: 1A - 1 TITLE: RUN 18

SAMPLE: 9762 DF=4000 METHOD: CEPA

DC-SS-15

PEAK NO	PEAK NAME	RESULT US/KG	TIME (MIN)	TIME OFFSET	[illegible]	[illegible]	[illegible]
1		0.0000	1.402		[illegible]	[illegible]	[illegible]
2	[illegible]	9337.225	[illegible]	0.059	[illegible]	[illegible]	[illegible]
3		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
4		0.0000	3.287		[illegible]	[illegible]	[illegible]
5	HEPTACHLO	1481.957	3.678	-0.164	[illegible]	[illegible]	[illegible]
6		0.0000	4.137		[illegible]	[illegible]	[illegible]
7	ALDRIN	3193.201	4.617	-0.123	[illegible]	[illegible]	[illegible]
8		0.0000	4.974		[illegible]	[illegible]	[illegible]
9		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
10	HEPT EPOX	13765.12	5.335	0.175	[illegible]	[illegible]	[illegible]
11		0.0000	5.577		[illegible]	[illegible]	[illegible]
12	[illegible]	12543.59	5.445	-0.205	[illegible]	[illegible]	[illegible]
13	[illegible]	9117.900	6.170	-0.050	[illegible]	[illegible]	[illegible]
14	DIELDRIN	5753.499	6.486	0.166	[illegible]	[illegible]	[illegible]
15	[illegible]	4765.022	9.402	0.022	[illegible]	[illegible]	[illegible]
16	[illegible]	12216.74	10.119	-0.211	[illegible]	[illegible]	[illegible]
17	[illegible]	1749.642	10.835	0.456	[illegible]	[illegible]	[illegible]
18	[illegible]	16326.26	11.443	-0.267	[illegible]	[illegible]	[illegible]
19		0.0000	12.954		[illegible]	[illegible]	[illegible]
20	[illegible]	32076.79	17.893	0.423	[illegible]	[illegible]	[illegible]
21	[illegible]	9502.219	15.448	0.478	[illegible]	[illegible]	[illegible]
22		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
23		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
24	[illegible]	16206.39	25.276	-1.004	[illegible]	[illegible]	[illegible]
25		0.0000	29.635		[illegible]	[illegible]	[illegible]
TOTALS:		144655.0		-0.201	[illegible]		

DETECTED PKS: 38 REJECTED PKS: 13

DIVISOR: 1.50000 MULTIPLIER: 1000000.00

NOISE: 34.3 OFFSET: -23

RACK: 2 VIAL: 3 INJ: 1

NOTES:
NOTEBOOK:CSS-41 ANALYST: K.LUPFR R.SAMSON
SECURE AREA: D 1064:0-4455
INSTRUMENT: [illegible] A ECD 10x1
COLUMN: A: GLASS 4MM ID 100:170 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 56 ML/MIN.
DET:300 C INJ:200.0
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
[illegible]

[illegible]

329

SAMPLE NUMBER DC-SS-16

481095

Sample Number
DC-SS-16

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465

Lab Sample ID No: 9763 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-18-86

Conc/Dil Factor: 3 pH 6.4

Percent Moisture: (Not Decanted) 23

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	56 B
67-64-1	Acetone	28 BJ
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	46 B
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number DC-SS-16

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-19-86

Conc/Dil Factor 200

Percent Moisture (Decanted) 23

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	43000	U
111-44-4	bis(-2-Chloroethyl)Ether	43000	U
95-57-8	2-Chlorophenol	43000	U
541-73-1	1 3-Dichlorobenzene	43000	U
106-46-7	1. 4-Dichlorobenzene	43000	U
100-51-6	Benzyl Alcohol	43000	U
95-50-1	1 2-Dichlorobenzene	43000	U
95-48-7	2-Methylphenol	43000	U
39638-32-9	bis(2-chloroisopropyl)Ether	43000	U
106-44-5	4-Methylpheno	43000	U
621-64-7	N-Nitroso-Di-n-Propylamine	43000	U
67-72-1	Hexachloroethane	43000	U
98-95-3	Nitrobenzene	43000	U
78-59-1	Isophorone	43000	U
88-75-5	2-Nitrophenol	43000	U
105-67-9	2. 4-Dimethylphenol	43000	U
65-85-0	Benzoic Acid	210000	U
111-91-1	bis(-2-Chloroethoxy)Methane	43000	U
120-83-2	2. 4-Dichlorophenol	43000	U
120-82-1	1. 2. 4-Trichlorobenzene	43000	U
91-20-3	Naphthalene	43000	U
106-47-8	4-Chloroaniline	43000	U
87-68-3	Hexachlorobutadiene	43000	U
59-50-7	4-Chloro-3-Methylphenol	43000	U
91-57-6	2-Methylnaphthalene	43000	U
77-47-4	Hexachlorocyclopentadiene	43000	U
88-06-2	2 4 6-Trichlorophenol	43000	U
95-95-4	2. 4. 5-Trichlorophenol	210000	U
91-58-7	2-Chloronaphthalene	43000	U
88-74-4	2-Nitroaniline	210000	U
131-11-3	Dimethyl Phthalate	43000	U
208-96-8	Acenaphthylene	43000	U
99-09-2	3-Nitroaniline	210000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	1800	J
51-28-5	2. 4-Dinitrophenol	210000	U
100-02-7	4-Nitrophenol	210000	U
132-64-9	Dibenzofuran	43000	U
121-14-2	2 4-Dinitrotoluene	43000	U
606-20-2	2 6-Dinitrotoluene	43000	U
84-66-2	Diethylphthalate	43000	U
7005-72-3	4-Chlorophenyl-phenylether	43000	U
86-73-7	Fluorene	43000	U
100-01-6	4-Nitroaniline	210000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	210000	U
86-30-6	N-Nitrosodiphenylamine (1)	43000	U
101-55-3	4-Bromophenyl-phenylether	43000	U
118-74-1	Hexachlorobenzene	43000	U
87-86-5	Pentachlorophenol	1,400,000	
85-01-8	Phenanthrene	37000	J
120-12-7	Anthracene	43000	U
84-74-2	Di-n-Butylphthalate	43000	U
206-44-0	Fluoranthene	45000	
129-00-0	Pyrene	71000	
85-68-7	Butylbenzylphthalate	43000	U
91-94-1	3. 3'-Dichlorobenzidine	86000	
56-55-3	Benzo(a)Anthracene	27000	J
117-81-7	bis(2-Ethylhexyl)Phthalate	43000	U
218-01-9	Chrysene	39000	J
117-84-0	Di-n-Octyl Phthalate	43000	U
205-99-2	Benzo(b)Fluoranthene	48000	
207-08-9	Benzo(k)Fluoranthene	43000	U
50-32-8	Benzo(a)Pyrene	20000	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	43000	U
53-70-3	Dibenzo(a h)Anthracene	43000	U
191-24-2	Benzo(g h. i)Perylene	43000	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-16

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1,000

Percent Moisture (decanted) 22.6

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16,000 u
319-85-7	Beta-BHC	16,000 u
319-86-8	Delta-BHC	16,000 u
58-89-9	Gamma-BHC (Lindane)	16,000 u
76-44-8	Heptachlor	16,000 u
309-00-2	Aldrin	16,000 u
1024-57-3	Heptachlor Epoxide	16,000 u
959-98-8	Endosulfan I	16,000 u
60-57-1	Dieldrin	32,000 u
72-55-9	4,4'-DDE	32,000 u
72-20-8	Endrin	32,000 u
33213-65-9	Endosulfan II	32,000 u
72-54-8	4,4'-DDD	32,000 u
1031-07-8	Endosulfan Sulfate	32,000 u
50-29-3	4,4'-DDT	32,000 u
72-43-5	Methoxychlor	160,000 u
53494-70-5	Endrin Ketone	32,000 u
57-74-9	Chlordane	160,000 u
8001-35-2	Toxaphene	320,000 u
12674-11-2	Aroclor-1016	160,000 u
11104-28-2	Aroclor-1221	160,000 u
11141-16-5	Aroclor-1232	160,000 u
53469-21-9	Aroclor-1242	160,000 u
12672-29-6	Aroclor-1248	171,000
11097-69-1	Aroclor-1254	320,000 u
11096-82-5	Aroclor-1260	232,000 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4465

Sample Number DC-SS-16

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.4	4 BJ
2.	UNKNOWN KETONE	VOA	19.7	9 BJ
3.	HEXANE ISOMER	VOA	21.3	11 BJ
4.				
5.	UNKNOWN AROMATIC	BNA	20.4	610,000 J
6.	UNKNOWN AROMATIC		20.8	1,200,000 J
7.	UNKNOWN AROMATIC		21.0	760,000 J
8.	UNKNOWN AROMATIC		21.1	110,000 J
9.	UNKNOWN AROMATIC		21.3	440,000 J
10.	UNKNOWN AROMATIC		21.6	290,000 J
11.	UNKNOWN AROMATIC		21.7	360,000 J
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
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22.				
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29.				
30				

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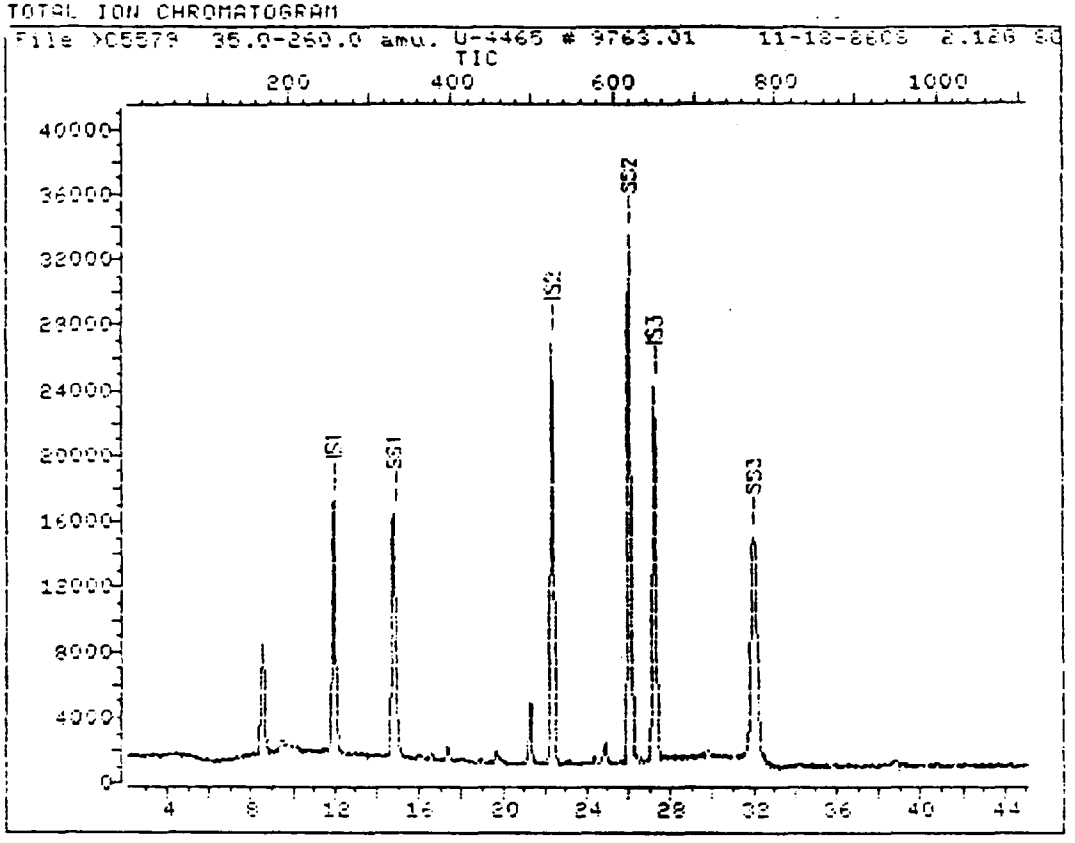
TOTAL ION CHROMATOGRAM

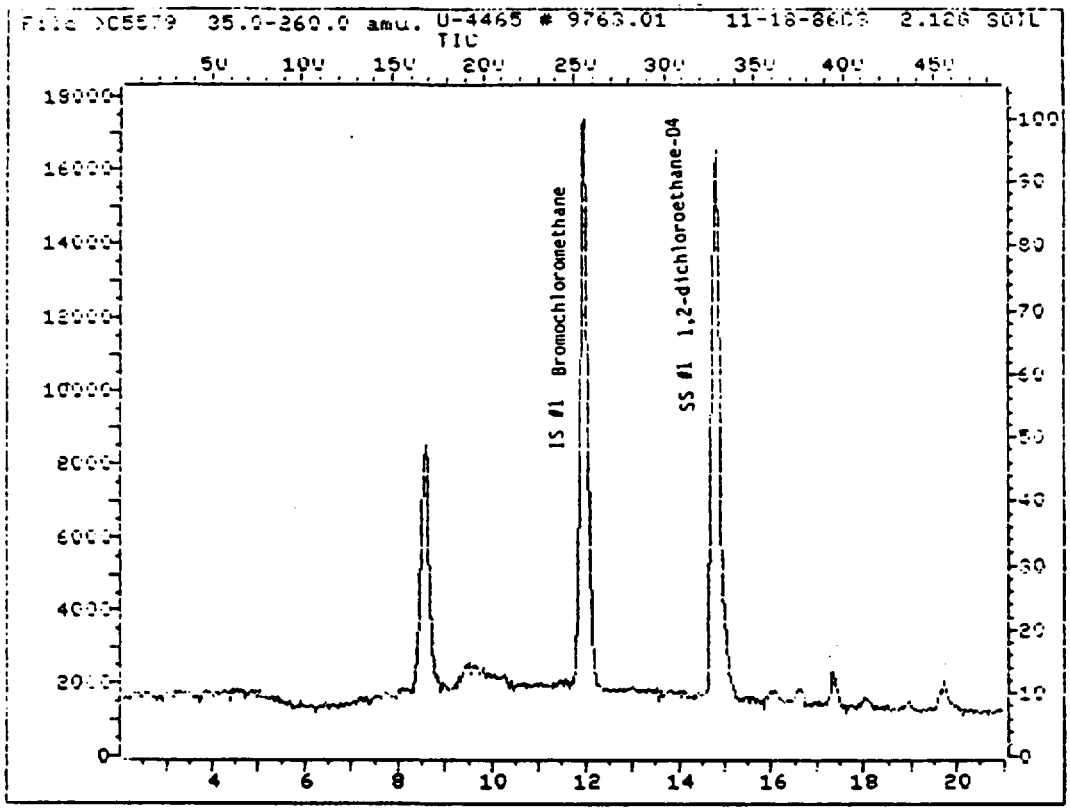


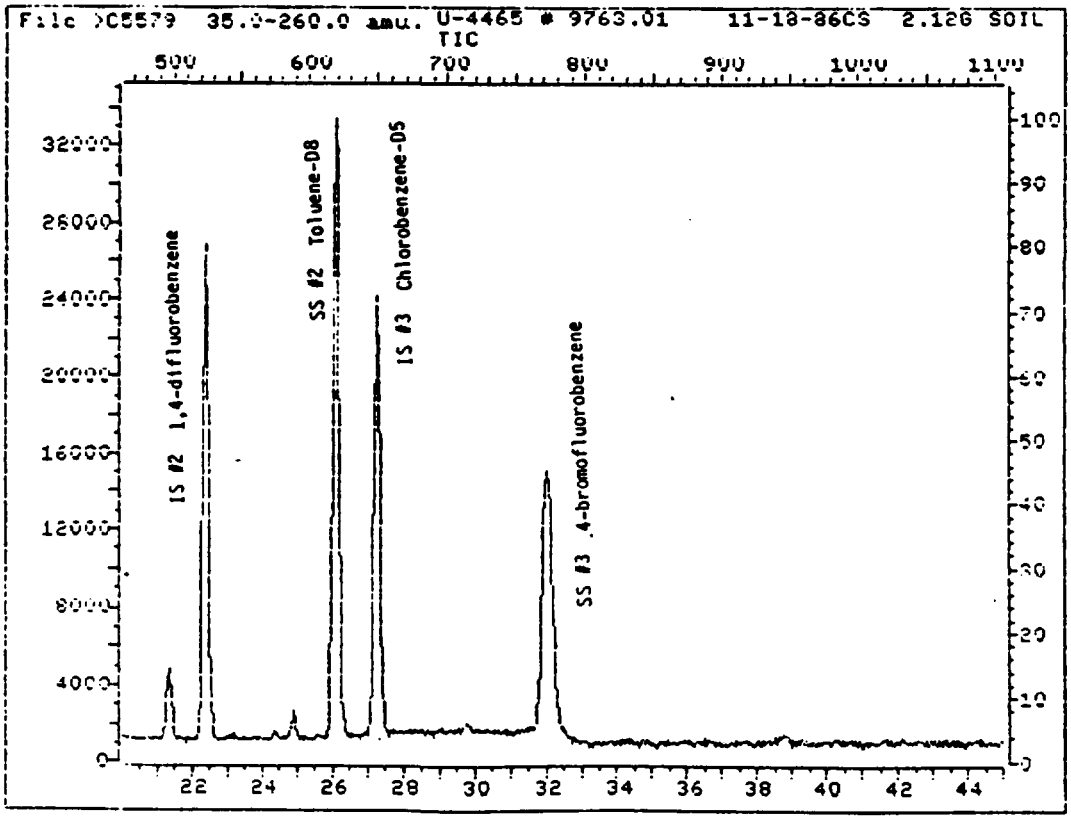
Data File: >C5579::D3
Name: U-4465 # 9763.01 DC-SS-16
Misc: 11-18-86CS 2.12G SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACPS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861118 12:02

Operator ID: USEP8
Quant Time: 861118 17:28
Injected at: 861118 16:42

DC-SS-16





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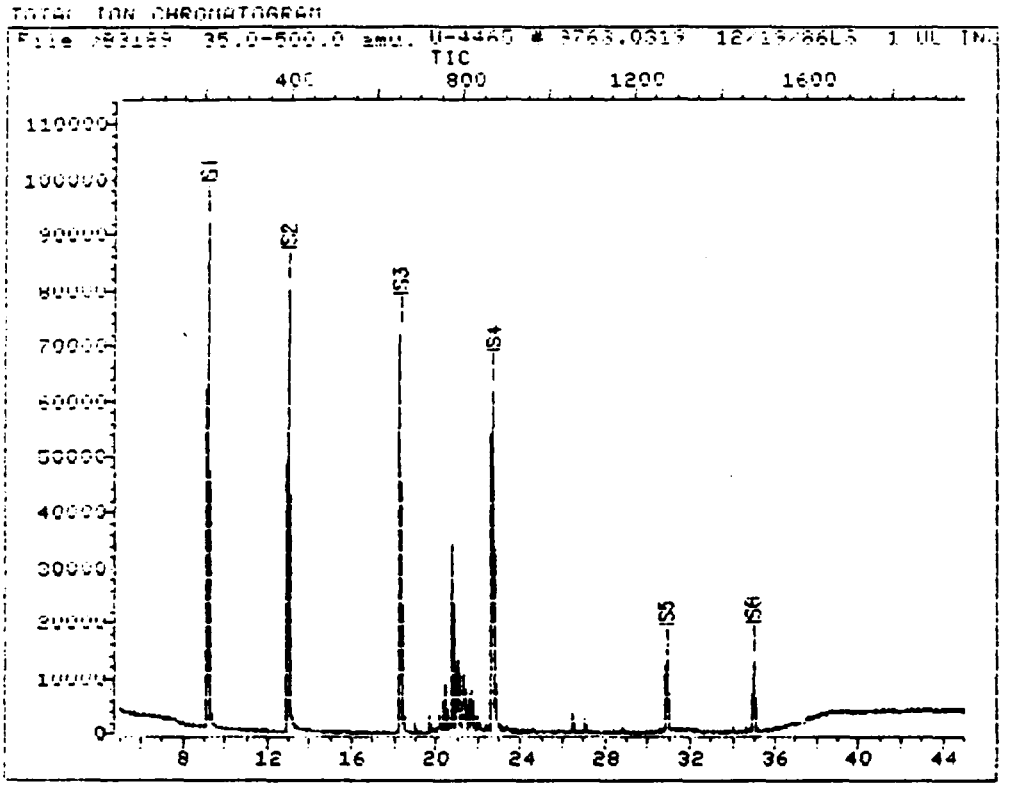
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861118 17:08
Output File: ^C5579::Q2 Injected at: 861118 16:42
Data File: >C5579::D3 Dilution Factor: 1.00
Name: U-4465 # 9763.01 DC-SS-16
Misc: 11-18-86CS 2.12G SOIL IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861118 12:02

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.95	255	23307	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.57	168	16557	91.03	NGS	100
7)	ACETONE		43	9.50	192	6581	45.64	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SUPR)	65	14.82	329	59792	220.55	NGS	85
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.38	524	110767	250.00	NGS	100
17)	2-BUTANONE		72	14.93	332	3027	75.51	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.28	650	74436	250.00	NGS	100
36)	TOLUENE-D8	(SUPR)	98	26.07	619	127927	272.45	NGS	92
40)	4-BROMOFLUOROBENZENE	(SUPR)	95	32.01	772	53281	215.91	NGS	100

* Compound is ISTD



Data File: >B5'89::D4
Name: U-4465 # 9763.0319 DC SS-16
Misc: 12/19/8FLS 1 UL INJ (200X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861219 16:50

Operator ID: USER8
Quant Time: 861219 17:50
Injected at: 861219 17:02

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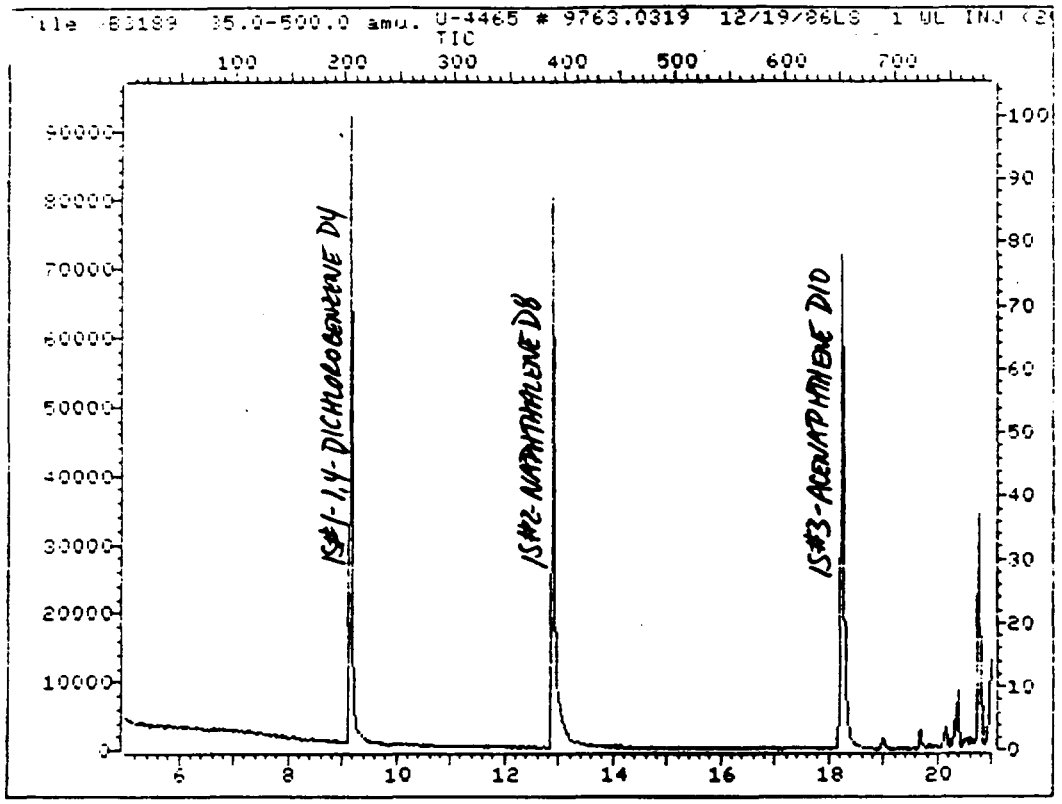
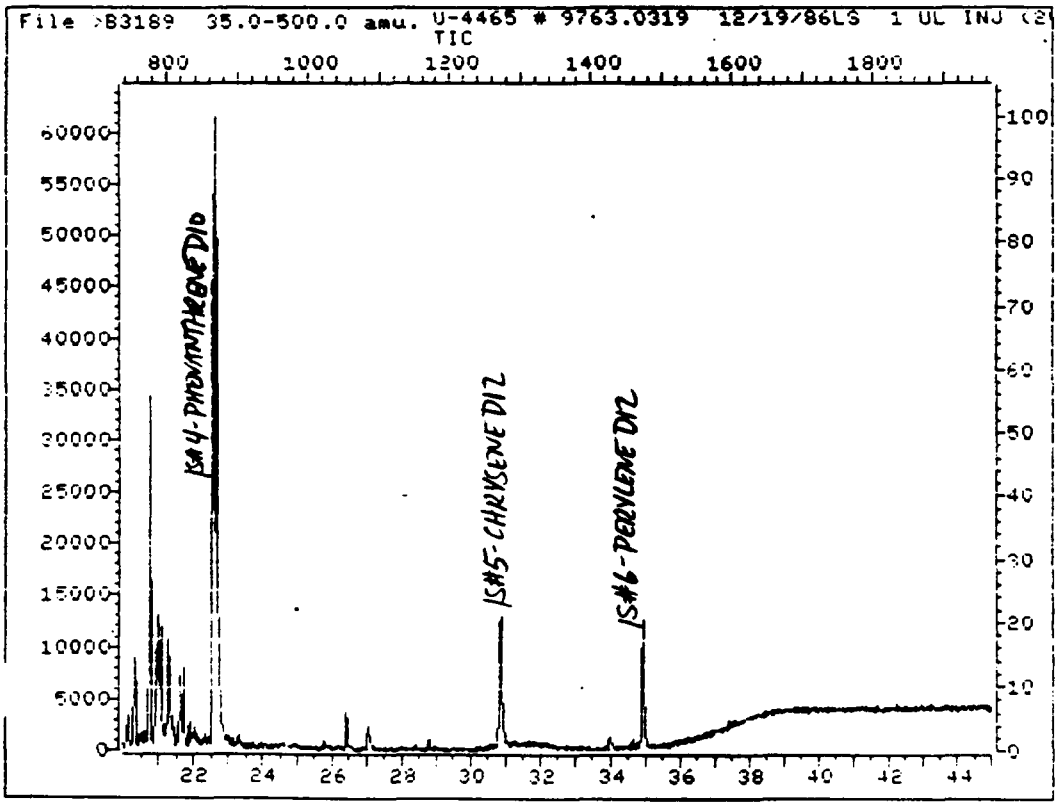
DC-SS-16





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861224 12:49
Output File: ^B3189::Q2 Injected at: 861219 17:02
Data File: >B3189::D4 Dilution Factor: 200.000
Name: U-4465 # 9763.0319 DC-SS-16
Misc: 12/19/86LS 1 UL INJ (200X)

FINAL VOLUME = 1.0 ml

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861224 12:42

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.15	205	50342	40.00	UG/L	86
19)	*NAPHTHALENE-D8	(IS)	136	12.89	389	161501	40.00	UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162	18.24	652	64544	40.00	UG/L	97
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.24~~	~~652~~	~~18713~~	~~1622.68~~	~~UG/L~~ No BJK	100
47)	ACENAPHTHENE		153	18.32	656	421	42.05	UG/L	83
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.24~~	~~652~~	~~7788~~	~~2956.88~~	~~UG/L~~ No BJK	100
55)	*PHENANTHRENE-D10	(IS)	188	22.67	870	70397	40.00	UG/L	97
60)	PENTACHLOROPHENOL		266	22.57	865	37996	33293.32	UG/L	100
61)	PHENANTHRENE		178	22.73	873	7366	857.57	UG/L	97
~~62)~~	~~ANTHRACENE~~		~~178~~	~~22.73~~	~~873~~	~~7366~~	~~836.36~~	~~UG/L~~ No BJK	97
64)	FLUORANTHENE		202	26.43	1055	8680	1032.73	UG/L	97
65)	*CHRYSENE-D12	(IS)	240	30.84	1272	24643	40.00	UG/L	100
67)	PYRENE		202	27.04	1085	6264	1631.20	UG/L	92
71)	BENZO(A)ANTHRACENE		228	30.82	1271	2026	631.59	UG/L	91
~~71)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~30.92~~	~~1276~~	~~2894~~	~~902.18~~	~~UG/L~~ No BJK	94
~~73)~~	~~CHRYSENE~~		~~228~~	~~30.82~~	~~1271~~	~~2026~~	~~631.59~~	~~UG/L~~	93
73)	CHRYSENE		228	30.92	1276	2894	902.18	UG/L	95
74)	*PERYLENE-D12	(IS)	264	34.93	1473	21724	40.00	UG/L	100
76)	BENZO(B)FLUORANTHENE		252	33.99	1427	3543	1105.21	UG/L	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.99~~	~~1427~~	~~3543~~	~~1230.87~~	~~UG/L~~ No BJK	100
~~78)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.64~~	~~1459~~	~~1091~~	~~393.74~~	~~UG/L~~	100
78)	BENZO(A)PYRENE		252	34.79	1466	1286	464.12	UG/L	100
~~79)~~	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~37.61~~	~~1605~~	~~661~~	~~243.73~~	~~UG/L~~ No BJK	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~37.61~~	~~1605~~	~~661~~	~~227.25~~	~~UG/L~~	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~38.14~~	~~1631~~	~~735~~	~~252.69~~	~~UG/L~~	100

* Compound is ISTD

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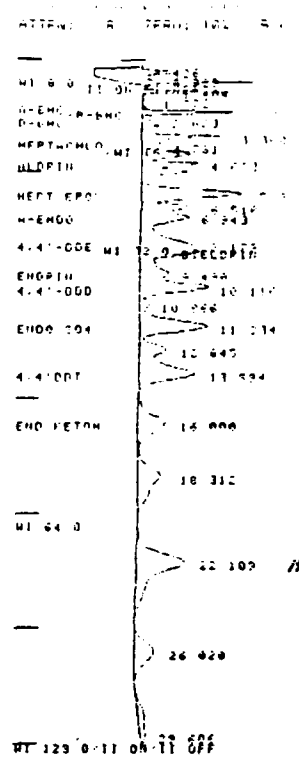

$88.5 \times 0.00234 \times \frac{1}{1.16} \times 1{,}000{,}000 = 111{,}000$ ug/kg 1245

$111.5 \times 0.00135 \times \frac{1}{1.16} \times 1{,}000{,}000 = 232{,}005$ ug/kg 1260

CHANNEL: 1A - 1 TITLE: RUN# 20

SAMPLE: 9763 DF = 1000 METHOD: CFFA

DC-SS-16

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET			
1		0.0000	[illegible]				
2	~~A-BHC~~	6217.784	[illegible]	[illegible]			
3		0.0000	[illegible]				
4	~~HEPTACHLO~~	1213.962	[illegible]	-0.157			
5		0.0000	[illegible]				
6	~~ALDRIN~~	3005.933	[illegible]	-0.117			
7		0.0000	[illegible]				
8	~~HEPT EPOX~~	11335.75	[illegible]	0.164			
9		0.0000	[illegible]				
10	~~A-ENDO~~	6053.576	[illegible]	-0.207			
11	~~4,4'-DDE~~	7486.622	[illegible]	-0.041			
12	~~DIELDRIN~~	6109.960	[illegible]	[illegible]			
13	~~A-ENDO~~	5161.726	[illegible]	0.010			
14	~~4,4'-DDD~~	10121.04	[illegible]	-0.214			
15	~~END ALD.~~	1542.479	[illegible]	0.445			
16	~~ENDO SO4~~	14773.66	[illegible]	-0.276			
17		0.0000	[illegible]				
18	~~4,4'-DDT~~	23752.25	[illegible]	0.424			
19	~~END KETON~~	6759.446	[illegible]	0.460			
20		0.0000	[illegible]				
21		0.0000	[illegible]				
22	~~DDT~~	7317.469	[illegible]	-1.010			
23		0.0000	[illegible]				

TOTALS: 110912.1 -0.[illegible]

DETECTED PKS: 36 REJECTED PKS: [illegible]

DIVISOR: 1.50000 MULTIPLIER: 1000000.00

NOISE: 34.3 OFFSET: -131

RACK: 2 VIAL: 5 INJ:

NOTES:
NOTEBOOK: 759-41 ANALYST: K. [illegible] SANSON
SECURE AREA: D 10[illegible]-4465
INST: VARIAN 600#2 A ECD 10[illegible]
COLUMN: 6' GLASS 4MM ID 100/120 [illegible]
LIQUID PHASE: 3% OV-1
CARRIER GAS: NC @ 60 ML/MIN.
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTI
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:

311

SAMPLE NUMBER DC-SS-17

481095

Sample Number
DC-SS-17

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No U-4465
Lab Sample ID No: 9764 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: C Stojkowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-18-86
Conc./Dil Factor: 3 pH 7.2
Percent Moisture: (Not Decanted) 28

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	90 B
67-64-1	Acetone	13 BJ
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, etc. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

Form I 11/85

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Laboratory Name: ECOLOGY & ENVIRONMENT INC.

Case No: V-4465

Sample Number: DC-SS-17

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 12-2-86

Conc/Dil Factor: 100

Percent Moisture (Decanted): 28

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	23000	U
111-44-4	bis(-2-Chloroethyl)Ether	23000	U
95-57-8	2-Chlorophenol	23000	U
541-73-1	1 3-Dichlorobenzene	23000	U
106-46-7	1. 4-Dichlorobenzene	23000	U
100-51-6	Benzyl Alcohol	23000	U
95-50-1	1 2-Dichlorobenzene	23000	U
95-48-7	2-Methylphenol	23000	U
39638-32-9	bis(2-chloroisopropyl)Ether	23000	U
106-44-5	4-Methylphenol	23000	U
621-64-7	N-Nitroso-Di-n-Propylamine	23000	U
67-72-1	Hexachloroethane	23000	U
98-95-3	Nitrobenzene	23000	U
78-59-1	Isophorone	23000	U
88-75-5	2-Nitrophenol	23000	U
105-67-9	2. 4-Dimethylphenol	23000	U
65-85-0	Benzoic Acid	110000	U
111-91-1	bis(-2-Chloroethoxy)Methane	23000	U
120-83-2	2. 4-Dichlorophenol	23000	U
120-82-1	1. 2. 4-Trichlorobenzene	990	J
91-20-3	Naphthalene	120000	
106-47-8	4-Chloroaniline	23000	U
87-68-3	Hexachlorobutadiene	23000	U
59-50-7	4-Chloro-3-Methylphenol	23000	U
91-57-6	2-Methylnaphthalene	23000	U
77-47-4	Hexachlorocyclopentadiene	23000	U
88-06-2	2 4 6-Trichlorophenol	23000	U
95-95-4	2. 4. 5-Trichlorophenol	110000	U
91-58-7	2-Chloronaphthalene	23000	U
88-74-4	2-Nitroaniline	110000	U
131-11-3	Dimethyl Phthalate	23000	U
208-96-8	Acenaphthylene	23000	U
99-09-2	3-Nitroaniline	110000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	1100	J
51-28-5	2. 4-Dinitrophenol	110000	U
100-02-7	4-Nitrophenol	110000	U
132-64-9	Dibenzofuran	23000	U
121-14-2	2 4-Dinitrotoluene	23000	U
606-20-2	2 6-Dinitrotoluene	23000	U
84-66-2	Diethylphthalate	23000	U
7005-72-3	4-Chlorophenyl-phenylether	23000	U
86-73-7	Fluorene	23000	U
100-01-6	4-Nitroaniline	110000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	110000	U
86-30-6	N-Nitrosodiphenylamine (1)	23000	U
101-55-3	4-Bromophenyl-phenylether	23000	U
118-74-1	Hexachlorobenzene	10000	J
87-86-5	Pentachlorophenol	110000	U
85-01-8	Phenanthrene	8900	J
120-12-7	Anthracene	23000	U
84-74-2	Di-n-Butylphthalate	23000	U
206-44-0	Fluoranthene	23000	U
129-00-0	Pyrene	3800	J
85-68-7	Butylbenzylphthalate	23000	U
91-94-1	3 3 -Dichlorobenzidine	46000	U
56-55-3	Benzo(a)Anthracene	23000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	23000	U
218-01-9	Chrysene	23000	U
117-84-0	Di-n-Octyl Phthalate	23000	U
205-99-2	Benzo(b)Fluoranthene	23000	U
207-08-9	Benzo(k)Fluoranthene	23000	U
50-32-8	Benzo(a)Pyrene	23000	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	23000	U
53-70-3	Dibenz(a h)Anthracene	23000	U
191-24-2	Benzo(g h i)Perylene	23000	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-17

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 10,000

Percent Moisture (decanted) 28.3

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	160,000 U
319-85-7	Beta-BHC	160,000 U
319-86-8	Delta-BHC	160,000 U
58-89-9	Gamma-BHC (Lindane)	160,000 U
76-44-8	Heptachlor	160,000 U
309-00-2	Aldrin	160,000 U
1024-57-3	Heptachlor Epoxide	160,000 U
959-98-8	Endosulfan I	160,000 U
60-57-1	Dieldrin	320,000 U
72-55-9	4,4'-DDE	320,000 U
72-20-8	Endrin	320,000 U
33213-65-9	Endosulfan II	320,000 U
72-54-8	4,4'-DDD	320,000 U
1031-07-8	Endosulfan Sulfate	320,000 U
50-29-3	4,4'-DDT	320,000 U
72-43-5	Methoxychlor	1,600,000 U
53494-70-5	Endrin Ketone	320,000 U
57-74-9	Chlordane	1,600,000 U
8001-35-2	Toxaphene	3,200,000 U
12674-11-2	Aroclor-1016	1,600,000 U
11104-28-2	Aroclor-1221	1,600,000 U
11141-16-5	Aroclor-1232	1,600,000 U
53469-21-9	Aroclor-1242	1,600,000 U
12672-29-6	Aroclor-1248	1,600,000 U
11097-69-1	Aroclor-1254	3,200,000 U
11096-82-5	Aroclor-1260	1,700,000 J C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

315

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number
DC-SS-17

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4 min	4 BJ
2.	Hexane isomer	VOA	21.4 min	12 BJ
3.				
4.	UNKNOWN AROMATIC	BNA	21.2	17000 J
5.	UNKNOWN AROMATIC		21.4	48000 J
6.	UNKNOWN AROMATIC		21.8	110,000 J
7.	UNKNOWN		21.9	5300 J
8.	UNKNOWN AROMATIC		22.0	71000 J
9.	UNKNOWN AROMATIC		22.1	45000 J
10.	UNKNOWN AROMATIC		22.4	75000 J
11.	UNKNOWN AROMATIC		22.5	10000 J
12.	PENTAMETHYLHEPTYL BENZENE		22.7	62000 J
13.	PENTAMETHYL HEPTYL BENZENE		22.8	64000 J
14.	DIMETHYL DECYL BENZENE		23.0	41000 J
15.	UNKNOWN AROMATIC		23.4	15000 J
16.	UNKNOWN AROMATIC		24.1	8600 J
17.	UNKNOWN AROMATIC		25.3	12000 J
18.	UNKNOWN AROMATIC		25.6	10000 J
19.	PCB		29.6 - 32.4	—
20.	UNKNOWN		38.5	9800 J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

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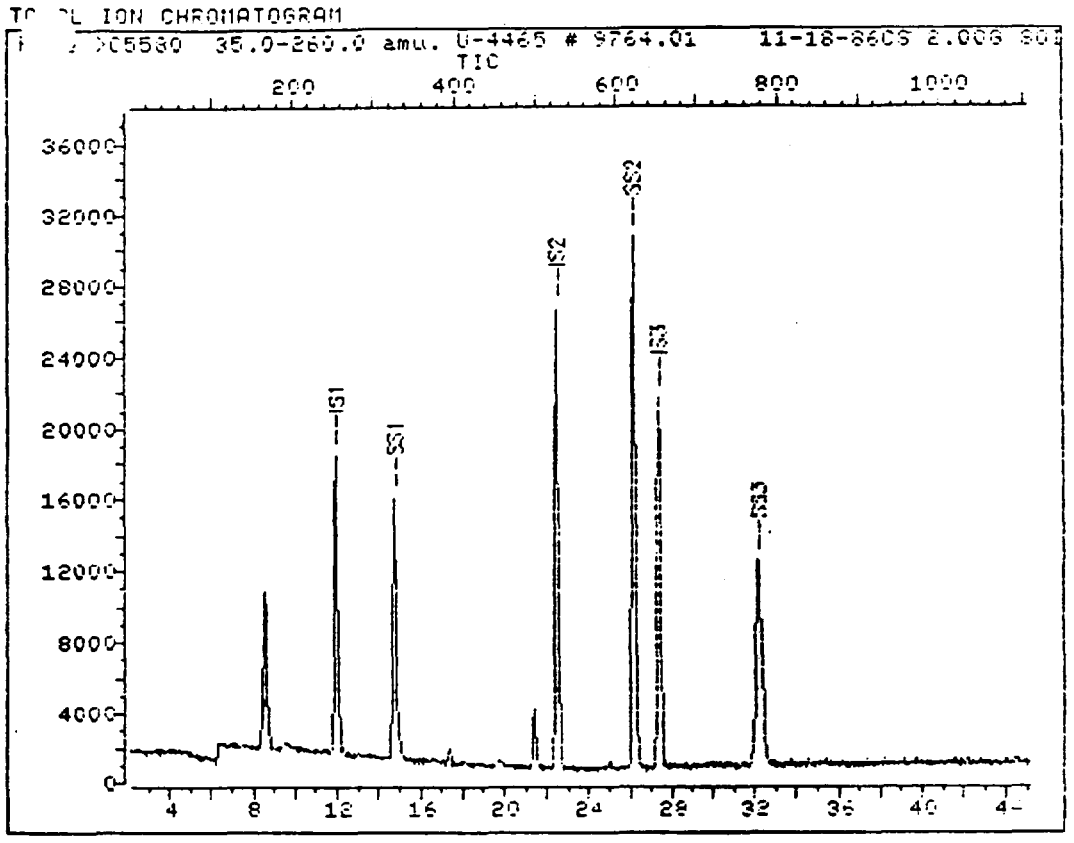
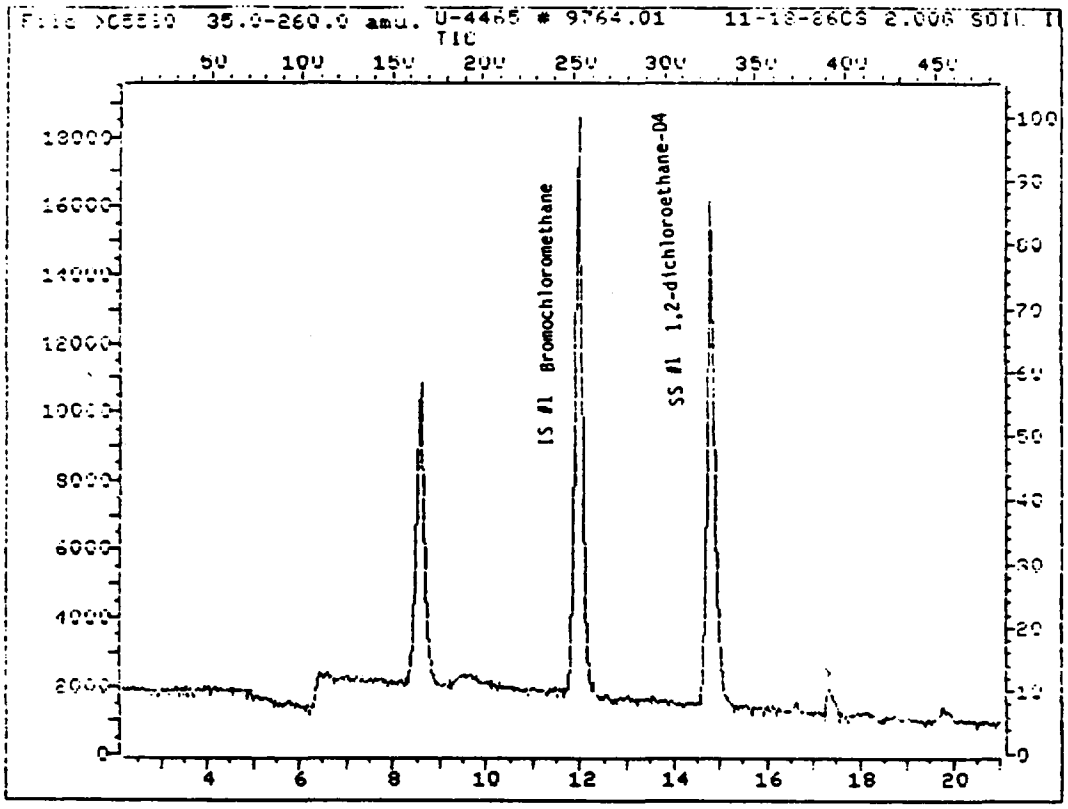


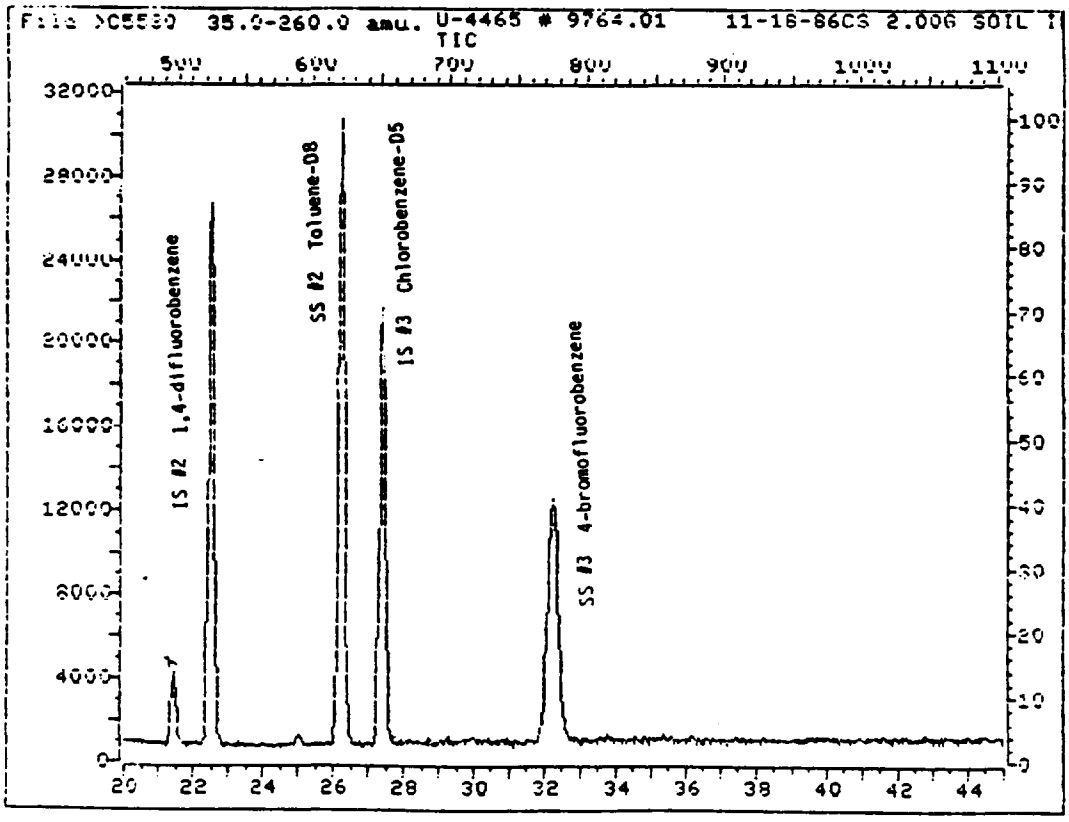
Data File: >C5580::D3
Name: U-4465 # 9764.01 DC-SS-17
Misc: 11-18-86CS 2.00G SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861118 12:02

Operator ID: USER8
Quant Time: 861118 18:24
Injected at: 861118 17:38

DC-SS-17





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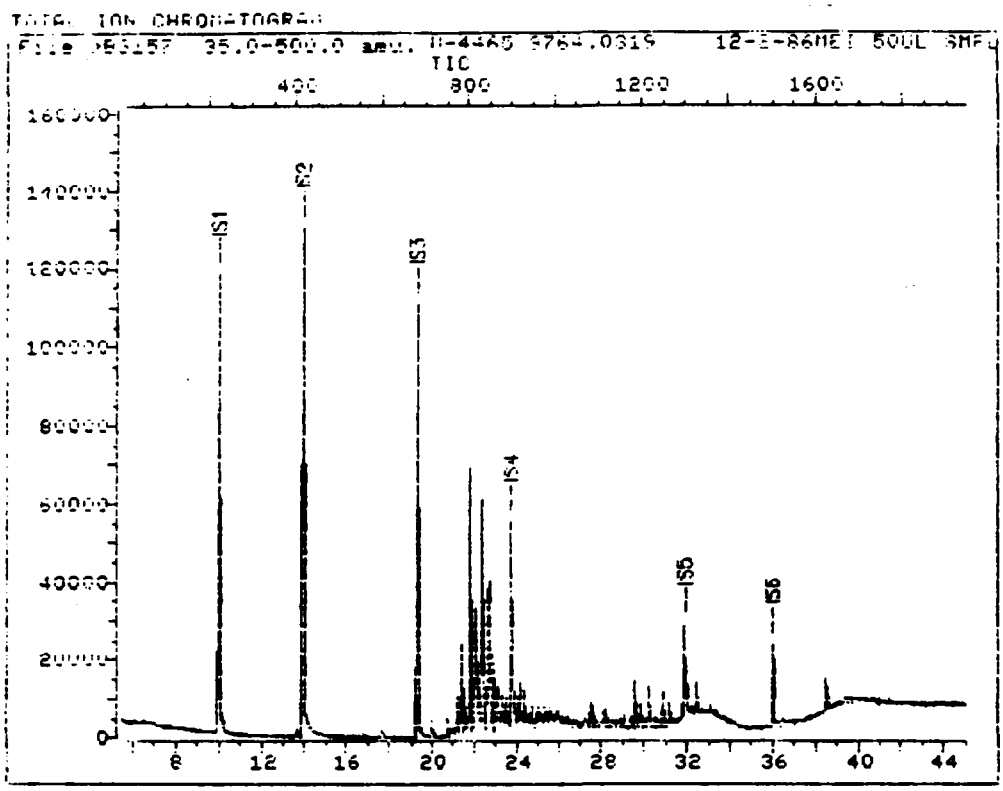
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861118 18:24
Output File: ^C5580::Q2 Injected at: 861118 17:38
Data File: >C5580::D3 Dilution Factor: 1.00
Name: U-4465 # 9764.01 DC-SS-17
Misc: 11-18-86CS 2.00G SOIL IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861118 12:02

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.96	253	25679	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.59	166	25809	128.80	NGS	100
7)	ACETONE	43	9.48	189	3026	19.05	NGS	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.79	326	62563	209.46	NGS	89
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.52	525	113965	250.00	NGS	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.41	651	69923	250.00	NGS	100
36)	TOLUENE-D8 (SURR)	98	26.20	620	127385	288.60	NGS	99
40)	4-BROMOFLUOROBENZENE(SURR)	95	32.26	776	46216	199.23	NGS	100

* Compound is ISTD



Data File: >B:157::01
Name: U-4465 9764.0319 DC-SS-17
Misc: 12-2-86MEI 50UL SMPL + 450UL MECL2 + 50UL IS (10X)

TI File: BN-BR::02
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:14

Operator ID: USER6
Quant Time: 861202 20:29
Injected at: 861202 19:41

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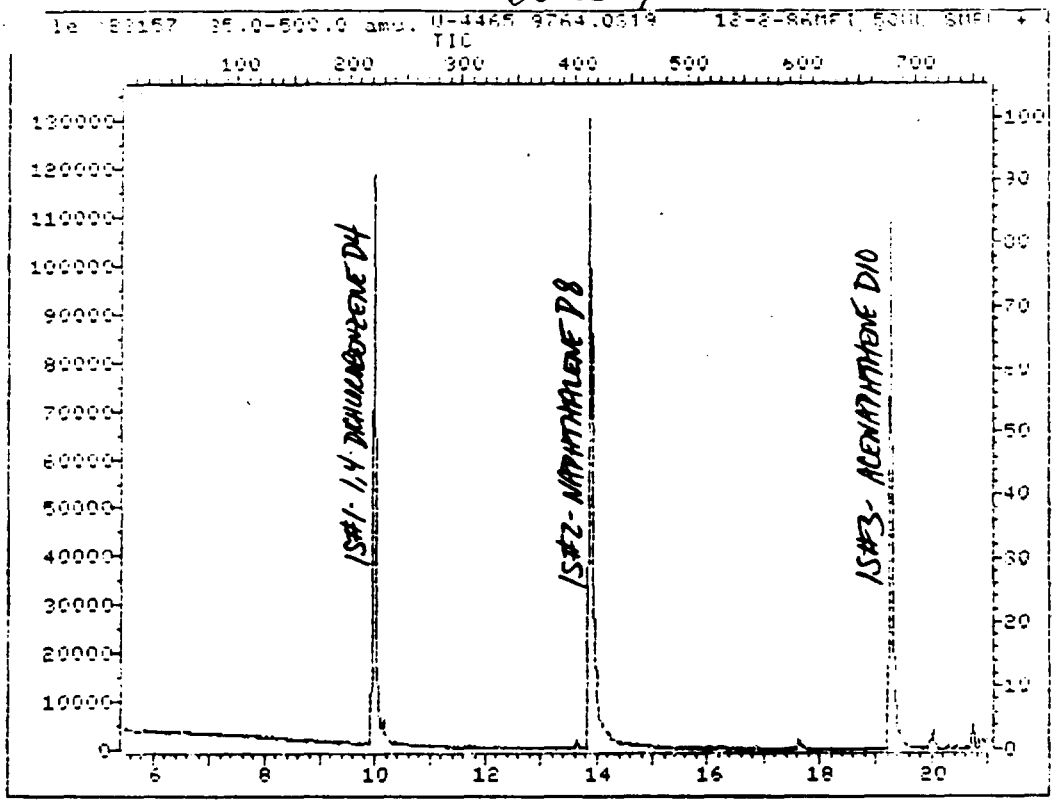
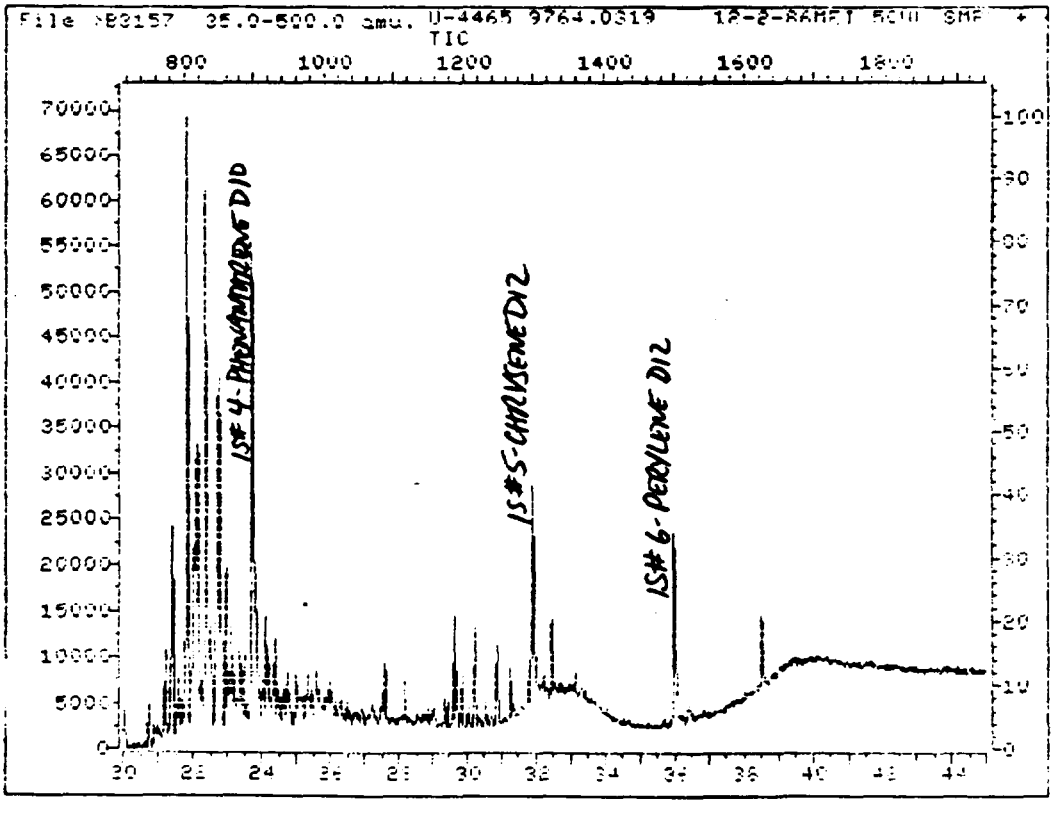
DC-SS-17





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QUANT REPORT

Operator ID: [illegible] Quant Rev: 4 Quant Time: 861202 20:29
Output File: [illegible] Injected at: 861202 19:41
Data File: [illegible] Dilution Factor: 10.00
Name: U-4465 9764.0319 DC-SS-17
Test: 12-2-86[illegible] 50UL SMPL + 450UL MECL2 + 5UL IS (10X)

FINAL VOLUME = 10 ml

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:14

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
[illegible]	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.97	221	65400	40.00	UG/L	89
[illegible]	*NAPHTHALENE-D8	(IS)	136	13.87	413	207818	40.00	UG/L	100
28)	1,2,4-TRICHLOROBENZENE		180	13.83	411	395	2.13	UG/L	100
[illegible]	NAPHTHALENE		128	13.91	415	127310	269.71	UG/L	100
~~[illegible]~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~16.46~~	~~540~~	~~139~~	~~.47~~	~~UG/L~~ No BJK	99
34)	*ACENAPHTHENE-D10	(IS)	162	19.26	678	96592	40.00	UG/L	99
~~[illegible]~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.26~~	~~678~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~[illegible]~~	~~DIBENZOFURAN~~		~~168~~	~~19.49~~	~~714~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~ No BJK	~~100~~
47)	ACENAPHTHENE		153	19.36	683	729	2.42	UG/L	94
~~[illegible]~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.26~~	~~678~~	~~11[illegible]~~	~~131.23~~	~~UG/L~~	~~100~~
~~[illegible]~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~19.42~~	~~68[illegible]~~	~~247~~	~~[illegible]~~	~~UG/L~~ No BJK	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	23.72	897	100723	40.00	UG/L	92
59)	HEXACHLOROBENZENE		284	22.82	853	1753	21.53	UG/L	96
~~[illegible]~~	~~PENTACHLOROPHENOL~~		~~266~~	~~23.69~~	~~896~~	~~124~~	~~3.64~~	~~UG/L~~ No BJK	~~100~~
61)	PHENANTHRENE		178	23.78	900	4503	18.82	UG/L	98
~~[illegible]~~	~~ANTHRACENE~~		~~178~~	~~23.78~~	~~900~~	~~4503~~	~~[illegible]~~	~~UG/L~~ No BJK	98
65)	*CHRYSENE-D12	(IS)	240	31.89	1299	50731	40.00	UG/L	100
~~[illegible]~~	~~BENZIDINE~~		~~184~~	~~28.19~~	~~1117~~	~~[illegible]~~	~~[illegible]~~	~~NO CAL~~	~~[illegible]~~ No BJK
67)	PYRENE		202	28.09	1112	1576	8.14	UG/L	80
~~[illegible]~~	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~32.20~~	~~1314~~	~~[illegible]~~	~~21.74~~	~~UG/L~~	~~100~~
~~[illegible]~~	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~32.46~~	~~1327~~	~~68[illegible]~~	~~1[illegible].23~~	~~UG/L~~ No BJK	~~100~~
74)	*PERYLENE-D12	(IS)	264	35.98	1500	40985	40.00	UG/L	100
~~[illegible]~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~35.05~~	~~1454~~	~~685~~	~~[illegible].10~~	~~UG/L~~	~~100~~
~~[illegible]~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~35.05~~	~~1454~~	~~685~~	~~[illegible].99~~	~~UG/L~~	~~100~~
~~[illegible]~~	~~BENZO(A)PYRENE~~		~~252~~	~~35.72~~	~~1487~~	~~298~~	~~[illegible].85~~	~~UG/L~~ No BJK	~~100~~

* Compound is ISTD

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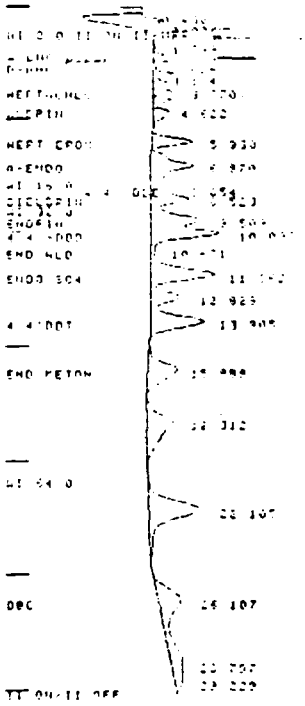

244.5 ng/ml × 1/1.03 × 10,000 = ug/kg ALS

21 ug/kg

CHANNEL: 1A - 1 TITLE: PBBs 21

DC-SS-17

SAMPLE: 9764 DF=10,000 METHOD: GPPA

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	[illegible]	[illegible]
1		0.0000	[illegible]		[illegible]	[illegible]
2	[illegible]	75220.46	[illegible]	0.064	[illegible]	[illegible]
3		0.0000	[illegible]		[illegible]	[illegible]
4		0.0000	[illegible]		[illegible]	[illegible]
5	[illegible]	12243.01	[illegible]	-0.070	[illegible]	[illegible]
6		0.0000	[illegible]		[illegible]	[illegible]
7	[illegible]	10575.47	[illegible]	-0.110	[illegible]	[illegible]
8	[illegible]	36715.93	[illegible]	0.170	[illegible]	[illegible]
9	[illegible]	75516.74	[illegible]	-0.160	[illegible]	[illegible]
10	[illegible]	25514.18	[illegible]	-0.165	[illegible]	[illegible]
11	[illegible]	41731.05	[illegible]	0.193	[illegible]	[illegible]
12	[illegible]	83987.57	[illegible]	0.029	[illegible]	[illegible]
13	[illegible]	55152.25	[illegible]	-0.232	[illegible]	[illegible]
14	[illegible]	135986.0	11.652	-0.248	[illegible]	[illegible]
15		0.0000	[illegible]		[illegible]	[illegible]
16	[illegible]	192501.4	[illegible]	0.435	[illegible]	[illegible]
17	[illegible]	66347.62	[illegible]	0.469	[illegible]	[illegible]
18		0.0000	[illegible]		[illegible]	[illegible]
19		0.0000	[illegible]		[illegible]	[illegible]
20	[illegible]	88557.67	24.187	-0.323	[illegible]	[illegible]
21		0.0000	[illegible]		[illegible]	[illegible]
22		0.0000	[illegible]		[illegible]	[illegible]
TOTALS:		94753.0		-0.557	[illegible]	

DETECTED PKS: 38 REJECTED PKS: 16

DIVISOR: 0.15000 MULTIPLIER: 1000000.00

NOISE: 34.5 OFFSET: [illegible]

RACK: 2 VIAL: 6 INJ: 1

NOTES:

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SAMPLE NUMBER DC-SS-18

481095

Sample Number
DC-SS-18

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465

Lab Sample ID No: 9765 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-26-86

Conc./Dil Factor: 3 pH 7.1

Percent Moisture: (Not Decanted) 23

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	36 B
67-64-1	Acetone	67 B
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	55
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U based on necessary concentration, dilution, action). (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single-component pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number DC-SS-18

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-2-86

Conc/Dil Factor 100

Percent Moisture (Decanted) 23

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	21000 U
111-44-4	bis(-2-Chloroethyl)Ether	21000 U
95-57-8	2-Chlorophenol	21000 U
541-73-1	1 3-Dichlorobenzene	21000 U
106-46-7	1 4-Dichlorobenzene	21000 U
100-51-6	Benzyl Alcohol	21000 U
95-50-1	1 2-Dichlorobenzene	21000 U
95-48-7	2-Methylphenol	21000 U
39638-32-9	bis(2-chloroisopropyl)Ether	21000 U
106-44-5	4-Methylpheno	21000 U
621-64-7	N-Nitroso-Di-n-Propylamine	21000 U
67-72-1	Hexachloroethane	21000 U
98-95-3	Nitrobenzene	21000 U
78-59-1	Isophorone	21000 U
88-75-5	2-Nitrophenol	21000 U
105-67-9	2. 4-Dimethylphenol	21000 U
65-85-0	Benzoic Acid	100000 U
111-91-1	bis(-2-Chloroethoxy)Methane	21000 U
120-83-2	2. 4-Dichlorophenol	21000 U
120-82-1	1 2. 4-Trichlorobenzene	21000 U
91-20-3	Naphthalene	21000 U
106-47-8	4-Chloroaniline	21000 U
87-68-3	Hexachlorobutadiene	21000 U
59-50-7	4-Chloro-3-Methylphenol	21000 U
91-57-6	2-Methylnaphthalene	21000 U
77-47-4	Hexachlorocyclopentadiene	21000 U
88-06-2	2 4 6-Trichlorophenol	21000 U
95-95-4	2. 4. 5-Trichlorophenol	100000 U
91-58-7	2-Chloronaphthalene	21000 U
88-74-4	2-Nitroaniline	100000 U
131-11-3	Dimethyl Phthalate	21000 U
208-96-8	Acenaphthylene	21000 U
99-09-2	3-Nitroaniline	100000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	21000 U
51-28-5	2. 4-Dinitrophenol	100000 U
100-02-7	4-Nitrophenol	100000 U
132-64-9	Dibenzofuran	21000 U
121-14-2	2 4-Dinitrotoluene	21000 U
606-20-2	2 6-Dinitrotoluene	21000 U
84-66-2	Diethylphthalate	21000 U
7005-72-3	4-Chlorophenyl-phenylether	21000 U
86-73-7	Fluorene	21000 U
100-01-6	4-Nitroaniline	100000 U
534-52-1	4. 6-Dinitro-2-Methylphenol	100000 U
86-30-6	N-Nitrosodiphenylamine (1)	21000 U
101-55-3	4-Bromophenyl-phenylether	21000 U
118-74-1	Hexachlorobenzene	21000 U
87-86-5	Pentachlorophenol	100000 U
85-01-8	Phenanthrene	21000 U
120-12-7	Anthracene	21000 U
84-74-2	Di-n-Butylphthalate	21000 U
206-44-0	Fluoranthene	21000 U
129-00-0	Pyrene	21000 U
85-68-7	Butylbenzylphthalate	21000 U
91-94-1	3. 3 -Dichlorobenzidine	43000 U
56-55-3	Benzo(a)Anthracene	21000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	21000 U
218-01-9	Chrysene	21000 U
117-84-0	Di-n-Octyl Phthalate	21000 U
205-99-2	Benzo(b)Fluoranthene	21000 U
207-08-9	Benzo(k)Fluoranthene	21000 U
50-32-8	Benzo(a)Pyrene	21000 U
193-39-5	Indeno(1 2. 3-cd)Pyrene	21000 U
53-70-3	Dibenz(a h)Anthracene	21000 U
191-24-2	Benzo(g h. i)Perylene	21000 U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-18

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 5,000

Percent Moisture (decanted) 22.9

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	80,000 u
319-85-7	Beta-BHC	80,000 u
319-86-8	Delta-BHC	80,000 u
58-89-9	Gamma-BHC (Lindane)	80,000 u
76-44-8	Heptachlor	80,000 u
309-00-2	Aldrin	80,000 u
1024-57-3	Heptachlor Epoxide	80,000 u
959-98-8	Endosulfan I	80,000 u
60-57-1	Dieldrin	160,000 u
72-55-9	4,4'-DDE	160,000 u
72-20-8	Endrin	160,000 u
33213-65-9	Endosulfan II	160,000 u
72-54-8	4,4'-DDD	160,000 u
1031-07-8	Endosulfan Sulfate	160,000 u
50-29-3	4,4'-DDT	160,000 u
72-43-5	Methoxychlor	800,000 u
53494-70-5	Endrin Ketone	160,000 u
57-74-9	Chlordane	800,000 u
8001-35-2	Toxaphene	1,600,000 u
12674-11-2	Aroclor-1016	800,000 u
11104-28-2	Aroclor-1221	800,000 u
11141-16-5	Aroclor-1232	800,000 u
53469-21-9	Aroclor-1242	800,000 u
12672-29-6	Aroclor-1248	1,700,000
11097-69-1	Aroclor-1254	1,600,000 u
11096-82-5	Aroclor-1260	1,600,000 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No. U-4465

Sample Number DC-SS-18

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	18.0	310 J
2.	Hexene isomer	VOA	18.7	780 J
3.	Hexene isomer	VOA	19.9	86 J
4.	Unknown Ketone	VOA	19.4	24 J
5.	Unknown hydrocarbon	VOA	23.8	41 J
6.	Unknown hydrocarbon	VOA	24.2	40 J
7.	Unknown hydrocarbon	VOA	24.7	29 J
8.				
9.	DIMETHYLNONYL BENZENE	BNA	20.4	88000 J
10.	UNKNOWN AROMATIC		20.7	98000 J
11.	UNKNOWN AROMATIC		21.0	96000 J
12.	DIMETHYL DECYL BENZENE		21.2	190000 J
13.	UNKNOWN AROMATIC		21.3	76000 J
14.	UNKNOWN AROMATIC		21.4	430000 J
15.	UNKNOWN AROMATIC		21.6	76000 J
16.	PENTAMETHYLHEPTYL BENZENE		21.7	200000 J
17.	UNKNOWN AROMATIC		21.8	690000 J
18.	DIMETHYL DECYL BENZENE		22.0	330000 J
19.	PENTAMETHYL HEPTYL BENZENE		22.1	430000 J
20.	UNKNOWN AROMATIC		22.2	220000 J
21.	UNKNOWN AROMATIC		22.4	720000 J
22.	UNKNOWN		22.5	130,000 J
23.	PENTAMETHYL HEPTYL BENZENE		22.7	820000 J
24.	DIMETHYL DECYL BENZENE		22.8	810000 J
25.	UNKNOWN AROMATIC		23.0	420000 J
26.	UNKNOWN		24.4	200000 J
27.	UNKNOWN		25.6	210,000 J
28.	UNKNOWN		26.8	98000 J
29.				
30.				

Form 1, Part B

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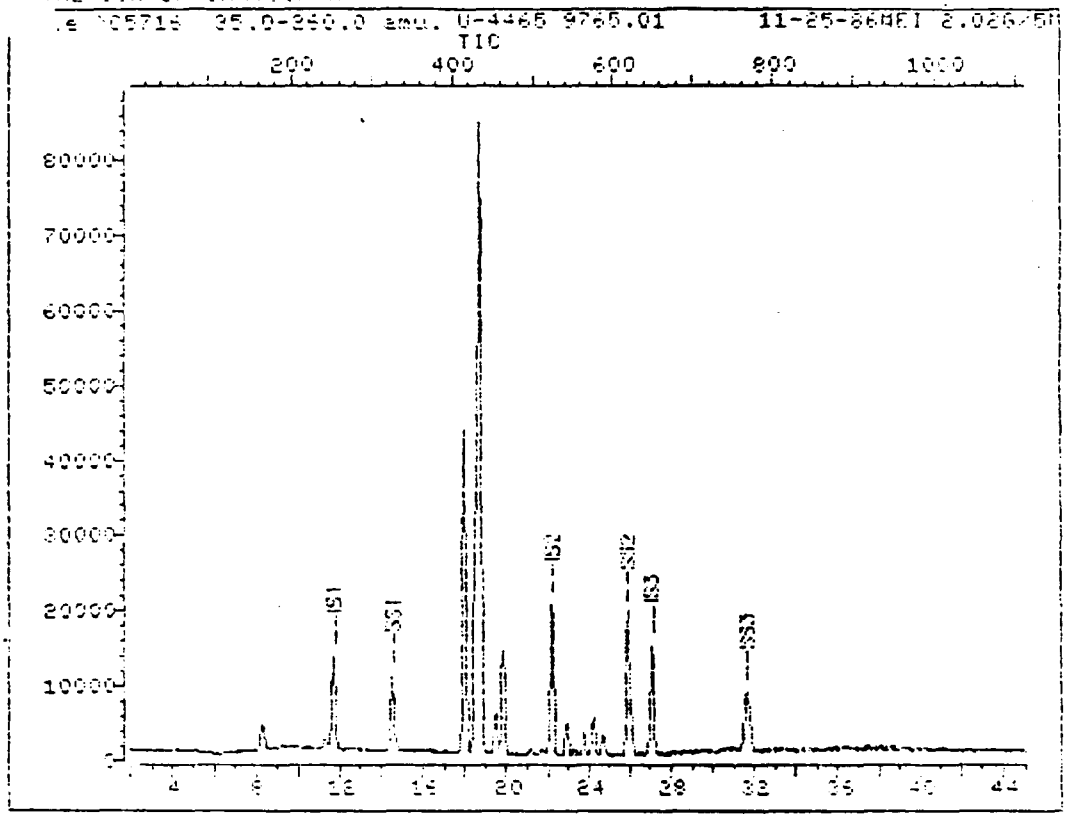
TOTAL ION CHROMATOGRAM

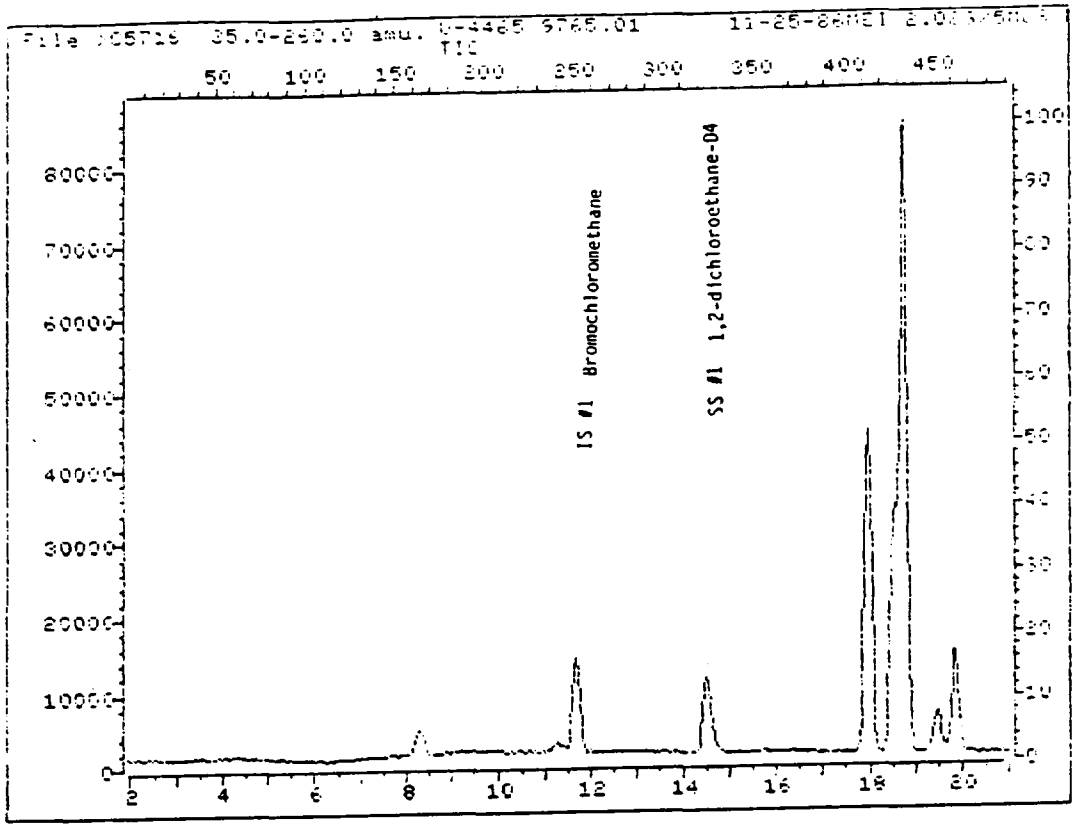


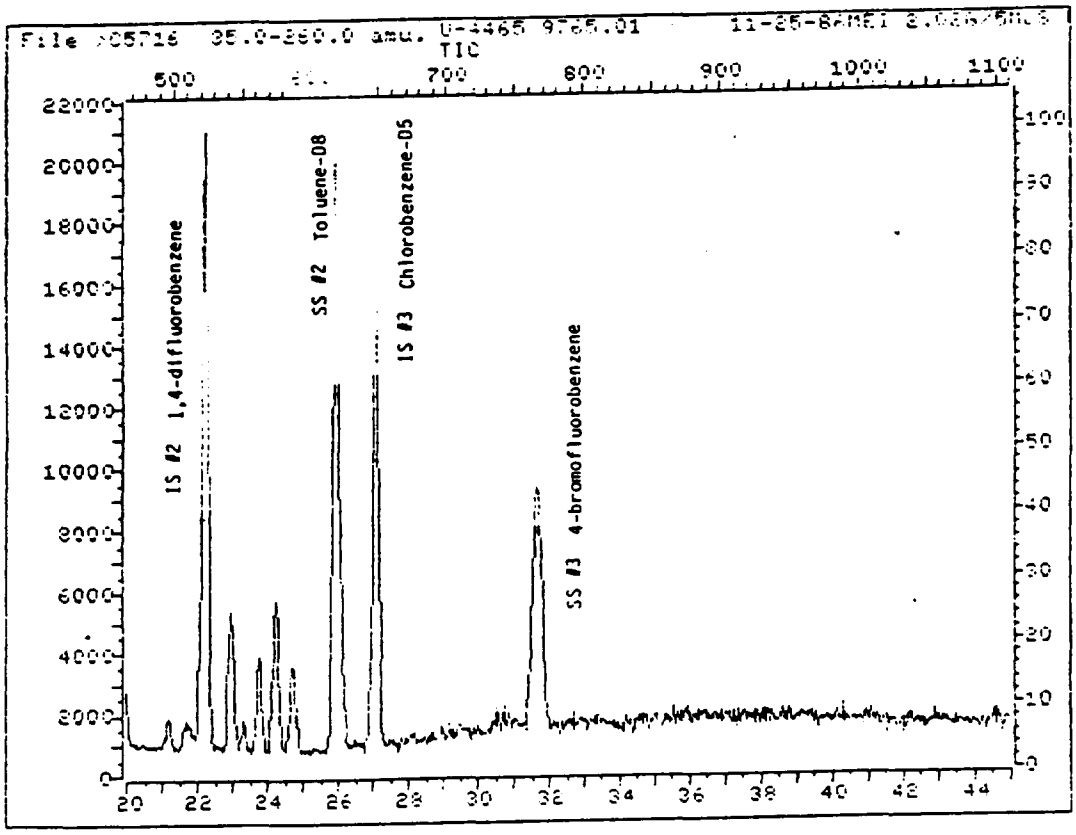
Data File: >C5716::D1
Name: U-4465 9765.01 DC-SS-18
Misc: 11-25-86MEI 2.02G/5MLS DI + 10UL IS/SS

Id File: VOALPS::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 22:54

Operator ID: USLP6
Quant Time: 861126 04:28
Injected at: 861126 03:42

DC-SS-18





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QUANT REPORT

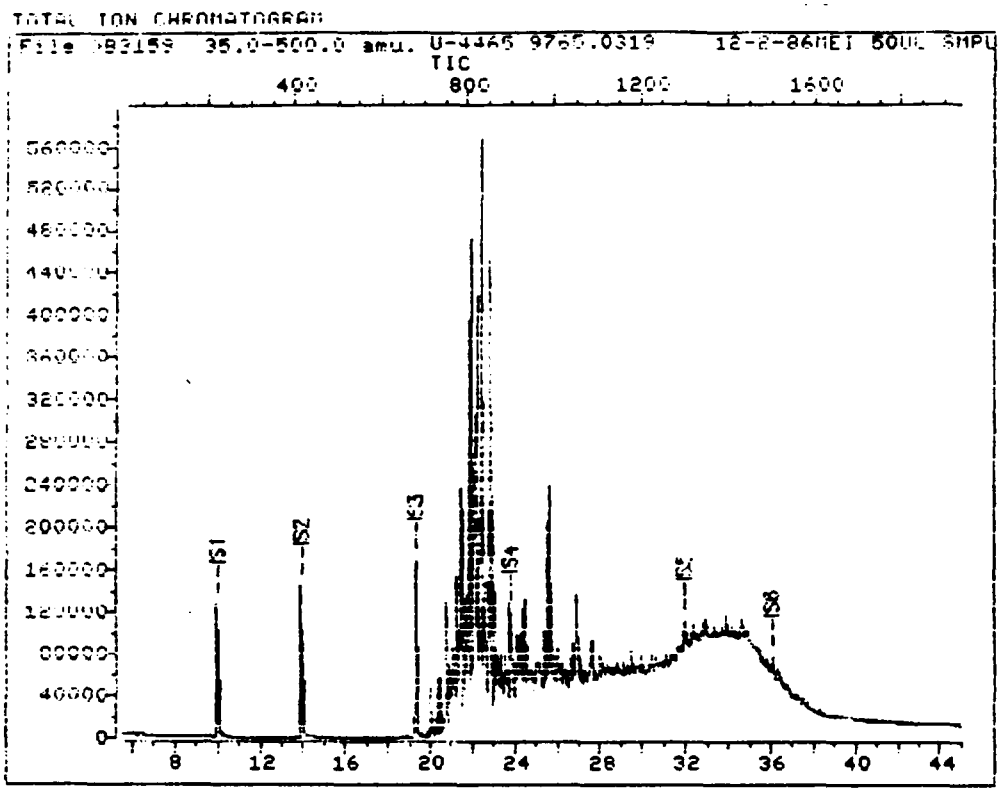
Operator ID: USER6 Quant Rev: 4 Quant Time: 861126 04:28
Output File: ^C5716::Q2 Injected at: 861126 03:42
Data File: >C5716::D1 Dilution Factor: 1.00
Name: U-4465 9765.01 DC-SS-18
Misc: 11-25-86MEI 2.02G/5MLS DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 22:54

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.69	252	17228	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.27	164	8392	55.85	NGS	100
7)	ACETONE		43	9.24	189	3789	104.31	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	325	40123	249.85	NGS	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	523	78317	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.05	648	47825	250.00	NGS	100
32)	4-METHYL-2-PENTANONE		43	22.90	541	13611	85.37	NGS	77
~~33)~~	~~2-HEXANONE~~		~~43~~	~~23.75~~	~~563~~	~~4509~~	~~35.02~~	~~NGS~~	100
~~33)~~	~~2-HEXANONE~~		~~43~~	~~24.22~~	~~575~~	~~11914~~	~~92.54~~	~~NGS~~	100
~~33)~~	~~2-HEXANONE~~		~~43~~	~~24.72~~	~~588~~	~~8669~~	~~67.33~~	~~NGS~~	100
36)	TOLUENE-D8	(SURR)	98	25.89	618	75860	267.27	NGS	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.64	766	28784	203.71	NGS	100

FROCW

* Compound is ISTD



Data File: >B3158::01
Name: U-4465 9765.0319 DC-SS-18
Misc: 12-2-86MEI 50UL SMPL + 450UL MECL2 + 5UL IS (10X)

Id File: BNABR::02
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:14

Operator ID: USER6
Quant Time: 861202 21:21
Injected at: 861202 20:32

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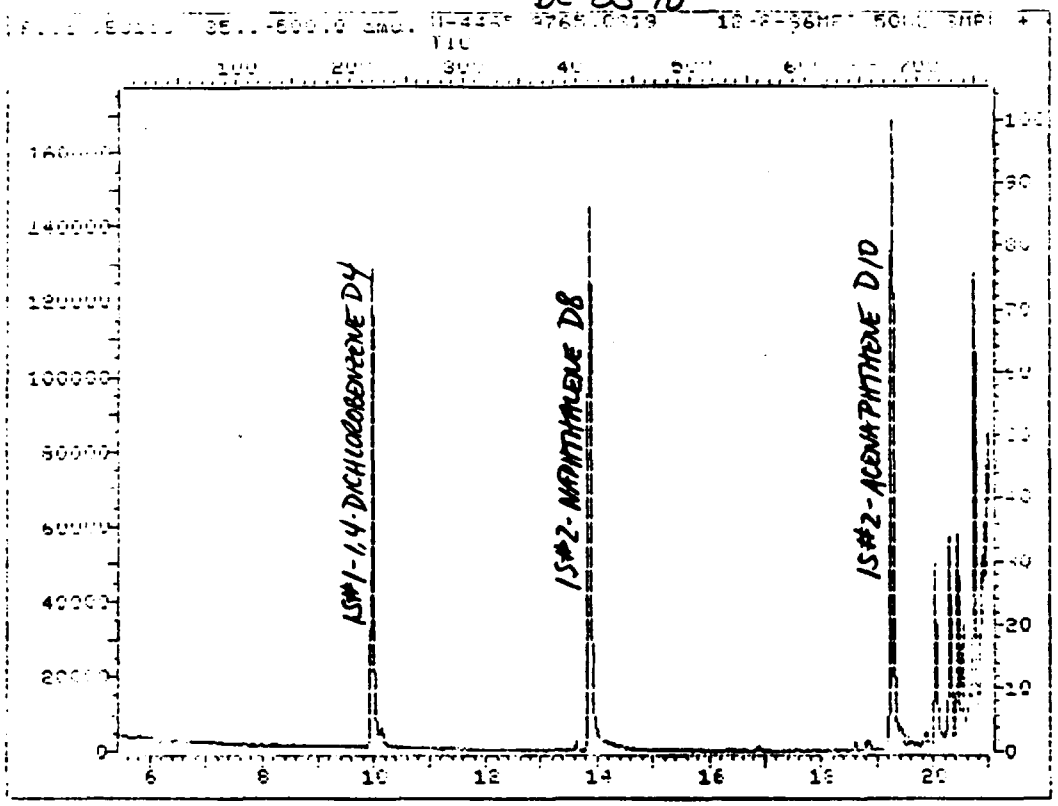
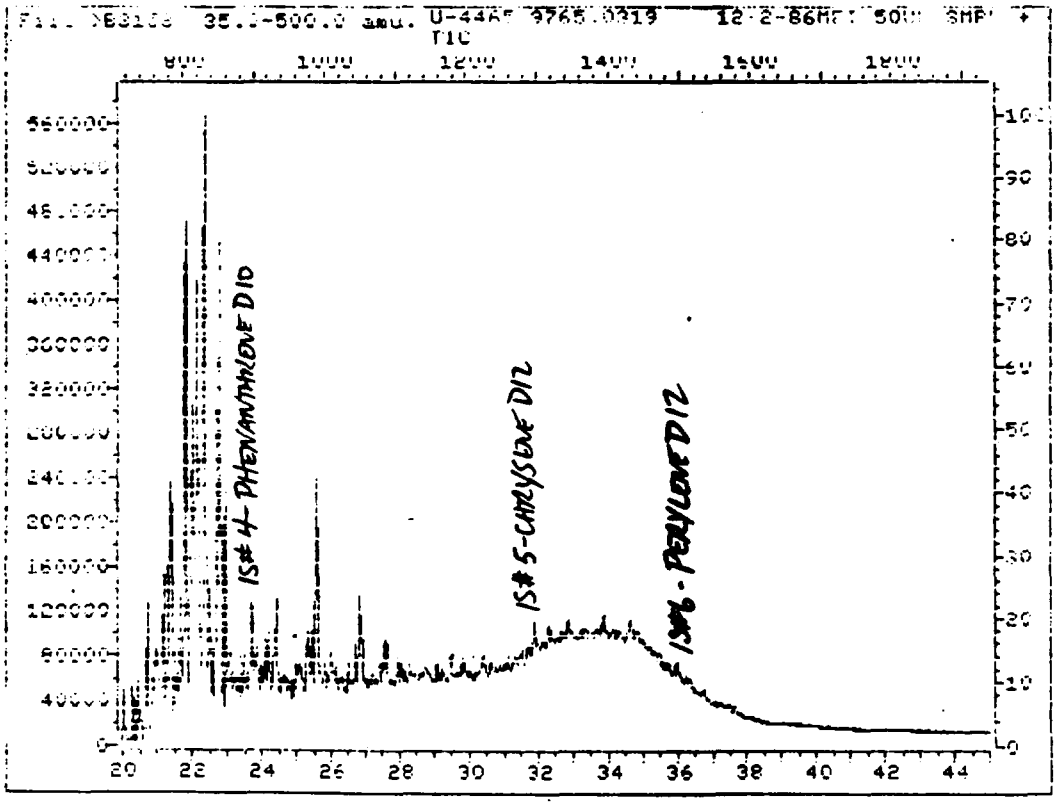
DC SS-18





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QUANT REPORT

Operator ID: USE76 Quant Rev: 4 Quant Time: 861202 21:21
Output File: ^B3158::Q2 Injected at: 861202 20:32
Data File: >B3158::D1 Dilution Factor: 10.00
Name: U-4465 9765.0319 DC-SS-18
Note: 12-2-86ME1 50UL SMPL + 450UL MECL2 + 5UL IS (10X)

FINAL VOLUME = 10 ml

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:14

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.95	220	77698	40.00	UG/L	89
9)	*NAPHTHALENE-D8	(IS)	136	13.86	412	237419	40.00	UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162	19.27	678	111114	40.00	UG/L	99
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.27~~	~~678~~	~~32159~~	~~73.58~~	~~UG/L~~	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.27~~	~~678~~	~~13509~~	~~138.24~~	~~UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	23.73	897	93761	40.00	UG/L	96
65)	*CHRYSENE-D12	(IS)	240	31.91	1297	43972	40.00	UG/L	100
~~66)~~	~~BENZIDINE~~		~~184~~	~~28.02~~	~~1107~~	~~1113~~	~~1114.00~~	~~NO CAL~~	~~B100~~
~~66)~~	~~BENZIDINE~~		~~184~~	~~28.12~~	~~1112~~	~~406~~	~~400.00~~	~~NO CAL~~	~~B100~~
~~66)~~	~~BENZIDINE~~		~~184~~	~~28.18~~	~~1115~~	~~893~~	~~893.00~~	~~NO CAL~~	~~B100~~
~~66)~~	~~BENZIDINE~~		~~184~~	~~28.69~~	~~1140~~	~~190~~	~~190.00~~	~~NO CAL~~	~~B100~~
~~72)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.85~~	~~1443~~	~~162~~	~~1.58~~	~~UG/L~~	~~75~~
74)	*PERYLENE-D12	(IS)	264	36.00	1497	32825	40.00	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.34~~	~~1416~~	~~481~~	~~2.48~~	~~UG/L~~	~~100~~
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.38~~	~~1418~~	~~259~~	~~1.69~~	~~UG/L~~	~~100~~
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.63~~	~~1430~~	~~919~~	~~5.99~~	~~UG/L~~	~~100~~
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.71~~	~~1434~~	~~446~~	~~2.91~~	~~UG/L~~	~~100~~
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~35.04~~	~~1450~~	~~504~~	~~3.29~~	~~UG/L~~	~~100~~

NO BFR

NO BFR

* Compound is ISTD

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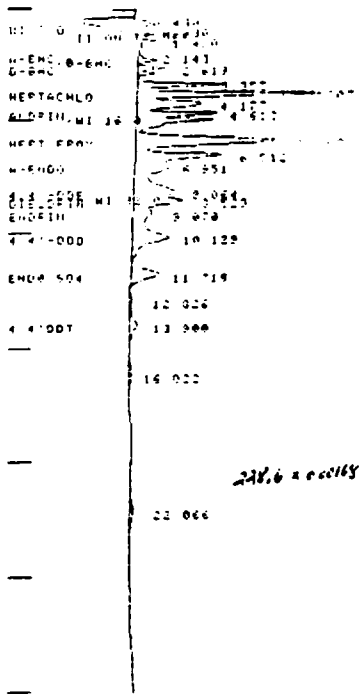
CHART SPEED 0.5 CM/MIN
ATTEN: 9 ZERO: 10% 5 MIN [illegible]



228.6 x .00168 x 1/1.5 x 5,000,000 1,700,000 ug/kg 1248
1.16

CHANNEL: 1A - 1 TITLE: RUN# 22 [illegible]

DC-SS-1B

SAMPLE: 9765 DF=5,000 METHOD: CFRA CALCULATION: [illegible]

PEAK NO	PEAK NAME	RESULT UG/KG	TIME [illegible]	TIME OFFSET	[illegible]	[illegible]	[illegible]
1	~~H-BHC~~	4323.[illegible]	[illegible]	0.12[illegible]	[illegible]	[illegible]	[illegible]
2		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
3	~~HEPTACHLO~~	49562.82	[illegible]	-0.033	[illegible]	[illegible]	[illegible]
4		0.0000	4.177		[illegible]	[illegible]	[illegible]
5	~~ALDRIN~~	21311.92	4.619	-0.122	[illegible]		[illegible]
6		0.0000	4.939		[illegible]	[illegible]	[illegible]
7	~~HEPT EPOX~~	66856.85	[illegible]	0.109	[illegible]	[illegible]	[illegible]
8		0.0000	6.517		[illegible]	[illegible]	[illegible]
9	~~4-ENDO~~	24646.11	6.951	-0.199	[illegible]	[illegible]	[illegible]
10	~~[illegible]~~	32309.90	[illegible]	-0.156	[illegible]	[illegible]	[illegible]
11	~~DIELDRIN~~	25452.20	[illegible]	0.199	[illegible]	[illegible]	[illegible]
12	~~ENDRIN~~	16790.16	9.070	-0.210	[illegible]	[illegible]	[illegible]
13	~~4,4'-DDD~~	37439.91	10.129	-0.201	[illegible]		[illegible]
14	~~ENDO SO4~~	26742.57	11.719	-0.39[illegible]	[illegible]	[illegible]	[illegible]
15	~~4,4'DDT~~	14833.19	[illegible]	0.430	[illegible]	[illegible]	[illegible]
16		0.0000	22.066		[illegible]	[illegible]	[illegible]

1248 225.6

TOTALS: 320299.5 -0.447 [illegible]

DETECTED PKS: 31 REJECTED PKS: 15

DIVISOR: 1.50000 MULTIPLIER: 5000000.00

NOISE: 34.3 OFFSET: -119

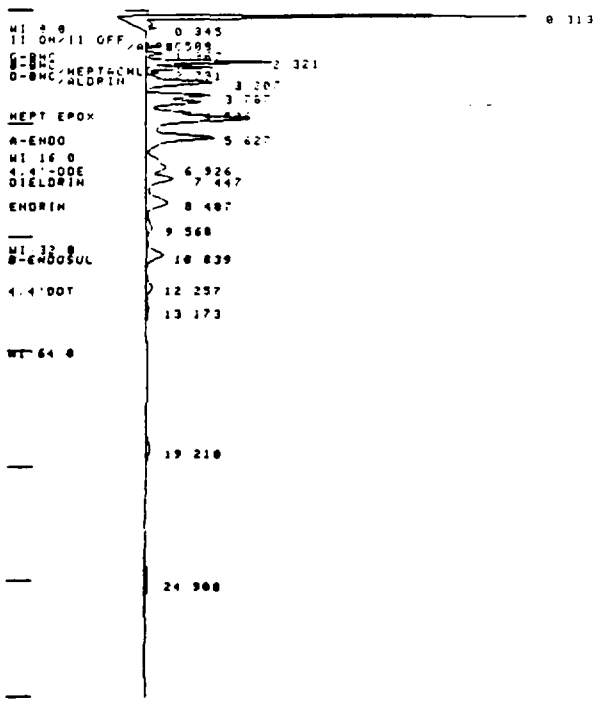
RACK: 2 VIAL: 7 INJ: [illegible]

NOTES:
NOTEBOOK:259-41 ANALYST: [illegible] R.SAMSON
SECURE AREA: D IOR#:U-4455
INST:VARIAN 6000#2 A ECD 10+1
COLUMN: 5' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C IPOT=FRMAL 4 UL [illegible]
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: RAW [illegible]

365

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 1B - 1 TITLE: RUN# 17 0:30 2 DEC 86

SAMPLE: 9765 METHOD: PEPA CALCULATION: ES - ANALYS

DC-SS-18

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~α-BHC~~	3620.856	1.967	-0.133	31328	VV	4.54
2	~~β-BHC~~	68729.04	2.321	-0.079	242653	VV	6.20
3	HEPTACHLO	14126.78	2.551	-0.039	120070	VV	5.19
4	~~γ-BHC~~	4967.504	2.791	-0.009	33503	VV	12.69
5	~~ALDRIN~~	25395.03	3.207	0.077	226225	VV	12.00
6		0.0000	3.787		178563	VV	12.31
7		0.0000	4.052		178943	VV	12.30
8		0.0000	4.506		133856	VV	? 11.81
9	~~HEPT EPOX~~	61302.39	4.782	0.082	484719	VV	15.94
10	~~A-ENDO~~	48004.30	5.627	-0.283	365531	VV	15.19
11	~~4,4'-DDE~~	23421.96	6.926	0.126	175522	VV	? 37.75
12	~~DIELDRIN~~	18220.44	7.447	0.217	146251	VV	19.75
13	~~ENDRIN~~	31095.70	8.487	-0.293	167631	VV	27.13
14		0.0000	9.568		49521	VV	? 33.75
15	~~B-ENDOSUL~~	18521.47	10.839	0.219	130992	VV	25.94
16	~~4,4'-DDT~~	13775.19	12.257	-0.263	61106	VV	25.44
17		0.0000	13.173		29211	VB	? 55.20
18		0.0000	19.210		47577	BB	43.75
19	~~METHOXYCH~~	32882.68	24.908	0.908	54379	BB	79.31

1248

TOTALS: 364863.4 0.530 2857781

DETECTED PKS: 31 REJECTED PKS: 12

DIVISOR: 1.50000 MULTIPLIER: 5000000.00

NOISE: 68.6 OFFSET: 2

RACK: 1 VIAL: 15 INJ: 1

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NOTES:
NOTEBOOK: 259-44 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#:U-4465
INST: VARIAN 6000#2 B ECD 1241 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

POST RUN:
SAVE FILE: RAW CREEK707

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SAMPLE NUMBER DC-SS-19

Sample Number
DC-SS-19

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4465

Lab Sample ID No: 9766 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Stoytowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-18-86

Conc/Dil Factor: 10 pH 4.4

Percent Moisture: (Not Decanted) 31

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	100u
74-83-9	Bromomethane	100u
75-01-4	Vinyl Chloride	100u
75-00-3	Chloroethane	100u
75-09-2	Methylene Chloride	230 B
67-64-1	Acetone	91 BJ
75-15-0	Carbon Disulfide	50u
75-35-4	1, 1-Dichloroethene	50u
75-34-3	1, 1-Dichloroethane	50u
156-60-5	Trans-1, 2-Dichloroethene	50u
67-66-3	Chloroform	50u
107-06-2	1, 2-Dichloroethane	50u
78-93-3	2-Butanone	180 B
71-55-6	1, 1, 1-Trichloroethane	50u
56-23-5	Carbon Tetrachloride	50u
108-05-4	Vinyl Acetate	100u
75-27-4	Bromodichloromethane	50u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	50u
10061-02-6	Trans-1, 3-Dichloropropene	50u
79-01-6	Trichloroethene	50u
124-48-1	Dibromochloromethane	50u
79-00-5	1, 1, 2-Trichloroethane	50u
71-43-2	Benzene	50u
10061-01-5	cis-1, 3-Dichloropropene	50u
110-75-8	2-Chloroethylvinylether	100u
75-25-2	Bromoform	50u
108-10-1	4-Methyl-2-Pentanone	560
591-78-6	2-Hexanone	100u
127-18-4	Tetrachloroethene	50u
79-34-5	1, 1, 2, 2-Tetrachloroethane	50u
108-88-3	Toluene	50u
108-90-7	Chlorobenzene	50u
100-41-4	Ethylbenzene	50u
100-42-5	Styrene	50u
	Total Xylenes	50u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Sample Number
DC-SS-19 RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No. U-4465
Lab Sample ID No: 9766 RE QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-26-86
Conc/Dil Factor: 3 pH 4.4
Percent Moisture: (Not Decanted) 31

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	81 B
67-64-1	Acetone	140 B
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	220 B
591-78-6	2-Hexanone	17 BJ
127-18-4	Tetrachloroethene	13 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, etc. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number DC-SS-19

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed: 12-19-86

Conc/Dil Factor: 200

Percent Moisture (Decanted) 32

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	48000 U
111-44-4	bis(2-Chloroethyl)Ether	48000 U
95-57-8	2-Chlorophenol	48000 U
541-73-1	1 3-Dichlorobenzene	48000 U
106-46-7	1 4-Dichlorobenzene	48000 U
100-51-6	Benzyl Alcohol	48000 U
95-50-1	1 2-Dichlorobenzene	48000 U
95-48-7	2-Methylphenol	48000 U
39638-32-9	bis(2-chloroisopropyl)Ether	48000 U
106-44-5	4-Methylpheno	48000 U
621-64-7	N-Nitroso-Di-n-Propylamine	48000 U
67-72-1	Hexachloroethane	48000 U
98-95-3	Nitrobenzene	48000 U
78-59-1	Isophorone	48000 U
88-75-5	2-Nitrophenol	48000 U
105-67-9	2, 4-Dimethylphenol	48000 U
65-85-0	Benzoic Acid	240000 U
111-91-1	bis(2-Chloroethoxy)Methane	48000 U
120-83-2	2, 4-Dichlorophenol	48000 U
120-82-1	1, 2, 4-Trichlorobenzene	48000 U
91-20-3	Naphthalene	48000 U
106-47-8	4-Chloroaniline	48000 U
87-68-3	Hexachlorobutadiene	48000 U
59-50-7	4-Chloro-3-Methylphenol	48000 U
91-57-6	2-Methylnaphthalene	48000 U
77-47-4	Hexachlorocyclopentadiene	48000 U
88-06-2	2 4 6-Trichlorophenol	48000 U
95-95-4	2, 4, 5-Trichlorophenol	240000 U
91-58-7	2-Chloronaphthalene	48000 U
88-74-4	2-Nitroaniline	240000 U
131-11-3	Dimethyl Phthalate	48000 U
208-96-8	Acenaphthylene	48000 U
99-09-2	3-Nitroaniline	240000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	48000 U
51-28-5	2, 4-Dinitrophenol	240000 U
100-02-7	4-Nitrophenol	240000 U
132-64-9	Dibenzofuran	48000 U
121-14-2	2 4-Dinitrotoluene	48000 U
606-20-2	2 6-Dinitrotoluene	48000 U
84-66-2	Diethylphthalate	48000 U
7005-72-3	4-Chlorophenyl-phenylether	48000 U
86-73-7	Fluorene	48000 U
100-01-6	4-Nitroaniline	240000 U
534-52-1	4, 6-Dinitro-2-Methylphenol	240000 U
86-30-6	N-Nitrosodiphenylamine (1)	48000 U
101-55-3	4-Bromophenyl-phenylether	48000 U
118-74-1	Hexachlorobenzene	48000 U
87-86-5	Pentachlorophenol	240000 U
85-01-8	Phenanthrene	48000 U
120-12-7	Anthracene	48000 U
84-74-2	Di-n-Butylphthalate	48000 U
206-44-0	Fluoranthene	48000 U
129-00-0	Pyrene	48000 U
85-68-7	Butylbenzylphthalate	48000 U
91-94-1	3 3'-Dichlorobenzidine	97000 U
56-55-3	Benzo(a)Anthracene	48000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	48000 U
218-01-9	Chrysene	48000 U
117-84-0	Di-n-Octyl Phthalate	48000 U
205-99-2	Benzo(b)Fluoranthene	48000 U
207-08-9	Benzo(k)Fluoranthene	48000 U
50-32-8	Benzo(a)Pyrene	48000 U
193-39-5	Indeno(1 2, 3-cd)Pyrene	48000 U
53-70-3	Dibenz(a h)Anthracene	48000 U
191-24-2	Benzo(g h, i)Perylene	48000 U

(1)-Cannot be separated from diphenylamine

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ecology and environment

Laboratory Name ecology and environment, inc.

Case No. U-4465

Sample Number DC-SS-19

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor: 10,000

Percent Moisture (decanted) 31.5

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	160,000 U	
319-85-7	Beta-BHC	160,000 U	
319-86-8	Delta-BHC	160,000 U	
58-89-9	Gamma-BHC (Lindane)	160,000 U	
76-44-8	Heptachlor	160,000 U	
309-00-2	Aldrin	160,000 U	
1024-57-3	Heptachlor Epoxide	160,000 U	
959-98-8	Endosulfan I	160,000 U	
60-57-1	Dieldrin	320,000 U	
72-55-9	4,4'-DDE	320,000 U	
72-20-8	Endrin	320,000 U	
33213-65-9	Endosulfan II	320,000 U	
72-54-8	4,4'-DDD	320,000 U	
1031-07-8	Endosulfan Sulfate	320,000 U	
50-29-3	4,4'-DDT	320,000 U	
72-43-5	Methoxychlor	1,600,000 U	
53494-70-5	Endrin Ketone	320,000 U	
57-74-9	Chlordane	1,600,000 U	
8001-35-2	Toxaphene	3,200,000 U	
12674-11-2	Aroclor-1016	1,600,000 U	
11104-28-2	Aroclor-1221	1,600,000 U	
11141-16-5	Aroclor-1232	1,600,000 U	
53469-21-9	Aroclor-1242	1,600,000 U	
12672-29-6	Aroclor-1248	3,600,000	C
11097-69-1	Aroclor-1254	7,500,000	C
11096-82-5	Aroclor-1260	8,000,000	C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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ecology and environment

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-19

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	18.2	140 J
2.	Hexene isomer	VOA	19.0	400 J
3.	Unknown hydrocarbon	VOA	20.1	47 J
4.	Unknown hydrocarbon	VOA	21.4	48 BJ
5.	Unknown alcohol	VOA	24.0	430 J
6.				
7.	UNKNOWN AROMATIC	BNA	20.3	280000 J
8.	UNKNOWN AROMATIC		20.8	360000 J
9.	UNKNOWN AROMATIC		20.9	280000 J
10.	UNKNOWN AROMATIC		21.1	180000 J
11.	UNKNOWN AROMATIC		21.3	380000 J
12.	UNKNOWN AROMATIC		21.5	47000 J
13.	UNKNOWN AROMATIC		21.7	290000 J
14.	UNKNOWN AROMATIC		21.8	390000 J
15.	UNKNOWN AROMATIC		21.9	150000 J
16.	UNKNOWN AROMATIC		22.2	25000 J
17.	UNKNOWN AROMATIC		22.3	64000 J
18.	UNKNOWN AROMATIC		22.4	68000 J
19.	UNKNOWN AROMATIC		22.8	68000 J
20.	UNKNOWN AROMATIC		23.0	64000 J
21.	UNKNOWN AROMATIC		23.2	110000 J
22.	UNKNOWN AROMATIC		23.3	150000 J
23.	UNKNOWN AROMATIC		23.4	61000 J
24.	PCB		24.1-	—
25.	UNKNOWN AROMATIC		24.3	92000 J
26.	PCB		28.6-30.2	—
27.				
28.				
29.				
30.				

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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-19RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.9	360 J
2.	Hexene isomer	VOA	18.7	950 J
3.	Unknown hydrocarbon	VOA	19.4	25 J
4.	Unknown hydrocarbon	VOA	19.8	130 J
5.	Unknown alcohol	VOA	23.7	180 J
6.	~~Tetrachloroethene~~	~~VOA~~	~~24.7~~	~~13~~ - aw
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
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24.				
25.				
26.				
27.				
28.				
29.				
30				

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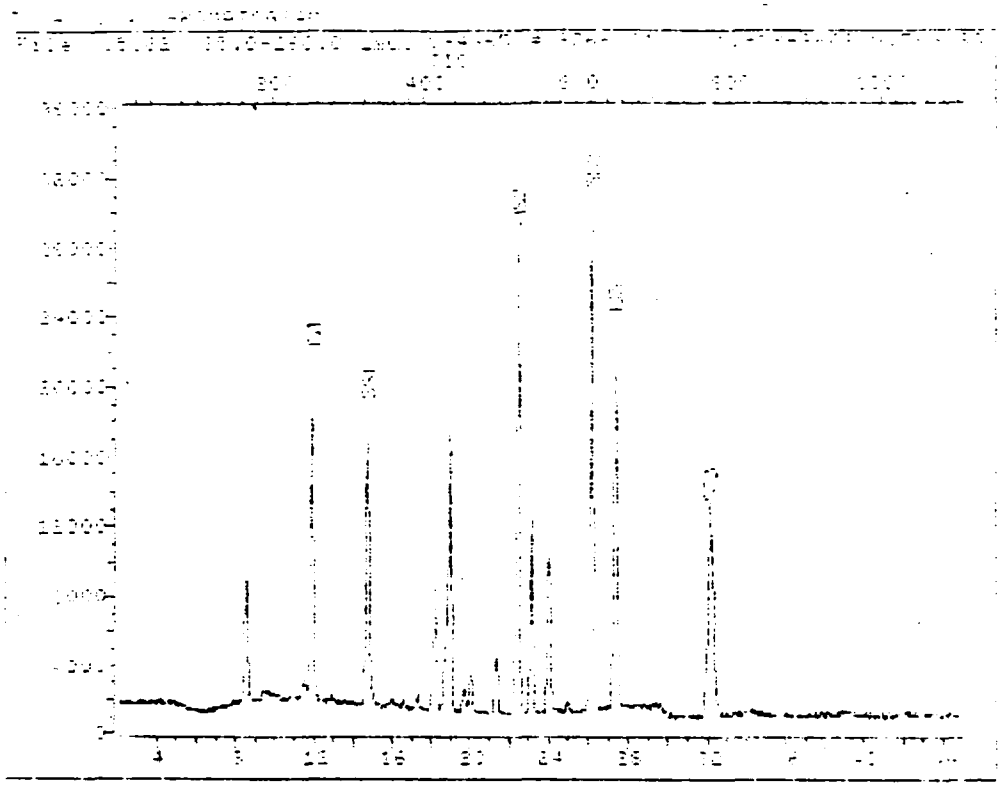

Data File: [illegible]
Name: [illegible] DC-SS-19
Misc: [illegible]

Id File: [illegible]
Title: [illegible] ID FILE FOR HP-5995 [illegible]
Last Calibration: 861118 12:[illegible]

Operator ID: [illegible]
Quant Time: 861118 20:15
Injected at: 861118 19:29

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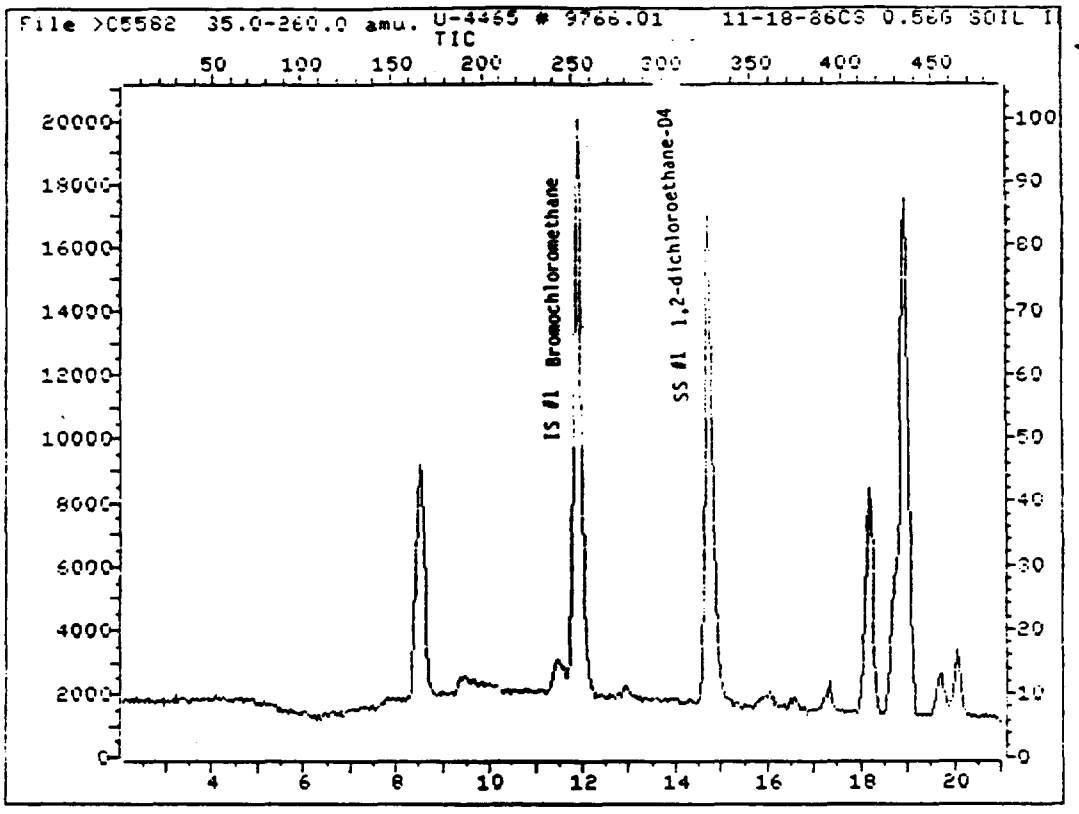
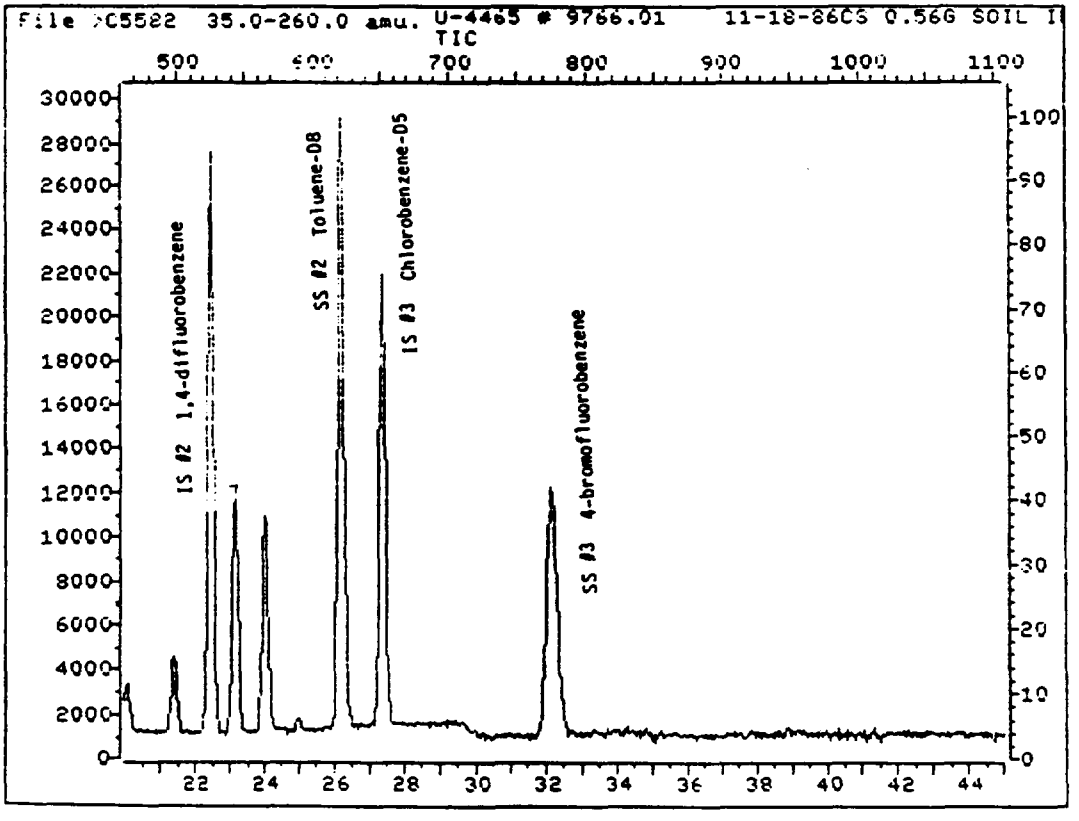
DC-SS-19





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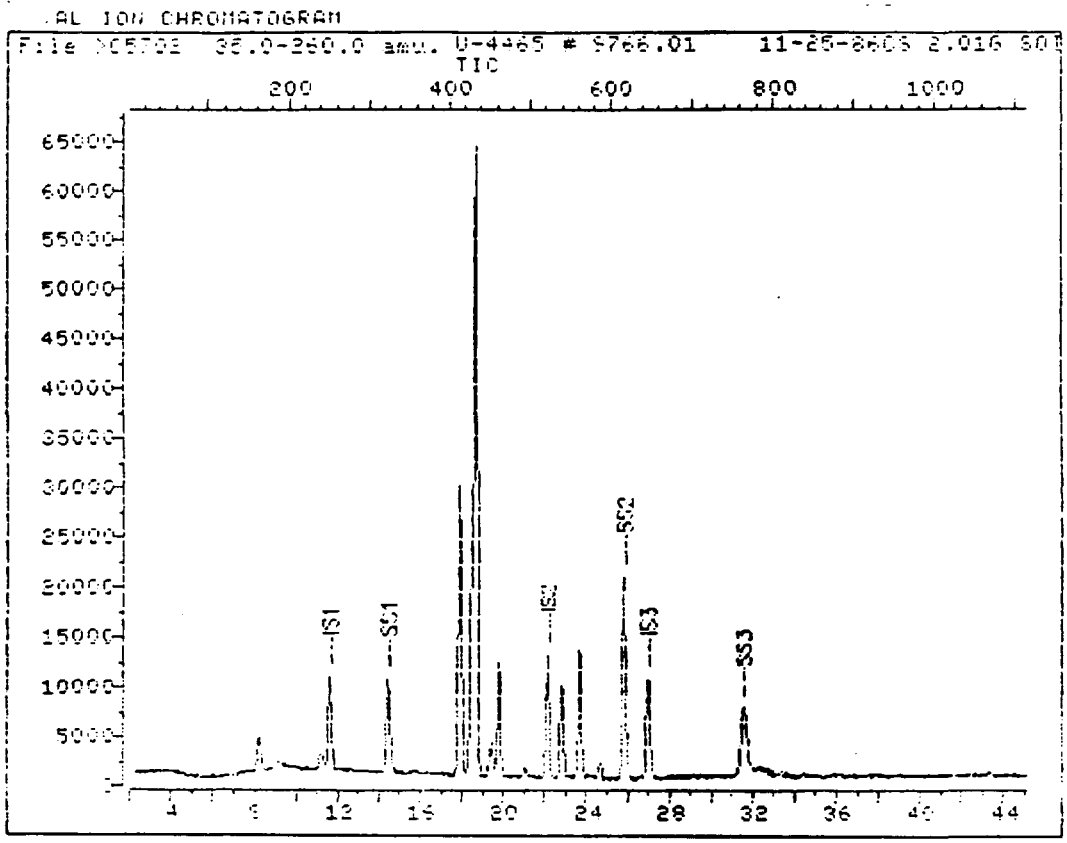
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861118 20:15
Output File: ^C5582::Q2 Injected at: 861118 19:29
Data File: >C5582::D3 Dilution Factor: 1.00
Name: U-4465 # 9766.01 DC-SS-19
Misc: 11-18-86CS 0.56G SOIL IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861118 12:02

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.90	253	25703	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.52	166	18091	90.20	NGS	100
7)	ACETONE	43	9.45	190	5626	35.38	NGS	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.73	326	60173	201.27	NGS	89
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.45	525	111052	250.00	NGS	100
17)	2-BUTANONE	72	14.84	329	2735	68.05	NGS	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.35	651	68046	250.00	NGS	100
32)	4-METHYL-2-PENTANONE	43	23.15	543	55593	217.35	NGS	85
32)	~~4-METHYL-2-PENTANONE~~	~~43~~	~~24.00~~	~~565~~	~~19524~~	~~[illegible]~~	~~NGS~~ no cw	60
33)	~~2-HEXANONE~~	~~43~~	~~24.00~~	~~565~~	~~19524~~	~~[illegible]~~	~~NGS~~	100
36)	TOLUENE-D8 (SURR)	98	26.17	621	111137	258.92	NGS	91
40)	4-BROMOFLUOROBENZENE(SURR)	95	32.12	774	22234	98.56	NGS	100

* Compound is ISTD

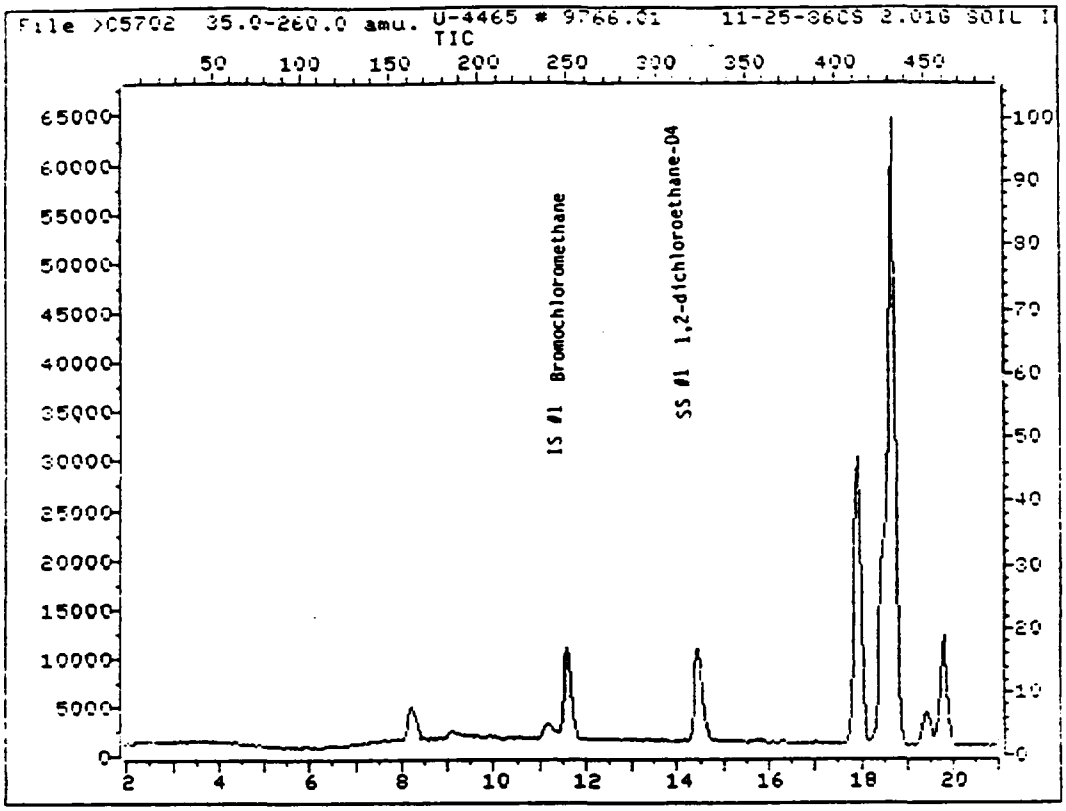


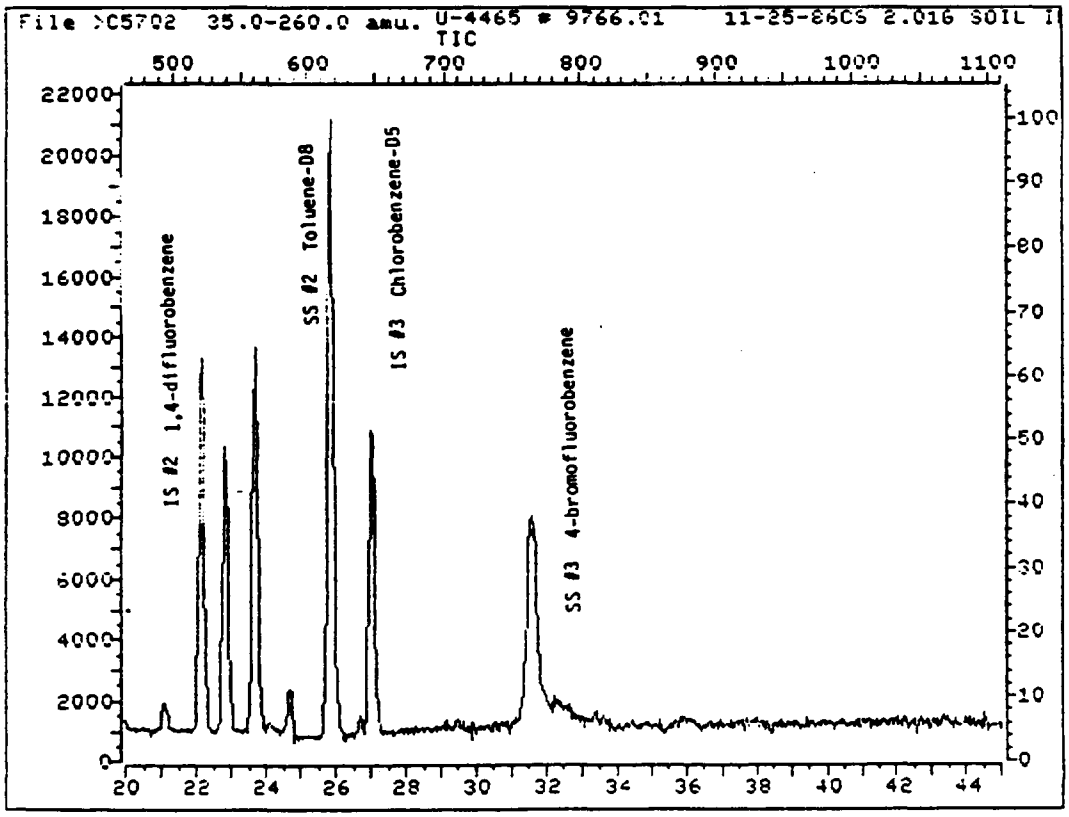
Data File: >C5702::D2
Name: U-4465 # 9766.01 DC-SS-19-RE
Misc: 11-25-8605 2.01G SOIL IN 5ML DI - 10UL 13 SS

Id File: VOACRS::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 10:50

Operator ID: USER6
Quant Time: 861125 15:39
Injected at: 861125 14:53

DC-SS-19RE





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861125 15:39
Output File: ^C5702::D2 Injected at: 861125 14:53
Data File: >C5702::D2 Dilution Factor: 1.00
Name: U-4465 # 9766.01 DC-SS-19-RE
Misc: 11-25-86CS 2.01G SOIL IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 10:50

	Compound		M/Z	R.T.	Scan#	Area	Conc	Units	c
1)	*BROMOCHLOROMETHANE	(IS)	128	11.61	250	12867	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.24	163	8359	112.51	NGS	100
7)	ACETONE		43	9.17	187	9451	197.75	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.48	324	40197	310.82	NGS	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.17	522	51396	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.02	647	34540	250.00	NGS	100
32)	4-METHYL-2-PENTANONE		43	22.83	539	44005	309.74	NGS	95
~~32)~~	~~4-METHYL-2-PENTANONE~~		~~43~~	~~22.83~~	~~561~~	~~12740~~	~~137.51~~	~~NGS~~	~~96~~
~~33)~~	~~2-HEXANONE~~		~~43~~	~~23.68~~	~~561~~	~~10360~~	~~171.31~~	~~NGS~~	~~100~~
33)	2-HEXANONE		43	24.65	586	2786	24.23	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.85	617	8962	409.97	NGS	92
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.57	764	24823	223.00	NGS	100
**	Tetrachloroethene		166	24.69	587	2402	12.5 µg/kg		EQ

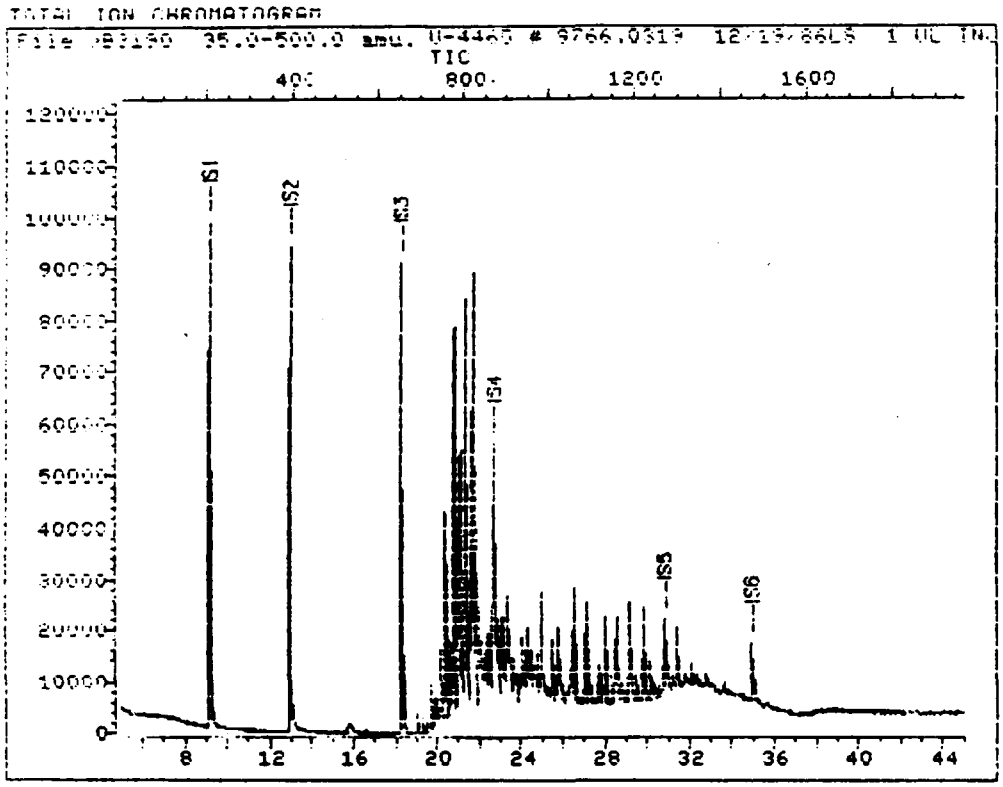
* Compound is ISTD

124 Hi cal

no cal

169 Hi cal

* Observed as TIC



Data File: >B3190::D4
Name: U-4465 # 9766.0319 DC-SS-19
Misc: 12/19/86LS 1 UL INJ (20X)

Id File: BNABY::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861219 16:50

Operator ID: USER8
Quant Time: 861219 18:49
Injected at: 861219 18:02

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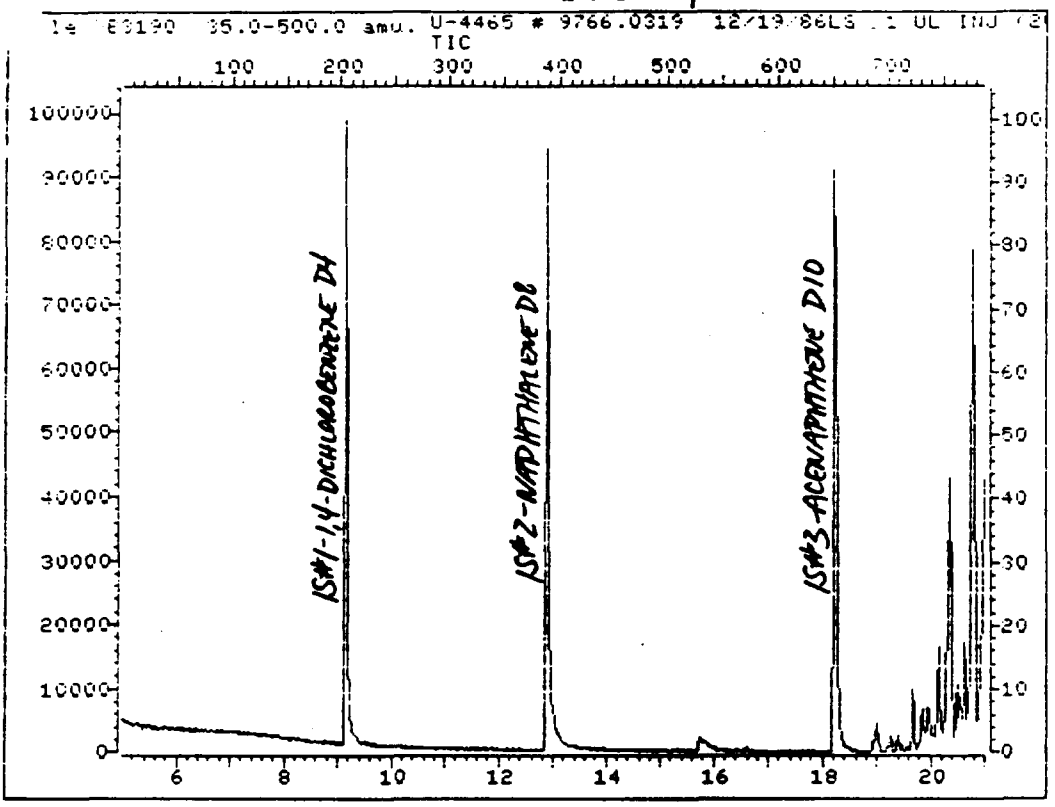
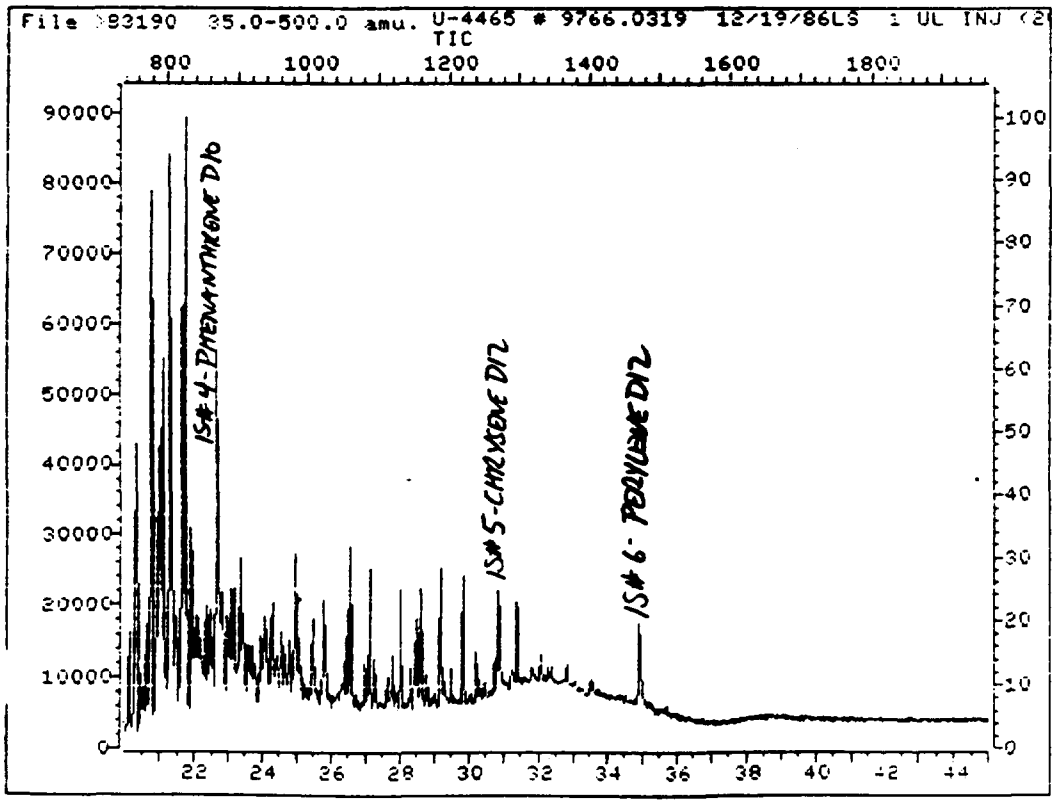
DC-SS-19





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861219 18:49
Output File: ^B^190::D2 Injected at: 861219 18:02
Data File: ^B3^190::D4 Dilution Factor: 20.00
Name: U-4465 # 9766.0319 DC-SS-19
Misc: 12/19/86LS 1 UL INJ (20X)

FINAL VOLUME: 10 ml

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861219 16:50

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
11)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.15	205	53089	40.00	UG/L	85
19)	*NAPHTHALENE-D8	(IS)	136	12.89	489	176479	40.00	UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162	18.22	651	67838	40.00	UG/L	96
~~[illegible]~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.22~~	~~651~~	~~[illegible]~~	~~161.43~~	~~UG/L~~	~~100~~
~~[illegible]~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.22~~	~~651~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.67	870	68903	40.00	UG/L	97
65)	*CHRYSENE-D12	(IS)	240	30.84	1271	25269	40.00	UG/L	100
~~[illegible]~~	~~BENZIDINE~~		~~184~~	~~26.99~~	~~1082~~	~~[illegible]~~	~~[illegible]~~	~~NO CAL B~~	~~100~~
~~[illegible]~~	~~BENZIDINE~~		~~184~~	~~27.07~~	~~1085~~	~~394~~	~~[illegible]~~	~~NO CAL B~~	~~100~~
~~[illegible]~~	~~BENZIDINE~~		~~184~~	~~27.13~~	~~1089~~	~~1739~~	~~1739.00~~	~~NO CAL B~~	~~100~~
~~[illegible]~~	~~BENZIDINE~~		~~184~~	~~27.26~~	~~1095~~	~~565~~	~~565.00~~	~~NO CAL B~~	~~100~~
~~[illegible]~~	~~BENZIDINE~~		~~184~~	~~27.76~~	~~1120~~	~~[illegible]~~	~~[illegible]~~	~~NO CAL B~~	~~100~~
~~70)~~	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~30.74~~	~~1262~~	~~404~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~[illegible]~~	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~31.39~~	~~1288~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
74)	*PERYLENE-D12	(IS)	264	34.93	1472	22446	40.00	UG/L	100

No BJK

No BJK

* Compound is ISTD

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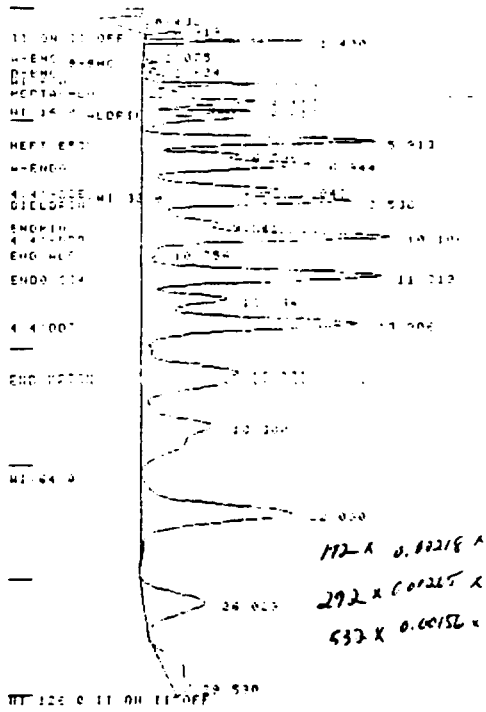

3,600,000

192 x 0.00218 x 1/1.5 x 1,000,000 ug/kg 1248

292 x 0.00265 x 1/1.5 x 1,000,000 ug/kg 1254

532 x 0.00156 x 1/1.5 x 1,000,000 ug/kg 1260

CHANNEL: 1A - 1 TITLE: [illegible] 23

SAMPLE: 3766 DF=10,000 METHOD: CFFA

DC-SS-19

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	[illegible]
1		0.0000	[illegible]		[illegible]
2		0.0000	[illegible]		[illegible]
3		0.0000	[illegible]		[illegible]
4	HEPTACHLO	26551.49	[illegible]	-0.157	[illegible]
5		0.0000	[illegible]		[illegible]
6	ALDRIN 1248	58065.11	4.616	-0.174	[illegible]
7		0.0000	4.936		[illegible]
8	HEPT EPOX	232125.6	[illegible]	0.153	[illegible]
9		0.0000	[illegible]		[illegible]
10	A-ENDO	210659.7	[illegible]	-0.206	[illegible]
11	4,4'-DDE	179475.2	[illegible]	-0.179	[illegible]
12	DIELDRIN 1254	209618.2	8.576	0.206	[illegible]
13	B-ENDO	121562.8	9.541	0.061	[illegible]
14	4,4'-DDD	354165.9	[illegible]	-0.224	[illegible]
15	END.ALD.	30146.37	10.756	0.336	[illegible]
16	ENDO SO4	537367.4	11.619	-0.291	[illegible]
17		0.0000	12.834		[illegible]
18	4,4'DDT 1260	860118.2	13.506	0.435	[illegible]
19	END KETON	250550.0	15.031	0.511	[illegible]
20		0.0000	18.300		[illegible]
21		0.0000	[illegible]		[illegible]
22	[illegible]	227779.0	26.029	-1.001	[illegible]
23		0.0000	29.590		[illegible]

TOTALS: 3298288. -0.478 [illegible]

DETECTED PKS: 37 REJECTED PKS: 14

DIVISOR: 0.15000 MULTIPLIER: 1000000.00

NOISE: 34.3 OFFSET: [illegible]

RACK: 2 VIAL: 8 INT: 1

NOTES:
NOTEBOOK:259-41 ANALYST: [illegible]
SECURE AREA: D JOB#:U-4465
INST:[illegible] 600042 A ECD [illegible]
COLUMN: [illegible] GLASS 4MM ID [illegible] SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET:[illegible] INT:[illegible]
200 C ISOTHERMAL 4 UL [illegible]
AUTOSAMPLER
PEST/PCB ANALYSIS

[illegible]

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SAMPLE NUMBER DC-SS-20

481095

Sample Number
DC-SS-20

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465

Lab Sample ID No: 9767 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-18-86

Conc./Dil Factor: 3 pH 6.2

Percent Moisture: (Not Decanted) 33

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	61 B
67-64-1	Acetone	41
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	49
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	75
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Sample Number
DC-SS-20-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4465
Lab Sample ID No: 9767 RE QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-15-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-25-86
Conc./Dil Factor: 3 pH 6.2
Percent Moisture: (Not Decanted) 33

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	73 B
67-64-1	Acetone	99 B
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	510 B
591-78-6	2-Hexanone	58 B
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

Form I 11/85

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4465

Sample Number DC-SS-20

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-3-86

Conc/Dil Factor 100

Percent Moisture (Decanted) 33

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	25000 U
111-44-4	bis(-2-Chloroethyl)Ether	25000 U
95-57-8	2-Chlorophenol	25000 U
541-73-1	1 3-Dichlorobenzene	25000 U
106-46-7	1 4-Dichlorobenzene	25000 U
100-51-6	Benzyl Alcohol	25000 U
95-50-1	1 2-Dichlorobenzene	25000 U
95-46-7	2-Methylphenol	25000 U
39638-32-9	bis(2-chloroisopropyl)Ether	25000 U
106-44-5	4-Methylpheno	25000 U
621-64-7	N-Nitroso-Di-n-Propylamine	25000 U
67-72-1	Hexachloroethane	25000 U
98-95-3	Nitrobenzene	25000 U
78-59-1	Isophorone	25000 U
88-75-5	2-Nitrophenol	25000 U
105-67-9	2. 4-Dimethylphenol	25000 U
65-85-0	Benzoic Acid	120000 U
111-91-1	bis(-2-Chloroethoxy)Methane	25000 U
120-83-2	2 4-Dichlorophenol	25000 U
120-82-1	1 2. 4-Trichlorobenzene	25000 U
91-20-3	Naphthalene	1800 J
106-47-8	4-Chloroaniline	25000 U
87-68-3	Hexachlorobutadiene	25000 U
59-50-7	4-Chloro-3-Methylphenol	25000 U
91-57-6	2-Methylnaphthalene	25000 U
77-47-4	Hexachlorocyclopentadiene	25000 U
88-06-2	2 4 6-Trichlorophenol	25000 U
95-95-4	2. 4. 5-Trichlorophenol	120000 U
91-58-7	2-Chloronaphthalene	25000 U
88-74-4	2-Nitroaniline	120000 U
131-11-3	Dimethyl Phthalate	25000 U
208-96-8	Acenaphthylene	25000 U
99-09-2	3-Nitroaniline	120000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	25000 U
51-28-5	2. 4-Dinitrophenol	120000 U
100-02-7	4-Nitrophenol	120000 U
132-64-9	Dibenzofuran	25000 U
121-14-2	2 4-Dinitrotoluene	25000 U
606-20-2	2 6-Dinitrotoluene	25000 U
84-66-2	Diethylphthalate	25000 U
7005-72-3	4-Chlorophenyl-phenylether	25000 U
86-73-7	Fluorene	25000 U
100-01-6	4-Nitroaniline	120000 U
534-52-1	4. 6-Dinitro-2-Methylphenol	120000 U
86-30-6	N-Nitrosodiphenylamine (1)	25000 U
101-55-3	4-Bromophenyl-phenylether	25000 U
118-74-1	Hexachlorobenzene	25000 U
87-86-5	Pentachlorophenol	120000 U
85-01-8	Phenanthrene	25000 U
120-12-7	Anthracene	25000 U
84-74-2	Di-n-Butylphthalate	3800 B J
206-44-0	Fluoranthene	25000 U
129-00-0	Pyrene	25000 U
85-68-7	Butylbenzylphthalate	25000 U
91-94-1	3. 3'-Dichlorobenzidine	49000 U
56-55-3	Benzo(a)Anthracene	25000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	25000 U
218-01-9	Chrysene	25000 U
117-84-0	Di-n-Octyl Phthalate	25000 U
205-99-2	Benzo(b)Fluoranthene	25000 U
207-08-9	Benzo(k)Fluoranthene	25000 U
50-32-8	Benzo(a)Pyrene	25000 U
193-39-5	Indeno(1 2. 3-cd)Pyrene	25000 U
53-70-3	Dibenz(a h)Anthracene	25000 U
191-24-2	Benzo(g h i)Perylene	25000 U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-20

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1,000

Percent Moisture (decanted) 33.3

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16,000 u
319-85-7	Beta-BHC	16,000 u
319-86-8	Delta-BHC	16,000 u
58-89-9	Gamma-BHC (Lindane)	16,000 u
76-44-8	Heptachlor	16,000 u
309-00-2	Aldrin	16,000 u
1024-57-3	Heptachlor Epoxide	16,000 u
959-98-8	Endosulfan I	16,000 u
60-57-1	Dieldrin	32,000 u
72-55-9	4,4'-DDE	32,000 u
72-20-8	Endrin	32,000 u
33213-65-9	Endosulfan II	32,000 u
72-54-8	4,4'-DDD	32,000 u
1031-07-8	Endosulfan Sulfate	32,000 u
50-29-3	4,4'-DDT	32,000 u
72-43-5	Methoxychlor	160,000 u
53494-70-5	Endrin Ketone	32,000 u
57-74-9	Chlordane	160,000 u
8001-35-2	Toxaphene	320,000 u
12674-11-2	Aroclor-1016	160,000 u
11104-28-2	Aroclor-1221	160,000 u
11141-16-5	Aroclor-1232	160,000 u
53469-21-9	Aroclor-1242	160,000 u
12672-29-6	Aroclor-1248	160,000 u
11097-69-1	Aroclor-1254	320,000 u
11096-82-5	Aroclor-1260	639,000

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

398

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-20

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	18.3	53J
2.	Hexene isomer	VOA	19.0	140J
3.	Hexene isomer	VOA	19.8	6JB
4.	Hexene isomer	VOA	20.1	19J
5.	Hexane isomer	VOA	21.4	15JB
6.	Unknown alcohol	VOA	24.0	26J
7.	Unknown hydrocarbon	VOA	24.5	41J
8.	Unknown hydrocarbon	VOA	25.0	38J
9.				
10.	UNKNOWN AROMATIC	BNA	20.5	30000 J
11.	UNKNOWN		20.6	100000 J
12.	UNKNOWN AROMATIC		20.9	48000 J
13.	UNKNOWN AROMATIC		21.1	250000 J
14.	UNKNOWN AROMATIC		21.2	110000 J
15.	UNKNOWN AROMATIC		21.3	220000 J
16.	UNKNOWN AROMATIC		21.6	520000 J
17.	UNKNOWN AROMATIC		21.4	180000 J
18.	UNKNOWN		21.8	710000 J
19.	UNKNOWN AROMATIC		21.9	580000 J
20.	UNKNOWN AROMATIC		22.0	440000 J
21.	UNKNOWN AROMATIC		22.2	440000 J
22.	UNKNOWN AROMATIC		22.4	140000 J
23.	UNKNOWN AROMATIC		22.5	110000 J
24.	UNKNOWN AROMATIC		22.6	210000 J
25.	UNKNOWN AROMATIC		22.8	160000 J
26.	UNKNOWN AROMATIC		23.1	220000 J
27.	UNKNOWN AROMATIC		23.3	190000 J
28.	UNKNOWN AROMATIC		23.4	87000 J
29.	UNKNOWN AROMATIC		23.7	580000 J
30.				

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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-20 RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.9	3200 J
2.	Hexene isomer	VOA	18.7	8600 J
3.	Hexene isomer	VOA	19.8	2000 J
4.				
5.				
6.				
7.				
8.				
9.				
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30				

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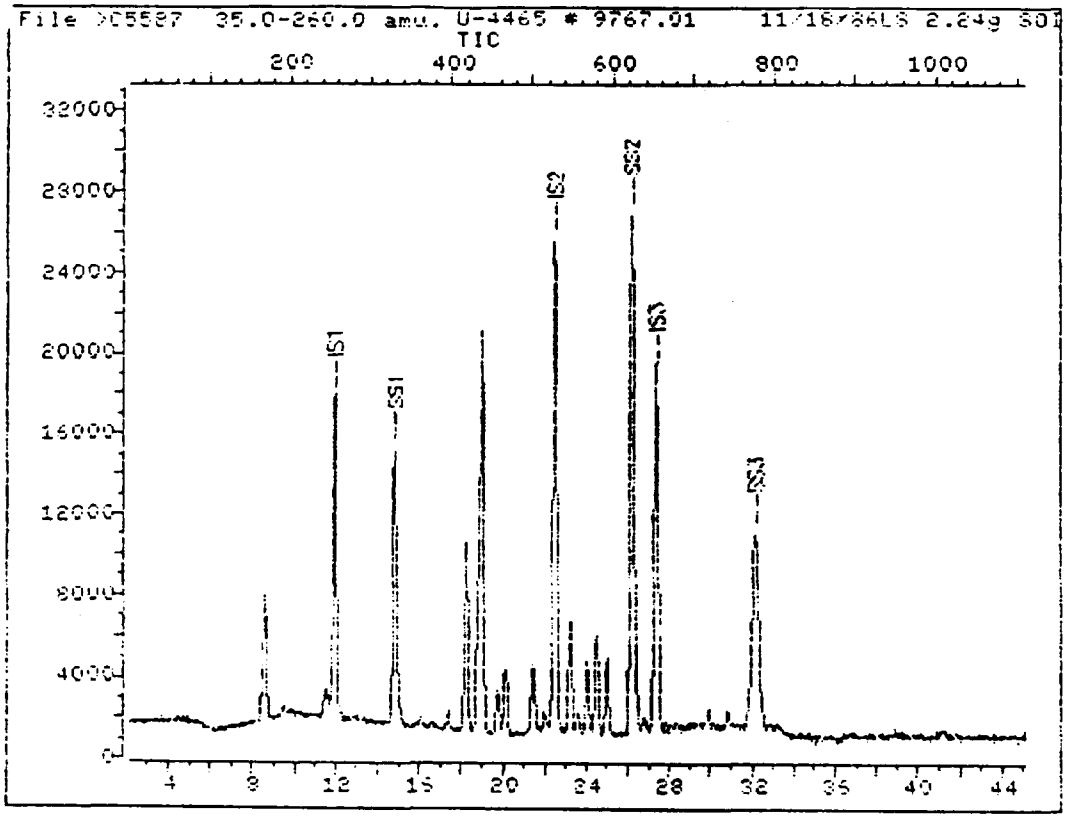
TOTAL ION CHROMATOGRAM

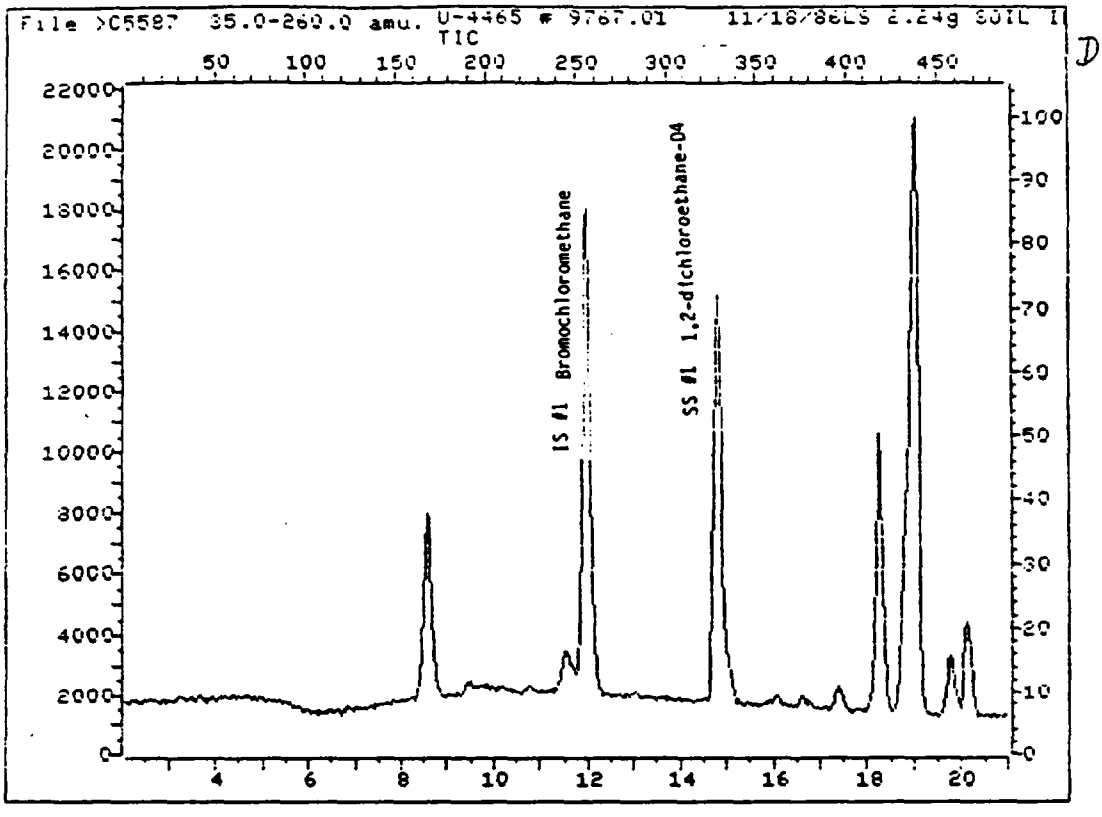


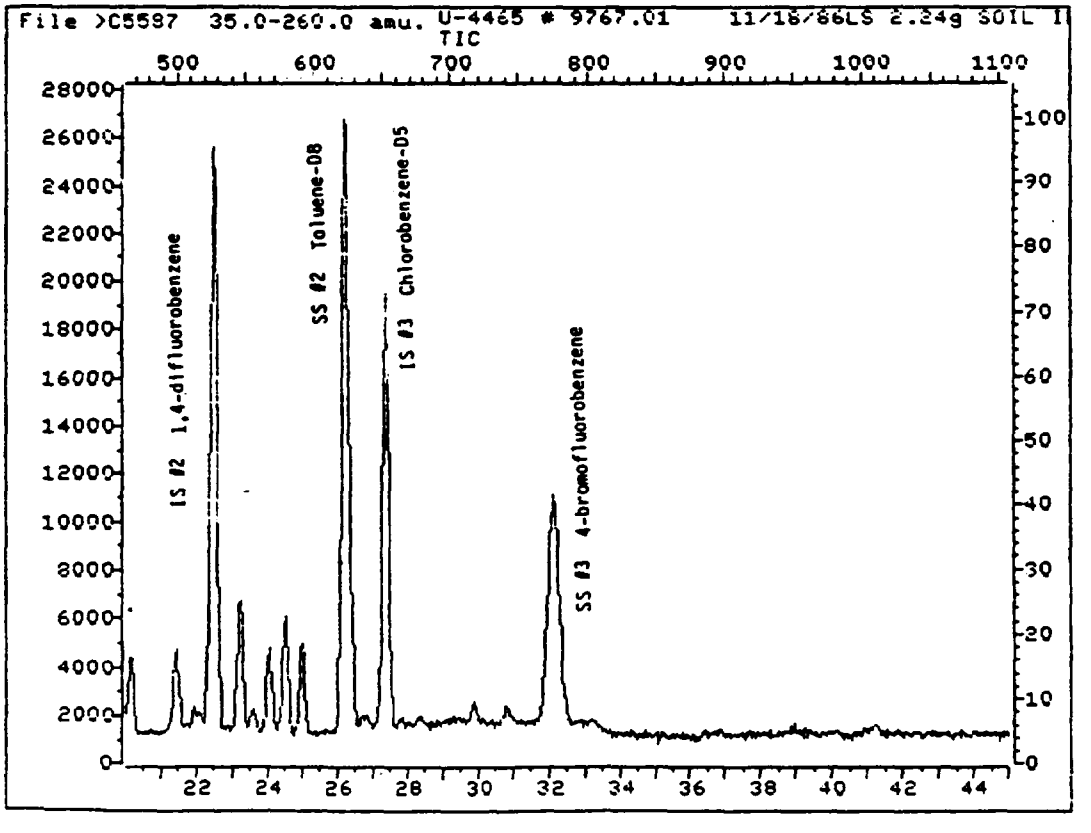
Data File: >C5587::D3
Name: U-4465 # 9767.01 DC-SS-20
Misc: 11/18/86LS 2.24g SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861118 22:56

Operator ID: USERS
Quant Time: 861119 00:19
Injected at: 861118 23:33

DC-SS-20





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861119 00:19
Output File: ^C5587::02 Injected at: 861118 23:33
Data File: >C5587::03 Dilution Factor: 1.00
Name: U-4465 # 9767.01 DC-SS-20
Misc: 11/18/86LS 2.24g SOIL IN 5ML DI + 10UL IS/SS

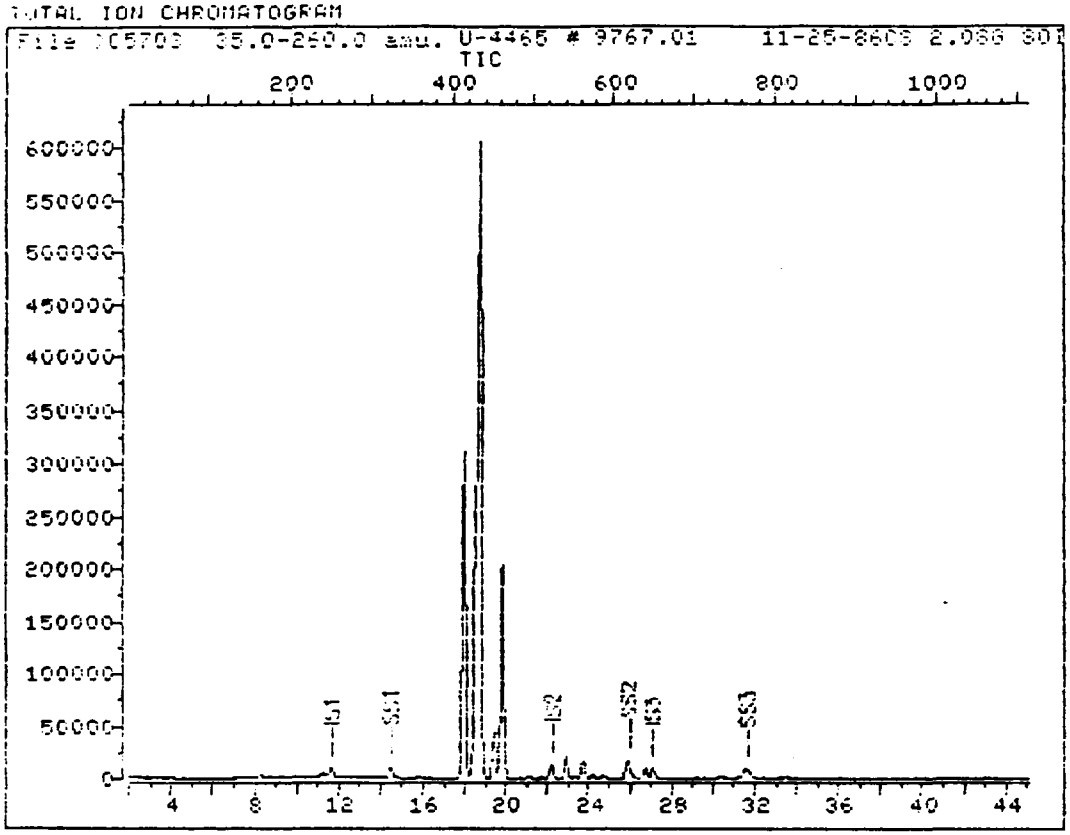
ID File: VOACRS::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861118 22:56

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.94	255	23549	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.57	168	15623	91.68	NGS	100
7)	ACETONE	43	9.50	192	3007	62.34	NGS	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.81	329	53155	228.23	NGS	87
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.50	527	102785	250.00	NGS	100
17)	2-BUTANONE	72	14.97	333	2444	73.77	NGS	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.35	652	60761	250.00	NGS	100
32)	4-METHYL-2-PENTANONE	43	23.23	546	22180	113.40	NGS	75
~~32)~~	~~4-METHYL-2-PENTANONE~~	~~43~~	~~24.05~~	~~567~~	~~6358~~	~~32.47~~	~~NGS~~	~~64~~
~~33)~~	~~2-HEXANONE~~	~~43~~	~~24.09~~	~~567~~	~~6169~~	~~40.27~~	~~NGS~~	~~100~~
~~33)~~	~~2-HEXANONE~~	~~43~~	~~24.51~~	~~579~~	~~16184~~	~~94.49~~	~~NGS~~	~~100~~
~~33)~~	~~2-HEXANONE~~	~~43~~	~~25.02~~	~~592~~	~~13938~~	~~90.65~~	~~NGS~~	~~100~~
36)	TOLUENE-D8 (SURR)	98	26.18	622	101549	280.07	NGS	94
40)	4-BROMOFLUOROBENZENE(SURR)	95	32.17	776	32060	147.11	NGS	100

NO CW

* Compound is ISTD

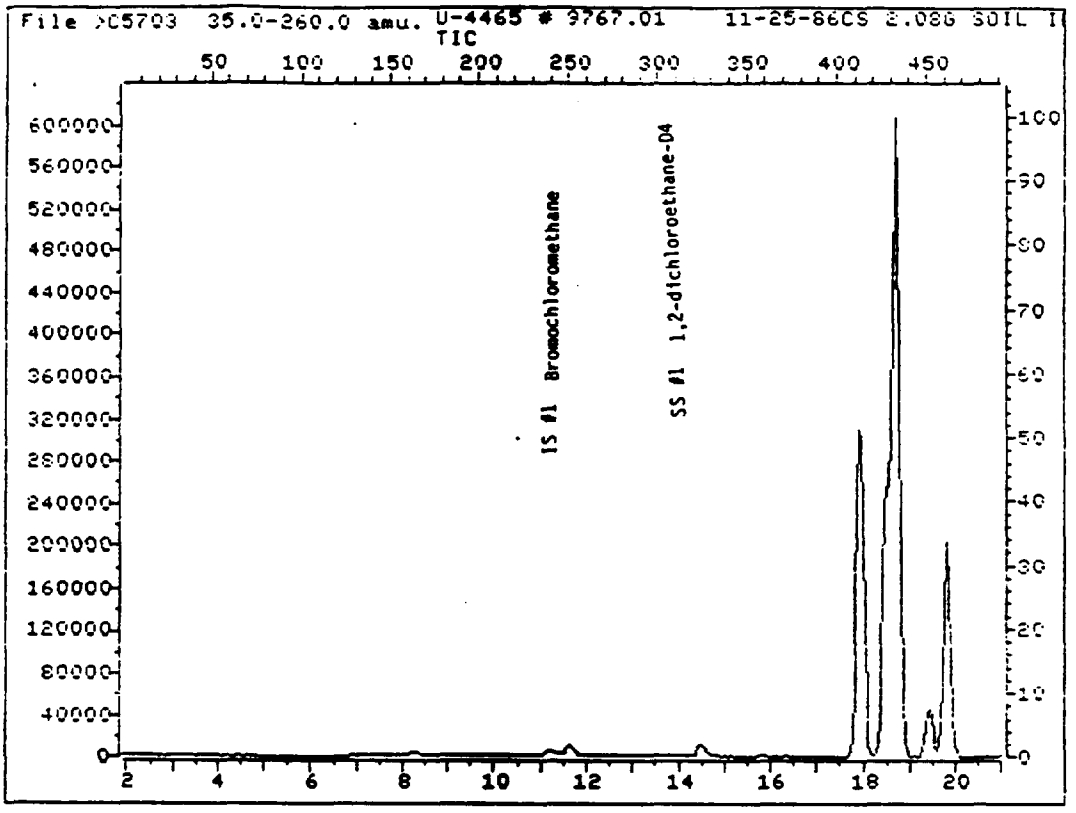
TOTAL ION CHROMATOGRAM



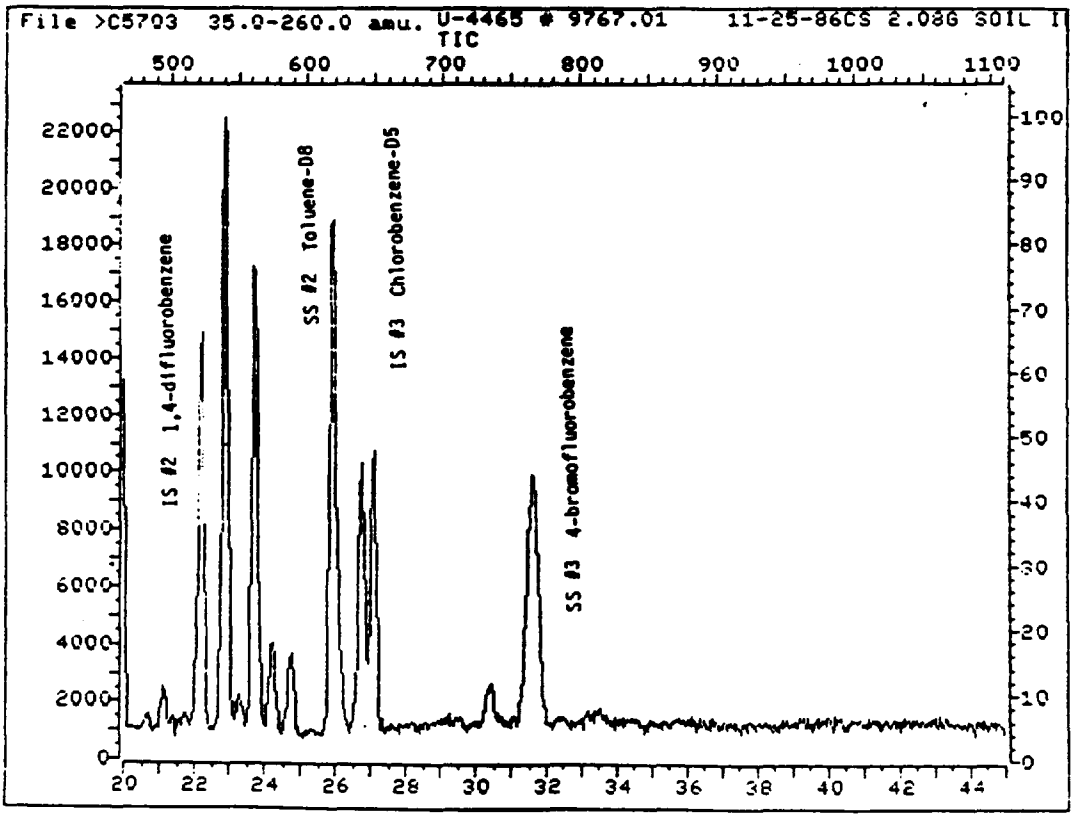
Data File: >C5703::D2
Name: U-4465 # 9767.01 DC-SS-20-RE
Misc: 11-25-86C5 2.08G SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 10:50

Operator ID: USER6
Quant Time: 861125 16:34
Injected at: 861125 15:48



DC-SS-20-RE



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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861125 16:34
Output File: ^C5703::Q2 Injected at: 861125 15:48
Data File: >C5703::D2 Dilution Factor: 1.00
Name: U-4465 # 9767.01 DC-SS-20-RE
Misc: 11-25-86CS 2.08G SOIL IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 10:50

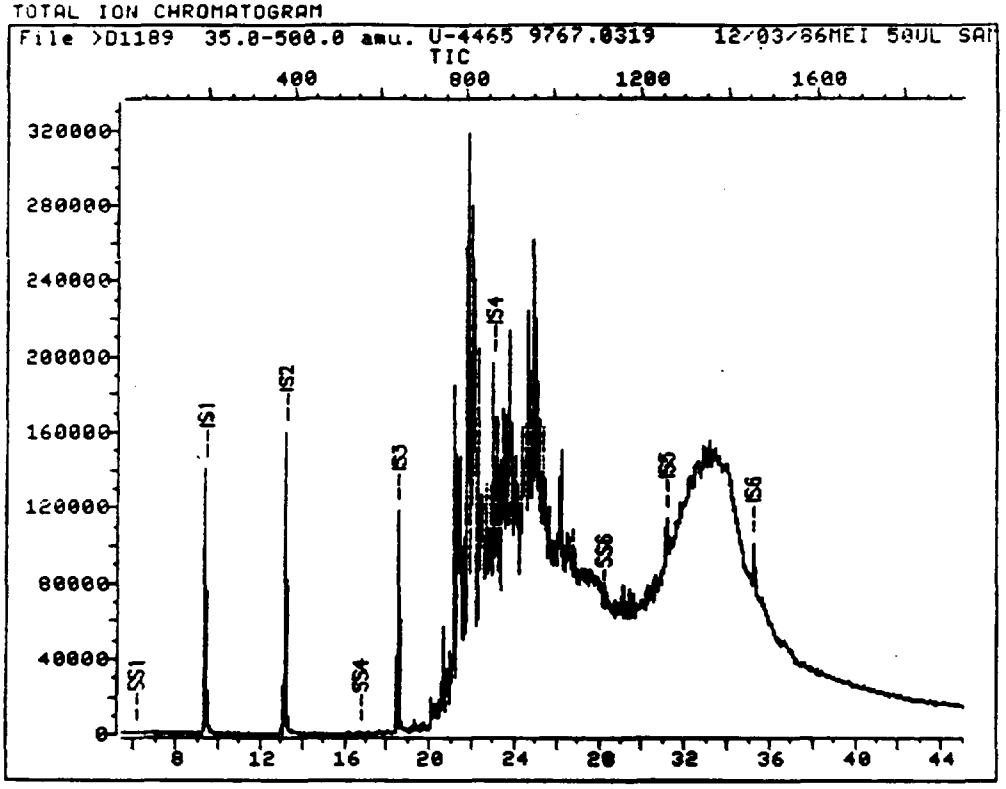
	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.65	251	13577	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.31	165	7973	101.69	NGS	100
7)	ACETONE	43	9.16	187	6939	137.60	NGS	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.48	324	44968	329.53	NGS	87
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.20	523	59187	250.00	NGS	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.05	648	32391	250.00	NGS	100
32)	4-METHYL-2-PENTANONE	43	22.86	540	94427	708.85	NGS	90
~~42)~~	~~4-METHYL-2-PENTANONE~~	~~43~~	~~23.72~~	~~562~~	~~24659~~	~~184.94~~	~~NGS~~	~~50~~
~~33)~~	~~2-HEXANONE~~	~~43~~	~~23.72~~	~~562~~	~~24659~~	~~225.99~~	~~NGS~~	~~100~~
33)	2-HEXANONE	43	24.22	575	8760	81.41	NGS	100
~~33)~~	~~2-HEXANONE~~	~~43~~	~~24.72~~	~~588~~	~~11996~~	~~107.79~~	~~NGS~~	~~100~~
36)	TOLUENE-D8 (SURR)	98	25.93	619	73277	396.63	NGS	92
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.64	766	24434	234.07	NGS	100

yes no cw

yes no cw

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >D1189::D3
Name: U-4465 9767.0319 DC-SS-20
Misc: 12/03/86MEI 50UL SAMPL. + 450UL MECL2 + 5UL IS (10X) BTL# 4

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861203 14:16

Operator ID: USER6
Quant Time: 861203 20:40
Injected at: 861203 19:53

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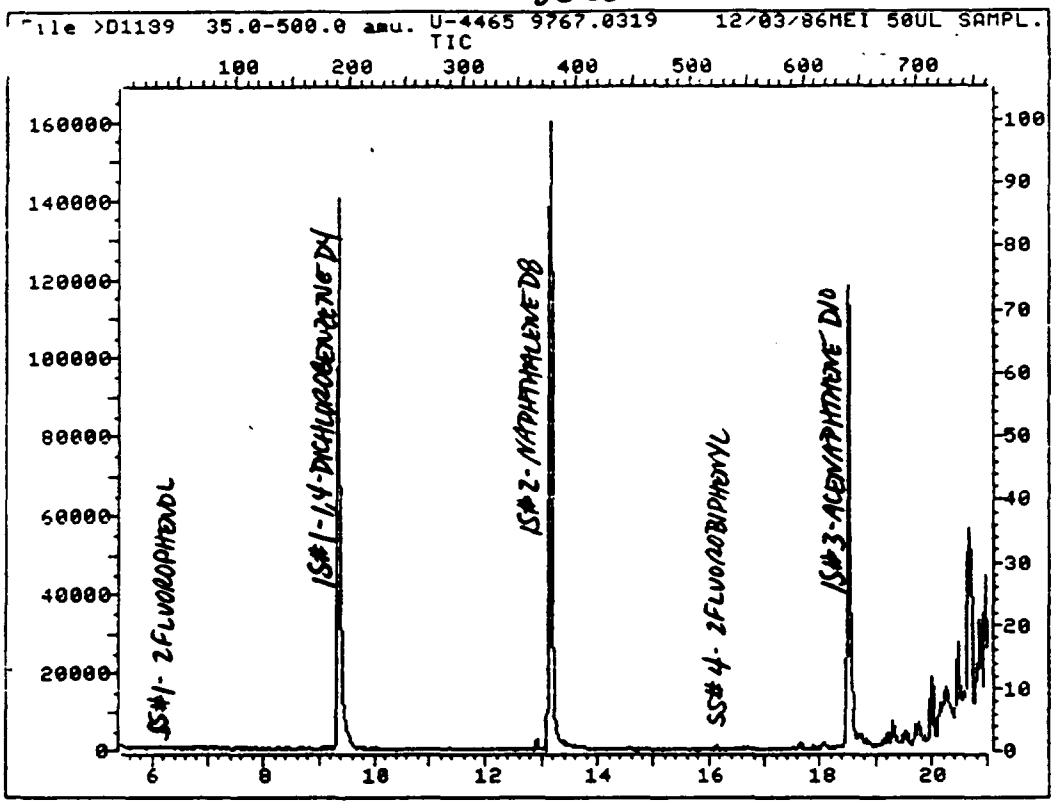
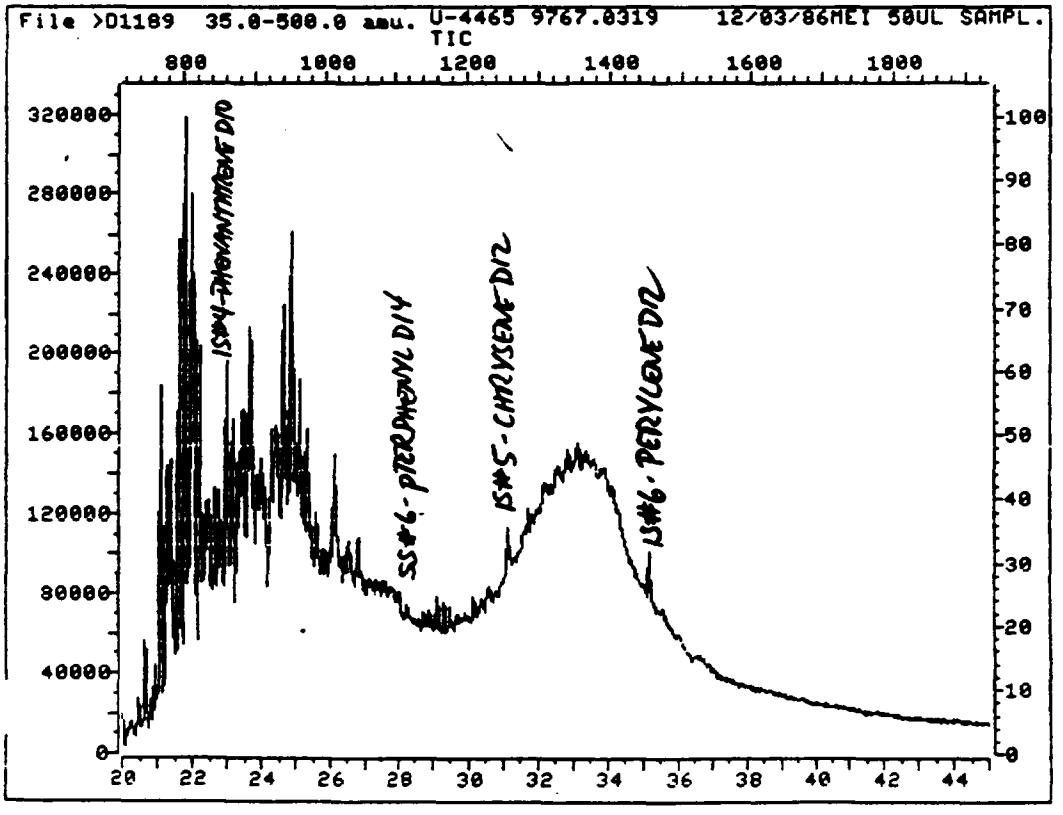
DC-SS-20





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861203 20:40
Output File: ^D1189::Q2 Injected at: 861203 19:53
Data File: >D1189::D3 Dilution Factor: 10.00
Name: U-4465 9767.0319 DC-SS-20
Misc: 12/03/86MEI 50UL SAMPL. + 450UL MECL2 + 5UL IS (10X) BTL# 4

FINAL VOLUME - 10 ml

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861203 14:16

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.34	191	72853	40.00	UG/L	84
5)	2-FLUOROPHENOL	(SURR)	112	6.09	31	595	3.20	UG/L	70
19)	*NAPHTHALENE-D8	(IS)	136	13.15	378	248901	40.00	UG/L	100
29)	NAPHTHALENE		128	13.19	380	2041	3.64	UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162	18.51	641	80440	40.00	UG/L	94
38)	2-FLUOROBIPHENYL	(SURR)	172	16.72	553	1051	3.42	UG/L	98
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.51~~	~~641~~	~~25663~~	~~77.85~~	~~UG/L~~	~~100~~
~~52)~~	~~2,6 DINITROTOLUENE~~		~~165~~	~~18.51~~	~~641~~	~~9868~~	~~144.83~~	~~UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.96	859	68108	40.00	UG/L	98
63)	DI-N-BUTYLPHTHALATE		149	25.53	984	1388	7.54	UG/L	79
65)	*CHRYSENE-D12	(IS)	240	31.12	1257	39061	40.00	UG/L	100
~~66)~~	~~BENZIDINE~~		~~184~~	~~27.43~~	~~1077~~	~~454~~	~~454.00~~	~~NO CAL~~	~~100~~
68)	TERPHENYL-D14	(SURR)	244	28.19	1114	383	4.07	UG/L	100
~~70)~~	~~3,3'DICHLOROBENZIDINE~~		~~252~~	~~31.06~~	~~1254~~	~~362~~	~~15.72~~	~~UG/L~~	~~100~~
~~70)~~	~~3,3'DICHLOROBENZIDINE~~		~~252~~	~~31.70~~	~~1285~~	~~763~~	~~33.13~~	~~UG/L~~	~~100~~
74)	*PERYLENE-D12	(IS)	264	35.17	1454	43531	40.00	UG/L	100
~~75)~~	~~DI N OCTYL PHTHALATE~~		~~149~~	~~33.40~~	~~1368~~	~~517~~	~~2.96~~	~~UG/L~~	~~100~~
~~75)~~	~~DI N OCTYL PHTHALATE~~		~~149~~	~~33.92~~	~~1393~~	~~212~~	~~1.21~~	~~UG/L~~	~~100~~
~~75)~~	~~DI N OCTYL PHTHALATE~~		~~149~~	~~33.96~~	~~1395~~	~~528~~	~~3.00~~	~~UG/L~~	~~100~~
~~75)~~	~~DI N OCTYL PHTHALATE~~		~~149~~	~~34.10~~	~~1402~~	~~905~~	~~5.15~~	~~UG/L~~	~~100~~
~~75)~~	~~DI N OCTYL PHTHALATE~~		~~149~~	~~34.19~~	~~1406~~	~~453~~	~~2.58~~	~~UG/L~~	~~100~~

* Compound is ISTD

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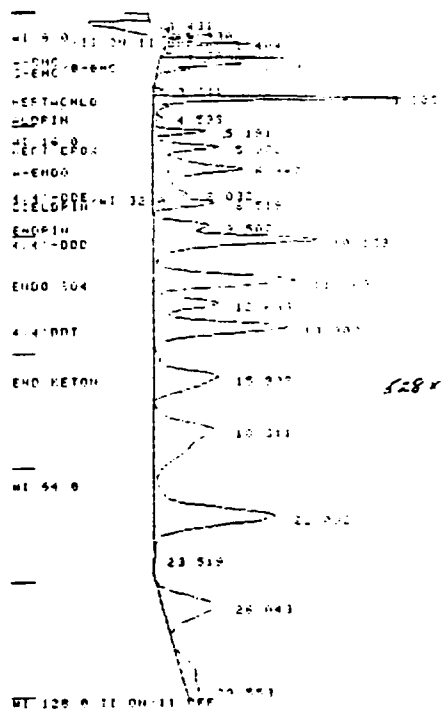


639,000

CHANNEL: 14 - 1 TITLE: Run# 24 4:74

SAMPLE: 8757 METHOD: PEAK CONCENTRATIONS: PG = NANOGRAMS

DC-SS-20

PEAK NO	PEAK NAME	RESULT UG/KG	TIME	TIME OFFSET	[illegible]	[illegible]	[illegible]
1		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
2	[illegible]	4325.068	[illegible]	-0.037	[illegible]	[illegible]	[illegible]
3	[illegible]	11255.77	[illegible]	0.097	[illegible]	[illegible]	[illegible]
4	[illegible]	1612.220	[illegible]	-0.017	[illegible]	[illegible]	[illegible]
Confirm 5	[illegible] NO	16068.69	[illegible]	-0.032	[illegible]	[illegible]	[illegible]
6		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
7	[illegible]	952.6175	[illegible]	-0.142	[illegible]	[illegible]	[illegible]
8		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
9	[illegible]	8650.704	[illegible]	0.212	[illegible]	[illegible]	[illegible]
10	[illegible]	23189.19	[illegible]	-0.203	[illegible]	[illegible]	[illegible]
11	[illegible]	6277.513	[illegible]	-0.183	[illegible]	[illegible]	[illegible]
12	DIELDRIN	9479.932	[illegible]	0.169	[illegible]	[illegible]	[illegible]
13	[illegible]	10932.07	[illegible]	0.027	[illegible]	[illegible]	[illegible]
14	[illegible]	39471.14	10.175	-0.151	[illegible]	[illegible]	[illegible]
15	[illegible]	44914.92	11.465	-0.241	[illegible]	[illegible]	[illegible]
16		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
17	[illegible]	73364.11	13.985	0.439	[illegible]	[illegible]	[illegible]
18	END KETON	23359.66	15.979	0.478	[illegible]	[illegible]	[illegible]
19		0.0000	16.311		[illegible]	[illegible]	[illegible]
20		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
21	[illegible]	28448.32	[illegible]	-0.597	[illegible]	[illegible]	[illegible]
22		0.0000	19.553		[illegible]	[illegible]	[illegible]

TOTALS: 304724.9 -0.552 [illegible]

DETECTED PKS: 33 REJECTED PKS: 11

DIVISOR: 1.00000 MULTIPLIER: 1000000.00

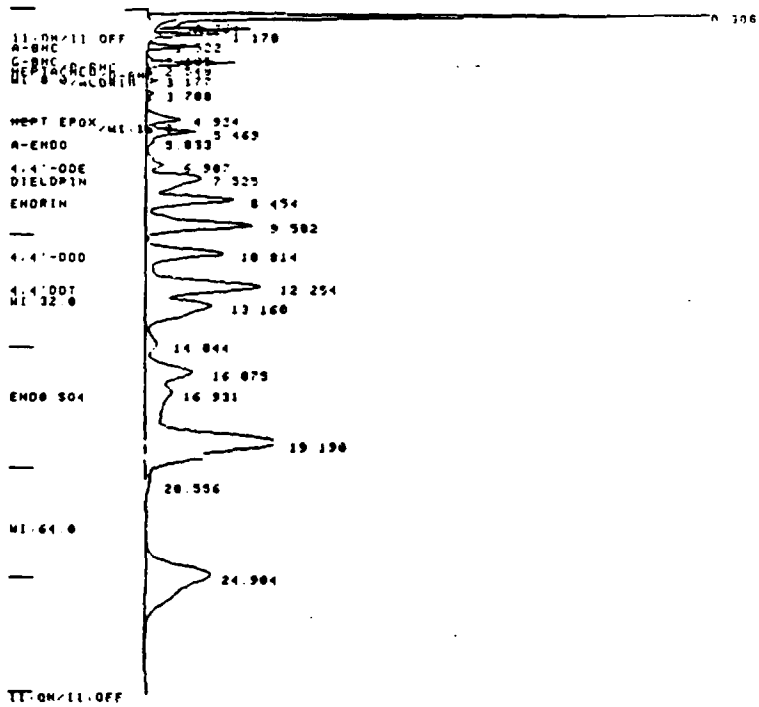
NOISE: 24.3 OFFSET: -17

PACK: 2 VIAL: 9 [illegible]

NOTES:
NOTEBOOK: [illegible]
SECURE AREA: [illegible]
INST: VARIAN [illegible]
COLUMN: [illegible] GLASS 4MM ID [illegible]
LIQUID PHASE: [illegible]
CARRIER GAS: N2 [illegible] ML/MIN.
TEMP: [illegible]
[illegible] THERMAL 4 UL INJECTION
AUTOSAMPLER
[illegible]

400

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 1B - 1 TITLE: RUN# 18 1:04 2 DEC 86

SAMPLE: 9767 METHOD: PEPA CALCULATION: ES - ANALYS DC-SS-20

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~A-BHC~~	1201.742	1.623	-0.047	67320	VB	3.38
2	~~B-BHC~~	9026.048	2.320	-0.080	159467	VV	5.69
3	~~ALDRIN~~	811.7656	3.177	0.047	36157	BB	9.63
4		0.0000	3.780		22239	BV	10.13
5	~~HEPT EPOX~~	4447.012	4.924	0.224	175813	VV	14.75
6		0.0000	5.469		241939	VV	15.25
7	~~A-ENDO~~	749.6935	5.833	-0.077	20075	VV	? 27.00
8	~~4,4'-DDE~~	3202.736	6.987	0.107	120005	VV	21.50
9	~~DIELDRIN~~	12756.19	7.525	0.295	511954	VV	36.25
10	~~ENDRIN~~	19619.84	8.454	-0.326	528834	VV	20.94
11		0.0000	9.582		780904	VV	23.25
12	~~B-ENDOSUL~~	16945.43	10.814	0.194	599228	VV	26.88
13	~~4,4'-DDT~~	46083.76	12.254	-0.266	1022125	VV	30.25
14		0.0000	13.160		809821	VV	48.19
15		0.0000	14.844		137291	VV	46.00
16		0.0000	16.075		529831	VV	42.69
17	~~ENDO SO4~~	36290.25	16.931	-0.009	544443	VV	? 63.75
18		0.0000	19.190		1671858	VV	43.38
19	~~METHOXYCH~~	168840.0	24.883	0.883	1396077	BB	72.50
TOTALS:		319974.5		0.945	9383381		

1260

DETECTED PKS: 33 REJECTED PKS: 14

DIVISOR: 1.50000 MULTIPLIER: 1000000.00

NOISE: 68.6 OFFSET: -9

RACK: 2 VIAL: 1 INJ: 1

NOTES:
NOTEBOOK: 259-44 ANALYST: RICHARD SAMSON
SECURE AREA: D J08#:U-4465
INST: VARIAN 600#2 @ ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

POST RUN:
SAVE FILE: RAW CREEK706

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ecology and environment

SAMPLE NUMBER DC-SS-21

481095

Sample Number
DC-SS-21

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465

Lab Sample ID No: 9768 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-19-86

Conc./Dil Factor: 3 pH 6.9

Percent Moisture: (Not Decanted) 21

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	52 B
67-64-1	Acetone	310 B
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	40 B
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	40
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	19
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Sample Number
DC-SS-21-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4465
Lab Sample ID No: 9768 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [illegible] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-27-86

Conc./Dil Factor: 10 pH 6.9

Percent Moisture: (Not Decanted) 21

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	100u
74-83-9	Bromomethane	100u
75-01-4	Vinyl Chloride	100u
75-00-3	Chloroethane	100u
75-09-2	Methylene Chloride	160 B
67-64-1	Acetone	400 B
75-15-0	Carbon Disulfide	50u
75-35-4	1, 1-Dichloroethene	50u
75-34-3	1, 1-Dichloroethane	50u
156-60-5	Trans-1, 2-Dichloroethene	50u
67-66-3	Chloroform	50u
107-06-2	1, 2-Dichloroethane	50u
78-93-3	2-Butanone	100u
71-55-6	1, 1, 1-Trichloroethane	50u
56-23-5	Carbon Tetrachloride	50u
108-05-4	Vinyl Acetate	100u
75-27-4	Bromodichloromethane	50u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	50u
10061-02-6	Trans-1, 3-Dichloropropene	50u
79-01-6	Trichloroethene	50u
124-48-1	Dibromochloromethane	50u
79-00-5	1, 1, 2-Trichloroethane	50u
71-43-2	Benzene	50u
10061-01-5	cis-1, 3-Dichloropropene	50u
110-75-8	2-Chloroethylvinylether	100u
75-25-2	Bromoform	50u
108-10-1	4-Methyl-2-Pentanone	160
591-78-6	2-Hexanone	23 BJ
127-18-4	Tetrachloroethene	40 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	50u
108-88-3	Toluene	50u
108-90-7	Chlorobenzene	50u
100-41-4	Ethylbenzene	50u
100-42-5	Styrene	50u
	Total Xylenes	50u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number DC-SS-21

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-4-86

Conc/Dil Factor 10,000

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	2,000,000 U
111-44-4	bis(-2-Chloroethyl)Ether	2,000,000 U
95-57-8	2-Chlorophenol	2,000,000 U
541-73-1	1 3-Dichlorobenzene	2,000,000 U
106-46-7	1. 4-Dichlorobenzene	22,000,000
100-51-6	Benzyl Alcohol	2,000,000 U
95-50-1	1. 2-Dichlorobenzene	2,000,000 U
95-48-7	2-Methylphenol	2,000,000 U
39638-32-9	bis(2-chloroisopropyl)Ether	2,000,000 U
106-44-5	4-Methylphenol	2,000,000 U
621-64-7	N-Nitroso-Di-n-Propylamine	2,000,000 U
67-72-1	Hexachloroethane	2,000,000 U
98-95-3	Nitrobenzene	2,000,000 U
78-59-1	Isophorone	2,000,000 U
88-75-5	2-Nitrophenol	2,000,000 U
105-67-9	2. 4-Dimethylphenol	2,000,000 U
65-85-0	Benzoic Acid	10,000,000 U
111-91-1	bis(-2-Chloroethoxy)Methane	2,000,000 U
120-83-2	2. 4-Dichlorophenol	2,000,000 U
120-82-1	1. 2. 4-Trichlorobenzene	2,000,000 U
91-20-3	Naphthalene	2,000,000 U
106-47-8	4-Chloroaniline	2,000,000 U
87-68-3	Hexachlorobutadiene	2,000,000 U
59-50-7	4-Chloro-3-Methylphenol	2,000,000 U
91-57-6	2-Methylnaphthalene	2,000,000 U
77-47-4	Hexachlorocyclopentadiene	2,000,000 U
88-06-2	2 4 6-Trichlorophenol	2,000,000 U
95-95-4	2. 4. 5-Trichlorophenol	10,000,000 U
91-58-7	2-Chloronaphthalene	2,000,000 U
88-74-4	2-Nitroaniline	10,000,000 U
131-11-3	Dimethyl Phthalate	2,000,000 U
208-96-8	Acenaphthylene	2,000,000 U
99-09-2	3-Nitroaniline	10,000,000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	2,000,000 U
51-28-5	2. 4-Dinitrophenol	10,000,000 U
100-02-7	4-Nitrophenol	10,000,000 U
132-64-9	Dibenzofuran	2,000,000 U
121-14-2	2 4-Dinitrotoluene	2,000,000 U
606-20-2	2 6-Dinitrotoluene	2,000,000 U
84-66-2	Diethylphthalate	2,000,000 U
7005-72-3	4-Chlorophenyl-phenylether	2,000,000 U
86-73-7	Fluorene	2,000,000 U
100-01-6	4-Nitroaniline	10,000,000 U
534-52-1	4. 6-Dinitro-2-Methylphenol	10,000,000 U
86-30-6	N-Nitrosodiphenylamine (1)	2,000,000 U
101-55-3	4-Bromophenyl-phenylether	2,000,000 U
118-74-1	Hexachlorobenzene	2,000,000 U
87-86-5	Pentachlorophenol	10,000,000 U
85-01-8	Phenanthrene	2,000,000 U
120-12-7	Anthracene	2,000,000 U
84-74-2	Di-n-Butylphthalate	2,000,000 U
206-44-0	Fluoranthene	2,000,000 U
129-00-0	Pyrene	2,000,000 U
85-68-7	Butylbenzylphthalate	2,000,000 U
91-94-1	3. 3'-Dichlorobenzidine	4,000,000 U
56-55-3	Benzo(a)Anthracene	2,000,000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	2,000,000 U
218-01-9	Chrysene	2,000,000 U
117-84-0	Di-n-Octyl Phthalate	2,000,000 U
205-99-2	Benzo(b)Fluoranthene	2,000,000 U
207-08-9	Benzo(k)Fluoranthene	2,000,000 U
50-32-8	Benzo(a)Pyrene	2,000,000 U
193-39-5	Indeno(1 2. 3-cd)Pyrene	2,000,000 U
53-70-3	Dibenz(a h)Anthracene	2,000,000 U
191-24-2	Benzo(g h. i)Perylene	2,000,000 U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-21

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor: 5,000

Percent Moisture (decanted) 21.1

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	80,000 u
319-85-7	Beta-BHC	80,000 u
319-86-8	Delta-BHC	80,000 u
58-89-9	Gamma-BHC (Lindane)	80,000 u
76-44-8	Heptachlor	80,000 u
309-00-2	Aldrin	80,000 u
1024-57-3	Heptachlor Epoxide	80,000 u
959-98-8	Endosulfan I	80,000 u
60-57-1	Dieldrin	160,000 u
72-55-9	4,4'-DDE	160,000 u
72-20-8	Endrin	160,000 u
33213-65-9	Endosulfan II	160,000 u
72-54-8	4,4'-DDD	160,000 u
1031-07-8	Endosulfan Sulfate	160,000 u
50-29-3	4,4'-DDT	160,000 u
72-43-5	Methoxychlor	800,000 u
53494-70-5	Endrin Ketone	160,000 u
57-74-9	Chlordane	800,000 u
8001-35-2	Toxaphene	1,600,000 u
12674-11-2	Aroclor-1016	800,000 u
11104-28-2	Aroclor-1221	800,000 u
11141-16-5	Aroclor-1232	800,000 u
53469-21-9	Aroclor-1242	800,000 u
12672-29-6	Aroclor-1248	800,000 u
11097-69-1	Aroclor-1254	2,700,000
11096-82-5	Aroclor-1260	1,600,000 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-21

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1. 106467	1,4-Dichlorobenzene	VOA	39.4	49000 J
2.				
3.	No Semi-Volatile Compounds Found			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
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27.				
28.				
29.				
30				

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Laboratory Name ecology and environment, inc.

Case No 4-4465

Sample Number DC-SS-21-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	18.0	42 J
2.	Hexene isomer	VOA	18.8	94 J
3. 106467	1,4-Dichlorobenzene	VOA	38.5	130000 J
4.				
5.				
6.				
7.				
8.				
9.				
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11.				
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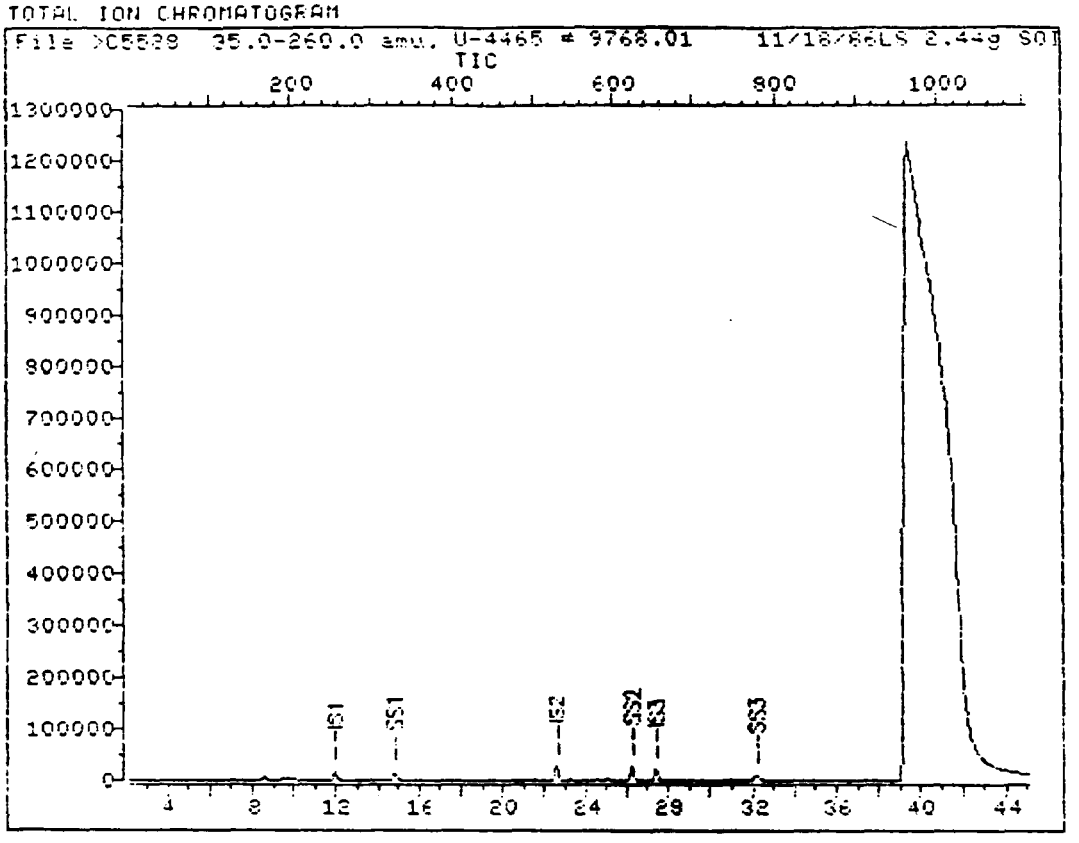
29.				
30				

TOTAL ION CHROMATOGRAM



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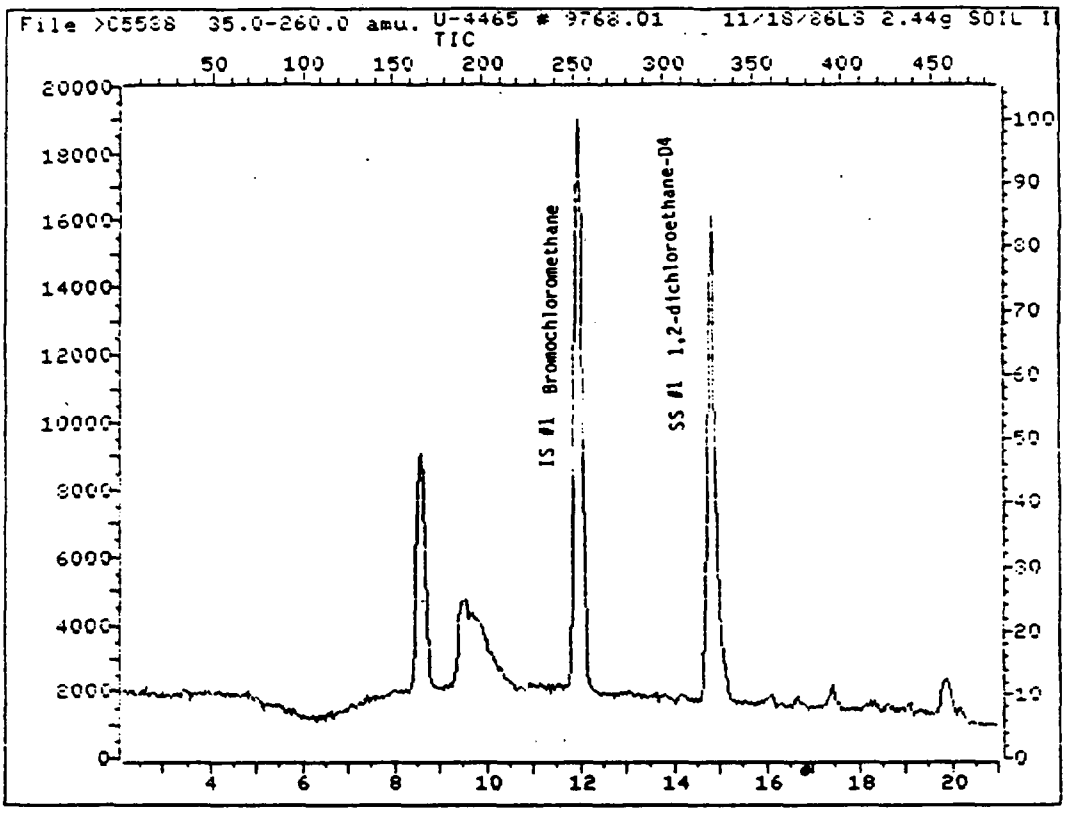
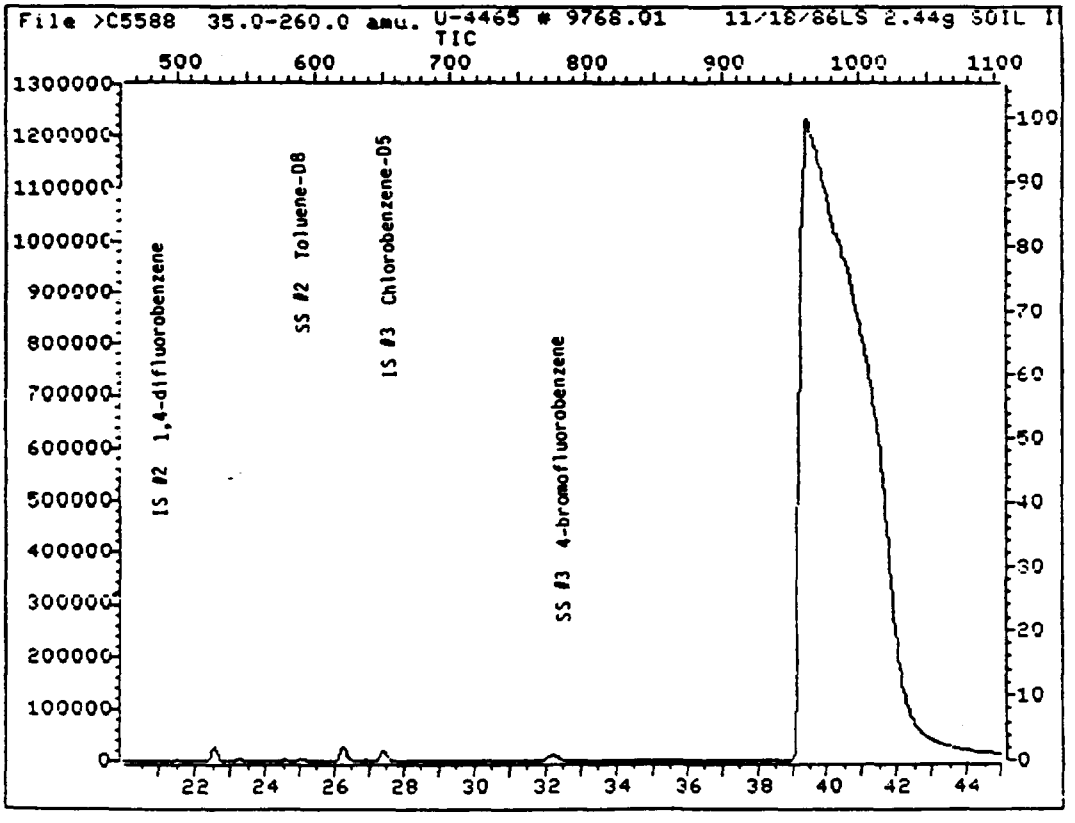
Name: U-4465 # 9768.01 DC-SS-21
Misc: 11/18/86LS 2.44g SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861118 22:56

Operator ID: USER8
Quant Time: 861119 01:15
Injected at: 861119 00:29

DC.-SS-21





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861119 01:15
Output File: ^C5588::D2 Injected at: 861119 00:29
Data File: >C5588::D3 Dilution Factor: 1.00
Name: U-4465 # 9768.01 DC-SS-21
Misc: 11/18/86LS 2.44g SOIL IN 5ML DI + 10UL IS/SS

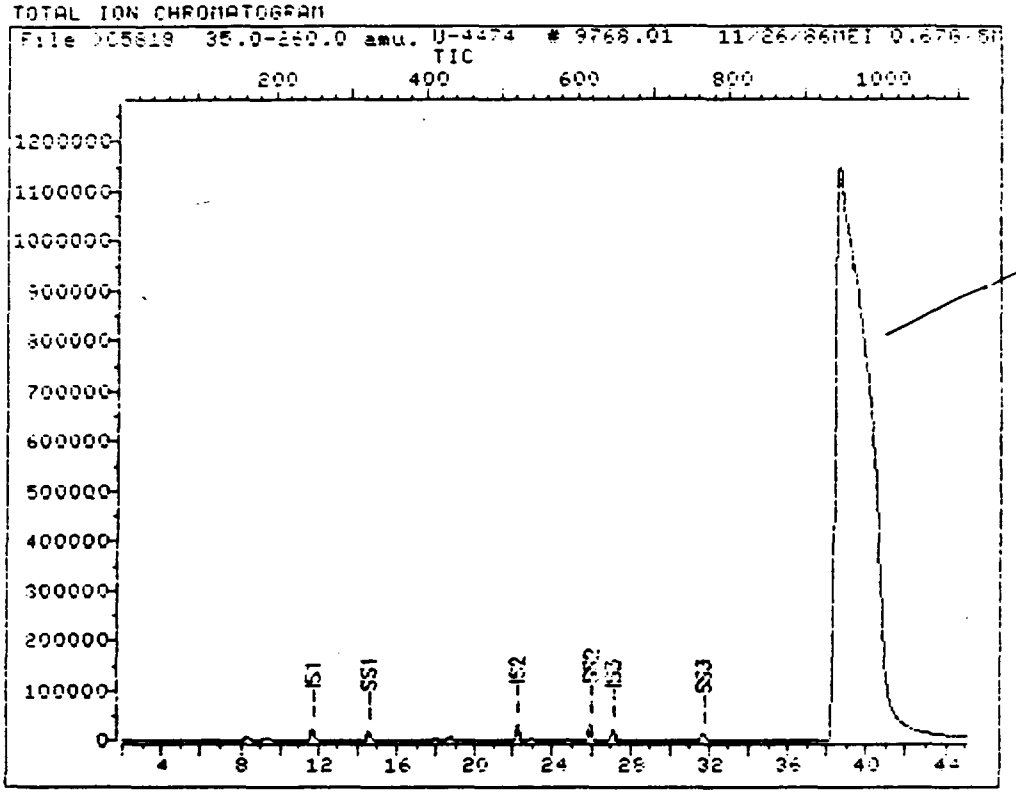
ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861118 22:56

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.93	253	25179	250.00	NGS	101
6)	METHYLENE CHLORIDE		84	8.56	166	18344	100.67	NGS	100
7)	ACETONE		43	9.49	190	31118	603.32	NGS	10[illegible]
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.80	327	57501	230.90	NGS	87
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.56	527	123695	250.00	NGS	100
17)	2-BUTANONE		72	15.00	332	3129	78.48	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.42	652	72366	250.00	NGS	100
32)	4-METHYL-2-PENTANONE		43	23.26	545	17859	76.66	NGS	95
~~33)~~	~~2-HEXANONE~~		~~43~~	~~24.58~~	~~579~~	~~6681~~	~~36.58~~	~~NGS~~	~~[illegible]~~
~~33)~~	~~2-HEXANONE~~		~~43~~	~~25.35~~	~~571~~	~~5506~~	~~29.05~~	~~NGS~~	~~100~~
34)	TETRACHLOROETHENE		164	25.08	592	5062	36.19	NGS	92
36)	TOLUENE-D8	(SURR)	98	26.25	622	115138	266.62	NGS	99
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.19	775	39865	153.58	NGS	100

* Compound is ISTD

to CW

TOTAL ION CHROMATOGRAM



carryover from previous analysis
See original data
7C5588

Data File: >C5818::D3
Name: U-4474 # 9768.01 DC-SS-21-RE
Misc: 11/26/86MEI 0.67G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861126 21:46

Operator ID: USER6
Quant Time: 861127 12:27
Injected at: 861127 04:41

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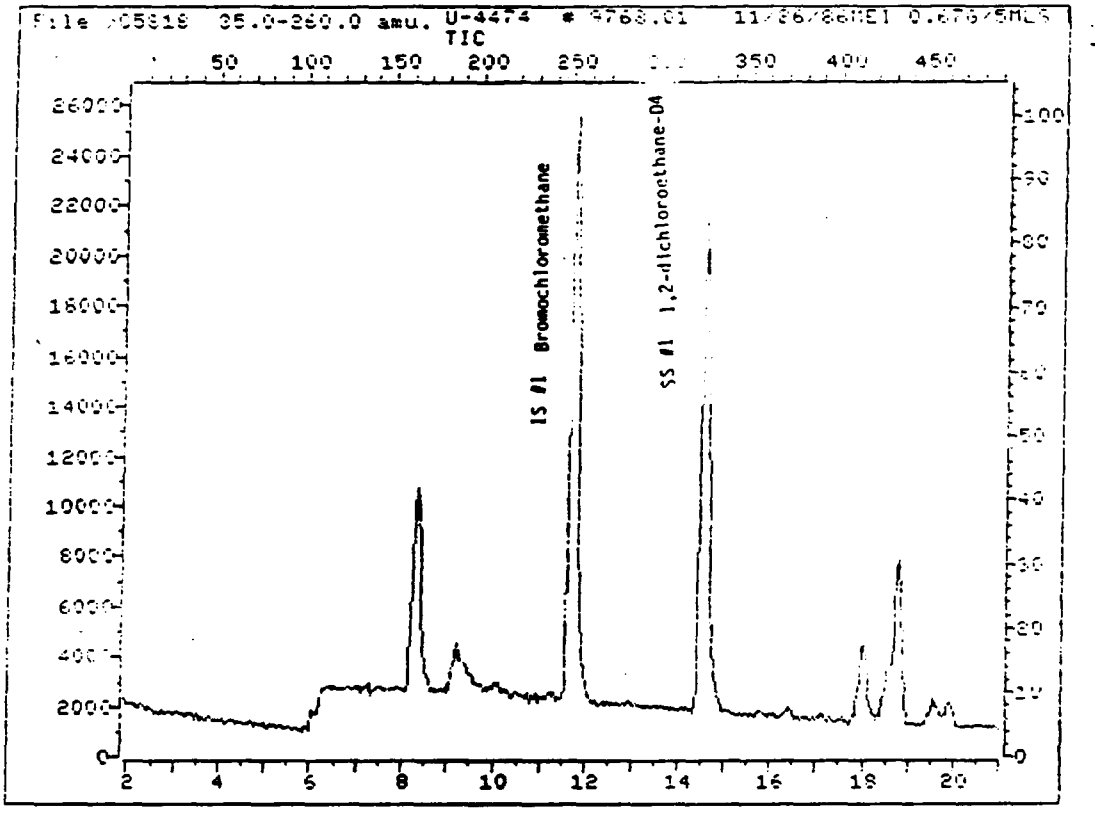
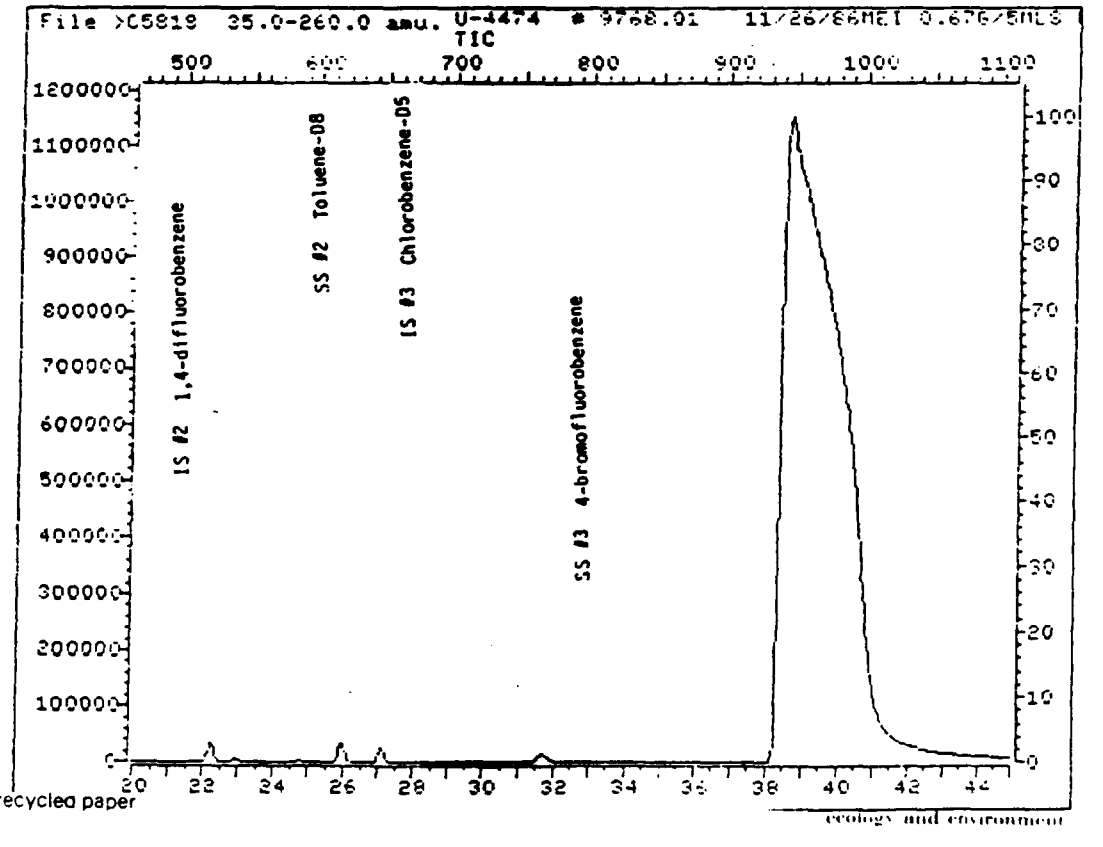
ecology and environment

DC-SS-21 KC





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861127 [illegible]:27
Output File: ^C5818::Q2 Injected at: 861127 0[illegible]:41
Data File: >C5818::D3 Dilution Factor: 1.00
Name: U-4474 # 9768.01 DC-SS 21-RE
Misc: 11/26/86MEI 0.67G/5MLS DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861126 21:46

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.72	253	35337	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.31	165	23187	85.68	NGS	100
7)	ACETONE	43	9.20	188	29134	211.65	NGS	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.56	326	79343	184.65	NGS	89
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.24	524	144581	250.00	NGS	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.13	650	79834	250.00	NGS	100
32)	4-METHYL-2-PENTANONE	43	22.94	542	26155	86.18	NGS	85
33)	~~2-HEXANONE~~	~~43~~	~~23.83~~	~~565~~	~~2332~~	~~10.04~~	~~NGS~~	100
~~33)~~	~~2-HEXANONE~~	~~43~~	~~24.26~~	~~576~~	~~3659~~	~~15.75~~	~~NGS~~	100
33)	2-HEXANONE	43	24.80	590	2884	12.41	NGS	100
34)	TETRACHLOROETHENE	164	24.76	589	3415	21.03	NGS	94
36)	TOLUENE-D8 (SURR)	98	25.96	620	88735	207.93	NGS	91
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.71	768	48806	228.66	NGS	100
43)	~~1,3-DICHLOROBENZENE~~	~~146~~	~~38.54~~	~~944~~	~~3808554~~	~~3808554.~~	~~NG CALIB~~	100
44)	~~1,2-DICHLOROBENZENE~~		~~38.54~~	~~944~~	~~3808554~~	~~3808554.~~	~~NG CALIB~~	100
45)	~~1,4-DICHLOROBENZENE~~	~~146~~	~~38.54~~	~~944~~	~~3808554~~	~~3808554.~~	~~NG CALIB~~	100

* Compound is ISTD

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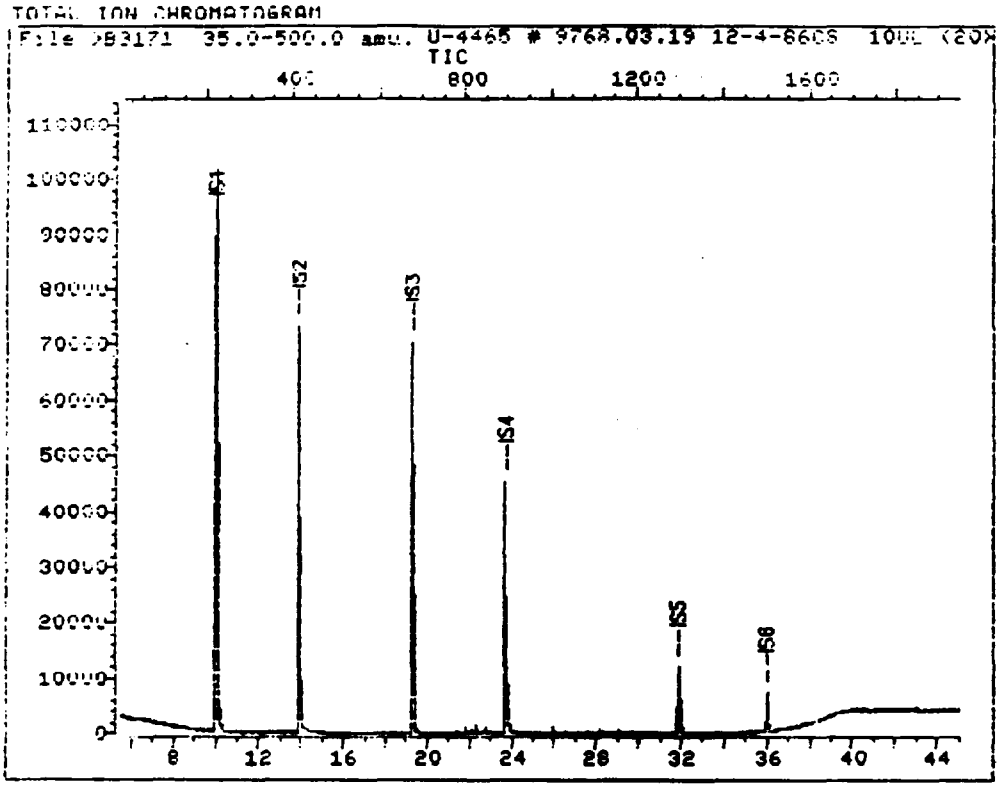

Data File: >83171::D4
Name: U-4465 # 9768.03.19 DC-SS-21
Misc: 12-4-86CS 10UL (20X) SMPL + 990UL MEOL2 + 10UL IS (2,

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861204 15:13

Operator ID: USER6
Quant Time: 861204 15:53
Injected at: 861204 14:50

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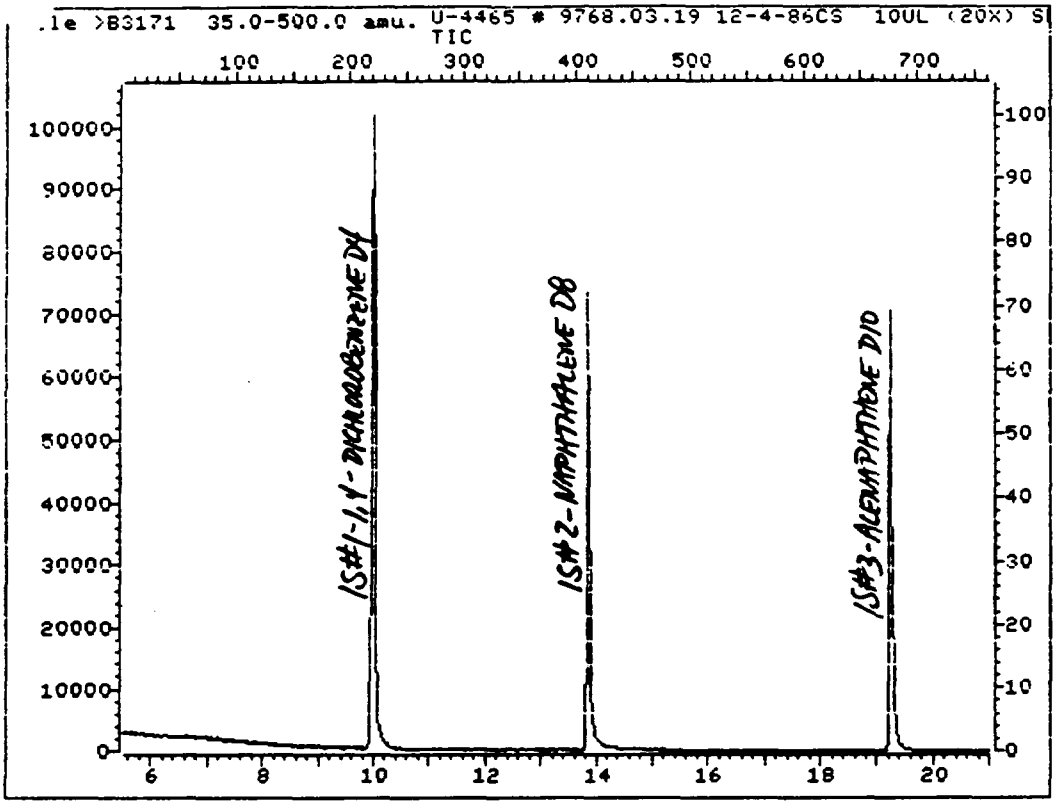
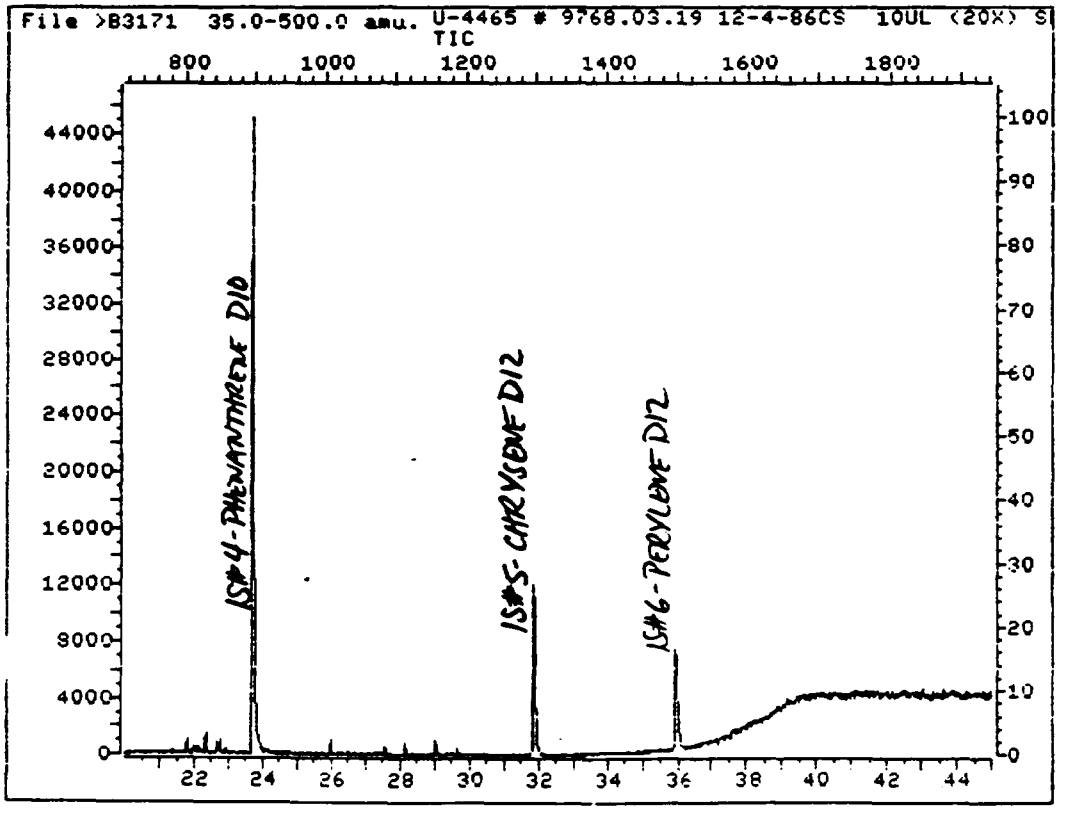
DC-SS-21





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ecology and environment

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861204 15:53
Output File: ^B3171::Q2 Injected at: 861204 14:50
Data File: >B3171::D4 Dilution Factor: 2000.000
Name: U-4465 # 9768.03.19 DC-SS-21
Misc: 12-4-86CS 10UL (20X) SMPL + 950UL MECL2 + 10UL IS (2,

FINAL VOLUME : 5.0 ml

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861204 15:13

	Compound		m/z	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.97	220	39554	40.00	UG/L	89
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~10.01~~	~~222~~	~~67893~~	~~103312.7~~	~~UG/L~~ No GA	97
10)	1,4-DICHLOROBENZENE		146	10.01	222	67893	102060.0	UG/L	94
19)	*NAPHTHALENE-D8	(IS)	136	13.85	411	116385	40.00	UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162	19.24	676	57585	40.00	UG/L	97
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.24~~	~~676~~	~~16642~~	~~16880.54~~	~~UG/L~~	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.24~~	~~676~~	~~7014~~	~~32872.69~~	~~UG/L~~ No GA	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	23.69	895	81079	40.00	UG/L	96
65)	*CHRYSENE-D12	(IS)	240	31.85	1297	26369	40.00	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.94	1498	17310	40.00	UG/L	100

* Compound is ISTD

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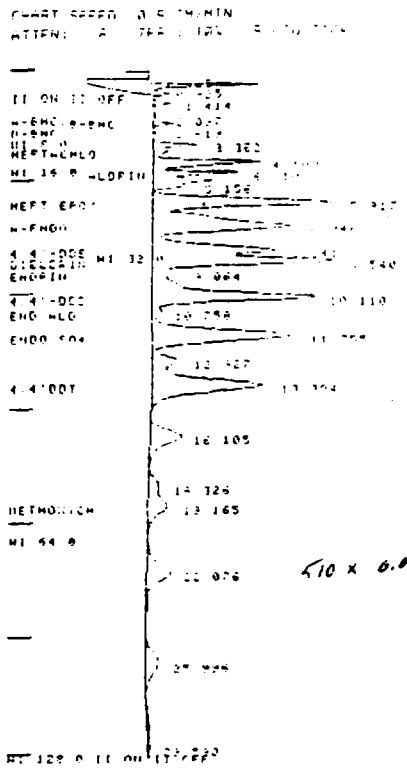


510 × 0.00125 × 1/1.59 × 5000000 = 2,700,000 ug/kg 1254
1.18

CHANNEL: 1A - 1 TITLE: RUN# 37 DC-SS-21

SAMPLE: 5768 OF=5,000 METHOD: CFRA

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	[illegible]	[illegible]	[illegible]
1		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
2	HEPTACHLO	5750.969	[illegible]	-0.157	[illegible]	[illegible]	[illegible]
3		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
4	ALDRIN	21985.66	[illegible]	-0.130	[illegible]	[illegible]	[illegible]
5		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
6		0.0000	5.156		[illegible]	[illegible]	[illegible]
7	HEPT EPOX	89045.80	5.917	0.157	[illegible]	[illegible]	[illegible]
8	A-ENDO	111674.1	6.945	-0.204	[illegible]	[illegible]	[illegible]
9	4,4'-DDE	75478.63	8.041	-0.179	[illegible]	[illegible]	[illegible]
10	DIELDRIN	96090.11	8.540	0.210	[illegible]	[illegible]	[illegible]
11	ENDRIN	11662.72	[illegible]	-0.216	[illegible]	[illegible]	[illegible]
12	4,4'-DDD	123483.9	10.110	-0.220	[illegible]	[illegible]	[illegible]
13	END ALD	7634.262	10.755	0.338	[illegible]	[illegible]	[illegible]
14	ENDO SO4	146289.8	11.755	-0.355	[illegible]	[illegible]	[illegible]
15		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
16	4,4'-DDT	221369.2	13.904	0.434	[illegible]	[illegible]	[illegible]
17	END ALDRIN	31448.50	16.105	0.585	[illegible]	[illegible]	[illegible]
18		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
19	METHOXYCH	60073.46	19.165	-0.545	[illegible]	[illegible]	[illegible]
20		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
21	DDD	24673.33	[illegible]	-1.034	[illegible]	[illegible]	[illegible]
22		0.0000	29.590		[illegible]	[illegible]	[illegible]

1254

510

TOTALS: 1036690. -1.416 [illegible]

DETECTED PKS: 35 REJECTED PKS: 13

DIVISOR: 1.50000 MULTIPLIER: 5000000.00

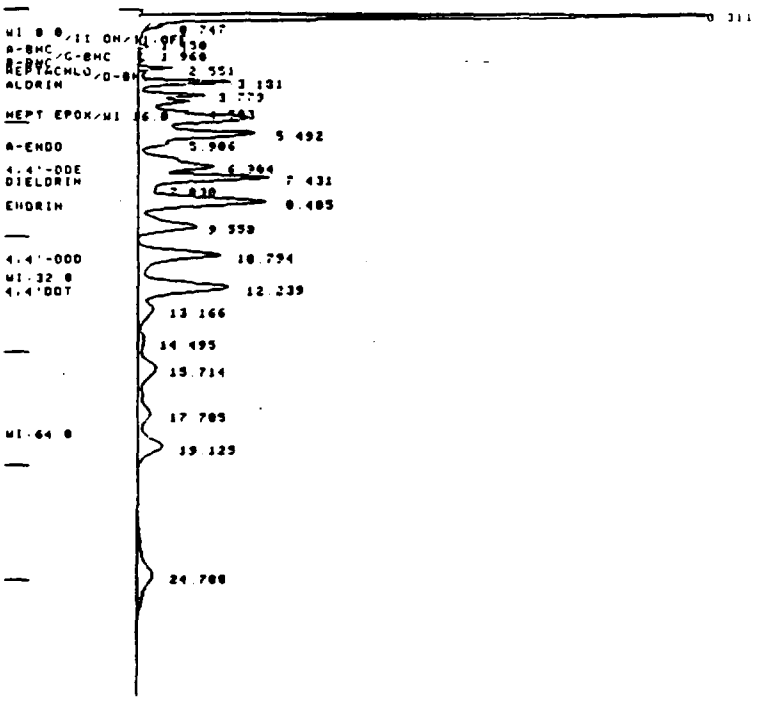
NOISE: 34.3 OFFSET: -7

RACK: 2 VIAL: 12 INT: 1

NOTES:
NOTEBOOK:255-41 ANALYST: [illegible] R. SAMSON
SECURE AREA: [illegible]
INST:VARIAN 6000# A ECD [illegible]
COLUMN: 5' GLASS 4MM ID 100 [illegible]
LIQUID PHASE:3% [illegible]
CARRIER GAS: [illegible] ML/MIN
DET:300 [illegible]
200 C ISOTHERMAL [illegible] INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

418

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 18 - 1 TITLE: RUN# 19 1:37 2 DEC 86

SAMPLE: 9768 METHOD: PEPA CALCULATION: ES - ANALYS DC-SS-21

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1	~~HEPTACHLO~~	7056.884	2.540	-0.042	59979	VV	5.94
2	~~ALDRIN~~	32969.26	3.178	0.048	293695	VV	9.88
3		0.0000	3.779		211591	VV	10.38
4		0.0000	4.046		183871	VV	? 14.44
5		0.0000	4.503		171664	VV	? 15.31
6	~~HEPT EPOX~~	87615.47	4.820	0.120	692777	VV	24.00
7		0.0000	5.492		752264	VV	21.88
8	~~A-ENDO~~	13923.20	5.906	-0.004	104281	VV	? 16.50
9	~~4,4'-DDE~~	77409.57	6.904	0.104	580100	VV	? 31.25
10	DIELDRIN	85600.96	7.431	0.201	687162	VV	17.88
11		0.0000	7.830		51697	VV	?
12	~~ENDRIN~~	156539.4	8.485	-0.295	843874	VV	22.75
13		0.0000	9.558		449539	VV	24.44
14	~~B-ENDOSUL~~	91205.60	10.794	0.174	645612	VV	25.75
15	~~4,4'DDT~~	175916.5	12.239	-0.201	780356	VV	29.44
16		0.0000	13.166		190893	VV	? 47.00
17	~~ENB. ALD.~~	14219.41	14.495	0.505	78879	VV	? 44.50
18		0.0000	15.714		264881	VV	50.06
19	~~ENDO-304~~	70554.75	17.705	0.765	211699	VV	49.56
20		0.0000	19.125		176812	VB	44.69
21	~~METHOXYCH~~	242390.5	24.708	0.708	400848	BB	66.94

1259

TOTALS: 1055489. 2.003 7831677

DETECTED PKS: 33 REJECTED PKS: 12

DIVISOR: 1.50000 MULTIPLIER: 5000000.00

NOISE: 68.6 OFFSET: -16

RACK: 2 VIAL: 2 INJ: 1

419

NOTES:
NOTEBOOK: 259-44 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#:U-4465
INST: VARIAN 600#2 0 ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.55% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

POST RUN:
SAVE FILE: RAW CPEF-209

SAMPLE NUMBER DC-SS-22

481095

Sample Number
DC - SS - 22

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4465

Lab Sample ID No: 9769 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-25-86

Conc./Dil Factor: 3 pH 7.2

Percent Moisture: (Not Decanted) 21

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	62 B
67-64-1	Acetone	30u
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	18u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	49 B
591-78-6	2-Hexanone	28 BJ
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Sample Number
DC-SS-22-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4465

Lab Sample ID No: 9769 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-26-86

Conc/Dil Factor: 3 pH 7.2

Percent Moisture: (Not Decanted) 21

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	22B
67-64-1	Acetone	15u
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	26 J
591-78-6	2-Hexanone	17 J
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4465

Sample Number DC-SS-22

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 12-3-86

Conc/Dil Factor: 10

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	2100	U
111-44-4	bis(-2-Chloroethyl)Ether	2100	U
95-57-8	2-Chlorophenol	2100	U
541-73-1	1 3-Dichlorobenzene	2100	U
106-46-7	1 4-Dichlorobenzene	2100	U
100-51-6	Benzyl Alcohol	2100	U
95-50-1	1 2-Dichlorobenzene	2100	U
95-48-7	2-Methylphenol	2100	U
39638-32-9	bis(2-chloroisopropyl)Ether	2100	U
106-44-5	4-Methylphenol	2100	U
621-64-7	N-Nitroso-Di-n-Propylamine	2100	U
67-72-1	Hexachloroethane	2100	U
98-95-3	Nitrobenzene	2100	U
78-59-1	Isophorone	2100	U
88-75-5	2-Nitrophenol	2100	U
105-67-9	2. 4-Dimethylphenol	2100	U
65-85-0	Benzoic Acid	10000	U
111-91-1	bis(-2-Chloroethoxy)Methane	2100	U
120-83-2	2 4-Dichlorophenol	2100	U
120-82-1	1 2. 4-Trichlorobenzene	2100	U
91-20-3	Naphthalene	2100	U
106-47-8	4-Chloroaniline	2100	U
87-68-3	Hexachlorobutadiene	2100	U
59-50-7	4-Chloro-3-Methylphenol	2100	U
91-57-6	2-Methylnaphthalene	2100	U
77-47-4	Hexachlorocyclopentadiene	2100	U
88-06-2	2 4 6-Trichlorophenol	2100	U
95-95-4	2 4. 5-Trichlorophenol	10000	U
91-58-7	2-Chloronaphthalene	2100	U
88-74-4	2-Nitroaniline	10000	U
131-11-3	Dimethyl Phthalate	2100	U
208-96-8	Acenaphthylene	2100	U
99-09-2	3-Nitroaniline	10000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2100	U
51-28-5	2. 4-Dinitrophenol	10000	U
100-02-7	4-Nitrophenol	10000	U
132-64-9	Dibenzofuran	2100	U
121-14-2	2 4-Dinitrotoluene	2100	U
606-20-2	2 6-Dinitrotoluene	2100	U
84-66-2	Diethylphthalate	2100	U
7005-72-3	4-Chlorophenyl-phenylether	2100	U
86-73-7	Fluorene	2100	U
100-01-6	4-Nitroaniline	10000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	10000	U
86-30-6	N-Nitrosodiphenylamine (1)	2100	U
101-55-3	4-Bromophenyl-phenylether	2100	U
118-74-1	Hexachlorobenzene	2100	U
87-86-5	Pentachlorophenol	10000	U
85-01-8	Phenanthrene	2100	U
120-12-7	Anthracene	2100	U
84-74-2	Di-n-Butylphthalate	360	BJ
206-44-0	Fluoranthene	2100	U
129-00-0	Pyrene	2100	U
85-68-7	Butylbenzylphthalate	2100	U
91-94-1	3. 3'-Dichlorobenzidine	4200	U
56-55-3	Benzo(a)Anthracene	2100	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2100	U
218-01-9	Chrysene	2100	U
117-84-0	Di-n-Octyl Phthalate	140	BJ
205-99-2	Benzo(b)Fluoranthene	2100	U
207-08-9	Benzo(k)Fluoranthene	2100	U
50-32-8	Benzo(a)Pyrene	2100	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	2100	U
53-70-3	Dibenzo(a h)Anthracene	2100	U
191-24-2	Benzo(g h. i)Perylene	2100	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-22

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-14-86

Date Analyzed: 11-25-86

Conc/Dil Factor: 1,000

Percent Moisture (decanted) 21.2

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16,000 U
319-85-7	Beta-BHC	16,000 U
319-86-8	Delta-BHC	16,000 U
58-89-9	Gamma-BHC (Lindane)	16,000 U
76-44-8	Heptachlor	16,000 U
309-00-2	Aldrin	16,000 U
1024-57-3	Heptachlor Epoxide	16,000 U
959-98-8	Endosulfan I	16,000 U
60-57-1	Dieldrin	32,000 U
72-55-9	4,4'-DDE	32,000 U
72-20-8	Endrin	32,000 U
33213-65-9	Endosulfan II	32,000 U
72-54-8	4,4'-DDD	32,000 U
1031-07-8	Endosulfan Sulfate	32,000 U
50-29-3	4,4'-DDT	32,000 U
72-43-5	Methoxychlor	160,000 U
53494-70-5	Endrin Ketone	32,000 U
57-74-9	Chlordane	160,000 U
8001-35-2	Toxaphene	320,000 U
12674-11-2	Aroclor-1016	160,000 U
11104-28-2	Aroclor-1221	160,000 U
11141-16-5	Aroclor-1232	160,000 U
53469-21-9	Aroclor-1242	160,000 U
12672-29-6	Aroclor-1248	145,000 J C
11097-69-1	Aroclor-1254	320,000 U
11096-82-5	Aroclor-1260	547,000 C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-22

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	18.0	170 J
2.	Hexene isomer	VOA	18.7	420 J
3.	Unknown Ketone	VOA	19.6	5 J
4.	Hexene isomer	VOA	19.9	54 J
5.	Unknown alcohol	VOA	23.8	31 J
6.	Unknown hydrocarbon	VOA	24.3	22 J
7.	Unknown hydrocarbon	VOA	24.7	13 J
8.				
9.	UNKNOWN AROMATIC	BNA	20.5	4000 J
10.	UNKNOWN AROMATIC		20.7	14000 J
11.	UNKNOWN AROMATIC		21.1	13000 J
12.	DIMETHYL DECYL BENZENE		21.3	14000 J
13.	UNKNOWN AROMATIC		21.4	11000 J
14.	UNKNOWN AROMATIC		21.6	13000 J
15.	UNKNOWN		21.8	72000 J
16.	UNKNOWN AROMATIC		21.9	9300 J
17.	DIMETHYL DECYL BENZENE		22.0	12000 J
18.	UNKNOWN		23.7	4100 J
19.	UNKNOWN		26.1	11000 J
20.	PCB	✓	26.9-32.4	—
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-22-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.9	54
2.	Hexene isomer	VOA	18.7	130
3.	Hexene isomer	VOA	19.8	15
4.	Unknown ketone	VOA	19.4	6
5.	Unknown hydrocarbon	VOA	23.7	14
6.	Unknown hydrocarbon	VOA	24.2	7
7.	Unknown hydrocarbon	VOA	24.7	4
8.				
9.				
10.				
11.				
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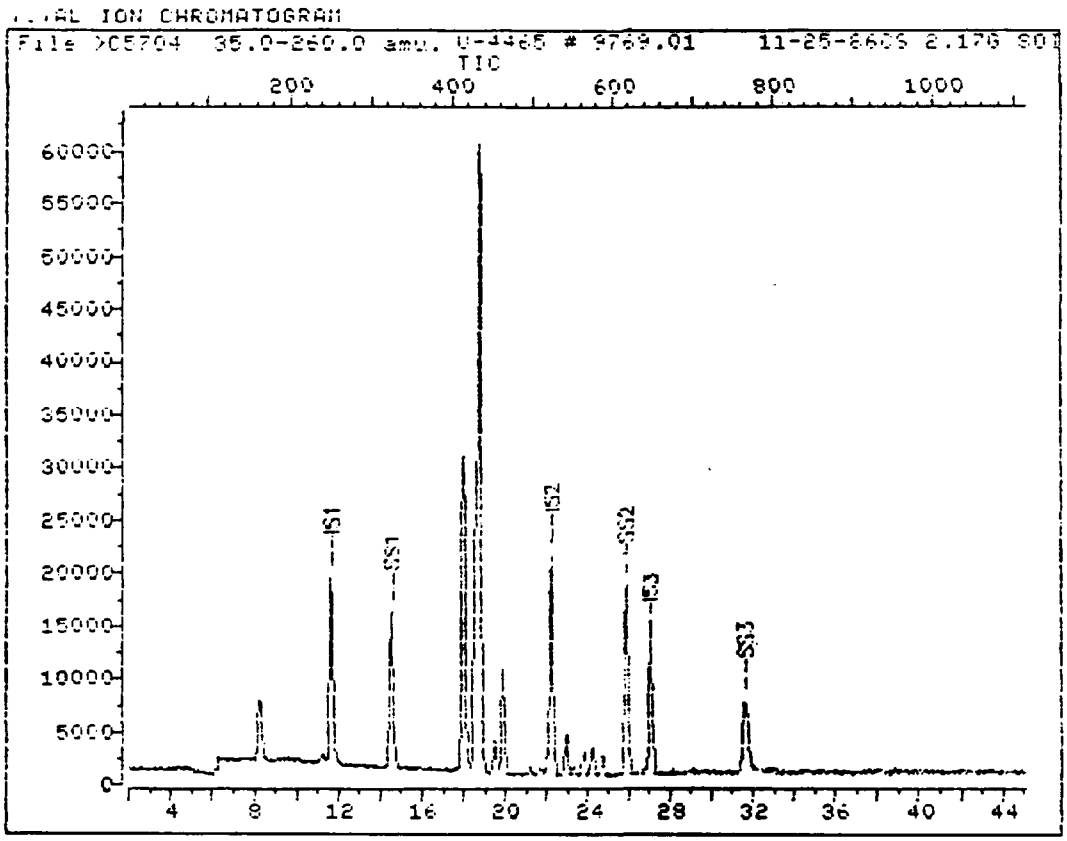
30				

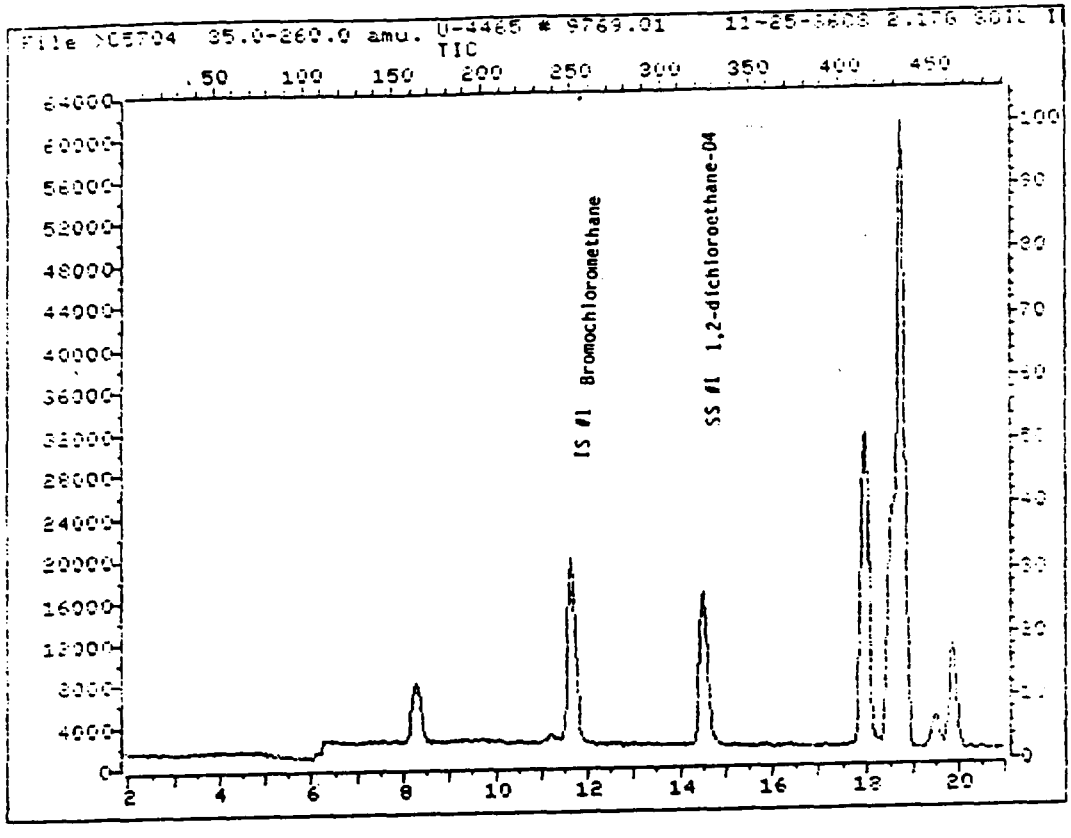


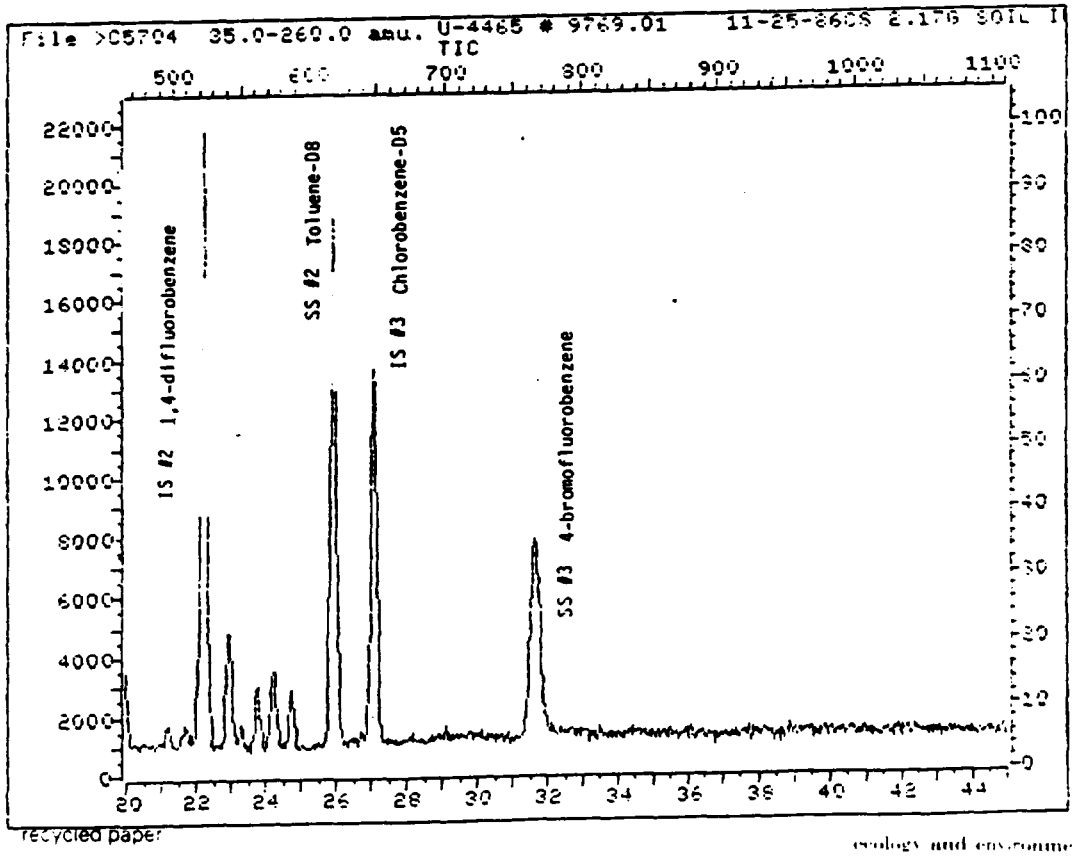
Data File: >C5704::D2
Name: U-4465 # 9769.01 DC-SS-22
Misc: 11-25-86CS 2.17G SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 10:50

Operator ID: USER6
Quant Time: 861125 17:28
Injected at: 861125 16:42

DC-SS-22





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QUANT REPORT

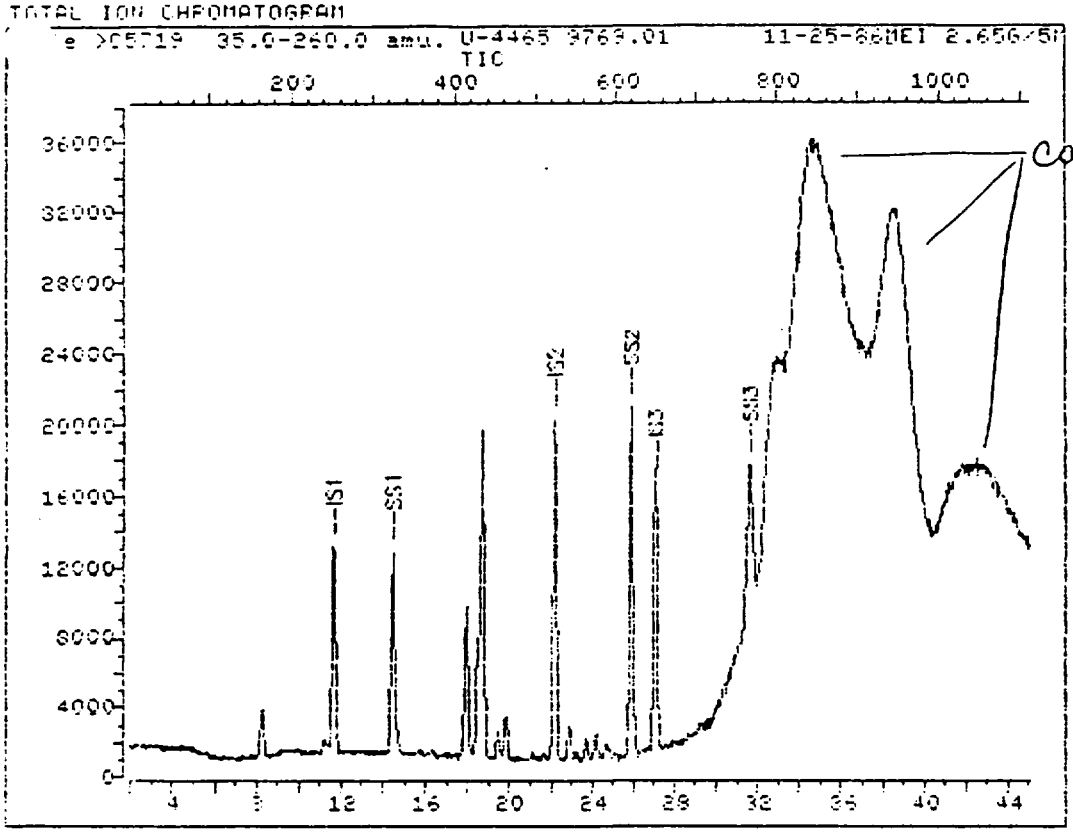
Operator ID: USER6 Quant Rev: 4 Quant Time: 861125 17:28
Output File: ^C5704::Q2 Injected at: 861125 16:42
Data File: >C5704::D2 Dilution Factor: 1.00
Name: U-4465 # 9769.01 DC-SS-22
Misc: 11-25-86CS 2.17G SOIL IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 10:50

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.65	251	26821	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.27	164	16372	105.70	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	325	64008	237.44	NGS	86
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.24	524	86652	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.05	648	43992	250.00	NGS	100
32)	4-METHYL-2-PENTANONE		43	22.94	542	15230	84.18	NGS	78
33)	~~2-HEXANONE~~		~~43~~	~~23.77~~	~~563~~	~~3583~~	~~24.96~~	~~NGS~~ no cal	100
33)	2-HEXANONE		43	24.26	576	6958	47.61	NGS yes	100
33)	~~2-HEXANONE~~		~~43~~	~~24.72~~	~~588~~	~~4023~~	~~27.55~~	~~NGS~~ no cal	100
36)	TOLUENE-D8	(SURR)	98	25.39	618	74504	296.92	NGS	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.64	766	25146	177.36	NGS	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



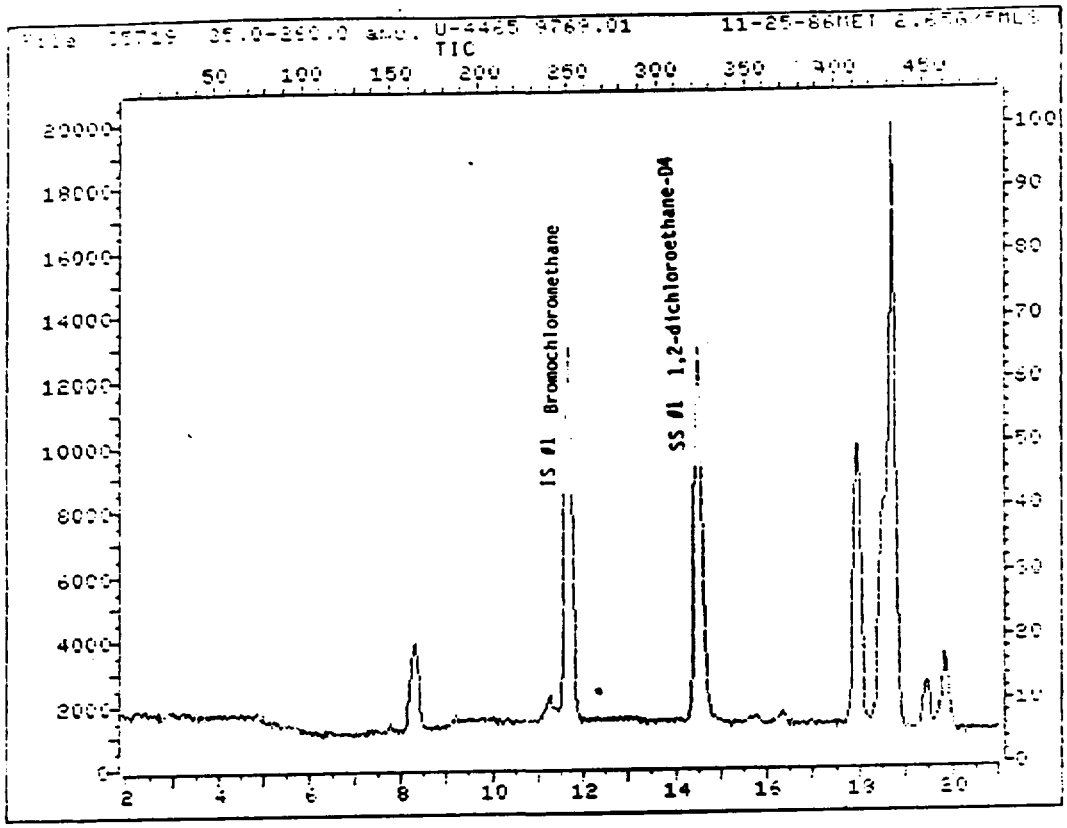
carryover peaks – not present in more dilute analysis run previously (see >C5704) original analysis

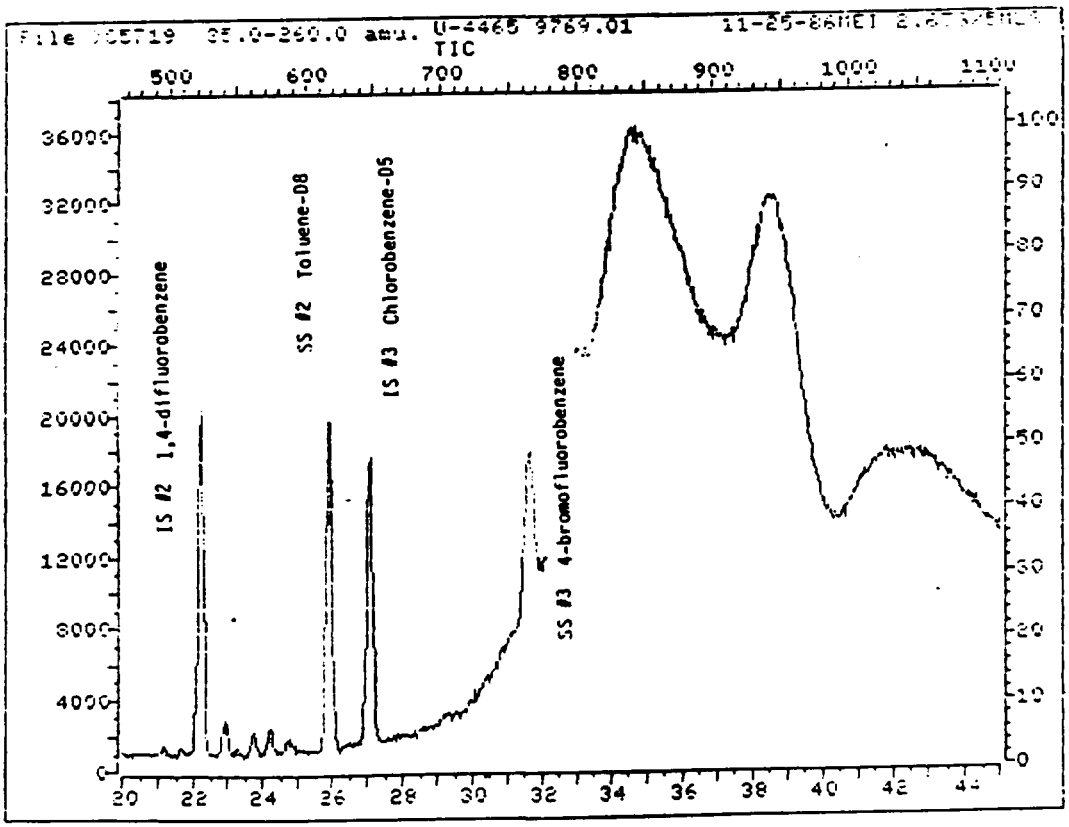
Data File: >C5719::D1
Name: U-4465 9769.01 DC-SS-22 RE
Misc: 11-25-86MEI 2.65G/5MLS DI + 10UL IS/SS

Id File: VOACRS::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 22:54

Operator ID: USEP6
Quant Time: 861126 07:17
Injected at: 861126 06:27

DC-SS-22
RE





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861126 07:13
Output File: ^C5719::Q2 Injected at: 861126 06:27
Data File: >C5719::D1 Dilution Factor: 1.00
Name: U-4465 9769.01 DC-SS-22 RE
Misc: 11-25-86MEI 2.65G/5MLS DI + 10UL IS/SS

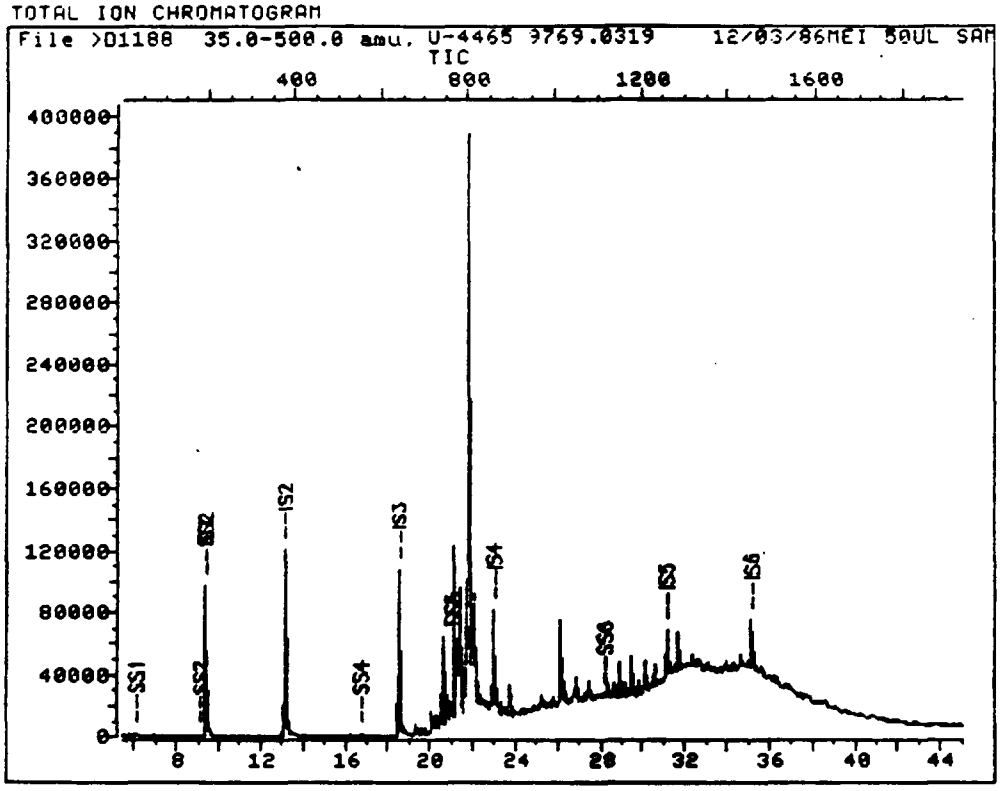
ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 22:54

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.65	251	15619	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.27	164	6348	46.60	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.48	324	47361	325.31	NGS	91
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	523	77986	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.05	648	49536	250.00	NGS	100
32)	4-METHYL-2-PENTANONE		43	22.90	541	9034	54.70	NGS	74
33)	~~2-HEXANONE~~		~~43~~	~~23.75~~	~~563~~	~~2530~~	~~18.97~~	~~NGS~~ no cal	100
33)	2-HEXANONE		43	24.22	575	4830	36.22	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.89	618	73910	251.41	NGS	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.64	756	30247	206.67	NGS	100

130

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >D1188::D3
Name: U-4465 9769.0319 DC-SS-22
Misc: 12/03/86MEI 50UL SAMPL. + 450UL MECL2 + 5UL IS (10X) BTL# 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861203 14:16

Operator ID: USER6
Quant Time: 861203 19:48
Injected at: 861203 19:00

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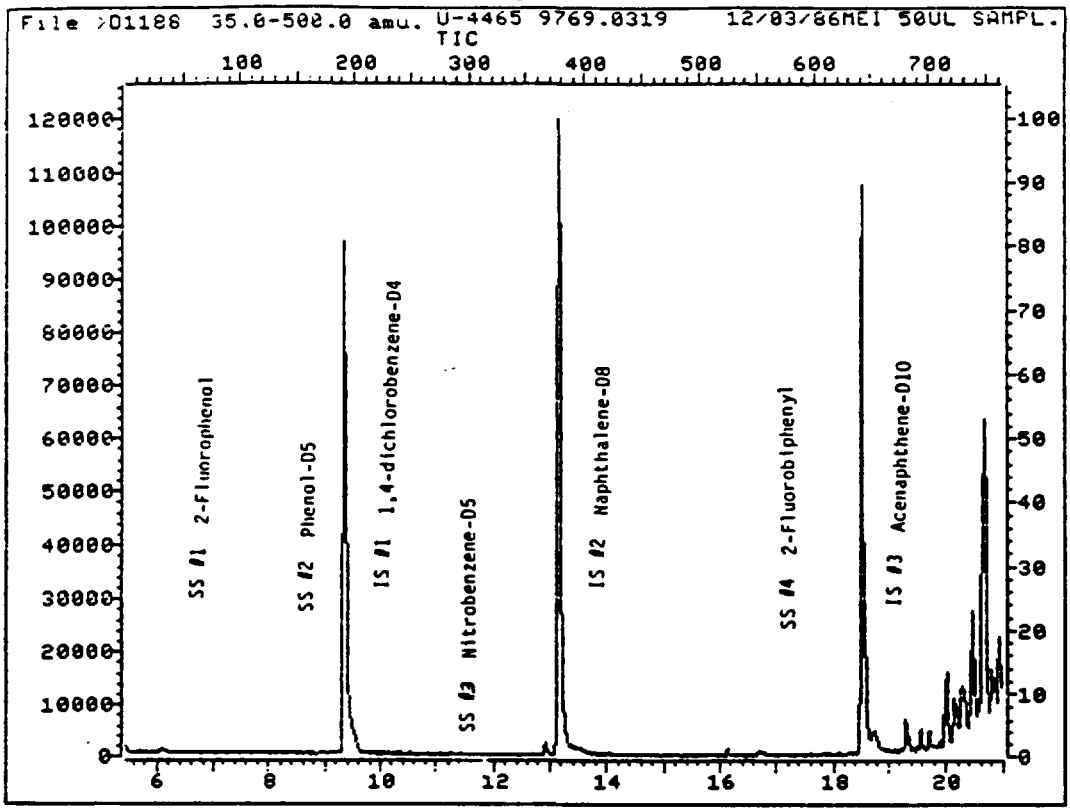
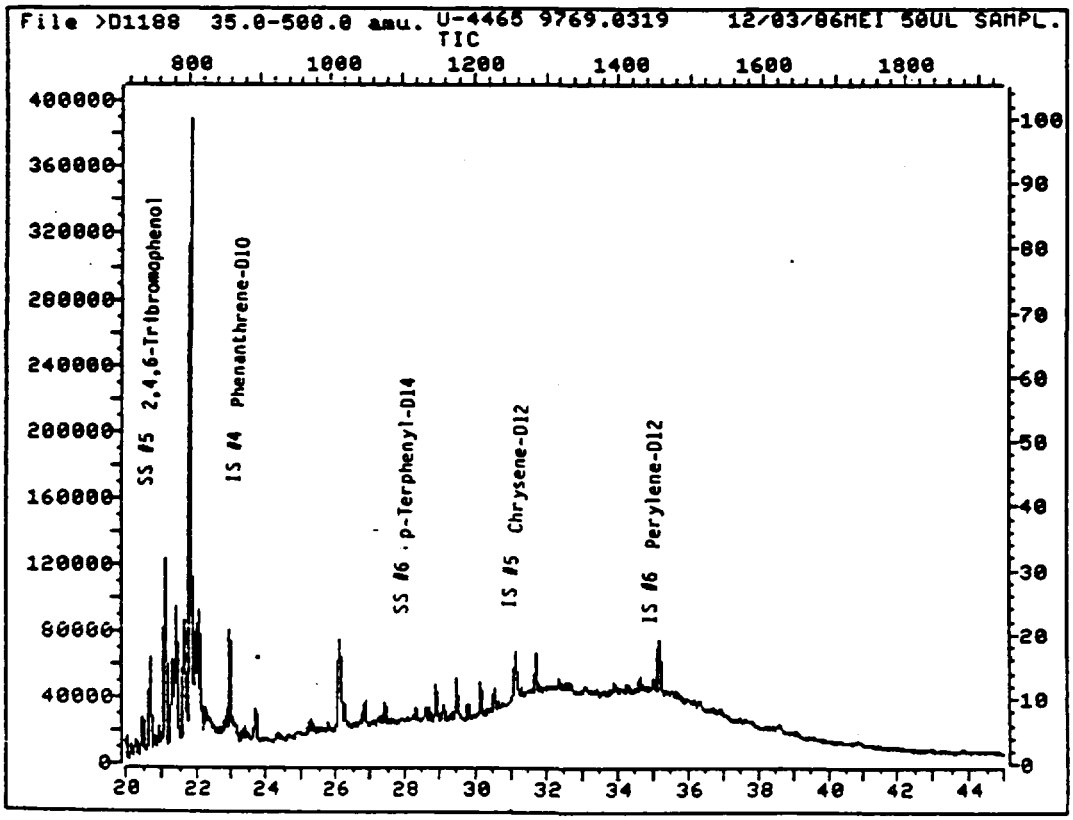
DC-SS-22





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861203 19:48
Output File: ^D1188::Q2 Injected at: 861203 19:00
Data File: >D1188::D3 Dilution Factor: 10.00
Name: U-4465 9769.0319 DC-SS-22
Misc: 12/03/86MEI 50UL SAMPL. + 450UL MECL2 + 5UL IS (10X) BTL# 3

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861203 14:16

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.36	192	55227	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	9.12	180	503	2.67	UG/L	75
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~9.36~~	~~192~~	~~876~~	~~4.65~~	~~UG/L~~	92
5)	2-FLUOROPHENOL	(SURR)	112	6.10	32	1315	9.34	UG/L	82
19)	*NAPHTHALENE-D8	(IS)	136	13.15	378	185456	40.00	UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162	18.53	642	78455	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.71	553	2411	8.04	UG/L	95
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.53~~	~~642~~	~~24516~~	~~76.25~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.06	766	223	3.66	UG/L	74
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.53~~	~~642~~	~~9543~~	~~143.60~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.96	859	86047	40.00	UG/L	99
63)	DI-N-BUTYLPHTHALATE		149	25.51	984	1991	8.56	UG/L	60
65)	*CHRYSENE-D12	(IS)	240	31.12	1258	48450	40.00	UG/L	100
~~66)~~	~~BENZIDINE~~		~~184~~	~~27.27~~	~~1070~~	~~195~~	~~195.00~~	~~NO CALIB~~	100
~~66)~~	~~BENZIDINE~~		~~184~~	~~27.43~~	~~1078~~	~~1236~~	~~1236.00~~	~~NO CALIB~~	100
~~66)~~	~~BENZIDINE~~		~~184~~	~~27.58~~	~~1085~~	~~206~~	~~206.00~~	~~NO CALIB~~	100
68)	TERPHENYL-D14	(SURR)	244	28.19	1115	826	7.08	UG/L	100
~~70)~~	~~3,3'DICHLOROBENZIDINE~~		~~252~~	~~31.06~~	~~1255~~	~~839~~	~~29.37~~	~~UG/L~~	100
~~70)~~	~~3,3'DICHLOROBENZIDINE~~		~~252~~	~~31.10~~	~~1261~~	~~386~~	~~13.51~~	~~UG/L~~	100
~~70)~~	~~3,3'DICHLOROBENZIDINE~~		~~252~~	~~31.28~~	~~1266~~	~~157~~	~~5.50~~	~~UG/L~~	100
~~70)~~	~~3,3'DICHLOROBENZIDINE~~		~~252~~	~~31.71~~	~~1287~~	~~1831~~	~~64.10~~	~~UG/L~~	100
~~72)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.31~~	~~1316~~	~~166~~	~~1.57~~	~~UG/L~~	69
74)	*PERYLENE-D12	(IS)	264	35.18	1456	52236	40.00	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.42~~	~~1370~~	~~334~~	~~1.58~~	~~UG/L~~	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.66~~	~~1382~~	~~267~~	~~1.27~~	~~UG/L~~	100
75)	DI-N-OCTYL PHTHALATE		149	33.91	1394	681	3.23	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.14~~	~~1405~~	~~257~~	~~1.22~~	~~UG/L~~	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.38~~	~~1412~~	~~386~~	~~1.83~~	~~UG/L~~	100
~~76)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.20~~	~~1408~~	~~495~~	~~3.65~~	~~UG/L~~	100
~~76)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.38~~	~~1412~~	~~129~~	~~.95~~	~~UG/L~~	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.20~~	~~1408~~	~~495~~	~~3.14~~	~~UG/L~~	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.38~~	~~1412~~	~~129~~	~~.82~~	~~UG/L~~	100
~~78)~~	~~BENZO(A)PYRENE~~		~~252~~	~~35.02~~	~~1440~~	~~248~~	~~1.86~~	~~UG/L~~	100
~~78)~~	~~BENZO(A)PYRENE~~		~~252~~	~~35.18~~	~~1456~~	~~144~~	~~1.08~~	~~UG/L~~	100

* Compound is ISTD

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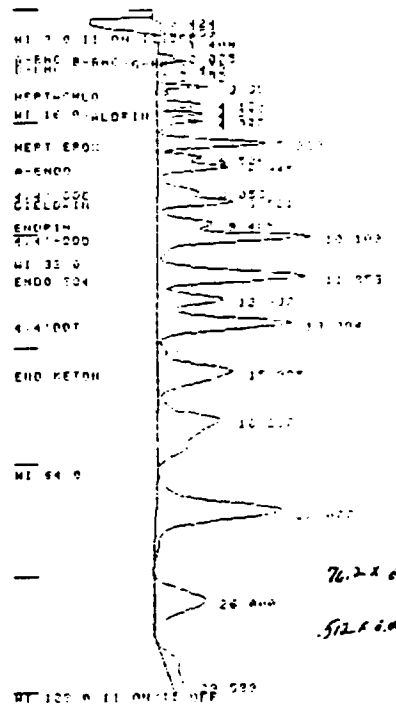
CHART SPEED: [illegible] CM/MIN
ATTEN: [illegible] ZERO: 10% [illegible]



76.2 x 0.00224 x 1/1.18 x 1,000,000 = ~~[illegible]~~ 145,000 J ug/kg 1245

.512 x 0.00426 x 1/1.18 x 1,000,000 = ~~[illegible]~~ 547,000 J ug/kg 1260

CHANNEL: 1A - 1 TITLE: [illegible] DS [illegible]

DC-SS-22

SAMPLE: 9765 DF=1000 METHOD: [illegible] CALCULATION: [illegible]

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	0.054	[illegible]	[illegible]	[illegible]
2		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
3	[illegible]CHLO	1085.100	[illegible]	-0.156	[illegible]	[illegible]	[illegible]
4		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
5	[illegible]RIN	2475.334	[illegible]	-0.118	[illegible]	[illegible]	[illegible]
6		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
7	[illegible] EPOX	10439.95	[illegible]	0.160	[illegible]	[illegible]	[illegible]
8		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
9	[illegible]	7680.023	[illegible]	-0.205	[illegible]	[illegible]	[illegible]
10	[illegible]	4767.721	[illegible]	-0.167	[illegible]	[illegible]	[illegible]
11	[illegible]RIN	7522.133	[illegible]	0.191	[illegible]	[illegible]	[illegible]
12	[illegible]	6068.856	[illegible]	0.005	[illegible]	[illegible]	[illegible]
13	[illegible]	33066.35	[illegible]	-0.221	[illegible]	[illegible]	[illegible]
14	[illegible] SO4	31952.35	[illegible]	-0.257	[illegible]	[illegible]	[illegible]
15		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
16	[illegible]DDT	50968.26	13.904	0.434	[illegible]	[illegible]	[illegible]
17	[illegible]RIN	16670.75	15.395	0.465	[illegible]	[illegible]	[illegible]
18		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
19		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
20	[illegible]	19410.34	25.000	-1.030	[illegible]	[illegible]	[illegible]
21		0.0000	[illegible]		[illegible]	[illegible]	[illegible]

1245 76.2 1260 512

TOTALS: 188405.5 -0.605 [illegible]

DETECTED PKS: 37 REJECTED PKS: 16

DIVISOR: 1.50000 MULTIPLIER: 1000000.00

NOISE: 34.5 OFFSET: [illegible]

RACK: 2 VIAL: 13 [illegible]

NOTES:
NOTEBOOK: [illegible] ANALYST: [illegible] SAMSON
SECURE AREA: [illegible]
INST: [illegible]
COLUMN: [illegible]
LIQUID PHASE: [illegible]
CARRIER GAS: [illegible]
OPT: [illegible]
[illegible]
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
[illegible]

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SAMPLE NUMBER DC-SS-23

481095

Sample Number
DC-SS-23

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465

Lab Sample ID No: 9770 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-19-86

Conc./Dil Factor: 3 pH 7.0

Percent Moisture: (Not Decanted) 22

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	58 B
67-64-1	Acetone	41
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	42
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	20 J
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution, action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No V-4465

Sample Number DC-SS-23

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed: 12-2-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	78	J
111-44-4	bis(-2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1 3-Dichlorobenzene	420	U
106-46-7	1 4-Dichlorobenzene	420	U
100-51-6	Benzyl Alcohol	420	U
95-50-1	1 2-Dichlorobenzene	89	J
95-48-7	2-Methylphenol	420	U
39638-32-9	bis(2-chloroisopropyl)Ether	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2 4-Dimethylphenol	420	U
65-85-0	Benzoic Acid	2000	U
111-91-1	bis(-2-Chloroethoxy)Methane	420	U
120-83-2	2 4-Dichlorophenol	120	J
120-82-1	1 2 4-Trichlorobenzene	180	J
91-20-3	Naphthalene	110	J
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2 4 6-Trichlorophenol	420	U
95-95-4	2 4 5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	1000	J
131-11-3	Dimethyl Phthalate	420	U
208-96-8	Acenaphthylene	420	U
99-09-2	3-Nitroaniline	2000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	70	J
51-28-5	2 4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2 4-Dinitrotoluene	420	U
606-20-2	2 6-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4 6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	12000	
85-01-8	Phenanthrene	1200	
120-12-7	Anthracene	300	J
84-74-2	Di-n-Butylphthalate	1700	B
206-44-0	Fluoranthene	2200	
129-00-0	Pyrene	850	
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3 3'-Dichlorobenzidine	850	U
56-55-3	Benzo(a)Anthracene	960	
117-81-7	bis(2-Ethylhexyl)Phthalate	660	
218-01-9	Chrysene	1100	
117-84-0	Di-n-Octyl Phthalate	99	BJ
205-99-2	Benzo(b)Fluoranthene	1800	
207-08-9	Benzo(k)Fluoranthene	420	U
50-32-8	Benzo(a)Pyrene	840	
193-39-5	Indeno(1 2 3-cd)Pyrene	1100	
53-70-3	Dibenz(a h)Anthracene	430	
191-24-2	Benzo(g h i)Perylene	1200	

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-23

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 500

Percent Moisture (decanted) 22.4

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	8000 U	
319-85-7	Beta-BHC	8,000 U	
319-86-8	Delta-BHC	8,000 U	
58-89-9	Gamma-BHC (Lindane)	8,000 U	
76-44-8	Heptachlor	8,000 U	
309-00-2	Aldrin	8,000 U	
1024-57-3	Heptachlor Epoxide	8,000 U	
959-98-8	Endosulfan I	8,000 U	
60-57-1	Dieldrin	16,000 U	
72-55-9	4, 4'-DDE	16,000 U	
72-20-8	Endrin	16,000 U	
33213-65-9	Endosulfan II	16,000 U	
72-54-8	4, 4'-DDD	16,000 U	
1031-07-8	Endosulfan Sulfate	16,000 U	
50-29-3	4, 4'-DDT	16,000 U	
72-43-5	Methoxychlor	80,000 U	
53494-70-5	Endrin Ketone	16,000 U	
57-74-9	Chlordane	80,000 U	
8001-35-2	Toxaphene	160,000 U	
12674-11-2	Aroclor-1016	80,000 U	
11104-28-2	Aroclor-1221	80,000 U	
11141-16-5	Aroclor-1232	80,000 U	
53469-21-9	Aroclor-1242	80,000 U	
12672-29-6	Aroclor-1248	110,000	C
11097-69-1	Aroclor-1254	160,000 U	
11096-82-5	Aroclor-1260	218,000	C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

Form 1

7 85
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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number DC-SS-23

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4	5 BJ
2.	Unknown Ketone	VOA	19.8	8 BJ
3.	Hexane isomer	VOA	21.5	14 BJ
4.	Unknown	VOA	24.5	9 J
5.	Unknown	VOA	25.0	8 J
6.	Dichlorobenzene isomer	VOA	41.1	890 BJ *
7.				
8.	UNKNOWN	BNA	9.3	650 J
9.	UNKNOWN		20.0	4600 J
10.	UNKNOWN AROMATIC		20.5	5700 J
11.	UNKNOWN AROMATIC		20.7	8800 J
12.	UNKNOWN AROMATIC		21.1	4500 J
13.	UNKNOWN AROMATIC		21.3	13000 J
14.	UNKNOWN AROMATIC		21.4	10000 J
15.	UNKNOWN AROMATIC		21.6	12000 J
16.	UNKNOWN		21.8	1500 J
17.	UNKNOWN AROMATIC		21.9	6600 J
18.	UNKNOWN AROMATIC		22.0	10000 J
19. 10544500	MOLECULAR SULFUR		26.2	8900 J
20.	UNKNOWN AROMATIC		29.1	15000 J
21.	PCB		24.3-31.7	—
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

* note: Dichlorobenzene was observed in the accompanying blank. This sample was analyzed prior to the blank. The dichlorobenzene is present in this sample as a carryover artifact from the previously run sample, which is is supported by the late retention time (should be 39 min).

Form 1, Part B

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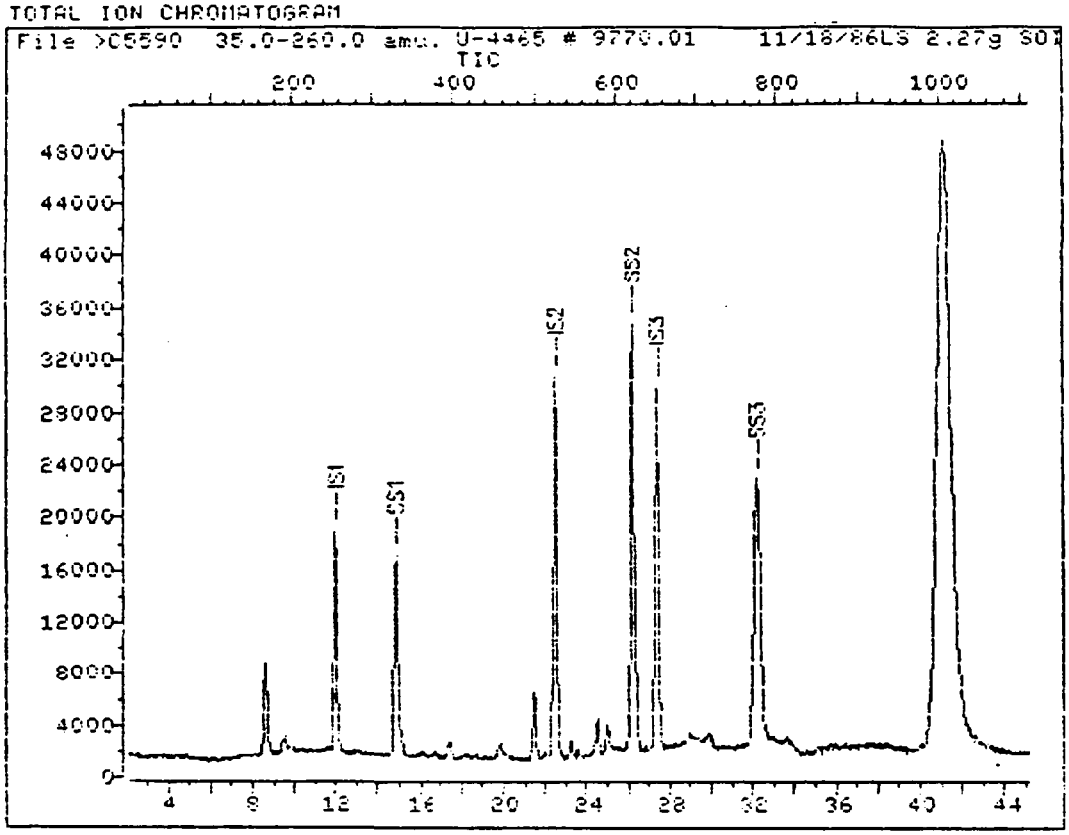
TOTAL ION CHROMATOGRAM

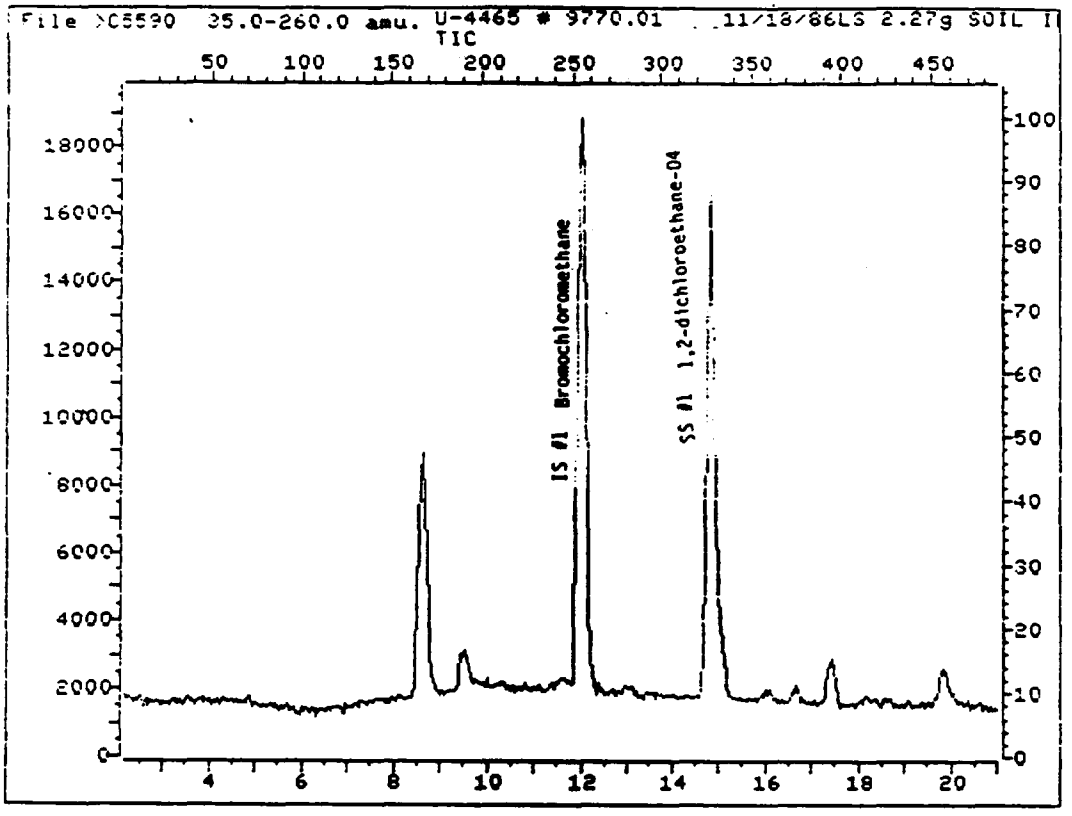


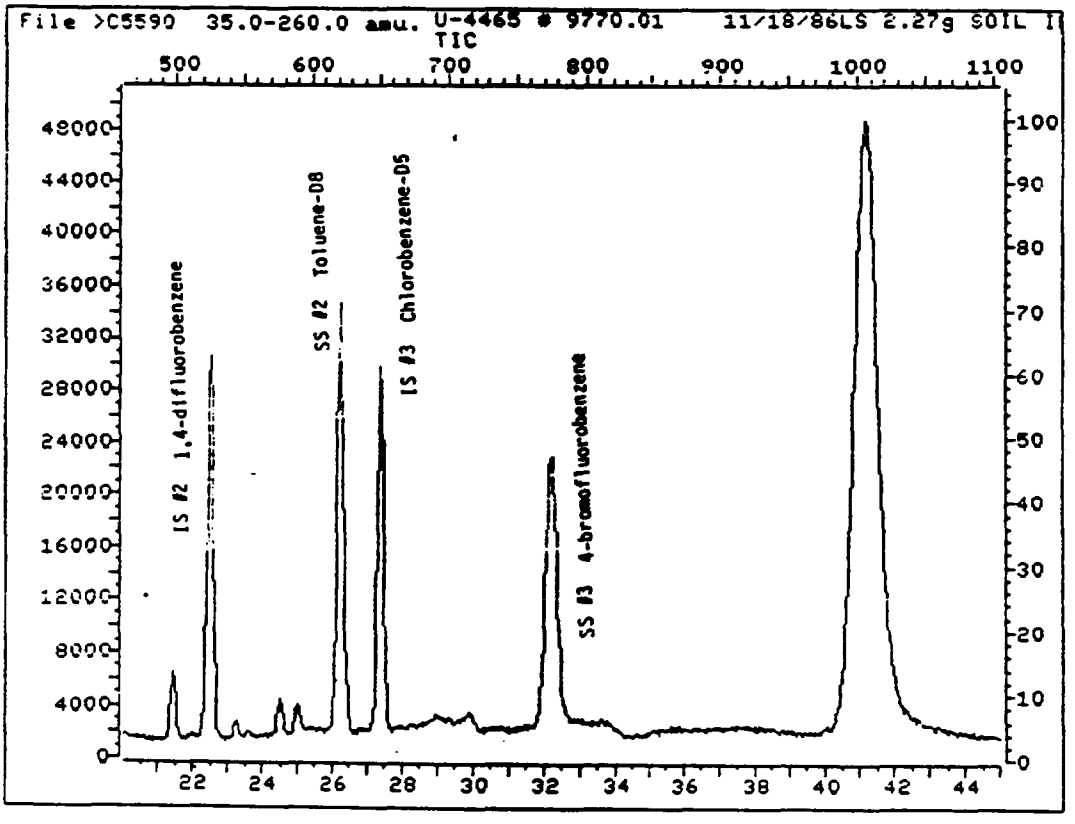
Data File: >C5590::D3
Name: U-4465 # 9770.01 DC-SS-23
Misc: 11/18/86LS 2.27g SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861118 22:56

Operator ID: USER8
Quant Time: 861119 03:05
Injected at: 861119 02:21

DC-SS-23





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QUANT REPORT

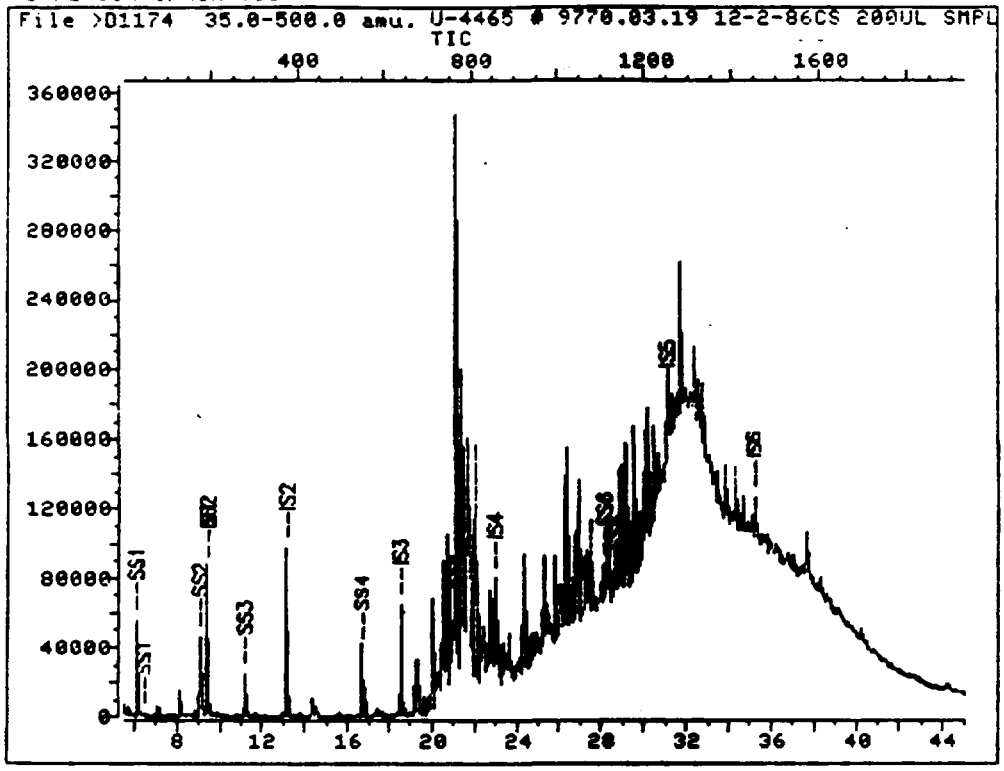
Operator ID: USER8 Quant Rev: 4 Quant Time: 861119 03:06
Output File: ^C5590::Q2 Injected at: 861119 02:21
Data File: >C5590::D3 Dilution Factor: 1.00
Name: U-4465 # 9770.01 DC-SS-23
Misc: 11/18/86LS 2.27g SOIL IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861118 22:56

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	12.01	255	22690	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.63	168	16953	103.25	NGS	100
7)	ACETONE		43	9.60	193	3405	73.26	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.84	328	63722	283.95	NGS	82
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.52	526	115194	250.00	NGS	100
17)	2-BUTANONE		72	14.96	331	2803	75.49	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.38	651	87470	250.00	NGS	100
33)	2-HEXANONE		43	24.54	578	7697	34.86	NGS	100
33)	~~2-HEXANONE~~		~~43~~	~~25.01~~	~~590~~	~~4929~~	~~22.33~~	~~NGS~~	100
36)	TOLUENE-D8	(SURR)	98	26.21	621	122267	234.24	NGS	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.19	775	81808	260.75	NGS	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >D1174::D3
Name: U-4465 # 9770.03.19 DCSS-23
Misc: 12-2-86CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:13

Operator ID: USER6
Quant Time: 861202 16:29
Injected at: 861202 15:41

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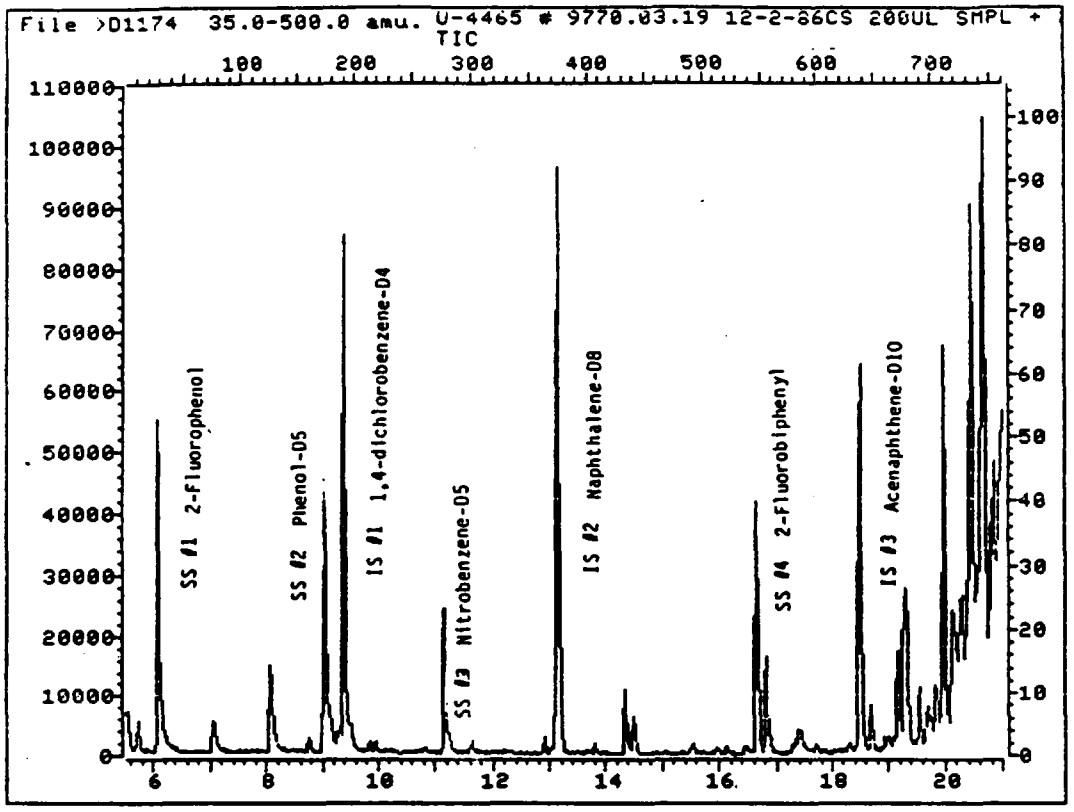
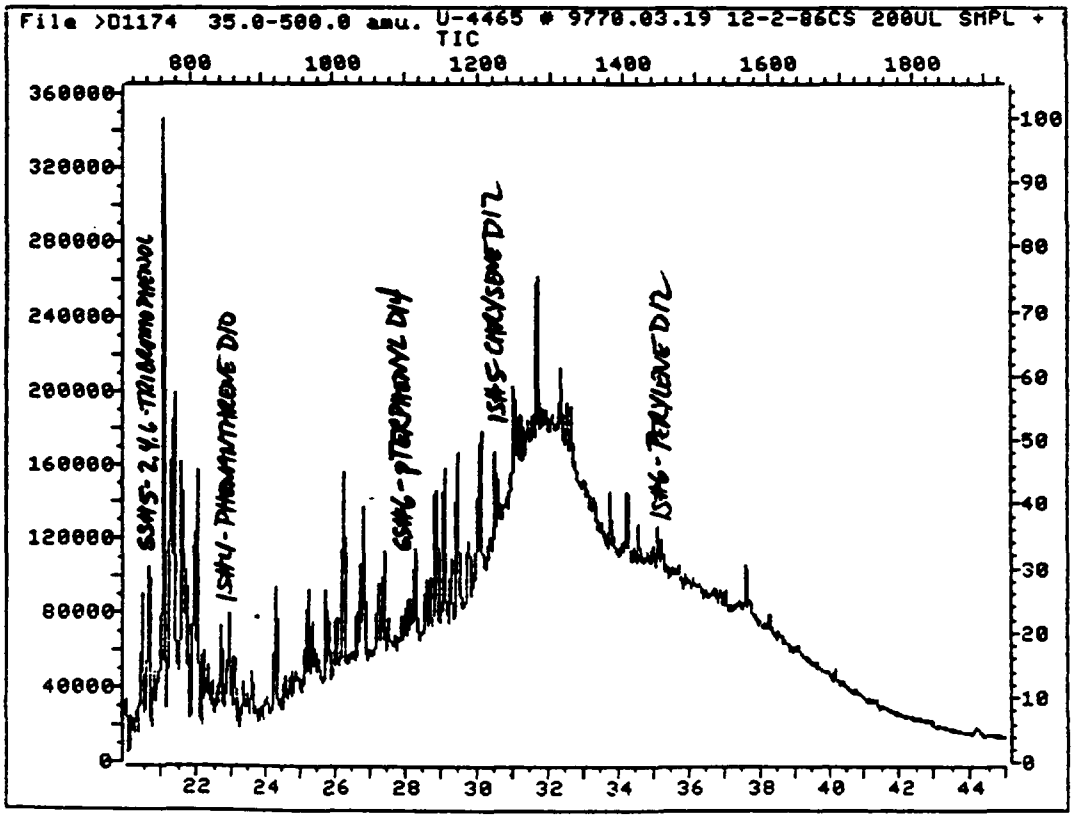
DC-SS-23





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QUANT REPORT

perator ID: USER6 Quant Rev: 4 Quant Time: 861202 16:29
Output File: ^D1174::Q2 Injected at: 861202 15:41
Data File: >D1174::D3 Dilution Factor: 2.00
Name: U-4465 # 9770.03.19 DC 55-23
Misc: 12-2-86CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 3

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:13

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.37	190	41677	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	9.02	173	52791	66.89	UG/L	93
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~9.37~~	~~190~~	~~757~~	~~.96~~	~~UG/L~~	~~85~~ No Bph
5)	2-FLUOROPHENOL	(SURR)	112	6.07	28	43610	75.46	UG/L	88
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.40~~	~~44~~	~~667~~	~~1.15~~	~~UG/L~~	~~53~~ No Bph
6)	PHENOL		94	9.06	175	1382	1.83	UG/L	76
12)	1,2-DICHLOROBENZENE		146	9.94	218	1546	2.09	UG/L	91
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.14~~	~~220~~	~~179~~	~~.11~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.04~~	~~272~~	~~260~~	~~.16~~	~~UG/L~~	100 No Bph
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.14~~	~~277~~	~~5106~~	~~7.31~~	~~UG/L~~	83
19)	*NAPHTHALENE-D8	(IS)	136	13.14	375	131606	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.14	277	29229	46.79	UG/L	94
27)	2,4-DICHLOROPHENOL		162	13.04	370	1449	2.81	UG/L	90
28)	1,2,4-TRICHLOROBENZENE		180	13.10	373	2404	4.29	UG/L	100
29)	NAPHTHALENE		128	13.20	378	3968	2.65	UG/L	100
~~30)~~	~~4-CHLOROANILINE~~		~~127~~	~~13.20~~	~~378~~	~~612~~	~~.96~~	~~UG/L~~	24 No Bph
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.34~~	~~483~~	~~359~~	~~.35~~	~~UG/L~~	98
34)	*ACENAPHTHENE-D10	(IS)	162	18.50	638	38732	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.64	547	44609	57.98	UG/L	93
40)	2-NITROANILINE		65	17.42	585	5152	23.95	UG/L	96
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.50~~	~~638~~	~~11861~~	~~15.50~~	~~UG/L~~	100 No Bph
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~18.11~~	~~668~~	~~347~~	~~.44~~	~~UG/L~~	100
47)	ACENAPHTHENE		153	18.58	642	1033	1.65	UG/L	97
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.97	759	8747	55.29	UG/L	99
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.40~~	~~637~~	~~5874~~	~~33.11~~	~~UG/L~~	100 No Bph
55)	*PHENANTHRENE-D10	(IS)	188	22.93	855	41192	40.00	UG/L	95
60)	PENTACHLOROPHENOL		266	22.71	844	21029	278.20	UG/L	100
~~60)~~	~~PENTACHLOROPHENOL~~		~~266~~	~~22.89~~	~~853~~	~~236~~	~~3.12~~	~~UG/L~~	100 No Bph
61)	PHENANTHRENE		178	22.99	858	13211	27.33	UG/L	98
~~61)~~	~~PHENANTHRENE~~		~~178~~	~~23.12~~	~~864~~	~~3319~~	~~6.87~~	~~UG/L~~	88 No Bph
~~62)~~	~~ANTHRACENE~~		~~178~~	~~22.99~~	~~858~~	~~13211~~	~~28.22~~	~~UG/L~~	98
62)	ANTHRACENE		178	23.12	864	3319	7.09	UG/L	88
~~63)~~	~~DI-N-BUTYLPHTHALATE~~		~~149~~	~~25.08~~	~~960~~	~~810~~	~~1.59~~	~~UG/L~~	1 No Bph
63)	DI-N-BUTYLPHTHALATE		149	25.49	980	20040	39.28	UG/L	99
64)	FLUORANTHENE		202	26.62	1035	14850	51.68	UG/L	98
~~64)~~	~~FLUORANTHENE~~		~~202~~	~~26.74~~	~~1041~~	~~670~~	~~2.33~~	~~UG/L~~	1 No Bph
65)	*CHRYSENE-D12	(IS)	240	31.08	1252	26619	40.00	UG/L	100
~~66)~~	~~BENZIDINE~~		~~184~~	~~26.99~~	~~1053~~	~~530~~	~~530.00~~	~~NO CALIB~~	100
~~66)~~	~~BENZIDINE~~		~~184~~	~~27.24~~	~~1065~~	~~2745~~	~~2745.00~~	~~NO CALIB~~	100
~~66)~~	~~BENZIDINE~~		~~184~~	~~27.40~~	~~1073~~	~~6401~~	~~6401.00~~	~~NO CALIB~~	100 No Bph
~~66)~~	~~BENZIDINE~~		~~184~~	~~27.59~~	~~1079~~	~~1632~~	~~1632.00~~	~~NO CALIB~~	100
~~6)~~	~~BENZIDINE~~		~~184~~	~~27.91~~	~~1090~~	~~1264~~	~~1264.00~~	~~NO CALIB~~	100
67)	PYRENE		202	27.26	1066	14360	19.82	UG/L	94 97
~~67)~~	~~PYRENE~~		~~202~~	~~27.71~~	~~1088~~	~~905~~	~~1.25~~	~~UG/L~~	58 No Bph
68)	TERPHENYL-D14	(SURR)	244	28.12	1108	13034	31.10	UG/L	100
~~68)~~	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~28.63~~	~~1133~~	~~141~~	~~.34~~	~~UG/L~~	~~100~~ No Bph

	Compound	m/z	R.T.	Scan#	Area	Conc	Units	q
~~69)~~	~~BUTYLBENZYLPHTHALATE~~	~~149~~	~~29.54~~	~~1177~~	~~332~~	~~1.41~~	~~UG/L~~	14
~~70)~~	~~3,3'DICHLOROBENZIDINE~~	~~252~~	~~31.04~~	~~1250~~	~~3761~~	~~97.96~~	~~UG/L~~	100
~~70)~~	~~3,3'DICHLOROBENZIDINE~~	~~252~~	~~31.17~~	~~1256~~	~~2041~~	~~53.16~~	~~UG/L~~	100
~~70)~~	~~3,3'DICHLOROBENZIDINE~~	~~252~~	~~31.27~~	~~1261~~	~~1127~~	~~29.35~~	~~UG/L~~	100
~~70)~~	~~3,3'DICHLOROBENZIDINE~~	~~252~~	~~31.54~~	~~1274~~	~~612~~	~~15.94~~	~~UG/L~~	100
~~70)~~	~~3,3'DICHLOROBENZIDINE~~	~~252~~	~~31.70~~	~~1282~~	~~8491~~	~~221.15~~	~~UG/L~~	100
71)	BENZO(A)ANTHRACENE	228	31.04	1250	6832	22.39	UG/L	91
~~71)~~	~~BENZO(A)ANTHRACENE~~	~~228~~	~~31.15~~	~~1255~~	~~8743~~	~~28.65~~	~~UG/L~~	98
~~72)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~	~~149~~	~~31.66~~	~~1280~~	~~161~~	~~.56~~	~~UG/L~~	90
~~72)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~	~~149~~	~~31.76~~	~~1285~~	~~502~~	~~1.76~~	~~UG/L~~	94
~~72)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~	~~149~~	~~31.87~~	~~1290~~	~~205~~	~~.72~~	~~UG/L~~	82
72)	BIS(2-ETHYLHEXYL)PHTHALATE	149	32.07	1300	4416	15.45	UG/L	96
~~73)~~	~~CHRYSENE~~	~~228~~	~~31.04~~	~~1250~~	~~6032~~	~~19.89~~	~~UG/L~~	90
73)	CHRYSENE	228	31.15	1255	8743	25.45	UG/L	99
74)	*PERYLENE-D12 (IS)	264	35.14	1449	29312	40.00	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~	~~149~~	~~33.60~~	~~1374~~	~~442~~	~~.66~~	~~UG/L~~	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~	~~149~~	~~33.76~~	~~1382~~	~~409~~	~~.61~~	~~UG/L~~	100
75)	DI-N-OCTYL PHTHALATE	149	33.89	1388	1559	2.32	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~	~~149~~	~~33.95~~	~~1391~~	~~426~~	~~.63~~	~~UG/L~~	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~	~~149~~	~~34.28~~	~~1407~~	~~468~~	~~.70~~	~~UG/L~~	100
~~76)~~	~~BENZO(B)FLUORANTHENE~~	~~252~~	~~33.70~~	~~1383~~	~~676~~	~~1.74~~	~~UG/L~~	100
~~76)~~	~~BENZO(B)FLUORANTHENE~~	~~252~~	~~33.91~~	~~1389~~	~~181~~	~~.47~~	~~UG/L~~	100
76)	BENZO(B)FLUORANTHENE	252	34.18	1402	16495	42.49	UG/L	100
~~76)~~	~~BENZO(B)FLUORANTHENE~~	~~252~~	~~34.46~~	~~1416~~	~~1843~~	~~4.75~~	~~UG/L~~	100
~~76)~~	~~BENZO(B)FLUORANTHENE~~	~~252~~	~~34.61~~	~~1423~~	~~930~~	~~2.40~~	~~UG/L~~	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~	~~252~~	~~33.70~~	~~1383~~	~~676~~	~~1.22~~	~~UG/L~~	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~	~~252~~	~~33.91~~	~~1389~~	~~181~~	~~.33~~	~~UG/L~~	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~	~~252~~	~~34.18~~	~~1402~~	~~16495~~	~~29.71~~	~~UG/L~~	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~	~~252~~	~~34.46~~	~~1416~~	~~1843~~	~~3.32~~	~~UG/L~~	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~	~~252~~	~~34.61~~	~~1423~~	~~930~~	~~1.67~~	~~UG/L~~	100
~~78)~~	~~BENZO(A)PYRENE~~	~~252~~	~~34.61~~	~~1423~~	~~930~~	~~2.45~~	~~UG/L~~	100
~~78)~~	~~BENZO(A)PYRENE~~	~~252~~	~~34.86~~	~~1435~~	~~9145~~	~~24.12~~	~~UG/L~~	100
78)	BENZO(A)PYRENE	252	34.98	1441	7478	19.72	UG/L	100
~~78)~~	~~BENZO(A)PYRENE~~	~~252~~	~~35.21~~	~~1452~~	~~2675~~	~~7.06~~	~~UG/L~~	100
~~79)~~	~~INDENO(1,2,3-CD)PYRENE~~	~~276~~	~~37.35~~	~~1556~~	~~358~~	~~1.20~~	~~UG/L~~	100
~~79)~~	~~INDENO(1,2,3-CD)PYRENE~~	~~276~~	~~37.54~~	~~1565~~	~~2180~~	~~7.39~~	~~UG/L~~	100
79)	INDENO(1,2,3-CD)PYRENE	276	37.74	1575	7897	26.44	UG/L	100
~~79)~~	~~INDENO(1,2,3-CD)PYRENE~~	~~276~~	~~38.05~~	~~1590~~	~~753~~	~~2.52~~	~~UG/L~~	100
~~79)~~	~~INDENO(1,2,3-CD)PYRENE~~	~~276~~	~~38.13~~	~~1594~~	~~754~~	~~2.52~~	~~UG/L~~	100
~~80)~~	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~37.54~~	~~1565~~	~~2116~~	~~7.31~~	~~UG/L~~	100
~~80)~~	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~37.76~~	~~1576~~	~~1070~~	~~3.70~~	~~UG/L~~	100
80)	DIBENZ(A,H)ANTHRACENE	278	37.82	1579	2904	10.03	UG/L	100
~~80)~~	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~38.05~~	~~1590~~	~~1766~~	~~6.10~~	~~UG/L~~	100
~~80)~~	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~38.11~~	~~1593~~	~~2046~~	~~7.07~~	~~UG/L~~	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.05~~	~~1590~~	~~753~~	~~2.10~~	~~UG/L~~	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.13~~	~~1594~~	~~754~~	~~2.10~~	~~UG/L~~	100
81)	BENZO(G,H,I)PERYLENE	276	38.28	1601	9683	27.00	UG/L	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.44~~	~~1609~~	~~361~~	~~1.01~~	~~UG/L~~	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.59~~	~~1616~~	~~1017~~	~~2.84~~	~~UG/L~~	100

* Compound is 1STD

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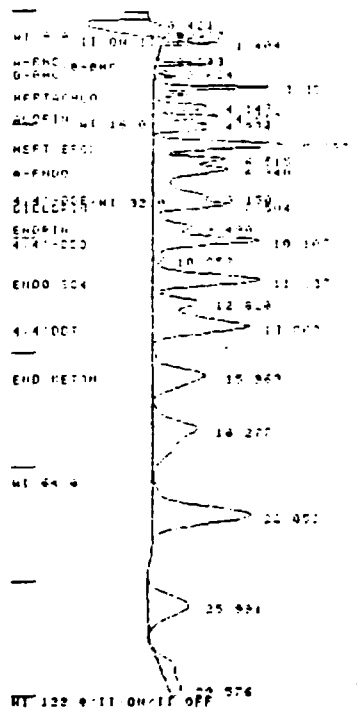

117 $\times 0.00215 \times \frac{1}{1.16} \times \frac{110{,}000}{\cancel{5{,}000{,}000}} = \cancel{\ldots}$ ng/kg 1418

$\cancel{107} \times 0.00126 \times \frac{1}{1.16} \times \frac{210{,}000}{\cancel{5{,}000{,}000}} = \cancel{\ldots}$ ng/kg 1416

CHANNEL: 1A - 1 TITLE: PINB 29

DC-SS-23

SAMPLE: 9770 DF=500 METHOD: CFPA CALIBRATION: FS - ...

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WIDTH SEC
1		0.0000	1.404				
2	B-BHC	1777.195		0.097			
3		0.0000					
4		0.0000	3.758				
5	HEPTACHLO	1081.505		-0.159			
6		0.0000					
7	ALDRIN	1761.649		-0.122			
8		0.0000					
9		0.0000					
10	HEPT EPOX	5221.648		0.137			
11		0.0000	6.515				
12	A-ENDO	5109.574		-0.210			
13	4,4'-DDE	3707.504		-0.070			
14	DIELDRIN	3703.979		0.174			
15	B-ENDO	3455.964		0.010			
16	4,4'-DDD	7518.563		-0.223			
17	ENDRIN	3071.1423		0.438			
18	ENDO 504	11360.67		-0.273			
19		0.0000					
20	4,4'DDT	21427.97	13.668	0.398			
21	END KETON	6165.739	15.969	0.449			
22		0.0000					
23		0.0000					
24	DBC	7827.585	25.851	-1.039			
25		0.0000	29.974				

TOTALS: 81456.78 -0.393

DETECTED PKS: 36 REJECTED PKS: 11

DIVISOR: 1.50000 MAXIMUM: 500000.000

NOISE: 34.3 OFFSET: -26

RACK: 2 VIAL: 14 INJ: 1

NOTES:
NOTE#: 2559-41 ...
SECURE AREA: 0 ...
INST: VARIAN ...
COLUMN: ... GLASS ... ID ...
LIQUID PHASE: ...
CARRIER GAS: N2 @ 50 ML/MIN.
DET: ... INJ: ... C
200 C ISOTHERMAL ...
AUTOSAMPLER
...

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MATRIX SPIKE DATA

1. FORM I OF NON-SPIKED COMPOUNDS
2. RAW DATA VOA, S-V, PESTICIDES
   (a) RIC AND QUANT REPORTS (GC/MS)
   (b) CHROMATOGRAMS AND LISTING (GC)

ORIGINAL MISSING

PAGES 450 - 467

Sample Number
DC - SS-03-MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: 11-446

Lab Sample ID No: 9750 MS QC Report No: _____

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Slogtowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: _____

Date Analyzed: 11-17-86

Conc./Dil Factor: 2 pH 8.1

Percent Moisture: (Not Decanted) 15

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2400u
74-83-9	Bromomethane	2400u
75-01-4	Vinyl Chloride	2400u
75-00-3	Chloroethane	2400u
75-09-2	Methylene Chloride	4600 B
67-64-1	Acetone	4300 B
75-15-0	Carbon Disulfide	1200u
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	1200u
156-60-5	Trans-1, 2-Dichloroethene	1200u
67-66-3	Chloroform	1200u
107-06-2	1, 2-Dichloroethane	1200u
78-93-3	2-Butanone	8600 B
71-55-6	1, 1, 1-Trichloroethane	1200u
56-23-5	Carbon Tetrachloride	1200u
108-05-4	Vinyl Acetate	2400u
75-27-4	Bromodichloromethane	1200u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1200u
10061-02-6	Trans-1, 3-Dichloropropene	1200u
79-01-6	Trichloroethene	SPIKE
124-48-1	Dibromochloromethane	1200u
79-00-5	1, 1, 2-Trichloroethane	1200u
71-43-2	Benzene	SPIKE
10061-01-5	cis-1, 3-Dichloropropene	1200u
110-75-8	2-Chloroethylvinylether	2400u
75-25-2	Bromoform	1200u
108-10-1	4-Methyl-2-Pentanone	2400u
591-78-6	2-Hexanone	2400u
127-18-4	Tetrachloroethene	1200u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1200u
108-88-3	Toluene	SPIKE
108-90-7	Chlorobenzene	SPIKE
100-41-4	Ethylbenzene	1200u
100-42-5	Styrene	1200u
	Total Xylenes	1200u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number DC-SS-03MS

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-2-86

Conc/Dil Factor 2

Percent Moisture (Decanted) 15

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	SPIKE	
111-44-4	bis(-2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	SPIKE	
541-73-1	1 3-Dichlorobenzene	390	U
106-46-7	1 4-Dichlorobenzene	SPIKE	
100-51-6	Benzyl Alcohol	390	U
95-50-1	1 2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
39638-32-9	bis(2-chloroisopropyl)Ether	390	U
106-44-5	4-Methylpheno	390	U
621-64-7	N-Nitroso-Di-n-Propylamine	SPIKE	
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2. 4-Dimethylphenol	390	U
65-85-0	Benzoic Acid	1900	U
111-91-1	bis(-2-Chloroethoxy)Methane	390	U
120-83-2	2 4-Dichlorophenol	390	U
120-82-1	1. 2. 4-Trichlorobenzene	SPIKE	
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	SPIKE	
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2 4 6-Trichlorophenol	390	U
95-95-4	2 4. 5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethyl Phthalate	390	U
208-96-8	Acenaphthylene	390	U
99-09-2	3-Nitroaniline	1900	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	SPIKE	
51-28-5	2. 4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	SPIKE	
132-64-9	Dibenzofuran	390	U
121-14-2	2 4-Dinitrotoluene	SPIKE	
606-20-2	2 6-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4. 6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	SPIKE	
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-Butylphthalate	850	B
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	SPIKE	
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3. 3'-Dichlorobenzidine	780	U
56-55-3	Benzo(a)Anthracene	390	U
117-81-7	bis(2-Ethylhexyl)Phthalate	190	J
218-01-9	Chrysene	390	U
117-84-0	Di-n-Octyl Phthalate	390	U
205-99-2	Benzo(b)Fluoranthene	390	U
207-08-9	Benzo(k)Fluoranthene	390	U
50-32-8	Benzo(a)Pyrene	390	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	390	U
53-70-3	Dibenz(a h)Anthracene	390	U
191-24-2	Benzo(g h i)Perylene	390	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No V-4465

Sample Number DC-SS-03MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 2

Percent Moisture (decanted) 15.2

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	32 U
319-85-7	Beta-BHC	32 U
319-86-8	Delta-BHC	32 U
58-89-9	Gamma-BHC (Lindane)	27.2 S
76-44-8	Heptachlor	INF. S
309-00-2	Aldrin	26.2 S
1024-57-3	Heptachlor Epoxide	32 U
959-98-8	Endosulfan I	32 U
60-57-1	Dieldrin	79.8 S
72-55-9	4,4'-DDE	64 U
72-20-8	Endrin	83.8 S
33213-65-9	Endosulfan II	64 U
72-54-8	4,4'-DDD	64 U
1031-07-8	Endosulfan Sulfate	64 U
50-29-3	4,4'-DDT	INF S
72-43-5	Methoxychlor	320 U
53494-70-5	Endrin Ketone	64 U
57-74-9	Chlordane	320 U
8001-35-2	Toxaphene	640 U
12674-11-2	Aroclor-1016	320 U
11104-28-2	Aroclor-1221	320 U
11141-16-5	Aroclor-1232	320 U
53469-21-9	Aroclor-1242	320 U
12672-29-6	Aroclor-1248	320 U
11097-69-1	Aroclor-1254	640 U
11096-82-5	Aroclor-1260	640 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

S = Spiked Compound
INF = Interference

Form 1

7 85
491095

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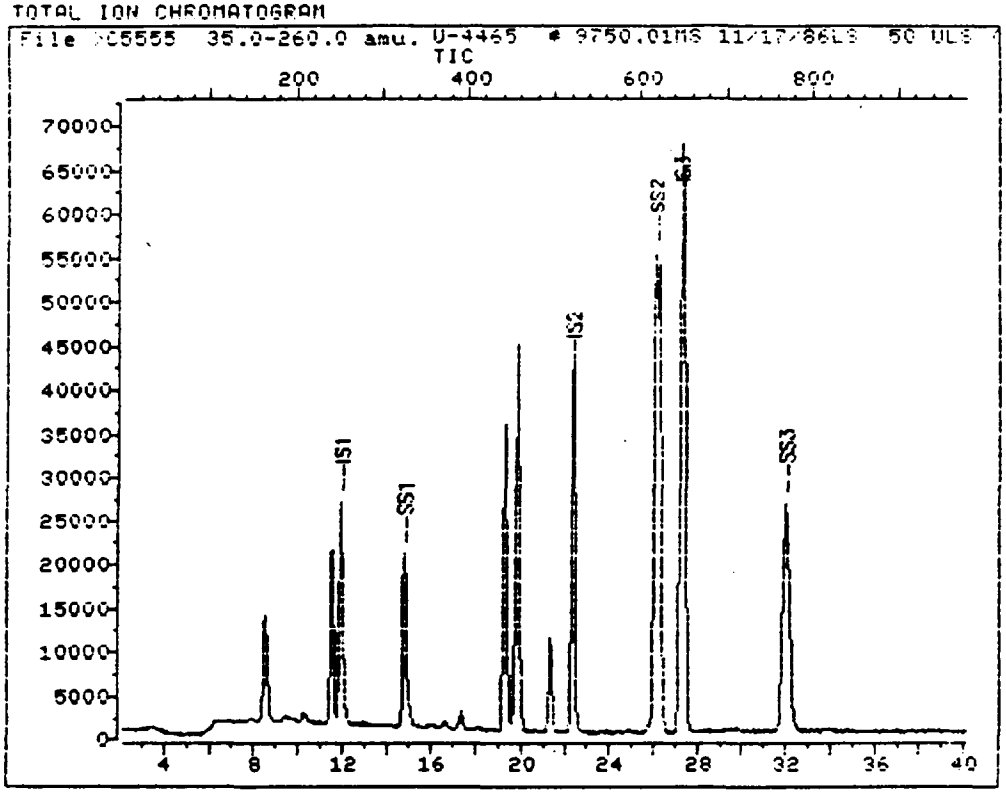
TOTAL ION CHROMATOGRAM



Data File: >C5555::D3
Name: U-4465 # 9750.01MS DC-56-03-MS
Misc: 11/17/86LS 50 ULS (4.25g IN 10 MLS MEOH) + 10 UL IS/S

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861117 11:28

Operator ID: USER8
Quant Time: 861117 19:45
Injected at: 861117 19:04

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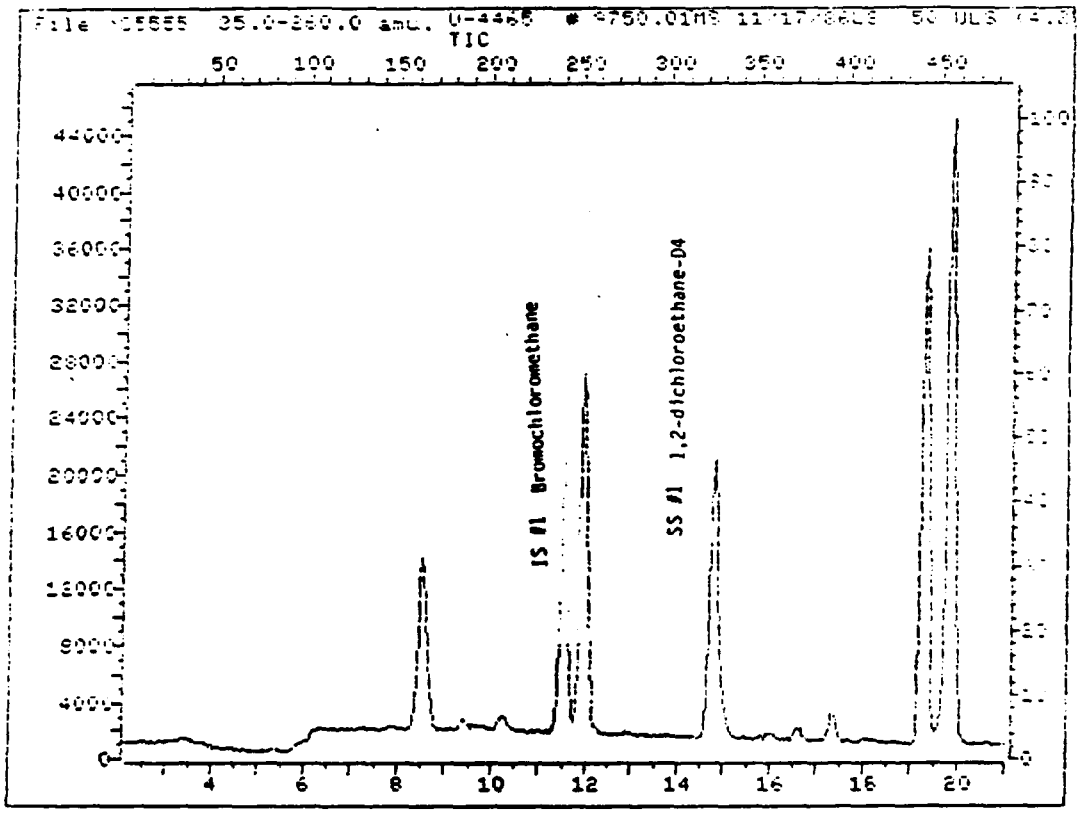
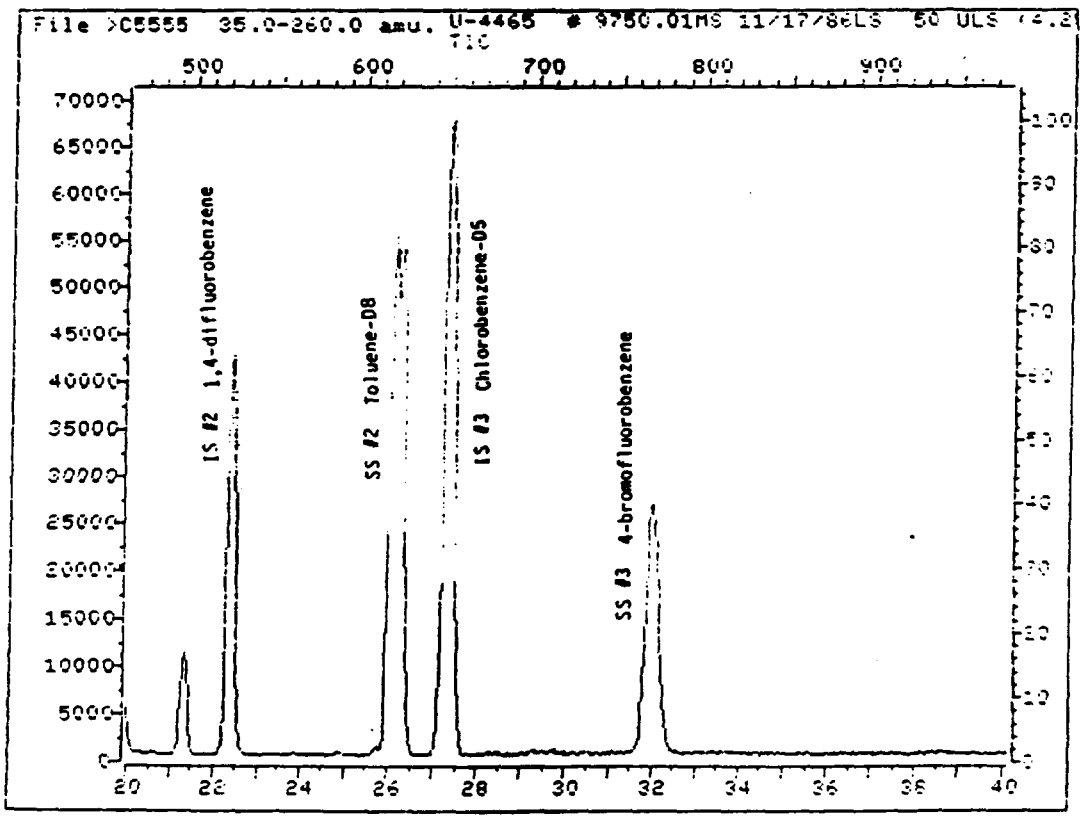
DC-SS-C3
MS





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861117 19:45
Output File: ^C5555::D2 Injected at: 861117 19:04
Data File: >C5555::D3 Dilution Factor: 1.00
Name: U-4465 # 9750.01MS DC-SS-03-MS
Misc: 11/17/86LS 50 ULS (4.25g IN 10 MLS MEOH) + 10 UL IS/S

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861117 11:28

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.92	253	40974	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.51	165	35175	16.72	UG/L	100
7)	ACETONE	43	9.44	189	8772	15.68	UG/L	100
9)	~~CARBON DISULFIDE~~	~~76~~	~~10.25~~	~~210~~	~~12467~~	~~2.46~~	~~UG/L~~ NOCW	100
10)	1,1-DICHLOROETHENE	61	11.53	243	80084	34.15	UG/L	99
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.79	327	82870	44.87	UG/L	87
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.36	522	192060	50.00	UG/L	100
17)	2-BUTANONE	72	14.91	330	5085	31.70	UG/L	100
24)	TRICHLOROETHENE	130	19.29	443	66675	41.82	UG/L	90
26)	~~1,1,2-TRICHLOROETHANE~~	~~97~~	~~19.29~~	~~443~~	~~43736~~	~~36.29~~	~~UG/L~~ NOCW	13
27)	BENZENE	78	19.83	457	193661	42.86	UG/L	100
28)	~~CIS-1,3-DICHLOROPROPENE~~	~~75~~	~~19.83~~	~~457~~	~~3671~~	~~2.24~~	~~UG/L~~ NOCW	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.25	648	145516	50.00	UG/L	100
36)	TOLUENE-D8 (SURR)	98	26.08	618	212980	46.90	UG/L	94
37)	TOLUENE	92	26.27	623	130111	43.46	UG/L	96
38)	CHLOROBENZENE	112	27.37	651	162400	45.12	UG/L	99
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.98	770	103084	46.33	UG/L	100

* Compound is ISTD

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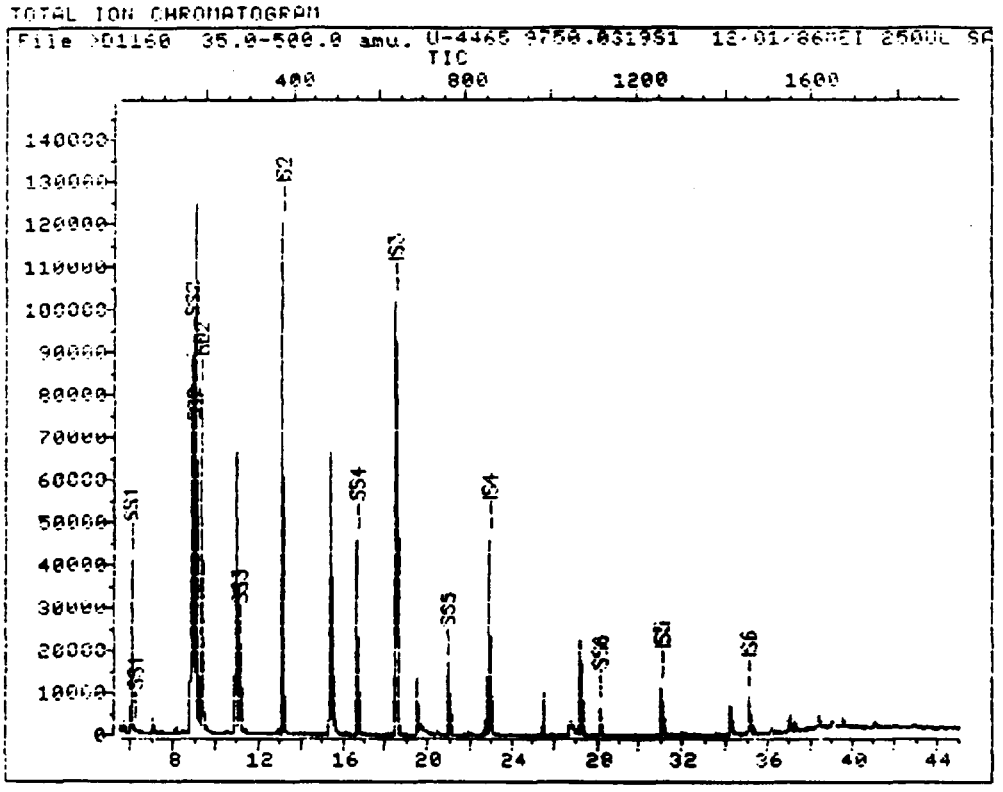

Data File: >D1160::D3
Name: U-4465 9750.031951 DC-SS-03MS
Misc: 12/01/86MEI 250UL SAMPLE + 250UL MEOL2 + 5UL IS BTL# 8

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 17:43

Operator ID: USER6
Quant Time: 861202 00:57
Injected at: 861202 00:10

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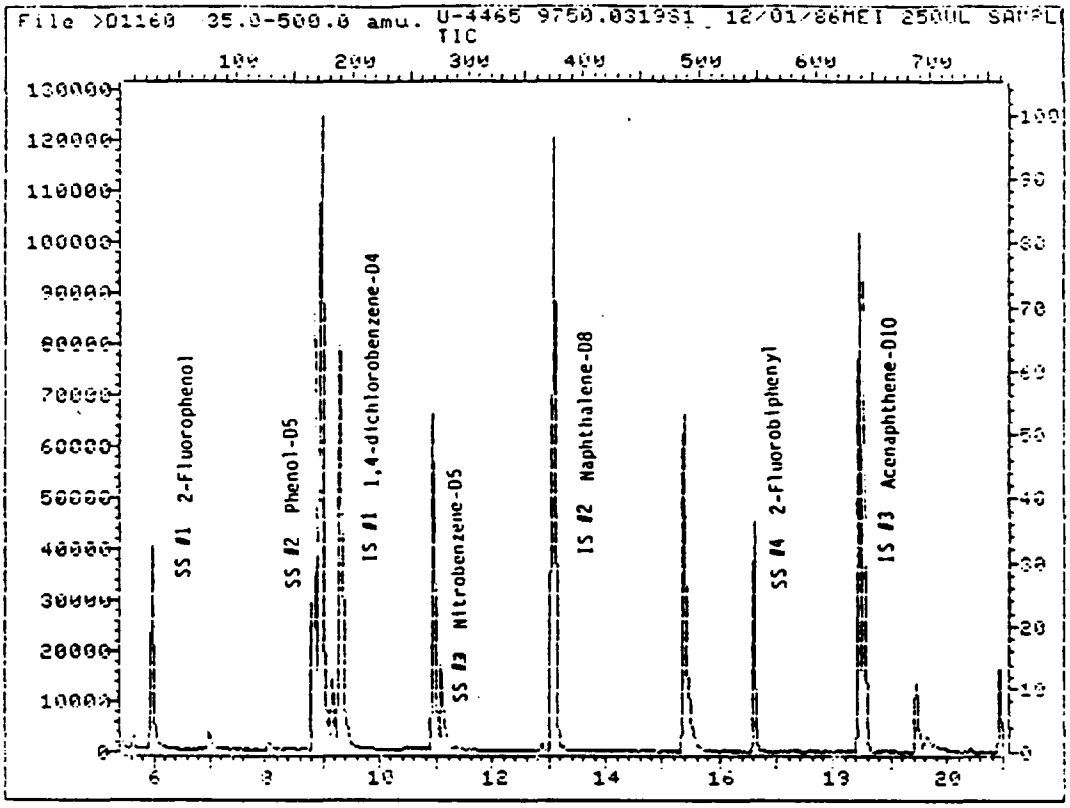
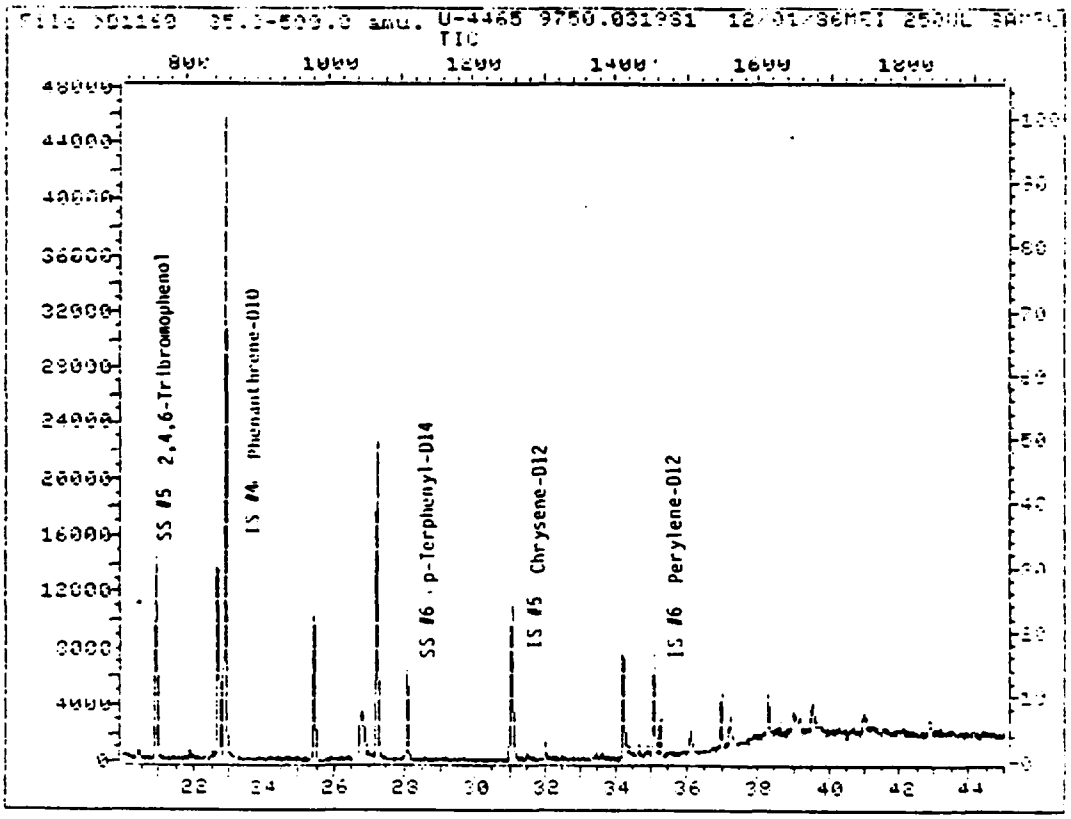
DC-SS-03 MS





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861202 00:52
Output File: ^D1160::Q2 Injected at: 861202 00:10
Data File: >D1160::D3 Dilution Factor: 2.00
Name: U-4465 9750.0319S1 DC-SS-03 MS
Misc: 12/01/86MEI 250UL SAMPLE + 250UL MECL2 + 5UL IS BIL# 8

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 17:43

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.28	188	39391	40.00	UG/L	87
~~4)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~8.84~~	~~166~~	~~3663~~	~~5.26~~	~~UG/L~~	No BJM 42
2)	PHENOL-D5	(SURR)	99	8.94	171	44117	63.36	UG/L	96
~~4)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~9.08~~	~~188~~	~~947~~	~~1.36~~	~~UG/L~~	No BJM 85
5)	2-FLUOROPHENOL	(SURR)	112	5.96	25	28875	61.47	UG/L	75
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.21~~	~~37~~	~~890~~	~~1.37~~	~~UG/L~~	No BJM 77
6)	PHENOL		94	8.98	173	85079	133.12	UG/L	66
~~7)~~	~~ANILINE~~		~~93~~	~~8.44~~	~~166~~	~~1419~~	~~2.24~~	~~UG/L~~	
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.35~~	~~191~~	~~22085~~	~~34.34~~	~~UG/L~~	No BJM
10)	1,4-DICHLOROBENZENE		146	9.35	191	22085	31.84	UG/L	98
15)	2-CHLOROPHENOL		128	8.84	166	71502	128.78	UG/L	97
17)	N-NITROSO-DI-N-PROPYLAMINE		70	10.93	269	38261	69.00	UG/L	93
~~18)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.10~~	~~277~~	~~4033~~	~~7.27~~	~~UG/L~~	No BJM 95
19)	*NAPHTHALENE-D8	(IS)	136	13.09	325	143120	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.10	277	19768	31.85	UG/L	93
28)	1,2,4-TRICHLOROBENZENE		180	13.03	372	32908	52.38	UG/L	100
~~29)~~	~~1,2,4-TRICHLOROBENZENE~~		~~180~~	~~13.22~~	~~381~~	~~182~~	~~.29~~	~~UG/L~~	No BJM 100
32)	4-CHLORO-3-METHYLPHENOL		107	15.38	487	59498	128.37	UG/L	97
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.38~~	~~487~~	~~45939~~	~~45.72~~	~~UG/L~~	No BJM 18
34)	*ACENAPHTHENE-D10	(IS)	162	18.45	638	54908	40.00	UG/L	95
38)	2-FLUOROBIPHENYL	(SURR)	172	16.62	548	41302	35.97	UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.45~~	~~638~~	~~17668~~	~~12.50~~	~~UG/L~~	No BJM 100
47)	ACENAPHTHENE		153	18.53	642	66870	74.99	UG/L	94
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.92	759	8691	49.50	UG/L	97
50)	4-NITROPHENOL		139	19.63	696	4858	80.91	UG/L	100
~~51)~~	~~4-NITROPHENOL~~		~~139~~	~~20.46~~	~~716~~	~~193~~	~~3.21~~	~~UG/L~~	No BJM 100
51)	2,4-DINITROTOLUENE		165	19.45	682	10213	64.27	UG/L	100
~~54)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.45~~	~~679~~	~~7040~~	~~36.43~~	~~UG/L~~	No BJM 100
55)	*PHENANTHRENE-D10	(IS)	188	22.87	855	59374	40.00	UG/L	98
60)	PENTACHLOROPHENOL		266	22.67	845	8486	79.90	UG/L	100
63)	DI-N-BUTYLPHTHALATE		149	25.44	981	17751	21.59	UG/L	99
65)	*CHRYSENE-D12	(IS)	240	31.04	1256	20882	40.00	UG/L	100
67)	PYRENE		202	27.21	1068	35120	94.23	UG/L	95
68)	TERPHENYL-D14	(SURR)	244	28.09	1111	9912	42.36	UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.02	1304	996	4.75	UG/L	81
74)	*PERYLENE-D12	(IS)	264	35.09	1455	16504	40.00	UG/L	100

* Compound is ISTD

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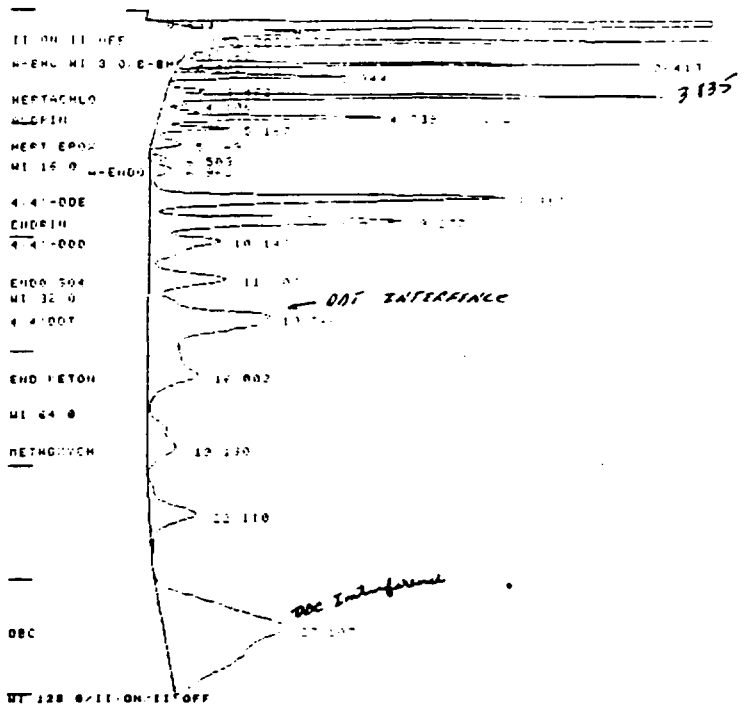

CHANNEL: 1A - 1 TITLE: RUN# 41 17:44 25 NOV 85

SAMPLE: 9750 MS DF:2 METHOD: ZERA CALCULATION: ES - ANALYS

DC-SS-03 MS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WT.% (SEC)
1		0.0000	1.[illegible]		7539200	BV	3.50
2	~~B-BHC~~	9.5590	2.[illegible]	0.048	64[illegible]	VV	? 6.[illegible]
3	B-BHC ✓ 86	23.0257	2.[illegible]	-0.007	352[illegible]	VV	5.25
4		0.0000	2.[illegible]		22[illegible]	VB	5.[illegible]
5		0.0000	3.[illegible]		[illegible]	BV	? 8.[illegible]
6		0.0000	3.[illegible]		[illegible]	VV	? 10.[illegible]
INF 7	HEPTACHLO ✓ 183	46.8316	3.[illegible]	-0.005	[illegible]	VV	[illegible]
8		0.0000	4.[illegible]		[illegible]	VV	? 9.[illegible]
9	ALDRIN ✓ 83	22.1736	4.[illegible]	-0.001	[illegible]	VV	10.[illegible]
10		0.0000	5.[illegible]		[illegible]	VV	9.[illegible]
11	~~HEPT EPOX~~	5.9816	5.[illegible]	0.108	[illegible]	VV	? 16.[illegible]
12		0.0000	6.[illegible]		[illegible]	VV	17.[illegible]
13	~~4,4'-DDE~~	5.7872	6.[illegible]	-0.198	[illegible]	VV	27.[illegible]
14	DIELDRIN ✓ 101	67.5639	8.[illegible]	-0.013	[illegible]	VV	19.[illegible]
15	ENDRIN ✓ 106	71.0352	9.[illegible]	-0.003	[illegible]	VV	21.25
16	~~4,4'-DDD~~	29.9878	10.[illegible]	-0.188	[illegible]	VV	37.[illegible]
17	~~ENDO 504~~	38.1937	11.[illegible]	-0.308	[illegible]	VV	35.25
INF 18	4,4'DDT ✓ 258	171.9040	13.[illegible]	0.076	1107574	VV	59.69
19	~~END KETON~~	35.1050	16.[illegible]	0.482	519163	VV	? 76.44
20	~~METHOXYCH~~	72.2506	19.[illegible]	-0.630	[illegible]	VB	91.44
21		0.0000	22.[illegible]		345505	BV	51.25
22	DBC INF.	205.6050	27.[illegible]	0.077	2325647	VB	160.56

TOTALS: 607.2272 -0.552 16821[illegible]

DETECTED PKS: 35 REJECTED PKS: 13

DIVISOR: ~~[illegible]~~ 1.29 MULTIPLIER: 2000.00000

NOISE: 22.5 OFFSET: -1

NOTES:
NOTEBOOK:259-41 ANALYST: K.JUREK, P. ANSON
SECURE AREA: D JOB#:U-4465
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: RAW SLYS

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MATRIX SPIKE DUPLICATE DATA

1. FORM I OF NON-SPIKED COMPOUNDS
2. RAW DATA VOA, S-V, PESTICIDES
   (a) RIC AND QUANT REPORTS (GC/MS)
   (b) CHROMATOGRAMS AND LISTING (GC)

Sample Number
DC-SS-03 MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No. U-4465
Lab Sample ID No: 9750 MSD QC Report No:
Sample Matrix: Soil Contract No. IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-17-86
Conc./Dil Factor: 2 pH 8.1
Percent Moisture: (Not Decanted) 15

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2400u
74-83-9	Bromomethane	2400u
75-01-4	Vinyl Chloride	2400u
75-00-3	Chloroethane	2400u
75-09-2	Methylene Chloride	4800 B
67-64-1	Acetone	4100 B
75-15-0	Carbon Disulfide	1200u
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	1200u
156-60-5	Trans-1, 2-Dichloroethene	1200u
67-66-3	Chloroform	1200u
107-06-2	1, 2-Dichloroethane	1200u
78-93-3	2-Butanone	8500 B
71-55-6	1, 1, 1-Trichloroethane	1200u
56-23-5	Carbon Tetrachloride	1200u
108-05-4	Vinyl Acetate	2400u
75-27-4	Bromodichloromethane	1200u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1200u
10061-02-6	Trans-1, 3-Dichloropropene	1200u
79-01-6	Trichloroethene	SPIKE
124-48-1	Dibromochloromethane	1200u
79-00-5	1, 1, 2-Trichloroethane	1200u
71-43-2	Benzene	SPIKE
10061-01-5	cis-1, 3-Dichloropropene	1200u
110-75-8	2-Chloroethylvinylether	2400u
75-25-2	Bromoform	1200u
108-10-1	4-Methyl-2-Pentanone	2400u
591-78-6	2-Hexanone	2400u
127-18-4	Tetrachloroethene	1200u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1200u
108-88-3	Toluene	SPIKE
108-90-7	Chlorobenzene	SPIKE
100-41-4	Ethylbenzene	1200u
100-42-5	Styrene	1200u
	Total Xylenes	1200u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name Ecology & Environment Inc.

Case No V-4465

Sample Number DC-SS-03MSD

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed: 12-2-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 15

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	SPIKE
111-44-4	bis(-2-Chloroethyl)Ether	390 U
95-57-8	2-Chlorophenol	SPIKE
541-73-1	1 3-Dichlorobenzene	390 U
106-46-7	1. 4-Dichlorobenzene	SPIKE
100-51-6	Benzyl Alcohol	390 U
95-50-1	1. 2-Dichlorobenzene	390 U
95-48-7	2-Methylphenol	390 U
39638-32-9	bis(2-chloroisopropyl)Ether	390 U
106-44-5	4-Methylphenol	390 U
621-64-7	N-Nitroso-Di-n-Propylamine	SPIKE
67-72-1	Hexachloroethane	390 U
98-95-3	Nitrobenzene	390 U
78-59-1	Isophorone	390 U
88-75-5	2-Nitrophenol	390 U
105-67-9	2. 4-Dimethylphenol	390 U
65-85-0	Benzoic Acid	1900 U
111-91-1	bis(-2-Chloroethoxy)Methane	390 U
120-83-2	2. 4-Dichlorophenol	390 U
120-82-1	1. 2. 4-Trichlorobenzene	SPIKE
91-20-3	Naphthalene	390 U
106-47-8	4-Chloroaniline	390 U
87-68-3	Hexachlorobutadiene	390 U
59-50-7	4-Chloro-3-Methylphenol	SPIKE
91-57-6	2-Methylnaphthalene	390 U
77-47-4	Hexachlorocyclopentadiene	390 U
88-06-2	2 4 6-Trichlorophenol	390 U
95-95-4	2. 4. 5-Trichlorophenol	1900 U
91-58-7	2-Chloronaphthalene	390 U
88-74-4	2-Nitroaniline	1900 U
131-11-3	Dimethyl Phthalate	390 U
208-96-8	Acenaphthylene	390 U
99-09-2	3-Nitroaniline	1900 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	SPIKE
51-28-5	2. 4-Dinitrophenol	1900 U
100-02-7	4-Nitrophenol	SPIKE
132-64-9	Dibenzofuran	390 U
121-14-2	2 4-Dinitrotoluene	SPIKE
606-20-2	2. 6-Dinitrotoluene	390 U
84-66-2	Diethylphthalate	390 U
7005-72-3	4-Chlorophenyl-phenylether	390 U
86-73-7	Fluorene	390 U
100-01-6	4-Nitroaniline	1900 U
534-52-1	4. 6-Dinitro-2-Methylphenol	1900 U
86-30-6	N-Nitrosodiphenylamine (1)	390 U
101-55-3	4-Bromophenyl-phenylether	390 U
118-74-1	Hexachlorobenzene	390 U
87-86-5	Pentachlorophenol	SPIKE
85-01-8	Phenanthrene	390 U
120-12-7	Anthracene	390 U
84-74-2	Di-n-Butylphthalate	390 U
206-44-0	Fluoranthene	390 U
129-00-0	Pyrene	SPIKE
85-68-7	Butylbenzylphthalate	390 U
91-94-1	3. 3'-Dichlorobenzidine	780 U
56-55-3	Benzo(a)Anthracene	390 U
117-81-7	bis(2-Ethylhexyl)Phthalate	390 U
218-01-9	Chrysene	390 U
117-84-0	Di-n-Octyl Phthalate	390 U
205-99-2	Benzo(b)Fluoranthene	390 U
207-08-9	Benzo(k)Fluoranthene	390 U
50-32-8	Benzo(a)Pyrene	390 U
193-39-5	Indeno(1 2. 3-cd)Pyrene	390 U
53-70-3	Dibenz(a h)Anthracene	390 U
191-24-2	Benzo(g h. i)Perylene	390 U

(1)-Cannot be separated from diphenylamine

Form I

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number
9750 MSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 2

Percent Moisture (decanted) 15.2

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	32 U
319-85-7	Beta-BHC	32 U
319-86-8	Delta-BHC	32 U
58-89-9	Gamma-BHC (Lindane)	22.4 S
76-44-8	Heptachlor	INF S
309-00-2	Aldrin	22.3 S
1024-57-3	Heptachlor Epoxide	32 U
959-98-8	Endosulfan I	32 U
60-57-1	Dieldrin	67.7 S
72-55-9	4, 4'-DDE	64 U
72-20-8	Endrin	70 S
33213-65-9	Endosulfan II	64 U
72-54-8	4, 4'-DDD	64 U
1031-07-8	Endosulfan Sulfate	64 U
50-29-3	4, 4'-DDT	INF S
72-43-5	Methoxychlor	320 U
53494-70-5	Endrin Ketone	64 U
57-74-9	Chlordane	320 U
8001-35-2	Toxaphene	640 U
12674-11-2	Aroclor-1016	320 U
11104-28-2	Aroclor-1221	320 U
11141-16-5	Aroclor-1232	320 U
53469-21-9	Aroclor-1242	320 U
12672-29-6	Aroclor-1248	320 U
11097-69-1	Aroclor-1254	640 U
11096-82-5	Aroclor-1260	640 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

✓

S= Spiked Compound

INF= Interferences

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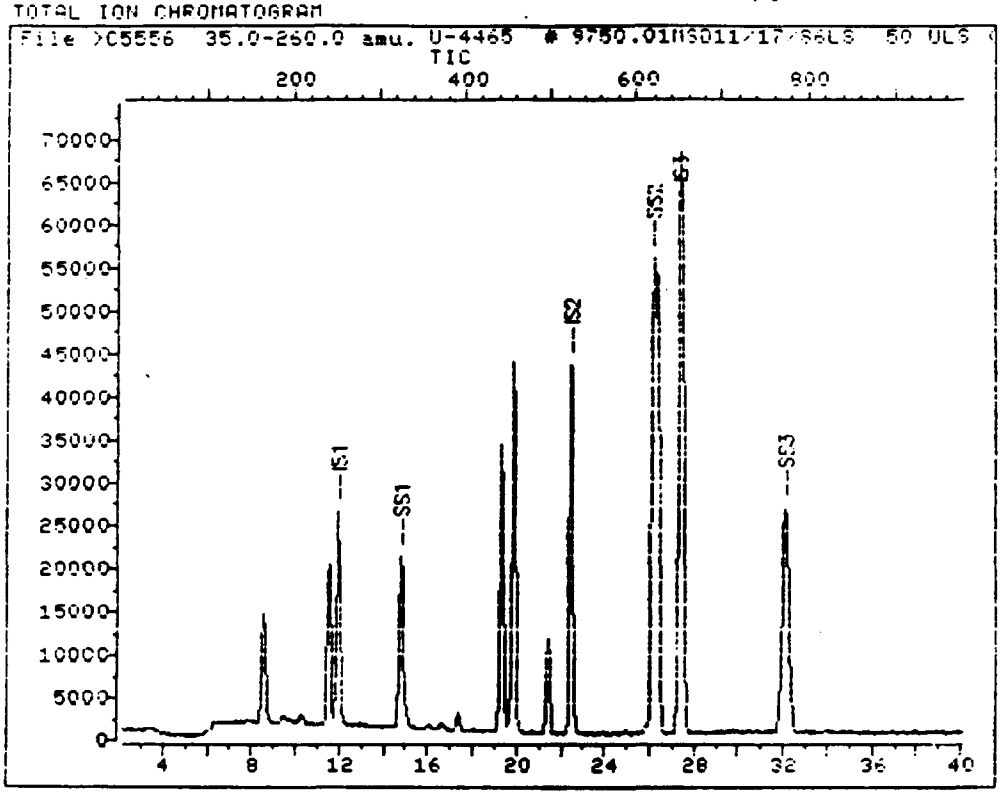
TOTAL ION CHROMATOGRAM



Data File: >C5556::D3
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Misc: 11/17/86LS 50 ULS (4.14g IN 10 MLS MEOH) + 10 UL IS S

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861117 11:28

Operator ID: USER8
Quant Time: 861117 20:35
Injected at: 861117 19:54

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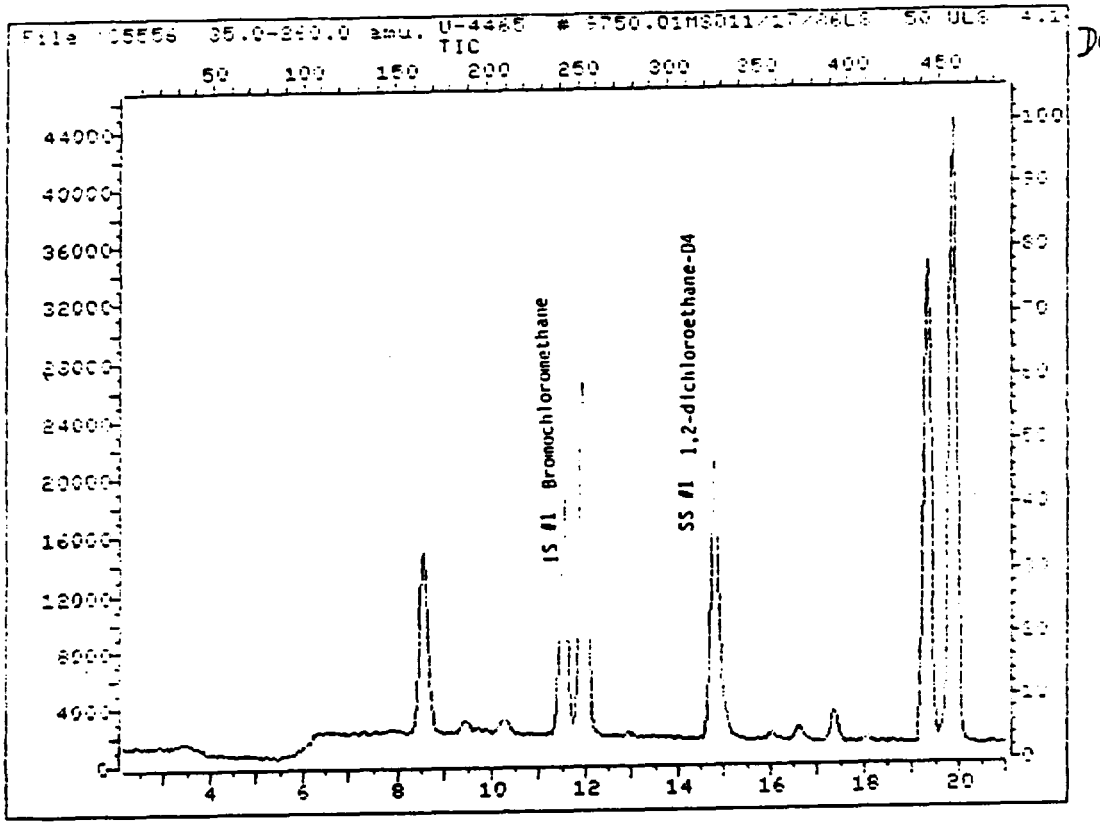
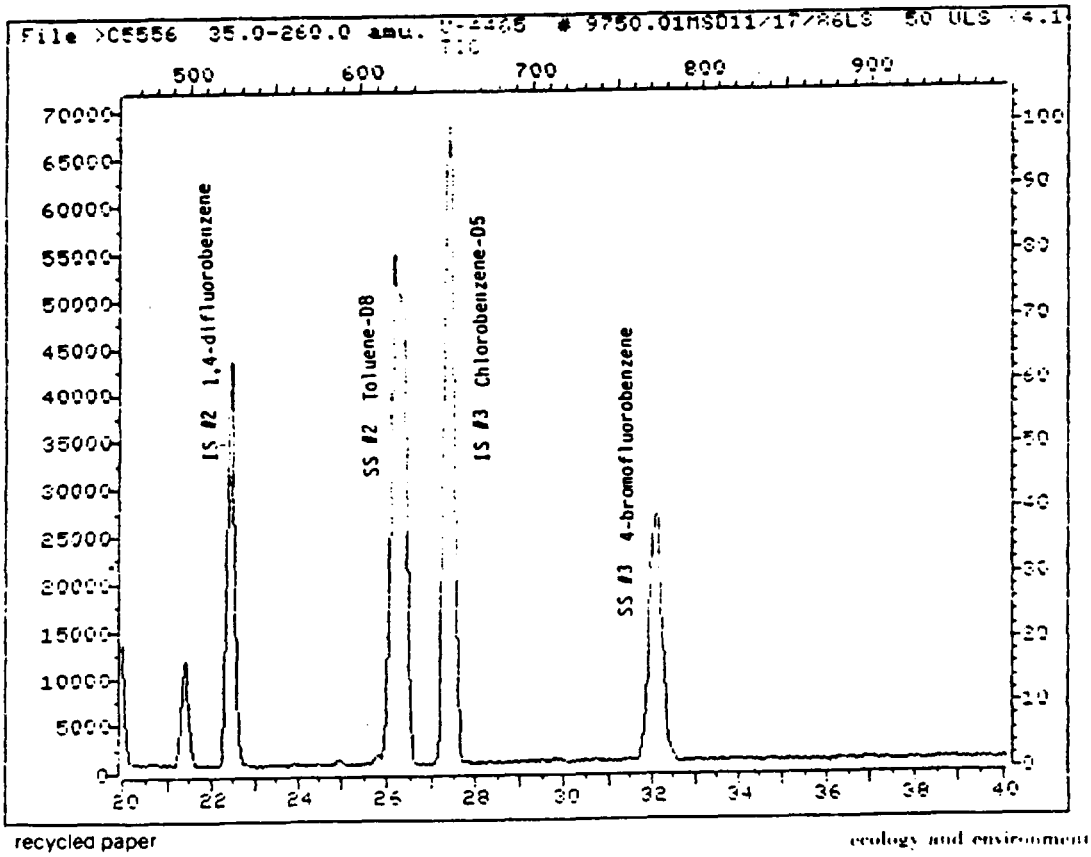
DC-SS-C3
MSD





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861117 20:35
Output File: ^C5556::D2 Injected at: 861117 19:54
Data File: >C5556::D3 Dilution Factor: 1.00
Name: U-4465 # 9750.01MSD DC-SS-03-MSD
Misc: 11/17/86LS 50 ULS (4.14g IN 10 MLS MEOH) + 10 UL IS/S

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861117 11:28

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.92	253	40946	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.51	165	35482	16.88	UG/L	100
7)	ACETONE	43	9.44	189	7988	14.29	UG/L	100
7)	~~ACETONE~~	~~43~~	~~9.75~~	~~197~~	~~4200~~	~~7.51~~	~~UG/L~~	~~100~~
9)	~~CARBON DISULFIDE~~	~~76~~	~~10.25~~	~~210~~	~~12302~~	~~2.83~~	~~UG/L~~	~~100~~
10)	1,1-DICHLOROETHENE	61	11.53	243	74395	31.75	UG/L	98
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.79	327	83033	44.99	UG/L	89
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.43	524	199113	50.00	UG/L	100
17)	2-BUTANONE	72	14.95	331	4987	29.98	UG/L	100
24)	TRICHLOROETHENE	130	19.33	444	66292	40.11	UG/L	94
27)	BENZENE	78	19.87	458	189912	40.54	UG/L	100
28)	~~CIS-1,3-DICHLOROPROPENE~~	~~75~~	~~19.87~~	~~458~~	~~3694~~	~~2.18~~	~~UG/L~~	~~100~~
31)	*CHLOROBENZENE-D5 (IS)	117	27.33	650	150420	50.00	UG/L	100
36)	TOLUENE-D8 (SURR)	98	26.15	620	214465	45.69	UG/L	94
37)	TOLUENE	92	26.35	625	128248	41.44	UG/L	93
38)	CHLOROBENZENE	112	27.44	653	162230	43.61	UG/L	98
40)	4-BROMOFLUOROBENZENE(SURR)	95	32.10	773	103419	44.97	UG/L	100

* Compound is ISTD

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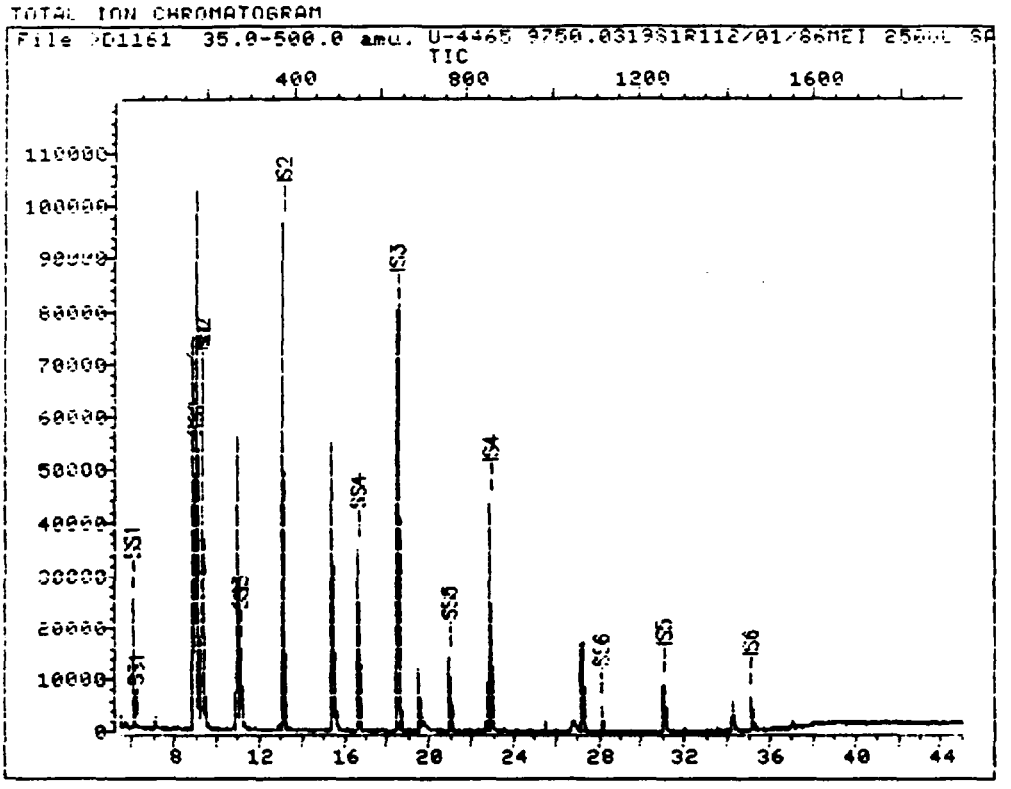

Data File: >D1161::D3
Name: U-4465 9750.0319S1R1 DC-SS-03 MSD
Misc: 12/01/86MEI 250UL SAMPLE + 250UL MECL2 + 5UL IS BTL# 9

Id File: BNA:DR::D2
Title: BNA ID FILE FOR THE HP 5970 (8)
Last Calibration: 861201 17:43

Operator ID: USER6
Quant Time: 861202 01:50
Injected at: 861202 01:02

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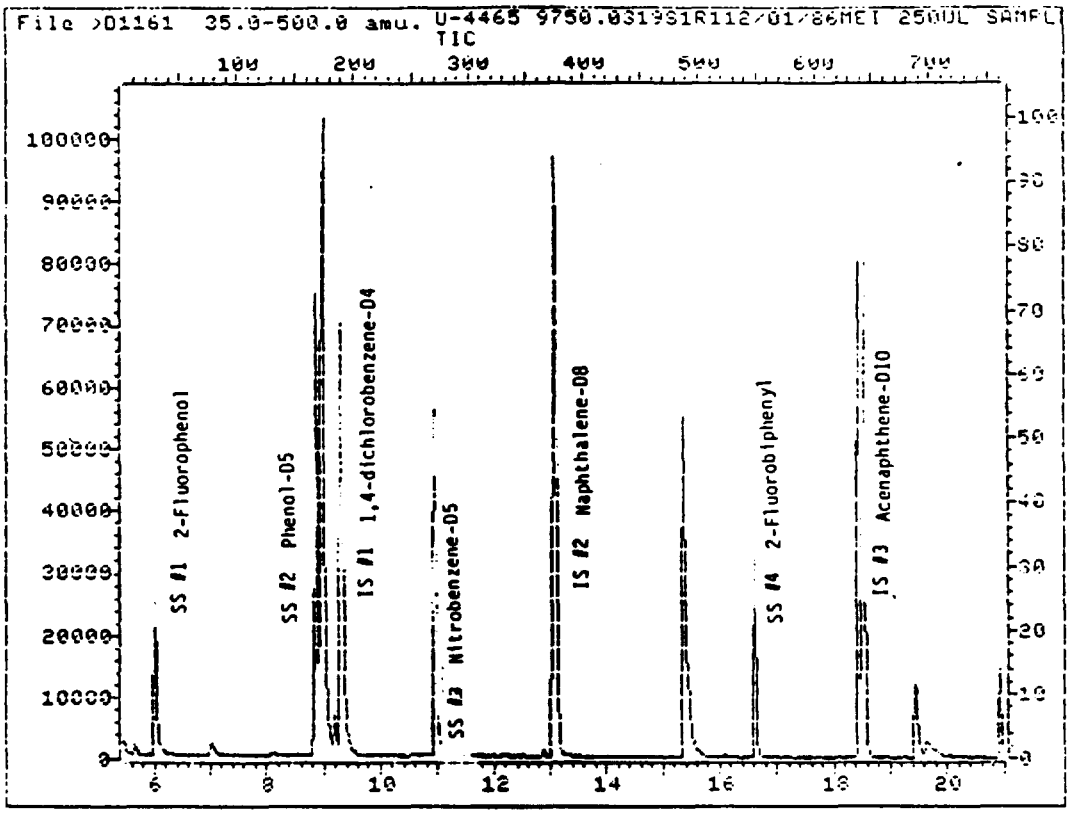
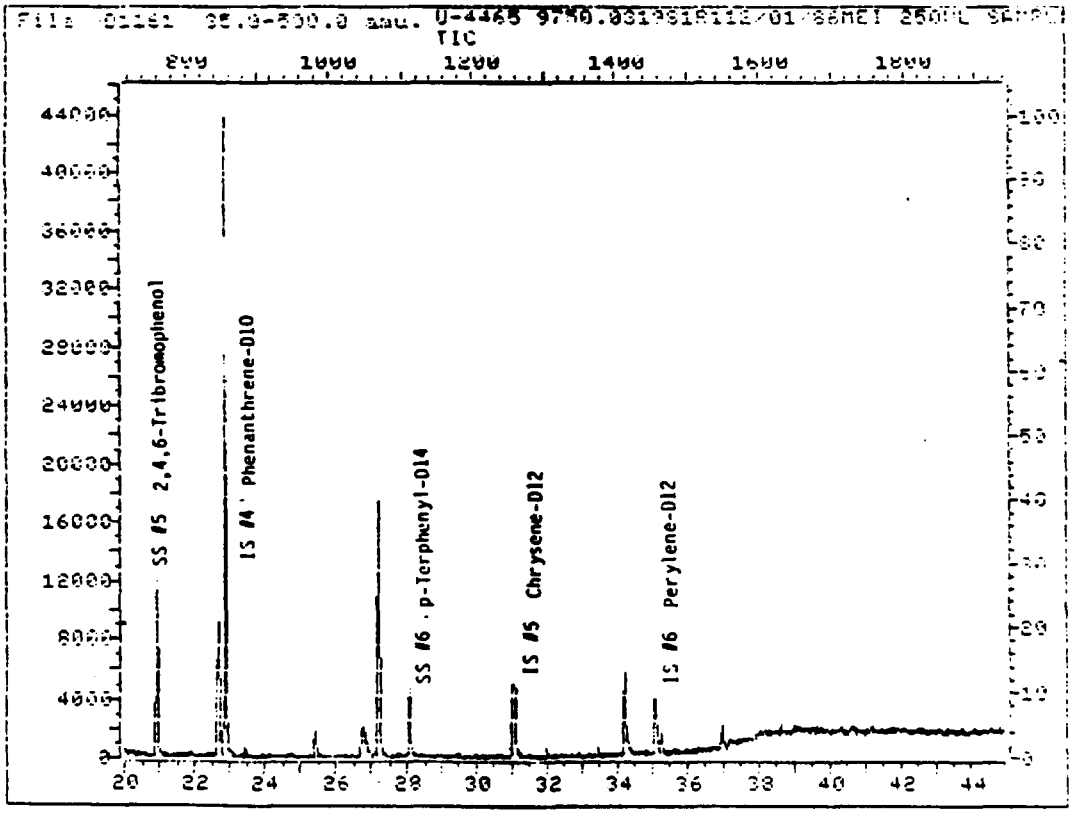
DC-SS-03MSD





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861202 01:50
Output File: ^D1161::U2 Injected at: 861202 01:02
Data File: >D1161::D3 Dilution Factor: 2.00
Name: U-4465 9750.0319S1R1 DC SS-03 MSD
Misc: 12/01/86MEI 250UL SAMPLE + 250UL MEOL2 + 5UL IS BIL# 9

ID File: BNAUR::U2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 17:43

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	Q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.30	189	33581	40.00	UG/L	88
2)	PHENOL-D5	(SURR)	99	8.95	172	35304	59.48	UG/L	97
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~9.30~~	~~184~~	~~508~~	~~.86~~	~~UG/L~~	No B/A 88
5)	2-FLUOROPHENOL	(SURR)	112	6.00	27	21559	53.84	UG/L	82
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.18~~	~~36~~	~~729~~	~~1.85~~	~~UG/L~~	No B/A 53
6)	PHENOL		94	9.00	174	73070	134.12	UG/L	64
~~7)~~	~~ANILINE~~		~~93~~	~~8.87~~	~~164~~	~~1041~~	~~1.95~~	~~UG/L~~	No B/A 1
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.16~~	~~192~~	~~12101~~	~~22.87~~	~~UG/L~~	99
10)	1,4-DICHLOROBENZENE		146	9.36	192	12101	20.47	UG/L	98
15)	2-CHLOROPHENOL		128	8.87	168	56436	111.82	UG/L	95
17)	N-NITROSO-DI-N-PROPYLAMINE		70	10.95	270	31779	67.23	UG/L	88
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.11~~	~~278~~	~~3691~~	~~7.81~~	~~UG/L~~	No B/A 95
19)	*NAPHTHALENE-D8	(IS)	136	13.09	375	124726	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.11	278	16855	31.16	UG/L	88
28)	1,2,4-TRICHLOROBENZENE		180	13.05	373	21800	39.81	UG/L	100
~~28)~~	~~1,2,4-TRICHLOROBENZENE~~		~~180~~	~~13.19~~	~~380~~	~~222~~	~~.41~~	~~UG/L~~	No B/A 0
~~29)~~	~~NAPHTHALENE~~		~~128~~	~~13.15~~	~~378~~	~~712~~	~~.48~~	~~UG/L~~	100
32)	4-CHLORO-3-METHYLPHENOL		107	15.37	487	48406	119.84	UG/L	97
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.37~~	~~482~~	~~36196~~	~~39.53~~	~~UG/L~~	No B/A 19
34)	*ACENAPHTHENE-D10	(IS)	162	18.45	638	48437	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	16.61	548	31767	31.36	UG/L	95
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.47~~	~~649~~	~~15253~~	~~12.13~~	~~UG/L~~	No B/A 100
42)	ACENAPHTHENE		153	18.55	643	54086	68.76	UG/L	97
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.93	760	6677	43.11	UG/L	94
50)	4-NITROPHENOL		139	19.67	698	4115	77.69	UG/L	100
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~20.42~~	~~715~~	~~333~~	~~6.29~~	~~UG/L~~	No B/A 100
51)	2,4-DINITROTOLUENE		165	19.45	687	9498	67.76	UG/L	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.45~~	~~638~~	~~5968~~	~~35.01~~	~~UG/L~~	No B/A 100
55)	*PHENANTHRENE-D10	(IS)	188	22.89	856	52663	40.00	UG/L	91
60)	PENTACHLOROPHENOL		266	22.68	846	5796	61.53	UG/L	100
65)	*CHRYSENE-D12	(IS)	240	31.04	1256	19150	40.00	UG/L	100
67)	PYRENE		202	27.21	1068	29921	87.54	UG/L	93
68)	TERPHENYL-D14	(SURR)	244	28.08	1111	8683	40.46	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.09	1455	14937	40.00	UG/L	100

* Compound is ISTD

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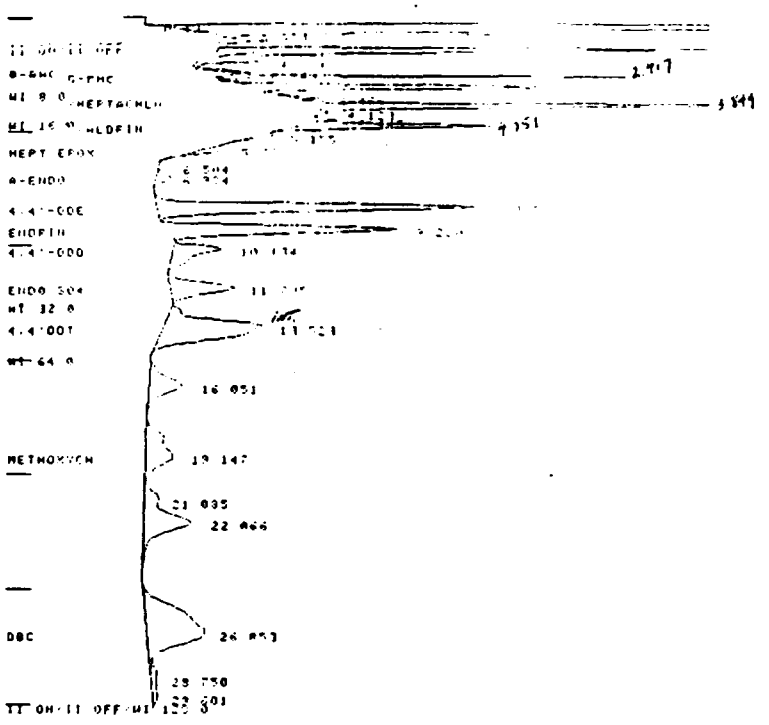
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10%



RECALCULATE ON FILE: SLYS01

CHANNEL: 1A - 1 TITLE: RUN#

SAMPLE: 9750 MSD METHOD: CEPA

DC-SS-03 MSD

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA (COUNTS)	FF	WIDTH
1		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
2	G-BHC 72%	19.0368	2.417	-0.003	[illegible]	[illegible]	[illegible]
3		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
4	HEPTACHLO 56%	53.4129	3.044	0.004	[illegible]	[illegible]	[illegible]
5		0.0000	4.445		[illegible]	[illegible]	[illegible]
6	ALDRIN 71	18.8869	4.751	0.011	[illegible]	[illegible]	[illegible]
7		0.0000	6.704		[illegible]	[illegible]	[illegible]
8	A-ENDO	2.8429	6.994	-0.166	[illegible]	[illegible]	[illegible]
9	DIELDRIN 1%	57.3957	8.725	-0.005	[illegible]	[illegible]	[illegible]
10	ENDRIN 89	59.4544	9.230	0.000	[illegible]	[illegible]	[illegible]
11	4,4'-DDD	15.4406	10.124	-0.196	[illegible]	[illegible]	[illegible]
12	ENDO SO4	27.7976	11.735	-0.315	[illegible]	[illegible]	[illegible]
13	4,4'DDT 165	110.3729	13.523	0.053	[illegible]	[illegible]	[illegible]
14	END KETON	15.1980	16.051	0.531	[illegible]	[illegible]	[illegible]
15	METHOXYCH	68.6429	19.147	-0.663	[illegible]	[illegible]	[illegible]
16		0.0000	21.035		[illegible]	[illegible]	[illegible]
17		0.0000	22.466		[illegible]	[illegible]	[illegible]
18	DBC INTERFERENCE	65.9466	26.953	-0.177	[illegible]	[illegible]	[illegible]
19		0.0000	[illegible]		[illegible]	[illegible]	[illegible]
20		0.0000	29.631		[illegible]	[illegible]	[illegible]

TOTALS: 514.4282 -0.926

DETECTED PKS: 38 REJECTED PKS: 19

DIVISOR: 1.50000 MULTIPLIER: 2000.00000

NOISE: 34.3 OFFSET: -13

NOTES:
NOTEBOOK:259-41 ANALYST: K.[illegible] H.SAMSON
SECURE AREA: D JOB#:U-4465
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

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BLANK DATA

1. FORM I PAGES 1 THROUGH 4
2. RAW DATA VOA, S-V, PESTICIDES
   (a) RIC AND QUANT REPORTS (GC/MS)
   (b) CHROMATOGRAMS AND LISTINGS (GC)

DRAFT

Sample Number
BLKC5546

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No. U-4465
Lab Sample ID No: Method Blank QC Report No:
Sample Matrix: Water Contract No. IL-3140
Data Release Authorized By: [illegible] Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-17-86

Conc./Dil Factor: 2 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u
74-83-9	Bromomethane	2000u
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	3700
67-64-1	Acetone	4900
75-15-0	Carbon Disulfide	1000u
75-35-4	1, 1-Dichloroethene	1000u
75-34-3	1, 1-Dichloroethane	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u
67-66-3	Chloroform	1000u
107-06-2	1, 2-Dichloroethane	1000u
78-93-3	2-Butanone	8000
71-55-6	1, 1, 1-Trichloroethane	1000u
56-23-5	Carbon Tetrachloride	1000u
108-05-4	Vinyl Acetate	2000u
75-27-4	Bromodichloromethane	1000u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000u
10061-02-6	Trans-1, 3-Dichloropropene	1000u
79-01-6	Trichloroethene	1000u
124-48-1	Dibromochloromethane	1000u
79-00-5	1, 1, 2-Trichloroethane	1000u
71-43-2	Benzene	1000u
10061-01-5	cis-1, 3-Dichloropropene	1000u
110-75-8	2-Chloroethylvinylether	2000u
75-25-2	Bromoform	1000u
108-10-1	4-Methyl-2-Pentanone	2000u
591-78-6	2-Hexanone	2000u
127-18-4	Tetrachloroethene	1000u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000u
108-88-3	Toluene	1000u
108-90-7	Chlorobenzene	1000u
100-41-4	Ethylbenzene	1000u
100-42-5	Styrene	1000u
	Total Xylenes	1000u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number BLKC5546

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration ug/l or ug/kg	cw ug/kg
1.	Hexane isomer	VOA	21.4	1200 J	
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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30					

Form 1, Part B

7 85
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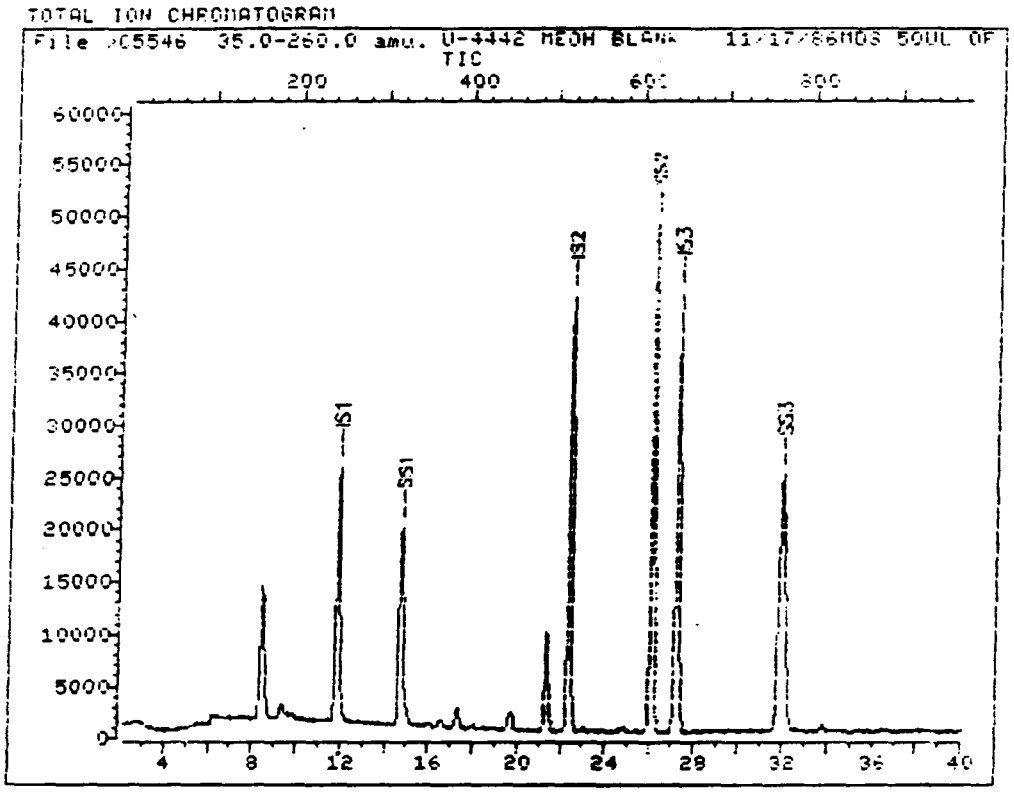

Data File: >C5546::D3
Name: U-4442 MEOH BLANK
Misc: 11/17/86MDS 50UL OF MEOH + 10UL IS/SS IN 5ML DI

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861117 11:28

Operator ID: USER8
Quant Time: 861117 11:52
Injected at: 861117 11:11

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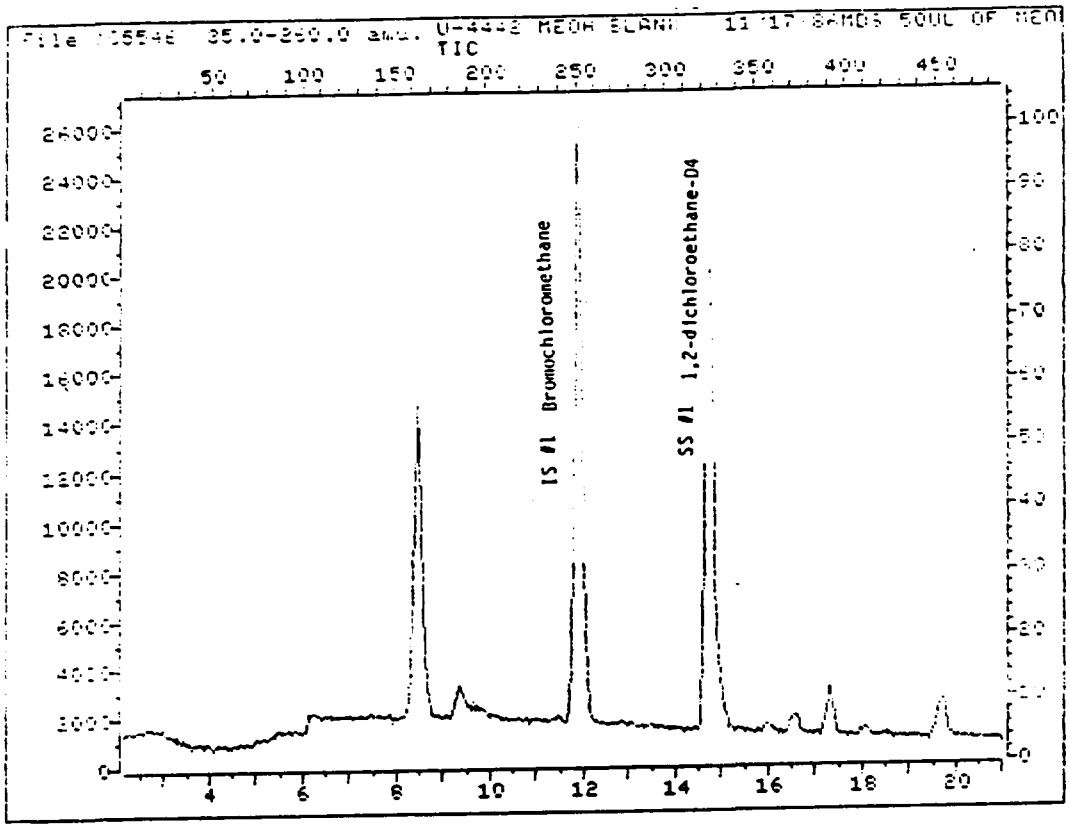
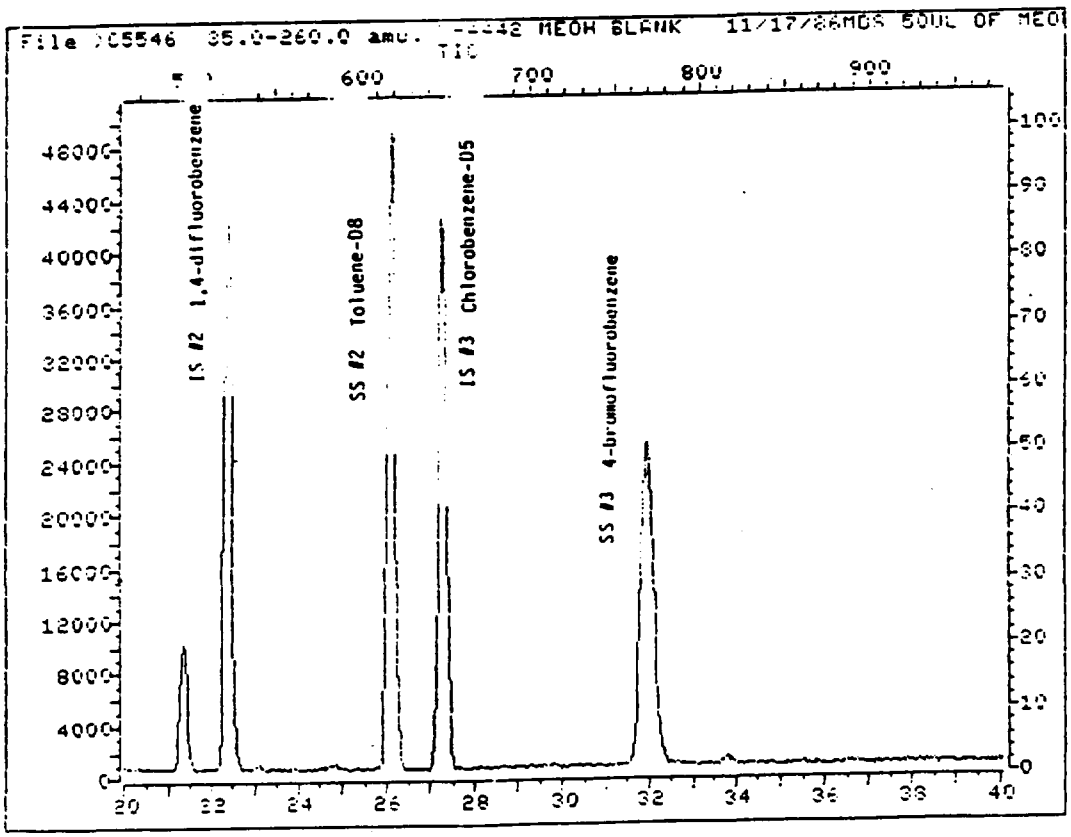
BLKC5546





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ecology and environment

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861117 11:52
Output File: ^C5546::D2 Injected at: 861117 11:11
Data File: >C5546::D3 Dilution Factor: 1.00
Name: U-4442 MEOH BLANK
Misc: 11/17/86MDS 50UL OF MEOH + 10UL IS/SS IN 5MLS DI

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861117 11:28

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.88	252	39296	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.47	164	37430	18.59	UG/L	100
7)	ACETONE		43	9.32	186	13166	24.59	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.75	326	79088	44.76	UG/L	88
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.39	523	186766	50.00	UG/L	100
17)	2-BUTANONE		72	14.87	329	6272	40.20	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.25	648	137665	50.00	UG/L	100
33)	~~2-HEXANONE~~		~~43~~	~~24.64~~	~~581~~	~~2331~~	~~2.84~~	~~UG/L~~ 10 ug/L	100
36)	TOLUENE-D8	(SURR)	98	26.08	618	203953	47.47	UG/L	99
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.94	769	97367	46.26	UG/L	100

* Compound is ISTD

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ecology and environment

Sample Number
BLK C5574

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc. Case No: U-4465
Lab Sample ID No: Method Blank QC Report No:
Sample Matrix: Soil (Water for Soil) Contract No: IL-3140
Data Release Authorized By: [illegible] Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-18-86
Conc./Dil Factor: 1 pH
Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	22
67-64-1	Acetone	4 J
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	13
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	5u
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
108-88-3	Toluene	5u
108-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	5u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

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U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number BLKC5574

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4 min	2 J
2.	Unknown Ketone	VOA	19.8 min	2 J
3.	Hexane isomer	VOA	21.4 min	6 J
4.				
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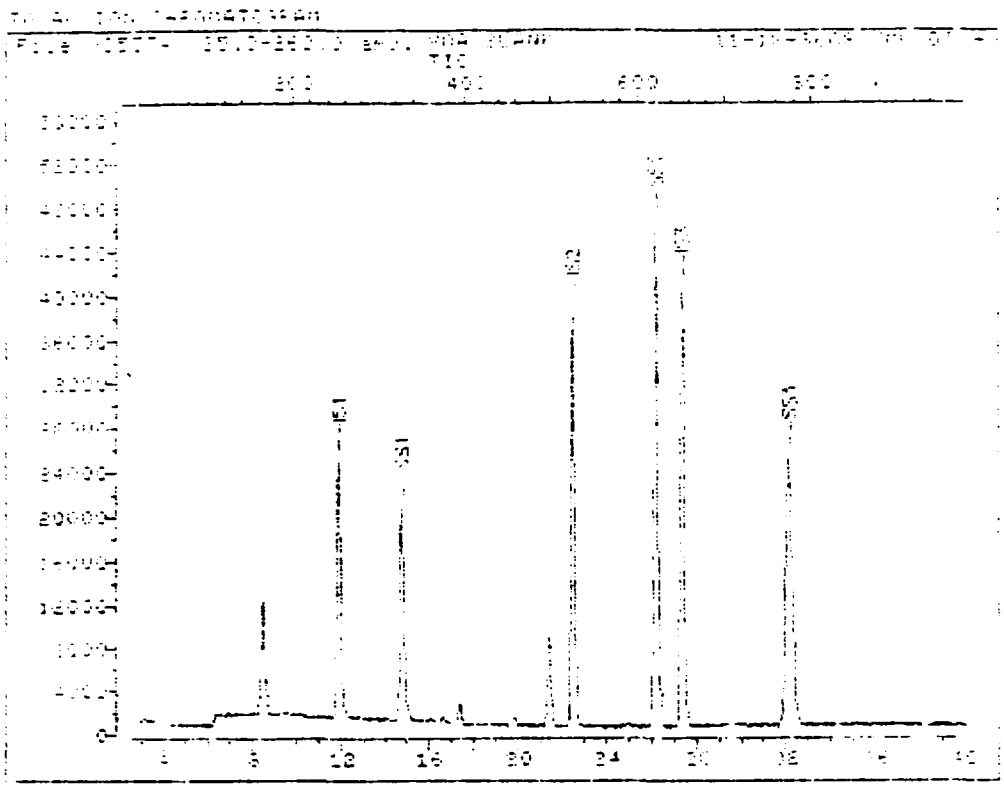

Data File: [illegible]
Name: [illegible] BLANK
Misc: [illegible]

Id File: [illegible]
Title: [illegible] FILE FOR HP-5995 [illegible]
Last Calibration: 861118 12:02

Operator ID: [illegible]
Quant Time: 861118 12:[illegible]
Injected at: 861118 11:[illegible]

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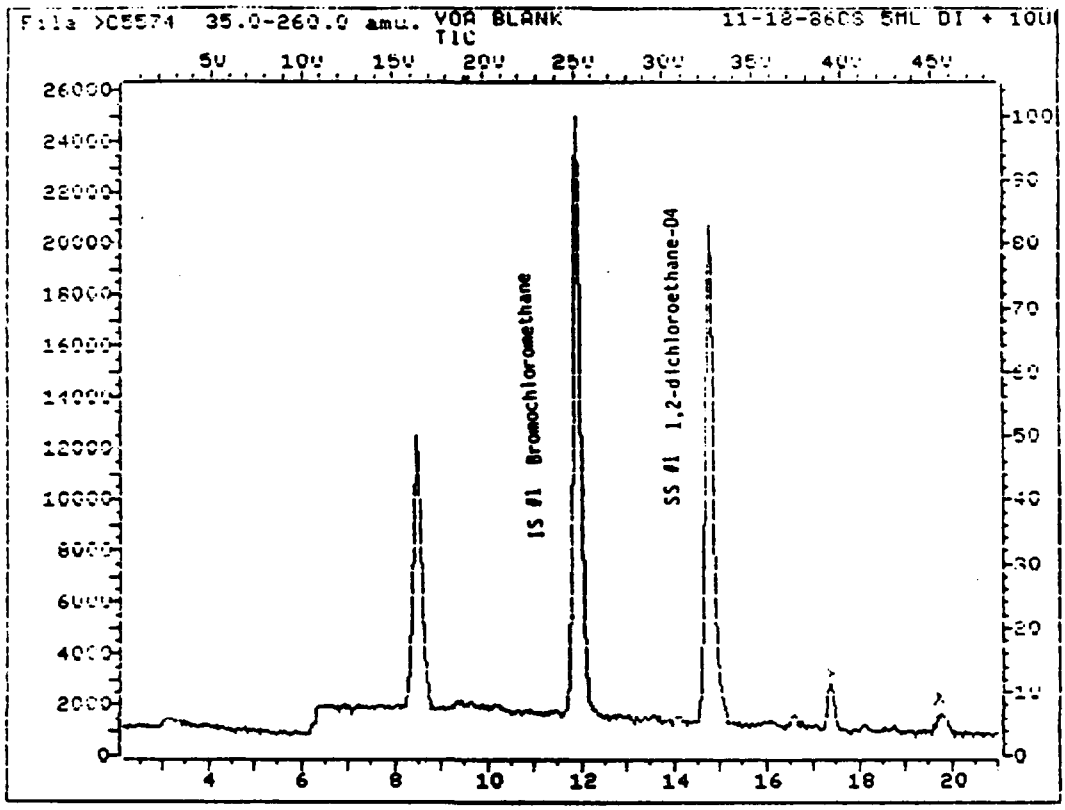
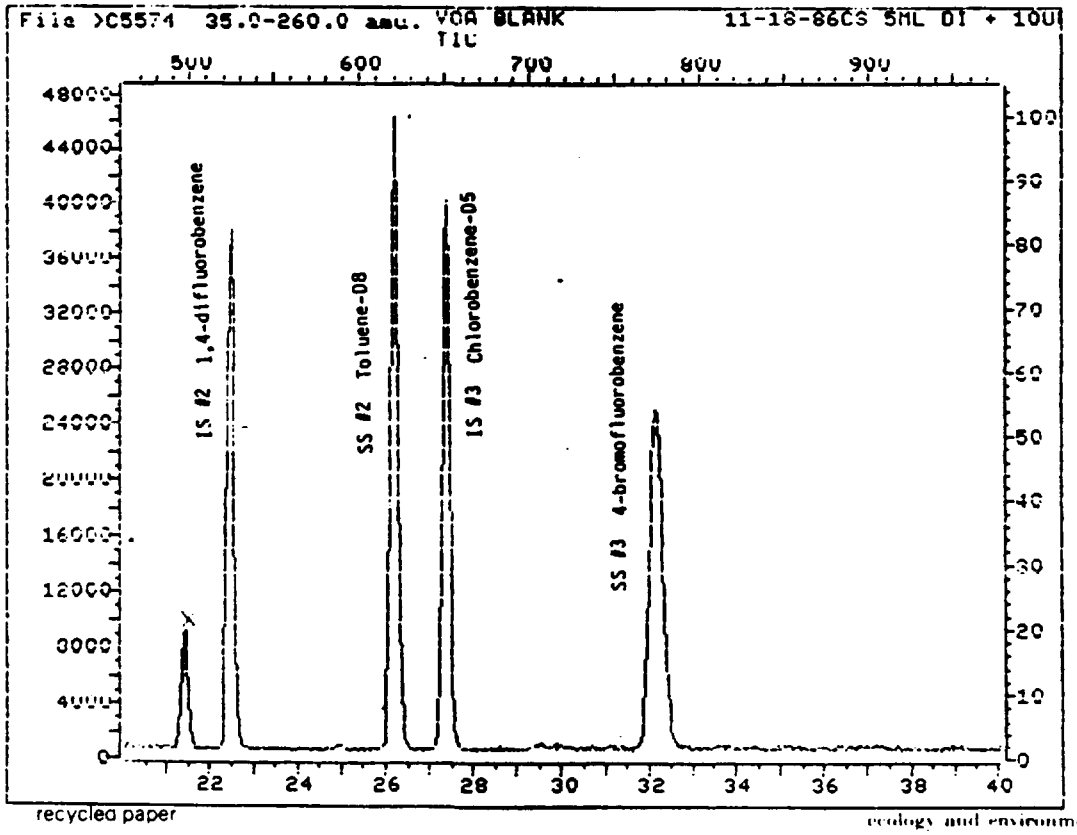
Blank





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861118 12:38
Output File: ^C5574::D2 Injected at: 861118 11:57
Data File: >C5574::D3 Dilution Factor: 1.00
Name: VOA BLANK
Misc: 11-18-86CS 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861118 12:02

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.89	252	36805	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.48	164	31489	109.64	NGS	100
7)	ACETONE		43	9.37	187	4392	19.29	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.77	326	80421	187.85	NGS	92
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.49	525	168822	250.00	NGS	100
17)	2-BUTANONE		72	14.92	330	4084	66.84	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.38	651	129961	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98	26.21	621	195105	237.99	NGS	99
~~39)~~	~~ETHYLBENZENE~~		~~91~~	~~29.52~~	~~706~~	~~2728~~	~~2.31~~	~~NGS~~ no cal	~~99~~
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.16	774	96439	223.83	NGS	100

* Compound is ISTD

Sample Number
BLK C5592

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4465
Lab Sample ID No: Method Blank
QC Report No:
Sample Matrix: Water for Soil
Contract No: IL-3140
Data Release Authorized By: C Slotowicz
Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-19-86

Conc./Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	24
67-64-1	Acetone	10u
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	5u
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
108-88-3	Toluene	5u
108-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	5u

Data Reporting Qualifiers

- For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number BLKC5592

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4	2 J
2.	Unknown Ketone	VOA	19.9	1 J
3.	Hexane isomer	VOA	21.5	6 J
4.	Dichlorobenzene isomer (carryover)	VOA	41.2	39 J
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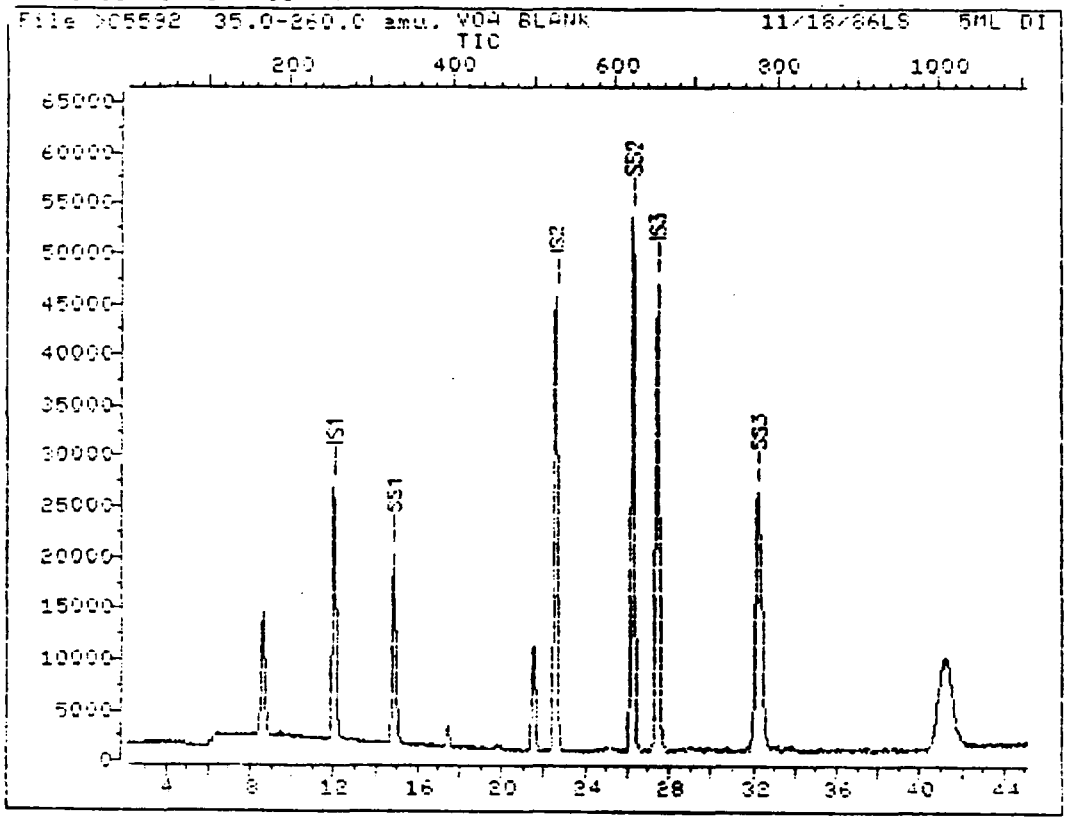
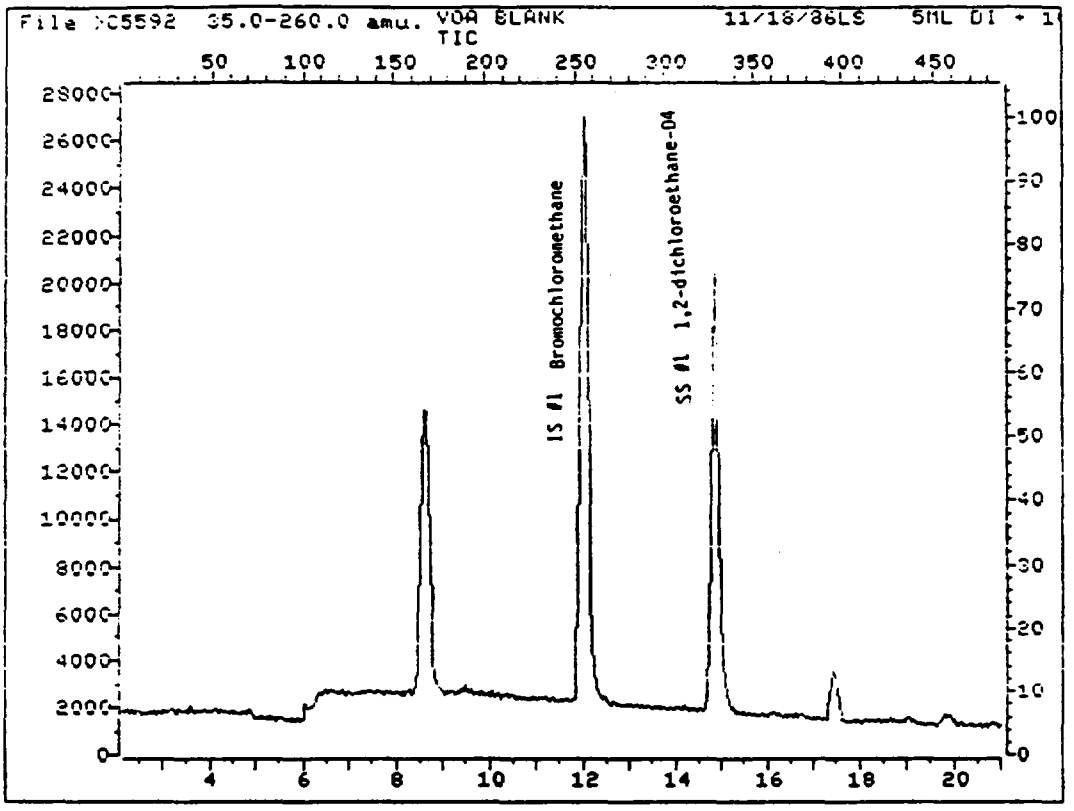


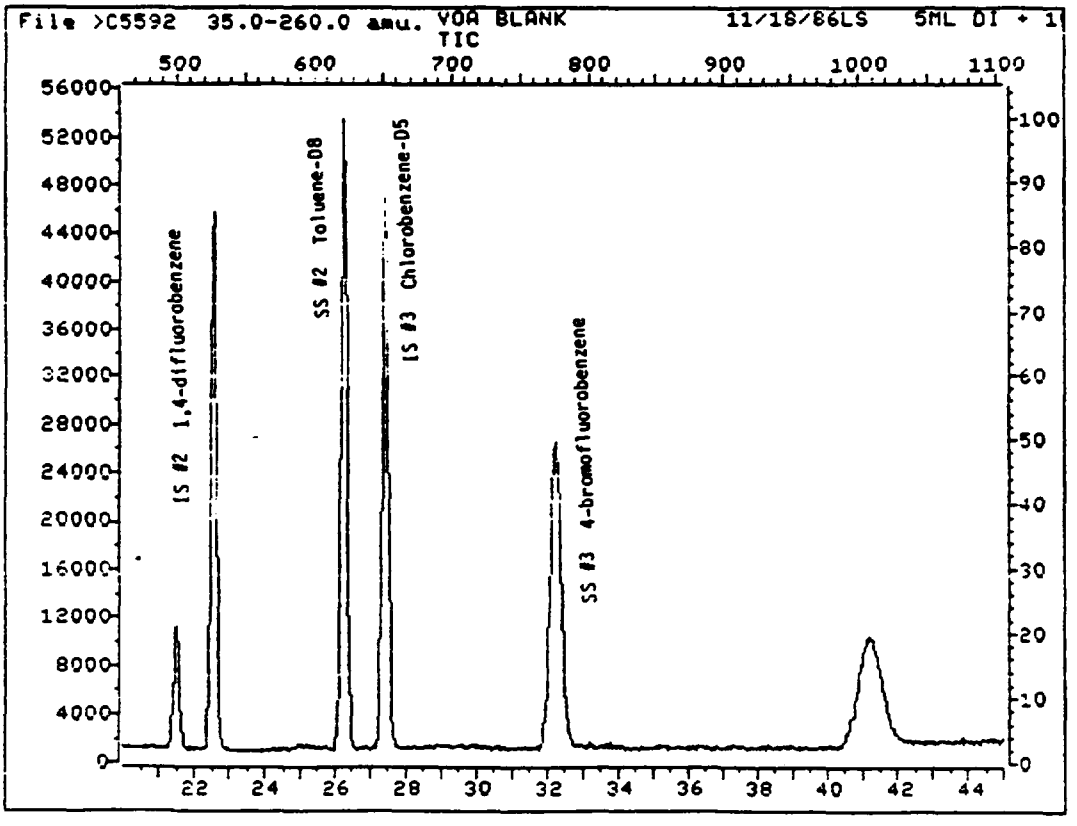
Data File: >C5592::D3
Name: VOA BLANK
Misc: 11/18/86LS 5ML DI + 10UL IS/SS

Id File: VOADPS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861118 22:56

Operator ID: USER8
Quant Time: 861119 04:58
Injected at: 861119 04:12



BLKC5592



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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861119 04:58
Output File: ^C5592::Q2 Injected at: 861119 04:12
Data File: >C5592::D3 Dilution Factor: 1.00
Name: VOA BLANK
Misc: 11/18/86LS 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861118 22:56

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	12.01	255	40077	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.60	167	34223	118.00	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.84	328	81026	204.42	NGS	90
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.56	527	201070	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.42	652	151891	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98	26.25	622	214752	236.93	NGS	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.23	776	101390	185.10	NGS	100

* Compound is ISTD

Sample Number
BLKC5649

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4465
Lab Sample ID No: Method Blank
QC Report No:
Sample Matrix: Water for Soil
Contract No: IL-3140
Data Release Authorized By: C Stoytowicz
Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-21-86

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	11
67-64-1	Acetone	11
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	14
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	5u
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
108-88-3	Toluene	5u
108-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	5u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution, etc. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name Ecology & Environment, Inc

Case No u-4465

Sample Number
BLK C5649

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Unknown Ketone	VOA	19.6 min	2.4 J
2.	Hexane isomer	VOA	21.2 min	1 J
3.				
4.				
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6.				
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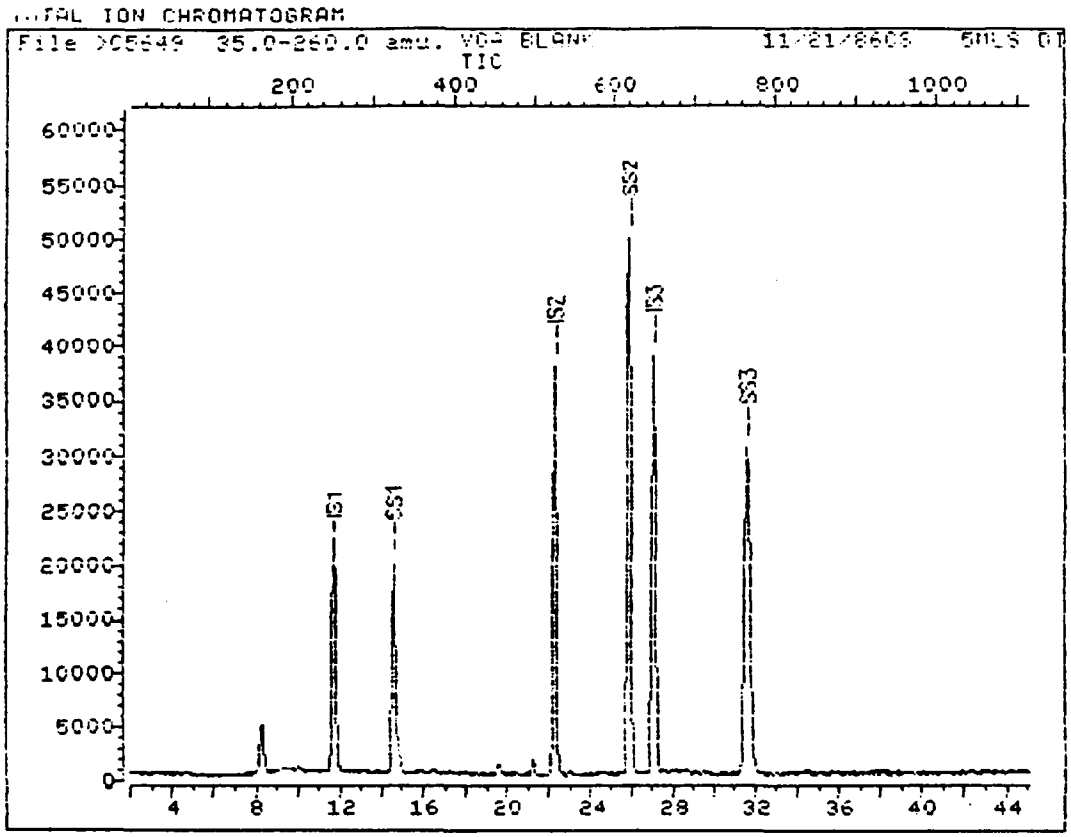
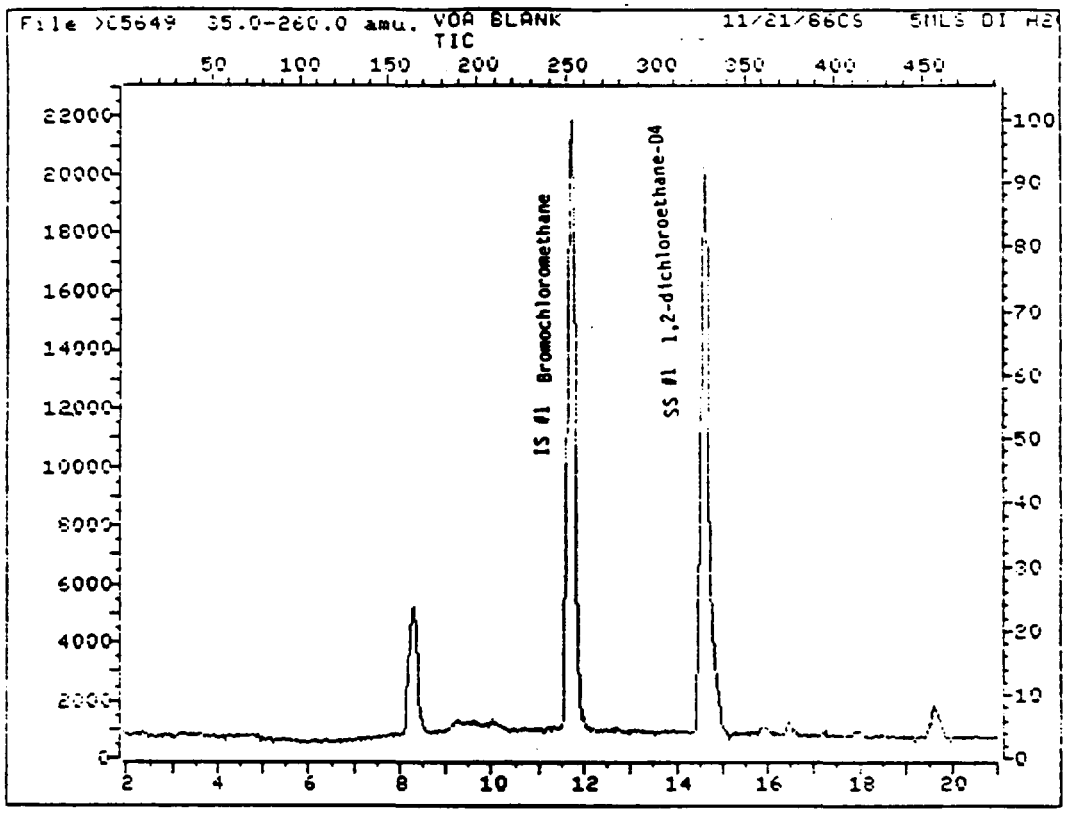


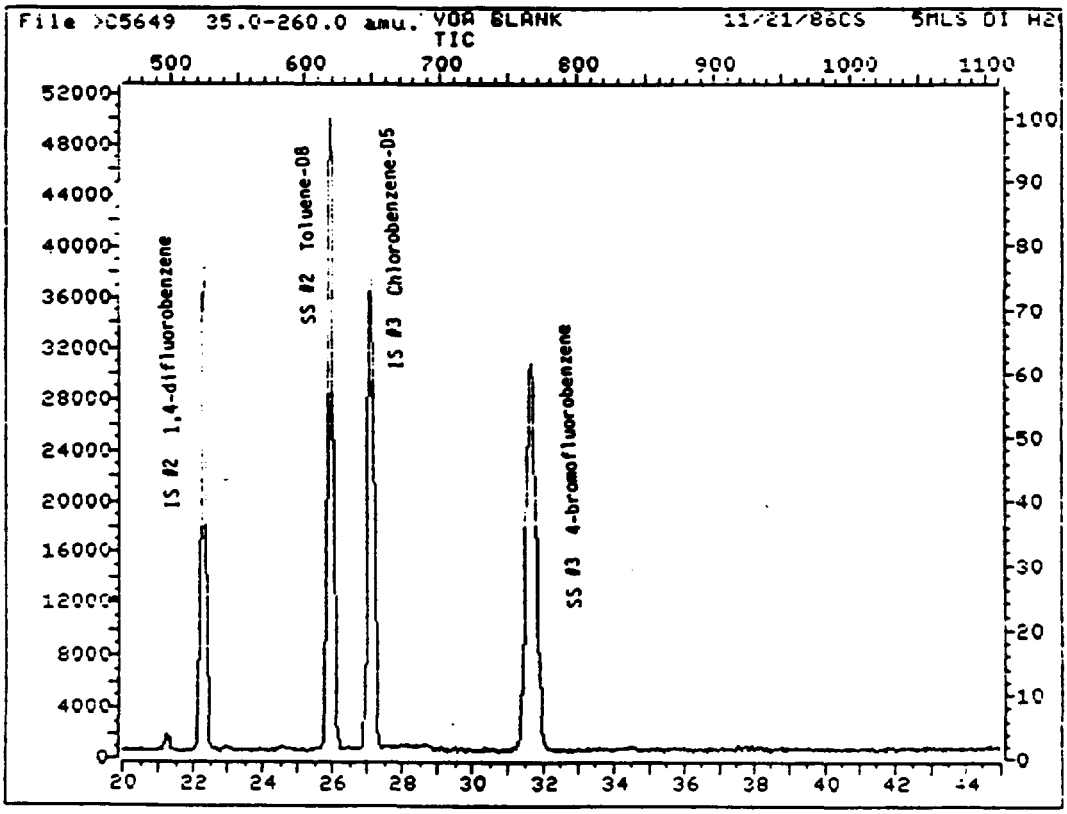
Data File: >C5649::D3
Name: VOA BLANK
Misc: 11/21/86CS 5MLS DI H2O + 10UL IS/SS

Id File: VOACRS:D2:D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 11:51

Operator ID: USER8
Quant Time: 861121 12:14
Injected at: 861121 11:28

BLKC5649





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861121 12:14
Output File: ^C5649::Q2 Injected at: 861121 11:28
Data File: >C5649::D3 Dilution Factor: 1.00
Name: VOA BLANK
Misc: 11/21/86CS 5MLS DI H2O + 10UL IS/SS

ID File: VOACRS:D2:D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 11:51

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.69	252	29743	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.27	164	11369	57.04	NGS	100
7)	ACETONE		43	9.36	192	5289	53.45	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.60	327	80658	273.29	NGS	87
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.28	525	152481	250.00	NGS	100
17)	2-BUTANONE		72	14.79	332	3744	70.70	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.09	649	121865	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.93	619	191989	275.87	NGS	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.64	766	109710	301.38	NGS	100

* Compound is ISTD

Sample Number
BLKC5666

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: 4-4465
Lab Sample ID No: Method Blank
QC Report No:
Sample Matrix: Water for Soil
Contract No: IL-3140
Data Release Authorized By: C Stoytowicz
Date Sample Received:

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-22-86

Conc./Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	15
67-64-1	Acetone	7 J
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	7B
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	5u
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
108-88-3	Toluene	5u
108-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	5u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name Ecology & Environment, Inc

Case No 11-4465

Sample Number
BLKC 5666

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Unknown Ketone	VOA	19.5	1 J
2.	Hexane isomer	VOA	21.2	1 J
3.	Unknown	VOA	24.7	3 J
4.				
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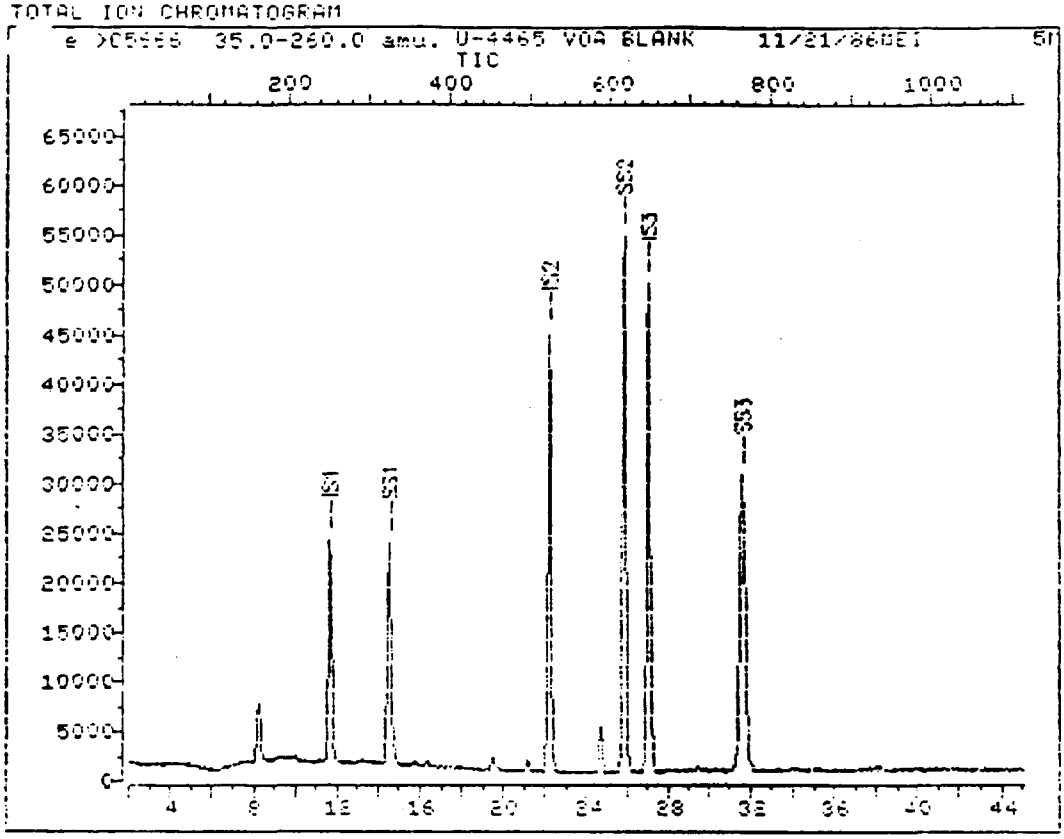
TOTAL ION CHROMATOGRAM

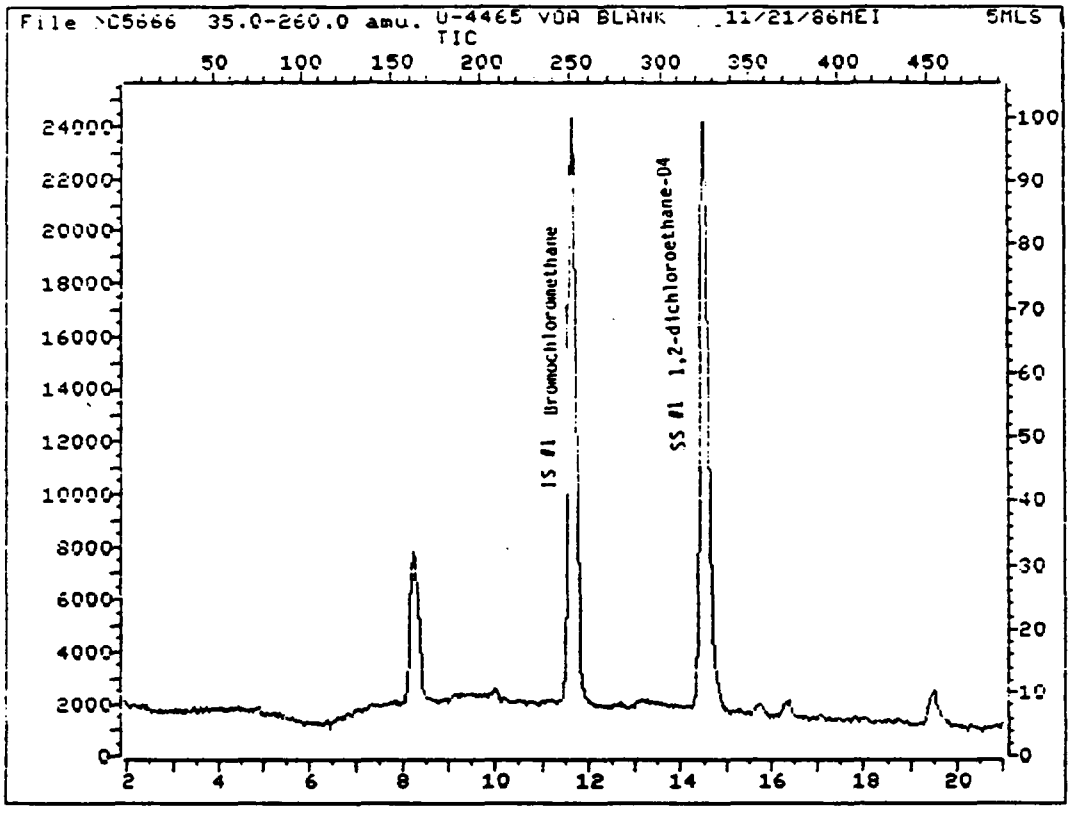


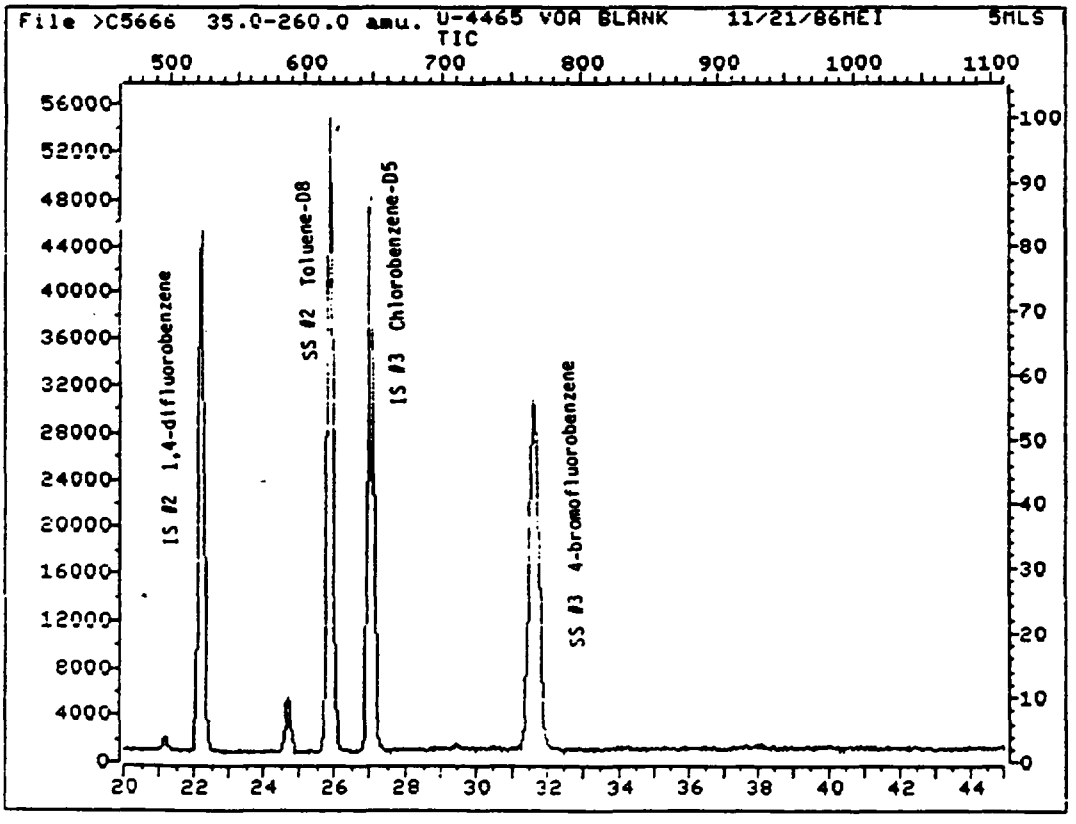
Data File: >C5666::D3
Name: U-4465 VOA BLANK
Misc: 11/21/86MEI 5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 22:21

Operator ID: USER8
Quant Time: 861122 03:47
Injected at: 861122 03:01

BLKC5666





514

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861122 03:47
Output File: ^C5666::Q2 Injected at: 861122 03:01
Data File: >C5666::D3 Dilution Factor: 1.00
Name: U-4465 VOA BLANK
Misc: 11/21/86MEI 5MLS DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861121 22:21

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.65	251	30918	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.24	163	14496	73.86	NGS	100
7)	ACETONE		43	9.21	188	2509	34.87	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.53	325	95884	292.39	NGS	85
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.21	523	187333	250.00	NGS	100
17)	2-BUTANONE		72	14.68	329	4354	88.49	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.06	648	155152	250.00	NGS	100
33)	~~2-HEXANONE~~		~~43~~	~~24.69~~	~~587~~	~~6302~~	~~17.06~~	~~NGS~~ no CW	100
36)	TOLUENE-D8	(SURR)	98	25.89	618	214246	245.58	NGS	93
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.61	765	108036	240.78	NGS	100

* Compound is ISTD

Sample Number
BLK C5687

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4465
Lab Sample ID No: Method Blank
QC Report No:
Sample Matrix: Water for Soil
Contract No: IL-3140
Data Release Authorized By: [illegible]
Date Sample Received:

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-25-86

Conc./Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		(ug/L or ug/Kg) (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	16
67-64-1	Acetone	3J
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	7J
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

CAS Number		(ug/L or ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	5u
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
108-88-3	Toluene	7.2
108-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	5u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name Ecology & Environment, Inc

Case No 4-4465

Sample Number BLKC5687

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	Unknown Ketone	VOA	19.6	2 J
2.	Hexane isomer	VOA	21.1	2 J
3.				
4.				
5.				
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7.				
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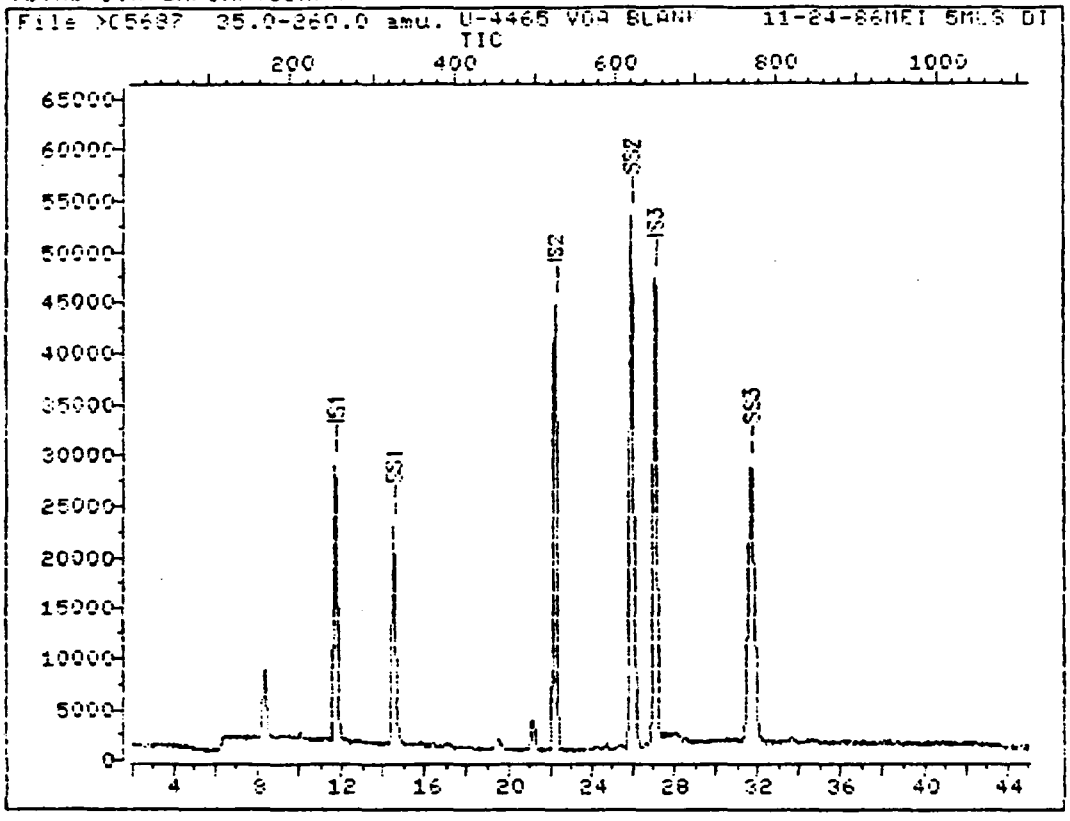
recycled paper

ecology and environment

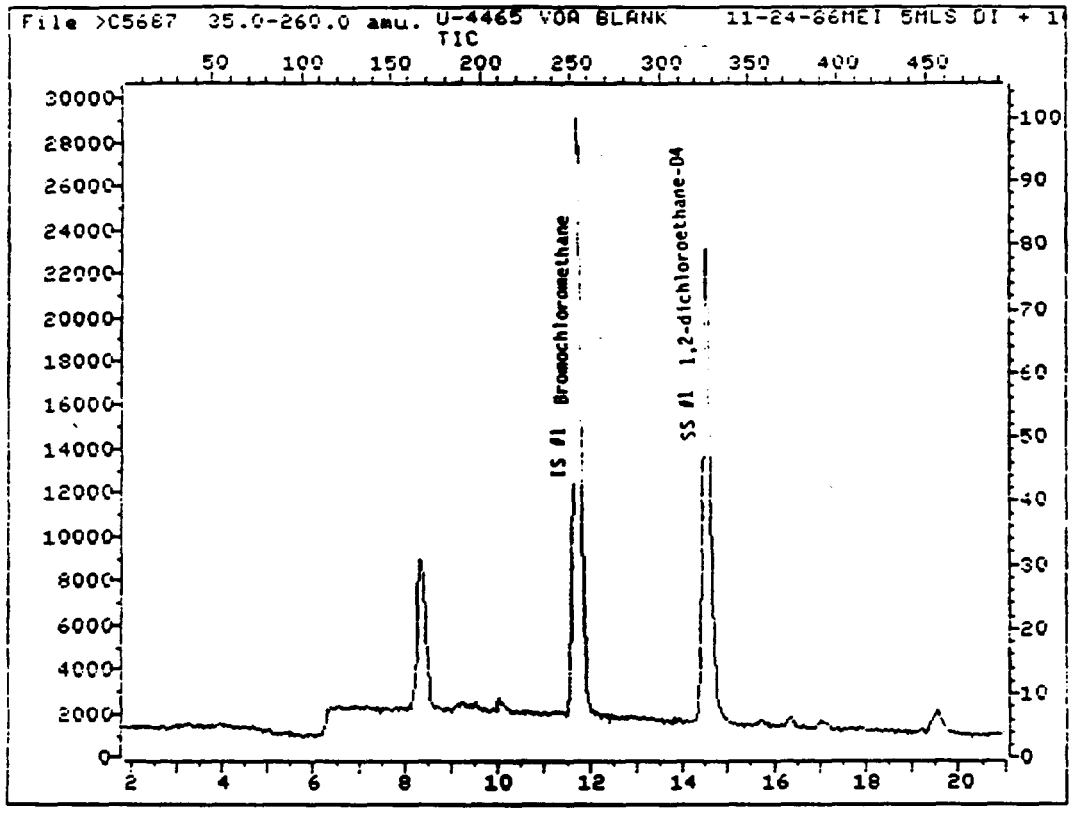
TOTAL ION CHROMATOGRAM



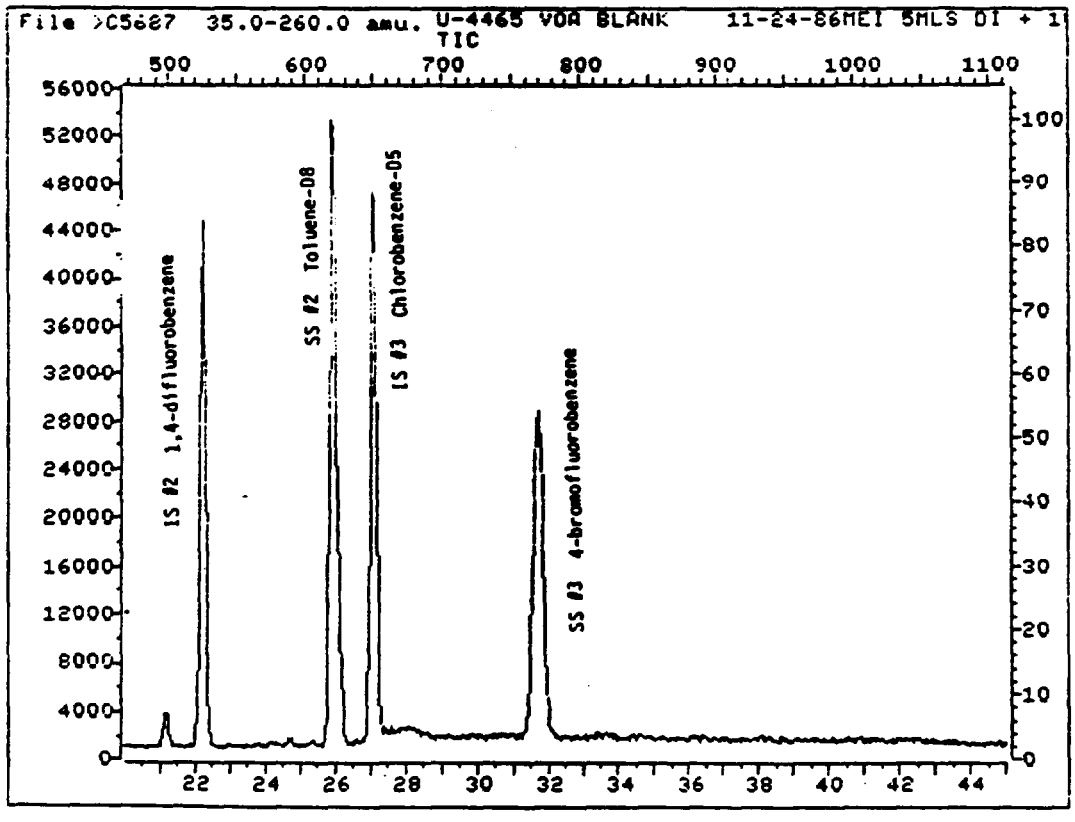
Data File: >C5687::D3
Name: U-4465 VOA BLANK
Misc: 11-24-86MEI 5MLS DI + 10UL IS/SS

Id File: VOADRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861124 23:52

Operator ID: USER6
Quant Time: 861125 01:36
Injected at: 861125 00:50


File >C5687 35.0-260.0 amu. U-4465 VOA BLANK 11-24-86MEI 5MLS DI + 1
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4

BLKC5687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TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

5'9

QUANT REPORT

perator ID: USER6 Quant Rev: 4 Quant Time: 861125 01:36
utput File: ^C5687::Q2 Injected at: 861125 00:50
ata File: >C5687::D3 Dilution Factor: 1.00
ame: U-4465 VOA BLANK
isc: 11-24-86MEI 5MLS DI + 10UL IS/SS

D File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861124 23:52

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	%
1)	*BROMOCHLOROMETHANE	(IS)	128	11.71	294	40068	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.54	167	19692	78.93	NGS	100
7)	ACETONE		43	9.27	191	3205	14.26	NGS	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.51	326	91632	220.95	NGS	86
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.23	525	186890	250.00	NGS	100
7)	2-BUTANONE		72	14.66	330	2528	36.30	NGS	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.08	650	147755	250.00	NGS	100
5)	TOLUENE-D8	(SURR)	98	25.91	620	208341	248.17	NGS	95
7)	TOLUENE		92	26.11	625	24166	36.44	NGS	96
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.70	769	102405	246.40	NGS	100

* Compound is ISTD

Sample Number
BLKC5698

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: 4-4465
Lab Sample ID No: Method Blank QC Report No:
Sample Matrix: Water for Soil Contract No: IL-3140
Data Release Authorized By: [illegible] Date Sample Received:

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-25-86

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		(ug/l or ug/Kg) (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	11
67-64-1	Acetone	7J
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	11
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

CAS Number		(ug/l or ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	5u
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5u
108-10-1	4-Methyl-2-Pentanone	1J
591-78-6	2-Hexanone	1J
127-18-4	Tetrachloroethene	5u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
108-88-3	Toluene	5u
108-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	5u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Form I 11/85

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Laboratory Name Ecology & Environment, Inc

Case No U-4465

Sample Number BLKC5698

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	No Volatile TIC's found			
2.				
3.				
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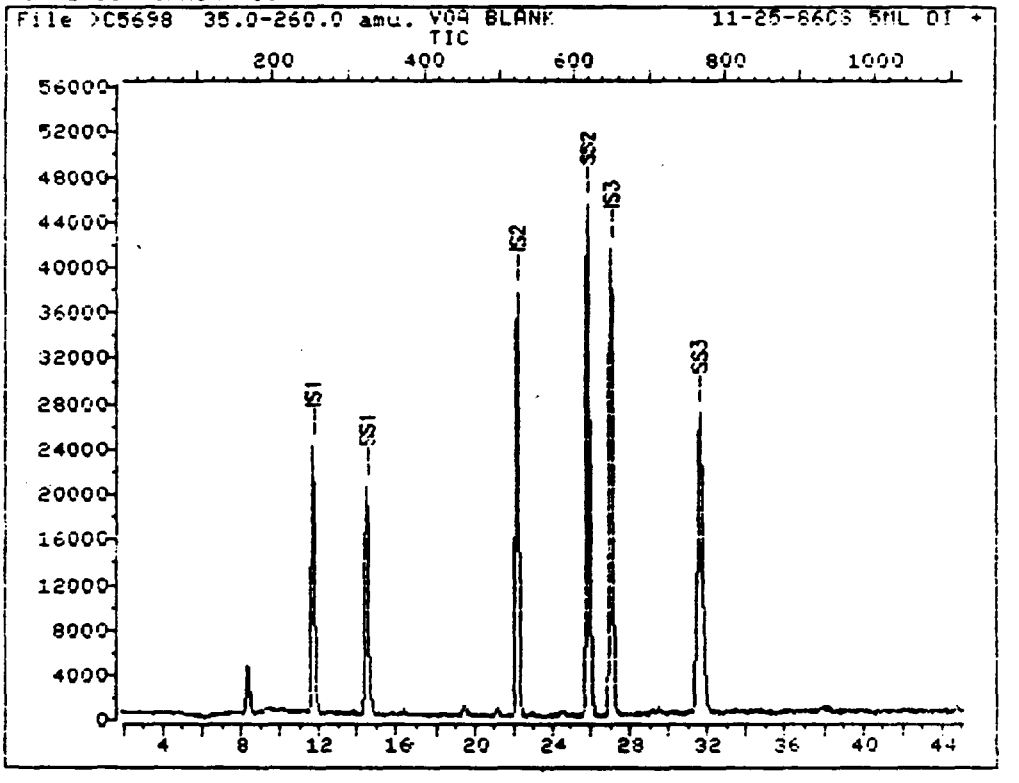
TOTAL ION CHROMATOGRAM



Data File: >C5698::D2
Name: VOA BLANK
Misc: 11-25-86CS 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 10:50

Operator ID: USER6
Quant Time: 861125 11:51
Injected at: 861125 11:05

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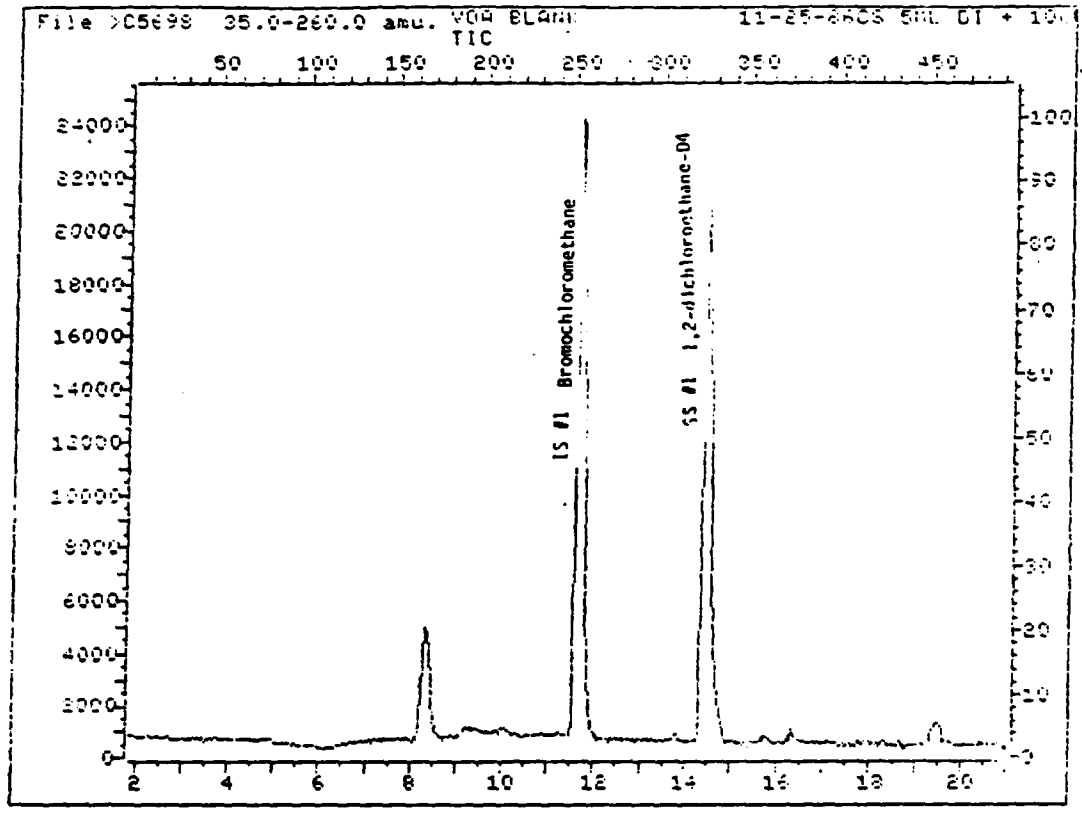
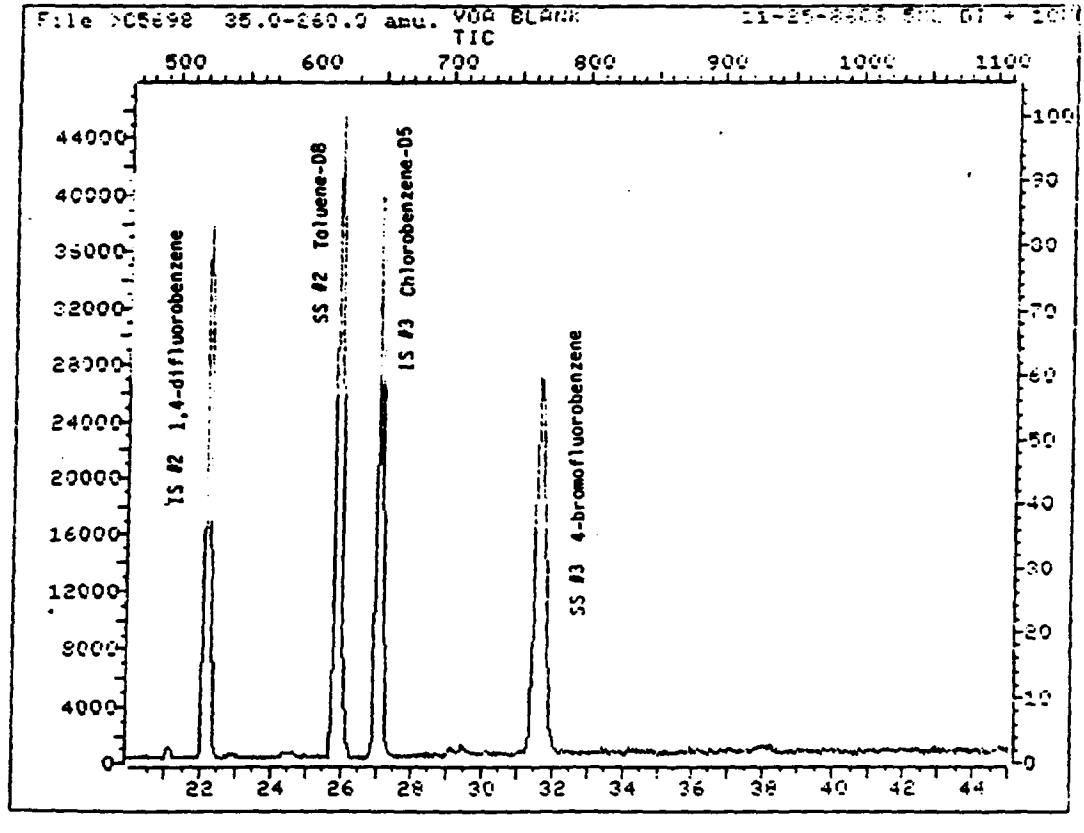
ecology and environment



ELKC5698



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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861125 11:51
Output File: ^C5698::Q2 Injected at: 861125 11:05
Data File: >C5698::D2 Dilution Factor: 1.00
Name: VOA BLANK
Misc: 11-25-86CS 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 10:50

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.67	253	34443	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.37	168	11143	56.02	NGS	100
7)	ACETONE	43	9.34	193	4250	33.22	NGS	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.50	326	84777	244.89	NGS	96
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.18	524	154164	250.00	NGS	100
17)	2-BUTANONE	72	14.62	329	3660	56.88	NGS	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.07	650	129773	250.00	NGS	100
32)	4-METHYL-2-PENTANONE	43	22.84	541	3124	5.85	NGS	74
33)	2-HEXANONE	43	24.43	582	2498	5.79	NGS	100
36)	TOLUENE-D8 (SURR)	98	25.87	619	184537	249.31	NGS	93
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.62	767	95313	227.90	NGS	100

* Compound is ISTD

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ecology and environment

Sample Number
BLKC5715

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4465
Lab Sample ID No: Method Blank QC Report No:
Sample Matrix: Water for Soil Contract No: IL-3140
Data Release Authorized By: C Boytowicz Date Sample Received:

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-26-86

Conc./Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	12
67-64-1	Acetone	11
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	12
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	5u
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
108-88-3	Toluene	5u
108-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	5u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number BLK C5715

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.				
4.				
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Form 1, Part B

7 85
491095

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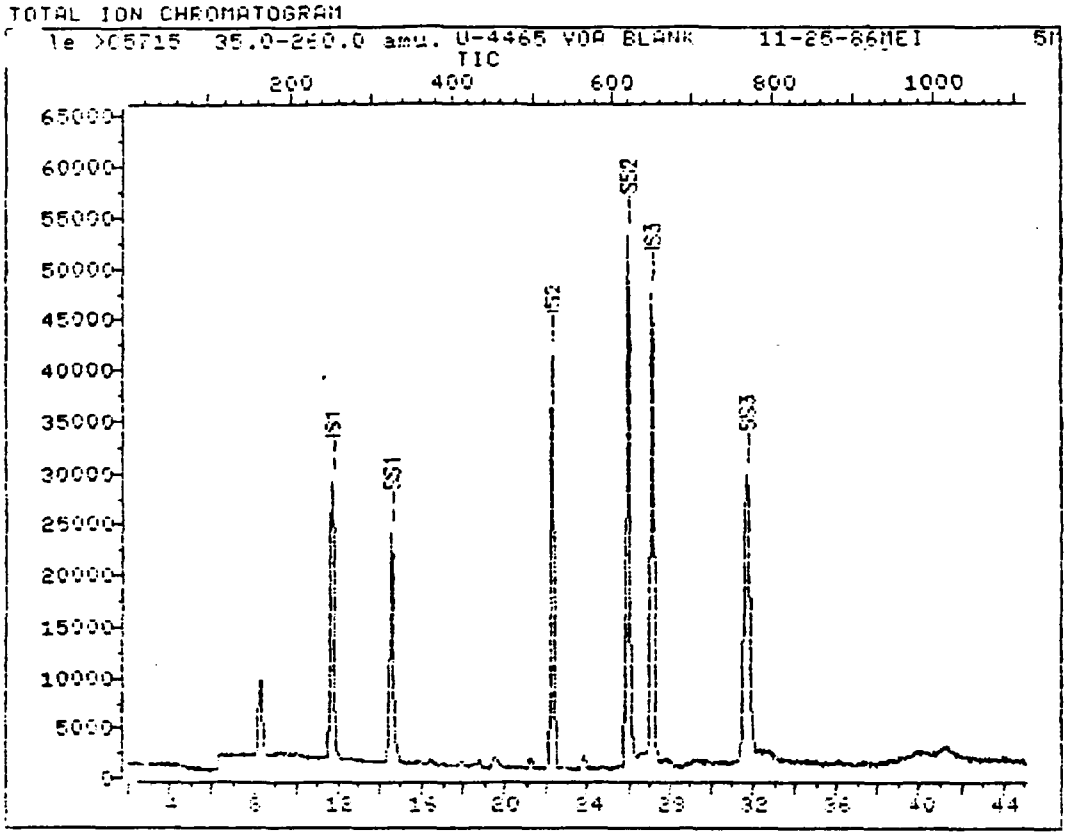
ecology and environment

TOTAL ION CHROMATOGRAM

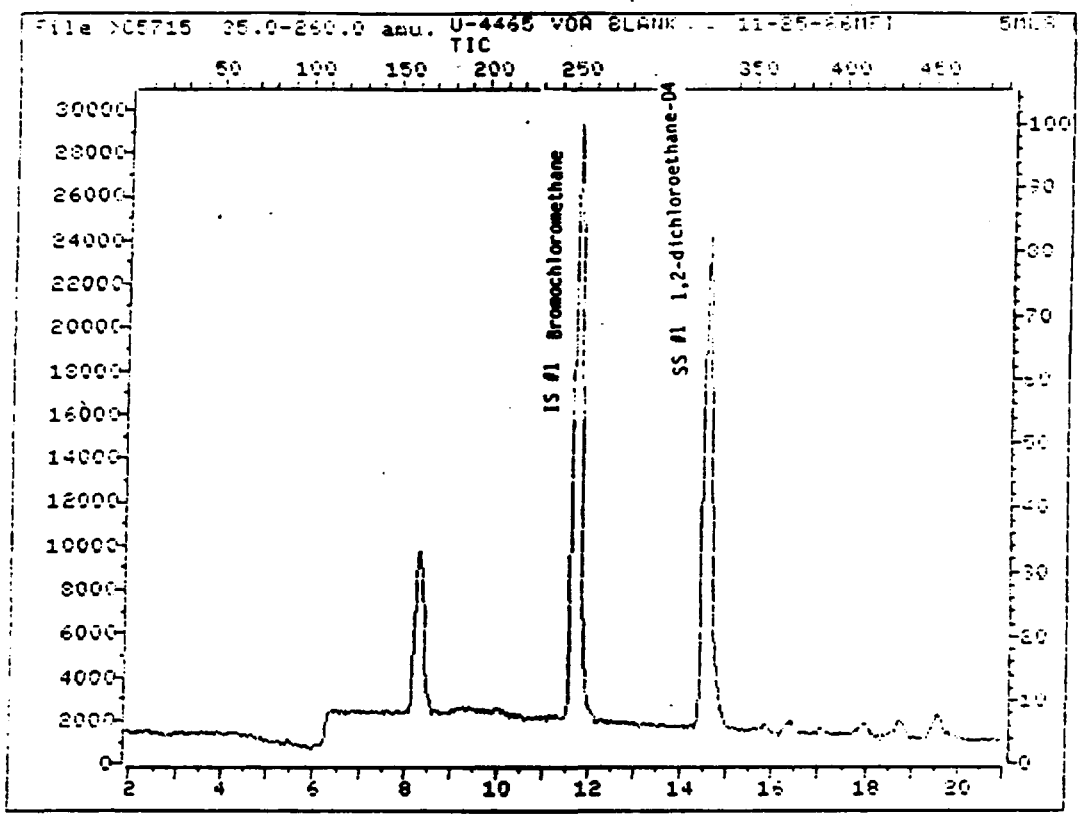


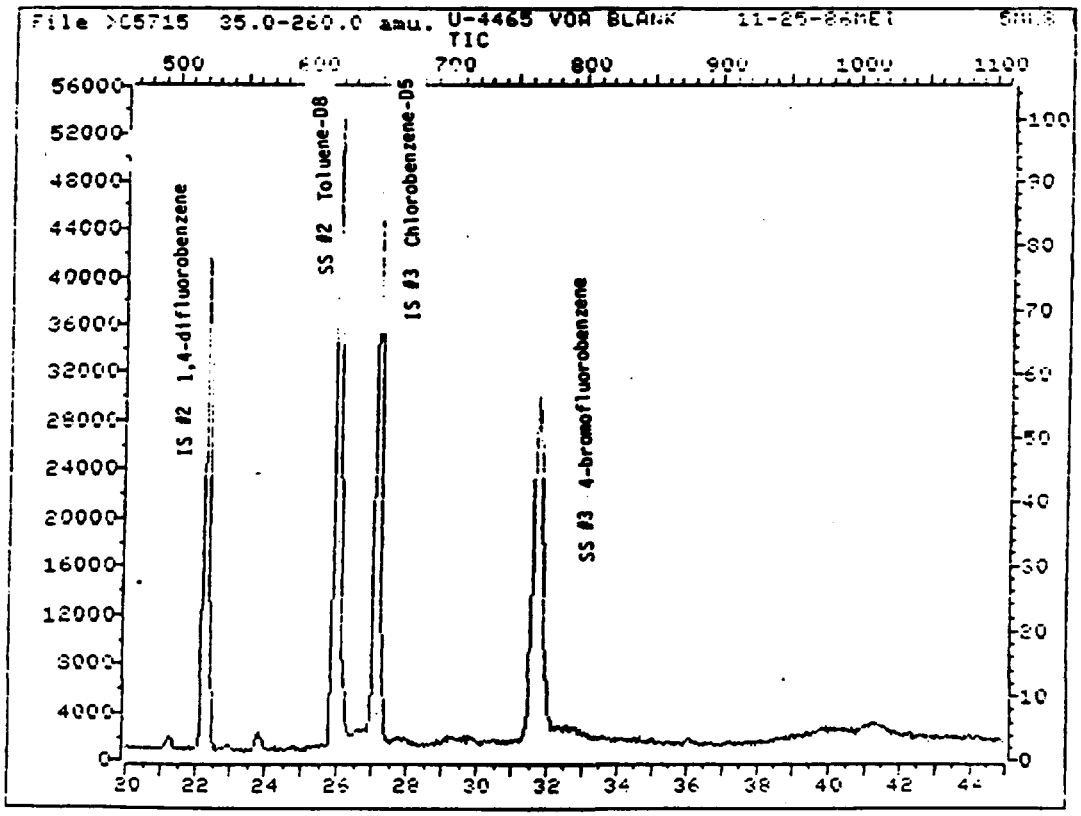
Data File: >C5715::D1
Name: U-4465 VOA BLANK
Misc: 11-25-86MEI 5MLS DI + 10UL IS/SS

Id File: VOADPS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 22:54

Operator ID: USER6
Quant Time: 861126 03:33
Injected at: 861126 02:47

BLKC5715





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861126 03:53
Output File: ^C5715::Q2 Injected at: 861126 02:47
Data File: >C5715::D1 Dilution Factor: 1.00
Name: U-4465 VOA BLANK
Misc: 11-25-86MEI 5MLS DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861125 22:54

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.68	252	42260	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.27	164	22078	59.90	NGS	100
7)	ACETONE	43	9.28	190	4960	55.67	NGS	100
7)	~~ACETONE~~	~~43~~	~~9.59~~	~~196~~	~~3214~~	~~36.07~~	~~NGS~~	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.56	326	92960	235.99	NGS	88
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.24	524	178877	250.00	NGS	100
17)	2-BUTANONE	72	14.71	330	4193	61.03	NGS	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.13	650	142267	250.00	NGS	100
33)	~~2-HEXANONE~~	~~43~~	~~23.79~~	~~564~~	~~2379~~	~~6.21~~	~~NGS~~	100
36)	TOLUENE-D8 (SURR)	98	25.96	620	205059	242.87	NGS	96
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.72	768	103777	246.90	NGS	100

* Compound is ISTD

Sample Number
BLK C5811

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No. U-4465
Lab Sample ID No: Method Blank QC Report No:
Sample Matrix: Water for Soil Contract No. IL-3140
Data Release Authorized By: D. Wojtowicz Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-26-86

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	7
67-64-1	Acetone	11
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	17
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	5u
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	2J
127-18-4	Tetrachloroethene	5u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
108-88-3	Toluene	5u
108-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u
	Total Xylenes	5u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution, etc. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number BLKC5811

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg) ug
1.	No TIC's in Volatile Fraction			
2.				
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Form 1, Part B

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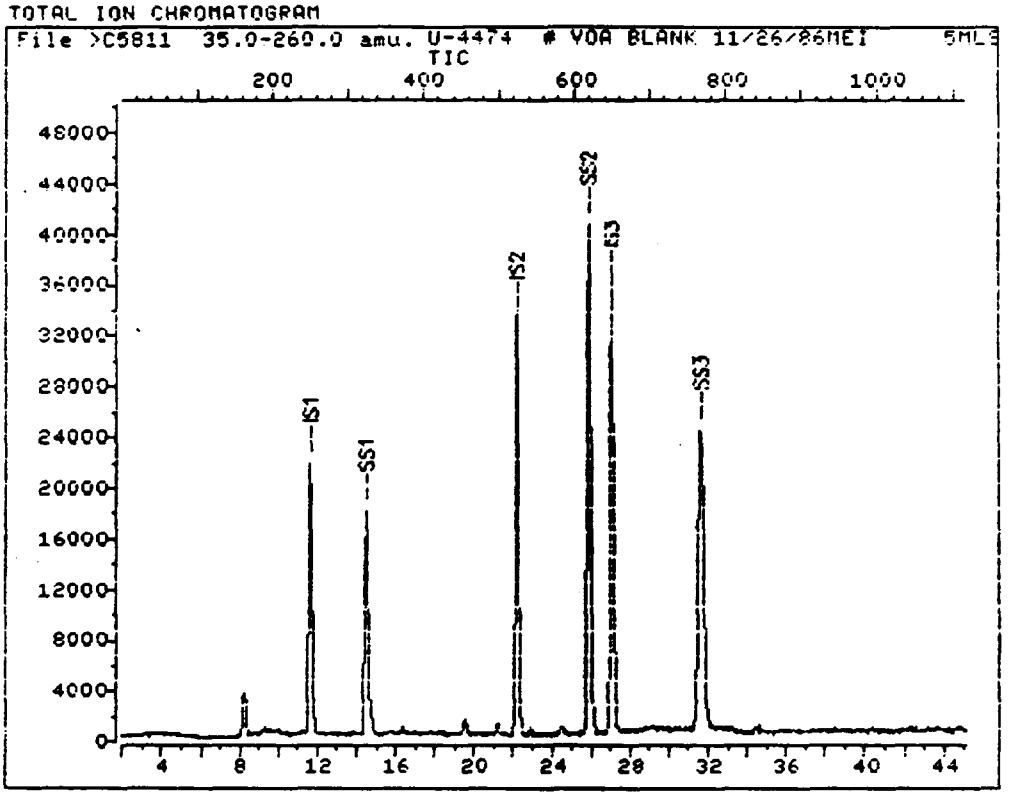
TOTAL ION CHROMATOGRAM



Data File: >C5811::D3
Name: U-4474 # VOA BLANK
Misc: 11/26/86MEI 5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861126 21:46

Operator ID: USER6
Quant Time: 861126 22:49
Injected at: 861126 22:03

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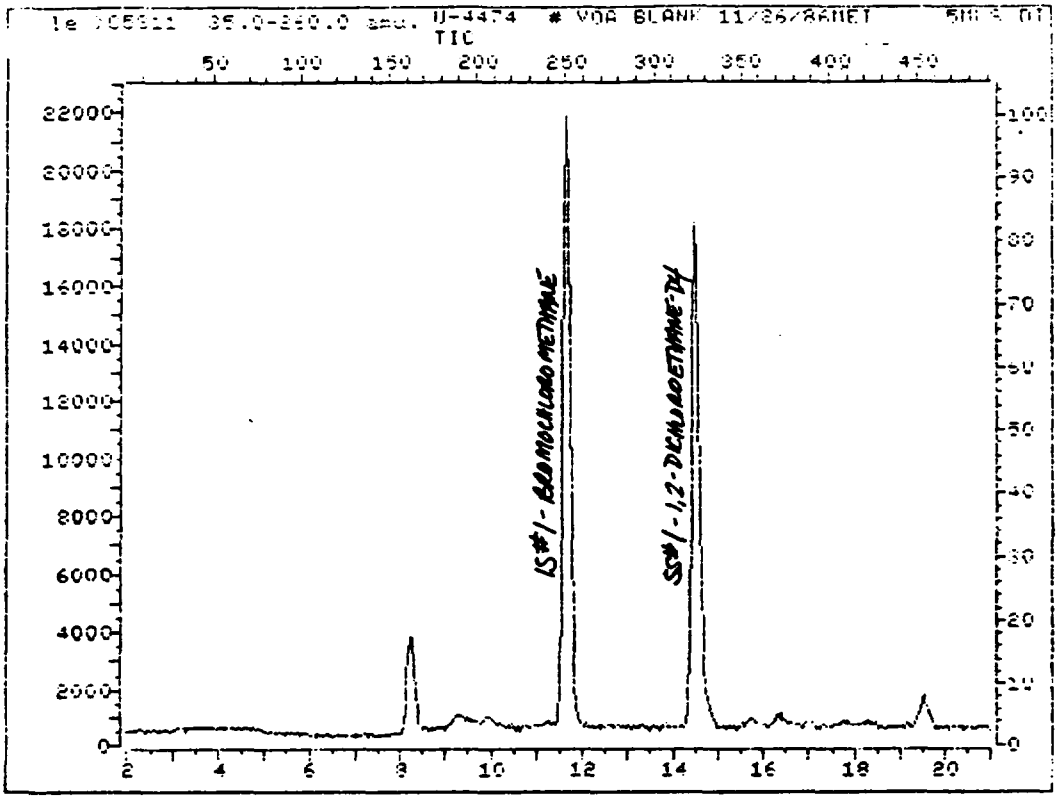

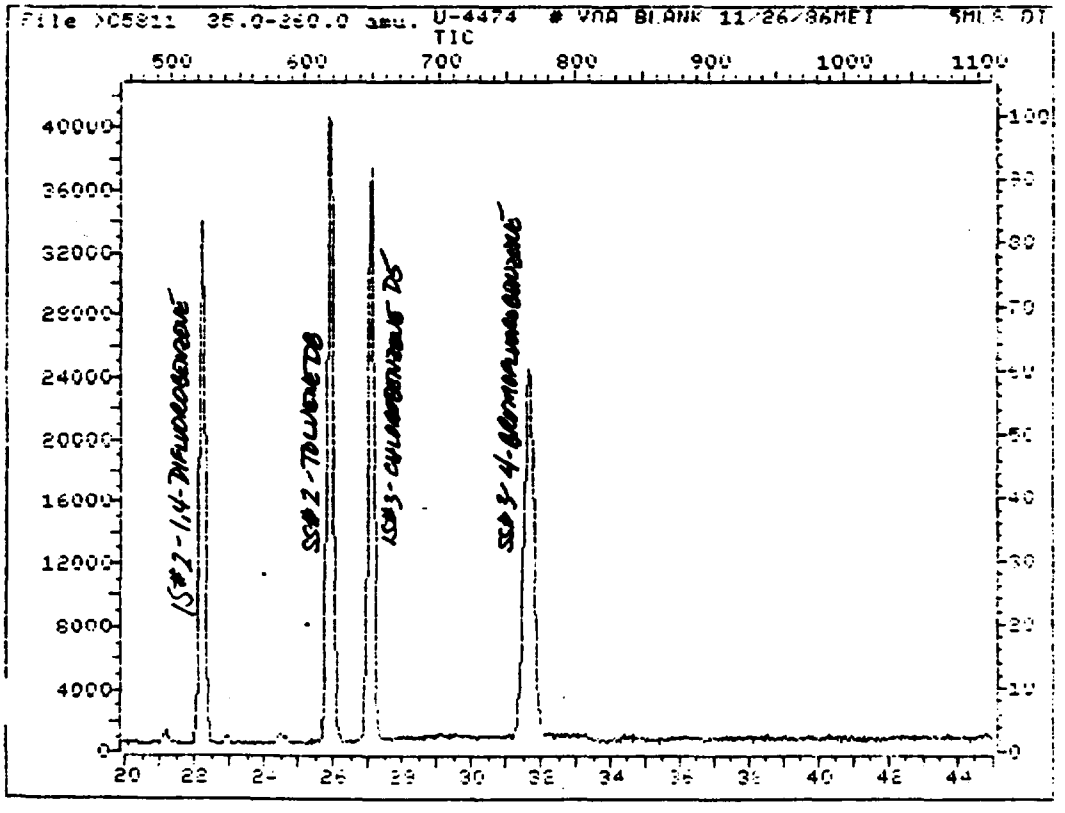

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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861126 22:49
Output File: ^C5811::Q2 Injected at: 861126 22:03
Data File: >C5811::D3 Dilution Factor: 1.00
Name: U-4474 # VOA BLANK
Misc: 11/26/86MEI 5MLS DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861126 21:46

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	Q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.64	251	29764	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.23	163	7903	34.67	NGS	100
7)	ACETONE		43	9.32	191	6339	54.67	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.48	324	70113	193.72	NGS	86
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	523	141364	250.00	NGS	100
17)	2-BUTANONE		72	14.67	329	3548	86.89	NGS	100
~~30)~~	~~BROMOFORM~~		~~173~~	~~22.24~~	~~524~~	~~309~~	~~1.05~~	~~NGS~~	~~100~~
31)	*CHLOROBENZENE-D5	(IS)	117	27.05	648	115923	250.00	NGS	100
33)	2-HEXANONE		43	24.45	581	3943	11.69	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.88	618	160313	258.70	NGS	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.64	766	79805	257.50	NGS	100

* Compound is ISTD

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Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number D1175

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed: 12-2-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) —

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	330	U
111-44-4	bis(-2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1 3-Dichlorobenzene	330	U
106-46-7	1. 4-Dichlorobenzene	330	U
100-51-6	Benzyl Alcohol	330	U
95-50-1	1. 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	bis(2-chloroisopropyl)Ether	330	U
106-44-5	4-Methylpheno	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2. 4-Dimethylphenol	330	U
65-85-0	Benzoic Acid	1600	U
111-91-1	bis(-2-Chloroethoxy)Methane	330	U
120-83-2	2. 4-Dichlorophenol	330	U
120-82-1	1. 2. 4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2 4 6-Trichlorophenol	330	U
95-95-4	2. 4. 5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	330	U
51-28-5	2. 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U
606-20-2	2. 6-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1600	U
534-52-1	4. 6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	1400	
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3. 3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	47	J
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	330	U
53-70-3	Dibenzo(a h)Anthracene	330	U
191-24-2	Benzo(g h i)Perylene	330	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4465

Sample Number D1175

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	UNKNOWN	BNA	7.1	730 J
2.	UNKNOWN	L	28.5	520 J
3.	UNKNOWN	L	34.3	910 J
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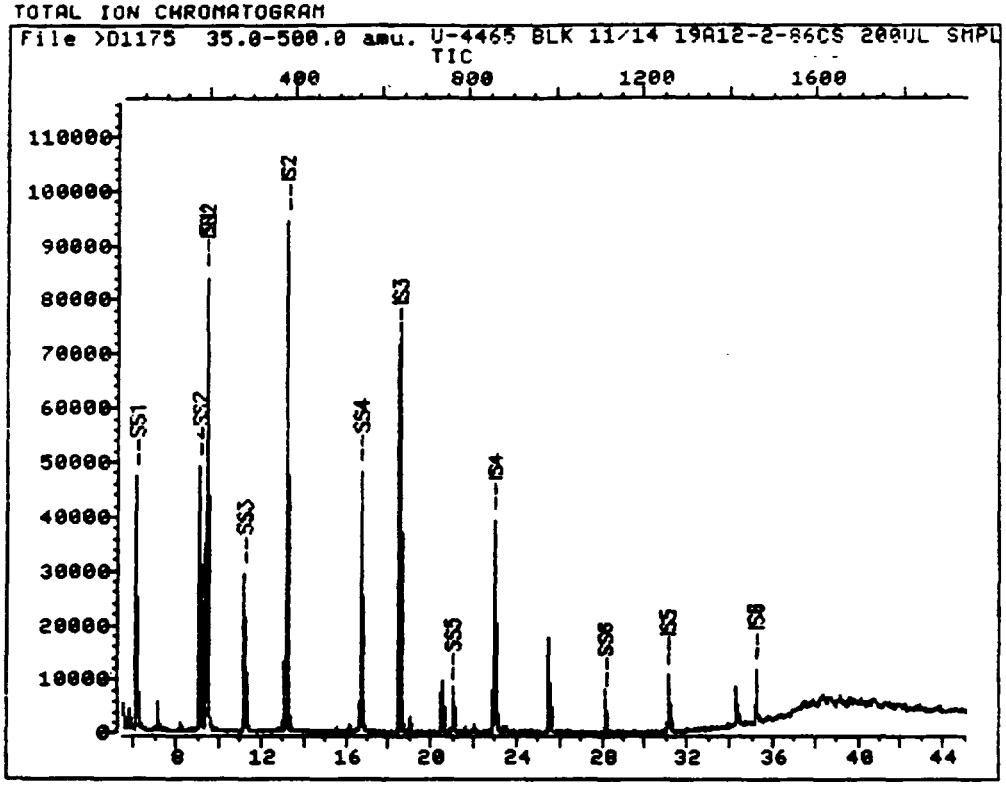
TOTAL ION CHROMATOGRAM



Data File: >D1175::D3
Name: U-4465 BLK 11/14 19A
Misc: 12-2-86CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 4

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:13

Operator ID: USER6
Quant Time: 861202 17:22
Injected at: 861202 16:34

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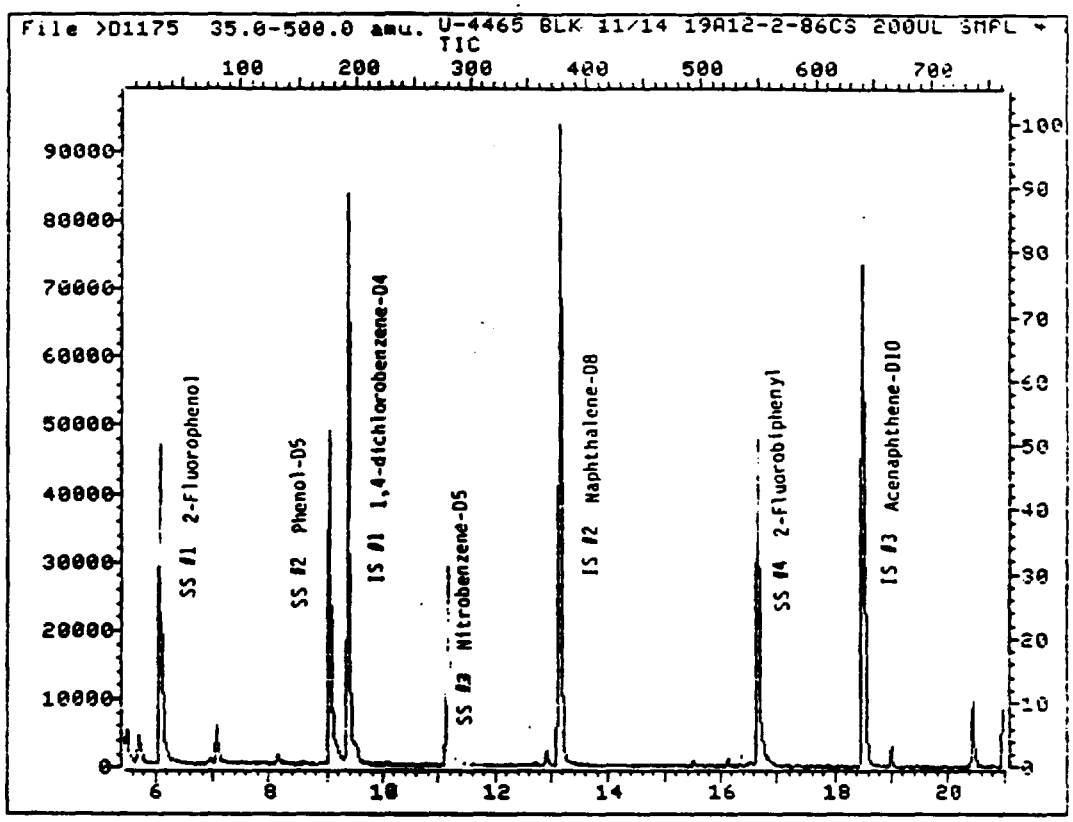

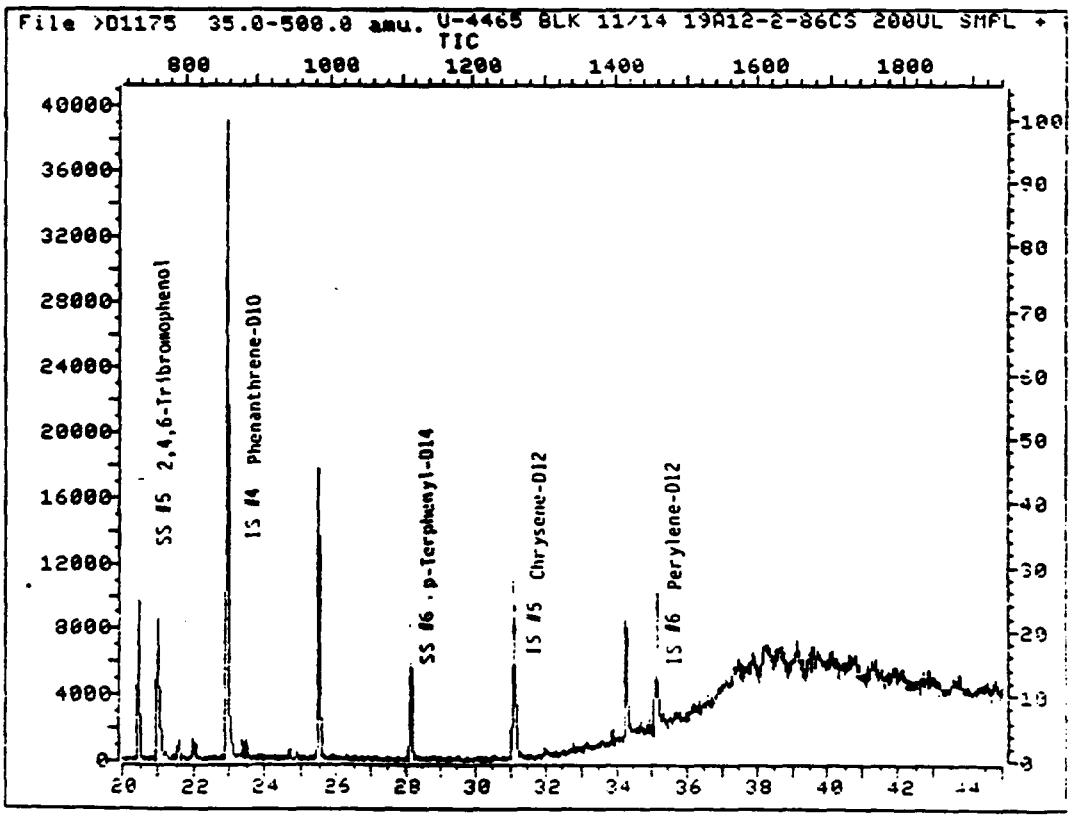

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QUANT REPORT

perator ID: USER6 Quant Rev: 4 Quant Time: 861202 17:22
Output File: ^D1175::Q2 Injected at: 861202 16:34
Data File: >D1175::D3 Dilution Factor: 2.00
Name: U-4465 BLK 11/14 19A
Misc: 12-2-86CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 4

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:13

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.38	193	36714	40.00	UG/L	84
2)	PHENOL-D5	(SURR)	99	9.04	176	49251	70.84	UG/L	93
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~9.38~~	~~193~~	~~1163~~	~~1.67~~	~~UG/L~~ No Bph	76
5)	2-FLUOROPHENOL	(SURR)	112	6.08	31	31542	61.96	UG/L	85
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.15~~	~~280~~	~~5028~~	~~8.17~~	~~UG/L~~ No Bph	91
19)	*NAPHTHALENE-D8	(IS)	136	13.15	378	132858	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.15	280	29972	47.53	UG/L	97
34)	*ACENAPHTHENE-D10	(IS)	162	18.49	640	53028	40.00	UG/L	99
38)	2-FLUOROBIPHENYL	(SURR)	172	16.65	550	56427	53.57	UG/L	90
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.51~~	~~641~~	~~16371~~	~~15.62~~	~~UG/L~~ No Bph	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.97	762	7591	35.05	UG/L	96
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.49~~	~~640~~	~~6948~~	~~33.11~~	~~UG/L~~ No Bph	100
55)	*PHENANTHRENE-D10	(IS)	188	22.93	858	58186	40.00	UG/L	99
63)	DI-N-BUTYLPHTHALATE		149	25.49	984	30659	42.54	UG/L	97
65)	*CHRYSENE-D12	(IS)	240	31.08	1258	23181	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.12	1113	13980	38.31	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.15	1458	20741	40.00	UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	33.89	1396	667	1.40	UG/L	100

* Compound is ISTD

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Laboratory Name Ecology & Environment Inc.

Case No U-4465

Sample Number B3153

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 12-2-86

Conc/Dil Factor 2

Percent Moisture (Decanted) —

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	330	U
111-44-4	bis(-2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1 3-Dichlorobenzene	330	U
106-46-7	1. 4-Dichlorobenzene	330	U
100-51-6	Benzyl Alcohol	330	U
95-50-1	1. 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	bis(2-chloroisopropyl)Ether	330	U
106-44-5	4-Methylpheno	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2. 4-Dimethylphenol	330	U
65-85-0	Benzoic Acid	1600	U
111-91-1	bis(-2-Chloroethoxy)Methane	330	U
120-83-2	2. 4-Dichlorophenol	330	U
120-82-1	1 2. 4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2 4 6-Trichlorophenol	330	U
95-95-4	2. 4. 5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	330	U
51-28-5	2. 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U
606-20-2	2 6-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	360	
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1600	U
534-52-1	4. 6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3. 3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	180	J
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	330	U
53-70-3	Dibenzo(a h)Anthracene	330	U
191-24-2	Benzo(g h. i)Perylene	330	U

(1)-Cannot be separated from diphenylamine

recycled paper

ecology and environment

Laboratory Name ECOLOGY & ENVIRONMENT INC

Case No U-4465

Sample Number B3153

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	UNKNOWN	BNA	35.1	980 J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
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16.				
17.				
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19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

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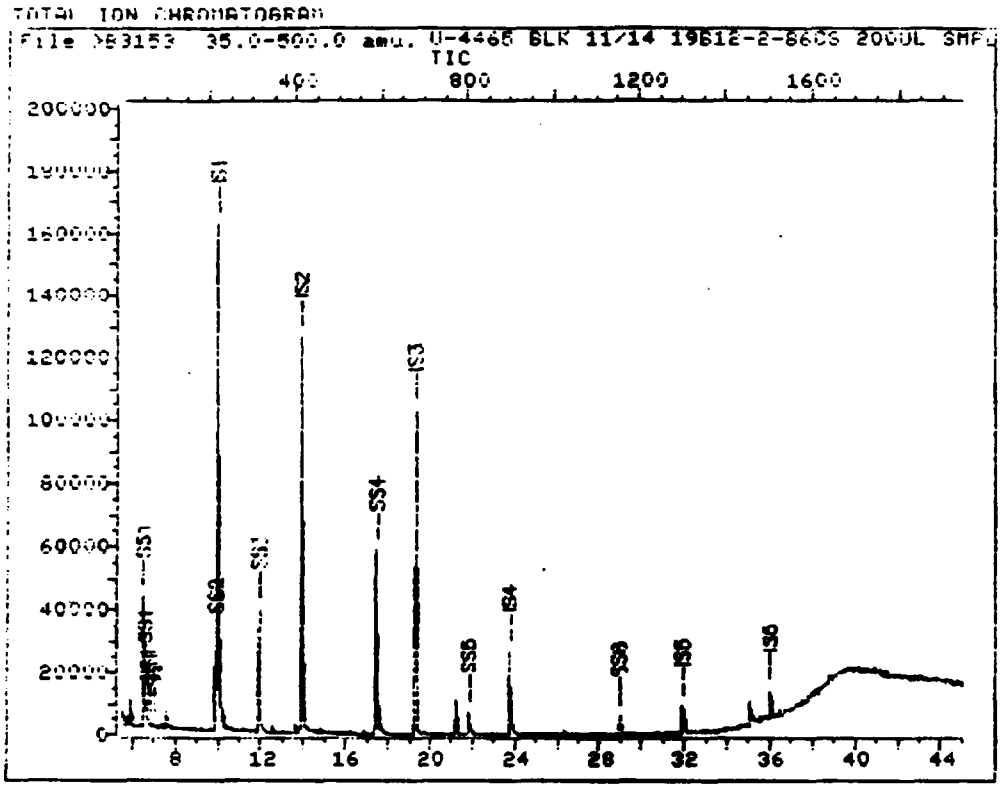
ecology and environment



Data File: >83153::D4
Name: U-4465 BLK 11/14 198
Misc: 12-2-86CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:14

Operator ID: USER6
Quant Time: 861202 16:39
Injected at: 861202 15:51

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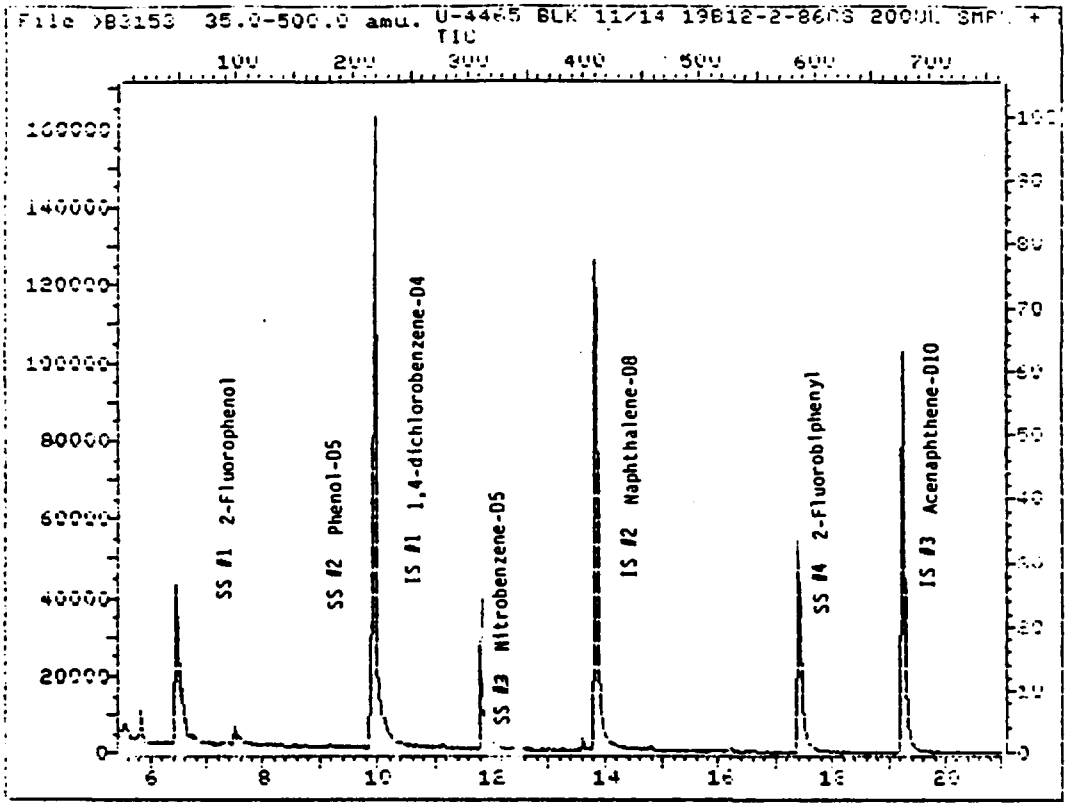
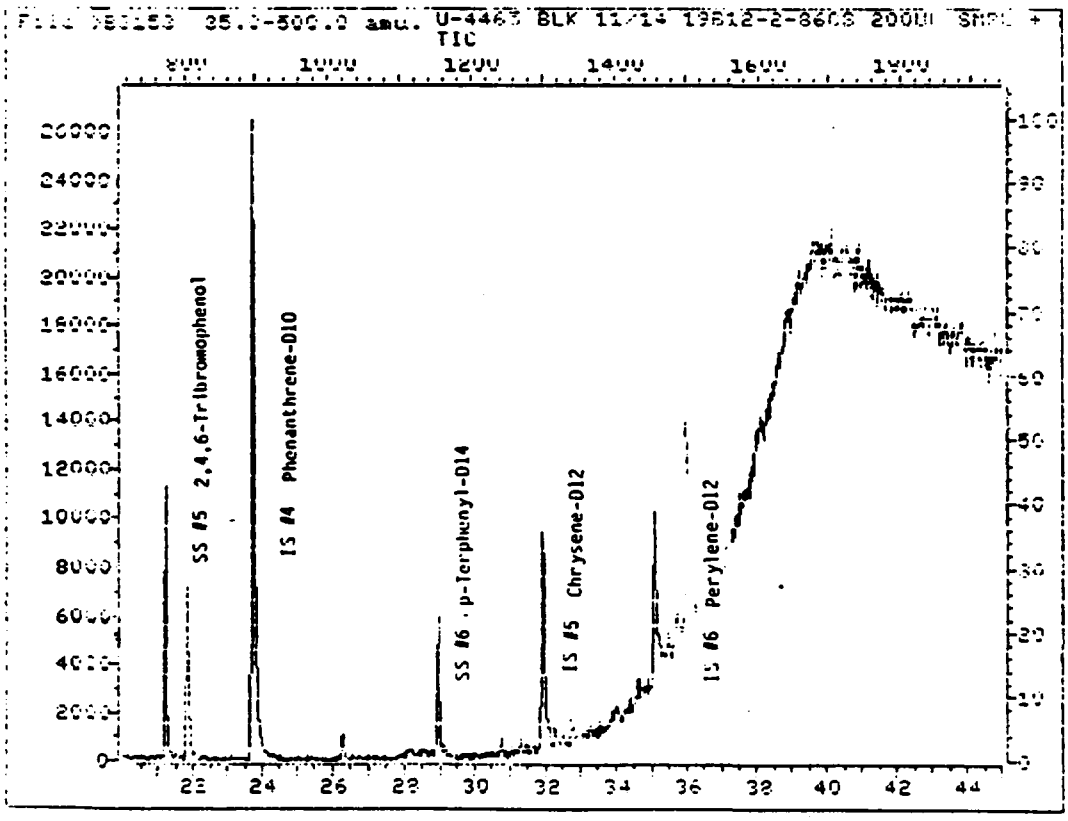
ecology and environment


File >B3153 35.0-500.0 amu. U-4465 BLK 11/14 19B12-2-8603 200UL SMPL +
TIC
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


File >B3153 35.0-500.0 amu. U-4465 BLK 11/14 19B12-2-8603 200UL SMPL +
TIC
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861202 16:39
Output File: ^B3153::Q2 Injected at: 861202 15:51
Data File: ^B3153::D4 Dilution Factor: 2.00
Name: U-4465 BLK 11/14 19B
Misc: 12-2-86CS 200UL SMPL + 200UL MECL2 + 40UL IS (2X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861202 13:14

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.96	220	68698	40.00	UG/L	85
2)	PHENOL-D5	(SURR)	99	9.90	217	74449	64.36	UG/L	91
3)	2-FLUOROPHENOL	(SURR)	112	6.46	48	44937	50.78	UG/L	73
~~4)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.46~~	~~53~~	~~8353~~	~~[illegible]~~	~~UG/L~~	86
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.71~~	~~60~~	~~3480~~	~~3.94~~	~~UG/L~~	96
~~6)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.45~~	~~62~~	~~641~~	~~.73~~	~~UG/L~~	No RPM
~~7)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.49~~	~~74~~	~~718~~	~~.81~~	~~UG/L~~	
~~8)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.45~~	~~313~~	~~4627~~	~~5.22~~	~~UG/L~~	89
19)	*NAPHTHALENE-D8	(IS)	136	13.84	411	221889	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.85	313	49847	54.29	UG/L	96
34)	*ACENAPHTHENE-D10	(IS)	162	19.25	677	83643	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	17.42	587	88753	56.27	UG/L	93
~~42)~~	~~DIMETHYL PHTHALATE~~		~~164~~	~~19.45~~	~~674~~	~~24481~~	~~15.42~~	~~UG/L~~	No RPM 100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.91	803	7804	30.17	UG/L	92
~~51)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.25~~	~~677~~	~~14246~~	~~2.06~~	~~UG/L~~	No RPM 100
53)	DIETHYLPHTHALATE		149	21.20	723	15373	10.87	UG/L	96
55)	*PHENANTHRENE-D10	(IS)	188	23.72	897	72223	40.00	UG/L	96
65)	*CHRYSENE-D12	(IS)	240	31.89	1299	26835	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.92	1153	15884	52.97	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.98	1500	22046	40.00	UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	34.64	1434	2736	5.31	UG/L	100
~~76)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~35.49~~	~~1496~~	~~428~~	~~.64~~	~~UG/L~~	No RPM 0

* Compound is ISTD

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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number BLANK.19A

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1

Percent Moisture (decanted) —

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	16.0 U
72-55-9	4,4'-DDE	16.0 U
72-20-8	Endrin	16.0 U
33213-65-9	Endosulfan II	16.0 U
72-54-8	4,4'-DDD	16.0 U
1031-07-8	Endosulfan Sulfate	16.0 U
50-29-3	4,4'-DDT	16.0 U
72-43-5	Methoxychlor	80.0 U
53494-70-5	Endrin Ketone	16.0 U
57-74-9	Chlordane	80.0 U
8001-35-2	Toxaphene	160.0 U
12674-11-2	Aroclor-1016	80.0 U
11104-28-2	Aroclor-1221	80.0 U
11141-16-5	Aroclor-1232	80.0 U
53469-21-9	Aroclor-1242	80.0 U
12672-29-6	Aroclor-1248	80.0 U
11097-69-1	Aroclor-1254	160.0 U
11096-82-5	Aroclor-1260	160.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No V-4465

Sample Number BLANK.19B

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1

Percent Moisture (decanted) —

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	16.0 U
72-55-9	4,4'-DDE	16.0 U
72-20-8	Endrin	16.0 U
33213-65-9	Endosulfan II	16.0 U
72-54-8	4,4'-DDD	16.0 U
1031-07-8	Endosulfan Sulfate	16.0 U
50-29-3	4,4'-DDT	16.0 U
72-43-5	Methoxychlor	80.0 U
53494-70-5	Endrin Ketone	16.0 U
57-74-9	Chlordane	80.0 U
8001-35-2	Toxaphene	160.0 U
12674-11-2	Aroclor-1016	80.0 U
11104-28-2	Aroclor-1221	80.0 U
11141-16-5	Aroclor-1232	80.0 U
53469-21-9	Aroclor-1242	80.0 U
12672-29-6	Aroclor-1248	80.0 U
11097-69-1	Aroclor-1254	160.0 U
11096-82-5	Aroclor-1260	160.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

5.17

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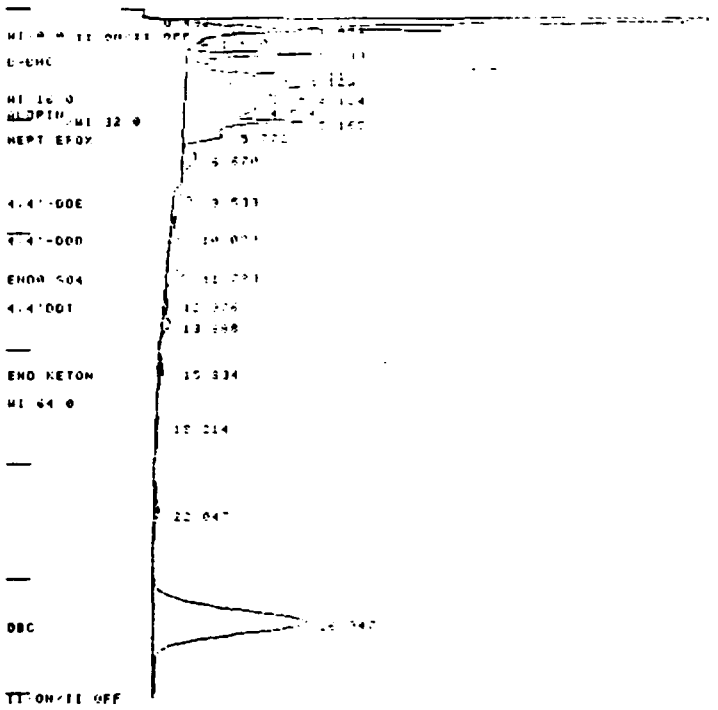
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



CHANNEL: 1A - 1 TITLE: RUN# 34 11:20 25 NOV 86

SAMPLE: BLK.19A11/14 METHOD: SEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~B-BHC 5%~~	11.2135	[illegible]	0.033	[illegible]	VV	5.50
2		0.0000	[illegible]		[illegible]	VV	? 10.44
3		0.0000	[illegible]		[illegible]	VV	? 18.51
4		0.0000	[illegible]		[illegible]	VV	? 29.25
5	~~HEPTACHLO~~	16.2333	[illegible]	0.284	[illegible]	VV	? 35.63
6	~~ALDRIN~~	6.3611	[illegible]	-0.146	[illegible]	VV	? 39.61
7		0.0000	[illegible]		[illegible]	VV	15.94
8	HEPT EPOX	4.0385	5.772	0.012	[illegible]	VV	? 25.55
9		0.0000	6.570		[illegible]	VB	23.13
10	~~DIELDRIN~~	3.1457	[illegible]	0.203	[illegible]	EV	24.25
11	~~4,4'-DDE~~	1.5569	[illegible]	-0.241	[illegible]	VB	15.00
12	~~ENDO 504~~	3.2036	[illegible]	-0.327	[illegible]	FV	27.44
13		0.0000	[illegible]		[illegible]	VV	25.63
14	~~4,4'DDT~~	2.9337	[illegible]	0.418	[illegible]	VB	24.00
15	~~END KETON~~	0.9984	[illegible]	0.314	[illegible]	BB	50.31
16		0.0000	[illegible]		[illegible]	BB	45.63
17	DBC 98	65.3651	[illegible]	-0.263	[illegible]	BB	69.00

TOTALS: 115.4653 0.467 [illegible]

DETECTED PKS: 28 REJECTED PKS: 11

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

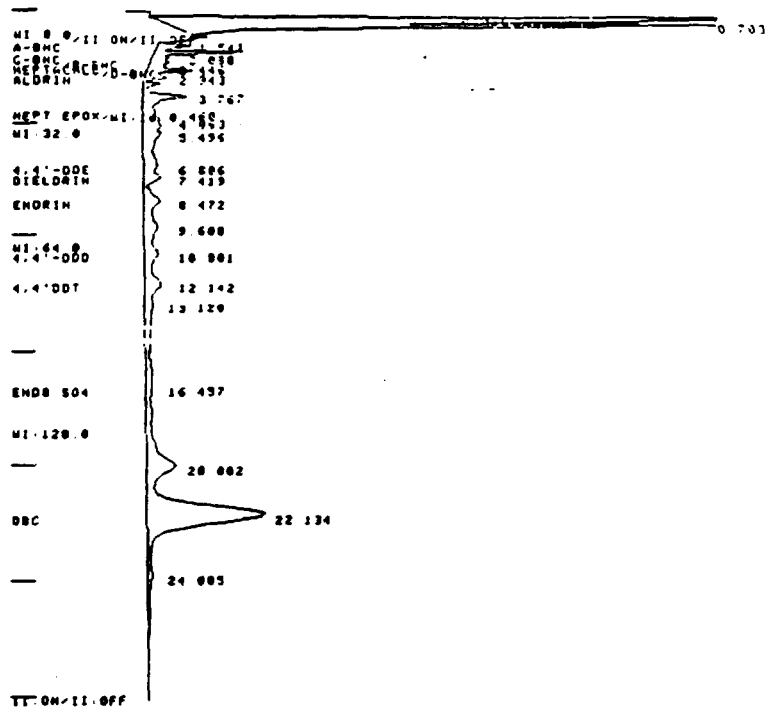
NOISE: 22.9 OFFSET: -10

NOTES:
NOTEBOOK:259-41 ANALYST: K.JUREK R.SAMSON
SECURE AREA: D JOB#:U-4465
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: RAW SL[illegible]

518

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 18 - 1 TITLE: RUN# 22 3:18 2 DEC 86

SAMPLE: BLANK 19AA1 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	A-BHC	1.4487	1.541	-0.129	81156	BV	5.25
2		0.0000	1.876		149094	VV	4.63
3	G-BHC	1.0061	2.008	-0.012	43523	VV	? 12.69
4		0.0000	2.285		42790	VV	6.56
5	B-BHC	1.5486	2.446	0.046	27360	VV	? 5.63
6	HEPTACLO	2.8478	2.619	0.029	121025	VV	6.38
7	D-BHC	1.9574	2.943	0.143	66009	VV	7.19
8	ALDRIN	0.9499	3.189	0.059	42310	VV	8.00
9		0.0000	3.767		236296	VV	13.75
10		0.0000	4.460		71144	VV	? 44.88
11	HEPT EPOX	2.1988	4.863	0.163	86897	VV	? 38.63
12		0.0000	5.117		86656	VV	? 27.81
13		0.0000	5.496		208530	VV	? 43.81
14	4,4'-DDE	4.1746	6.006	0.086	156421	VV	? 55.44
15	DIELDRIN	2.9498	7.419	0.189	118386	VV	? 38.69
16	ENDRIN	6.6470	8.472	-0.388	179164	VV	? 55.63
17		0.0000	9.600		221505	VV	? 70.06
18	B-ENDOSUL	5.2971	10.001	0.101	187318	VV	? 64.81
19	4,4'DDT	10.3995	12.142	-0.378	230658	VV	? 70.81
20		0.0000	13.120		223603	VV	?103.50
21	ENDO SO4	12.0018	16.457	-0.483	192058	VV	?131.88
22		0.0000	20.002		638915	VV	72.56
23	DBC	63.0910	22.134	-0.066	1834546	VV	55.00
24	METHOXCH	19.1042	24.005	0.005	157966	VB	?145.25
TOTALS:		137.2216		0.325	5403332		

DETECTED PKS: 33 REJECTED PKS: 9

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 60.6 OFFSET: -10

RACK: 2 VIAL: 5 INJ: 1

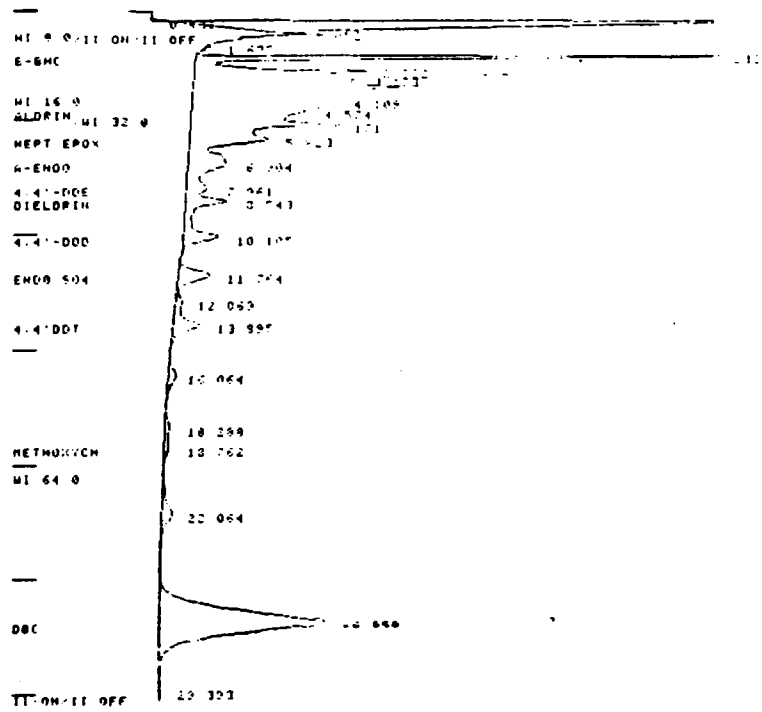
NOTES:
NOTEBOOK: 259-44 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#:U-4465
INST: VARIAN 600082 8 ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

POST RUN:

recycled paper

ecology and environment

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN TICK



CHANNEL: 1A - 1 TITLE: RUN# 25 12:22 25 NOV 86

SAMPLE: BLK.19811/14 METHOD: CEKA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA [illegible]	SEP CODE	WT 2 (SEC)
1	~~E-BHC~~	55.8498	2.232	0.032	[illegible]	VV	5.06
2		0.0000	2.622		[illegible]	VV	? 10.[illegible]
3		0.0000	2.993		[illegible]	VV	? 7.55
4		0.0000	3.173		[illegible]	VV	? 12.[illegible]
5		0.0000	3.467		[illegible]	VV	? [illegible]
6	~~HEPTACHLO~~	21.7033	4.109	0.269	[illegible]	VV	? 41.[illegible]
7		0.0000	4.574		[illegible]	VV	? 41.00
8	~~ALDRIN~~	2.8467	4.873	0.133	[illegible]	VV	? [illegible]
9		0.0000	5.171		[illegible]	VV	? 27.44
10	~~HEPT EPOX~~	10.3198	5.823	0.063	[illegible]	VV	? 35.56
11	~~A-ENDO~~	9.4441	6.904	-0.246	[illegible]	VV	50.12
12	~~4,4'-DDE~~	3.0941	7.961	-0.259	[illegible]	VV	[illegible]
13	~~DIELDRIN~~	4.9260	8.512	0.213	[illegible]	VV	[illegible]
14	~~4,4'-DDD~~	5.6241	10.105	-0.225	[illegible]	VB	19.64
15	~~ENDO SO4~~	6.5047	11.764	-0.346	[illegible]	BV	[illegible]
16		0.0000	12.863		[illegible]	VV	? [illegible]
17	~~4,4'DDT~~	9.8716	13.895	0.425	[illegible]	VB	23.25
18	~~ENDO KETON~~	1.6263	16.064	0.544	[illegible]	BB	35.00
19		0.0000	18.288		[illegible]	BV	? 40.81
20	~~METHOXYCH~~	3.3928	19.762	-1.048	[illegible]	VB	? [illegible]
21		0.0000	22.064		[illegible]	BB	45.50
22	DBC/eB	72.1098	26.959	-0.071	1621442	BV	69.19

TOTALS: 207.3131 -0.516 6633 46

DETECTED PKS: 31 REJECTED PKS: 9

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

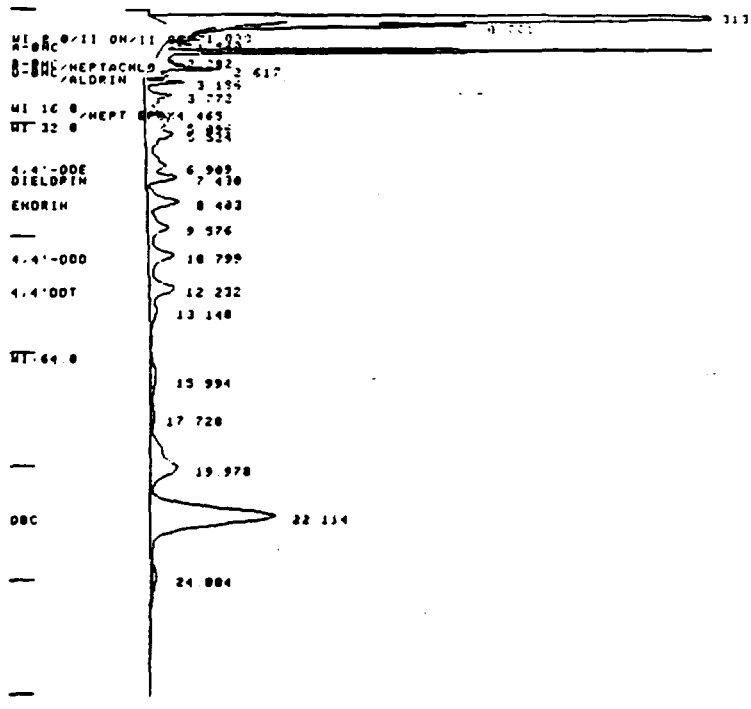
NOISE: 22.9 OFFSET: -2

NOTES:
NOTEBOOK:259-41 ANALYST: K.JUREK/R.SAMSON
SECURE AREA: D JOB#:U-4465
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: RAW 5[illegible]

550

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 1B - 1 TITLE: RUN# 23 3:52 2 DEC 86

SAMPLE: BLANK 198A1 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.340		26232	BV	3.94
2	~~A-BHC~~	1.1314	1.540	-0.130	62231	VV	5.00
3		0.0000	1.876		1151613	VV	4.13
4	HEPTACHLO	3.9107	2.617	0.027	166193	VV	6.19
5	~~D-BHC~~	1.9582	2.944	0.144	65756	VV	6.94
6	~~ALDRIN~~	2.0172	3.106	0.056	89947	VV	7.44
7		0.0000	3.772		1079[illegible]0	VV	14.25
8		0.0000	4.022		49175	VV	? 17.06
9		0.0000	4.465		70681	VV	? 31.31
10	~~HEPT EPOX~~	3.5696	4.839	0.139	141123	VV	? 26.94
11		0.0000	5.096		70892	VV	? 53.81
12	~~A-ENDO~~	6.2702	5.524	-0.386	2348[illegible]	VV	? 30.80
13	~~4,4'-DDE~~	4.7891	6.909	0.109	179446	VV	? 55.38
14	~~DIELDRIN~~	4.1629	7.430	0.200	167072	VV	21.50
15	~~ENDRIN~~	9.0232	8.483	-0.297	243212	VV	27.19
16		0.0000	9.576		211434	VV	46.00
17	~~B-ENDOSUL~~	6.6541	10.799	0.179	235205	VV	36.13
18	~~4,4'-DDT~~	10.7344	12.232	-0.288	238285	VV	39.31
19		0.0000	13.148		96155	VB	? 79.69
20		0.0000	15.994		97529	BV	84.06
21	~~ENDO SO4~~	3.1075	17.728	0.788	46620	VV	? 51.50
22		0.0000	19.978		472423	VV	54.94
23	DBC	64.3498	22.114	-0.006	184[illegible]	VV	50.88
24	~~METHOXYCH~~	9.9305	24.884	0.884	92[illegible]2	T	64.25
TOTALS:		131.6009		1.259	6164838		

DETECTED PKS: 34 REJECTED PKS: 10

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 68.6 OFFSET: -1

RACK: 2 VIAL: 6 INJ: 1

NOTES:
NOTEBOOK: 259-44 ANALYST: RICHARD SAMSON
SECURE AREA: O JOB#:U-4465
INST: VARIAN 600082 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

POST RUN:
SAVE FILE: R4W

recycled paper

ecology and environment