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REF 15k
157447

ORGANIC DATA VALIDATION REPORT

1.0 INTRODUCTION

Site:	Sauget Area 1				
Laboratory:	Ecology and Environment, Inc.				
Validation:	PRC Environmental Management, Inc.				
Review Date:	July 1993				
Case Numbers:	U-4835, U-4846, U-4863, and U-4872				
Sample Numbers:	DC-G3-33	DC-GB-34	DC-G4-35	DC-G4-36	DC-G5-37
	DC-I1-38	DC-I2-39	DC-I3-40	DC-I5-41	DC-I5-42
	DC-I6-43	DC-IB-44	DC-I7-45	DC-I7-46	DC-I7-47
	DC-I9-48	DC-I9-49	DC-I10-50	DC-I11-51	DC-I11-52
Analyses:	Volatiles, Semivolatiles, Pesticides/Polychlorinated Biphenyls				
Collection Dates:	January 26, 27, 28, 29 and 30; and February 2, 3, 4, and 5, 1987				

The data for these 20 soil samples were reviewed according to the EPA document "Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses" (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. 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. Seven of these samples were to be re-extracted and re-analyzed to produce lower detection limits. These results are presented in a separate data package as Case U-4835.

2.2 INSTRUMENT PERFORMANCE

In the volatile organic sample analyses (VOA) and semivolatile organic sample analyses (SVOA), all requirements for gas chromatography/mass (GC/MS) spectroscopy were met. In the pesticide/polychlorinated biphenyl sample analyses (P/PCB), all requirements for instrument performance were met.

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

Two initial calibrations were used in these analyses. In the July 14, 1986, run, the percent relative standard deviation (%RSD) for the response factor (RF) of bromomethane was 31.0, just above the quality control (QC) limit of 30. Therefore, all results for that chemical based on this initial calibration are considered estimates and qualified as "J" (if detected) or "UJ" (if not detected). In the run on January 28, 1987, the average RF for 2-butanone was 0.04, below the QC limit of 0.05. Therefore, all related positive results for that chemical are considered estimates (qualified "J") and all nondetect results are considered unusable (qualified "R"), as possible false negatives.

The continuing calibrations contained a number of compounds for which the RF percent difference (%D) from the initial calibration exceeded 25. All results for these are considered estimates and qualified "J" or "UJ". Table 1 lists all chemicals and samples affected by initial and continuing calibration problems.

2.3.2 Semivolatile Organic Analyses

All SVOA were done under one initial calibration. The %RSD for 3-nitroaniline was 34.5 and that for 3,3'-dichlorobenzidine was 39.2, compared to the QC limit of 30, so all results for those two chemicals are qualified as either "J" or "UJ".

TABLE 1

VOLATILE ORGANIC ANALYSIS INITIAL AND CONTINUING CALIBRATIONS

Initial Calibration	Continuing Calibration		Chemical (%D)		Samples Affected
Date	Date	Time			
July 14, 1986	all		Bromomethane (%RSD = 31.0)		(see below)
July 14, 1986	February 2, 1987	1041	Chloroethane (49.8)	2-Butanone (40.0)	DC-GB-34, DC-G4-35, and DC-G4-36
			2-Chloroethylvinylether (33.4)	Bromoform (25.6)	
			Styrene (30.6)	Xylene (26.3)	
July 14, 1986	February 6, 1987	1635	Trichlorofluoromethane (34.7)	Carbon disulfide (28.2)	DC-G3-33
			2-Butanone (50.8)	2-Chloroethylvinylether (25.4)	
July 14, 1986	February 9, 1987	1715	Chloroethane (27.3)	Trichlorofluoromethane (35.0)	DC-IB-44, DC-I7-45, DC-I7-46, and DC-I7-47
			Carbon disulfide (30.4)	2-Butanone (31.3)	
			2-Chloroethylvinylether (27.7)		
July 14, 1986	February 20, 1987	1104	Bromomethane (35.4)	Chloroethane (65.7)	DC-I11-52
			Methylene chloride (25.9)	Acetone (91.1)	
			Carbon disulfide (31.5)	1,1-Dichloroethane (26.6)	
			2-Butanone (88.3)	Trichloroethene (26.2)	
			1,1,2-Trichloroethane (28.4)	Styrene (34.9)	
			Xylenes (30.8)		
January 28, 1987	all		2-Butanone (average RF = 0.04)		(see below)
January 28, 1987	February 3, 1987	1236	Chloromethane (26.2)	Bromomethane (51.1)	DC-G5-37 and DC-I1-38
			Acetone (440)	Carbon disulfide (182.)	
			2-Butanone (234.)	cis-1,3-Dichloropropene (55.2)	
			4-Methyl-2-pentanone (181.)	2-Hexanone (291)	
January 28, 1987	February 4, 1987	1812	Bromomethane (26.4)	Acetone (65.3)	DC-I2-39, DC-I3-40, DC-I5-41, and DC-I5-42
			Trichlorofluoromethane (29.9)	Carbon disulfide (33.2)	
			2-Butanone (42.1)	2-Chloroethylvinylether (25.6)	
			4-Methyl-2-pentanone (28.5)	2-Hexanone (38.0)	
			1,1,2,2-Tetrachloroethane (28.5)		

TABLE 1 (continued)

VOLATILE ORGANIC ANALYSIS INITIAL AND CONTINUING CALIBRATIONS

Initial Calibration	Continuing Calibration		Chemical (%D)		Samples Affected
Date	Date	Time			
January 28, 1987	February 12, 1987	1558	Chloromethane (33.72)	Bromomethane (25.8)	DC-I6-43, DC-I9-48, DC-I9-49, and DC-I11-51
			Trichlorofluoromethane (43.6)	Carbon disulfide (50.6)	
			1,1-Dichloroethene (35.5)		
January 28, 1987	February 13, 1987	1036	Chloromethane (38.7)	Bromomethane (32.5)	DC-I10-50
			Acetone (30.3)	Trichlorofluoromethane (33.3)	
			Carbon disulfide (40.5)		

A number of chemicals exceeded the %D requirements in each continuing calibration, requiring "J" and "UJ" flags. Table 2 lists these exceedances.

TABLE 2

SEMIVOLATILE ORGANIC ANALYSIS CONTINUING CALIBRATIONS

Continuing Calibration		Chemical (%D)		Samples Affected
Date	Times[a]			
February 13, 1987	1433/1743	Aniline (53.3)	Benzyl alcohol (40.7)	DC-G4-35. DC-G4-36, and DC-I3-40
		N-Nitroso-di-n-propylamine (25.6)	4-Chloroaniline (41.5)	
		2-Nitroaniline (47.7)	Dimethylphthalate (39.3)	
		4-Nitroaniline (43.6)	Fluorene (27.5)	
		3-Nitroaniline (29.9)	2,4-Dinitrotoluene (50.9)	
		2,6-Dinitrotoluene (38.9)	Diethylphthalate (49.1)	
		Di-n-butylphthalate (33.0)	Benzidine (42.9)	
		Pyrene (33.2)	Butylbenzylphthalate (26.8)	
		3,3'-Dichlorobenzidine (53.1)	bis(2-Ethylhexyl)phthalate (28.1)	
		Benzo(k)fluoranthene (29.0)	Benzoic acid (32.3)	
		4-Nitrophenol (39.8)		
February 16, 1987	1504/1600	4-Chloroaniline (25.2)	Dimethylphthalate (35.9)	DC-G3-33, DC-GB-34, DC-I1-38, DC-I11-51, and DC-I11-52
		4-Nitroaniline (34.6)	Fluorene (26.3)	
		2,4-Dinitrotoluene (48.5)	2,6-Dinitrotoluene (36.8)	
		Diethylphthalate (41.4)	4-Chlorophenylphenylether (27.9)	
		Benzidine (47.1)	Pyrene (37.4)	
		Butylbenzylphthalate (41.6)	3,3'Dichlorobenzidine (67.6)	
		bis(2-Ethylhexyl)phthalate (33.0)	Benzo(b)fluoranthene (34.7)	
		Benzo(k)fluoranthene (31.2)	Indeno (1,2,3-cd)pyrene (27.3)	
		Dibenz(a,h)anthracene (53.0)	Benzoic acid (48.3)	
		2,4-Dinitrophenol (51.1)	4-Nitrophenol (68.8)	

TABLE 2 (Continued)

SEMIVOLATILE ORGANIC ANALYSIS CONTINUING CALIBRATIONS

Continuing Calibration		Chemical (%D)		Samples Affected
Date	Times[a]			
February 23, 1987	1223/1326	bis(2-Chloroethyl)ether (28.3)	bis(2-Chloroisopropyl)ether (35.1)	DC-G5-37. DC-I2-39, DC-I5-41, DC-I5-42, DC-IB-44, DC-17-46, DC-I7-47
		Nitrobenzene (29.3)	Dimethylphthalate (33.3)	
		3-Nitroaniline (50.4)	2,4-Dinitrotoluene (32.7)	
		2,6-Dinitrotoluene (33.4)	Diethylphthalate (35.1)	
		4-Chlorophenylphenylether (28.0)	Benzidine (67.3)	
		Pyrene (46.0)	3,3'-Dichlorobenzidine (154.)	
		Benzo(k)fluoranthene (31.0)	Dibenz(a,h)anthracene (27.0)	
		4-Nitrophenol (65.3)		
February 25, 1987	1215/1105	bis(2-Chloroethyl)ether (28.5)	Benzyl alcohol (26.9)	DC-I7-45
		bis(2-Chloroisopropyl)ether (70.8)	N-Nitroso-di-n-propylamine (53.8)	
		Nitrobenzene (43.7)	Isophorone (32.2)	
		bis(2-Chloroethoxy)methane (25.1)	Dimethylphthalate (35.9)	
		4-Nitroaniline (39.1)	Dibenzofuran (25.4)	
		Fluorene (30.3)	3-Nitroaniline (25.8)	
		2,4-Dinitrotoluene (56.0)	2,6-Dinitrotoluene (39.5)	
		Diethylphthalate (43.8)	4-Chlorophenylphenylether (38.4)	
		Benzidine (46.0)	Pyrene (35.0)	
		3,3'-Dichlorobenzidine (58.5)	2,4-Dinitrophenol (38.8)	
		4-Nitrophenol (67.0)		

TABLE 2 (Continued)

SEMIVOLATILE ORGANIC ANALYSIS CONTINUING CALIBRATIONS

Continuing Calibration		Chemical (%D)		Samples Affected
Date	Times[a]			
March 4, 1987	1227/1326	Aniline (91.0)	4-Chloroaniline (32.2)	DC-I6-43, DC-I9-48, and DC-I10-50
		2-Nitroaniline (26.9)	Dimethylphthalate (40.0)	
		4-Nitroaniline (50.1)	Dibenzofuran (28.3)	
		Fluorene (31.8)	3-Nitroaniline (61.9)	
		2,4-Dinitrotoluene (51.6)	2,6-Dinitrotoluene (40.9)	
		Diethylphthalate (48.0)	4-Chlorophenylphenylether (38.3)	
		Benzidine (66.6)	Pyrene (47.9)	
		Butylbenzylphthalate (31.0)	3,3'-Dichlorobenzidine (76.6)	
		Di-n-octylphthalate (25.4)	Dibenz(a,h)anthracene (31.4)	
		Benzoic acid (35.8)	2,4-Dinitrophenol (59.8)	
		4-Nitrophenol (81.3)		
March 5, 1987	1556/1147	bis(2-Chloroisopropyl)ether (26.3)	Dimethylphthalate (31.9)	DC-I9-49
		4-Nitroaniline (47.1)	Dibenzofuran (27.7)	
		Fluorene (31.5)	3-Nitroaniline (81.2)	
		2,4-Dinitrotoluene (48.0)	2,6-Dinitrotoluene (36.7)	
		Diethylphthalate (45.0)	4-Chlorophenylphenylether (39.2)	
		Benzidine (63.3)	Pyrene (50.5)	
		3,3'-Dichlorobenzidine (92.9)	Dibenz(a,h)anthracene (26.4)	
		2,4,5-Trichlorophenol (25.5)	2,4-Dinitrophenol (51.8)	
		4-Nitrophenol (71.6)		

Note:

[a] The times represent the two standards, acids/phenols and bases/neutrals, used for calibration.

TABLE 3

BLANK CONTAMINATION

Analysis	Chemical	Concentration (micrograms/kilograms)		Samples Qualified
		Blank	Action Level	
VOA	Methylene chloride	5/1000[a]	50/10,000	All samples
VOA	Acetone	37/7,400	370/74,000	All samples except DC-G4-35, DC-G4-36, DC-I7-45, DC-I7-46, and DC-I7-47
VOA	Chloroform	11/2,200	55/11,000	None
VOA	2-Butanone	55/11,000	550/110,000	All samples except DC-GB-34 and DC-I7-46
VOA	2-Hexanone	2/400	10/2,000	None
VOA	Toluene	1/200	10/2,000	DC-I1-38, DC-I3-40, DC-I5-42, DC-I6-43, DC-I11-51, and DC-I11-52
VOA	Hexene isomer (17.1)[b]	13/2,600	65/13,000	All samples except DC-G5-37, DC-I1-38, and DC-IB-44
VOA	Unknown hydrocarbon (19.5)	3.5/700	17/3,500	None
VOA	Hexane isomer (21.2)	54/10,800	270/54,000	All samples except DC-G5-37, DC-I1-38, and DC-IB-44
SVOA	Di-n-butylphthalate	7,600	76,000	DC-I5-41, DC-I6-43, DC-IB-44, DC-I7-45, DC-I7-46, DC-I7-47, DC-I9-49, and DC-I11-52
SVOA	bis(2-Ethylhexyl)phthalate	8,000	80,000	DC-I1-38, DC-I2-39, DC-I6-43, DC-I7-46, DC-I7-47, DC-I9-49, DC-I10-50, DC-I11-51, and DC-I11-52
SVOA	Unknown (19.8)	4,000	20,000	DC-I7-45, DC-I7-47, and DC-I9-49
P/PCB	Aroclor 1260	1,400	7,000	DC-G5-37, DC-I2-39, DC-I3-40, DC-I5-41, DC-I5-42, and DC-I10-50

Notes:

[a] The two numbers are for low-level and medium-level analyses, respectively.

[b] Nontarget compound; the number in parentheses is the approximate retention time in minutes.

2.3.3 Pesticide/Polychlorinated Biphenyl Analyses

The initial calibrations for the P/PCB analyses were within QC limits with only one exception. In the second series of runs, the %RSD for 4,4'-DDT was 12, which is above the QC limit of 10. Because the only samples in this series were DC-I3-40 and DC-I5-41 and these runs were used only for confirmation of the presence of Aroclor 1260, no qualifications are required.

Continuing calibration results were satisfactory except for the last standards in the first sequence. In this sequence, the percent difference was 17 for endrin, 16 for 4,4'-DDD, and 17 for endosulfan sulfate, all slightly above the QC limit of 15 for quantitation. No samples were run after these standards, and none of these chemicals was found in any samples run before the standards. Because the results are within the QC limit for identification (20), no action is warranted.

2.4 BLANKS

A number of laboratory blanks and two field blanks, DC-GB-34 and DC-IB-44, were included with these samples. Several target chemicals, mostly common laboratory contaminants, and some nontarget chemicals were found in these blanks. All reported sample concentrations up to 5 times the maximum blank concentrations (10 times for common laboratory contaminants) adjusted for dilutions, are considered artifacts and flagged "U" for nondetected. The various blank contaminants, their maximum concentrations, the ensuing action levels, and the samples affected are listed in Table 3.

2.5 SURROGATE RECOVERY

All surrogate recoveries in the VOA samples were within QC limits.

In the SVOA assays, one surrogate was outside the limits in Samples DC-G5-37, DC-I1-38, DC-I2-39, DC-I3-40, and DC-I11-52, but no action is warranted for this minimal exceedance. However, with sample DC-I5-41, all three base/neutral surrogates and one acid/phenol surrogate exceeded the upper recovery limit. Therefore, all base/neutral chemicals in that sample are considered estimates and are qualified as either "J" or "UJ". The surrogate recovery exceedances are presumed to be due to the composition of this sample, which includes about 4.5 percent (45,000,000 micrograms per kilogram) chlorinated benzenes and 1 percent hydrocarbons.

Although many P/PCB surrogates were diluted out, the usable ones were satisfactory.

2.6 MATRIX SPIKE/MATRIX SPIKE DUPLICATES

The VOA and P/PCB matrix spike/matrix spike duplicate (MS/MSD) were satisfactory. In both SVOA MS/MSD analyses using samples DC-G4-35 and DC-I7-47, there was excessive recovery of 2,4-dinitrotoluene (103, 131, 151, and 154 percent, compared to the acceptable range of 28 to 89). Since that chemical was not found in any sample, no action is warranted. In the MS/MSD based on DC-I7-47, the variation on recovery for four chemicals exceeded the QC limits. Again, no action is warranted.

2.7 FIELD DUPLICATES

There were two sets of field duplicates. Table 4 compares target chemicals found in both members of the pair. None were found in samples DC-I7-46 and DC-I7-47. The few found in samples DC-G4-35 and DC-G4-36 were in reasonable agreement. Most of these results were either below (benzene, 1,4-dichlorobenzene) or above (acetone) calibration limits.

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 raw data from VOA and SVOA analyses omitted mass spectra, so identification could not be verified. However, the handwritten notations on the furnished data showed evidence of care in confirming the identity of reported chemicals. Also, several VOA included confirmation of the dichlorobenzenes reported in the SVOA.

The P/PCB analysis results are acceptable.

TABLE 4

FIELD DUPLICATE RESULTS

Chemical	Concentration (micrograms per kilogram)	
	DC-G4-35	DC-G4-36
Acetone	1500J	1800J
Benzene	2J	4J
Chlorobenzene	81	120
1,4-Dichlorobenzene	1800J	3000J

Notes: "J" indicates that the concentration is estimated because it is outside the calibration range. No target chemicals were found in the duplicate pair DC-I7-46 and DC-I7-47.

2.10 COMPOUND QUANTITATION

Spot checks revealed no problems. Several results exceeded the analysis calibration range and were flagged "E" by the laboratory; these flags have been changed to "J" in Appendix A. Note that the laboratory reported results on an "as received" (wet weight) basis. To convert to the customary dry weight basis, multiply each sample's result by the corresponding factor in listed Table 5.

2.11 SYSTEM PERFORMANCE

There is no evidence of sudden shifts in system performance or similar problems. The high concentration of organic compounds in many of these samples required dilution, which raised detection limits.

3.0 OVERALL ASSESSMENT

On the whole, these analyses produced results equivalent to Data Quality Level IV. The most significant problems were inherent in the samples. The most extreme case is the most contaminated sample (DC-I5-41), with more than 5 percent semivolatile organic compounds. The low concentration of Aroclor 1260 in one field blank (DC-GB-34) obscured possible low-level contamination in other samples. See Appendix A for the final validated results.

TABLE 5

DRY WEIGHT CONVERSION FACTORS

Sample	Percent Moisture	Factor
DC-G3-33	27	1.37
DC-GB-34	22	1.28
DC-G4-35	24	1.32
DC-G4-36	20	1.25
DC-G5-37	21	1.27
DC-I1-38	27	1.37
DC-I2-39	26	1.35
DC-I3-40	29	1.41
DC-I5-41	21	1.27
DC-I5-42	15	1.18
DC-I6-43	35	1.54
DC-IB-44	22	1.28
DC-I7-45	23	1.30
DC-I7-46	20	1.25
DC-I7-47	21	1.27
DC-I9-48	32	1.47
DC-I9-49	19	1.23
DC-I10-50	17	1.20
DC-I11-51	40	1.67
DC-I11-52	17	1.20

APPENDIX A

CORRECTED FORMS I

CASE NUMBERS U-4835, U-4846, U-4863, AND U-4872

DC-G3-33

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Lab Sample ID No: 0752
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Hoptowicz
Date Sample Received: 1-29-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-6-87
Conc/Dil Factor: few 1 pH 7.2
Percent Moisture: (Not Decanted) 27

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	1000U	
74-83-9	Bromomethane	1000U J	
75-01-4	Vinyl Chloride	1000U	
75-00-3	Chloroethane	1000U	
75-09-2	Methylene Chloride . 50	0 ~~440 B~~	U
67-64-1	Acetone	7700 B	U
75-15-0	Carbon Disulfide	500U J	
75-35-4	1, 1-Dichloroethene	500U	
75-34-3	1, 1-Dichloroethane	500U	
156-60-5	Trans-1, 2-Dichloroethene	500U	
67-66-3	Chloroform	500U	
107-06-2	1, 2-Dichloroethane	500U	
78-93-3	2-Butanone	3000 B	UJ
71-55-6	1, 1, 1-Trichloroethane	500U	
56-23-5	Carbon Tetrachloride	500U	
108-05-4	Vinyl Acetate	1000U	
75-27-4	Bromodichloromethane	500U	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	500U
10061-02-6	Trans-1, 3-Dichloropropene	500U
79-01-6	Trichloroethene	500U
124-48-1	Dibromochloromethane	500U
79-00-5	1, 1, 2-Trichloroethane	500U
71-43-2	Benzene	500U
10061-01-5	cis-1, 3-Dichloropropene	500U
110-75-8	2-Chloroethylvinylether	1000U J
75-25-2	Bromoform	500U
108-10-1	4-Methyl-2-Pentanone	1000U
591-78-6	2-Hexanone	1000U
127-18-4	Tetrachloroethene	500U
79-34-5	1, 1, 2, 2-Tetrachloroethane	500U
108-88-3	Toluene	500U
108-90-7	Chlorobenzene	1200
100-41-4	Ethylbenzene	120 J
100-42-5	Styrene	500U
	Total Xylenes	500U

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 1 and a concentration of 3 µg/1 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 /l 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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range

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Laboratory Name ECOLOGY & ENVIRONMENT, INC.

Case No U-4835, U-4846, U-4863, U-4872

Sample Number DC-G3-33

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-3-87

Date Analyzed 2-16-87

Conc/Dil Factor 20

Percent Moisture (Decanted) 27

CONCENTRATIONS REPORTED "As Received"

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	3300	U
111-44-4	bis(2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1,3-Dichlorobenzene	3300	U
106-46-7	1,4-Dichlorobenzene	3300	U
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1,2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2,4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U
111-91-1	bis(2-Chloroethoxy)Methane	3300	U
120-83-2	2,4-Dichlorophenol	3300	U
120-82-1	1,2,4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2,4,6-Trichlorophenol	3300	U
95-95-4	2,4,5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U
208-96-8	Acenaphthylene	3300	U
99-09-2	3-Nitroaniline	16000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2,4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U
132-64-9	Dibenzofuran	3300	U
121-14-2	2,4-Dinitrotoluene	3300	U
606-20-2	2,6-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3300	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4,6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	3300	U
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3,3'-Dichlorobenzidine	6600	U
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300	U
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1,2,3-cd)Pyrene	3300	U
53-70-3	Dibenz(a,h)Anthracene	3300	U
191-24-2	Benzo(g,h,i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

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Form I

Laboratory Name ecology and environment, inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-G3-33

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 2-3-87

Date Analyzed 2-12-87

Conc/Dil Factor 10

Percent Moisture (decanted) 27

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	U
319-85-7	Beta-BHC	800	U
319-86-8	Delta-BHC	800	U
58-89-9	Gamma-BHC (Lindane)	800	U
76-44-8	Heptachlor	800	U
309-00-2	Aldrin	800	U
1024-57-3	Heptachlor Epoxide	800	U
959-98-8	Endosulfan I	800	U
60-57-1	Dieldrin	1600	U
72-55-9	4,4'-DDE	1600	U
72-20-8	Endrin	1600	U
33213-65-9	Endosulfan II	1600	U
72-54-8	4,4'-DDD	1600	U
1031-07-8	Endosulfan Sulfate	1600	U
50-29-3	4,4'-DDT	1600	U
72-43-5	Methoxychlor	8000	U
53494-70-5	Endrin Ketone	1600	U
57-74-9	Chlordane	8000	U
8001-35-2	Toxaphene	16000	U
12674-11-2	Aroclor-1016	8000	U
11104-28-2	Aroclor-1221	8000	U
11141-16-5	Aroclor-1232	8000	U
53469-21-9	Aroclor-1242	8000	U
12672-29-6	Aroclor-1248	8000	U
11097-69-1	Aroclor-1254	16000	U
11096-82-5	Aroclor-1260	16000	U

V_l = 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 3 V_t 1000 V_l 4

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-G3-33

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	~~3600~~ ~~BJ~~	4
2.		Hexane Isomer	VOA	21.2	~~8400~~ ~~BJ~~	4
3.						
4.						
5.		Chlorobenzenamine Isomer	BNA	11.54	4800	J
6.		Unknown Aromatic		18.45	5800	J
7.		Unknown Aromatic		19.10	6600	J
8.		Unknown Aromatic		19.16	11000	J
9.		Unknown Aromatic		19.36	14000	J
10.		Unknown Aromatic		19.59	20000	J
11.		Unknown Aromatic		19.75	5800	J
12.		Unknown Aromatic		19.83	7000	J
13.		Unknown Aromatic		19.89	15000	J
14.		Unknown Aromatic		20.02	18000	J
15.		Unknown Aromatic		20.47	46,000	J
16.		Unknown Aromatic		20.61	16,000	J
17.		Unknown Aromatic		20.67	32,000	J
18.		Unknown Aromatic		20.77	30,000	J
19.		Unknown Aromatic		20.98	40,000	J
20.		Unknown Aromatic		21.14	10,000	J
21.		Unknown Aromatic		21.34	24,000	J
22.		Unknown Aromatic		21.43	17,000	J
23.		Unknown Aromatic		21.59	12000	J
24						
25.						
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29.						
30						

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ecology and environment

SC-GO-37

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0753
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Hoftowicz
Date Sample Received: 1-29-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-2-87
Conc/Dil Factor: 1 pH 7.3
Percent Moisture: (Not Decanted) 22

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)		CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10U		78-87-5	1, 2-Dichloropropane	5U
74-83-9	Bromomethane	10U J		10061-02-6	Trans-1, 3-Dichloropropene	5U
75-01-4	Vinyl Chloride	10U		79-01-6	Trichloroethene	5U
75-00-3	Chloroethane	10U J		124-48-1	Dibromochloromethane	5U
75-09-2	Methylene Chloride	5 ~~3 B~~	U	79-00-5	1, 1, 2-Trichloroethane	5U
67-64-1	Acetone	16 ~~B~~	U	71-43-2	Benzene	5U
75-15-0	Carbon Disulfide	5U		10061-01-5	cis-1, 3-Dichloropropene	5U
75-35-4	1, 1-Dichloroethene	5U		110-75-8	2-Chloroethylvinylether	10U J
75-34-3	1, 1-Dichloroethane	5U		75-25-2	Bromoform	5U J
156-60-5	Trans-1, 2-Dichloroethene	5U		108-10-1	4-Methyl-2-Pentanone	10U
67-66-3	Chloroform	5U		591-78-6	2-Hexanone	10U
107-06-2	1, 2-Dichloroethane	5U		127-18-4	Tetrachloroethene	5U
78-93-3	2-Butanone	10U J		79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
71-55-6	1, 1, 1-Trichloroethane	5U		108-88-3	Toluene	5U
56-23-5	Carbon Tetrachloride	5U		108-90-7	Chlorobenzene	5U
108-05-4	Vinyl Acetate	10U		100-41-4	Ethylbenzene	5U
75-27-4	Bromodichloromethane	5U		100-42-5	Styrene	5U J
					Total Xylenes	5U 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.

July 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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name: Ecology & Environment Inc.

Case No: V-4835, 4844, 4863, 4872

Sample Number: DC-GB-34

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-3-87

Date Analyzed: 2-16-87

Conc/Dil Factor: 100

Percent Moisture (Decanted): 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	16000	U
111-44-4	bis(-2-Chloroethyl)Ether	16000	U
95-57-8	2-Chlorophenol	16000	U
541-73-1	1 3-Dichlorobenzene	16000	U
106-46-7	1 4-Dichlorobenzene	16000	U
100-51-6	Benzyl Alcohol	16000	U
95-50-1	1. 2-Dichlorobenzene	16000	U
95-48-7	2-Methylphenol	16000	U
39638-32-9	bis(2-chloroisopropyl)Ether	16000	U
106-44-5	4-Methylphenol	16000	U
621-64-7	N-Nitroso-Di-n-Propylamine	16000	U
67-72-1	Hexachloroethane	16000	U
98-95-3	Nitrobenzene	16000	U
78-59-1	Isophorone	16000	U
88-75-5	2-Nitrophenol	16000	U
105-67-9	2. 4-Dimethylphenol	16000	U
65-85-0	Benzoic Acid	80000	U J
111-91-1	bis(-2-Chloroethoxy)Methane	16000	U
120-83-2	2. 4-Dichlorophenol	16000	U
120-82-1	1. 2. 4-Trichlorobenzene	16000	U
91-20-3	Naphthalene	16000	U
106-47-8	4-Chloroaniline	16000	U J
87-68-3	Hexachlorobutadiene	16000	U
59-50-7	4-Chloro-3-Methylphenol	16000	U
91-57-6	2-Methylnaphthalene	16000	U
77-47-4	Hexachlorocyclopentadiene	16000	U
88-06-2	2. 4. 6-Trichlorophenol	16000	U
95-95-4	2. 4. 5-Trichlorophenol	80000	U
91-58-7	2-Chloronaphthalene	16000	U
88-74-4	2-Nitroaniline	80000	U
131-11-3	Dimethyl Phthalate	16000	U J
208-96-8	Acenaphthylene	16000	U
99-09-2	3-Nitroaniline	80000	U J

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	16000	U
51-28-5	2. 4-Dinitrophenol	80000	U J
100-02-7	4-Nitrophenol	80000	U J
132-64-9	Dibenzofuran	16000	U
121-14-2	2 4-Dinitrotoluene	16000	U J
606-20-2	2. 6-Dinitrotoluene	16000	U J
84-66-2	Diethylphthalate	16000	U J
7005-72-3	4-Chlorophenyl-phenylether	16000	U J
86-73-7	Fluorene	16000	U J
100-01-6	4-Nitroaniline	80000	U J
534-52-1	4. 6-Dinitro-2-Methylphenol	80000	U
86-30-6	N-Nitrosodiphenylamine (1)	16000	U
101-55-3	4-Bromophenyl-phenylether	16000	U
118-74-1	Hexachlorobenzene	16000	U
87-86-5	Pentachlorophenol	80000	U
85-01-8	Phenanthrene	16000	U
120-12-7	Anthracene	16000	U
84-74-2	Di-n-Butylphthalate	16000	U
206-44-0	Fluoranthene	16000	U
129-00-0	Pyrene	16000	U J
85-68-7	Butylbenzylphthalate	16000	U J
91-94-1	3. 3'-Dichlorobenzidine	33000	U J
56-55-3	Benzo(a)Anthracene	16000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	16000	U J
218-01-9	Chrysene	16000	U
117-84-0	Di-n-Octyl Phthalate	16000	U
205-99-2	Benzo(b)Fluoranthene	16000	U J
207-08-9	Benzo(k)Fluoranthene	16000	U J
50-32-8	Benzo(a)Pyrene	16000	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	16000	U J
53-70-3	Dibenzo(a,h)Anthracene	16000	U J
191-24-2	Benzo(g,h,i)Perylene	16000	U

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(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No V-4835, 4846, 4863, 4872

Sample No (Per) DC-GB-34

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-3-87

Date Analyzed 2-12-87

Conc/Dil Factor 1

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)	
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	1400	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 3 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-GB-34

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	~~13 BJ~~ 4
2.		Hexane Isomer	VOA	21.2	~~54 BJ~~ 4
3.					
4.		No Semi-Volatile Compounds Found			
5.					
6.					
7.					
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9.					
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30					

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DC-G4-35

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4835, 4846, 4863, 4872

L. Sample ID No: 0754

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Szytowicz

Date Sample Received: 1-29-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-2-87

Conc/Dil Factor: 1 pH 7.3

Percent Moisture: (Not Decanted) 24

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u J
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u J
75-09-2	Methylene Chloride	5 ~~2 BJ~~ U
67-64-1	Acetone	1500 ~~[illegible]~~ 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	17 ~~[illegible]~~ UJ
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	2 J
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	10u J
75-25-2	Bromoform	5u J
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	81
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u J
	Total Xylenes	5u 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.

July 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name: ECOLOGY & ENVIRONMENT INC.

Case No: V-4835, 4846, 4863, 4872

Sample Number: DC-G4-35

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-2-87

Date Analyzed: 2-13-87

Conc/Dil Factor: 20

Percent Moisture (Decanted): 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	3300	U
111-44-4	bis(-2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1 3-Dichlorobenzene	3300	U
106-46-7	1. 4-Dichlorobenzene	1800	J
100-51-6	Benzyl Alcohol	3300	U J
95-50-1	1. 2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U J
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2. 4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U J
111-91-1	bis(-2-Chloroethoxy)Methane	3300	U
120-83-2	2. 4-Dichlorophenol	3300	U
120-82-1	1. 2. 4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U J
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2. 4. 6-Trichlorophenol	3300	U
95-95-4	2. 4. 5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U J
131-11-3	Dimethyl Phthalate	3300	U J
208-96-8	Acenaphthylene	3300	U
99-09-2	3-Nitroaniline	16000	U J

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2. 4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U J
132-64-9	Dibenzofuran	3300	U
121-14-2	2 4-Dinitrotoluene	3300	U J
606-20-2	2. 6-Dinitrotoluene	3300	U J
84-66-2	Diethylphthalate	3300	U J
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U J
100-01-6	4-Nitroaniline	16000	U J
534-52-1	4. 6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	3300	U J
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U J
85-68-7	Butylbenzylphthalate	3300	U J
91-94-1	3. 3'-Dichlorobenzidine	66000	U J
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300	U J
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U J
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	3300	U
53-70-3	Dibenzo(a,h)Anthracene	3300	U
191-24-2	Benzo(g,h,i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

Jul 93

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Laboratory Name ecology and environment, inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-G4-35

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-2-87

Date Analyzed 2-12-87

Conc/Dil Factor 2

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	160	U
319-85-7	Beta-BHC	160	U
319-86-8	Delta-BHC	160	U
58-89-9	Gamma-BHC (Lindane)	160	U
76-44-8	Heptachlor	160	U
309-00-2	Aldrin	160	U
1024-57-3	Heptachlor Epoxide	160	U
959-98-8	Endosulfan I	160	U
60-57-1	Dieldrin	320	U
72-55-9	4 4'-DDE	320	U
72-20-8	Endrin	320	U
33213-65-9	Endosulfan II	320	U
72-54-8	4 4'-DDD	320	U
1031-07-8	Endosulfan Sulfate	320	U
50-29-3	4 4'-DDT	320	U
72-43-5	Methoxychlor	1600	U
53494-70-5	Endrin Ketone	320	U
57-74-9	Chlordane	1600	U
8001-35-2	Toxaphene	3200	U
12674-11-2	Aroclor-1016	1600	U
11104-28-2	Aroclor-1221	1600	U
11141-16-5	Aroclor-1232	1600	U
53469-21-9	Aroclor-1242	1600	U
12672-29-6	Aroclor-1248	1600	U
11097-69-1	Aroclor-1254	3200	U
11096-82-5	Aroclor-1260	3200	U

V_t = 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 3 V_t 1000 V_t 4 ~~186~~ 24

Laboratory Name [illegible]

Case No V-4835, 4846, 4863, 4872

Sample Number DC-G4-35

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	~~11 BJ~~ U
2.	Hexane Isomer	↓	21.1	~~50 BJ~~ U
3.	Dichlorobenzene Isomer	↓	39.8	1000 J
4.				
5.	Tetrchlorobenzene Isomer	BNA	16.21	2500 J
6. 608935	Pentachlorobenzene	↓	18.55	4000 J
7 10544500	Molecular Sulfur	↓	25.51	16000 J
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HVE July 93

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DC-G4-36

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0755
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Hoytowicz
Date Sample Received: 1-29-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-2-87
Conc/Dil Factor: 1 pH 7.2
Percent Moisture: (Not Decanted) 20

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U J
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U J
75-09-2	Methylene Chloride	5 ~~2 BJ~~ U
67-64-1	Acetone	1800 ~~EB~~ 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	12 ~~B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	~~B~~ 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	4J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U J
75-25-2	Bromoform	5U J
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	120
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U J
	Total Xylenes	5U 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.

I-IV
July 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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name: Ecology & Environment Inc.

Case No: V-4835, 4846, 4863, 4872

Sample Number: DC-G436

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-2-87

Date Analyzed: 2-13-87

Conc/Dil Factor: 20

Percent Moisture (Decanted): 20

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	3300	U
111-44-4	bis(-2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1 3-Dichlorobenzene	3300	U
106-46-7	1 4-Dichlorobenzene	3000	J
100-51-6	Benzyl Alcohol	3300	U J
95-50-1	1 2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U J
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2, 4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U J
111-91-1	bis(-2-Chloroethoxy)Methane	3300	U
120-83-2	2, 4-Dichlorophenol	3300	U
120-82-1	1, 2, 4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U J
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2, 4, 6-Trichlorophenol	3300	U
95-95-4	2, 4, 5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U J
131-11-3	Dimethyl Phthalate	3300	U J
[illegible]8-96-8	Acenaphthylene	3300	U
[illegible]-09-2	3-Nitroaniline	16000	U J

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2, 4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U J
132-64-9	Dibenzofuran	3300	U
121-14-2	2 4-Dinitrotoluene	3300	U J
606-20-2	2, 6-Dinitrotoluene	3300	U J
84-66-2	Diethylphthalate	3300	U J
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U J
100-01-6	4-Nitroaniline	16000	U J
534-52-1	4, 6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	3300	U J
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U J
85-68-7	Butylbenzylphthalate	3300	U J
91-94-1	3, 3'-Dichlorobenzidine	6600	U J
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300	U J
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U J
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	3300	U
53-70-3	Dibenz(a, h)Anthracene	3300	U
191-24-2	Benzo(g, h, i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

July 93

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Laboratory Name: ecology and environment, inc.

Case No: V-4835, 4846, 4863, 4872

Sample Number: DC-G4-36

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-2-87

Date Analyzed: 2-12-87

Conc/Dil Factor: 5

Percent Moisture (decanted): 20

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	400	U
319-85-7	Beta-BHC	400	U
319-86-8	Delta-BHC	400	U
58-89-9	Gamma-BHC (Lindane)	400	U
76-44-8	Heptachlor	400	U
309-00-2	Aldrin	400	U
1024-57-3	Heptachlor Epoxide	400	U
959-98-8	Endosulfan I	400	U
60-57-1	Dieldrin	800	U
72-55-9	4,4'-DDE	800	U
72-20-8	Endrin	800	U
33213-65-9	Endosulfan II	800	U
72-54-8	4,4'-DDD	800	U
1031-07-8	Endosulfan Sulfate	800	U
50-29-3	4,4'-DDT	800	U
72-43-5	Methoxychlor	4000	U
53494-70-5	Endrin Ketone	800	U
57-74-9	Chlordane	4000	U
8001-35-2	Toxaphene	8000	U
12674-11-2	Aroclor-1016	4000	U
11104-28-2	Aroclor-1221	4000	U
11141-16-5	Aroclor-1232	4000	U
53469-21-9	Aroclor-1242	4000	U
12672-29-6	Aroclor-1248	4000	U
11097-69-1	Aroclor-1254	8000	U
11096-82-5	Aroclor-1260	8000	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 3 V_t 1000 V_i 4 ~~179~~ 28

Laboratory Name ECOLOGY & ENVIRONMENT INC

Case No U-4835, 4846, 4863, 4872

Sample Number DC-G4-36

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	~~11 BJ~~
2.		Hexane Isomer	|	21.2	~~5i BJ~~
3.	95501	Dichlorobenzene 1,2 Isomer	|	38.2	43 J
4.	106467	1,4-Dichlorobenzene	L	39.8	1000 J
5.					
6.	10544500	Molecular Sulfur	BNA	25.51	16000 J
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July 93

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0756
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 1-29-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-3-87
Conc/Dil Factor: 2 pH 7.96
Percent Moisture: (Not Decanted) 21

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)	
74-87-3	Chloromethane	2000 U J	
74-83-9	Bromomethane	2000 U J	
75-01-4	Vinyl Chloride	2000 U	
75-00-3	Chloroethane	2000 U	
75-09-2	Methylene Chloride . 1000	~~690 B J~~	U
67-64-1	Acetone	~~2600 B~~	UJ
75-15-0	Carbon Disulfide	1000 U	
75-35-4	1, 1-Dichloroethene	1000 U	
75-34-3	1, 1-Dichloroethane	1000 U	
156-60-5	Trans-1, 2-Dichloroethene	1000 U	
67-66-3	Chloroform	1000 U	
107-06-2	1, 2-Dichloroethane	1000 U	
78-93-3	2-Butanone	~~2900 B~~	UJ
71-55-6	1, 1, 1-Trichloroethane	1000 U	
56-23-5	Carbon Tetrachloride	1000 U	
108-05-4	Vinyl Acetate	2000 U	
75-27-4	Bromodichloromethane	1000 U	

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	1000 U
10061-02-6	Trans-1, 3-Dichloropropene	1000 U
79-01-6	Trichloroethene	600 J
124-48-1	Dibromochloromethane	1000 U
79-00-5	1, 1, 2-Trichloroethane	1000 U
71-43-2	Benzene	8000
10061-01-5	cis-1, 3-Dichloropropene	1000 U J
110-75-8	2-Chloroethylvinylether	2000 U
75-25-2	Bromoform	1000 U
108-10-1	4-Methyl-2-Pentanone	500 J
591-78-6	2-Hexanone	2000 U J
127-18-4	Tetrachloroethene	2800
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000 U
108-88-3	Toluene	22000
108-90-7	Chlorobenzene	1900
100-41-4	Ethylbenzene	980 J
100-42-5	Styrene	1000 U
	Total Xylenes	2200

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.

FVE
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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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name: Ecology & Environment Inc.

Case No: V-4835, 4846, 4863, 4872

Sample Number: DC-G5-37

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-2-87

Date Analyzed: 2-23-87

Conc/Dil Factor: 100

Percent Moisture (Decanted): 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED 'AS RECEIVED'

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	140,000	
111-44-4	bis(2-Chloroethyl)Ether	16000 U	J
95-57-8	2-Chlorophenol	6900 J	
541-73-1	1,3-Dichlorobenzene	16000 U	
106-46-7	1,4-Dichlorobenzene	16000 U	
100-51-6	Benzyl Alcohol	4800 J	
95-50-1	1,2-Dichlorobenzene	16000 U	
95-48-7	2-Methylphenol	16000 U	
39638-32-9	bis(2-chloroisopropyl)Ether	16000 U	J
106-44-5	4-Methylphenol	2800 J	
621-64-7	N-Nitroso-Di-n-Propylamine	16000 U	
67-72-1	Hexachloroethane	16000 U	
98-95-3	Nitrobenzene	16000 U	J
78-59-1	Isophorone	16000 U	
88-75-5	2-Nitrophenol	16000 U	
105-67-9	2,4-Dimethylphenol	16000 U	
65-85-0	Benzoic Acid	80,000 U	
111-91-1	bis(2-Chloroethoxy)Methane	16000 U	
120-83-2	2,4-Dichlorophenol	39,000	
120-82-1	1,2,4-Trichlorobenzene	6200 J	
91-20-3	Naphthalene	209,000	
106-47-8	4-Chloroaniline	4700 J	
87-68-3	Hexachlorobutadiene	16000 U	
59-50-7	4-Chloro-3-Methylphenol	16000 U	
91-57-6	2-Methylnaphthalene	11,000 J	
77-47-4	Hexachlorocyclopentadiene	16000 U	
88-06-2	2,4,6-Trichlorophenol	39,000	
95-95-4	2,4,5-Trichlorophenol	80,000 U	
91-58-7	2-Chloronaphthalene	16,000 U	
88-74-4	2-Nitroaniline	80,000 U	
131-11-3	Dimethyl Phthalate	16,000 U	J
208-96-8	Acenaphthylene	16,000 U	
-09-2	3-Nitroaniline	80,000 U	J

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	16000 U	
51-28-5	2,4-Dinitrophenol	80,000 U	
100-02-7	4-Nitrophenol	80,000 U	J
132-64-9	Dibenzofuran	16000 U	
121-14-2	2,4-Dinitrotoluene	16000 U	J
606-20-2	2,6-Dinitrotoluene	16000 U	J
84-66-2	Diethylphthalate	16000 U	J
7005-72-3	4-Chlorophenyl-phenylether	16000 U	J
86-73-7	Fluorene	16000 U	
100-01-6	4-Nitroaniline	80,000 U	
534-52-1	4,6-Dinitro-2-Methylphenol	80,000 U	
86-30-6	N-Nitrosodiphenylamine (1)	140,000	
101-55-3	4-Bromophenyl-phenylether	16000 U	
118-74-1	Hexachlorobenzene	16000 U	
87-86-5	Pentachlorophenol	80,000 U	
85-01-8	Phenanthrene	21,000	
120-12-7	Anthracene	16000 U	
84-74-2	Di-n-Butylphthalate	16000 U	
206-44-0	Fluoranthene	16000 U	
129-00-0	Pyrene	15000 J	
85-68-7	Butylbenzylphthalate	16000 U	
91-94-1	3,3'-Dichlorobenzidine	33,000 U	J
56-55-3	Benzo(a)Anthracene	16000 U	
117-81-7	bis(2-Ethylhexyl)Phthalate	16000 U	
218-01-9	Chrysene	18,000	
117-84-0	Di-n-Octyl Phthalate	16000 U	
205-99-2	Benzo(b)Fluoranthene	16000 U	
207-08-9	Benzo(k)Fluoranthene	16000 U	J
50-32-8	Benzo(a)Pyrene	16000 U	
193-39-5	Indeno(1,2,3-cd)Pyrene	16000 U	
53-70-3	Dibenz(a,h)Anthracene	16000 U	J
191-24-2	Benzo(g,h,i)Perylene	16000 U	

(1)-Cannot be separated from diphenylamine

HE

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ecology and environment

Laboratory Name ecology and environment, inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-G5-37

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2/2/87

Date Analyzed 2/12/87

Conc/Dil Factor 20

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)
319-84-6	Alpha-BHC	1600 U
319-85-7	Beta-BHC	1600 U
319-86-8	Delta-BHC	1600 U
58-89-9	Gamma-BHC (Lindane)	1600 U
76-44-8	Heptachlor	1600 U
309-00-2	Aldrin	1600 U
1024-57-3	Heptachlor Epoxide	1600 U
959-98-8	Endosulfan I	1600 U
60-57-1	Dieldrin	3200 U
72-55-9	4,4'-DDE	3200 U
72-20-8	Endrin	3200 U
33213-65-9	Endosulfan II	3200 U
72-54-8	4,4'-DDD	3200 U
1031-07-8	Endosulfan Sulfate	3200 U
50-29-3	4,4'-DDT	3200 U
72-43-5	Methoxychlor	16000 U
53494-70-5	Endrin Ketone	3200 U
57-74-9	Chlordane	16000 U
8001-35-2	Toxaphene	32000 U
12674-11-2	Aroclor-1016	16000 U
11104-28-2	Aroclor-1221	16000 U
11141-16-5	Aroclor-1232	16000 U
53469-21-9	Aroclor-1242	16000 U
12672-29-6	Aroclor-1248	16000 U
11097-69-1	Aroclor-1254	32000 U
11096-82-5	Aroclor-1260	45,000 U

U

V_t = 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)

III

July 93

V_s _____ or W_s 3 V_t 1,000 V_i 4

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Laboratory Name Ecology & Environment, Inc.

Case No 4-4835, 4546, 4563, 4572

Sample Number DC-65-37

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.	763291	2-Methyl-1-pentene	VOA	16.3	14000 J
2.		Unknown hydrocarbon	VOA	28.1	28000 J
3.		Dichlorobenzene isomer	VOA	39.2	2000 J
4.					
5.		ANILINE	BNA	7.95	460,000
6.		UNKNOWN		11.05	86,000 J
7		ETHYLBENZENAMINE ISOMER		12.07	94,000 J
8.	92524	1,1'-BIPHENYL		16.19	130,000 J
9.	643583	2-METHYL-1,1'-BIPHENYL		16.57	290,000 J
10.	643936	3-METHYL-1,1'-BIPHENYL		17.96	130,000 J
11.	644086	4-METHYL-1,1'-BIPHENYL		18.08	78,000 J
12.	6373508	4-CYCLOHEXYLBENZENAMINE		19.25	1,400,000 J
13.	120514	BENZOIC ACID, PHENYLMETHYL ESTER		22.14	280,000 J
14.					
15.					
16.					
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18.					
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30					

DC-I1-38

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0757
QC Report No:
Sample Matrix: Soil
Contract No: EL-3140
Data Release Authorized By: [signature]
Date Sample Received: 1-29-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-3-87
Conc/Dil Factor: 2 pH 7.0
Percent Moisture: (Not Decanted) 27

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	2000U J	
74-83-9	Bromomethane	2000U J	
75-01-4	Vinyl Chloride	2000U	
75-00-3	Chloroethane	2000U	
75-09-2	Methylene Chloride 1000	~~540 BJ~~	U
67-64-1	Acetone 2000	~~4600 BJ~~	UJ
75-15-0	Carbon Disulfide	1000U J	
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	2600 B	UJ
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	290 J	
10061-01-5	cis-1, 3-Dichloropropene	1000U J	
110-75-8	2-Chloroethylvinylether	2000U	
75-25-2	Bromoform	1000U	
108-10-1	4-Methyl-2-Pentanone	2000U J	
591-78-6	2-Hexanone	2000U J	
127-18-4	Tetrachloroethene	1000U	
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000U	
108-88-3	Toluene 1000	~~480 J~~	U
108-90-7	Chlorobenzene	~~46000 E~~	J
100-41-4	Ethylbenzene	11000	
100-42-5	Styrene	1000U	
	Total Xylenes	14000	

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.

1-V2
July 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 /ml 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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range

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Case No V-4835, 4846, 4863, 4872

Sample Number DC-I1-38

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 2-2-87

Date Analyzed: 2-16-87

Conc/Dil Factor: 50

Percent Moisture (Decanted): 27

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	8200 U	
111-44-4	bis(-2-Chloroethyl)Ether	8200 U	
95-57-8	2-Chlorophenol	8200 U	
541-73-1	1 3-Dichlorobenzene	8200 U	
106-46-7	1 4-Dichlorobenzene	8000 J	
100-51-6	Benzyl Alcohol	8200 U	
95-50-1	1 2-Dichlorobenzene	6500 J	
95-48-7	2-Methylphenol	8200 U	
39638-32-9	bis(2-chloroisopropyl)Ether	8200 U	
106-44-5	4-Methylpheno	8200 U	
621-64-7	N-Nitroso-Di-n-Propylamine	8200 U	
67-72-1	Hexachloroethane	8200 U	
98-95-3	Nitrobenzene	2200 J	
78-59-1	Isophorone	8200 U	
88-75-5	2-Nitrophenol	8200 U	
105-67-9	2. 4-Dimethylphenol	8200 U	
65-85-0	Benzoic Acid	40,000 U	J
111-91-1	bis(-2-Chloroethoxy)Methane	8200 U	
120-83-2	2. 4-Dichlorophenol	8200 U	
120-82-1	1. 2. 4-Trichlorobenzene	4900 J	
91-20-3	Naphthalene	2100 J	
106-47-8	4-Chloroaniline	8200 U	J
87-68-3	Hexachlorobutadiene	8200 U	
59-50-7	4-Chloro-3-Methylphenol	8200 U	
91-57-6	2-Methylnaphthalene	2500 J	
77-47-4	Hexachlorocyclopentadiene	8200 U	
88-06-2	2 4 6-Trichlorophenol	8200 U	
95-95-4	2 4 5-Trichlorophenol	40,000 U	
91-58-7	2-Chloronaphthalene	8200 U	
88-74-4	2-Nitroaniline	40,000 U	
131-11-3	Dimethyl Phthalate	8200 U	J
208-96-8	Acenaphthylene	8200 U	
09-2	3-Nitroaniline	40,000 U	J

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	8200 U	
51-28-5	2. 4-Dinitrophenol	40,000 U	J
100-02-7	4-Nitrophenol	40,000 U	J
132-64-9	Dibenzofuran	8200 U	
121-14-2	2 4-Dinitrotoluene	8200 U	J
606-20-2	2 6-Dinitrotoluene	8200 U	J
84-66-2	Diethylphthalate	8200 U	J
7005-72-3	4-Chlorophenyl-phenylether	8200 U	J
86-73-7	Fluorene	8200 U	J
100-01-6	4-Nitroaniline	40,000 U	J
534-52-1	4. 6-Dinitro-2-Methylphenol	40,000 U	
86-30-6	N-Nitrosodiphenylamine (1)	8200 U	
101-55-3	4-Bromophenyl-phenylether	8200 U	
118-74-1	Hexachlorobenzene	8200 U	
87-86-5	Pentachlorophenol	140,000	
85-01-8	Phenanthrene	5800 J	
120-12-7	Anthracene	8200 U	
84-74-2	Di-n-Butylphthalate	8200 U	
206-44-0	Fluoranthene	6500 J	
129-00-0	Pyrene	2100 J	J
85-68-7	Butylbenzylphthalate	8200 U	J
91-94-1	3. 3'-Dichlorobenzidine	16000 U	J
56-55-3	Benzo(a)Anthracene	1800 J	
117-81-7	bis(2-Ethylhexyl)Phthalate	11,000 UJ	
218-01-9	Chrysene	2900 J	
117-84-0	Di-n-Octyl Phthalate	8200 U	
205-99-2	Benzo(b)Fluoranthene	1100 J	
207-08-9	Benzo(k)Fluoranthene	8200 U	J
50-32-8	Benzo(a)Pyrene	1800 J	
193-39-5	Indeno(1 2. 3-cd)Pyrene	8200 U	J
53-70-3	Dibenz(a h)Anthracene	8200 U	J
191-24-2	Benzo(g h i)Perylene	8200 U	

(1)-Cannot be separated from diphenylamine

HE
July 93

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Form I

Laboratory Name ecology and environment, inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I1-38

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2/2/87

Date Analyzed 2/12/87

Conc/Dil Factor 250

Percent Moisture (decanted) 27

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	20000 U
319-85-7	Beta-BHC	20000 U
319-86-8	Delta-BHC	20000 U
58-89-9	Gamma-BHC (Lindane)	20000 U
76-44-8	Heptachlor	20000 U
309-00-2	Aldrin	20000 U
1024-57-3	Heptachlor Epoxide	20000 U
959-98-8	Endosulfan I	20000 U
60-57-1	Dieldrin	40000 U
72-55-9	4,4'-DDE	40000 U
72-20-8	Endrin	40000 U
33213-65-9	Endosulfan II	40000 U
72-54-8	4,4'-DDD	40000 U
1031-07-8	Endosulfan Sulfate	40000 U
50-29-3	4,4'-DDT	40000 U
72-43-5	Methoxychlor	200000 U
53494-70-5	Endrin Ketone	40000 U
57-74-9	Chlordane	200000 U
8001-35-2	Toxaphene	400000 U
12674-11-2	Aroclor-1016	200000 U
11104-28-2	Aroclor-1221	200000 U
11141-16-5	Aroclor-1232	200000 U
53469-21-9	Aroclor-1242	200000 U
12672-29-6	Aroclor-1248	200000 U
11097-69-1	Aroclor-1254	400000 U
11096-82-5	Aroclor-1260	400000 U

V_t = 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 3 V_t 1,000 V_i 4 ~~225~~ 36

Laboratory Name Ecology & Environment, Inc.

Case No U-4535, 4846, 4863, 4872

Sample Number DC-I1 -38

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.		Dichlorobenzene Isomers	VOA	39.9	8900 J
2.					
3.		Unknown Hydrocarbon	BNA	11.05	5600 J
4.		Chlorobenzenamine Isomer		11.54	10,000 J
5.		Chloronitrobenzene Isomer		13.76	150,000 J
6.		Chloronitrobenzene Isomer		14.03	1,200,000 J
7.		Dichlorobenzenamine Isomer		15.52	1,000,000 J
8.		Dichlorobenzenamine Isomer		15.84	590,000 J
9.		Unknown		16.78	320,000 J
10.		Unknown		17.33	220,000 J
11.		Chlorodinitrobenzene Isomer		19.38	300,000 J
12.	10544500	Molecular Sulfur		25.57	65,000 J
13.		Unknown		31.79	77,000 J
14.		Unknown		32.08	200,000 J
15.		Unknown		32.29	42,000 J
16.		Unknown		32.66	49,000 J
17.		Unknown		33.29	150,000 J
18.		Unknown		33.93	110,000 J
19.		Unknown		34.59	640,000 J
20.					
21.					
22.					
23.					
24					
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26.					
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30					

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DC-I2-39

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4835, 4846, 4863, 4872

Sample ID No: 0758

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Stojtowicz

Date Sample Received: 1-29-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-4-87

Conc/Dil Factor: 2 pH 5.97

Percent Moisture: (Not Decanted) 26

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	2000u	
74-83-9	Bromomethane	2000u J	
75-01-4	Vinyl Chloride	2000u	
75-00-3	Chloroethane	2000u	
75-09-2	Methylene Chloride	1600 ~~B~~	U
67-64-1	Acetone	8400 ~~B~~	UJ
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	7800 ~~B~~	UJ
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	3900
10061-01-5	cis-1, 3-Dichloropropene	1000u
110-75-8	2-Chloroethylvinylether	2000u J
75-25-2	Bromoform	1000u
108-10-1	4-Methyl-2-Pentanone	2000u J
591-78-6	2-Hexanone	2000u J
127-18-4	Tetrachloroethene	3900
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000u J
108-88-3	Toluene	5500
108-90-7	Chlorobenzene	10000
100-41-4	Ethylbenzene	2500
100-42-5	Styrene	1000u
	Total Xylenes	6000

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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 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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ecology and environment

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Laboratory Name Ecology & Environment Inc.

Case No

Sample Number DC-I2-39

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 2/2/87

Date Analyzed: 2/23/87

Conc/Dil Factor: 250

Percent Moisture (Decanted) 26

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	20,000 J
111-44-4	bis(-2-Chloroethyl)Ether	42,000 U J
95-57-8	2-Chlorophenol	42,000 U
541-73-1	1, 3-Dichlorobenzene	14,000 J
106-46-7	1, 4-Dichlorobenzene	240,000
100-51-6	Benzyl Alcohol	42,000 U
95-50-1	1, 2-Dichlorobenzene	24,000 J
95-48-7	2-Methylphenol	42,000 U
39638-32-9	bis(2-chloroisopropyl)Ether	42,000 U J
106-44-5	4-Methylphenol	42,000 U
621-64-7	N-Nitroso-Di-n-Propylamine	42,000 U
67-72-1	Hexachloroethane	42,000 U
98-95-3	Nitrobenzene	42,000 U J
78-59-1	Isophorone	42,000 U
88-75-5	2-Nitrophenol	42,000 U
105-67-9	2, 4-Dimethylphenol	42,000 U
65-85-0	Benzoic Acid	46,000 J
111-91-1	bis(-2-Chloroethoxy)Methane	42,000 U
120-83-2	2, 4-Dichlorophenol	42,000 U
120-82-1	1, 2, 4-Trichlorobenzene	1,100,000
91-20-3	Naphthalene	43,000
106-47-8	4-Chloroaniline	42,000 U
87-68-3	Hexachlorobutadiene	42,000 U
59-50-7	4-Chloro-3-Methylphenol	42,000 U
91-57-6	2-Methylnaphthalene	5200 J
77-47-4	Hexachlorocyclopentadiene	42,000 U
88-06-2	2, 4, 6-Trichlorophenol	42,000 U
95-95-4	2, 4, 5-Trichlorophenol	200,000 U
91-58-7	2-Chloronaphthalene	42,000 U
88-74-4	2-Nitroaniline	200,000 U
131-11-3	Dimethyl Phthalate	42,000 U J
208-96-8	Acenaphthylene	42,000 U
-09-2	3-Nitroaniline	200,000 U J

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	42,000 U
51-28-5	2, 4-Dinitrophenol	200,000 U
100-02-7	4-Nitrophenol	200,000 U J
132-64-9	Dibenzofuran	42,000 U
121-14-2	2, 4-Dinitrotoluene	42,000 U J
606-20-2	2, 6-Dinitrotoluene	42,000 U J
84-66-2	Diethylphthalate	42,000 U J
7005-72-3	4-Chlorophenyl-phenylether	42,000 U J
86-73-7	Fluorene	42,000 U
100-01-6	4-Nitroaniline	200,000 U
534-52-1	4, 6-Dinitro-2-Methylphenol	200,000 U
86-30-6	N-Nitrosodiphenylamine (1)	34,000 J
101-55-3	4-Bromophenyl-phenylether	42,000 U
118-74-1	Hexachlorobenzene	87,000
87-86-5	Pentachlorophenol	200,000 U
85-01-8	Phenanthrene	42,000 U
120-12-7	Anthracene	42,000 U
84-74-2	Di-n-Butylphthalate	42,000 U
206-44-0	Fluoranthene	42,000 U
129-00-0	Pyrene	42,000 U J
85-68-7	Butylbenzylphthalate	42,000 U
91-94-1	3, 3'-Dichlorobenzidine	82,000 U J
56-55-3	Benzo(a)Anthracene	42,000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	~~23,000 J~~ 42,000 U
218-01-9	Chrysene	42,000 U
117-84-0	Di-n-Octyl Phthalate	42,000 U
205-99-2	Benzo(b)Fluoranthene	42,000 U
207-08-9	Benzo(k)Fluoranthene	42,000 U J
50-32-8	Benzo(a)Pyrene	42,000 U
193-39-5	Indeno(1, 2, 3-cd)Pyrene	42,000 U
53-70-3	Dibenz(a, h)Anthracene	42,000 U J
191-24-2	Benzo(g, h, i)Perylene	42,000 U

(1)-Cannot be separated from diphenylamine

HH HVS

July 93

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Form I

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ecology and environment

Laboratory Name ecology and environment, inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-I2-39

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-2-87

Date Analyzed 2-12-87

Conc/Dil Factor 4000

Percent Moisture (decanted) 26

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	800000	U
319-85-7	Beta-BHC	800000	U
319-86-8	Delta-BHC	800000	U
58-89-9	Gamma-BHC (Lindane)	800000	U
76-44-8	Heptachlor	800000	U
309-00-2	Aldrin	800000	U
1024-57-3	Heptachlor Epoxide	800000	U
959-98-8	Endosulfan I	800000	U
60-57-1	Dieldrin	1600000	U
72-55-9	4,4'-DDE	1600000	U
72-20-8	Endrin	1600000	U
33213-65-9	Endosulfan II	1600000	U
72-54-8	4,4'-DDD	1600000	U
1031-07-8	Endosulfan Sulfate	1600000	U
50-29-3	4,4'-DDT	1600000	U
72-43-5	Methoxychlor	8000000	U
53494-70-5	Endrin Ketone	1600000	U
57-74-9	Chlordane	8000000	U
8001-35-2	Toxaphene	16000000	U
12674-11-2	Aroclor-1016	8000000	U
11104-28-2	Aroclor-1221	8000000	U
11141-16-5	Aroclor-1232	8000000	U
53469-21-9	Aroclor-1242	8000000	U
12672-29-6	Aroclor-1248	8000000	U
11097-69-1	Aroclor-1254	1600000	U
11096-82-5	Aroclor-1260	~~2000000~~	~~J~~ 1,600,000 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (gm)

V_t = Volume of total extract (ul)

HE July 93

V_s _____ or W_s 3 V_t 1000 V_i 4

~~219~~ 40

Laboratory Name Ecology & Environment, Inc.

Case No 4-4835, 4846, 4863, 4872

Sample Number DC-I2-39

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	~~2500 BJ~~ 4
2.		Unknown hydrocarbon	VOA	16.3	1500 J
3.		Hexane isomer	VOA	29.2	~~10000 BJ~~ 4
4.		Unknown hydrocarbon	VOA	25.4	1100 J
5.		Unknown hydrocarbon	VOA	28.1	1700 J
6.		Unknown hydrocarbon	VOA	35.4	1900 J
7.		Dichlorobenzene isomer	VOA	40.0	96000 J
8.		Unknown hydrocarbon	VOA	25.9	7900 J
9.					
10.		Trichlorobenzene isomer	BNA	13.11	160,000 J
11.		Tetrachlorobenzene isomer	|	15.31	1,800,000 J
12.		Tetrachlorobenzene isomer	|	16.19	3,700,000 J
13.	608935	Pentachlorobenzene	|	18.47	250,000 J
14.		Unknown Aromatic	|	22.43	140,000 J
15.		Unknown Hydrocarbon	|	24.00	190,000 J
16.	84651	9,10-Anthracenedione	|	24.75	170,000 J
17.		Unknown Hydrocarbon	|	25.26	240,000 J
18.	10544500	Molecular Sulfur	|	25.41	520,000 J
19.	81845	1H,3H-Naphtho[1,8-cd]pyran-1,3-dione	|	25.59	520,000 J
20.		Unknown Hydrocarbon	|	26.47	250,000 J
21.		Unknown Hydrocarbon	|	27.63	230,000 J
22.		Anthracenedione isomer	|	27.90	200,000 J
23.		Unknown Hydrocarbon	|	28.06	140,000 J
24.		Unknown Hydrocarbon	|	28.23	230,000 J
25.		Unknown Hydrocarbon	|	28.94	130,000 J
26.		Unknown Hydrocarbon	|	29.82	220,000 J
27.		Unknown Hydrocarbon	|	30.84	280,000 J
28.		Unknown Hydrocarbon	|	31.84	170,000 J
29.		Unknown	|	35.92	380,000 J
30					

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July 93

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No.: U-4835, 4846, 4863, 4872
Sample ID No.: 0799
QC Report No.:
Sample Matrix: Soil
Contract No.: U-3140
Data Release Authorized By: C Hoptowicz
Date Sample Received: 1-31-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-4-87
Conc/Dil Factor: 4 pH 7.2
Percent Moisture: (Not Decanted) 29

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)	
74-87-3	Chloromethane	4000U	
74-83-9	Bromomethane	4000U J	
75-01-4	Vinyl Chloride	4000U	
75-00-3	Chloroethane	4000U	
75-09-2	Methylene Chloride	4800 B	U
67-64-1	Acetone	12000 B	UJ
75-15-0	Carbon Disulfide	2000U	
75-35-4	1, 1-Dichloroethene	2000U	
75-34-3	1, 1-Dichloroethane	2000U	
156-60-5	Trans-1, 2-Dichloroethene	2000U	
67-66-3	Chloroform	2000U	
107-06-2	1, 2-Dichloroethane	2000U	
78-93-3	2-Butanone	12000 B	UJ
71-55-6	1, 1, 1-Trichloroethane	1200	
56-23-5	Carbon Tetrachloride	2000U	
108-05-4	Vinyl Acetate	4000U	
75-27-4	Bromodichloromethane	2000U	

CAS Number		ug/l or (ug/Kg) (Circle One)	
78-87-5	1, 2-Dichloropropane	2000U	
10061-02-6	Trans-1, 3-Dichloropropene	2000U	
79-01-6	Trichloroethene	2000U	
124-48-1	Dibromochloromethane	2000U	
79-00-5	1, 1, 2-Trichloroethane	2000U	
71-43-2	Benzene	2000U	
10061-01-5	cis-1, 3-Dichloropropene	2000U	
110-75-8	2-Chloroethylvinylether	4000U J	
75-25-2	Bromoform	2000U	
108-10-1	4-Methyl-2-Pentanone	4000U J	
591-78-6	2-Hexanone	4000U J	
127-18-4	Tetrachloroethene	960 J	
79-34-5	1, 1, 2, 2-Tetrachloroethane	2000U J	
108-88-3	Toluene 2000	~~480 B~~	U
108-90-7	Chlorobenzene	90000	
100-41-4	Ethylbenzene	2000U	
100-42-5	Styrene	2000U	
	Total Xylenes	2000U	

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.

+V2 July 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/ml 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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name ECOLOGY & ENVIRONMENT, INC.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I3-40

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-2-87

Date Analyzed: 2-14-87

Conc./Dil Factor: 20

Percent Moisture (Decanted): 29

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	3300	U
111-44-4	bis(2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1,3-Dichlorobenzene	3300	U
106-46-7	1,4-Dichlorobenzene	2600	J
100-51-6	Benzyl Alcohol	3300	U J
95-50-1	1,2-Dichlorobenzene	1900	J
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U J
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2,4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U J
111-91-1	bis(2-Chloroethoxy)Methane	3300	U
120-83-2	2,4-Dichlorophenol	3300	U
120-82-1	1,2,4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U J
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2,4,6-Trichlorophenol	3300	U
95-95-4	2,4,5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U J
131-11-3	Dimethyl Phthalate	3300	U J
208-96-8	Acenaphthylene	3300	U
-09-2	3-Nitroaniline	16000	U J

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2,4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U J
132-64-9	Dibenzofuran	3300	U
121-14-2	2,4-Dinitrotoluene	3300	U J
606-20-2	2,6-Dinitrotoluene	3300	U J
84-66-2	Diethylphthalate	3300	U J
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U J
100-01-6	4-Nitroaniline	16000	U J
534-52-1	4,6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	3300	U J
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U J
85-68-7	Butylbenzylphthalate	3300	U J
91-94-1	3,3'-Dichlorobenzidine	6600	U J
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300	U J
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U J
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1,2,3-cd)Pyrene	3300	U
53-70-3	Dibenz(a,h)Anthracene	3300	U
191-24-2	Benzo(g,h,i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

HE

July 93

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ecology and environment

Laboratory Name ecology and environment, inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I3-40

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-2-87

Date Analyzed 2-12-87

Conc/Dil Factor 25

Percent Moisture (decanted) 29

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	2000	U
319-85-7	Beta-BHC	2000	U
319-86-8	Delta-BHC	2000	U
58-89-9	Gamma-BHC (Lindane)	2000	U
76-44-8	Heptachlor	2000	U
309-00-2	Aldrin	2000	U
1024-57-3	Heptachlor Epoxide	2000	U
959-98-8	Endosulfan I	2000	U
60-57-1	Dieldrin	4000	U
72-55-9	4,4'-DDE	4000	U
72-20-8	Endrin	4000	U
33213-65-9	Endosulfan II	4000	U
72-54-8	4,4'-DDD	4000	U
1031-07-8	Endosulfan Sulfate	4000	U
50-29-3	4,4'-DDT	4000	U
72-43-5	Methoxychlor	20000	U
53494-70-5	Endrin Ketone	4000	U
57-74-9	Chlordane	20000	U
8001-35-2	Toxaphene	40000	U
12674-11-2	Aroclor-1016	20000	U
11104-28-2	Aroclor-1221	20000	U
11141-16-5	Aroclor-1232	20000	U
53469-21-9	Aroclor-1242	20000	U
12672-29-6	Aroclor-1248	20000	U
11097-69-1	Aroclor-1254	40000	U
11096-82-5	Aroclor-1260	130000	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)

RVE

July 93

V_s _____ or W_s 3 V_t 1000 V_i 4 ~~2.32~~

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Laboratory Name Ecology & Environment, Inc.

Case No 4-4835, 4846, 4863, 4872

Sample Number DC-I3-40

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	~~4300 BJ~~ 4	
2.		Hexane isomer	VOA	21.2	~~22000 BJ~~ 4	
3.						
4.		Unknown Hydrocarbon	BNA	10.12	14,000	J
5.		Unknown Alcohol		10.46	12,000	J
6.		Unknown Hydrocarbon		10.87	6300	J
7.		Unknown Hydrocarbon		11.01	11,000	J
8.		Unknown Hydrocarbon		11.08	11,000	J
9.		Unknown Hydrocarbon		11.20	20,000	J
10.		Unknown Hydrocarbon		11.40	19,000	J
11.		Unknown Hydrocarbon		11.61	7800	J
12.		Unknown Hydrocarbon		11.69	14,000	J
13.		Unknown Hydrocarbon		11.83	7200	J
14.		Unknown Hydrocarbon		12.34	3900	J
15.		Chloronitrobenzene isomer		13.56	11,000	J
16.		Chloronitrobenzene isomer		13.75	3400	J
17.		Unknown Hydrocarbon		18.37	21,000	J
18.		Unknown Hydrocarbon		19.92	38,000	J
19.		Unknown Hydrocarbon		20.63	26,000	J
20.		Unknown Hydrocarbon		21.37	39,000	J
21.		Unknown Hydrocarbon		21.45	19,000	J
22.		Unknown Hydrocarbon		22.77	14,000	J
23.		Unknown Aromatic		32.08	26,000	J
24.		Unknown Aromatic		33.32	26,000	J
25.						
26.						
27.						
28.						
29.						
30						

July 93

~~2.13~~ 45

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: IL-4835, 4846, 4863, 4872
Sample ID No: 0800
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 1-31-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-5-87
Conc/Dil Factor: 4 pH 8.1
Percent Moisture: (Not Decanted) 21

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	4000 U	
74-83-9	Bromomethane	4000 UJ	
75-01-4	Vinyl Chloride	4000 U	
75-00-3	Chloroethane	4000 U	
75-09-2	Methylene Chloride	4100 B	U
67-64-1	Acetone	8300 B	UJ
75-15-0	Carbon Disulfide	2000 U J	
75-35-4	1, 1-Dichloroethene	2000 U	
75-34-3	1, 1-Dichloroethane	2000 U	
156-60-5	Trans-1, 2-Dichloroethene	2000 U	
67-66-3	Chloroform	2000 U	
107-06-2	1, 2-Dichloroethane	2000 U	
78-93-3	2-Butanone	11000 B	UJ
71-55-6	1, 1, 1-Trichloroethane	2000 U	
56-23-5	Carbon Tetrachloride	2000 U	
108-05-4	Vinyl Acetate	4000 U	
75-27-4	Bromodichloromethane	2000 U	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2000 U
10061-02-6	Trans-1, 3-Dichloropropene	2000 U
79-01-6	Trichloroethene	3000
124-48-1	Dibromochloromethane	2000 U
79-00-5	1, 1, 2-Trichloroethane	2000 U
71-43-2	Benzene	19000
10061-01-5	cis-1, 3-Dichloropropene	2000 U
110-75-8	2-Chloroethylvinylether	4000 U J
75-25-2	Bromoform	2000 U
108-10-1	4-Methyl-2-Pentanone	4000 U J
591-78-6	2-Hexanone	4000 U J
127-18-4	Tetrachloroethene	2400
79-34-5	1, 1, 2, 2-Tetrachloroethane	2000 U J
108-88-3	Toluene	19000 B E
108-90-7	Chlorobenzene	36000
100-41-4	Ethylbenzene	7700
100-42-5	Styrene	2000 U
	Total Xylenes	8700

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.

July 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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name: Ecology & Environment Inc.

Case No: U-4835, 4846, 4863, 4872

Sample Number: DC-I5-41

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared: 2-2-87

Date Analyzed: 2-23-87

Conc/Dil Factor: 1000

Percent Moisture (Decanted): 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED 'AS RECEIVED'

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	160,000 U	
111-44-4	bis(-2-Chloroethyl)Ether	160,000 U	J
95-57-8	2-Chlorophenol	160,000 U	
541-73-1	1 3-Dichlorobenzene	160,000 U	J
106-46-7	1. 4-Dichlorobenzene	440,000	J
100-51-6	Benzyl Alcohol	160,000 U	J
95-50-1	1. 2-Dichlorobenzene	110,000 J	
95-48-7	2-Methylphenol	160,000 U	
39638-32-9	bis(2-chloroisopropyl)Ether	160,000 U	J
106-44-5	4-Methylphenol	160,000 U	
621-64-7	N-Nitroso-Di-n-Propylamine	160,000 U	J
67-72-1	Hexachloroethane	160,000 U	J
98-95-3	Nitrobenzene	160,000 U	J
78-59-1	Isophorone	160,000 U	J
88-75-5	2-Nitrophenol	160,000 U	
105-67-9	2. 4-Dimethylphenol	160,000 U	
65-85-0	Benzoic Acid	800000 U	
111-91-1	bis(-2-Chloroethoxy)Methane	160,000 U	J
120-83-2	2. 4-Dichlorophenol	160,000 U	
120-82-1	1. 2. 4-Trichlorobenzene	6,500,000 E	J
91-20-3	Naphthalene	50,000 J	
106-47-8	4-Chloroaniline	34,000 J	
87-68-3	Hexachlorobutadiene	160,000 U	J
59-50-7	4-Chloro-3-Methylphenol	160,000 U	
91-57-6	2-Methylnaphthalene	46,000 J	
77-47-4	Hexachlorocyclopentadiene	160,000 U	J
88-06-2	2. 4. 6-Trichlorophenol	160,000 U	
95-95-4	2. 4. 5-Trichlorophenol	800,000 U	
91-58-7	2-Chloronaphthalene	160,000 U	J
88-74-4	2-Nitroaniline	800,000 U	J
131-11-3	Dimethyl Phthalate	160,000 U	J
208-96-8	Acenaphthylene	160,000 U	J
-09-2	3-Nitroaniline	800,000 U	J

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	160,000 U	J
51-28-5	2. 4-Dinitrophenol	800,000 U	
100-02-7	4-Nitrophenol	800,000 U	J
132-64-9	Dibenzofuran	160,000 U	J
121-14-2	2 4-Dinitrotoluene	160,000 U	J
606-20-2	2. 6-Dinitrotoluene	160,000 U	J
84-66-2	Diethylphthalate	160,000 U	J
7005-72-3	4-Chlorophenyl-phenylether	160,000 U	J
86-73-7	Fluorene	160,000 U	J
100-01-6	4-Nitroaniline	800,000 U	J
534-52-1	4. 6-Dinitro-2-Methylphenol	800,000 U	
86-30-6	N-Nitrosodiphenylamine (1)	71,000 J	
101-55-3	4-Bromophenyl-phenylether	160,000 U	J
118-74-1	Hexachlorobenzene	1,000,000	J
87-86-5	Pentachlorophenol	800,000 U	
85-01-8	Phenanthrene	38000 J	
120-12-7	Anthracene	16,000	J
84-74-2	Di-n-Butylphthalate	160,000 U	J
206-44-0	Fluoranthene	160,000	J
129-00-0	Pyrene	19,000 J	
85-68-7	Butylbenzylphthalate	110,000 J	
91-94-1	3. 3'-Dichlorobenzidine	330,000 U	J
56-55-3	Benzo(a)Anthracene	160,000 U	J
117-81-7	bis(2-Ethylhexyl)Phthalate	160,000 U	J
218-01-9	Chrysene	160,000 U	J
117-84-0	Di-n-Octyl Phthalate	160,000 U	J
205-99-2	Benzo(b)Fluoranthene	160,000 U	J
207-08-9	Benzo(k)Fluoranthene	160,000 U	J
50-32-8	Benzo(a)Pyrene	160,000 U	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	160,000 U	J
53-70-3	Dibenzo(a h)Anthracene	160,000 U	J
191-24-2	Benzo(g h i)Perylene	160,000 U	J

(1)-Cannot be separated from diphenylamine

Jul 93

Form I

47 7 85

Laboratory Name ecology and environment, inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-I5-41

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-2-87

Date Analyzed 2-12-87

Conc/Dil Factor 200

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)	
319-84-6	Alpha-BHC	16000	U
319-85-7	Beta-BHC	16000	U
319-86-8	Delta-BHC	16000	U
58-89-9	Gamma-BHC (Lindane)	16000	U
76-44-8	Heptachlor	16000	U
309-00-2	Aldrin	16000	U
1024-57-3	Heptachlor Epoxide	16000	U
959-98-8	Endosulfan I	16000	U
60-57-1	Dieldrin	32000	U
72-55-9	4,4'-DDE	32000	U
72-20-8	Endrin	32000	U
33213-65-9	Endosulfan II	32000	U
72-54-8	4,4'-DDD	32000	U
1031-07-8	Endosulfan Sulfate	32000	U
50-29-3	4,4'-DDT	32000	U
72-43-5	Methoxychlor	160000	U
53494-70-5	Endrin Ketone	32000	U
57-74-9	Chlordane	160000	U
8001-35-2	Toxaphene	320000	U
12674-11-2	Aroclor-1016	160000	U
11104-28-2	Aroclor-1221	160000	U
11141-16-5	Aroclor-1232	160000	U
53469-21-9	Aroclor-1242	160000	U
12672-29-6	Aroclor-1248	160000	U
11097-69-1	Aroclor-1254	320000	U
11096-82-5	Aroclor-1260	~~270,000~~	~~J~~

320,000 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 3 V_t 1000 V_i 4

VE
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Laboratory Name: Ecology & Environment, Inc.
Case No: U-4835, 4846, 4863, 4872

Sample Number: DC-I5-41

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.	109660	Pentane	VOA	15.7	2400 J
2.	110827	Cyclohexane	VOA	16.3	13000 J
3.		Hexene isomer	VOA	17.1	~~5100 BJ~~ 4
4.		Hexane isomer	VOA	21.1	~~17000 BJ~~ 4
5.		Dichlorobenzene isomer	VOA	40.0	300,000 J
6.					
7.	612226	2-Ethylnitrobenzene	BNA	13.54	1,800,000 J
8.		Unknown Aromatic		13.68	1,200,000 J
9.		Tetrachlorobenzene Isomer		15.38	17,000,000 J
10.		Tetrachlorobenzene Isomer		16.21	15,000,000 J
11.	608935	Pentachlorobenzene		18.50	5,900,000 J
12.		Unknown		19.17	1,300,000 J
13.		Unknown Hydrocarbon		22.66	260,000 J
14.		Unknown Hydrocarbon		23.98	410,000 J
15.		Unknown Hydrocarbon		25.25	560,000 J
16.		Unknown Hydrocarbon		27.63	1,800,000 J
17.		Unknown Hydrocarbon		28.04	360,000 J
18.		Unknown Hydrocarbon		28.74	1,100,000 J
19.		Unknown Hydrocarbon		29.82	1,200,000 J
20.		Unknown Hydrocarbon		30.84	1,000,000 J
21.		Unknown Hydrocarbon		31.84	840,000 J
22.		Unknown Hydrocarbon		32.80	770,000 J
23.		Unknown Hydrocarbon		33.72	680,000 J
24.		Unknown Hydrocarbon		34.61	540,000 J
25.		Unknown Hydrocarbon		35.49	500,000 J
26.		Unknown Hydrocarbon		36.33	420,000 J
27.		Unknown Hydrocarbon		37.14	360,000 J
28.					
29.					
30.					

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0801
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Slojtowicz
Date Sample Received: 1-31-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-5-87
Conc/Dil Factor: 4 pH 8.0
Percent Moisture: (Not Decanted) 15

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	4000 U	
74-83-9	Bromomethane	4000 U J	
75-01-4	Vinyl Chloride	4000 U	
75-00-3	Chloroethane	4000 U	
75-09-2	Methylene Chloride	4500 B	U
67-64-1	Acetone	5700 B	UJ
75-15-0	Carbon Disulfide	2000 U J	
75-35-4	1, 1-Dichloroethene	2000 U	
75-34-3	1, 1-Dichloroethane	2000 U	
156-60-5	Trans-1, 2-Dichloroethene	2000 U	
67-66-3	Chloroform	2000 U	
107-06-2	1, 2-Dichloroethane	2000 U	
78-93-3	2-Butanone	8300 B	UJ
71-55-6	1, 1, 1-Trichloroethane	2000 U	
56-23-5	Carbon Tetrachloride	2000 U	
108-05-4	Vinyl Acetate	4000 U	
75-27-4	Bromodichloromethane	2000 U	

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	2000 U	
10061-02-6	Trans-1, 3-Dichloropropene	2000 U	
79-01-6	Trichloroethene	2000 U	
124-48-1	Dibromochloromethane	2000 U	
79-00-5	1, 1, 2-Trichloroethane	2000 U	
71-43-2	Benzene	540 J	
10061-01-5	cis-1, 3-Dichloropropene	2000 U	
110-75-8	2-Chloroethylvinylether	4000 U J	
75-25-2	Bromoform	2000 U	
108-10-1	4-Methyl-2-Pentanone	4000 U J	
591-78-6	2-Hexanone	4000 U J	
127-18-4	Tetrachloroethene	2500	
79-34-5	1, 1, 2, 2-Tetrachloroethane	2000 U J	
108-88-3	Toluene 2000	1400 J B	U
108-90-7	Chlorobenzene	12000	
100-41-4	Ethylbenzene	2600	
100-42-5	Styrene	2000 U	
	Total Xylenes	1400 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.

RE July 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 /ml 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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range

260 50

Laboratory Name: ECOLOGY & ENVIRONMENT INC.

Case No: U-4835, 4846, 4863, 4872

Sample Number: DC-I5-42

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-2-87

Date Analyzed: 2-23-87

Conc/Dil Factor: 100

Percent Moisture (Decanted): 15

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	16000 U	
111-44-4	bis(2-Chloroethyl)Ether	16000 U	J
95-57-8	2-Chlorophenol	16000 U	
541-73-1	1 3-Dichlorobenzene	16000 U	
106-46-7	1. 4-Dichlorobenzene	19000	
100-51-6	Benzyl Alcohol	16000 U	
95-50-1	1. 2-Dichlorobenzene	5600 J	
95-48-7	2-Methylphenol	16000 U	
39638-32-9	bis(2-chloroisopropyl)Ether	16000 U	J
106-44-5	4-Methylphenol	16000 U	
621-64-7	N-Nitroso-Di-n-Propylamine	16000 U	
67-72-1	Hexachloroethane	16000 U	
98-95-3	Nitrobenzene	16000 U	J
78-59-1	Isophorone	16000 U	
88-75-5	2-Nitrophenol	16000 U	
105-67-9	2. 4-Dimethylphenol	16000 U	
65-85-0	Benzoic Acid	80,000 U	
111-91-1	bis(2-Chloroethoxy)Methane	16000 U	
120-83-2	2. 4-Dichlorophenol	16,000 U	
120-82-1	1. 2. 4-Trichlorobenzene	540,000 E	J
91-20-3	Naphthalene	1000 J	
106-47-8	4-Chloroaniline	16,000 U	
87-68-3	Hexachlorobutadiene	16000 U	
59-50-7	4-Chloro-3-Methylphenol	16000 U	
91-57-6	2-Methylnaphthalene	1500 J	
77-47-4	Hexachlorocyclopentadiene	16000 U	
88-06-2	2. 4. 6-Trichlorophenol	16000 U	
95-95-4	2. 4. 5-Trichlorophenol	80,000 U	
91-58-7	2-Chloronaphthalene	16,000 U	
88-74-4	2-Nitroaniline	80,000 U	
131-11-3	Dimethyl Phthalate	16,000 U	J
208-96-8	Acenaphthylene	16,000 U	
99-09-2	3-Nitroaniline	80,000 U	J

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	16,000 U	
51-28-5	2. 4-Dinitrophenol	80,000 U	
100-02-7	4-Nitrophenol	80,000 U	J
132-64-9	Dibenzofuran	16,000 U	
121-14-2	2 4-Dinitrotoluene	16000 U	J
606-20-2	2. 6-Dinitrotoluene	16,000 U	J
84-66-2	Diethylphthalate	16000 U	J
7005-72-3	4-Chlorophenyl-phenylether	16000 U	J
86-73-7	Fluorene	16000 U	
100-01-6	4-Nitroaniline	80,000 U	
534-52-1	4. 6-Dinitro-2-Methylphenol	80,000 U	
86-30-6	N-Nitrosodiphenylamine (1)	16,000 U	
101-55-3	4-Bromophenyl-phenylether	16,000 U	
118-74-1	Hexachlorobenzene	150,000	
87-86-5	Pentachlorophenol	80,000 U	
85-01-8	Phenanthrene	16,000 U	
120-12-7	Anthracene	16,000 U	
84-74-2	Di-n-Butylphthalate	16,000 U	
206-44-0	Fluoranthene	16,000 U	
129-00-0	Pyrene	16,000 U	J
85-68-7	Butylbenzylphthalate	16,000 U	
91-94-1	3. 3'-Dichlorobenzidine	33,000 U	J
56-55-3	Benzo(a)Anthracene	16,000 U	
117-81-7	bis(2-Ethylhexyl)Phthalate	16,000 U	
218-01-9	Chrysene	16,000 U	
117-84-0	Di-n-Octyl Phthalate	16,000 U	
205-99-2	Benzo(b)Fluoranthene	16,000 U	
207-08-9	Benzo(k)Fluoranthene	16,000 U	J
50-32-8	Benzo(a)Pyrene	16,000 U	
193-39-5	Indeno(1 2. 3-cd)Pyrene	16,000 U	
53-70-3	Dibenz(a h)Anthracene	16,000 U	J
191-24-2	Benzo(g h i)Perylene	16,000 U	

(1)-Cannot be separated from diphenylamine

July 93

recycled paper

ecology and environment

Laboratory Name ecology and environment, inc.

Case No. V-4825, 4846, 4863, 4872

Sample Number DC-I5-42

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low. (Medium) (Circle One)

Date Extracted/Prepared 2-2-87

Date Analyzed 2-12-87

Conc/Dil Factor 25

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)	
319-84-6	Alpha-BHC	2000	U
319-85-7	Beta-BHC	2000	U
319-86-8	Delta-BHC	2000	U
58-89-9	Gamma-BHC (Lindane)	2000	U
76-44-8	Heptachlor	2000	U
309-00-2	Aldrin	2000	U
1024-57-3	Heptachlor Epoxide	2000	U
959-98-8	Endosulfan I	2000	U
60-57-1	Dieldrin	4000	U
72-55-9	4,4'-DDE	4000	U
72-20-8	Endrin	4000	U
33213-65-9	Endosulfan II	4000	U
72-54-8	4,4'-DDD	4000	U
1031-07-8	Endosulfan Sulfate	4000	U
50-29-3	4,4'-DDT	4000	U
72-43-5	Methoxychlor	20000	U
53494-70-5	Endrin Ketone	4000	U
57-74-9	Chlordane	20000	U
8001-35-2	Toxaphene	40000	U
12674-11-2	Aroclor-1016	20000	U
11104-28-2	Aroclor-1221	20000	U
11141-16-5	Aroclor-1232	20000	U
53469-21-9	Aroclor-1242	20000	U
12672-29-6	Aroclor-1248	20000	U
11097-69-1	Aroclor-1254	40000	U
11096-82-5	Aroclor-1260	73000	U

V_t = Volume of extract injected (ul) HE

V_s = Volume of water extracted (ml) July 93

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I5-42

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	~~4000 BJ~~ U
2.	Hexane isomer	VOA	21.1	~~17000 BJ~~ U
3.	Dichlorobenzene isomer	VOA	40.1	89000 J
4.				
5.	Ethylbenzenamine Isomer	BNA	12.07	51,000 J
6.	Unknown Aromatic		13.58	509,000 J
7.	Unknown Aromatic		13.68	44,000 J
8.	Ethylnitrobenzene Isomer		15.04	55,000 J
9.	Tetrachlorobenzene Isomer		15.31	470,000 J
10.	Tetrachlorobenzene Isomer		16.21	1,600,000 J
11. 608935	Pentachlorobenzene		18.51	830,000 J
12.	Unknown		19.16	180,000 J
13. 90415	[1,1'-Biphenyl]-2-amine		19.59	61,000 J
14.	Unknown		20.30	21,000 J
15.	Unknown Hydrocarbon		20.53	16,000 J
16.	Unknown		20.81	20,000 J
17.	Unknown Hydrocarbon		22.67	10,000 J
18.	Unknown Hydrocarbon		23.99	8700 J
19.	Unknown Hydrocarbon		25.25	7900 J
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

HE July 93

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0859
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 2-5-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-12-87
Conc/Dil Factor: 2 pH 6.7
Percent Moisture: (Not Decanted) 35

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)	
74-87-3	Chloromethane	2000U J	
74-83-9	Bromomethane	2000U J	
75-01-4	Vinyl Chloride	2000U	
75-00-3	Chloroethane	2000U	
75-09-2	Methylene Chloride 1000	~~1000 B~~	U
67-64-1	Acetone	~~8700 B~~	U
75-15-0	Carbon Disulfide	1000U J	
75-35-4	1, 1-Dichloroethene	1000U J	
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	6300 B	U
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	1400	
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	2700	
591-78-6	2-Hexanone	1000U	
127-18-4	Tetrachloroethene	1000U	
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000U	
108-88-3	Toluene	~~3300~~	U
108-90-7	Chlorobenzene	5100	
100-41-4	Ethylbenzene	3300	
100-42-5	Styrene	1000U	
	Total Xylenes	2700	

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.

Jul 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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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~~23~~

Laboratory Name: ECOLOGY & ENVIRONMENT INC.

Case No: V-4835, 4846, 4863, 4872

Sample Number: DC-I6-43

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared: 2/5/87

Date Analyzed: 3/4/87

Conc/Dil Factor: 250

Percent Moisture (Decanted): 35

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	9900 J	
111-44-4	bis(-2-Chloroethyl)Ether	42,000 U	
95-57-8	2-Chlorophenol	42,000 U	
541-73-1	1 3-Dichlorobenzene	42,000 U	
106-46-7	1 4-Dichlorobenzene	47,000	
100-51-6	Benzyl Alcohol	42,000 U	
95-50-1	1. 2-Dichlorobenzene	10,000 J	
95-48-7	2-Methylphenol	42,000 U	
39638-32-9	bis(2-chloroisopropyl)Ether	42,000 U	
106-44-5	4-Methylphenol	42,000 U	
621-64-7	N-Nitroso-Di-n-Propylamine	42,000 U	
67-72-1	Hexachloroethane	42,000 U	
98-95-3	Nitrobenzene	42,000 U	
78-59-1	Isophorone	42,000 U	
88-75-5	2-Nitrophenol	42,000 U	
105-67-9	2. 4-Dimethylphenol	42,000 U	
65-85-0	Benzoic Acid	200,000 U	J
111-91-1	bis(-2-Chloroethoxy)Methane	42,000 U	
120-83-2	2. 4-Dichlorophenol	42,000 U	
120-82-1	1. 2. 4-Trichlorobenzene	310,000	
91-20-3	Naphthalene	29,000 J	
106-47-8	4-Chloroaniline	42,000 U	J
87-68-3	Hexachlorobutadiene	42,000 U	
59-50-7	4-Chloro-3-Methylphenol	42,000 U	
91-57-6	2-Methylnaphthalene	118,000	
77-47-4	Hexachlorocyclopentadiene	42,000 U	
88-06-2	2. 4. 6-Trichlorophenol	42,000 U	
95-95-4	2. 4. 5-Trichlorophenol	200,000 U	
91-58-7	2-Chloronaphthalene	42,000 U	
88-74-4	2-Nitroaniline	200,000 U	J
131-11-3	Dimethyl Phthalate	42,000 U	J
208-96-8	Acenaphthylene	42,000 U	
-09-2	3-Nitroaniline	200,000 U	J

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	9100 J	
51-28-5	2. 4-Dinitrophenol	200,000 U	J
100-02-7	4-Nitrophenol	200,000 U	J
132-64-9	Dibenzofuran	42,000 U	J
121-14-2	2 4-Dinitrotoluene	42,000 U	J
606-20-2	2. 6-Dinitrotoluene	42,000 U	J
84-66-2	Diethylphthalate	11,000 J	
7005-72-3	4-Chlorophenyl-phenylether	42,000 U	J
86-73-7	Fluorene	23,000 J	
100-01-6	4-Nitroaniline	200,000 U	J
534-52-1	4. 6-Dinitro-2-Methylphenol	200,000 U	
86-30-6	N-Nitrosodiphenylamine (1)	42,000 U	
101-55-3	4-Bromophenyl-phenylether	42,000 U	
118-74-1	Hexachlorobenzene	21,000 J	
87-86-5	Pentachlorophenol	200,000 U	
85-01-8	Phenanthrene	66,000	
120-12-7	Anthracene	15,000 J	
84-74-2	Di-n-Butylphthalate	~~21,000 J~~ 42,000 U	
206-44-0	Fluoranthene	12,000 J	
129-00-0	Pyrene	32,000 J	
85-68-7	Butylbenzylphthalate	42,000 U	J
91-94-1	3. 3'-Dichlorobenzidine	82,000 U	J
56-55-3	Benzo(a)Anthracene	42,000 U	
117-81-7	bis(2-Ethylhexyl)Phthalate	85,000	
218-01-9	Chrysene	42,000 U	
117-84-0	Di-n-Octyl Phthalate	42,000 U	J
205-99-2	Benzo(b)Fluoranthene	21,000 J	
207-08-9	Benzo(k)Fluoranthene	42,000 U	
50-32-8	Benzo(a)Pyrene	42,000 U	
193-39-5	Indeno(1 2. 3-cd)Pyrene	42,000 U	
53-70-3	Dibenzo h)Anthracene	42,000 U	J
191-24-2	Benzo(g h i)Perylene	42,000 U	

(1)-Cannot be separated from diphenylamine

July 93

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Laboratory Name [illegible] and Environmental, Inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-I643

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-5-87

Date Analyzed 2-19-87

Conc/Dil Factor 200

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)
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	27,000 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	82,000 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
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	320,000 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 3 V_t 1000 V_i 4

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ecology and environment

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Laboratory Name Ecology & Environment, Inc.

Case No 4-4835, 4846, 4863, 4872

Sample Number DC-I6-43

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	16.3	640 J
2.		Hexene isomer	VOA	17.1	~~1500~~ BJ 4
3.	625332	3-Penten-2-one	VOA	18.0	330 J
4.		Hexene isomer	VOA	18.8	2500 J
5.		Unknown hydrocarbon	VOA	19.2	610 J
6.		Hexane isomer	VOA	21.2	~~12000~~ BJ 4
7.		Dichlorobenzene isomer	VOA	38.3	360 J
8.		Dichlorobenzene isomer	VOA	40.0	4514 J
9.					
10.		Ethylbenzenemine isomer	BNA	12.03	230,000 J
11.	612226	2-Ethylnitrobenzene	|	13.52	620,000 J
12.		Unknown	|	13.64	380,000 J
13.		Tetrachlorobenzene isomer	|	15.23	220,000 J
14.		Tetrachlorobenzene isomer	|	16.07	620,000 J
15.	608935	Pentachlorobenzene	|	18.40	220,000 J
16.		Unknown Hydrocarbon	|	20.49	90,000 J
17.		Unknown Hydrocarbon	|	21.32	100,000 J
18.		Unknown Hydrocarbon	|	22.61	120,000 J
19.		Unknown Hydrocarbon	|	23.92	130,000 J
20.	610480	1-Methylanthracene	|	24.04	100,000 J
21.	84651	9,10-Anthracenedione	|	24.72	180,000 J
22.		Unknown Hydrocarbon	|	25.19	230,000 J
23.		Unknown Hydrocarbon	|	26.39	220,000 J
24.		Unknown Hydrocarbon	|	28.66	210,000 J
25.		Unknown Hydrocarbon	|	30.77	210,000 J
26.		Unknown Hydrocarbon	|	31.75	210,000 J
27.		Unknown Hydrocarbon	|	32.71	220,000 J
28.		Unknown Hydrocarbon	|	34.53	300,000 J
29.		Unknown Hydrocarbon	↙	35.39	190,000 J
30					

HC
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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0860
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Slagtowicz
Date Sample Received: 2-5-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-9-87
Conc/Dil Factor: 1 pH 7.4
Percent Moisture: (Not Decanted) 22

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10U	
74-83-9	Bromomethane	10U J	
75-01-4	Vinyl Chloride	10U	
75-00-3	Chloroethane	10U J	
75-09-2	Methylene Chloride	5 ~~B~~	U
67-64-1	Acetone	10 ~~B FB~~	U
75-15-0	Carbon Disulfide	5U J	
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	UJ
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 J
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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July 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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-IB-44

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-5-87

Date Analyzed: 2-23-87

Conc/Dil Factor: 20

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	3300	U
111-44-4	bis(2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1,3-Dichlorobenzene	3300	U
106-46-7	1,4-Dichlorobenzene	3300	U
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1,2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2,4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U
111-91-1	bis(2-Chloroethoxy)Methane	3300	U
120-83-2	2,4-Dichlorophenol	3300	U
120-82-1	1,2,4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2,4,6-Trichlorophenol	3300	U
95-95-4	2,4,5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U
208-96-8	Acenaphthylene	3300	U
99-2	3-Nitroaniline	16000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2,4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U
132-64-9	Dibenzofuran	3300	U
121-14-2	2,4-Dinitrotoluene	3300	U
606-20-2	2,6-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3300	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4,6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	7600	U
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3,3'-Dichlorobenzidine	6600	U
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300	U
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1,2,3-cd)Pyrene	3300	U
53-70-3	Dibenz(a,h)Anthracene	3300	U
191-24-2	Benzo(g,h,i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

59 2.87 July 7 88 93

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Case No V-4835, 4846, 4863, 4872

Sample Number DC-IB-44

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-5-87

Date Analyzed 2-19-87

Conc/Dil Factor 1

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)
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_t = 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 3 V_t 1000 V_t 4

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ecology and environment

Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-IB-44

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	17.0 min	~~10 BJ~~ U
2.		Hexane isomer	VOA	21.1	~~44 BJ~~ U
3.					
4.		Unknown	BNA	19.77	4000 J
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
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30.					

NE July 93

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0861
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Slotowicz
Date Sample Received: 2-5-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-10-87
Conc/Dil Factor: 1 pH 8.2
Percent Moisture: (Not Decanted) 23

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)	
74-87-3	Chloromethane	10U	
74-83-9	Bromomethane	10U J	
75-01-4	Vinyl Chloride	10U	
75-00-3	Chloroethane	10U J	
75-09-2	Methylene Chloride	5 ~~8~~	U
67-64-1	Acetone	1500 ~~2~~	J
75-15-0	Carbon Disulfide	5U J	
75-35-4	1, 1-Dichloroethene	5U	
75-34-3	1, 1-Dichloroethane	5U	
156-60-5	Trans-1, 2-Dichloroethene	25	
67-66-3	Chloroform	5U	
107-06-2	1, 2-Dichloroethane	5U	
78-93-3	2-Butanone	20 UJ	
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 J
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	7.8
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.

HLE July 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/ml 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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range. ~~298~~ 62

Laboratory Name: ECOLOGY & ENVIRONMENT INC.
Case No: U-4835, 4846, 4863, 4872

Sample Number: DC-I7-45

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 2-5-87
Date Analyzed: 2-25-87
Conc/Dil Factor: 20
Percent Moisture (Decanted): 23

GPC Cleanup ☐Yes ☒No
Separatory Funnel Extraction ☐Yes
Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	3300	U
111-44-4	bis(-2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1 3-Dichlorobenzene	3300	U
106-46-7	1 4-Dichlorobenzene	3300	U
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1 2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2 4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U
111-91-1	bis(-2-Chloroethoxy)Methane	3300	U
120-83-2	2 4-Dichlorophenol	3300	U
120-82-1	1 2 4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2 4 6-Trichlorophenol	3300	U
95-95-4	2 4 5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U
208-96-8	Acenaphthylene	3300	U
-09-2	3-Nitroaniline	16000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2 4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U
132-64-9	Dibenzofuran	3300	U
121-14-2	2 4-Dinitrotoluene	3300	U
606-20-2	2 6-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3300	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4 6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	12000	U
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3 3'-Dichlorobenzidine	6600	U
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300	U
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1 2 3-cd)Pyrene	3300	U
53-70-3	Dibenz(a h)Anthracene	3300	U
191-24-2	Benzo(g h i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

July 93

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ecology and environment

Laboratory Name: _____

Case No: V-4835, 4846, 4863, 4872

Sample Number: DC-I7-45

Organics Analysis Data Sheet
(Page 3)

Pesticide / PCBs

Concentration (Low) Medium (Circle One)

Date Extracted / Prepared: 2-5-87

Date Analyzed: 2-19-87

Conc / Dil Factor: 5

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)
319-84-6	Alpha-BHC	400 U
319-85-7	Beta-BHC	400 U
319-86-8	Delta-BHC	400 U
58-89-9	Gamma-BHC (Lindane)	400 U
76-44-8	Heptachlor	400 U
309-00-2	Aldrin	400 U
1024-57-3	Heptachlor Epoxide	400 U
959-98-8	Endosulfan I	400 U
60-57-1	Dieldrin	800 U
72-55-9	4, 4'-DDE	800 U
72-20-8	Endrin	800 U
33213-65-9	Endosulfan II	800 U
72-54-8	4, 4'-DDD	800 U
1031-07-8	Endosulfan Sulfate	800 U
50-29-3	4 4'-DDT	800 U
72-43-5	Methoxychlor	4000 U
53494-70-5	Endrin Ketone	800 U
57-74-9	Chlordane	4,000 U
8001-35-2	Toxaphene	8,000 U
12674-11-2	Aroclor-1016	4,000 U
11104-28-2	Aroclor-1221	4,000 U
11141-16-5	Aroclor-1232	4,000 U
53469-21-9	Aroclor-1242	4,000 U
12672-29-6	Aroclor-1248	4,000 U
11097-69-1	Aroclor-1254	8,000 U
11096-82-5	Aroclor-1260	8,000 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 3 V_t 1000 V_i 4

64 ~~380~~

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ecology and environment

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Laboratory Name Ecology & Environment, Inc.

Case No 4-4835, 4846, 4863, 4872

Sample Number
DC-I7-45

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	~~15 BJ~~ 4
2.		Hexane Isomer	VOA	21.1	~~73 BJ~~ 4
3.		Dichlorobenzene Isomers	VOA	40.1	9 J
4.					
5.		Unknown	BNA	19.74	~~4200 J~~ 4
6.	10544500	Molecular Sulfur	1	25.36	9500 J
7.	90302	N-Phenyl-1-Naphthalenamine	1	26.85	4000 J
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VOA only 93

DC-17-46

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4835, 4846, 4863, 4872

L Sample ID No: 0862

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Szytowicz

Date Sample Received: 2-5-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-9-87

Conc/Dil Factor: 1 pH 8.0

Percent Moisture: (Not Decanted) 20

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u J
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u J
75-09-2	Methylene Chloride	12 ~~E~~ U
67-64-1	Acetone	680 ~~E~~ J
75-15-0	Carbon Disulfide	5u J
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 J
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 J
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.

HE July 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

66 ~~310~~

Laboratory Name: ECOLOGY & ENVIRONMENT INC.

Case No: V-4835, V-4846, V-4863, V-4872

Sample Number: DC-I7-46

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-5-87

Date Analyzed: 2-23-87

Conc/Dil Factor: 20

Percent Moisture (Decanted) 20

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)		
108-95-2	Phenol	3300	U	
111-44-4	bis(-2-Chloroethyl)Ether	3300	U	J
95-57-8	2-Chlorophenol	3300	U	
541-73-1	1 3-Dichlorobenzene	3300	U	
106-46-7	1. 4-Dichlorobenzene	3300	U	
100-51-6	Benzyl Alcohol	3300	U	
95-50-1	1. 2-Dichlorobenzene	3300	U	
95-48-7	2-Methylphenol	3300	U	
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U	J
106-44-5	4-Methylphenol	3300	U	
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U	
67-72-1	Hexachloroethane	3300	U	
98-95-3	Nitrobenzene	3300	U	J
78-59-1	Isophorone	3300	U	
88-75-5	2-Nitrophenol	3300	U	
105-67-9	2. 4-Dimethylphenol	3300	U	
65-85-0	Benzoic Acid	16000	U	
111-91-1	bis(-2-Chloroethoxy)Methane	3300	U	
120-83-2	2. 4-Dichlorophenol	3300	U	
120-82-1	1. 2. 4-Trichlorobenzene	3300	U	
91-20-3	Naphthalene	3300	U	
106-47-8	4-Chloroaniline	3300	U	
87-68-3	Hexachlorobutadiene	3300	U	
59-50-7	4-Chloro-3-Methylphenol	3300	U	
91-57-6	2-Methylnaphthalene	3300	U	
77-47-4	Hexachlorocyclopentadiene	3300	U	
88-06-2	2. 4. 6-Trichlorophenol	3300	U	
95-95-4	2. 4. 5-Trichlorophenol	16000	U	
91-58-7	2-Chloronaphthalene	3300	U	
88-74-4	2-Nitroaniline	16000	U	
131-11-3	Dimethyl Phthalate	3300	U	J
208-96-8	Acenaphthylene	3300	U	
09-2	3-Nitroaniline	16000	U	J

CAS Number		ug/l or (ug/Kg) (Circle One)		
83-32-9	Acenaphthene	3300	U	
51-28-5	2. 4-Dinitrophenol	16000	U	
100-02-7	4-Nitrophenol	16000	U	J
132-64-9	Dibenzofuran	3300	U	
121-14-2	2 4-Dinitrotoluene	3300	U	J
606-20-2	2. 6-Dinitrotoluene	3300	U	J
84-66-2	Diethylphthalate	3300	U	J
7005-72-3	4-Chlorophenyl-phenylether	3300	U	J
86-73-7	Fluorene	3300	U	
100-01-6	4-Nitroaniline	16000	U	
534-52-1	4. 6-Dinitro-2-Methylphenol	16000	U	
86-30-6	N-Nitrosodiphenylamine (1)	3300	U	
101-55-3	4-Bromophenyl-phenylether	3300	U	
118-74-1	Hexachlorobenzene	3300	U	
87-86-5	Pentachlorophenol	16000	U	
85-01-8	Phenanthrene	3300	U	
120-12-7	Anthracene	3300	U	
84-74-2	Di-n-Butylphthalate	6800		U
206-44-0	Fluoranthene	3300	U	
129-00-0	Pyrene	3300	U	J
85-68-7	Butylbenzylphthalate	3300	U	
91-94-1	3. 3'-Dichlorobenzidine	6600	U	J
56-55-3	Benzo(a)Anthracene	3300	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	1900	J	3300 U
218-01-9	Chrysene	3300	U	
117-84-0	Di-n-Octyl Phthalate	3300	U	
205-99-2	Benzo(b)Fluoranthene	3300	U	
207-08-9	Benzo(k)Fluoranthene	3300	U	J
50-32-8	Benzo(a)Pyrene	3300	U	
193-39-5	Indeno(1 2. 3-cd)Pyrene	3300	U	
53-70-3	Dibenz(a h)Anthracene	3300	U	J
191-24-2	Benzo(g h i)Perylene	3300	U	

(1)-Cannot be separated from diphenylamine

HC

July 93

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Laboratory Name _____

Case No U-4835, 4846, 4872, 4872

Sample Number DC-I746

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-5-87

Date Analyzed 2-19-87

Conc/Dil Factor 1

Percent Moisture (decanted) 20

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 3 V_t 1000 V_i 4

68 ~~312~~

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ecology and environment

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Laboratory Name Ecology & Environment, Inc.
Case No U-4835, 4846, 4863, 4872

Sample Number
DC-I7-46

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	17.0	~~10 BJ~~ 4
2.	Hexane isomer	VOA	21.1	~~56 BJ~~ 4
3.				
4.	No Semi-Volatile Compounds Found			
5.				
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July 93

69 ~~313~~

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4835, 4846, 4863, 4872

Sample ID No: 0863

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Stojtowicz

Date Sample Received: 2-5-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-9-87

Conc/Dil Factor: 1 pH 7.2

Percent Moisture: (Not Decanted) 21

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u J
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u J
75-09-2	Methylene Chloride	10 ~~[illegible]~~ U
67-64-1	Acetone	720 ~~[illegible]~~ J
75-15-0	Carbon Disulfide	5u J
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	18 UJ
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 J
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.

HE July 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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ecology and environment

Laboratory Name ECOLOGY + ENVIRONMENT INC.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I7-47

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-5-87

Date Analyzed: 2-23-87

Conc/Dil Factor: 20

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED 'AS RECEIVED'

CAS Number		ug/l or (ug/Kg) (Circle One)		
108-95-2	Phenol	3300	U	
111-44-4	bis(-2-Chloroethyl)Ether	3300	U	J
95-57-8	2-Chlorophenol	3300	U	
541-73-1	1 3-Dichlorobenzene	3300	U	
106-46-7	1 4-Dichlorobenzene	3300	U	
100-51-6	Benzyl Alcohol	3300	U	
95-50-1	1 2-Dichlorobenzene	3300	U	
95-48-7	2-Methylphenol	3300	U	
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U	J
106-44-5	4-Methylphenol	3300	U	
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U	
67-72-1	Hexachloroethane	3300	U	
98-95-3	Nitrobenzene	3300	U	J
78-59-1	Isophorone	3300	U	
88-75-5	2-Nitrophenol	3300	U	
105-67-9	2 4-Dimethylphenol	3300	U	
65-85-0	Benzoic Acid	16000	U	
111-91-1	bis(-2-Chloroethoxy)Methane	3300	U	
120-83-2	2 4-Dichlorophenol	3300	U	
120-82-1	1 2 4-Trichlorobenzene	3300	U	
91-20-3	Naphthalene	3300	U	
106-47-8	4-Chloroaniline	3300	U	
87-68-3	Hexachlorobutadiene	3300	U	
59-50-7	4-Chloro-3-Methylphenol	3300	U	
91-57-6	2-Methylnaphthalene	3300	U	
77-47-4	Hexachlorocyclopentadiene	3300	U	
88-06-2	2 4 6-Trichlorophenol	3300	U	
95-95-4	2 4 5-Trichlorophenol	16000	U	
91-58-7	2-Chloronaphthalene	3300	U	
88-74-4	2-Nitroaniline	16000	U	
131-11-3	Dimethyl Phthalate	3300	U	J
208-96-8	Acenaphthylene	3300	U	
09-2	3-Nitroaniline	16000	U	J

CAS Number		ug/l or (ug/Kg) (Circle One)		
83-32-9	Acenaphthene	3300	U	
51-28-5	2 4-Dinitrophenol	16000	U	
100-02-7	4-Nitrophenol	16000	U	J
132-64-9	Dibenzofuran	3300	U	
121-14-2	2 4-Dinitrotoluene	3300	U	J
606-20-2	2 6-Dinitrotoluene	3300	U	J
84-66-2	Diethylphthalate	3300	U	J
7005-72-3	4-Chlorophenyl-phenylether	3300	U	J
86-73-7	Fluorene	3300	U	
100-01-6	4-Nitroaniline	16000	U	
534-52-1	4 6-Dinitro-2-Methylphenol	16000	U	
86-30-6	N-Nitrosodiphenylamine (1)	3300	U	
101-55-3	4-Bromophenyl-phenylether	3300	U	
118-74-1	Hexachlorobenzene	3300	U	
87-86-5	Pentachlorophenol	16000	U	
85-01-8	Phenanthrene	3300	U	
120-12-7	Anthracene	3300	U	
84-74-2	Di-n-Butylphthalate	8480		U
206-44-0	Fluoranthene	3300	U	
129-00-0	Pyrene	3300	U	J
85-68-7	Butylbenzylphthalate	3300	U	
91-94-1	3 3'-Dichlorobenzidine	6600	U	J
56-55-3	Benzo(a)Anthracene	3300	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	4400		U
218-01-9	Chrysene	3300	U	
117-84-0	Di-n-Octyl Phthalate	3300	U	
205-99-2	Benzo(b)Fluoranthene	3300	U	
207-08-9	Benzo(k)Fluoranthene	3300	U	J
50-32-8	Benzo(a)Pyrene	3300	U	
193-39-5	Indeno(1 2 3-cd)Pyrene	3300	U	
53-70-3	Dibenz(a h)Anthracene	3300	U	J
191-24-2	Benzo(g h i)Perylene	3300	U	

(1)-Cannot be separated from diphenylamine

Form I

Laboratory Name [illegible]

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I7-47

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-5-87

Date Analyzed 2-19-87

Conc/Dil Factor 2

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)
319-84-6	Alpha-BHC	160 U
319-85-7	Beta-BHC	160 U
319-86-8	Delta-BHC	160 U
58-89-9	Gamma-BHC (Lindane)	160 U
76-44-8	Heptachlor	160 U
309-00-2	Aldrin	160 U
1024-57-3	Heptachlor Epoxide	160 U
959-98-8	Endosulfan I	160 U
60-57-1	Dieldrin	320 U
72-55-9	4,4'-DDE	320 U
72-20-8	Endrin	320 U
33213-65-9	Endosulfan II	320 U
72-54-8	4,4'-DDD	320 U
1031-07-8	Endosulfan Sulfate	320 U
50-29-3	4,4'-DDT	320 U
72-43-5	Methoxychlor	1600 U
53494-70-5	Endrin Ketone	320 U
57-74-9	Chlordane	1600 U
8001-35-2	Toxaphene	3200 U
12674-11-2	Aroclor-1016	1,600 U
11104-28-2	Aroclor-1221	1,600 U
11141-16-5	Aroclor-1232	1,600 U
53469-21-9	Aroclor-1242	1,600 U
12672-29-6	Aroclor-1248	1,600 U
11097-69-1	Aroclor-1254	3,200 U
11096-82-5	Aroclor-1260	3,200 U

V_l = 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 3 V_t 1000 V_i 4

72 ~~324~~

Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I7-47

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	17.2	~~6 BJ~~	U
2.	Hexane isomer	VOA	21.2	~~28 BJ~~	U
3.					
4.	Unknown	BNA	19.77	~~3100 J~~	U
5.					
6.					1/5
7.					
8.					Jul
9.					93
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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4835, 4846, 4863, 4872

I Sample ID No: 0864

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-5-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-12-87

Conc/Dil Factor: 2 pH 9.1

Percent Moisture: (Not Decanted) 32

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	2000u J	
74-83-9	Bromomethane	2000u J	
75-01-4	Vinyl Chloride	2000u	
75-00-3	Chloroethane	2000u	
75-09-2	Methylene Chloride .1000	760 ~~BJ~~	U
67-64-1	Acetone	9100 ~~E~~	U
75-15-0	Carbon Disulfide	1000u J	
75-35-4	1, 1-Dichloroethene	1000u J	
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	7300 ~~E~~	UJ
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	680 J
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	53000
108-90-7	Chlorobenzene	2200
100-41-4	Ethylbenzene	400 J
100-42-5	Styrene	1000u
	Total Xylenes	590 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
July 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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~~3.74~~

Laboratory Name ECOLOGY & ENVIRONMENT INC

Case No V-4835, 4846, 4863, 4872

Sample Number DC-I9-48

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 2/5/87

Date Analyzed: 3/4/87

Conc/Dil Factor: 200

Percent Moisture (Decanted) 32

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	33,000 U	
111-44-4	bis(-2-Chloroethyl)Ether	33,000 U	
95-57-8	2-Chlorophenol	33,000 U	
541-73-1	1, 3-Dichlorobenzene	33,000 U	
106-46-7	1, 4-Dichlorobenzene	33,000 U	
100-51-6	Benzyl Alcohol	33,000 U	
95-50-1	1, 2-Dichlorobenzene	33,000 U	
95-48-7	2-Methylphenol	33,000 U	
39638-32-9	bis(2-chloroisopropyl)Ether	33,000 U	
106-44-5	4-Methylphenol	33,000 U	
621-64-7	N-Nitroso-Di-n-Propylamine	33,000 U	
67-72-1	Hexachloroethane	33,000 U	
98-95-3	Nitrobenzene	33,000 U	
78-59-1	Isophorone	33,000 U	
88-75-5	2-Nitrophenol	33,000 U	
105-67-9	2, 4-Dimethylphenol	33,000 U	
65-85-0	Benzoic Acid	160,000 U	J
111-91-1	bis(-2-Chloroethoxy)Methane	33,000 U	
120-83-2	2, 4-Dichlorophenol	33,000 U	
120-82-1	1, 2, 4-Trichlorobenzene	33,000 U	
91-20-3	Naphthalene	250,000	
106-47-8	4-Chloroaniline	33,000 U	J
87-68-3	Hexachlorobutadiene	33,000 U	
59-50-7	4-Chloro-3-Methylphenol	33,000 U	
91-57-6	2-Methylnaphthalene	4000 J	
77-47-4	Hexachlorocyclopentadiene	33,000 U	
88-06-2	2, 4, 6-Trichlorophenol	33,000 U	
95-95-4	2, 4, 5-Trichlorophenol	160,000 U	
91-58-7	2-Chloronaphthalene	33,000 U	
88-74-4	2-Nitroaniline	160,000 U	J
131-11-3	Dimethyl Phthalate	33,000 U	J
208-96-8	Acenaphthylene	33,000 U	
[illegible]-09-2	3-Nitroaniline	160,000 U	J

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	33,000 U	
51-28-5	2, 4-Dinitrophenol	160,000 U	J
100-02-7	4-Nitrophenol	160,000 U	J
132-64-9	Dibenzofuran	3800 J	
121-14-2	2, 4-Dinitrotoluene	33,000 U	J
606-20-2	2, 6-Dinitrotoluene	33,000 U	J
84-66-2	Diethylphthalate	33,000 U	J
7005-72-3	4-Chlorophenyl-phenylether	33,000 U	J
86-73-7	Fluorene	4200 J	
100-01-6	4-Nitroaniline	160,000 U	J
534-52-1	4, 6-Dinitro-2-Methylphenol	160,000 U	
86-30-6	N-Nitrosodiphenylamine (1)	33,000 U	
101-55-3	4-Bromophenyl-phenylether	33,000 U	
118-74-1	Hexachlorobenzene	33,000 U	
87-86-5	Pentachlorophenol	160,000 U	
85-01-8	Phenanthrene	8500 J	
120-12-7	Anthracene	33,000 U	
84-74-2	Di-n-Butylphthalate	33,000 U	
206-44-0	Fluoranthene	33,000 U	
129-00-0	Pyrene	1500 J	
85-68-7	Butylbenzylphthalate	33,000 U	J
91-94-1	3, 3'-Dichlorobenzidine	66,000 U	J
56-55-3	Benzo(a)Anthracene	33,000 U	
117-81-7	bis(2-Ethylhexyl)Phthalate	33,000 U	
218-01-9	Chrysene	33,000 U	
117-84-0	Di-n-Octyl Phthalate	33,000 U	J
205-99-2	Benzo(b)Fluoranthene	33,000 U	
207-08-9	Benzo(k)Fluoranthene	33,000 U	
50-32-8	Benzo(a)Pyrene	33,000 U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	33,000 U	
53-70-3	Dibenz(a, h)Anthracene	33,000 U	J
191-24-2	Benzo(g, h, i)Perylene	33,000 U	

(1)-Cannot be separated from diphenylamine

~~3.75~~ July 93

75 7 85

Form I

Laboratory Name ecology and environment, inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I9-48

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-5-87

Date Analyzed 2-20-87

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)
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	20,200
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	320,000 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 5 V_t 4,000 V_i 4

76

336

Laboratory Name Ecology & Environment, Inc.

Case No 4-4535, 4546, 4863, 4872

Sample Number DC-I9-48

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	~~2100~~ BJ 4
2.		Hexane isomer	VOA	21.2	~~4600~~ BJ 4
3.		Dichlorobenzene isomer	VOA	40.0	2200 J
4.					
5.	92524	1,1'-Biphenyl	BNA	16.12	76,000 J
6.		Unknown		16.41	1,100,000 J
7	643583	2-Methyl-1,1'-Biphenyl		16.51	149,000 J
8.		Unknown Aromatic		17.90	68,000 J
9.		Unknown		25.66	32,000 J
10.		Unknown		26.90	30,000 J
11.					
12.					
13.					
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HS Jul 93

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DC-27-47

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0865
QC Report No:
Sample Matrix: Soil
Contract No: EL-3140
Data Release Authorized By: O. Gajtowicz
Date Sample Received: 2-5-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-12-87
Conc/Dil Factor: 1 pH 7.6
Percent Moisture: (Not Decanted) 19

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	1000 U J	
74-83-9	Bromomethane	1000 U J	
75-01-4	Vinyl Chloride	1000 U	
75-00-3	Chloroethane	1000 U	
75-09-2	Methylene Chloride .500	~~940 B~~	U
67-64-1	Acetone	4300 B	U
75-15-0	Carbon Disulfide	500 U	
75-35-4	1, 1-Dichloroethene	500 U	
75-34-3	1, 1-Dichloroethane	500 U	
156-60-5	Trans-1, 2-Dichloroethene	500 U	
67-66-3	Chloroform	500 U	
107-06-2	1, 2-Dichloroethane	500 U	
78-93-3	2-Butanone	3300 B	UJ
71-55-6	1, 1, 1-Trichloroethane	500 U	
56-23-5	Carbon Tetrachloride	500 U	
108-05-4	Vinyl Acetate	1000 U	
75-27-4	Bromodichloromethane	500 U	

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	500 U	
10061-02-6	Trans-1, 3-Dichloropropene	500 U	
79-01-6	Trichloroethene	500 U	
124-48-1	Dibromochloromethane	500 U	
79-00-5	1, 1, 2-Trichloroethane	500 U	
71-43-2	Benzene	87 J	
10061-01-5	cis-1, 3-Dichloropropene	500 U	
110-75-8	2-Chloroethylvinylether	1000 U	
75-25-2	Bromoform	500 U	
108-10-1	4-Methyl-2-Pentanone	1000 U	
591-78-6	2-Hexanone	1000 U	
127-18-4	Tetrachloroethene	500 U	
79-34-5	1, 1, 2, 2-Tetrachloroethane	500 U	
108-88-3	Toluene	1100 B	e
108-90-7	Chlorobenzene	760	
100-41-4	Ethylbenzene	230 J	
100-42-5	Styrene	500 U	
	Total Xylenes	83 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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July 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/ml 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.
E	This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name: ECOLOGY & ENVIRONMENT INC.
Case No: V-4835, 4846, 4863, 4872

Sample Number: DC-I9-49

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 2-5-87
Date Analyzed: 3-5-87
Conc/Dil Factor: 20
Percent Moisture (Decanted): 19

GPC Cleanup ☐Yes ☒No
Separatory Funnel Extraction ☐Yes
Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	3300	U
111-44-4	bis(-2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1 3-Dichlorobenzene	3300	U
106-46-7	1 4-Dichlorobenzene	3300	U
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1 2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U J
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2, 4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U
111-91-1	bis(-2-Chloroethoxy)Methane	3300	U
120-83-2	2, 4-Dichlorophenol	3300	U
120-82-1	1, 2, 4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	1500	J
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2, 4, 6-Trichlorophenol	3300	U
95-95-4	2, 4, 5-Trichlorophenol	16000	U J
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U J
208-96-8	Acenaphthylene	3300	U
-09-2	3-Nitroaniline	16000	U J

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2, 4-Dinitrophenol	16000	U J
100-02-7	4-Nitrophenol	16000	U J
132-64-9	Dibenzofuran	3300	U J
121-14-2	2 4-Dinitrotoluene	3300	U J
606-20-2	2, 6-Dinitrotoluene	3300	U J
84-66-2	Diethylphthalate	3300	U J
7005-72-3	4-Chlorophenyl-phenylether	3300	U J
86-73-7	Fluorene	2500	J
100-01-6	4-Nitroaniline	16000	U J
534-52-1	4, 6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	8400	U
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U J
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3, 3'-Dichlorobenzidine	6600	U J
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	4500	U
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	3300	U
53-70-3	Dibenz(a, h)Anthracene	3300	U J
191-24-2	Benzo(g, h, i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

HVS

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ecology and environment

Laboratory Name ecology and environment, inc.

Case No U-4835,4846,4863,4872

Sample Number DC-I9-49

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-5-87

Date Analyzed 2-20-87

Conc/Dil Factor 20

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)
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	3200 U
72-55-9	4,4'-DDE	3200 U
72-20-8	Endrin	3200 U
33213-65-9	Endosulfan II	3200 U
72-54-8	4,4'-DDD	5,400
1031-07-8	Endosulfan Sulfate	3200 U
50-29-3	4,4'-DDT	3,500
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	16,000 U
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 3 V_t 1,000 V_i 4

380
80

Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I9-49

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.	76131	1,1,2-Trichloro-1,2,2-trifluoroethane	VOA	14.2	1400 J
2.		Hexene isomer	VOA	17.1	~~1200 BJ~~ 4
3.		Hexane isomer	VOA	21.2	~~5300 BJ~~ 4
4.		Dichlorobenzene isomer	VOA	40.1	900 J
5.					
6.	92524	1,1'-Biphenyl	BNA	16.14	12000 J
7.		Unknown		16.30	7700 J
8.		Methyl-1,1'-Biphenyl Isomer		16.50	19000 J
9.		Methyl-1,1'-Biphenyl Isomer		17.89	15000 J
10.		Methyl-1,1'-Biphenyl Isomer		18.03	9200 J
11.		Unknown		19.72	~~2500 J~~ 4
12.	10544500	Molecular Sulfur		25.35	47000 J
13.		Unknown		29.73	11000 J
14.	1241947	Phosphoric Acid, 2-Ethylhexyl diphenyl ester		30.03	15000 J
15.		Unknown Phthalate		30.89	5500 J
16.		Unknown		31.58	9900 J
17.		Unknown		31.68	7200 J
18.					
19.					
20.					
21.					
22.					
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30					

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0866
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Bojtowicz
Date Sample Received: 2-5-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 02-13-87
Conc/Dil Factor: 2 pH 7.9
Percent Moisture: (Not Decanted) 17

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	2000U J
74-83-9	Bromomethane	2000U J
75-01-4	Vinyl Chloride	2000U
75-00-3	Chloroethane	2000U
75-09-2	Methylene Chloride . 1000	~~530 B~~ U
67-64-1	Acetone	5400 B UJ
75-15-0	Carbon Disulfide	1000U J
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	7200 B UJ
71-55-6	1, 1, 1-Trichloroethane	360 J
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	540 J
124-48-1	Dibromochloromethane	1000U
79-00-5	1, 1, 2-Trichloroethane	1000U
71-43-2	Benzene	840 J
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	510 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000U
108-88-3	Toluene	2600
108-90-7	Chlorobenzene	2200
100-41-4	Ethylbenzene	6800
100-42-5	Styrene	1000U
	Total Xylenes	2300

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.

HQ
July 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/ml 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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

82
~~382~~

Laboratory Name Ecology & Environment Inc.
Case No V-4835, 4846, 4863, 4872

Sample Number
DC-110-50

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 2/5/87
Date Analyzed: 3/4/87
Conc/Dil Factor: 100
Percent Moisture (Decanted) 17

GPC Cleanup ☐Yes ☒No
Separatory Funnel Extraction ☐Yes
Continuous Liquid - Liquid Extraction ☐Yes

Concentrations Reported "As Received"

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	16000 U	
111-44-4	bis(-2-Chloroethyl)Ether	16000 U	
95-57-8	2-Chlorophenol	16000 U	
541-73-1	1, 3-Dichlorobenzene	16000 U	
106-46-7	1, 4-Dichlorobenzene	16000 U	
100-51-6	Benzyl Alcohol	16000 U	
95-50-1	1, 2-Dichlorobenzene	16000 U	
95-48-7	2-Methylphenol	16000 U	
39638-32-9	bis(2-chloroisopropyl)Ether	16000 U	
106-44-5	4-Methylphenol	16000 U	
621-64-7	N-Nitroso-Di-n-Propylamine	16000 U	
67-72-1	Hexachloroethane	16000 U	
98-95-3	Nitrobenzene	16000 U	
78-59-1	Isophorone	16000 U	
88-75-5	2-Nitrophenol	16000 U	
105-67-9	2, 4-Dimethylphenol	16000 U	
65-85-0	Benzoic Acid	80,000 U	J
111-91-1	bis(-2-Chloroethoxy)Methane	16000 U	
120-83-2	2, 4-Dichlorophenol	7500 J	
120-82-1	1, 2, 4-Trichlorobenzene	92000	
91-20-3	Naphthalene	16000 U	
106-47-8	4-Chloroaniline	16000 U	J
87-68-3	Hexachlorobutadiene	16000 U	
59-50-7	4-Chloro-3-Methylphenol	16000 U	
91-57-6	2-Methylnaphthalene	16000 U	
77-47-4	Hexachlorocyclopentadiene	16000 U	
88-06-2	2, 4, 6-Trichlorophenol	16000 U	
95-95-4	2, 4, 5-Trichlorophenol	80,000 U	
91-58-7	2-Chloronaphthalene	16000 U	
88-74-4	2-Nitroaniline	80,000 U	J
131-11-3	Dimethyl Phthalate	16000 U	J
208-96-8	Acenaphthylene	16000 U	
[illegible]-09-2	3-Nitroaniline	80,000 U	J

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	16,000 U	
51-28-5	2, 4-Dinitrophenol	80,000 U	J
100-02-7	4-Nitrophenol	80,000 U	J
132-64-9	Dibenzofuran	16,000 U	J
121-14-2	2, 4-Dinitrotoluene	16,000 U	J
606-20-2	2, 6-Dinitrotoluene	16000 U	J
84-66-2	Diethylphthalate	16000 U	J
7005-72-3	4-Chlorophenyl-phenylether	16000 U	J
86-73-7	Fluorene	16000 U	J
100-01-6	4-Nitroaniline	80,000 U	J
534-52-1	4, 6-Dinitro-2-Methylphenol	80,000 U	
86-30-6	N-Nitrosodiphenylamine (1)	16000 U	
101-55-3	4-Bromophenyl-phenylether	16000 U	
118-74-1	Hexachlorobenzene	84,000	
87-86-5	Pentachlorophenol	80,000 U	
85-01-8	Phenanthrene	16000 U	
120-12-7	Anthracene	16000 U	
84-74-2	Di-n-Butylphthalate	16000 U	
206-44-0	Fluoranthene	16000 U	
129-00-0	Pyrene	16000 U	J
85-68-7	Butylbenzylphthalate	16000 U	J
91-94-1	3, 3'-Dichlorobenzidine	33,000 U	J
56-55-3	Benzo(a)Anthracene	16000 U	
117-81-7	bis(2-Ethylhexyl)Phthalate	~~5600 J~~	16,000 U
218-01-9	Chrysene	16000 U	
117-84-0	Di-n-Octyl Phthalate	16000 U	J
205-99-2	Benzo(b)Fluoranthene	16000 U	
207-08-9	Benzo(k)Fluoranthene	16000 U	
50-32-8	Benzo(a)Pyrene	16000 U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	16000 U	
53-70-3	Dibenz(a, h)Anthracene	16000 U	J
191-24-2	Benzo(g, h, i)Perylene	16000 U	

(1)-Cannot be separated from diphenylamine

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July 93
~~353~~
83 7 85

Form I

Laboratory Name Ecology and Environment, Inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-I10-50

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-5-87

Date Analyzed 2-20-87

Conc/Dil Factor 20

Percent Moisture (decanted) 17

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	16,000 U
11097-69-1	Aroclor-1254	32,000 U
11096-82-5	Aroclor-1260	~~17,000 J~~ 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 3 V_t 1000 V_i 4

84 ~~364~~

Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I10-50

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	~~2100~~ BJ
2.		Hexane Isomer	VOA	21.2	~~9000~~ BJ
3.		Unknown hydrocarbon	VOA	28.2	2700 J
4.		Dichlorobenzene Isomer	VOA	40.0	65000 J
5.					
6.		Ethylbenzenamine Isomer	BNA	12.05	15000 J
7.		Unknown		13.52	86000 J
8.		Tetrachlorobenzene Isomer		15.25	170000 J
9.		Tetrachlorobenzene Isomer		16.13	1,100,000 J
10.	608935	Pentachlorobenzene		18.42	69,000 J
11.		Unknown		19.12	100,000 J
12.		Unknown		20.75	18,000 J
13.	10544500	Methanol Sulfur		25.34	23,000 J
14.					
15.					
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85 ~~365~~

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: IL-4835, 4846, 4863, 4872
Sample ID No: 0900
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Hoffowicz
Date Sample Received: 2-6-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-13-87
Conc/Dil Factor: 2 pH 8.3
Percent Moisture: (Not Decanted) 40

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)	
74-87-3	Chloromethane	2000U J	
74-83-9	Bromomethane	2000U J	
75-01-4	Vinyl Chloride	2000U	
75-00-3	Chloroethane	2000U	
75-09-2	Methylene Chloride . 1000	~~510 BJ~~	U
67-64-1	Acetone	8300 B	U
75-15-0	Carbon Disulfide	1000U J	
75-35-4	1, 1-Dichloroethene	1000U J	
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	8300 B	U J
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	2000
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	1100U
108-90-7	Chlorobenzene	65000
100-41-4	Ethylbenzene	620 J
100-42-5	Styrene	1000U
	Total Xylenes	970 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.

HV= Jul 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/ml 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.
E	This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

86 ~~376~~

Laboratory Name: ECOLOGY & ENVIRONMENT INC.

Case No: U-4835, 4846, 4863, 4872

Sample Number: DC-I11-51

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared: 2/9/87

Date Analyzed: 2/17/87

Conc/Dil Factor: 200

Percent Moisture (Decanted): 40

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	33,000 U
111-44-4	bis(-2-Chloroethyl)Ether	33,000 U
95-57-8	2-Chlorophenol	33,000 U
541-73-1	1 3-Dichlorobenzene	42000
106-46-7	1 4-Dichlorobenzene	1,100,000
100-51-6	Benzyl Alcohol	33000 U
95-50-1	1 2-Dichlorobenzene	33000 U
95-48-7	2-Methylphenol	33000 U
39638-32-9	bis(2-chloroisopropyl)Ether	33000 U
106-44-5	4-Methylphenol	33000 U
621-64-7	N-Nitroso-Di-n-Propylamine	33000 U
67-72-1	Hexachloroethane	33000 U
98-95-3	Nitrobenzene	33000 U
78-59-1	Isophorone	33000 U
88-75-5	2-Nitrophenol	33000 U
105-67-9	2 4-Dimethylphenol	33000 U
65-85-0	Benzoic Acid	160,000 U J
111-91-1	bis(-2-Chloroethoxy)Methane	33000 U
120-83-2	2 4-Dichlorophenol	33000 U
120-82-1	1 2 4-Trichlorobenzene	60,000
91-20-3	Naphthalene	33000 U
106-47-8	4-Chloroaniline	33000 U J
87-68-3	Hexachlorobutadiene	33000 U
59-50-7	4-Chloro-3-Methylphenol	33000 U
91-57-6	2-Methylnaphthalene	14000 J
77-47-4	Hexachlorocyclopentadiene	33000 U
88-06-2	2 4 6-Trichlorophenol	33000 U
95-95-4	2 4 5-Trichlorophenol	160,000 U
91-58-7	2-Chloronaphthalene	33000 U
88-74-4	2-Nitroaniline	160,000 U
131-11-3	Dimethyl Phthalate	33000 U J
208-96-8	Acenaphthylene	33000 U
-09-2	3-Nitroaniline	160,000 U J

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	33000 U
51-28-5	2 4-Dinitrophenol	160,000 U
100-02-7	4-Nitrophenol	160,000 U J
132-64-9	Dibenzofuran	33000 U
121-14-2	2 4-Dinitrotoluene	33000 U J
606-20-2	2 6-Dinitrotoluene	33000 U J
84-66-2	Diethylphthalate	33000 U J
7005-72-3	4-Chlorophenyl-phenylether	33000 U J
86-73-7	Fluorene	33000 U J
100-01-6	4-Nitroaniline	160,000 U J
534-52-1	4 6-Dinitro-2-Methylphenol	160,000 U
86-30-6	N-Nitrosodiphenylamine (1)	33000 U
101-55-3	4-Bromophenyl-phenylether	33000 U
118-74-1	Hexachlorobenzene	38,000
87-86-5	Pentachlorophenol	160,000 U
85-01-8	Phenanthrene	33000 U
120-12-7	Anthracene	33000 U
84-74-2	Di-n-Butylphthalate	33000 U
206-44-0	Fluoranthene	33000 U
129-00-0	Pyrene	33000 U J
85-68-7	Butylbenzylphthalate	33000 U J
91-94-1	3 3'-Dichlorobenzidine	66000 U J
56-55-3	Benzo(a)Anthracene	33000 U 33,000
117-81-7	bis(2-Ethylhexyl)Phthalate	~~29,000~~ J ~~33,000~~ UJ
218-01-9	Chrysene	33000 U
117-84-0	Di-n-Octyl Phthalate	33000 U
205-99-2	Benzo(b)Fluoranthene	33000 U J
207-08-9	Benzo(k)Fluoranthene	33000 U J
50-32-8	Benzo(a)Pyrene	33000 U
193-39-5	Indeno(1 2 3-cd)Pyrene	33000 U J
53-70-3	Dibenz(a h)Anthracene	33000 U J
191-24-2	Benzo(g h i)Perylene	33000 U

(1)-Cannot be separated from diphenylamine

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ecology and environment

Laboratory Name ecology and environment, inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I11-51

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-9-87

Date Analyzed 2-23-87

Conc/Dil Factor 25

Percent Moisture (decanted) 40

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	2000 U
319-85-7	Beta-BHC	2000 U
319-86-8	Delta-BHC	2000 U
58-89-9	Gamma-BHC (Lindane)	2000 U
76-44-8	Heptachlor	2000 U
309-00-2	Aldrin	2000 U
1024-57-3	Heptachlor Epoxide	2000 U
959-98-8	Endosulfan I	2000 U
60-57-1	Dieldrin	4000 U
72-55-9	4,4'-DDE	4000 U
72-20-8	Endrin	4000 U
33213-65-9	Endosulfan II	4000 U
72-54-8	4,4'-DDD	4000 U
1031-07-8	Endosulfan Sulfate	4000 U
50-29-3	4,4'-DDT	4000 U
72-43-5	Methoxychlor	20,000 U
53494-70-5	Endrin Ketone	4,000 U
57-74-9	Chlordane	22,000 U
8001-35-2	Toxaphene	40,000 U
12674-11-2	Aroclor-1016	20,000 U
11104-28-2	Aroclor-1221	20,000 U
11141-16-5	Aroclor-1232	20,000 U
53469-21-9	Aroclor-1242	20,000 U
12672-29-6	Aroclor-1248	20,000 U
11097-69-1	Aroclor-1254	40,000 U
11096-82-5	Aroclor-1260	40,000 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 3 V_t 1,000 V_i 4

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Laboratory Name Ecology & Environment, Inc.

Case No 4-4835, 4846, 4863, 4872

Sample Number DC-III-51

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	17.2	~~2100 BJ~~ 4
2.		Hexane isomer	VOA	21.2	~~8200 BJ~~ 4
3.		Dichlorobenzene isomer	VOA	38.1	26000 J
4.		Dichlorobenzene isomer	VOA	39.8	470000 J
5.					
6.		Tetrachlorobenzene Isomer	BNA	15.35	140,000 J
7.		Tetrachlorobenzene Isomer		16.21	200,000 J
8.	608935	Pentachlorobenzene		18.52	260,000 J
9.		Unknown		24.86	26,000 J
10.	10544500	Molecular Sulfur		25.50	720,000 J
11.		Unknown		26.30	66,000 J
12.		Unknown		37.90	37,000 J
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14.					
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July 93

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4835, 4846, 4863, 4872

Sample ID No: 0901

QC Report No:

Sample Matrix: Soil

Contract No. IL-3140

Data Release Authorized By: C Skoztowicz

Date Sample Received: 2-6-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 7 pH 8.2

Percent Moisture: (Not Decanted) 17

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	70u
74-83-9	Bromomethane	70u J
75-01-4	Vinyl Chloride	70u
75-00-3	Chloroethane	70u J
75-09-2	Methylene Chloride	38 ~~B~~ UJ
67-64-1	Acetone	590 ~~B~~ U
75-15-0	Carbon Disulfide	35u J
75-35-4	1, 1-Dichloroethene	35u
75-34-3	1, 1-Dichloroethane	35u J
156-60-5	Trans-1, 2-Dichloroethene	35u
67-66-3	Chloroform	35u
107-06-2	1, 2-Dichloroethane	35u
78-93-3	2-Butanone	140 ~~B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	35u
56-23-5	Carbon Tetrachloride	35u
108-05-4	Vinyl Acetate	70u
75-27-4	Bromodichloromethane	35u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	35u
10061-02-6	Trans-1, 3-Dichloropropene	35u
79-01-6	Trichloroethene	35u J
124-48-1	Dibromochloromethane	35u
79-00-5	1, 1, 2-Trichloroethane	35u J.
71-43-2	Benzene	19 J
10061-01-5	cis-1, 3-Dichloropropene	35u
110-75-8	2-Chloroethylvinylether	70u
75-25-2	Bromoform	35u
108-10-1	4-Methyl-2-Pentanone	70u
591-78-6	2-Hexanone	70u
127-18-4	Tetrachloroethene	35u
79-34-5	1, 1, 2, 2-Tetrachloroethane	35u
108-88-3	Toluene	40 U
108-90-7	Chlorobenzene	1700
100-41-4	Ethylbenzene	80
100-42-5	Styrene	35u J
	Total Xylenes	67 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 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Case No. V-4835, 4846, 4863, 4872

Sample Number DC-I11-52

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2/9/87

Date Analyzed: 2/16/87

Conc/Dil Factor: 20

Percent Moisture (Decanted): 17

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	3300	U
111-44-4	bis(2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1,3-Dichlorobenzene	3300	U
106-46-7	1,4-Dichlorobenzene	1330	J
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1,2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2,4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U J
111-91-1	bis(2-Chloroethoxy)Methane	3300	U
120-83-2	2,4-Dichlorophenol	3300	U
120-82-1	1,2,4-Trichlorobenzene	94,000	
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U J
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2,4,6-Trichlorophenol	3300	U
95-95-4	2,4,5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U J
208-96-8	Acenaphthylene	3300	U
09-2	3-Nitroaniline	16000	U J

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2,4-Dinitrophenol	16000	U J
100-02-7	4-Nitrophenol	16000	U J
132-64-9	Dibenzofuran	3300	U
121-14-2	2,4-Dinitrotoluene	3300	U J
606-20-2	2,6-Dinitrotoluene	3300	U J
84-66-2	Diethylphthalate	3300	U J
7005-72-3	4-Chlorophenyl-phenylether	3300	U J
86-73-7	Fluorene	3300	U J
100-01-6	4-Nitroaniline	16000	U J
534-52-1	4,6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	39,000	
87-86-5	Pentachlorophenol	16,000	U
85-01-8	Phenanthrene	1100	J
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	9400	U
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U J
85-68-7	Butylbenzylphthalate	3300	U J
91-94-1	3,3'-Dichlorobenzidine	6600	U J
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	9200	U J
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U J
207-08-9	Benzo(k)Fluoranthene	3300	U J
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1,2,3-cd)Pyrene	3300	U J
53-70-3	Dibenz(a,h)Anthracene	3300	U J
191-24-2	Benzo(g,h,i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

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July 93

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Laboratory Name ecology and environment, inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-I11-52

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-9-87

Date Analyzed 2-23-87

Conc/Dil Factor 25

Percent Moisture (decanted) 17

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	2000 U
319-85-7	Beta-BHC	2000 U
319-86-8	Delta-BHC	2000 U
58-89-9	Gamma-BHC (Lindane)	2000 U
76-44-8	Heptachlor	2000 U
309-00-2	Aldrin	2000 U
1024-57-3	Heptachlor Epoxide	2000 U
959-98-8	Endosulfan I	2000 U
60-57-1	Dieldrin	4000 U
72-55-9	4,4'-DDE	4000 U
72-20-8	Endrin	4000 U
33213-65-9	Endosulfan II	4000 U
72-54-8	4,4'-DDD	4000 U
1031-07-8	Endosulfan Sulfate	4000 U
50-29-3	4,4'-DDT	4000 U
72-43-5	Methoxychlor	20,000 U
53494-70-5	Endrin Ketone	4000 U
57-74-9	Chlordane	20,000 U
8001-35-2	Toxaphene	40,000 U
12674-11-2	Aroclor-1016	20,000 U
11104-28-2	Aroclor-1221	20,000 U
11141-16-5	Aroclor-1232	20,000 U
53469-21-9	Aroclor-1242	20,000 U
12672-29-6	Aroclor-1248	20,000 U
11097-69-1	Aroclor-1254	40,000 U
11096-82-5	Aroclor-1260	40,000 U

V_t = 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 3 V_t 4,000 V_t 4

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Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-III-52

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	~~37 BJ~~ 4
2.		Unknown alcohol	VOA	15.5	~~95 J~~ 4
3.		Dichlorobenzene isomers	VOA	39.8	38000 J
4.					
5.		Tetrachlorobenzene Isomer	BNA	15.39	120,000 J
6.		Tetrachlorobenzene Isomer	1	16.31	590,000 J
7	608935	Pentachlorobenzene	1	18.59	270,000 J
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ATTACHMENT A

FORMS I

CASE NUMBERS U-4835, U-4846, U-4863, AND U-4872

SUBSURFACE SOIL ORGANICS

CASE NARRATIVE

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ecology and environment, inc.
ANALYTICAL SERVICES CENTER, P.O. BOX D, BUFFALO, NEW YORK 14225, TEL. 716-631-0360
International Specialists in the Environment

March 24, 1987

Job # U-4835; U-4846; U-4863; U-4872

Sample #				
	DC-G3-33	DC-I1-38	DC-I6-43	DC-I9-48
	DC-GB-34	DC-I2-39	DC-IB-44	DC-I9-49
	DC-G4-35	DC-I3-40	DC-I7-45	DC-I10-50
	DC-G4-36	DC-I5-41	DC-I7-46	DC-I11-51
	DC-G5-37	DC-I5-42	DC-I7-47	DC-I11-52

CASE NARRATIVE

Enclosed are the organic analytical results for samples received on January 29, January 31, February 5, and February 6, 1987. All samples were received in good condition.

All results are reported on a wet weight (as received) basis. Percent moisture values have been provided on Form I.

All samples for semi-volatile and Pesticide/PCB analyses were extracted utilizing 3 grams. The following samples will be re-extracted at 30 grams with results provided at a later date:

DC-GB-34	DC-IB-44	DC-I7-47
DC-G4-35	DC-I7-45	
DC-G4-36	DC-I7-46	

Due to the level of contaminants in the Pesticide/PCB fractions, extracts required dilutions preventing the determination of surrogate recoveries.

As agreed upon in a November 24, 1986 conversation with Ron Turpin of IEPA, PCB second column confirmation was not performed on all samples. A few samples were selected and the PCB's confirmed. The initial analyses were deemed sufficiently similar to justify the minimal number of second column confirmation.

Compounds are reported as UNKNOWN if, in the judgment of our mass spectral specialist, no valid tentative identification can be made.

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Results flagged "E" indicate an approximate concentration. The amount detected in the analysis exceeds the calibrated range. True value are possibly underestimated.

Calibration factors for Endrin, 4,4'-DDD, and Endosulfan Sulfate in the 2/12 calibration check (Runs 35 and 36) exceeded 15%. Since these compounds were not detected in samples associated with the standards, we feel data quality has not been affected.

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

Andrew P. Clifton/

Andrew P. Clifton
Director of Analytical Services

APC/lo
enclosure

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recycling and print info

ecology and environment, inc.
196 BUGG ROAD, P.O. BOX D, BUFFALO, N.Y., 14226, TEL. 716-632-4491
International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project No.:	Project Name:	Project Manager:
IL3140	DEAD CREEK	Mike Miller
Samplers: (Signatures)		**Field Team Leader:**
Ronald E Bish		Dan Sewall

STATION NUMBER	DATE	TIME	SAMPLE TYPE: COMP	SAMPLE TYPE: GRAB	SAMPLE TYPE: AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	2-120 ml VOA	1-8oz. Metals & Cyanide	1-8oz. ASL Organics			REMARKS	
DC-G3 33	1-24-87	1130	X			unknown / OVA Screen = 500 ppm	BORING G-3 (10'-20')	4	2	1	1			Slight organic odor	C732
DC-G8-34	1-26-87	1600	X			unknown	SOIL BLANK	4	2	1	1			BLANK	C733
DC-G4-35	1-26-87	1630	X			unknown / OVA Screen = 62 ppm	BORING G-4 (5'-20')	4	2	1	1				C734
DC-G4-36	1-26-87	1635	X			unknown / OVA Screen = 62 ppm	BORING G-4 (5'-20')	4	2	1	1			Duplicate of DC-G4-35	C735
DC-G5-37	1-27-87	1100	X			unknown / OVA Screen > 1000 ppm	BORING G-5 (5'-15')	4	2	1	1			Strong organic odor	C736
DC-I1-38	1-27-87	1600	X			unknown / OVA screen = 300 ppm	BORING I-1 (0'-10')	4	2	1	1				C737
DC-I2-39	1-28-87	1450	X			unknown / OVA screen > 1000 ppm	BORING I-2 (5'-25')	4	2	1	1			strong organic odor	C738

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via:
Ronald E Bish	1-28-87 1730	FEDERAL EXPRESS				FEDERAL EXPRESS
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	
						BL/Airbill Number: 561-464-890
Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Date: 1/28/87
Fed Express	1-29-87/0930	Beth A. Hinz C				

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

*See CONCENTRATION RANGE on back of form.

214055

ecology and environment, inc.
196 BUGG ROAD, P.O. BOX D, BUFFALO, N.Y., 14226, TEL. 716-632-4491
International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.:	Project Name:	Project Manager:
IL3140	DEAD CREEK	Mike Miller

Samplers: (Signatures)	Field Team Leader:
Ronald E Bork	Dan Sewell

STATION NUMBER	DATE	TIME	SAMPLE TYPE: COMP	GRAB	AIR	SAMPLE INFORMATION: EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	2-120 ml VOA	1-8oz. Hist Chemicals	1-8oz Metals+Cyanide	REMARKS
DC-I3-40	1-29-87	1000	X			unknown / OVA screen > 1000 ppm	Boring I-3 (5'-15')	4	2	1	1	Strong solvent odor
DC-I5-41	1-30-87	0930	X			unknown / OVA screen > 1000 ppm	Boring I-5 (5'-27½')	4	2	1	1	Strong organic odor
DC-I5-42	1-30-87	1030	X			unknown / OVA screen > 1000 ppm	Boring I-5 (28½-37½)	4	2	1	1	

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)
Ronald E Bork	1-30-87 1436	FEDERAL 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	1-31-87 0910				

Ship Via: FEDERAL EXPRESS

BL/Airbill Number: # 561 464 901

Date: 1/30/87

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

Project No.:	Project Name:	Project Manager:
IL3140	DEAD CREEK	MIKE MILLER
Samplers: (Signatures)		Field Team Leader:
		DAN SEWALL

STATION NUMBER	DATE	TIME	SAMPLE TYPE: COMP	GRAB	AIR	SAMPLE INFORMATION: EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	2-120 ml VOAs	1-8oz HSL ORGANICS	1-8oz Metals + CN-	REMARKS
DC-I6-43	2/2/87	1300	✓			UNKNOWN OVA Screen >1000 ppm	Boring I-6 10'-25'	4	2	1	1	STRONG Solvent Odor
DC-IB-44	2/2/87	0800	✓			UNKNOWN	Soil BLANK	4	2	1	1	BLANK
DC-I7-45	2/2/87	1130	✓			Unknown OVA Screen 32 ppm	Boring I-7 (3½-12½)	4	2	1	1	
DC-I7-46	2/2/87	1130	✓			UNKNOWN OVA Screen 13 ppm	Boring I-7 (13½-22½)	4	2	1	1	
DC-I7-47	2/2/87	1130	✓			Unknown OVA Screen 13 ppm	Boring I-7 (13½-22½)	4	2	1	1	Duplicate of DC-I7-46
DC-I9-48	2/2/87	1130	✓			Unknown OVA Screen >1000 ppm	Boring I-9 (6½'-22½')	4	2	1	1	Strong Solvent odor
DC-I9-49	2/2/87	1130	✓			UNKNOWN OVA Screen >1000 ppm	Boring I-9 (23½'-30')	4	2	1	1	Strong Solvent odor
DC-I10-50	2/2/87	1430	✓			UNKNOWN OVA Screen >1000 ppm	Boring I-10 (15'-30')	4	2	1	1	STRONG ORGANIC ODOR

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via:
David F. Sewall	2-4-87/1730	FEDERAL EXPRESS				FEDERAL EXPRESS
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	BL/Airbill Number: 22351 99044
Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Date: 2/4/87
Fed Express	2-5-87/0730					

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

*See CONCENTRATION RANGE on back of form.

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CHAIN-OF-CUSTODY RECORD

Project No.	Project Name	Project Manager
IL 3140	DEAD CREEK	MIKE MILLER

Samplers (Signatures): Daniel F. Sewall, Peter Allen

Field Team Leader: DAN SEWALL

STATION NUMBER	DATE	TIME	SAMPLE TYPE: COMP	SAMPLE TYPE: GRAB	SAMPLE TYPE: AIR	SAMPLE INFORMATION: EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	2-120 ml VOAs	1-8 oz HSL Organics	1-8oz Metals + CN	REMARKS
DC-I4-S1	2/5/87	1330	✓			UNKNOWN OVA Screen >1000 ppm	Boring I-11 6'-20'	4	2	1	1	Strong Solvent Odor
DC-I4-S2	2/5/87	1330	✓			UNKNOWN OVA SCREEN >1000 ppm	Boring I-11 26'-38½'	4	2	1	1	Strong Solvent Odor

Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)	Ship Via
Daniel F. Sewall	2/5/87-1630	FEDERAL EXPRESS				FEDERAL EXPRESS
Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)	BL/Airbill Number
						56146491 2
Relinquished By (Signature)	Date/Time	Received For Laboratory By (Signature)	Relinquished By (Signature)	Date/Time	Received For Laboratory By (Signature)	Date
	2/5/87					2/5/87

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

*See CONCENTRATION RANGE on back of form.

6

SURROGATE PERCENT RECOVERY SUMMARY

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SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. U-4835, 4846, 4863, 4872 Contract Laboratory Ecology & Environment Inc Contract No. IL-3140

Low X Medium

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (81-117)	BFB (74-121)	1,2 DICHLOROETHANE-D4 (70-121)	NITROBENZENE-D5 (23-120)	2-FLUOROBIPHENYL (30-115)	TERPHENYL-D14 (18-137)			PHENOL-D5 (24-113)	2-FLUOROPHENOL (25-121)	2,4,6 TRIBROMOPHENOL (19-122)	DIBUTYLCHLORENDATE** (20-150)
DC-G3-33	104	97	102	67	74	65			67	88	62	INF
DC-G8-34	112	97	109	59	74	68			56	62	31	104
DC-G4-35	104	95	102	67	75	101			65	104	51	113
DC-G4-36	108	102	112	54	60	120			59	58	48	120
DC-I8-44	115	97	121	89	94	115			91	90	47	115
DC-I7-45	98	97	104	90	95	101			88	101	64	149
DC-I7-46	101	95	120	70	74	79			78	61	49	135
DC-I7-47	111	115	107	85	90	107			92	97	48	132
DC-I11-52	95	82	83	105	116*	91			94	116	66	
C6656	113	100	109									
C6740	99	97	101									
C6759	105	103	109									
C6894	93	87	82									
DC-I7-45MS	112	95	103									
DC-I7-45MSD	105	87	103									
DC-G5-37				101	135*	125			98	112	41	
DC-I1-38				111	140*	74			111	90	78	
DC-I3-40				71	65	56			63	54	15*	
DC-I5-42				93	112	120			96	94	63	
DC-I9-49				79	86	83			54	107	58	
DC-I10-50				84	102	106			75	97	48	

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 45 ; outside of QC limits

Semi-Volatiles: 4 out of 90 ; outside of QC limits

Pesticides: 0 out of 8 ; outside of QC limits

7/85

Comments: INF = INTERFERENCE

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SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. U4835, 4846, 4863, 4872 Contract Laboratory ECOLOGY & ENVIRONMENT INC. Contract No. IL-314

Low X Medium ____

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (81-117)	BFB (74-121)	1,2 DICHLOROETHANE-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-G4-35MS				82	84	80			75	113	68	103
DC-G4-35MSD				78	84	92			77	131*	63	110
DC-I7-47MS				99	94	98			95	95	78	123
DC-I7-47MSD				70	72	104			66	72	70	118
D1707				76	82	84			63	99	54	
D1714				75	63	64			62	61	24	
D1794				87	85	112			79	92	55	
D1799				86	79	101			79	74	53	
BLANK 2/2												130
BLANK 2/3												107
BLANK 2/5												122
BLANK 2/9												107

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: — out of — ; outside of QC limits

Semi-Volatiles: 1 out of 32 ; outside of QC limits

Pesticides: 0 out of 8 ; outside of QC limits

7/85

Comments: ____

FORM II

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SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. 4-4835, 4846, 4863, 4872 Contract Laboratory Ecology & Environment, Inc. Contract No. IL-3140

Low _____ Medium X

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (81-117)	BFB (74-121)	1,2 DICHLOROETHANE-D4 (70-121)	NITROBENZENE-D5 (23-120)	2-FLUOROBIPHENYL (30-115)	TERPHENYL-D14 (18-137)			PHENOL-D5 (24-113)	2-FLUOROPHENOL (25-121)	2,4,6 TRIBROMOPHENOL (19-122)	DIBUTYLCHLORENDATE ** (20-150)
DC-G3-33	105	109	105									
DC-G5-37	91	93	91									DL
DC-I1-38	94	99	90									DL
DC-I2-39	101	105	105	102	126*	97			88	93	51	DL
DC-I3-40	103	105	100									DL
DC-I5-41	98	94	98	130*	197*	151*			118*	120	27	DL
DC-I5-42	99	102	101									DL
DC-I6-43	92	92	84	98	104	80			75	61	77	DL
DC-I9-48	92	90	83	DL	DL	DL			DL	DL	DL	DL
DC-I9-49	93	93	87									DL
DC-I10-50	92	96	100									DL
DC-I11-51	99	99	89	83	97	69			78	81	39	DL
DC-I14-52												DL
C6688	83	81	84									
C6701	105	101	105									
C6729	106	103	101									
C6776	93	90	101									
C6795	90	106	101									
DC-I9-49MS	92	89	81									
DC-I9-49MSD	96	93	83									

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 57 ; outside of QC limits

Semi-Volatiles: 4 out of 30 ; outside of QC limits

Pesticides: 0 out of 12 ; outside of QC limits

7/85

Comments: DL- DILUTED OUT.

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MS/MSD SUMMARY

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SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. U-4835, 4846, 4863, 4872 Contractor Ecology & Environment Inc. Contract No. IL-3140

Low Level _____ 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. DC-IL-45	1,1-Dichloroethene	60	0	68	113	75	125	10	22	59-172
	Trichloroethene	↓	0	58	97	56	93	4	24	62-137
	Chlorobenzene		7.8	59	85	64	94	8	21	60-133
	Toluene		0	53	88	57	95	7	21	59-139
	Benzene		0	64	107	62	103	3	21	66-142
B/N SMO SAMPLE NO. DC-G4-35	1,2,4-Trichlorobenzene	33000	0	21800	66	22800	69	4	23	38-107
	Acenaphthene	↓	0	24700	75	27700	84	11	19	31-137
	2,4 Dinitrotoluene		0	49800	151*	50700	154*	2	47	28-89
	Pyrene		0	19400	59	26900	81	32	36	35-142
	N-Nitrosodi-n-Propylamine		0	22100	67	24500	74	10	38	41-126
	1,4-Dichlorobenzene		0	21000	64	20900	63	1	27	28-104
ACID SMO SAMPLE NO. DC-G4-35	Pentachlorophenol	66000	0	41500	63	50300	76	19	47	17-109
	Phenol	↓	0	40400	61	44500	67	10	35	26-90
	2-Chlorophenol		0	41800	63	47600	72	13	60	25-102
	4-Chloro-3-Methylphenol		0	30600	46	35700	54	15	33	26-103
	4-Nitrophenol		0	30400	46	30400	46	0	50	11-114
PEST SMO SAMPLE NO. DC-G4-35	Lindane	267	0	248	93	253	95	2	50	46-127
	Heptachlor	267	0	276	103	313	117	13	31	35-130
	Aldrin	267	0	263	96	268	100	5	43	34-132
	Dieldrin	667	0	591	89	619	93	5	38	31-134
	Endrin	667	0	630	94	680	102	8	45	42-139
	4,4'-DDT	667	0	631	95	685	103	8	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 ; outside QC limits
B/N 0 out of 6 ; outside QC limits
ACID 0 out of 5 ; outside QC limits
PEST 0 out of 6 ; outside QC limits

RECOVERY: VOAs 0 out of 10 ; outside QC limits
B/N 2 out of 12 ; outside QC limits
ACID 0 out of 10 ; outside QC limits
PEST 0 out of 12 ; outside QC limits

Comments: _____

FORM III

7/85

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SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 4-4835, 4846, 4863, 4872 Contractor ECOLOGY / ENVIRONMENT INC Contract No. IL-3140

Low Level _____ 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. DC-I9-49	1,1-Dicholoroethene	2800	0	3100	111	3000	107	3	22	59-172
	Trichloroethene		0	2600	93	2400	86	8	24	62-137
	Chlorobenzene		760	3700	105	3600	101	3	21	60-133
	Toluene		1100	4200	111	4300	114	2	21	59-139
	Benzene		875	2900	100	2800	97	4	21	66-142
B/N SMO SAMPLE NO. DC-I7-47	1,2,4-Trichlorobenzene	33000	0	26300	80	17900	54	38*	23	38-107
	Acenaphthene		0	28100	85	24400	74	14	19	31-137
	2,4 Dinitrotoluene		0	34100	103*	43400	131*	24	47	28-89
	Pyrene		0	25700	78	30500	92	17	36	35-142
	N-Nitrosodi-n-Propylamine		0	32000	97	17800	54	57*	38	41-126
	1,4-Dichlorobenzene		0	24000	73	14700	44	48*	27	28-104
ACID SMO SAMPLE NO. DC-I7-47	Pentachlorophenol	66000	0	53500	81	41600	63	25	47	17-109
	Phenol		0	53700	81	36500	55	38*	35	26-90
	2-Chlorophenol		0	54100	82	38000	58	35	50	25-102
	4-Chloro-3-Methylphenol		0	39700	60	36200	55	9	33	26-103
	4-Nitrophenol		0	45300	69	30500	46	39	50	11-114
PEST SMO SAMPLE NO. DC-I7-47	Lindane	267	0	229	86	225	84	2	50	46-127
	Heptachlor	267	0	306	115	274	103	11	31	35-130
	Aldrin	267	0	258	97	241	90	7	43	34-132
	Dieldrin	667	0	618	93	617	93	0	38	31-134
	Endrin	667	0	712	107	699	104	3	45	42-139
	4,4'-DDT	667	0	710	106	687	103	3	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 ; outside QC limits
B/N 3 out of 6 ; outside QC limits
ACID 1 out of 5 ; outside QC limits
PEST 0 out of 6 ; outside QC limits

RECOVERY: VOAs 0 out of 10 ; outside QC limits
B/N 2 out of 12 ; outside QC limits
ACID 0 out of 10 ; outside QC limits
PEST 0 out of 12 ; outside QC limits

Comments: PEAK HEIGHT USED TO CALCULATE HEPTACHLOR

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STANDARDS DATA

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INITIAL CALIBRATION DATA

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Case No: U-4835, 4846, 4863, [illegible] 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				
Compound		RF 100.00	RF 250.00	RF 500.00	RF 750.00	RF 1000.00	$\overline{RF}$	% 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~~	~~2.77581~~	~~2.99858~~	~~15.920~~		(Conc=250.0,250.0,250.0
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	.68308	.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~~	~~1.35288~~	~~1.45138~~	~~1.33957~~	~~1.31677~~	~~1.36277~~	~~4.893~~		(Conc=250.0,250.0,250.0,
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	*	

RF - 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 (**)

Case No: U-4835,4846,4863,4872 Instrument ID: HP-5995C

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

Contract No: II-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
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		

RF - 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 (**)

recycled paper ecology and environment

Initial Calibration Data
HSL Compounds

Case No: U-4835,4846,4863,4872 Instrument ID: HP-5995C

Contractor: E & E, INC. Calibration Date: ~~01/28/87~~ 1-27-87

Contract No: IL-3140

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

Laboratory ID:		>C6596	>C6597	>C6598	>C6601	>C6600					
Compound		RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RF}$	% RSD	CCC	SPCC	
CHLOROMETHANE	50	2.12447	2.61562	2.64220	2.23683	2.53305	2.43043	9.666		**	
BROMOMETHANE	94	1.37360	.85090	1.49079	.78242	1.03971	1.10748	28.333			
VINYL CHLORIDE	62	1.26378	1.91741	1.62120	1.07270	1.02484	1.37999	27.619	*		
CHLOROETHANE	64	.71412	1.06725	.91401	.88431	.99939	.91582	14.608			
METHYLENE CHLORIDE	84	2.02390	1.82978	1.87682	1.82862	1.84614	1.88105	4.369			
ACETONE	43	.59984	.54514	.58876	.48302	.59266	.56188	8.724			
~~TRICHLOROFLUOROMETHANE~~	~~101~~	~~3.73755~~	~~3.75741~~	~~3.75944~~	~~3.53603~~	~~3.79628~~	~~3.74934~~	~~3.067~~			
CARBON DISULFIDE	76	5.41111	5.19185	5.31658	5.22865	5.51722	5.33308	2.500			
1,1-DICHLOROETHENE	61	3.52165	3.34397	3.38225	3.31844	3.46913	3.40709	2.518	*		
1,1-DICHLOROETHANE	63	3.87093	3.60100	3.72198	3.74062	3.77956	3.74282	2.615		**	
TRANS-1,2-DICHLOROETHENE	96	1.75784	1.64597	1.69829	1.66798	1.72785	1.69959	2.642			
CHLOROFORM	83	2.62984	2.50538	2.52604	2.50948	2.49531	2.53321	2.177	*		
1,2-DICHLOROETHANE	62	3.20370	3.18262	3.20115	3.20444	3.12406	3.18319	1.026			
~~1,2-DICHLOROETHANE-D4(SURR)~~	~~65~~	~~2.50354~~	~~2.56675~~	~~3.35705~~	~~2.77175~~	~~2.58937~~	~~2.69697~~	~~8.270~~			(Conc=50.0,50.0,50.0,50.0,50.0)
2-BUTANONE	72	.04995	.04035	.03750	.03895	.03268	.03989	15.859			
1,1,1-TRICHLOROETHANE	97	.64838	.63406	.61422	.64709	.64371	.63749	2.222			
CARBON TETRACHLORIDE	117	.69068	.66160	.64699	.67838	.67099	.66973	2.474			
VINYL ACETATE	43	.73237	.73455	.65905	.82546	.59143	.70857	12.440			
BROMODICHLOROMETHANE	83	.65377	.65186	.63465	.68810	.65161	.65600	2.979			
1,2-DICHLOROPROPANE	63	.44836	.43485	.42752	.46544	.44045	.44332	3.277	*		
TRANS-1,3-DICHLOROPROPENE	75	.77151	.78890	.76792	.84197	.79552	.79316	3.736			
TRICHLOROETHENE	130	.44261	.41135	.40221	.41760	.41742	.41824	3.586			
DIBROMOCHLOROMETHANE	129	.48132	.49985	.48904	.52508	.48709	.49648	3.493			
1,1,2-TRICHLOROETHANE	97	.32534	.32254	.30479	.32191	.29501	.31392	4.241			
BENZENE	78	1.25996	1.20022	1.17115	1.20860	1.18181	1.20435	2.858			
CIS-1,3-DICHLOROPROPENE	75	.42302	.42904	.41924	.45784	.42248	.43032	3.668			
2-CHLOROETHYLVINYLETHER	63	.16774	.16872	.15971	.16061	.13746	.15885	7.950			
BROMOFORM	173	.34305	.37308	.37652	.43733	.39129	.38425	8.968		**	
4-METHYL-2-PENTANONE	43	.39722	.44457	.43898	.49417	.44329	.44365	7.752			
2-HEXANONE	43	.29447	.32074	.32552	.35942	.32311	.32465	7.121			
TETRACHLOROETHENE	164	.52835	.47793	.46854	.49696	.48933	.49222	4.656			
1,1,2,2-TETRACHLOROETHANE	83	.49533	.54849	.53286	.58165	.52036	.53574	6.011		**	
~~TOLUENE-D8 (SURR)~~	~~98~~	~~1.42645~~	~~1.47014~~	~~1.50052~~	~~1.36788~~	~~1.28179~~	~~1.41336~~	~~6.281~~			(Conc=50.0,50.0,50.0,50.0,50.0
TOLUENE	92	1.05082	.96957	.93706	.97526	.95948	.97844	4.396	*		
CHLOROBENZENE	112	1.24962	1.18677	1.15142	1.21144	1.17467	1.19479	3.141		**	
ETHYLBENZENE	91	2.19363	2.05718	1.98682	2.05409	2.05733	2.06981	3.646	*		

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 (**)

recycled paper ecology and environment

Initial Calibration Data
HSL Compounds

Case No: U-4835, 4846, 4823, 4872 Instrument ID: HP-5995C

Contractor: E & E, INC. Calibration Date: ~~01/28/87~~ 1-27-87

Contract No: IL-3140

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

Laboratory ID:		>C6596	>C6597	>C6598	>C6601	>C6600				
Compound		RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RF}$	% RSD	CCC	SPCC
~~4-BROMOFLUOROBENZENE(SURR)~~	~~99~~	~~.72988~~	~~.71429~~	~~.80089~~	~~.77269~~	~~.85746~~	~~.77214~~	~~8.091~~		
STYRENE	104	1.28684	1.24583	1.20802	1.24619	1.22491	1.24236	2.377		
TOTAL XYLENES	91	1.88691	1.75995	1.70230	1.72756	1.73928	1.76320	4.096		

(Conc=50.0,50.0,50.0,50.0,50.0)

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 (**)

recycled paper

HSL Compounds

Case No: V-4835,4846,4863,4872 Instrument ID: HP-5970D

Contractor: E & E, INC. Calibration Date: 06/20/86 6-19-86

Contract No: IL-3140

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

Compound		Laboratory ID:	>D0036 RF 20.00	>D0037 RF 50.00	>D0038 RF 80.00	>D0039 RF 120.00	>D0040 RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
PHENOL-D5	(SURR)	99	1.45905	1.41913	1.41915	1.33738	1.36821	1.40059	3.415		
PENTAFLUOROPHENOL		184	-	-	-	-	-	-	-		
2-FLUOROPHENOL	(SURR)	112	.92276	.93267	.97441	.89171	.88493	.92130	3.895		
PHENOL		94	1.27336	1.40484	1.36645	1.32617	1.33444	1.34105	3.646	*	
2-METHYL PHENOL		108	.94183	1.07660	1.05407	1.08273	1.00266	1.03158	5.743		
2-CHLOROPHENOL		128	1.07483	1.16854	1.16604	1.17284	1.10948	1.13833	3.865		
4-METHYL PHENOL		108	.96587	1.08143	1.13309	1.12036	1.07834	1.07582	6.129		
2-NITROPHENOL		139	.17264	.20916	.21365	.21386	.20457	.20262	8.462	*	
2,4-DIMETHYLPHENOL		122	.26758	.29889	.30065	.29911	.27965	.28916	5.145		
BENZOIC ACID		105	-	.15595	.20240	.22265	.23506	.20401	17.036		
2,4-DICHLOROPHENOL		162	.28939	.33168	.32894	.32204	.30635	.31568	5.601	*	
4-CHLORO-3-METHYLPHENOL		107	.29459	.33844	.35108	.35646	.33826	.33577	7.252	*	
2,4,6-TRICHLOROPHENOL		196	.42290	.47918	.46473	.45782	.45268	.45546	4.555	*	
2,4,5-TRICHLOROPHENOL		196	-	.49037	.49512	.49589	.47584	.48930	1.981		
2,4,6-TRIBROMOPHENOL	(SURR)	330	.29588	.32928	.34498	.31993	.33911	.32584	5.917		
2,4-DINITROPHENOL		184	-	.13902	.16374	.19864	.18943	.17071	14.351		**
4-NITROPHENOL		139	-	.28898	.31865	.33788	.34792	.32314	7.977		**
4,6-DINITRO-2-METHYLPHENOL		198	-	.10474	.11556	.12988	.13233	.12041	10.560		
PENTACHLOROPHENOL		266	-	.17917	.18989	.19137	.19048	.18773	3.854	*	

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 (**)

recycled paper
recycled paper and environment

Initial Calibration Data
HSL Compounds

Case No: U-4835, 4846, 4863, 4872 Instrument ID: HP-5970D

Contractor: E & E, INC. Calibration Date: 10/17/86

Contract No: IL-3140

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

Compound		Laboratory ID: >00965 RF 20.00	>00966 RF 50.00	>00967 RF 80.00	>00968 RF 120.00	>00969 RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
ANILINE	93	1.44667	1.40722	1.59651	1.68331	1.56844	1.54043	7.321		
BIS(-2-CHLOROETHYL)ETHER	93	1.24523	1.09828	1.23677	1.16323	1.17789	1.18428	5.058		
1,3-DICHLOROBENZENE	146	1.57666	1.39985	1.51213	1.50440	1.38815	1.47624	5.436		
1,4-DICHLOROBENZENE	146	1.61777	1.38930	1.48504	1.45121	1.40035	1.46974	6.256	*	
BENZYL ALCOHOL	79	1.01010	1.00872	1.21875	1.21807	1.21800	1.13473	10.082		
1,2-DICHLOROBENZENE	146	1.63938	1.36507	1.53750	1.47276	1.44493	1.49193	6.908		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68736	2.47650	2.77020	2.69646	2.77634	2.68137	4.535		
N-NITROSO-DI-N-PROPYLAMINE	70	1.12218	1.08234	1.21987	1.19548	1.28596	1.18117	6.816		**
HEXACHLOROETHANE	117	.74389	.66875	.73696	.70875	.68371	.70841	4.605		
NITROBENZENE-D5 (SURR)	82	.35564	.33927	.38027	.40789	.38878	.37437	7.253		
NITROBENZENE	77	.39592	.35266	.39754	.39299	.35937	.37969	5.744		
ISOPHORONE	82	.79161	.70915	.78785	.75762	.73425	.75594	4.631		
BIS(-2-CHLOROETHOXY)METHANE	93	.40059	.38692	.42170	.42353	.43054	.41266	4.415		
1,2,4-TRICHLOROBENZENE	180	.41095	.34484	.39226	.39897	.37509	.38442	6.671		
NAPHTHALENE	128	1.07749	.91373	.97630	.97339	.89249	.96668	7.446		
4-CHLOROANILINE	127	.33481	.32798	.42540	.44310	.35932	.37796	14.044		
HEXACHLOROBUTADIENE	225	.29443	.24392	.26045	.25805	.23955	.25908	8.420	*	
2-METHYLNAPHTHALENE	142	.67945	.60785	.66493	.68192	.59605	.64484	6.646		
HEXACHLOROCYCLOPENTADIENE	237	.56264	.50376	.58602	.60451	.58378	.56814	6.952		**
2-FLUOROBIPHENYL (SURR)	172	1.70967	1.49275	1.58507	1.65769	1.62088	1.61321	5.059		
2-CHLORONAPHTHALENE	162	1.47542	1.23459	1.36421	1.37148	1.41834	1.37281	6.493		
2-NITROANILINE	65	.43757	.43867	.51133	.51859	.47618	.47645	8.082		*
DIMETHYL PHTHALATE	163	1.83005	1.68051	1.71649	1.69378	1.67688	1.71954	3.704		
4-NITROANILINE	138	.23949	.23631	.27642	.27327	.26589	.25828	7.365		
DIBENZOFURAN	168	2.04488	1.83571	1.94866	1.91782	1.79656	1.90873	5.115		
ACENAPHTHYLENE	152	2.24178	1.99625	2.09922	2.09094	2.07505	2.10865	4.229		
FLUORENE	166	1.55490	1.33626	1.34395	1.28944	1.20896	1.34670	9.518		
3-NITROANILINE	138	-	.04883	.11452	.11792	.08856	.09246	34.506		
ACENAPHTHENE	153	1.52777	1.33286	1.39452	1.37214	1.26556	1.37857	7.016	*	
2,4-DINITROTOLUENE	165	.35967	.32328	.34179	.32754	.30831	.33212	5.867		
2,6-DINITROTOLUENE	165	.38599	.35678	.37953	.36730	.36597	.37112	3.126		
DIETHYLPHTHALATE	149	1.88063	1.62618	1.53368	1.45917	1.43355	1.58664	11.393		
4-CHLOROPHENYL-PHENYLETHER	204	.78893	.66962	.78193	.69165	.66856	.70414	7.032		
N-NITROSODIPHENYLAMINE	169	.51567	.44734	.53097	.55665	.53802	.51771	8.111	*	
4-BROMOPHENYL-PHENYL ETHER	248	.31338	.30437	.33954	.35732	.35891	.33482	7.486		
HEXACHLOROBENZENE	284	.46739	.39483	.43794	.45768	.43251	.43791	6.471		

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

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

recycled paper
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Initial Calibration Data
HSL Compounds

Case No: U-4835, 4846, 4863, 4872 Instrument ID: HP-5970D

Contractor: E & E, INC. Calibration Date: 10/17/86

Contract No: IL-3140

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

Laboratory ID:		>00965	>00966	>00967	>00968	>00969				
Compound		RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
PHENANTHRENE	178	1.06803	.96082	1.02609	1.02304	.99723	1.01505	3.396		
ANTHRACENE	178	1.03628	.92880	1.01124	1.03132	.98608	.99874	4.387		
DI-N-BUTYLPHTHALATE	149	1.16959	.91435	.95835	.92928	.88461	.97124	11.741		
FLUORANTHENE	202	.74009	.58463	.63445	.60617	.54197	.62146	11.974	*	
BENZIDINE		-	.65247	-	-	-	.65247	-		
PYRENE	202	2.67187	2.75714	2.57294	2.60959	2.82056	2.68642	3.814		
TERPHENYL-D14 (SURR)	244	1.42937	1.47818	1.43384	1.50928	1.55799	1.48172	3.638		
BUTYLBENZYLPHTHALATE	149	.62104	.62940	.71297	.68630	.76414	.68277	8.728		
3,3'DICHLOROBENZIDINE	252	.08557	.07185	.16233	.19359	.14980	.13263	39.182		
BENZO(A)ANTHRACENE	228	.79361	.77498	.97287	1.00319	1.03158	.91524	13.276		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.78298	.70108	.85062	.83159	.91270	.81579	9.708		
CHRYSENE	228	1.34326	1.12613	1.17809	1.12679	1.18262	1.19137	7.479		
DI-N-OCTYL PHTHALATE	149	1.37470	1.35508	1.83002	1.65988	1.98983	1.64173	16.968	*	
BENZO(B)FLUORANTHENE	252	.92969	.97296	1.14091	1.25384	1.37734	1.13479	16.551		
BENZO(K)FLUORANTHENE	252	1.68215	1.48612	1.68384	1.46335	1.43849	1.55063	7.844		
BENZO(A)PYRENE	252	1.05697	.98485	1.15488	1.16496	1.18217	1.10877	7.641	*	
INDENO(1,2,3-CD)PYRENE	276	.63778	.93612	1.09738	1.40393	.87647	.99032	28.681		
DIBENZ(A,H)ANTHRACENE	278	.73819	.64673	.79793	.98482	.89827	.81159	16.475		
BENZO(G,H,I)PERYLENE	276	1.11119	1.00417	1.06321	1.25211	1.11363	1.10886	8.264		

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

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

recycled paper
recycled paper
ecology and environment
ecology and environment

CONTINUING CALIBRATION DATA

recycled paper

ecology and environment

481095

Continuing Calibration Check
HSL Compounds

Case No: V-4835, 4846, 4863, 4872 Calibration Date: 02/02/87

Contractor: E & EM INC. Time: 10:41

Contract No: II-3140 Laboratory ID: >C6655

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	2.54496	10.51		**
BROMOMETHANE	94	1.43187	1.76896	23.54		
VINYL CHLORIDE	62	1.68438	1.98217	23.55	*	
CHLOROETHANE	64	.69191	1.03659	49.82		
METHYLENE CHLORIDE	84	1.38813	1.56648	13.58		
ACETONE	43	1.61869	1.65062	1.97		
TRICHLOROFLUOROMETHANE	101	3.13988	2.69263	14.22		
CARBON DISULFIDE	76	3.82998	3.70168	3.35		
1,1-DICHLOROETHENE	61	3.02818	2.76279	8.76	*	
1,1-DICHLOROETHANE	63	3.36439	3.55855	5.53		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.57159	.88		
CHLOROFORM	83	3.56796	3.71586	4.12	*	
1,2-DICHLOROETHANE	62	3.55688	3.39272	4.61		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.70588	9.79		
2-BUTANONE	72	.06798	.09519	48.82		
1,1,1-TRICHLOROETHANE	97	.59787	.56968	4.72		
CARBON TETRACHLORIDE	117	.59843	.58188	1.46		
VINYL ACETATE	43	1.19823	1.84455	12.24		
BROMODICHLOROMETHANE	83	.65552	.63348	3.37		
1,2-DICHLOROPROPANE	63	.46968	.45989	2.24	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.79589	13.14		
TRICHLOROETHENE	130	.48336	.39871	3.13		
DIBROMOCHLOROMETHANE	129	.55837	.50732	9.14		
1,1,2-TRICHLOROETHANE	97	.36284	.38578	6.32		
BENZENE	78	1.16688	1.17842	.38		
CIS-1,3-DICHLOROPROPENE	75	.52628	.45481	13.73		
2-CHLOROETHYLVINYLETHER	63	.33881	.22831	33.48		
BROMOFORM	173	.62246	.46283	25.64		**
4-METHYL-2-PENTANONE	43	1.12348	.92572	17.68		
2-HEXANONE	43	.92838	.75123	19.08		
TETRACHLOROETHENE	164	.47824	.44765	4.88		
1,1,2,2-TETRACHLOROETHANE	83	.88885	.84735	5.81		**
TOLUENE-D8 (SURR)	98	1.36277	1.35258	.75		
TOLUENE	92	.89572	1.88181	11.84	*	
CHLOROBENZENE	112	1.18482	1.17872	6.77		**
ETHYLBENZENE	91	1.85535	2.86797	11.46	*	

RF - Response Factor from daily standard file at 250.88 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-4835, 4846, 4863, 4872 Calibration Date: 02/02/87

Co ·ctor: E & EM INC. Time: 10:41

Contract No: IL-3140 Laboratory ID: >C6655

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	.75462	6.13		
STYRENE	104	.98260	1.28311	30.58		
TOTAL XYLENES	91	1.41320	1.78440	26.27		

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

C: No: U-4835,4846,4863,4872 Calibration Date: 02/03/87

Contractor: E & E, INC. Time: 12:36

Contract No: IL-3140 Laboratory ID: >C6683

Instrument ID: HP-5995C Initial Calibration Date: 01/28/87

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.43043	1.79317	26.22		**
BROMOMETHANE	94	1.10748	.54164	51.09		
VINYL CHLORIDE	62	1.37999	1.49263	8.16	*	
CHLOROETHANE	64	.91582	.85667	6.46		
METHYLENE CHLORIDE	84	1.88105	1.91647	1.88		
ACETONE	43	.56188	3.03461	440.08		
TRICHLOROFLUOROMETHANE	101	3.74934	3.85659	2.86		
CARBON DISULFIDE	76	5.33308	15.0338	181.90		
1,1-DICHLOROETHENE	61	3.40709	3.41297	.17	*	
1,1-DICHLOROETHANE	63	3.74282	3.83197	2.38		**
TRANS-1,2-DICHLOROETHENE	96	1.69959	1.82249	7.23		
CHLOROFORM	83	2.53321	2.57477	1.64	*	
1,2-DICHLOROETHANE	62	3.18319	3.41280	7.21		
1,2-DICHLOROETHANE-D4(SURR)	65	2.69697	2.58683	4.08		
2-BUTANONE	72	.03989	.13341	234.49		
1,1,1-TRICHLOROETHANE	97	.63749	.55416	13.07		
CARBON TETRACHLORIDE	117	.66973	.63159	5.69		
VINYL ACETATE	43	.70857	-	-		
BROMODICHLOROMETHANE	83	.65600	.63665	2.95		
1,2-DICHLOROPROPANE	63	.44332	.45116	1.77	*	
TRANS-1,3-DICHLOROPROPENE	75	.79316	.86518	9.08		
TRICHLOROETHENE	130	.41824	.42879	2.52		
DIBROMOCHLOROMETHANE	129	.49648	.56735	14.27		
1,1,2-TRICHLOROETHANE	97	.31392	.31811	1.34		
BENZENE	78	1.20435	1.20854	.35		
CIS-1,3-DICHLOROPROPENE	75	.43032	.66792	55.21		
2-CHLOROETHYLVINYLETHER	63	.15885	-	-		
BROMOFORM	173	.38425	.38828	1.05		**
4-METHYL-2-PENTANONE	43	.44365	1.24581	180.63		
2-HEXANONE	43	.32465	1.26824	290.65		
TETRACHLOROETHENE	164	.49222	.50540	2.68		
1,1,2,2-TETRACHLOROETHANE	83	.53574	.53113	.86		**
TOLUENE-D8 (SURR)	98	1.41330	1.37226	2.90		
TOLUENE	92	.97844	.91293	6.69	*	
CHLOROBENZENE	112	1.19479	1.11047	7.06		**
ETHYLBENZENE	91	2.06981	1.95545	5.53	*	

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

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Continuing Calibration Check
HSL Compounds

Case No: V-4835,4846,4863,4872 Calibration Date: 02/03/87

Contractor: E & E, INC. Time: 12:36

Contract No: IL-3140 Laboratory ID: >C6683

Instrument ID: HP-5995C Initial Calibration Date: 01/28/87

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.72214	.73524	1.81		
STYRENE	104	1.24236	1.15343	7.16		
TOTAL XYLENES	91	1.76320	1.64367	6.78		

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: V-4835,4846,4863,4872 Calibration Date: 02/04/87

Contractor: E & E, INC. Time: 18:12

Contract No: II-3140 Laboratory ID: >C6700

Instrument ID: HP-5995C Initial Calibration Date: 01/28/87

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.43043	2.42312	.30		**
BROMOMETHANE	94	1.10748	.81550	26.36		
VINYL CHLORIDE	62	1.37999	1.62609	17.83	*	
CHLOROETHANE	64	.91582	1.00019	9.21		
METHYLENE CHLORIDE	84	1.88105	1.94474	3.39		
ACETONE	43	.56188	.92855	65.26		
TRICHLOROFLUOROMETHANE	101	3.74934	2.62741	29.92		
CARBON DISULFIDE	76	5.33308	3.56470	33.16		
1,1-DICHLOROETHENE	61	3.40709	2.77101	18.67	*	
1,1-DICHLOROETHANE	63	3.74282	3.67357	1.85		**
TRANS-1,2-DICHLOROETHENE	96	1.69959	1.63901	3.56		
CHLOROFORM	83	2.53321	2.64659	4.48	*	
1,2-DICHLOROETHANE	62	3.18319	3.40035	6.82		
1,2-DICHLOROETHANE-D4(SURR)	65	2.69697	2.52246	6.47		
2-BUTANONE	72	.03989	.05669	42.12		
1,1,1-TRICHLOROETHANE	97	.63749	.65933	3.43		
CARBON TETRACHLORIDE	117	.66973	.69204	3.33		
VINYL ACETATE	43	.70857	.75439	6.47		
BROMODICHLOROMETHANE	83	.65600	.72828	11.02		
1,2-DICHLOROPROPANE	63	.44332	.48504	9.41	*	
TRANS-1,3-DICHLOROPROPENE	75	.79316	.88983	12.19		
TRICHLOROETHENE	130	.41824	.44505	6.41		
DIBROMOCHLOROMETHANE	129	.49648	.57581	15.98		
1,1,2-TRICHLOROETHANE	97	.31392	.38116	21.42		
BENZENE	78	1.28435	1.38352	8.23		
CIS-1,3-DICHLOROPROPENE	75	.43032	.50011	16.22		
2-CHLOROETHYLVINYLETHER	63	.15885	.19949	25.59		
BROMOFORM	173	.38425	.45619	18.72		**
4-METHYL-2-PENTANONE	43	.44365	.57011	28.50		
2-HEXANONE	43	.32465	.44816	38.04		
TETRACHLOROETHENE	164	.49222	.51016	3.64		
1,1,2,2-TETRACHLOROETHANE	83	.53574	.68862	28.54		**
TOLUENE-D8 (SURR)	98	1.41330	1.33471	5.56		
TOLUENE	92	.97844	1.04928	7.24	*	
CHLOROBENZENE	112	1.19479	1.33342	11.60		**
ETHYLBENZENE	91	2.06981	2.27725	10.02	*	

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: U-4835,4846,4863,4872 Calibration Date: 02/04/87

Contractor: E & E, INC. Time: 18:12

Contract No: IL-3140 Laboratory ID: >C6700

Instrument ID: HP-5995C Initial Calibration Date: 01/28/87

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.72214	.73078	1.20		
STYRENE	104	1.24236	1.37828	10.94		
TOTAL XYLENES	91	1.76320	1.92709	9.30		

k - 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: V4835,4846,4863,4872 Calibration Date: 02/05/87

Contractor: E & E, INC. Time: 20:47

Contract No: IL-3140 Laboratory ID: >C6720

Instrument ID: HP-5995C Initial Calibration Date: 01/28/87

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.43043	2.15147	11.48		**
BROMOMETHANE	94	1.10748	1.38876	25.40		
VINYL CHLORIDE	62	1.37999	1.20898	12.39	*	
CHLOROETHANE	64	.91582	.81669	10.82		
METHYLENE CHLORIDE	84	1.88105	2.09981	11.63		
ACETONE	43	.56188	.78105	39.01		
TRICHLOROFLUOROMETHANE	101	3.74934	2.88373	23.09		
CARBON DISULFIDE	76	5.33308	3.84790	27.85		
1,1-DICHLOROETHENE	61	3.40709	3.05782	10.25	*	
1,1-DICHLOROETHANE	63	3.74282	4.18368	11.78		**
TRANS-1,2-DICHLOROETHENE	96	1.69959	1.85746	9.29		
CHLOROFORM	83	2.53321	3.02855	19.55	*	
1,2-DICHLOROETHANE	62	3.18319	3.69624	16.12		
1,2-DICHLOROETHANE-D4(SURR)	65	2.69697	2.47548	8.21		
2-BUTANONE	72	.03989	.04793	20.18		
1,1,1-TRICHLOROETHANE	97	.63749	.71002	11.38		
CARBON TETRACHLORIDE	117	.66973	.75331	12.48		
VINYL ACETATE	43	.70857	.87007	22.79		
BROMODICHLOROMETHANE	83	.65600	.78586	19.80		
1,2-DICHLOROPROPANE	63	.44332	.53672	21.07	*	
TRANS-1,3-DICHLOROPROPENE	75	.79316	.97263	22.63		
TRICHLOROETHENE	130	.41824	.49492	18.33		
DIBROMOCHLOROMETHANE	129	.49648	.60526	21.91		
1,1,2-TRICHLOROETHANE	97	.31392	.40354	28.55		
BENZENE	78	1.20435	1.43118	18.83		
CIS-1,3-DICHLOROPROPENE	75	.43032	.55064	27.96		
2-CHLOROETHYLVINYLETHER	63	.15885	.24314	53.07		
BROMOFORM	173	.38425	.47361	23.25		**
4-METHYL-2-PENTANONE	43	.44365	.56349	27.01		
2-HEXANONE	43	.32465	.40425	24.52		
TETRACHLOROETHENE	164	.49222	.57434	16.68		
1,1,2,2-TETRACHLOROETHANE	83	.53574	.66863	24.80		**
TOLUENE-D8 (SURR)	98	1.41330	1.33755	5.36		
TOLUENE	92	.97844	1.17385	19.97	*	
CHLOROBENZENE	112	1.19479	1.42646	19.39		**
ETHYLBENZENE	91	2.06981	2.46281	18.99	*	

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-4835, 4846, 4863, 4872 Calibration Date: 02/05/87

Contractor: E & E, INC. Time: 20:47

Contract No: 2L-3140 Laboratory ID: >C6720

Instrument ID: HP-5995C Initial Calibration Date: 01/28/87

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.72214	.66903	7.35		
STYRENE	104	1.24236	1.49684	20.48		
TOTAL XYLENES	91	1.76320	2.08070	18.01		

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-4835,4846,4863,4872 Calibration Date: 02/06/87

Contractor: E & EM INC. Time: 16:35

Contract No: IL-3140 Laboratory ID: >C6739

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	2.27642	1.15		**
BROMOMETHANE	94	1.43187	1.53924	7.50		
VINYL CHLORIDE	62	1.60438	1.53904	4.07	*	
CHLOROETHANE	64	.69191	.71526	3.38		
METHYLENE CHLORIDE	84	1.38013	1.46997	6.51		
ACETONE	43	1.61869	1.89109	16.83		
TRICHLOROFLUOROMETHANE	101	3.13900	2.05132	34.65		
CARBON DISULFIDE	76	3.82990	2.75086	28.17		
1,1-DICHLOROETHENE	61	3.02810	2.34980	22.40	*	
1,1-DICHLOROETHANE	63	3.36439	3.29172	2.16		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.36305	12.50		
CHLOROFORM	83	3.56796	3.55755	.29	*	
1,2-DICHLOROETHANE	62	3.55680	3.26728	8.14		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.63427	12.15		
2-BUTANONE	72	.06798	.10253	50.83		
1,1,1-TRICHLOROETHANE	97	.59787	.52371	12.40		
CARBON TETRACHLORIDE	117	.59043	.55520	5.97		
VINYL ACETATE	43	1.19023	.95248	19.97		
BROMODICHLOROMETHANE	83	.65552	.65305	.38		
1,2-DICHLOROPROPANE	63	.46960	.44367	5.52	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.82239	16.90		
TRICHLOROETHENE	130	.40336	.39053	3.18		
DIBROMOCHLOROMETHANE	129	.55837	.55437	.72		
1,1,2-TRICHLOROETHANE	97	.36284	.40741	12.28		
BENZENE	78	1.16600	1.16921	.28		
CIS-1,3-DICHLOROPROPENE	75	.52628	.48593	7.67		
2-CHLOROETHYLVINYLETHER	63	.33081	.24672	25.42		
BROMOFORM	173	.62246	.51124	17.87		**
4-METHYL-2-PENTANONE	43	1.12348	.96929	13.72		
2-HEXANONE	43	.92838	.80272	13.53		
TETRACHLOROETHENE	164	.47024	.44124	6.17		
1,1,2,2-TETRACHLOROETHANE	83	.88085	.83564	4.34		**
TOLUENE-D8 (SURR)	98	1.36277	1.19877	12.03		
TOLUENE	92	.89572	.90051	.53	*	
CHLOROBENZENE	112	1.10402	1.13554	2.85		**
ETHYLBENZENE	91	1.85535	1.88875	1.80	*	

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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HSL Compounds

Case No: V-4835, 4846, 4863, 4872 Calibration Date: 02/06/87

Contractor: E & EM INC. Time: 16:35

Contract No: II-3140 Laboratory ID: >C6739

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	.66207	6.89		
STYRENE	104	.98260	1.20167	22.30		
TOTAL XYLENES	91	1.41320	1.61946	14.60		

RF - Response Factor from daily standard file at 250.00 NGS

- 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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Case No: V-4835,4846,4863,4872 Calibration Date: 02/09/87

Contractor: E & EM INC. Time: 17:15

Contract No: IL-3140 Laboratory ID: >C6756

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	1.67443	27.29		**
BROMOMETHANE	94	1.43187	1.48902	3.99		
VINYL CHLORIDE	62	1.60438	1.52645	4.86	*	
CHLOROETHANE	64	.69191	.86060	24.38		
METHYLENE CHLORIDE	84	1.38013	1.49318	8.19		
ACETONE	43	1.61869	1.48678	8.15		
TRICHLOROFLUOROMETHANE	101	3.13900	2.04169	34.96		
CARBON DISULFIDE	76	3.82990	2.66692	30.37		
1,1-DICHLOROETHENE	61	3.02810	2.27707	24.80	*	
1,1-DICHLOROETHANE	63	3.36439	3.25871	3.14		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.40504	9.81		
CHLOROFORM	83	3.56796	3.53149	1.02	*	
1,2-DICHLOROETHANE	62	3.55680	3.23898	8.94		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.41194	19.56		
2-BUTANONE	72	.06798	.08926	31.31		
1,1,1-TRICHLOROETHANE	97	.59787	.52584	12.05		
CARBON TETRACHLORIDE	117	.59043	.52651	10.83		
VINYL ACETATE	43	1.19023	1.03694	12.88		
BROMODICHLOROMETHANE	83	.65552	.57428	12.39		
1,2-DICHLOROPROPANE	63	.46960	.40322	14.14	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.71077	1.04		
TRICHLOROETHENE	130	.40336	.35609	11.72		
DIBROMOCHLOROMETHANE	129	.55837	.48163	13.74		
1,1,2-TRICHLOROETHANE	97	.36284	.36228	.15		
BENZENE	78	1.16600	1.06068	9.04		
CIS-1,3-DICHLOROPROPENE	75	.52628	.42745	18.78		
2-CHLOROETHYLVINYLETHER	63	.33081	.23935	27.65		
BROMOFORM	173	.62246	.47153	24.25		**
4-METHYL-2-PENTANONE	43	1.12348	1.02498	8.77		
2-HEXANONE	43	.92838	.83368	10.20		
TETRACHLOROETHENE	164	.47024	.48385	2.89		
1,1,2,2-TETRACHLOROETHANE	83	.80085	.87168	8.84		**
TOLUENE-D8 (SURR)	98	1.36277	1.25424	7.96		
TOLUENE	92	.89572	.98597	10.08	*	
CHLOROBENZENE	112	1.10402	1.22532	10.99		**
ETHYLBENZENE	91	1.85535	2.04064	9.99	*	

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 (**)

ase No: U-4835,4846,4863,4872 Calibration Date: 02/09/87

ontractor: E & EM INC. Time: 17:15

oject No: IL-3140 Laboratory ID:)C6756

nstrument 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
-BROMOFLUOROBENZENE(SURR)	95 .71103	.66869	5.95		
TYRENE	104 .98260	1.21853	24.01		
)TAL XYLENES	91 1.41320	1.70228	20.46		

- Response Factor from daily standard file at 250.00 NGS

- Average Response Factor from Initial Calibration Form VI

)iff - % Difference from original average or curve

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

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Continuing Calibration Check
HSL Compounds

Case No: V-4835, 4844, 4863, 4872 Calibration Date: 02/12/87

Contractor: E & E, INC. Time: 15:58

Contract No: IL-3140 Laboratory ID: >C6775

Instrument ID: HP-5995C Initial Calibration Date: 01/28/87

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.43043	1.61088	33.72		**
BROMOMETHANE	94	1.10748	1.39316	25.79		
VINYL CHLORIDE	62	1.37999	1.18831	13.89	*	
CHLOROETHANE	64	.91582	.73992	19.21		
METHYLENE CHLORIDE	84	1.88105	1.72511	8.29		
ACETONE	43	.56188	.51531	8.29		
TRICHLOROFLUOROMETHANE	101	3.74934	2.11328	43.64		
CARBON DISULFIDE	76	5.33308	2.63459	50.60		
1,1-DICHLOROETHENE	61	3.40709	2.19917	35.45	*	
1,1-DICHLOROETHANE	63	3.74282	3.11372	16.81		**
TRANS-1,2-DICHLOROETHENE	96	1.69959	1.36948	19.42		
CHLOROFORM	83	2.53321	2.38798	5.73	*	
1,2-DICHLOROETHANE	62	3.18319	3.29821	3.61		
1,2-DICHLOROETHANE-D4(SURR)	65	2.69697	2.84512	5.49		
2-BUTANONE	72	.03989	.04170	4.56		
1,1,1-TRICHLOROETHANE	97	.63749	.59260	7.04		
CARBON TETRACHLORIDE	117	.66973	.60499	9.67		
VINYL ACETATE	43	.70857	.59827	15.57		
BROMODICHLOROMETHANE	83	.65600	.64848	1.16		
1,2-DICHLOROPROPANE	63	.44332	.42275	4.64	*	
TRANS-1,3-DICHLOROPROPENE	75	.79316	.76138	4.01		
TRICHLOROETHENE	130	.41824	.37975	9.20		
DIBROMOCHLOROMETHANE	129	.49648	.47815	3.69		
1,1,2-TRICHLOROETHANE	97	.31392	.31059	1.06		
BENZENE	78	1.20435	1.10657	8.12		
CIS-1,3-DICHLOROPROPENE	75	.43032	.42413	1.44		
2-CHLOROETHYLVINYLETHER	63	.15885	.14914	6.11		
BROMOFORM	173	.38425	.33148	13.75		**
4-METHYL-2-PENTANONE	43	.44365	.36048	18.76		
2-HEXANONE	43	.32465	.27395	15.62		
TETRACHLOROETHENE	164	.49222	.41638	15.41		
1,1,2,2-TETRACHLOROETHANE	83	.53574	.49103	8.35		**
TOLUENE-D8 (SURR)	98	1.41330	1.40779	.39		
TOLUENE	92	.97844	.90224	7.79	*	
CHLOROBENZENE	112	1.19479	1.08741	8.99		**
ETHYLBENZENE	91	2.06981	1.92117	7.18	*	

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: V4835, 4846, 4863, 4872 Calibration Date: 02/12/87

Contractor: E & E, INC. Time: 15:58

Contract No: IL-3140 Laboratory ID: >C6775

Instrument ID: HP-5995C Initial Calibration Date: 01/28/87

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

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95 .72214	.70960	1.74		
STYRENE	104 1.24236	1.16658	6.10		
TOTAL XYLENES	91 1.76320	1.66328	5.67		

.. - 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 ecology and environment

Continuing Calibration Check
HSL Compounds

Case No: V-4835,4846,4863,4872 Calibration Date: 02/13/87

Co.. actor: E & E, INC. Time: 10:36

Contract No: IL-3140 Laboratory ID: >C6794

Instrument ID: HP-5995C Initial Calibration Date: 01/28/87

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.43043	1.48928	38.72		**
BROMOMETHANE	94	1.10748	.74764	32.49		
VINYL CHLORIDE	62	1.37999	1.33883	2.98	*	
CHLOROETHANE	64	.91582	.91580	.00		
METHYLENE CHLORIDE	84	1.88105	1.79105	4.78		
ACETONE	43	.56188	.73193	30.26		
TRICHLOROFLUOROMETHANE	101	3.74934	2.50122	33.29		
CARBON DISULFIDE	76	5.33308	3.17123	40.54		
1,1-DICHLOROETHENE	61	3.40709	2.70245	20.68	*	
1,1-DICHLOROETHANE	63	3.74282	3.75407	.30		**
TRANS-1,2-DICHLOROETHENE	96	1.69959	1.62880	4.16		
CHLOROFORM	83	2.53321	2.65241	4.71	*	
1,2-DICHLOROETHANE	62	3.18319	3.14088	1.33		
1,2-DICHLOROETHANE-D4(SURR)	65	2.69697	2.51949	6.58		
2-BUTANONE	72	.03989	.03808	4.52		
1,1,1-TRICHLOROETHANE	97	.63749	.63282	.73		
CARBON TETRACHLORIDE	117	.66973	.65080	2.83		
VINYL ACETATE	43	.70857	.69413	2.04		
BROMODICHLOROMETHANE	83	.65600	.66895	1.97		
1,2-DICHLOROPROPANE	63	.44332	.46271	4.37	*	
TRANS-1,3-DICHLOROPROPENE	75	.79316	.81249	2.44		
TRICHLOROETHENE	130	.41824	.43822	4.78		
DIBROMOCHLOROMETHANE	129	.49648	.49867	.44		
1,1,2-TRICHLOROETHANE	97	.31392	.32634	3.96		
BENZENE	78	1.20435	1.21932	1.24		
CIS-1,3-DICHLOROPROPENE	75	.43032	.43982	2.21		
2-CHLOROETHYLVINYLETHER	63	.15885	.19440	22.38		
BROMOFORM	173	.38425	.38353	.19		**
4-METHYL-2-PENTANONE	43	.44365	.43914	1.02		
2-HEXANONE	43	.32465	.32048	1.28		
TETRACHLOROETHENE	164	.49222	.55239	12.22		
1,1,2,2-TETRACHLOROETHANE	83	.53574	.54090	.96		**
TOLUENE-D8 (SURR)	98	1.41330	1.42100	.54		
TOLUENE	92	.97844	1.05245	7.56	*	
CHLOROBENZENE	112	1.19479	1.27609	6.81		**
ETHYLBENZENE	91	2.06981	2.23805	8.13	*	

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 (**)

and environment

Continuing Calibration Check
HSL Compounds

Case No: V-4835, 4846, 4863, 4872 Calibration Date: 02/13/87

Co. actor: E & E, INC. Time: 10:36

Contract No: IL-3140 Laboratory ID: >C6794

Instrument ID: HP-5995C Initial Calibration Date: 01/28/87

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.72214	.70337	2.60		
STYRENE	104	1.24236	1.32104	6.33		
TOTAL XYLENES	91	1.76320	1.84421	4.59		

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 : V-4835, 4844, 4863, 4872 Calibration Date: 02/20/87

Contractor: E & EM INC. Time: 11:04

Contract No: IL-3140 Laboratory ID: >C6893

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	1.80863	21.47		**
BROMOMETHANE	94	1.43187	1.93909	35.42		
VINYL CHLORIDE	62	1.60438	1.83648	14.47	*	
CHLOROETHANE	64	.69191	1.14637	65.68		
METHYLENE CHLORIDE	84	1.38013	1.73721	25.87		
ACETONE	43	1.61869	3.09368	91.12		
~~TRICHLOROFLUOROMETHANE~~	~~101~~	~~3.13900~~	~~2.41087~~	~~23.20~~		
CARBON DISULFIDE	76	3.82990	2.62471	31.47		
1,1-DICHLOROETHENE	61	3.02810	2.85559	5.70	*	
1,1-DICHLOROETHANE	63	3.36439	4.25873	26.58		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.76606	13.37		
CHLOROFORM	83	3.56796	2.95065	17.30	*	
1,2-DICHLOROETHANE	62	3.55680	4.17976	17.51		
~~1,2-DICHLOROETHANE-D4(SURR)~~	~~65~~	~~2.99853~~	~~3.63472~~	~~14.54~~		
2-BUTANONE	72	.06798	.12800	88.30		
1,1,1-TRICHLOROETHANE	97	.59787	.60722	1.56		
CARBON TETRACHLORIDE	117	.59043	.61253	3.74		
VINYL ACETATE	43	1.19023	1.23834	4.04		
BROMODICHLOROMETHANE	83	.65552	.68989	5.24		
1,2-DICHLOROPROPANE	63	.46960	.50689	7.94	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.83119	18.15		
TRICHLOROETHENE	130	.40336	.50887	26.16		
DIBROMOCHLOROMETHANE	129	.55837	.56802	1.73		
1,1,2-TRICHLOROETHANE	97	.36284	.46592	28.41		
BENZENE	78	1.16600	1.36693	17.23		
CIS-1,3-DICHLOROPROPENE	75	.52628	.49714	5.54		
2-CHLOROETHYLVINYLETHER	63	.33081	.32125	2.89		
BROMOFORM	173	.62246	.50728	18.50		**
4-METHYL-2-PENTANONE	43	1.12348	1.22611	9.14		
2-HEXANONE	43	.92938	.98119	5.69		
TETRACHLOROETHENE	164	.47024	.53360	13.47		
1,1,2,2-TETRACHLOROETHANE	83	.80035	.80388	.38		**
~~TOLUENE-D8 (SURR)~~	~~98~~	~~1.36277~~	~~1.43151~~	~~5.04~~		
TOLUENE	92	.89572	1.07616	20.14	*	
CHLOROBENZENE	112	1.10402	1.31368	18.99		**
ETHYLBENZENE	91	1.85535	2.23227	20.32	*	

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

Case No: V-4835,4846,4863,4872 Calibration Date: 02/20/87

Contractor: E & EM INC. Time: 11:04

Contract No: IL-3140 Laboratory ID: >C6893

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	.81505	14.63		
STYRENE	104	.98260	1.32557	34.90		
TOTAL XYLENES	91	1.41320	1.84837	30.79		

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Continuing Calibration Check
HSL Compounds

Case No: V-4835,4846,4863,4872 Calibration Date: 02/13/87

Contractor: E & E, INC. Time: 14:33

Contract No: IL-3140 Laboratory ID: >D1703

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	.71982	53.27		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	.99627	15.88		
1,3-DICHLOROBENZENE	146	1.47624	1.48455	.56		
1,4-DICHLOROBENZENE	146	1.46874	1.49879	2.05	*	
BENZYL ALCOHOL	79	1.13473	.67274	40.71		
1,2-DICHLOROBENZENE	146	1.49193	1.42724	4.34		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	2.10425	21.52		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	.87841	25.63		**
HEXACHLOROETHANE	117	.70841	.60613	14.44		
NITROBENZENE-D5 (SURR)	82	.37437	.30688	18.03		
NITROBENZENE	77	.37969	.31471	17.12		
ISOPHORONE	82	.75594	.59597	21.16		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.34578	16.21		
1,2,4-TRICHLOROBENZENE	180	.38442	.42387	10.26		
NAPHTHALENE	128	.96668	.93179	3.61		
4-CHLOROANILINE	127	.37796	.22103	41.52		
HEXACHLOROBUTADIENE	225	.25908	.31183	20.36	*	
2-METHYLNAPHTHALENE	142	.64484	.64326	.25		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.60030	5.66		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.46691	9.07		
2-CHLORONAPHTHALENE	162	1.37281	1.25238	8.77		
2-NITROANILINE	65	.47645	.24908	47.72		
DIMETHYL PHTHALATE	163	1.71954	1.04323	39.33		
4-NITROANILINE	138	.25828	.14561	43.62		
DIBENZOFURAN	168	1.90873	1.47744	22.60		
ACENAPHTHYLENE	152	2.10065	1.66478	20.75		
FLUORENE	166	1.34670	.97688	27.46		
3-NITROANILINE	138	.09246	.06483	29.88		
ACENAPHTHENE	153	1.37857	1.09654	20.46	*	
2,4-DINITROTOLUENE	165	.33212	.16315	50.87		
2,6-DINITROTOLUENE	165	.37112	.22667	38.92		
DIETHYLPHTHALATE	149	1.58664	.80790	49.08		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.53538	23.97		
N-NITROSODIPHENYLAMINE	169	.51771	.45723	11.68	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.35172	5.05		
HEXACHLOROBENZENE	284	.43791	.35401	19.16		

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

$\bar{R}F$ - 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-4835,4846,4863,4877 Calibration Date: 02/13/87

Contractor: E & E, INC. Time: 14:33

Contract No: II-3140 Laboratory ID: >D1703

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	.98760	2.70		
ANTHRACENE	178	.99874	.96841	3.04		
DI-N-BUTYLPHTHALATE	149	.97124	.65038	33.04		
FLUORANTHENE	202	.62146	.59122	4.87	*	
BENZIDINE		.65247	.37234	42.93		
PYRENE	202	2.68642	1.79406	33.22		
TERPHENYL-D14 (SURR)	244	1.48172	.97525	34.18		
BUTYLBENZYLPHTHALATE	149	.68277	.49961	26.83		
3,3'DICHLOROBENZIDINE	252	.13263	.20305	53.10		
BENZO(A)ANTHRACENE	228	.91524	1.05866	15.67		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	1.04507	28.11		
CHRYSENE	228	1.19137	1.00717	15.46		
DI-N-OCTYL PHTHALATE	149	1.64173	1.28296	21.85	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.19157	5.00		
BENZO(K)FLUORANTHENE	252	1.55063	1.10034	29.04		
BENZO(A)PYRENE	252	1.10877	1.06335	4.10	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.07170	8.22		
DIBENZ(A,H)ANTHRACENE	278	.81159	.98151	20.94		
BENZO(G,H,I)PERYLENE	276	1.10886	1.09342	1.39		

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: V-4835,4846,4863,4872 Calibration Date: 02/13/87

Contractor: E & E, INC. Time: 17:43

Contract No: IL-3140 Laboratory ID: >D1706

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	1.13617	18.88		
PENTAFLUOROPHENOL		184	-	-	-		
2-FLUOROPHENOL	(SURR)	112	.92130	.85819	6.85		
PHENOL		94	1.34105	1.10072	17.92	*	
2-METHYL PHENOL		108	1.03158	.84649	17.94		
2-CHLOROPHENOL		128	1.13833	1.13002	.73		
4-METHYL PHENOL		108	1.07582	.87007	19.13		
2-NITROPHENOL		139	.20262	.19621	3.16	*	
2,4-DIMETHYLPHENOL		122	.28916	.24174	16.40		
BENZOIC ACID		105	.20401	.13807	32.33		
2,4-DICHLOROPHENOL		162	.31568	.32539	3.08	*	
4-CHLORO-3-METHYLPHENOL		107	.33577	.29402	12.43	*	
2,4,6-TRICHLOROPHENOL		196	.45546	.53804	18.13	*	
2,4,5-TRICHLOROPHENOL		196	.48930	.55593	13.62		
2,4,6-TRIBROMOPHENOL	(SURR)	330	.32584	.33315	2.24		
2,4-DINITROPHENOL		184	.17071	.17110	.23		**
4-NITROPHENOL		139	.32314	.19450	39.81		**
4,6-DINITRO-2-METHYLPHENOL		198	.12041	.12108	.56		
PENTACHLOROPHENOL		266	.18773	.18849	.41	*	

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: U-4835, 4846, 4863, 4872 — Calibration Date: 02/16/87

ont. or: E & E, INC. — Time: 15:04

ontract No: II-3140 — Laboratory ID: >01722

nstrument 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
NILINE	93	1.54043	1.28326	16.70		
IS(-2-CHLORUETHYL)ETHER	93	1.18428	1.19995	1.32		
,3-DICHLORUBENZENE	146	1.47624	1.42140	3.71		
,4-DICHLOR(BENZENE	146	1.46874	1.45604	.86	*	
ENZYL ALCOHUL	79	1.13473	1.06044	6.55		
,2-DICHLORUBENZENE	146	1.49193	1.39572	6.45		
IS(2-CHLOROISOPROPYL)ETHER	45	2.68137	3.15400	17.63		
-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.19274	.98		**
EXACHLOROETHANE	117	.70841	.68883	2.76		
ITROBENZENE-D5 (SURR)	82	.37437	.40761	8.88		
ITROBENZENE	77	.37969	.44359	16.83		
SOPHORONE	82	.75594	.81185	7.40		
IS(-2-CHLOROETHOXY)METHANE	93	.41266	.44683	8.28		
,2,4-TRICHLORUBENZENE	180	.38442	.35398	7.94		
APHTHALENE	128	.96668	1.00984	4.47		
-CHLOROANILINE	127	.37796	.28272	25.20		
EXACHLORUBUTADIENE	225	.25908	.26932	3.95	*	
-METHYLNAPHTHALENE	142	.64484	.55970	13.20		
EXACHLORUCYCLOPENTADIENE	237	.56814	.55773	1.83		**
-FLUORUBIPHENYL (SURR)	172	1.61321	1.43585	10.99		
-CHLORONAPHTHALENE	162	1.37281	1.21038	11.83		
-NITROANILINE	65	.47645	.38812	18.54		
IMETHYL PHTHALATE	163	1.71954	1.10195	35.92		
-NITROANILINE	138	.25828	.16885	34.62		
IBENZOFURAN	168	1.90873	1.45490	23.78		
CENAPHTHYLENE	152	2.10065	1.73489	17.41		
LUORENE	166	1.34670	.99295	26.27		
-NITROANILINE	138	.09246	.08916	3.35		
CENAPHTHENE	153	1.37857	1.12892	18.11	*	
,4-DINITROTOLUENE	165	.33212	.18796	43.53		
,6-DINITROTOLUENE	165	.37112	.23474	36.75		
IETHYLPHTHALATE	149	1.58664	.92957	41.41		
-CHLOROPHENYL-PHENYLETHER	204	.70414	.50778	27.89		
-NITROSODIPHENYLAMINE	169	.51771	.46413	10.35	*	
-BROMOPHENYL-PHENYL ETHER	248	.33482	.32136	4.02		
EXALHLOROBENZENE	284	.43791	.39136	10.63		

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-4835, 4846, 4863, 4872 Calibration Date: 02/16/87

Contractor: E & E, INC. Time: 15:04

Contract No: IL-3140 Laboratory ID: >01722

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	1.04717	3.16		
ANTHRACENE	178	.99874	.96918	2.96		
DI-N-BUTYLPHTHALATE	149	.97124	.76491	21.24		
FLUORANTHENE	202	.62146	.64755	4.20	*	
BENZIDINE		.65247	.34508	47.11		
PYRENE	202	2.68642	1.68288	37.36		
TERPHENYL-D14 (SURR)	244	1.48172	.99666	32.74		
BUTYLBENZYLPHTHALATE	149	.68277	.39893	41.57		
3,3'DICHLOROBENZIDINE	252	.13263	.22231	67.62		
BENZO(A)ANTHRACENE	228	.91524	.98263	7.36		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.54638	33.02		
CHRYSENE	228	1.19137	.97233	18.39		
DI-N-OCTYL PHTHALATE	149	1.64173	1.27849	22.13	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.52872	34.71		
BENZO(K)FLUORANTHENE	252	1.55063	1.06686	31.20		
BENZO(A)PYRENE	252	1.10877	1.03157	6.96	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.26033	27.26		
DIBENZ(A,H)ANTHRACENE	278	.81159	1.24200	53.03		
BENZO(G,H,I)PERYLENE	276	1.10886	1.14238	3.02		

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-4835,4846,4863,4872 Calibration Date: 02/16/87

Contractor: E & E, INC. Time: 16:00

Contract No: IL-3140 Laboratory ID: >D1723

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	1.47970	5.65		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL	(SURR) 112	.92130	.93811	1.82		
PHENOL	94	1.34105	1.55774	16.16	*	
2-METHYL PHENOL	108	1.03158	1.15964	12.41		
2-CHLOROPHENOL	128	1.13833	1.24488	9.36		
4-METHYL PHENOL	108	1.07582	1.15086	6.98		
2-NITROPHENOL	139	.20262	.17848	11.91	*	
2,4-DIMETHYLPHENOL	122	.28916	.26891	7.00		
BENZOIC ACID	105	.20401	.10544	48.32		
2,4-DICHLOROPHENOL	162	.31568	.28194	10.69	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.26588	20.81	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.50880	11.71	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.49624	1.42		
2,4,6-TRIBROMOPHENOL	(SURR) 330	.32584	.31981	1.85		
2,4-DINITROPHENOL	184	.17071	.08343	51.13		**
4-NITROPHENOL	139	.32314	.10074	68.82		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.11001	8.63		
PENTACHLOROPHENOL	266	.18773	.17913	4.58	*	

: - 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-4835,4846,4863,4872 Calibration Date: 02/23/87

Contractor: E & E, INC. Time: 12:23

Contract No: IL-3140 Laboratory ID: >D1792

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	1.41529	8.12		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.51908	28.27		
1,3-DICHLOROBENZENE	146	1.47624	1.51893	2.89		
1,4-DICHLOROBENZENE	146	1.46874	1.48624	1.19	*	
BENZYL ALCOHOL	79	1.13473	1.16733	2.87		
1,2-DICHLOROBENZENE	146	1.49193	1.37515	7.83		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	3.62241	35.10		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.37564	16.46		**
HEXACHLOROETHANE	117	.70841	.70868	.04		
NITROBENZENE-D5 (SURR)	82	.37437	.45559	21.70		
NITROBENZENE	77	.37969	.49108	29.34		
ISOPHORONE	82	.75594	.87297	15.48		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.48122	16.62		
1,2,4-TRICHLOROBENZENE	180	.38442	.33422	13.06		
NAPHTHALENE	128	.96668	.98923	2.33		
4-CHLOROANILINE	127	.37796	.33453	11.49		
HEXACHLOROBUTADIENE	225	.25908	.23977	7.45	*	
2-METHYLNAPHTHALENE	142	.64484	.58048	9.98		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.54515	4.05		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.50424	6.75		
2-CHLORONAPHTHALENE	162	1.37281	1.28609	6.32		
2-NITROANILINE	65	.47645	.50010	4.96		
DIMETHYL PHTHALATE	163	1.71954	1.14749	33.27		
4-NITROANILINE	138	.25828	.21219	17.85		
DIBENZOFURAN	168	1.90873	1.47178	22.89		
ACENAPHTHYLENE	152	2.10065	1.79240	14.67		
FLUORENE	166	1.34670	1.03653	23.03		
3-NITROANILINE	138	.09246	.13902	50.36		
ACENAPHTHENE	153	1.37857	1.16318	15.62	*	
2,4-DINITROTOLUENE	165	.33212	.22350	32.71		
2,6-DINITROTOLUENE	165	.37112	.24707	33.43		
DIETHYLPHTHALATE	149	1.58664	1.03022	35.07		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.50681	28.02		
N-NITROSODIPHENYLAMINE	169	.51771	.47093	9.04	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.30425	9.13		
HEXACHLOROBENZENE	284	.43791	.38624	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

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Continuing Calibration Check
HSL Compounds

Case No: V-4835,4846,4863,4872 Calibration Date: 02/23/87

Contractor: E & E, INC. Time: 12:23

Contract No: II-3140 Laboratory ID: >D1792

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	1.01300	.20		
ANTHRACENE	178	.99874	1.00165	.29		
DI-N-BUTYLPHTHALATE	149	.97124	.95532	1.64		
FLUORANTHENE	202	.62146	.71692	15.36	*	
BENZIDINE		.65247	.21348	67.28		
PYRENE	202	2.68642	1.45066	46.00		
TERPHENYL-D14 (SURR)	244	1.48172	.84820	42.76		
BUTYLBENZYLPHTHALATE	149	.68277	.52309	23.39		
3,3'DICHLOROBENZIDINE	252	.13263	.33658	153.77		
BENZO(A)ANTHRACENE	228	.91524	1.00901	10.25		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.70091	14.08		
CHRYSENE	228	1.19137	1.01768	14.58		
DI-N-OCTYL PHTHALATE	149	1.64173	1.33547	18.65	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.04783	7.66		
BENZO(K)FLUORANTHENE	252	1.55063	1.07014	30.99		
BENZO(A)PYRENE	252	1.10877	1.07014	3.48	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.08615	9.68		
DIBENZ(A,H)ANTHRACENE	278	.81159	1.03071	27.00		
BENZO(G,H,I)PERYLENE	276	1.10886	1.10342	.49		

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: V-4835,4846,4863,4872
Calibration Date: 02/23/87

Contractor: E & E, INC.
Time: 13:26

Contract No: IL-3140
Laboratory ID: >D1793

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	1.59303	13.74		
PENTAFLUOROPHENOL		184	-	-	-		
2-FLUOROPHENOL	(SURR)	112	.92130	1.00339	8.91		
PHENOL		94	1.34105	1.11575	16.80	*	
2-METHYL PHENOL		108	1.03158	1.20641	16.95		
2-CHLOROPHENOL		128	1.13833	1.33829	17.57		
4-METHYL PHENOL		108	1.07582	1.25837	16.97		
2-NITROPHENOL		139	.20262	.19394	4.28	*	
2,4-DIMETHYLPHENOL		122	.28916	.28555	1.25		
BENZOIC ACID		105	.20401	.23384	14.62		
2,4-DICHLOROPHENOL		162	.31568	.28300	10.35	*	
4-CHLORO-3-METHYLPHENOL		107	.33577	.32499	3.21	*	
2,4,6-TRICHLOROPHENOL		196	.45546	.39661	12.92	*	
2,4,5-TRICHLOROPHENOL		196	.48930	.39727	18.81		
2,4,6-TRIBROMOPHENOL	(SURR)	330	.32584	.27503	15.59		
2,4-DINITROPHENOL		184	.17071	.12479	26.90		**
4-NITROPHENOL		139	.32314	.11211	65.30		**
4,6-DINITRO-2-METHYLPHENOL		198	.12041	.12421	3.16		
PENTACHLOROPHENOL		266	.18773	.17304	7.82	*	

F - 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: V-4835,4846,4863,4872 Calibration Date: 02/25/87

Contractor: E & E, INC. Time: 11:07

Contract No: IL-3140 Laboratory ID: >D1820

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	1.72546	23.20		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL	(SURR) 112	.92130	1.14738	24.54		
PHENOL	94	1.34105	1.13288	15.52	*	
2-METHYL PHENOL	108	1.03158	1.26494	22.62		
2-CHLOROPHENOL	128	1.13833	1.34756	18.38		
4-METHYL PHENOL	108	1.07582	1.34314	24.85		
2-NITROPHENOL	139	.20262	.19457	3.97	*	
2,4-DIMETHYLPHENOL	122	.28916	.28465	1.56		
BENZOIC ACID	105	.20401	.19056	6.59		
2,4-DICHLOROPHENOL	162	.31568	.27506	12.87	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.31398	6.49	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.39631	12.99	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.40399	17.43		
2,4,6-TRIBROMOPHENOL	(SURR) 330	.32584	.19707	39.52		
2,4-DINITROPHENOL	184	.17071	.10453	38.77		**
4-NITROPHENOL	139	.32314	.10676	66.96		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.12626	4.86		
PENTACHLOROPHENOL	266	.18773	.15786	15.91	*	

$\bar{P}$ - 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: V-4835,4846,4863,4872 Calibration Date: 02/25/87

Contractor: E & E, INC. Time: 12:15

Contract No: II-3140 Laboratory ID: >D1821

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	1.86614	21.14		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.52159	28.48		
1,3-DICHLOROBENZENE	146	1.47624	1.48918	.88		
1,4-DICHLOROBENZENE	146	1.46874	1.52237	3.65	*	
BENZYL ALCOHOL	79	1.13473	1.43938	26.85		
1,2-DICHLOROBENZENE	146	1.49193	1.49040	.10		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	4.57917	70.78		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.81688	53.82		**
HEXACHLOROETHANE	117	.70841	.79537	12.27		
NITROBENZENE-D5 (SURR)	82	.37437	.50388	34.59		
NITROBENZENE	77	.37969	.54542	43.65		
ISOPHORONE	82	.75594	1.00004	32.29		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.51603	25.05		
1,2,4-TRICHLOROBENZENE	180	.38442	.32306	15.96		
NAPHTHALENE	128	.96668	1.01883	5.39		
4-CHLOROANILINE	127	.37796	.37334	1.22		
HEXACHLOROBUTADIENE	225	.25908	.21114	18.51	*	
2-METHYLNAPHTHALENE	142	.64484	.63238	1.93		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.45137	20.55		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.48482	7.96		
2-CHLORONAPHTHALENE	162	1.37281	1.28130	6.67		
2-NITROANILINE	65	.47645	.51175	7.41		
DIMETHYL PHTHALATE	163	1.71954	1.10166	35.93		
4-NITROANILINE	138	.25828	.15721	39.13		
DIBENZOFURAN	168	1.90873	1.42410	25.39		
ACENAPHTHYLENE	152	2.10065	1.83568	12.61		
FLUORENE	166	1.34670	.93911	30.27		
3-NITROANILINE	138	.09246	.06861	25.80		
ACENAPHTHENE	153	1.37857	1.15328	16.34	*	
2,4-DINITROTOLUENE	165	.33212	.14615	55.99		
2,6-DINITROTOLUENE	165	.37112	.22457	39.49		
DIETHYLPHTHALATE	149	1.58664	.89209	43.77		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.43387	38.38		
N-NITROSODIPHENYLAMINE	169	.51771	.53768	3.86	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.33991	1.52		
HEXACHLOROBENZENE	284	.43791	.36425	16.82		

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: V-4835,4846,4863,4872 Calibration Date: 02/25/87

Contractor: E & E, INC. Time: 12:15

Contract No: IL-3140 Laboratory ID: >D1821

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	1.01961	.45		
ANTHRACENE	178	.99874	.99158	.72		
DI-N-BUTYLPHTHALATE	149	.97124	.80330	17.29		
FLUORANTHENE	202	.62146	.55871	10.10	*	
BENZIDINE		.65247	.35261	45.96		
PYRENE	202	2.68642	1.74579	35.01		
TERPHENYL-D14 (SURR)	244	1.48172	.89498	39.60		
BUTYLBENZYLPHTHALATE	149	.68277	.55021	19.41		
3,3'DICHLOROBENZIDINE	252	.13263	.21022	58.50		
BENZO(A)ANTHRACENE	228	.91524	.98429	7.55		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.74110	9.15		
CHRYSENE	228	1.19137	1.01010	15.22		
DI-N-OCTYL PHTHALATE	149	1.64173	1.34703	17.95	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.14472	.88		
BENZO(K)FLUORANTHENE	252	1.55063	1.31031	15.50		
BENZO(A)PYRENE	252	1.10877	1.06630	3.83	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	.97198	1.85		
DIBENZ(A,H)ANTHRACENE	278	.81159	.93934	15.74		
BENZO(G,H,I)PERYLENE	276	1.10886	1.06730	3.75		

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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e No: U-4835, 4846, 4863, 4872 Calibration Date: 03/04/87

tractor: E & E, INC. Time: 12:27

tr: No: IL-3140 Laboratory ID: >D1880

trument 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
LINE	93	1.54043	.13889	90.98		
3(-2-CHLOROETHYL)ETHER	93	1.18428	1.17304	.95		
3-DICHLOROBENZENE	146	1.47624	1.44687	1.99		
4-DICHLOROBENZENE	146	1.46874	1.48636	1.20	*	
NZYL ALCOHOL	79	1.13473	.96852	14.65		
2-DICHLOROBENZENE	146	1.49193	1.44904	2.87		
S(2-CHLOROISOPROPYL)ETHER	45	2.68137	3.34288	24.67		
NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.22732	3.91		**
XACHLOROETHANE	117	.70841	.69192	2.33		
TROBENZENE-D5 (SURR)	82	.37437	.39725	6.11		
TROBENZENE	77	.37969	.42161	11.04		
OPHORONE	82	.75594	.79418	5.06		
S(-2-CHLOROETHOXY)METHANE	93	.41266	.43937	6.47		
2,4-TRICHLOROBENZENE	180	.38442	.35108	8.67		
PHTHALENE	128	.96668	1.00317	3.78		
-CHLOROANILINE	127	.37796	.25629	32.19		
EXACHLOROBUTADIENE	225	.25908	.24284	6.27	*	
-METHYLNAPHTHALENE	142	.64484	.57785	10.39		
EXACHLOROCYCLOPENTADIENE	237	.56814	.49669	12.58		**
-FLUOROBIPHENYL (SURR)	172	1.61321	1.51663	5.99		
-CHLORONAPHTHALENE	162	1.37281	1.28543	6.37		
-NITROANILINE	65	.47645	.34834	26.89		
IMETHYL PHTHALATE	163	1.71954	1.03955	39.55		
-NITROANILINE	138	.25828	.12894	50.08		
IBENZOFURAN	168	1.90873	1.36795	28.33		
CENAPHTHYLENE	152	2.10065	1.78977	14.80		
LUORENE	166	1.34670	.91843	31.80		
3-NITROANILINE	138	.09246	.03527	61.85		
CENAPHTHENE	153	1.37857	1.15093	16.51	*	
2,4-DINITROTOLUENE	165	.33212	.16072	51.61		
2,6-DINITROTOLUENE	165	.37112	.21932	40.90		
DIETHYLPHTHALATE	149	1.58664	.82515	47.99		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.43473	38.26		
N-NITROSODIPHENYLAMINE	169	.51771	.50778	1.92	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.31400	6.22		
HEXACHLOROBENZENE	284	.43791	.37770	13.75		

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

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

%Dirf - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: U-4835,4846,4863,4872 Calibration Date: 03/04/87

Contractor: E & E, INC. Time: 12:27

Contract No: II-3140 Laboratory ID: >D1880

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	1.00378	1.11		
ANTHRACENE	178	.99874	.96419	3.46		
DI-N-BUTYLPHTHALATE	149	.97124	.88620	8.76		
FLUORANTHENE	202	.62146	.74958	20.62	*	
BENZIDINE		.65247	.21826	66.55		
PYRENE	202	2.68642	1.39955	47.90		
TERPHENYL-D14 (SURR)	244	1.48172	.79741	46.18		
BUTYLBENZYLPHTHALATE	149	.68277	.47132	30.97		
3,3'DICHLOROBENZIDINE	252	.13263	.23417	76.56		
BENZO(A)ANTHRACENE	228	.91524	.94337	3.07		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.66916	17.97		
CHRYSENE	228	1.19137	1.06133	10.92		
DI-N-OCTYL PHTHALATE	149	1.64173	1.22563	25.35	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.28150	12.93		
BENZO(K)FLUORANTHENE	252	1.55063	1.16902	24.61		
BENZO(A)PYRENE	252	1.10877	1.08726	1.94	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.08629	9.69		
DIBENZ(A,H)ANTHRACENE	278	.81159	1.06637	31.39		
BENZO(G,H,I)PERYLENE	276	1.10886	1.23250	11.15		

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: V-4835, 4846, 4863, 4872 | Calibration Date: 03/04/87

Contractor: E & E, INC. | Time: 13:26

Contract No: II-3140 | Laboratory ID: >D1881

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	1.40569	.36		
PENTAFLUOROPHENOL		184	-	-	-		
2-FLUOROPHENOL	(SURR)	112	.92130	.95140	3.27		
PHENOL		94	1.34105	1.53177	14.22	*	
2-METHYL PHENOL		108	1.03158	1.12703	9.25		
2-CHLOROPHENOL		128	1.13833	1.15859	1.78		
4-METHYL PHENOL		108	1.07582	1.10895	3.08		
2-NITROPHENOL		139	.20262	.18667	7.87	*	
2,4-DIMETHYLPHENOL		122	.28916	.25540	11.67		
BENZOIC ACID		105	.20401	.13089	35.84		
2,4-DICHLOROPHENOL		162	.31568	.26479	16.12	*	
4-CHLORO-3-METHYLPHENOL		107	.33577	.25939	22.75	*	
2,4,6-TRICHLOROPHENOL		196	.45546	.40082	12.00	*	
2,4,5-TRICHLOROPHENOL		196	.48930	.38115	22.10		
2,4,6-TRIBROMOPHENOL	(SURR)	330	.32584	.17456	46.43		
2,4-DINITROPHENOL		184	.17071	.06858	59.83		**
4-NITROPHENOL		139	.32314	.06039	81.31		**
4,6-DINITRO-2-METHYLPHENOL		198	.12041	.11043	8.29		
PENTACHLOROPHENOL		266	.18773	~~.13716~~ .14762	~~26.93~~ 21.36	*	

See manual integration

↑ This RF was used to Quant.

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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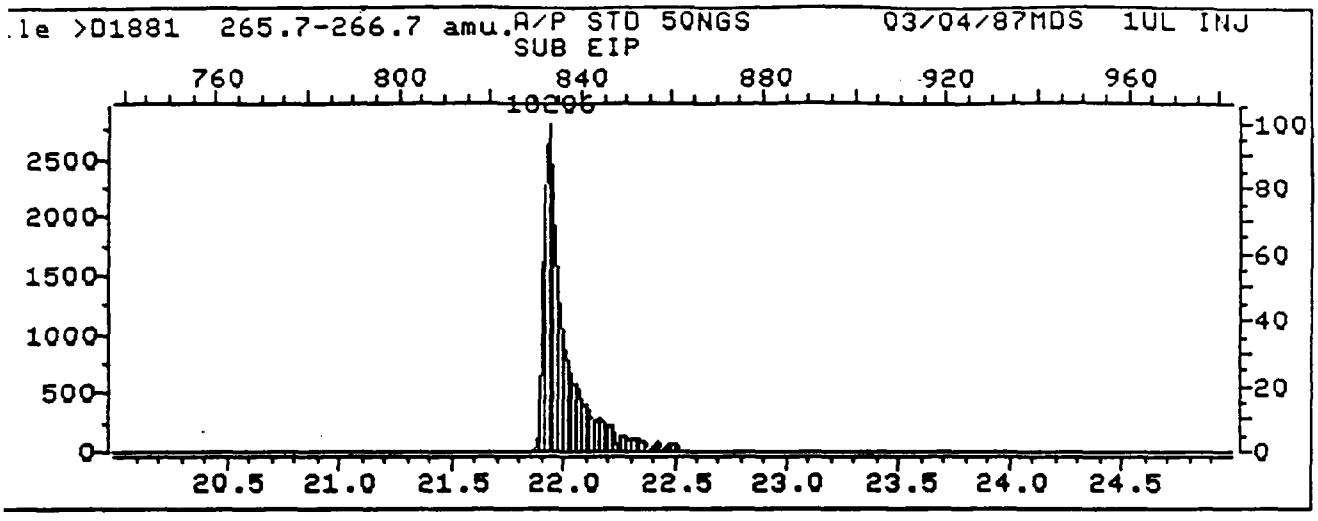

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	21.937	828	833	864	2808	18206	18206	100.00	100.000

Sum of corrected areas: 18206.

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Continuing Calibration Check
HSL Compounds

Case No: V-4835, 4846, 4863, 4872 | Calibration Date: 03/05/87

Contractor: E & E, INC. | Time: 11:47

Contract No: IL-3140 | Laboratory ID: >D1893

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	1.52194	8.66		
PENTAFLUOROPHENOL		184	-	-	-		
2-FLUOROPHENOL	(SURR)	112	.92130	.68556	25.59		
PHENOL		94	1.34105	1.61233	20.23	*	
2-METHYL PHENOL		108	1.03158	1.07849	4.55		
2-CHLOROPHENOL		128	1.13833	1.12917	.80		
4-METHYL PHENOL		108	1.07582	1.11766	3.89		
2-NITROPHENOL		139	.20262	.20014	1.22	*	
2,4-DIMETHYLPHENOL		122	.28916	.25711	11.08		
BENZOIC ACID		105	.20401	.16339	19.91		
2,4-DICHLOROPHENOL		162	.31568	.26707	15.40	*	
4-CHLORO-3-METHYLPHENOL		107	.33577	.26260	21.79	*	
2,4,6-TRICHLOROPHENOL		196	.45546	.41237	9.46	*	
2,4,5-TRICHLOROPHENOL		196	.48930	.36471	25.46		
2,4,6-TRIBROMOPHENOL	(SURR)	330	.32584	.18635	42.81		
2,4-DINITROPHENOL		184	.17071	.08233	51.77		**
4-NITROPHENOL		139	.32314	.09192	71.56		**
4,6-DINITRO-2-METHYLPHENOL		198	.12041	.12369	2.72		
PENTACHLOROPHENOL		266	.18773	.15717	16.28	*	

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

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Continuing Calibration Check
HSL Compounds

Case No: V-4835,4846,4863,4872 Calibration Date: 03/05/87

Contractor: E & E, INC. Time: 15:56

Contract No: IL-3140 Laboratory ID: >D1897

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	1.37050	11.03		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.14803	3.06		
1,3-DICHLOROBENZENE	146	1.47624	1.44052	2.42		
1,4-DICHLOROBENZENE	146	1.46874	1.47877	.68	*	
BENZYL ALCOHOL	79	1.13473	1.04867	7.58		
1,2-DICHLOROBENZENE	146	1.49193	1.46202	2.00		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	3.38522	26.25		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.22084	3.36		**
HEXACHLOROETHANE	117	.70841	.69553	1.82		
NITROBENZENE-D5 (SURR)	82	.37437	.42609	13.82		
NITROBENZENE	77	.37969	.44739	17.83		
ISOPHORONE	82	.75594	.80365	6.31		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.45715	10.78		
1,2,4-TRICHLOROBENZENE	180	.38442	.35072	8.77		
NAPHTHALENE	128	.96668	.99838	3.28		
4-CHLOROANILINE	127	.37796	.29431	22.13		
HEXACHLOROBUTADIENE	225	.25908	.23308	10.03	*	
2-METHYLNAPHTHALENE	142	.64484	.56216	12.82		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.46548	18.07		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.61533	.13		
2-CHLORONAPHTHALENE	162	1.37281	1.30106	5.23		
2-NITROANILINE	65	.47645	.37781	20.70		
DIMETHYL PHTHALATE	163	1.71954	1.17031	31.94		
4-NITROANILINE	138	.25828	.13665	47.09		
DIBENZOFURAN	168	1.90873	1.38060	27.67		
ACENAPHTHYLENE	152	2.10065	1.81211	13.74		
FLUORENE	166	1.34670	.92261	31.49		
3-NITROANILINE	138	.09246	.01738	81.20		
ACENAPHTHENE	153	1.37857	1.14663	16.82	*	
2,4-DINITROTOLUENE	165	.33212	.17280	47.97		
2,6-DINITROTOLUENE	165	.37112	.23510	36.65		
DIETHYLPHTHALATE	149	1.58664	.87280	44.99		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.42817	39.19		
N-NITROSODIPHENYLAMINE	169	.51771	.57163	10.41	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.30591	8.64		
HEXACHLOROBENZENE	284	.43791	.34406	21.43		

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-4835,4846,4863-4872 Calibration Date: 03/05/87

Contractor: E & E, INC. Time: 15:56

Contract No: IL-3140 Laboratory ID: >D1897

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	.95084	6.33		
ANTHRACENE	178	.99874	.94201	5.68		
DI-N-BUTYLPHTHALATE	149	.97124	.94088	3.13		
FLUORANTHENE	202	.62146	.69431	11.72	*	
BENZIDINE		.65247	.23942	63.31		
PYRENE	202	2.68642	1.32992	50.49		
TERPHENYL-D14 (SURR)	244	1.48172	.78510	47.01		
BUTYLBENZYLPHTHALATE	149	.68277	.52169	23.59		
3,3'DICHLOROBENZIDINE	252	.13263	.25588	92.93		
BENZO(A)ANTHRACENE	228	.91524	.98745	7.89		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.74287	8.94		
CHRYSENE	228	1.19137	1.03189	13.39		
DI-N-OCTYL PHTHALATE	149	1.64173	1.40043	14.70	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.16636	2.78		
BENZO(K)FLUORANTHENE	252	1.55063	1.30185	16.04		
BENZO(A)PYRENE	252	1.10877	1.13135	2.04	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.05633	6.67		
DIBENZ(A,H)ANTHRACENE	278	.81159	1.02577	26.39		
BENZO(G,H,I)PERYLENE	276	1.10886	1.17447	5.92		

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

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PESTICIDE STANDARDS

1. FORM VIII
2. FORM IX
3. FORM X

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Pesticide Evaluation Standards Summary

(Page 1)

V-4835, 4846,
Case No: 4863, 4892 Region: _____

Contract No: IL-3140

Date of Analysis FEB. 11, 1987
FEB. 12, 1987

Laboratory: ECOLOGY AND ENVIRONMENT I

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	623	594	608	2.4
Endrin	613	579	559	4.7
4,4'- DDT(1)	350	355	356	0.91
Dibutyl Chlorendate	442	427	441	1.9

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	12:36	NA	NA	5.6
Eval Mix B	RUN #19	3:31	NA	NA	8.7
Eval Mix B	RUN #31	15:53	NA	NA	9.3
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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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 A	RUN 1	12:00	—				
EVAL B	2	12:36	0.04				
EVAL C	3	13:11	0.04				
IND A	4	14:25	0.07				
IND B	5	15:00	0.07				
TOXAPHENE	6	15:39	0.07				
CHLORDANE	7	16:20	0.07				
ARACHLOR [illegible]	8	16:55	1.1				
ARACHLOR [illegible]	9	17:31	0.25				
ARACHLOR [illegible]	10	18:07	0.21				
ARACHLOR [illegible]	11	19:00	0.28				
ARACHLOR [illegible]	12	20:53	0.42				
ARACHLOR [illegible]	13	21:27	0.28				
BLANK 1-26	14	22:07	0.35				
0643	15	23:13	DL				
0643 MS	16	0:17	DL				
0643 MSD	17	1:22	DL				
BLANK 2-2	18	2:27	0.49				
EVAL B	19	3:31	0.35				
BLANK 2-3	20	4:35	0				
0752	21	5:40	INF.				
0753	22	6:44	0				
0754	23	7:49	0.56				
0754 MS	24	8:54	0.35				
IND A	25	9:58	0.39				
0754 MSD	26	10:48	0.35				
0755	27	11:27	0.32				
0756	28	12:32	DL				
0757	29	13:37	DL				
0758	30	15:06	DL				
EVAL B	31	15:53	0.32				
0799	32	16:30	DL				
0800	33	17:35	DL				
0801	34	18:41	DL				
IND A	35	21:44	0.39				
IND B	36	22:23	0.53				

DL = DILUTED OUT
INF = INTERFERENCE

Pesticide Evaluation Standards (Continued)

U-4835, 4846,

(Page 1)

Case No: 4863, 4872 Region: _____

Contract No: IL-3140

Date of Analysis: 2-13-87, 2-14-87

Laboratory: ECOLOGY AND ENVIRONMENT, I.

GC Column: SP2250/SP2401

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	903	936	925	1.8
Endrin	765	815	810	3.5
4,4'- DDT[1]	422	518	530	12
Dibutyl Chlorendate	585	616	613	2.8

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	16:47	3.5	4.9	NA
Eval Mix B	RUN 14	3:49	3.2	4.2	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					

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(1) See Exhibit E, Section 7.5.3

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 A	RUN 1	16:14	—				
EVAL B	2	16:47	0.13				
EVAL C	3	17:21	0.04				
IND B	4	17:58	0.08				
PCB 1016/1260	5	18:31	0.17				
PCB 1242	6	19:05	0.08				
BLANK 1-26	7	19:45	0.04				
0643	8	20:49	DL				
BLANK 2-2	9	22:10	0.51				
BLANK 2-3	10	22:47	0.30				
0799	11	23:31	DL				
PCB 1242	12	0:37	0.08				
0800	13	1:41	DL				
EVAL B	14	3:49	0.04				
IND B	15	4:53	0.13				

65

DL = DILUTED OUT

Pesticide Evaluation Standard

U4835, 4846, (Page 1)

Case No: 4863, 4872 Region: _____ Laboratory: Ecology and Environment I

Contract No: IL-3140 GC Column: SP2250 / SP2401

Date of Analysis: 2-16-87, 2-17-87 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	938	893	964	3.8
Endrin	740	754	771	2.1
4,4'- DDT[1]	476	532	576	9.5
Dibutyl Chlorendate	621	609	645	2.9

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	10:06	4.8	4.7	NA
Eval Mix B	RUN 19	20:31	4.1	3.8	NA
Eval Mix B	RUN 31	3:19	9.9	1.6	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					

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(1) See Exhibit E, Section 7.5.3

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 A	RUN 1	9:32	—				
EVAL B	2	10:06	0.29				
EVAL C	3	10:39	0.34				
IND A	4	11:36	0.38				
IND B	5	12:10	0.63				
TOXAPHENE	6	12:43	0.88				
CHLORDANE	7	13:17	0.29				
PCB 1016/1260	8	13:51	0.42				
PCB 1221	9	14:25	0.38				
PCB 1232	10	15:00	0.42				
PCB 1242	11	15:33	0.38				
PCB 1248	12	16:06	0.08				
PCB 1254	13	16:40	0.29				
WATER BLANK	14	17:37	0.04				
BI 576	15	18:14	0.04				
BI 577	16	18:49	0.08				
BI 577MS	17	19:23	0.21	Other Client			
BI 577MSD	18	19:57	0.21				
EVAL B	19	20:31	0.33				
AI 578	20	21:05	0.46				
AI 578	21	21:41	0.59				
BI 583	22	22:14	0.50				
SOIL BLANK	23	22:48	0.50				
BI 579	24	23:21	0.67	— Other Client			
IND A	25	23:53	0.04				
BI 580	26	0:29	0.92				
BI 581	27	1:03	1.0				
BI 581 MS	28	1:37	0.88	Other Client			
BI 581 MSD	29	2:11	0.84				
BI 582	30	2:45	0.55				
EVAL B	31	3:19	0.25				
BI 584	32	3:53	0.42	— Other Client			
IND A	33	4:25	0.17				
IND B	34	5:00	0.25				

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Case No: 4835, 4846, 4863, 4877 Region: _____

Contract No: IL-3140

Date of Analysis: 2-17-87, 2-18-87

Laboratory: ECOLOGY AND ENVIRONMENT, 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	653[1]	630	633	2.0
Endrin	608	577	560	4.2
4,4'- DDT[1]	350	354	367	2.5
Dibutyl Chlorendate	458	457	464	0.82

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	14:21	NA	NA	10.9
Eval Mix B	RUN 19	2:38	NA	NA	10.4
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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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 A	RUN 1	13:42	—				
EVAL B	2	14:21	0.14				
EVAL C	3	15:00	0.21				
IND A	4	16:00	0.24				
IND B	5	16:51	0.14				
TOXAPHENE	6	18:18	0.07				
CHLORDANE	7	18:58	0.03				
PCB 1016/1260	8	19:51	0.84				
PCB 1221	9	20:30	0.14				
PCB 1232	10	21:13	0.17				
PCB 1242	11	21:49	0.03				
PCB 1248	12	22:25	0.14				
PCB 1254	13	23:02	0.10				
BI 825+	14	23:38	0.28				
BI 826+	15	0:14	0.52				
BI 829+	16	0:50	0.70	Other Client			
BI 829MS+	17	1:26	0.73				
BI 829MSD+	18	2:02	0.80				
EVAL B	19	2:38	0.94				
BLANK WATER	20	3:14	0.77	— Other Client			
BLANK SOIL	21	3:50	0.94				
BI 5R0	22	4:26	0.91	Other Client			
BI 5R1	23	5:02	0.94				
IND A	24	6:15	0.21				
IND B	25	7:09	0.03				

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Pesticide Evaluation Standards Summary

(Page 1)

Case No: U-4835, 4846, 4863, 4872 Region: _____ Laboratory: Ecology and Environment, Inc.

Contract No: IL-3140 GC Column: OV-1

Date of Analysis: 2-19, 20-87 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	675	645	644	2.7
Endrin	642	613	592	4.1
4,4'- DDT(1)	369	385	392	3.1
Dibutyl Chlorendate	479	466	474	1.4

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	7:46	NA	NA	11.7
Eval Mix B	Run 19	22:46	NA	NA	10.1
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

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 A	RUN 1	7.11	—				
EVAL B	2	7.46	0.21				
EVAL C	3	8.22	0.18				
IND A	4	9.15	0.11				
IND B	5	9.51	0.25				
TOXAPHENE	6	10.26	0.18				
CHLORDANE	7	11.02	0.21				
PCB 1016/1260	8	11.38	1.33				
PCB 1221	9	12.14	0.25				
PCB 1232	10	12.50	0.25				
PCB 1242	11	13.25	0.21				
PCB 1248	12	14.01	0.25				
PCB 1254	13	14.37	0				
BLANK	14	15.49	0.07				
0859	15	17.14	DL				
0860	16	20.38	0.32				
0861	17	21.34	0.39				
0862	18	22.10	0.60				
EVAL B	19	22.46	0.60				
0863	20	23.21	0.70				
0863MS	21	23.57	0.63				
0863MSD	22	0:33	0.53				
0864	23	1:09	DL				
0865	24	1.45	DL				
0866	25	2.21	DL				
IND A	26	2.57	0.56				
IND B	27	3.33	0.49				

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DL = Diluted out

Pesticide Evaluation Standards Summary

(Page 1)

U-4835, 4846, 4863, 4872

Case No: _____ Region: _____

Contract No: IL-3140

Date of Analysis: 2/23/87, 2/24/87

Laboratory: ECOLOGY AND ENVIRONMENT, INC.

GC Column: OV-1

Instrument ID: HARRIAN 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	673	648	660	1.9
Endrin	640	613	597	3.5
4,4'- DDT(1)	370	385	401	4.0
Dibutyl Chlorendate	486	473	488	1.7

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	9:32	NA	NA	12.2
Eval Mix B	RUN 19	0:16	NA	NA	8.6
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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Pesticide Evaluation Standards Summary
(Page 2)
Evaluation of Retention Time Shift for Dibutyl Chlorendate
Report all standards, blanks and samples

SMO Sample No	Lab I D	Time of Analysis	Percent Diff	SMO Sample No.	Lab I.D.	Time of Analysis	Percent Diff
EVAL A	RUN 1	8:56	—				
EVAL B	2	9:32	0.04				
EVAL C	3	10:08	0.04				
IND A	4	10:48	0.14				
IND B	5	11:46	0.07				
TOXAPHENE	6	13:29	0.18				
CHLORDANE	7	13:23	0.11				
PCB 1016/1260	8	15:01	0.81				
PCB 1221	9	15:38	0.11				
PCB 1232	10	16:13	0.21				
PCB 1242	11	16:49	0.25				
PCB 1248	12	17:25	0.21				
PCB 1254	13	18:00	0.32				
0900	14	18:49	DL				
0901	15	19:57	DL				
BLANK 2-16	16	21:03	0.35				
1032	17	22:07	DL				
1033	18	23:11	0.64				
EVAL B	19	0:16	1.02				
1034	20	1:19	1.3				
1035	21	2:23	1.3				
1036	22	3:28	1.5				
1036 MS	23	4:32	1.6				
1036 MSD	24	5:36	1.5				
1037	25	8:32	0.46				
IND A	26	9:19	0.49				
IND B	27	9:55	0.38				

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Pesticide Evaluation Standards Summary

(Page 1)

Case No: U-4835, 4846, 4863, 4872 Region: _____

Contract No: IL-3140

Date of Analysis: 2-25-87, 2-26-87

Laboratory: ECOLOGY AND ENVIRONMENT, INC.

GC Column: SP2250/SP2401

Instrument ID: VARIAN 6000 GC #2

Evaluation Check for Linearity

Laboratory ID	RUN1	RUN 2	RUN 3	
Pesticide	Calibration Factor Eval. Mix A	Calibration Factor Eval Mix B	Calibration Factor Eval Mix C	% RSD (≤10%)
Aldrin	895	884	912	1.6
Endrin	870	886	921	2.9
4,4'- DDT(1)	400	414	476	9.4
Dibutyl Chlorendate	587	611	641	4.4

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	21:14	2.0	14	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					
Eval Mix B					

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(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 I D Run	Time of Analysis	Percent Diff	SMO Sample No	Lab I D	Time of Analysis	Percent Diff
EVAL A	Run 1	20:41	—				
EVAL B	2	21:14	0.04				
EVAL C	3	21:47	0.11				
IND A	4	22:21	0				
IND B	5	22:54	0.29				
PCB1016/1260	6	23:33	0.08				
BLANK	7	0:38	0.17				
0864	8	1:42	DL				
0865	9	2:47	DL				
0866	10	3:51	DL				
END A	11	4:56	0.08				
END B	12	6:01	0.08				

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Pesticide Evaluation Standards Summary

(Page 1)

V-4835, 4846, 4863, 4872

Case No: _____ Region: _____

Contract No: IL-3140

Date of Analysis: 3/2/87

Laboratory: ECOLOGY AND ENVIRONMENT, INC.

GC Column: SP2250/SP2401

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	883	906	975	5.2
Endrin	745	740	793	3.9
4,4'- DDT(1)	439	495	489	6.5
Dibutyl Chlorendate	615	650	760	11

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	14:01	12	19	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					
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 I D	Time of Analysis	Percent Diff	SMO Sample No.	Lab I D	Time of Analysis	Percent Diff
EVAL A	RUN 1	13:23	—				
EVAL B	2	14:01	0.04				
EVAL C	3	14:39	0.09				
INA B	4	15:12	0.26				
0900	5	15:52	DL				
0901	6	16:31	DL				
IND B	7	17:56	0.26				

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4835, 4846, 4863, 4872 Laboratory ECOLOGY AND ENVIRONMENT, INC

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

FEB 11, 1987
16:55 19:00
RUN 8 RUN 11

DATE OF ANALYSIS FEB 11, 1987
TIME OF ANALYSIS 14:25 / 15:00
LABORATORY ID RUN 4 / RUN 5

DATE OF ANALYSIS FEB 12, 1987
TIME OF ANALYSIS 9:58
LABORATORY ID RUN 25

COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.23	2.20-2.26	650					
beta-BHC	2.37	2.34-2.40	205					
delta-BHC	2.67	2.64-2.70	565					
gamma-BHC	2.59	2.56-2.62	591		2.59	651		10
Heptachlor	4.11	4.07-4.15	531		4.09	585		10
Aldrin	5.05	5.01-5.09	618		5.04	692		12
Heptachlor Epoxide	6.12	6.07-6.17	572		6.10	641		12
Endosulfan I	7.58	7.52-7.64	543		7.55	595		9.6
Dieldrin	8.82	8.75-8.89	580		8.79	632		9.0
4,4'-DDE	8.71	8.64-8.78	512					
Endrin	9.83	9.75-9.91	415					
Endosulfan II	10.02	9.93-10.11	544		9.98	569		4.6
4,4'-DDD	10.92	10.83-11.01	457					
Endosulfan Sulfate	12.80	12.70-12.90	345					
4,4'-DDT	14.22	14.12-14.32	369		14.16	363		1.6
Methoxychlor	20.86	20.72-21.00	198		20.79	213		7.6
Endrin Ketone	16.38	16.24-16.52	543					
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242	3.58	3.53-3.63	19	QUANT				
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260	23.28	22.96-23.60	65	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-4835,4846,4863,4872 Laboratory ECOLOGY AND ENVIRONMENT, INC

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

FEB 11 1987 16:55 19:00 RUN 8 RUN 11	DATE OF ANALYSIS	FEB 11, 1987		DATE OF ANALYSIS	FEB 12, 1987		
	TIME OF ANALYSIS	14:25 / 15:00		TIME OF ANALYSIS	21:44 / 22:23		
	LABORATORY ID	RUN 4 / RUN 5		LABORATORY ID	RUN 35 / RUN 36		

COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.23	2.20-2.26	650		2:21	723		11
beta-BHC	2.37	2.34-2.40	205		2.35	236		15
delta-BHC	2.67	2.64-2.70	565		2.65	640		13
gamma-BHC	2.59	2.56-2.62	591		2.59	664		11
Heptachlor	4.11	4.07-4.15	531		4.09	587		11
Aldrin	5.05	5.01-5.09	618		5.04	688		11
Heptachlor Epoxide	6.12	6.07-6.17	572		6.10	642		12
Endosulfan I	7.58	7.52-7.64	543		7.55	607		12
Dieldrin	8.82	8.75-8.89	580		8.79	649		12
4,4'-DDE	8.71	8.64-8.78	512		8.66	585		14
Endrin	9.83	9.75-9.91	415		9.77	486		17
Endosulfan II	10.02	9.93-10.11	544		9.99	589		8.3
4,4'-DDD	10.92	10.83-11.01	457		10.85	529		16
Endosulfan Sulfate	12.80	12.70-12.90	345		12.73	405		17
4,4'-DDT	14.22	14.12-14.32	369		14.16	390		5.7
Methoxychlor	20.86	20.72-21.00	198		20.77	221		12
Endrin Ketone	16.38	16.24-16.52	543		16.31	417		12
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242	3.58	3.53-3.63	19	QUANT.				
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260	23.28	22.96-23.60	65	QUANT.				

* SEE EXHIBIT C, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (>25% DIFFERENCE)

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. V4835,4846,4863,4872 Laboratory ECOLOGY AND ENVIRONMENT, INC.

Contract No. IL-3140 GC Column SP 2250/SP 2401 GC Instrument ID VARIAN 6000 GC #2

	DATE OF ANALYSIS	TIME OF ANALYSIS	LABORATORY ID
	FEBRUARY 13, 1987	17:58 / 18:21 / 19:05	RUN 4 / RUN 5 / RUN 6
	2-14-87	0:37	RUN 12

COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	1.77	1.74-1.80	1020					
beta-BHC	2.54	2.61-2.57	338					
delta-BHC	2.96	2.93-2.99	705					
gamma-BHC								
Heptachlor								
Aldrin	3.32	3.28-3.36	882					
Heptachlor Epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE	7.22	7.15-7.29	709					
Endrin	9.29	9.21-9.37	533					
Endosulfan II								
4,4'-DDD	11.04	10.94-11.14	550					
Endosulfan Sulfate	17.81	17.66-17.96	294					
4,4'-DDT								
Methoxychlor								
Endrin Ketone	23.66	23.44-23.88	574					
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242	2.704	2.67-2.73	24	CONF.	2.70	25		4.2
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260	20.46	20.23-20.69	112	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-4846, 4835, 4863, 4892 Laboratory ECOLOGY AND ENVIRONMENT, INC.

Contract No. IL-3140 QC Column SP 2250/SP2401 QC Instrument ID VARIAN 6000 GC #2

	DATE OF ANALYSIS: FEBRUARY 13, 1987				DATE OF ANALYSIS: 2-14-87			
	TIME OF ANALYSIS: 17:58 / 18:31 / 19:05				TIME OF ANALYSIS: 4:53			
	LABORATORY ID: RUN 4 / RUN5 / RUN6				LABORATORY ID: RUN15			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF **
alpha-BHC	1.77	1.74-1.80	1020		1.77	1047		2.6
beta-BHC	2.54	2.61-2.57	338		2.54	343		1.5
delta-BHC	2.96	2.93-2.99	705		2.96	736		4.4
gamma-BHC								
Heptachlor								
Aldrin	3.32	3.28-3.36	882		3.32	892		1.1
Heptachlor Epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE	7.22	7.15-7.29	709		7.23	731		3.1
Endrin	9.29	9.21-9.37	533		9.30	542		1.7
Endosulfan II								
4,4'-DDD	11.04	10.94-11.14	550		11.05	574		4.4
Endosulfan Sulfate	17.81	17.66-17.96	294		17.82	304		3.4
4,4'-DDT								
Methoxychlor								
Endrin Ketone	23.66	23.44-23.88	574		23.67	585		1.9
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242	2.704	2.67-2.73	24	CONF.				
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260	20.46	20.23-20.69	112	CONF.				

* SEE EXHIBIT E, PART 7

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

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4835, 4846, 4863, 4872 Laboratory ECOLOGY & ENVIRONMENT, INC.

Contract No. IL-3140 GC Column SP2250/SP2401 GC Instrument ID VARIAN 6000 #2

	DATE OF ANALYSIS 2-16-87 TIME OF ANALYSIS 11:34 → 16:40 LABORATORY ID RUN 4 → RUN 13				DATE OF ANALYSIS 2-16-87 TIME OF ANALYSIS 23:53 LABORATORY ID RUN 25			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.
alpha-BHC	1.79	1.76-1.82	1034					
beta-BHC	2.57	2.54-2.60	341	QUANT.				
delta-BHC	3.00	2.97-3.03	723					
gamma-BHC	2.26	2.22-2.28	927		2.25	929		0.2
Heptachlor	2.77	2.73-2.81	528		2.77	519		1.7
Aldrin	3.35	3.31-3.39	916		3.35	915		0.1
Heptachlor Epoxide	5.01	4.96-5.06	814		5.01	820		0.7
Endosulfan I	6.31	6.25-6.37	768		6.31	766		0.3
Dieldrin	7.71	7.64-7.78	839		7.72	829		1.2
4,4'-DDE	7.31	7.24-7.38	730					
Endrin	9.40	9.32-9.48	515					
Endosulfan II	11.34	11.24-11.44	753		11.36	754		0.1
4,4'-DDD	11.19	11.09-11.29	570					
Endosulfan Sulfate	18.05	17.90-18.20	297					
4,4'-DDT	13.44	13.29-13.59	441		13.45	433		1.8
Methoxychlor	25.84	25.67-26.01	133		25.80	131		1.5
Endrin Ketone	23.97	23.75-24.19	591					
Tech. Chlordane	5.59	5.53-5.65	148					
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene	14.12	13.96-14.28	61.3					
Aroclor - 1016	2.74	2.71-2.77	39.3					
Aroclor - 1221	1.65	1.64-166	16.7					
Aroclor - 1232	2.73	2.71-2.75	20.6					
Aroclor - 1242	2.73	2.70-2.76	25.0					
Aroclor - 1248	5.13	5.07-5.19	43.5					
Aroclor - 1254	9.13	9.09-9.17	45.0					
Aroclor - 1260	20.72	20.49-20.95	112					

* SEE EXHIBIT E, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (>25% DIFFERENCE)

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4835, 4846, 4863, 4872 Laboratory ECOLOGY & ENVIRONMENT, INC.

Contract No. IL-3140. GC Column SP2250/SP2401 GC Instrument ID VARIAN 6000 #2

	DATE OF ANALYSIS 2-16-87 TIME OF ANALYSIS 11:34 → 16:40 LABORATORY ID RUN 4 → RUN 13				DATE OF ANALYSIS 2-17-87 TIME OF ANALYSIS 4:25 5:00 LABORATORY ID RUN 33 RUN 34			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	1.79	1.76-1.82	1034		1.77	1068		3.3
beta-BHC	2.57	2.54-2.60	341	QUANT.	2.55	339		0.6
delta-BHC	3.00	2.97-3.03	723		2.98	776		7.3
gamma-BHC	2.26	2.22-2.28	927		2.24	925		0.2
Heptachlor	2.77	2.73-2.81	528		2.77	505		4.4
Aldrin	3.35	3.31-3.39	916		3.34	923		0.8
Heptachlor Epoxide	5.01	4.96-5.06	814		5.00	813		0.1
Endosulfan I	6.31	6.25-6.37	768		6.29	758		1.3
Dieldrin	7.71	7.64-7.78	839		7.70	831		1.0
4,4'-DDE	7.31	7.24-7.38	730		7.25	748		2.5
Endrin	9.40	9.32-9.48	515		9.34	561		8.9
Endosulfan II	11.34	11.24-11.44	753		11.32	749		0.5
4,4'-DDD	11.19	11.09-11.29	570		11.10	592		3.9
Endosulfan Sulfate	18.05	17.90-18.20	297		17.91	298		0.3
4,4'-DDT	13.44	13.29-13.59	441		13.41	408		7.5
Methoxychlor	25.84	25.67-26.01	133		25.76	127		4.5
Endrin Ketone	23.97	23.75-24.19	591		23.76	580		1.9
Tech. Chlordane	5.59	5.53-5.65	148					
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene	14.12	13.96-14.28	61.3					
Aroclor - 1016	2.74	2.71-2.77	39.3					
Aroclor - 1221	1.65	1.64-1.66	16.7					
Aroclor - 1232	2.73	2.71-2.75	20.6					
Aroclor - 1242	2.73	2.70-2.76	25.0					
Aroclor - 1248	5.13	5.07-5.19	43.5					
Aroclor - 1254	9.13	9.09-9.17	45.0					
Aroclor - 1260	20.72	20.49-20.95	112					

* SEE EXHIBIT E, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U4835 4863 4846, 4872 Laboratory ECOLOGY AND ENVIRONMENT, INC.

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

	DATE OF ANALYSIS 2-17-87 TIME OF ANALYSIS 16:00 → 23:02 LABORATORY ID RUN 4 → RUN 13				DATE OF ANALYSIS 2-18-87 TIME OF ANALYSIS 6:15 7:09 LABORATORY ID RUN24 RUN25			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.25	2.22-2.28	6.54		2.25	779		19
beta-BHC	2.39	236-2.42	217		2.38	204		6.0
delta-BHC	2.69	2.66-2.72	572		2.69	653		3.3
gamma-BHC	2.62	2.59-2.65	601		2.61	674		12
Heptachlor	4.15	4.11-4.19	545		4.14	611		12
Aldrin	5.11	5.07-5.15	634		5.09	699		10
Heptachlor Epoxide	6.19	6.14-6.24	588		6.16	651		11
Endosulfan I	7.66	7.60-7.72	558		7.63	616		10
Dieldrin	8.92	8.85-8.99	593		8.88	661		11
4,4'-DDE	8.81	8.74-8.88	531		8.78	589		11
Endrin	9.94	9.86-10.02	422		9.91	460		9.0
Endosulfan II	10.14	10.05-10.23	534		10.09	607		14
4,4'-DDD	11.05	10.96-11.14	487		11.01	483		0.8
Endosulfan Sulfate	12.96	12.86-13.06	391		12.92	431		10
4,4'-DDT	14.38	14.28-14.48	373		14.33	418		12
Methoxychlor	21.11	20.97-21.25	194		21.02	227		17
Endrin Ketone	16.58	16.44-16.72	568		16.53	623		9.7
Tech. Chlordane	7.05	6.96-7.14	82.5					
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene	14.39	14.29-14.49	65.5					
Aroclor - 1016	3.62	3.57-3.67	28.3					
Aroclor - 1221	2.26	2.23-2.29	10.8					
Aroclor - 1232	3.62	3.57-3.67	16.6					
Aroclor - 1242	3.62	3.57-3.67	20.4					
Aroclor - 1248	6.29	6.23-6.35	38.5					
Aroclor - 1254	10.80	10.74-10.86	35.9					
Aroclor - 1260	23.53	23.21-23.85	67.5					

* SEE EXHIBIT E, PART 7

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

7/85

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4835, 4846, 4863, 4872 Laboratory ECOLOGY AND ENVIRONMENT, INC.

Contract No. IL-340 GC Column OV-1 GC Instrument ID VARIAN 6000 GC #2

	DATE OF ANALYSIS 2-19-87 TIME OF ANALYSIS 9:15 → 14:37 LABORATORY ID RUN 4 → RUN 13				DATE OF ANALYSIS 2-20-87 TIME OF ANALYSIS 2:57 / 3:33 LABORATORY ID RUN 26 / RUN 27			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.25	2.22-2.28	700		2.26	758		8.3
beta-BHC	2.39	2.36-2.42	228		2.40	246		7.9
delta-BHC	2.69	2.66-2.72	611		2.70	665		8.8
gamma-BHC	2.62	2.59-2.65	639		2.63	695		8.8
Heptachlor	4.13	4.09-4.17	580		4.15	614		5.9
Aldrin	5.07	5.03-5.11	675		5.10	697		3.3
Heptachlor Epoxide	6.15	6.10-6.20	627		6.17	653		4.1
Endosulfan I	7.60	7.54-7.66	593		7.64	642		8.3
Dieldrin	8.85	8.78-8.92	629		8.90	657		4.3
4,4'-DDE	8.72	8.65-8.79	566		8.79	595		5.1
Endrin	9.84	9.76-9.92	462		9.92	462		0
Endosulfan II	10.05	9.96-16.14	590		10.11	551		6.6
4,4'-DDD	10.93	10.84-11.02	517	QUANT.	11.01	494		4.4
Endosulfan Sulfate	12.82	12.72-12.92	419		12.90	451		7.6
4,4'-DDT	14.25	14.15-14.35	417	QUANT.	14.34	426		2.2
Methoxychlor	20.88	20.74-21.02	214		21.02	206		3.7
Endrin Ketone	16.39	16.25-16.53	601		16.50	647		7.7
Tech. Chlordane	7.01	6.92-7.10	83.8					
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene	14.25	14.15-14.35	65.5					
Aroclor - 1016	3.61	3.56-3.66	29.8					
Aroclor - 1221	2.27	2.24-2.30	10.7					
Aroclor - 1232	3.61	3.56-3.66	17.2					
Aroclor - 1242	3.61	3.56-3.66	20.8					
Aroclor - 1248	6.26	6.20-6.32	41.0					
Aroclor - 1254	10.74	10.68-10.80	39.3					
Aroclor - 1260	23.33	23.01-23.65	69.5	QUANT.				

* SEE EXHIBIT E, PART 7

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

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. 4835, 4846, 4863, 4872 Laboratory ECOLOGY AND ENVIRONMENT, INC.

Contract No. IL-3140 GC Column OV-1 GC Instrument ID VARIAN 620 (1)

	DATE OF ANALYSIS	TIME OF ANALYSIS	LABORATORY ID
	2/23/87	10.48 → 18:00	RUN 4 → RUN 13
	2/24/87	9.19 / 9.55	RUN 26 / RUN 27

COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.24	2.21-2.27	728		2.25	757		4.0
beta-BHC	2.38	2.35-2.41	229		2.39	245		7.0
delta-BHC	2.68	2.65-2.71	628		2.69	667		6.2
gamma-BHC	2.60	2.57-2.63	614		2.61	639		4.1
Heptachlor	4.12	4.08-4.16	561		4.13	585		4.3
Aldrin	5.06	5.02-5.10	652		5.08	666		2.1
Heptachlor Epoxide	6.12	6.07-6.17	611		6.14	625		2.3
Endosulfan I	7.58	7.52-7.64	577		7.60	598		3.6
Dieldrin	8.81	8.74-8.88	621		8.84	638		2.7
4,4'-DDE	8.70	8.63-8.77	593		8.73	618		4.3
Endrin	9.82	9.74-9.90	473		9.84	526		11
Endosulfan II	10.01	9.92-10.10	578		10.04	583		0.87
4,4'-DDD	10.91	10.82-11.00	550		10.92	550		0
Endosulfan Sulfate	12.78	12.68-12.88	446		12.81	456		2.2
4,4'-DDT	14.20	14.10-14.30	395		14.24	393		0.51
Methoxychlor	20.81	20.67-20.95	209		20.87	215		2.9
Endrin Ketone	16.35	16.21-16.49	635		16.39	659		3.8
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene	14.22	14.12-14.32	45.3					
Aroclor - 1016	3.60	3.55-3.65	30.5					
Aroclor - 1221	2.26	2.23-2.29	16.3					
Aroclor - 1232	3.60	3.55-3.65	17.7					
Aroclor - 1242	3.60	3.55-3.65	21.4					
Aroclor - 1248	6.24	6.18-6.30	38.8					
Aroclor - 1254	14.69	14.63-14.75	33.8					
Aroclor - 1260	25.24	22.92-23.56	71					

* EXHIBIT E, PART 7

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

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. V-4835,4846,4863,4872 Laboratory ECOLOGY & ENVIRONMENT, INC.

Contract No. IL-3140 GC Column SP2250/SP2401 GC Instrument ID VARIAN 6000 #2

	DATE OF ANALYSIS 2-25-87 TIME OF ANALYSIS 22:21 → 23:33 LABORATORY ID RUN 4 → RUN 6				DATE OF ANALYSIS 2-26-87 TIME OF ANALYSIS 4:56 / 6:01 LABORATORY ID RUN 11 RUN 12			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	1.78	1.75 - 1.81	1045		1.78	1041		0.4
beta-BHC	2.56	2.52 - 2.59	337		2.56	339		0.6
delta-BHC	2.98	2.95 - 3.01	760		2.99	757		0.4
gamma-BHC	2.25	2.22 - 2.28	847		2.24	877		3.5
Heptachlor	2.77	2.73 - 2.81	760		2.76	812		6.8
Aldrin	3.35	3.31 - 3.39	841		3.34	872		3.7
Heptachlor Epoxide	5.00	4.95 - 5.05	769		4.99	773		0.5
Endosulfan I	6.30	6.24 - 6.36	729		6.28	734		0.7
Dieldrin	7.69	7.62 - 7.76	784		7.68	788		0.5
4,4'-DDE	7.26	7.19 - 7.32	734		7.26	741		1.0
Endrin	9.34	9.26 - 9.42	608		9.32	579		4.8
Endosulfan II	11.30	11.20 - 11.40	728		11.29	732		0.5
4,4'-DDD	11.11	11.01 - 11.21	604	CONF.	11.09	605		0.2
Endosulfan Sulfate	17.87	17.72 - 18.02	390		17.84	363		6.9
4,4'-DDT	13.41	13.26 - 13.56	433	CONF.	13.37	488		13
Methoxychlor	25.71	25.54 - 25.88	217		25.69	229		5.5
Endrin Ketone	23.80	23.58 - 24.02	592		23.75	623		5.2
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260	20.61	20.38 - 20.84	111	CONF.				

* EXHIBIT E, PART 7

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

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4835, 4844, 4863, 4872 Laboratory Ecology and Environment, Inc.

Contract No. PA-3140 GC Column SP-2250/SP-2401 GC Instrument ID Varian 6000 GC #2

	DATE OF ANALYSIS 3/2/87 TIME OF ANALYSIS 15:12 LABORATORY ID Rnd 4				DATE OF ANALYSIS 3/2/87 TIME OF ANALYSIS 17:56 LABORATORY ID Rnd 7			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	1.77	1.74-1.80	1030		1.77	1070		3.9
beta-BHC	2.54	2.51-2.57	342		2.54	340		0.58
delta-BHC	2.97	2.94-3.00	727		2.96	757		4.1
gamma-BHC								
Heptachlor								
Aldrin	3.32	3.29-3.35	889		3.31	899		1.1
Heptachlor Epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE	7.20	7.06-7.34	723		7.19	743		2.8
Endrin	9.25	9.07-9.43	477		9.24	516		10
Endosulfan II								
4,4'-DDD	11.01	10.79-11.23	582		11.01	591		1.5
Endosulfan Sulfate	17.70	17.40-18.00	314		17.70	317		0.96
4,4'-DDT								
Methoxychlor								
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260								

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* CLP EXHIBIT E, PART 7

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

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Pesticide/PCB Identification

Case No. U-4835, 4846, 4863, 4872

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)
0643	OV-1	PCB 1242	3.59	3.53 - 3.63	SP2250/SP2401	2.70	2.67-2.73	N
0643 MS			3.58					
0643 MSD			3.58					
0753		PCB 1260	23.29	22.96 - 23.60				
0756			23.22					
0758			23.21					
0799			23.10			20.39	20.23-20.69	N
0800			23.15			20.46	20.23-20.69	N
0801			23.16					

4/84
505095

FORM X

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Pesticide/PCB Identification

Case No. V-4835, 4846, 4863, 4872 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)
0864	OV-1	4,4'-DDD	10.98	10.84 - 11.02	SP2250/SP2401	11.13	11.01 - 11.21	N
0865	↓	4,4'-DDD	11.00	10.84 - 11.02	↓	11.12	11.01 - 11.21	N
0865		4,4'-DDT	14.35	14.15 - 14.35		13.39	13.26 - 13.56	N
0866	↓	PCB 1260	23.48	23.01 - 23.65	↓	20.57	20.38 - 20.84	N

4/84
505095

FORM X

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GC/MS TUNING

1. DFTPP FORM V

2. BFB FORM V

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481095

GC/MS TUNING AND MASS CALIBRATION

V-4835, 4846, Decafluorotriphanylphosphine (DFTPP)

Case No. 4863, 4872 Contractor Ecology & Environment Inc. Contract No. II-3140

Instrument ID HP5970D Date 6-19-86 Time 1436

Lab ID D0034 Data Release Authorized By: C Hoytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	56.4
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	67.0
70	less than 2.0% of mass 69	0.21 (0.31)[1]
127	40.0 - 60.0% of mass 198	46.9
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.93
275	10.0 - 30.0% of mass 198	21.0
365	greater than 1.00% of mass 198	2.47
441	present, but less than mass 443	9.97
442	greater than 40.0% of mass 198	68.1
443	17.0 - 23.0% of mass 442	13.0 (19.1)[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 - 20 ug/L D0036	6-19-86	1632
	60 ug/L D0037		1736
	80 ug/L D0038		1836
	120 ug/L D0039		1928
	160 ug/L D0040		2024

FORM V 498095 7/85

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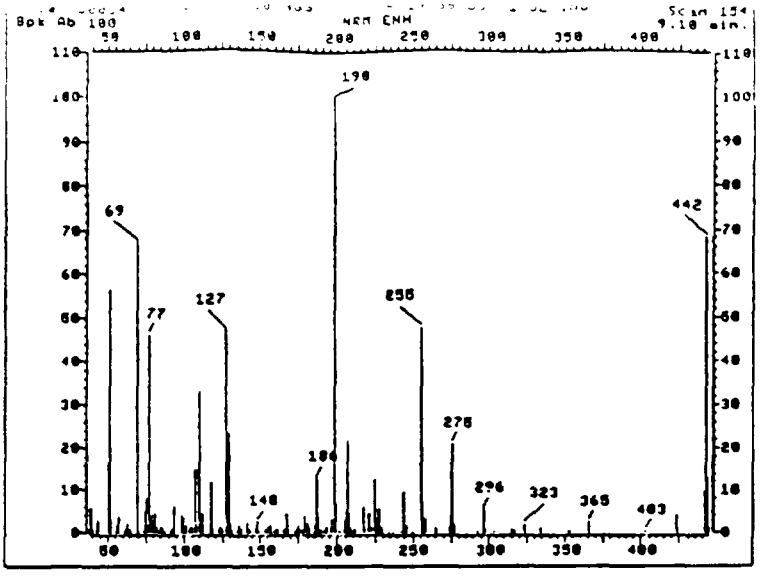

>00034 DFTPP 50 NGS 6/19/86MDS 1 UL INJ
154 NRM ENH

File: >00034 Scan #: 154 Retn. time: 9.10

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.95	.85	88.00	.15	140.90	2.50	187.05	3.60	244.05	9.39
38.95	5.95	91.00	.29	142.00	.76	188.05	.18	245.05	1.11
39.95	1.12	92.00	.27	143.00	.54	188.95	.65	245.95	1.70
42.95	.23	93.00	6.11	146.10	.22	190.95	.47	248.95	.22
43.95	2.29	96.90	.15	147.00	1.32	191.95	.88	254.95	47.84
50.05	16.29	98.00	4.02	148.00	2.71	193.05	1.32	255.95	7.03
51.05	56.44	99.00	3.31	149.00	.51	195.95	3.12	257.05	.55
51.95	2.66	100.00	.23	151.00	.22	197.95	100.00	257.95	2.94
55.05	.23	101.00	1.74	153.00	.23	198.95	6.93	264.95	.97
55.95	1.77	103.00	.67	154.00	.53	200.05	.26	272.95	1.38
56.95	3.87	104.00	1.30	155.00	1.49	201.35	.40	273.95	3.92
61.05	.42	104.90	1.19	156.00	1.90	203.05	.68	274.95	21.00
61.90	.64	107.00	14.80	157.80	.22	203.95	3.15	275.95	2.42
63.00	2.24	108.00	2.15	159.00	.38	205.05	5.24	276.95	1.62
64.10	.20	110.00	32.99	160.00	.68	206.05	21.54	292.75	.38
65.00	.66	111.00	4.57	160.90	.87	207.05	4.61	295.95	5.75
69.00	67.05	111.90	.29	164.90	.82	208.05	1.11	296.85	.76
70.00	.21	116.00	.83	166.00	.71	208.75	.12	302.85	.58
73.10	.90	117.00	11.76	167.00	4.52	210.05	.17	314.90	.61
74.00	4.82	118.00	.87	168.00	2.21	210.95	.79	316.00	.38
..00	8.23	122.00	.85	171.80	.17	216.95	5.98	323.10	1.91
76.10	1.92	123.00	1.52	172.90	.45	217.95	.60	334.00	.98
77.00	46.20	123.90	.70	174.00	1.01	220.95	4.54	352.80	.46
78.10	2.96	124.80	.57	175.00	1.81	222.95	1.57	353.00	.49
79.00	4.13	127.00	46.89	176.00	.31	224.05	12.35	365.00	. 2.47
80.00	2.58	128.00	3.90	177.00	.77	225.05	3.21	402.90	.57
81.00	4.32	129.00	23.30	177.90	.16	225.95	.20	423.80	3.98
81.90	1.06	129.90	2.11	178.90	3.64	226.95	5.42	423.80	.60
83.10	.34	130.80	.38	180.80	2.16	227.95	.79	441.05	9.97
84.00	.38	134.00	.49	180.90	.97	228.95	.96	442.05	68.07
85.00	1.30	135.00	1.64	184.05	.18	233.85	.14	443.05	13.80
86.00	1.03	136.10	.61	185.85	2.82	237.05	.18	444.05	1.14
86.90	.40	137.10	.66	186.05	13.07	242.05	.54		

M^{e} data file header from : >00034

Sample: DFTPP 50 NGS Operator: MANAGER MS 6/19/86 14:36
Misc : 6/19/86MDS 1 UL INJ
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # :***
Method file: DFTPPD Tuning file: MTDON3 No. of extra records: 1
Source temp.: 0 Analyzer temp.: 279 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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GC/MS TUNING AND MASS CALIBRATION

U-4835, 4846, Decafluorotriphanylphosphine (DFTPP)

Case No. 4863, 4872 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 10-17-86 Time 1108

Lab ID D0960 Data Release Authorized By: C Bogtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	58.2
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	68.4
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	42.6
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.46
275	10.0 - 30.0% of mass 198	21.2
365	greater than 1.00% of mass 198	2.03
441	present, but less than mass 443	8.55
442	greater than 40.0% of mass 198	50.1
443	17.0 - 23.0% of mass 442	9.72 (19.4)[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 20ng/L D0965	10-17-86	1554
	50 ng/L D0966		1652
	80 ng/L D0967		1747
	120 ng/L D0968		1839
	160 ng/L D0969		1931

FORM V 493095 7/85

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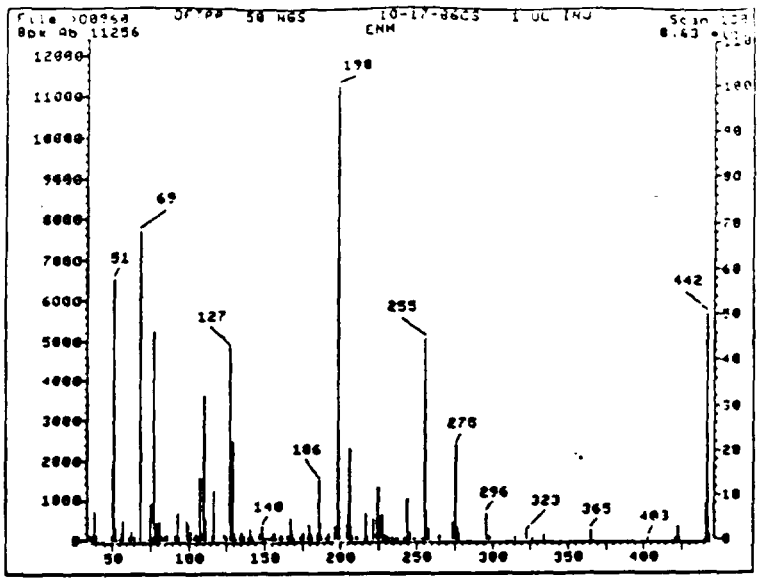

>00960 DFTPP 50 NGS 10-17-86CS 1 UL INJ
130 NRM ENH

File: >00960 Scan #: 130 Retn. time: 8.63

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	1.16	86.05	1.06	141.00	2.41	192.05	.93	248.80	.36
37.05	.11	91.00	.97	142.10	.82	192.95	1.34	253.20	.38
38.05	1.42	91.90	.80	142.70	.07	196.05	2.84	255.00	44.75
39.05	6.27	93.00	5.85	146.15	.43	197.95	100.00	254.00	6.54
39.95	.92	93.90	.45	146.95	1.26	198.95	6.46	256.90	.49
40.15	.32	98.00	4.29	147.95	2.82	202.55	.07	258.00	2.44
49.05	1.18	99.00	3.39	149.05	.55	204.05	3.39	264.95	.97
50.00	15.98	100.00	.44	151.35	.45	205.10	5.41	273.15	1.45
51.00	58.17	101.00	1.91	152.95	.83	206.00	20.24	273.95	3.85
52.10	2.54	103.00	.66	153.95	.54	207.10	3.06	275.05	21.18
52.80	.06	104.10	1.26	155.05	1.26	208.00	.73	276.05	2.69
55.10	.28	105.10	1.12	156.05	1.66	211.80	.84	276.95	1.72
56.10	1.70	105.90	.12	156.75	.32	216.20	.17	296.00	5.89
57.00	4.39	107.10	13.81	159.95	.92	217.80	5.97	297.10	.81
61.00	.82	107.95	1.96	161.05	1.05	218.00	.65	314.95	.48
62.10	.81	110.05	32.14	165.05	.94	221.10	4.61	315.15	.12
63.10	2.02	111.05	4.47	167.00	4.55	221.80	.19	323.00	1.62
65.10	.76	116.05	.75	168.00	2.08	223.00	1.50	326.70	.38
68.95	68.36	117.05	10.78	168.90	.45	224.05	11.74	334.10	.98
73.05	.54	122.95	1.38	173.00	.60	225.05	2.51	365.00	2.03
74.05	4.85	124.05	.68	174.00	.93	227.05	5.44	401.90	.38
74.95	8.24	125.05	.60	175.08	1.61	228.05	.62	403.10	.46
76.05	.59	127.00	42.62	177.80	.11	229.05	.93	420.75	.36
77.05	46.36	128.18	3.57	178.00	.40	230.95	.38	421.05	.08
78.15	3.18	129.00	21.86	179.00	3.29	234.05	.32	422.95	3.01
79.05	3.88	130.00	1.67	180.10	1.87	236.75	.38	423.95	.58
80.05	2.68	131.00	.42	181.10	1.09	241.95	.67	439.40	.20
81.05	3.98	134.10	.63	185.05	1.78	242.25	.11	439.80	.07
82.05	.91	135.10	1.72	186.05	13.11	242.90	.15	441.00	8.55
83.05	.85	136.00	.74	187.05	3.55	244.00	9.07	442.00	58.14
84.05	.93	136.90	.68	188.05	.36	245.00	1.13	443.00	9.72
84.95	1.02	140.00	.29	191.15	.49	246.00	1.80	444.10	.94

MS data file header from : >00960

Sample: DFTPP 50 NGS Operator: USER6 MS 10/17/86 11:08
Misc : 10-17-86CS 1 UL INJ BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPP0 Tuning file: MTDON2 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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GC/MS TUNING AND MASS CALIBRATION

Decafluorotriphenylphosphine (DFTPP)

V-4835, 4846,
Case No. 4863, 4872 Contractor ECOLOGY & ENVIRONMENT INC. Contract No. IL-3140

Instrument ID HP5970D Date 2/13/87 Time 1405

Lab ID D1702 Data Release Authorized By: [signature]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	50.5
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	75.1
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	41.6
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.71
275	10.0 - 30.0% of mass 198	18.9
365	greater than 1.00% of mass 198	1.37
441	present, but less than mass 443	4.62
442	greater than 40.0% of mass 198	46.5
443	17.0 - 23.0% of mass 442	8.78 (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-50NG	D1703	2/13/87	1433
	AP STD-50NG	D1706		1743
	BLANK (2/2)	D1707		1848
DC-G4-35	754	D1709		2043
DC-G4-35MS	754MS	D1710		2135
DC-G4-35MSD	754MSD	D1711		2227
DC-G4-36	755	D1712		2320
	BLANK (2/2)	D1714	2/14/87	0105
DC-I3-40	799	D1715	2/14/87	0159

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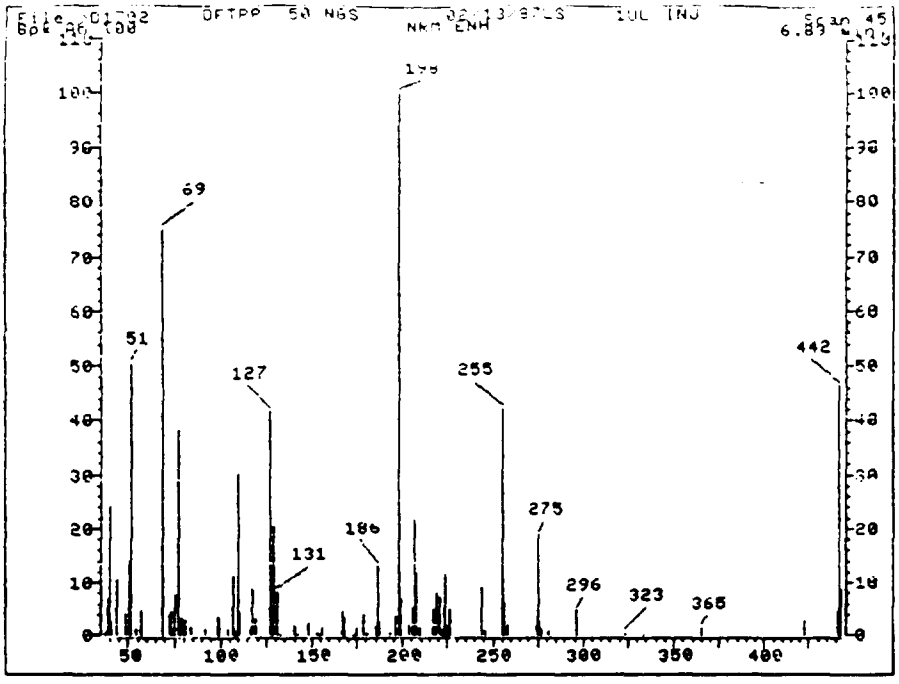

>D1702 DFTPP 50 NGS 02/13/87LS 1UL INJ
45 NKM ENH

File: >D1702 Scan #: 45 Retn. time: 6.89

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.35	.40	80.05	2.61	129.05	20.17	192.80	.44	245.85	.58
38.35	.71	81.05	2.64	131.05	8.21	194.95	3.46	246.05	.31
39.15	6.99	83.85	1.42	132.85	.22	197.95	100.00	254.90	42.11
40.05	24.09	91.95	.94	140.80	1.68	198.95	6.71	256.00	6.04
40.95	2.24	98.00	3.46	142.20	.22	204.05	2.10	258.00	1.87
44.05	10.18	99.00	3.37	148.00	2.17	205.05	5.56	274.10	3.22
49.05	3.79	99.50	.41	153.00	.26	206.05	21.65	275.00	18.90
50.15	13.87	99.80	1.96	153.30	.20	207.05	11.69	275.95	2.41
51.05	50.49	104.00	.90	153.55	.18	209.05	1.41	276.85	1.16
54.80	.91	107.10	11.19	156.05	1.30	216.90	4.99	281.25	.84
57.00	4.66	108.00	1.13	167.05	4.48	219.10	8.01	296.10	4.85
69.00	75.07	109.20	.44	168.05	3.36	221.00	7.05	323.15	.50
72.95	3.79	110.00	30.06	172.95	.16	221.80	.95	334.05	.17
73.95	4.50	111.00	4.39	175.00	1.49	222.90	.34	364.85	1.32
74.25	.64	116.25	1.03	178.90	4.02	223.10	.36	422.90	2.21
74.95	7.73	117.05	8.57	181.00	.33	224.00	11.74	440.85	4.62
77.05	38.25	119.05	2.92	185.00	1.67	225.00	2.03	441.95	46.50
78.05	3.00	127.05	41.60	186.10	13.20	227.00	4.80	443.05	8.78
78.95	3.35	127.85	2.75	187.10	2.31	243.95	9.03		

MS data file header from : >D1702

Sample: DFTPP 50 NGS Operator: USER6 MS 2/13/87 14:05
Misc : 02/13/87LS 1UL INJ BIL# 1
Sys. #: 1- MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPD Tuning file: MTDUN No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures :	150.	280.	0.	0.	0.
Chromatographic times, min. :	0.0	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

Decafluorotriphenylphospine (DFTPP)

97

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	50.49	50.49	Ok

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GC/MS TUNING AND MASS CALIBRATION

U-4835, 4846, Decafluorotriphenylphosphine (DFTPP)

Case No. 4863, 4872 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 2/16/87 Time 1335

Lab ID D1720 Data Release Authorized By: [signature]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	57.4
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	67.8
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	40.1
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	7.09
275	10.0 - 30.0% of mass 198	24.2
365	greater than 1.00% of mass 198	2.35
441	present, but less than mass 443	9.11
442	greater than 40.0% of mass 198	91.6
443	17.0 - 23.0% of mass 442	17.6 (19.2)[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	D1722	2-16-87	1504
	AP STD-50 ng	D1723		1600
DC-GB-34	753	D1725		1809
DC-G3-33	752	D1726		1903
DC-I11-52	901	D1727		1956
DC-I1-38	757	D1730		2252
DC-I11-51	900	D1732	2-17-87	0038

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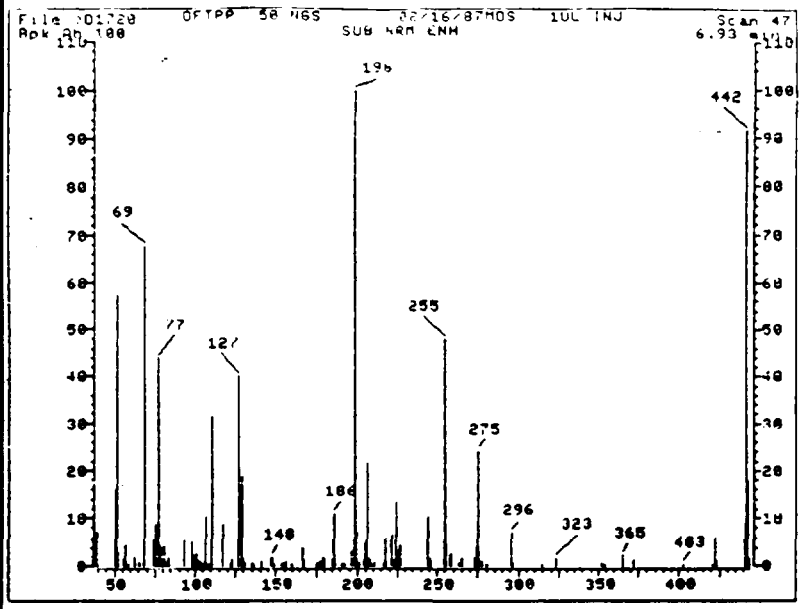

>D1720 DFTPP 50 NGS 02/16/87MDS 1UL INJ
47 SUB NRM ENH

File: >D1720 Scan #: 47 Retn. time: 6.93

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
39.15	7.22	100.90	2.63	156.15	.93	208.00	1.26	273.95	3.77
39.95	.21	103.00	.89	160.45	.26	208.90	.46	274.95	24.21
50.00	16.09	104.10	.72	167.10	4.08	210.40	.43	276.05	3.18
51.00	57.38	104.80	.39	167.90	1.50	210.70	.61	277.05	.98
52.00	3.11	107.10	10.26	175.20	.83	210.90	.59	280.75	.31
56.00	1.52	109.05	.39	177.00	1.04	216.10	.31	295.20	.40
57.00	4.55	110.05	31.57	179.00	1.85	217.00	5.84	295.90	7.14
58.80	.33	110.95	3.53	180.00	1.69	217.80	.55	297.00	.63
63.00	2.06	117.05	8.86	185.05	1.30	221.00	6.59	314.95	.50
65.20	.64	121.65	.48	186.05	11.06	223.20	1.36	323.00	1.84
68.95	67.75	123.05	1.21	186.95	2.40	223.95	13.55	351.95	.78
73.95	5.39	127.00	40.06	191.05	.38	224.95	3.36	353.85	.51
75.05	8.80	129.00	18.79	192.05	.60	227.05	4.67	364.90	2.35
76.05	1.54	130.00	1.97	193.05	.51	243.90	10.29	372.00	1.43
77.05	43.93	130.90	.68	195.95	3.27	244.80	1.73	402.70	.51
77.95	4.48	135.00	.61	197.95	100.00	245.90	1.28	402.90	.51
79.05	3.94	136.70	.29	198.95	7.09	246.10	.60	420.95	.34
79.85	1.15	141.10	.91	199.85	.35	255.00	48.01	422.95	5.88
81.05	4.09	146.95	1.52	201.35	.78	255.90	5.68	423.75	.89
82.95	.43	147.75	2.06	204.10	2.41	258.10	2.80	441.10	9.11
83.95	1.58	148.55	.31	205.00	4.98	263.65	.87	442.10	91.57
93.00	5.50	153.05	.76	205.90	21.63	264.95	1.58	443.00	17.60
98.10	5.21	155.15	.72	207.00	1.81	273.05	2.07	443.90	1.58
99.10	2.44								

MS data file header from : >D1720

Sample: DFTPP 50 NGS Operator: USER4 MS 2/16/87 13:35
Misc : 02/16/87MDS 1UL INJ BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPD Tuning file: MTDUN No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures : 150. 280. 0. 0. 0.
Chromatographic times, min. : 0.0 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

Decafluorotriphenylphosphine (DFTPP)

U-4835, 4846,

Case No. 4863, 4872 Contractor ECOLOGY & ENVIRONMENT INC. Contract No. IL-3140

Instrument ID HP5970D Date 2/23/87 Time 1051

Lab ID D1790 Data Release Authorized By: [signature]

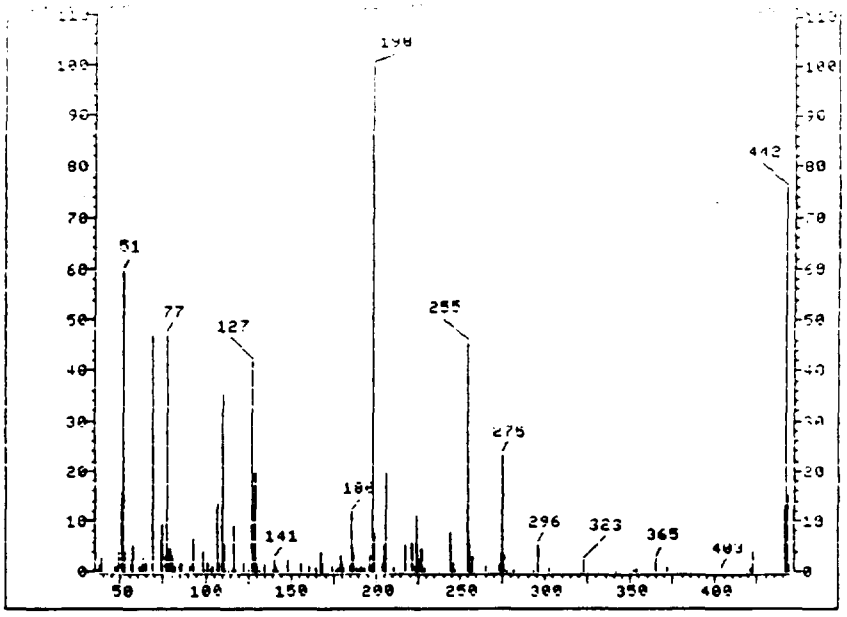
m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	59.5
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	46.8
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	41.7
197	less than 1.0% of mass 198	0.94
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	7.30
275	10.0 - 30.0% of mass 198	23.2
365	greater than 1.00% of mass 198	2.53
441	present, but less than mass 443	13.2
442	greater than 40.0% of mass 198	75.9
443	17.0 - 23.0% of mass 442	15.1 (19.9)[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-50ng	D1792	2-23-87	1223
	AP STD-50ng	D1793		1326
	BLANK (2/4)	D1794		1427
DC-G5-37	756	D1795		1523
DC-I2-39	758	D1796		1616
DC-I5-41	800	D1797		1711
DC-I5-42	801	D1798		1804
	BLANK (2/5)	D1799		1857
DC-I8-44	860	D1800		1950
DC-I7-46	862	D1801		2043
DC-I7-47	863	D1802		2136
DC-I7-47MS	863MS	D1803	2-23-87	2230

100



>D1790 DFIPP 50 NGS 02-23-87CS 1UL INJ
43 SUB NRM ENH

File: >D1790 Scan #: 43 Retn. time: 6.86

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.35	.35	82.05	1.04	128.95	19.61	190.90	.62	258.00	3.10
37.75	.52	84.95	1.47	129.95	1.59	191.80	1.10	265.00	1.20
38.05	1.22	85.45	.25	132.35	.20	193.00	.74	272.90	1.43
38.35	.55	86.05	1.89	135.00	1.52	196.05	3.21	274.10	3.74
39.05	2.63	91.15	1.04	140.00	.48	196.85	.94	275.00	25.23
46.85	1.08	92.90	6.61	141.00	2.38	197.95	100.00	276.05	3.32
48.05	.34	98.10	3.84	141.80	.23	198.95	7.30	278.05	.17
48.85	3.77	99.10	.27	143.00	.19	203.95	2.48	281.25	.53
50.15	15.64	101.00	2.06	148.00	2.25	205.05	5.18	292.95	.51
51.05	59.51	103.00	.47	156.05	1.77	205.95	19.54	296.00	5.37
52.10	3.82	104.70	.91	161.05	1.08	211.15	.83	302.90	.74
56.10	2.17	107.00	13.54	164.95	.67	217.00	5.17	323.05	2.29
57.00	5.11	108.00	1.63	167.15	3.77	220.90	5.91	341.10	.23
61.10	.92	110.00	35.45	167.75	.74	223.00	1.14	352.00	.53
63.10	2.72	111.00	5.49	168.05	1.70	224.00	10.88	354.00	.22
65.00	1.67	112.00	.40	174.70	1.00	224.90	2.47	364.95	2.53
69.00	46.75	113.95	.17	175.90	.22	227.00	4.49	371.95	1.13
73.95	6.16	115.95	.39	176.80	.68	229.00	.88	403.05	.23
74.95	9.30	116.95	8.90	179.00	3.25	244.05	7.89	421.00	.58
76.05	3.26	117.95	.42	180.10	2.13	244.85	1.44	421.70	.85
77.05	46.98	122.85	1.62	181.00	.80	245.85	1.97	423.00	3.77
78.05	3.28	125.05	.32	185.00	1.28	247.15	.52	441.05	13.20
79.05	4.50	127.05	41.70	186.00	11.93	247.45	.18	442.05	75.93
80.05	3.22	127.85	2.97	187.00	3.62	255.00	45.38	442.95	15.07
81.05	2.22	128.05	1.15	188.90	.70	256.00	6.20	444.05	1.27

MS data file header from : >D1790

Sample: DFIPP 50 NGS Operator: USER6 MS 2/23/87 10:51
Misc : 02-23-87CS 1UL INJ BIL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFIPPD Tuning file: MTDUN No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures : 150. 280. 0. 0. 0.
Chromatographic times, min. : 0.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 5.0 0.0 0.0 0.0 0.0

GC/MS TUNING AND MASS CALIBRATION

V-4835, 4846, **Decafluorotriphenylphosphine (DFTPP)**

Case No. 4863, 4872 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 2/25/87 Time 1045

Lab ID D1819 Data Release Authorized By: C Stoytowicz

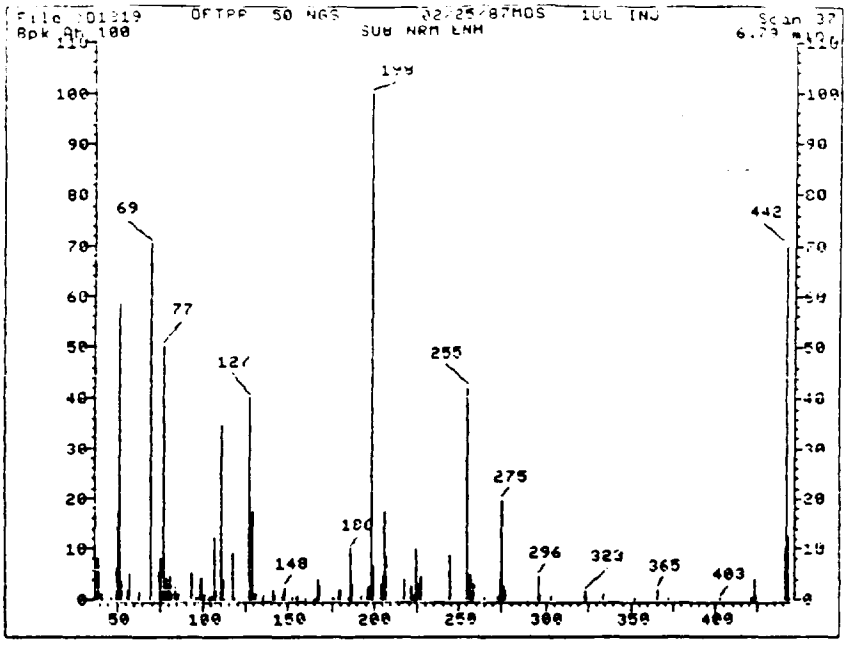
m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	58.4
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	70.5
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	40.0
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.59
275	10.0 - 30.0% of mass 198	19.6
365	greater than 1.00% of mass 198	2.08
441	present, but less than mass 443	10.4
442	greater than 40.0% of mass 198	69.8
443	17.0 - 23.0% of mass 442	12.5 (129)[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	D1820	2-25-87	1107
	BN STD-50ng	D1821		1215
DC-I7-47 MSD	863 MSD	D1828		1840
DC-I7-45	861	D1829		1938

102



>D1819 DFTPP 50 NGS 02/25/87MOS 1UL INJ
37 SUB NRM ENH

File: >D1819 Scan #: 37 Retn. time: 6.79

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
39.05	8.11	83.95	2.35	135.10	.77	198.95	6.59	275.10	19.63
41.05	1.06	84.95	.60	140.90	1.87	204.05	2.86	276.05	2.70
42.05	.19	86.05	1.16	142.10	.67	205.05	4.70	277.05	2.08
46.95	.35	93.00	5.32	146.90	.95	206.05	17.52	295.90	4.59
49.15	6.09	95.70	.50	148.00	2.40	207.05	8.28	297.00	.72
50.05	17.36	98.10	3.56	152.80	.31	217.00	3.89	303.00	.87
51.05	58.39	99.10	4.18	154.95	.85	220.80	2.55	323.05	1.52
52.10	3.52	100.20	.77	159.75	.19	221.70	1.11	324.05	.45
56.00	2.09	100.80	1.07	164.85	.19	223.10	.82	334.05	1.04
57.00	4.93	103.80	.55	166.95	3.78	224.00	9.98	352.00	.38
62.70	.34	104.90	.75	168.05	2.53	225.00	2.85	364.95	2.08
63.10	1.22	107.00	12.35	175.80	.34	227.00	4.44	372.15	.54
69.00	70.50	108.00	1.83	176.70	.46	244.05	8.62	403.05	.56
74.05	5.50	110.10	34.54	179.10	2.16	255.00	42.04	420.90	.31
75.05	8.09	111.00	3.96	180.10	1.57	256.10	5.00	422.00	.50
75.85	1.83	112.00	.23	184.90	.54	257.10	.34	423.00	3.85
77.05	50.10	117.05	9.14	186.00	9.95	258.00	2.85	424.10	.60
78.05	3.77	117.95	.29	187.10	2.82	258.90	.39	441.05	10.38
79.05	4.29	127.05	40.04	192.10	.81	265.00	.47	442.05	69.76
80.05	3.33	128.05	3.55	195.95	2.63	273.00	.63	443.05	12.54
80.95	4.55	129.05	17.52	197.95	100.00	274.10	4.06	444.05	.48
81.95	.94	130.05	1.04						

MS data file header from : >D1819

Sample: DFTPP 50 NGS Operator: USER6 MS 2/25/87 10:45
Misc : 02/25/87MOS 1UL INJ BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPU Tuning file: MTDUN No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures : 150. 280. 0. 0. 0.
Chromatographic times, min. : 0.0 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

V-4835, 4846, Decafluorotriphenylphosphine (DFTPP)

Case No. V-4863, 4872 Contractor ECOLOGY & ENVIRONMENT INC. Contract No. IL-3140

Instrument ID HP5970D Date 3/4/87 Time 1203

Lab ID D1879 Data Release Authorized By: [signature]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	57.1
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	74.9
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	40.9
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	5.51
275	10.0 - 30.0% of mass 198	18.7
365	greater than 1.00% of mass 198	1.95
441	present, but less than mass 443	9.68
442	greater than 40.0% of mass 198	60.27
443	17.0 - 23.0% of mass 442	12.3 (20.4)[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
	BW STD - 50NG	D1880	3-4-87	1227
	AP STD - 50NG	D1881	"	1326
DC-I10-50	866	D1887	"	1929
DC-I9-48	864	D1888	"	2024
DC-I6-43	859	D1889	"	2117

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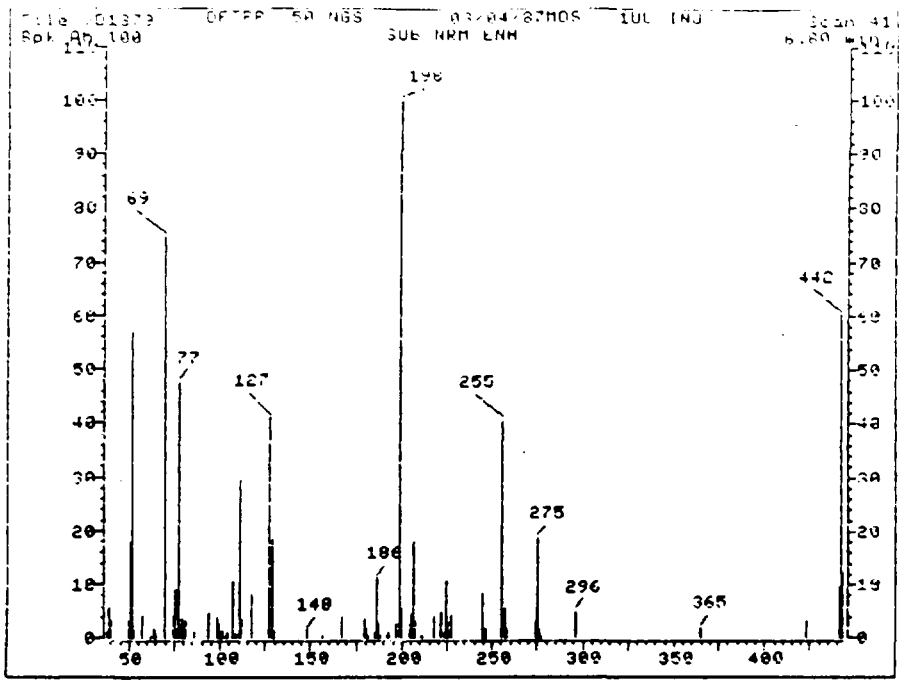

>D1879 DFTPP 50 NGS 03/04/87MDS 1UL INJ
41 SUB NRM ENH

File: >D1879 Scan #: 41 Retn. time: 6.80

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.05	.92	78.05	2.36	117.05	8.08	188.05	.27	226.95	4.17
39.05	5.99	79.15	3.47	127.00	40.91	191.75	.36	244.00	8.43
40.05	3.17	79.85	2.35	128.10	3.36	192.95	1.12	245.80	1.59
43.95	.16	80.95	3.14	129.00	18.48	195.95	2.64	255.00	40.57
49.05	3.19	85.95	1.18	129.70	1.21	198.05	100.00	256.10	5.39
50.00	18.07	93.00	4.62	147.55	.46	199.05	5.51	257.80	1.37
51.00	57.09	98.00	5.81	147.95	1.62	204.05	2.79	273.95	3.21
51.90	2.34	98.90	2.63	155.95	.44	204.90	4.52	275.05	18.66
57.00	4.37	100.00	.27	167.00	3.81	206.10	17.87	275.75	1.58
61.40	.32	101.00	1.23	179.00	3.57	207.10	2.94	276.05	.54
63.20	2.14	102.70	.29	180.00	2.09	210.40	.40	296.00	5.00
65.00	.78	104.00	1.15	181.00	.59	217.00	3.92	364.80	1.95
68.95	74.89	107.00	10.62	184.95	1.17	220.90	4.84	422.95	3.31
73.95	4.18	108.15	.80	186.05	11.26	223.00	1.19	441.00	9.68
74.95	9.05	109.95	29.60	186.85	2.64	224.05	10.52	442.00	60.27
76.05	2.03	111.05	3.63	187.05	1.16	225.05	2.83	443.00	12.32
77.05	47.57								

MS data file header from : >D1879

Sample: DFTPP 50 NGS Operator: USER6 MS 3/04/87 12:05
Misc : 03/04/87MDS 1UL INJ BFL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPD Tuning file: MTDUN No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures :	150.	280.	0.	0.	0.
Chromatographic times, min. :	0.0	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

V-4835, 4846, Decafluorotriphenylphosphine (DFTPP)

Case No. 4863, 4872 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 3/5/87 Time 1113

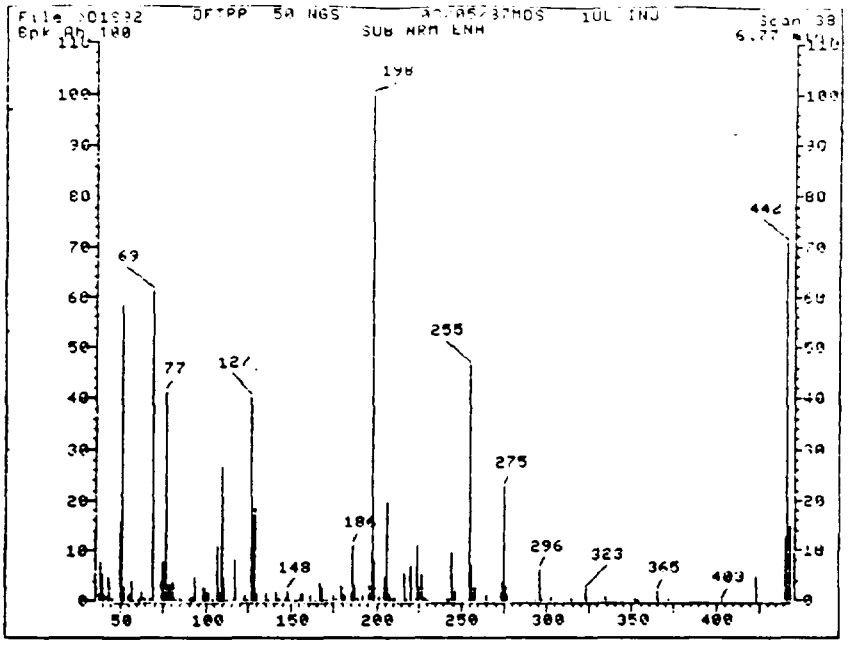
Lab ID D1892 Data Release Authorized By: C Stojowiec

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	58.2
68	less than 2.0% of mass 69	0.32 (0.52)[1]
69	mass 69 relative abundance	61.2
70	less than 2.0% of mass 69	0.02 (0.03)[1]
127	40.0 - 60.0% of mass 198	40.0
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	8.23
275	10.0 - 30.0% of mass 198	22.8
365	greater than 1.00% of mass 198	1.92
441	present, but less than mass 443	12.6
442	greater than 40.0% of mass 198	70.7
443	17.0 - 23.0% of mass 442	14.9 (21.1)[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 D1893	3/5/87	1147
	BN STD-50ng D1897	"	1556
DC-I9-49	865 D1899	"	1753



>D1892 DF1PP 50 NGS 03/05/87MDS 1UL INJ
38 SUB NRM ENH

File: >D1892 Scan #: 38 Retn. time: 6.77

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.05	1.33	83.15	.04	135.90	.22	191.95	.99	255.00	46.40
39.15	7.91	85.05	.25	137.00	.04	196.05	2.95	256.00	7.01
39.95	5.09	85.25	.03	141.00	1.74	197.95	100.00	258.00	2.57
41.05	1.15	90.80	.28	141.90	.04	198.95	8.23	264.85	.96
43.05	.66	91.80	.59	143.10	.49	201.45	.57	272.95	1.53
43.95	4.66	92.10	.05	146.25	.02	204.10	2.56	274.05	3.58
45.15	.30	92.30	.05	147.05	.85	205.00	4.44	275.05	22.79
50.00	15.85	93.00	4.59	147.95	2.14	206.00	19.59	276.95	3.06
51.00	58.25	98.00	2.61	149.05	.02	207.10	1.41	277.05	1.10
52.10	2.77	99.10	2.44	151.25	.02	207.80	.75	292.90	.03
54.90	1.51	101.00	1.54	152.25	.02	210.10	.35	296.00	6.32
56.10	1.46	104.00	.45	153.85	.02	210.40	.03	297.00	.34
57.00	3.93	107.00	11.00	155.05	1.28	211.00	.46	302.95	.85
57.90	.02	107.85	1.69	156.05	1.32	217.00	5.48	314.05	.02
61.10	.38	108.65	.02	161.05	1.16	218.00	.42	314.75	.49
62.20	.48	109.95	26.76	164.05	.02	221.00	7.17	323.00	2.22
63.00	1.82	110.95	4.43	166.90	3.56	223.10	.43	334.00	.85
64.80	.54	112.05	.04	167.80	2.38	224.05	10.86	352.05	.40
67.90	.32	116.05	.03	169.00	.03	224.95	2.78	352.75	.03
68.95	61.21	117.05	8.02	170.70	.03	226.95	5.11	353.95	.03
69.75	.02	122.15	.05	175.10	.93	227.95	.55	364.90	1.92
73.95	3.93	123.05	1.03	176.90	.33	228.95	.47	365.90	.03
74.95	7.75	125.15	.04	179.00	2.92	230.95	.19	372.10	.37
76.05	1.88	127.00	40.04	180.00	1.18	241.85	.32	403.00	.03
77.05	41.07	128.10	3.42	181.10	1.16	242.90	.48	423.05	4.58
78.05	3.09	129.00	18.22	184.95	1.75	244.00	9.61	441.00	12.58
78.95	3.42	130.00	1.41	185.95	11.00	244.90	.79	442.00	70.73
80.05	2.80	134.00	.20	186.85	2.84	246.00	2.08	443.00	14.86
81.15	3.67	135.00	1.29	188.85	.35	252.80	.02	443.80	1.53
81.85	.54								

MS data file header from : >D1892

Sample: DF1PP 50 NGS Operator: USER6 MS 3/05/87 11:13
Misc : 03/05/87MDS 1UL INJ BIL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DF1PPO Tuning file: MTUUN No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures :	150.	280.	0.	0.	0.	
Chromatographic times, min. :	0.0	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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ecology and environment

Bromofluorobenzene (BFB)

Case No. U-4835, 4846, 4863, 4872 Contractor ECOLOGY & ENVIRONMENT INC. Contract No. IL-3140

Instrument ID HP595C Date 7-14-86 Time 1426

Lab ID C3498 Data Release Authorized By: C Boytourics

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

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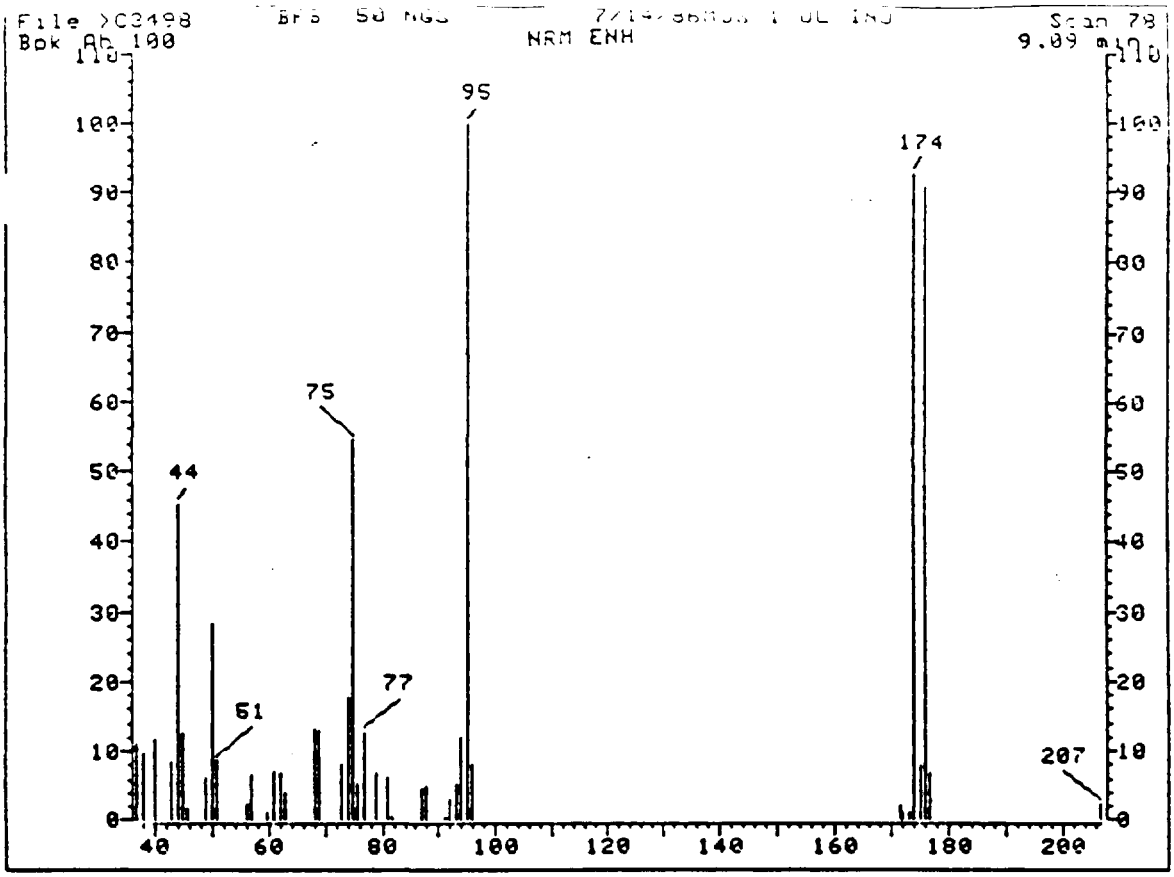

>C3498 BFB 50 NGS 7/14/86MDS 1 UL INJ
78 NRM ENH

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	2.11
38.10	9.79	55.95	2.40	74.05	17.82	88.00	4.79	172.00	1.19
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:
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

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ecology and environment

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4835, 4846, 4863, 4872 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5995C Date 1-27-87 Time 1409

Lab ID C6595 Data Release Authorized By: C Hoffowicz

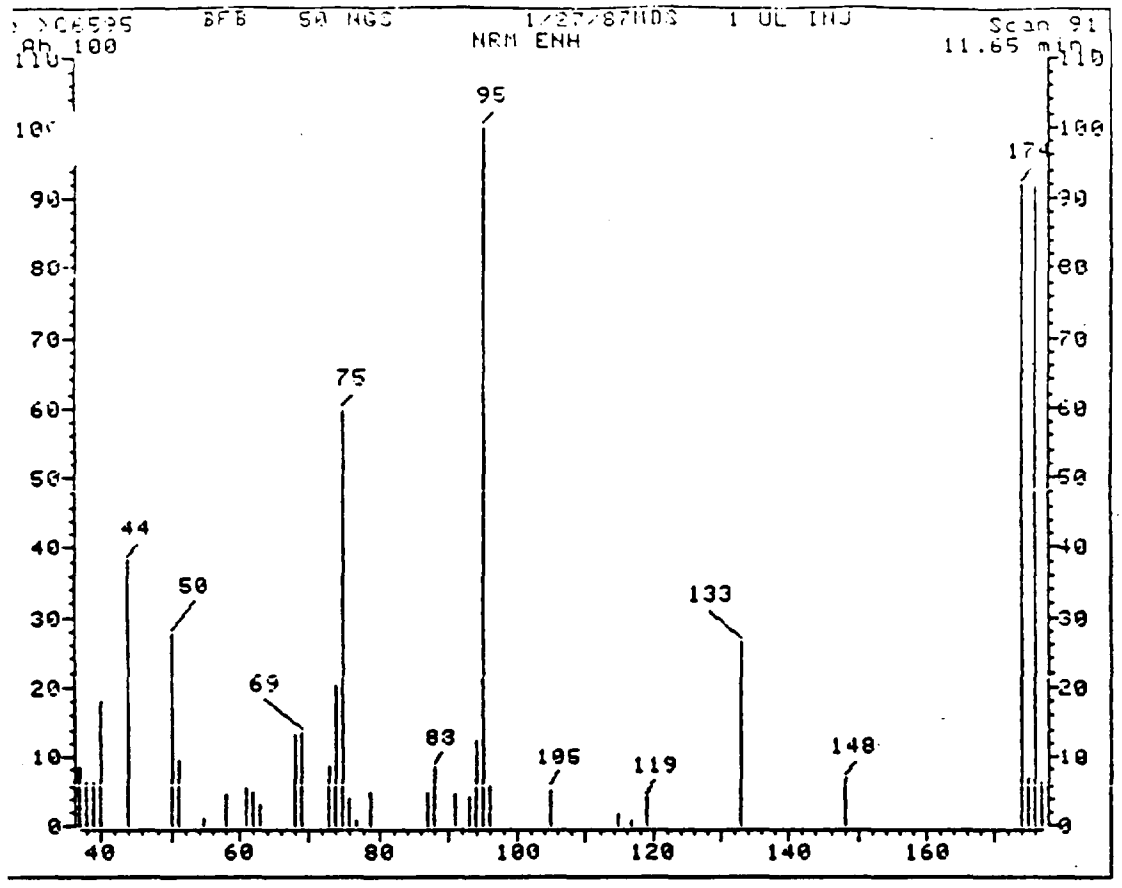
m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE	
50	15.0 - 40.0% of the base peak	27.6	
75	30.0 - 60.0% of the base peak	59.7	
95	Base peak, 100% relative abundance	100	
96	5.0 - 9.0% of the base peak	5.79	
173	Less than 1.0% of the base peak	0	
174	Greater than 50.0% of the base peak	91.9	
175	5.0 - 9.0% of mass 174	6.70	(7.29) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	91.7	(99.8) [1]
177	5.0 - 9.0% of mass 176	6.16	(6.72) [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 C6596	1-27-87	1434
	- 50 ug/L C6597	"	1527
	- 100 ug/L C6598	"	1621
	- 200 ug/L C6600	"	1808
	- 150 ug/L C6601	"	1903
			110

FORM V 7/85



6595 BFB 50 NGS 1/27/87MDS 1 UL INJ
91 NRM ENH

le: >C6595 Scan #: 91 Retn. time: 11.65

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
7.00	8.53	57.90	4.55	74.95	59.65	92.95	4.25	119.10	4.09
7.90	6.05	60.85	5.69	75.85	3.85	94.05	12.16	133.10	26.21
9.00	6.26	61.95	4.99	76.85	.76	95.05	100.00	148.15	6.77
0.00	17.86	62.95	2.96	78.95	5.01	96.05	5.79	173.95	91.93
4.00	38.11	68.05	13.32	86.95	5.03	104.90	5.35	174.95	6.70
0.00	27.56	68.95	13.50	88.05	8.26	114.90	1.59	175.95	91.72
1.10	9.39	73.05	8.26	91.05	4.70	116.90	.64	176.95	6.16
4.90	.89	73.95	20.12						

data file header from : >C6595

mple: BFB 50 NGS Operator: USER8 MS 1/27/87 14:09
sc : 1/27/87MDS 1 UL INJ
s. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCU4 No. of extra records: 1
ource temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

hromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	5.0	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. 4-4835, 4846 4-4863, 4872 Contractor ~~Ecology & Environment~~ Contract No. IL-3140

Instrument ID HP5995C Date 2-2-87 Time 10:16

Lab ID >C6654 Data Release Authorized By: C Wojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	26.94
75	30.0 - 60.0% of the base peak	59.16
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	6.90
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	86.39
175	5.0 - 9.0% of mass 174	5.24 (6.06) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	86.49 (100.12) [1]
177	5.0 - 9.0% of mass 176	5.87 (6.78) [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 >C6655	2-2-87	10:41
>C6656	Method Blank >C6656	2-2-87	12:05
DC-G4-35	0754 >C6659	2-2-87	14:47
DC-G4-36	0755 >C6660	2-2-87	15:42
DC-GB-34	0753 >C6662	2-2-87	17:33

FORM V 7/85
497095

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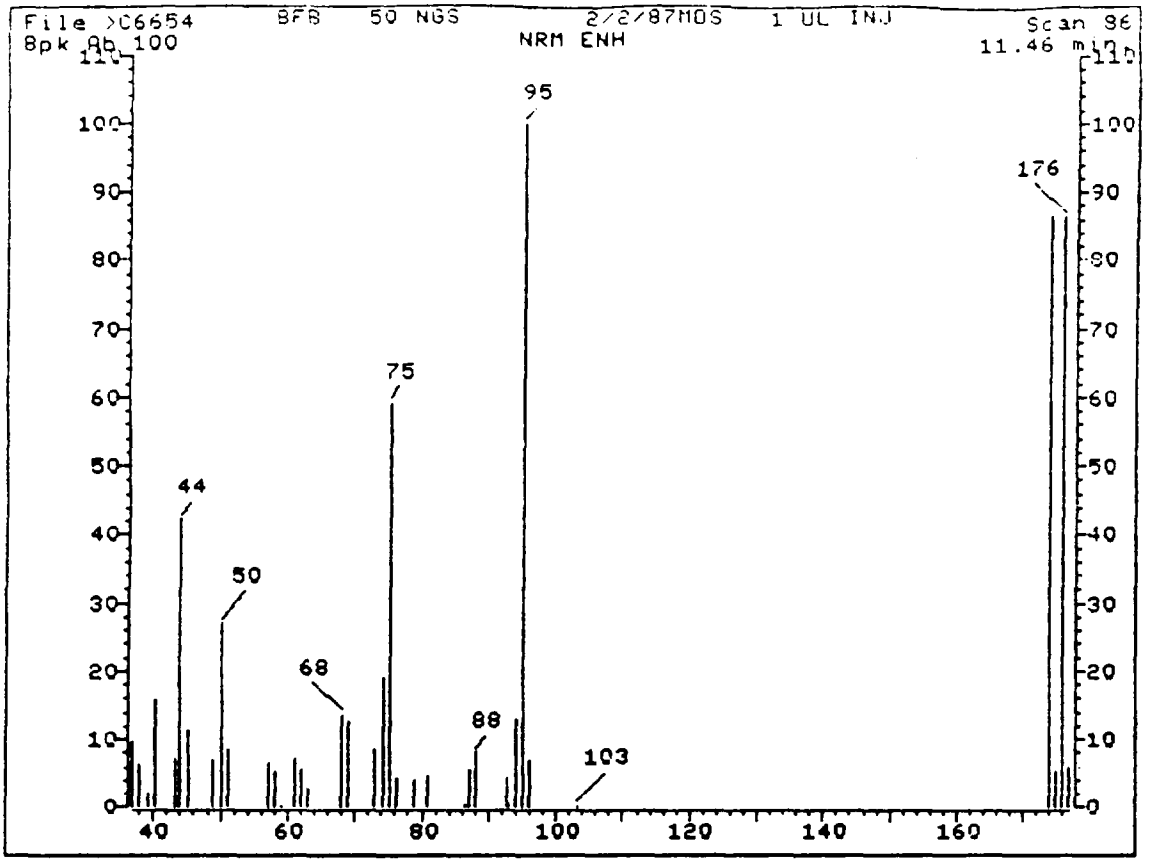
ecology and environment



>C6654 BFB 50 NGS 2/2/87MDS 1 UL INJ
86 NRM ENH

File: >C6654 Scan #: 86 Retn. time: 11.46

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	9.54	50.00	26.94	68.05	13.55	86.55	.32	95.15	100.00
38.00	6.27	51.10	8.42	68.95	12.71	87.05	5.48	96.15	6.90
39.20	1.95	57.10	6.37	73.05	8.33	88.15	8.05	103.20	.15
40.10	15.74	58.10	5.20	74.05	19.02	92.65	.96	173.95	86.39
43.10	7.26	59.20	.12	75.05	59.16	92.85	4.24	174.95	5.24
44.00	42.30	60.95	7.17	76.05	4.22	93.15	.44	175.95	86.49
45.10	11.19	62.05	5.42	78.95	4.02	94.15	12.94	176.95	5.87
48.90	6.76	63.15	2.71	80.95	4.65				

MS data file header from : >C6654

Sample: BFB 50 NGS Operator: USER8 MS 2/02/87 10:16
Misc : 2/2/87MDS 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. :	5.0	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)

4-4835,4846

Case No. 4-4863,4872 Contractor Ecology & Environment Contract No IL-3140

Instrument ID HP5995C Date 2-3-87 Time 12:09

Lab ID >C6682 Data Release Authorized By: C Wojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	27.46
75	30.0 - 60.0% of the base peak	56.69
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	7.20
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	86.54
175	5.0 - 9.0% of mass 174	6.20 (7.17) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	86.62 (100.09) [1]
177	5.0 - 9.0% of mass 176	5.52 (6.37) [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 >C6683	2-3-87	12:36
>C6688	Method Blank >C6688	2-3-87	17:29
DC-G5-37	0756 >C6692	2-3-87	21:46
DC-I1-38	0757 >C6693	2-3-87	22:40

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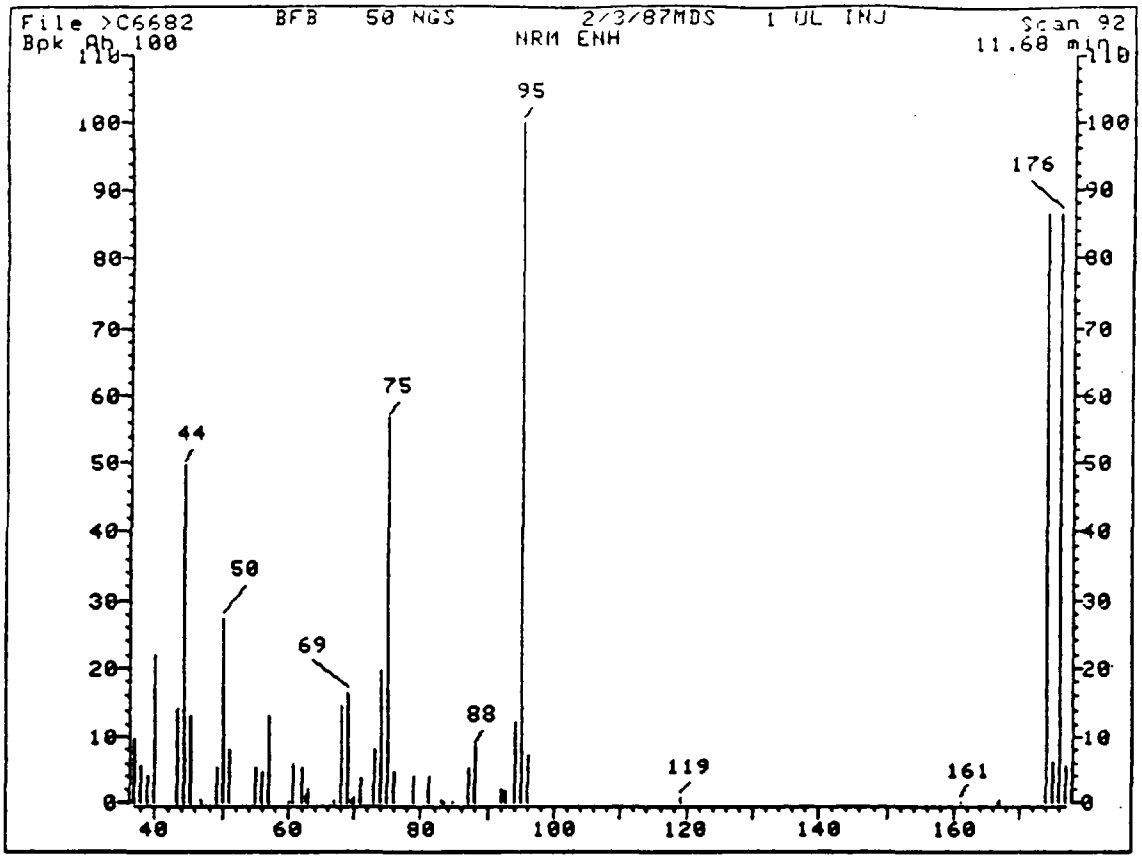

>C6682 BFB 50 NGS 2/3/87MDS 1 UL INJ
92 NRM ENH

File: >C6682 Scan #: 92 Retn. time: 11.68

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	9.57	51.10	8.02	68.05	14.33	81.05	3.97	95.00	100.00
38.00	5.53	55.05	5.19	69.05	16.43	83.15	.48	96.10	7.20
39.80	4.06	56.05	4.43	69.65	.40	83.45	.15	119.20	.74
40.00	21.99	57.05	13.10	69.95	.69	84.85	.16	160.95	.16
43.10	14.20	59.95	.24	71.05	3.61	87.05	5.28	166.80	.18
44.10	49.59	60.85	5.79	72.85	8.12	87.95	8.73	167.10	.38
45.10	13.15	61.95	5.25	74.05	19.63	92.00	1.99	173.90	86.54
46.80	.26	62.75	1.11	75.05	56.69	92.20	.20	175.00	6.20
49.00	5.19	62.95	1.86	75.85	4.49	92.60	1.72	175.90	86.62
50.00	27.46	66.95	.39	78.95	3.84	94.00	12.24	177.00	5.52

MS data file header from : >C6682

Sample: BFB 50 NGS Operator: USER8 MS 2/03/87 12:09
Misc : 2/3/87MDS 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
urce temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	5.0	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-4835,4846 U-4863,4872 Contractor Ecology & Environment Contract No IL-3140

Instrument ID HP5995C Date 2-4-87 Time 17:45

Lab ID C6699 Data Release Authorized By: D Wojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE	
50	15.0 - 40.0% of the base peak	27.92	
75	30.0 - 60.0% of the base peak	59.79	
95	Base peak, 100% relative abundance	100.00	
96	5.0 - 9.0% of the base peak	7.61	
173	Less than 1.0% of the base peak	0.00	
174	Greater than 50.0% of the base peak	88.85	
175	5.0 - 9.0% of mass 174	7.72	(8.69) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	86.79	(97.68) [1]
177	5.0 - 9.0% of mass 176	5.64	(6.50) [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 >C6700	2-4-87	18:12
C6701	Method Blank >C6701	2-4-87	19:07
IC-I2-39	0758 >C6703	2-4-87	20:58
IC-I3-40	0799 >C6705	2-4-87	23:02
IC-I5-41	0800 >C6707	2-5-87	00:51
IC-I5-42	0801 >C6709	2-5-87	02:39

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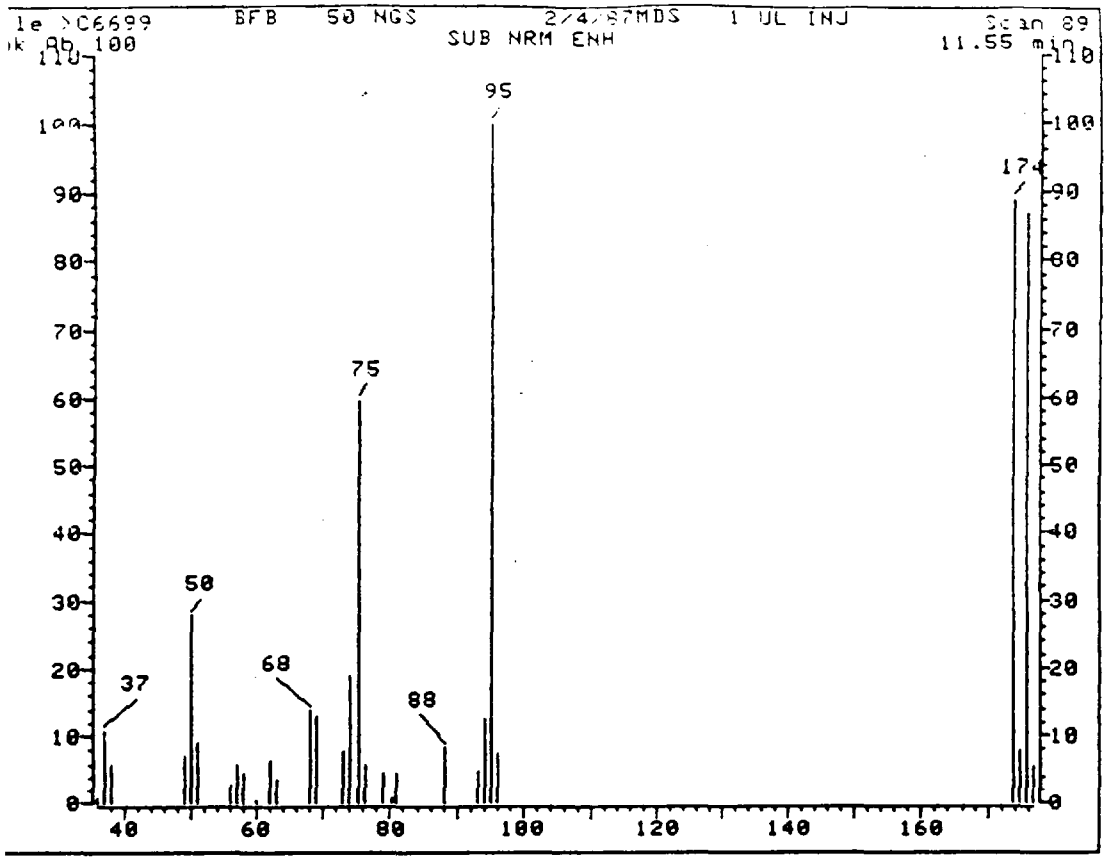

C6699 BFB 50 NGS 2/4/87MDS 1 UL INJ
89 SUB NRM ENH

ile: >C6699 Scan #: 89 Retn. time: 11.55

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.10	.67	55.95	2.64	67.95	13.79	78.75	4.62	95.00	100.00
37.00	10.75	57.05	5.70	68.95	13.05	80.05	.64	96.00	7.61
38.10	5.92	58.05	4.67	72.95	7.70	80.95	4.44	173.90	88.85
49.10	7.18	60.05	.51	73.95	18.84	88.05	8.38	174.90	7.72
50.00	27.92	61.95	6.48	75.05	59.79	93.00	4.80	175.90	86.79
50.90	9.18	62.85	3.75	76.05	5.87	94.00	12.62	176.90	5.64

IS data file header from : >C6699

ample: BFB 50 NGS Operator: USER8 MS 2/04/87 17:45
lisc : 2/4/87MDS 1 UL INJ
ys. #: 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. :	5.0	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)

u-4835,4846

Case No. u-4863,4872 Contractor Ecology & Environment Contract No IL-3140

Instrument ID HP5995C Date 2-5-87 Time 17:28

Lab ID >C6716 Data Release Authorized By: C Hoytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE	
50	15.0 - 40.0% of the base peak	27.39	
75	30.0 - 60.0% of the base peak	54.86	
95	Base peak, 100% relative abundance	100.00	
96	5.0 - 9.0% of the base peak	8.18	
173	Less than 1.0% of the base peak	0.00	
174	Greater than 50.0% of the base peak	86.69	
175	5.0 - 9.0% of mass 174	4.65	(5.37) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	87.15	(100.53) [1]
177	5.0 - 9.0% of mass 176	6.99	(8.02) [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 >C6720	2-5-87	20:47
C6729	Method Blank	2-6-87	05:28
DC-G3-33	0752	2-6-87	04:33

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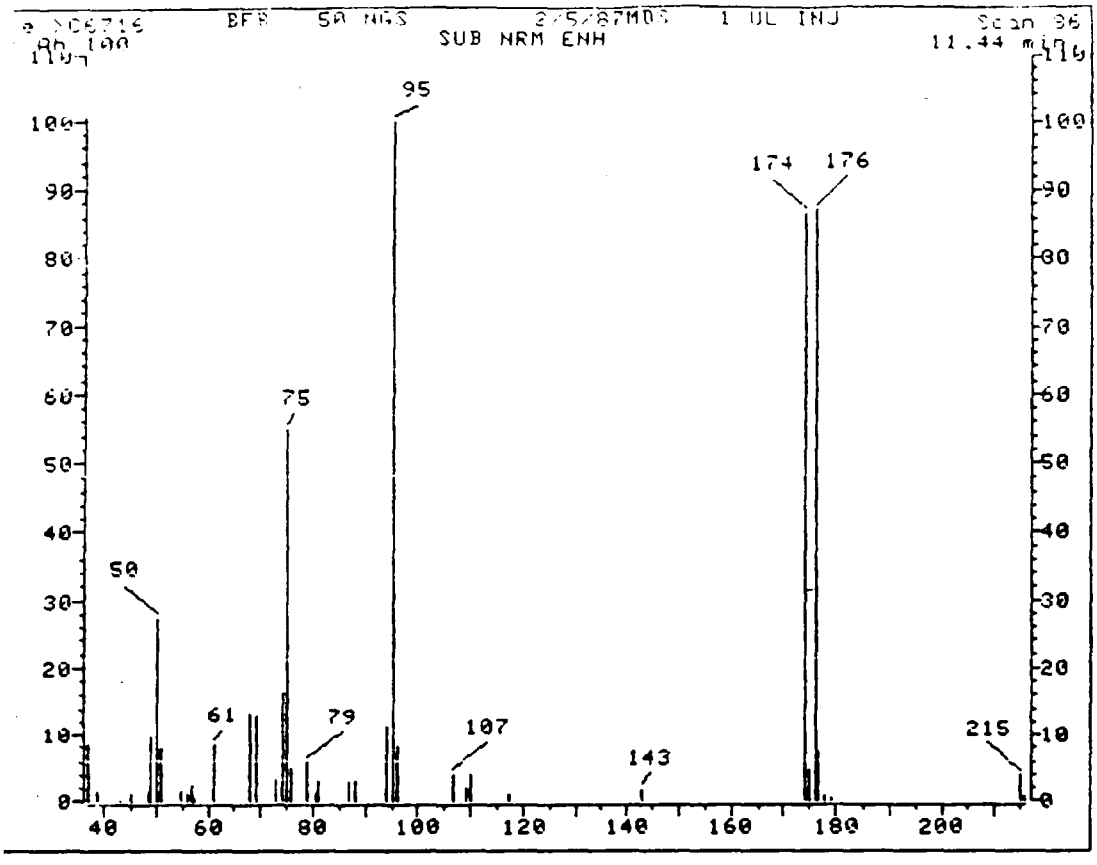

C6716 BFB 50 NGS 2/5/87MDS 1 UL INJ
86 SUB NRM ENH

ile: >C6716 Scan #: 86 Retn. time: 11.44

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.10	8.27	54.80	1.49	74.05	16.52	94.05	11.41	173.95	86.69
38.90	1.36	56.00	1.00	74.95	54.86	95.05	100.00	174.95	4.65
43.00	.19	57.00	2.20	75.95	4.75	96.05	8.18	175.95	87.15
45.00	.96	57.40	.49	78.85	5.80	106.70	3.97	176.75	6.99
48.30	1.47	61.05	8.41	80.55	.96	109.00	2.14	177.95	.58
49.00	9.69	67.95	13.11	80.95	2.97	109.90	3.95	178.95	.42
50.00	27.39	68.95	12.95	86.95	2.84	116.90	.99	214.90	3.92
50.90	7.84	73.05	3.35	88.05	2.92	142.95	1.73	215.90	.73

S data file header from : >C6716

ample: BFB 50 NGS Operator: USER8 MS 2/05/87 17:28
isc : 2/5/87MDS 1 UL INJ
ys. #: 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. :	5.0	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-4835,4846 U-4863,4872 Contractor Ecology & Environment Contract No IL-3140

Instrument ID HP5995C Date 2-6-87 Time 14:28

Lab ID >C6737 Data Release Authorized By: C Stojowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	26.20
75	30.0 - 60.0% of the base peak	57.69
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	8.59
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	87.61
175	5.0 - 9.0% of mass 174	6.88 (7.85) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	86.63 (98.88) [1]
177	5.0 - 9.0% of mass 176	5.16 (5.95) [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 >C6739	2-6-87	16:35
C6740	Method Blank >C6740	2-6-87	17:29
IC-G3-33*	0752* >C6749	2-7-87	02:15

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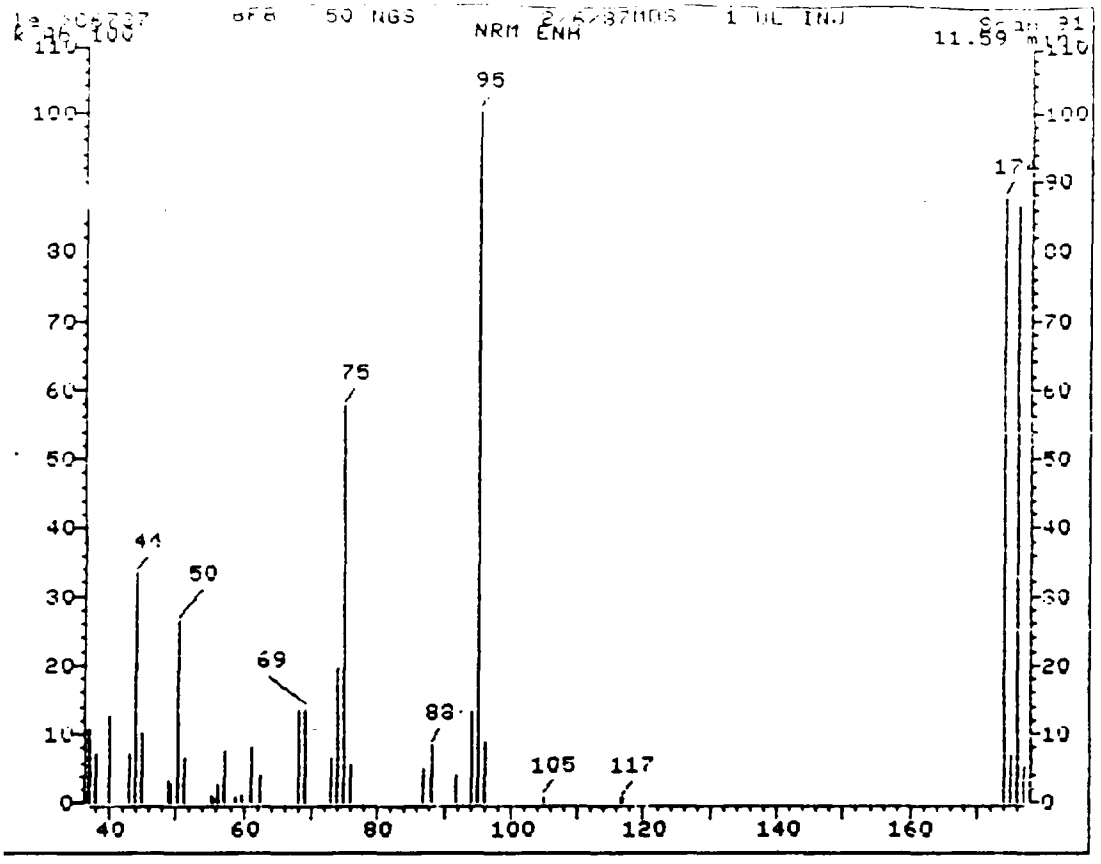

C6737 BFB 50 NGS 2/6/87MDS 1 UL INJ
91 NRM ENH

ile: >C6737 Scan #: 91 Retn. time: 11.59

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.10	10.77	49.30	1.44	59.85	1.01	76.05	5.59	105.10	.78
38.00	7.29	50.10	26.20	60.95	8.05	86.85	5.00	116.70	.61
40.00	12.44	51.10	6.41	62.55	3.90	88.05	8.32	116.90	.68
43.00	7.05	55.20	1.00	68.05	13.44	91.95	3.82	173.95	87.61
44.00	33.33	55.50	.61	68.95	13.69	94.05	13.37	174.95	6.88
45.10	9.87	56.20	2.57	73.05	6.41	95.05	100.00	175.95	86.63
48.80	3.36	57.10	7.47	74.05	19.78	96.05	8.59	177.05	5.16
49.10	2.70	58.80	.69	75.05	57.69				

S data file header from : >C6737

ample: BFB 50 NGS Operator: USER8 MS 2/06/87 14:29
isc : 2/6/87MDS 1 UL INJ
ys. #: 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. :	5.0	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. 4-4835,4846 4-4863,4872 Contractor Ecology & Environment Contract No IL-3140

Instrument ID HP5995C Date 2-9-87 Time 16:40

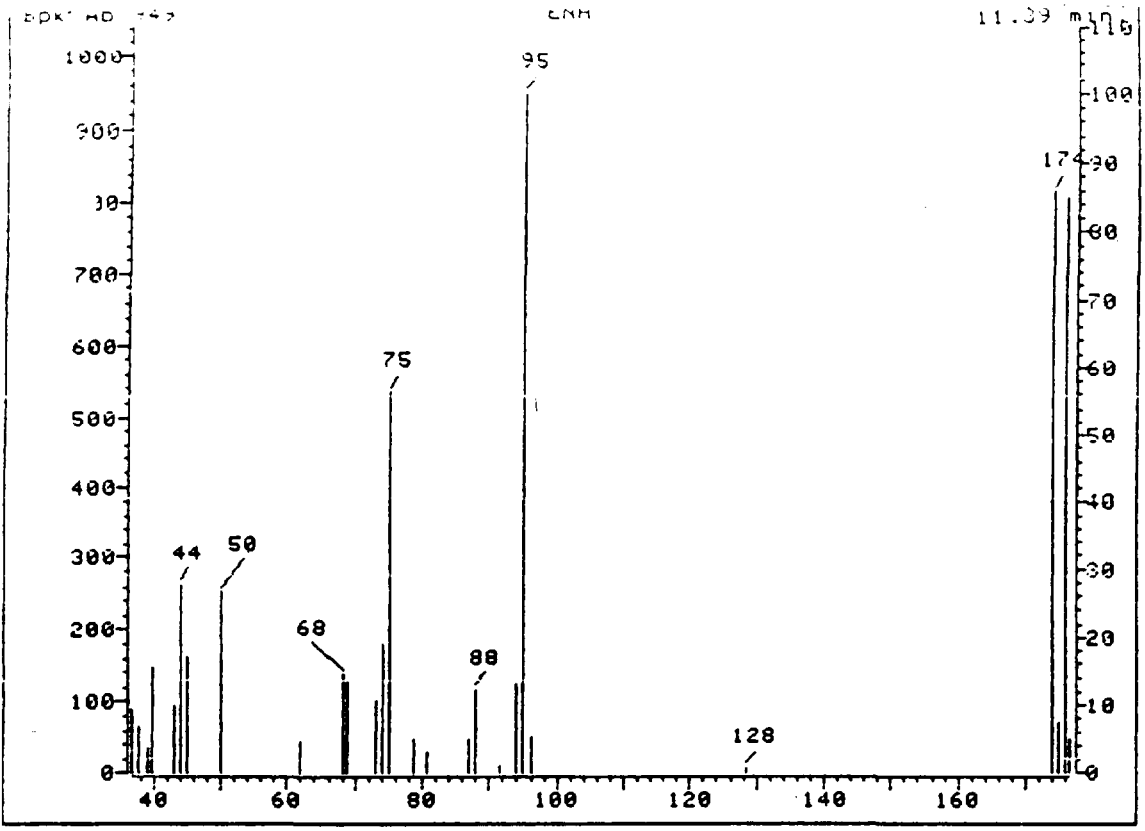
Lab ID >C6755 Data Release Authorized By: C Slojkowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	23.63
75	30.0 - 60.0% of the base peak	58.38
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	5.29
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	85.79
175	5.0 - 9.0% of mass 174	7.29 (8.50) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	85.01 (99.09) [1]
177	5.0 - 9.0% of mass 176	4.89 (5.75) [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 >C6756	2-9-87	17:15
DC-IB-44	0860 >C6758	2-9-87	19:56
C6759	Blank >C6759	2-9-87	21:10
DC-I7-46	0862 >C6760	2-9-87	22:14
DC-I7-47	0863 >C6761	2-9-87	23:25
DC-I7-45	0861 >C6762	2-10-87	01:07
DC-I7-45-MS	0861 MS >C6763	2-10-87	02:29
DC-I7-45-MSD	0861 MSD >C6764	2-10-87	03:48



>C6755 BFB 50 NGS 2/9/87MDS 1 UL INJ
85 NRM ENH

File: >C6755 Scan #: 85 Retn. time: 11.39

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.90	9.34	45.00	17.04	73.95	18.91	87.95	12.36	128.95	.74
37.90	6.96	50.00	26.63	74.95	56.38	91.70	1.05	173.90	85.79
39.00	3.65	61.95	4.58	78.85	4.89	94.00	13.18	174.90	7.29
39.90	15.33	68.05	14.42	80.65	3.06	95.00	100.00	175.80	85.01
43.00	9.89	68.85	13.66	86.85	4.98	96.00	5.29	176.70	4.89
44.00	27.68	72.95	10.54						

MS data file header from : >C6755

Sample: BFB 50 NGS Operator: USER8 MS 2/09/87 16:40
Misc : 2/9/87MDS 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. :	5.0	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. 4-4835, 4846 Contractor Ecology & Environment Contract No IL-3140

Instrument ID HP5995C Date 2-12-87 Time 13:42

Lab ID YC6773 Data Release Authorized By: C Gotowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE	
50	15.0 - 40.0% of the base peak	32.80	
75	30.0 - 60.0% of the base peak	58.35	
95	Base peak, 100% relative abundance	100.00	
96	5.0 - 9.0% of the base peak	7.66	
173	Less than 1.0% of the base peak	0.00	
174	Greater than 50.0% of the base peak	90.13	
175	5.0 - 9.0% of mass 174	8.11	(8.99) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	89.80	(99.63) [1]
177	5.0 - 9.0% of mass 176	6.12	(6.82) [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 YC6775	2-12-87	15:58
CC6776	Method Blank	2-12-87	16:50
DC-I9-49	0865 YC6777	2-12-87	17:48
DC-I9-49MS	0865MS YC6778	2-12-87	18:50
DC-I9-49MSD	0865MSD YC6779	2-12-87	19:42
DC-I9-48	0864 YC6780	2-12-87	20:52
DC-I6-43	0859 YC6781	2-12-87	21:44
DC-I11-51	0900 YC6784	2-13-87	00:22

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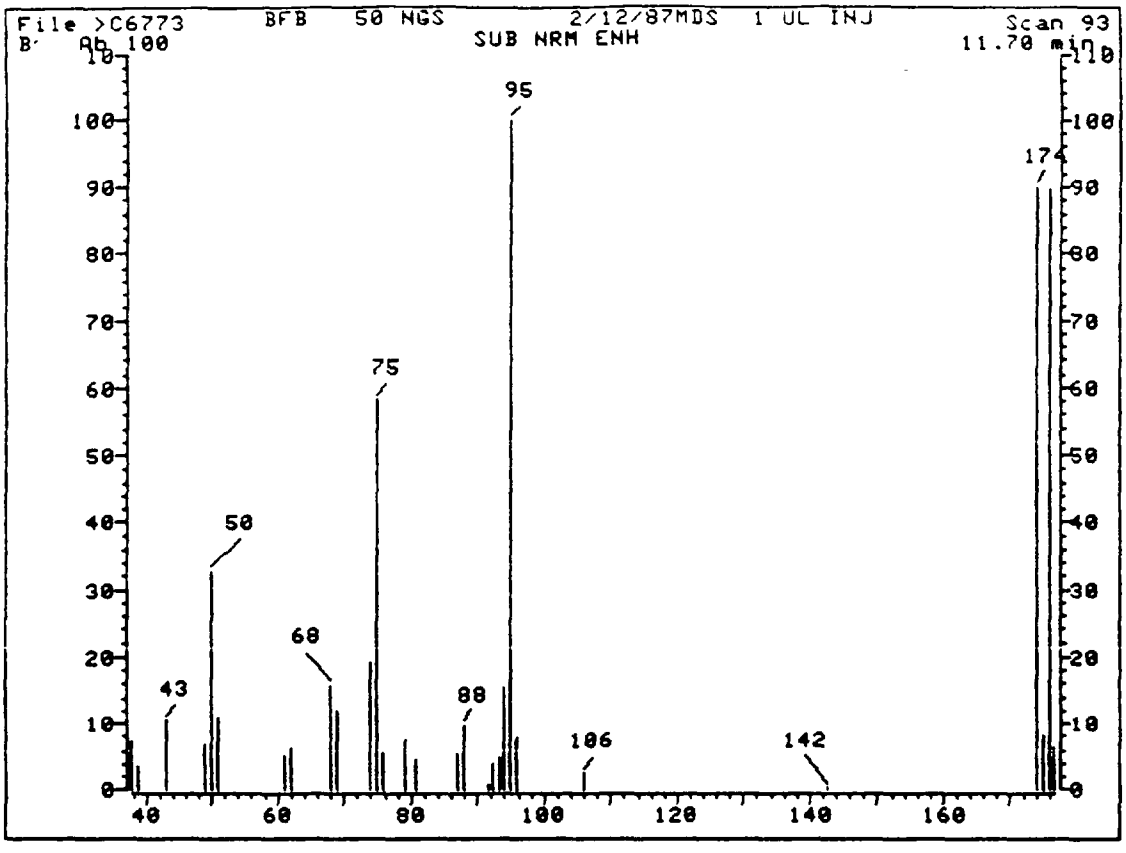

>C6773 BFB 50 NGS 2/12/87MDS 1 UL INJ
93 SUB NRM ENH

File: >C6773 Scan #: 93 Retn. time: 11.70

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.90	7.04	60.95	5.30	75.85	5.60	92.05	3.86	142.65	.36
38.90	3.53	61.95	6.08	78.95	7.59	93.05	4.86	173.95	90.13
43.10	10.61	67.95	15.84	80.85	4.60	93.95	15.38	174.95	8.11
49.00	6.82	68.95	11.99	86.95	5.42	94.95	100.00	175.95	89.80
50.00	32.80	73.95	19.16	87.95	9.75	95.95	7.66	176.85	6.12
51.00	11.08	74.95	58.35	91.55	.75	106.00	2.51		

MS data file header from : >C6773

Sample: BFB 50 NGS Operator: USER8 MS 2/12/87 13:42
Misc : 2/12/87MDS 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. :	5.0	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)

4-4835, 4846

Case No. 4-4863, 4872 Contractor Ecology & Environment Contract No IL-3140

Instrument ID HP5995C Date 02-13-87 Time 10:13

Lab ID >C6793 Data Release Authorized By: CStojowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	26.51
75	30.0 - 60.0% of the base peak	56.12
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	7.84
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	83.11
175	5.0 - 9.0% of mass 174	4.26 (5.13) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	82.06 (98.74) [1]
177	5.0 - 9.0% of mass 176	5.30 (6.45) [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
	Cont Calib Std >C6794	02-13-87	10:36
C6795	Method Blank	02-13-87	12:03
DC-I10-50	0866 >C6806	02-13-87	21:37

FORM V

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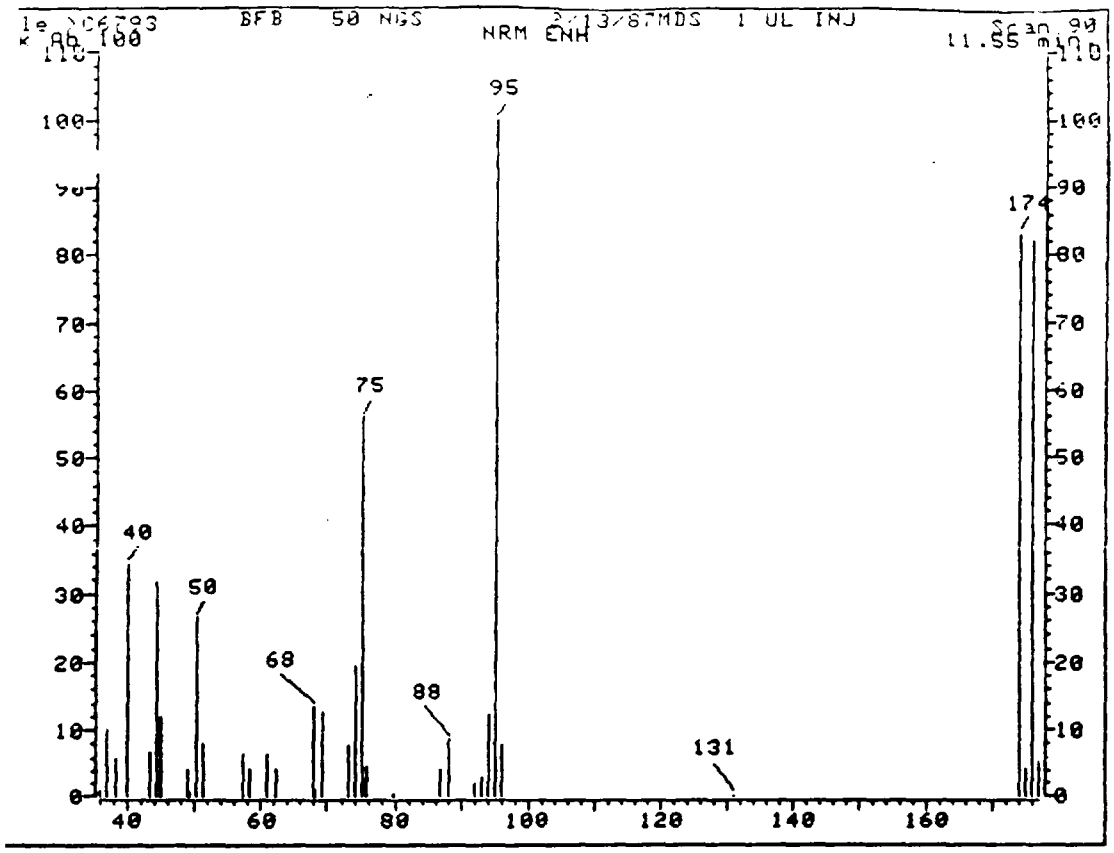
ecology and environment



C6793 BFB 50 NGS 2/13/87MDS 1 UL INJ
90 NRM ENH

File: >C6793 Scan #: 90 Retn. time: 11.55

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	.62	48.90	4.27	62.05	4.11	75.85	4.54	95.00	100.00
37.00	9.94	49.20	.80	67.85	13.43	79.85	.54	96.10	7.84
38.10	5.99	50.10	26.51	68.05	1.17	86.95	4.38	131.15	.13
40.00	34.47	51.10	8.21	69.05	12.45	88.05	8.60	173.90	83.11
43.10	6.79	57.05	6.38	73.05	7.86	92.05	2.13	174.80	4.26
44.10	31.94	58.05	4.29	74.05	19.47	93.20	2.95	176.00	82.06
45.00	11.87	60.95	6.47	75.05	56.12	94.00	12.28	177.00	5.30

MS data file header from : >C6793

Sample: BFB 50 NGS Operator: USER8 MS 2/13/87 10:13
Misc : 2/13/87MDS 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. :	5.0	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-4835, 4846 U-4863, 4872 Contractor Ecology & Environment Contract No IL-3140

Instrument ID HP5995C Date 2/20/87 Time 10:33

Lab ID 7C6892 Data Release Authorized By: C Stojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE	
50	15.0 - 40.0% of the base peak	27.21	
75	30.0 - 60.0% of the base peak	57.59	
95	Base peak, 100% relative abundance	100.00	
96	5.0 - 9.0% of the base peak	5.32	
173	Less than 1.0% of the base peak	0.00	
174	Greater than 50.0% of the base peak	83.85	
175	5.0 - 9.0% of mass 174	4.76	(5.67) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	83.70	(99.82) [1]
177	5.0 - 9.0% of mass 176	5.12	(6.12) [2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

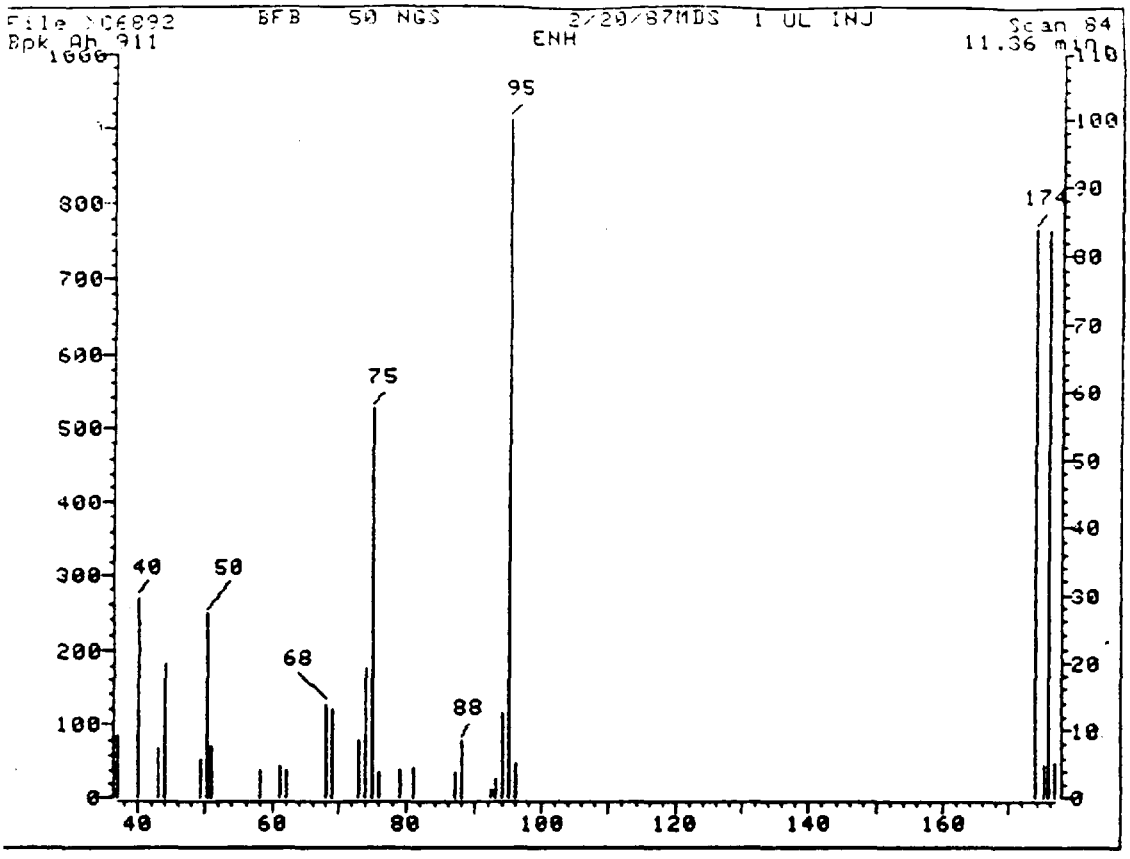
[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check 7C6893	2-20-87	11:04
C6894	Method Blank	2-20-87	12:16
DC-I11-52	0901 7C6903	2-20-87	20:34

128

FORM V

7/85
497095



>C6892 BFB 50 NGS 2/20/87MDS 1 UL INJ
84 ENH

File: >C6892 Scan #: 84 Retn. time: 11.36

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.10	86.65	51.00	69.65	73.05	81.01	87.05	36.68	96.00	48.46
40.10	270.09	58.15	38.26	74.05	175.63	88.05	78.44	173.90	764.29
43.10	66.56	61.05	44.30	75.05	524.90	92.25	11.05	175.00	43.36
44.10	181.88	62.15	40.15	76.05	35.00	93.00	27.41	175.90	762.91
49.10	52.11	68.05	126.49	79.05	38.22	94.10	113.97	176.90	46.67
50.10	247.99	69.05	119.67	80.95	42.38	95.10	911.48		

MS data file header_from : >C6892

Sample: BFB 50 NGS Operator: USER8 MS 2/20/87 10:33
Misc : 2/20/87MDS 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. :	5.0	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

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ecology and environment

SAMPLE NUMBER DC-G3-33

481095

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DC-G3-33

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Lab Sample ID No: 0752
QC Report No:
Sample Matrix: Soil
Contract No: EL-3140
Data Release Authorized By: C Zoglowicz
Date Sample Received: 1-29-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-6-87
Conc/Dil Factor: 1 pH 7.2
Percent Moisture: (Not Decanted) 27

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	1000U
74-83-9	Bromomethane	1000U
75-01-4	Vinyl Chloride	1000U
75-00-3	Chloroethane	1000U
75-09-2	Methylene Chloride	440 BJ
67-64-1	Acetone	7700 B
75-15-0	Carbon Disulfide	500U
75-35-4	1, 1-Dichloroethene	500U
75-34-3	1, 1-Dichloroethane	500U
156-60-5	Trans-1, 2-Dichloroethene	500U
67-66-3	Chloroform	500U
107-06-2	1, 2-Dichloroethane	500U
78-93-3	2-Butanone	3000 B
71-55-6	1, 1, 1-Trichloroethane	500U
56-23-5	Carbon Tetrachloride	500U
108-05-4	Vinyl Acetate	1000U
75-27-4	Bromodichloromethane	500U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	500U
10061-02-6	Trans-1, 3-Dichloropropene	500U
79-01-6	Trichloroethene	500U
124-48-1	Dibromochloromethane	500U
79-00-5	1, 1, 2-Trichloroethane	500U
71-43-2	Benzene	500U
10061-01-5	cis-1, 3-Dichloropropene	500U
110-75-8	2-Chloroethylvinylether	1000U
75-25-2	Bromoform	500U
108-10-1	4-Methyl-2-Pentanone	1000U
591-78-6	2-Hexanone	1000U
127-18-4	Tetrachloroethene	500U
79-34-5	1, 1, 2, 2-Tetrachloroethane	500U
108-88-3	Toluene	500U
108-90-7	Chlorobenzene	1200
100-41-4	Ethylbenzene	120 J
100-42-5	Styrene	500U
	Total Xylenes	500U

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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name ECOLOGY & ENVIRONMENT INC.
Case No U-4835, U-4846, U-4863, U-4872

Sample Number
DC-G3-33

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared 2-3-87
Date Analyzed 2-16-87
Conc/Dil Factor 20
Percent Moisture (Decanted) 27

GPC Cleanup ☐Yes ☒No
Separatory Funnel Extraction ☐Yes
Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	3300 U
111-44-4	bis(2-Chloroethyl)Ether	3300 U
95-57-8	2-Chlorophenol	3300 U
541-73-1	1,3-Dichlorobenzene	3300 U
106-46-7	1,4-Dichlorobenzene	3300 U
100-51-6	Benzyl Alcohol	3300 U
95-50-1	1,2-Dichlorobenzene	3300 U
95-48-7	2-Methylphenol	3300 U
39638-32-9	bis(2-chloroisopropyl)Ether	3300 U
106-44-5	4-Methylphenol	3300 U
621-64-7	N-Nitroso-Di-n-Propylamine	3300 U
67-72-1	Hexachloroethane	3300 U
98-95-3	Nitrobenzene	3300 U
78-59-1	Isophorone	3300 U
88-75-5	2-Nitrophenol	3300 U
105-67-9	2,4-Dimethylphenol	3300 U
65-85-0	Benzoic Acid	16000 U
111-91-1	bis(2-Chloroethoxy)Methane	3300 U
120-83-2	2,4-Dichlorophenol	3300 U
120-82-1	1,2,4-Trichlorobenzene	3300 U
91-20-3	Naphthalene	3300 U
106-47-8	4-Chloroaniline	3300 U
87-68-3	Hexachlorobutadiene	3300 U
59-50-7	4-Chloro-3-Methylphenol	3300 U
91-57-6	2-Methylnaphthalene	3300 U
77-47-4	Hexachlorocyclopentadiene	3300 U
88-06-2	2,4,6-Trichlorophenol	3300 U
95-95-4	2,4,5-Trichlorophenol	16000 U
91-58-7	2-Chloronaphthalene	3300 U
88-74-4	2-Nitroaniline	16000 U
131-11-3	Dimethyl Phthalate	3300 U
208-96-8	Acenaphthylene	3300 U
99-09-2	3-Nitroaniline	16000 U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	3300 U
51-28-5	2,4-Dinitrophenol	16000 U
100-02-7	4-Nitrophenol	16000 U
132-64-9	Dibenzofuran	3300 U
121-14-2	2,4-Dinitrotoluene	3300 U
606-20-2	2,6-Dinitrotoluene	3300 U
84-66-2	Diethylphthalate	3300 U
7005-72-3	4-Chlorophenyl-phenylether	3300 U
86-73-7	Fluorene	3300 U
100-01-6	4-Nitroaniline	16000 U
534-52-1	4,6-Dinitro-2-Methylphenol	16000 U
86-30-6	N-Nitrosodiphenylamine (1)	3300 U
101-55-3	4-Bromophenyl-phenylether	3300 U
118-74-1	Hexachlorobenzene	3300 U
87-86-5	Pentachlorophenol	16000 U
85-01-8	Phenanthrene	3300 U
120-12-7	Anthracene	3300 U
84-74-2	Di-n-Butylphthalate	3300 U
206-44-0	Fluoranthene	3300 U
129-00-0	Pyrene	3300 U
85-68-7	Butylbenzylphthalate	3300 U
91-94-1	3,3'-Dichlorobenzidine	6600 U
56-55-3	Benzo(a)Anthracene	3300 U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300 U
218-01-9	Chrysene	3300 U
117-84-0	Di-n-Octyl Phthalate	3300 U
205-99-2	Benzo(b)Fluoranthene	3300 U
207-08-9	Benzo(k)Fluoranthene	3300 U
50-32-8	Benzo(a)Pyrene	3300 U
193-39-5	Indeno(1,2,3-cd)Pyrene	3300 U
53-70-3	Dibenz(a,h)Anthracene	3300 U
191-24-2	Benzo(g,h,i)Perylene	3300 U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4835, 4846, 4863, 4872

Sample Number
DC-G3-33

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 2-3-87

Date Analyzed: 2-12-87

Conc/Dil Factor: 10

Percent Moisture (decanted) 27

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	U
319-85-7	Beta-BHC	800	U
319-86-8	Delta-BHC	800	U
58-89-9	Gamma-BHC (Lindane)	800	U
76-44-8	Heptachlor	800	U
309-00-2	Aldrin	800	U
1024-57-3	Heptachlor Epoxide	800	U
959-98-8	Endosulfan I	800	U
60-57-1	Dieldrin	1600	U
72-55-9	4,4'-DDE	1600	U
72-20-8	Endrin	1600	U
33213-65-9	Endosulfan II	1600	U
72-54-8	4,4'-DDD	1600	U
1031-07-8	Endosulfan Sulfate	1600	U
50-29-3	4,4'-DDT	1600	U
72-43-5	Methoxychlor	8000	U
53494-70-5	Endrin Ketone	1600	U
57-74-9	Chlordane	8000	U
8001-35-2	Toxaphene	16000	U
12674-11-2	Aroclor-1016	8000	U
11104-28-2	Aroclor-1221	8000	U
11141-16-5	Aroclor-1232	8000	U
53469-21-9	Aroclor-1242	8000	U
12672-29-6	Aroclor-1248	8000	U
11097-69-1	Aroclor-1254	16000	U
11096-82-5	Aroclor-1260	16000	U

V_t = 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 3 V_t 1000 V_t 4 1.34

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4835, 4846, 4863, 4872

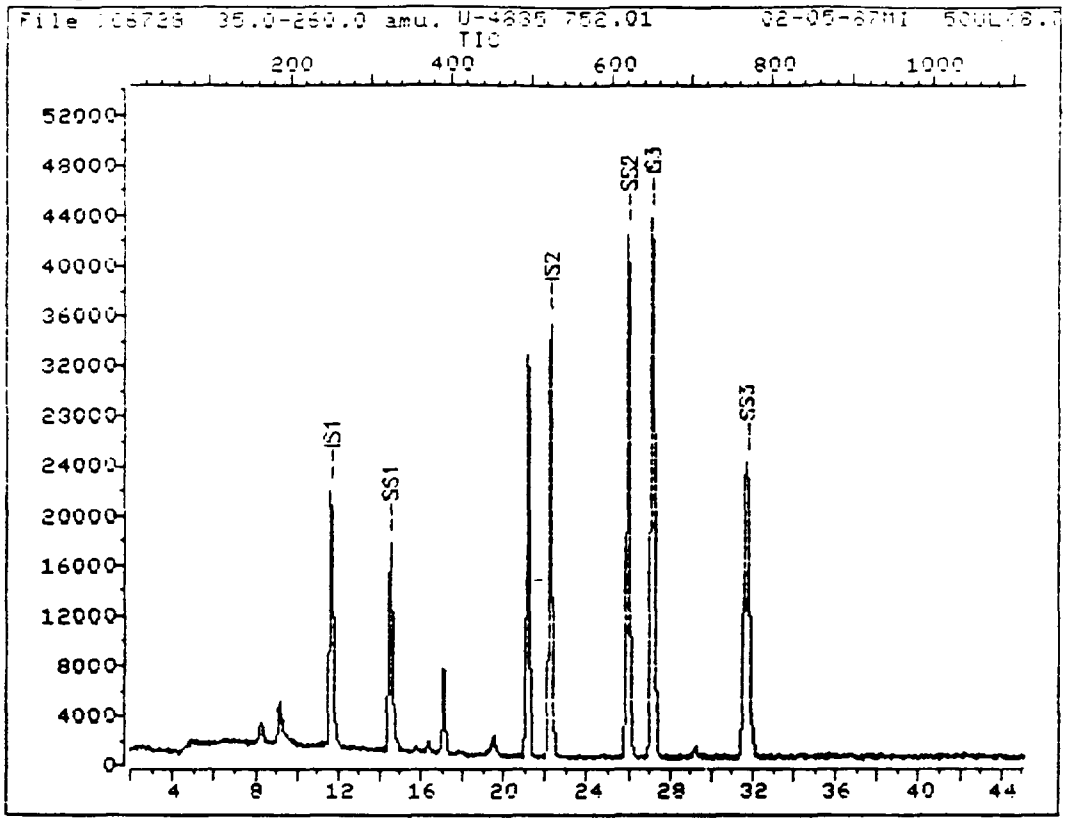
Sample Number DC-G3-33

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	3600 BJ
2.		Hexane Isomer	VOA	21.2	8400 BJ
3.					
4.					
5.		Chlorobenzenamine Isomer	BNA	11.54	4800 J
6.		Unknown Aromatic		18.45	5800 J
7.		Unknown Aromatic		19.10	6600 J
8.		Unknown Aromatic		19.16	11000 J
9.		Unknown Aromatic		19.36	14000 J
10.		Unknown Aromatic		19.59	20000 J
11.		Unknown Aromatic		19.75	5800 J
12.		Unknown Aromatic		19.83	7000 J
13.		Unknown Aromatic		19.89	15000 J
14.		Unknown Aromatic		20.02	18000 J
15.		Unknown Aromatic		20.47	46,000 J
16.		Unknown Aromatic		20.61	16,000 J
17.		Unknown Aromatic		20.67	32,000 J
18.		Unknown Aromatic		20.77	30,000 J
19.		Unknown Aromatic		20.98	40,000 J
20.		Unknown Aromatic		21.14	10,000 J
21.		Unknown Aromatic		21.34	24,000 J
22.		Unknown Aromatic		21.43	17,000 J
23.		Unknown Aromatic		21.59	12000 J
24					
25.					
26.					
27.					
28.					
29.					
30					

TOTAL ION CHROMATOGRAM



Data File: >C6728::D3
Name: U-4835 752.01 DC-330 G3-33
Misc: 02-05-87MI 50UL(8.76G/10MLS) + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870205 21:50

Operator ID: USER8
Quant Time: 870206 05:19
Injected at: 870206 04:33

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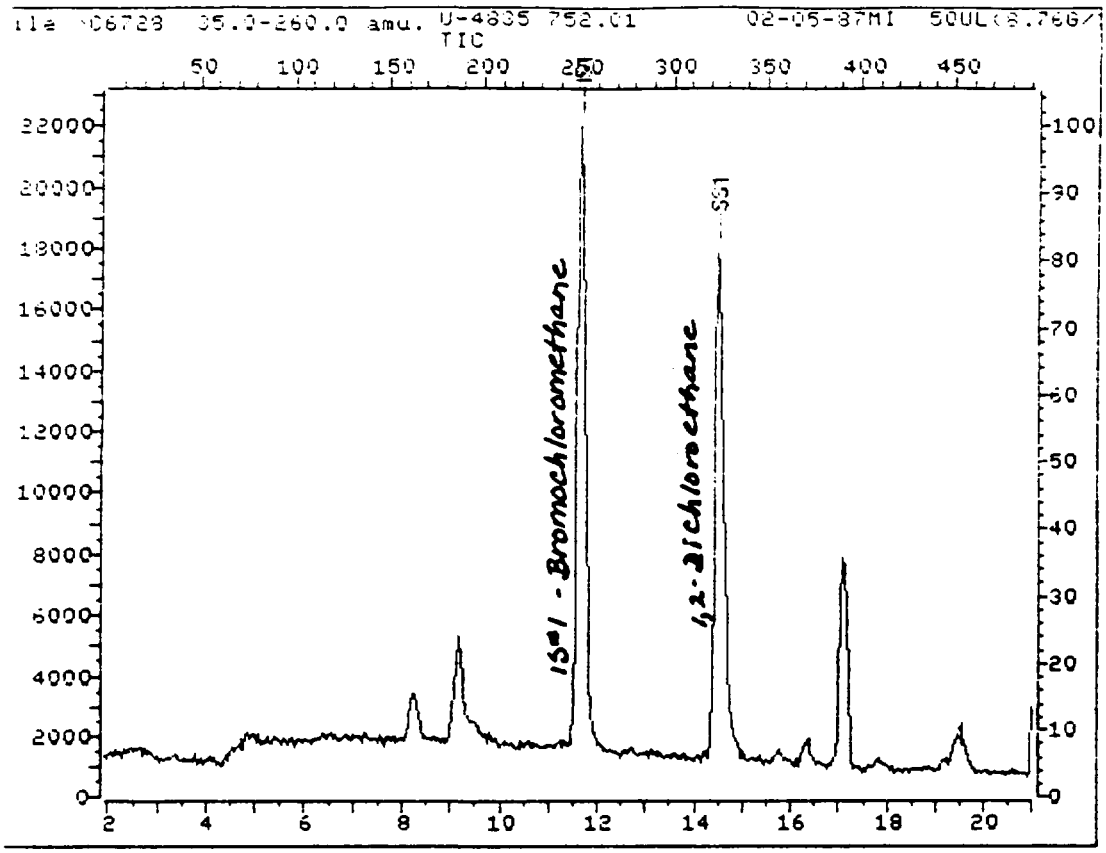
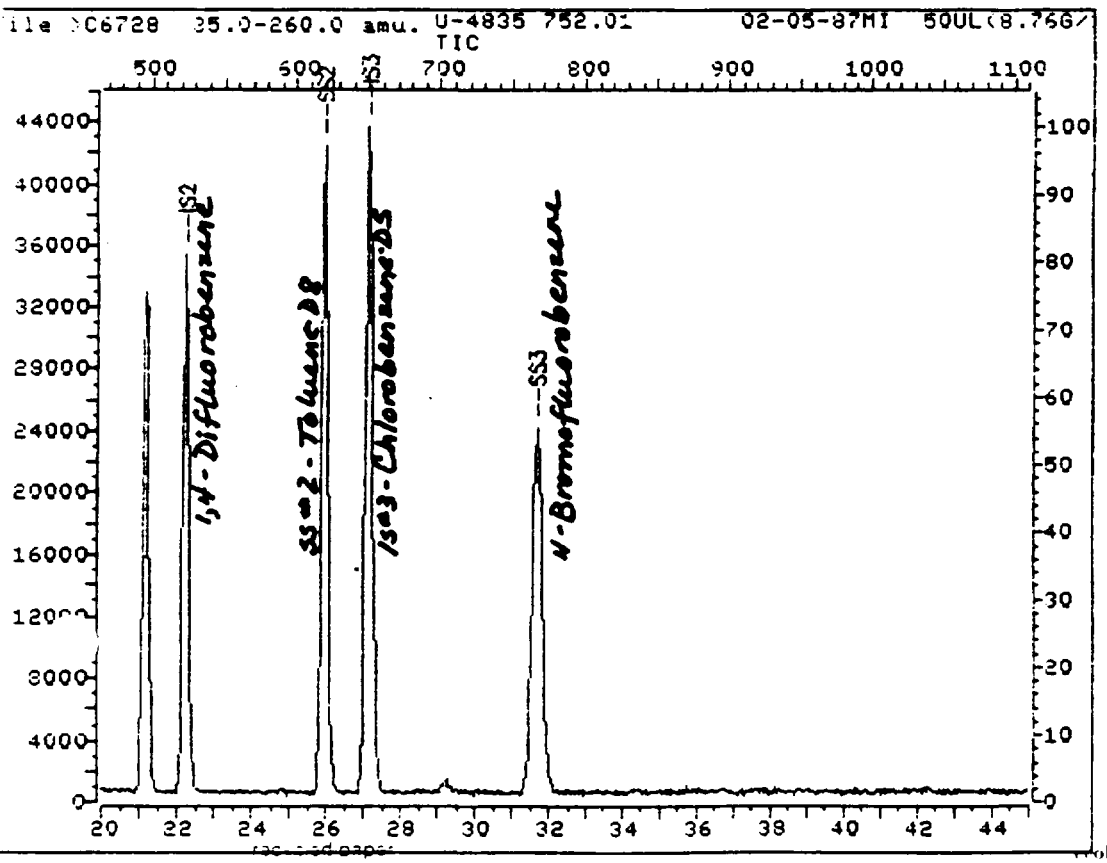
DC-G3-33


TIC
IS#1 - Bromochloromethane
1,2-Dichloroethane
SS1


TIC
IS2
1,4-Difluorobenzene
SS#2 - Toluene-D8
IS#3 - Chlorobenzene-D5
SS3
4-Bromofluorobenzene

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870206 05:19
Du t File: ^C6728::Q2 Injected at: 870206 04:33
Data File: >C6728::D3 Dilution Factor: 1.00
Name: U-4835 752.01 DC-G3-33
Misc: 02-05-87MI 50UL(8.76G/10MLS) + 10UL IS/SS

ID File: VOACR::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870205 21:50

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.65	291	28731	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.23	163	4630	3.84	UG/L	100
7)	ACETONE		43	9.16	187	30152	67.18	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.48	324	74772	52.57	UG/L	86
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.24	524	146826	50.00	UG/L	100
17)	2-BUTANONE		72	14.63	328	3723	26.45	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.13	650	116919	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	25.96	620	164580	52.62	UG/L	94
~~37)~~	~~TOLUENE~~		~~92~~	~~26.12~~	~~624~~	~~2517~~	~~.92~~	~~UG/L~~	~~95~~
38)	CHLOROBENZENE		112	27.25	653	33662	10.09	UG/L	99
39)	ETHYLBENZENE		91	29.27	705	5915	1.03	UG/L	91
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.68	767	84967	54.31	UG/L	100

* Compound is ISTD

Submit in data pack along with >C6749

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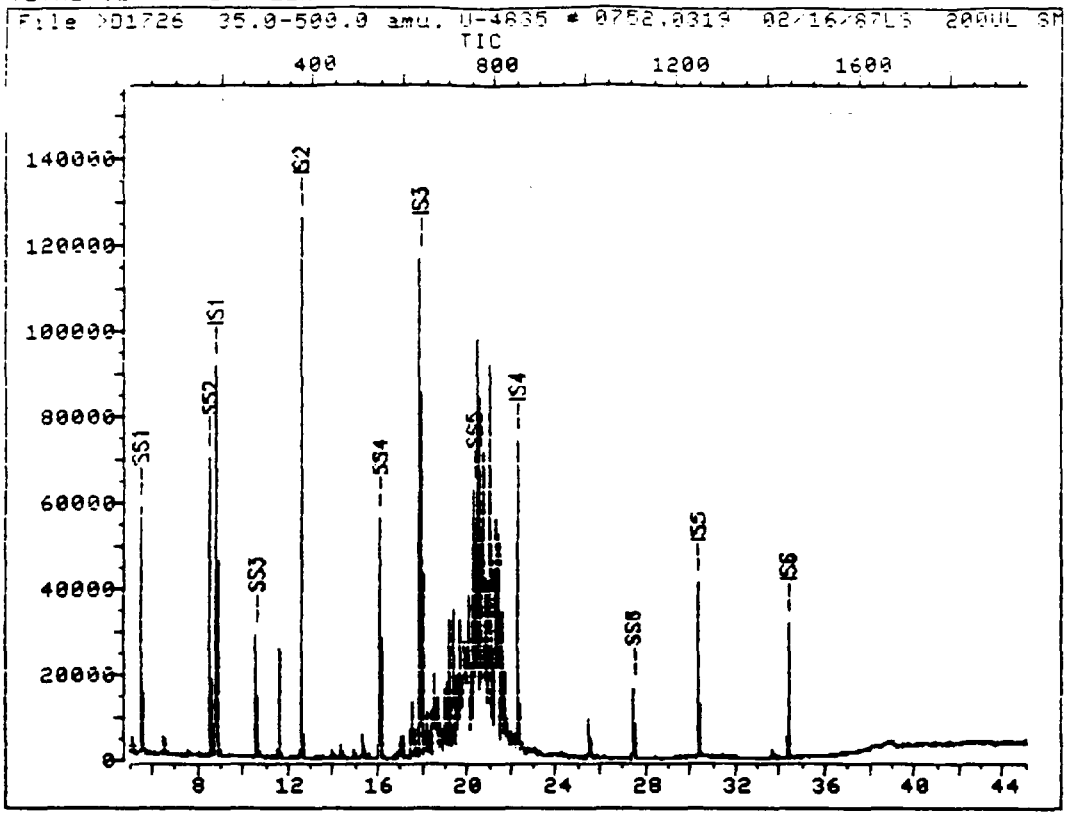
TOTAL ION CHROMATOGRAM



Data File: >D1726::D3
Name: U-4835 # 0752.0319 DC-G3-33
Misc: 02/16/87LS 200UL SMPL + 200UL MECL2 + 4UL IS BTL# 3

Id File: BNAOR::02
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870216 17:17

Operator ID: USER6
Quant Time: 870216 19:50
Injected at: 870216 19:03

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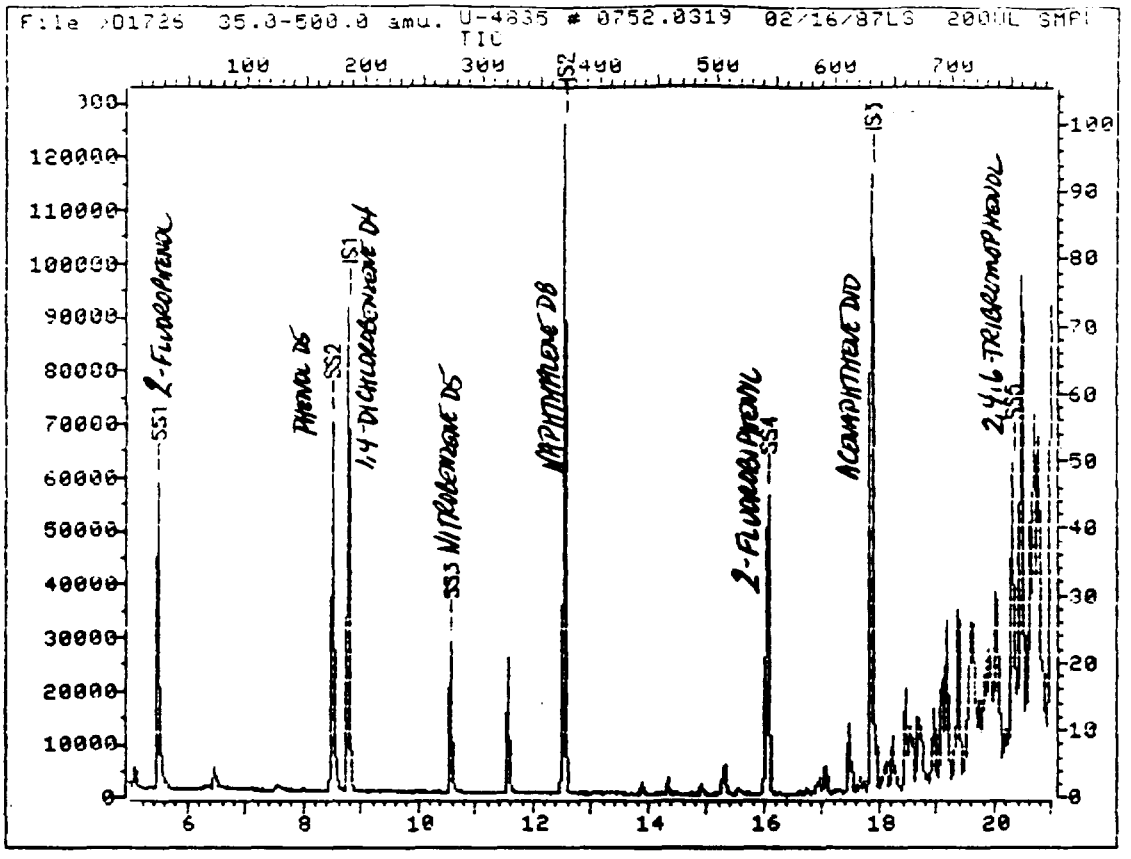
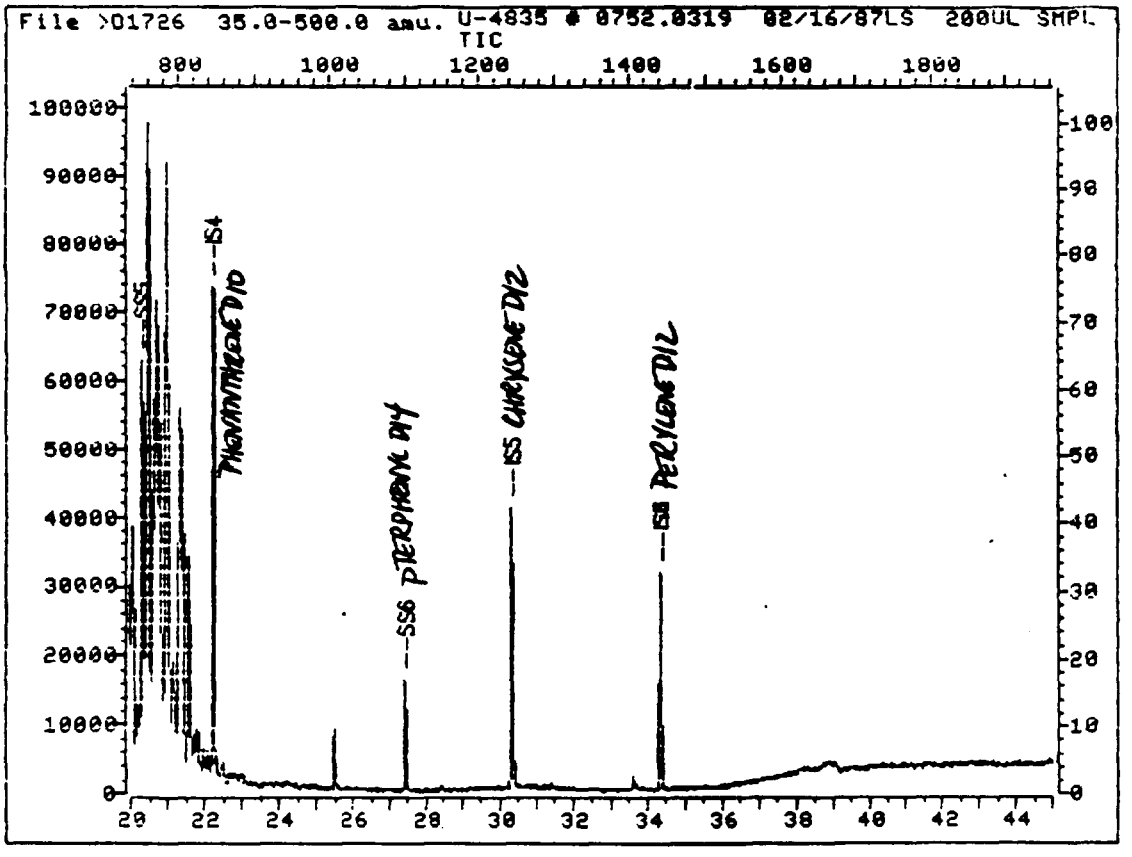
DC-G3-33





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870216 19:50
Output File: ^D1726::Q2 Injected at: 870216 19:03
Data File: >D1726::D3 Dilution Factor: 2.00
Name: U-4835 # 0752.0319 DC-63-33
Misc: 02/16/87LS 200UL SMPL + 200UL MECL2 + 4UL IS BTL# 3

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870216 17:17

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.77	186	37796	40.00 UG/L	84
2)	PHENOL-D5	(SURR)	99	8.48	172	46811	66.96 UG/L	93
5)	2-FLUOROPHENOL	(SURR)	112	5.47	24	39201	88.45 UG/L	70
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.56~~	~~274~~	~~3749~~	~~6.65 UG/L~~	94
19)	*NAPHTHALENE-D8	(IS)	136	12.54	371	132702	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.56	274	22749	33.65 UG/L	87
34)	*ACENAPHTHENE-D10	(IS)	162	17.85	632	65386	40.00 UG/L	96
38)	2-FLUOROBIPHENYL	(SURR)	172	16.06	544	43292	36.89 UG/L	92
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.85~~	~~632~~	~~12183~~	~~13.53 UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.30	752	16209	62.01 UG/L	96
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.85~~	~~632~~	~~8733~~	~~45.52 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.24	847	83426	40.00 UG/L	97
65)	*CHRYSENE-D12	(IS)	240	30.33	1244	44987	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.44	1102	18227	32.52 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.36	1442	40397	40.00 UG/L	100

No BNA

No BNA

No BNA

* Compound is ISTD

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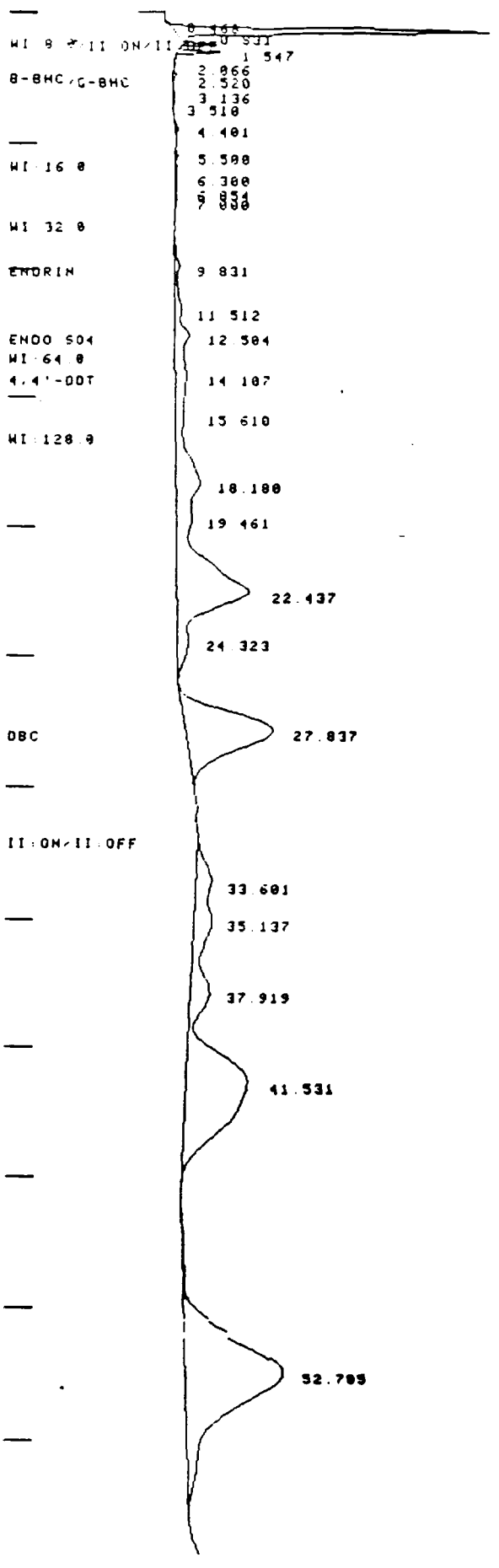
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-G3-33

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CHANNEL: 1A - 1 TITLE: RUN# 21 5:40 12 FEB 87

SAMPLE: 0752 METHOD: CEPA CALCULATION: ES - ANALYS

DC-G3-33

PEAK NO	PEAK NAME	RESULT UG/Kg wet	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.547		28376	BV	4.88
2	~~ENDRIN~~	120.9665	9.831	0.001	30088	BV	? 43.31
3	~~ENDRALD~~.	208.3835	11.512	0.482	56640	VV	? 69.00
4	~~ENDO SC4~~	386.3332	12.504	-0.296	79931	VV	? 54.00
5	~~4,4'-DDT~~	645.1513	14.107	-0.103	142660	VV	?196.94
6	~~END KETON~~	143.9917	15.610	-0.760	46884	VV	? 98.75
7		0.0000	18.180		308130	VV	?136.81
8		0.0000	19.461		112483	VV	?245.63
9		0.0000	22.437		888601	VV	110.81
10		0.0000	24.323		89476	VV	? 93.94
11	~~DDD~~	3690.505	27.837	-0.573	995119	VB	107.31
12		0.0000	33.601		145014	BV	? 94.69
13		0.0000	35.137		203189	VV	?104.88
14		0.0000	37.919		235400	VV	80.81
15		0.0000	41.531		1367379	VV	182.88
16		0.0000	52.705		2094748	VV	172.50
TOTALS:		5195.331		-1.249	6824118		

DETECTED PKS: 36 REJECTED PKS: 20

DIVISOR: 0.15000 MULTIPLIER: 10000.0000

NOISE: 11.4 OFFSET: -22

RACK: 2 VIAL: 6 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A 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

POST RUN:
SAVE FILE: RAW SCA084

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SAMPLE NUMBER DC-G3-33

MEDIUM LEVEL VOLATILE

DC-G3-33

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4835, 4846, 4863, 4872

L Sample ID No: 0752

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Sojtowicz

Date Sample Received: 1-29-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-6-87

Conc/Dil Factor: 10 pH 7.2

Percent Moisture: (Not Decanted) 27

Concentrations reported "as received"

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	50 B
67-64-1	Acetone	7900 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	150 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	25 J
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	100u
591-78-6	2-Hexanone	100u
127-18-4	Tetrachloroethene	29 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	50u
108-88-3	Toluene	50u
108-90-7	Chlorobenzene	2200
100-41-4	Ethylbenzene	200
100-42-5	Styrene	50u
	Total Xylenes	67

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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name Ecology & Environment, Inc.

Case No 4-4835, 4846, 4863, 4872

Sample Number DC-G3-33

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	17.2	23 J
2.		Hexane isomer	VOA	21.2	180 J
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
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26.					
27.					
28.					
29.					
30					

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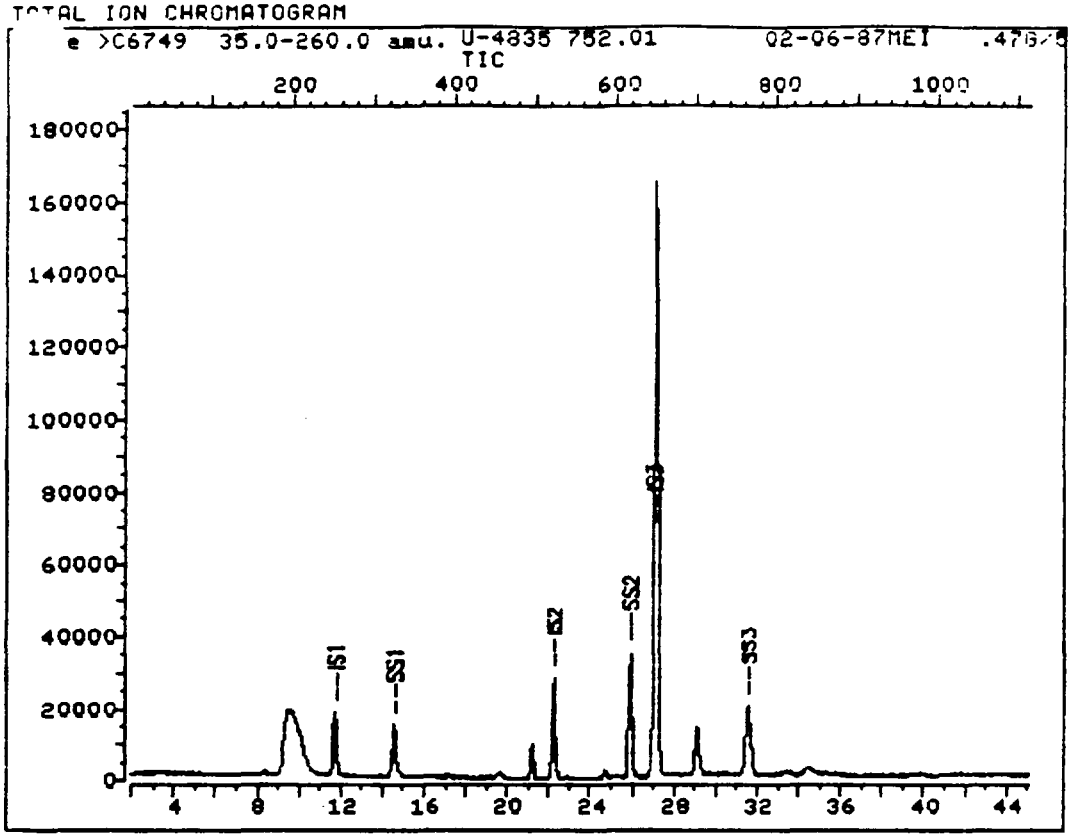
TOTAL ION CHROMATOGRAM



DC-G3-33*

Data File: >C6749::D3
Name: U-4835 752.01
Misc: 02-06-87MEI .47G/5MLS DI + 10UL IS/SS ( )

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870206 17:30

Operator ID: USER8
Quant Time: 870207 03:00
Injected at: 870207 02:15

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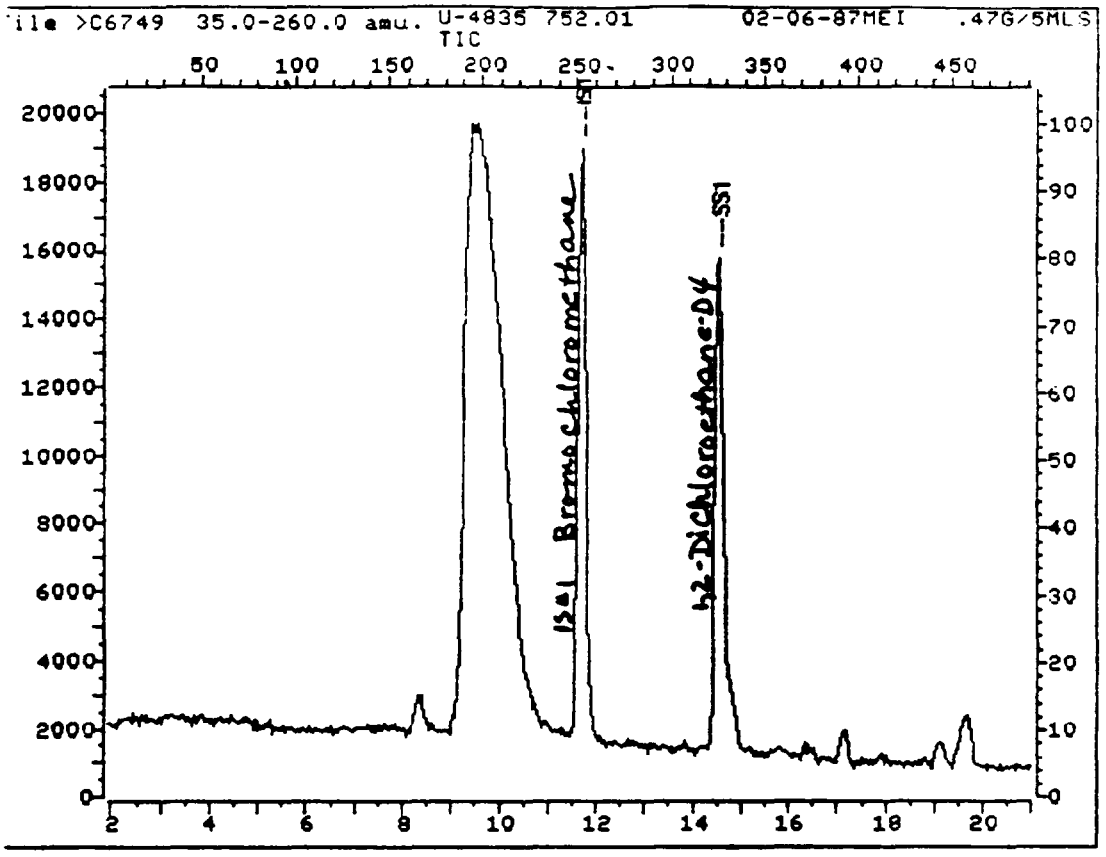
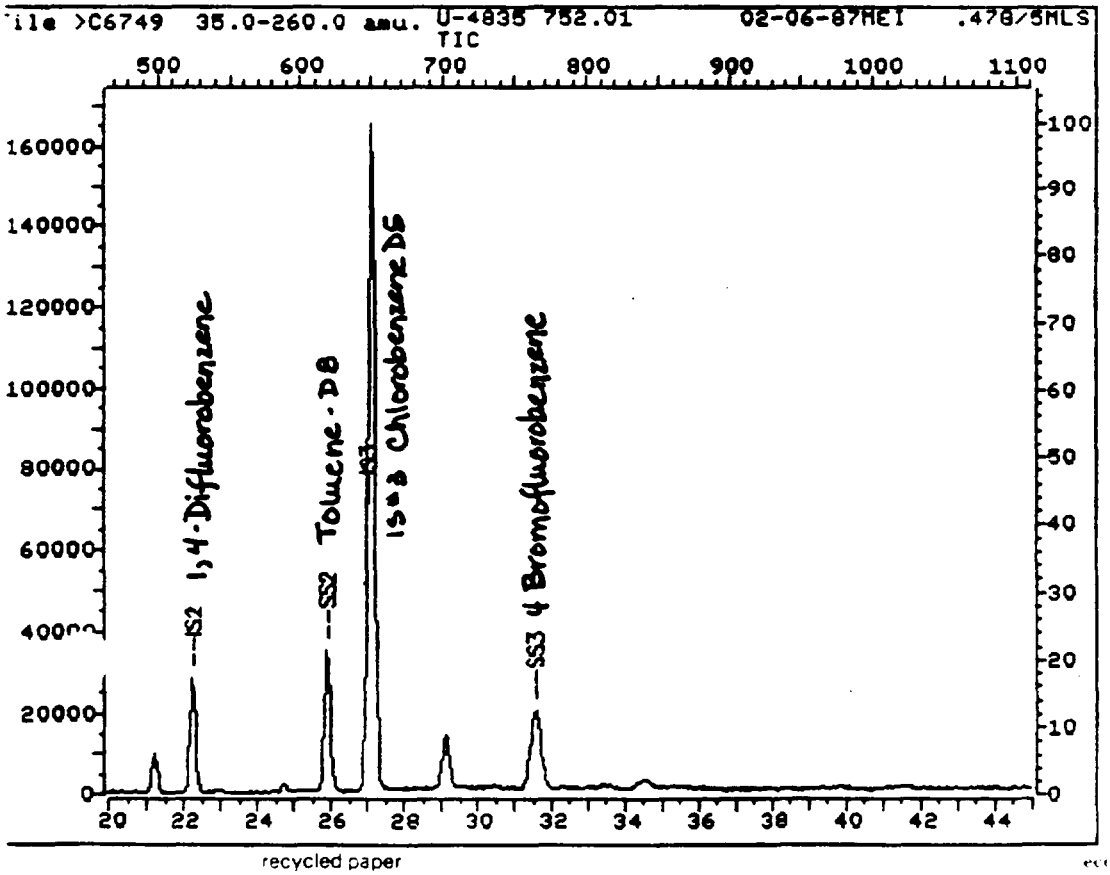
DC-G3-33*





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ecology and environment

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870207 03:00
Output File: ^C6749::Q2 Injected at: 870207 02:15
Data File: ^C6749::D3 Dilution Factor: 1.00
Name: U-4835 752.01 DC-G3-33*
Misc: 02-06-87MEI 0.47G/5MLS DI - 10UL IS/SS ( )

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870206 17:30

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.72	253	22991	250.00 NGS	100
6)	METHYLENE CHLORIDE		84	8.39	167	3191	23.60 NGS	100
7)	ACETONE		43	9.55	197	646226	3715.81 NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.56	326	61686	254.63 NGS	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.24	524	108624	250.00 NGS	100
17)	2-BUTANONE		72	14.75	331	3082	69.18 NGS	100
27)	BENZENE		78	19.68	458	5901	11.62 NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.01	647	101018	250.00 NGS	100
34)	TETRACHLOROETHENE		164	24.72	588	2407	13.50 NGS	75
36)	TOLUENE-D8	(SURR)	98	25.89	618	125702	259.51 NGS	93
38)	CHLOROBENZENE		112	27.13	650	470117	1024.57 NGS	98
39)	ETHYLBENZENE		91	29.11	701	70850	92.83 NGS	93
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.56	764	64874	242.50 NGS	100
42)	TOTAL XYLENES		91	34.47	839	20646	31.55 NGS	100

* Compound is ISTD

verification of high acetone & Chlorobenzene
please submit in data pack
CJF

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SAMPLE NUMBER DC-GB-34

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VC-GS-34

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0753
QC Report No:
Sample Matrix: Soil
Contract No: EL-3140
Data Release Authorized By: C Hojtowicz
Date Sample Received: 1-29-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-2-87
Conc/Dil Factor: 1 pH 7.3
Percent Moisture: (Not Decanted) 22

Concentrations reported "as received"

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	3 BJ
67-64-1	Acetone	16 B
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 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/ml 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.

E — This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name Ecology & Environment Inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-GB-34

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-3-87

Date Analyzed: 2-16-87

Conc/Dil Factor: 100

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	16000	U
111-44-4	bis(-2-Chloroethyl)Ether	16000	U
95-57-8	2-Chlorophenol	16000	U
541-73-1	1 3-Dichlorobenzene	16000	U
106-46-7	1 4-Dichlorobenzene	16000	U
100-51-6	Benzyl Alcohol	16000	U
95-50-1	1 2-Dichlorobenzene	16000	U
95-48-7	2-Methylphenol	16000	U
39638-32-9	bis(2-chloroisopropyl)Ether	16000	U
106-44-5	4-Methylphenol	16000	U
621-64-7	N-Nitroso-Di-n-Propylamine	16000	U
67-72-1	Hexachloroethane	16000	U
98-95-3	Nitrobenzene	16000	U
78-59-1	Isophorone	16000	U
88-75-5	2-Nitrophenol	16000	U
105-67-9	2. 4-Dimethylphenol	16000	U
65-85-0	Benzoic Acid	80000	U
111-91-1	bis(-2-Chloroethoxy)Methane	16000	U
120-83-2	2. 4-Dichlorophenol	16000	U
120-82-1	1. 2. 4-Trichlorobenzene	16000	U
91-20-3	Naphthalene	16000	U
106-47-8	4-Chloroaniline	16000	U
87-68-3	Hexachlorobutadiene	16000	U
59-50-7	4-Chloro-3-Methylphenol	16000	U
91-57-6	2-Methylnaphthalene	16000	U
77-47-4	Hexachlorocyclopentadiene	16000	U
88-06-2	2. 4. 6-Trichlorophenol	16000	U
95-95-4	2. 4. 5-Trichlorophenol	80000	U
91-58-7	2-Chloronaphthalene	16000	U
88-74-4	2-Nitroaniline	80000	U
131-11-3	Dimethyl Phthalate	16000	U
[illegible]8-96-8	Acenaphthylene	16000	U
[illegible]-09-2	3-Nitroaniline	80000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	16000	U
51-28-5	2. 4-Dinitrophenol	80000	U
100-02-7	4-Nitrophenol	80000	U
132-64-9	Dibenzofuran	16000	U
121-14-2	2 4-Dinitrotoluene	16000	U
606-20-2	2. 6-Dinitrotoluene	16000	U
84-66-2	Diethylphthalate	16000	U
7005-72-3	4-Chlorophenyl-phenylether	16000	U
86-73-7	Fluorene	16000	U
100-01-6	4-Nitroaniline	80000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	80000	U
86-30-6	N-Nitrosodiphenylamine (1)	16000	U
101-55-3	4-Bromophenyl-phenylether	16000	U
118-74-1	Hexachlorobenzene	16000	U
87-86-5	Pentachlorophenol	80000	U
85-01-8	Phenanthrene	16000	U
120-12-7	Anthracene	16000	U
84-74-2	Di-n-Butylphthalate	16000	U
206-44-0	Fluoranthene	16000	U
129-00-0	Pyrene	16000	U
85-68-7	Butylbenzylphthalate	16000	U
91-94-1	3. 3'-Dichlorobenzidine	33000	U
56-55-3	Benzo(a)Anthracene	16000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	16000	U
218-01-9	Chrysene	16000	U
117-84-0	Di-n-Octyl Phthalate	16000	U
205-99-2	Benzo(b)Fluoranthene	16000	U
207-08-9	Benzo(k)Fluoranthene	16000	U
50-32-8	Benzo(a)Pyrene	16000	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	16000	U
53-70-3	Dibenz(a h)Anthracene	16000	U
191-24-2	Benzo(g h i)Perylene	16000	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-GB-34

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-3-87

Date Analyzed 2-12-87

Conc/Dil Factor 1

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)	
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	1400	J

V_l = 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 3 V_t 1000 V_t 4

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Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-GB-34

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	13 BJ
2.		Hexane Isomer	VOA	21.2	54 BJ
3.					
4.		No Semi-Volatile Compounds Found			
5.					
6.					
7.					
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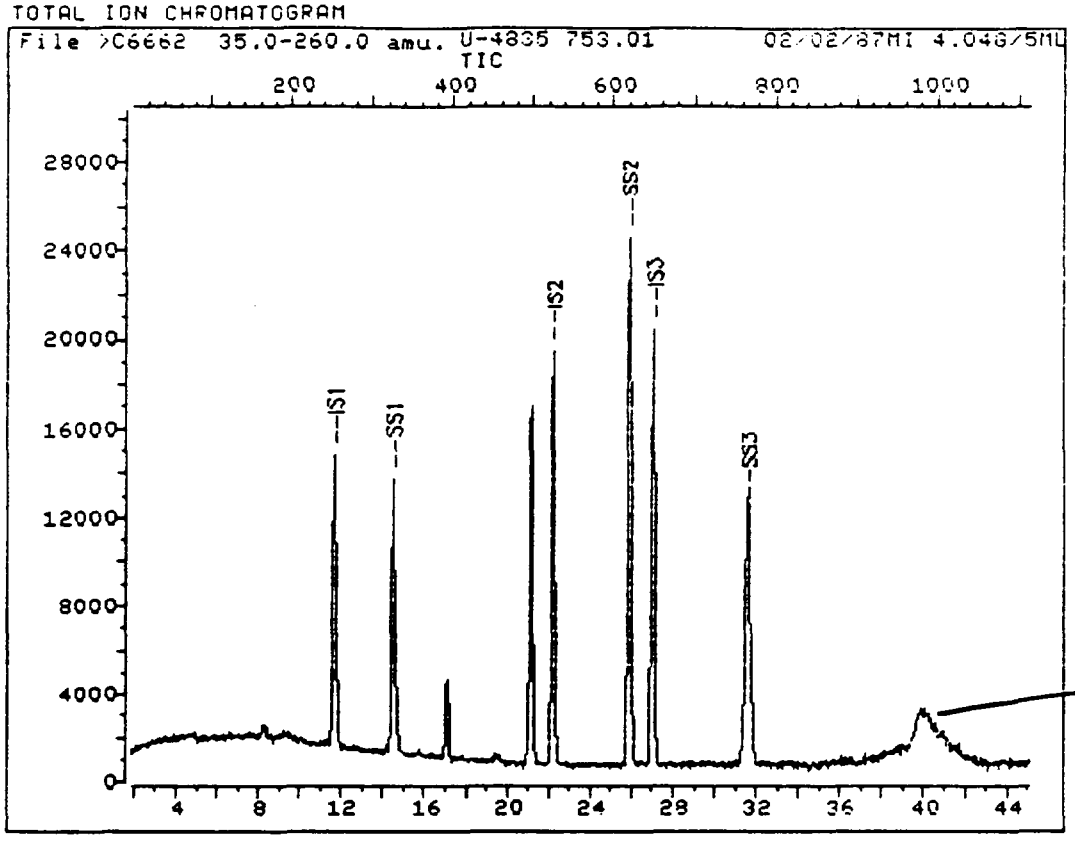
30					

TOTAL ION CHROMATOGRAM



Data File: >C6662::D1
Name: U-4835 753.01 DC-GB-34
Misc: 02/02/87MI 4.04G/5MLS DI H20 + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870202 11:35

Operator ID: USER8
Quant Time: 870202 18:19
Injected at: 870202 17:33

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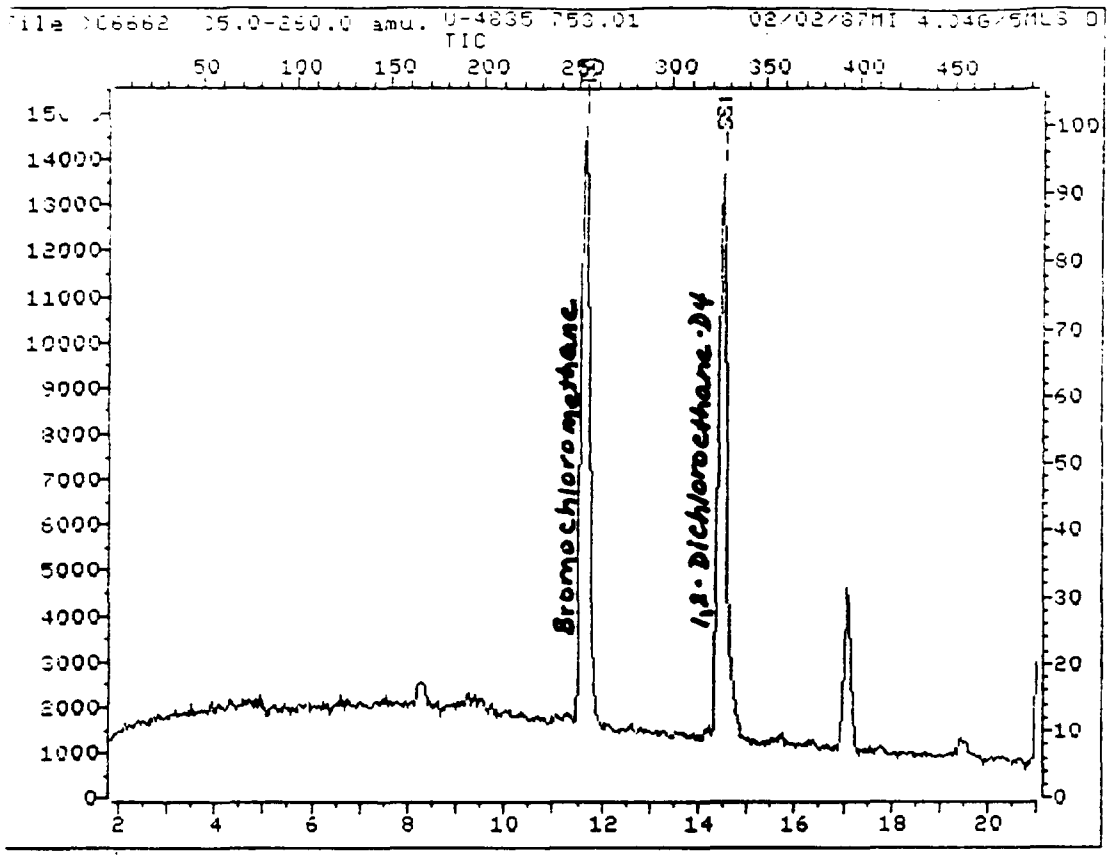
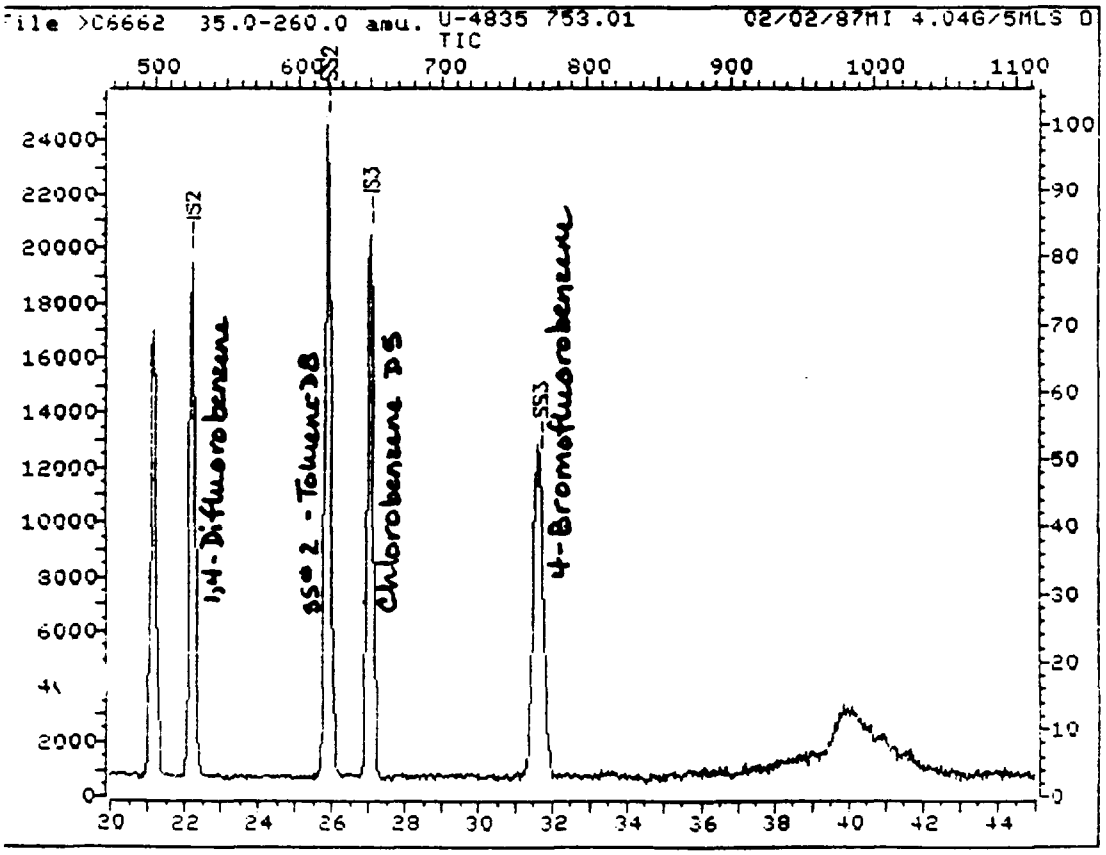
DC-GB-34





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870202 18:19
Output File: ^C6662::Q2 Injected at: 870202 17:33
Data File: >C6662::D1 Dilution Factor: 1.00
Name: U-4835 753.01 DC-GB-34
Misc: 02/02/87MI 4.04G/5MLS DI H2O + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870202 11:35

	Compound		R.T.	Scan#	Area	Conc	Units
1)	*BROMOCHLOROMETHANE	(IS)	128	11.66	253	17690	250.00	NGS
6)	METHYLENE CHLORIDE		84	8.24	165	1386	12.50	NGS
7)	ACETONE		43	9.25	191	7488	64.11	NGS
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.49	326	52046	271.91	NGS
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.21	525	74366	250.00	NGS
31)	*CHLOROBENZENE-D5	(IS)	117	27.05	650	57084	250.00	NGS
36)	TOLUENE-D8	(SURR)	98	25.89	620	86356	279.63	NGS
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.64	768	41659	241.77	NGS
43)	1,3-DICHLOROBENZENE		146	39.90	981	13141	13141.00	NO CALIB
44)	1,2-DICHLOROBENZENE			39.90	981	13141	13141.00	NO CALIB
45)	1,4-DICHLOROBENZENE		146	39.90	981	13141	13141.00	NO CALIB

* Compound is ISTD

carryover from previous run
Retention time off for DCB
CW

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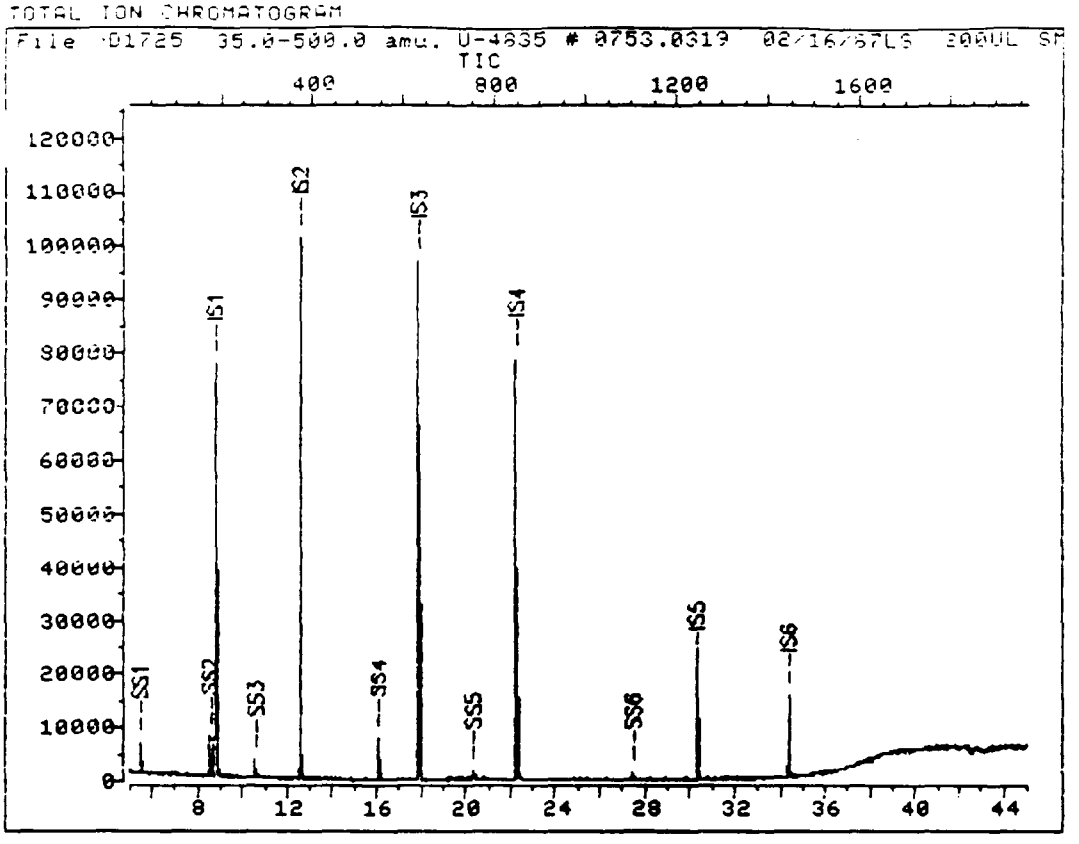
TOTAL ION CHROMATOGRAM



Data File: >D1725::D3
Name: U-4835 # 0753.0319 DC-GB-34
Misc: 02/16/87LS 200UL SMPL + 200UL MECL2 + 4UL IS BTL# 2

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870216 17:17

Operator ID: USER6
Quant Time: 870216 18:57
Injected at: 870216 18:09

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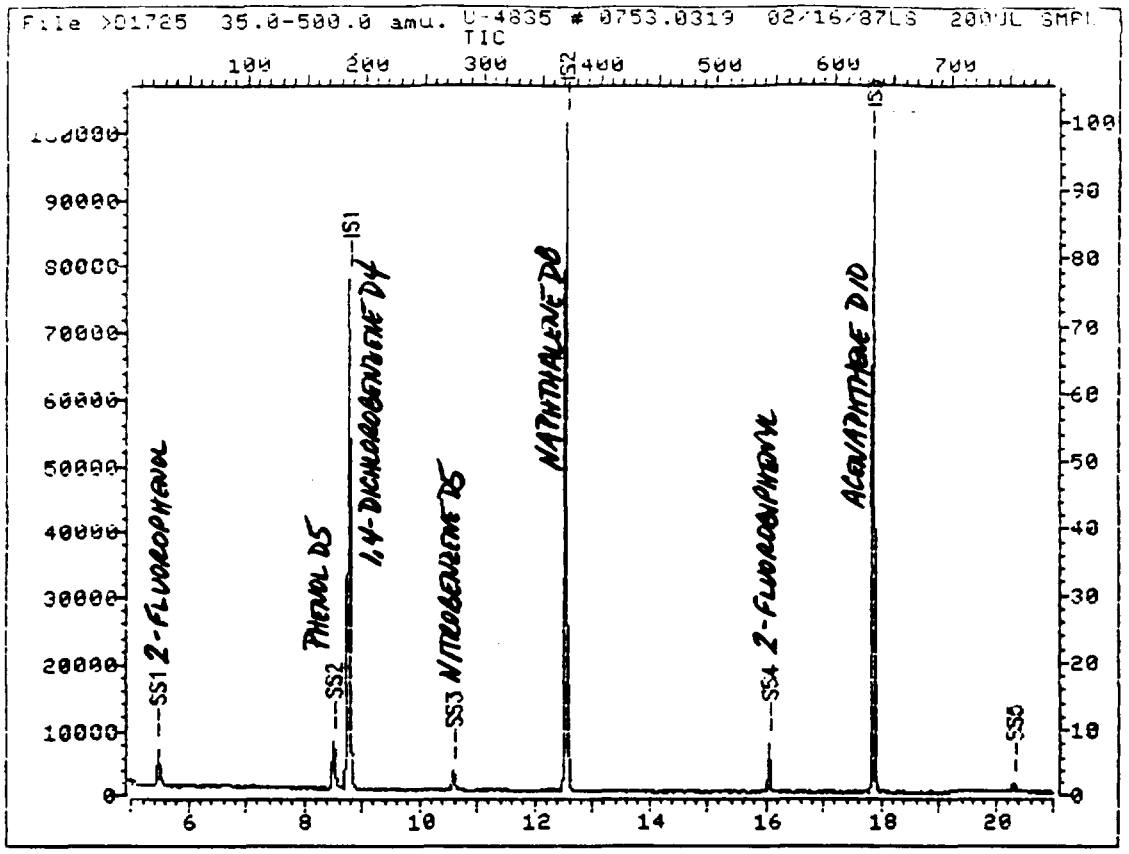
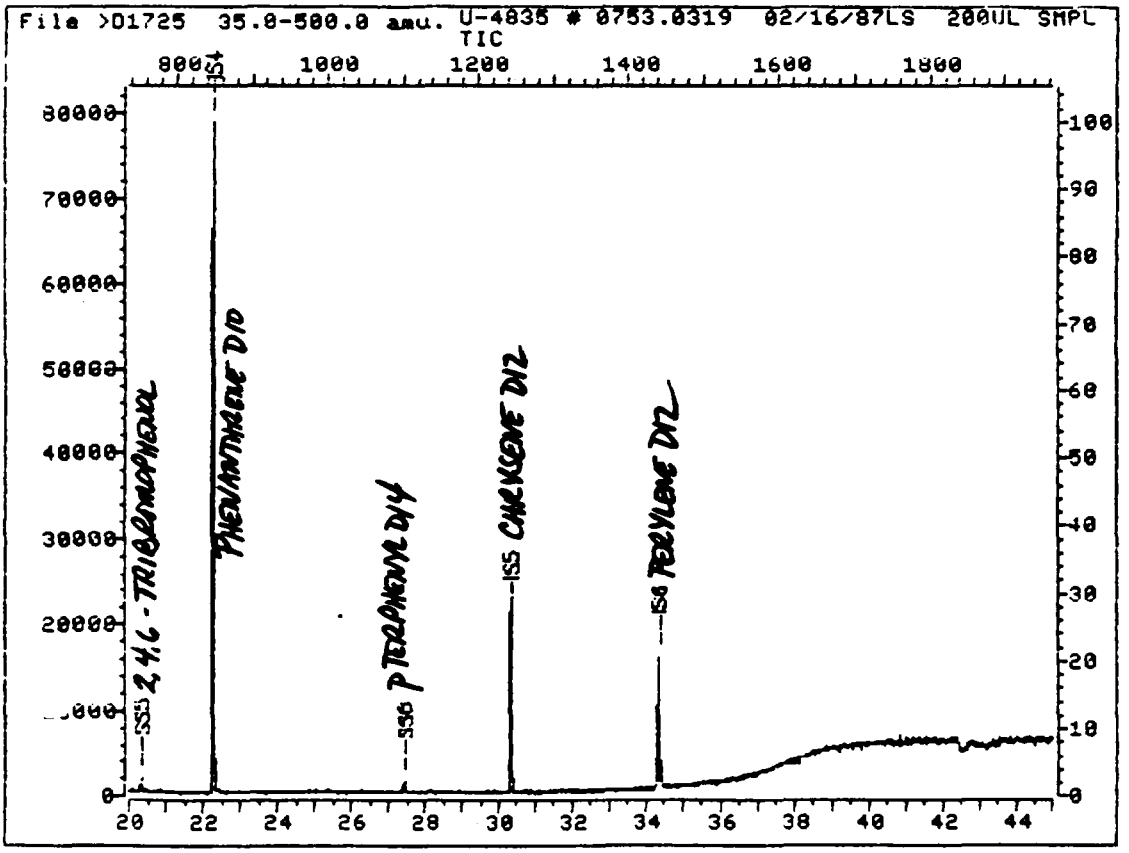
DC-GB-34





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ecology and environment

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870216 19:52
Output File: ^D1725::Q2 Injected at: 870216 18:09
Data File: >D1725::D3 Dilution Factor: 2.00
Name: U-4835 # 0753.0319 DC-GB-34
Misc: 02/16/87LS 200UL SMPL + 200UL MECL2 + 4UL IS BTL# 2

ID File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870216 17:17

FINAL VOLUME - 5 ml

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.77	186	31617	40.00 UG/L	85
2)	PHENOL-D5	(SURR)	99	8.50	173	6576	11.24 UG/L	99
5)	2-FLUOROPHENOL	(SURR)	112	5.47	24	4593	12.39 UG/L	67
19)	*NAPHTHALENE-D8	(IS)	136	12.54	371	111061	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.58	275	3363	5.94 UG/L	81
34)	*ACENAPHTHENE-D10	(IS)	162	17.85	632	52886	40.00 UG/L	94
38)	2-FLUOROBIPHENYL	(SURR)	172	16.06	544	7067	7.45 UG/L	96
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.85~~	~~632~~	~~10292~~	~~16.13 UG/L~~ Not GC	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.32	753	1317	6.23 UG/L	78
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.85~~	~~632~~	~~6985~~	~~44.50 UG/L~~ Not GC	100
55)	*PHENANTHRENE-D10	(IS)	188	22.25	848	80856	40.00 UG/L	91
65)	*CHRYSENE-D12	(IS)	240	30.32	1244	27850	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.45	1103	2370	6.83 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.35	1442	20726	40.00 UG/L	100

* Compound is ISTD

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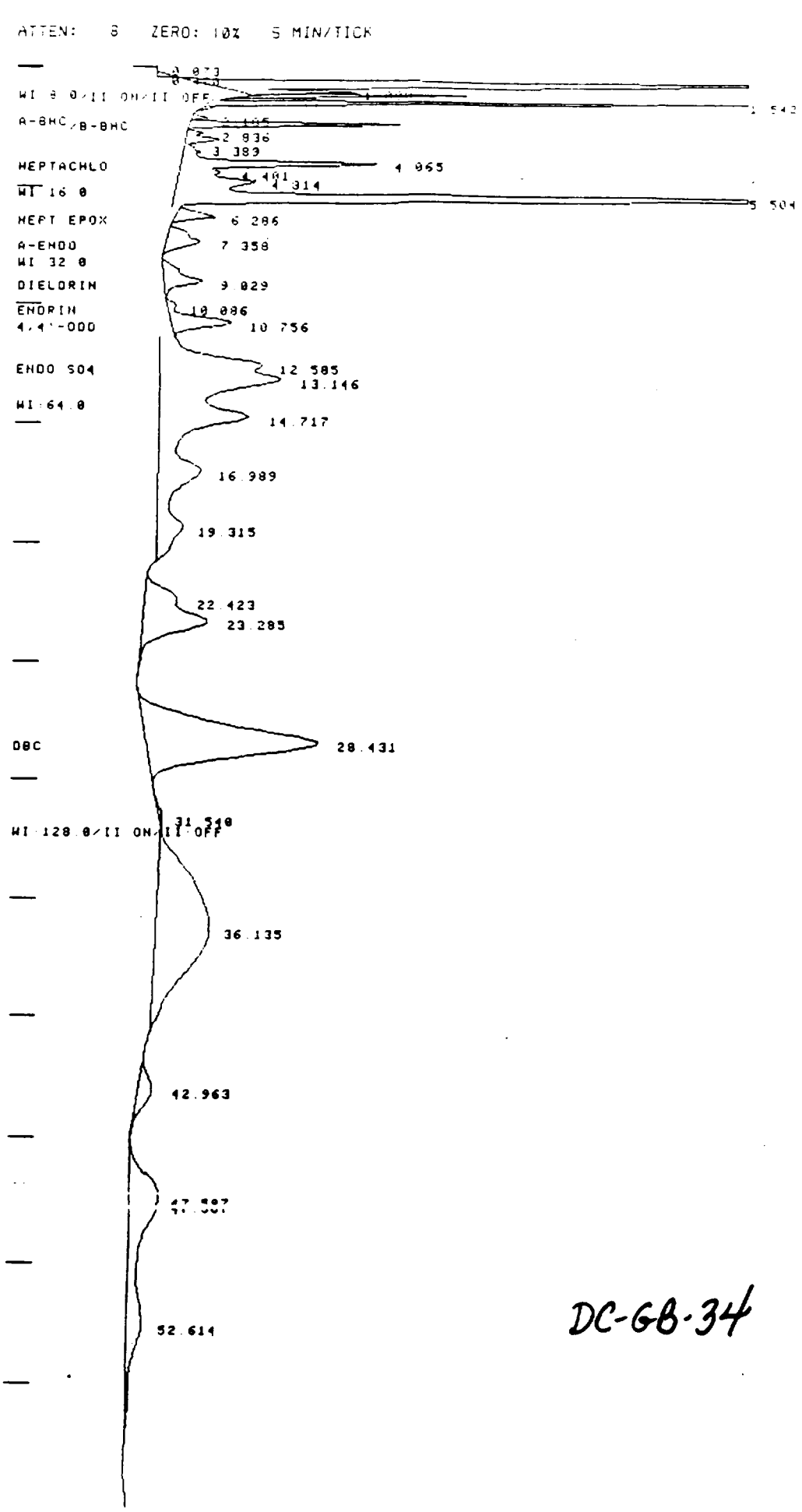

DC-GB-34

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PCB1260 = 5.3 × 0.039 × 1/0.15 × 1000 = 1400 ug/kg WET

RECALCULATE ON FILE: SCA085

CHANNEL: 1A - 1 TITLE: RUN# 22 6:44 12 FEB 87

DC-GB-34

SAMPLE: 0753 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	1.261		132606	BB	4.00
2		0.0000	1.542		459322	BV	5.19
3	~~G-BHC~~	188.1990	2.431	0.061	231391	VV	8.50
4		0.0000	3.071		51849	VV	11.50
5		0.0000	3.584		25329	VV	? 10.88
6	~~HEPTACHLO~~	~~104.2404~~	4.065	-0.035	332172	VV	11.00
7		0.0000	4.401		76751	VV	? 13.13
8	~~ALDRIN~~	65.7364	4.814	-0.236	238881	VV	? 18.75
9		0.0000	5.504		2692275	VV	12.25
10	~~HEPT EPOX~~	29.7658	6.286	0.176	102094	T	19.25
11	~~a-CHDD~~	46.0047	7.358	-0.212	149927	T	? 32.44
12	~~DIELDRIN~~	48.5382	9.022	0.202	168865	T	26.81
13	~~G-CHDD~~	6.5869	10.086	0.066	21488	T	? 29.19
14	~~4,4'-DDE~~	77.5681	10.756	-0.154	212903	T	30.69
15	~~ENDO SO4~~	270.5980	12.585	-0.215	559858	VV	? 49.25
16		0.0000	13.146		796774	VV	? 73.44
17	~~4,4'-DDT~~	340.0372	14.717	0.507	751912	VV	? 66.63
18	~~END KETON~~	131.7216	16.989	0.619	428888	VV	71.94
19		0.0000	19.315		261654	VB	84.00
20		0.0000	22.423		150933	BV	? 68.94
21		0.0000	*23.285		527277	VV	63.63
22	DBC 104	693.2473	28.431	0.021	1869293	VV	85.44
23		0.0000	36.135		1825847	BB	249.44
24		0.0000	42.963		137983	BV	61.63
25		0.0000	47.587		605034	VV	136.88
26		0.0000	52.614		390524	VB	?206.38

TOTALS: 2002.251 0.800 13201830

DETECTED PKS: 40 REJECTED PKS: 14

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: -71

RACK: 2 VIAL: 7 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A 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

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SAMPLE NUMBER DC-G4-35

VC-G4-35

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872

L. Sample ID No: 0754
QC Report No:

Sample Matrix: Soil
Contract No: IL-3140

Data Release Authorized By: C Bogtowicz
Date Sample Received: 1-29-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-2-87

Conc/Dil Factor: 1 pH 7.3

Percent Moisture: (Not Decanted) 24

Concentrations reported "as received"

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	2 BJ
67-64-1	Acetone	1500 E B
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	19 B
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	2 J
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	81
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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name: Ecology & Environment Inc.

Case No: V-4835, 4846, 4863, 4872

Sample Number: DC-G4-35

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-2-87

Date Analyzed: 2-13-87

Conc/Dil Factor: 20

Percent Moisture (Decanted): 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	3300	U
111-44-4	bis(-2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1 3-Dichlorobenzene	3300	U
106-46-7	1. 4-Dichlorobenzene	1800	J
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1. 2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2. 4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U
111-91-1	bis(-2-Chloroethoxy)Methane	3300	U
120-83-2	2. 4-Dichlorophenol	3300	U
120-82-1	1. 2. 4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2. 4. 6-Trichlorophenol	3300	U
95-95-4	2. 4. 5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U
208-96-8	Acenaphthylene	3300	U
99-09-2	3-Nitroaniline	16000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2. 4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U
132-64-9	Dibenzofuran	3300	U
121-14-2	2 4-Dinitrotoluene	3300	U
606-20-2	2. 6-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3300	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	3300	U
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3. 3'-Dichlorobenzidine	66000	U
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300	U
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	3300	U
53-70-3	Dibenz(a h)Anthracene	3300	U
191-24-2	Benzo(g h i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-G4-35

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-2-87

Date Analyzed 2-12-87

Conc/Dil Factor 2

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	160	U
319-85-7	Beta-BHC	160	U
319-86-8	Delta-BHC	160	U
58-89-9	Gamma-BHC (Lindane)	160	U
76-44-8	Heptachlor	160	U
309-00-2	Aldrin	160	U
1024-57-3	Heptachlor Epoxide	160	U
959-98-8	Endosulfan I	160	U
60-57-1	Dieldrin	320	U
72-55-9	4,4'-DDE	320	U
72-20-8	Endrin	320	U
33213-65-9	Endosulfan II	320	U
72-54-8	4,4'-DDD	320	U
1031-07-8	Endosulfan Sulfate	320	U
50-29-3	4,4'-DDT	320	U
72-43-5	Methoxychlor	1600	U
53494-70-5	Endrin Ketone	320	U
57-74-9	Chlordane	1600	U
8001-35-2	Toxaphene	3200	U
12674-11-2	Aroclor-1016	1600	U
11104-28-2	Aroclor-1221	1600	U
11141-16-5	Aroclor-1232	1600	U
53469-21-9	Aroclor-1242	1600	U
12672-29-6	Aroclor-1248	1600	U
11097-69-1	Aroclor-1254	3200	U
11096-82-5	Aroclor-1260	3200	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 3 V_t 1000 V_i 4

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Laboratory Name ECOLOGY & ENVIRONMENT LAB.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-G4-35

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	11 BJ
2.		Hexane Isomer	"	21.1	50 BJ
3.		Dichlorobenzene Isomer	"	39.8	1000 J
4.					
5.		Tetrachlorobenzene Isomer	BNA	16.21	2500 J
6.	608935	Pentachlorobenzene	"	18.55	4000 J
7.	10544500	Molecular Sulfur	"	25.51	16000 J
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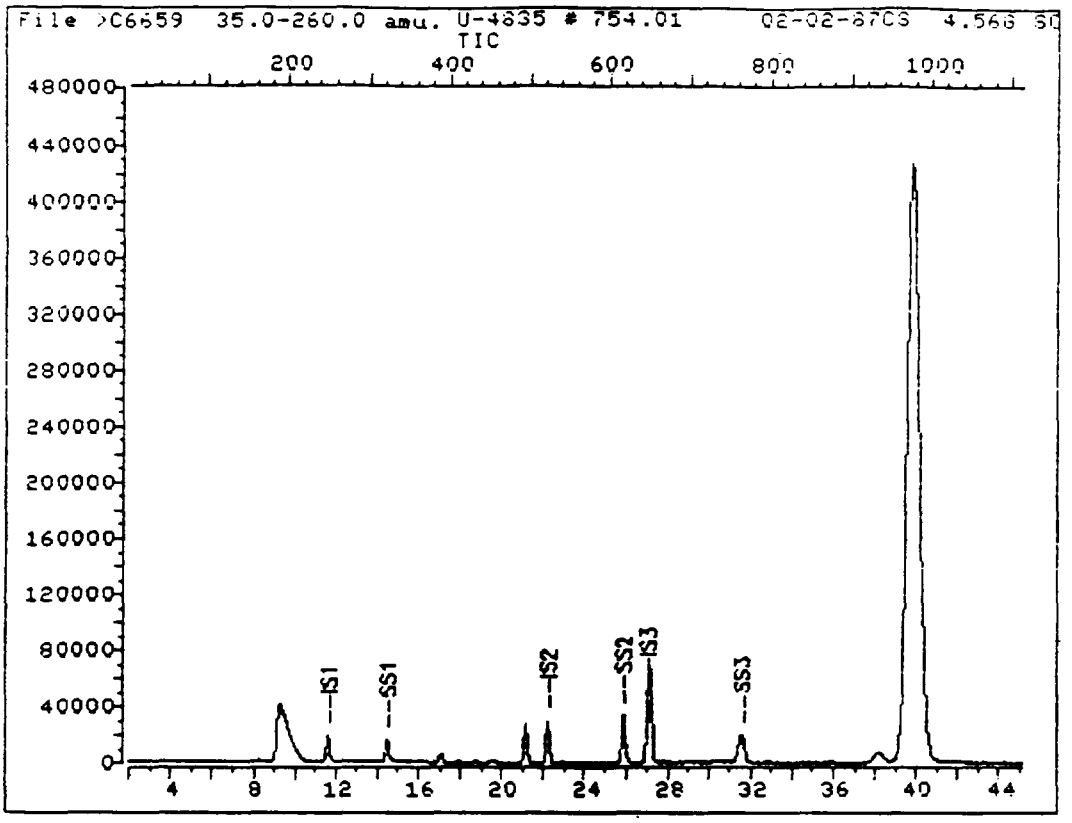
TOTAL ION CHROMATOGRAM



Data File: >C6659::D1
Name: U-4835 # 754.01 DC-G4-35
Misc: 02-02-87CS 4.56G SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870202 11:35

Operator ID: USER8
Quant Time: 870202 15:33
Injected at: 870202 14:47

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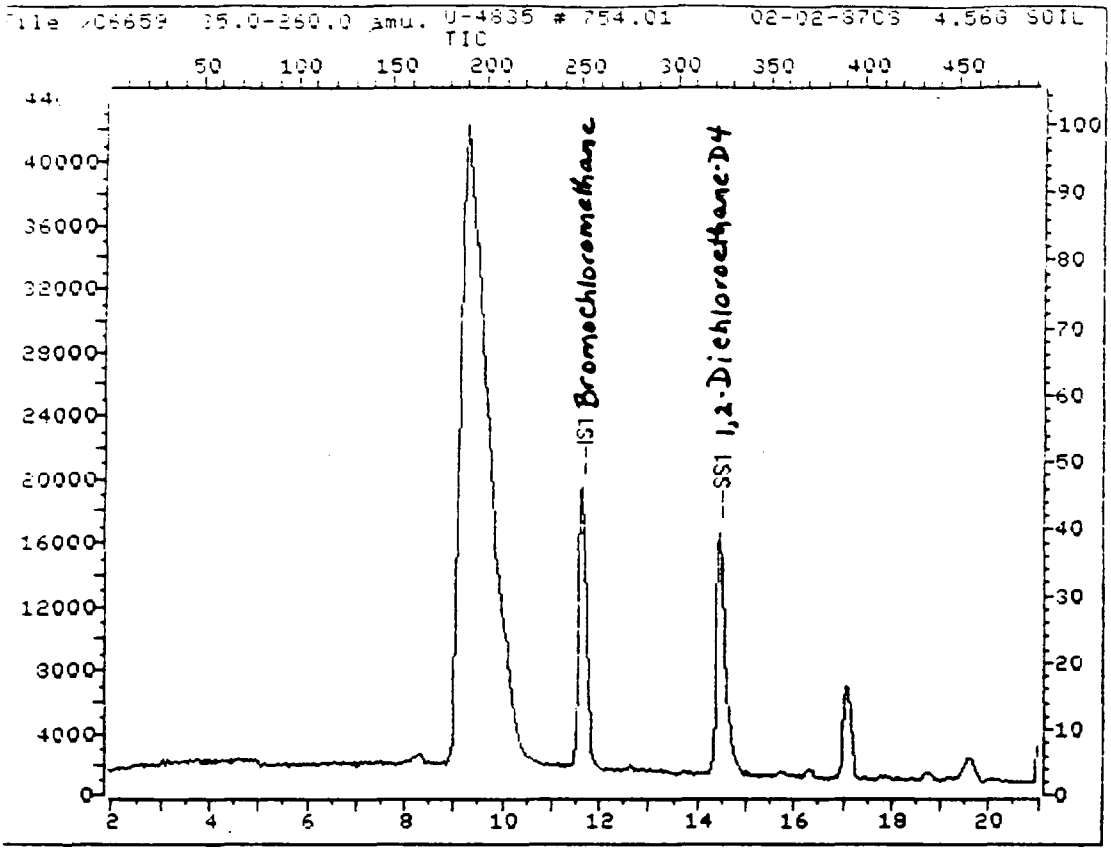
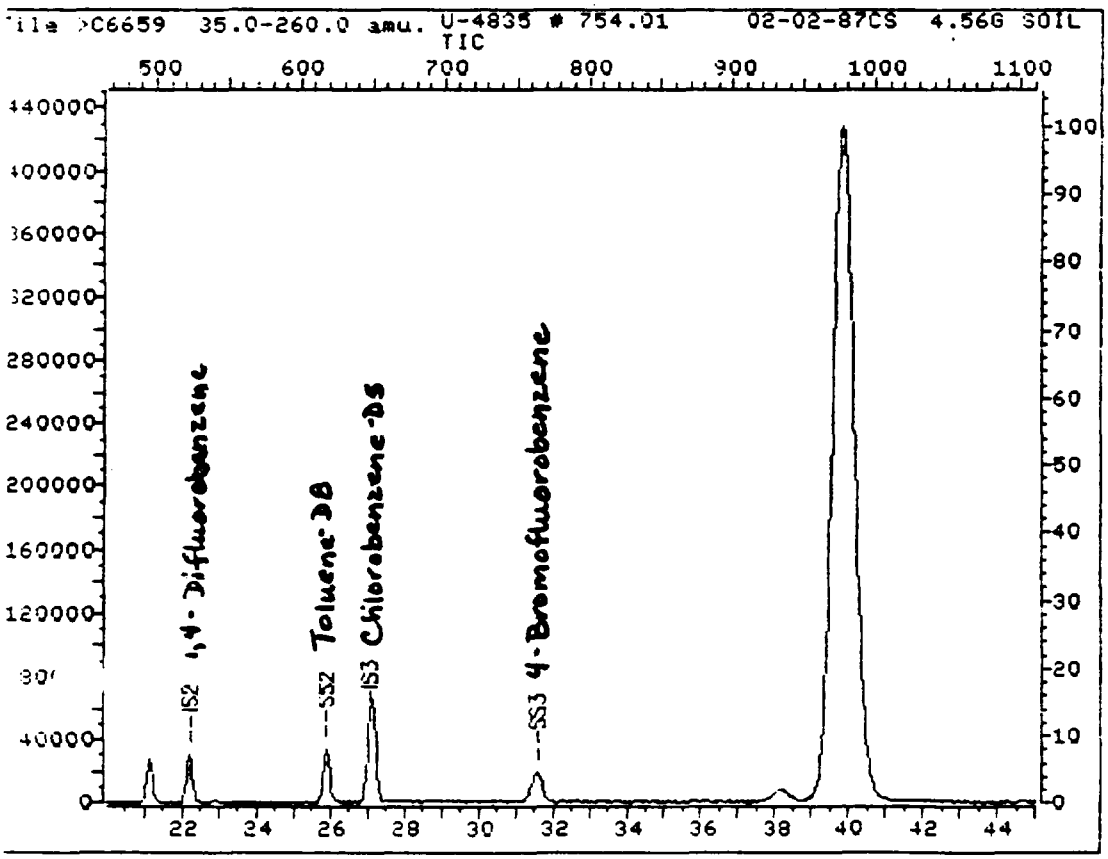
DC-G4-35





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870202 15:33
Output File: ^C6659::Q2 Injected at: 870202 14:47
Data File: >C6659::D1 Dilution Factor: 1.00
Name: U-4835 # 754.01 DC-G4-35
Misc: 02-02-87CS 4.56G SOIL IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870202 11:35

	Compound		R.T.	Scan#	Area	Conc	Units	
1)	*BROMOCHLOROMETHANE	(IS)	128	11.64	251	24188	250.00	NGS
6)	METHYLENE CHLORIDE		84	8.31	165	1668	11.01	NGS
7)	ACETONE		43	9.28	190	1084179	6788.83	NGS
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.47	324	66835	255.37	NGS
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.19	523	111855	250.00	NGS
17)	2-BUTANONE		72	14.63	328	3391	79.62	NGS
27)	BENZENE		78	19.63	457	5831	11.13	NGS
31)	*CHLOROBENZENE-D5	(IS)	117	27.04	648	90628	250.00	NGS
36)	TOLUENE-D8	(SURR)	98	25.88	618	127099	259.23	NGS
38)	CHLOROBENZENE		112	27.16	651	157581	368.78	NGS
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.59	765	65251	238.53	NGS
43)	1,3-DICHLOROBENZENE		146	38.14	934	60406	60406.00	NO CALIB
43)	1,3-DICHLOROBENZENE		146	39.81	977	3821283	3821283.	NO CALIB
44)	1,2-DICHLOROBENZENE			39.81	977	3812922	3812922.	NO CALIB
45)	1,4-DICHLOROBENZENE		146	38.14	934	60406	60406.00	NO CALIB
45)	1,4-DICHLOROBENZENE		146	39.81	977	3859665	3859665.	NO CALIB

* Compound is ISTD

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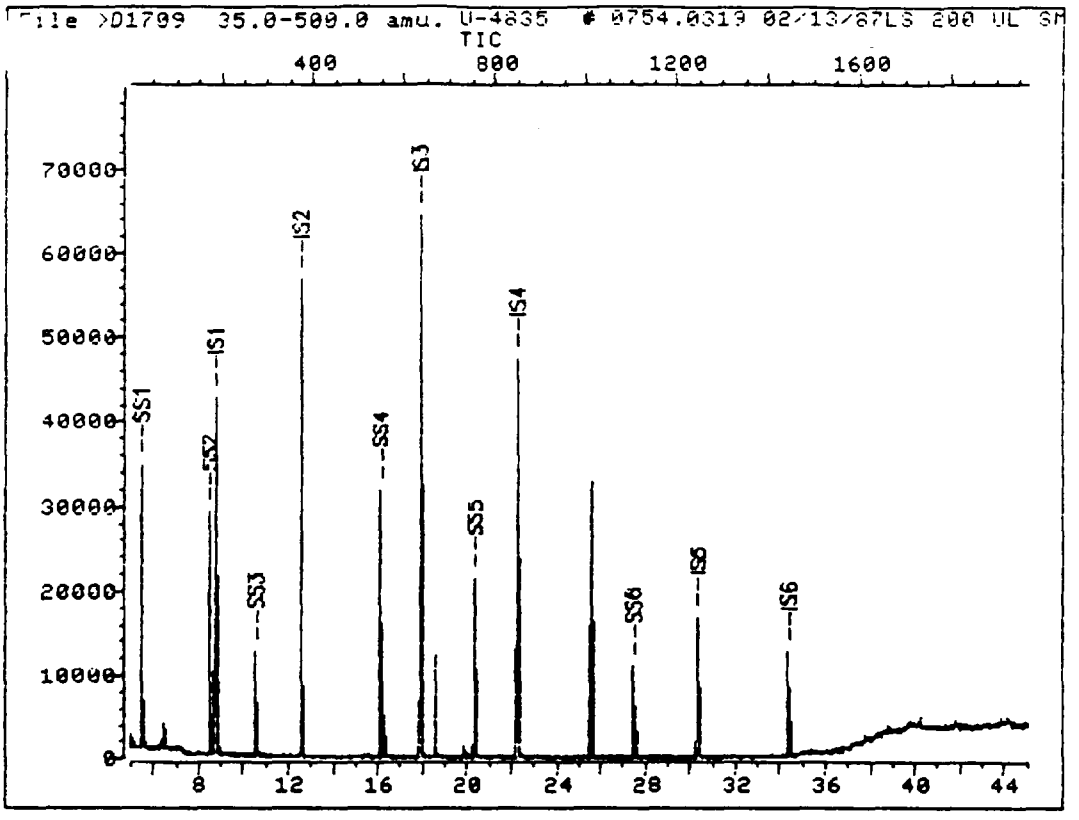
TOTAL ION CHROMATOGRAM



Data File: >D1709::D3
Name: U-4835 # 0754.0319 DC-64-35
Misc: 02/13/87LS 200 UL SMPL + 200 UL MECL2 + 4 ULS IS BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870213 19:29

Operator ID: USER6
Quant Time: 870213 21:30
Injected at: 870213 20:43

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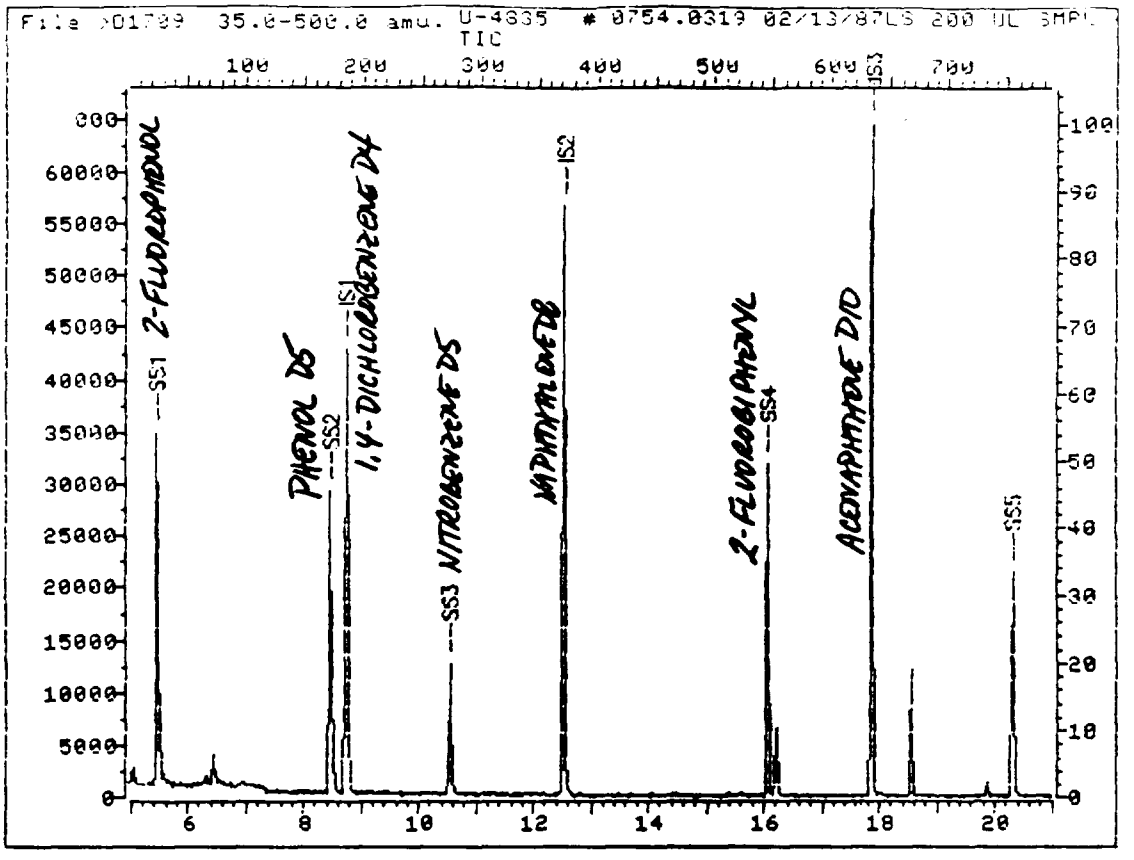
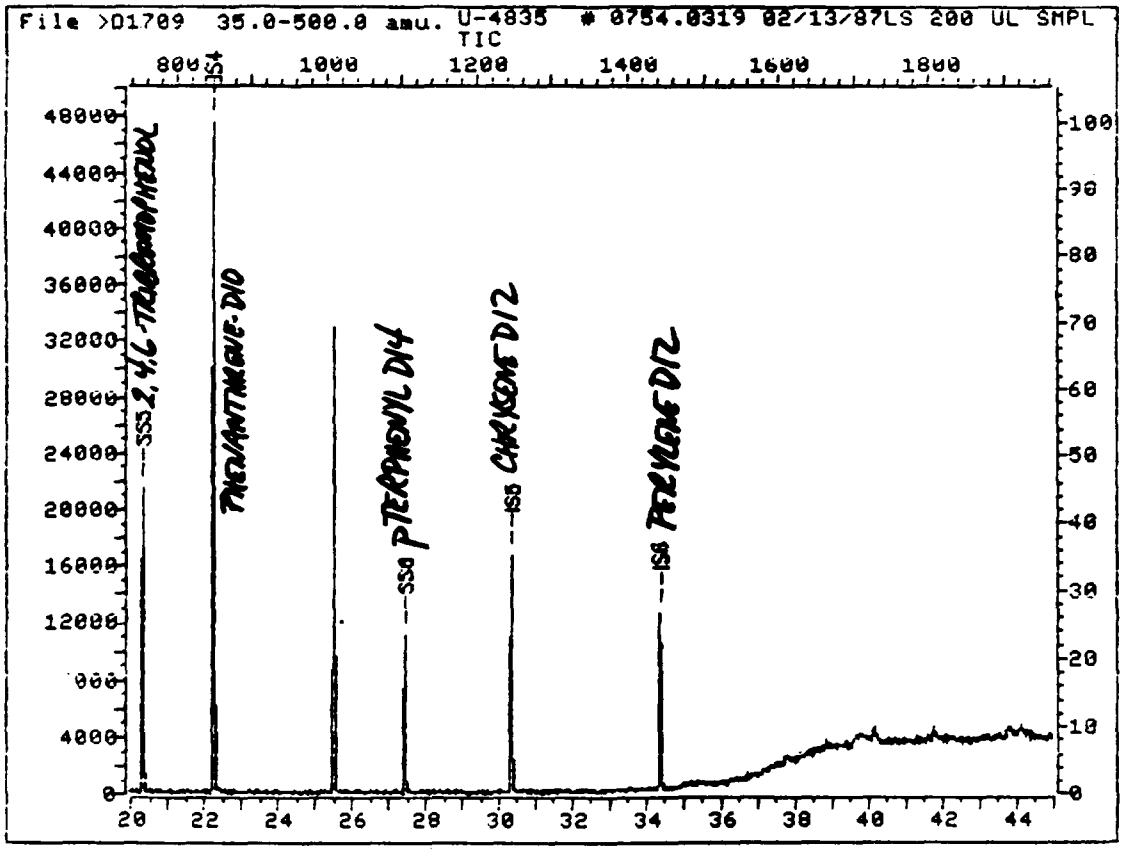
DC-C4-35





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QUANT REPORT

C ·ator ID: USER6 Quant Rev: 4 Quant Time: 870213 21:30
Output File: ^D1709::Q2 Injected at: 870213 20:43
Data File: >D1709::D3 Dilution Factor: 2.00
Name: U-4835 # 0754.0319 DC-G4-35
Misc: 02/13/87LS 200 UL SMPL + 200 UL MECL2 + 4 ULS IS BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870213 19:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.73	185	23354	40.00 UG/L	89
2)	PHENOL-D5	(SURR)	99	8.47	172	21502	64.83 UG/L	90
5)	2-FLUOROPHENOL	(SURR)	112	5.43	23	26008	103.81 UG/L	97
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~8.77~~	~~187~~	~~2444~~	~~5.64 UG/L~~	99
10)	1,4-DICHLOROBENZENE		146	8.77	187	2444	5.59 UG/L	99
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.54~~	~~274~~	~~1507~~	~~5.08 UG/L~~	81
19)	*NAPHTHALENE-D8	(IS)	136	12.54	372	76563	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.54	274	9782	33.31 UG/L	93
34)	*ACENAPHTHENE-D10	(IS)	162	17.88	634	41831	40.00 UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	16.06	545	28933	37.72 UG/L	89
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.88~~	~~634~~	~~8235~~	~~15.10 UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.32	754	8956	51.41 UG/L	97
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.88~~	~~634~~	~~5508~~	~~47.88 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.26	849	60212	40.00 UG/L	85
65)	*CHRYSENE-D12	(IS)	240	30.34	1246	21131	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.45	1104	13009	50.50 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.37	1444	16183	40.00 UG/L	100

* Compound is ISTD

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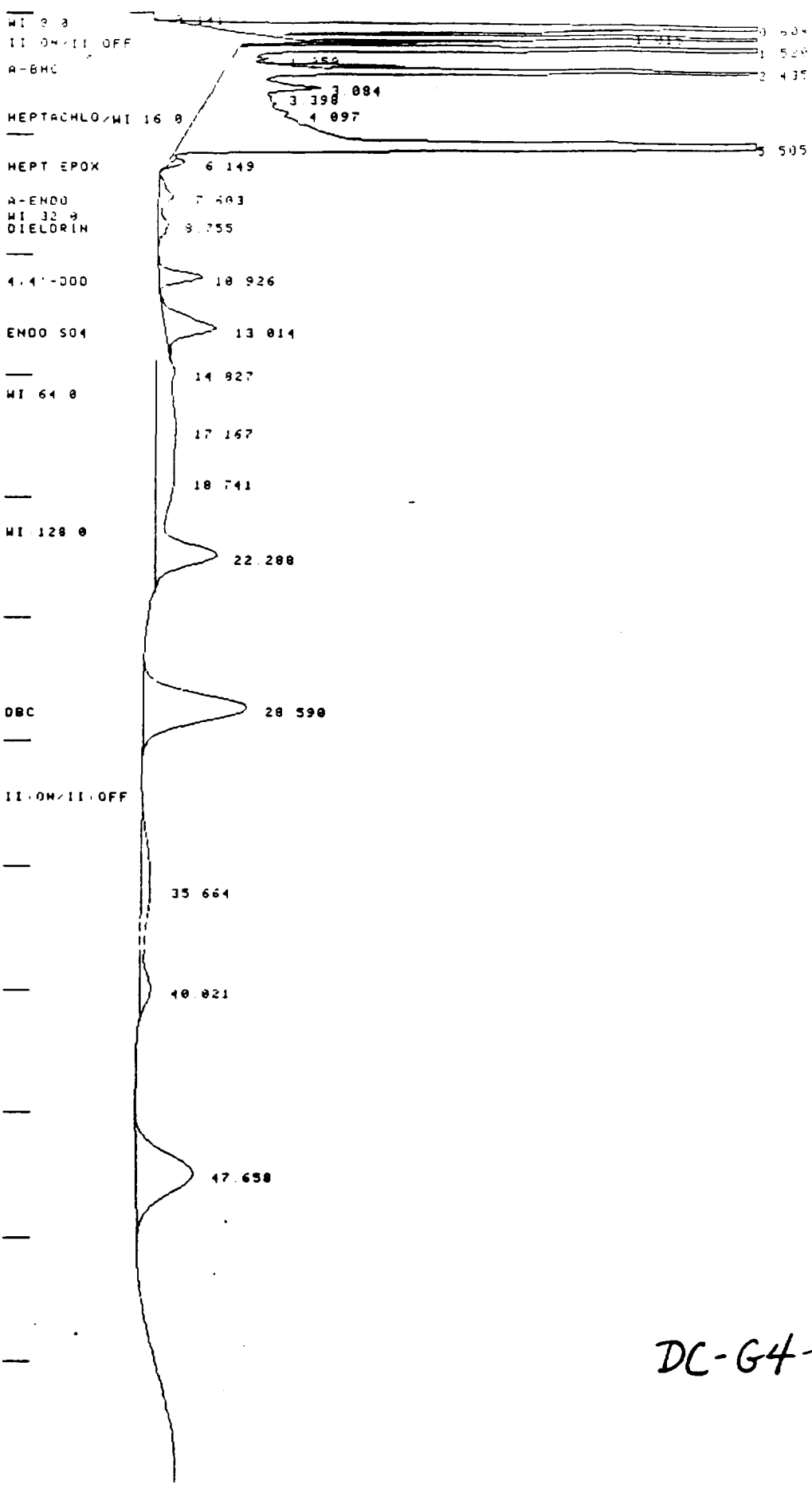

DC-G4-35

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CHANNEL: 1A - 1 TITLE: RUN# 23 7:49 12 FEB 87

SAMPLE: 0754 METHOD: CEPA CALCULATION: ES - ANALYS

DC-G4-35

PEAK NO	PEAK NAME	RESULT UG/kg WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	1.257		98356	BV		3.81
2		0.0000	1.520		5992284	VV		5.44
3	~~a-BHC~~	30.3869	2.229	-0.001	59220	T	?	6.63
4	~~B-BHC~~	1773.179	2.435	0.065	1090064	VV		7.94
5		0.0000	3.084		279042	VV	?	17.31
6		0.0000	3.398		77107	VV	?	10.81
7		0.0000	3.719		178172	VV	?	18.31
8	~~HEPTACHLO~~	147.3770	4.097	-0.003	234798	VV	?	18.69
9		0.0000	5.505		6522140	VV		12.00
10	~~HEPT-EPOX~~	18.8553	6.149	0.039	32336	T		13.13
11	~~A-ENDO~~	47.8081	7.603	0.033	77902	T	?	35.75
12	~~4,4'-DDE~~	37.4556	8.736	0.026	57583	T		42.25
13	~~4,4'-DDD~~	107.2334	10.926	0.016	147163	T		27.44
14	~~ENDO-SUL~~	286.3363	13.014	0.214	296210	T		50.38
15	~~4,4'-DDT~~	120.0843	14.827	0.617	132769	VV	?	58.25
16	~~END-KETON~~	257.1471	17.167	0.797	418638	VV	?	147.13
17		0.0000	18.741		255150	VV		242.00
18		0.0000	22.288		474797	VB		55.56
19	DBC 113	756.2258	28.590	0.180	1019555	BB		74.06
20		0.0000	35.664		279318	BV		236.19
21		0.0000	40.021		123646	VB		81.69
22		0.0000	47.658		822496	BV		113.50

TOTALS: 3582.089 1.983 18668746

DETECTED PKS: 30 REJECTED PKS: 8

DIVISOR: 0.15000 MULTIPLIER: 2000.00000

NOISE: 11.4 OFFSET: -30

RACK: 2 VIAL: 8 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A 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

POST RUN:
SAVE FILE: RAW SCA086

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SAMPLE NUMBER DC-64-36

481095

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DC-G4-56

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: 4-4835, 4846, 4863, 4872
Sample ID No: 0755
QC Report No:
Sample Matrix: Soil
Contract No: EL-3140
Data Release Authorized By: C Bojtowicz
Date Sample Received: 1-29-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-2-87
Conc/Dil Factor: 1 pH 7.2
Percent Moisture: (Not Decanted) 20

Concentrations reported "as received"

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	2 BJ
67-64-1	Acetone	1800 EB
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 B
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	4J
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	120
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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-G4-36

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-2-87

Date Analyzed: 2-13-87

Conc/Dil Factor: 20

Percent Moisture (Decanted) 20

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	3300	U
111-44-4	bis(-2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1 3-Dichlorobenzene	3300	U
106-46-7	1 4-Dichlorobenzene	3000	J
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1 2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2, 4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U
111-91-1	bis(-2-Chloroethoxy)Methane	3300	U
120-83-2	2, 4-Dichlorophenol	3300	U
120-82-1	1, 2, 4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2, 4, 6-Trichlorophenol	3300	U
95-95-4	2, 4, 5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U
[illegible]8-96-8	Acenaphthylene	3300	U
[illegible]-09-2	3-Nitroaniline	16000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2, 4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U
132-64-9	Dibenzofuran	3300	U
121-14-2	2 4-Dinitrotoluene	3300	U
606-20-2	2 6-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3300	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	3300	U
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3, 3'-Dichlorobenzidine	6600	U
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300	U
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phtnalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	3300	U
53-70-3	Dibenzo(a, h)Anthracene	3300	U
191-24-2	Benzo(g, h, i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-G4-36

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-2-87

Date Analyzed 2-12-87

Conc/Dil Factor 5

Percent Moisture (decanted) 20

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	400	U
319-85-7	Beta-BHC	400	U
319-86-8	Delta-BHC	400	U
58-89-9	Gamma-BHC (Lindane)	400	U
76-44-8	Heptachlor	400	U
309-00-2	Aldrin	400	U
1024-57-3	Heptachlor Epoxide	400	U
959-98-8	Endosulfan I	400	U
60-57-1	Dieldrin	800	U
72-55-9	4,4'-DDE	800	U
72-20-8	Endrin	800	U
33213-65-9	Endosulfan II	800	U
72-54-8	4,4'-DDD	800	U
1031-07-8	Endosulfan Sulfate	800	U
50-29-3	4,4'-DDT	800	U
72-43-5	Methoxychlor	4000	U
53494-70-5	Endrin Ketone	800	U
57-74-9	Chlordane	4000	U
8001-35-2	Toxaphene	8000	U
12674-11-2	Aroclor-1016	4000	U
11104-28-2	Aroclor-1221	4000	U
11141-16-5	Aroclor-1232	4000	U
53469-21-9	Aroclor-1242	4000	U
12672-29-6	Aroclor-1248	4000	U
11097-69-1	Aroclor-1254	8000	U
11096-82-5	Aroclor-1260	8000	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 3 V_t 1000 V_i 4

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-G4-36

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	11 BJ
2.		Hexane Isomer	|	21.2	5i BJ
3.	95501	Dichlorobenzene 1,2 Isomer	|	38.2	43 J
4.	106467	1,4-Dichlorobenzene	L	39.8	1000 J
5.					
6.	10544500	Molecular Sulfur	BNA	25.51	16000 J
7.					
8.					
9.					
10.					
11.					
12.					
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15.					
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27.					
28.					
29.					
30					

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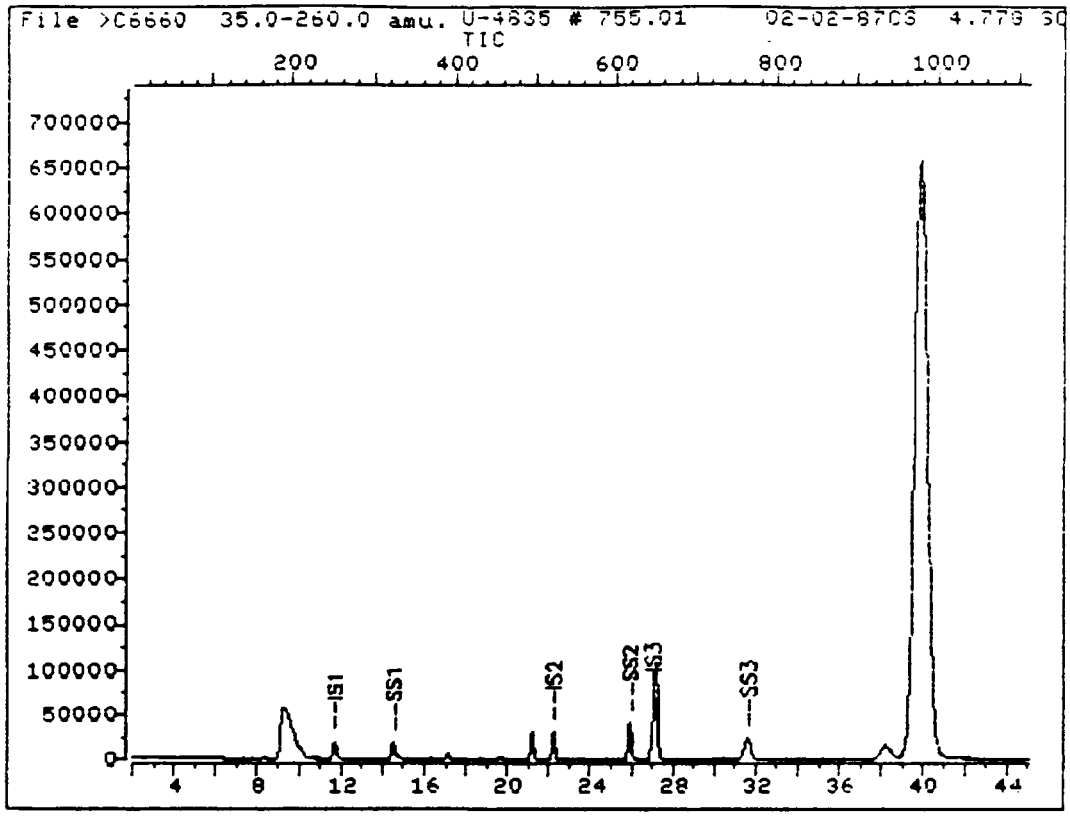
TOTAL ION CHROMATOGRAM



Data File: >C6660::D1
Name: U-4835 # 755.01 DC-G4-36
Misc: 02-02-87CS 4.77G SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870202 11:35

Operator ID: USER8
Quant Time: 870202 16:28
Injected at: 870202 15:42

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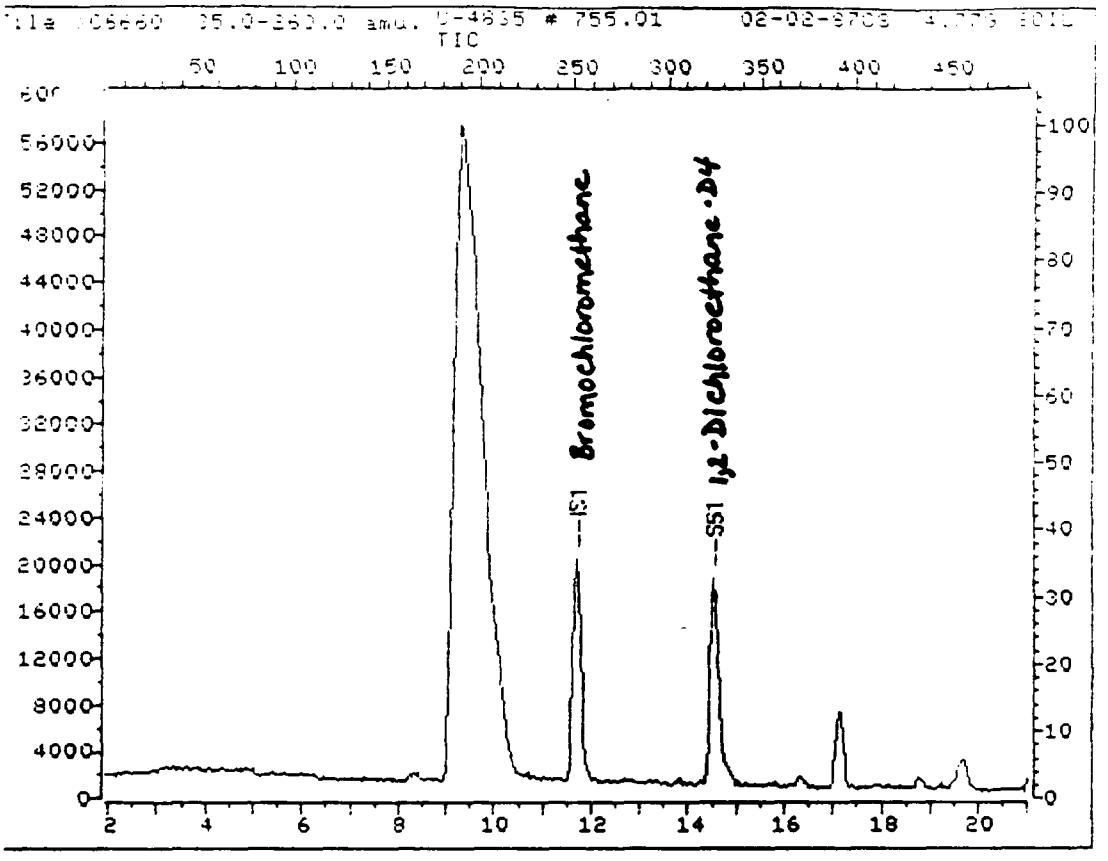
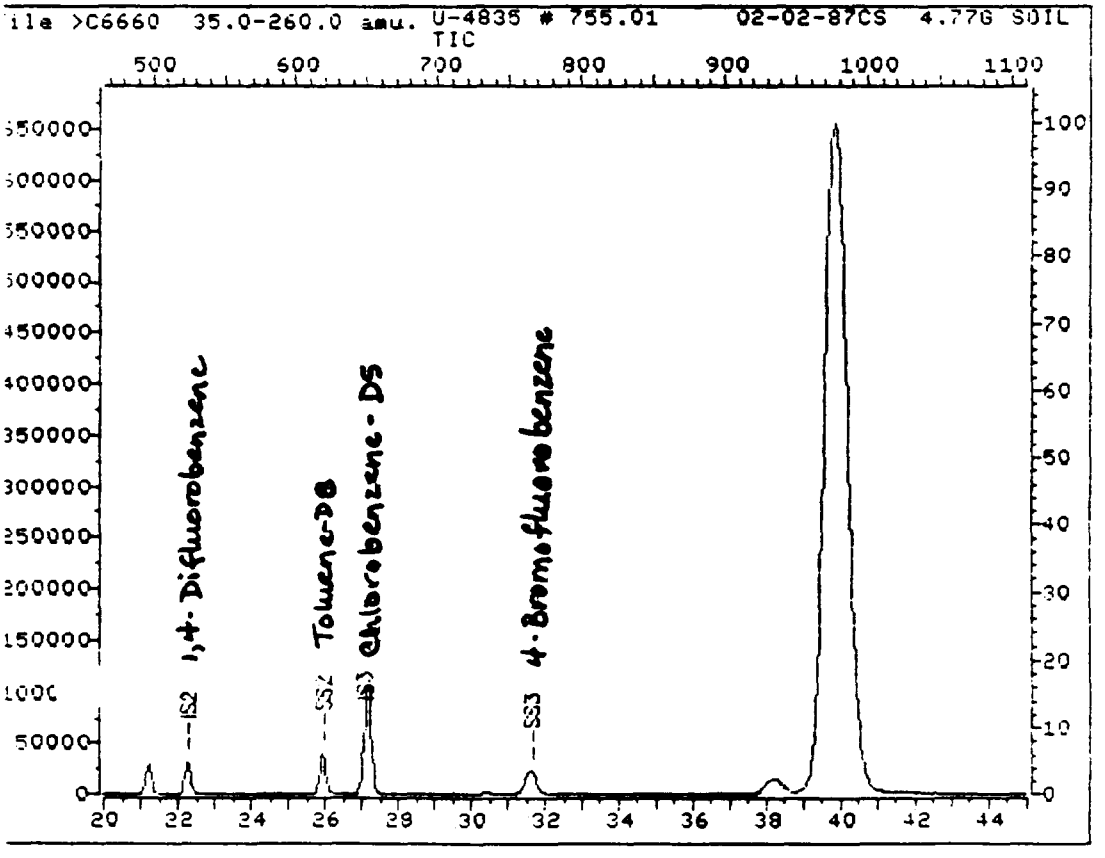
DC-G4-36





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870202 15:28
Output File: ^C6660::Q2 Injected at: 870202 15:42
Data File: >C6660::D1 Dilution Factor: 1.00
Name: U-4835 # 755.01 DC-G4-36
Misc: 02-02-87CS 4.77G SOIL IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870202 11:35

	Compound		R.T.	Scan#	Area	Conc	Units	
1)	*BROMOCHLOROMETHANE	(IS)	128	11.69	252	26105	250.00	NGS
6)	METHYLENE CHLORIDE		84	8.32	165	1936	11.84	NGS
7)	ACETONE		43	9.29	190	1519740	8817.38	NGS
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	325	79001	279.69	NGS 112 ✓
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.24	524	123638	250.00	NGS
17)	2-BUTANONE		72	14.68	329	2797	59.42	NGS
27)	BENZENE		78	19.68	458	10616	18.34	NGS
31)	*CHLOROBENZENE-D5	(IS)	117	27.05	648	103336	250.00	NGS
36)	TOLUENE-D8	(SURR)	98	25.92	619	151081	270.25	NGS 108 ✓
38)	CHLOROBENZENE		112	27.17	651	274550	563.51	NGS
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.64	766	79237	254.03	NGS 102 ✓
~~43)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~38.19~~	~~939~~	~~117859~~	~~117859.0~~	~~NO CALIB~~
~~43)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~39.82~~	~~977~~	~~6256611~~	~~6256611.~~	~~NO CALIB~~ 7000
44)	1,2-DICHLOROBENZENE			38.19	935	85460	85460.00	NO CALIB
~~44)~~	~~1,2-DICHLOROBENZENE~~			~~39.82~~	~~977~~	~~6239858~~	~~6239858.~~	~~NO CALIB~~ 7000
~~45)~~	~~1,4-DICHLOROBENZENE~~		~~146~~	~~38.19~~	~~939~~	~~117834~~	~~117834.0~~	~~NO CALIB~~
45)	1,4-DICHLOROBENZENE		146	39.82	977	6335506	6335506.	NO CALIB

* Compound is ISTD

OK
CW

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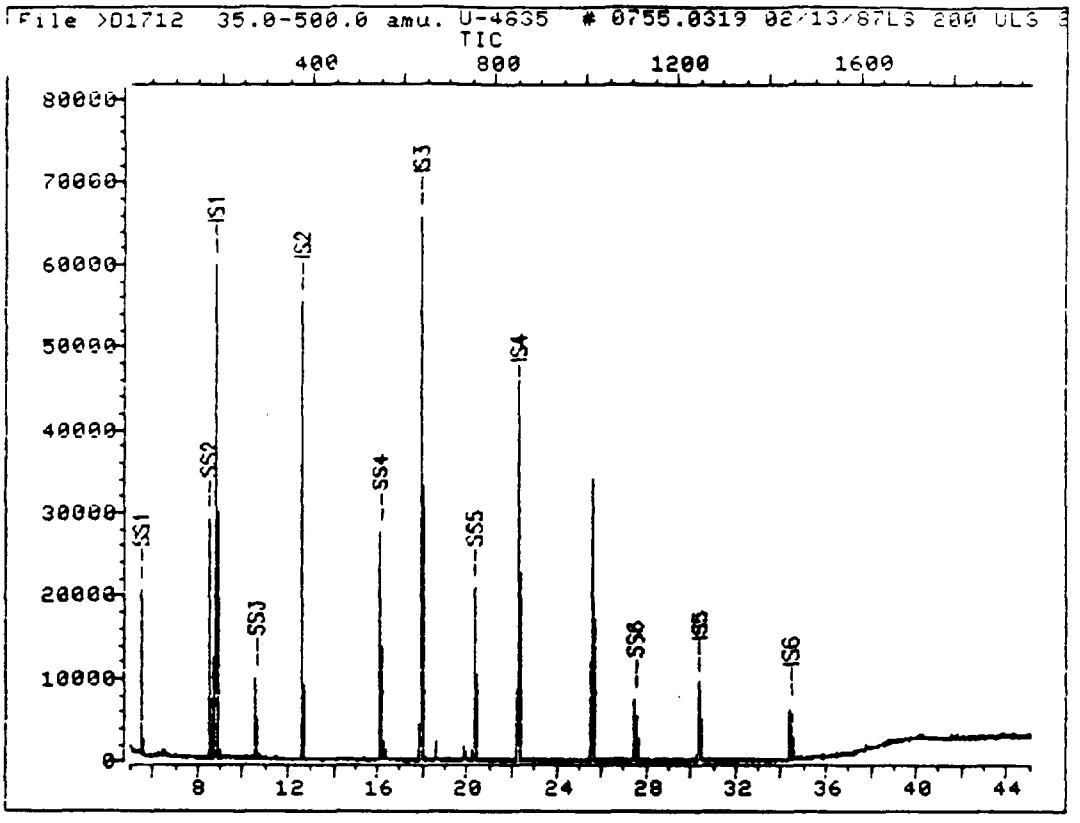
TOTAL ION CHROMATOGRAM



Data File: >D1712::D3
Name: U-4835 # 0755.0319 DC-G4-36
Misc: 02/13/87LS 200 ULS SMPL + 200 ULS MECL2 + 4 UL IS BTL# 4

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870213 19:29

Operator ID: USER6
Quant Time: 870214 00:07
Injected at: 870213 23:20

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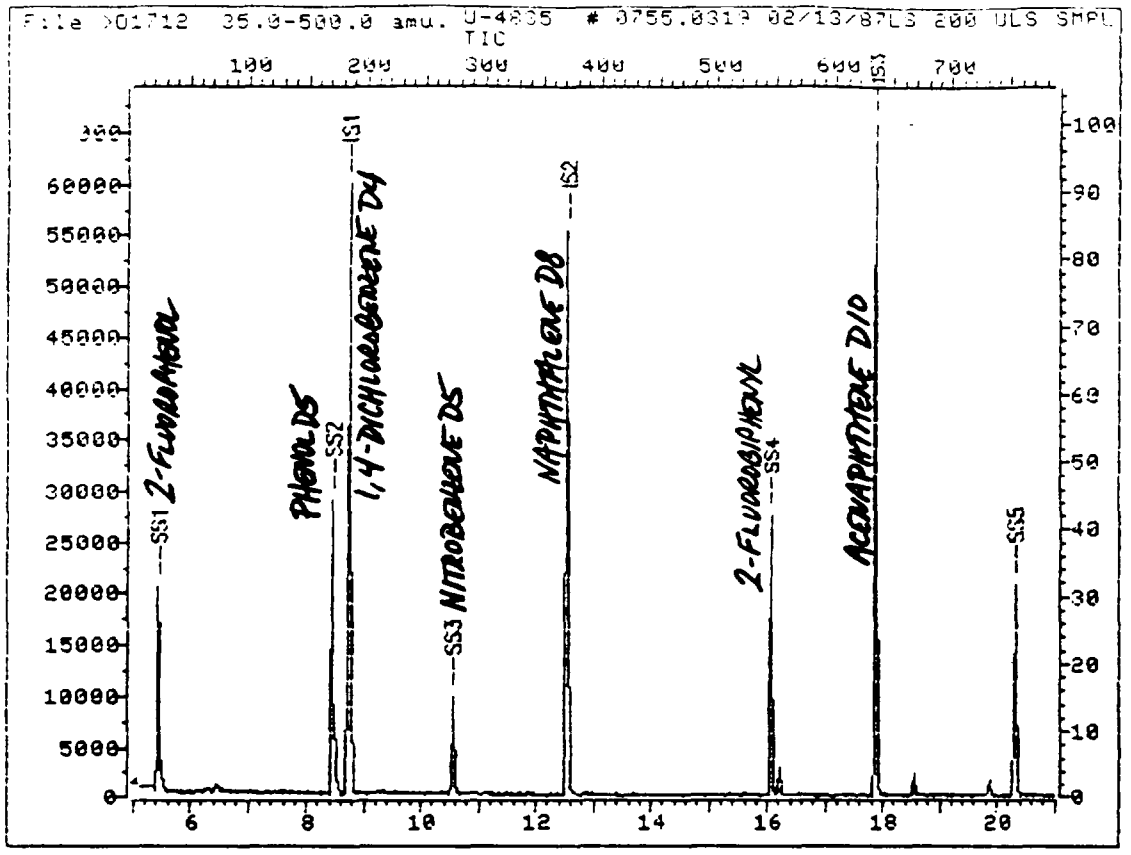
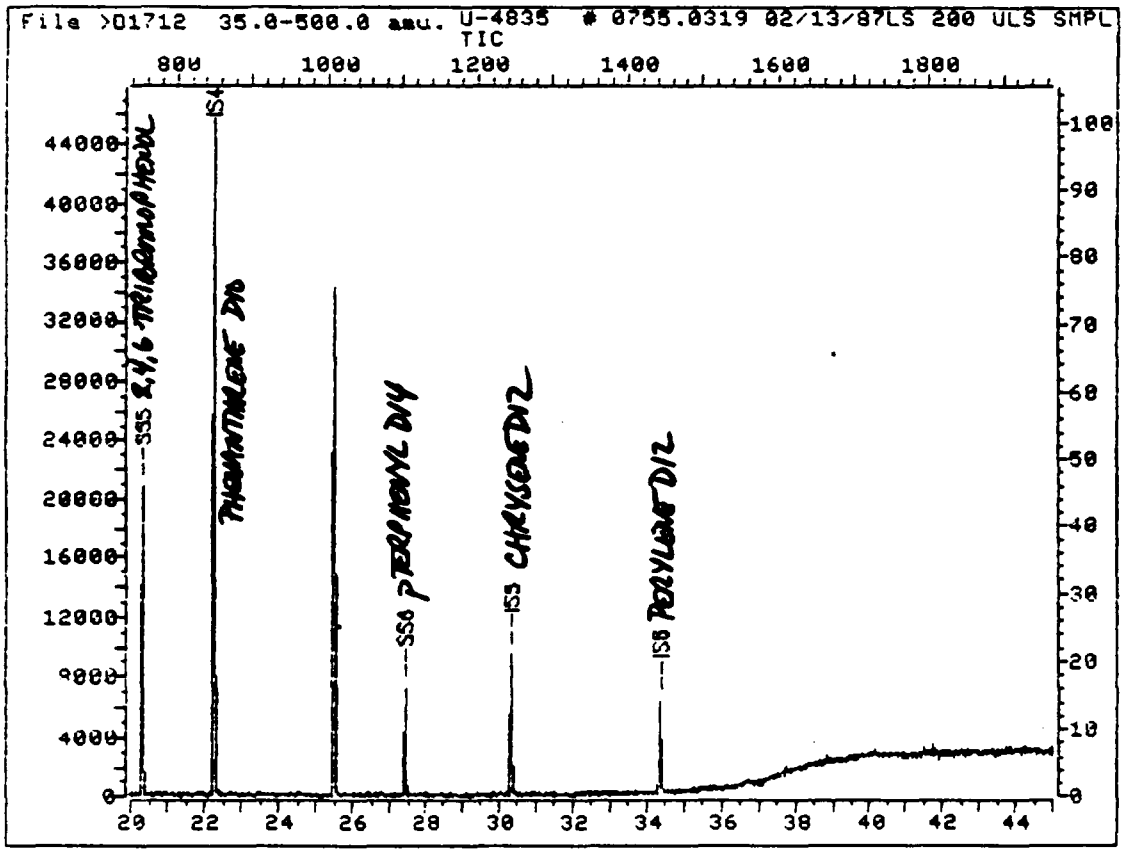
DC-G4-36





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870214 00:07
Output File: ^D1712::Q2 Injected at: 870213 23:20
Data File: >D1712::D3 Dilution Factor: 2.00
Name: U-4835 # 0755.0319 DC-G4-36
Misc: 02/13/87LS 200 ULS SMPL + 200 ULS MECL2 + 4 UL IS BTL# 4

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870213 19:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.73	185	24121	40.00 UG/L	88
2)	PHENOL-D5	(SURR)	99	8.44	171	20339	59.37 UG/L	98
5)	2-FLUOROPHENOL	(SURR)	112	5.43	23	15034	58.10 UG/L	92
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~8.77~~	~~187~~	~~4628~~	~~10.34 UG/L~~ No3M	96
10)	1,4-DICHLOROBENZENE		146	8.77	187	4628	10.24 UG/L	95
19)	*NAPHTHALENE-D8	(IS)	136	12.54	372	73757	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.54	274	7668	27.10 UG/L	96
34)	*ACENAPHTHENE-D10	(IS)	162	17.88	634	40862	40.00 UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.06	545	25410	33.91 UG/L	92
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.88~~	~~634~~	~~7956~~	~~14.93 UG/L~~ No2M	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.32	754	8250	48.48 UG/L	95
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.88~~	~~634~~	~~5238~~	~~45.24 UG/L~~ No3M	100
55)	*PHENANTHRENE-D10	(IS)	188	22.25	849	60111	40.00 UG/L	85
65)	*CHRYSENE-D12	(IS)	240	30.34	1246	13650	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.45	1104	9948	59.78 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.37	1444	9115	40.00 UG/L	100

* Compound is ISTD

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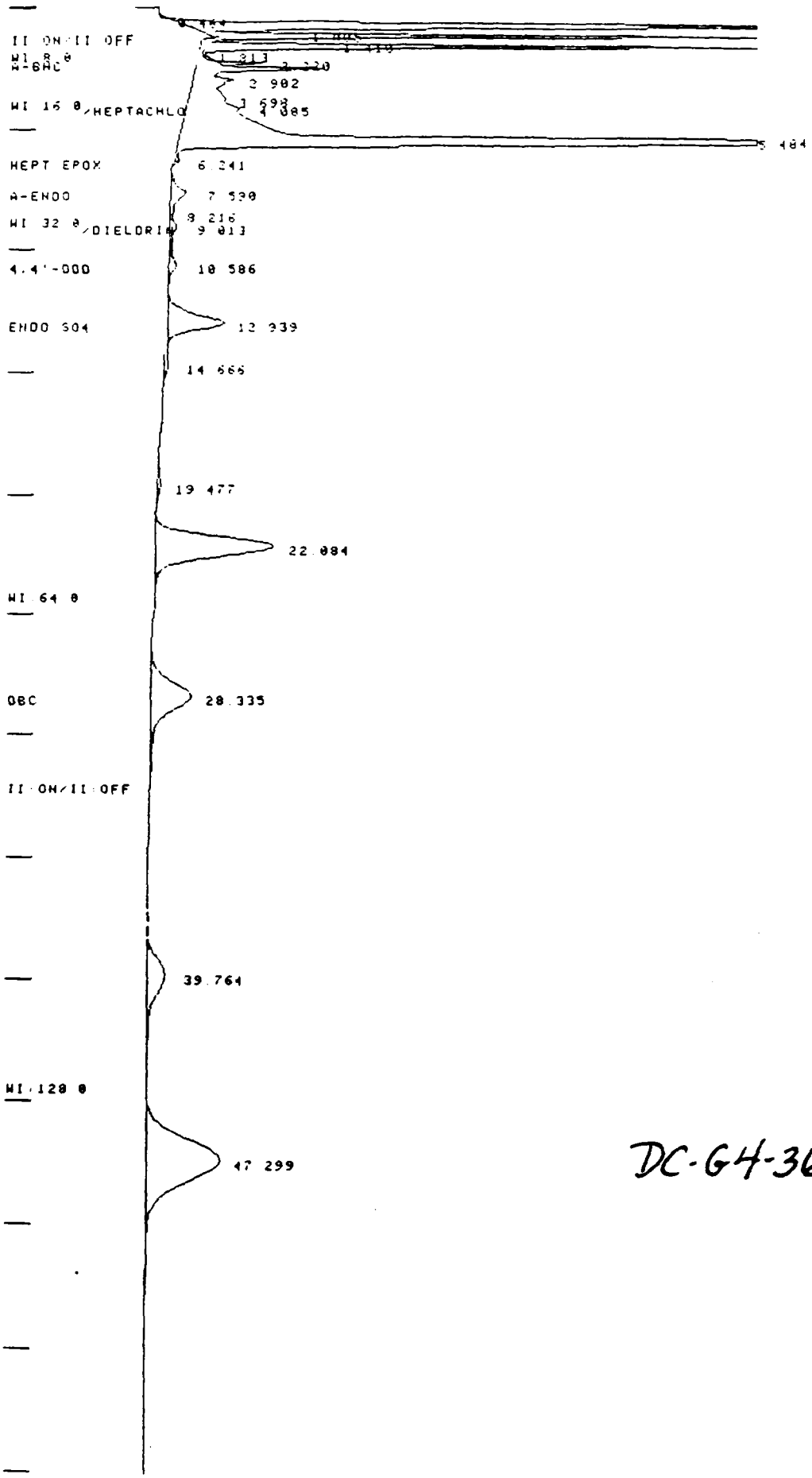
CHART SPEED .5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-G4-36

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CHANNEL: 1A - 1 TITLE: RUN# 27 11:27 10 FEB 87

SAMPLE: 0755 METHOD: CEPA CALCULATION: ES - ANALYS

DC-G4-36

PEAK NO	PEAK NAME	RESULT UG/Kg w'ST	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WID (SEC)
1		0.0000	1.253		25779	BV		3.63
2		0.0000	1.410		45097	VV	?	4.81
3		0.0000	1.514		967380	VV		4.94
4	~~A-BHC~~	33.3989	2.218	-0.012	26036	T		6.31
5	~~G-BHC~~	684.7122	2.432	0.062	168371	VV		7.94
6		0.0000	2.902		57829	VV	?	10.94
7		0.0000	3.056		53568	VV	?	21.00
8		0.0000	3.698		130016	VV	?	17.81
9	~~HEPTACHLO~~	~~248.4252~~	4.085	-0.015	139195	VV	?	32.31
10		0.0000	5.484		5361390	VV		12.13
11	~~A-ENDO~~	100.5631	7.590	0.020	65546	T		27.38
12	~~DIELDRIN~~	47.3223	9.004	0.184	32927	T		27.50
13	~~4,4'-DDE~~	67.4968	10.577	-0.333	37052	T		27.81
14	~~ENDO-SUL~~	691.1304	12.939	0.139	285985	T		36.13
15	~~4,4'-DDT~~	51.5067	14.666	0.456	22779	VB		20.00
16		0.0000	19.477		22671	BV		42.00
17		0.0000	22.084		816788	VB		53.06
18	DBC 120	801.2668	28.335	-0.075	432112	BB		75.75
19		0.0000	39.764		241252	BB		97.31
20		0.0000	47.299		1121947	BB		114.25

TOTALS: 2695.820 0.426 10053720

DETECTED PKS: 29 REJECTED PKS: 9

DIVISOR: 0.15000 MULTIPLIER: 5000.00000

NOISE: 22.9 OFFSET: 6

RACK: 2 VIAL: 12 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A 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

POST RUN:
SAVE FILE: RAW SCA090

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SAMPLE NUMBER DC-G5-37

481095

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872

Sample ID No: 0756
QC Report No:

Sample Matrix: Soil
Contract No: IL-3140

Data Release Authorized By: [signature]
Date Sample Received: 1-29-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-3-87

Conc/Dil Factor: 2 pH 7.96

Percent Moisture: (Not Decanted) 21

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	2000 U
74-83-9	Bromomethane	2000 U
75-01-4	Vinyl Chloride	2000 U
75-00-3	Chloroethane	2000 U
75-09-2	Methylene Chloride	670 BJ
67-64-1	Acetone	2600 B
75-15-0	Carbon Disulfide	1000 U
75-35-4	1, 1-Dichloroethene	1000 U
75-34-3	1, 1-Dichloroethane	1000 U
156-60-5	Trans-1, 2-Dichloroethene	1000 U
67-66-3	Chloroform	1000 U
107-06-2	1, 2-Dichloroethane	1000 U
78-93-3	2-Butanone	2900 B
71-55-6	1, 1, 1-Trichloroethane	1000 U
56-23-5	Carbon Tetrachloride	1000 U
108-05-4	Vinyl Acetate	2000 U
75-27-4	Bromodichloromethane	1000 U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	1000 U
10061-02-6	Trans-1, 3-Dichloropropene	1000 U
79-01-6	Trichloroethene	600 J
124-48-1	Dibromochloromethane	1000 U
79-00-5	1, 1, 2-Trichloroethane	1000 U
71-43-2	Benzene	8000
10061-01-5	cis-1, 3-Dichloropropene	1000 U
110-75-8	2-Chloroethylvinylether	2000 U
75-25-2	Bromoform	1000 U
108-10-1	4-Methyl-2-Pentanone	500 J
591-78-6	2-Hexanone	2000 U
127-18-4	Tetrachloroethene	2800
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000 U
108-88-3	Toluene	22000
108-90-7	Chlorobenzene	1900
100-41-4	Ethylbenzene	980 J
100-42-5	Styrene	1000 U
	Total Xylenes	2200

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/ml 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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name: Ecology & Environment Inc.

Case No: V-4835, 4846, 4863, 4872

Sample Number: DC-G5-37

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-2-87

Date Analyzed: 2-23-87

Conc/Dil Factor: 100

Percent Moisture (Decanted): 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "As Received"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	140,000	
111-44-4	bis(-2-Chloroethyl)Ether	16000	U
95-57-8	2-Chlorophenol	6900	J
541-73-1	1 3-Dichlorobenzene	16000	U
106-46-7	1. 4-Dichlorobenzene	16000	U
100-51-6	Benzyl Alcohol	4800	J
95-50-1	1. 2-Dichlorobenzene	16000	U
95-48-7	2-Methylphenol	16000	U
39638-32-9	bis(2-chloroisopropyl)Ether	16000	U
106-44-5	4-Methylphenol	2800	J
621-64-7	N-Nitroso-Di-n-Propylamine	16000	U
67-72-1	Hexachloroethane	16000	U
98-95-3	Nitrobenzene	16000	U
78-59-1	Isophorone	16000	U
88-75-5	2-Nitrophenol	16000	U
105-67-9	2. 4-Dimethylphenol	16000	U
65-85-0	Benzoic Acid	80,000	U
111-91-1	bis(-2-Chloroethoxy)Methane	16000	U
120-83-2	2. 4-Dichlorophenol	39,000	
120-82-1	1. 2. 4-Trichlorobenzene	6200	J
91-20-3	Naphthalene	209,000	
106-47-8	4-Chloroaniline	4700	J
87-68-3	Hexachlorobutadiene	16000	U
59-50-7	4-Chloro-3-Methylphenol	16000	U
91-57-6	2-Methylnaphthalene	11,000	J
77-47-4	Hexachlorocyclopentadiene	16000	U
88-06-2	2. 4. 6-Trichlorophenol	39,000	
95-95-4	2. 4. 5-Trichlorophenol	80,000	U
91-58-7	2-Chloronaphthalene	16,000	U
88-74-4	2-Nitroaniline	80,000	U
131-11-3	Dimethyl Phthalate	16,000	U
208-96-8	Acenaphthylene	16,000	U
-09-2	3-Nitroaniline	80,000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	16000	U
51-28-5	2. 4-Dinitrophenol	80,000	U
100-02-7	4-Nitrophenol	80,000	U
132-64-9	Dibenzofuran	16000	U
121-14-2	2 4-Dinitrotoluene	16000	U
606-20-2	2. 6-Dinitrotoluene	16000	U
84-66-2	Diethylphthalate	16000	U
7005-72-3	4-Chlorophenyl-phenylether	16000	U
86-73-7	Fluorene	16000	U
100-01-6	4-Nitroaniline	80,000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	80,000	U
86-30-6	N-Nitrosodiphenylamine (1)	140,000	
101-55-3	4-Bromophenyl-phenylether	16000	U
118-74-1	Hexachlorobenzene	16000	U
87-86-5	Pentachlorophenol	80,000	U
85-01-8	Phenanthrene	21,000	
120-12-7	Anthracene	16000	U
84-74-2	Di-n-Butylphthalate	16000	U
206-44-0	Fluoranthene	16000	U
129-00-0	Pyrene	15000	J
85-68-7	Butylbenzylphthalate	16000	U
91-94-1	3. 3'-Dichlorobenzidine	33,000	U
56-55-3	Benzo(a)Anthracene	16000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	16000	U
218-01-9	Chrysene	18,000	
117-84-0	Di-n-Octyl Phthalate	16000	U
205-99-2	Benzo(b)Fluoranthene	16000	U
207-08-9	Benzo(k)Fluoranthene	16000	U
50-32-8	Benzo(a)Pyrene	16000	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	16000	U
53-70-3	Dibenz(a h)Anthracene	16000	U
191-24-2	Benzo(g h i)Perylene	16000	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-G5-37

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2/2/87

Date Analyzed 2/12/87

Conc/Dil Factor 20

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)	
319-84-6	Alpha-BHC	1600	U
319-85-7	Beta-BHC	1600	U
319-86-8	Delta-BHC	1600	U
58-89-9	Gamma-BHC (Lindane)	1600	U
76-44-8	Heptachlor	1600	U
309-00-2	Aldrin	1600	U
1024-57-3	Heptachlor Epoxide	1600	U
959-98-8	Endosulfan I	1600	U
60-57-1	Dieldrin	3200	U
72-55-9	4,4'-DDE	3200	U
72-20-8	Endrin	3200	U
33213-65-9	Endosulfan II	3200	U
72-54-8	4,4'-DDD	3200	U
1031-07-8	Endosulfan Sulfate	3200	U
50-29-3	4,4'-DDT	3200	U
72-43-5	Methoxychlor	16000	U
53494-70-5	Endrin Ketone	3200	U
57-74-9	Chlordane	16000	U
8001-35-2	Toxaphene	32000	U
12674-11-2	Aroclor-1016	16000	U
11104-28-2	Aroclor-1221	16000	U
11141-16-5	Aroclor-1232	16000	U
53469-21-9	Aroclor-1242	16000	U
12672-29-6	Aroclor-1248	16000	U
11097-69-1	Aroclor-1254	32000	U
11096-82-5	Aroclor-1260	45,000	

V_1 = 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 3 V_t 1,000 V_1 4

Laboratory Name Ecology & Environment, Inc.

Case No 4-4835, 4846, 4863, 4872

Sample Number DC-65-37

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.	763291	2-Methyl-1-pentene	VOA	16.3	14000 J
2.		Unknown hydrocarbon	VOA	28.1	28000 J
3.		Dichlorobenzene isomer	VOA	39.2	2000 J
4.					
5.		ANILINE	BNA	7.95	460,000
6.		UNKNOWN		11.05	86,000 J
7.		ETHYLBENZENAMINE ISOMER		12.07	94,000 J
8.	92524	1,1'-BIPHENYL		16.19	130,000 J
9.	643583	2-METHYL-1,1'-BIPHENYL		16.57	290,000 J
10.	643936	3-METHYL-1,1'-BIPHENYL		17.96	130,000 J
11.	644086	4-METHYL-1,1'-BIPHENYL		18.08	78,000 J
12.	6373508	4-CYCLOHEXYLBENZENAMINE		19.25	1,400,000 J
13.	120514	BENZOIC ACID, PHENYLMETHYL ESTER		22.14	280,000 J
14.					
15.					
16.					
17.					
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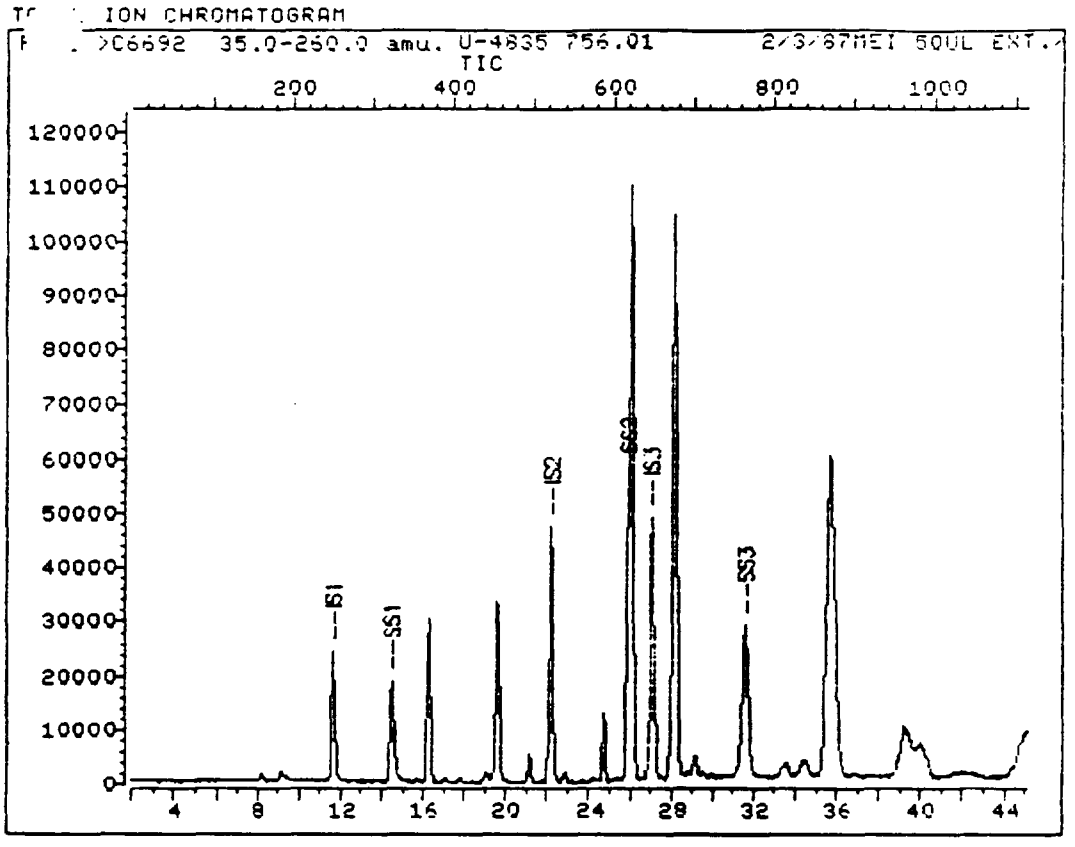
30.					



Data File: >C6692::D3
Name: U-4835 756.01 DC-GS-37
Misc: 2/3/87MEI 50UL EXT./5MLS DI + 10UL IS/SS (4.27G/10MLS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870203 14:01

Operator ID: USER8
Quant Time: 870203 22:32
Injected at: 870203 21:46

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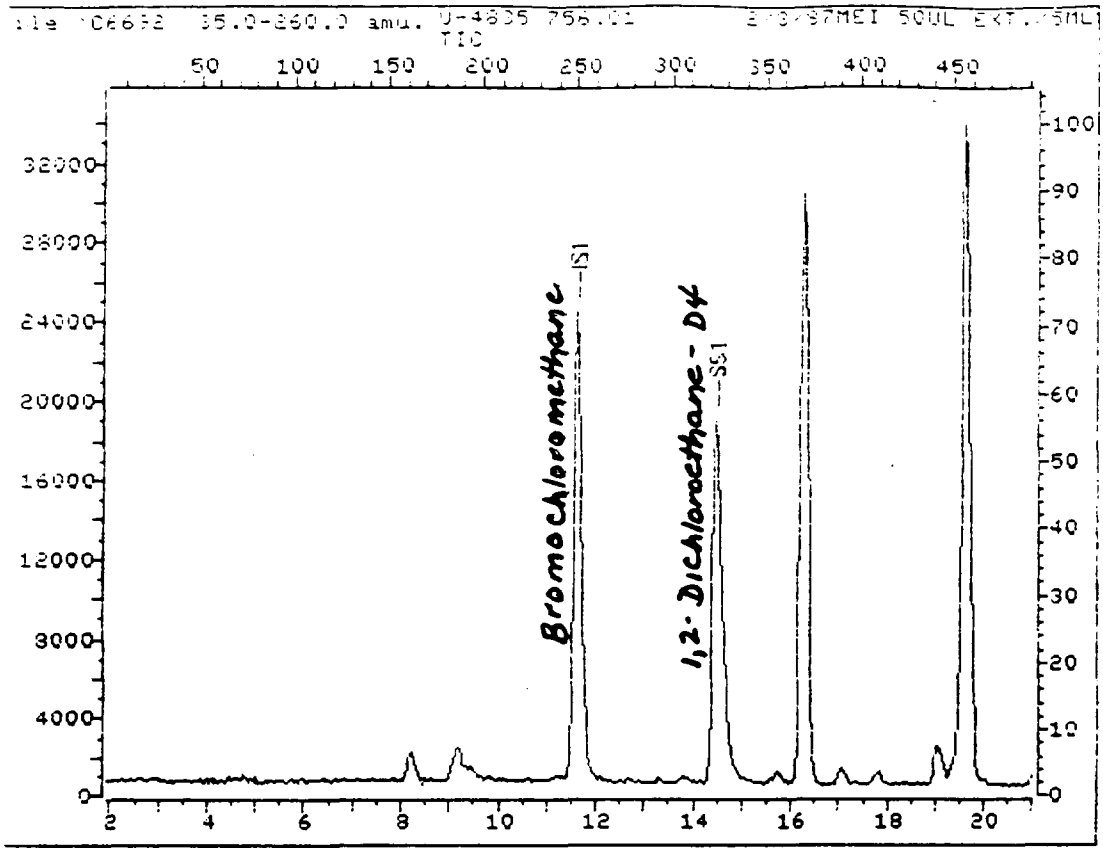
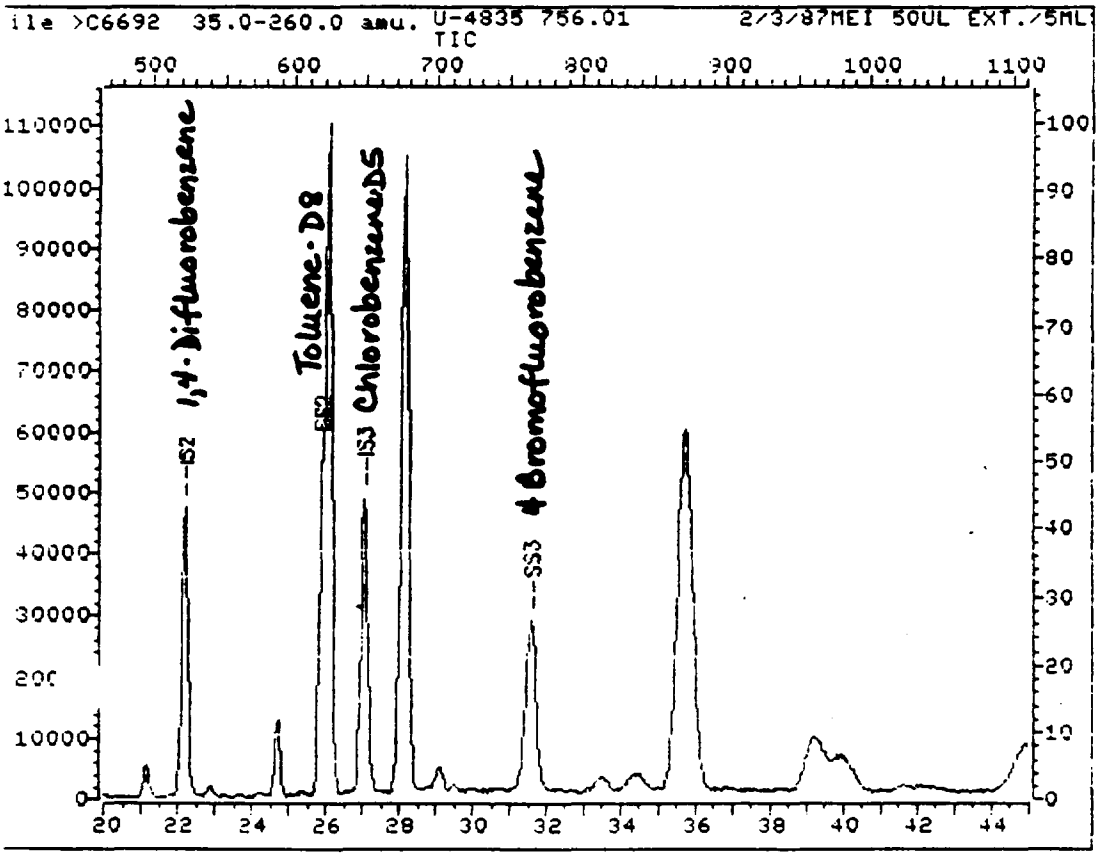
DC-65-37





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ecology and environment

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870203 22:32
Output File: ^C6692::Q2 Injected at: 870203 21:46
Data File: >C6692::D3 Dilution Factor: 1.00
Name: U-4835 756.01 DC-G5-37
Misc: 2/3/87MEI 50UL EXT./5MLS DI + 10UL IS/SS (4.27G/10MLS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870203 14:01

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.61	250	34837	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.19	162	3852	2.88 UG/L	100
7)	ACETONE		43	9.16	187	23643	11.18 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.48	324	82392	45.71 UG/L	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	523	174851	50.00 UG/L	100
17)	2-BUTANONE		72	14.63	328	5821	12.48 UG/L	100
24)	TRICHLOROETHENE		130	19.06	442	3832	2.56 UG/L	88
27)	BENZENE		78	19.60	456	143914	34.05 UG/L	100
28)	~~CIS-1,3-DICHLOROPROPENE~~		~~75~~	~~19.80~~	~~456~~	~~2899~~	~~1.26 UG/L~~ NO CAL	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.05	648	145764	50.00 UG/L	100
32)	4-METHYL-2-PENTANONE		43	22.86	540	7843	2.16 UG/L	78
34)	TETRACHLOROETHENE		164	24.68	587	17407	11.81 UG/L	96
36)	TOLUENE-D8	(SURR)	98	25.89	618	182602	45.64 UG/L	93
37)	TOLUENE		92	26.08	623	251844	94.63 UG/L	94
38)	CHLOROBENZENE		112	27.17	651	25779	7.96 UG/L	98
39)	ETHYLBENZENE		91	29.15	702	23887	4.19 UG/L	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.60	765	99766	46.55 UG/L	100
42)	TOTAL XYLENES		91	33.54	815	20705	4.32 UG/L	100
42)	TOTAL XYLENES		91	34.51	840	23371	4.88 UG/L	100
42)	~~TOTAL XYLENES~~		~~91~~	~~33.71~~	~~871~~	~~163127~~	~~34.06 UG/L~~ NO CAL	100
43)	1,3-DICHLOROBENZENE		146	39.17	960	37366	37366.00 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	39.17	960	37366	37366.00 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	39.17	960	37366	37366.00 NO CALIB	100

* Compound is ISTD

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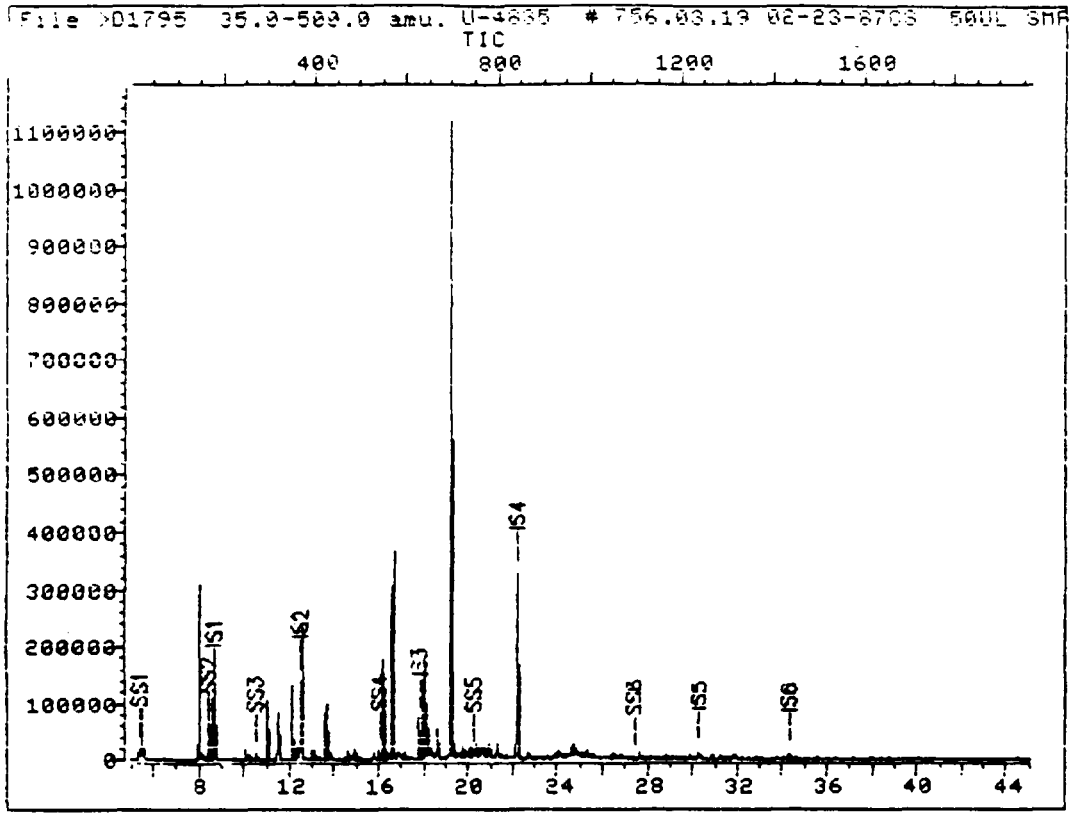
TOTAL ION CHROMATOGRAM



Data File: >D1795::D1
Name: U-4835 # 756.03.19 DC-GS-37
Misc: 02-23-87CS 50UL SMPL + 450UL MECL2 + 5UL IS BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

Operator ID: USER6
Quant Time: 870223 16:10
Injected at: 870223 15:23

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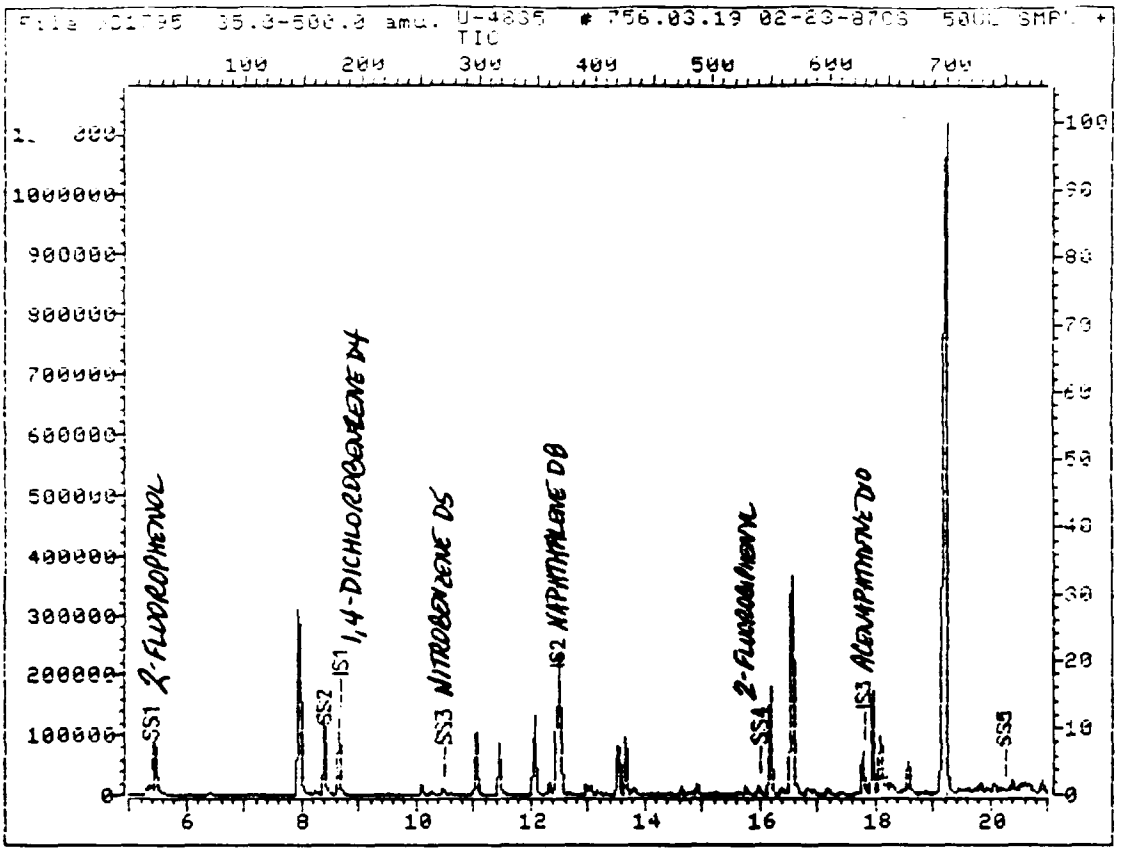
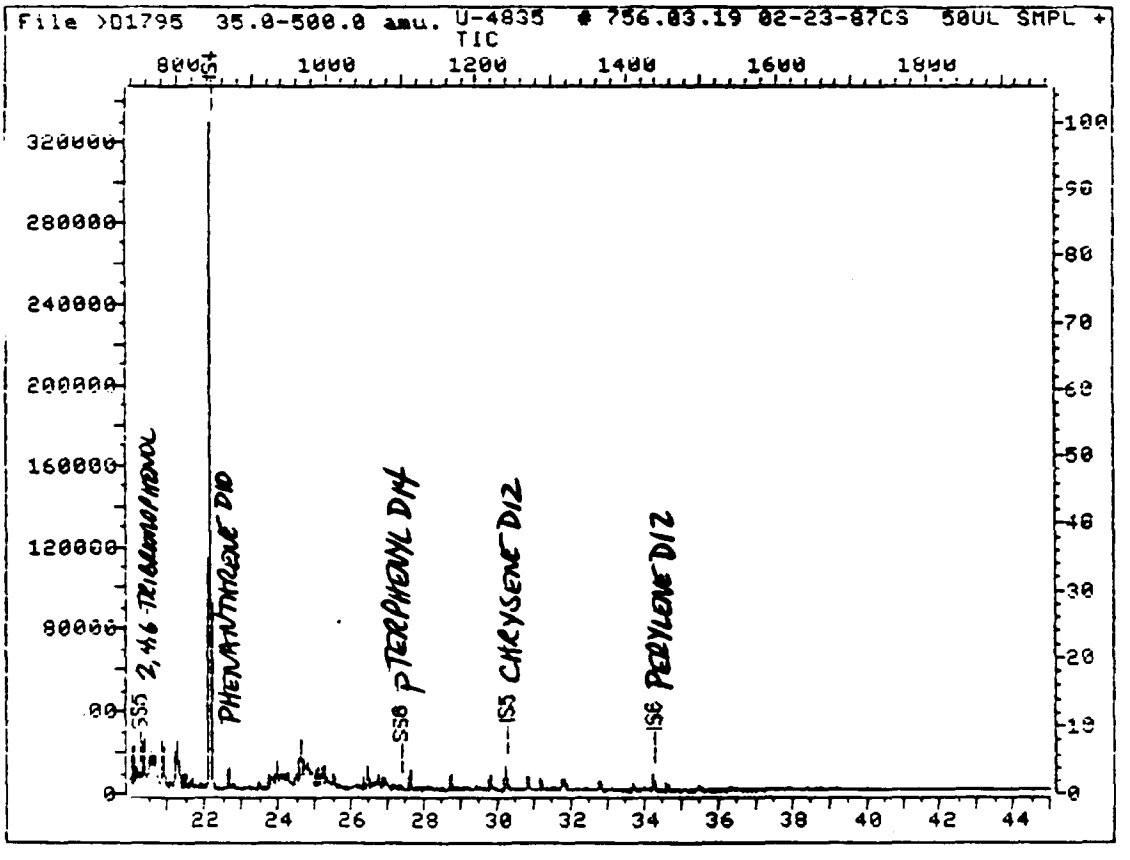
DC-G5-37





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QUANT REPORT

erator ID: USER6 Quant Rev: 4 Quant Time: 870223 16:10
Output File: ^D1795::Q2 Injected at: 870223 15:23
Data File: >D1795::D1 Dilution Factor: 10.00
Name: U-4835 # 756.03.19 DC-G5-37
Misc: 02-23-87CS 50UL SMPL + 450UL MECL2 + 5UL IS BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.67	181	49561	40.00 UG/L	79
2)	PHENOL-D5	(SURR)	99	8.38	167	19406	98.32 UG/L	92
5)	2-FLUOROPHENOL	(SURR)	112	5.37	19	13978	112.43 UG/L	57
~~6)~~	~~PHENOL~~		~~94~~	~~8.40~~	~~168~~	~~62824~~	~~454.44 UG/L~~	Yes 71
7)	ANILINE		93	7.95	146	253552	1445.91 UG/L	89
~~8)~~	~~BIS(2-CHLOROETHYL)ETHER~~		~~93~~	~~7.96~~	~~146~~	~~253552~~	~~1347.12 UG/L~~	No 20
11)	BENZYL ALCOHOL		79	9.50	222	2182	15.09 UG/L	86
15)	2-CHLOROPHENOL		128	8.24	160	3625	21.86 UG/L	97
16)	4-METHYL PHENOL		108	10.60	276	1391	8.92 UG/L	95
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.48~~	~~270~~	~~1473~~	~~8.64 UG/L~~	No 91
19)	*NAPHTHALENE-D8	(IS)	136	12.46	367	153511	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.48	270	8811	50.39 UG/L	87
27)	2,4-DICHLOROPHENOL		162	12.31	360	10302	94.85 UG/L	94
28)	1,2,4-TRICHLOROBENZENE		180	12.42	365	2499	19.48 UG/L	100
29)	NAPHTHALENE		128	12.52	370	234134	616.72 UG/L	100
~~30)~~	~~4-CHLOROANILINE~~		~~127~~	~~12.52~~	~~370~~	~~33979~~	~~264.66 UG/L~~	No 29
30)	4-CHLOROANILINE		127	13.05	396	1897	14.78 UG/L	98
33)	2-METHYLNAPHTHALENE		142	14.64	474	8067	36.21 UG/L	84
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~14.94~~	~~489~~	~~4253~~	~~21.34 UG/L~~	No 85
34)	*ACENAPHTHENE-D10	(IS)	162	17.78	628	36894	40.00 UG/L	93
36)	2,4,6-TRICHLOROPHENOL		196	15.76	529	4545	124.24 UG/L	94
~~37)~~	~~2,4,5-TRICHLOROPHENOL~~		~~196~~	~~15.76~~	~~529~~	~~4545~~	~~124.04 UG/L~~	No 93
38)	2-FLUOROBIPHENYL	(SURR)	172	15.98	540	9384	67.64 UG/L	98
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.78~~	~~628~~	~~6833~~	~~64.56 UG/L~~	No 100
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.96~~	~~637~~	~~2606~~	~~24.62 UG/L~~	100
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~17.96~~	~~637~~	~~108421~~	~~799.68 UG/L~~	100
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~18.08~~	~~643~~	~~54165~~	~~399.01 UG/L~~	No 100
~~47)~~	~~ACENAPHTHENE~~		~~153~~	~~17.96~~	~~637~~	~~19162~~	~~180.38 UG/L~~	1
~~47)~~	~~ACENAPHTHENE~~		~~153~~	~~18.08~~	~~643~~	~~10556~~	~~98.38 UG/L~~	4
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.23	748	1052	41.47 UG/L	95
~~51)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~18.33~~	~~655~~	~~1588~~	~~77.03 UG/L~~	-188
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.78~~	~~628~~	~~4934~~	~~216.52 UG/L~~	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.96~~	~~637~~	~~28372~~	~~1245.04 UG/L~~	No 100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.08~~	~~643~~	~~19159~~	~~840.75 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.16	843	24554	40.00 UG/L	85
~~57)~~	~~N-NITROSODIPHENYLAMINE~~		~~169~~	~~19.61~~	~~718~~	~~1344~~	~~46.49 UG/L~~	No 4
57)	N-NITROSODIPHENYLAMINE		169	20.06	740	13175	455.75 UG/L	97
61)	PHENANTHRENE		178	22.23	846	4059	65.28 UG/L	93
	~~ANTHRACENE~~		~~178~~	~~22.23~~	~~846~~	~~4059~~	~~65.01 UG/L~~	No 93
65)	*CHRYSENE-D12	(IS)	240	30.24	1239	13061	40.00 UG/L	100
67)	PYRENE		202	26.45	1053	2020	46.40 UG/L	89
68)	TERPHENYL-D14	(SURR)	244	27.35	1097	1734	62.61 UG/L	199 100
~~71)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~30.30~~	~~1242~~	~~1848~~	~~56.02 UG/L~~	No 92
73)	CHRYSENE		228	30.30	1242	1848	55.61 UG/L	92
74)	*PERYLENE-D12	(IS)	264	34.26	1436	11886	40.00 UG/L	100

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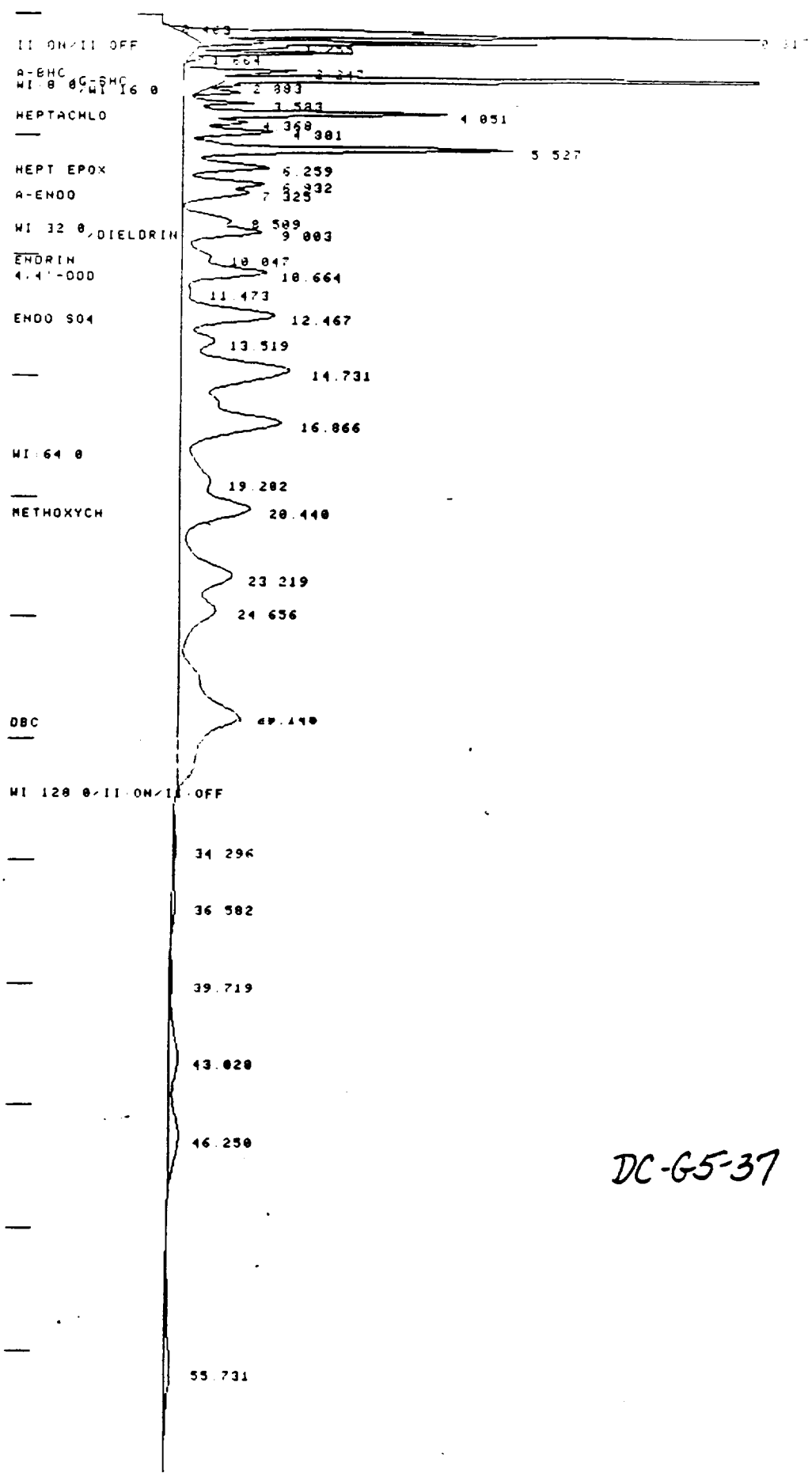

DC-G5-37

PCB 1260 = 42 x 0.0081 x 1/0.15 x 20 x 1600 = 45,000 µg/Kg WET

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SAMPLE: 2756 METHOD: CEPA CALCULATION: ES - ANALYS

DC-G5-37

PEAK NO	PEAK NAME	RESULT UG/kg wet	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WID (SEC)
1		0.0000	1.255		149569	BV	3.94
2		0.0000	1.515		97583	VV	4.63
3	~~a-BHC~~	764.6088	2.247	0.017	149012	BV	6.56
4	~~G-BHC~~	8649.063	2.544	-0.046	1532537	VV	7.19
5		0.0000	2.883		20972	T	? 19.56
6		0.0000	3.171		43816	T	13.06
7		0.0000	3.583		109036	VV	10.81
8	~~HEPTACHLO~~	2474.880	4.051	-0.049	394293	VV	10.75
9		0.0000	4.368		117744	VV	? 16.63
10	~~ALDRIN~~	999.0078	4.801	-0.249	181516	VV	15.56
11		0.0000	5.527		684086	VV	14.63
12	~~HEPT EPOX~~	1501.175	6.259	0.149	357445	VV	23.38
13		0.0000	6.932	~~HEPTACHLO~~	~~220100~~	VV	? 18.00
14	~~A-ENDO~~	1163.013	7.325	-0.245	189510	VV	? 29.25
15	~~4,4'-DDE~~	1070.357	8.509	PCB 1201	~~161553~~	VV	? 31.25
16	~~DIELDRIN~~	1534.560	9.003	0.183	266938	VV	? 29.50
17	~~B-ENDO~~	641.7071	10.047	1260 27	104670	VV	? 38.31
18	~~4,4'-DDD~~	2382.797	10.664	-0.246	327006	VV	28.88
19	~~ENDOSULFAN~~	214.3804	11.473	0.443	~~29133~~	VV	? 22.81
20	~~ENDO SO4~~	4474.864	12.467	-0.333	462917	VV	37.31
21		0.0000	13.519	42-5A	156509	VV	? 38.13
22	~~4,4'-DDT~~	7397.967	14.731	0.521	817943	VV	58.56
23	~~END KETON~~	5203.850	16.866	0.496	847192	VV	53.06
24		0.0000	19.282		246033	VV	?103.19
25	~~METHOXYCH~~	9397.841	20.440	-0.410	~~563055~~	VV	59.31
26		0.0000	23.219		490461	VV	69.69
27		0.0000	24.656		334113	VV	? 78.88
28	~~DDC~~	7905.808	29.145	0.735	1065873	VB	99.75
29		0.0000	34.296		25278	BV	108.00
30		0.0000	36.582		42532	VV	? 74.75
31		0.0000	43.028		124184	VV	114.81
32		0.0000	46.250		143160	VB	120.88
33		0.0000	55.731		123895	BB	?249.94

TOTALS: 55775.89 0.792 10460669

DETECTED PKS: 43 REJECTED PKS: 10

DIVISOR: 0.15000 MULTIPLIER: 20000.0000

NOISE: 22.9 OFFSET: -14

RACK: 2 VIAL: 13 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A 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

POST RUN:
SAVE FILE: RAW SCA091

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SAMPLE NUMBER DC-I1-38

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DC-21 30

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: IL-4835, 4846, 4863, 4872
Sample ID No: 0757
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: O'Hagtowicz
Date Sample Received: 1-29-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-3-87
Conc/Dil Factor: 2 pH 7.0
Percent Moisture: (Not Decanted) 27

Concentrations reported "as received"

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	540 BJ
67-64-1	Acetone	1600 BJ
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	2600 B
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	290 J
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	480 J
108-90-7	Chlorobenzene	66000 E
100-41-4	Ethylbenzene	11000
100-42-5	Styrene	1000U
	Total Xylenes	14000

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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Case No V-4835, 4846, 4863, 4872

Sample Number
DC-I1-38

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 2-2-87

Date Analyzed 2-16-87

Conc/Dil Factor 50

Percent Moisture (Decanted) 27

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	8200	U
111-44-4	bis(2-Chloroethyl)Ether	8200	U
95-57-8	2-Chlorophenol	8200	U
541-73-1	1 3-Dichlorobenzene	8200	U
106-46-7	1 4-Dichlorobenzene	8000	J
100-51-6	Benzyl Alcohol	8200	U
95-50-1	1 2-Dichlorobenzene	6500	J
95-48-7	2-Methylphenol	8200	U
39638-32-9	bis(2-chloroisopropyl)Ether	8200	U
106-44-5	4-Methylphenol	8200	U
621-64-7	N-Nitroso-Di-n-Propylamine	8200	U
67-72-1	Hexachloroethane	8200	U
98-95-3	Nitrobenzene	2200	J
78-59-1	Isophorone	8200	U
88-75-5	2-Nitrophenol	8200	U
105-67-9	2 4-Dimethylphenol	8200	U
65-85-0	Benzoic Acid	40,000	U
111-91-1	bis(2-Chloroethoxy)Methane	8200	U
120-83-2	2 4-Dichlorophenol	8200	U
120-82-1	1 2 4-Trichlorobenzene	4900	J
91-20-3	Naphthalene	2100	J
106-47-8	4-Chloroaniline	8200	U
87-68-3	Hexachlorobutadiene	8200	U
59-50-7	4-Chloro-3-Methylphenol	8200	U
91-57-6	2-Methylnaphthalene	2500	J
77-47-4	Hexachlorocyclopentadiene	8200	U
88-06-2	2 4 6-Trichlorophenol	8200	U
95-95-4	2 4 5-Trichlorophenol	40,000	U
91-58-7	2-Chloronaphthalene	8200	U
88-74-4	2-Nitroaniline	40,000	U
131-11-3	Dimethyl Phthalate	8200	U
208-96-8	Acenaphthylene	8200	U
09-2	3-Nitroaniline	40,000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	8200	U
51-28-5	2, 4-Dinitrophenol	40,000	U
100-02-7	4-Nitrophenol	40,000	U
132-64-9	Dibenzofuran	8200	U
121-14-2	2 4-Dinitrotoluene	8200	U
606-20-2	2 6-Dinitrotoluene	8200	U
84-66-2	Diethylphthalate	8200	U
7005-72-3	4-Chlorophenyl-phenylether	8200	U
86-73-7	Fluorene	8200	U
100-01-6	4-Nitroaniline	40,000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	40,000	U
86-30-6	N-Nitrosodiphenylamine (1)	8200	U
101-55-3	4-Bromophenyl-phenylether	8200	U
118-74-1	Hexachlorobenzene	8200	U
87-86-5	Pentachlorophenol	140,000	
85-01-8	Phenanthrene	5800	J
120-12-7	Anthracene	8200	U
84-74-2	Di-n-Butylphthalate	8200	U
206-44-0	Fluoranthene	6500	J
129-00-0	Pyrene	2100	J
85-68-7	Butylbenzylphthalate	8200	U
91-94-1	3 3'-Dichlorobenzidine	16000	U
56-55-3	Benzo(a)Anthracene	1800	J
117-81-7	bis(2-Ethylhexyl)Phthalate	11,000	
218-01-9	Chrysene	2900	J
117-84-0	Di-n-Octyl Phthalate	8200	U
205-99-2	Benzo(b)Fluoranthene	1100	J
207-08-9	Benzo(k)Fluoranthene	8200	U
50-32-8	Benzo(a)Pyrene	1800	J
193-39-5	Indeno(1 2, 3-cd)Pyrene	8200	U
53-70-3	Dibenz(a h)Anthracene	8200	U
191-24-2	Benzo(g h i)Perylene	8200	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I1-38

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2/2/87

Date Analyzed 2/12/87

Conc/Dil Factor 250

Percent Moisture (decanted) 27

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	20000 U
319-85-7	Beta-BHC	20000 U
319-86-8	Delta-BHC	20000 U
58-89-9	Gamma-BHC (Lindane)	20000 U
76-44-8	Heptachlor	20000 U
309-00-2	Aldrin	20000 U
1024-57-3	Heptachlor Epoxide	20000 U
959-98-8	Endosulfan I	20000 U
60-57-1	Dieldrin	40000 U
72-55-9	4,4'-DDE	40000 U
72-20-8	Endrin	40000 U
33213-65-9	Endosulfan II	40000 U
72-54-8	4,4'-DDD	40000 U
1031-07-8	Endosulfan Sulfate	40000 U
50-29-3	4,4'-DDT	40000 U
72-43-5	Methoxychlor	200000 U
53494-70-5	Endrin Ketone	40000 U
57-74-9	Chlordane	200000 U
8001-35-2	Toxaphene	400000 U
12674-11-2	Aroclor-1016	200000 U
11104-28-2	Aroclor-1221	200000 U
11141-16-5	Aroclor-1232	200000 U
53469-21-9	Aroclor-1242	200000 U
12672-29-6	Aroclor-1248	200000 U
11097-69-1	Aroclor-1254	400000 U
11096-82-5	Aroclor-1260	400000 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 3 V_t 1,000 V_i 4 205

Laboratory Name Ecology & Environment, Inc.

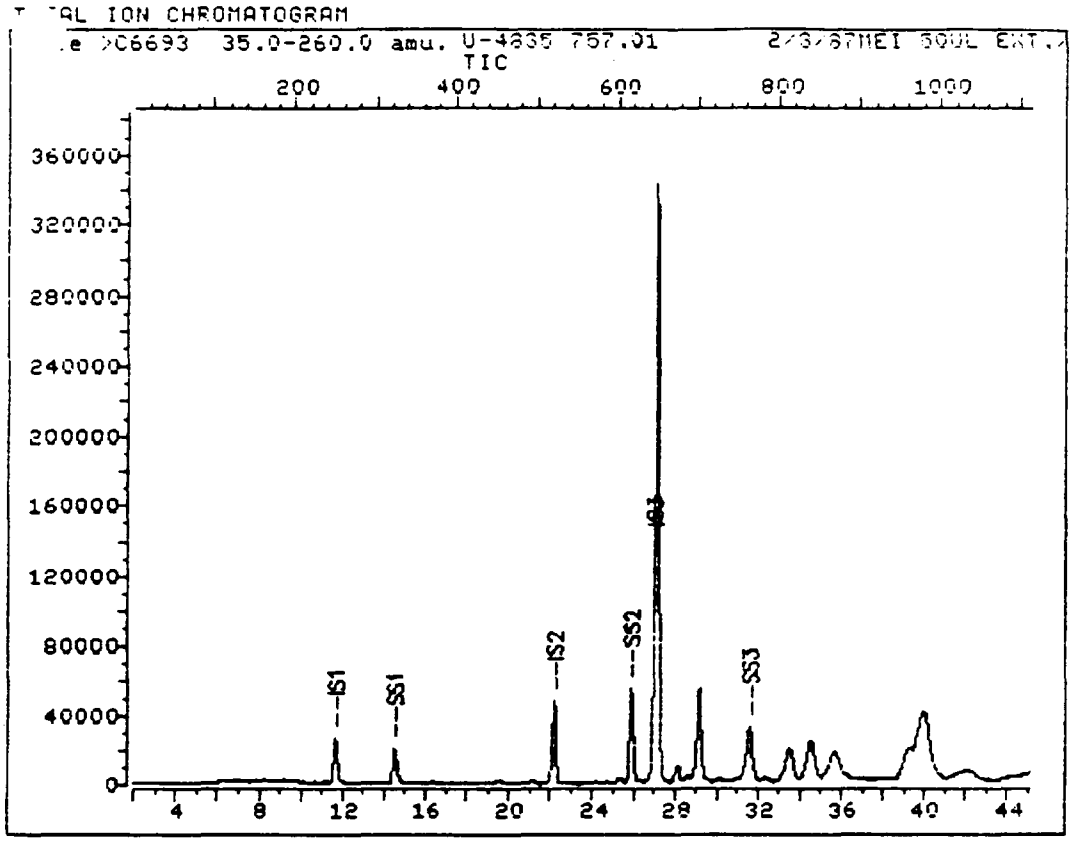
Case No U-4835, 4846, 4863, 4872

Sample Number DC-I1 -38

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.		Dichlorobenzene Isomers	VOA	39.9	8900 J
2.					
3.		Unknown Hydrocarbon	BNA	11.05	5600 J
4.		Chlorobenzenamine Isomer		11.54	10,000 J
5.		Chloronitrobenzene Isomer		13.76	150,000 J
6.		Chloronitrobenzene Isomer		14.03	1,200,000 J
7.		Dichlorobenzenamine Isomer		15.52	1,000,000 J
8.		Dichlorobenzenamine Isomer		15.84	590,000 J
9.		Unknown		16.78	320,000 J
10.		Unknown		17.33	220,000 J
11.		Chlorodinitrobenzene Isomer		19.38	300,000 J
12.	10544500	Molecular Sulfur		25.57	65,000 J
13.		Unknown		31.79	77,000 J
14.		Unknown		32.08	200,000 J
15.		Unknown		32.29	42,000 J
16.		Unknown		32.66	49,000 J
17.		Unknown		33.29	150,000 J
18.		Unknown		33.93	110,000 J
19.		Unknown		34.59	640,000 J
20.					
21.					
22.					
23.					
24					
25.					
26.					
27.					
28.					
29.					
30					



Data File: >C6693::D3
Name: U-4835 757.01 DC-II-38
Misc: 2/3/87MEI 50UL EXT./5MLS DI + 10UL IS/SS (4.61G/10MLS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870203 14:01

Operator ID: USER8
Quant Time: 870203 23:26
Injected at: 870203 22:40

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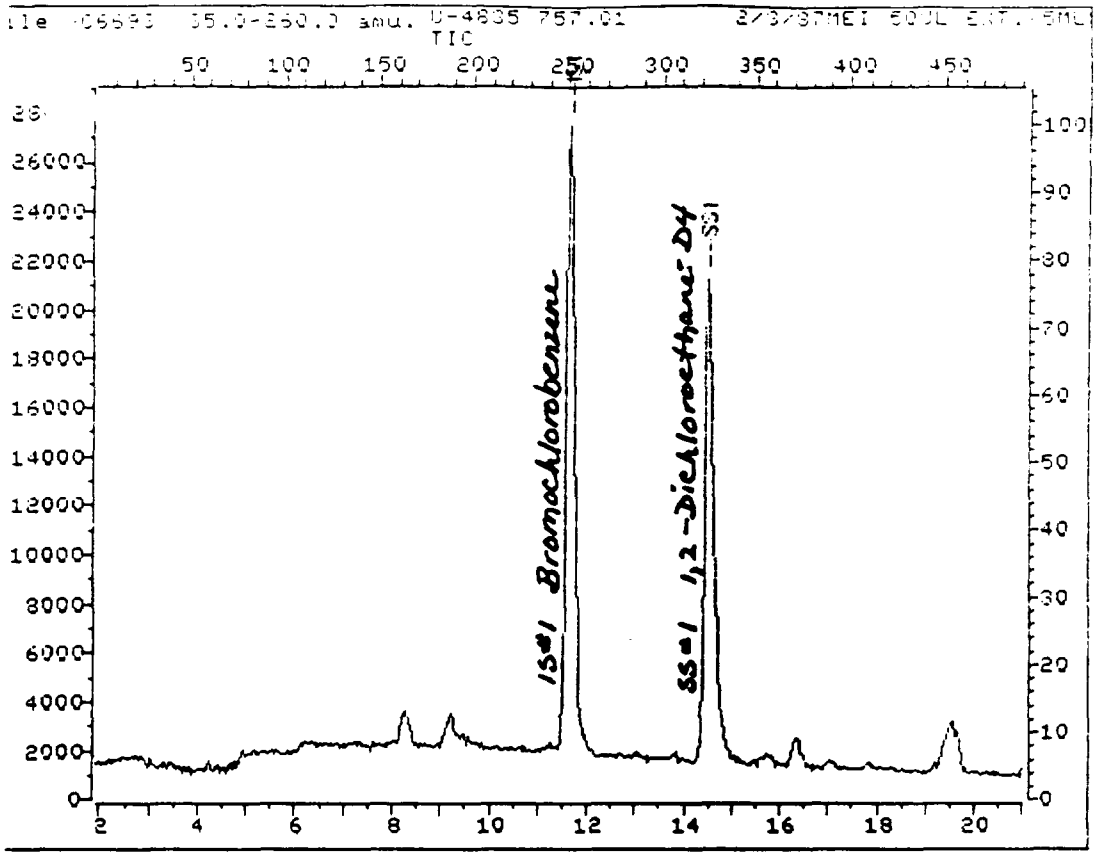
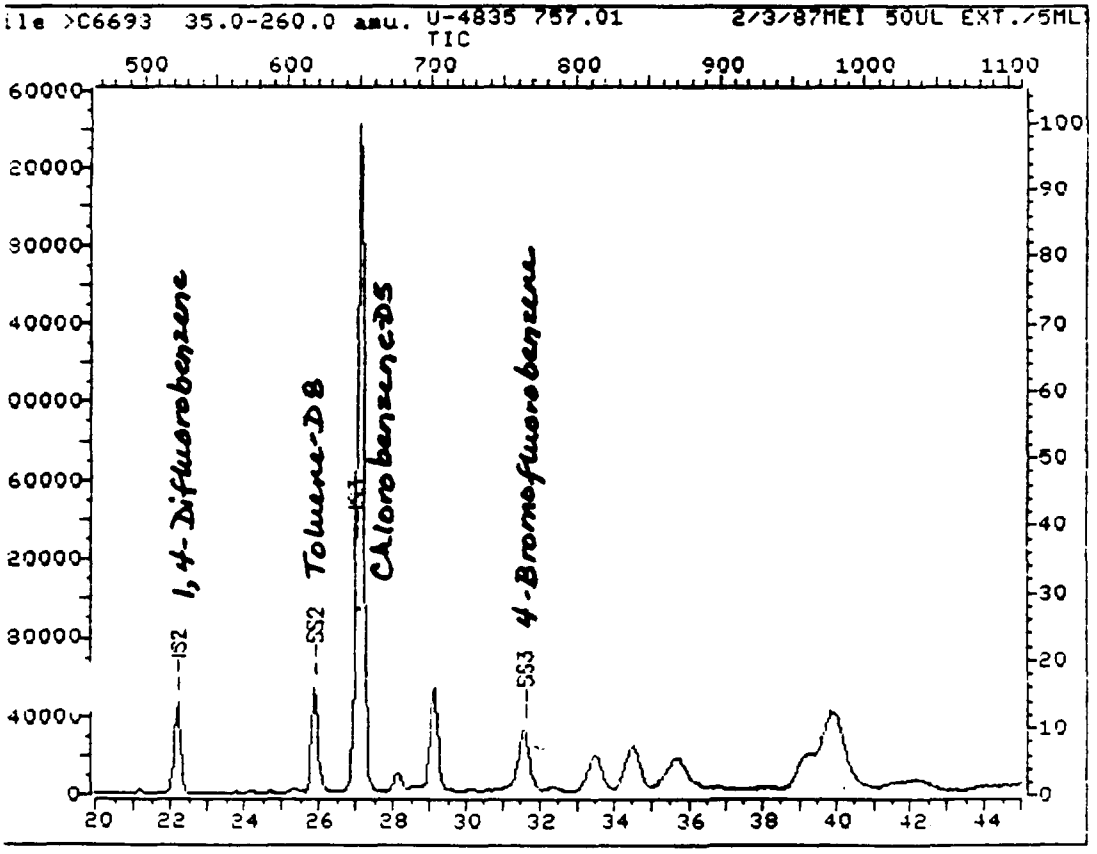
DC-I1-38





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870203 23:26
Output File: ^C6693::Q2 Injected at: 870203 22:40
Data File: >C6693::D3 Dilution Factor: 1.00
Name: U-4835 757.01 DC-I1-38
Misc: 2/3/87MEI 50UL EXT./5MLS DI + 10UL IS/SS (4.61G/10MLS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870203 14:01

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.65	251	37764	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.27	164	3580	2.47 UG/L	100
7)	ACETONE		43	9.20	188	17243	7.52 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.48	324	87644	44.86 UG/L	95
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	523	181077	50.00 UG/L	100
17)	2-BUTANONE		72	14.60	327	5853	12.11 UG/L	100
27)	BENZENE		78	19.60	456	5906	1.35 UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.01	647	151719	50.00 UG/L	100
33)	~~2-HEXANONE~~		~~43~~	~~24.22~~	~~575~~	~~3260~~	~~.85 UG/L~~	~~100~~
33)	~~2-HEXANONE~~		~~43~~	~~24.87~~	~~588~~	~~3329~~	~~.87 UG/L~~	~~100~~
33)	~~2-HEXANONE~~		~~43~~	~~25.34~~	~~604~~	~~3687~~	~~1.~~	~~100~~
36)	TOLUENE-D8	(SURR)	98	25.89	618	196375	47.16 UG/L	94
37)	TOLUENE		92	26.04	622	6067	2.19 UG/L	96
38)	CHLOROBENZENE		112	27.13	650	1023598	303.77 UG/L	96
39)	ETHYLBENZENE		91	29.16	702	300800	50.69 UG/L	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.60	765	110266	49.42 UG/L	100
41)	~~STYRENE~~		~~104~~	~~32.46~~	~~838~~	~~2442~~	~~.78 UG/L~~	~~100~~
42)	TOTAL XYLENES		91	33.54	815	121428	24.35 UG/L	100
42)	TOTAL XYLENES		91	34.51	840	196102	39.32 UG/L	100
42)	~~TOTAL XYLENES~~		~~91~~	~~35.26~~	~~872~~	~~91754~~	~~18.38 UG/L~~	~~100~~
43)	1,3-DICHLOROBENZENE		146	38.24	936	7000	7000.00 NO CALIB	100
43)	1,3-DICHLOROBENZENE		146	39.21	961	98469	98469.00 NO CALIB	100
43)	1,3-DICHLOROBENZENE		146	39.91	979	289598	289598.0 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	38.24	936	7000	7000.00 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	39.21	961	98469	98469.00 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	39.91	979	289598	289598.0 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	38.24	936	7000	7000.00 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	39.21	961	98469	98469.00 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	39.91	979	289598	289598.0 NO CALIB	100

* Compound is ISTD

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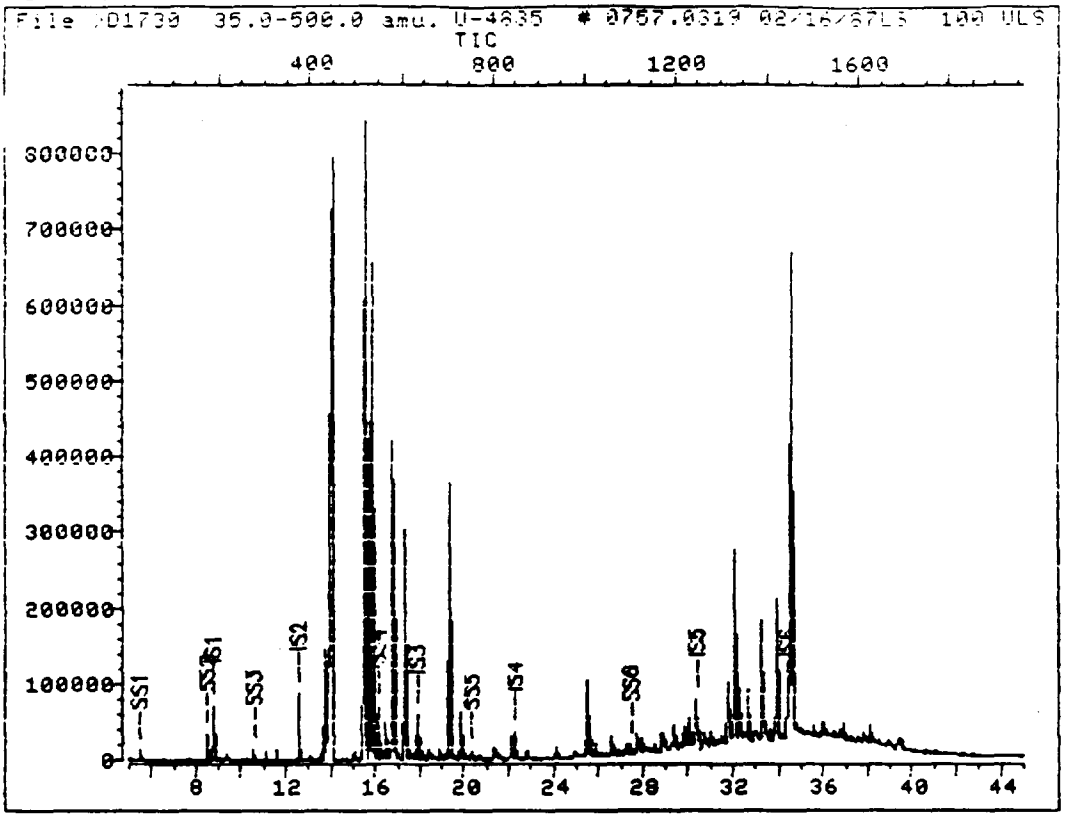

Data File: >D1730::D3
Name: U-4835 # 0757.0319 DC-I/-38
Misc: 02/16/87LS 100 ULS SMPL + 400 ULS MECL2 + 5 ULS IS BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870216 17:17

Operator ID: USER6
Quant Time: 870216 23:40
Injected at: 870216 22:52

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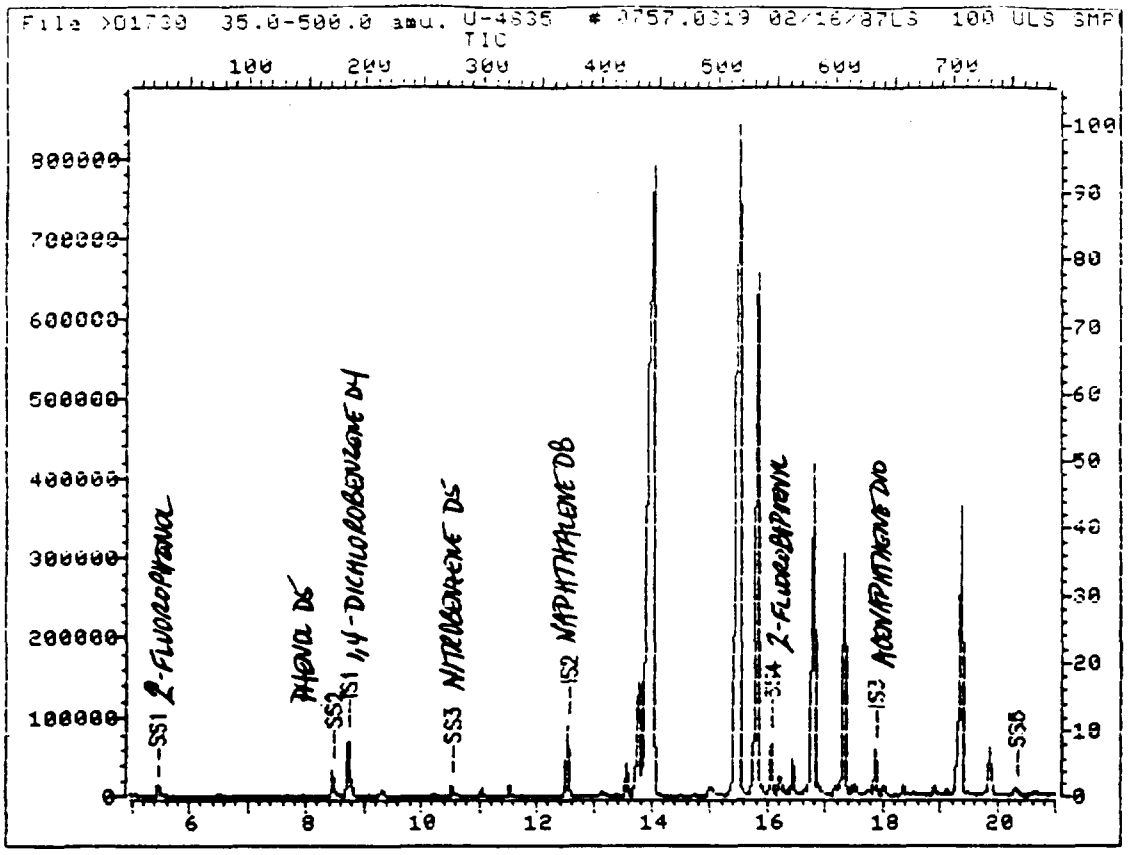
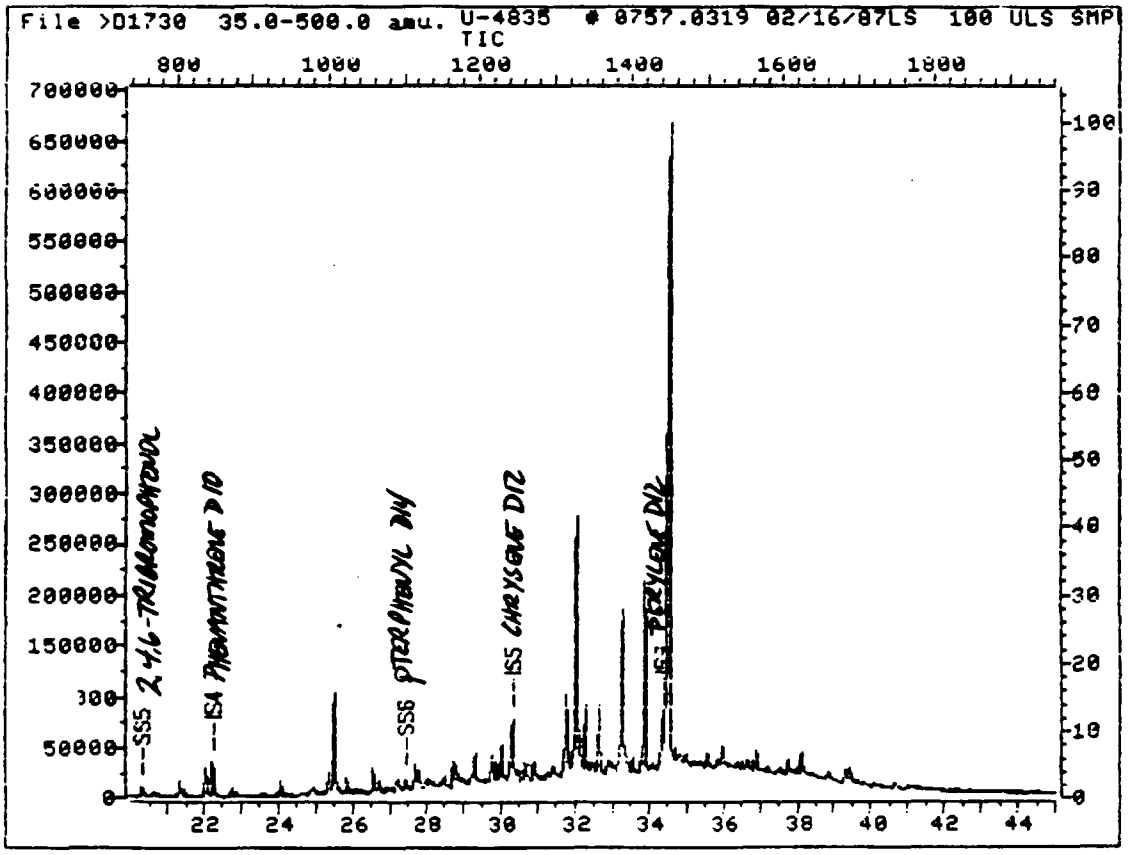
DC-I1-38





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870216 23:40
Output File: ^D1730::Q2 Injected at: 870216 22:52
Data File: >D1730::D3 Dilution Factor: 5.00
Name: U-4835 # 0757.0319 DC-I1-38
Misc: 02/16/87LS 100 ULS SMPL + 400 ULS MECL2 + 5 ULS IS BIL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (8)
Last Calibration: 870216 17:17

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.73	185	31064	40.00 UG/L	86
2)	PHENOL-D5	(SURR)	99	8.46	172	25449	110.73 UG/L	95
5)	2-FLUOROPHENOL	(SURR)	112	5.43	23	13105	89.94 UG/L	88
9)	1,3-DICHLOROBENZENE		146	8.79	188	5576	25.26 UG/L	95
10)	1,4-DICHLOROBENZENE		146	8.79	188	5576	24.66 UG/L	96
12)	1,2-DICHLOROBENZENE		146	8.79	188	5576	25.72 UG/L	98
12)	1,2-DICHLOROBENZENE		146	9.32	214	4357	20.10 UG/L	97
17)	N-NITROSO-DI-N-PROPYLAMINE		70	10.54	274	2020	10.00 UG/L	89
19)	*NAPHTHALENE-D8	(IS)	136	12.54	372	108645	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.54	274	12328	55.68 UG/L	91
21)	NITROBENZENE		77	10.60	277	1632	6.77 UG/L	85
28)	1,2,4-TRICHLOROBENZENE		180	12.48	369	2925	15.21 UG/L	100
29)	NAPHTHALENE		128	12.58	374	3570	6.51 UG/L	100
30)	4-CHLOROANILINE		127	13.64	421	1862	12.06 UG/L	95
33)	2-METHYLNAPHTHALENE		142	14.74	480	2316	7.62 UG/L	99
33)	2-METHYLNAPHTHALENE		142	15.03	496	1516	4.99 UG/L	95
34)	*ACENAPHTHENE-D10	(IS)	162	17.87	633	31797	40.00 UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.07	545	15954	69.89 UG/L	94
39)	2-CHLORONAPHTHALENE		162	15.82	533	43748	227.34 UG/L	81
41)	DIMETHYL PHTHALATE		163	17.17	599	7132	40.71 UG/L	100
41)	DIMETHYL PHTHALATE		163	17.87	633	5082	32.43 UG/L	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.31	753	3953	77.75 UG/L	98
50)	4-NITROPHENOL		139	19.38	707	592	36.96 UG/L	100
52)	2,6-DINITROTOLUENE		165	17.33	607	1362	36.23 UG/L	100
52)	2,6-DINITROTOLUENE		165	17.87	633	4818	113.85 UG/L	100
55)	*PHENANTHRENE-D10	(IS)	188	22.25	848	35637	40.00 UG/L	96
60)	PENTACHLOROPHENOL		266	22.05	838	13446	421.26 UG/L	100
61)	PHENANTHRENE		178	22.31	851	3369	18.06 UG/L	97
62)	ANTHRACENE		178	22.31	851	3369	18.61 UG/L	97
64)	FLUORANTHENE		202	25.92	1028	2305	19.98 UG/L	92
65)	*CHRYSENE-D12	(IS)	240	30.34	1244	52672	40.00 UG/L	100
67)	PYRENE		202	26.54	1058	2885	6.51 UG/L	84
68)	TERPHENYL-D14	(SURR)	244	27.44	1102	9651	36.77 UG/L	100
71)	BENZO(A)ANTHRACENE		228	30.30	1242	1435	5.55 UG/L	71
71)	BENZO(A)ANTHRACENE		228	30.40	1247	2268	8.76 UG/L	84
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.43	1297	4776	33.19 UG/L	95
73)	CHRYSENE		228	30.30	1242	1435	5.60 UG/L	73
73)	CHRYSENE		228	30.40	1247	2268	8.86 UG/L	85
74)	*PERYLENE-D12	(IS)	264	34.38	1441	60654	40.00 UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	33.29	1388	1897	4.89 UG/L	100
76)	BENZO(B)FLUORANTHENE		252	33.29	1388	2508	5.41 UG/L	100
76)	BENZO(B)FLUORANTHENE		252	33.42	1394	1547	3.34 UG/L	100
77)	BENZO(K)FLUORANTHENE		252	33.29	1388	2508	7.76 UG/L	100
77)	BENZO(K)FLUORANTHENE		252	33.42	1394	1547	4.78 UG/L	100
77)	BENZO(K)FLUORANTHENE		252	33.93	1419	2175	6.72 UG/L	100
78)	BENZO(A)PYRENE		252	33.93	1419	2175	6.95 UG/L	100

	Compound		R.T.	Scan#	Area	Conc	Units	q
78)	BENZO(A)PYRENE	252	34.11	1428	1742	5.57	UG/L	100
	~~BENZO(A)PYRENE~~	~~252~~	~~34.59~~	~~1451~~	~~13237~~	~~42.31~~	~~UG/L~~	100

* Compound is ISTD

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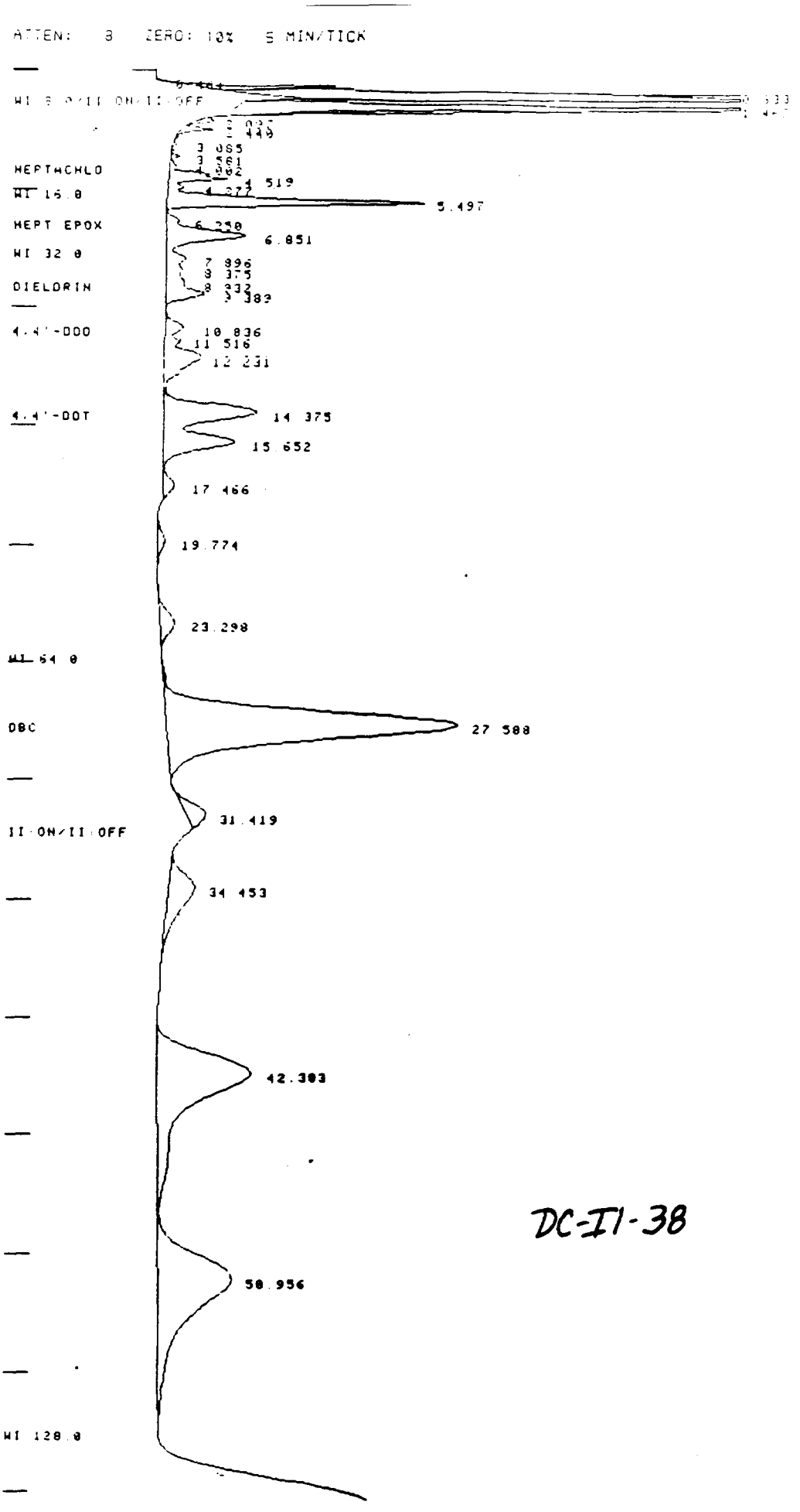

DC-II-38

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CHANNEL: [illegible] TITLE: RUN# 29 [illegible]

DC-I/-38

SAMPLE: [illegible] METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/Kg wet	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	1.462		6189830	BV		5.19
2		0.0000	1.653		38553	T	?	7.94
3		0.0000	1.772		38186	T	?	5.81
4	~~G-BHC~~	6092.914	2.440	0.070	29965	VV		6.44
5		0.0000	4.316		46845	VV	?	11.56
6		0.0000	4.519		94871	VV	?	14.25
7	~~HEPTA~~	1694.173	4.877	-0.173	24626	VV		12.56
8		0.0000	5.497		604367	VV		15.50
9	~~HEPT-E-SU~~	2308.441	6.250	0.140	31671	VV	?	25.50
10		0.0000	6.851		307376	VV		26.81
11	~~4,4-ENE~~	5196.539	7.896	0.326	67741	VV	?	26.75
12	~~4,4-DDE~~	3566.980	8.375	-0.335	43870	VV	?	41.25
13	~~DIELDRIN~~	3487.839	8.932	0.112	48537	VV	?	35.94
14	~~ENDRIN~~	14634.74	9.389	-0.441	145604	VV		29.81
15	~~4,4-DDD~~	6262.834	10.836	-0.074	68759	VV		29.81
16	~~END.ALD.~~	4732.869	11.516	0.486	51457	VV	?	30.94
17	~~ENDO SO4~~	23616.75	12.231	-0.569	195449	VV		41.94
18	~~4,4'-DDT~~	64704.84	14.375	0.165	572318	VV		47.06
19	~~END KETON~~	29811.85	15.652	-0.718	388272	VV		40.94
20		0.0000	17.466		54614	VB		38.25
21		0.0000	19.774		49485	BV		51.88
22		0.0000	23.298		111402	VV	?	78.25
23	~~DBC~~	283102.4	27.588	-0.822	3053464	VV		79.25
24		0.0000	31.419		121194	VB	?	94.63
25		0.0000	34.453		339565	BB		87.31
26		0.0000	42.303		1687515	BV		118.56
27		0.0000	50.956		1584974	VV		151.94

TOTALS: 449213.2 -1.833 15990510

DETECTED PKS: 38 REJECTED PKS: 11

DIVISOR: 0.15000 MULTIPLIER: 250000.000

NOISE: 22.9 OFFSET: -12

RACK: 2 VIAL: 14 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A 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

POST RUN:
SAVE FILE: RAW SCA092

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SAMPLE NUMBER DC-IX-39

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DC-I2-39

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0758
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: CBoytowicz
Date Sample Received: 1-29-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-4-87
Conc/Dil Factor: 2 pH 5.97
Percent Moisture: (Not Decanted) 26

Concentrations reported "as received"

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	1600 B
67-64-1	Acetone	8400 B
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	7800 B
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	3900
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	3900
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000U
108-88-3	Toluene	5500
108-90-7	Chlorobenzene	10000
100-41-4	Ethylbenzene	2500
100-42-5	Styrene	1000U
	Total Xylenes	6000

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/ml 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.
E	This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No _____

Sample Number
DC-I2-39

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared: 2/2/87

Date Analyzed: 2/23/87

Conc/Dil Factor: 250

Percent Moisture (Decanted) 26

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	20,000 J
111-44-4	bis(-2-Chloroethyl)Ether	42,000 U
95-57-8	2-Chlorophenol	42,000 U
541-73-1	1 3-Dichlorobenzene	14,000 J
106-46-7	1 4-Dichlorobenzene	240,000
100-51-6	Benzyl Alcohol	42,000 U
95-50-1	1 2-Dichlorobenzene	24,000 J
95-48-7	2-Methylphenol	42,000 U
39638-32-9	bis(2-chloroisopropyl)Ether	42,000 U
106-44-5	4-Methylphenol	42,000 U
621-64-7	N-Nitroso-Di-n-Propylamine	42,000 U
67-72-1	Hexachloroethane	42,000 U
98-95-3	Nitrobenzene	42,000 U
78-59-1	Isophorone	42,000 U
88-75-5	2-Nitrophenol	42,000 U
105-67-9	2. 4-Dimethylphenol	42,000 U
65-85-0	Benzoic Acid	46,000 J
111-91-1	bis(-2-Chloroethoxy)Methane	42,000 U
120-83-2	2. 4-Dichlorophenol	42,000 U
120-82-1	1. 2. 4-Trichlorobenzene	1,100,000
91-20-3	Naphthalene	43,000
106-47-8	4-Chloroaniline	42,000 U
87-68-3	Hexachlorobutadiene	42,000 U
59-50-7	4-Chloro-3-Methylphenol	42,000 U
91-57-6	2-Methylnaphthalene	5200 J
77-47-4	Hexachlorocyclopentadiene	42,000 U
88-06-2	2. 4. 6-Trichlorophenol	42,000 U
95-95-4	2. 4. 5-Trichlorophenol	200,000 U
91-58-7	2-Chloronaphthalene	42,000 U
88-74-4	2-Nitroaniline	200,000 U
131-11-3	Dimethyl Phthalate	42,000 U
208-96-8	Acenaphthylene	42,000 U
-09-2	3-Nitroaniline	200,000 U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	42,000 U
51-28-5	2. 4-Dinitrophenol	200,000 U
100-02-7	4-Nitrophenol	200,000 U
132-64-9	Dibenzofuran	42,000 U
121-14-2	2 4-Dinitrotoluene	42,000 U
606-20-2	2 6-Dinitrotoluene	42,000 U
84-66-2	Diethylphthalate	42,000 U
7005-72-3	4-Chlorophenyl-phenylether	42,000 U
86-73-7	Fluorene	42,000 U
100-01-6	4-Nitroaniline	200,000 U
534-52-1	4. 6-Dinitro-2-Methylphenol	200,000 U
86-30-6	N-Nitrosodiphenylamine (1)	34,000 J
101-55-3	4-Bromophenyl-phenylether	42,000 U
118-74-1	Hexachlorobenzene	87,000
87-86-5	Pentachlorophenol	200,000 U
85-01-8	Phenanthrene	42,000 U
120-12-7	Anthracene	42,000 U
84-74-2	Di-n-Butylphthalate	42,000 U
206-44-0	Fluoranthene	42,000 U
129-00-0	Pyrene	42,000 U
85-68-7	Butylbenzylphthalate	42,000 U
91-94-1	3. 3'-Dichlorobenzidine	82,000 U
56-55-3	Benzo(a)Anthracene	42,000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	23,000 J
218-01-9	Chrysene	42,000 U
117-84-0	Di-n-Octyl Phthalate	42,000 U
205-99-2	Benzo(b)Fluoranthene	42,000 U
207-08-9	Benzo(k)Fluoranthene	42,000 U
50-32-8	Benzo(a)Pyrene	42,000 U
193-39-5	Indeno(1 2. 3-cd)Pyrene	42,000 U
53-70-3	Dibenz(a h)Anthracene	42,000 U
191-24-2	Benzo(g h i)Perylene	42,000 U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-I2-39

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-2-87

Date Analyzed 2-12-87

Conc/Dil Factor 4,000

Percent Moisture (decanted) 26

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	800000	U
319-85-7	Beta-BHC	800000	U
319-86-8	Delta-BHC	800000	U
58-89-9	Gamma-BHC (Lindane)	800000	U
76-44-8	Heptachlor	800000	U
309-00-2	Aldrin	800000	U
1024-57-3	Heptachlor Epoxide	800000	U
959-98-8	Endosulfan I	800000	U
60-57-1	Dieldrin	1600000	U
72-55-9	4,4'-DDE	1600000	U
72-20-8	Endrin	1600000	U
33213-65-9	Endosulfan II	1600000	U
72-54-8	4,4'-DDD	1600000	U
1031-07-8	Endosulfan Sulfate	1600000	U
50-29-3	4,4'-DDT	1600000	U
72-43-5	Methoxychlor	8000000	U
53494-70-5	Endrin Ketone	1600000	U
57-74-9	Chlordane	8000000	U
8001-35-2	Toxaphene	16000000	U
12674-11-2	Aroclor-1016	800000	U
11104-28-2	Aroclor-1221	800000	U
11141-16-5	Aroclor-1232	800000	U
53469-21-9	Aroclor-1242	800000	U
12672-29-6	Aroclor-1248	800000	U
11097-69-1	Aroclor-1254	1600000	U
11096-82-5	Aroclor-1260	200,000	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 3 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I2-39

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	2500 BJ
2.		Unknown hydrocarbon	VOA	16.3	1500 J
3.		Hexane isomer	VOA	28.2	10000 BJ
4.		Unknown hydrocarbon	VOA	25.4	1100 J
5.		Unknown hydrocarbon	VOA	28.1	1700 J
6.		Unknown hydrocarbon	VOA	35.4	1900 J
7.		Dichlorobenzene isomer	VOA	40.0	96000 J
8.		Unknown hydrocarbon	VOA	25.9	7900 J
9.					
10.		Trichlorobenzene isomer	BNA	13.11	160,000 J
11.		Tetrachlorobenzene isomer	|	15.31	1,800,000 J
12.		Tetrachlorobenzene isomer	|	16.19	3,700,000 J
13.	608935	Pentachlorobenzene	|	18.47	750,000 J
14.		Unknown Aromatic	|	22.43	140,000 J
15.		Unknown Hydrocarbon	|	24.00	190,000 J
16.	84651	9,10-Anthracenedione	|	24.75	170,000 J
17.		Unknown Hydrocarbon	|	25.26	240,000 J
18.	10544500	Molecular Sulfur	|	25.41	520,000 J
19.	81845	1H,3H-Naphtho[1,8-cd]pyran-1,3-dione	|	25.59	520,000 J
20.		Unknown Hydrocarbon	|	26.47	250,000 J
21.		Unknown Hydrocarbon	|	27.63	230,000 J
22.		Anthracenedione isomer	|	27.90	200,000 J
23.		Unknown Hydrocarbon	|	28.06	140,000 J
24.		Unknown Hydrocarbon	|	28.23	230,000 J
25.		Unknown Hydrocarbon	|	28.94	130,000 J
26.		Unknown Hydrocarbon	|	29.82	220,000 J
27.		Unknown Hydrocarbon	|	30.84	280,000 J
28.		Unknown Hydrocarbon	|	31.84	170,000 J
29.		Unknown	|	35.92	380,000 J
30					

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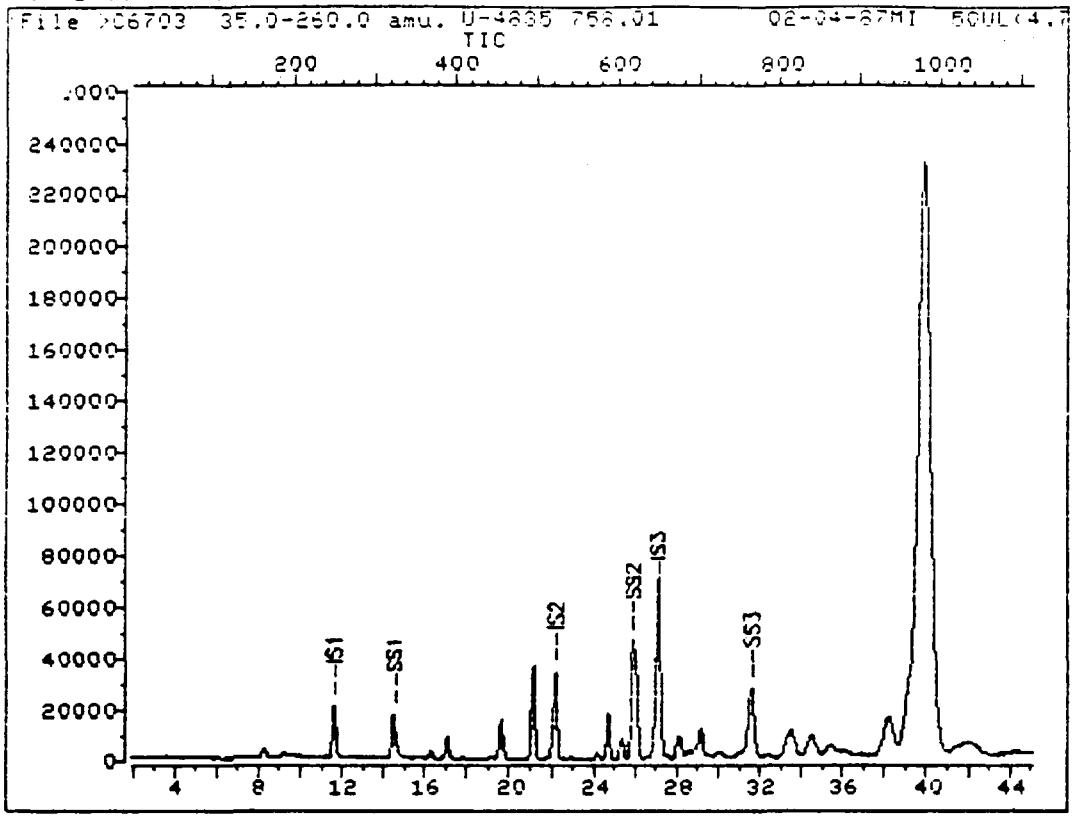
TOTAL ION CHROMATOGRAM



Data File: >C6703::D3
Name: U-4835 758.01 DC-I2-39
Misc: 02-04-87MI 50UL(4.71G/10MLS) + 10UL IS/SS IN 5MLS DI

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870204 19:06

Operator ID: USER8
Quant Time: 870204 21:44
Injected at: 870204 20:58

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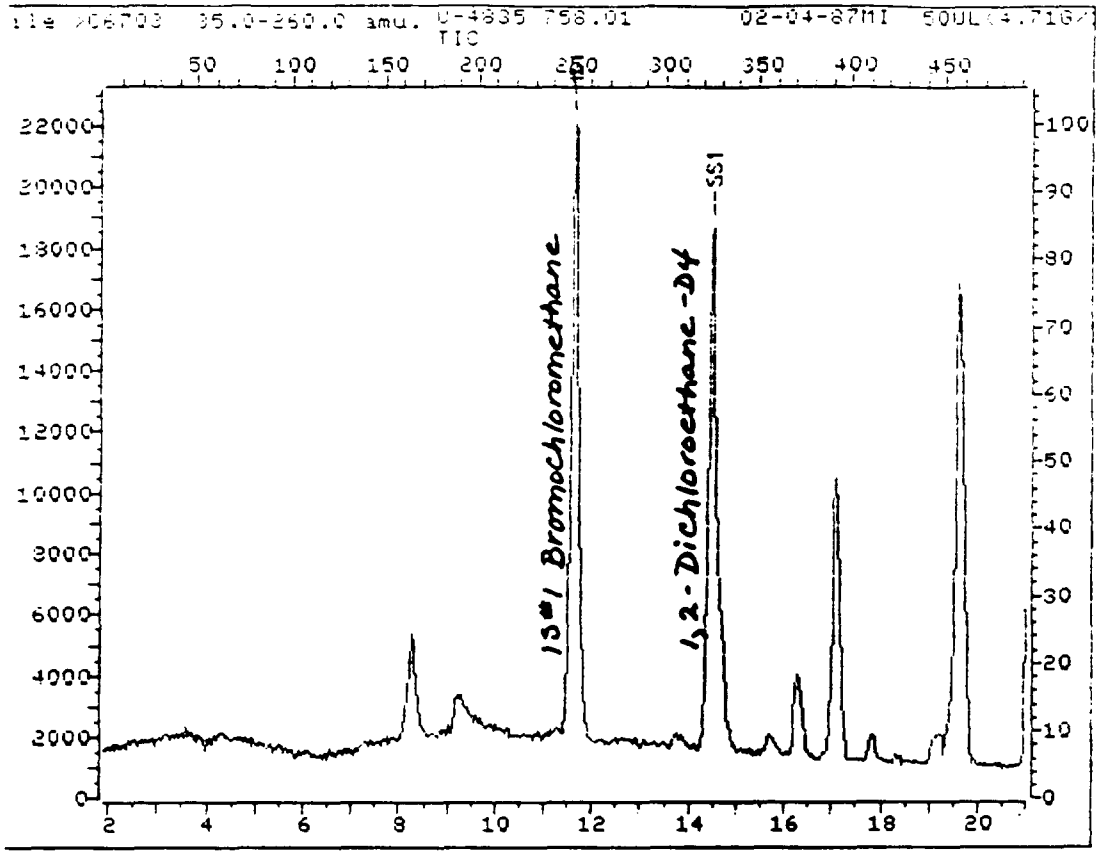
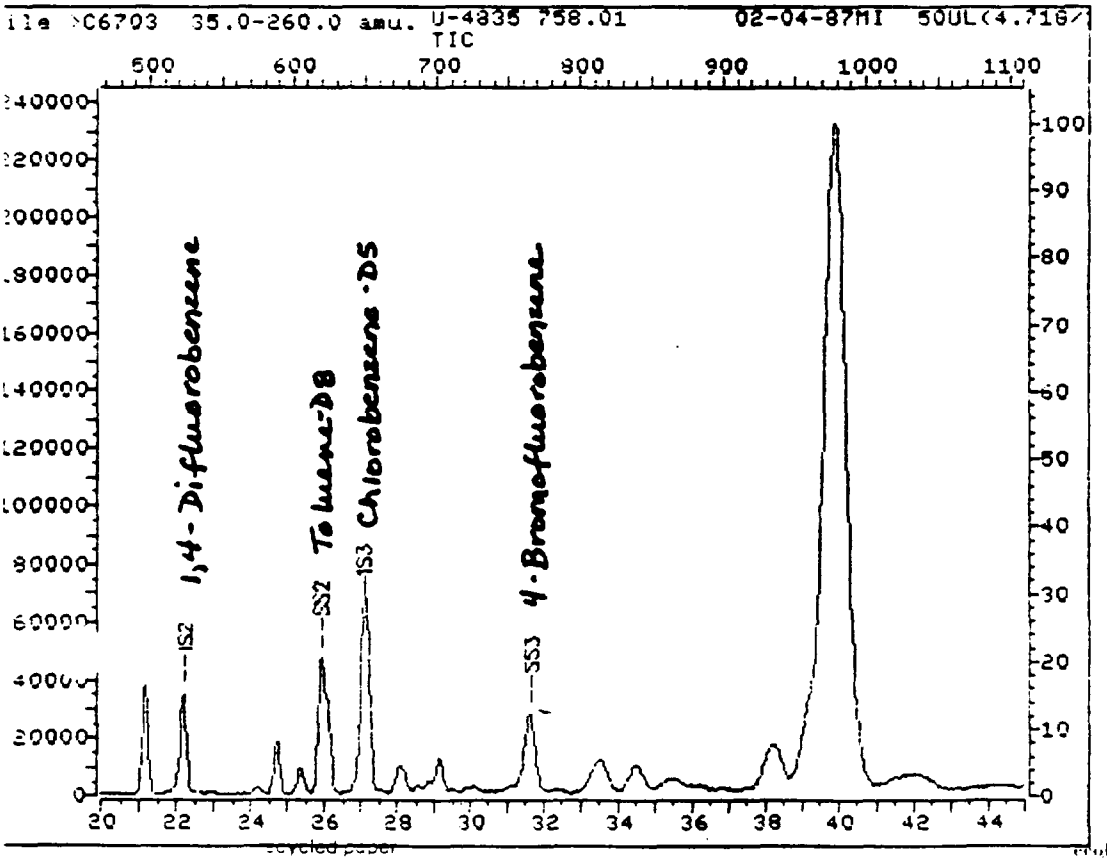
DC-I2-39





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870204 21:44
Out t File: ^C6703::Q2 Injected at: 870204 20:58
Data File: >C6703::D3 Dilution Factor: 1.00
Name: U-4835 758.01 DC-I2-39
Misc: 02-04-87MI 50UL(4.71G/10MLS) + 10UL IS/SS IN 5MLS DI

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870204 19:06

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.62	251	26659	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.24	164	7789	7.51 UG/L	100
7)	ACETONE		43	9.29	191	19678	39.75 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.49	325	70299	52.27 UG/L	81
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.21	524	134479	50.00 UG/L	100
17)	2-BUTANONE		72	14.64	329	5630	36.93 UG/L	100
27)	BENZENE		78	19.65	458	64686	18.45 UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.06	649	123223	50.00 UG/L	100
33)	~~2-HEXANONE~~		~~43~~	~~23.19~~	~~979~~	~~8712~~	~~8.65 UG/L~~	~~100~~
33)	~~2-HEXANONE~~		~~43~~	~~24.69~~	~~588~~	~~5752~~	~~5.21 UG/L~~	~~100~~
33)	~~2-HEXANONE~~		~~43~~	~~25.39~~	~~606~~	~~17848~~	~~16.16 UG/L~~	~~100~~
34)	TETRACHLOROETHENE		164	24.69	588	23024	18.31 UG/L	91
36)	TOLUENE-D8	(SURR)	98	25.90	619	166200	50.53 UG/L	92
37)	TOLUENE		92	26.09	624	58838	22.75 UG/L	94
38)	CHLOROBENZENE		112	27.18	652	155108	47.20 UG/L	95
39)	ETHYLBENZENE		91	29.14	702	65651	11.70 UG/L	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.63	766	94433	52.43 UG/L	100
42)	TOTAL XYLENES		91	33.49	814	62623	13.19 UG/L	100
42)	TOTAL XYLENES		91	34.50	840	72186	15.20 UG/L	100
42)	~~TOTAL XYLENES~~		~~91~~	~~36.02~~	~~881~~	~~23902~~	~~5.03 UG/L~~	~~100~~
43)	1,3-DICHLOROBENZENE		146	38.19	935	122830	122830.0 NO CAL	B100
43)	1,3-DICHLOROBENZENE		146	39.90	979	2270539	2270539. NO CAL	B100
44)	1,2-DICLHLOROBENZENE		146	38.19	935	122830	122830.0 NO CAL	B100
44)	1,2-DICLHLOROBENZENE		146	39.90	979	2270539	2270539. NO CAL	B100
45)	1,4-DICHLOROBENZENE		146	38.19	935	122830	122830.0 NO CAL	B100
45)	1,4-DICHLOROBENZENE		146	39.90	979	2270539	2270539. NO CAL	B100

* Compound is ISTD

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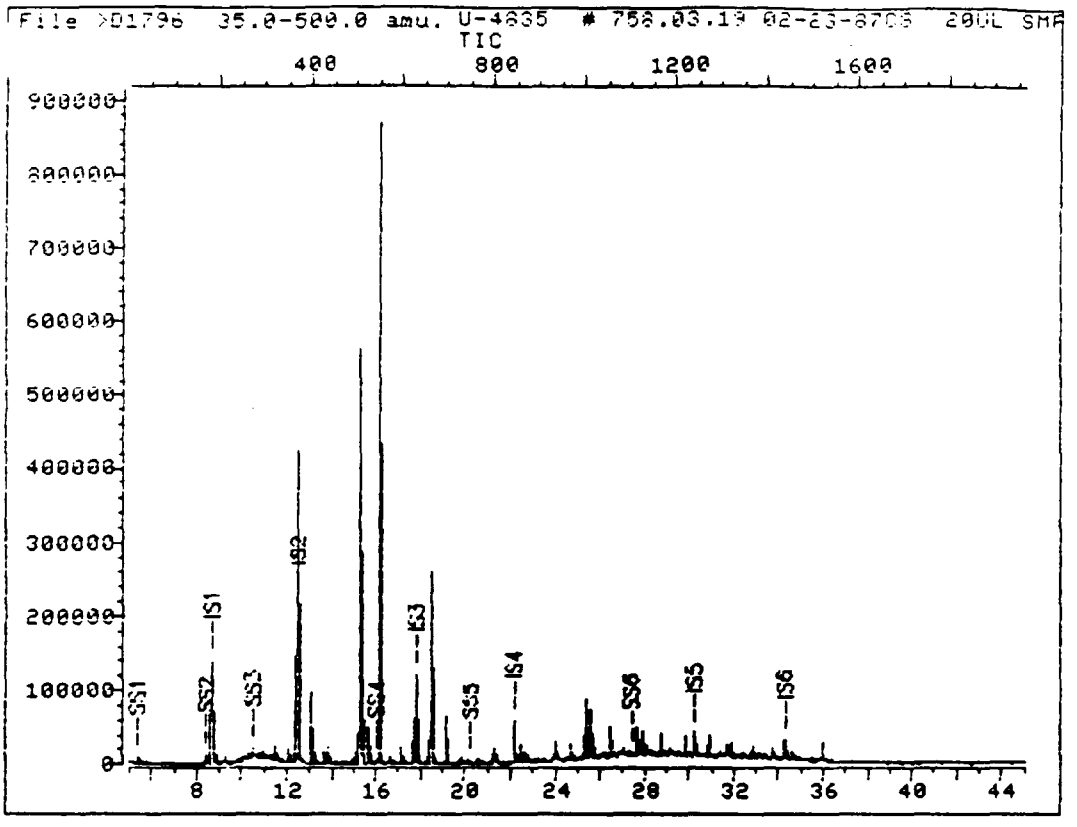
TOTAL ION CHROMATOGRAM



Data File: >D1796::D1
Name: U-4835 # 758.03.19 DC-I2-39
Misc: 02-23-87CS 20UL SMPL + 480UL MECL2 + 5UL IS BTL# 2

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

Operator ID: USER6
Quant Time: 870223 17:04
Injected at: 870223 16:16

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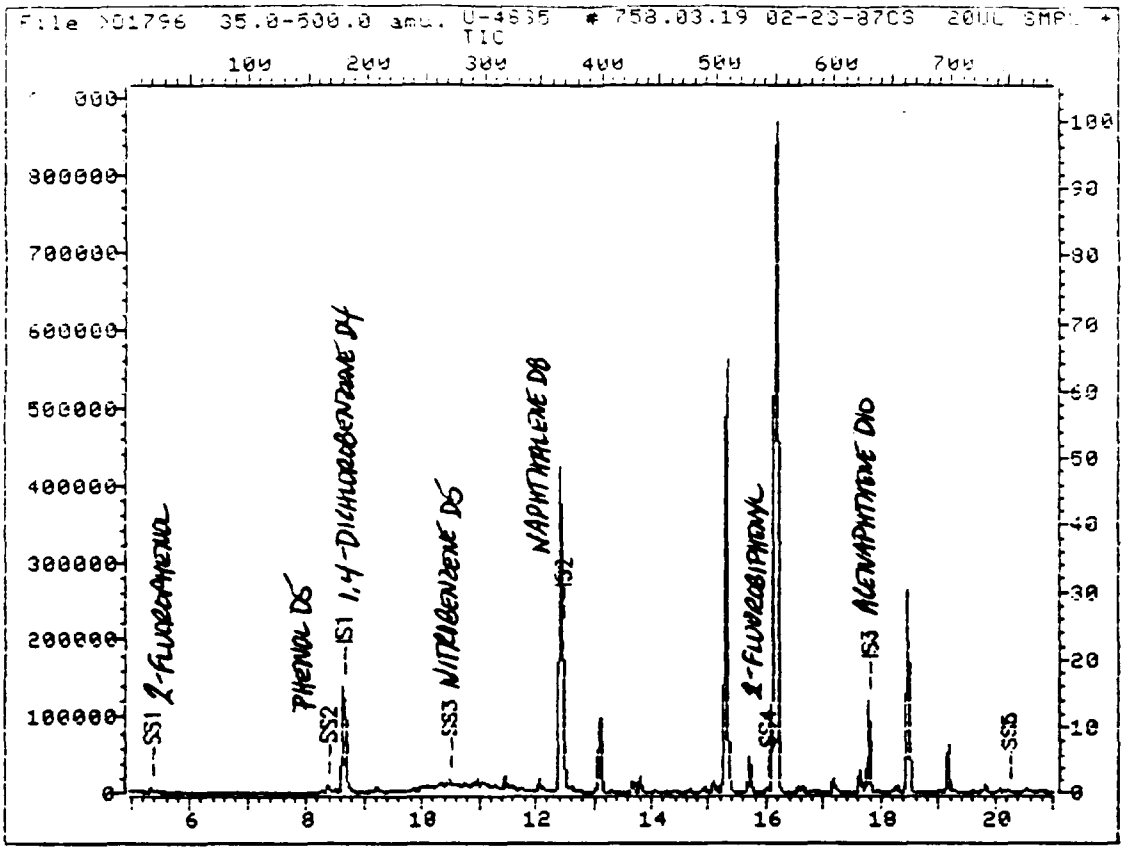
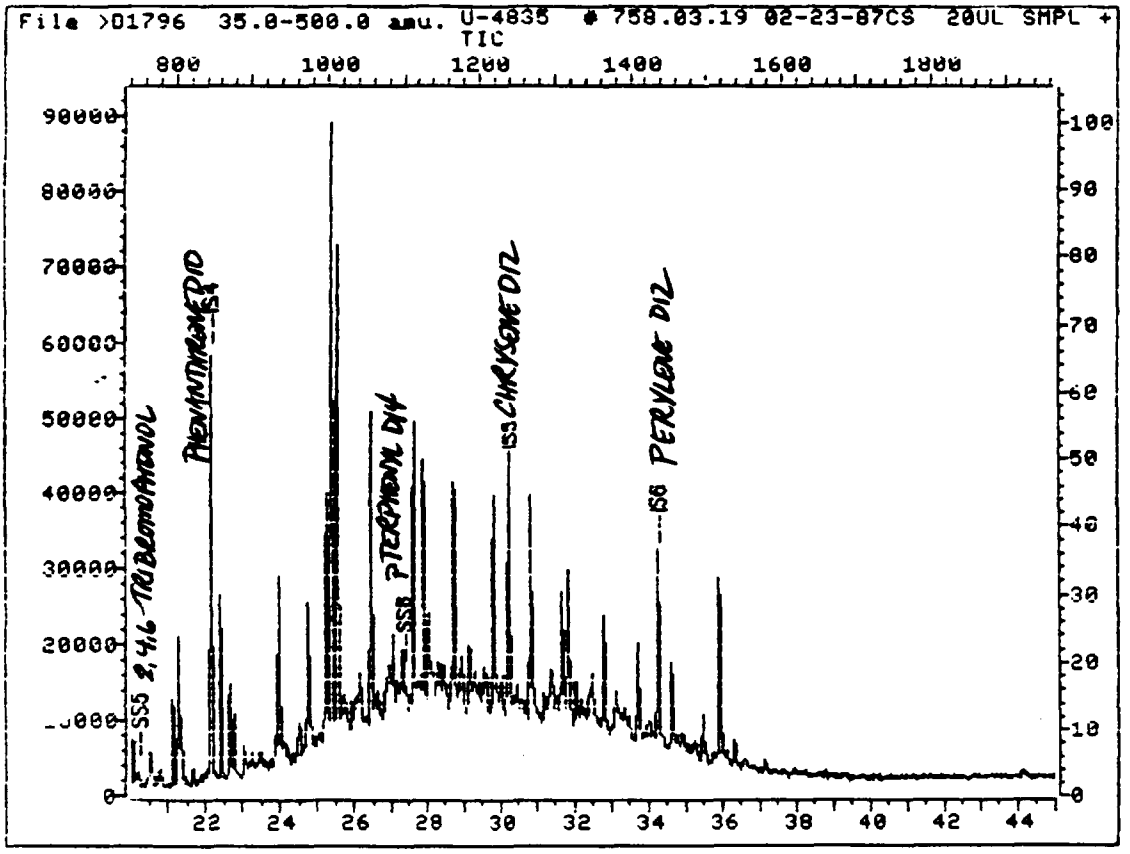


DC-I2-39



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QUANT REPORT

r rator ID: USER6 Quant Rev: 4 Quant Time: 870223 17:04
Output File: ^D1796::Q2 Injected at: 870223 16:16
Data File: >D1796::D1 Dilution Factor: 25.00
Name: U-4835 # 758.03.19 DC-I2-39
Misc: 02-23-87CS 20UL SMPL + 480UL MECL2 + 5UL IS BNL# 2

ID File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.65	181	50275	40.00 UG/L	82
2)	PHENOL-D5	(SURR)	99	8.38	168	7095	88.59 UG/L	86
5)	2-FLUOROPHENOL	(SURR)	112	5.35	19	4708	93.33 UG/L	72
6)	PHENOL		94	8.40	169	3326	59.29 UG/L	69
9)	1,3-DICHLOROBENZENE		146	8.50	174	3145	41.18 UG/L	94
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~8.69~~	~~183~~	~~53934~~	~~706.27 UG/L~~	99
~~10)~~	~~1,4-DICHLOROBENZENE~~		~~146~~	~~8.50~~	~~174~~	~~3145~~	~~42.09 UG/L~~	92
10)	1,4-DICHLOROBENZENE		146	8.69	183	53934	721.81 UG/L	98
12)	1,2-DICHLOROBENZENE		146	9.22	209	5110	73.91 UG/L	88
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.34~~	~~244~~	~~1958~~	~~28.31 UG/L~~	62
19)	*NAPHTHALENE-D8	(IS)	136	12.46	368	190482	40.00 UG/L	101
20)	NITROBENZENE-D5	(SURR)	82	10.48	271	4434	51.09 UG/L	80
25)	BENZOIC ACID		105	12.60	375	6192	139.01 UG/L	90
28)	1,2,4-TRICHLOROBENZENE		180	12.42	366	217012	3408.80 UG/L	100
29)	NAPHTHALENE		128	12.50	370	24402	129.50 UG/L	100
33)	2-METHYLNAPHTHALENE		142	14.64	475	1727	15.62 UG/L	92
34)	*ACENAPHTHENE-D10	(IS)	162	17.78	629	60598	40.00 UG/L	94
38)	2-FLUOROBIPHENYL	(SURR)	172	16.01	542	5737	62.94 UG/L	98
~~39)~~	~~2-CHLORONAPHTHALENE~~		~~162~~	~~15.70~~	~~527~~	~~2234~~	~~28.67 UG/L~~	89
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.78~~	~~629~~	~~11454~~	~~167.60 UG/L~~	100
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~17.94~~	~~637~~	~~1263~~	~~14.16 UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.23	749	845	50.70 UG/L	91
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.78~~	~~629~~	~~8121~~	~~54.43 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.16	844	49111	40.00 UG/L	86
57)	N-NITROSODIPHENYLAMINE		169	19.59	718	2358	101.95 UG/L	81
59)	HEXACHLOROBENZENE		284	21.29	801	4986	262.86 UG/L	90
65)	*CHRYSENE-D12	(IS)	240	30.23	1239	31710	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.35	1098	1299	48.30 UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.33	1293	1535	69.06 UG/L	99
74)	*PERYLENE-D12	(IS)	264	34.25	1436	31498	40.00 UG/L	100

* Compound is ISTD

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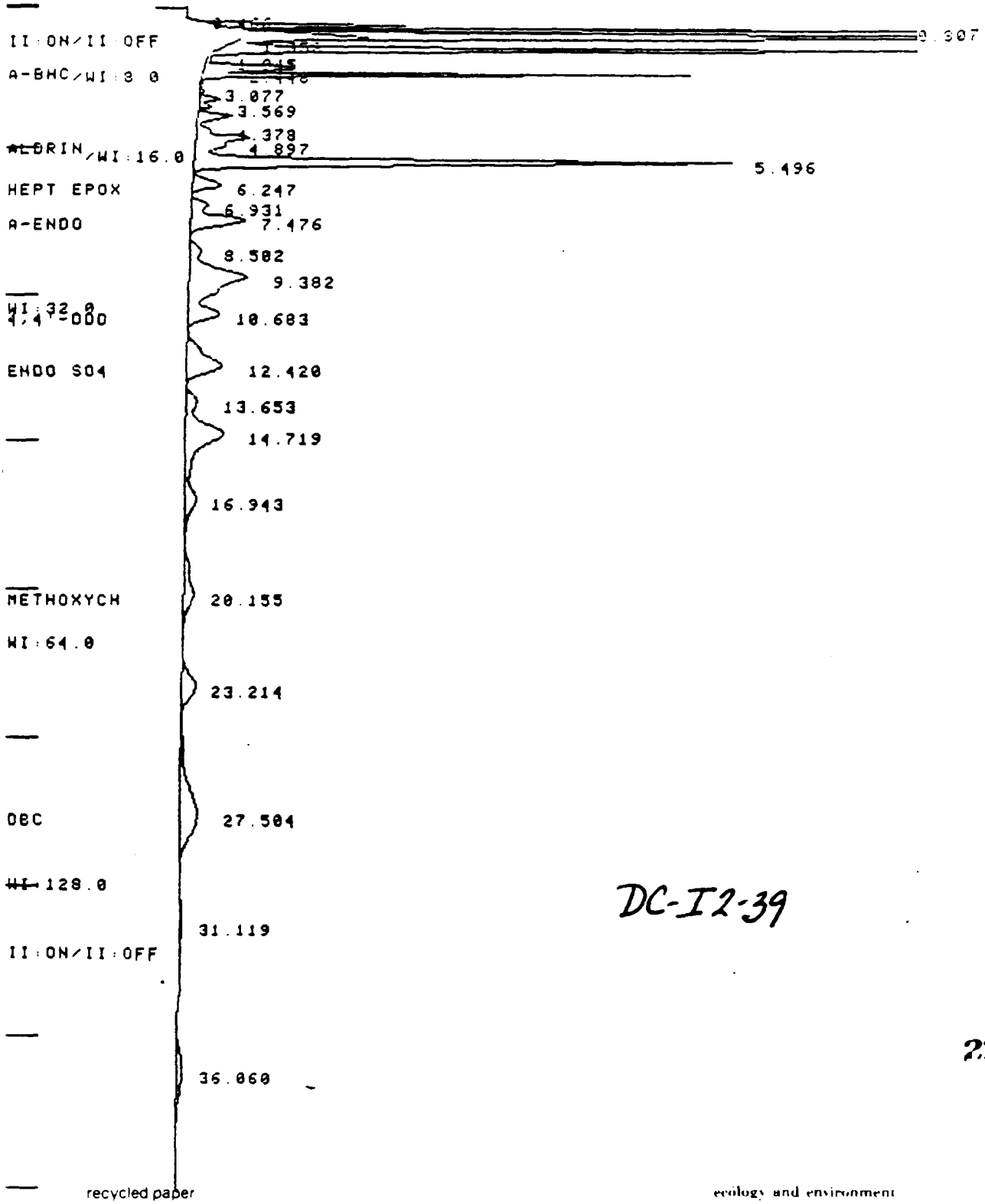
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-I2-39

227

pcB1200 = 0.78 x 0.039 x 1/0.15 x 1000 x 1000 = 200,000 ug/Kg wet

CHANNEL: 1A - 1 TITLE: RUN# 30 15:06 12 FEB 87

DC-IZ-39

SAMPLE: 0758 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	1.358		33318	BV	?	4.00
2		0.0000	1.514		2553644	VB		4.81
3		0.0000	2.133		68615	VV	?	6.19
4	~~A-BHC~~	13196.64	2.231	0.001	51437	VV	?	7.69
5	~~B-BHC~~	328336.1	2.448	0.078	403690	VV		6.56
6	~~HEPTACHLO~~	14909.80	3.924	-0.176	47508	VV		11.44
7		0.0000	4.662		80474	VV	?	12.56
8	~~ALDRIN~~	11383.55	4.897	-0.153	41367	VV	?	18.00
9		0.0000	5.496		738517	VV		12.50
10	~~HEPT EPOX~~	17627.27	6.247	0.137	60460	VV		19.81
11		0.0000	6.931		31641	VV	?	16.69
12	~~A-ENDO~~	38001.52	7.476	-0.094	123845	VB		20.63
13	~~4,4' DDE~~	9401.801	8.502	-0.208	28908	BV	?	25.81
14	~~ENDRIN~~	113570.1	9.382	-0.448	282483	VV	?	42.69
15	~~4,4' DDD~~	34047.50	10.683	-0.227	93451	VV		26.63
16	~~ENDO SO4~~	76440.13	12.420	-0.380	158152	VV		37.00
17		0.0000	13.653		41817	VV	?	34.06
18	~~4,4' DDT~~	95726.24	14.719	0.509	211676	VV		44.38
19	~~END KETON~~	19389.00	16.943	0.573	63131	VB		47.06
20	~~METHOXYCH~~	65711.17	20.155	-0.695	78180	BB	?	61.94
21		0.0000	* 23.214		78498	BV		49.75
22	~~CDC~~	75919.64	27.504	-0.906	204712	VB		101.00
23		0.0000	31.119		24045	BB		76.25
24		0.0000	36.060		62892	BB		86.88

TOTALS: 913660.6 -1.989 5562461

DETECTED PKS: 35 REJECTED PKS: 11

DIVISOR: 0.15000 MULTIPLIER: 1000000.00

NOISE: 22.9 OFFSET: -32

RACK: 2 VIAL: 15 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A 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

POST RUN:
SAVE FILE: RAW SCA093

228

SAMPLE NUMBER DC-I3-40

481095

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0799
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Slotowicz
Date Sample Received: 1-31-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-4-87
Conc/Dil Factor: 4 pH 7.2
Percent Moisture: (Not Decanted) 29

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	4000U
74-83-9	Bromomethane	4000U
75-01-4	Vinyl Chloride	4000U
75-00-3	Chloroethane	4000U
75-09-2	Methylene Chloride	4800 B
67-64-1	Acetone	12000 B
75-15-0	Carbon Disulfide	2000U
75-35-4	1, 1-Dichloroethene	2000U
75-34-3	1, 1-Dichloroethane	2000U
156-60-5	Trans-1, 2-Dichloroethene	2000U
67-66-3	Chloroform	2000U
107-06-2	1, 2-Dichloroethane	2000U
78-93-3	2-Butanone	12000 B
71-55-6	1, 1, 1-Trichloroethane	1200
56-23-5	Carbon Tetrachloride	2000U
108-05-4	Vinyl Acetate	4000U
75-27-4	Bromodichloromethane	2000U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	2000U
10061-02-6	Trans-1, 3-Dichloropropene	2000U
79-01-6	Trichloroethene	2000U
124-48-1	Dibromochloromethane	2000U
79-00-5	1, 1, 2-Trichloroethane	2000U
71-43-2	Benzene	2000U
10061-01-5	cis-1, 3-Dichloropropene	2000U
110-75-8	2-Chloroethylvinylether	4000U
75-25-2	Bromoform	2000U
108-10-1	4-Methyl-2-Pentanone	4000U
591-78-6	2-Hexanone	4000U
127-18-4	Tetrachloroethene	960 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	2000U
108-88-3	Toluene	480 BJ
108-90-7	Chlorobenzene	90000
100-41-4	Ethylbenzene	2000U
100-42-5	Styrene	2000U
	Total Xylenes	2000U

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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I3-40

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 2-2-87

Date Analyzed 2-14-87

Conc/Dil Factor 20

Percent Moisture (Decanted) 29

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	3300	U
111-44-4	bis(2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1,3-Dichlorobenzene	3300	U
106-46-7	1,4-Dichlorobenzene	2600	J
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1,2-Dichlorobenzene	1900	J
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2,4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U
111-91-1	bis(2-Chloroethoxy)Methane	3300	U
120-83-2	2,4-Dichlorophenol	3300	U
120-82-1	1,2,4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2,4,6-Trichlorophenol	3300	U
95-95-4	2,4,5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U
208-96-8	Acenaphthylene	3300	U
-09-2	3-Nitroaniline	16000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2,4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U
132-64-9	Dibenzofuran	3300	U
121-14-2	2,4-Dinitrotoluene	3300	U
606-20-2	2,6-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3300	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4,6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	3300	U
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3,3'-Dichlorobenzidine	6600	U
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300	U
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1,2,3-cd)Pyrene	3300	U
53-70-3	Dibenz(a,h)Anthracene	3300	U
191-24-2	Benzo(g,h,i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I340

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-2-87

Date Analyzed 2-12-87

Conc/Dil Factor 25

Percent Moisture (decanted) 29

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	2000	U
319-85-7	Beta-BHC	2000	U
319-86-8	Delta-BHC	2000	U
58-89-9	Gamma-BHC (Lindane)	2000	U
76-44-8	Heptachlor	2000	U
309-00-2	Aldrin	2000	U
1024-57-3	Heptachlor Epoxide	2000	U
959-98-8	Endosulfan I	2000	U
60-57-1	Dieldrin	4000	U
72-55-9	4,4'-DDE	4000	U
72-20-8	Endrin	4000	U
33213-65-9	Endosulfan II	4000	U
72-54-8	4,4'-DDD	4000	U
1031-07-8	Endosulfan Sulfate	4000	U
50-29-3	4,4'-DDT	4000	U
72-43-5	Methoxychlor	20000	U
53494-70-5	Endrin Ketone	4000	U
57-74-9	Chlordane	20000	U
8001-35-2	Toxaphene	40000	U
12674-11-2	Aroclor-1016	20000	U
11104-28-2	Aroclor-1221	20000	U
11141-16-5	Aroclor-1232	20000	U
53469-21-9	Aroclor-1242	20000	U
12672-29-6	Aroclor-1248	20000	U
11097-69-1	Aroclor-1254	40000	U
11096-82-5	Aroclor-1260	130000	

V_t = 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 3 V_t 1000 V_t 4

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Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

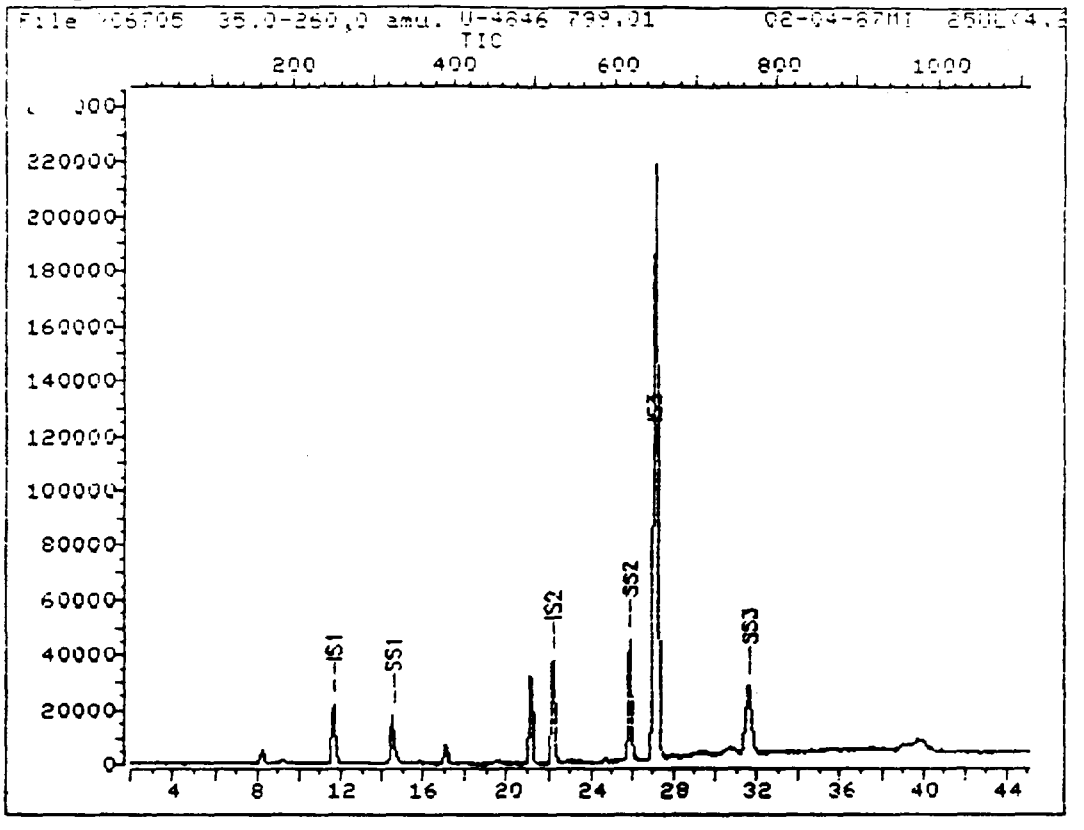
Sample Number DC-I3-40

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	4300 BJ
2.		Hexane Isomer	VOA	21.2	20000 BJ
3.					
4.		Unknown Hydrocarbon	BNA	10.12	14,000 J
5.		Unknown Alcohol		10.46	12,000 J
6.		Unknown Hydrocarbon		10.87	6300 J
7.		Unknown Hydrocarbon		11.01	11,000 J
8.		Unknown Hydrocarbon		11.08	11,000 J
9.		Unknown Hydrocarbon		11.20	20,000 J
10.		Unknown Hydrocarbon		11.40	19,000 J
11.		Unknown Hydrocarbon		11.61	7800 J
12.		Unknown Hydrocarbon		11.69	14,000 J
13.		Unknown Hydrocarbon		11.83	7200 J
14.		Unknown Hydrocarbon		12.34	3900 J
15.		Chloronitrobenzene Isomer		13.56	11,000 J
16.		Chloronitrobenzene Isomer		13.25	3400 J
17.		Unknown Hydrocarbon		18.37	21,000 J
18.		Unknown Hydrocarbon		19.92	38,000 J
19.		Unknown Hydrocarbon		20.63	26,000 J
20.		Unknown Hydrocarbon		21.37	39,000 J
21.		Unknown Hydrocarbon		21.45	19,000 J
22.		Unknown Hydrocarbon		22.77	14,000 J
23.		Unknown Aromatic		32.08	26,000 J
24.		Unknown Aromatic		33.32	26,000 J
25.					
26.					
27.					
28.					
29.					
30.					

TOTAL ION CHROMATOGRAM



Data File: >C6705::D3
Name: U-4846 799.01 DC-I3-40
Misc: 02-04-87MI 25UL(4.29G/10MLS) + 10UL IS/SS IN 5MLS DI

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870204 19:06

Operator ID: USER8
Quant Time: 870204 23:48
Injected at: 870204 23:02

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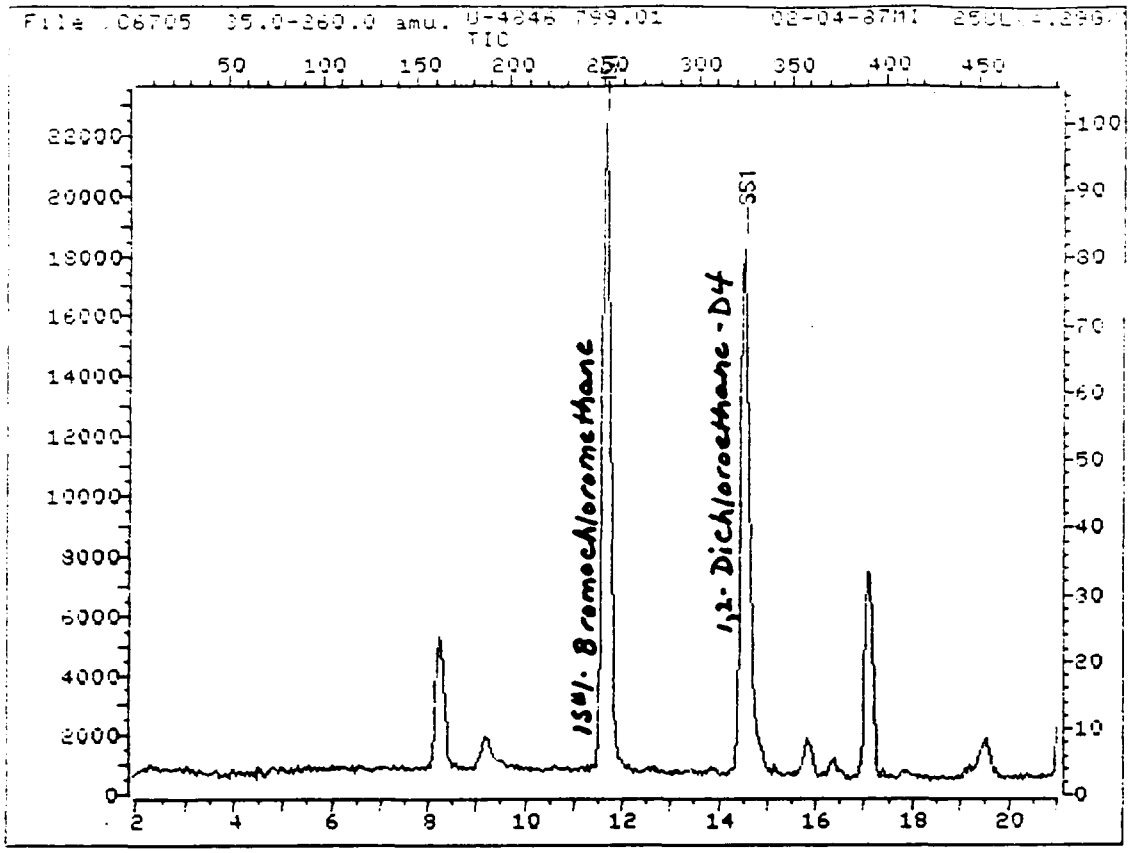
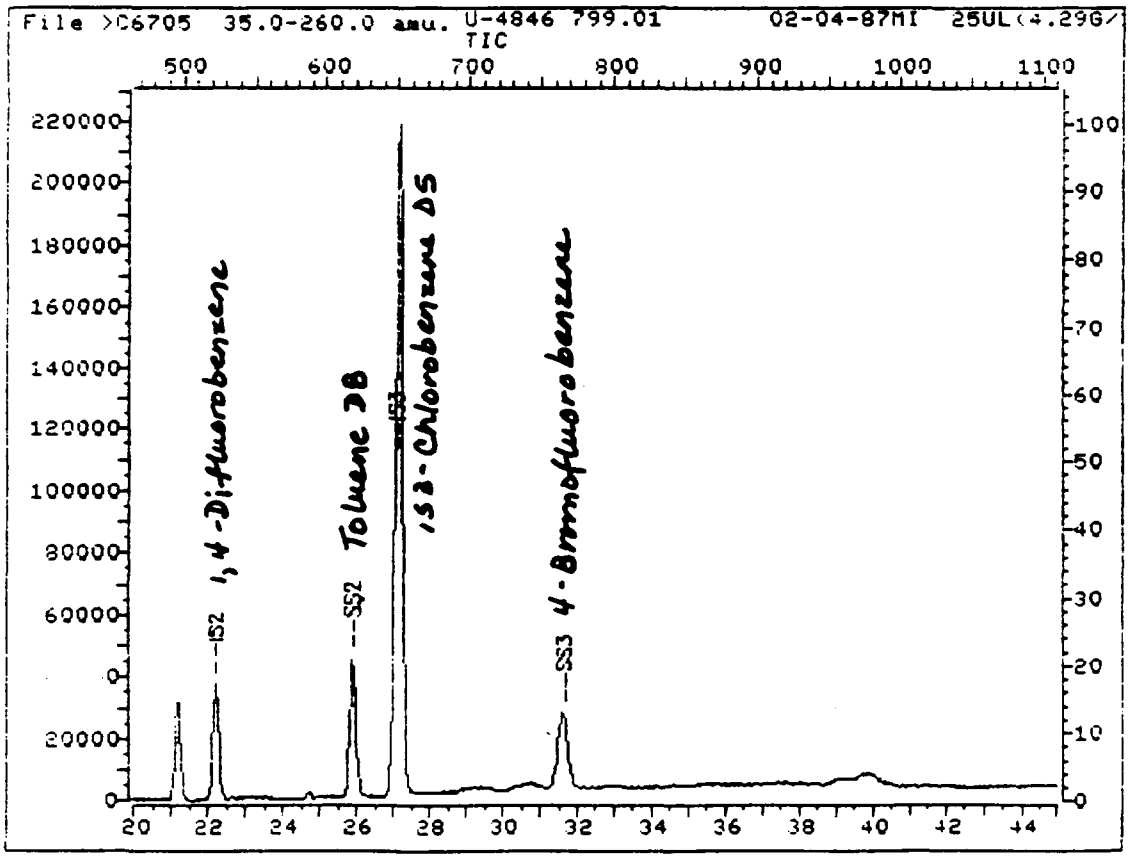
DC - I3 -40





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870204 23:48
Output File: ^C6705::Q2 Injected at: 870204 23:02
Data File: >C6705::D3 Dilution Factor: 1.00
Name: U-4846 799.01 DC-I3-40
Misc: 02-04-87MI 25UL(4.29G/10MLS) + 10UL IS/SS IN 5MLS OI

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870204 19:06

	Compound		R.T.	Scan#	Area	Conc	Units	Q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.64	251	30556	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.23	163	12126	10.20 UG/L	100
7)	ACETONE		43	9.20	188	14156	24.95 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	325	77032	49.97 UG/L	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	523	153443	50.00 UG/L	100
17)	2-BUTANONE		72	14.67	329	4377	25.16 UG/L	100
18)	1,1,1-TRICHLOROETHANE		97	15.87	360	5144	2.54 UG/L	98
31)	*CHLOROBENZENE-D5	(IS)	117	27.05	648	122496	50.00 UG/L	100
34)	TETRACHLOROETHENE		164	24.72	588	2566	2.05 UG/L	82
36)	TOLUENE-D8	(SURR)	98	25.88	618	169182	51.74 UG/L	93
37)	TOLUENE		92	26.08	623	2655	1.03 UG/L	83
38)	CHLOROBENZENE		112	27.17	651	634081	194.10 UG/L	99
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.64	766	93598	52.28 UG/L	101
43)	1,3-DICHLOROBENZENE		146	39.17	960	12072	12072.00 NO CAL	B100
43)	1,3-DICHLOROBENZENE		146	39.71	974	7428	7428.00 NO CAL	B100
43)	1,3-DICHLOROBENZENE		146	39.83	977	23495	23495.00 NO CAL	B100
44)	1,2-DICLHLOROBENZENE		146	39.17	960	12072	12072.00 NO CAL	B100
44)	1,2-DICLHLOROBENZENE		146	39.71	974	7428	7428.00 NO CAL	B100
44)	1,2-DICLHLOROBENZENE		146	39.83	977	23495	23495.00 NO CAL	B100
45)	1,4-DICHLOROBENZENE		146	39.17	960	12072	12072.00 NO CAL	B100
45)	1,4-DICHLOROBENZENE		146	39.71	974	7428	7428.00 NO CAL	B100
45)	1,4-DICHLOROBENZENE		146	39.83	977	23495	23495.00 NO CAL	B100

* Compound is ISTD

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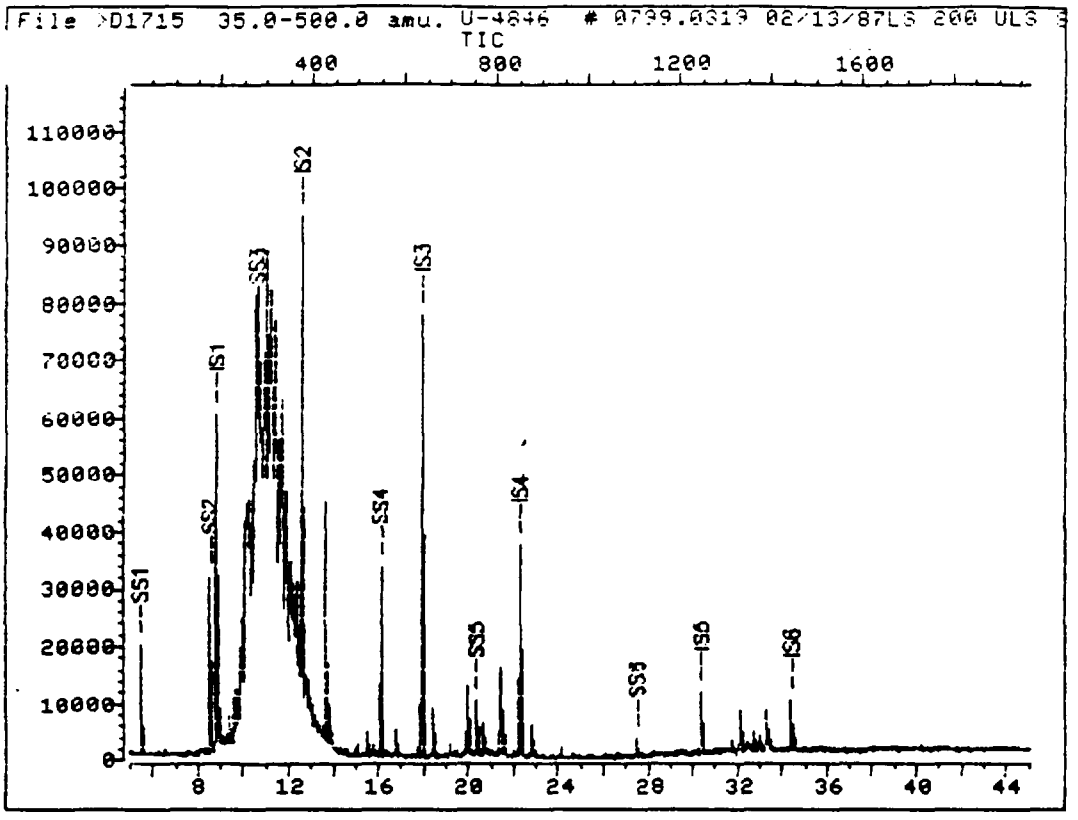
TOTAL ION CHROMATOGRAM



Data File: >D1715::D3
Name: U-4846 # 0799.0319 DC-I3-40
Misc: 02/13/87LS 200 ULS SMPL + 200 ULS MECL2 + 4 UL IS BTL# 7

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870213 19:29

Operator ID: USER6
Quant Time: 870214 02:46
Injected at: 870214 01:59

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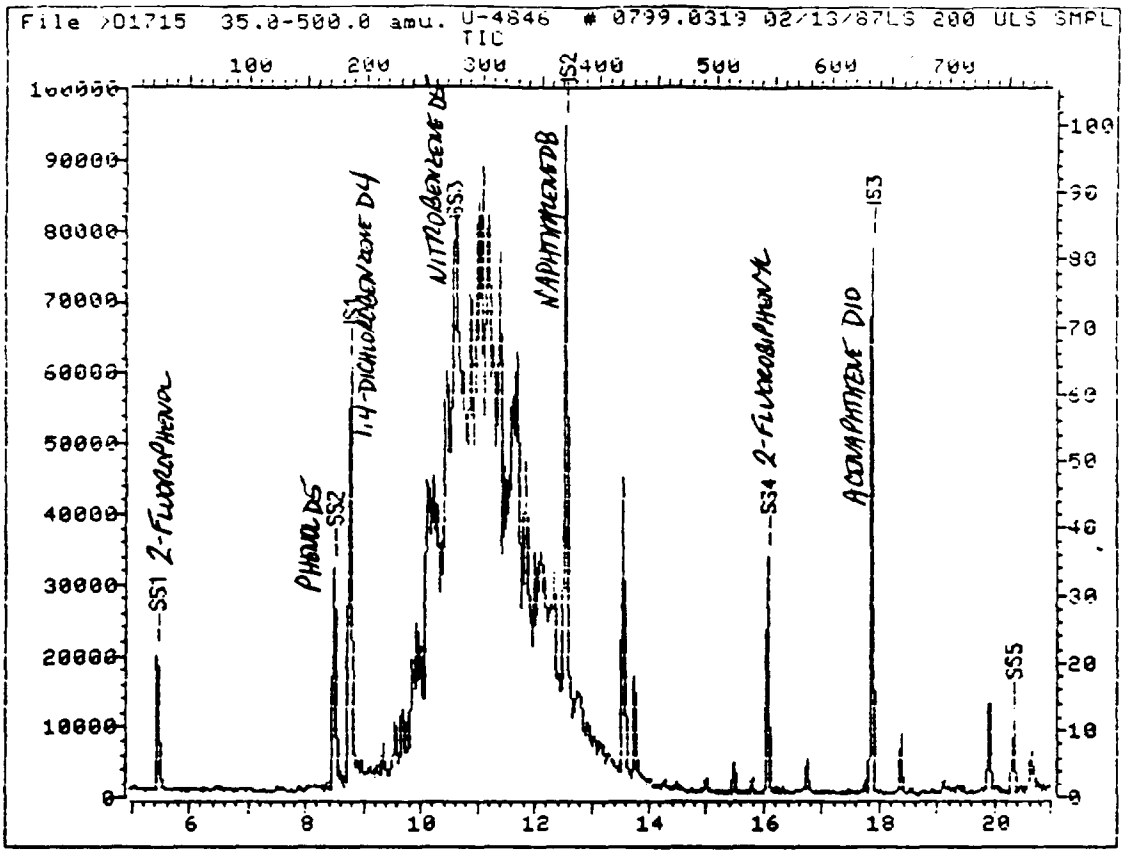
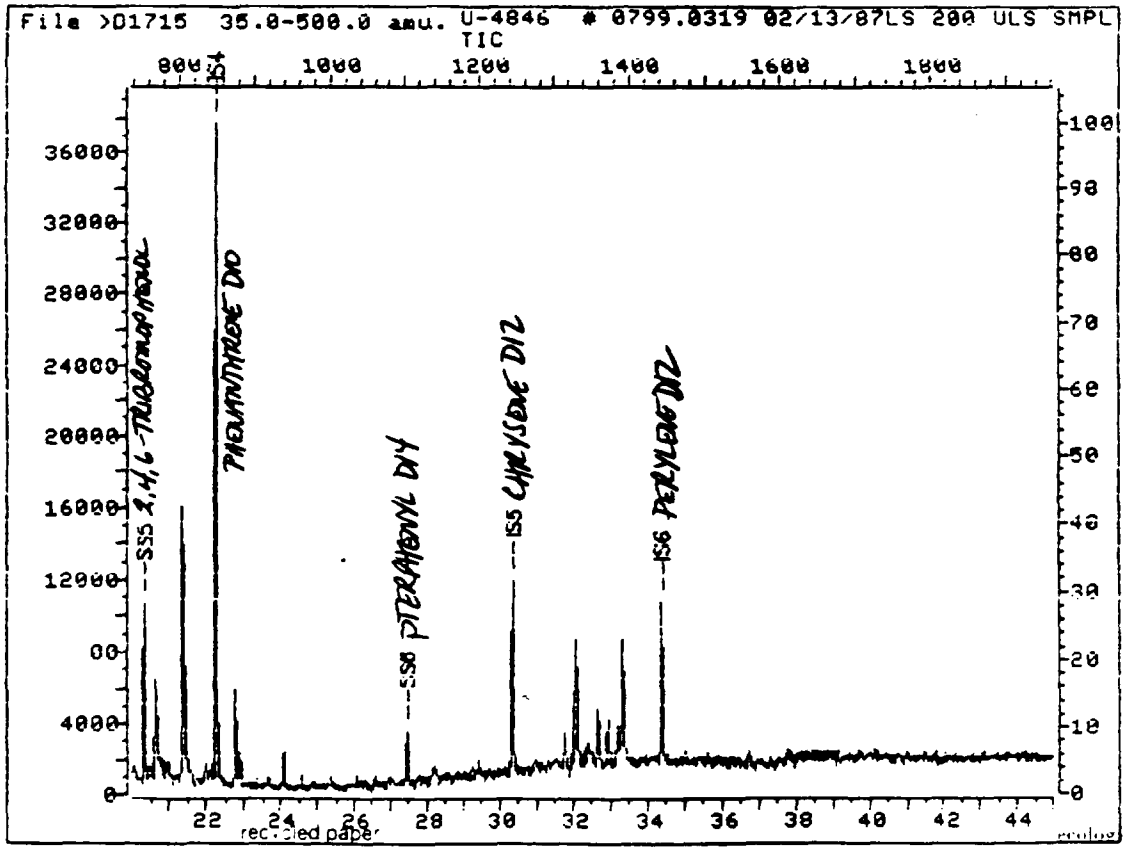
DC-I3-40





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870214 02:46
Output File: ^D1715::Q2 Injected at: 870214 01:59
Data File: >D1715::D3 Dilution Factor: 2.00
Name: U-4846 # 0799.0319 DC-I3-40
Misc: 02/13/87LS 200 ULS SMPL + 200 ULS MECL2 + 4 UL IS BTL# 7

ID File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870213 19:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.77	187	26387	40.00 UG/L	84
2)	PHENOL-D5	(SURR)	99	8.49	173	23531	62.79 UG/L	99
5)	2-FLUOROPHENOL	(SURR)	112	5.43	23	15238	53.83 UG/L	84
9)	~~1,3-DICHLOROBENZENE~~		~~146~~	~~8.81~~	~~189~~	~~4425~~	~~9.04 UG/L~~	98
10)	1,4-DICHLOROBENZENE		146	8.81	189	4425	8.95 UG/L	97
12)	~~1,2-DICHLOROBENZENE~~		~~146~~	~~9.34~~	~~215~~	~~3846~~	~~6.47 UG/L~~	95
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.14~~	~~254~~	~~6214~~	~~21.45 UG/L~~	30
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		70	10.24	259	3051	10.53 UG/L	18
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.44~~	~~269~~	~~4358~~	~~15.04 UG/L~~	~~28~~
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.59~~	~~276~~	~~5176~~	~~17.86 UG/L~~	83
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.89~~	~~291~~	~~3641~~	~~12.57 UG/L~~	48
19)	*NAPHTHALENE-D8	(IS)	136	12.54	372	93860	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.57	275	12823	35.61 UG/L	92
~~21)~~	~~NITROBENZENE~~		~~77~~	~~10.63~~	~~278~~	~~2335~~	~~6.32 UG/L~~	~~63~~
23)	~~2-NITROPHENOL~~		~~139~~	~~11.40~~	~~316~~	~~1714~~	~~7.45 UG/L~~	75
23)	~~2-NITROPHENOL~~		~~139~~	~~11.91~~	~~336~~	~~1456~~	~~6.32 UG/L~~	51
34)	*ACENAPHTHENE-D10	(IS)	162	17.88	634	44294	40.00 UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.07	545	26320	32.41 UG/L	94
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.88~~	~~634~~	~~8499~~	~~14.71 UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.33	754	2722	14.76 UG/L	96
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.88~~	~~634~~	~~5846~~	~~46.58 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.26	849	37312	40.00 UG/L	97
65)	*CHRYSENE-D12	(IS)	240	30.35	1246	11782	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.46	1104	4034	28.09 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.38	1444	9577	40.00 UG/L	100

* Compound is ISTD

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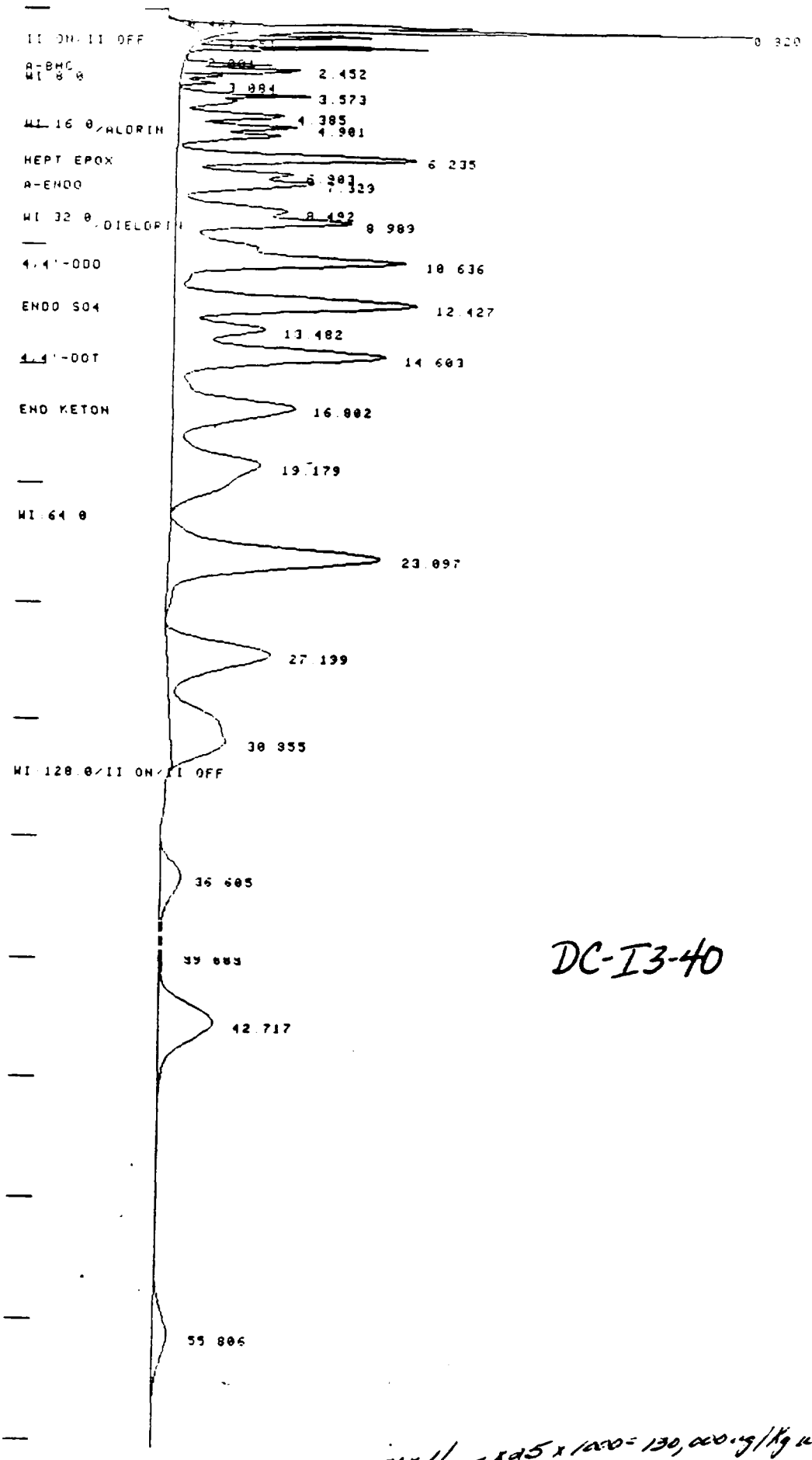

DC-I3-40

240

MDL260 = 95 x 0.0051 x 1/0.15 x 25 x 1000 = 130,000 ug/kg w.t

DC-I3-40

SAMPLE: 0799 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	1.516		163655	BB	4.94
2	~~a-BHC~~	502.4525	2.223	-0.007	78337	VV	5.13
3	~~B-BHC~~	3514.044	2.452	0.082	172821	VV	6.69
4		0.0000	2.804		43401	VV	7.75
5		0.0000	3.084		37215	VV	7.75
6		0.0000	3.573		191274	VV	10.19
7		0.0000	3.810		123461	VV	? 18.38
8		0.0000	4.385		259542	VV	19.63
9	~~HEPTACHLOR~~	1508.114	4.901	-0.149	219215	VV	15.06
10		0.0000	5.236		239429	VV	? 15.88
11	~~HEPT EPOX~~	5326.237	6.235	0.125	750741	VV	23.13
12		0.0000	6.903		~~223010~~	VV	? 19.19
13	~~A-ENDO~~	3476.620	7.329	PCB .241	463205	VV	? 31.94
14	~~4,4'-DDE~~	3228.950	8.492	-0.218	~~397126~~	VV	? 32.00
15	~~DIELDRIN~~	4162.340	8.989	1260 .169	579234	VV	? 29.06
16	~~4,4'-DDD~~	11592.34	10.636	-0.274	1272712	VV	30.31
17	~~ENDO-SO4~~	14425.25	12.427	-0.373	1193814	VV	37.56
18		0.0000	13.482	2A=95	412863	VV	38.19
19	~~4,4'-DDT~~	13005.27	14.603	0.393	1150324	VV	39.94
20	~~END KETON~~	7488.183	16.802	0.432	975267	VV	57.56
21		0.0000	19.179		1013769	VB	94.06
22		0.0000	23.097		1746238	BB	58.50
23	~~DDC~~	9186.081	27.199	-1.211	990785	BV	74.44
24		0.0000	30.855		823979	VB	?138.06
25		0.0000	36.605		272404	BV	95.94
26		0.0000	39.683		33923	VV	?116.56
27		0.0000	42.717		764442	VB	104.25
28		0.0000	55.806		232962	BB	130.31

TOTALS: 77415.90 -1.272 14855148

DETECTED PKS: 36 REJECTED PKS: 8

DIVISOR: 0.15000 MULTIPLIER: 25000.0000

NOISE: 22.9 OFFSET: -7

RACK: 3 VIAL: 2 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A 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

POST RUN:
SAVE FILE: RAW SCA095

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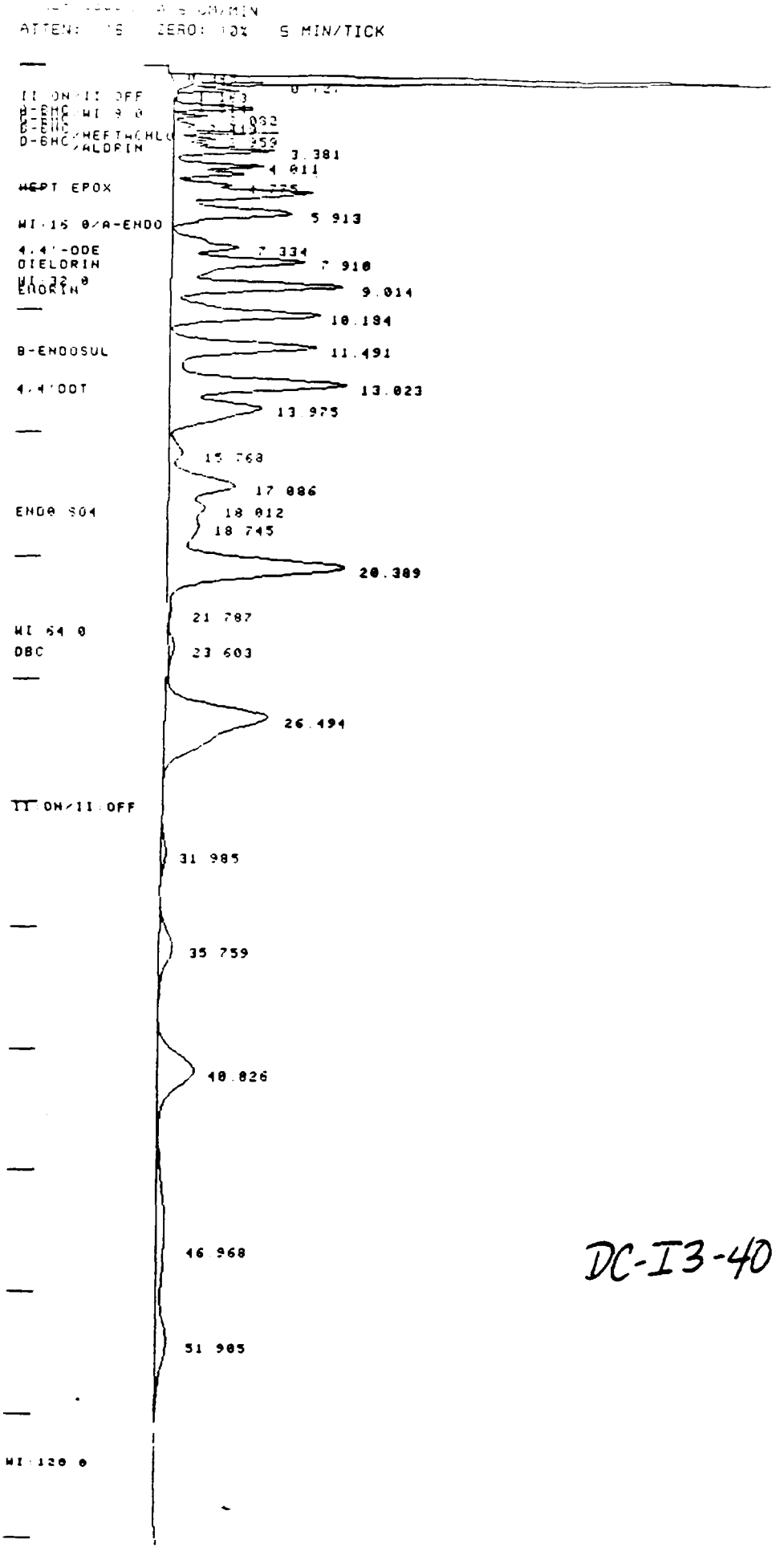

DC-I3-40

recycled paper

ecology and environment

CHANNEL: 1B - 1 TITLE: RUN# 11 23:31 10 FEB 87

DC-I3-40

SAMPLE: 0799 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/Kg	TIME (MIN)	TIME OFFSET	AREA - COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	1.632		135786	VV		3.94
2	~~A-ENC~~	591.3095	1.740	-0.020	144623	VB	?	6.50
3	~~B-ENC~~	238.9370	2.082	-0.138	48687	BV		4.88
4	~~B-ENC~~	554.2757	2.419	-0.111	44953	VV	?	11.06
5	~~HEPTACHLO~~	1093.567	2.699	-0.041	215639	VV		6.31
6	~~A-CHL~~	502.9713	2.959	0.009	85053	VV		8.44
7		0.0000	3.166		64341	VV	?	9.44
8	~~ALDRIN~~	1549.300	3.381	0.071	328122	VV		12.31
9		0.0000	4.011		260971	VV		10.88
10		0.0000	4.296		218519	VV		12.56
11		0.0000	4.775		161205	VV	?	12.00
12	~~HEPT EPOX~~	3945.142	5.060	0.100	721091	VV		21.38
13		0.0000	5.913		748368	VV	?	25.69
14	~~A-ENDO~~	440.6982	6.268	0.028	76502	VV	?	16.81
15	~~4,4' DDE~~	2801.917	7.334	0.114	476865	VV	?	30.50
16	~~DIELDRIN~~	5053.515	7.910	0.280	957409	VV		24.44
17	~~ENDRIN~~	8238.676	9.014	-0.266	1054026	VV		23.38
18		0.0000	10.184		1045169	VV		24.56
19	~~B-ENDOSUL~~	6712.400	11.491	0.271	1114425	VV		28.00
20	~~4,4' DDT~~	12993.55	13.023	-0.257	1498067	VV		31.25
21	~~END. ALD.~~	8192.827	13.975	-0.745	1055278	VV		47.06
22		0.0000	15.768		151323	VV		41.13
23		0.0000	17.086		784107	VV		46.06
24	~~ENDO SO4~~	5535.624	18.012	0.212	390413	VV	?	40.00
25		0.0000	18.745		405091	VV	?	88.81
26		0.0000	* 20.389 → PCB1260		2300977	VV		45.88
27	~~DDD~~	458.7518	23.589	-0.061	79004	T		54.94
28	~~METHOXYCLR~~	38160.51	26.494	1.034	2193133	VB		75.25
29		0.0000	31.985		94898	BB		69.00
30		0.0000	35.759		306048	BB		83.69
31		0.0000	40.826		863647	BV		90.38
32		0.0000	46.968		479901	VV	?	
33		0.0000	51.905		340408	VB	?	135.25
TOTALS:		97063.98		0.480	18844052			

DETECTED PKS: 45 REJECTED PKS: 12

DIVISOR: 0.15000 MULTIPLIER: 25000.0000

NOISE: 57.1 OFFSET: -15

RACK: 1 VIAL: 11 INJ: 1

NOTES:
NOTEBOOK:259-107 ANALYST: R. SAMSON
SECURE AREA: D JOB# U-
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
AUTOSAMPLER
CONFIRMATION RUNS

POST RUN:
SAVE FILE: RAW CONF991

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SAMPLE NUMBER DC-I5-41

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DC-42-T1

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872

Sample ID No: 0800
QC Report No:

Sample Matrix: Soil
Contract No. EL-3140

Data Release Authorized By: C Slotowicz
Date Sample Received: 1-31-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-5-87

Conc/Dil Factor: 4 pH 8.1

Percent Moisture: (Not Decanted) 21

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	4000U
74-83-9	Bromomethane	4000U
75-01-4	Vinyl Chloride	4000U
75-00-3	Chloroethane	4000U
75-09-2	Methylene Chloride	4100 B
67-64-1	Acetone	8300 B
75-15-0	Carbon Disulfide	2000U
75-35-4	1, 1-Dichloroethene	2000U
75-34-3	1, 1-Dichloroethane	2000U
156-60-5	Trans-1, 2-Dichloroethene	2000U
67-66-3	Chloroform	2000U
107-06-2	1, 2-Dichloroethane	2000U
78-93-3	2-Butanone	11000 B
71-55-6	1, 1, 1-Trichloroethane	2000U
56-23-5	Carbon Tetrachloride	2000U
108-05-4	Vinyl Acetate	4000U
75-27-4	Bromodichloromethane	2000U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	2000U
10061-02-6	Trans-1, 3-Dichloropropene	2000U
79-01-6	Trichloroethene	3000
124-48-1	Dibromochloromethane	2000U
79-00-5	1, 1, 2-Trichloroethane	2000U
71-43-2	Benzene	19000
10061-01-5	cis-1, 3-Dichloropropene	2000U
110-75-8	2-Chloroethylvinylether	4000U
75-25-2	Bromoform	2000U
108-10-1	4-Methyl-2-Pentanone	4000U
591-78-6	2-Hexanone	4000U
127-18-4	Tetrachloroethene	2100
79-34-5	1, 1, 2, 2-Tetrachloroethane	2000U
108-88-3	Toluene	19000 B
108-90-7	Chlorobenzene	36000
100-41-4	Ethylbenzene	7700
100-42-5	Styrene	2000U
	Total Xylenes	8700

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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I5-41

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared: 2-2-87

Date Analyzed: 2-23-87

Conc/Dil Factor: 1000

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED 'AS RECEIVED'

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	160,000 U
111-44-4	bis(-2-Chloroethyl)Ether	160,000 U
95-57-8	2-Chlorophenol	160,000 U
541-73-1	1 3-Dichlorobenzene	160,000 U
106-46-7	1 4-Dichlorobenzene	440,000
100-51-6	Benzyl Alcohol	160,000 U
95-50-1	1 2-Dichlorobenzene	110,000 J
95-48-7	2-Methylphenol	160,000 U
39638-32-9	bis(2-chloroisopropyl)Ether	160,000 U
106-44-5	4-Methylphenol	160,000 U
621-64-7	N-Nitroso-Di-n-Propylamine	160,000 U
67-72-1	Hexachloroethane	160,000 U
98-95-3	Nitrobenzene	160,000 U
78-59-1	Isophorone	160,000 U
88-75-5	2-Nitrophenol	160,000 U
105-67-9	2. 4-Dimethylphenol	160,000 U
65-85-0	Benzoic Acid	800000 U
111-91-1	bis(-2-Chloroethoxy)Methane	160,000 U
120-83-2	2. 4-Dichlorophenol	160,000 U
120-82-1	1. 2. 4-Trichlorobenzene	6,500,000 E
91-20-3	Naphthalene	50,000 J
106-47-8	4-Chloroaniline	34,000 J
87-68-3	Hexachlorobutadiene	160,000 U
59-50-7	4-Chloro-3-Methylphenol	160,000 U
91-57-6	2-Methylnaphthalene	46,000 J
77-47-4	Hexachlorocyclopentadiene	160,000 U
88-06-2	2. 4. 6-Trichlorophenol	160,000 U
95-95-4	2. 4. 5-Trichlorophenol	800,000 U
91-58-7	2-Chloronaphthalene	160,000 U
88-74-4	2-Nitroaniline	800,000 U
131-11-3	Dimethyl Phthalate	160,000 U
208-96-8	Acenaphthylene	160,000 U
-09-2	3-Nitroaniline	800,000 U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	160,000 U
51-28-5	2. 4-Dinitrophenol	800,000 U
100-02-7	4-Nitrophenol	800,000 U
132-64-9	Dibenzofuran	160,000 U
121-14-2	2 4-Dinitrotoluene	160,000 U
606-20-2	2. 6-Dinitrotoluene	160,000 U
84-66-2	Diethylphthalate	160,000 U
7005-72-3	4-Chlorophenyl-phenylether	160,000 U
86-73-7	Fluorene	160,000 U
100-01-6	4-Nitroaniline	800,000 U
534-52-1	4. 6-Dinitro-2-Methylphenol	800,000 U
86-30-6	N-Nitrosodiphenylamine (1)	79,000 J
101-55-3	4-Bromophenyl-phenylether	160,000 U
118-74-1	Hexachlorobenzene	1,000,000
87-86-5	Pentachlorophenol	800,000 U
85-01-8	Phenanthrene	38000 J
120-12-7	Anthracene	160,000
84-74-2	Di-n-Butylphthalate	160,000
206-44-0	Fluoranthene	160,000
129-00-0	Pyrene	19,000 J
85-68-7	Butylbenzylphthalate	110,000 J
91-94-1	3. 3'-Dichlorobenzidine	330,000 U
56-55-3	Benzo(a)Anthracene	160,000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	160,000 U
218-01-9	Chrysene	160,000 U
117-84-0	Di-n-Octyl Phthalate	160,000 U
205-99-2	Benzo(b)Fluoranthene	160,000 U
207-08-9	Benzo(k)Fluoranthene	160,000 U
50-32-8	Benzo(a)Pyrene	160,000 U
193-39-5	Indeno(1 2. 3-cd)Pyrene	160,000 U
53-70-3	Dibenz(a h)Anthracene	160,000 U
191-24-2	Benzo(g h i)Perylene	160,000 U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I5-41

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-2-87

Date Analyzed 2-12-87

Conc/Dil Factor 200

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)	
319-84-6	Alpha-BHC	16000	U
319-85-7	Beta-BHC	16000	U
319-86-8	Delta-BHC	16000	U
58-89-9	Gamma-BHC (Lindane)	16000	U
76-44-8	Heptachlor	16000	U
309-00-2	Aldrin	16000	U
1024-57-3	Heptachlor Epoxide	16000	U
959-98-8	Endosulfan I	16000	U
60-57-1	Dieldrin	32000	U
72-55-9	4,4'-DDE	32000	U
72-20-8	Endrin	32000	U
33213-65-9	Endosulfan II	32000	U
72-54-8	4,4'-DDD	32000	U
1031-07-8	Endosulfan Sulfate	32000	U
50-29-3	4,4'-DDT	32000	U
72-43-5	Methoxychlor	160000	U
53494-70-5	Endrin Ketone	32000	U
57-74-9	Chlordane	160000	U
8001-35-2	Toxaphene	320000	U
12674-11-2	Aroclor-1016	160000	U
11104-28-2	Aroclor-1221	160000	U
11141-16-5	Aroclor-1232	160000	U
53469-21-9	Aroclor-1242	160000	U
12672-29-6	Aroclor-1248	160000	U
11097-69-1	Aroclor-1254	320000	U
11096-82-5	Aroclor-1260	270,000	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 3 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

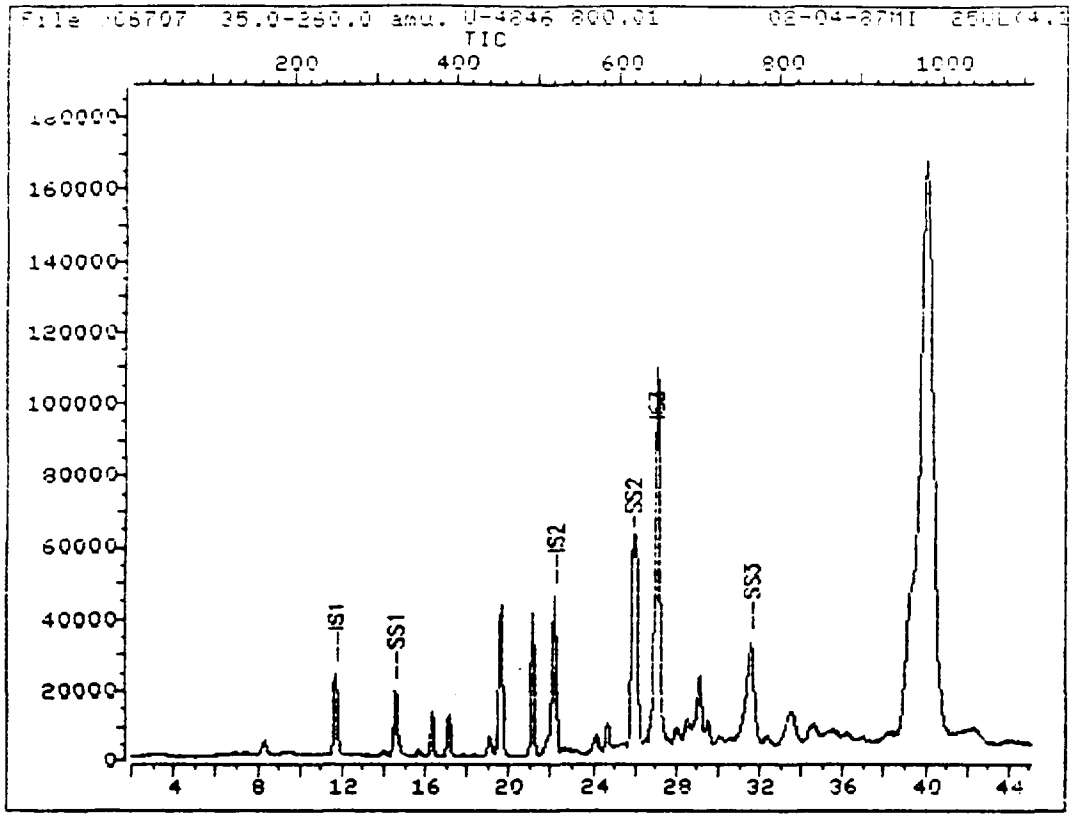
Sample Number DC-I5-41

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.	109660	Pentane	VOA	15.7	2400 J
2.	110827	Cyclohexane	VOA	16.3	13000 J
3.		Hexene isomer	VOA	17.1	5100 BJ
4.		Hexane isomer	VOA	21.1	17000 BJ
5.		Dichlorobenzene isomer	VOA	40.0	300,000 J
6.					
7.	612226	2-Ethylnitrobenzene	BNA	13.54	1,800,000 J
8.		Unknown Aromatic		13.68	1,200,000 J
9.		Tetrachlorobenzene Isomer		15.38	17,000,000 J
10.		Tetrachlorobenzene Isomer		16.21	15,000,000 J
11.	608935	Pentachlorobenzene		18.50	5900,000 J
12.		Unknown		19.17	1,300,000 J
13.		Unknown Hydrocarbon		22.66	260,000 J
14.		Unknown Hydrocarbon		23.98	410,000 J
15.		Unknown Hydrocarbon		25.25	560,000 J
16.		Unknown Hydrocarbon		27.63	1,900,000 J
17.		Unknown Hydrocarbon		28.04	360,000 J
18.		Unknown Hydrocarbon		28.74	1,100,000 J
19.		Unknown Hydrocarbon		29.82	1,200,000 J
20.		Unknown Hydrocarbon		30.84	1,000,000 J
21.		Unknown Hydrocarbon		31.84	810,000 J
22.		Unknown Hydrocarbon		32.80	770,000 J
23.		Unknown Hydrocarbon		33.72	680,000 J
24		Unknown Hydrocarbon		34.61	540,000 J
25.		Unknown Hydrocarbon		35.49	500,000 J
26.		Unknown Hydrocarbon		36.33	420,000 J
27.		Unknown Hydrocarbon		37.14	360,000 J
28.					
29.					
30					

TOTAL ION CHROMATOGRAM



Data File: >C6707::D3
Name: U-4846 800.01 DC-IS-41
Misc: 02-04-87MI 25UL(4.16G/10MLS) + 10UL IS/SS IN 5MLS DI

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870204 19:06

Operator ID: USER8
Quant Time: 870205 01:37
Injected at: 870205 00:51

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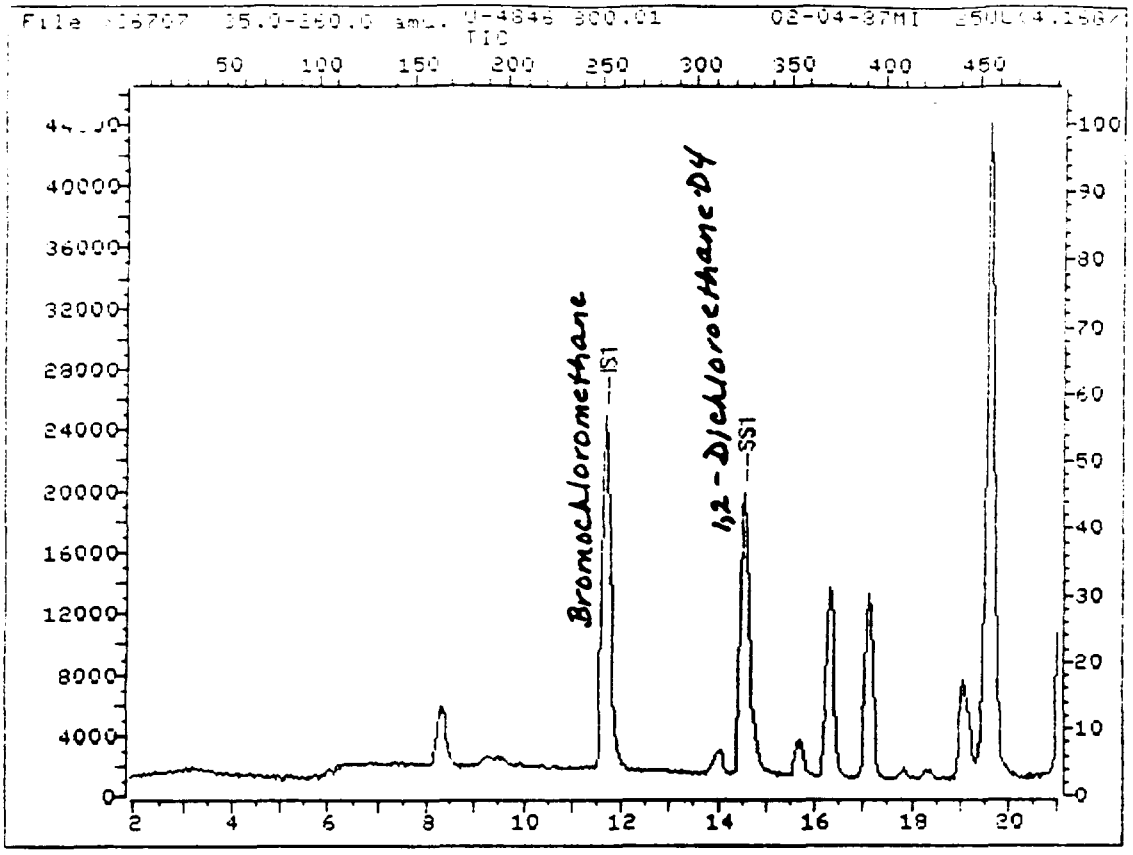
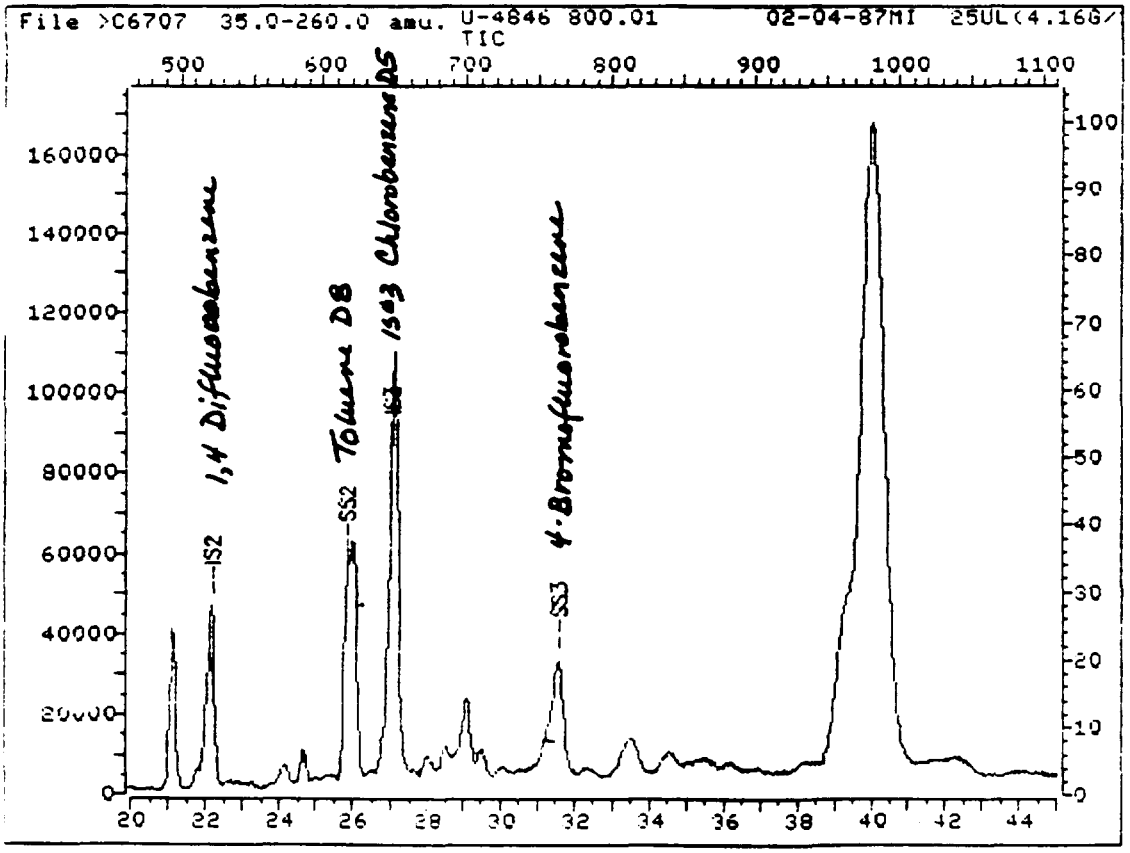
DC-IS-41





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870205 01:37
Out t File: ^C6707::Q2 Injected at: 870205 00:51
Data File: >C6707::D3 Dilution Factor: 1.00
Name: U-4846 800.01 DC-IS-41
Misc: 02-04-87MI 25UL(4.16G/10MLS) + 10UL IS/SS IN 5MLS DI

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870204 19:06

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.69	252	32911	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.31	165	10936	8.54 UG/L	100
7)	ACETONE		43	9.24	189	6630	10.85 UG/L	100
7)	ACETONE		43	9.51	196	3822	6.25 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.56	326	81284	48.96 UG/L	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.16	522	167464	50.00 UG/L	100
17)	2-BUTANONE		72	14.75	331	4184	22.04 UG/L	100
24)	TRICHLOROETHENE		130	19.02	441	9447	6.34 UG/L	84
27)	BENZENE		78	19.60	456	175585	40.22 UG/L	100
28)	[illegible]		75	19.60	456	3665	2.06 UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.02	647	139991	50.00 UG/L	100
33)	2-HEXANONE		43	24.10	574	14165	11.20 UG/L	100
33)	2-HEXANONE		43	24.65	586	13769	10.97 UG/L	100
34)	TETRACHLOROETHENE		164	24.65	586	6183	4.33 UG/L	95
36)	TOLUENE-D8	(SURR)	98	25.85	617	183758	49.17 UG/L	95
37)	TOLUENE		92	26.04	622	114194	38.87 UG/L	95
38)	CHLOROBENZENE		112	27.13	650	280110	75.03 UG/L	97
39)	ETHYLBENZENE		91	29.12	701	101913	15.98 UG/L	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.57	764	96362	47.10 UG/L	100
42)	TOTAL XYLENES		91	33.55	815	51378	9.52 UG/L	100
42)	TOTAL XYLENES		91	34.56	841	46792	8.67 UG/L	100
42)	TOTAL XYLENES		91	35.53	866	3098	.57 UG/L	100
42)	TOTAL XYLENES		91	36.23	884	5734	1.06 UG/L	100
43)	1,3-DICHLOROBENZENE		146	38.25	936	7439	7439.00 NO CAL	IB100
43)	1,3-DICHLOROBENZENE		146	39.29	963	204168	204168.0 NO CAL	IB100
43)	1,3-DICHLOROBENZENE		146	40.03	982	1432598	1432598. NO CAL	IB100
44)	1,2-DICLHLOROBENZENE		146	38.25	936	7439	7439.00 NO CAL	IB100
44)	1,2-DICLHLOROBENZENE		146	39.29	963	204168	204168.0 NO CAL	IB100
44)	1,2-DICLHLOROBENZENE		146	40.03	982	1432598	1432598. NO CAL	IB100
45)	1,4-DICHLOROBENZENE		146	38.25	936	7439	7439.00 NO CAL	IB100
45)	1,4-DICHLOROBENZENE		146	39.29	963	204168	204168.0 NO CAL	IB100
45)	1,4-DICHLOROBENZENE		146	40.03	982	1432598	1432598. NO CAL	IB100

* Compound is ISTD

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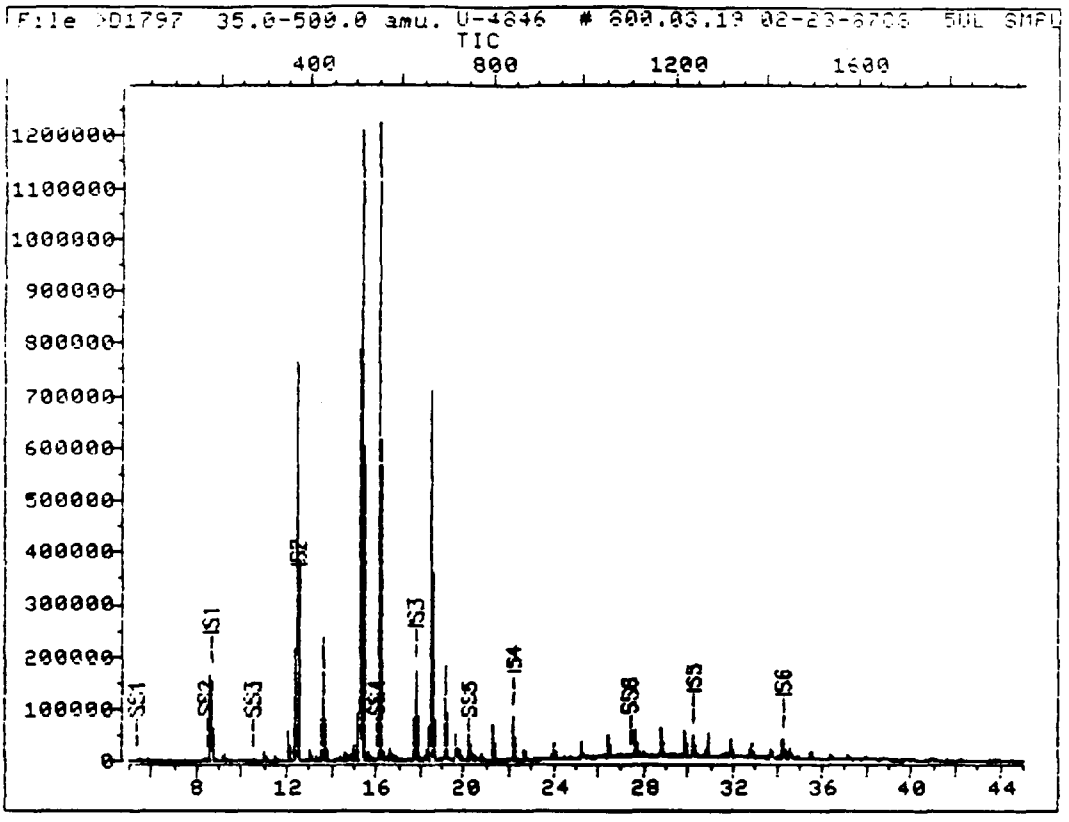
TOTAL ION CHROMATOGRAM



DC-I5-41

Data File: >D1797::D3
Name: U-4846 # 800.03.19
Misc: 02-23-87CS 5UL SMPL + 495UL MECL2 + 5UL IS BTL# 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

Operator ID: USER6
Quant Time: 870223 17:58
Injected at: 870223 17:11

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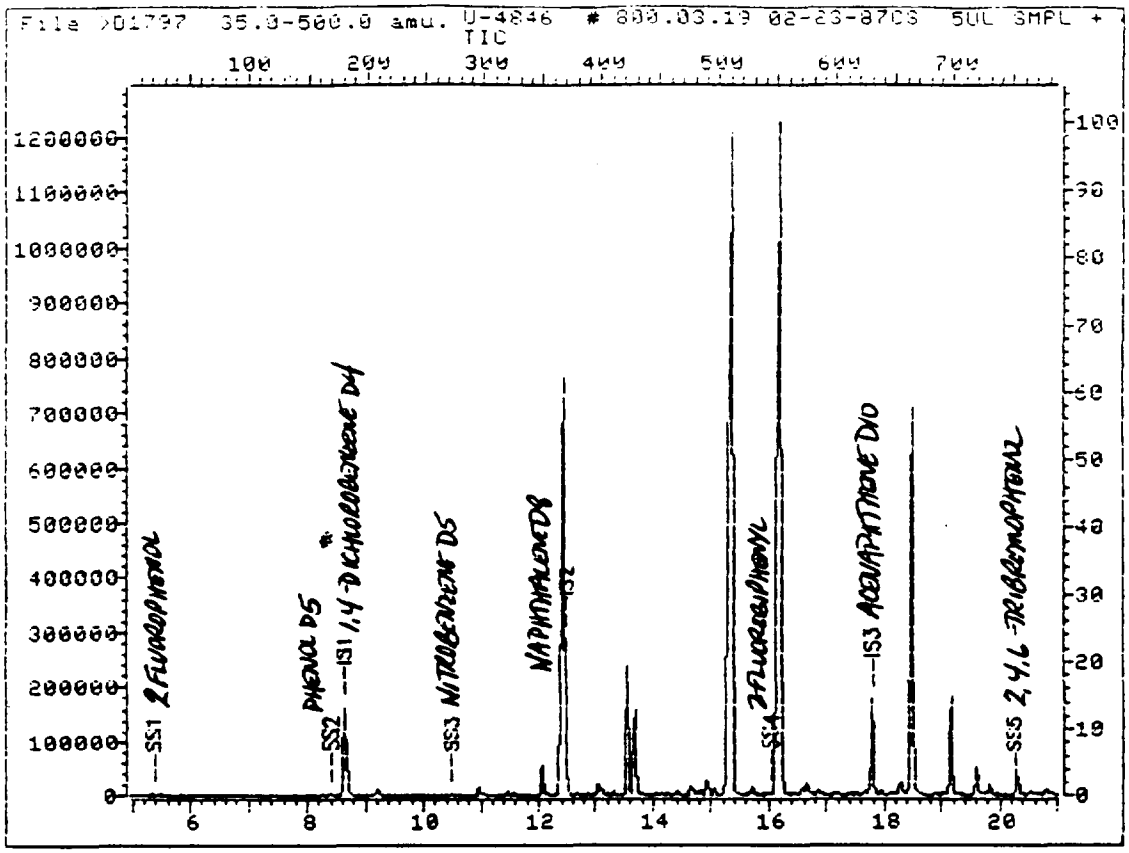
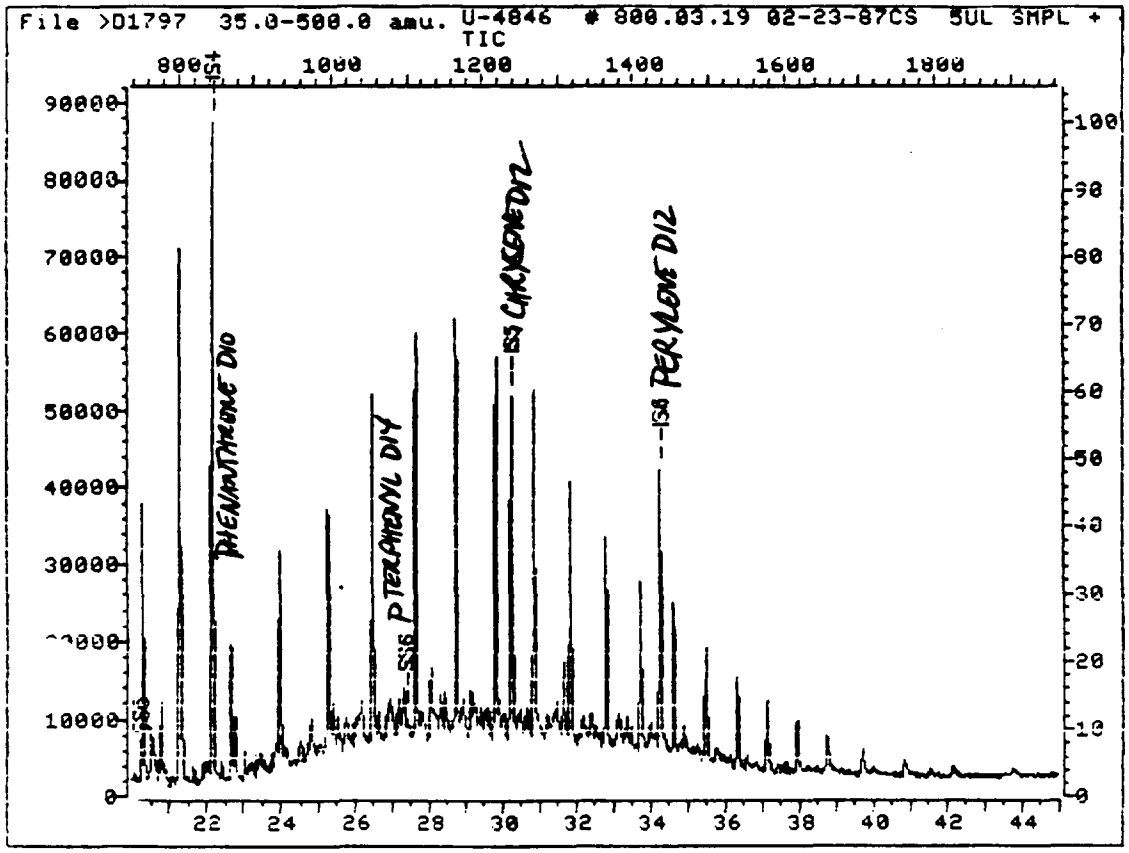
DC-I5-41





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QUANT REPORT

rator ID: USER6 Quant Rev: 4 Quant Time: 870223 17:58
Output File: ^D1797::Q2 Injected at: 870223 17:11
Data File: >D1797::D3 Dilution Factor: 100.00
Name: U-4846 # 800.03.19 DC-I5-41
Misc: 02-23-87CS 5UL SMPL + 495UL MECL2 + 5UL IS BIL# 3

ID File: BNAUR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.63	180	63582	40.00 UG/L	84
2)	PHENOL-D5	(SURR)	99	8.38	168	2980	117.68 UG/L	71
5)	2-FLUOROPHENOL	(SURR)	112	5.35	19	1917	120.19 UG/L	66
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~8.69~~	~~183~~	~~33648~~	~~1393.63 UG/L~~	~~97~~
10)	1,4-DICHLOROBENZENE		146	8.69	183	33648	1424.28 UG/L	98
12)	1,2-DICHLOROBENZENE		146	9.22	209	7863	359.72 UG/L	96
19)	*NAPHTHALENE-D8	(IS)	136	12.48	369	242043	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.48	271	1788	64.86 UG/L	88
~~24)~~	~~2,4-DIMETHYLPHENOL~~		~~122~~	~~12.44~~	~~362~~	~~2442~~	~~141.33 UG/L~~	~~59~~
~~26)~~	~~BIS(2-CHLOROETHOXY)METHANE~~		~~93~~	~~12.07~~	~~349~~	~~1749~~	~~68.86 UG/L~~	~~68~~
28)	1,2,4-TRICHLOROBENZENE		180	12.44	367	430491	21286.43 UG/L	100
~~28)~~	~~1,2,4-TRICHLOROBENZENE~~		~~180~~	~~12.50~~	~~370~~	~~2556~~	~~126.39 UG/L~~	100
29)	NAPHTHALENE		128	12.52	371	9726	162.48 UG/L	100
30)	4-CHLOROANILINE		127	13.05	397	2246	110.95 UG/L	94
33)	2-METHYLNAPHTHALENE		142	14.64	475	5297	150.80 UG/L	96
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~14.95~~	~~488~~	~~3308~~	~~94.51 UG/L~~	~~84~~
34)	*ACENAPHTHENE-D10	(IS)	162	17.78	629	91108	40.00 UG/L	94
38)	2-FLUOROBIPHENYL	(SURR)	172	16.01	542	3378	98.59 UG/L	95
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.78~~	~~629~~	~~13096~~	~~604.83 UG/L~~	100
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~17.86~~	~~637~~	~~3762~~	~~100.29 UG/L~~	100
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~18.08~~	~~644~~	~~1717~~	~~61.22 UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.23	749	170	27.14 UG/L	91
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.78~~	~~629~~	~~12428~~	~~2302.49 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.17	844	78403	40.00 UG/L	85
~~57)~~	~~N-NITROSODIPHENYLAMINE~~		~~168~~	~~19.60~~	~~718~~	~~27050~~	~~2030.67 UG/L~~	67
57)	N-NITROSODIPHENYLAMINE		169	20.07	741	2371	256.86 UG/L	78
59)	HEXACHLOROBENZENE		284	21.29	801	25130	3319.45 UG/L	93
61)	PHENANTHRENE		178	22.23	847	2433	122.54 UG/L	90
~~62)~~	~~ANTHRACENE~~		~~178~~	~~22.23~~	~~847~~	~~2433~~	~~123.92 UG/L~~	90
65)	*CHRYSENE-D12	(IS)	240	30.23	1239	47137	40.00 UG/L	100
67)	PYRENE		202	26.45	1054	966	61.49 UG/L	52
68)	TERPHENYL-D14	(SURR)	244	27.35	1098	756	75.63 UG/L	100
69)	BUTYLBENZYLPHTHALATE		149	29.25	1191	2149	348.63 UG/L	95
74)	*PERYLENE-D12	(IS)	264	34.25	1436	47413	40.00 UG/L	100

* Compound is ISTD

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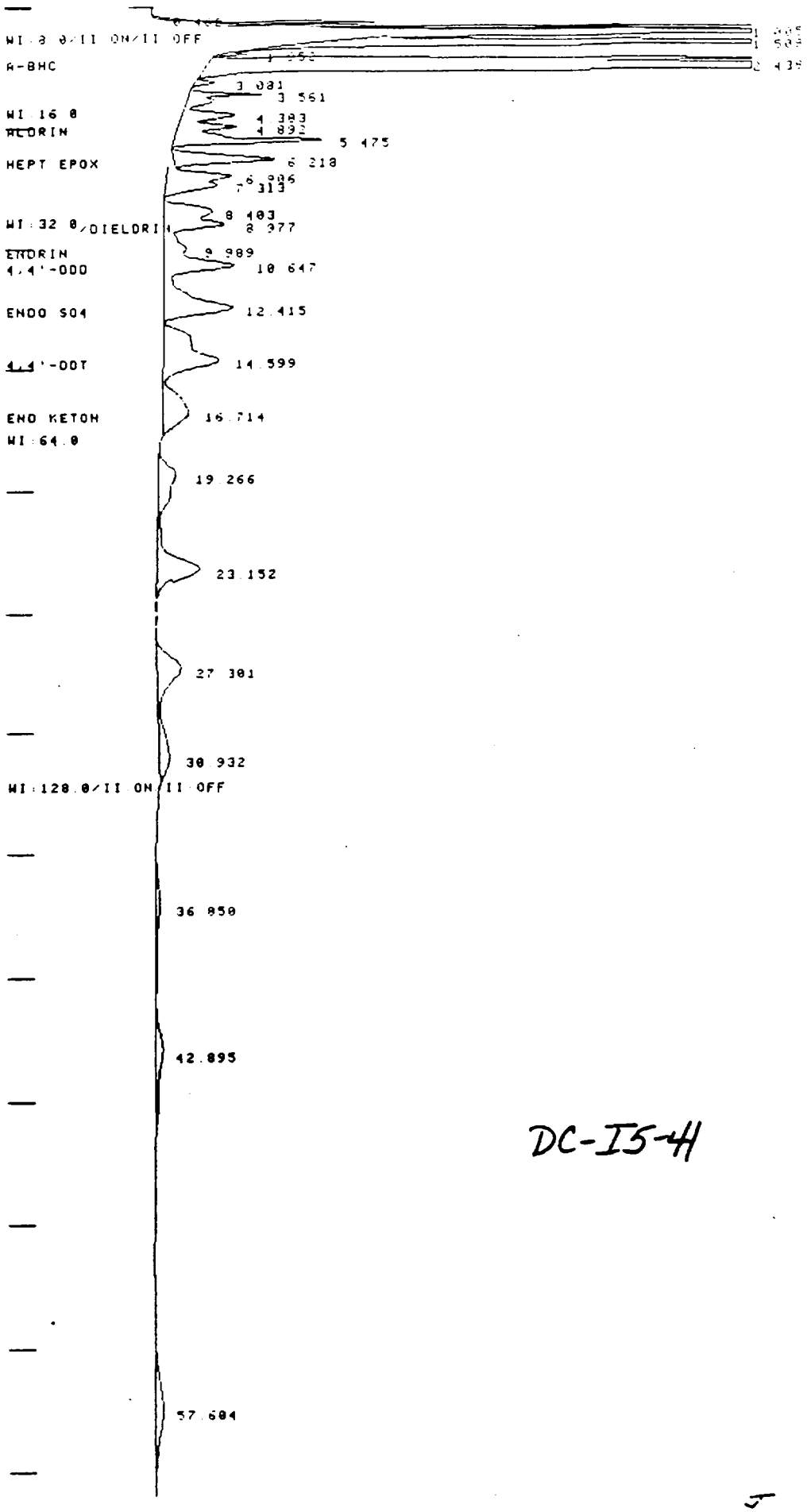
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-I5-H

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PCB1260 = 25 x 0.0051 x 1/0.5 x 200 x 1000 = 255,000 ng/kg wet

CHANNEL: 1A - 1 TITLE: RUN# 33 17:35 12 FEB 87

DC-I5-4I

SAMPLE: 0800 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/kg WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.509		15284950	VV	7.06
2	~~ALPHA~~	58452.91	2.228	-0.002	1139169	VV	6.25
3	~~G-BHC~~	1364614.	2.438	0.068	8389961	VV	6.88
4		0.0000	3.081		21708	T	7.56
5		0.0000	3.561		84847	T	9.19
6		0.0000	3.798		58300	T	? 17.25
7		0.0000	4.374		134005	T	20.25
8	~~HEPTACHLOR~~	5645.850	4.892	-0.158	102583	T	12.75
9		0.0000	5.475		309548	T	12.00
10	~~HEPT EPOX~~	16091.37	6.218	0.108	375960	T	22.25
11		0.0000	6.906		162256	VV	? 17.56
12	~~G-ENDO~~	8851.752	7.313	-0.257	144237	VV	? 29.75
13	~~4,4'-DDE~~	11543.12	8.403	0.307	177480	VV	? 30.63
14	~~DIELDRIN~~	10385.69	8.977	0.157	180660	VV	? 29.94
15	~~G-ENDO~~	6000.792	9.989	-0.031	97880	VV	? 63.75
16	~~4,4'-DDD~~	18684.42	10.647	-0.263	256418	VV	27.88
17	~~ENDO SO4~~	37468.28	12.415	0.386	387603	VV	37.94
18	~~4,4'-DDT~~	40237.43	14.599	0.389	444878	VV	48.63
19	~~END HCTON~~	13541.31	16.714	0.344	220454	VB	? 77.69
20		0.0000	19.266		184294	BV	95.94
21		0.0000	23.152		358452	VB	53.94
22	~~DDC~~	16738.05	27.301	-1.109	225665	BV	76.56
23		0.0000	30.932		129634	VB	?126.81
24		0.0000	36.850		71682	BV	109.31
25		0.0000	42.895		129564	VB	107.44
26		0.0000	57.604		186562	BB	171.44

PCB 1260 25 ppb

TOTALS:	1608255.	-1.446	29137758

DETECTED PKS: 33 REJECTED PKS: 7

DIVISOR: 0.15000 MULTIPLIER: 2000C0.000

NOISE: 22.9 OFFSET: -16

RACK: 3 VIAL: 3 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A 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

POST RUN:
SAVE FILE: RAW SCA096

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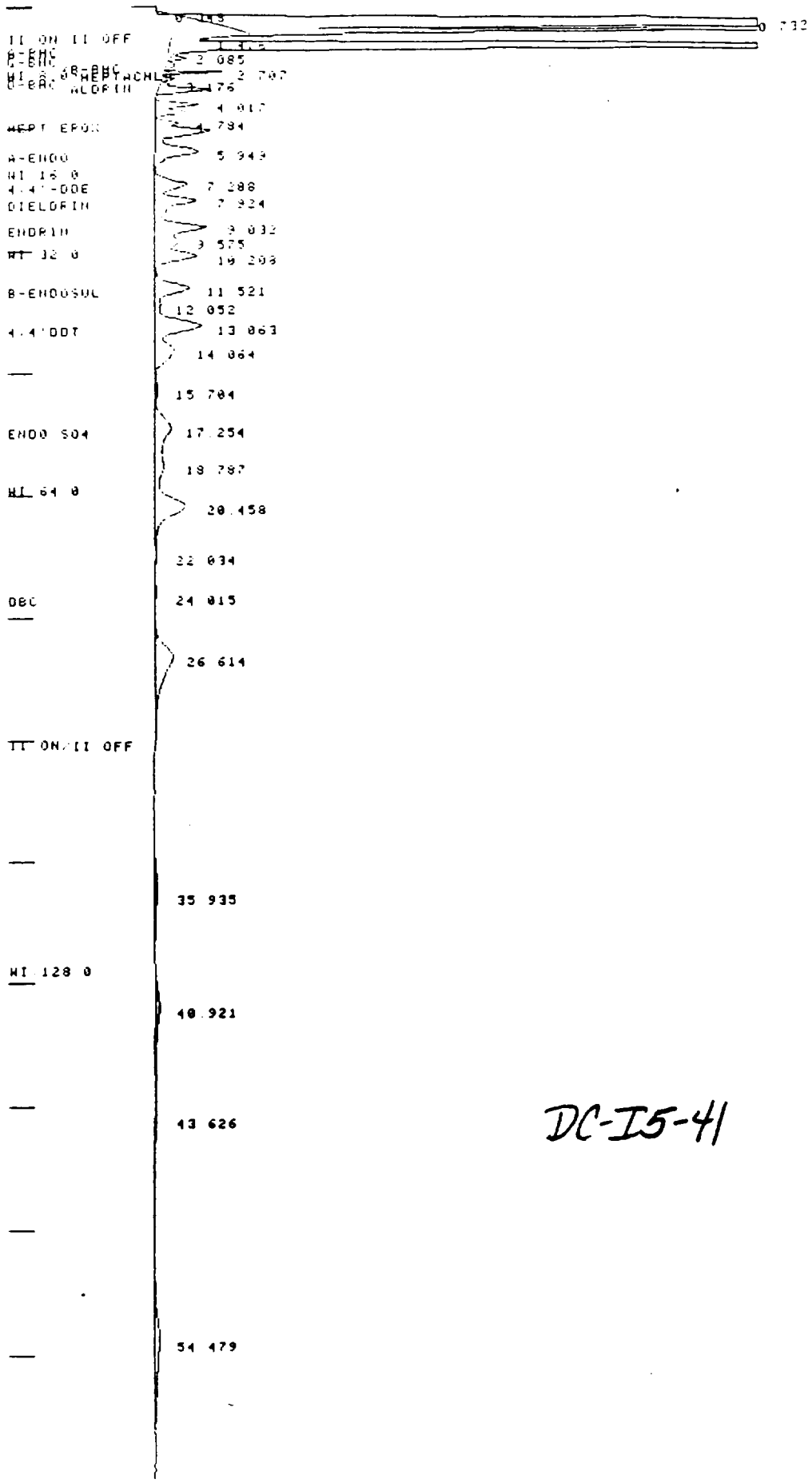
CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



DC-I5-41

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RECALCULATE ON FILE: CONF993

CHANNEL: 'B - 1 TITLE: RUN# 13 1:41 14 FEB 87

DC-IS-41

SAMPLE: 0800 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/ml	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W 1/2 (SEC)
1		0.0000	1.476		2382557	BV		3.38
2	~~a-BHC~~	0.4370	1.641	-0.119	17815077	VV		5.13
3		0.0000	2.085		21673	T		4.63
4	~~g-BHC~~	0.0006	2.349	0.129	21350	T		3.25
5	~~HEPTACHLO~~	0.0026	2.704	-0.036	83937	T		5.75
6	~~D-BHC~~	0.0008	2.962	0.012	21977	BV		5.50
7	~~A-BHT~~	0.0043	3.381	0.071	152367	VB		12.25
8		0.0000	4.017		119875	BV		12.69
9		0.0000	4.306		90515	VV		11.81
10		0.0000	4.784		62728	VV	?	11.00
11	~~HEPT EPOX~~	0.0086	5.078	0.118	262170	VV		19.88
12		0.0000	5.949		267004	VV	?	24.25
13	~~A-END~~	0.0010	6.226	-0.014	30065	VB	?	24.63
14	~~4 4' DDE~~	0.0075	7.288	0.068	212433	BV		25.38
15	~~DIELDRIN~~	0.0088	7.924	0.294	278135	VV		21.81
16	~~ENDRIN~~	0.0151	9.032	-0.248	321002	VV		24.56
17		0.0000	9.575		153321	VV	?	36.06
18		0.0000	10.208		272243	VV		25.81
19	~~B-ENDOSUL~~	0.0091	11.521	0.301	251450	VV		26.94
20		0.0000	12.052		28060	VV	?	
21	~~4,4' DDT~~	0.0207	13.063	-0.217	398017	VV		32.44
22	~~END ALD~~	0.0109	14.064	-0.656	234278	VV		52.13
23		0.0000	15.704		33133	VV		42.19
24	~~ENDO SUL~~	0.0246	17.254	-0.546	288591	VV		64.44
25		0.0000	18.787		133684	VV	?	90.31
26		0.0000	* 20.458 → PCB1260		455702	VV		48.06
27	~~METHOXYCH~~	0.0435	26.614	1.154	417000	VB		81.44
28		0.0000	35.935		67780	BB		113.56
29		0.0000	40.921		144608	BV		91.31
30		0.0000	43.626		22854	T		235.69
31		0.0000	54.479		216345	BB		191.50
TOTALS:		0.5951		0.311	25261948			

DETECTED PKS: 41 REJECTED PKS: 10

DIVISOR: 1.00000 MULTIPLIER: 1.00000

NOISE: 57.1 OFFSET: -1

RACK: 1 VIAL: 13 INJ: 1

NOTES:
NOTEBOOK:259-107 ANALYST: R. SAMSON
SECURE AREA: D JOB# U-
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
AUTOSAMPLER
CONFIRMATION RUNS

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SAMPLE NUMBER DC-I5-42

481095

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0801
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Stoftowicz
Date Sample Received: 1-31-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-5-87
Conc/Dil Factor: 4 pH 8.0
Percent Moisture: (Not Decanted) 15

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	4000 U
74-83-9	Bromomethane	4000 U
75-01-4	Vinyl Chloride	4000 U
75-00-3	Chloroethane	4000 U
75-09-2	Methylene Chloride	4500 B
67-64-1	Acetone	5700 B
75-15-0	Carbon Disulfide	2000 U
75-35-4	1, 1-Dichloroethene	2000 U
75-34-3	1, 1-Dichloroethane	2000 U
156-60-5	Trans-1, 2-Dichloroethene	2000 U
67-66-3	Chloroform	2000 U
107-06-2	1, 2-Dichloroethane	2000 U
78-93-3	2-Butanone	8300 B
71-55-6	1, 1, 1-Trichloroethane	2000 U
56-23-5	Carbon Tetrachloride	2000 U
108-05-4	Vinyl Acetate	4000 U
75-27-4	Bromodichloromethane	2000 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2000 U
10061-02-6	Trans-1, 3-Dichloropropene	2000 U
79-01-6	Trichloroethene	2000 U
124-48-1	Dibromochloromethane	2000 U
79-00-5	1, 1, 2-Trichloroethane	2000 U
71-43-2	Benzene	540 J
10061-01-5	cis-1, 3-Dichloropropene	2000 U
110-75-8	2-Chloroethylvinylether	4000 U
75-25-2	Bromoform	2000 U
108-10-1	4-Methyl-2-Pentanone	4000 U
591-78-6	2-Hexanone	4000 U
127-18-4	Tetrachloroethene	2500
79-34-5	1, 1, 2, 2-Tetrachloroethane	2000 U
108-88-3	Toluene	1400 J B
108-90-7	Chlorobenzene	12000
100-41-4	Ethylbenzene	2600
100-42-5	Styrene	2000 U
	Total Xylenes	1400 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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I5-42

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-2-87

Date Analyzed: 2-23-87

Conc/Dil Factor: 100

Percent Moisture (Decanted) 15

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	16000 U
111-44-4	bis(-2-Chloroethyl)Ether	16000 U
95-57-8	2-Chlorophenol	16000 U
541-73-1	1 3-Dichlorobenzene	16000 U
106-46-7	1. 4-Dichlorobenzene	19000
100-51-6	Benzyl Alcohol	16000 U
95-50-1	1. 2-Dichlorobenzene	5600 J
95-48-7	2-Methylphenol	16000 U
39638-32-9	bis(2-chloroisopropyl)Ether	16000 U
106-44-5	4-Methylphenol	16000 U
621-64-7	N-Nitroso-Di-n-Propylamine	16000 U
67-72-1	Hexachloroethane	16000 U
98-95-3	Nitrobenzene	16000 U
78-59-1	Isophorone	16000 U
88-75-5	2-Nitrophenol	16000 U
105-67-9	2. 4-Dimethylphenol	16000 U
65-85-0	Benzoic Acid	80,000 U
111-91-1	bis(-2-Chloroethoxy)Methane	16000 U
120-83-2	2. 4-Dichlorophenol	16,000 U
120-82-1	1. 2. 4-Trichlorobenzene	540,000 E
91-20-3	Naphthalene	1000 J
106-47-8	4-Chloroaniline	16,000 U
87-68-3	Hexachlorobutadiene	16000 U
59-50-7	4-Chloro-3-Methylphenol	16000 U
91-57-6	2-Methylnaphthalene	1500 J
77-47-4	Hexachlorocyclopentadiene	16000 U
88-06-2	2. 4. 6-Trichlorophenol	16000 U
95-95-4	2. 4. 5-Trichlorophenol	80,000 U
91-58-7	2-Chloronaphthalene	16,000 U
88-74-4	2-Nitroaniline	80,000 U
131-11-3	Dimethyl Phthalate	16,000 U
208-96-8	Acenaphthylene	16,000 U
99-09-2	3-Nitroaniline	80,000 U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	16,000 U
51-28-5	2. 4-Dinitrophenol	80,000 U
100-02-7	4-Nitrophenol	80,000 U
132-64-9	Dibenzofuran	16,000 U
121-14-2	2 4-Dinitrotoluene	16000 U
606-20-2	2. 6-Dinitrotoluene	16000 U
84-66-2	Diethylphthalate	16000 U
7005-72-3	4-Chlorophenyl-phenylether	16000 U
86-73-7	Fluorene	16000 U
100-01-6	4-Nitroaniline	80,000 U
534-52-1	4. 6-Dinitro-2-Methylphenol	80,000 U
86-30-6	N-Nitrosodiphenylamine (1)	16,000 U
101-55-3	4-Bromophenyl-phenylether	16,000 U
118-74-1	Hexachlorobenzene	150,000
87-86-5	Pentachlorophenol	80,000 U
85-01-8	Phenanthrene	16,000 U
120-12-7	Anthracene	16,000 U
84-74-2	Di-n-Butylphthalate	16,000 U
206-44-0	Fluoranthene	16,000 U
129-00-0	Pyrene	16,000 U
85-68-7	Butylbenzylphthalate	16,000 U
91-94-1	3. 3'-Dichlorobenzidine	33,000 U
56-55-3	Benzo(a)Anthracene	16,000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	16,000 U
218-01-9	Chrysene	16,000 U
117-84-0	Di-n-Octyl Phthalate	16,000 U
205-99-2	Benzo(b)Fluoranthene	16,000 U
207-08-9	Benzo(k)Fluoranthene	16,000 U
50-32-8	Benzo(a)Pyrene	16,000 U
193-39-5	Indeno(1 2. 3-cd)Pyrene	16,000 U
53-70-3	Dibenz(a h)Anthracene	16,000 U
191-24-2	Benzo(g h i)Perylene	16,000 U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-I5-42

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low. (Medium) (Circle One)

Date Extracted/Prepared 2-2-87

Date Analyzed 2-12-87

Conc/Dil Factor 25

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)	
319-84-6	Alpha-BHC	2000	U
319-85-7	Beta-BHC	2000	U
319-86-8	Delta-BHC	2000	U
58-89-9	Gamma-BHC (Lindane)	2000	U
76-44-8	Heptachlor	2000	U
309-00-2	Aldrin	2000	U
1024-57-3	Heptachlor Epoxide	2000	U
959-98-8	Endosulfan I	2000	U
60-57-1	Dieldrin	4000	U
72-55-9	4,4'-DDE	4000	U
72-20-8	Endrin	4000	U
33213-65-9	Endosulfan II	4000	U
72-54-8	4,4'-DDD	4000	U
1031-07-8	Endosulfan Sulfate	4000	U
50-29-3	4,4'-DDT	4000	U
72-43-5	Methoxychlor	20000	U
53494-70-5	Endrin Ketone	4000	U
57-74-9	Chlordane	20000	U
8001-35-2	Toxaphene	40000	U
12674-11-2	Aroclor-1016	20000	U
11104-28-2	Aroclor-1221	20000	U
11141-16-5	Aroclor-1232	20000	U
53469-21-9	Aroclor-1242	20000	U
12672-29-6	Aroclor-1248	20000	U
11097-69-1	Aroclor-1254	40000	U
11096-82-5	Aroclor-1260	73000	

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 3 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

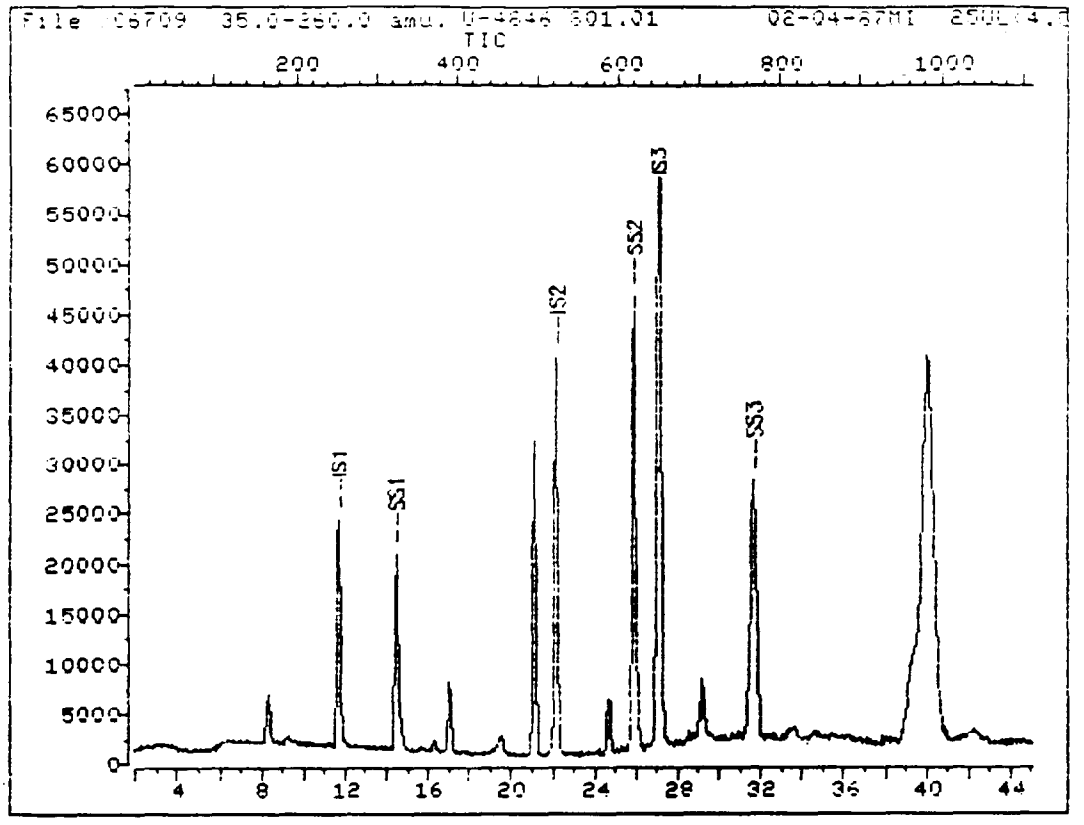
Sample Number DC-I5-42

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	4000 BJ
2.		Hexane isomer	VOA	21.1	17000 BJ
3.		Dichlorobenzene isomer	VOA	40.1	89000 J
4.					
5.		Ethylbenzenamine isomer	BNA	12.07	57,000 J
6.		Unknown Aromatic		13.58	509,000 J
7.		Unknown Aromatic		13.68	44,000 J
8.		Ethylnitrobenzene isomer		15.04	55,000 J
9.		Tetrachlorobenzene isomer		15.31	470,000 J
10.		Tetrachlorobenzene isomer		16.21	1600,000 J
11.	608935	Pentachlorobenzene		18.51	830,000 J
12.		Unknown		19.16	180,000 J
13.	90415	[1,1'-Biphenyl]-2-amine		19.59	61,000 J
14.		Unknown		20.30	21,000 J
15.		Unknown Hydrocarbon		20.53	16,000 J
16.		Unknown		20.81	20,000 J
17.		Unknown Hydrocarbon		22.67	10,000 J
18.		Unknown Hydrocarbon		23.99	8700 J
19.		Unknown Hydrocarbon		25.25	7900 J
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30					

TOTAL ION CHROMATOGRAM



Data File: >C6709::D3
Name: U-4846 801.01 DC-IS-42
Misc: 02-04-87MI 25UL(4.56G/10MLS)+ 10UL IS/SS IN 5MLS DI

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870204 19:06

Operator ID: USER8
Quant Time: 870205 03:25
Injected at: 870205 02:39

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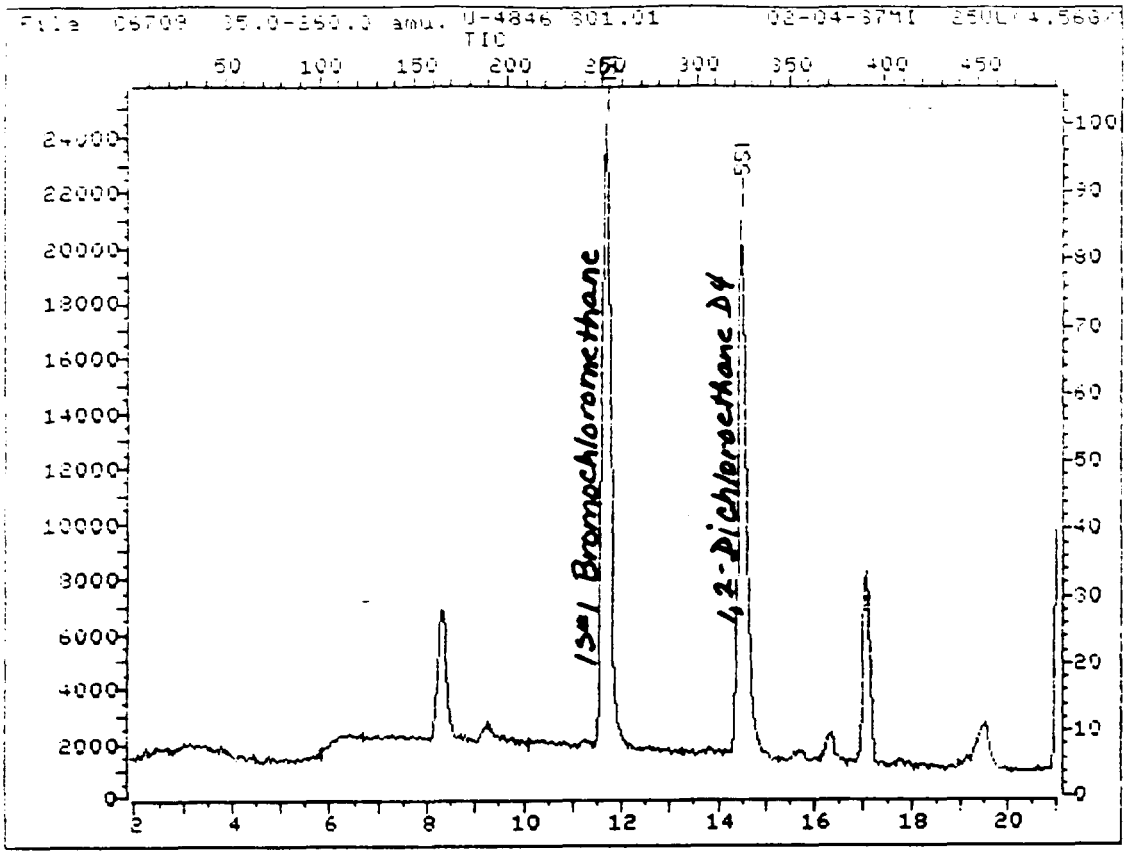
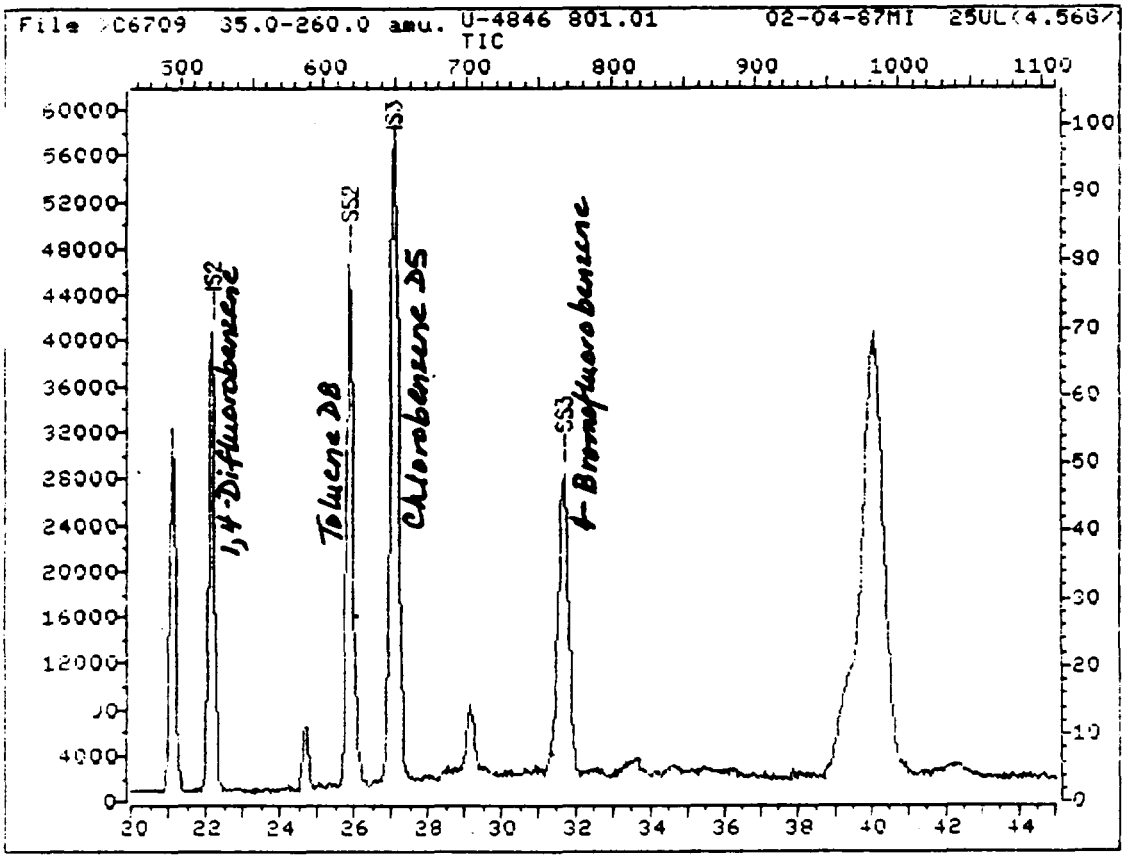
DC-IS-42





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870205 03:25
Out t File: ^C6709::Q2 Injected at: 870205 02:39
Dat. File: >C6709::D3 Dilution Factor: 1.00
Name: U-4846 801.01 DC-IS-42
Misc: 02-04-87MI 25UL(4.56G/10MLS)+ 10UL IS/SS IN 5MLS DI

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870204 19:06

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.68	252	32876	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.31	165	13097	10.24 UG/L	00
7)	ACETONE		43	9.24	189	7882	12.91 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.48	324	84172	50.75 UG/L	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.16	522	161532	50.00 UG/L	100
17)	2-BUTANONE		72	14.63	328	3457	18.88 UG/L	00
27)	BENZENE		78	19.60	456	5203	1.24 UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.05	648	131155	50.00 UG/L	100
33)	~~2-HEXANONE~~		~~43~~	~~24.68~~	~~587~~	~~2375~~	~~2.02 UG/L~~	~~100~~
34)	TETRACHLOROETHENE		164	24.68	587	7710	5.76 UG/L	93
36)	TOLUENE-D8	(SURR)	98	25.89	618	173099	49.44 UG/L	98
37)	TOLUENE		92	26.08	623	8853	3.22 UG/L	99
38)	CHLOROBENZENE		112	27.17	651	99623	28.48 UG/L	98
39)	ETHYLBENZENE		91	29.19	703	36102	6.04 UG/L	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.68	767	97894	51.07 UG/L	100
42)	TOTAL XYLENES		91	33.62	817	9339	1.85 UG/L	00
42)	TOTAL XYLENES		91	34.59	842	6919	1.37 UG/L	100
43)	1,3-DICHLOROBENZENE		146	39.32	964	40253	40253.00 NO CAL	B100
43)	1,3-DICHLOROBENZENE		146	40.02	982	96896	96896.00 NO CAL	B100
44)	1,2-DICLHLOROBENZENE		146	39.32	964	40253	40253.00 NO CAL	B100
44)	1,2-DICLHLOROBENZENE		146	40.02	982	96896	96896.00 NO CAL	B100
45)	1,4-DICHLOROBENZENE		146	39.32	964	40253	40253.00 NO CAL	B100
45)	1,4-DICHLOROBENZENE		146	40.02	982	96896	96896.00 NO CAL	B100

* Compound is ISTD

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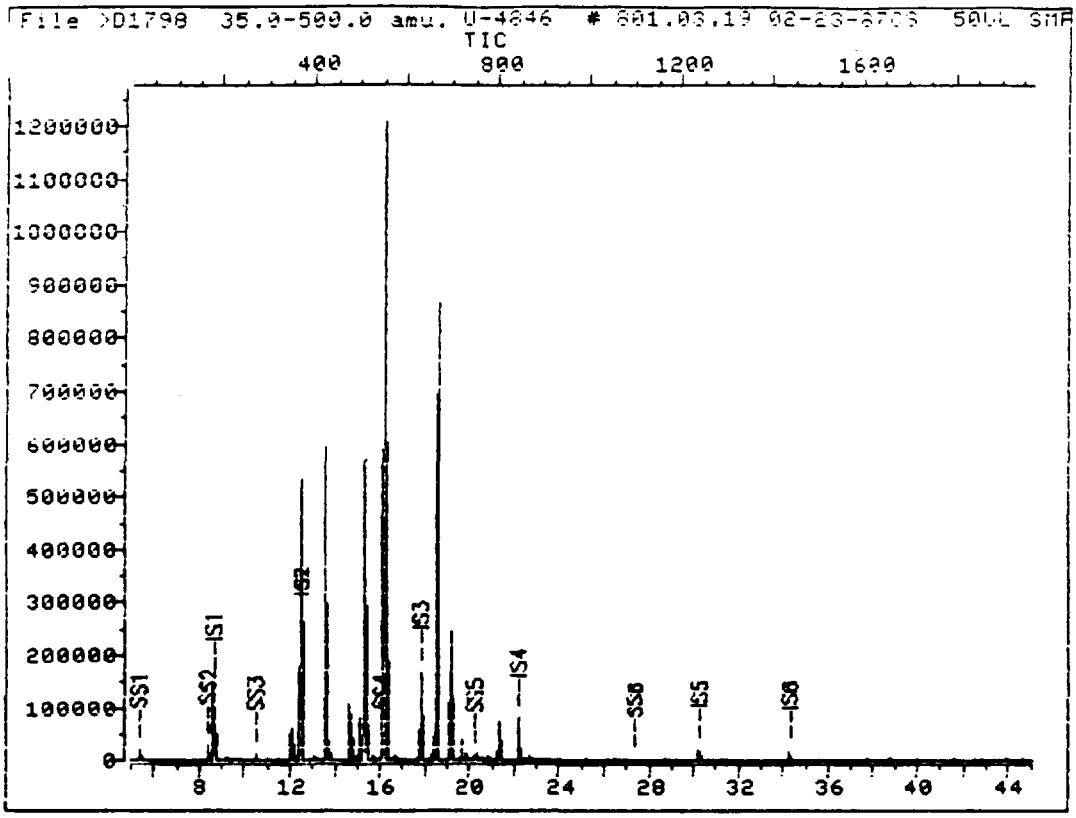
TOTAL ION CHROMATOGRAM



Data File: >D1798::D3
Name: U-4846 # 801.03.19 DC-I5-42
Misc: 02-23-87CS 50UL SMPL + 450UL MECL2 + 5UL IS BTL# 4

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

Operator ID: USER6
Quant Time: 870223 18:51
Injected at: 870223 18:04

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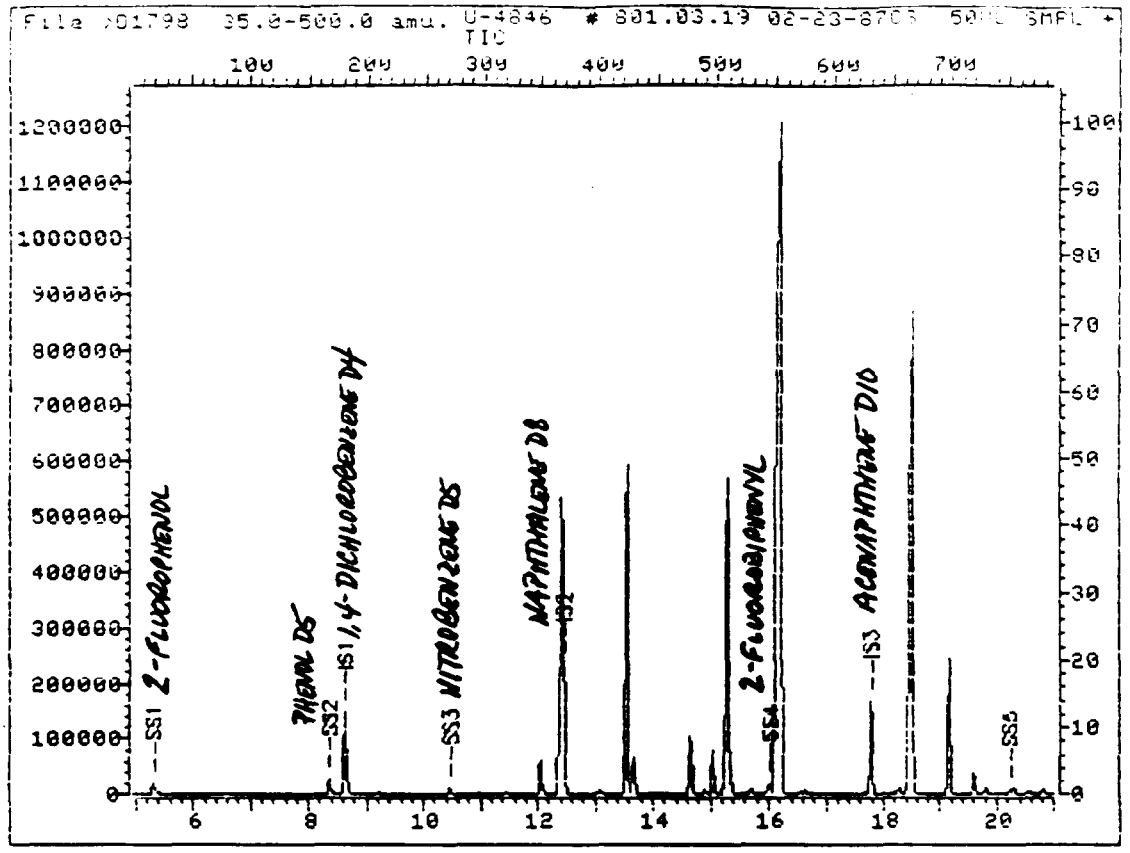
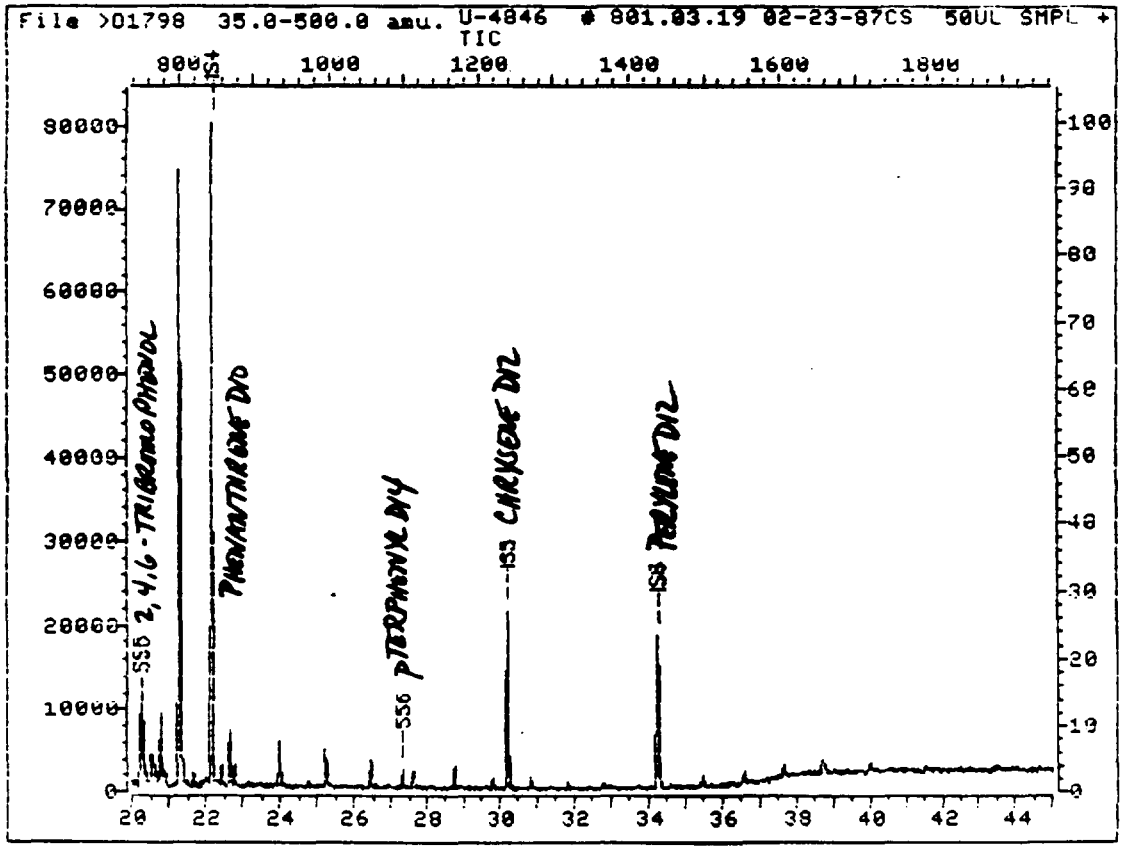
DC-I5-42





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870223 18:51
Output File: ^D1798::Q2 Injected at: 870223 18:04
Data File: >D1798::D3 Dilution Factor: 10.00
Name: U-4846 # 801.03.19 DC-I5-42
Misc: 02-23-87CS 50UL SMPL + 450UL MECL2 + 5UL IS BTL# 4

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4(IS)	152	8.63	180	61010	40.00	UG/L	84
2)	PHENOL-D5 (SURR)	99	8.36	167	23390	96.26	UG/L	96
5)	2-FLUOROPHENOL (SURR)	112	5.31	17	14410	94.16	UG/L	89
~~8)~~	~~1,3-DICHLOROBENZENE~~	~~146~~	~~8.67~~	~~182~~	~~13688~~	~~59.88~~	~~UG/L~~ No BFA	97
10)	1,4-DICHLOROBENZENE	146	8.67	182	13688	60.38	UG/L	96
12)	1,2-DICHLOROBENZENE	146	9.22	209	3569	17.02	UG/L	97
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~10.46~~	~~270~~	~~2075~~	~~8.99~~	~~UG/L~~ No BFA	98
19)	*NAPHTHALENE-D8 (IS)	136	12.46	368	221672	40.00	UG/L	100
20)	NITROBENZENE-D5 (SURR)	82	10.46	270	11703	46.35	UG/L	90
~~24)~~	~~2,4-DIMETHYLPHENOL~~	~~122~~	~~12.42~~	~~366~~	~~1389~~	~~8.78~~	~~UG/L~~ No BFA	63
28)	1,2,4-TRICHLOROBENZENE	180	12.42	366	300871	1624.43	UG/L	100
29)	NAPHTHALENE	128	12.50	370	1738	3.17	UG/L	100
33)	2-METHYLNAPHTHALENE	142	14.64	475	1528	4.75	UG/L	91
34)	*ACENAPHTHENE-D10 (IS)	162	17.78	629	95992	40.00	UG/L	94
38)	2-FLUOROBIPHENYL (SURR)	172	16.02	543	20212	55.99	UG/L	92
~~41)~~	~~DIMETHYL PHTHALATE~~	~~163~~	~~17.78~~	~~628~~	~~18788~~	~~68.26~~	~~UG/L~~ No BFA	100
48)	2,4,6-TRIBROMOPHENOL(SURR)	330	20.22	749	4138	62.69	UG/L	95
~~49)~~	~~2,4-DINITROPHENOL~~	~~184~~	~~18.51~~	~~665~~	~~1371~~	~~45.78~~	~~UG/L~~	100
~~51)~~	~~2,4-DINITROTOLUENE~~	~~165~~	~~18.51~~	~~665~~	~~1510~~	~~[illegible]~~	~~UG/L~~ No BFA	100
~~52)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~17.78~~	~~628~~	~~12848~~	~~218.21~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10 (IS)	188	22.16	844	76776	40.00	UG/L	93
~~57)~~	~~N-NITROSODIPHENYLAMINE~~	~~169~~	~~19.59~~	~~718~~	~~81038~~	~~232.75~~	~~UG/L~~ No BFA	64
59)	HEXACHLOROBENZENE	284	21.30	802	34500	465.37	UG/L	99
65)	*CHRYSENE-D12 (IS)	240	30.22	1240	27282	40.00	UG/L	100
68)	TERPHENYL-D14 (SURR)	244	27.33	1098	3477	60.10	UG/L	100
74)	*PERYLENE-D12 (IS)	264	34.26	1438	23221	40.00	UG/L	100

* Compound is ISTD

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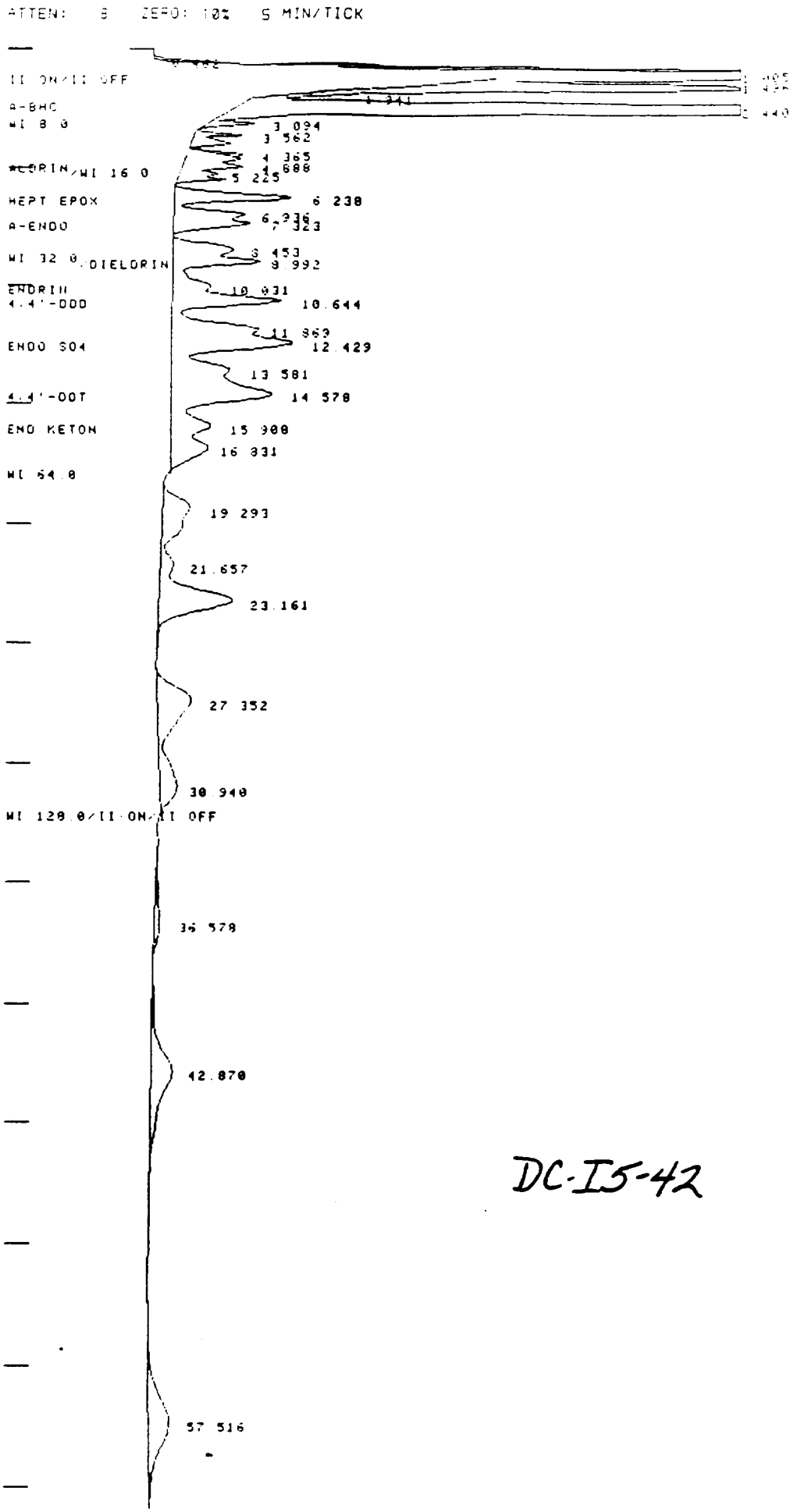

DC-I5-42

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PCB1260 = 54 x 0.0051 x 1/0.15 x 25 x 1000 = 73,000 ug/Kg wet

CHANNEL: 1A - 1 TITLE: RUN# 34 18:41 12 FEB 87

DC-I5-42

SAMPLE: 0801 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	1.349		85110	BV	3.31
2		0.0000	1.496		20100745	VV	8.19
3		0.0000	1.941		50602	T	3.63
4	~~A-BHC~~	~~[illegible]~~	2.229	-0.001	~~1859849~~	VV	6.25
5	~~G-BHC~~	323315.5	2.440	0.070	15900685	VV	7.50
6		0.0000	3.094		61475	T	8.94
7		0.0000	3.562		54636	T	8.56
8	~~HEPTACHLO~~	600.0577	3.930	-0.170	76480	T	? 14.75
9		0.0000	4.365		28422	T	? 11.94
10		0.0000	4.574		96069	VV	? 22.06
11	~~ALDRIN~~	788.6306	4.888	-0.162	114633	VV	? 16.63
12		0.0000	5.225		58201	VV	? 12.56
13		0.0000	5.475		73870	VV	11.50
14	~~HEPT-EPOX~~	2465.784	6.238	0.128	338297	VV	22.44
15		0.0000	6.936		~~178808~~	VV	? 19.31
16	~~A-ENDO~~	1767.050	7.323	WOATHERED ~~0.247~~	230349	VV	? 31.06
17	~~4,11-DDE~~	1831.315	8.453	PCB ~~0.257~~	~~225232~~	VV	? 33.00
18	~~DIELDRIN~~	1982.083	8.992	1260 ~~0.172~~	275828	VV	? 29.63
19	~~B-ENDO~~	1163.143	10.031	~~0.011~~	151778	VV	? 33.63
20	~~4,11-DDD~~	3725.247	10.644	-0.266	408991	VV	27.88
21		0.0000	11.869		~~324814~~	VV	? 35.63
22	~~ENDO-304~~	7080.881	12.429	-0.371	586004	VV	? 45.31
23		0.0000	13.581	ΣA=54	256270	VV	? 43.81
24	~~4,11-DDT~~	7889.040	14.578	0.368	697790	VV	? 60.81
25		0.0000	15.908		~~221889~~	VV	? 47.44
26	~~END-KETON~~	1858.442	16.831	0.461	242045	VB	? 57.38
27		0.0000	19.293		298190	BV	93.38
28	~~METHOXYCH~~	1726.305	21.657	0.807	~~82155~~	VV	? 45.44
29		0.0000	23.161		578384	VV	54.69
30	~~DDD~~	3861.800	27.352	-1.058	416523	VV	103.56
31		0.0000	30.940		211877	VB	?120.31
32		0.0000	36.578		83628	BV	120.00
33		0.0000	42.870		414290	VB	113.06
34		0.0000	57.516		426240	BB	162.13

TOTALS: 371984.4 -0.515 45221272

DETECTED PKS: 41 REJECTED PKS: 7

DIVISOR: 0.15000 MULTIPLIER: 25000.0000

NOISE: 22.9 OFFSET: 0

RACK: 3 VIAL: 4 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A 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

POST RUN:
SAVE FILE: RAW SCA097

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ecology and environment

SAMPLE NUMBER DC-I6-43

481095

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: L-4835, 4846, 4863, 4872
Sample ID No: 0859
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 2-5-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-12-87
Conc/Dil Factor: 2 pH 6.7
Percent Moisture: (Not Decanted) 35

Concentrations reported "as received"

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	680 BJ
67-64-1	Acetone	8700 B
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	6300 B
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	1400
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	2700
591-78-6	2-Hexanone	1000U
127-18-4	Tetrachloroethene	1000U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000U
108-88-3	Toluene	3300
108-90-7	Chlorobenzene	5100
100-41-4	Ethylbenzene	3300
100-42-5	Styrene	1000U
	Total Xylenes	2700

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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-I6-43

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared: 2/5/87

Date Analyzed: 3/4/87

Conc/Dil Factor: 250

Percent Moisture (Decanted) 35

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	9900 J
111-44-4	bis(-2-Chloroethyl)Ether	42,000 U
95-57-8	2-Chlorophenol	42,000 U
541-73-1	1 3-Dichlorobenzene	42,000 U
106-46-7	1. 4-Dichlorobenzene	47,000
100-51-6	Benzyl Alcohol	42,000 U
95-50-1	1. 2-Dichlorobenzene	10,000 J
95-48-7	2-Methylphenol	42,000 U
39638-32-9	bis(2-chloroisopropyl)Ether	42,000 U
106-44-5	4-Methylphenol	42,000 U
621-64-7	N-Nitroso-Di-n-Propylamine	42,000 U
67-72-1	Hexachloroethane	42,000 U
98-95-3	Nitrobenzene	42,000 U
78-59-1	Isophorone	42,000 U
88-75-5	2-Nitrophenol	42,000 U
105-67-9	2. 4-Dimethylphenol	42,000 U
65-85-0	Benzoic Acid	200,000 U
111-91-1	bis(-2-Chloroethoxy)Methane	42,000 U
120-83-2	2. 4-Dichlorophenol	42,000 U
120-82-1	1. 2. 4-Trichlorobenzene	310,000
91-20-3	Naphthalene	29,000 J
106-47-8	4-Chloroaniline	42,000 U
87-68-3	Hexachlorobutadiene	42,000 U
59-50-7	4-Chloro-3-Methylphenol	42,000 U
91-57-6	2-Methylnaphthalene	110,000
77-47-4	Hexachlorocyclopentadiene	42,000 U
88-06-2	2. 4. 6-Trichlorophenol	42,000 U
95-95-4	2. 4. 5-Trichlorophenol	200,000 U
91-58-7	2-Chloronaphthalene	42,000 U
88-74-4	2-Nitroaniline	200,000 U
131-11-3	Dimethyl Phthalate	42,000 U
208-96-8	Acenaphthylene	42,000 U
-09-2	3-Nitroaniline	200,000 U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	9100 J
51-28-5	2. 4-Dinitrophenol	200,000 U
100-02-7	4-Nitrophenol	200,000 U
132-64-9	Dibenzofuran	42,000 U
121-14-2	2 4-Dinitrotoluene	42,000 U
606-20-2	2. 6-Dinitrotoluene	42,000 U
84-66-2	Diethylphthalate	11,000 J
7005-72-3	4-Chlorophenyl-phenylether	42,000 U
86-73-7	Fluorene	23,000 J
100-01-6	4-Nitroaniline	200,000 U
534-52-1	4. 6-Dinitro-2-Methylphenol	200,000 U
86-30-6	N-Nitrosodiphenylamine (1)	42,000 U
101-55-3	4-Bromophenyl-phenylether	42,000 U
118-74-1	Hexachlorobenzene	21,000 J
87-86-5	Pentachlorophenol	200,000 U
85-01-8	Phenanthrene	66,000
120-12-7	Anthracene	15,000 J
84-74-2	Di-n-Butylphthalate	24,000 J
206-44-0	Fluoranthene	12,000 J
129-00-0	Pyrene	32,000 J
85-68-7	Butylbenzylphthalate	42,000 U
91-94-1	3. 3'-Dichlorobenzidine	82,000 U
56-55-3	Benzo(a)Anthracene	42,000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	85,000
218-01-9	Chrysene	42,000 U
117-84-0	Di-n-Octyl Phthalate	42,000 U
205-99-2	Benzo(b)Fluoranthene	21,000 J
207-08-9	Benzo(k)Fluoranthene	42,000 U
50-32-8	Benzo(a)Pyrene	42,000 U
193-39-5	Indeno(1 2. 3-cd)Pyrene	42,000 U
53-70-3	Dibenz(a h)Anthracene	42,000 U
191-24-2	Benzo(g h i)Perylene	42,000 U

(1)-Cannot be separated from diphenylamine

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ecology and environment

Laboratory Name ecology and environment, inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-I6-43

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-5-87

Date Analyzed 2-19-87

Conc/Dil Factor 200

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)
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	32,000 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
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	320,000 U

V_t = 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 3 V_t 1000 V_i 4

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ecology and environment

Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I6-43

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	16.3	640 J
2.		Hexene isomer	VOA	17.1	2500 BJ
3.	625332	3-Penten-2-one	VOA	18.0	330 J
4.		Hexene isomer	VOA	18.8	2500 J
5.		Unknown hydrocarbon	VOA	19.2	610 J
6.		Hexane isomer	VOA	21.2	12000 BJ
7.		Dichlorobenzene isomer	VOA	38.3	360 J
8.		Dichlorobenzene isomer	VOA	40.0	4514 J
9.					
10.		Ethylbenzenamine isomer	BNA	12.03	230,000 J
11.	612226	2-Ethylnitrobenzene	|	13.52	620,000 J
12.		Unknown	|	13.64	380,000 J
13.		Tetrachlorobenzene isomer	|	15.23	220,000 J
14.		Tetrachlorobenzene isomer	|	16.07	620,000 J
15.	608935	Pentachlorobenzene	|	18.40	220,000 J
16.		Unknown Hydrocarbon	|	20.49	90,000 J
17.		Unknown Hydrocarbon	|	21.32	100,000 J
18.		Unknown Hydrocarbon	|	22.61	120,000 J
19.		Unknown Hydrocarbon	|	23.92	130,000 J
20.	610480	1-Methylanthracene	|	24.04	100,000 J
21.	84651	9,10-Anthracenedione	|	24.72	180,000 J
22.		Unknown Hydrocarbon	|	25.19	230,000 J
23.		Unknown Hydrocarbon	|	26.39	220,000 J
24.		Unknown Hydrocarbon	|	28.66	210,000 J
25.		Unknown Hydrocarbon	|	30.77	210,000 J
26.		Unknown Hydrocarbon	|	31.75	210,000 J
27.		Unknown Hydrocarbon	|	32.71	220,000 J
28.		Unknown Hydrocarbon	|	34.53	300,000 J
29.		Unknown Hydrocarbon	↓	35.39	190,000 J
30.					

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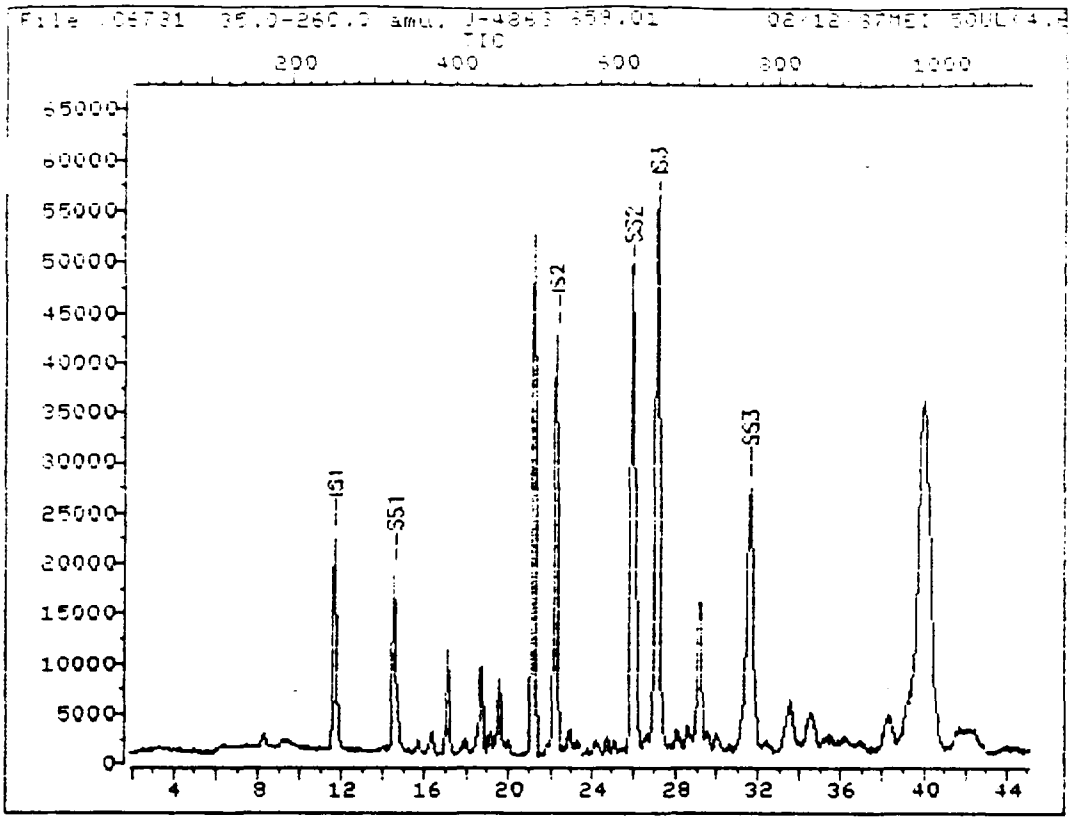

Data File: >C6781::D3
Name: U-4863 859.01 DC-I6-43
Misc: 02/12/87MEI 50UL(4.62G/10MLS MEOH) + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870212 17:56

Operator ID: USER8
Quant Time: 870212 22:30
Injected at: 870212 21:44

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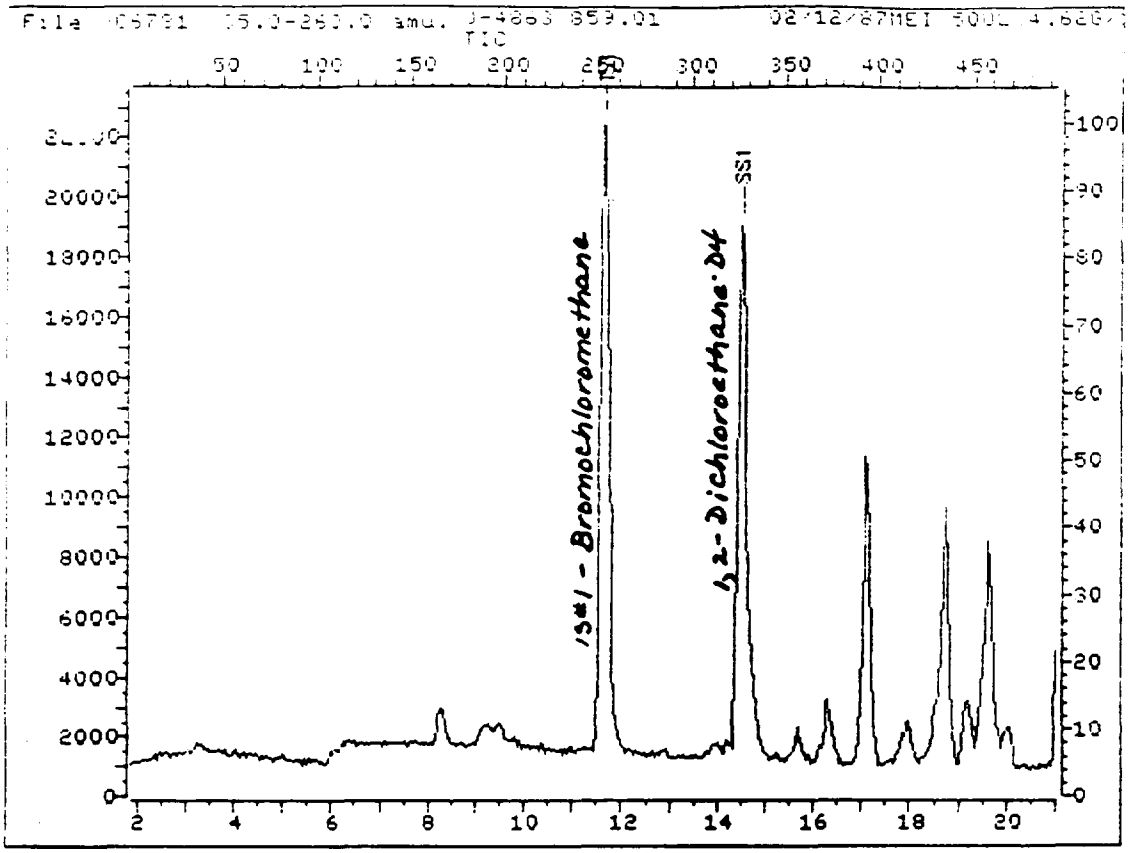
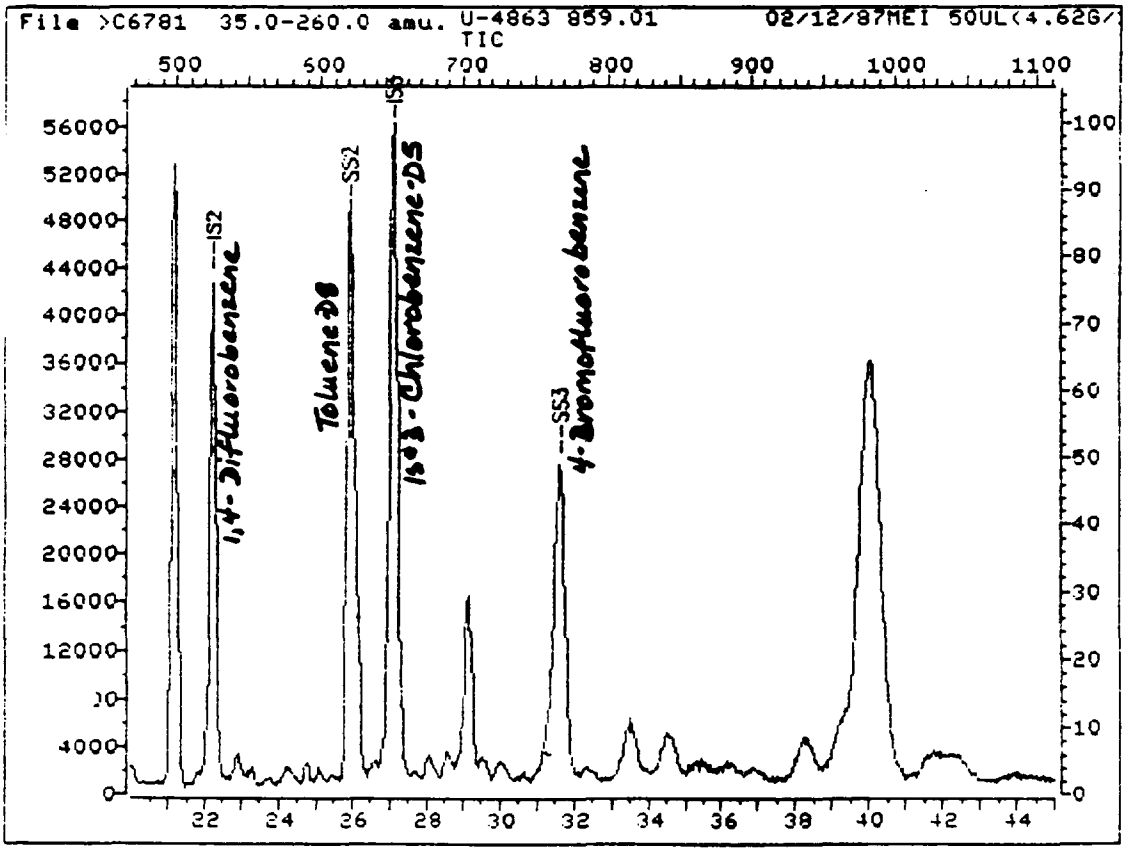
DC-I6-43





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QUANT REPORT

Operator ID: USER3 Quant File: 4 Quant Time: 870211 22:30
Output File: DC6781::Q2 Injected at: 870212 11:44
Data File: DC6781::D3 Dilution Factor: 1.00
File: U-4863 859.01 DC-I6-43
Misc: 02/12/87MEI 50UL(4.62G/10ML3 MEOH) - 10UL IS/SS

ID File: DOACR::D2
Title: UOH ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870212 17:56

	Compound		R.T.	Scan#	Area	Conc	Units	Q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.63	252	32072	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.29	166	3354	3.13 UG/L	100
7)	ACETONE		43	9.26	191	7156	22.66 UG/L	100
7)	ACETONE		43	9.48	196	5482	17.36 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.50	326	78166	42.10 UG/L	94
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.22	525	172026	50.00 UG/L	100
17)	2-BUTANONE		72	14.69	331	3958	29.22 UG/L	100
27)	BENZENE		78	19.66	459	26562	6.66 UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.07	650	137037	50.00 UG/L	100
32)	4-METHYL-2-PENTANONE		43	22.88	542	12332	12.36 UG/L	88
~~33)~~	~~2-HEXANONE~~		~~43~~	~~24.83~~	~~576~~	~~3282~~	~~4.56 UG/L~~	~~100~~
~~33)~~	~~2-HEXANONE~~		~~43~~	~~24.76~~	~~586~~	~~3857~~	~~5.91 UG/L~~	~~100~~
36)	TOLUENE-D8	(SURR)	98	25.91	620	179607	46.21 UG/L	96
37)	TOLUENE		92	26.10	625	40189	15.04 UG/L	97
38)	CHLOROBENZENE		112	27.19	653	76738	23.77 UG/L	99
39)	ETHYLBENZENE		91	29.18	704	87623	15.13 UG/L	97
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.62	767	93441	46.14 UG/L	100
42)	TOTAL XYLENES		91	33.56	817	28688	5.76 UG/L	100
42)	TOTAL XYLENES		91	34.53	842	33862	6.80 UG/L	100
~~42)~~	~~TOTAL XYLENES~~		~~91~~	~~34.28~~	~~885~~	~~13441~~	~~2.70 UG/L~~	~~100~~
43)	1,3-DICHLOROBENZENE		146	38.33	940	26959	26959.00 NO CALIB	100
43)	1,3-DICHLOROBENZENE		146	39.97	982	345565	345565.0 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	38.33	940	26959	26959.00 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	39.97	982	345565	345565.0 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	38.33	940	26959	26959.00 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	39.97	982	345565	345565.0 NO CALIB	100

* Compound is ISTD

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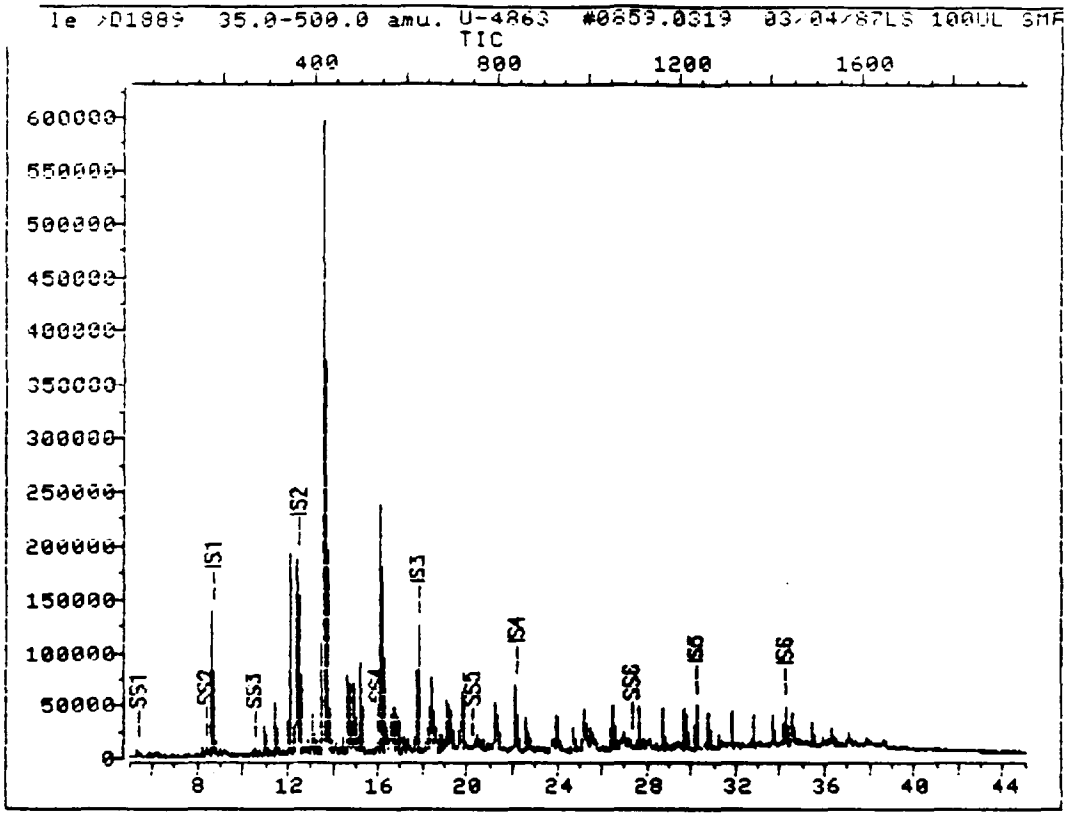

Data File: >D1889::D3
Name: U-4863 #0859.0319 DC-I6-43
Misc: 03/04/87LS 100UL SMPL + 400UL MECL2 + 4UL IS (5X) BIL# 5

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870304 18:41

Operator ID: USER6
Quant Time: 870304 22:04
Injected at: 870304 21:17

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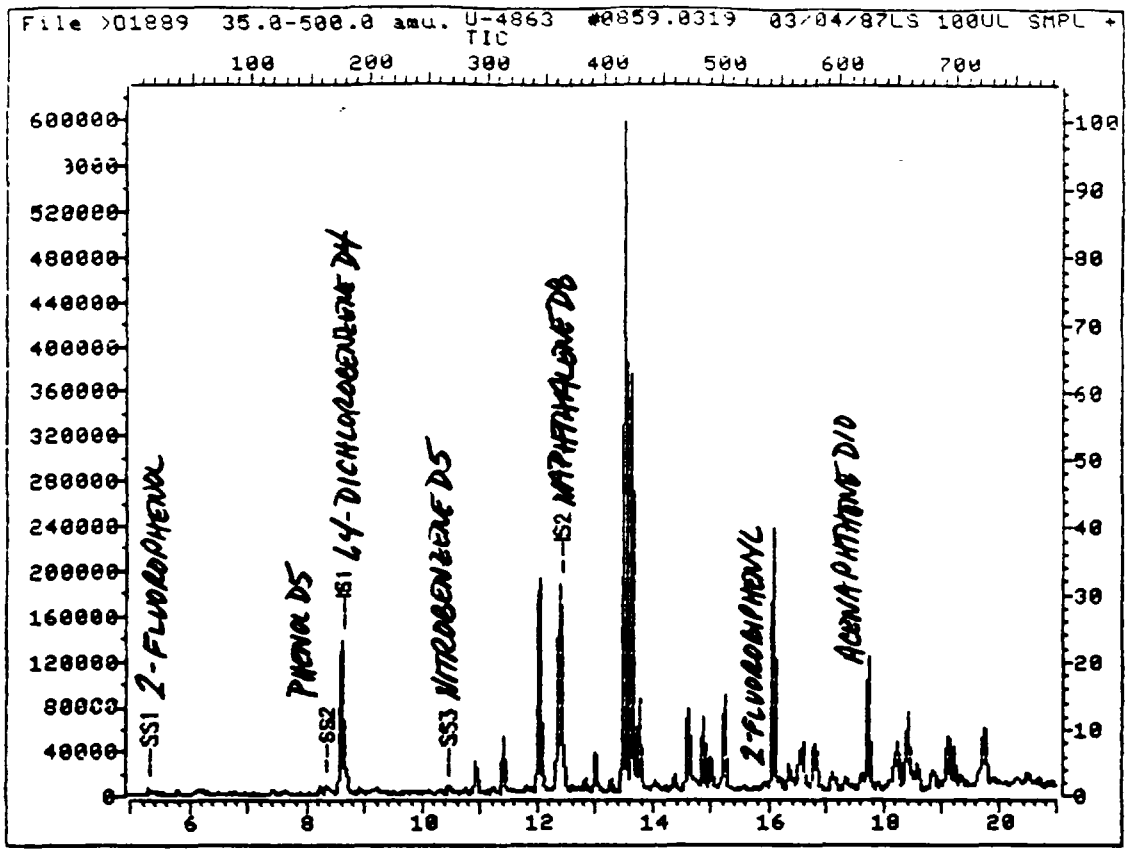
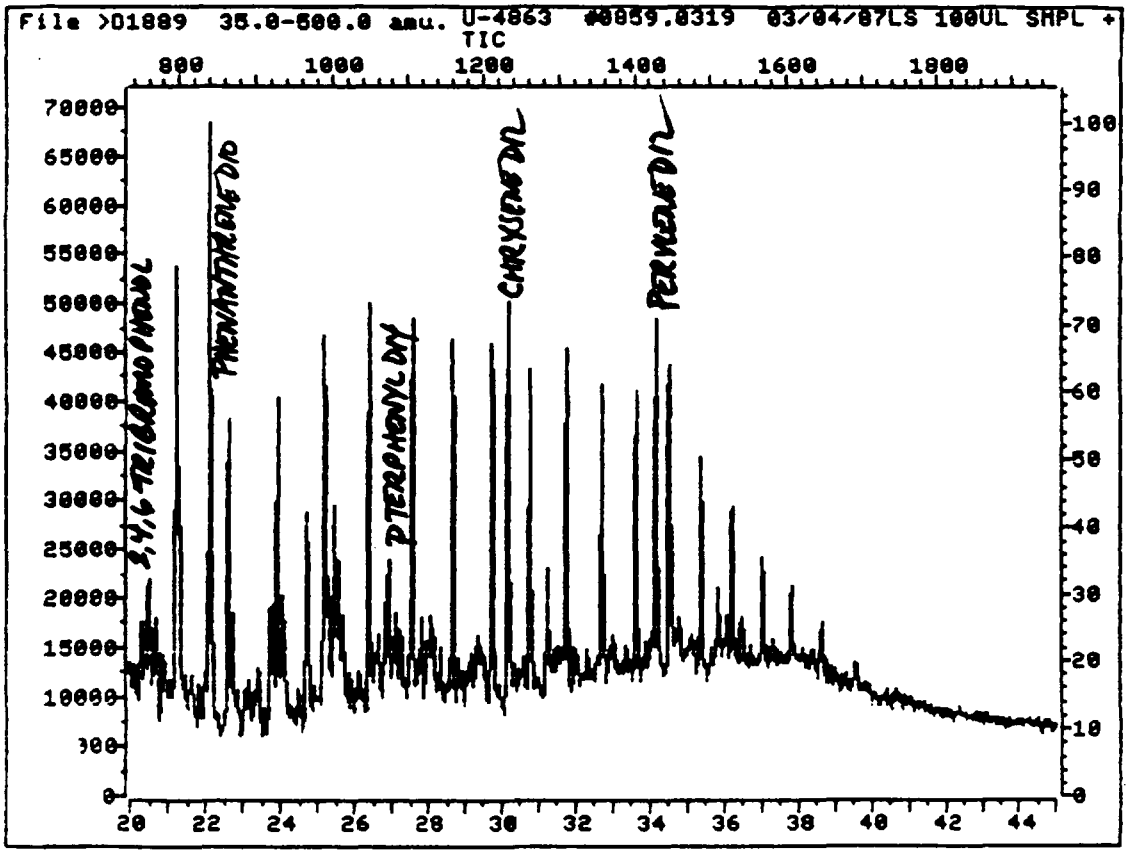
DC-I6-43





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870304 22:04
Output File: ^D1889::Q2 Injected at: 870304 21:17
Data File: >D1889::D3 Dilution Factor: 5.00
Name: U-4863 #0859.0319 DC-I6-43
Misc: 03/04/87LS 100UL SMPL + 400UL MECL2 + 40UL IS (5X) BTL# 5

FINAL VOLUME - 5.0ml

ID File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870304 18:41

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.60	178	65069	40.00 UG/L	84
2)	PHENOL-D5	(SURR)	99	8.34	165	6881	15.05 UG/L 75 ✓	95
5)	2-FLUOROPHENOL	(SURR)	112	5.30	16	3769	12.18 UG/L 61 ✓	72
6)	PHENOL		94	8.38	167	3147	6.31 UG/L	80
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~8.64~~	~~180~~	~~14951~~	~~31.76 UG/L~~ NDBM	~~98~~
10)	1,4-DICHLOROBENZENE		146	8.64	180	14951	30.92 UG/L	99
12)	1,2-DICHLOROBENZENE		146	9.19	207	3094	6.56 UG/L	86
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.76~~	~~293~~	~~1239~~	~~3.10 UG/L~~ NDBM	~~68~~
19)	*NAPHTHALENE-D8	(IS)	136	12.40	364	202738	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.44	268	3968	9.85 UG/L 98 ✓	90
~~26)~~	~~BIS(2-CHLOROETHOXY)METHANE~~		~~93~~	~~12.03~~	~~346~~	~~6038~~	~~13.56 UG/L~~ NDBM	~~57~~
28)	1,2,4-TRICHLOROBENZENE		180	12.35	362	70068	196.88 UG/L	100
29)	NAPHTHALENE		128	12.46	367	18820	18.51 UG/L	100
33)	2-METHYLNAPHTHALENE		142	14.58	471	40465	69.08 UG/L	98
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~14.89~~	~~486~~	~~27293~~	~~46.59 UG/L~~ NDBM	~~94~~
34)	*ACENAPHTHENE-D10	(IS)	162	17.73	625	70374	40.00 UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	15.93	537	5536	10.37 UG/L 104 ✓	91
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.23~~	~~626~~	~~13526~~	~~36.98 UG/L~~	~~100~~
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~17.89~~	~~633~~	~~2141~~	~~4.46 UG/L~~	~~100~~
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~18.34~~	~~655~~	~~1344~~	~~2.79 UG/L~~ NDBM	~~100~~
~~44)~~	~~ACENAPHTHYLENE~~		~~150~~	~~15.77~~	~~570~~	~~5674~~	~~9.86 UG/L~~	~~1~~
~~44)~~	~~ACENAPHTHYLENE~~		~~152~~	~~17.09~~	~~594~~	~~1533~~	~~2.51 UG/L~~	~~1~~
45)	FLUORENE		166	19.34	704	4648	14.38 UG/L	80
47)	ACENAPHTHENE		153	17.81	629	2340	5.78 UG/L	95
~~47)~~	~~ACENAPHTHENE~~		~~153~~	~~18.10~~	~~647~~	~~3139~~	~~7.75 UG/L~~ NDBM	~~62~~
~~47)~~	~~ACENAPHTHENE~~		~~153~~	~~18.26~~	~~651~~	~~2204~~	~~5.44 UG/L~~	~~58~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.20	746	942	15.34 UG/L 77 ✓	77
~~49)~~	~~2,4-DINITROPHENOL~~		~~184~~	~~18.66~~	~~719~~	~~1744~~	~~22.22 UG/L~~	~~100~~
~~49)~~	~~2,4-DINITROPHENOL~~		~~184~~	~~18.91~~	~~732~~	~~2369~~	~~26.18 UG/L~~	~~100~~
~~49)~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.00~~	~~736~~	~~2349~~	~~27.35 UG/L~~	~~100~~
~~49)~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.08~~	~~740~~	~~4618~~	~~101.30 UG/L~~	~~100~~
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~18.52~~	~~664~~	~~451~~	~~28.20 UG/L~~	~~100~~
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~18.59~~	~~667~~	~~673~~	~~31.67 UG/L~~	~~100~~
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~18.83~~	~~678~~	~~1067~~	~~40.61 UG/L~~	~~100~~
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~19.10~~	~~692~~	~~964~~	~~46.46 UG/L~~	~~100~~
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~19.34~~	~~704~~	~~836~~	~~39.34 UG/L~~	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.73~~	~~626~~	~~8831~~	~~113.03 UG/L~~	~~100~~
57	DIETHYLPHTHALATE		149	19.69	721	2056	7.08 UG/L	89
5[illegible]	*PHENANTHRENE-D10	(IS)	188	22.10	839	67378	40.00 UG/L	90
~~57)~~	~~N-NITROSODIPHENYLAMINE~~		~~169~~	~~19.73~~	~~723~~	~~1566~~	~~3.98 UG/L~~ NDBM	~~66~~
~~57)~~	~~N-NITROSODIPHENYLAMINE~~		~~169~~	~~20.08~~	~~740~~	~~4272~~	~~10.97 UG/L~~	~~35~~
59)	HEXACHLOROBENZENE		284	21.24	797	1686	13.25 UG/L	282
61)	PHENANTHRENE		178	22.16	842	14119	41.75 UG/L	95
~~61)~~	~~PHENANTHRENE~~		~~178~~	~~22.31~~	~~849~~	~~3191~~	~~9.44 UG/L~~ NDBM	~~88~~
~~62)~~	~~ANTHRACENE~~		~~178~~	~~22.16~~	~~842~~	~~[illegible]~~	~~[illegible] UG/L~~	~~95~~
62)	ANTHRACENE		178	22.31	849	3191	9.82 UG/L	93

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	Compound		R.T.	Scan#	Area	Conc	Units	q
63)	DI-N-BUTYLPHTHALATE		149 24.72	967	4564	15.29	UG/L	25
~~64)~~	~~FLUORANTHENE~~		~~202 25.43~~	~~1004~~	~~2161~~	~~3.56~~	~~UG/L~~	1
64)	FLUORANTHENE		202 25.76	1018	1853	7.34	UG/L	51
65)	*CHRYSENE-D12	(IS)	240 30.15	1233	46648	40.00	UG/L	100
67)	PYRENE		202 26.37	1048	6581	20.16	UG/L	87
~~67)~~	~~PYRENE~~		~~202 26.68~~	~~1060~~	~~1129~~	~~3.46~~	~~UG/L~~	1
67)	PYRENE		202 26.82	1066	1684	5.15	UG/L	24
68)	TERPHENYL-D14	(SURR)	244 27.27	1092	1498	8.05	UG/L	100
~~71)~~	~~BENZO(A)ANTHRACENE~~		~~228 30.22~~	~~1236~~	~~3268~~	~~14.81~~	~~UG/L~~	85
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149 31.24	1286	8484	54.36	UG/L	95
73)	CHRYSENE		228 30.22	1236	3258	13.16	UG/L	86
74)	*PERYLENE-D12	(IS)	264 34.16	1429	44759	40.00	UG/L	100
76)	BENZO(B)FLUORANTHENE		252 33.20	1382	1240	4.32	UG/L	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252 33.20~~	~~1382~~	~~1240~~	~~4.36~~	~~UG/L~~	100
~~78)~~	~~BENZO(A)PYRENE~~		~~252 33.80~~	~~1416~~	~~2600~~	~~10.60~~	~~UG/L~~	100

* Compound is ISTD

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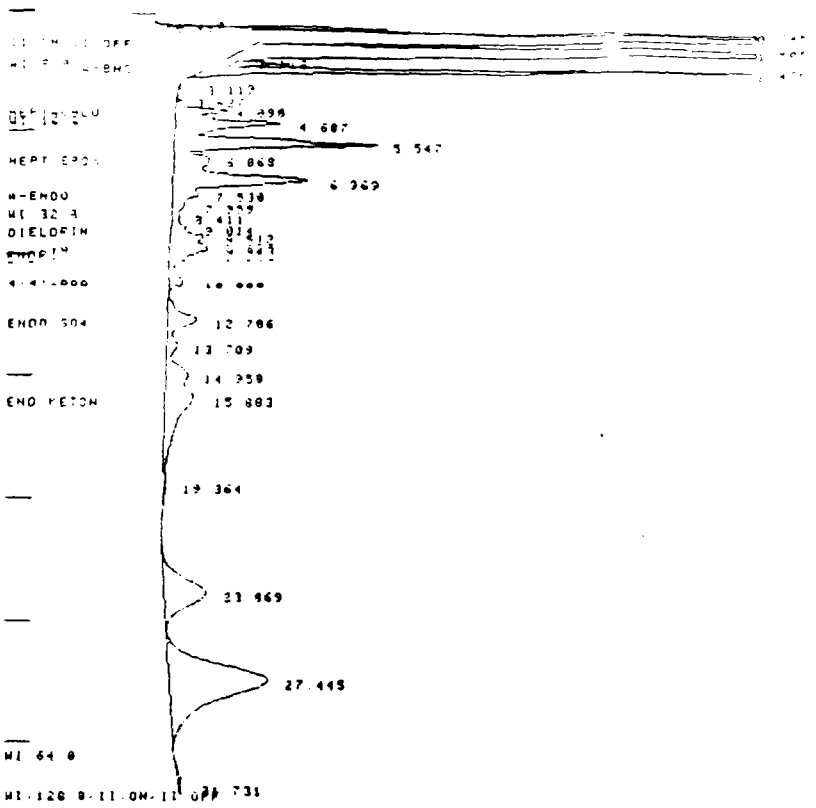

RECALCULATE ON FILE: DC1150

CHANNEL: 1A - 1 TITLE: RUN8 15 17:14 19 FEB 97

DC-II6-43

SAMPLE: 0859 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	1.506		6789879	BV		6.94
2		0.0000	1.694		1143816	VV		6.19
3		0.0000	2.118		27406	T	?	5.13
4	[redacted] d	2003.726	2.264	0.024	42080	T		5.13
5	[redacted]	92115.49	2.486	0.106	561431	VB		6.63
6	[redacted] d	4428.607	4.090	-0.022	76996	VV		12.13
7		0.0000	4.351		47293	VV	?	12.19
8		0.0000	4.687		310177	VV		20.50
9		0.0000	5.547		538260	VV		22.38
10	[redacted]	7812.847	6.068	-0.072	146932	VV	?	23.38
11		0.0000	6.969		446055	VV		23.75
12	[redacted] d	4081.761	7.538	-0.062	71239	VV	?	28.50
13		0.0000	7.959		31859	VV	?	33.44
14	[redacted]	1654.906	8.411	-0.389	28881	VV	?	30.75
15	[redacted]	2058.894	9.014	0.174	38896	VV	?	28.06
16		0.0000	9.512		186555	VV	?	29.88
17	[redacted]	[redacted]	9.943	0.103	133596	VV	?	32.38
18	[redacted] d	3355.111	10.880	-0.050	52898	VV		24.19
19	[redacted] d	11184.45	12.706	-0.184	139618	VV		33.44
20	[redacted]	4092.082	13.709	-0.541	51216	VV		39.69
21		0.0000	14.958		123635	VV	?	46.25
22	[redacted]	19431.95	15.003	-0.497	350101	VV	?	76.06
23		0.0000	23.869		386069	BV	?	79.19
24	[redacted]	80210.24	27.445	-0.995	1193017	VV	?	97.38

TOTALS: 231913.2 -2.245 12836297

DETECTED PKS: 34 REJECTED PKS: 10

DIVISOR: 0.15000 MULTIPLIER: 200000.000

NOISE: 11.4 OFFSET: -15

RACK: 1 VIAL: 15 INJ: 1

NOTES:
NOTE BOOK: 259-112 ANALYST:RICHARD SAMSON AND K. JUREK
SECURE AREA: D JOB#:U-4863
INST: VARIAN 6000: GA ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
OVEN 200 C INJ: 220 C
200 C ISOTHERMAL 3 UL INJECTION
PRIMARY ANALYSIS AUTOSAMPLER

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ecology and environment

SAMPLE NUMBER DC-IB-44

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872

Sample ID No: 0860
QC Report No:

Sample Matrix: Soil
Contract No: IL-3140

Data Release Authorized By: O Stoytowicz
Date Sample Received: 2-5-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-9-87

Conc/Dil Factor: 1 pH 7.4

Percent Moisture: (Not Decanted) 22

Concentrations reported "as received"

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	5B
67-64-1	Acetone	8JB
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 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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-IB-44

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-5-87

Date Analyzed: 2-23-87

Conc/Dil Factor: 20

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	3300	U
111-44-4	bis(-2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1 3-Dichlorobenzene	3300	U
106-46-7	1 4-Dichlorobenzene	3300	U
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1 2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2. 4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U
111-91-1	bis(-2-Chloroethoxy)Methane	3300	U
120-83-2	2. 4-Dichlorophenol	3300	U
120-82-1	1. 2. 4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2 4 6-Trichlorophenol	3300	U
95-95-4	2. 4 5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U
208-96-8	Acenaphthylene	3300	U
09-2	3-Nitroaniline	16000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2. 4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U
132-64-9	Dibenzofuran	3300	U
121-14-2	2 4-Dinitrotoluene	3300	U
606-20-2	2. 6-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3300	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	7600	
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3. 3'-Dichlorobenzidine	6600	U
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300	U
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	3300	U
53-70-3	Dibenz(a h)Anthracene	3300	U
191-24-2	Benzo(g h i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

Laboratory Name: _____

Case No: V-4835, 4846, 4863, 4872

Sample Number: DC-IB-44

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 2-5-87

Date Analyzed: 2-19-87

Conc/Dil Factor: 1

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)
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 3 V_t 1000 V_i 4

Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-IB-44

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	17.0	10 BJ
2.		Hexane isomer	VOA	21.1	44 BJ
3.					
4.		Unknown	BNA	19.77	4000 J
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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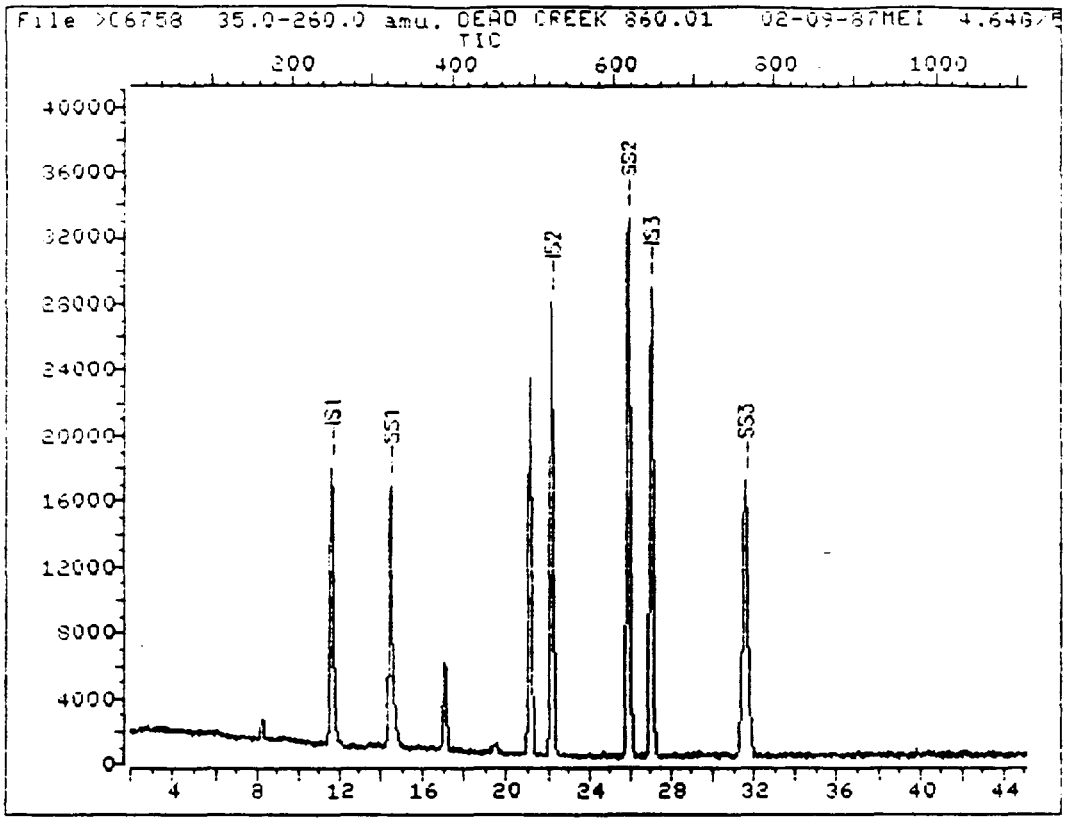
29.					
30					

TOTAL ION CHROMATOGRAM



Data File: >C6758::D3
Name: DEAD CREEK 860.01 DC-IB-44
Misc: 02-09-87MEI 4.64G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870209 18:44

Operator ID: USER8
Quant Time: 870209 20:41
Injected at: 870209 19:56

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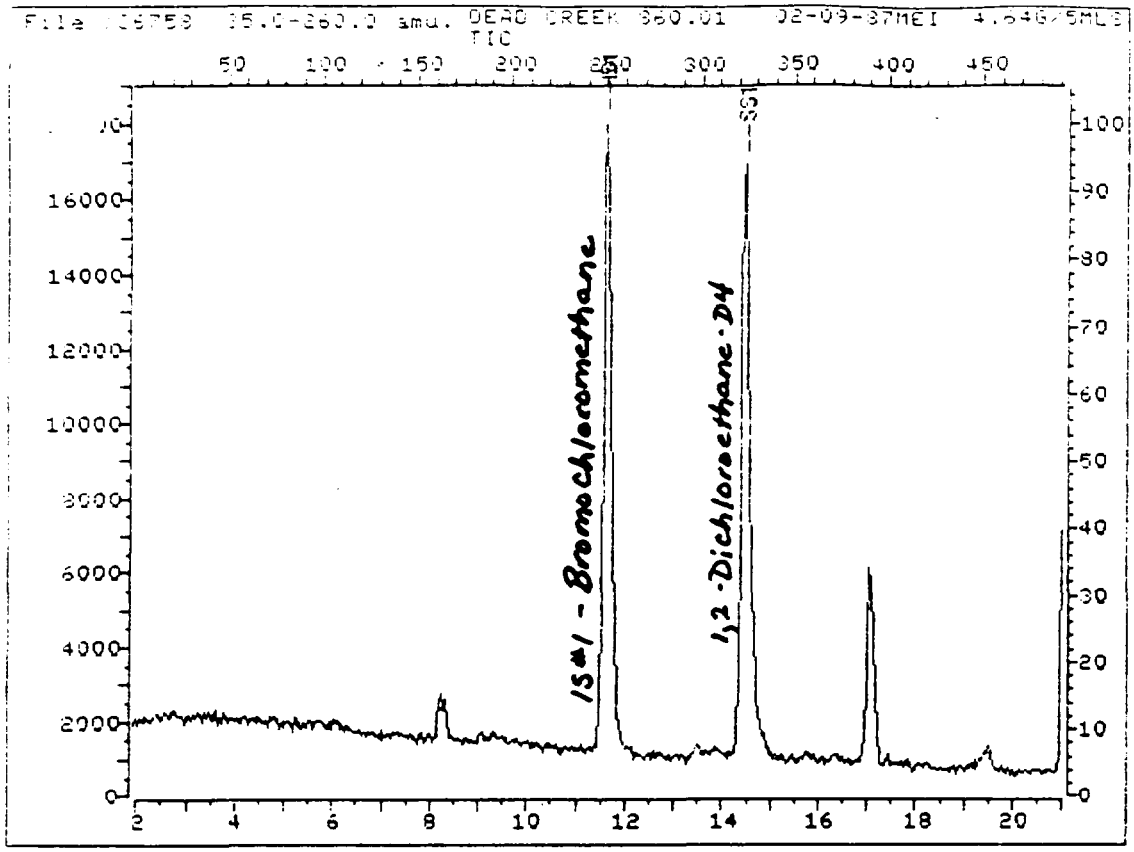
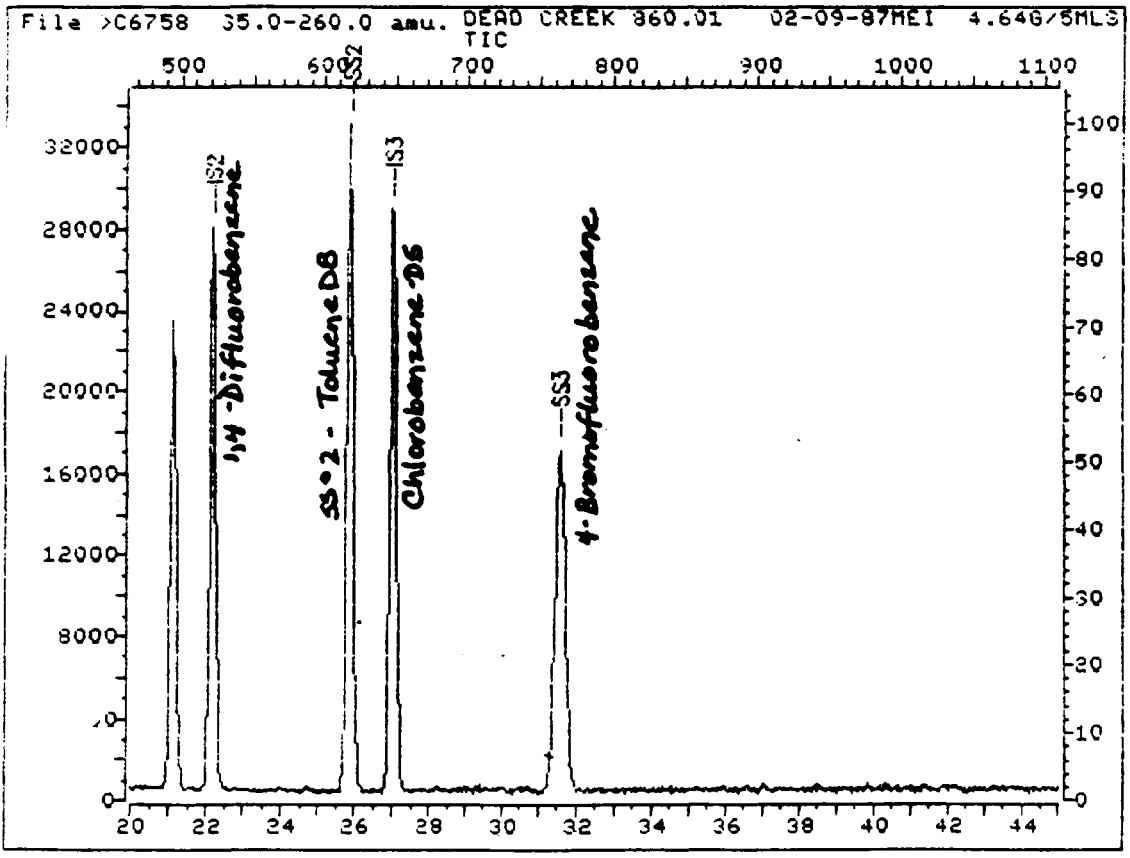
DC-IB-44





recycled paper

QUANT REPORT

Operator ID: USER8 Quant Rev: - Quant Time: 870209 20:41
Output File: ^C6758::Q2 Injected at: 870209 19:56
Data File: >C6758::D3 Dilution Factor: 1.00
Name: DEAD CREEK 860.01 DC-IB-44
Misc: 02-09-87MEI 4.64G/5MLS DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870209 18:44

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.62	250	24891	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.24	163	3297	22.18	NGS	100
7)	ACETONE		43	9.25	189	5731	38.72	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.49	324	72781	303.07	NGS	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.17	522	114563	250.00	NGS	100
17)	2-BUTANONE		72	14.64	328	2596	63.47	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.02	647	87896	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.89	618	126379	286.59	NGS	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.57	764	57081	242.79	NGS	100

* Compound is ISTD

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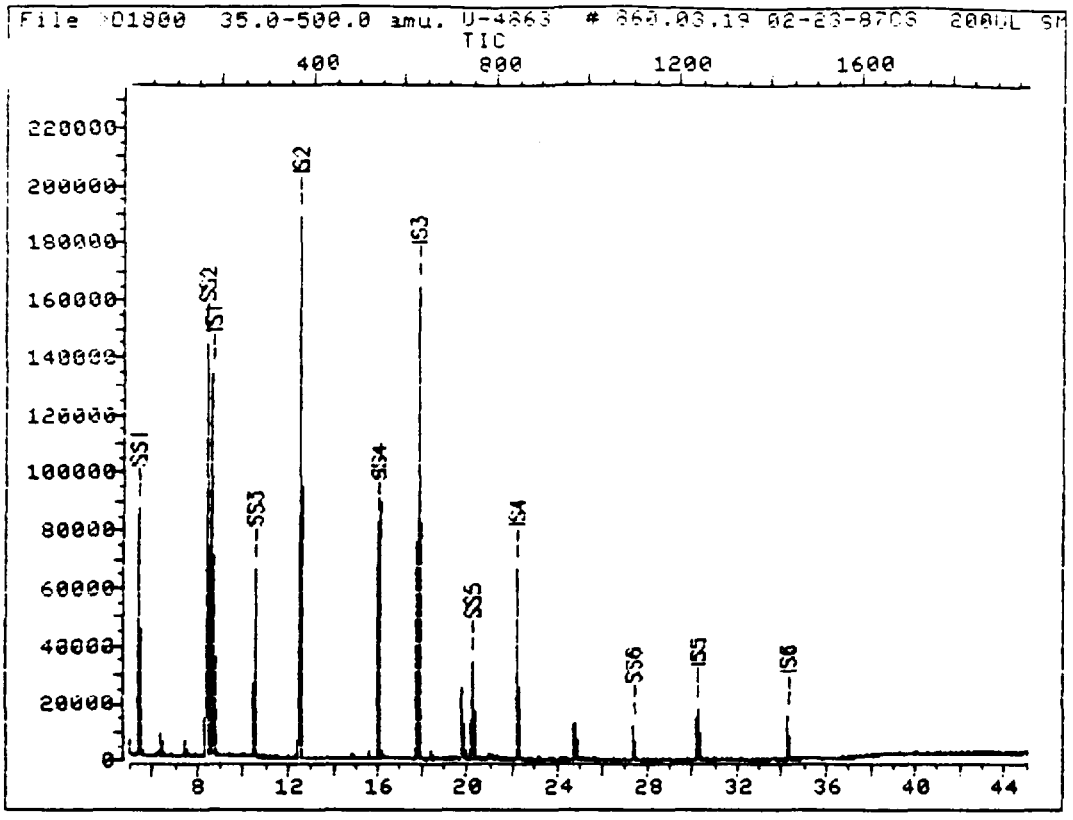
TOTAL ION CHROMATOGRAM



Data File: >D1800::D3
Name: U-4863 # 860.03.19 DC-IB-44
Misc: 02-23-87CS 200UL SMPL + 200UL MECL2 + 4UL IS BTL# 6

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

Operator ID: USER6
Quant Time: 870223 20:38
Injected at: 870223 19:50

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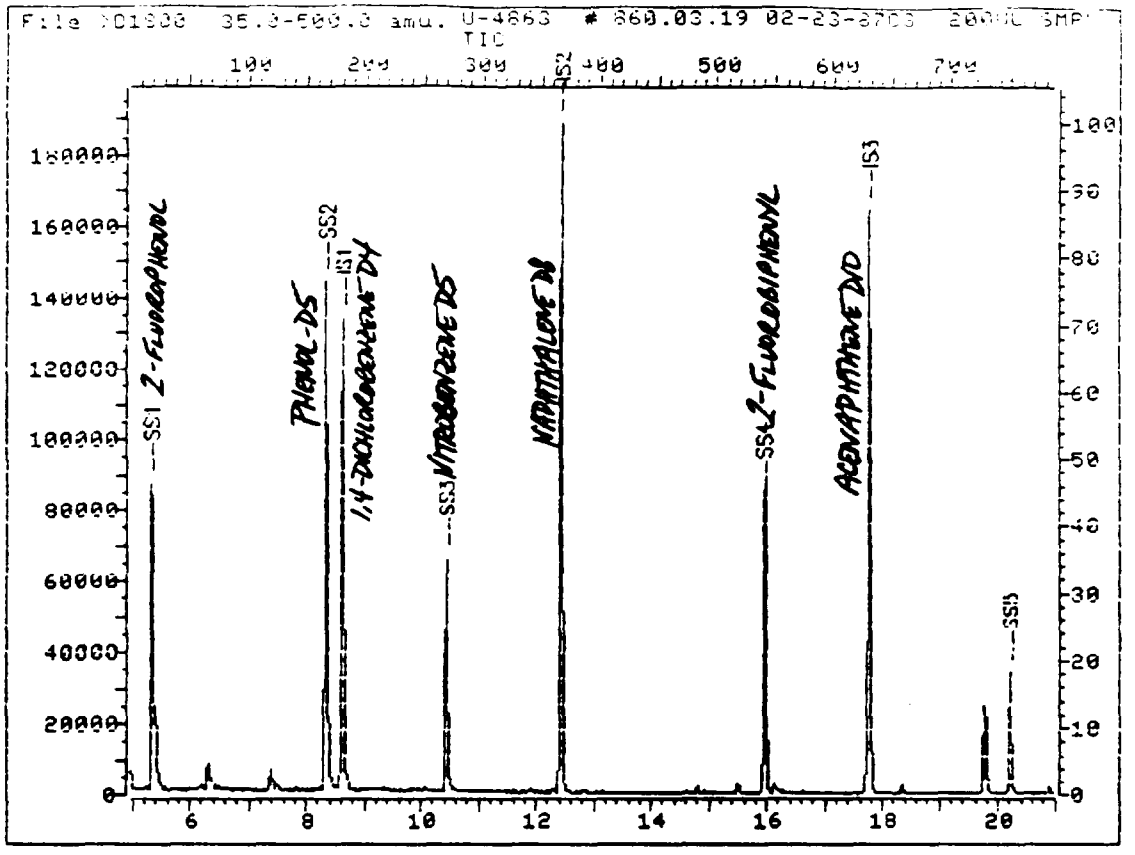
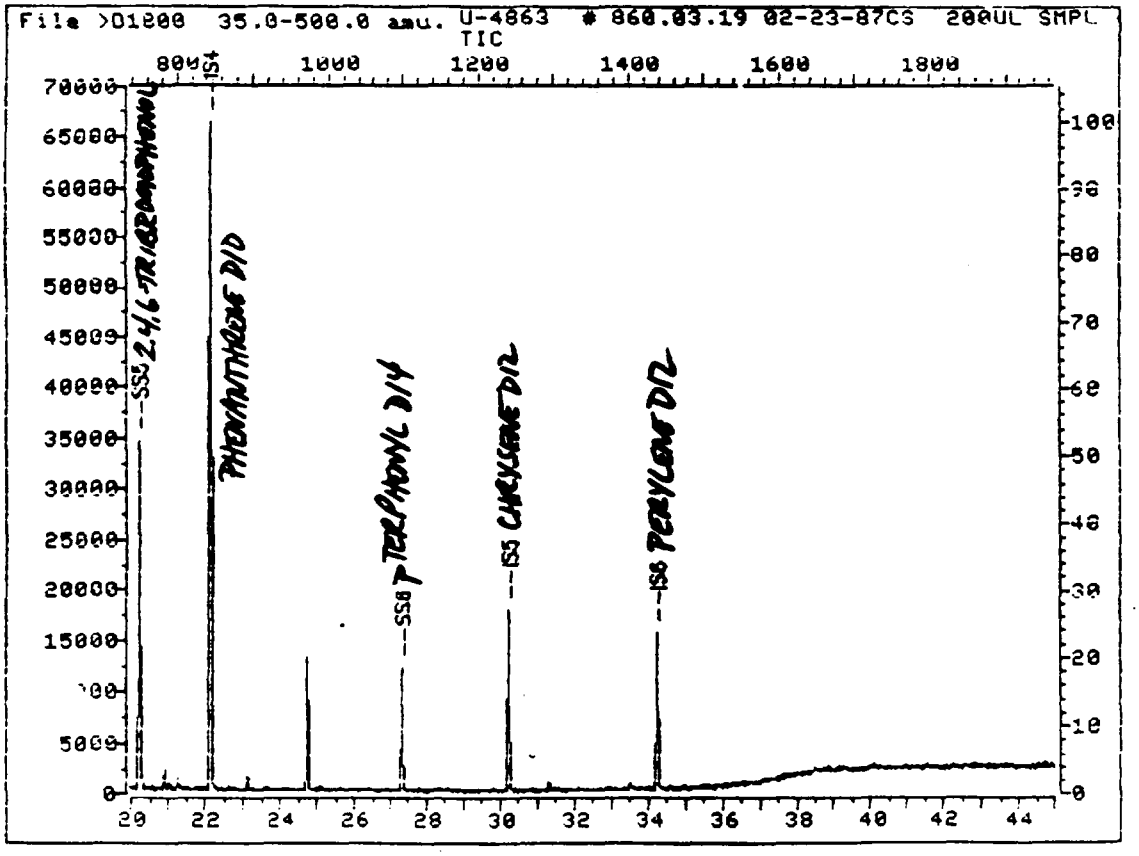
DC-IB-44





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870223.20:38
Output File: ^D1800::Q2 Injected at: 870223 19:50
Data File: >D1800::D3 Dilution Factor: 2.00
Name: U-4863 # 860.03.19 DC-IB-44
Misc: 02-23-87CS 200UL SMPL + 200UL MECL2 + 4UL IS BTL# 6

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.63	180	54891	40.00 UG/L	82
2)	PHENOL-D5	(SURR)	99	8.34	166	99381	90.92 UG/L	89
5)	2-FLUOROPHENOL	(SURR)	112	5.33	18	61864	89.86 UG/L	88
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.44~~	~~269~~	~~8799~~	~~9.52 UG/L~~	~~94~~
19)	*NAPHTHALENE-D8	(IS)	136	12.44	367	202314	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.44	269	51412	44.62 UG/L	86
34)	*ACENAPHTHENE-D10	(IS)	162	17.77	629	89638	40.00 UG/L	96
38)	2-FLUOROBIPHENYL	(SURR)	172	15.96	540	79374	47.09 UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.77~~	~~627~~	~~17924~~	~~13.47 UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.22	749	14451	46.89 UG/L	94
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.77~~	~~627~~	~~11763~~	~~43.21 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.15	844	71190	40.00 UG/L	94
63)	DI-N-BUTYLPHTHALATE		149	24.76	972	21088	24.81 UG/L	96
65)	*CHRYSENE-D12	(IS)	240	30.24	1241	22418	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.35	1099	13722	57.73 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.25	1438	20385	40.00 UG/L	100

* Compound is ISTD

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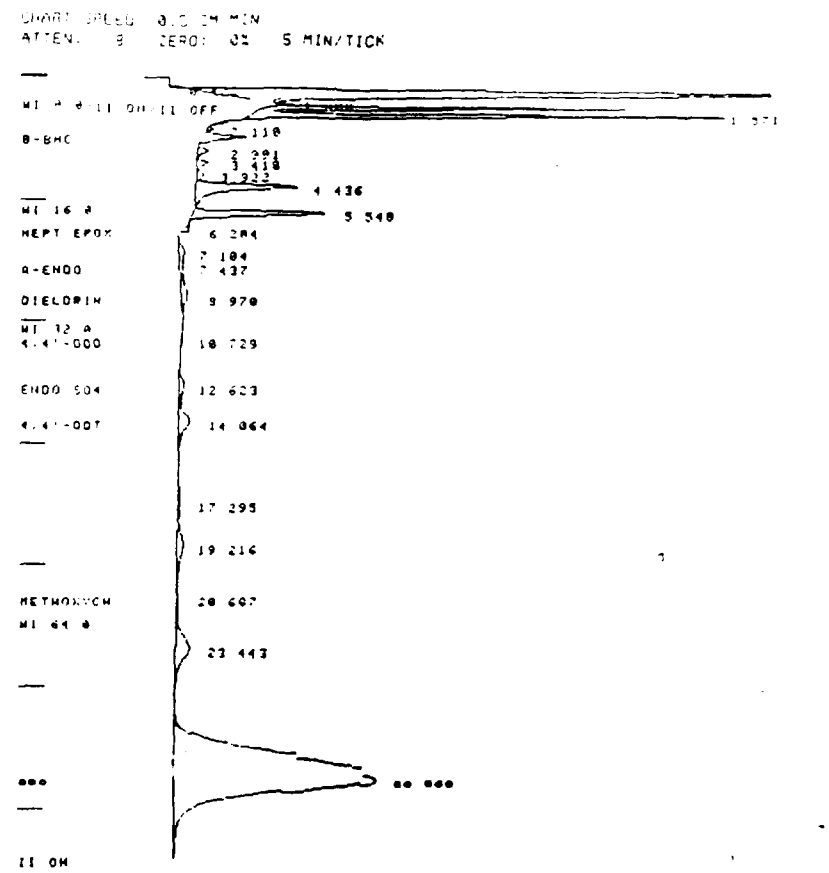

RECALCULATE ON FILE: DC11S1

CHANNEL: 1A - 1 TITLE: RUN# 16 20:38 19 FEB 87

DC-IB-44

SAMPLE: 0860 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.203		193925	BV	4.19
2		0.0000	1.571		411649	VB	5.13
3	~~B-BHC~~	41.7926	2.431	0.051	57148	VB	8.25
4		0.0000	4.436		229574	VB	15.75
5		0.0000	5.548		221185	BB	12.25
6		0.0000	7.104		22413	BV	? 31.00
7	~~HEPTACHLOR~~	11.3531	8.970	0.130	42896	VB	? 95.00
8	~~4,4'DDE~~	10.8022	12.623	-0.107	27162	BV	42.63
9	~~4,4'-DDT~~	25.6565	14.064	-0.106	64224	VB	42.06
10		0.0000	19.216		58791	VV	56.00
11		0.0000	23.443		127947	VB	60.00
12	DBC 115	764.4320	28.569	0.129	2273975	BB	85.00

TOTALS: 854.0365 -0.063 3730889

DETECTED PKS: 29 REJECTED PKS: 17

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: -21

RACK: 2 VIAL: 1 INJ: 1

NOTES:
NOTE BOOK: 259-112 ANALYST:RICHARD SAMSON AND K. JUREK
SECURE AREA: D JOB#:U-4863
INST: VARIAN 6000# 2A 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
PRIMARY ANALYSIS AUTOSAMPLER

recycled paper ecology and environment

SAMPLE NUMBER DC-I7-45

481095

recycled paper

ecology and environment

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
I Sample ID No: 0861
QC Report No:
Sample Matrix: Soil
Contract No: EL-3140
Data Release Authorized By: C Slotowicz
Date Sample Received: 2-5-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-10-87
Conc/Dil Factor: 1 pH 8.2
Percent Moisture: (Not Decanted) 23

Concentrations reported "as received"

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	5 B
67-64-1	Acetone	1500 EB
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	2J
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	20
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	7.8
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/ml 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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name: Ecology & Environment Inc.

Case No: II-4835, 4846, 4863, 4872

Sample Number: DC-I7-45

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-5-87

Date Analyzed: 2-25-87

Conc/Dil Factor: 20

Percent Moisture (Decanted): 23

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	3300	U
111-44-4	bis(-2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1 3-Dichlorobenzene	3300	U
106-46-7	1. 4-Dichlorobenzene	3300	U
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1. 2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2. 4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U
111-91-1	bis(-2-Chloroethoxy)Methane	3300	U
120-83-2	2. 4-Dichlorophenol	3300	U
120-82-1	1. 2. 4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2. 4. 6-Trichlorophenol	3300	U
95-95-4	2. 4. 5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U
208-96-8	Acenaphthylene	3300	U
-09-2	3-Nitroaniline	16000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2. 4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U
132-64-9	Dibenzofuran	3300	U
121-14-2	2 4-Dinitrotoluene	3300	U
606-20-2	2. 6-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3300	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	12000	
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3. 3'-Dichlorobenzidine	6600	U
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300	U
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	3300	U
53-70-3	Dibenz(a h)Anthracene	3300	U
191-24-2	Benzo(g h i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

Laboratory Name [illegible]

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I7-45

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 2-5-87

Date Analyzed: 2-19-87

Conc/Dil Factor: 5

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)
319-84-6	Alpha-BHC	400 U
319-85-7	Beta-BHC	400 U
319-86-8	Delta-BHC	400 U
58-89-9	Gamma-BHC (Lindane)	400 U
76-44-8	Heptachlor	400 U
309-00-2	Aldrin	400 U
1024-57-3	Heptachlor Epoxide	400 U
959-98-8	Endosulfan I	400 U
60-57-1	Dieldrin	800 U
72-55-9	4,4'-DDE	800 U
72-20-8	Endrin	800 U
33213-65-9	Endosulfan II	800 U
72-54-8	4,4'-DDD	800 U
1031-07-8	Endosulfan Sulfate	800 U
50-29-3	4,4'-DDT	800 U
72-43-5	Methoxychlor	4000 U
53494-70-5	Endrin Ketone	800 U
57-74-9	Chlordane	4,000 U
8001-35-2	Toxaphene	8,000 U
12674-11-2	Aroclor-1016	4,000 U
11104-28-2	Aroclor-1221	4,000 U
11141-16-5	Aroclor-1232	4,000 U
53469-21-9	Aroclor-1242	4,000 U
12672-29-6	Aroclor-1248	4,000 U
11097-69-1	Aroclor-1254	8,000 U
11096-82-5	Aroclor-1260	8,000 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 3 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I7-45

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	15 BJ
2.		Hexane Isomer	VOA	21.1	73 BJ
3.		Dichlorobenzene Isomers	VOA	40.1	9 J
4.					
5.		Unknown	BNA	19.74	4200 J
6.	10544500	Molecular Sulfur	1	25.36	9500 J
7.	90302	N-Phenyl-1-Naphthalenamine	1	26.85	4000 J
8.					
9.					
10.					
11.					
12.					
13.					
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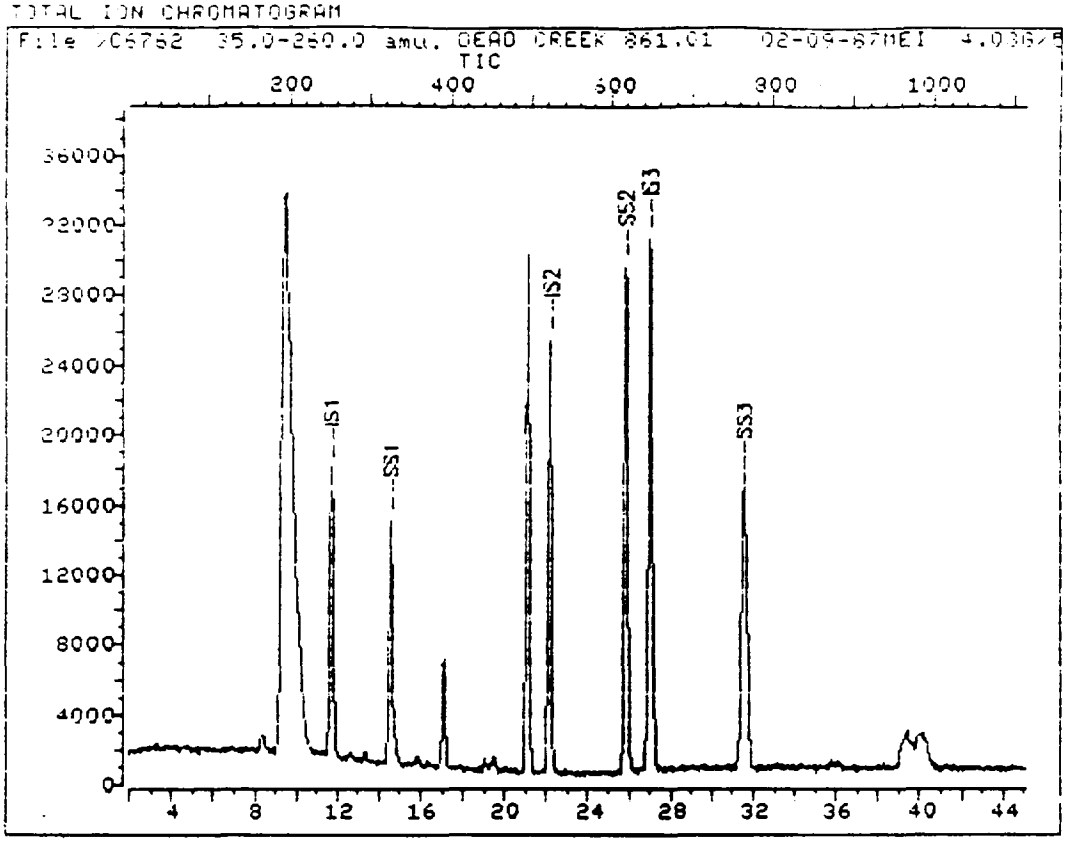
24					
25.					
26.					
27.					
28.					
29.					
30					

TOTAL ION CHROMATOGRAM



Data File: >C6762::D3
Name: DEAD CREEK 861.01 DC-I7-45
Misc: 02-09-87MEI 4.03G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870209 18:44

Operator ID: USER8
Quant Time: 870210 01:53
Injected at: 870210 01:07

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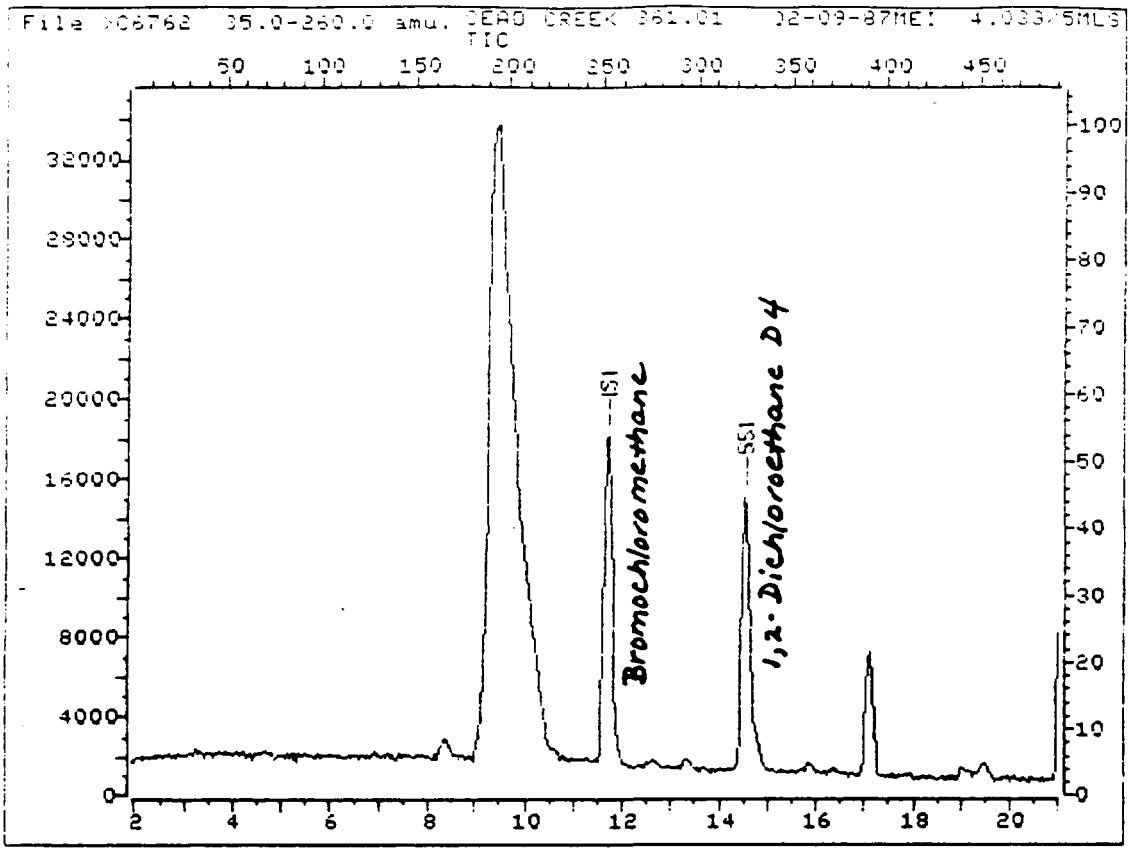
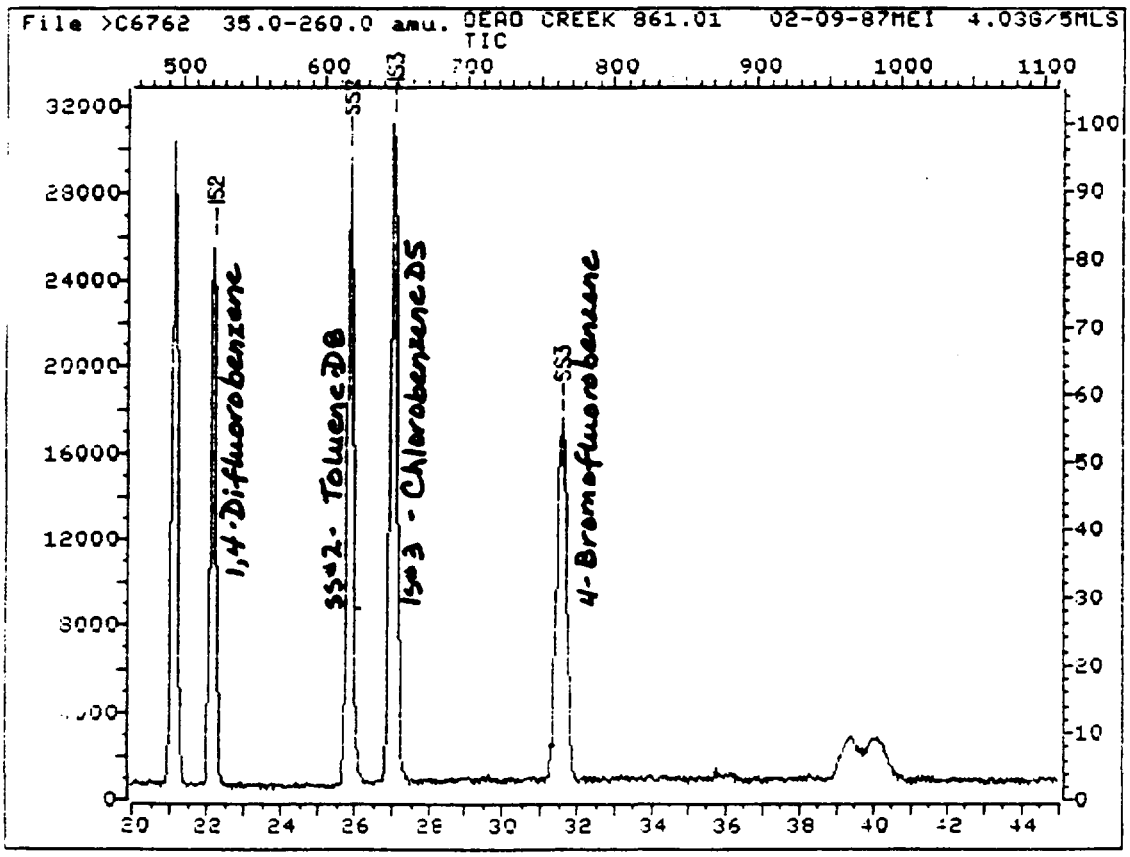
DC-I7-45





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QUANT REPORT

perator ID: USER8 Quant Rev: 4 Quant Time: 870210 01:53
Output File: ^C6762::Q2 Injected at: 870210 01:07
Data File: >C6762::D3 Dilution Factor: 1.00
Name: DEAD CREEK 861.01 DI-17-45
Misc: 02-09-87MEI 4.03G/5MLS DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870209 18:44

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.69	252	22960	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.35	166	2747	20.03	NGS	100
7)	ACETONE	43	9.47	195	815867	5975.04	NGS	100
12)	TRANS-1,2-DICHLOROETHENE	96	13.35	295	1247	9.66	NGS	88
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.52	325	57647	260.24	NGS 104	83
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.16	522	97557	250.00	NGS	100
17)	2-BUTANONE	72	14.71	330	2854	81.94	NGS	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.01	647	88712	250.00	NGS	100
36)	TOLUENE-D8 (SURR)	98	25.85	617	109399	245.80	NGS 90	93
38)	CHLOROBENZENE	112	27.13	650	13711	31.53	NGS	97
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.56	764	57586	242.69	NGS 97	100
43)	1,3-DICHLOROBENZENE	146	39.32	964	10406	10406.00	NO CALIB	100
44)	1,2-DICHLOROBENZENE		39.32	964	10406	10406.00	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	39.32	964	10406	10406.00	NO CALIB	100

* Compound is ISTD

dichlorobenzene peaks from scan 949 to 1003
Total area of 146 ion → 41895 mo

ok CW

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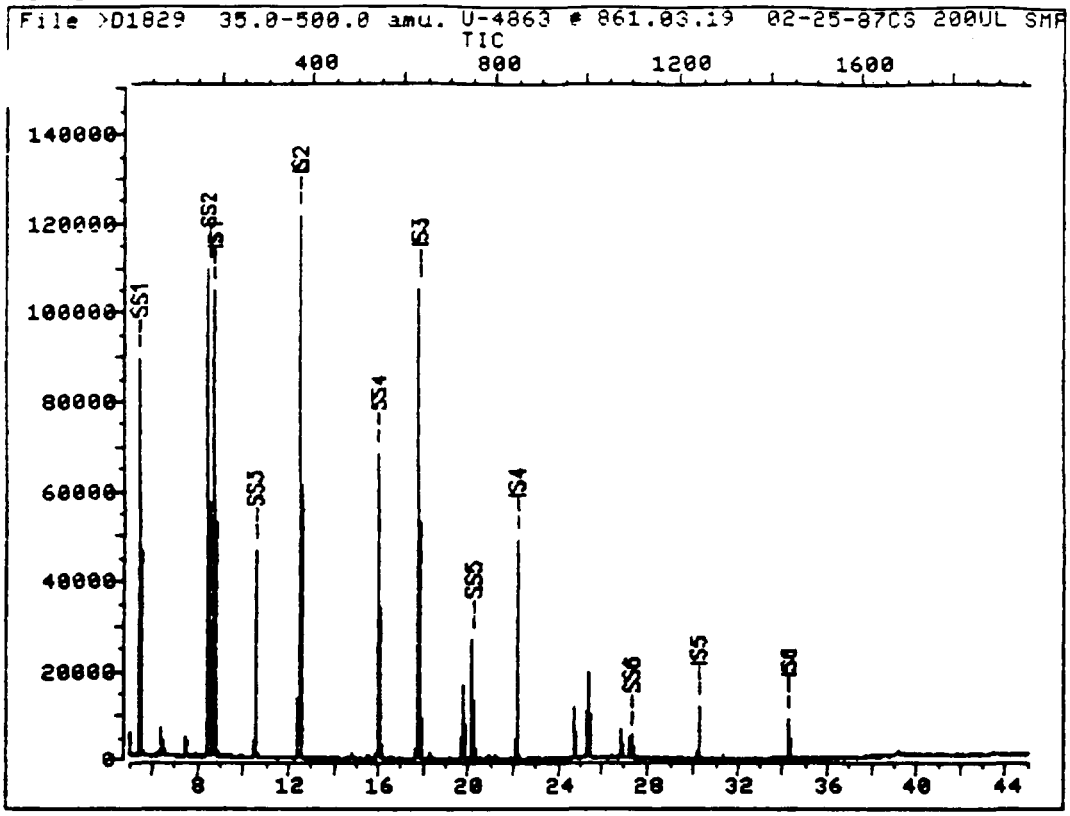
TOTAL ION CHROMATOGRAM



Data File: >D1829::D3
Name: U-4863 # 861.03.19 DC-I7-45
Misc: 02-25-87CS 200UL SMPL + 200UL MECL2 + 4UL IS BTL# 6

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870225 15:18

Operator ID: USER6
Quant Time: 870225 20:26
Injected at: 870225 19:38

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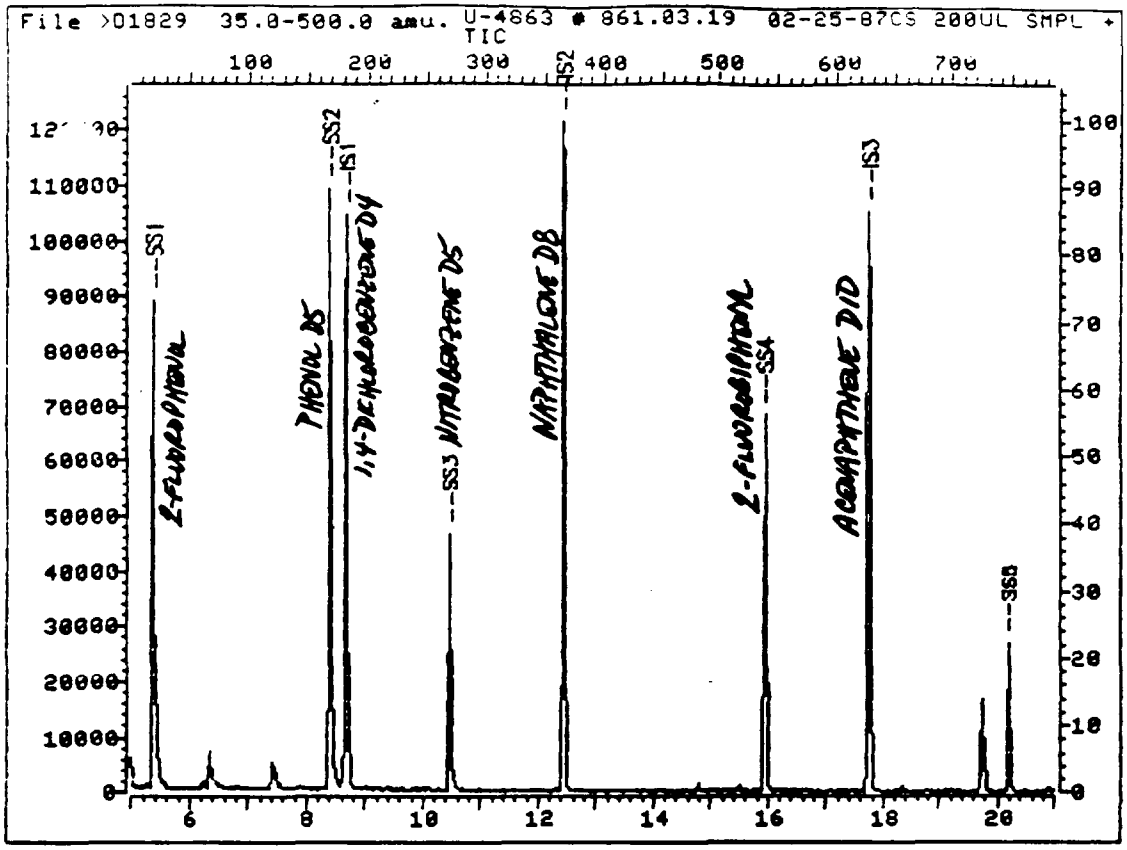
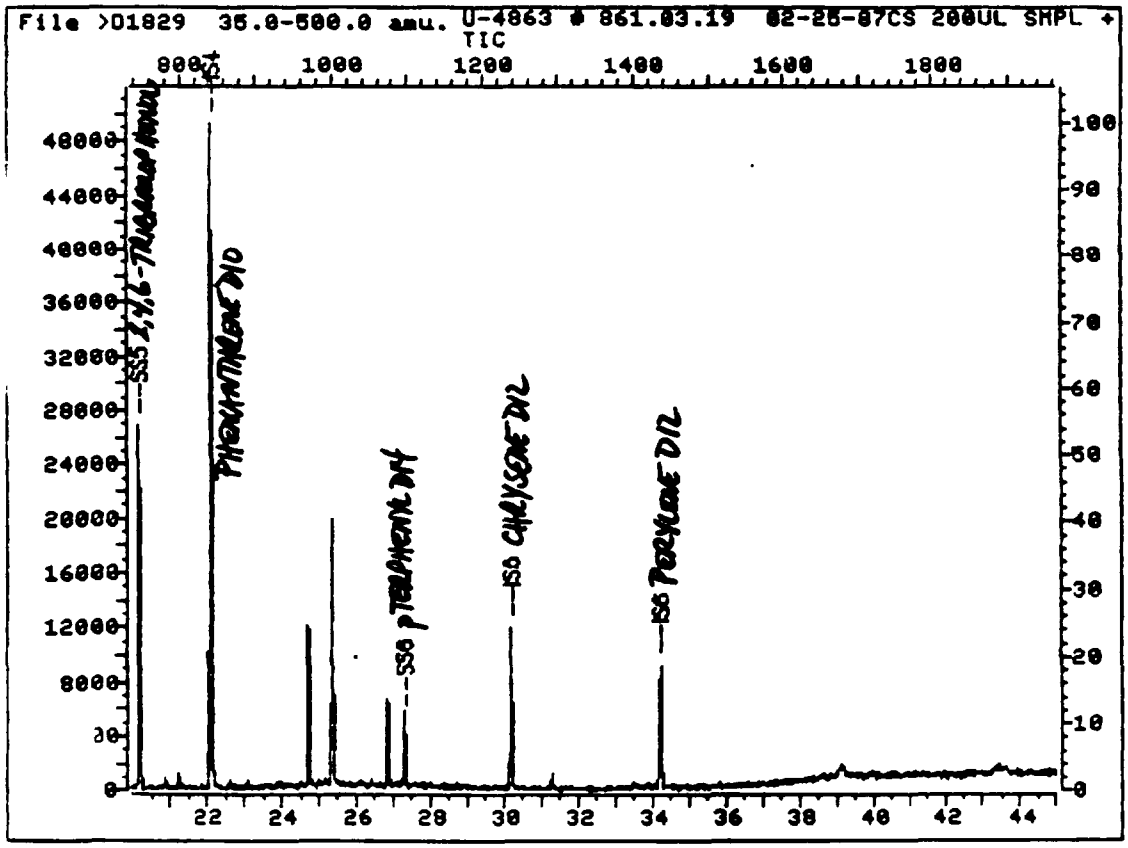


DC-I7-45



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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870225 20:26
Output File: ^D1829::Q2 Injected at: 870225 19:38
Data File: >D1829::D3 Dilution Factor: 2.00
Name: U-4863 # 861.03.19 DC-I7-45
Misc: 02-25-87CS 200UL SMPL + 200UL MECL2 + 4UL IS BTL# 6

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870225 15:18

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.68	182	38456	40.00 UG/L	78
2)	PHENOL-D5	(SURR)	99	8.39	168	72884	87.87 UG/L 88	90
5)	2-FLUOROPHENOL	(SURR)	112	5.36	19	55923	101.39 UG/L 101	56
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.45~~	~~269~~	~~7847~~	~~8.07 UG/L~~	87
19)	*NAPHTHALENE-D8	(IS)	136	12.43	366	142508	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.45	269	40358	44.96 UG/L 90	92
34)	*ACENAPHTHENE-D10	(IS)	162	17.74	627	56891	40.00 UG/L	95
38)	2-FLUOROBIPHENYL	(SURR)	172	15.95	539	50401	47.73 UG/L 96	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.74~~	~~627~~	~~11248~~	~~14.36 UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.19	747	9023	64.38 UG/L 64	93
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.74~~	~~627~~	~~7508~~	~~46.98 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.12	842	47559	40.00 UG/L	83
63)	DI-N-BUTYLPHTHALATE		149	24.73	970	18338	38.40 UG/L 96	99
65)	*CHRYSENE-D12	(IS)	240	30.19	1238	14032	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.30	1096	7897	50.31 UG/L 100	100
74)	*PERYLENE-D12	(IS)	264	34.22	1436	11716	40.00 UG/L	100

* Compound is ISTD

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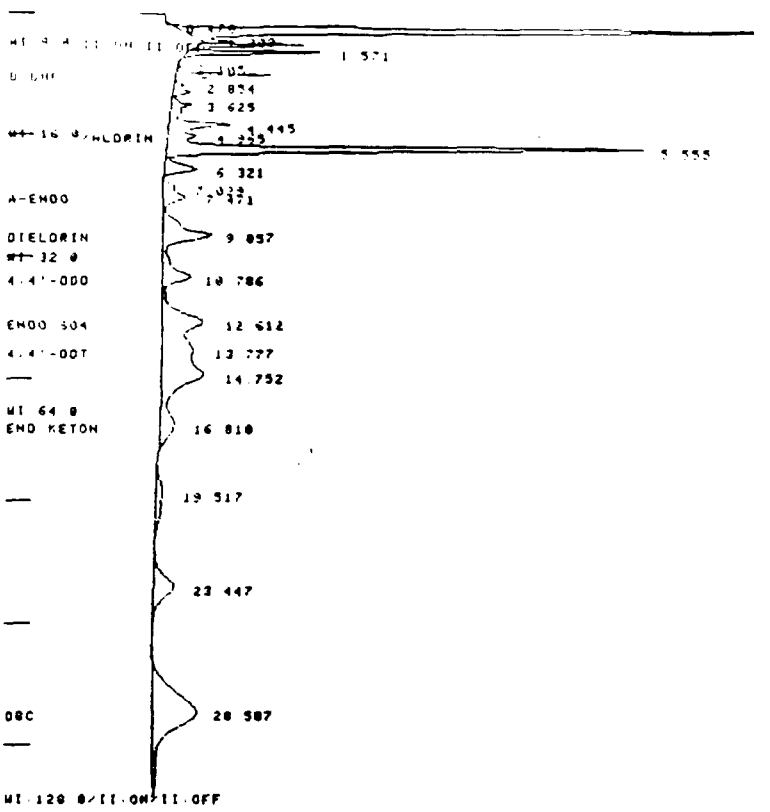

CHANNEL: 1A - 1 TITLE: RUN8 17 21:34 19 FEB 87

DC-I7-45

SAMPLE: 0861 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.206		61606	BB	4.25
2		0.0000	1.571		110760	BV	5.38
3	~~B-BHC~~	341.6543	2.440	0.060	93437	VB	6.88
4		0.0000	3.112		24355	VV	10.63
5		0.0000	3.625		33638	VV	10.31
6		0.0000	3.895		26447	VV	? 23.50
7		0.0000	4.445		135002	VV	15.31
8	~~ALDRIN~~	72.9310	4.965	-0.105	57956	VV	? 17.25
9		0.0000	5.565		849353	VV	13.19
10	~~HEPTACHLOR~~	123.6583	6.321	0.101	93023	VV	20.50
11		0.0000	7.029		23312	VV	? 19.50
12	~~A-ENDO~~	99.0933	7.471	-0.129	70562	VV	20.06
13	~~DIELDRIN~~	301.9600	9.057	0.217	220182	VV	29.06
14	~~4,4'-DDE~~	216.2278	10.786	-0.144	134303	VV	29.19
15	~~ENDO-504~~	524.2502	12.612	-0.198	263644	VV	? 45.06
16	~~4,4'-DDT~~	306.0001	13.777	-0.473	193293	VV	? 65.31
17		0.0000	14.752		338419	VV	? 78.63
18	~~END KETON~~	146.5621	16.810	0.430	105623	VB	66.44
19		0.0000	19.517		84826	BV	96.19
20		0.0000	23.447		168634	VV	58.19
21	OBC 149	993.8314	28.587	0.147	591275	VB	97.86
TOTALS:		3206.258		-0.814	3686850		

DETECTED PKS: 29 REJECTED PKS: 8

DIVISOR: 0.15000 MULTIPLIER: 5000.00000

NOISE: 11.4 OFFSET: 90

RACK: 2 VIAL: 2 INJ: 1

NOTES:
NOTE BOOK: 259-112 ANALYST:RICHARD SAMSON AND K. JUREK
SECURE AREA: D JOB#:U-4863
INST: VARIAN 6000# 2A 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
PRIMARY ANALYSIS AUTOSAMPLER

POST RUN:
SAVE FILE: RAW DC1152

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SAMPLE NUMBER DC-I7-46

481095

recycled paper

ecology and environment

DC-1/-46

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872

L Sample ID No: 0862
QC Report No:

Sample Matrix: Soil
Contract No: IL-3140

Data Release Authorized By: C Hoftowicz
Date Sample Received: 2-5-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-9-87

Conc/Dil Factor: 1 pH 8.0

Percent Moisture: (Not Decanted) 20

Concentrations reported "as received"

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 B
67-64-1	Acetone	680 EB
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 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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4835, V-4846, V-4863, V-4872

Sample Number DC-I7-46

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-5-87

Date Analyzed: 2-23-87

Conc/Dil Factor: 20

Percent Moisture (Decanted) 20

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	3300	U
111-44-4	bis(-2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1 3-Dichlorobenzene	3300	U
106-46-7	1. 4-Dichlorobenzene	3300	U
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1. 2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2. 4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U
111-91-1	bis(-2-Chloroethoxy)Methane	3300	U
120-83-2	2. 4-Dichlorophenol	3300	U
120-82-1	1. 2. 4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2. 4. 6-Trichlorophenol	3300	U
95-95-4	2. 4. 5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U
208-96-8	Acenaphthylene	3300	U
09-2	3-Nitroaniline	16000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2. 4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U
132-64-9	Dibenzofuran	3300	U
121-14-2	2 4-Dinitrotoluene	3300	U
606-20-2	2. 6-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3300	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	6800	
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3. 3'-Dichlorobenzidine	6600	U
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1900	J
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	3300	U
53-70-3	Dibenz(a h)Anthracene	3300	U
191-24-2	Benzo(g h i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

Laboratory Name [illegible]

Case No U-4835, 4846, 4862, 4872

Sample Number DC-I7-46

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-5-87

Date Analyzed 2-19-87

Conc/Dil Factor 1

Percent Moisture (decanted) 20

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	1,600 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 3 V_t 1000 V_i 4

312

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ecology and environment

Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I7-46

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	17.0	10 BJ
2.		Hexane isomer	VOA	21.1	56 BJ
3.					
4.		No Semi-Volatile Compounds Found			
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
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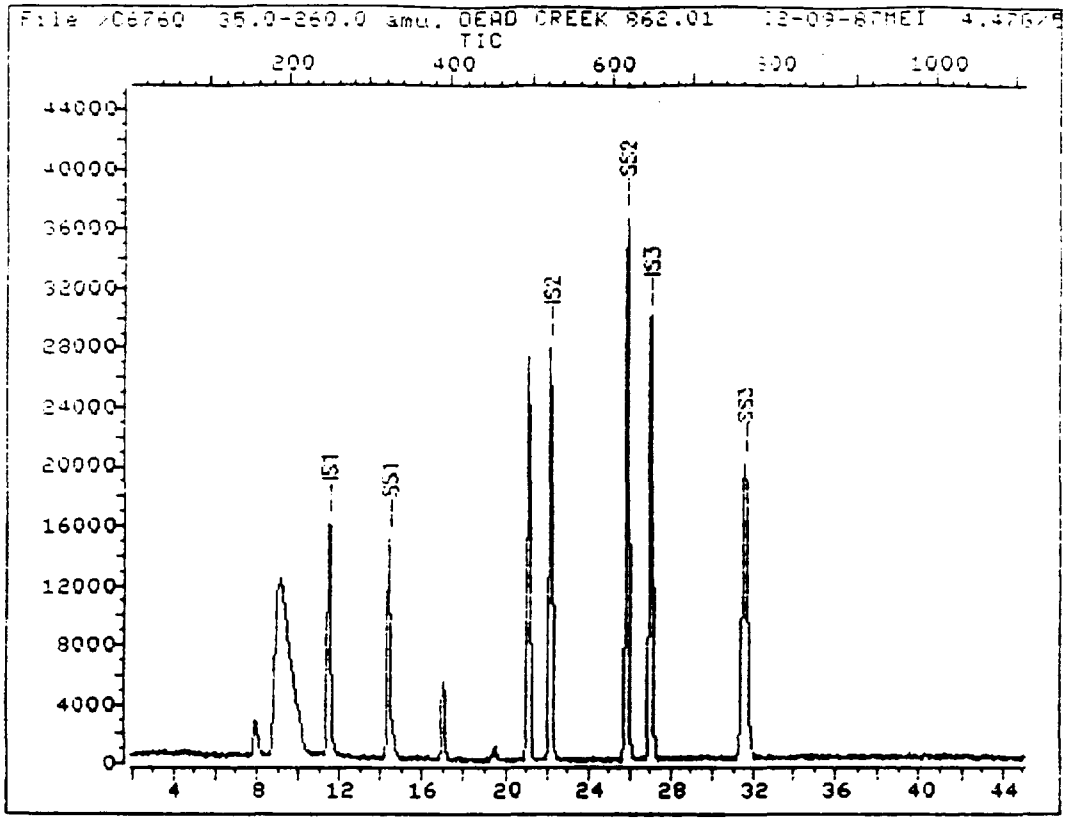
25.					
26.					
27.					
28.					
29.					
30.					

TOTAL ION CHROMATOGRAM



Data File: >C6760::D3
Name: DEAD CREEK 862.01 DC-I7-46
Misc: 02-09-87MEI 4.47G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870209 18:44

Operator ID: USER8
Quant Time: 870209 23:00
Injected at: 870209 22:14

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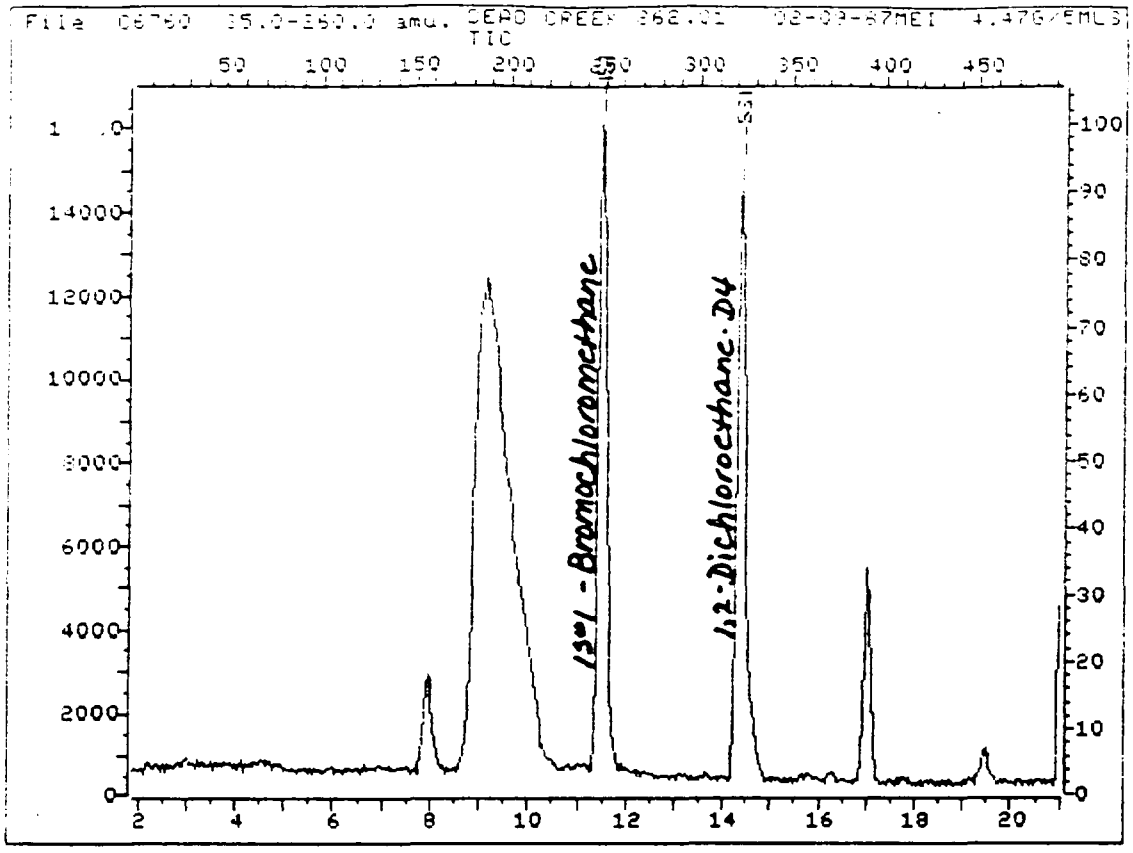
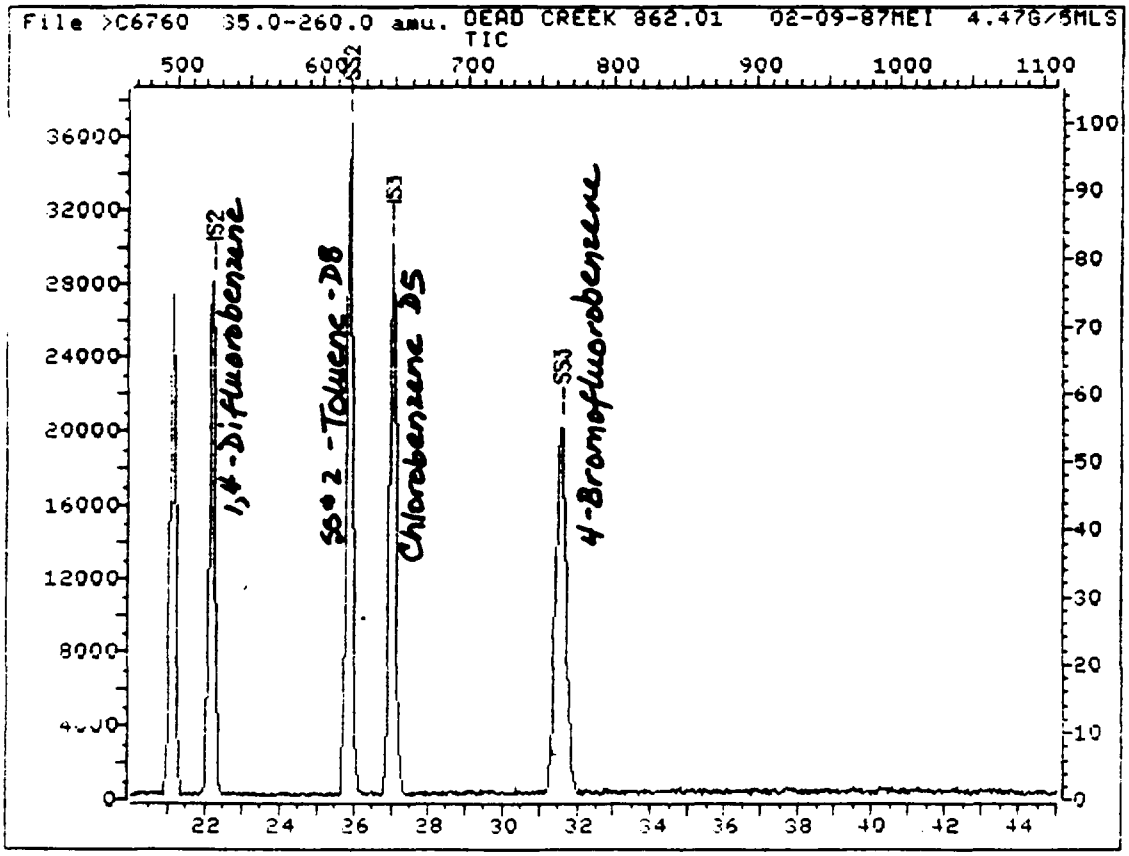
ecology and environment

DC-I7-46





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870209 23:00
Output File: >C6760::Q2 Injected at: 870209 22:14
Data File: >C6760::D3 Dilution Factor: 1.00
Name: DEAD CREEK 862.01 DC-I7-46
Misc: 02-09-87MEI 4.47G/5MLS DI - 10UL IS/SS

ID File: VOACRS::D2
Title: VOH ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870209 18:44

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.48	248	22542	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	7.95	157	7016	52.11	NGS	100
7)	ACETONE		43	9.15	188	409573	3055.15	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.39	323	65517	301.26	NGS	80
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.19	524	111481	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.00	648	107009	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.87	619	136142	253.59	NGS	93
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.55	763	68295	238.61	NGS	100

* Compound is ISTD

ok CW

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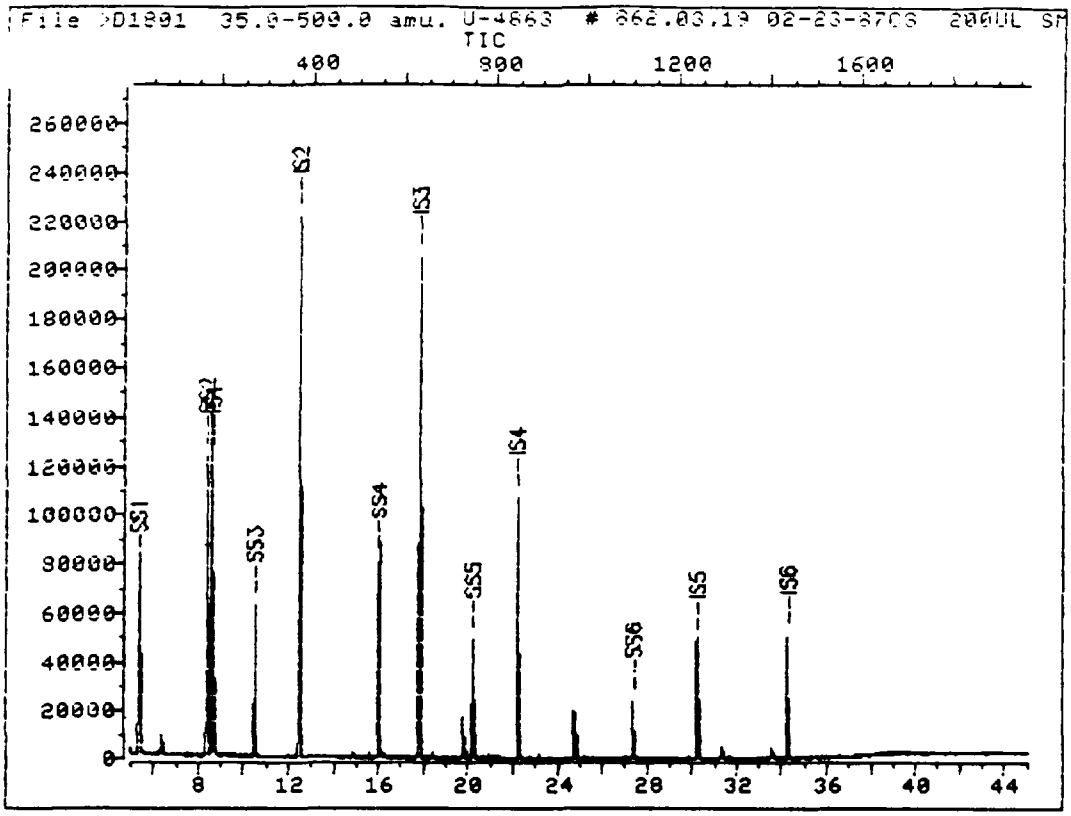
TOTAL ION CHROMATOGRAM



Data File: >D1801::D3
Name: U-4863 # 862.03.19 DC-I7-4L
Misc: 02-23-87CS 200UL SMPL + 200UL MECL2 + 4UL IS BIL# 2

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

Operator ID: USER6
Quant Time: 870223 21:31
Injected at: 870223 20:43

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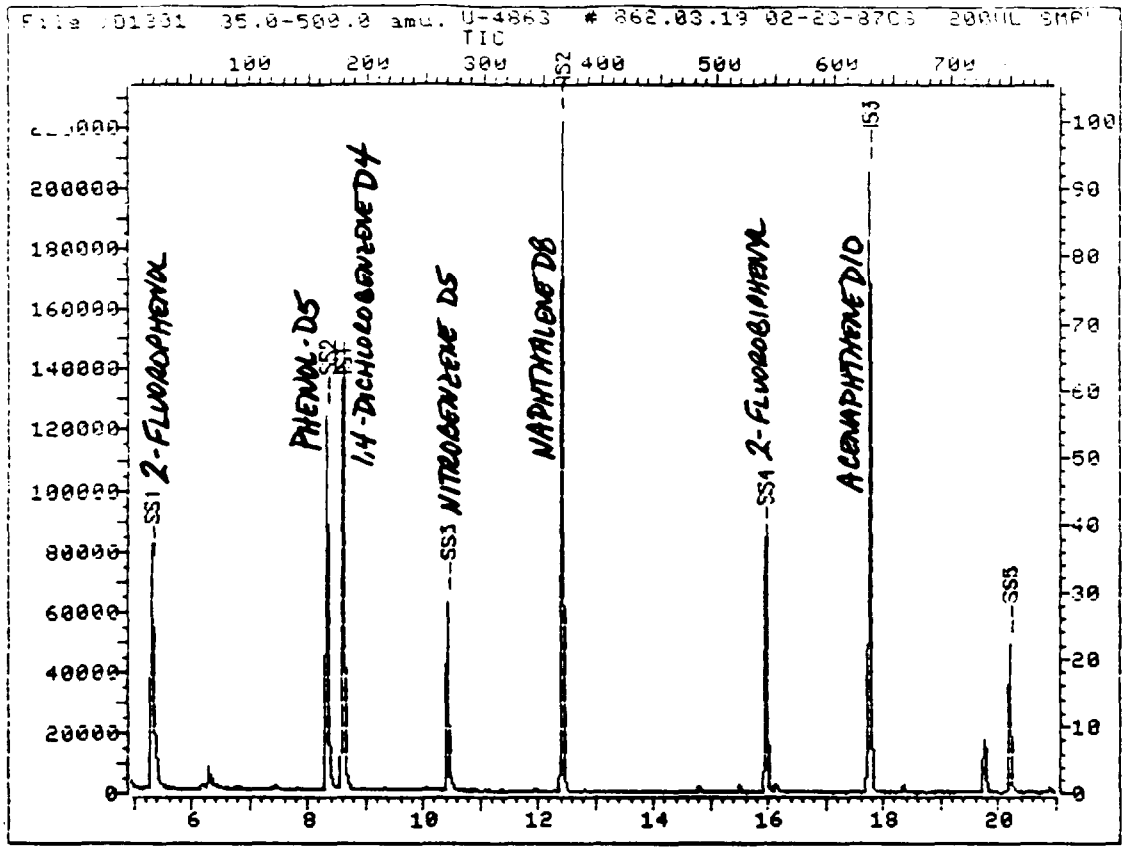
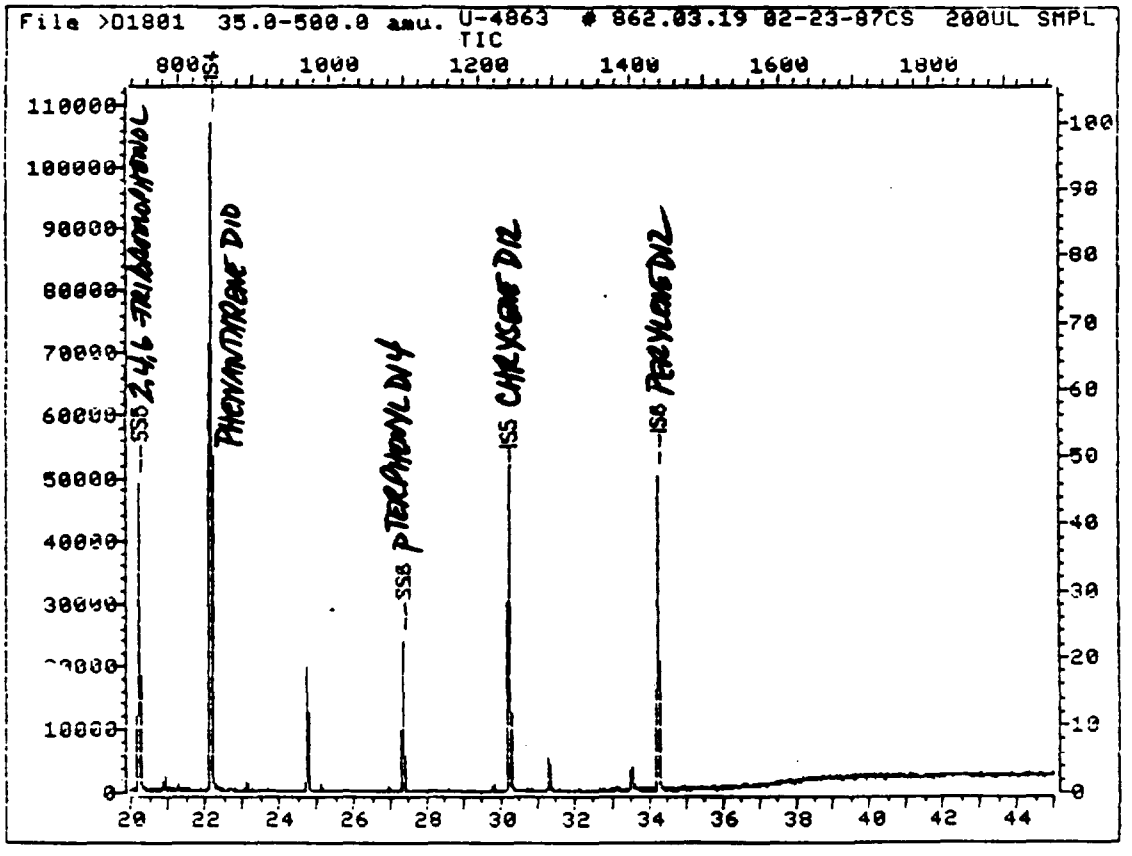


DC-IT-46



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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870223 21:31
Output File: ^D1801::Q2 Injected at: 870223 20:43
Data File: >D1801::D3 Dilution Factor: 2.00
Name: U-4863 # 862.03.19 DC-I7-46
Misc: 02-23-87CS 200UL SMPL + 200UL MECL2 + 4UL IS BTL# 7

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4(IS)	152	8.61	179	62897	40.00	UG/L	86
2)	PHENOL-D5 (SURR)	99	8.34	166	97498	77.85	UG/L	89
5)	2-FLUOROPHENOL (SURR)	112	5.31	17	48141	61.02	UG/L	93
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~10.44~~	~~269~~	~~8403~~	~~7.77~~	~~UG/L~~ No Qty	94
19)	*NAPHTHALENE-D8 (IS)	136	12.44	367	238121	40.00	UG/L	100
20)	NITROBENZENE-D5 (SURR)	82	10.44	269	47803	35.25	UG/L	87
34)	*ACENAPHTHENE-D10 (IS)	162	17.77	629	113308	40.00	UG/L	99
38)	2-FLUOROBIPHENYL (SURR)	172	15.96	540	78437	36.82	UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~	~~163~~	~~17.77~~	~~629~~	~~21080~~	~~12.97~~	~~UG/L~~ No Qty	100
48)	2,4,6-TRIBROMOPHENOL(SURR)	330	20.22	749	19276	49.48	UG/L	96
~~52)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~17.77~~	~~629~~	~~15562~~	~~44.47~~	~~UG/L~~ No Qty	100
55)	*PHENANTHRENE-D10 (IS)	188	22.15	844	113676	40.00	UG/L	94
63)	DI-N-BUTYLPHTHALATE	149	24.76	972	30725	22.63	UG/L	97
65)	*CHRYSENE-D12 (IS)	240	30.22	1240	64166	40.00	UG/L	100
68)	TERPHENYL-D14 (SURR)	244	27.35	1099	26873	39.50	UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE	149	31.32	1294	3615	6.43	UG/L	98
74)	*PERYLENE-D12 (IS)	264	34.25	1438	60501	40.00	UG/L	100

* Compound is ISTD

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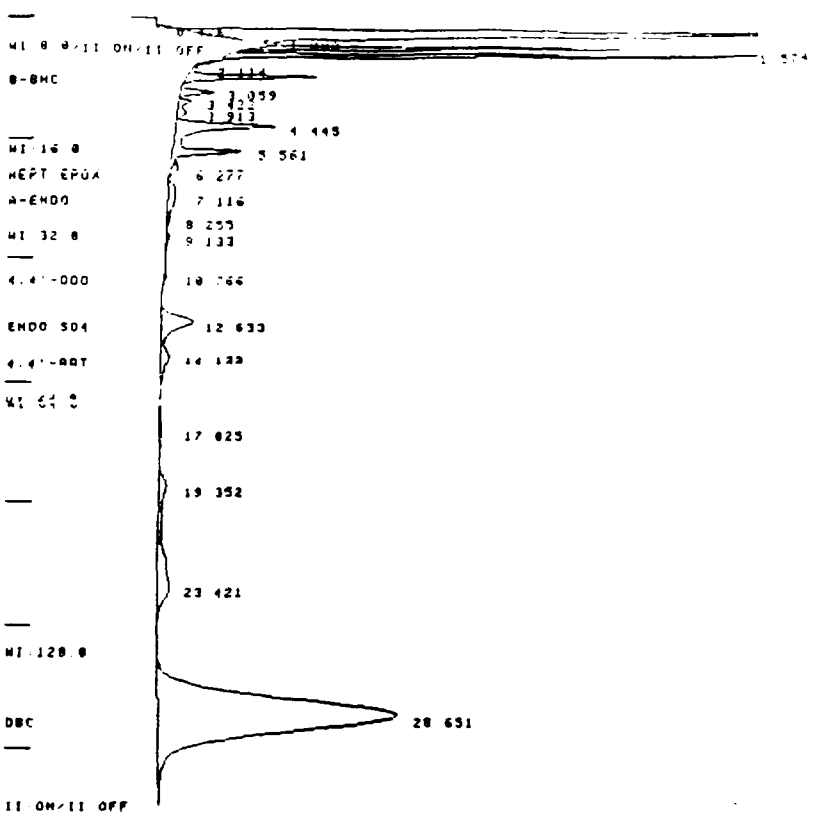

CHANNEL: 1A - 1 TITLE: RUN# 18 22:10 19 FEB 87

DC-I7-46

SAMPLE: 0862 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	1.286		222231	BB	4.19
2		0.0000	1.574		427900	BB	5.00
3	~~A-BHC~~	99.1452	2.435	0.055	135573	VB	6.81
4		0.0000	3.059		45465	BV	9.25
5		0.0000	3.913		21190	VV	? 16.13
6		0.0000	4.445		245628	VV	15.69
7		0.0000	5.561		133663	VV	12.19
8		0.0000	7.116		52514	VV	? 47.13
9	~~ENDO-SO4~~	59.4730	12.633	-0.177	149544	BV	34.31
10	~~dieldrin-DDT~~	26.3280	14.132	-0.118	65905	VB	54.63
11	~~END-ALDEH~~	5.8015	17.025	0.645	20905	BV	54.00
12		0.0000	19.352		87284	VV	68.31
13		0.0000	23.421		172466	VB	?120.00
14	~~DBC~~ 186 444	900.1730	28.651	0.211	2677767	BB	85.94

TOTALS: 1090.920 0.616 4458035

DETECTED PKS: 26 REJECTED PKS: 12

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: -9

RACK: 2 VIAL: 3 INJ: 1

NOTES:
NOTE BOOK: 259-112 ANALYST:RICHARD SAMSON AND K. JUREK
SECURE AREA: D JOB#:U-4863
INST: VARIAN 6000# 2A 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
PRIMARY ANALYSIS AUTOSAMPLER

POST RUN:
SAVE FILE: RAW DC1153

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SAMPLE NUMBER DC-I747

481095

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ecology and environment

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872

Sample ID No: 0863
QC Report No:

Sample Matrix: Soil
Contract No: EL-3140

Data Release Authorized By: C Slotowicz
Date Sample Received: 2-5-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-9-87
Conc/Dil Factor: 1 pH 7.2
Percent Moisture: (Not Decanted) 21

Concentrations reported "as received"

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	10 B
67-64-1	Acetone	720 EB
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	18
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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

322

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I7-47

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-5-87

Date Analyzed: 2-23-87

Conc/Dil Factor: 20

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	3300	U
111-44-4	bis(-2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1 3-Dichlorobenzene	3300	U
106-46-7	1. 4-Dichlorobenzene	3300	U
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1. 2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2. 4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U
111-91-1	bis(-2-Chloroethoxy)Methane	3300	U
120-83-2	2. 4-Dichlorophenol	3300	U
120-82-1	1. 2. 4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2 4. 6-Trichlorophenol	3300	U
95-95-4	2. 4. 5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U
208-96-8	Acenaphthylene	3300	U
09-2	3-Nitroaniline	16000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2. 4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U
132-64-9	Dibenzofuran	3300	U
121-14-2	2 4-Dinitrotoluene	3300	U
606-20-2	2. 6-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3300	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	8400	
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3. 3'-Dichlorobenzidine	6600	U
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	4400	
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	3300	U
53-70-3	Dibenz(a h)Anthracene	3300	U
191-24-2	Benzo(g h i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

Laboratory Name [illegible] and Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I7-47

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-5-87

Date Analyzed 2-19-87

Conc/Dil Factor 2

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)
319-84-6	Alpha-BHC	160 U
319-85-7	Beta-BHC	160 U
319-86-8	Delta-BHC	160 U
58-89-9	Gamma-BHC (Lindane)	160 U
76-44-8	Heptachlor	160 U
309-00-2	Aldrin	160 U
1024-57-3	Heptachlor Epoxide	160 U
959-98-8	Endosulfan I	160 U
60-57-1	Dieldrin	320 U
72-55-9	4,4'-DDE	320 U
72-20-8	Endrin	320 U
33213-65-9	Endosulfan II	320 U
72-54-8	4,4'-DDD	320 U
1031-07-8	Endosulfan Sulfate	320 U
50-29-3	4,4'-DDT	320 U
72-43-5	Methoxychlor	1600 U
53494-70-5	Endrin Ketone	320 U
57-74-9	Chlordane	1600 U
8001-35-2	Toxaphene	3200 U
12674-11-2	Aroclor-1016	1,600 U
11104-28-2	Aroclor-1221	1,600 U
11141-16-5	Aroclor-1232	1,600 U
53469-21-9	Aroclor-1242	1,600 U
12672-29-6	Aroclor-1248	1,600 U
11097-69-1	Aroclor-1254	3,200 U
11096-82-5	Aroclor-1260	3,200 U

V_l = 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 3 V_t 1000 V_l 4

Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

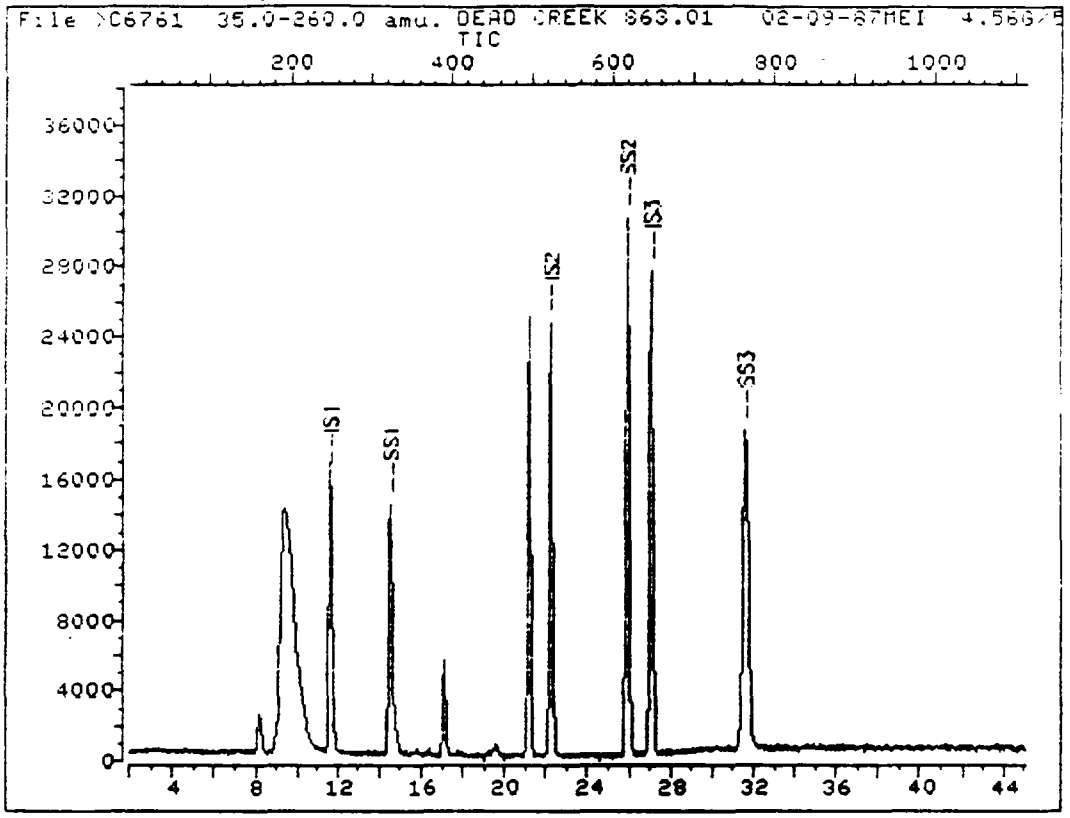
Sample Number DC-I7-47

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	17.2 min	6 BJ
2.		Hexane isomer	VOA	21.2	28 BJ
3.					
4.		Unknown	BNA	19.77	3100 J
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30					

TOTAL ION CHROMATOGRAM



Data File: >C6761::D3
Name: DEAD CREEK 863.01 DC-17-47
Misc: 02-09-87MEI 4.56G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870209 18:44

Operator ID: USER8
Quant Time: 870210 00:10
Injected at: 870209 23:25

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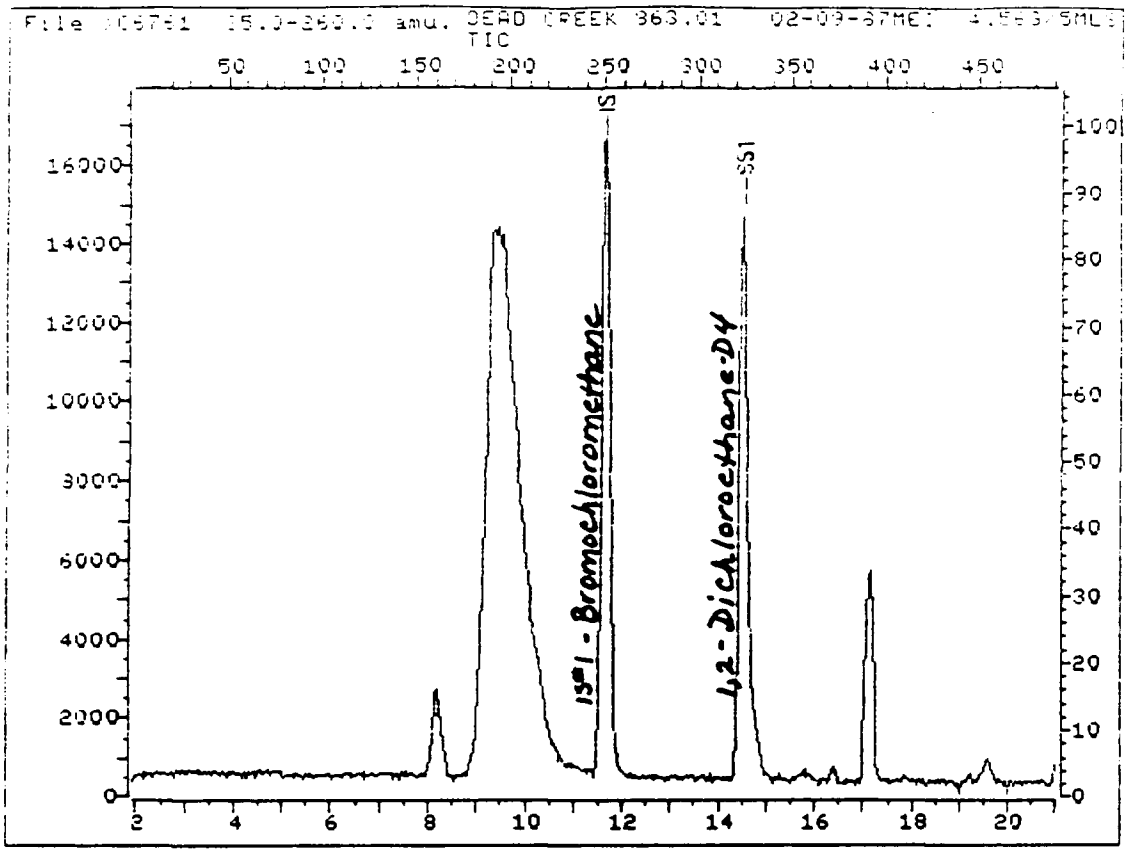
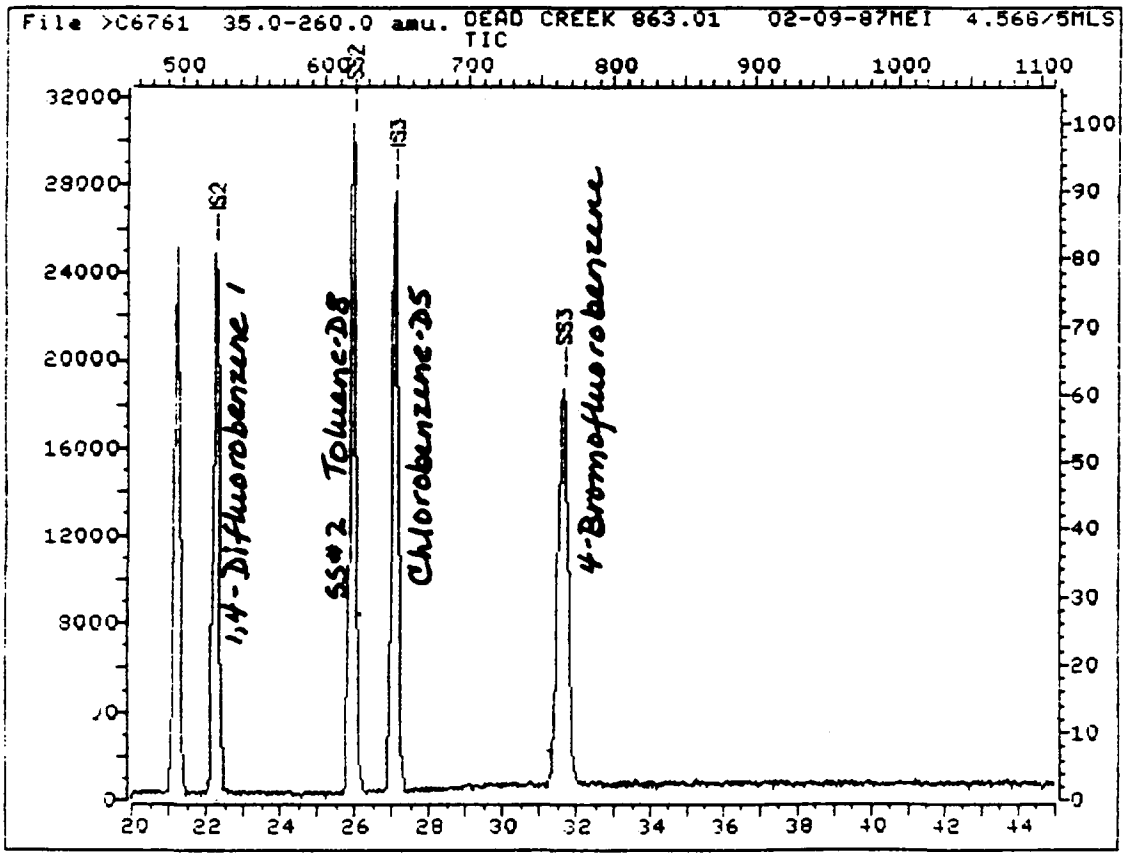
DC-I7-47





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870210 00:10
Output File: ^C6761::Q2 Injected at: 870209 23:25
Data File: >C6761::D3 Dilution Factor: 1.00
Name: DEAD CREEK 863.01 DC-I7-47
Misc: 02-09-87MEI 4.56G/5MLS DI + 10UL IS/SS

ID File: UOACRS::D2
Title: UOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870209 18:44

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.61	250	23852	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.15	161	6525	45.80	NGS	100
7)	ACETONE		43	9.36	192	466095	3285.81	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	325	61343	266.57	NGS 107	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.24	524	97048	250.00	NGS	100
17)	2-BUTANONE		72	14.75	331	2849	82.22	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.09	649	81034	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.92	619	112751	277.34	NGS 111	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.63	766	62327	287.56	NGS 115	100

* Compound is ISTD

ok cw

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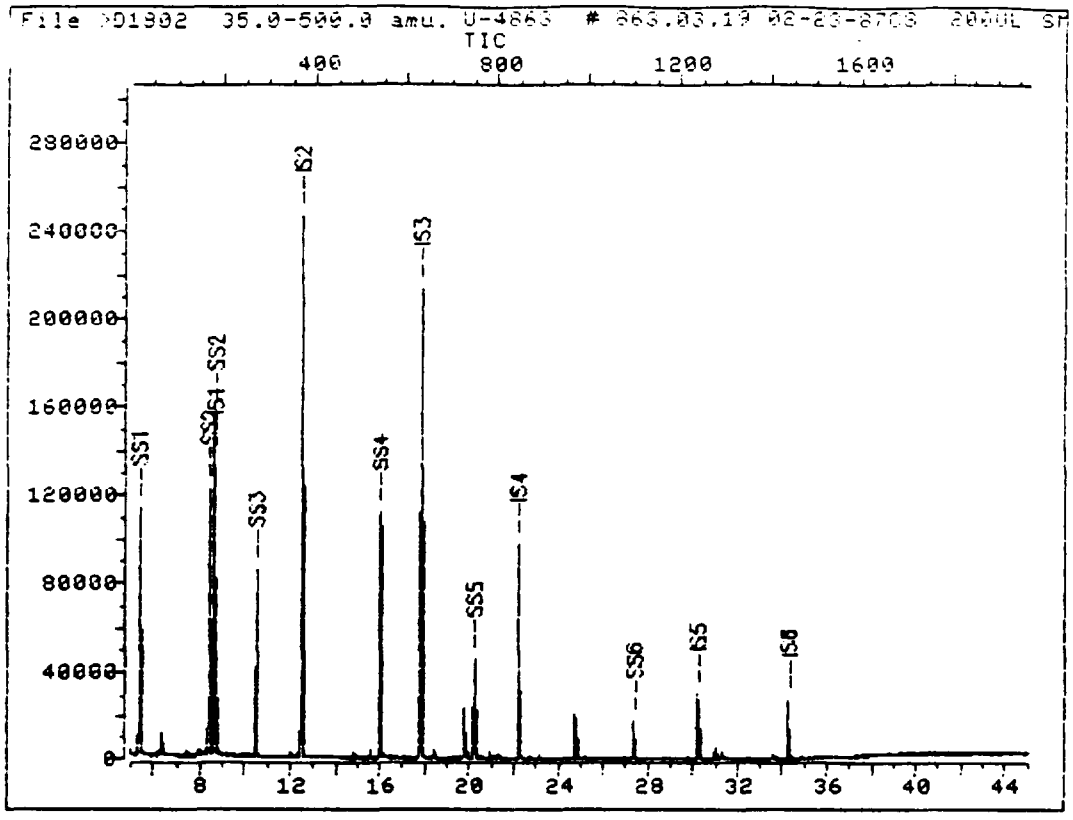
TOTAL ION CHROMATOGRAM



Data File: >D1802::D3
Name: U-4863 # 863.03.19 DC-IT-47
Misc: 02-23-87CS 200UL SMPL + 200UL MECL2 + 4UL IS BTL# 8

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

Operator ID: USER6
Quant Time: 870223 22:24
Injected at: 870223 21:36

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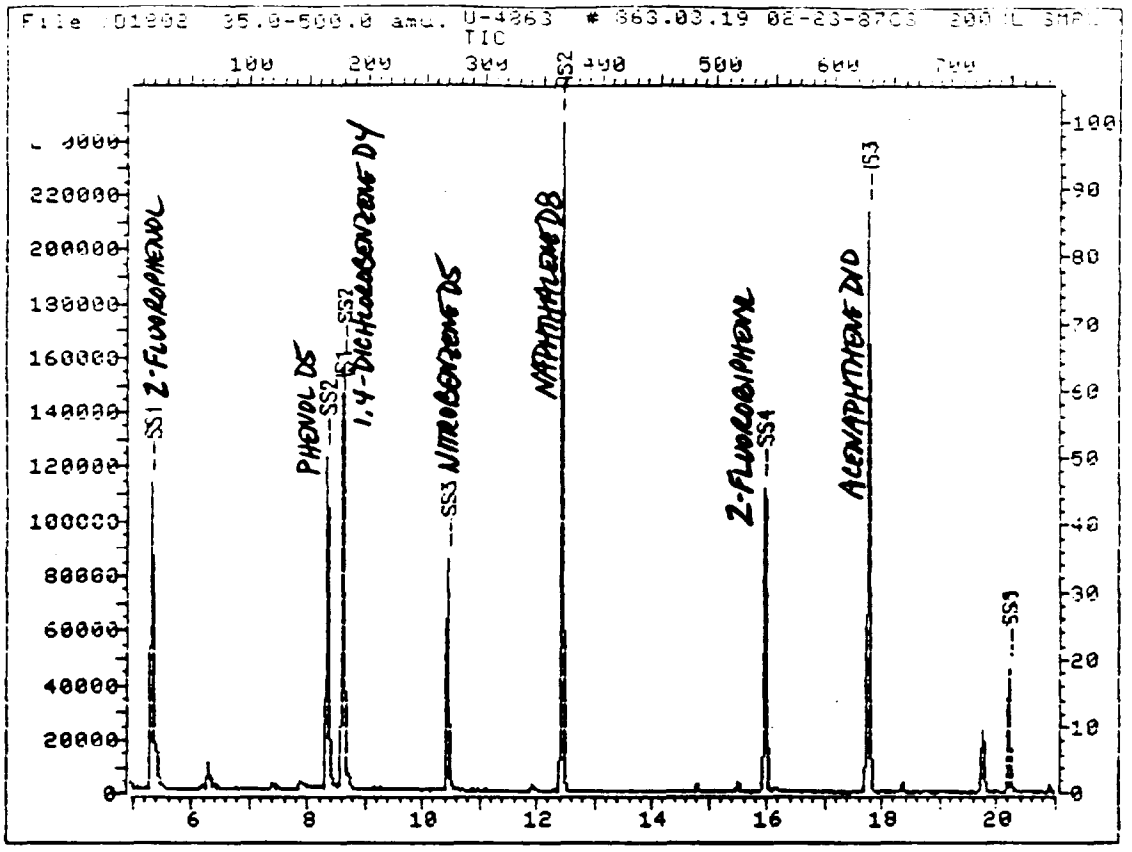
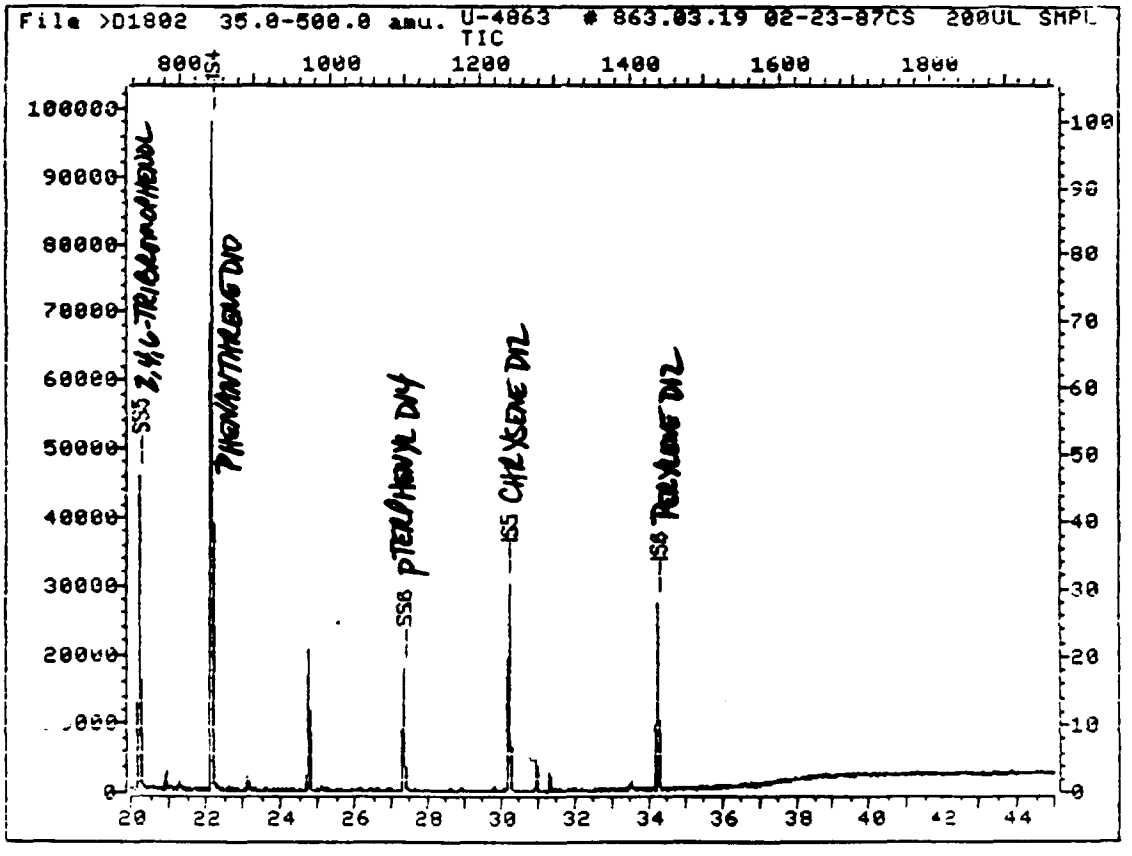


DC-I7-47



recycled paper

ecology and environment

QUANT REPORT

erator ID: USER6 Quant Rev: 4 Quant Time: 870223 22:24
Output File: ^D1802::Q2 Injected at: 870223 21:36
Data File: >D1802::D3 Dilution Factor: 2.00
Name: U-4863 # 863.03.19 DC-I7-47
Misc: 02-23-87CS 200UL SMPL + 200UL MECL2 + 4UL IS BTL# 8

ID File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.61	179	69688	40.00 UG/L	8?
2)	PHENOL-D5	(SURR)	99	8.34	166	99319	71.57 UG/L	86
~~3)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~8.63~~	~~184~~	~~1314~~	~~.96 UG/L~~	~~85~~
5)	2-FLUOROPHENOL	(SURR)	112	5.33	18	84521	96.70 UG/L	?0
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.44~~	~~269~~	~~11931~~	~~9.96 UG/L~~	~~87~~
19)	*NAPHTHALENE-D8	(IS)	136	12.44	367	268863	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.44	269	64843	42.35 UG/L	87
34)	*ACENAPHTHENE-D10	(IS)	162	17.77	629	116879	40.00 UG/L	95
38)	2-FLUOROBIPHENYL	(SURR)	172	15.96	540	98897	45.00 UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.77~~	~~629~~	~~22428~~	~~13.37 UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.22	749	19099	47.53 UG/L	98
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.77~~	~~629~~	~~19723~~	~~49.98 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.15	844	97203	40.00 UG/L	92
63)	DI-N-BUTYLPHTHALATE		149	24.76	972	31406	27.06 UG/L	97
65)	*CHRYSENE-D12	(IS)	240	30.22	1240	37661	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.35	1099	21460	53.74 UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	30.97	1277	4688	14.21 UG/L	88
~~73)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~31.32~~	~~1294~~	~~1849~~	~~5.60 UG/L~~	~~98~~
74)	*PERYLENE-D12	(IS)	264	34.25	1438	33435	40.00 UG/L	100

* Compound is ISTD

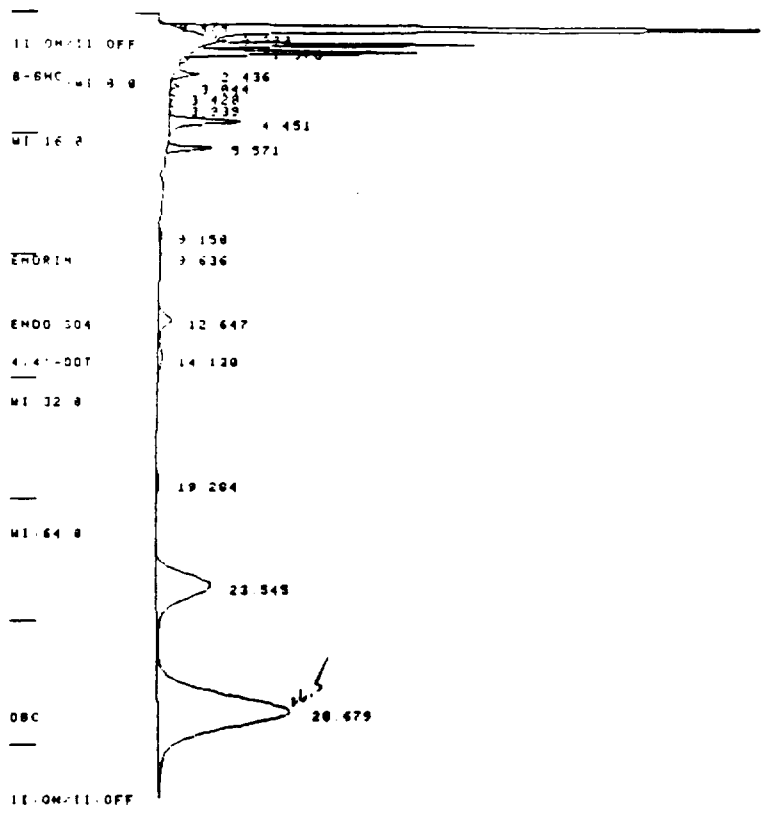
No BNA

No BNA

No BNA

331

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-I7-47

CHANNEL: 1A - 1 TITLE: RUN# 20 23:21 19 FEB 87

SAMPLE: 0863 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	1.288		165672	BV	4.38
2		0.0000	1.576		202667	VB	5.06
3	~~8-BHC~~	46.9732	2.436	0.056	32116	BB	7.88
4		0.0000	4.451		144129	VB	14.94
5		0.0000	5.571		71402	BB	12.13
6	~~ENDO 304~~	49.6618	12.647	-0.163	62437	BV	33.25
7	~~4,4'-DDT~~	26.4954	14.130	-0.120	33162	VB	? 43.06
8		0.0000	19.284		28427	BB	54.63
9		0.0000	23.545		503472	BV	69.63
10	DBC /32	~~[illegible]~~ 883	28.679	0.239	~~[illegible]~~	~~[illegible]~~	87.06
TOTALS:		1157.736		0.012	2782318		

DETECTED PKS: 21 REJECTED PKS: 11

DIVISOR: 0.15000 MULTIPLIER: 2000.00000

NOISE: 11.4 OFFSET: -25

RACK: 2 VIAL: 5 INJ: 1

NOTES:
NOTE BOOK: 259-112 ANALYST:RICHARD SAMSON AND K. JUREK
SECURE AREA: D JOB#:U-4863
INST: VARIAN 6000# 2A 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
PRIMARY ANALYSIS AUTOSAMPLER

POST RUN:
SAVE FILE: RAW DC1155

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SAMPLE NUMBER DC-I9-48

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ecology and environment

SC-27-70

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 08864
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 2-5-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-12-87
Conc/Dil Factor: 2 pH 9.1
Percent Moisture: (Not Decanted) 32

Concentrations reported "as received"

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	760 BJ
67-64-1	Acetone	9100 B
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	7300 B
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	680 J
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	53000
108-90-7	Chlorobenzene	2200
100-41-4	Ethylbenzene	400 J
100-42-5	Styrene	1000U
	Total Xylenes	590 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 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-I9-48

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared: 2/5/87

Date Analyzed: 3/4/87

Conc/Dil Factor: 200

Percent Moisture (Decanted) 32

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	33,000	U
111-44-4	bis(-2-Chloroethyl)Ether	33,000	U
95-57-8	2-Chlorophenol	33,000	U
541-73-1	1 3-Dichlorobenzene	33,000	U
106-46-7	1 4-Dichlorobenzene	33,000	U
100-51-6	Benzyl Alcohol	33,000	U
95-50-1	1 2-Dichlorobenzene	33,000	U
95-48-7	2-Methylphenol	33,000	U
39638-32-9	bis(2-chloroisopropyl)Ether	33,000	U
106-44-5	4-Methylphenol	33,000	U
621-64-7	N-Nitroso-Di-n-Propylamine	33,000	U
67-72-1	Hexachloroethane	33,000	U
98-95-3	Nitrobenzene	33,000	U
78-59-1	Isophorone	33,000	U
88-75-5	2-Nitrophenol	33,000	U
105-67-9	2. 4-Dimethylphenol	33,000	U
65-85-0	Benzoic Acid	160,000	U
111-91-1	bis(-2-Chloroethoxy)Methane	33,000	U
120-83-2	2. 4-Dichlorophenol	33,000	U
120-82-1	1. 2. 4-Trichlorobenzene	33,000	U
91-20-3	Naphthalene	350,000	
106-47-8	4-Chloroaniline	33,000	U
87-68-3	Hexachlorobutadiene	33,000	U
59-50-7	4-Chloro-3-Methylphenol	33,000	U
91-57-6	2-Methylnaphthalene	4000	J
77-47-4	Hexachlorocyclopentadiene	33,000	U
88-06-2	2. 4. 6-Trichlorophenol	33,000	U
95-95-4	2. 4. 5-Trichlorophenol	160,000	U
91-58-7	2-Chloronaphthalene	33,000	U
88-74-4	2-Nitroaniline	160,000	U
131-11-3	Dimethyl Phthalate	33,000	U
208-96-8	Acenaphthylene	33,000	U
)-09-2	3-Nitroaniline	160,000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	33,000	U
51-28-5	2. 4-Dinitrophenol	160,000	U
100-02-7	4-Nitrophenol	160,000	U
132-64-9	Dibenzofuran	3800	J
121-14-2	2 4-Dinitrotoluene	33,000	U
606-20-2	2 6-Dinitrotoluene	33,000	U
84-66-2	Diethylphthalate	33,000	U
7005-72-3	4-Chlorophenyl-phenylether	33,000	U
86-73-7	Fluorene	4200	J
100-01-6	4-Nitroaniline	160,000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	160,000	U
86-30-6	N-Nitrosodiphenylamine (1)	33,000	U
101-55-3	4-Bromophenyl-phenylether	33,000	U
118-74-1	Hexachlorobenzene	33,000	U
87-86-5	Pentachlorophenol	160,000	U
85-01-8	Phenanthrene	8500	J
120-12-7	Anthracene	33,000	U
84-74-2	Di-n-Butylphthalate	33,000	U
206-44-0	Fluoranthene	33,000	U
129-00-0	Pyrene	1500	J
85-68-7	Butylbenzylphthalate	33,000	U
91-94-1	3. 3'-Dichlorobenzidine	66,000	U
56-55-3	Benzo(a)Anthracene	33,000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	33,000	U
218-01-9	Chrysene	33,000	U
117-84-0	Di-n-Octyl Phthalate	33,000	U
205-99-2	Benzo(b)Fluoranthene	33,000	U
207-08-9	Benzo(k)Fluoranthene	33,000	U
50-32-8	Benzo(a)Pyrene	33,000	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	33,000	U
53-70-3	Dibenz(a h)Anthracene	33,000	U
191-24-2	Benzo(g h i)Perylene	33,000	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I9-48

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-5-87

Date Analyzed 2-20-87

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)
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	20,260
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	320,000 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 5 V_t 1,000 V_i 4

Laboratory Name Ecology & Environment, Inc.

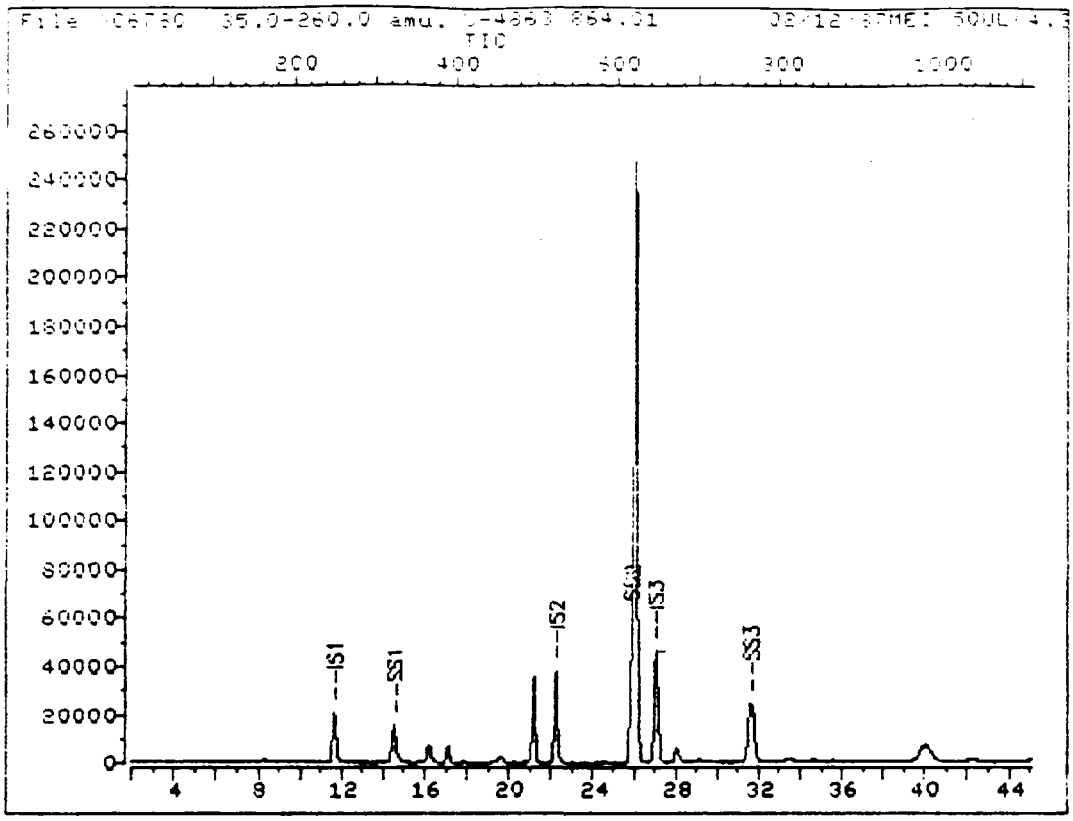
Case No 4-4935, 4846, 4863, 4872

Sample Number DC-I9-48

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	2100 BJ
2.		Hexane isomer	VOA	21.2	11000 BJ
3.		Dichlorobenzene isomer	VOA	40.0	2200 J
4.					
5.	92524	1,1'-Biphenyl	BNA	16.12	76,000 J
6.		Unknown		16.41	1,100,000 J
7	643583	2-Methyl-1,1'-Biphenyl		16.51	149,000 J
8.		Unknown Aromatic		17.90	68,000 J
9.		Unknown		25.66	32,000 J
10.		Unknown		26.90	30,000 J
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24					
25.					
26.					
27.					
28.					
29.					
30					



Data File: >C6780::D3
Name: U-4863 864.01 DC-I9-48
Misc: 02/12/87MEI 50UL(4.39G/10MLS MEOH) + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870212 17:56

Operator ID: USER8
Quant Time: 870212 21:38
Injected at: 870212 20:52

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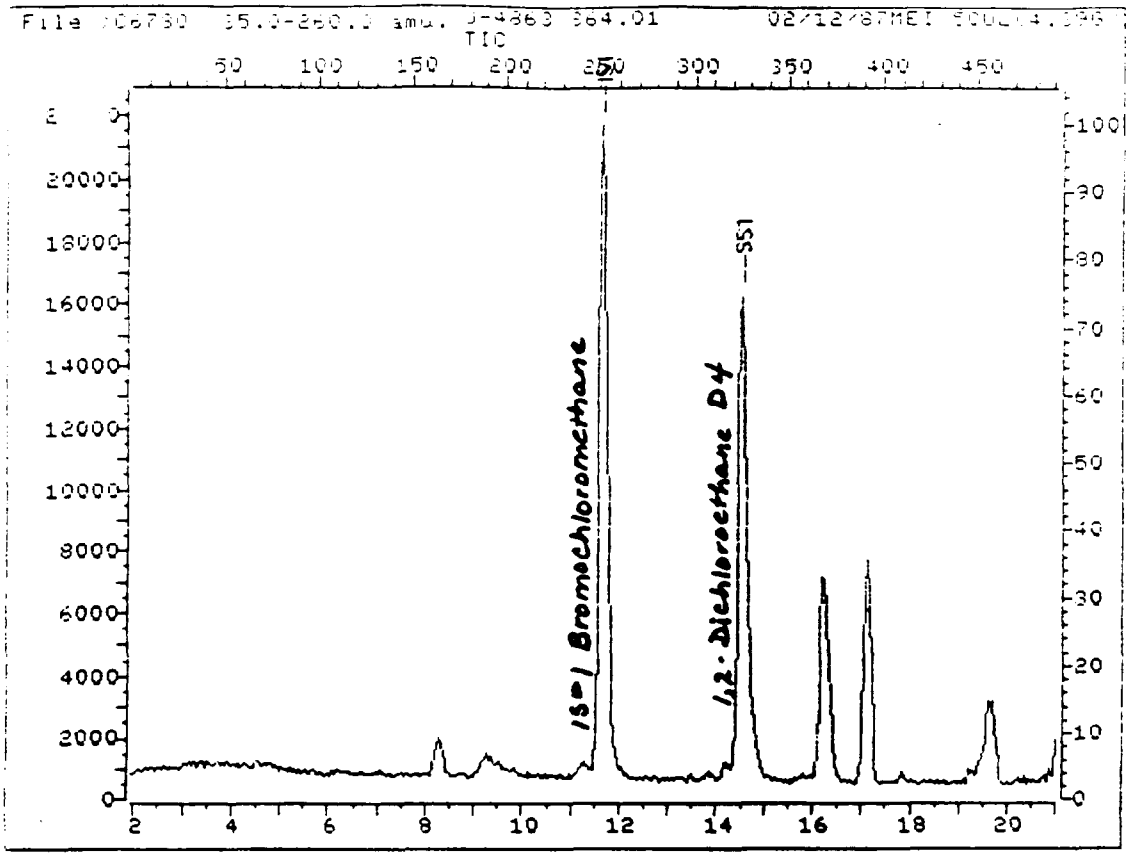
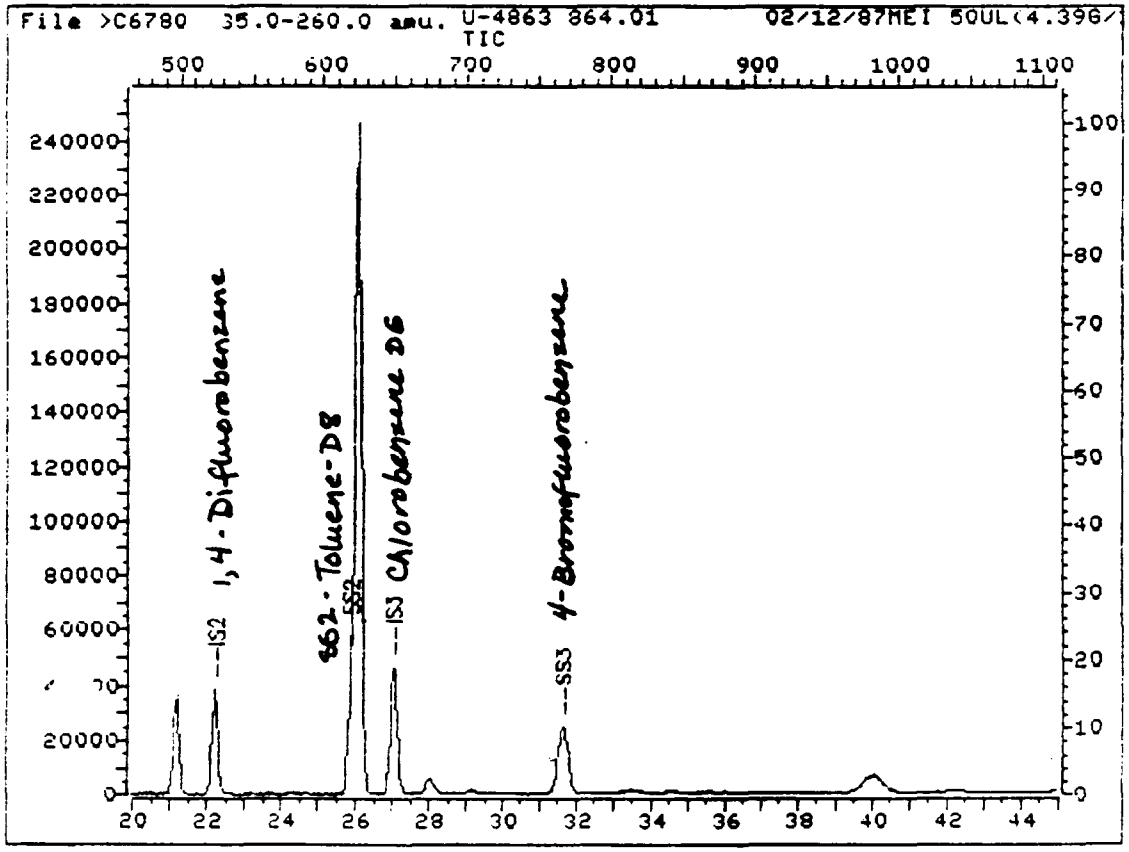
DC-I9-48





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QUANT REPORT

Operator ID: USER3 Quant Rev: 4 Quant Time: 870213 11:33
Output File: >C6780::Q2 Injected at: 870212 18:52
Data File: >C6780::D3 Dilution Factor: 1.00
Name: U-4863 864.01 DC-I9-48
Misc: 02/12/87MEI 50UL(4.39G/10MLS MEOH) + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870212 17:56

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.65	251	30620	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.27	164	3405	3.33 UG/L	100
7)	ACETONE		43	9.28	190	12024	39.87 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	325	73394	41.40 UG/L	83
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.24	524	158863	50.00 UG/L	100
17)	2-BUTANONE		72	14.68	329	3991	31.91 UG/L	100
~~20)~~	~~VINYL ACETATE~~		~~43~~	~~16.19~~	~~368~~	~~50855~~	~~28.77 UG/L~~	~~100~~
27)	BENZENE		78	19.64	457	10995	2.98 UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.06	648	129734	50.00 UG/L	100
36)	TOLUENE-D8	(SURR)	98	25.89	618	168727	45.85 UG/L	99
37)	TOLUENE		92	26.09	623	592669	234.22 UG/L	97
38)	CHLOROBENZENE		112	27.17	651	29278	9.58 UG/L	97
39)	ETHYLBENZENE		91	29.20	703	9657	1.76 UG/L	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.64	766	86535	45.14 UG/L	100
42)	TOTAL XYLENES		91	33.66	818	9057	1.92 UG/L	100
42)	TOTAL XYLENES		91	34.48	839	3126	.66 UG/L	100
43)	1,3-DICHLOROBENZENE		146	39.95	980	25457	25457.00 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	39.95	980	25457	25457.00 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	39.95	980	25457	25457.00 NO CALIB	100

* Compound is ISTD

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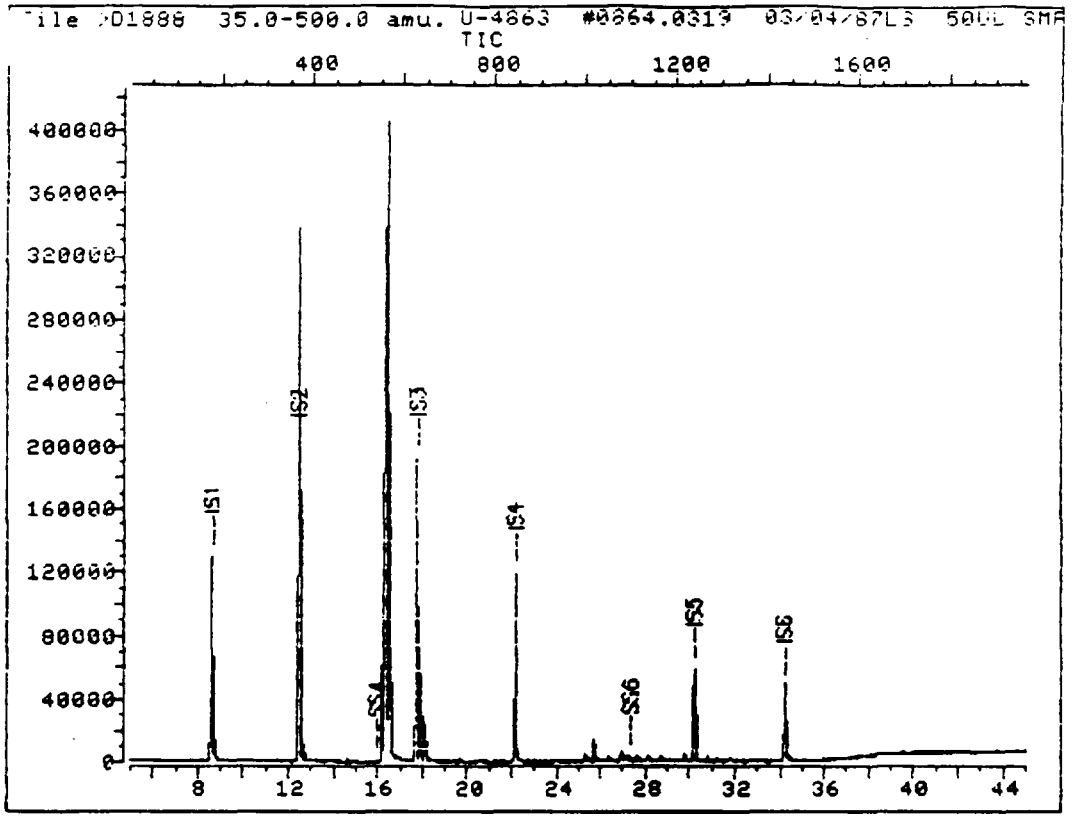
TOTAL ION CHROMATOGRAM



Data File: >D1888::D3
Name: U-4863 #0864.0319 DC-I9-48
Misc: 03/04/87LS 50UL SMPL + 950UL MECL2 + 10UL IS (20X) BIL# 4

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870304 18:41

Operator ID: USER6
Quant Time: 870304 21:12
Injected at: 870304 20:24

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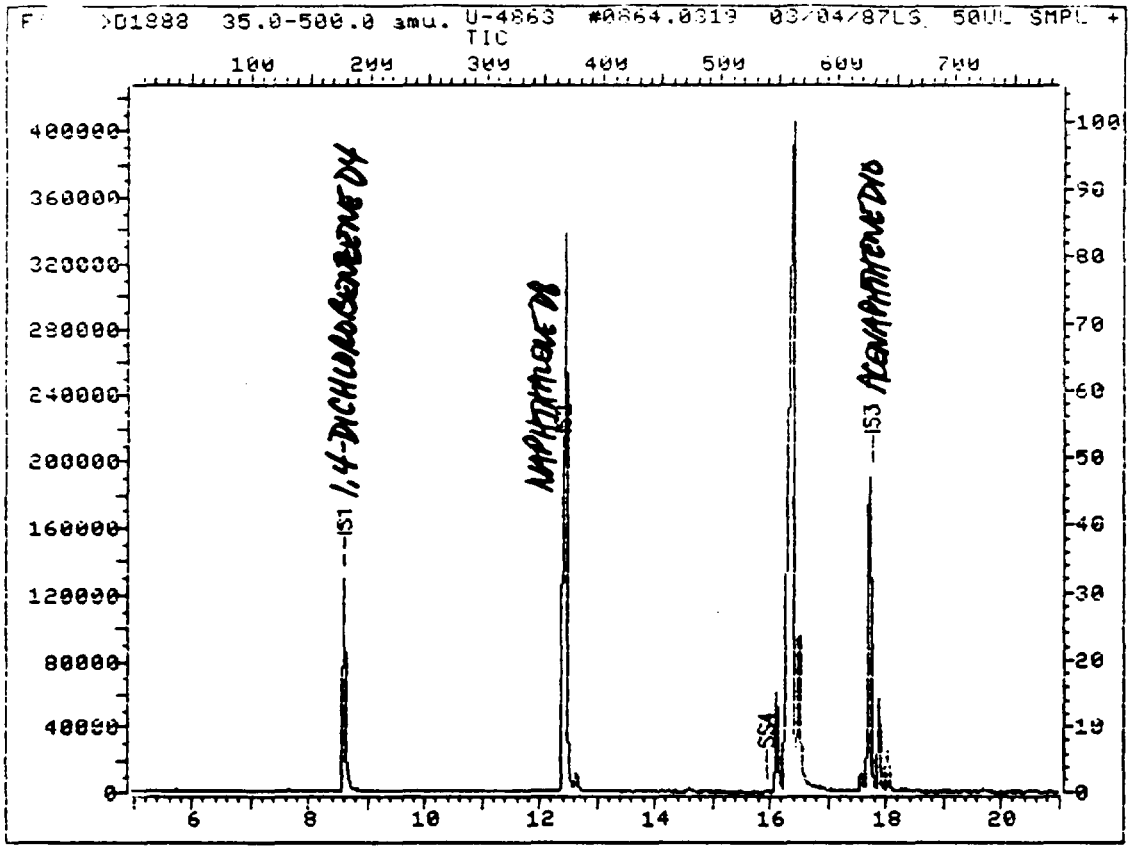
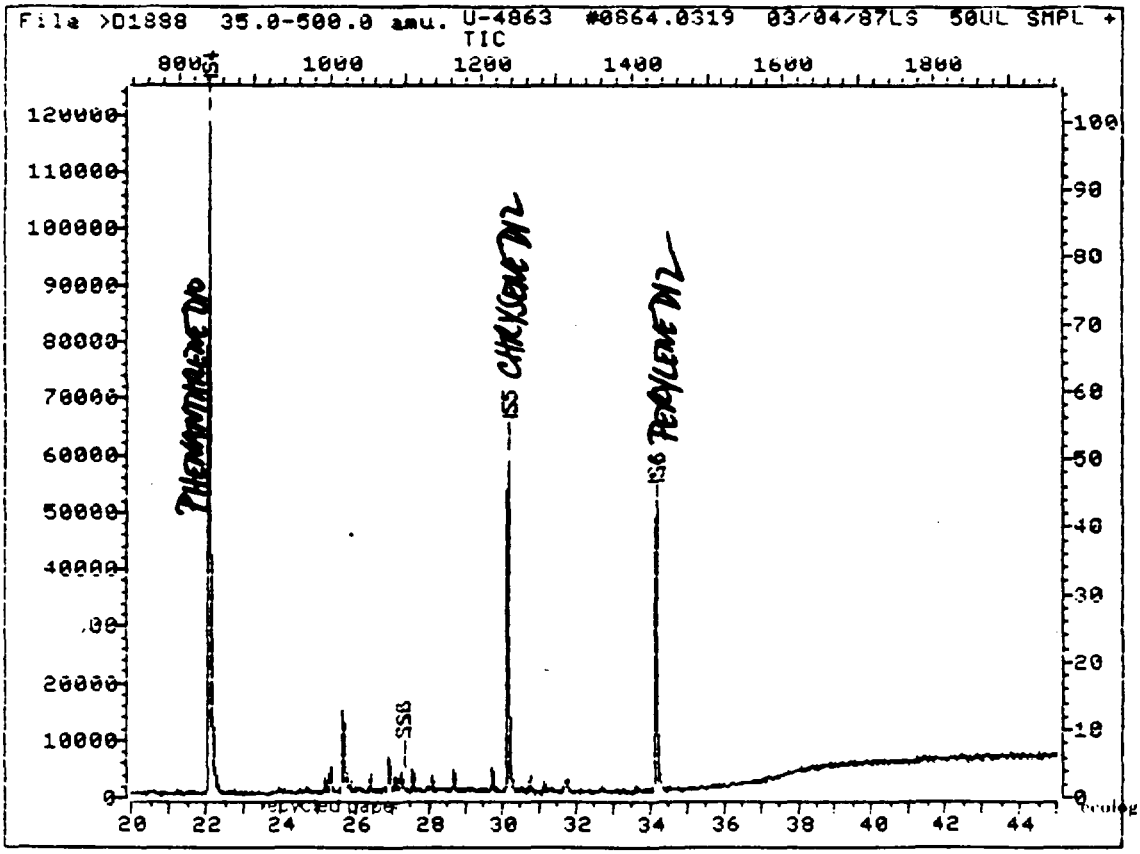

File >D1888 35.0-500.0 amu. U-4863 #0864.0319 03/04/87LS 50UL SMPL +
TIC
1,4-DICHLOROBENZENE D4
NAPHTHALENE
ACENAPHTHENE D10
IS1
IS3
SS1

DC-I9-48


File >D1888 35.0-500.0 amu. U-4863 #0864.0319 03/04/87LS 50UL SMPL +
TIC
PHENANTHRENE D10
IS5 CHRYSENE D12
IS6 PERYLENE D12
SS5

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870304 21:12
Output File: ^D1888::Q2 Injected at: 870304 20:24
Data File: >D1888::D3 Dilution Factor: 20.00
Name: U-4863 #0864.0319 DC-I9-48
Misc: 03/04/87LS 50UL SMPL + 950UL MECL2 + 10UL IS (20X) BNL# 4

ID File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870304 18:41

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.59	178	65010	40.00 UG/L	86
19)	*NAPHTHALENE-D8	(IS)	136	12.40	365	248803	40.00 UG/L	100
29)	NAPHTHALENE		128	12.46	368	360370	1155.07 UG/L	100
33)	2-METHYLNAPHTHALENE		142	14.60	473	2357	13.12 UG/L	81
34)	*ACENAPHTHENE-D10	(IS)	162	17.73	627	114309	40.00 UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	15.94	539	1952	9.01 UG/L	81
~~40)~~	~~2-NITROANILINE~~		~~65~~	~~16.51~~	~~567~~	~~10161~~	~~204.14 UG/L~~	~~22~~
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.73~~	~~627~~	~~22239~~	~~149.72 UG/L~~	~~100~~
~~42)~~	~~DIBENZOFURAN~~		~~168~~	~~17.90~~	~~635~~	~~36501~~	~~186.74 UG/L~~	~~100~~
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~18.02~~	~~641~~	~~16622~~	~~85.04 UG/L~~	~~100~~
43)	DIBENZOFURAN		168	18.33	656	2459	12.58 UG/L	100
45)	FLUORENE		166	19.36	707	1803	13.74 UG/L	92
~~47)~~	~~ACENAPHTHENE~~		~~153~~	~~17.90~~	~~635~~	~~6455~~	~~39.25 UG/L~~	~~1~~
~~47)~~	~~ACENAPHTHENE~~		~~153~~	~~18.02~~	~~641~~	~~2951~~	~~17.94 UG/L~~	~~1~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.73~~	~~627~~	~~15538~~	~~495.57 UG/L~~	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.90~~	~~635~~	~~9728~~	~~310.43 UG/L~~	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.02~~	~~641~~	~~5622~~	~~179.40 UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.09	841	122683	40.00 UG/L	98
61)	PHENANTHRENE		178	22.18	845	4277	27.78 UG/L	98
~~62)~~	~~ANTHRACENE~~		~~178~~	~~22.18~~	~~845~~	~~4277~~	~~28.33 UG/L~~	~~98~~
65)	*CHRYSENE-D12	(IS)	240	30.17	1237	82325	40.00 UG/L	100
67)	PYRENE		202	26.39	1052	706	4.90 UG/L	81
68)	TERPHENYL-D14	(SURR)	244	27.29	1096	882	10.75 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.16	1433	76191	40.00 UG/L	100

* Compound is ISTD

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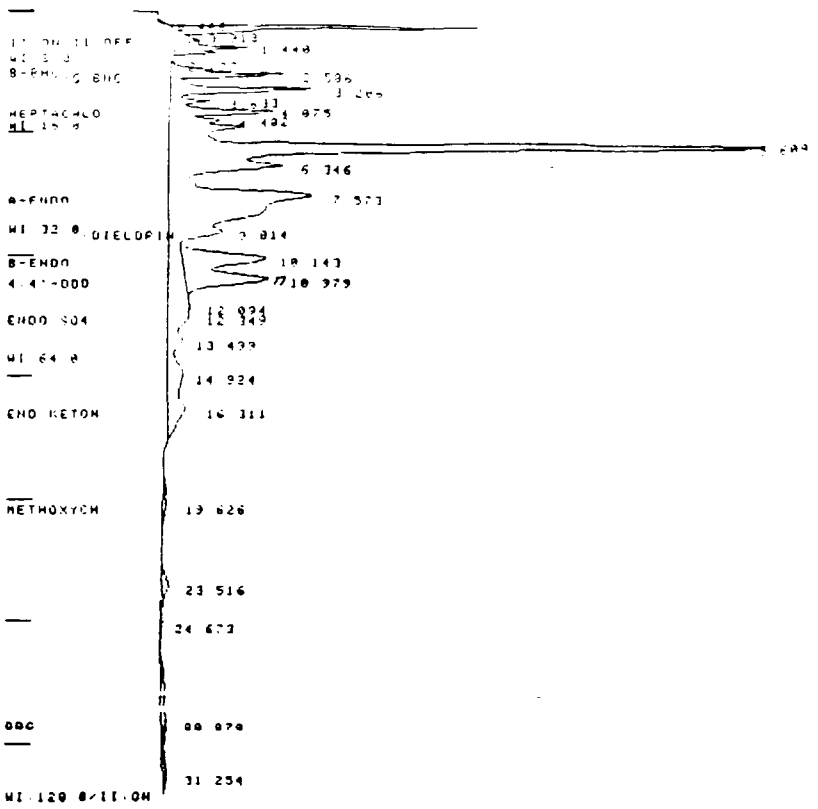

DC-I9-48

CHANNEL: 1A - 1 TITLE: RUN# 23 1:09 20 FEB 97

SAMPLE: 0864 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/Kg	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	1.440		76545	VV		4.13
2		0.0000	1.617		33292	VB		6.31
3	[illegible]	6037.217	2.391	0.011	41277	VV	?	8.75
4	[illegible]	6630.388	2.586	-0.024	127142	VV		8.56
5		0.0000	3.206		213917	VV		9.81
6		0.0000	3.633		57313	VV		10.94
7	HEPTACHLO	10268.05	4.075	-0.045	178521	VV		12.56
8		0.0000	4.402		91276	VV	?	15.25
9		0.0000	4.757		185819	VV	?	30.06
10		0.0000	5.609		1643625	VV		16.25
11	[illegible]	19620.49	6.346	0.206	358992	VV	?	31.38
12	[illegible]	62032.22	7.573	-0.027	1104294	VV		68.31
13	[illegible]	10818.88	9.014	0.174	204387	VV	?	42.56
14	[illegible]	23876.74	10.143	0.093	422348	VV		35.81
15	[illegible]	[illegible]	10.979	0.049	472252	[illegible]		35.69
16		0.0000	12.094		85669	VV	?	27.88
17	ENDO SO4	7358.218	12.349	-0.461	92418	VV	?	78.31
18		0.0000	13.499		72636	VV	?	48.06
19	[illegible]	11378.61	14.924	0.674	142316	VV	?	72.88
20	END KETON	7865.560	16.311	-0.069	141712	VB	?	72.69
21		0.0000	19.626		31430	BB		90.00
22		0.0000	23.516		54513	BV		56.06
23	ODC	5783.384	28.979	0.539	84830	VV	?	188.38
24		0.0000	31.254		32235	VB	?	118.56

TOTALS: 201993.5 1.120 5958854

DETECTED PKS: 34 REJECTED PKS: 10

DIVISOR: 0.15000 MULTIPLIER: 200000.000

NOISE: 11.4 OFFSET: -15

RACK: 2 VIAL: 9 INJ: 1

NOTES:
NOTE BOOK: 259-112 ANALYST:RICHARD SAMSON AND K. JUREK
SECURE AREA: D J09#:U-4863
INST: VARIAN 6000# 2A 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
PRIMARY ANALYSIS AUTOSAMPLER

344

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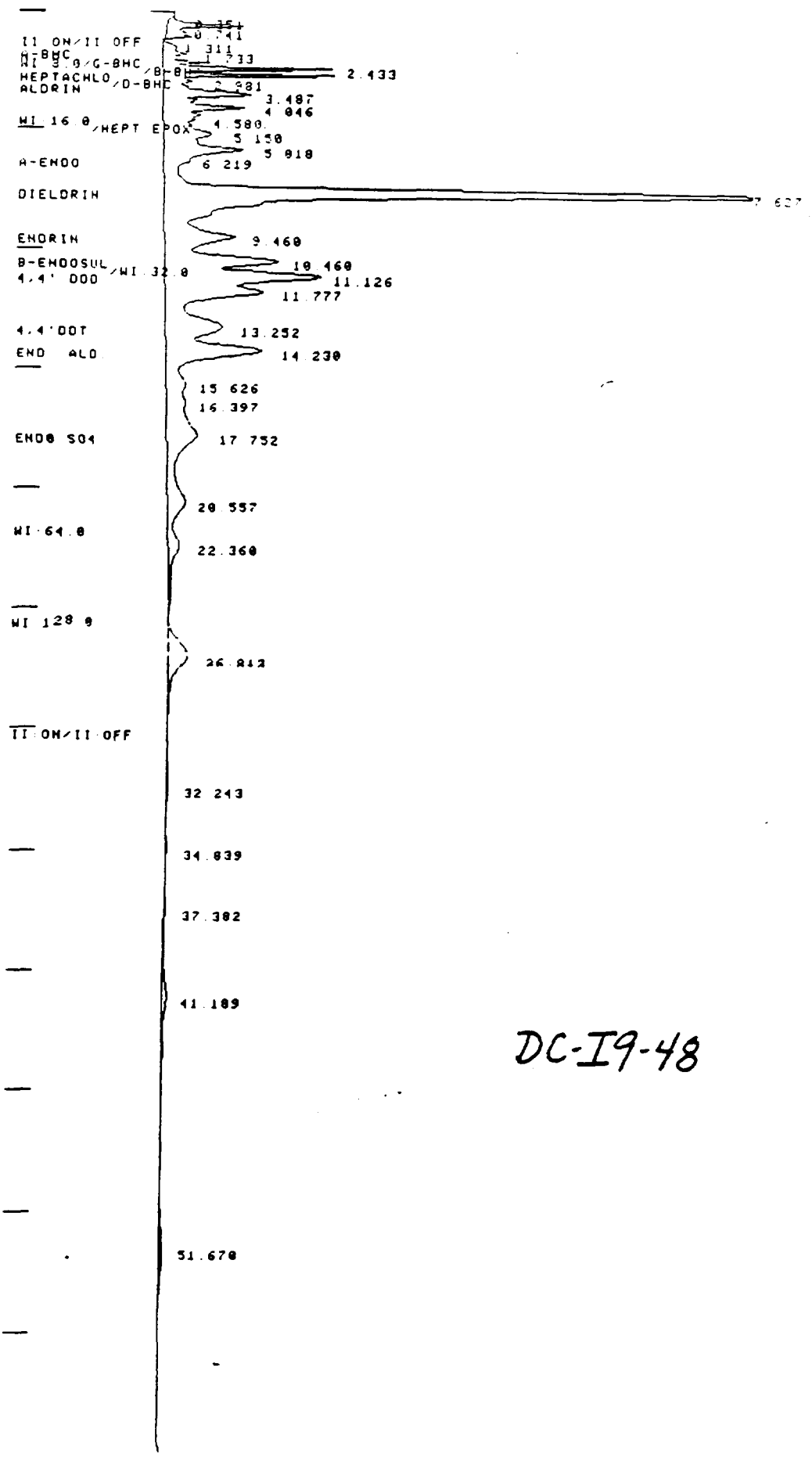

DC-I9-48

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CHANNEL: 8 - 1 TITLE: RUN# 8 1:42 26 FEB 87

DC-I948

SAMPLE: 3864 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	1.449		68584	VV		3.56
2		0.0000	1.648		35602	VV	?	4.75
3	~~a-BHC~~	754.5756	1.733	-0.047	47306	VV	?	6.31
4		0.0000	1.918		27627	VV	?	7.25
5		0.0000	2.110		52623	VV	?	6.88
6	~~g-BHC~~	1375.337	2.199	-0.041	69861	VV	?	7.63
7	~~b-BHC~~	15764.95	2.433	-0.127	313583	VV		6.63
8	~~HEPTACHLO~~	7583.467	2.697	-0.063	345878	VV		6.81
9	~~d-BHC~~	1856.883	2.981	0.001	84629	VV	?	15.88
10	~~ALDRIN~~	960.3176	3.198	-0.142	48434	VV	?	9.81
11		0.0000	3.487		336908	VV	?	16.38
12		0.0000	3.745		96099	VV	?	10.44
13		0.0000	4.046		270839	VV		12.31
14		0.0000	4.349		124161	VV	?	12.94
15		0.0000	4.580		100283	VV	?	22.69
16		0.0000	4.832		75387	VV	?	9.88
17	~~HEPT EPOX~~	6282.246	5.150	0.150	289841	VV	?	26.06
18		0.0000	5.500		85133	VV	?	10.13
19		0.0000	5.818		463924	VV		23.31
20	~~A-ENSS~~	2983.533	6.219	-0.071	130467	VV	?	
21	~~DIELDRIN~~	89733.99	7.627	-0.063	4219994	VV		16.25
22	~~ENDRIN~~	20044.38	9.460	0.120	730934	VV	?	44.75
23	~~E-ENSSUL~~	0.0000	10.460	~~0.350~~	803087	VV	?	28.38
24	4,4' DDD	33923.46	11.126	0.016	1228855	VV		36.13
25		0.0000	11.777		789941	VV	?	39.13
26	~~4,4'DDT~~	29010.56	13.252	-0.148	754509	VV	?	61.69
27	~~END. ALD.~~	31987.43	14.230	-0.570	955061	VV		38.81
28		0.0000	15.626		236106	VV	?	57.25
29		0.0000	16.397		186720	VV	?	37.69
30	~~ENDO SO4~~	29858.97	17.752	-0.108	698637	VV	?	139.19
31		0.0000	20.557		394187	VV	?	104.38
32		0.0000	22.360		238082	VB	?	119.00
33	~~METHOXYCH~~	26103.56	26.813	1.113	339640	BB		63.69
34		0.0000	32.243		33793	BV		91.69
35		0.0000	34.839		36666	VV		74.38
36		0.0000	37.382		27901	VV	?	60.06
37		0.0000	41.189		143826	VB		91.31
38		0.0000	51.670		127377	BB		138.31

TOTALS: 298223.7 0.080 15817485

DETECTED PKS: 48 REJECTED PKS: 10

DIVISOR: 0.15000 MULTIPLIER: 100000.000

NOISE: 57.1 OFFSET: 215

RACK: 1 VIAL: 8 INJ: 1

NOTES:
NOTEBOOK:259-121 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB # U-4863
INST: VARIAN 6000#2 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
CONFIRMATION COLUMN

POST RUN:
SAVE FILE: RAW U-4863041

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SAMPLE NUMBER DC-I9-49

481095

347

DC-27-47

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0865
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 2-5-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-12-87
Conc/Dil Factor: 1 pH 7.6
Percent Moisture: (Not Decanted) 19

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	1000U
74-83-9	Bromomethane	1000U
75-01-4	Vinyl Chloride	1000U
75-00-3	Chloroethane	1000U
75-09-2	Methylene Chloride	340 BJ
67-64-1	Acetone	4300 B
75-15-0	Carbon Disulfide	500U
75-35-4	1, 1-Dichloroethene	500U
75-34-3	1, 1-Dichloroethane	500U
156-60-5	Trans-1, 2-Dichloroethene	500U
67-66-3	Chloroform	500U
107-06-2	1, 2-Dichloroethane	500U
78-93-3	2-Butanone	3300 B
71-55-6	1, 1, 1-Trichloroethane	500U
56-23-5	Carbon Tetrachloride	500U
108-05-4	Vinyl Acetate	1000U
75-27-4	Bromodichloromethane	500U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	500U
10061-02-6	Trans-1, 3-Dichloropropene	500U
79-01-6	Trichloroethene	500U
124-48-1	Dibromochloromethane	500U
79-00-5	1, 1, 2-Trichloroethane	500U
71-43-2	Benzene	87 J
10061-01-5	cis-1, 3-Dichloropropene	500U
110-75-8	2-Chloroethylvinylether	1000U
75-25-2	Bromoform	500U
108-10-1	4-Methyl-2-Pentanone	1000U
591-78-6	2-Hexanone	1000U
127-18-4	Tetrachloroethene	500U
79-34-5	1, 1, 2, 2-Tetrachloroethane	500U
108-88-3	Toluene	1100 B
108-90-7	Chlorobenzene	760
100-41-4	Ethylbenzene	230 J
100-42-5	Styrene	500U
	Total Xylenes	83 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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name: ECOLOGY & ENVIRONMENT INC.

Case No: V-4835, 4846, 4863, 4872

Sample Number: DC-I9-49

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-5-87

Date Analyzed: 3-5-87

Conc/Dil Factor: 20

Percent Moisture (Decanted): 19

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	3300	U
111-44-4	bis(-2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1 3-Dichlorobenzene	3300	U
106-46-7	1 4-Dichlorobenzene	3300	U
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1 2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2, 4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U
111-91-1	bis(-2-Chloroethoxy)Methane	3300	U
120-83-2	2, 4-Dichlorophenol	3300	U
120-82-1	1, 2, 4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	1500	J
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2, 4, 6-Trichlorophenol	3300	U
95-95-4	2, 4, 5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U
208-96-8	Acenaphthylene	3300	U
-09-2	3-Nitroaniline	16000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2, 4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U
132-64-9	Dibenzofuran	3300	U
121-14-2	2 4-Dinitrotoluene	3300	U
606-20-2	2, 6-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3300	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	2500	J
100-01-6	4-Nitroaniline	16000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	8400	
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3, 3'-Dichlorobenzidine	6600	U
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	4500	
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	3300	U
53-70-3	Dibenz(a, h)Anthracene	3300	U
191-24-2	Benzo(g, h, i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4835,4846,4863,4872

Sample Number DC-I9-49

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-5-87

Date Analyzed 2-20-87

Conc/Dil Factor 20

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)
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	3200 U
72-20-8	Endrin	3200 U
33213-65-9	Endosulfan II	3200 U
72-54-8	4,4'-DDD	5,400
1031-07-8	Endosulfan Sulfate	3200 U
50-29-3	4,4'-DDT	3,500
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	16,000 U
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 3 V_t 1,000 V_i 4

350

Laboratory Name: Ecology & Environment, Inc.

Case No: U-4835, 4846, 4863, 4872

Sample Number: DC-I9-49

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.	76131	1,1,2-Trichloro-1,2,2-trifluoroethane	VOA	14.2	1400 J
2.		Hexene isomer	VOA	17.1	1200 BJ
3.		Hexane isomer	VOA	21.2	5300 BJ
4.		Dichlorobenzene isomer	VOA	40.1	900 J
5.					
6.	92524	1,1'-Biphenyl	BNA	16.14	12000 J
7.		Unknown	|	16.30	7700 J
8.		Methyl-1,1'-Biphenyl Isomer	|	16.50	19000 J
9.		Methyl-1,1'-Biphenyl Isomer	|	17.89	15000 J
10.		Methyl-1,1'-Biphenyl Isomer	|	18.03	9200 J
11.		Unknown	|	19.72	2500 J
12.	10544500	Molecular Sulfur	|	25.35	47000 J
13.		Unknown	|	29.73	11000 J
14.	1241947	Phosphoric Acid, 2-Ethylhexyl diphenyl ester	|	30.03	15000 J
15.		Unknown Phthalate	|	30.89	5500 J
16.		Unknown	|	31.58	9900 J
17.		Unknown	↓	31.68	7200 J
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30					

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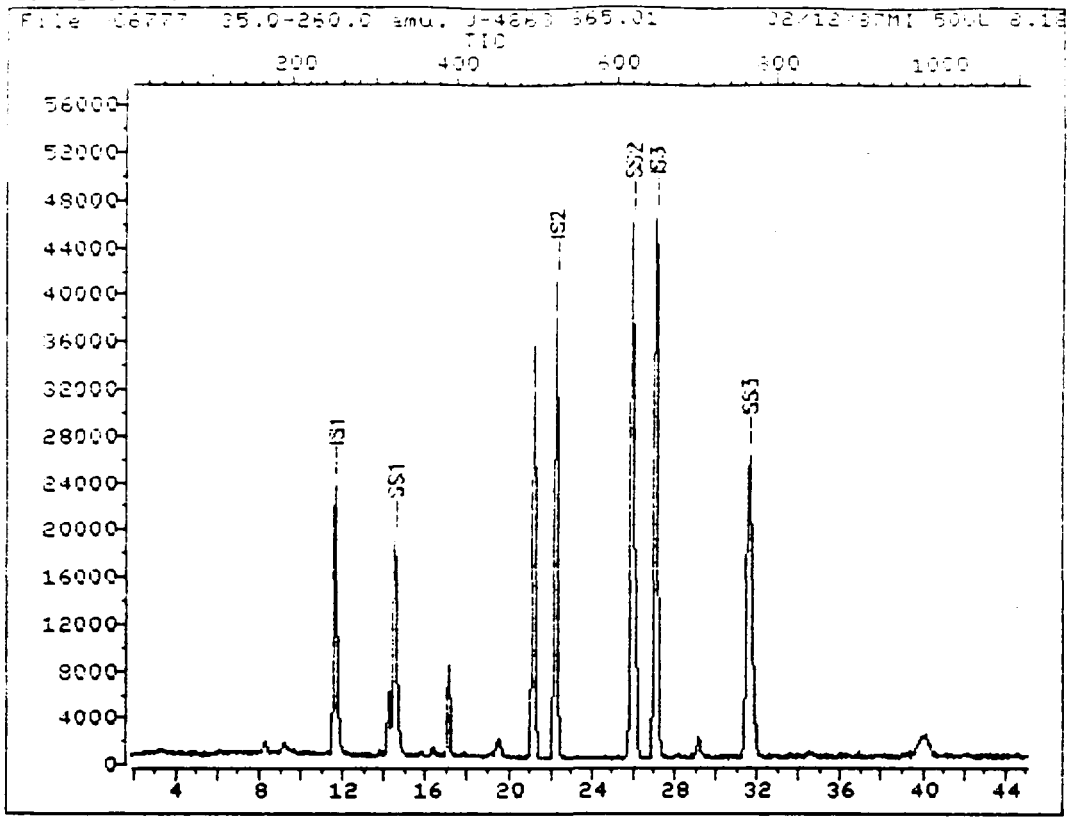

Data File: >C6777::D3
Name: U-4863 865.01 DC-I9-49
Misc: 02/12/87MI 50UL(8.18G/10MLS MEOH) + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870212 17:56

Operator ID: USER8
Quant Time: 870212 18:34
Injected at: 870212 17:48

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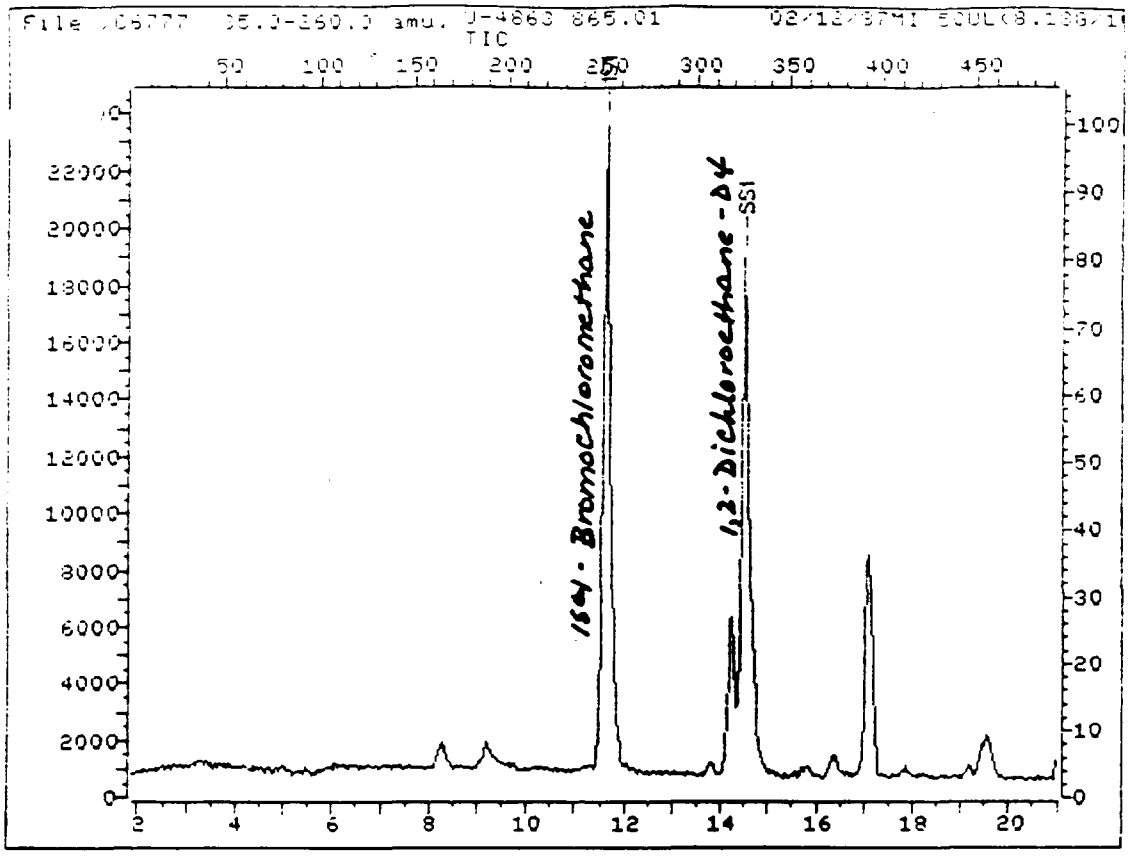
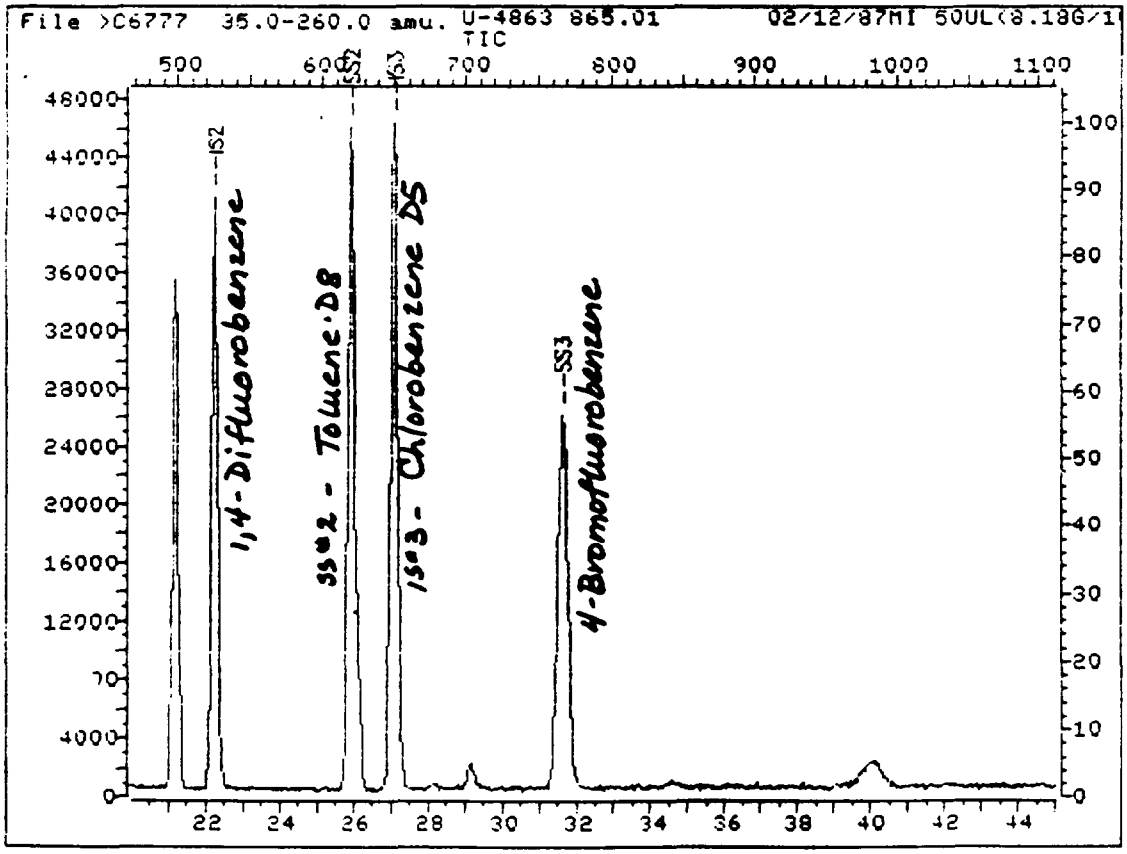
DC-I9-49





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QUANT REPORT

Operator ID: USER1 Quant Rev: 4 Quant Time: 870211 13:34
Output File: DC6777::Q2 Injected at: 870211 17:48
Data File: DC6777::D3 Dilution Factor: 1.00
File: U-4863 865.01 DC-I9-49
Misc: 02/12/87MI 50UL(8.19G/10MLS MEOH) + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870212 17:56

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.64	252	31902	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.22	164	3010	2.82 UG/L	100
7)	ACETONE		43	9.19	189	10944	34.83 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.51	326	80308	43.48 UG/L	81
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.23	525	165555	50.00 UG/L	100
17)	2-BUTANONE		72	14.63	329	3565	27.35 UG/L	100
27)	BENZENE		78	19.67	459	2709	.71 UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.08	650	130949	50.00 UG/L	100
36)	TOLUENE-D8	(SURR)	98	25.92	620	173436	46.70 UG/L	99
37)	TOLUENE		92	26.11	625	23804	9.32 UG/L	99
38)	CHLOROBENZENE		112	27.20	653	19247	6.24 UG/L	98
39)	ETHYLBENZENE		91	29.18	704	10296	1.86 UG/L	99
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.63	767	90155	46.59 UG/L	100
42)	TOTAL XYLENES		91	34.54	842	3238	.68 UG/L	100
43)	1,3-DICHLOROBENZENE		146	40.09	985	19354	19354.00 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	40.09	985	19354	19354.00 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	40.09	985	19354	19354.00 NO CALIB	100

* Compound is ISTD

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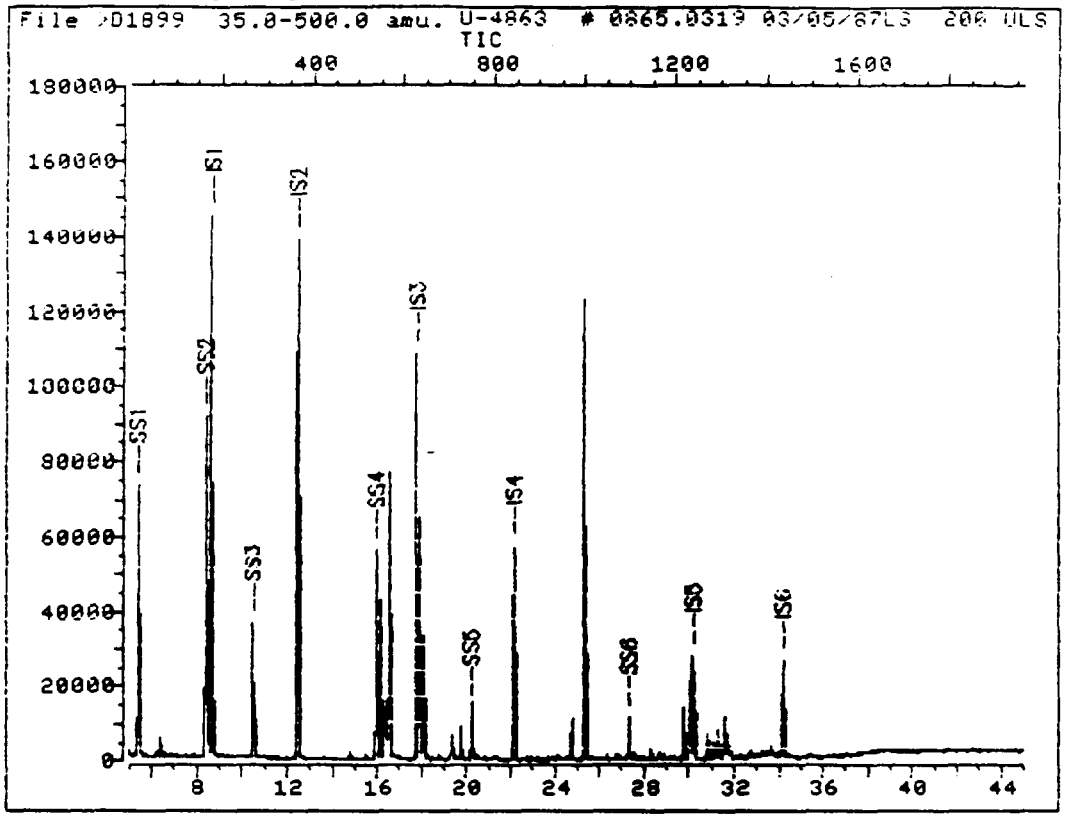
TOTAL ION CHROMATOGRAM



Data File: >D1899::D3
Name: U-4863 # 0865.0319 DC-I9-49
Misc: 03/05/87LS 200 ULS SAMPLE + 200 ULS MECL2 + 4 ULS IS BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

Operator ID: USER6
Quant Time: 870305 18:40
Injected at: 870305 17:53

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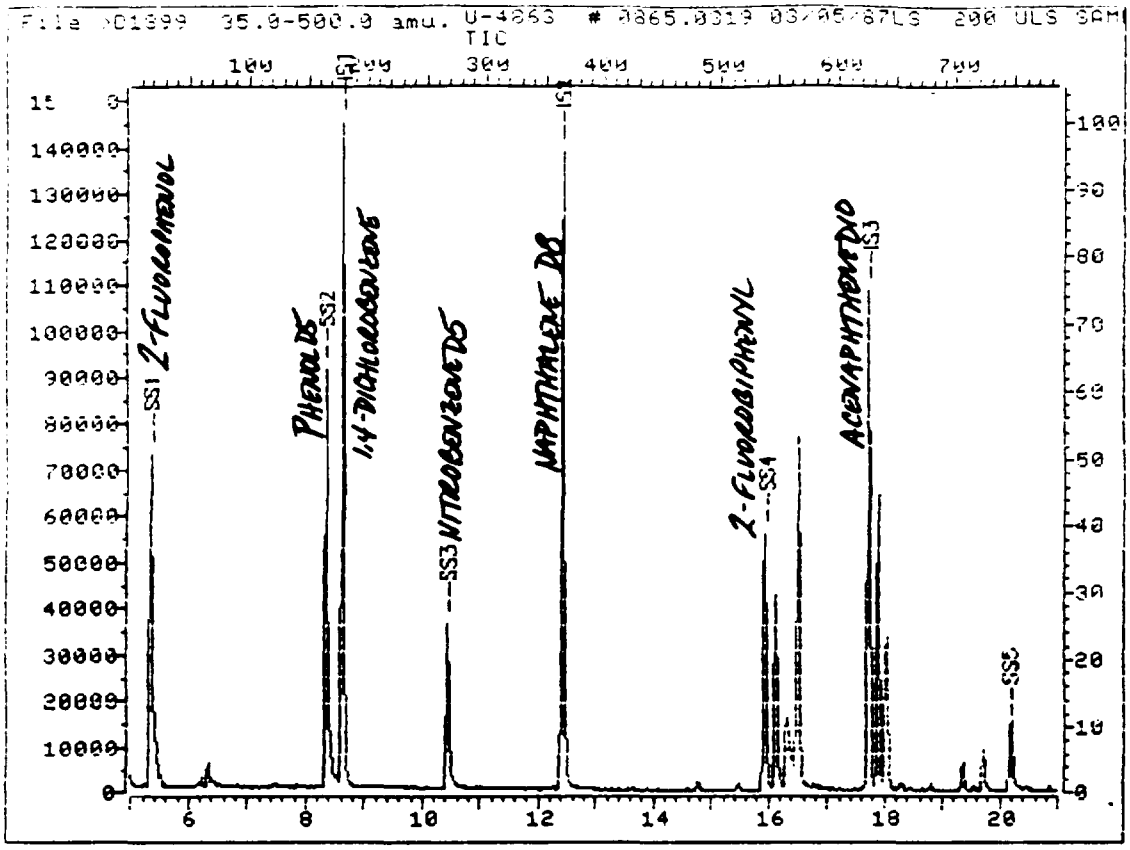
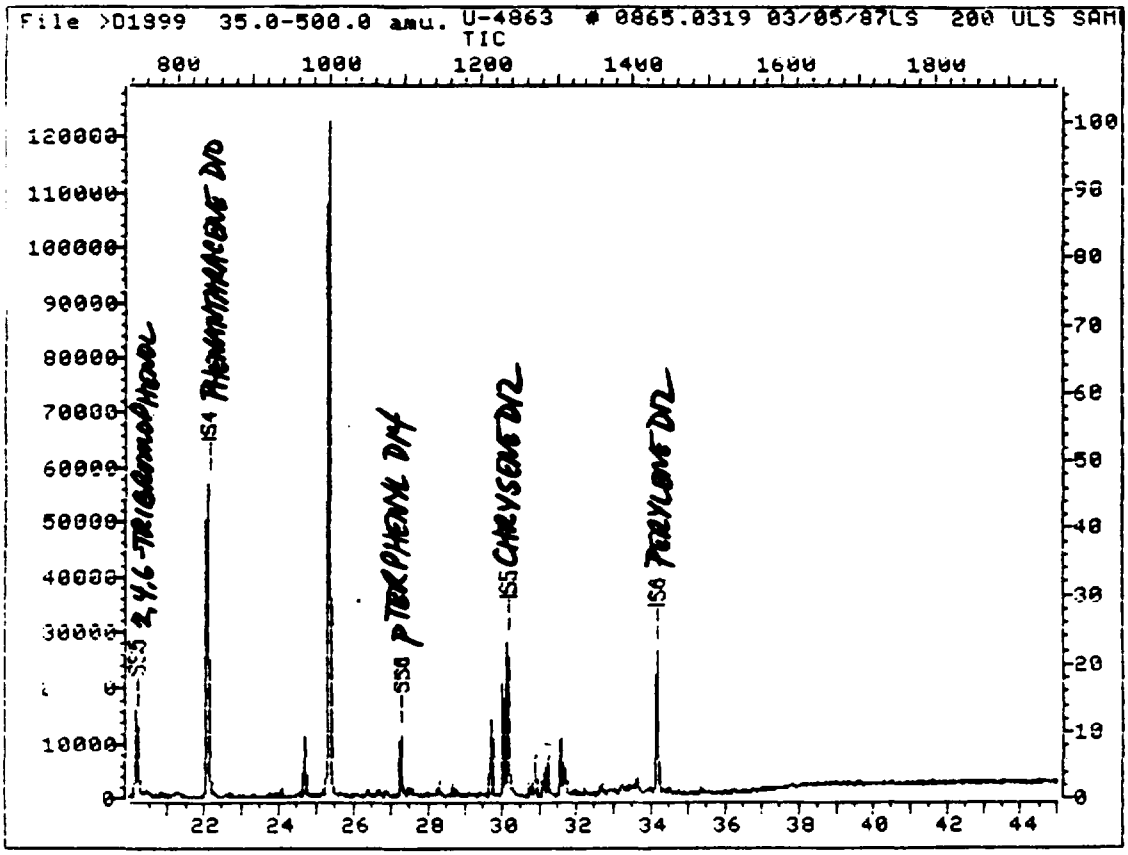
DC-I9-49





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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870305 18:40
Output File: ^D1899::Q2 Injected at: 870305 17:53
Data File: >D1899::D3 Dilution Factor: 2.00
Name: U-4863 # 0865.0319 DC-I9-49
Misc: 03/05/87LS 200 ULS SAMPLE + 200 ULS MECL2 + 4 ULS IS BTL# 1

ID File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.62	179	63010	40.00 UG/L	86
2)	PHENOL-D5	(SURR)	99	8.33	165	64308	53.65 UG/L 54 ✓	90
5)	2-FLUOROPHENOL	(SURR)	112	5.32	17	57908	107.24 UG/L 107 ✓	96
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.49~~	~~268~~	~~7011~~	~~7.29 UG/L~~ NOBK	~~86~~
19)	*NAPHTHALENE-D8	(IS)	136	12.41	365	192684	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.43	268	40661	39.62 UG/L 79 ✓	86
29)	NAPHTHALENE		128	12.45	367	11420	4.75 UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162	17.73	626	64766	40.00 UG/L	96
38)	2-FLUOROBIPHENYL	(SURR)	172	15.93	538	56032	42.85 UG/L 86 ✓	91
~~40)~~	~~2-NITROANILINE~~		~~65~~	~~16.58~~	~~566~~	~~3917~~	~~12.81 UG/L~~	~~23~~
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.73~~	~~626~~	~~12700~~	~~13.40 UG/L~~	~~[illegible]~~
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~17.49~~	~~634~~	~~42648~~	~~38.16 UG/L~~	~~100~~
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~18.03~~	~~641~~	~~24714~~	~~22.11 UG/L~~	~~100~~
45)	FLUORENE		166	19.36	706	6102	8.17 UG/L	99
~~47)~~	~~ACENAPHTHENE~~		~~153~~	~~18.03~~	~~641~~	~~4336~~	~~4.67 UG/L~~ NOBK	1
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.17	746	8814	58.42 UG/L 58 ✓	96
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~19.36~~	~~706~~	~~443~~	~~5.95 UG/L~~	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.73~~	~~626~~	~~8313~~	~~43.68 UG/L~~	~~[illegible]~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.89~~	~~634~~	~~11515~~	~~60.50 UG/L~~ NOBK	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.03~~	~~641~~	~~9259~~	~~43.39 UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.11	841	59321	40.00 UG/L	87
63)	DI-N-BUTYLPHTHALATE		149	24.72	969	18882	27.06 UG/L	98
65)	*CHRYSENE-D12	(IS)	240	30.15	1236	40331	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.28	1095	16498	41.68 UG/L 83 ✓	100
~~70)~~	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~30.03~~	~~1230~~	~~1796~~	~~19.92 UG/L~~ NOBK	~~100~~
~~72)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~30.89~~	~~1272~~	~~7482~~	~~19.98 UG/L~~	~~95~~
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.23	1289	5439	14.52 UG/L	93
74)	*PERYLENE-D12	(IS)	264	34.17	1433	36781	40.00 UG/L	100

* Compound is ISTD

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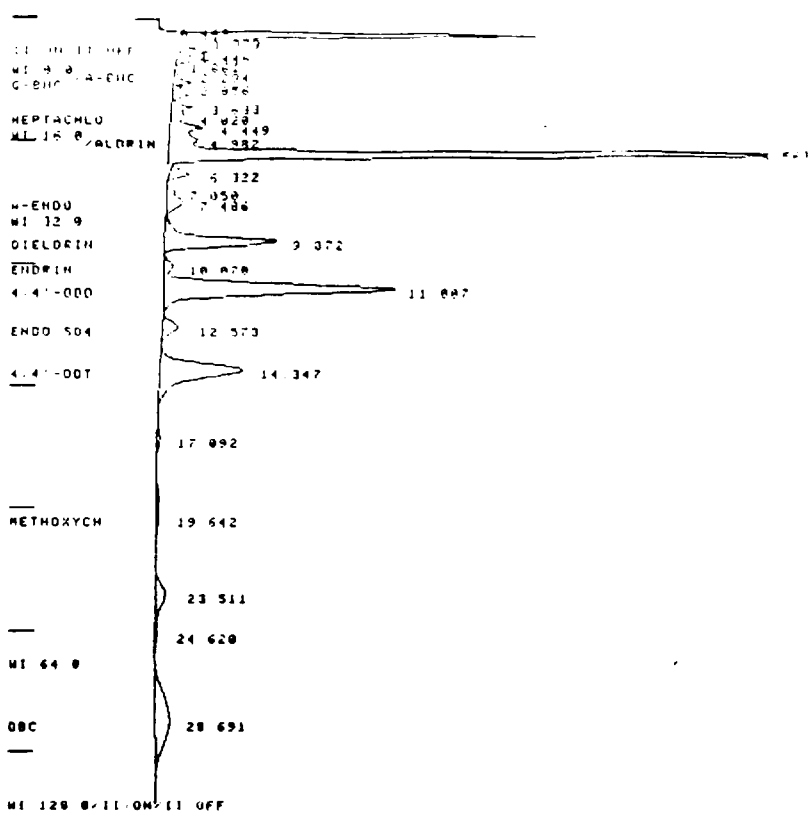

DC-I9-49

CHANNEL: 1A - 1 TITLE: RUN# 24 1:45 20 FEB 87

SAMPLE: 0865 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/Kg	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.573		32813	VB	5.38
2	~~O-DHC~~	136.5220	2.596	-0.814	26179	VV	8.00
3		0.0000	3.145		21221	VV	9.19
4		0.0000	3.633		34222	VV	10.75
5	~~HEPTACHLO~~	127.2860	4.020	-0.100	22130	VV	? 24.88
6		0.0000	4.449		72957	VV	20.25
7	~~ALDRIN~~	386.3196	4.982	-0.088	76749	VV	? 32.39
8		0.0000	5.561		1582022	VV	12.81
9	~~M-ENDO~~	274.4536	6.322	0.182	51615	T	19.75
10	~~A-ENDO~~	324.4483	7.486	-0.114	57758	T	? 35.50
11	~~DIELDRIN~~	1912.587	9.064	0.224	361320	VB	22.81
12	~~O-ENDO~~	157.1966	10.055	0.005	27806	BV	? 24.88
13	~~END-ALD~~ ~~AA~~	~~6030.400~~ 6377	10.998	-0.062	837193	VB	27.69
14	~~ENDO 504~~	469.6467	12.573	-0.237	59046	BV	31.38
15	~~4,4'-DDT~~ ~~DDT~~	3456.510	14.347	0.097	432621	VB	36.25
16	~~END-METOX~~	111.6468	17.092	0.712	20115	BB	42.63
17		0.0000	19.642		50037	BV	? 79.25
18		0.0000	23.511		88797	VV	63.25
19	~~END~~	1694.556	28.691	0.251	252042	BB	?143.44

TOTALS: 14989.66 0.856 4026643

DETECTED PKS: 31 REJECTED PKS: 12

DIVISOR: 0.15000 MULTIPLIER: 20000.0000

NOISE: 11.4 OFFSET: -20

RACK: 2 VIAL: 9 INJ: 1

NOTES:
NOTE BOOK: 259-112 ANALYST:RICHARD SAMSON AND K. JUREK
SECURE AREA: O JOB#:U-4863
INST: VARIAN 6000# 2A 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
PRIMARY ANALYSIS AUTOSAMPLER

POST RUN:
SAVE FILE: RAW DC1159

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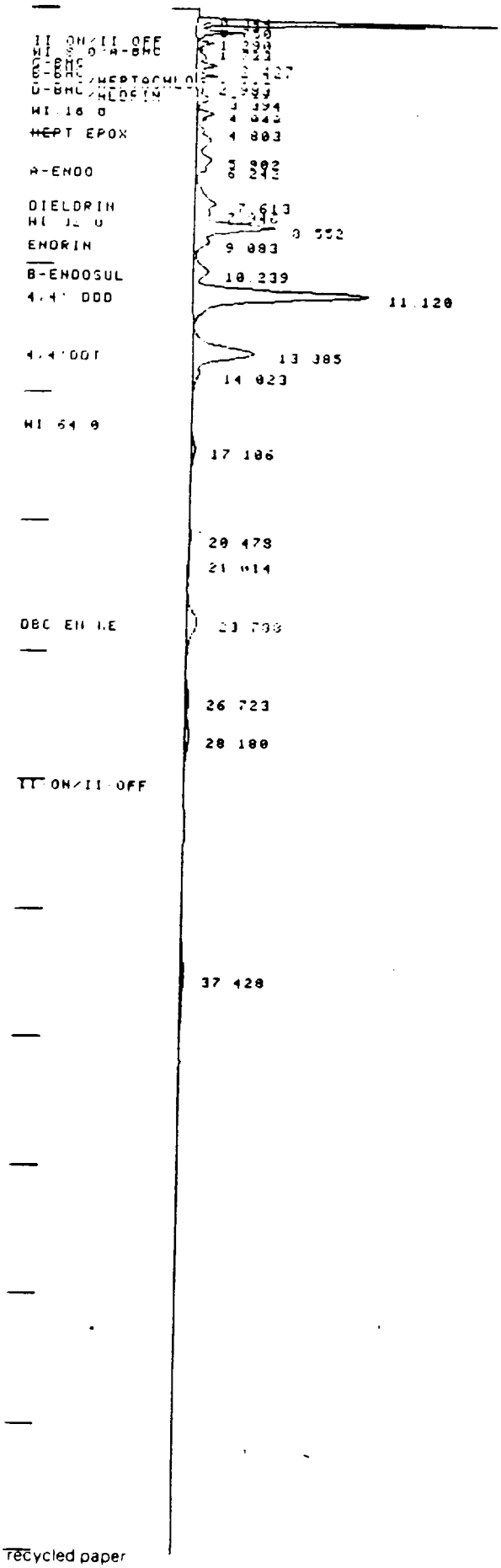
CHART SPEED: 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



DC-I9-49

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DC-I9-49

CHANNEL: 1B - 1 TITLE: RUN# 9 2:47 25 FEB 87

SAMPLE: 0865 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	1.290		28457	BV		7.06
2	[illegible]	458.6432	2.427	-0.133	46342	VV		9.00
3	[illegible]	163.7510	2.722	-0.038	37343	VV		7.19
4	[illegible]	146.4051	3.394	0.054	36920	VV		12.19
5		0.0000	4.042		55481	VV		13.94
6		0.0000	4.330		27367	VV	?	19.38
7		0.0000	4.803		28208	VV	?	18.31
8	[illegible]	408.2580	5.108	0.108	94178	VV		31.13
9		0.0000	5.902		84473	VV	?	24.00
10	[illegible]	169.6585	6.242	-0.048	37095	VV	?	20.69
11	[illegible]	674.0351	7.613	-0.077	158492	VV	?	37.13
12		0.0000	7.946		61109	VV	?	28.69
13		0.0000	8.552		396484	VV		19.56
14	[illegible]	413.9607	9.083	-0.257	75477	VV	?	27.50
15	[illegible]	0.0000	10.239	-0.161	102653	VV		33.63
P 16	4,4' DDD	6155.282	P11.120	0.010	1114855	VV		24.31
P 17	4,4'DDT	3936.984	P13.385	-0.015	511967	VV		32.19
18		0.0000	14.023		40881	VB	?	78.38
19	[illegible]	378.8718	17.106	-0.754	44324	BB		46.38
20	[illegible]	712.1930	23.788	-0.002	126527	VB		55.50
21	[illegible]	444.9535	26.723	1.023	28947	BV	?	53.94
22		0.0000	28.180		62942	VB		68.31
23		0.0000	37.428		55549	BB		85.31

TOTALS: 14062.99 -0.290 3256071

DETECTED PKS: 44 REJECTED PKS: 21

DIVISOR: 0.15000 MULTIPLIER: 20000.0000

NOISE: 57.1 OFFSET: 247

RACK: 1 VIAL: 9 INJ: 1

NOTES:
NOTEBOOK:259-121 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB # U-4863
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
CONFIRMATION COLUMN

POST RUN:
SAVE FILE: RAW U-4863042

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SAMPLE NUMBER DC-I10-50

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DC-216-SC

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0866
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Hoytowicz
Date Sample Received: 2-5-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 02-13-87
Conc/Dil Factor: 2 pH 7.9
Percent Moisture: (Not Decanted) 17

Concentrations reported "as received"

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	530 BJ
67-64-1	Acetone	5400 B
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	7200 B
71-55-6	1, 1, 1-Trichloroethane	360 J
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	540 J
124-48-1	Dibromochloromethane	1000U
79-00-5	1, 1, 2-Trichloroethane	1000U
71-43-2	Benzene	840 J
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	510 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000U
108-88-3	Toluene	2600
108-90-7	Chlorobenzene	2200
100-41-4	Ethylbenzene	6800
100-42-5	Styrene	1000U
	Total Xylenes	2300

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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

Laboratory Name: ECOLOGY & ENVIRONMENT INC.
Case No: V-4835, 4846, 4863, 4872

Sample Number: DC-II0-50

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 2/5/87
Date Analyzed: 3/4/87
Conc/Dil Factor: 100
Percent Moisture (Decanted): 17

GPC Cleanup ☐Yes ☒No
Separatory Funnel Extraction ☐Yes
Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	16000 U
111-44-4	bis(-2-Chloroethyl)Ether	16000 U
95-57-8	2-Chlorophenol	16000 U
541-73-1	1. 3-Dichlorobenzene	16000 U
106-46-7	1. 4-Dichlorobenzene	16000 U
100-51-6	Benzyl Alcohol	16000 U
95-50-1	1. 2-Dichlorobenzene	16000 U
95-48-7	2-Methylphenol	16000 U
39638-32-9	bis(2-chloroisopropyl)Ether	16000 U
106-44-5	4-Methylphenol	16000 U
621-64-7	N-Nitroso-Di-n-Propylamine	16000 U
67-72-1	Hexachloroethane	16000 U
98-95-3	Nitrobenzene	16000 U
78-59-1	Isophorone	16000 U
88-75-5	2-Nitrophenol	16000 U
105-67-9	2. 4-Dimethylphenol	16000 U
65-85-0	Benzoic Acid	80,000 U
111-91-1	bis(-2-Chloroethoxy)Methane	16000 U
120-83-2	2. 4-Dichlorophenol	7300 J
120-82-1	1. 2. 4-Trichlorobenzene	92000
91-20-3	Naphthalene	16000 U
106-47-8	4-Chloroaniline	16000 U
87-68-3	Hexachlorobutadiene	16000 U
59-50-7	4-Chloro-3-Methylphenol	16000 U
91-57-6	2-Methylnaphthalene	16000 U
77-47-4	Hexachlorocyclopentadiene	16000 U
88-06-2	2. 4. 6-Trichlorophenol	16000 U
95-95-4	2. 4. 5-Trichlorophenol	80,000 U
91-58-7	2-Chloronaphthalene	16000 U
88-74-4	2-Nitroaniline	80,000 U
131-11-3	Dimethyl Phthalate	16000 U
208-96-8	Acenaphthylene	16000 U
)-09-2	3-Nitroaniline	80,000 U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	16,000 U
51-28-5	2. 4-Dinitrophenol	80,000 U
100-02-7	4-Nitrophenol	80,000 U
132-64-9	Dibenzofuran	16,000 U
121-14-2	2. 4-Dinitrotoluene	16,000 U
606-20-2	2. 6-Dinitrotoluene	16000 U
84-66-2	Diethylphthalate	16000 U
7005-72-3	4-Chlorophenyl-phenylether	16000 U
86-73-7	Fluorene	16000 U
100-01-6	4-Nitroaniline	80,000 U
534-52-1	4. 6-Dinitro-2-Methylphenol	80,000 U
86-30-6	N-Nitrosodiphenylamine (1)	16000 U
101-55-3	4-Bromophenyl-phenylether	16000 U
118-74-1	Hexachlorobenzene	84,000
87-86-5	Pentachlorophenol	80,000 U
85-01-8	Phenanthrene	16000 U
120-12-7	Anthracene	16000 U
84-74-2	Di-n-Butylphthalate	16000 U
206-44-0	Fluoranthene	16000 U
129-00-0	Pyrene	16000 U
85-68-7	Butylbenzylphthalate	16000 U
91-94-1	3. 3'-Dichlorobenzidine	33,000 U
56-55-3	Benzo(a)Anthracene	16000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	5600 J
218-01-9	Chrysene	16000 U
117-84-0	Di-n-Octyl Phthalate	16000 U
205-99-2	Benzo(b)Fluoranthene	16000 U
207-08-9	Benzo(k)Fluoranthene	16000 U
50-32-8	Benzo(a)Pyrene	16000 U
193-39-5	Indeno(1. 2. 3-cd)Pyrene	16000 U
53-70-3	Dibenz(a. h)Anthracene	16000 U
191-24-2	Benzo(g. h. i)Perylene	16000 U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-I10-50

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-5-87

Date Analyzed 2-20-87

Conc/Dil Factor 20

Percent Moisture (decanted) 17

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	16,000 U
11097-69-1	Aroclor-1254	32,000 U
11096-82-5	Aroclor-1260	17,000 J

V_l = 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 3 V_t 1000 V_l 4

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Laboratory Name Ecology & Environment, Inc.

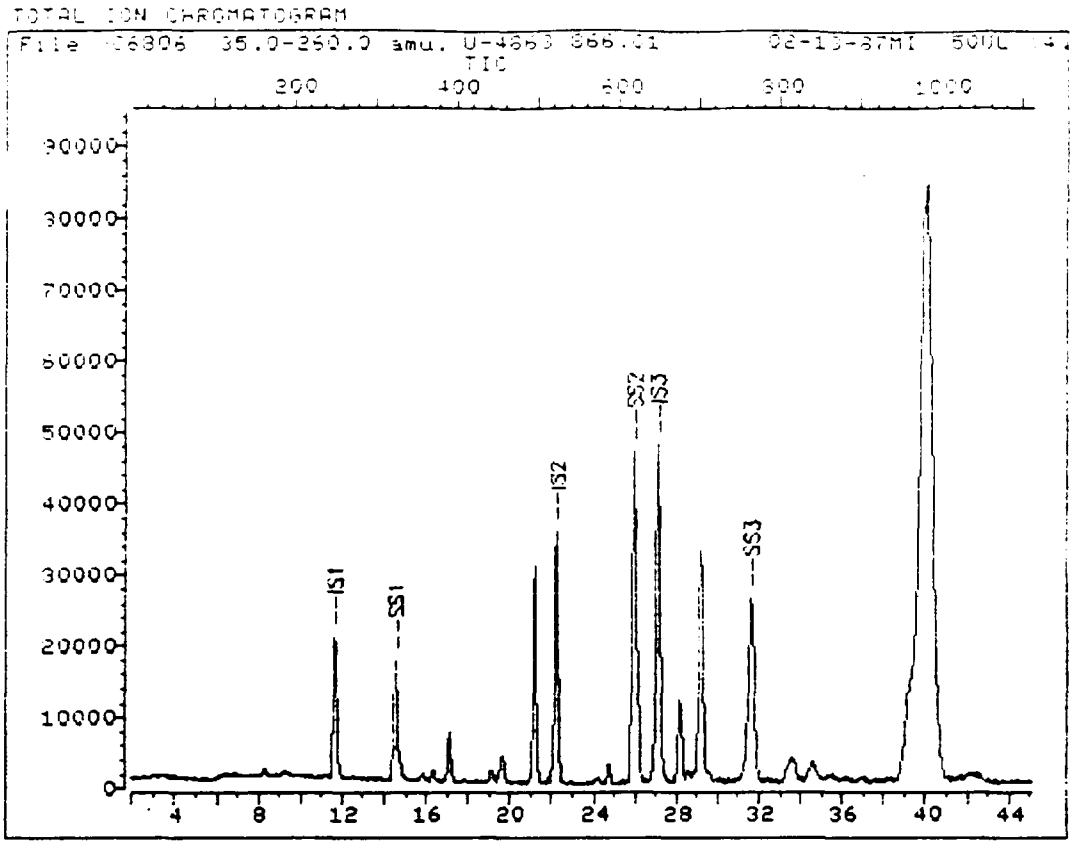
Case No U-4835, 4846, 4863, 4872

Sample Number DC-I10-50

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)
				min	
1.		Hexene Isomer	VOA	17.1	2100 BJ
2.		Hexane Isomer	VOA	21.2	9000 BJ
3.		Unknown hydrocarbon	VOA	28.2	2700 J
4.		Dichlorobenzene Isomer	VOA	40.0	65000 J
5.					
6.		Ethylbenzenamine Isomer	BNA	12.05	15000 J
7.		Unknown	|	13.52	86000 J
8.		Tetrachlorobenzene Isomer	|	15.25	170000 J
9.		Tetrachlorobenzene Isomer	|	16.13	1,100,000 J
10.	608935	Pentachlorobenzene	|	18.42	690,000 J
11.		Unknown	|	19.12	100,000 J
12.		Unknown	|	20.75	18,000 J
13.	10544500	Molecular Sulfur	L	25.34	23,000 J
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					



Data File: >C6806::D3
Name: U-4863 866.01 DC-I10-50
Misc: 02-13-87MI 50UL (4.45G/10MLS MEOH) + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870213 12:53

Operator ID: USER8
Quant Time: 870213 22:23
Injected at: 870213 21:37

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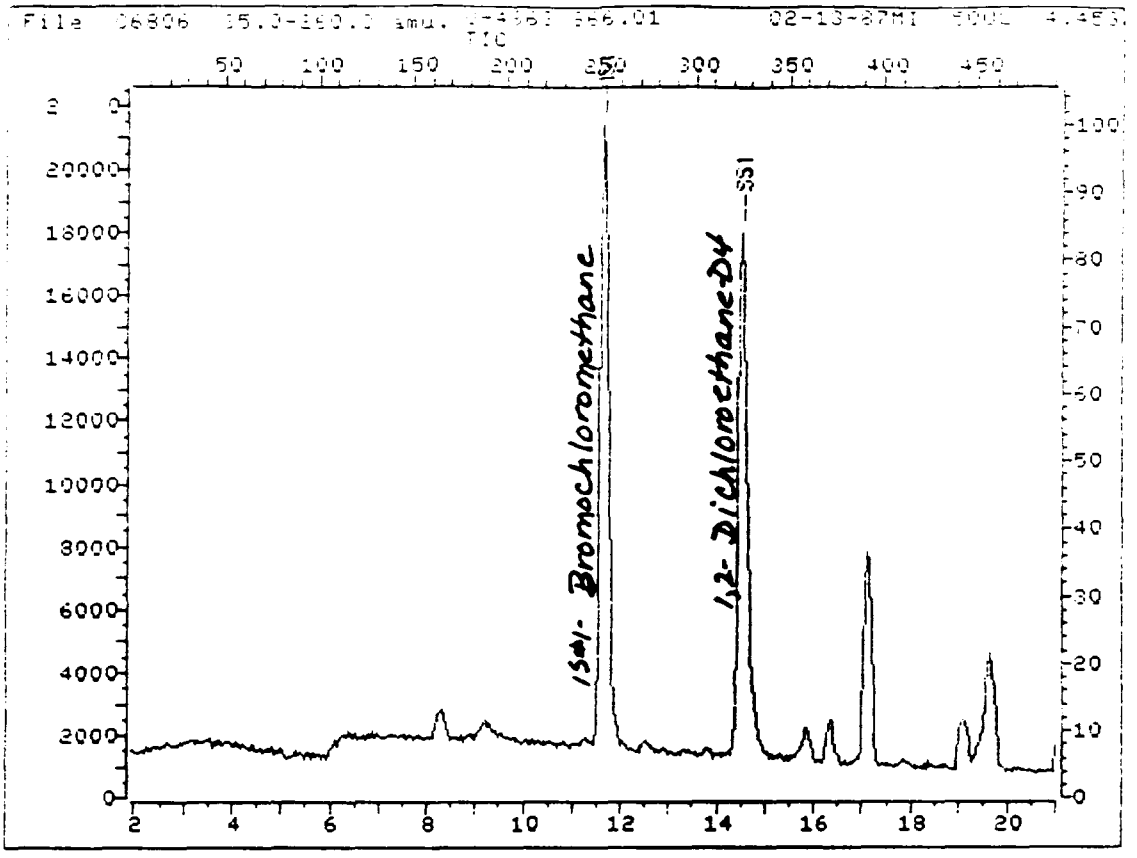
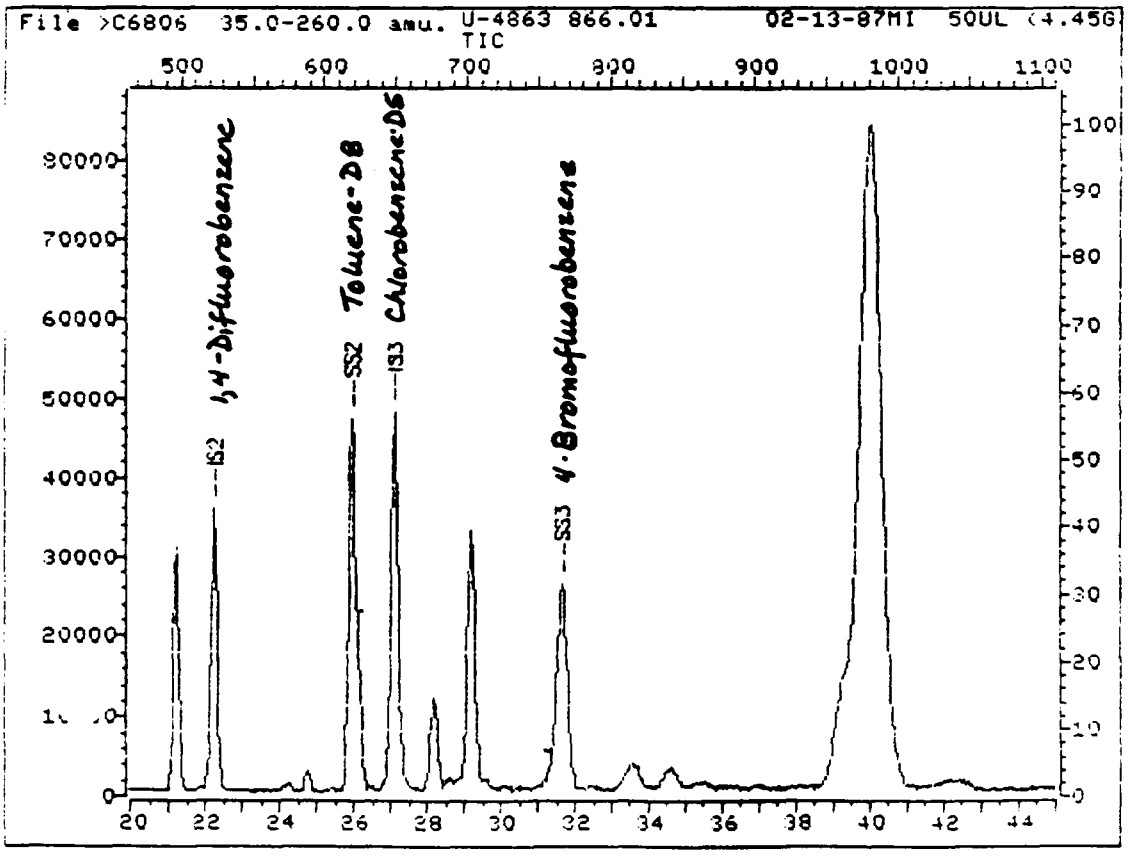
DC-I10-50





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QUANT REPORT

Operator ID: USER3 Quant Pe : 4 Quant Time: 870213 22:27
Output File: >C6806::Q2 Injected at: 870213 21:37
Data File: >C680o::D3 Dilution Factor: 1.00
N e: U-4863 866.01 DC-I10-50
M c: 02-13-87MI 50UL (4.45G/10MLS MEOH) - 10UL IS/SS

ID File: VOACR::D2
Title: VOH ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870213 12:53

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.64	251	29810	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.31	165	2511	2.35 UG/L	100
7)	ACETONE		43	9.24	189	10419	23.88 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	325	75029	49.95 UG/L	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.24	524	144877	50.00 UG/L	100
17)	2-BUTANONE		72	14.67	329	3546	32.13 UG/L	100
18)	1,1,1-TRICHLOROETHANE		97	15.83	359	2944	1.61 UG/L	99
24)	TRICHLOROETHENE		130	19.09	443	3049	2.40 UG/L	92
27)	BENZENE		78	19.64	457	13298	3.76 UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.09	649	133479	50.00 UG/L	100
34)	TETRACHLOROETHENE		164	24.72	588	3332	2.26 UG/L	90
36)	TOLUENE-D8	(SURR)	98	25.92	619	175491	46.26 UG/L	97
37)	TOLUENE		92	26.12	624	32841	11.69 UG/L	96
38)	CHLOROBENZENE		112	27.20	652	32958	9.67 UG/L	97
39)	ETHYLBENZENE		91	29.19	703	180593	30.23 UG/L	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.64	766	89921	47.89 UG/L	100
42)	TOTAL XYLENES		91	33.58	816	24120	4.90 UG/L	100
42)	TOTAL XYLENES		91	34.59	842	25831	5.25 UG/L	100
43)	1,3-DICHLOROBENZENE		146	40.02	982	871860	871860.0 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	40.02	982	871860	871860.0 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	40.02	982	871860	871860.0 NO CALIB	100

* Compound is ISTD

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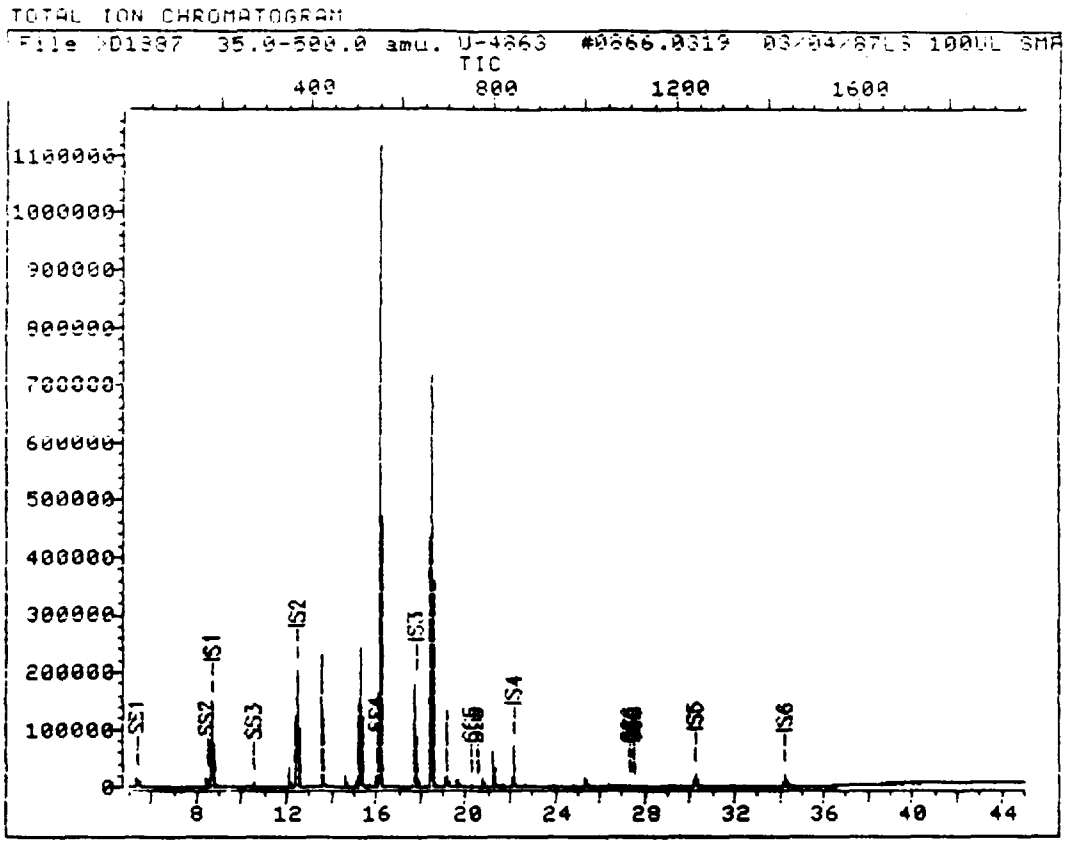

Data File: >D1887::D3
Name: U-4863 #0866.0319 DC-I10-50
Misc: 03/04/87LS 100UL SMPL + 900UL MECL2 + 10UL IS (10X) BTL# 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870304 18:41

Operator ID: USER6
Quant Time: 870304 20:17
Injected at: 870304 19:29

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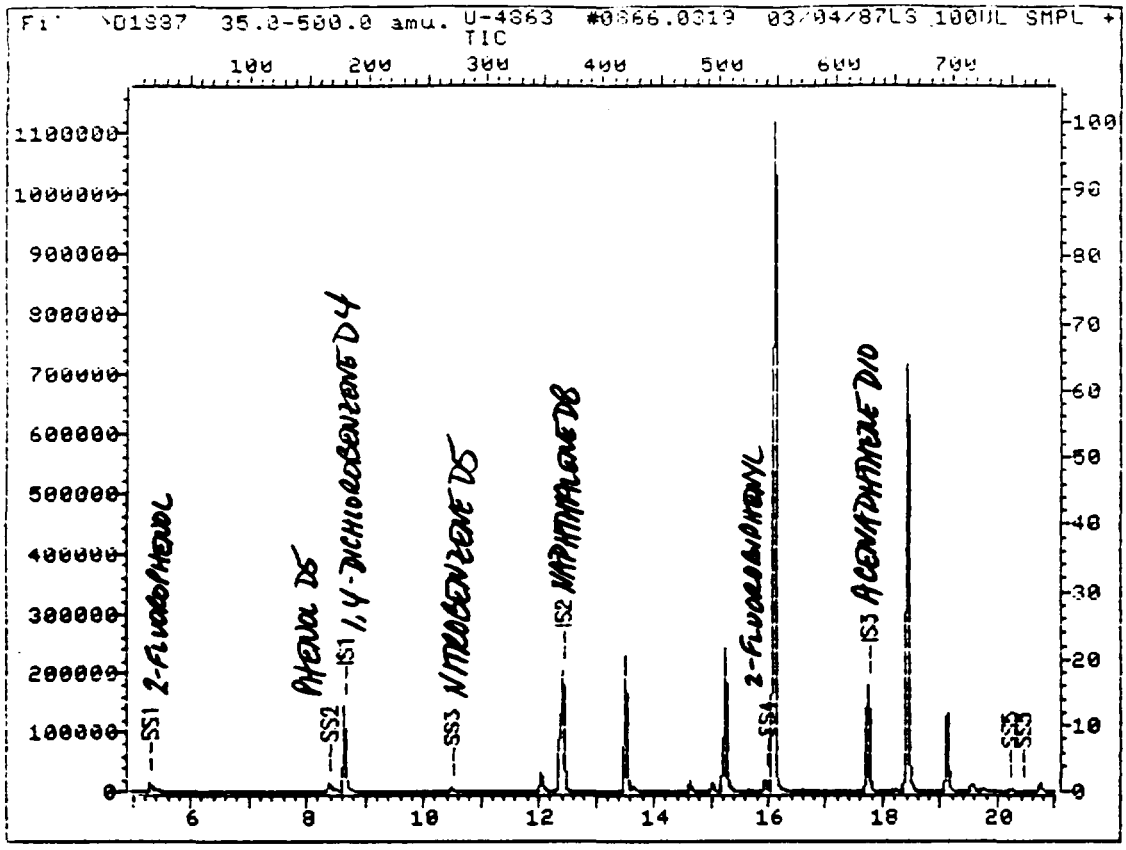

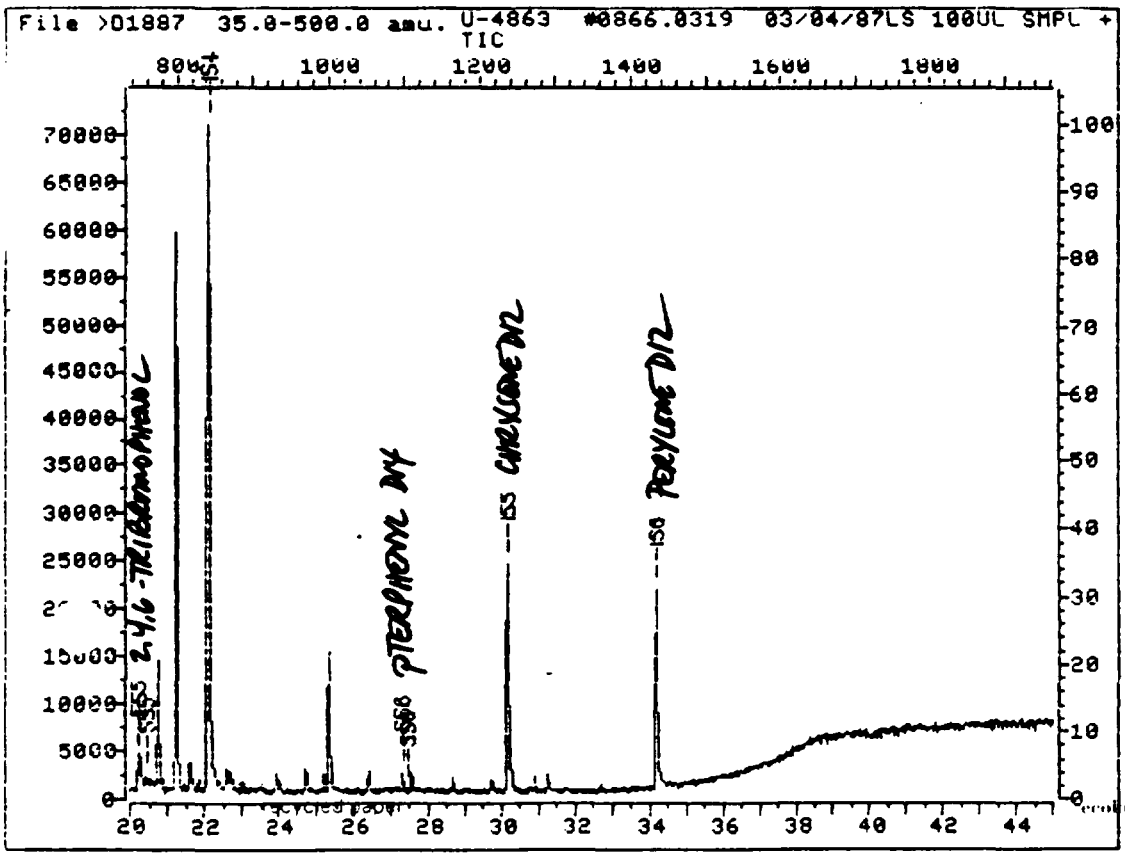

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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870304 20:17
Output File: ^D1887::Q2 Injected at: 870304 19:29
Data File: >D1887::D3 Dilution Factor: 10.00
Name: U-4863 #0866.0319 DC-I10-5D
Misc: 03/04/87LS 100UL SMPL + 900UL MECL2 + 10UL IS (10X) BTL# 3

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870304 18:41

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4(IS)	152	8.65	181	62137	40.00	UG/L	85
2)	PHENOL-D5 (SURR)	99	8.38	168	16388	75.05	UG/L 75 ✓	99
5)	2-FLUOROPHENOL (SURR)	112	5.29	16	14265	96.52	UG/L 97 ✓	81
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~10.48~~	~~271~~	~~1419~~	~~7.44~~	~~UG/L~~ No Bfl	82
19)	*NAPHTHALENE-D8 (IS)	136	12.42	366	229293	40.00	UG/L	100
20)	NITROBENZENE-D5 (SURR)	82	10.48	271	9564	42.00	UG/L 84 ✓	87
27)	2,4-DICHLOROPHENOL	162	12.31	361	3776	24.88	UG/L	94
28)	1,2,4-TRICHLOROBENZENE	180	12.38	364	64832	322.15	UG/L	100
34)	*ACENAPHTHENE-D10 (IS)	162	17.74	627	104886	40.00	UG/L	98
38)	2-FLUOROBIPHENYL (SURR)	172	15.96	540	20312	51.08	UG/L 102 ✓	92
~~41)~~	~~DIMETHYL PHTHALATE~~	~~163~~	~~17.74~~	~~627~~	~~20119~~	~~73.81~~	~~UG/L~~ No Bfl	100
48)	2,4,6-TRIBROMOPHENOL(SURR)	330	20.20	748	2219	48.48	UG/L 48 ✓	96
~~48)~~	~~2,4,6-TRIBROMOPHENOL(SURR)~~	~~330~~	~~20.43~~	~~759~~	~~64~~	~~1.40~~	~~UG/L~~	95
~~51)~~	~~2,4-DINITROTOLUENE~~	~~165~~	~~18.43~~	~~661~~	~~1289~~	~~30.59~~	~~UG/L~~ No Bfl	100
~~58)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~17.74~~	~~627~~	~~13691~~	~~238.07~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10 (IS)	188	22.12	842	96400	40.00	UG/L	89
~~57)~~	~~N-NITROSODIPHENYLAMINE~~	~~169~~	~~19.55~~	~~716~~	~~9510~~	~~77.71~~	~~UG/L~~ No Bfl	73
59)	HEXACHLOROBENZENE	284	21.24	799	25459	279.69	UG/L	98
65)	*CHRYSENE-D12 (IS)	240	30.17	1237	39482	40.00	UG/L	100
68)	TERPHENYL-D14 (SURR)	244	27.29	1096	4153	52.76	UG/L 106 ✓	100
~~68)~~	~~TERPHENYL-D14 (SURR)~~	~~244~~	~~27.46~~	~~1104~~	~~83~~	~~1.05~~	~~UG/L~~ No Bfl	100
~~72)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~	~~149~~	~~30.90~~	~~1273~~	~~1421~~	~~22.27~~	~~UG/L~~	97
72)	BIS(2-ETHYLHEXYL)PHTHALATE	149	31.25	1290	1225	18.55	UG/L	88
74)	*PERYLENE-D12 (IS)	264	34.18	1434	36071	40.00	UG/L	100

* Compound is ISTD

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SAMPLE NUMBER DC-I11-51

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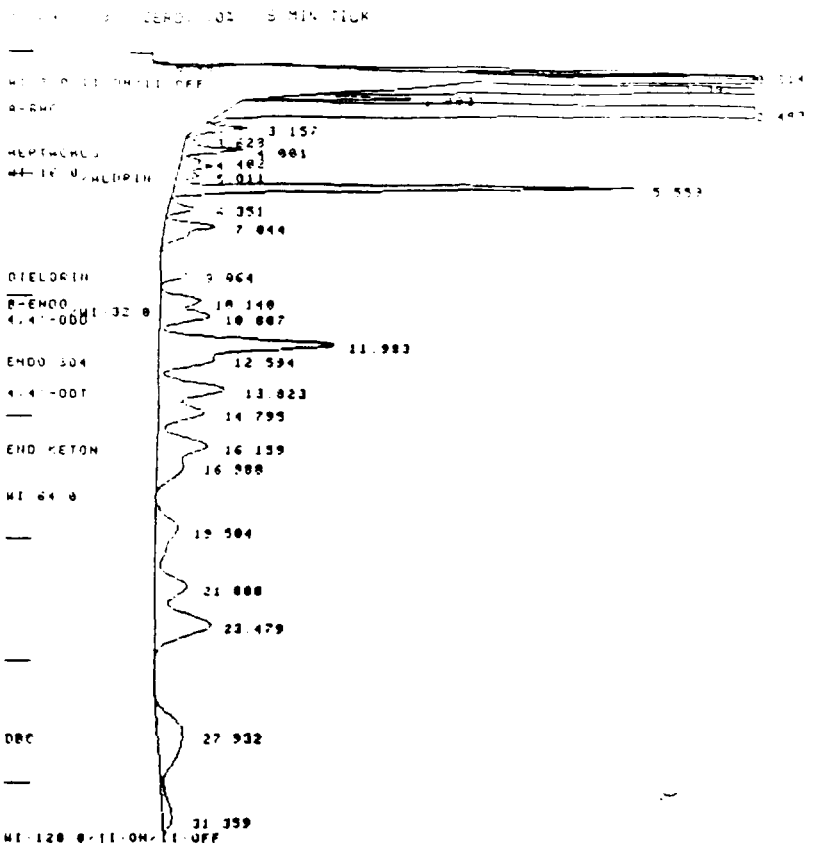


PCB 1260 = 13.7 x 0.0094 x 1/0.15 x 20 x 1000 = 17,200 ug/Kg WET

DC-I10-50

CHANNEL: 1A - 1 TITLE: RUN# 25 2:21 20 FEB 87

SAMPLE: 0866 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	1.391		122211	BV	? 4.31
2		0.0000	1.542		17592483	VV	? 8.13
3		0.0000	1.903		116349	T	4.19
4	~~B-BHC~~	10441.19	2.274	0.034	2192742	VV	6.56
5	~~B-BHC~~	162810.9	2.488	0.108	11131530	VV	7.38
6		0.0000	3.157		70699	T	9.69
7	~~HEPTACHLO~~	569.8477	4.001	-0.119	99074	T	11.13
8		0.0000	4.402		29517	T	? 11.06
9		0.0000	4.659		56869	T	12.88
10	~~ALDRIN~~	211.8116	5.009	-0.061	42080	T	12.88
11		0.0000	5.559		764638	T	12.56
12	~~HEPT-EPOX~~	357.3400	6.351	0.211	67203	T	18.63
13		0.0000	7.044		184552	VV	22.13
14	~~DIELDRIN~~	691.1664	9.064	0.224	130573	VV	? 35.13
15	~~B-ENDO~~	790.4434	10.140	0.090	139819	VV	? 27.75
16	~~4,4'-DDD~~	1216.838	10.807	-0.123	188950	VV	32.94
17		0.0000	~~11.083~~	PCB	~~752600~~	VV	32.50
18	~~ENDO 304~~	1289.734	12.594	1260 0.216	162151	VV	? 28.19
19	~~4,4'-DDT~~	2534.339	~~13.823~~	-0.427	~~317201~~	VV	38.19
20		0.0000	14.795		224943	VV	43.31
21	~~END KETON~~	1569.904	~~16.159~~	-0.021	~~202046~~	VV	47.19
22		0.0000	16.988	ΣA = 13.7	155517	VB	? 68.88
23		0.0000	19.504		212882	BV	78.63
24	~~METHOXYCH~~	3453.547	~~21.888~~	1.008	~~221639~~	VV	58.38
25		0.0000	23.479		427528	VB	60.44
26	~~DBC~~	2378.250	27.932	-0.508	353732	BV	133.88
27		0.0000	31.359		82667	VB	?143.19

TOTALS: 188315.3 36123000

DETECTED PKS: 34 REJECTED PKS: 7

DIVISOR: 0.15000 MULTIPLIER: 20000.0000

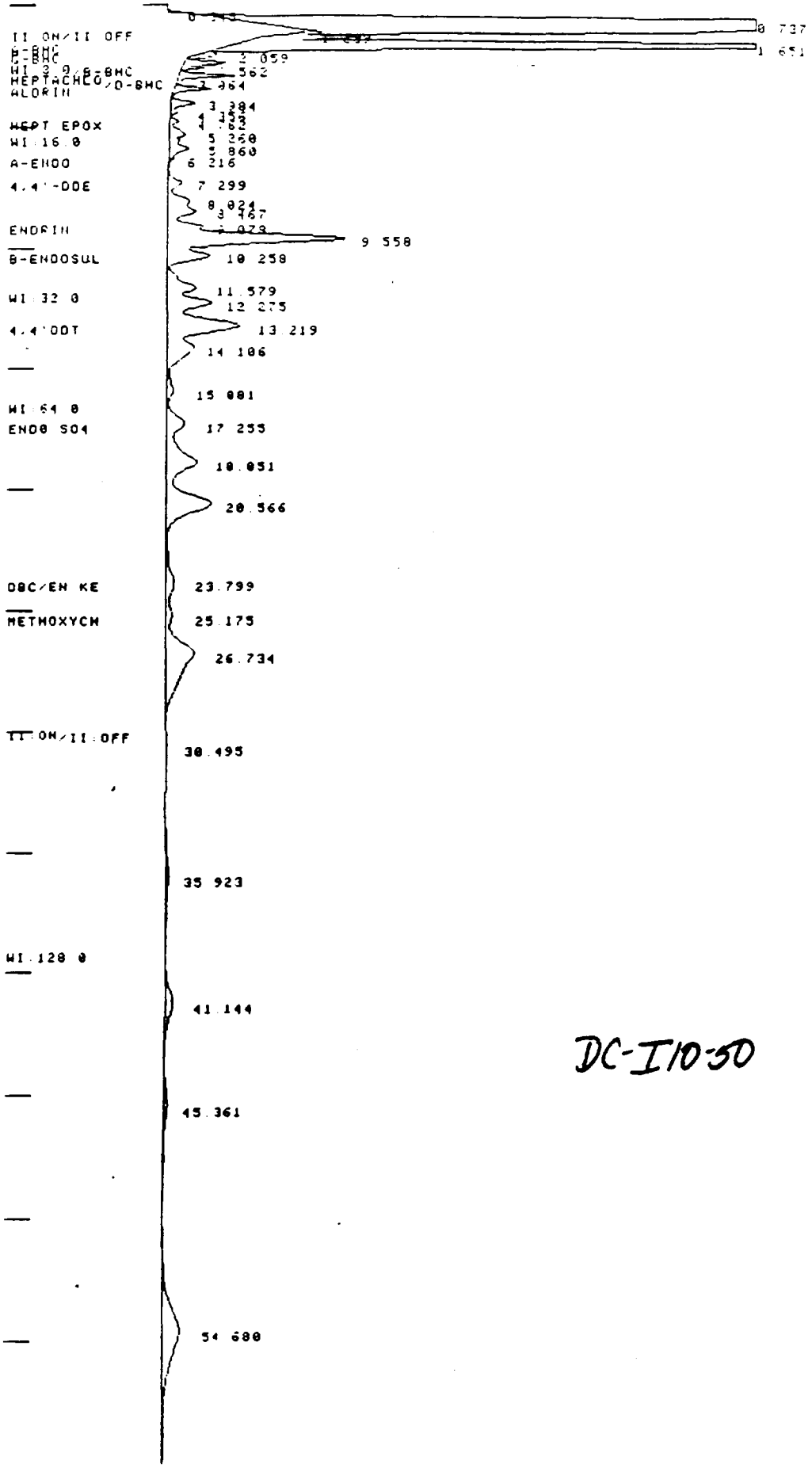
NOISE: 11.4 OFFSET: -37

RACK: 2 VIAL: 10 INJ: 1

NOTES:
NOTE BOOK: 259-112 ANALYST:RICHARD SAMSON AND K. JUREK
SECURE AREA: D JOB#:U-4863
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 0.50 ML/MIN
DET: 300 C INJ: 220 C

373

CHART SPEED .5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



DC-I10-50

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DC-I10-50

CHANNEL: "B - " TITLE: RUN# 10 3:5 26 FEB 87

SAMPLE: 3866 METHOD: PEPA CALCULATION: EB - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	1.322		93223	VV		2.56
2		0.0000	1.485		6047707	VV		3.25
3	~~a-BHC~~	73433.78	1.651	-0.129	23018626	VV		5.75
4		0.0000	2.059		49557	T		3.81
5	~~G-BHC~~	414.0286	2.346	0.106	105154	T		6.81
6	~~G-BHC~~	275.7580	2.560	0.000	27963	T		4.50
7	~~G-BHC~~	477.8762	2.901	-0.079	108899	T		6.88
8	~~ALDRIN~~	312.7010	3.385	0.045	78856	T		7.38
9		0.0000	3.984		67648	BV		11.06
10	~~HEPT EPOX~~	102.9120	4.762	-0.238	23740	VV		12.56
11		0.0000	5.260		71784	VV	?	20.75
12		0.0000	5.555		26766	VV	?	18.75
13		0.0000	5.860		87633	VV		18.19
14	~~4,4'-DDE~~	323.7666	7.299	0.049	71317	BV		23.69
15	~~DIELDRIN~~	520.0411	8.024	0.334	122282	VV	?	23.94
16		0.0000	8.467		139594	VV	?	26.44
17		0.0000	9.078		144594	VV	?	22.88
18	~~ENDRIN~~	5816.521	9.558	0.218	1060520	VV		22.44
19	~~G-ENDOSUL~~	0.0000	10.258	-0.142	242665	VV	?	26.38
20	~~4,4'-DDD~~	1281.249	11.579	0.469	232062	VV	?	29.94
21		0.0000	12.275		311866	VV		29.50
22	~~4,4'-DDT~~	5022.300	13.219	-0.181	653102	VV		35.81
23	~~END. ALD~~	1902.196	14.106	-0.694	283973	VV	?	51.31
24		0.0000	15.881		62832	VV		51.50
25	~~ENDO SO4~~	1541.592	17.255	-0.605	180350	VV		42.25
26		0.0000	18.851		411458	VV		47.56
27		0.0000	* 20.566	PCB 1260	563786	VV		47.31
28	~~DDC/GN-KE~~	820.0405	23.799	0.009	145687	VV		67.75
29	~~METHOXYCH~~	998.0749	25.175	-0.525	64931	VV	?	46.56
30		0.0000	26.734		637724	VB		90.38
31		0.0000	35.923		75698	BB		104.63
32		0.0000	41.144		138473	BV		75.69
33		0.0000	45.361		95618	VB		93.69
34		0.0000	54.680		622225	BB		139.00

TOTALS: 93242.85 -1.363 36068236

DETECTED PKS: 46 REJECTED PKS: 12

DIVISOR: 0.15000 MULTIPLIER: 20000.0000

NOISE: 57.1 OFFSET: 227

RACK: 1 VIAL: 10 INJ: 1

NOTES:
NOTEBOOK:259-121 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB # U-4863
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
CONFIRMATION COLUMN

POST RUN:
SAVE FILE: RAW U-4863043

recycled paper ecology and environment

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0900
QC Report No:
Sample Matrix: Soil
Contract No: EL-3140
Data Release Authorized By: C Stoltowicz
Date Sample Received: 2-6-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-13-87
Conc/Dil Factor: 2 pH 8.3
Percent Moisture: (Not Decanted) 40

Concentrations reported "as received"

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	510 BJ
67-64-1	Acetone	8300 B
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	8800 B
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	2000
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	1100
108-90-7	Chlorobenzene	65000
100-41-4	Ethylbenzene	620 J
100-42-5	Styrene	1000U
	Total Xylenes	970 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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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ecology and environment

Laboratory Name ECOLOGY & ENVIRONMENT INC

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I11-51

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared: 2/9/87

Date Analyzed: 2/17/87

Conc/Dil Factor: 200

Percent Moisture (Decanted) 40

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	33,000 U
111-44-4	bis(-2-Chloroethyl)Ether	33,000 U
95-57-8	2-Chlorophenol	33,000 U
541-73-1	1 3-Dichlorobenzene	42000
106-46-7	1 4-Dichlorobenzene	1,100,000
100-51-6	Benzyl Alcohol	33000 U
95-50-1	1 2-Dichlorobenzene	33000 U
95-48-7	2-Methylphenol	33000 U
39638-32-9	bis(2-chloroisopropyl)Ether	33000 U
106-44-5	4-Methylphenol	33000 U
621-64-7	N-Nitroso-Di-n-Propylamine	33000 U
67-72-1	Hexachloroethane	33000 U
98-95-3	Nitrobenzene	33000 U
78-59-1	Isophorone	33000 U
88-75-5	2-Nitrophenol	33000 U
105-67-9	2 4-Dimethylphenol	33000 U
65-85-0	Benzoic Acid	160,000 U
111-91-1	bis(-2-Chloroethoxy)Methane	33000 U
120-83-2	2 4-Dichlorophenol	33000 U
120-82-1	1 2 4-Trichlorobenzene	60,000
91-20-3	Naphthalene	33000 U
106-47-8	4-Chloroaniline	33000 U
87-68-3	Hexachlorobutadiene	33000 U
59-50-7	4-Chloro-3-Methylphenol	33000 U
91-57-6	2-Methylnaphthalene	14000 J
77-47-4	Hexachlorocyclopentadiene	33000 U
88-06-2	2 4 6-Trichlorophenol	33000 U
95-95-4	2 4 5-Trichlorophenol	160,000 U
91-58-7	2-Chloronaphthalene	33000 U
88-74-4	2-Nitroaniline	160,000 U
131-11-3	Dimethyl Phthalate	33000 U
208-96-8	Acenaphthylene	33000 U
-09-2	3-Nitroaniline	160,000 U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	33000 U
51-28-5	2 4-Dinitrophenol	160,000 U
100-02-7	4-Nitrophenol	160,000 U
132-64-9	Dibenzofuran	33000 U
121-14-2	2 4-Dinitrotoluene	33000 U
606-20-2	2 6-Dinitrotoluene	33000 U
84-66-2	Diethylphthalate	33000 U
7005-72-3	4-Chlorophenyl-phenylether	33000 U
86-73-7	Fluorene	33000 U
100-01-6	4-Nitroaniline	160,000 U
534-52-1	4 6-Dinitro-2-Methylphenol	160,000 U
86-30-6	N-Nitrosodiphenylamine (1)	33000 U
101-55-3	4-Bromophenyl-phenylether	33000 U
118-74-1	Hexachlorobenzene	38,000
87-86-5	Pentachlorophenol	160,000 U
85-01-8	Phenanthrene	33000 U
120-12-7	Anthracene	33000 U
84-74-2	Di-n-Butylphthalate	33000 U
206-44-0	Fluoranthene	33000 U
129-00-0	Pyrene	33000 U
85-68-7	Butylbenzylphthalate	33000 U
91-94-1	3 3'-Dichlorobenzidine	66000 U
56-55-3	Benzo(a)Anthracene	33000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	29,000 J
218-01-9	Chrysene	33000 U
117-84-0	Di-n-Octyl Phthalate	33000 U
205-99-2	Benzo(b)Fluoranthene	33000 U
207-08-9	Benzo(k)Fluoranthene	33000 U
50-32-8	Benzo(a)Pyrene	33000 U
193-39-5	Indeno(1 2 3-cd)Pyrene	33000 U
53-70-3	Dibenz(a h)Anthracene	33000 U
191-24-2	Benzo(g h i)Perylene	33000 U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-III-51

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-9-87

Date Analyzed 2-23-87

Conc/Dil Factor 25

Percent Moisture (decanted) 40

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	2000 U
319-85-7	Beta-BHC	2000 U
319-86-8	Delta-BHC	2000 U
58-89-9	Gamma-BHC (Lindane)	2000 U
76-44-8	Heptachlor	2000 U
309-00-2	Aldrin	2000 U
1024-57-3	Heptachlor Epoxide	2000 U
959-98-8	Endosulfan I	2000 U
60-57-1	Dieldrin	4000 U
72-55-9	4,4'-DDE	4000 U
72-20-8	Endrin	4000 U
33213-65-9	Endosulfan II	4000 U
72-54-8	4,4'-DDD	4000 U
1031-07-8	Endosulfan Sulfate	4000 U
50-29-3	4,4'-DDT	4000 U
72-43-5	Methoxychlor	20,000 U
53494-70-5	Endrin Ketone	4,000 U
57-74-9	Chlordane	20,000 U
8001-35-2	Toxaphene	40,000 U
12674-11-2	Aroclor-1016	20,000 U
11104-28-2	Aroclor-1221	20,000 U
11141-16-5	Aroclor-1232	20,000 U
53469-21-9	Aroclor-1242	20,000 U
12672-29-6	Aroclor-1248	20,000 U
11097-69-1	Aroclor-1254	40,000 U
11096-82-5	Aroclor-1260	40,000 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 3 V_t 1,000 V_i 4

Laboratory Name Ecology & Environment, Inc.

Case No 4-4835, 4846, 4863, 4872

Sample Number DC-III-51

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	17.2	2100 BJ
2.		Hexane isomer	VOA	21.2	8300 BJ
3.		Dichlorobenzene isomer	VOA	38.1	26000 J
4.		Dichlorobenzene isomer	VOA	39.8	470000 J
5.					
6.		Tetrachlorobenzene Isomer	BNA	15.35	140,000 J
7.		Tetrachlorobenzene Isomer		16.21	200,000 J
8.	608935	Pentachlorobenzene		18.52	260,000 J
9.		Unknown		24.86	26,000 J
10.	10544500	Molecular Sulfur		25.50	720,000 J
11.		Unknown		26.30	66,000 J
12.		Unknown		37.90	37,000 J
13.					
14.					
15.					
16.					
17.					
18.					
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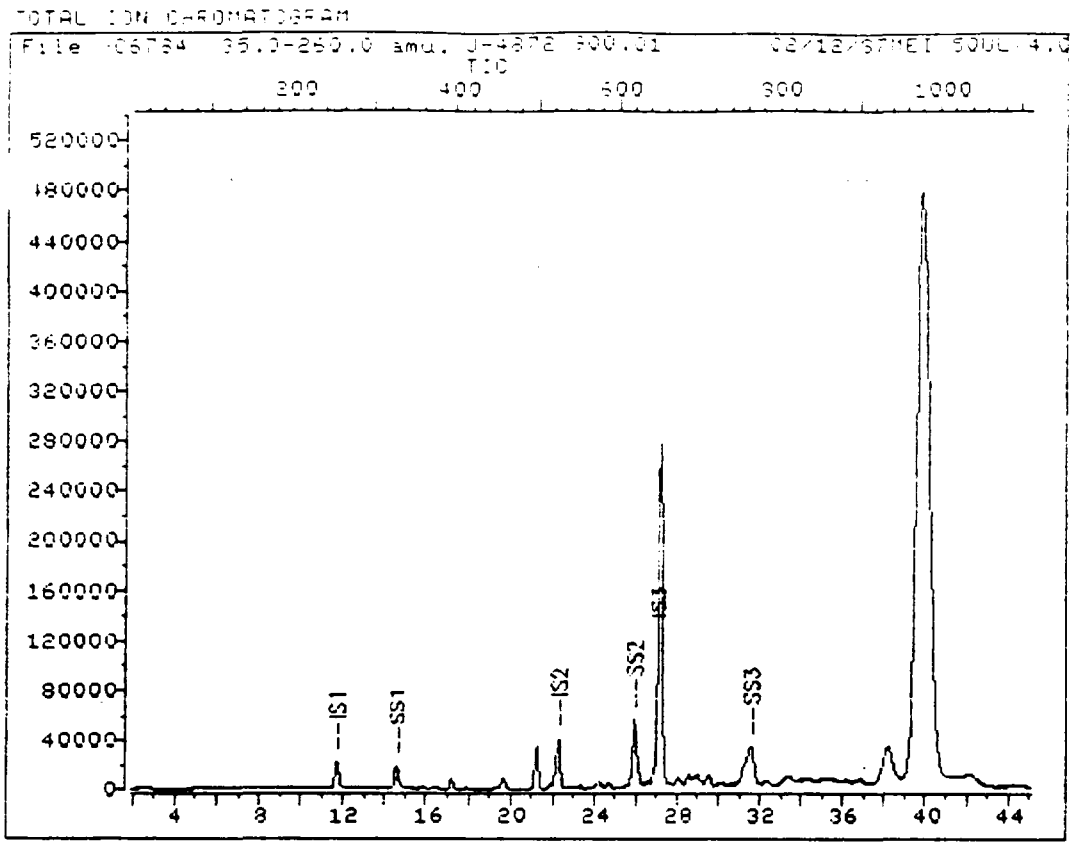
28.					
29.					
30					



Data File: >C6784::D3
Name: U-4872 900.01 DC-III-51
Misc: 02/12/87MEI 50UL(4.01G/10MLS MEOH) + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870212 17:56

Operator ID: USER8
Quant Time: 870213 01:08
Injected at: 870213 00:22

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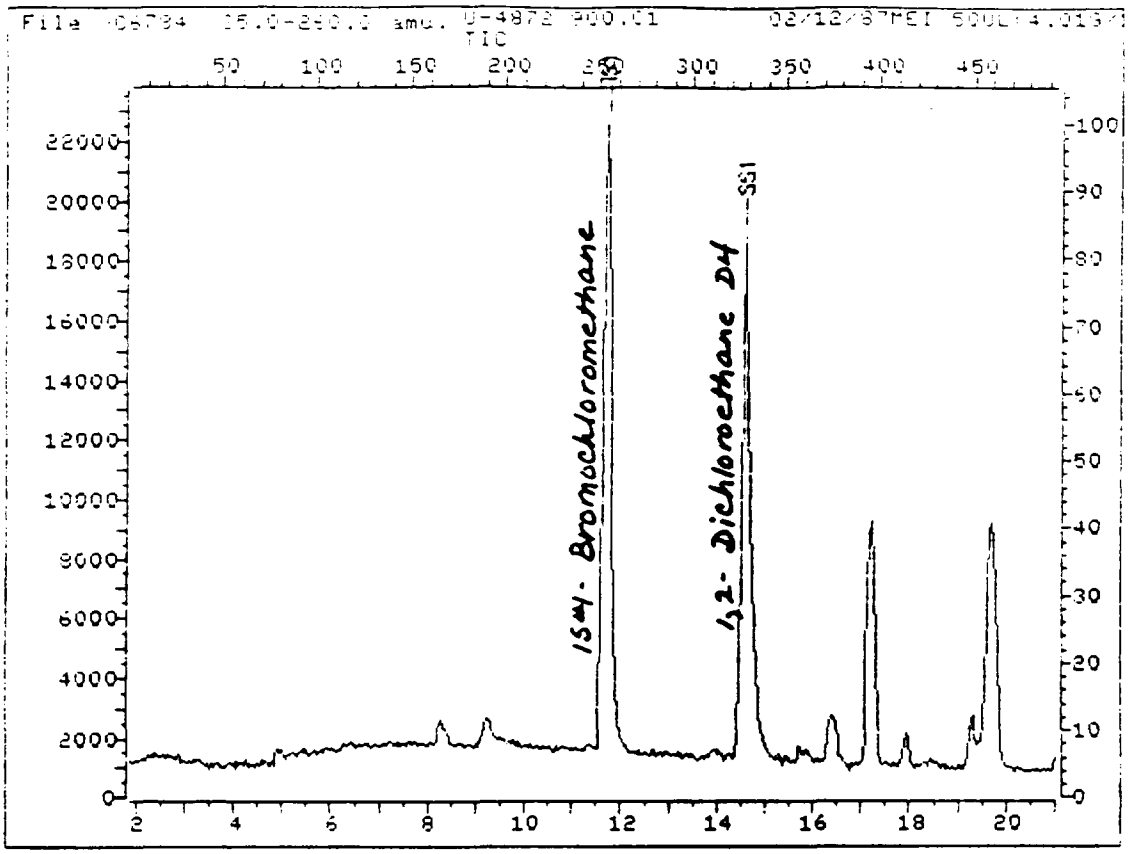
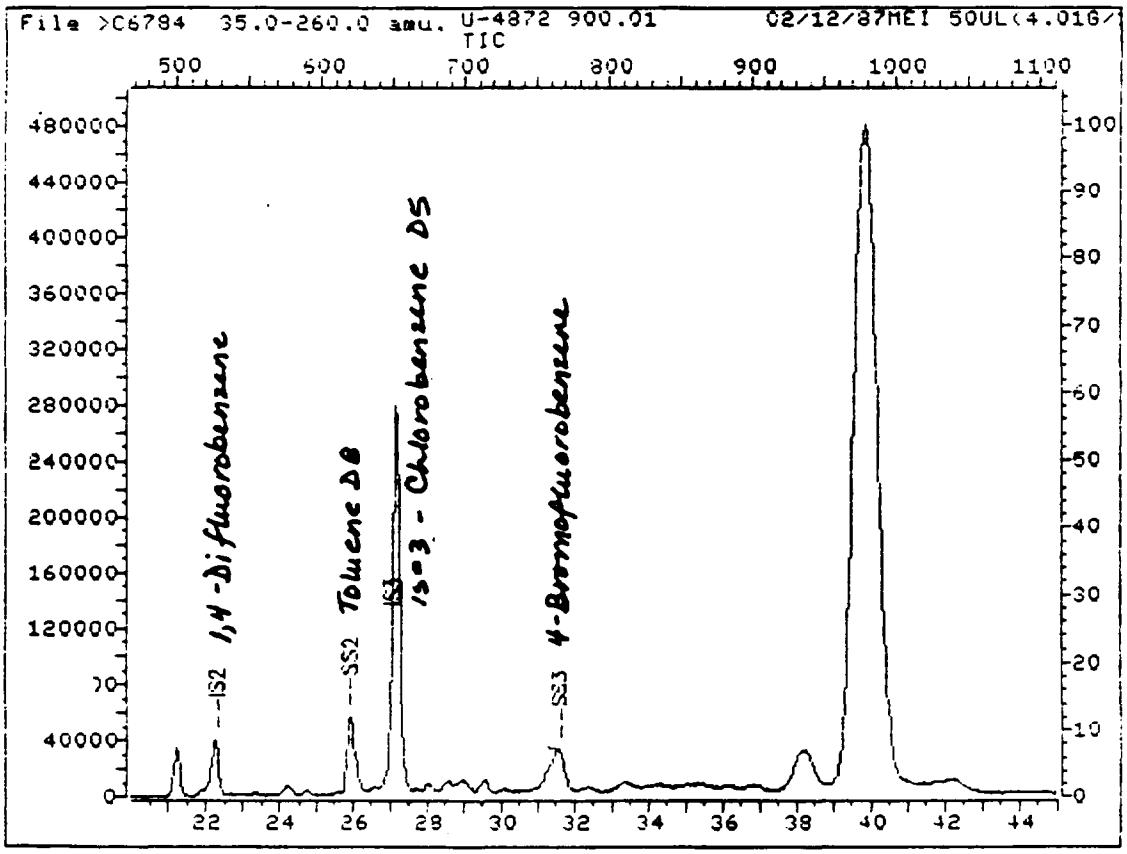
DC-III-51


TIC
1,4-Bromochloromethane
1,2-Dichloroethane D4
SS1


TIC
1,4-Difluorobenzene
IS2
Toluene D8
SS2
IS3
1,3-Chlorobenzene D5
4-Bromofluorobenzene
SS3

381

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870213 01:03
Output File: >C6784::02 Injected at: 870213 00:32
Data File: >C6784::D3 Dilution Factor: 1.00
Name: U-4872 900.01 DC-II-SI
Misc: 02/12/87ME: 50UL(4.01G/10MLS MEOH) - 10UL IS/SS

ID File: UOACR::D2
Title: UOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870212 17:56

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.70	254	30091	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.29	166	2074	2.06 UG/L	100
7)	ACETONE		43	9.26	191	9866	33.29 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.57	328	77101	44.26 UG/L	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.30	527	150125	50.00 UG/L	100
17)	2-BUTANONE		72	14.77	333	4158	35.17 UG/L	100
27)	BENZENE		78	19.74	461	28122	8.07 UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.03	649	133975	50.00 UG/L	100
33)	~~2-HEXANONE~~		~~43~~	~~24.42~~	~~977~~	~~19559~~	~~21.91 UG/L~~	~~100~~
33)	~~2-HEXANONE~~		~~43~~	~~24.74~~	~~590~~	~~14081~~	~~19.75 UG/L~~	~~100~~
36)	TOLUENE-D8	(SURR)	98	25.91	620	188620	49.64 UG/L	97
37)	TOLUENE		92	26.10	625	11842	4.53 UG/L	97
38)	CHLOROBENZENE		112	27.15	652	828620	262.57 UG/L	96
39)	ETHYLBENZENE		91	29.14	703	14088	2.49 UG/L	99
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.58	766	97758	49.38 UG/L	100
42)	TOTAL XYLENES		91	33.45	814	2845	.58 UG/L	100
42)	TOTAL XYLENES		91	34.53	842	16078	3.30 UG/L	100
~~42)~~	~~TOTAL XYLENES~~		~~91~~	~~34.53~~	~~834~~	~~9091~~	~~1.87 UG/L~~	~~100~~
43)	1,3-DICHLOROBENZENE		146	38.22	937	208987	208987.0 NO CALIB	100
43)	1,3-DICHLOROBENZENE		146	39.82	978	4522210	4522210. NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	38.22	937	208987	208987.0 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	39.82	978	4522210	4522210. NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	38.22	937	208987	208987.0 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	39.82	978	4522210	4522210. NO CALIB	100

* Compound is ISTD

ok CW

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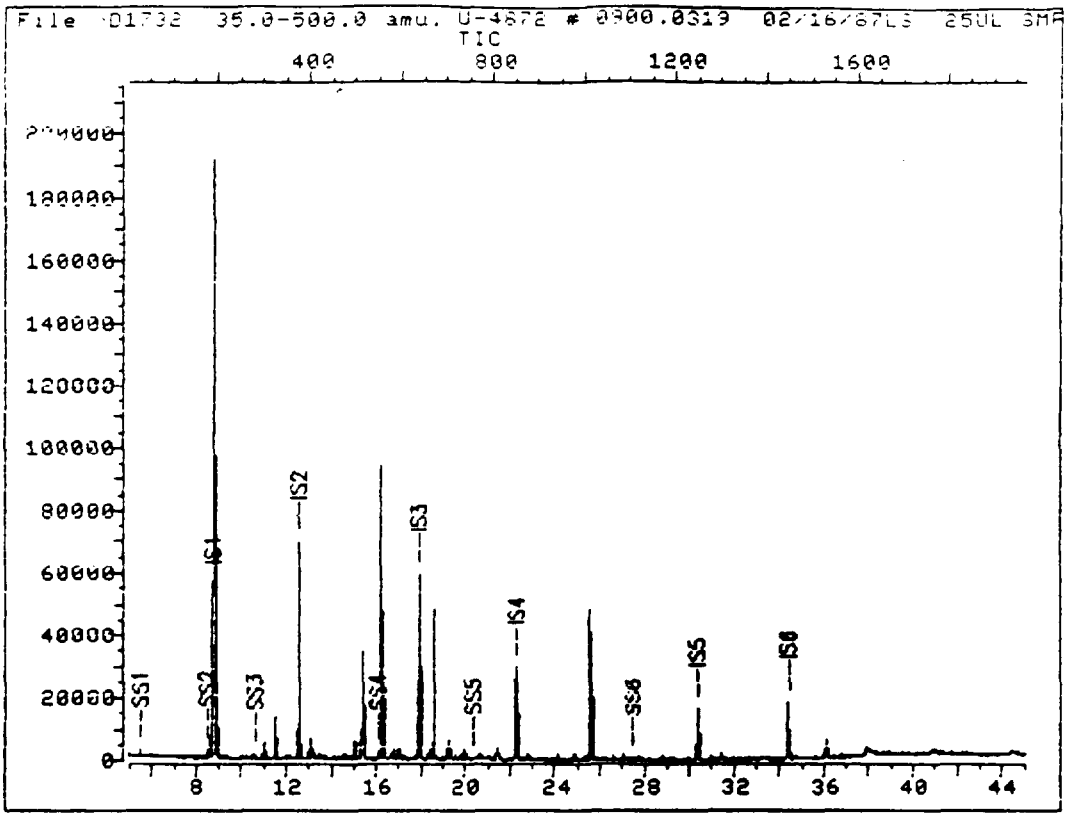
TOTAL ION CHROMATOGRAM



Data File: >D1732::D3
Name: U-4872 # 0900.0319
Misc: 02/16/87LS 25UL SMPL + 475UL MECL2 + 5UL IS BTL# 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870216 17:17

Operator ID: USER6
Quant Time: 870217 11:21
Injected at: 870217 00:38

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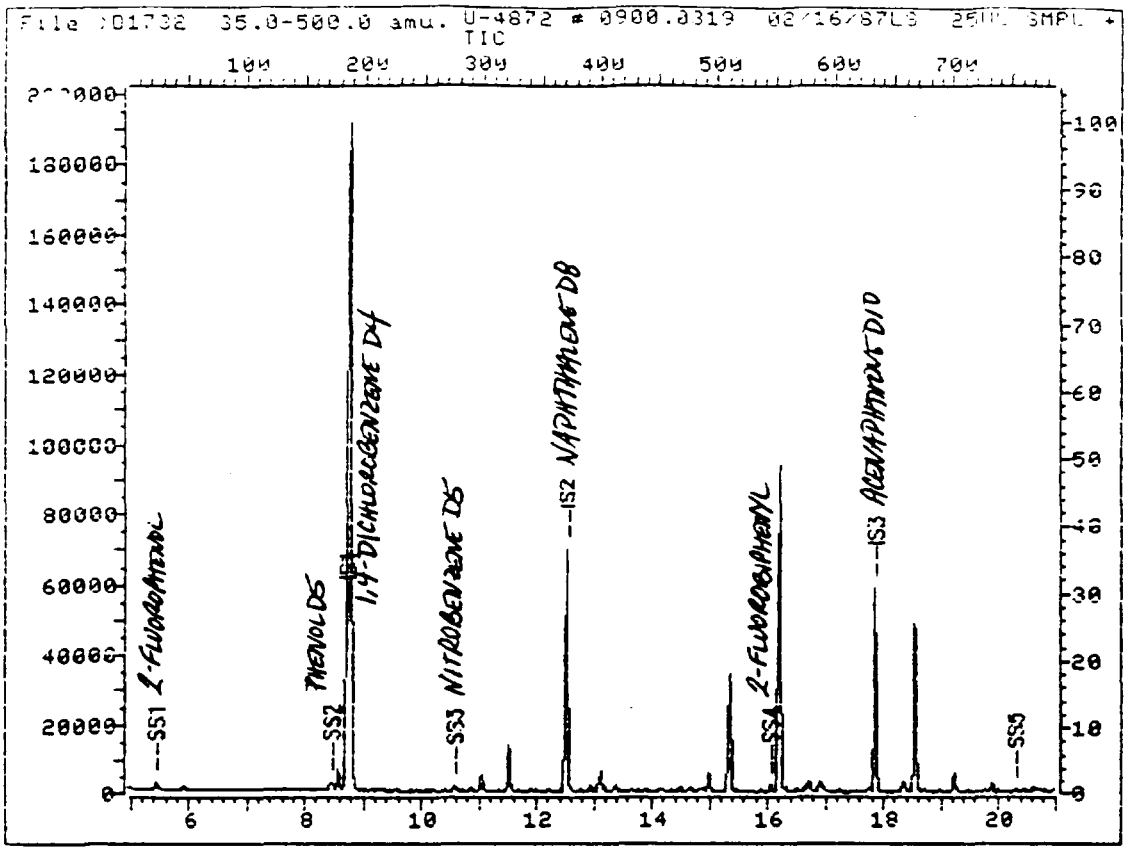

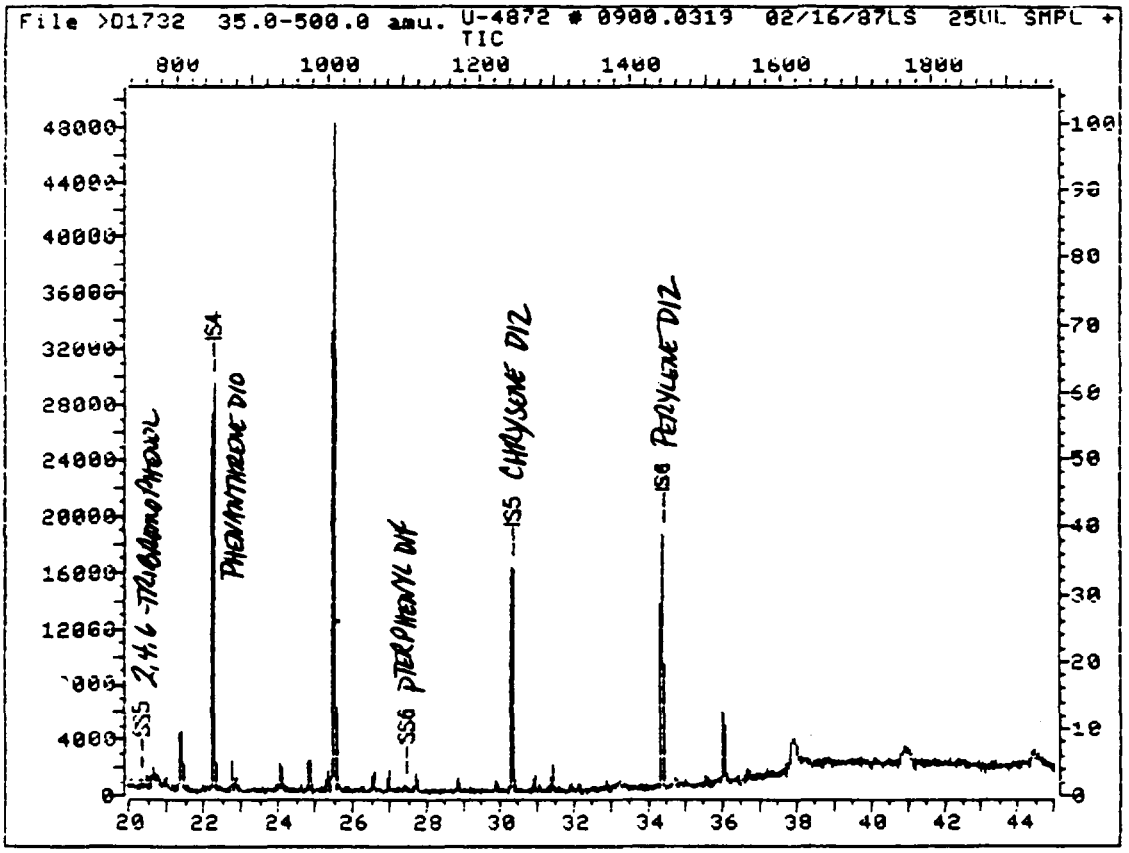

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QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870217 11:21
Output File: ^D1732::Q2 Injected at: 870217 00:38
Data File: >D1732::D3 Dilution Factor: 20.00
Name: U-4872 # 0900.0319 DC-I11-51
Mis 02/16/87LS 25UL SMPL + 475UL MECL2 + 5UL IS BTL# 3

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870216 17:17

ok

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4(IS)	152	8.71	184	21675	40.00	UG/L	88
2)	PHENOL-D5 (SURR)	99	8.44	171	3115	77.70	UG/L	85
5)	2-FLUOROPHENOL (SURR)	112	5.43	23	2061	81.09	UG/L	66
9)	1,3-DICHLOROBENZENE	146	8.57	177	4940	128.27	UG/L	92
9)	~~1,3-DICHLOROBENZENE~~	~~146~~	~~8.77~~	~~187~~	~~127087~~	~~3300.02~~	~~UG/L~~	99
10)	~~1,4-DICHLOROBENZENE~~	~~146~~	~~8.57~~	~~177~~	~~4940~~	~~125.22~~	~~UG/L~~ No Gph	90
10)	1,4-DICHLOROBENZENE	146	8.77	187	127087	3221.50	UG/L	98
12)	~~1,2-DICHLOROBENZENE~~	~~146~~	~~8.77~~	~~187~~	~~127087~~	~~3360.72~~	~~UG/L~~ No Gph	97
19)	*NAPHTHALENE-D8 (IS)	136	12.52	371	73637	40.00	UG/L	100
20)	NITROBENZENE-D5 (SURR)	82	10.56	275	1565	41.71	UG/L	82
28)	1,2,4-TRICHLOROBENZENE	180	12.48	369	5917	181.64	UG/L	100
33)	2-METHYLNAPHTHALENE	142	15.00	493	2112	41.00	UG/L	92
34)	*ACENAPHTHENE-D10 (IS)	162	17.86	633	31964	40.00	UG/L	96
38)	2-FLUOROBIPHENYL (SURR)	172	16.04	544	2782	48.49	UG/L	84
~~41)~~	~~DIMETHYL PHTHALATE~~	~~163~~	~~17.86~~	~~633~~	~~6299~~	~~143.07~~	~~UG/L~~ No Gph	100
48)	2,4,6-TRIBROMOPHENOL(SURR)	330	20.30	753	503	39.36	UG/L	95
~~52)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~17.86~~	~~633~~	~~4217~~	~~449.62~~	~~UG/L~~ No Gph	100
55)	*PHENANTHRENE-D10 (IS)	188	22.26	849	33104	40.00	UG/L	92
59)	HEXACHLOROBENZENE	284	21.38	806	1884	116.34	UG/L	87
65)	*CHRYSENE-D12 (IS)	240	30.32	1245	22923	40.00	UG/L	100
68)	TERPHENYL-D14 (SURR)	244	27.43	1103	988	34.60	UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE	149	31.40	1298	1380	88.15	UG/L	90
74)	*PERYLENE-D12 (IS)	264	34.36	1443	23811	40.00	UG/L	100

* Compound is ISTD

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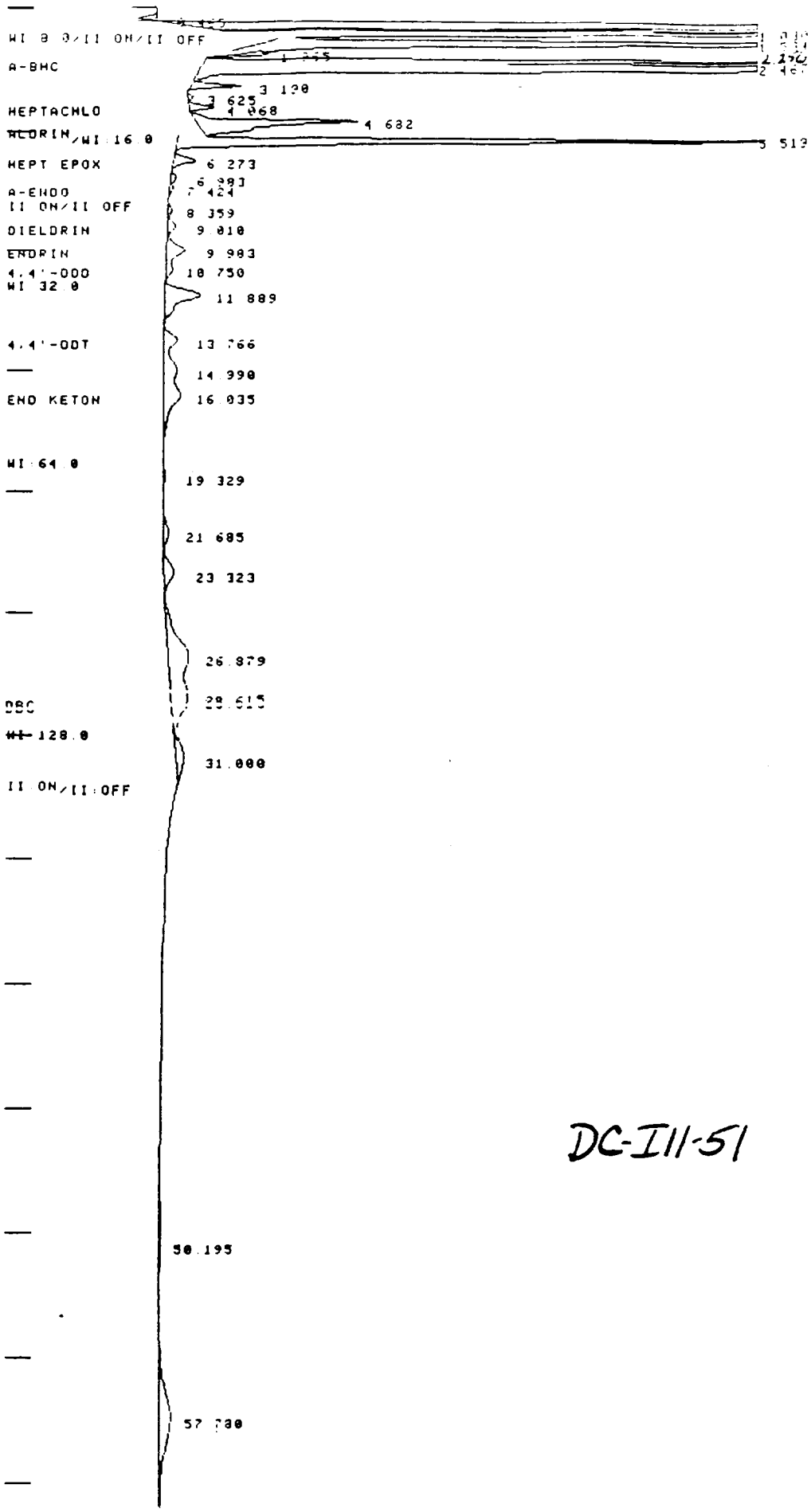
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-III-51

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CHANNEL: 1A - 1 TITLE: RUN: 14 18:49 23 FEB 87

DC-II-51

SAMPLE: 0900 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	1.376		20796	BV	? 3.69
2		0.0000	1.534		12930133	VV	6.56
3		0.0000	1.965		27908	T	2.81
4	A-BHC	3941.016	2.256	0.016	688145	VV	6.25
5	[illegible]	96370.65	2.467	0.087	5304719	VV	6.63
6		0.0000	3.190		56820	T	7.88
7	[illegible]	244.3708	4.068	-0.052	32875	T	10.69
8		0.0000	4.682		288495	T	14.06
9	[illegible]	447.3600	4.948	-0.112	69900	T	? 21.44
10		0.0000	5.519		1119862	VV	12.31
11	[illegible]	348.2090	6.273	0.153	51082	T	17.19
12	[illegible]	166.0796	9.010	0.200	24788	VV	22.50
13	[illegible]	535.5705	9.983	-0.027	74213	VV	29.56
14	[illegible]	190.7432	10.750	-0.150	25196	VV	? 27.63
15		0.0000	11.889		162821	VB	29.44
16	[illegible]	571.2825	13.766	-0.424	54150	BV	35.81
17		0.0000	14.990		80760	VV	? 59.94
18	[illegible]	879.3303	16.035	-0.305	133992	VB	? 63.38
19	[illegible]	708.2649	21.685	0.885	35502	VV	53.13
20		0.0000	23.323		63541	VV	58.56
21		0.0000	26.879		249043	VV	7108.13
22	[illegible]	1403.426	28.615	0.305	162205	VV	7140.13
23		0.0000	31.000		67927	VB	7136.50
24		0.0000	57.780		208727	VB	150.13

TOTALS: 105806.3 0.576 21933610

DETECTED PKS: 36 REJECTED PKS: 12

DIVISOR: 0.15000 MULTIPLIER: 25000.0000

NOISE: 11.4 OFFSET: -21

RACK: 1 VIAL: 14 INJ: 1

NOTES:
NOTEBOOK:ZS9-115,116 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#:U-4872,1906
INST: VARIAN 6000# 2A 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

POST RUN:
SAVE FILE: RAW OCT186

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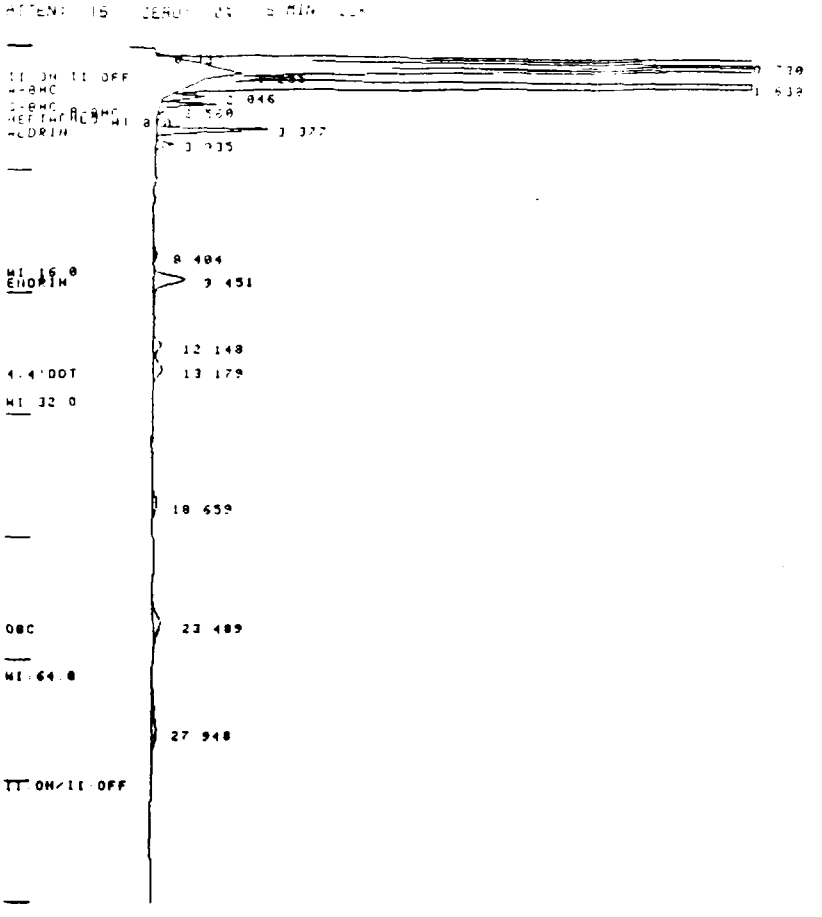

DC-II-51

CHANNEL: 18 - 1 TITLE: RUN# 5 15:52 2 MAR 87

SAMPLE: 0900.03.19 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.309		60797	VV	2.50
2		0.0000	1.471		1255699	VV	3.85
3	a-BHC	5370.284	1.638	-0.122	15761378	VV	5.31
4		0.0000	2.046		90403	T	5.13
5	g-BHC	0.0000	2.303	0.063	84935	T	5.75
6	ALDRIN	121.3506	3.377	0.067	358892	VB	8.38
7		0.0000	3.935		43718	BB	9.44
8	ENDRIN	156.0826	9.451	0.201	178774	BB	21.25
9		0.0000	12.148		55600	BV	27.13
10	4,4'-DDT	0.0000	13.179	-0.221	84349	VB	33.38
11	ENDO-SO4	62.2604	18.659	0.969	46919	BB	39.44
12	DDD	53.3737	23.489	-0.071	94630	BB	59.94
13		0.0000	27.948		116886	BB	86.00

TOTALS: 6763.271 0.886 19132984

DETECTED PKS: 24 REJECTED PKS: 11

DIVISOR: 0.15000 MULTIPLIER: 2500.00000

NOISE: 57.1 OFFSET: -2

RACK: 1 VIAL: 5 INJ: 1

NOTES:
NOTEBOOK: 259-128 ANALYST: K.JUREK
SECURE AREA: D JOB#:U-4872
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
CONFIRMATION COLUMN

POST RUN:
SAVE FILE: RAW U-4863054

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SAMPLE NUMBER DC-I11-52

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IL-211-52

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4835, 4846, 4863, 4872

Sample ID No: 0901

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Stoztowicz

Date Sample Received: 2-6-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 7 pH 8.2

Percent Moisture: (Not Decanted) 17

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	70u
74-83-9	Bromomethane	70u
75-01-4	Vinyl Chloride	70u
75-00-3	Chloroethane	70u
75-09-2	Methylene Chloride	38 B
67-64-1	Acetone	590 B
75-15-0	Carbon Disulfide	35u
75-35-4	1, 1-Dichloroethene	35u
75-34-3	1, 1-Dichloroethane	35u
156-60-5	Trans-1, 2-Dichloroethene	35u
67-66-3	Chloroform	35u
107-06-2	1, 2-Dichloroethane	35u
78-93-3	2-Butanone	140 B
71-55-6	1, 1, 1-Trichloroethane	35u
56-23-5	Carbon Tetrachloride	35u
108-05-4	Vinyl Acetate	70u
75-27-4	Bromodichloromethane	35u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	35u
10061-02-6	Trans-1, 3-Dichloropropene	35u
79-01-6	Trichloroethene	35u
124-48-1	Dibromochloromethane	35u
79-00-5	1, 1, 2-Trichloroethane	35u
71-43-2	Benzene	19 J
10061-01-5	cis-1, 3-Dichloropropene	35u
110-75-8	2-Chloroethylvinylether	70u
75-25-2	Bromoform	35u
108-10-1	4-Methyl-2-Pentanone	70u
591-78-6	2-Hexanone	70u
127-18-4	Tetrachloroethene	35u
79-34-5	1, 1, 2, 2-Tetrachloroethane	35u
108-88-3	Toluene	40
108-90-7	Chlorobenzene	1700
100-41-4	Ethylbenzene	80
100-42-5	Styrene	35u
	Total Xylenes	67

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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name: [illegible]

Case No: V-4835, 4846, 4863, 4872

Sample Number: DC-I11-52

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2/9/87

Date Analyzed: 2/16/87

Conc/Dil Factor: 20

Percent Moisture (Decanted): 17

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	3300	U
111-44-4	bis(2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1,3-Dichlorobenzene	3300	U
106-46-7	1,4-Dichlorobenzene	1330	J
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1,2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2,4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U
111-91-1	bis(2-Chloroethoxy)Methane	3300	U
120-83-2	2,4-Dichlorophenol	3300	U
120-82-1	1,2,4-Trichlorobenzene	94,000	
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2,4,6-Trichlorophenol	3300	U
95-95-4	2,4,5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U
208-96-8	Acenaphthylene	3300	U
09-2	3-Nitroaniline	16000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2,4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U
132-64-9	Dibenzofuran	3300	U
121-14-2	2,4-Dinitrotoluene	3300	U
606-20-2	2,6-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3300	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4,6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	39,000	
87-86-5	Pentachlorophenol	16,000	U
85-01-8	Phenanthrene	1100	J
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	9400	
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3,3'-Dichlorobenzidine	6600	U
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	9200	
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1,2,3-cd)Pyrene	3300	U
53-70-3	Dibenz(a,h)Anthracene	3300	U
191-24-2	Benzo(g,h,i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-I11-52

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 2-9-87

Date Analyzed 2-23-87

Conc/Dil Factor 25

Percent Moisture (decanted) 17

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	2000 U
319-85-7	Beta-BHC	2000 U
319-86-8	Delta-BHC	2000 U
58-89-9	Gamma-BHC (Lindane)	2000 U
76-44-8	Heptachlor	2000 U
309-00-2	Aldrin	2000 U
1024-57-3	Heptachlor Epoxide	2000 U
959-98-8	Endosulfan I	2000 U
60-57-1	Dieldrin	4000 U
72-55-9	4,4'-DDE	4000 U
72-20-8	Endrin	4000 U
33213-65-9	Endosulfan II	4000 U
72-54-8	4,4'-DDD	4000 U
1031-07-8	Endosulfan Sulfate	4000 U
50-29-3	4,4'-DDT	4000 U
72-43-5	Methoxychlor	20,000 U
53494-70-5	Endrin Ketone	4000 U
57-74-9	Chlordane	20,000 U
8001-35-2	Toxaphene	40,000 U
12674-11-2	Aroclor-1016	20,000 U
11104-28-2	Aroclor-1221	20,000 U
11141-16-5	Aroclor-1232	20,000 U
53469-21-9	Aroclor-1242	20,000 U
12672-29-6	Aroclor-1248	20,000 U
11097-69-1	Aroclor-1254	40,000 U
11096-82-5	Aroclor-1260	40,000 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 3 V_t 4,000 V_i 4

Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-III-52

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	37 BJ
2.		Unknown alcohol	VOA	15.5	95 J
3.		Dichlorobenzene isomers	VOA	39.8	38000 J
4.					
5.		Tetrachlorobenzene isomer	BNA	15.39	120,000 J
6.		Tetrachlorobenzene isomer	1	16.31	590,000 J
7.	608935	Pentachlorobenzene	1	18.59	270,000 J
8.					
9.					
10.					
11.					
12.					
13.					
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21.					
22.					
23.					
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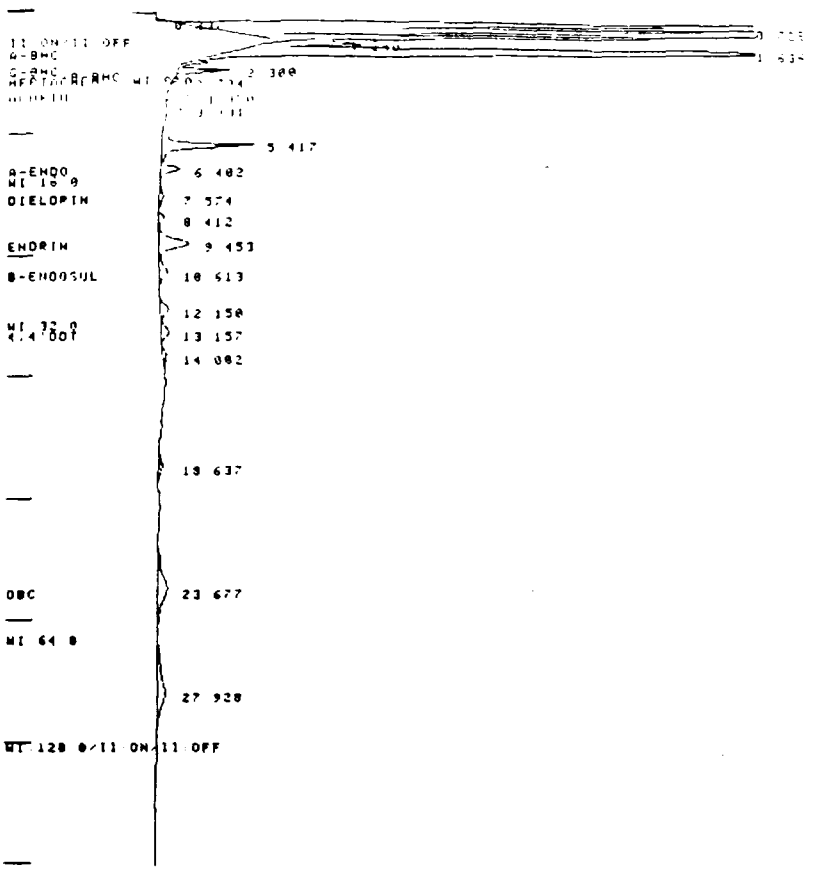
25.					
26.					
27.					
28.					
29.					
30.					



DC-III-52

CHANNEL: 1B - 1 TITLE: RUN8 6 15:31 2 MAR 87

SAMPLE: 0901.03.19 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.240		191072	BV	3.06
2		0.0000	1.470		1082931	VV	3.06
3	[illegible]	5813.673	1.635	-0.124	14384390	VB	5.00
4		0.0000	1.989		20151	BB	3.88
5	[illegible]	0.0000	2.300	0.060	96580	BV	5.81
6	[illegible]ENDRIN	24.6388	3.350	0.040	52565	BV	7.52
7		0.0000	3.931		42814	VB	10.06
8		0.0000	5.417		372780	BV	12.94
9	[illegible]ENDO	0.0000	6.402	0.112	84165	VB	15.31
10	DIELDRIN	0.0000	7.574	-0.116	33538	BB	22.19
11		0.0000	8.412		27431	BV	19.00
12	ENDRIN	165.9885	9.453	0.203	190120	VV	22.75
13	B-ENDOSUL	0.0000	10.613	0.213	74555	VV	23.75
14		0.0000	12.150		56583	VV	32.25
15	4,4'DDD	0.0000	13.157	-0.243	59159	VV	39.94
16	ENDOSULF	161.3349	14.082	-0.628	28147	VB	? 41.38
17	ENDO [illegible]	52.5814	18.637	0.947	39625	BB	37.00
18	DDC	119.9558	23.677	0.117	212670	BB	59.38
19		0.0000	27.928		203150	BB	98.44

TOTALS: 6338.172 0.581 17252444

DETECTED PKS: 29 REJECTED PKS: 10

DIVISOR: 0.15000 MULTIPLIER: 2500.00000

NOISE: 57.1 OFFSET: 4

RACK: 1 VIAL: 6 INJ: 1

NOTES:
NOTEBOOK: 259-120 ANALYST: K.JUREK
SECURE AREA: D JOB#:U-4872
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
CONFIRMATION COLUMN

POST RUN:
SAVE FILE: RAW U-4857DSS

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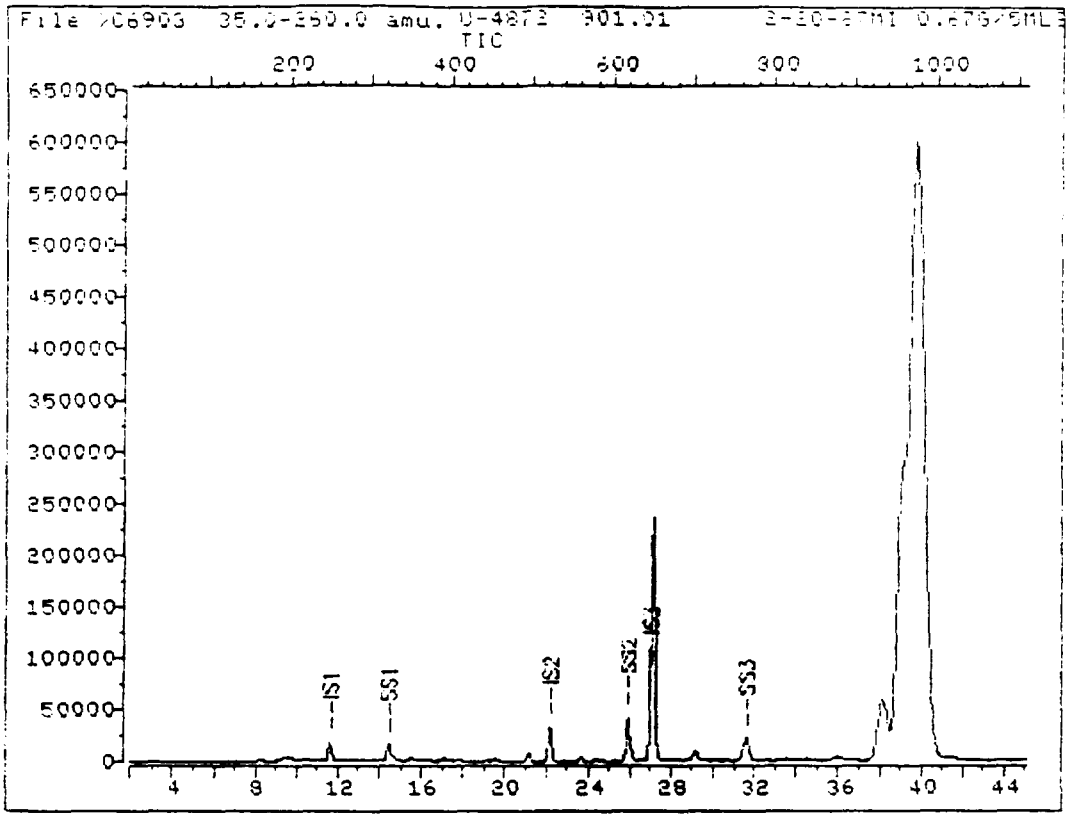
TOTAL ION CHROMATOGRAM



Data File: >C6903::D3
Name: U-4872 901.01 DC-III-52
Misc: 2-20-87MI 0.67G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

Operator ID: USER8
Quant Time: 870220 21:29
Injected at: 870220 20:34

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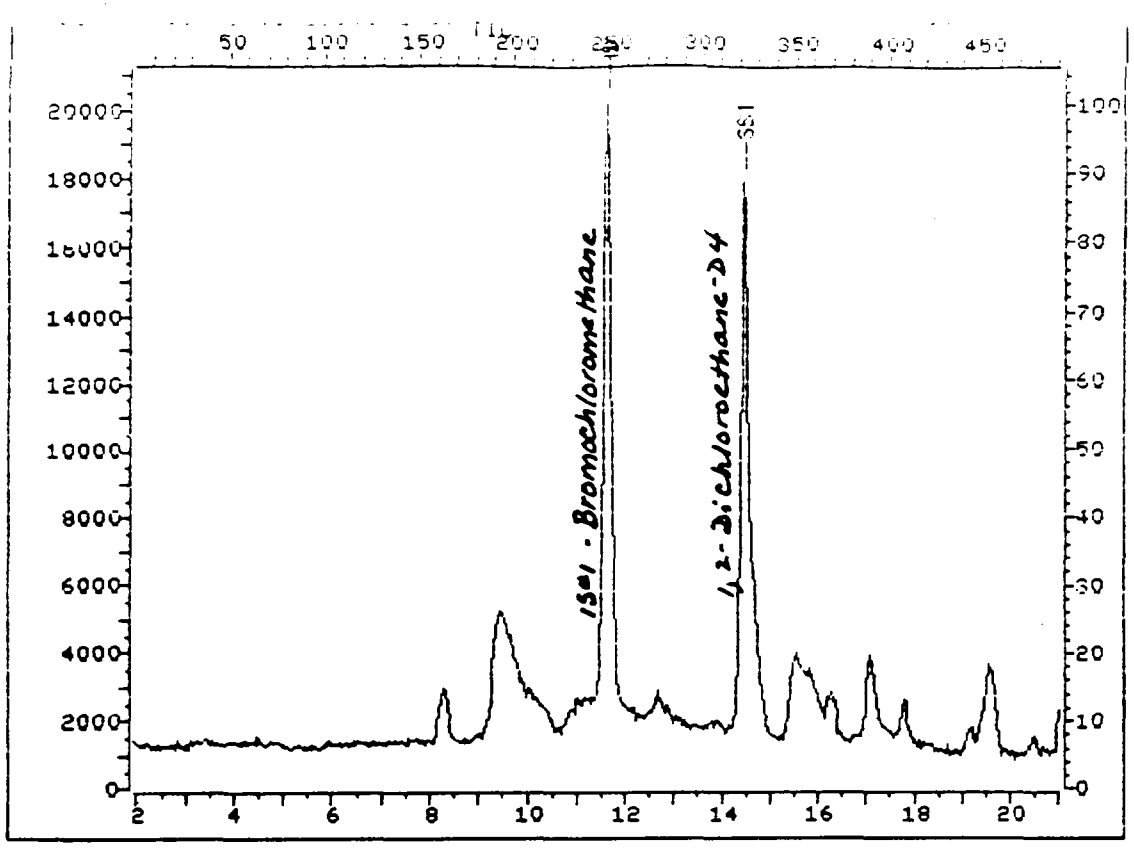
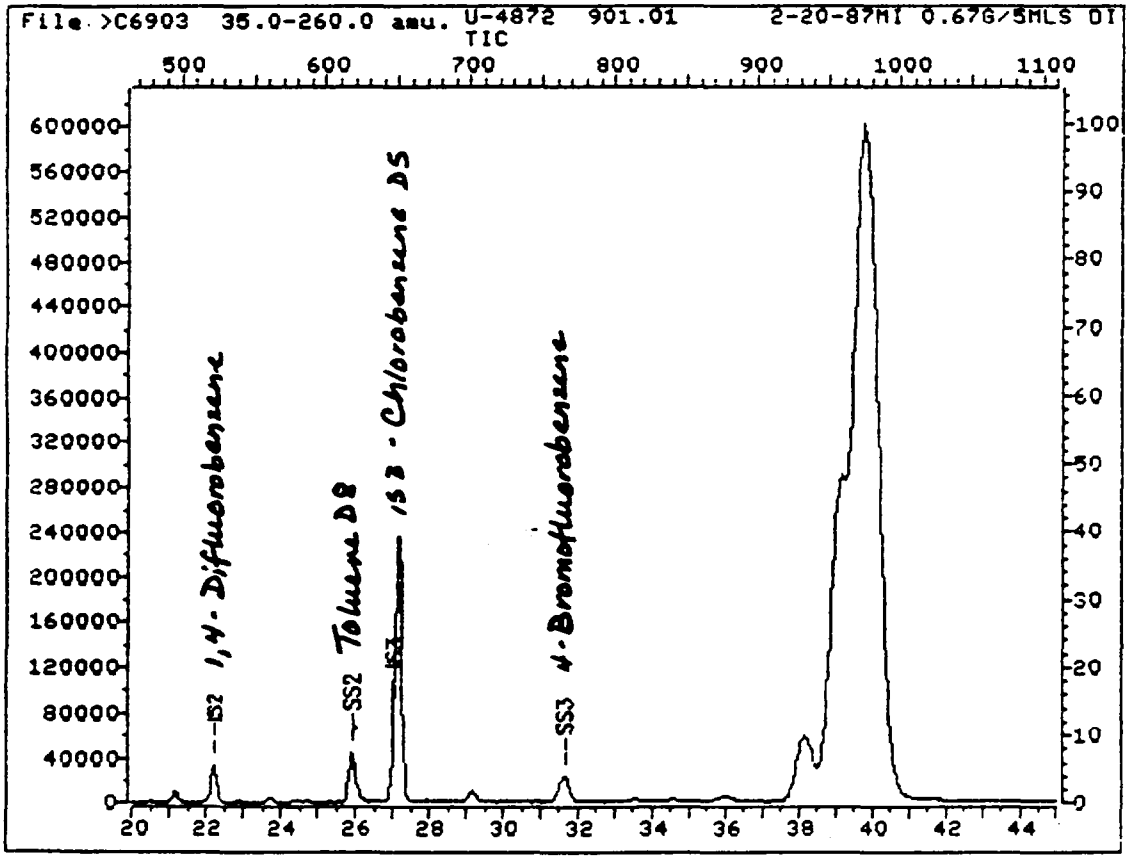
ecology and environment

DC-III-52





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ecology and environment

QUANT REPORT

erator ID: USER8 Quant Rev: 4 Quant Time: 870220 21:20
Output File: ^C6903::Q2 Injected at: 870220 20:34
Data File: >C6903::D3 Dilution Factor: 1.00
Name: U-4872 901.01 DC-III-52
Misc: 2-20-87MI 0.67G/5MLS DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.61	250	23891	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.27	164	4274	25.74	NGS	100
7)	ACETONE	43	9.43	194	116763	394.94	NGS	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.44	323	67955	207.03	NGS	82
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.20	523	129965	250.00	NGS	100
17)	2-BUTANONE	72	14.67	329	6258	94.04	NGS	100
27)	BENZENE	78	19.64	457	8809	12.40	NGS	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.01	647	116790	250.00	NGS	100
~~32)~~	~~4-METHYL-2-PENTANONE~~	~~43~~	~~22.36~~	~~540~~	~~3852~~	~~[illegible]~~	~~NGS~~	82
~~32)~~	~~4-METHYL-2-PENTANONE~~	~~43~~	~~23.67~~	~~561~~	~~8411~~	~~14.68~~	~~NGS~~	66
~~33)~~	~~2-HEXANONE~~	~~43~~	~~23.67~~	~~561~~	~~8411~~	~~18.35~~	~~NGS~~	100
~~33)~~	~~2-HEXANONE~~	~~43~~	~~24.41~~	~~580~~	~~8737~~	~~19.06~~	~~NGS~~	100
36)	TOLUENE-D8 (SURR)	98	25.89	618	159060	237.85	NGS	99
37)	TOLUENE	92	26.08	623	13454	26.76	NGS	93
38)	CHLOROBENZENE	112	27.17	651	714326	1163.97	NGS	99
39)	ETHYLBENZENE	91	29.16	702	55560	53.28	NGS	98
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.60	765	77997	204.85	NGS	100
42)	TOTAL XYLENES	91	33.50	814	18995	22.00	NGS	100
42)	TOTAL XYLENES	91	34.51	840	19796	22.93	NGS	100
43)	1,3-DICHLOROBENZENE	146	38.12	933	428037	428037.0	NO CALIB	100
43)	1,3-DICHLOROBENZENE	146	39.13	959	1218832	1218832.	NO CALIB	100
43)	1,3-DICHLOROBENZENE	146	39.67	973	726771	726771.0	NO CALIB	100
44)	1,2-DICHLOROBENZENE		38.12	933	351893	351893.0	NO CALIB	100
44)	1,2-DICHLOROBENZENE		39.13	959	1218832	1218832.	NO CALIB	100
44)	1,2-DICHLOROBENZENE		39.67	973	726771	726771.0	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	38.12	933	428037	428037.0	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	39.13	959	1218832	1218832.	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	39.67	973	726771	726771.0	NO CALIB	100

no cur

* Compound is ISTD

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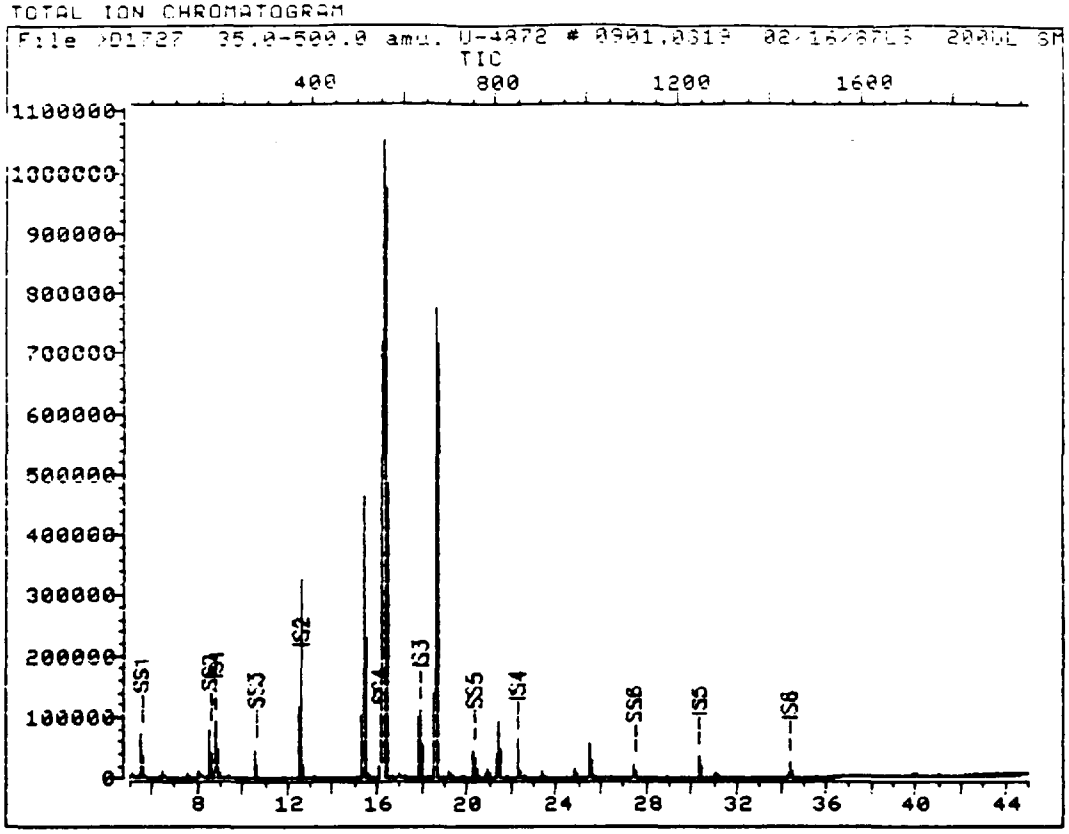
TOTAL ION CHROMATOGRAM



Data File: >D1727::D3
Name: U-4872 # 0901.0319 DC-I11-52
Misc: 02/16/87LS 200UL SMPL + 200UL MECL2 + 4UL IS BTL# 4

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870216 17:17

Operator ID: USER6
Quant Time: 870216 20:54
Injected at: 870216 19:56

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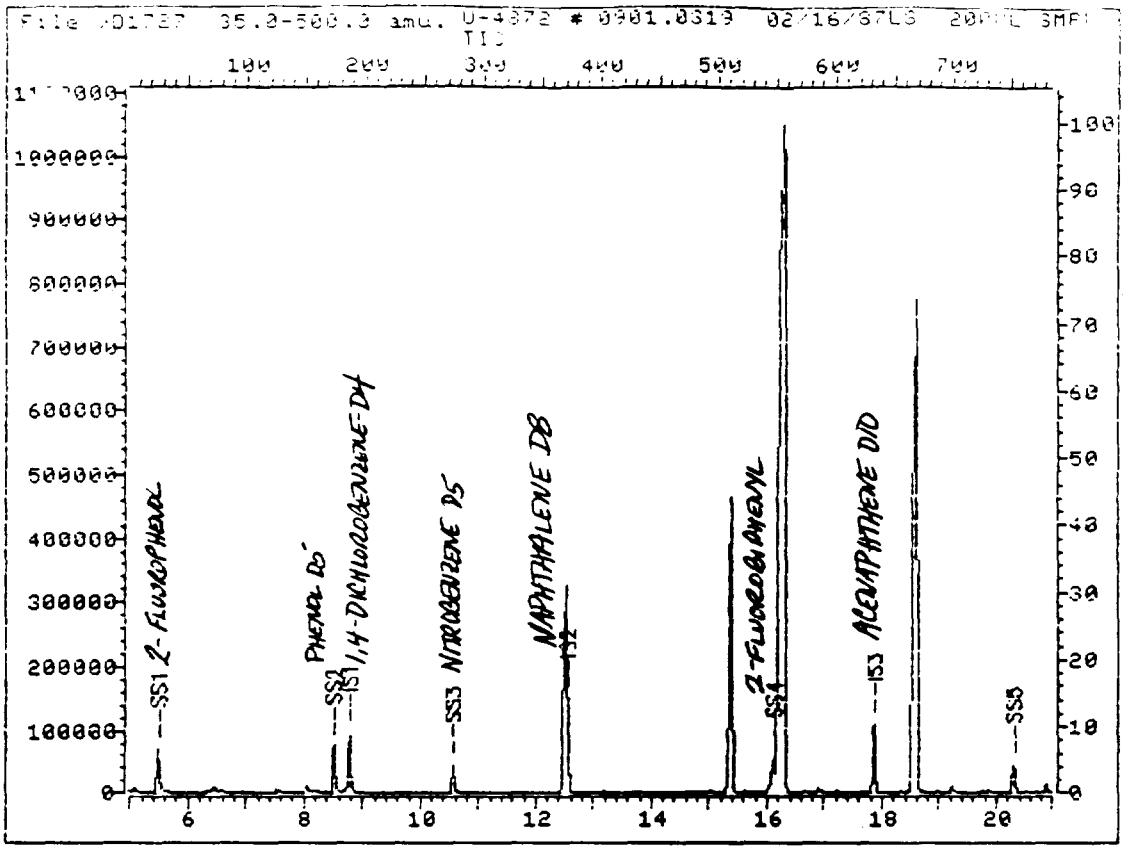
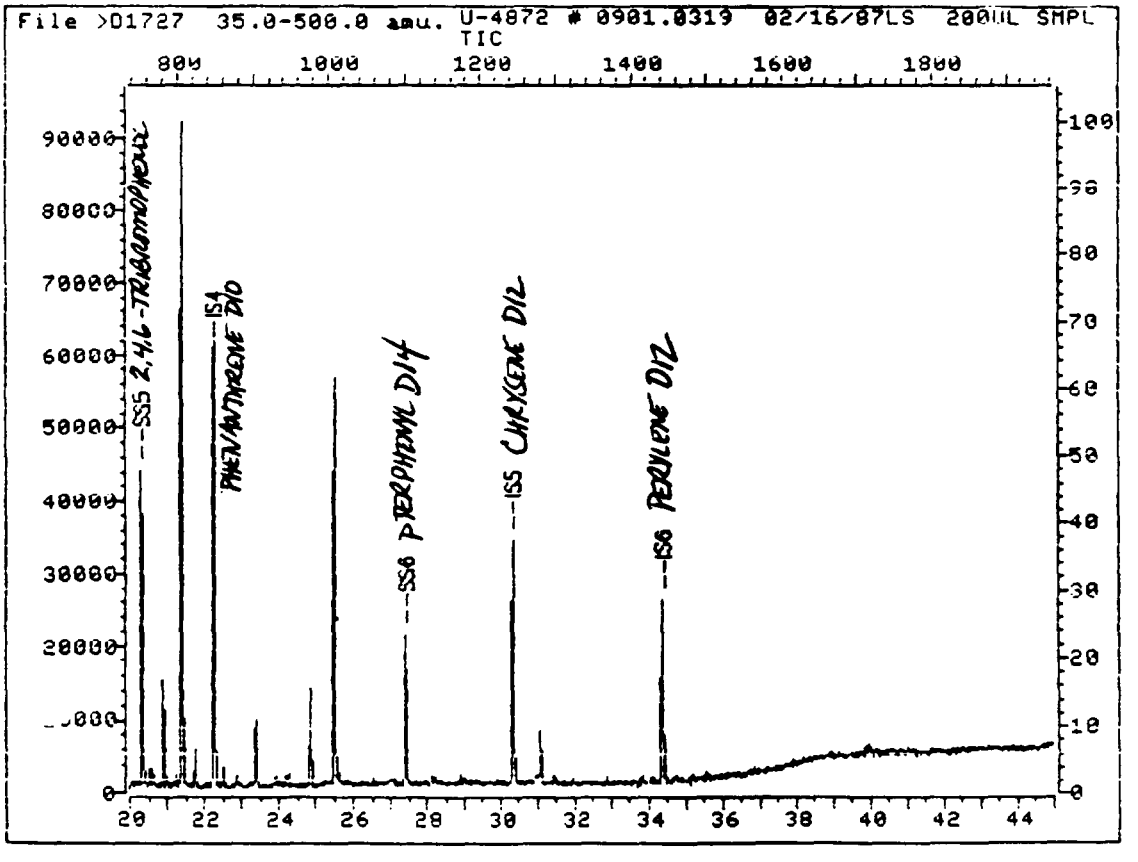
DC-I11-52


TIC
--SS1 2-FLUOROPHENOL
PHENOL D5
--SS2
--IS1 1,4-DICHLOROBENZENE-D4
--SS3 NITROBENZENE D5
NAPHTHALENE D8
--IS2
2-FLUOROBIPHENYL
SS4
ACENAPHTHENE D10
--IS3
--SS5


File >D1727 35.0-500.0 amu. U-4872 # 0901.0319 02/16/87LS 200UL SMPL
TIC
--SS5 2,4,6-TRIBROMOPHENOL
--IS4 PHENANTHRENE D10
--SS6 PERYLENE D12
--IS5 CHRYSENE D12
--IS6 PERYLENE D12

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870216 20:54
Output File: ^D1727::Q2 Injected at: 870216 19:56
Data File: >D1727::D3 Dilution Factor: 2.00
Name: U-4872 # 0901.0319 DC-II-52
Misc: 02/16/87LS 200UL SMPL + 200UL MECL2 + 4UL IS BTL# 4

ID File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870216 17:17

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.79	187	37587	40.00 UG/L	84
2)	PHENOL-D5	(SURR)	99	8.50	173	65716	94.53 UG/L	95
5)	2-FLUOROPHENOL	(SURR)	112	5.49	25	50970	115.64 UG/L	70
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~8.83~~	~~189~~	~~2782~~	~~4.17 UG/L~~ No qt	99
10)	1,4-DICHLOROBENZENE		146	8.83	189	2782	4.07 UG/L No qt	98
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.56~~	~~274~~	~~6209~~	~~11.08 UG/L~~ No qt	94
19)	*NAPHTHALENE-D8	(IS)	136	12.56	372	130268	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.56	274	34709	52.29 UG/L	92
28)	1,2,4-TRICHLOROBENZENE		180	12.52	370	166254	288.50 UG/L	100
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.02~~	~~493~~	~~2540~~	~~2.79 UG/L~~ No qt	92
34)	*ACENAPHTHENE-D10	(IS)	162	17.88	633	65336	40.00 UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	16.12	547	68266	58.21 UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.88~~	~~633~~	~~12322~~	~~13.69 UG/L~~ No qt	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.30	752	17287	66.19 UG/L	94
~~49)~~	~~2,4-DINITROPHENOL~~		~~184~~	~~18.61~~	~~669~~	~~1638~~	~~24.84 UG/L~~ No qt	100
~~51)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~18.61~~	~~669~~	~~2838~~	~~13.38 UG/L~~ No qt	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.86~~	~~632~~	~~8505~~	~~44.36 UG/L~~ No qt	100
55)	*PHENANTHRENE-D10	(IS)	188	22.24	847	70066	40.00 UG/L	98
59)	HEXACHLOROBENZENE		284	21.38	805	40581	118.39 UG/L	96
61)	PHENANTHRENE		178	22.32	851	3142	3.43 UG/L	95
~~62)~~	~~ANTHRACENE~~		~~178~~	~~22.32~~	~~851~~	~~3142~~	~~3.70 UG/L~~ No qt	95
63)	DI-N-BUTYLPHTHALATE		149	24.87	976	19279	28.78 UG/L	98
65)	*CHRYSENE-D12	(IS)	240	30.33	1244	35991	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.44	1102	20432	45.57 UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.06	1280	6899	28.07 UG/L	91
74)	*PERYLENE-D12	(IS)	264	34.37	1442	32999	40.00 UG/L	100

* Compound is ISTD

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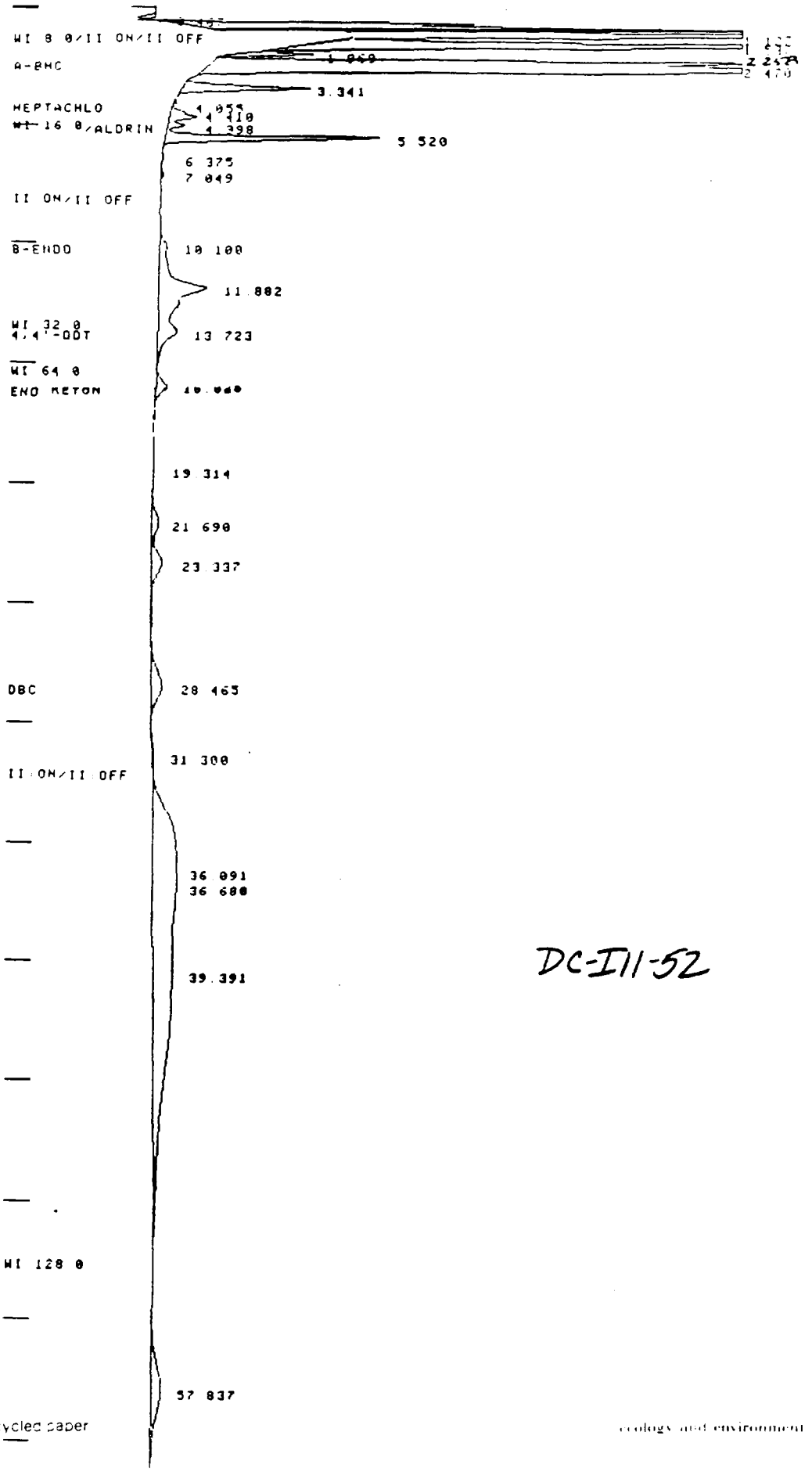
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-II-52

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DC-III-52

SAMPLE: 0501 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	1.381		39392	BV	? 4.06
2		0.0000	1.537		15663961	VV	7.13
3		0.0000	1.969		53128	T	3.50
4	A-BHC	4458.171	2.258	0.018	778446	VV	6.31
5	~~G-BHC~~	108074.0	2.470	0.090	5948929	VB	6.63
6		0.0000	3.341		210458	BB	10.81
7		0.0000	4.626		42647	VV	13.13
8	~~ALDRIN~~	171.7376	4.998	-0.062	26834	VV	10.25
9		0.0000	5.520		351849	VB	12.25
10	~~G-ENDO~~	224.5755	10.100	0.090	31119	BV	? 29.06
11		0.0000	11.882		389286	VV	38.19
12	~~4,4'-DDT~~	1213.186	13.723	-0.467	114994	VB	? 50.75
13	~~END KETON~~	~~372.7573~~	16.025	-0.315	56800	BB	37.13
14	~~METHOXYCH~~	901.0417	21.690	0.890	45165	VV	54.13
15		0.0000	23.337		80804	VV	59.63
16	~~DDE~~	1007.503	28.465	0.155	116445	VV	83.25
17		0.0000	36.091		544285	BV	?132.00
18		0.0000	36.680		123144	VV	?
19		0.0000	39.391		895470	VB	242.63
20		0.0000	57.837		183093	BB	137.31

- Conf.

TOTALS: 116422.9 0.399 25996256

DETECTED PKS: 32 REJECTED PKS: 12

DIVISOR: 0.15000 MULTIPLIER: 25000.0000

NOISE: 11.4 OFFSET: -29

RACK: 1 VIAL: 15 INJ: 1

NOTES:
NOTEBOOK:259-115,116 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#:U-4872,4906
INST: VARIAN 6000# ZA 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

POST RUN:
SAVE FILE: RAW DC1187

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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)

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0861 MS
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Hoftowicz
Date Sample Received: 2-5-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-10-87
Conc/Dil Factor: 1 · pH 8.2
Percent Moisture: (Not Decanted) 23

Concentrations reported "as received"

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	4 BJ
67-64-1	Acetone	1700 EB
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	2 J
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	31
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	SPIKE
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	SPIKE
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	SPIKE
108-90-7	Chlorobenzene	SPIKE
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 component 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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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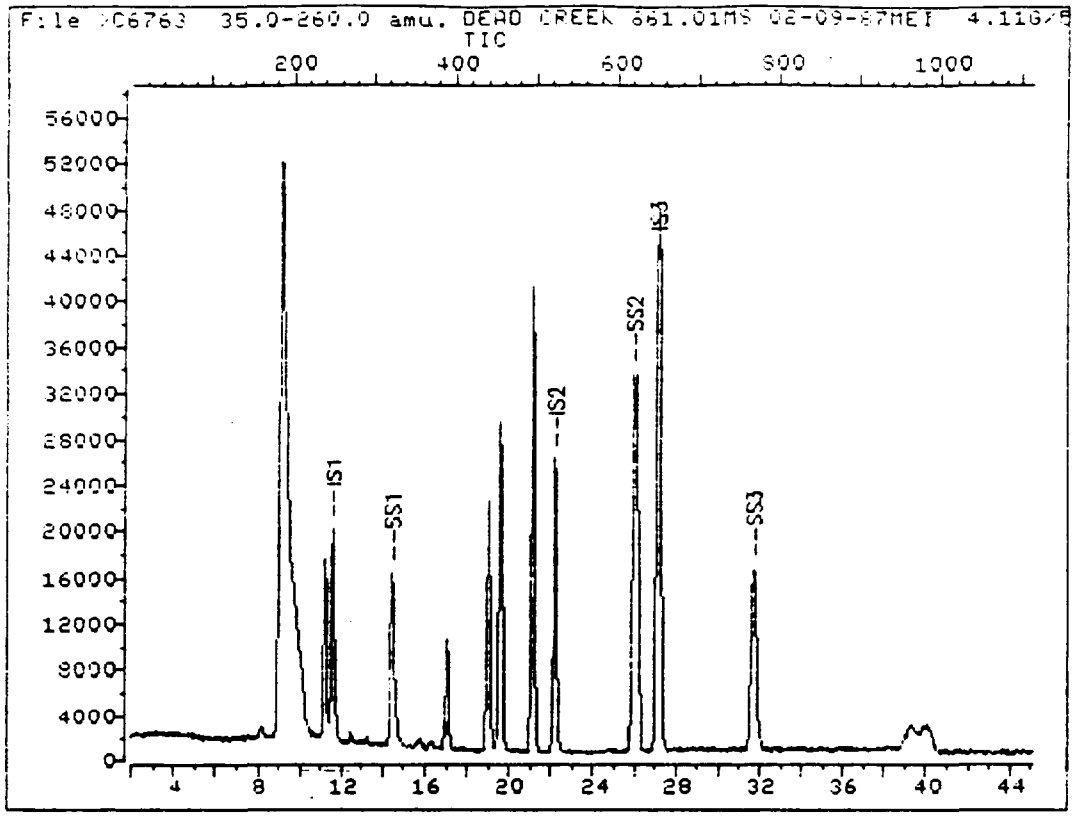
TOTAL ION CHROMATOGRAM



Data File: >C6763::D3
Name: DEAD CREEK 861.01MS DC-I7-45 MS
Misc: 02-09-87MEI 4.11G/5MLS DI + 10UL IS/SS/MS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870209 18:44

Operator ID: USER8
Quant Time: 870210 03:15
Injected at: 870210 02:29

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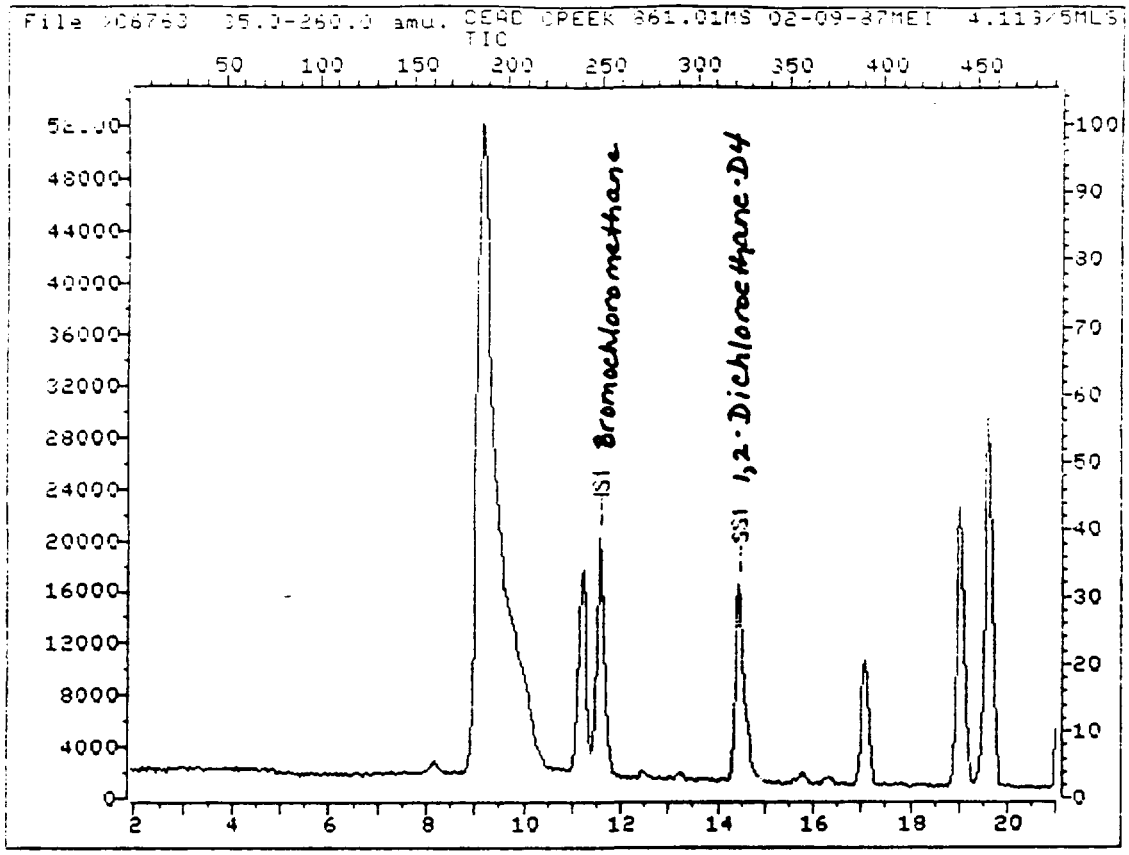
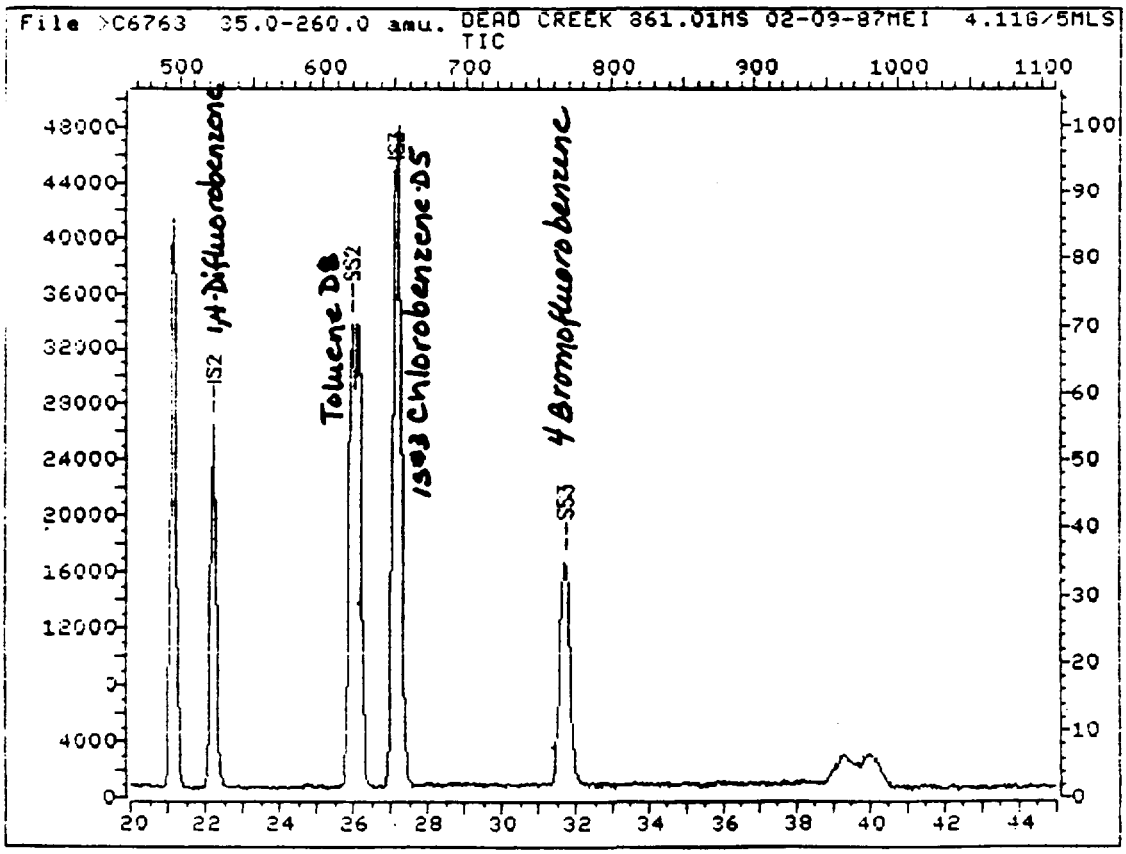
DC-I7-45





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ecology and environment

U-7062

QUANT REPORT

perator ID: USER8 Quant Rev: 4 Quant Time: 870210 03:15
Output File: ^C6763::Q2 Injected at: 870210 02:29
Data File: >C6763::D3 Dilution Factor: 1.00
Name: DEAD CREEK 861.01MS DC-IT-45 MS
Misc: 02-09-87MEI 4.11G/5ML5 DI + 10UL IS/SS/MS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870209 13:44

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.57	249	25584	250.00 NGS	100
6)	METHYLENE CHLORIDE		84	8.15	161	2507	16.41 NGS	100
7)	ACETONE		43	9.12	186	1057033	6947.26 NGS	100
10)	1,1-DICHLOROETHENE		61	11.22	240	66108	283.69 NGS	94
12)	TRANS-1,2-DICHLOROETHENE		96	13.24	292	1475	10.26 NGS	93
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.44	323	63343	256.63 NGS	82
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	523	103379	250.00 NGS	100
17)	2-BUTANONE		72	14.63	328	4736	128.31 NGS	100
24)	TRICHLOROETHENE		130	19.02	441	35917	243.92 NGS	82
27)	BENZENE		78	19.60	456	117793	268.58 NGS	100
~~28)~~	~~CIS-1,3-DICHLOROPROPENE~~		~~75~~	~~19.60~~	~~456~~	~~2415~~	~~13.66 NGS~~	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.13	650	86507	250.00 NGS	100
36)	TOLUENE-D8	(SURR)	98	25.96	620	121299	279.49 NGS	95
37)	TOLUENE		92	26.16	625	75771	222.09 NGS	96
38)	CHLOROBENZENE		112	27.25	653	104498	246.46 NGS	98
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.71	768	54921	237.36 NGS	100
43)	1,3-DICHLOROBENZENE		146	39.36	965	17147	17147.00 NO CALIB	100
44)	1,2-DICHLOROBENZENE			39.36	965	17147	17147.00 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	39.36	965	17147	17147.00 NO CALIB	100

* Compound is ISTD

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: 0865 MS
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: CStoffowicz
Date Sample Received: 2-5-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-12-87
Conc/Dil Factor: 1 pH 7.7
Percent Moisture: (Not Decanted) 19

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	1000 U
74-83-9	Bromomethane	1000 U
75-01-4	Vinyl Chloride	1000 U
75-00-3	Chloroethane	1000 U
75-09-2	Methylene Chloride	210 BJ
67-64-1	Acetone	3700 B
75-15-0	Carbon Disulfide	500 U
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	500 U
156-60-5	Trans-1, 2-Dichloroethene	500 U
67-66-3	Chloroform	500 U
107-06-2	1, 2-Dichloroethane	500 U
78-93-3	2-Butanone	4000 B
71-55-6	1, 1, 1-Trichloroethane	500 U
56-23-5	Carbon Tetrachloride	500 U
108-05-4	Vinyl Acetate	1000 U
75-27-4	Bromodichloromethane	500 U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	500 U
10061-02-6	Trans-1, 3-Dichloropropene	500 U
79-01-6	Trichloroethene	SPIKE
124-48-1	Dibromochloromethane	500 U
79-00-5	1, 1, 2-Trichloroethane	500 U
71-43-2	Benzene	SPIKE
10061-01-5	cis-1, 3-Dichloropropene	500 U
110-75-8	2-Chloroethylvinylether	1000 U
75-25-2	Bromoform	500 U
108-10-1	4-Methyl-2-Pentanone	1000 U
591-78-6	2-Hexanone	1000 U
127-18-4	Tetrachloroethene	500 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	500 U
108-88-3	Toluene	SPIKE
108-90-7	Chlorobenzene	SPIKE
100-41-4	Ethylbenzene	SPIKE 290 J
100-42-5	Styrene	500 U
	Total Xylenes	760 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/ml 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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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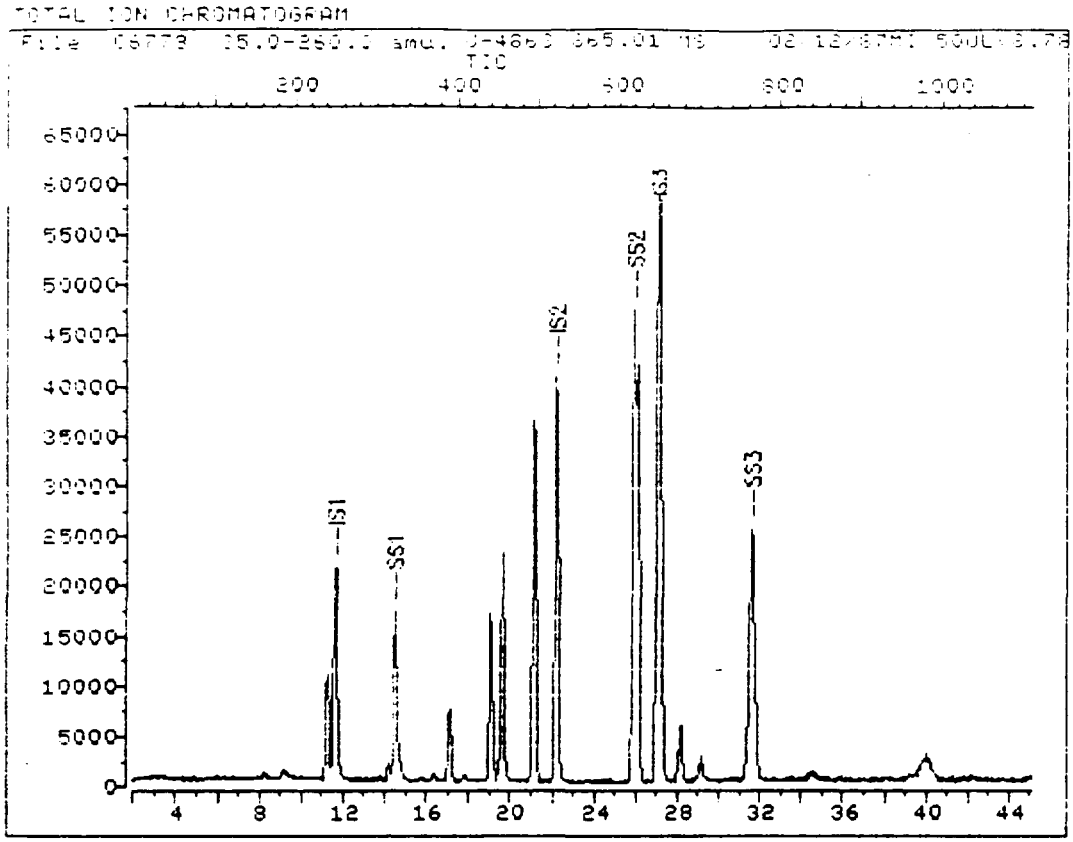

Data File: >C6778::D3
Name: U-4863 865.01 MS DC-I9-49MS
Misc: 02/12/87MI 50UL(8.78G/10MLS MEOH) + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870212 17:56

Operator ID: USER8
Quant Time: 870212 19:36
Injected at: 870212 18:50

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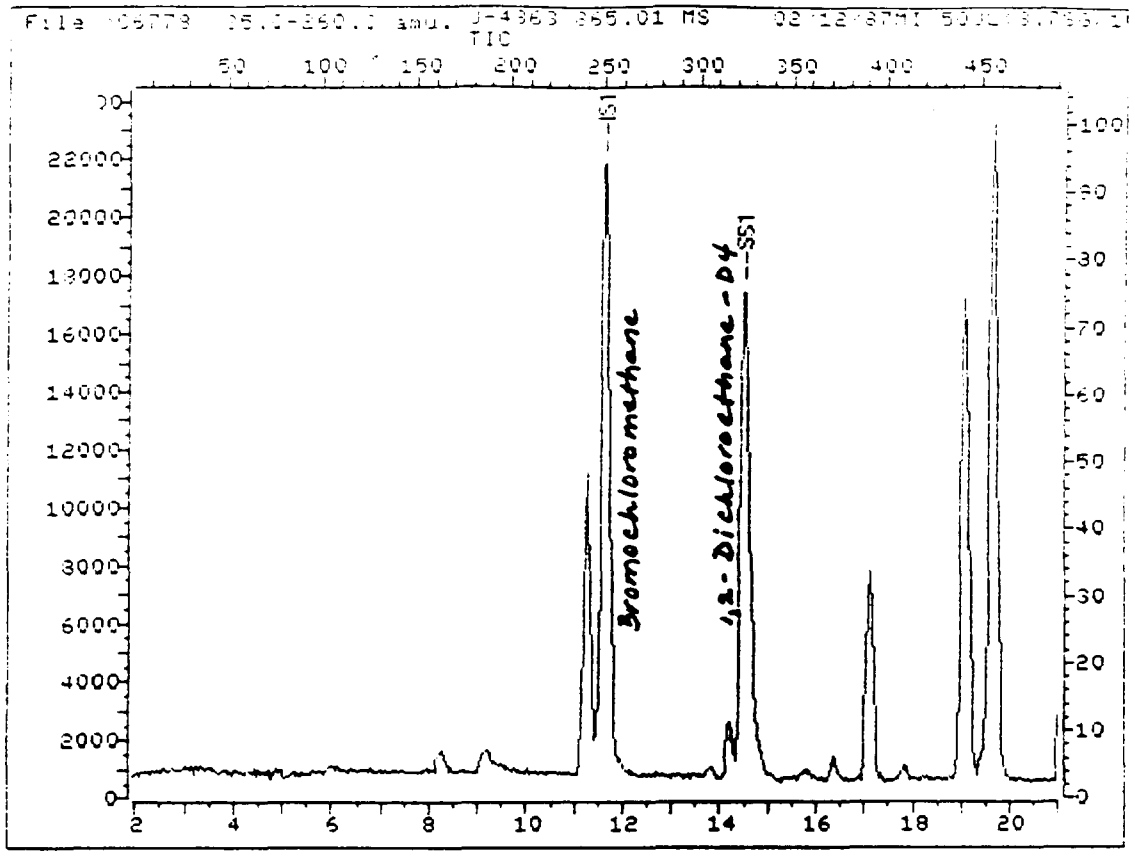
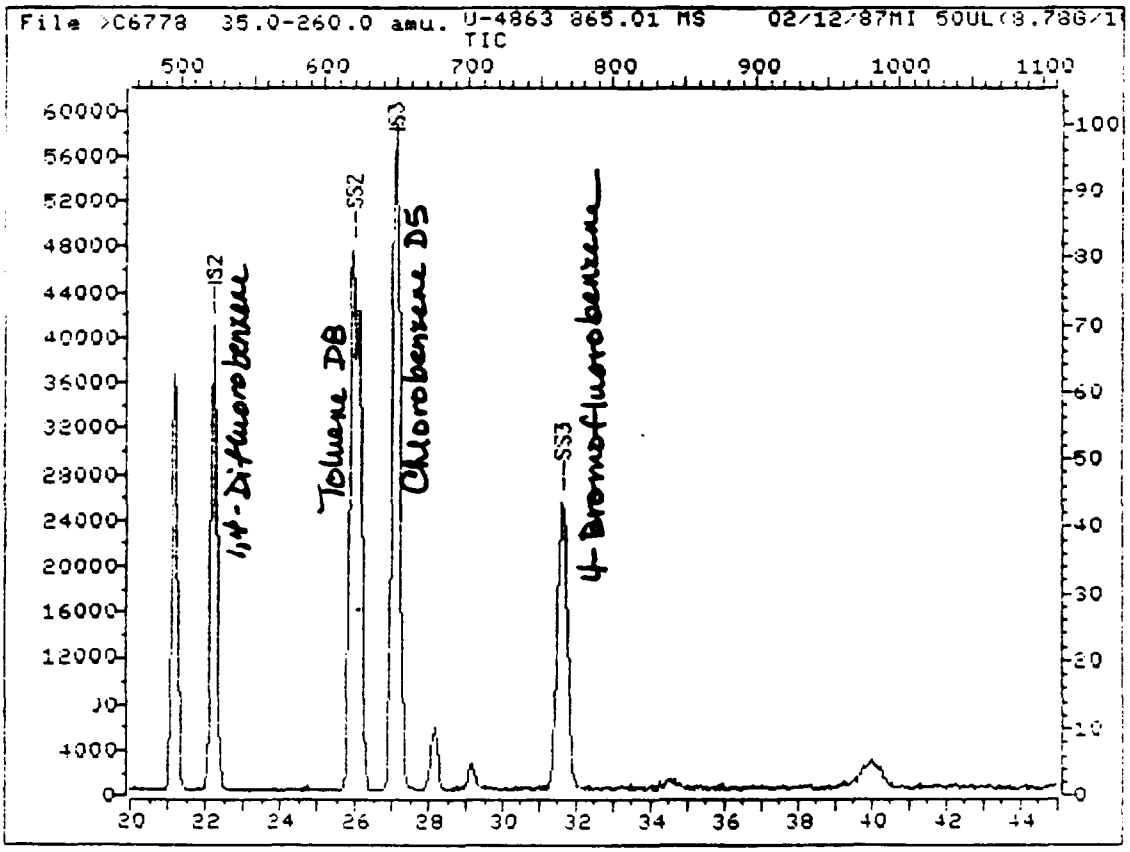
DC-I9-49 MS





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870212 19:36
Output File: ^C6778::D2 Injected at: 870212 18:50
Data File: >C6778::D3 Dilution Factor: 1.00
Name: U-4863 865.01 MS DC-I9-49 MS
Misc: 02/12/87MI 50UL(8.78G/10MLS MEOH) - 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870212 17:56

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.61	250	32499	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.27	164	2037	1.88	UG/L	100
7)	ACETONE	43	9.17	187	10446	32.64	UG/L	100
10)	1,1-DICHLOROETHENE	61	11.26	241	41561	26.36	UG/L	98
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.48	324	75989	40.39	UG/L	82
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.20	523	167928	50.00	UG/L	100
17)	2-BUTANONE	72	14.68	329	4677	35.37	UG/L	100
24)	TRICHLOROETHENE	130	19.06	442	29582	21.94	UG/L	87
27)	BENZENE	78	19.64	457	97001	24.90	UG/L	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.06	648	133676	50.00	UG/L	100
36)	TOLUENE-D8 (SURR)	98	25.93	619	175072	46.17	UG/L	94
37)	TOLUENE	92	26.09	623	92548	35.50	UG/L	96
38)	CHLOROBENZENE	112	27.17	651	99889	31.72	UG/L	99
39)	ETHYLBENZENE	91	29.16	702	14654	2.59	UG/L	87
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.60	765	88362	44.73	UG/L	100
42)	TOTAL XYLENES	91	34.51	840	6928	1.43	UG/L	100
43)	1,3-DICHLOROBENZENE	146	39.95	980	12091	12091.00	NO CALIB	100
44)	1,2-DICLHLOROBENZENE	146	39.95	980	12091	12091.00	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	39.95	980	12091	12091.00	NO CALIB	100

* Compound is ISTD

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Laboratory Name ECOLOGY & ENVIRONMENT INC.
Case No U-4835, 4846, 4863, 4872

Sample Number
DC-G4-35 MS

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 2-2-87
Date Analyzed: 2-13-87
Conc/Dil Factor: 20
Percent Moisture (Decanted) 24

GPC Cleanup ☐Yes ☒No
Separatory Funnel Extraction ☐Yes
Continuous Liquid - Liquid Extraction ☐Yes

REPORTED "AS RECEIVED"

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	SPIKE	
111-44-4	bis(-2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	SPIKE	
541-73-1	1 3-Dichlorobenzene	3300	U
106-46-7	1 4-Dichlorobenzene	SPIKE	
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1 2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	SPIKE	
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2, 4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U
111-91-1	bis(-2-Chloroethoxy)Methane	3300	U
120-83-2	2, 4-Dichlorophenol	3300	U
120-82-1	1, 2, 4-Trichlorobenzene	SPIKE	
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Metnylphenol	SPIKE	
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2, 4, 6-Trichlorophenol	3300	U
95-95-4	2, 4, 5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U
208-96-8	Acenaphthylene	3300	U
[illegible]-09-2	3-Nitroaniline	16000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	SPIKE	
51-28-5	2, 4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	SPIKE	
132-64-9	Dibenzofuran	3300	U
121-14-2	2 4-Dinitrotoluene	SPIKE	
606-20-2	2, 6-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3306	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	SPIKE	
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	3300	U
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	SPIKE	
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3, 3'-Dichlorobenzidine	6600	U
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300	U
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	3300	U
53-70-3	Dibenz(a, h)Anthracene	3300	U
191-24-2	Benzo(g, h, i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

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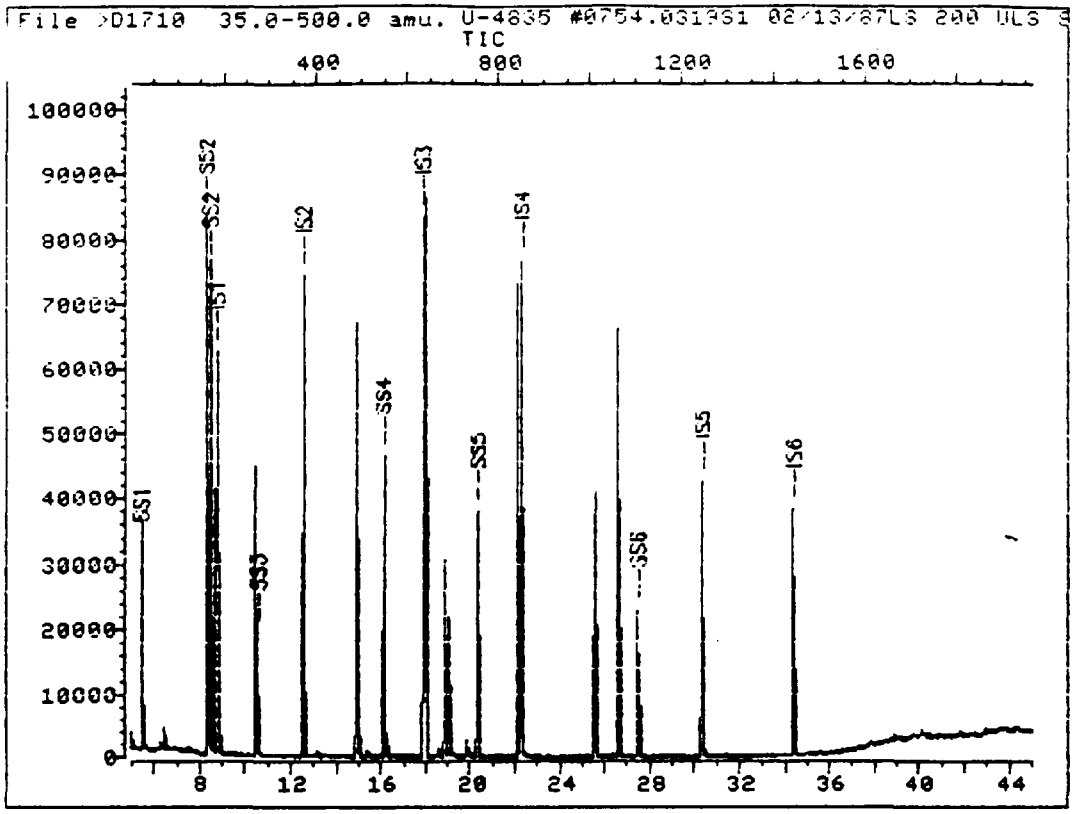

Data File: >D1710::D3
Name: U-4835 #0754.0319S1 DC-G4-35MS
Misc: 02/13/87LS 200 ULS SMPL + 200 ULS MECL2 + 4 UL IS BTL# 2

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870213 19:29

Operator ID: USER6
Quant Time: 870213 22:23
Injected at: 870213 21:35

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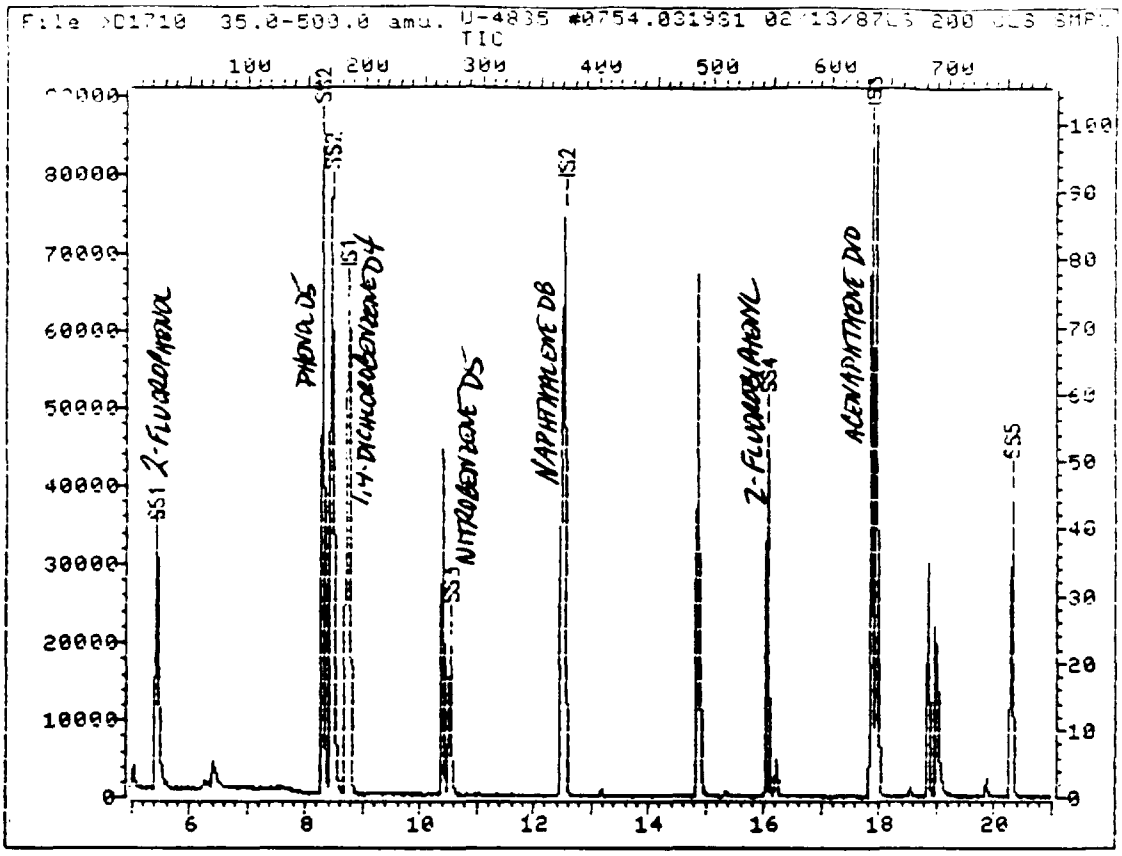
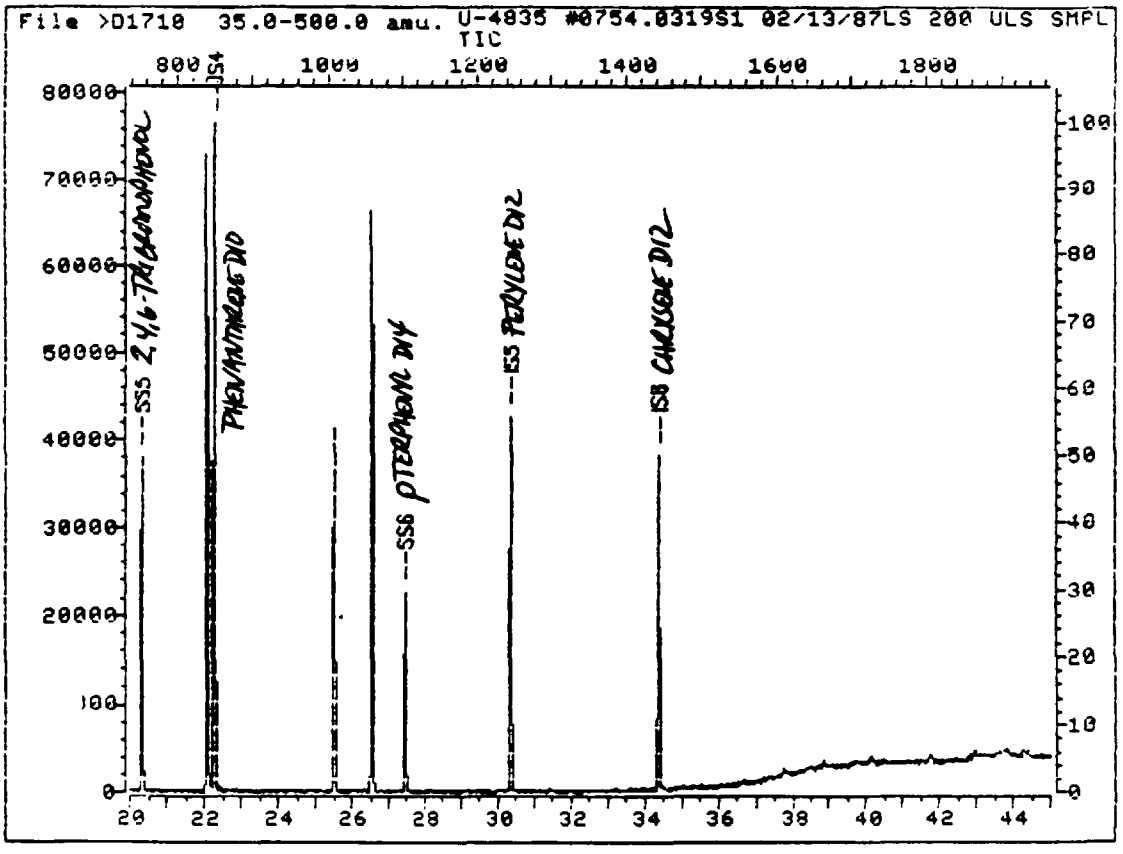
DC-C4-35MS





414

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870213 22:23
Output File: ^D1710::Q2 Injected at: 870213 21:35
Data File: >D1710::D3 Dilution Factor: 2.00
Name: U-4835 #0754.0319S1 DC-G4-35MS
Misc: 02/13/87LS 200 ULS SMPL + 200 ULS MECL2 + 4 UL IS BTL# 2

ID File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (8)
Last Calibration: 870213 19:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.73	185	29415	40.00 UG/L	84
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~8.38~~	~~163~~	~~2779~~	~~6.65 UG/L~~	~~41~~
2)	PHENOL-D5	(SURR)	99	8.44	171	31223	74.74 UG/L	88
5)	2-FLUOROPHENOL	(SURR)	112	5.41	22	35689	113.10 UG/L	79
6)	PHENOL		94	8.46	172	55584	137.34 UG/L	59
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~8.77~~	~~187~~	~~39431~~	~~72.24 UG/L~~	~~97~~
10)	1,4-DICHLOROBENZENE		146	8.77	187	39431	71.55 UG/L	98
15)	2-CHLOROPHENOL		128	8.28	163	59088	142.21 UG/L	94
17)	N-NITROSO-DI-N-PROPYLAMINE		70	10.40	267	24291	75.21 UG/L	94
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.54~~	~~274~~	~~2752~~	~~8.52 UG/L~~	~~84~~
19)	*NAPHTHALENE-D8	(IS)	136	12.54	372	94044	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.54	274	14802	41.03 UG/L	95
28)	1,2,4-TRICHLOROBENZENE		180	12.48	369	36940	74.13 UG/L	100
32)	4-CHLORO-3-METHYLPHENOL		107	14.86	486	35949	104.01 UG/L	89
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~14.86~~	~~484~~	~~30516~~	~~40.36 UG/L~~	~~20~~
34)	*ACENAPHTHENE-D10	(IS)	162	17.88	634	54178	40.00 UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	16.06	545	41790	42.07 UG/L	92
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.98~~	~~634~~	~~10814~~	~~15.31 UG/L~~	~~100~~
47)	ACENAPHTHENE		153	17.96	638	62289	83.88 UG/L	95
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.32	754	15421	68.35 UG/L	99
50)	4-NITROPHENOL		139	19.00	689	13608	103.31 UG/L	100
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~19.24~~	~~701~~	~~248~~	~~1.88 UG/L~~	~~100~~
51)	2,4-DINITROTOLUENE		165	18.85	682	18708	169.32 UG/L	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.88~~	~~634~~	~~7054~~	~~45.95 UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.28	850	95246	40.00 UG/L	90
60)	PENTACHLOROPHENOL		266	22.07	840	31690	141.21 UG/L	100
65)	*CHRYSENE-D12	(IS)	240	30.34	1246	57884	40.00 UG/L	100
67)	PYRENE		202	26.55	1060	85495	65.86 UG/L	86
68)	TERPHENYL-D14	(SURR)	244	27.45	1104	28174	39.93 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.37	1444	50092	40.00 UG/L	100

* Compound is ISTD

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-I7-47MS

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2/2/87

Date Analyzed: 2/23/87

Conc/Dil Factor: 20

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	SPIKE
111-44-4	bis(-2-Chloroethyl)Ether	3300 U
95-57-8	2-Chlorophenol	SPIKE
541-73-1	1. 3-Dichlorobenzene	3300 U
106-46-7	1. 4-Dichlorobenzene	SPIKE
100-51-6	Benzyl Alcohol	3300 U
95-50-1	1. 2-Dichlorobenzene	3300 U
95-48-7	2-Methylphenol	3300 U
39638-32-9	bis(2-chloroisopropyl)Ether	3300 U
106-44-5	4-Methylphenol	3300 U
621-64-7	N-Nitroso-Di-n-Propylamine	SPIKE
67-72-1	Hexachloroethane	3300 U
98-95-3	Nitrobenzene	3300 U
78-59-1	Isophorone	3300 U
88-75-5	2-Nitrophenol	3300 U
105-67-9	2. 4-Dimethylphenol	3300 U
65-85-0	Benzoic Acid	16000 U
111-91-1	bis(-2-Chloroethoxy)Methane	3300 U
120-83-2	2. 4-Dichlorophenol	3300 U
120-82-1	1. 2. 4-Trichlorobenzene	SPIKE
91-20-3	Naphthalene	3300 U
106-47-8	4-Chloroaniline	3300 U
87-68-3	Hexachlorobutadiene	3300 U
59-50-7	4-Chloro-3-Methylphenol	SPIKE
91-57-6	2-Methylnaphthalene	3300 U
77-47-4	Hexachlorocyclopentadiene	3300 U
88-06-2	2. 4. 6-Trichlorophenol	3300 U
95-95-4	2. 4. 5-Trichlorophenol	16000 U
91-58-7	2-Chloronaphthalene	3300 U
88-74-4	2-Nitroaniline	16000 U
131-11-3	Dimethyl Phthalate	3300 U
208-96-8	Acenaphthylene	3300 U
-09-2	3-Nitroaniline	16000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	SPIKE
51-28-5	2. 4-Dinitrophenol	16000 U
100-02-7	4-Nitrophenol	SPIKE
132-64-9	Dibenzofuran	3300 U
121-14-2	2 4-Dinitrotoluene	SPIKE
606-20-2	2. 6-Dinitrotoluene	3300 U
84-66-2	Diethylphthalate	3300 U
7005-72-3	4-Chlorophenyl-phenylether	3300 U
86-73-7	Fluorene	3300 U
100-01-6	4-Nitroaniline	16000 U
534-52-1	4. 6-Dinitro-2-Methylphenol	16000 U
86-30-6	N-Nitrosodiphenylamine (1)	3300 U
101-55-3	4-Bromophenyl-phenylether	3300 U
118-74-1	Hexachlorobenzene	3300 U
87-86-5	Pentachlorophenol	SPIKE
85-01-8	Phenanthrene	3300 U
120-12-7	Anthracene	3300 U
84-74-2	Di-n-Butylphthalate	8800
206-44-0	Fluoranthene	3300 U
129-00-0	Pyrene	SPIKE
85-68-7	Butylbenzylphthalate	3300 U
91-94-1	3. 3'-Dichlorobenzidine	6600 U
56-55-3	Benzo(a)Anthracene	3300 U
117-81-7	bis(2-Ethylhexyl)Phthalate	2400 J
218-01-9	Chrysene	3300 U
117-84-0	Di-n-Octyl Phthalate	3300 U
205-99-2	Benzo(b)Fluoranthene	3300 U
207-08-9	Benzo(k)Fluoranthene	3300 U
50-32-8	Benzo(a)Pyrene	3300 U
193-39-5	Indeno(1 2. 3-cd)Pyrene	3300 U
53-70-3	Dibenz(a h)Anthracene	3300 U
191-24-2	Benzo(g h i)Perylene	3300 U

(1)-Cannot be separated from diphenylamine

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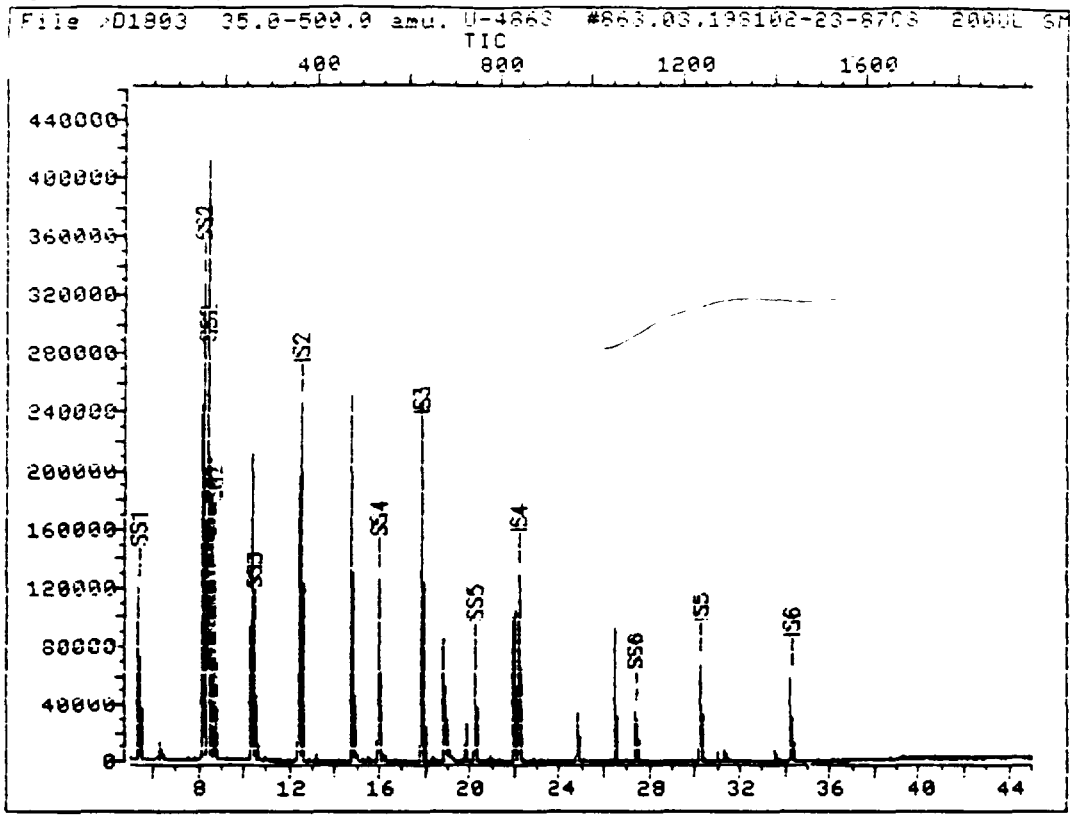
TOTAL ION CHROMATOGRAM



Data File: >D1803::D3
Name: U-4863 #863.03.19S1 DC-I7-47MS
Misc: 02-23-87CS 200UL SMPL + 200UL MECL2 + 4UL IS BIL# 9

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

Operator ID: USER6
Quant Time: 870224 12:28
Injected at: 870223 22:30

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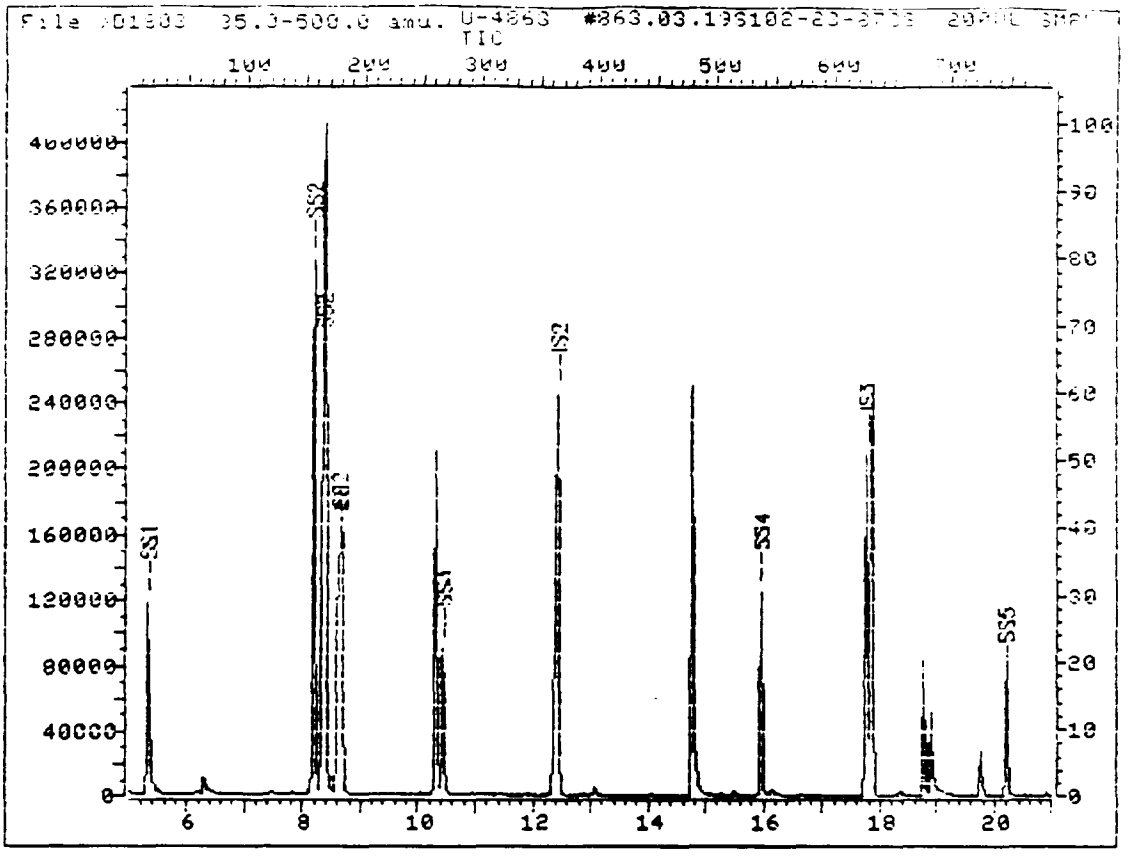
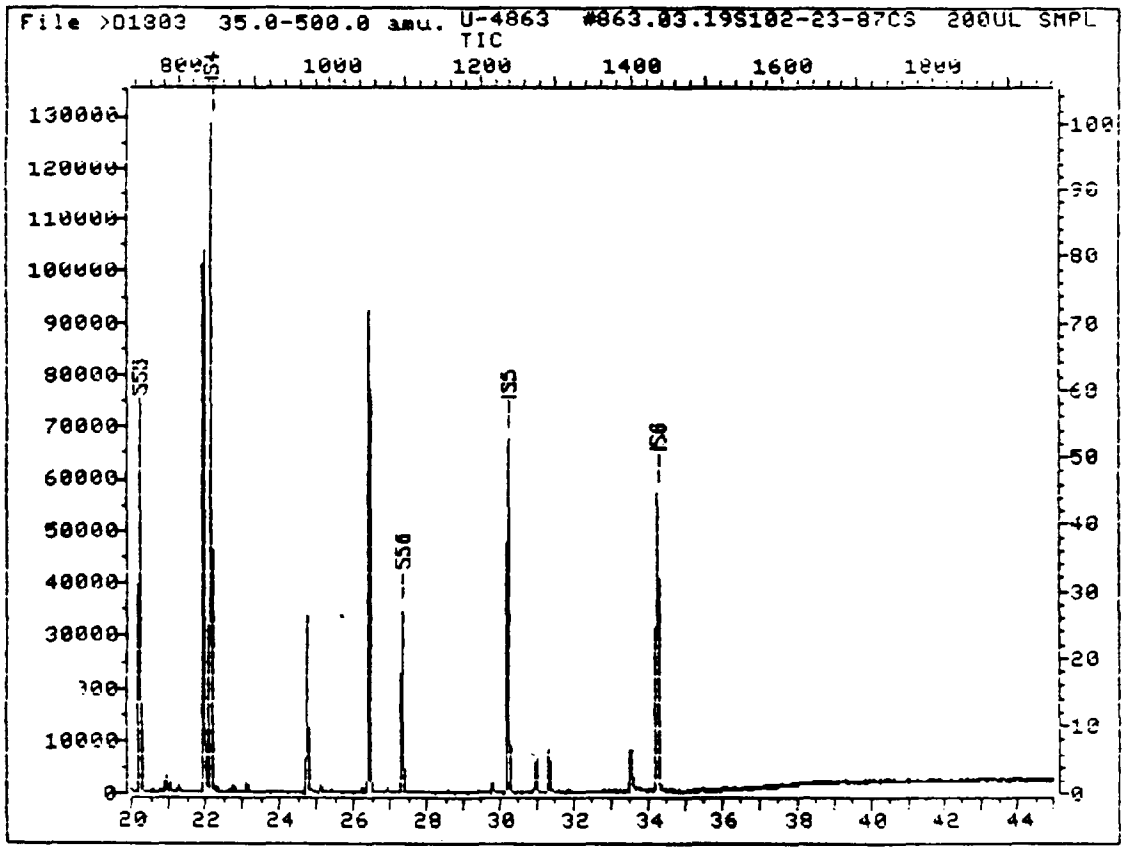


DC-I7-41MS



recycled paper

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870224 12:28
Output File: ^D1803::Q2 Injected at: 870223 22:30
Data File: >D1803::D3 Dilution Factor: 2.00
Name: U-4863 #863.03.19S1 DC-I7-47 MS
Misc: 02-23-87CS 200UL SMPL + 200UL MECL2 + 4UL IS BTL# 9

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.63	178	64882	40.00 UG/L	83
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~8.20~~	~~157~~	~~10535~~	~~6.15 UG/L~~	~~42~~
2)	PHENOL-D5	(SURR)	99	8.36	165	122527	94.84 UG/L	97
~~3)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~8.65~~	~~179~~	~~1521~~	~~1.18 UG/L~~	~~93~~
5)	2-FLUOROPHENOL	(SURR)	112	5.33	16	77125	94.77 UG/L	84
6)	PHENOL		94	8.40	167	158497	175.15 UG/L	68
~~7)~~	~~ANILINE~~		~~93~~	~~8.20~~	~~157~~	~~4547~~	~~3.96 UG/L~~	1
~~8)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~8.67~~	~~180~~	~~94405~~	~~76.63 UG/L~~	99
10)	1,4-DICHLOROBENZENE		146	8.67	180	94405	78.32 UG/L	98
15)	2-CHLOROPHENOL		128	8.20	157	191588	176.52 UG/L	93
17)	N-NITROSO-DI-N-PROPYLAMINE		70	10.32	261	116238	104.19 UG/L	96
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.44~~	~~267~~	~~14256~~	~~12.78 UG/L~~	87
19)	*NAPHTHALENE-D8	(IS)	136	12.44	365	251936	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.44	267	70988	49.48 UG/L	91
28)	1,2,4-TRICHLOROBENZENE		180	12.40	363	90317	85.81 UG/L	100
32)	4-CHLORO-3-METHYLPHENOL		107	14.78	480	132408	129.37 UG/L	89
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~14.78~~	~~480~~	~~91718~~	~~58.17 UG/L~~	19
34)	*ACENAPHTHENE-D10	(IS)	162	17.78	627	122392	40.00 UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	15.96	538	108499	47.15 UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.78~~	~~627~~	~~23070~~	~~13.14 UG/L~~	100
47)	ACENAPHTHENE		153	17.88	632	163073	91.64 UG/L	96
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.20	746	32662	77.62 UG/L	99
50)	4-NITROPHENOL		139	18.90	682	25327	142.66 UG/L	100
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~19.20~~	~~697~~	~~364~~	~~2.12 UG/L~~	100
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~19.26~~	~~700~~	~~233~~	~~1.36 UG/L~~	100
51)	2,4-DINITROTOLUENE		165	18.75	675	38053	111.29 UG/L	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.78~~	~~627~~	~~16583~~	~~43.87 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.16	842	123016	40.00 UG/L	91
60)	PENTACHLOROPHENOL		266	21.95	832	46382	174.31 UG/L	100
63)	DI-N-BUTYLPHTHALATE		149	24.76	970	44101	30.02 UG/L	98
65)	*CHRYSENE-D12	(IS)	240	30.22	1238	75060	40.00 UG/L	100
67)	PYRENE		202	26.43	1052	104639	83.66 UG/L	95
68)	TERPHENYL-D14	(SURR)	244	27.33	1096	38981	48.98 UG/L	100
~~72)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~30.26~~	~~1274~~	~~6958~~	~~10.58 UG/L~~	~~89~~
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.32	1292	5272	8.02 UG/L	98
74)	*PERYLENE-D12	(IS)	264	34.26	1436	71794	40.00 UG/L	100

Compound is ISTD

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Laboratory Name ecology and environment, inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-G4-35 MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-2-87

Date Analyzed 2-12-87

Conc/Dil Factor 2

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	160	U
319-85-7	Beta-BHC	160	U
319-86-8	Delta-BHC	160	U
58-89-9	Gamma-BHC (Lindane)	248	S
76-44-8	Heptachlor	276	S
309-00-2	Aldrin	255	S
1024-57-3	Heptachlor Epoxide	160	U
959-98-8	Endosulfan I	160	U
60-57-1	Dieldrin	591	S
72-55-9	4,4'-DDE	320	U
72-20-8	Endrin	630	S
33213-65-9	Endosulfan II	320	U
72-54-8	4,4'-DDD	320	U
1031-07-8	Endosulfan Sulfate	320	U
50-29-3	4,4'-DDT	631	S
72-43-5	Methoxychlor	1600	U
53494-70-5	Endrin Ketone	320	U
57-74-9	Chlordane	1600	U
8001-35-2	Toxaphene	3200	U
12674-11-2	Aroclor-1016	1600	U
11104-28-2	Aroclor-1221	1600	U
11141-16-5	Aroclor-1232	1600	U
53469-21-9	Aroclor-1242	1600	U
12672-29-6	Aroclor-1248	1600	U
11097-69-1	Aroclor-1254	3200	U
11096-82-5	Aroclor-1260	3200	U

V_t = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

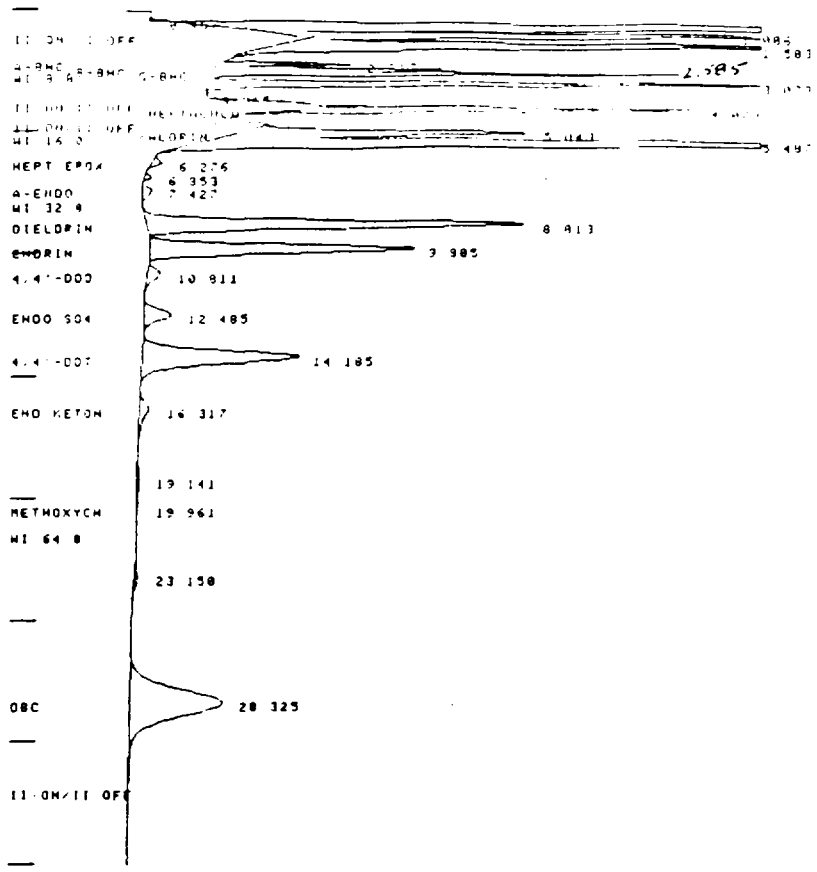
W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

420

S = Spiked Compound



RECALCULATE ON FILE: SCA007

DC-G4-35MS

CHANNEL: 1A - 1 TITLE: RUN#24 8:54 12 FEB 87

SAMPLE: 0754 MS METHOD: DEAD CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/Kg wet	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	1.250		74120	BV		3.50
2		0.0000	1.394		10745955	VV		5.38
3		0.0000	1.503		1115356	VB	?	5.38
4	~~a-BHC~~	51.2791	2.217	-0.013	99936	BV		5.63
5	~~G-BHC~~	334.5240	2.415	0.045	205649	VV	?	7.38
6	G-BHC	248.0954	2.585	-0.005	439603	VV		6.75
7		0.0000	3.079		665920	VV		7.88
8	HEPTACHLO	275.8075	4.079	-0.021	439411	BB		8.69
9	ALDRIN	255.1180	5.043	-0.007	463540	BV		11.94
10		0.0000	5.487		4152219	VB		11.75
11	~~HEPT EPOX~~	11.7542	6.276	0.166	20158	BV		13.19
12	~~A-ENDO~~	17.0834	7.427	-0.143	27837	BB		24.69
13	DIELDRIN	591.3517	8.813	-0.007	1028661	BB		21.44
14	ENDRIN	629.8942	9.805	-0.025	783368	BB		23.94
15	~~4,4'-DDD~~	35.4673	10.811	-0.099	48674	BB		42.94
16	~~ENDO SO4~~	100.5749	12.485	-0.315	184043	BB		32.94
17	4,4'-DDT	631.1982	14.185	-0.025	697873	VB		34.06
18	~~ENDO KETON~~	33.4715	16.317	-0.053	54492	BB		41.00
19		0.0000	19.141		23444	BV		56.00
20	DBC 185	688.8145	28.325	-0.005	928670	BB		73.19
TOTALS:		3984.434		-0.587	22118934			

DETECTED PKS: 32 REJECTED PKS: 12

DIVISOR: 0.15000 MULTIPLIER: 2000.00000

NOISE: 11.4 OFFSET: -118

RACK: 2 VIAL: 9 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A ECD 10X1
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
250 C ISOTHERMAL 1 UL INJECTION

421

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Laboratory Name ecology and environment, inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-I7-47MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-5-87

Date Analyzed 2-19-87

Conc/Dil Factor 2

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)
319-84-6	Alpha-BHC	160 U
319-85-7	Beta-BHC	160 U
319-86-8	Delta-BHC	160 U
58-89-9	Gamma-BHC (Lindane)	229 S
76-44-8	Heptachlor	306 S
309-00-2	Aldrin	258 S
1024-57-3	Heptachlor Epoxide	160 U
959-98-8	Endosulfan I	160 U
60-57-1	Dieldrin	618 S
72-55-9	4,4'-DDE	320 U
72-20-8	Endrin	712 S
33213-65-9	Endosulfan II	320 U
72-54-8	4,4'-DDD	320 U
1031-07-8	Endosulfan Sulfate	320 U
50-29-3	4,4'-DDT	710 S
72-43-5	Methoxychlor	1600 U
53494-70-5	Endrin Ketone	320 U
57-74-9	Chlordane	1600 U
8001-35-2	Toxaphene	3200 U
12674-11-2	Aroclor-1016	1600 U
11104-28-2	Aroclor-1221	1600 U
11141-16-5	Aroclor-1232	1600 U
53469-21-9	Aroclor-1242	1600 U
12672-29-6	Aroclor-1248	1600 U
11097-69-1	Aroclor-1254	3200 U
11096-82-5	Aroclor-1260	3200 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

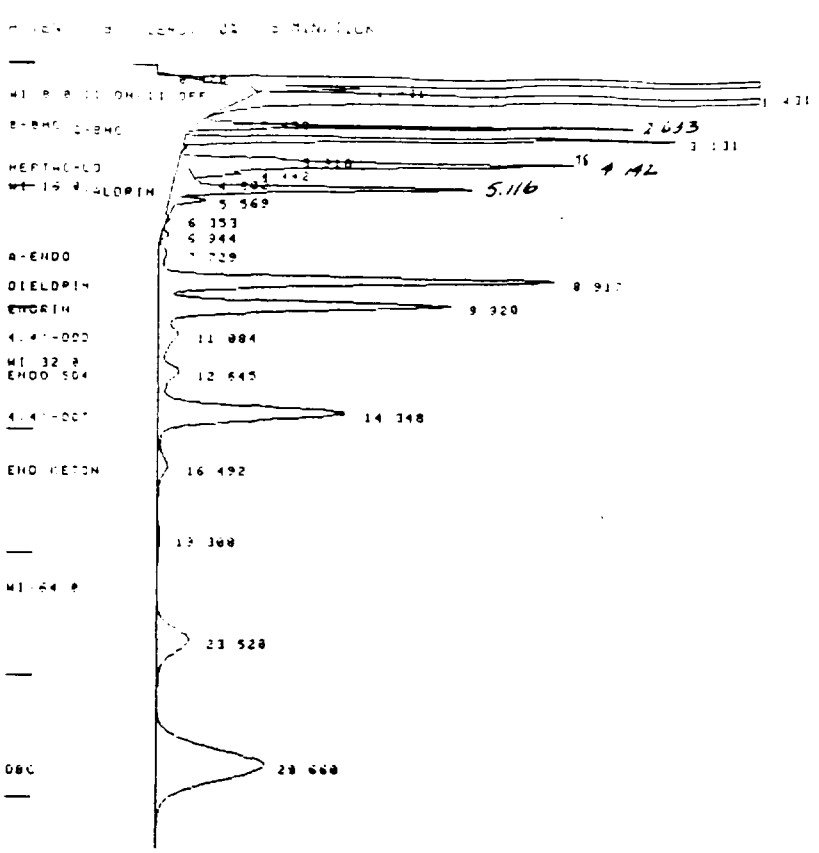
W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

422

S = Spiked Compound



DC-I747MS

CHANNEL: 1A - 1 TITLE: RUN# 21 23:57 19 FEB 87

SAMPLE: 8863 MS METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	1.287		109911	BV	?	4.91
2		0.0000	1.431		10176677	VB		5.50
3	[illegible]	67.9851	2.438	0.058	46482	BV	?	6.63
4	G-BHC	229.3771	2.633	0.023	439846	VB		6.69
5		0.0000	3.131		564963	BV		8.25
6		0.0000	3.910		106984	VV	?	11.50
7	HEPTACHLO	~~366.5614~~ 306	4.142	0.022	~~537306~~	VV		11.94
8		0.0000	4.442		106706	VV	?	16.91
9		0.0000	4.802		32409	VV	?	14.25
10	ALDRIN	258.0115	5.116	0.046	512584	VV		12.75
11		0.0000	5.569		81792	VV		10.44
12	[illegible]	17.3358	7.729	0.129	30861	VV	?	33.63
13	DIELDRIN	617.8352	8.917	0.077	1167195	VV		22.69
14	ENDRIN	711.6594	9.320	0.080	985920	VV		25.50
15	[illegible]	94.1597	11.084	0.024	132744	VV	?	74.44
16	[illegible]	96.5509	12.645	-0.165	121388	VV		43.13
17	4,4'-DDT	710.4478	14.348	0.098	889205	VV		35.88
18	[illegible]	36.5565	16.492	0.112	65863	VB		47.13
19		0.0000	19.388		24025	BB		54.00
20		0.0000	23.528		284222	BV		56.63
21	DBC 173	822.4619	28.660	0.220	1223299	VB		86.13
TOTALS:		4028.942		0.724	17748282			

DETECTED PKS: 38 REJECTED PKS: 9

DIVISOR: 0.15000 MULTIPLIER: 2000.00000

NOISE: 11.4 OFFSET: -32

RACK: 2 VIAL: 6 INJ: 1

NOTES:
NOTE BOOK: 259-112 ANALYST:RICHARD SAMSON AND K. JUREK
SECURE AREA: O JOB#:U-4863
INST: VARIAN 6000# 2A 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
PRIMARY ANALYSIS AUTOSAMPLER

POST RUN:
SAVE FILE: RAW DC1156

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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)

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[illegible]

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4835, 4846, 4863, 4872

Sample ID No: 0861 MSD

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-5-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-10-87

Conc/Dil Factor: 1 pH 8.2

Percent Moisture: (Not Decanted) 23

Concentrations reported "as received"

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	5 B
67-64-1	Acetone	2100 EB
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	3 J
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	28
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	SPIKE
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	SPIKE
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	SPIKE
108-90-7	Chlorobenzene	SPIKE
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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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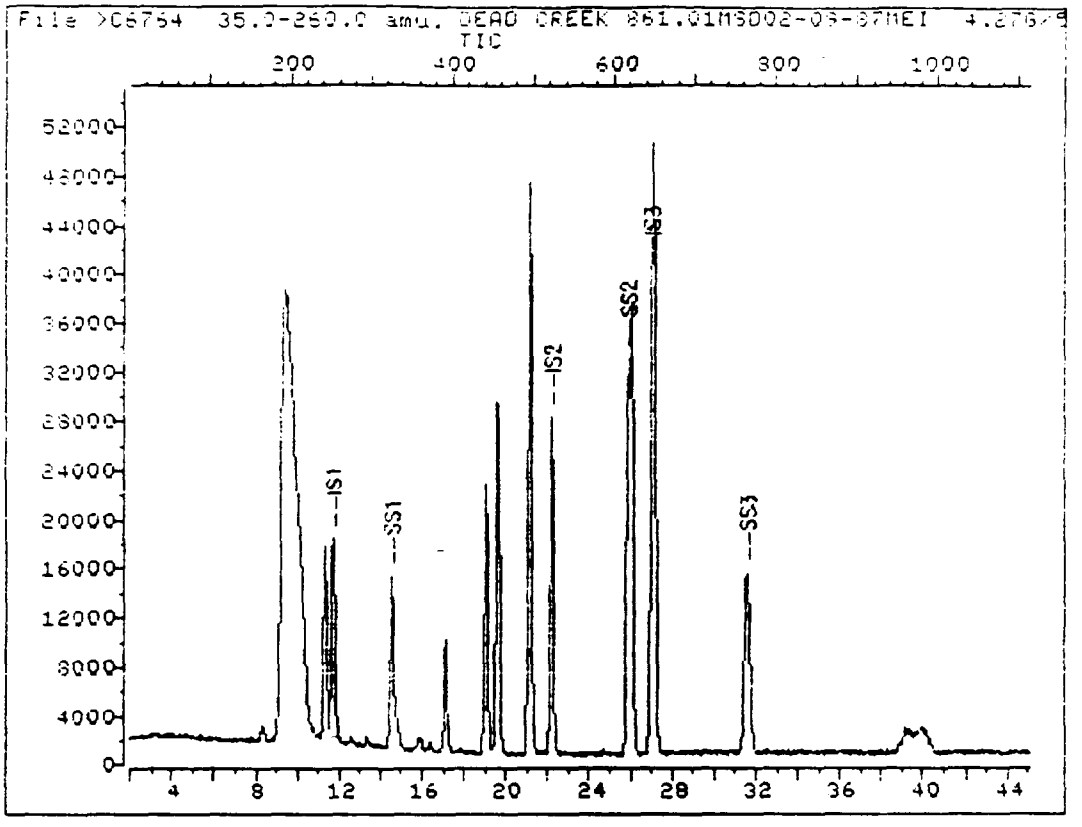
TOTAL ION CHROMATOGRAM



Data File: >C6764::D3
Name: DEAD CREEK 861.01MSD DC-I7-45MSD
Misc: 02-09-87MEI 4.27G/5MLS DI + 10UL IS/SS/MS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870209 18:44

Operator ID: USER8
Quant Time: 870210 04:34
Injected at: 870210 03:48

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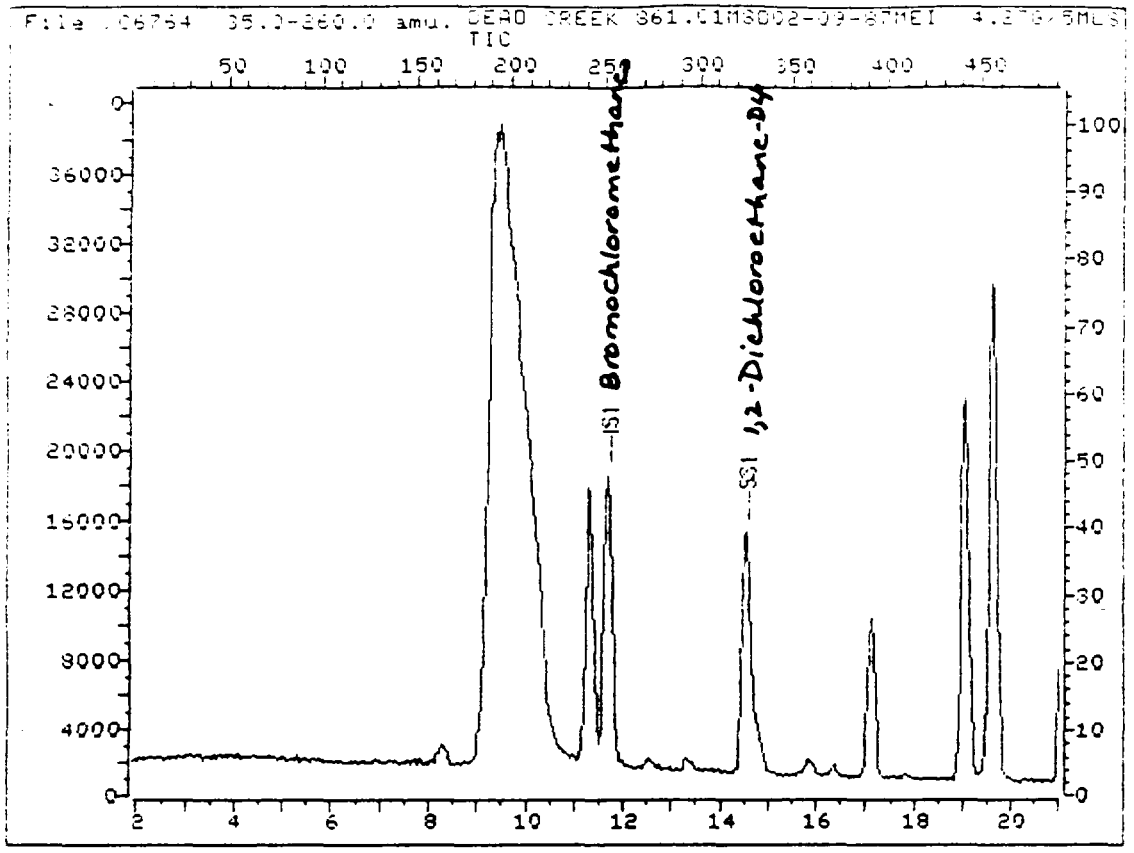
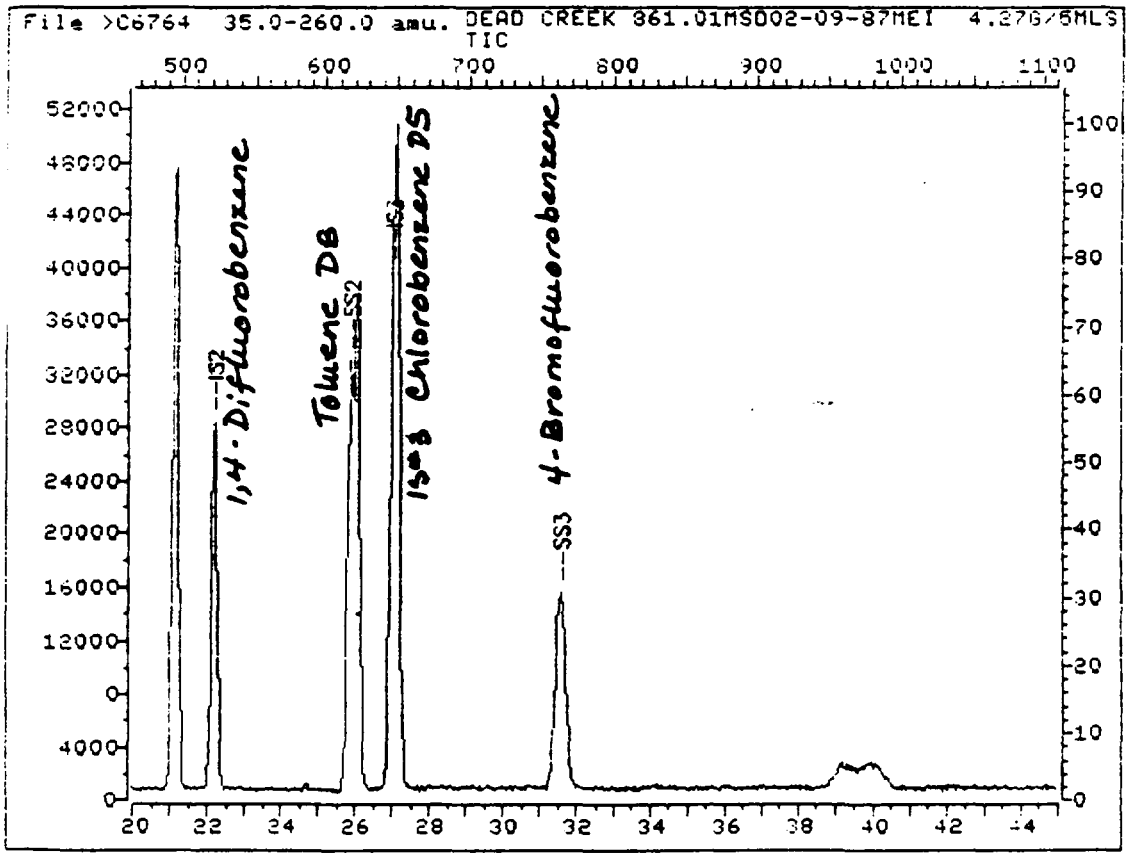
DC-I7-45 MSD





427

QUANT REPORT

Operator ID: USER3 Quant Rev: 4 Quant Time: 870210 04:3-
Output File: ^C6764::Q2 Injected at: 870210 03:48
Data File: >C6764::D3 Dilution Factor: 1.00
Name: DEAD CREEK 861.01MSD DC-17 45MSD
Misc: 02-09-87MEI 4.27G/5ML5 DI + 10UL IS/SS/MS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870209 18:44

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.68	252	23734	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.27	164	2977	21.00	NGS	100
7)	ACETONE	43	9.43	194	1272146	9012.79	NGS	100
10)	1,1-DICHLOROETHENE	61	11.30	242	67552	312.49	NGS 130	95
12)	TRANS-1,2-DICHLOROETHENE	96	13.31	294	1729	12.96	NGS	76
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.56	326	58959	257.49	NGS 103 ✓	83
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.20	523	110161	250.00	NGS	100
17)	2-BUTANONE	72	14.75	331	4780	121.53	NGS	100
24)	TRICHLOROETHENE	130	19.02	441	37100	236.44	NGS 94 70	84
27)	BENZENE	78	19.60	456	121927	260.89	NGS 104 90	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.01	647	87012	250.00	NGS	100
36)	TOLUENE-D8 (SURR)	98	25.89	618	114703	262.76	NGS 105 ✓	93
37)	TOLUENE	92	26.04	622	82429	240.20	NGS 96 70	96
38)	CHLOROBENZENE	112	27.13	650	114405	268.26	NGS 107 90	98
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.60	765	50900	218.70	NGS 88 ✓	100
43)	1,3-DICHLOROBENZENE	146	39.24	962	14669	14669.00	NO CALIB	100
44)	1,2-DICHLOROBENZENE		39.24	962	14669	14669.00	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	39.24	962	14669	14669.00	NO CALIB	100

* Compound is ISTD

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ecology and environment

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4835, 4846, 4863, 4872

Sample ID No: 0865 MSD

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Szytowicz

Date Sample Received: 2-5-87

Volatile Compounds

Concentration: Low / Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-12-87

Conc/Dil Factor: 1 pH 7.7

Percent Moisture: (Not Decanted) 19

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	1000u
74-83-9	Bromomethane	1000u
75-01-4	Vinyl Chloride	1000u
75-00-3	Chloroethane	1000u
75-09-2	Methylene Chloride	260 BJ
67-64-1	Acetone	4000 B
75-15-0	Carbon Disulfide	500u
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	500u
156-60-5	Trans-1, 2-Dichloroethene	500u
67-66-3	Chloroform	500u
107-06-2	1, 2-Dichloroethane	500u
78-93-3	2-Butanone	3300 B
71-55-6	1, 1, 1-Trichloroethane	500u
56-23-5	Carbon Tetrachloride	500u
108-05-4	Vinyl Acetate	1000u
75-27-4	Bromodichloromethane	500u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	500u
10061-02-6	Trans-1, 3-Dichloropropene	500u
79-01-6	Trichloroethene	SPIKE
124-48-1	Dibromochloromethane	500u
79-00-5	1, 1, 2-Trichloroethane	500u
71-43-2	Benzene	SPIKE
10061-01-5	cis-1, 3-Dichloropropene	500u
110-75-8	2-Chloroethylvinylether	1000u
75-25-2	Bromoform	500u
108-10-1	4-Methyl-2-Pentanone	1000u
591-78-6	2-Hexanone	1000u
127-18-4	Tetrachloroethene	500u
79-34-5	1, 1, 2, 2-Tetrachloroethane	500u
108-88-3	Toluene	SPIKE
108-90-7	Chlorobenzene	SPIKE
100-41-4	Ethylbenzene	330 J
100-42-5	Styrene	500u
	Total Xylenes	90 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.

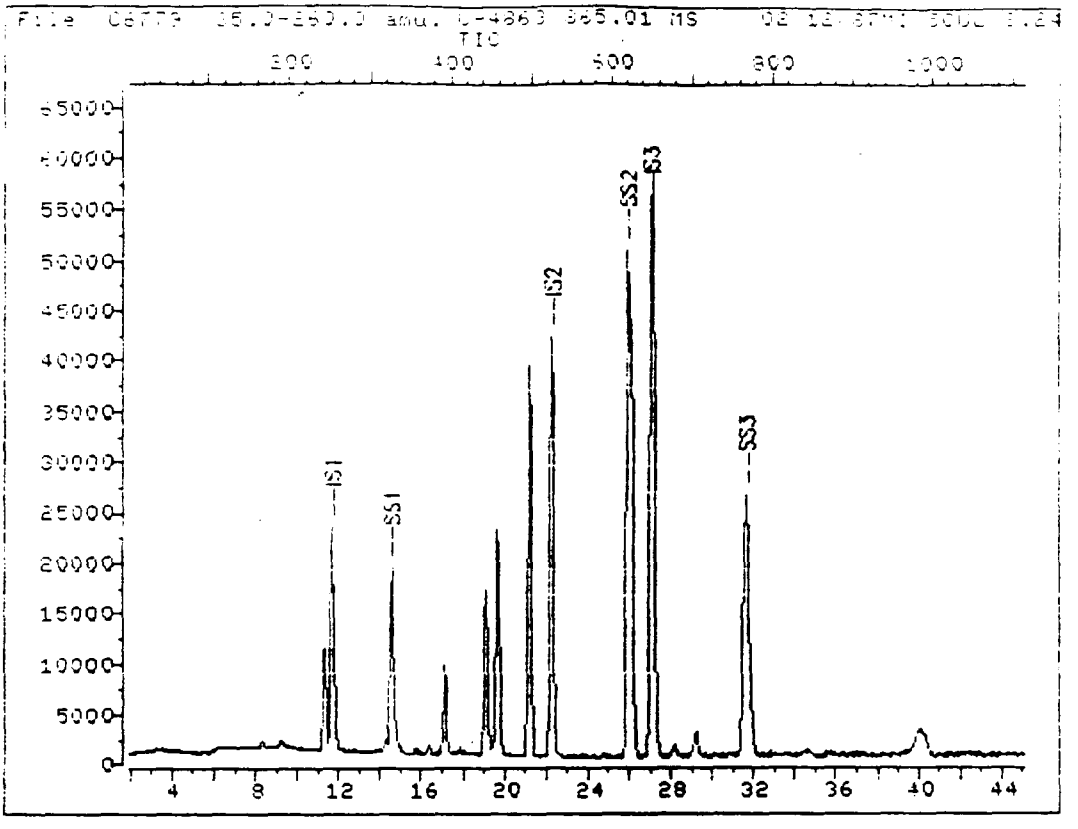
J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.



DC-I9-49 4SD

Data File: >C6779::D3
Name: U-4863 865.01 MS
Misc: 02/12/87MI 50UL(8.24G/10MLS MEOH) + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870212 17:56

Operator ID: USER8
Quant Time: 870212 20:28
Injected at: 870212 19:42

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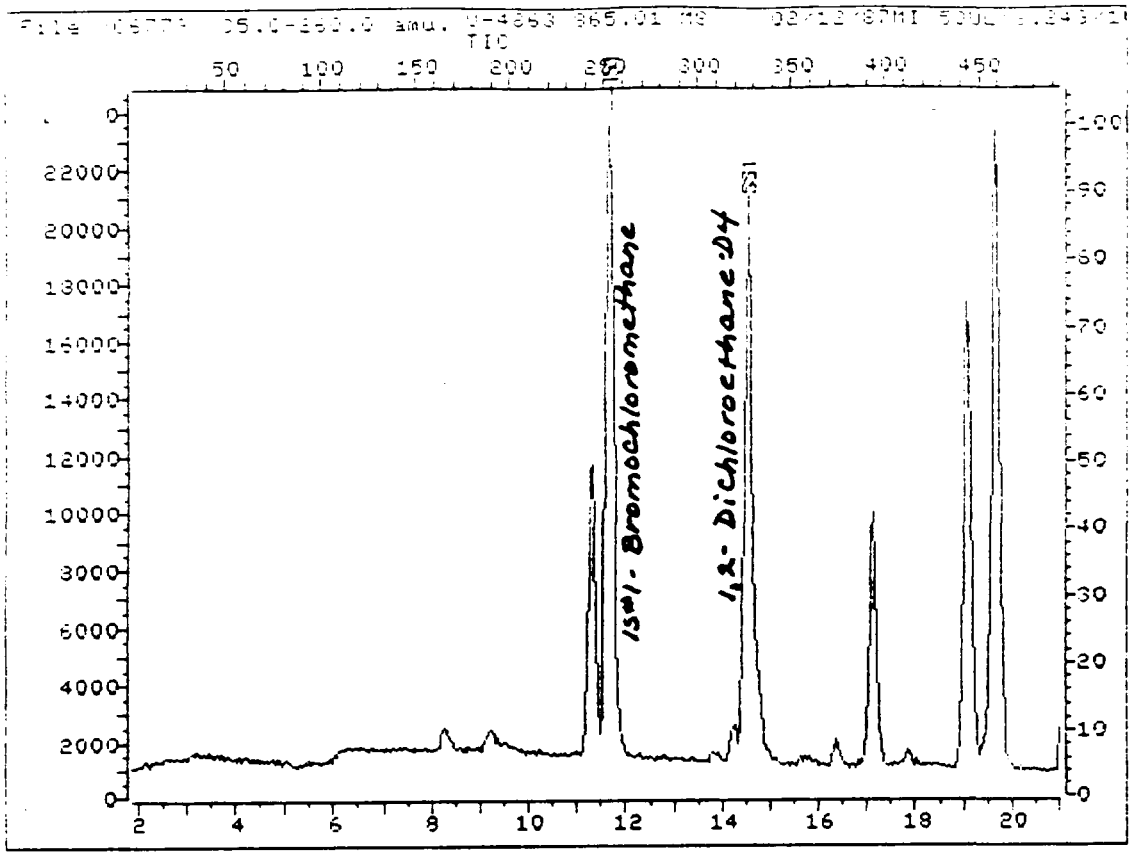
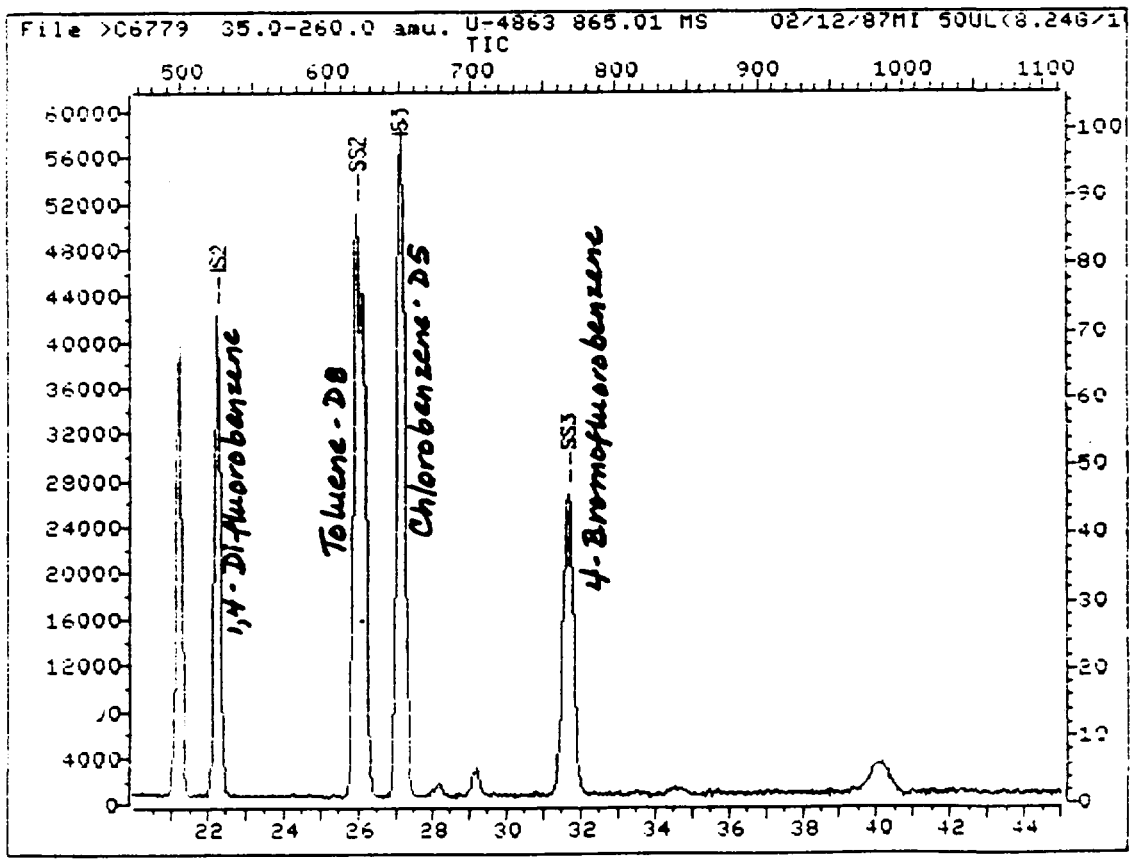
DC-I9-49MSD





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QUANT REPORT

Operator ID: USER8 Quant Pass: 4 Quant Time: 870213 13:39
Output File: DC6779::D2 Injected at: 870212 19:42
Data File: DC6779::D3 Dilution Factor: 1.00
Name: U-4863 865.01 MSD DC-I9-49MSD
Misc: 02/12/87MI 50UL(9.24G/10MLS MEOH) + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870212 17:56

	Compound		R.T.	Scan#	Area	Conc	Units	Q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.67	253	33102	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.33	167	2356	2.13 UG/L	100
7)	ACETONE		43	9.22	190	10736	32.93 UG/L	100
10)	1,1-DICHLOROETHENE		61	11.32	244	41001	25.53 UG/L	95
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.54	327	79959	41.72 UG/L	82 ✓
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.26	526	176257	50.00 UG/L	100
17)	2-BUTANONE		72	14.69	331	3809	27.45 UG/L	100
24)	TRICHLOROETHENE		130	19.08	444	29288	20.70 UG/L	89
27)	BENZENE		78	19.66	459	97245	23.78 UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.07	650	136617	50.00 UG/L	100 ✓
36)	TOLUENE-D8	(SURR)	98	25.94	621	185231	47.80 UG/L	97 ✓
37)	TOLUENE		92	26.10	625	97907	36.74 UG/L	95
38)	CHLOROBENZENE		112	27.19	653	99578	30.94 UG/L	97
39)	ETHYLBENZENE		91	29.21	705	15704	2.72 UG/L	95 ✓
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.66	768	94123	46.62 UG/L	100 ✓
42)	TOTAL XYLENES		91	34.49	841	3673	.74 UG/L	100
43)	1,3-DICHLOROBENZENE		146	39.96	982	10028	10028.00 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	39.96	982	10028	10028.00 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	39.96	982	10028	10028.00 NO CALIB	100

* Compound is ISTD

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-G4-35 MSD

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-2-87

Date Analyzed: 2-13-87

Conc/Dil Factor: 20

Percent Moisture (Decanted) 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	SPIKE	
111-44-4	bis(-2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	SPIKE	
541-73-1	1 3-Dichlorobenzene	3300	U
106-46-7	1 4-Dichlorobenzene	SPIKE	
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1 2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	SPIKE	
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2. 4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U
111-91-1	bis(-2-Chloroethoxy)Methane	3300	U
120-83-2	2. 4-Dichlorophenol	3300	U
120-82-1	1. 2. 4-Trichlorobenzene	SPIKE	
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	SPIKE	
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2 4 6-Trichlorophenol	3300	U
95-95-4	2. 4 5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U
208-96-8	Acenaphthylene	3300	U
2-09-2	3-Nitroaniline	16000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	SPIKE	
51-28-5	2. 4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	SPIKE	
132-64-9	Dibenzofuran	3300	U
121-14-2	2 4-Dinitrotoluene	SPIKE	
606-20-2	2. 6-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3306	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	SPIKE	
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	3300	U
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	SPIKE	
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3. 3'-Dichlorobenzidine	6600	U
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300	U
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	3300	U
53-70-3	Dibenzo(a h)Anthracene	3300	U
191-24-2	Benzo(g h i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

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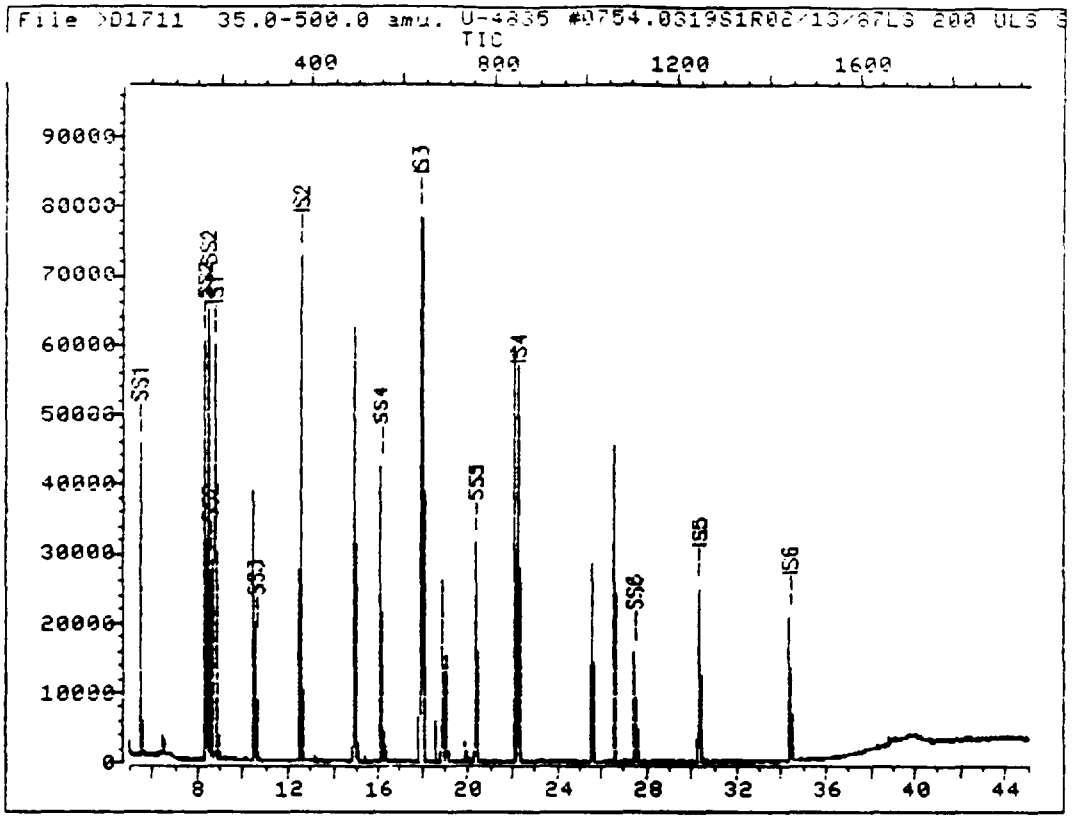

Data File: >D1711::D3
Name: U-4835 #0754.0319S1R DC-G4-35 MSD
Misc: 02/13/87LS 200 ULS SMPL + 200 ULS MECL2 + 4 UL IS BTL# 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870213 19:29

Operator ID: USER6
Quant Time: 870213 23:15
Injected at: 870213 22:27

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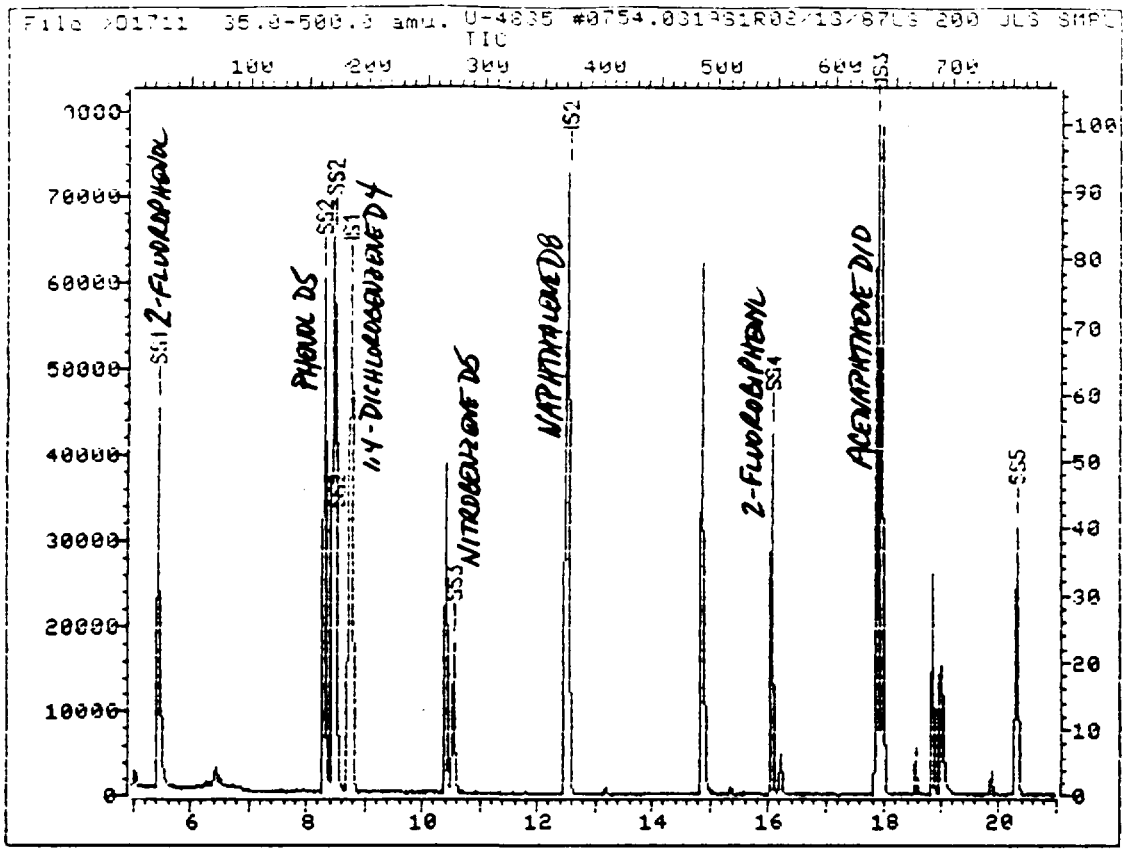

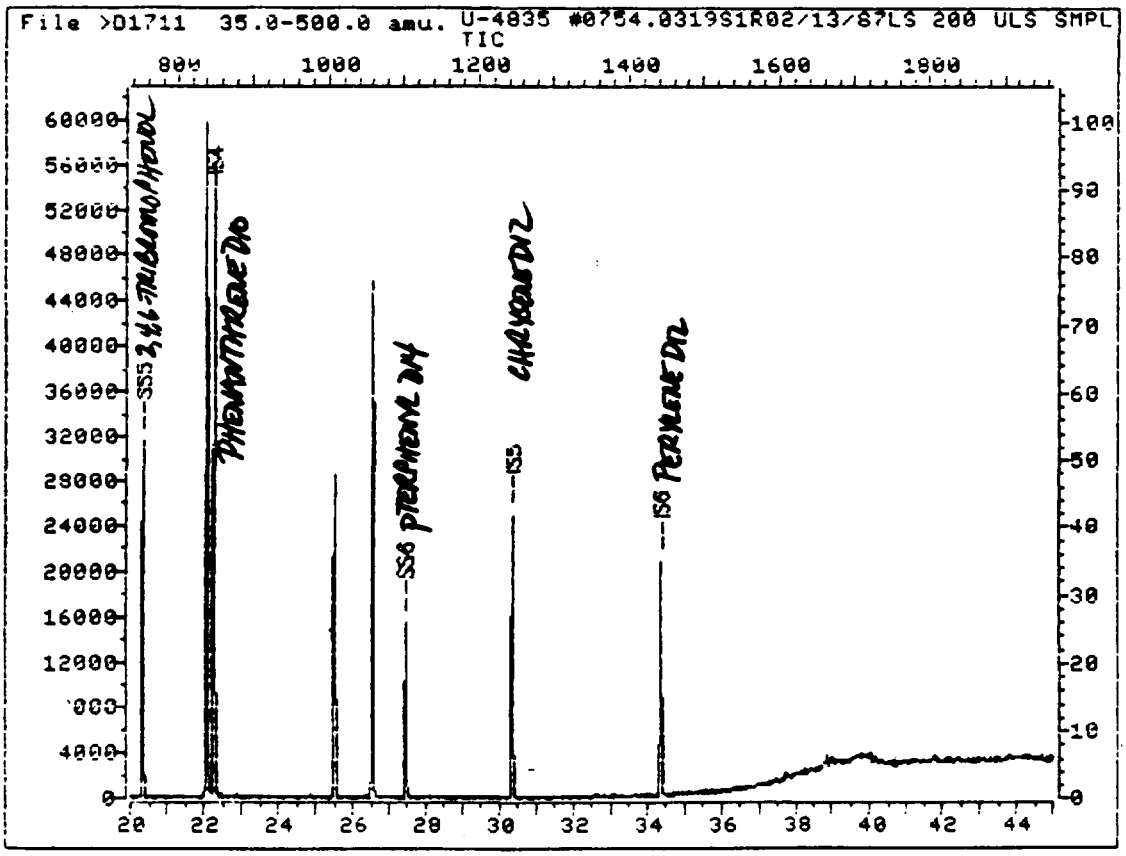

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ecology and environment

QUANT REPORT

D ator ID: USER6 Quant Rev: 4 Quant Time: 870213 23:15
Output File: ^D1711::Q2 Injected at: 870213 22:27
Data File: >D1711::D3 Dilution Factor: 2.00
Name: U-4835 #0754.0319S1R1 DC-6435MSD
Misc: 02/13/87LS 200 ULS SMPL + 200 ULS MECL2 + 4 UL IS BTL# 3

ID File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870213 19:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.73	185	26211	40.00 UG/L	90
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~8.38~~	~~163~~	~~2535~~	~~6.81 UG/L~~	~~41~~
2)	PHENOL-D5	(SURR)	99	8.44	171	28666	77.01 UG/L	93
~~3)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~8.51~~	~~174~~	~~1743~~	~~4.68 UG/L~~	~~90~~
5)	2-FLUOROPHENOL	(SURR)	112	5.41	22	36872	131.14 UG/L	88
6)	PHENOL		94	8.47	172	48643	134.88 UG/L	62
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~8.77~~	~~187~~	~~30752~~	~~63.22 UG/L~~	~~96~~
10)	1,4-DICHLOROBENZENE		146	8.77	187	30752	62.62 UG/L	97
15)	2-CHLOROPHENOL		128	8.28	163	53404	144.24 UG/L	94
17)	N-NITROSO-DI-N-PROPYLAMINE		70	10.40	267	21387	74.31 UG/L	98
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.54~~	~~274~~	~~2348~~	~~8.16 UG/L~~	~~97~~
19)	*NAPHTHALENE-D8	(IS)	136	12.54	372	86756	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.54	274	13005	39.08 UG/L	98
28)	1,2,4-TRICHLOROBENZENE		180	12.48	369	31836	69.26 UG/L	100
32)	4-CHLORO-3-METHYLPHENOL		107	14.86	486	34527	108.29 UG/L	86
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~14.96~~	~~496~~	~~29229~~	~~41.90 UG/L~~	~~19~~
34)	*ACENAPHTHENE-D10	(IS)	162	17.88	634	49510	40.00 UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	16.06	545	38058	41.92 UG/L	97
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.88~~	~~634~~	~~9649~~	~~14.95 UG/L~~	~~100~~
47)	ACENAPHTHENE		153	17.96	638	57050	84.07 UG/L	95
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.32	754	13065	63.37 UG/L	96
50)	4-NITROPHENOL		139	19.00	689	11077	92.02 UG/L	100
51)	2,4-DINITROTOLUENE		165	18.85	682	15503	153.54 UG/L	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.98~~	~~634~~	~~6430~~	~~45.89 UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.26	849	72080	40.00 UG/L	85
60)	PENTACHLOROPHENOL		266	22.07	840	25882	152.40 UG/L	100
65)	*CHRYSENE-D12	(IS)	240	30.34	1246	32840	40.00 UG/L	100
67)	PYRENE		202	26.55	1060	59533	80.84 UG/L	86
68)	TERPHENYL-D14	(SURR)	244	27.45	1104	18427	46.03 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.37	1444	25736	40.00 UG/L	100

* Compound is ISTD

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-I7-47MSD

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2/2/87

Date Analyzed: 2/25/87

Conc/Dil Factor: 20

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	SPIKE
111-44-4	bis(-2-Chloroethyl)Ether	3300 U
95-57-8	2-Chlorophenol	SPIKE
541-73-1	1 3-Dichlorobenzene	3300 U
106-46-7	1 4-Dichlorobenzene	SPIKE
100-51-6	Benzyl Alcohol	3300 U
95-50-1	1 2-Dichlorobenzene	3300 U
95-48-7	2-Methylphenol	3300 U
39638-32-9	bis(2-chloroisopropyl)Ether	3300 U
106-44-5	4-Methylphenol	3300 U
621-64-7	N-Nitroso-Di-n-Propylamine	SPIKE
67-72-1	Hexachloroethane	3300 U
98-95-3	Nitrobenzene	3300 U
78-59-1	Isophorone	3300 U
88-75-5	2-Nitrophenol	3300 U
105-67-9	2. 4-Dimethylphenol	3300 U
65-85-0	Benzoic Acid	16000 U
111-91-1	bis(-2-Chloroethoxyl)Methane	3300 U
120-83-2	2. 4-Dichlorophenol	3300 U
120-82-1	1. 2. 4-Trichlorobenzene	SPIKE
91-20-3	Naphthalene	3300 U
106-47-8	4-Chloroaniline	3300 U
87-68-3	Hexachlorobutadiene	3300 U
59-50-7	4-Chloro-3-Methylphenol	SPIKE
91-57-6	2-Methylnaphthalene	3300 U
77-47-4	Hexachlorocyclopentadiene	3300 U
88-06-2	2. 4. 6-Trichlorophenol	3300 U
95-95-4	2. 4. 5-Trichlorophenol	16000 U
91-58-7	2-Chloronaphthalene	3300 U
88-74-4	2-Nitroaniline	16000 U
131-11-3	Dimethyl Phthalate	3300 U
208-96-8	Acenaphthylene	3300 U
99-09-2	3-Nitroaniline	16000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	SPIKE
51-28-5	2. 4-Dinitrophenol	16000 U
100-02-7	4-Nitrophenol	SPIKE
132-64-9	Dibenzofuran	3300 U
121-14-2	2 4-Dinitrotoluene	SPIKE
606-20-2	2 6-Dinitrotoluene	3300 U
84-66-2	Diethylphthalate	3300 U
7005-72-3	4-Chlorophenyl-phenylether	3300 U
86-73-7	Fluorene	3300 U
100-01-6	4-Nitroaniline	16000 U
534-52-1	4. 6-Dinitro-2-Methylphenol	16000 U
86-30-6	N-Nitrosodiphenylamine (1)	3300 U
101-55-3	4-Bromophenyl-phenylether	3300 U
118-74-1	Hexachlorobenzene	3300 U
87-86-5	Pentachlorophenol	SPIKE
85-01-8	Phenanthrene	3300 U
120-12-7	Anthracene	3300 U
84-74-2	Di-n-Butylphthalate	10000
206-44-0	Fluoranthene	3300 U
129-00-0	Pyrene	SPIKE
85-68-7	Butylbenzylphthalate	3300 U
91-94-1	3. 3'-Dichlorobenzidine	6600 U
56-55-3	Benzo(a)Anthracene	3300 U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300 U
218-01-9	Chrysene	3300 U
117-84-0	Di-n-Octyl Phthalate	3300 U
205-99-2	Benzo(b)Fluoranthene	3300 U
207-08-9	Benzo(k)Fluoranthene	3300 U
50-32-8	Benzo(a)Pyrene	3300 U
193-39-5	Indeno(1 2. 3-cd)Pyrene	3300 U
53-70-3	Dibenz(a h)Anthracene	3300 U
191-24-2	Benzo(g h i)Perylene	3300 U

(1)-Cannot be separated from diphenylamine

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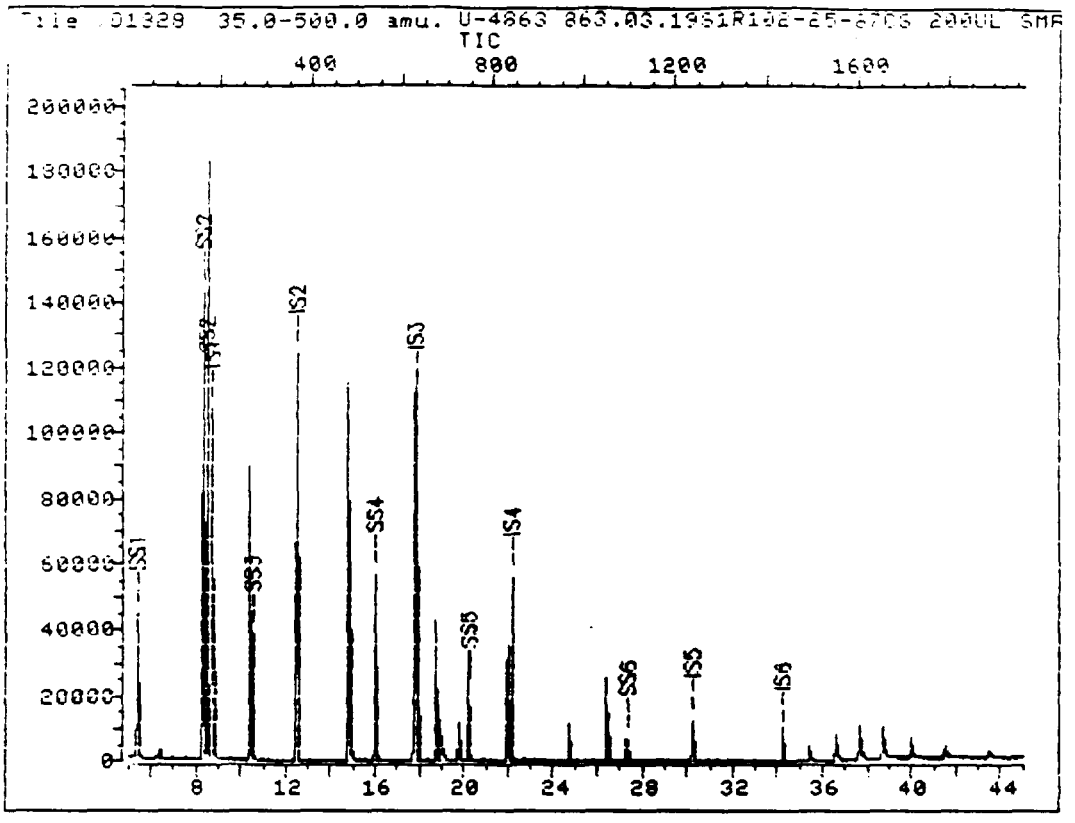
TOTAL ION CHROMATOGRAM



Data File: >D1828::D3
Name: U-4863 863.03.19S1R1 DC-I7-47 MSD
Misc: 02-25-87CS 200UL SMPL + 200UL MECL2 + 4UL IS BIL# 5

Id File: BNAUR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870225 15:18

Operator ID: USER6
Quant Time: 870225 19:27
Injected at: 870225 18:40

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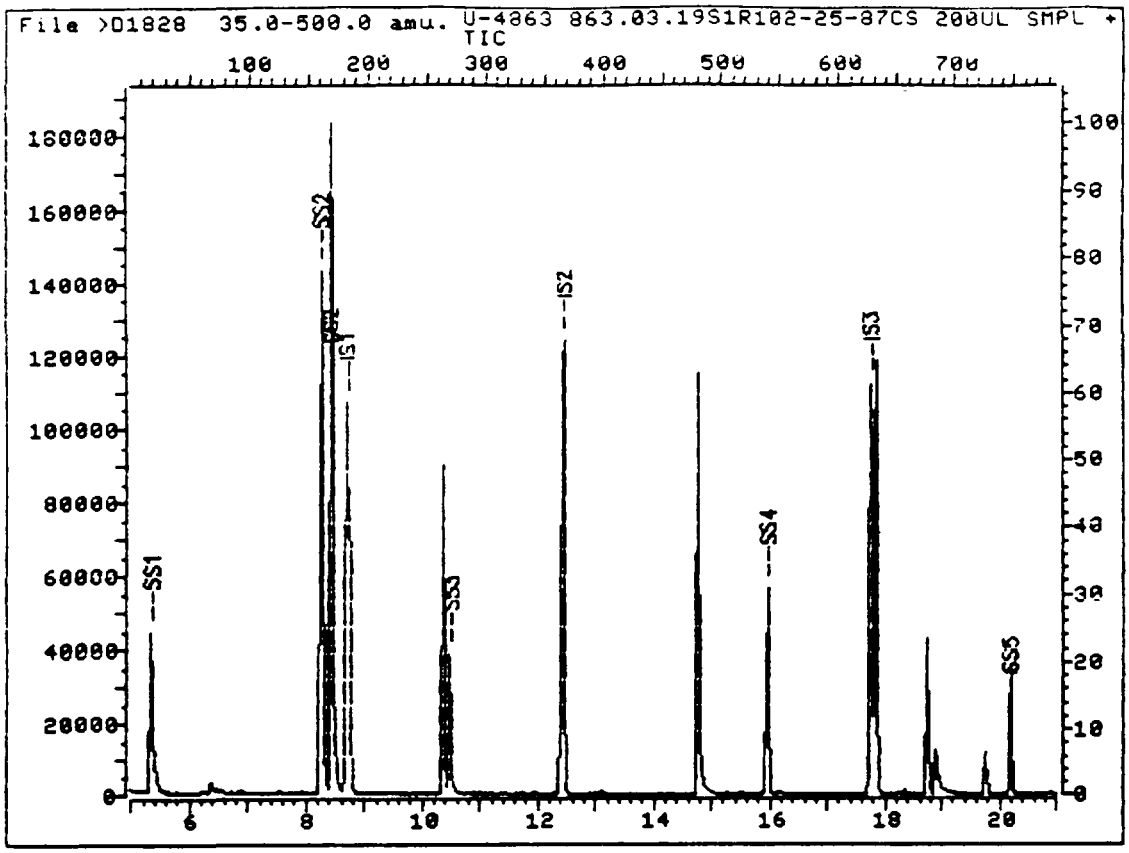
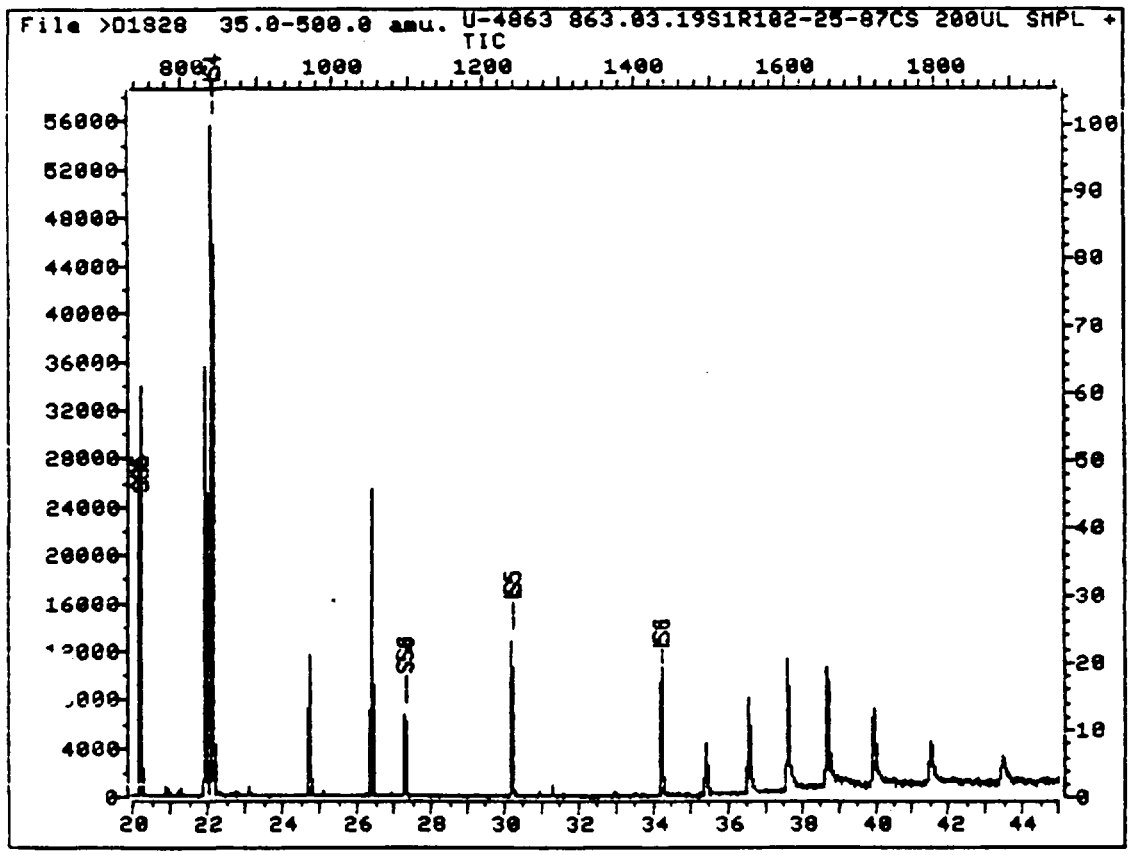
ecology and environment



DC-I7-47 MSD



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QUANT REPORT

L rator ID: USER6 Quant Rev: 4 Quant Time: 870225 19:27
Output File: ^D1828::Q2 Injected at: 870225 18:40
Data File: >D1828::D3 Dilution Factor: 2.00
Name: U-4863 863.03.19S1R1 DC-I7-47 MSD
Misc: 02-25-87CS 200UL SMPL + 200UL MECL2 + 4UL IS BTL# 5

ID File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870225 15:18

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.68	182	38379	40.00 UG/L	81
~~2)~~	~~PHENOL-D6~~	~~(SURR)~~	~~99~~	~~8.26~~	~~161~~	~~4424~~	~~5.34 UG/L~~	~~41~~
2)	PHENOL-D5	(SURR)	99	8.42	169	54730	66.12 UG/L	93
5)	2-FLUOROPHENOL	(SURR)	112	5.34	18	39849	72.39 UG/L	87
6)	PHENOL		94	8.44	170	65080	119.75 UG/L	64
~~7)~~	~~ANILINE~~		~~93~~	~~8.36~~	~~161~~	~~1926~~	~~2.04 UG/L~~	~~1~~
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~8.23~~	~~184~~	~~36231~~	~~49.31 UG/L~~	~~99~~
10)	1,4-DICHLOROBENZENE		146	8.73	184	35231	48.24 UG/L	98
15)	2-CHLOROPHENOL		128	8.26	161	80491	124.51 UG/L	95
17)	N-NITROSO-DI-N-PROPYLAMINE		70	10.36	264	50983	58.49 UG/L	91
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.48~~	~~270~~	~~5801~~	~~6.66 UG/L~~	~~90~~
19)	*NAPHTHALENE-D8	(IS)	136	12.45	367	134209	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.48	270	29529	34.93 UG/L	87
28)	1,2,4-TRICHLOROBENZENE		180	12.39	364	31800	58.67 UG/L	100
32)	4-CHLORO-3-METHYLPHENOL		107	14.76	480	62604	118.85 UG/L	94
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~14.76~~	~~490~~	~~42682~~	~~40.16 UG/L~~	~~18~~
34)	*ACENAPHTHENE-D10	(IS)	162	17.75	627	61269	40.00 UG/L	94
38)	2-FLUOROBIPHENYL	(SURR)	172	15.96	539	41257	36.28 UG/L	96
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.75~~	~~627~~	~~11770~~	~~13.95 UG/L~~	~~100~~
47)	ACENAPHTHENE		153	17.85	632	70839	80.20 UG/L	96
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.17	746	10490	69.50 UG/L	96
50)	4-NITROPHENOL		139	18.89	683	8187	100.13 UG/L	100
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~19.18~~	~~697~~	~~274~~	~~3.35 UG/L~~	~~100~~
51)	2,4-DINITROTOLUENE		165	18.75	676	15918	142.21 UG/L	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.75~~	~~627~~	~~8222~~	~~47.81 UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.13	842	52898	40.00 UG/L	79
60)	PENTACHLOROPHENOL		266	21.93	832	14235	136.40 UG/L	100
63)	DI-N-BUTYLPHTHALATE		149	24.74	970	16796	31.63 UG/L	95
65)	*CHRYSENE-D12	(IS)	240	30.20	1238	14436	40.00 UG/L	100
67)	PYRENE		202	26.41	1052	28093	100.01 UG/L	85
68)	TERPHENYL-D14	(SURR)	244	27.30	1096	8440	52.26 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.21	1435	12255	40.00 UG/L	100

* Compound is ISTD

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Laboratory Name ecology and environment, inc.

Case No V-4835, 4846, 4863, 4872

Sample Number DC-64-35 MSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-2-87

Date Analyzed 2-12-87

Conc/Dil Factor 2

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	160	U
319-85-7	Beta-BHC	160	U
319-86-8	Delta-BHC	160	U
58-89-9	Gamma-BHC (Lindane)	253	S
76-44-8	Heptachlor	313	S
309-00-2	Aldrin	268	S
1024-57-3	Heptachlor Epoxide	160	U
959-98-8	Endosulfan I	160	U
60-57-1	Dieldrin	619	S
72-55-9	4,4'-DDE	320	U
72-20-8	Endrin	680	S
33213-65-9	Endosulfan II	320	U
72-54-8	4,4'-DDD	320	U
1031-07-8	Endosulfan Sulfate	320	U
50-29-3	4,4'-DDT	685	S
72-43-5	Methoxychlor	1600	U
53494-70-5	Endrin Ketone	320	U
57-74-9	Chlordane	1600	U
8001-35-2	Toxaphene	3200	U
12674-11-2	Aroclor-1016	1600	U
11104-28-2	Aroclor-1221	1600	U
11141-16-5	Aroclor-1232	1600	U
53469-21-9	Aroclor-1242	1600	U
12672-29-6	Aroclor-1248	1600	U
11097-69-1	Aroclor-1254	3200	U
11096-82-5	Aroclor-1260	3200	U

V_t = 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 3 V_t 1000 V_i 4

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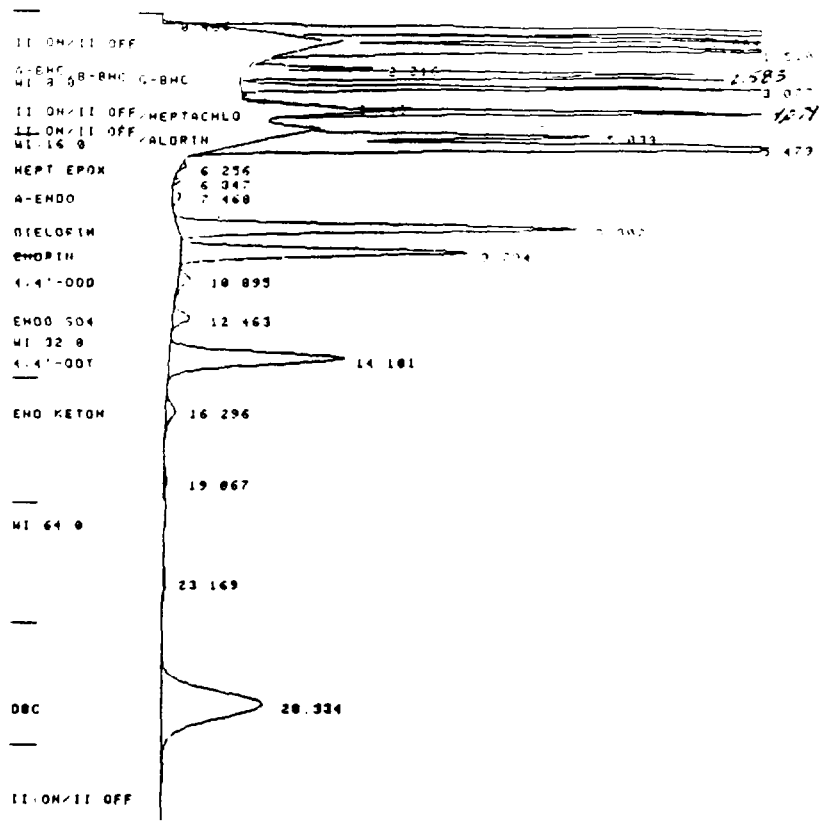
S = Spiked Compound



RECALCULATE ON FILE: SCA089

CHANNEL: 1A - 1 TITLE: RUN# 26 10:48 12 FEB 87

DC-64-35MSD SAMPLE: 0754 MSD METHOD: OEAO CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG wet	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.251		80310	BV	3.63
2		0.0000	1.395		10508274	VV	5.50
3		0.0000	1.510		3245329	VB ?	5.88
4 ~~A-BHC~~		46.6872	2.216	-0.014	90987	BV	5.63
5 ~~B-BHC~~		768.7698	2.430	0.050	467684	VV ?	7.75
6 G-BHC		252.6239	2.583	-0.007	447627	VV ?	7.88
7		0.0000	3.077		593240	VV	8.00
8 HEPTACHLO		313.3450	4.079	-0.021	499215	BB	8.69
9 ALDRIN		267.5905	5.039	-0.011	486202	BV	11.69
10		0.0000	5.479		4619091	VB	11.69
11 ~~A-ENDO~~		14.1512	7.460	-0.102	23059	BB	27.63
12 DIELDRIN		618.9774	8.002	-0.018	1076716	BB	21.38
13 ENDRIN		680.0515	9.794	-0.036	845746	BB	23.81
14 ~~4,4'-DDD~~		33.0102	10.895	-0.015	45302	BB ?	45.00
15 ~~ENDO SO4~~		58.8661	12.463	-0.337	60896	BB	31.63
16 4,4'-DDT		684.9241	14.101	-0.029	757274	VV	33.19
17 ~~ENO KETON~~		33.6805	16.296	-0.074	54715	VB	38.88
18 DBC		734.9918	28.334	-0.076	990927	BB	74.50
TOTALS:		4499.597		-0.680	24892598		

DETECTED PKS: 30 REJECTED PKS: 12

DIVISOR: 0.150000 MULTIPLIER: 2000.00000

NOISE: 11.4 OFFSET: 1

RACK: 2 VIAL: 11 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A 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

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Laboratory Name ecology and environment, inc.

Case No U-4835, 4846, 4863, 4872

Sample Number DC-I7-47MSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-5-87

Date Analyzed 2-20-87

Conc/Dil Factor 2

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)
319-84-6	Alpha-BHC	160 U
319-85-7	Beta-BHC	160 U
319-86-8	Delta-BHC	160 U
58-89-9	Gamma-BHC (Lindane)	225 S
76-44-8	Heptachlor	294 S
309-00-2	Aldrin	241 S
1024-57-3	Heptachlor Epoxide	160 U
959-98-8	Endosulfan I	160 U
60-57-1	Dieldrin	617 S
72-55-9	4,4'-DDE	320 U
72-20-8	Endrin	697 S
33213-65-9	Endosulfan II	320 U
72-54-8	4,4'-DDD	320 U
1031-07-8	Endosulfan Sulfate	320 U
50-29-3	4,4'-DDT	687 S
72-43-5	Methoxychlor	1600 U
53494-70-5	Endrin Ketone	320 U
57-74-9	Chlordane	1600 U
8001-35-2	Toxaphene	3,200 U
12674-11-2	Aroclor-1016	1600 U
11104-28-2	Aroclor-1221	1600 U
11141-16-5	Aroclor-1232	1600 U
53469-21-9	Aroclor-1242	1600 U
12672-29-6	Aroclor-1248	1600 U
11097-69-1	Aroclor-1254	3,200 U
11096-82-5	Aroclor-1260	3,200 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 3 V_t 1000 V_i 4

413

S = Spiked Compound

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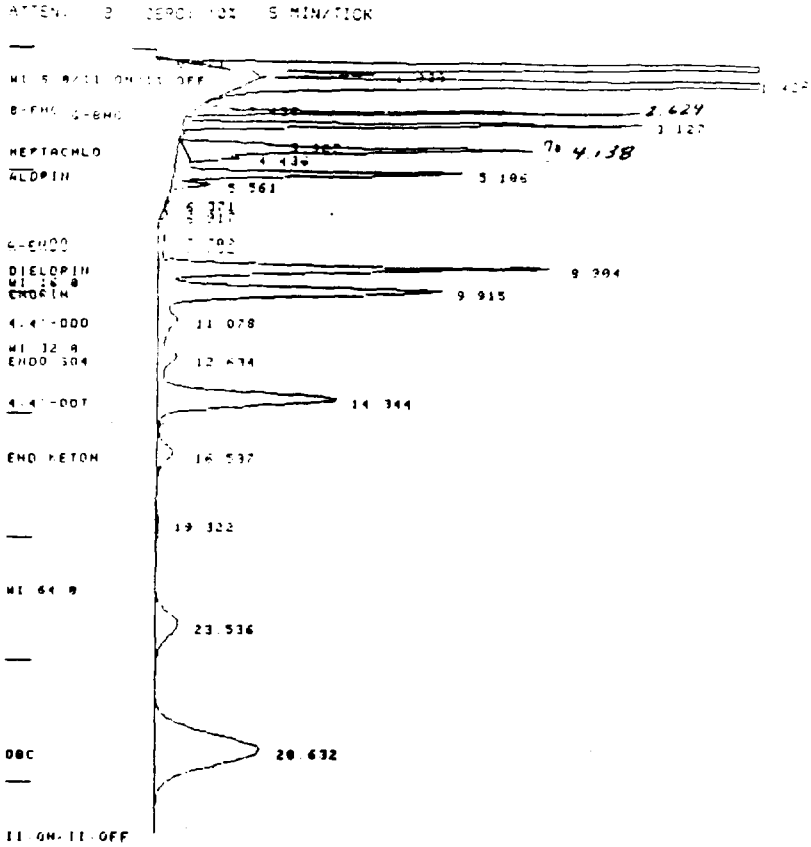

CHANNEL: 1A - 1 TITLE: RUN# 2 0:33 28 FEB 97

DC-I7-47MSD SAMPLE: 0863 MSD METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	1.284		111625	BV	?	4.63
2		0.0000	1.428		10280078	VB		5.58
3	[redacted]	45.1669	2.436	0.056	30881	BV	?	6.63
4	G-BHC	225.1525	2.629	0.019	431745	VV		6.69
5		0.0000	3.127		511743	VV		8.19
6		0.0000	3.907		88515	VV	?	11.53
7	HEPTACHLO	~~332.4131~~ 274	4.138	0.018	[redacted]	VV		11.94
8		0.0000	4.436		104307	VV	?	16.63
9	ALDRIN	241.0932	5.106	0.036	478973	VV		12.75
10		0.0000	5.561		59203	VB		10.69
11	[redacted]	20.2933	7.782	0.182	36126	BV	?	48.00
12	DIELDRIN	617.4176	8.904	0.064	1166406	VV	?	22.94
13	ENDRIN	697.9800	9.915	0.075	966969	VV		25.69
14	[redacted]	97.8625	11.078	0.018	137964	VV	?	75.38
15	[redacted]	92.0832	12.634	-0.176	115771	VV		45.75
16	4,4'-DDT	687.2306	14.344	0.094	868146	VV		36.19
17	[redacted]	58.3784	16.537	0.157	105179	VB		46.06
18		0.0000	19.322		23955	BB	?	92.00
19		0.0000	23.536		199878	BV		66.19
20	DBC /19	789.2783	28.632	0.192	1173943	VB		84.69

TOTALS: 3984.349 0.655 17461342

DETECTED PKS: 30 REJECTED PKS: 10

DIVISOR: 0.15000 MULTIPLIER: 2000.00000

NOISE: 11.4 OFFSET: -10

RACK: 2 VIAL: 7 INJ: 1

NOTES:
NOTE BOOK: 259-112 ANALYST:RICHARD SAMSON AND K. JUREK
SECURE AREA: D JOB#:U-4863
INST: VARIAN 6000# 2A 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
PRIMARY ANALYSIS AUTOSAMPLER

POST RUN:
SAVE FILE: RAW DC1157

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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)

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: Method Blank
QC Report No:
Sample Matrix: ~~Soil~~ cw Water for Soil
Contract No: U-3140
Data Release Authorized By: CStojowicz
Date Sample Received:

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-2-87
Conc/Dil Factor: 1 pH
Percent Moisture: (Not Decanted)

Concentrations reported "as received"

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	2J
67-64-1	Acetone	18
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	15
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 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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number C6656

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	12 J
2.		Hexane isomer	VOA	21.1	50 J
3.					
4.					
5.					
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9.					
10.					
11.					
12.					
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30					

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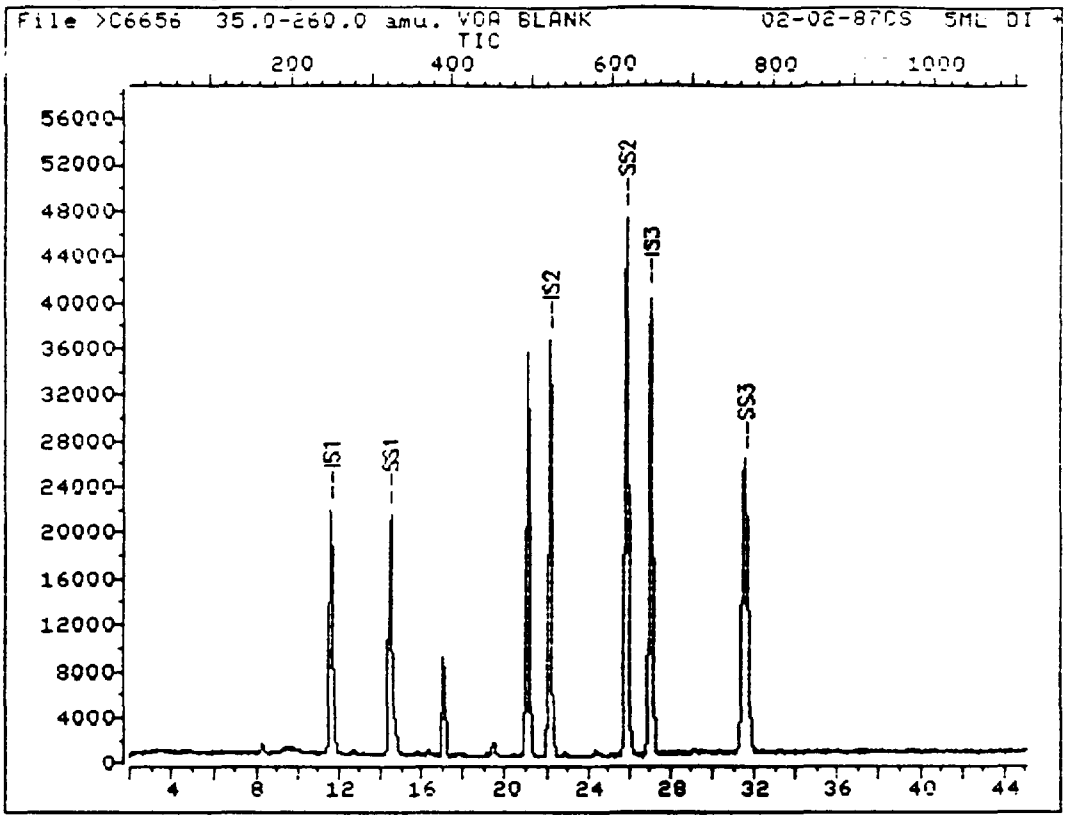
TOTAL ION CHROMATOGRAM



Data File: >C6656::D1
Name: VOA BLANK
Misc: 02-02-87CS 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870202 11:35

Operator ID: USER8
Quant Time: 870202 12:51
Injected at: 870202 12:05

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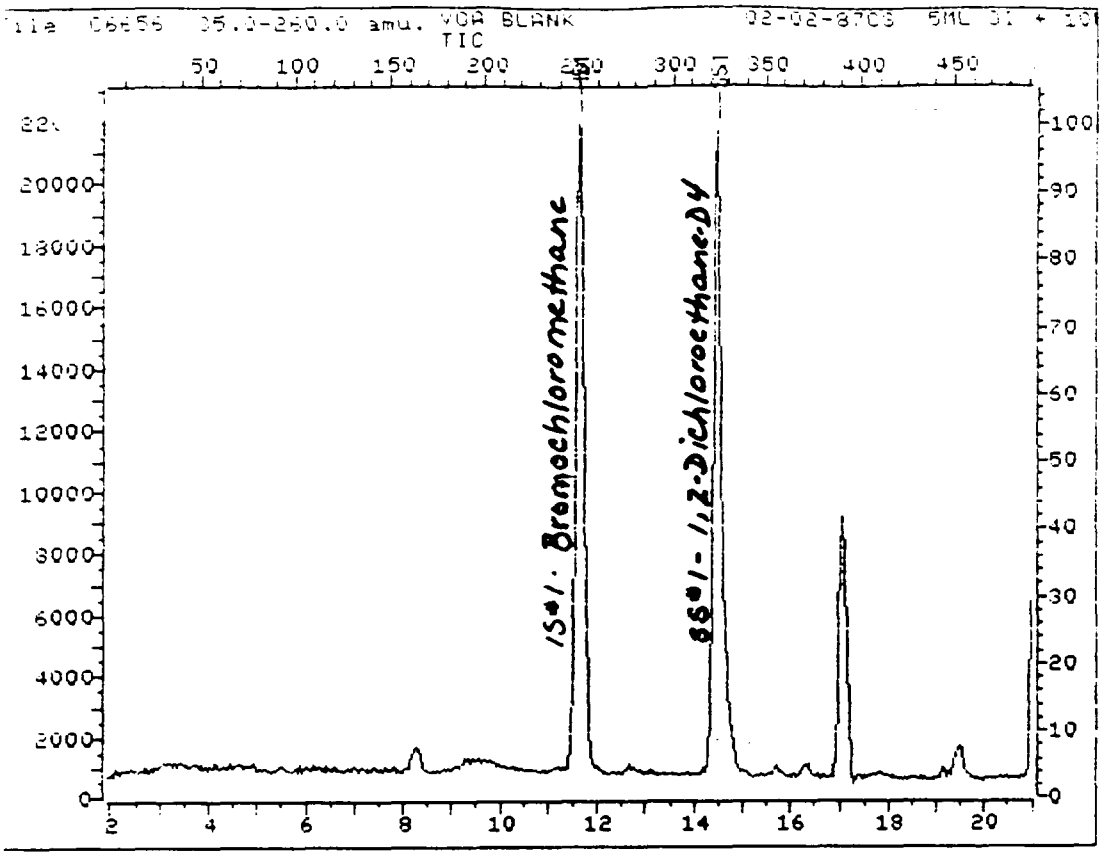

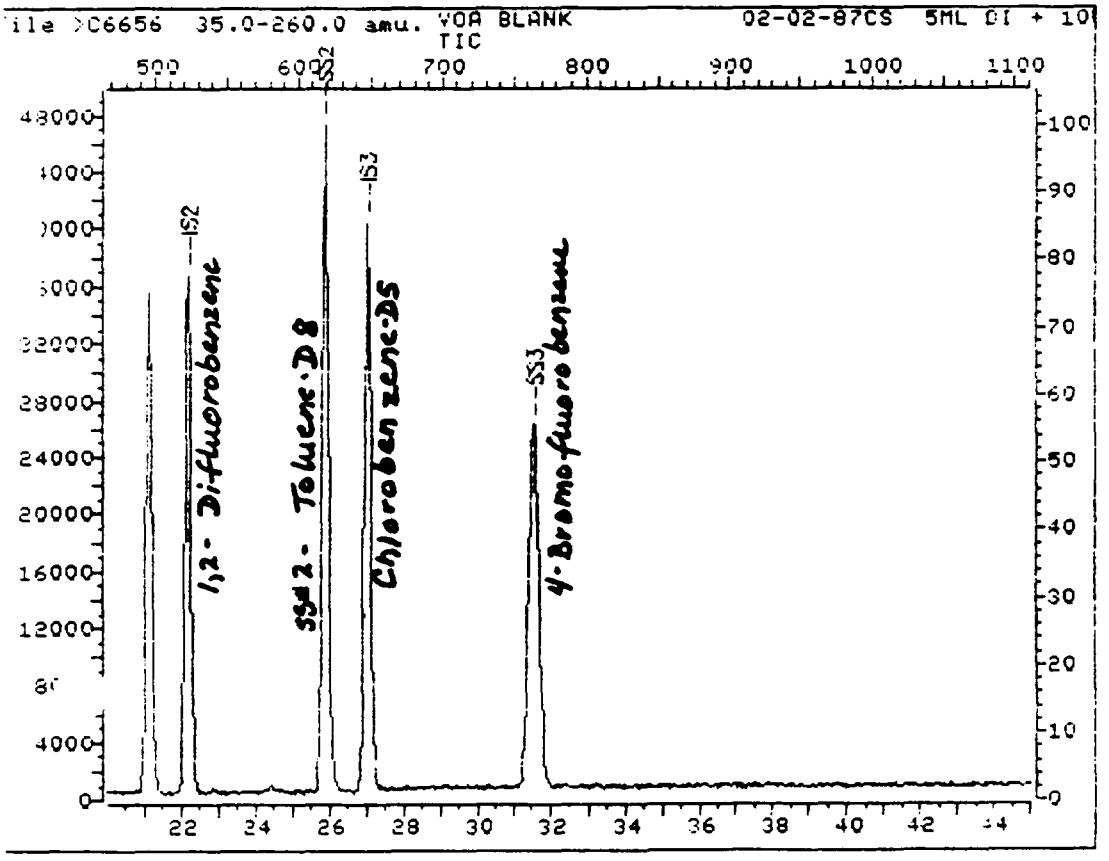

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4835, 4846, 4863, 4872

Sample ID No: Method Blank

QC Report No:

Sample Matrix: ~~Soil~~ cw Water for Soil

Contract No: IL-3140

Data Release Authorized By: C Hojtowicz

Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-12-87

Conc/Dil Factor: 2 pH

Percent Moisture: (Not Decanted)

Concentrations reported "as received"

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	940 J
67-64-1	Acetone	7400
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	9200
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	180 J
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 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number C6776

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	17.1	2000 J
2.		Hexane isomer	VOA	21.2	8700 J
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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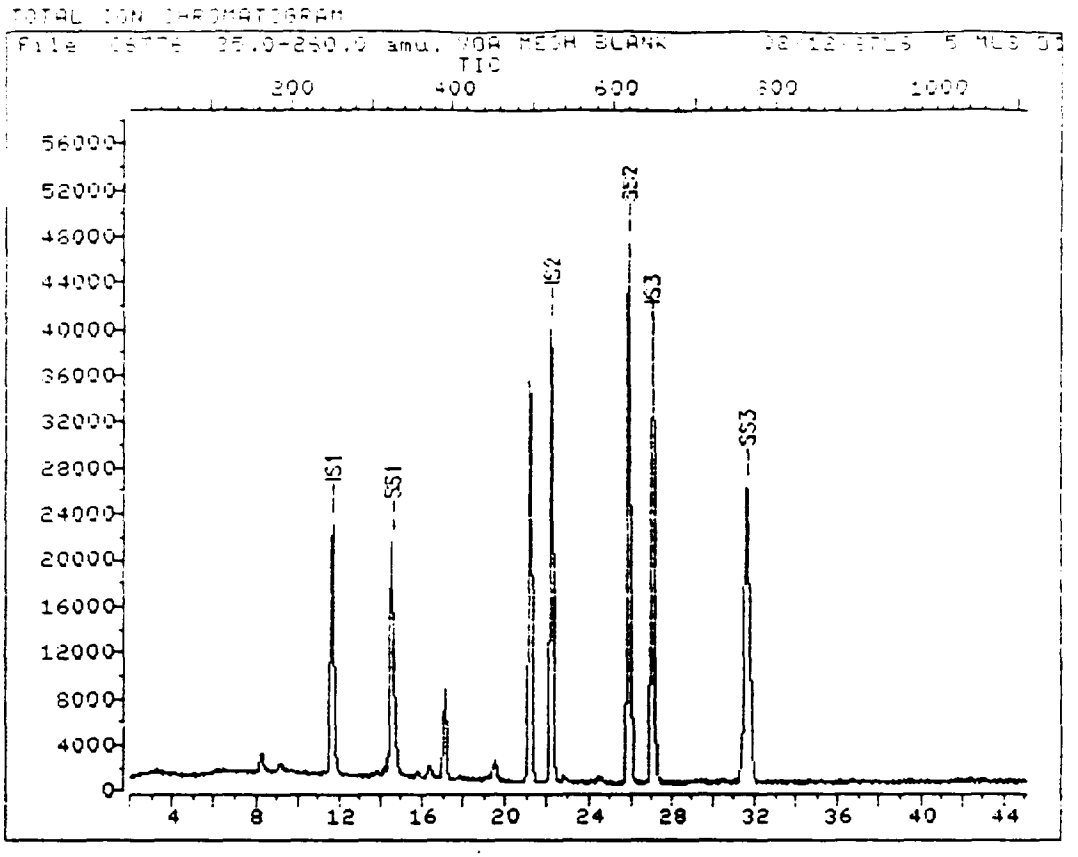

Data File: >C6776::D3
Name: VOA MEOH BLANK
Misc: 02/12/87LS 5 MLS DI + 10 ULS IS/SS + 50 ULS MEOH

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870212 17:56

Operator ID: USER8
Quant Time: 870212 17:57
Injected at: 870212 16:50

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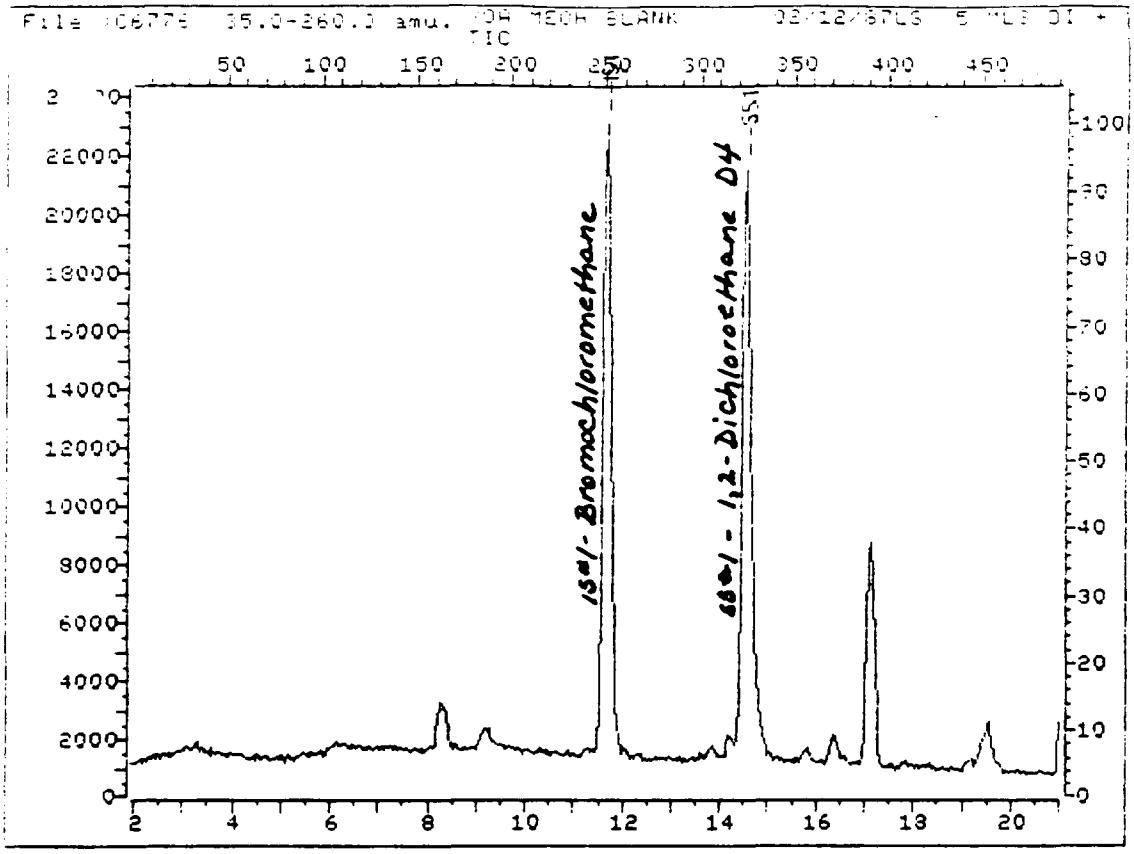
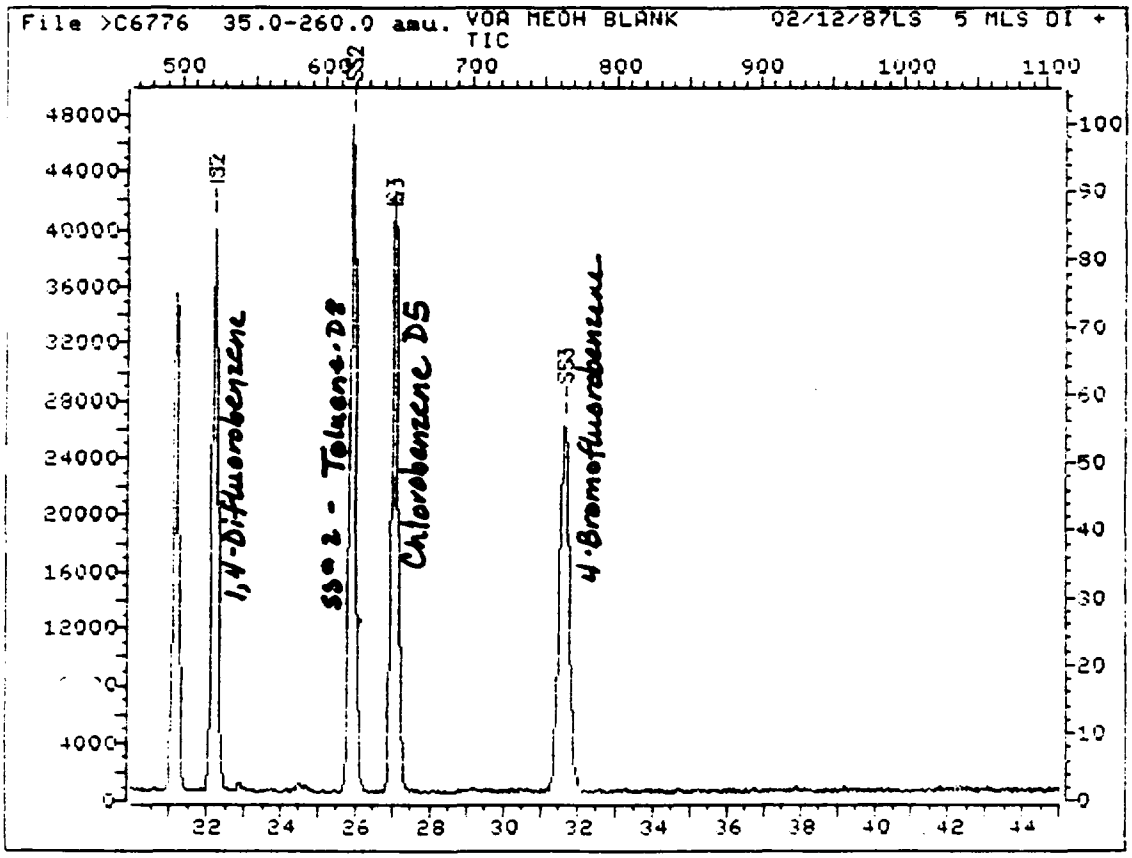
ecology and environment

C6776





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870212 17:57
Output File: ^C6776::Q2 Injected at: 870212 16:50
Data File: >C6776::D3 Dilution Factor: 1.00
Name: VOA MEOH BLANK
Misc: 02/12/87LS 5 MLS DI + 10 ULS IS/SS - 50 ULS MEOH

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870212 17:56

	Compound		R.T.	Scan#	Area	Conc	Units	Q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.66	251	31228	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.29	164	4893	4.69 UG/L	100
7)	ACETONE		43	9.18	187	11356	36.93 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.53	325	90961	50.31 UG/L	83
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.22	523	160754	50.00 UG/L	100
17)	2-BUTANONE		72	14.69	329	5851	46.22 UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.03	647	136916	50.00 UG/L	100
36)	TOLUENE-D8	(SURR)	98	25.90	618	179921	46.33 UG/L	96
37)	TOLUENE		92	26.10	623	2442	.91 UG/L	92
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.61	764	91579	45.26 UG/L	100

* Compound is ISTD

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4835, 4846, 4863, 4872

Sample ID No: Method Blank

QC Report No:

Sample Matrix: ~~Soil~~ cw Water for Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-13-87

Conc/Dil Factor: 2 pH

Percent Moisture: (Not Decanted)

Concentrations reported "as received"

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	380 J
67-64-1	Acetone	4200
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	11000
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	160 J
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 µg/l and a concentration of 3µg/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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number C6795

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	17.1	2200 J
2.		Hexane isomer	VOA	21.2	9900 J
3.					
4.					
5.					
6.					
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8.					
9.					
10.					
11.					
12.					
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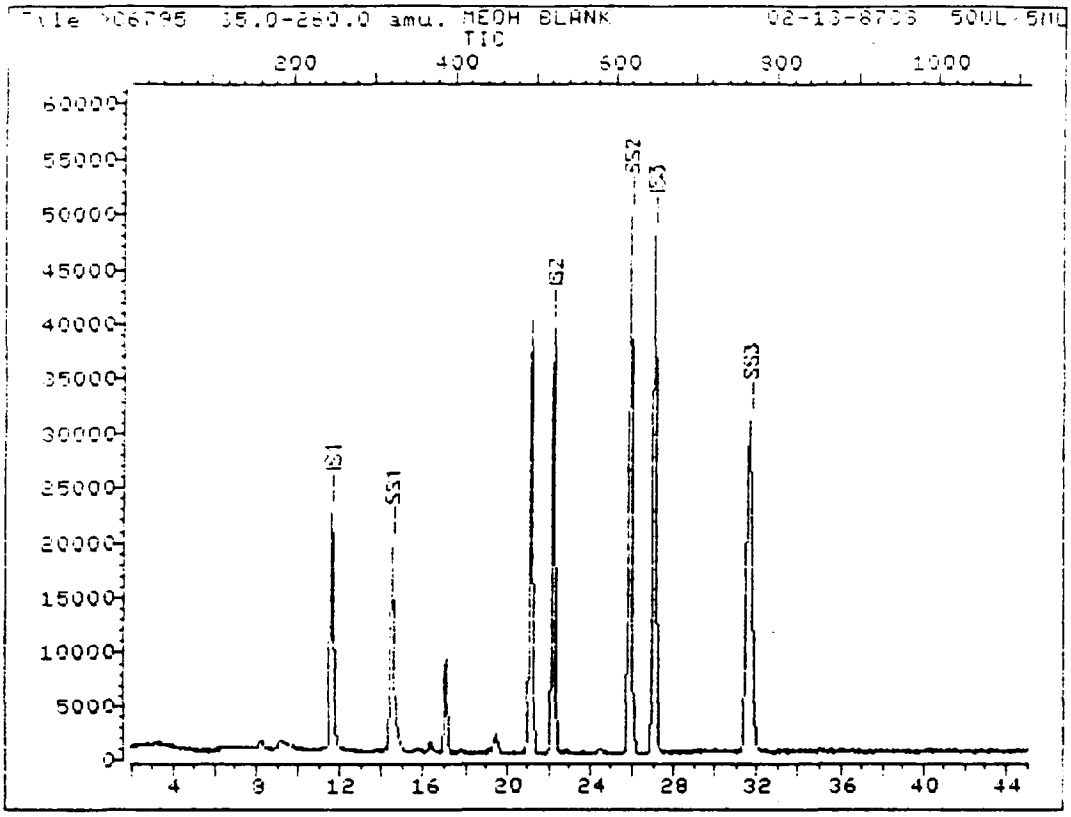

Data File: >C6795::D3
Name: MEOH BLANK
Misc: 02-13-87CS 50UL/5ML DI - 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870213 12:53

Operator ID: USER8
Quant Time: 870213 12:56
Injected at: 870213 12:03

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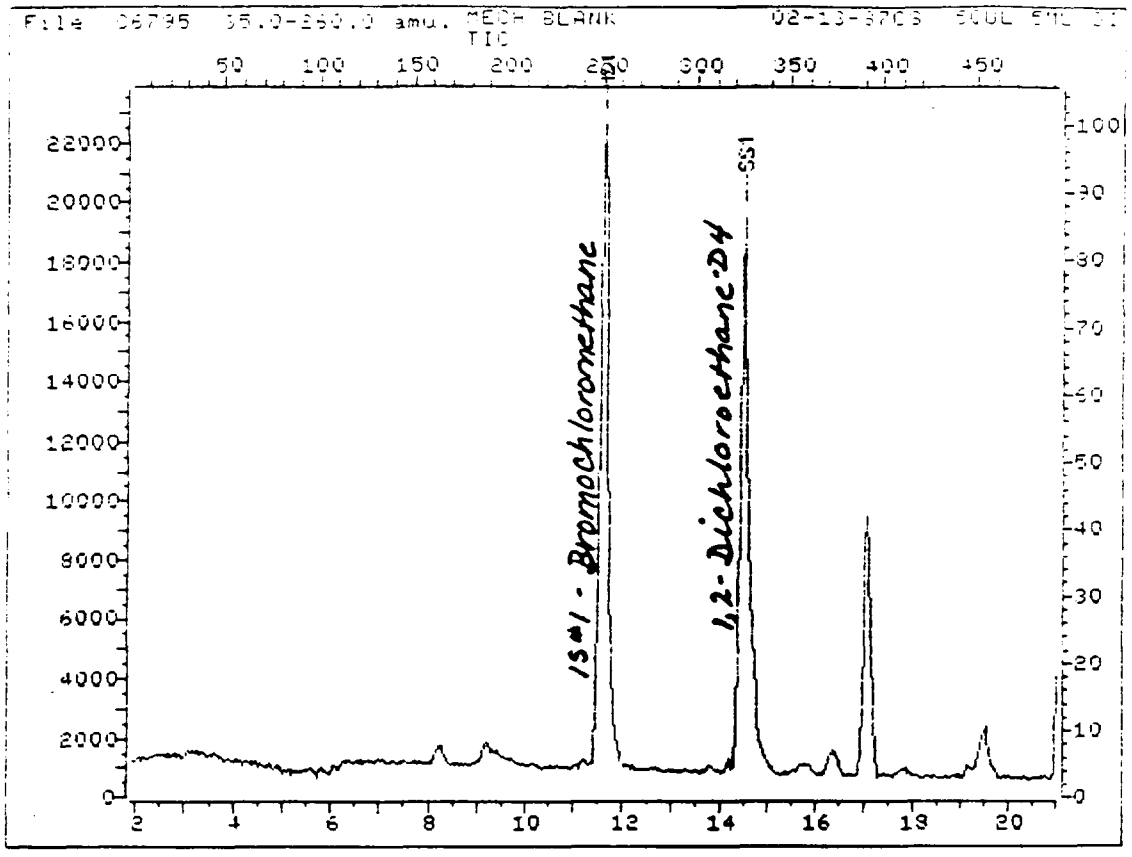
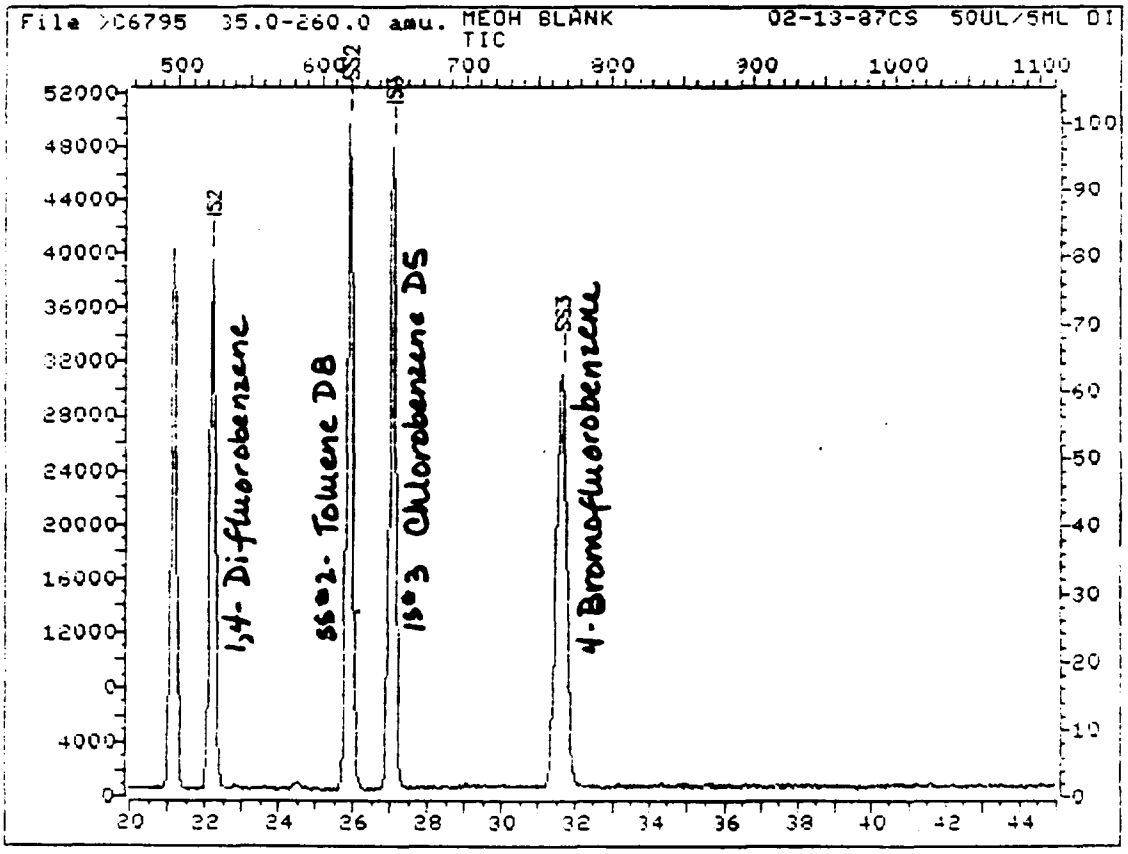
C6795





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QUANT REPORT

Operator ID: USER8 Quant Per: 4 Quant Time: 870213 12:56
Output File: ^C6795::Q2 Injected at: 870213 12:03
Data File: ^C6795::D3 Dilution Factor: 1.00
Name: MEOH BLANK
Misc: 02-13-87CE 50UL/5ML DI + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870213 12:53

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.61	251	31845	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.19	163	2188	1.92	UG/L	100
7)	ACETONE		43	9.20	189	9803	21.03	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.48	325	80814	50.36	UG/L	86
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	524	162333	50.00	UG/L	100
17)	2-BUTANONE		72	14.64	329	6531	52.82	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.05	649	144980	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	25.89	619	185763	45.08	UG/L	94
37)	TOLUENE		92	26.08	624	2503	.82	UG/L	100
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.64	767	107684	52.80	UG/L	100

* Compound is ISTD

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4835, 4846, 4863, 4872

Sample ID No: Method Blank

QC Report No:

Sample Matrix: ~~Soil~~ cw Water for Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

Concentrations reported "as received"

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	3J
67-64-1	Acetone	25
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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number C6894

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	2 J
2.		Hexane isomer	VOA	21.2	10 J
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
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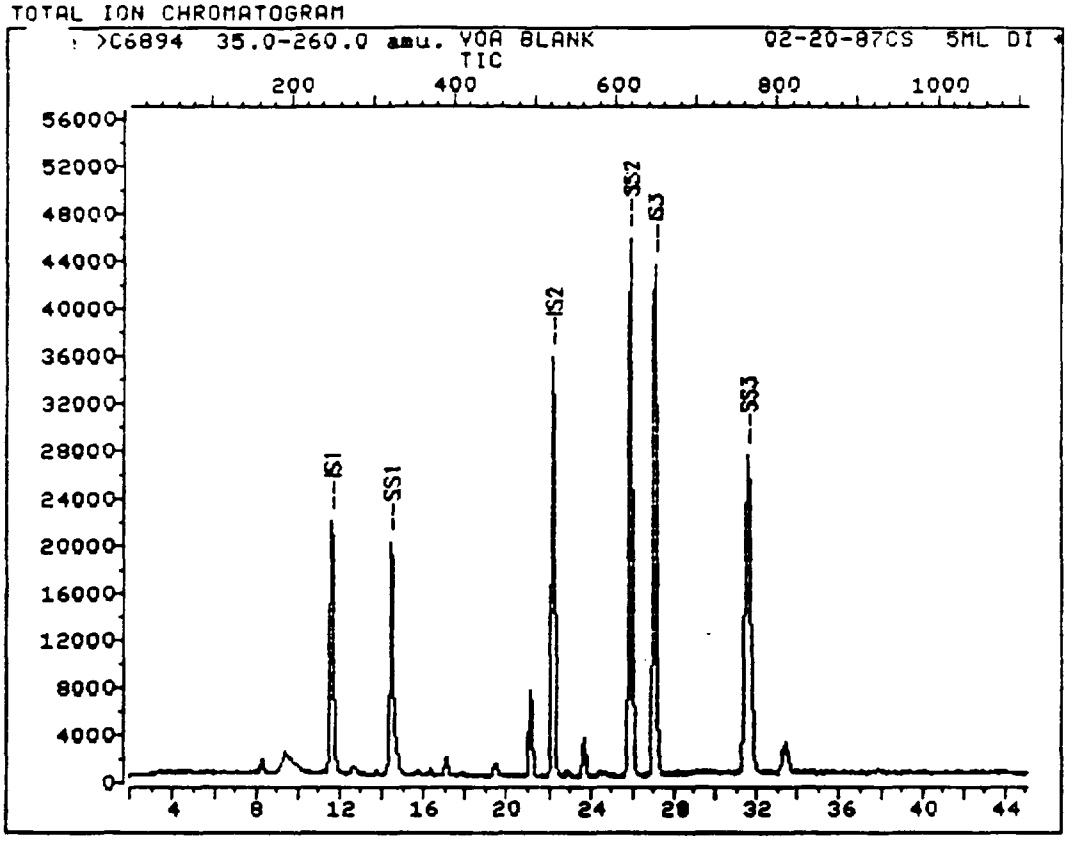
TOTAL ION CHROMATOGRAM



Data File: >C6894::D3
Name: VOA BLANK
Misc: 02-20-87CS 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

Operator ID: USER8
Quant Time: 870220 13:02
Injected at: 870220 12:16

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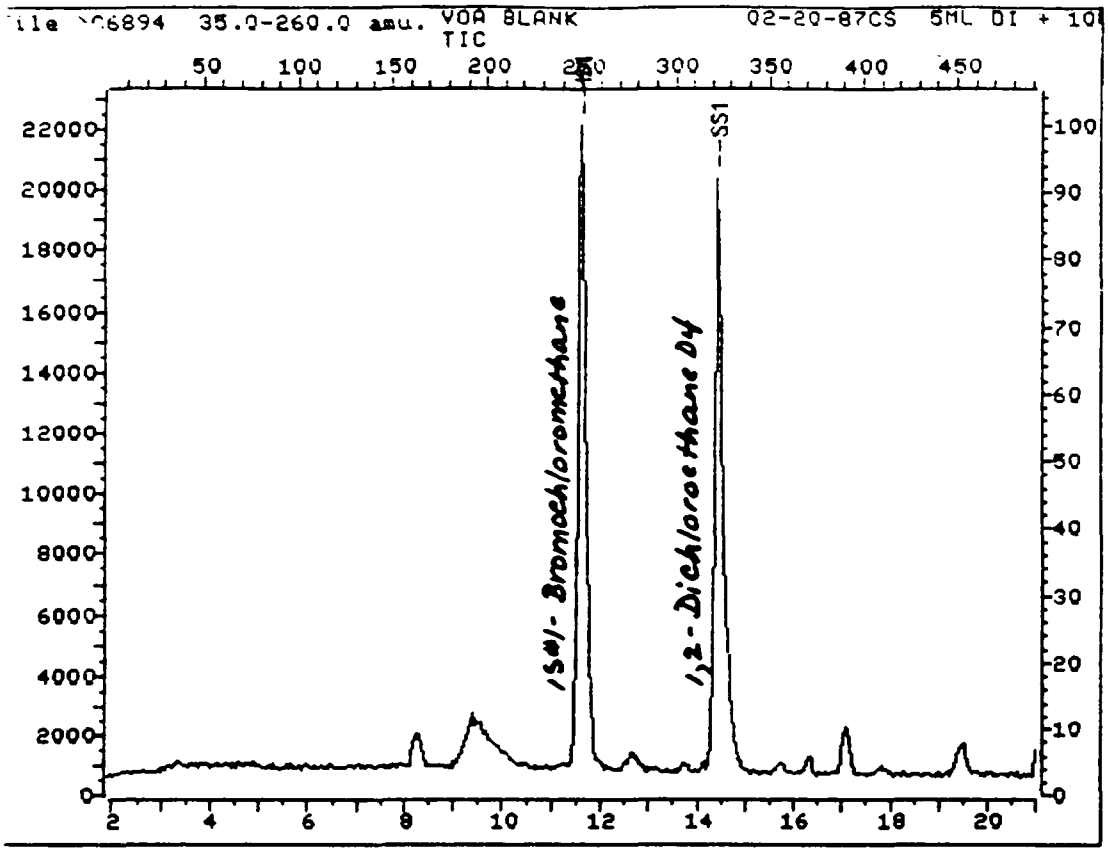
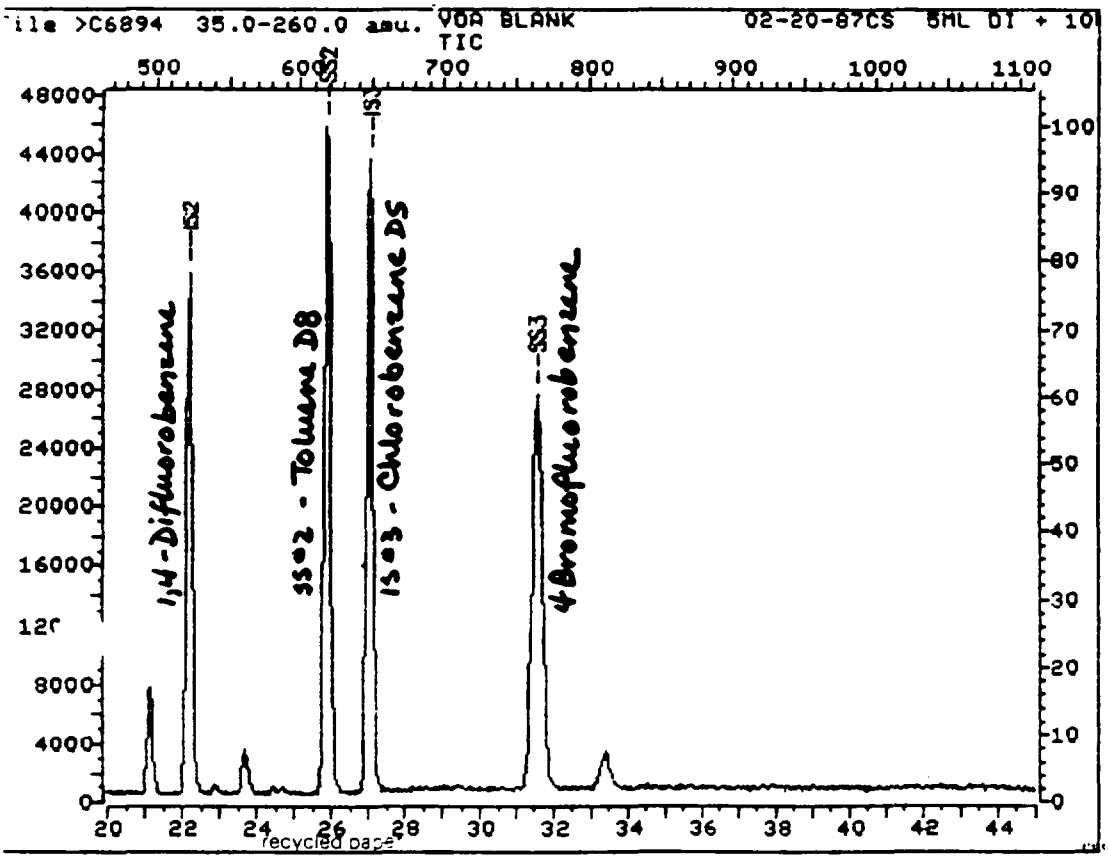
C6894





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ecology and environment

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870220 13:02
Output File: ^C6894::Q2 Injected at: 870220 12:16
Data File: >C6894::D3 Dilution Factor: 1.00
Name: VOA BLANK
Misc: 02-20-87CS 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.61	250	29949	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.27	164	3235	15.54	NGS Yes	100
7)	ACETONE		43	9.40	193	46636	125.84	NGS Yes	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.44	323	84196	204.62	NGS	83
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	523	144286	250.00	NGS	100
7)	2-BUTANONE		72	14.64	328	4596	62.21	NGS Yes	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.05	648	129534	250.00	NGS	100
2)	~~4-METHYL-2-PENTANONE~~		~~43~~	~~22.86~~	~~540~~	~~3289~~	~~5.18~~	~~NGS~~ No	85
2)	~~4-METHYL-2-PENTANONE~~		~~43~~	~~23.72~~	~~562~~	~~6590~~	~~10.37~~	~~NGS~~ no CW	69
3)	~~2-HEXANONE~~		~~43~~	~~23.72~~	~~562~~	~~6590~~	~~12.96~~	~~NGS~~	100
3)	~~2-HEXANONE~~		~~43~~	~~24.42~~	~~580~~	~~2975~~	~~5.85~~	~~NGS~~ No	100
6)	TOLUENE-D8	(SURR)	98	25.89	618	171844	231.68	NGS	95
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.56	764	91791	217.36	NGS	100

* Compound is ISTD

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Laboratory Name [illegible]

Case No V-4835, 4846, 4863, 4872

Sample Number D1707

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-2-87

Date Analyzed 2-13-87

Conc/Dil Factor 20

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	3300 U
111-44-4	bis(2-Chloroethyl)Ether	3300 U
95-57-8	2-Chlorophenol	3300 U
541-73-1	1,3-Dichlorobenzene	3300 U
106-46-7	1,4-Dichlorobenzene	3300 U
100-51-6	Benzyl Alcohol	3300 U
95-50-1	1,2-Dichlorobenzene	3300 U
95-48-7	2-Methylphenol	3300 U
39638-32-9	bis(2-chloroisopropyl)Ether	3300 U
106-44-5	4-Methylphenol	3300 U
621-64-7	N-Nitroso-Di-n-Propylamine	3300 U
67-72-1	Hexachloroethane	3300 U
98-95-3	Nitrobenzene	3300 U
78-59-1	Isophorone	3300 U
88-75-5	2-Nitrophenol	3300 U
105-67-9	2,4-Dimethylphenol	3300 U
65-85-0	Benzoic Acid	16000 U
111-91-1	bis(2-Chloroethoxy)Methane	3300 U
120-83-2	2,4-Dichlorophenol	3300 U
120-82-1	1,2,4-Trichlorobenzene	3300 U
91-20-3	Naphthalene	3300 U
106-47-8	4-Chloroaniline	3300 U
87-68-3	Hexachlorobutadiene	3300 U
59-50-7	4-Chloro-3-Methylphenol	3300 U
91-57-6	2-Methylnaphthalene	3300 U
77-47-4	Hexachlorocyclopentadiene	3300 U
88-06-2	2,4,6-Trichlorophenol	3300 U
95-95-4	2,4,5-Trichlorophenol	16000 U
91-58-7	2-Chloronaphthalene	3300 U
88-74-4	2-Nitroaniline	16000 U
131-11-3	Dimethyl Phthalate	3300 U
208-96-8	Acenaphthylene	3300 U
[illegible]9-2	3-Nitroaniline	16000 U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	3300 U
51-28-5	2,4-Dinitrophenol	16000 U
100-02-7	4-Nitrophenol	16000 U
132-64-9	Dibenzofuran	3300 U
121-14-2	2,4-Dinitrotoluene	3300 U
606-20-2	2,6-Dinitrotoluene	3300 U
84-66-2	Diethylphthalate	3300 U
7005-72-3	4-Chlorophenyl-phenylether	3300 U
86-73-7	Fluorene	3300 U
100-01-6	4-Nitroaniline	16000 U
534-52-1	4,6-Dinitro-2-Methylphenol	16000 U
86-30-6	N-Nitrosodiphenylamine (1)	3300 U
101-55-3	4-Bromophenyl-phenylether	3300 U
118-74-1	Hexachlorobenzene	3300 U
87-86-5	Pentachlorophenol	16000 U
85-01-8	Phenanthrene	3300 U
120-12-7	Anthracene	3300 U
84-74-2	Di-n-Butylphthalate	3300 U
206-44-0	Fluoranthene	3300 U
129-00-0	Pyrene	3300 U
85-68-7	Butylbenzylphthalate	3300 U
91-94-1	3,3'-Dichlorobenzidine	6600 U
56-55-3	Benzo(a)Anthracene	3300 U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300 U
218-01-9	Chrysene	3300 U
117-84-0	Di-n-Octyl Phthalate	3300 U
205-99-2	Benzo(b)Fluoranthene	3300 U
207-08-9	Benzo(k)Fluoranthene	3300 U
50-32-8	Benzo(a)Pyrene	3300 U
193-39-5	Indeno(1,2,3-cd)Pyrene	3300 U
53-70-3	Dibenz(a,h)Anthracene	3300 U
191-24-2	Benzo(g,h,i)Perylene	3300 U

(1) Cannot be separated from diphenylamine

491

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Laboratory Name ECOLOGY : ENVIRONMENT INC.

Case No U-4835, 4846, 4863, 4872

Sample Number D1707

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 SEMI VOLATILE COMPOUNDS FOUND			
2.					
3.					
4.					
5.					
6.					
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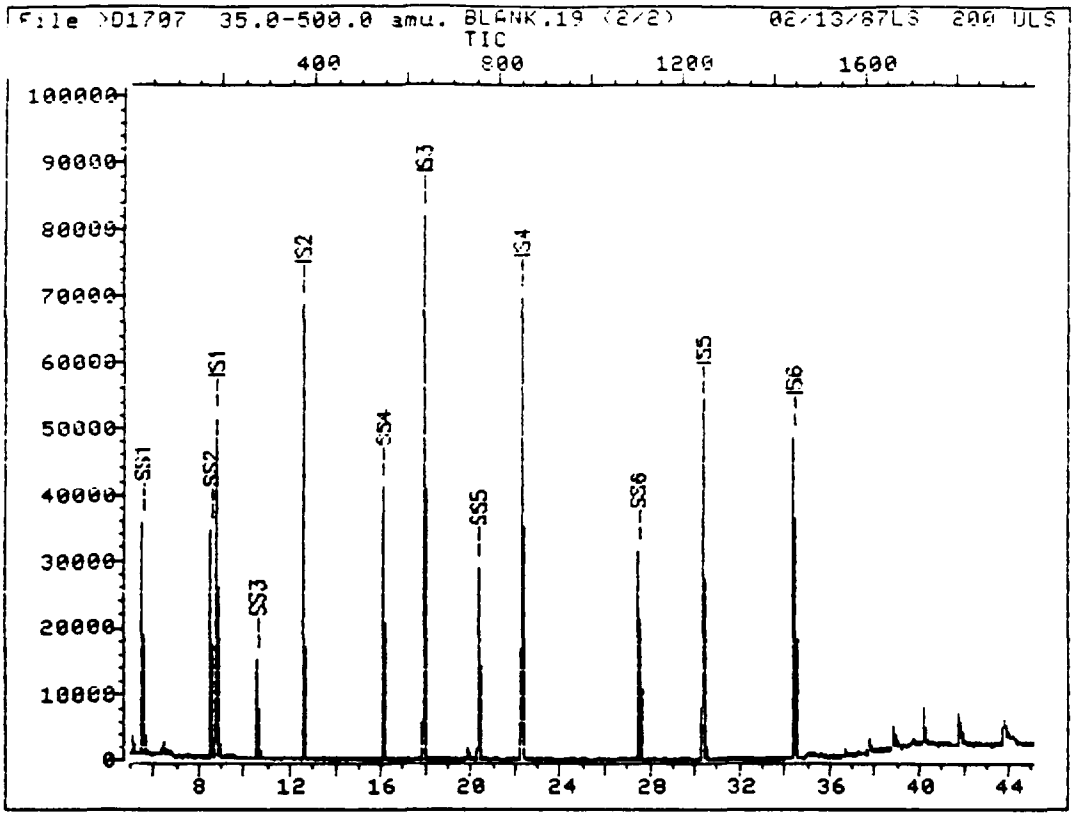
30					

TOTAL ION CHROMATOGRAM



Data File: >D1707::D3
Name: BLANK.19 (2/2)
Misc: 02/13/87LS 200 ULS MECL2 + 200 ULS SMPL + 4 ULS IS BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870213 19:29

Operator ID: USER6
Quant Time: 870213 19:36
Injected at: 870213 18:48

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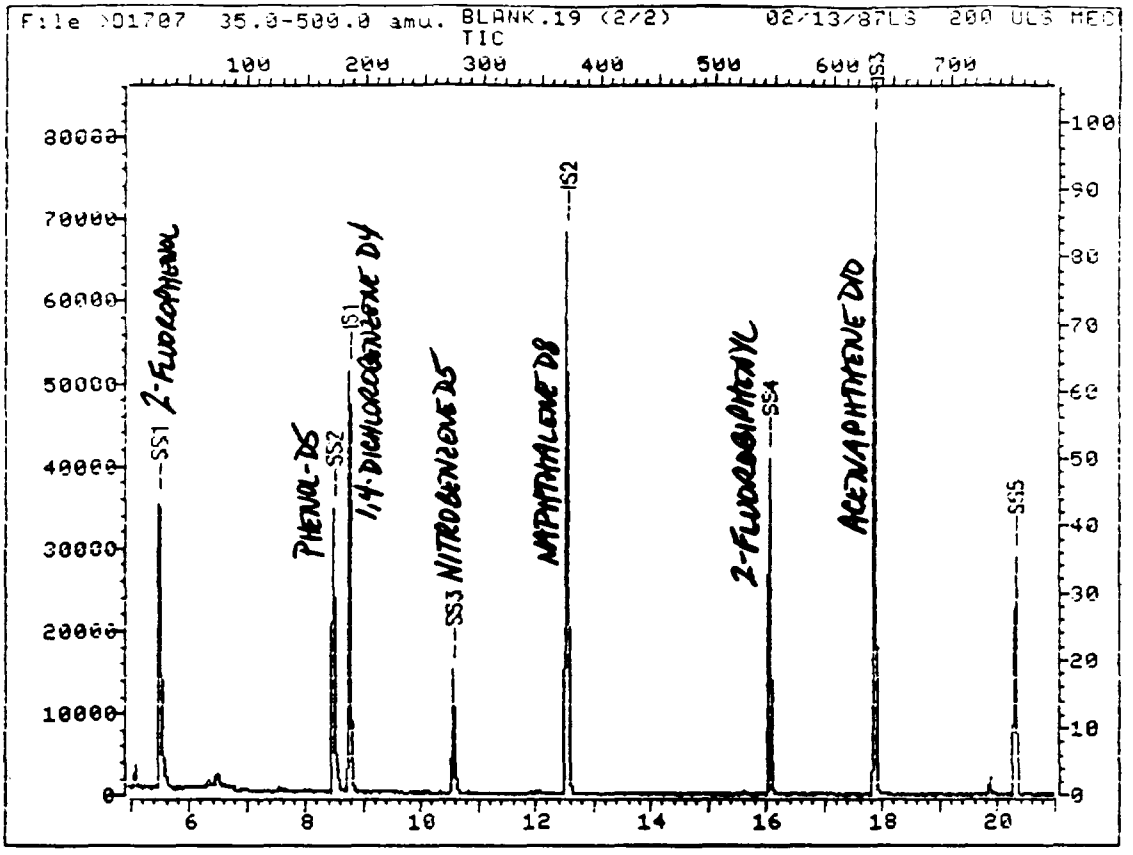

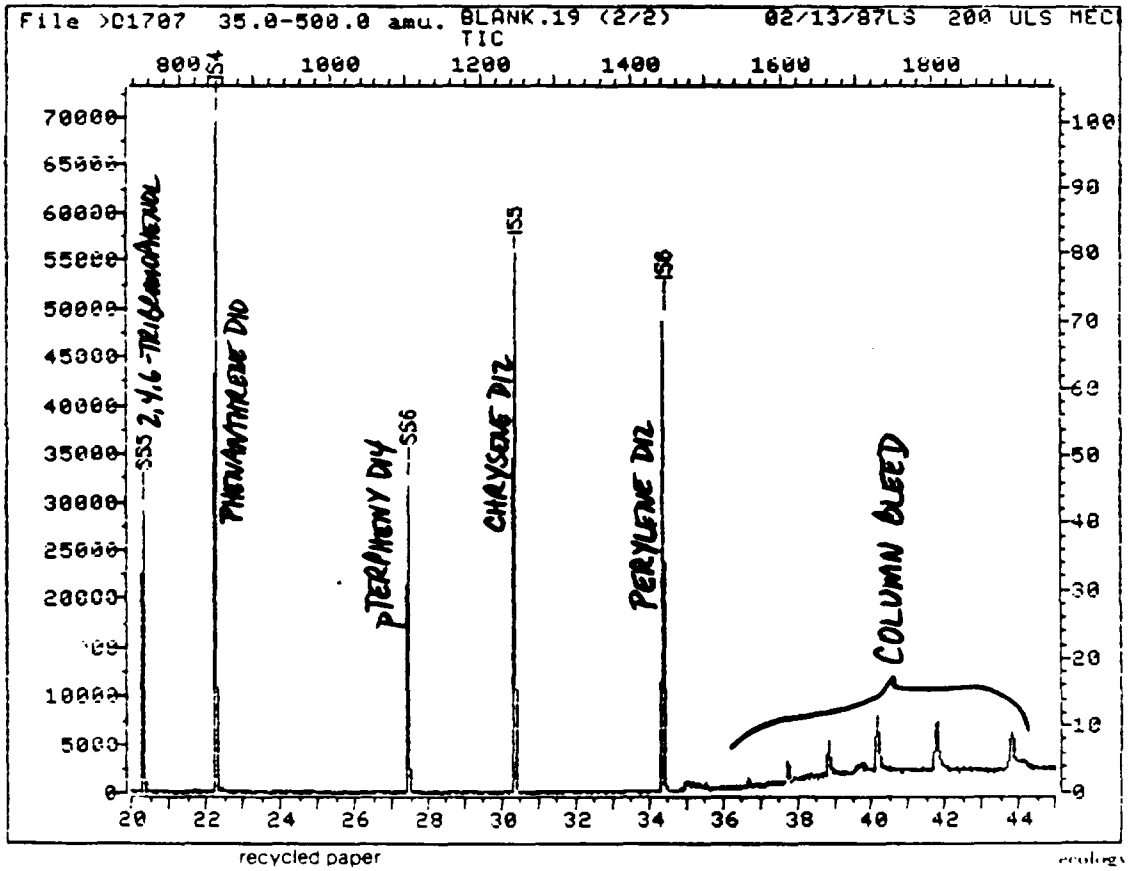

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QUANT REPORT

O ator ID: USER6 Quant Rev: 4 Quant Time: 870213 19:36
Output File: ^D1707::Q2 Injected at: 870213 18:48
Data File: >D1707::D3 Dilution Factor: 2.00
Name: BLANK.19 (2/2)
Misc: 02/13/87LS 200 ULS MECL2 + 200 ULS SMPL + 4 ULS IS BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870213 19:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.75	186	25923	40.00 UG/L	91
2)	PHENOL-D5	(SURR)	99	8.48	173	23304	63.30 UG/L	87
5)	2-FLUOROPHENOL	(SURR)	112	5.47	25	27572	99.15 UG/L	79
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.56~~	~~275~~	~~1986~~	~~6.98 UG/L~~	90
19)	*NAPHTHALENE-D8	(IS)	136	12.54	372	84064	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.56	275	12185	37.79 UG/L	97
34)	*ACENAPHTHENE-D10	(IS)	162	17.87	634	50661	40.00 UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	16.06	545	37926	40.83 UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.87~~	~~634~~	~~9999~~	~~15.14 UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.32	754	11399	54.03 UG/L	99
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.87~~	~~634~~	~~6638~~	~~46.24 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.25	849	94112	40.00 UG/L	84
65)	*CHRYSENE-D12	(IS)	240	30.34	1246	74007	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.45	1104	37690	41.78 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.37	1444	63699	40.00 UG/L	100

* Compound is ISTD

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Laboratory Name [illegible]

Case No V-4835, 4846, 4863, 4872

Sample Number D1714

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 2-3-87

Date Analyzed 2-14-87

Conc/Dil Factor 20

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	3300 U
111-44-4	bis(2-Chloroethyl)Ether	3300 U
95-57-8	2-Chlorophenol	3300 U
541-73-1	1,3-Dichlorobenzene	3300 U
106-46-7	1,4-Dichlorobenzene	3300 U
100-51-6	Benzyl Alcohol	3300 U
95-50-1	1,2-Dichlorobenzene	3300 U
95-48-7	2-Methylphenol	3300 U
39638-32-9	bis(2-chloroisopropyl)Ether	3300 U
106-44-5	4-Methylphenol	3300 U
621-64-7	N-Nitroso-Di-n-Propylamine	3300 U
67-72-1	Hexachloroethane	3300 U
98-95-3	Nitrobenzene	3300 U
78-59-1	Isophorone	3300 U
88-75-5	2-Nitrophenol	3300 U
105-67-9	2,4-Dimethylphenol	3300 U
65-85-0	Benzoic Acid	16000 U
111-91-1	bis(2-Chloroethoxy)Methane	3300 U
120-83-2	2,4-Dichlorophenol	3300 U
120-82-1	1,2,4-Trichlorobenzene	3300 U
91-20-3	Naphthalene	3300 U
106-47-8	4-Chloroaniline	3300 U
87-68-3	Hexachlorobutadiene	3300 U
59-50-7	4-Chloro-3-Methylphenol	3300 U
91-57-6	2-Methylnaphthalene	3300 U
77-47-4	Hexachlorocyclopentadiene	3300 U
88-06-2	2,4,6-Trichlorophenol	3300 U
95-95-4	2,4,5-Trichlorophenol	16000 U
91-58-7	2-Chloronaphthalene	3300 U
88-74-4	2-Nitroaniline	16000 U
131-11-3	Dimethyl Phthalate	3300 U
208-96-8	Acenaphthylene	3300 U
[illegible]09-2	3-Nitroaniline	16000 U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	3300 U
51-28-5	2,4-Dinitrophenol	16000 U
100-02-7	4-Nitrophenol	16000 U
132-64-9	Dibenzofuran	3300 U
121-14-2	2,4-Dinitrotoluene	3300 U
606-20-2	2,6-Dinitrotoluene	3300 U
84-66-2	Diethylphthalate	3300 U
7005-72-3	4-Chlorophenyl-phenylether	3300 U
86-73-7	Fluorene	3300 U
100-01-6	4-Nitroaniline	16000 U
534-52-1	4,6-Dinitro-2-Methylphenol	16000 U
86-30-6	N-Nitrosodiphenylamine (1)	3300 U
101-55-3	4-Bromophenyl-phenylether	3300 U
118-74-1	Hexachlorobenzene	3300 U
87-86-5	Pentachlorophenol	16000 U
85-01-8	Phenanthrene	3300 U
120-12-7	Anthracene	3300 U
84-74-2	Di-n-Butylphthalate	3300 U
206-44-0	Fluoranthene	3300 U
129-00-0	Pyrene	3300 U
85-68-7	Butylbenzylphthalate	3300 U
91-94-1	3,3'-Dichlorobenzidine	6600 U
56-55-3	Benzo(a)Anthracene	3300 U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300 U
218-01-9	Chrysene	3300 U
117-84-0	Di-n-Octyl Phthalate	3300 U
205-99-2	Benzo(b)Fluoranthene	3300 U
207-08-9	Benzo(k)Fluoranthene	3300 U
50-32-8	Benzo(a)Pyrene	3300 U
193-39-5	Indeno(1,2,3-cd)Pyrene	3300 U
53-70-3	Dibenz(a,h)Anthracene	3300 U
191-24-2	Benzo(g,h,i)Perylene	3300 U

(1)-Cannot be separated from diphenylamine

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ecology and environment

Laboratory Name Ecology + Environment Inc.

Case No V-4835, 4846, 4863, 4872

Sample Number D1714

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 Semi-Volatile Compounds Found			
2.					
3.					
4.					
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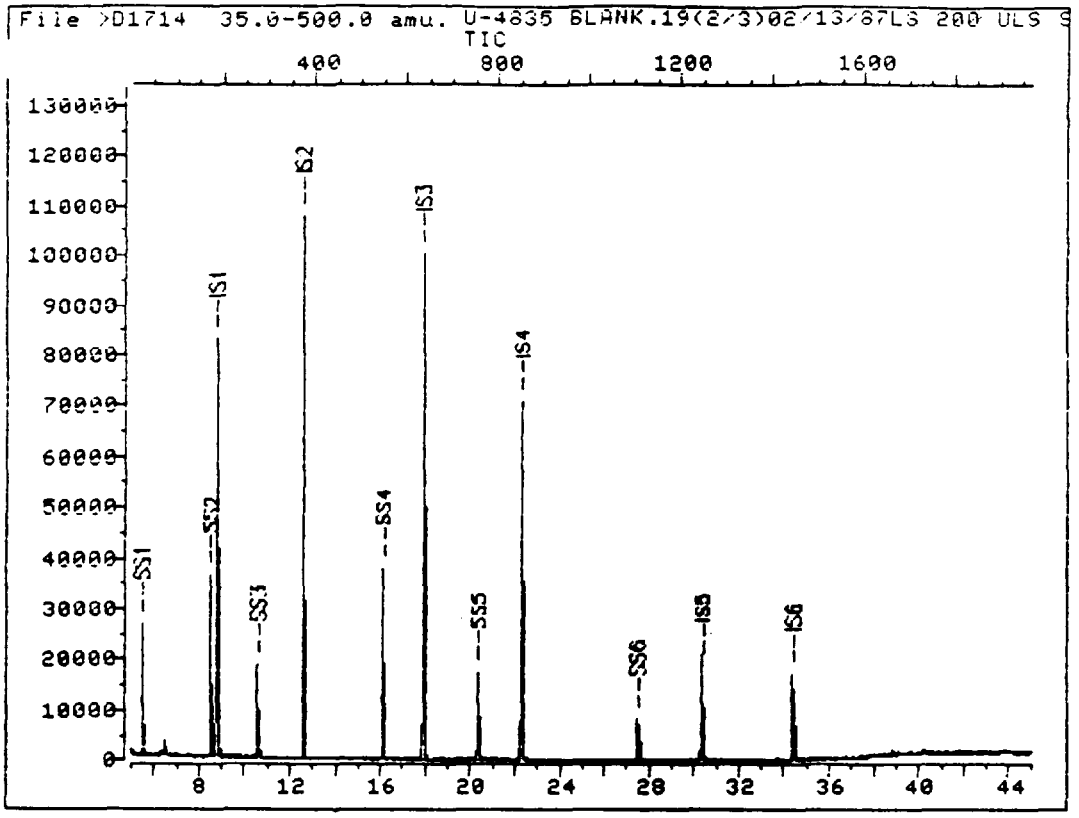
ecology and environment

TOTAL ION CHROMATOGRAM



Data File: >D1714::D3
Name: U-4835 BLANK.19(2/3)
Misc: 02/13/87LS 200 ULS SMPL + 200 ULS MECL2 + 4 UL IS BTL# 6

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870213 19:29

Operator ID: USER6
Quant Time: 870214 01:53
Injected at: 870214 01:05

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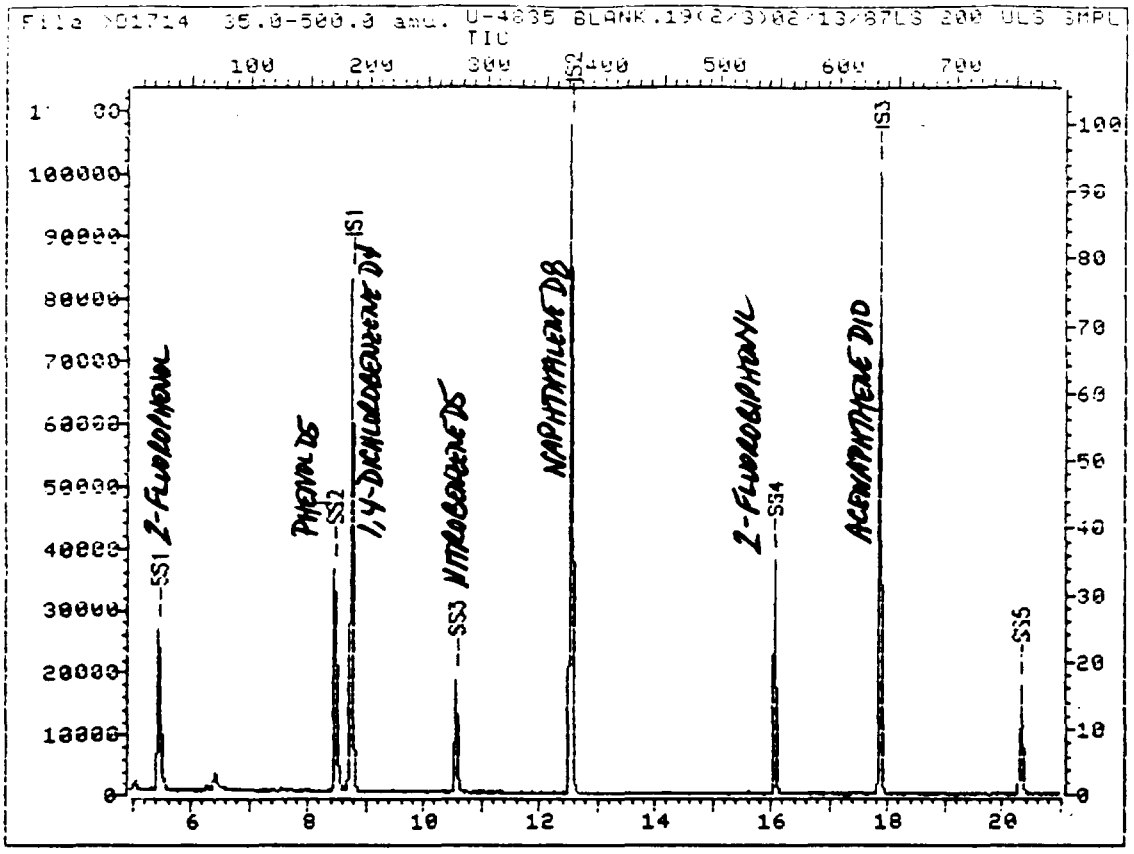

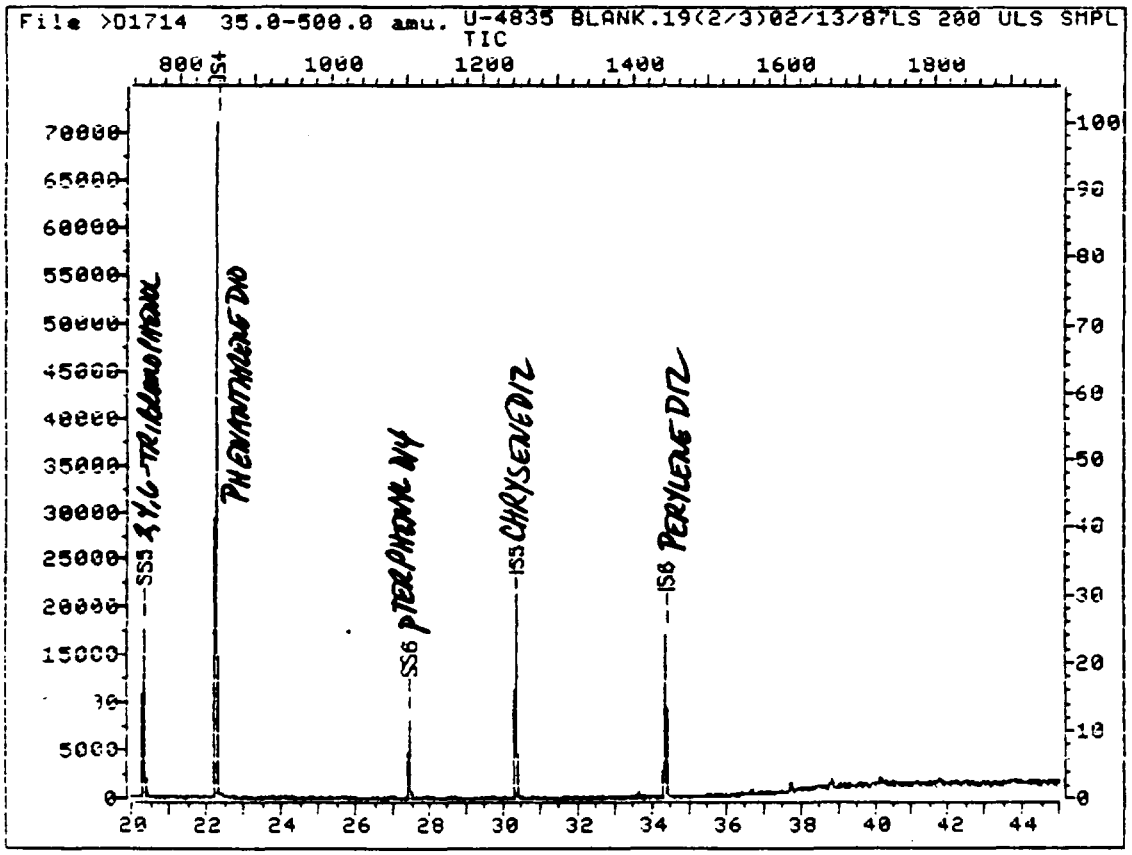

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ecology and environment

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870214 01:53
Output File: ^D1714::Q2 Injected at: 870214 01:05
Data File: >D1714::D3 Dilution Factor: 2.00
Name: U-4835 BLANK.19(2/3)
Misc: 02/13/87LS 200 ULS SMPL + 200 ULS MECL2 + 4 UL IS BTL# 6

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870213 19:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.75	186	35669	40.00 UG/L	89
2)	PHENOL-D5	(SURR)	99	8.46	172	31525	62.23 UG/L	95
5)	2-FLUOROPHENOL	(SURR)	112	5.43	23	23214	60.67 UG/L	74
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~10.56~~	~~275~~	~~2876~~	~~7.34~~	~~UG/L~~ 10.67	98
19)	*NAPHTHALENE-D8	(IS)	136	12.54	372	122865	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.56	275	17597	37.34 UG/L	90
34)	*ACENAPHTHENE-D10	(IS)	162	17.87	634	57832	40.00 UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.06	545	33542	31.63 UG/L	96
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.87~~	~~634~~	~~11360~~	~~15.06~~ ~~UG/L~~ 16.07	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.32	754	5875	24.39 UG/L	96
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.87~~	~~634~~	~~7437~~	~~45.39~~ ~~UG/L~~ 10.67	100
55)	*PHENANTHRENE-D10	(IS)	188	22.27	850	77664	40.00 UG/L	97
65)	*CHRYSENE-D12	(IS)	240	30.34	1246	27779	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.45	1104	10882	32.13 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.37	1444	22613	40.00 UG/L	100

* Compound is ISTD

500

Case No V-4835, 4846, 4863, 4872

Sample Number D1794

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 2-9-87

Date Analyzed 2-23-87

Conc./Dil Factor 20

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	3300 U
111-44-4	bis-2-Chloroethyl)Ether	3300 U
95-57-8	2-Chlorophenol	3300 U
541-73-1	1 3-Dichlorobenzene	3300 U
106-46-7	1 4-Dichlorobenzene	3300 U
100-51-6	Benzyl Alcohol	3300 U
95-50-1	1 2-Dichlorobenzene	3300 U
95-48-7	2-Methylphenol	3300 U
39638-32-9	bis(2-chloroisopropyl)Ether	3300 U
106-44-5	4-Methylphenol	3300 U
621-64-7	N-Nitroso-Di-n-Propylamine	3300 U
67-72-1	Hexachloroethane	3300 U
98-95-3	Nitrobenzene	3300 U
78-59-1	Isophorone	3300 U
88-75-5	2-Nitrophenol	3300 U
105-67-9	2 4-Dimethylphenol	3300 U
65-85-0	Benzoic Acid	16000 U
111-91-1	bis 2-Chloroethoxy)Methane	3300 U
120-83-2	2 4-Dichlorophenol	3300 U
120-82-1	1 2 4-Trichlorobenzene	3300 U
91-20-3	Naphthalene	3300 U
106-47-8	4-Chloroaniline	3300 U
87-68-3	Hexachlorobutadiene	3300 U
59-50-7	4-Chloro-3-Methylphenol	3300 U
91-57-6	2-Methylnaphthalene	3300 U
77-47-4	Hexachlorocyclopentadiene	3300 U
88-06-2	2 4 6-Trichlorophenol	3300 U
95-95-4	2 4 5-Trichlorophenol	16000 U
91-58-7	2-Chloronaphthalene	3300 U
88-74-4	2-Nitroaniline	16000 U
131-11-3	Dimethyl Phthalate	3300 U
208-96-8	Acenaphthylene	3300 U
[illegible]9-2	3-Nitroaniline	16000 U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	3300 U
51-28-5	2 4-Dinitrophenol	16000 U
100-02-7	4-Nitrophenol	16000 U
132-64-9	Dibenzofuran	3300 U
121-14-2	2 4 Dinitrotoluene	3300 U
606-20-2	2 6-Dinitrotoluene	3300 U
84-66-2	Diethylphthalate	3300 U
7005-72-3	4-Chlorophenyl-phenylether	3300 U
86-73-7	Fluorene	3300 U
100-01-6	4-Nitroaniline	16000 U
534-52-1	4 6-Dinitro-2-Methylphenol	16000 U
86-30-6	N-Nitrosodiphenylamine (1)	3300 U
101-55-3	4-Bromophenyl-phenylether	3300 U
118-74-1	Hexachlorobenzene	3300 U
87-86-5	Pentachlorophenol	16000 U
85-01-8	Phenanthrene	3300 U
120-12-7	Anthracene	3300 U
84-74-2	Di-n-Butylphthalate	3300 U
206-44-0	Fluoranthene	3300 U
129-00-0	Pyrene	3300 U
85-68-7	Butylbenzylphthalate	3300 U
91-94-1	3 3-Dichlorobenzidine	6600 U
56-55-3	Benzo(a)Anthracene	3300 U
117-81-7	bis(2-Ethylhexyl)Phthalate	3300 U
218-01-9	Chrysene	3300 U
117-84-0	Di-n-Octyl Phthalate	3300 U
205-99-2	Benzo(b)Fluoranthene	3300 U
207-08-9	Benzo(k)Fluoranthene	3300 U
50-32-8	Benzo(a)Pyrene	3300 U
193-39-5	Indeno(1 2 3-cd)Pyrene	3300 U
53-70-3	Dibenz(a h)Anthracene	3300 U
191-24-2	Benzo(g h i)Perylene	3300 U

(1): Cannot be separated from diphenylamine

recycled paper

ecology and environment

Case No V-4835, 4846, 4863, 4872

D1794

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 SEMI-VOLATILE COMPOUNDS FOUND			
2.					
3.					
4.					
5.					
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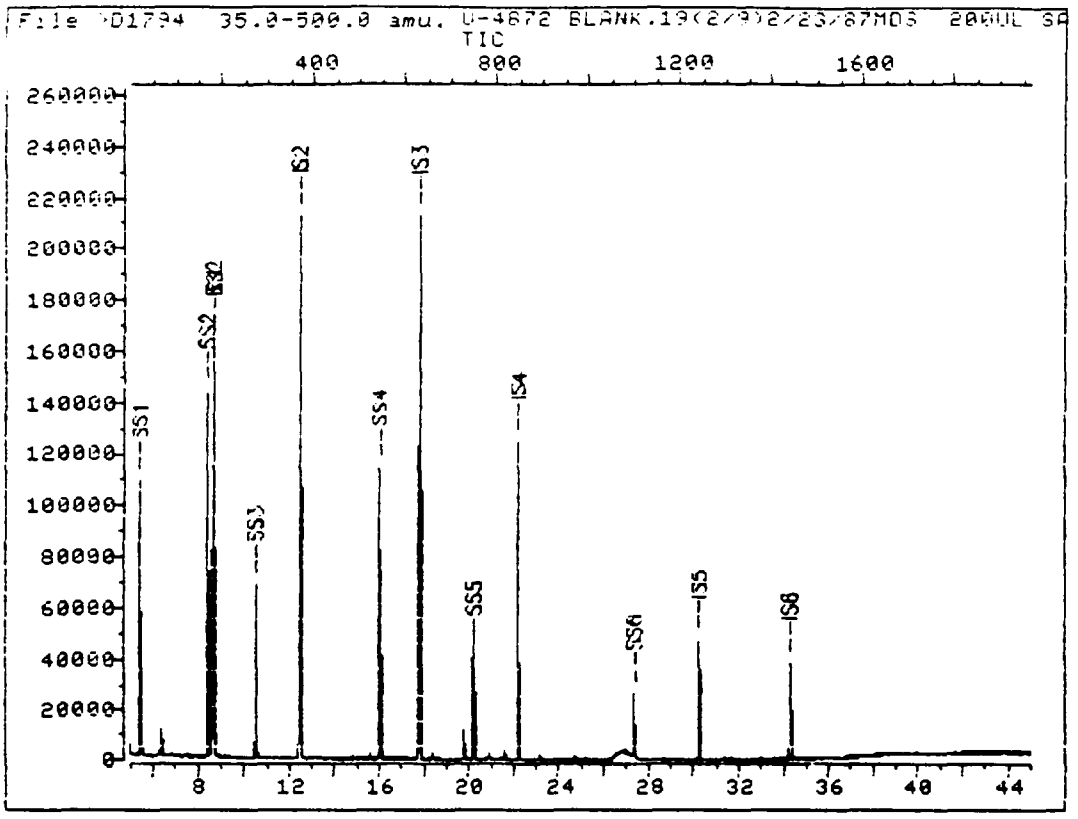
30					

TOTAL ION CHROMATOGRAM



Data File: >D1794::D3
Name: U-4872 BLANK.19(2/9)
Misc: 2/23/87MDS 200UL SAMPLE + 200UL MECL2 + 4UL IS (2X) BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

Operator ID: USER6
Quant Time: 870223 15:14
Injected at: 870223 14:27

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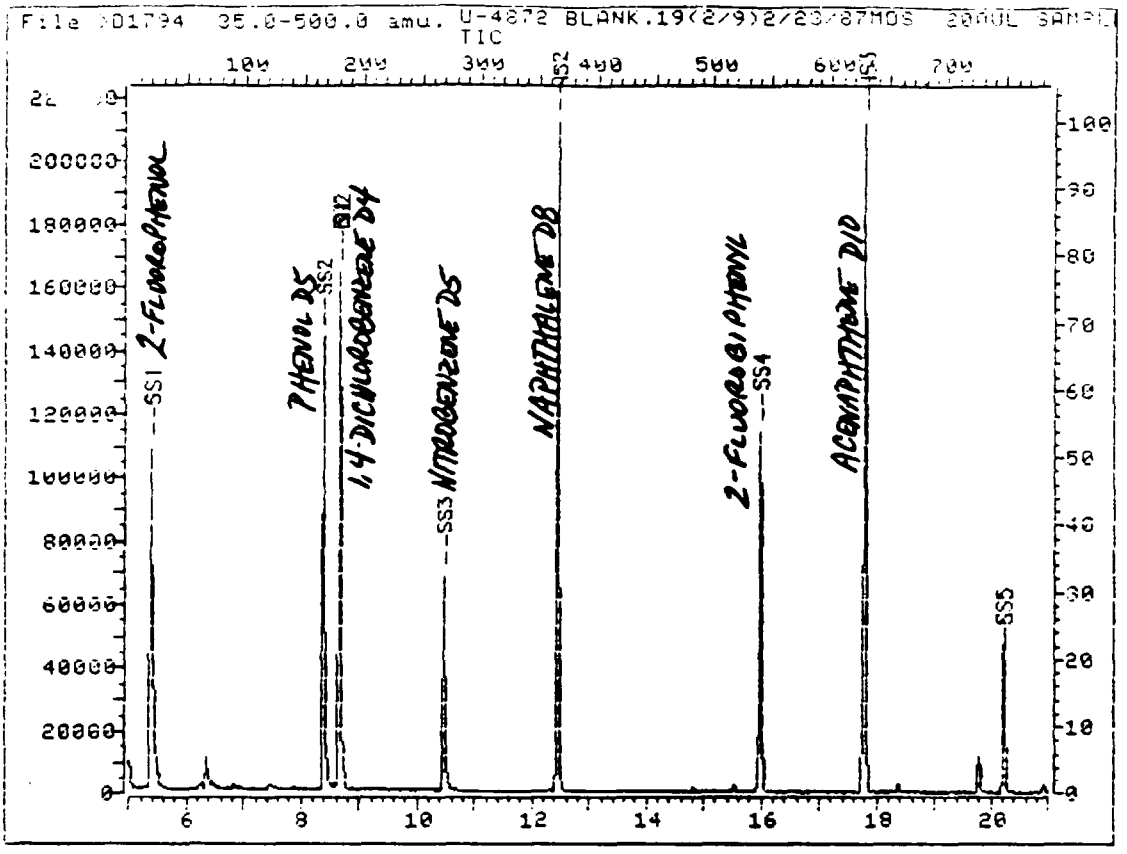
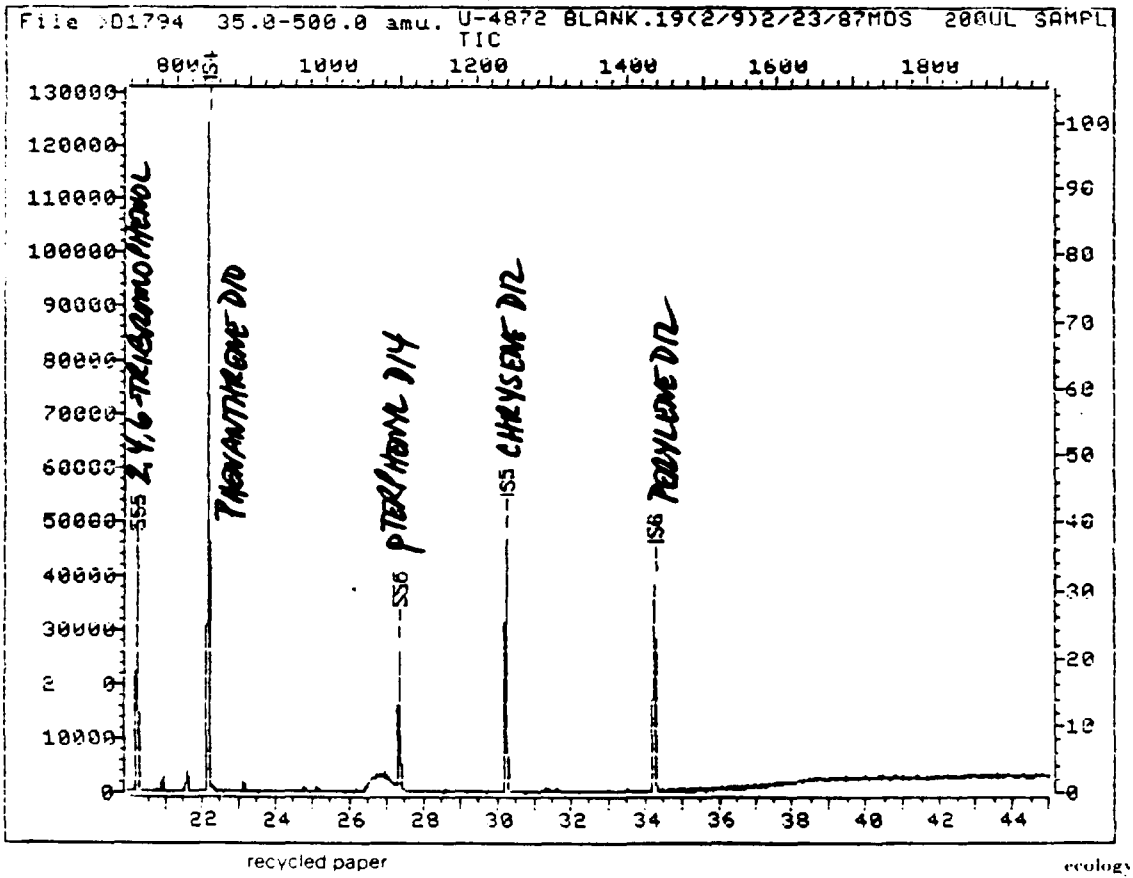
ecology and environment





recycled paper

ecology and environment

QUANT REPORT

C rator ID: USER6 Quant Rev: 4 Quant Time: 870223 15:14
Output File: ^D1794::Q2 Injected at: 870223 14:27
Data File: >D1794::D3 Dilution Factor: 2.00
Name: U-4872 BLANK.19(2/9)
Misc: 2/23/87MOS 200UL SAMPLE + 200UL MECL2 + 4UL IS (2X) BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.66	181	60530	40.00 UG/L	86
2)	PHENOL-D5	(SURR)	99	8.38	167	95128	78.92 UG/L	90
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~8.66~~	~~181~~	~~1289~~	~~1.87 UG/L~~	92
5)	2-FLUOROPHENOL	(SURR)	112	5.38	20	69963	92.15 UG/L	62
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.66~~	~~263~~	~~10167~~	~~8.76 UG/L~~	~~84~~
19)	*NAPHTHALENE-D8	(IS)	136	12.45	367	225473	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.46	269	56167	43.74 UG/L	92
34)	*ACENAPHTHENE-D10	(IS)	162	17.79	629	113100	40.00 UG/L	95
38)	2-FLUOROBIPHENYL	(SURR)	172	15.98	540	90892	42.74 UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.29~~	~~629~~	~~21093~~	~~13.88 UG/L~~	~~100~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.21	748	21434	55.12 UG/L	95
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.29~~	~~629~~	~~14629~~	~~41.88 UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.17	844	121599	40.00 UG/L	91
65)	*CHRYSENE-D12	(IS)	240	30.24	1240	50773	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.34	1098	30249	56.19 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.27	1438	46675	40.00 UG/L	100

* Compound is ISTD

recycled paper ecology and environment

Laboratory Name: ECOLOGY & ENVIRONMENT INC.

Case No: V-4835, 4846, 4863, 4872

Sample Number: D1799

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 2-5-87

Date Analyzed: 2-23-87

Conc/Dil Factor: 20

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	3300	U
111-44-4	bis(-2-Chloroethyl)Ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1 3-Dichlorobenzene	3300	U
106-46-7	1 4-Dichlorobenzene	3300	U
100-51-6	Benzyl Alcohol	3300	U
95-50-1	1 2-Dichlorobenzene	3300	U
95-48-7	2-Methylphenol	3300	U
39638-32-9	bis(2-chloroisopropyl)Ether	3300	U
106-44-5	4-Methylphenol	3300	U
621-64-7	N-Nitroso-Di-n-Propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2. 4-Dimethylphenol	3300	U
65-85-0	Benzoic Acid	16000	U
111-91-1	bis(-2-Chloroethoxy)Methane	3300	U
120-83-2	2. 4-Dichlorophenol	3300	U
120-82-1	1. 2. 4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	3300	U
106-47-8	4-Chloroaniline	3300	U
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-Methylphenol	3300	U
91-57-6	2-Methylnaphthalene	3300	U
77-47-4	Hexachlorocyclopentadiene	3300	U
88-06-2	2 4. 6-Trichlorophenol	3300	U
95-95-4	2. 4 5-Trichlorophenol	16000	U
91-58-7	2-Chloronaphthalene	3300	U
88-74-4	2-Nitroaniline	16000	U
131-11-3	Dimethyl Phthalate	3300	U
208-96-8	Acenaphthylene	3300	U
-09-2	3-Nitroaniline	16000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	3300	U
51-28-5	2. 4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U
132-64-9	Dibenzofuran	3300	U
121-14-2	2 4-Dinitrotoluene	3300	U
606-20-2	2. 6-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3300	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U
86-73-7	Fluorene	3300	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3300	U
120-12-7	Anthracene	3300	U
84-74-2	Di-n-Butylphthalate	5500	
206-44-0	Fluoranthene	3300	U
129-00-0	Pyrene	3300	U
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3. 3'-Dichlorobenzidine	6600	U
56-55-3	Benzo(a)Anthracene	3300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	8000	
218-01-9	Chrysene	3300	U
117-84-0	Di-n-Octyl Phthalate	3300	U
205-99-2	Benzo(b)Fluoranthene	3300	U
207-08-9	Benzo(k)Fluoranthene	3300	U
50-32-8	Benzo(a)Pyrene	3300	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	3300	U
53-70-3	Dibenz(a h)Anthracene	3300	U
191-24-2	Benzo(g h i)Perylene	3300	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4835, 4846, 4863, 4872

Sample Number D1799

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 SEMI-VOLATILE COMPOUNDS FOUND			
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
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22.					
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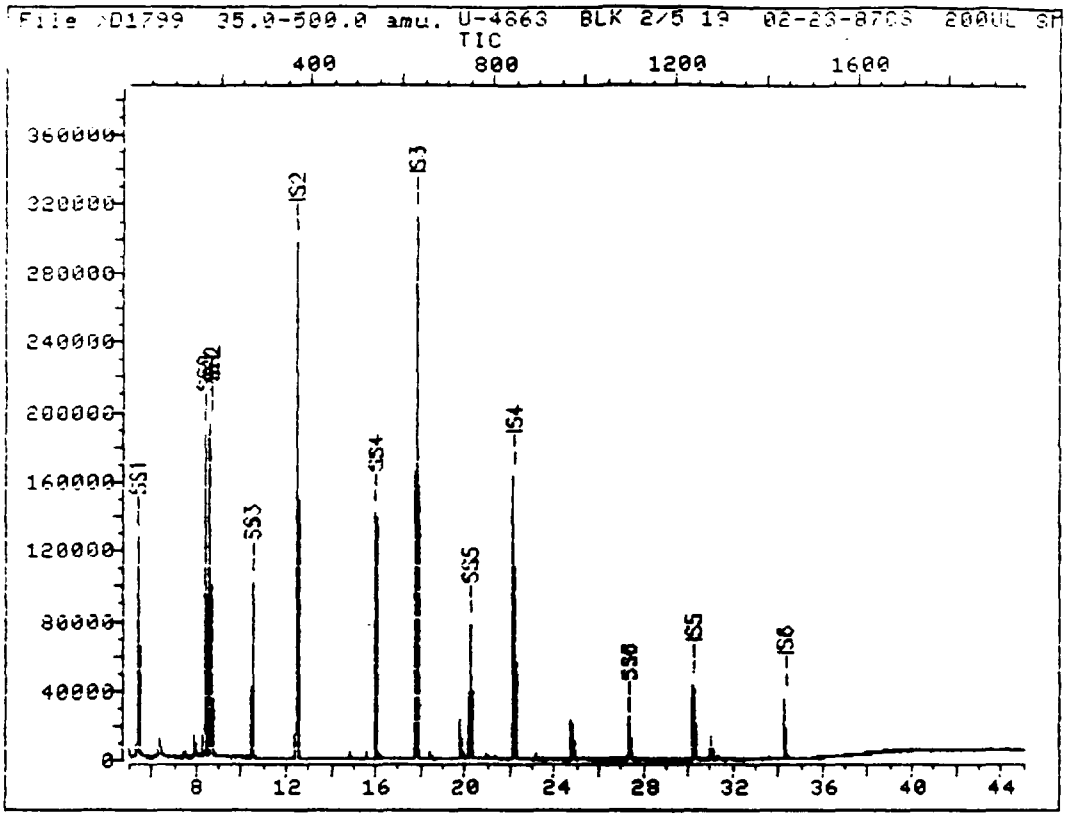
24					
25.					
26.					
27.					
28.					
29.					
30					

TOTAL ION CHROMATOGRAM



Data File: >D1799::D3
Name: U-4863 BLK 2/5 19
Misc: 02-23-87CS 200UL SMPL + 200UL MECL2 + 4UL IS BTL# 5

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

Operator ID: USER6
Quant Time: 870223 19:45
Injected at: 870223 18:57

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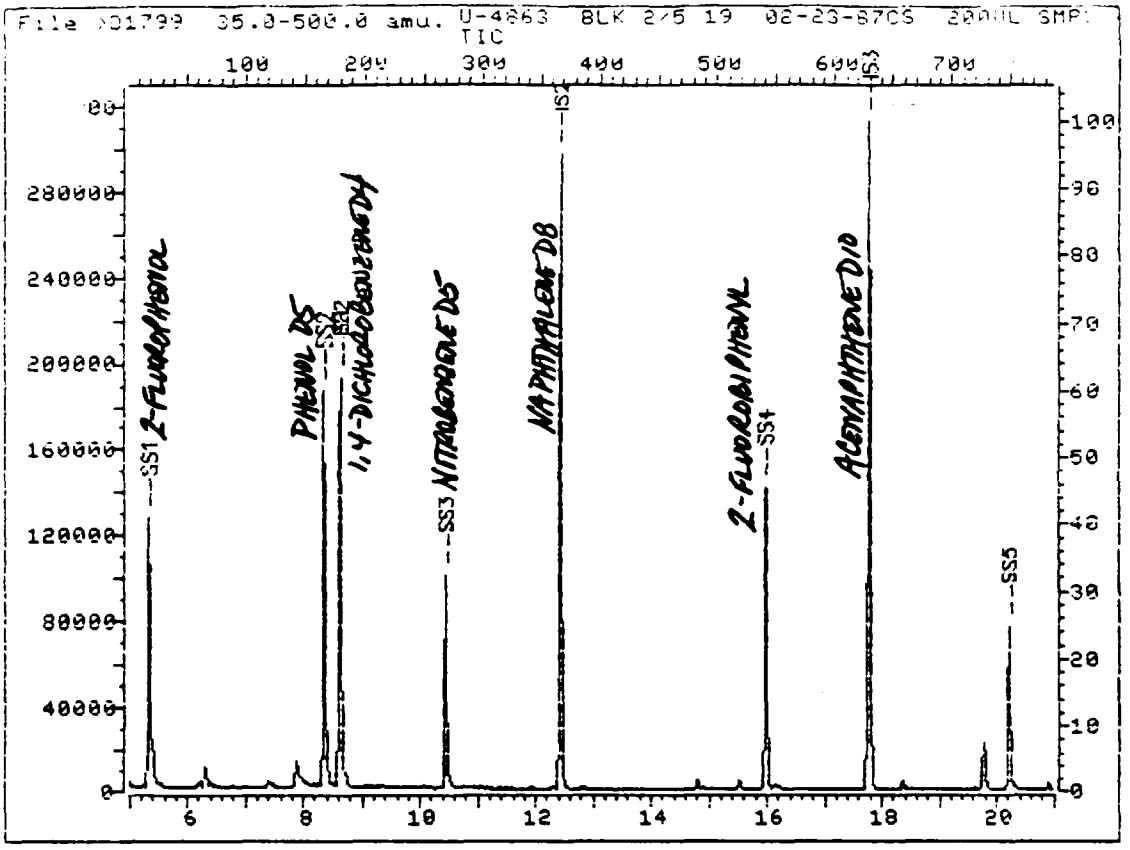

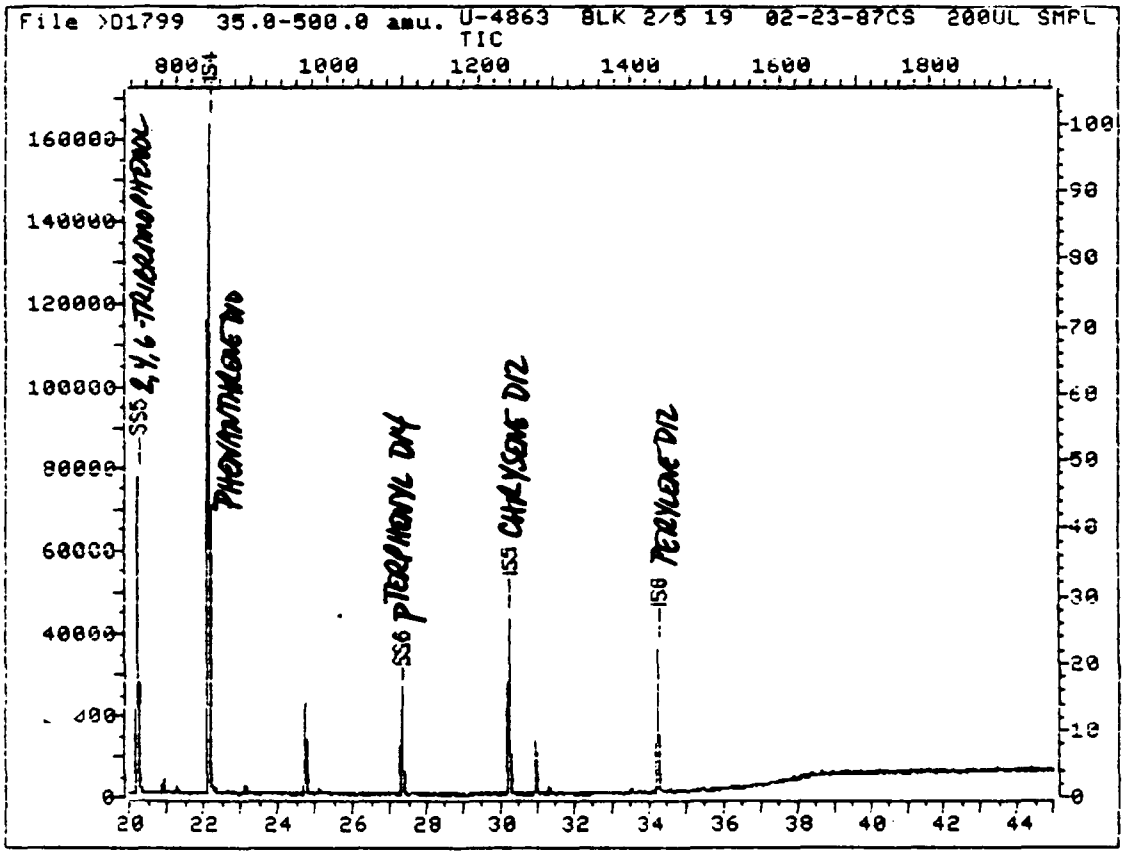

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ecology and environment

QUANT REPORT

rator ID: USER6 Quant Rev: 4 Quant Time: 870223 19:45
Output File: ^D1799::Q2 Injected at: 870223 18:57
Data File: >D1799::D3 Dilution Factor: 2.00
Name: U-4863 BLK 2/5 19
Misc: 02-23-87CS 200UL SMPL + 200UL MECL2 + 40UL IS BTL# 5

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870223 14:29

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.63	180	77015	40.00 UG/L	82
2)	PHENOL-D5	(SURR)	99	8.34	166	121643	79.32 UG/L	91
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~8.63~~	~~180~~	~~1624~~	~~.99 UG/L~~ No GPA	84
5)	2-FLUOROPHENOL	(SURR)	112	5.33	18	71753	74.28 UG/L	67
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.44~~	~~269~~	~~13673~~	~~10.48 UG/L~~ No GPA	88
19)	*NAPHTHALENE-D8	(IS)	136	12.44	367	325766	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.44	269	74127	39.96 UG/L	85
34)	*ACENAPHTHENE-D10	(IS)	162	17.78	629	172753	40.00 UG/L	95
38)	2-FLUOROBIPHENYL	(SURR)	172	15.96	540	128419	39.53 UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.78~~	~~629~~	~~59674~~	~~15.99 UG/L~~ No GPA	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.22	749	31216	52.56 UG/L	97
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.78~~	~~629~~	~~22478~~	~~42.17 UG/L~~ No GPA	100
55)	*PHENANTHRENE-D10	(IS)	188	22.16	844	167537	40.00 UG/L	94
63)	DI-N-BUTYLPHTHALATE		149	24.76	972	33335	16.66 UG/L	98
65)	*CHRYSENE-D12	(IS)	240	30.22	1240	53601	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.33	1098	28834	50.74 UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	30.97	1277	11335	24.14 UG/L	91
74)	*PERYLENE-D12	(IS)	264	34.25	1438	43573	40.00 UG/L	100

* Compound is ISTD

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Laboratory Name ecology and environment, inc.

Case No U-4835,4846,4863,4872

Sample Number BLANK

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2/2/87

Date Analyzed 2/12/87

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	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_t = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

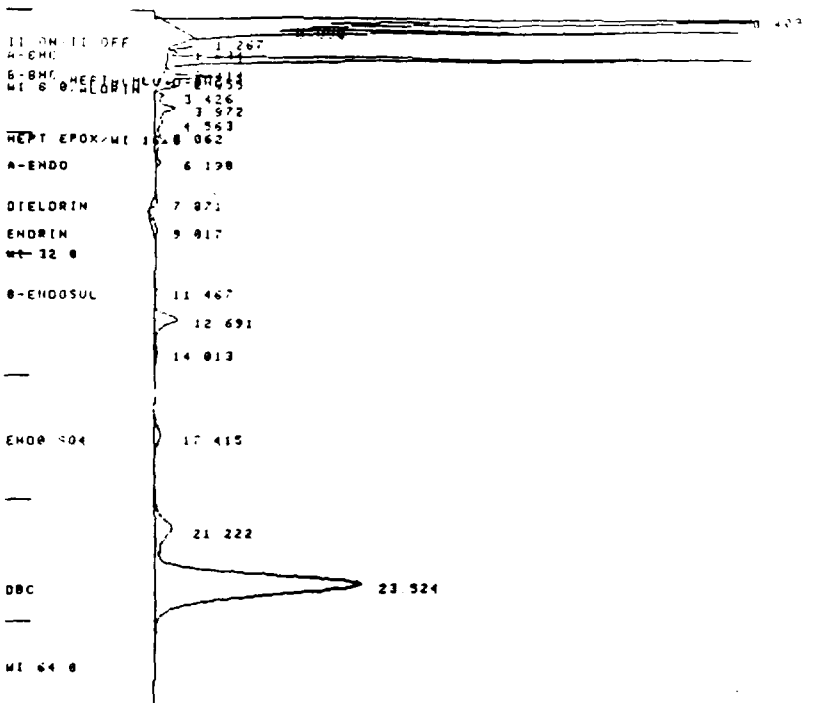
W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

511

V_s _____ or W_s 5 V_t 1,000 V_t 4

CHART SPEED .5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 1B - 1 TITLE: RUN# 9 22:10 13 FEB 87

SAMPLE: BLK.19 2-~~X~~2 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/~~ML~~	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	1.267		23234	BV		2.81
2	~~A-BHC~~	4.1223	1.634	-0.126	25206	VV		4.25
3		0.0000	1.983		8884073	VB		4.44
4	~~B-BHC~~	55.7750	2.599	0.069	113087	VV		6.88
5	~~HEPT-EPOX~~	5.1642	2.771	0.031	25458	VV	?	7.69
6	~~A-ENS~~	10.0510	3.090	0.140	42491	VV		6.06
7	~~DIELDRIN~~	3.9251	3.426	0.116	20782	VV	?	7.94
8		0.0000	3.972		80101	VV		15.00
9		0.0000	4.563		36891	VV	?	24.88
10		0.0000	5.352		62858	VV		16.81
11	~~A-ENDO~~	6.7171	6.198	-0.042	29151	VB		18.25
12	~~DIELDRIN~~	6.0874	7.871	0.241	29832	BV		14.06
13	~~ENDRIN~~	16.6661	9.017	-0.263	53305	VB	?	64.00
14	~~A-B-BHC~~	59.2264	12.691	-0.589	170710	VV		28.63
15	~~ENDO SULF.~~	6.3116	14.013	-0.707	20324	VB	?	41.69
16	~~ENDO SO4~~	39.9970	17.415	-0.385	70522	BB		42.13
17		0.0000	21.222		265806	BV		56.06
18	DBC	694.2068	23.524	-0.126	2980823	VB		54.44
TOTALS:		980.2501		-1.841	12941654			

DETECTED PKS: 35 REJECTED PKS: 17

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

NOISE: 45.7 OFFSET: 4

RACK: 1 VIAL: 9 INJ: 1

INSTRUMENT ERRORS:
COL TEMP

NOTES:
NOTEBOOK:259-107 ANALYST: R. SAMSON
SECURE AREA: O JOB# U-
INST: VARIAN 6000#2 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
AUTOSAMPLER
CONFIRMATION RUNS

POST RUN:
SAVE FILE: RAW CONF989

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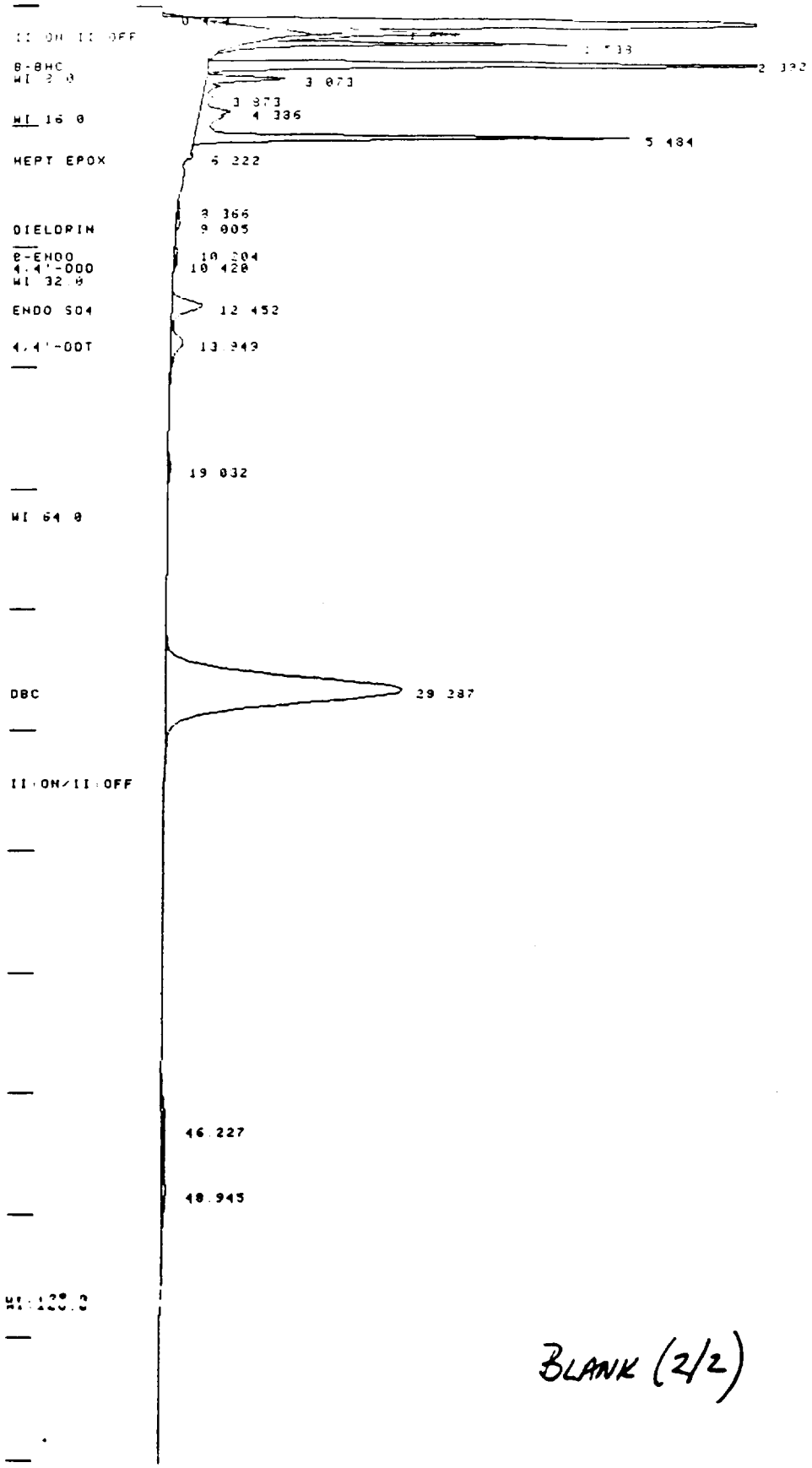

BLANK (2/2)

recycled paper

ecology and environment

CHANNEL: 1A - 1 TITLE: RUN# 18 2:27 12 FEB 87

SAMPLE: BLK.19 2/2 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	1.253		105364	BV	3.69
2		0.0000	1.538		299010	VB	4.88
3	~~O-DHS~~	2309.410	2.392	0.022	2839425	BB	6.69
4		0.0000	3.073		116017	BV	11.25
5		0.0000	3.368		22883	VV	7.75
6		0.0000	3.873		29097	VV	12.88
7		0.0000	4.386		63436	VV	? 13.19
8		0.0000	4.630		65581	VV	? 21.81
9		0.0000	5.484		728911	VB	12.06
10	~~ENDO-SO4~~	59.0280	12.452	-0.348	122127	BV	30.19
11	~~4,4'-DDT~~	33.0431	13.949	-0.261	73067	VB	36.38
12	DBC 130	864.7990	28.287	-0.123	2331870	BB	74.56
13		0.0000	46.227		51101	BV	?117.88
14		0.0000	48.945		64535	VB	?167.13

TOTALS: 3266.281 -0.710 6912424

DETECTED PKS: 27 REJECTED PKS: 13

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: -1

RACK: 2 VIAL: 3 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A 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

POST RUN:
SAVE FILE: RAW SCA081

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Laboratory Name ecology and environment, inc.

Case No V-4835,4846,4863,4872

Sample Number BLANK

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2/3/87

Date Analyzed 2/12/87

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	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_t = Volume of extract injected (ul)

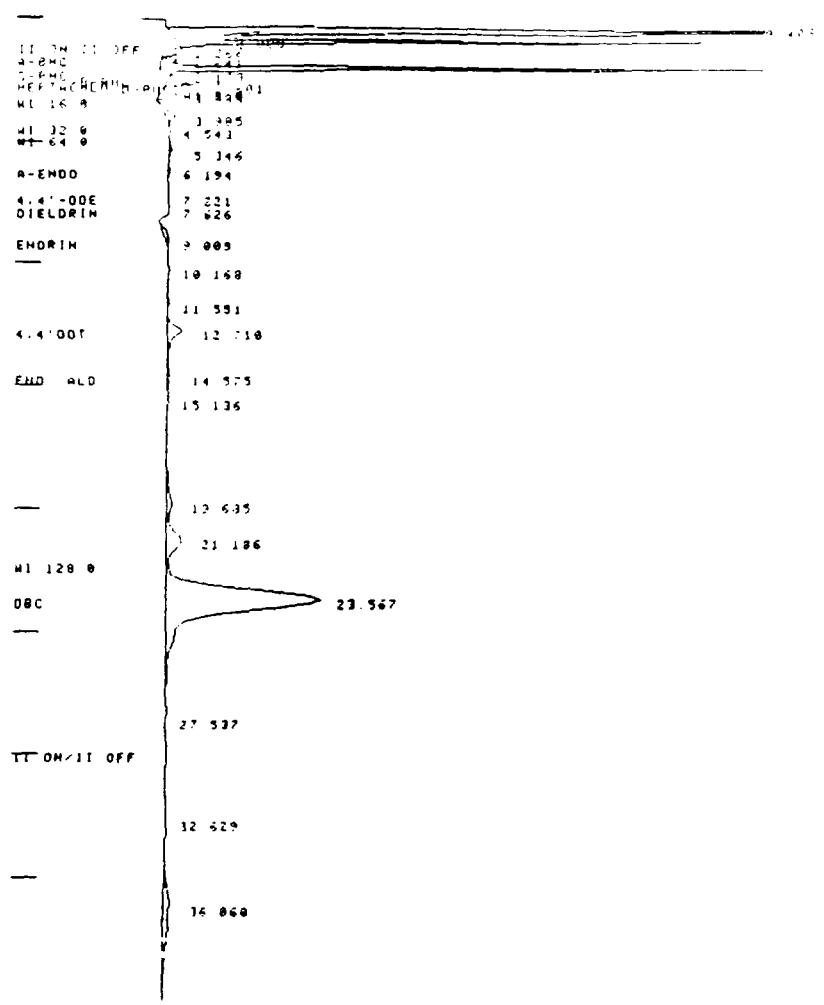
V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1,000 V_t 4

recycled paper



CHANNEL: 1B - 1 TITLE: RUN# /0 22:47 13 FEB 87

SAMPLE: BLK.19 2-3 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/A$	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1	~~A-BHC~~	0.9580	1.641	-0.119	54774	VV		8.56
2		0.0000	1.980		1392122	VV		3.94
3	~~B-BHC~~	26.5882	2.601	0.071	53909	T	?	9.00
4	~~HEPTACHLO~~	6.4154	2.770	0.030	31626	T	?	11.81
5	~~G-BHC~~	14.4027	3.003	0.133	60888	T	?	17.00
6		0.0000	3.975		64327	T	?	18.00
7		0.0000	5.342		22462	BV		22.94
8	~~ENDRIN~~	14.0429	8.971	-0.309	44915	BB	?	33.06
9	~~4,4'-DDT~~	46.1353	12.684	-0.596	132977	BV		30.50
10		0.0000	19.670		89934	BV		64.56
11		0.0000	21.168		202021	VV		52.00
12	DBC	553.1960	23.530	-0.120	2381710	VB		55.63
13		0.0000	36.025		194967	BB		149.88
TOTALS:		669.7385		-0.910	4726640			

DETECTED PKS: 28 REJECTED PKS: 15

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

NOISE: 57.1 OFFSET: -4

RACK: 1 VIAL: 10 INJ: 1

NOTES:
NOTEBOOK:259-107 ANALYST: R. SAMSON
SECURE AREA: O JOB# U-
INST: VARIAN 6000#2 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
AUTOSAMPLER
CONFIRMATION RUNS

POST RUN:

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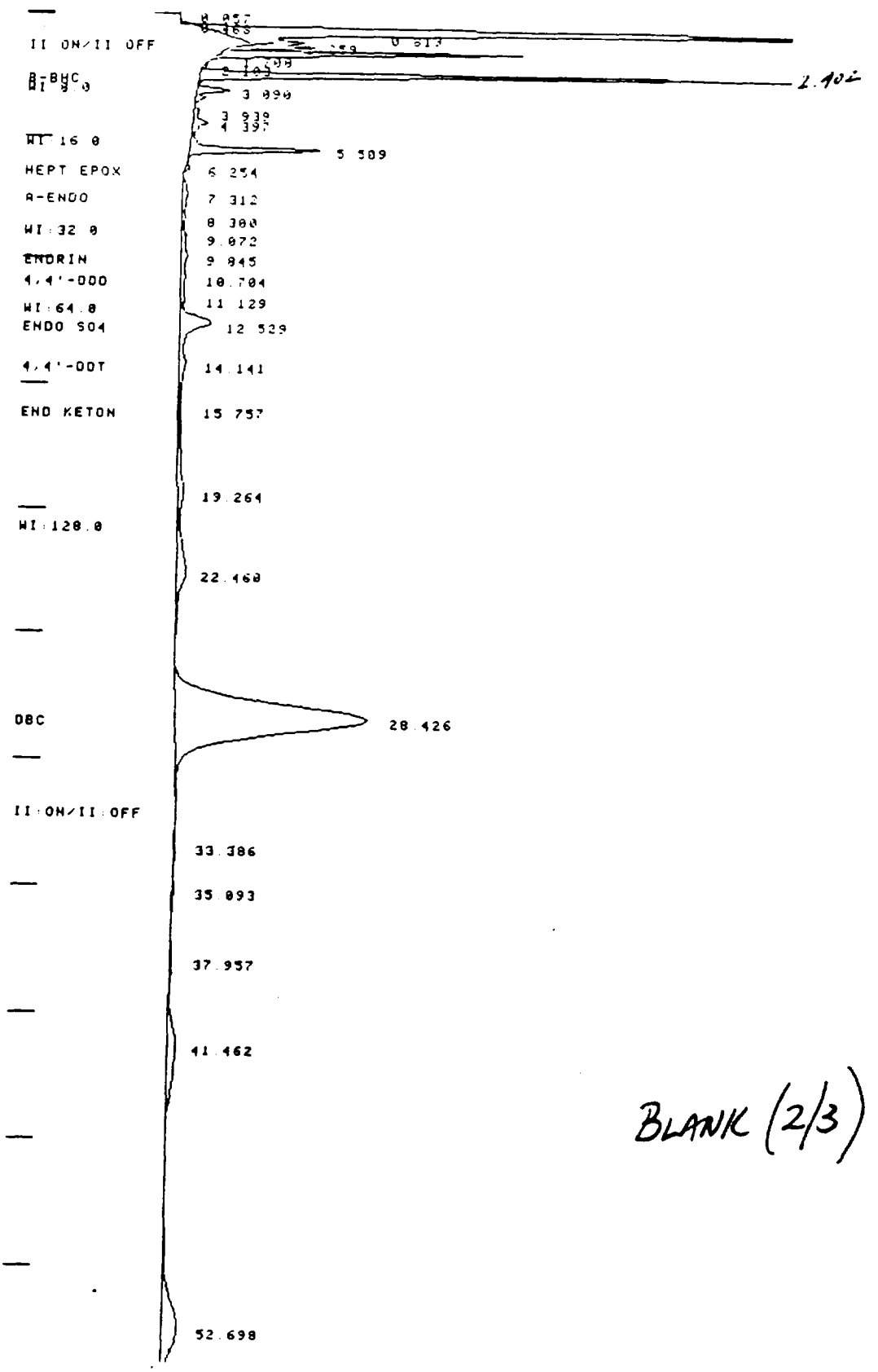
CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



BLANK (2/3)

20

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CHANNEL: 1A - 1 TITLE: RUN# 20 4:35 12 FEB 87

SAMPLE: BLK.19 2/3 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	1.259		106553	BB	4.13
2		0.0000	1.546		341442	BV	5.13
3	~~B-BHC~~	641.6288	2.402	0.032	788884	VB	6.56
4		0.0000	3.090		43130	BV	10.19
5		0.0000	4.397		27921	VV	13.25
6		0.0000	5.509		215842	VB	11.88
7	~~A-ENDO~~	12.0987	7.312	-0.258	39429	VV	? 78.50
8	~~ENDRIN~~	12.5803	9.845	0.015	31291	VV	? 57.63
9	~~4,4'-DDD~~	8.2792	10.704	-0.206	22724	VV	? 56.19
10	~~ENDO-304~~	71.6411	12.529	-0.271	148223	VV	32.63
11	~~4,4'-DDT~~	21.1096	14.141	-0.069	46679	VV	? 85.56
12		0.0000	19.264		105432	VV	?151.31
13		0.0000	22.460		158984	VV	123.69
14	DBC 107	714.8474	28.426	0.016	1927536	VB	78.56
15		0.0000	41.462		169797	VB	166.38
16		0.0000	52.698		327175	BB	152.63

TOTALS: 1482.185 -0.741 4501042

DETECTED PKS: 36 REJECTED PKS: 20

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: -4

RACK: 2 VIAL: 5 INJ: 1

NOTES:
NOTEBOOK:259-105 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#'S: U-4819,4835,4846
INST: VARIAN 6000# 2A 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

POST RUN:
SAVE FILE: RAW SCA083

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Laboratory Name ecology and environment, inc.

Case No V-4835, 4846, 4863, 4872

Sample Number
Blank

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-5-87

Date Analyzed 2-19-87

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	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_l = Volume of extract injected (ul)

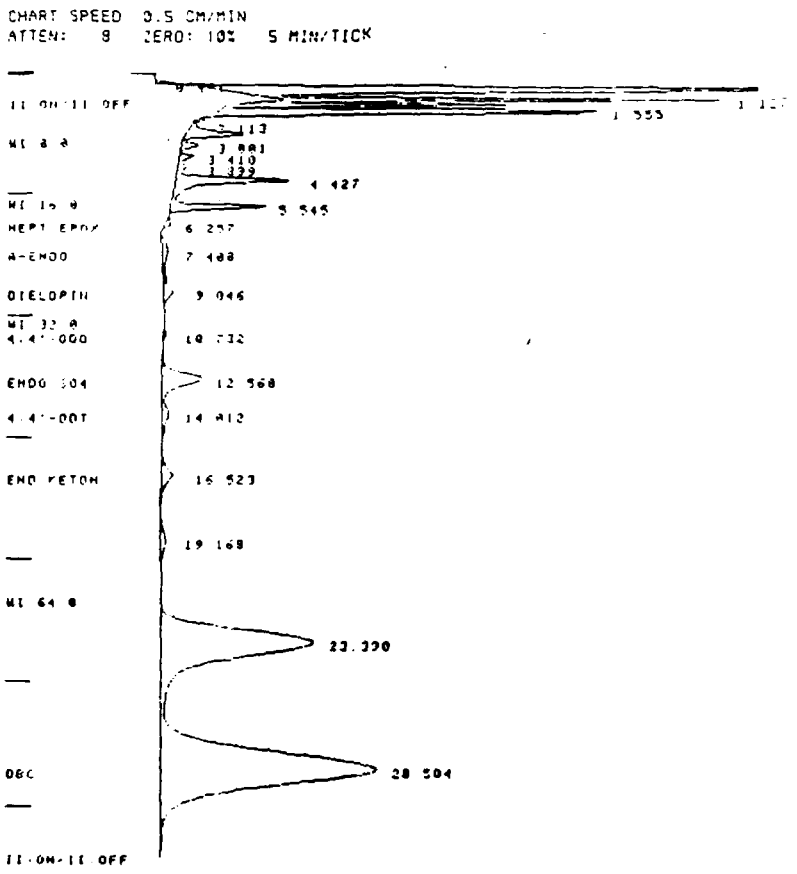
V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_l 4

519



RECALCULATE ON FILE: OC1149

CHANNEL: 1A - 1 TITLE: RUN8 [redacted] 15:49 19 FEB 87

SAMPLE: BLK 2-5 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/[redacted]	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.288		182193	BB	4.19
2		0.0000	1.555		578687	BB	5.44
3	[redacted]	75.7369	2.457	0.077	103564	VB	7.63
4		0.0000	3.881		25006	BB	10.89
5		0.0000	4.427		257229	VV	15.06
6		0.0000	5.545		156538	VB	12.13
7	[redacted]	10.4975	7.488	-0.192	37375	VV	? 74.06
8	[redacted]	11.8552	9.046	0.206	44793	VB	? 38.06
9	[redacted]	68.7516	12.568	-0.242	172875	BV	32.50
10	[redacted]	18.1350	14.012	-0.238	45396	VB	45.44
11	[redacted]	17.2001	16.523	0.143	61978	BB	44.31
12		0.0000	19.168		38375	BB	56.50
13		0.0000	23.390		1458342	BV	72.00
14	DBC [redacted]	815.3769	28.504	0.064	2425522	VB	85.44

TOTALS: 1017.553 -0.182 5587873

DETECTED PKS: 24 REJECTED PKS: 10

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: -13

RACK: 1 VIAL: 14 INJ: 1

NOTES:
NOTE BOOK: 259-112 ANALYST:RICHARD SAMSON AND K. JUREK
SECURE AREA: D JOB#:U-4863
INST: VARIAN 6000# 2A 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
220 C ISOTHERMAL 1 UL INJECTION
PRIMARY ANALYSIS AUTOSAMPLER

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Laboratory Name ecology and environment, inc.

Case No U-4835,4846,4863,4872

Sample Number BLANK

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 2-9-87

Date Analyzed: 2-16-87

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
31[illegible]5-7	Beta-BHC	8.0	U
31[illegible]-8	Delta-BHC	8.0	U
58[illegible]-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	U
72-55-9	4,4'-DDE	16	U
72-20-8	Endrin	16	U
33213-65-9	Endosulfan II	16	U
72-54-8	4,4'-DDD	16	U
1031-07-8	Endosulfan Sulfate	16	U
50-29-3	4,4'-DDT	16	U
72-43-5	Methoxychlor	80	U
53494-70-5	Endrin Ketone	16	U
57-74-9	Chlordane	80	U
8001-35-2	Toxaphene	160	U
12674-11-2	Aroclor-1016	80	U
11104-28-2	Aroclor-1221	80	U
11141-16-5	Aroclor-1232	80	U
53469-21-9	Aroclor-1242	80	U
12672-29-6	Aroclor-1248	80	U
11097-69-1	Aroclor-1254	160	U
11096-82-5	Aroclor-1260	160	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

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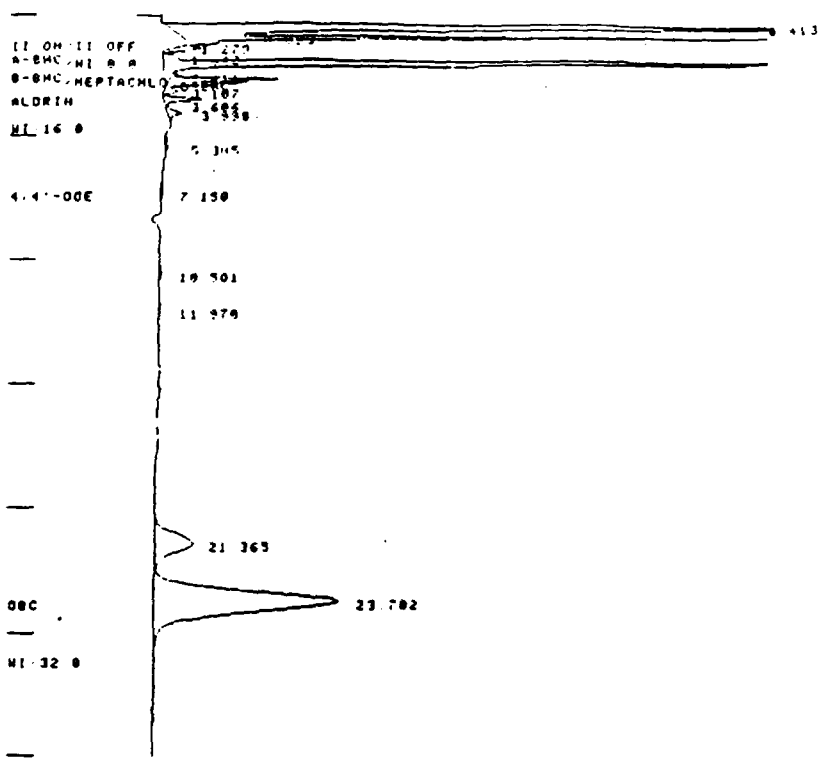

23

RECALCULATE ON FILE: CONF019

CHANNEL: 1B - 1 TITLE: RUN# 23 22:48 16 FEB 87

SAMPLE: SOIL BLANK METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	1.279		30700	BV		3.38
2		0.0000	1.642		34295	VV	?	5.00
3	[illegible]	0.4259	1.845	0.065	26423	VV	?	7.00
4		0.0000	1.996		13094433	VV		5.19
5	[illegible]	9.6488	2.610	0.040	196515	T		7.44
6	[illegible]	4.5232	2.709	0.019	143443	T		6.94
7	[illegible]	0.7729	3.107	0.117	33443	T	?	10.69
8	ALDRIN	1.6495	3.398	0.058	90636	T		7.81
9		0.0000	3.998		50876	T		16.94
10		0.0000	21.365		480141	BV	?	49.69
11	DBC	71.0974	23.702	-0.108	2534147	VB	?	53.44

TOTALS: 88.1178 0.191 16715052

DETECTED PKS: 25 REJECTED PKS: 14

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 45.7 OFFSET: 10

RACK: 2 VIAL: 8 INJ: 1

NOTES:
NOTEBOOK:259-108,109 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4854
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
EPA CASE# 6811 PRIMARY ANALYSIS
AUTOSAMPLER

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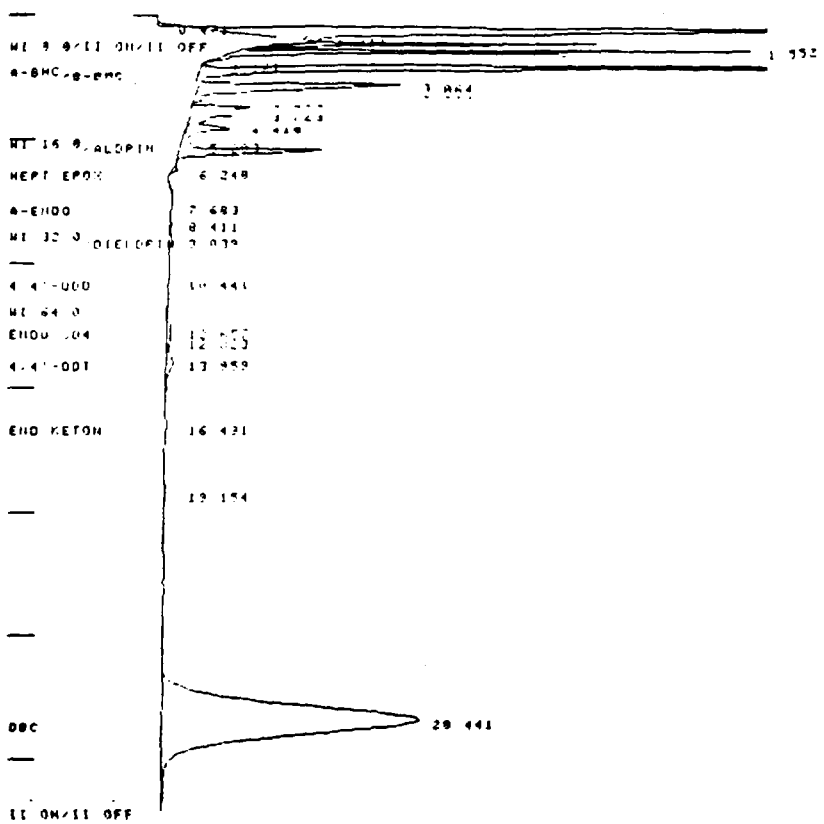

CHANNEL: 1A - 1 TITLE: RUN# 21 3:50 18 FEB 97

SAMPLE: SOIL BLANK METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/g	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.264		153296	BB	4.00
2		0.0000	1.552		328459	BV	5.00
3		352.2267	2.410	0.020	4591109	VV	6.94
4		0.0000	3.064		294079	T	12.25
5		0.0000	3.723		100951	T	9.38
6		0.0000	4.415		98717	T	13.00
7		0.0000	5.511		226832	T	12.00
8		1.7248	13.927	-0.453	38606	VB	7 37.94
9	DDC	95.5274	28.441	-0.329	2639245	BB	73.63

TOTALS: 449.4889 -0.762 8472094

DETECTED PKS: 26 REJECTED PKS: 17

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 114.3 OFFSET: -12

RACK: 2 VIAL: 6 INJ: 1

NOTES:
NOTEBOOK:259-110 ANALYST:RICHARD SAMSON AND K. JUREK
SECURE AREA: D JOB#: U-4897, U-4864
INST: VARIAN 6000# CA ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 2% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER

POST RUN:
SAVE FILE: RUN SCA127

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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870202 12:51
Output File: ^C6656::Q2 Injected at: 870202 12:05
Data File: >C6656::D1 Dilution Factor: 1.00
Name: VOA BLANK
Misc: 02-02-87CS 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870202 11:35

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128 11.60	250	30258	250.00	NGS	100
6)	METHYLENE CHLORIDE		84 8.23	163	1698	8.96	NGS	100
7)	ACETONE		43 9.43	194	17499	87.59	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65 14.47	324	89214	272.50	NGS	83
16)	*1,4-DIFLUOROBENZENE	(IS)	114 22.19	523	143099	250.00	NGS	100
17)	2-BUTANONE		72 14.70	330	4075	24.79	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117 27.04	648	114639	250.00	NGS	100
32)	~~4-METHYL-2-PENTANONE~~		~~43 28.05~~	~~540~~	~~2681~~	~~6.27~~	NGS	93
33)	2-HEXANONE		43 24.40	580	3441	9.99	NGS	100
36)	TOLUENE-D8	(SURR)	98 25.87	618	175173	282.45	NGS	89
40)	4-BROMOFLUOROBENZENE	(SURR)	95 31.58	765	86569	250.17	NGS	100

CW

* Compound is ISTD

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L6688

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872

Sample ID No: Method Blank
QC Report No:

Sample Matrix: ~~Soil~~ Water for Soil
Contract No: IL-3140

Data Release Authorized By: C Stoltowicz
Date Sample Received:

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-3-87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	1000U
74-83-9	Bromomethane	1000U
75-01-4	Vinyl Chloride	1000U
75-00-3	Chloroethane	1000U
75-09-2	Methylene Chloride	130 J
67-64-1	Acetone	990 J
75-15-0	Carbon Disulfide	500U
75-35-4	1, 1-Dichloroethene	500U
75-34-3	1, 1-Dichloroethane	500U
156-60-5	Trans-1, 2-Dichloroethene	500U
67-66-3	Chloroform	290 J
107-06-2	1, 2-Dichloroethane	500U
78-93-3	2-Butanone	2200
71-55-6	1, 1, 1-Trichloroethane	500U
56-23-5	Carbon Tetrachloride	500U
108-05-4	Vinyl Acetate	1000U
75-27-4	Bromodichloromethane	500U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	500U
10061-02-6	Trans-1, 3-Dichloropropene	500U
79-01-6	Trichloroethene	500U
124-48-1	Dibromochloromethane	500U
79-00-5	1, 1, 2-Trichloroethane	500U
71-43-2	Benzene	500U
10061-01-5	cis-1, 3-Dichloropropene	500U
110-75-8	2-Chloroethylvinylether	1000U
75-25-2	Bromoform	500U
108-10-1	4-Methyl-2-Pentanone	1000U
591-78-6	2-Hexanone	1000U
127-18-4	Tetrachloroethene	500U
79-34-5	1, 1, 2, 2-Tetrachloroethane	500U
108-88-3	Toluene	500U
108-90-7	Chlorobenzene	500U
100-41-4	Ethylbenzene	500U
100-42-5	Styrene	500U
	Total Xylenes	500U

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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name Ecology & Environment, Inc.

Case No 4-4835, 4846, 4863, 4872

Sample Number C6688

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)
				min	
1.		Unknown hydrocarbon	VOA	19.5	530 J
2.		Hexane isomer	VOA	21.2	380 J
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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28.					
29.					
30					

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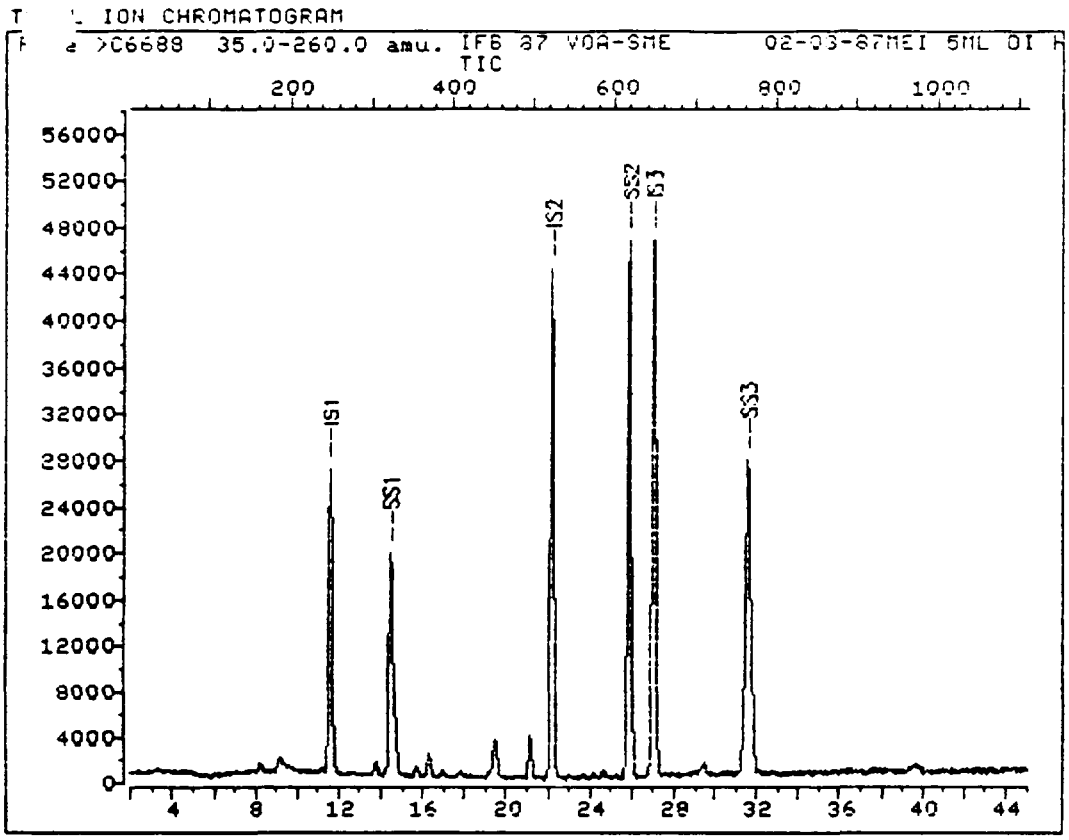

Data File: >C6688::D1
Name: IFB 87 VOA-SME Method Blank
Misc: 02-03-87MEI 5ML DI H20 + 10UL IS/SS + 100UL MEOH

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870203 14:01

Operator ID: USER8
Quant Time: 870203 18:14
Injected at: 870203 17:29

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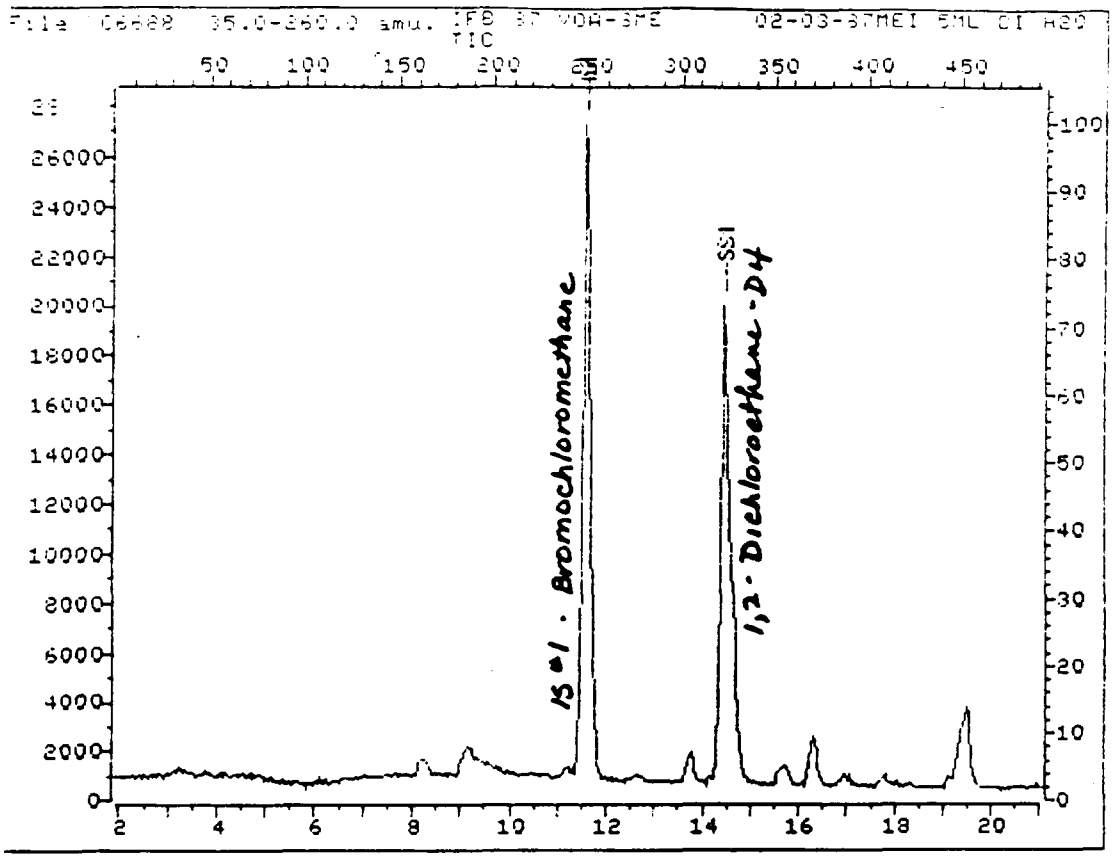
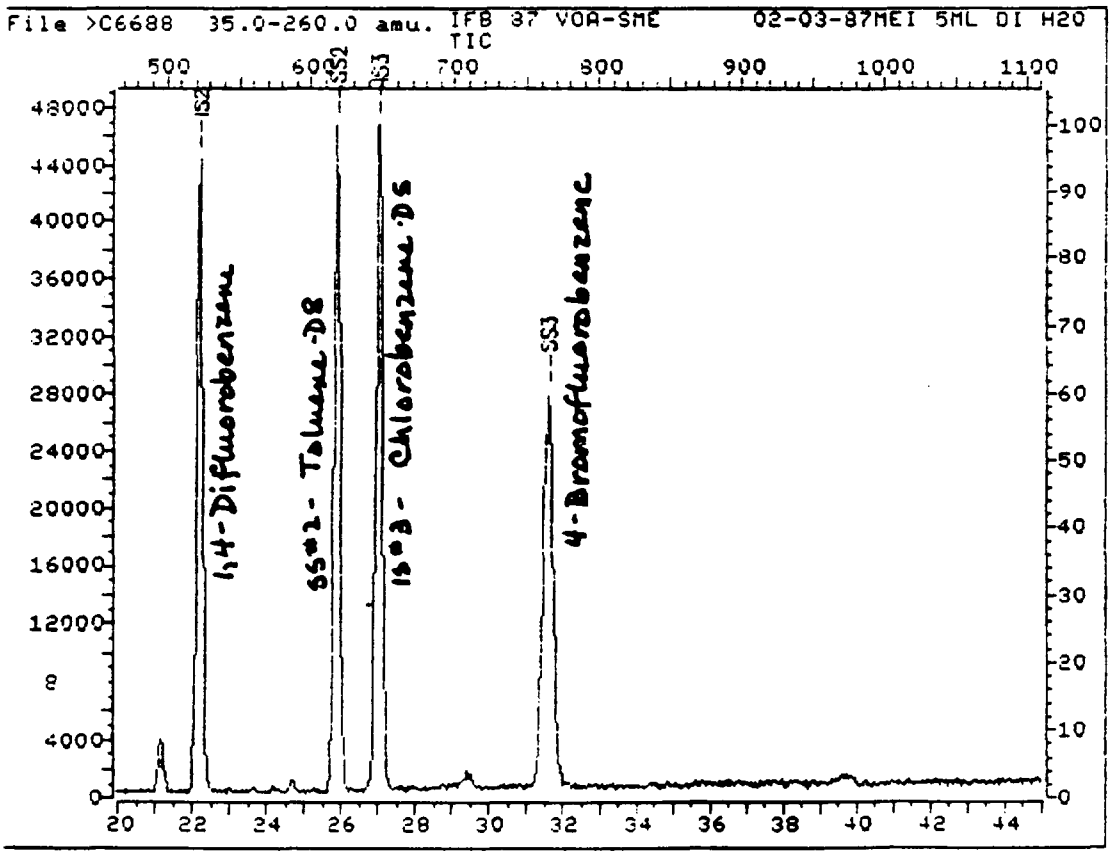
ecology and environment

C6688
Method Blank





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ecology and environment

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870203 18:14
Output File: ^C6688::Q2 Injected at: 870203 17:29
Data File: >C6688::D1 Dilution Factor: 1.00
Name: IFB 87 VOA-SME Method Blank
Misc: 02-03-87MEI 5ML DI H20 + 10UL IS/SS + 100UL MEOH

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870203 14:01

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.57	249	36917	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.19	162	1897	1.34	UG/L	100
7)	ACETONE		43	9.16	187	22192	9.90	UG/L	100
13)	CHLOROFORM		83	13.78	306	5580	2.94	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.44	323	79920	41.84	UG/L	85
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	523	177374	50.00	UG/L	100
17)	2-BUTANONE		72	14.63	328	10247	21.65	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.01	647	156717	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	25.89	618	179071	41.63	UG/L	96
39)	~~ETHYLBENZENE~~		~~91~~	~~29.11~~	~~701~~	~~2219~~	~~44~~	~~UG/L~~	~~75~~
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.60	765	93390	40.53	UG/L	100

* Compound is ISTD

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LC6101

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: IL-4835, 4846, 4863, 4872

Sample ID No: Method Blank
QC Report No:

Sample Matrix: Soil Water for Soil
Contract No: IL-3140

Data Release Authorized By: C Hoffowicz
Date Sample Received:

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-4-87

Conc/Dil Factor: 2 pH

Percent Moisture: (Not Decanted)

Concentrations reported "as received"

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	990 J
67-64-1	Acetone	3900
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	5900
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	200 J
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 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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number C6701

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	2000 J
2.		Unknown hydrocarbon	VOA	19.5	700 J
3.		Hexane isomer	VOA	21.2	8900 J
4.					
5.					
6.					
7.					
8.					
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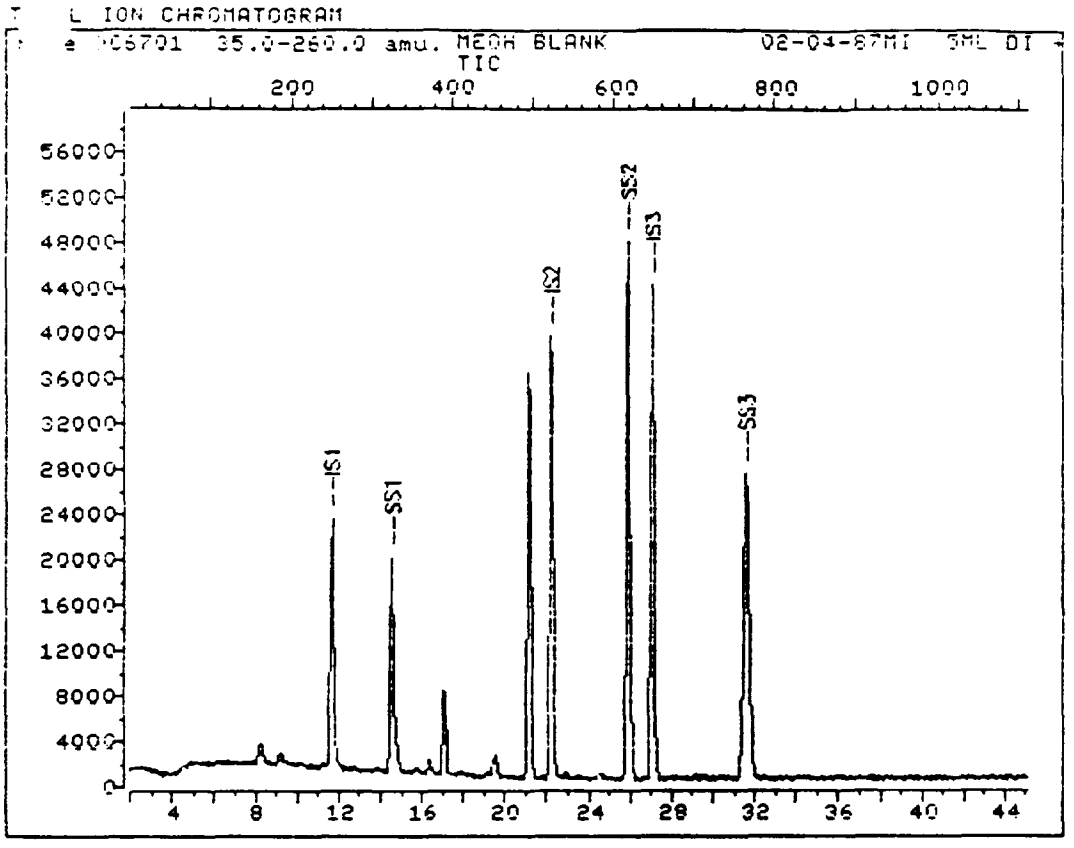

Data File: >C6701::D3
Name: MEOH BLANK
Misc: 02-04-87MI 5ML DI + 10UL IS/SS + 50UL MEOH

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870204 19:06

Operator ID: USER8
Quant Time: 870204 19:56
Injected at: 870204 19:07

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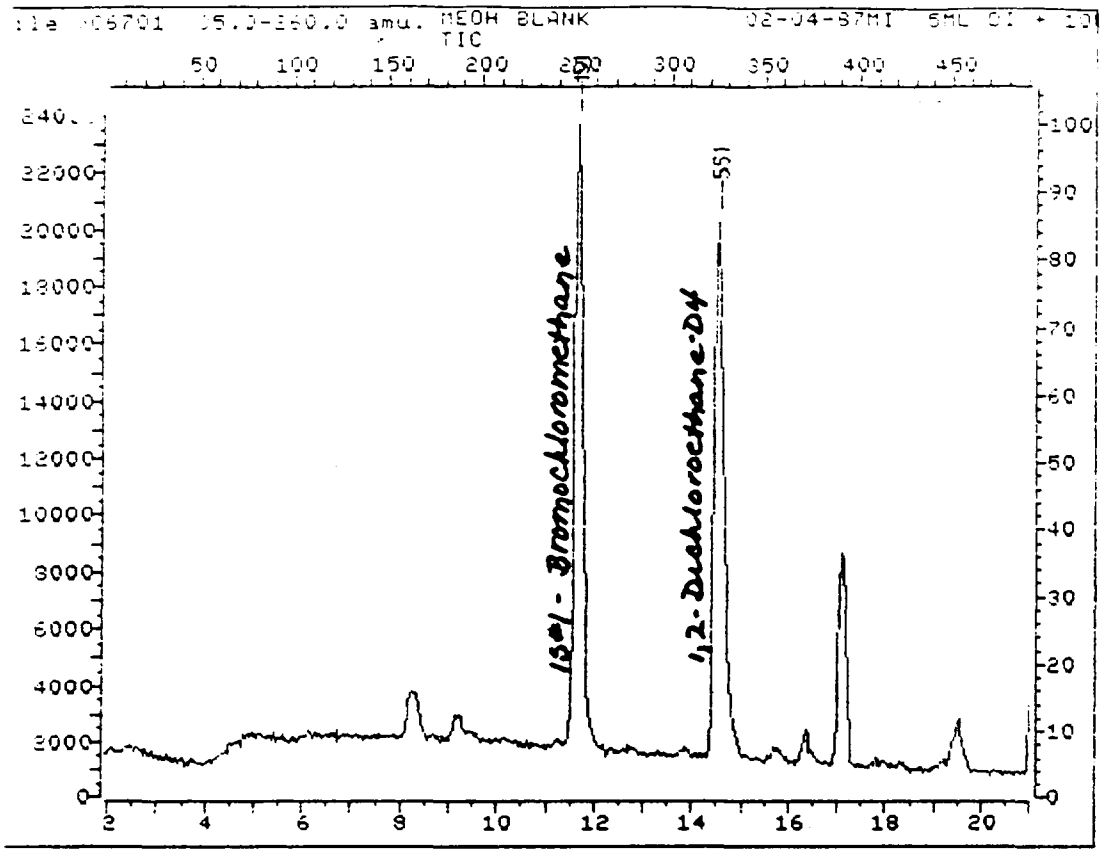
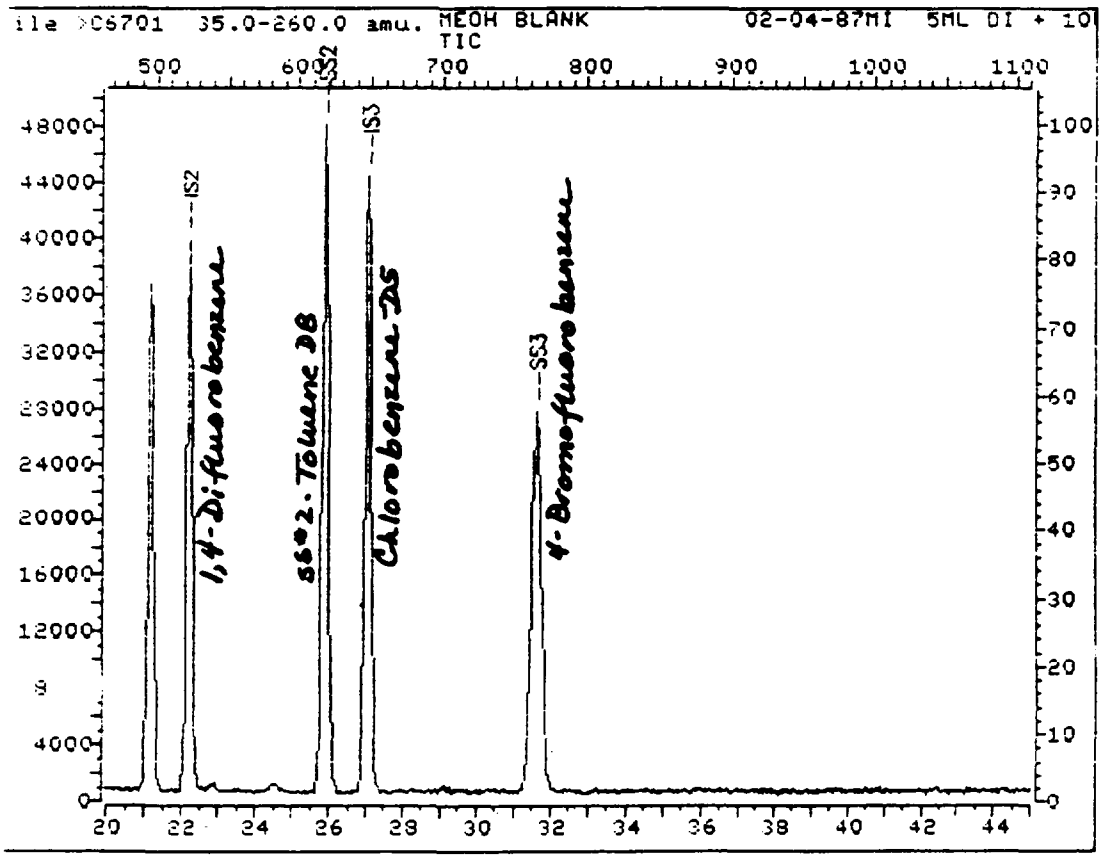
C6701





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870204 19:56
Output File: ^C6701::Q2 Injected at: 870204 19:07
Data File: >C6701::D3 Dilution Factor: 1.00
Name: MEOH BLANK
Misc: 02-04-87MI 5ML DI + 10UL IS/SS + 50UL MEOH

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870204 19:06

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.66	251	31838	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.24	163	6129	4.95	UG/L	100
7)	ACETONE	43	9.21	188	11560	19.55	UG/L	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.53	325	84375	52.53	UG/L	84
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.21	523	161085	50.00	UG/L	100
17)	2-BUTANONE	72	14.68	329	5418	29.67	UG/L	100
~~30)~~	~~BROMOFORM~~	~~173~~	~~22.17~~	~~522~~	~~237~~	~~[illegible]~~	~~UG/L~~ no cut	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.06	648	130259	50.00	UG/L	100
32)	~~4-METHYL-2-PENTANONE~~	~~43~~	~~22.91~~	~~541~~	~~3240~~	~~[illegible]~~	~~UG/L~~ no cut	90
33)	~~2-HEXANONE~~	~~43~~	~~24.42~~	~~580~~	~~2963~~	~~[illegible]~~	~~UG/L~~	100
36)	TOLUENE-D8 (SURR)	98	25.90	618	183264	52.71	UG/L	93
37)	TOLUENE	92	26.09	623	2687	.98	UG/L	97
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.61	765	95829	50.34	UG/L	100

* Compound is ISTD

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: Method Blank
QC Report No:
Sample Matrix: ~~Soil~~ Water for Soil
Contract No: IL-3140
Data Release Authorized By: C Hoptowicz
Date Sample Received:

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-6-87
Conc/Dil Factor: 2 pH
Percent Moisture: (Not Decanted)

Concentrations reported "as received"

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	850 J
67-64-1	Acetone	4700
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	6300
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 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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name Ecology & Environment, Inc.

Case No 4-4835, 4846, 4863, 4872

Sample Number C6729

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	2100 J
2.		Hexane isomer	VOA	21.2	9400 J
3.					
4.					
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9.					
10.					
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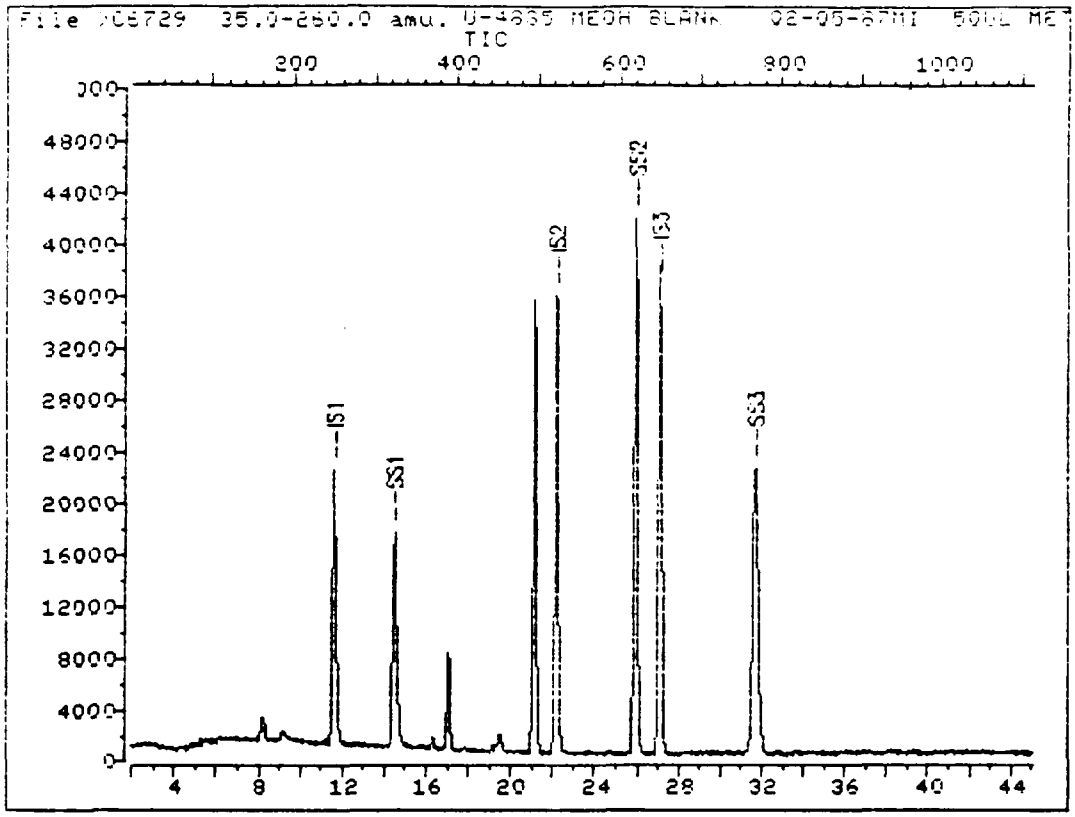
TOTAL ION CHROMATOGRAM



Data File: >C6729::D3
Name: U-4835 MEOH BLANK
Misc: 02-05-87MI 50UL METHANOL + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870205 21:50

Operator ID: USER8
Quant Time: 870206 06:14
Injected at: 870206 05:28

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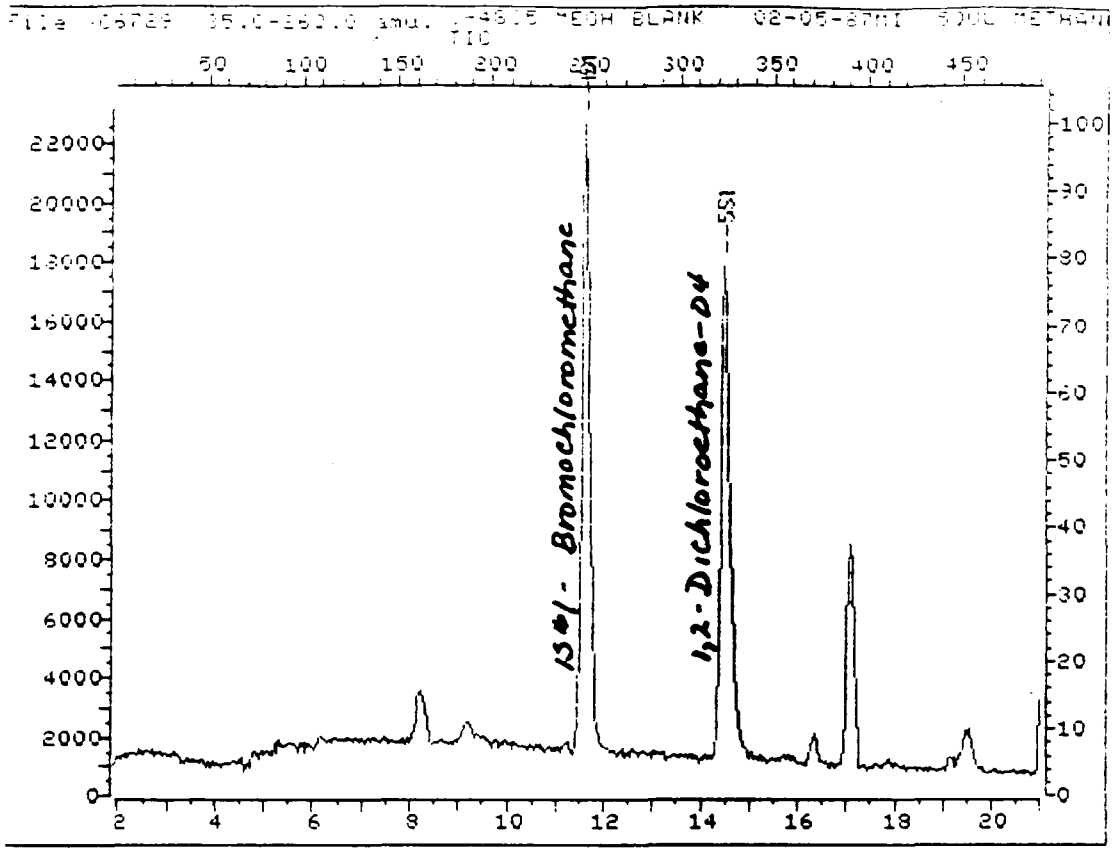
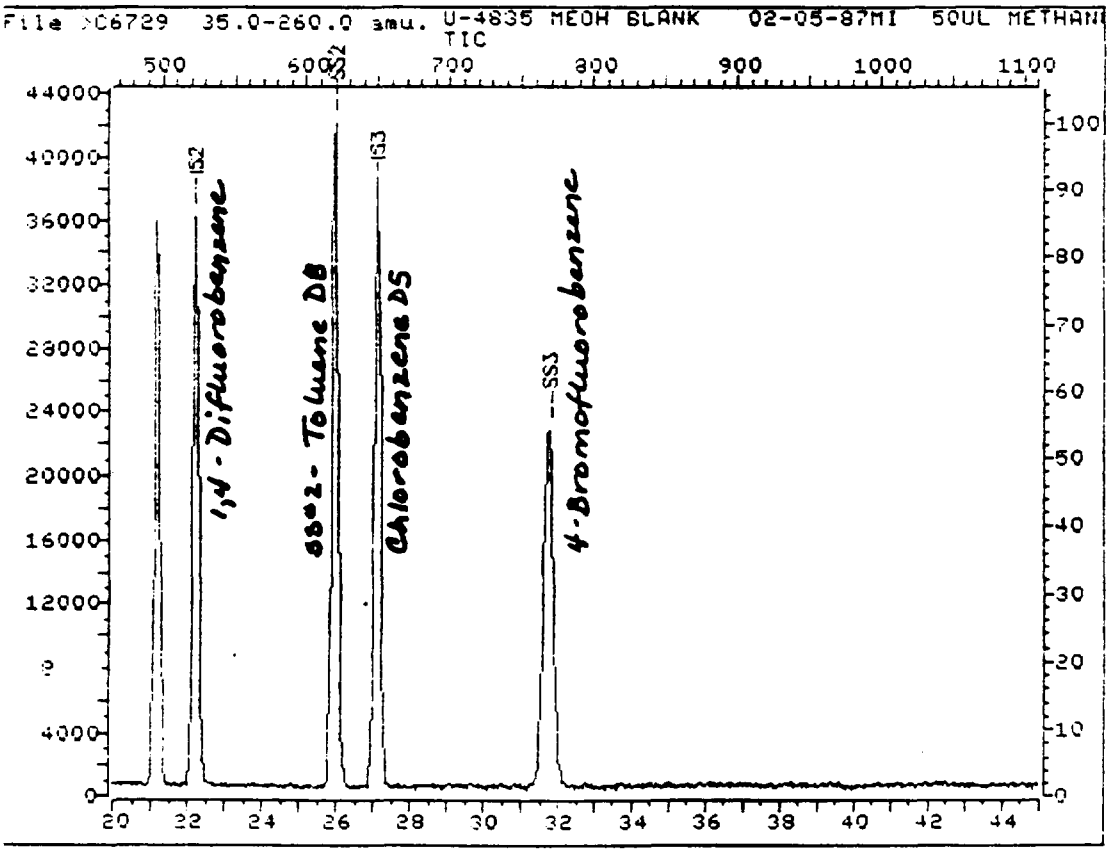
C6729





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870206 06:14
Out t File: ^C6729::Q2 Injected at: 870206 05:28
Data File: >C6729::D3 Dilution Factor: 1.00
Name: U-4835 MEOH BLANK
Misc: 02-05-87MI 50UL METHANOL + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870205 21:50

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.61	250	29976	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.23	163	5373	4.27	UG/L	100
7)	ACETONE		43	9.20	188	11013	23.52	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.48	324	75047	50.57	UG/L	87
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	523	150361	50.00	UG/L	100
17)	2-BUTANONE		72	14.63	328	4549	31.56	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.09	649	117640	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	25.96	620	166254	52.83	UG/L	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.75	769	81159	51.56	UG/L	100

* Compound is ISTD

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4835, 4846, 4863, 4872
Sample ID No: Method Blank
QC Report No:
Sample Matrix: Soil Water for Soil
Contract No: IL-3140
Data Release Authorized By: C Hoytouricz
Date Sample Received:

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 2-6-87
Conc/Dil Factor: 1 pH
Percent Moisture: (Not Decanted)

Concentrations reported "as received"

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	2 J
67-64-1	Acetone	10
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.

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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name Ecology & Environment, Inc.

Case No U-4835, 4846, 4863, 4872

Sample Number C6740

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.					
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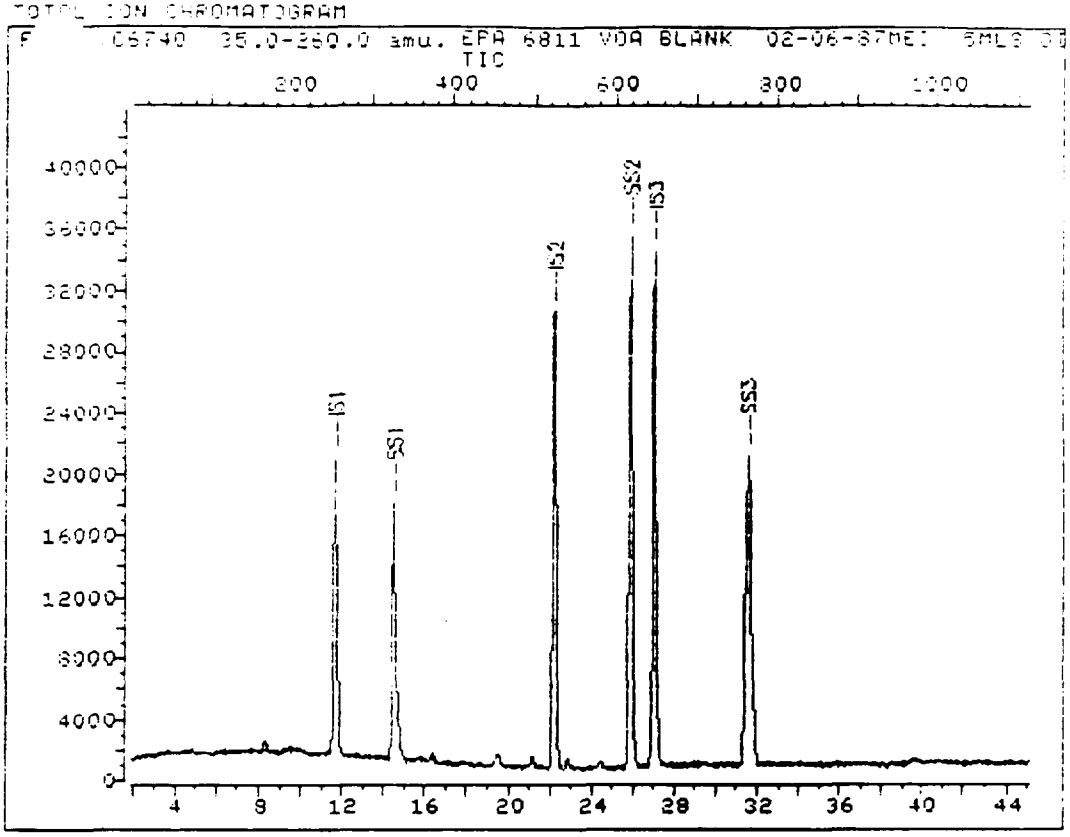
TOTAL ION CHROMATOGRAM



Data File: >C6740::D3
Name: EPA 6811 VOA BLANK
Misc: 02-06-87MEI 5MLS DI H20 + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.
Last Calibration: 870206 17:30

Operator ID: USER8
Quant Time: 870206 18:15
Injected at: 870206 17:29

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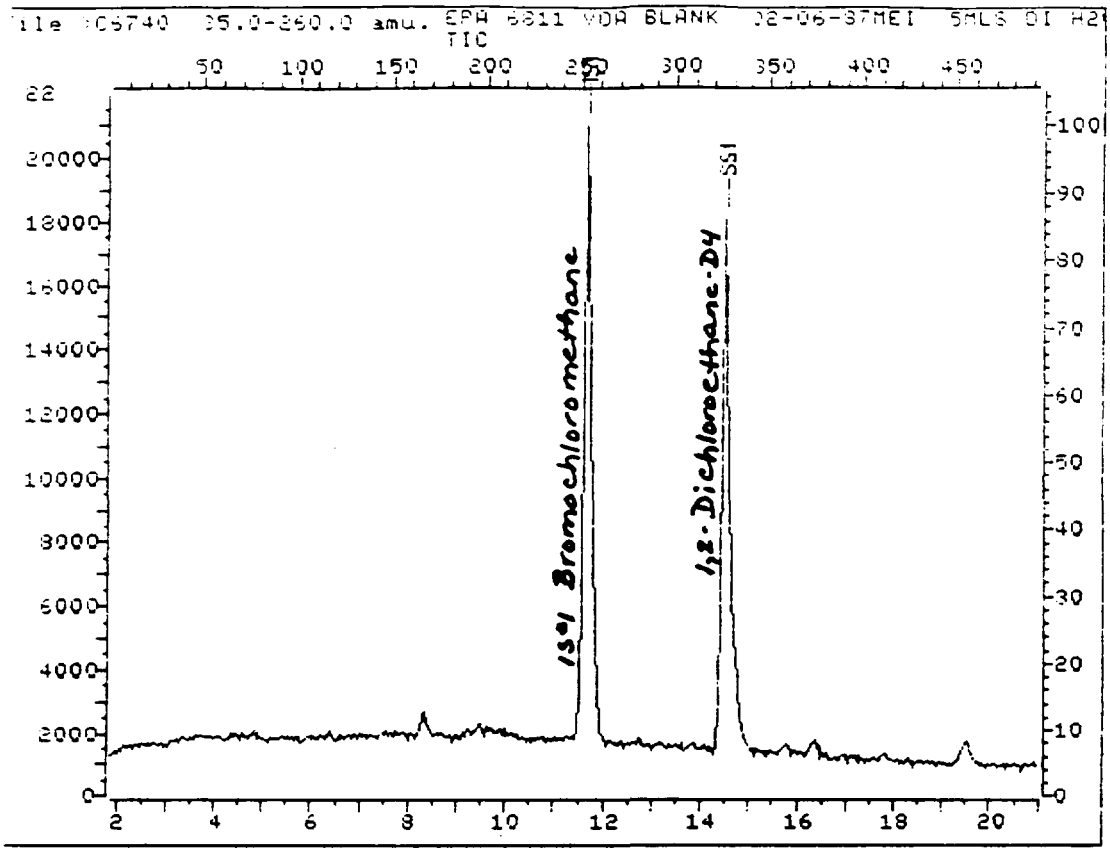
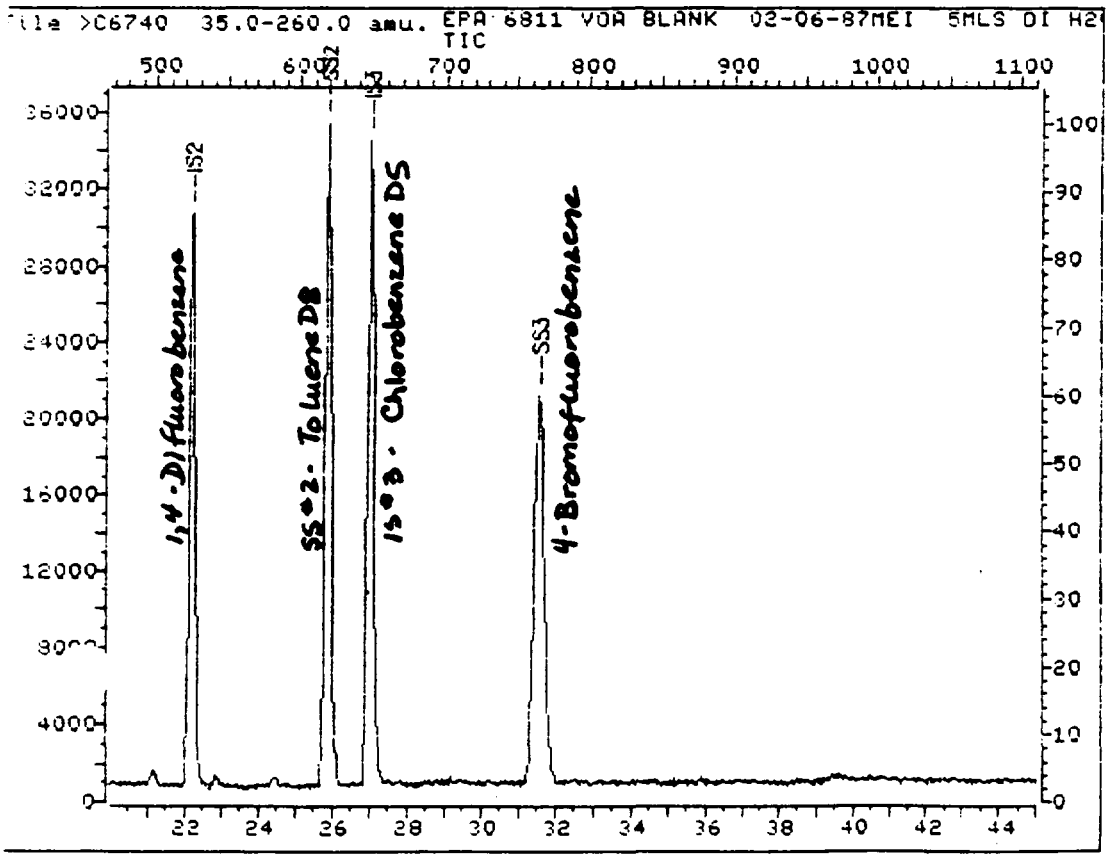
C6740





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ecology and environment

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870206 18:15
Output File: C6740::Q2 Injected at: 870206 17:29
Data File: C6740::D2 Dilution Factor: 1.00
Name: EPA 6811 VOA BLANK
Misc: 02-06-87ME1 5MLS DI H20 + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870206 17:30

	Compound		R.T.	Scan#	Area	Conc	Units	Q
1)	*BROMOCHLOROMETHANE	(IS)	128 11.67	253	25774	250.00	NGS	100
6)	METHYLENE CHLORIDE		84 8.30	166	1597	10.54	NGS	100
7)	ACETONE		43 9.46	196	9332	47.87	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65 14.51	326	68274	251.39	NGS	83
16)	*1,4-DIFLUOROBENZENE	(IS)	114 22.19	524	122477	250.00	NGS	100
17)	2-BUTANONE		72 14.74	332	3387	67.43	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117 27.04	649	111068	250.00	NGS	100
32)	~~4-METHYL-2-PENTANONE~~		~~43 22.87~~	~~542~~	~~3638~~	~~7.09~~	~~NGS~~ no cw	89
33)	~~2-HEXANONE~~		~~43 24.40~~	~~581~~	~~3277~~	~~9.19~~	~~NGS~~ no cw	100
36)	TOLUENE-D8	(SURR)	98 25.88	619	131194	246.34	NGS	91
40)	4-BROMOFLUOROBENZENE	(SURR)	95 31.57	765	71003	241.39	NGS	100

* Compound is ISTD

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Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4835, 4846, 4863, 4872

I Sample ID No: Method Blank

QC Report No:

Sample Matrix: Soil (w) water for soil

Contract No: IL-3140

Data Release Authorized By: C Hoytowicz

Date Sample Received:

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-9-87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

Concentrations reported "as received"

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	2 J
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	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 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/ml 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.

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range.

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Laboratory Name Ecology & Environment, Inc.

Case No 4-4935, 4846, 4863, 4872

Sample Number C6759

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	17.0	9 J
2.		Hexane isomer	VOA	21.1	42 J
3.					
4.					
5.					
6.					
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10.					
11.					
12.					
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28.					
29.					
30					

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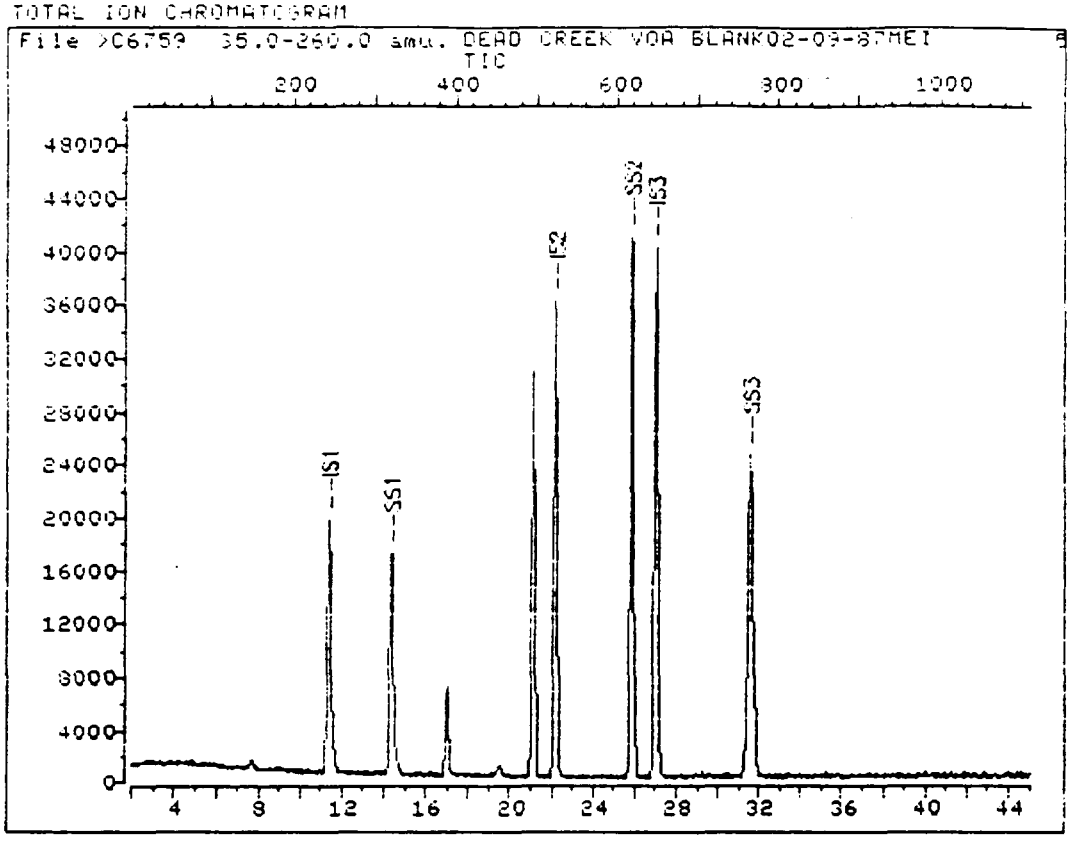
TOTAL ION CHROMATOGRAM



Data File: >C6759::D3
Name: DEAD CREEK VOA BLANK
Misc: 02-09-87MEI 5MLS DI + 10UL IS/SS

Ic File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870209 18:44

Operator ID: USER8
Quant Time: 870209 21:56
Injected at: 870209 21:10

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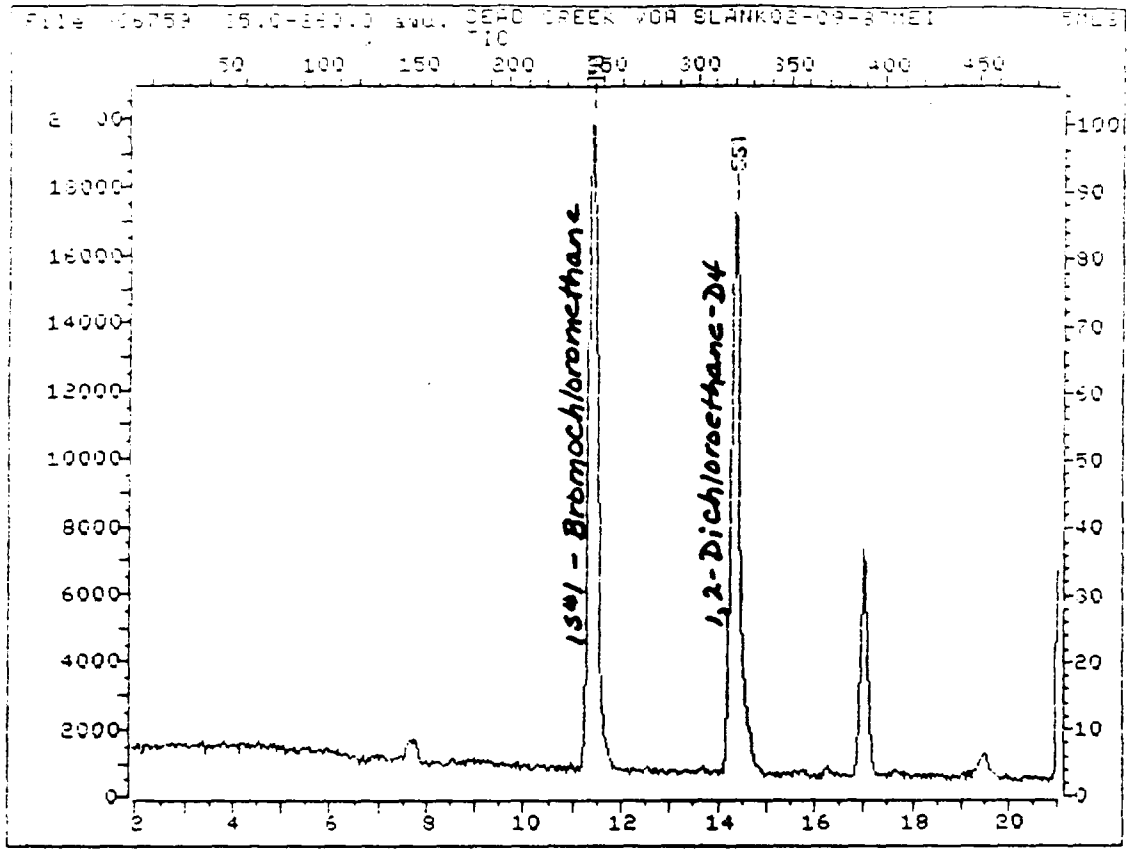
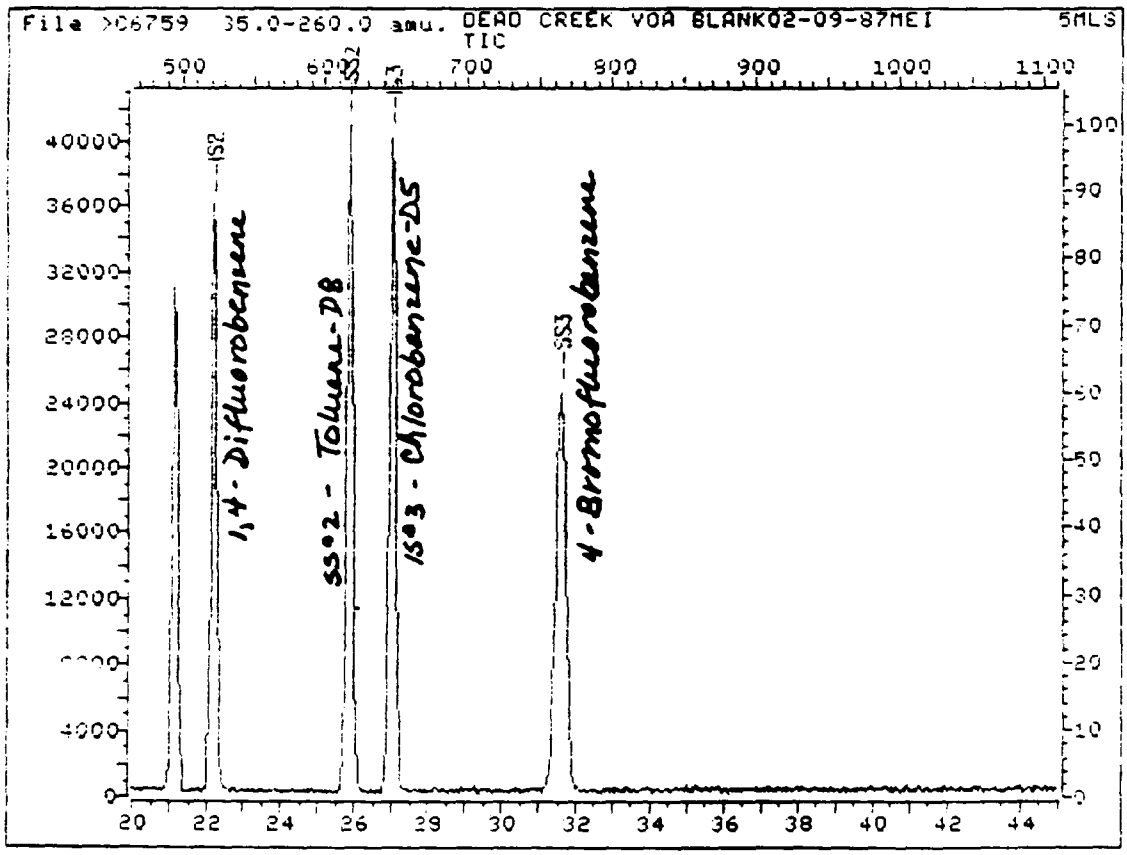
C6759





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QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870209 21:5e
Output File: ^C6759::Q2 Injected at: 870209 21:10
Data File: >C6759::D3 Dilution Factor: 1.00
Name: DEAD CREEK VOA BLANK
Misc: 02-09-87ME1 5ML5 D1 - 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870209 18:44

	Compound		R.T.	Scan#	Area	Conc	Units	Q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.38	244	30684	250.00 NGS	100
6)	METHYLENE CHLORIDE		84	7.69	149	2069	11.29 NGS	100
7)	ACETONE		43	9.01	183	3955	21.67 NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.36	321	80742	272.75 NGS	81
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.16	522	144078	250.00 NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.01	647	120958	250.00 NGS	100
36)	TOLUENE-D8	(SURR)	98	25.85	617	159799	263.33 NGS	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.60	765	83091	256.82 NGS	100

* Compound is ISTD

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