SDMS US EPA REGION V -1

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ORGANIC DATA VALIDATION REPORT

1.0 INTRODUCTION

Site:	Sauget Area 1
Laboratory:	Ecology and Environment, Inc.
Validation:	PRC Environmental Management, Inc.
Review Date:	May 1993
Case Numbers:	U-4432 and U-4442
Sample Numbers:	DC-SD-13 through DC-SD-29 DC-SD-31 through DC-SD-36
Analyses:	Volatiles, Semivolatiles, Pesticides/Polychlorinated Biphenyls
Collection Dates:	November 5 and 6, 1986

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

2.0 DATA REVIEW REQUIREMENTS

This section discusses The various data review requirements. 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.

2.2 INSTRUMENT PERFORMANCE

In the volatile organic analyses (VOA) and semivolatile organic analyses (SVOA), all requirements for gas chromatography/mass spectroscopy (GC/MS) tuning were met.

In the pesticide/polychlorinated biphenyl analyses (P/PCB), most requirements were met. The exception was the combined 4,4'-DDT and endrin breakdown on the primary column in the last evaluation standard, which was 24 percent, above the quality control (QC) limit of 20 percent. Since neither parent compounds nor degradation products were found in the samples analyzed between the previous standard and this one, no actions are warranted. The data package omitted the raw data (chromatograph scans and reports) which led to these tabulated results.

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 calibration series were used in these analyses. In the first, the only parameter outside QC limits was the percent relative standard deviation (%RSD) for bromomethane, which was 31.1 percent (QC limit of 30 percent). Therefore, the result for that chemical in the only affected sample (DC-SD-14) is considered estimated and flagged "UJ."

In the second initial calibration, the %RSD for 2-chloroethylvinyl ether was 52.0 percent, so all results are flagged "J" (if detected) or "UJ" (if not detected). In addition, the average response factor (RF) for 2-butanone was 0.034 and the average RF for 2-chloroethylvinyl ether was 0.037. Since both of these are less than the QC limit of 0.05, all reported values are considered estimates (flagged "J") and all nondetect results are rejected (flagged "R"). Note that the "R" flag for nondetect results supersedes the "UJ" flag for the %RSD.

During the continuing calibrations, most of the 2-butanone RF results were less than 0.05, but no further qualification is needed. However, many chemicals had an RF for which the percent difference (%D) from the initial calibration exceeded the QC criterion of 25 percent. These chemicals, listed in Table 1, are considered estimates and flagged "J" or "UJ."

2.3.2 Semivolatile Organic Analyses

During initial calibration, two chemicals had %RSDs exceeding the QC criterion, 3-nitroaniline (34.5 percent) and 3,3'-dichlorobenzidine (39.2 percent). All results for these are considered estimates and flagged "J" (if detected) or "UJ" (if not detected).

A number of chemicals exceeded the %D criterion in each continuing calibration requiring flags of "J" or "UJ." These are shown on Table 2.

2.3.3 Pesticide/Polychlorinated Biphenyl Analyses

The initial and continuing calibrations for the P/PCB analyses were within QC limits. The required analytical sequence was followed.

2.4 BLANKS

A number of common laboratory chemicals and some other chemicals, including nontarget chemicals (tentatively identified compounds [TIC]), were found in the various blanks run during these assays. All sample concentrations up to 5 times the maximum blank concentration (10 times for common laboratory contaminants), corrected for dilution, are considered artifacts and flagged "U" for nondetected. Most analyses were run using the medium concentration procedure, with higher sample quantitation limits than the others. There were no field blanks. The blank contaminants, their maximum concentrations, action levels, and samples affected are shown in Table 3.

2.5 SURROGATE RECOVERY

In the VOA samples, only toluene-d8 in sample DC-SD-14 exceeded its QC limits, with recoveries of

TABLE 1

VOLATILE ORGANIC ANALYSIS CONTINUING CALIBRATIONS

Continuing Calibration		Chemical (%D)		Samples Affected
Date	Time			
November 12, 1986	1601	Acetone (66.3)	2-Hexanone (34.6)	DC-SD-14
		Carbon disulfide (46.0)	Styrene (45.5)	
		4-Methyl-2-pentanone (26.6)	Xylenes (36.2)	
November 13, 1986	1248	Chloroethane (34.2)	Vinyl acetate (51.4)	DC-SD-13, DC-SD-15
		Methylene chloride (80.7)	Styrene (29.7)	
		Acetone (31.3)		
November 13, 1986	2203	Bromomethane (39.6)	Tetrachloroethene (34.1)	DC-SD-16, DC-SD-17, DC-SD-18, DC-SD-19
		Chloroethane (37.3)	Toluene (28.9)	
		Methylene chloride (50.0)	Chlorobenzene (34.6)	
		Trichlorofluoromethane (29.3)	Ethylbenzene (26.1)	
		Carbon disulfide (51.3)	Styrene (33.0)	
		trans-1,2-Dichloroethene (27.6)	Xylenes (25.7)	
		Vinyl acetate (39.4)		
November 14, 1986	1045	Chloromethane (32.4)	2-Hexanone (36.9)	DC-SD-20, DC-SD-21, DC-SD-22, DC-SD-23
		Bromomethane (29.5)	Trichloroethene (28.2)	
		Methylene chloride (41.3)	1,1,2,2-Tetrachloroethane (38.4)	
		Vinyl acetate (41.0)	Chlorobenzene (37.1)	
		1,1,2-Trichloroethane (28.0)	Styrene (35.1)	
		4-Methyl-2-pentanone (39.1)	Xylene (25.5)	
November 14, 1986	2041	Chloromethane (43.3)	Acetone (32.2)	DC-SD-24, DC-SD-25, DC-SD-26, DC-SD-27, DC-SD-28, DC-SD-29, DC-SD-31, DC-SD-32, DC-SD-33
		Bromomethane (44.2)	Vinyl acetate (55.3)	
		Vinyl chloride (28.0)		
November 17, 1986	0958	Bromomethane (32.9)	Acetone (35.3)	DC-SD-34, DC-SD-35, DC-SD-36
		Chloroethane (40.8)	Carbon disulfide (30.0)	
		Methylene chloride (27.6)	Vinyl acetate (47.1)	

TABLE 2

SEMIVOLATILE ORGANIC ANALYSIS CONTINUING CALIBRATIONS

Continuing Calibration		Chemical (%D)		Samples Affected
Date	Times[a]			
November 20, 1986	1009/1108	bis(2-Chloroisopropyl)ether (29.5)	N-Nitroso-di-n-propylamine (28.6)	DC-SD-29
November 21, 1986	1234/1342	2,4-Dinitrophenol (37.8)		DC-SD-16, DC-SD-17, DC-SD-18, DC-SD-20, DC-SD-26
November 24, 1986	1558/1656	Benzoic acid (28.9)	4-Nitrophenol (44.4)	DC-SD-13, DC-SD-14
		2,4-Dinitrophenol (30.8)	bis-(2-Chloroethyl)ether (27.3)	
November 25, 1986	1257/1402	2,4-Dinitrophenol (30.4)	Benzidine (46.5)	DC-SD-15, DC-SD-23, DC-SD-21, DC-SD-27
		4-Nitrophenol (69.8)	Pyrene (32.2)	
		Pentachlorophenol (25.2)	Benzo(k)fluoranthene (25.5)	
		3-Nitroaniline (25.2)	Dibenz(a,h) anthracene (31.0)	
December 1, 1986	1032/1128	4-Nitrophenol (33.1)	4-Nitroaniline (37.3)	DC-SD-24, DC-SD-25, DC-SD-28, DC-SD-31, DC-SD-32
		Aniline (29.6)	2,4-Dinitrotoluene (28.9)	
		bis(2-Chloroethyl) ether (26.5)	Pyrene (31.5)	
		bis(2-Chloroisopropyl)ether (28.0)	Indeno(1,2,3-cd)pyrene (36.7)	
		N-Nitroso-di-n-propylamine (28.3)	Dibenz(a,h)anthracene (25.9)	
		2-Nitroaniline (29.8)		
December 12, 1986	1250/1351	4-Nitrophenol (47.8)	Benzidine (69.9)	DC-SD-19, DC-SD-22, DC-SD-33, DC-SD-34, DC-SD-35, DC-SD-36
		4-Chloroaniline (30.7)	Pyrene (52.7)	
		Hexachlorobenzene (30.6)	Benzo(k)fluoranthene (31.8)	
		Fluoranthene (25.5)		

Note:

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

TABLE 3

BLANK CONTAMINATION

Analysis	Chemical	Concentration (micrograms/kilogram)		Samples Qualified
		Blank	Action Level[a]	
VOA	Methylene chloride	6,900	69,000	All samples
VOA	Acetone	4,900	49,000	All samples
VOA	2-Butanone	8,000	80,000	All samples
VOA	2-Hexanone	880	4,400	DC-SD-14, DC-SD-22, DC-SD-34
VOA	Hexene isomer (17.4)[b]	400	2,000	All samples
VOA	Unknown ketone (19.8)	630	3,150	All samples
VOA	Hexane isomer (21.5)	1,600	8,000	All samples except DC-SD-14
SVOA	Di-n-butylphthalate	57	570	DC-SD-15 through DC-SD-18, DC-SD-20 DC-SD-24 through DC-SD-26, DC-SD-36
SVOA	Unknown hydrocarbon (27.6)	690	3,450	DC-SD-20; DC-SD-21, DC-SD-23 through DC SD-29, DC-SD-31
SVOA	Unknown (30.9)	2,000	10,000	DC-SD-15, DC-SD-18, DC-SD-20, DC-SD-21, DC-SD-23 through DC-SD-29, DC-SD-31, DC-SD-32
SVOA	Unknown (35.1)	550	2,750	DC-SD-20, DC-SD-21, DC-SD-23 through DC-SD-29, DC-SD-31, DC-SD-32
P/PCB	None	--	--	None

Notes:

[a] For dry samples, numbers on Form I are corrected for moisture content.

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

131 percent and 130 percent (QC limits of 81 to 117 percent) in the analysis and reanalysis. This indicates some sort of matrix effect, probably related to the high number and concentrations of aromatic hydrocarbons, both target and TIC, in this sample. In the absence of other evidence, no action is needed.

One surrogate in each of five SVOA samples (and one blank) was outside the advisory limits. No action is warranted.

The P/PCB surrogate was diluted out in most samples. When this did not occur, results were satisfactory.

2.6 MATRIX SPIKE/MATRIX SPIKE DUPLICATES

All results for the matrix spike/matrix spike duplicate (MS/MSD) samples in the VOA and P/PCB analyses were satisfactory. The recoveries for 2,4-dinitrotoluene were 94 percent and 88 percent, with one result exceeding the QC limits of 28 to 89 percent. No action is warranted.

2.7 FIELD DUPLICATES

There were no field duplicates.

2.8 INTERNAL STANDARDS

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

2.9 COMPOUND IDENTIFICATION

The VOA and SVOA raw data omitted mass spectra, so identification could not be verified. However, the care in identification of TIC implies that this was done well.

In the P/PCB analyses, the PCB found in these samples did not match the standards well, probably due to weathering. Therefore, the laboratory used manual pattern identification. Errors may have occurred in identifying which PCB is present in which sample: that is, some material called "Aroclor 1248" may actually be Aroclor 1254 or vice versa. However, the total PCB concentrations are probably accurate. The only possible error would be with samples such as DC-SD-14, with high concentrations of aromatic chemicals (including TIC) in the SVOA. These chemicals would react very weakly with the detector used in the P/PCB analyses but are not expected to cause a significant error (high bias) in the PCB results.

2.10 COMPOUND QUANTITATION

Spot checks revealed no problems.

2.11 SYSTEM PERFORMANCE

There was no evidence of sudden shifts in system performance or similar problems. The high concentrations of organic compounds in these samples required dilutions which raised detection limits, but this indicates a problem with the samples, not the analyses.

3.0 OVERALL ASSESSMENT

On the whole, these analyses produced results equivalent to Data Quality Level IV. Many samples contained high concentrations of chemicals, often nontarget, in the semivolatile range. Therefore, minor concentrations of other chemicals would be obscured and not reported. The solvent contamination in the laboratory blanks was somewhat higher than is common, but this did not obscure any significant contamination. The greatest uncertainties are in chemicals not reported (possible false negatives). Since the scoring system uses only chemicals definitely found at the site, this may produce a lower score than the site merits. For the final validated results, see Appendix A.

APPENDIX A

CORRECTED FORMS I

CASE NUMBERS U-4432 AND U-4442

Sample Number
DC-SD-13

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Case No: U-4432 / U-4442

Lab Sample ID No: 9651 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Stoytowicz Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-13-86

Conc./Dil Factor: 2 pH 7.2

Percent Moisture: (Not Decanted) 48

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 UJ
75-09-2	Methylene Chloride	11000B UJ
67-64-1	Acetone	15000B 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	2000
67-66-3	Chloroform	2000u
107-06-2	1, 2-Dichloroethane	2000u
78-93-3	2-Butanone	21000B UJ
71-55-6	1, 1, 1-Trichloroethane	2000u
56-23-5	Carbon Tetrachloride	2000u
108-05-4	Vinyl Acetate	4000u UJ
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~~ R
75-25-2	Bromoform	2000u
108-10-1	4-Methyl-2-Pentanone	4000u
591-78-6	2-Hexanone	4000u
127-18-4	Tetrachloroethene	2000u
79-34-5	1, 1, 2, 2-Tetrachloroethane	2000u
108-88-3	Toluene	2000u
108-90-7	Chlorobenzene	2000u
100-41-4	Ethylbenzene	2000u
100-42-5	Styrene	2000u UJ
	Total Xylenes	2000u

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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/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.

aboratory Name ecology and environment, inc.

ase No. U-4432 / U-4442

Sample Number
DC-SD-13

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

oncentration: (Low) Medium (Circle One)

ate Extracted/Prepared: 11-11-86

ate Analyzed: 11-24-86

onc/Dil Factor: 50

ercent Moisture (Decanted) 48

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	17000	U
11-44-4	bis(2-Chloroethyl)Ether	17000	UJ
5-57-8	2-Chlorophenol	17000	U
41-73-1	1 3-Dichlorobenzene	17000	U
06-46-7	1, 4-Dichlorobenzene	17000	U
00-51-6	Benzyl Alcohol	17000	U
5-50-1	1 2-Dichlorobenzene	17000	U
5-48-7	2-Methylphenol	17000	U
9638-32-9	bis(2-chloroisopropyl)Ether	17000	U
06-44-5	4-Methylphenol	17000	U
21-64-7	N-Nitroso-Di-n-Propylamine	17000	U
7-72-1	Hexachloroethane	17000	U
8 95-3	Nitrobenzene	17000	U
8-59-1	Isophorone	17000	U
8-75-5	2-Nitrophenol	17000	U
05-67-9	2, 4-Dimethylphenol	17000	U
5-85-0	Benzoic Acid	83000	UJ
11-91-1	bis(2-Chloroethoxy)Methane	17000	U
20-83-2	2, 4-Dichlorophenol	17000	U
20-82-1	1, 2, 4-Trichlorobenzene	17000	U
1-20-3	Naphthalene	400	J
06-47-8	4-Chloroaniline	17000	U
7-68-3	Hexachlorobutadiene	17000	U
9-50-7	4-Chloro-3-Methylphenol	17000	U
1-57-6	2-Methylnaphthalene	17000	U
7-47-4	Hexachlorocyclopentadiene	17000	U
8-06-2	2 4 6-Trichlorophenol	17000	U
5 95-4	2, 4 5-Trichlorophenol	83000	U
7	2-Chloronaphthalene	17000	U
8-74-4	2-Nitroaniline	83000	U
31-11-3	Dimethyl Phthalate	17000	U
08 96-8	Acenaphthylene	17000	U
9-09-2	3-Nitroaniline	83000	UJ

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	17000	U
51-28-5	2, 4-Dinitrophenol	83000	UJ
100-02-7	4-Nitrophenol	83000	UJ
132-64-9	Dibenzofuran	17000	U
121-14-2	2 4-Dinitrotoluene	17000	U
606-20-2	2 6-Dinitrotoluene	17000	U
84-66-2	Diethylphthalate	17000	U
7005-72-3	4-Chlorophenyl-phenylether	17000	U
86-73-7	Fluorene	17000	U
100-01-6	4-Nitroaniline	83000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	83000	U
86-30-6	N-Nitrosodiphenylamine (1)	17000	U
101-55-3	4-Bromophenyl-phenylether	17000	U
118-74-1	Hexachlorobenzene	17000	U
87-86-5	Pentachlorophenol	83000	U
85-01-8	Phenanthrene	17000	U
120-12-7	Anthracene	17000	U
84-74-2	Di-n-Butylphthalate	17000	U
206-44-0	Fluoranthene	17000	U
129-00-0	Pyrene	17000	U
85-68-7	Butylbenzylphthalate	17000	U
91-94-1	3 3'-Dichlorobenzidine	34000	UJ
56-55-3	Benzo(a)Anthracene	17000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	9900	J
218-01-9	Chrysene	17000	U
117-84-0	Di-n-Octyl Phthalate	17000	U
205-99-2	Benzo(b)Fluoranthene	17000	U
207-08-9	Benzo(k)Fluoranthene	720	J
50-32-8	Benzo(a)Pyrene	1100	J
193-39-5	Indeno(1 2 3-cd)Pyrene	17000	U
53-70-3	Dibenzo(a h)Anthracene	17000	U
191-24-2	Benzo(g h i)Perylene	17000	U

(1) Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-13

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-11-86

Date Analyzed 11-18-86

Conc/Dil Factor 50

Percent Moisture (decanted) 47.5

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	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	10,300 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment, Inc

Case No U-4432 / U-4442

Sample Number DC-SD-13

Organics Analysis Data Sheet
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Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.3 min	~~820 BJ~~ 4
2.	Unknown Ketone	VOA	19.1 min	~~1400 J~~ 4
3.	Hexane isomer	VOA	21.4 min	~~2900 BJ~~ 4
4.	Unknown	VOA	28.4 min	990 J
5.				
6.	UNKNOWN	BNA	22.2	14000 J
7.	UNKNOWN		22.7	28000 J
8.	TETRAMETHYL BUTYL PHENOL ISOMER		22.8	66000 J
9.	NONYL PHENOL ISOMER		22.9	44000 J
10.	NONYL PHENOL ISOMER		23.1	18000 J
11.	TETRAMETHYL BUTYL PHENOL ISOMER		23.2	27000 J
12.	UNKNOWN		23.3	19000 J
13.	UNKNOWN PHTHALATE		23.4	23000 J
14.	DIMETHYL ETHYL PHENOL ISOMER		23.5	31000 J
15.	UNKNOWN PHTHALATE		23.6	22000 J
16.	UNKNOWN HYDROCARBON		24.2	9800 J
17.	UNKNOWN LONG-CHAIN HYDROCARBON ACID		26.3	26000 J
18.	UNKNOWN		28.5	12000 J
19.	UNKNOWN LONG CHAIN HYDROCARBON ACID		28.7	12000 J
20.	UNKNOWN		37.9	7900 J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

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Sample Number
DC-SD-14

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432 / U-4442
Lab Sample ID No: 9652
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-12-86

Conc./Dil Factor: 10 pH 6.9

Percent Moisture: (Not Decanted) 63

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	250u
74-83-9	Bromomethane	250u J
75-01-4	Vinyl Chloride	250u
75-00-3	Chloroethane	250u
75-09-2	Methylene Chloride	2200 B U
67-64-1	Acetone	820 UJ
75-15-0	Carbon Disulfide	120u J
75-35-4	1, 1-Dichloroethene	120u
75-34-3	1, 1-Dichloroethane	120u
156-60-5	Trans-1, 2-Dichloroethene	120u
67-66-3	Chloroform	120u
107-06-2	1, 2-Dichloroethane	120u
78-93-3	2-Butanone	510 U
71-55-6	1, 1, 1-Trichloroethane	120u
56-23-5	Carbon Tetrachloride	120u
108-05-4	Vinyl Acetate	250u
75-27-4	Bromodichloromethane	120u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	120u
10061-02-6	Trans-1, 3-Dichloropropene	120u
79-01-6	Trichloroethene	120u
124-48-1	Dibromochloromethane	120u
79-00-5	1, 1, 2-Trichloroethane	120u
71-43-2	Benzene	87 J
10061-01-5	cis-1, 3-Dichloropropene	120u
110-75-8	2-Chloroethylvinylether	250u
75-25-2	Bromoform	120u
108-10-1	4-Methyl-2-Pentanone	250u J
591-78-6	2-Hexanone	220 J UJ
127-18-4	Tetrachloroethene	120u
79-34-5	1, 1, 2, 2-Tetrachloroethane	120u
108-88-3	Toluene	810
108-90-7	Chlorobenzene	5200
100-41-4	Ethylbenzene	3600
100-42-5	Styrene	120u J
	Total Xylenes	9900 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.

HB
Aug 93

13

...oratory Name _____

...e No U-4432 / U-4442

Sample Number DC-SD-14

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

...centration: Low Medium (Circle One)

...e Extracted/Prepared: 11-11-86

...e Analyzed: 11-24-86

...c/Dil Factor: 50

...cent Moisture (Decanted) 63

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

...AS ...umber		ug/l or ug/Kg (Circle One)
...08-95-2	Phenol	23000 U
...11-44-4	bis(-2-Chloroethyl)Ether	23000 UJ
...-57-8	2-Chlorophenol	23000 U
...1-73-1	1, 3-Dichlorobenzene	23000 U
...5-46-7	1, 4-Dichlorobenzene	220000
...0-51-6	Benzyl Alcohol	23000 U
...-50-1	1, 2-Dichlorobenzene	17000 J
...-48-7	2-Methylphenol	23000 U
...538-32-9	bis(2-chloroisopropyl)Ether	23000 U
...5-44-5	4-Methylphenol	23000 U
...1-64-7	N-Nitroso-Di-n-Propylamine	23000 U
...-72-1	Hexachloroethane	23000 U
...95-3	Nitrobenzene	23000 U
...-59-1	Isophorone	23000 U
...-75-5	2-Nitrophenol	23000 U
...5-67-9	2, 4-Dimethylphenol	23000 U
...-85-0	Benzoic Acid	110000 UJ
...1-91-1	bis(-2-Chloroethoxy)Methane	23000 U
...0-83-2	2, 4-Dichlorophenol	23000 U
...0-82-1	1, 2, 4-Trichlorobenzene	5400 J
...-20-3	Naphthalene	9500 J
...5-47-8	4-Chloroaniline	23000 U
...-68-3	Hexachlorobutadiene	23000 U
...-50-7	4-Chloro-3-Methylphenol	23000 U
...-57-6	2-Methylnaphthalene	8400 J
...-47-4	Hexachlorocyclopentadiene	23000 U
...-06-2	2, 4, 6-Trichlorophenol	23000 U
...95-4	2, 4, 5-Trichlorophenol	110000 U
...-58-7	2-Chloronaphthalene	23000 U
...-74-4	2-Nitroaniline	110000 U
1-[illegible]	Dimethyl Phthalate	23000 U
8 9[illegible] 8	Acenaphthylene	23000 U
...-09-2	3-Nitroaniline	110000 UJ

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	2600 J
51-28-5	2, 4-Dinitrophenol	110000 UJ
100-02-7	4-Nitrophenol	110000 UJ
132-64-9	Dibenzofuran	23000 U
121-14-2	2, 4-Dinitrotoluene	23000 U
606-20-2	2, 6-Dinitrotoluene	23000 U
84-66-2	Diethylphthalate	23000 U
7005-72-3	4-Chlorophenyl-phenylether	23000 U
86-73-7	Fluorene	3900 J
100-01-6	4-Nitroaniline	110000 U
534-52-1	4, 6-Dinitro-2-Methylphenol	110000 U
86-30-6	N-Nitrosodiphenylamine (1)	23000 U
101-55-3	4-Bromophenyl-phenylether	23000 U
118-74-1	Hexachlorobenzene	23000 U
87-86-5	Pentachlorophenol	110000 U
85-01-8	Phenanthrene	15000 J
120-12-7	Anthracene	23000 U
84-74-2	Di-n-Butylphthalate	23000 U
206-44-0	Fluoranthene	11000 J
129-00-0	Pyrene	13000 J
85-68-7	Butylbenzylphthalate	23000 U
91-94-1	3, 3'-Dichlorobenzidine	46000 UJ
56-55-3	Benzo(a)Anthracene	23000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	9500 J
218-01-9	Chrysene	23000 U
117-84-0	Di-n-Octyl Phthalate	2600 J
205-99-2	Benzo(b)Fluoranthene	3400 J
207-08-9	Benzo(k)Fluoranthene	23000 U
50-32-8	Benzo(a)Pyrene	1800 J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	23000 U
53-70-3	Dibenz(a, h)Anthracene	23000 U
191-24-2	Benzo(g, h, i)Perylene	23000 U

(1)-Cannot be separated from diphenylamine

14

HE
Aug 93

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-14

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-11-86

Date Analyzed 11-18-86

Conc/Dil Factor: 200

Percent Moisture (decanted) 63

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	3200 U
319-85-7	Beta-BHC	3200 U
319-86-8	Delta-BHC	3200 U
58-89-9	Gamma-BHC (Lindane)	3200 U
76-44-8	Heptachlor	3200 U
309-00-2	Aldrin	3200 U
1024-57-3	Heptachlor Epoxide	3200 U
959-98-8	Endosulfan I	3200 U
60-57-1	Dieldrin	6400 U
72-55-9	4,4'-DDE	6400 U
72-20-8	Endrin	6400 U
33213-65-9	Endosulfan II	6400 U
72-54-8	4,4'-DDD	6400 U
1031-07-8	Endosulfan Sulfate	6400 U
50-29-3	4,4'-DDT	6400 U
72-43-5	Methoxychlor	32,000 U
53494-70-5	Endrin Ketone	6400 U
57-74-9	Chlordane	32,000 U
8001-35-2	Toxaphene	64,000 U
12674-11-2	Aroclor-1016	32,000 U
11104-28-2	Aroclor-1221	32,000 U
11141-16-5	Aroclor-1232	32,000 U
53469-21-9	Aroclor-1242	32,000 U
12672-29-6	Aroclor-1248	480,000 C
11097-69-1	Aroclor-1254	64,000 U
11096-82-5	Aroclor-1260	16,000 C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name Ecology & Environment, Inc

Case No U-4432/ U-4442

Sample Number DC-SD-14

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	16.6 min	75 J
2.	Hexene isomer	VOA	17.4 min	~~71 B J~~ 4
3.	Unknown hydrocarbon	VOA	18.2 min	120 J
4.	Unknown hydrocarbon	VOA	19.0 min	250 J
5.	Unknown Ketone	VOA	19.8 min	~~140 BJ~~ 4
6.	Unknown hydrocarbon	VOA	28.5 min	1800 J
7. 98828	(1-methylethyl) Benzene	VOA	32.1 min	5400 J
8. 95501	1,2-Dichlorobenzene	VOA	39.3 min	1100 J
9. 106467	1,4-Dichlorobenzene	VOA	41.1 min	120,000 J
10.	UNKNOWN HYDROCARBON	BNA	17.6	17000 J
11.	DIMETHYL NAPHTHALENE ISOMER		18.0	10000 J
12.	DIMETHYL NAPHTHALENE ISOMER		18.2	18000 J
13.	UNKNOWN HYDROCARBON		19.0	20000 J
14.	UNKNOWN		21.4	25000 J
15.	DIMETHYL DECYL BENZENE ISOMER		21.6	8100 J
16.	DIMETHYL DECYL BENZENE ISOMER		21.8	40000 J
17.	UNKNOWN HYDROCARBON		21.9	38000 J
18.	PENTAMETHYL HEPTYL BENZENE ISOMER		22.0	49000 J
19.	DIMETHYL DECYL BENZENE ISOMER		22.1	23000 J
20.	DIMETHYL DECYL BENZENE ISOMER		22.3	53000 J
21.	DIMETHYL DECYL BENZENE ISOMER		22.7	32000 J
22.	UNKNOWN HYDROCARBON		22.8	42000 J
23.	DIMETHYL DECYL BENZENE ISOMER		22.9	26000 J
24.	UNKNOWN HYDROCARBON		24.2	30000 J
25.	PCB		25.0-26.4	—
26. 10544500	MOLECULAR SULFUR		27.0	30000 J
27.	UNKNOWN		27.9	25000 J
28.	TETRA METHYL PHENANTHRENE ISOMER		29.2	20000 J
29.	UNKNOWN		31.3	15000 J
30.	UNKNOWN		32.2	15000 J

HVS May 93

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Sample Number
DC-SD-15

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U-4442
Lab Sample ID No: 9653
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-13-86

Conc./Dil Factor: 2 pH 6.9

Percent Moisture: (Not Decanted) 34

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2800u
74-83-9	Bromomethane	2800u
75-01-4	Vinyl Chloride	2800u
75-00-3	Chloroethane	2800u J
75-09-2	Methylene Chloride	7800 ~~B~~ UJ
67-64-1	Acetone	4900 ~~B~~ UJ
75-15-0	Carbon Disulfide	1400u
75-35-4	1, 1-Dichloroethene	1400u
75-34-3	1, 1-Dichloroethane	1400u
156-60-5	Trans-1, 2-Dichloroethene	1400u
67-66-3	Chloroform	1400u
107-06-2	1, 2-Dichloroethane	1400u
78-93-3	2-Butanone	11000 UJ
71-55-6	1, 1, 1-Trichloroethane	1400u
56-23-5	Carbon Tetrachloride	1400u
108-05-4	Vinyl Acetate	2800u J
75-27-4	Bromodichloromethane	1400u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1400u
10061-02-6	Trans-1, 3-Dichloropropene	1400u
79-01-6	Trichloroethene	1400u
124-48-1	Dibromochloromethane	1400u
79-00-5	1, 1, 2-Trichloroethane	1400u
71-43-2	Benzene	1400u
10061-01-5	cis-1, 3-Dichloropropene	1400u
110-75-8	2-Chloroethylvinylether	~~2800u~~ R
75-25-2	Bromoform	1400u
108-10-1	4-Methyl-2-Pentanone	2800u
591-78-6	2-Hexanone	2800u
127-18-4	Tetrachloroethene	1400u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1400u
108-88-3	Toluene	1400u
108-90-7	Chlorobenzene	1400u
100-41-4	Ethylbenzene	1400u
100-42-5	Styrene	1400u J
	Total Xylenes	1400u

Data Reporting Qualifiers

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

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

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

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

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

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

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

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May 93

aboratory Name [illegible]

ase No V-4432 / V-4442

Sample Number
DC-SD-15

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

oncentration: (Low) Medium (Circle One)

ate Extracted/Prepared: 11-11-86

ate Analyzed: 11-25-86

onc/Dil Factor: 2

ercent Moisture (Decanted) 34

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	500	U
111-44-4	bis(-2-Chloroethyl)Ether	500	U
95-57-8	2-Chlorophenol	500	U
541-73-1	1 3-Dichlorobenzene	500	U
106-46-7	1. 4-Dichlorobenzene	500	U
100-51-6	Benzyl Alcohol	500	U
95-50-1	1 2-Dichlorobenzene	500	U
95-48-7	2-Methylphenol	500	U
39638-32-9	bis(2-chloroisopropyl)Ether	500	U
106-44-5	4-Methylphenol	500	U
621-64-7	N-Nitroso-Di-n-Propylamine	500	U
67-72-1	Hexachloroethane	500	U
98-95-3	Nitrobenzene	500	U
78-59-1	Isophorone	500	U
88-75-5	2-Nitrophenol	500	U
105-67-9	2. 4-Dimethylphenol	500	U
65-85-0	Benzoic Acid	2400	U
111-91-1	bis(-2-Chloroethoxy)Methane	500	U
120-83-2	2. 4-Dichlorophenol	500	U
120-82-1	1. 2. 4-Trichlorobenzene	500	U
91-20-3	Naphthalene	500	U
106-47-8	4-Chloroaniline	500	U
87-68-3	Hexachlorobutadiene	500	U
59-50-7	4-Chloro-3-Methylphenol	500	U
91-57-6	2-Methylnaphthalene	500	U
77-47-4	Hexachlorocyclopentadiene	500	U
88-06-2	2 4 6-Trichlorophenol	500	U
95 95-4	2. 4. 5-Trichlorophenol	2400	U
91-58-7	2-Chloronaphthalene	500	U
88-74-4	2-Nitroaniline	2400	U
1[illegible] 1-3	Dimethyl Phthalate	500	U
208-96-8	Acenaphthylene	500	U
99-09-2	3-Nitroaniline	2400	UJ

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	500	U
51-28-5	2. 4-Dinitrophenol	2400	UJ
100-02-7	4-Nitrophenol	2400	UJ
132-64-9	Dibenzofuran	500	U
121-14-2	2 4-Dinitrotoluene	500	U
606-20-2	2 6-Dinitrotoluene	500	U
84-66-2	Diethylphthalate	500	U
7005-72-3	4-Chlorophenyl-phenylether	500	U
86-73-7	Fluorene	500	U
100-01-6	4-Nitroaniline	2400	U
534-52-1	4. 6-Dinitro-2-Methylphenol	2400	U
86-30-6	N-Nitrosodiphenylamine (1)	500	U
101-55-3	4-Bromophenyl-phenylether	500	U
118-74-1	Hexachlorobenzene	500	U
87-86-5	Pentachlorophenol	2400	UJ
85-01-8	Phenanthrene	500	U
120-12-7	Anthracene	500	U
84-74-2	Di-n-Butylphthalate	580	~~B~~ U
206-44-0	Fluoranthene	500	U
129-00-0	Pyrene	500	UJ
85-68-7	Butylbenzylphthalate	500	U
91-94-1	3 3'-Dichlorobenzidine	1000	UJ
56-55-3	Benzo(a)Anthracene	500	U
117-81-7	bis(2-Ethylhexyl)Phthalate	500	U
218-01-9	Chrysene	500	U
117-84-0	Di-n-Octyl Phthalate	120	J
205-99-2	Benzo(b)Fluoranthene	500	U
207-08-9	Benzo(k)Fluoranthene	500	UJ
50-32-8	Benzo(a)Pyrene	500	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	500	U
53-70-3	Dibenzo(a h)Anthracene	500	UJ
191-24-2	Benzo(g h i)Perylene	500	U

(1) Cannot be separated from diphenylamine

Form I

7 85 May 9

Laboratory Name ecology and environment, inc.

Case No V-4432/V-4442

Sample Number DC-SD-15

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-11-86

Date Analyzed 11-19-86

Conc/Dil Factor: 1 ~ 2

Percent Moisture (decanted) 34

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	32	U
319-85-7	Beta-BHC	32	U
319-86-8	Delta-BHC	32	U
58-89-9	Gamma-BHC (Lindane)	32	U
76-44-8	Heptachlor	32	U
309-00-2	Aldrin	32	U
1024-57-3	Heptachlor Epoxide	32	U
959-98-8	Endosulfan I	32	U
60-57-1	Dieldrin	64	U
72-55-9	4,4'-DDE	64	U
72-20-8	Endrin	64	U
33213-65-9	Endosulfan II	64	U
72-54-8	4,4'-DDD	64	U
1031-07-8	Endosulfan Sulfate	64	U
50-29-3	4,4'-DDT	64	U
72-43-5	Methoxychlor	320	U
53494-70-5	Endrin Ketone	64	U
57-74-9	Chlordane	320	U
8001-35-2	Toxaphene	640	U
12674-11-2	Aroclor-1016	320	U
11104-28-2	Aroclor-1221	320	U
11141-16-5	Aroclor-1232	320	U
53469-21-9	Aroclor-1242	320	U
12672-29-6	Aroclor-1248	660	
11097-69-1	Aroclor-1254	670	
11096-82-5	Aroclor-1260	430	J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-15

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)	
1.	Hexene isomer	VOA	17.4 min	~~640 BJ~~	4
2.	Unknown Ketone	VOA	19.7 min	~~340 J~~	4
3.	Hexane isomer	VOA	21.4 min	~~2200 BJ~~	4
4.					
5.	UNKNOWN HYDROCARBON	BNA	5.5	1500 J	
6.	UNKNOWN HYDROCARBON		5.7	1900 J	
7.	UNKNOWN HYDROCARBON		6.8	1700 J	
8.	UNKNOWN		8.1	2800 J	
9.	UNKNOWN		8.6	970 J	
10.	UNKNOWN HYDROCARBON		9.2	7500 J	
11.	UNKNOWN HYDROCARBON		10.5	2000 J	
12.	UNKNOWN		30.1	~~1040 BJ~~	4
13.	UNKNOWN		39.1	570 J	
14.	UNKNOWN		41.1	490 J	
15.	UNKNOWN		41.4	720 J	
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30					

HV2

Mag?

20

Sample Number
DC-SD-16

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U 4442
Lab Sample ID No: 9654
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Stoytowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-12-86

Conc./Dil Factor: 2 pH 7.0

Percent Moisture: (Not Decanted) 43

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3800u
74-83-9	Bromomethane	3800u J
75-01-4	Vinyl Chloride	3800u
75-00-3	Chloroethane	3800u J
75-09-2	Methylene Chloride	10000 UJ
67-64-1	Acetone	5100 u
75-15-0	Carbon Disulfide	1900u J
75-35-4	1, 1-Dichloroethene	1900u
75-34-3	1, 1-Dichloroethane	1900u
156-60-5	Trans-1, 2-Dichloroethene	1900u J
67-66-3	Chloroform	1900u
107-06-2	1, 2-Dichloroethane	1900u
78-93-3	2-Butanone	14000 UJ
71-55-6	1, 1, 1-Trichloroethane	1900u
56-23-5	Carbon Tetrachloride	1900u
108-05-4	Vinyl Acetate	3800u J
75-27-4	Bromodichloromethane	1900u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1900u
10061-02-6	Trans-1, 3-Dichloropropene	1900u
79-01-6	Trichloroethene	1900u
124-48-1	Dibromochloromethane	1900u
79-00-5	1, 1, 2-Trichloroethane	1900u
71-43-2	Benzene	1900u
10061-01-5	cis-1, 3-Dichloropropene	1900u
110-75-8	2-Chloroethylvinylether	~~3800u~~ R
75-25-2	Bromoform	1900u
108-10-1	4-Methyl-2-Pentanone	3800u
591-78-6	2-Hexanone	3800u
127-18-4	Tetrachloroethene	1900u J
79-34-5	1, 1, 2, 2-Tetrachloroethane	1900u
108-88-3	Toluene	1900u J
108-90-7	Chlorobenzene	1900u J
100-41-4	Ethylbenzene	1900u J
100-42-5	Styrene	1900u J
	Total Xylenes	1900u J

Data Reporting Qualifiers

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

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

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

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

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

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

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

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May 93

aboratory Name [illegible]

ase No U-4432 / U-4442

Sample Number
DC-SD-16

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

oncentration: Low Medium (Circle One)

ate Extracted/Prepared: 11-11-86

ate Analyzed: 11-21-86

onc/Dil Factor: 10

ercent Moisture (Decanted) 43

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	2800	U
111-44-4	bis(2-Chloroethyl)Ether	2800	U
5-57-8	2-Chlorophenol	2800	U
41-73-1	1 3-Dichlorobenzene	2800	U
05-46-7	1 4-Dichlorobenzene	2800	U
00-51-6	Benzyl Alcohol	2800	U
5-50-1	1 2-Dichlorobenzene	2800	U
5-48-7	2-Methylphenol	2800	U
9638-32-9	bis(2-chloroisopropyl)Ether	2800	U
06-44-5	4-Methylphenol	2800	U
21-64-7	N-Nitroso-Di-n-Propylamine	2800	U
7-72-1	Hexachloroethane	2800	U
8-95-3	Nitrobenzene	2800	U
8-59-1	Isophorone	2800	U
8-75-5	2-Nitrophenol	2800	U
05-67-9	2 4-Dimethylphenol	2800	U
5-85-0	Benzoic Acid	14000	U
11-91-1	bis(2-Chloroethoxy)Methane	2800	U
20-83-2	2 4-Dichlorophenol	2800	U
20-82-1	1 2 4-Trichlorobenzene	2800	U
1-20-3	Naphthalene	2800	U
06-47-8	4-Chloroaniline	2800	U
7-68-3	Hexachlorobutadiene	2800	U
9-50-7	4-Chloro-3-Methylphenol	2800	U
1-57-6	2-Methylnaphthalene	2800	U
7-47-4	Hexachlorocyclopentadiene	2800	U
8-06-2	2 4 6-Trichlorophenol	2800	U
5-95-4	2 4 5-Trichlorophenol	14000	U
1-58-7	2-Chloronaphthalene	2800	U
8-74-4	2-Nitroaniline	14000	U
3[illegible]-3	Dimethyl Phthalate	2800	U
08-96-8	Acenaphthylene	2800	U
9-09-2	3-Nitroaniline	14000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2800	U
51-28-5	2 4-Dinitrophenol	14000	UJ
100-02-7	4-Nitrophenol	14000	U
132-64-9	Dibenzofuran	2800	U
121-14-2	2 4-Dinitrotoluene	2800	U
606-20-2	2 6-Dinitrotoluene	2800	U
84-66-2	Diethylphthalate	2800	U
7005-72-3	4-Chlorophenyl-phenylether	2800	U
86-73-7	Fluorene	2800	U
100-01-6	4-Nitroaniline	14000	U
534-52-1	4 6-Dinitro-2-Methylphenol	14000	U
86-30-6	N-Nitrosodiphenylamine (1)	2800	U
101-55-3	4-Bromophenyl-phenylether	2800	U
118-74-1	Hexachlorobenzene	2800	U
87-86-5	Pentachlorophenol	14000	U
85-01-8	Phenanthrene	2800	U
120-12-7	Anthracene	2800	U
84-74-2	Di-n-Butylphthalate	~~670~~ ~~BJ~~	2800 U
206-44-0	Fluoranthene	2800	U
129-00-0	Pyrene	2800	U
85-68-7	Butylbenzylphthalate	2800	U
91-94-1	3 3'-Dichlorobenzidine	5600	UJ
56-55-3	Benzo(a)Anthracene	2800	U
117-81-7	bis(2-Ethylhexyl)Phthalate	540	J
218-01-9	Chrysene	2800	U
117-84-0	Di-n-Octyl Phthalate	270	J
205-99-2	Benzo(b)Fluoranthene	2800	U
207-08-9	Benzo(k)Fluoranthene	2800	U
50-32-8	Benzo(a)Pyrene	2800	U
193-39-5	Indeno(1 2 3-cd)Pyrene	2800	U
53-70-3	Dibenzo(a h)Anthracene	2800	U
191-24-2	Benzo(g h i)Perylene	2800	U

(1)-Cannot be separated from diphenylamine

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Form I

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May 93

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-16

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-11-86

Date Analyzed 11-19-86

Conc/Dil Factor: 20

Percent Moisture (decanted) 43

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	320 U
319-85-7	Beta-BHC	320 U
319-86-8	Delta-BHC	320 U
58-89-9	Gamma-BHC (Lindane)	320 U
76-44-8	Heptachlor	320 U
309-00-2	Aldrin	320 U
1024-57-3	Heptachlor Epoxide	320 U
959-98-8	Endosulfan I	320 U
60-57-1	Dieldrin	640 U
72-55-9	4,4'-DDE	640 U
72-20-8	Endrin	640 U
33213-65-9	Endosulfan II	640 U
72-54-8	4,4'-DDD	640 U
1031-07-8	Endosulfan Sulfate	640 U
50-29-3	4,4'-DDT	640 U
72-43-5	Methoxychlor	3,200 U
53494-70-5	Endrin Ketone	640 U
57-74-9	Chlordane	3,200 U
8001-35-2	Toxaphene	6,400 U
12674-11-2	Aroclor-1016	3,200 U
11104-28-2	Aroclor-1221	3,200 U
11141-16-5	Aroclor-1232	3,200 U
53469-21-9	Aroclor-1242	3,200 U
12672-29-6	Aroclor-1248	20,000
11097-69-1	Aroclor-1254	8,830
11096-82-5	Aroclor-1260	6,400 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

Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-16

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4 min	~~900 BJ~~ 4
2.	Unknown Ketone	VOA	19.8 min	~~630 J~~ 4
3.	Hexane isomer	VOA	21.5 min	~~2800 BJ~~ 4
4.				
5.	UNKNOWN HYDROCARBON	BNA	22.8	2400 J
6.	UNKNOWN HYDROCARBON		35.4	2600 J
7.	UNKNOWN HYDROCARBON		36.3	5900 J
8.	UNKNOWN HYDROCARBON		36.8	8300 J
9.	UNKNOWN HYDROCARBON		37.4	3400 J
10.	UNKNOWN HYDROCARBON		37.6	7500 J
11.	UNKNOWN HYDROCARBON		38.3	5100 J
12.	UNKNOWN HYDROCARBON		39.4	4400 J
13.	UNKNOWN HYDROCARBON		39.8	6500 J
14.	UNKNOWN HYDROCARBON		40.3	13000 J
15.	UNKNOWN HYDROCARBON		41.5	14000 J
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HE May 93

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Sample Number
DC-SD-17

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432 / U-4442
Lab Sample ID No: 9655
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-12-86

Conc/Dil Factor: 2 pH 6.7

Percent Moisture: (Not Decanted) 37

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3200u
74-83-9	Bromomethane	3200u J
75-01-4	Vinyl Chloride	3200u
75-00-3	Chloroethane	3200u J
75-09-2	Methylene Chloride	8400 ~~B~~ UJ
67-64-1	Acetone	5600 ~~B~~ U
75-15-0	Carbon Disulfide	1600u J
75-35-4	1, 1-Dichloroethene	1600u
75-34-3	1, 1-Dichloroethane	1600u
156-60-5	Trans-1, 2-Dichloroethene	1600u J
67-66-3	Chloroform	1600u
107-06-2	1, 2-Dichloroethane	1600u
78-93-3	2-Butanone	13000 UJ
71-55-6	1, 1, 1-Trichloroethane	1600u
56-23-5	Carbon Tetrachloride	1600u
108-05-4	Vinyl Acetate	3200u J
75-27-4	Bromodichloromethane	1600u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1600u
10061-02-6	Trans-1, 3-Dichloropropene	1600u
79-01-6	Trichloroethene	1600u
124-48-1	Dibromochloromethane	1600u
79-00-5	1, 1, 2-Trichloroethane	1600u
71-43-2	Benzene	1600u
10061-01-5	cis-1, 3-Dichloropropene	1600u
110-75-8	2-Chloroethylvinylether	~~3200u~~ R
75-25-2	Bromoform	1600u
108-10-1	4-Methyl-2-Pentanone	3200u
591-78-6	2-Hexanone	3200u
127-18-4	Tetrachloroethene	1600u J
79-34-5	1, 1, 2, 2-Tetrachloroethane	3200u
108-88-3	Toluene	1600u J
108-90-7	Chlorobenzene	1600u J
100-41-4	Ethylbenzene	1600u J
100-42-5	Styrene	1600u J
	Total Xylenes	1600u 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.

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May 93

oratory Name ecology and environment, inc.

se No. U-4432 / U4442

Sample Number
DC-SD-17

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

ncentration: (Low) Medium (Circle One)

e Extracted/Prepared: 11-11-86

e Analyzed: 11-21-86

nc/Dil Factor: 10

cent Moisture (Decanted) 37

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
8-95-2	Phenol	2600	U
1-44-4	bis(-2-Chloroethyl)Ether	2600	U
57-8	2-Chlorophenol	2600	U
1-73-1	1 3-Dichlorobenzene	2600	U
5-46-7	1 4-Dichlorobenzene	2600	U
0-51-6	Benzyl Alcohol	2600	U
50-1	1 2-Dichlorobenzene	2600	U
48-7	2-Methylphenol	2600	U
638-32-9	bis(2-chloroisopropyl)Ether	2600	U
5-44-5	4-Methylphenol	2600	U
1-64-7	N-Nitroso-Di-n-Propylamine	2600	U
72-1	Hexachloroethane	2600	U
95-3	Nitrobenzene	2600	U
59-1	Isophorone	2600	U
75-5	2-Nitrophenol	2600	U
-67-9	2 4-Dimethylphenol	2600	U
35-0	Benzoic Acid	13000	U
-91-1	bis(-2-Chloroethoxy)Methane	2600	U
-83-2	2 4-Dichlorophenol	2600	U
-82-1	1 2 4-Trichlorobenzene	2600	U
20-3	Naphthalene	2600	U
5-47-8	4-Chloroaniline	2600	U
68-3	Hexachlorobutadiene	2600	U
50-7	4-Chloro-3-Methylphenol	2600	U
57-6	2-Methylnaphthalene	2600	U
47-4	Hexachlorocyclopentadiene	2600	U
06-2	2 4 6-Trichlorophenol	2600	U
95-4	2 4 5-Trichlorophenol	13000	U
58-7	2-Chloronaphthalene	2600	U
74-4	2-Nitroaniline	13000	U
3	Dimethyl Phthalate	2600	U
50-8	Acenaphthylene	2600	U
09-2	3-Nitroaniline	13000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2600	U
51-28-5	2 4-Dinitrophenol	13000	U
100-02-7	4-Nitrophenol	13000	UJ
132-64-9	Dibenzofuran	2600	U
121-14-2	2 4-Dinitrotoluene	2600	U
606-20-2	2 6-Dinitrotoluene	2600	U
84-66-2	Diethylphthalate	2600	U
7005-72-3	4-Chlorophenyl-phenylether	2600	U
86-73-7	Fluorene	2600	U
100-01-6	4-Nitroaniline	13000	U
534-52-1	4 6-Dinitro-2-Methylphenol	13000	U
86-30-6	N-Nitrosodiphenylamine (1)	2600	U
101-55-3	4-Bromophenyl-phenylether	2600	U
118-74-1	Hexachlorobenzene	2600	U
87-86-5	Pentachlorophenol	13000	U
85-01-8	Phenanthrene	2600	U
120-12-7	Anthracene	2600	U
84-74-2	Di-n-Butylphthalate	~~560~~	~~J~~
206-44-0	Fluoranthene	2600	U
129-00-0	Pyrene	2600	U
85-68-7	Butylbenzylphthalate	2600	U
91-94-1	3 3'-Dichlorobenzidine	5200	UJ
56-55-3	Benzo(a)Anthracene	2600	U
117-81-7	bis(2-Ethylhexyl)Phthalate	150	J
218-01-9	Chrysene	2600	U
117-84-0	Di-n-Octyl Phthalate	2600	U
205-99-2	Benzo(b)Fluoranthene	2600	U
207-08-9	Benzo(k)Fluoranthene	2600	U
50-32-8	Benzo(a)Pyrene	2600	U
193-39-5	Indeno(1 2 3-cd)Pyrene	2600	U
53-70-3	Dibenzo(a h)Anthracene	2600	U
191-24-2	Benzo(g h i)Perylene	2600	U

2600 U

(1) Cannot be separated from diphenylamine

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Form I

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Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-17

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-11-86

Date Analyzed 11-19-86

Conc/Dil Factor: 20

Percent Moisture (decanted) 37

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	320 U
319-85-7	Beta-BHC	320 U
319-86-8	Delta-BHC	320 U
58-89-9	Gamma-BHC (Lindane)	320 U
76-44-8	Heptachlor	320 U
309-00-2	Aldrin	320 U
1024-57-3	Heptachlor Epoxide	320 U
959-98-8	Endosulfan I	320 U
60-57-1	Dieldrin	640 U
72-55-9	4,4'-DDE	640 U
72-20-8	Endrin	640 U
33213-65-9	Endosulfan II	640 U
72-54-8	4,4'-DDD	640 U
1031-07-8	Endosulfan Sulfate	640 U
50-29-3	4,4'-DDT	640 U
72-43-5	Methoxychlor	3200 U
53494-70-5	Endrin Ketone	640 U
57-74-9	Chlordane	3200 U
8001-35-2	Toxaphene	6400 U
12674-11-2	Aroclor-1016	3200 U
11104-28-2	Aroclor-1221	3200 U
11141-16-5	Aroclor-1232	3200 U
53469-21-9	Aroclor-1242	3200 U
12672-29-6	Aroclor-1248	5200
11097-69-1	Aroclor-1254	4200
11096-82-5	Aroclor-1260	2700 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-17

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4 min	~~750 BJ~~ U
2.	Unknown Ketone	VOA	19.8 min	~~510 J~~ U
3.	Hexane isomer	VOA	21.5 min	~~2400 BJ~~ U
4.				
5.	UNKNOWN HYDROCARBON	BNA	19.1	1600 J
6.	UNKNOWN HYDROCARBON		22.0	2200 J
7.	UNKNOWN HYDROCARBON		22.8	3100 J
8.	UNKNOWN HYDROCARBON		24.2	1400 J
9.	UNKNOWN HYDROCARBON		24.4	680 J
10.	UNKNOWN HYDROCARBON		29.5	3600 J
11.	UNKNOWN HYDROCARBON		32.3	4400 J
12.	UNKNOWN HYDROCARBON		32.8	4400 J
13.	UNKNOWN HYDROCARBON		33.8	4500 J
14.	UNKNOWN HYDROCARBON		34.6	4900 J
15.	UNKNOWN HYDROCARBON		36.8	5500 J
16.	UNKNOWN HYDROCARBON		37.6	4900 J
17.	UNKNOWN HYDROCARBON		38.3	4100 J
18.	UNKNOWN HYDROCARBON		38.9	5400 J
19.	UNKNOWN HYDROCARBON		39.4	6800 J
20.	UNKNOWN HYDROCARBON		39.8	6900 J
21.	UNKNOWN HYDROCARBON		40.3	8700 J
22.	UNKNOWN HYDROCARBON		41.4	7500 J
23.				
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May 93

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Sample Number
DC-SD-18

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U-4442
Lab Sample ID No: 9656
QC Report No:
Sample Matrix: Soil
Contract No: 2-3140
Data Release Authorized By: [signature]
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-12-86

Conc/Dil Factor: 2 pH 6.9

Percent Moisture: (Not Decanted) 51

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	4400u
74-83-9	Bromomethane	4400u J
75-01-4	Vinyl Chloride	4400u
75-00-3	Chloroethane	4400u J
75-09-2	Methylene Chloride	12000 ~~B~~ UJ
67-64-1	Acetone 4400	~~4400 JB~~ U
75-15-0	Carbon Disulfide	2200u J
75-35-4	1, 1-Dichloroethene	2200u
75-34-3	1, 1-Dichloroethane	2200u
156-60-5	Trans-1, 2-Dichloroethene	2200u J
67-66-3	Chloroform	2200u
107-06-2	1, 2-Dichloroethane	2200u
78-93-3	2-Butanone	14000 UJ
71-55-6	1, 1, 1-Trichloroethane	2200u
56-23-5	Carbon Tetrachloride	2200u
108-05-4	Vinyl Acetate	4400u J
75-27-4	Bromodichloromethane	2200u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2200u
10061-02-6	Trans-1, 3-Dichloropropene	2200u
79-01-6	Trichloroethene	2200u
124-48-1	Dibromochloromethane	2200u
79-00-5	1, 1, 2-Trichloroethane	2200u
71-43-2	Benzene	2200u
10061-01-5	cis-1, 3-Dichloropropene	2200u
110-75-8	2-Chloroethylvinylether	~~4400u~~ R
75-25-2	Bromoform	2200u
108-10-1	4-Methyl-2-Pentanone	4400u
591-78-6	2-Hexanone	4400u
127-18-4	Tetrachloroethene	~~2200u~~ 2200 UJ
79-34-5	1, 1, 2, 2-Tetrachloroethane	2200u
108-88-3	Toluene	2200u J
108-90-7	Chlorobenzene	2200u J
100-41-4	Ethylbenzene	2200u J
100-42-5	Styrene	2200u J
	Total Xylenes	2200u J

ID
HVZ
May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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oratory Name [illegible]

e No. V-4432 / V-4442

Sample Number
DC-SD-18

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

icentration: (Low) Medium (Circle One)

e Extracted/Prepared: 11-12-86

e Analyzed: 11-21-86

ic/Dil Factor: 10

cent Moisture (Decanted) 51

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
08-95-2	Phenol	3400	U
11-44-4	bis(-2-Chloroethyl)Ether	3400	U
-57-8	2-Chlorophenol	3400	U
1-73-1	1 3-Dichlorobenzene	3400	U
6-46-7	1 4-Dichlorobenzene	3400	U
0-51-6	Benzyl Alcohol	3400	U
-50-1	1 2-Dichlorobenzene	3400	U
-48-7	2-Methylphenol	3400	U
638-32-9	bis(2-chloroisopropyl)Ether	3400	U
6-44-5	4-Methylphenol	3400	U
1-64-7	N-Nitroso-Di-n-Propylamine	3400	U
-72-1	Hexachloroethane	3400	U
-95-3	Nitrobenzene	3400	U
-59-1	Isophorone	3400	U
-75-5	2-Nitrophenol	3400	U
5-67-9	2 4-Dimethylphenol	3400	U
-85-0	Benzoic Acid	16000	U
1-91-1	bis(-2-Chloroethoxy)Methane	3400	U
0-83-2	2 4-Dichlorophenol	3400	U
0-82-1	1 2 4-Trichlorobenzene	3400	U
-20-3	Naphthalene	190	J
6-47-8	4-Chloroaniline	3400	U
-68-3	Hexachlorobutadiene	3400	U
-50-7	4-Chloro-3-Methylphenol	3400	U
-57-6	2-Methylnaphthalene	3400	U
-47-4	Hexachlorocyclopentadiene	3400	U
-06-2	2 4 5-Trichlorophenol	3400	U
95-4	2 4 5-Trichlorophenol	16000	U
-58-7	2-Chloronaphthalene	3400	U
-74-4	2-Nitroaniline	16000	U
1- 3	Dimethyl Phthalate	3400	U
8 96-8	Acenaphthylene	3400	U
-09-2	3-Nitroaniline	16000	UJ

CAS Number		ug/l or ug/Kg (Circle One)		
83-32-9	Acenaphthene	3400	U	
51-28-5	2 4-Dinitrophenol	16000	UJ	
100-02-7	4-Nitrophenol	16000	U	
132-64-9	Dibenzofuran	3400	U	
121-14-2	2 4-Dinitrotoluene	3400	U	
606-20-2	2 6-Dinitrotoluene	3400	U	
84-66-2	Diethylphthalate	3400	U	
7005-72-3	4-Chlorophenyl-phenylether	3400	U	
86-73-7	Fluorene	3400	U	
100-01-6	4-Nitroaniline	16000	U	
534-52-1	4 6-Dinitro-2-Methylphenol	16000	U	
86-30-6	N-Nitrosodiphenylamine (1)	3400	U	
101-55-3	4-Bromophenyl-phenylether	3400	U	
118-74-1	Hexachlorobenzene	3400	U	
87-86-5	Pentachlorophenol	16000	U	
85-01-8	Phenanthrene	3400	U	
120-12-7	Anthracene	3400	U	
84-74-2	Di-n-Butylphthalate 3400	~~300~~	~~J~~	UJ
206-44-0	Fluoranthene	3400	U	
129-00-0	Pyrene	1400	J	
85-68-7	Butylbenzylphthalate	830	J	
91-94-1	3 3'-Dichlorobenzidine	6800	UJ	
56-55-3	Benzo(a)Anthracene	430	J	
117-81-7	bis(2-Ethylhexyl)Phthalate	5300		
218-01-9	Chrysene	1200	J	
117-84-0	Di-n-Octyl Phthalate	940	J	
205-99-2	Benzo(b)Fluoranthene	3400	U	
207-08-9	Benzo(k)Fluoranthene	1500	J	
50-32-8	Benzo(a)Pyrene	490	J	
193-39-5	Indeno(1 2 3-cd)Pyrene	850	J	
53-70-3	Dibenzo(a h)Anthracene	3400	U	
191-24-2	Benzo(g h i)Perylene	1400	J	

(1)-Cannot be separated from diphenylamine

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May 93

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-18

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor: 20

Percent Moisture (decanted) 51

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	320 u
319-85-7	Beta-BHC	320 u
319-86-8	Delta-BHC	320 u
58-89-9	Gamma-BHC (Lindane)	320 u
76-44-8	Heptachlor	320 u
309-00-2	Aldrin	320 u
1024-57-3	Heptachlor Epoxide	320 u
959-98-8	Endosulfan I	320 u
60-57-1	Dieldrin	640 u
72-55-9	4, 4'-DDE	640 u
72-20-8	Endrin	640 u
33213-65-9	Endosulfan II	640 u
72-54-8	4, 4'-DDD	640 u
1031-07-8	Endosulfan Sulfate	640 u
50-29-3	4, 4'-DDT	640 u
72-43-5	Methoxychlor	3200 u
53494-70-5	Endrin Ketone	640 u
57-74-9	Chlordane	3200 u
8001-35-2	Toxaphene	6400 u
12674-11-2	Aroclor-1016	3,200 u
11104-28-2	Aroclor-1221	3,200 u
11141-16-5	Aroclor-1232	3,200 u
53469-21-9	Aroclor-1242	3,200 u
12672-29-6	Aroclor-1248	3,200 u
11097-69-1	Aroclor-1254	6,400 u
11096-82-5	Aroclor-1260	7,700

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

Case No. u-4432 / u-4442

Sample Number DC-SD-18

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	17.5 min	~~1100 BJ~~ 4
2.	Unknown ketone	VOA	19.8 min	~~630 J~~ 4
3.	Hexane isomer	VOA	21.5 min	~~3300 BJ~~ 4
4.				
5.	UNKNOWN	BNA	22.7	9700 J
6.	TETRAMETHYL BUTYL PHENOL ISOMER		22.8	26000 J
7.	NONYL PHENOL ISOMER		22.9	14000 J
8.	NONYL PHENOL ISOMER		23.1	14000 J
9.	TETRAMETHYL BUTYL PHENOL ISOMER		23.2	9600 J
10.	NONYL PHENOL ISOMER		23.4	8400 J
11.	TETRA METHYL BUTYL PHENOL ISOMER		23.5	15000 J
12.	NONYL PHENOL ISOMER		23.6	9000 J
13.	UNKNOWN HYDROCARBON		24.1	1500 J
14.	UNKNOWN HYDROCARBON		24.2	3700 J
15.	UNKNOWN LONG-CHAIN HYDROCARBON ACID		26.3	2400 J
16.	UNKNOWN HYDROCARBON		29.5	4500 J
17.	UNKNOWN		30.9	~~4600 BJ~~ 4
18.	UNKNOWN		35.4	3400 J
19.	UNKNOWN HYDROCARBON		36.3	10000 J
20.	UNKNOWN		37.8	9200 J
21.	UNKNOWN HYDROCARBON		40.3	27000 J
22.	UNKNOWN HYDROCARBON		41.5	24000 J
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

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Sample Number
DC-SD-19

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No. U-4432 / U-4442
Lab Sample ID No: 9657
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Slogtowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-12-86

Conc./Dil Factor: 2 pH 6.7

Percent Moisture: (Not Decanted) 53

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	4600u
74-83-9	Bromomethane	4600u J
75-01-4	Vinyl Chloride	4600u
75-00-3	Chloroethane	4600u J
75-09-2	Methylene Chloride	13000B UJ
67-64-1	Acetone	10000B U
75-15-0	Carbon Disulfide	2300u J
75-35-4	1, 1-Dichloroethene	2300u
75-34-3	1, 1-Dichloroethane	2300u
156-60-5	Trans-1, 2-Dichloroethene	2300u J
67-66-3	Chloroform	2300u
107-06-2	1, 2-Dichloroethane	2300u
78-93-3	2-Butanone	14000U J
71-55-6	1, 1, 1-Trichloroethane	2300u
56-23-5	Carbon Tetrachloride	2300u
108-05-4	Vinyl Acetate	4600u J
75-27-4	Bromodichloromethane	2300u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2300u
10061-02-6	Trans-1, 3-Dichloropropene	2300u
79-01-6	Trichloroethene	2300u
124-48-1	Dibromochloromethane	2300u
79-00-5	1, 1, 2-Trichloroethane	2300u
71-43-2	Benzene	2300u
10061-01-5	cis-1, 3-Dichloropropene	2300u
110-75-8	2-Chloroethylvinylether	~~4600u~~ R
75-25-2	Bromoform	2300u
108-10-1	4-Methyl-2-Pentanone	4600u
591-78-6	2-Hexanone	52000B
127-18-4	Tetrachloroethene	2300u J
79-34-5	1, 1, 2, 2-Tetrachloroethane	2300u
108-88-3	Toluene	2300u J
108-90-7	Chlorobenzene	2300u J
100-41-4	Ethylbenzene	2300u J
100-42-5	Styrene	2300u J
	Total Xylenes	2300u J

HE May 93

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data 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 CLP summary report.

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oratory Name

se No. V-4432/V-4442

Sample Number
DC-SD-19

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

ncentration: Low Medium (Circle One)

te Extracted/Prepared: 11-12-86

te Analyzed: 12-12-86

nc/Dil Factor: 5

rcent Moisture (Decanted) 53

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

AS umber		ug/l or ug/Kg (Circle One)	
08-95-2	Phenol	1800	U
11-44-4	bis(-2-ChloroethylEther	1800	U
5-57-8	2-Chlorophenol	1800	U
41-73-1	1 3-Dichlorobenzene	1800	U
05-46-7	1. 4-Dichlorobenzene	130	J
00-51-6	Benzyl Alcohol	1800	U
5-50-1	1 2-Dichlorobenzene	1800	U
5-48-7	2-Methylphenol	1800	U
638-32-9	bis(2-chloroisopropyl)Ether	1800	U
06-44-5	4-Methylphenol	1800	U
21-64-7	N-Nitroso-Di-n-Propylamine	1800	U
7-72-1	Hexachloroethane	1800	U
3-95-3	Nitrobenzene	1800	U
3-59-1	Isophorone	1800	U
3-75-5	2-Nitrophenol	1800	U
05-67-9	2. 4-Dimethylphenol	1800	U
5-85-0	Benzoic Acid	8500	U
11-91-1	bis(-2-Chloroethoxy)Methane	1800	U
20-83-2	2. 4-Dichlorophenol	1800	U
20-82-1	1. 2. 4-Trichlorobenzene	390	J
1-20-3	Naphthalene	120	J
06-47-8	4-Chloroaniline	1800	UJ
7-68-3	Hexachlorobutadiene	1800	U
3-50-7	4-Chloro-3-Methylphenol	1800	U
1-57-6	2-Methylnaphthalene	1800	U
7-47-4	Hexachlorocyclopentadiene	1800	U
3-06-2	2 4 6-Trichlorophenol	1800	U
5-95-4	2. 4. 5-Trichlorophenol	8500	U
1-58-7	2-Chloronaphthalene	1800	U
3-74-4	2-Nitroaniline	8500	U
3 -3	Dimethyl Phthalate	1800	U
08-96-8	Acenaphthylene	1800	U
9-09-2	3-Nitroaniline	8500	UJ

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	1800	U
51-28-5	2. 4-Dinitrophenol	8500	U
100-02-7	4-Nitrophenol	8500	UJ
132-64-9	Dibenzofuran	1800	U
121-14-2	2 4-Dinitrotoluene	1800	U
606-20-2	2 6-Dinitrotoluene	1800	U
84-66-2	Diethylphthalate	1800	U
7005-72-3	4-Chlorophenyl-phenylether	1800	U
86-73-7	Fluorene	1800	U
100-01-6	4-Nitroaniline	8500	U
534-52-1	4. 6-Dinitro-2-Methylphenol	8500	U
86-30-6	N-Nitrosodiphenylamine (1)	1800	U
101-55-3	4-Bromophenyl-phenylether	1800	U
118-74-1	Hexachlorobenzene	1900	J
87-86-5	Pentachlorophenol	940	J
85-01-8	Phenanthrene	1800	U
120-12-7	Anthracene	1800	U
84-74-2	Di-n-Butylphthalate	1800	U
206-44-0	Fluoranthene	1800	UJ
129-00-0	Pyrene	1800	UJ
85-68-7	Butylbenzylphthalate	1800	U
91-94-1	3. 3'-Dichlorobenzidine	3600	UJ
56-55-3	Benzo(a)Anthracene	1800	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1800	U
218-01-9	Chrysene	1800	U
117-84-0	Di-n-Octyl Phthalate	1800	U
205-99-2	Benzo(b)Fluoranthene	2400	
207-08-9	Benzo(k)Fluoranthene	1800	UJ
50-32-8	Benzo(a)Pyrene	310	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	1400	J
53-70-3	Dibenzo(a h)Anthracene	390	J
191-24-2	Benzo(g h i)Perylene	1800	

(1)-Cannot be separated from diphenylamine

7 85 93

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-19

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor: 200

Percent Moisture (decanted) 53

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	3200 U
319-85-7	Beta-BHC	3200 U
319-86-8	Delta-BHC	3200 U
58-89-9	Gamma-BHC (Lindane)	3200 U
76-44-8	Heptachlor	3200 U
309-00-2	Aldrin	3200 U
1024-57-3	Heptachlor Epoxide	3200 U
959-98-8	Endosulfan I	3200 U
60-57-1	Dieldrin	6400 U
72-55-9	4,4'-DDE	6400 U
72-20-8	Endrin	6400 U
33213-65-9	Endosulfan II	6400 U
72-54-8	4,4'-DDD	6400 U
1031-07-8	Endosulfan Sulfate	6400 U
50-29-3	4,4'-DDT	6400 U
72-43-5	Methoxychlor	32,000 U
53494-70-5	Endrin Ketone	6,400 U
57-74-9	Chlordane	32,000 U
8001-35-2	Toxaphene	64,000 U
12674-11-2	Aroclor-1016	32,000 U
11104-28-2	Aroclor-1221	32,000 U
11141-16-5	Aroclor-1232	32,000 U
53469-21-9	Aroclor-1242	32,000 U
12672-29-6	Aroclor-1248	32,000 U
11097-69-1	Aroclor-1254	147,000 C
11096-82-5	Aroclor-1260	54,000 J C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-19

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4 min	~~1100 BJ~~
2.	Unknown Ketone	VOA	19.9 min	~~1500 J~~
3.	Hexane isomer	VOA	21.4 min	~~3400 BJ~~
4.				
5.	UNKNOWN HYDROCARBON	BNA	8.1	5600 J
6.	PCB	BNA	25.0-30.5	-
7.				
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Sample Number
DC-SD-20

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432 / U-4442
Lab Sample ID No: 9658
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: CSzytowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc./Dil Factor: 2 pH 6.5

Percent Moisture: (Not Decanted) 42

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3600u J
74-83-9	Bromomethane	3600u J
75-01-4	Vinyl Chloride	3600u
75-00-3	Chloroethane	3600u
75-09-2	Methylene Chloride	14000 ~~B~~ UJ
67-64-1	Acetone	6100 ~~B~~ U
75-15-0	Carbon Disulfide	1800u
75-35-4	1, 1-Dichloroethene	1800u
75-34-3	1, 1-Dichloroethane	1800u
156-60-5	Trans-1, 2-Dichloroethene	1800u
67-66-3	Chloroform	1800u
107-06-2	1, 2-Dichloroethane	1800u
78-93-3	2-Butanone	10000 ~~B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	1800u
56-23-5	Carbon Tetrachloride	1800u
108-05-4	Vinyl Acetate	3600u J
75-27-4	Bromodichloromethane	1800u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1800u
10061-02-6	Trans-1, 3-Dichloropropene	1800u
79-01-6	Trichloroethene	1800u J
124-48-1	Dibromochloromethane	1800u
79-00-5	1, 1, 2-Trichloroethane	1800u J
71-43-2	Benzene	1800u
10061-01-5	cis-1, 3-Dichloropropene	1800u
110-75-8	2-Chloroethylvinylether	~~3600u~~ R
75-25-2	Bromoform	1800u
108-10-1	4-Methyl-2-Pentanone	3600u J
591-78-6	2-Hexanone	3600u J
127-18-4	Tetrachloroethene	1800u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1800u J
108-88-3	Toluene	1800u
108-90-7	Chlorobenzene	1800u J
100-41-4	Ethylbenzene	1800u
100-42-5	Styrene	1800u J
	Total Xylenes	1800u J

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May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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ase No V-4432 / V-4442

Sample Number DC-SD-20

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

oncentration: Low Medium (Circle One)

ate Extracted/Prepared: 11-12-86

ate Analyzed: 11-21-86

onc/Dil Factor: 2

ercent Moisture (Decanted) 42

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	160 J
111-44-4	bis(-2-Chloroethyl)Ether	570 U
95-57-8	2-Chlorophenol	570 U
41-73-1	1 3-Dichlorobenzene	570 U
06-46-7	1. 4-Dichlorobenzene	570 U
00-51-6	Benzyl Alcohol	570 U
5-50-1	1 2-Dichlorobenzene	570 U
5-48-7	2-Methylphenol	570 U
9638-32-9	bis(2-chloroisopropyl)Ether	570 U
06-44-5	4-Methylphenol	570 U
21-64-7	N-Nitroso-Di-n-Propylamine	570 U
7-72-1	Hexachloroethane	570 U
8-95-3	Nitrobenzene	570 U
8-59-1	Isophorone	570 U
8-75-5	2-Nitrophenol	570 U
05-67-9	2. 4-Dimethylphenol	570 U
5-85-0	Benzoic Acid	2800 U
11-91-1	bis(-2-Chloroethoxy)Methane	570 U
20-83-2	2. 4-Dichlorophenol	570 U
20-82-1	1. 2. 4-Trichlorobenzene	76 J
1-20-3	Naphthalene	570 U
06-47-8	4-Chloroaniline	570 U
7-68-3	Hexachlorobutadiene	570 U
9-50-7	4-Chloro-3-Methylphenol	570 U
1-57-6	2-Methylnaphthalene	570 U
7-47-4	Hexachlorocyclopentadiene	570 U
8-06-2	2 4 6-Trichlorophenol	570 U
5-95-4	2. 4 5-Trichlorophenol	2800 U
1-58-7	2-Chloronaphthalene	570 U
8-74-4	2-Nitroaniline	2800 U
3[illegible]-3	Dimethyl Phthalate	570 U
08-96-8	Acenaphthylene	570 U
9-09-2	3-Nitroaniline	2800 UJ

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	570 U
51-28-5	2. 4-Dinitrophenol	2800 UJ
100-02-7	4-Nitrophenol	2800 U
132-64-9	Dibenzofuran	570 U
121-14-2	2 4-Dinitrotoluene	570 U
606-20-2	2 6-Dinitrotoluene	570 U
84-66-2	Diethylphthalate	570 U
7005-72-3	4-Chlorophenyl-phenylether	570 U
86-73-7	Fluorene	570 U
100-01-6	4-Nitroaniline	2800 U
534-52-1	4. 6-Dinitro-2-Methylphenol	2800 U
86-30-6	N-Nitrosodiphenylamine (1)	570 U
101-55-3	4-Bromophenyl-phenylether	570 U
118-74-1	Hexachlorobenzene	210 J
87-86-5	Pentachlorophenol	370 J
85-01-8	Phenanthrene	570 U
120-12-7	Anthracene	570 U
84-74-2	Di-n-Butylphthalate	~~280 J~~ 570 UJ
206-44-0	Fluoranthene	570 U
129-00-0	Pyrene	91 J
85-68-7	Butylbenzylphthalate	570 U
91-94-1	3. 3'-Dichlorobenzidine	1100 UJ
56-55-3	Benzo(a)Anthracene	570 U
117-81-7	bis(2-Ethylhexyl)Phthalate	95 J
218-01-9	Chrysene	180 J
117-84-0	Di-n-Octyl Phthalate	96 J
205-99-2	Benzo(b)Fluoranthene	570 U
207-08-9	Benzo(k)Fluoranthene	410 J
50-32-8	Benzo(a)Pyrene	95 J
193-39-5	Indeno(1 2. 3-cd)Pyrene	200 J
53-70-3	Dibenz(a h)Anthracene	570 U
191-24-2	Benzo(g h i)Perylene	210 J

(1)-Cannot be separated from diphenylamine

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Form I

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May 93

Laboratory Name ecology and environment, inc.

Case No V-4432 / V-4442

Sample Number DC-SD-20

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor 25

Percent Moisture (decanted) 42

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	16,000 C
11096-82-5	Aroclor-1260	5,600 J C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Case No U-4432 / U-4442

DC-SD-20

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)	
1.	Hexene isomer	VOA	17.4 min	~~860 BJ~~	U
2.	Unknown Ketone	VOA	19.1 min	~~500 BJ~~	U
3.	Hexane isomer	VOA	21.4 min	~~2700 BJ~~	U
4.					
5.	UNKNOWN HYDROCARBON	BNA	8.6	6200 J	
6. 719222	2,6-BIS(1,1-DIMETHYLETHYL)-2,5-CYCLOHEXADIENE				
7.	-1,4-DIONE		19.1	190 J	
8.	PCB		25.0-26.1	–	
9.	UNKNOWN		26.9	600 J	
10.	UNKNOWN HYDROCARBON		27.5	~~3500 BJ~~	U
11.	PCB		27.6-30.2	–	
12.	UNKNOWN		30.9	~~7900 BJ~~	U
13.	UNKNOWN		35.0	~~3100 BJ~~	U
14.					
15.					
16.					
17.					
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30					

RT HE May 93

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Sample Number
DC-SD-21

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U-4442
Lab Sample ID No: 9659
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Bytowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc/Dil Factor: 2 pH 7.1

Percent Moisture: (Not Decanted) 57

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	4800 u J
74-83-9	Bromomethane	4800 u J
75-01-4	Vinyl Chloride	4800 u
75-00-3	Chloroethane	4800 u
75-09-2	Methylene Chloride	19000 ~~B~~ UJ
67-64-1	Acetone	6400 ~~B~~ U
75-15-0	Carbon Disulfide	2400 u
75-35-4	1, 1-Dichloroethene	2400 u
75-34-3	1, 1-Dichloroethane	2400 u
156-60-5	Trans-1, 2-Dichloroethene	2400 u
67-66-3	Chloroform	2400 u
107-06-2	1, 2-Dichloroethane	2400 u
78-93-3	2-Butanone	11000 ~~B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	2400 u
56-23-5	Carbon Tetrachloride	2400 u
108-05-4	Vinyl Acetate	4800 u J
75-27-4	Bromodichloromethane	2400 u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2400 u
10061-02-6	Trans-1, 3-Dichloropropene	2400 u
79-01-6	Trichloroethene	2400 u J
124-48-1	Dibromochloromethane	2400 u
79-00-5	1, 1, 2-Trichloroethane	2400 u J
71-43-2	Benzene	2400 u
10061-01-5	cis-1, 3-Dichloropropene	2400 u
110-75-8	2-Chloroethylvinylether	~~4800 u~~ R
75-25-2	Bromoform	2400 u
108-10-1	4-Methyl-2-Pentanone	4800 u J
591-78-6	2-Hexanone	4800 u J
127-18-4	Tetrachloroethene	2400 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	2400 u J
108-88-3	Toluene	2400 u
108-90-7	Chlorobenzene	2400 u J
100-41-4	Ethylbenzene	2400 u
100-42-5	Styrene	2400 u J
	Total Xylenes	2400 u J

HE III
May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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aboratory Name ecology and environment, inc.

ase No. V-4432 / V-4442

Sample Number
DC-SD-21

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

oncentration: (Low) Medium (Circle One)

ate Extracted/Prepared: 11-12-86

ate Analyzed: 11-25-86

onc/Dil Factor: 2

ercent Moisture (Decanted) 57

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	770	U
111-44-4	bis(2-Chloroethyl)Ether	770	U
5-57-8	2-Chlorophenol	770	U
41-73-1	1 3-Dichlorobenzene	770	U
06-46-7	1. 4-Dichlorobenzene	770	U
00-51-6	Benzyl Alcohol	770	U
5-50-1	1. 2-Dichlorobenzene	770	U
5-48-7	2-Methylphenol	770	U
9638-32-9	bis(2-chloroisopropyl)Ether	770	U
06-44-5	4-Methylphenol	770	U
21-64-7	N-Nitroso-Di-n-Propylamine	770	U
7-72-1	Hexachloroethane	770	U
8-95-3	Nitrobenzene	770	U
8-59-1	Isophorone	770	U
8-75-5	2-Nitrophenol	770	U
05-67-9	2. 4-Dimethylphenol	770	U
5-85-0	Benzoic Acid	3700	U
11-91-1	bis(2-Chloroethoxy)Methane	770	U
20-83-2	2. 4-Dichlorophenol	770	U
20-82-1	1. 2. 4-Trichlorobenzene	770	U
1-20-3	Naphthalene	770	U
06-47-8	4-Chloroaniline	770	U
7-68-3	Hexachlorobutadiene	770	U
9-50-7	4-Chloro-3-Methylphenol	770	U
1-57-6	2-Methylnaphthalene	770	U
7-47-4	Hexachlorocyclopentadiene	770	U
8-06-2	2 4 6-Trichlorophenol	770	U
5-95-4	2. 4. 5-Trichlorophenol	3700	U
1-58-7	2-Chloronaphthalene	770	U
8-74-4	2-Nitroaniline	3700	U
[illegible]-3	Dimethyl Phthalate	770	U
08-95-8	Acenaphthylene	770	U
9-09-2	3-Nitroaniline	3700	UJ

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	770	U
51-28-5	2. 4-Dinitrophenol	3700	UJ
100-02-7	4-Nitrophenol	3700	UJ
132-64-9	Dibenzofuran	770	U
121-14-2	2 4-Dinitrotoluene	770	U
606-20-2	2 6-Dinitrotoluene	770	U
84-66-2	Diethylphthalate	770	U
7005-72-3	4-Chlorophenyl-phenylether	770	U
86-73-7	Fluorene	770	U
100-01-6	4-Nitroaniline	3700	U
534-52-1	4. 6-Dinitro-2-Methylphenol	3700	U
86-30-6	N-Nitrosodiphenylamine (1)	770	U
101-55-3	4-Bromophenyl-phenylether	770	U
118-74-1	Hexachlorobenzene	770	U
87-86-5	Pentachlorophenol	3700	UJ
85-01-8	Phenanthrene	280	J
120-12-7	Anthracene	770	U
84-74-2	Di-n-Butylphthalate	770	U
206-44-0	Fluoranthene	770	U
129-00-0	Pyrene	440	J
85-68-7	Butylbenzylphthalate	770	U
91-94-1	3 3'-Dichlorobenzidine	1500	UJ
56-55-3	Benzo(a)Anthracene	380	J
117-81-7	bis(2-Ethylhexyl)Phthalate	740	J
218-01-9	Chrysene	550	J
117-84-0	Di-n-Octyl Phthalate	770	U
205-99-2	Benzo(b)Fluoranthene	770	U
207-08-9	Benzo(k)Fluoranthene	920	J
50-32-8	Benzo(a)Pyrene	480	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	590	J
53-70-3	Dibenz(a h)Anthracene	770	UJ
191-24-2	Benzo(g h i)Perylene	550	J

(1)-Cannot be separated from diphenylamine

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Mg 93

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-21

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor 10

Percent Moisture (decanted) 57

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 30 V_t 1000 V_i 4

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Laboratory Name [illegible] and environment, Inc.

Case No U-4432 / U-4442

Sample Number DC-SD-21

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	17.3 min	~~1200 BJ~~ U
2.	Unknown Ketone	VOA	19.7 min	~~600 BJ~~ U
3.	Hexane isomer	VOA	21.4 min	~~3900 BJ~~ U
4.				
5.	UNKNOWN	BNA	8.1	5800 J
6.	UNKNOWN		9.4	2900 J
7.	UNKNOWN		19.1	990 J
8.	UNKNOWN HYDROCARBON		26.7	~~1400 BJ~~ U
9.	UNKNOWN		27.8	600 J
10.	UNKNOWN		29.9	~~3700 BJ~~ U
11.	UNKNOWN		30.1	6500 J
12.	UNKNOWN		34.3	~~2300 BJ~~ U
13.	UNKNOWN		36.7	360 J
14.	UNKNOWN		37.0	440 J
15.	UNKNOWN		38.2	2800 J
16.	UNKNOWN		38.5	790 J
17.	UNKNOWN		39.0	1700 J
18.	UNKNOWN		40.4	680 J
19.				
20.				
21.				
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May 93

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Sample Number
DC-SD-22

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U-4442
Lab Sample ID No: 9660
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Stojtowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc/Dil Factor: 2 pH 7.2

Percent Moisture: (Not Decanted) 55

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	4600 u J
74-83-9	Bromomethane	4600 u J
75-01-4	Vinyl Chloride	4600 u
75-00-3	Chloroethane	4600 u
75-09-2	Methylene Chloride	18000 B UJ
67-64-1	Acetone	9900 B U
75-15-0	Carbon Disulfide	2300 u
75-35-4	1, 1-Dichloroethene	2300 u
75-34-3	1, 1-Dichloroethane	2300 u
156-60-5	Trans-1, 2-Dichloroethene	2300 u
67-66-3	Chloroform	2300 u
107-06-2	1, 2-Dichloroethane	2300 u
78-93-3	2-Butanone	14000 B UJ
71-55-6	1, 1, 1-Trichloroethane	2300 u
56-23-5	Carbon Tetrachloride	2300 u
108-05-4	Vinyl Acetate	4600 u J
75-27-4	Bromodichloromethane	2300 u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2300 u
10061-02-6	Trans-1, 3-Dichloropropene	2300 u
79-01-6	Trichloroethene	2300 u J
124-48-1	Dibromochloromethane	2300 u
79-00-5	1, 1, 2-Trichloroethane	2300 u J
71-43-2	Benzene	2300 u
10061-01-5	cis-1, 3-Dichloropropene	2300 u
110-75-8	2-Chloroethylvinylether	4600 u R
75-25-2	Bromoform	2300 u
108-10-1	4-Methyl-2-Pentanone	4600 u J
591-78-6	2-Hexanone	1200 J
127-18-4	Tetrachloroethene	2300 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	2300 u J
108-88-3	Toluene	2300 u
108-90-7	Chlorobenzene	2300 u J
100-41-4	Ethylbenzene	2300 u
100-42-5	Styrene	2300 u J
	Total Xylenes	2300 u J

2300 UJ

HUE
Mg 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4432/U-4442

Sample Number DC-SD-22

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 12-12-86

Conc/Dil Factor: 5

Percent Moisture (Decanted) 55

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	1800 U
111-44-4	bis(-2-Chloroethyl)Ether	1800 U
95-57-8	2-Chlorophenol	1800 U
541-73-1	1 3-Dichlorobenzene	110 J
106-46-7	1. 4-Dichlorobenzene	690 J
100-51-6	Benzyl Alcohol	1800 U
95-50-1	1. 2-Dichlorobenzene	1800 U
95-48-7	2-Methylphenol	1800 U
39638-32-9	bis(2-chloroisopropyl)Ether	1800 U
106-44-5	4-Methylphenol	1800 U
621-64-7	N-Nitroso-Di-n-Propylamine	1800 U
67-72-1	Hexachloroethane	1800 U
98-95-3	Nitrobenzene	1800 U
78-59-1	Isophorone	1800 U
88-75-5	2-Nitrophenol	1800 U
105-67-9	2. 4-Dimethylphenol	1800 U
65-85-0	Benzoic Acid	8900 U
111-91-1	bis(-2-Chloroethoxy)Methane	1800 U
120-83-2	2. 4-Dichlorophenol	1800 U
120-82-1	1. 2. 4-Trichlorobenzene	260 J
91-20-3	Naphthalene	330 J
106-47-8	4-Chloroaniline	1800 U
87-68-3	Hexachlorobutadiene	1800 U
59-50-7	4-Chloro-3-Methylphenol	1800 U
91-57-6	2-Methylnaphthalene	100 J
77-47-4	Hexachlorocyclopentadiene	1800 U
88-06-2	2 4. 6-Trichlorophenol	1800 U
95-95-4	2. 4 5-Trichlorophenol	8900 U
91-58-7	2-Chloronaphthalene	1800 U
88-74-4	2-Nitroaniline	8900 U
131-11-3	Dimethyl Phthalate	1800 U
208-96-8	Acenaphthylene	1800 U
99-09-2	3-Nitroaniline	8900 U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	130 J
51-28-5	2. 4-Dinitrophenol	8900 U
100-02-7	4-Nitrophenol	8900 UJ
132-64-9	Dibenzofuran	1800 U
121-14-2	2 4-Dinitrotoluene	1800 U
606-20-2	2. 6-Dinitrotoluene	1800 U
84-66-2	Diethylphthalate	1800 U
7005-72-3	4-Chlorophenyl-phenylether	1800 U
86-73-7	Fluorene	370 J
100-01-6	4-Nitroaniline	8900 U
534-52-1	4. 6-Dinitro-2-Methylphenol	8900 U
86-30-6	N-Nitrosodiphenylamine (1)	1800 U
101-55-3	4-Bromophenyl-phenylether	1800 U
118-74-1	Hexachlorobenzene	1800 UJ
87-86-5	Pentachlorophenol	8900 U
85-01-8	Phenanthrene	810 J
120-12-7	Anthracene	500 J
84-74-2	Di-n-Butylphthalate	1800 U
206-44-0	Fluoranthene	4600 J
129-00-0	Pyrene	4500 J
85-68-7	Butylbenzylphthalate	1800 U
91-94-1	3. 3'-Dichlorobenzidine	3600 UJ
56-55-3	Benzo(a)Anthracene	3300
117-81-7	bis(2-Ethylhexyl)Phthalate	1800 U
218-01-9	Chrysene	4400
117-84-0	Di-n-Octyl Phthalate	190 J
205-99-2	Benzo(b)Fluoranthene	7500
207-08-9	Benzo(k)Fluoranthene	660 J
50-32-8	Benzo(a)Pyrene	4500
193-39-5	Indeno(1 2. 3-cd)Pyrene	4300
53-70-3	Dibenz(a h)Anthracene	1500 J
191-24-2	Benzo(g h i)Perylene	4000

(1)-Cannot be separated from diphenylamine

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Form I

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Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-22

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor: 25

Percent Moisture (decanted) 55

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	8,700
11097-69-1	Aroclor-1254	9,300
11096-82-5	Aroclor-1260	5,000 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-22

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	~~1400 BJ~~ U
2.	Unknown Ketone	VOA	19.6 min	~~570 BJ~~ U
3.	Hexane isomer	VOA	21.3 min	~~3400 BJ~~ U
4.				
5.	UNKNOWN HYDROCARBON	BNA	22.1	1900 J
6.	UNKNOWN HYDROCARBON		23.5	1900 J
7.	UNKNOWN		25.4	1400 J
8.	UNKNOWN LONG CHAIN HYDROCARBON ACID		25.7	4100 J
9.	UNKNOWN		26.2	7500 J
10.	UNKNOWN		37.3	10000 J
11.	UNKNOWN		38.2	3700 J
12.				
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Sample Number
DC-SD-23

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U-4442
Lab Sample ID No: 9661
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Sojtowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc./Dil Factor: 2 pH 7.0

Percent Moisture: (Not Decanted) 63

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	5800u J
74-83-9	Bromomethane	5800u J
75-01-4	Vinyl Chloride	5800u
75-00-3	Chloroethane	5800u
75-09-2	Methylene Chloride	27000 B UJ
67-64-1	Acetone	15000 B U
75-15-0	Carbon Disulfide	2900u
75-35-4	1, 1-Dichloroethene	2900u
75-34-3	1, 1-Dichloroethane	2900u
156-60-5	Trans-1, 2-Dichloroethene	2900u
67-66-3	Chloroform	2900u
107-06-2	1, 2-Dichloroethane	2900u
78-93-3	2-Butanone	22000 B UJ
71-55-6	1, 1, 1-Trichloroethane	2900u
56-23-5	Carbon Tetrachloride	2900u
108-05-4	Vinyl Acetate	5800u J
75-27-4	Bromodichloromethane	2900u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2900u
10061-02-6	Trans-1, 3-Dichloropropene	2900u
79-01-6	Trichloroethene	2900u J
124-48-1	Dibromochloromethane	2900u
79-00-5	1, 1, 2-Trichloroethane	2900u J
71-43-2	Benzene	2900u
10061-01-5	cis-1, 3-Dichloropropene	2900u
110-75-8	2-Chloroethylvinylether	5800u R
75-25-2	Bromoform	2900u
108-10-1	4-Methyl-2-Pentanone	5800u J
591-78-6	2-Hexanone	5800u J
127-18-4	Tetrachloroethene	2900u
79-34-5	1, 1, 2, 2-Tetrachloroethane	2900u J
108-88-3	Toluene	2900u
108-90-7	Chlorobenzene	2900u J
100-41-4	Ethylbenzene	2900u
100-42-5	Styrene	2900u J
	Total Xylenes	2900u 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.

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Form I

11/86

Laboratory Name Ecology & Environment Inc.

Case No U-4432/U-4442

Sample Number DC-SD-23

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-25-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 63

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	580	J
111-44-4	bis(-2-Chloroethyl)Ether	890	U
95-57-8	2-Chlorophenol	890	U
541-73-1	1 3-Dichlorobenzene	890	U
106-46-7	1 4-Dichlorobenzene	890	U
100-51-6	Benzyl Alcohol	890	U
95-50-1	1 2-Dichlorobenzene	890	U
95-48-7	2-Methylphenol	890	U
39638-32-9	bis(2-chloroisopropyl)Ether	890	U
106-44-5	4-Methylphenol	890	U
621-64-7	N-Nitroso-Di-n-Propylamine	890	U
67-72-1	Hexachloroethane	890	U
98-95-3	Nitrobenzene	890	U
78-59-1	Isophorone	890	U
88-75-5	2-Nitrophenol	890	U
105-67-9	2 4-Dimethylphenol	890	U
65-85-0	Benzoic Acid	4300	U
111-91-1	bis(-2-Chloroethoxy)Methane	890	U
120-83-2	2 4-Dichlorophenol	890	U
120-82-1	1 2 4-Trichlorobenzene	130	J
91-20-3	Naphthalene	100	J
106-47-8	4-Chloroaniline	890	U
87-68-3	Hexachlorobutadiene	890	U
59-50-7	4-Chloro-3-Methylphenol	890	U
91-57-6	2-Methylnaphthalene	890	U
77-47-4	Hexachlorocyclopentadiene	890	U
88-06-2	2 4 6-Trichlorophenol	890	U
95-95-4	2 4 5-Trichlorophenol	4300	U
91-58-7	2-Chloronaphthalene	890	U
88-74-4	2-Nitroanilme	4300	U
131-11-3	Dimethyl Phthalate	890	U
8-96-8	Acenaphthylene	890	U
99-09-2	3-Nitroaniline	4300	UJ

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	890	U
51-28-5	2 4-Dinitrophenol	4300	UJ
100-02-7	4-Nitrophenol	4300	UJ
132-64-9	Dibenzofuran	890	U
121-14-2	2 4-Dinitrotoluene	890	U
606-20-2	2 6-Dinitrotoluene	890	U
84-66-2	Diethylphthalate	890	U
7005-72-3	4-Chlorophenyl-phenylether	890	U
86-73-7	Fluorene	890	U
100-01-6	4-Nitroaniline	4300	U
534-52-1	4 6-Dinitro-2-Methylphenol	4300	U
86-30-6	N-Nitrosodiphenylamine (1)	890	U
101-55-3	4-Bromophenyl-phenylether	890	U
118-74-1	Hexachlorobenzene	890	U
87-86-5	Pentachlorophenol	4300	UJ
85-01-8	Phenanthrene	890	U
120-12-7	Anthracene	890	U
84-74-2	Di-n-Butylphthalate	890	U
206-44-0	Fluoranthene	890	U
129-00-0	Pyrene	890	UJ
85-68-7	Butylbenzylphthalate	890	U
91-94-1	3 3'-Dichlorobenzidine	1800	UJ
56-55-3	Benzo(a)Anthracene	650	J
117-81-7	bis(2-Ethylhexyl)Phthalate	660	J
218-01-9	Chrysene	1000	
117-84-0	Di-n-Octyl Phthalate	890	U
205-99-2	Benzo(b)Fluoranthene	2000	
207-08-9	Benzo(k)Fluoranthene	890	UJ
50-32-8	Benzo(a)Pyrene	940	
193-39-5	Indeno(1 2 3-cd)Pyrene	1700	
53-70-3	Dibenz(a h)Anthracene	640	J
191-24-2	Benzo(g h i)Perylene	1700	

(1)-Cannot be separated from diphenylamine

Form I 50

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Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number DC-SD-23

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor: 25

Percent Moisture (decanted) 63

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	11,000
11096-82-5	Aroclor-1260	7,800 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name [illegible]

Case No U-4432 / U-4442

Sample Number DC-SD-23

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	17.3 min	~~1300 BJ~~ U
2.	Unknown ketone	VOA	19.6 min	~~920 BJ~~ U
3.	Hexane isomer	VOA	21.3 min	~~4300 BJ~~ U
4.				
5.	UNKNOWN HYDROCARBON	BNA	5.5	1900 J
6.	UNKNOWN HYDROCARBON		5.8	1700 J
7.	UNKNOWN HYDROCARBON		8.1	10000 J
8.	UNKNOWN HYDROCARBON		26.7	~~4100 BJ~~ U
9.	UNKNOWN		30.1	~~8000 BJ~~ U
10.	UNKNOWN		34.3	~~3900 BJ~~ U
11.	UNKNOWN		38.5	1400 J
12.	UNKNOWN		39.0	4600 J
13.	UNKNOWN	BNA	40.5	940 J
14.				
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May 93

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Sample Number
DC-SD-24

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U 4442
Lab Sample ID No: 9662
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Slogtowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc./Dil Factor: 2 pH 7.4

Percent Moisture: (Not Decanted) 39

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3200U J
74-83-9	Bromomethane	3200U J
75-01-4	Vinyl Chloride	3200U J
75-00-3	Chloroethane	3200U
75-09-2	Methylene Chloride	17000B 4
67-64-1	Acetone	7300B UJ
75-15-0	Carbon Disulfide	1600U
75-35-4	1, 1-Dichloroethene	1600U
75-34-3	1, 1-Dichloroethane	1600U
156-60-5	Trans-1, 2-Dichloroethene	1600U
67-66-3	Chloroform	1600U
107-06-2	1, 2-Dichloroethane	1600U
78-93-3	2-Butanone	12000B UJ
71-55-6	1, 1, 1-Trichloroethane	1600U
56-23-5	Carbon Tetrachloride	1600U
108-05-4	Vinyl Acetate	3200U J
75-27-4	Bromodichloromethane	1600U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1600U
10061-02-6	Trans-1, 3-Dichloropropene	1600U
79-01-6	Trichloroethene	1600U
124-48-1	Dibromochloromethane	1600U
79-00-5	1, 1, 2-Trichloroethane	1600U
71-43-2	Benzene	1600U
10061-01-5	cis-1, 3-Dichloropropene	1600U
110-75-8	2-Chloroethylvinylether	~~3200U~~ R
75-25-2	Bromoform	1600U
108-10-1	4-Methyl-2-Pentanone	3200U
591-78-6	2-Hexanone	3200U
127-18-4	Tetrachloroethene	1600U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1600U
108-88-3	Toluene	1600U
108-90-7	Chlorobenzene	1600U
100-41-4	Ethylbenzene	1600U
100-42-5	Styrene	1600U
	Total Xylenes	1600U

RVE
May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4432/U-4442

Sample Number DC-SD-24

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 12-1-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 39

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	81 J
111-44-4	bis(-2-Chloroethyl)Ether	540 UJ
95-57-8	2-Chlorophenol	540 U
541-73-1	1 3-Dichlorobenzene	540 U
106-46-7	1 4-Dichlorobenzene	540 U
100-51-6	Benzyl Alcohol	540 U
95-50-1	1, 2-Dichlorobenzene	540 U
95-48-7	2-Methylphenol	540 U
39638-32-9	bis(2-chloroisopropyl)Ether	540 UJ
106-44-5	4-Methylphenol	540 U
621-64-7	N-Nitroso-Di-n-Propylamine	540 UJ
67-72-1	Hexachloroethane	540 U
98-95-3	Nitrobenzene	540 U
78-59-1	Isophorone	540 U
88-75-5	2-Nitrophenol	540 U
105-67-9	2, 4-Dimethylphenol	540 U
65-85-0	Benzoic Acid	2600 U
111-91-1	bis(-2-Chloroethoxy)Methane	540 U
120-83-2	2, 4-Dichlorophenol	540 U
120-82-1	1, 2, 4-Trichlorobenzene	64 J
91-20-3	Naphthalene	540 U
106-47-8	4-Chloroaniline	540 U
87-68-3	Hexachlorobutadiene	540 U
59-50-7	4-Chloro-3-Methylphenol	540 U
91-57-6	2-Methylnaphthalene	540 U
77-47-4	Hexachlorocyclopentadiene	540 U
88-06-2	2 4, 6-Trichlorophenol	540 U
95-95-4	2, 4, 5-Trichlorophenol	2600 U
91-58-7	2-Chloronaphthalene	540 U
88-74-4	2-Nitroaniline	2600 UJ
131-11-3	Dimethyl Phthalate	540 U
08-96-8	Acenaphthylene	540 U
99-09-2	3-Nitroaniline	2600 UJ

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	540 U
51-28-5	2, 4-Dinitrophenol	2600 U
100-02-7	4-Nitrophenol	2600 UJ
132-64-9	Dibenzofuran	540 U
121-14-2	2 4-Dinitrotoluene	540 UJ
606-20-2	2, 6-Dinitrotoluene	540 U
84-66-2	Diethylphthalate	540 U
7005-72-3	4-Chlorophenyl-phenylether	540 U
86-73-7	Fluorene	540 U
100-01-6	4-Nitroaniline	2600 U
534-52-1	4, 6-Dinitro-2-Methylphenol	2600 U
86-30-6	N-Nitrosodiphenylamine (1)	540 U
101-55-3	4-Bromophenyl-phenylether	540 U
118-74-1	Hexachlorobenzene	540 U
87-86-5	Pentachlorophenol	2600 U
85-01-8	Phenanthrene	220 J
120-12-7	Anthracene	540 U
84-74-2	Di-n-Butylphthalate 540	~~120 J~~ U
206-44-0	Fluoranthene	370 J
129-00-0	Pyrene	290 J
85-68-7	Butylbenzylphthalate	540 U
91-94-1	3, 3'-Dichlorobenzidine	1100 UJ
56-55-3	Benzo(a)Anthracene	230 J
117-81-7	bis(2-Ethylhexyl)Phthalate	540 U
218-01-9	Chrysene	300 J
117-84-0	Di-n-Octyl Phthalate	540 U
205-99-2	Benzo(b)Fluoranthene	1000
207-08-9	Benzo(k)Fluoranthene	540 U
50-32-8	Benzo(a)Pyrene	350 J
193-39-5	Indeno(1 2 3-cd)Pyrene	530 J
53-70-3	Dibenz(a h)Anthracene	110 J
191-24-2	Benzo(g h i)Perylene	470 J

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number DC-SD-24

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor: 10

Percent Moisture (decanted) 39

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
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	1,600 J
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 30 V_t 1000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-24

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	17.3 min	~~410 BJ~~	U
2.	Unknown Ketone	VOA	19.7 min	~~490 BJ~~	U
3.	Hexane isomer	VOA	21.4 min	~~2300 BJ~~	U
4.					
5.	UNKNOWN HYDROCARBON	BNA	8.6	5700 J	
6.	UNKNOWN		19.8	290 J	
7.	UNKNOWN		20.5	200 J	
8.	UNKNOWN		21.0	180 J	
9.	UNKNOWN HYDROCARBON		27.6	~~1200 BJ~~	U
10.	UNKNOWN		30.8	~~4300 BJ~~	U
11.	UNKNOWN		35.0	~~1800 BJ~~	U
12.					
13.					
14.					
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Sample Number
DC-SD-25

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432 / U 4442
Lab Sample ID No: 9663
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc./Dil Factor: 2 pH 7.1

Percent Moisture: (Not Decanted) 52

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	4400u J
74-83-9	Bromomethane	4400u J
75-01-4	Vinyl Chloride	4400u J
75-00-3	Chloroethane	4400u
75-09-2	Methylene Chloride	23000 B U
67-64-1	Acetone	18000 B UJ
75-15-0	Carbon Disulfide	2200u
75-35-4	1, 1-Dichloroethene	2200u
75-34-3	1, 1-Dichloroethane	2200u
156-60-5	Trans-1, 2-Dichloroethene	2200u
67-66-3	Chloroform	2200u
107-06-2	1, 2-Dichloroethane	2200u
78-93-3	2-Butanone	21000 B UJ
71-55-6	1, 1, 1-Trichloroethane	2200u
56-23-5	Carbon Tetrachloride	2200u
108-05-4	Vinyl Acetate	4400u J
75-27-4	Bromodichloromethane	2200u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2200u
10061-02-6	Trans-1, 3-Dichloropropene	2200u
79-01-6	Trichloroethene	2200u
124-48-1	Dibromochloromethane	2200u
79-00-5	1, 1, 2-Trichloroethane	2200u
71-43-2	Benzene	2200u
10061-01-5	cis-1, 3-Dichloropropene	2200u
110-75-8	2-Chloroethylvinylether	4400u R
75-25-2	Bromoform	2200u
108-10-1	4-Methyl-2-Pentanone	4400u
591-78-6	2-Hexanone	4400u
127-18-4	Tetrachloroethene	2200u
79-34-5	1, 1, 2, 2-Tetrachloroethane	2200u
108-88-3	Toluene	2200u
108-90-7	Chlorobenzene	2200u
100-41-4	Ethylbenzene	2200u
100-42-5	Styrene	2200u
	Total Xylenes	2200u

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May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4432/U-4442

Sample Number DC-SD-25

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 12-1-86

Conc/Dil Factor 2

Percent Moisture (Decanted) 52

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	690	U
111-44-4	bis(-2-Chloroethyl)Ether	690	UJ
95-57-8	2-Chlorophenol	690	U
541-73-1	1 3-Dichlorobenzene	690	U
106-46-7	1 4-Dichlorobenzene	690	U
100-51-6	Benzyl Alcohol	690	U
95-50-1	1 2-Dichlorobenzene	690	U
95-48-7	2-Methylphenol	690	U
39638-32-9	bis(2-chloroisopropyl)Ether	690	UJ
106-44-5	4-Methylphenol	690	U
621-64-7	N-Nitroso-Di-n-Propylamine	690	UJ
67-72-1	Hexachloroethane	690	U
98-95-3	Nitrobenzene	690	U
78-59-1	Isophorone	690	U
88-75-5	2-Nitrophenol	690	U
105-67-9	2 4-Dimethylphenol	690	U
65-85-0	Benzoic Acid	3300	U
111-91-1	bis(-2-Chloroethoxy)Methane	690	U
120-83-2	2 4-Dichlorophenol	690	U
120-82-1	1 2 4-Trichlorobenzene	690	U
91-20-3	Naphthalene	690	U
106-47-8	4-Chloroaniline	690	U
87-68-3	Hexachlorobutadiene	690	U
59-50-7	4-Chloro-3-Methylphenol	690	U
91-57-6	2-Methylnaphthalene	690	U
77-47-4	Hexachlorocyclopentadiene	690	U
88-06-2	2 4 6-Trichlorophenol	690	U
95-95-4	2 4 5-Trichlorophenol	2300	U
91-58-7	2-Chloronaphthalene	690	U
88-74-4	2-Nitroaniline	3300	UJ
131-11-3	Dimethyl Phthalate	690	U
208-96-8	Acenaphthylene	690	U
[illegible]-09-2	3-Nitroaniline	3300	UJ

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	690	U
51-28-5	2 4-Dinitrophenol	3300	U
100-02-7	4-Nitrophenol	3300	UJ
132-64-9	Dibenzofuran	690	U
121-14-2	2 4-Dinitrotoluene	690	UJ
606-20-2	2 6-Dinitrotoluene	690	U
84-66-2	Diethylphthalate	690	U
7005-72-3	4-Chlorophenyl-phenylether	690	U
86-73-7	Fluorene	690	U
100-01-6	4-Nitroaniline	3300	U
534-52-1	4 6-Dinitro-2-Methylphenol	3300	U
86-30-6	N-Nitrosodiphenylamine (1)	690	U
101-55-3	4-Bromophenyl-phenylether	690	U
118-74-1	Hexachlorobenzene	690	U
87-86-5	Pentachlorophenol	3300	U
85-01-8	Phenanthrene	690	U
120-12-7	Anthracene	690	U
84-74-2	Di-n-Butylphthalate	~~130~~	~~J~~ 690 U
206-44-0	Fluoranthene	690	U
129-00-0	Pyrene	690	UJ
85-68-7	Butylbenzylphthalate	690	U
91-94-1	3 3'-Dichlorobenzidine	1400	UJ
56-55-3	Benzo(a)Anthracene	690	U
117-81-7	bis(2-Ethylhexyl)Phthalate	690	U
218-01-9	Chrysene	690	U
117-84-0	Di-n-Octyl Phthalate	690	U
205-99-2	Benzo(b)Fluoranthene	690	U
207-08-9	Benzo(k)Fluoranthene	690	U
50-32-8	Benzo(a)Pyrene	690	U
193-39-5	Indeno(1 2 3-cd)Pyrene	690	UJ
53-70-3	Dibenz(a h)Anthracene	690	UJ
191-24-2	Benzo(g h i)Perylene	690	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number DC-SD-25

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor 25

Percent Moisture (decanted) 52

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	580
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 30 V_t 1000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No U-4432 / U 4442

Sample Number DC-SD-25

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4 min	~~1000 BJ~~ U
2.	Unknown Ketone	VOA	19.7 min	~~630 BJ~~ U
3.	Hexane isomer	VOA	21.4 min	~~3200 BJ~~ U
4.				
5.	UNKNOWN	BNA	8.6	3600 J
6.	UNKNOWN HYDROCARBON		27.5	~~1700 BJ~~ U
7.	UNKNOWN		30.8	~~3500 BJ~~ U
8.	UNKNOWN		35.0	~~1400 BJ~~ U
9.				
10.				
11.				
12.				
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Sample Number
DC-SD-26

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U-4442
Lab Sample ID No: 9664
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low **Medium** (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc/Dil Factor: 2 pH 7.4

Percent Moisture: (Not Decanted) 36

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3400u J
74-83-9	Bromomethane	3400u J
75-01-4	Vinyl Chloride	3400u J
75-00-3	Chloroethane	3400u
75-09-2	Methylene Chloride	19000 B-4
67-64-1	Acetone	9800 B UJ
75-15-0	Carbon Disulfide	1700u
75-35-4	1, 1-Dichloroethene	1700u
75-34-3	1, 1-Dichloroethane	1700u
156-60-5	Trans-1, 2-Dichloroethene	1700u
67-66-3	Chloroform	1700u
107-06-2	1, 2-Dichloroethane	1700u
78-93-3	2-Butanone	16000 B UJ
71-55-6	1, 1, 1-Trichloroethane	1700u
56-23-5	Carbon Tetrachloride	1700u
108-05-4	Vinyl Acetate	3400u J
75-27-4	Bromodichloromethane	1700u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1700u
10061-02-6	Trans-1, 3-Dichloropropene	1700u
79-01-6	Trichloroethene	1700u
124-48-1	Dibromochloromethane	1700u
79-00-5	1, 1, 2-Trichloroethane	1700u
71-43-2	Benzene	1700u
10061-01-5	cis-1, 3-Dichloropropene	1700u
110-75-8	2-Chloroethylvinylether	~~3400u~~ R
75-25-2	Bromoform	1700u
108-10-1	4-Methyl-2-Pentanone	3400u
591-78-6	2-Hexanone	3400u
127-18-4	Tetrachloroethene	1700u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1700u
108-88-3	Toluene	1700u
108-90-7	Chlorobenzene	1700u
100-41-4	Ethylbenzene	1700u
100-42-5	Styrene	1700u
	Total Xylenes	1700u

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May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4432 / U-4442

Sample Number DC-SD-26

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-21-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 36

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	520	U
111-44-4	bis(-2-Chloroethyl)Ether	520	U
95-57-8	2-Chlorophenol	520	U
541-73-1	1 3-Dichlorobenzene	520	U
106-46-7	1 4-Dichlorobenzene	520	U
100-51-6	Benzyl Alcohol	520	U
95-50-1	1. 2-Dichlorobenzene	520	U
95-48-7	2-Methylphenol	520	U
39638-32-9	bis(2-chloroisopropyl)Ether	520	U
106-44-5	4-Methylphenol	520	U
621-64-7	N-Nitroso-Di-n-Propylamine	520	U
67-72-1	Hexachloroethane	520	U
98-95-3	Nitrobenzene	520	U
78-59-1	Isophorone	520	U
88-75-5	2-Nitrophenol	520	U
105-67-9	2. 4-Dimethylphenol	520	U
65-85-0	Benzoic Acid	2500	U
111-91-1	bis(-2-Chloroethoxy)Methane	520	U
120-83-2	2 4-Dichlorophenol	520	U
120-82-1	1 2. 4-Trichlorobenzene	520	U
91-20-3	Naphthalene	520	U
106-47-8	4-Chloroaniline	520	U
87-68-3	Hexachlorobutadiene	520	U
59-50-7	4-Chloro-3-Methylphenol	520	U
91-57-6	2-Methylnaphthalene	520	U
77-47-4	Hexachlorocyclopentadiene	520	U
88-06-2	2 4 6-Trichlorophenol	520	U
95-95-4	2. 4. 5-Trichlorophenol	2500	U
91-58-7	2-Chloronaphthalene	520	U
88-74-4	2-Nitroaniline	2500	U
131-11-3	Dimethyl Phthalate	520	U
[illegible]8-96-8	Acenaphthylene	520	U
[illegible]-09-2	3-Nitroaniline	2500	UJ

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	520	U
51-28-5	2. 4-Dinitrophenol	2500	UJ
100-02-7	4-Nitrophenol	2500	U
132-64-9	Dibenzofuran	520	U
121-14-2	2 4-Dinitrotoluene	520	U
606-20-2	2. 6-Dinitrotoluene	520	U
84-66-2	Diethylphthalate	520	U
7005-72-3	4-Chlorophenyl-phenylether	520	U
86-73-7	Fluorene	520	U
100-01-6	4-Nitroaniline	2500	U
534-52-1	4. 6-Dinitro-2-Methylphenol	2500	U
86-30-6	N-Nitrosodiphenylamine (1)	520	U
101-55-3	4-Bromophenyl-phenylether	520	U
118-74-1	Hexachlorobenzene	520	U
87-86-5	Pentachlorophenol	2500	U
85-01-8	Phenanthrene	520	U
120-12-7	Anthracene	520	U
84-74-2	Di-n-Butylphthalate	~~79~~	~~J~~ 520 U
206-44-0	Fluoranthene	130	J
129-00-0	Pyrene	120	J
85-68-7	Butylbenzylphthalate	520	U
91-94-1	3. 3'-Dichlorobenzidine	1000	UJ
56-55-3	Benzo(a)Anthracene	520	U
117-81-7	bis(2-Ethylhexyl)Phthalate	72	J
218-01-9	Chrysene	83	J
117-84-0	Di-n-Octyl Phthalate	520	U
205-99-2	Benzo(b)Fluoranthene	200	J
207-08-9	Benzo(k)Fluoranthene	520	U
50-32-8	Benzo(a)Pyrene	86	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	100	J
53-70-3	Dibenz(a h)Anthracene	520	U
191-24-2	Benzo(g h i)Perylene	91	J

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-26

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor: 10

Percent Moisture (decanted) 36

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
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 30 V_t 1000 V_i 4

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Laboratory Name [illegible] and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-26

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	17.5 min	~~780 BJ~~ U
2.	Unknown Ketone	VOA	19.8 min	~~520 BJ~~ U
3.	Hexane isomer	VOA	21.5 min	~~2400 BJ~~ U
4.				
5.	UNKNOWN	BNA	8.6	2800 J
6.	UNKNOWN HYDROCARBON		27.5	~~880 BJ~~ U
7.	UNKNOWN		30.9	~~2800 BJ~~ U
8.	UNKNOWN		35.0	~~1500 BJ~~ U
9.	UNKNOWN HYDROCARBON		37.8	190 J
10.	UNKNOWN		39.2	100 J
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Sample Number
DC-SD-27

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U-4442
Lab Sample ID No: 9665
QC Report No:
Sample Matrix: Soil
Contract No: EL-3140
Data Release Authorized By: C Sojtowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc./Dil Factor: 2 pH 7.0

Percent Moisture: (Not Decanted) 75

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	8600u J
74-83-9	Bromomethane	8600u J
75-01-4	Vinyl Chloride	8600u J
75-00-3	Chloroethane	8600u
75-09-2	Methylene Chloride	43000 B-4
67-64-1	Acetone	36000 B-UJ
75-15-0	Carbon Disulfide	4300u
75-35-4	1, 1-Dichloroethene	4300u
75-34-3	1, 1-Dichloroethane	4300u
156-60-5	Trans-1, 2-Dichloroethene	4300u
67-66-3	Chloroform	4300u
107-06-2	1, 2-Dichloroethane	4300u
78-93-3	2-Butanone	35000 B-UJ
71-55-6	1, 1, 1-Trichloroethane	4300u
56-23-5	Carbon Tetrachloride	4300u
108-05-4	Vinyl Acetate	8600u J
75-27-4	Bromodichloromethane	4300u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	4300u
10061-02-6	Trans-1, 3-Dichloropropene	4300u
79-01-6	Trichloroethene	4300u
124-48-1	Dibromochloromethane	4300u
79-00-5	1, 1, 2-Trichloroethane	4300u
71-43-2	Benzene	4300u
10061-01-5	cis-1, 3-Dichloropropene	4300u
110-75-8	2-Chloroethylvinylether	~~8600u~~ R
75-25-2	Bromoform	4300u
108-10-1	4-Methyl-2-Pentanone	8600u
591-78-6	2-Hexanone	8600u
127-18-4	Tetrachloroethene	4300u
79-34-5	1, 1, 2, 2-Tetrachloroethane	4300u
108-88-3	Toluene	4300u
108-90-7	Chlorobenzene	4300u
100-41-4	Ethylbenzene	4300u
100-42-5	Styrene	4300u
	Total Xylenes	4300u

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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, etc. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4432/U-4442

Sample Number DC-SD-27

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 11-25-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 75

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	1300	U
111-44-4	bis(-2-Chloroethyl)Ether	1300	U
95-57-8	2-Chlorophenol	1300	U
541-73-1	1 3-Dichlorobenzene	1300	U
106-46-7	1 4-Dichlorobenzene	1300	U
100-51-6	Benzyl Alcohol	1300	U
95-50-1	1. 2-Dichlorobenzene	1300	U
95-48-7	2-Methylphenol	1300	U
39638-32-9	bis(2-chloroisopropyl)Ether	1300	U
106-44-5	4-Methylphenol	1300	U
621-64-7	N-Nitroso-Di-n-Propylamine	1300	U
67-72-1	Hexachloroethane	1300	U
98-95-3	Nitrobenzene	1300	U
78-59-1	Isophorone	1300	U
88-75-5	2-Nitrophenol	1300	U
105-67-9	2. 4-Dimethylphenol	1300	U
65-85-0	Benzoic Acid	6200	U
111-91-1	bis(-2-Chloroethoxy)Methane	1300	U
120-83-2	2. 4-Dichlorophenol	1300	U
120-82-1	1. 2. 4-Trichlorobenzene	1300	U
91-20-3	Naphthalene	1300	U
106-47-8	4-Chloroaniline	1300	U
87-68-3	Hexachlorobutadiene	1300	U
59-50-7	4-Chloro-3-Methylphenol	1300	U
91-57-6	2-Methylnaphthalene	1300	U
77-47-4	Hexachlorocyclopentadiene	1300	U
88-06-2	2 4. 6-Trichlorophenol	1300	U
95-95-4	2. 4. 5-Trichlorophenol	6200	U
91-58-7	2-Chloronaphthalene	1300	U
88-74-4	2-Nitroaniline	6200	U
131-11-3	Dimethyl Phthalate	1300	U
208-96-8	Acenaphthylene	1300	U
99-09-2	3-Nitroaniline	6200	UJ

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	1300	U
51-28-5	2. 4-Dinitrophenol	6200	UJ
100-02-7	4-Nitrophenol	6200	UJ
132-64-9	Dibenzofuran	1300	U
121-14-2	2 4-Dinitrotoluene	1300	U
606-20-2	2. 6-Dinitrotoluene	1300	U
84-66-2	Diethylphthalate	1300	U
7005-72-3	4-Chlorophenyl-phenylether	1300	U
86-73-7	Fluorene	1300	U
100-01-6	4-Nitroaniline	6200	U
534-52-1	4. 6-Dinitro-2-Methylphenol	6200	U
86-30-6	N-Nitrosodiphenylamine (1)	1300	U
101-55-3	4-Bromophenyl-phenylether	1300	U
118-74-1	Hexachlorobenzene	1300	U
87-86-5	Pentachlorophenol	6200	UJ
85-01-8	Phenanthrene	1300	U
120-12-7	Anthracene	1300	U
84-74-2	Di-n-Butylphthalate	1300	U
206-44-0	Fluoranthene	1300	U
129-00-0	Pyrene	1300	UJ
85-68-7	Butylbenzylphthalate	1300	U
91-94-1	3 3'-Dichlorobenzidine	2600	UJ
56-55-3	Benzo(a)Anthracene	1300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1300	U
218-01-9	Chrysene	1300	U
117-84-0	Di-n-Octyl Phthalate	170	J
205-99-2	Benzo(b)Fluoranthene	500	J
207-08-9	Benzo(k)Fluoranthene	1300	UJ
50-32-8	Benzo(a)Pyrene	240	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	310	J
53-70-3	Dibenz(a h)Anthracene	1300	UJ
191-24-2	Benzo(g h i)Perylene	360	J

(1)-Cannot be separated from diphenylamine

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Form I

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Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442.

Sample Number DC-SD-27

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor: 10

Percent Moisture (decanted) 25

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	7,500
11096-82-5	Aroclor-1260	4,500

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-27

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	17.5 min	~~2000 BJ~~ U
2.	Unknown Ketone	VOA	19.9 min	~~1200 BJ~~ U
3.	Hexane isomer	VOA	21.5 min	~~6100 BJ~~ U
4.				
5.	UNKNOWN	BNA	8.0	9700 J
6.	UNKNOWN		23.9	360 J
7.	UNKNOWN HYDROCARBON		26.7	~~950 BJ~~ U
8.	UNKNOWN HYDROCARBON		27.0	360 J
9.	UNKNOWN		30.1	~~7600 BJ~~ U
10.	UNKNOWN		34.3	~~3100 BJ~~ U
11.	UNKNOWN		37.3	1700 J
12.	UNKNOWN		39.0	3200 J
13.				
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Sample Number
DC-SD-28

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432 / U-4442
Lab Sample ID No: 9666
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc./Dil Factor: 2 pH 7.4

Percent Moisture: (Not Decanted) 33

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3200u J
74-83-9	Bromomethane	3200u J
75-01-4	Vinyl Chloride	3200u J
75-00-3	Chloroethane	3200u
75-09-2	Methylene Chloride	20000 B 4
67-64-1	Acetone	7400 B UJ
75-15-0	Carbon Disulfide	1600u
75-35-4	1, 1-Dichloroethene	1600u
75-34-3	1, 1-Dichloroethane	1600u
156-60-5	Trans-1, 2-Dichloroethene	1600u
67-66-3	Chloroform	1600u
107-06-2	1, 2-Dichloroethane	1600u
78-93-3	2-Butanone	15000 B UJ
71-55-6	1, 1, 1-Trichloroethane	1600u
56-23-5	Carbon Tetrachloride	1600u
108-05-4	Vinyl Acetate	3200u J
75-27-4	Bromodichloromethane	1600u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1600u
10061-02-6	Trans-1, 3-Dichloropropene	1600u
79-01-6	Trichloroethene	1600u
124-48-1	Dibromochloromethane	1600u
79-00-5	1, 1, 2-Trichloroethane	1600u
71-43-2	Benzene	1600u
10061-01-5	cis-1, 3-Dichloropropene	1600u
110-75-8	2-Chloroethylvinylether	~~3200u~~ R
75-25-2	Bromoform	1600u
108-10-1	4-Methyl-2-Pentanone	3200u
591-78-6	2-Hexanone	3200u
127-18-4	Tetrachloroethene	1600u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1600u
108-88-3	Toluene	1600u
108-90-7	Chlorobenzene	1600u
100-41-4	Ethylbenzene	1600u
100-42-5	Styrene	1600u
	Total Xylenes	1600u

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May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4432 / V-4442

Sample Number DC-SD-28

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 12-1-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 33

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	490	U
111-44-4	bis(-2-Chloroethyl)Ether	490	UJ
95-57-8	2-Chlorophenol	490	U
541-73-1	1 3-Dichlorobenzene	490	U
106-46-7	1. 4-Dichlorobenzene	490	U
100-51-6	Benzyl Alcohol	490	U
95-50-1	1. 2-Dichlorobenzene	490	U
95-48-7	2-Methylphenol	490	U
39638-32-9	bis(2-chloroisopropyl)Ether	490	UJ
106-44-5	4-Methylphenol	490	U
621-64-7	N-Nitroso-Di-n-Propylamine	490	UJ
67-72-1	Hexachloroethane	490	U
98-95-3	Nitrobenzene	490	U
78-59-1	Isophorone	490	U
88-75-5	2-Nitrophenol	490	U
105-67-9	2. 4-Dimethylphenol	490	U
65-85-0	Benzoic Acid	2400	U
111-91-1	bis(-2-Chloroethoxy)Methane	490	U
120-83-2	2. 4-Dichlorophenol	490	U
120-82-1	1. 2. 4-Trichlorobenzene	490	U
91-20-3	Naphthalene	490	U
106-47-8	4-Chloroaniline	490	U
87-68-3	Hexachlorobutadiene	490	U
59-50-7	4-Chloro-3-Methylphenol	490	U
91-57-6	2-Methylnaphthalene	490	U
77-47-4	Hexachlorocyclopentadiene	490	U
88-06-2	2 4. 6-Trichlorophenol	490	U
95-95-4	2. 4. 5-Trichlorophenol	2400	U
91-58-7	2-Chloronaphthalene	490	U
88-74-4	2-Nitroaniline	2400	UJ
131-11-3	Dimethyl Phthalate	490	U
208-96-8	Acenaphthylene	490	U
99-09-2	3-Nitroaniline	2400	UJ

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	490	U
51-28-5	2. 4-Dinitrophenol	2400	U
100-02-7	4-Nitrophenol	2400	UJ
132-64-9	Dibenzofuran	490	U
121-14-2	2 4-Dinitrotoluene	490	UJ
606-20-2	2. 6-Dinitrotoluene	490	U
84-66-2	Diethylphthalate	490	U
7005-72-3	4-Chlorophenyl-phenylether	490	U
86-73-7	Fluorene	490	U
100-01-6	4-Nitroaniline	2400	U
534-52-1	4. 6-Dinitro-2-Methylphenol	2400	U
86-30-6	N-Nitrosodiphenylamine (1)	490	U
101-55-3	4-Bromophenyl-phenylether	490	U
118-74-1	Hexachlorobenzene	490	U
87-86-5	Pentachlorophenol	2400	U
85-01-8	Phenanthrene	490	U
120-12-7	Anthracene	490	U
84-74-2	Di-n-Butylphthalate	490	U
206-44-0	Fluoranthene	490	U
129-00-0	Pyrene	490	UJ
85-68-7	Butylbenzylphthalate	490	U
91-94-1	3. 3'-Dichlorobenzidine	980	UJ
56-55-3	Benzo(a)Anthracene	490	U
117-81-7	bis(2-Ethylhexyl)Phthalate	490	U
218-01-9	Chrysene	490	U
117-84-0	Di-n-Octyl Phthalate	490	U
205-99-2	Benzo(b)Fluoranthene	490	U
207-08-9	Benzo(k)Fluoranthene	490	U
50-32-8	Benzo(a)Pyrene	490	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	490	U
53-70-3	Dibenz(a h)Anthracene	490	U
191-24-2	Benzo(g h i)Perylene	490	U

(1)-Cannot be separated from diphenylamine

Form I 70

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May 93

Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number DC-SD-28

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor 2

Percent Moisture (decanted) 33

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	32 u
319-85-7	Beta-BHC	32 u
319-86-8	Delta-BHC	32 u
58-89-9	Gamma-BHC (Lindane)	32 u
76-44-8	Heptachlor	32 u
309-00-2	Aldrin	32 u
1024-57-3	Heptachlor Epoxide	32 u
959-98-8	Endosulfan I	32 u
60-57-1	Dieldrin	64 u
72-55-9	4,4'-DDE	64 u
72-20-8	Endrin	64 u
33213-65-9	Endosulfan II	64 u
72-54-8	4,4'-DDD	64 u
1031-07-8	Endosulfan Sulfate	64 u
50-29-3	4,4'-DDT	64 u
72-43-5	Methoxychlor	320 u
53494-70-5	Endrin Ketone	64 u
57-74-9	Chlordane	320 u
8001-35-2	Toxaphene	3,200 u
12674-11-2	Aroclor-1016	320 u
11104-28-2	Aroclor-1221	320 u
11141-16-5	Aroclor-1232	320 u
53469-21-9	Aroclor-1242	320 u
12672-29-6	Aroclor-1248	320 u
11097-69-1	Aroclor-1254	1,900
11096-82-5	Aroclor-1260	640 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-28

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	17.5 min	~~750 BJ~~
2.	Unknown Ketone	VOA	19.8 min	~~480 BJ~~
3.	Hexane isomer	VOA	21.5 min	~~2400 BJ~~
4.				
5.	UNKNOWN	BNA	8.6	2900 J
6.	UNKNOWN HYDROCARBON		27.6	~~580 BJ~~
7.	UNKNOWN		30.9	~~4400 BJ~~
8.	UNKNOWN		35.0	~~1900 BJ~~
9.				
10.				
11.				
12.				
13.				
14.				
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Form 1, Part B

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Sample Number
DC-SD-29

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U-4442
Lab Sample ID No: 9667
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Stojtowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-14-86
Conc./Dil Factor: 2 pH 7.3
Percent Moisture: (Not Decanted) 21

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2600u J
74-83-9	Bromomethane	2600u J
75-01-4	Vinyl Chloride	2600u J
75-00-3	Chloroethane	2600u
75-09-2	Methylene Chloride	15000 ~~B~~ U
67-64-1	Acetone	6200 ~~B~~ UJ
75-15-0	Carbon Disulfide	1300u
75-35-4	1, 1-Dichloroethene	1300u
75-34-3	1, 1-Dichloroethane	1300u
156-60-5	Trans-1, 2-Dichloroethene	1300u
67-66-3	Chloroform	1300u
107-06-2	1, 2-Dichloroethane	1300u
78-93-3	2-Butanone	11000 ~~B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	1300u
56-23-5	Carbon Tetrachloride	1300u
108-05-4	Vinyl Acetate	2600u J
75-27-4	Bromodichloromethane	1300u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1300u
10061-02-6	Trans-1, 3-Dichloropropene	1300u
79-01-6	Trichloroethene	1300u
124-48-1	Dibromochloromethane	1300u
79-00-5	1, 1, 2-Trichloroethane	1300u
71-43-2	Benzene	1300u
10061-01-5	cis-1, 3-Dichloropropene	1300u
110-75-8	2-Chloroethylvinylether	~~2600u~~ R
75-25-2	Bromoform	1300u
108-10-1	4-Methyl-2-Pentanone	2600u
591-78-6	2-Hexanone	2600u
127-18-4	Tetrachloroethene	1300u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1300u
108-88-3	Toluene	1300u
108-90-7	Chlorobenzene	1300u
100-41-4	Ethylbenzene	1300u
100-42-5	Styrene	1300u
	Total Xylenes	1300u

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 May 93

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4432 / U-4442

Sample Number DC-SD-29

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 11-20-86

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

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

(1)-Cannot be separated from diphenylamine

3/8 May 93

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-29

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-12-86

Date Analyzed: 11-20-86

Conc/Dil Factor: 1

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

75 ~~315~~

Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-29

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	17.5 min	~~570 BJ~~ U
2.	Unknown Ketone	VOA	19.9 min	~~400 BJ~~ U
3.	Hexane isomer	VOA	21.5 min	~~1800 BJ~~ U
4.				
5.	UNKNOWN HYDROCARBON	BNA	27.6	720 J
6.	UNKNOWN		30.9	~~2500 BJ~~ U
7.	UNKNOWN		35.0	~~400 BJ~~ U
8.	UNKNOWN HYDROCARBON		37.8	~~260 BJ~~ U
9.				
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30				

III
May 93

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Sample Number
DC-SD-31

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432 / U-4442
Lab Sample ID No: 9683
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Bogtowicz
Date Sample Received: 11-7-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc./Dil Factor: 2 pH 7.3

Percent Moisture: (Not Decanted) 20

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2400u J
74-83-9	Bromomethane	2400u J
75-01-4	Vinyl Chloride	2400u J
75-00-3	Chloroethane	2400u
75-09-2	Methylene Chloride	14000 ~~B~~ u
67-64-1	Acetone	4700 ~~B~~ u J
75-15-0	Carbon Disulfide	1200u
75-35-4	1, 1-Dichloroethene	1200u
75-34-3	1, 1-Dichloroethane	1200u
156-60-5	Trans-1, 2-Dichloroethene	1200u
67-66-3	Chloroform	1200u
107-06-2	1, 2-Dichloroethane	1200u
78-93-3	2-Butanone	5400 ~~B~~ u J
71-55-6	1, 1, 1-Trichloroethane	1200u
56-23-5	Carbon Tetrachloride	1200u
108-05-4	Vinyl Acetate	2400u J
75-27-4	Bromodichloromethane	1200u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1200u
10061-02-6	Trans-1, 3-Dichloropropene	1200u
79-01-6	Trichloroethene	1200u
124-48-1	Dibromochloromethane	1200u
79-00-5	1, 1, 2-Trichloroethane	1200u
71-43-2	Benzene	1200u
10061-01-5	cis-1, 3-Dichloropropene	1200u
110-75-8	2-Chloroethylvinylether	~~2400u~~ R
75-25-2	Bromoform	1200u
108-10-1	4-Methyl-2-Pentanone	2400u
591-78-6	2-Hexanone	2400u
127-18-4	Tetrachloroethene	1200u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1200u
108-88-3	Toluene	1200u
108-90-7	Chlorobenzene	1200u
100-41-4	Ethylbenzene	1200u
100-42-5	Styrene	1200u
	Total Xylenes	1200u

III
VE
May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Form I

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4432/U-4442

Sample Number DC-SD-31

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 12-1-86

Conc/Dil Factor 2

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

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	410	U
51-28-5	2. 4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	UJ
132-64-9	Dibenzofuran	410	U
121-14-2	2 4-Dinitrotoluene	410	UJ
606-20-2	2. 6-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
84-74-2	Di-n-Butylphthalate	410	U
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	UJ
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3. 3'-Dichlorobenzidine	820	UJ
56-55-3	Benzo(a)Anthracene	410	U
117-81-7	bis(2-Ethylhexyl)Phthalate	410	U
218-01-9	Chrysene	410	U
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	410	U
207-08-9	Benzo(k)Fluoranthene	410	U
50-32-8	Benzo(a)Pyrene	410	U
193-39-5	Indeno(1 2 3-cd)Pyrene	410	UJ
53-70-3	Dibenz(a h)Anthracene	410	UJ
191-24-2	Benzo(g h i)Perylene	410	U

(1)-Cannot be separated from diphenylamine

HE May 93

Laboratory Name ecology and environment, inc.

Case No V-4432 / V-4442

Sample Number DC-SD-31

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-20-86

Conc/Dil Factor: 2

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-31

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	17.5 min	~~520 BJ~~ U
2.	Unknown Ketone	VOA	19.8 min	~~230 BJ~~ U
3.	Hexane isomer	VOA	21.5 min	~~1800 BJ~~ U
4.				
5.	UNKNOWN HYDROCARBON	BNA	27.6	360 J
6.	UNKNOWN	|	30.9	~~2800 BJ~~ U
7.	UNKNOWN	|	35.2	~~2500 BJ~~ U
8.	UNKNOWN HYDROCARBON	|	37.8	~~440 BJ~~ U
9.				
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AE May 93

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Sample Number
DC-SD-32

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U-4442
Lab Sample ID No: 9684
QC Report No:
Sample Matrix: Soil
Contract No: TL 3140
Data Release Authorized By: C Stoglowicz
Date Sample Received: 11-7-86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc/Dil Factor: 2 pH 6.4

Percent Moisture: (Not Decanted) 29

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2800u J
74-83-9	Bromomethane	2800u J
75-01-4	Vinyl Chloride	2800u J
75-00-3	Chloroethane	2800u
75-09-2	Methylene Chloride	14000 B U
67-64-1	Acetone	11000 B UJ
75-15-0	Carbon Disulfide	1400u
75-35-4	1, 1-Dichloroethene	1400u
75-34-3	1, 1-Dichloroethane	1400u
156-60-5	Trans-1, 2-Dichloroethene	1400u
67-66-3	Chloroform	1400u
107-06-2	1, 2-Dichloroethane	1400u
78-93-3	2-Butanone	12000 B UJ
71-55-6	1, 1, 1-Trichloroethane	1400u
56-23-5	Carbon Tetrachloride	1400u
108-05-4	Vinyl Acetate	2800u J
75-27-4	Bromodichloromethane	1400u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1400u
10061-02-6	Trans-1, 3-Dichloropropene	1400u
79-01-6	Trichloroethene	1400u
124-48-1	Dibromochloromethane	1400u
79-00-5	1, 1, 2-Trichloroethane	1400u
71-43-2	Benzene	1400u
10061-01-5	cis-1, 3-Dichloropropene	1400u
110-75-8	2-Chloroethylvinylether	~~2800u~~ R
75-25-2	Bromoform	1400u
108-10-1	4-Methyl-2-Pentanone	2800u
591-78-6	2-Hexanone	2800u
127-18-4	Tetrachloroethene	1400u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1400u
108-88-3	Toluene	1400u
108-90-7	Chlorobenzene	1400u
100-41-4	Ethylbenzene	1400u
100-42-5	Styrene	1400u
	Total Xylenes	1400u

III
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May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4432 / V-4442

Sample Number DC-SD-32

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 12-1-86

Conc/Dil Factor: 2

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)	
108-95-2	Phenol	460	U
111-44-4	bis(-2-Chloroethyl)Ether	460	UJ
95-57-8	2-Chlorophenol	460	U
541-73-1	1 3-Dichlorobenzene	160	J
106-46-7	1. 4-Dichlorobenzene	1000	
100-51-6	Benzyl Alcohol	460	U
95-50-1	1. 2-Dichlorobenzene	480	
95-48-7	2-Methylphenol	460	U
39638-32-9	bis(2-chloroisopropyl)Ether	460	UJ
106-44-5	4-Methylphenol	460	U
621-64-7	N-Nitroso-Di-n-Propylamine	460	UJ
67-72-1	Hexachloroethane	460	U
98-95-3	Nitrobenzene	460	U
78-59-1	Isophorone	460	U
88-75-5	2-Nitrophenol	460	U
105-67-9	2. 4-Dimethylphenol	460	U
65-85-0	Benzoic Acid	2200	U
111-91-1	bis(-2-Chloroethoxy)Methane	460	U
120-83-2	2. 4-Dichlorophenol	460	U
120-82-1	1. 2. 4-Trichlorobenzene	580	
91-20-3	Naphthalene	460	U
106-47-8	4-Chloroaniline	460	U
87-68-3	Hexachlorobutadiene	460	U
59-50-7	4-Chloro-3-Methylphenol	460	U
91-57-6	2-Methylnaphthalene	460	U
77-47-4	Hexachlorocyclopentadiene	460	U
88-06-2	2 4. 6-Trichlorophenol	460	U
95-95-4	2. 4. 5-Trichlorophenol	2200	U
91-58-7	2-Chloronaphthalene	460	U
88-74-4	2-Nitroaniline	2200	UJ
131-11-3	Dimethyl Phthalate	460	U
208-96-8	Acenaphthylene	460	U
99-09-2	3-Nitroaniline	2200	UJ

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	460	U
51-28-5	2. 4-Dinitrophenol	2200	U
100-02-7	4-Nitrophenol	2200	UJ
132-64-9	Dibenzofuran	460	U
121-14-2	2 4-Dinitrotoluene	460	UJ
606-20-2	2. 6-Dinitrotoluene	460	U
84-66-2	Diethylphthalate	460	U
7005-72-3	4-Chlorophenyl-phenylether	460	U
86-73-7	Fluorene	460	U
100-01-6	4-Nitroaniline	2200	U
534-52-1	4. 6-Dinitro-2-Methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	220	J
101-55-3	4-Bromophenyl-phenylether	460	U
118-74-1	Hexachlorobenzene	110	J
87-86-5	Pentachlorophenol	2200	U
85-01-8	Phenanthrene	190	J
120-12-7	Anthracene	460	U
84-74-2	Di-n-Butylphthalate	460	U
206-44-0	Fluoranthene	460	U
129-00-0	Pyrene	110	J
85-68-7	Butylbenzylphthalate	520	
91-94-1	3. 3'-Dichlorobenzidine	920	UJ
56-55-3	Benzo(a)Anthracene	460	U
117-81-7	bis(2-Ethylhexyl)Phthalate	280	J
218-01-9	Chrysene	110	J
117-84-0	Di-n-Octyl Phthalate	300	J
205-99-2	Benzo(b)Fluoranthene	460	U
207-08-9	Benzo(k)Fluoranthene	460	U
50-32-8	Benzo(a)Pyrene	460	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	460	UJ
53-70-3	Dibenzo(a h)Anthracene	460	UJ
191-24-2	Benzo(g h i)Perylene	460	U

(1)-Cannot be separated from diphenylamine

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May 93

Form I 82

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Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number DC-SD-32

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-12-86

Date Analyzed: 11-20-86

Conc/Dil Factor: 200 50

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	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	21000 C
11097-69-1	Aroclor-1254	13000 J C
11096-82-5	Aroclor-1260	16000 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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Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number DC-SD-32

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	17.5	~~630 BJ~~ U
2.	UNKNOWN KETONE	↓	19.9	~~370 BJ~~ U
3.	HEXANE ISOMER	↓	21.5	~~2100 BJ~~ U
4.				
5.	UNKNOWN	BNA	8.6	5500 J
6.	TETRACHLOROBENZENE ISOMER		17.5	910 J
7	UNKNOWN HYDROCARBON		18.0	780 J
8.	UNKNOWN		19.1	140 J
9.	UNKNOWN		19.6	1400 J
10.	UNKNOWN HYDROCARBON		21.2	580 J
11.	PCB		21.4-22.6	—
12.	UNKNOWN HYDROCARBON		22.8	860 J
13.	UNKNOWN HYDROCARBON		24.2	820 J
14.	PCB		25.0-26.5	—
15.	UNKNOWN HYDROCARBON		28.3	1100 J
16.	UNKNOWN		29.4	1700 J
17.	UNKNOWN HYDROCARBON		30.3	1700 J
18.	UNKNOWN		30.9	~~2000 BJ~~ U
19.				
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Sample Number
DC-SD-33

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: 4-4432 / 4-4442
Lab Sample ID No: 9685
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 11-7-86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc./Dil Factor: 2 pH 6.0

Percent Moisture: (Not Decanted) 27

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	2600 U J	
74-83-9	Bromomethane	2600 U J	
75-01-4	Vinyl Chloride	2600 U J	
75-00-3	Chloroethane	2600 U	
75-09-2	Methylene Chloride	6300 ~~B~~	U
67-64-1	Acetone	12000 ~~B~~	UJ
75-15-0	Carbon Disulfide	1300 U	
75-35-4	1, 1-Dichloroethene	1300 U	
75-34-3	1, 1-Dichloroethane	1300 U	
156-60-5	Trans-1, 2-Dichloroethene	1300 U	
67-66-3	Chloroform	1300 U	
107-06-2	1, 2-Dichloroethane	1300 U	
78-93-3	2-Butanone	11000 ~~B~~	UJ
71-55-6	1, 1, 1-Trichloroethane	1300 U	
56-23-5	Carbon Tetrachloride	1300 U	
108-05-4	Vinyl Acetate	2600 U J	
75-27-4	Bromodichloromethane	1300 U	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1300 U
10061-02-6	Trans-1, 3-Dichloropropene	1300 U
79-01-6	Trichloroethene	1300 U
124-48-1	Dibromochloromethane	1300 U
79-00-5	1, 1, 2-Trichloroethane	1300 U
71-43-2	Benzene	1300 U
10061-01-5	cis-1, 3-Dichloropropene	1300 U
110-75-8	2-Chloroethylvinylether	2600 U R
75-25-2	Bromoform	1300 U
108-10-1	4-Methyl-2-Pentanone	2600 U
591-78-6	2-Hexanone	2600 U
127-18-4	Tetrachloroethene	1300 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1300 U
108-88-3	Toluene	1300 U
108-90-7	Chlorobenzene	1300 U
100-41-4	Ethylbenzene	1300 U
100-42-5	Styrene	1300 U
	Total Xylenes	1300 U

III
VG
May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No V-4432 / V-4442

Sample Number DC-SD-33

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 12-13-86

Conc/Dil Factor: 25

Percent Moisture (Decanted) 37

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	6500	U
111-44-4	bis(-2-Chloroethyl)Ether	6500	U
95-57-8	2-Chlorophenol	6500	U
541-73-1	1 3-Dichlorobenzene	6500	U
106-46-7	1 4-Dichlorobenzene	6500	U
100-51-6	Benzyl Alcohol	6500	U
95-50-1	1 2-Dichlorobenzene	270	J
95-48-7	2-Methylphenol	6500	U
39638-32-9	bis(2-chloroisopropyl)Ether	6500	U
106-44-5	4-Methylphenol	6500	U
621-64-7	N-Nitroso-Di-n-Propylamine	6500	U
67-72-1	Hexachloroethane	6500	U
98-95-3	Nitrobenzene	6500	U
78-59-1	Isophorone	6500	U
88-75-5	2-Nitrophenol	6500	U
105-67-9	2, 4-Dimethylphenol	6500	U
65-85-0	Benzoic Acid	32000	U
111-91-1	bis(-2-Chloroethoxy)Methane	6500	U
120-83-2	2, 4-Dichlorophenol	6500	U
120-82-1	1, 2, 4-Trichlorobenzene	6500	U
91-20-3	Naphthalene	6500	U
106-47-8	4-Chloroaniline	6500	UJ
87-68-3	Hexachlorobutadiene	6500	U
59-50-7	4-Chloro-3-Methylphenol	6500	U
91-57-6	2-Methylnaphthalene	6500	U
77-47-4	Hexachlorocyclopentadiene	6500	U
88-06-2	2 4, 6-Trichlorophenol	6500	U
95-95-4	2, 4 5-Trichlorophenol	32000	U
91-58-7	2-Chloronaphthalene	6500	U
88-74-4	2-Nitroaniline	32000	U
131-11-3	Dimethyl Phthalate	6500	U
208-96-8	Acenaphthylene	6500	U
99-09-2	3-Nitroaniline	32000	UJ

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	6500	U
51-28-5	2, 4-Dinitrophenol	32000	U
100-02-7	4-Nitrophenol	32000	UJ
132-64-9	Dibenzofuran	6500	U
121-14-2	2 4-Dinitrotoluene	6500	U
606-20-2	2, 6-Dinitrotoluene	6500	U
84-66-2	Diethylphthalate	6500	U
7005-72-3	4-Chlorophenyl-phenylether	6500	U
86-73-7	Fluorene	6500	U
100-01-6	4-Nitroaniline	32000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	32000	U
86-30-6	N-Nitrosodiphenylamine (1)	6500	U
101-55-3	4-Bromophenyl-phenylether	6500	U
118-74-1	Hexachlorobenzene	6500	UJ
87-86-5	Pentachlorophenol	32000	U
85-01-8	Phenanthrene	6500	U
120-12-7	Anthracene	6500	U
84-74-2	Di-n-Butylphthalate	6500	U
206-44-0	Fluoranthene	6500	UJ
129-00-0	Pyrene	6500	UJ
85-68-7	Butylbenzylphthalate	6500	U
91-94-1	3, 3'-Dichlorobenzidine	13000	UJ
56-55-3	Benzo(a)Anthracene	6500	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2200	J
218-01-9	Chrysene	6500	U
117-84-0	Di-n-Octyl Phthalate	420	J
205-99-2	Benzo(b)Fluoranthene	6500	U
207-08-9	Benzo(k)Fluoranthene	6500	UJ
50-32-8	Benzo(a)Pyrene	6500	U
193-39-5	Indeno(1 2 3-cd)Pyrene	6500	U
53-70-3	Dibenz(a h)Anthracene	6500	U
191-24-2	Benzo(g h i)Perylene	6500	U

(1)-Cannot be separated from diphenylamine

~~357~~

HVE May 93

86

Form I

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Laboratory Name ecology and environment, inc.

Case No V-4432/V-4442

Sample Number DC-SD-33

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-20-86

Conc/Dil Factor 10

Percent Moisture (decanted) 37

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	380 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	7900
11097-69-1	Aroclor-1254	2,500
11096-82-5	Aroclor-1260	2,000 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-33

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	17.5 min	~~600 BJ~~
2.	Unknown Ketone	VOA	19.8 min	~~360 BJ~~
3.	Hexane isomer	VOA	21.5 min	~~2000 BJ~~
4.				
5.	UNKNOWN HYDROCARBON	BNA	15.5	3900 J
6.	UNKNOWN HYDROCARBON		17.3	70,000 J
7.	UNKNOWN HYDROCARBON		18.3	11000 J
8.	UNKNOWN HYDROCARBON		18.9	120,000 J
9.	UNKNOWN HYDROCARBON		20.5	43000 J
10.	UNKNOWN HYDROCARBON		21.2	14000 J
11.	UNKNOWN HYDROCARBON		21.9	18000 J
12.	UNKNOWN HYDROCARBON		22.0	19000 J
13.	UNKNOWN HYDROCARBON		23.3	9900 J
14.	UNKNOWN HYDROCARBON		23.5	27000 J
15.	UNKNOWN HYDROCARBON		24.6	8900 J
16.	UNKNOWN HYDROCARBON		24.7	14000 J
17.	UNKNOWN HYDROCARBON		26.0	22000 J
18.	UNKNOWN HYDROCARBON		26.9	28000 J
19.	UNKNOWN HYDROCARBON		27.2	16000 J
20.	UNKNOWN HYDROCARBON		28.8	92000 J
21.	UNKNOWN HYDROCARBON		29.7	89000 J
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
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HE May 93

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Form 1, Part B

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491095

Sample Number
DC-SD-34

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432 / U-4442
Lab Sample ID No: 9686
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Sojtowicz
Date Sample Received: 11-7-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-17-86

Conc./Dil Factor: 2 pH 5.0

Percent Moisture: (Not Decanted) 34

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2800u
74-83-9	Bromomethane	2800u J
75-01-4	Vinyl Chloride	2800u
75-00-3	Chloroethane	2800u J
75-09-2	Methylene Chloride	6600 ~~B~~ UJ
67-64-1	Acetone	5300 ~~B~~ UJ
75-15-0	Carbon Disulfide	1400u J
75-35-4	1, 1-Dichloroethene	1400u
75-34-3	1, 1-Dichloroethane	1400u
156-60-5	Trans-1, 2-Dichloroethene	1400u
67-66-3	Chloroform	1400u
107-06-2	1, 2-Dichloroethane	1400u
78-93-3	2-Butanone	9200 ~~B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	1400u
56-23-5	Carbon Tetrachloride	1400u
108-05-4	Vinyl Acetate	2800u J
75-27-4	Bromodichloromethane	1400u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1400u
10061-02-6	Trans-1, 3-Dichloropropene	1400u
79-01-6	Trichloroethene	1400u
124-48-1	Dibromochloromethane	1400u
79-00-5	1, 1, 2-Trichloroethane	1400u
71-43-2	Benzene	1400u
10061-01-5	cis-1, 3-Dichloropropene	1400u
110-75-8	2-Chloroethylvinylether	~~2800u~~ R
75-25-2	Bromoform	1400u
108-10-1	4-Methyl-2-Pentanone	2800u
591-78-6	2-Hexanone	~~930J B~~ 2800 U
127-18-4	Tetrachloroethene	1400u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1400u
108-88-3	Toluene	1400u
108-90-7	Chlorobenzene	1400u
100-41-4	Ethylbenzene	1400u
100-42-5	Styrene	1400u
	Total Xylenes	1400u

Data Reporting Qualifiers

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

HE
May 93

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No V-4432/V-4442

Sample Number DC-SD-34

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 12-12-86

Conc/Dil Factor: 25

Percent Moisture (Decanted) 34

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	2500	U
111-44-4	bis(-2-Chloroethyl)Ether	2500	U
95-57-8	2-Chlorophenol	2500	U
541-73-1	1 3-Dichlorobenzene	2500	U
106-46-7	1. 4-Dichlorobenzene	410	J
100-51-6	Benzyl Alcohol	2500	U
95-50-1	1. 2-Dichlorobenzene	2500	U
95-48-7	2-Methylphenol	2500	U
39638-32-9	bis(2-chloroisopropyl)Ether	2500	U
106-44-5	4-Methylphenol	2500	U
621-64-7	N-Nitroso-Di-n-Propylamine	2500	U
67-72-1	Hexachloroethane	2500	U
98-95-3	Nitrobenzene	2500	U
78-59-1	Isophorone	2500	U
88-75-5	2-Nitrophenol	2500	U
105-67-9	2. 4-Dimethylphenol	2500	U
65-85-0	Benzoic Acid	12000	U
111-91-1	bis(-2-Chloroethoxy)Methane	2500	U
120-83-2	2. 4-Dichlorophenol	2500	U
120-82-1	1. 2. 4-Trichlorobenzene	2500	U
91-20-3	Naphthalene	2500	U
106-47-8	4-Chloroaniline	2500	UJ
87-68-3	Hexachlorobutadiene	2500	U
59-50-7	4-Chloro-3-Methylphenol	2500	U
91-57-6	2-Methylnaphthalene	450	J
77-47-4	Hexachlorocyclopentadiene	2600	U
88-06-2	2 4. 6-Trichlorophenol	2500	U
95-95-4	2. 4. 5-Trichlorophenol	12000	U
91-58-7	2-Chloronaphthalene	2500	U
88-74-4	2-Nitroaniline	12000	U
131-11-3	Dimethyl Phthalate	2500	U
208-96-8	Acenaphthylene	2500	U
99-09-2	3-Nitroaniline	12000	UJ

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2500	U
51-28-5	2. 4-Dinitrophenol	12000	U
100-02-7	4-Nitrophenol	12000	UJ J
132-64-9	Dibenzofuran	2500	U
121-14-2	2 4-Dinitrotoluene	2500	U
606-20-2	2. 6-Dinitrotoluene	2500	U
84-66-2	Diethylphthalate	2500	U
7005-72-3	4-Chlorophenyl-phenylether	2500	U
86-73-7	Fluorene	2500	U
100-01-6	4-Nitroaniline	12000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	12000	U
86-30-6	N-Nitrosodiphenylamine (1)	2500	U
101-55-3	4-Bromophenyl-phenylether	2500	U
118-74-1	Hexachlorobenzene	2500	UJ
87-86-5	Pentachlorophenol	12000	U
85-01-8	Phenanthrene	2500	U
120-12-7	Anthracene	2500	U
84-74-2	Di-n-Butylphthalate	2500	U
206-44-0	Fluoranthene	2500	UJ
129-00-0	Pyrene	2500	UJ
85-68-7	Butylbenzylphthalate	2400	J
91-94-1	3. 3 -Dichlorobenzidine	5000	UJ
56-55-3	Benzo(a)Anthracene	2500	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2900	
218-01-9	Chrysene	710	J
117-84-0	Di-n-Octyl Phthalate	2900	
205-99-2	Benzo(b)Fluoranthene	330	J
207-08-9	Benzo(k)Fluoranthene	2500	UJ
50-32-8	Benzo(a)Pyrene	2500	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	2500	U
53-70-3	Dibenz(a h)Anthracene	2500	U
191-24-2	Benzo(g h i)Perylene	2500	U

(1)-Cannot be separated from diphenylamine

~~309~~ 1-12 May 93

Form I 90

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Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number DC-SD-34

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-20-86

Conc/Dil Factor: 10

Percent Moisture (decanted) 34

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	11,000
11097-69-1	Aroclor-1254	10,600
11096-82-5	Aroclor-1260	2,200 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_i 1000 V_t 4

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Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number
DC-SD-34

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	17.3 min	~~580 BJ~~ U
2.		Unknown Ketone	VOA	19.7 min	~~340 BJ~~ U
3.		Hexane isomer	VOA	21.3 min	~~2000 BJ~~ U
4.					
5.		UNKNOWN HYDROCARBON	BNA	17.3	120,000 J
6.		UNKNOWN HYDROCARBON		18.3	16000 J
7.		UNKNOWN HYDROCARBON		19.0	210,000 J
8.		UNKNOWN HYDROCARBON		20.5	80000 J
9.		UNKNOWN HYDROCARBON		21.2	20000 J
10.		UNKNOWN HYDROCARBON		21.9	25000 J
11.		UNKNOWN HYDROCARBON		22.1	22000 J
12.		UNKNOWN HYDROCARBON		23.4	12000 J
13.		UNKNOWN HYDROCARBON		23.5	35000 J
14.		UNKNOWN HYDROCARBON		24.6	12000 J
15.		UNKNOWN HYDROCARBON		24.7	16000 J
16.		UNKNOWN HYDROCARBON		26.0	28000 J
17.		UNKNOWN HYDROCARBON		27.2	22000 J
18.		UNKNOWN HYDROCARBON		28.8	92000 J
19.		UNKNOWN HYDROCARBON		31.0	34000 J
20.		UNKNOWN HYDROCARBON		32.2	56000 J
21.		UNKNOWN HYDROCARBON		32.7	42000 J
22.		UNKNOWN HYDROCARBON		32.9	40000 J
23.		UNKNOWN HYDROCARBON		33.2	64000 J
24.		UNKNOWN HYDROCARBON		33.9	61000 J
25.					
26.					
27.					
28.					
29.					
30					

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May 93

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Sample Number
DC - SD - 35

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432 / U 4442
Lab Sample ID No: 9687
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Stojowing
Date Sample Received: 11-7-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-17-86

Conc./Dil Factor: 2 pH 7.4

Percent Moisture: (Not Decanted) 45

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3600u
74-83-9	Bromomethane	3600u J
75-01-4	Vinyl Chloride	3600u
75-00-3	Chloroethane	3600u J
75-09-2	Methylene Chloride	8800 ~~B~~ UJ
67-64-1	Acetone	23000 ~~B~~ UJ
75-15-0	Carbon Disulfide	1800u J
75-35-4	1, 1-Dichloroethene	1800u
75-34-3	1, 1-Dichloroethane	1800u
156-60-5	Trans-1, 2-Dichloroethene	1800u
67-66-3	Chloroform	1800u
107-06-2	1, 2-Dichloroethane	1800u
78-93-3	2-Butanone	~~3600u~~ R
71-55-6	1, 1, 1-Trichloroethane	1800u
56-23-5	Carbon Tetrachloride	1800u
108-05-4	Vinyl Acetate	3600u J
75-27-4	Bromodichloromethane	1800u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1800u
10061-02-6	Trans-1, 3-Dichloropropene	1800u
79-01-6	Trichloroethene	1800u
124-48-1	Dibromochloromethane	1800u
79-00-5	1, 1, 2-Trichloroethane	1800u
71-43-2	Benzene	1800u
10061-01-5	cis-1, 3-Dichloropropene	1800u
110-75-8	2-Chloroethylvinylether	~~3600u~~ R
75-25-2	Bromoform	1800u
108-10-1	4-Methyl-2-Pentanone	3600u
591-78-6	2-Hexanone	3600u
127-18-4	Tetrachloroethene	1800u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1800u
108-88-3	Toluene	1800u
108-90-7	Chlorobenzene	1800u
100-41-4	Ethylbenzene	1800u
100-42-5	Styrene	1800u
	Total Xylenes	1800u

HVE May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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aboratory Name Ecology & Environment Inc.
ase No U-4432/U-4442

Sample Number
DC-SD-35

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

oncentration: Low Medium (Circle One)
ate Extracted/Prepared 11-12-86
ate Analyzed 12-12-86
onc/Dil Factor: 5
ercent Moisture (Decanted) 45

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

CAS Number		ug/l or ug/Kg (Circle One)	
08-95-2	Phenol	1500	U
11-44-4	bis(-2-Chloroethyl)Ether	1500	U
5-57-8	2-Chlorophenol	1500	U
41-73-1	1 3-Dichlorobenzene	1500	U
06-46-7	1 4-Dichlorobenzene	130	J
00-51-6	Benzyl Alcohol	1500	U
5-50-1	1. 2-Dichlorobenzene	1500	U
5-48-7	2-Methylphenol	1500	U
9638-32-9	bis(2-chloroisopropyl)Ether	1500	U
06-44-5	4-Methylphenol	1500	U
21-64-7	N-Nitroso-Di-n-Propylamine	1500	U
7-72-1	Hexachloroethane	1500	U
8-95-3	Nitrobenzene	1500	U
8-59-1	Isophorone	1500	U
8-75-5	2-Nitrophenol	1500	U
05-67-9	2. 4-Dimethylphenol	1500	U
-85-0	Benzoic Acid	7300	U
1-91-1	bis(-2-Chloroethoxy)Methane	1500	U
0-83-2	2. 4-Dichlorophenol	1500	U
0-82-1	1. 2. 4-Trichlorobenzene	90	J
-20-3	Naphthalene	130	J
06-47-8	4-Chloroaniline	1000	J
7-68-3	Hexachlorobutadiene	1500	U
9-50-7	4-Chloro-3-Methylphenol	1500	U
1-57-6	2-Methylnaphthalene	1500	U
7-47-4	Hexachlorocyclopentadiene	1500	U
3-06-2	2 4. 6-Trichlorophenol	1500	U
5-95-4	2. 4. 5-Trichlorophenol	7300	U
-58-7	2-Chloronaphthalene	1500	U
3-74-4	2-Nitroaniline	7300	U
31-11-3	Dimethyl Phthalate	1500	U
08-96-8	Acenaphthylene	1500	U
09-2	3-Nitroaniline	7300	U J

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	1500	U
51-28-5	2. 4-Dinitrophenol	7300	U
100-02-7	4-Nitrophenol	7300	U J
132-64-9	Dibenzofuran	1500	U
121-14-2	2 4-Dinitrotoluene	1500	U
606-20-2	2. 6-Dinitrotoluene	1500	U
84-66-2	Diethylphthalate	1500	U
7005-72-3	4-Chlorophenyl-phenylether	1500	U
86-73-7	Fluorene	1500	U
100-01-6	4-Nitroaniline	7300	U
534-52-1	4. 6-Dinitro-2-Methylphenol	7300	U
86-30-6	N-Nitrosodiphenylamine (1)	1500	U
101-55-3	4-Bromophenyl-phenylether	1500	U
118-74-1	Hexachlorobenzene	1100	J
87-86-5	Pentachlorophenol	800	J
85-01-8	Phenanthrene	1500	U
120-12-7	Anthracene	1500	U
84-74-2	Di-n-Butylphthalate	1500	U
206-44-0	Fluoranthene	600	J
129-00-0	Pyrene	1000	J
85-68-7	Butylbenzylphthalate	1500	U
91-94-1	3. 3'-Dichlorobenzidine	3000	U J
56-55-3	Benzo(a)Anthracene	1500	U
117-81-7	bis(2-Ethylhexyl)Phthalate	130	J
218-01-9	Chrysene	1000	J
117-84-0	Di-n-Octyl Phthalate	8100	
205-99-2	Benzo(b)Fluoranthene	760	J
207-08-9	Benzo(k)Fluoranthene	1500	U J
50-32-8	Benzo(a)Pyrene	430	J
193-39-5	Indeno(1 2 3-cd)Pyrene	570	J
53-70-3	Dibenz(a h)Anthracene	1500	U
191-24-2	Benzo(g h i)Perylene	960	J

(1)-Cannot be separated from diphenylamine

~~382~~ 94

HE May 93

Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number DC-SD-35

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-12-86

Date Analyzed: 11-20-86

Conc/Dil Factor: 50

Percent Moisture (decanted) 45

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	71,000 c
11096-82-5	Aroclor-1260	24,000 c

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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~~383~~

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-35

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4 min	~~430 BJ~~ U
2.	Unknown Ketone	VOA	19.7 min	~~320 BJ~~ U
3.	Hexane isomer	VOA	21.4 min	~~2700 BJ~~ U
4.				
5. 104121	1-CHLORO-4-ISOCYANATOBENZENE	BNA	12.3	1400 J
6.	TETRACHLOROBENZENE ISOMER		16.8	2800 J
7. 608935	PENTACHLOROBENZENE		19.2	2400 J
8.	PCB		25.3-30.1	-
9.	UNKNOWN PHTHALATE		31.3	5400 J
10.	UNKNOWN PHTHALATE		32.0	12000 J
11.	UNKNOWN PHTHALATE		33.2	6100 J
12.	UNKNOWN PHTHALATE		35.0	12000 J
13.	UNKNOWN PHTHALATE		35.8	28000 J
14.	UNKNOWN PHTHALATE		36.8	3700 J
15.	UNKNOWN PHTHALATE		37.4	13000 J
16.	UNKNOWN PHTHALATE		38.4	2400 J
17.	UNKNOWN PHTHALATE	BNA	39.1	5200 J
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

III VE May 93

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Laboratory Name Ecology & Environment Inc.

Case No U-4442 / U-4432

Sample Number DC-SD-36

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 12-12-86

Conc/Dil Factor: 10

Percent Moisture (Decanted) 36

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	2600 U
111-44-4	bis(-2-Chloroethyl)Ether	2600 U
95-57-8	2-Chlorophenol	2600 U
541-73-1	1 3-Dichlorobenzene	550 J
106-46-7	1 4-Dichlorobenzene	2900
100-51-6	Benzyl Alcohol	2600 U
95-50-1	1 2-Dichlorobenzene	2600 U
95-48-7	2-Methylphenol	2600 U
39638-32-9	bis(2-chloroisopropyl)Ether	2600 U
106-44-5	4-Methylphenol	2600 U
621-64-7	N-Nitroso-Di-n-Propylamine	2600 U
67-72-1	Hexachloroethane	2600 U
98-95-3	Nitrobenzene	2600 U
78-59-1	Isophorone	2600 U
88-75-5	2-Nitrophenol	2600 U
105-67-9	2 4-Dimethylphenol	2600 U
65-85-0	Benzoic Acid	12000 U
111-91-1	bis(-2-Chloroethoxy)Methane	2600 U
120-83-2	2 4-Dichlorophenol	2600 U
120-82-1	1 2 4-Trichlorobenzene	1500 J
91-20-3	Naphthalene	2600 U
106-47-8	4-Chloroaniline	2600 UJ
87-68-3	Hexachlorobutadiene	2600 U
59-50-7	4-Chloro-3-Methylphenol	2600 U
91-57-6	2-Methylnaphthalene	2600 U
77-47-4	Hexachlorocyclopentadiene	2600 U
88-06-2	2 4 6-Trichlorophenol	2600 U
95-95-4	2 4 5-Trichlorophenol	12000 U
91-58-7	2-Chloronaphthalene	2600 U
88-74-4	2-Nitroaniline	12000 U
131-11-3	Dimethyl Phthalate	2600 U
208-96-8	Acenaphthylene	2600 U
99-09-2	3-Nitroaniline	12000 UJ

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	170 J
51-28-5	2 4-Dinitrophenol	12000 U
100-02-7	4-Nitrophenol	12000 UJ
132-64-9	Dibenzofuran	2600 U
121-14-2	2 4-Dinitrotoluene	2600 U
606-20-2	2 6-Dinitrotoluene	2600 U
84-66-2	Diethylphthalate	2600 U
7005-72-3	4-Chlorophenyl-phenylether	2600 U
86-73-7	Fluorene	2600 U
100-01-6	4-Nitroaniline	12000 U
534-52-1	4 6-Dinitro-2-Methylphenol	12000 U
86-30-6	N-Nitrosodiphenylamine (1)	2600 U
101-55-3	4-Bromophenyl-phenylether	2600 U
118-74-1	Hexachlorobenzene	2600 UJ
87-86-5	Pentachlorophenol	12000 U
85-01-8	Phenanthrene	2600 U
120-12-7	Anthracene	2600 U
84-74-2	Di-n-Butylphthalate	~~900~~ J 2600 U
206-44-0	Fluoranthene	2600 UJ
129-00-0	Pyrene	1400 J
85-68-7	Butylbenzylphthalate	2600 U
91-94-1	3 3'-Dichlorobenzidine	5200 U
56-55-3	Benzo(a)Anthracene	2600 U
117-81-7	bis(2-Ethylhexyl)Phthalate	2600 U
218-01-9	Chrysene	1700 J
117-84-0	Di-n-Octyl Phthalate	11000
205-99-2	Benzo(b)Fluoranthene	1000 J
207-08-9	Benzo(k)Fluoranthene	2600 UJ
50-32-8	Benzo(a)Pyrene	540 J
193-39-5	Indeno(1 2 3-cd)Pyrene	2600 U
53-70-3	Dibenz(a h)Anthracene	2600 U
191-24-2	Benzo(g h i)Perylene	2600 U

(1)-Cannot be separated from diphenylamine

Sample Number
DC-SD-36

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No. U-4432/U-4442
Lab Sample ID No: 9688
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: Stojowicz
Date Sample Received: 11-7-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-17-86

Conc./Dil Factor: 2 pH 7.7

Percent Moisture: (Not Decanted) 36

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3200 u
74-83-9	Bromomethane	3200 u J
75-01-4	Vinyl Chloride	3200 u
75-00-3	Chloroethane	3200 u J
75-09-2	Methylene Chloride	7200 B UJ
67-64-1	Acetone	6800 B UJ
75-15-0	Carbon Disulfide	1600 u J
75-35-4	1, 1-Dichloroethene	1600 u
75-34-3	1, 1-Dichloroethane	1600 u
156-60-5	Trans-1, 2-Dichloroethene	1600 u
67-66-3	Chloroform	1600 u
107-06-2	1, 2-Dichloroethane	1600 u
78-93-3	2-Butanone	12000 B UJ
71-55-6	1, 1, 1-Trichloroethane	1600 u
56-23-5	Carbon Tetrachloride	1600 u
108-05-4	Vinyl Acetate	3200 u J
75-27-4	Bromodichloromethane	1600 u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1600 u
10061-02-6	Trans-1, 3-Dichloropropene	1600 u
79-01-6	Trichloroethene	1600 u
124-48-1	Dibromochloromethane	1600 u
79-00-5	1, 1, 2-Trichloroethane	1600 u
71-43-2	Benzene	1600 u
10061-01-5	cis-1, 3-Dichloropropene	1600 u
110-75-8	2-Chloroethylvinylether	~~3200 u~~ R
75-25-2	Bromoform	1600 u
108-10-1	4-Methyl-2-Pentanone	3200 u
591-78-6	2-Hexanone	3200 u
127-18-4	Tetrachloroethene	1600 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1600 u
108-88-3	Toluene	1600 u
108-90-7	Chlorobenzene	480 J
100-41-4	Ethylbenzene	1600 u
100-42-5	Styrene	1600 u
	Total Xylenes	1600 u

YVE
May 93

Data Reporting Qualifiers

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

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

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

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

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. (Single component pesticides ≥10 ng/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.

97

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Laboratory Name ecology and environment, inc.

Case No V-4432/V-4442

Sample Number DC-SD-36

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-20-86

Conc/Dil Factor 50

Percent Moisture (decanted) 36

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
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	38,000
11096-82-5	Aroclor-1260	13,000 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

99 ~~397~~

Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-36

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	17.3 min	~~6600 BJ~~ U
2.	Unknown Ketone	VOA	19.6 min	~~370 BJ~~ U
3.	Hexane isomer	VOA	21.4 min	~~2200 BJ~~ U
4.				
5.	UNKNOWN HYDROCARBON	BNA	9.4	4600 J
6.	UNKNOWN HYDROCARBON		11.7	4400 J
7.	UNKNOWN HYDROCARBON		12.0	1300 J
8.	UNKNOWN HYDROCARBON		12.8	2200 J
9.	UNKNOWN HYDROCARBON		13.0	1600 J
10.	UNKNOWN HYDROCARBON		13.7	5700 J
11.	UNKNOWN HYDROCARBON		14.0	3500 J
12.	UNKNOWN HYDROCARBON		15.1	5600 J
13.	UNKNOWN HYDROCARBON		15.6	3400 J
14.	UNKNOWN HYDROCARBON		15.9	7700 J
15.	TETRACHLOROBENZENE ISOMER		16.8	4900 J
16.	UNKNOWN HYDROCARBON		16.9	12000 J
17.	UNKNOWN HYDROCARBON		17.3	3800 J
18.	UNKNOWN HYDROCARBON		18.4	13000 J
19.	UNKNOWN HYDROCARBON		21.2	15000 J
20.	UNKNOWN HYDROCARBON		22.1	12000 J
21.	UNKNOWN HYDROCARBON		23.5	12000 J
22.	UNKNOWN HYDROCARBON		37.5	9600 J
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

HE
Mg
93

100

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ATTACHMENT A

FORMS I

CASE NUMBERS U-4432 AND U-4442

L163020000 5
ST CLAIR CO
SAUGET - SAUGET
LAB DATA

SEDIMENT
ORGANICS

LIG30200005
ST CLAIR CO
SAUGET - SOUGET
LAB DATA

SEDIMENT
DOMINICS

L16302000005
ST CLAIR CO
SAUGET - SOUGET
LAB DATA

SEDIMENT
DATA

SECOND ORGANICS
[illegible] 32
[illegible] 2

CASE NARRATIVE

481095

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

December 23, 1986

JOB #U-4432
U-4442

SAMPLE #DC-SD-21 through DC-SD-29
DC-SD-31 through DC-SD-36

CASE NARRATIVE

Enclosed are the organic analytical results for sediment samples received on November 6 and 7, 1986. All samples were received in good condition.

All samples except DC-SD-14 were analyzed for volatile organics under medium level methodology. The samples were not analyzed again under the low level method because of hold time constraints.

Due to the level of contaminants, particularly PCBs, in the semi-volatile and Pesticide/PCB fractions, extracts could not be concentrated and/or required dilution preventing determination of surrogate recoveries.

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

PCBs were detected in the semi-volatile fractions analyzed by GC/MS, confirming their presence in several samples. Since the specific aroclors were not determined by GC/MS, Form I, Part B only states if PCBs were detected and over what retention time range.

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

The response factors for the following compounds exceeded the 25% difference limit in continuing calibration checks for certain days:

Toluene & Ethylbenze	- C5509	11/13/86
Vinyl Chloride	- C5531	11/14/86
Fluoranthene	- D1258	12/12/86

4,4'-DDT/Endrin breakdown exceeded 20% in the final evaluation standard (Run #52) of the analytical sequence for the primary pesticide analysis. Since no pesticides were detected in the samples analyzed between the final two evaluation standards (Run #43 and #52) of the sequence, data quality has not been affected.

If you have any questions, please feel free to call me.

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ecology and environment, inc.
195 SUGG ROAD, P.O. BOX D, BUFFALO, N.Y., 14225, TEL. 716-632-4491
International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.: IL3140
Project Name: DEAD CREEK
Project Manager: M. Miller
Samplers: (Signatures) Ronald E Bock
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	1-8 oz. organics	1-8 oz. cyanide, metals	2-125 ml VOA				REMARKS
DC-SD 13	11-5-86	0955		X		Unknown	DC-SD-13	4	1	1	2				
DC-SD 14		1005		X			DC-SD-14	4	1	1	2				
DC-SD 15		1145		X			DC-SD-15	4	1	1	2				
DC-SD 16		1155		X			DC-SD-16	4	1	1	2				
DC-SD 17		1210		X			DC-SD-17	4	1	1	2				
DC-SD 18		1310		X			DC-SD-18	4	1	1	2				
DC-SD 19		1450		X			DC-SD-19	4	1	1	2				
DC-SD 20		1455		X			DC-SD-20	4	1	1	2				

Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)
Ronald E Bock	11-5-86 2000	Fed Exp			
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 Exp	11-5-86	[illegible]			

Ship Via: Federal Express
BL Airbill Number: 221974 8274
Date: 11-5-86

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

234055

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International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.: IC3140
Project Name: DEAD CREEK
Project Manager: M. Miller
Samplers (Signatures): Ronald E Bock
Field Team Leader: Dan Sewell

STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE TYPE AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	1-8oz Organic	1-8oz Cyanide & metals	2-125 ml VOA				REMARKS
DC-SD21	11-5-86	1620		X		Unknown	DC-SD-21	4	1	1	2				Metals Preserved with HNO_3 Cyanide Preserved with NaOH
DC-SD22		1635		X			DC-SD-22	4	1	1	2				
DC-SD23		1652		X			DC-SD-23	4	1	1	2				
DC-SD24		1655		X			DC-SD-24	4	1	1	2				
DC-SD25		1725		X			DC-SD-25	4	1	1	2				
DC-SD26		1740		X			DC-SD-26	4	1	1	2				
DC-SD27		1750		X			DC-SD-27	4	1	1	2				
DC-SD28		1810		X			DC-SD-28	4	1	1	2				
DC-SD29		1855		X			DC-SD-29	4	1	1	2				

Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)
Ronald E Bock	11-5-86/2000	Fed Exp			
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 Exp		[illegible]			

Ship Via: Federal Express
B/L (Airbill Number): 2219748274
Date: 11-5-86

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

234055

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195 SUGG ROAD, P.O. BOX D, BUFFALO, N.Y., 14225, TEL. 716-632-4491
International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Page ____ of ____

Project No.:	Project Name:	Project Manager:
IL3140	DEAD CREEK	M. Miller
Samplers (Signatures): Ronald E Bock		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	1-8oz. organics	1-8oz. metals & cyanide	2-120 ml VOA				REMARKS
DC-SD-31	11-6-86	0955		X			DC-SD-31	4	1	1	2				
DC-SD-32		1245		X			DC-SD-32	4	1	1	2				
DC-SD-33		1230		X			DC-SD-33	4	1	1	2				
DC-SD-34		1235		X			DC-SD-34	4	1	1	2				
DC-SD-35		1320		X			DC-SD-35	4	1	1	2				
DC-SD-36		1330		X			DC-SD-36	4	1	1	2				

Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)	Ship Via:
Ronald T Sewall	11/6/86 1600	FEDERAL EXPRESS				FEDERAL EXPRESS
Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)	
						BL/Airbill Number: 2219748434
Relinquished By (Signature): Fed Express	Date/Time: 11-7-86/0930	Received For Laboratory By (Signature): Walter H Howard	Relinquished By (Signature)	Date/Time	Received For Laboratory By (Signature)	Date: 11/6/86

Distribution: Original Accompanies Shipment, Copy to Coordinator Field Files

*See CONCENTRATION RANGE on back of form.

234055

SURROGATE PERCENT RECOVERY SUMMARY

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. U 132/U-4442 Contract Laboratory Ecology & Environment Inc. Contract No. IL-3140

Low _____ Medium X

page 1 of 2

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (81-117)	BFB (74-121)	1,2 DICHLORO-ETHANE-D4 (70-121)	NITRO-BENZENE-D5 (23-120)	2-FLUORO-BIPHENYL (30-115)	TERPHENYL-D14 (18-137)			PHENOL-D5 (24-113)	2-FLUORO-PHENOL (25-121)	2,4,6 TRIBROMO PHENOL (19-122)	** DIBUTYL-CHLORENDATE (20-150)
DC-SD-13	104	92	96									
DC-SD-14	131*	87	108									
DC-SD-15	102	94	94									
DC-SD-16	96	92	96									
DC-SD-17	96	92	100									
DC-SD-18	100	88	94									
DC-SD-19	100	90	100									
DC-SD-20	100	94	92									
DC-SD-21	98	94	92									
DC-SD-22	96	90	88									
DC-SD-23	98	94	94									
DC-SD-24	96	94	96									
DC-SD-25	100	100	100									
DC-SD-26	102	100	102									
DC-SD-27	100	96	96									
DC-SD-28	96	92	94									
DC-SD-29	100	98	100									
DC-SD-31	98	90	94									
DC-SD-32	96	96	98									
DC-SD-33	98	96	98									
DC-SD-34	96	92	92									
DC-SD-35	94	92	90									
DC-SD-36	100	94	94									
DC-SD-14+	130*	115	96									

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

\+ original analysis - too concentrated - reanalyzed demonstrates matrix effect Toluene D8 recovery

Volatiles: ++ out of ++ ; outside of QC limits (see p2)/85

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

Pesticides: _____ out of _____ ; outside of QC limits

Comments: _____

FORM II

493095

Case No. U 132/U-4442 Contract Laboratory ECOLOGY & ENVIRONMENT INC. Contract No. IL-3140

Low _____ Medium X

SMO TRAFFIC NO.	VOLATILE: TOLUENE-D8 (81-117)	VOLATILE: B/B (74-121)	VOLATILE: 1,2 DICHLORO-ETHANE-D4 (70-121)	SEMI-VOLATILE: NITRO-BENZENE-D5 (23-120)	SEMI-VOLATILE: 2-FLUORO-BIPHENYL (30-116)	SEMI-VOLATILE: TERPHENYL-D14 (18-137)	SEMI-VOLATILE:	SEMI-VOLATILE:	SEMI-VOLATILE: PHENOL-D5 (24-113)	SEMI-VOLATILE: 2-FLUORO-PHENOL (25-121)	SEMI-VOLATILE: 2,4,6 TRIBROMO PHENOL (19-122)	PESTICIDE: DIBUTYL-CHLORENDATE ✡✡ (20-150)
DC-SD-13MS	94	90	92									
DC-SD-13MSD	102	96	100									
BLKC5510	94	88	94									
BLKC5546	94	92	90									
BLKC5527	88	88	80									
BLKC5534	100	96	96									
BLKC5482	94	78	94									

✡ VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

✡✡ ADVISORY LIMITS ONLY

Volatiles: 2 out of 93 ; outside of QC limits

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

Pesticides: _____ out of _____ ; outside of QC limits

7/85

Comments: _____

FORM II

493095

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. V-132/V-4442 Contract Laboratory Ecology & Environment Inc. Contract No. IL-3140

Low X Medium ____

SMO TRAFFIC NO.	VOLATILE: TOLUENE-D8 (81-117)	VOLATILE: BFB (74-121)	VOLATILE: 1,2 DICHLORO-ETHANE-D4 (70-121)	SEMI-VOLATILE: NITRO-BENZENE-D5 (23-120)	SEMI-VOLATILE: 2-FLUORO-BIPHENYL (30-116)	SEMI-VOLATILE: TERPHENYL-D14 (18-137)			SEMI-VOLATILE: PHENOL-D5 (24-113)	SEMI-VOLATILE: 2-FLUORO-PHENOL (25-121)	SEMI-VOLATILE: 2,4,6 TRIBROMO PHENOL (19-122)	PESTICIDE: DIBUTYL-CHLORENDATE ** (20-150)
DC-SD-13				DL	50	54			DL	19 *	DL	DL
DC-SD-14				DL	66	47			DL	DL	DL	DL
DC-SD-15				101	110	86			75	69	22	102
DC-SD-16				72	95	88			35	62	30	DL
DC-SD-17				61	91	78			33	42	20	DL
DC-SD-18				48	66	59			32	27	24	DL
DC-SD-19				36	51	38			35	31	6 *	DL
DC-SD-20				55	70	80			42	38	21	DL
DC-SD-21				57	77	42			60	51	30	DL
DC-SD-22				44	60	39			42	45	13 *	DL
DC-SD-23				68	110	58			63	60	22	DL
DC-SD-24				63	73	80			53	68	39	DL
DC-SD-25				49	55	67			50	63	27	DL
DC-SD-26				39	45	63			37	28	24	65
DC-SD-27				35	53	35			44	37	15 *	DL
DC-SD-28				43	51	64			46	55	21	INF.
DC-SD-29				40	44	66			38	39	28	INF.
DC-SD-31				66	73	86			59	79	37	71
DC-SD-32				46	73	73			55	72	42	DL
DC-SD-33				DL	36	DL			30	35	DL	DL
DC-SD-34				62	97	63			54	69	47	DL
DC-SD-35				82	101	69			73	78	46	DL
DC-SD-36				114	135 *	81			88	107	41	DL

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: ____ out of ____ ; outside of QC limits

Semi-Volatiles: 6 out of 152 ; outside of QC limits

Pesticides: 0 out of 7 ; outside of QC limits

7/85

Comments: DL = DILUTED OUT
INF. = INTERFERENCE

FORM II

493095

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. V 32/V-4442 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 DICHLORO-ETHANE-D4 (70-121)	NITRO-BENZENE-D5 (23-120)	2-FLUORO-BIPHENYL (30-115)	TERPHENYL-D14 (18-137)			PHENOL-D5 (24-113)	2-FLUORO-PHENOL (25-121)	2,4,6 TRIBROMO PHENOL (19-122)	DIBUTYL-CHLORENDATE** (20-150)
DC-SD-15MS				105	101	107			90	86	50	92
DC-SD-15MSD				91	93	48			85	82	51	78
BLANK (11/11)				54	56	65			39	58	14*	—
BLANK (11/13)				81	89	113			64	91	46	—
BLANK 11/11												90
BLANK 11/12												78

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: ____ out of ____ ; outside of QC limits

Semi-Volatiles: 6 out of 152 ; outside of QC limits

Pesticides: 0 out of 7 ; outside of QC limits

7/85

Comments: ____

FORM II

493095

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SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. U-4432/U-4442 Contractor Ecology & Environment Inc. Contract No. IL-3140

Low Level _____ Medium Level X

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. DC-SD-13	1,1-Dicholorethene	22000	0	14000	64	16000	73	13	22	59-172
	Trichloroethene			18000	82	20000	91	11	24	62-137
	Chlorobenzene			19000	86	21000	95	10	21	60-133
	Toluene			19000	86	21000	95	10	21	59-139
	Benzene			19000	86	20000	91	5	21	66-142
B/N SMO SAMPLE NO.	1,2,4-Trichlorobenzene								23	38-107
	Acenaphthene								19	31-137
	2,4 Dinitrotoluene								47	28-89
	Pyrene								36	35-142
	N-Nitrosodi-n-Propylamine								38	41-126
_____	1,4-Dichlorobenzene								27	28-104
ACID SMO SAMPLE NO.	Pentachlorophenol								47	17-109
	Phenol								35	26-90
	2-Chlorophenol								50	25-102
	4-Chloro-3-Methylphenol								33	26-103
_____	4-Nitrophenol								50	11-114
PEST SMO SAMPLE NO.	Lindane								50	46-127
	Heptachlor								31	35-130
	Aldrin								43	34-132
	Dieldrin								38	31-134
	Endrin								45	42-139
_____	4,4'-DDT								50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

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

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

Comments: _____

FORM III

7/85

495095

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. V-4432/V-4442 Contractor Ecology & Environment Inc. Contract No. IL-3140

Low Level X Medium Level _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO.	1,1-Dicholorethene								22	59-172
	Trichloroethene								24	62-137
	Chlorobenzene								21	60-133
	Toluene								21	59-139
	Benzene								21	66-142
B/N SMO SAMPLE NO. DC-SD-15	1,2,4-Trichlorobenzene	5000	0	5200	104	4500	90	14	23	38-107
	Acenaphthene	5000	0	4700	94	4300	86	8.9	19	31-137
	2,4 Dinitrotoluene	5000	0	4700	94*	4400	88	6.6	47	28-89
	Pyrene	5000	0	5800	116	5100	102	13	36	35-142
	N-Nitrosodi-n-Propylamine	5000	0	4700	94	4400	86	6.6	38	41-126
	1,4-Dichlorobenzene	5000	0	4400	86	3700	74	17	27	28-104
ACID SMO SAMPLE NO. DC-SD-15	Pentachlorophenol	10000	0	8600	86	8100	81	6.0	47	17-109
	Phenol	10000	0	8600	86	8100	81	6.0	35	26-90
	2-Chlorophenol	10000	0	8400	84	8000	80	4.9	50	25-102
	4-Chloro-3-Methylphenol	10000	0	7600	76	7200	72	5.4	33	26-103
	4-Nitrophenol	10000	0	5700	57	4200	42	30	50	11-114
PEST SMO SAMPLE NO. DC-SD-15	Lindane	40.5	0	38.8	96	37.9	94	2.3	50	46-127
	Heptachlor	40.5	0	29.4	73	25.9	64	13	31	35-130
	Aldrin	40.5	0	29.9	74	25.3	62	17	43	34-132
	Dieldrin	101	0	91.5	91	130	129	35	38	31-134
	Endrin	101	0	75.1	74	69.3	69	8.0	45	42-139
	4,4'-DDT	101	0	75.7	75	72.4	72	4.5	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

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

Comments: PESTICIDE RECOVERIES CALCULATED BY PEAK HEIGHT.

AD-A181098

Initial Calibration Data
HSL Compounds

Case No: U-4432/U-4442 Instrument ID: HP-5995C

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

Contract No: IL-3140

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

Laboratory ID:		>C3505	>C3500	>C3501	>C3502	>C3503				
		RF	RF	RF	RF	RF				
Compound		100.00	250.00	500.00	750.00	1000.00	$\overline{RF}$	% RSD	CCC	SPCC
CHLOROMETHANE	50	1.83030	2.98119	2.68303	1.98464	2.03565	2.30296	21.718		**
BROMOMETHANE	94	1.12916	2.03110	1.78724	1.13974	1.07212	1.43187	31.072	✓	
VINYL CHLORIDE	62	1.29793	2.25090	1.81480	1.33200	1.32627	1.60438	26.217	*	
CHLOROETHANE	64	.63087	.90688	.69912	.60274	.61992	.69191	18.156		
METHYLENE CHLORIDE	84	2.02322	1.43855	1.20025	1.26031	.97834	1.38013	28.644		
ACETONE	43	1.82548	2.34411	1.47396	1.33672	1.11317	1.61869	29.708		
TRICHLOROFLUOROMETHANE	101	3.86178	3.31082	2.95608	2.88263	2.68368	3.13900	14.758		
CARBON DISULFIDE	76	4.78482	3.89176	3.40709	3.72181	3.34401	3.82990	15.125		
1,1-DICHLOROETHENE	61	3.28335	3.33314	3.06918	2.76682	2.68799	3.02810	9.682	*	
1,1-DICHLOROETHANE	63	3.41019	3.92213	3.61341	2.93357	2.94262	3.36439	12.773		**
TRANS-1,2-DICHLOROETHENE	96	1.57932	1.84750	1.68174	1.33898	1.34149	1.55781	14.152		
CHLOROFORM	83	3.76351	4.28933	3.89481	2.94600	2.94612	3.56796	16.810	*	
1,2-DICHLOROETHANE	62	3.71406	4.39110	3.91144	2.88767	2.87971	3.55680	18.611		
1,2-DICHLOROETHANE-D4(SURR)	65	2.49928	3.43723	3.57775	2.73884	2.73981	2.99858	15.920		(Conc=250.0,250.0,250.0,250
2-BUTANONE	72	.08583	.06613	.07162	.05146	.06484	.06798	18.283		
1,1,1-TRICHLOROETHANE	97	.80804	.54601	.53518	.59001	.51014	.59787	20.236		
CARBON TETRACHLORIDE	117	.80174	.53704	.52968	.57726	.50644	.59043	20.469		
VINYL ACETATE	43	1.11275	1.25689	1.26570	1.09893	1.21686	1.19023	6.667		
BROMODICHLOROMETHANE	83	.84389	.62463	.59798	.63866	.57245	.65552	16.525		
1,2-DICHLOROPROPANE	63	.49204	.49341	.47136	.44626	.44491	.46960	5.026	*	
TRANS-1,3-DICHLOROPROPENE	75	.81912	.69538	.68300	.69776	.62213	.70348	10.178		
TRICHLOROETHENE	130	.44634	.42371	.39853	.38452	.36368	.40336	8.047		
DIBROMOCHLOROMETHANE	129	.21128	.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	.47074	10.787		
1,1,2,2-TETRACHLOROETHANE	83	.87842	.82654	.81458	.77936	.70534	.80085	8.008		**
TOLUENE-D8 (SURR)	98	1.32339	1.38280	1.45130	1.33957	1.31679	1.36777	4.093		(Conc=250.0,250.0,250.0,250
TOLUENE	92	1.05387	.94123	.86637	.82455	.79257	.89572	11.662	*	
CHLOROBENZENE	112	1.29244	1.13242	1.05881	1.03357	1.00789	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 (**)

Initial Calibration Data
HSL Compounds

Case No: U-4432/U-4442 Instrument ID: HP-5995C

Contractor: E & EM 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
4-BROMOFLUOROBENZENE(SURR) 95	.70434	.69639	.76293	.69405	.69743	.71103	4.116		(Conc=250.0,250.0,250.0,250.
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 (**)

Initial Calibration Data
HSL Compounds

Case No: U-4432/U-4442 Instrument ID: HP-5995C

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

Contract No: IL-3140

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

Laboratory ID:		>C4686	>C4687	>C4688	>C4689	>C4690				
		RF	RF	RF	RF	RF				
Compound		20.00	50.00	100.00	150.00	200.00	$\overline{RF}$	% RSD	CCC	SPCC
CHLOROMETHANE	50	1.51261	1.36840	1.38055	1.59462	1.27699	1.42823	8.775		**
BROMOMETHANE	94	1.10195	.64400	.65596	.67527	.80877	.79319	25.172		
VINYL CHLORIDE	62	.59555	.59313	.51670	.86164	.50281	.61396	23.593	*	
CHLOROETHANE	64	.54660	.41755	.42217	.51621	.27090	.43470	24.782		
METHYLENE CHLORIDE	84	2.70137	2.01268	1.84053	1.83985	1.65935	2.01235	20.123		
ACETONE	43	.70413	.54300	.43570	.42038	.42083	.50481	24.290		
TRICHLOROFLUOROMETHANE	101	2.95527	2.76905	2.77094	3.00577	2.59619	2.81945	5.825		
CARBON DISULFIDE	76	4.47571	4.27118	4.37298	4.71046	4.13194	4.39246	4.975		
1,1-DICHLOROETHENE	61	3.05700	2.94252	2.96034	3.20994	2.81701	2.99736	4.882	*	
1,1-DICHLOROETHANE	63	3.31645	3.14080	3.18457	3.45580	3.04764	3.22905	4.939		**
TRANS-1,2-DICHLOROETHENE	96	1.54663	1.48573	1.49992	1.63148	1.42083	1.51692	5.160		
CHLOROFORM	83	3.27718	3.10039	3.11003	3.32612	2.98113	3.15897	4.459	*	
1,2-DICHLOROETHANE	62	2.71789	2.71336	2.71294	2.54085	2.69616	2.67624	2.845		
1,2-DICHLOROETHANE-D4(SURR)	65	2.36053	2.49545	2.60707	2.53585	2.83050	2.56588	6.743		(Conc=50.0,50.0,50.0,50.0,50.0)
2-BUTANONE	72	.04297	.03739	.03140	.02315	.03315	.03361	21.881		
1,1,1-TRICHLOROETHANE	97	.55645	.54439	.54279	.54039	.52853	.54251	1.838		
CARBON TETRACHLORIDE	117	.53155	.52778	.51992	.51554	.49734	.51843	2.579		
VINYL ACETATE	43	.58349	.57735	.56023	.49965	.54462	.55307	6.058		
BROMODICHLOROMETHANE	83	.61487	.60306	.59080	.56560	.60562	.59759	3.150		
1,2-DICHLOROPROPANE	63	.46335	.46387	.45272	.42721	.44731	.45089	3.328	*	
TRANS-1,3-DICHLOROPROPENE	75	.77766	.77132	.75522	.70766	.75337	.75304	3.639		
TRICHLOROETHENE	130	.40368	.39124	.37168	.36700	.35459	.37764	5.201		
DIBROMOCHLOROMETHANE	129	.48448	.48927	.45953	.37680	.43233	.44848	10.267		
1,1,2-TRICHLOROETHANE	97	.32361	.33708	.31349	.24522	.30582	.30504	11.616		
BENZENE	78	1.20688	1.15514	1.11285	1.07162	1.05278	1.11985	5.593		
CIS-1,3-DICHLOROPROPENE	75	.40793	.40307	.38548	.35067	.36868	.38317	6.232		
2-CHLOROETHYLVINYLETHER	63	.05797	.03012	.02283	.05812	.01766	.03734	51.985		
BROMOFORM	173	.46077	.52902	.51955	.37555	.53655	.48429	13.987		**
4-METHYL-2-PENTANONE	43	.35724	.41899	.40640	.38059	.46595	.40583	10.149		
2-HEXANONE	43	.31485	.34100	.31768	.26628	.35929	.31982	10.946		
TETRACHLOROETHENE	164	.49236	.47235	.45158	.46337	.41058	.45805	6.645		
1,1,2,2-TETRACHLOROETHANE	83	.57441	.66566	.66212	.46259	.68781	.61052	15.292		**
TOLUENE-D8 (SURR)	98	1.44081	1.45525	1.48425	1.54822	1.52029	1.49136	2.852		(Conc=50.0,50.0,50.0,50.0,50.0)
TOLUENE	92	.97767	.91986	.89142	.91055	.86557	.91301	4.566	*	
CHLOROBENZENE	112	1.09059	1.03528	1.02098	1.01667	.98461	1.02963	3.767		**
ET BENZENE	91	1.93098	1.85270	1.81066	1.86300	1.79389	1.85025	2.889	*	

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

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

Initial Calibration Data
HSL Compounds

Case No: U-4432/U-4442 Instrument ID: HP-5995C

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

Contract No: IL-3140

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

Laboratory ID:	>C4686	>C4687	>C4688	>C4689	>C4690				
	RF	RF	RF	RF	RF				
Compound	20.00	50.00	100.00	150.00	200.00	$\overline{RF}$	% RSD	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR) 95	.87576	.87437	.88850	.88341	.93945	.89230	3.024		(Conc=50.0,50.0,50.0,50.0,50.0)
STYRENE 104	1.05690	.98537	.96584	.98433	.97498	.99348	3.656		
TOTAL XYLENES 91	1.52761	1.39765	1.39801	1.44575	1.40835	1.43547	3.642		

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

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

Initial Calibration Data
HSL Compounds

Case No: U-4432/U-4442 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	1.10940	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	.21306	.20457	.20262	8.462	*	
2,4-DIMETHYLPHENOL	122	.26750	.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	1.901		
2,4,6-TRIBROMOPHENOL(SURR)	330	.29588	.32928	.34498	.31993	.33911	.32584	5.917		
2,4-DINITROPHENOL	184	-	.13902	.16374	.19064	.18943	.17071	14.351		**
4-NITROPHENOL	139	-	.28898	.31865	.33708	.34792	.32314	7.977		**
4,6-DINITRO-2-METHYLPHENOL	198	-	.10474	.11556	.12900	.13233	.12041	10.560		
PENTACHLOROPHENOL	266	-	.17917	.18989	.19137	.19048	.18773	3.054	*	

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

$\overline{}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

Case No: U-4432/U-4442 Instrument ID: HP-5970 B

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

Contract No: IL-3140

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

Compound		RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
Laboratory ID:		>82319	>82317	>82320	>82321	>82322				
ANILINE	93	1.53020	1.25644	1.62634	1.62245	1.58163	1.52341	10.122		
BIS(-2-CHLOROETHYL)ETHER	93	1.34445	1.22081	1.26618	1.07095	1.29722	1.23992	8.441		
1,3-DICHLOROBENZENE	146	1.46014	1.37957	1.42964	1.30860	1.33586	1.38276	4.559		
1,4-DICHLOROBENZENE	146	1.66736	1.29358	1.43871	1.25577	1.18343	1.36777	14.007	*	
BENZYL ALCOHOL	79	.98994	1.18557	1.00496	1.07361	1.14382	1.07958	7.887		
1,2-DICHLOROBENZENE	146	1.61074	1.48247	1.44441	1.30085	1.30196	1.42808	9.176		
BIS(2-CHLOROISOPROPYL)ETHER	45	3.10167	2.81979	3.04493	2.94413	2.94039	2.97018	3.652		
N-NITROSO-DI-N-PROPYLAMINE	70	1.28828	1.23766	1.29486	1.34328	1.29730	1.29228	2.904		**
HEXACHLOROETHANE	117	.79392	.72848	.72662	.65702	.63961	.70913	8.755		
NITROBENZENE-D5 (SURR)	82	.38965	.37385	.41065	.42325	.40762	.40084	4.898		
NITROBENZENE	77	.42892	.38234	.41415	.43943	.43255	.41948	5.417		
ISOPHORONE	82	.84007	.76477	.79107	.82839	.82546	.80995	3.848		
BIS(-2-CHLOROETHOXY)METHANE	93	.46623	.44982	.45355	.46561	.44362	.45577	2.178		
1,2,4-TRICHLOROBENZENE	180	.39238	.38218	.37397	.37375	.37036	.37851	2.345		
NAPHTHALENE	128	1.10454	.97856	1.02942	.88370	.92738	.98472	8.778		
4-CHLOROANILINE	127	.38955	.37023	.40760	.39766	.40786	.39458	3.953		
HEXACHLOROBUTADIENE	225	.28342	.26841	.25835	.24760	.23237	.25803	7.555	*	
2-METHYLNAPHTHALENE	142	.70829	.65392	.61126	.58244	.56184	.62355	9.404		
HEXACHLOROCYCLOPENTADIENE	237	.42682	.38196	.48139	.49313	.48657	.45397	10.605		**
2-FLUOROBIPHENYL (SURR)	172	1.43778	1.49688	1.31182	1.22836	1.17905	1.33061	10.128		
2-CHLORONAPHTHALENE	162	1.26208	1.35393	1.18900	1.10195	1.13384	1.20816	8.413		
2-NITROANILINE	65	.39563	.49064	.43475	.41930	.45448	.43896	8.209		
DIMETHYL PHTHALATE	163	1.53551	1.62797	1.36166	1.32005	1.34038	1.43709	9.517		
4-NITROANILINE	138	.22174	.31144	.26162	.25592	.24885	.25992	12.546		
DIBENZOFURAN	168	1.77467	1.85500	1.58680	1.39667	1.46174	1.61498	12.191		
ACENAPHTHYLENE	152	1.97143	2.08657	1.83063	1.60600	1.52393	1.80371	13.185		
FLUORENE	166	1.35721	1.41769	1.10410	1.09087	1.00139	1.19425	15.240		
3-NITROANILINE	138	.13030	.18696	.13633	.16461	.15450	.15454	14.725		
ACENAPHTHENE	153	1.32952	1.38687	1.10696	1.08827	1.02367	1.18706	13.524	*	
2,4-DINITROTOLUENE	165	.35218	.43871	.35920	.36773	.39158	.38188	9.185		
2,6-DINITROTOLUENE	165	.33692	.38691	.34388	.34507	.33955	.35087	5.793		
DIETHYLPHTHALATE	149	1.54518	1.59131	1.28601	1.21661	1.31157	1.39014	12.017		
4-CHLOROPHENYL-PHENYLETHER	204	.69494	.72268	.58641	.55946	.56319	.62534	12.397		
N-NITROSODIPHENYLAMINE	169	.46709	.47088	.43295	.40737	.34790	.42524	11.873	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26935	.26406	.28047	.26087	.25818	.26659	3.303		
HEXACHLOROBENZENE	284	.36253	.33009	.33921	.34540	.32747	.34094	4.119		

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

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

Case No: U-4432/U-4442 Instrument ID: HP-5970 B

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

Contract No: IL-3140

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

Compound		Laboratory ID: >82318 RF 20.00	>82317 RF 50.00	>82320 RF 80.00	>82321 RF 120.00	>82322 RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
PHENANTHRENE	178	1.04931	1.01512	.98050	.95298	.88999	.97758	6.231		
ANTHRACENE	178	1.12091	1.02625	1.04493	.93788	.90233	1.00646	8.678		
DI-N-BUTYLPHTHALATE	149	1.27178	1.10891	1.06851	1.11508	1.07179	1.12721	7.409		
FLUORANTHENE	202	.93206	.85951	.90155	.77543	.70727	.81517	10.452	*	
BENZIDINE		-	-	-	-	-	-	-		
PYRENE	202	1.67420	1.68596	1.76714	1.46297	1.41935	1.60192	9.479		
TERPHENYL-D14 (SURR)	244	1.14639	1.09283	1.18955	1.06562	1.05822	1.11052	5.053		
BUTYLBENZYLPHTHALATE	149	.65885	.67321	.68349	.67508	.67739	.67361	1.353		
3,3'DICHLOROBENZIDINE	252	.27363	.29497	.31038	.35282	.36231	.31882	11.871		
BENZO(A)ANTHRACENE	228	1.11295	1.16545	1.14131	1.09826	1.08387	1.12037	2.943		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.89359	.90143	.88579	.90223	.92113	.90083	1.461		
CHRYSENE	228	1.21768	1.19377	1.18843	.98625	1.04715	1.12666	9.164		
DI-N-OCTYL PHTHALATE	149	1.66258	1.75298	1.71967	1.71622	1.68266	1.70682	2.056	*	
BENZO(B)FLUORANTHENE	252	1.07961	1.23626	1.14532	1.32040	1.29211	1.21474	8.303		
BENZO(K)FLUORANTHENE	252	1.41040	1.33474	1.35790	1.08149	1.00129	1.23716	14.793		
BENZO(A)PYRENE	252	1.10805	1.15079	1.13626	1.11791	1.09145	1.12089	2.078	*	
INDENO(1,2,3-CD)PYRENE	276	.91950	1.10814	1.04174	1.09403	1.04427	1.04154	7.135		
DIBENZ(A,H)ANTHRACENE	278	.98398	1.11071	1.10486	1.07317	1.06502	1.06755	4.748		
BENZO(G,H,I)PERYLENE	276	1.10921	1.20556	1.17094	1.16451	1.14309	1.15866	3.073		

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

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

23

Initial Calibration Data
HSL Compounds

Case No: U-4432/U-4442 Instrument ID: HP-5970 B

Contractor: E & E, INC. Calibration Date: ~~07/31/86~~ 7/30/86

Contract No: IL-3140

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

Compound		Laboratory ID: >82323 RF 20.00	>82324 RF 50.00	>82325 RF 80.00	>82326 RF 120.00	>82327 RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
PHENOL-D5 (SURR)	99	1.33554	1.32424	1.47714	1.37903	1.37876	1.37894	4.369		
PENTAFLUOROPHENOL	184	-	-	-	-	-	-	-		
2-FLUOROPHENOL (SURR)	112	.86601	.96224	.81732	.89616	.80413	.86917	7.349		
PHENOL	94	1.21969	1.30210	1.34366	1.27248	1.24820	1.27723	3.756	*	
2-METHYL PHENOL	108	.95956	1.15622	1.11972	1.02900	1.04621	1.06214	7.299		
2-CHLOROPHENOL	128	1.03433	1.21901	1.21545	1.19049	1.20231	1.17232	6.650		
4-METHYL PHENOL	108	.99078	1.16029	1.06554	1.03758	1.09053	1.06894	5.901		
2-NITROPHENOL	139	.16395	.20209	.20713	.20379	.18968	.19333	9.154	*	
2,4-DIMETHYLPHENOL	122	.24782	.29464	.30384	.29645	.25225	.27900	9.574		
BENZOIC ACID	105	-	.22663	.22609	.24641	.25765	.23920	6.486		
2,4-DICHLOROPHENOL	162	.27062	.28484	.33611	.32608	.29302	.30213	9.219	*	
4-CHLORO-3-METHYLPHENOL	107	.29131	.34908	.34637	.34264	.32554	.33099	7.251	*	
2,4,6-TRICHLOROPHENOL	196	.39345	.50875	.46278	.44935	.41174	.44521	10.146	*	
2,4,5-TRICHLOROPHENOL	196	.42313	.61321	.54332	.51580	.50391	.51987	13.220		
2,4,6-TRIBROMOPHENOL(SURR)	330	.29141	.38528	.33464	.31533	.31443	.32822	10.781		
2,4-DINITROPHENOL	184	-	.16377	.13943	.16124	.18313	.16189	11.045		**
4-NITROPHENOL	139	-	.19015	.15858	.14172	.15895	.16233	12.448		**
4,6-DINITRO-2-METHYLPHENOL	198	-	.13952	.13065	.14342	.15487	.14211	7.067		
PENTACHLOROPHENOL	266	-	.17560	.16016	.16451	.18549	.17144	6.650	*	

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

\- Average Response Factor

%RSD - Percent Relative Standard Deviation

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

2

Initial Calibration Data
HSL Compounds

Case No: U-4432/U-4442 Instrument ID: HP-5970C

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		RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
Laboratory ID:		>D0965	>D0966	>D0967	>D0968	>D0969				
ANILINE	93	1.44667	1.40722	1.59651	1.68331	1.56944	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	1.46374	6.256	*	
BENZYL ALCOHOL	79	1.01010	1.90872	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-CHLOROISOPPOPYL)ETHER	45	2.68736	2.47658	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	.38879	.37437	7.253		
NITROBENZENE	77	.39592	.35266	.39754	.39299	.35937	.37969	5.744		
ISOPHORONE	82	.79161	.70915	.78705	.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	.37508	.38442	6.671		
NAPHTHALENE	128	1.07749	.91373	.97630	.97339	.89249	.96668	7.446		
4-CHLOROANILINE	127	.33401	.32798	.42540	.44310	.35932	.37796	14.044		
HEXACHLOROBUTADIENE	225	.29443	.24392	.26045	.25805	.23855	.25908	8.420	*	
2-METHYLNAPHTHALENE	142	.67945	.60785	.66493	.68192	.59005	.64484	6.646		
HEXACHLOROCYCLOPENTADIENE	237	.56264	.50376	.58602	.60451	.58378	.56814	6.552		**
2-FLUOROBIPHENYL (SURR)	172	1.70967	1.49275	1.58507	1.65769	1.62088	1.61321	5.069		
2-CHLORONAPHTHALENE	162	1.47542	1.23459	1.36421	1.37148	1.41834	1.37281	6.493		
2-NITROANILINE	65	.43757	.43867	.51133	.51859	.47610	.47645	8.082		
DIMETHYL PHTHALATE	163	1.83005	1.68051	1.71649	1.69378	1.67638	1.71954	3.704		
4-NITROANILINE	138	.23949	.23631	.27642	.27327	.26539	.25828	7.365		
DIBENZOFURAN	168	2.04488	1.93571	1.94866	1.91782	1.79656	1.90873	5.115		
ACENAPHTHYLENE	152	2.24178	1.99625	2.09922	2.09094	2.07505	2.10065	4.229		
FLUORENE	166	1.55490	1.33626	1.34395	1.28944	1.20896	1.34670	9.518		
3-NITROANILINE	138	-	.04833	.11452	.11792	.08856	.09246	34.586		
ACENAPHTHENE	153	1.52777	1.33286	1.39452	1.37214	1.26556	1.37857	7.016	*	
2,4-DINITROTOLUENE	165	.35967	.32323	.34179	.32754	.30831	.33212	5.867		
2,6-DINITROTOLUENE	165	.38599	.35678	.37953	.36730	.36597	.37112	3.126		
DIETHYLPHTHALATE	149	1.88863	1.62618	1.53368	1.45917	1.43355	1.58664	11.393		
4-CHLOROPHENYL-PHENYLETHER	204	.78393	.66962	.70193	.69165	.66856	.70414	7.032		
N-NITROSODIPHENYLAMINE	169	.51567	.44734	.53097	.55655	.53302	.51771	8.111	*	
4-BROMOPHENYL-PHENYL ETHER	248	.31338	.30497	.33954	.35732	.35891	.33482	7.465		
HEXACHLOROBENZENE	284	.46739	.39403	.43794	.45768	.43251	.43791	6.477		

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

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

Initial Calibration Data
HSL Compounds

Case No: U-4432/U-4442 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		RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
Laboratory ID:		>D0965	>D0966	>D0967	>D0968	>D0969				
PHENANTHRENE	178	1.06808	.96082	1.02609	1.02304	.99723	1.01505	3.896		
ANTHRACENE	178	1.03628	.92880	1.01124	1.03132	.98608	.99874	4.367		
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	2.82156	2.68642	3.814		
TERPHENYL-D14 (SURR)	244	1.42937	1.47810	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	1.00315	1.03158	.91524	13.276		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.78298	.70108	.85062	.83155	.91270	.81579	9.708		
CHRYSENE	228	1.34326	1.12613	1.17809	1.12675	1.18262	1.19137	7.479		
DI-N-OCTYL PHTHALATE	149	1.37470	1.35508	1.83002	1.65900	1.98983	1.64173	16.968		*
BENZO(B)FLUORANTHENE	252	.92969	.97296	1.14091	1.25304	1.37734	1.13479	16.551		
BENZO(K)FLUORANTHENE	252	1.68215	1.48612	1.68304	1.46335	1.43849	1.55063	7.844		
BENZO(A)PYRENE	252	1.05697	.98485	1.15438	1.16496	1.18217	1.10877	7.641		*
INDENO(1,2,3-CD)PYRENE	276	.63778	.93612	1.09730	1.40393	.87647	.99032	28.681		
DIBENZ(A,H)ANTHRACENE	278	.73019	.64673	.79593	.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 - Response Factor (Subscript is amount in UG/L)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CONTINUING CALIBRATION DATA

Continuing Calibration Check
HSL Compounds

Ca o: V-4432/V-4442 Calibration Date: 11/12/86

Contractor: E & EM INC. Time: 16:01

Contract No: 68-01-7158 Laboratory ID: VC5481

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	2.61509	13.55		**
BROMOMETHANE	94	1.43187	1.76530	23.29		
VINYL CHLORIDE	62	1.60438	1.89373	18.03	*	
CHLOROETHANE	64	.69191	.86148	24.51		
METHYLENE CHLORIDE	84	1.38013	1.60420	16.24		
ACETONE	43	1.61869	.54605	66.27		
TRICHLOROFLUOROMETHANE	101	3.13900	3.46171	10.28		
CARBON DISULFIDE	76	3.82990	5.59125	45.99		
1,1-DICHLOROETHENE	61	3.02810	3.29869	8.94	*	
1,1-DICHLOROETHANE	63	3.36439	3.60182	7.06		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.79979	15.53		
CHLOROFORM	83	3.56796	3.74626	5.00	*	
1,2-DICHLOROETHANE	62	3.55680	3.31096	6.91		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.40738	19.72		
2-BUTANONE	72	.06798	.08088	18.97		
1,1,1-TRICHLOROETHANE	97	.59787	.62126	3.91		
CARBON TETRACHLORIDE	117	.59043	.58827	.37		
VINYL ACETATE	43	1.19023	1.14425	3.86		
BROMODICHLOROMETHANE	83	.65552	.64508	1.59		
1,2-DICHLOROPROPANE	63	.46960	.47199	.51	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.83150	18.20		
TRICHLOROETHENE	130	.40336	.43589	8.07		
DIBROMOCHLOROMETHANE	129	.55837	.50553	9.46		
1,1,2-TRICHLOROETHANE	97	.36284	.38150	5.15		
BENZENE	78	1.16600	1.28431	10.15		
CIS-1,3-DICHLOROPROPENE	75	.52628	.48015	8.77		
2-CHLOROETHYLVINYLETHER	63	.33081	.18519	44.02		
BROMOFORM	173	.62246	.47122	24.30		**
4-METHYL-2-PENTANONE	43	1.12348	.82507	26.56		
2-HEXANONE	43	.92838	.60740	34.57		
TETRACHLOROETHENE	164	.47024	.49522	5.31		
1,1,2,2-TETRACHLOROETHANE	83	.80085	.81163	1.35		**
TOLUENE-D8 (SURR)	98	1.36277	1.33573	1.98		
TOLUENE	92	.89572	1.03937	16.04	*	
CHLOROBENZENE	112	1.10402	1.24357	12.64		**
ETHYLBENZENE	91	1.85535	2.07414	11.79	*	

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

Continuing Calibration Check
HSL Compounds

Ca .o: V-4432/V-4442 Calibration Date: 11/12/86

Contractor: E & EM INC. Time: 16:01

Contract No: 68-01-7158 Laboratory ID: VC5481

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	.86934	22.27		
STYRENE	104	.98260	1.42953	45.48		
TOTAL XYLENES	91	1.41320	1.92492	36.21		

RF - Response Factor from daily standard file at [illegible]

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

%Diff - % Difference from original average or curve

[illegible]

Continuing Calibration Check
HSL Compounds

ase .: V-4432/V-4442 Calibration Date: 11-13-86

ontractor: E & E, INC. Time: 12:48

ontract No: 68-01-7158 Laboratory ID: C5499

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	1.42823	1.19704	16.19		**
BROMOMETHANE	94	.79319	.78559	.96		
VINYL CHLORIDE	62	.61396	.50965	16.99	*	
CHLOROETHANE	64	.43470	.58327	34.18		
METHYLENE CHLORIDE	84	2.01239	3.63569	80.67		
ACETONE	43	.50481	.34703	31.25		
TRICHLOROFLUOROMETHANE	101	2.81945	3.32726	18.01		
CARBON DISULFIDE	76	4.39246	4.99646	13.75		
,1-DICHLOROETHENE	61	2.99736	2.96381	1.12	*	
,1-DICHLOROETHANE	63	3.22905	3.26364	1.07		**
TRANS-1,2-DICHLOROETHENE	96	1.51692	1.60434	5.76		
CHLOROFORM	83	3.15897	3.50696	11.02	*	
,2-DICHLOROETHANE	62	2.67624	2.90430	8.52		
,2-DICHLOROETHANE-D4(SURR)	65	2.56586	2.49446	2.78		
-BUTANONE	72	.03361	.03640	8.30		
,1,1-TRICHLOROETHANE	97	.54251	.62699	15.57		
CARBON TETRACHLORIDE	117	.51843	.63754	22.98		
VINYL ACETATE	43	.55307	.26889	51.39		
BROMODICHLOROMETHANE	83	.59759	.66013	10.47		
,2-DICHLOROPROPANE	63	.45089	.42259	6.28	*	
TRANS-1,3-DICHLOROPROPENE	75	.75384	.77176	2.49		
TRICHLOROETHENE	130	.37764	.39374	4.26		
DIBROMOCHLOROMETHANE	129	.44948	.48995	9.05		
,1,2-TRICHLOROETHANE	97	.30504	.33200	8.84		
BENZENE	78	1.11955	1.17103	4.57		
IS-1,3-DICHLOROPROPENE	75	.38317	.47757	14.20		
-CHLOROETHYLVINYLETHER	63	.03774	.12493	234.56		
BROMOFORM	173	.48429	.36323	25.00		**
-METHYL-2-PENTANONE	43	.40533	.40623	.19		
-HEXANONE	43	.31981	.31121	2.69		
TETRACHLOROETHENE	164	.45835	.45137	1.45		
,1,2,2-TETRACHLOROETHANE	83	.61052	.63242	3.59		**
TOLUENE-D8 (SURR)	98	1.49176	1.53931	3.21		
TOLUENE	92	.91381	1.01674	11.34	*	
CHLOROBENZENE	112	1.03963	1.24875	20.13		**
ETHYLBENZENE	91	1.87827	2.16905	17.07	*	

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

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

Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: V-4432/V-4442 Calibration Date: 11/13/86

Contractor: E & E, INC. Time: 12:48

Contract No: 68-01-7158 Laboratory ID: 205499

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.89230	.82434	7.62		
STYRENE	104	.99348	1.28883	29.73		
TOTAL XYLENES	91	1.43547	1.78412	24.29		

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: V-4432/V-4442

Calibration Date: 11/13/86

Contractor: E & E, INC.

Time: 22:03

Contract No: 68-01-7158

Laboratory ID: [illegible]

Instrument ID: HP-5995C

Initial Calibration Date: [illegible]

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

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	1.42823	1.66967	16.[illegible]		**
BROMOMETHANE	94	.79319	1.10661	39.[illegible]		
VINYL CHLORIDE	62	.61396	.71938	17.[illegible]	*	
CHLOROETHANE	64	.43470	.27260	37.29		
METHYLENE CHLORIDE	84	2.01235	3.01918	50.03		
ACETONE	43	.50481	.50046	.86		
TRICHLOROFLUOROMETHANE	101	2.81945	3.64646	29.[illegible]		
CARBON DISULFIDE	76	4.39246	6.64723	51.33		
1,1-DICHLOROETHENE	61	2.99736	3.49136	16.45	*	
1,1-DICHLOROETHANE	63	3.22905	3.63690	12.[illegible]		**
TRANS-1,2-DICHLOROETHENE	96	1.51692	1.93545	2[illegible].59		
CHLOROFORM	83	3.15897	3.66902	16.[illegible]	*	
1,2-DICHLOROETHANE	62	2.67624	2.74672	[illegible]		
1,2-DICHLOROETHANE-D4(SURR)	65	2.56588	1.98980	22.45		
2-BUTANONE	72	.03361	.04637	[illegible]		
1,1,1-TRICHLOROETHANE	97	.54251	.64354	18.[illegible]		
CARBON TETRACHLORIDE	117	.51843	.62327	[illegible]		
VINYL ACETATE	43	.55307	.77120	39.44		
BROMODICHLOROMETHANE	83	.59759	.63210	5.[illegible]		
1,2-DICHLOROPROPANE	63	.45089	.47260	4.81	*	
TRANS-1,3-DICHLOROPROPENE	75	.75304	.83162	10.[illegible]		
TRICHLOROETHENE	130	.37764	.47132	24.81		
DIBROMOCHLOROMETHANE	129	.44848	.46567	3.83		
1,1,2-TRICHLOROETHANE	97	.30504	.32311	5.92		
BENZENE	78	1.11985	1.31967	17.[illegible]		
CIS-1,3-DICHLOROPROPENE	75	.38317	.42676	11.[illegible]		
2-CHLOROETHYLVINYLETHER	63	.03734	.12762	241.77		
BROMOFORM	173	.48429	.38697	20.[illegible]		**
4-METHYL-2-PENTANONE	43	.40583	.45264	11.[illegible]		
2-HEXANONE	43	.31982	.35111	[illegible]		
TETRACHLOROETHENE	164	.45805	.61418	[illegible]		
1,1,2,2-TETRACHLOROETHANE	83	.61052	.61531	[illegible]		**
TOLUENE-D8 (SURR)	98	1.49136	1.[illegible]	[illegible]		
TOLUENE	92	.91301	1.17699	[illegible]	*	
CHLOROBENZENE	112	1.02963	1.38601	[illegible]		**
BENZENE	91	1.85025	[illegible]	[illegible]	*	

RF - Response Factor from daily standard file at [illegible]

$\overline{RF}$ - Average Response Factor from Initial Calibration Form [illegible]

[illegible]

Continuing Calibration Check
HSL Compounds

Case No: V-4432/V-4442 Calibration Date: 11/13/86

Contractor: E & E, INC. Time: 22:03

Contract No: 68-01-7158 Laboratory ID: 25609

Instrument ID: HP-5995C Initial Calibration Date: 09/27/86

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.89230	.71774	19.56		
STYRENE	104	.99348	1.32149	33.02		
TOTAL XYLENES	91	1.43547	1.80419	25.69		

RF - Response Factor from daily standard mix at 50.00 ng/L

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

Continuing Calibration Check
HSL Compounds

Case No: V-4432/V-4442 Calibration Date: 11/14/86

Contractor: E & E, INC. Time: 10:45

Contract No: 68-01-7158 Laboratory ID: VC5521

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	1.42823	.96525	32.42		**
BROMOMETHANE	94	.79319	.55938	29.48		
VINYL CHLORIDE	62	.61396	.47191	23.14	*	
CHLOROETHANE	64	.43470	.36497	16.04		
METHYLENE CHLORIDE	84	2.01235	2.84393	41.32		
ACETONE	43	.50481	.53157	5.30		
TRICHLOROFLUOROMETHANE	101	2.81945	2.93570	4.12		
CARBON DISULFIDE	76	4.39246	5.03182	14.56		
1,1-DICHLOROETHENE	61	2.99736	2.89755	3.33	*	
1,1-DICHLOROETHANE	63	3.22905	3.43458	6.36		**
TRANS-1,2-DICHLOROETHENE	96	1.51692	1.70006	12.07		
CHLOROFORM	83	3.15897	3.55659	12.59	*	
1,2-DICHLOROETHANE	62	2.67624	2.89805	8.29		
1,2-DICHLOROETHANE-D4(SURR)	65	2.56588	2.24002	12.70		
2-BUTANONE	72	.03361	.05639	67.77		
1,1,1-TRICHLOROETHANE	97	.54251	.61287	12.97		
CARBON TETRACHLORIDE	117	.51843	.61652	18.92		
VINYL ACETATE	43	.55307	.32647	40.97		
BROMODICHLOROMETHANE	83	.59759	.67566	13.07		
1,2-DICHLOROPROPANE	63	.45089	.47232	4.75	*	
TRANS-1,3-DICHLOROPROPENE	75	.75304	.86850	15.33		
TRICHLOROETHENE	130	.37764	.47190	24.96		
DIBROMOCHLOROMETHANE	129	.44848	.55897	24.64		
1,1,2-TRICHLOROETHANE	97	.30504	.39055	28.03		
BENZENE	78	1.11985	1.28449	14.70		
CIS-1,3-DICHLOROPROPENE	75	.38317	.46871	22.33		
2-CHLOROETHYLVINYLETHER	63	.03734	.14605	291.12		
BROMOFORM	173	.48429	.53988	11.48		**
4-METHYL-2-PENTANONE	43	.40583	.56445	39.08		
2-HEXANONE	43	.31982	.43767	36.85		
TETRACHLOROETHENE	164	.45805	.58700	28.15		
1,1,2,2-TETRACHLOROETHANE	83	.61052	.84462	38.35		**
TOLUENE-D8 (SURR)	98	1.49136	1.51654	1.69		
TOLUENE	92	.91301	1.13245	24.03	*	
CHLOROBENZENE	112	1.02963	1.41186	37.12		**
ETHYLBENZENE	91	1.85025	2.27793	23.11	*	

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: V-4432/V-4442 Calibration Date: 11/14/86

Contractor: E & E, INC. Time: 10:45

Contract No: 68-01-7158 Laboratory ID: >C5521

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.89230	.74445	16.57		
STYRENE	104	.99348	1.34207	35.09		
TOTAL XYLENES	91	1.43547	1.80100	25.46		

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Ca o: V-4432/V-4442 Calibration Date: 11/14/86

Contractor: E & E, INC. Time: 20:41

Contract No: 68-01-7158 Laboratory ID: C5531

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	1.42823	.80985	43.30		**
BROMOMETHANE	94	.79319	.44235	44.23		
VINYL CHLORIDE	62	.61396	.44198	28.01	*	
CHLOROETHANE	64	.43470	.49283	13.37		
METHYLENE CHLORIDE	84	2.01235	2.37402	17.97		
ACETONE	43	.50481	.34233	32.19		
TRICHLOROFLUOROMETHANE	101	2.81945	2.59475	7.97		
CARBON DISULFIDE	76	4.39246	4.29908	2.13		
1,1-DICHLOROETHENE	61	2.99736	2.48645	17.05	*	
1,1-DICHLOROETHANE	63	3.22905	2.90310	10.09		**
TRANS-1,2-DICHLOROETHENE	96	1.51692	1.45391	4.15		
CHLOROFORM	83	3.15897	3.02276	4.31	*	
1,2-DICHLOROETHANE	62	2.67624	2.37298	11.33		
1,2-DICHLOROETHANE-D4(SURR)	65	2.56588	2.09607	18.31		
2-BUTANONE	72	.03361	.03778	12.40		
1,1,1-TRICHLOROETHANE	97	.54251	.52732	2.80		
CARBON TETRACHLORIDE	117	.51843	.53206	2.63		
VINYL ACETATE	43	.55307	.24740	55.27		
BROMODICHLOROMETHANE	83	.59759	.55865	6.52		
1,2-DICHLOROPROPANE	63	.45089	.40035	11.21	*	
TRANS-1,3-DICHLOROPROPENE	75	.75304	.73545	2.34		
TRICHLOROETHENE	130	.37764	.40867	8.22		
DIBROMOCHLOROMETHANE	129	.44848	.44637	.47		
1,1,2-TRICHLOROETHANE	97	.30504	.30850	1.13		
BENZENE	78	1.11985	1.08556	3.06		
CIS-1,3-DICHLOROPROPENE	75	.38317	.39293	2.55		
2-CHLOROETHYLVINYLETHER	63	.03734	.10165	172.23		
BROMOFORM	173	.48429	.39639	18.15		**
4-METHYL-2-PENTANONE	43	.40583	.38821	4.34		
2-HEXANONE	43	.31982	.27109	15.24		
TETRACHLOROETHENE	164	.45805	.50849	11.01		
1,1,2,2-TETRACHLOROETHANE	83	.61052	.55982	8.30		**
TOLUENE-D8 (SURR)	98	1.49136	1.43470	3.80		
TOLUENE	92	.91301	.96906	6.14	*	
CHLOROBENZENE	112	1.02963	1.17175	13.80		**
ETHYLBENZENE	91	1.85025	1.91661	3.59	*	

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

Ca .o: V-4432/V-4442 Calibration Date: 11/14/86

Contractor: E & E, INC. Time: 20:41

Contract No: 68-01-7158 Laboratory ID: >C5531

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.89230	.71315	20.08		
STYRENE	104	.99348	1.15229	15.98		
TOTAL XYLENES	91	1.43547	1.53025	6.60		

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 Compound

Continuing Calibration Check
HSL Compounds

Case No: V-4432/V-4442 Calibration Date: 11/17/86

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

Contract No: 68-01-7158 Laboratory ID: 3C5545

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	1.42823	1.37925	3.43		**
BROMOMETHANE	94	.79319	.53259	32.86		
VINYL CHLORIDE	62	.61396	.72429	17.97	*	
CHLOROETHANE	64	.43470	.61214	40.82		
METHYLENE CHLORIDE	84	2.01235	2.56736	27.58		
ACETONE	43	.50481	.68282	35.26		
TRICHLOROFLUOROMETHANE	101	2.81945	3.30346	17.17		
CARBON DISULFIDE	76	4.39246	5.70913	29.98		
1,1-DICHLOROETHENE	61	2.99736	2.86171	4.53	*	
1,1-DICHLOROETHANE	63	3.22905	3.01989	6.48		**
TRANS-1,2-DICHLOROETHENE	96	1.51692	1.66102	9.50		
CHLOROFORM	83	3.15897	3.24495	2.72	*	
1,2-DICHLOROETHANE	62	2.67624	2.53903	5.13		
1,2-DICHLOROETHANE-D4(SURR)	65	2.56588	2.25353	12.17		
2-BUTANONE	72	.03361	.04176	24.25		
1,1,1-TRICHLOROETHANE	97	.54251	.61122	12.67		
CARBON TETRACHLORIDE	117	.51843	.59723	15.20		
VINYL ACETATE	43	.55307	.81365	47.12		
BROMODICHLOROMETHANE	83	.59759	.58875	1.48		
1,2-DICHLOROPROPANE	63	.45089	.40544	10.08	*	
TRANS-1,3-DICHLOROPROPENE	75	.75304	.76341	1.38		
TRICHLOROETHENE	130	.37764	.41508	9.91		
DIBROMOCHLOROMETHANE	129	.44848	.47198	5.24		
1,1,2-TRICHLOROETHANE	97	.30504	.31378	2.86		
BENZENE	78	1.11985	1.17625	5.04		
CIS-1,3-DICHLOROPROPENE	75	.38317	.42599	11.18		
2-CHLOROETHYLVINYLETHER	63	.03734	.13104	250.93		
BROMOFORM	173	.48429	.39367	18.71		**
4-METHYL-2-PENTANONE	43	.40583	.43900	8.17		
2-HEXANONE	43	.31982	.29827	6.74		
TETRACHLOROETHENE	164	.45805	.51246	11.88		
1,1,2,2-TETRACHLOROETHANE	83	.61052	.58452	4.26		**
TOLUENE-D8 (SURR)	98	1.49136	1.56039	4.63		
TOLUENE	92	.91301	1.02879	12.68	*	
CHLOROBENZENE	112	1.02963	1.23660	20.10		**
ETHYLBENZENE	91	1.85025	2.05179	10.89	*	

RF - Response Factor from daily standard file at 50.0 UG/L

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Cas .: V-4432/V-4442 Calibration Date: 11/17/86

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

Contract No: 68-01-7158 Laboratory ID: >C5545

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.89230	.76445	14.33		
STYRENE	104	.99348	1.20958	21.79		
TOTAL XYLENES	91	1.43547	1.60482	11.80		

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

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

Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

a: : U-4432/U-4442 Calibration Date: 11/20/86

ontractor: E & E, INC. Time: 10:09

ontract No: 68-01-7158 Laboratory ID: >B3075

nstrument ID: HP-5970 Initial Calibration Date: ~~07/31/86~~ 7/30/86

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
HENOL-D5	(SURR) 99	1.37894	1.33464	3.21		
ENTAFLUOROPHENOL	184	-	-	-		
-FLUOROPHENOL	(SURR) 112	.86917	.83326	4.13		
HENOL	94	1.27723	1.22466	4.12	*	
-METHYL PHENOL	108	1.06214	1.08303	1.97		
-CHLOROPHENOL	128	1.17232	1.10860	5.44		
-METHYL PHENOL	108	1.06894	1.06430	.43		
-NITROPHENOL	139	.19333	.22995	18.94	*	
,4-DIMETHYLPHENOL	122	.27900	.31689	13.58		
ENZOIC ACID	105	.23920	.20894	12.65		
,4-DICHLOROPHENOL	162	.30213	.36132	19.59	*	
-CHLORO-3-METHYLPHENOL	107	.33099	.32836	.79	*	
,4,6-TRICHLOROPHENOL	196	.44521	.53647	20.50	*	
,4,5-TRICHLOROPHENOL	196	.51987	.56780	9.22		
,4,6-TRIBROMOPHENOL	(SURR) 330	.32822	.28674	12.64		
,4-DINITROPHENOL	184	.16189	.13376	17.38		**
-NITROPHENOL	139	.16233	.14477	10.81		**
,6-DINITRO-2-METHYLPHENOL	198	.14211	.14850	4.49		
ENTACHLOROPHENOL	266	.17144	.14826	13.52	*	

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

F - Average Response Factor from Initial Calibration Form VI

Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

se ... U-4432/U-4442 Calibration Date: 11/20/86

ntractor: E & E, INC. Time: 11:08

ntract No: 68-01-7158 Laboratory ID: >83076

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ILINE	93	1.52341	1.16568	23.48		
S(-2-CHLOROETHYL)ETHER	93	1.23992	1.16568	5.99		
3-DICHLOROBENZENE	146	1.38276	1.33921	3.15		
4-DICHLOROBENZENE	146	1.36777	1.30625	4.50	*	
NZYL ALCOHOL	79	1.07958	.88536	17.99		
2-DICHLOROBENZENE	146	1.42808	1.24817	12.60		
S(2-CHLOROISOPROPYL)ETHER	45	2.97018	2.09489	29.47		
NITROSO-DI-N-PROPYLAMINE	70	1.29228	.92253	28.61		**
XACHLOROETHANE	117	.70913	.58775	17.12		
TROBENZENE-D5 (SURR)	82	.40084	.33967	15.26		
TROBENZENE	77	.41948	.31676	24.49		
OPHORONE	82	.80995	.64655	20.17		
S(-2-CHLOROETHOXY)METHANE	93	.45577	.39393	13.57		
2,4-TRICHLOROBENZENE	180	.37851	.36368	3.92		
PHTHALENE	128	.98472	.91889	6.68		
CHLOROANILINE	127	.39458	.38816	1.63		
XACHLOROBUTADIENE	225	.25803	.24930	3.38	*	
METHYLNAPHTHALENE	142	.62355	.56862	8.81		
XACHLOROCYCLOPENTADIENE	237	.45397	.48122	6.00		**
FLUOROBIPHENYL (SURR)	172	1.33061	1.66062	24.80		
CHLORONAPHTHALENE	162	1.20816	1.35112	11.83		
NITROANILINE	65	.43896	.41176	6.20		
METHYL PHTHALATE	163	1.43709	1.56810	9.12		
NITROANILINE	138	.25992	.28595	10.02		
BENZOFURAN	168	1.61498	1.76151	9.07		
ENAPHTHYLENE	152	1.80371	2.03662	12.91		
LORENE	166	1.19425	1.23430	3.35		
NITROANILINE	138	.15454	.17116	10.76		
ENAPHTHENE	153	1.18706	1.33889	12.79	*	
4-DINITROTOLUENE	165	.38188	.35664	6.61		
6-DINITROTOLUENE	165	.35087	.37697	7.44		
ETHYLPHTHALATE	149	1.39014	1.52824	9.93		
CHLOROPHENYL-PHENYLETHER	204	.62534	.62978	.70		
NITROSODIPHENYLAMINE	169	.42524	.49156	15.60	*	
BROMOPHENYL-PHENYL ETHER	248	.26659	.27995	5.01		
XACHLOROBENZENE	284	.34094	.31043	8.95		

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

- Average Response Factor from Initial Calibration Form VI

ff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

ase ..: U-4432/U-4442 Calibration Date: 11/20/86

ontractor: E & E, INC. Time: 11:08

ontract No: 68-01-7158 Laboratory ID: >B3076

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
HENANTHRENE	178	.97758	.95316	2.50		
NTHRACENE	178	1.00646	.99507	1.13		
I-N-BUTYLPHTHALATE	149	1.12721	1.14987	2.01		
LUORANTHENE	202	.81517	.84573	3.75	*	
ENZIDINE		-	.22081	-		
YRENE	202	1.60192	1.28621	19.71		
ERPHENYL-D14 (SURR)	244	1.11052	.81814	26.33		
UTYLBENZYLPHTHALATE	149	.67361	.61190	9.16		
,3'DICHLOROBENZIDINE	252	.31882	.35402	11.04		
NZO(A)ANTHRACENE	228	1.12037	1.01602	9.31		
IS(2-ETHYLHEXYL)PHTHALATE	149	.90083	.86921	3.51		
RYSENE	228	1.12666	1.06822	5.19		
I-N-OCTYL PHTHALATE	149	1.70682	1.59816	6.37	*	
NZO(B)FLUORANTHENE	252	1.21474	1.05783	12.92		
NZO(K)FLUORANTHENE	252	1.23716	1.11725	9.69		
NZO(A)PYRENE	252	1.12089	1.01600	9.36	*	
DENO(1,2,3-CD)PYRENE	276	1.04154	.95124	8.67		
BENZ(A,H)ANTHRACENE	278	1.06755	.92766	13.10		
NZO(G,H,I)PERYLENE	276	1.15866	1.03679	10.52		

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

- Average Response Factor from Initial Calibration Form VI

iff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Ca: : U-4432/U-4442 Calibration Date: 11/21/86

Contractor: E & E, INC. Time: 12:34

Contract No: 68-01-7158 Laboratory ID: >B3090

Instrument ID: HP-5970 Initial Calibration Date: ~~07/31/86~~ 7/30/86

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5 (SURR)	99	1.37894	1.41745	2.79		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.86917	1.02392	17.80		
PHENOL	94	1.27723	1.38700	8.59	*	
2-METHYL PHENOL	108	1.06214	1.05042	1.10		
2-CHLOROPHENOL	128	1.17232	1.27868	9.07		
4-METHYL PHENOL	108	1.06894	1.05918	.91		
2-NITROPHENOL	139	.19533	.23077	19.37	*	
2,4-DIMETHYLPHENOL	122	.27900	.30767	10.28		
BENZOIC ACID	105	.23920	.18494	22.68		
2,4-DICHLOROPHENOL	162	.30213	.35160	16.37	*	
4-CHLORO-3-METHYLPHENOL	107	.33099	.31236	5.63	*	
2,4,6-TRICHLOROPHENOL	196	.44521	.54437	22.27	*	
2,4,5-TRICHLOROPHENOL	196	.51987	.53863	3.61		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32822	.25743	21.57		
2,4-DINITROPHENOL	184	.16189	.10064	37.84		**
4-NITROPHENOL	139	.16233	.12396	23.63		**
4,6-DINITRO-2-METHYLPHENOL	198	.14211	.13081	7.95		
PENTACHLOROPHENOL	266	.17144	.13231	22.83	*	

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

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

Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Ca 'o: V-4432/V-4442 Calibration Date: 11/21/86

Contractor: E & E, INC. Time: 13:42

Contract No: 68-01-7158 Laboratory ID: 3B3091

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.52341	1.26094	17.23		
BIS(-2-CHLOROETHYL)ETHER	93	1.23992	.94948	23.42		
1,3-DICHLOROBENZENE	146	1.38276	1.32033	4.52		
1,4-DICHLOROBENZENE	146	1.36777	1.43436	4.87	*	
BENZYL ALCOHOL	79	1.07958	.95789	11.27		
1,2-DICHLOROBENZENE	146	1.42803	1.32875	6.96		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.97018	2.22934	24.94		
N-NITROSO-DI-N-PROPYLAMINE	70	1.29228	.97382	24.64		**
HEXACHLOROETHANE	117	.70913	.61665	13.04		
NITROBENZENE-D5 (SURR)	82	.40084	.33956	15.29		
NITROBENZENE	77	.41948	.34575	17.58		
ISOPHORONE	82	.80995	.61639	23.90		
BIS(-2-CHLOROETHOXY)METHANE	93	.45577	.37326	18.10		
1,2,4-TRICHLOROBENZENE	180	.37851	.36198	4.37		
NAPHTHALENE	128	.98472	.88654	9.97		
4-CHLOROANILINE	127	.39458	.38531	2.35		
HEXACHLOROBUTADIENE	225	.25803	.23997	7.00	*	
2-METHYLNAPHTHALENE	142	.62355	.58263	6.56		
HEXACHLOROCYCLOPENTADIENE	237	.45397	.45313	.19		**
2-FLUOROBIPHENYL (SURR)	172	1.33061	1.64544	23.66		
2-CHLORONAPHTHALENE	162	1.20816	1.32188	9.41		
2-NITROANILINE	65	.43896	.38527	12.23		
DIMETHYL PHTHALATE	163	1.43709	1.60636	11.78		
4-NITROANILINE	138	.25992	.25825	.64		
DIBENZOFURAN	168	1.61498	1.68966	4.62		
ACENAPHTHYLENE	152	1.80371	1.96529	8.96		
FLUORENE	166	1.19425	1.19848	.35		
3-NITROANILINE	138	.15454	.14437	6.58		
ACENAPHTHENE	153	1.18706	1.28615	8.35	*	
2,4-DINITROTOLUENE	165	.38188	.32416	15.12		
2,6-DINITROTOLUENE	165	.35087	.35895	2.30		
DIETHYLPHTHALATE	149	1.39014	1.39496	.35		
4-CHLOROPHENYL-PHENYLETHER	204	.62534	.59110	5.48		
N-NITROSODIPHENYLAMINE	169	.42524	.51600	21.34	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26659	.28948	8.21		
HEXACHLOROBENZENE	284	.34094	.32485	4.72		

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

C No: V-4432/V-4442 Calibration Date: 11/21/86

Contractor: E & E, INC. Time: 13:42

Contract No: 68-01-7158 Laboratory ID: >B3091

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	.97758	.98765	1.03		
ANTHRACENE	178	1.00646	1.01603	.95		
DI-N-BUTYLPHTHALATE	149	1.12721	1.13290	.50		
FLUORANTHENE	202	.81517	.76609	6.02	*	
BENZIDINE		-	.20617	-		
PYRENE	202	1.60192	1.29551	19.13		
TERPHENYL-D14 (SURR)	244	1.11052	.81383	26.72		
BUTYLBENZYLPHTHALATE	149	.67361	.61186	9.17		
3,3'DICHLOROBENZIDINE	252	.31882	.34198	7.23		
BENZO(A)ANTHRACENE	228	1.12037	1.00284	10.49		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.90033	.86772	3.68		
CHRYSENE	228	1.12666	1.03179	8.42		
DI-N-OCTYL PHTHALATE	149	1.70682	1.59006	6.84	*	
BENZO(B)FLUORANTHENE	252	1.21474	1.01976	16.05		
BENZO(K)FLUORANTHENE	252	1.23716	1.17882	4.72		
BENZO(A)PYRENE	252	1.12089	1.02824	8.27	*	
INDENO(1,2,3-CD)PYRENE	276	1.04154	.94345	9.42		
DIBENZ(A,H)ANTHRACENE	278	1.06755	.95484	10.56		
BENZO(G,H,I)PERYLENE	276	1.15866	1.04726	9.61		

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

e No: U-4432/U-4442 Calibration Date: 11/24/86

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

Contract No: 68-01-7158 Labbratory ID: >B3117

Instrument ID: HP-5970 Initial Calibration Date: ~~07/31/86~~ 1/30/86

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5	(SURR) 99	1.37894	1.28183	7.04		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL	(SURR) 112	.86917	.83374	4.08		
PHENOL	94	1.27723	1.27163	.44	*	
2-METHYL PHENOL	108	1.06214	1.03205	2.83		
2-CHLOROPHENOL	128	1.17232	1.16541	.59		
4-METHYL PHENOL	108	1.06894	1.04586	2.16		
2-NITROPHENOL	139	.19333	.21086	9.07	*	
2,4-DIMETHYLPHENOL	122	.27930	.29331	5.13		
BENZOIC ACID	105	.23920	.17019	28.85		
2,4-DICHLOROPHENOL	162	.30213	.27161	10.10	*	
4-CHLORO-3-METHYLPHENOL	107	.33099	.29230	11.69	*	
2,4,6-TRICHLOROPHENOL	196	.44521	.50991	14.53	*	
2,4,5-TRICHLOROPHENOL	196	.51987	.53865	3.61		
2,4,6-TRIBROMOPHENOL	(SURR) 330	.32822	.23242	29.19		
2,4-DINITROPHENOL	184	.16189	.11208	30.77		**
4-NITROPHENOL	139	.16233	.09020	44.43		**
4,6-DINITRO-2-METHYLPHENOL	198	.14211	.13055	8.12		
PENTACHLOROPHENOL	266	.17144	.13734	19.60	*	

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

No: V-4432/V-4442 Calibration Date: 11/24/86

Contractor: E & E, INC. Time: 16:56

Contract No: 68-01-7158 Laboratory ID: >B3118

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.52341	1.16980	23.21		
BIS(-2-CHLOROETHYL)ETHER	93	1.23992	.90103	27.33		
1,3-DICHLOROBENZENE	146	1.38276	1.42129	2.79		
1,4-DICHLOROBENZENE	146	1.36777	1.28944	5.73	*	
BENZYL ALCOHOL	79	1.07958	.91060	15.65		
1,2-DICHLOROBENZENE	146	1.42808	1.32522	7.20		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.97018	2.23191	24.86		
N-NITROSO-DI-N-PROPYLAMINE	70	1.29228	.98354	23.89		**
HEXACHLOROETHANE	117	.70913	.61594	13.14		
NITROBENZENE-D5 (SURR)	82	.40084	.33674	15.99		
NITROBENZENE	77	.41948	.31502	24.30		
ISOPHORONE	82	.80995	.64597	20.25		
BIS(-2-CHLOROETHOXY)METHANE	93	.45577	.36119	20.75		
1,2,4-TRICHLOROBENZENE	180	.37851	.36504	3.56		
NAPHTHALENE	128	.98472	.90124	8.48		
4-CHLOROANILINE	127	.39458	.36151	8.38		
HEXACHLOROBUTADIENE	225	.25803	.24629	4.55	*	
2-METHYLNAPHTHALENE	142	.62355	.57442	7.88		
HEXACHLOROCYCLOPENTADIENE	237	.45397	.49098	8.15		**
2-FLUOROBIPHENYL (SURR)	172	1.33061	1.63137	22.60		
2-CHLORONAPHTHALENE	162	1.20816	1.28810	6.62		
2-NITROANILINE	65	.43896	.33802	23.00		
DIMETHYL PHTHALATE	163	1.43709	1.49599	4.10		
4-NITROANILINE	138	.25992	.20763	20.12		
DIBENZOFURAN	168	1.61498	1.62141	.40		
ACENAPHTHYLENE	152	1.80371	2.03637	12.90		
FLUORENE	166	1.19425	1.11142	6.94		
3-NITROANILINE	138	.15454	.11194	27.57		
ACENAPHTHENE	153	1.18706	1.30813	10.20	*	
2,4-DINITROTOLUENE	165	.38188	.29171	23.61		
2,6-DINITROTOLUENE	165	.35087	.33106	5.65		
DIETHYLPHTHALATE	149	1.39014	1.42774	2.70		
4-CHLOROPHENYL-PHENYLETHER	204	.62534	.55679	10.96		
N-NITROSODIPHENYLAMINE	169	.42524	.49323	15.99	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26659	.26646	.05		
HEXACHLOROBENZENE	284	.34094	.34939	2.48		

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: U-4432/U-4442 Calibration Date: 11/24/86

Contractor: E & E, INC. Time: 16:56

Contract No: 68-01-7158 Laboratory ID: >B3118

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	.97758	.95411	2.40		
ANTHRACENE	178	1.00646	.98810	1.82		
DI-N-BUTYLPHTHALATE	149	1.12721	1.28049	13.60		
FLUORANTHENE	202	.81517	.81068	.55	*	
BENZIDINE		-	.04414	-		
PYRENE	202	1.60192	1.53194	4.37		
TERPHENYL-D14 (SURR)	244	1.11052	.84160	24.22		
BUTYLBENZYLPHTHALATE	149	.67361	.66799	.83		
3,3'DICHLOROBENZIDINE	252	.31882	.24840	22.09		
BENZO(A)ANTHRACENE	228	1.12037	1.01603	9.31		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.90083	.93409	3.69		
CHRYSENE	228	1.12666	1.01092	10.27		
DI-N-OCTYL PHTHALATE	149	1.70682	1.75402	2.77	*	
BENZO(B)FLUORANTHENE	252	1.21474	1.04511	13.96		
BENZO(K)FLUORANTHENE	252	1.23716	1.27670	3.20		
BENZO(A)PYRENE	252	1.12089	1.02361	8.68	*	
INDENO(1,2,3-CD)PYRENE	276	1.04154	.80342	22.86		
DIBENZ(A,H)ANTHRACENE	278	1.06755	.81808	23.37		
BENZO(G,H,I)PERYLENE	276	1.15966	.38968	23.20		

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: U-4432/U-4442

Calibration Date: 11/25/86

Contractor: E & E, INC.

Time: 12:57

Contract No: 68-01-7158

Laboratory ID: >D1132

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	1.40627	.41		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.92130	.96745	5.01		
PHENOL	94	1.34105	1.32555	1.16	*	
2-METHYL PHENOL	108	1.03158	1.07520	4.23		
2-CHLOROPHENOL	128	1.13833	1.26111	10.79		
4-METHYL PHENOL	108	1.07582	1.10208	2.44		
2-NITROPHENOL	139	.20262	.21791	7.55	*	
2,4-DIMETHYLPHENOL	122	.28916	.29078	.56		
BENZOIC ACID	105	.20401	.19423	4.80		
2,4-DICHLOROPHENOL	162	.31568	.32857	4.08	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.33697	.36	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.54195	18.99	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.54450	11.28		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32584	.39364	20.81		
2,4-DINITROPHENOL	184	.17071	.11890	30.35		**
4-NITROPHENOL	139	.32314	.09754	69.81		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.11554	4.04		
PENTACHLOROPHENOL	266	.18773	.14036	25.23	*	

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: V-4432/V-4442

Calibration Date: 11/25/86

Contractor: E & E, INC.

Time: 14:02

Contract No: 68-01-7158

Laboratory ID: >D1133

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	1.29374	16.01		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.03039	12.99		
1,3-DICHLOROBENZENE	146	1.47624	1.36240	7.71		
1,4-DICHLOROBENZENE	146	1.46874	1.39553	4.98	*	
BENZYL ALCOHOL	79	1.13473	1.05843	6.72		
1,2-DICHLOROBENZENE	146	1.49193	1.41549	5.12		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	2.41400	9.97		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.06186	10.10		**
HEXACHLOROETHANE	117	.70841	.64577	8.84		
NITROBENZENE-D5 (SURR)	82	.37437	.34472	7.92		
NITROBENZENE	77	.37969	.33642	11.40		
ISOPHORONE	82	.75594	.66729	11.73		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.39134	5.17		
1,2,4-TRICHLOROBENZENE	180	.38442	.36600	4.79		
NAPHTHALENE	128	.96668	.92425	4.39		
4-CHLOROANILINE	127	.37796	.37310	1.29		
HEXACHLOROBUTADIENE	225	.25908	.25490	1.61	*	
2-METHYLNAPHTHALENE	142	.64484	.64624	.22		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.43418	23.58		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.60978	.21		
2-CHLORONAPHTHALENE	162	1.37281	1.31608	4.13		
2-NITROANILINE	65	.47645	.40672	14.64		
DIMETHYL PHTHALATE	163	1.71954	1.54805	9.97		
4-NITROANILINE	138	.25828	.22798	11.73		
DIBENZOFURAN	168	1.90873	1.78498	6.48		
ACENAPHTHYLENE	152	2.10065	1.97541	5.96		
FLUORENE	166	1.34670	1.25470	6.83		
3-NITROANILINE	138	.09246	.06918	25.18		
ACENAPHTHENE	153	1.37857	1.31627	4.52	*	
2,4-DINITROTOLUENE	165	.33212	.28460	14.31		
2,6-DINITROTOLUENE	165	.37112	.33026	11.01		
DIETHYLPHTHALATE	149	1.58664	1.42986	9.88		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.64186	8.84		
N-NITROSODIPHENYLAMINE	169	.51771	.51913	.27	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.32747	2.20		
HEXACHLOROBENZENE	284	.43791	.39947	8.78		

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

Continuing Calibration Check
HSL Compounds

Case No: V-4432/V-4442

Calibration Date: 11/25/86

Contractor: E & E, INC.

Time: 14:02

Contract No: 68-01-7158

Laboratory ID: >D1133

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	.95134	6.28		
ANTHRACENE	178	.99874	.92698	7.19		
DI-N-BUTYLPHTHALATE	149	.97124	.94487	2.71		
FLUORANTHENE	202	.62146	.59322	4.54	*	
BENZIDINE		.65247	.34892	46.52		
PYRENE	202	2.68642	1.82031	32.24		
TERPHENYL-D14 (SURR)	244	1.48172	.99777	32.66		
BUTYLBENZYLPHTHALATE	149	.68277	.57305	16.07		
3,3'DICHLOROBENZIDINE	252	.13263	.14569	9.84		
BENZO(A)ANTHRACENE	228	.91524	.89329	2.40		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.76176	6.62		
CHRYSENE	228	1.19137	.99769	16.26		
DI-N-OCTYL PHTHALATE	149	1.64173	1.34204	18.25	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.08905	4.03		
BENZO(K)FLUORANTHENE	252	1.55063	1.15607	25.45		
BENZO(A)PYRENE	252	1.10877	1.00546	9.32	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.03620	4.63		
DIBENZ(A,H)ANTHRACENE	278	.81159	1.06276	30.95		
BENZO(G,H,I)PERYLENE	276	1.10886	1.31243	18.36		

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: U-4432/U-4442

Calibration Date: 12/01/86

Contractor: E & E, INC.

Time: 10:32

Contract No: 68-01-7158

Laboratory ID: >B3134

Instrument ID: HP-5970

Initial Calibration Date: ~~07/31/86~~ 7/30/86

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

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5	(SURR) 99	1.37894	1.19774	13.14		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL	(SURR) 112	.86917	.73524	15.41		
PHENOL	94	1.27723	1.05248	17.60	*	
2-METHYL PHENOL	108	1.06214	.93000	12.44		
2-CHLOROPHENOL	128	1.17232	.99974	14.72		
4-METHYL PHENOL	108	1.06694	.95046	11.08		
2-NITROPHENOL	139	.19333	.21171	9.51	*	
2,4-DIMETHYLPHENOL	122	.27900	.29012	3.99		
BENZOIC ACID	105	.23920	.21189	11.42		
2,4-DICHLOROPHENOL	162	.30213	.32770	8.46	*	
4-CHLORO-3-METHYLPHENOL	107	.33099	.30214	8.72	*	
2,4,6-TRICHLOROPHENOL	196	.44521	.50978	14.50	*	
2,4,5-TRICHLOROPHENOL	196	.51987	.55293	6.36		
2,4,6-TRIBROMOPHENOL	(SURR) 330	.32622	.25054	23.67		
2,4-DINITROPHENOL	184	.16189	.15258	5.76		**
4-NITROPHENOL	139	.16233	.10857	33.12		**
4,6-DINITRO-2-METHYLPHENOL	198	.14211	.16152	13.65		
PENTACHLOROPHENOL	266	.17144	.16472	3.92	*	

RF - Response Factor from daily standard file at 50.00 ng

$\overline{RF}$ - 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-4432/U-4442 Calibration Date: 12/01/86

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

Contract No: 68-01-7158 Laboratory ID: >B3135

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.50341	1.07182	29.64		
BIS(-2-CHLOROETHYL)ETHER	93	1.23992	.91166	26.47		
1,3-DICHLOROBENZENE	146	1.38276	1.21320	12.26		
1,4-DICHLOROBENZENE	146	1.36777	1.19731	12.46	*	
BENZYL ALCOHOL	79	1.07958	.84066	22.13		
1,2-DICHLOROBENZENE	146	1.42808	1.31979	7.58		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.97018	2.13959	27.96		
N-NITROSO-DI-N-PROPYLAMINE	70	1.29228	.92613	28.33		**
HEXACHLOROETHANE	117	.70913	.59412	16.22		
NITROBENZENE-D5 (SURR)	82	.40084	.32706	18.41		
NITROBENZENE	77	.41948	.31755	24.30		
ISOPHORONE	82	.80995	.65938	18.59		
BIS(-2-CHLOROETHOXY)METHANE	93	.45577	.37549	17.61		
1,2,4-TRICHLOROBENZENE	180	.37851	.36546	3.45		
NAPHTHALENE	128	.98472	.93078	5.48		
4-CHLOROANILINE	127	.39458	.32779	16.93		
HEXACHLOROBUTADIENE	225	.25803	.25402	1.55	*	
2-METHYLNAPHTHALENE	142	.62355	.56434	9.50		
HEXACHLOROCYCLOPENTADIENE	237	.45397	.46686	2.84		**
2-FLUOROBIPHENYL (SURR)	172	1.33061	1.53503	15.36		
2-CHLORONAPHTHALENE	162	1.20816	1.21970	.95		
2-NITROANILINE	65	.43896	.30816	29.80		
DIMETHYL PHTHALATE	163	1.43709	1.42791	.64		
4-NITROANILINE	138	.25992	.16322	37.20		
DIBENZOFURAN	168	1.61498	1.46572	8.00		
ACENAPHTHYLENE	152	1.80371	1.87374	3.88		
FLUORENE	166	1.19425	1.09894	7.98		
3-NITROANILINE	138	.15454	.05415	64.96		
ACENAPHTHENE	153	1.19706	1.33022	12.06	*	
2,4-DINITROTOLUENE	165	.38188	.26782	29.87		
2,6-DINITROTOLUENE	165	.35887	.33241	5.26		
DIETHYLPHTHALATE	149	1.39014	1.42708	2.66		
4-CHLOROPHENYL-PHENYLETHER	204	.62534	.52877	15.44		
N-NITROSODIPHENYLAMINE	169	.42524	.48050	13.00	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26659	.27589	3.49		
HEXACHLOROBENZENE	284	.34094	.37530	10.08		

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

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

Continuing Calibration Check
HSL Compounds

Case No: U-4432/U-4442 Calibration Date: 12/01/86

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

Contract No: 68-01-7158 Laboratory ID: >B3135

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	.97758	.96721	1.06		
ANTHRACENE	178	1.00646	.93566	7.03		
DI-N-BUTYLPHTHALATE	149	1.12721	1.26177	11.94		
FLUORANTHENE	202	.81517	.71556	12.22	*	
BENZIDINE		-	-	-		
PYRENE	202	1.60192	2.10706	31.53		
TERPHENYL-D14 (SURR)	244	1.11052	1.01485	8.61		
BUTYLBENZYLPHTHALATE	149	.67361	.73192	8.64		
3,3'DICHLOROBENZIDINE	252	.31882	.20516	35.65		
BENZO(A)ANTHRACENE	228	1.12037	.90019	19.65		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.90083	1.00510	11.57		
CHRYSENE	228	1.12666	1.12361	.27		
DI-N-OCTYL PHTHALATE	149	1.70682	1.89323	10.92	*	
BENZO(B)FLUORANTHENE	252	1.21474	1.01014	16.84		
BENZO(K)FLUORANTHENE	252	1.23716	1.30544	5.52		
BENZO(A)PYRENE	252	1.12089	1.00875	10.00	*	
INDENO(1,2,3-CD)PYRENE	276	1.04154	.65918	36.71		
DIBENZ(A,H)ANTHRACENE	278	1.06755	.79079	25.92		
BENZO(G,H,I)PERYLENE	276	1.15866	.87737	24.28		

$\overline{RF}$ - Response Factor from daily standard file at 50.00 UG/L

RF - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

ıse No: U-4432/U-4442

Calibration Date: 12/12/86

Contractor: E & E, INC.

Time: 12:50

Contract No: 68-01-7158

Laboratory ID: >D1257

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	1.43754	2.64		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.92130	1.03507	12.35		
PHENOL	94	1.34105	1.49348	11.37	*	
2-METHYL PHENOL	108	1.03158	1.11274	7.87		
2-CHLOROPHENOL	128	1.13833	1.27044	11.61		
4-METHYL PHENOL	108	1.07582	1.14300	6.24		
2-NITROPHENOL	139	.20262	.21748	7.34	*	
2,4-DIMETHYLPHENOL	122	.28916	.29353	1.51		
BENZOIC ACID	105	.20401	.20350	.25		
2,4-DICHLOROPHENOL	162	.31568	.31341	.72	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.28332	15.62	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.53723	17.95	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.46485	5.00		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32584	.22775	30.10		
2,4-DINITROPHENOL	184	.17071	.14850	13.01		**
4-NITROPHENOL	139	.32314	.16861	47.82		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.14775	22.71		
PENTACHLOROPHENOL	266	.18773	.16782	10.60	*	

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

se No: V-4432/V-4442 Calibration Date: 12/12/86

Contractor: E & E, INC. Time: 13:51

Contract No: 68-01-7158 Laboratory ID: >D1258

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	1.29285	16.07		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.17380	.89		
1,3-DICHLOROBENZENE	146	1.47624	1.36738	7.37		
1,4-DICHLOROBENZENE	146	1.46874	1.36825	6.84	*	
BENZYL ALCOHOL	79	1.13473	1.12814	.58		
1,2-DICHLOROBENZENE	146	1.49193	1.41691	5.03		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	3.17397	18.37		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.23810	4.82		**
HEXACHLOROETHANE	117	.70841	.68225	3.69		
NITROBENZENE-D5 (SURR)	82	.37437	.38116	1.81		
NITROBENZENE	77	.37969	.37752	.57		
ISOPHORONE	82	.75594	.73872	2.28		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.43828	6.21		
1,2,4-TRICHLOROBENZENE	180	.38442	.35760	6.98		
NAPHTHALENE	128	.96668	.90170	6.72		
4-CHLOROANILINE	127	.37796	.26201	30.68		
HEXACHLOROBUTADIENE	225	.25908	.24603	5.04	*	
2-METHYLNAPHTHALENE	142	.64484	.60345	6.42		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.46481	18.19		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.63257	1.20		
2-CHLORONAPHTHALENE	162	1.37281	1.31595	4.14		
2-NITROANILINE	65	.47645	.47384	.55		
DIMETHYL PHTHALATE	163	1.71954	1.58881	7.60		
4-NITROANILINE	138	.25828	.21336	17.39		
DIBENZOFURAN	168	1.90873	1.71778	10.00		
ACENAPHTHYLENE	152	2.10065	1.98618	5.45		
FLUORENE	166	1.34670	1.21891	9.49		
3-NITROANILINE	138	.09246	.09132	1.23		
ACENAPHTHENE	153	1.37857	1.29744	5.88	*	
2,4-DINITROTOLUENE	165	.33212	.29693	10.60		
2,6-DINITROTOLUENE	165	.37112	.33486	9.77		
DIETHYLPHTHALATE	149	1.58664	1.49152	6.00		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.59569	15.40		
N-NITROSODIPHENYLAMINE	169	.51771	.49624	4.15	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.26480	20.91		
HEXACHLOROBENZENE	284	.43791	.30389	30.60		

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

se No: V-4432/V-4442 Calibration Date: 12/12/86

Contractor: E & E, INC. Time: 13:51

Contract No: 68-01-7158 Laboratory ID: >D1258

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	.95380	6.03		
ANTHRACENE	178	.99874	.93780	6.10		
DI-N-BUTYLPHTHALATE	149	.97124	1.11210	14.50		
FLUORANTHENE	202	.62146	.78012	25.53	*	
BENZIDINE		.65247	.19622	69.93		
PYRENE	202	2.68642	1.27115	52.68		
TERPHENYL-D14 (SURR)	244	1.48172	.76560	48.33		
BUTYLBENZYLPHTHALATE	149	.68277	.66902	2.01		
3,3'DICHLOROBENZIDINE	252	.13263	.14883	12.22		
BENZO(A)ANTHRACENE	228	.91524	1.00480	9.79		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.97813	19.90		
CHRYSENE	228	1.19137	1.01650	14.68		
DI-N-OCTYL PHTHALATE	149	1.64173	1.92622	17.33	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.26211	11.22		
BENZO(K)FLUORANTHENE	252	1.55063	1.05799	31.77		
BENZO(A)PYRENE	252	1.10877	1.04184	6.04	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	.93532	5.55		
DIBENZ(A,H)ANTHRACENE	278	.81159	.89580	10.38		
BENZO(G,H,I)PERYLENE	276	1.10886	.95233	14.12		

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 Evaluation Standards Summary
(Page 1)

V-4432

Case No: V-4442 Region: –

Contract No: IL-3140

Date of Analysis 11-18-86 11-19-86 11-20-86

Laboratory: ECOLOGY AND ENVIRONMENT INC.

GC Column: OV-1

Instrument ID: VARIAN 6000 #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	512	535	490	4.4
Endrin	572	665	561	8.6
4,4'- DDT(1)	246	286	283	8.2
Dibutyl Chlorendate	356	374	355	3.0

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

	Laboratory I.D.	Time of Analysis	Endrin	4,4'- DDT	Combined(2)
Eval Mix B 72 Hour					
Eval Mix B	RUN 2	13:05			4.7
Eval Mix B	RUN 19	0:31			17
Eval Mix B	RUN 31	18:14			9.8
Eval Mix B	RUN 43	10:49			18
Eval Mix B	RUN 52	19:00			24
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	RUN1	12:26	—				
EVAL. B	RUN2	13:05	0.15				
EVAL. C	RUN3	13:39	0.11				
IND. A	RUN4	14:32	0.19				
IND. B	RUN5	15:06	0.08				
TOXAPHENE	RUN6	15:40	0.19				
CHLORDANE	RUN7	16:15	0.08				
PCB 1016/1260	RUN8	16:49	0.15				
PCB 1221	RUN9	17:23	0.08				
PCB 1232	RUN10	17:57	0.15				
PCB 1242	RUN11	18:31	0.30				
PCB 1248	RUN12	19:06	0.49				
PCB 1254	RUN13	19:40	0.60				
BLANK 11-11	RUN14	20:55	0.45				
BLANK 1142	RUN16	22:49	0.56				
9651	RUN17	23:23	DL				
9652	RUN18	23:57	DL				
EVAL MIX8	RUN19	0:31	0.83				
9653	RUN20	1:04	0.04				
9653	RUN21	10:29	0.08				
9653 MS	RUN22	11:04	0.11				
9653 MSD	RUN23	11:46	0.15				
9654	RUN24	12:22	DL				
PCB 1248	RUN25	13:06	0.60				
9655	RUN26	14:26	DL				
9656	RUN27	15:00	DL				
9657	RUN28	15:37	DL				
9658	RUN29	16:11	DL				
9659	RUN30	16:47	DL				
EVAL MIX8	RUN31	18:14	0.11				
9660	RUN32	18:50	DL				
9661	RUN33	19:36	DL				
9662	RUN34	20:10	DL				
9663	RUN35	20:46	DL				
9664	RUN36	21:38	0.34				
PCB 1254	RUN37	22:17	0.04				
9665	RUN38	22:53	DL				
9666	RUN 39	23:33	INF.				
9667	RUN 40	0:12	INF				
9667	RUN 41	0:47	0.49				
9683	RUN 42	10:07	1.1				
EVAL. B	RUN43	10:49	0.41				
9684	RUN44	12:01	DL				
9685	RUN45	12:37	DL				
9686	RUN46	15:05	DL				
9687	RUN47	15:44	DL				
9688	RUN48	16:19	DL				
PCB 1016/1260	RUN49	17:06	0.08				
9684	RUN50	17:47	DL				
BLANK 11-14	RUN51	18:22	0.11				
EVAL. B	RUN52	19:00	0.26				
PCB 1254	RUN53	19:39	0.41				

DL= DILUTED OUT
INF= INTERFERENCE

Pesticide Evaluation Standards Summary

(Page 1)

Case No: V-4432 V-4442 Region: —

Contract No: IL-3140

Date of Analysis 11-20-86 11-21-86 11-22-86

Laboratory: ECOLOGY AND ENVIRONMENT, INC

GC Column: SP2250 / SP2401

Instrument ID: VARIAN 6000 #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	699	741	721	2.9
Endrin	622	670	653	3.8
4,4'- DDT(1)	206	241	270	13
Dibutyl Chlorendate	431	455	451	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	23:44	<1.0	8.0	NA
Eval Mix B	RUN 20	22:41	<1.0	6.1	NA
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E, Section 7 5 4

(2) See Exhibit E, Section 7 3 1 2 2 1

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

SMO Sample No	Lab ID	Time of Analysis	Percent Diff	SMO Sample No	Lab ID	Time of Analysis	Percent Diff
EVAL MIX A	RUN# 1	23:12	—				
EVAL MIX B	2	23:44	0.18				
EVAL MIX C	3	0:17	0				
PCB 1016/1260	4	0:51	0.09				
PCB 1248	5	1:25	0.14				
IND MIX A	6	9:19	0.32				
IND MIX B	7	11:23	0.18				
PCB 1254	8	11:56	0.59				
BLANK 11-11	9	14:45	0.82				
BLANK 11-12	10	15:23	0.96				
9651.03.MA1	11	15:58	DL				
9652.03.MA1	12	16:40	DL				
BLANK 11-14	13	18:08	0.96				
PCB 1254	14	18:38	1.05				
9656.03.MA1	15	19:13	DL				
9658.03.MA1	16	19:50	DL				
9659.03.MA1	17	20:23	DL				
9663.03.MA1	18	21:31	DL				
9667.03.MA1	19	22:14	DL				
EVAL MIX B	20	22:41	1.23				
9667.03.MA1	21	23:11	DL				
9687.03.MA1	22	23:41	DL				
PCB 1254	23	10:38	1.23				

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4432/U-4442 Laboratory ECOLOGY & ENVIRONMENT, INC.

Contract No. TL-3140 GC Column DV-1 GC Instrument ID VARIAN 6000 GC#2

11-18-86 16:49 19:06 19:40 Run#4 Run#12 Run#13	DATE OF ANALYSIS 11-18-86 TIME OF ANALYSIS 14:32 / 15:06 LABORATORY ID Run#4 / Run#5				DATE OF ANALYSIS 11-19-86 TIME OF ANALYSIS 13:06 LABORATORY ID Run#25			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.04	2.00-2.08	576					
beta-BHC	2.17	2.13-2.21	206					
delta-BHC	2.45	2.41-2.49	485					
gamma-BHC	2.38	2.36-2.40	497					
Heptachlor	3.79	3.75-3.83	434					
Aldrin	4.68	4.63-4.73	508					
Heptachlor Epoxide	5.67	5.60-5.74	478					
Endosulfan I	7.04	6.94-7.14	449					
Dieldrin	8.20	8.08-8.32	453					
4,4'-DDE	8.09	7.93-8.25	463					
Endrin	9.13	8.94-9.26	449					
Endosulfan II	9.32	9.20-9.44	431					
4,4'-DDD	10.16	9.95-10.37	399					
Endosulfan Sulfate	11.92	11.66-12.18	325					
4,4'-DDT	13.26	13.09-13.43	265					
Methoxychlor	19.50	19.20-19.80	161					
Endrin Ketone	15.28	14.96-15.60	472					
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	5.81	5.64-5.98	115	QUANT.	5.81	116		0.90
Aroclor - 1254	13.81	13.50-14.12	165	QUANT.				
Aroclor - 1260	21.78	21.14-22.42	196	QUANT.				

* SEE EXHIBIT E, PART 7

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

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FORM IV

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4432/U-4442 Laboratory ECOLOGY & ENVIRONMENT, INC.

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

11-18-86 16:49 19:06 19:40 Run#9 Run#12 Run#13	DATE OF ANALYSIS 11-18-86				DATE OF ANALYSIS 11-19-86			
	TIME OF ANALYSIS 14:32 / 15:06				TIME OF ANALYSIS 22:17			
	LABORATORY ID Run#4 / Run#5				LABORATORY ID Run#37			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	2.04	2.00-2.08	576					
beta-BHC	2.17	2.13-2.21	206					
delta-BHC	2.45	2.41-2.49	485					
gamma-BHC	2.38	2.36-2.40	497					
Heptachlor	3.79	3.75-3.83	434					
Aldrin	4.68	4.63-4.73	508					
Heptachlor Epoxide	5.67	5.60-5.74	478					
Endosulfan I	7.04	6.94-7.14	449					
Dieldrin	8.20	8.08-8.32	453					
4,4'-DDE	8.09	7.93-8.25	463					
Endrin	9.13	8.94-9.26	449					
Endosulfan II	9.32	9.20-9.44	431					
4,4'-DDD	10.16	9.95-10.37	399					
Endosulfan Sulfate	11.92	11.66-12.18	325					
4,4'-DDT	13.26	13.09-13.43	265					
Methoxychlor	19.50	19.20-19.80	161					
Endrin Ketone	15.28	14.96-15.60	472					
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	5.81	5.64-5.98	115	QUANT.				
Aroclor - 1254	13.81	13.50-14.12	165	QUANT.	13.68	162		1.8
Aroclor - 1260	21.78	21.14-22.42	196	QUANT.				

* SEE EXHIBIT E, PART 7

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

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FORM IX

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4432/U-4442 Laboratory ECOLOGY & ENVIRONMENT, INC.

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

11-18-86
16:49 19:06 19:40
Run#9 Run#12 Run#13

DATE OF ANALYSIS	11-18-86				DATE OF ANALYSIS	11-20-86		
TIME OF ANALYSIS	14:32 / 15:06				TIME OF ANALYSIS	17:06		
LABORATORY ID	Run#4 / Run#5				LABORATORY ID	Run#49		
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	2.04	2.00-2.08	576					
beta-BHC	2.17	2.13-2.21	206					
delta-BHC	2.45	2.41-2.49	485					
gamma-BHC	2.38	236-2.40	497					
Heptachlor	3.79	3.75-3.83	434					
Aldrin	4.68	4.63-4.73	508					
Heptachlor Epoxide	5.67	5.60-5.74	478					
Endosulfan I	7.04	6.94-7.14	449					
Dieldrin	8.20	8.08-8.32	453					
4,4'-DDE	8.09	7.93-8.25	463					
Endrin	9.13	8.94-9.26	449					
Endosulfan II	9.32	9.20-9.44	431					
4,4'-DDD	10.16	9.95-10.37	399					
Endosulfan Sulfate	11.92	11.66-12.18	325					
4,4'-DDT	13.26	13.09-13.43	265					
Methoxychlor	19.50	19.20-19.80	161					
Endrin Ketone	15.28	14.96-15.60	472					
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	5.81	5.64-5.98	115	QUANT.				
Aroclor - 1254	13.81	13.50-14.12	165	QUANT.				
Aroclor - 1260	21.78	21.14-22.42	196	QUANT.	21.78	213	QUANT.	8.7

* SEE EXHIBIT E, PART 7

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

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FORM IX

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4432/U-4442 Laboratory ECOLOGY & ENVIRONMENT, INC.

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

11-18-86 16:49 Run#9	DATE OF ANALYSIS 11-18-86				DATE OF ANALYSIS 11-20-86			
19:06 Run#12	TIME OF ANALYSIS 14:32 / 15:06				TIME OF ANALYSIS 19:39			
19:40 Run#13	LABORATORY ID Run#4 / Run#5				LABORATORY ID Run#53			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.04	2.00-2.08	576					
beta-BHC	2.17	2.13-2.21	206					
delta-BHC	2.45	2.41-2.49	485					
gamma-BHC	2.38	236-2.40	497					
Heptachlor	3.79	3.75-3.83	434					
Aldrin	4.68	4.63-4.73	508					
Heptachlor Epoxide	5.67	5.60-5.74	478					
Endosulfan I	7.04	6.94-7.14	449					
Dieldrin	8.20	8.08-8.32	453					
4,4'-DDE	8.09	7.93-8.25	463					
Endrin	9.13	8.94-9.26	449					
Endosulfan II	9.32	9.20-9.44	431					
4,4'-DDD	10.16	9.95-10.37	399					
Endosulfan Sulfate	11.92	11.66-12.18	325					
4,4'-DDT	13.26	13.09-13.43	265					
Methoxychlor	19.50	19.20-19.80	161					
Endrin Ketone	15.28	14.96-15.60	472					
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	5.81	5.64-5.98	115	QUANT.				
Aroclor - 1254	13.81	13.50-14.12	165	QUANT.	13.72	161		2.4
Aroclor - 1260	21.78	21.14-22.42	196	QUANT.				

* SEE EXHIBIT E, PART 7

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

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FORM IV

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4432/U-4442 Laboratory ECOLOGY + ENVIRONMENT, INC

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

11-21-86

0:51 1:25 11:25

Run#4 Run#5 Run#8

DATE OF ANALYSIS	11-21-86				DATE OF ANALYSIS	11-21-86		
TIME OF ANALYSIS	9:19 / 11:23				TIME OF ANALYSIS	18:38		
LABORATORY ID	Run#6 / Run#7				LABORATORY ID	Run#14		
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	1.66	1.63-1.69	835					
beta-BHC	2.39	2.34-2.44	275					
delta-BHC	2.78	2.73-2.83	468					
gamma-BHC	2.09	2.07-2.11	646					
Heptachlor	2.56	2.54-2.58	629					
Aldrin	3.10	3.07-3.13	698					
Heptachlor Epoxide	4.65	4.60-4.70	641					
Endosulfan I	5.84	5.77-5.91	589					
Dieldrin	7.14	7.05-7.24	634	CONF				
4,4'-DDE	6.74	6.60-6.88	590					
Endrin	8.71	8.53-7.89	463					
Endosulfan II	10.48	10.32-10.64	540					
4,4'-DDD	10.31	10.09-10.53	407					
Endosulfan Sulfate	16.79	16.49-17.09	236					
4,4'-DDT	12.36	12.16-12.56	160					
Methoxychlor	23.62	23.18-24.06	91					
Endrin Ketone	22.00	21.49-22.51	44					
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	4.76	4.62-4.90	197	CONF				
Aroclor - 1254	8.46	8.21-8.71	252	CONF	8.49	260		3.2
Aroclor - 1260	19.02	18.45-19.59	277	CONF				

* SEE EXHIBIT E, PART 7

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

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FORM IX

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4432/U-4442 Laboratory ECOLOGY + ENVIRONMENT, INC

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

11-21-86

0:51 1:25 11:25

Run#4 Run#5 Run#6

	DATE OF ANALYSIS 11-21-86		DATE OF ANALYSIS 11-22-86
	TIME OF ANALYSIS 9:19 / 11:23		TIME OF ANALYSIS 16:38
	LABORATORY ID Run#6 / Run#7		LABORATORY ID Run#23

COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	1.66	1.63-1.69	835					
beta-BHC	2.39	2.34-2.44	275					
delta-BHC	2.78	2.73-2.83	468					
gamma-BHC	2.09	2.07-2.11	646					
Heptachlor	2.56	2.54-2.58	629					
Aldrin	3.10	3.07-3.13	698					
Heptachlor Epoxide	4.65	4.60-4.70	641					
Endosulfan I	5.84	5.77-5.91	589					
Dieldrin	7.14	7.05-7.24	634	CONF				
4,4'-DDE	6.74	6.60-6.88	590					
Endrin	8.71	8.53-7.89	463					
Endosulfan II	10.48	10.32-10.64	540					
4,4'-DDD	10.31	10.09-10.53	407					
Endosulfan Sulfate	16.79	16.49-17.09	236					
4,4'-DDT	12.36	12.16-12.56	160					
Methoxychlor	23.62	23.18-24.06	91					
Endrin Ketone	22.00	21.49-22.51	44					
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	4.76	4.62-4.90	197	CONF				
Aroclor - 1254	8.46	8.21-8.71	252	CONF	8.51	247		2.0
Aroclor - 1260	19.02	18.45-19.59	277	CONF				

* SEE EXHIBIT E, PART 7

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

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FORM IX

Pesticide/PCB Identification

Case No. U-4432/U-4442 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)
9651	OV-1	PCB 1260	9.43-21.91	6.85-21.78	SP2250/SP2401	7.48-19.20	6.84-19.02	N
9652	OV-1	PCB 1248	2.59-11.63	2.59-6.44	SP2250/SP2401	1.96-13.16	1.95-12.17	Y
9652	OV-1	PCB 1260	12.72-21.87	6.85-21.78	SP2250/SP2401	14.83-19.21	6.84-19.02	Y
9653	OV-1	PCB 1248	3.31-6.43	2.59-6.44	SP2250/SP2401			N
9653	OV-1	PCB 1254	6.86-9.98	6.88-21.92	SP2250/SP2401			N
9653	OV-1	PCB 1260	11.63-21.81	6.85-21.78	SP2250/SP2401			N
9654	OV-1	PCB 1248	2.60-6.45	2.59-6.44	SP2250/SP2401			N
9654	OV-1	PCB 1254	6.88-13.78	6.88-21.92	SP2250/SP2401			N
9655	OV-1	PCB 1248	3.33-6.46	2.59-6.44	SP2250/SP2401			N
9655	OV-1	PCB 1254	6.88-13.75	6.88-21.92	SP2250/SP2401			N
9655	OV-1	PCB 1260	15.86-21.84	6.85-21.78	SP2250/SP2401			N
9656	OV-1	PCB 1260	9.39-21.84	6.85-21.78	SP2250/SP2401	10.82-19.19	6.84-19.02	N
9657	OV-1	PCB 1254	4.06-13.71	6.88-21.92	SP2250/SP2401			Y
9657	OV-1	PCB 1260	15.88-21.79	6.85-21.78	SP2250/SP2401			Y
9658	OV-1	PCB 1254	4.06-13.73	6.88-21.92	SP2250/SP2401	4.05-13.17	3.15-19.95	Y
9658	OV-1	PCB 1260	15.89-21.81	6.85-21.78	SP2250/SP2401	14.52-19.19	6.84-19.02	Y
9660	OV-1	PCB 1248	3.32-5.10	2.59-6.44	SP2250/SP2401			N
9660	OV-1	PCB 1254	5.83-13.73	6.88-21.92	SP2250/SP2401			N
9660	OV-1	PCB 1260	15.84-21.81	6.85-21.78	SP2250/SP2401			N
9661	OV-1	PCB 1254	4.06-13.74	6.88-21.92	SP2250/SP2401			N
9661	OV-1	PCB 1260	15.88-21.78	6.85-21.78	SP2250/SP2401			N
9662	OV-1	PCB 1254	4.05-13.70	6.88-21.92	SP2250/SP2401			N
9663	OV-1	DIELDRIN	8.22	8.08-8.32	SP2250/SP2401	7.24	7.05-7.24	N
9665	OV-1	PCB 1254	4.05-8.36	6.88-21.92	SP2250/SP2401			N
9665	OV-1	PCB 1260	9.36-21.70	6.85-21.78	SP2250/SP2401			N
9666	OV-1	PCB 1254	4.04-13.67	6.88-21.92	SP2250/SP2401			N
9684	OV-1	PCB 1248	2.58-6.44	2.59-6.44	SP2250/SP2401			Y
9684	OV-1	PCB 1254	6.84-13.72	6.88-21.92	SP2250/SP2401			Y
9685	OV-1	PCB 1248	2.59-6.42	2.59-6.44	SP2250/SP2401			N
9685	OV-1	PCB 1254	7.94-13.71	6.88-21.92	SP2250/SP2401			N
9685	OV-1	PCB 1260	15.84-21.78	6.85-21.78	SP2250/SP2401			N

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FORM X

Pesticide/PCB Identification

Case No. V-4432/V-4442 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)
9686	OV-1	PCB 1248	2.59-5.80	2.59-6.44	SP2250/SP2401			N
9686	OV-1	PCB 1254	6.86-13.73	6.88-21.92	SP2250/SP2401			N
9686	OV-1	PCB 1260	15.86-21.82	6.85-21.78	SP2250/SP2401			N
9687	OV-1	PCB 1254	4.05-13.71	6.88-21.92	SP2250/SP2401	4.51-13.18	3.15-19.95	Y
9687	OV-1	PCB 1260	15.84-21.75	6.85-21.78	SP2250/SP2401	14.95-19.22	6.84-19.02	Y
9688	OV-1	PCB 1254	4.05-13.70	6.88-21.92	SP2250/SP2401			N
9688	OV-1	PCB 1260	15.86-21.78	6.85-21.78	SP2250/SP2401			N

4/84
605095

FORM X

SI/MS UNITS

1. [illegible]

2. [illegible]

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-4432/U-4442 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 6-19-86 Time 1436

Lab ID D0034 Data Release Authorized By: C Stojtowicz

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]

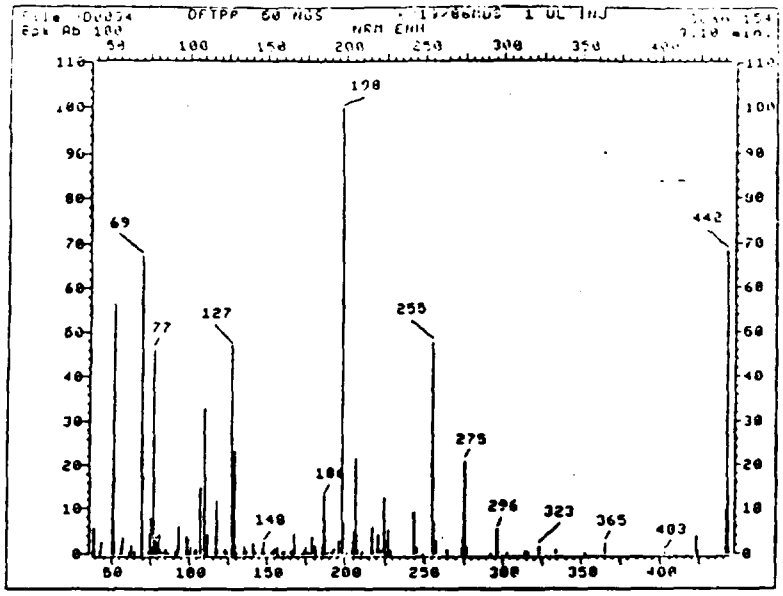
THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[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
	50 ug/L	D0037		1736
	80 ug/L	D0038		1836
	120 ug/L	D0039		1928
	160 ug/L	D0040		2024

FORM V

493095 7/85



>D0034 DFTPP 50 NGS 6/19/86MDS 1 UL INJ
154 NRM ENH

File: >D0034 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	.79	142.00	.76	188.05	.18	245.05	1.11
39.95	1.12	92.00	.77	143.00	.54	188.95	.65	245.95	1.70
42.95	.73	93.00	6.11	146.10	.22	190.95	.47	248.95	.22
43.95	2.79	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	.73	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
[illegible].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	352.00	.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	423.00	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	180.00	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	13.00
86.00	1.03	136.10	.61	185.05	2.02	237.05	.18	444.05	1.14
86.90	.40	137.10	.66	186.05	13.07	242.05	.54		

MS data file header from : >D0034

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: MTDOH3 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

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-4432/U-4442 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970B Date 7-30-86 Time 1051

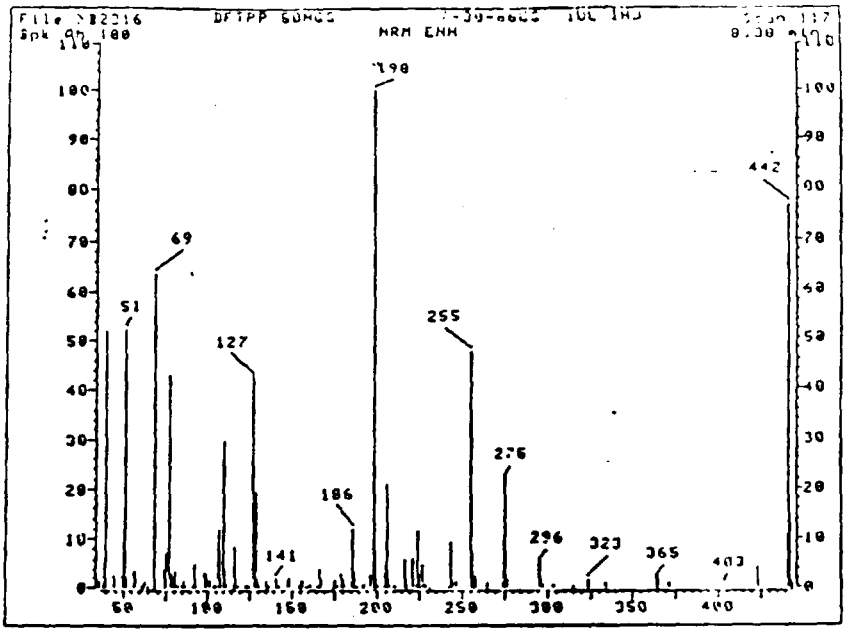
Lab ID B2316 Data Release Authorized By: C. Slaytowicz

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	52.4
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	63.5
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	6.54
275	10.0 - 30.0% of mass 198	22.1
365	greater than 1.00% of mass 198	2.32
441	present, but less than mass 443	10.8
442	greater than 40.0% of mass 198	76.7
443	17.0 - 23.0% of mass 442	14.5 (18.9)[2]

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

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	BN STD - 50 ng	B2317	7-30-86	1108
	20 ng	B2318		1207
	80 ng	B2320		1414
	120 ng	B2321		1505
	160 ng	B2322		1557
	AP STD - 20 ng	B2323		1657
	50 ng	B2324		1748
	80 ng	B2325		1839
	120 ng	B2326		1931
	160 ng	B2327		2022



>82316 DFTPP 50NGS 7-30-86CS 1UL INJ
117 NRM ENH

File: >82316 Scan #: 117 Retn. time: 8.38

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	1.46	91.10	.41	137.10	.39	191.05	.20	244.05	9.41
38.15	.49	92.00	.52	141.00	2.08	191.95	.23	245.05	1.02
39.15	5.09	93.00	4.94	142.10	.36	192.95	.62	246.05	1.49
40.05	51.88	94.00	.24	143.00	.28	196.05	2.98	255.05	47.58
44.05	2.55	98.00	3.16	147.10	.97	197.95	100.00	256.05	6.77
49.05	2.49	99.00	2.89	148.00	1.99	198.95	6.54	257.00	.27
50.05	13.27	101.00	1.69	153.00	.44	199.95	.28	258.00	2.64
51.15	52.38	103.00	.35	154.00	.36	201.35	.26	265.00	.91
52.10	2.35	104.00	.66	155.05	.90	202.95	.36	273.00	1.41
56.00	.87	104.90	.71	156.05	1.52	204.05	2.91	274.00	3.64
57.00	3.48	107.00	12.01	158.05	.26	205.05	4.95	275.00	22.14
61.10	.36	108.00	1.77	159.95	.35	206.05	20.98	276.00	2.79
62.10	.35	110.00	29.62	161.05	.58	207.05	4.00	276.90	1.69
63.00	1.39	111.00	3.98	164.95	.45	207.95	.42	296.00	5.45
65.10	.47	112.00	.28	166.05	.39	210.25	.26	297.10	.75
69.00	63.51	116.10	.39	167.05	4.02	211.05	.51	303.10	.57
73.10	.22	117.00	8.26	168.05	1.77	216.95	5.83	315.00	.48
74.10	3.84	118.10	.34	174.05	.23	217.95	.43	323.00	1.78
75.00	7.43	122.10	.46	174.95	1.54	221.05	6.08	326.90	.16
77.10	42.88	123.10	.70	176.05	.35	223.05	1.08	334.00	.96
78.10	2.86	124.00	.34	176.95	.78	224.05	11.72	364.95	2.32
79.10	3.13	125.00	.25	178.95	3.03	225.05	2.92	371.95	.89
80.00	2.00	127.00	42.62	180.05	1.56	226.15	.18	402.95	.53
81.00	3.61	128.10	2.95	181.05	.83	227.05	4.81	423.05	4.16
82.00	.44	129.00	19.25	185.05	1.25	227.95	.54	423.95	.75
83.00	.58	129.90	1.48	186.05	11.94	229.05	.84	441.05	10.76
84.90	.58	131.00	.18	187.05	3.14	230.95	.21	442.05	76.66
86.00	1.30	135.10	1.37	188.05	.18	242.05	.34	443.05	14.52
87.00	.26	136.00	.27	188.95	.45	243.05	.32	444.05	1.19

MS data file header from : >82316

Sample: DFTPP 50NGS Operator: USER8 MS 7/30/86 10:51
Misc : 7-30-86CS 1UL INJ
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPP8 Tuning file: MTBON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures :	120.	290.	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

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. V-4432/V-4442 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 Sbytowicz

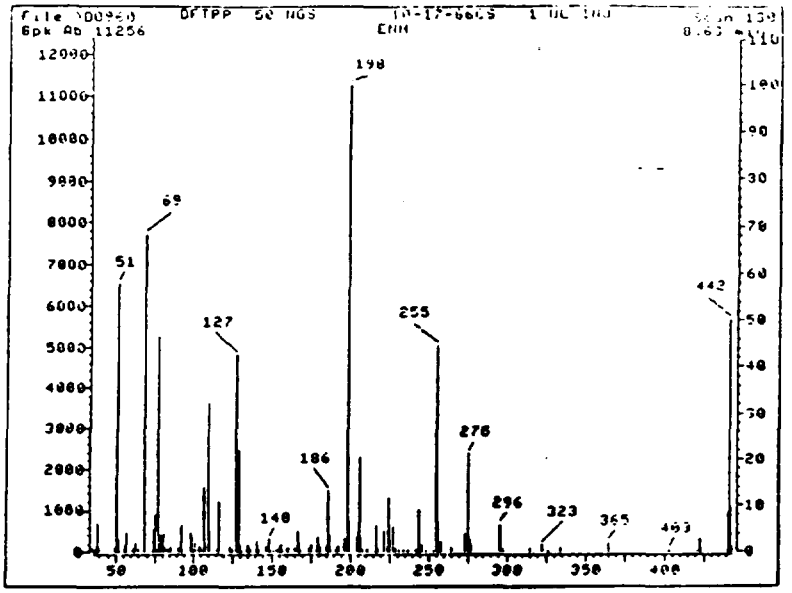
m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	58.2
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	68.4
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	42.6
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
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 - 20ug/L	D0965	10-17-86	1554
	50 ug/L	D0966		1652
	80 ug/L	D0967		1747
	120 ug/L	D0968		1839
	160 ug/L	D0969		1931

FORM V 293095 7/85



>D0960 DFTPP 50 NGS 10-17-86CS 1 UL INJ
130 NRM ENH

File: >D0960 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	256.00	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	211.00	.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	217.00	5.97	297.10	.81
61.00	.82	107.95	1.96	161.05	1.05	218.00	.65	314.95	.60
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	175.00	1.61	228.05	.62	403.10	.40
76.05	.59	127.00	42.62	177.80	.11	229.05	.93	420.75	.36
77.05	46.36	128.10	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	50.14
84.05	.53	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 : >D0960

Sample: DFTPP 50 NGS Operator: USER6 MS 10/17/86 11:08
Miso : 10-17-86CS 1 UL INJ BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPD Tuning file: MTDDN2 No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures : 120. 200. 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

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-4432/U-4442 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970 B Date 11-20-86 Time 944

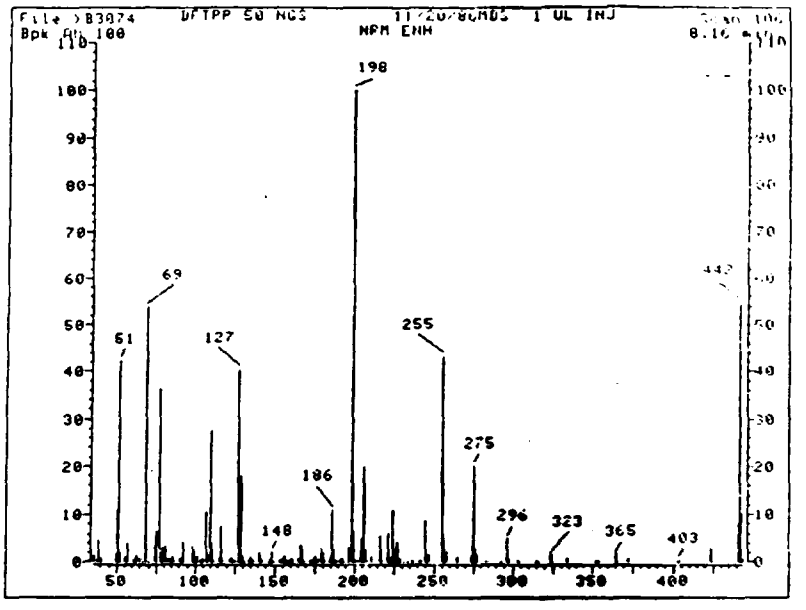
Lab ID B3074 Data Release Authorized By: C Stojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	42.4
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	53.9
70	less than 2.0% of mass 69	0.13 (0.24)[1]
127	40.0 - 60.0% of mass 198	40.4
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.59
275	10.0 - 30.0% of mass 198	20.3
365	greater than 1.00% of mass 198	1.98
441	present, but less than mass 443	8.43
442	greater than 40.0% of mass 198	54.6
443	17.0 - 23.0% of mass 442	10.2 (18.7)[2]

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

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
-	AP STD - 50ng	B3075	11-20-86	1009
-	BN STD - 50ng	B3076		1108
-	BLANK (11/13)	B3079		1418
-	BLANK (11/11)	B3080		1519
DC-SD-29	9667	B3081		1621



>B3074 DFTPP 50 NGS 11/20/86MDS 1 UL INJ
106 NRM ENH

File: >B3074 Scan #: 106 Retn. time: 8.16

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	1.49	99.00	2.42	154.00	.32	197.95	100.00	265.00	.98
38.15	.41	100.00	.15	155.05	1.01	198.95	6.59	273.00	1.35
39.05	4.50	101.00	1.33	156.05	1.49	200.05	.31	274.00	3.46
40.15	.71	103.10	.51	156.95	.22	201.35	.24	275.00	20.35
41.05	.60	104.10	.86	157.95	.26	203.05	.33	276.00	2.85
49.05	1.61	105.10	.75	159.05	.18	204.05	2.69	277.00	1.53
50.15	10.97	107.00	10.57	160.05	.68	205.05	4.96	283.00	.12
51.15	42.44	108.10	1.39	161.05	.81	206.05	19.82	285.00	.18
52.00	1.92	110.00	27.77	161.75	.21	207.05	2.74	292.90	.18
55.10	1.04	111.10	3.78	165.05	.69	208.05	.40	296.00	5.13
56.00	1.17	112.10	.37	165.95	.62	211.05	.91	297.10	.45
57.00	3.78	116.10	.64	166.95	3.57	216.95	5.44	303.00	.34
61.10	.48	117.00	7.40	167.95	1.72	218.05	.54	315.00	.35
62.00	.51	118.00	.30	168.95	.20	221.05	6.17	316.00	.19
63.00	1.46	122.00	.66	171.95	.26	223.05	1.06	323.00	1.58
65.10	.64	123.00	1.11	173.05	.40	224.05	10.91	324.00	.18
67.10	.13	124.10	.50	174.05	.83	225.05	2.58	326.90	.20
69.00	53.89	125.10	.52	175.05	1.21	226.05	.23	334.00	.61
70.00	.13	127.00	40.45	175.95	.35	227.05	4.41	346.00	.20
74.00	3.37	128.10	3.18	177.05	.71	227.95	.39	352.10	.32
75.00	6.33	129.00	18.17	178.95	3.02	228.95	.81	353.10	.20
77.10	36.41	130.00	1.34	180.05	1.88	230.85	.23	354.10	.30
78.10	2.13	131.10	.19	180.95	.85	231.05	.23	364.95	1.98
79.00	2.90	134.00	.29	183.85	.12	234.05	.16	365.95	.17
80.00	1.73	135.10	1.10	184.05	.12	237.05	.24	372.05	.78
81.00	3.21	136.00	.39	185.05	1.40	241.05	.17	402.05	.22
82.10	.65	137.10	.42	186.05	11.09	242.05	.36	402.95	.42
83.10	.85	141.00	1.92	187.05	2.98	244.05	8.77	403.95	.12
83.90	.61	142.00	.67	188.05	.27	245.05	.90	421.05	.18
85.00	.51	143.00	.33	188.95	.56	246.05	1.61	423.05	2.90
85.90	1.03	146.20	.18	191.05	.24	253.15	.14	424.05	.53
87.00	.21	147.10	.83	192.05	.84	255.05	43.34	441.05	8.43
91.00	.65	148.10	2.18	193.05	.82	256.05	5.95	442.05	54.61
92.10	.64	149.00	.43	193.95	.13	256.90	.31	443.05	10.22
93.00	4.38	151.70	.16	196.05	3.05	258.00	2.36	443.95	.86
98.00	3.13	153.00	.60						

MS data file header from : >B3074

Sample: DFTPP 50 NGS Operator: USER8 MS 11/20/86 9:44
Misc : 11/20/86MDS 1 UL INJ
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPB Tuning file: MTBON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures : 120. 280. 0. 0. 0.
Chromatographic times, min. : 0.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 10.0 0.0 0.0 0.0 0.0

:BAMON

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-4432/U-4442 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970B Date 11-21-86 Time 1207

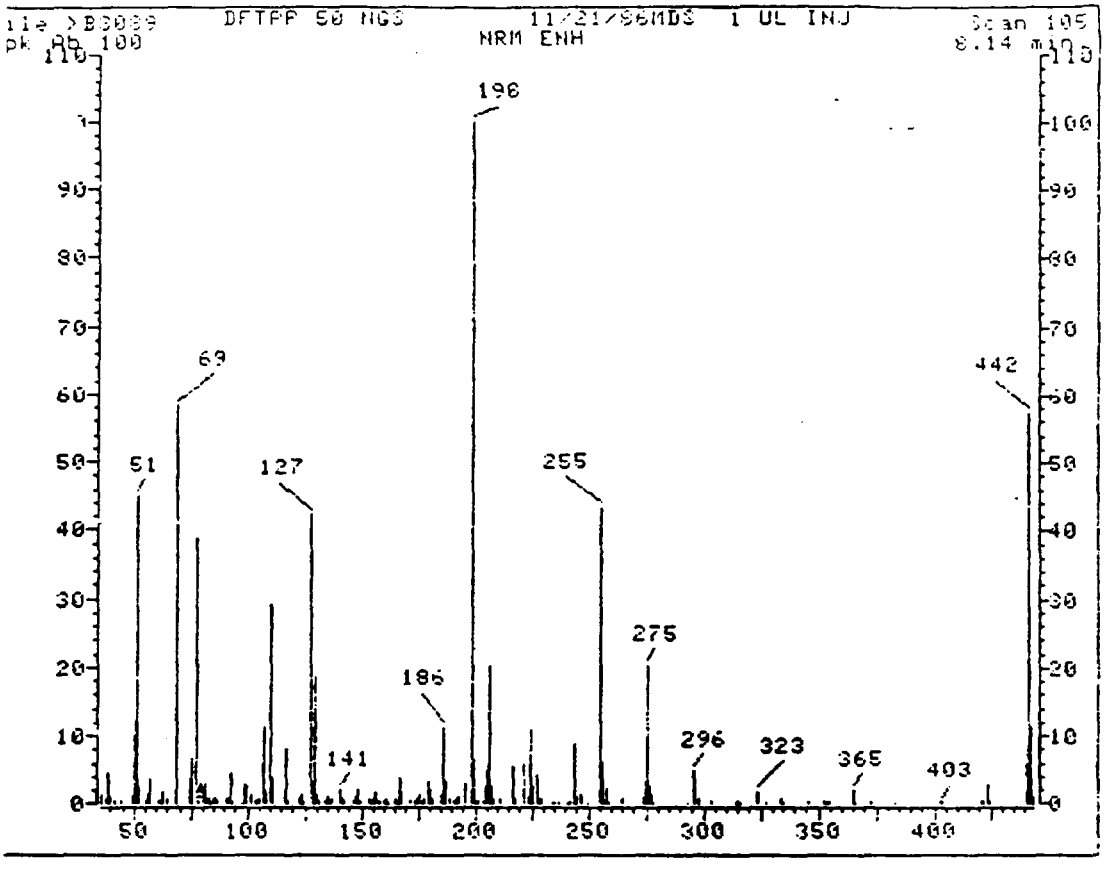
Lab ID B3089 Data Release Authorized By: C Slotowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	45.1
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	58.3
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	42.2
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.40
275	10.0 - 30.0% of mass 198	20.3
365	greater than 1.00% of mass 198	2.03
441	present, but less than mass 443	8.44
442	greater than 40.0% of mass 198	57.5
443	17.0 - 23.0% of mass 442	11.1 (19.3)[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	B3090	11-21-86	1234
-	BN STD-50ng	B3091		1342
DC-SD-15MS	9653 MS	B3094		1636
DC-SD-15MSD	9653 MSD	B3095		1727
DC-SD-20	9658	B3096		1819
DC-SD-26	9664	B3097		1910
DC-SD-16	9654	B3098		2001
DC-SD-17	9655	B3099		2052
DC-SD-18	9656	B3100		2144



MS data file header from : >B3089

Sample: DFTPP 50 NGS Operator: USER3 MS 11/21/86 12:07
Misc : 11/21/86MDS 1 UL INJ
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPB Tuning file: MTBON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures :	120.	280.	0.	0.	0.
Chromatographic times, min. :	0.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

B3089 DFTPP 50 NGS 11/21/86MDS 1 UL INJ
105 NRM ENH

File: B3089 Scan #: 105 Retn. time: 8.14

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	1.52	94.00	.34	154.00	.55	204.05	2.57	275.00	20.34
38.05	.86	97.20	.11	155.05	.95	205.05	5.03	276.00	2.57
39.15	4.41	98.10	3.04	156.05	1.53	206.05	20.14	277.00	1.36
40.05	1.01	99.00	2.80	157.15	.38	207.05	2.63	278.00	.19
41.15	.38	101.00	1.50	157.85	.38	207.95	.65	293.00	.22
44.05	.45	103.00	.55	160.05	.54	210.75	.76	296.00	5.03
49.15	1.45	104.00	.81	161.05	.84	211.05	.43	297.10	.57
50.15	12.15	105.10	.84	161.95	.15	216.95	5.61	303.00	.37
51.15	45.07	107.10	11.43	165.05	.69	217.95	.65	313.90	.12
52.10	2.18	108.00	1.64	166.05	.26	221.05	5.89	315.00	.49
55.00	.54	110.00	29.16	166.95	3.96	223.05	1.14	316.00	.19
56.10	1.48	111.00	4.00	167.95	1.56	224.05	10.92	323.10	1.71
57.00	3.59	117.00	7.95	171.95	.33	225.05	2.49	326.90	.23
61.00	.53	118.00	.51	173.05	.42	226.95	4.38	334.10	.66
62.00	.45	122.00	.62	174.05	.72	228.05	.58	335.00	.21
63.00	1.56	123.00	1.21	174.95	1.38	228.95	.88	346.00	.24
65.00	.70	124.00	.48	176.05	.51	233.95	.19	352.10	.33
69.00	58.28	127.00	42.22	177.05	.73	235.05	.18	353.00	.22
74.10	3.75	128.10	3.22	178.95	3.21	237.05	.17	354.10	.38
75.00	6.65	129.00	18.72	179.95	1.94	241.05	.16	364.95	2.03
77.10	38.79	130.10	1.40	181.05	.86	241.95	.41	365.95	.18
78.10	2.50	131.10	.34	185.05	1.42	244.05	9.08	372.05	.56
79.10	3.02	134.00	.42	186.05	11.42	245.05	1.07	382.95	.15
80.00	2.21	135.00	1.17	186.95	3.24	246.05	1.45	402.05	.25
81.00	3.12	136.00	.53	189.05	.67	246.95	.23	402.95	.32
82.00	.68	137.10	.59	191.05	.30	248.95	.19	420.95	.29
83.10	.76	141.00	2.07	192.05	.88	255.05	43.34	421.95	.25
84.00	.17	142.10	.74	193.05	.92	256.05	6.23	423.05	2.99
85.20	.57	143.00	.48	195.95	3.08	256.90	.31	424.05	.34
86.00	.87	146.00	.34	197.95	100.00	258.00	2.21	441.15	8.44
87.00	.36	147.00	.92	198.95	6.40	259.00	.20	442.05	57.51
91.10	.75	148.00	2.03	200.05	.40	265.00	.79	443.05	11.15
92.00	.66	149.00	.42	201.45	.46	273.00	1.18	444.05	.94
93.00	4.69	153.10	.63	203.05	.49	274.00	3.44		

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-4432/U-4442 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970B Date 11/24/86 Time 1416

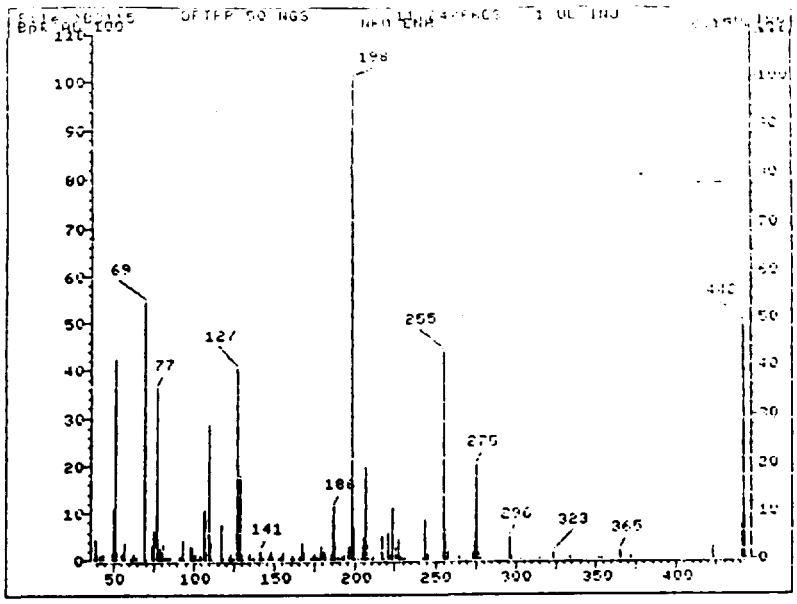
Lab ID B3115 Data Release Authorized By: C Stoytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	42.4
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	54.5
70	less than 2.0% of mass 69	0.16 (0.29)[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	6.50
275	10.0 - 30.0% of mass 198	19.9
365	greater than 1.00% of mass 198	1.88
441	present, but less than mass 443	7.17
442	greater than 40.0% of mass 198	48.5
443	17.0 - 23.0% of mass 442	9.37 (19.3)[2]

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

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
-	AP STD - 50 ng	B3117	11-24-86	1558
-	BN STD - 50 ng	B3118		1656
DC-SD-14	9652	B3124		2221
DC-SD-13	9651	B3125		2312



>B3115 DFTPP 50 NGS 11/24/86CS 1 UL INJ
106 NRM ENH

File: >B3115 Scan #: 106 Retn. time: 3.15

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.05	.54	93.00	4.33	142.00	.74	185.15	1.35	243.05	.53
39.15	4.53	94.00	.16	142.90	.39	186.05	11.24	244.05	8.48
40.05	1.76	98.00	3.06	146.00	.29	187.05	3.06	245.05	.95
41.25	1.07	99.00	2.66	147.10	.94	189.05	.59	246.05	1.40
44.05	1.52	100.10	.13	148.00	1.91	191.05	.31	255.05	43.23
49.15	1.66	101.10	1.35	149.10	.59	192.05	.26	256.05	6.09
50.05	10.87	102.90	.40	151.10	.16	192.95	.94	257.00	.41
51.15	42.37	104.10	.98	153.10	.35	195.95	2.99	258.00	2.21
52.00	1.97	105.10	.93	154.00	.43	197.95	100.00	265.00	.76
55.10	1.32	107.00	10.67	155.05	1.10	198.95	6.50	273.00	1.29
56.00	1.34	108.10	1.57	156.05	1.56	200.05	.35	274.00	3.50
57.00	3.60	110.00	28.49	157.15	.20	201.15	.49	275.00	19.89
61.10	.34	111.00	3.83	157.85	.20	203.05	.54	276.00	2.52
62.00	.31	112.00	.22	159.95	.50	204.05	2.81	276.90	1.50
63.10	1.36	117.00	7.44	160.95	.90	205.05	4.79	278.00	.26
65.10	.57	118.00	.48	161.95	.27	206.05	19.69	296.00	4.80
69.00	54.50	122.00	.68	165.05	.63	207.05	3.30	297.10	.61
70.10	.16	123.10	1.36	165.95	.57	208.05	.62	303.00	.24
74.00	3.16	124.10	.45	167.05	3.70	210.05	.20	315.00	.43
75.00	6.03	125.10	.46	168.05	1.68	210.95	.26	323.00	1.50
77.10	36.26	127.00	40.01	171.95	.17	216.95	5.23	334.10	.37
78.10	2.25	128.10	3.17	173.05	.40	218.05	.55	352.00	.42
79.10	2.76	129.00	17.74	173.95	.83	221.05	5.34	354.00	.37
80.00	1.93	130.00	1.47	175.05	1.49	223.05	1.10	365.05	1.88
81.00	3.29	131.10	.32	175.95	.44	224.05	10.92	371.95	.29
82.00	.61	134.10	.36	177.05	.66	225.05	2.59	423.05	2.61
83.10	.83	135.00	1.38	177.95	.14	227.05	4.45	423.95	.52
84.10	.77	136.00	.26	178.95	2.86	228.05	.57	441.05	7.17
85.10	.59	137.10	.54	180.05	1.93	229.05	.86	442.05	48.48
86.10	.87	140.20	.12	181.05	1.01	231.05	.48	443.05	9.37
91.10	.79	141.00	1.96	183.95	.15	242.05	.50	444.15	.23
92.00	.48								

MS data file header from : >B3115

Sample: DFTPP 50 NGS Operator: USER6 11/24/86 14:16
Misc : 11/24/86CS 1 UL INJ
Sys. #: 2 MS model: 70 SW/HW rev.: CH HCS # : 0
Method file: DFTPPB Tuning file: M180N No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures : 120. 200. 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

GC/MS TUNING AND MASS CALIBRATION

Decafluorotriphenylphosphine (DFTPP)

Case No. U-4432/U-4442 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 11-25-86 Time 1126

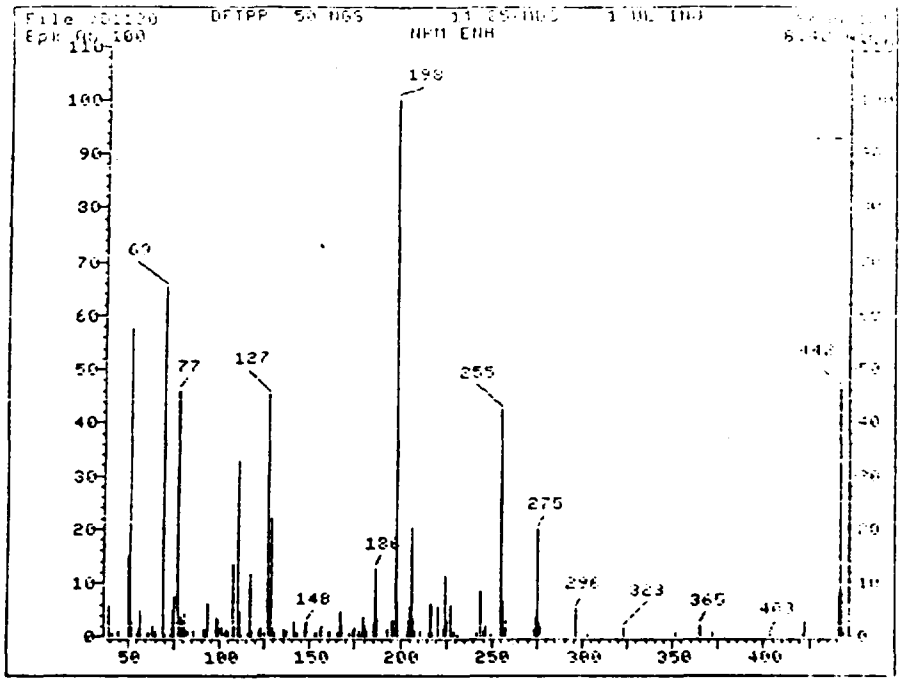
Lab ID D1130 Data Release Authorized By: C Stojowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	57.8
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	65.3
70	less than 2.0% of mass 69	0.52 (0.80)[1]
127	40.0 - 60.0% of mass 198	45.1
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.07
275	10.0 - 30.0% of mass 198	19.9
365	greater than 1.00% of mass 198	2.08
441	present, but less than mass 443	7.35
442	greater than 40.0% of mass 198	46.2
443	17.0 - 23.0% of mass 442	8.16 (17.7)[2]

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

[1] Value in parenthesis is % mass 69.
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
–	AP STD - 50 ng	D1132	11-25-86	1257
–	BN STD - 50 ng	D1133		1402
DC-SD-15	9653	D1135		1616
DC-SD-21	9659	D1137		1801
DC-SD-23	9661	D1138		1936
DC-SD-27	9665	D1142		2320



>D1130 DFTPP 50 NGS 11/25/MDS 1 UL INJ
121 NRM ENH

File: >D1130 Scan #: 121 Retn. time: 8.42

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.85	1.01	83.05	.91	131.00	.59	181.00	.90	244.00	8.31
38.35	.87	85.05	.90	135.00	1.47	185.05	2.21	245.00	1.09
39.05	5.86	85.95	1.11	135.90	.63	186.05	12.70	246.00	1.84
40.05	.85	91.00	1.25	137.10	1.09	187.05	3.19	249.00	.48
43.95	1.04	91.90	.88	141.00	2.49	193.05	1.32	255.00	42.[illegible]
50.00	15.11	93.00	6.03	142.10	.86	196.05	3.01	256.00	[illegible]
51.00	57.84	98.00	3.54	142.90	.57	197.95	100.00	257.10	.50
52.00	2.68	99.00	3.38	146.95	1.44	198.95	[illegible]	258.00	[illegible]
55.00	.58	101.00	1.95	147.95	2.49	207.05	.62	275.05	1.30
56.10	1.67	103.00	.72	152.95	.64	204.05	7.10	275.95	[illegible]
57.00	4.88	104.10	1.40	153.95	.71	205.00	5.39	275.05	19.88
61.00	.84	105.10	1.12	155.05	1.34	206.00	20.23	276.05	[illegible]
62.00	.69	107.10	13.67	156.05	2.11	207.00	3.39	277.05	1.87
63.10	1.98	108.05	1.88	160.05	.74	208.10	.94	290.00	5.19
64.00	.46	110.05	32.71	161.05	1.17	211.00	.99	303.05	.49
65.10	.91	111.05	4.48	164.95	.86	216.10	.60	325.00	1.68
68.95	65.31	112.05	.48	166.10	.87	217.00	6.13	352.05	.58
70.05	.52	116.05	.84	167.00	4.70	218.10	.26	364.90	[illegible]
73.05	.54	117.05	11.45	168.10	2.06	221.00	5.51	372.00	.87
74.05	4.89	117.95	.89	172.00	.65	223.10	1.50	407.00	.38
74.95	7.59	122.05	1.07	174.00	1.17	224.05	11.40	421.95	.50
77.05	45.95	123.05	1.71	175.00	1.73	224.95	2.92	423.05	[illegible]
78.05	3.62	125.05	.79	176.10	.72	226.95	5.76	441.10	[illegible]
79.05	3.54	127.00	45.08	177.00	1.10	228.05	.29	442.00	40.25
80.05	2.92	128.00	3.94	178.00	.48	228.95	1.09	443.00	8.16
81.05	4.18	129.00	21.86	179.00	3.72	231.1[illegible]	.41	444.00	[illegible]
82.05	.95	130.00	1.63	180.10	1.93	242.05	.69		

MS data file header from : >D1130

Sample: DFTPP 50 NGS Operator: USER6 [illegible] 11 25 86 11:26
Misc : 11/25/MDS 1 UL INJ [illegible] 1
Sys. #: 1 MS model: 70 SW/HW rev.: [illegible] HLS [illegible]
Method file: DFTPPD Tuning file: [illegible] No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp.: [illegible]

Chromatographic temperatures : 120. 280. [illegible] 0. 0.
Chromatographic times, min. : 0.0 10.0 [illegible] 0.0 0.0
Chromatographic rate, deg/min: 10.0 0.0 [illegible] 0.0 0.0

GC/MS TUNING AND MASS CALIBRATION

Decafluorotriphenylphosphine (DFTPP)

Case No. V-4432/V-4442 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970B Date 12-1-86 Time 1011

Lab ID B3133 Data Release Authorized By: C Stojowicz

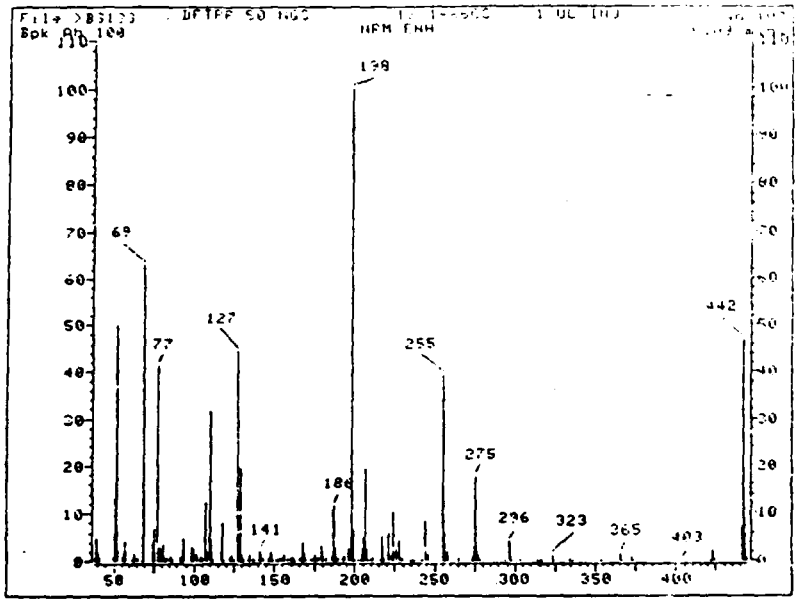
m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	50.0
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	63.1
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	44.6
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.61
275	10.0 - 30.0% of mass 198	17.8
365	greater than 1.00% of mass 198	1.59
441	present, but less than mass 443	7.04
442	greater than 40.0% of mass 198	46.7
443	17.0 - 23.0% of mass 442	9.11 (19.5)[2]

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

[1] Value in parenthesis is % mass 69.
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
-	AP STD-50 ng	B3134	12-1-86	1032
-	BN STD-50 ng	B3135		1128
DC-SD-24	9662	B3137		1341
DC-SD-25	9663	B3138		1432
DC-SD-28	9666	B3139		1523
DC-SD-31	9683	B3140		1620
DC-SD-32	9684	B3141		1722

FORM V



>B3133 DFTPP 50 NGS 12-1-86CS 1 UL INJ
103 NRM ENH

File: >B3133 Scan #: 103 Retn. time: 8.09

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.15	.63	107.00	12.21	160.05	.59	210.05	.38	276.00	2.18
39.15	5.04	108.00	1.92	160.95	.83	210.95	.60	277.00	1.02
40.05	1.54	110.00	31.68	161.95	.04	216.05	.39	278.00	.04
41.15	.87	111.00	4.42	164.95	.65	216.95	5.36	285.00	.05
49.15	1.04	112.10	.48	166.05	.57	217.95	.44	293.00	.05
50.05	13.14	117.00	8.17	166.95	3.93	221.05	5.82	296.00	4.19
51.15	50.04	118.10	.46	167.95	1.79	223.05	1.19	297.00	.54
52.00	2.47	122.10	.72	168.95	.27	224.05	10.77	303.00	.33
55.00	1.11	123.00	1.29	172.05	.30	225.05	2.54	314.00	.04
56.00	1.81	124.10	.53	173.05	.36	227.05	4.33	315.00	.40
57.00	4.19	125.10	.44	174.05	.71	228.05	.50	316.00	.05
62.10	.49	127.00	44.55	175.05	1.42	228.95	.69	323.00	1.14
63.10	1.68	128.10	3.47	176.15	.51	231.05	.05	324.00	.05
65.00	.74	129.00	19.66	177.05	.72	233.95	.04	327.00	.05
67.30	.03	130.10	1.25	178.95	3.37	234.95	.04	334.10	.54
69.00	63.13	131.10	.36	179.95	1.87	236.05	.03	335.10	.04
74.00	3.95	134.00	.39	181.05	.85	237.05	.05	345.90	.05
75.00	6.78	135.00	1.25	185.05	1.19	239.05	.03	352.10	.08
77.10	41.54	136.10	.49	186.05	11.60	241.05	.24	353.00	.05
78.10	2.88	137.10	.56	187.05	3.11	242.05	.39	354.00	.24
79.00	2.93	140.20	.22	188.15	.27	243.05	.09	364.95	1.59
80.00	2.21	141.10	2.12	189.05	.59	244.05	8.32	365.95	.06
81.00	3.56	142.10	.68	192.05	.76	245.05	1.02	371.95	.72
82.10	.74	143.10	.39	193.05	.89	246.05	1.28	372.95	.03
83.10	.83	146.00	.39	196.05	2.81	247.05	.21	382.95	.04
85.10	.59	147.00	.94	197.95	100.00	249.05	.24	401.95	.05
86.00	1.04	148.10	2.03	198.95	6.61	255.05	39.16	403.05	.09
87.10	.34	149.00	.40	200.05	.35	256.05	5.87	403.95	.04
91.10	.69	151.20	.27	201.55	.46	257.10	.30	421.05	.08
92.10	.63	151.70	.26	203.05	.47	258.00	2.09	422.05	.06
93.00	4.86	153.10	.65	204.05	2.52	259.00	.06	423.05	2.37
98.00	3.32	154.00	.47	205.05	4.94	265.00	.59	424.05	.37
99.00	2.87	155.05	.88	206.05	19.33	272.00	.03	441.05	7.04
101.00	1.70	156.05	1.42	207.05	2.72	273.00	1.13	442.05	46.73
103.00	.49	157.15	.35	207.95	.09	274.00	2.95	443.05	9.11
104.00	.94	157.95	.34	209.05	.03	275.00	17.76	444.05	.60
105.10	.87	159.05	.27						

MS data file header from : >B3133

Sample: DFTPP 50 NGS Operator: USLPG HS 12/01/86 10:11
Misc : 12-1-86CS 1 UL INJ
Sys. #: 2 HS model: 70 [illegible] rev.: [illegible] : 0
Method file: DFTPP8 Tuning file: MTH001 No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp.: 0

Chromatographic temperatures : 120. 220. 0. 0. 0.
Chromatographic times, min. : 0.0 [illegible] 0.0 0.0 0.0
Chromatographic rate, deg/min: 10.0 [illegible] 0.0 0.0 0.0

GC/MS TUNING AND MASS CALIBRATION

Decafluorotriphenylphosphine (DFTPP)

Case No. U-4432/U-4442 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 12-12-86 Time 1222

Lab ID D1256 Data Release Authorized By: C Stojowicz

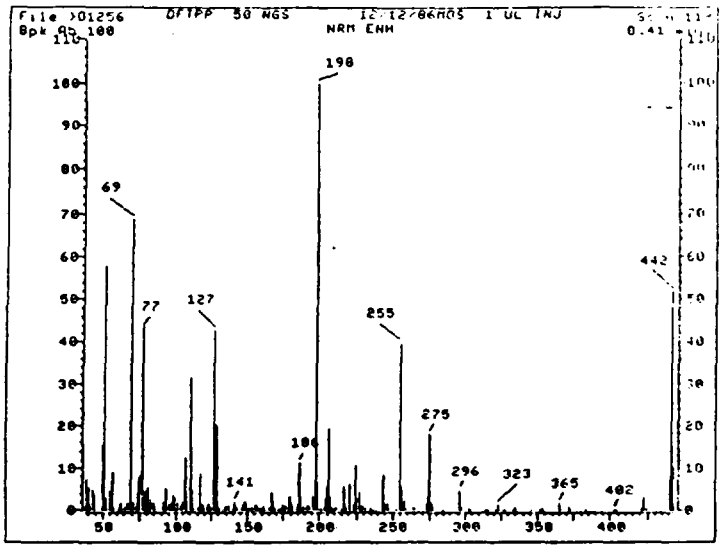
m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	57.7
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	68.7
70	less than 2.0% of mass 69	1.21 (1.76)[1]
127	40.0 - 60.0% of mass 198	42.8
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.58
275	10.0 - 30.0% of mass 198	18.1
365	greater than 1.00% of mass 198	1.82
441	present, but less than mass 443	8.25
442	greater than 40.0% of mass 198	51.9
443	17.0 - 23.0% of mass 442	10.3 (19.8)[2]

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

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
-	AP STD - 50 ng	D1257	12-12-86	1250
-	BN STD - 50 ng	D1258		1351
DC-SD-36	9688	D1262		1800
DC-SD-19	9657	D1263		1913
DC-SD-34	9686	D1265		2120
DC-SD-35	9687	D1266		2213
DC-SD-22	9660	D1267		2307
DC-SD-33	9685	D1268	12-13-86	0000

FORM V



>D1256 DFTPP 50 NGS 12/12/86MDS 1 UL INJ
119 NRM ENH

File: >D1256 Scan #: 119 Retn. time: 8.41

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.95	.75	97.20	2.00	151.85	.03	203.05	.59	275.05	18.09
39.05	7.35	98.00	3.64	152.95	.73	204.05	2.82	276.05	2.10
40.05	1.76	99.00	3.05	154.05	.52	205.00	5.01	277.05	1.54
41.05	5.66	100.00	.21	155.05	1.30	206.00	19.33	278.05	.03
42.05	.90	101.00	1.98	156.05	1.51	207.10	3.18	285.00	.03
43.15	4.92	103.10	.47	157.05	.33	208.00	.64	293.00	.04
44.05	3.53	104.00	1.12	157.95	.47	209.00	.04	296.00	4.60
45.05	.09	105.10	2.06	159.05	.31	210.30	.18	297.00	.66
49.15	.41	107.10	12.64	160.05	.53	211.00	.64	302.95	.50
50.10	15.30	108.05	1.90	161.05	1.19	215.10	.04	303.95	.02
51.00	57.71	110.05	31.57	162.05	.03	216.10	.06	314.15	.03
52.10	2.81	111.05	4.92	165.05	.77	217.00	5.38	314.95	.06
52.90	.46	112.05	.43	167.00	4.19	218.00	.59	316.05	.13
55.10	4.65	115.95	.80	168.00	2.09	221.00	6.09	321.00	.02
56.00	3.01	117.05	8.80	169.00	.33	223.00	1.42	322.20	.02
57.00	8.92	117.95	.45	170.80	.18	224.05	10.76	323.10	1.47
58.10	.25	119.15	1.47	171.10	.02	225.05	2.69	324.10	.03
61.10	.06	120.05	.03	172.10	.05	226.95	4.22	327.00	.05
62.10	.52	122.05	.60	173.00	.49	227.95	.26	327.90	.02
63.10	1.66	123.05	1.72	174.00	.23	228.95	.88	333.10	.02
64.00	.19	124.05	.83	175.00	1.32	231.05	.29	334.10	.85
65.10	.70	125.05	.84	176.00	.35	235.05	.26	335.00	.02
67.20	1.80	127.00	42.80	177.00	.98	237.05	.21	345.95	.15
68.95	68.72	128.00	3.46	178.10	.04	238.95	.02	352.05	.22
70.15	1.21	129.00	20.29	179.00	3.37	241.05	.24	353.15	.04
71.05	1.99	130.00	1.37	180.00	2.05	242.15	.07	354.05	.29
72.95	.63	131.00	.29	181.00	.90	243.10	.09	365.00	1.82
74.05	4.38	132.10	.02	184.10	.17	244.00	8.33	366.00	.19
75.05	8.52	134.00	.44	185.05	1.25	245.00	1.22	372.00	.69
77.05	43.64	135.10	1.15	186.05	11.45	246.00	1.55	373.10	.02
78.05	3.06	137.10	1.04	187.05	3.13	247.00	.22	382.95	.02
79.05	4.48	140.10	.22	188.05	.22	248.90	.04	402.10	.15
80.05	2.54	141.00	2.07	189.05	.66	252.00	.01	403.00	.04
81.05	5.39	142.10	.63	191.15	.52	253.00	.04	404.00	.02
82.05	1.69	143.00	.42	191.95	.90	255.00	39.56	420.95	.24
83.15	2.71	146.10	.30	193.05	.99	256.00	5.61	422.05	.27
85.05	1.97	146.95	1.39	194.05	.02	257.00	.35	423.05	2.81
86.05	.97	147.95	1.92	196.05	3.18	258.00	2.29	424.05	.49
91.00	1.84	149.05	1.85	197.95	100.00	259.00	.27	441.10	8.25
92.10	.82	149.95	.02	199.05	6.58	265.05	.79	442.00	51.87
93.00	5.26	150.15	.02	200.05	.35	273.05	1.21	443.00	10.32
95.10	1.73	151.15	.34	201.55	.42	274.05	3.34	444.00	.90
96.10	1.04								

MS data file header from : >D1256

Sample: DFTPP 50 NGS Operator: USER8 MS 12/12/86 12:22
Misc : 12/12/86MDS 1 UL INJ BIL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPO Tuning file: MTOON 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

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4432/U-4442 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5995C Date 7-14-86 Time 1426

Lab ID C3498 Data Release Authorized By: C Zoytowicz

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]

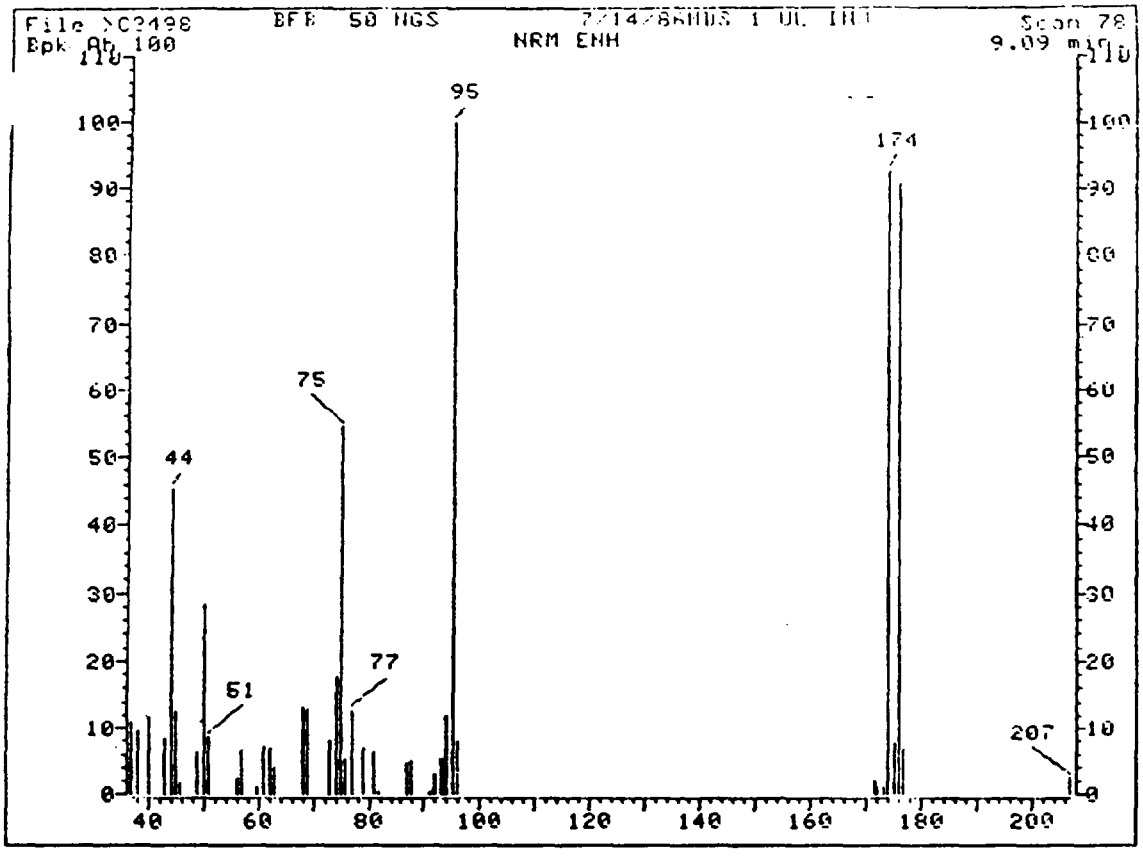
THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[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- 250ng C3500	7-14-86	1553
–	-500ng C3501		1649
–	-750ng C3502		1744
–	-1000ng C3503		1839
–	-100ng C3505		2051

FORM V

7/85
497095



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

File: >C3498 Scan #: 78 Retn. time: 9.09

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	11.06	51.05	8.60	73.15	8.12	87.00	4.44	171.70	2.10
38.10	9.79	55.95	2.40	74.05	17.82	88.00	4.79	172.00	1.15
40.00	11.49	57.05	6.57	75.05	54.39	91.70	.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: USERB MS 7/14/86 14:26
Misc : 7/14/86MDS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCU4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

GC/MS PERFORMANCE STANDARD

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4432/U-4442 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5995C Date 8-26-86 Time 2211

Lab ID C4684 Data Release Authorized By: C Wojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	21.2
75	30.0 - 60.0% of the base peak	46.7
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.15
173	Less than 1.0% of the base peak	None Present
174	Greater than 50.0% of the base peak	83.9
175	5.0 - 9.0% of mass 174	5.45 (6.50)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	84.6 (100.8)[1]
177	5.0 - 9.0% of mass 176	6.26 (7.40)[2]

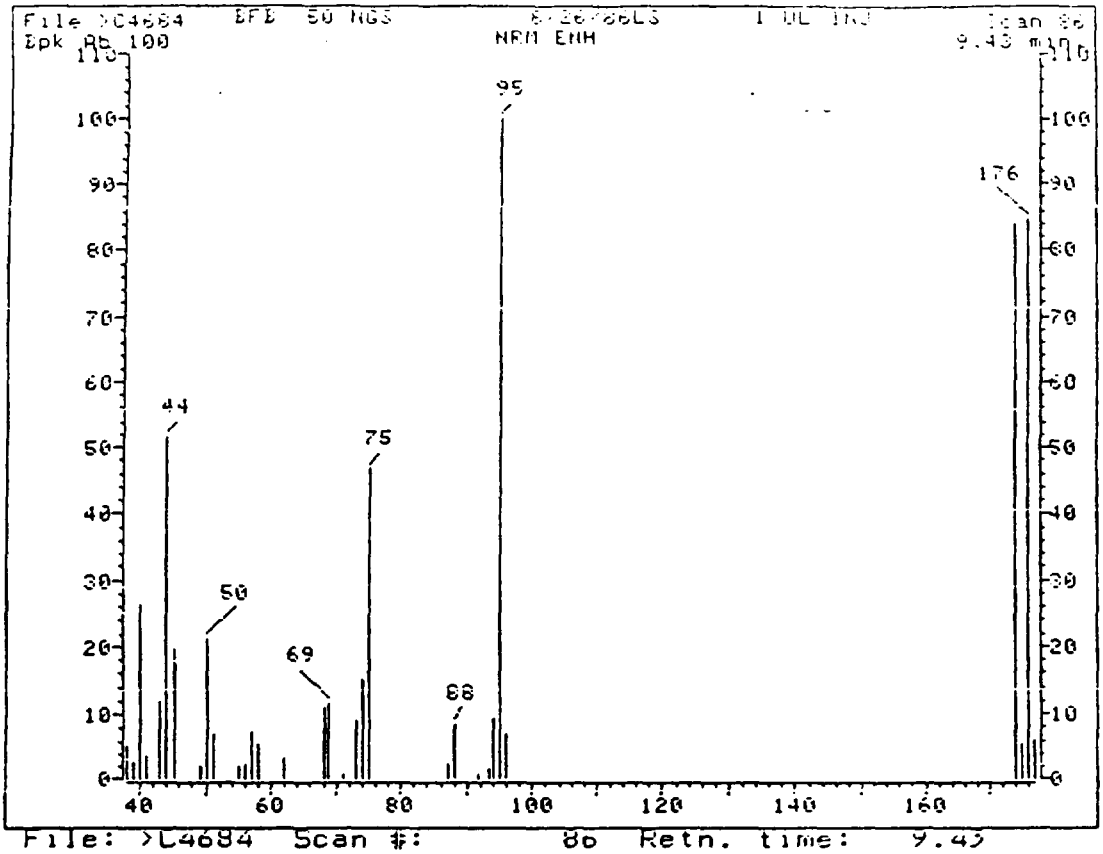
THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

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

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
—	VOA-STD-20 ug/L C4686	8-26-86	2334
—	VOA STD-50 ug/L C4687	8-27-86	0032
—	" 100 ug/L C4688		0131
—	" 150 ug/L C4689		0231
—	" 200 ug/L C4690		0332

FORM V

7/85
497095



File: >C4684 Scan #: 86 Retn. time: 9.43

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.10	5.34	49.00	2.07	61.95	3.34	75.05	46.71	95.05	100.00
39.10	2.64	50.00	21.23	68.05	11.11	87.05	2.38	96.05	7.15
40.00	26.21	51.10	7.22	68.95	11.71	88.05	8.43	173.95	83.88
41.00	3.58	54.90	2.15	71.05	.79	91.85	.72	174.95	5.45
43.00	11.79	56.00	2.32	72.95	8.96	93.35	1.79	175.95	84.63
44.00	51.65	57.10	7.54	74.05	15.22	94.05	9.33	176.95	6.26
45.10	19.50	58.00	5.60						

MS data file header from : >C4684

Sample: BFB 50 NGS Operator: USER6 MS 8/26/86 22:11
Misc : 8/26/86LS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCU4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4432/U-4442 Contractor Ecology & Environment Contract No. TL-3140

Instrument ID HP5995C Date 11-12-86 Time 15:29

Lab ID C5480 Data Release Authorized By: C Bogtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	23
75	30.0 - 60.0% of the base peak	52
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.4
173	Less than 1.0% of the base peak	0
174	Greater than 50.0% of the base peak	94
175	5.0 - 9.0% of mass 174	8.2 (8.7)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	93 (99)[1]
177	5.0 - 9.0% of mass 176	7.2 (7.7)[2]

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

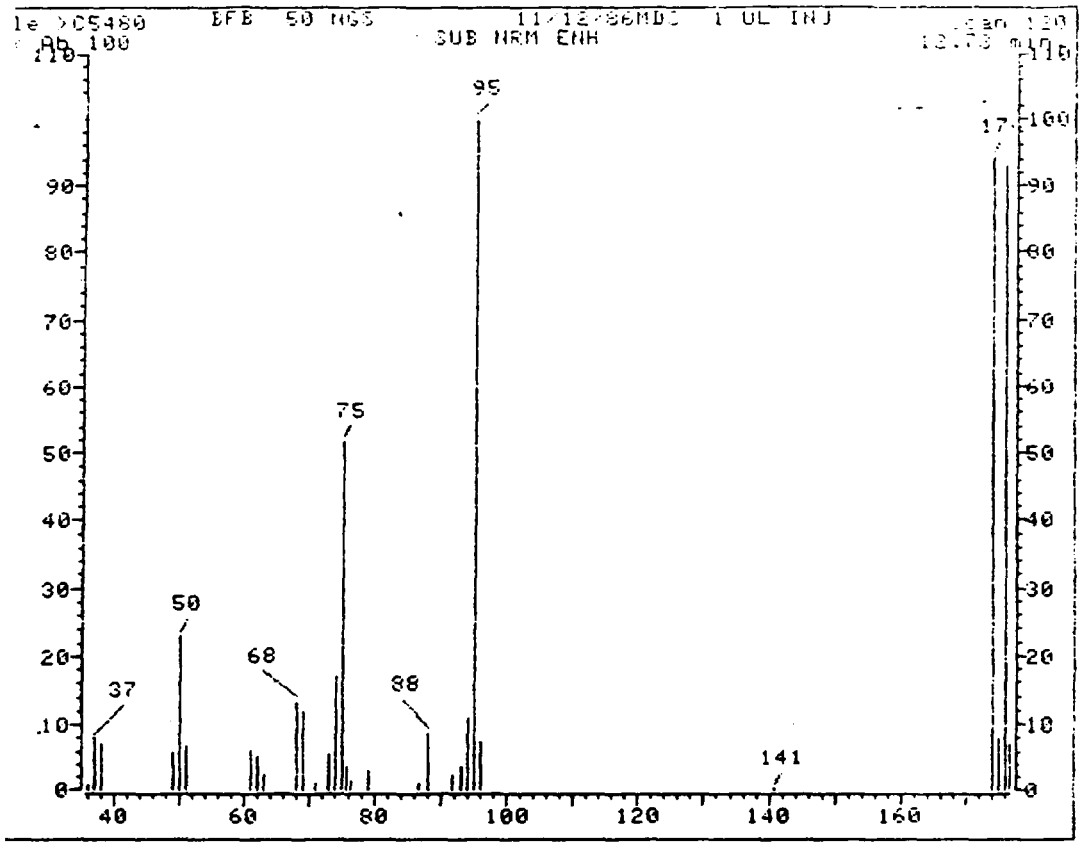
[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Calib Check C5481	11-12-86	16:01
BLK C5482	Method Blank C5482	11-12-86	17:14
DC-SD-14	9652 C5491	11-13-86	02:14

FORM V

7/85

497095



C5480 BFB 50 NGS 11/12/86MDS 1 UL INJ
120 SUB NRM ENH

ile: >C5480 Scan #: 120 Retn. time: 12.73

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
35.80	.74	61.00	6.30	72.95	5.59	86.75	1.19	95.95	7.36
36.00	.74	62.00	5.12	73.95	17.22	87.95	8.88	140.80	.37
36.90	8.00	63.10	2.32	74.95	51.68	91.75	2.19	173.95	94.29
37.90	7.00	68.00	13.23	75.75	3.73	93.05	3.58	175.05	3.19
49.00	5.72	69.00	11.78	76.25	1.49	94.05	10.90	175.95	93.03
50.00	23.12	70.90	1.12	78.95	2.98	95.05	100.00	176.35	7.16
51.00	6.73								

S data file header from : >C5480

ample: BFB 50 NGS Operator: USER8 MS 11 12/86 15:29
isc : 11/12/86MDS 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. : 100

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4432/4442 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP5995C Date 11-13-86 Time 12:19

Lab ID C5498 Data Release Authorized By: C Stojkowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	24
75	30.0 - 60.0% of the base peak	51
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	8.9
173	Less than 1.0% of the base peak	0
174	Greater than 50.0% of the base peak	91
175	5.0 - 9.0% of mass 174	7.2 (7.9)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	91 (100)[1]
177	5.0 - 9.0% of mass 176	5.5 (6.1)[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
	Calib Check C5499	11-13-86	12:48
DC-SD-15	9653 C5505	11-13-86	18:42
	Method Blank C5510	11-14-86	00:10
DC-SD-13	9651 C5501	11-13-86	14:40

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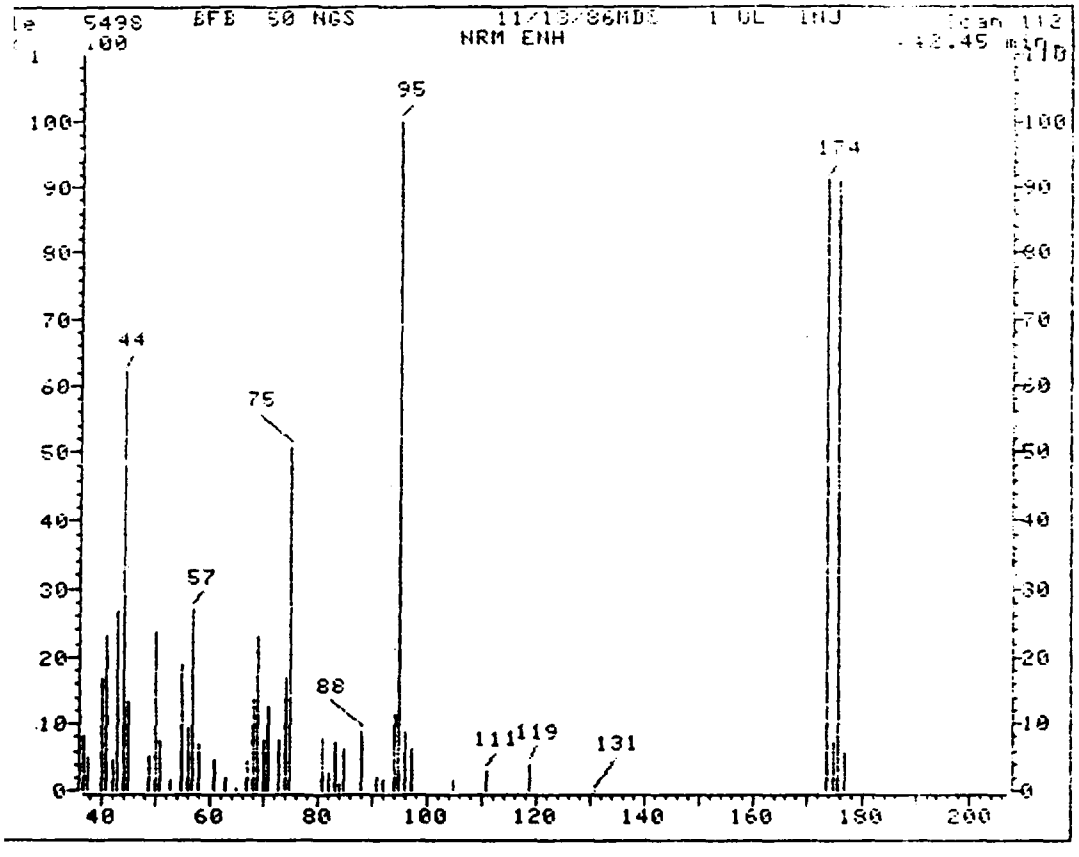

C5498 BFB 50 NGS 11/13/86MDS 1 UL INJ
112 NRM ENH

ile: >C5498 Scan #: 112 Retn. time: 12.45

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	7.95	50.90	7.48	68.00	13.44	8[illegible].05	1.19	111.15	3.03
37.90	4.93	53.10	1.61	69.00	23.28	85.05	6.19	118.85	3.98
40.00	16.76	55.10	18.95	70.10	7.52	8[illegible].05	8.74	119.15	.05
41.00	23.21	56.10	9.51	71.10	12.60	90.85	1.85	131.00	.03
42.00	4.53	57.10	27.09	72.95	7.32	9[illegible].05	1.74	173.95	91.22
43.10	26.68	58.10	6.69	73.95	16.91	9[illegible].05	11.25	174.95	7.16
44.00	62.07	61.00	4.52	75.05	50.74	95.05	100.00	175.95	90.87
45.10	13.30	62.90	2.00	80.85	7.75	96.05	3.85	176.95	5.53
48.90	5.28	65.10	.25	82.05	2.56	97.15	6.13	206.75	.02
50.00	23.74	67.00	4.48	83.15	7.22	105.15	1.59		

B ta file header from : >C5498

ample: BFB 50 NGS Operator: USER8 MS 11/13/86 12:19
isc : 11/13/86MDS 1 UL INJ
ys. #: 1 MS model: 96 SW/HW rev.: CA [illegible] : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4432/4442 Contractor Ecology & Environ. Contract No. IL-3140

Instrument ID HP5995C Date 11-13-86 Time 20:38

Lab ID C5507 Data Release Authorized By: C Slytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	23
75	30.0 - 60.0% of the base peak	49
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	8.8
173	Less than 1.0% of the base peak	0
174	Greater than 50.0% of the base peak	88
175	5.0 - 9.0% of mass 174	4.9 (5.5)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	89 (100)[1]
177	5.0 - 9.0% of mass 176	6.2 (7.0)[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	C5509	11-13-86	22:03
	MeOH Blank	C5510	11-14-86	00:10
DC-SD-13-MS	9651 MS	C5511	11-14-86	1:06
DC-SD-13-MSD	9651 MSD	C5512	11-14-86	2:03
DC-SD-16	9654	C5513	11-14-86	2:59
DC-SD-17	9655	C5515	11-14-86	4:53
DC-SD-18	9656	C5516	11-14-86	5:50
DC-SD-19	9657	C5517	11-14-86	6:48

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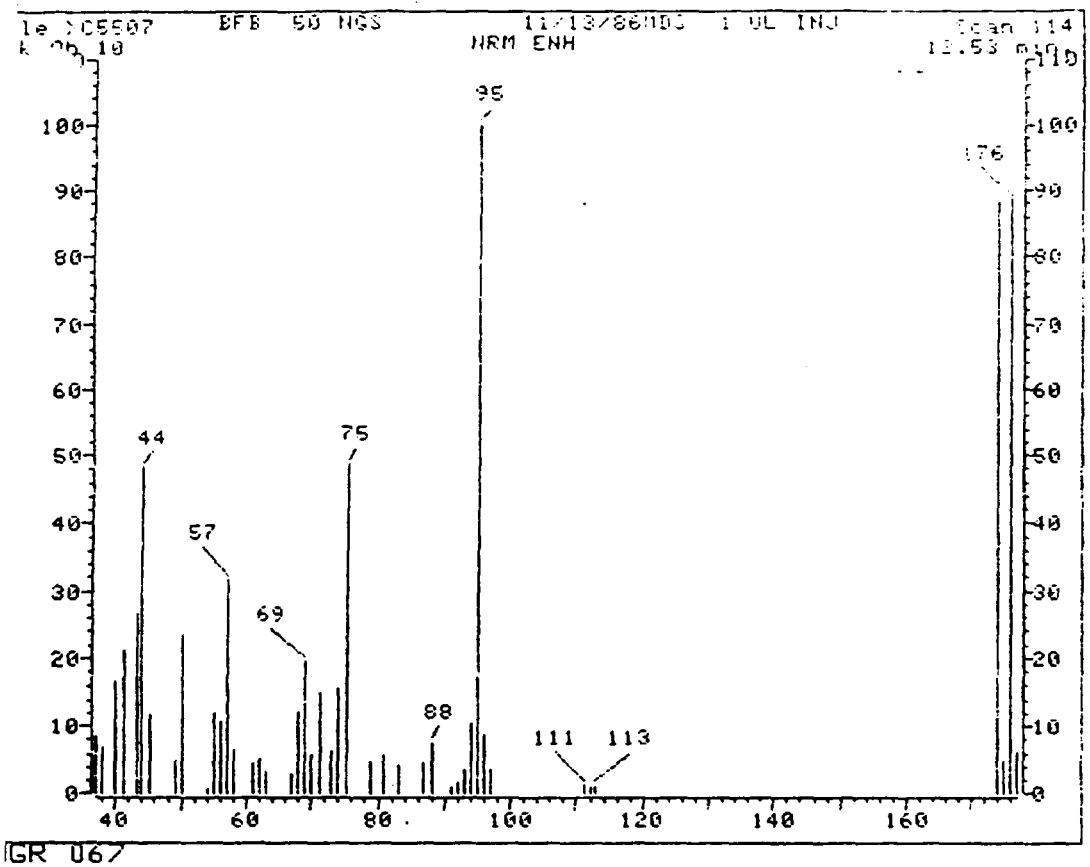


GR 067

C5507 BFB 50 NGS 11/13/86MDS 1 UL INJ
114 NRM ENH

'ile: >C5507 Scan #: 114 Retn. time: 12.53

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	8.46	54.20	.68	68.00	12.15	83.05	4.35	96.95	3.75
38.00	6.77	55.00	11.86	69.10	19.50	86.75	4.47	111.05	1.31
40.00	16.77	56.10	10.68	70.00	5.90	88.05	7.54	112.15	1.19
41.10	21.21	57.00	31.76	71.10	15.22	91.15	1.13	112.95	1.17
43.10	26.81	58.00	6.57	73.05	6.29	92.05	1.70	173.95	88.34
44.00	48.29	61.00	4.42	73.95	15.91	92.95	3.63	174.95	4.87
45.10	11.63	61.90	5.20	75.05	48.70	93.95	10.43	175.85	88.67
49.00	4.74	63.00	3.32	78.95	4.83	95.05	100.00	176.75	6.24
50.10	23.31	67.00	3.12	80.95	5.77	96.05	8.84	176.95	1.30

MS data file header from : >C5507

Sample: BFB 50 NGS Operator: USERS MS 11/13/86 20:38
Disc : 11/13/86MDS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: DA -LS # : 0
Method file: BFB001 Tuning file: MTCU4 No. of extra records: 1
S ce temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures : 220. 225. 0. 0. 0.
Chromatographic times, min. : 10.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 5.0 0.0 0.0 0.0 0.0

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4432/4442 Contractor Ecology & Environ. Contract No IL-3140

Instrument ID HP5995C Date 11-14-86 Time 10:13

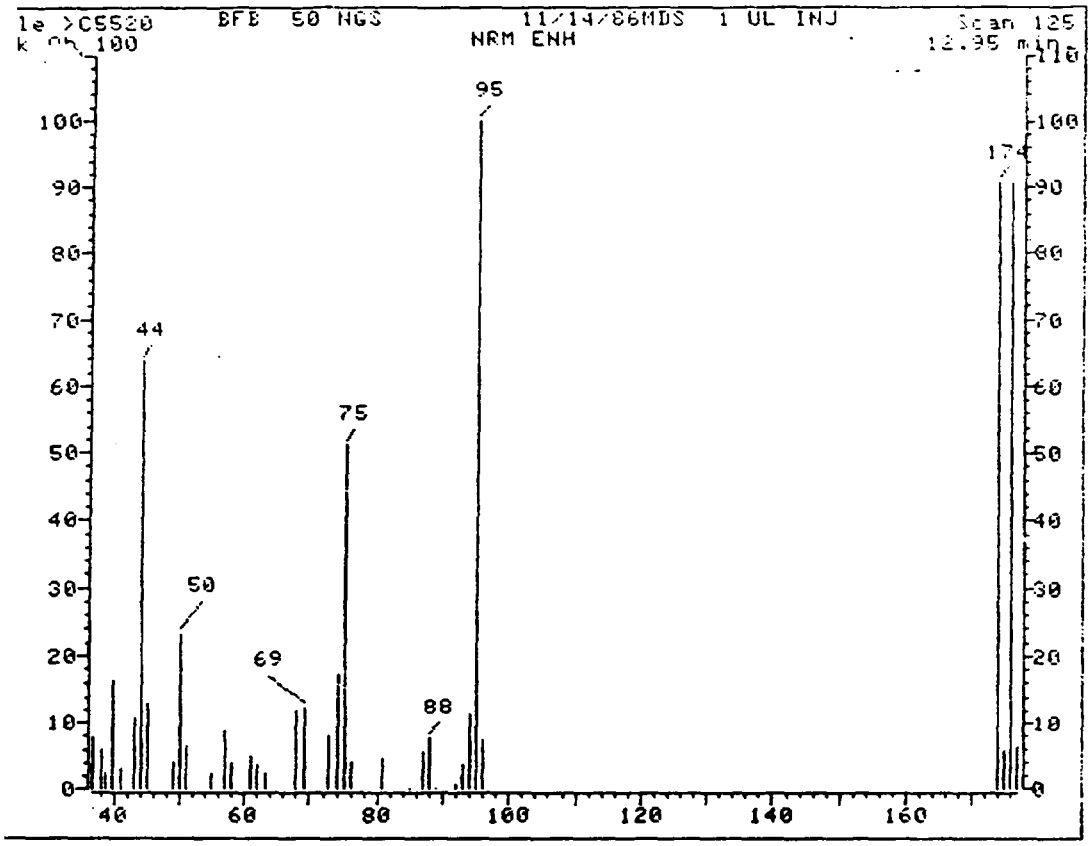
Lab ID >C5520 Data Release Authorized By: CStojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	23
75	30.0 - 60.0% of the base peak	51
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.3
173	Less than 1.0% of the base peak	0
174	Greater than 50.0% of the base peak	91
175	5.0 - 9.0% of mass 174	5.8 (6.3)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	91 (100)[1]
177	5.0 - 9.0% of mass 176	6.6 (7.3)[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	>C5521	11-14-86	10:45
DC-SD-20	9658	>C5524	11-14-86	14:14
DC-SD-21	9659	>C5525	11-14-86	15:09
DC-SD-22	9660	>C5526	11-14-86	16:06
BLK C5527	Method Blank	>C5527	11-14-86	17:01
DC-SD-23	9661	>C5528	11-14-86	17:56



C5520 BFB 50 NGS 11/14/86MDS 1 UL INJ
125 NRM ENH

ile: >C5520 Scan #: 125 Retn. time: 12.95

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.90	7.88	48.90	3.90	63.10	2.32	80.85	4.63	94.05	11.42
38.10	5.99	50.10	23.20	67.95	11.93	84.95	.22	95.05	100.00
38.90	2.40	51.00	6.61	69.05	12.37	87.05	5.61	96.05	7.31
39.90	16.32	55.00	2.40	72.95	8.19	88.05	7.71	173.95	90.86
41.10	2.99	57.10	8.82	74.05	17.43	88.95	.18	174.95	5.76
43.10	10.76	57.90	3.87	75.05	51.24	91.85	.61	175.95	90.71
44.00	63.73	61.00	5.02	76.05	3.78	93.05	3.45	176.95	6.61
45.10	12.85	62.00	3.60						

IS data file header from : >C5520

Sample: BFB 50 NGS Operator: USER8 MS 11/14/86 10:13
Misc : 11/14/86MDS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCU4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4432/U-4442 Contractor Ecology & Environment, Inc. Contract No. IL-3140

Instrument ID HP5995C Date 11-17-86 Time 09:25

Lab ID >C5544 Data Release Authorized By: C Stojowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	25
75	30.0 - 60.0% of the base peak	52
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	5.3
173	Less than 1.0% of the base peak	0
174	Greater than 50.0% of the base peak	96
175	5.0 - 9.0% of mass 174	6.9 (7.2)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	96 (100)[1]
177	5.0 - 9.0% of mass 176	5.8 (6.0)[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 Calibr. >C5545	11-17-86	09:58
BLK C5546	Method Blank >C5546	11-17-86	11:11
DC-SD-35	9687 >C5548	11-17-86	13:12
DC-SD-36	9688 >C5549	11-17-86	14:02
DC-SD-34	9686 >C5550	11-17-86	14:51

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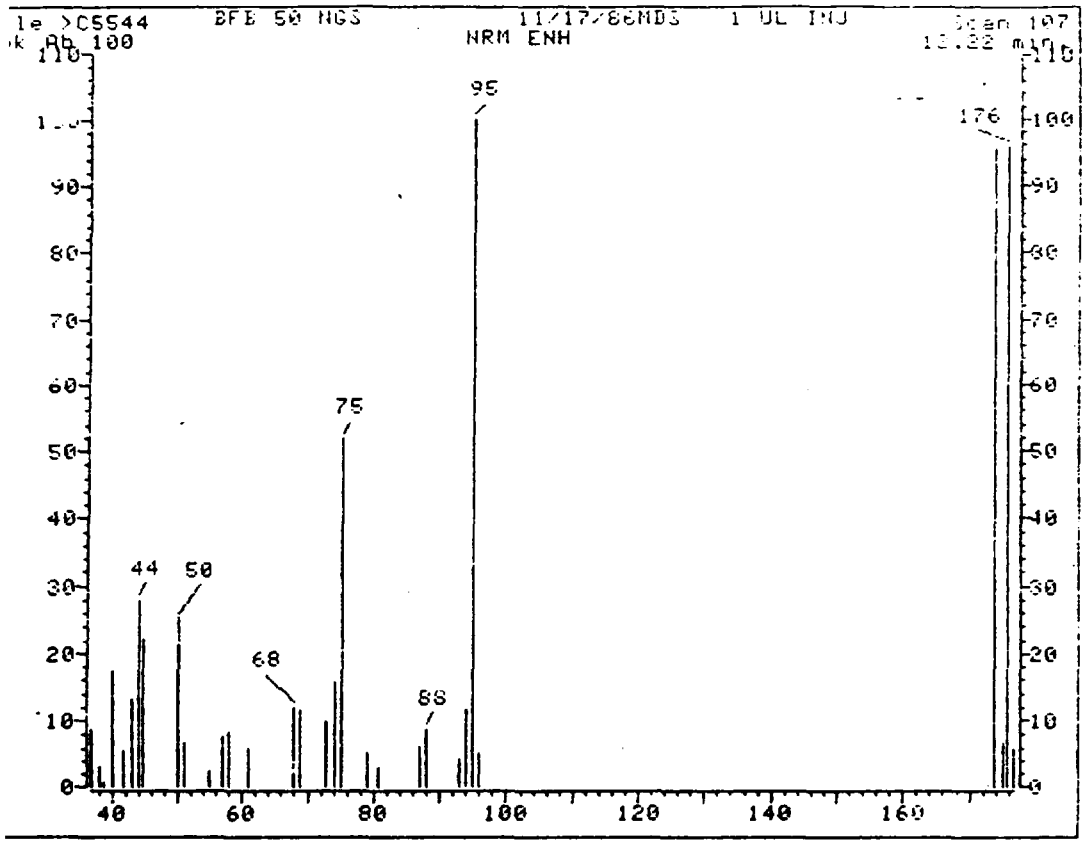


C5544 BFB 50 NGS 11/17/86MDS 1 UL INJ
107 NRM ENH

ile: >C5544 Scan #: 107 Retn. time: 12.22

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.90	8.81	44.90	22.23	60.80	5.89	78.95	5.08	94.95	100.00
38.00	2.92	49.90	25.35	67.95	12.08	80.65	3.02	95.95	5.25
38.90	.73	50.90	6.75	68.95	11.70	86.85	6.05	173.85	95.64
40.00	17.52	55.00	2.36	72.95	9.95	87.85	8.78	174.95	6.90
41.80	5.53	57.10	7.64	73.95	15.92	92.95	4.40	175.85	95.91
43.00	13.35	58.00	8.55	74.95	51.83	93.95	11.46	176.85	5.78
44.00	28.04								

S data file header from : >C5544

ample: BFB 50 NGS Operator: USER8 MS 11/17/86 9:25
isc : 11/17/86MDS 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. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4432/4442 Contractor Ecology & Environ. Contract No IL-3140

Instrument ID HP5995C Date 11-14-86 Time 19:42

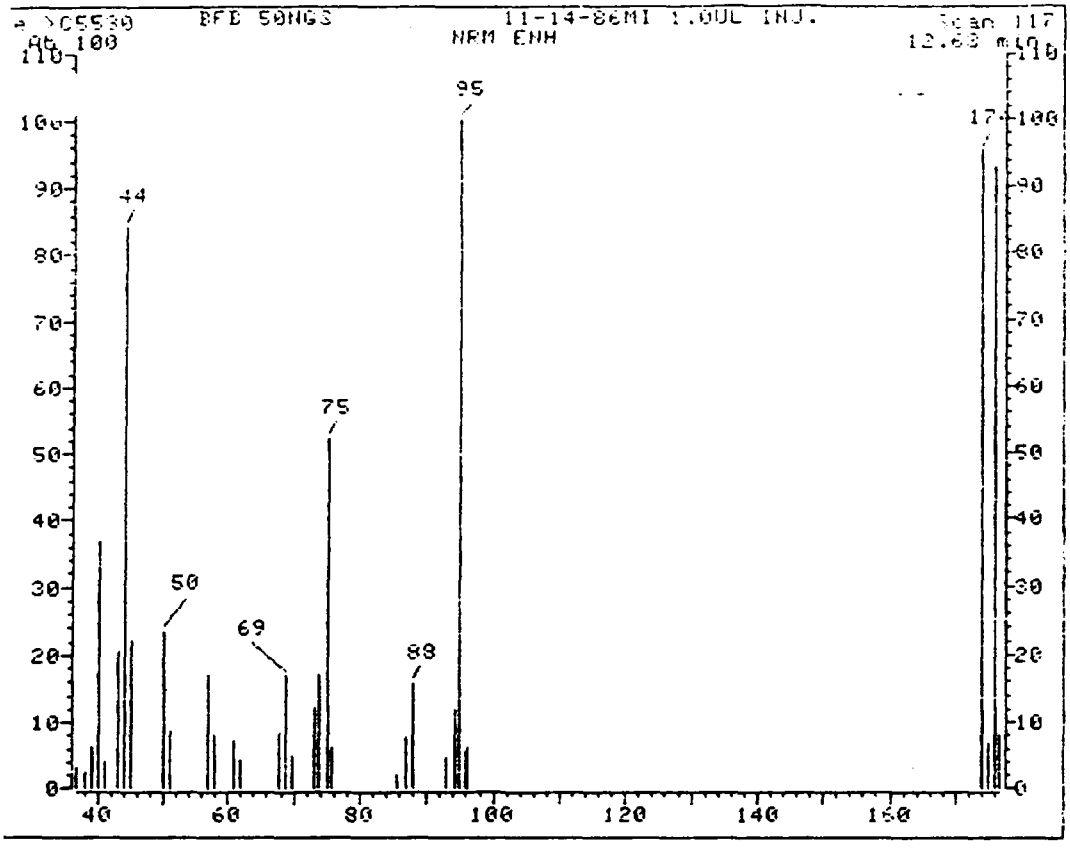
Lab ID >C5530 Data Release Authorized By: C Stojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	24
75	30.0 - 60.0% of the base peak	52
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	6.0
173	Less than 1.0% of the base peak	0
174	Greater than 50.0% of the base peak	95
175	5.0 - 9.0% of mass 174	6.7 (7.0)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	93 (97)[1]
177	5.0 - 9.0% of mass 176	8.2 (8.9)[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	>C5531	11-14-86	20:41
DC-SD-24	9662	>C5533	11-14-86	22:22
DC-SD-25	9663	>C5534	11-14-86	23:12
DC-SD-26	9664	>C5535	11-15-86	00:04
DC-SD-27	9665	>C5536	11-15-86	00:55
DC-SD-28	9666	>C5537	11-15-86	01:47
DC-SD-29	9667	>C5538	11-15-86	02:38
BLK C5539	Method Blank	>C5539	11-15-86	03:30
DC-SD-31	9683	>C5540	11-15-86	04:22
DC-SD-32	9684	>C5541	11-15-86	05:13
DC-SD-33	9685	>C5542	11-15-86	06:05



:5530 BFB 50NGS 11-14-86MI 1.0UL INJ.
117 NRM ENH

le: >C5530 Scan #: 117 Retn. time: 12.63

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
6.90	3.35	45.00	22.28	67.75	3.69	75.85	6.14	95.75	5.62
8.00	2.36	49.90	23.57	67.95	8.33	85.75	1.93	96.05	6.01
9.00	6.14	50.90	8.59	68.85	17.00	86.95	7.69	173.95	95.41
0.00	36.75	56.90	17.09	69.85	4.85	87.95	15.93	174.85	6.70
1.00	4.04	58.00	8.03	72.95	12.19	92.95	4.47	175.85	92.92
3.00	20.44	60.90	7.26	73.85	17.05	94.15	11.94	176.75	8.24
4.00	84.33	62.00	4.38	74.95	52.34	94.95	100.00		

; data file header from : >C5530

mple: BFB 50NGS Operator: USER8 MS 11/14/86 19:42
sc : 11-14-86MI 1.0UL INJ.
s. #: 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

SAMPLE DATA

SAMPLE NUMBER DC-SD-13

481095

Sample Number
DC-SD-13

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Case No: U-4432/U-4442

Lab Sample ID No: 9651 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Stoytowicz Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-13-86

Conc./Dil Factor: 2 pH 7.2

Percent Moisture: (Not Decanted) 48

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	11000 B
67-64-1	Acetone	15000 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	21000 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	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	2000u
79-34-5	1, 1, 2, 2-Tetrachloroethane	2000u
108-88-3	Toluene	2000u
108-90-7	Chlorobenzene	2000u
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/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.

S

Form I

aboratory Name ecology and environment, inc.

ase No. U-4432 / U-4442

Sample Number
DC-SD-L3

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

oncentration: Low Medium (Circle One)

ate Extracted/Prepared: 11-11-86

ate Analyzed: 11-24-86

onc/Dil Factor: 50

ercent Moisture (Decanted) 48

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	17000	U
11-44-4	bis(2-Chloroethyl)Ether	17000	U
5-57-8	2-Chlorophenol	17000	U
41-73-1	1 3-Dichlorobenzene	17000	U
06-46-7	1, 4-Dichlorobenzene	17000	U
00-51-6	Benzyl Alcohol	17000	U
5-50-1	1 2-Dichlorobenzene	17000	U
5-48-7	2-Methylphenol	17000	U
9638-32-9	bis(2-chloroisopropyl)Ether	17000	U
06-44-5	4-Methylphenol	17000	U
21-64-7	N-Nitroso-Di-n-Propylamine	17000	U
7-72-1	Hexachloroethane	17000	U
8-95-3	Nitrobenzene	17000	U
8-59-1	Isophorone	17000	U
8-75-5	2-Nitrophenol	17000	U
05-67-9	2, 4-Dimethylphenol	17000	U
5-85-0	Benzoic Acid	83000	U
11-91-1	bis(2-Chloroethoxy)Methane	17000	U
20-83-2	2, 4-Dichlorophenol	17000	U
20-82-1	1, 2, 4-Trichlorobenzene	17000	U
1-20-3	Naphthalene	400	J
06-47-8	4-Chloroaniline	17000	U
7-68-3	Hexachlorobutadiene	17000	U
9-50-7	4-Chloro-3-Methylphenol	17000	U
1-57-6	2-Methylnaphthalene	17000	U
7-47-4	Hexachlorocyclopentadiene	17000	U
3-06-2	2 4 6-Trichlorophenol	17000	U
5-95-4	2, 4, 5-Trichlorophenol	83000	U
7	2-Chloronaphthalene	17000	U
3-74-4	2-Nitroaniline	83000	U
31-11-3	Dimethyl Phthalate	17000	U
08-96-8	Acenaphthylene	17000	U
9-09-2	3-Nitroaniline	83000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	17000	U
51-28-5	2, 4-Dinitrophenol	83000	U
100-02-7	4-Nitrophenol	83000	U
132-64-9	Dibenzofuran	17000	U
121-14-2	2 4-Dinitrotoluene	17000	U
606-20-2	2 6-Dinitrotoluene	17000	U
84-66-2	Diethylphthalate	17000	U
7005-72-3	4-Chlorophenyl-phenylether	17000	U
86-73-7	Fluorene	17000	U
100-01-6	4-Nitroaniline	83000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	83000	U
86-30-6	N-Nitrosodiphenylamine (1)	17000	U
101-55-3	4-Bromophenyl-phenylether	17000	U
118-74-1	Hexachlorobenzene	17000	U
87-86-5	Pentachlorophenol	83000	U
85-01-8	Phenanthrene	17000	U
120-12-7	Anthracene	17000	U
84-74-2	Di-n-Butylphthalate	17000	U
206-44-0	Fluoranthene	17000	U
129-00-0	Pyrene	17000	U
85-68-7	Butylbenzylphthalate	17000	U
91-94-1	3 3'-Dichlorobenzidine	34000	U
56-55-3	Benzo(a)Anthracene	17000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	9900	J
218-01-9	Chrysene	17000	U
117-84-0	Di-n-Octyl Phthalate	17000	U
205-99-2	Benzo(b)Fluoranthene	17000	U
207-08-9	Benzo(k)Fluoranthene	720	J
50-32-8	Benzo(a)Pyrene	1100	J
193-39-5	Indeno(1 2 3-cd)Pyrene	17000	U
53-70-3	Dibenzo(a h)Anthracene	17000	U
191-24-2	Benzo(g h i)Perylene	17000	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number
DC-SD-13

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-11-86

Date Analyzed 11-18-86

Conc/Dil Factor 50

Percent Moisture (decanted) 47.5

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	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	10,300 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name Ecology & Environment, Inc

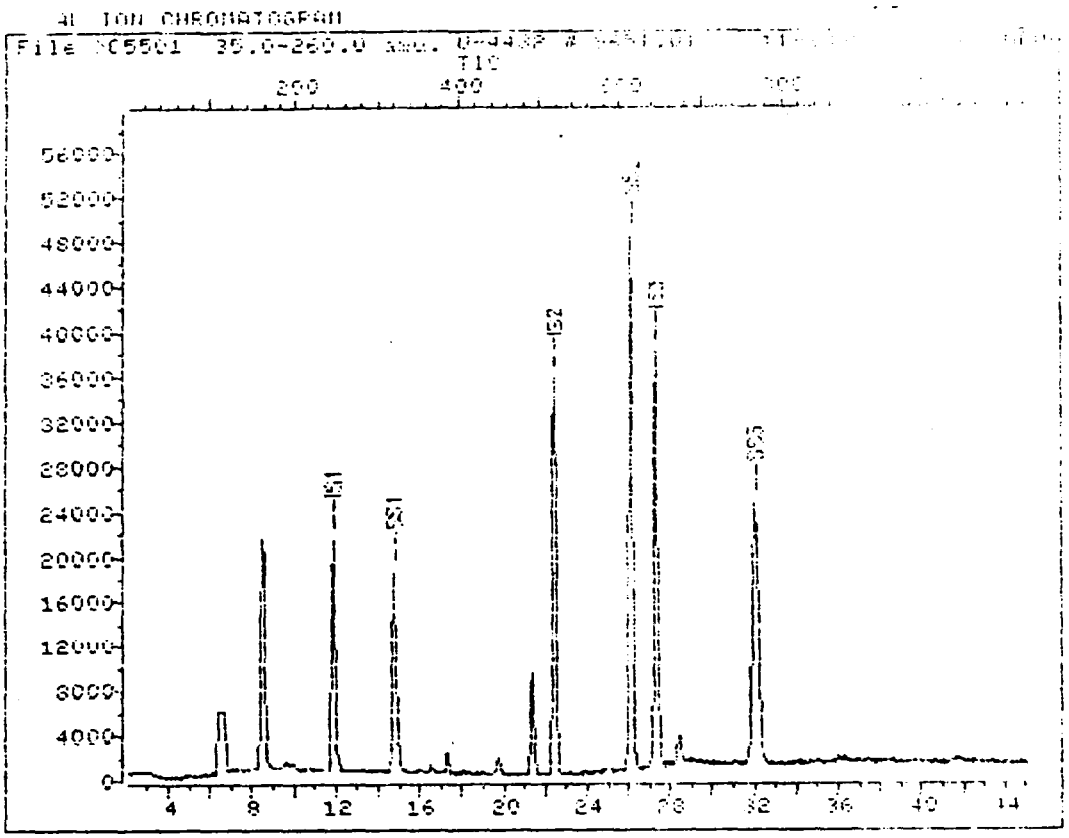
Case No U-4432 / U-4442

Sample Number DC-SD-13

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

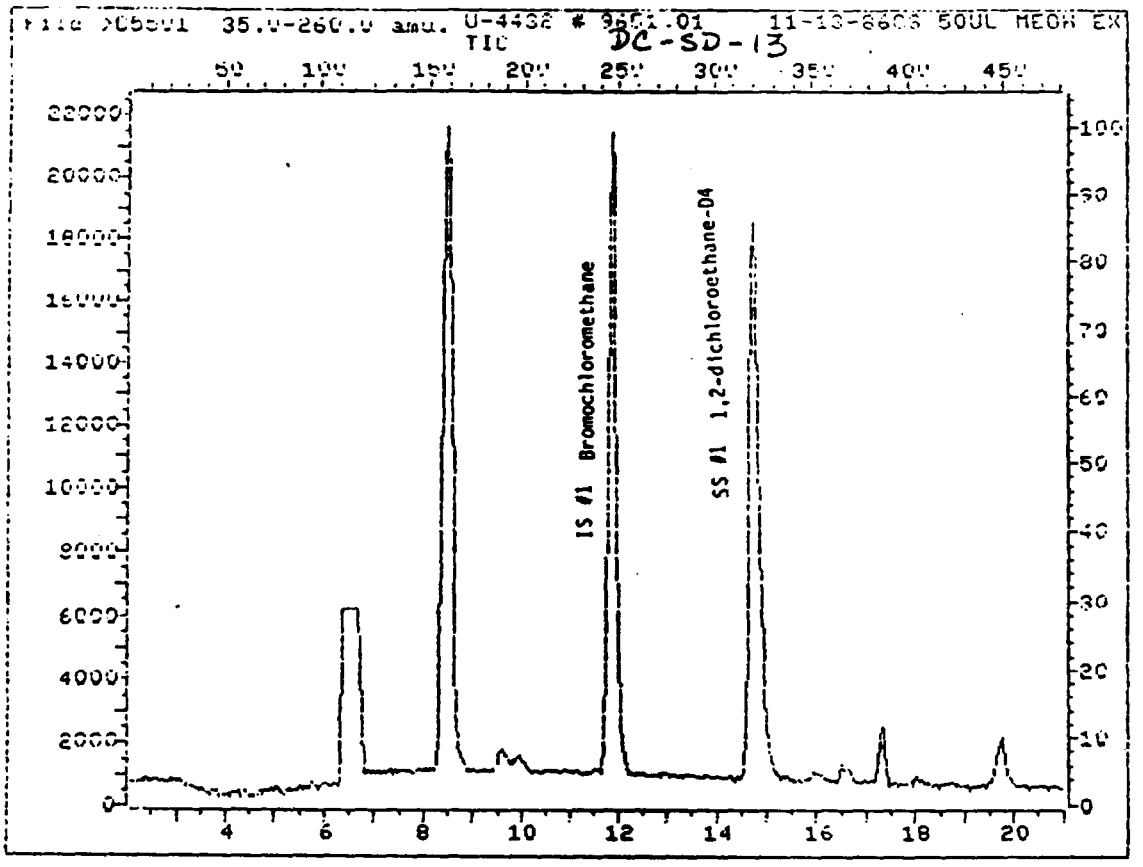
CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.3 min	820 BJ
2.	Unknown Ketone	VOA	19.7 min	1400 J
3.	Hexane isomer	VOA	21.4 min	2900 BJ
4.	Unknown	VOA	28.4 min	990 J
5.				
6.	UNKNOWN	BNA	22.2	14000 J
7.	UNKNOWN		22.7	28000 J
8.	TETRAMETHYL BUTYL PHENOL ISOMER		22.8	66000 J
9.	NONYL PHENOL ISOMER		22.9	44000 J
10.	NONYL PHENOL ISOMER		23.1	18000 J
11.	TETRAMETHYL BUTYL PHENOL ISOMER		23.2	27000 J
12.	UNKNOWN		23.3	19000 J
13.	UNKNOWN PHTHALATE		23.4	23000 J
14.	DIMETHYL ETHYL PHENOL ISOMER		23.5	31000 J
15.	UNKNOWN PHTHALATE		23.6	22000 J
16.	UNKNOWN HYDROCARBON		24.2	9800 J
17.	UNKNOWN LONG-CHAIN HYDROCARBON ACID		26.3	26000 J
18.	UNKNOWN		28.5	12000 J
19.	UNKNOWN LONG CHAIN HYDROCARBON ACID		28.7	12000 J
20.	UNKNOWN		37.9	7900 J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

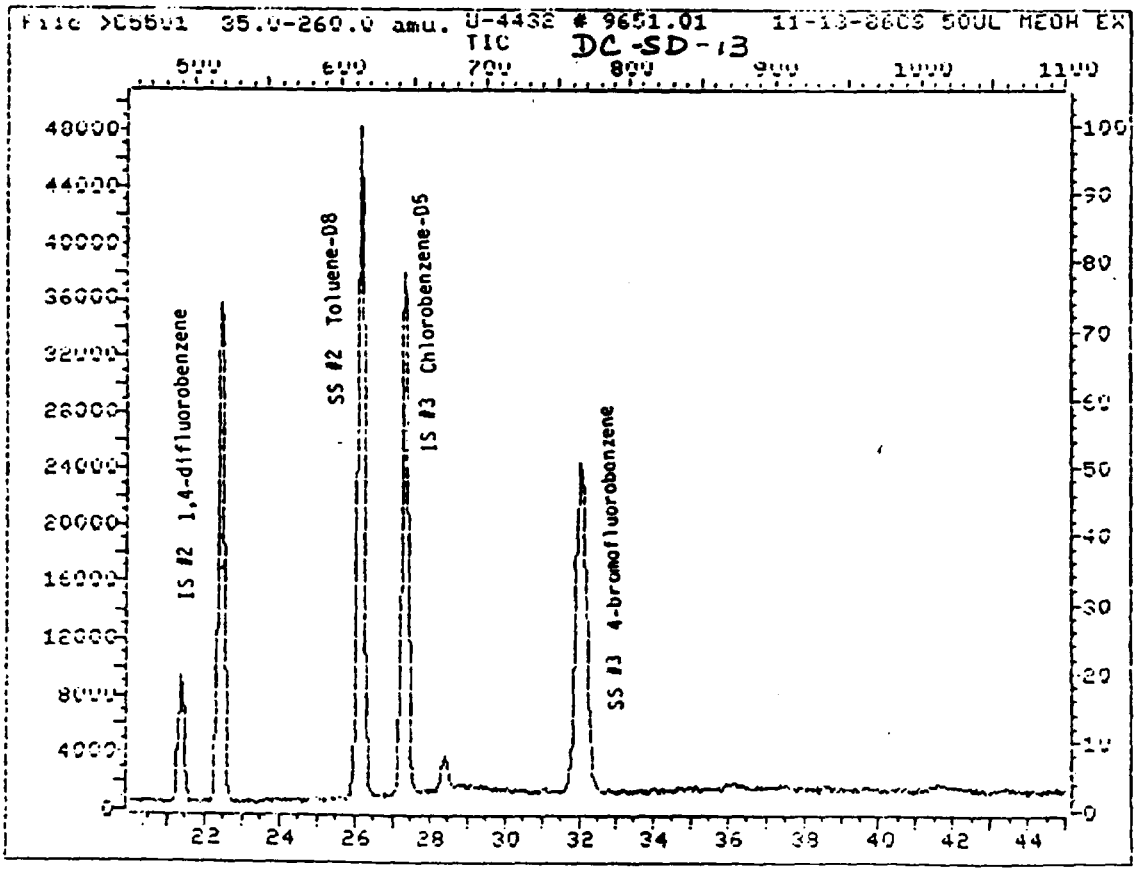


Data File: >C5501::D4
Name: U-4432 # 9651.01 DC-SD-13
Misc: 11-13-86CS 50UL MEOH EXT

Id File: VOAUR::D2
Title: VOA ID FILE FOR HP-5995
Last Calibration: 861113 13:59

Operator ID: USER8
Quant Time: 861113 15:26
Injected at: 861113 14:40


File >05501 35.0-260.0 amu. U-4432 # 9651.01 11-13-8603 50UL MEOH EX
TIC
DC-SD-13
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >05501 35.0-260.0 amu. U-4432 # 9651.01 11-13-8603 50UL MEOH EX
TIC
DC-SD-13
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT

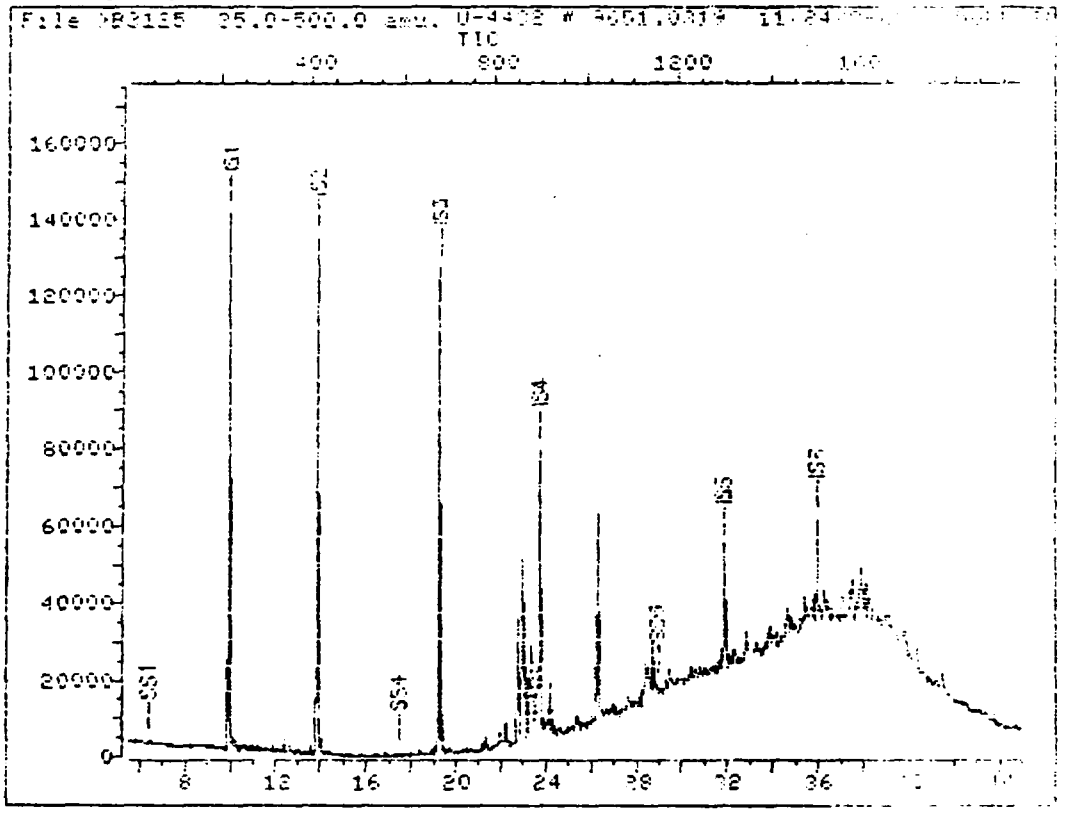
perator ID: USER8 Quant Rev: 4 Quant Time: [illegible]
utput File: ^C5501::D2 Corrected at: [illegible]
ata File: >C5501::D4 Dilution Factor: 1.00
ame: U-4432 # 9651.01 DC-SD-13
isc: 11-13-86CS 50UL MEOH EXT (4.28G/10ML) IN [illegible] - 10UL

) File: VOACR::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861113 13:39

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.87	[illegible]	[illegible]	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.50	[illegible]	[illegible]	24.52	UG/L	100
7)	ACETONE		[illegible]	[illegible]	187	[illegible]236	32.59	UG/L	100
~~7)~~	~~ACETONE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.74	320	[illegible]6369	47.85	UG/L	84
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.42	[illegible]	160228	50.00	UG/L	100
7)	2-BUTANONE		[illegible]	14.89	[illegible]	[illegible]5497	[illegible]	UG/L	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.31	644	121296	50.00	UG/L	100
5)	TOLUENE-D8	(SURR)	98	26.14	614	192731	51.61	UG/L	95
1)	4-BROMOFLUOROBENZENE	(SURR)	95	32.05	766	92541	46.28	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

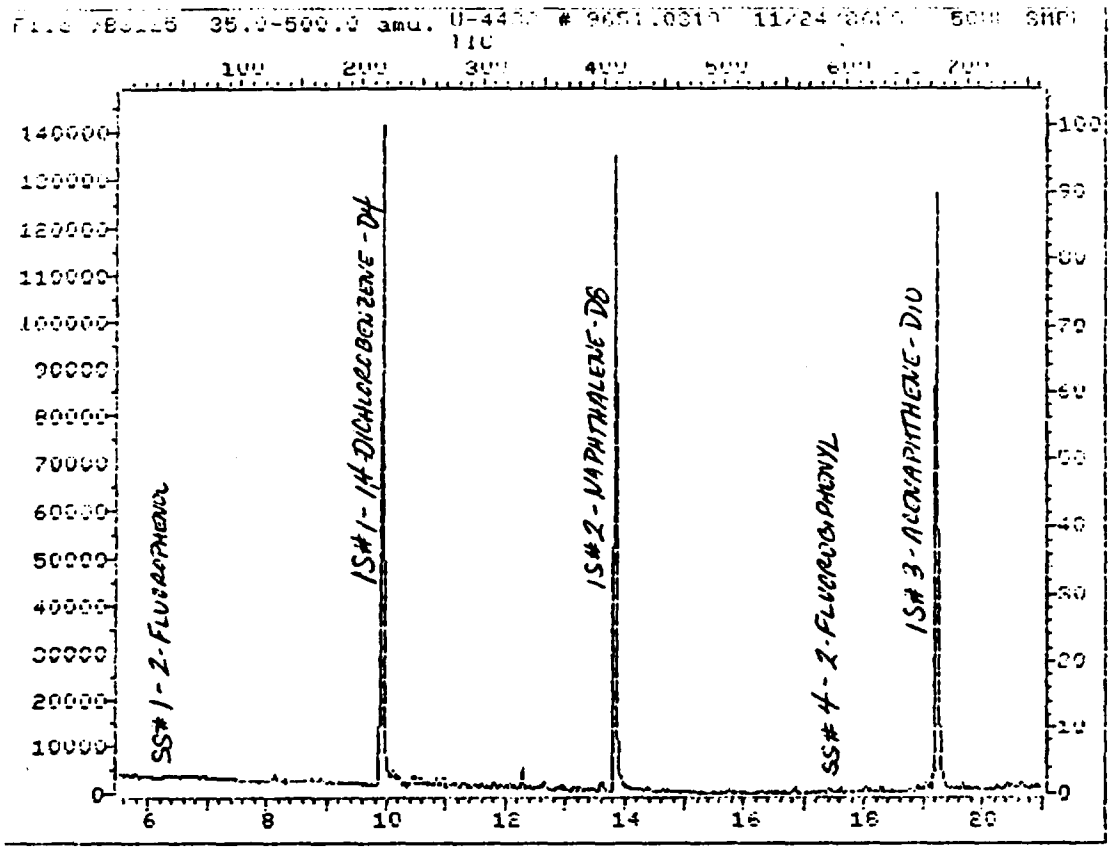


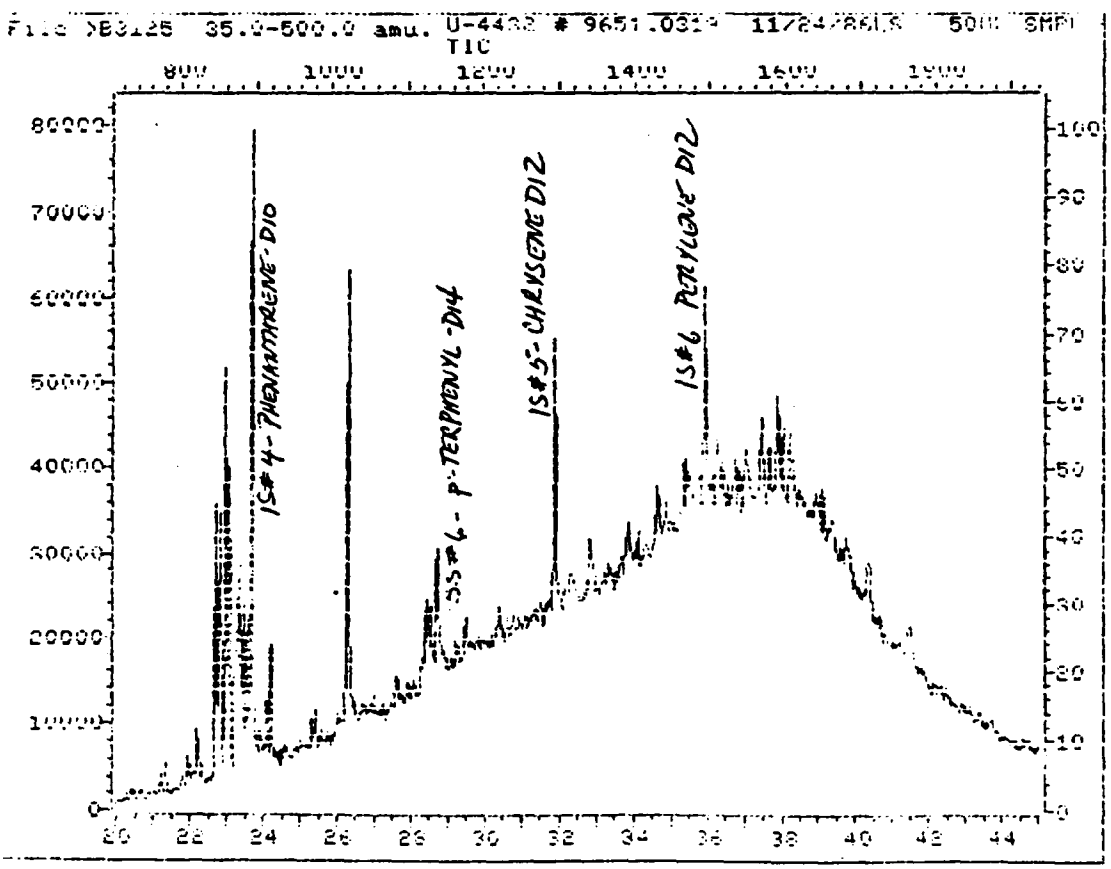
Data File: >B3125::D4
Name: U-4432 # 9651.0319 DC-SD-13
Misc: 11/24/86LS 50UL SMPL - 450UL ME[illegible]

Id File: BNABR::D2
Title: BNA ID FILE FOR THL HP 5970 (B)
Last Calibration: 861124 18:05

Operator ID: USEP6
Quant Time: 861125 00:00
Injected at: 861124 23:12

DC-SD-13


File >B3125 35.0-500.0 amu. U-4432 # 9651.0319 11/24/86 5000 SMPI
TIC
SS# 1 - 2-FLUOROPHENOL
IS# 1 - 1,4-DICHLOROBENZENE-D4
IS# 2 - NAPHTHALENE-D8
SS# 4 - 2-FLUOROBIPHENYL
IS# 3 - ACENAPHTHENE-D10


File >B3125 35.0-500.0 amu. U-4432 # 9651.0319 11/24/86 5000 SMPI
TIC
IS# 4 - PHENANTHRENE-D10
SS# 6 - P-TERPHENYL-D14
IS# 5 - CHRYSENE D12
IS# 6 PERYLENE D12

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 861125 00:00
Output File: ^B3125::D2 Injected at: 86 124 23:12
Data File: ^B3125::D4 Dilution Factor: 10.00
Name: U-4432 # 9651.0319 DC-SD-13
Misc: 11/24/86LS 50UL SMPL + 450UL MECL2 + 50UL IS

Final volume = 5.0 ml

ID File: BNAHP::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861124 18:05

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.91	217	57044	40.00	UG/L	89
5)	2-FLUOROPHENOL	(SURR)	112	6.36	42	445	3.74	UG/L	96
19)	*NAPHTHALENE-D8	(IS)	136	13.84	410	190099	40.00	UG/L	100
29)	NAPHTHALENE		128	13.88	412	496	1.16	UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162	19.22	675	80403	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	17.41	586	1642	5.01	UG/L	98
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.22~~	[illegible]	[illegible]	[illegible]	~~UG/L~~	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.22~~	[illegible]	[illegible]	[illegible]	~~UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	23.68	894	93021	40.00	UG/L	97
65)	*CHRYSENE-D12	(IS)	240	31.83	1294	50014	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.89	1150	546	5.38	UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.81	[illegible]	[illegible]	[illegible]	UG/L	95
74)	*PERYLENE-D12	(IS)	264	35.91	1494	38408	40.00	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.12~~	[illegible]	[illegible]	[illegible]	~~UG/L~~	~~100~~
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.30~~	[illegible]	[illegible]	[illegible]	~~UG/L~~	~~100~~
75)	DI-N-OCTYL PHTHALATE		149	34.63	1431	1044	6.20	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.83~~	[illegible]	[illegible]	[illegible]	~~UG/L~~	~~100~~
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.97~~	[illegible]	[illegible]	[illegible]	~~UG/L~~	~~100~~
~~76)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.99~~	[illegible]	[illegible]	[illegible]	~~UG/L~~	~~100~~
77)	BENZO(K)FLUORANTHENE		252	34.99	1449	252	2.06	UG/L	100
78)	BENZO(A)PYRENE		252	35.65	1481	309	3.14	UG/L	100

No B/N

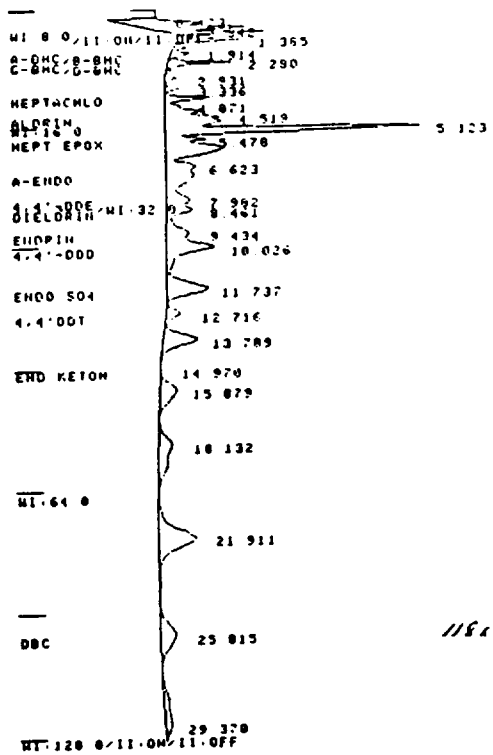
No B/N

* Compound is ISTD

Phenol ds
Nitrobenzene ds
2,4,6 Tribromophenol

DILUTED OUT

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



118 x 0.00137 x 1/0.787 Kg x 50 pcs = 10,300 ng/Kg 1260

RECALCULATE ON FILE: SLY452

CHANNEL: 1A - 1 TITLE: RUN# 17 23:23 18 NOV 86

DC-SD-13

SAMPLE: 9651.03.19A1 METHOD: DAVE CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.365		[illegible]	BV	3.69
2	~~A-BHC~~	144.2325	2.280	-0.100	45155	VV	5.19
3	~~HEPTACHLO~~	231.1384	3.727	-0.063	[illegible]	VV	10.19
4		0.0000	4.272		[illegible]	VV	? 11.44
5		0.0000	4.519		[illegible]	VV	? 12.94
6	~~ALDRIN~~	320.2595	4.723	0.053	102512	VV	? 21.88
7		0.0000	5.123		383611	VV	10.89
8		0.0000	5.478		50567	VV	? 12.94
9	~~HEPT EPOX~~	648.8925	5.850	0.180	[illegible]	VV	29.13
10		0.0000	6.623		[illegible]	VV	? 23.56
11	~~A-ENDO~~	421.4399	6.934	-0.095	119122	VV	? 53.75
12	~~4,4'-DDE~~	265.6170	7.982	-0.108	77553	VV	? 34.44
13	~~DIELDRIN~~	264.2299	8.461	0.271	[illegible]	VV	? 29.69
14	~~B-ENDO~~	293.1222	9.434	0.124	79597	VV	? 31.31
15	~~4,4'-DDD~~	761.9294	10.025	-0.134	191099	VV	27.63
16	~~ENDO SO4~~	801.6310	11.737	-0.173	164240	VB	31.56
17		0.0000	12.716		44935	BV	24.63
18	~~4,4'-DDT~~	824.9065	13.789	0.529	[illegible]	VB	28.69
19	~~END KETON~~	344.7193	15.879	0.609	[illegible]	VV	45.38
20		0.0000	18.132	1260 118	135442	VB	55.67
21		0.0000	21.911		[illegible]	BV	51.00
22	~~DBC~~	514.7186	25.815	-0.795	[illegible]	VV	63.56
23		0.0000	29.370		[illegible]	VB	?129.80

TOTALS: 5836.836 0.297 2662079

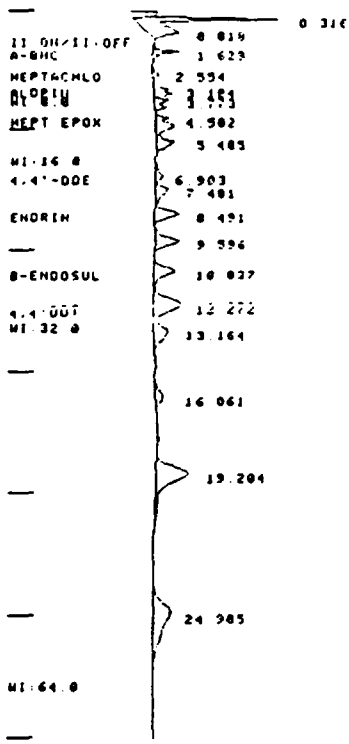
DETECTED PKS: 42 REJECTED PKS: 19

DIVISOR: 0.78750 MULTIPLIER: 50000.0000

NOISE: 22.9 OFFSET: -3

NOTES:
NOTEBOOK: 259-41 ANALYST: K.JUREK
SECURE AREA: D JOB#:U-4465
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST.PCB ANALYSIS

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



DC-SD-13

CHANNEL: 1B - 1 TITLE: RUN# 11 15:59 21 NOV 86

SAMPLE: 9651.03.15A1 METHOD: FEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/MS	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEC CODE	W1/2 (SEC)
1	A-BHC	47.2626	1.629	-0.031	47259	BV	4.00
2	ALDRIN	45.8302	3.184	0.074	40387	BV	? 13.44
3		0.0000	3.396		38919	VV	? 9.05
4		0.0000	3.773		44839	VV	11.89
5		0.0000	4.056		26710	VV	? 10.75
6	HEPT EPOX	47.0477	4.502	-0.139	36202	VV	? 10.94
7		0.0000	4.847		87481	VV	? 22.00
8	A-ENDO	141.4621	5.485	-0.355	100047	VB	? 24.44
9	4,4'-DDE	55.5351	6.903	0.173	39316	BV	? 19.31
10	DIELDRIN	106.5197	7.481	0.351	81061	VV	21.25
11	ENDRIN	225.3352	8.491	-0.209	125243	VB	20.00
12		0.0000	9.596		138777	BB	21.63
13	B-ENDOSUL	223.8040	10.837	0.357	144967	BV	25.44
14	4,4'DDT	1076.429	12.272	-0.069	207009	VV	29.31
15	END. ALD.	307.3998	13.164	-0.656	154215	VB	46.50
16	END0 SO4	241.3455	16.061	-0.729	68283	BB	39.44
17		0.0000	19.204		272566	BB	41.81
18		0.0000	24.905		370312	BB	76.81
TOTALS:		2517.971		-1.251	2123692		

DETECTED PKS: 29 REJECTED PKS: 11

DIVISOR: 1.50020 MULTIPLIER: 50000.0000

NOISE: 160.0 OFFSET: 0

NOTES:
NOTEBOOK:259-40 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB #U-4432;U-4442
INST: VARIAN 5000#2 6 ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

COST RUN:
SAVE FILE: RAW CREEK[illegible]

SAMPLE NUMBER DC-SD-14

481095

Sample Number
DC-SD-14

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432 / U-4442
Lab Sample ID No: 9652
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-12-86

Conc./Dil Factor: 10 pH 6.9

Percent Moisture: (Not Decanted) 63

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	250u
74-83-9	Bromomethane	250u
75-01-4	Vinyl Chloride	250u
75-00-3	Chloroethane	250u
75-09-2	Methylene Chloride	2200 B
67-64-1	Acetone	820
75-15-0	Carbon Disulfide	120u
75-35-4	1, 1-Dichloroethene	120u
75-34-3	1, 1-Dichloroethane	120u
156-60-5	Trans-1, 2-Dichloroethene	120u
67-66-3	Chloroform	120u
107-06-2	1, 2-Dichloroethane	120u
78-93-3	2-Butanone	510
71-55-6	1, 1, 1-Trichloroethane	120u
56-23-5	Carbon Tetrachloride	120u
108-05-4	Vinyl Acetate	250u
75-27-4	Bromodichloromethane	120u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	120u
10061-02-6	Trans-1, 3-Dichloropropene	120u
79-01-6	Trichloroethene	120u
124-48-1	Dibromochloromethane	120u
79-00-5	1, 1, 2-Trichloroethane	120u
71-43-2	Benzene	87 J
10061-01-5	cis-1, 3-Dichloropropene	120u
110-75-8	2-Chloroethylvinylether	250u
75-25-2	Bromoform	120u
108-10-1	4-Methyl-2-Pentanone	250u
591-78-6	2-Hexanone	220 J
127-18-4	Tetrachloroethene	120u
79-34-5	1, 1, 2, 2-Tetrachloroethane	120u
108-88-3	Toluene	810
108-90-7	Chlorobenzene	5200
100-41-4	Ethylbenzene	3600
100-42-5	Styrene	120u
	Total Xylenes	9900

Data Reporting Qualifiers

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

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

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

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

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

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

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

oratory Name ecology and environment, inc.

e No: U-4432 / U-4442

Sample Number
DC-SD-14

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

centration: (Low) Medium (Circle One)

e Extracted/Prepared: 11-11-86

e Analyzed: 11-24-86

c/Dil Factor: 50

cent Moisture (Decanted) 63

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

AS umber		ug/l or ug/Kg (Circle One)	
08-95-2	Phenol	23000	U
11-44-4	bis(-2-Chloroethyl)Ether	23000	U
-57-8	2-Chlorophenol	23000	U
1-73-1	1 3-Dichlorobenzene	23000	U
6-46-7	1, 4-Dichlorobenzene	220000	
0-51-6	Benzyl Alcohol	23000	U
-50-1	1, 2-Dichlorobenzene	17000	J
-48-7	2-Methylphenol	23000	U
638-32-9	bis(2-chloroisopropyl)Ether	23000	U
6-44-5	4-Methylphenol	23000	U
1-64-7	N-Nitroso-Di-n-Propylamine	23000	U
-72-1	Hexachloroethane	23000	U
95-3	Nitrobenzene	23000	U
-59-1	Isophorone	23000	U
-75-5	2-Nitrophenol	23000	U
5-67-9	2, 4-Dimethylphenol	23000	U
-85-0	Benzoic Acid	110000	U
1-91-1	bis(-2-Chloroethoxy)Methane	23000	U
0-83-2	2, 4-Dichlorophenol	23000	U
0-82-1	1, 2, 4-Trichlorobenzene	5400	J
-20-3	Naphthalene	9500	J
6-47-8	4-Chloroaniline	23000	U
-68-3	Hexachlorobutadiene	23000	U
-50-7	4-Chloro-3-Methylphenol	23000	U
-57-6	2-Methylnaphthalene	8400	J
-47-4	Hexachlorocyclopentadiene	23000	U
-06-2	2 4 6-Trichlorophenol	23000	U
95-4	2, 4, 5-Trichlorophenol	110000	U
-58-7	2-Chloronaphthalene	23000	U
-74-4	2-Nitroaniline	110000	U
1-[illegible]	Dimethyl Phthalate	23000	U
8-9[illegible]-8	Acenaphthylene	23000	U
-09-2	3-Nitroaniline	110000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2600	J
51-28-5	2, 4-Dinitrophenol	110000	U
100-02-7	4-Nitrophenol	110000	U
132-64-9	Dibenzofuran	23000	U
121-14-2	2 4-Dinitrotoluene	23000	U
606-20-2	2 6-Dinitrotoluene	23000	U
84-66-2	Diethylphthalate	23000	U
7005-72-3	4-Chlorophenyl-phenylether	23000	U
86-73-7	Fluorene	3900	J
100-01-6	4-Nitroaniline	110000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	110000	U
86-30-6	N-Nitrosodiphenylamine (1)	23000	U
101-55-3	4-Bromophenyl-phenylether	23000	U
118-74-1	Hexachlorobenzene	23000	U
87-86-5	Pentachlorophenol	110000	U
85-01-8	Phenanthrene	15000	J
120-12-7	Anthracene	23000	U
84-74-2	Di-n-Butylphthalate	23000	U
206-44-0	Fluoranthene	11000	J
129-00-0	Pyrene	13000	J
85-68-7	Butylbenzylphthalate	23000	U
91-94-1	3, 3'-Dichlorobenzidine	46000	U
56-55-3	Benzo(a)Anthracene	23000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	9500	J
218-01-9	Chrysene	23000	U
117-84-0	Di-n-Octyl Phthalate	2600	J
205-99-2	Benzo(b)Fluoranthene	3400	J
207-08-9	Benzo(k)Fluoranthene	23000	U
50-32-8	Benzo(a)Pyrene	1800	J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	23000	U
53-70-3	Dibenz(a, h)Anthracene	23000	U
191-24-2	Benzo(g, h, i)Perylene	23000	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-14

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-11-86

Date Analyzed 11-18-86

Conc/Dil Factor: 200

Percent Moisture (decanted) 63

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	3200 U
319-85-7	Beta-BHC	3200 U
319-86-8	Delta-BHC	3200 U
58-89-9	Gamma-BHC (Lindane)	3200 U
76-44-8	Heptachlor	3200 U
309-00-2	Aldrin	3200 U
1024-57-3	Heptachlor Epoxide	3200 U
959-98-8	Endosulfan I	3200 U
60-57-1	Dieldrin	6400 U
72-55-9	4,4'-DDE	6400 U
72-20-8	Endrin	6400 U
33213-65-9	Endosulfan II	6400 U
72-54-8	4,4'-DDD	6400 U
1031-07-8	Endosulfan Sulfate	6400 U
50-29-3	4,4'-DDT	6400 U
72-43-5	Methoxychlor	32,000 U
53494-70-5	Endrin Ketone	6400 U
57-74-9	Chlordane	32,000 U
8001-35-2	Toxaphene	64,000 U
12674-11-2	Aroclor-1016	32,000 U
11104-28-2	Aroclor-1221	32,000 U
11141-16-5	Aroclor-1232	32,000 U
53469-21-9	Aroclor-1242	32,000 U
12672-29-6	Aroclor-1248	480,000 C
11097-69-1	Aroclor-1254	64,000 U
11096-82-5	Aroclor-1260	160,000 C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name Ecology & Environment, Inc

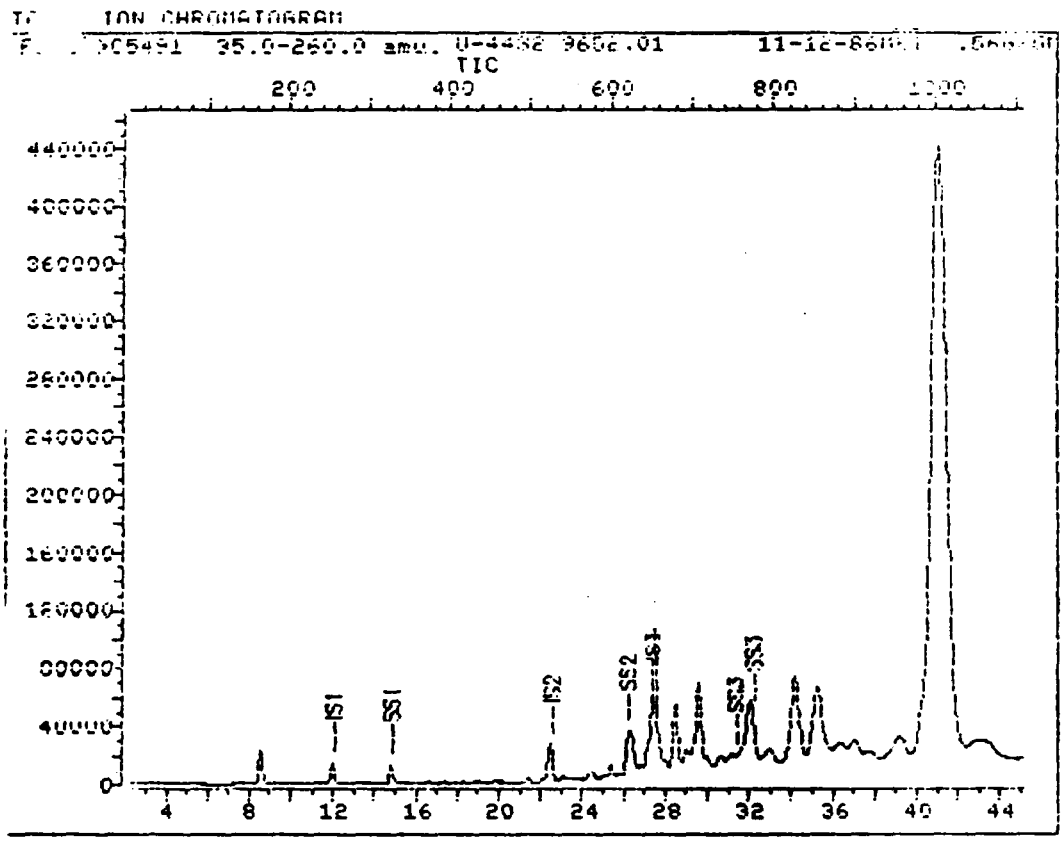
Case No U-4432/ U-4442

Sample Number DC-SD-14

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	16.6 min	75 J
2.	Hexene isomer	VOA	17.4 min	71 BJ
3.	Unknown hydrocarbon	VOA	18.2 min	120 J
4.	Unknown hydrocarbon	VOA	19.0 min	250 J
5.	Unknown Ketone	VOA	19.8 min	110 BJ
6.	Unknown hydrocarbon	VOA	28.5 min	1800 J
7. 98828	(1-methylethyl) Benzene	VOA	32.1 min	5400 J
8. 95501	1,2-Dichlorobenzene	VOA	39.3 min	1100 J
9. 106467	1,4-Dichlorobenzene	VOA	41.1 min	120,000 J
10.	UNKNOWN HYDROCARBON	BNA	17.6	17000 J
11.	DIMETHYL NAPHTHALENE ISOMER		18.0	10000 J
12.	DIMETHYL NAPHTHALENE ISOMER		18.2	18000 J
13.	UNKNOWN HYDROCARBON		19.0	20000 J
14.	UNKNOWN		21.4	25000 J
15.	DIMETHYL DECYL BENZENE ISOMER		21.6	8100 J
16.	DIMETHYL DECYL BENZENE ISOMER		21.8	40000 J
17.	UNKNOWN HYDROCARBON		21.9	38000 J
18.	PENTAMETHYL HEPTYL BENZENE ISOMER		22.0	49000 J
19.	DIMETHYL DECYL BENZENE ISOMER		22.1	23000 J
20.	DIMETHYL DECYL BENZENE ISOMER		22.3	53000 J
21.	DIMETHYL DECYL BENZENE ISOMER		22.7	32000 J
22.	UNKNOWN HYDROCARBON		22.8	42000 J
23.	DIMETHYL DECYL BENZENE ISOMER		22.9	26000 J
24.	UNKNOWN HYDROCARBON		24.2	30000 J
25.	PCB		25.0-26.4	—
26. 10544500	MOLECULAR SULFUR		27.0	30000 J
27.	UNKNOWN		27.9	25000 J
28.	TETRA METHYL PHENANTHRENE ISOMER		29.2	20000 J
29.	UNKNOWN		31.3	15000 J
30.	UNKNOWN		32.2	15000 J



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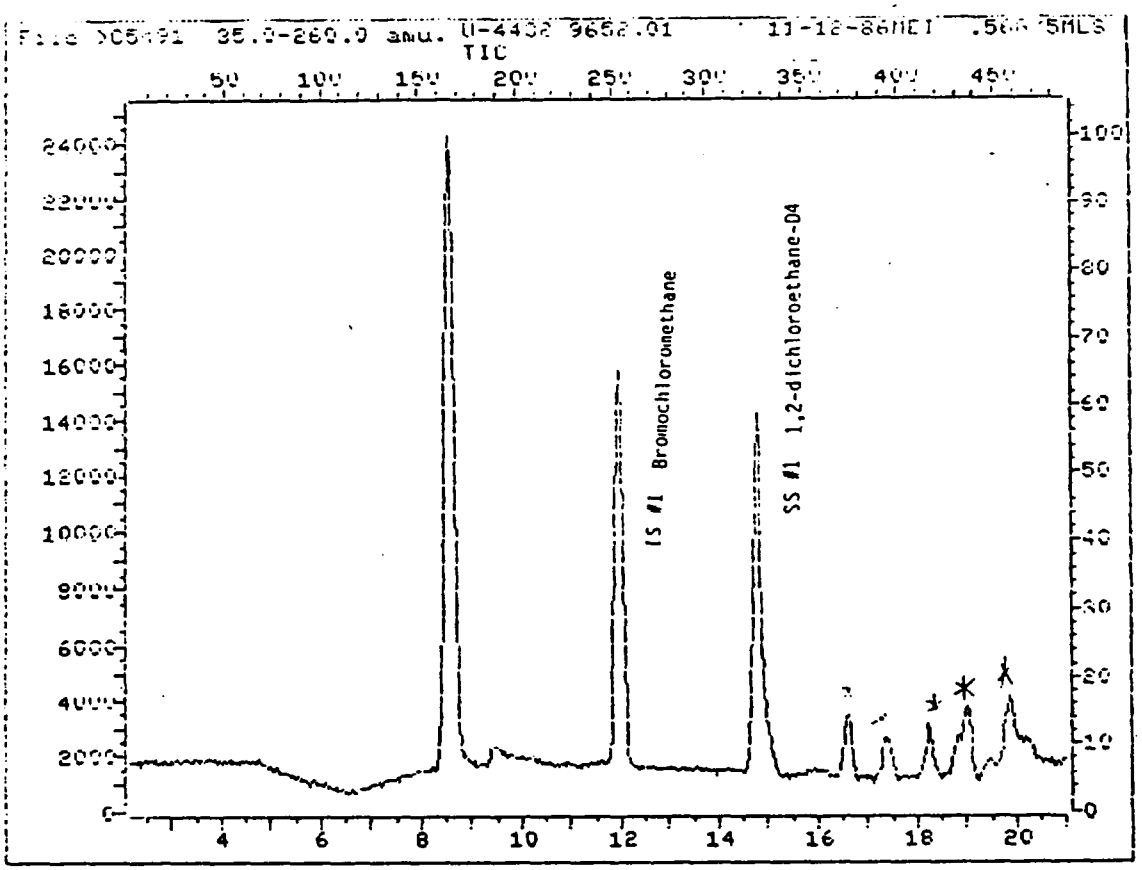
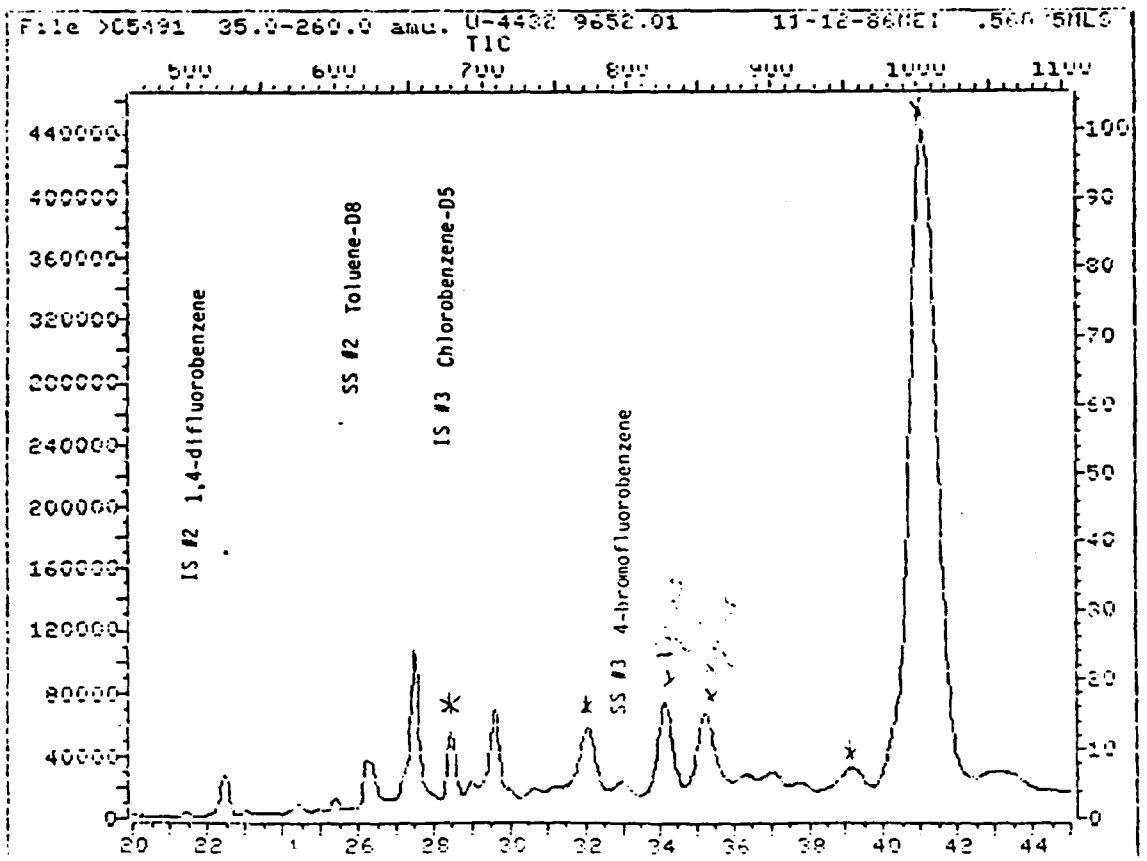
Misc: 11-12-86MEI .56G/5MLS DI + 10UL IS/SS (100)

Id File: VOALRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861112 16:53

Operator ID: USER8
Quant Time: 861113 03:00
Injected at: 861113 02:14


File >C5491 35.0-260.0 amu. U-4432 9652.01 11-12-86MEI .500 5MLS
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5491 35.0-260.0 amu. U-4432 9652.01 11-12-86MEI .500 5MLS
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT

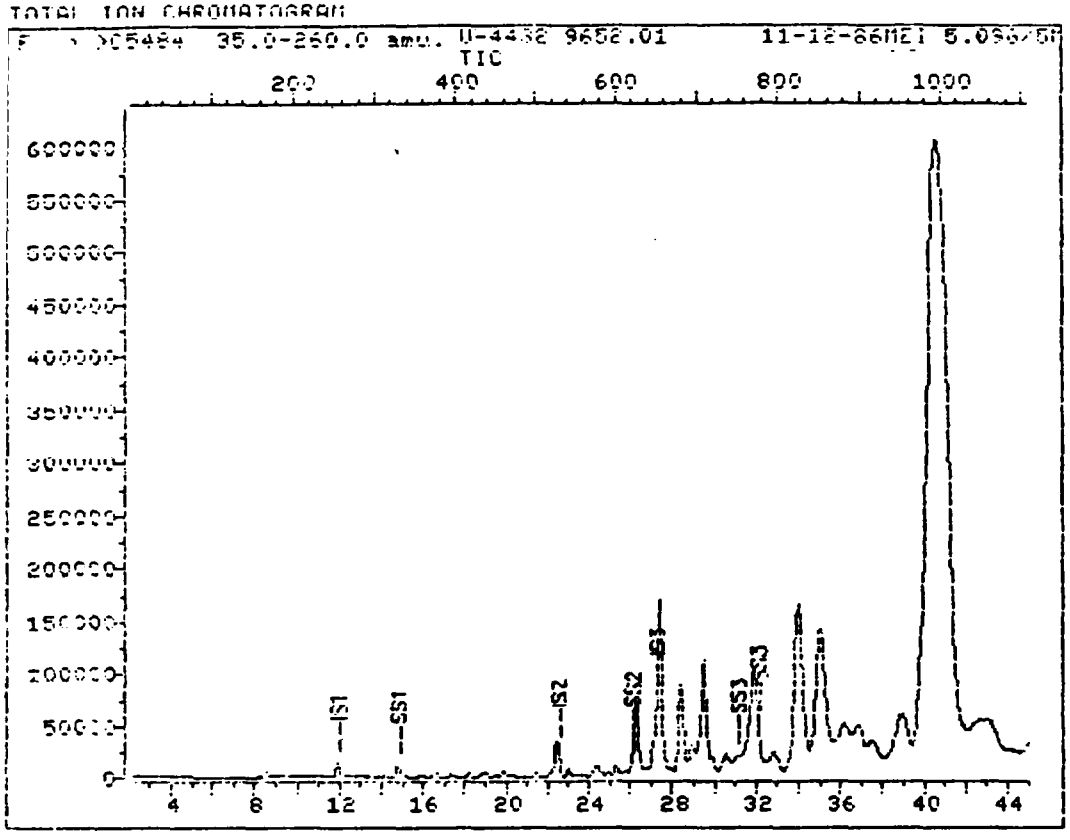
erator ID: USER8 Quant Rev: 4 Quant Time: 861113 03:00
tput File: ^C5491::D2 Injected at: 861113 02:14
ta File: >C5491::D3 Dilution Factor: 1.00
me: U-4432 9652.01 DC-SD-14
se: 11-12-86MSI .56G/5MLS D1 + 10UL IS/SS (10X)

File: VOACRS::D2
tle: VOA TO FILE FOR HP-5995 (CONT. CAL.)
st Calibration: 861112 16:53

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.97	254	19455	250.00	NGS	100
2)	METHYLENE CHLORIDE		84	8.55	166	55976	448.39	NGS	100
3)	ACETONE		43	9.60	193	6999	164.71	NGS	100
4)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.80	327	50799	271.16	NGS 108	85
5)	*1,4-DIFLUOROBENZENE	(IS)	114	22.52	526	80511	250.00	NGS	100
6)	2-BUTANONE		72	14.95	331	2685	103.09	NGS	100
7)	BENZENE		78	19.92	459	7248	17.52	NGS	100
8)	*CHLOROBENZENE-D5	(IS)	117	27.38	651	54913	250.00	NGS	100
9)	~~2-HEXANONE~~		~~43~~	~~24.53~~	~~574~~	~~9739~~	~~72.97~~	~~NGS~~ no cal	100
10)	2-HEXANONE		43	25.00	590	5799	43.47	NGS	100
11)	~~1,1,2,2-TETRACHLOROETHANE~~		~~83~~	~~24.46~~	~~574~~	~~2616~~	~~1[illegible].67~~	~~NGS~~ no cal	100
12)	TOLUENE-D8	(SURR)	98	26.20	621	96487	329.86	NGS 132	89
13)	TOLUENE		92	26.40	626	37410	161.86	NGS HIGH	99
14)	CHLOROBENZENE		112	27.49	654	285456	1049.04	NGS	97
15)	ETHYLBENZENE		91	29.59	709	334180	733.51	NGS	96
16)	4-BROMOFLUOROBENZENE	(SURR)	95	31.34	753	5407	29.32	NGS 98	100
17)	4-BROMOFLUOROBENZENE	(SURR)	95	32.19	775	41582	21[illegible].76	NGS	100
18)	~~STYRENE~~		~~104~~	~~32.10~~	~~770~~	~~[illegible]520~~	~~[illegible].03~~	~~NGS~~	100
19)	~~STYRENE~~		~~104~~	~~32.11~~	~~771~~	~~2[illegible]~~	~~[illegible].97~~	~~NGS~~ no cal	100
20)	~~STYRENE~~		~~104~~	~~34.01~~	~~827~~	~~6421~~	~~2[illegible].02~~	~~NGS~~	100
21)	~~STYRENE~~		~~104~~	~~35.26~~	~~854~~	~~18524~~	~~3[illegible].93~~	~~NGS~~	100
22)	~~TOTAL XYLENES~~		~~91~~	~~32.47~~	~~772~~	~~19547~~	~~3[illegible].77~~	~~NGS~~ no cal	100
23)	TOTAL XYLENES		91	34.21	827	375152	88[illegible].64	NGS	100
24)	TOTAL XYLENES		91	35.22	853	467224	110[illegible].04	NGS	100
25)	~~TOTAL XYLENES~~		~~91~~	~~37.06~~	~~90[illegible]~~	~~1[illegible]979~~	~~2[illegible].29~~	~~NGS~~ no cal	100

* Compound is IS10

TOTAL ION CHROMATOGRAM



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Name: U-4432 9652.01 DC-SD-14
Misc: 11-12-86MEI 5.096/5MLS D1 + 10UL IS/SS

IS File: VUAURS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861112 16:53

Operator ID: USER8
Count Time: 861112 20:03
Injected at: 861112 19:17

QUANT REPORT

erator ID: USER8 Quant Rev: 4 Quant Time: 861112 20:03
tput File: ^C5484::D2 Injected at: 861112 19:17
ta File: >C5484::D3 DC-SD-14 Dilution Factor: 1.00
me: U-4432 9652.01
ec: 11-12-86MEI 5.09G/5MLS DI + 10UL IS/SS

File: VOACRS::D2
tle: VOA ID FILE FOR HP-5995 (QUNT. CAL.)
st Calibration: 861112 16:53

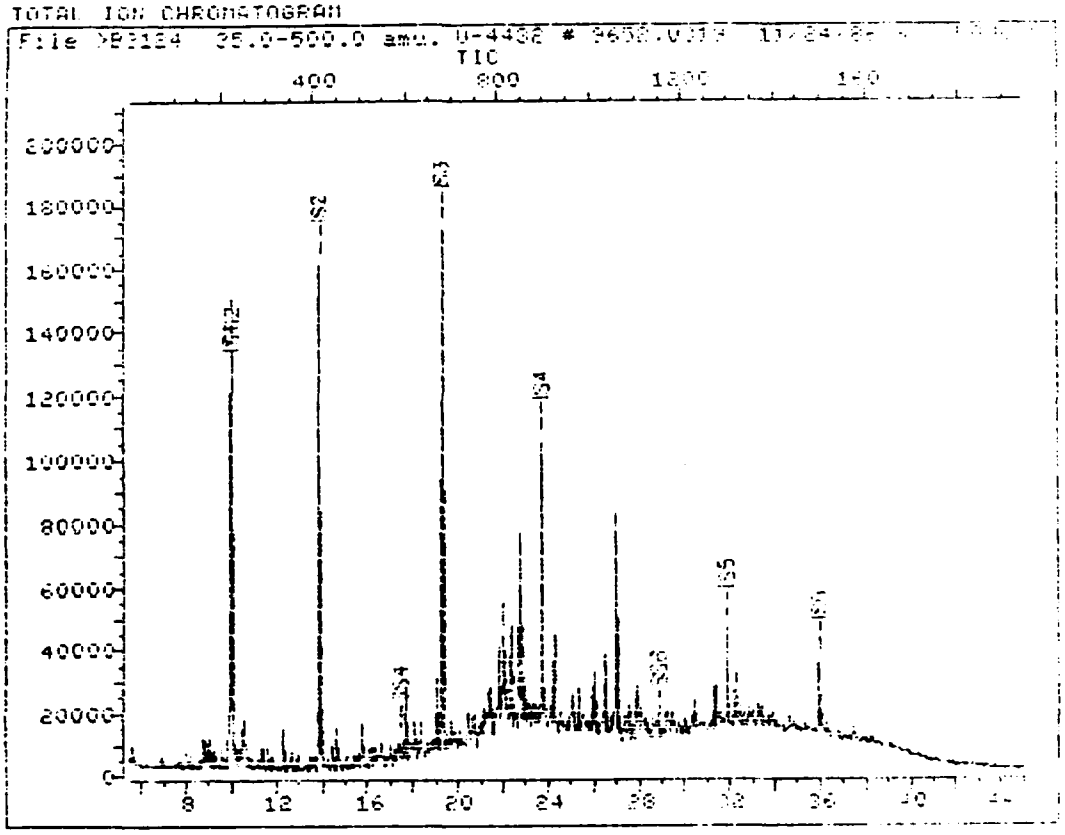
	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.94	255	19344	250.00	NGS	100
2)	METHYLENE CHLORIDE		84	8.56	168	17988	104.64	NGS	100
2)	ACETONE		43	9.49	192	5233	135.69	NGS 96	100
3)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.81	329	44721	240.35	NGS	84
5)	*1,4-DIFLUOROBENZENE	(IS)	114	22.53	528	73916	250.00	NGS	100
)	2-BUTANONE		72	14.96	333	2732	122.61	NGS	100
)	BENZENE		78	19.93	461	17439	45.93	NGS	100
)	*CHLOROBENZENE-D5	(IS)	117	27.31	651	39779	250.00	NGS	100
)	4-METHYL-2-PENTANONE		43	23.23	546	7215	55.66	NGS	70
)	2-HEXANONE		43	24.51	579	17719	180.43	NGS	100
)	2-HEXANONE		43	24.97	591	13302	139.39	NGS	100
)	2-HEXANONE		43	25.40	602	3115	32.64	NGS	100
)	1,1,2,2-TETRACHLOROETHANE		83	24.43	572	3028	23.75	NGS	100
)	1,1,2,2-TETRACHLOROETHANE		83	25.67	609	2523	19.79	NGS	100
)	TOLUENE-D8	(SURR)	98	26.13	621	61420	326.02	NGS 130 HIGH	
)	TOLUENE		92	26.53	626	120799	739.23	NGS	95
)	CHLOROBENZENE		112	27.42	654	517891	2650.63	NGS	99
)	ETHYLBENZENE		91	29.48	707	602178	1847.85	NGS	94
)	4-BROMOFLUOROBENZENE	(SURR)	95	31.15	759	12729	93.19	NGS 115	100
)	4-BROMOFLUOROBENZENE	(SURR)	95	32.12	775	26790	196.14	NGS	100
)	STYRENE		104	31.81	762	3136	13.96	NGS	100
)	STYRENE		104	31.93	770	4823	21.70	NGS	100
)	STYRENE		104	33.99	824	23539	104.80	NGS	100
)	STYRENE		104	35.03	850	26885	119.70	NGS	100
)	TOTAL XYLENES		91	34.02	824	1046635	3468.68	NGS	100
)	TOTAL XYLENES		91	35.00	849	1212794	4026.62	NGS	100
)	TOTAL XYLENES		91	36.82	896	229878	768.09	NGS	100

Compound is ISTD

Too Concentrated

Reanalyzed: see >C 5491

TOTAL ION CHROMATOGRAM

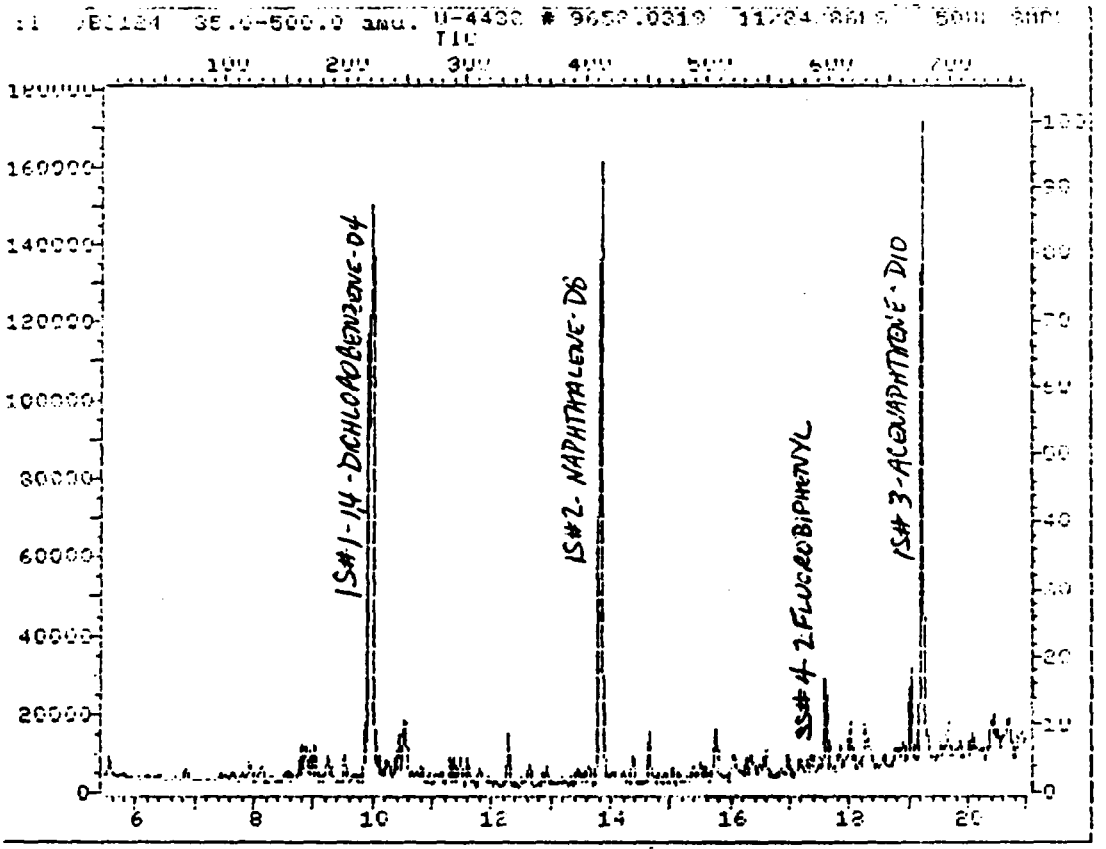


Data File: >B3124::D4
Name: U-4432 # 9652.0319 DC-SD-14
Misc: 11/24/86LS 50UL SMPL + 45UL

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5971 (B)
Last Calibration: 861124 18:05

Operator ID: USER6
Quant Time: 861124 23:09
Injected at: 861124 22:21

DC-SD-14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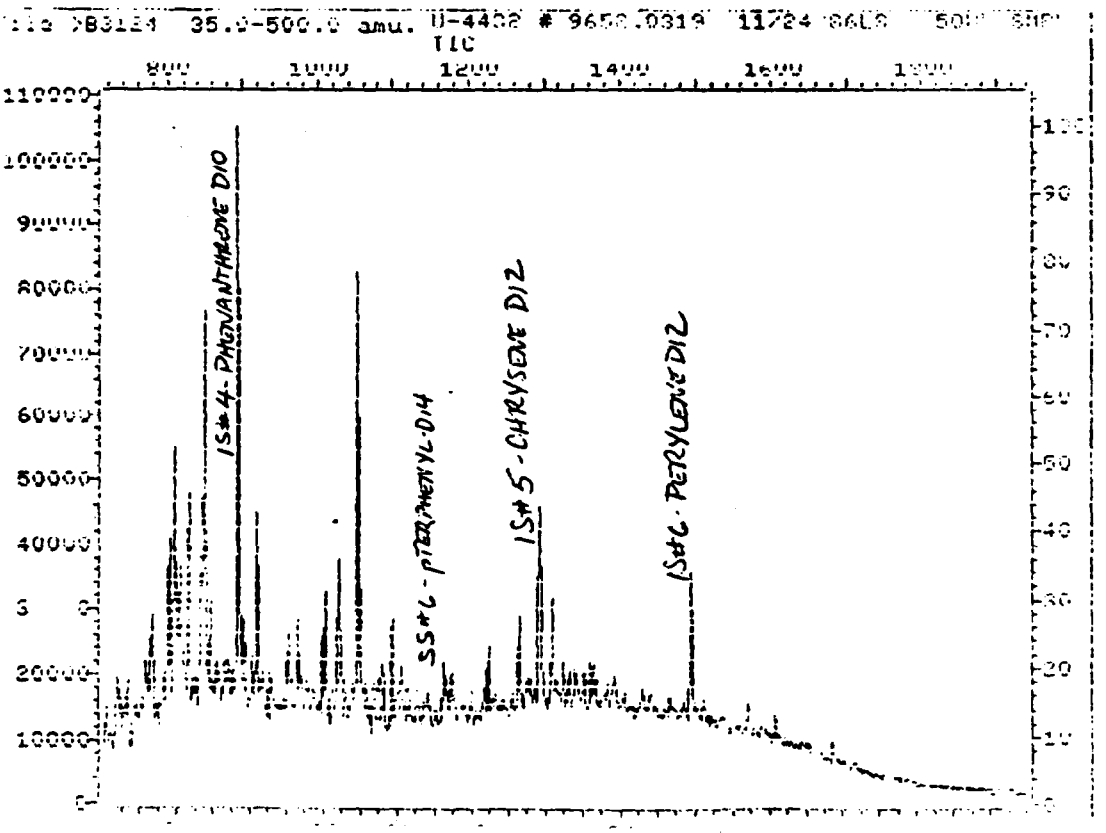
IS#1-1,4-DICHLOROBENZENE-D4
IS#2-NAPHTHALENE-D8
SS#4 2-FLUOROBIPHENYL
IS#3-ACENAPHTHENE-D10


TIC
IS#4-PHENANTHRENE D10
SS#6-p-TERPHENYL-D14
IS#5-CHRYSENE D12
IS#6-PERYLENE D12

QUANT REPORT

erator ID: USER6 Quant Rev: 4 Quant Time: 861124 23:09
utput File: ^B3124::02 Acquired at: 861124 22:21
ata File: >B3124::04 Dilution Factor: 10.00
ame: U-4432 # 9652.0319 DC-SD-14
ise: 11/24/86LS 500UL SMPL + 450UL MEH2 + 50U IS

FINAL VOLUME = 5.0 ml

D File: BNABR::02
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 861124 18:09

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4(IS)	152	9.93	229	65084	40.00	UG/L	88
2)	PHENOL-D5 (SURR)	99	9.99	223	187	.90	UG/L	28
~~2)~~	~~1,3-DICHLOROBENZENE~~	~~146~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~97~~ No GPC
3)	1,4-DICHLOROBENZENE	146	9.97	222	101477	483.72	UG/L	93
~~2)~~	~~1,2-DICHLOROBENZENE~~	~~146~~	~~10.11~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~67~~ No GPC
2)	1,2-DICHLOROBENZENE	146	10.52	249	7916	36.80	UG/L	94
~~2)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~11.29~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~67~~
~~2)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~11.48~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~ No GPC
~~2)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~11.60~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~3~~
~~2)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~11.96~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~94~~
9)	*NAPHTHALENE-D8 (IS)	136	13.84	412	207041	40.00	UG/L	100
3)	1,2,4-TRICHLOROBENZENE	180	13.80	410	2274	12.04	UG/L	100
9)	NAPHTHALENE	128	13.88	414	[illegible]	[illegible]	UG/L	100
3)	2-METHYLNAPHTHALENE	142	16.05	[illegible]	[illegible]	[illegible]	UG/L	97
~~2)~~	~~2-METHYLNAPHTHALENE~~	~~142~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~ No GPC
~~2)~~	~~2-METHYLNAPHTHALENE~~	~~142~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~89~~
4)	*ACENAPHTHENE-D10 (IS)	162	17.23	677	[illegible]	40.00	UG/L	96
3)	2-FLUOROBIPHENYL (SURR)	172	17.40	682	2499	5.61	UG/L	94
~~2)~~	~~DIMETHYL PHTHALATE~~	~~163~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~2)~~	~~DIMETHYL PHTHALATE~~	~~163~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~2)~~	~~DIBENZOFURAN~~	~~168~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~ No GPC
~~2)~~	~~DIBENZOFURAN~~	~~168~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~2)~~	~~DIBENZOFURAN~~	~~168~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~2)~~	~~ACENAPHTHYLENE~~	~~152~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~1~~
2)	FLUORENE	166	18.88	751	[illegible]	3.29	UG/L	98
2)	ACENAPHTHENE	153	19.31	681	[illegible]	5.29	UG/L	92
~~2)~~	~~ACENAPHTHENE~~	~~154~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~63~~
~~2)~~	~~2,4-DINITROPHENOL~~	~~184~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~2)~~	~~2,4-DINITROPHENOL~~	~~184~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~101~~
~~2)~~	~~2,4-DINITROPHENOL~~	~~184~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~2)~~	~~2,4-DINITROPHENOL~~	~~184~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~ No GPC
~~2)~~	~~2,4-DINITROPHENOL~~	~~184~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~2)~~	~~2,4-DINITROPHENOL~~	~~184~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~2)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~2)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~2)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~2)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
5)	*PHENANTHRENE-D10 (IS)	188	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1)	PHENANTHRENE	178	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
~~2)~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
~~2)~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ No GPC

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
~~6)~~	~~BENZIDINE~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	100
7)	PYRENE	202	28.02	1108	[illegible]	[illegible]	UG/L	99
8)	TERPHENYL-D14 (SURR)	244	28.87	1150	462	[illegible]	UG/L	100
~~[illegible]~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	42
2)	BIS(2-ETHYLHEXYL)PHTHALATE	149	32.81	1343	[illegible]	21.10	UG/L	96
~~[illegible]~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	1
4)	*PERYLENE-D12 (IS)	264	35.91	1495	37226	40.00	UG/L	100
~~[illegible]~~	~~DI-N-OCTYL PHTHALATE~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	100
5)	DI-N-OCTYL PHTHALATE	149	34.62	1439	963	5.90	UG/L	100
~~[illegible]~~	~~DI-N-OCTYL PHTHALATE~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	100
~~25)~~	~~DI-N-OCTYL PHTHALATE~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	100
~~[illegible]~~	~~DI-N-OCTYL PHTHALATE~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	100
26)	BENZO(B)FLUORANTHENE	252	34.97	1449	74[illegible]	7.[illegible]4	UG/L	100
~~[illegible]~~	~~BENZO(K)FLUORANTHENE~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	100
~~[illegible]~~	~~BENZO(A)PYRENE~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	100
8)	BENZO(A)PYRENE	252	35.78	1489	387	4.06	UG/L	100

NO BGM

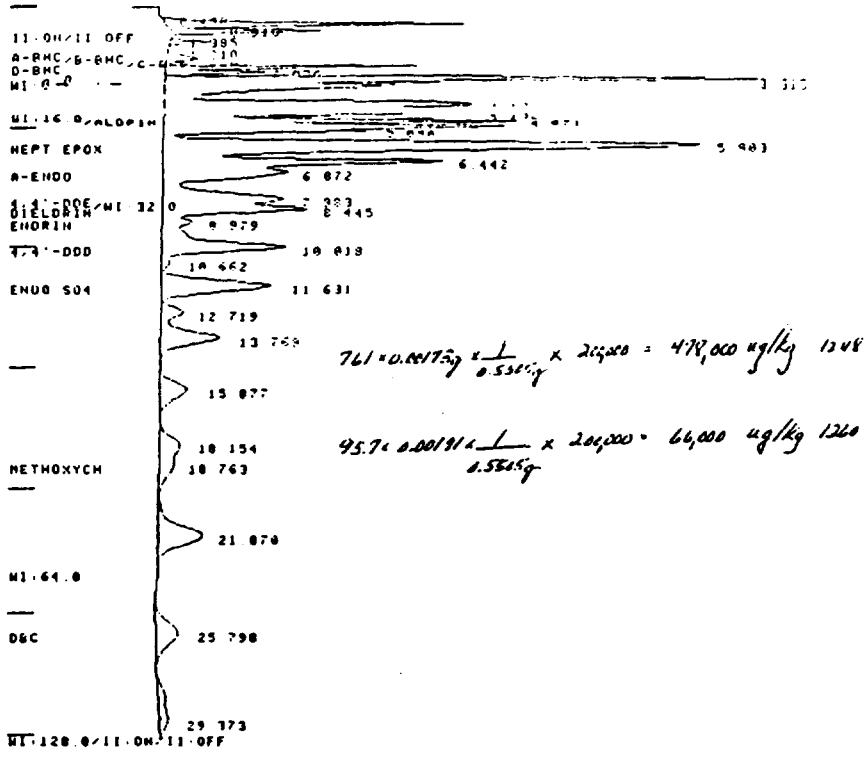
NO BGM

NO BGM

NO BGM

* Compound is ISTD

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



761 × 0.00175g × 1/0.5505g × 200,000 = 478,000 ug/kg 1248

95.7 × 0.00191 × 1/0.5505g × 200,000 = 66,000 ug/kg 1260

RECALCULATE ON FILE: SLY453

CHANNEL: 1A - 1 TITLE: RUN# 18 23:57 18 NOV 86

DC-SD-14

SAMPLE: 9652.03.19A1 METHOD: DAVE CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.385		23626	BB	3.31
2	~~A-BHC~~	709.4493	2.063	0.023	45025	VV	4.75
3	~~B-BHC~~	955.7641	2.269	0.099	21222	VV	5.63
4	~~B-BHC~~	4146.663	2.591	0.141	221243	VV	6.44
5		0.0000	2.856		152055	VV	6.31
6		0.0000	3.318		727296	VV	8.06
7	~~HEPTACHLO~~	9632.797	3.532	-0.258	431855	VV	? 15.69
8		0.0000	4.132		732009	VV	19.44
9	~~ALDRIN~~	10403.34	4.571	-0.099	581959	VV	12.94
10		0.0000	4.685		502879	VV	? 12.19
11		0.0000	5.096		257436	VV	? 12.19
12	~~HEPT EPOX~~	29216.74	5.803	0.133	1536114	VV	21.75
13		0.0000	6.442	1248	614621 761	VV	16.81
14	~~A-ENDO~~	7963.477	6.872	-0.158	393394	VV	? 35.63
15	~~4,4'-DDE~~	8554.293	7.983	-0.107	436523	VV	? 31.50
16	~~DIELDRIN~~	7868.429	8.445	0.255	427014	VV	? 28.50
17	~~ENDRIN~~	1434.383	8.979	-0.151	70939	VV	? 22.25
18	~~4,4'-DDD~~	10576.77	10.018	-0.142	463576	VV	24.31
19	~~ENDO ALD.~~	554.5801	10.662	0.412	21084	VV	? 21.06
20	~~ENDO SO4~~	12187.16	11.631	-0.279	436369	VV	31.13
21		0.0000	12.719		83242	VV	28.25
22	~~4,4'-DDT~~	9169.968	13.769	0.509	267660	VV	32.31
23	~~END KETON~~	3114.911	15.877	0.607	161711 95.7	VB	46.81
24		0.0000	18.154	1260	136457	BV	? 46.94
25	~~METHOXYCH~~	4822.760	18.763	-0.727	94230	VV	? 81.38
26		0.0000	21.870		306046	VB	49.05
27	~~DBC~~	4336.770	25.798	-0.812	177661	BV	66.31
28		0.0000	29.373		96191	VB	?133.44

TOTALS: 125649.2 -0.555 9414126

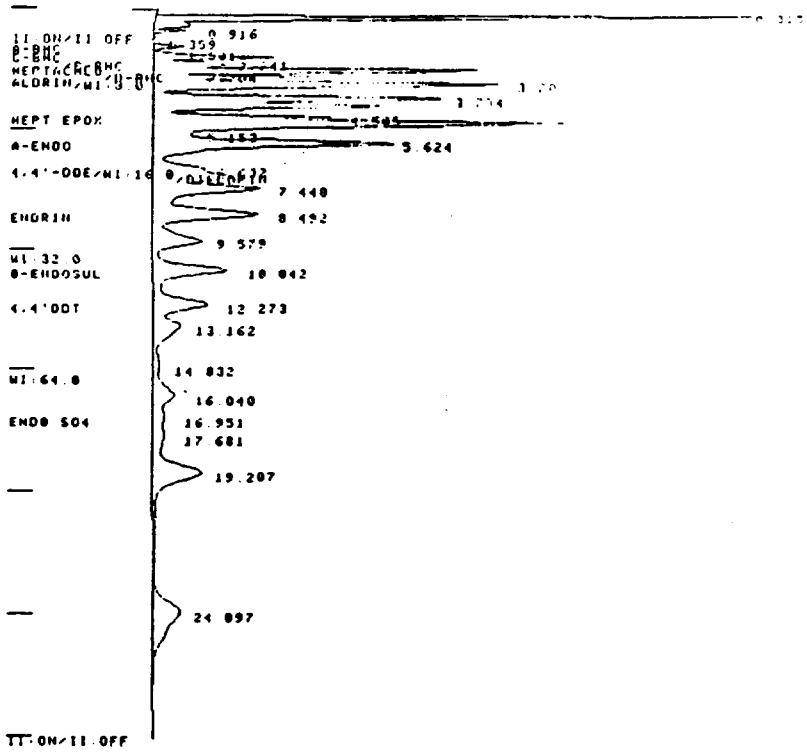
DETECTED PKS: 41 REJECTED PKS: 13

DIVISOR: 0.55050 MULTIPLIER: 200000.000

NOISE: 22.9 OFFSET: -20

NOTES:
NOTEBOOK: 259-41 ANALYST: K.JOREK
SECURE AREA: D TOD#:U-4465
INST:VARIAN 6200#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 20 ML/MIN.

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



DC-SD-14

CHANNEL: 18 - 1 TITLE: RUN# 12 16:42 21 NOV 86

SAMPLE: 9652 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1	A-BHC	312.0755	1.528	-0.122	[illegible]	VV		3.81
2	G-BHC	1619.950	1.964	-0.116	314261	VV		4.75
3		0.0000	2.241		190237	VV	?	6.69
4	B-BHC	567.0875	2.415	0.035	46507	VV	?	5.44
5	HEPTACHLO	5050.381	2.540	-0.012	953566	VV		5.69
6	D-BHC	2170.352	2.794	0.014	304625	VV		7.44
7		0.0000	2.990		193633	VV	?	8.38
8	ALDRIN	4845.509	3.206	0.096	1057503	VV		11.75
9		0.0000	3.784		956425	VV		10.63
10		0.0000	4.053		663209	VV		11.69
11	HEPT EPOX	2499.065	4.505	-0.135	488742	VV	?	11.13
12		0.0000	4.781		1595472	VV		15.75
13		0.0000	5.153		52847	VV	?	
14	A-ENDO	7176.714	5.624	-0.216	1268907	VV	?	16.94
15	4,4'-DDE	1232.411	6.632	-0.098	218121	VV	?	16.68
16		0.0000	6.920		461057	VV	?	23.31
17	DIELDRIN	3337.964	7.448	0.318	635044	VV		20.88
18	ENDRIN	5122.405	8.492	-0.208	711768	VV		25.56
19		0.0000	9.579		410568	VV		30.19
20	B-ENDOSUL	3647.094	10.842	0.362	590593	VV		27.19
21	4,4'DDT	9887.577	12.273	-0.087	475372	VV		32.06
22	END. ALD.	2627.506	13.162	-0.658	[illegible]	VV	?	53.50
23		0.0000	14.832		92657	VV	?	67.94
24		0.0000	16.040		282665	VV	?	61.13
25	ENDO SO4	1694.603	16.951	0.161	119362	VV	?	78.00
26		0.0000	17.681		154540	VV	?	93.88
27		0.0000	19.207		622313	VV		48.25
28	METHOXYCH	23572.50	24.897	1.277	644572	VB		94.75

TOTALS: 75363.20 0.611 13855903

DETECTED PKS: 38 REJECTED PKS: 12

DIVISOR: 1.50000 MULTIPLIER: 200000.000

NOISE: 68.6 OFFSET: -14

NOTES:
NOTEBOOK:259-40 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB #U-4432:U-4447
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

SAMPLE NUMBER DC-SD-15

481095

Sample Number
DC-SD-15

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U-4442
Lab Sample ID No: 9653
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [illegible]
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-13-86

Conc./Dil Factor: 2 pH 6.9

Percent Moisture: (Not Decanted) 34

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2800u
74-83-9	Bromomethane	2800u
75-01-4	Vinyl Chloride	2800u
75-00-3	Chloroethane	2800u
75-09-2	Methylene Chloride	7800 B
67-64-1	Acetone	4900 B
75-15-0	Carbon Disulfide	1400u
75-35-4	1, 1-Dichloroethene	1400u
75-34-3	1, 1-Dichloroethane	1400u
156-60-5	Trans-1, 2-Dichloroethene	1400u
67-66-3	Chloroform	1400u
107-06-2	1, 2-Dichloroethane	1400u
78-93-3	2-Butanone	11000
71-55-6	1, 1, 1-Trichloroethane	1400u
56-23-5	Carbon Tetrachloride	1400u
108-05-4	Vinyl Acetate	2800u
75-27-4	Bromodichloromethane	1400u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1400u
10061-02-6	Trans-1, 3-Dichloropropene	1400u
79-01-6	Trichloroethene	1400u
124-48-1	Dibromochloromethane	1400u
79-00-5	1, 1, 2-Trichloroethane	1400u
71-43-2	Benzene	1400u
10061-01-5	cis-1, 3-Dichloropropene	1400u
110-75-8	2-Chloroethylvinylether	2800u
75-25-2	Bromoform	1400u
108-10-1	4-Methyl-2-Pentanone	2800u
591-78-6	2-Hexanone	2800u
127-18-4	Tetrachloroethene	1400u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1400u
108-88-3	Toluene	1400u
108-90-7	Chlorobenzene	1400u
100-41-4	Ethylbenzene	1400u
100-42-5	Styrene	1400u
	Total Xylenes	1400u

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.

aboratory Name ecology and environment, inc.

ase No. V-4432 / V-4442

Sample Number
DC-SD-15

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

oncentration: (Low) Medium (Circle One)

ate Extracted/Prepared: 11-11-86

ate Analyzed: 11-25-86

onc/Dil Factor: 2

ercent Moisture (Decanted) 34

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	500	U
111-44-4	bis(2-Chloroethyl)Ether	500	U
95-57-8	2-Chlorophenol	500	U
541-73-1	1,3-Dichlorobenzene	500	U
106-46-7	1,4-Dichlorobenzene	500	U
100-51-6	Benzyl Alcohol	500	U
95-50-1	1,2-Dichlorobenzene	500	U
95-48-7	2-Methylphenol	500	U
39638-32-9	bis(2-chloroisopropyl)Ether	500	U
106-44-5	4-Methylphenol	500	U
621-64-7	N-Nitroso-Di-n-Propylamine	500	U
67-72-1	Hexachloroethane	500	U
98-95-3	Nitrobenzene	500	U
78-59-1	Isophorone	500	U
88-75-5	2-Nitrophenol	500	U
105-67-9	2,4-Dimethylphenol	500	U
65-85-0	Benzoic Acid	2400	U
111-91-1	bis(2-Chloroethoxy)Methane	500	U
120-83-2	2,4-Dichlorophenol	500	U
120-82-1	1,2,4-Trichlorobenzene	500	U
91-20-3	Naphthalene	500	U
106-47-8	4-Chloroaniline	500	U
87-68-3	Hexachlorobutadiene	500	U
59-50-7	4-Chloro-3-Methylphenol	500	U
91-57-6	2-Methylnaphthalene	500	U
77-47-4	Hexachlorocyclopentadiene	500	U
88-06-2	2,4,6-Trichlorophenol	500	U
95-95-4	2,4,5-Trichlorophenol	2400	U
91-58-7	2-Chloronaphthalene	500	U
88-74-4	2-Nitroaniline	2400	U
13[illegible]1-3	Dimethyl Phthalate	500	U
208-96-8	Acenaphthylene	500	U
99-09-2	3-Nitroaniline	2400	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	500	U
51-28-5	2,4-Dinitrophenol	2400	U
100-02-7	4-Nitrophenol	2400	U
132-64-9	Dibenzofuran	500	U
121-14-2	2,4-Dinitrotoluene	500	U
606-20-2	2,6-Dinitrotoluene	500	U
84-66-2	Diethylphthalate	500	U
7005-72-3	4-Chlorophenyl-phenylether	500	U
86-73-7	Fluorene	500	U
100-01-6	4-Nitroaniline	2400	U
534-52-1	4,6-Dinitro-2-Methylphenol	2400	U
86-30-6	N-Nitrosodiphenylamine (1)	500	U
101-55-3	4-Bromophenyl-phenylether	500	U
118-74-1	Hexachlorobenzene	500	U
87-86-5	Pentachlorophenol	2400	U
85-01-8	Phenanthrene	500	U
120-12-7	Anthracene	500	U
84-74-2	Di-n-Butylphthalate	580	B
206-44-0	Fluoranthene	500	U
129-00-0	Pyrene	500	U
85-68-7	Butylbenzylphthalate	500	U
91-94-1	3,3'-Dichlorobenzidine	1000	U
56-55-3	Benzo(a)Anthracene	500	U
117-81-7	bis(2-Ethylhexyl)Phthalate	500	U
218-01-9	Chrysene	500	U
117-84-0	Di-n-Octyl Phthalate	120	J
205-99-2	Benzo(b)Fluoranthene	500	U
207-08-9	Benzo(k)Fluoranthene	500	U
50-32-8	Benzo(a)Pyrene	500	U
193-39-5	Indeno(1,2,3-cd)Pyrene	500	U
53-70-3	Dibenzo(a,h)Anthracene	500	U
191-24-2	Benzo(g,h,i)Perylene	500	U

(1) Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4432/V-4442

Sample Number DC-SD-15

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-11-86

Date Analyzed 11-19-86

Conc/Dil Factor: 1 ~ 2

Percent Moisture (decanted) 34

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	32 U
319-85-7	Beta-BHC	32 U
319-86-8	Delta-BHC	32 U
58-89-9	Gamma-BHC (Lindane)	32 U
76-44-8	Heptachlor	32 U
309-00-2	Aldrin	32 U
1024-57-3	Heptachlor Epoxide	32 U
959-98-8	Endosulfan I	32 U
60-57-1	Dieldrin	64 U
72-55-9	4, 4'-DDE	64 U
72-20-8	Endrin	64 U
33213-65-9	Endosulfan II	64 U
72-54-8	4, 4'-DDD	64 U
1031-07-8	Endosulfan Sulfate	64 U
50-29-3	4 4'-DDT	64 U
72-43-5	Methoxychlor	320 U
53494-70-5	Endrin Ketone	64 U
57-74-9	Chlordane	320 U
8001-35-2	Toxaphene	640 U
12674-11-2	Aroclor-1016	320 U
11104-28-2	Aroclor-1221	320 U
11141-16-5	Aroclor-1232	320 U
53469-21-9	Aroclor-1242	320 U
12672-29-6	Aroclor-1248	660
11097-69-1	Aroclor-1254	670
11096-82-5	Aroclor-1260	430 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

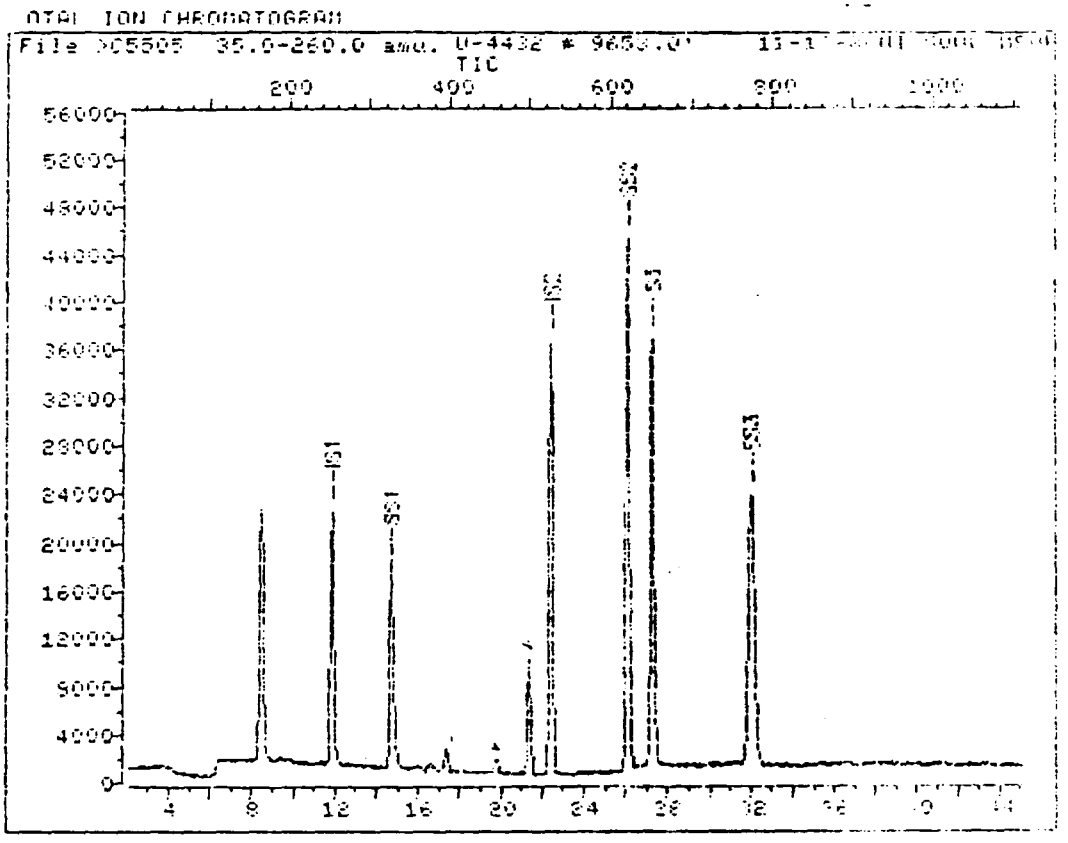
Case No u-4432 / u-4442

Sample Number DC-SD-15

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

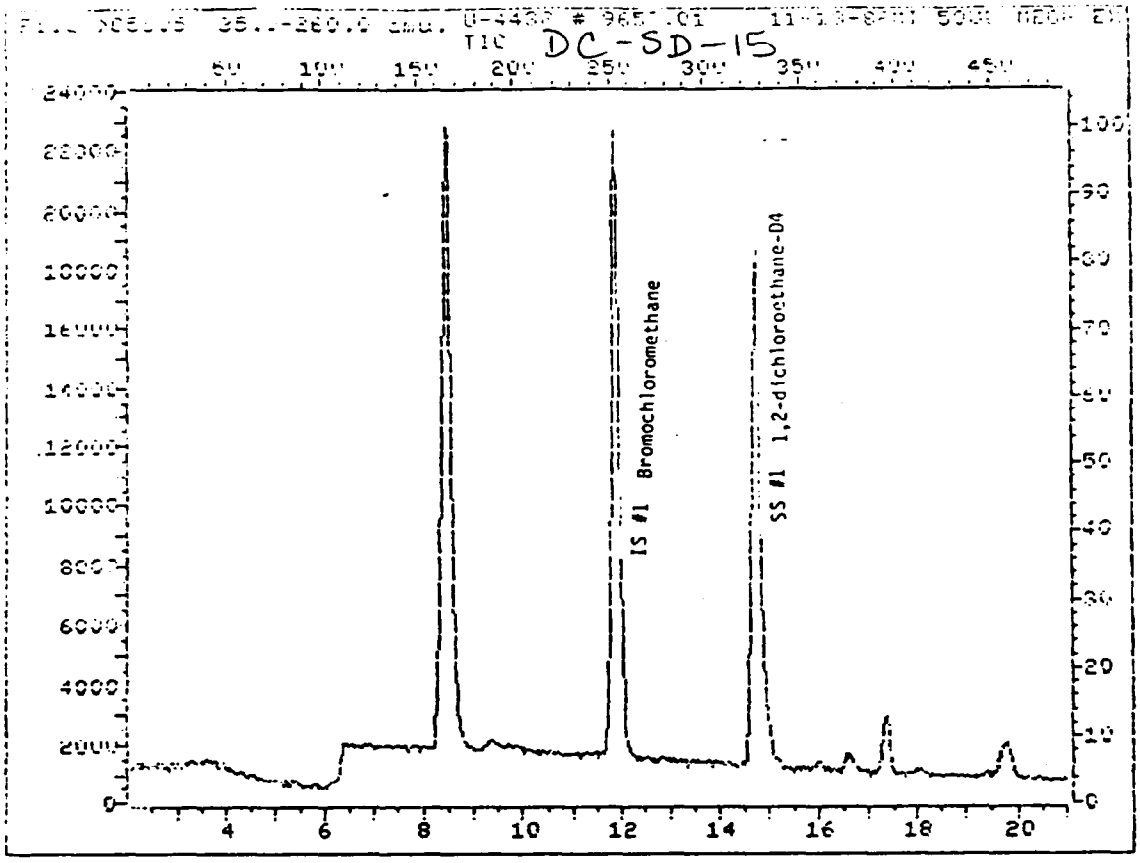
CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4 min	640 BJ
2.	Unknown Ketone	VOA	19.7 min	340 J
3.	Hexane isomer	VOA	21.4 min	2200 BJ
4.				
5.	UNKNOWN HYDROCARBON	BNA	5.5	1500 J
6.	UNKNOWN HYDROCARBON		5.7	1900 J
7.	UNKNOWN HYDROCARBON		6.8	1700 J
8.	UNKNOWN		8.1	2800 J
9.	UNKNOWN		8.6	970 J
10.	UNKNOWN HYDROCARBON		9.2	7500 J
11.	UNKNOWN HYDROCARBON		10.5	2000 J
12.	UNKNOWN		30.1	1000 BJ
13.	UNKNOWN		39.1	570 J
14.	UNKNOWN		41.1	490 J
15.	UNKNOWN		41.4	720 J
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

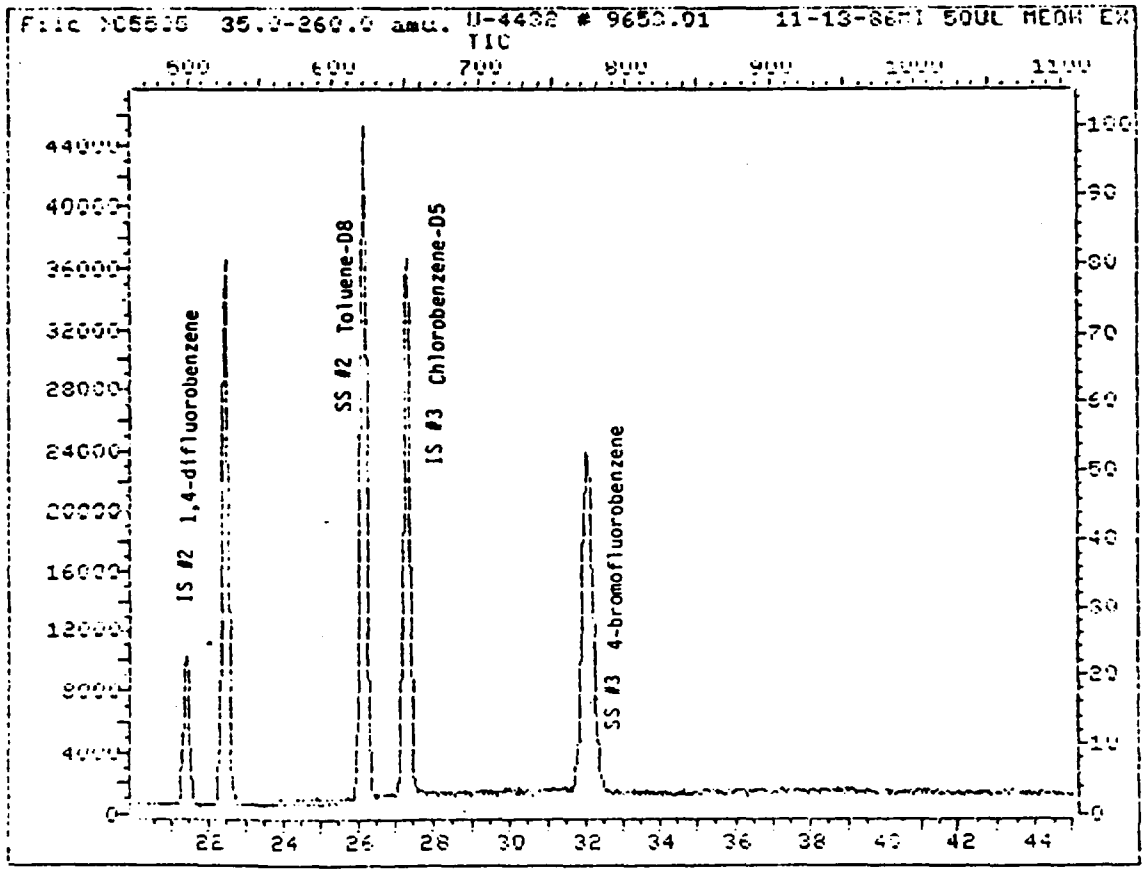


Data File: >C5505::04
Name: U-4432 # 9653.01 DC-SD-15
Misc: 11-13-86MI 50UL MEUH EXT [illegible]

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. [illegible]
Last Calibration: 861113 13:[illegible]

Operator ID: USFR8
Quant Time: 861113 19:28
Injected at: 861113 18:42


TIC
DC-SD-15
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT --

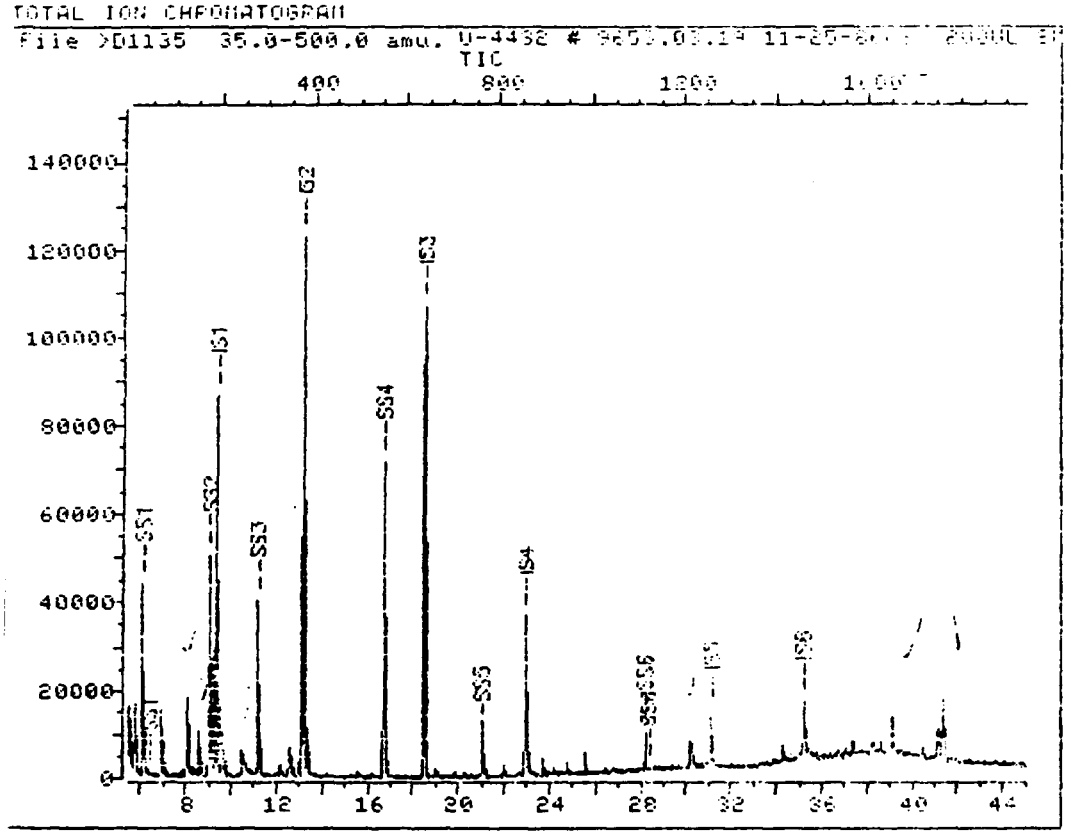
Operator ID: USER8 Quant Rev: 4 Quant Time: [illegible] 19:08
Output File: >C5505::D2 Injected at: [illegible] 18:42
Data File: >C5505::D4 Dilution factor: 1.00
Name: U-4432 # 9653.01 DC-SD-15
Misc: 11-13-86MI 50UL MEOH EXT (4.848/10ML) + [illegible]

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861113 13:39

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.87	[illegible]	[illegible]	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.45	165	58902	25.06	UG/L	100
7)	ACETONE		43	9.38	189	3488	15.55	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.70	[illegible]	76207	47.25	UG/L	86
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.45	[illegible]	154970	50.00	UG/L	100
18)	2-BUTANONE		72	14.85	[illegible]	3963	55.13	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.31	651	116056	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.14	621	182543	51.09	UG/L	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.04	[illegible]	89831	46.95	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

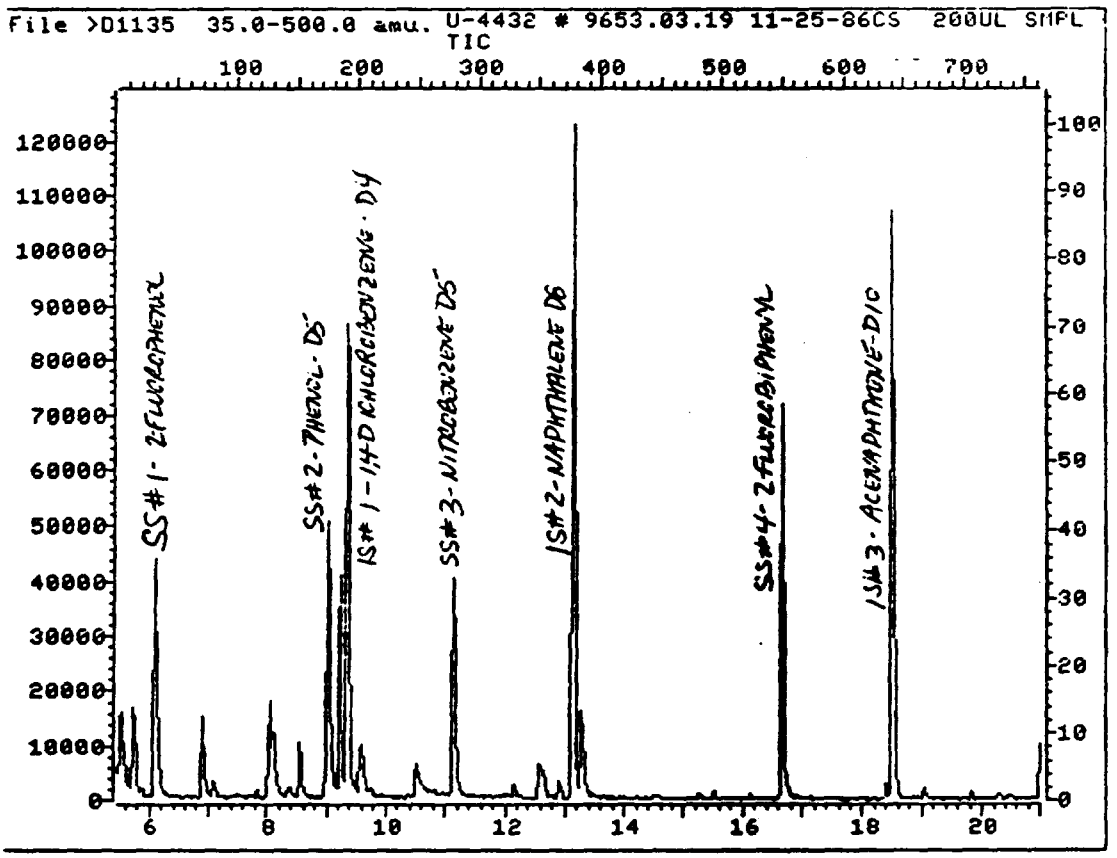


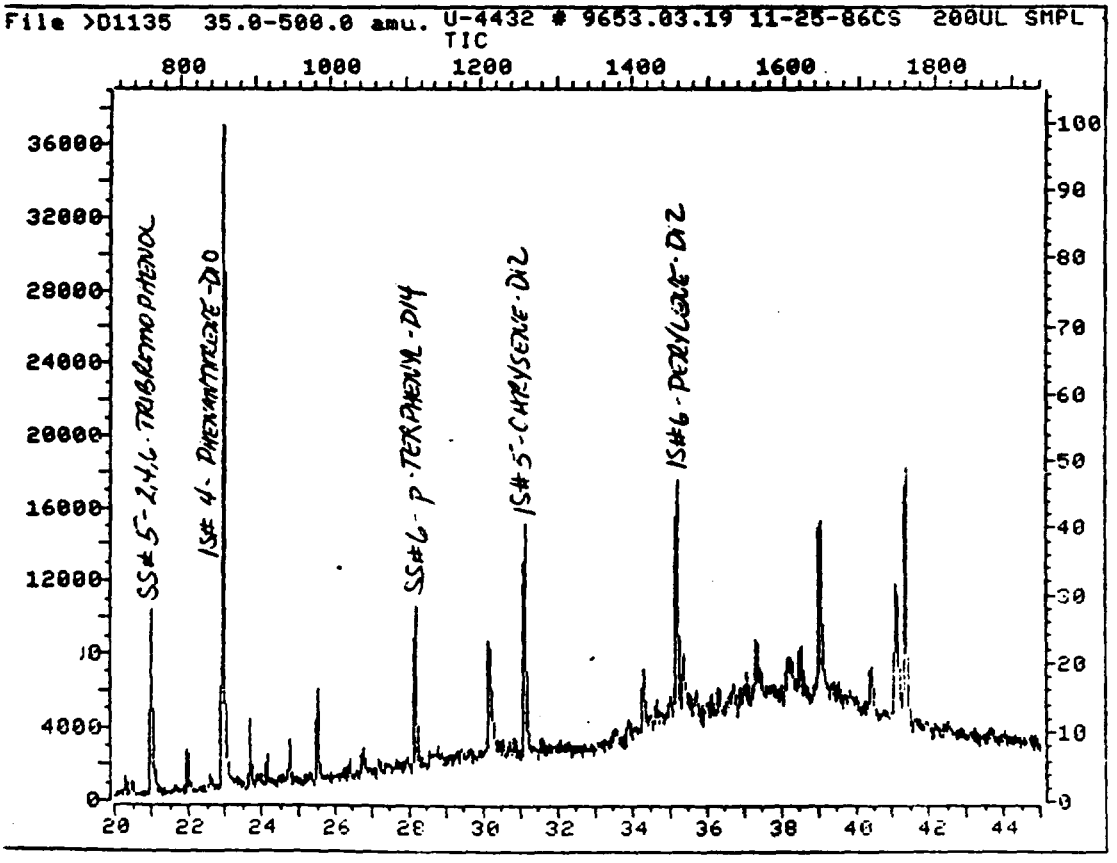
Data File: >D1135::D3
Name: U-4432 # 9653.03.19 DC-SD-15
Misc: 11-25-86CS 200UL SMPL + 200UL MECL2 + 5UL IS (2.) BD # 2

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861125 15:39

Operator ID: USER6
Quant Time: 861125 17:03
Injected at: 861125 16:16

DC-SD-15


File >D1135 35.0-500.0 amu. U-4432 # 9653.03.19 11-25-86CS 200UL SMPL
TIC
SS#1 - 2-FLUOROPHENOL
SS#2 - PHENOL - D5
IS#1 - 1,4-DICHLOROBENZENE - D4
SS#3 - NITROBENZENE - D5
IS#2 - NAPHTHALENE D8
SS#4 - 2-FLUOROBIPHENYL
IS#3 - ACENAPHTHENE-D10


File >D1135 35.0-500.0 amu. U-4432 # 9653.03.19 11-25-86CS 200UL SMPL
TIC
SS#5 - 2,4,6-TRIBROMOPHENOL
IS#4 - PHENANTHRENE-D10
SS#6 - P-TERPHENYL-D14
IS#5 - CHRYSENE-D12
IS#6 - PERYLENE-D12

QUANT REPORT

erator ID: USER6 Quant Rev: 4 Quant Time: 861125 17:03
t File: ^D1135::02 Injected at: 861125 16:16
ta File: >D1135::D3 Dilution Factor: 2.00
me: U-4432 # 9653.03.19
sc: 11-25-86CS 200UL SMPL + 200UL MPCL2 + 50UL IS (MX) BH # 2

File: BNADR::D2
tle: BNA ID FILE FOR THE HP 5970 (B)
st Calibration: 861125 15:39

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.35	191	44740	40.00	UG/L	87
)	PHENOL-D5	(SURR)	99	9.02	175	59019	76.04	UG/L	91
)	2-FLUOROPHENOL	(SURR)	112	6.09	31	36473	67.41	UG/L	96
)	2-FLUOROPHENOL	(SURR)	112	6.37	45	992	1.83	UG/L	93
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.39~~	~~242~~	~~329~~	~~.24~~	~~UG/L~~	100
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.53~~	~~249~~	~~903~~	~~.67~~	~~UG/L~~	100
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.59~~	~~252~~	~~795~~	~~.59~~	~~UG/L~~	100
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.77~~	~~261~~	~~489~~	~~.36~~	~~UG/L~~	100
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.93~~	~~269~~	~~673~~	~~.49~~	~~UG/L~~	100
)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.75~~	~~260~~	~~140~~	~~.24~~	~~UG/L~~	21
)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.14~~	~~279~~	~~6300~~	~~10.61~~	~~UG/L~~	92
)	*NAPHTHALENE-D8	(IS)	136	13.14	377	164687	40.00	UG/L	100
)	NITROBENZENE-D5	(SURR)	82	11.14	279	35986	50.21	UG/L	98
)	~~1,2,4-TRICHLOROBENZENE~~		~~180~~	~~13.09~~	~~375~~	~~406~~	~~.27~~	~~UG/L~~	100
)	~~NAPHTHALENE~~		~~128~~	~~13.29~~	~~390~~	~~343~~	~~.19~~	~~UG/L~~	100
)	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.36~~	~~496~~	~~142~~	~~.12~~	~~UG/L~~	92
)	*ACENAPHTHENE-D10	(IS)	162	18.51	641	69420	40.00	UG/L	98
)	2-FLUOROBIPHENYL	(SURR)	172	16.66	550	76839	55.01	UG/L	93
)	~~DIMETHYL PHTHALATE~~		~~163~~	~~10.39~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
)	~~DIMETHYL PHTHALATE~~		~~163~~	~~10.51~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.98	762	7691	39.52	UG/L	97
)	~~2,6-DINITROTOLUENE~~		~~165~~	~~10.[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
)	*PHENANTHRENE-D10	(IS)	188	22.93	858	62758	40.00	UG/L	91
)	DI-N-BUTYLPHTHALATE		149	25.50	984	8516	11.49	UG/L	97
)	*CHRYSENE-D12	(IS)	240	31.11	1259	24907	40.00	UG/L	100
)	TERPHENYL-D14	(SURR)	244	28.15	1114	13784	39.76	UG/L	100
)	~~TERPHENYL-D14~~	(SURR)	~~244~~	~~29.31~~	~~1172~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
)	*PERYLENE-D12	(IS)	264	35.17	1498	26007	40.00	UG/L	100
)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.51~~	~~1340~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
)	DI-N-OCTYL PHTHALATE		149	33.90	1396	1077	2.47	UG/L	100
)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.14~~	~~1403~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.33~~	~~1412~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.37~~	~~1419~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100

No Bpk

No Bpk

No Bpk

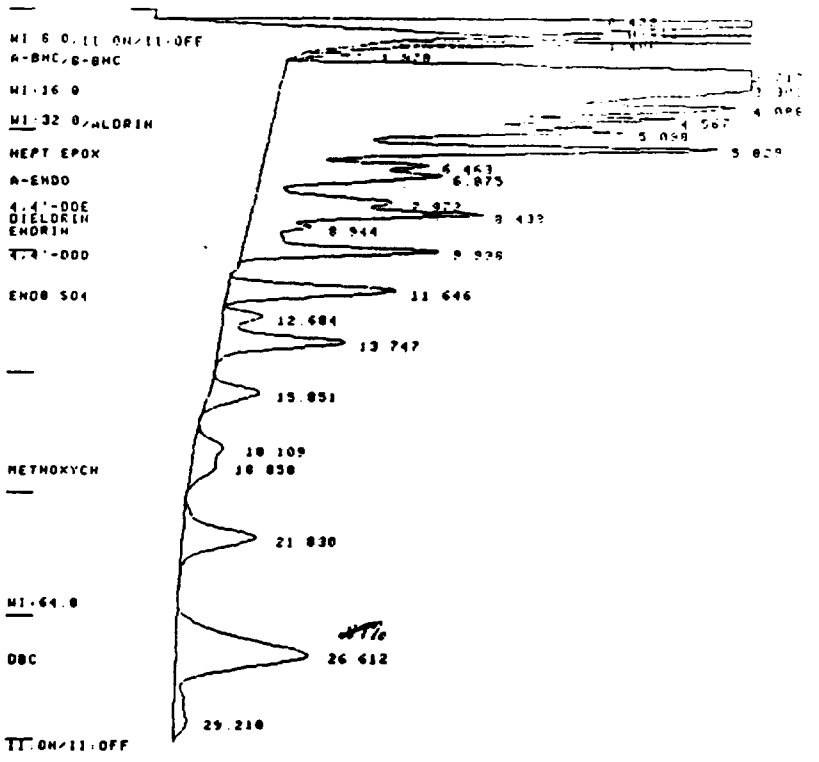
No Bpk

No Bpk

No Bpk

Compound is ISTD

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



CHANNEL: 1A - 1 TITLE: RUN#20 1:04 19 NOV 86

DC-SD-15

SAMPLE: 9653.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.243		[illegible]	BV	2.44
2		0.0000	1.406		[illegible]	VV	3.19
3		0.0000	1.530		[illegible]	VV	3.19
4	~~A-BHC~~	1.2156	1.878	-0.162	[illegible]	VV	4.91
5		0.0000	2.717		19[illegible]	VV	? 18.13
6		0.0000	2.856		14[illegible]	VV	? 48.63
7		0.0000	3.308		22[illegible]	VV	? 87.94
8		0.0000	4.089		14[illegible]	VV	? 34.69
9	~~ALDRIN~~	25.9027	4.567	-0.103	75[illegible]	VV	? 21.13
10		0.0000	4.891		4[illegible]	VV	? 11.06
11		0.0000	5.098		6[illegible]	VV	? 14.81
12	~~HEPT EPOX~~	47.6134	5.829	0.159	13[illegible]	VV	21.19
13		0.0000	6.463		40[illegible]	VV	? 17.94
14	~~A-ENDO~~	23.4380	6.875	-0.155	6[illegible]	VV	? 30.63
15	4,4'-DDE	17.4793	7.972	-0.118	48[illegible]	VV	? 20.39
16	DIELDRIN	22.3449	8.438	0.248	66[illegible]	VV	21.19
17	ENDRIN	6.2595	8.944	0.186	16[illegible]	VV	? 15.91
18	4,4'-DDD	29.2634	9.999	0.162	69[illegible]	VB	19.91
19	ENDO SO4	34.8373	11.646	-0.264	66[illegible]	BV	31.55
20		0.0000	12.684		14[illegible]	VV	29.94
21	4,4'DDT	34.5428	13.747	0.407	54[illegible]	VB	31.12
22	END KETON	9.2674	15.851	0.581	20[illegible]	BB	38.44
23		0.0000	18.109		17[illegible]	BV	? 42.38
24	METHOXYCH	13.6415	~~18.830~~	-0.632	~~[illegible]~~	VV	? 42.75
25		0.0000	21.830		51[illegible]	VB	49.75
26	DBC	57.7928	26.612	0.002	129[illegible]	BV	74.13
27		0.0000	29.210		12[illegible]	VB	93.62

TOTALS: 322.7998 -0.305 17911950

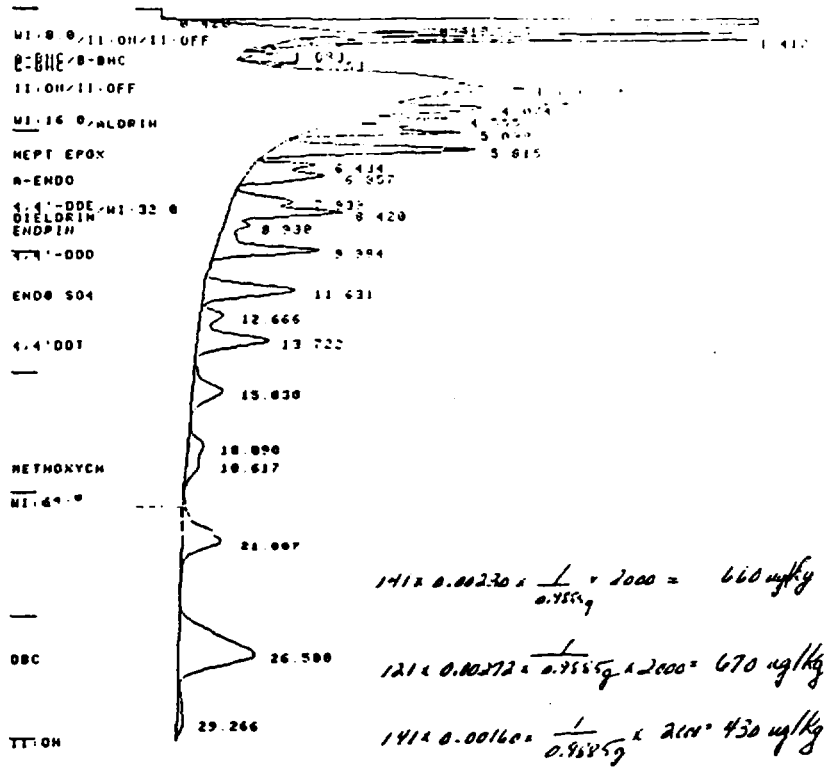
DETECTED PKS: 36 REJECTED PKS: 9

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 22.9 OFFSET: -5

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SAMSON
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 6000B A ECD 18X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:320 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION

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



141 x 0.00230 x 1/0.9555g x 2000 = 660 ug/kg 1248

121 x 0.00272 x 1/0.9555g x 2000 = 670 ug/kg 1254

141 x 0.00160 = 1/0.9685g x 2000 = 430 ug/kg 1260

RECALCULATE ON FILE: SLY456

CHANNEL: 1A - 1 TITLE: RUN# ~~19 20~~ 21 AS AS 10:29 19 NOV 86

DC-SD-15

SAMPLE: 9653.03.19A1 METHOD: DAVE CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	1.249		[illegible]	BV		2.44
2		0.0000	1.412		[illegible]	VV		3.25
3		0.0000	1.536		54659	VV		3.13
4	A-BHC	2.4918	1.883	-0.157	[illegible]	VV		5.25
5	B-BHC	9.0552	2.253	0.083	[illegible]	VB	?	7.56
6		0.0000	3.389		[illegible]	BB		7.13
7	HEPTACHLO	27.8476	4.074	0.284	[illegible]	BV		16.31
8	ALDRIN	14.9711	4.555	-0.115	[illegible]	VV		9.38
9		0.0000	4.870	1248	[illegible]	VV		8.50
10		0.0000	5.099	141	181907	VV		8.31
11	HEPT EPOX	49.9620	5.815	0.145	471694	VV		17.56
12		0.0000	6.434		[illegible]	VV	?	13.31
13	A-ENDO	26.5558	6.857	-0.173	[illegible]	VV	?	24.94
14	4,4'-DDE	21.4724	7.939	-0.151	196754	VV	?	29.56
15	DIELDRIN	36.3221	8.420	1254 0.230	121 352952	VV		21.06
16	ENDRIN	7.5954	8.938	-0.192	67450	VV	?	13.81
17	4,4'-DDD	45.1775	9.924	-0.176	[illegible]	VB		20.13
18	ENDO SO4	57.3364	11.631	-0.279	[illegible]	BV		31.50
19		0.0000	12.666		93059	VV		28.19
20	4,4'DDT	68.1124	13.722	0.462	315254	VV		30.31
21	END KETON	20.3517	15.830	1260 0.560 141	[illegible]	VB		43.50
22		0.0000	18.090		92759	BV	?	41.88
23	METHOXYCH	22.2783	18.617	-0.873	[illegible]	VB	?	70.81
24		0.0000	21.0[illegible]		[illegible]	BV		43.06
25	DBC	104.1541	26.590	-0.030	[illegible]	VV		77.06
26		0.0000	29.265		[illegible]	VB		79.00

TOTALS: 505.6838 -0.382 [illegible]

DETECTED PKS: 35 REJECTED PKS: 9

DIVISOR: 0.98850 MULTIPLIER: 2020.00230

NOISE: 22.9 OFFSET: 13

NOTES:
NOTEBOOK: 259-41 ANALYST: K.JUREK
SECURE AREA: D JOB#:U-4465
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
[illegible] C [illegible] C

SAMPLE NUMBER DC-SD-16

481095

Sample Number
DC-SD-16

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No. U-4432/U 4442
Lab Sample ID No: 9654
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Stoytowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-12-86

Conc./Dil Factor: 2 pH 7.0

Percent Moisture: (Not Decanted) 43

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3800u
74-83-9	Bromomethane	3800u
75-01-4	Vinyl Chloride	3800u
75-00-3	Chloroethane	3800u
75-09-2	Methylene Chloride	10000B
67-64-1	Acetone	5100B
75-15-0	Carbon Disulfide	1900u
75-35-4	1, 1-Dichloroethene	1900u
75-34-3	1, 1-Dichloroethane	1900u
156-60-5	Trans-1, 2-Dichloroethene	1900u
67-66-3	Chloroform	1900u
107-06-2	1, 2-Dichloroethane	1900u
78-93-3	2-Butanone	14000
71-55-6	1, 1, 1-Trichloroethane	1900u
56-23-5	Carbon Tetrachloride	1900u
108-05-4	Vinyl Acetate	3800u
75-27-4	Bromodichloromethane	1900u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1900u
10061-02-6	Trans-1, 3-Dichloropropene	1900u
79-01-6	Trichloroethene	1900u
124-48-1	Dibromochloromethane	1900u
79-00-5	1, 1, 2-Trichloroethane	1900u
71-43-2	Benzene	1900u
10061-01-5	cis-1, 3-Dichloropropene	1900u
110-75-8	2-Chloroethylvinylether	3800u
75-25-2	Bromoform	1900u
108-10-1	4-Methyl-2-Pentanone	3800u
591-78-6	2-Hexanone	3800u
127-18-4	Tetrachloroethene	1900u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1900u
108-88-3	Toluene	1900u
108-90-7	Chlorobenzene	1900u
100-41-4	Ethylbenzene	1900u
100-42-5	Styrene	1900u
	Total Xylenes	1900u

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.

aboratory Name ecology and environment, inc.

ase No. U-4432 / U-4442

Sample Number
DC-SD-16

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

oncentration: (Low) Medium (Circle One)

ate Extracted/Prepared: 11-11-86

ate Analyzed: 11-21-86

onc/Dil Factor: 10

ercent Moisture (Decanted) 43

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
08-95-2	Phenol	2800	U
11-44-4	bis(-2-Chloroethyl)Ether	2800	U
5-57-8	2-Chlorophenol	2800	U
41-73-1	1 3-Dichlorobenzene	2800	U
06-46-7	1, 4-Dichlorobenzene	2800	U
00-51-6	Benzyl Alcohol	2800	U
5-50-1	1 2-Dichlorobenzene	2800	U
5-48-7	2-Methylphenol	2800	U
9638-32-9	bis(2-chloroisopropyl)Ether	2800	U
06-44-5	4-Methylphenol	2800	U
21-64-7	N-Nitroso-Di-n-Propylamine	2800	U
7-72-1	Hexachloroethane	2800	U
8-95-3	Nitrobenzene	2800	U
8-59-1	Isophorone	2800	U
8-75-5	2-Nitrophenol	2800	U
05-67-9	2, 4-Dimethylphenol	2800	U
5-85-0	Benzoic Acid	14000	U
11-91-1	bis(-2-Chloroethoxy)Methane	2800	U
20-83-2	2, 4-Dichlorophenol	2800	U
20-82-1	1, 2, 4-Trichlorobenzene	2800	U
1-20-3	Naphthalene	2800	U
06-47-8	4-Chloroaniline	2800	U
7-68-3	Hexachlorobutadiene	2800	U
9-50-7	4-Chloro-3-Methylphenol	2800	U
1-57-6	2-Methylnaphthalene	2800	U
7-47-4	Hexachlorocyclopentadiene	2800	U
8-06-2	2 4 6-Trichlorophenol	2800	U
5-95-4	2, 4, 5-Trichlorophenol	14000	U
1-58-7	2-Chloronaphthalene	2800	U
8-74-4	2-Nitroaniline	14000	U
3 -3	Dimethyl Phthalate	2800	U
08-96-8	Acenaphthylene	2800	U
9-09-2	3-Nitroaniline	14000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2800	U
51-28-5	2, 4-Dinitrophenol	14000	U
100-02-7	4-Nitrophenol	14000	U
132-64-9	Dibenzofuran	2800	U
121-14-2	2 4-Dinitrotoluene	2800	U
606-20-2	2 6-Dinitrotoluene	2800	U
84-66-2	Diethylphthalate	2800	U
7005-72-3	4-Chlorophenyl-phenylether	2800	U
86-73-7	Fluorene	2800	U
100-01-6	4-Nitroaniline	14000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	14000	U
85-30-6	N-Nitrosodiphenylamine (1)	2800	U
101-55-3	4-Bromophenyl-phenylether	2800	U
118-74-1	Hexachlorobenzene	2800	U
87-86-5	Pentachlorophenol	14000	U
85-01-8	Phenanthrene	2800	U
120-12-7	Anthracene	2800	U
84-74-2	Di-n-Butylphthalate	570	BJ
206-44-0	Fluoranthene	2800	U
129-00-0	Pyrene	2800	U
85-68-7	Butylbenzylphthalate	2800	U
91-94-1	3 3'-Dichlorobenzidine	5600	U
56-55-3	Benzo(a)Anthracene	2800	U
117-81-7	bis(2-Ethylhexyl)Phthalate	540	J
218-01-9	Chrysene	2800	U
117-84-0	Di-n-Octyl Phthalate	270	J
205-99-2	Benzo(b)Fluoranthene	2800	U
207-08-9	Benzo(k)Fluoranthene	2800	U
50-32-8	Benzo(a)Pyrene	2800	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	2800	U
53-70-3	Dibenzo(a h)Anthracene	2800	U
191-24-2	Benzo(g h i)Perylene	2800	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number DC-SD-16

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-11-86

Date Analyzed 11-19-86

Conc/Dil Factor: 20

Percent Moisture (decanted) 43

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	320 u
319-85-7	Beta-BHC	320 u
319-86-8	Delta-BHC	320 u
58-89-9	Gamma-BHC (Lindane)	320 u
76-44-8	Heptachlor	320 u
309-00-2	Aldrin	320 u
1024-57-3	Heptachlor Epoxide	320 u
959-98-8	Endosulfan I	320 u
60-57-1	Dieldrin	640 u
72-55-9	4,4'-DDE	640 u
72-20-8	Endrin	640 u
33213-65-9	Endosulfan II	640 u
72-54-8	4,4'-DDD	640 u
1031-07-8	Endosulfan Sulfate	640 u
50-29-3	4,4'-DDT	640 u
72-43-5	Methoxychlor	3,200 u
53494-70-5	Endrin Ketone	640 u
57-74-9	Chlordane	3,200 u
8001-35-2	Toxaphene	6,400 u
12674-11-2	Aroclor-1016	3,200 u
11104-28-2	Aroclor-1221	3,200 u
11141-16-5	Aroclor-1232	3,200 u
53469-21-9	Aroclor-1242	3,200 u
12672-29-6	Aroclor-1248	20,000
11097-69-1	Aroclor-1254	8,830
11096-82-5	Aroclor-1260	6,400 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

Laboratory Name ecology and environment, inc.

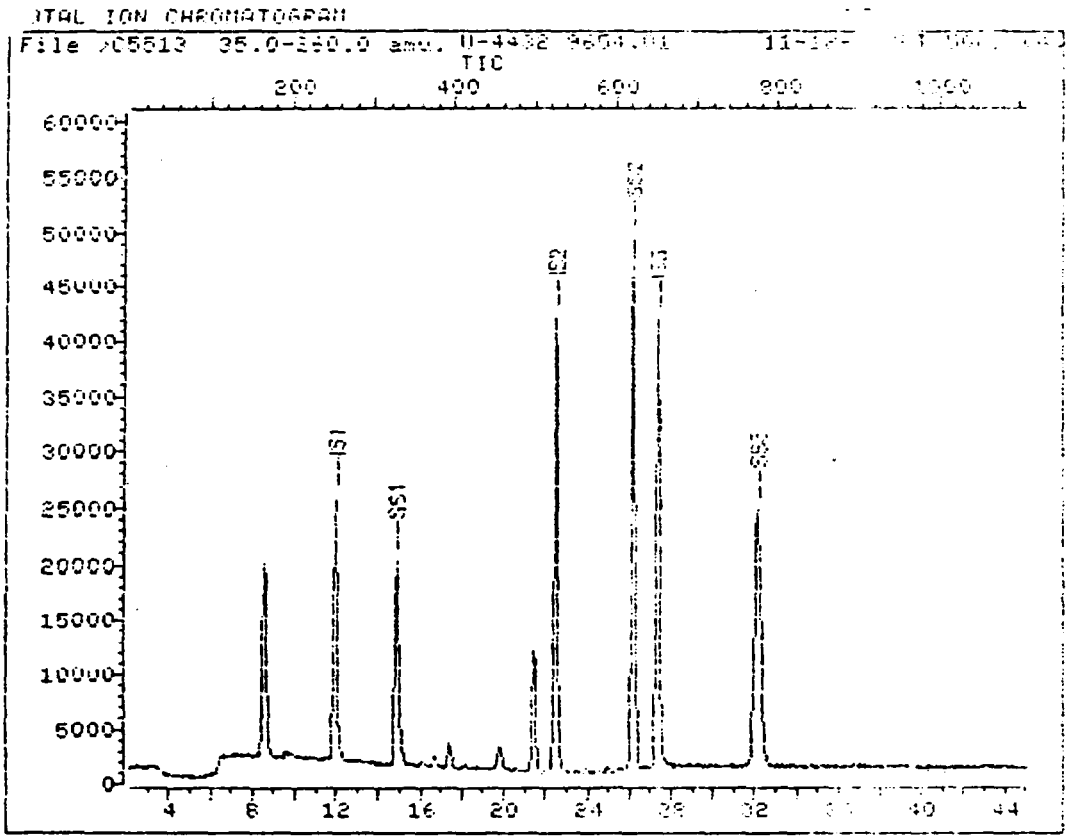
Case No u-4432 / u-4442

Sample Number DC-SD-16

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

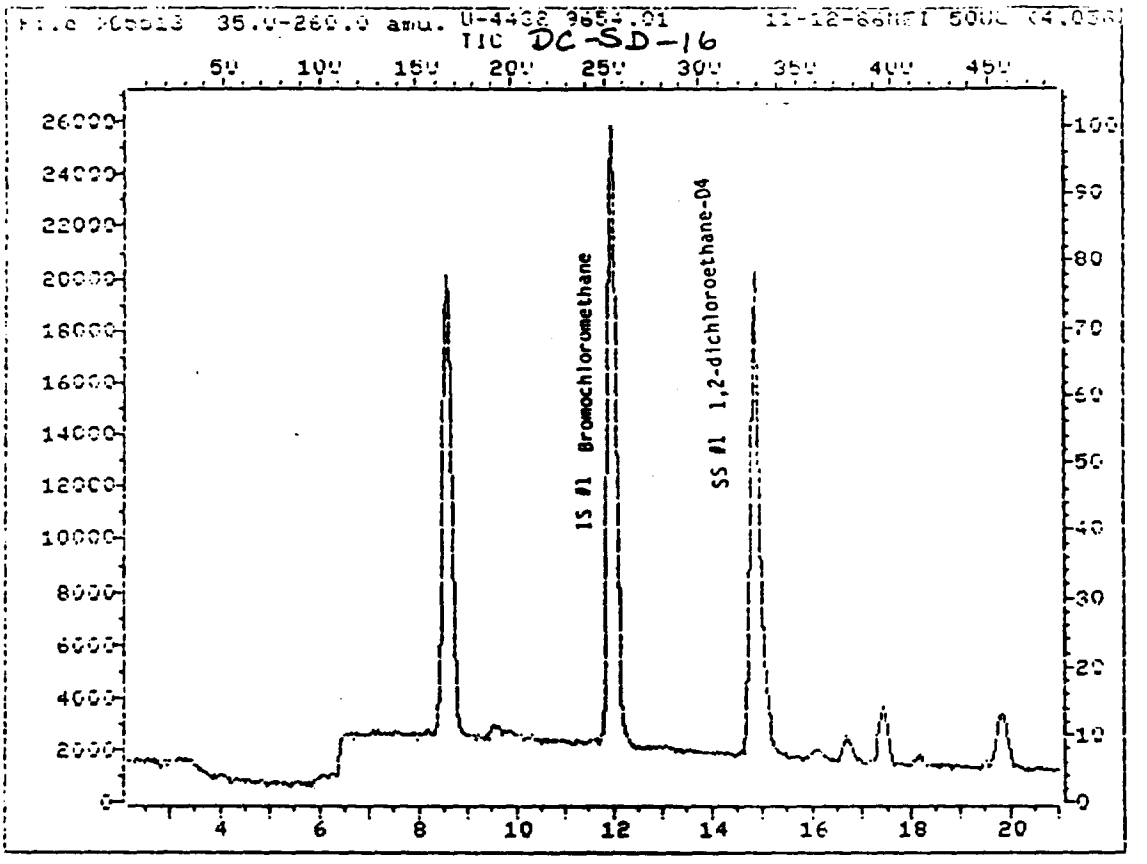
CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4 min	900 BJ
2.	Unknown Ketone	VOA	19.8 min	630 J
3.	Hexane isomer	VOA	21.5 min	2800 BJ
4.				
5.	UNKNOWN HYDROCARBON	BNA	22.8	2400 J
6.	UNKNOWN HYDROCARBON		35.4	2600 J
7.	UNKNOWN HYDROCARBON		36.3	5900 J
8.	UNKNOWN HYDROCARBON		36.8	8300 J
9.	UNKNOWN HYDROCARBON		37.4	3400 J
10.	UNKNOWN HYDROCARBON		37.6	7500 J
11.	UNKNOWN HYDROCARBON		38.3	5100 J
12.	UNKNOWN HYDROCARBON		39.4	4400 J
13.	UNKNOWN HYDROCARBON		39.8	6500 J
14.	UNKNOWN HYDROCARBON		40.3	13000 J
15.	UNKNOWN HYDROCARBON		41.5	14000 J
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

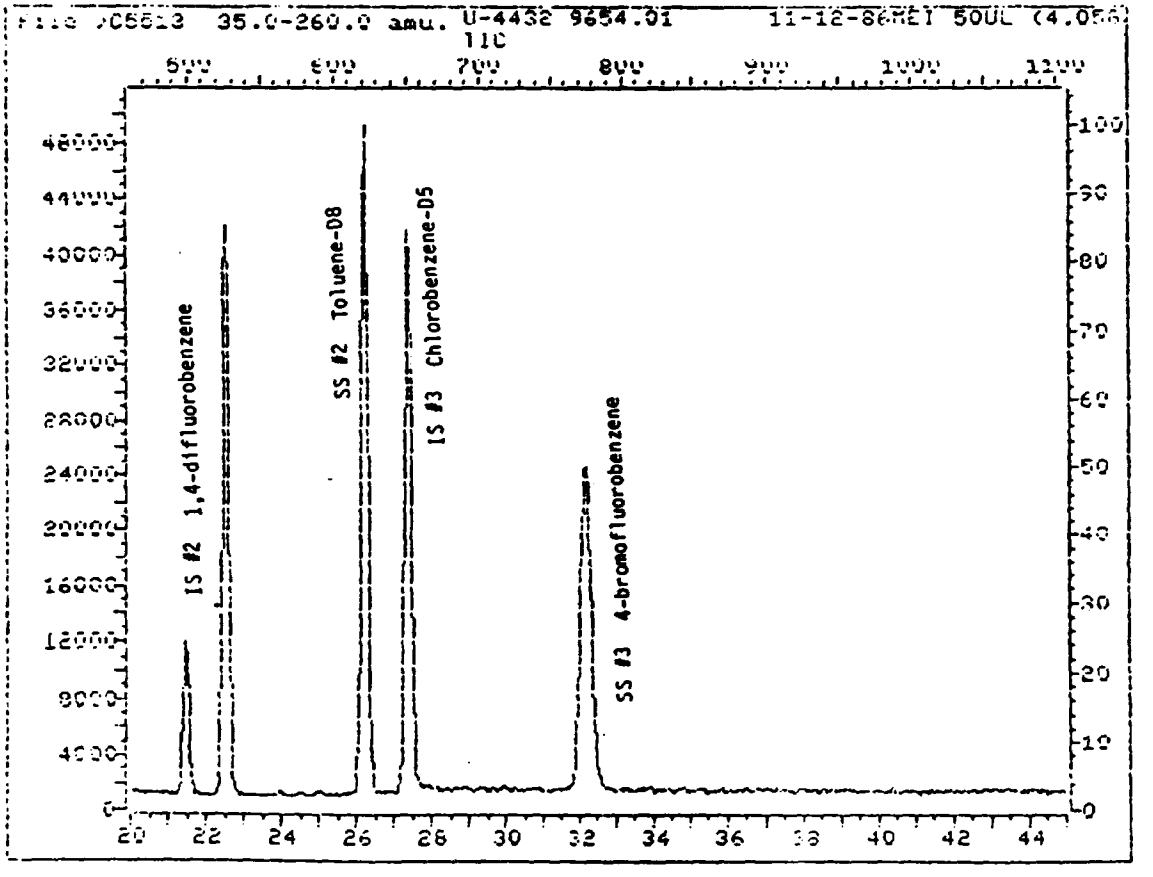


Data File: >C5513::03
Name: U-4432 9654.01 DC-SD-16
Misc: 11-12-86MEI 50UL (4.05G/100LS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT.
Last Calibration: 861113 22:56

Operator ID: USER8
Quant Time: 861114 03:45
Injected at: 861114 02:59


TIC DC-SD-16
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

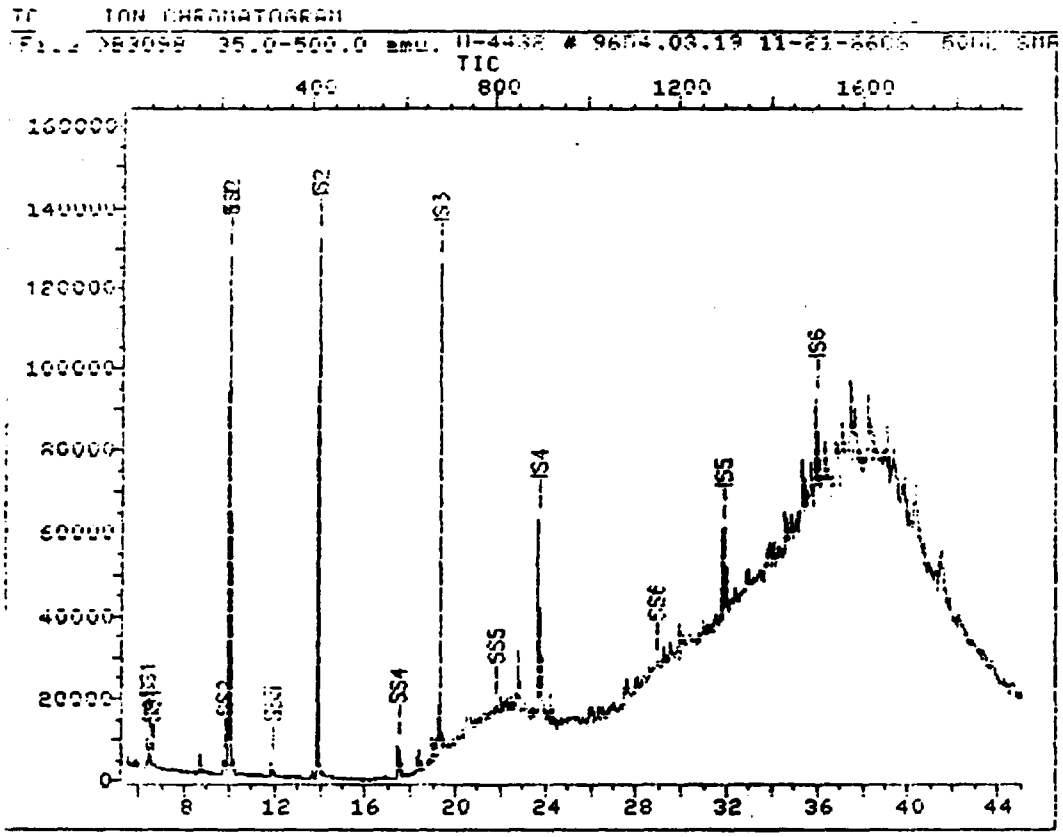
QUANT REPORT --

Operator ID: USER8 Quant Rev: 4 Quant Time: 861114 03:45
Output File: >C5513::D2 Injected at: 861114 02:59
Data File: >C5513::D3 Dilution Factor: 1.00
Name: U-4432 9654.01 DC-SD-16
Misc: 11-12-86MEI 50UL (4.05G/10MLS MEOH) + 10UL 15/55

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CURR. CAL.)
Last Calibration: 861113 22:56

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.92	[illegible]	[illegible]	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	3.55	166	48238	22.40	UG/L	100
7)	ACETONE	43	3.52	191	4207	11.86	UG/L	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.84	[illegible]	76664	48.16	UG/L	91
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.52	[illegible]	153792	50.00	UG/L	100
17)	2-BUTANONE	72	14.99	[illegible]	6373	12.21	UG/L	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.37	651	127469	50.00	UG/L	100
36)	TOLUENE-D8 (SURR)	98	25.20	621	196048	48.28	UG/L	94
40)	4-BROMOFLUOROBENZENE(SURR)	95	32.18	[illegible]	96525	45.50	UG/L	100

* Compound is ISTD

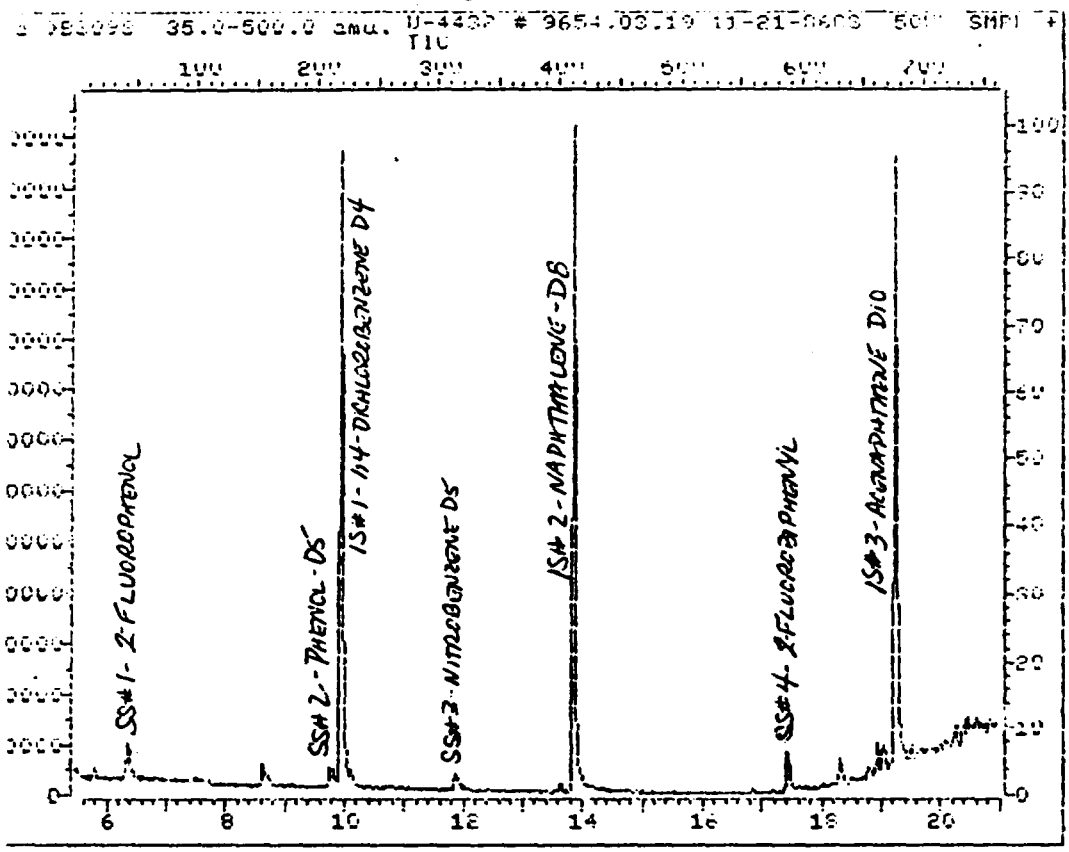


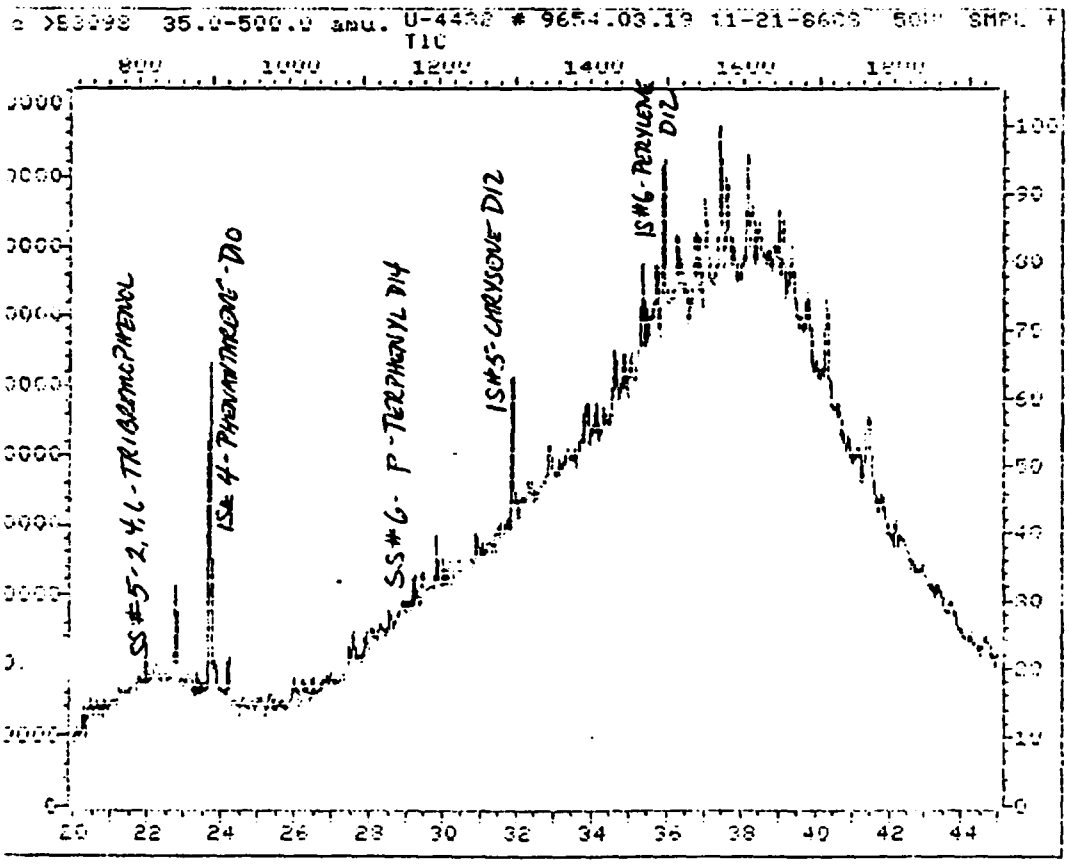
Data File: >B4098::D4
Name: U-4432 # 9654.03.19 DC-SD-16
Misc: 11-21-86US 500UL SMPL + 450UL MEOL2 + 50UL IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861121 14:38

Operator ID: USER8
Quant Time: 861121 20:49
Injected at: 861121 20:01

DC-SD-16


35.0-500.0 amu.
TIC
SS#1- 2-FLUOROPHENOL
SS# 2-PHENOL-D5
IS#1-1,4-DICHLOROBENZENE D4
SS#3-NITROBENZENE D5
IS# 2-NAPHTHALENE-D8
SS#4- 2-FLUOROBIPHENYL
IS#3-ACENAPHTHENE D10


35.0-500.0 amu.
TIC
SS#5-2,4,6-TRIBROMOPHENOL
IS# 4-PHENANTHRENE-D10
SS#6- P-TERPHENYL D14
IS#5-CHRYSENE D12
IS#6-PERYLENE D12

QUANT REPORT

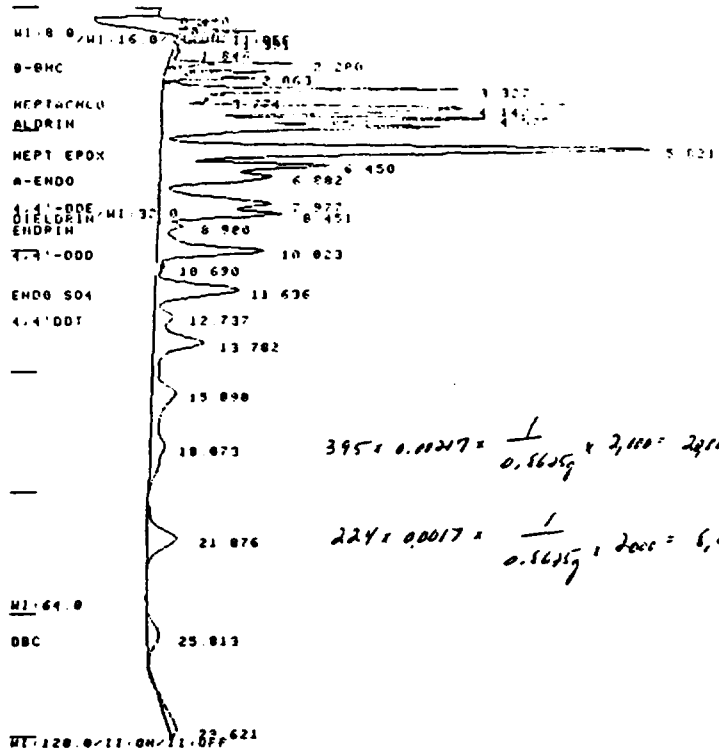
erator ID: USER8 Quant Rev: 4 Quant Time: 861121 20:49
tput File: ^B4098::W Injected at: 861121 20:00
ta File: ^B4098::D4 Dilution Factor: 10.00
me: U-4432 # 9654.03.19
e: 11-21-86CS 500UL SMPL + 450UL MEOH2 + 50UL IS

File: BNARR::D2
ile: BNA ID FILE FOR THE HP 5970 (B)
st Calibration: 861121 14:38

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.95	221	65431	40.00	UG/L	85
2)	PHENOL-D5	(SURR)	99	9.77	212	6065	26.16	UG/L	94
2)	PHENOL-D5	(SURR)	99	9.95	221	2060	8.88	UG/L	85
3)	2-FLUOROPHENOL	(SURR)	112	6.45	44	9162	54.70	UG/L	89
3)	2-FLUOROPHENOL	(SURR)	112	6.51	52	833	4.97	UG/L	91
3)	2-FLUOROPHENOL	(SURR)	112	6.56	54	367	2.19	UG/L	98
~~3)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.89~~	~~31[illegible]~~	~~396~~	~~2.49~~	~~UG/L~~	NoGPC 97
3)	*NAPHTHALENE-D8	(IS)	136	13.85	413	205020	40.00	UG/L	100
3)	NITROBENZENE-D5	(SURR)	82	11.86	315	6312	36.27	UG/L	91
4)	*ACENAPHTHENE-D10	(IS)	162	19.24	678	71969	40.00	UG/L	98
4)	2-FLUOROBIPHENYL	(SURR)	172	17.41	580	14098	4[illegible].62	UG/L	93
~~4)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.12~~	~~672~~	~~221~~	~~.76~~	~~UG/L~~	NoGPC 100
~~4)~~	~~DIETHYL PHTHALATE~~		~~163~~	~~19.24~~	~~674~~	~~22286~~	~~76.03~~	~~UG/L~~	100
4)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.77	802	1376	29.71	UG/L	91
~~4)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~20.40~~	~~73[illegible]~~	~~222~~	~~[illegible].81~~	~~UG/L~~	NoGPC 100
~~4)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~20.53~~	~~746~~	~~237~~	~~4.06~~	~~UG/L~~	100
~~4)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.24~~	~~6[illegible]~~	~~9851~~	~~1[illegible].53~~	~~UG/L~~	100
4)	*PHENANTHRENE-D10	(IS)	188	23.68	896	65612	40.00	UG/L	96
~~4)~~	~~DI-N-BUTYLPHTHALATE~~		~~149~~	~~25.99~~	~~10[illegible]~~	~~495~~	~~2.66~~	~~UG/L~~	NoGPC 1
4)	DI-N-BUTYLPHTHALATE		149	26.25	1022	1850	9.96	UG/L	65
~~4)~~	~~DI-N-BUTYLPHTHALATE~~		~~149~~	~~26.40~~	~~10[illegible]~~	~~865~~	~~4.65~~	~~UG/L~~	NoGPC 27
~~4)~~	~~DI-N-BUTYLPHTHALATE~~		~~149~~	~~26.58~~	~~1034~~	~~1971~~	~~10.61~~	~~UG/L~~	1
5)	*CHRYSENE-D12	(IS)	240	31.85	1296	32918	40.00	UG/L	100
5)	TERPHENYL-D14	(SURR)	244	28.48	1151	2958	44.17	UG/L	100
~~5)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.40~~	~~1334~~	~~224~~	~~[illegible].14~~	~~UG/L~~	No GPC 70
5)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.83	1344	669	9.37	UG/L	99
~~5)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.91~~	~~1344~~	~~214~~	~~3.00~~	~~UG/L~~	NoGPC 68
~~5)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~33.19~~	~~1362~~	~~153~~	~~2.14~~	~~UG/L~~	52
5)	*PERYLENE-D12	(IS)	264	35.94	1476	32398	40.00	UG/L	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.54~~	~~1428~~	~~485~~	~~4.54~~	~~UG/L~~	NoGPC 100
5)	DI-N-OCTYL PHTHALATE		149	34.63	1432	601	4.67	UG/L	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.73~~	~~1437~~	~~212~~	~~[illegible].65~~	~~UG/L~~	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.89~~	~~1445~~	~~440~~	~~3.40~~	~~UG/L~~	No GPC 100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.99~~	~~1450~~	~~815~~	~~6.43~~	~~UG/L~~	100

* Compound is ISTD

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



395 x 0.00217 x $\frac{1}{0.8625g}$ x 2,000 = 20,000 ug/kg 1248

224 x 0.0017 x $\frac{1}{0.8625g}$ x 2000 = 6,830 ug/kg 1254

RECALCULATE ON FILE: SLY459

DC-SD-16

CHANNEL: 1A - 1 TITLE: RUN# 24 12:22 19 NOV 86

SAMPLE: 9654.03.19A1 METHOD: DAVE 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		29736	BV	3.31
2	6-BHC	8.7433	2.280	-0.100	85917	VV	5.00
3	D-BHC	9.6266	2.600	0.150	92228	VV	6.31
4		0.0000	2.863		84700	VV	6.13
5		0.0000	3.327		339361	VV	8.00
6		0.0000	3.545		86058	VV	? 11.75
7	HEPTACHLO	6.3430	3.774	-0.016	51062	VV	? 11.50
8		0.0000	4.142		701696	VV	18.88
9	ALDRIN	51.3748	4.575	-0.095	516047	VV	12.94
10		0.0000	4.888		479801	VV	12.13
11	HEPT EPOX	130.0909	5.821	0.151	1228168	VV	19.13
12		0.0000	6.450		368034	VV	18.06
13	A-ENDO	40.4845	6.882	-0.148	359115	VV	? 31.38
14	4,4'-DDE	43.8107	7.977	-0.113	401442	VV	? 30.56
15	DIELDRIN	35.9395	8.451	0.261	350224	VV	? 24.00
16	ENDRIN	6.5129	8.900	-0.150	57837	VV	? 18.88
17	4,4'-DDD	50.5226	10.023	-0.137	397624	VV	23.25
18	ENDO SO4	54.1125	11.636	-0.274	347911	VV	31.13
19		0.0000	12.737		82692	VV	33.19
20	4,4'DDT	52.5401	13.782	0.522	275376	VV	33.88
21	END KETON	25.7103	15.898	0.628	239674	VV	46.50
22		0.0000	18.073		154190	VB	34.81
23		0.0000	21.876		204665	BB	49.81
24	DBC	12.0212	25.813	-0.797	98523	BV	65.13
25		0.0000	29.621		52278	VB	?144.63
TOTALS:		527.8329		-0.118	7074359		

DETECTED PKS: 37 REJECTED PKS: 12

DIVISOR: 0.98850 MULTIPLIER: 2000.00000

NOISE: 22.9 OFFSET: -10

NOTES:
NOTEBOOK: 259-41 ANALYST: K.JUREK
SECURE AREA: D JOB#:U-4465
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C

SAMPLE NUMBER DC-SD-17

481095

Sample Number
DC-SD-17

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432 / U-4442
Lab Sample ID No: 9655
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-12-86

Conc./Dil Factor: 2 pH 6.7

Percent Moisture: (Not Decanted) 37

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	3200u
74-83-9	Bromomethane	3200u
75-01-4	Vinyl Chloride	3200u
75-00-3	Chloroethane	3200u
75-09-2	Methylene Chloride	8400 B
67-64-1	Acetone	5600 B
75-15-0	Carbon Disulfide	1600u
75-35-4	1, 1-Dichloroethene	1600u
75-34-3	1, 1-Dichloroethane	1600u
156-60-5	Trans-1, 2-Dichloroethene	1600u
67-66-3	Chloroform	1600u
107-06-2	1, 2-Dichloroethane	1600u
78-93-3	2-Butanone	13000
71-55-6	1, 1, 1-Trichloroethane	1600u
56-23-5	Carbon Tetrachloride	1600u
108-05-4	Vinyl Acetate	3200u
75-27-4	Bromodichloromethane	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	1600u
10061-02-6	Trans-1, 3-Dichloropropene	1600u
79-01-6	Trichloroethene	1600u
124-48-1	Dibromochloromethane	1600u
79-00-5	1, 1, 2-Trichloroethane	1600u
71-43-2	Benzene	1600u
10061-01-5	cis-1, 3-Dichloropropene	1600u
110-75-8	2-Chloroethylvinylether	3200u
75-25-2	Bromoform	1600u
108-10-1	4-Methyl-2-Pentanone	3200u
591-78-6	2-Hexanone	3200u
127-18-4	Tetrachloroethene	1600u
79-34-5	1, 1, 2, 2-Tetrachloroethane	3200u
108-88-3	Toluene	1600u
108-90-7	Chlorobenzene	1600u
100-41-4	Ethylbenzene	1600u
100-42-5	Styrene	1600u
	Total Xylenes	1600u

Data Reporting Qualifiers

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

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

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

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

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

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

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

oratory Name ecology and environment, inc.

se No: U-4432 / U-4442

Sample Number
DC-SD-17

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

ncentration: Low Medium (Circle One)

te Extracted/Prepared: 11-11-86

te Analyzed: 11-21-86

nc/Dil Factor: 10

cent Moisture (Decanted) 37

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
08-95-2	Phenol	2600	U
1-44-4	bis(2-Chloroethyl)Ether	2600	U
-57-8	2-Chlorophenol	2600	U
1-73-1	1 3-Dichlorobenzene	2600	U
6-46-7	1, 4-Dichlorobenzene	2600	U
0-51-6	Benzyl Alcohol	2600	U
-50-1	1 2-Dichlorobenzene	2600	U
-48-7	2-Methylphenol	2600	U
638-32-9	bis(2-chloroisopropyl)Ether	2600	U
6-44-5	4-Methylphenol	2600	U
1-64-7	N-Nitroso-Di-n-Propylamine	2600	U
-72-1	Hexachloroethane	2600	U
-95-3	Nitrobenzene	2600	U
-59-1	Isophorone	2600	U
-75-5	2-Nitrophenol	2600	U
5-67-9	2, 4-Dimethylphenol	2600	U
-85-0	Benzoic Acid	13000	U
1-91-1	bis(2-Chloroethoxy)Methane	2600	U
0-83-2	2, 4-Dichlorophenol	2600	U
0-82-1	1, 2, 4-Trichlorobenzene	2600	U
-20-3	Naphthalene	2600	U
6-47-8	4-Chloroaniline	2600	U
-68-3	Hexachlorobutadiene	2600	U
-50-7	4-Chloro-3-Methylphenol	2600	U
-57-6	2-Methylnaphthalene	2600	U
-47-4	Hexachlorocyclopentadiene	2600	U
-06-2	2 4 6-Trichlorophenol	2600	U
-95-4	2, 4, 5-Trichlorophenol	13000	U
-58-7	2-Chloronaphthalene	2600	U
-74-4	2-Nitroaniline	13000	U
1 3	Dimethyl Phthalate	2600	U
8-50-8	Acenaphthylene	2600	U
-09-2	3-Nitroaniline	13000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2600	U
51-28-5	2, 4-Dinitrophenol	13000	U
100-02-7	4-Nitrophenol	13000	U
132-64-9	Dibenzofuran	2600	U
121-14-2	2 4-Dinitrotoluene	2600	U
606-20-2	2 6-Dinitrotoluene	2600	U
84-66-2	Diethylphthalate	2600	U
7005-72-3	4-Chlorophenyl-phenylether	2600	U
86-73-7	Fluorene	2600	U
100-01-6	4-Nitroaniline	13000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	13000	U
86-30-6	N-Nitrosodiphenylamine (1)	2600	U
101-55-3	4-Bromophenyl-phenylether	2600	U
118-74-1	Hexachlorobenzene	2600	U
87-86-5	Pentachlorophenol	13000	U
85-01-8	Phenanthrene	2600	U
120-12-7	Anthracene	2600	U
84-74-2	Di-n-Butylphthalate	560	J
206-44-0	Fluoranthene	2600	U
129-00-0	Pyrene	2600	U
85-68-7	Butylbenzylphthalate	2600	U
91-94-1	3 3'-Dichlorobenzidine	5200	U
56-55-3	Benzo(a)Anthracene	2600	U
117-81-7	bis(2-Ethylhexyl)Phthalate	150	J
218-01-9	Chrysene	2600	U
117-84-0	Di-n-Octyl Phthalate	2600	U
205-99-2	Benzo(b)Fluoranthene	2600	U
207-08-9	Benzo(k)Fluoranthene	2600	U
50-32-8	Benzo(a)Pyrene	2600	U
193-39-5	Indeno(1 2 3-cd)Pyrene	2600	U
53-70-3	Dibenzo(a h)Anthracene	2600	U
191-24-2	Benzo(g h i)Perylene	2600	U

(1)-Cannot be separated from diphenylamine

7 85

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-17

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-11-86

Date Analyzed: 11-19-86

Conc/Dil Factor: 20

Percent Moisture (decanted) 37

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	320 U
319-85-7	Beta-BHC	320 U
319-86-8	Delta-BHC	320 U
58-89-9	Gamma-BHC (Lindane)	320 U
76-44-8	Heptachlor	320 U
309-00-2	Aldrin	320 U
1024-57-3	Heptachlor Epoxide	320 U
959-98-8	Endosulfan I	320 U
60-57-1	Dieldrin	640 U
72-55-9	4,4'-DDE	640 U
72-20-8	Endrin	640 U
33213-65-9	Endosulfan II	640 U
72-54-8	4,4'-DDD	640 U
1031-07-8	Endosulfan Sulfate	640 U
50-29-3	4,4'-DDT	640 U
72-43-5	Methoxychlor	3200 U
53494-70-5	Endrin Ketone	640 U
57-74-9	Chlordane	3200 U
8001-35-2	Toxaphene	6400 U
12674-11-2	Aroclor-1016	3200 U
11104-28-2	Aroclor-1221	3200 U
11141-16-5	Aroclor-1232	3200 U
53469-21-9	Aroclor-1242	3200 U
12672-29-6	Aroclor-1248	5200
11097-69-1	Aroclor-1254	4200
11096-82-5	Aroclor-1260	2700 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

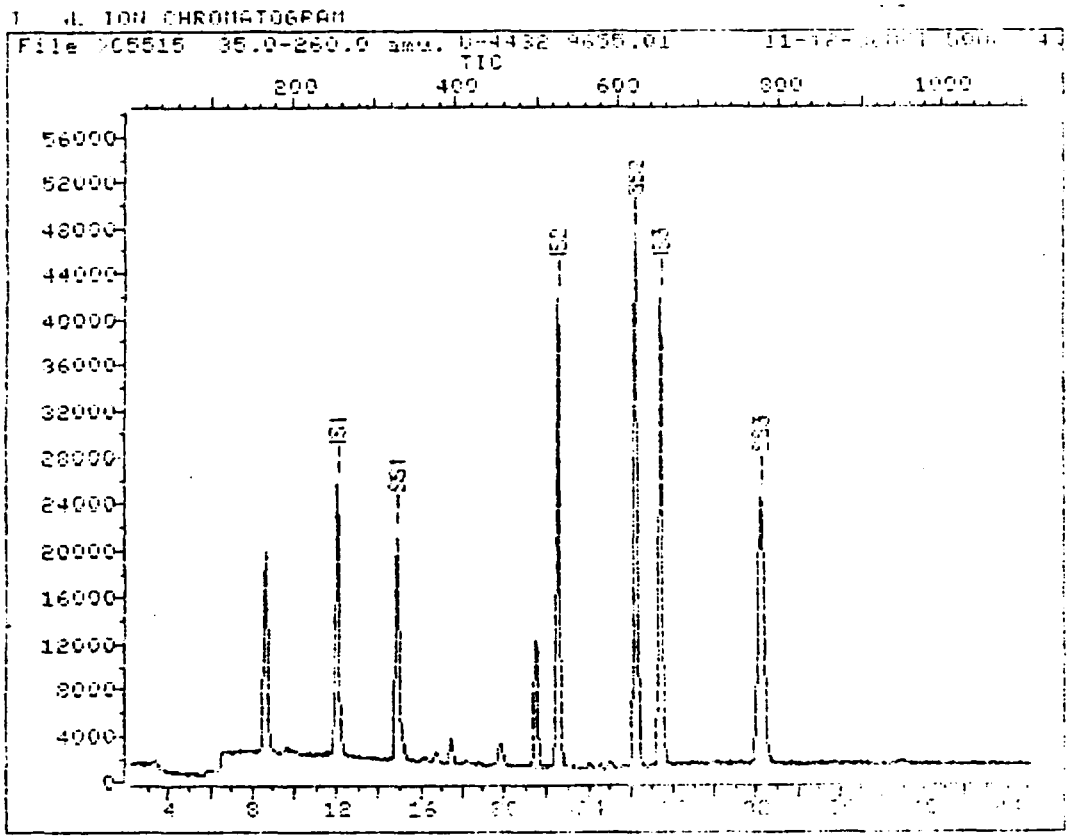
Case No u-4432 / u-4442

Sample Number DC-SD-17

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

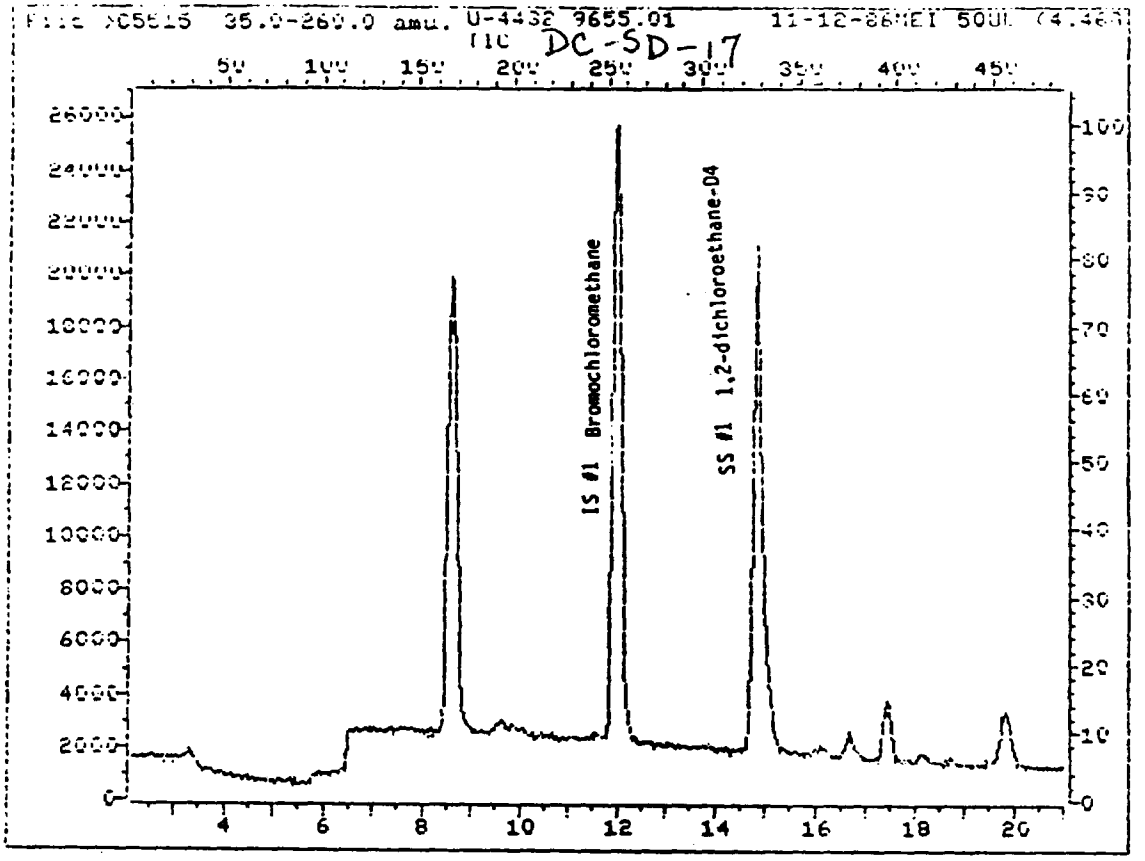
CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene Isomer	VOA	17.4 min	750 BJ
2.	Unknown Ketone	VOA	19.8 min	510 J
3.	Hexane isomer	VOA	21.5 min	2400 BJ
4.				
5.	UNKNOWN HYDROCARBON	BNA	19.1	1600 J
6.	UNKNOWN HYDROCARBON		22.0	2200 J
7.	UNKNOWN HYDROCARBON		22.8	3100 J
8.	UNKNOWN HYDROCARBON		24.2	1400 J
9.	UNKNOWN HYDROCARBON		24.4	680 J
10.	UNKNOWN HYDROCARBON		29.5	3600 J
11.	UNKNOWN HYDROCARBON		32.3	4400 J
12.	UNKNOWN HYDROCARBON		32.8	4400 J
13.	UNKNOWN HYDROCARBON		33.8	4500 J
14.	UNKNOWN HYDROCARBON		34.6	4900 J
15.	UNKNOWN HYDROCARBON		36.8	5500 J
16.	UNKNOWN HYDROCARBON		37.6	4900 J
17.	UNKNOWN HYDROCARBON		38.3	4100 J
18.	UNKNOWN HYDROCARBON		38.9	5400 J
19.	UNKNOWN HYDROCARBON		39.4	6800 J
20.	UNKNOWN HYDROCARBON		39.8	6900 J
21.	UNKNOWN HYDROCARBON		40.3	8700 J
22.	UNKNOWN HYDROCARBON		41.4	7500 J
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

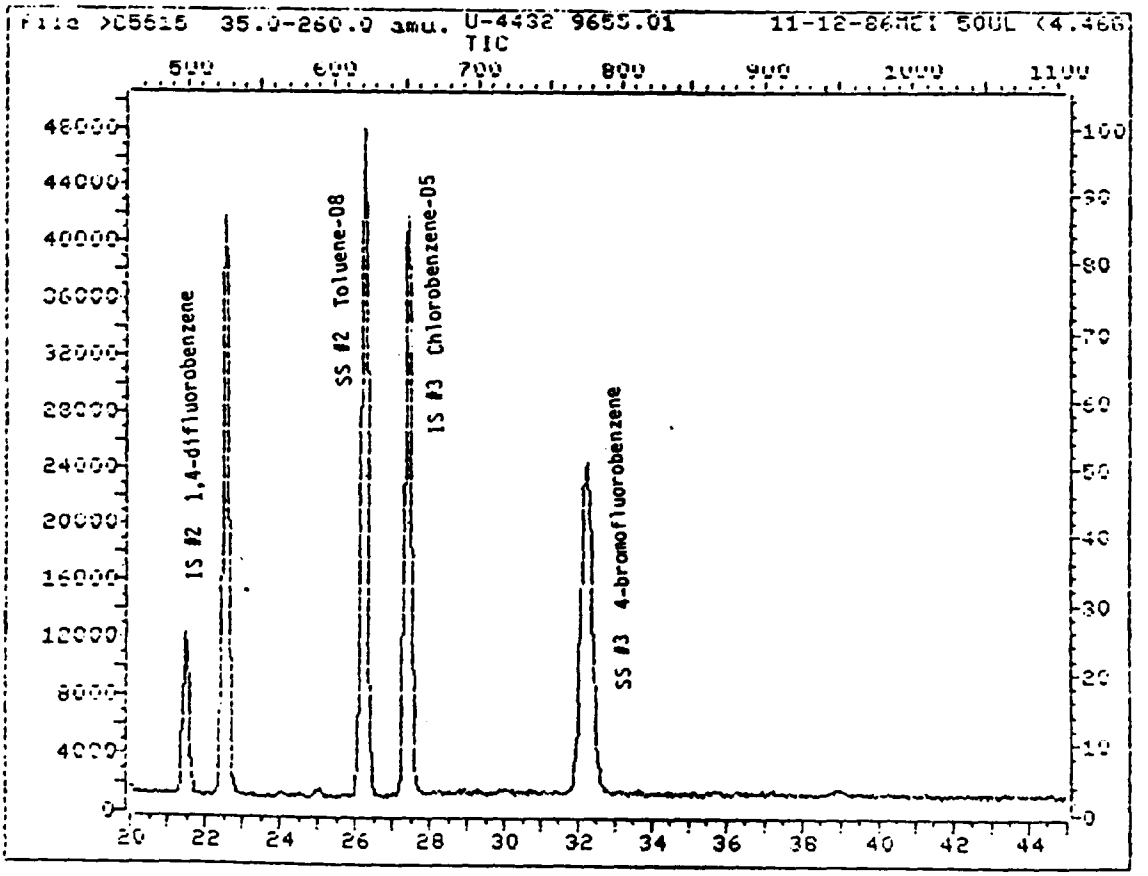


Data File: >C5515::D2
Name: U-4432 9655.01 DC-SD-17
Misc: 11-12-86MEI 50UL (4.46G/1[illegible]

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 [illegible]
Last Calibration: 861113 22:56

Operator ID: USER8
Quant Time: 861114 05:39
Injected at: 861114 04:53


File >C5615 35.0-260.0 amu. U-4432 9655.01 11-12-86HCl 50UL (4.466)
TIC
DC-SD-17
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5615 35.0-260.0 amu. U-4432 9655.01 11-12-86HCl 50UL (4.466)
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

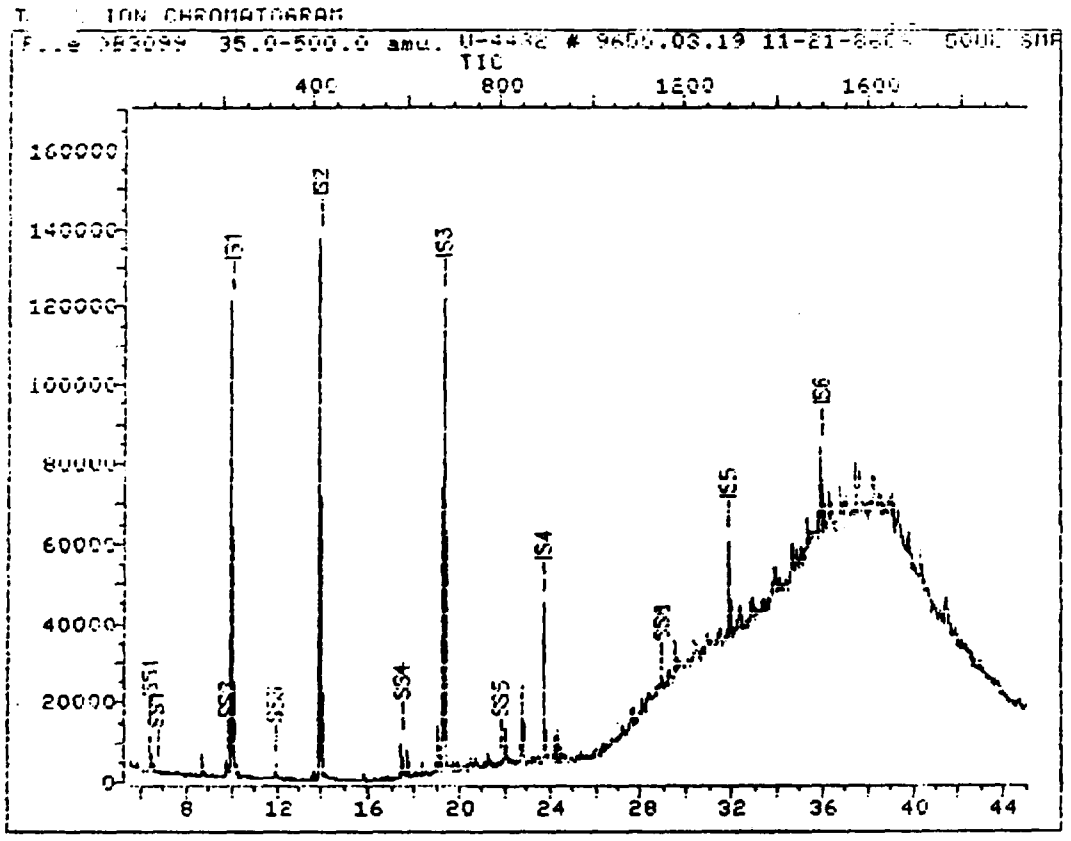
QUANT REPORT

perator ID: USER8 Quant Rev: 4 Quant Time: 861114 05:39
utput File: ^C5515::D2 Injected at: 861114 04:53
ata File: >C5515::D3 Dilution Factor: 1.00
ame: U-4432 9655.01 DC-SD-17
isc: 11-12-86MEI 50UL (4.46G/10MLS MEOH) + 10UL IS/SS

D File: VOACR::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861113 22:56

	Compound	M/E	R.T.	Scans	Area	Conc	Units	c
1)	*BROMOCHLOROMETHANE (IS)	128	11.97	254	38032	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.59	167	48558	23.52	UG/L	100
7)	ACETONE	43	9.60	193	5561	15.66	UG/L	100
5)	1,2-DICHLOROETHANE-D4(SURR)	65	14.54	328	79017	49.55	UG/L	68
6)	*1,4-DIFLUOROBENZENE (IS)	114	22.52	526	180395	50.00	UG/L	100
7)	2-BUTANONE	72	14.95	331	5758	35.17	UG/L	100
1)	*CHLOROBENZENE-D5 (IS)	117	27.41	652	137133	50.00	UG/L	100
6)	TOLUENE-D8 (SURR)	98	26.20	621	195333	48.22	UG/L	93
0)	4-BROMOFLUOROBENZENE(SURR)	95	32.22	776	96493	45.60	UG/L	100

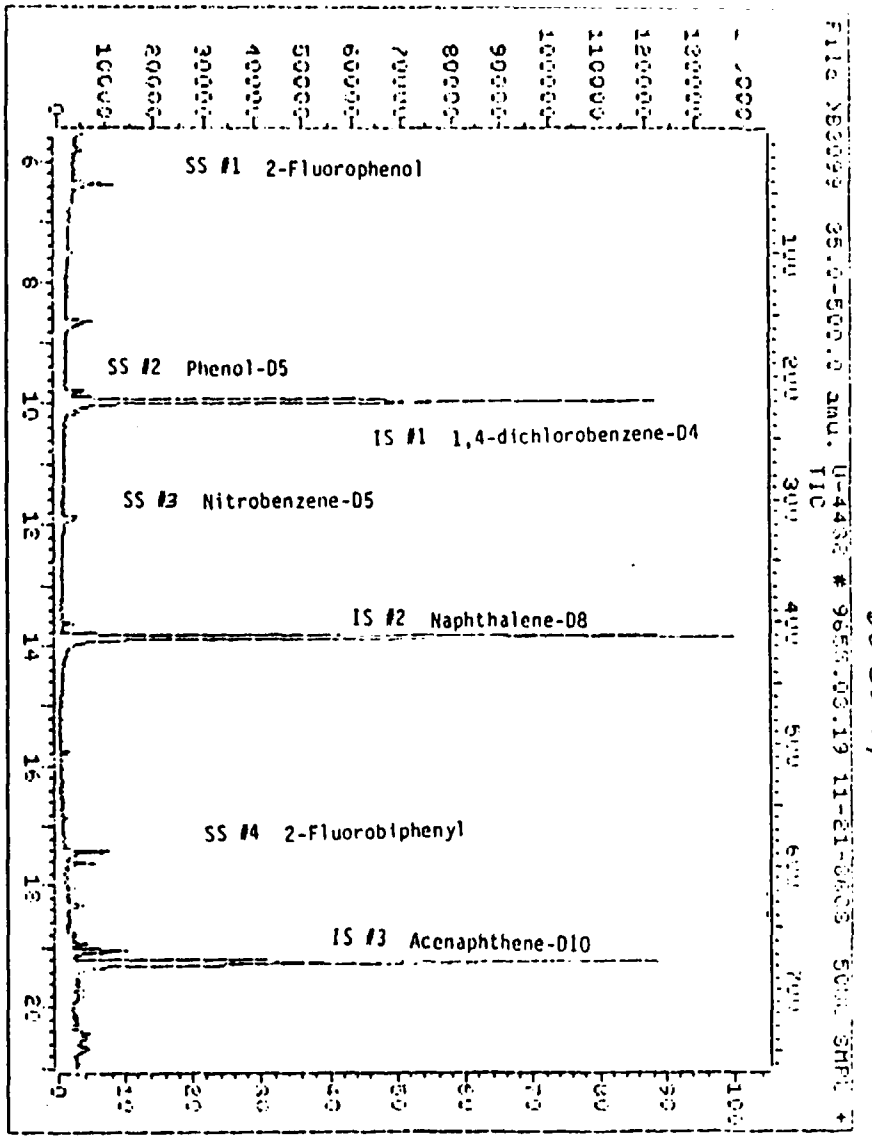
* Compound is ISTD

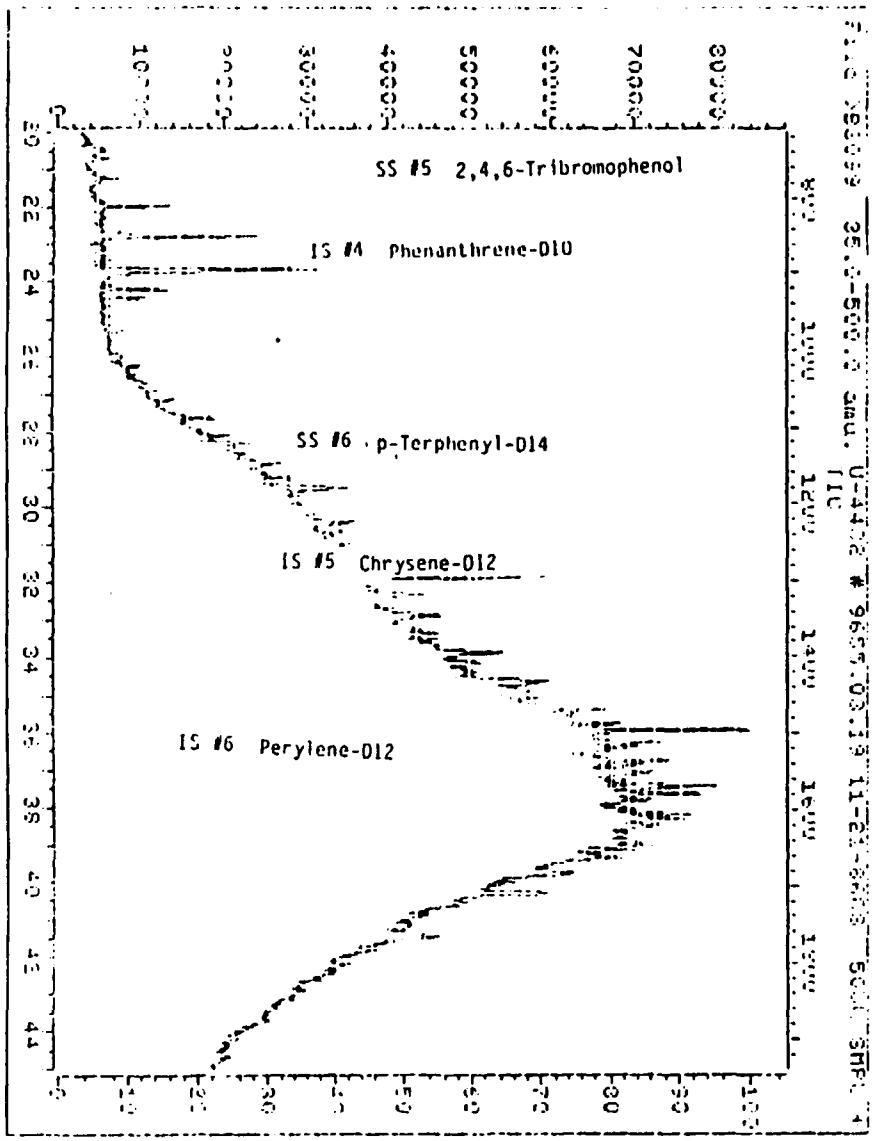


Data File: >B61199::D4 DC-SD-17
Name: U-4432 # 9655.03.19
Misc: 11-21-86CS 50UL SMPL + 450UL MEOH2 + 5UL IS

Id File: BNA9R::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861121 14:38

Operator ID: USER8
Quant Time: 861121 21:40
Injected at: 861121 20:52


SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

DC-SD-17

170A

QUANT REPORT

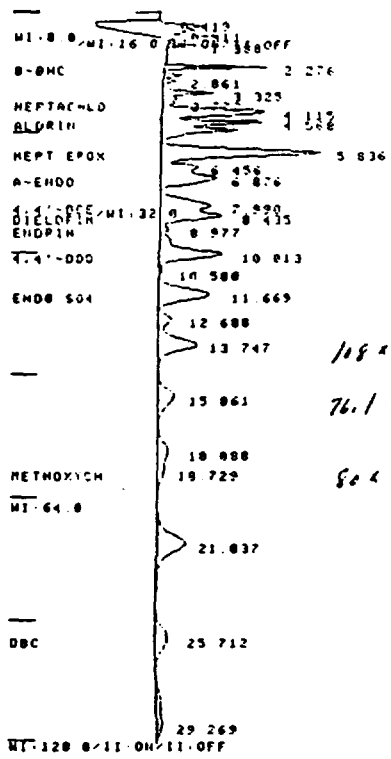
Method ID: USER8 Quant Rev: 4 Quant Time: 861121 21:40
Input File: ^B1099::U2 Injected at: 861121 20:52
Data File: >B3099::D4 Dilution Factor: 10.00
Lab: U-4432 # 9656.03.19 DC-SD-17
Date: 11-21-86CS 500UL SMPL + 450UL MEOL2 + 50UL IS

File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861121 14:38

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.94	210	65896	40.00	UG/L	89
)	PHENOL-D5	(SURR)	99	9.27	211	7781	33.32	UG/L	89
)	2-FLUOROPHENOL	(SURR)	112	6.35	43	6877	40.27	UG/L	82
)	2-FLUOROPHENOL	(SURR)	112	6.46	58	191	1.13	UG/L	80
	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.86~~	~~314~~	~~208~~	~~1.30~~	~~UG/L~~	92
	*NAPHTHALENE-D8	(IS)	136	13.85	412	223767	40.00	UG/L	100
	NITROBENZENE-D5	(SURR)	82	11.86	314	5840	30.74	UG/L	93
	*ACENAPHTHENE-D10	(IS)	162	19.94	677	74129	40.00	UG/L	95
	2-FLUOROBIPHENYL	(SURR)	172	17.41	587	13823	45.33	UG/L	92
	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.94~~	~~677~~	~~[illegible]~~	~~25.06~~	~~UG/L~~	100
	~~DIETHYL PHTHALATE~~		~~163~~	~~19.45~~	~~6[illegible]~~	~~150~~	~~.50~~	~~UG/L~~	100
	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.79	802	959	20.10	UG/L	92
	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.94~~	~~677~~	~~10033~~	~~150.82~~	~~UG/L~~	100
	*PHENANTHRENE-D10	(IS)	188	23.68	895	68089	40.00	UG/L	93
	DI-N-BUTYLPHTHALATE		149	26.24	1027	2038	10.57	UG/L	79
	*CHRYSENE-D12	(IS)	240	31.85	1296	54700	40.00	UG/L	100
	TERPHENYL-D14	(SURR)	244	28.89	1157	2745	38.88	UG/L	100
	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.53~~	~~1409~~	~~192~~	~~2.55~~	~~UG/L~~	92
	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.81	1344	209	2.78	UG/L	1
	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~33.16~~	~~1468~~	~~149~~	~~1.98~~	~~UG/L~~	54
	*PERYLENE-D12	(IS)	264	35.94	1496	33807	40.00	UG/L	100
	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.09~~	~~1415~~	~~102~~	~~1.35~~	~~UG/L~~	100
	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.34~~	~~1419~~	~~279~~	~~2.00~~	~~UG/L~~	100
	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.49~~	~~1425~~	~~207~~	~~1.54~~	~~UG/L~~	100
	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.79~~	~~1434~~	~~256~~	~~1.90~~	~~UG/L~~	100
	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~35.42~~	~~1451~~	~~418~~	~~3.11~~	~~UG/L~~	100

Compound is ISTD

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



$108 \times 0.0023 \times \frac{1}{0.945g} \times 20{,}000 = 5{,}200$ ug/kg 1248

$76.1 \times 0.00279 \times \frac{1}{0.945g} \times 20{,}000 = 4{,}200$ ug/kg 1254

$80 \times 0.00160 \times \frac{1}{0.945g} \times 20{,}000 = 2{,}700$ ug/kg 1260

RECALCULATE ON FILE: SLY461

CHANNEL: 1A - 1 TITLE: RUN# 26 14:26 19 NOV 86

DC-SD-17

SAMPLE: 9655.19A1 METHOD: DAVE CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~B-BHC~~	70.1526	2.276	-0.104	66112	BV	5.00
2		0.0000	3.325		57838	VV	7.81
3	~~HEPTACHLO~~	29.6010	3.541	-0.249	22853	VV	? 12.56
4		0.0000	4.115		229632	VV	18.13
5	~~ALDRIN~~	162.9459	1248 4.568	-0.102	156969	VV	12.38
6		0.0000	4.883		134321	VV	11.81
7	~~HEPT EPOX~~	441.2293	5.836	0.166	399491	VV	19.06
8		0.0000	6.455		75911	VV	? 16.25
9	~~A-ENDO~~	218.3416	6.876	-0.154	185743	VV	? 30.69
10	~~4,4'-DDE~~	197.9534	7.990	-0.100	173955	VV	? 31.13
11	~~DIELDRIN~~	193.5284	8.435	0.245	180863	VV	? 28.00
12	~~4,4'-DDD~~	313.1454	1254 10.013	-0.147	236355	VV	24.06
13	~~ENDO SO4~~	331.7412	11.669	-0.241	204551	VV	32.31
14		0.0000	12.689		43630	VV	28.13
15	~~4,4'-DDT~~	353.0839	13.747	0.487	177478	VV	33.06
16	~~ENDO KETON~~	117.6501	15.661	0.591	105181	VV	47.81
17		0.0000	18.088		80584	VV	? 45.63
18	~~METHOXYCH~~	118.6389	1260 18.723	-0.761	35682	VB	? 70.69
19		0.0000	21.837		200940	BV	49.25
20	~~DBC~~	135.2469	25.712	-0.898	95373	VV	62.56
21		0.0000	29.269		66372	VB	?123.44

TOTALS: 2683.058 -1.267 2936034

DETECTED PKS: 35 REJECTED PKS: 14

DIVISOR: 0.94800 MULTIPLIER: 20000.0000

NOISE: 22.9 OFFSET: -15

NOTES:
NOTEBOOK: 259-44 ANALYST: K.JONES
SECURE AREA: D JOB#:U-4465
INST:VARIAN 6200#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 S FELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
CPT: 10 C INT:220 C

SAMPLE NUMBER DC-SD-18

481095

Sample Number
DC-SD-18

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U-4442
Lab Sample ID No: 9656
QC Report No:
Sample Matrix: Soil
Contract No: 2-3140
Data Release Authorized By: C Stojtowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-12-86

Conc/Dil Factor: 2 pH 6.9

Percent Moisture: (Not Decanted) 51

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	4400u
74-83-9	Bromomethane	4400u
75-01-4	Vinyl Chloride	4400u
75-00-3	Chloroethane	4400u
75-09-2	Methylene Chloride	12000B
67-64-1	Acetone	4100JB
75-15-0	Carbon Disulfide	2200u
75-35-4	1, 1-Dichloroethene	2200u
75-34-3	1, 1-Dichloroethane	2200u
156-60-5	Trans-1, 2-Dichloroethene	2200u
67-66-3	Chloroform	2200u
107-06-2	1, 2-Dichloroethane	2200u
78-93-3	2-Butanone	14000
71-55-6	1, 1, 1-Trichloroethane	2200u
56-23-5	Carbon Tetrachloride	2200u
108-05-4	Vinyl Acetate	4400u
75-27-4	Bromodichloromethane	2200u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2200u
10061-02-6	Trans-1, 3-Dichloropropene	2200u
79-01-6	Trichloroethene	2200u
124-48-1	Dibromochloromethane	2200u
79-00-5	1, 1, 2-Trichloroethane	2200u
71-43-2	Benzene	2200u
10061-01-5	cis-1, 3-Dichloropropene	2200u
110-75-8	2-Chloroethylvinylether	4400u
75-25-2	Bromoform	2200u
108-10-1	4-Methyl-2-Pentanone	4400u
591-78-6	2-Hexanone	4400u
127-18-4	Tetrachloroethene	2200u
79-34-5	1, 1, 2, 2-Tetrachloroethane	2200u
108-88-3	Toluene	2200u
108-90-7	Chlorobenzene	2200u
100-41-4	Ethylbenzene	2200u
100-42-5	Styrene	2200u
	Total Xylenes	2200u

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.

oratory Name ecology and environment, inc.

se No. U-4432/U-4442

Sample Number
DC-SD-18

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

icentration: (Low) Medium (Circle One)

e Extracted/Prepared: 11-12-86

e Analyzed: 11-21-86

ic/Dil Factor: 10

cent Moisture (Decanted) 51

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

AS umber		ug/l or ug/Kg (Circle One)	
08-95-2	Phenol	3400	U
1-44-4	bis(-2-Chloroethyl)Ether	3400	U
-57-8	2-Chlorophenol	3400	U
1-73-1	1 3-Dichlorobenzene	3400	U
6-46-7	1. 4-Dichlorobenzene	3400	U
0-51-6	Benzyl Alcohol	3400	U
-50-1	1 2-Dichlorobenzene	3400	U
-48-7	2-Methylphenol	3400	U
638-32-9	bis(2-chloroisopropyl)Ether	3400	U
6-44-5	4-Methylphenol	3400	U
1-64-7	N-Nitroso-Di-n-Propylamine	3400	U
-72-1	Hexachloroethane	3400	U
-95-3	Nitrobenzene	3400	U
-59-1	Isophorone	3400	U
-75-5	2-Nitrophenol	3400	U
5-67-9	2. 4-Dimethylphenol	3400	U
-85-0	Benzoic Acid	16000	U
1-91-1	bis(-2-Chloroethoxy)Methane	3400	U
0-83-2	2. 4-Dichlorophenol	3400	U
0-82-1	1. 2. 4-Trichlorobenzene	3400	U
-20-3	Naphthalene	190	J
6-47-8	4-Chloroaniline	3400	U
-68-3	Hexachlorobutadiene	3400	U
-50-7	4-Chloro-3-Methylphenol	3400	U
-57-6	2-Methylnaphthalene	3400	U
-47-4	Hexachlorocyclopentadiene	3400	U
-06-2	2 4 6-Trichlorophenol	3400	U
95-4	2. 4 5-Trichlorophenol	16000	U
-58-7	2-Chloronaphthalene	3400	U
-74-4	2-Nitroaniline	16000	U
1- 3	Dimethyl Phthalate	3400	U
8-96-8	Acenaphthylene	3400	U
-09-2	3-Nitroaniline	16000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	3400	U
51-28-5	2. 4-Dinitrophenol	16000	U
100-02-7	4-Nitrophenol	16000	U
132-64-9	Dibenzofuran	3400	U
121-14-2	2 4-Dinitrotoluene	3400	U
606-20-2	2 6-Dinitrotoluene	3400	U
84-66-2	Diethylphthalate	3400	U
7005-72-3	4-Chlorophenyl-phenylether	3400	U
86-73-7	Fluorene	3400	U
100-01-6	4-Nitroaniline	16000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	16000	U
86-30-6	N-Nitrosodiphenylamine (1)	3400	U
101-55-3	4-Bromophenyl-phenylether	3400	U
118-74-1	Hexachlorobenzene	3400	U
87-86-5	Pentachlorophenol	16000	U
85-01-8	Phenanthrene	3400	U
120-12-7	Anthracene	3400	U
84-74-2	Di-n-Butylphthalate	300	J
206-44-0	Fluoranthene	3400	U
129-00-0	Pyrene	1400	J
85-68-7	Butylbenzylphthalate	830	J
91-94-1	3 3'-Dichlorobenzidine	6800	U
56-55-3	Benzo(a)Anthracene	430	J
117-81-7	bis(2-Ethylhexyl)Phthalate	5300	
218-01-9	Chrysene	1200	J
117-84-0	Di-n-Octyl Phthalate	940	J
205-99-2	Benzo(b)Fluoranthene	3400	U
207-08-9	Benzo(k)Fluoranthene	1500	J
50-32-8	Benzo(a)Pyrene	490	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	850	J
53-70-3	Dibenzo(a h)Anthracene	3400	U
191-24-2	Benzo(g h i)Perylene	1400	J

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-18

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-12-86

Date Analyzed: 11-19-86

Conc/Dil Factor: 20

Percent Moisture (decanted) 51

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	320 u
319-85-7	Beta-BHC	320 u
319-86-8	Delta-BHC	320 u
58-89-9	Gamma-BHC (Lindane)	320 u
76-44-8	Heptachlor	320 u
309-00-2	Aldrin	320 u
1024-57-3	Heptachlor Epoxide	320 u
959-98-8	Endosulfan I	320 u
60-57-1	Dieldrin	640 u
72-55-9	4, 4'-DDE	640 u
72-20-8	Endrin	640 u
33213-65-9	Endosulfan II	640 u
72-54-8	4, 4'-DDD	640 u
1031-07-8	Endosulfan Sulfate	640 u
50-29-3	4, 4'-DDT	640 u
72-43-5	Methoxychlor	3200 u
53494-70-5	Endrin Ketone	640 u
57-74-9	Chlordane	3200 u
8001-35-2	Toxaphene	6400 u
12674-11-2	Aroclor-1016	3,200 u
11104-28-2	Aroclor-1221	3,200 u
11141-16-5	Aroclor-1232	3,200 u
53469-21-9	Aroclor-1242	3,200 u
12672-29-6	Aroclor-1248	3,200 u
11097-69-1	Aroclor-1254	6,400 u
11096-82-5	Aroclor-1260	7,700

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

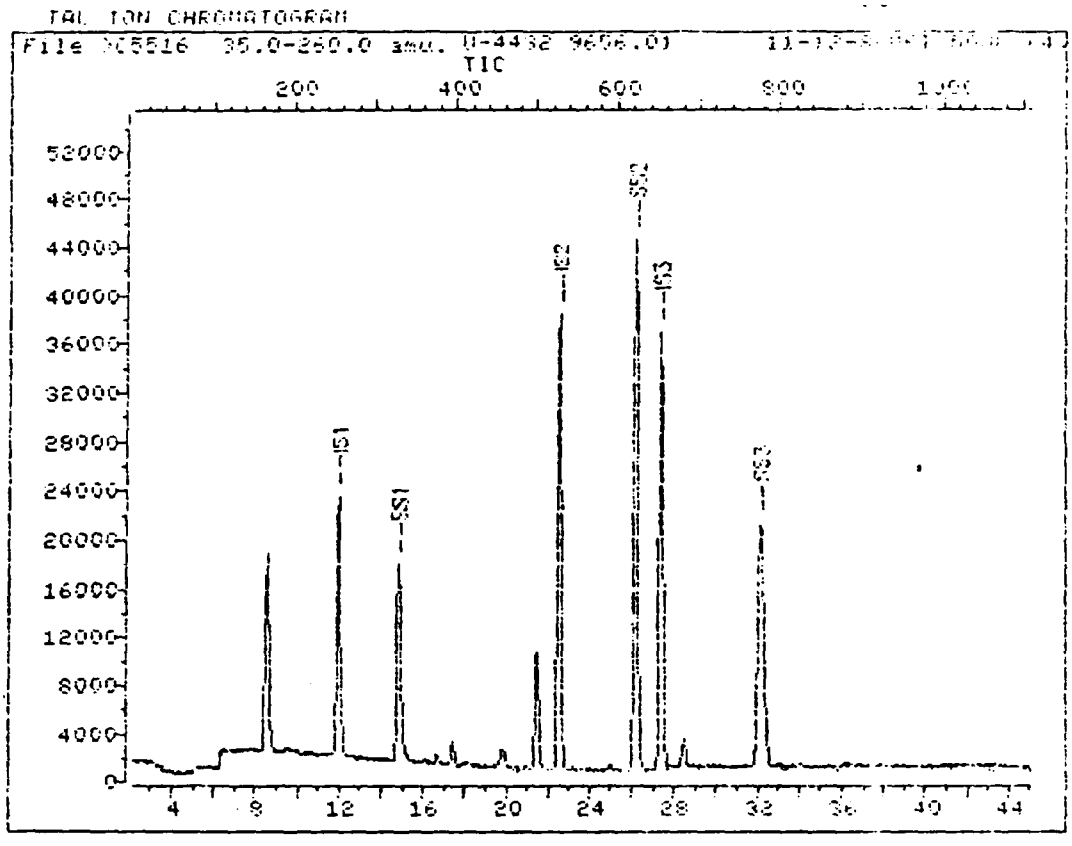
Sample Number DC-SD-18

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	17.5 min	1100 BJ
2.	Unknown Ketone	VOA	19.8 min	630 J
3.	Hexane isomer	VOA	21.5 min	3300 BJ
4.				
5.	UNKNOWN	BNA	22.7	9700 J
6.	TETRAMETHYL BUTYL PHENOL ISOMER		22.8	26000 J
7.	NONYL PHENOL ISOMER		22.9	14000 J
8.	NONYL PHENOL ISOMER		23.1	14000 J
9.	TETRAMETHYL BUTYL PHENOL ISOMER		23.2	9600 J
10.	NONYL PHENOL ISOMER		23.4	8400 J
11.	TETRA METHYL BUTYL PHENOL ISOMER		23.5	15000 J
12.	NONYL PHENOL ISOMER		23.6	9000 J
13.	UNKNOWN HYDROCARBON		24.1	1500 J
14.	UNKNOWN HYDROCARBON		24.2	3700 J
15.	UNKNOWN LONG-CHAIN HYDROCARBON ACID		26.3	2400 J
16.	UNKNOWN HYDROCARBON		29.5	4500 J
17.	UNKNOWN		30.9	4600 BJ
18.	UNKNOWN		35.4	3400 J
19.	UNKNOWN HYDROCARBON		36.3	10000 J
20.	UNKNOWN		37.8	9200 J
21.	UNKNOWN HYDROCARBON		40.3	27000 J
22.	UNKNOWN HYDROCARBON		41.5	24000 J
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

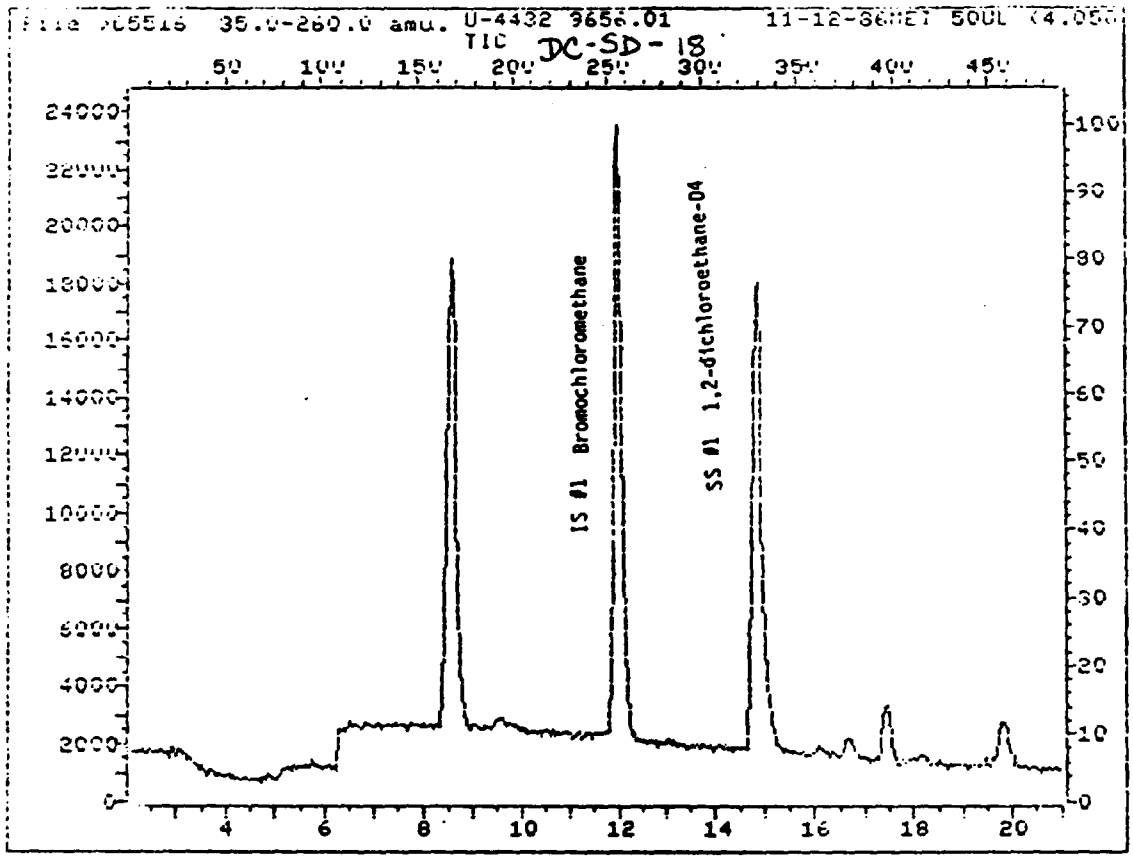
177

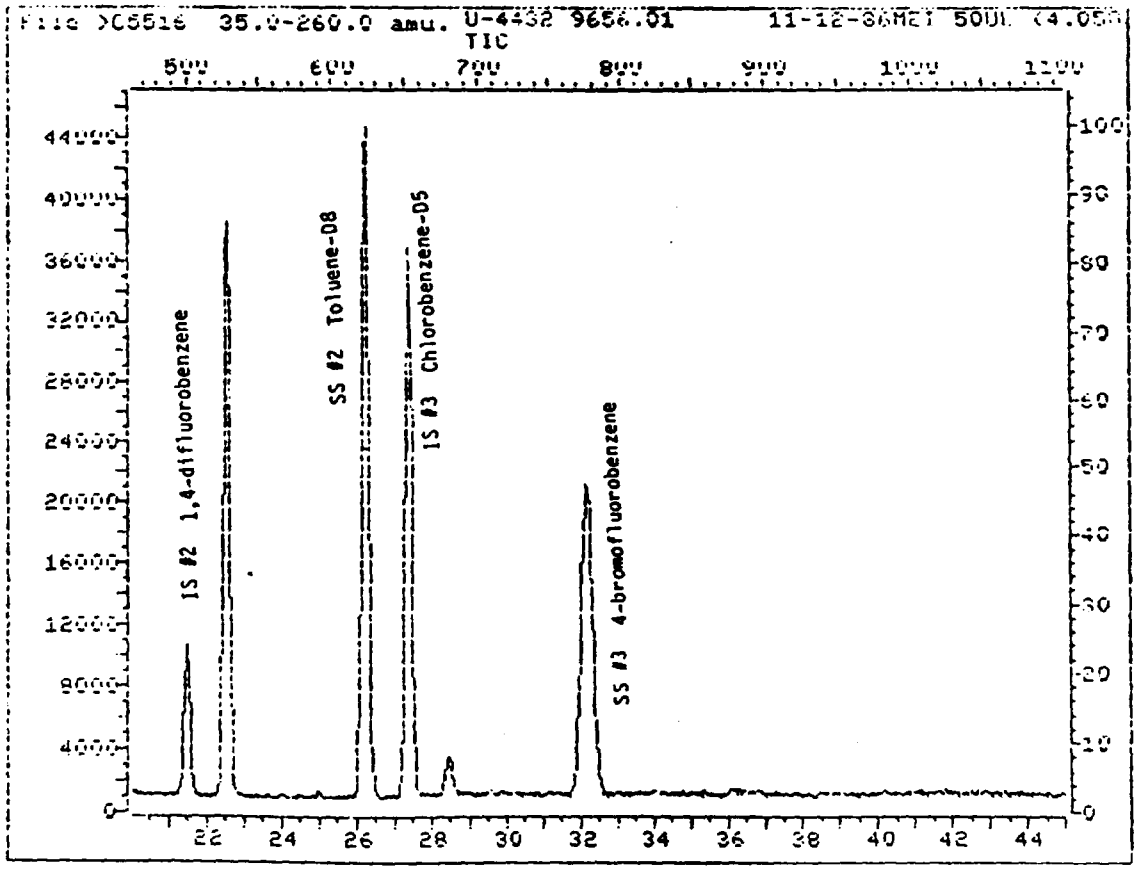


Data File: >C5516::03
Name: U-4432 9656.01 DC-SD-18
Misc: 11-12-86MEI 50UL (4.05G/100MLS MEOH) + 10UL IS/SS

Id File: VOACR::02
Title: VOA ID FILE FOR HP-5995 (LONG. CAL
Last Calibration: 861113 22:56

Operator ID: USER8
Quant Time: 861114 06:36
Injected at: 861114 05:50


File >C5516 35.0-260.0 amu. U-4432 9656.01 11-12-86MET 50UL (4.050
TIC
DC-SD-18
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5516 35.0-260.0 amu. U-4432 9656.01 11-12-86MET 50UL (4.050
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

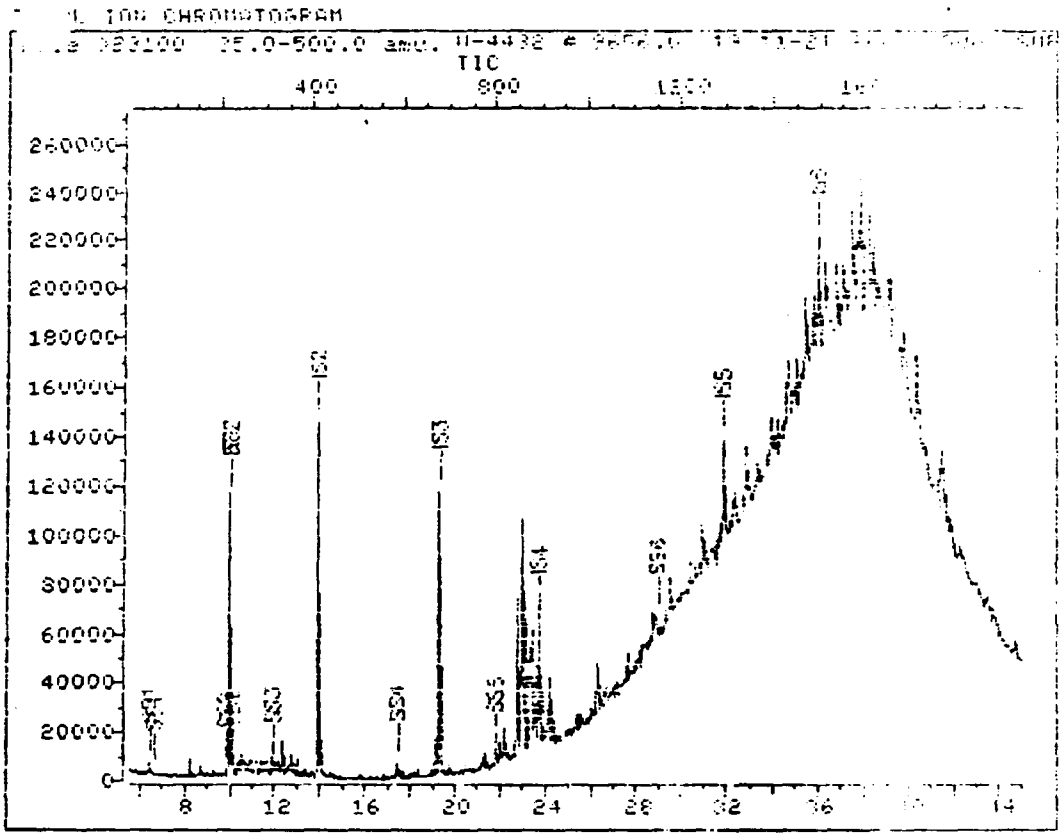
QUANT REPORT --

perator ID: USER8 Quant Rev: 4 Quant Time: 861114 06:36
utput File: ^C5516::D2 Injected at: 861114 05:50
ata File: >C5516::D3 Dilution Factor: 1.00
ame: U-4432 9656.01 DC-SD-18
isc: 11-12-86MEI 500UL (4.05G/10MLS MEOH) + 100L IS 55

D File: VOACR::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861113 22:56

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.99	256	44344	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.54	147	49731	24.28	UG/L	100
7)	ACETONE		43	9.51	192	2589	8.07	UG/L	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.86	340	67562	46.78	UG/L	90
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.54	528	167174	50.00	UG/L	100
7)	2-BUTANONE		72	14.98	343	4338	28.59	UG/L	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.39	653	120613	50.00	UG/L	100
6)	TOLUENE-D8	(SURR)	98	26.22	622	179495	50.38	UG/L	93
10)	4-BROMOFLUOROBENZENE	(SURR)	95	32.17	776	82644	44.40	UG/L	100

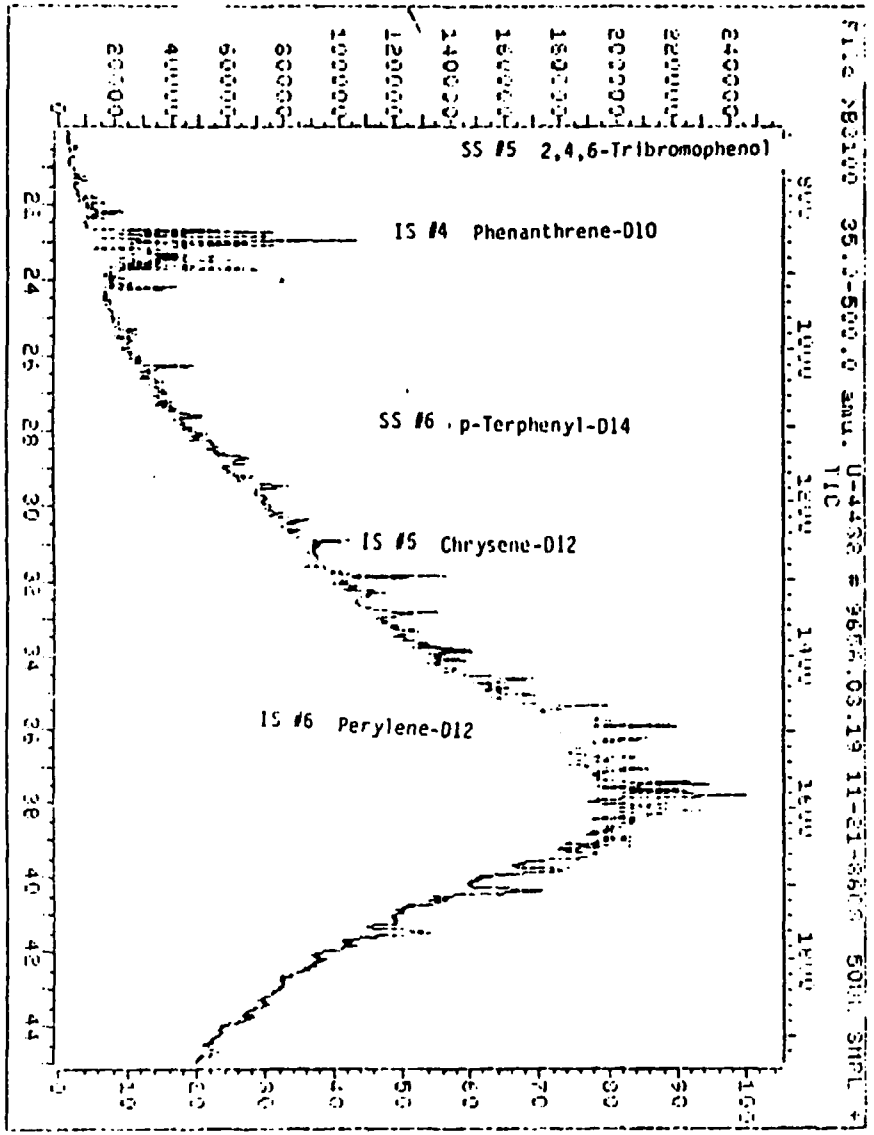
* Compound is ISTD

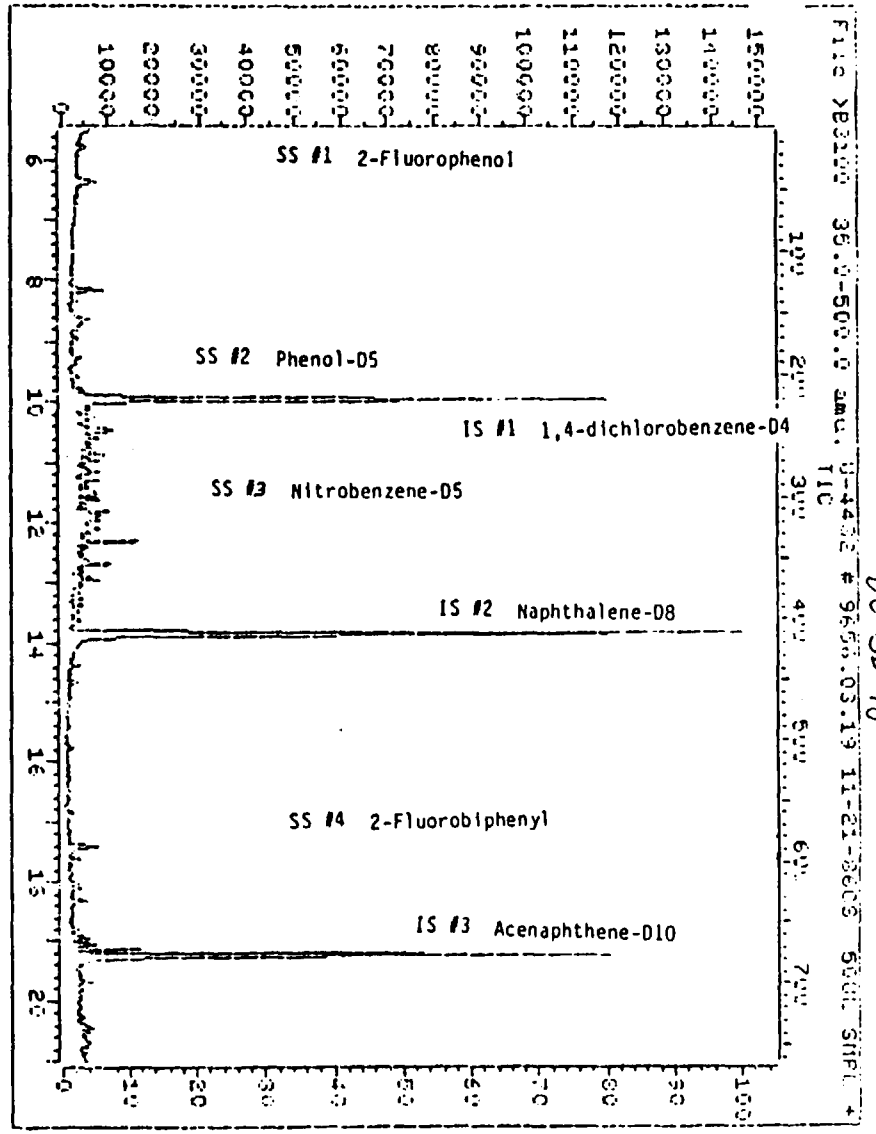


Data File: 083100::D4 DC-SD-18
Name: U-4432 # 9656.03.19
Misc: 11-21-86CS 50UL SMPL + [illegible]

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP [illegible]
Last Calibration: 861121 14:38

Operator ID: USER8
Quant Time: 861121 22:31
Injected at: 861121 21:44


SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12


SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10

DC-SD-18

QUANT REPORT

erator ID: USER8 Quant Mod: 4 Quant Time: 861121 [illegible]:51
utput File: ^B3100::02 Injected at: 861121 21:44
ata File: >B3100::04 Dilution Factor: 10.00
ame: U-4432 # 9656.03.19 DC-SD-18
isc: 11-21-86CS 500UL SMPL + 450UL [illegible] + [illegible]

) File: BNABR::D2
itle: BNA ID FILE FOR THE HP 5970 (R[illegible]
ast Calibration: 861121 14:38

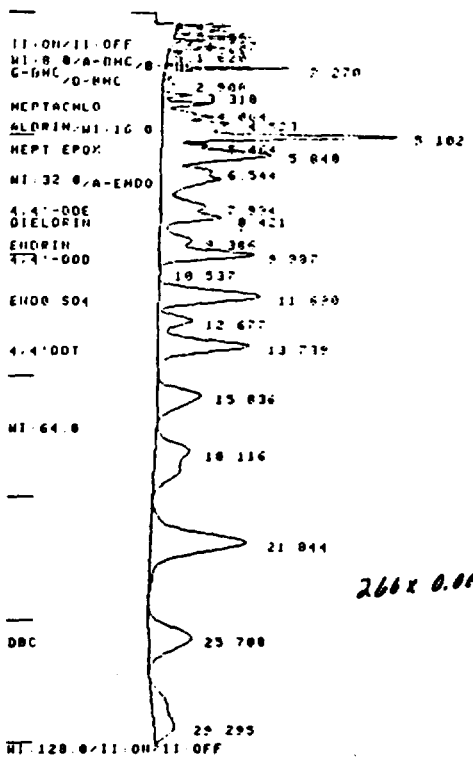
	Compound		M/E	R.T.	Scan#	Area	Conc	Units	Q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.94	219	64924	40.00	UG/L	89
2)	PHENOL-D5	(SURR)	99	9.80	212	5240	22.76	UG/L	84
2)	PHENOL-D5	(SURR)	99	[illegible].94	219	1930	8.38	UG/L	65
2)	PHENOL-D5	(SURR)	99	10.10	223	304	1.32	UG/L	71
3)	2-FLUOROPHENOL	(SURR)	112	6.38	44	4965	21.45	UG/L	90
~~2)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
~~2)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.32~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~64~~
~~2)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.40~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
~~2)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.87~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~28~~
~~2)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.45~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~25~~
~~2)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.10~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~78~~
	N-Bfk								
1)	*NAPHTHALENE-D8	(IS)	136	13.85	411	204372	40.00	UG/L	100
1)	NITROBENZENE-D5	(SURR)	82	11.87	314	4144	21.89	UG/L	89
2)	NAPHTHALENE		128	13.91	414	1334	2.99	UG/L	100
1)	*ACENAPHTHENE-D10	(IS)	162	17.23	[illegible]	[illegible]82	40.00	UG/L	96
1)	2-FLUOROBIPHENYL	(SURR)	172	17.40	516	9087	22.06	UG/L	91
~~2)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~10.27~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~100~~
~~2)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~10.43~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~100~~
	N-Bfk								
3)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.78	381	1106	21.64	UG/L	93
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~21.43~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~100~~
	N-Bfk								
1)	*PHENANTHRENE-D10	(IS)	188	27.67	894	[illegible]841	40.00	UG/L	98
2)	DI-N-BUTYLPHTHALATE		149	26.24	1020	[illegible]992	4.69	UG/L	[illegible]
1)	*CHRYSENE-D12	(IS)	240	31.85	1274	[illegible]	40.00	UG/L	100
2)	PYRENE		202	28.04	1108	3941	21.89	UG/L	92
1)	TERPHENYL-D14	(SURR)	244	28.90	1150	3941	[illegible]	UG/L	100
~~2)~~	~~BUTYLBENZYLPHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
~~2)~~	~~BUTYLBENZYLPHTHALATE~~		~~149~~	~~30.46~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~32~~
	N-Bfk								
2)	BUTYLBENZYLPHTHALATE		149	29.76	1241	1[illegible]	[illegible]	UG/L	85
~~2)~~	~~BUTYLBENZYLPHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
~~2)~~	~~BUTYLBENZYL PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~68~~
~~2)~~	~~3,4-DICHLOROPHENYL ETHER~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~100~~
	N-Bfk								
1)	BENZO(A)ANTHRACENE		228	31.43	1293	[illegible]	[illegible]	UG/L	44
~~2)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~80~~
2)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.83	1344	[illegible]	[illegible]	[illegible]	[illegible]
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
~~2)~~	~~CHRYSENE~~		~~228~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~46~~
	N-Bfk								
1)	CHRYSENE		228	31.93	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1)	*PERYLENE-D12	(IS)	264	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
~~2)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~100~~
	N-Bfk								
2)	DI-N-OCTYL PHTHALATE		149	34.64	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
~~2)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
	N-Bfk								

N-Bfk 183

	Compound	m/z	R.T.	Scan#	Area	Conc	Units	Q
[illegible]	~~BENZO(B)FLUORANTHENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(B)FLUORANTHENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(B)FLUORANTHENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(B)FLUORANTHENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(B)FLUORANTHENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(K)FLUORANTHENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(K)FLUORANTHENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
7)	BENZO(K)FLUORANTHENE	252	34.99	14[illegible]	[illegible]476	2[illegible].64	[illegible]/L	100
[illegible]	~~BENZO(K)FLUORANTHENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(K)FLUORANTHENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(A)PYRENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
8)	BENZO(A)PYRENE	252	35.81	148[illegible]	1010	[illegible].54	[illegible]/L	100
[illegible]	~~BENZO(A)PYRENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(A)PYRENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(A)PYRENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]/L	100
[illegible]	~~INDENO(1,2,3-CD)PYRENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~INDENO(1,2,3-CD)PYRENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~INDENO(1,2,3-CD)PYRENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
9)	INDENO(1,2,3-CD)PYRENE	276	38.59	162[illegible]	1602	1[illegible].04	[illegible]/L	100
[illegible]	~~INDENO(1,2,3-CD)PYRENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~DIBENZ(A,H)ANTHRACENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~DIBENZ(A,H)ANTHRACENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~DIBENZ(A,H)ANTHRACENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~DIBENZ(A,H)ANTHRACENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~DIBENZ(A,H)ANTHRACENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(G,H,I)PERYLENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(G,H,I)PERYLENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
1)	BENZO(G,H,I)PERYLENE	276	[illegible].12	16[illegible]	[illegible]012	2[illegible].[illegible]	[illegible]/L	100
[illegible]	~~BENZO(G,H,I)PERYLENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(G,H,I)PERYLENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100

* Compound is 1510

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



$266 \times 0.00107 \times \frac{1}{0.735g} \times 20{,}000 = 7{,}900$ ug/kg 1360

RECALCULATE ON FILE: SLY462

CHANNEL: 1A - 1 TITLE: RUN# 27 15:00 19 NOV 86

DC-SD-1B

SAMPLE: 9656.03.19A1 METHOD: DAVE CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.380		37283	VV	3.38
2	B-BHC	290.3236	2.270	0.100	88205	VV	5.06
3		0.0000	3.318		28243	VV	7.25
4	HEPTACHLO	113.6624	3.708	-0.082	66275	VV	10.44
5		0.0000	4.064		32275	VV	? 11.56
6		0.0000	4.244		77746	VV	? 15.25
7		0.0000	4.523		103175	VV	? 14.94
8	ALDRIN	163.1298	4.673	0.003	171871	VV	? 41.31
9		0.0000	5.102		372450	VV	11.19
10		0.0000	5.464		64119	VV	? 14.25
11	HEPT EPOX	513.2191	5.840	0.178	366267	VV	26.69
12		0.0000	6.544		129775	VV	? 27.13
13	A-ENDO	355.3212	6.875	-0.155	234056	VV	? 44.50
14	4,4'-DDE	223.5959	7.994	-0.096	152241	VV	? 33.94
15	DIELDRIN	237.0724	8.421	0.231	171777	VV	? 25.94
16	B-ENDO	183.3687	9.386	0.076	116135	VV	? 26.94
17	4,4'-DDD	508.6099	9.987	-0.173	297634	VV	23.44
18	ENDO SO4	868.2461	11.690	-0.220	414977	VV	32.69
19		0.0000	12.677		127379	VV	27.94
20	4,4'DDT	1014.452	13.739	0.479	395246	VV	32.69
21	END KETON	388.3735	15.836	0.566	269132	VB	48.69
22		0.0000	18.116		359290	BV	87.56
23		0.0000	21.844		658256	VV	49.19
24	DBC	623.1450	25.709	-0.502	341700	VV	62.19
25		0.0000	29.295		237445	VB	7118.81

TOTALS: 5482.320 0.005 5257135

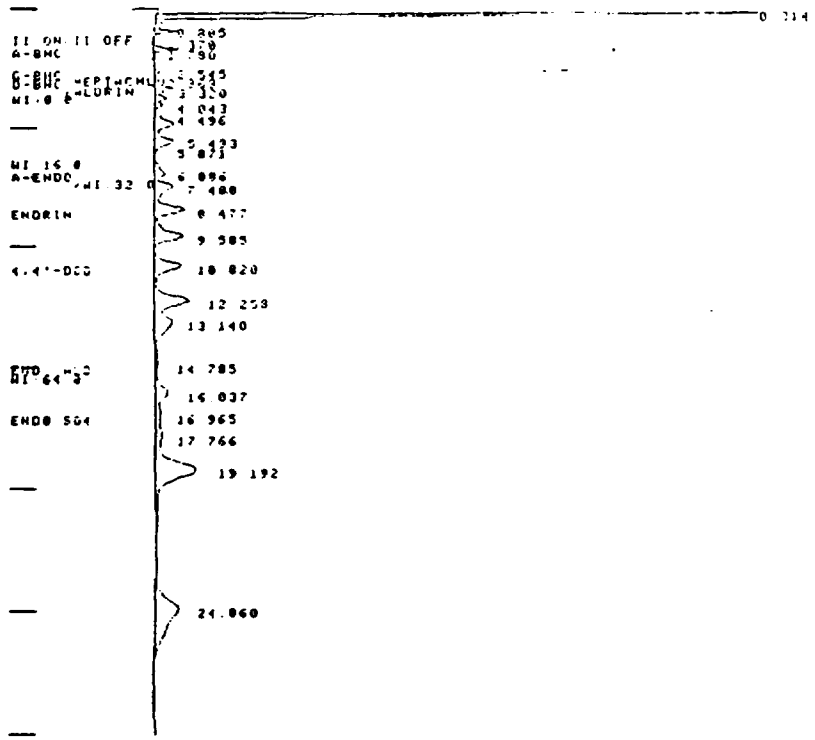
DETECTED PKS: 44 REJECTED PKS: 19

DIVISOR: 0.73500 MULTIPLIER: 20000.0000

NOISE: 22.9 OFFSET: -5

NOTES:
NOTEBOOK: 259-41 ANALYST: K.JUREK
SECURE AREA: D JUG#:U-4455
INST:VARIAN 600002 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 18 - 1 TITLE: RUN# 15 19:13 21 NOV 86

DC-SD-18

SAMPLE: 5656 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	A-BHC	0.0000	1.620	-0.060	37020	VV	3.61
2	ALDRIN	0.0000	3.194	0.044	43163	VV	? 12.13
3		0.0000	3.774		46291	VV	? 14.88
4		0.0000	4.043		26253	VV	? 12.00
5		0.0000	4.496		23329	VV	? 10.94
6	HEPT EPOX	0.0000	4.798	-0.302	99623	VV	? 20.44
7		0.0000	5.493		120275	VV	? 23.00
8	4,4'-DDE	0.0000	6.086	0.076	76716	VV	31.00
9	DIELDRIN	0.0000	7.480	-0.400	137743	VV	26.13
10	ENDRIN	0.0000	8.477	-0.333	185479	VV	22.31
11		0.0000	9.585		205198	VV	24.00
12	4,4'-DDD	0.0000	10.820	0.390	188359	VV	26.00
13	B-ENDOSUL	0.0000	12.258	0.618	274499	VV	29.88
14		0.0000	13.140		204833	VV	49.25
15	END. ALD.	0.0000	14.785	-0.045	31851	VV	? 53.81
16		0.0000	15.037		138439	VV	47.56
17	ENDO SO4	0.0000	16.965	-0.095	46135	VV	? 27.31
18		0.0000	17.766		87268	VV	? 91.39
19		0.0000	19.192		539591	VB	45.38
20		0.0000	24.660		455222	BB	75.31
TOTALS:		0.0000		-0.107	2967815		

DETECTED PKS: 35 REJECTED PKS: 15

DIVISOR: 1.50000 MULTIPLIER: 1.00000

NOISE: 58.6 OFFSET: -16

NOTES:
NOTEBOOK:259-42 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB #U-4432:U-4442
INST: VARIAN 6200#2 B ECD 10X1 ATT:16
COLUMN: 8' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE PCB CONFIRMATIONS
DEAD CREEK

POST RUN:
SAVE FILE: RAW CREEKE'S

SAMPLE NUMBER DC-SD-19

481095

Sample Number
DC-SD-19

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No. U-4432 / U-4442
Lab Sample ID No: 9657
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Slotowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-12-86

Conc/Dil Factor: 2 pH 6.7

Percent Moisture: (Not Decanted) 53

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	4600u
74-83-9	Bromomethane	4600u
75-01-4	Vinyl Chloride	4600u
75-00-3	Chloroethane	4600u
75-09-2	Methylene Chloride	13000B
67-64-1	Acetone	10000B
75-15-0	Carbon Disulfide	2300u
75-35-4	1, 1-Dichloroethene	2300u
75-34-3	1, 1-Dichloroethane	2300u
156-60-5	Trans-1, 2-Dichloroethene	2300u
67-66-3	Chloroform	2300u
107-06-2	1, 2-Dichloroethane	2300u
78-93-3	2-Butanone	14000
71-55-6	1, 1, 1-Trichloroethane	2300u
56-23-5	Carbon Tetrachloride	2300u
108-05-4	Vinyl Acetate	4600u
75-27-4	Bromodichloromethane	2300u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2300u
10061-02-6	Trans-1, 3-Dichloropropene	2300u
79-01-6	Trichloroethene	2300u
124-48-1	Dibromochloromethane	2300u
79-00-5	1, 1, 2-Trichloroethane	2300u
71-43-2	Benzene	2300u
10061-01-5	cis-1, 3-Dichloropropene	2300u
110-75-8	2-Chloroethylvinylether	4600u
75-25-2	Bromoform	2300u
108-10-1	4-Methyl-2-Pentanone	4600u
591-78-6	2-Hexanone	52000B
127-18-4	Tetrachloroethene	2300u
79-34-5	1, 1, 2, 2-Tetrachloroethane	2300u
108-88-3	Toluene	2300u
108-90-7	Chlorobenzene	2300u
100-41-4	Ethylbenzene	2300u
100-42-5	Styrene	2300u
	Total Xylenes	2300u

Data Reporting Qualifiers

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

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

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

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

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

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

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

oboratory Name Ecology and Environment, Inc.

ase No: V-4432/V-4442

Sample Number
DC-SD-19

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

oncentration: (Low) Medium (Circle One)

ate Extracted/Prepared: 11-12-86

ate Analyzed: 12-12-86

onc/Dil Factor: 5

ercent Moisture (Decanted) 53

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
08-95-2	Phenol	1800	U
11-44-4	bis(2-Chloroethyl)Ether	1800	U
5-57-8	2-Chlorophenol	1800	U
41-73-1	1 3-Dichlorobenzene	1800	U
06-46-7	1, 4-Dichlorobenzene	130	J
00-51-6	Benzyl Alcohol	1800	U
5-50-1	1 2-Dichlorobenzene	1800	U
5-48-7	2-Methylphenol	1800	U
9638-32-9	bis(2-chloroisopropyl)Ether	1800	U
06-44-5	4-Methylphenol	1800	U
21-64-7	N-Nitroso-Di-n-Propylamine	1800	U
7-72-1	Hexachloroethane	1800	U
8-95-3	Nitrobenzene	1800	U
8-59-1	Isophorone	1800	U
8-75-5	2-Nitrophenol	1800	U
05-67-9	2, 4-Dimethylphenol	1800	U
5-85-0	Benzoic Acid	8500	U
11-91-1	bis(2-Chloroethoxy)Methane	1800	U
20-83-2	2, 4-Dichlorophenol	1800	U
20-82-1	1, 2, 4-Trichlorobenzene	390	J
1-20-3	Naphthalene	120	J
06-47-8	4-Chloroaniline	1800	U
7-68-3	Hexachlorobutadiene	1800	U
9-50-7	4-Chloro-3-Methylphenol	1800	U
1-57-6	2-Methylnaphthalene	1800	U
7-47-4	Hexachlorocyclopentadiene	1800	U
8-06-2	2 4 6-Trichlorophenol	1800	U
5-95-4	2, 4, 5-Trichlorophenol	8500	U
1-58-7	2-Chloronaphthalene	1800	U
8-74-4	2-Nitroaniline	8500	U
3 -3	Dimethyl Phthalate	1800	U
208-96-8	Acenaphthylene	1800	U
9-09-2	3-Nitroaniline	8500	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	1800	U
51-28-5	2, 4-Dinitrophenol	8500	U
100-02-7	4-Nitrophenol	8500	U
132-64-9	Dibenzofuran	1800	U
121-14-2	2 4-Dinitrotoluene	1800	U
606-20-2	2 6-Dinitrotoluene	1800	U
84-66-2	Diethylphthalate	1800	U
7005-72-3	4-Chlorophenyl-phenylether	1800	U
86-73-7	Fluorene	1800	U
100-01-6	4-Nitroaniline	8500	U
534-52-1	4, 6-Dinitro-2-Methylphenol	8500	U
86-30-6	N-Nitrosodiphenylamine (1)	1800	U
101-55-3	4-Bromophenyl-phenylether	1800	U
118-74-1	Hexachlorobenzene	1900	
87-86-5	Pentachlorophenol	940	J
85-01-8	Phenanthrene	1800	U
120-12-7	Anthracene	1800	U
84-74-2	Di-n-Butylphthalate	1800	U
206-44-0	Fluoranthene	1800	U
129-00-0	Pyrene	1800	U
85-68-7	Butylbenzylphthalate	1800	U
91-94-1	3, 3'-Dichlorobenzidine	3600	U
56-55-3	Benzo(a)Anthracene	1800	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1800	U
218-01-9	Chrysene	1800	U
117-84-0	Di-n-Octyl Phthalate	1800	U
205-99-2	Benzo(b)Fluoranthene	2400	
207-08-9	Benzo(k)Fluoranthene	1800	U
50-32-8	Benzo(a)Pyrene	310	J
193-39-5	Indeno(1 2, 3-cd)Pyrene	1400	J
53-70-3	Dibenzo(a,h)Anthracene	390	J
191-24-2	Benzo(g,h,i)Perylene	1800	

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4432 / V-4442

Sample Number DC-SD-19

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-12-86

Date Analyzed: 11-19-86

Conc/Dil Factor: 200

Percent Moisture (decanted) 53

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	3200 U
319-85-7	Beta-BHC	3200 U
319-86-8	Delta-BHC	3200 U
58-89-9	Gamma-BHC (Lindane)	3200 U
76-44-8	Heptachlor	3200 U
309-00-2	Aldrin	3200 U
1024-57-3	Heptachlor Epoxide	3200 U
959-98-8	Endosulfan I	3200 U
60-57-1	Dieldrin	6400 U
72-55-9	4,4'-DDE	6400 U
72-20-8	Endrin	6400 U
33213-65-9	Endosulfan II	6400 U
72-54-8	4,4'-DDD	6400 U
1031-07-8	Endosulfan Sulfate	6400 U
50-29-3	4,4'-DDT	6400 U
72-43-5	Methoxychlor	32,000 U
53494-70-5	Endrin Ketone	6400 U
57-74-9	Chlordane	32,000 U
8001-35-2	Toxaphene	64,000 U
12674-11-2	Aroclor-1016	32,000 U
11104-28-2	Aroclor-1221	32,000 U
11141-16-5	Aroclor-1232	32,000 U
53469-21-9	Aroclor-1242	32,000 U
12672-29-6	Aroclor-1248	32,000 U
11097-69-1	Aroclor-1254	141,000 C
11096-82-5	Aroclor-1260	54,000 J C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-19

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	17.4min	1100 BJ
2.	Unknown Ketone	VOA	19.9min	1500 J
3.	Hexane isomer	VOA	21.4min	3400 BJ
4.				
5.	UNKNOWN HYDROCARBON	BNA	8.1	5600 J
6.	PCB	BNA	25.0-30.5	-
7.				
8.				
9.				
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11.				
12.				
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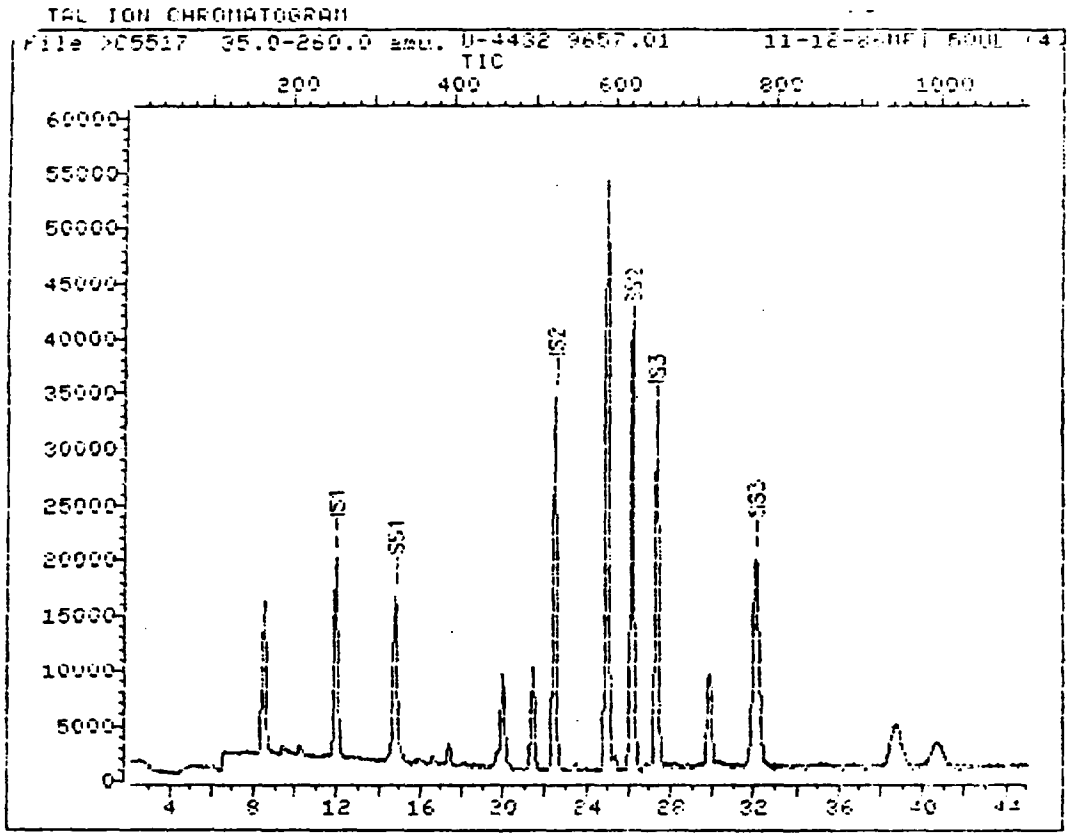
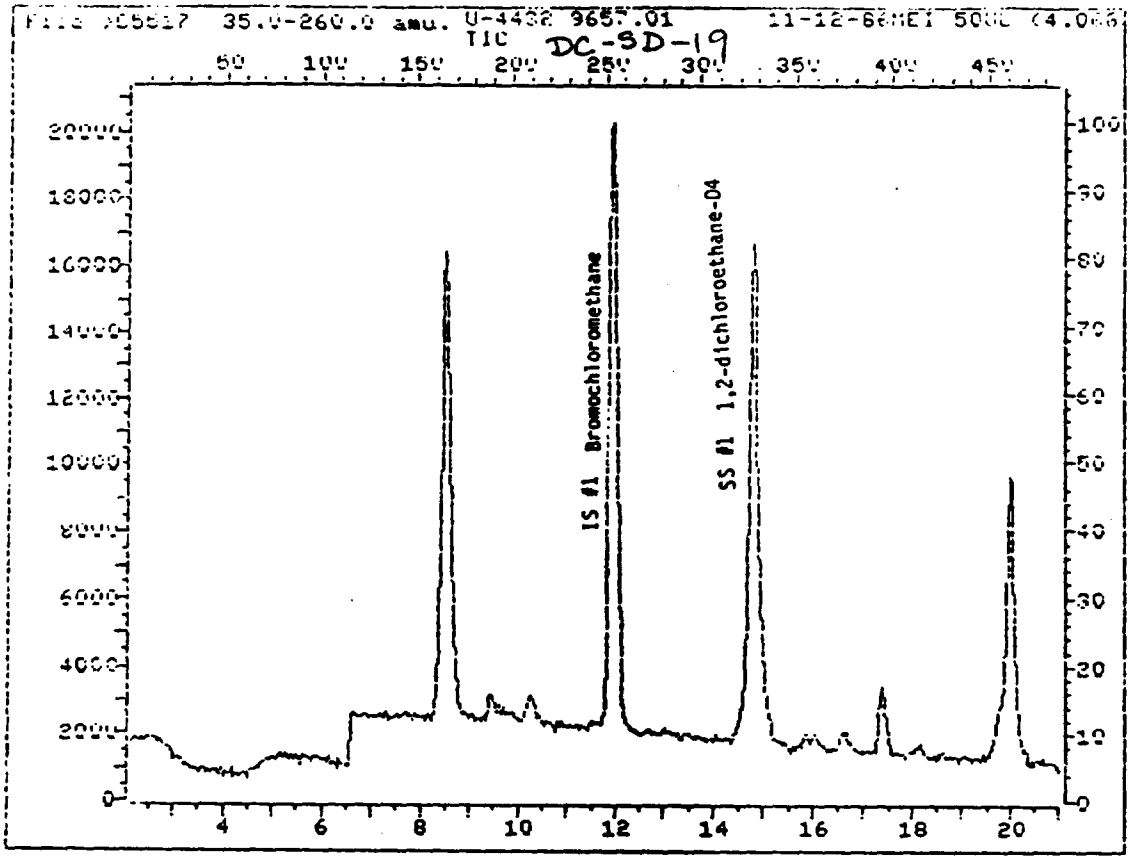
29.				
30				

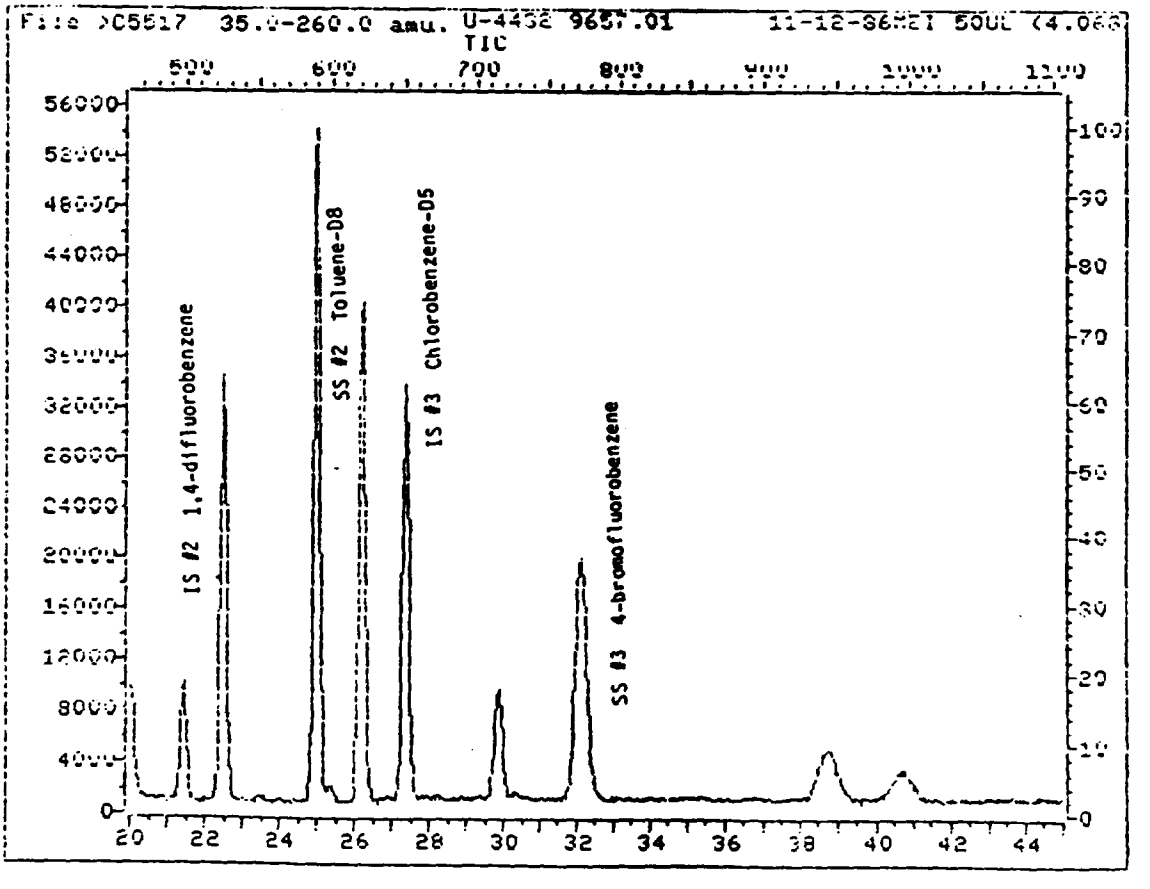


Data File: >C5517::D3
Name: U-4432 9657.01 DC-SD-19
Misc: 11-12-86MEI 50UL (4.06G/10MLS MEOH) + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861113 22:56

Operator ID: USER8
Quant Time: 861114 07:34
Injected at: 861114 06:48


File >C5517 35.0-260.0 amu. U-4432 9657.01 11-12-86MEI 500L (4.066)
TIC
DC-SD-19
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5517 35.0-260.0 amu. U-4432 9657.01 11-12-86MEI 500L (4.066)
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT

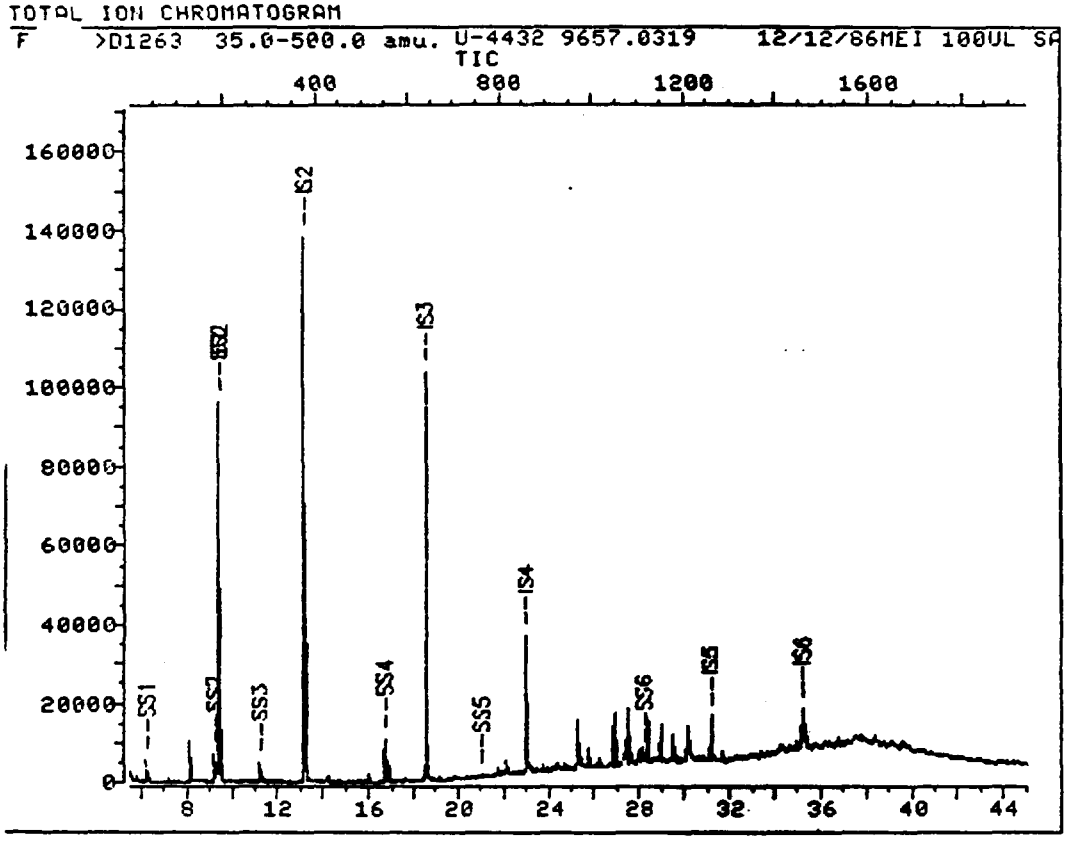
Operator ID: USER8 Quant Rev: 4 Quant Time: 861114 07:34
Output File: ^C5517::D2 Injected at: 861114 06:48
Data File: >C5517::D3 Dilution Factor: 1.00
Name: U-4432 9657.01 DC-SD-19
Misc: 11-12-86MEI 50UL (4.06G/10MLS MEOH) + 100UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861113 22:56

	Compound		M/Z	R.T.	Scan#	Area	Conc	Units	%
1)	*BROMOCHLOROMETHANE	(IS)	128	11.93	254	28076	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.52	169	39147	24.97	UG/L	100
7)	ACETONE		43	9.48	190	6073	22.52	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.80	327	60824	50.24	UG/L	89
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.48	525	149918	50.00	UG/L	100
17)	2-BUTANONE		72	14.95	331	3778	27.40	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.33	654	108597	50.00	UG/L	100
33)	2-HEXANONE		43	25.00	598	66856	99.06	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.16	620	161576	50.37	UG/L	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.11	773	75397	44.99	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

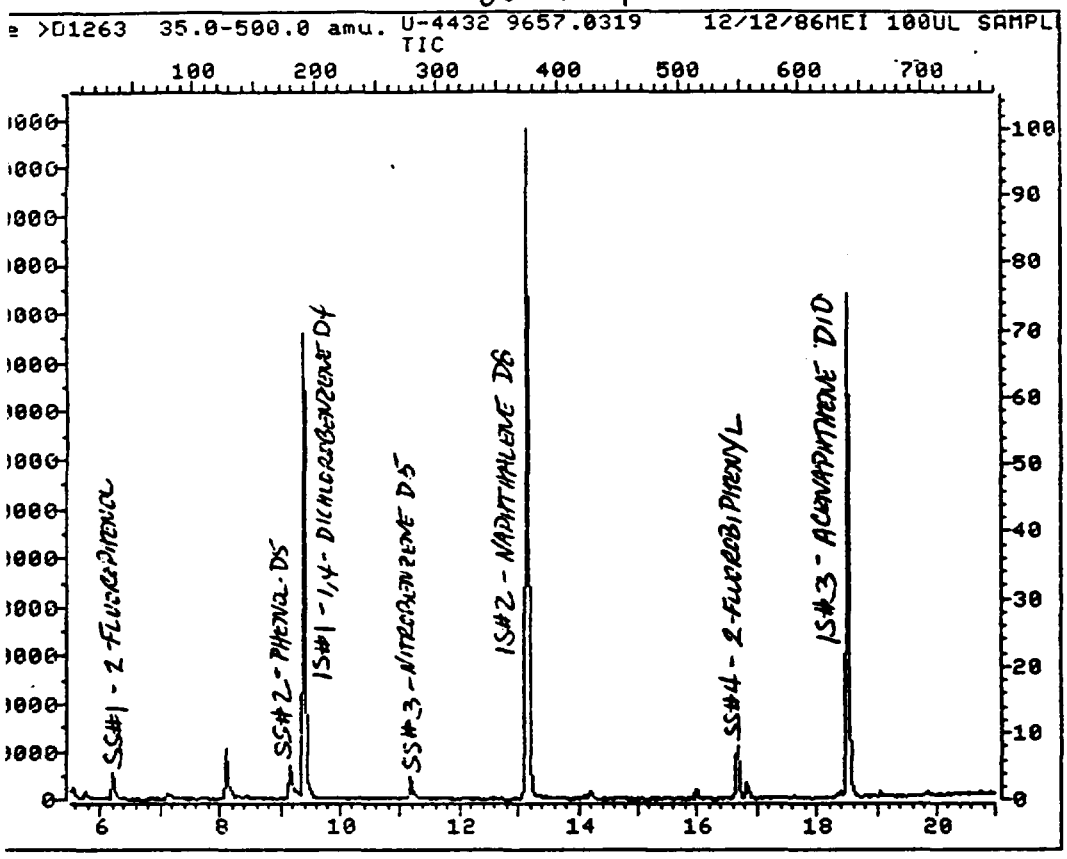


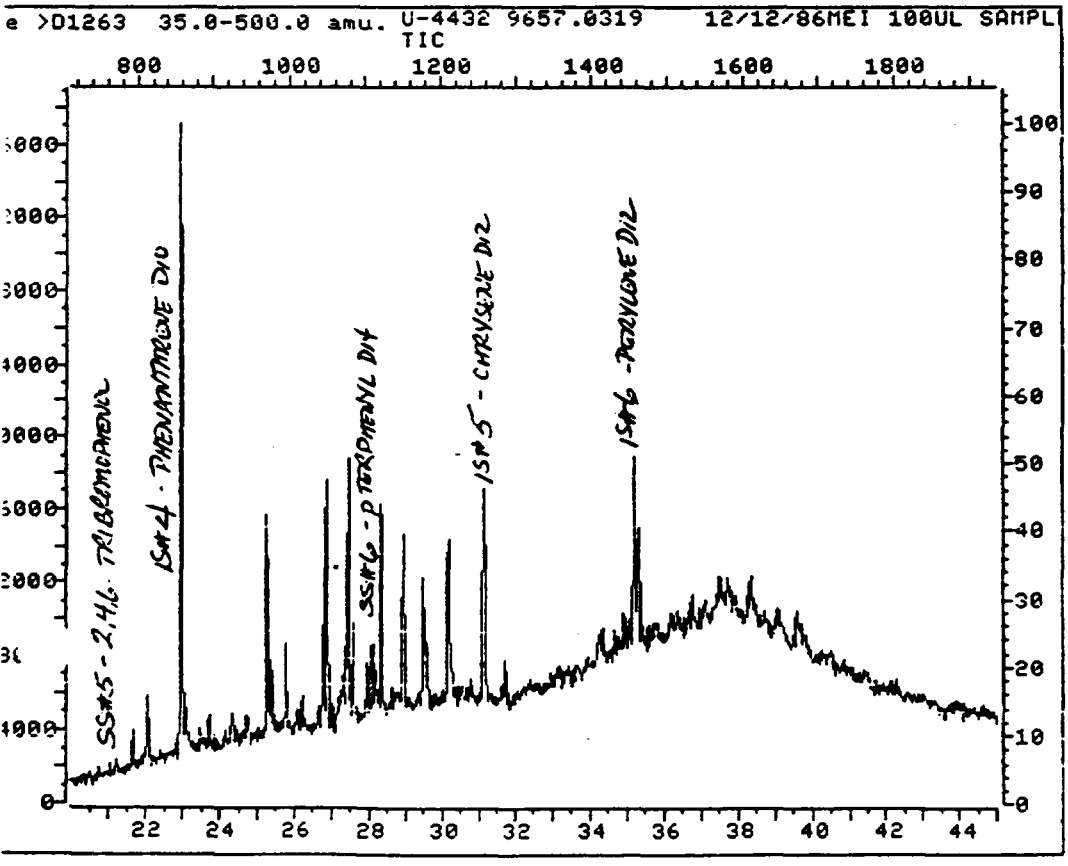
Data File: >D1263::D3
Name: U-4432 9657.0319 DC-SD-19
Misc: 12/12/86MEI 100UL SAMPLE + 400UL MECL2 + 5UL IS (5X) BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861211 15:37

Operator ID: USER8
Quant Time: 861216 09:51
Injected at: 861212 19:13

DC-SD-19


e >D1263 35.0-500.0 amu. U-4432 9657.0319 12/12/86MEI 100UL SAMPL
TIC
SS#1 - 2-FLUOROPHENOL
SS#2 - PHENOL-D5
IS#1 - 1,4-DICHLOROBENZENE D4
SS#3 - NITROBENZENE D5
IS#2 - NAPHTHALENE D8
SS#4 - 2-FLUOROBIPHENYL
IS#3 - ACENAPHTHENE D10


e >D1263 35.0-500.0 amu. U-4432 9657.0319 12/12/86MEI 100UL SAMPL
TIC
SS#5 - 2,4,6-TRIBROMOPHENOL
IS#4 - PHENANTHRENE D10
SS#6 - P-TERPHENYL D14
IS#5 - CHRYSENE D12
IS#6 - PERYLENE D12

QUANT REPORT

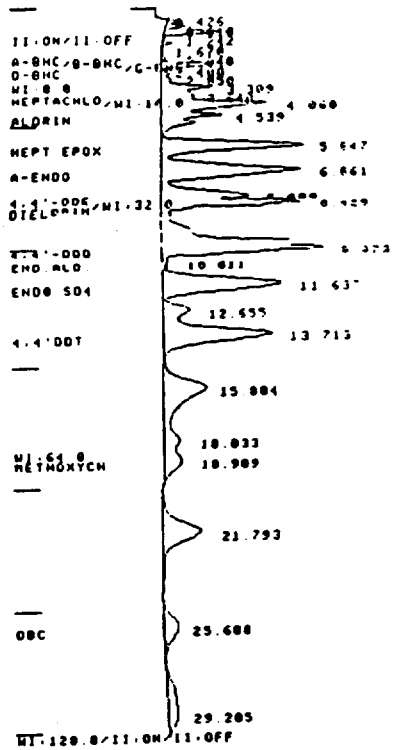
ıerator ID: USER8 Quant Rev: 4 Quant Time: 861216 09:51
ıtput File: ^D1263::Q2 Injected at: 861212 19:13
ıta File: >D1263::D3 Dilution Factor: 5.00
ıme: U-4432 9657.0319 DC-SD-19
sc: 12/12/86MEI 100UL SAMPLE + 400UL MECL2 + 5UL IS (5X) BTL# 1

) File: BNADR::D2
tle: BNA ID FILE FOR THE HP 5970 (B)
ıst Calibration: 861211 15:37

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.39	191	47434	40.00	UG/L	90
2)	PHENOL-D5	(SURR)	99	9.17	180	10083	31.60	UG/L	96
2)	PHENOL-D5	(SURR)	99	9.39	191	972	3.05	UG/L	81
5)	2-FLUOROPHENOL	(SURR)	112	6.21	35	6143	30.66	UG/L	90
~~2)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.43~~	~~193~~	~~597~~	~~1.70~~	~~UG/L~~ No BFR	83
1)	1,4-DICHLOROBENZENE		146	9.43	193	597	1.83	UG/L	84
~~)~~	~~1,2-DICHLOROBENZENE~~		~~146~~	~~9.96~~	~~219~~	~~243~~	~~.68~~	~~UG/L~~ No GFR	92
~~)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.18~~	~~279~~	~~789~~	~~2.36~~	~~UG/L~~	93
)	*NAPHTHALENE-D8	(IS)	136	13.16	376	170084	40.00	UG/L	100
)	NITROBENZENE-D5	(SURR)	82	11.18	279	5772	18.01	UG/L	96
)	1,2,4-TRICHLOROBENZENE		180	13.10	373	1616	5.48	UG/L	100
)	NAPHTHALENE		128	13.20	378	1301	1.66	UG/L	100
)	*ACENAPHTHENE-D10	(IS)	162	18.51	639	59813	40.00	UG/L	99
)	2-FLUOROBIPHENYL	(SURR)	172	16.68	549	12631	25.42	UG/L	96
~~)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.39~~	~~633~~	~~156~~	~~.33~~	~~UG/L~~ No SFR	100
~~)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.51~~	~~639~~	~~18371~~	~~38.85~~	~~UG/L~~	100
)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.02	762	381	6.23	UG/L	94
~~)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.51~~	~~639~~	~~8170~~	~~35.09~~	~~UG/L~~ No BFR	100
)	*PHENANTHRENE-D10	(IS)	188	22.96	857	43409	40.00	UG/L	96
)	HEXACHLOROBENZENE		284	22.06	813	1598	26.97	UG/L	95
)	PENTACHLOROPHENOL		266	22.80	849	376	13.27	UG/L	100
)	*CHRYSENE-D12	(IS)	240	31.12	1257	15359	40.00	UG/L	100
~~)~~	~~BENZIDINE~~		~~184~~	~~27.45~~	~~1077~~	~~1625~~	~~1625.00~~	~~NO CAL~~ No BFR	100
~~)~~	~~BENZIDINE~~		~~184~~	~~27.57~~	~~1083~~	~~480~~	~~480.00~~	~~NO CAL~~	100
)	TERPHENYL-D14	(SURR)	244	28.18	1113	1523	18.79	UG/L	100
)	*PERYLENE-D12	(IS)	264	35.20	1457	13427	40.00	UG/L	100
~~)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.59~~	~~1379~~	~~288~~	~~1.50~~	~~UG/L~~	100
~~)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.00~~	~~1398~~	~~220~~	~~1.14~~	~~UG/L~~	100
~~)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.08~~	~~1402~~	~~608~~	~~3.12~~	~~UG/L~~ None	100
~~)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.18~~	~~1407~~	~~313~~	~~1.63~~	~~UG/L~~	100
~~)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.24~~	~~1410~~	~~226~~	~~1.17~~	~~UG/L~~	100
)	BENZO(B)FLUORANTHENE		252	34.24	1410	2834	34.45	UG/L	100
~~)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.24~~	~~1410~~	~~2834~~	~~27.51~~	~~UG/L~~ No BFR	100
~~)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.92~~	~~1443~~	~~1671~~	~~22.90~~	~~UG/L~~	100
)	BENZO(A)PYRENE		252	35.06	1450	314	4.32	UG/L	100
)	INDENO(1,2,3-CD)PYRENE		276	37.82	1585	826	19.66	UG/L	100
~~)~~	~~DIBENZ(A,H)ANTHRACENE~~		~~278~~	~~37.63~~	~~1576~~	~~215~~	~~5.14~~	~~UG/L~~ No BFR	100
)	DIBENZ(A,H)ANTHRACENE		278	37.90	1589	229	5.47	UG/L	100
)	BENZO(G,H,I)PERYLENE		276	38.37	1612	1196	25.84	UG/L	100

Compound is ISTD

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



$371 \times 0.00133 \times \frac{1}{0.7005g} \times 200{,}000 = 141{,}000$ ug/kg (125)

$67.8 \times 0.0005 \times \frac{1}{0.7005g} \times 200{,}000 = 54{,}000$ ug/kg (126)

RECALCULATE ON FILE: SLY463

DC-SD-19

CHANNEL: 1A - 1 TITLE: RUN# 25 15:37 19 NOV 86

SAMPLE: 9657.03.19A1 METHOD: GAVE CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1	B-BHC	2867.093	2.249	0.078	62830	VV	4.08
2		0.0000	3.229		89437	VV	12.75
3	HEPTACHLO	1505.150	3.640	-0.150	85865	VV	? 17.88
4		0.0000	4.050		259715	VV	17.69
5	ALDRIN	1523.320	4.539	-0.131	109433	VV	15.13
6		0.0000	4.659		69697	VV	? 15.25
7	HEPT EPOX	5672.342	5.647	0.177	379434	VV	20.00
8	A-ENDO	7887.231	6.661	-0.169	495793	VV	26.81
9	4,4'-DDE	4509.314	7.929	-0.161	292803	VV	? 28.38
10	DIELDRIN	5712.550	8.425	0.235	394489	VV	21.88
11	4,4'-DDD	10954.91	9.973	-0.187	610981	VV	23.81
12	ENDO SO4	11355.60	11.637	-0.273	517383	VV	33.19
13		0.0000	12.655		100574	VV	? 26.88
14	4,4'DDT	13819.76	13.713	0.453	513295	VV	33.56
15	END KETON	4964.401	15.884	0.614	327953	VV	53.69
16		0.0000	18.033		81957	VV	? 48.56
17	METHOXYCH	4801.523	18.909	-0.581	106709	VB	? 59.69
18		0.0000	21.793		268487	BV	49.44
19	DBC	2200.293	25.608	-0.922	114921	VV	65.69
20		0.0000	29.205		119363	VB	?130.88
TOTALS:		77773.50		-1.017	5019375		

DETECTED PKS: 41 REJECTED PKS: 21

DIVISOR: 0.70050 MULTIPLIER: 200000.000

NOISE: 22.9 OFFSET: -5

NOTES:
NOTEBOOK: 259-41 ANALYST: A.JORE
SECURE AREA: D JOB#:U-4465
INST:VARIAN 6230#2 A ECD 10
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

SAMPLE NUMBER DC-SD-20

481095

Sample Number
DC-SD-20

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No. U-4432 / U-4442
Lab Sample ID No: 9658
QC Report No:
Sample Matrix: Soil
Contract No. IL-3140
Data Release Authorized By: C Stojtowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc./Dil Factor: 2 pH 6.5

Percent Moisture: (Not Decanted) 42

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3600u
74-83-9	Bromomethane	3600u
75-01-4	Vinyl Chloride	3600u
75-00-3	Chloroethane	3600u
75-09-2	Methylene Chloride	14000 B
67-64-1	Acetone	6100 B
75-15-0	Carbon Disulfide	1800u
75-35-4	1, 1-Dichloroethene	1800u
75-34-3	1, 1-Dichloroethane	1800u
156-60-5	Trans-1, 2-Dichloroethene	1800u
67-66-3	Chloroform	1800u
107-06-2	1, 2-Dichloroethane	1800u
78-93-3	2-Butanone	10000 B
71-55-6	1, 1, 1-Trichloroethane	1800u
56-23-5	Carbon Tetrachloride	1800u
108-05-4	Vinyl Acetate	3600u
75-27-4	Bromodichloromethane	1800u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1800u
10061-02-6	Trans-1, 3-Dichloropropene	1800u
79-01-6	Trichloroethene	1800u
124-48-1	Dibromochloromethane	1800u
79-00-5	1, 1, 2-Trichloroethane	1800u
71-43-2	Benzene	1800u
10061-01-5	cis-1, 3-Dichloropropene	1800u
110-75-8	2-Chloroethylvinylether	3600u
75-25-2	Bromoform	1800u
108-10-1	4-Methyl-2-Pentanone	3600u
591-78-6	2-Hexanone	3600u
127-18-4	Tetrachloroethene	1800u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1800u
108-88-3	Toluene	1800u
108-90-7	Chlorobenzene	1800u
100-41-4	Ethylbenzene	1800u
100-42-5	Styrene	1800u
	Total Xylenes	1800u

Data Reporting Qualifiers

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

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

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

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

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

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

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

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aborat... Name ...ology and environment, inc.

ase No V-4432 / V-4442

Sample Number
DC-SD-20

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

oncentration: Low Medium (Circle One)

ate Extracted/Prepared: 11-12-86

ate Analyzed: 11-21-86

onc/Dil Factor: 2

ercent Moisture (Decanted) 42

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
08-95-2	Phenol	160	J
11-44-4	bis(-2-Chloroethyl)Ether	570	U
5-57-8	2-Chlorophenol	570	U
41-73-1	1 3-Dichlorobenzene	570	U
06-46-7	1, 4-Dichlorobenzene	570	U
00-51-6	Benzyl Alcohol	570	U
5-50-1	1, 2-Dichlorobenzene	570	U
5-48-7	2-Methylphenol	570	U
9638-32-9	bis(2-chloroisopropyl)Ether	570	U
06-44-5	4-Methylphenol	570	U
21-64-7	N-Nitroso-Di-n-Propylamine	570	U
7-72-1	Hexachloroethane	570	U
8-95-3	Nitrobenzene	570	U
8-59-1	Isophorone	570	U
8-75-5	2-Nitrophenol	570	U
05-67-9	2, 4-Dimethylphenol	570	U
5-85-0	Benzoic Acid	2800	U
11-91-1	bis(-2-Chloroethoxy)Methane	570	U
20-83-2	2, 4-Dichlorophenol	570	U
20-82-1	1, 2, 4-Trichlorobenzene	76	J
1-20-3	Naphthalene	570	U
06-47-8	4-Chloroaniline	570	U
7-68-3	Hexachlorobutadiene	570	U
9-50-7	4-Chloro-3-Methylphenol	570	U
1-57-6	2-Methylnaphthalene	570	U
7-47-4	Hexachlorocyclopentadiene	570	U
8-06-2	2 4 6-Trichlorophenol	570	U
5-95-4	2, 4 5-Trichlorophenol	2800	U
1-58-7	2-Chloronaphthalene	570	U
8-74-4	2-Nitroaniline	2800	U
3[illegible]-3	Dimethyl Phthalate	570	U
08-96-8	Acenaphthylene	570	U
9-09-2	3-Nitroaniline	2800	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	570	U
51-28-5	2, 4-Dinitrophenol	2800	U
100-02-7	4-Nitrophenol	2800	U
132-64-9	Dibenzofuran	570	U
121-14-2	2 4-Dinitrotoluene	570	U
606-20-2	2 6-Dinitrotoluene	570	U
84-66-2	Diethylphthalate	570	U
7005-72-3	4-Chlorophenyl-phenylether	570	U
86-73-7	Fluorene	570	U
100-01-6	4-Nitroaniline	2800	U
534-52-1	4, 6-Dinitro-2-Methylphenol	2800	U
86-30-6	N-Nitrosodiphenylamine (1)	570	U
101-55-3	4-Bromophenyl-phenylether	570	U
118-74-1	Hexachlorobenzene	210	J
87-86-5	Pentachlorophenol	370	J
85-01-8	Phenanthrene	570	U
120-12-7	Anthracene	570	U
84-74-2	Di-n-Butylphthalate	280	J
206-44-0	Fluoranthene	570	U
129-00-0	Pyrene	91	J
85-68-7	Butylbenzylphthalate	570	U
91-94-1	3 3'-Dichlorobenzidine	1100	U
56-55-3	Benzo(a)Anthracene	570	U
117-81-7	bis(2-Ethylhexyl)Phthalate	95	J
218-01-9	Chrysene	180	J
117-84-0	Di-n-Octyl Phthalate	96	J
205-99-2	Benzo(b)Fluoranthene	570	U
207-08-9	Benzo(k)Fluoranthene	410	J
50-32-8	Benzo(a)Pyrene	95	J
193-39-5	Indeno(1 2, 3-cd)Pyrene	200	J
53-70-3	Dibenz(a h)Anthracene	570	U
191-24-2	Benzo(g h i)Perylene	210	J

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4432 / V-4442

Sample Number
DC-SD-20

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-12-86

Date Analyzed: 11-19-86

Conc/Dil Factor: 25

Percent Moisture (decanted) 42

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	16,000 C
11096-82-5	Aroclor-1260	5,600 J C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

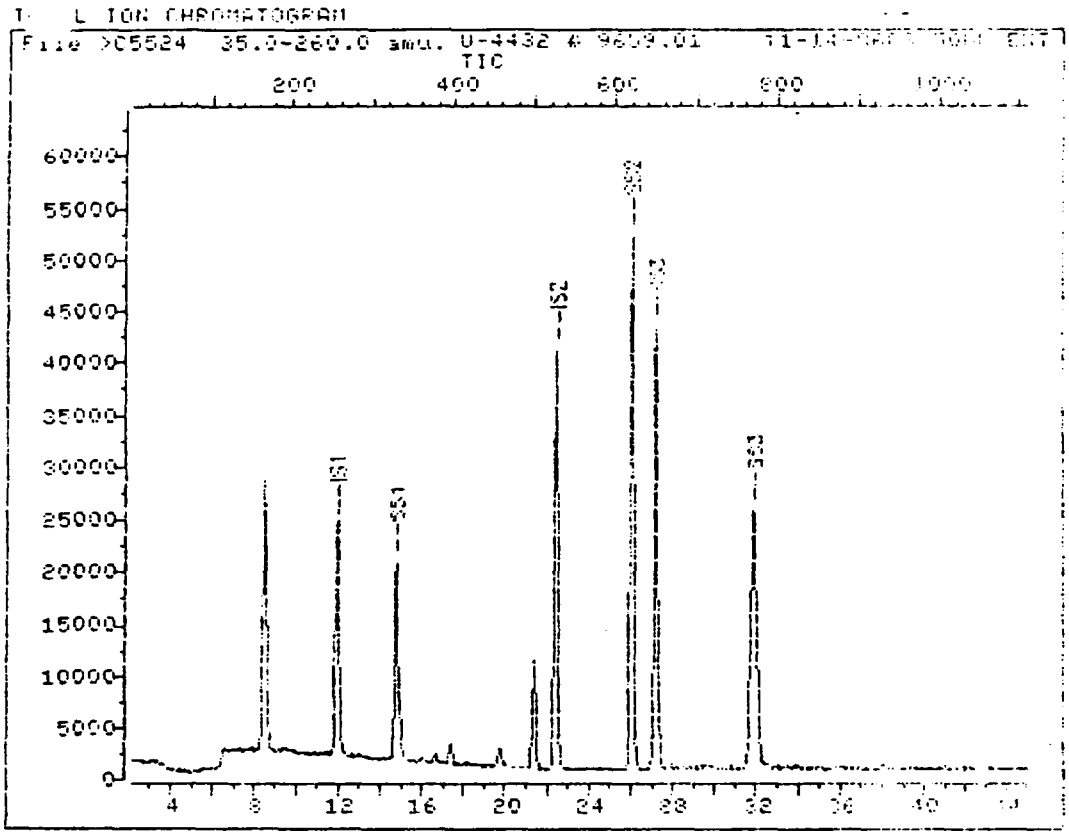
Case No U-4432 / U-4442

Sample Number DC-SD-20

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

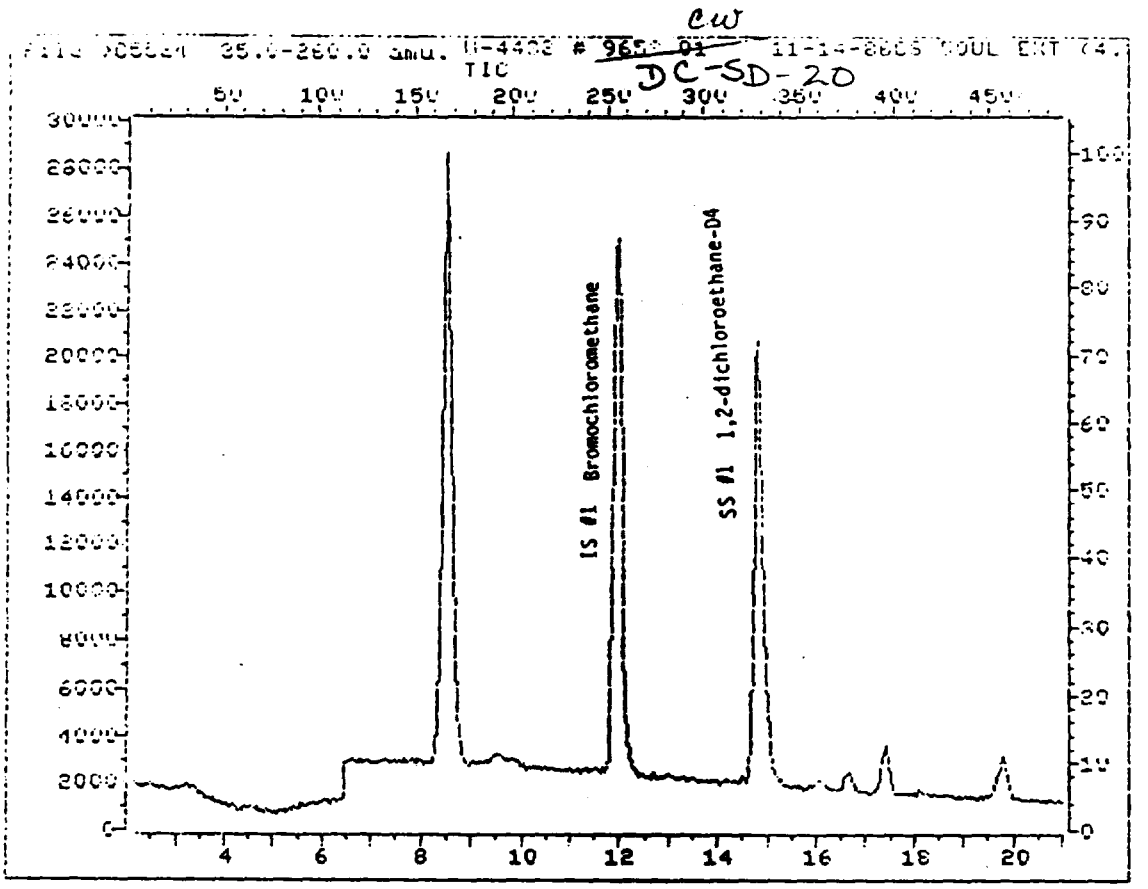
CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4 min	860 BJ
2.	Unknown Ketone	VOA	19.1 min	500 BJ
3.	Hexane isomer	VOA	21.4 min	2700 BJ
4.				
5.	UNKNOWN HYDROCARBON	BNA	8.6	6200 J
6. 719222	2,6-BIS(1,1-DIMETHYLETHYL)-2,5-CYCLOHEXADIENE			
7.	-1,4-DIONE		19.1	190 J
8.	PCB		25.0-26.1	–
9.	UNKNOWN		26.9	600 J
10.	UNKNOWN HYDROCARBON		27.5	3500 BJ
11.	PCB		27.6-30.2	–
12.	UNKNOWN		30.9	7700 BJ
13.	UNKNOWN		35.0	3100 BJ
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

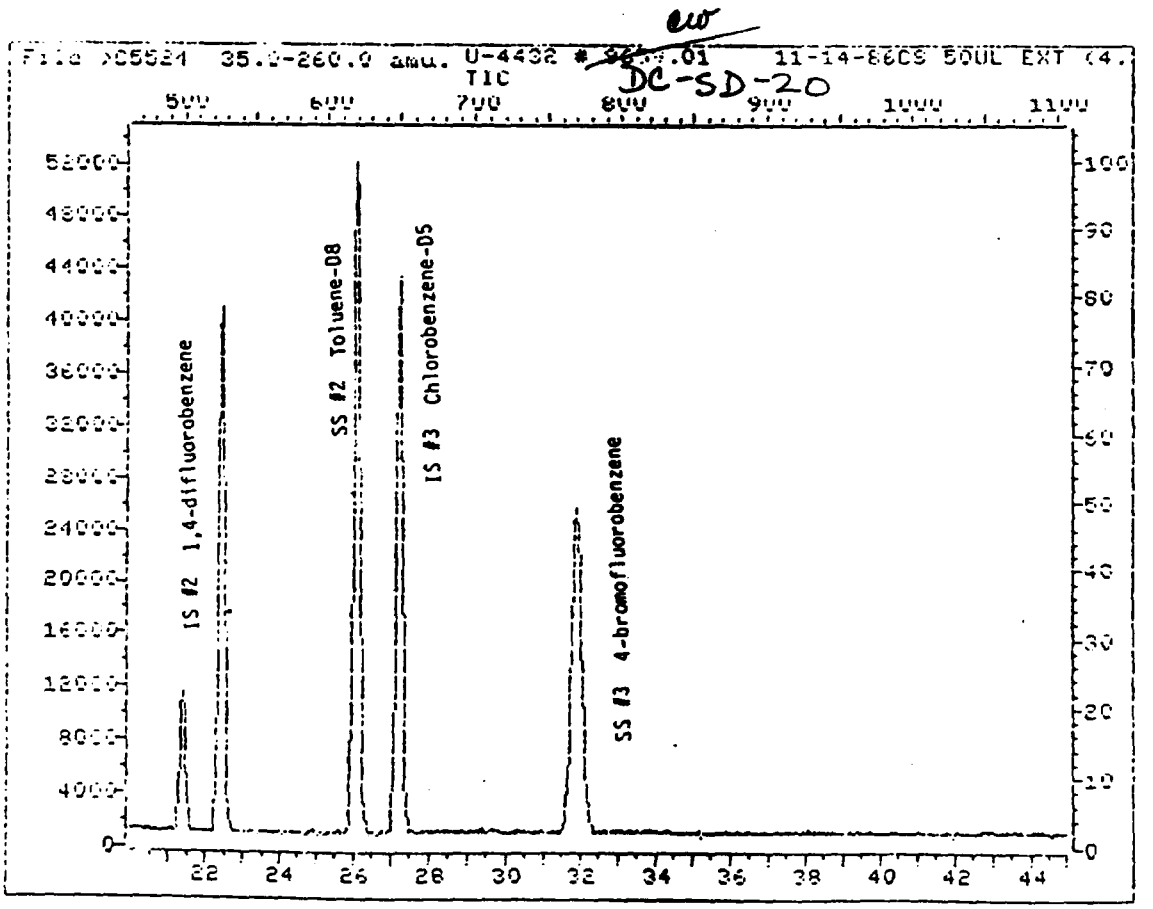


Data File: >C5524::D2 cw 9658.01 DC-SD-20
Name: U-4432 # ~~[illegible]~~ .27 cw
Misc: 11-14-86CS 50UL EXT [illegible]

Id File: VOACP::D2
Title: VOA ID FILE FOR HP-5995 [illegible]
Last Calibration: 861114 11:38

Operator ID: USER8
Quant Time: 861114 15:00
Injected at: 861114 14:14


cw
DC-SD-20
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


cw
DC-SD-20
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT

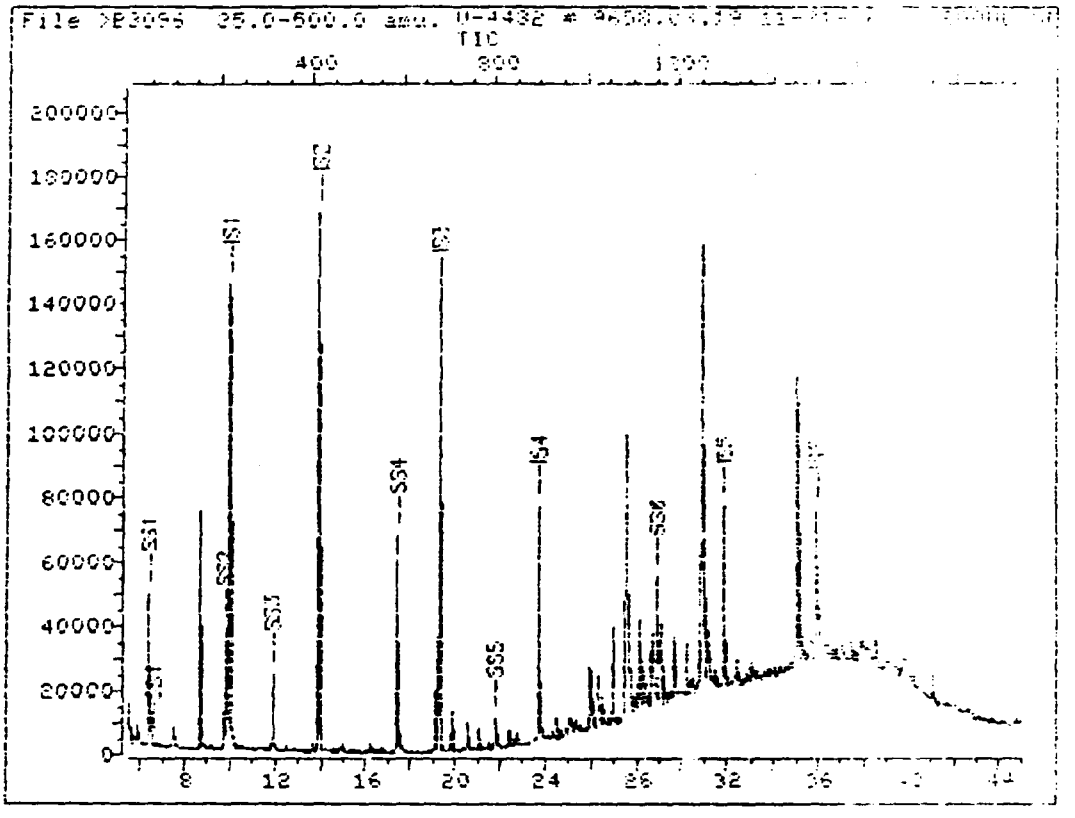
erator ID: USER8 Quant Rev: 4 Quant Time: 861114 15:00
itput File: ^C5524::D4 Injected at: 861114 14:14
ita File: >C5524::D3 Dilution Factor: 1.00
ime: U-4432 # ~~9659.01~~ 9658.01 DC-SD-20
sc: 11-14-86CS 50UL EXT (~~4.20G~~ 4.27g/10ML MEOH) + 100L IS/SS IN

File: VOACR::D2
tle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861114 11:38

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	c
)	*BROMOCHLOROMETHANE	(IS)	128	11.94	255	37259	50.00	UG/L	100
)	METHYLENE CHLORIDE		84	8.53	167	73283	34.58	UG/L	10[illegible]
)	ACETONE		43	9.50	192	6031	15.23	UG/L	100
)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.81	329	76378	45.76	UG/L	91
)	*1,4-DIFLUOROBENZENE	(IS)	114	22.45	526	180691	50.00	UG/L	100
)	2-BUTANONE		72	14.93	332	5246	25.74	UG/L	100
)	*CHLOROBENZENE-D5	(IS)	117	27.23	649	137079	50.00	UG/L	100
)	TOLUENE-D8	(SURR)	98	26.06	619	206421	49.65	UG/L	96
)	4-BROMOFLUOROBENZENE	(SURR)	95	31.92	770	96609	47.33	UG/L	100

Compound is ISTD

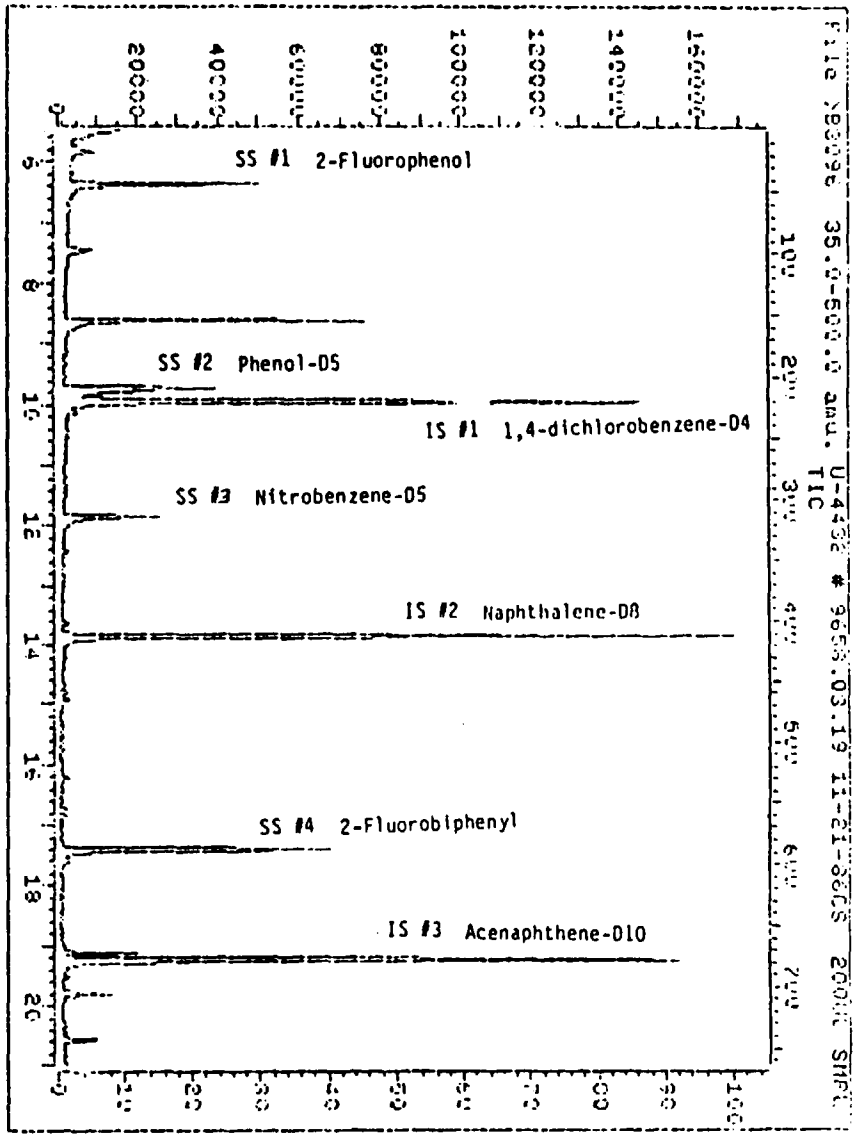
TOTAL ION CHROMATOGRAM

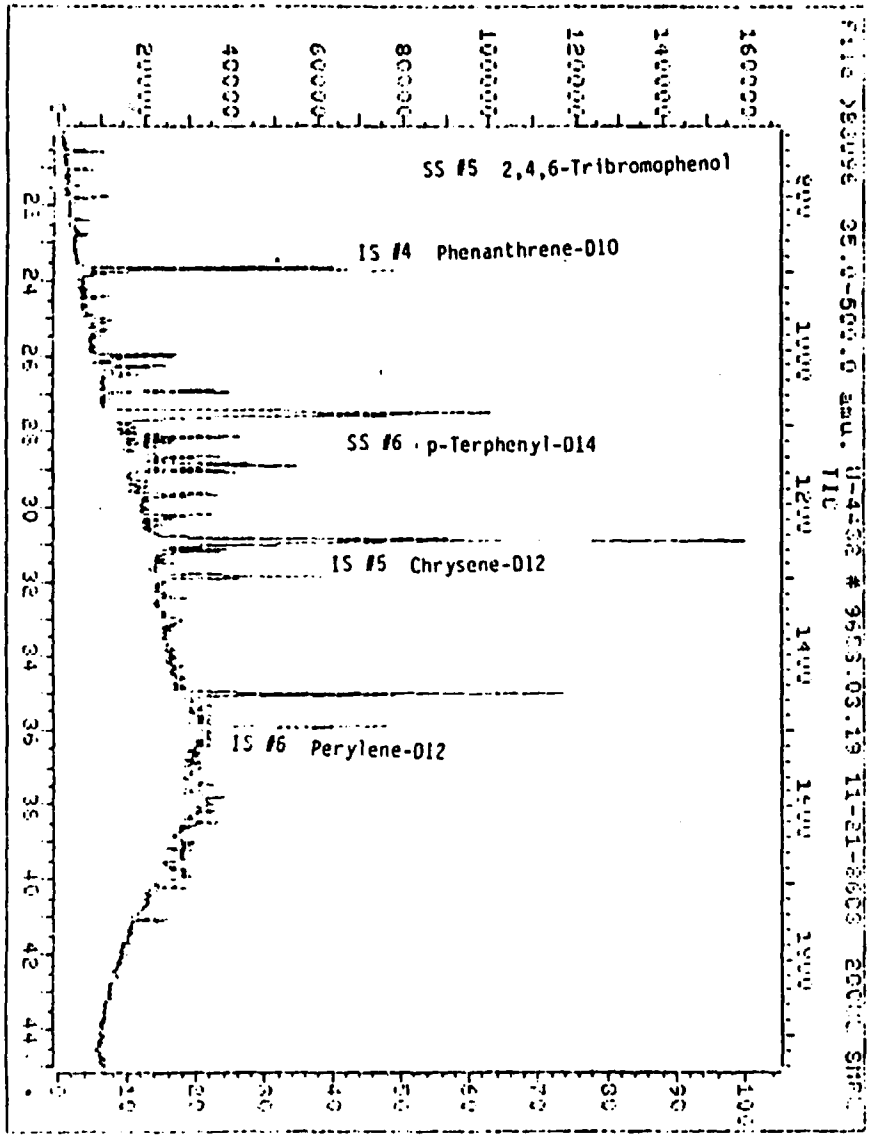


Data File: >B3096::D4
Name: U-4432 # 9658.03.19 DC-SD-20
Misc: 11-21-86CS 200UL SMPL + 200UL [illegible]

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 [illegible]
Last Calibration: 861121 14:38

Operator ID: USER8
Quant Time: 861121 19:06
Injected at: 861121 18:19


SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

DC-SD-20

QUANT REPORT

erator ID: USER8 Quant Rev: 4 Quant Time: 86:121 19:06
itput File: ^B3096::D2 Injected at: 86:121 18:19
ita File: >B3096::D4 Dilution Factor: 2.00
ime: U-4432 # 9658.03.19
sc: 11-21-86CS 200UL SMPL + 200UL MECL2 + 50UL IS

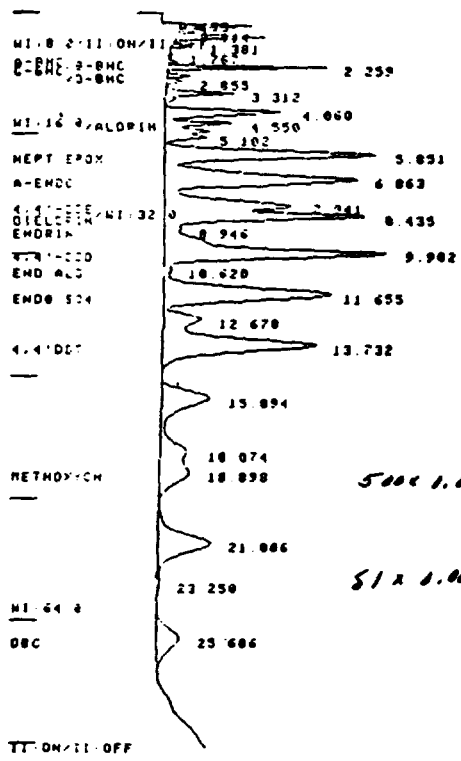
) File: BNABR::D2
tle: BNA ID FILE FOR THE HP 5970 (B)
ist Calibration: 861121 14:38

	Compound		m/z	R.T.	Scan#	Area	Conc	Units	q
.)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.94	220	[illegible]	40.00	UG/L	89
)	PHENOL-D5	(SURR)	99	9.71	209	50512	41.26	UG/L	91
)	2-FLUOROPHENOL	(SURR)	112	6.36	44	32992	37.25	UG/L	79
)	~~2-FLUOROPHENOL (SURR)~~		~~112~~	~~6.48~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~1~~
)	PHENOL		94	9.75	211	7213	[illegible]	UG/L	73
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~100~~
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~[illegible]~~	~~11.37~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~[illegible]~~	~~11.43~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~[illegible]~~	~~11.54~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~[illegible]~~	~~11.49~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~[illegible]~~	~~11.94~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~88~~
)	*NAPHTHALENE-D8	(IS)	136	13.84	412	[illegible]	40.00	UG/L	100
)	NITROBENZENE-D5	(SURR)	82	11.83	311	[illegible]	[illegible]	UG/L	98
)	1,2,4-TRICHLOROBENZENE		180	13.40	411	[illegible]	[illegible]	UG/L	100
)	~~NAPHTHALENE~~		~~128~~	~~13.46~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
)	*ACENAPHTHENE-D10	(IS)	162	19.13	622	[illegible]	40.00	UG/L	97
)	2-FLUOROBIPHENYL	(SURR)	172	17.40	588	[illegible]	[illegible]	UG/L	92
)	~~DIMETHYL PHTHALATE~~		~~163~~	~~11.13~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
)	~~DIMETHYL PHTHALATE~~		~~163~~	~~10.96~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.75	801	[illegible]	[illegible]	UG/L	95
)	~~2,4-DINITROTOLUENE~~		~~165~~	~~20.55~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
)	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.97~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
)	*PHENANTHRENE-D10	(IS)	188	23.68	896	[illegible]	40.00	UG/L	95
)	HEXACHLOROBENZENE		284	22.79	852	[illegible]	[illegible]	UG/L	98
)	PENTACHLOROPHENOL		266	23.56	898	[illegible]	[illegible]	UG/L	100
)	PENTACHLOROPHENOL		266	23.64	894	[illegible]	[illegible]	UG/L	100
)	DI-N-BUTYLPHTHALATE		149	26.25	1000	[illegible]	[illegible]	UG/L	96
)	*CHRYSENE-D12	(IS)	240	31.44	[illegible]	[illegible]	40.00	UG/L	100
)	~~BENZIDINE~~		~~184~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
)	~~BENZIDINE~~		~~184~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
)	~~BENZIDINE~~		~~184~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
)	~~BENZIDINE~~		~~184~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
)	PYRENE		202	26.82	[illegible]	[illegible]	[illegible]	UG/L	94
)	TERPHENYL-D14	(SURR)	244	28.83	[illegible]	[illegible]	40.00	UG/L	100
)	~~3,3'-DICHLOROBENZIDINE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~100~~
)	~~[illegible]~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~100~~
)	~~BENZO[A]ANTHRACENE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
)	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
)	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
)	CHRYSENE		228	31.90	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
)	*PERYLENE-D12	(IS)	264	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
)	~~[illegible]~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~

	Compound	M/E	C.T.	Scan#	Area	Conc	Units	q
)	~~BENZO(B)FLUORANTHENE~~	~~252~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ No B/M	100
)	BENZO(K)FLUORANTHENE	252	[illegible]	1449	6125	[illegible]	UG/L	100
)	~~BENZO(A)PYRENE~~	~~252~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ No B/M	100
)	BENZO(A)PYRENE	252	35.76	1488	1244	1.66	UG/L	100
)	~~BENZO(A)PYRENE~~	~~252~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ No B/M	100
)	~~INDENO(1,2,3-CD)PYRENE~~	~~276~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	100
)	INDENO(1,2,3-CD)PYRENE	276	38.54	1624	2348	3.42	UG/L	100
)	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	100
)	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ No B/M	100
)	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	100
)	BENZO(G,H,I)PERYLENE	276	39.09	1651	2825	3.71	UG/L	100

Compound is ISTD

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



$500 \times 1.00135 \times \frac{1}{1.01g} \times 25{,}000 = 16{,}000$ ug/kg 1254

$51 \times 1.0038 \times \frac{1}{1.01g} \times 25{,}000 = 5{,}600$ ug/kg 1260

RECALCULATE ON FILE: SLY464

CHANNEL: 1A - 1 TITLE: RUN# 29 16:11 19 NOV 86

DC-SD-20 SAMPLE: 9658.03.15A1 METHOD: DAVE CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	B-B-C	307.0457	2.259	0.089	102318	VV	5.00
2	D-BHC	27.2400	2.590	0.140	21[illegible]	VV	6.31
3		0.0000	3.312		73953	VV	7.63
4	HEPTACHLO	314.5464	4.060	0.270	208978	VV	14.44
5	ALDRIN	123.4750	4.550	-0.120	101280	VV	11.19
6		0.0000	4.873		62620	VV	? 11.75
7		0.0000	5.102		58735	VV	? 12.44
8	HEPT EPOX	731.0686	5.851	0.181	564162	VV	20.31
9	A-ENDO	969.6381	6.863	-0.167	703054	VV	27.56
10	4,4'-DDE	564.8300	7.941	-0.149	433053	VV	? 29.69
11	DIELDRIN	720.1865	8.435	0.245	573658	VV	22.25
12	4,4'-DDD	1293.030	9.982	-0.178	831922	VV	23.56
13	ENDO SO4	1379.537	11.655	-0.255	725001	VV	33.69
14		0.0000	12.678		143879	VV	? 26.19
15	4,4'DDT	1667.859	13.732	0.472	714544	VB	33.94
16	ENO KETON	370.9850	15.894	0.624	282586	BV	44.25
17		0.0000	18.074		157592	VV	? 47.00
18	METHOXYCH	753.7181	18.898	-0.592	193212	VV	? 62.56
19		0.0000	21.806		366231	VV	49.88
20	DBC	281.9427	25.686	-0.924	169709	BB	63.88

TOTALS: 9505.102 -0.364 6478589

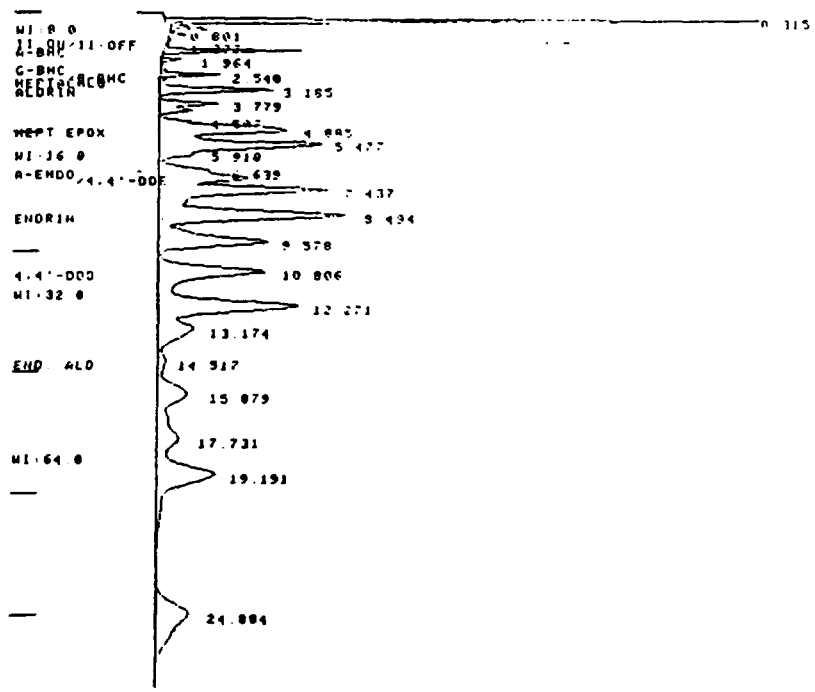
DETECTED PKS: 40 REJECTED PKS: 20

DIVISOR: 1.01000 MULTIPLIER: 25000.0000

NOISE: 22.9 OFFSET: 15

NOTES:
NOTEBOOK: 259-41 ANALYST: K.JUREK
SECURE AREA: D JOB#:U-4465
INST:VARIAN 6000#: A ECD 10X1
COLUMN: 5' GLASS 2MM 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

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 18 - 1 TITLE: RUN#16 19:50 21 NOV 86

DC-SD-20

SAMPLE: 9658 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT ~~NG/KG~~	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	A-BHC	0.0000	1.941	-0.139	186633	VB	3.81
2		0.0000	1.954		29034	BV	4.63
3	B-BHC	0.0000	2.549	0.136	92526	VV	5.94
4	ALDRIN	0.0000	3.185	0.035	311154	VB	9.88
5		0.0000	3.779		152622	BV	9.63
6		0.0000	4.847		52301	VV	11.13
7		0.0000	4.907		76229	VV	? 11.63
8	HEPT EPOX	0.0000	4.885	-0.215	688739	VV	? 25.06
9		0.0000	5.477		916747	VV	20.38
10		0.0000	5.910		176775	VV	? 18.63
11	A-ENDO	0.0000	6.639	-0.171	183717	VV	? 20.50
12	4,4'-DDE	0.0000	6.915	0.105	455270	VV	? 26.13
13	DIELDRIN	0.0000	7.437	-0.443	555167	VV	18.88
14	ENDRIN	0.0000	8.494	-0.316	1127905	VV	22.63
15		0.0000	9.578		755960	VV	24.25
16	4,4'-DDD	0.0000	10.806	0.376	852345	VV	27.50
17	B-ENDOSUL	0.0000	12.271	0.631	1170196	VV	30.38
18	4,4'DDT	0.0000	13.174	-0.776	621739	VV	? 49.75
19	END. ALD.	0.0000	14.517	-0.313	75329	VV	? 41.06
20		0.0000	15.079		295886	VV	53.56
21	ENDO SO4	0.0000	17.731	0.671	293743	VV	? 77.81
22		0.0000	19.191		813940	VV	47.31
23		0.0000	24.884		831551	VV	82.50
TOTALS:		0.0000		-0.417	11043110		

DETECTED PKS: 35 REJECTED PKS: 12

DIVISOR: 1.50000 MULTIPLIER: 25000.0000

NOISE: 80.0 OFFSET: 20

NOTES:
NOTEBOOK:259-40 ANALYST:RICHARD JOHNSON
SECURE AREA: D JOB #U-4432(U-4442
INST: VARIAN 6000#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 CHELLCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

SAMPLE NUMBER DC-SD-21

481095

Sample Number
DC-SD-21

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U-4442
Lab Sample ID No: 9659
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Slytowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc/Dil Factor: 2 pH 7.1

Percent Moisture: (Not Decanted) 57

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	4800 u
74-83-9	Bromomethane	4800 u
75-01-4	Vinyl Chloride	4800 u
75-00-3	Chloroethane	4800 u
75-09-2	Methylene Chloride	19000 B
67-64-1	Acetone	6400 B
75-15-0	Carbon Disulfide	2400 u
75-35-4	1, 1-Dichloroethene	2400 u
75-34-3	1, 1-Dichloroethane	2400 u
156-60-5	Trans-1, 2-Dichloroethene	2400 u
67-66-3	Chloroform	2400 u
107-06-2	1, 2-Dichloroethane	2400 u
78-93-3	2-Butanone	11000 B
71-55-6	1, 1, 1-Trichloroethane	2400 u
56-23-5	Carbon Tetrachloride	2400 u
108-05-4	Vinyl Acetate	4800 u
75-27-4	Bromodichloromethane	2400 u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2400 u
10061-02-6	Trans-1, 3-Dichloropropene	2400 u
79-01-6	Trichloroethene	2400 u
124-48-1	Dibromochloromethane	2400 u
79-00-5	1, 1, 2-Trichloroethane	2400 u
71-43-2	Benzene	2400 u
10061-01-5	cis-1, 3-Dichloropropene	2400 u
110-75-8	2-Chloroethylvinylether	4800 u
75-25-2	Bromoform	2400 u
108-10-1	4-Methyl-2-Pentanone	4800 u
591-78-6	2-Hexanone	4800 u
127-18-4	Tetrachloroethene	2400 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	2400 u
108-88-3	Toluene	2400 u
108-90-7	Chlorobenzene	2400 u
100-41-4	Ethylbenzene	2400 u
100-42-5	Styrene	2400 u
	Total Xylenes	2400 u

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.

aboratory Name ecology and environment, inc.

ase No. V-4432 / V-4442

Sample Number
DC-SD-21

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

oncentration: Low Medium (Circle One)

ate Extracted/Prepared: 11-12-86

ate Analyzed: 11-25-86

onc/Dil Factor: 2

ercent Moisture (Decanted) 57

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	770	U
11-44-4	bis(-2-Chloroethyl)Ether	770	U
5-57-8	2-Chlorophenol	770	U
41-73-1	1 3-Dichlorobenzene	770	U
06-46-7	1. 4-Dichlorobenzene	770	U
00-51-6	Benzyl Alcohol	770	U
5-50-1	1. 2-Dichlorobenzene	770	U
5-48-7	2-Methylphenol	770	U
9638-32-9	bis(2-chloroisopropyl)Ether	770	U
06-44-5	4-Methylphenol	770	U
21-64-7	N-Nitroso-Di-n-Propylamine	770	U
7-72-1	Hexachloroethane	770	U
8-95-3	Nitrobenzene	770	U
8-59-1	Isophorone	770	U
8-75-5	2-Nitrophenol	770	U
05-67-9	2. 4-Dimethylphenol	770	U
5-85-0	Benzoic Acid	3700	U
11-91-1	bis(2-Chloroethoxy)Methane	770	U
20-83-2	2. 4-Dichlorophenol	770	U
20-82-1	1. 2. 4-Trichlorobenzene	770	U
1-20-3	Naphthalene	770	U
06-47-8	4-Chloroaniline	770	U
7-68-3	Hexachlorobutadiene	770	U
9-50-7	4-Chloro-3-Methylphenol	770	U
1-57-6	2-Methylnaphthalene	770	U
7-47-4	Hexachlorocyclopentadiene	770	U
8-06-2	2 4 6-Trichlorophenol	770	U
5-95-4	2. 4. 5-Trichlorophenol	3700	U
1-58-7	2-Chloronaphthalene	770	U
8-74-4	2-Nitroaniline	3700	U
[illegible] -3	Dimethyl Phthalate	770	U
08-96-8	Acenaphthylene	770	U
9-09-2	3-Nitroaniline	3700	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	770	U
51-28-5	2. 4-Dinitrophenol	3700	U
100-02-7	4-Nitrophenol	3700	U
132-64-9	Dibenzofuran	770	U
121-14-2	2 4-Dinitrotoluene	770	U
606-20-2	2 6-Dinitrotoluene	770	U
84-66-2	Diethylphthalate	770	U
7005-72-3	4-Chlorophenyl-phenylether	770	U
86-73-7	Fluorene	770	U
100-01-6	4-Nitroaniline	3700	U
534-52-1	4. 6-Dinitro-2-Methylphenol	3700	U
86-30-6	N-Nitrosodiphenylamine (1)	770	U
101-55-3	4-Bromophenyl-phenylether	770	U
118-74-1	Hexachlorobenzene	770	U
87-86-5	Pentachlorophenol	3700	U
85-01-8	Phenanthrene	280	J
120-12-7	Anthracene	770	U
84-74-2	Di-n-Butylphthalate	770	U
206-44-0	Fluoranthene	770	U
129-00-0	Pyrene	440	J
85-68-7	Butylbenzylphthalate	770	U
91-94-1	3 3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)Anthracene	380	J
117-81-7	bis(2-Ethylhexyl)Phthalate	740	J
218-01-9	Chrysene	550	J
117-84-0	Di-n-Octyl Phthalate	770	U
205-99-2	Benzo(b)Fluoranthene	770	U
207-08-9	Benzo(k)Fluoranthene	920	
50-32-8	Benzo(a)Pyrene	480	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	590	J
53-70-3	Dibenz(a h)Anthracene	770	U
191-24-2	Benzo(g h i)Perylene	550	J

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-21

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-12-86

Date Analyzed: 11-19-86

Conc/Dil Factor: 10

Percent Moisture (decanted) 57

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 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

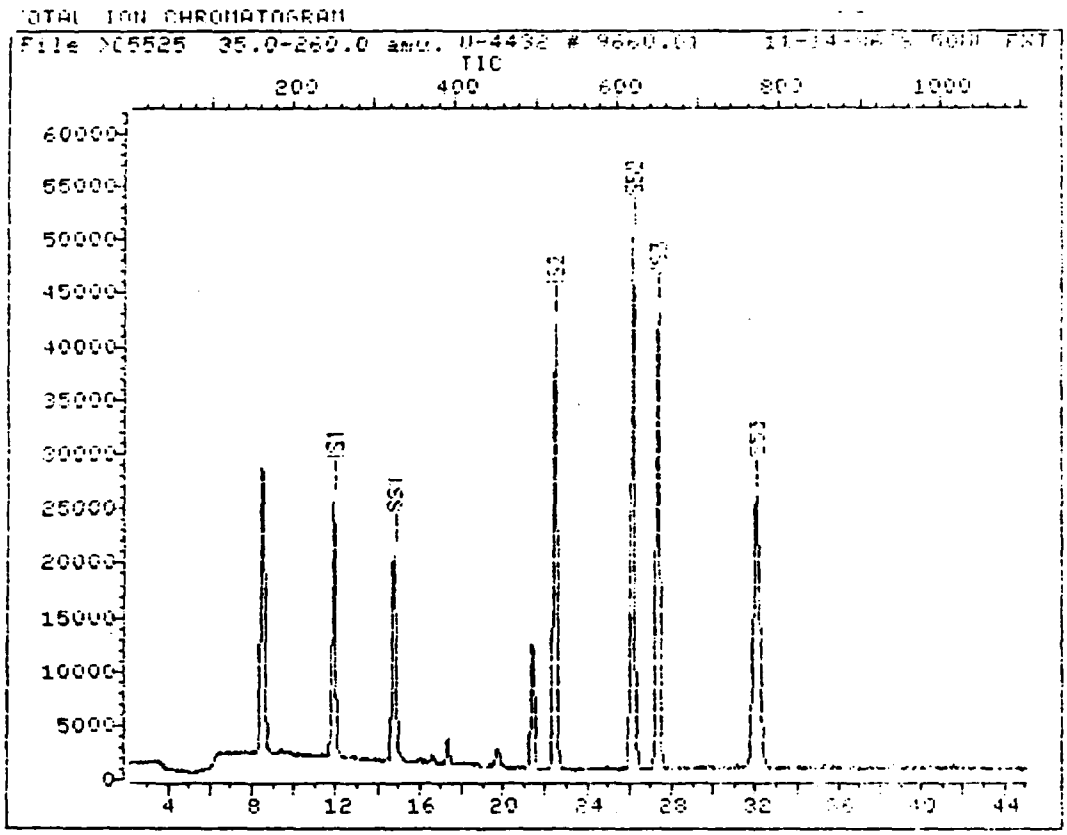
Case No u-4432 / u-4442

Sample Number DC-SD-21

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

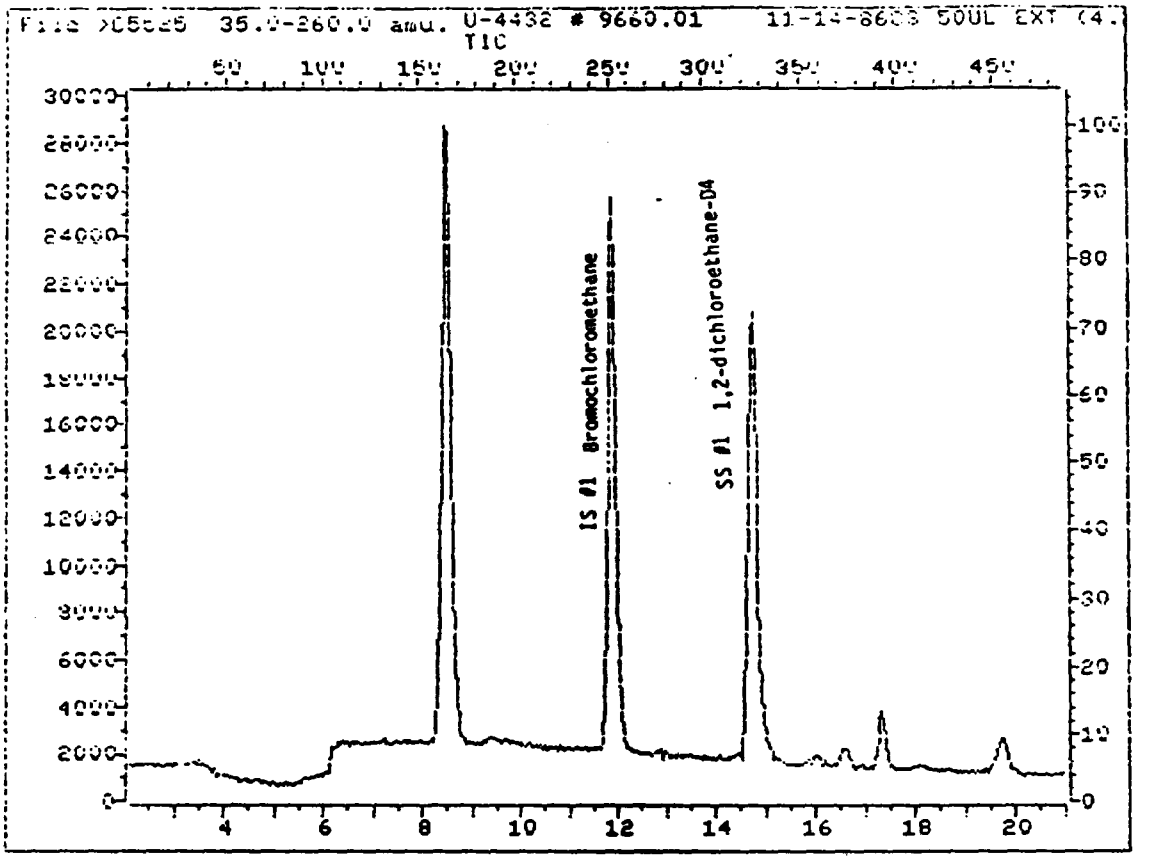
CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.3 min	1200 BJ
2.	unknown ketone	VOA	19.7 min	600 BJ
3.	Hexane isomer	VOA	21.4 min	3900 BJ
4.				
5.	UNKNOWN	BNA	8.1	5800 J
6.	UNKNOWN		9.4	2900 J
7.	UNKNOWN		19.1	990 J
8.	UNKNOWN HYDROCARBON		26.7	1400 BJ
9.	UNKNOWN		27.8	600 J
10.	UNKNOWN		29.9	3700 BJ
11.	UNKNOWN		30.1	6500 J
12.	UNKNOWN		34.3	2300 BJ
13.	UNKNOWN		36.7	360 J
14.	UNKNOWN		37.0	440 J
15.	UNKNOWN		38.2	2800 J
16.	UNKNOWN		38.5	790 J
17.	UNKNOWN		39.0	1700 J
18.	UNKNOWN		40.4	680 J
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

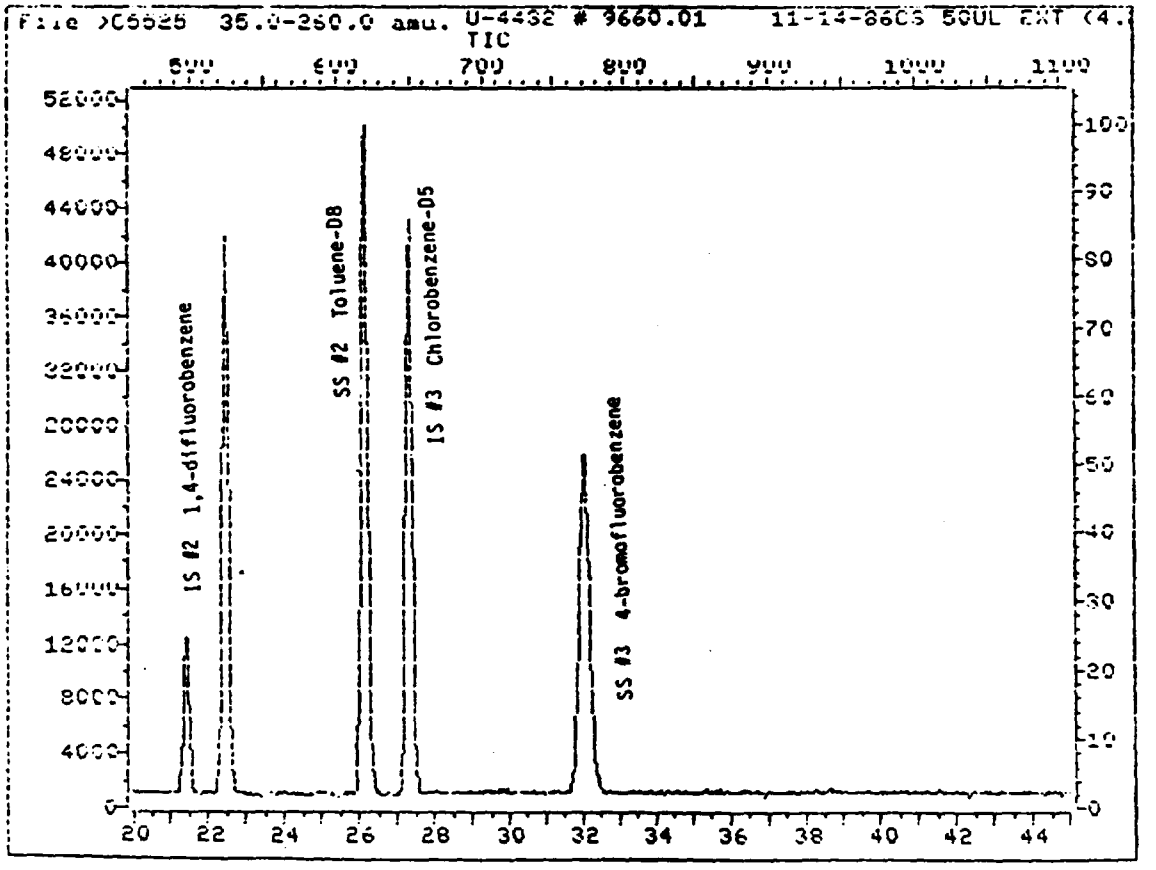


Data File: >C5525::D3 cw59 DC-SD-21
Name: U-4432 # 966~~0.01~~
Misc: 11-14-86CS 50UL EXT (4.236/10ML [illegible] + 100L [illegible] IN

Id File: VOHCR::D2
Title: VOA ID FILE FOR HP-5995 (QUNI. [illegible]
Last Calibration: 861114 11:38

Operator ID: USER8
Quant Time: 861114 15:55
Injected at: 861114 15:09


File >C5525 35.0-260.0 amu. U-4432 # 9660.01 11-14-86C3 50UL EXT (4.
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5525 35.0-260.0 amu. U-4432 # 9660.01 11-14-86C3 50UL EXT (4.
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT

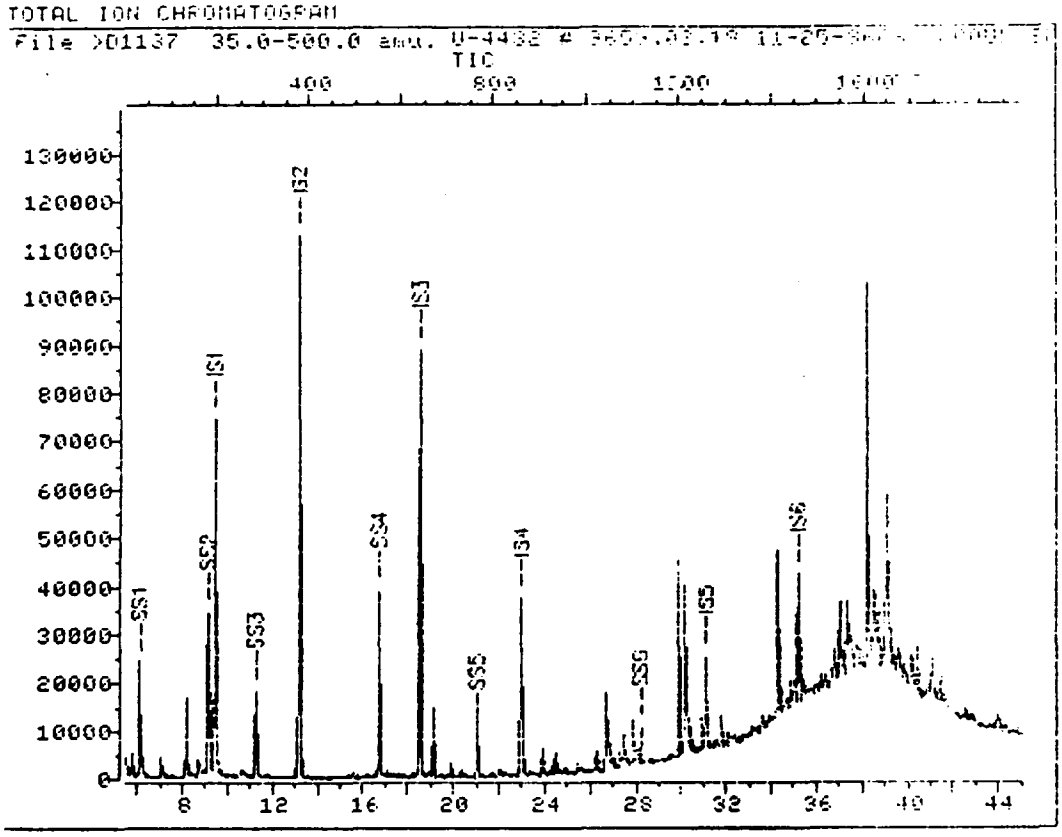
Operator ID: USER8 Quant Rev: 4 Quant Time: 861114 15:55
Output File: ^C5525::D4 Injected at: 861114 15:09
Data File: >C5525::D3 Dilution Factor: 1.00
Name: U-4432 # ~~9660.01~~ CS 9659.01 DC-SD-21
Misc: 11-14-86CS 50UL EXT (~~4.23~~ 4.32 G/10ML MEOH) + 10UL IS/SS IN 4.3g
CS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 11:38

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.88	[illegible]	30261	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.46	164	74464	34.22	UG/L	100
7)	ACETONE		43	9.43	189	4828	11.87	UG/L	100
~~7)~~	~~ACETONE~~		~~43~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~ N.B/N	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.75	326	79085	46.14	UG/L	90
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.43	524	186814	50.00	UG/L	100
17)	2-BUTANONE		72	14.90	330	4396	20.86	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.33	650	140476	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.15	620	208135	48.85	UG/L	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.02	771	98921	47.30	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

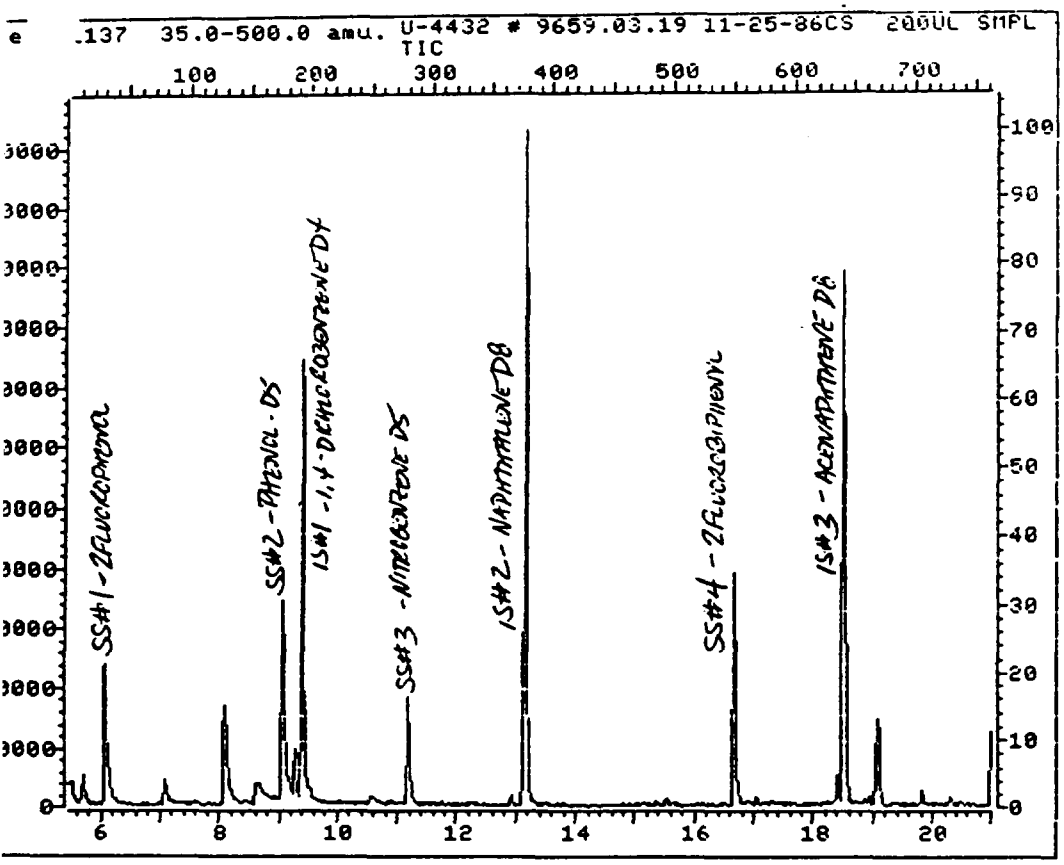


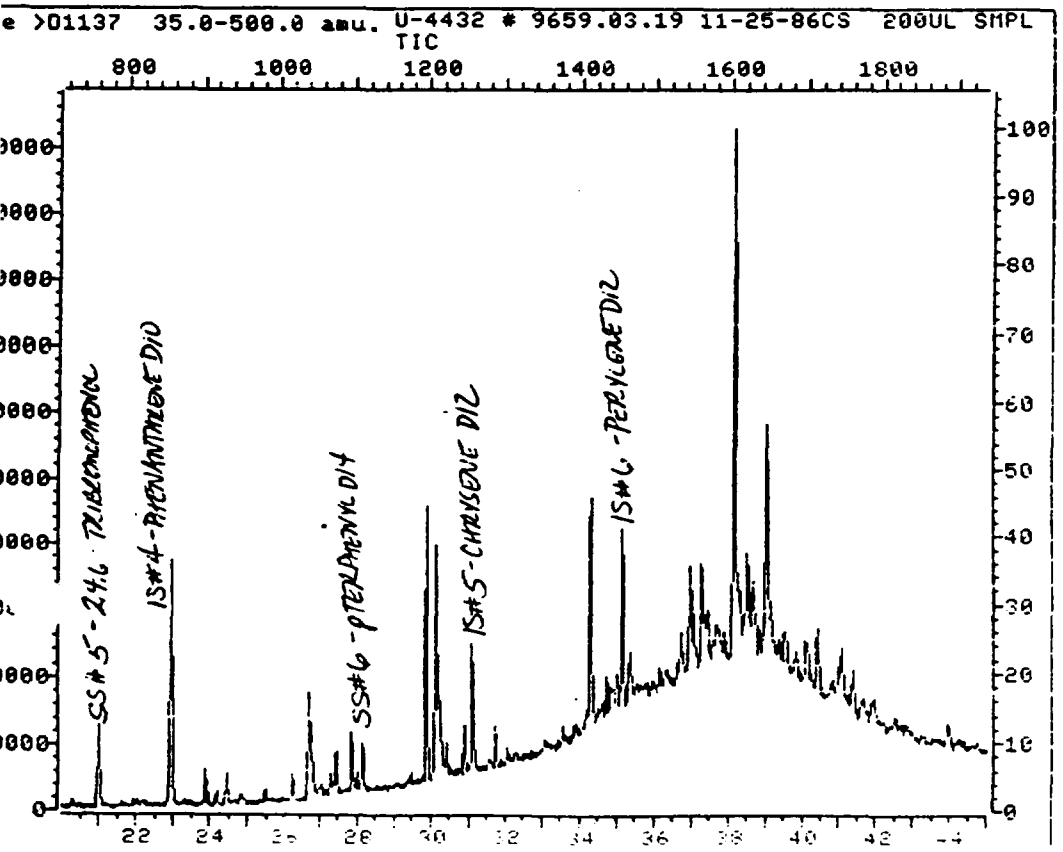
Data File: >D1137::D3
Name: U-4432 # 9659.03.19 DC-SD-21
Misc: 11-25-86CS 200UL SMPL + 200UL METL2 [illegible]

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861125 15:39

Operator ID: USER6
Quant Time: 861125 18:49
Injected at: 861125 18:01

DC-SD-21


e .137 35.0-500.0 amu. U-4432 # 9659.03.19 11-25-86CS 200UL SMPL
TIC
SS#1-2FLUOROPHENOL
SS#2-PHENOL-D5
IS#1-1,4-DICHLOROBENZENE D4
SS#3-NITROBENZENE D5
IS#2-NAPHTHALENE D8
SS#4-2FLUOROBIPHENYL
IS#3-ACENAPHTHENE D10


e >D1137 35.0-500.0 amu. U-4432 # 9659.03.19 11-25-86CS 200UL SMPL
TIC
SS#5-2,4,6-TRIBROMOPHENOL
IS#4-PHENANTHRENE D10
SS#6-p-TERPHENYL D14
IS#5-CHRYSENE D12
IS#6-PERYLENE D12

QUANT REPORT

er tor ID: USER6 Quant Rev: 4 Quant Time: 861125 18:49
tp File: ^D1137::Q2 Injected at: 861125 18:01
ta File: >D1137::D3 Dilution Factor: 2.00
me: U-4432 # 9659.03.19
sc: 11-25-86CS 200UL SMPL + 200UL MECL2 + 5UL IS (2X) BTL# 4

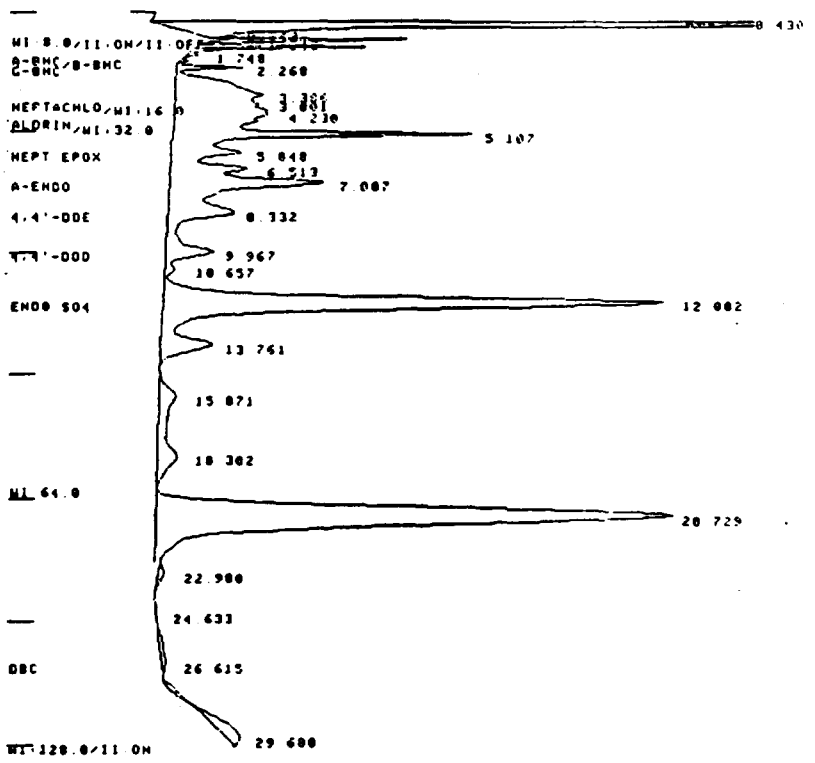
File: BNADR::D2
tle: BNA ID FILE FOR THE HP 5970 (B)
st Calibration: 861125 15:39

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.39	193	40663	40.00	UG/L	89
)	PHENOL-D5	(SURR)	99	9.06	177	42547	59.52	UG/L	96
)	2-FLUOROPHENOL	(SURR)	112	6.07	30	24956	50.75	UG/L	96
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.57~~	~~251~~	~~31[illegible]~~	~~.2[illegible]~~	~~UG/L~~	100
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.69~~	~~257~~	~~128~~	~~.10~~	~~UG/L~~	100
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.81~~	~~263~~	~~398~~	~~.32~~	~~UG/L~~	100
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.96~~	~~270~~	~~91[illegible]~~	~~.18~~	~~UG/L~~	100
)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.13~~	~~281~~	~~3220~~	~~5.97~~	~~UG/L~~	95
)	*NAPHTHALENE-D8	(IS)	136	13.16	378	150935	40.00	UG/L	100
)	NITROBENZENE-D5	(SURR)	82	11.18	281	18441	28.35	UG/L	95
)	~~NAPHTHALENE~~		~~128~~	~~13.22~~	~~331~~	~~6[illegible]~~	~~.36~~	~~UG/L~~	100
)	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.15~~	~~96~~	~~400~~	~~.40~~	~~UG/L~~	91
)	*ACENAPHTHENE-D10	(IS)	162	18.51	641	53356	40.00	UG/L	97
)	2-FLUOROBIPHENYL	(SURR)	172	16.68	551	41445	38.60	UG/L	95
)	~~DIMETHYL PHTHALATE~~		~~163~~	~~10.39~~	~~[illegible]~~	~~[illegible]~~	~~.4[illegible]~~	~~UG/L~~	100
)	~~DIMETHYL PHTHALATE~~		~~163~~	~~10.51~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.98	[illegible]	7808	29.74	UG/L	94
)	~~2,4-DINITROTOLUENE~~		~~165~~	~~19.82~~	~~[illegible]~~	~~[illegible]~~	~~1.43~~	~~UG/L~~	100
)	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.31~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
)	*PHENANTHRENE-D10	(IS)	188	22.93	898	47027	40.00	UG/L	92
)	PHENANTHRENE		178	23.02	872	1838	3.58	UG/L	96
)	~~ANTHRACENE~~		~~178~~	~~23.[illegible]~~	~~[illegible]~~	~~1838~~	~~3.67~~	~~UG/L~~	96
)	~~FLUORANTHENE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	[illegible]
)	*CHRYSENE-D12	(IS)	240	31.09	1258	26776	40.00	UG/L	100
)	~~BENZIDINE~~		~~184~~	~~27.44~~	~~[illegible]~~	~~[illegible]~~	~~3.00~~	~~UG/L~~	100
)	PYRENE		202	26.66	1041	3430	5.64	UG/L	88
)	TERPHENYL-D14	(SURR)	244	28.13	[illegible]	7061	21.18	UG/L	100
)	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~30.[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~11.[illegible]~~	~~UG/L~~	100
)	BENZO(A)ANTHRACENE		228	31.05	[illegible]	1468	4.92	UG/L	8[illegible]
)	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.15~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	9[illegible]
)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.07	[illegible]	24[illegible]	9.51	UG/L	8[illegible]
)	~~CHRYSENE~~		~~228~~	~~31.05~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	8[illegible]
)	CHRYSENE		228	31.15	[illegible]	27[illegible]	[illegible].12	UG/L	9[illegible]
)	*PERYLENE-D12	(IS)	264	35.16	[illegible]	[illegible]	40.00	UG/L	100
)	~~DI-N-OCTYL PHTHALATE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
)	~~DI-N-OCTYL PHTHALATE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
)	~~DI-N-OCTYL PHTHALATE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
)	~~DI-N-OCTYL PHTHALATE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	100
)	~~DI-N-OCTYL PHTHALATE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
)	~~BENZO(B)FLUORANTHENE~~		252	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
)	~~BENZO(B)FLUORANTHENE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
)	BENZO(K)FLUORANTHENE		252	34.90	1410	6[illegible]	[illegible].81	UG/L	
)	~~BENZO(K)FLUORANTHENE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
)	~~BENZO(A)PYRENE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
)	BENZO(A)PYRENE		[illegible]	34.99	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
)	~~BENZO(A)PYRENE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	[illegible]

	Compound	m/z	R.T.	Scan#	Area	Conc	Units		q
)	~~INDENO(1,2,3-CD)PYRENE~~	~~276~~	~~37.16~~	~~1[illegible]~~	~~[illegible]~~	~~1.[illegible]~~	~~[illegible]~~	N: 5 ppb	100
)	INDENO(1,2,3-CD)PYRENE	276	37.26	1584	3683	7.63	[illegible]L		100
)	~~INDENO(1,2,3-CD)PYRENE~~	~~276~~	~~38.09~~	~~1[illegible]~~	~~1[illegible]~~	~~.35~~	~~[illegible]~~		100
)	~~INDENO(1,2,3-CD)PYRENE~~	~~276~~	~~38.[illegible]~~	~~1[illegible]~~	~~223~~	~~.[illegible]~~	~~[illegible]~~		100
)	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~37.5[illegible]~~	~~1[illegible]~~	~~86~~	~~1.[illegible]~~	~~[illegible]~~		100
)	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~37.[illegible]~~	~~1[illegible]~~	~~[illegible]~~	~~.61~~	~~[illegible]~~		100
)	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~37.[illegible]~~	~~1[illegible]~~	~~[illegible]~~	~~1.[illegible]~~	~~[illegible]~~	1½ ppb	100
)	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~38.0[illegible]~~	~~1[illegible]~~	~~510~~	~~1.03~~	~~[illegible]~~		100
)	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~38.15~~	~~1[illegible]~~	~~9[illegible]~~	~~1.[illegible]~~	~~[illegible]~~		100
)	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.0[illegible]~~	~~1[illegible]~~	~~1[illegible]~~	~~.[illegible]~~	~~[illegible]~~		100
)	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.10~~	~~1[illegible]~~	~~223~~	~~.3[illegible]~~	~~[illegible]~~		100
)	BENZO(G,H,I)PERYLENE	276	38.31	1611	4369	7.14	[illegible]L		100
)	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.62~~	~~1[illegible]~~	~~[illegible]~~	~~.[illegible]~~	~~[illegible]~~	N: 5 ppb	100

Compound is ISTD

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



DC-SD-21

CHANNEL: 1A - 1 TITLE: RUN# 30 16:47 19 NOV 96

SAMPLE: 9659.03.19A1 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	1.404		32348	VV	3.44
2	~~G-BHC~~	45.5541	2.268	0.098	56362	VV	6.00
3		0.0000	3.386		454233	VV	? 17.89
4	~~HEPTACHLO~~	64.3711	3.801	0.011	157265	VV	? 14.69
5		0.0000	4.066		146194	VV	? 16.56
6		0.0000	4.230		182166	VV	? 42.50
7	ALDRIN	62.8431	4.520	-0.150	191576	VV	? 32.31
8		0.0000	5.107		663777	VV	12.50
9	~~HEPT EPOX~~	77.9379	5.848	0.178	223326	VV	? 27.44
10		0.0000	6.513		209022	VV	? 20.75
11	A-ENDO	235.7302	7.087	0.057	634525	VV	26.38
12	~~DIELDRIN~~	111.9037	8.332	0.142	320952	VV	38.25
13	~~4,4'-DDE~~	85.6245	9.967	-0.193	224517	VV	23.75
14	END ALD.	13.0354	10.657	0.407	27027	VV	14.44
15	~~ENDO SO4~~	1069.592	12.092	0.172	2097262	VV	29.56
16	~~4,4'DDT~~	150.4512	13.761	0.501	239319	VB	31.88
17	~~END KETON~~	61.1329	15.871	0.601	172955	BV	? 44.13
18		0.0000	18.302		152426	VB	57.56
19		0.0000	20.729		3160984	BV	46.00
20		0.0000	22.900		24091	T	? 47.25
21	~~DBC~~	19.2601	26.615	0.025	43044	T	?138.38
22		0.0000	29.680		84481	VB	?146.13
TOTALS:		1997.436		1.829	9531142		

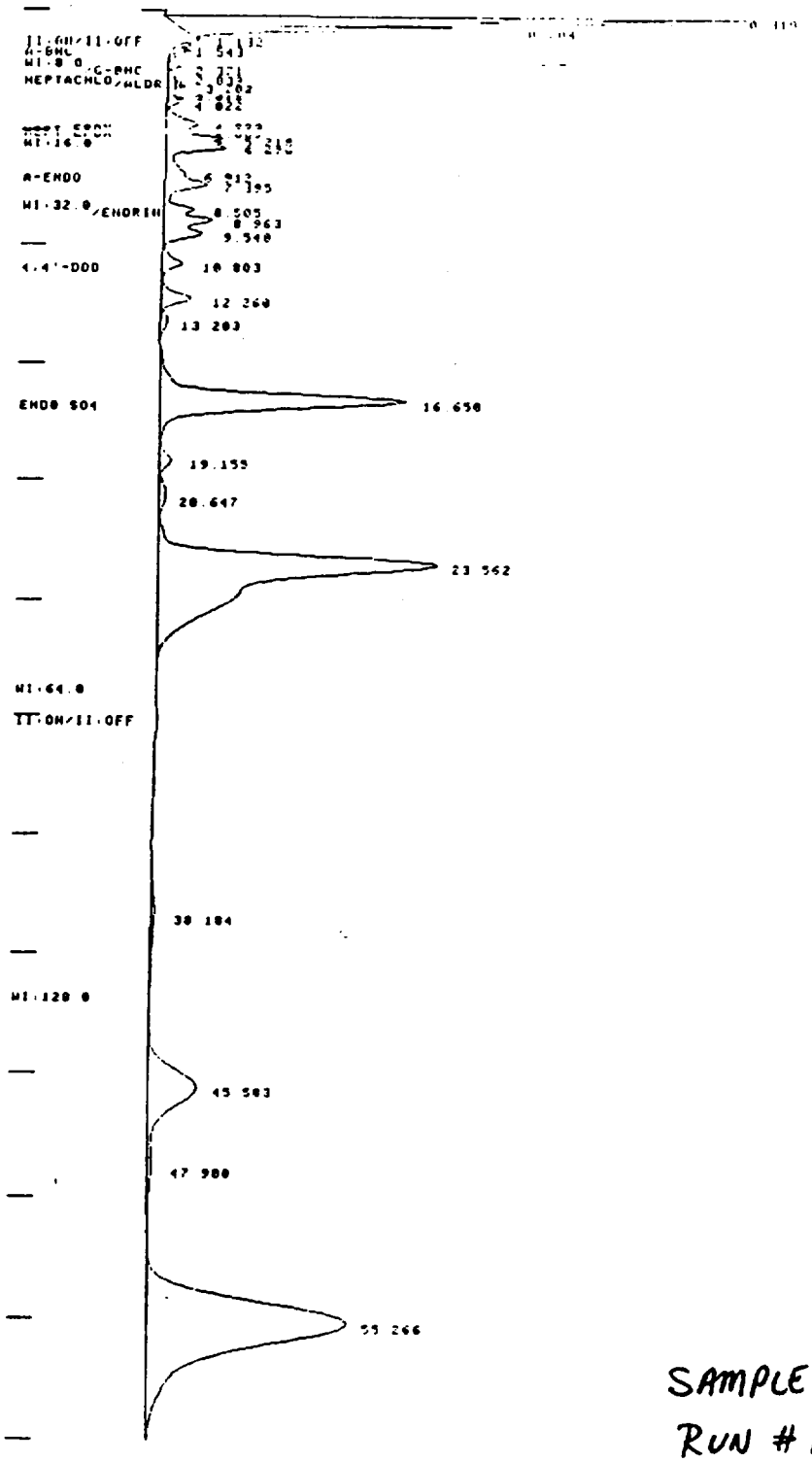
DETECTED PKS: 36 REJECTED PKS: 14

DIVISOR: 1.50000 MULTIPLIER: 10000.0000

NOISE: 34.3 OFFSET: -17

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SAMSON
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



DC-SD-21

SAMPLE: 9659

RUN #17

NOVEMBER 21, 1986

CHANNEL: 18 - 1 TITLE: RUN# 17 20:23 21 NOV 86

SAMPLE: 9559 METHOD: PEPA CALCULATION: ES - ANALYS

DC-SD-21

PEAK NO	PEAK NAME	RESULT ~~UG/KG~~	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~A-BHC~~	0.0000	1.626	-0.054	26472	VV	3.75
2	~~G-BHC~~	0.0000	2.371	-0.029	31668	BV	9.50
3		0.0000	2.985		21387	VV	? 7.56
4	~~ALDRIN~~	0.0000	3.202	0.052	56643	VV	12.25
5		0.0000	3.790		45139	VV	? 11.13
6		0.0000	4.022		33501	VV	? 11.94
7		0.0000	4.889		188817	VV	? 27.81
8	~~HEPT EPOX~~	0.0000	5.218	0.118	196997	VV	? 15.75
9		0.0000	5.449		167828	VV	? 12.44
10		0.0000	5.679		272065	VV	? 21.56
11	~~4,4' DDE~~	0.0000	6.912	0.102	159353	VV	? 34.06
12	~~DIELDRIN~~	0.0000	7.395	-0.485	328763	VV	29.56
13		0.0000	8.505		167391	VV	? 22.50
14	~~ENDRIN~~	0.0000	8.963	0.153	301320	VV	27.55
15		0.0000	9.540		261955	VV	? 29.69
16	~~4,4' DDD~~	0.0000	10.803	0.373	168234	VV	36.56
17	~~B-ENDOSUL~~	0.0000	12.260	0.620	242956	VV	29.94
18	~~4,4' DDT~~	0.0000	13.203	-0.747	81175	VB	36.69
19	~~ENDO SO4~~	0.0000	16.650	-0.410	2912068	BV	39.38
20		0.0000	19.155		131304	VV	41.50
21		0.0000	20.647		120750	VV	? 86.69
22		0.0000	23.562		6022947	VB	58.13
23		0.0000	38.184		137999	BB	114.00
24		0.0000	45.583		1330231	BV	102.94
25		0.0000	47.900		93575	VV	?237.50
26		0.0000	55.266		6843793	VV	102.38
TOTALS:		0.0000		-0.307	20244342		

DETECTED PKS: 40 REJECTED PKS: 14

DIVISOR: 1.50000 MULTIPLIER: 10000.0000

NOISE: 91.4 OFFSET: -25

NOTES:
NOTEBOOK:259-40 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB #U-4432:U-4442
INST: VARIAN 6000#2 8 ECD 10X1 ATT:16
COLUMN: 8' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

POST RUN:
SAVE FILE: PAW CREEKS77

SAMPLE NUMBER DC-SD-22

481095

Sample Number
DC-SD-22

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432 / U-4442
Lab Sample ID No: 9660
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: CGrojtowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc./Dil Factor: 2 pH 7.2

Percent Moisture: (Not Decanted) 55

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	4600 u
74-83-9	Bromomethane	4600 u
75-01-4	Vinyl Chloride	4600 u
75-00-3	Chloroethane	4600 u
75-09-2	Methylene Chloride	18000 B
67-64-1	Acetone	9900 B
75-15-0	Carbon Disulfide	2300 u
75-35-4	1, 1-Dichloroethene	2300 u
75-34-3	1, 1-Dichloroethane	2300 u
156-60-5	Trans-1, 2-Dichloroethene	2300 u
67-66-3	Chloroform	2300 u
107-06-2	1, 2-Dichloroethane	2300 u
78-93-3	2-Butanone	14000 B
71-55-6	1, 1, 1-Trichloroethane	2300 u
56-23-5	Carbon Tetrachloride	2300 u
108-05-4	Vinyl Acetate	4600 u
75-27-4	Bromodichloromethane	2300 u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2300 u
10061-02-6	Trans-1, 3-Dichloropropene	2300 u
79-01-6	Trichloroethene	2300 u
124-48-1	Dibromochloromethane	2300 u
79-00-5	1, 1, 2-Trichloroethane	2300 u
71-43-2	Benzene	2300 u
10061-01-5	cis-1, 3-Dichloropropene	2300 u
110-75-8	2-Chloroethylvinylether	4600 u
75-25-2	Bromoform	2300 u
108-10-1	4-Methyl-2-Pentanone	4600 u
591-78-6	2-Hexanone	1200 J
127-18-4	Tetrachloroethene	2300 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	2300 u
108-88-3	Toluene	2300 u
108-90-7	Chlorobenzene	2300 u
100-41-4	Ethylbenzene	2300 u
100-42-5	Styrene	2300 u
	Total Xylenes	2300 u

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.

Laboratory Name Ecology & Environment Inc.

Case No U-4432/U-4442

Sample Number DC-SD-22

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 12-12-86

Conc/Dil Factor: 5

Percent Moisture (Decanted) 55

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	1800 U
111-44-4	bis(-2-Chloroethyl)Ether	1800 U
95-57-8	2-Chlorophenol	1800 U
541-73-1	1 3-Dichlorobenzene	110 J
106-46-7	1. 4-Dichlorobenzene	690 J
100-51-6	Benzyl Alcohol	1800 U
95-50-1	1. 2-Dichlorobenzene	1800 U
95-48-7	2-Methylphenol	1800 U
39638-32-9	bis(2-chloroisopropyl)Ether	1800 U
106-44-5	4-Methylphenol	1800 U
621-64-7	N-Nitroso-Di-n-Propylamine	1800 U
67-72-1	Hexachloroethane	1800 U
98-95-3	Nitrobenzene	1800 U
78-59-1	Isophorone	1800 U
88-75-5	2-Nitrophenol	1800 U
105-67-9	2. 4-Dimethylphenol	1800 U
65-85-0	Benzoic Acid	8900 U
111-91-1	bis(-2-Chloroethoxy)Methane	1800 U
120-83-2	2. 4-Dichlorophenol	1800 U
120-82-1	1. 2. 4-Trichlorobenzene	260 J
91-20-3	Naphthalene	330 J
106-47-8	4-Chloroaniline	1800 U
87-68-3	Hexachlorobutadiene	1800 U
59-50-7	4-Chloro-3-Methylphenol	1800 U
91-57-6	2-Methylnaphthalene	100 J
77-47-4	Hexachlorocyclopentadiene	1800 U
88-06-2	2 4. 6-Trichlorophenol	1800 U
95-95-4	2. 4 5-Trichlorophenol	8900 U
91-58-7	2-Chloronaphthalene	1800 U
88-74-4	2-Nitroaniline	8900 U
131-11-3	Dimethyl Phthalate	1800 U
208-96-8	Acenaphthylene	1800 U
99-09-2	3-Nitroaniline	8900 U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	130 J
51-28-5	2. 4-Dinitrophenol	8900 U
100-02-7	4-Nitrophenol	8900 U
132-64-9	Dibenzofuran	1800 U
121-14-2	2 4-Dinitrotoluene	1800 U
606-20-2	2. 6-Dinitrotoluene	1800 U
84-66-2	Diethylphthalate	1800 U
7005-72-3	4-Chlorophenyl-phenylether	1800 U
86-73-7	Fluorene	370 J
100-01-6	4-Nitroaniline	8900 U
534-52-1	4. 6-Dinitro-2-Methylphenol	8900 U
86-30-6	N-Nitrosodiphenylamine (1)	1800 U
101-55-3	4-Bromophenyl-phenylether	1800 U
118-74-1	Hexachlorobenzene	1800 U
87-86-5	Pentachlorophenol	8900 U
85-01-8	Phenanthrene	810 J
120-12-7	Anthracene	500 J
84-74-2	Di-n-Butylphthalate	1800 U
206-44-0	Fluoranthene	4600
129-00-0	Pyrene	4500
85-68-7	Butylbenzylphthalate	1800 U
91-94-1	3. 3'-Dichlorobenzidine	3600 U
56-55-3	Benzo(a)Anthracene	3300
117-81-7	bis(2-Ethylhexyl)Phthalate	1800 U
218-01-9	Chrysene	4400
117-84-0	Di-n-Octyl Phthalate	190 J
205-99-2	Benzo(b)Fluoranthene	7500
207-08-9	Benzo(k)Fluoranthene	660 J
50-32-8	Benzo(a)Pyrene	4500
193-39-5	Indeno(1 2. 3-cd)Pyrene	4300
53-70-3	Dibenz(a h)Anthracene	1500 J
191-24-2	Benzo(g h i)Perylene	4000

(1)-Cannot be separated from diphenylamine

230

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-22

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor: 25

Percent Moisture (decanted) 55

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	8,700
11097-69-1	Aroclor-1254	9,300
11096-82-5	Aroclor-1260	5,000 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-22

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	1100 BJ
2.	Unknown Ketone	VOA	19.6 min	570 BJ
3.	Hexane isomer	VOA	21.3 min	3400 BJ
4.				
5.	UNKNOWN HYDROCARBON	BNA	22.1	1900 J
6.	UNKNOWN HYDROCARBON		23.5	1900 J
7.	UNKNOWN		25.4	1400 J
8.	UNKNOWN LONG CHAIN HYDROCARBON ACID		25.7	4100 J
9.	UNKNOWN		26.2	7500 J
10.	UNKNOWN		37.3	10000 J
11.	UNKNOWN		38.2	3700 J
12.				
13.				
14.				
15.				
16.				
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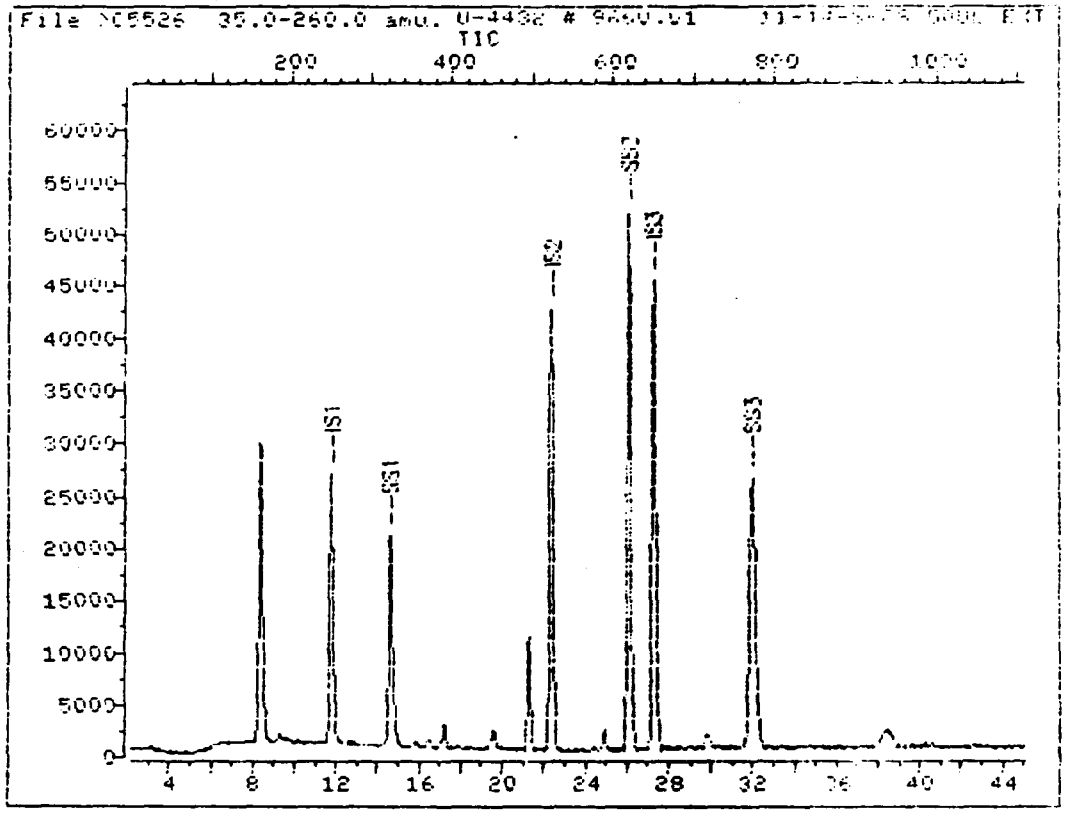
30				

TOTAL ION CHROMATOGRAM



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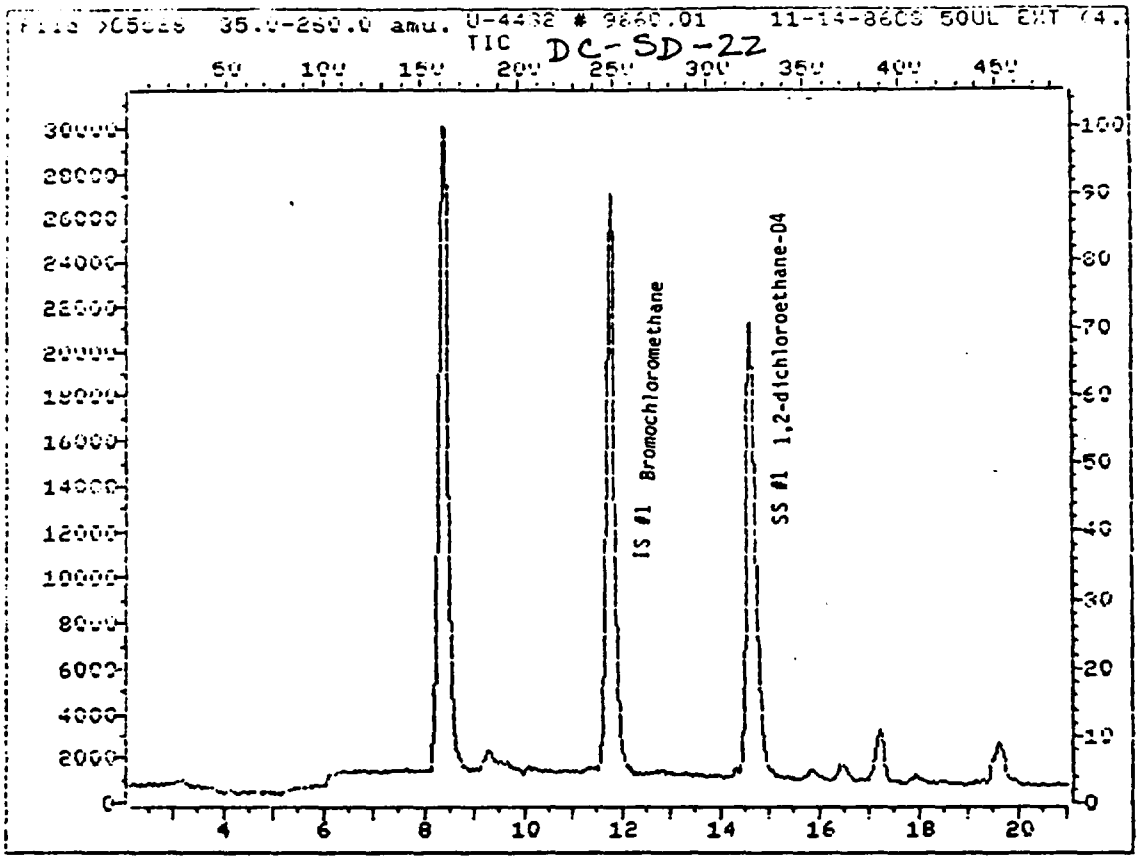
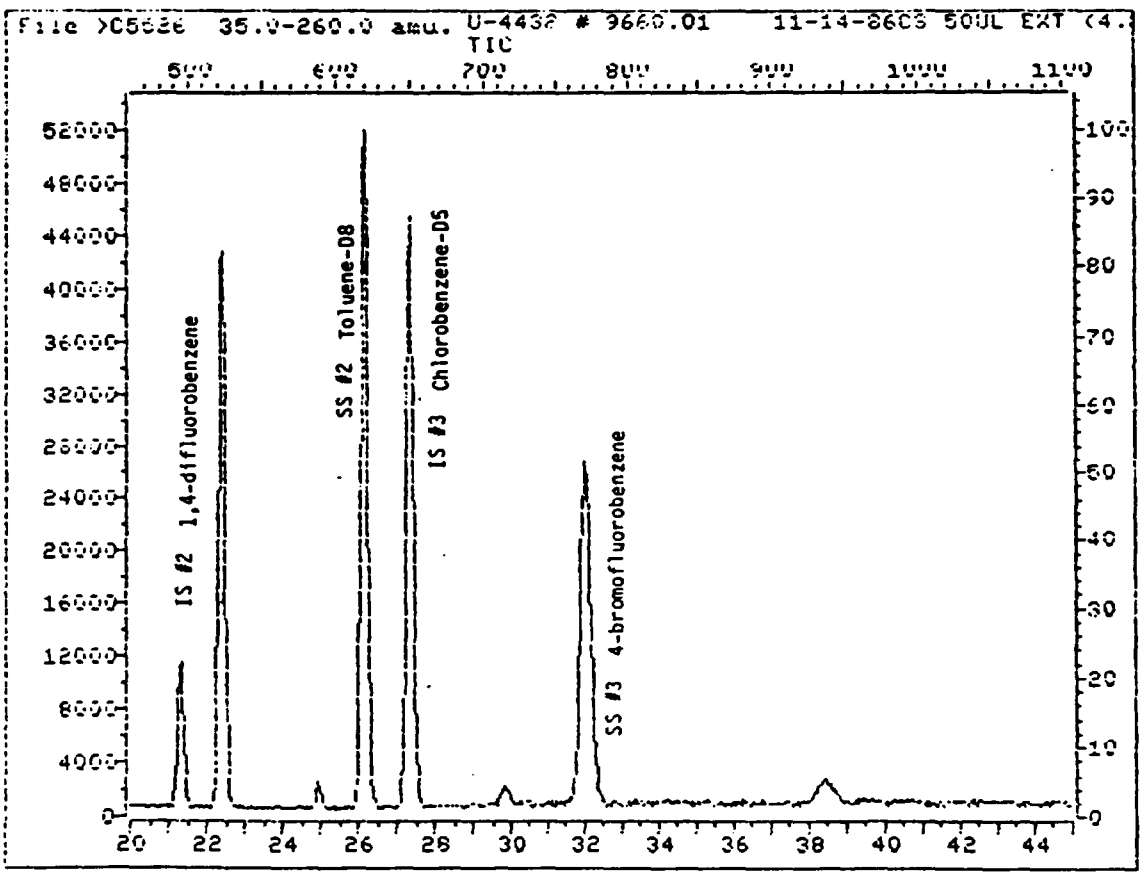
Name: U-4432 # 9660.01 DC-SD-22
Misc: 11-14-86CS 50UL EXT (4.23G/10ML [illegible] + 10UL [illegible]

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 11:38

Operator ID: USER8
Quant Time: 861114 16:52
Injected at: 861114 16:06


File >C5626 35.0-260.0 amu. U-4432 # 9660.01 11-14-86C6 50UL EXT (4.
TIC
DC-SD-22
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5626 35.0-260.0 amu. U-4432 # 9660.01 11-14-86C6 50UL EXT (4.
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

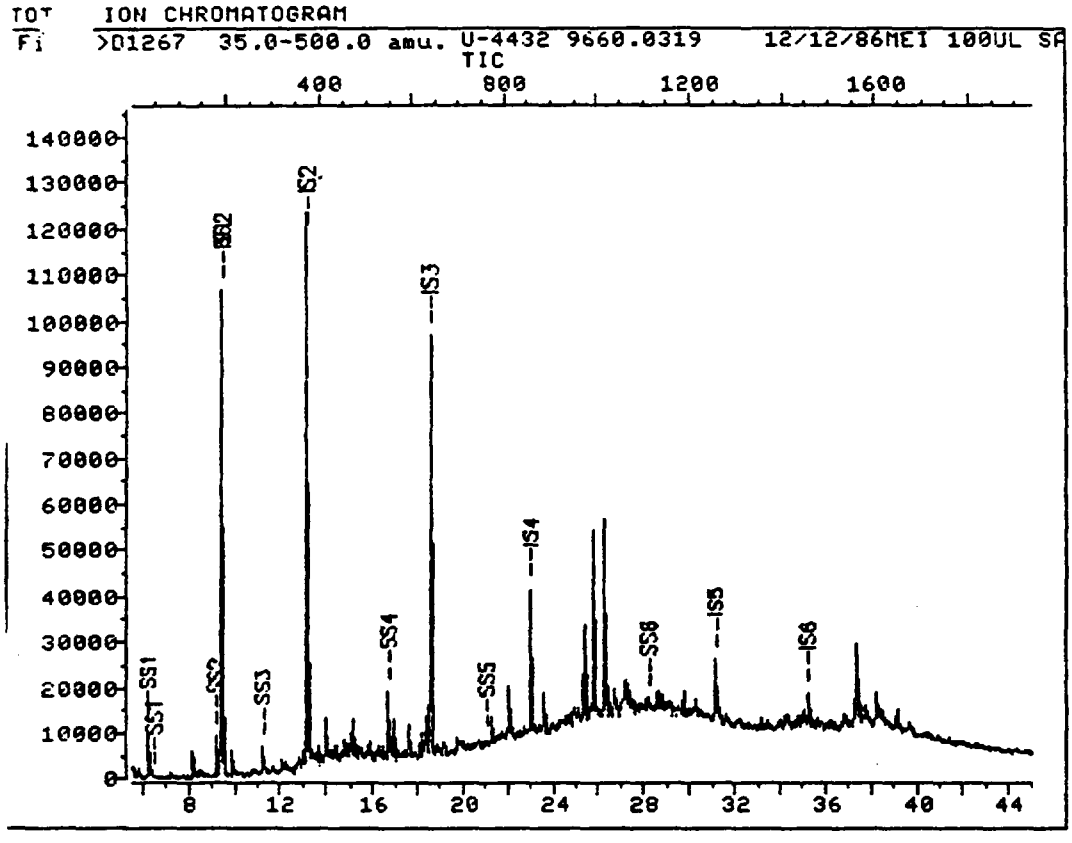
QUANT REPORT

Operator ID: USE98 Quant Rev: 4 Quant Time: 861114 16:52
Output File: ^C5526::04 Injected at: 861114 16:06
Data File: >C5526::03 Dilution Factor: 1.00
Name: U-4432 # 9660.01 DC-SD-22
Misc: 11-14-86CS 50UL EXT (4.23G/10ML MEOH) + 10UL IS/SS IN

ID File: VOACR::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 11:38

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.78	249	41273	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.36	161	81186	34.53	UG/L	100
7)	ACETONE	43	9.29	186	8272	18.85	UG/L	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.61	322	82279	44.90	UG/L	91
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.40	523	196790	50.00	UG/L	100
17)	2-BUTANONE	72	14.76	326	5948	26.80	UG/L	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.34	650	146213	50.00	UG/L	100
33)	2-HEXANONE	43	24.96	589	2871	2.24	UG/L	100
36)	TOLUENE-D8 (SURR)	98	26.16	620	211606	47.72	UG/L	99
38)	CHLOROBENZENE	112	27.49	653	12456	3.02	UG/L	99
40)	4-BROMOFLUOROBENZENE(SURR)	95	32.03	771	94001	49.45	UG/L	100

* Compound is ISTD

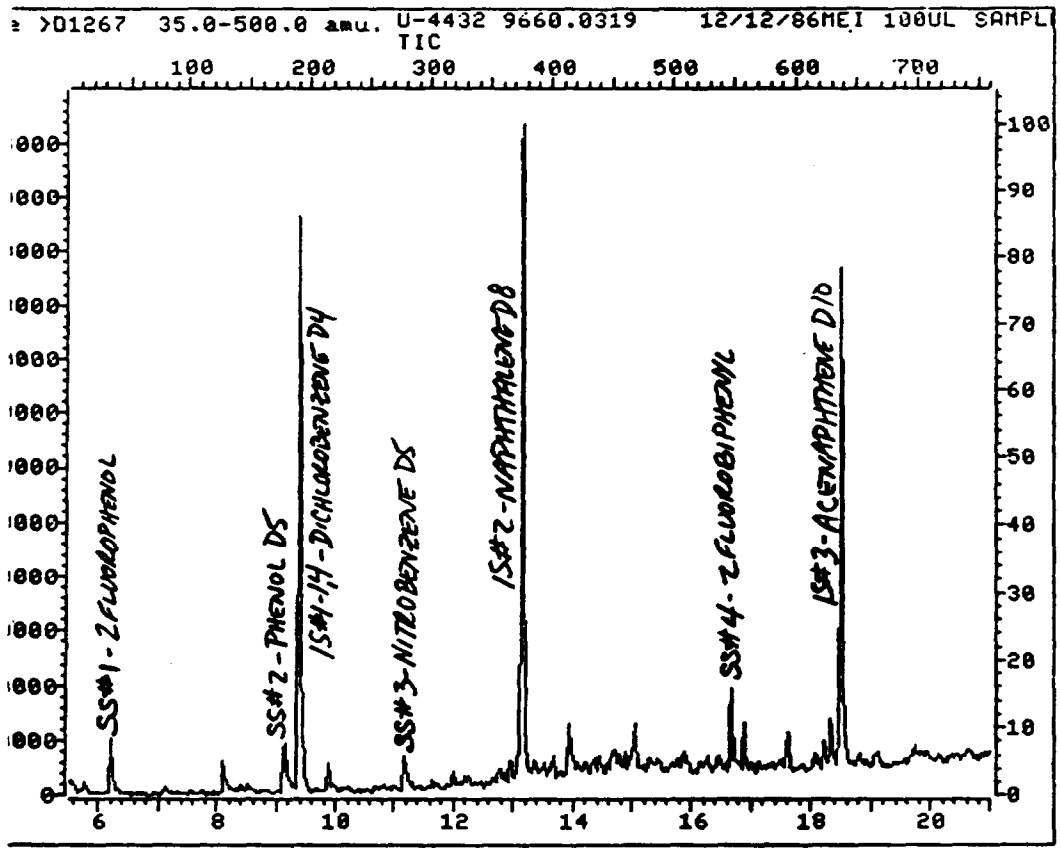


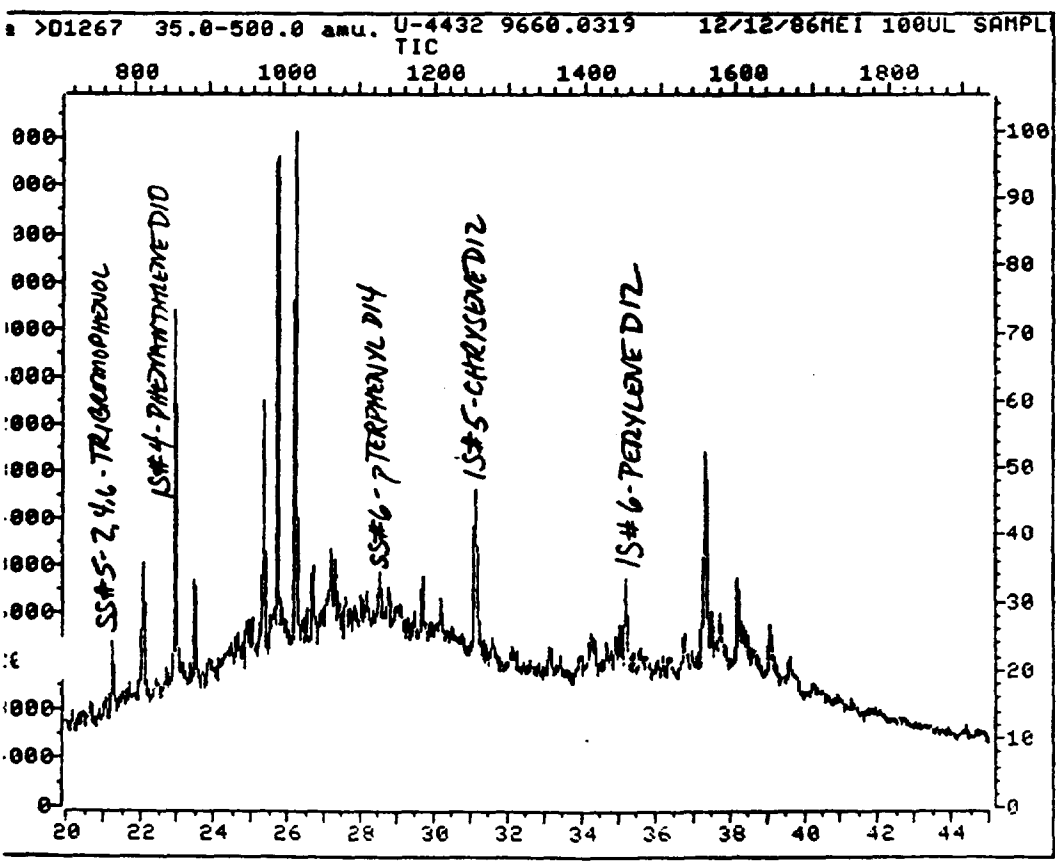
Data File: >D1267::D1
Name: U-4432 9660.0319 DC-SD-22
Misc: 12/12/86MEI 100UL SAMPLE + 400UL MECL2 + 5UL IS (5X) BTL#20

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861211 15:37

Operator ID: USER8
Quant Time: 861215 18:41
Injected at: 861212 23:07

DC-SD-22


>D1267 35.0-500.0 amu. U-4432 9660.0319 12/12/86MEI 100UL SAMPL
TIC
SS#1-2 FLUOROPHENOL
SS#2-PHENOL D5
IS#1-1,4-DICHLOROBENZENE D4
SS#3-NITROBENZENE D5
IS#2-NAPHTHALENE D8
SS#4-2 FLUOROBIPHENYL
IS#3-ACENAPHTHENE D10


>D1267 35.0-500.0 amu. U-4432 9660.0319 12/12/86MEI 100UL SAMPL
TIC
SS#5-2,4,6-TRIBROMOPHENOL
IS#4-PHENANTHRENE D10
SS#6-P TERPHENYL D14
IS#5-CHRYSENE D12
IS#6-PERYLENE D12

QUANT REPORT

perator ID: USER8 Quant Rev: 4 Quant Time: 861215 18:41
utput File: ^D1267::Q2 Injected at: 861212 23:07
ata File: >D1267::D1 Dilution Factor: 5.00
ame: U-4432 9660.0319 DC-SD-22
isc: 12/12/86MEI 100UL SAMPLE + 400UL MECL2 + 5UL IS (5X) BTL#20

) File: BNADR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 861211 15:37

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.39	191	51249	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	9.14	179	13457	39.03	UG/L	99
2)	PHENOL-D5	(SURR)	99	9.39	191	1167	3.39	UG/L	85
5)	2-FLUOROPHENOL	(SURR)	112	6.19	34	9833	45.42	UG/L	85
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.46~~	~~47~~	~~150~~	~~.69~~	~~UG/L~~ No Bpk	~~66~~
9)	1,3-DICHLOROBENZENE		146	9.27	185	563	1.55	UG/L	89
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.43~~	~~193~~	~~3261~~	~~8.99~~	~~UG/L~~ No Bpk	~~97~~
1)	1,4-DICHLOROBENZENE		146	9.43	193	3261	9.27	UG/L	94
~~2)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.86~~	~~263~~	~~215~~	~~.60~~	~~UG/L~~ No Bpk	~~27~~
~~2)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.18~~	~~279~~	~~1553~~	~~4.30~~	~~UG/L~~	~~93~~
9)	*NAPHTHALENE-D8	(IS)	136	13.14	375	181351	40.00	UG/L	100
1)	NITROBENZENE-D5	(SURR)	82	11.18	279	7566	22.14	UG/L	94
3)	1,2,4-TRICHLOROBENZENE		180	13.10	373	1108	3.52	UG/L	100
9)	NAPHTHALENE		128	13.20	378	3667	4.39	UG/L	100
5)	2-METHYLNAPHTHALENE		142	15.34	483	762	1.36	UG/L	92
~~5)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.63~~	~~497~~	~~494~~	~~.88~~	~~UG/L~~ No Bpk	~~84~~
4)	*ACENAPHTHENE-D10	(IS)	162	18.51	638	52346	40.00	UG/L	97
3)	2-FLUOROBIPHENYL	(SURR)	172	16.67	548	13011	29.92	UG/L	94
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.40~~	~~633~~	~~249~~	~~.60~~	~~UG/L~~	~~100~~
~~)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.51~~	~~639~~	~~15816~~	~~38.22~~	~~UG/L~~ No Bpk	~~100~~
~~)~~	~~DIBENZOFURAN~~		~~168~~	~~19.12~~	~~660~~	~~1071~~	~~2.53~~	~~UG/L~~	~~100~~
)	FLUORENE		166	20.16	719	1488	5.02	UG/L	90
)	ACENAPHTHENE		153	18.59	642	591	1.78	UG/L	87
)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.02	761	698	13.04	UG/L	97
~~)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.51~~	~~638~~	~~7421~~	~~88.31~~	~~UG/L~~ No Bpk	~~100~~
5)	*PHENANTHRENE-D10	(IS)	188	22.96	856	36952	40.00	UG/L	93
1)	PHENANTHRENE		178	23.16	866	1925 ~~1173~~	~~6.65~~	~~UG/L~~ 10.91 ug/L	
2)	ANTHRACENE		178	23.16	866	1173	6.71	UG/L	66
4)	FLUORANTHENE		202	26.68	1038	8490	62.61	UG/L	93
5)	*CHRYSENE-D12	(IS)	240	31.12	1255	13349	40.00	UG/L	100
9)	PYRENE		202	27.29	1068	8087	61.11	UG/L	94
3)	TERPHENYL-D14	(SURR)	244	28.17	1111	1390	19.73	UG/L	100
1)	BENZO(A)ANTHRACENE		228	31.07	1253	3005	44.33	UG/L	84
~~)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.20~~	~~1259~~	~~4012~~	~~59.18~~	~~UG/L~~	~~93~~
~~)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.40~~	~~1269~~	~~512~~	~~7.55~~	~~UG/L~~	~~10~~
~~)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.44~~	~~1320~~	~~209~~	~~3.08~~	~~UG/L~~ No Bpk	~~70~~
~~)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.48~~	~~1322~~	~~247~~	~~3.64~~	~~UG/L~~	~~75~~
~~)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.55~~	~~1325~~	~~202~~	~~2.98~~	~~UG/L~~	~~54~~
~~)~~	~~CHRYSENE~~		~~228~~	~~31.07~~	~~1253~~	~~3005~~	~~44.53~~	~~UG/L~~	~~86~~
5)	CHRYSENE		228	31.20	1259	4012	59.45	UG/L	94
~~)~~	~~CHRYSENE~~		~~228~~	~~31.40~~	~~1269~~	~~512~~	~~7.59~~	~~UG/L~~ No Bpk	~~12~~
4)	*PERYLENE-D12	(IS)	264	35.20	1455	9334	40.00	UG/L	100
~~)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.57~~	~~1375~~	~~317~~	~~2.37~~	~~UG/L~~ No Bpk	~~100~~
~~)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.77~~	~~1385~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~

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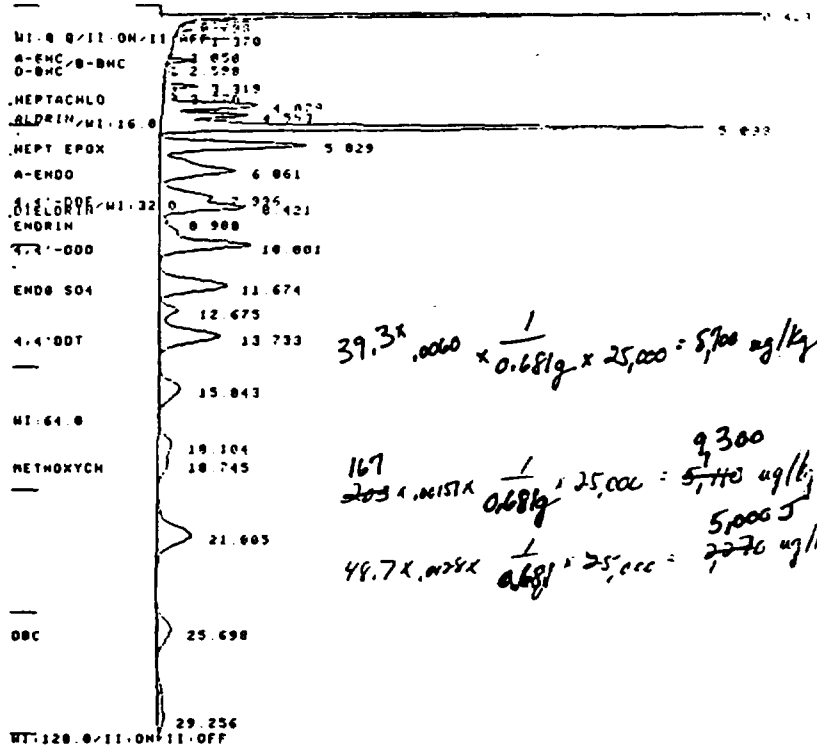
	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
~~5)~~	~~DI N OCTYL PHTHALATE~~	~~149~~	~~34.32~~	~~1412~~	~~736~~	~~5.50~~	~~UG/L~~ No GPC	100
6)	BENZO(B)FLUORANTHENE	252	34.22	1407	5773	100.94	UG/L	100
~~6)~~	~~BENZO(B)FLUORANTHENE~~	~~252~~	~~34.51~~	~~1421~~	~~644~~	~~11.26~~	~~UG/L~~ No GPC	100
~~7)~~	~~BENZO(K)FLUORANTHENE~~	~~252~~	~~34.22~~	~~1407~~	~~5773~~	~~80.62~~	~~UG/L~~	100
7)	BENZO(K)FLUORANTHENE	252	34.51	1421	644	8.99	UG/L	100
~~3)~~	~~BENZO(A)PYRENE~~	~~252~~	~~34.92~~	~~1441~~	~~2865~~	~~56.69~~	~~UG/L~~ No GPC	100
3)	BENZO(A)PYRENE	252	35.04	1447	3059	60.53	UG/L	100
~~3)~~	~~BENZO(A)PYRENE~~	~~252~~	~~35.26~~	~~1458~~	~~959~~	~~18.98~~	~~UG/L~~ No GPC	100
~~9)~~	~~INDENO(1,2,3-CD)PYRENE~~	~~276~~	~~37.59~~	~~1572~~	~~221~~	~~7.56~~	~~UG/L~~	100
9)	INDENO(1,2,3-CD)PYRENE	276	37.80	1582	1684	57.64	UG/L	100
~~3)~~	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~37.61~~	~~1573~~	~~199~~	~~6.84~~	~~UG/L~~ No GPC	100
0)	DIBENZ(A,H)ANTHRACENE	278	37.90	1587	587	20.17	UG/L	100
~~0)~~	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~38.12~~	~~1598~~	~~288~~	~~9.90~~	~~UG/L~~ No GPC	100
~~0)~~	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~38.21~~	~~1602~~	~~399~~	~~13.71~~	~~UG/L~~	100
1)	BENZO(G,H,I)PERYLENE	276	38.35	1609	1726	53.65	UG/L	100
~~1)~~	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.68~~	~~1625~~	~~348~~	~~10.82~~	~~UG/L~~ No GPC	100

* Compound is ISTD

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



39.3 x .0060 x 1/0.681g x 25,000 = 5,700 ug/kg 1248

167 ~~203~~ x .00157 x 1/0.681g x 25,000 = ~~5,110~~ 9,300 ug/kg 1254

48.7 x .0128 x 1/0.681 x 25,000 = ~~2,270~~ 5,000 J ug/kg 1260

CHANNEL: 1A - 1 TITLE: RUN# 31 15:50 15 NOV 88

DC-SD-22 SAMPLE: 9660.03.19 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT ~~UG/KG~~	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/Z (SEC)
1		0.0000	1.370		[illegible]	BB	
2	~~B-BHC~~	48.4662	2.261	0.091	[illegible]	[illegible]	5.00
3		0.0000	3.319		32297	BB	
4		0.0000	4.079		211361	[illegible]	18.00
5	~~ALDRIN~~	116.4900	4.553	-0.117	142047	[illegible]	12.75
6		0.0000	5.098		[illegible]	[illegible]	10.81
7	~~HEPT EPOX~~	311.1995	5.829	0.159	35[illegible]	[illegible]	18.56
8	~~A-ENDO~~	281.1872	6.861	-0.169	302792	[illegible]	30.69
9	~~4,4'-DDE~~	158.8707	7.996	-0.094	175722	[illegible]	[illegible].56
10	~~DIELDRIN~~	197.5204	8.421	0.231	23[illegible]663	[illegible]	15.75
11	~~4,4'-ENDO~~	369.3363	10.001	-0.159	352671	[illegible]	24.63
12	~~ENDO SO4~~	352.4466	11.674	-0.236	275086	[illegible]	32.13
13		0.0000	12.675		6[illegible]143	[illegible]	28.63
14	~~4,4'DDT~~	423.5610	13.733	0.473	26[illegible]	[illegible]	32.81
15	~~END KETON~~	119.9631	15.843	0.573	13[illegible]	[illegible]	49.[illegible]
16		0.0000	18.104		55111	[illegible]	[illegible]
17	~~METHOXYCH~~	117.0416	~~18.745~~	0.745	[illegible]	[illegible]	64.63
18		0.0000	21.805		25[illegible]463		50.63
19	~~DBC~~	134.6136	25.698	-0.912	120338	[illegible]	64.63
20		0.0000	29.256		75050	[illegible]	7125.05
TOTALS:		2630.698		-0.905	4057179		

weathered 1248

1254

1260

DETECTED PKS: 35 REJECTED PKS: 15

DIVISOR: 1.50000 MULTIPLIER: 25000.0000

NOISE: 228.6 OFFSET: 5

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SAMSON
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

SAMPLE NUMBER DC-SD-23

481095

Sample Number
DC-SD-23

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U-4442
Lab Sample ID No: 966
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc/Dil Factor: 2 pH 7.0

Percent Moisture: (Not Decanted) 63

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	5800u
74-83-9	Bromomethane	5800u
75-01-4	Vinyl Chloride	5800u
75-00-3	Chloroethane	5800u
75-09-2	Methylene Chloride	27000 B
67-64-1	Acetone	15000 B
75-15-0	Carbon Disulfide	2900u
75-35-4	1, 1-Dichloroethene	2900u
75-34-3	1, 1-Dichloroethane	2900u
156-60-5	Trans-1, 2-Dichloroethene	2900u
67-66-3	Chloroform	2900u
107-06-2	1, 2-Dichloroethane	2900u
78-93-3	2-Butanone	22000 B
71-55-6	1, 1, 1-Trichloroethane	2900u
56-23-5	Carbon Tetrachloride	2900u
108-05-4	Vinyl Acetate	5800u
75-27-4	Bromodichloromethane	2900u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2900u
10061-02-6	Trans-1, 3-Dichloropropene	2900u
79-01-6	Trichloroethene	2900u
124-48-1	Dibromochloromethane	2900u
79-00-5	1, 1, 2-Trichloroethane	2900u
71-43-2	Benzene	2900u
10061-01-5	cis-1, 3-Dichloropropene	2900u
110-75-8	2-Chloroethylvinylether	5800u
75-25-2	Bromoform	2900u
108-10-1	4-Methyl-2-Pentanone	5800u
591-78-6	2-Hexanone	5800u
127-18-4	Tetrachloroethene	2900u
79-34-5	1, 1, 2, 2-Tetrachloroethane	2900u
108-88-3	Toluene	2900u
108-90-7	Chlorobenzene	2900u
100-41-4	Ethylbenzene	2900u
100-42-5	Styrene	2900u
	Total Xylenes	2900u

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.

Laboratory Name Ecology & Environment Inc.

Case No V-4432/V-4442

Sample Number DC-SD-23

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-25-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 63

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	580	J
111-44-4	bis(-2-Chloroethyl)Ether	890	U
95-57-8	2-Chlorophenol	890	U
541-73-1	1 3-Dichlorobenzene	890	U
106-46-7	1 4-Dichlorobenzene	890	U
100-51-6	Benzyl Alcohol	890	U
95-50-1	1 2-Dichlorobenzene	890	U
95-48-7	2-Methylphenol	890	U
39638-32-9	bis(2-chloroisopropyl)Ether	890	U
106-44-5	4-Methylphenol	890	U
621-64-7	N-Nitroso-Di-n-Propylamine	890	U
67-72-1	Hexachloroethane	890	U
98-95-3	Nitrobenzene	890	U
78-59-1	Isophorone	890	U
88-75-5	2-Nitrophenol	890	U
105-67-9	2 4-Dimethylphenol	890	U
65-85-0	Benzoic Acid	4300	U
111-91-1	bis(-2-Chloroethoxy)Methane	890	U
120-83-2	2 4-Dichlorophenol	890	U
120-82-1	1 2 4-Trichlorobenzene	130	J
91-20-3	Naphthalene	100	J
106-47-8	4-Chloroaniline	890	U
87-68-3	Hexachlorobutadiene	890	U
59-50-7	4-Chloro-3-Methylphenol	890	U
91-57-6	2-Methylnaphthalene	890	U
77-47-4	Hexachlorocyclopentadiene	890	U
88-06-2	2 4 6-Trichlorophenol	890	U
95-95-4	2 4 5-Trichlorophenol	4300	U
91-58-7	2-Chloronaphthalene	890	U
88-74-4	2-Nitroaniline	4300	U
131-11-3	Dimethyl Phthalate	890	U
208-96-8	Acenaphthylene	890	U
99-09-2	3-Nitroaniline	4300	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	890	U
51-28-5	2 4-Dinitrophenol	4300	U
100-02-7	4-Nitrophenol	4300	U
132-64-9	Dibenzofuran	890	U
121-14-2	2 4-Dinitrotoluene	890	U
606-20-2	2 6-Dinitrotoluene	890	U
84-66-2	Diethylphthalate	890	U
7005-72-3	4-Chlorophenyl-phenylether	890	U
86-73-7	Fluorene	890	U
100-01-6	4-Nitroaniline	4300	U
534-52-1	4 6-Dinitro-2-Methylphenol	4300	U
86-30-6	N-Nitrosodiphenylamine (1)	890	U
101-55-3	4-Bromophenyl-phenylether	890	U
118-74-1	Hexachlorobenzene	890	U
87-86-5	Pentachlorophenol	4300	U
85-01-8	Phenanthrene	890	U
120-12-7	Anthracene	890	U
84-74-2	Di-n-Butylphthalate	890	U
206-44-0	Fluoranthene	890	U
129-00-0	Pyrene	890	U
85-68-7	Butylbenzylphthalate	890	U
91-94-1	3 3'-Dichlorobenzidine	1800	U
56-55-3	Benzo(a)Anthracene	650	J
117-81-7	bis(2-Ethylhexyl)Phthalate	660	J
218-01-9	Chrysene	1000	
117-84-0	Di-n-Octyl Phthalate	890	U
205-99-2	Benzo(b)Fluoranthene	2000	
207-08-9	Benzo(k)Fluoranthene	890	U
50-32-8	Benzo(a)Pyrene	940	
193-39-5	Indeno(1 2 3-cd)Pyrene	1700	
53-70-3	Dibenz(a h)Anthracene	640	J
191-24-2	Benzo(g h i)Perylene	1700	

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4432/V-4442

Sample Number DC-SD-23

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor: 25

Percent Moisture (decanted) 63

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	11,000
11096-82-5	Aroclor-1260	7,800 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

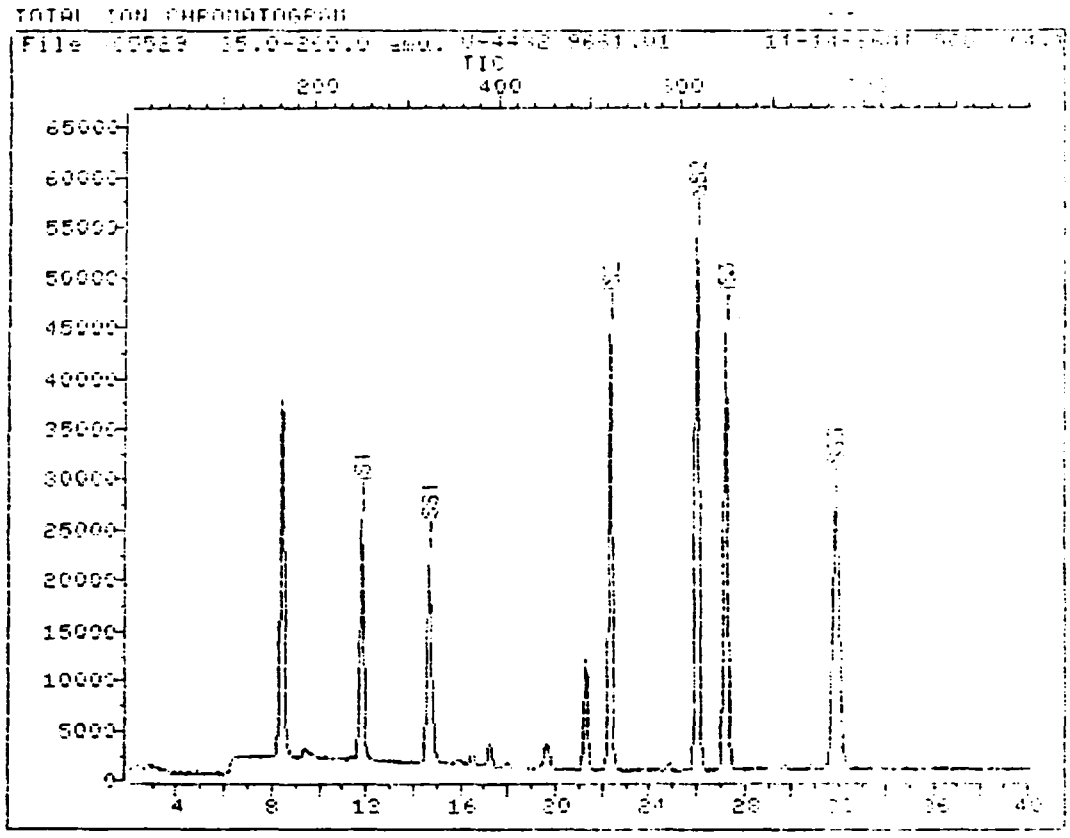
Sample Number DC-SD-23

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	17.3 min	1300 BJ
2.	Unknown Ketone	VOA	19.6 min	920 BJ
3.	Hexane isomer	VOA	21.3 min	4300 BJ
4.				
5.	UNKNOWN HYDROCARBON	BNA	5.5	1900 J
6.	UNKNOWN HYDROCARBON		5.8	1700 J
7.	UNKNOWN HYDROCARBON		8.1	10000 J
8.	UNKNOWN HYDROCARBON		26.7	4100 BJ
9.	UNKNOWN		30.1	8000 BJ
10.	UNKNOWN		34.3	3900 BJ
11.	UNKNOWN		38.5	1400 J
12.	UNKNOWN		39.0	4600 J
13.	UNKNOWN	BNA	40.5	940 J
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

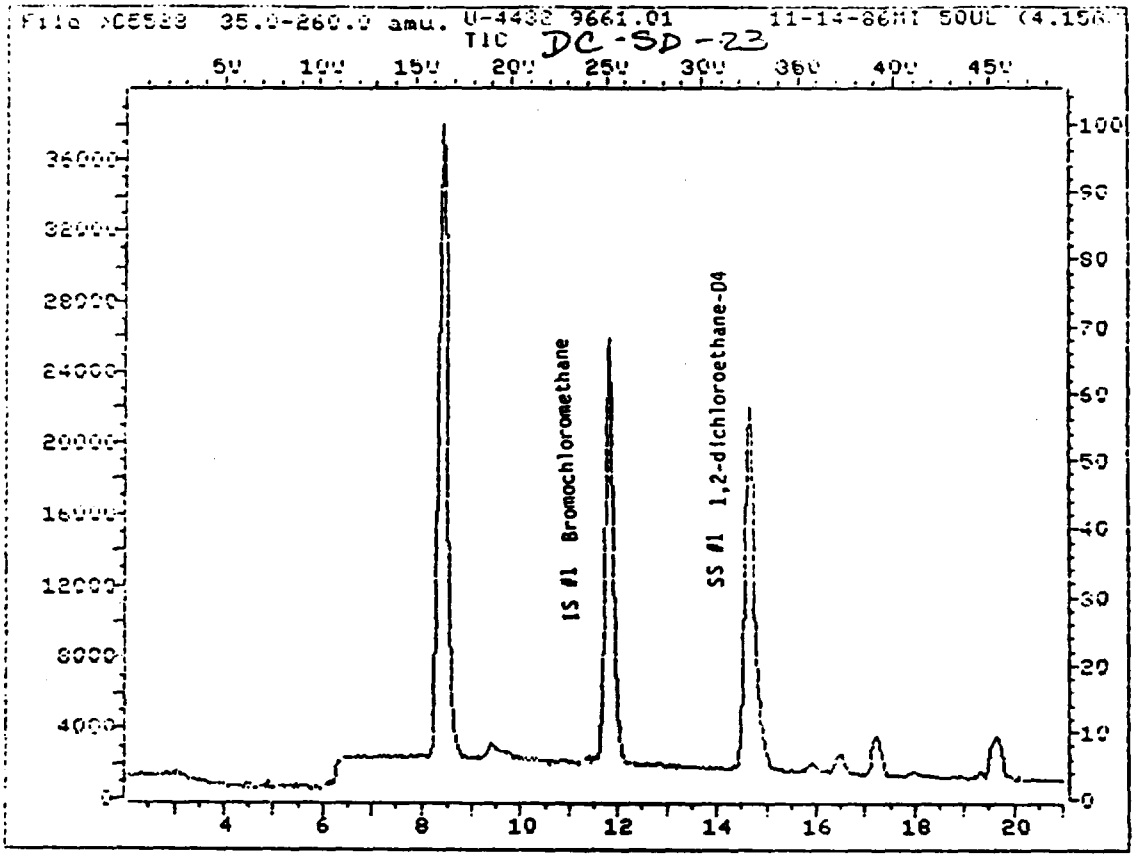
TOTAL ION CHROMATOGRAM

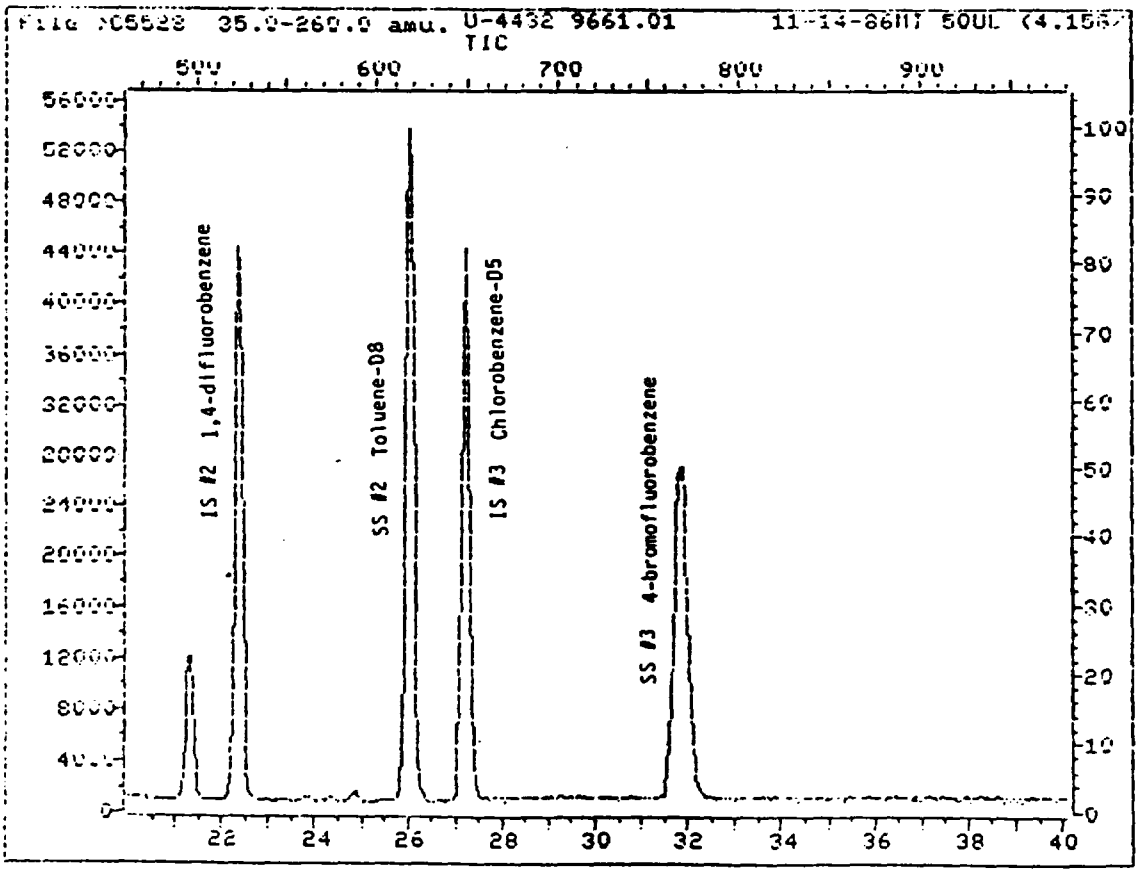


Data File: >C5528::D3
Name: U-4432 9661.01 DC-SD-23
Misc: 11-14-86MI 50UL (4.15G/10MLS) + [illegible]

Id File: VOAFP::D2
Title: VOA ID FILE FOR HP-5995 (CONT. [illegible]
Last Calibration: 861114 11:[illegible]

Operator ID: USER8
Quant Time: 861114 18:37
Injected at: 861114 17:56


File >C5528 35.0-260.0 amu. U-4432 9661.01 11-14-86HT 50UL (4.15
TIC
DC-SD-23
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5528 35.0-260.0 amu. U-4432 9661.01 11-14-86HT 50UL (4.15
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

Operator ID: [illegible] Quant Time: [illegible]
Output File: [illegible] Injected at: [illegible]
Data File: [illegible] Dilution Factor: 1.00
Name: U-4432 9661.01 DC-SD-23
Misc: 11-14-86MI 50UL (4.15G/10MLS) + 10UL [illegible]

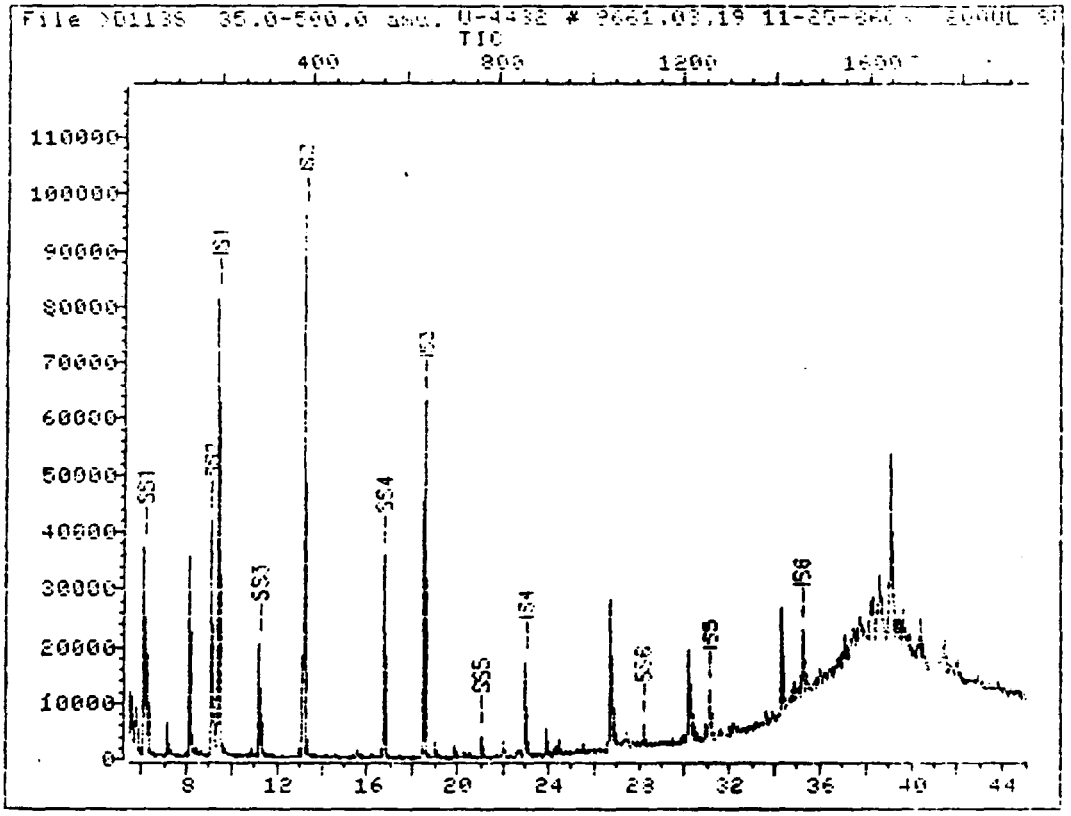
ID File: VOAER::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 11:38

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.79	251	39959	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.41	164	94838	41.73	UG/L	100
7)	ACETONE		43	9.42	190	9801	23.07	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.66	325	83390	46.58	UG/L	89
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.34	523	194902	50.00	UG/L	100
17)	2-BUTANONE		72	14.77	328	7403	33.68	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.18	640	146461	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.02	618	215434	48.50	UG/L	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.85	768	102972	47.22	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

DC-SD-23

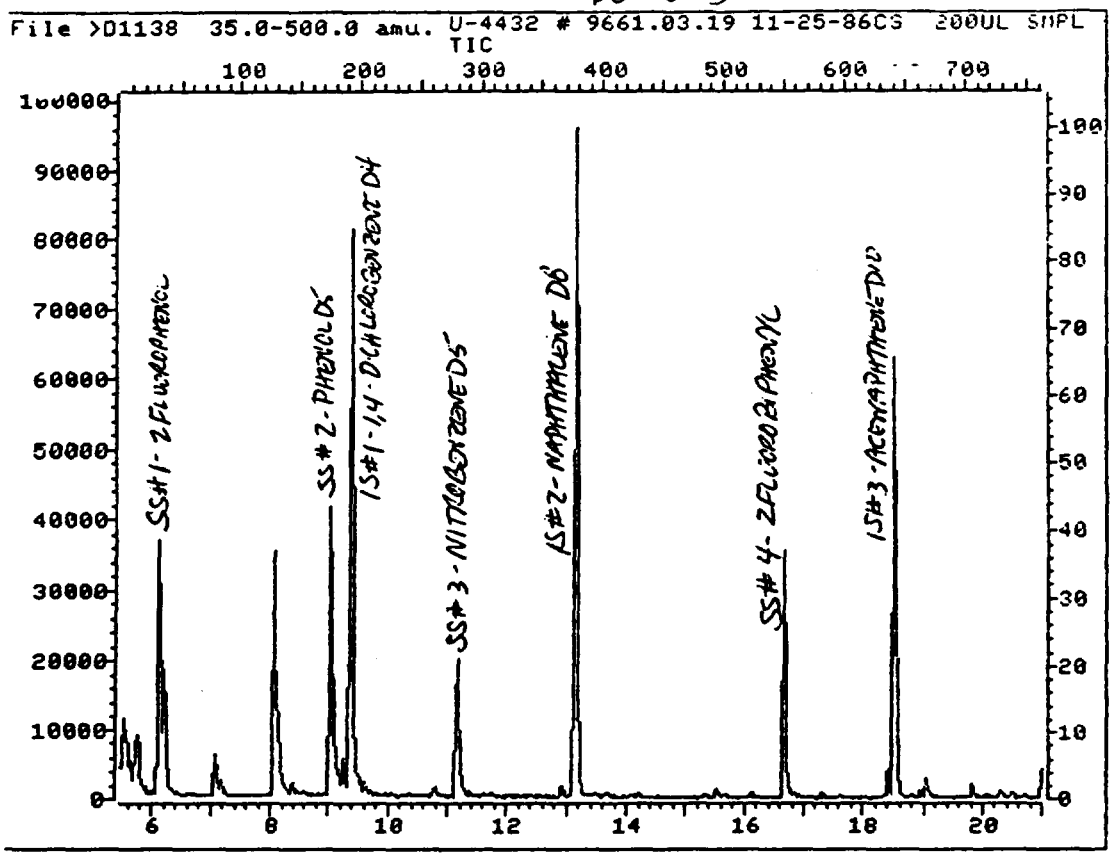


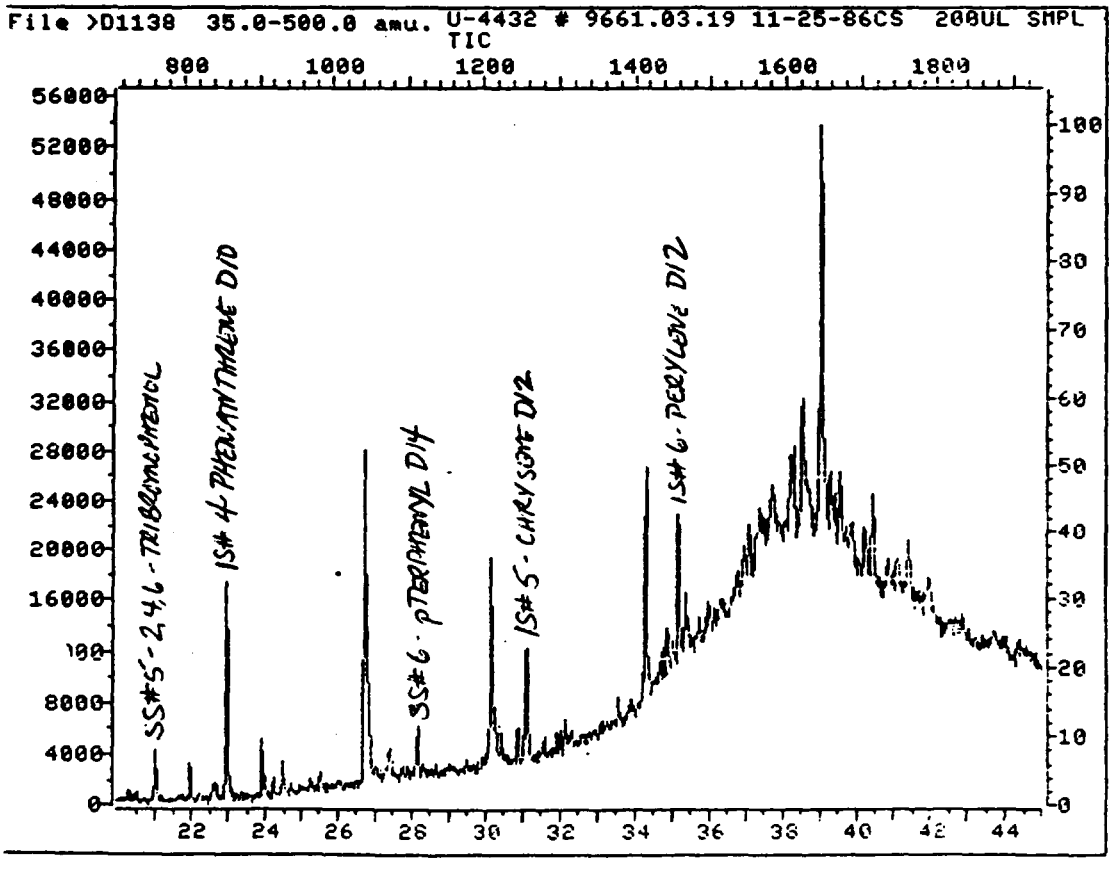
Data File: >D1138::D3
Name: U-4432 # 9661.03.19
Misc: 11-25-86CS 200UL SMPL + 200UL MECL2 + [illegible]

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861125 15:39

Operator ID: USER6
Quant Time: 861125 20:24
Injected at: 861125 19:36

DC-SD-23


File >D1138 35.0-500.0 amu. U-4432 # 9661.03.19 11-25-86CS 200UL SMPL
TIC
SS#1-2 FLUOROPHENOL
SS#2-PHENOL D5
IS#1-1,4-DICHLOROBENZENE D4
SS#3-NITROBENZENE D5
IS#2-NAPHTHALENE D8
SS#4-2FLUOROBIPHENYL
IS#3-ACENAPHTHENE D10


File >D1138 35.0-500.0 amu. U-4432 # 9661.03.19 11-25-86CS 200UL SMPL
TIC
SS#5-2,4,6-TRIBROMOPHENOL
IS#4-PHENANTHRENE D10
SS#6-pTERPHENYL D14
IS#5-CHRYSENE D12
IS#6-PERYLENE D12

[illegible]

[illegible]ator ID: USER6 Quant Par: [illegible] [illegible]
[illegible] File: [illegible]D1138::02 [illegible]
[illegible]a File: [illegible]D1138::03 Dilution Factor: [illegible]
[illegible]me: U-4432 # 9661.03.19 DC-SD-23
[illegible]sc: 11-25-86CS 200UL SMPL + 200UL HPWL2 + 50UL IS (2X) [illegible]

[illegible] File: BNAUR::02
[illegible]tle: BNA ID FILE FOR THE HP 5970 (B)
[illegible]st Calibration: 861125 15:39

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.37	192	43379	40.00	UG/L	89
)	PHENOL-D5	(SURR)	99	9.02	175	48042	63.00	UG/L	99
)	2-FLUOROPHENOL	(SURR)	112	6.11	32	31328	59.72	UG/L	98
)	PHENOL		94	9.06	177	4604	6.41	UG/L	79
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.10~~	[illegible]	[illegible]	[illegible]	UG/L	100
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.37~~	[illegible]	[illegible]	[illegible]	UG/L	100
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.37~~	[illegible]	[illegible]	[illegible]	UG/L	100
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.47~~	[illegible]	[illegible]	[illegible]	UG/L	100
)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.57~~	[illegible]	[illegible]	[illegible]	UG/L	100
)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.16~~	[illegible]	[illegible]	[illegible]	UG/L	93
)	*NAPHTHALENE-D8	(IS)	136	13.16	378	147003	40.00	UG/L	100
)	NITROBENZENE-D5	(SURR)	82	11.16	280	21613	34.12	UG/L	95
)	1,2,4-TRICHLOROBENZENE		180	13.10	375	950	1.41	UG/L	100
)	NAPHTHALENE		128	13.20	380	1905	1.12	UG/L	100
)	~~2-METHYLNAPHTHALENE~~		~~142~~	~~16.36~~	[illegible]	[illegible]	[illegible]	UG/L	95
)	~~2-METHYLNAPHTHALENE~~		~~142~~	~~16.[illegible]~~	[illegible]	[illegible]	[illegible]	UG/L	86
)	*ACENAPHTHENE-D10	(IS)	162	18.52	[illegible]	36232	40.00	UG/L	96
)	2-FLUOROBIPHENYL	(SURR)	172	16.48	551	40016	34.88	UG/L	93
)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.41~~	[illegible]	[illegible]	[illegible]	UG/L	100
)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.52~~	[illegible]	[illegible]	[illegible]	UG/L	100
)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.00	763	4003	[illegible]	UG/L	94
)	2,6-DINITROTOLUENE		165	18.52	[illegible]	6486	43.35	UG/L	100
)	*PHENANTHRENE-D10	(IS)	188	22.96	[illegible]	94303	40.00	UG/L	97
)	*CHRYSENE-D12	(IS)	240	31.99	1258	12263	40.00	UG/L	100
)	TERPHENYL-D14	(SURR)	244	28.16	1114	4426	38.94	UG/L	100
)	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.07~~	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
)	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.17~~	[illegible]	[illegible]	[illegible]	UG/L	77
)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.09	1307	855	7.32	UG/L	85
)	~~CHRYSENE~~		~~228~~	~~31.07~~	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
)	CHRYSENE		228	31.17	1262	1718	11.23	UG/L	79
)	*PERYLENE-D12	(IS)	264	35.15	1457	16661	40.00	UG/L	100
)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.[illegible]~~	[illegible]	[illegible]	[illegible]	UG/L	100
)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.42~~	[illegible]	[illegible]	[illegible]	UG/L	100
)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.[illegible]~~	[illegible]	[illegible]	[illegible]	UG/L	100
)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.[illegible]~~	[illegible]	[illegible]	[illegible]	UG/L	100
)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.[illegible]~~	[illegible]	[illegible]	[illegible]	UG/L	100
)	BENZO(B)FLUORANTHENE		252	34.19	1410	4916	[illegible]	UG/L	100
)	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.19~~	[illegible]	[illegible]	[illegible]	UG/L	100
)	~~BENZO(A)PYRENE~~		~~252~~	~~35.[illegible]~~	[illegible]	[illegible]	[illegible]	UG/L	100
)	BENZO(A)PYRENE		252	35.01	1450	2149	18.45	UG/L	100
)	~~BENZO(A)PYRENE~~		~~252~~	~~36.[illegible]~~	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
)	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~37.78~~	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
)	INDENO(1,2,3-CD)PYRENE		276	37.78	1914	[illegible]	[illegible]	UG/L	100
)	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~38.[illegible]~~	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
)	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~38.[illegible]~~	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
)	~~DIBENZ(A,H)ANTHRACENE~~		~~278~~	~~27.[illegible]~~	[illegible]	[illegible]	[illegible]	UG/L	[illegible]

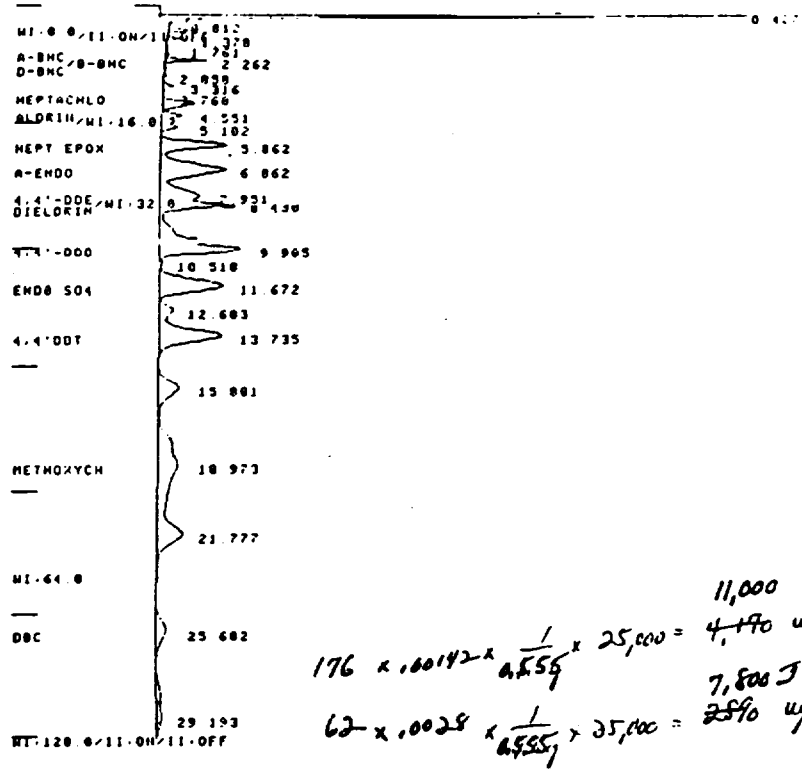
No GPC
No GPC
No GPC
No GPC
No GPC
No GPC
No GPC
Yes GPC
No GPC
No GPC
No GPC
No GPC
No GPC
No GPC
No GPC
No GPC
No GPC
No GPC
No GPC
No GPC
No GPC

0251

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
)	DIBENZ(A,H)ANTHRACENE	278	37.86	1599	1508	7.1[illegible]	UG/L	100
)	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~38.08~~	~~1606~~	~~516~~	~~2.23~~	~~UG/L~~	100
)	~~DIBENZ(A,H)ANTHRACENE~~	~~278~~	~~38.14~~	~~1603~~	~~886~~	~~4.00~~	~~UG/L~~	100
)	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.09~~	~~1600~~	~~179~~	~~.8~~	~~UG/L~~	100
)	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.14~~	~~1603~~	~~417~~	~~1.[illegible]~~	~~UG/L~~	100
)	BENZO(G,H,I)PERYLENE	276	38.31	1611	5085	18.60	UG/L	100
)	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.53~~	~~1620~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
)	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.62~~	~~1626~~	~~393~~	~~1.44~~	~~UG/L~~	100

Compound is ISTD

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



$176 \times .00142 \times \frac{1}{0.556} \times 25{,}000 =$ ~~4,170~~ 11,000 ug/kg 1354

$62 \times .0028 \times \frac{1}{0.555} \times 25{,}000 =$ ~~2590~~ 7,800 J ug/kg 1260

DC-SD-23

CHANNEL: 1A - 1 TITLE: RUN# 3 19:36 19 NOV 85

SAMPLE: 9661.03.19 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~B-BHC~~	56.6719	2.262	0.092	2[illegible]17	VB	5.00
2	~~HEPTACHLO~~	61.2489	4.061	0.271	5[illegible]556	VV	15.31
3	~~ALDRIN~~	26.6420	4.551	-0.119	3[illegible]467	VV	12.81
4		0.0000	~~5.102~~		~~2[illegible]~~	VV	? 10.[illegible]
5	~~HEPT EPOX~~	141.1671	5.862	0.192	16[illegible]789	VV	[illegible]
6	~~A-ENDO~~	239.2745	6.862	-0.168	25[illegible]	VV	[illegible]
7	~~4,4'-DDE~~	129.6491	7.951	-0.139	14[illegible]217	VV	? 35.50
8	~~DIELDRIN~~	171.5809	8.430	0.240 17	20[illegible]077	VV	22.44
9	~~4,4'-DDD~~	314.9169	9.905	-0.175	30[illegible]75	VV	23.38
10	~~ENDO SO4~~	341.1642	11.672	-0.238	26[illegible]200	VV	22.50
11		0.0000	12.603		5[illegible]868	VV	36.50
12	~~4,4'-DDT~~	445.7828	13.735	0.475	29[illegible]	VB	33.06
13	~~ENDO KETON~~	106.0438	15.081	0.611	12[illegible]	[illegible]	[illegible]81
14	~~METHOXYCH~~	876.9337	18.973	-0.517 62	3[illegible]958	[illegible]	146.56
15		0.0000	21.777		17[illegible]067	[illegible]	50.31
16	~~DBC~~	93.8899	25.602	-0.928	[illegible]3933	BV	63.56
17		0.0000	29.193		6[illegible]055	VB	?124.69

TOTALS: 3004.965 -0.403 2593793

DETECTED PKS: 34 REJECTED PKS: 17

DIVISOR: 1.50000 MULTIPLIER: 25000.0000

NOISE: 194.3 OFFSET: -14

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SAMSON
SECURE AREA: O JOB#:U-4432,U-4442
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4.0L INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: RAW SLY4G8

D254

SAMPLE NUMBER DC-SD-24

481095

Sample Number
DC-SD-24

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U 4442
Lab Sample ID No: 9662
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Slotowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc/Dil Factor: 2 pH 7.4

Percent Moisture: (Not Decanted) 39

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3200U
74-83-9	Bromomethane	3200U
75-01-4	Vinyl Chloride	3200U
75-00-3	Chloroethane	3200U
75-09-2	Methylene Chloride	17000B
67-64-1	Acetone	7300B
75-15-0	Carbon Disulfide	1600U
75-35-4	1, 1-Dichloroethene	1600U
75-34-3	1, 1-Dichloroethane	1600U
156-60-5	Trans-1, 2-Dichloroethene	1600U
67-66-3	Chloroform	1600U
107-06-2	1, 2-Dichloroethane	1600U
78-93-3	2-Butanone	12000B
71-55-6	1, 1, 1-Trichloroethane	1600U
56-23-5	Carbon Tetrachloride	1600U
108-05-4	Vinyl Acetate	3200U
75-27-4	Bromodichloromethane	1600U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1600U
10061-02-6	Trans-1, 3-Dichloropropene	1600U
79-01-6	Trichloroethene	1600U
124-48-1	Dibromochloromethane	1600U
79-00-5	1, 1, 2-Trichloroethane	1600U
71-43-2	Benzene	1600U
10061-01-5	cis-1, 3-Dichloropropene	1600U
110-75-8	2-Chloroethylvinylether	3200U
75-25-2	Bromoform	1600U
108-10-1	4-Methyl-2-Pentanone	3200U
591-78-6	2-Hexanone	3200U
127-18-4	Tetrachloroethene	1600U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1600U
108-88-3	Toluene	1600U
108-90-7	Chlorobenzene	1600U
100-41-4	Ethylbenzene	1600U
100-42-5	Styrene	1600U
	Total Xylenes	1600U

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4432/U-4442

Sample Number DC-SD-24

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 12-1-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 39

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	81	J
111-44-4	bis(-2-Chloroethyl)Ether	540	U
95-57-8	2-Chlorophenol	540	U
541-73-1	1, 3-Dichlorobenzene	540	U
106-46-7	1, 4-Dichlorobenzene	540	U
100-51-6	Benzyl Alcohol	540	U
95-50-1	1, 2-Dichlorobenzene	540	U
95-48-7	2-Methylphenol	540	U
39638-32-9	bis(2-chloroisopropyl)Ether	540	U
106-44-5	4-Methylphenol	540	U
621-64-7	N-Nitroso-Di-n-Propylamine	540	U
67-72-1	Hexachloroethane	540	U
98-95-3	Nitrobenzene	540	U
78-59-1	Isophorone	540	U
88-75-5	2-Nitrophenol	540	U
105-67-9	2, 4-Dimethylphenol	540	U
65-85-0	Benzoic Acid	2600	U
111-91-1	bis(-2-Chloroethoxy)Methane	540	U
120-83-2	2, 4-Dichlorophenol	540	U
120-82-1	1, 2, 4-Trichlorobenzene	64	J
91-20-3	Naphthalene	540	U
106-47-8	4-Chloroaniline	540	U
87-68-3	Hexachlorobutadiene	540	U
59-50-7	4-Chloro-3-Methylphenol	540	U
91-57-6	2-Methylnaphthalene	540	U
77-47-4	Hexachlorocyclopentadiene	540	U
88-06-2	2, 4, 6-Trichlorophenol	540	U
95-95-4	2, 4, 5-Trichlorophenol	2600	U
91-58-7	2-Chloronaphthalene	540	U
88-74-4	2-Nitroaniline	2600	U
131-11-3	Dimethyl Phthalate	540	U
208-96-8	Acenaphthylene	540	U
99-09-2	3-Nitroaniline	2600	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	540	U
51-28-5	2, 4-Dinitrophenol	2600	U
100-02-7	4-Nitrophenol	2600	U
132-64-9	Dibenzofuran	540	U
121-14-2	2, 4-Dinitrotoluene	540	U
606-20-2	2, 6-Dinitrotoluene	540	U
84-66-2	Diethylphthalate	540	U
7005-72-3	4-Chlorophenyl-phenylether	540	U
86-73-7	Fluorene	540	U
100-01-6	4-Nitroaniline	2600	U
534-52-1	4, 6-Dinitro-2-Methylphenol	2600	U
86-30-6	N-Nitrosodiphenylamine (1)	540	U
101-55-3	4-Bromophenyl-phenylether	540	U
118-74-1	Hexachlorobenzene	540	U
87-86-5	Pentachlorophenol	2600	U
85-01-8	Phenanthrene	220	J
120-12-7	Anthracene	540	U
84-74-2	Di-n-Butylphthalate	120	J
206-44-0	Fluoranthene	370	J
129-00-0	Pyrene	290	J
85-68-7	Butylbenzylphthalate	540	U
91-94-1	3, 3'-Dichlorobenzidine	1100	U
56-55-3	Benzo(a)Anthracene	230	J
117-81-7	bis(2-Ethylhexyl)Phthalate	540	U
218-01-9	Chrysene	300	J
117-84-0	Di-n-Octyl Phthalate	540	U
205-99-2	Benzo(b)Fluoranthene	1000	
207-08-9	Benzo(k)Fluoranthene	540	U
50-32-8	Benzo(a)Pyrene	350	J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	530	J
53-70-3	Dibenz(a, h)Anthracene	110	J
191-24-2	Benzo(g, h, i)Perylene	470	J

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number DC-SD-24

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-12-86

Date Analyzed: 11-19-86

Conc/Dil Factor: 10

Percent Moisture (decanted) 39

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
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	1,600 J
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 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

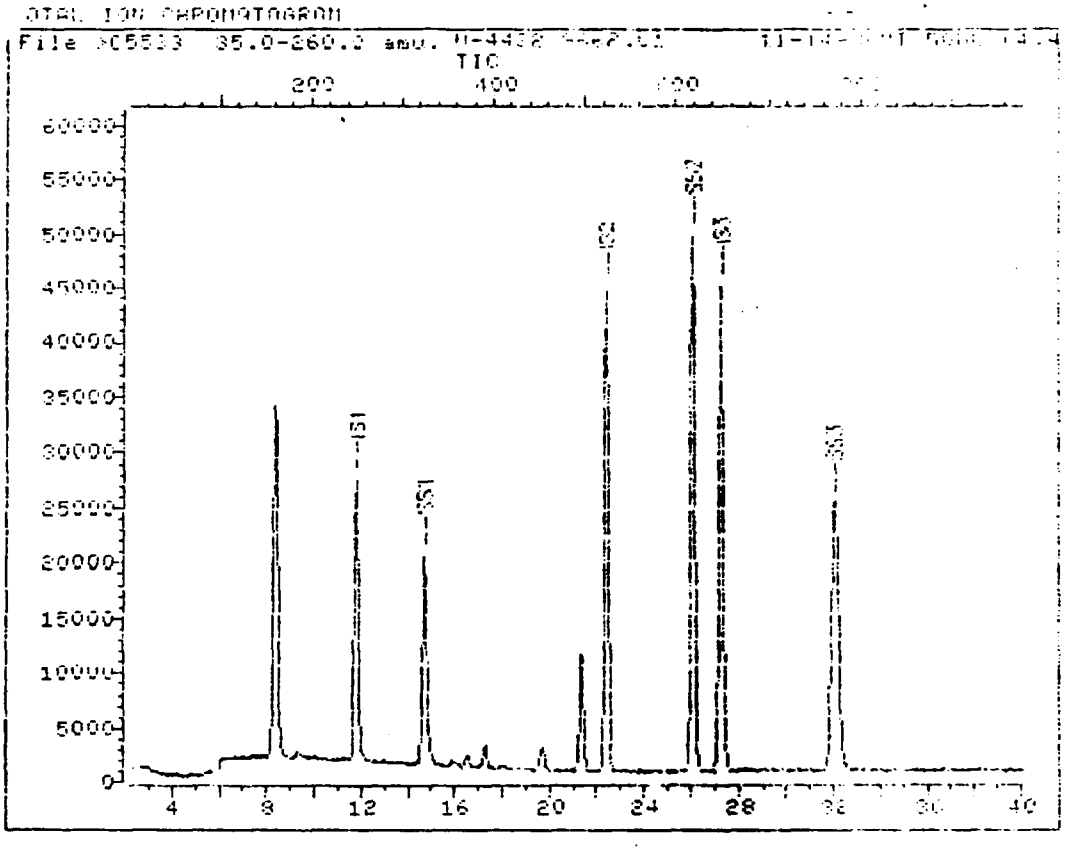
Case No u-4432 / u-4442

Sample Number DC-SD-24

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

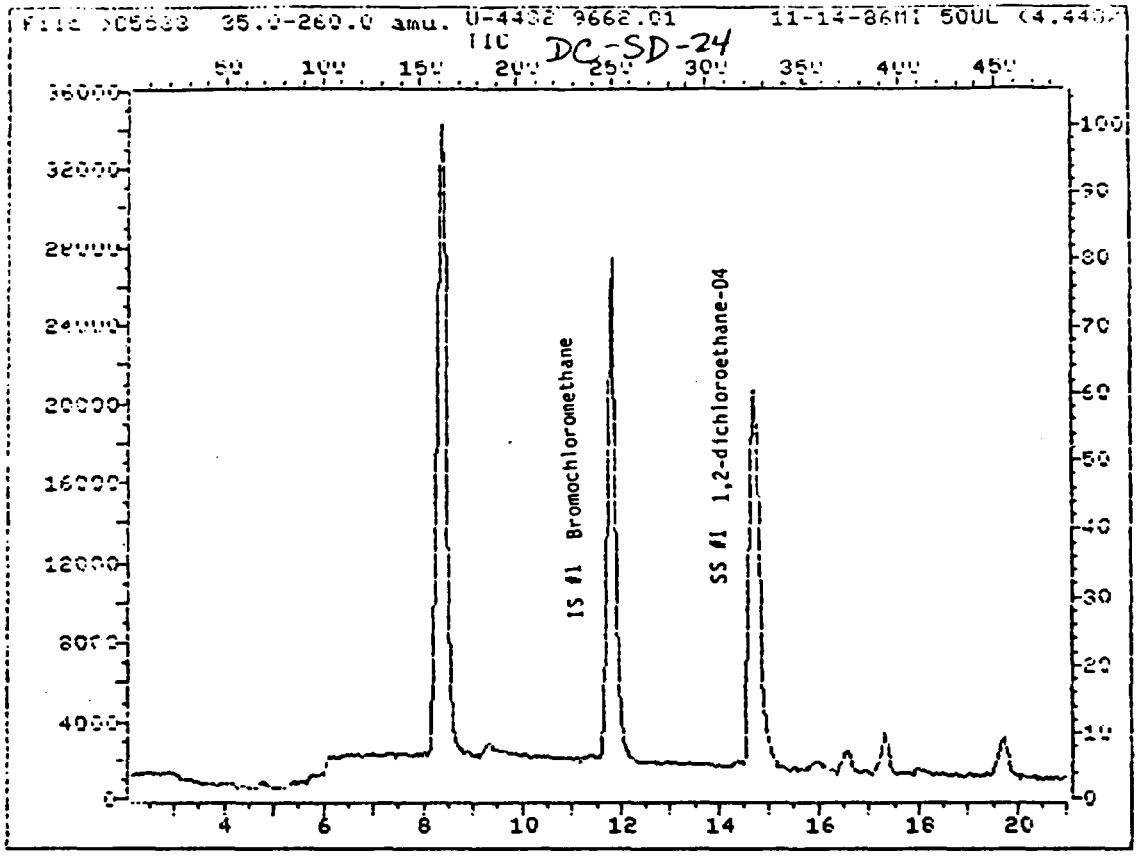
CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.3 min	710 BJ
2.	Unknown Ketone	VOA	19.7 min	490 BJ
3.	Hexane isomer	VOA	21.4 min	2300 BJ
4.				
5.	UNKNOWN HYDROCARBON	BNA	8.6	5700 J
6.	UNKNOWN		19.8	290 J
7.	UNKNOWN		20.5	200 J
8.	UNKNOWN		21.0	180 J
9.	UNKNOWN HYDROCARBON		27.6	1200 BJ
10.	UNKNOWN		30.8	4300 BJ
11.	UNKNOWN		35.0	1800 BJ
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

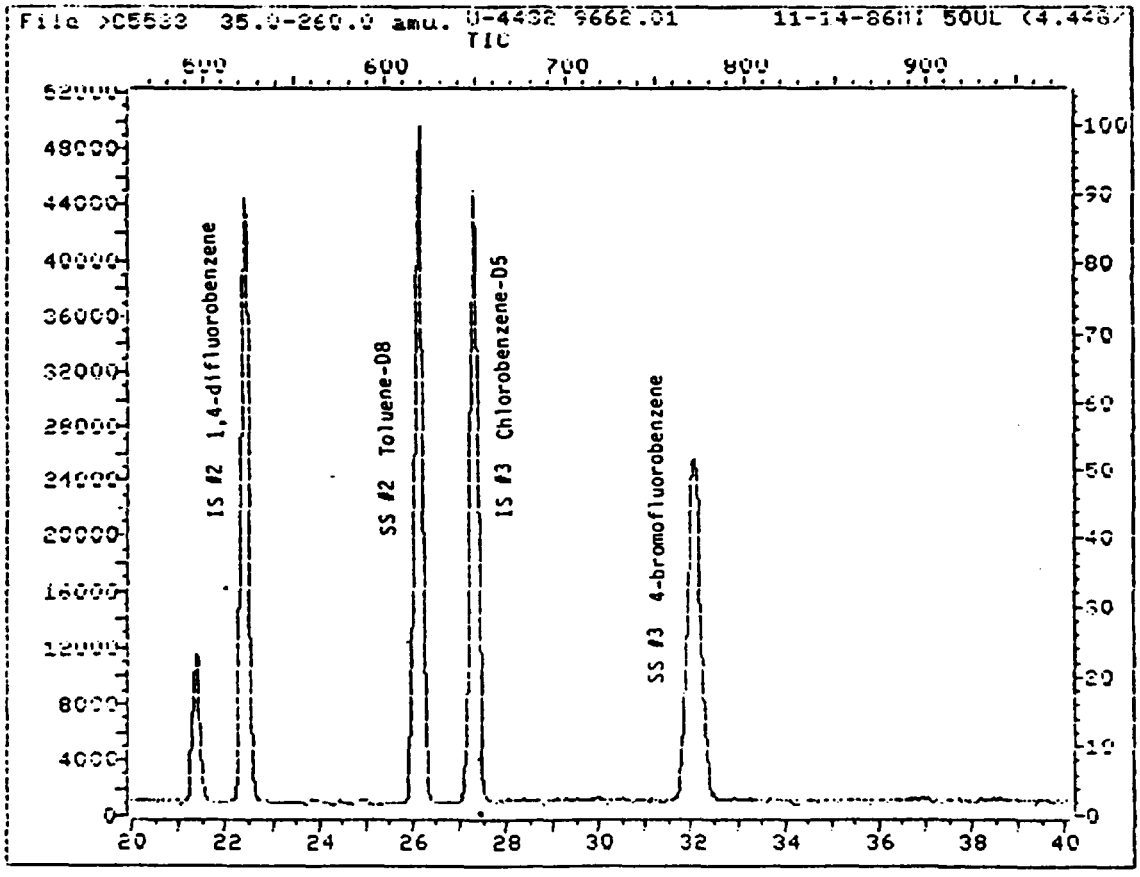


Data File: >C5533::D3
Name: U-4432 9662.01 DC-SD-24
Misc: 11-14-86M1 50UL (4.44G/100ULS MEOH) + 10UL IS [illegible]

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. [illegible]
Last Calibration: 861114 21:2[illegible]

Operator ID: USER8
Quant Time: 861114 23:03
Injected at: 861114 22:22


File >C5533 35.0-260.0 amu. U-4432 9662.01 11-14-86HI 50UL (4.448)
TIC
DC-SD-24
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5533 35.0-260.0 amu. U-4432 9662.01 11-14-86HI 50UL (4.448)
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

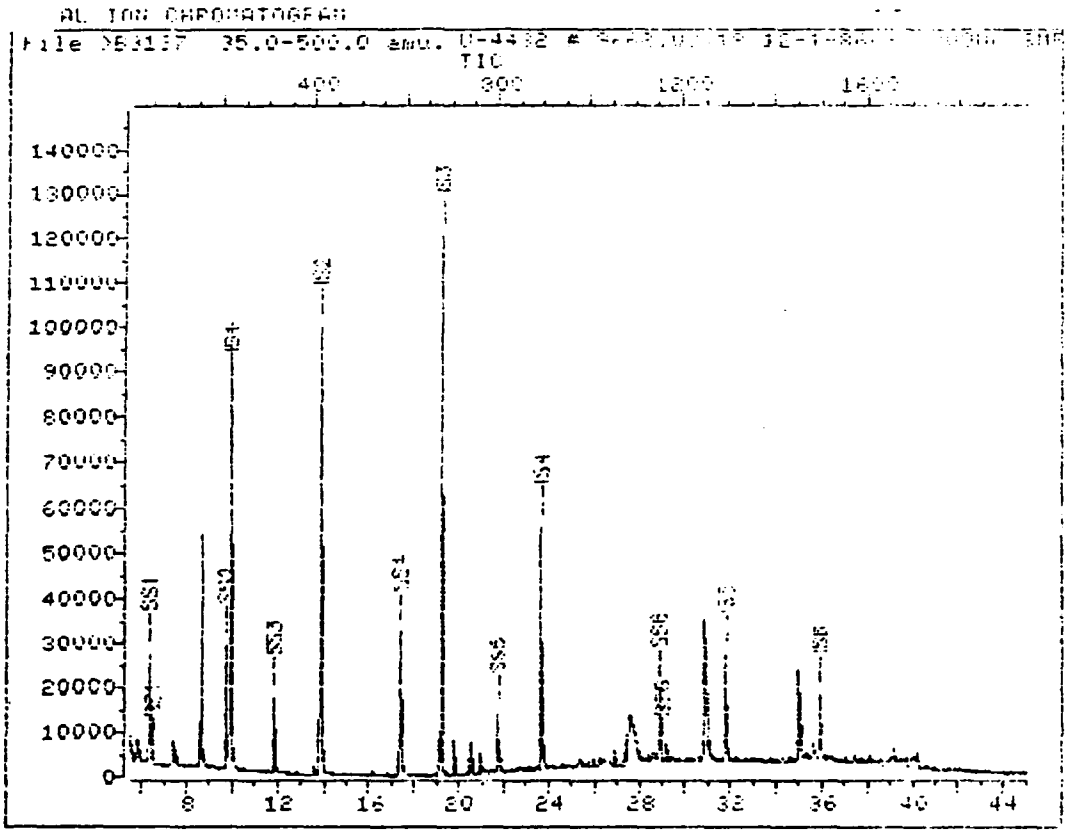
[illegible]

Operator ID: USER8 Quant Rev: [illegible] Quant Time: 861114 22:05
Output File: >D5533::D2 Injected at: 861114 22:22
Data File: >D5533::D3 Dilution Factor: 1.00
Name: U-4432 9662.01 DC-SD 24
Misc: 11-14-86M1 50UL (4.44G/10MLS MEOH) + [illegible] 15/55

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CURR. CAL.)
Last Calibration: 861114 21:27

	Compound		m/e	R.T.	Scans	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.81	[illegible]	41097	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.36	161	89999	46.10	UG/L	100
7)	ACETONE		43	9.29	185	5552	19.73	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.68	574	82580	47.93	UG/L	89
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.40	574	193870	50.00	UG/L	100
17)	2-BUTANONE		72	14.84	578	4860	53.17	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.30	649	146145	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.12	619	201176	47.97	UG/L	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.03	[illegible]	97548	47.80	UG/L	100

* Compound is ISTD

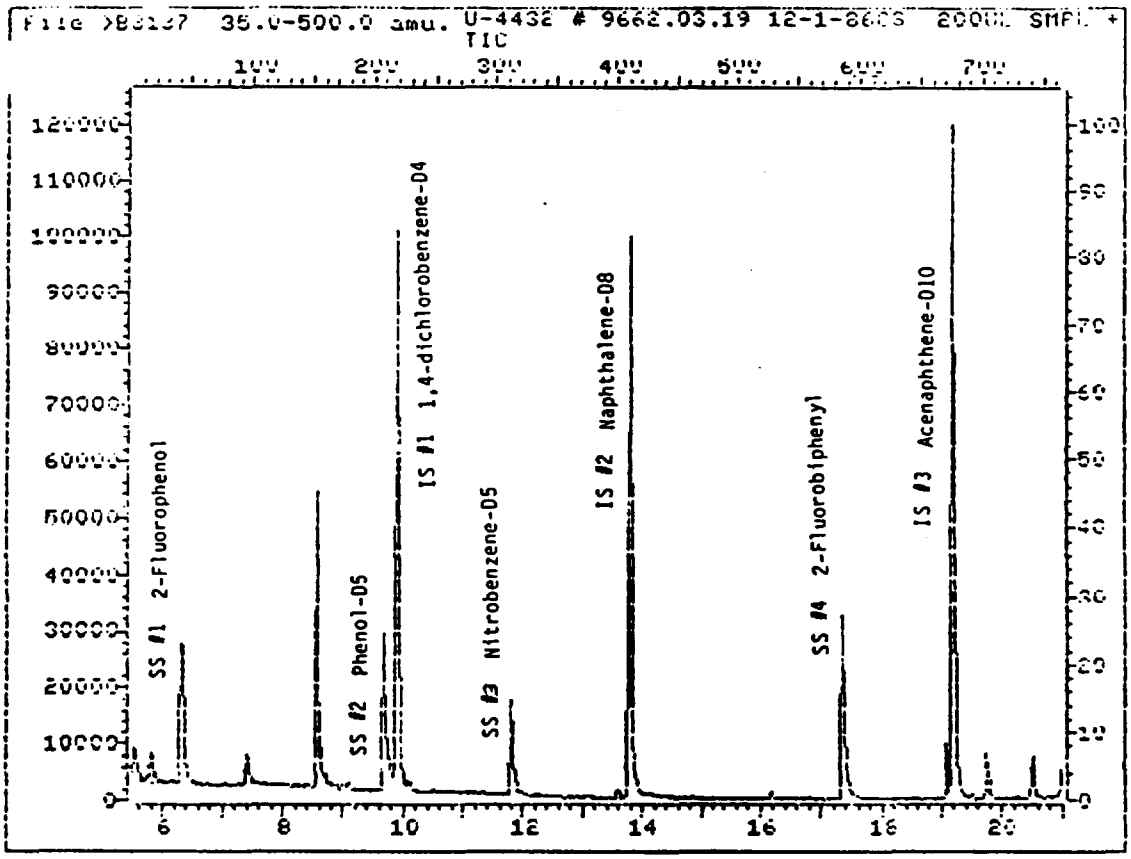


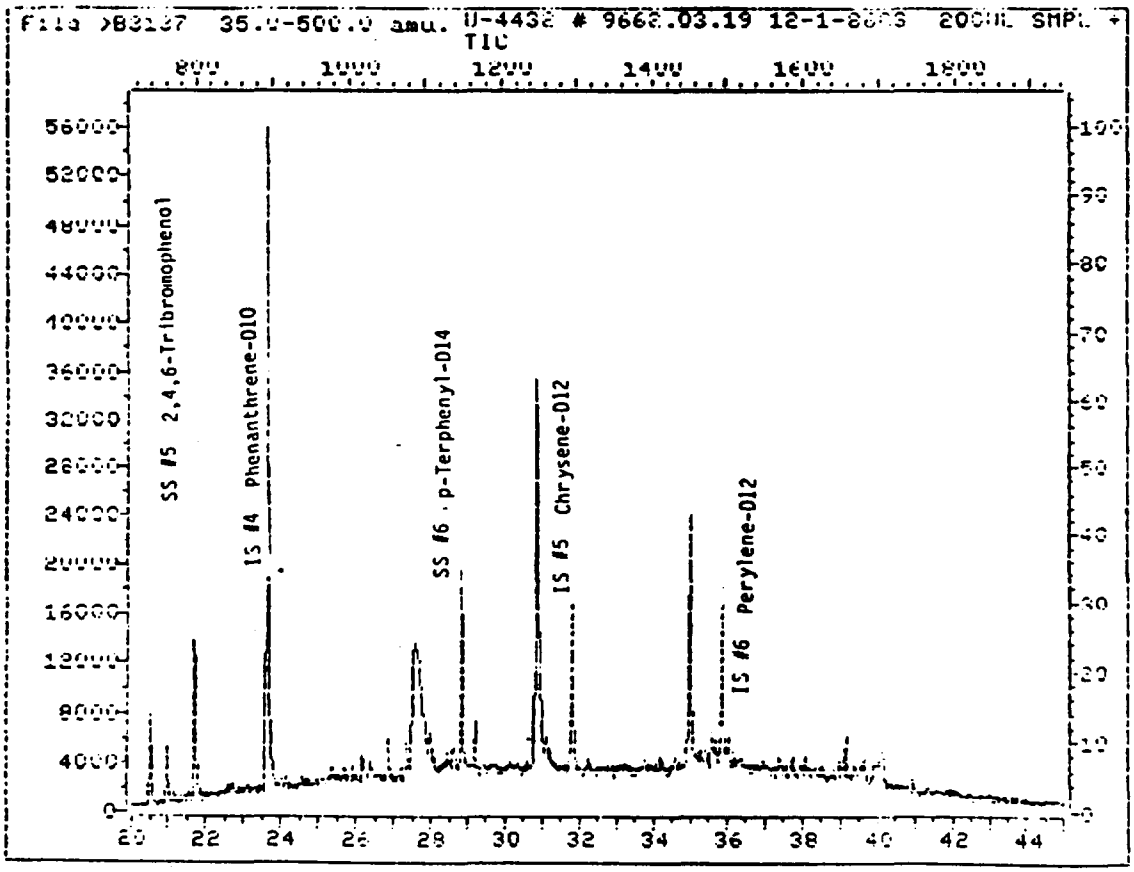
Data File: >B3137::D4
Name: U-4432 # 9662.03.19 DC-SD-24
Misc: 12-1-86CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 13:31

Operator ID: USER6
Quant Time: 861201 16:26
Injected at: 861201 13:41

DC-SD-24


File >B3137 35.0-500.0 amu. U-4432 # 9662.03.19 12-1-8603 200ML SMPL +
TIC
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


File >B3137 35.0-500.0 amu. U-4432 # 9662.03.19 12-1-8603 200ML SMPL +
TIC
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

perator ID: USER6 Quant Rev: 4 Quant Time: 861201 16:26
utput File: ^B3137::Q2 Injected at: 861201 17:41
ata File: >B3137::D4 Dilution Factor: 1.00
ame: U-4432 # 9662.03.19 DC-SD-24
isc: 12-1-86CS 200UL SMPL + 200UL MEOH + 40UL IS (200)

D File: BNABR::D2
itle: BNA ID FILE FOR THE HP 5970 (R)
ast Calibration: 861201 13:31

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	%
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.89	211	48696	40.00	UG/L	90
2)	PHENOL-D5	(SURR)	99	9.67	207	56764	52.90	UG/L	91
5)	2-FLUOROPHENOL	(SURR)	112	6.31	42	200974	62.73	UG/L	96
5)	2-FLUOROPHENOL	(SURR)	112	6.48	50	2276	5.00	UG/L	61
6)	PHENOL		94	9.73	219	946	1.48	UG/L	71
~~1)~~	~~1,2-DICHLOROBENZENE~~		~~146~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~99~~
~~2)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~3)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~5)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~80~~
9)	*NAPHTHALENE-D8	(IS)	136	13.79	410	162193	40.00	UG/L	100
0)	NITROBENZENE-D5	(SURR)	82	11.80	312	21048	31.55	UG/L	96
8)	1,2,4-TRICHLOROBENZENE		180	13.[illegible]5	408	976	1.18	UG/L	100
~~[illegible])~~	~~NAPHTHALENE~~		~~128~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
4)	*ACENAPHTHENE-D10	(IS)	162	19.20	676	21518	40.00	UG/L	98
8)	2-FLUOROBIPHENYL	(SURR)	172	17.35	585	50213	36.59	UG/L	94
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
~~2)~~	~~ACENAPHTHENE~~		~~153~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
8)	2,4,6-TRIBROMOPHENOL	(SURR)	330	11.70	299	8626	38.51	UG/L	99
~~[illegible])~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
~~[illegible])~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
5)	*PHENANTHRENE-D10	(IS)	188	23.64	894	81584	40.00	UG/L	94
1)	PHENANTHRENE		178	23.[illegible]0	894	4[illegible]	4.13	UG/L	90
~~[illegible])~~	~~ANTHRACENE~~		~~178~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
3)	DI-N-BUTYLPHTHALATE		149	26.20	1[illegible]0	2[illegible]	1.14	UG/L	[illegible]
4)	FLUORANTHENE		202	27.36	10[illegible]	4[illegible]	6.71	UG/L	98
5)	*CHRYSENE-D12	(IS)	240	31.[illegible]	1[illegible]	20[illegible]	40.00	UG/L	100
7)	PYRENE		202	27.99	1[illegible]	4[illegible]	5.[illegible]	UG/L	[illegible]
8)	TERPHENYL-D14	(SURR)	244	29.84	1[illegible]	15[illegible]	40.[illegible]	UG/L	[illegible]
~~[illegible])~~	~~TERPHENYL-D14~~	(SURR)	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
1)	BENZO(A)ANTHRACENE		228	31.[illegible]	1[illegible]	1[illegible]	4.[illegible]	UG/L	[illegible]
~~[illegible])~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
~~[illegible])~~	~~CHRYSENE~~		~~228~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
3	CHRYSENE		228	31.86	1[illegible]	[illegible]	5.4[illegible]	UG/L	[illegible]
4.	PERYLENE-D12	(IS)	264	35.[illegible]	1[illegible]	[illegible]	40.[illegible]	UG/L	[illegible]
~~[illegible])~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
~~[illegible])~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
~~[illegible])~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~
6)	BENZO(B)FLUORANTHENE		252	40.[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
~~[illegible])~~	~~BENZO(B)FLUORANTHENE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~
~~[illegible])~~	~~BENZO(K)FLUORANTHENE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~

No Eff

No Eff

No Eff

No Eff

No Eff

No Eff

No Eff

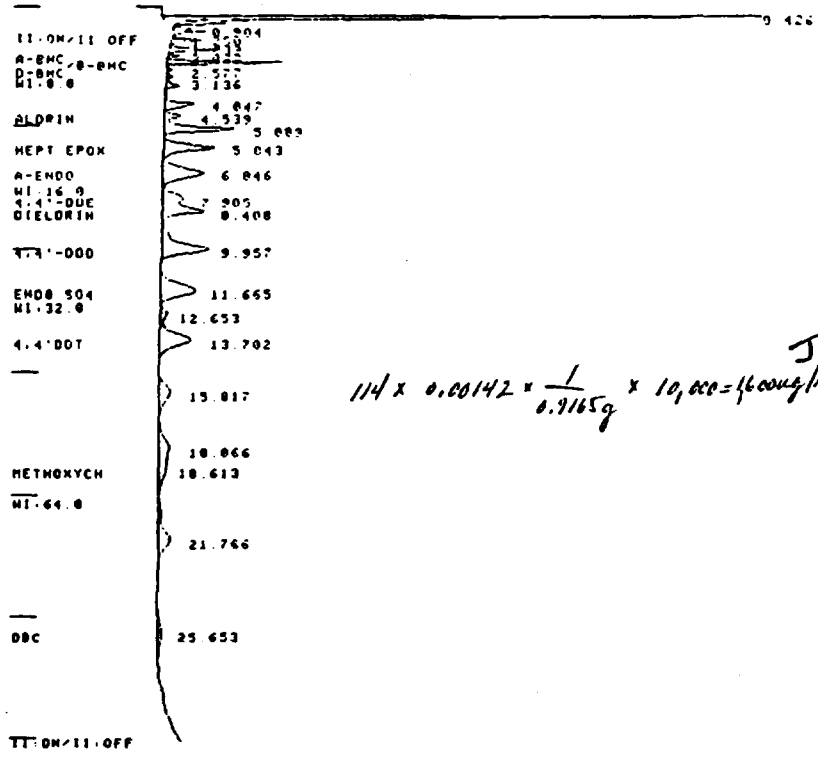
No

264

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	Q
8)	BENZO(A)PYRENE	252	35.74	1487	1866	[illegible]	UG/L	100
~~9)~~	~~BENZO(A)PYRENE~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~ No Ref	100
9)	INDENO(1,2,3-CD)PYRENE	276	38.53	1626	18[illegible]	9.66	UG/L	100
0)	DIBENZ(A,H)ANTHRACENE	278	38.61	1630	451	1.98	UG/L	100
~~1)~~	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~38.63~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~ No Ref	100
1)	BENZO(G,H,I)PERYLENE	276	39.06	1652	2175	8.59	UG/L	100

* Compound is ISTD

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



114 x 0.00142 x 1/0.9165g x 10,000 = 1600ug/kg 1254

DC-SD-24

CHANNEL: 1A - 1 TITLE: RUN#34 20:10 19 NOV 86

SAMPLE: 9662.03.19 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	1.758		33246	VV	3.94
2	~~B-BHC~~	63.5949	2.259	0.089	73683	VB	5.06
3	~~HEPTACHLO~~	22.5124	4.047	0.257	95001	BV	15.13
4	~~ALDRIN~~	7.9053	4.539	-0.131	34099	VV	10.88
5		0.0000	5.089		113484	VB	10.63
6	~~HEPT EPOX~~	43.9759	5.043	0.173	125000	BV	? 18.31
7	~~A-ENDO~~	55.2252	6.846	-0.184	148671	VV	? 25.[illegible]
8	~~4,4'-DDE~~	25.1342	7.905	-0.185	60896	VV	25.[illegible]
9	~~DIELDRIN~~	39.0271	8.408	0.218	115421	VV	20.00
10	~~4,4'-DDD~~	60.1581	9.957	-0.203	160798	VV	22.38
11	~~ENDO SO4~~	77.5350	11.665	-0.245	151291	BV	32.56
12		0.0000	12.653		27400	BV	29.56
13	~~4,4'DDT~~	91.1227	13.702	0.442	141946	VB	32.31
14	~~ENDO KETON~~	24.7713	15.817	0.547	70082	BV	45.31
15		0.0000	18.066		77602	VV	? 54.50
16	~~METHOXYCH~~	56.0100	18.613	-0.877	53309	VV	? 98.69
17		0.0000	21.766		49135	VB	48.00
18	~~DDC~~	16.1494	25.653	-0.957	36092	BB	67.31
TOTALS:		591.1215		-1.056	1534156		

114

1254

DETECTED PKS: 37 REJECTED PKS: 19

DIVISOR: 1.50000 MULTIPLIER: 10000.0000

NOISE: 217.1 OFFSET: -3

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SAMSON
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 6000x2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

SAMPLE NUMBER DC-SD-25

481095

Sample Number
DC-SD-25

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U 4442
Lab Sample ID No: 9663
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Sojtowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc/Dil Factor: 2 pH 7.1

Percent Moisture: (Not Decanted) 52

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	4400u
74-83-9	Bromomethane	4400u
75-01-4	Vinyl Chloride	4400u
75-00-3	Chloroethane	4400u
75-09-2	Methylene Chloride	23000 B
67-64-1	Acetone	18000 B
75-15-0	Carbon Disulfide	2200u
75-35-4	1, 1-Dichloroethene	2200u
75-34-3	1, 1-Dichloroethane	2200u
156-60-5	Trans-1, 2-Dichloroethene	2200u
67-66-3	Chloroform	2200u
107-06-2	1, 2-Dichloroethane	2200u
78-93-3	2-Butanone	21000 B
71-55-6	1, 1, 1-Trichloroethane	2200u
56-23-5	Carbon Tetrachloride	2200u
108-05-4	Vinyl Acetate	4400u
75-27-4	Bromodichloromethane	2200u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2200u
10061-02-6	Trans-1, 3-Dichloropropene	2200u
79-01-6	Trichloroethene	2200u
124-48-1	Dibromochloromethane	2200u
79-00-5	1, 1, 2-Trichloroethane	2200u
71-43-2	Benzene	2200u
10061-01-5	cis-1, 3-Dichloropropene	2200u
110-75-8	2-Chloroethylvinylether	4400u
75-25-2	Bromoform	2200u
108-10-1	4-Methyl-2-Pentanone	4400u
591-78-6	2-Hexanone	4400u
127-18-4	Tetrachloroethene	2200u
79-34-5	1, 1, 2, 2-Tetrachloroethane	2200u
108-88-3	Toluene	2200u
108-90-7	Chlorobenzene	2200u
100-41-4	Ethylbenzene	2200u
100-42-5	Styrene	2200u
	Total Xylenes	2200u

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4432/U-4442

Sample Number DC-SD-25

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 12-1-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 52

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	690	U
111-44-4	bis(-2-Chloroethyl)Ether	690	U
95-57-8	2-Chlorophenol	690	U
541-73-1	1 3-Dichlorobenzene	690	U
106-46-7	1 4-Dichlorobenzene	690	U
100-51-6	Benzyl Alcohol	690	U
95-50-1	1 2-Dichlorobenzene	690	U
95-48-7	2-Methylphenol	690	U
39638-32-9	bis(2-chloroisopropyl)Ether	690	U
106-44-5	4-Methylphenol	690	U
621-64-7	N-Nitroso-Di-n-Propylamine	690	U
67-72-1	Hexachloroethane	690	U
98-95-3	Nitrobenzene	690	U
78-59-1	Isophorone	690	U
88-75-5	2-Nitrophenol	690	U
105-67-9	2 4-Dimethylphenol	690	U
65-85-0	Benzoic Acid	3300	U
111-91-1	bis(-2-Chloroethoxy)Methane	690	U
120-83-2	2 4-Dichlorophenol	690	U
120-82-1	1 2 4-Trichlorobenzene	690	U
91-20-3	Naphthalene	690	U
106-47-8	4-Chloroaniline	690	U
87-68-3	Hexachlorobutadiene	690	U
59-50-7	4-Chloro-3-Methylphenol	690	U
91-57-6	2-Methylnaphthalene	690	U
77-47-4	Hexachlorocyclopentadiene	690	U
88-06-2	2 4 6-Trichlorophenol	690	U
95-95-4	2 4 5-Trichlorophenol	2300	U
91-58-7	2-Chloronaphthalene	690	U
88-74-4	2-Nitroaniline	3300	U
131-11-3	Dimethyl Phthalate	690	U
[illegible]-96-8	Acenaphthylene	690	U
[illegible]-09-2	3-Nitroaniline	3300	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	690	U
51-28-5	2 4-Dinitrophenol	3300	U
100-02-7	4-Nitrophenol	3300	U
132-64-9	Dibenzofuran	690	U
121-14-2	2 4-Dinitrotoluene	690	U
606-20-2	2 6-Dinitrotoluene	690	U
84-66-2	Diethylphthalate	690	U
7005-72-3	4-Chlorophenyl-phenylether	690	U
86-73-7	Fluorene	690	U
100-01-6	4-Nitroaniline	3300	U
534-52-1	4 6-Dinitro-2-Methylphenol	3300	U
86-30-6	N-Nitrosodiphenylamine (1)	690	U
101-55-3	4-Bromophenyl-phenylether	690	U
118-74-1	Hexachlorobenzene	690	U
87-86-5	Pentachlorophenol	3300	U
85-01-8	Phenanthrene	690	U
120-12-7	Anthracene	690	U
84-74-2	Di-n-Butylphthalate	130	J
206-44-0	Fluoranthene	690	U
129-00-0	Pyrene	690	U
85-68-7	Butylbenzylphthalate	690	U
91-94-1	3 3-Dichlorobenzidine	1400	U
56-55-3	Benzo(a)Anthracene	690	U
117-81-7	bis(2-Ethylhexyl)Phthalate	690	U
218-01-9	Chrysene	690	U
117-84-0	Di-n-Octyl Phthalate	690	U
205-99-2	Benzo(b)Fluoranthene	690	U
207-08-9	Benzo(k)Fluoranthene	690	U
50-32-8	Benzo(a)Pyrene	690	U
193-39-5	Indeno(1 2 3-cd)Pyrene	690	U
53-70-3	Dibenz(a h)Anthracene	690	U
191-24-2	Benzo(g h i)Perylene	690	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number DC-SD-25

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor 25

Percent Moisture (decanted) 52

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	580
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 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

Case No u-4432 / u 4442

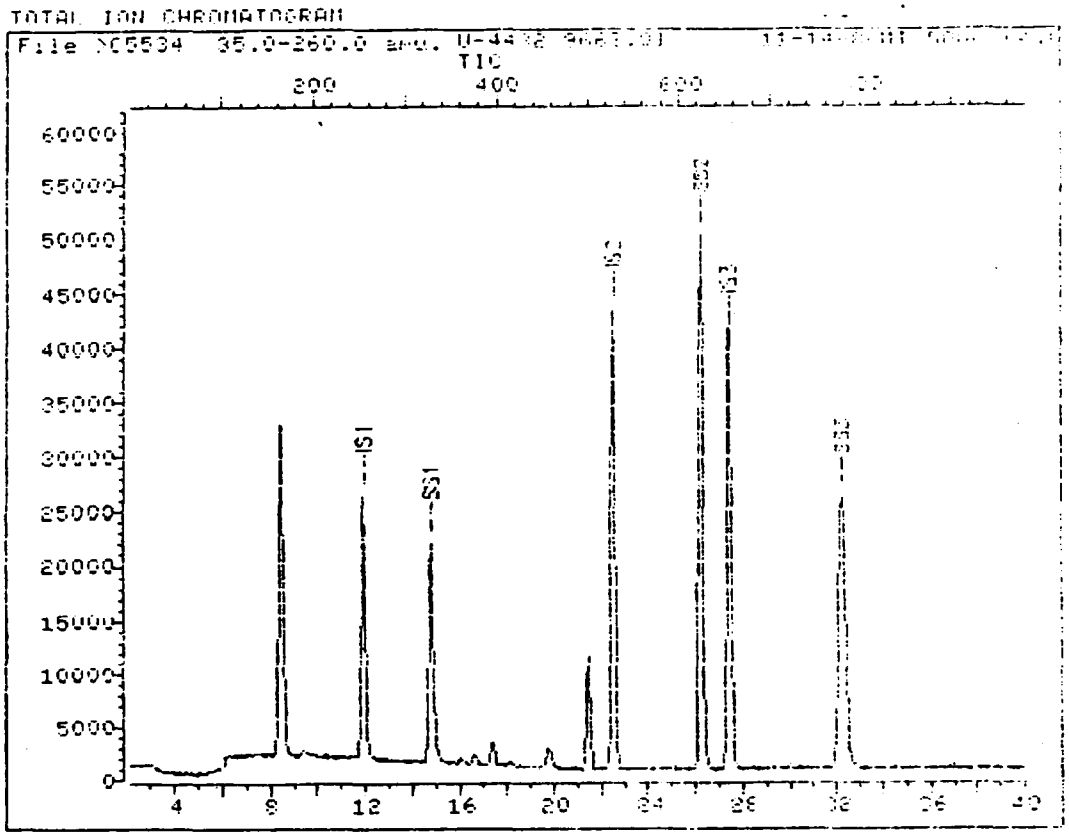
Sample Number DC-SD-25

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4 min	1000 BJ
2.	Unknown Ketone	VOA	19.7 min	630 BJ
3.	Hexane isomer	VOA	21.4 min	3200 BJ
4.				
5.	UNKNOWN	BNA	8.6	3600 J
6.	UNKNOWN HYDROCARBON	|	27.5	1700 BJ
7.	UNKNOWN	|	30.8	3500 BJ
8.	UNKNOWN	|	35.0	1400 BJ
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

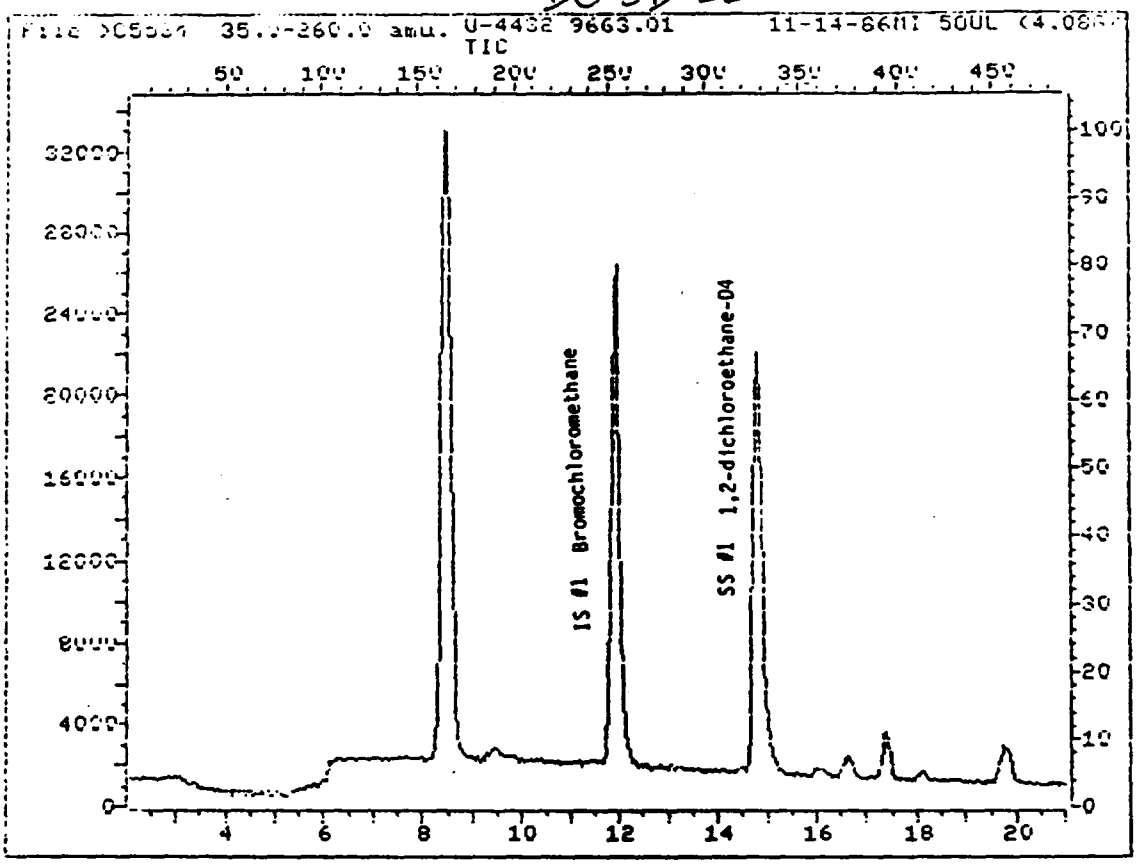


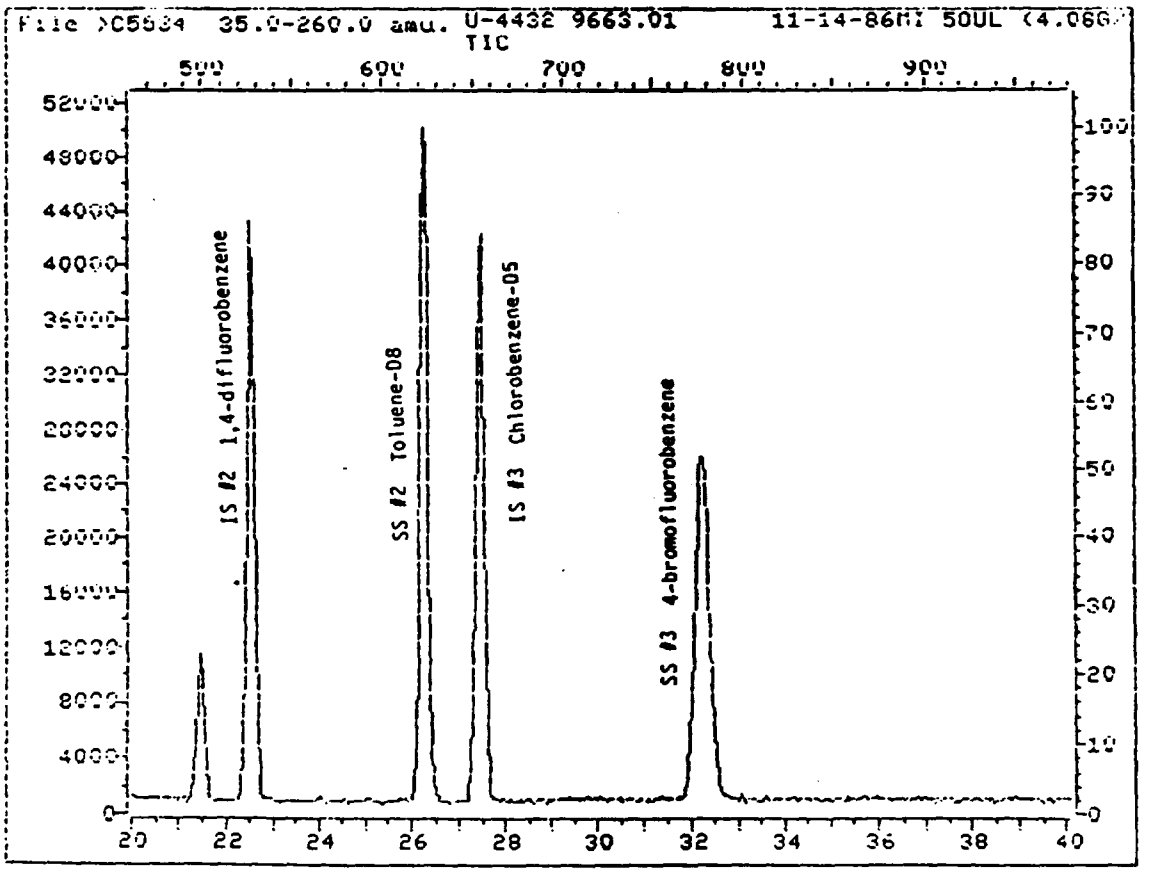
Data File: >C5534::D3
Name: U-4432 9663.01 DC-SD-25
Misc: 11-14-86MI 50UL (4.08G/10MLS) + [illegible]

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. [illegible]
Last Calibration: 861114 21:2[illegible]

Operator ID: USER8
Quant Time: 861114 23:53
Injected at: 861114 23:12

DC-SD-25


File >C5534 35.0-260.0 amu. U-4432 9663.01 11-14-86MI 50UL (4.06
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5534 35.0-260.0 amu. U-4432 9663.01 11-14-86MI 50UL (4.06
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

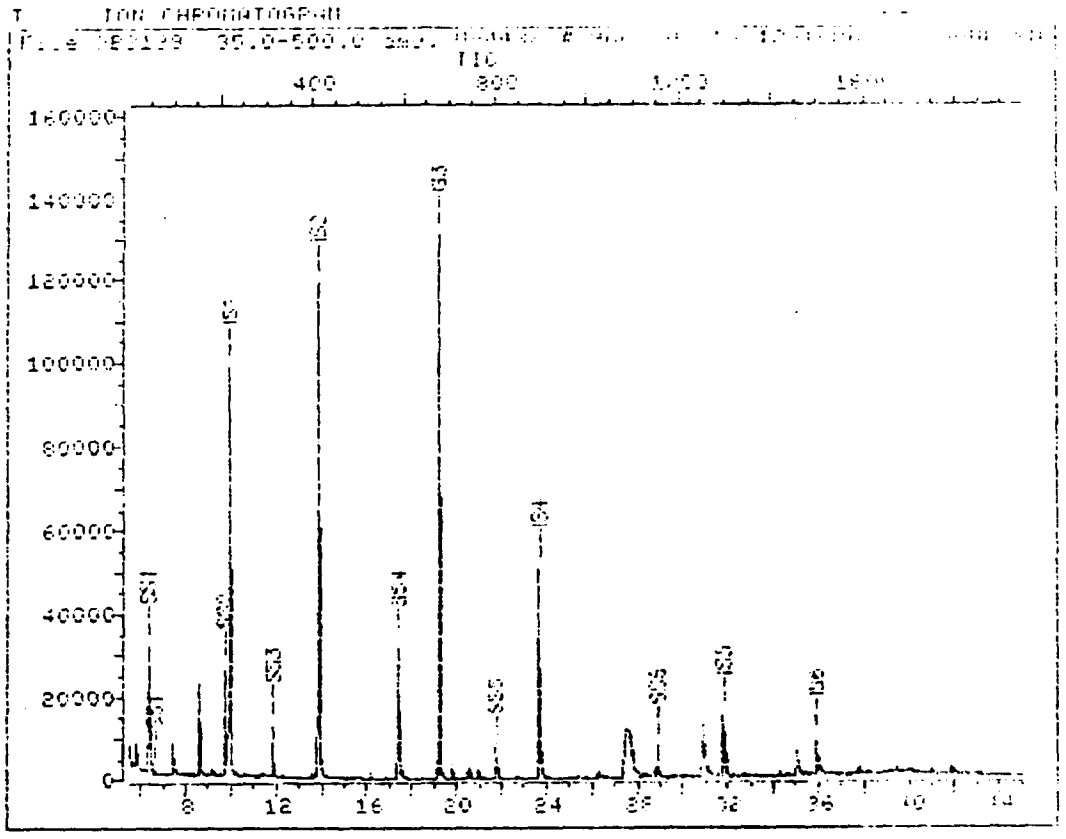
[illegible]

Operator ID: USER8 Quant Rev: [illegible] Quant Time: 861114 [illegible]
Output File: ^C5534::D2 Injected at: 861114 23:12
Data File: >C5534::D3 Dilution Factor: 1.00
Name: U-4432 9663.01 DC-SD-25
Misc: 11-14-86MI 5UUL (4.08G/10MLS) + 10UL [illegible]

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 21:27

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.93	254	40287	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.44	164	86880	45.42	UG/L	100
7)	ACETONE		43	9.41	189	9486	34.39	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.80	328	84073	49.78	UG/L	89
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.51	527	192220	50.00	UG/L	100
17)	2-BUTANONE		72	14.91	331	5844	40.23	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.41	653	143255	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.24	623	205146	49.91	UG/L	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.22	777	101850	49.85	UG/L	100

* Compound is ISTD

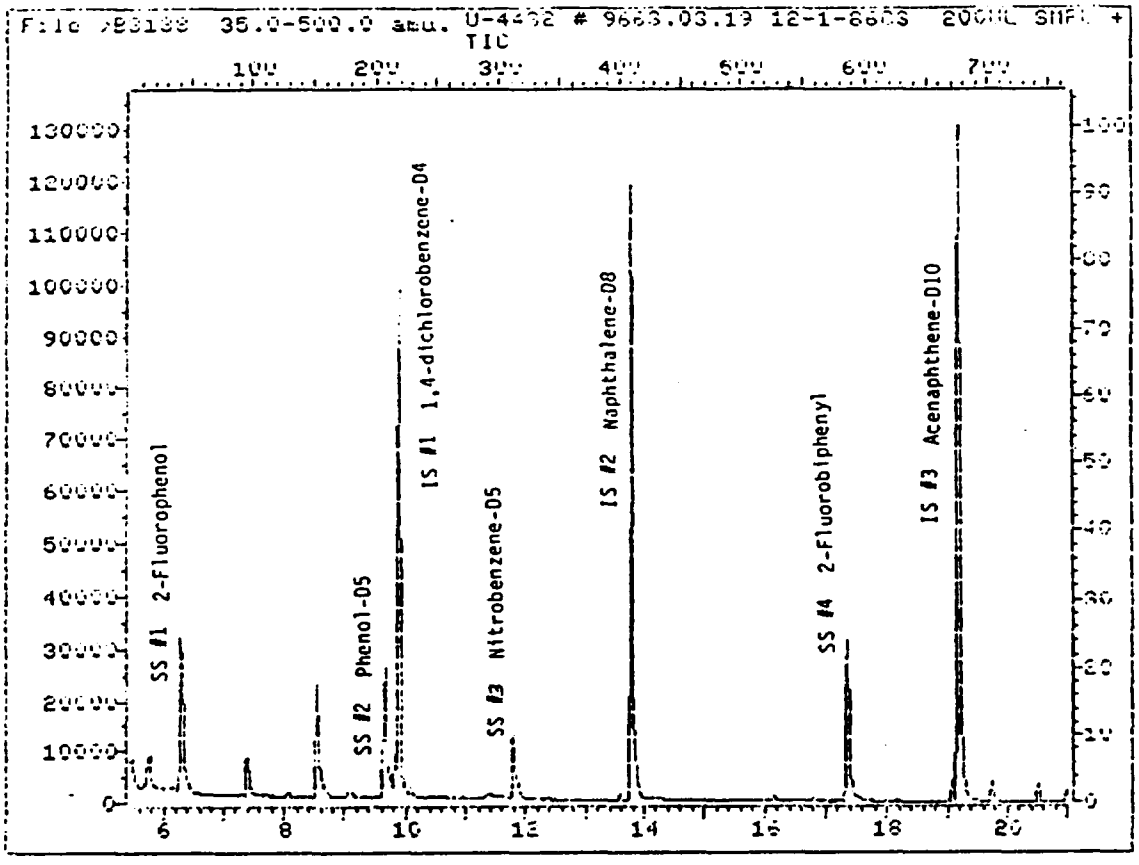


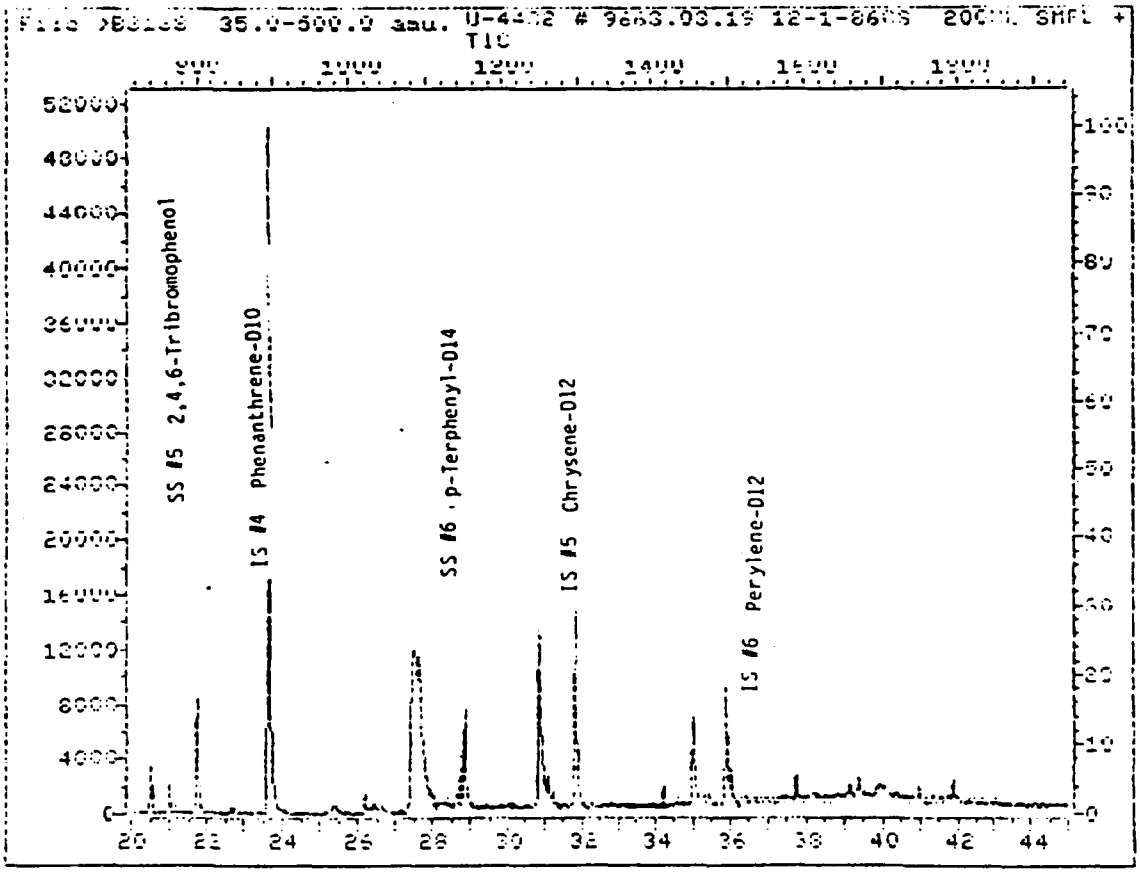
Data File: >01138::04
Name: U-4432 # 9663.03.19 DC-SD-25
Misc: 12-1-86CS 200UL SNPL

Id File: BNABR::02
Title: BNA ID FILE FOR THE HP
Last Calibration: 861201 13:31

Operator ID: USER6
Quant Time: 861201 16:30
Injected at: 861201 14:32

DC-SD-25


File >B3188 35.0-500.0 amu. U-4452 # 9663.03.19 12-1-86DS 200NL SMPL +
TIC
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


File >B3188 35.0-500.0 amu. U-4452 # 9663.03.19 12-1-86DS 200NL SMPL +
TIC
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

nerator ID: USER6 Quant Rev: 4 Quant Time: 861201 15:30
utput File: ^B3138::D2 Injected at: 861201 14:32
ata File: >B3138::D4 Dilution Factor: 2.00
ame: U-4432 # 9663.03.19 DC-SD-25
isc: 12-1-86CS 200UL SMPL + 200UL MECL2 + 40L IS (2X)

D File: BNABR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 861201 13:31

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.89	218	49478	40.00	UG/L	87
2)	PHENOL-D5	(SURR)	99	9.66	207	37054	50.02	UG/L	92
5)	2-FLUOROPHENOL	(SURR)	112	6.29	41	28684	63.09	UG/L	98
~~6)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	96
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.41~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.64~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~7)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~[illegible]~~	~~11.80~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	85
9)	*NAPHTHALENE-D8	(IS)	136	13.79	410	171086	40.00	UG/L	100
0)	NITROBENZENE-D5	(SURR)	82	11.80	312	17077	24.42	UG/L	97
4)	*ACENAPHTHENE-D10	(IS)	162	19.20	676	82245	40.00	UG/L	99
8)	2-FLUOROBIPHENYL	(SURR)	172	17.37	586	43405	2[illegible].50	UG/L	93
~~1)~~	~~DIMETHYL PHTHALATE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
3)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.70	799	6959	27.02	UG/L	93
~~1)~~	~~2,4-DINITROTOLUENE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~1)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
5)	*PHENANTHRENE-D10	(IS)	188	23.63	894	89319	40.00	UG/L	91
6)	DI-N-BUTYLPHTHALATE		149	26.21	1021	2700	[illegible].92	UG/L	99
5)	*CHRYSENE-D12	(IS)	240	31.80	1296	27210	40.00	UG/L	100
8)	TERPHENYL-D14	(SURR)	244	28.85	1151	11580	33.55	UG/L	100
4)	*PERYLENE-D12	(IS)	264	35.89	1497	18603	40.00	UG/L	100
~~7)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.[illegible]9~~	~~1[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100

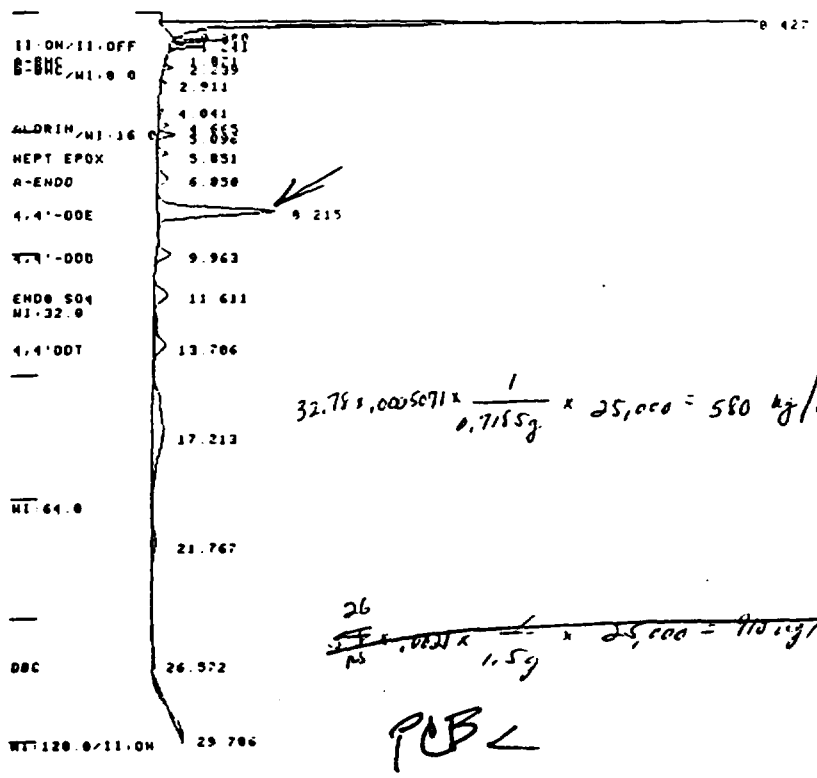
No GJR

No GJR

No GJR

* Compound is ISTD

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



$32.78 \times .0005071 \times \frac{1}{0.7155g} \times 25{,}000 = 580$ kg/kg DIELDRIN

~~26 ... × .0021 × 1/1.5g × 25,000 = 910 ug/kg 1254~~ NO

PCB <

DC-SD-25

CHANNEL: 1A - 1 TITLE: RUN#3 20:46 19 NOV 86

SAMPLE: 9663.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG WET	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.402		22491	VV	3.31
2	~~ALDRIN~~	18.5650	4.565	-0.005	22638	VV	15.06
3		0.0000	5.096		22337	VV	10.94
4	~~HEPT EPOX~~	21.0186	5.851	0.181	24089	VV	17.06
5	~~A-ENDO~~	35.3360	6.850	-0.180	38051	VV	28.31
6	DIELDRIN	277.0897	9.215	0.025	34762	VB	20.13
7	~~4,4'-DDD~~	40.7687	9.963	-0.197	38951	BB	19.75
8	~~ENDO SO4~~	69.6383	11.611	-0.299	54353	BB	31.56
9	~~4,4'DDT~~	109.4037	13.706	0.446	69510	BB	33.13
10		0.0000	17.213		214080	BB	7143.81
11		0.0000	21.767		37905	BB	50.81

TOTALS: 571.8200 -0.029 877297

DETECTED PKS: 26 REJECTED PKS: 15

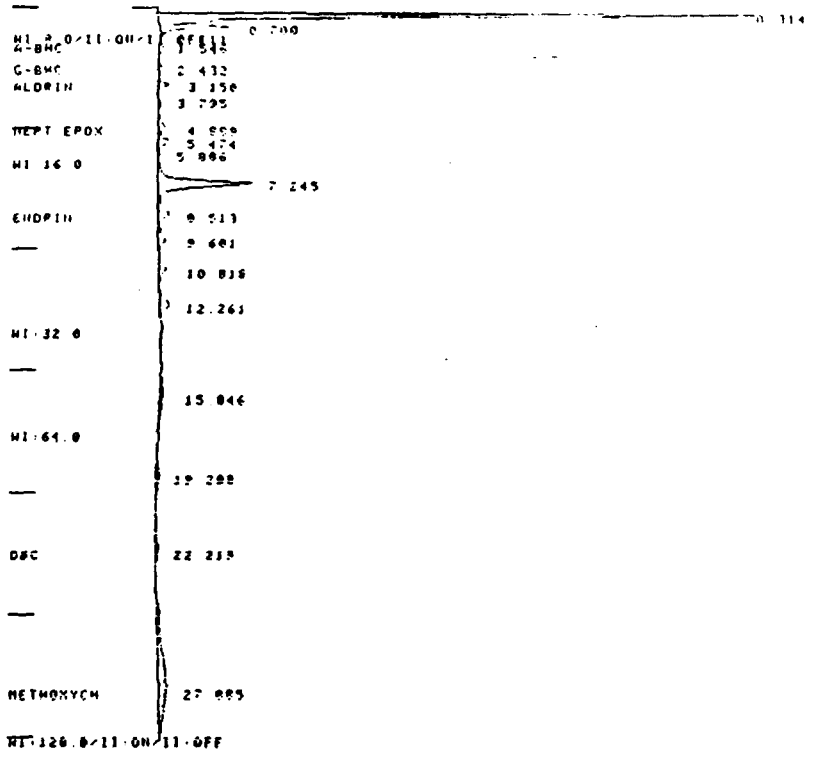
DIVISOR: 1.50000 MULTIPLIER: 25000.0000

NOISE: 251.4 OFFSET: 13

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SANSON
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 6000#2 A ECD 10:1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: RAW SL:470

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 1B - 1 TITLE: RUN# 18 21:31 21 NOV 95

DC-SD-25

SAMPLE: 9663. METHOD: FEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT ~~UG/KG~~	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~ALDRIN~~	0.0000	3.152	0.000	29424	BB	8.44
2	~~HEPT EPOX~~	0.0000	4.869	-0.211	20787	BV	? 19.19
3	DIELDRIN	0.0000	5.471		59864	VV	19.04
4	~~4,4'-DDE~~	0.0000	7.246	0.435	404201	BV	17.81
5	~~ENDRIN~~	0.0000	8.513	-0.297	71026	VV	23.31
6		0.0000	9.601		47729	VV	23.25
7	~~4,4'-DDD~~	0.0000	10.816	0.388	48194	VV	23.13
8	~~E ENDOSUL~~	0.0000	12.261	0.621	70869	VB	? 34.94
9		0.0000	15.846		43345	BB	? 74.44
10		0.0000	19.289		27990	BB	37.75
11	~~DDT~~	0.0000	22.219	-0.091	26510	BV	48.00
12	METHOXYCH	0.0000	27.885	0.355	348655	VB	7244.63

TOTALS: 0.0000 1.200 1283803

DETECTED PKS: 29 REJECTED PKS: 17

DIVISOR: 1.50000 MULTIPLIER: 25000.0000

NOISE: 69.6 OFFSET: -16

NOTES:
NOTEBOOK:259-40 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB #U-4432(U-4442
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:200 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATION
DEAD CREEK

POST RUN:
SAVE FILE: RAW CREE-5?9

SAMPLE NUMBER DC-SD-26

481095

Sample Number
DC-SD-26

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No. U-4432/U-4442
Lab Sample ID No: 9664
QC Report No:
Sample Matrix: Soil
Contract No. IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc./Dil Factor: 2 pH 7.4

Percent Moisture: (Not Decanted) 36

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3400u
74-83-9	Bromomethane	3400u
75-01-4	Vinyl Chloride	3400u
75-00-3	Chloroethane	3400u
75-09-2	Methylene Chloride	19000 B
67-64-1	Acetone	9800 B
75-15-0	Carbon Disulfide	1700u
75-35-4	1, 1-Dichloroethene	1700u
75-34-3	1, 1-Dichloroethane	1700u
156-60-5	Trans-1, 2-Dichloroethene	1700u
67-66-3	Chloroform	1700u
107-06-2	1, 2-Dichloroethane	1700u
78-93-3	2-Butanone	16000 B
71-55-6	1, 1, 1-Trichloroethane	1700u
56-23-5	Carbon Tetrachloride	1700u
108-05-4	Vinyl Acetate	3400u
75-27-4	Bromodichloromethane	1700u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1700u
10061-02-6	Trans-1, 3-Dichloropropene	1700u
79-01-6	Trichloroethene	1700u
124-48-1	Dibromochloromethane	1700u
79-00-5	1, 1, 2-Trichloroethane	1700u
71-43-2	Benzene	1700u
10061-01-5	cis-1, 3-Dichloropropene	1700u
110-75-8	2-Chloroethylvinylether	3400u
75-25-2	Bromoform	1700u
108-10-1	4-Methyl-2-Pentanone	3400u
591-78-6	2-Hexanone	3400u
127-18-4	Tetrachloroethene	1700u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1700u
108-88-3	Toluene	1700u
108-90-7	Chlorobenzene	1700u
100-41-4	Ethylbenzene	1700u
100-42-5	Styrene	1700u
	Total Xylenes	1700u

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., 10 J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No V-4432 / V-4442

Sample Number DC-SD-26

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-21-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 36

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	520	U
111-44-4	bis(-2-Chloroethyl)Ether	520	U
95-57-8	2-Chlorophenol	520	U
541-73-1	1 3-Dichlorobenzene	520	U
106-46-7	1 4-Dichlorobenzene	520	U
100-51-6	Benzyl Alcohol	520	U
95-50-1	1. 2-Dichlorobenzene	520	U
95-48-7	2-Methylphenol	520	U
39638-32-9	bis(2-chloroisopropyl)Ether	520	U
106-44-5	4-Methylphenol	520	U
621-64-7	N-Nitroso-Di-n-Propylamine	520	U
67-72-1	Hexachloroethane	520	U
98-95-3	Nitrobenzene	520	U
78-59-1	Isophorone	520	U
88-75-5	2-Nitrophenol	520	U
105-67-9	2. 4-Dimethylphenol	520	U
65-85-0	Benzoic Acid	2500	U
111-91-1	bis(-2-Chloroethoxyl)Methane	520	U
120-83-2	2. 4-Dichlorophenol	520	U
120-82-1	1 2. 4-Trichlorobenzene	520	U
91-20-3	Naphthalene	520	U
106-47-8	4-Chloroaniline	520	U
87-68-3	Hexachlorobutadiene	520	U
59-50-7	4-Chloro-3-Methylphenol	520	U
91-57-6	2-Methylnaphthalene	520	U
77-47-4	Hexachlorocyclopentadiene	520	U
88-06-2	2 4 6-Trichlorophenol	520	U
95-95-4	2. 4. 5-Trichlorophenol	2500	U
91-58-7	2-Chloronaphthalene	520	U
88-74-4	2-Nitroaniline	2500	U
131-11-3	Dimethyl Phthalate	520	U
[illegible]8-96-8	Acenaphthylene	520	U
[illegible]-09-2	3-Nitroaniline	2500	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	520	U
51-28-5	2. 4-Dinitrophenol	2500	U
100-02-7	4-Nitrophenol	2500	U
132-64-9	Dibenzofuran	520	U
121-14-2	2 4-Dinitrotoluene	520	U
606-20-2	2. 6-Dinitrotoluene	520	U
84-66-2	Diethylphthalate	520	U
7005-72-3	4-Chlorophenyl-phenylether	520	U
86-73-7	Fluorene	520	U
100-01-6	4-Nitroaniline	2500	U
534-52-1	4. 6-Dinitro-2-Methylphenol	2500	U
86-30-6	N-Nitrosodiphenylamine (1)	520	U
101-55-3	4-Bromophenyl-phenylether	520	U
118-74-1	Hexachlorobenzene	520	U
87-86-5	Pentachlorophenol	2500	U
85-01-8	Phenanthrene	520	U
120-12-7	Anthracene	520	U
84-74-2	Di-n-Butylphthalate	79	J
206-44-0	Fluoranthene	130	J
129-00-0	Pyrene	120	J
85-68-7	Butylbenzylphthalate	520	U
91-94-1	3. 3'-Dichlorobenzidine	1000	U
56-55-3	Benzo(a)Anthracene	520	U
117-81-7	bis(2-Ethylhexyl)Phthalate	72	J
218-01-9	Chrysene	83	J
117-84-0	Di-n-Octyl Phthalate	520	U
205-99-2	Benzo(b)Fluoranthene	200	J
207-08-9	Benzo(k)Fluoranthene	520	U
50-32-8	Benzo(a)Pyrene	86	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	100	J
53-70-3	Dibenz(a h)Anthracene	520	U
191-24-2	Benzo(g h i)Perylene	91	J

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-26

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor 10

Percent Moisture (decanted) 36

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
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 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-26

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	17.5 min	780 BJ
2.	Unknown Ketone	VOA	19.8 min	520 BJ
3.	Hexane isomer	VOA	21.5 min	2400 BJ
4.				
5.	UNKNOWN	BNA	8.6	2800 J
6.	UNKNOWN HYDROCARBON		27.5	880 BJ
7.	UNKNOWN		30.9	2800 BJ
8.	UNKNOWN		35.0	1500 BJ
9.	UNKNOWN HYDROCARBON		37.8	190 J
10.	UNKNOWN		39.2	100 J
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
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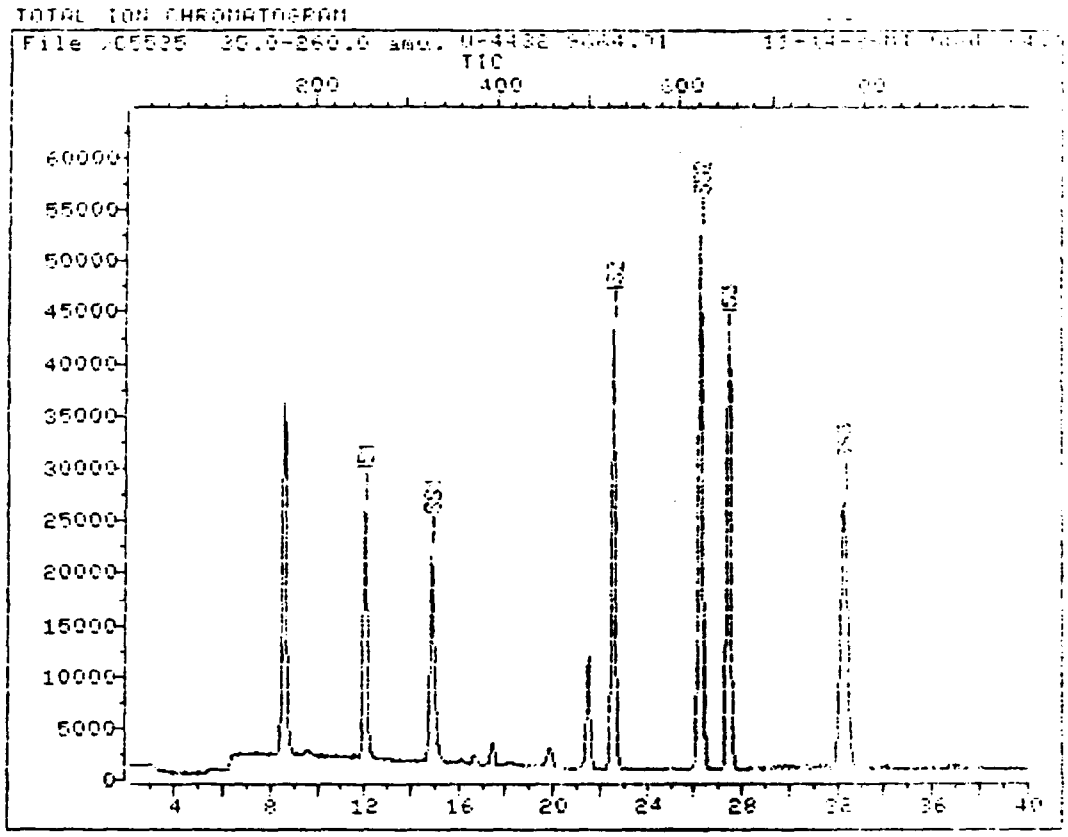
26.				
27.				
28.				
29.				
30				

TOTAL ION CHROMATOGRAM

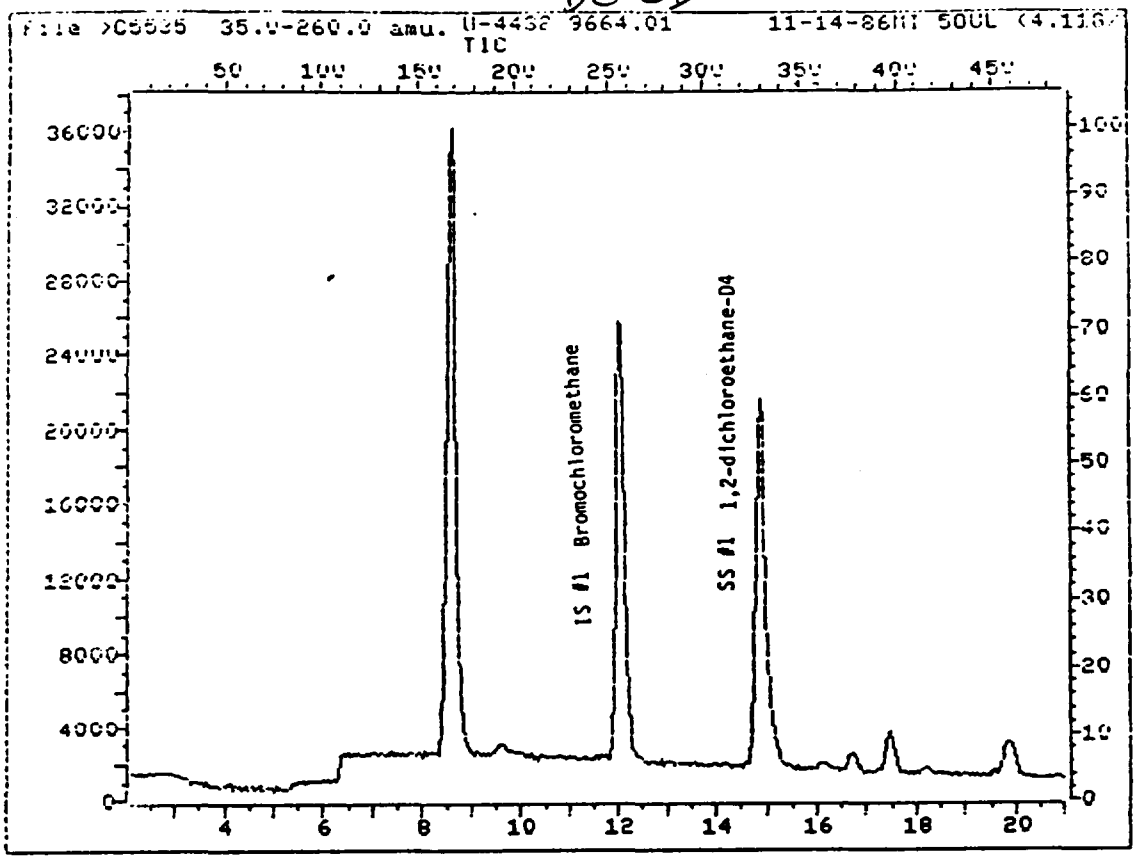


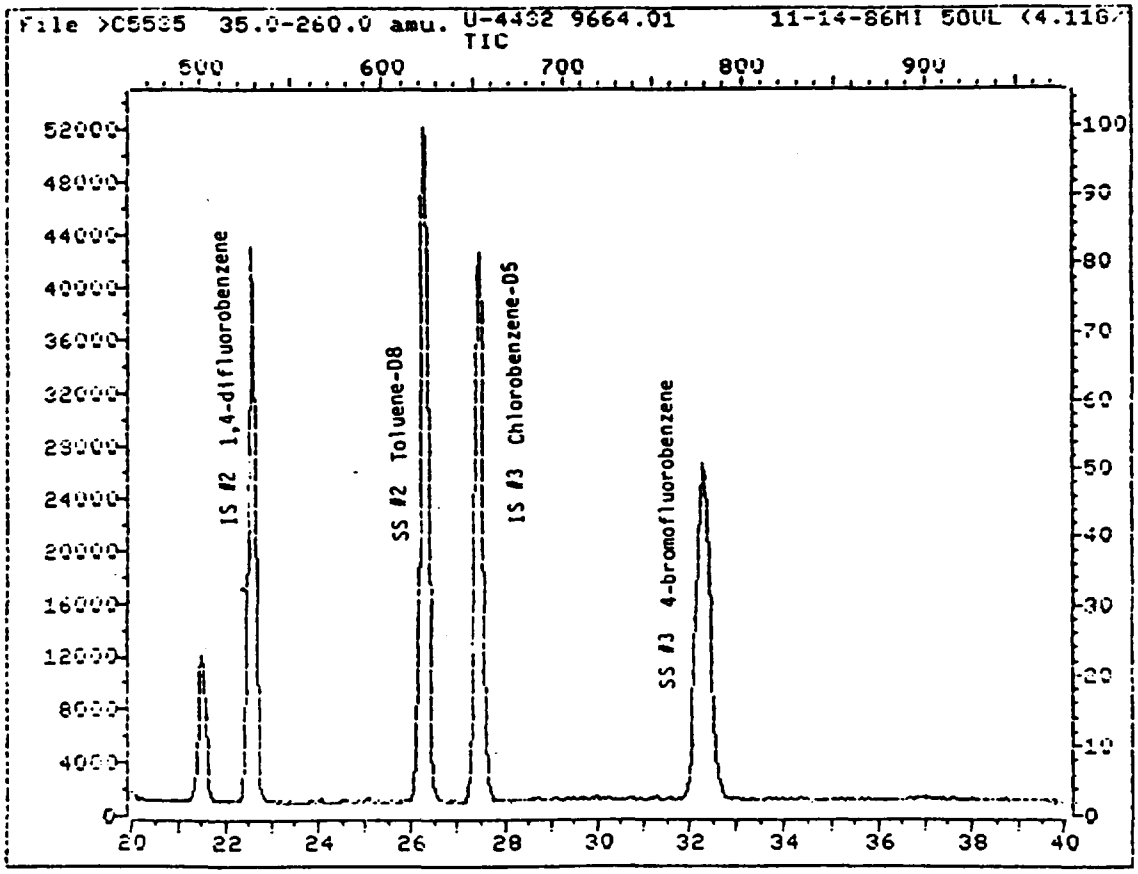
Data File: >C5535::D3
Name: U-4432 9664.01 DC-SD-26
Misc: 11-14-86MI 50UL (4.11G/10MLS) + [illegible]

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. [illegible]
Last Calibration: 861114 21:[illegible]

Operator ID: USEP8
Quant Time: 861115 13:49
Injected at: 861115 00:04

DC-SD-26


File >C5535 35.0-260.0 amu. U-4432 9664.01 11-14-86MI 50UL (4.116)
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5535 35.0-260.0 amu. U-4432 9664.01 11-14-86MI 50UL (4.116)
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861115 15:49
Output File: ^C5535::D2 Injected at: 861115 00:04
Data File: >C5535::D3 Dilution Factor: 1.00
Name: U-4432 9664.01 DC-SD-26
Misc: 11-14-86MI 500UL (4.116/10MLS) + 100UL IS/SS

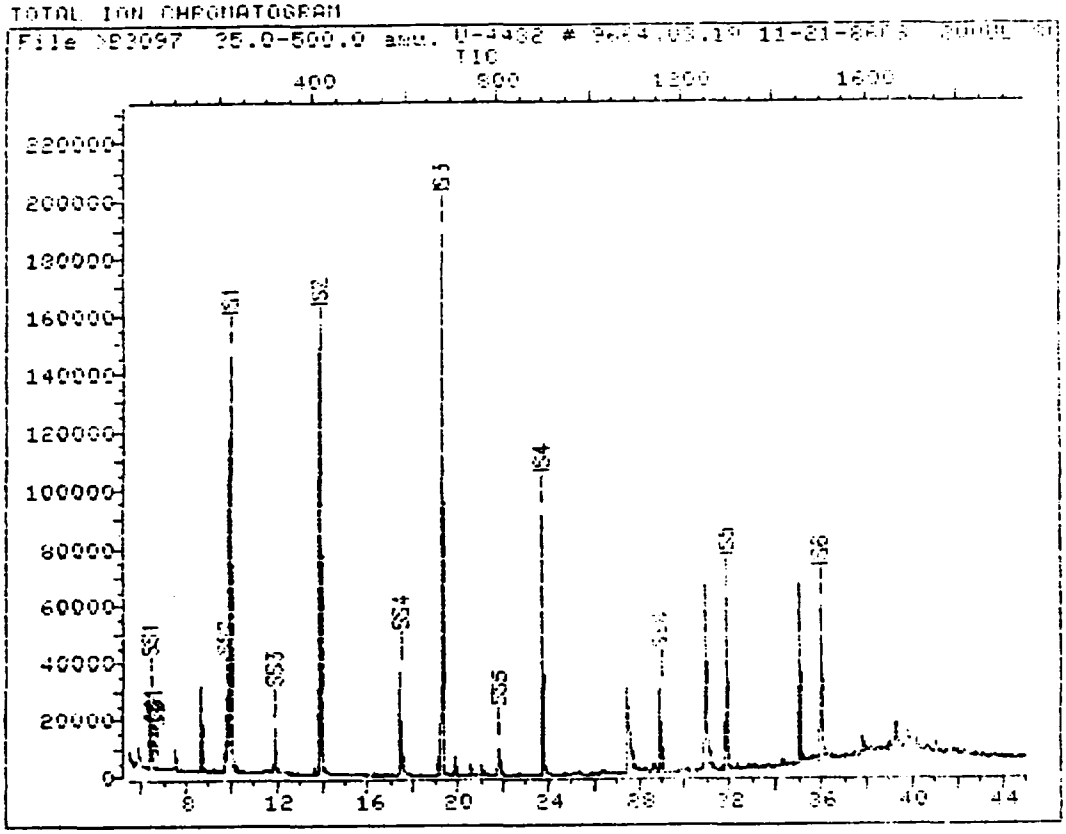
ID File: VOACR::D2
Title: V04 ID FILE FOR HP-5995 (CURT. CAL.)
Last Calibration: 861114 21:27

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	12.00	256	39153	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.59	168	92040	49.51	UG/L	100
7)	ACETONE		43	9.60	194	6890	25.70	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.87	300	83369	50.29	UG/L	89
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.55	528	189898	50.00	UG/L	100
17)	2-BUTANONE		72	15.03	334	5943	41.35	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.41	652	145697	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.24	623	215176	51.46	UG/L	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.30	779	103300	49.71	UG/L	100

* Compound is ISTD

* Compound is ISTD

TOTAL ION CHROMATOGRAM

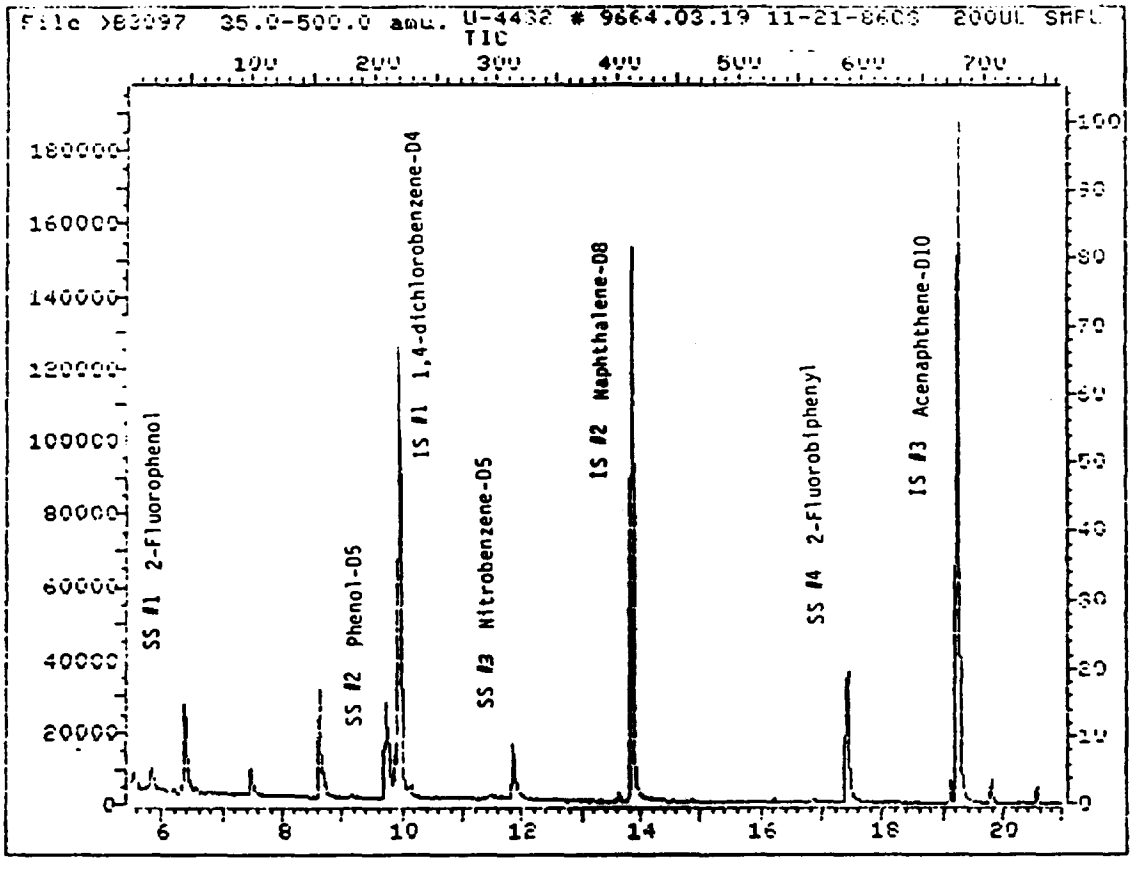


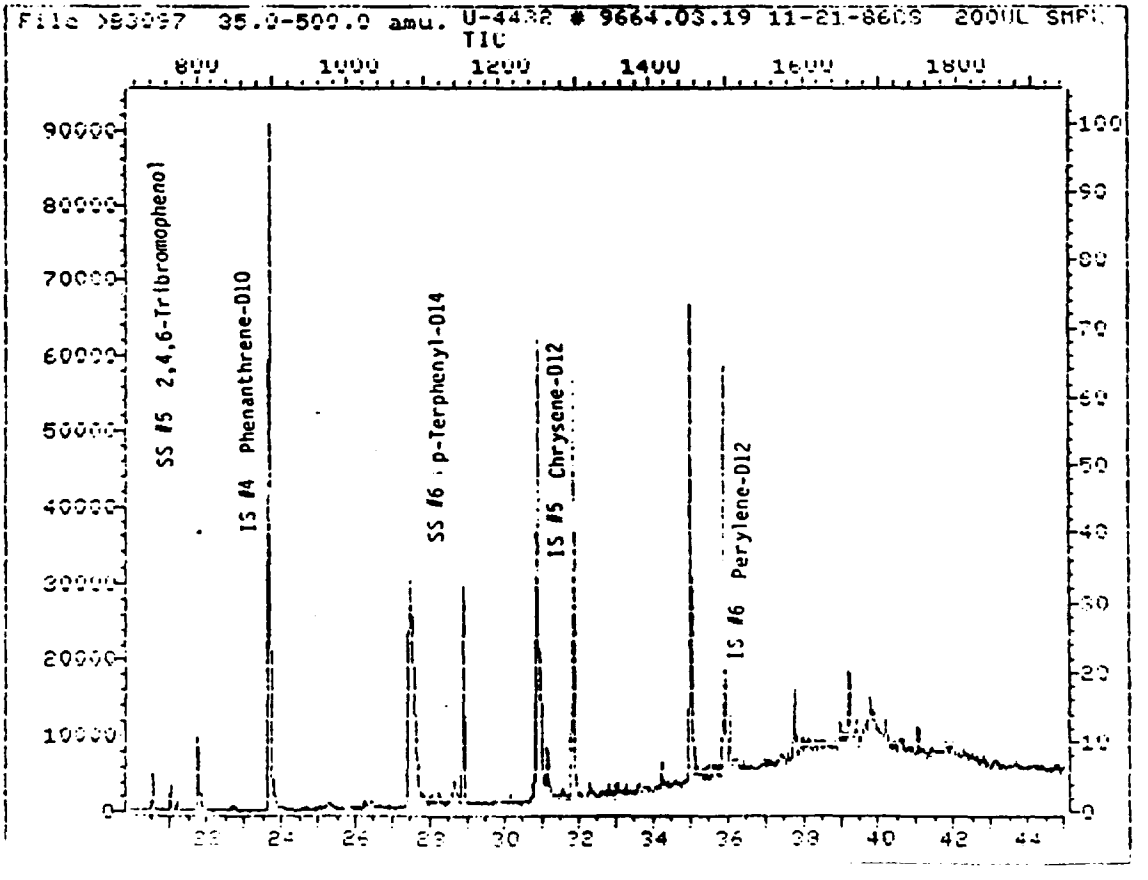
Data File: >B3097::D4
Name: U-4432 # 9664.03.19 DC-SD-26
Misc: 11-21-86CS 200UL SMPL + 200UL MLLL2 + 50UL IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861121 14:58

Operator ID: USER8
Quant Time: 861121 19:57
Injected at: 861121 19:10

DC-SD-26


File >83097 35.0-500.0 amu. U-4432 # 9664.03.19 11-21-86CS 200UL SMPL
TIC
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


File >83097 35.0-500.0 amu. U-4432 # 9664.03.19 11-21-86CS 200UL SMPL
TIC
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

[illegible] REPORT

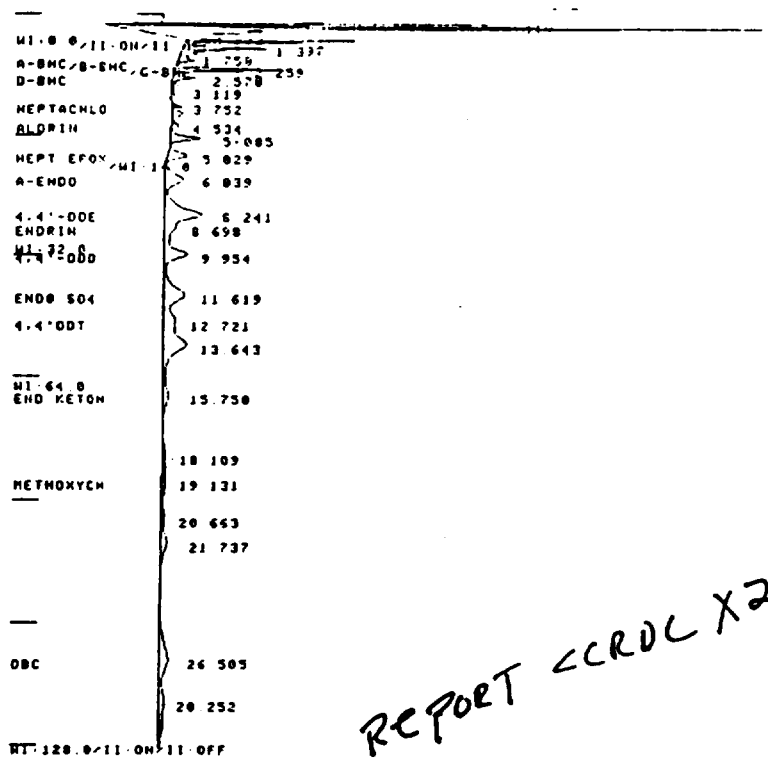
Operator ID: USER8 Quant Peak: 4 Quant Time: 861121 19:5[illegible]
Output File: ^B3097::02 Injected at: 861121 19:10
Data File: ^B3097::04 Dilution Factor: 2.00
Smpl U-4432 # 9664.03.19 DC-SD-26
Misc: 11-21-86CS 200UL SMPL + 200UL MECL2 + ~~[illegible]UL~~ 4ul IS

Id File: BNADP::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861121 14:38

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.96	221	70388	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	9.71	209	46695	37.44	UG/L	89
3)	2-FLUOROPHENOL	(SURR)	112	6.36	44	25028	27.78	UG/L	81
~~4)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.52~~	~~52~~	~~750~~	~~.02~~	~~UG/L~~	80
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.58~~	~~56~~	~~541~~	~~.60~~	~~UG/L~~	89
~~6)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.70~~	~~61~~	~~433~~	~~.42~~	~~UG/L~~	74
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.83~~	~~2[illegible]~~	~~265~~	~~.14~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.99~~	~~267~~	~~661~~	~~.34~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.99~~	~~2[illegible]~~	~~968~~	~~.49~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.12~~	~~241~~	~~729~~	~~.37~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.54~~	~~[illegible]~~	~~402~~	~~.20~~	~~UG/L~~	100
~~2)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.06~~	~~314~~	~~2[illegible]~~	~~3.40~~	~~UG/L~~	91
9)	*NAPHTHALENE-D8	(IS)	136	13.84	412	238985	40.00	UG/L	100
1)	NITROBENZENE-D5	(SURR)	82	11.85	314	19966	19.68	UG/L	93
~~2)~~	~~1,2,4-TRICHLOROBENZENE~~		~~180~~	~~13.00~~	~~414~~	~~434~~	~~.40~~	~~UG/L~~	100
4)	*ACENAPHTHENE-D10	(IS)	162	19.25	678	108347	40.00	UG/L	99
3)	2-FLUOROBIPHENYL	(SURR)	172	17.42	588	49772	22.33	UG/L	94
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.13~~	~~6[illegible]~~	~~445~~	~~.20~~	~~UG/L~~	100
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.25~~	~~6[illegible]~~	~~31401~~	~~14.05~~	~~UG/L~~	100
3)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.77	802	8443	24.22	UG/L	96
~~1)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~20.67~~	~~7[illegible]~~	~~4[illegible]~~	~~1.07~~	~~UG/L~~	100
~~1)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.25~~	~~678~~	~~17859~~	~~35.08~~	~~UG/L~~	100
5)	*PHENANTHRENE-D10	(IS)	188	23.68	896	133163	40.00	UG/L	91
3)	DI-N-BUTYLPHTHALATE		149	26.24	1022	2862	1.52	UG/L	96
4)	FLUORANTHENE		202	27.42	1080	3085	2.42	UG/L	95
3)	*CHRYSENE-D12	(IS)	240	31.83	1297	80331	40.00	UG/L	100
7)	PYRENE		202	28.05	1111	2869	2.21	UG/L	96
3)	TERPHENYL-D14	(SURR)	244	28.88	1152	25879	31.67	UG/L	100
~~1)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.92~~	~~1301~~	~~1645~~	~~1.63~~	~~UG/L~~	89
2)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.81	1345	1205	1.38	UG/L	89
3)	CHRYSENE		228	31.92	1301	1645	1.59	UG/L	91
4)	*PERYLENE-D12	(IS)	264	35.92	1498	76455	40.00	UG/L	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.66~~	~~1[illegible]~~	~~[illegible]~~	~~.52~~	~~UG/L~~	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~35.03~~	~~14[illegible]~~	~~[illegible]~~	~~.51~~	~~UG/L~~	100
5)	BENZO(B)FLUORANTHENE		252	34.99	1452	3673	3.77	UG/L	100
~~7)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~35.25~~	~~1469~~	~~246~~	~~.25~~	~~UG/L~~	100
~~2)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.99~~	~~1459~~	~~3[illegible]~~	~~3.26~~	~~UG/L~~	100
~~2)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~35.25~~	~~1[illegible]~~	~~[illegible]~~	~~.02~~	~~UG/L~~	100
~~3)~~	~~BENZO(A)PYRENE~~		~~252~~	~~36.44~~	~~1[illegible]~~	~~[illegible]~~	~~2.32~~	~~UG/L~~	100
3)	BENZO(A)PYRENE		252	35.78	1491	1625	1.65	UG/L	100
~~7)~~	~~BENZO(A)PYRENE~~		~~252~~	~~35.96~~	~~1501~~	~~461~~	~~.[illegible]~~	~~UG/L~~	100
~~1)~~	~~INDENO(1,2,3-CD)PYRENE~~		~~276~~	~~38.49~~	~~1612~~	~~[illegible]~~	~~.09~~	~~UG/L~~	100
9)	INDENO(1,2,3-CD)PYRENE		276	38.57	1620	1830	2.03	UG/L	100
~~1)~~	~~DIBENZ(A,H)ANTHRACENE~~		~~278~~	~~38.[illegible]~~	~~1[illegible]~~	~~[illegible]~~	~~.04~~	~~UG/L~~	100
~~1)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~39.[illegible]~~	~~1[illegible]~~	~~1[illegible]~~	~~1.84~~	~~UG/L~~	100
1)	BENZO(G,H,I)PERYLENE		276	39.10	16[illegible]	1753	1.75	UG/L	100

* Compound not found

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



REPORT <CRDL X20

CHANNEL: 1A - 1 TITLE: RUN#96 21:38 19 NOV 86

DC-SD-26

SAMPLE: 9664.03.19 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	1.397		5[illegible]784	VV	3.81
2 ~~B-BHC~~		62.9927	2.259	0.089	[illegible]2938	VV	5.06
3 ~~HEPTACHLO~~		9.8877	4.038	0.248	[illegible]1157	VV	20.00
4		0.0000	5.085		4[illegible]773	VB	10.31
5 ~~HEPT EPOX~~		13.9836	5.829	0.159	4[illegible]066	BB	? 15.69
6 ~~A-ENDO~~		26.2982	6.839	-0.191	[illegible]797	BV	30.44
7 ~~DIELDRIN~~		56.9104	~~8.241~~	0.051	~~15[illegible]310~~	VV	31.13
8 ~~ENDRIN~~		10.8537	~~8.698~~	-0.432	~~[illegible]252~~	VV	? 43.38
9 ~~4,4'-DDD~~		41.0708	9.954	-0.206	9[illegible]099	VV	25.13
10 ~~ENDO SO4~~		58.7426	11.619	-0.291	1[illegible]622	VV	38.88
11		0.0000	12.721		6[illegible]943	VV	? 57.13
12 ~~4,4'-DDT~~		99.2533	13.643	0.383	1[illegible]873	VV	54.13
13 ~~END KETON~~		13.9214	15.750	0.480	[illegible]386	VB	47.88
14 ~~METHOXYCH~~		35.4264	19.131	-0.359	[illegible]718	VV	? 71.94
15		0.0000	21.737		4[illegible]784	VB	46.31
16 DBC 65%		43.2158	26.505	-0.105	9[illegible]582	BV	87.69
17		0.0000	28.252		6[illegible]492	VB	?117.06

TOTALS: 472.5566 -0.174 1226582

DETECTED PKS: 38 REJECTED PKS: 21

DIVISOR: 1.50200 MULTIPLIER: 10000.0000

NOISE: 194.3 OFFSET: -9

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SAMSON
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAME FILE: RAW SL7471

SAMPLE NUMBER DC-SD-27

481095

Sample Number
DC-SD-27

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No. U-4432/U-4442
Lab Sample ID No: 9665
QC Report No:
Sample Matrix: Soil
Contract No. EL-3140
Data Release Authorized By: C Slojowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc./Dil Factor: 2 pH 7.0

Percent Moisture: (Not Decanted) 75

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	8600u
74-83-9	Bromomethane	8600u
75-01-4	Vinyl Chloride	8600u
75-00-3	Chloroethane	8600u
75-09-2	Methylene Chloride	43000 B
67-64-1	Acetone	36000 B
75-15-0	Carbon Disulfide	4300u
75-35-4	1, 1-Dichloroethene	4300u
75-34-3	1, 1-Dichloroethane	4300u
156-60-5	Trans-1, 2-Dichloroethene	4300u
67-66-3	Chloroform	4300u
107-06-2	1, 2-Dichloroethane	4300u
78-93-3	2-Butanone	35000 B
71-55-6	1, 1, 1-Trichloroethane	4300u
56-23-5	Carbon Tetrachloride	4300u
108-05-4	Vinyl Acetate	8600u
75-27-4	Bromodichloromethane	4300u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	4300u
10061-02-6	Trans-1, 3-Dichloropropene	4300u
79-01-6	Trichloroethene	4300u
124-48-1	Dibromochloromethane	4300u
79-00-5	1, 1, 2-Trichloroethane	4300u
71-43-2	Benzene	4300u
10061-01-5	cis-1, 3-Dichloropropene	4300u
110-75-8	2-Chloroethylvinylether	8600u
75-25-2	Bromoform	4300u
108-10-1	4-Methyl-2-Pentanone	8600u
591-78-6	2-Hexanone	8600u
127-18-4	Tetrachloroethene	4300u
79-34-5	1, 1, 2, 2-Tetrachloroethane	4300u
108-88-3	Toluene	4300u
108-90-7	Chlorobenzene	4300u
100-41-4	Ethylbenzene	4300u
100-42-5	Styrene	4300u
	Total Xylenes	4300u

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4432/U-4442

Sample Number DC-SD-27

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 11-25-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 75

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	1300	U
111-44-4	bis(-2-Chloroethyl)Ether	1300	U
95-57-8	2-Chlorophenol	1300	U
541-73-1	1 3-Dichlorobenzene	1300	U
106-46-7	1 4-Dichlorobenzene	1300	U
100-51-6	Benzyl Alcohol	1300	U
95-50-1	1. 2-Dichlorobenzene	1300	U
95-48-7	2-Methylphenol	1300	U
39638-32-9	bis(2-chloroisopropyl)Ether	1300	U
106-44-5	4-Methylphenol	1300	U
621-64-7	N-Nitroso-Di-n-Propylamine	1300	U
67-72-1	Hexachloroethane	1300	U
98-95-3	Nitrobenzene	1300	U
78-59-1	Isophorone	1300	U
88-75-5	2-Nitrophenol	1300	U
105-67-9	2. 4-Dimethylphenol	1300	U
65-85-0	Benzoic Acid	6200	U
111-91-1	bis(-2-Chloroethoxy)Methane	1300	U
120-83-2	2. 4-Dichlorophenol	1300	U
120-82-1	1. 2. 4-Trichlorobenzene	1300	U
91-20-3	Naphthalene	1300	U
106-47-8	4-Chloroaniline	1300	U
87-68-3	Hexachlorobutadiene	1300	U
59-50-7	4-Chloro-3-Methylphenol	1300	U
91-57-6	2-Methylnaphthalene	1300	U
77-47-4	Hexachlorocyclopentadiene	1300	U
88-06-2	2 4. 6-Trichlorophenol	1300	U
95-95-4	2. 4. 5-Trichlorophenol	6200	U
91-58-7	2-Chloronaphthalene	1300	U
88-74-4	2-Nitroaniline	6200	U
131-11-3	Dimethyl Phthalate	1300	U
208-96-8	Acenaphthylene	1300	U
99-09-2	3-Nitroaniline	6200	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	1300	U
51-28-5	2. 4-Dinitrophenol	6200	U
100-02-7	4-Nitrophenol	6200	U
132-64-9	Dibenzofuran	1300	U
121-14-2	2 4-Dinitrotoluene	1300	U
606-20-2	2. 6-Dinitrotoluene	1300	U
84-66-2	Diethylphthalate	1300	U
7005-72-3	4-Chlorophenyl-phenylether	1300	U
86-73-7	Fluorene	1300	U
100-01-6	4-Nitroaniline	6200	U
534-52-1	4. 6-Dinitro-2-Methylphenol	6200	U
86-30-6	N-Nitrosodiphenylamine (1)	1300	U
101-55-3	4-Bromophenyl-phenylether	1300	U
118-74-1	Hexachlorobenzene	1300	U
87-86-5	Pentachlorophenol	6200	U
85-01-8	Phenanthrene	1300	U
120-12-7	Anthracene	1300	U
84-74-2	Di-n-Butylphthalate	1300	U
206-44-0	Fluoranthene	1300	U
129-00-0	Pyrene	1300	U
85-68-7	Butylbenzylphthalate	1300	U
91-94-1	3. 3'-Dichlorobenzidine	2600	U
56-55-3	Benzo(a)Anthracene	1300	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1300	U
218-01-9	Chrysene	1300	U
117-84-0	Di-n-Octyl Phthalate	170	J
205-99-2	Benzo(b)Fluoranthene	500	J
207-08-9	Benzo(k)Fluoranthene	1300	U
50-32-8	Benzo(a)Pyrene	240	J
193-39-5	Indeno(1 2 3-cd)Pyrene	310	J
53-70-3	Dibenz(a h)Anthracene	1300	U
191-24-2	Benzo(g h i)Perylene	360	J

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432 | U-4442.

Sample Number DC-SD-27

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor: 10

Percent Moisture (decanted) 25

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	7,500
11096-82-5	Aroclor-1260	4,500

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

7/85

Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-27

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	17.5 min	2000 BJ
2.	Unknown Ketone	VOA	19.9 min	1200 BJ
3.	Hexane isomer	VOA	21.5 min	6100 BJ
4.				
5.	UNKNOWN	BNA	8.0	9700 J
6.	UNKNOWN		23.9	360 J
7.	UNKNOWN HYDROCARBON		26.7	950 BJ
8.	UNKNOWN HYDROCARBON		27.0	360 J
9.	UNKNOWN		30.1	7600 BJ
10.	UNKNOWN		34.3	3100 BJ
11.	UNKNOWN		37.3	1700 J
12.	UNKNOWN		39.0	3200 J
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
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25.				
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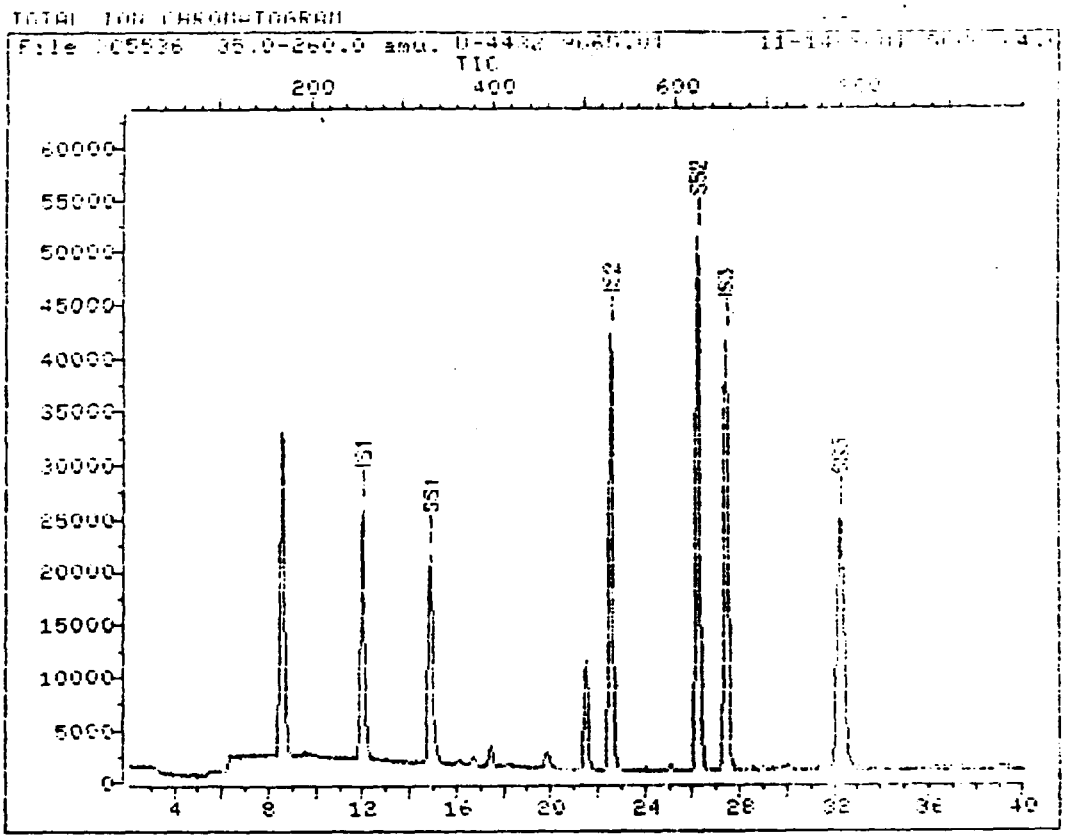
29.				
30				

TOTAL ION CHROMATOGRAM



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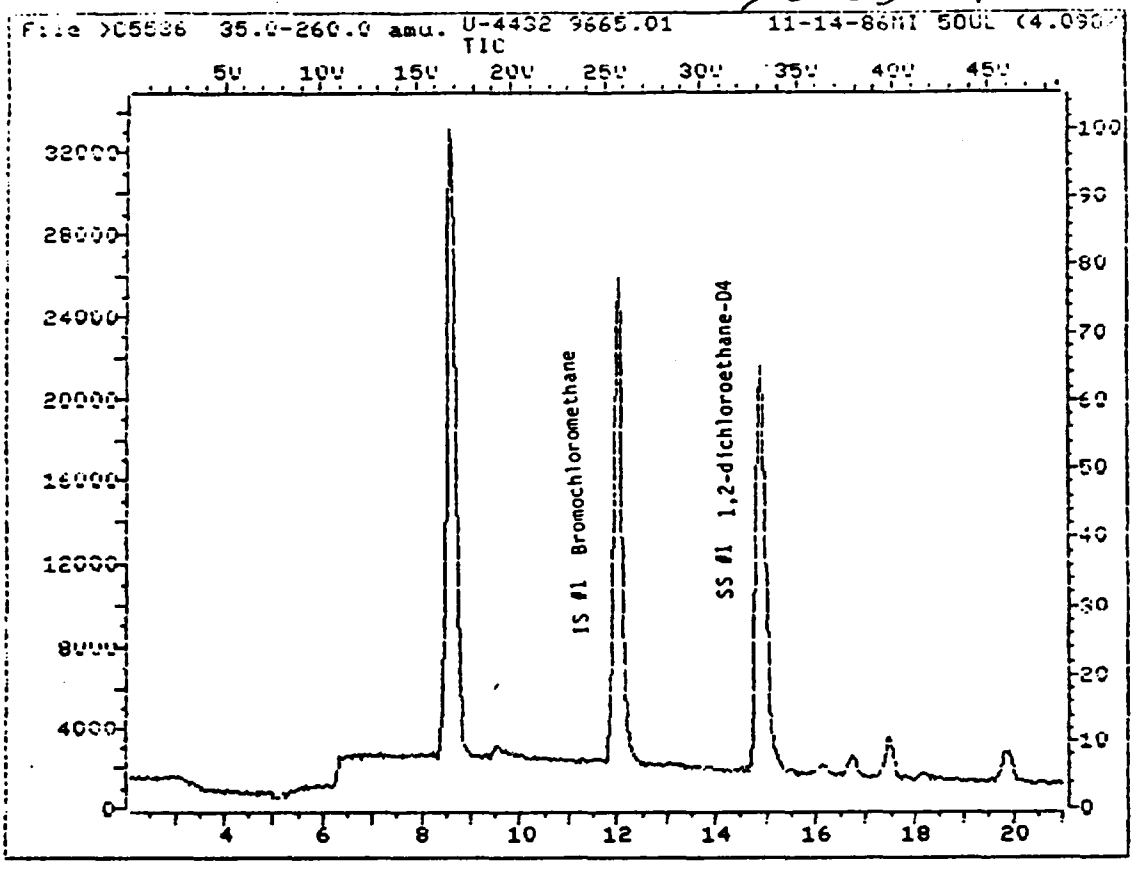
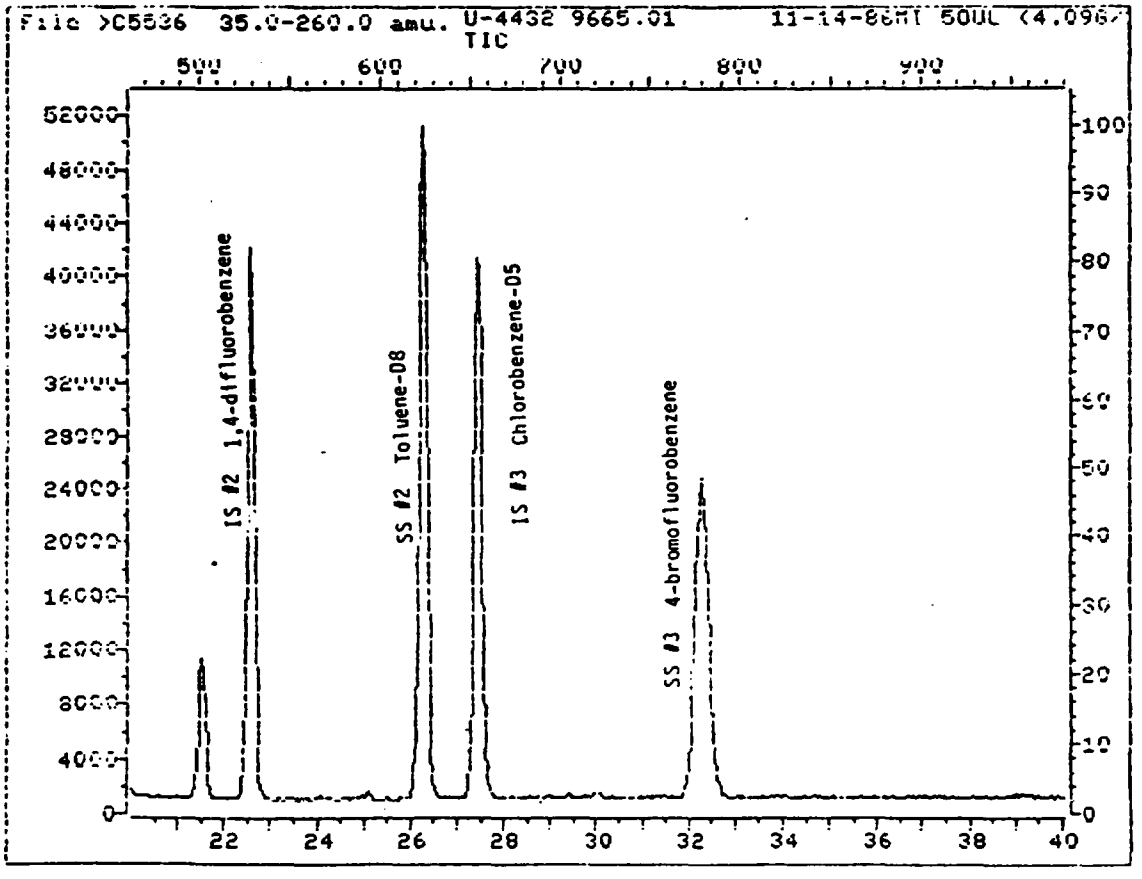
Name: U-4432 9665.01 DC-SD-27
Misc: 11-14-86MI 50UL (4.09G/10MLS) + 10[illegible]

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. [illegible]
Last Calibration: 861114 21:27

Operator ID: USER8
Quant Time: 861115 13:50
Injected at: 861115 00:55

DC-SD-27


File >C5536 35.0-260.0 amu. U-4432 9665.01 11-14-86HI 50UL (4.096
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5536 35.0-260.0 amu. U-4432 9665.01 11-14-86HI 50UL (4.096
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT

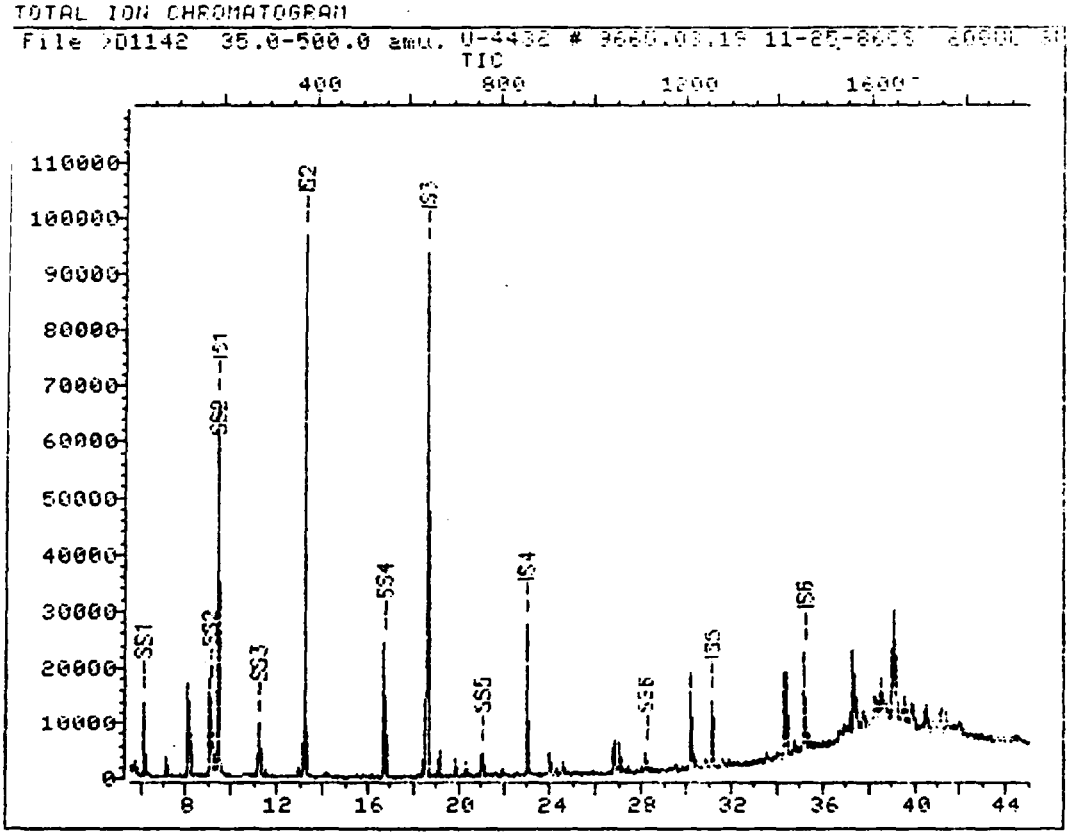
Operator ID: USER8 Quant Rev: 4 Quant Time: 861115 13:50
Output File: ^C5536::D2 Injected at: 861115 00:55
Data File: >C5536::U3 Dilution Factor: 1.00
Name: U-4432 9665.01 DC-SD-27
Misc: 11-14-86MI 50UL (4.09G/10MLS) + 10UL [illegible]

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 21:27

	Compound		M/E	R.T.	Scans	Area	Conc	Units	Q
1)	*BROMOCHLOROMETHANE	(IS)	128	12.02	[illegible]	[illegible]	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.57	[illegible]	[illegible]	44.35	UG/L	100
7)	ACETONE		43	9.57	194	19050	36.98	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.89	431	80593	48.43	UG/L	[illegible]
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.57	[illegible]	[illegible]	50.00	UG/L	100
17)	2-BUTANONE		72	15.84	[illegible]	[illegible]	34.18	UG/L	[illegible]
31)	*CHLOROBENZENE-D5	(IS)	117	27.42	[illegible]	[illegible]	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.25	[illegible]	205[illegible]	50.21	UG/L	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.27	729	97342	47.57	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

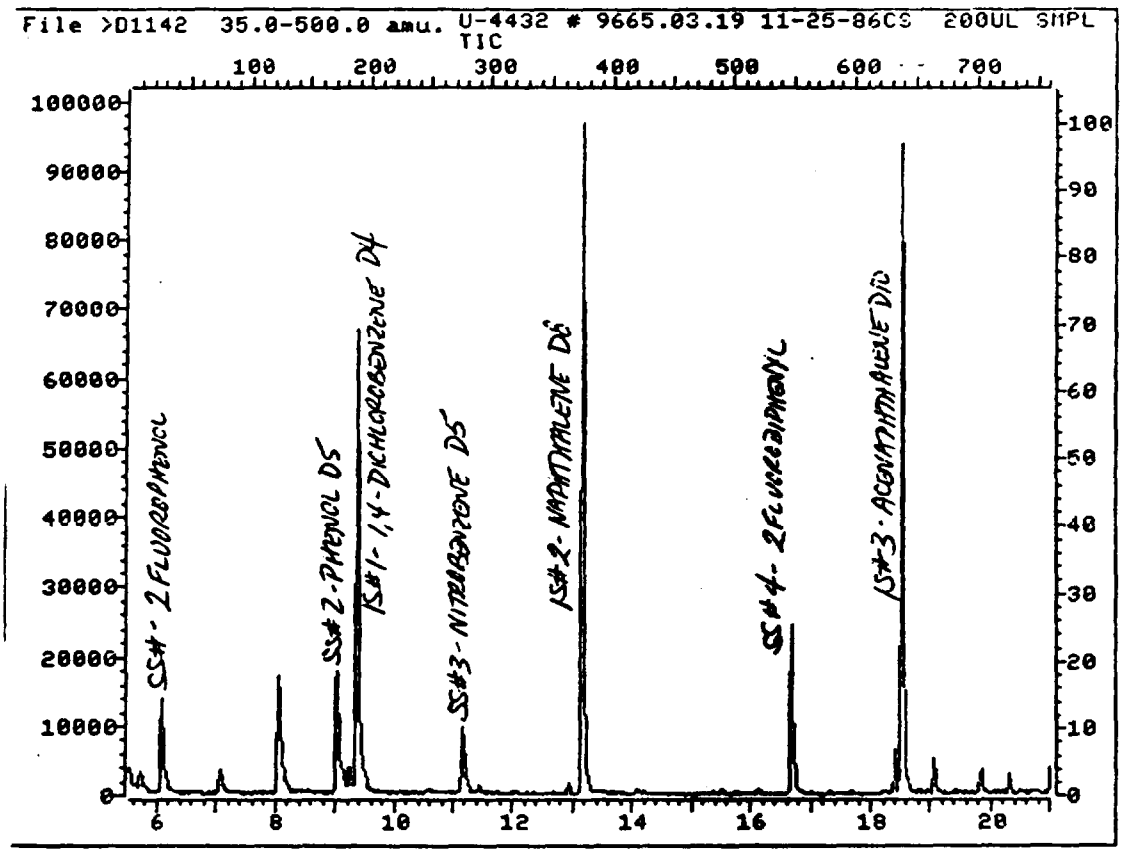


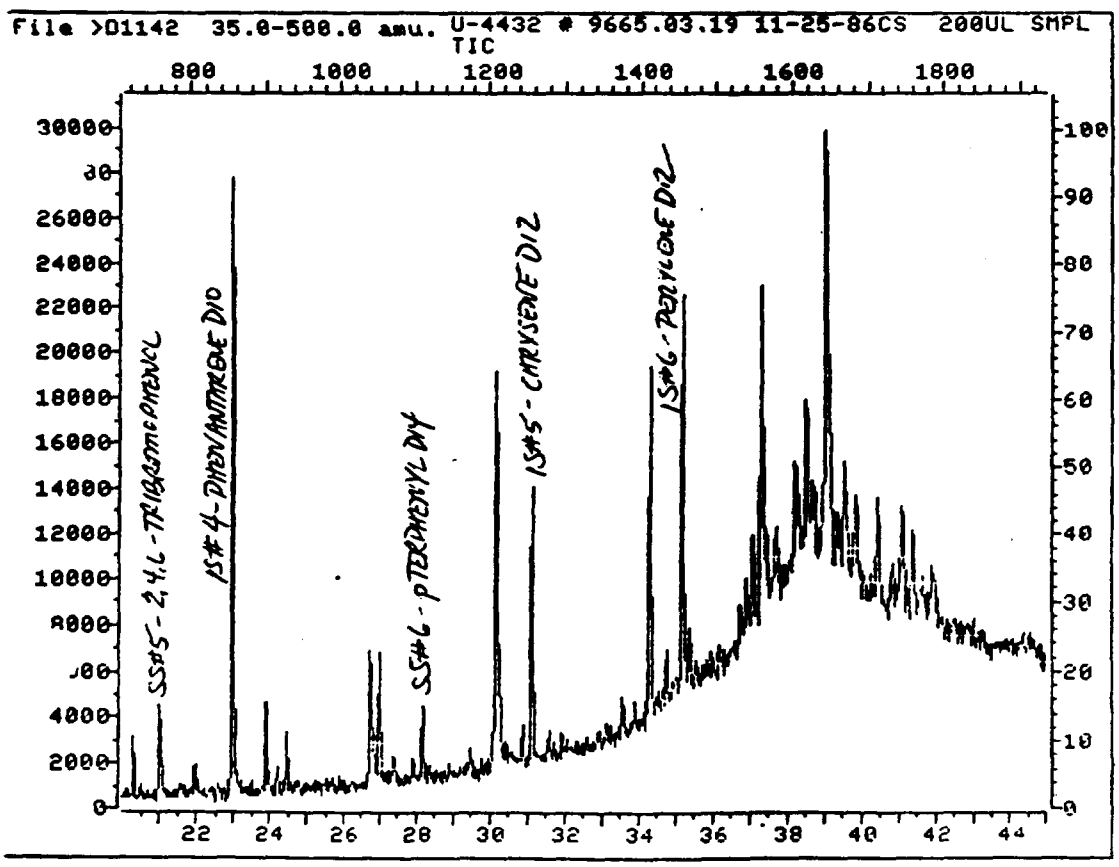
Data File: >D1142::D3
Name: U-4432 # 9665.03.19 DC-SD-27
Misc: 11-25-86CS 200UL SMPL + 200UL MECL2 + 50UL IS (2:) BTL# 9

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 59 0 (B)
Last Calibration: 861125 15:39

Operator ID: USER6
Quant Time: 861126 00:07
Injected at: 861125 23:20

DC-SD-27


File >D1142 35.0-500.0 amu. U-4432 # 9665.03.19 11-25-86CS 200UL SMPL
TIC
SS# - 2 FLUOROPHENOL
SS# 2-PHENOL D5
IS#1- 1,4-DICHLOROBENZENE D4
SS#3- NITROBENZENE D5
IS#2- NAPHTHALENE D8
SS#4- 2FLUOROBIPHENYL
IS#3- ACENAPHTHALENE D10


File >D1142 35.0-500.0 amu. U-4432 # 9665.03.19 11-25-86CS 200UL SMPL
TIC
SS#5- 2,4,6-TRIBROMOPHENOL
IS#4- PHEN/ANTHRACENE D10
SS#6- pTERPHENYL D14
IS#5- CHRYSENE D12
IS#6- PERYLENE D12

QUANT REPORT

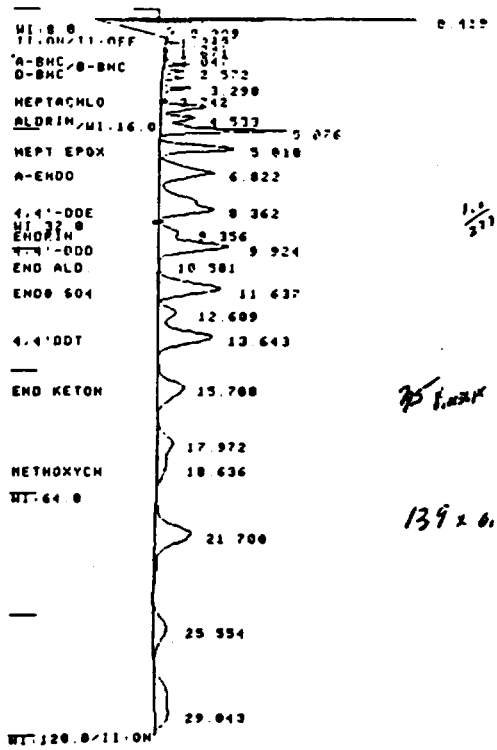
ie: or ID: USER6 Quant Rev: 4 Quant Time: 861126 00:07
itp: File: ^D1142::Q2 Injected at: 861125 23:20
ita File: >D1142::D3 Dilution Factor: 2.00
me: U-4432 # 9665.03.19
sc: 11-25-86CS 200UL SMPL + 200UL MECL2 + 5UL IS (2X) BTL# 9

) File: BNAOR::02
tle: BNA ID FILE FOR THE HP 5970 (B)
st Calibration: 861125 15:39

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.37	189	37094	40.00	UG/L	88
2)	PHENOL-D5	(SURR)	99	9.00	171	28092	42.99	UG/L 44 ✓	98
2)	PHENOL-D5	(SURR)	99	9.35	188	865	1.32	UG/L	76
5)	2-FLUOROPHENOL	(SURR)	112	6.07	27	16788	37.46	UG/L 37 ✓	98
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.35~~	~~232~~	~~2[illegible]~~	~~.24~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.53~~	~~246~~	~~151~~	~~.14~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.61~~	~~250~~	~~1[illegible]~~	~~.16~~	~~UG/L~~	100
~~3)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.16~~	~~277~~	~~1[illegible]~~	~~3.11~~	~~UG/L~~	90
~~3)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.45~~	~~291~~	~~1[illegible]~~	~~.30~~	~~UG/L~~	96
)	*NAPHTHALENE-D8	(IS)	136	13.16	375	144762	40.00	UG/L	100
1)	NITROBENZENE-D5	(SURR)	82	11.16	277	10880	17.44	UG/L 35 ✓	97
~~3)~~	~~NAPHTHALENE~~		~~128~~	~~13.20~~	~~377~~	~~[illegible]~~	~~.16~~	~~UG/L~~ No Bpk	100
4)	*ACENAPHTHENE-D10	(IS)	162	18.52	638	54306	40.00	UG/L	96
3)	2-FLUOROBIPHENYL	(SURR)	172	16.68	548	28803	26.36	UG/L 53 ✓	94
~~3)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~10.41~~	~~633~~	~~[illegible]~~	~~.47~~	~~UG/L~~ No Bpk	100
~~3)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~10.52~~	~~636~~	~~17[illegible]~~	~~16.53~~	~~UG/L~~	100
3)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.02	761	3951	14.82	UG/L 15 L	99
~~3)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~19.22~~	~~702~~	~~1[illegible]~~	~~.73~~	~~UG/L~~ No Bpk	100
~~3)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.52~~	~~640~~	~~9[illegible]~~	~~43.44~~	~~UG/L~~	100
)	*PHENANTHRENE-D10	(IS)	188	22.96	856	42116	40.00	UG/L	92
)	*CHRYSENE-D12	(IS)	240	31.11	1256	192[illegible]8	40.00	UG/L	100
3)	TERPHENYL-D14	(SURR)	244	28.15	1111	4[illegible]46	17.70	UG/L 35 ✓	100
4)	*PERYLENE-D12	(IS)	264	35.17	1455	26[illegible]49	40.00	UG/L	100
)	DI-N-OCTYL PHTHALATE		149	33.90	1393	611	1.35	UG/L	100
~~3)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.32~~	~~1414~~	~~1[illegible]~~	~~.40~~	~~UG/L~~ No Bpk	100
)	BENZO(B)FLUORANTHENE		252	34.21	1408	1445	3.94	UG/L	100
~~3)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.21~~	~~1408~~	~~1[illegible]5~~	~~3.71~~	~~UG/L~~ No Bpk	100
~~3)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.88~~	~~1441~~	~~1[illegible]~~	~~3.97~~	~~UG/L~~	100
3)	BENZO(A)PYRENE		252	35.03	1448	6[illegible]	1.87	UG/L	100
~~3)~~	~~BENZO(A)PYRENE~~		~~252~~	~~35.45~~	~~1458~~	~~1[illegible]3~~	~~.53~~	~~UG/L~~ No Bpk	100
)	INDENO(1,2,3-CD)PYRENE		276	37.78	1583	8[illegible]3	2.42	UG/L	100
~~3)~~	~~DIBENZ(A,H)ANTHRACENE~~		~~278~~	~~37.86~~	~~1587~~	~~[illegible]1~~	~~.51~~	~~UG/L~~ No Bpk	100
)	BENZO(G,H,I)PERYLENE		276	38.33	1610	1[illegible]6	2.77	UG/L	100

- Compound is ISTD

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



$\frac{1.0}{277} = 0.0551$

$\frac{1}{0.3825g} \times 10{,}000 = 7{,}500$ ug/kg 1254

$139 \times 0.0125 \frac{1}{0.3825g} \times 10{,}000 = 4{,}500$ ug/kg 1260

CHANNEL: 1A - 1 TITLE: RUN# 38 22:53 19 NOV 86

DC-SD-27

SAMPLE: 9665.03.19 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	B-BHC	16.2505	2.254	0.084	20106	VV	5.06
2		0.0000	2.834	79.5	22019	VV	6.25
3		0.0000	3.298		37078	VV	7.69
4	HEPTACHLO	39.3382	4.051	0.261	56103	VV	16.69
5	ALDRIN	19.1800	4.533	-0.137	57470	VV	12.54
6		0.0000	5.079		71035	VV	10.35
7	HEPT EPOX	59.6616	5.018	0.148	171660	VV	17.56
8	A-ENDO	75.1937	6.822	-0.208	202428	VV	27.81
9	DIELDRIN	90.5380	8.362	0.172	207762	VV	? 33.94
10	B-ENDO	21.7274	9.356	0.046	56191	VV	? 26.94
11	4,4'-DDD	94.2013	9.924	-0.236	225003	VV	23.50
12	END0 SO4	130.8800	11.637	-0.273	255381	VV	31.41
13		0.0000	12.609		63216	VV	
14	4,4'DDT	149.5762	13.643	0.383	237926	VB	32.63
15	END KETON	59.6201	15.708	0.438	163675	VV	47.75
16		0.0000	17.972		103783	VV	? 44.81
17	METHOXYCH	56.8558	19.636	-0.854	144114	VB	? 94.31
18		0.0000	21.700		203557	BV	48.69
19	DBC	50.0345	25.554	-1.056	111821	VV	66.56
20		0.0000	29.043		186675	VB	?137.69

1254

1260

TOTALS: 863.0774 -1.232 2624249

DETECTED PKS: 36 REJECTED PKS: 18

DIVISOR: 1.50000 MULTIPLIER: 10000.0000

NOISE: 194.3 OFFSET: -18

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SAMSON
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: RAW

SAMPLE NUMBER DC-SD-28

481095

Sample Number
DC-SD-28

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432 / U-4442
Lab Sample ID No: 9666
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Stojtowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-14-86
Conc./Dil Factor: 2 pH 7.4
Percent Moisture: (Not Decanted) 33

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3200u
74-83-9	Bromomethane	3200u
75-01-4	Vinyl Chloride	3200u
75-00-3	Chloroethane	3200u
75-09-2	Methylene Chloride	20000 B
67-64-1	Acetone	7400 B
75-15-0	Carbon Disulfide	1600u
75-35-4	1, 1-Dichloroethene	1600u
75-34-3	1, 1-Dichloroethane	1600u
156-60-5	Trans-1, 2-Dichloroethene	1600u
67-66-3	Chloroform	1600u
107-06-2	1, 2-Dichloroethane	1600u
78-93-3	2-Butanone	15000 B
71-55-6	1, 1, 1-Trichloroethane	1600u
56-23-5	Carbon Tetrachloride	1600u
108-05-4	Vinyl Acetate	3200u
75-27-4	Bromodichloromethane	1600u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1600u
10061-02-6	Trans-1, 3-Dichloropropene	1600u
79-01-6	Trichloroethene	1600u
124-48-1	Dibromochloromethane	1600u
79-00-5	1, 1, 2-Trichloroethane	1600u
71-43-2	Benzene	1600u
10061-01-5	cis-1, 3-Dichloropropene	1600u
110-75-8	2-Chloroethylvinylether	3200u
75-25-2	Bromoform	1600u
108-10-1	4-Methyl-2-Pentanone	3200u
591-78-6	2-Hexanone	3200u
127-18-4	Tetrachloroethene	1600u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1600u
108-88-3	Toluene	1600u
108-90-7	Chlorobenzene	1600u
100-41-4	Ethylbenzene	1600u
100-42-5	Styrene	1600u
	Total Xylenes	1600u

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4432 / V-4442

Sample Number DC-SD-28

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 12-1-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 33

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	490	U
111-44-4	bis(-2-Chloroethyl)Ether	490	U
95-57-8	2-Chlorophenol	490	U
541-73-1	1 3-Dichlorobenzene	490	U
106-46-7	1. 4-Dichlorobenzene	490	U
100-51-6	Benzyl Alcohol	490	U
95-50-1	1. 2-Dichlorobenzene	490	U
95-48-7	2-Methylphenol	490	U
39638-32-9	bis(2-chloroisopropyl)Ether	490	U
106-44-5	4-Methylphenol	490	U
621-64-7	N-Nitroso-Di-n-Propylamine	490	U
67-72-1	Hexachloroethane	490	U
98-95-3	Nitrobenzene	490	U
78-59-1	Isophorone	490	U
88-75-5	2-Nitrophenol	490	U
105-67-9	2. 4-Dimethylphenol	490	U
65-85-0	Benzoic Acid	2400	U
111-91-1	bis(-2-Chloroethoxy)Methane	490	U
120-83-2	2. 4-Dichlorophenol	490	U
120-82-1	1. 2. 4-Trichlorobenzene	490	U
91-20-3	Naphthalene	490	U
106-47-8	4-Chloroaniline	490	U
87-68-3	Hexachlorobutadiene	490	U
59-50-7	4-Chloro-3-Methylphenol	490	U
91-57-6	2-Methylnaphthalene	490	U
77-47-4	Hexachlorocyclopentadiene	490	U
88-06-2	2 4. 6-Trichlorophenol	490	U
95-95-4	2. 4. 5-Trichlorophenol	2400	U
91-58-7	2-Chloronaphthalene	490	U
88-74-4	2-Nitroaniline	2400	U
131-11-3	Dimethyl Phthalate	490	U
208-96-8	Acenaphthylene	490	U
99-09-2	3-Nitroaniline	2400	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	490	U
51-28-5	2. 4-Dinitrophenol	2400	U
100-02-7	4-Nitrophenol	2400	U
132-64-9	Dibenzofuran	490	U
121-14-2	2 4-Dinitrotoluene	490	U
606-20-2	2. 6-Dinitrotoluene	490	U
84-66-2	Diethylphthalate	490	U
7005-72-3	4-Chlorophenyl-phenylether	490	U
86-73-7	Fluorene	490	U
100-01-6	4-Nitroaniline	2400	U
534-52-1	4. 6-Dinitro-2-Methylphenol	2400	U
86-30-6	N-Nitrosodiphenylamine (1)	490	U
101-55-3	4-Bromophenyl-phenylether	490	U
118-74-1	Hexachlorobenzene	490	U
87-86-5	Pentachlorophenol	2400	U
85-01-8	Phenanthrene	490	U
120-12-7	Anthracene	490	U
84-74-2	Di-n-Butylphthalate	490	U
206-44-0	Fluoranthene	490	U
129-00-0	Pyrene	490	U
85-68-7	Butylbenzylphthalate	490	U
91-94-1	3. 3'-Dichlorobenzidine	980	U
56-55-3	Benzo(a)Anthracene	490	U
117-81-7	bis(2-Ethylhexyl)Phthalate	490	U
218-01-9	Chrysene	490	U
117-84-0	Di-n-Octyl Phthalate	490	U
205-99-2	Benzo(b)Fluoranthene	490	U
207-08-9	Benzo(k)Fluoranthene	490	U
50-32-8	Benzo(a)Pyrene	490	U
193-39-5	Indeno(1. 2. 3-cd)Pyrene	490	U
53-70-3	Dibenz(a. h)Anthracene	490	U
191-24-2	Benzo(g. h. i)Perylene	490	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number DC-SD-28

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-19-86

Conc/Dil Factor 2

Percent Moisture (decanted) 33

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	32 u
319-85-7	Beta-BHC	32 u
319-86-8	Delta-BHC	32 u
58-89-9	Gamma-BHC (Lindane)	32 u
76-44-8	Heptachlor	32 u
309-00-2	Aldrin	32 u
1024-57-3	Heptachlor Epoxide	32 u
959-98-8	Endosulfan I	32 u
60-57-1	Dieldrin	64 u
72-55-9	4,4'-DDE	64 u
72-20-8	Endrin	64 u
33213-65-9	Endosulfan II	64 u
72-54-8	4,4'-DDD	64 u
1031-07-8	Endosulfan Sulfate	64 u
50-29-3	4,4'-DDT	64 u
72-43-5	Methoxychlor	320 u
53494-70-5	Endrin Ketone	64 u
57-74-9	Chlordane	320 u
8001-35-2	Toxaphene	3,200 u
12674-11-2	Aroclor-1016	320 u
11104-28-2	Aroclor-1221	320 u
11141-16-5	Aroclor-1232	320 u
53469-21-9	Aroclor-1242	320 u
12672-29-6	Aroclor-1248	320 u
11097-69-1	Aroclor-1254	1,900
11096-82-5	Aroclor-1260	640 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-28

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	17.5 min	750 BJ
2.	Unknown Ketone	VOA	19.8 min	480 BJ
3.	Hexane isomer	VOA	21.5 min	2400 BJ
4.				
5.	UNKNOWN	BNA	8.6	2900 J
6.	UNKNOWN HYDROCARBON	|	27.6	580 BJ
7.	UNKNOWN	|	30.9	4400 BJ
8.	UNKNOWN	|	35.0	1900 BJ
9.				
10.				
11.				
12.				
13.				
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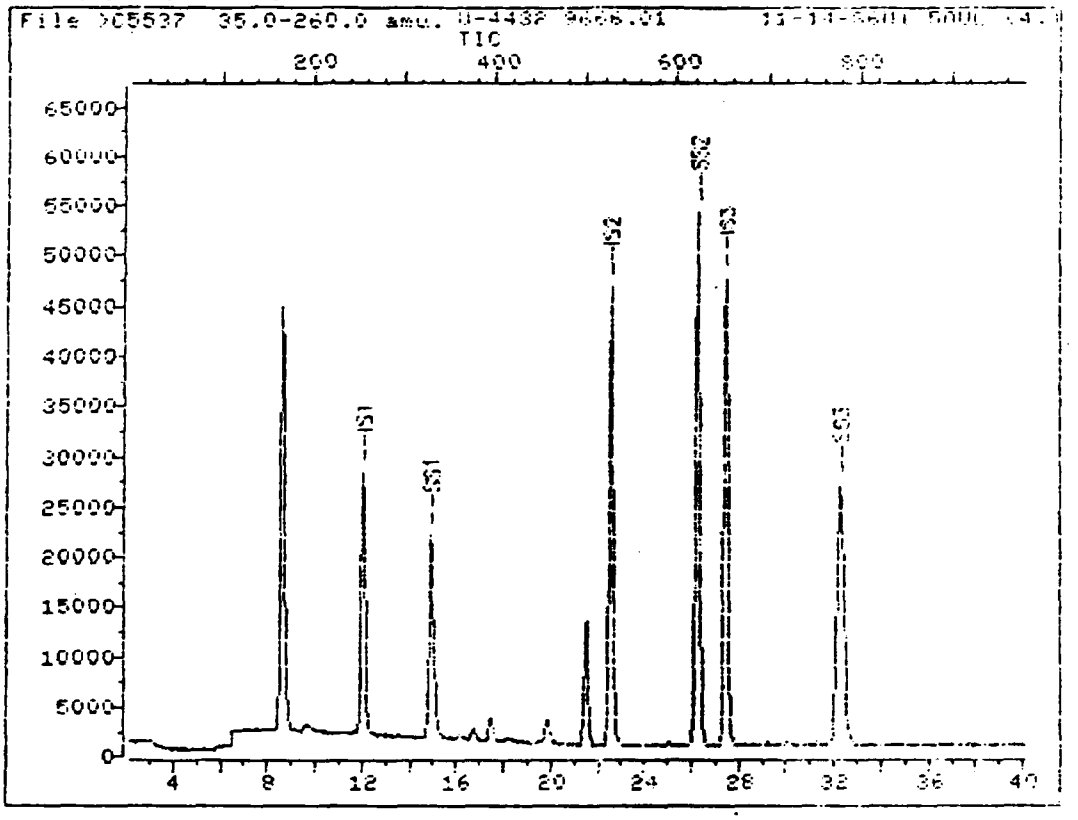
29.				
30				

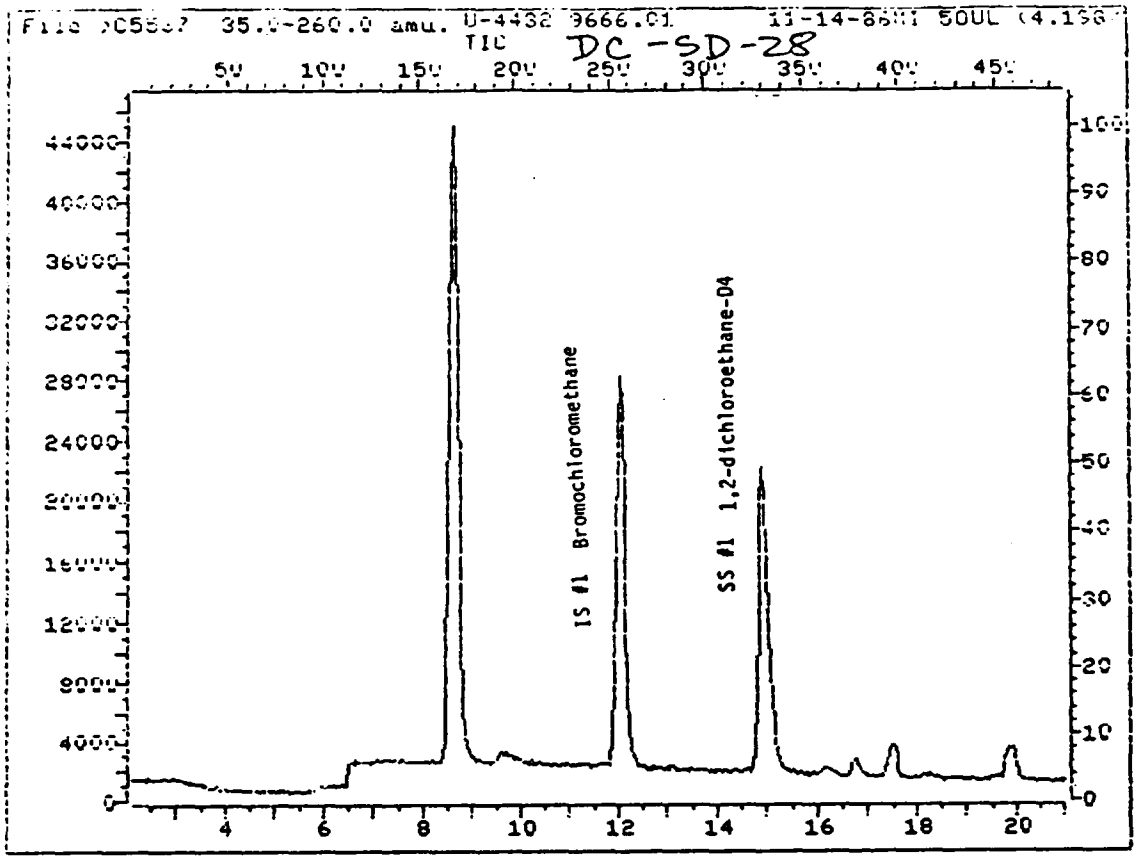
TOTAL ION CHROMATOGRAM

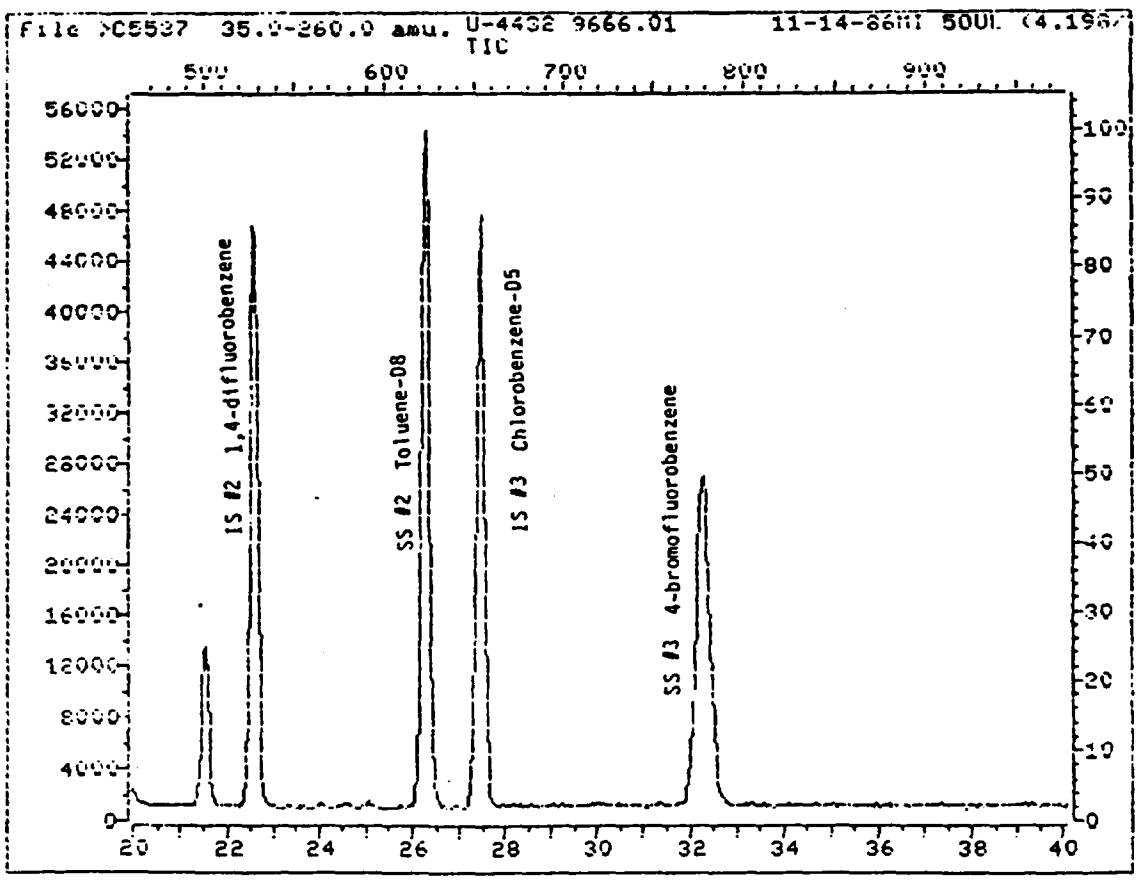


Data File: >C5537::D3
Name: U-4432 9666.01 DC-SD-28
Misc: 11-14-86MI 50UL (4.19G/10MLS) + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 21:27

Operator ID: USER8
Quant Time: 861115 13:52
Injected at: 861115 01:4


File >C5537 35.0-260.0 amu. U-4432 9666.01 11-14-86HT 50UL (4.196)
TIC
DC-SD-28
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5537 35.0-260.0 amu. U-4432 9666.01 11-14-86HT 50UL (4.196)
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

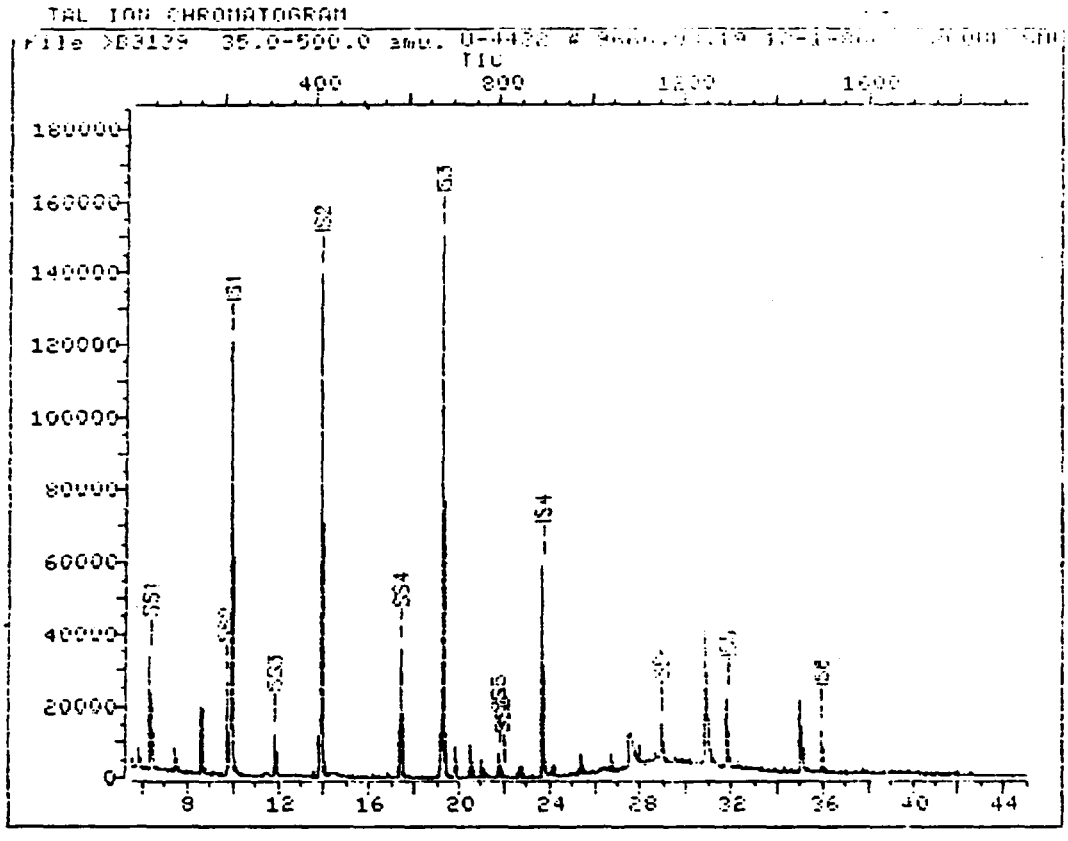
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861115 12:52
Output File: ^C5537::D2 Injected at: 861115 01:47
Data File: >C5537::D3 Dilution Factor: 1.00
Name: U-4432 9666.01 DC-SD-28
Misc: 11-14-86MI 50UL (4.19G/10MLS) + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 21:27

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	12.04	255	42811	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.63	168	113659	55.92	UG/L	100
7)	ACETONE		43	9.64	194	6050	20.64	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.91	330	85233	47.49	UG/L	89
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.55	527	208902	50.00	UG/L	100
17)	2-BUTANONE		72	15.07	334	6720	42.89	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.45	653	158753	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.28	623	218831	48.04	UG/L	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.30	778	104814	46.29	UG/L	100

* Compound is ISTD

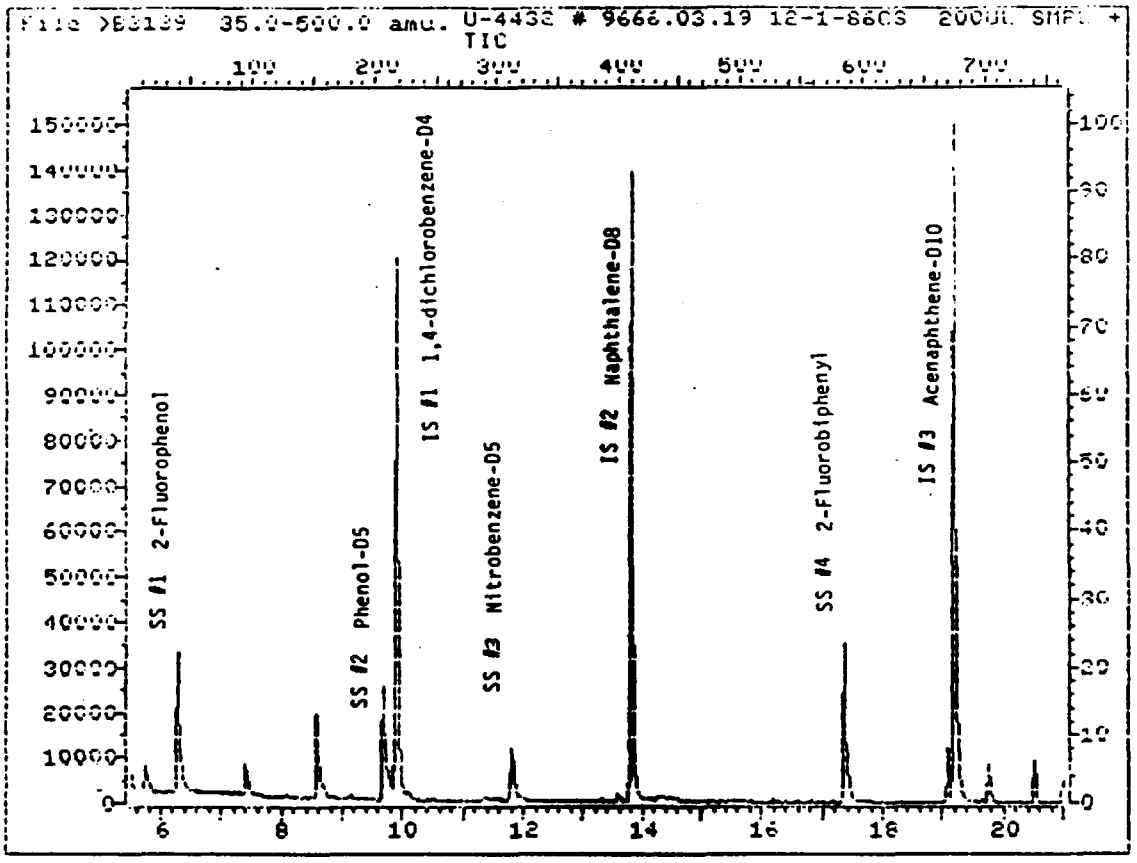


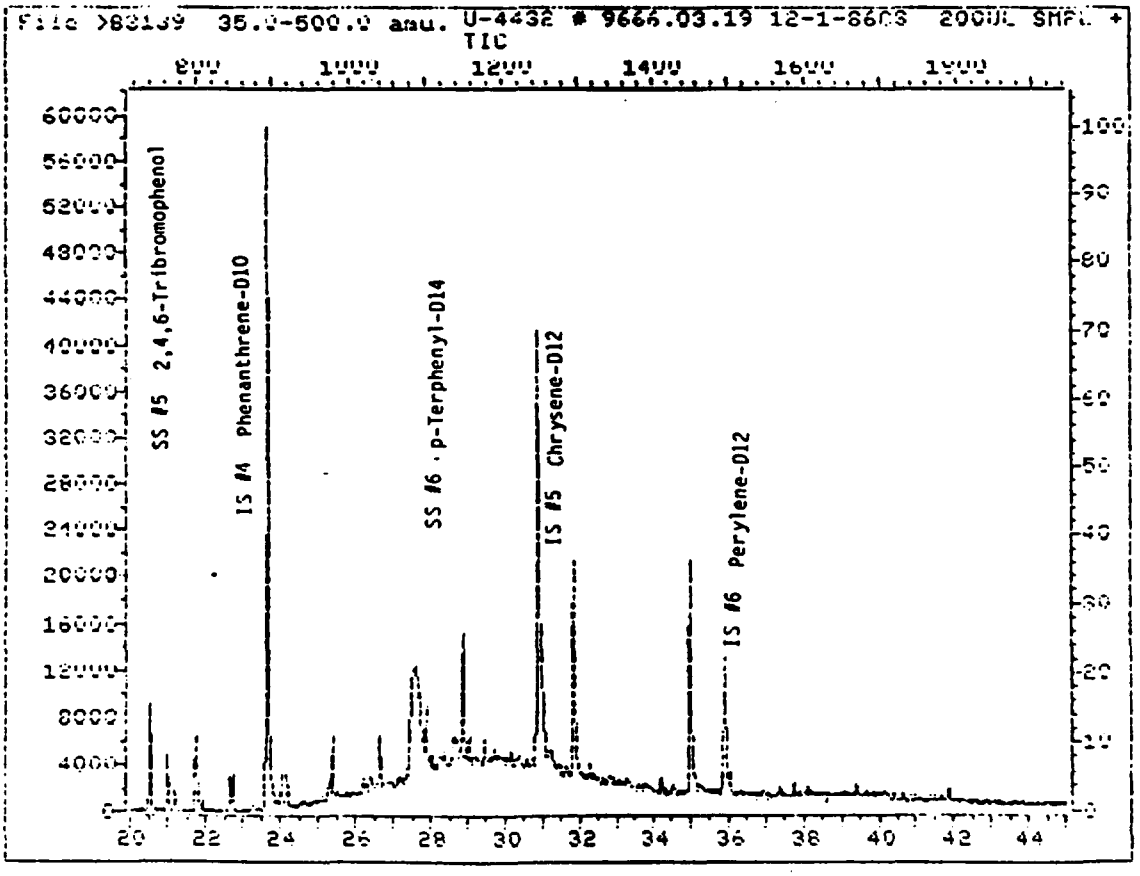
Data File: >B3139::D4
Name: U-4432 # 9666.03.19 DC-SD-28
Misc: 12-1-86CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 13:31

Operator ID: USER6
Quant Time: 861201 16:34
Injected at: 861201 15:23

DC-SD-28


File >83139 35.0-500.0 amu. U-4432 # 9666.03.19 12-1-86CS 200UL SMPL +
TIC
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


File >83139 35.0-500.0 amu. U-4432 # 9666.03.19 12-1-86CS 200UL SMPL +
TIC
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

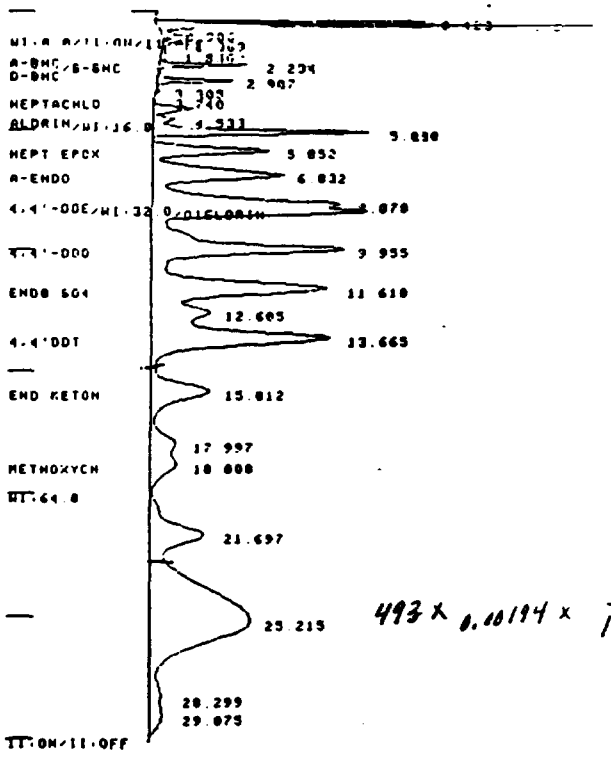
Operator ID: USER6 Quant Rev: 4 Quant Time: 861201 16:34
Output File: >B3139::02 Injected at: 861201 15:23
Data File: >B3139::04 Dilution Factor: 2.00
Name: U-4432 # 9666.03.19
Misc: 12-1-86CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X)

ID File: BNABR::02
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 13:31

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.91	218	54524	40.00	UG/L	90
2)	PHENOL-D5	(SURR)	99	9.68	207	37445	45.87	UG/L	94
5)	2-FLUOROPHENOL	(SURR)	112	6.29	40	27568	55.01	UG/L	93
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.47~~	~~225~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.47~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.47~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.52~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.48~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~7)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.02~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	79
9)	*NAPHTHALENE-D8	(IS)	136	13.81	410	185666	40.00	UG/L	100
0)	NITROBENZENE-D5	(SURR)	82	11.82	312	16330	21.51	UG/L	95
4)	*ACENAPHTHENE-D10	(IS)	162	19.20	675	87663	40.00	UG/L	97
8)	2-FLUOROBIPHENYL	(SURR)	172	17.37	585	46156	25.66	UG/L	95
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~14.10~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~14.20~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
8)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.72	799	5810	21.16	UG/L	97
~~8)~~	~~2,4,6-TRIBROMOPHENOL~~	~~(SURR)~~	~~330~~	~~21.80~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	82
~~1)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~20.52~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.90~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.42~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
5)	*PHENANTHRENE-D10	(IS)	188	23.65	894	98107	40.00	UG/L	97
5)	*CHRYSENE-D12	(IS)	240	31.81	1295	30562	40.00	UG/L	100
8)	TERPHENYL-D14	(SURR)	244	28.86	1150	12497	32.13	UG/L	100
4)	*PERYLENE-D12	(IS)	264	35.89	1496	23608	40.00	UG/L	100

* Compound is ISTD

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



$493 \times 0.10194 \times \frac{1}{1.0035g} \times 2{,}000 = 1{,}900$ mg/kg 1254

CHANNEL: 1A - 1 TITLE: RUN#39 23:33 19 NOV 86

DC-SD-28

SAMPLE: 9666.03.19 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT ~~UG/KG~~	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~B-BHC~~	11.4069	2.254	0.084	[illegible]566	VB	5.00
2		0.0000	2.907		[illegible]	VV	6.25
3	~~HEPTACHLO~~	5.7505	4.038	0.248	[illegible]246	VV	14.19
4	~~ALDRIN~~	2.3849	4.533	-0.137	[illegible]252	VV	14.38
5		0.0000	~~5.000~~		~~[illegible]~~	VV	10.56
6	~~HEPT EPOX~~	19.2997	5.852	0.182	27[illegible]458	VV	16.56
7	~~A-ENDO~~	37.3654	6.832	-0.198	50[illegible]954	VV	[illegible]
8	~~4,4'-DDE~~	42.3504	~~0.070~~	-0.012	56[illegible]963	VV	? [illegible]
9	~~DIELDRIN~~	37.9666	0.369	0.179	56[illegible]423	VV	? 28.13
10	~~4,4'-DDD~~	71.3633	9.955	-0.205	85[illegible]269	VV	25.69
11	~~ENDO SO4~~	87.7454	11.618	-0.292	85[illegible]070	VV	35.89
12		0.0000	12.605		27[illegible]566	VV	? 42.69
13	~~4,4'DDT~~	114.5467	13.665	0.405	91[illegible]029	VV	35.38
14	~~END KETON~~	26.2244	15.812	0.542	37[illegible]966	VV	45.06
15		0.0000	17.997		15[illegible]110	VV	? 48.81
16	~~METHOXYCH~~	36.5590	~~[illegible]~~	-0.662	~~[illegible]~~	VV	? 70.44
17		0.0000	21.697		42[illegible]782	VV	52.81
18	~~DDE~~	171.1265	25.215	-1.395	1912234	VV	?149.75
19		0.0000	28.299		77341	VV	? 77.94
20		0.0000	29.075		57089	VB	? 76.00

493 1254

TOTALS: 664.0897 -1.281 8611518

DETECTED PKS: 37 REJECTED PKS: 17

DIVISOR: 1.50000 MULTIPLIER: 2000.02220

NOISE: 228.6 OFFSET: 11

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SAMSON
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

SAMPLE NUMBER DC-SD-29

481095

Sample Number
DC-SD-29

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No. U-4432/U-4442
Lab Sample ID No: 9667
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Stoytowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc/Dil Factor: 2 pH 7.3

Percent Moisture: (Not Decanted) 21

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2600u
74-83-9	Bromomethane	2600u
75-01-4	Vinyl Chloride	2600u
75-00-3	Chloroethane	2600u
75-09-2	Methylene Chloride	15000 B
67-64-1	Acetone	6200 B
75-15-0	Carbon Disulfide	1300u
75-35-4	1, 1-Dichloroethene	1300u
75-34-3	1, 1-Dichloroethane	1300u
156-60-5	Trans-1, 2-Dichloroethene	1300u
67-66-3	Chloroform	1300u
107-06-2	1, 2-Dichloroethane	1300u
78-93-3	2-Butanone	11000 B
71-55-6	1, 1, 1-Trichloroethane	1300u
56-23-5	Carbon Tetrachloride	1300u
108-05-4	Vinyl Acetate	2600u
75-27-4	Bromodichloromethane	1300u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1300u
10061-02-6	Trans-1, 3-Dichloropropene	1300u
79-01-6	Trichloroethene	1300u
124-48-1	Dibromochloromethane	1300u
79-00-5	1, 1, 2-Trichloroethane	1300u
71-43-2	Benzene	1300u
10061-01-5	cis-1, 3-Dichloropropene	1300u
110-75-8	2-Chloroethylvinylether	2600u
75-25-2	Bromoform	1300u
108-10-1	4-Methyl-2-Pentanone	2600u
591-78-6	2-Hexanone	2600u
127-18-4	Tetrachloroethene	1300u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1300u
108-88-3	Toluene	1300u
108-90-7	Chlorobenzene	1300u
100-41-4	Ethylbenzene	1300u
100-42-5	Styrene	1300u
	Total Xylenes	1300u

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4432 / U-4442

Sample Number DC-SD-29

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 11-20-86

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

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

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4432 / V-4442

Sample Number DC-SD-29

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-12-86

Date Analyzed: 11-20-86

Conc/Dil Factor: 1

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

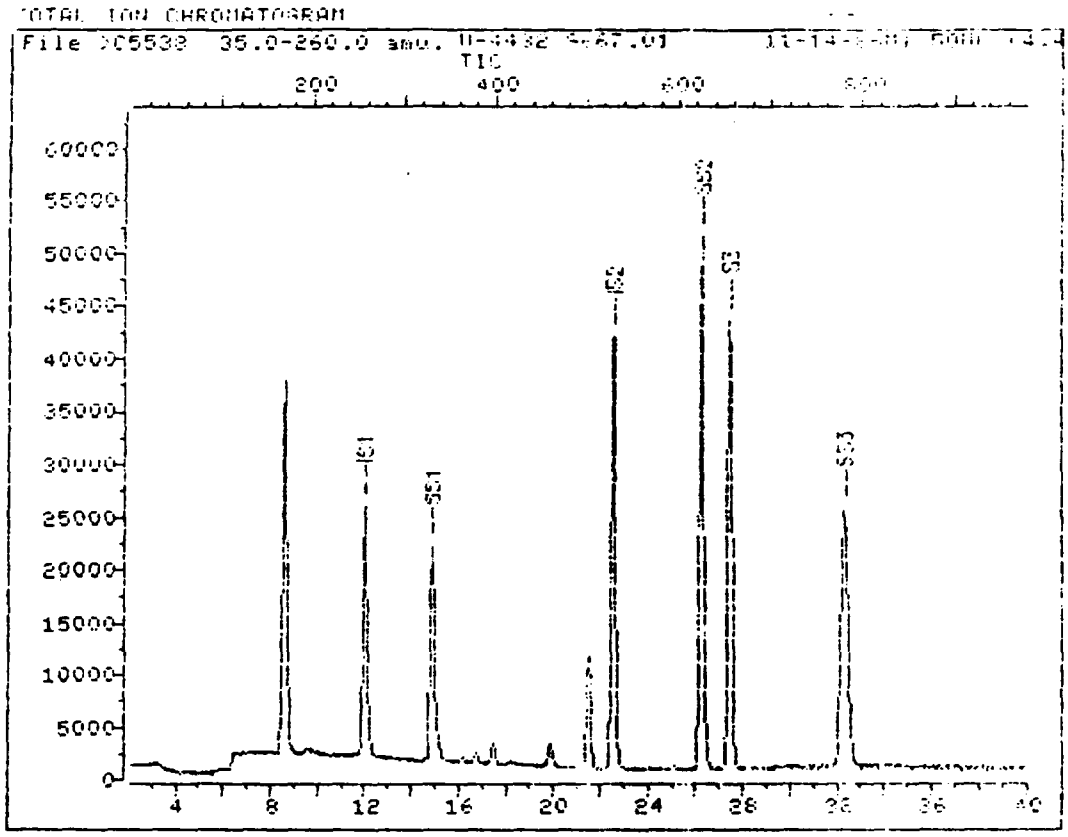
Case No u-4432 / u-4442

Sample Number DC-SD-29

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	17.5 min	570 BJ
2.	Unknown Ketone	VOA	19.9 min	400 BJ
3.	Hexane isomer	VOA	21.5 min	1800 BJ
4.				
5.	UNKNOWN HYDROCARBON	BNA	27.6	720 J
6.	UNKNOWN		30.9	2500 BJ
7.	UNKNOWN		35.0	1100 BJ
8.	UNKNOWN HYDROCARBON		37.8	260 BJ
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

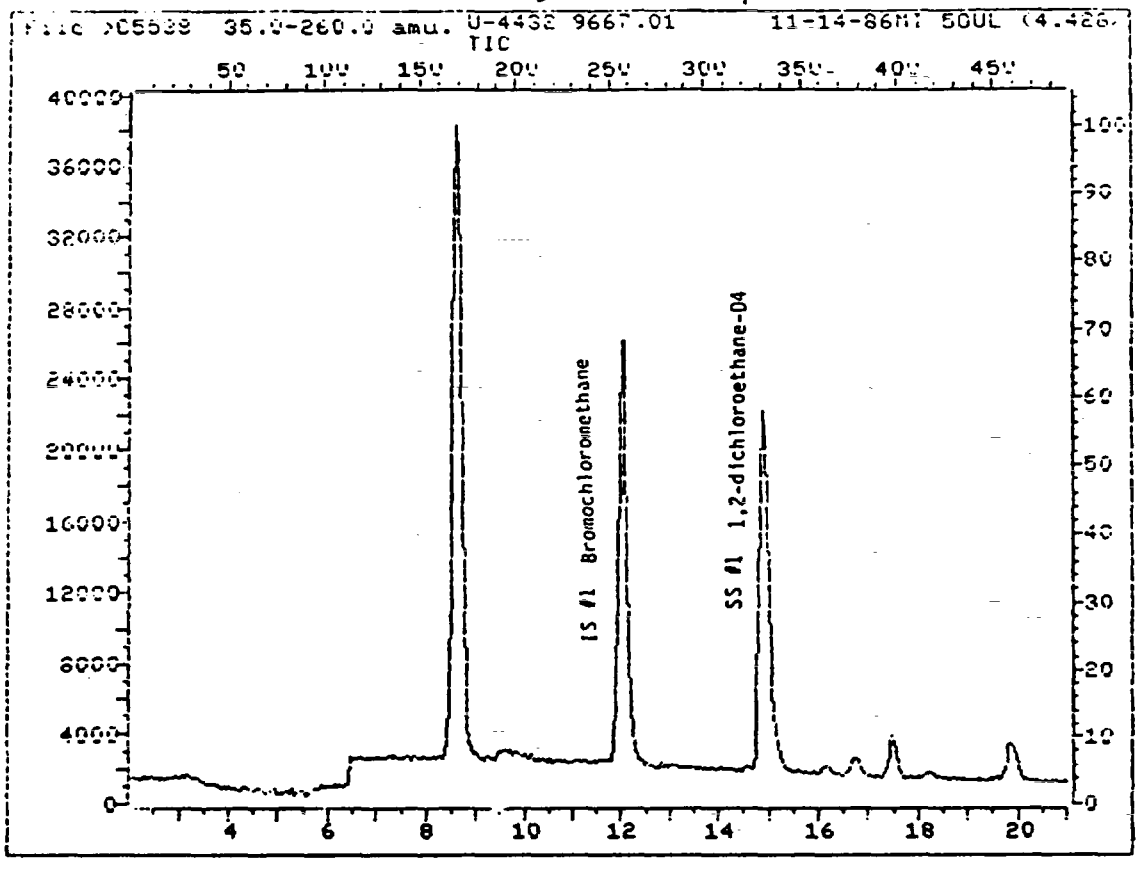


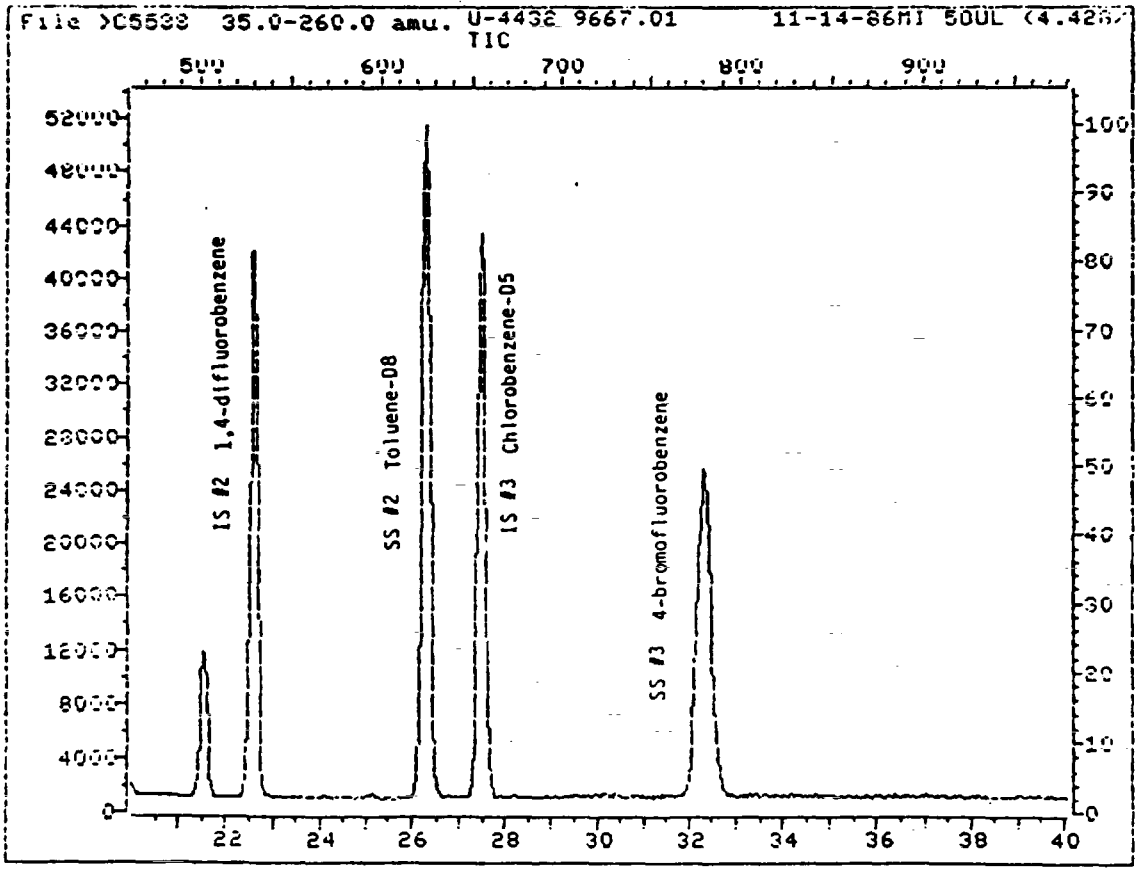
Data File: >C5538::D3
Name: U-4432 9667.01 DC-SD-29
Misc: 11-14-86MI 50UL (4:42G/10MLS) + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 21:27

Operator ID: USER8
Quant Time: 861115 13:56
Injected at: 861115 02:38

DC-SD-29


File >C5538 35.0-260.0 amu. U-4432 9667.01 11-14-86MT 50UL (4.426)
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5538 35.0-260.0 amu. U-4432 9667.01 11-14-86MT 50UL (4.426)
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT

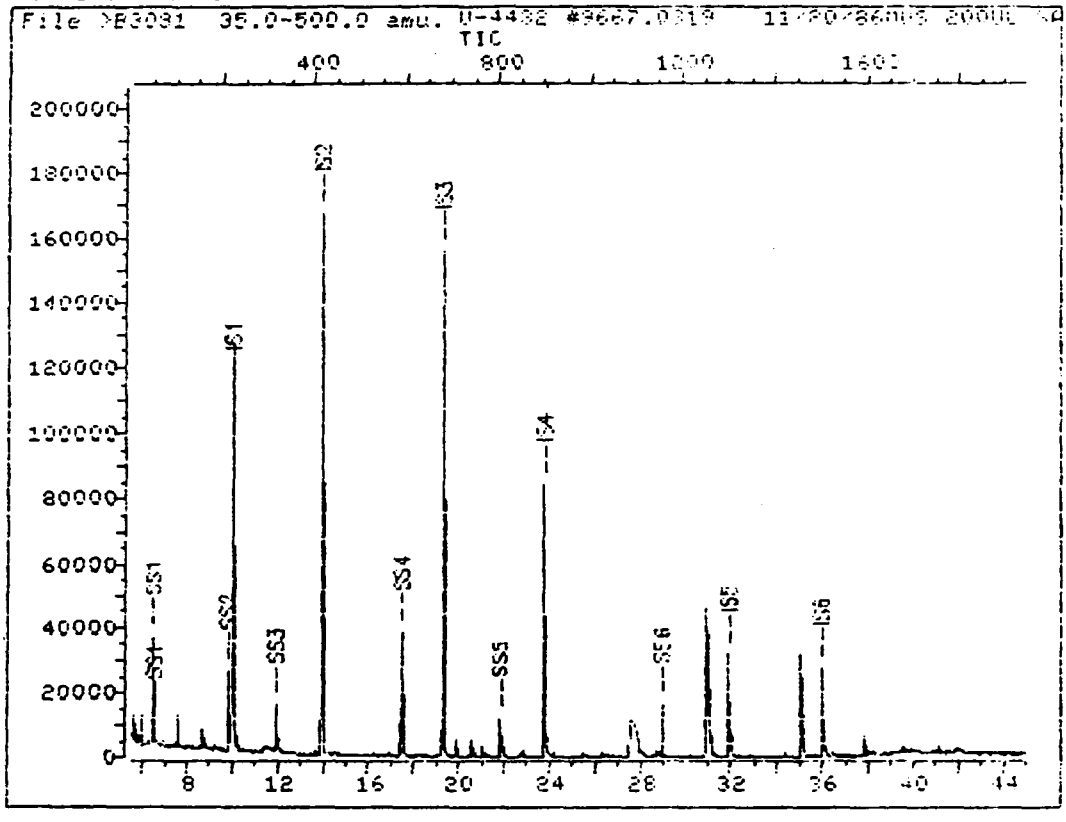
Operator ID: USER8 Quant Rev: 4 Quant Time: 861115 15:56
Output File: ^C5538::D2 Injected at: 861115 02:38
Data File: >C5538::D3 Dilution Factor: 1.00
Name: U-4432 9667.01 DC-SD-29
Misc: 11-14-86MI 5UUL (4.42G/10MLS) + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 21:27

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	12.02	257	48274	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.60	169	92096	50.77	UG/L	100
7)	ACETONE		43	9.61	195	5978	21.63	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.89	321	83885	49.68	UG/L	90
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.56	524	140042	50.00	UG/L	100
17)	2-BUTANONE		72	15.04	335	5420	37.74	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.46	655	145163	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.29	625	206305	49.65	UG/L	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.31	780	100977	48.77	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

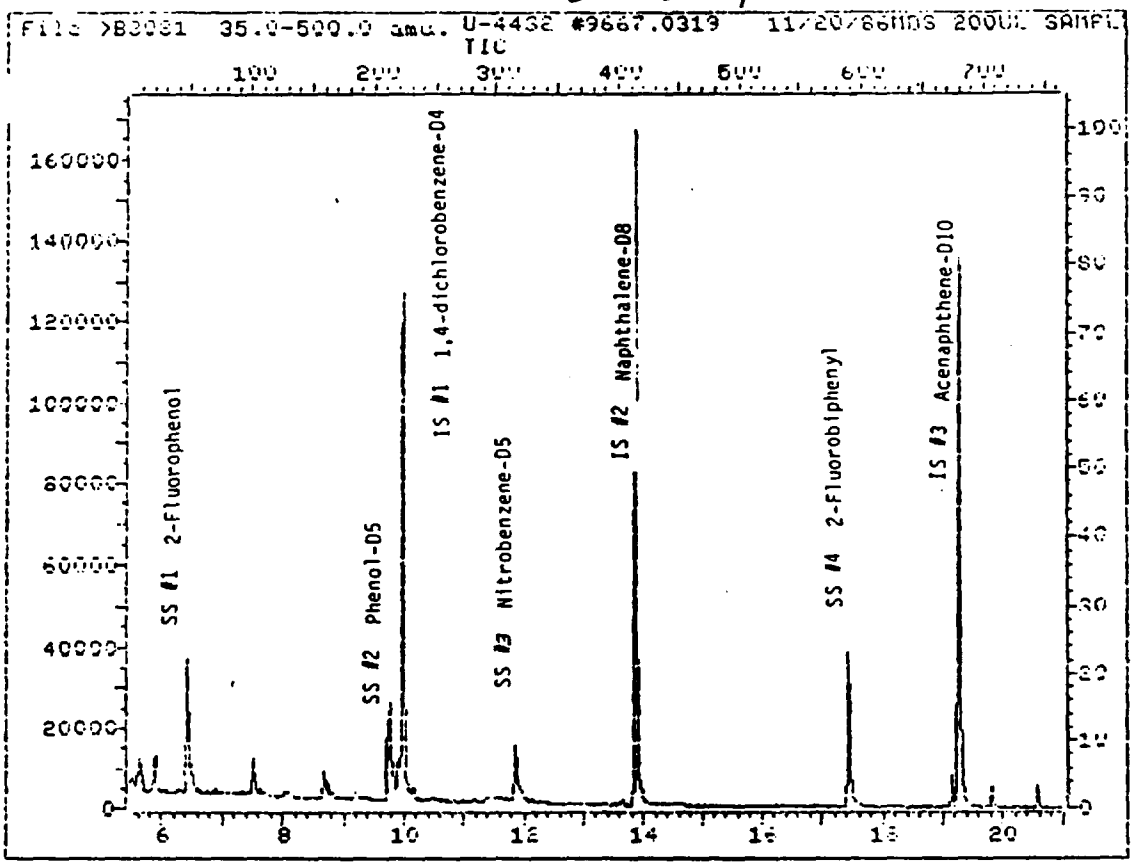


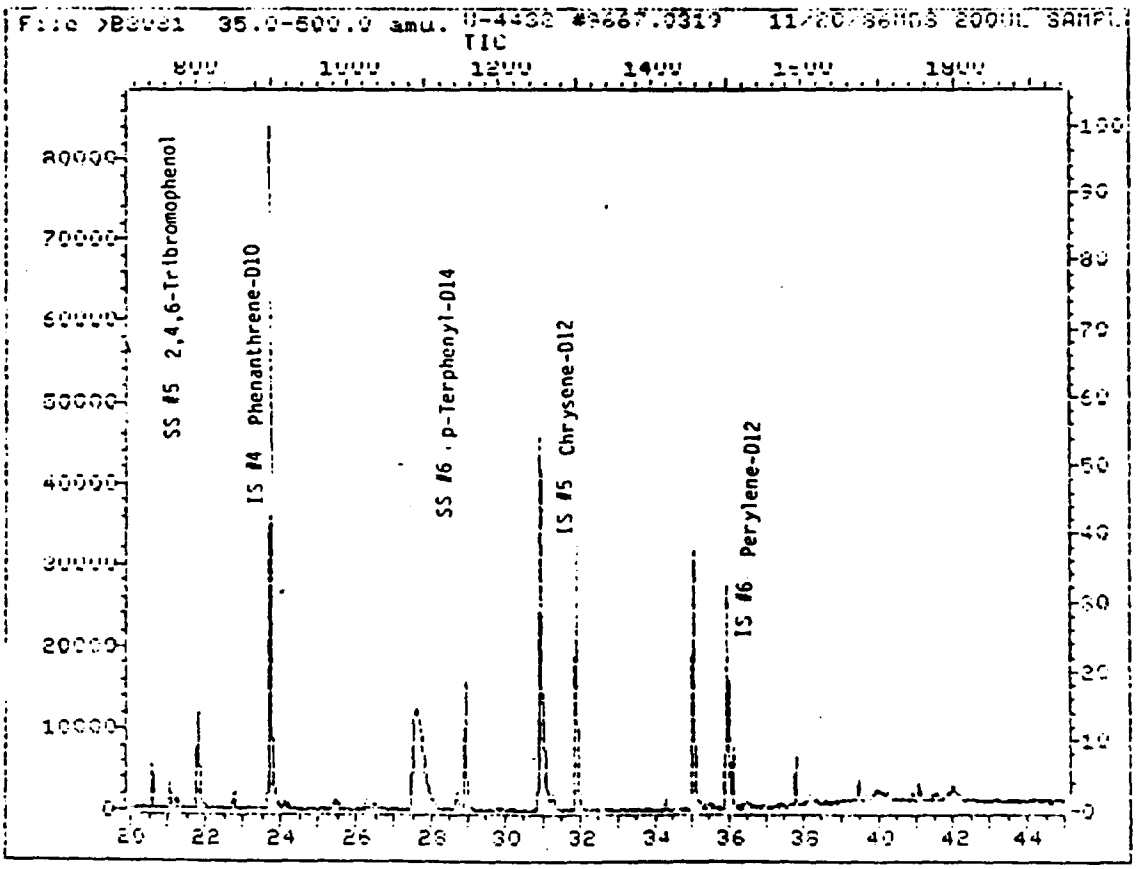
Data File: >B3081::D4
Name: U-4432 #9667.0319 DC-SD-29
Misc: 11/20/86MDS 200UL SAMPLE+ 200 UL MEKL2 + 4 UL IS [illegible]

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861120 12:20

Operator ID: USER8
Quant Time: 861120 17:08
Injected at: 861120 16:21

DC-SD-29


File >B0081 35.0-500.0 amu. U-4432 #9667.0319 11/20/86MDS 200UL SAMPL
TIC
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


File >B0081 35.0-500.0 amu. U-4432 #9667.0319 11/20/86MDS 200UL SAMPL
TIC
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861120 17:08
Output File: ^B3081::Q2 Injected at: 861120 16:21
Data File: >B3081::D4 Dilution Factor: 2.00
Name: U-4432 #9667.0319 DC-SD-29
Misc: 11/20/86MDS 200UL SAMPLE+ 200 UL NECL2 + 4 UL IS (2X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861120 12:20

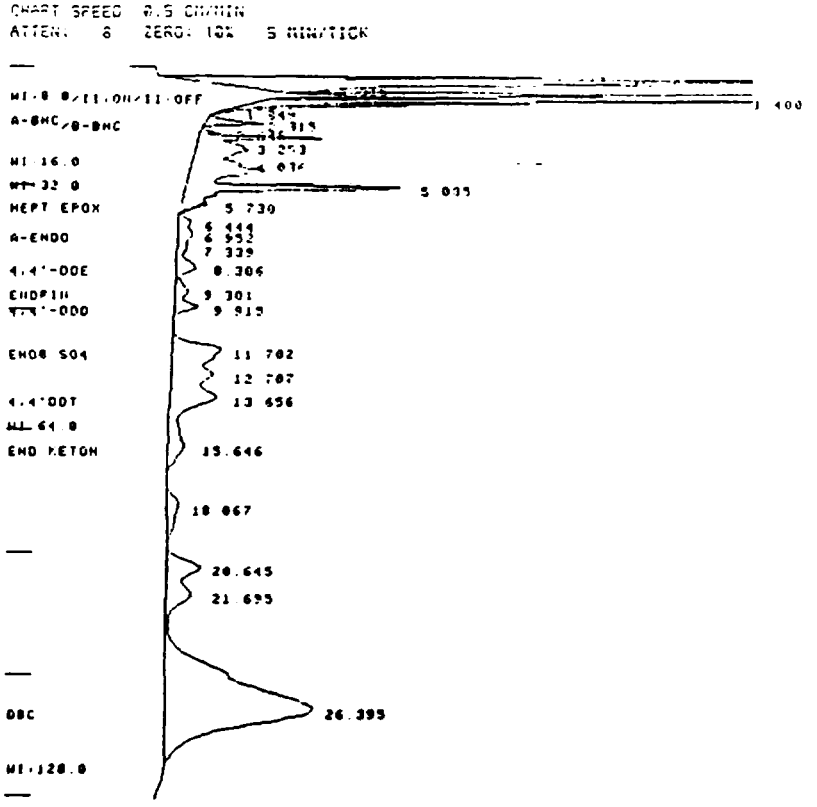
	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.97	202	62339	40.00	UG/L	90
2)	PHENOL-D5	(SURR)	99	9.77	212	40055	38.51	UG/L	93
5)	2-FLUOROPHENOL	(SURR)	112	6.43	48	22854	35.20	UG/L	88
5)	2-FLUOROPHENOL	(SURR)	112	6.50	51	2503	3.86	UG/L	96
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.27~~	~~204~~	~~[illegible]~~	~~.14~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.41~~	~~206~~	~~[illegible]~~	~~.22~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.42~~	~~204~~	~~[illegible]~~	~~.[illegible]~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.46~~	~~[illegible]~~	~~[illegible]~~	~~.23~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.72~~	~~[illegible]~~	~~[illegible]~~	~~.2[illegible]~~	~~UG/L~~	100
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.48~~	~~316~~	~~[illegible]~~	~~4.22~~	~~UG/L~~	90
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.99~~	~~[illegible]~~	~~[illegible]~~	~~.19~~	~~UG/L~~	62
19)	*NAPHTHALENE-D8	(IS)	136	13.88	414	214083	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.88	316	13126	19.94	UG/L	93
34)	*ACENAPHTHENE-D10	(IS)	162	19.26	679	93473	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	17.43	589	[illegible]	29.02	UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.16~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.26~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.78	803	[illegible]	28.13	UG/L	93
~~51)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~20.58~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.26~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	23.71	898	12049	40.00	UG/L	93
65)	*CHRYSENE-D12	(IS)	240	31.87	1294	54202	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.92	1154	18440	33.27	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.95	1500	[illegible]	40.00	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~76)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~78)~~	~~BENZO(A)PYRENE~~		~~252~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~79)~~	~~DIBENZ(A,H)ANTHRACENE~~		~~278~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~81)~~	~~BENZO(G,H,I)PERYLENE~~		~~276~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100

Nb ogl

Nb ogl

Nb ogl

* Compound is ISTD



DC-SD-29

CHANNEL: 1A - 1 TITLE: RUN# 40 8:12 20 NOV 86

SAMPLE: 9667.03.19 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	1.238		10[illegible]129	BV	2.38
2		0.0000	1.400		4[illegible]810	VV	3.25
3		0.0000	1.523		1[illegible]195	VV	3.56
4		0.0000	1.674		[illegible]535	VV	3.44
5	~~a-BHC~~	2.2531	2.315	-0.065	6[illegible]155	VV	9.31
6		0.0000	2.910		12[illegible]579	VV	6.61
7		0.0000	3.253		7[illegible]291	VV	? 17.94
8		0.0000	3.396		14[illegible]690	VV	? 50.69
9	~~HEPTACHLO~~	3.9607	4.036	0.246	9[illegible]766	VV	? 25.94
10		0.0000	4.297		25[illegible]564	VV	? 26.75
11		0.0000	5.085		44[illegible]757	VV	10.81
12	~~HEPT EPOX~~	0.7307	5.730	0.060	2[illegible]937	T	? 10.50
13		0.0000	6.444		3[illegible]042	VV	? 20.94
14	~~a-ENDO~~ ✓	2.3291	6.952	-0.078	6[illegible]722	VV	? 45.25
15		0.0000	7.339		3[illegible]201	VV	?
16	~~DIELDRIN~~ ✓	2.0218	8.306	0.116	8[illegible]453	VV	31.50
17	~~B-ENDO~~ ✓	2.0073	9.301	-0.009	5[illegible]913	VV	32.38
18	~~4,4'-DDD~~	3.0968	9.915	-0.245	7[illegible]969	VV	20.75
19	ENDO SO4 ✓	16.3002	11.702	-0.208	31[illegible]060	VV	? 34.63
20		0.0000	12.707		21[illegible]621	VV	? 57.88
21	~~4,4'-DDT~~	18.0474	13.656	0.396	29[illegible]822	VV	? 53.81
22	~~END KETON~~	5.1838	15.646	0.376	14[illegible]653	VB	? 78.25
23		0.0000	18.067		10[illegible]509	BV	75.63
24		0.0000	20.645		19[illegible]559	VV	49.06
25		0.0000	21.695		15[illegible]570	VV	? 54.31
26	DBC	~~131.9122~~	26.395	-0.215	227[illegible]613	VB	109.06

TOTALS: 159.4433 0.374 6015[illegible]7

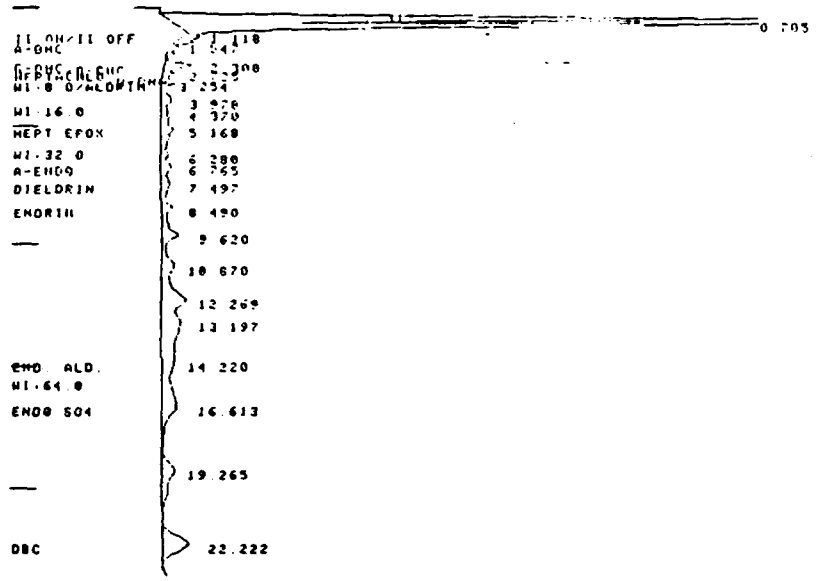
DETECTED PKS: 36 REJECTED PKS: 10

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 388.6 OFFSET: -3

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SAMSON
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 6000#2 A ECD 1041
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 4 UL INJECTION
AUTOSAMPLER

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TIC



DC-SD-29

CHANNEL: 1B - 1 TITLE: RUN# 19 22:14 21 NOV 86

SAMPLE: 9667 METHOD: FEFA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT ~~UG/KG~~	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.355		42786	BV	5.25
2	~~B-BHC~~	0.0000	2.380	-0.100	34419	BV	5.81
3	~~B-BHC~~	0.0000	2.436	0.026	53235	VV	5.75
4	~~HEPTACHLO~~	0.0000	2.725	-0.075	33474	VV	6.69
5	~~B-BHC~~	0.0000	2.951	0.151	22830	VB	6.13
6	~~ALDRIN~~	0.0000	3.254	0.104	33020	BV	? 7.88
7		0.0000	3.425		20210	VV	243.19
8		0.0000	3.973		76534	VV	? 49.63
9		0.0000	4.370		32893	VV	? 15.50
10		0.0000	4.749		26031	VV	? 14.88
11	~~HEPT EPOX~~	0.0000	5.155	0.050	76794	VV	? 35.25
12		0.0000	5.459		63791	VV	? 60.13
13		0.0000	6.280		40598	VV	? 24.69
14	~~A-ENDO~~	0.0000	6.755	-0.045	72261	VV	? 37.31
15	~~DIELDRIN~~	0.0000	7.497	-0.383	91534	VV	? 64.88
16	~~ENDRIN~~	0.0000	8.490	-0.320	79674	VV	? 27.50
17		0.0000	9.620		161797	VV	33.75
18	~~4,4'-DDD~~	0.0000	10.870	0.440	152326	VV	? 43.19
19	~~B-ENDOSUL~~	0.0000	12.269	0.629	324752	VV	? 59.69
20		0.0000	13.197		344579	VV	?106.25
21	~~4,4'-DDT~~	0.0000	14.220	0.270	219571	VV	?
22	~~ENDO SO4~~	0.0000	16.613	-0.447	323523	VV	?117.06
23		0.0000	19.265		206824	VV	89.19
24	~~DDC~~	0.0000	22.222	-0.038	295208	VV	51.44
TOTALS:		0.0000		0.230	2832404		

DETECTED PKS: 37 REJECTED P-S: 13

DIVISOR: 1.50000 MULTIPLIER: 2000.00000

NOISE: 68.6 OFFSET: -14

NOTES:
NOTEBOOK:259-40 ANALYST:RICHARD SIMSON
SECURE AREA: D JOB #U-4432;U-4442
INST: VARIAN 6000#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 S.-ELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

POST RUN:
SAVE FILE: RAW CHECKED

SAMPLE NUMBER DC-SD-31

481095

Sample Number
DC-SD-31

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No. U-4432 / U-4442
Lab Sample ID No: 9683
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Slaytowicz
Date Sample Received: 11-7-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc./Dil Factor: 2 pH 7.3

Percent Moisture: (Not Decanted) 20

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2400u
74-83-9	Bromomethane	2400u
75-01-4	Vinyl Chloride	2400u
75-00-3	Chloroethane	2400u
75-09-2	Methylene Chloride	14000 B
67-64-1	Acetone	4700 B
75-15-0	Carbon Disulfide	1200u
75-35-4	1, 1-Dichloroethene	1200u
75-34-3	1, 1-Dichloroethane	1200u
156-60-5	Trans-1, 2-Dichloroethene	1200u
67-66-3	Chloroform	1200u
107-06-2	1, 2-Dichloroethane	1200u
78-93-3	2-Butanone	5400 B
71-55-6	1, 1, 1-Trichloroethane	1200u
56-23-5	Carbon Tetrachloride	1200u
108-05-4	Vinyl Acetate	2400u
75-27-4	Bromodichloromethane	1200u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1200u
10061-02-6	Trans-1, 3-Dichloropropene	1200u
79-01-6	Trichloroethene	1200u
124-48-1	Dibromochloromethane	1200u
79-00-5	1, 1, 2-Trichloroethane	1200u
71-43-2	Benzene	1200u
10061-01-5	cis-1, 3-Dichloropropene	1200u
110-75-8	2-Chloroethylvinylether	2400u
75-25-2	Bromoform	1200u
108-10-1	4-Methyl-2-Pentanone	2400u
591-78-6	2-Hexanone	2400u
127-18-4	Tetrachloroethene	1200u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1200u
108-88-3	Toluene	1200u
108-90-7	Chlorobenzene	1200u
100-41-4	Ethylbenzene	1200u
100-42-5	Styrene	1200u
	Total Xylenes	1200u

Data Reporting Qualifiers

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

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

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

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

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

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

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

Laboratory Name Ecology & Environment Inc.

Case No U-4432/U-4442

Sample Number DC-SD-31

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 12-1-86

Conc/Dil Factor: 2

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

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	410	U
51-28-5	2. 4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2 4-Dinitrotoluene	410	U
606-20-2	2. 6-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
84-74-2	Di-n-Butylphthalate	410	U
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3. 3'-Dichlorobenzidine	820	U
56-55-3	Benzo(a)Anthracene	410	U
117-81-7	bis(2-Ethylhexyl)Phthalate	410	U
218-01-9	Chrysene	410	U
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	410	U
207-08-9	Benzo(k)Fluoranthene	410	U
50-32-8	Benzo(a)Pyrene	410	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	410	U
53-70-3	Dibenz(a h)Anthracene	410	U
191-24-2	Benzo(g h i)Perylene	410	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number DC-SD-31

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-20-86

Conc/Dil Factor: 2

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name ecology and environment, inc.

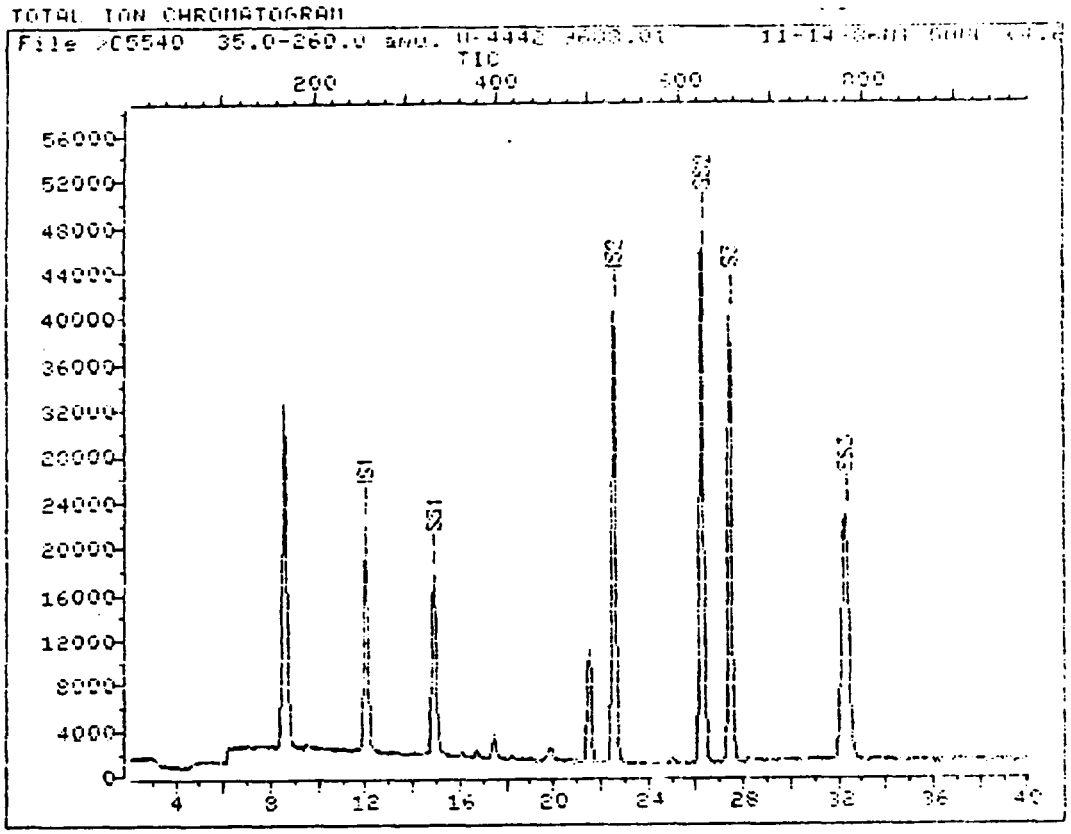
Case No u-4432 / u-4442

Sample Number DC-SD-31

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	17.5 min	520 BJ
2.	Unknown Ketone	VOA	19.8 min	230 BJ
3.	Hexane isomer	VOA	21.5 min	1800 BJ
4.				
5.	UNKNOWN HYDROCARBON	BNA	27.6	360 J
6.	UNKNOWN	|	30.9	2800 BJ
7.	UNKNOWN	|	35.2	2500 BJ
8.	UNKNOWN HYDROCARBON	|	37.8	440 BJ
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

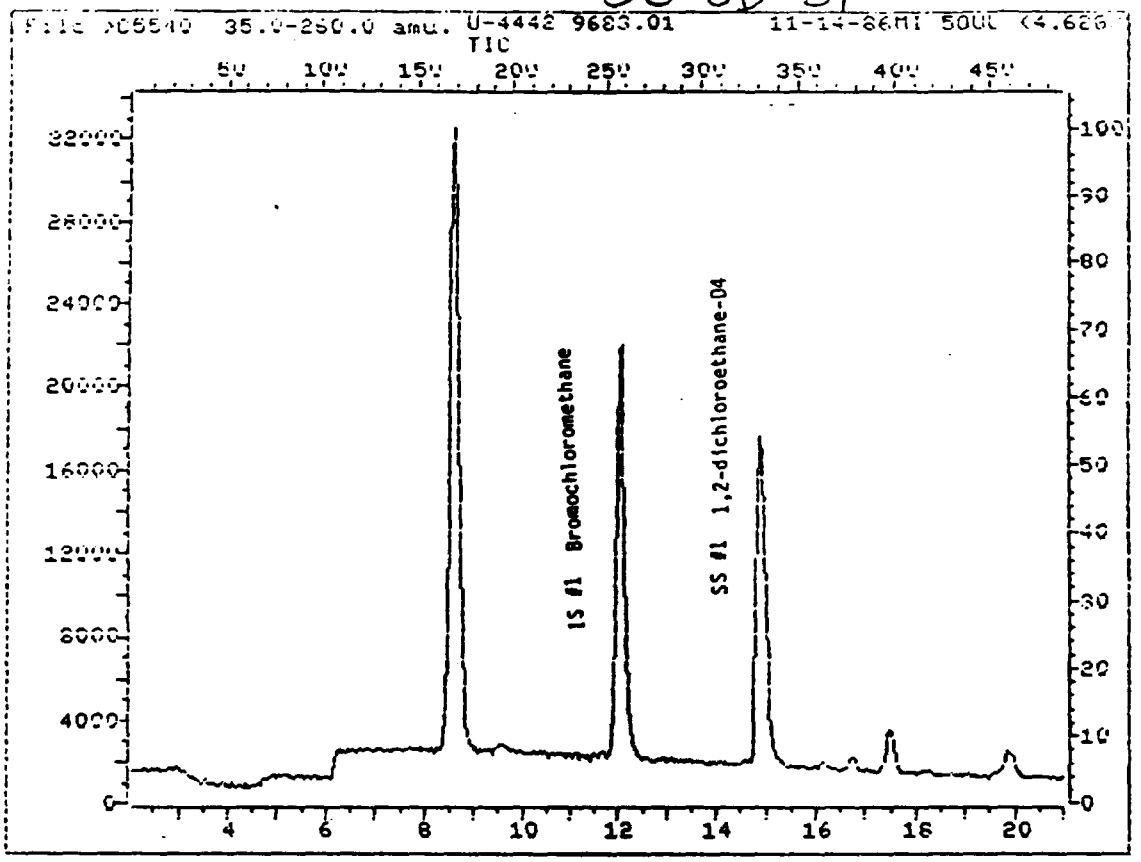


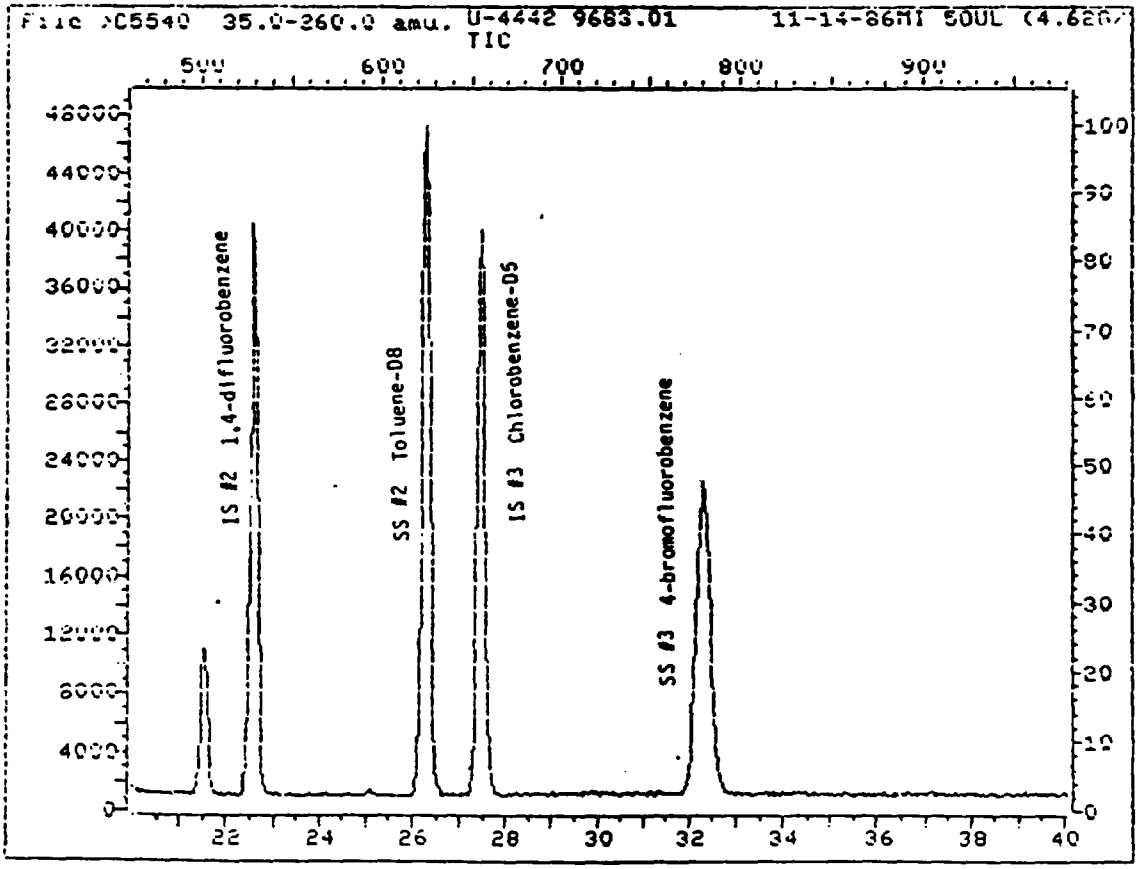
Data File: >C5540::D4
Name: U-4442 9683.01 DC-SD-31
Misc: 11-14-86MI 500UL (4.62G/100ULS) + 100UL IS SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 21:27

Operator ID: USER8
Quant Time: 861115 14:06
Injected at: 861115 04:22

DC-SD-31


File >C5540 35.0-260.0 amu. U-4442 9683.01 11-14-86HI 50UL (4.626)
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5540 35.0-260.0 amu. U-4442 9683.01 11-14-86HI 50UL (4.626)
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

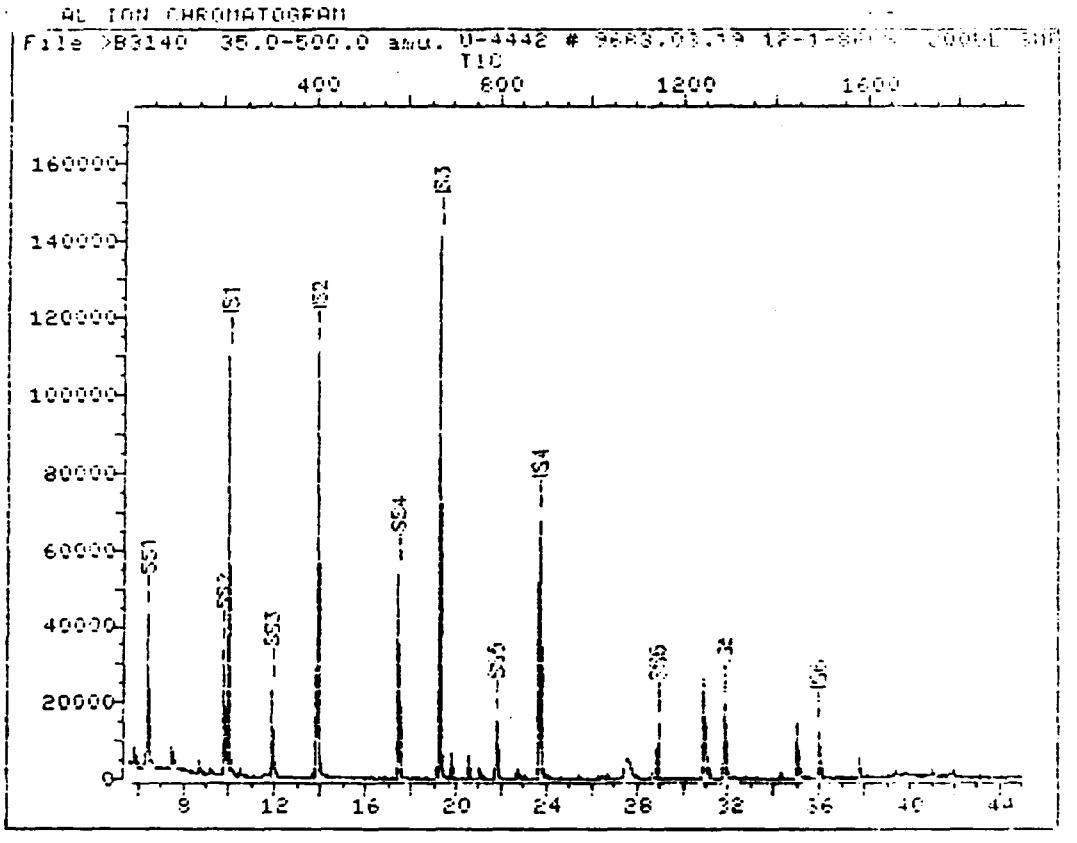
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861115 14:06
Output File: ^C5540::D2 Injected at: 861115 04:22
Data File: >C5540::D3 Dilution Factor: 1.00
Name: U-4442 9683.01 DC-SD-31
Misc: 11-14-86MI 50UL (4.62G/10MLS) + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 21:27

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	12.02	297	33151	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.60	169	83550	53.08	UG/L	100
7)	ACETONE	43	9.53	193	3911	12.23	UG/L	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.89	331	65456	47.10	UG/L	89
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.57	529	172819	50.00	UG/L	100
17)	2-BUTANONE	72	15.00	344	2694	20.05	UG/L	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.46	655	154325	50.00	UG/L	100
36)	TOLUENE-D8 (SURR)	98	26.29	625	189966	49.29	UG/L	95
40)	4-BROMOFLUOROBENZENE(SURR)	95	32.31	784	86321	45.06	UG/L	100

* Compound is ISTD

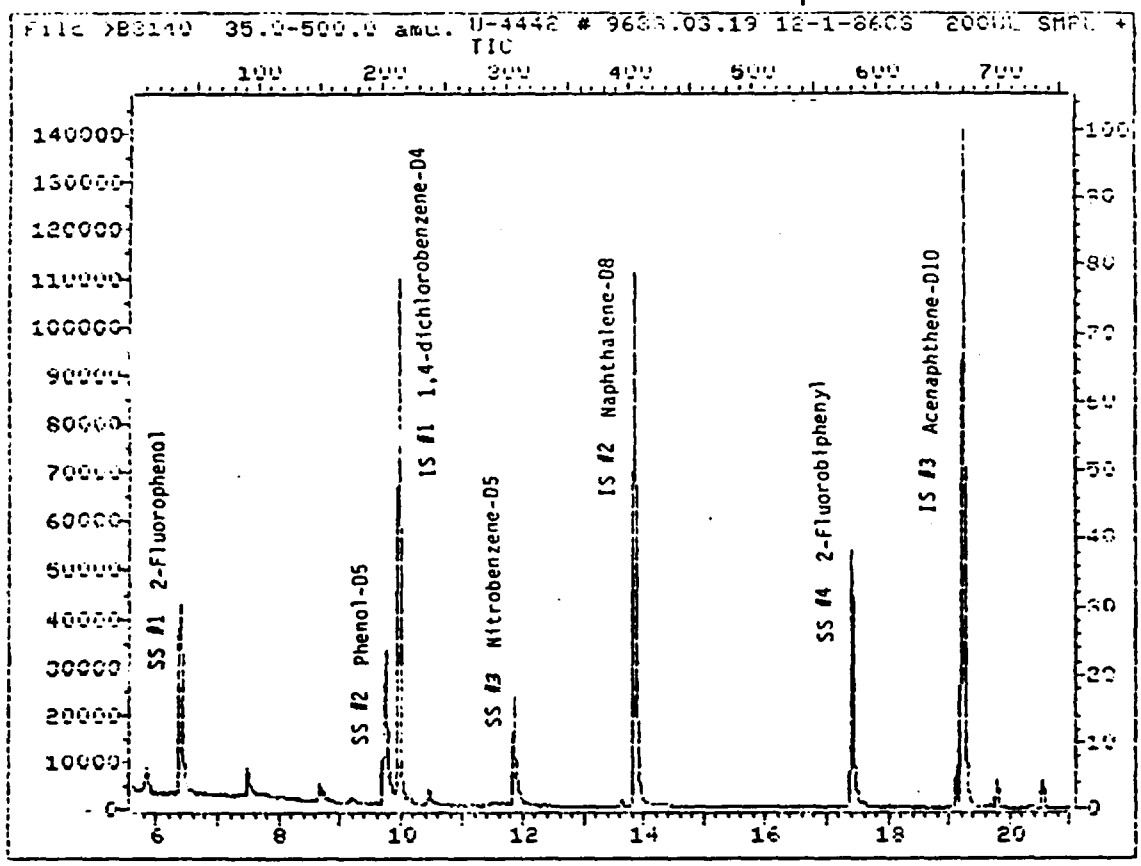


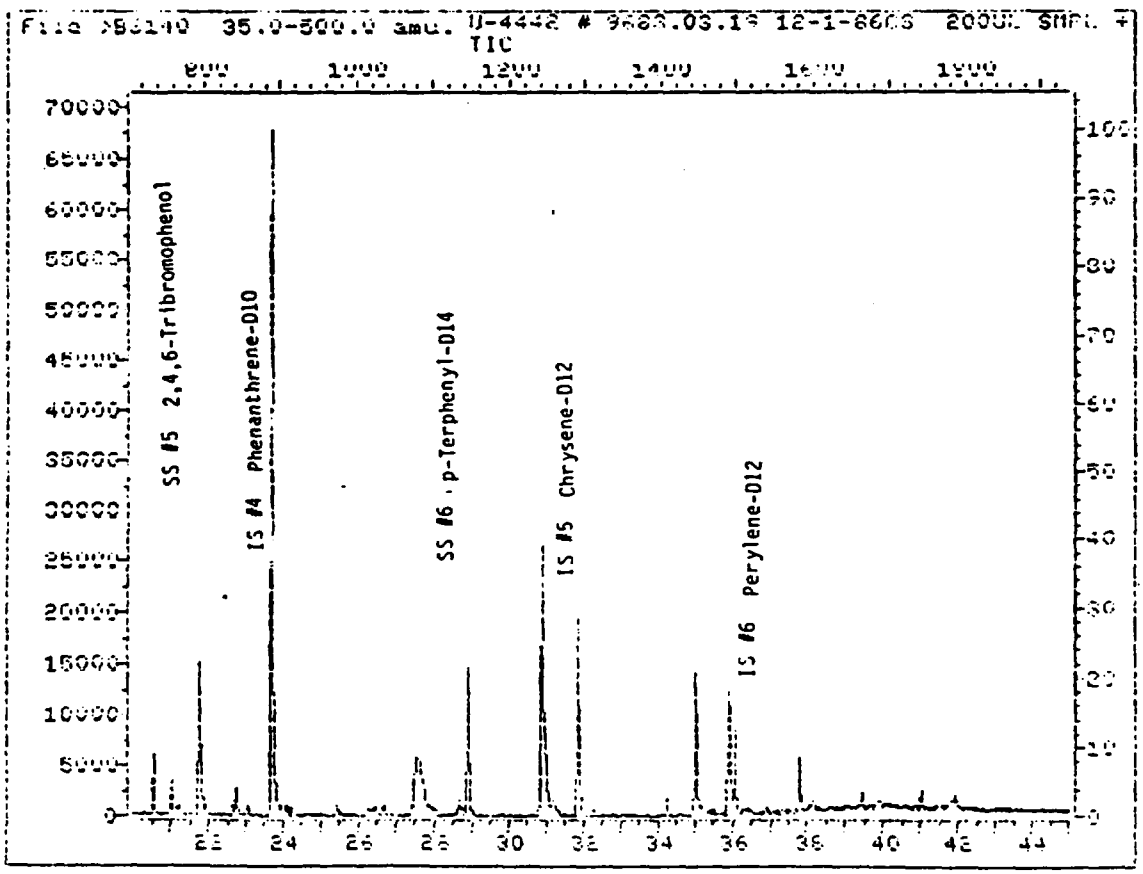
Data File: >B3140::D4
Name: U-4442 # 9683.03.19 DC-SD-31
Misc: 12-1-86CS 200UL SMPL + 200UL [illegible]

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (D)
Last Calibration: 861201 13:31

Operator ID: USER6
Quant Time: 861201 18:35
Injected at: 861201 16:20

DC-SD-31


File >B3140 35.0-500.0 amu. U-4442 # 9683.03.19 12-1-86CS 200UL SMPL +
TIC
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


File >B3140 35.0-500.0 amu. U-4442 # 9683.03.19 12-1-86CS 200UL SMPL +
TIC
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

perator ID: USER6 Quant Rev: 4 Quant Time: 861201 18:35
utput File: ^B3140::Q2 Injected at: 861201 16:20
ata File: >B3140::D4 Dilution Factor: 2.00
ame: U-4442 # 9683.03.19 DC-SD-31
isc: 12-1-86CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X)

D File: BNABR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 861201 13:31

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.96	214	52856	40.00	UG/L	89
2)	PHENOL-D5	(SURR)	99	9.74	203	46636	58.93	UG/L	92
5)	2-FLUOROPHENOL	(SURR)	112	6.38	38	38543	7[illegible].34	UG/L	85
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~.10~~	~~UG/L~~	100
~~4)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.69~~	~~[illegible]~~	~~[illegible]~~	~~.17~~	~~UG/L~~	100
~~7)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible].05~~	~~UG/L~~	90
9)	*NAPHTHALENE-D8	(IS)	136	13.85	405	184330	40.00	UG/L	100
1)	NITROBENZENE-D5	(SURR)	82	11.85	307	24772	32.87	UG/L	96
~~2)~~	~~NAPHTHALENE~~		~~128~~	~~13.91~~	~~[illegible]~~	~~[illegible]~~	~~.17~~	~~UG/L~~	100
~~3)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~16.10~~	~~[illegible]~~	~~[illegible]~~	~~.23~~	~~UG/L~~	96
4)	*ACENAPHTHENE-D10	(IS)	162	19.23	670	90474	40.00	UG/L	97
3)	2-FLUOROBIPHENYL	(SURR)	172	17.40	580	63560	36.61	UG/L	95
~~1)~~	~~DIMETHYL PHTHALATE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~1)~~	~~DIMETHYL PHTHALATE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible].91~~	~~UG/L~~	100
8)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.75	794	10578	37.33	UG/L	99
~~1)~~	~~2,4-DINITROTOLUENE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~2)~~	~~2,6-DINITROTOLUENE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
5)	*PHENANTHRENE-D10	(IS)	188	23.68	889	107200	40.00	UG/L	96
5)	*CHRYSENE-D12	(IS)	240	31.83	1290	33032	40.00	UG/L	100
3)	TERPHENYL-D14	(SURR)	244	28.89	1145	17963	42.87	UG/L	100
4)	*PERYLENE-D12	(IS)	264	35.92	1491	24036	40.00	UG/L	100
~~1)~~	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.98~~	~~1445~~	~~[illegible]~~	~~[illegible].96~~	~~UG/L~~	100
~~2)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.98~~	~~1445~~	~~[illegible]~~	~~[illegible].06~~	~~UG/L~~	100
~~3)~~	~~BENZO(A)PYRENE~~		~~252~~	~~35.78~~	~~1484~~	~~[illegible]~~	~~.91~~	~~UG/L~~	100

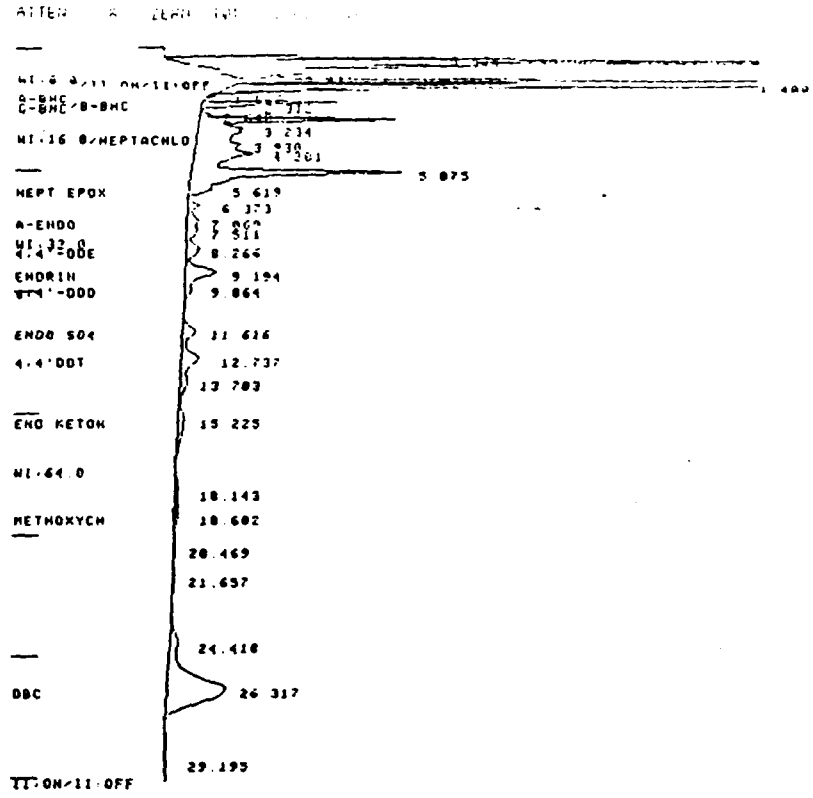
No BNA

No BNA

No BNA

No BNA

* Compound is ISTD



CHANNEL: 1A - 1 TITLE: RUN# 42 10:07 20 NOV 86

DC-SD-31

SAMPLE: 9683.03.19A1 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	1.239		78393	BV		2.50
2		0.0000	1.400		295325	VV		3.25
3		0.0000	1.523		89069	VV		3.56
4		0.0000	1.672		25435	VV		3.25
5	~~B-BHC~~	15.2276	2.194	0.024	94202	VV		5.06
6	~~G-BHC~~	1.9686	2.312	-0.068	29355	VB	?	5.69
7		0.0000	2.906		191059	VV		6.63
8		0.0000	3.234		68341	VV	?	18.19
9		0.0000	3.384		57591	VV	?	18.38
10		0.0000	3.551		62034	VV	?	24.00
11	~~HEPTACHLO~~	7.8803	3.930	0.140	96254	VV	?	16.69
12		0.0000	4.281		198614	VV	?	37.75
13		0.0000	5.075		411157	VV		11.06
14	~~HEPT EPOX~~	3.1458	5.619	-0.051	45057	VV	?	28.19
15		0.0000	6.373		29218	VV		21.31
16	~~A-ENDO~~	2.6175	7.069	0.039	35223	VV	?	35.38
17		0.0000	7.511		37590	VV	?	35.44
18	~~DIELDRIN~~	3.6097	8.266	0.076	53377	VV		31.31
19	~~ENDRIN~~	8.2523	9.194	0.064	111205	VV		25.00
20	~~ENDO SO4~~	5.3962	11.616	-0.294	52547	BV		29.13
21		0.0000	12.737		85489	VV		32.88
22	~~4,4'DDT~~	5.2206	13.703	0.442	41521	VV	?	25.00
23	~~ENO KETON~~	3.8971	15.225	-0.045	55127	VB		57.63
24	~~METHOXYCH~~	4.4401	18.602	-0.885	21120	VV	?	1104.00
25		0.0000	24.418		50542	BV	?	54.25
26	DBC 77%	47.3987	26.317	-0.293	529552	VV		64.44
TOTALS:		189.0546		-0.852	2843727			

DETECTED PKS: 40 REJECTED PKS: 14

DIVISOR: 1.50000 MULTIPLIER: 2000.00000

NOISE: 182.8 OFFSET: 12

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SIMSON
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:

SAMPLE NUMBER DC-SD-32

481095

Sample Number
DC-SD-32

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U-4442
Lab Sample ID No: 9684
QC Report No:
Sample Matrix: Soil
Contract No: IL 3140
Data Release Authorized By: C Strojowicz
Date Sample Received: 11-7-86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc/Dil Factor: 2 pH 6.4

Percent Moisture: (Not Decanted) 29

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2800u
74-83-9	Bromomethane	2800u
75-01-4	Vinyl Chloride	2800u
75-00-3	Chloroethane	2800u
75-09-2	Methylene Chloride	14000 B
67-64-1	Acetone	11000 B
75-15-0	Carbon Disulfide	1400u
75-35-4	1, 1-Dichloroethene	1400u
75-34-3	1, 1-Dichloroethane	1400u
156-60-5	Trans-1, 2-Dichloroethene	1400u
67-66-3	Chloroform	1400u
107-06-2	1, 2-Dichloroethane	1400u
78-93-3	2-Butanone	12000 B
71-55-6	1, 1, 1-Trichloroethane	1400u
56-23-5	Carbon Tetrachloride	1400u
108-05-4	Vinyl Acetate	2800u
75-27-4	Bromodichloromethane	1400u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1400u
10061-02-6	Trans-1, 3-Dichloropropene	1400u
79-01-6	Trichloroethene	1400u
124-48-1	Dibromochloromethane	1400u
79-00-5	1, 1, 2-Trichloroethane	1400u
71-43-2	Benzene	1400u
10061-01-5	cis-1, 3-Dichloropropene	1400u
110-75-8	2-Chloroethylvinylether	2800u
75-25-2	Bromoform	1400u
108-10-1	4-Methyl-2-Pentanone	2800u
591-78-6	2-Hexanone	2800u
127-18-4	Tetrachloroethene	1400u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1400u
108-88-3	Toluene	1400u
108-90-7	Chlorobenzene	1400u
100-41-4	Ethylbenzene	1400u
100-42-5	Styrene	1400u
	Total Xylenes	1400u

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4432 / V-4442

Sample Number DC-SD-32

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 12-1-86

Conc/Dil Factor: 2

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)	
108-95-2	Phenol	460	U
111-44-4	bis(-2-Chloroethyl)Ether	460	U
95-57-8	2-Chlorophenol	460	U
541-73-1	1 3-Dichlorobenzene	160	J
106-46-7	1. 4-Dichlorobenzene	1000	
100-51-6	Benzyl Alcohol	460	U
95-50-1	1. 2-Dichlorobenzene	480	
95-48-7	2-Methylphenol	460	U
39638-32-9	bis(2-chloroisopropyl)Ether	460	U
106-44-5	4-Methylphenol	460	U
621-64-7	N-Nitroso-Di-n-Propylamine	460	U
67-72-1	Hexachloroethane	460	U
98-95-3	Nitrobenzene	460	U
78-59-1	Isophorone	460	U
88-75-5	2-Nitrophenol	460	U
105-67-9	2. 4-Dimethylphenol	460	U
65-85-0	Benzoic Acid	2200	U
111-91-1	bis(-2-Chloroethoxy)Methane	460	U
120-83-2	2. 4-Dichlorophenol	460	U
120-82-1	1. 2. 4-Trichlorobenzene	580	
91-20-3	Naphthalene	460	U
106-47-8	4-Chloroaniline	460	U
87-68-3	Hexachlorobutadiene	460	U
59-50-7	4-Chloro-3-Methylphenol	460	U
91-57-6	2-Methylnaphthalene	460	U
77-47-4	Hexachlorocyclopentadiene	460	U
88-06-2	2 4. 6-Trichlorophenol	460	U
95-95-4	2. 4. 5-Trichlorophenol	2200	U
91-58-7	2-Chloronaphthalene	460	U
88-74-4	2-Nitroaniline	2200	U
131-11-3	Dimethyl Phthalate	460	U
208-96-8	Acenaphthylene	460	U
99-09-2	3-Nitroaniline	2200	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	460	U
51-28-5	2. 4-Dinitrophenol	2200	U
100-02-7	4-Nitrophenol	2200	U
132-64-9	Dibenzofuran	460	U
121-14-2	2 4-Dinitrotoluene	460	U
606-20-2	2. 6-Dinitrotoluene	460	U
84-66-2	Diethylphthalate	460	U
7005-72-3	4-Chlorophenyl-phenylether	460	U
86-73-7	Fluorene	460	U
100-01-6	4-Nitroaniline	2200	U
534-52-1	4. 6-Dinitro-2-Methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	220	J
101-55-3	4-Bromophenyl-phenylether	460	U
118-74-1	Hexachlorobenzene	110	J
87-86-5	Pentachlorophenol	2200	U
85-01-8	Phenanthrene	190	J
120-12-7	Anthracene	460	U
84-74-2	Di-n-Butylphthalate	460	U
206-44-0	Fluoranthene	460	U
129-00-0	Pyrene	110	J
85-68-7	Butylbenzylphthalate	520	
91-94-1	3 3'-Dichlorobenzidine	920	U
56-55-3	Benzo(a)Anthracene	460	U
117-81-7	bis(2-Ethylhexyl)Phthalate	280	J
218-01-9	Chrysene	110	J
117-84-0	Di-n-Octyl Phthalate	300	J
205-99-2	Benzo(b)Fluoranthene	460	U
207-08-9	Benzo(k)Fluoranthene	460	U
50-32-8	Benzo(a)Pyrene	460	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	460	U
53-70-3	Dibenz(a h)Anthracene	460	U
191-24-2	Benzo(g h i)Perylene	460	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number DC-SD-32

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-12-86

Date Analyzed: 11-20-86

Conc/Dil Factor: 200 50

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	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	21,000 C
11097-69-1	Aroclor-1254	13,000 J C
11096-82-5	Aroclor-1260	16000 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

Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

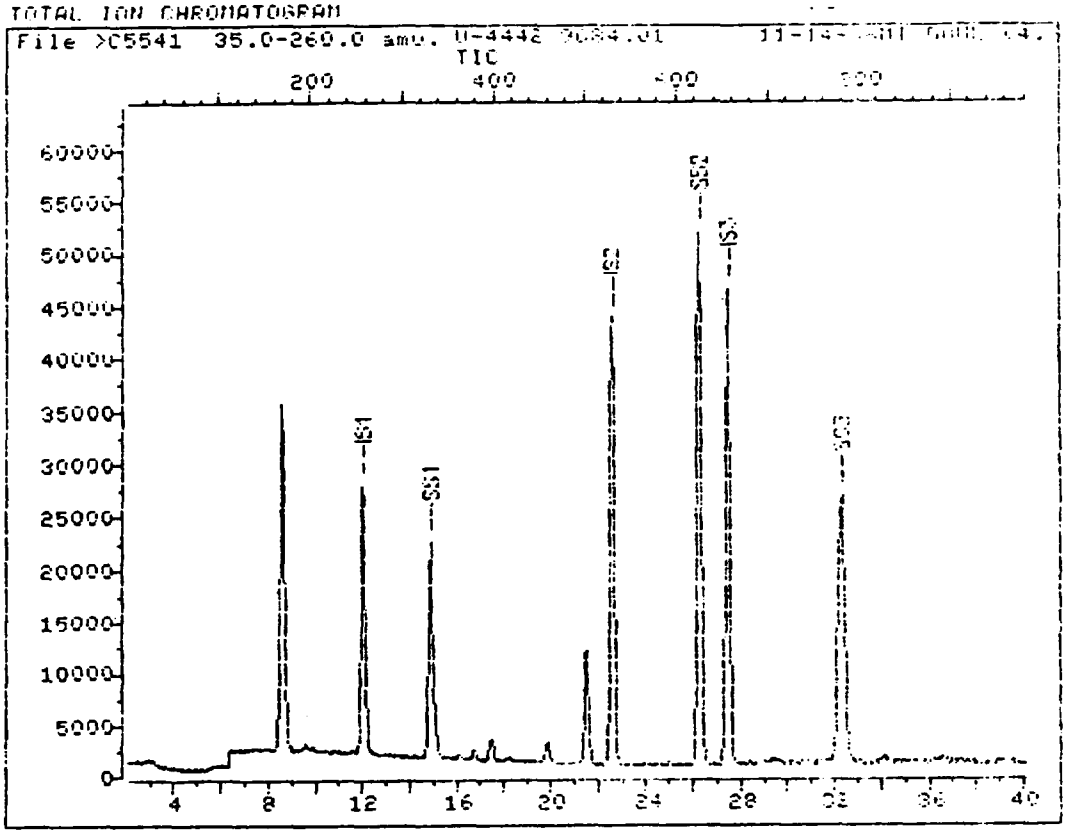
Sample Number DC-SD-32

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	17.5	630 BJ
2.	UNKNOWN KETONE	↓	19.9	370 BJ
3.	HEXANE ISOMER	↓	21.5	2100 BJ
4.				
5.	UNKNOWN	BNA	8.6	5500 J
6.	TETRACHLOROBENZENE ISOMER		17.5	910 J
7	UNKNOWN HYDROCARBON		18.0	780 J
8.	UNKNOWN		19.1	140 J
9.	UNKNOWN		19.6	1400 J
10.	UNKNOWN HYDROCARBON		21.2	580 J
11.	PCB		21.4-22.6	—
12.	UNKNOWN HYDROCARBON		22.8	860 J
13.	UNKNOWN HYDROCARBON		24.2	820 J
14.	PCB		25.0-26.5	—
15.	UNKNOWN HYDROCARBON		28.3	1100 J
16.	UNKNOWN		29.4	1700 J
17.	UNKNOWN HYDROCARBON		30.3	1700 J
18.	UNKNOWN		30.9	2000 BJ
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

TOTAL ION CHROMATOGRAM

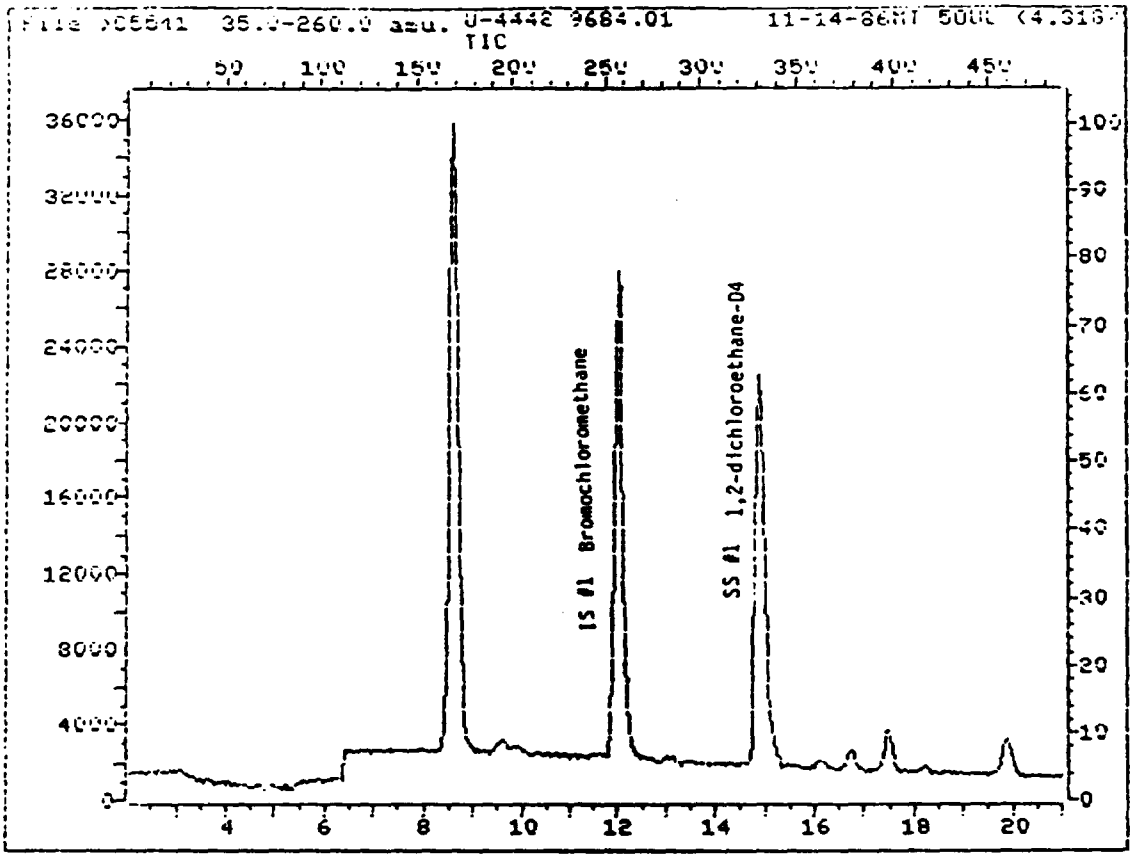


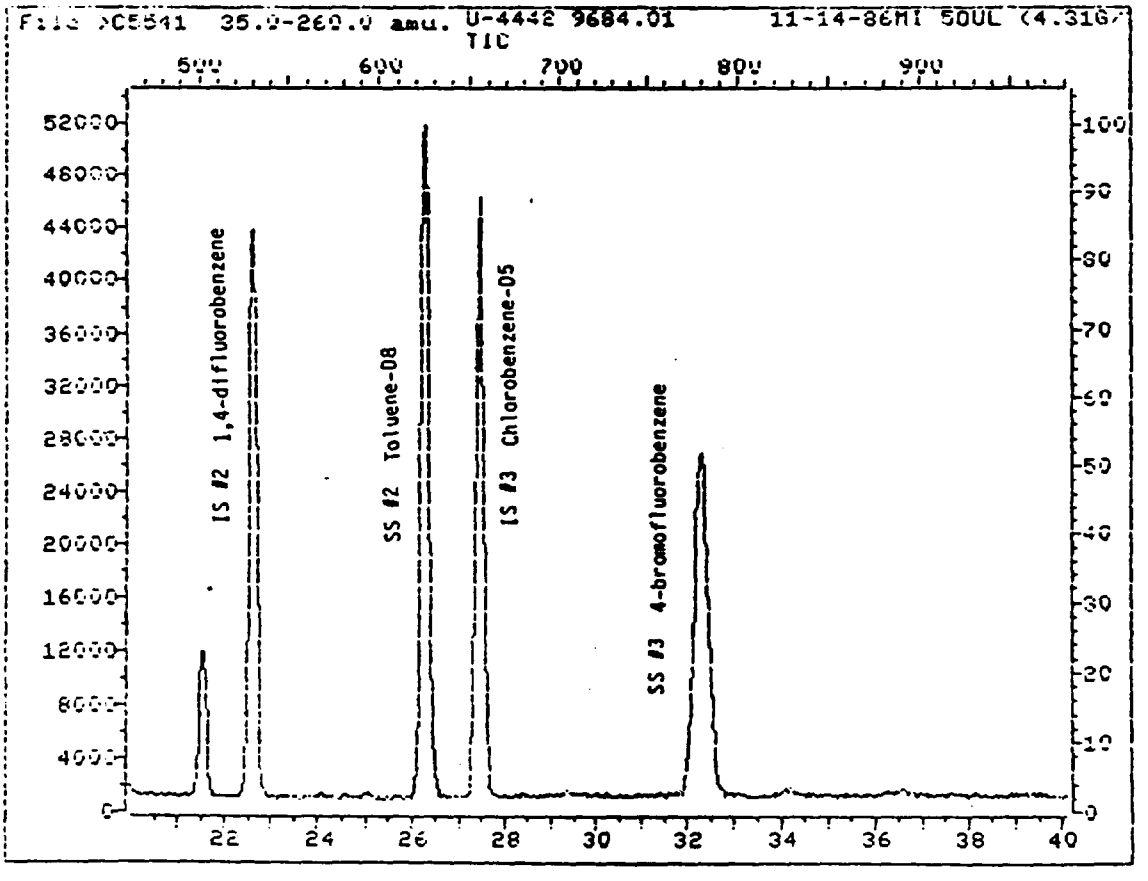
Data File: >C5541::D3
Name: U-4442 9684.01 DC-SD-32
Misc: 11-14-86MI 500L (4.31G/100MLS) + 100L IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5994 (CONT. CAL.)
Last Calibration: 861114 21:27

Operator ID: USER8
Quant Time: 861115 14:08
Injected at: 861115 05:13

DC-SD-32


File DC5841 35.0-260.0 amu. U-4442 9684.01 11-14-86MI 500L (4.31G)
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File DC5841 35.0-260.0 amu. U-4442 9684.01 11-14-86MI 500L (4.31G)
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

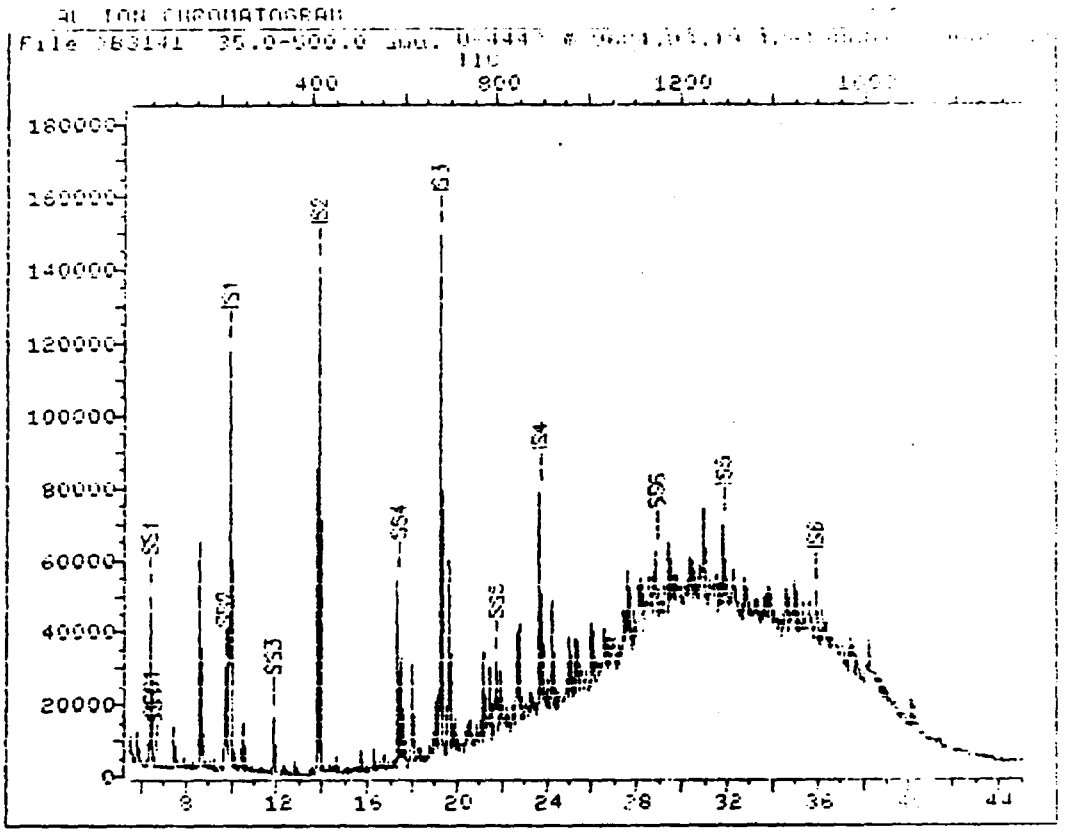
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861115 14:08
Output File: ^C5541::D2 Injected at: 861115 09:13
Data File: >C5541::D3 Dilution Factor: 1.00
Name: U-4442 9684.01 DC-SD-32
Misc: 11-14-86MI 500L (4.31G/10MLS) + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CURT. CAL.)
Last Calibration: 861114 21:27

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	12.02	257	40253	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.60	169	88504	44.12	UG/L	100
7)	ACETONE		43	9.57	194	9546	33.00	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.89	331	86017	48.56	UG/L	90
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.57	529	196742	50.00	UG/L	100
17)	2-BUTANONE		72	15.00	334	5427	36.50	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.46	655	154194	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.29	625	211261	47.75	UG/L	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.31	780	104589	47.56	UG/L	100

* Compound is ISTD

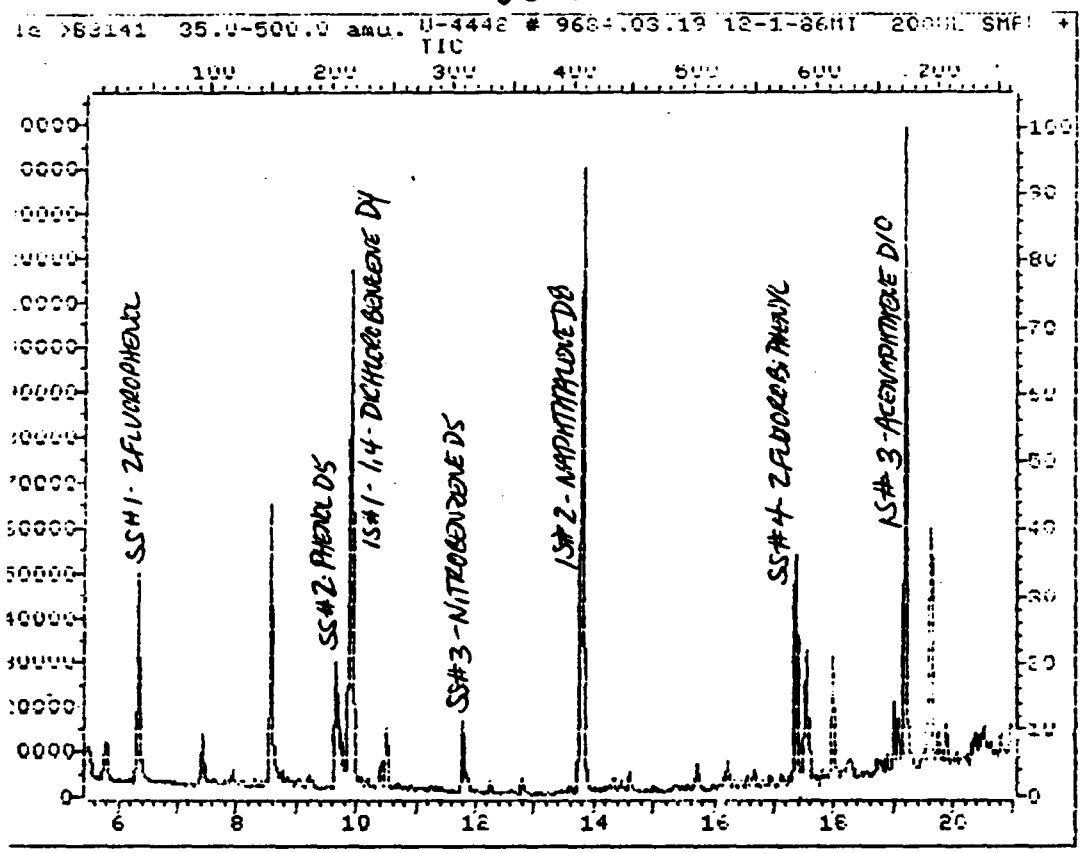


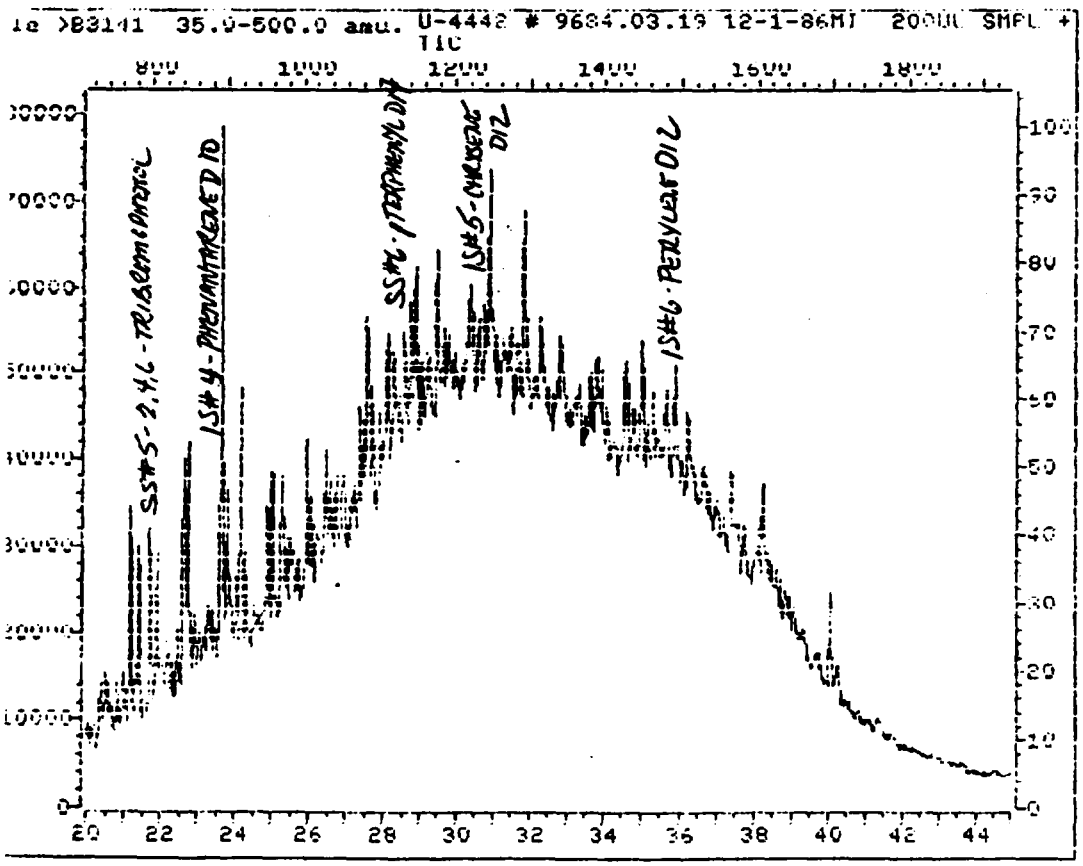
Data File: >B3141::D4
Name: U-4442 # 9684.03.19 DC-SD-32
Misc: 12-1-86MI 200UL SMPL + 200UL HEXAN

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 13:31

Operator ID: USER6
Quant Time: 861201 18:10
Injected at: 861201 17:22

DC-SD-32


TIC
SS#1 - 2FLUOROPHENOL
SS#2 PHENOL D5
IS#1 - 1,4 - DICHLOROBENZENE D4
SS#3 - NITROBENZENE D5
IS#2 - NAPHTHALENE D8
SS#4 - 2FLUOROBIPHENYL
IS#3 - ACENAPHTHENE D10


TIC
SS#5 - 2,4,6 - TRIBROMOPHENOL
IS#4 - PHENANTHRENE D10
SS#6 - P TERPHENYL D14
IS#5 - CHRYSENE D12
IS#6 - PERYLENE D12

QUANT REPORT

Operator ID: USER6　　Quant Rev: 4　　Quant Time: 861201 18:18
Output File: ^B3141::02　　Injected at: 861201 17:22
Data File: >B3141::D4　　Dilution Factor: 2.00
Name: U-4442 # 9684.03.19 DC-SD-32
Misc: 12-1-86MI 200UL SMPL + 200UL MECL2 + 4UL IS (2X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861201 13:31

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4(IS)	152	9.91	21[illegible]	53325	40.00	UG/L	87
2)	PHENOL-D5 (SURR)	99	9.68	206	43816	54.88	UG/L	90
5)	2-FLUOROPHENOL (SURR)	112	6.35	42	30134	61.49	UG/L	92
5)	2-FLUOROPHENOL (SURR)	112	6.41	45	2275	4.64	UG/L	89
5)	2-FLUOROPHENOL (SURR)	112	6.45	47	2424	4.95	UG/L	79
5)	2-FLUOROPHENOL (SURR)	112	6.57	53	674	1.38	UG/L	86
9)	1,3-DICHLOROBENZENE	146	9.76	210	2802	3.47	UG/L	96
~~9)~~	~~1,3-DICHLOROBENZENE~~	~~146~~	~~9.95~~	~~219~~	~~[illegible]~~	~~22.[illegible]~~	~~UG/L~~	99
~~10)~~	~~1,4-DICHLOROBENZENE~~	~~146~~	~~9.76~~	~~210~~	~~2802~~	~~3.42~~	~~UG/L~~	97
10)	1,4-DICHLOROBENZENE	146	9.95	219	17821	22.33	UG/L	96
12)	1,2-DICHLOROBENZENE	146	10.50	246	9007	10.24	UG/L	96
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~	~~45~~	~~10.90~~	~~[illegible]~~	~~[illegible]~~	~~.43~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~	~~45~~	~~11.0[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~.49~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~	~~45~~	~~11.15~~	~~[illegible]~~	~~[illegible]~~	~~.49~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~	~~45~~	~~11.25~~	~~[illegible]~~	~~[illegible]~~	~~.39~~	~~UG/L~~	100
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~	~~45~~	~~11.37~~	~~[illegible]~~	~~[illegible]~~	~~.10~~	~~UG/L~~	100
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~11.80~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	79
19)	*NAPHTHALENE-D8 (IS)	136	13.81	489	185108	40.00	UG/L	100
20)	NITROBENZENE-D5 (SURR)	82	11.80	310	17522	2[illegible].15	UG/L	91
28)	1,2,4-TRICHLOROBENZENE	180	13.27	40[illegible]	10493	12.50	UG/L	100
~~29)~~	~~NAPHTHALENE~~	~~128~~	~~13.85~~	~~[illegible]~~	~~[illegible]~~	~~.18~~	~~UG/L~~	100
~~32)~~	~~2-METHYLNAPHTHALENE~~	~~142~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~.7[illegible]~~	~~UG/L~~	87
34)	*ACENAPHTHENE-D10 (IS)	162	19.20	674	7[illegible]00	40.00	UG/L	9[illegible]
38)	2-FLUOROBIPHENYL (SURR)	172	17.37	584	514[illegible]9	36.40	UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~	~~1[illegible]~~	~~18.[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~.30~~	~~UG/L~~	100
~~41)~~	~~DIMETHYL PHTHALATE~~	~~163~~	~~19.[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~41)~~	~~DIMETHYL PHTHALATE~~	~~1[illegible]~~	~~19.20~~	~~[illegible]~~	~~[illegible]~~	~~1.[illegible]~~	~~UG/L~~	100
~~43)~~	~~DIBENZOFURAN~~	~~1[illegible]~~	~~1[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~43)~~	~~DIBENZOFURAN~~	~~1[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL(SURR)	330	21.71	[illegible]	[illegible]	41.68	UG/L	9[illegible]
~~49)~~	~~2,4-DINITROPHENOL~~	~~1[illegible]~~	~~21.[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~1.[illegible]~~	~~UG/L~~	100
~~49)~~	~~2,4-DINITROPHENOL~~	~~1[illegible]~~	~~21.[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~49)~~	~~2,4-DINITROPHENOL~~	~~1[illegible]~~	~~21.[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~2.[illegible]~~	~~UG/L~~	100
~~49)~~	~~2,4-DINITROPHENOL~~	~~[illegible]~~	~~21.[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~49)~~	~~2,4-DINITROPHENOL~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~[illegible]~~	~~2,4-DINITROTOLUENE~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~[illegible]~~	~~2,4-DINITROTOLUENE~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~[illegible]~~	~~2,6-DINITROTOLUENE~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~[illegible]~~	~~2,4-DINITROPHENOL~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10 (IS)	188	23.64	[illegible]	[illegible]	40.00	UG/L	9[illegible]
57)	N-NITROSODIPHENYLAMINE	169	21.52	[illegible]	[illegible]	[illegible]	UG/L	9[illegible]
59)	HEXACHLOROBENZENE	284	22.27	[illegible]	[illegible]	[illegible]	UG/L	9[illegible]
61)	PHENANTHRENE	178	23.71	[illegible]	[illegible]	[illegible]	UG/L	9[illegible]
~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	[illegible]

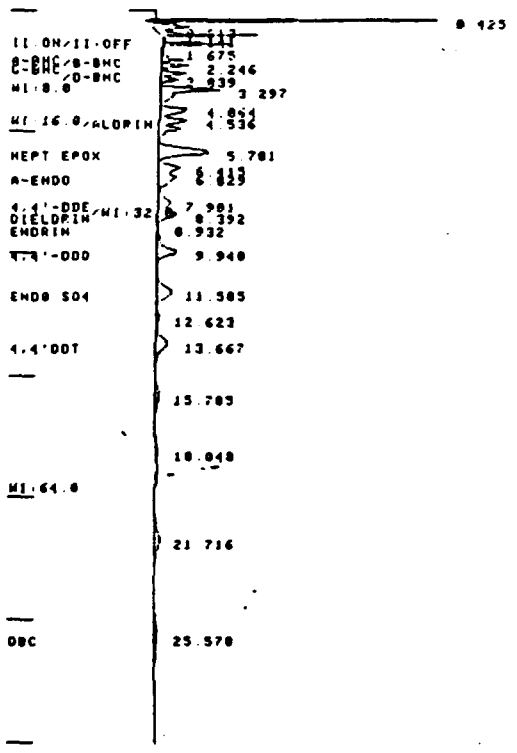
Handwritten annotations beside struck rows: "No Bfl" / "No BKL"

351

	Compound		m/z	R.T.	Scan#	Area	Conc	Units	q
[illegible]	~~BENZIDINE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	~~BENZIDINE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	~~BENZIDINE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	~~BENZIDINE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
67)	PYRENE		202	27.99	1105	1534	2.26	UG/L	87
68)	TERPHENYL-D14	(SUPR)	244	28.85	1142	11570	36.64	UG/L	100
69)	BUTYLBENZYLPHTHALATE		149	30.73	1239	2625	11.14	UG/L	90
70)	~~BENZO(A)ANTHRACENE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
71)	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.78	1339	1964	6.07	UG/L	89
[illegible]	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	97
[illegible]	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	60
73)	CHRYSENE		228	31.88	1295	848	2.34	UG/L	70
74)	*PERYLENE-D12	(IS)	264	35.88	1491	19255	40.00	UG/L	100
[illegible]	~~DI-N-OCTYL PHTHALATE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
75)	DI-N-OCTYL PHTHALATE		149	34.60	1478	2892	6.35	UG/L	100
[illegible]	~~DI-N-OCTYL PHTHALATE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~DI-N-OCTYL PHTHALATE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~DI-N-OCTYL PHTHALATE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
76)	BENZO(B)FLUORANTHENE		252	34.96	1446	593	2.44	UG/L	100
[illegible]	~~BENZO(K)FLUORANTHENE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	~~BENZO(A)PYRENE~~		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

* Compound is ISTD

CHART SPEED 0.5 CM/MIN
ATTEN: 6 ZERO: 10% 5 MIN/TICK



See Run 50

DC-SD-32

CHANNEL: 1A - 1 TITLE: RUN# 44 12:01 20 NOV 86

SAMPLE: 9684.03.19A1 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		27004	VB	2.94
2	~~B-BHC~~	146.6570	2.575	0.125	21321	BV	6.38
3		0.0000	3.297		67671	BV	8.00
4		0.0000	3.502		26350	VV	? 16.75
5	~~HEPTACRLO~~	479.3655	4.064	0.274	58558	VV	17.31
6	~~ALDRIN~~	276.3672	4.536	-0.134	42125	VV	11.69
7		0.0000	4.849		36698	VV	10.88
8	~~HEPT EPOX~~	874.5834	5.781	0.111	125293	VV	19.63
9		0.0000	6.415		45604	VV	? 14.69
10	~~A-ENDO~~	410.8933	6.829	-0.201	55308	VV	? 33.06
11	4,4'-DDE	306.0995	7.901	-0.189	42673	VV	? 32.50
12	DIELDRIN	319.9779	8.392	0.202	47316	VV	20.44
13	4,4'-DDD	534.7881	9.940	-0.220	63868	VV	21.75
14	ENDO SO4	639.5765	11.585	-0.325	62399	VV	31.44
15	4,4'DDT	662.2375	13.667	0.407	52670	VB	31.19
16	ENO KETON	172.0085	15.785	0.515	24322	BV	45.69
17		0.0000	21.716		37109	BV	49.00
18	DBC	183.4820	25.570	-1.040	20503	VB	66.63
TOTALS:		5006.836		-0.475	856602		

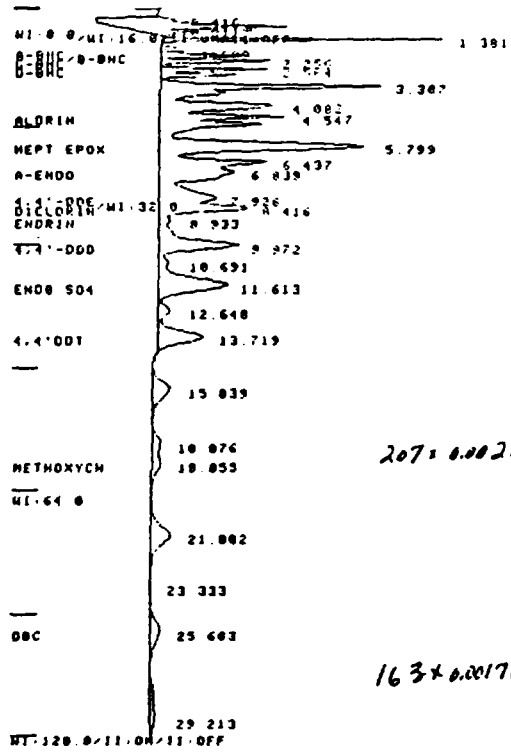
DETECTED PKS: 40 REJECTED PKS: 22

DIVISOR: 1.50000 MULTIPLIER: 200000.000

NOISE: 22.9 OFFSET: -17

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SAMSON
SECURE AREA; D JOB#:U-4432,U-4442
INST:VARIAN 6000#2 W 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
WITH SAMPLER

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



207 × 0.00216 × 1/1.0665 g × 50,000 = 21,000 ug/kg
1248

163 × 0.00171 × 1/1.0665 g × 50,000 = 13,000 J ug/kg
1254

DC-SD-3Z

CHANNEL: 1A - 1 TITLE: RUN# ~~47~~ 50 17:47 20 NOV 86

SAMPLE: 9684.03.19A1 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	1.381		11[illegible]017	BV	3.13
2	~~A-BHC~~	106.0410	2.052	0.012	[illegible]350	VV	5.19
3	~~B-BHC~~	374.6240	2.256	0.086	[illegible]201	VV	5.25
4	~~G-BHC~~	158.7374	2.584	0.134	[illegible]03	VV	6.44
5		0.0000	2.846		[illegible]539	VV	6.50
6		0.0000	3.307		2[illegible]147	VV	8.29
7	HEPTACHLO	261.0180	3.519	-0.271	207 17[illegible]541	VV	[illegible] 1248
8		0.0000	4.082		2[illegible]597	VV	10.69
9	~~ALDRIN~~	336.2135	4.547	-0.123	20[illegible]958	VV	12.94
10		0.0000	4.862		20[illegible]871	VV	12.06
11	~~HEPT EPOX~~	980.5427	5.799	0.129	5[illegible]591	VV	20.44
12		0.0000	6.437		2[illegible]557	VV	? 16.13
13	~~A-ENDO~~	503.3550	6.839	-0.191	2[illegible]015	VV	? 42.88
14	~~4,4'-DDE~~	398.7040	7.926	-0.164	2[illegible]752	VV	? 37.19
15	~~DIELDRIN~~	485.4039	8.416	0.226	2[illegible]940	VV	22.94
16	~~ENDRIN~~	40.1541	8.933	-0.197	163 [illegible]644	VV	19.[illegible] 1254
17	~~4,4'-DDD~~	611.8269	9.972	-0.188	25[illegible]274	VV	23.38
18	~~END.KTO.~~	68.3094	10.691	0.441	2[illegible]305	VV	? 23.86
19	~~ENDO SO4~~	812.0599	11.613	-0.297	31[illegible]908	VV	34.06
20		0.0000	12.648		4[illegible]759	VV	26.75
21	~~4,4'DDT~~	680.1158	13.719	0.459	19[illegible]317	VS	30.88
22	~~END KETON~~	181.6474	15.839	0.569	10[illegible]782	BB	44.69
23		0.0000	18.076		4[illegible]304	BV	? 44.13
24	~~METHOXYCH~~	274.5760	18.855	-0.635	5[illegible]067	VB	? 59.50
25		0.0000	21.802		14[illegible]246	BV	49.38
26	~~DDC~~	175.4838	25.683	-0.927	[illegible]427	VV	63.56
27		0.0000	29.213		59150	VB	7127.81

TOTALS: 6288.893 -0.537 4450804

DETECTED PKS: 41 REJECTED PKS: 14

DIVISOR: 1.50000 MULTIPLIER: 50000.0000

NOISE: 22.9 OFFSET: -6

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SAMSON
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 6000#2 A ECD 1041
COLUMN: 6' GLASS 4MM ID 120/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER

SAMPLE NUMBER DC-SD-33

Sample Number
DC-SD-33

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432 / U-4442
Lab Sample ID No: 9685
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 11-7-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc./Dil Factor: 2 pH 6.0

Percent Moisture: (Not Decanted) 27

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2600u
74-83-9	Bromomethane	2600u
75-01-4	Vinyl Chloride	2600u
75-00-3	Chloroethane	2600u
75-09-2	Methylene Chloride	6300 B
67-64-1	Acetone	12000 B
75-15-0	Carbon Disulfide	1300u
75-35-4	1, 1-Dichloroethene	1300u
75-34-3	1, 1-Dichloroethane	1300u
156-60-5	Trans-1, 2-Dichloroethene	1300u
67-66-3	Chloroform	1300u
107-06-2	1, 2-Dichloroethane	1300u
78-93-3	2-Butanone	11000 B
71-55-6	1, 1, 1-Trichloroethane	1300u
56-23-5	Carbon Tetrachloride	1300u
108-05-4	Vinyl Acetate	2600u
75-27-4	Bromodichloromethane	1300u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1300u
10061-02-6	Trans-1, 3-Dichloropropene	1300u
79-01-6	Trichloroethene	1300u
124-48-1	Dibromochloromethane	1300u
79-00-5	1, 1, 2-Trichloroethane	1300u
71-43-2	Benzene	1300u
10061-01-5	cis-1, 3-Dichloropropene	1300u
110-75-8	2-Chloroethylvinylether	2600u
75-25-2	Bromoform	1300u
108-10-1	4-Methyl-2-Pentanone	2600u
591-78-6	2-Hexanone	2600u
127-18-4	Tetrachloroethene	1300u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1300u
108-88-3	Toluene	1300u
108-90-7	Chlorobenzene	1300u
100-41-4	Ethylbenzene	1300u
100-42-5	Styrene	1300u
	Total Xylenes	1300u

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.
Case No V-4432/V-4442

Sample Number
DC-SD-33

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared 11-12-86
Date Analyzed: 12-13-86
Conc/Dil Factor: 25
Percent Moisture (Decanted) 37

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	6500	U
111-44-4	bis(-2-Chloroethyl)Ether	6500	U
95-57-8	2-Chlorophenol	6500	U
541-73-1	1 3-Dichlorobenzene	6500	U
106-46-7	1 4-Dichlorobenzene	6500	U
100-51-6	Benzyl Alcohol	6500	U
95-50-1	1 2-Dichlorobenzene	270	J
95-48-7	2-Methylphenol	6500	U
39638-32-9	bis(2-chloroisopropyl)Ether	6500	U
106-44-5	4-Methylphenol	6500	U
621-64-7	N-Nitroso-Di-n-Propylamine	6500	U
67-72-1	Hexachloroethane	6500	U
98-95-3	Nitrobenzene	6500	U
78-59-1	Isophorone	6500	U
88-75-5	2-Nitrophenol	6500	U
105-67-9	2 4-Dimethylphenol	6500	U
65-85-0	Benzoic Acid	32000	U
111-91-1	bis(-2-Chloroethoxy)Methane	6500	U
120-83-2	2 4-Dichlorophenol	6500	U
120-82-1	1 2 4-Trichlorobenzene	6500	U
91-20-3	Naphthalene	6500	U
106-47-8	4-Chloroaniline	6500	U
87-68-3	Hexachlorobutadiene	6500	U
59-50-7	4-Chloro-3-Methylphenol	6500	U
91-57-6	2-Methylnaphthalene	6500	U
77-47-4	Hexachlorocyclopentadiene	6500	U
88-06-2	2 4 6-Trichlorophenol	6500	U
95-95-4	2 4 5-Trichlorophenol	32000	U
91-58-7	2-Chloronaphthalene	6500	U
88-74-4	2-Nitroaniline	32000	U
131-11-3	Dimethyl Phthalate	6500	U
208-96-8	Acenaphthylene	6500	U
99-09-2	3-Nitroaniline	32000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	6500	U
51-28-5	2 4-Dinitrophenol	32000	U
100-02-7	4-Nitrophenol	32000	U
132-64-9	Dibenzofuran	6500	U
121-14-2	2 4-Dinitrotoluene	6500	U
606-20-2	2 6-Dinitrotoluene	6500	U
84-66-2	Diethylphthalate	6500	U
7005-72-3	4-Chlorophenyl-phenylether	6500	U
86-73-7	Fluorene	6500	U
100-01-6	4-Nitroaniline	32000	U
534-52-1	4 6-Dinitro-2-Methylphenol	32000	U
86-30-6	N-Nitrosodiphenylamine (1)	6500	U
101-55-3	4-Bromophenyl-phenylether	6500	U
118-74-1	Hexachlorobenzene	6500	U
87-86-5	Pentachlorophenol	32000	U
85-01-8	Phenanthrene	6500	U
120-12-7	Anthracene	6500	U
84-74-2	Di-n-Butylphthalate	6500	U
206-44-0	Fluoranthene	6500	U
129-00-0	Pyrene	6500	U
85-68-7	Butylbenzylphthalate	6500	U
91-94-1	3 3'-Dichlorobenzidine	13000	U
56-55-3	Benzo(a)Anthracene	6500	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2200	J
218-01-9	Chrysene	6500	U
117-84-0	Di-n-Octyl Phthalate	420	J
205-99-2	Benzo(b)Fluoranthene	6500	U
207-08-9	Benzo(k)Fluoranthene	6500	U
50-32-8	Benzo(a)Pyrene	6500	U
193-39-5	Indeno(1 2 3-cd)Pyrene	6500	U
53-70-3	Dibenz(a h)Anthracene	6500	U
191-24-2	Benzo(g h i)Perylene	6500	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No V-4432/V-4442

Sample Number DC-SD-33

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-12-86

Date Analyzed: 11-20-86

Conc/Dil Factor: 10

Percent Moisture (decanted) 37

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	380 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	7900
11097-69-1	Aroclor-1254	4,500
11096-82-5	Aroclor-1260	2,000 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

Sample Number DC-SD-33

Organics Analysis Data Sheet
(Page 4)

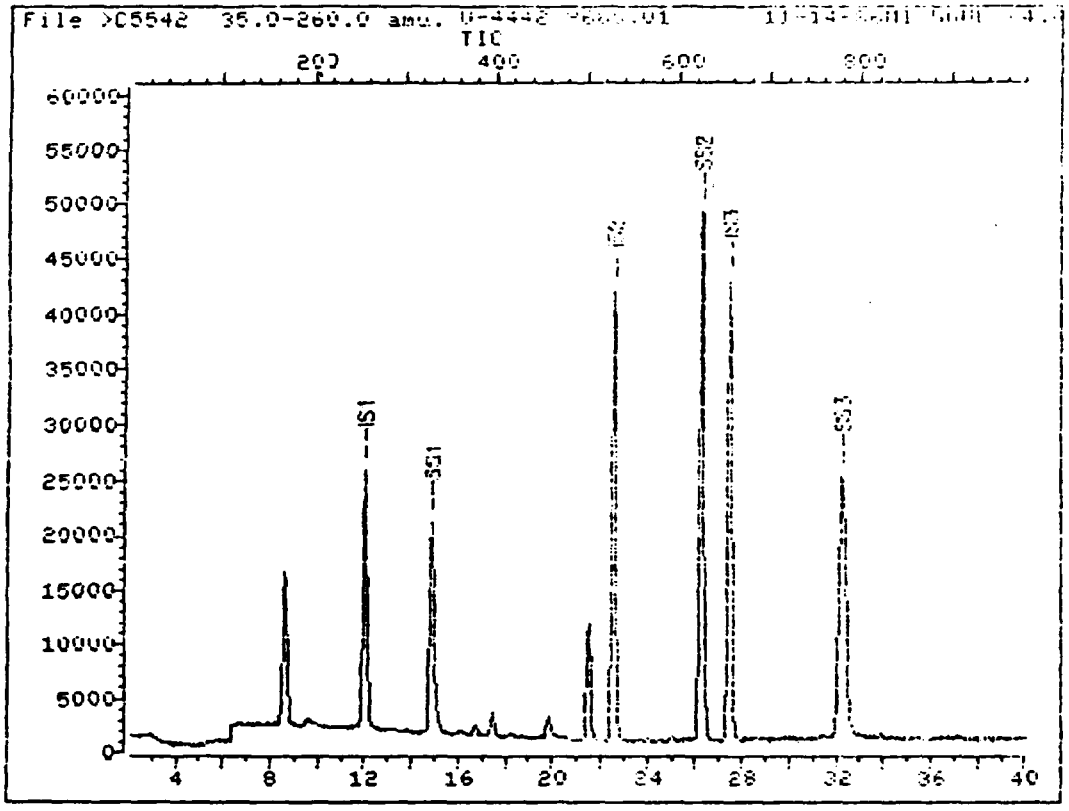
Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.5 min	600 BJ
2.	Unknown Ketone	VOA	19.8 min	360 BJ
3.	Hexane isomer	VOA	21.5 min	2000 BJ
4.				
5.	UNKNOWN HYDROCARBON	BNA	15.5	3900 J
6.	UNKNOWN HYDROCARBON		17.3	70,000 J
7.	UNKNOWN HYDROCARBON		18.3	11000 J
8.	UNKNOWN HYDROCARBON		18.9	120,000 J
9.	UNKNOWN HYDROCARBON		20.5	43000 J
10.	UNKNOWN HYDROCARBON		21.2	14000 J
11.	UNKNOWN HYDROCARBON		21.9	18000 J
12.	UNKNOWN HYDROCARBON		22.0	19000 J
13.	UNKNOWN HYDROCARBON		23.3	9900 J
14.	UNKNOWN HYDROCARBON		23.5	27000 J
15.	UNKNOWN HYDROCARBON		24.6	8900 J
16.	UNKNOWN HYDROCARBON		24.7	14000 J
17.	UNKNOWN HYDROCARBON		26.0	22000 J
18.	UNKNOWN HYDROCARBON		26.9	28000 J
19.	UNKNOWN HYDROCARBON		27.2	16000 J
20.	UNKNOWN HYDROCARBON		28.8	92000 J
21.	UNKNOWN HYDROCARBON		29.7	89000 J
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

Form 1, Part B

7 85
491095

TOTAL ION CHROMATOGRAM

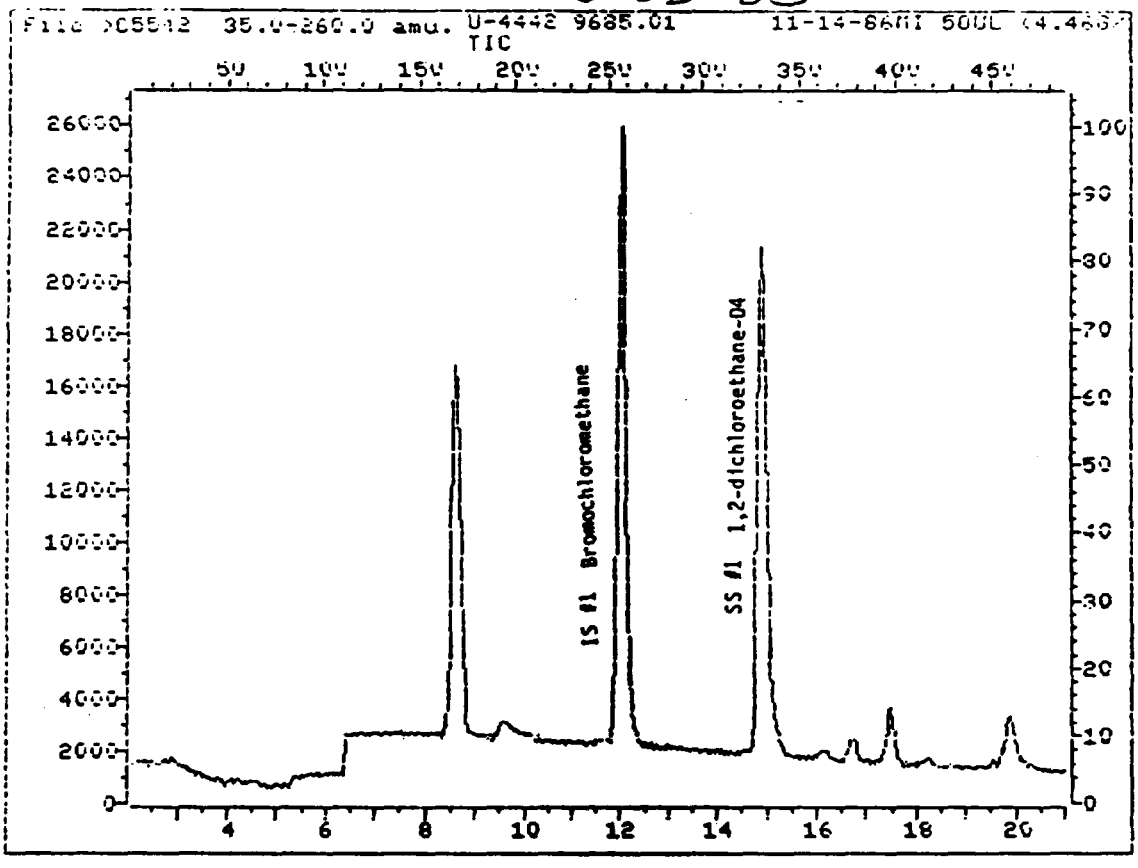


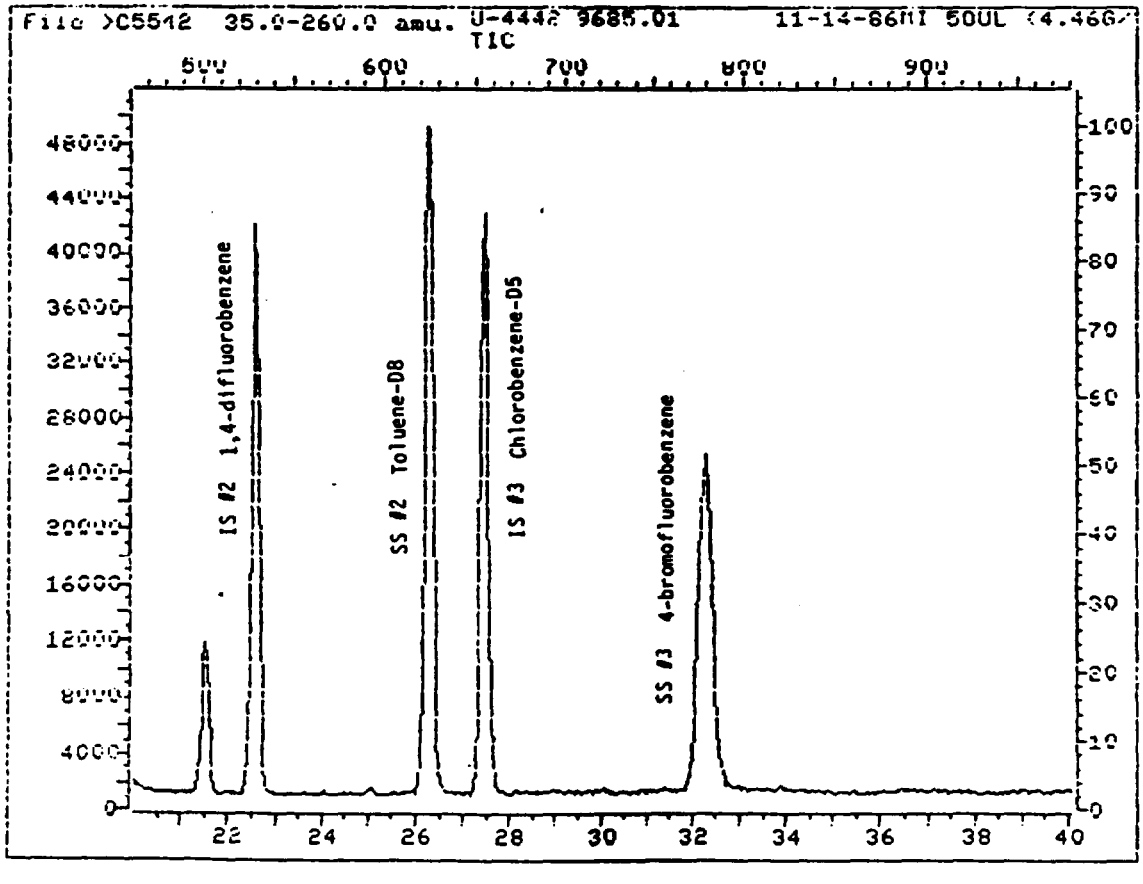
Data File: >C5542::D3
Name: U-4442 9685.01 DC-SD-33
Misc: 11-14-86MI 50UL (4.46G/10MLS) + 100UL 15/53

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 21:27

Operator ID: USER8
Quant Time: 861115 14:10
Injected at: 861115 06:05

DC-SD-33


File >C5542 35.0-260.0 amu. U-4442 9685.01 11-14-86MI 50UL (4.46G)
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5542 35.0-260.0 amu. U-4442 9685.01 11-14-86MI 50UL (4.46G)
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

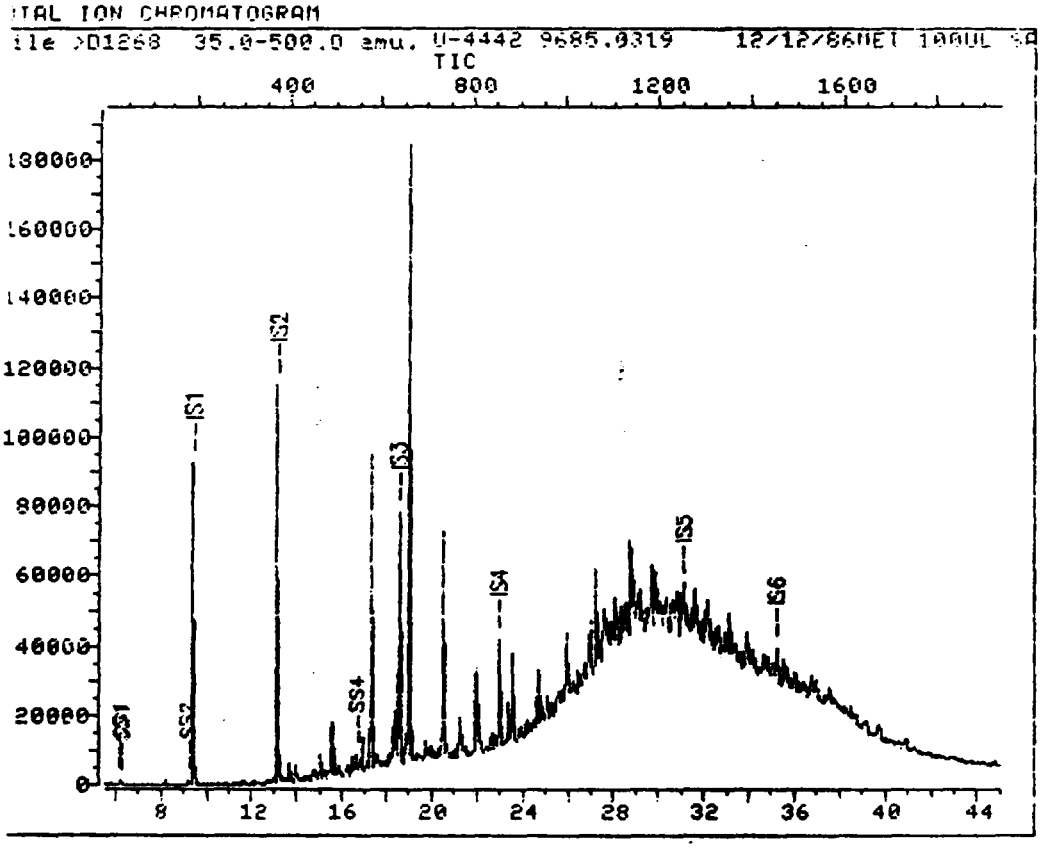
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861115 14:10
Output File: ^C5542::D2 Injected at: 861115 06:05
Data File: >C5542::D3 Dilution Factor: 1.00
Name: U-4442 9685.01 DC-SD-33
Misc: 11-14-86MI 50UL (4.46G/10MLS) + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 21:27

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	12.02	252	39269	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.60	169	38152	20.45	UG/L	100
7)	ACETONE		43	9.57	194	10502	39.08	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.89	331	80479	48.89	UG/L	90
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.57	529	185100	50.00	UG/L	100
17)	2-BUTANONE		72	15.04	335	5020	35.89	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.46	655	142453	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.25	624	201532	49.31	UG/L	97
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.27	779	97341	47.91	UG/L	100

* Compound is ISTD

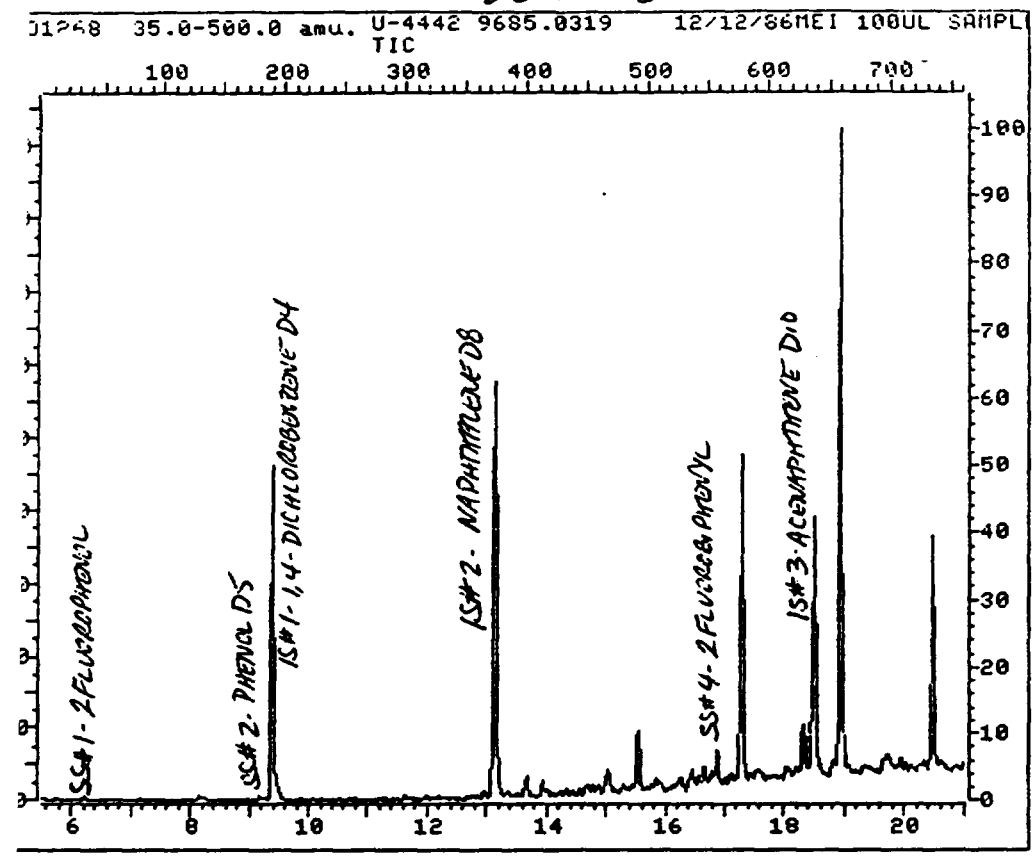


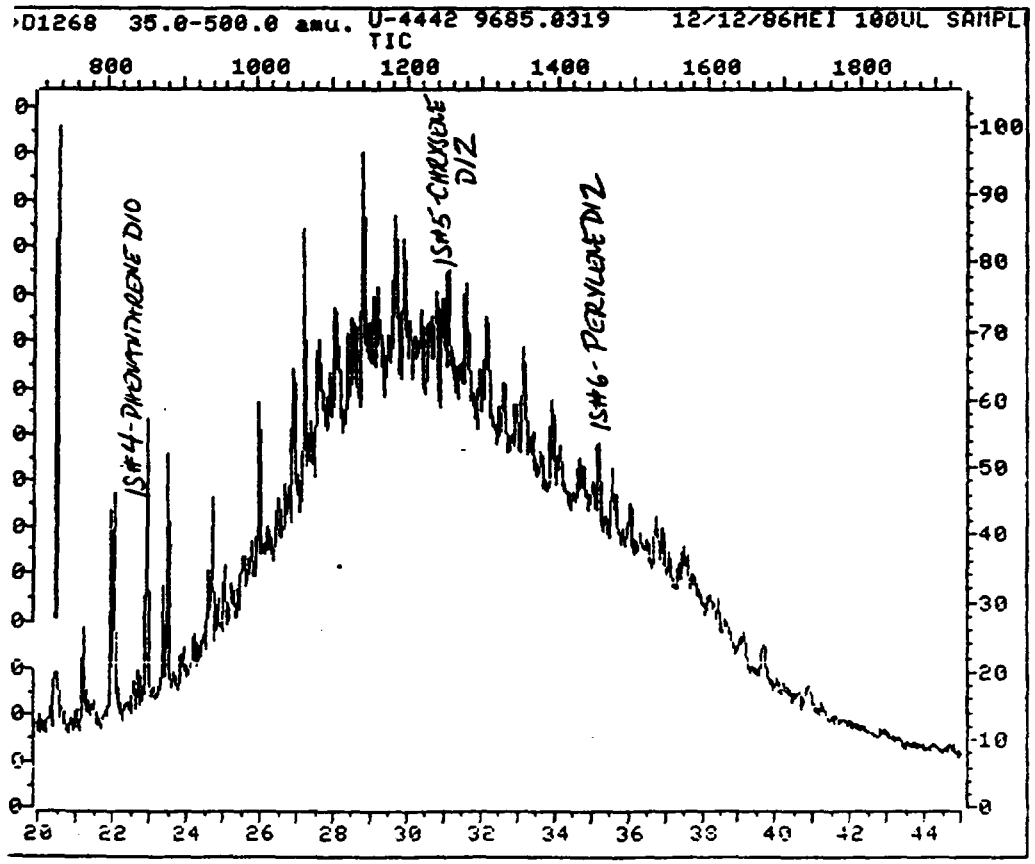
Data File: >D1268::D1 DC-SD-33
Name: U-4442 9685.0319
Misc: 12/12/86MEI 100UL SAMPLE + 400UL MECL2 + 5UL IS (5X) BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861211 15:37

Operator ID: USER8
Quant Time: 861213 00:47
Injected at: 861213 00:00

DC-SD-33


D1268 35.0-500.0 amu. U-4442 9685.0319 12/12/86MEI 100UL SAMPL
TIC
SS#1-2FLUOROPHENOL
SS#2-PHENOL D5
IS#1-1,4-DICHLOROBENZENE D4
IS#2-NAPHTHALENE D8
SS#4-2FLUOROBIPHENYL
IS#3-ACENAPHTHENE D10


D1268 35.0-500.0 amu. U-4442 9685.0319 12/12/86MEI 100UL SAMPL
TIC
IS#4-PHENANTHRENE D10
IS#5-CHRYSENE D12
IS#6-PERYLENE D12

QUANT REPORT

perator ID: USER8 Quant Rev: 4 Quant Time: 861213 00:47
utput File: ^D1268::Q2 Injected at: 861213 00:00
ata File: >D1268::D1 Dilution Factor: 5.00
ame: U-4442 9685.0319 DC-SD-33
isc: 12/12/86MEI 100UL SAMPLE + 400UL MECL2 + 5UL IS (5X) BTL# 1

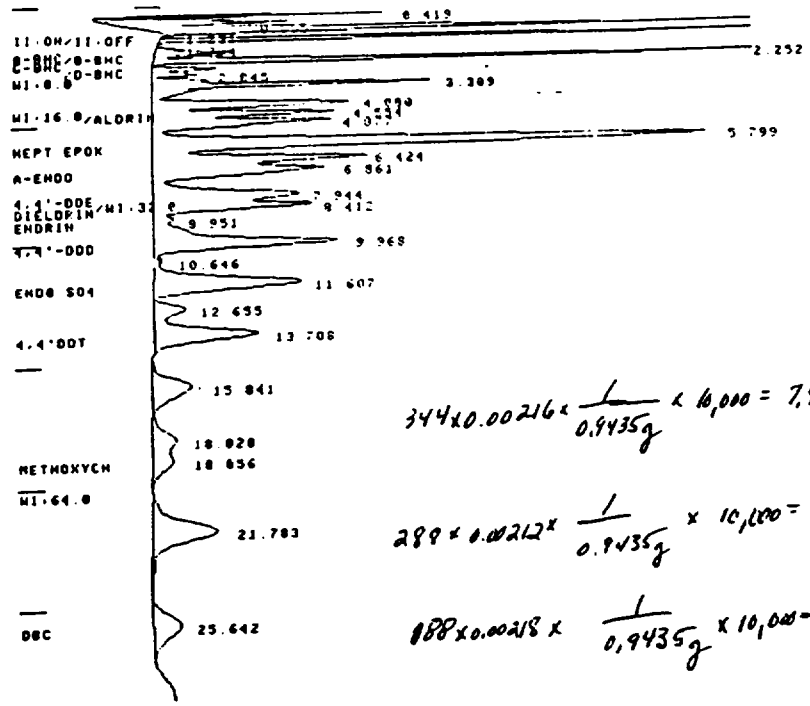
FINAL VOLUME : 5 ml

) File: BNADR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 861211 15:37

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.37	190	42553	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	9.17	180	1707	5.96	UG/L	99
5)	2-FLUOROPHENOL	(SURR)	112	6.19	34	1025	5.70	UG/L	70
5)	2-FLUOROPHENOL	(SURR)	112	6.27	38	250	1.39	UG/L	72
2)	1,2-DICHLOROBENZENE		146	9.43	193	329	1.03	UG/L	88
9)	*NAPHTHALENE-D8	(IS)	136	13.14	375	147144	40.00	UG/L	100
~~1)~~	~~NAPHTHALENE~~		~~128~~	~~13.18~~	~~377~~	~~194~~	~~.29~~	~~UG/L~~	100
~~3)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.62~~	~~497~~	~~200~~	~~.44~~	~~UG/L~~	94
4)	*ACENAPHTHENE-D10	(IS)	162	18.48	637	42468	40.00	UG/L	98
3)	2-FLUOROBIPHENYL	(SURR)	172	16.64	547	2569	7.28	UG/L	94
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.50~~	~~638~~	~~13271~~	~~39.52~~	~~UG/L~~	100
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.48~~	~~637~~	~~5798~~	~~85.05~~	~~UG/L~~	100
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.81~~	~~653~~	~~235~~	~~3.45~~	~~UG/L~~	100
5)	*PHENANTHRENE-D10	(IS)	188	22.93	855	34069	40.00	UG/L	91
5)	*CHRYSENE-D12	(IS)	240	31.09	1254	13204	40.00	UG/L	100
2)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.09	1303	588	8.53	UG/L	99
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.28~~	~~1312~~	~~169~~	~~2.45~~	~~UG/L~~	84
4)	*PERYLENE-D12	(IS)	264	35.18	1454	9322	40.00	UG/L	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.40~~	~~1367~~	~~246~~	~~1.84~~	~~UG/L~~	100
5)	DI-N-OCTYL PHTHALATE		149	33.85	1389	225	1.68	UG/L	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.08~~	~~1400~~	~~246~~	~~1.84~~	~~UG/L~~	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.37~~	~~1414~~	~~287~~	~~2.15~~	~~UG/L~~	100

* Compound is ISTD

CHART SPEED 2.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



344 x 0.00216 x 1/0.9435g x 10,000 = 7,900 ug/kg 1248

288 x 0.00212 x 1/0.9435g x 10,000 = 6,500 ug/kg 1254

188 x 0.00218 x 1/0.9435g x 10,000 = 2,000 J ug/kg 1260

DC-SD-33

CHANNEL: 1A - 1 TITLE: RUN# 45 12:37 20 NOV 86

SAMPLE: 9605.03.19A1 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		95[illegible]741	VB	3.19
2		0.0000	1.900		5[illegible]193	VV	4.69
~~3 A-BHC~~		12.3618	2.052	0.012	4[illegible]754	VV	4.50
~~4 B-BHC~~		413.6459	2.252	0.082	51[illegible]785	VB	5.06
~~5 D-BHC~~		19.8287	2.586	0.136	5[illegible]654	[illegible]	6.38
6		0.0000	2.845		4[illegible]894	VV	7.00
7		0.0000	3.072		5[illegible]101	VV	? 7.75
8		0.0000	3.309		31[illegible]307	[illegible]	8.19
9	~~HEPTACHLO~~	33.6378	3.515	-0.275	8[illegible]182	[illegible]	? 13.[illegible]
10		0.0000	4.080		42[illegible]237	[illegible]	18.50
11	~~ALDRIN~~	93.6460	4.554	-0.116	28[illegible]478	[illegible]	12.63
12		0.0000	4.877		26[illegible]319	[illegible]	? 12.19
13		0.0000	~~5.070~~		[illegible]	[illegible]	? 13.94
14	~~HEPT EPOX~~	485.1993	5.799	0.129	139[illegible]195	[illegible]	19.38
15		0.0000	6.424		47[illegible]570	[illegible]	18.81
16	~~A-ENDO~~	199.0040	6.861	-0.169	52[illegible]	VV	? 29.31
17	~~4,4'-DDE~~	185.8730	7.944	-0.146	51[illegible]896	[illegible]	? [illegible]
18	~~DIELDRIN~~	140.5702	8.412	0.222	41[illegible]730	VV	? 25.63
19	~~ENDRIN~~	16.1485	8.951	-0.179	4[illegible]522	VV	? 23.75
20	~~4,4'-DDD~~	289.9962	9.968	-0.192	69[illegible]666	VV	24.13
21	~~ENDO SO4~~	330.5649	11.607	-0.303	64[illegible]018	VV	33.44
22		0.0000	12.655		11[illegible]772	[illegible]	28.19
23	~~4,4'DDT~~	284.3365	13.708	0.448	45[illegible]285	[illegible]	32.94
24	~~END KETON~~	92.1746	15.841	0.571	26[illegible]777	[illegible]	39.19
25		0.0000	18.028		14[illegible]161	[illegible]	[illegible]
26	~~METHOXYCH~~	128.4429	~~18.656~~	-0.634	1[illegible]249	[illegible]	57.13
27		0.0000	21.783		46[illegible]564	[illegible]	50.81
28	~~DBC~~	101.2436	25.642	-0.968	22[illegible]267	VV	63.75
TOTALS:		2826.673		-1.382	9763446		

Weathered

1248

1254

1260

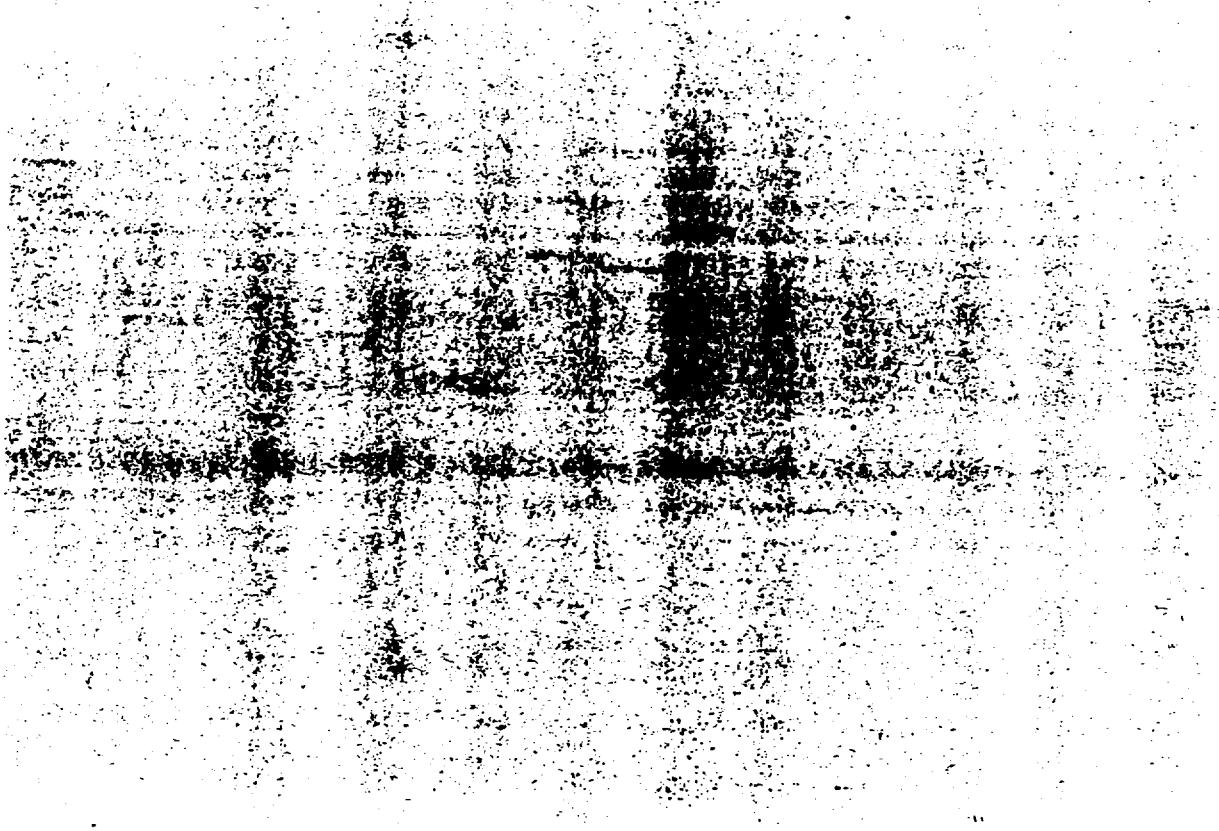
DETECTED PKS: 39 REJECTED PKS: 11

DIVISOR: 1.50000 MULTIPLIER: 10000.0000

NOISE: 34.3 OFFSET: 7

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SAMSON
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 620082 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER

SAMPLE NUMBER DC-SD-34



481095

Sample Number
DC-SD-34

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432 / U-4442
Lab Sample ID No: 9686
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Stojkowicz
Date Sample Received: 11-7-86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-17-86

Conc./Dil Factor: 2 pH 5.0

Percent Moisture: (Not Decanted) 34

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	2800u
74-83-9	Bromomethane	2800u
75-01-4	Vinyl Chloride	2800u
75-00-3	Chloroethane	2800u
75-09-2	Methylene Chloride	6600 B
67-64-1	Acetone	5300 B
75-15-0	Carbon Disulfide	1400u
75-35-4	1, 1-Dichloroethene	1400u
75-34-3	1, 1-Dichloroethane	1400u
156-60-5	Trans-1, 2-Dichloroethene	1400u
67-66-3	Chloroform	1400u
107-06-2	1, 2-Dichloroethane	1400u
78-93-3	2-Butanone	9200 B
71-55-6	1, 1, 1-Trichloroethane	1400u
56-23-5	Carbon Tetrachloride	1400u
108-05-4	Vinyl Acetate	2800u
75-27-4	Bromodichloromethane	1400u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	1400u
10061-02-6	Trans-1, 3-Dichloropropene	1400u
79-01-6	Trichloroethene	1400u
124-48-1	Dibromochloromethane	1400u
79-00-5	1, 1, 2-Trichloroethane	1400u
71-43-2	Benzene	1400u
10061-01-5	cis-1, 3-Dichloropropene	1400u
110-75-8	2-Chloroethylvinylether	2800u
75-25-2	Bromoform	1400u
108-10-1	4-Methyl-2-Pentanone	2800u
591-78-6	2-Hexanone	930J B
127-18-4	Tetrachloroethene	1400u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1400u
108-88-3	Toluene	1400u
108-90-7	Chlorobenzene	1400u
100-41-4	Ethylbenzene	1400u
100-42-5	Styrene	1400u
	Total Xylenes	1400u

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No V-4432/V-4442

Sample Number DC-SD-34

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 12-12-86

Conc/Dil Factor: 25

Percent Moisture (Decanted) 34

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	2500	U
111-44-4	bis(-2-Chloroethyl)Ether	2500	U
95-57-8	2-Chlorophenol	2500	U
541-73-1	1 3-Dichlorobenzene	2500	U
106-46-7	1. 4-Dichlorobenzene	410	J
100-51-6	Benzyl Alcohol	2500	U
95-50-1	1. 2-Dichlorobenzene	2500	U
95-48-7	2-Methylphenol	2500	U
39638-32-9	bis(2-chloroisopropyl)Ether	2500	U
106-44-5	4-Methylphenol	2500	U
621-64-7	N-Nitroso-Di-n-Propylamine	2500	U
67-72-1	Hexachloroethane	2500	U
98-95-3	Nitrobenzene	2500	U
78-59-1	Isophorone	2500	U
88-75-5	2-Nitrophenol	2500	U
105-67-9	2. 4-Dimethylphenol	2500	U
65-85-0	Benzoic Acid	12000	U
111-91-1	bis(-2-Chloroethoxy)Methane	2500	U
120-83-2	2. 4-Dichlorophenol	2500	U
120-82-1	1 2. 4-Trichlorobenzene	2500	U
91-20-3	Naphthalene	2500	U
106-47-8	4-Chloroaniline	2500	U
87-68-3	Hexachlorobutadiene	2500	U
59-50-7	4-Chloro-3-Methylphenol	2500	U
91-57-6	2-Methylnaphthalene	450	J
77-47-4	Hexachlorocyclopentadiene	2500	U
88-06-2	2 4. 6-Trichlorophenol	2500	U
95-95-4	2. 4. 5-Trichlorophenol	12000	U
91-58-7	2-Chloronaphthalene	2500	U
88-74-4	2-Nitroaniline	12000	U
131-11-3	Dimethyl Phthalate	2500	U
208-96-8	Acenaphthylene	2500	U
99-09-2	3-Nitroaniline	12000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	2500	U
51-28-5	2. 4-Dinitrophenol	12000	U
100-02-7	4-Nitrophenol	12000	U
132-64-9	Dibenzofuran	2500	U
121-14-2	2 4-Dinitrotoluene	2500	U
606-20-2	2. 6-Dinitrotoluene	2500	U
84-66-2	Diethylphthalate	2500	U
7005-72-3	4-Chlorophenyl-phenylether	2500	U
86-73-7	Fluorene	2500	U
100-01-6	4-Nitroaniline	12000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	12000	U
86-30-6	N-Nitrosodiphenylamine (1)	2500	U
101-55-3	4-Bromophenyl-phenylether	2500	U
118-74-1	Hexachlorobenzene	2500	U
87-86-5	Pentachlorophenol	12000	U
85-01-8	Phenanthrene	2500	U
120-12-7	Anthracene	2500	U
84-74-2	Di-n-Butylphthalate	2500	U
206-44-0	Fluoranthene	2500	U
129-00-0	Pyrene	2500	U
85-68-7	Butylbenzylphthalate	2400	J
91-94-1	3. 3'-Dichlorobenzidine	5000	U
56-55-3	Benzo(a)Anthracene	2500	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2900	
218-01-9	Chrysene	710	J
117-84-0	Di-n-Octyl Phthalate	2900	
205-99-2	Benzo(b)Fluoranthene	330	J
207-08-9	Benzo(k)Fluoranthene	2500	U
50-32-8	Benzo(a)Pyrene	2500	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	2500	U
53-70-3	Dibenz(a h)Anthracene	2500	U
191-24-2	Benzo(g h i)Perylene	2500	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number DC-SD-34

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-12-86

Date Analyzed: 11-20-86

Conc/Dil Factor: 10

Percent Moisture (decanted) 34

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	11,000
11097-69-1	Aroclor-1254	10,600
11096-82-5	Aroclor-1260	2,200 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

Case No u-4432 / u-4442

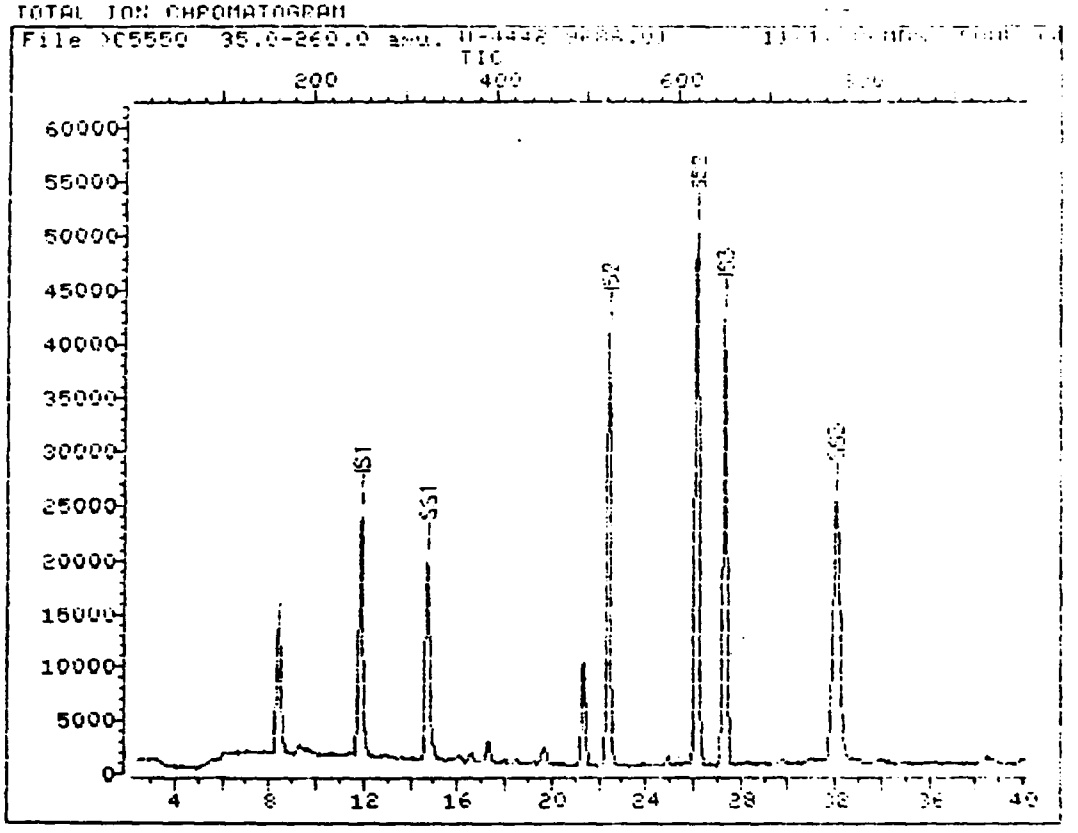
Sample Number
DC-SD-34

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	17.3 min	580 BJ
2.	Unknown Ketone	VOA	19.7 min	340 BJ
3.	Hexane isomer	VOA	21.3 min	2000 BJ
4.				
5.	UNKNOWN HYDROCARBON	BNA	17.3	120,000 J
6.	UNKNOWN HYDROCARBON		18.3	16000 J
7.	UNKNOWN HYDROCARBON		19.0	210,000 J
8.	UNKNOWN HYDROCARBON		20.5	80000 J
9.	UNKNOWN HYDROCARBON		21.2	20000 J
10.	UNKNOWN HYDROCARBON		21.9	25000 J
11.	UNKNOWN HYDROCARBON		22.1	22000 J
12.	UNKNOWN HYDROCARBON		23.4	12000 J
13.	UNKNOWN HYDROCARBON		23.5	35000 J
14.	UNKNOWN HYDROCARBON		24.6	12000 J
15.	UNKNOWN HYDROCARBON		24.7	16000 J
16.	UNKNOWN HYDROCARBON		26.0	28000 J
17.	UNKNOWN HYDROCARBON		27.2	22000 J
18.	UNKNOWN HYDROCARBON		28.8	92000 J
19.	UNKNOWN HYDROCARBON		31.0	34000 J
20.	UNKNOWN HYDROCARBON		32.2	56000 J
21.	UNKNOWN HYDROCARBON		32.7	42000 J
22.	UNKNOWN HYDROCARBON		32.9	40000 J
23.	UNKNOWN HYDROCARBON		33.2	64000 J
24.	UNKNOWN HYDROCARBON		33.9	61000 J
25.				
26.				
27.				
28.				
29.				
30				

TOTAL ION CHROMATOGRAM

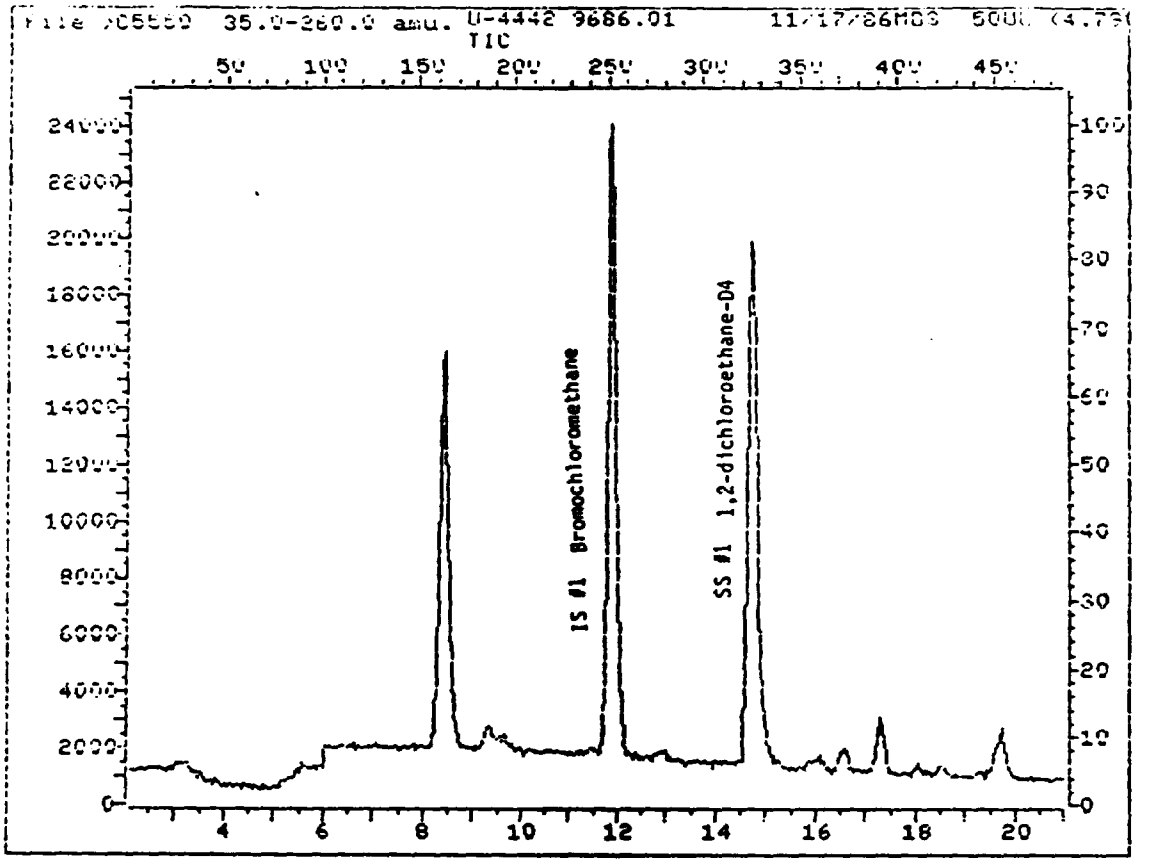


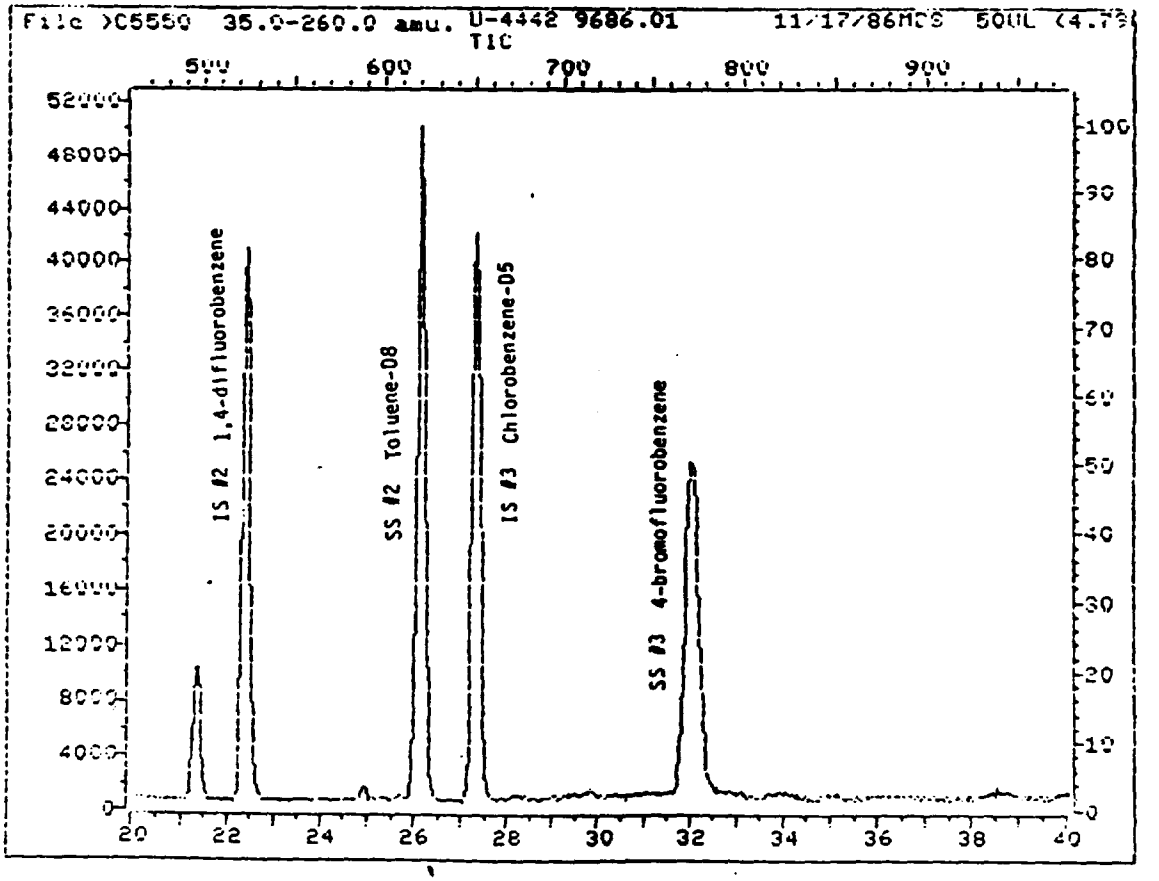
Data File: >C5550::D3
Name: U-4442 9686.01 DC-SD-34
Misc: 11/17/86MDS 50UL (4.79G/10MLS MEOH) + [illegible]

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861117 11:28

Operator ID: USER8
Quant Time: 861117 15:32
Injected at: 861117 14:51

DC-SD-34


File >C5550 35.0-260.0 amu. U-4442 9686.01 11/17/86MOS 500L
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5550 35.0-260.0 amu. U-4442 9686.01 11/17/86MOS 500L
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

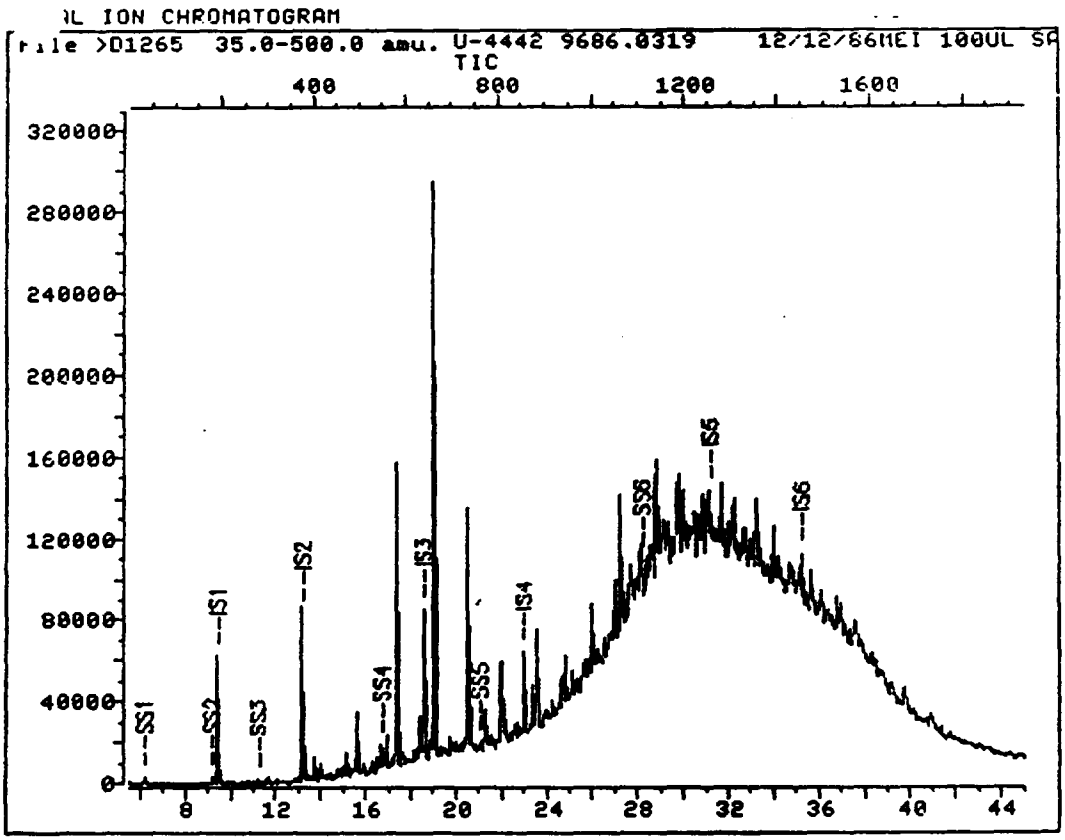
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861117 15:52
Output File: ^C5550::D2 Injected at: 861117 14:51
Data File: >C5550::D3 Dilution Factor: 1.00
Name: U-4442 9686.01 DC-SD-34
Misc: 11/17/86MDS 50UL (4.79G/10MLS MEOH) + 1PUL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861117 11:28

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.88	252	37236	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.43	163	40179	21.01	UG/L	100
7)	ACETONE		43	9.36	187	8481	16.68	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.71	329	77345	46.09	UG/L	90
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.43	524	180520	50.00	UG/L	100
17)	2-BUTANONE		72	14.87	329	4391	29.12	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.33	650	155938	50.00	UG/L	100
33)	2-HEXANONE		43	24.95	589	2575	2.93	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.16	620	203743	48.03	UG/L	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.02	771	96128	46.25	UG/L	100

* Compound is ISTD

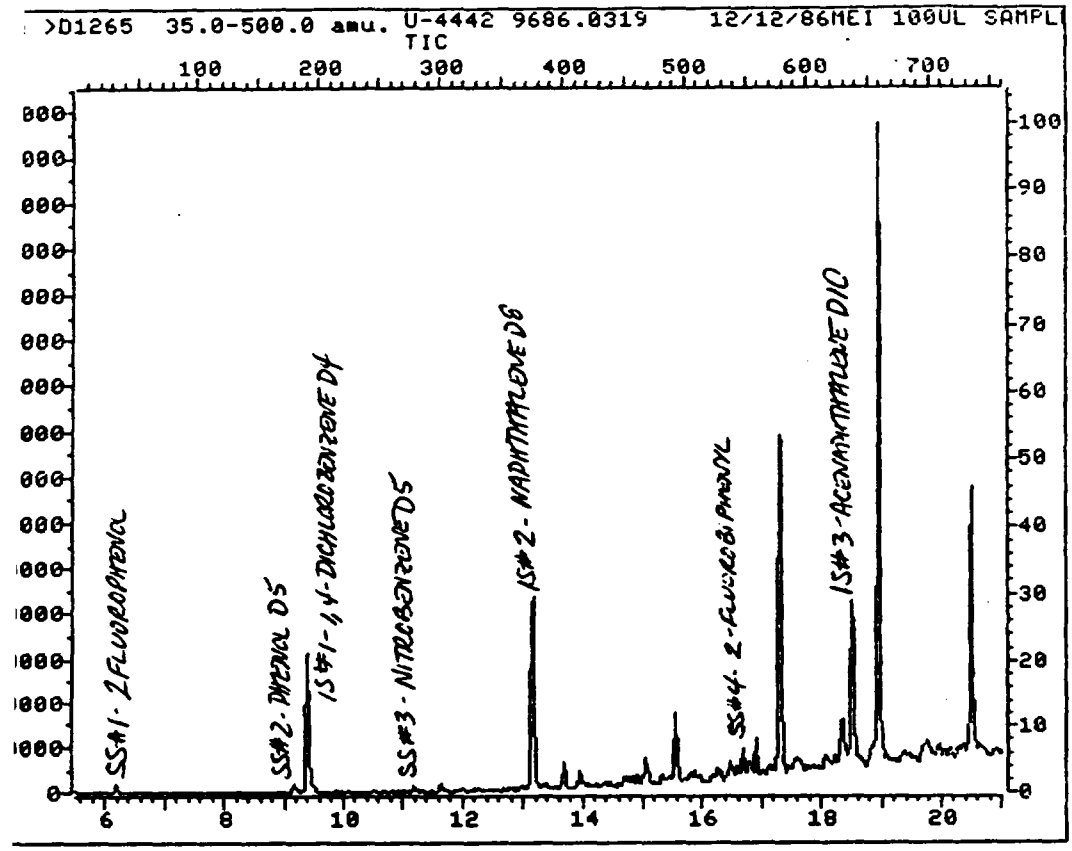


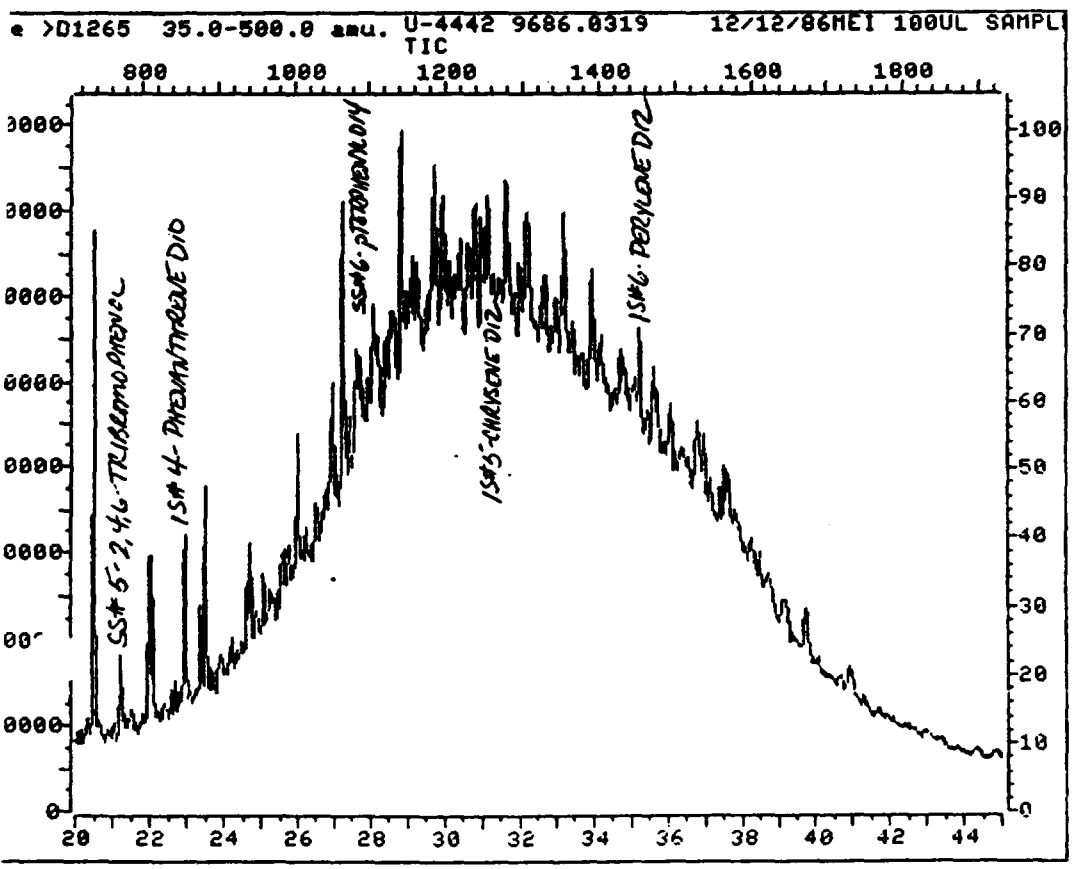
Data File: >D1265::D3 DC-SD-34
Name: U-4442 9686.0319
Misc: 12/12/86MEI 100UL SAMPLE + 400UL MECL2 + 5UL IS (5X) BTL# 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861211 15:37

Operator ID: USER8
Quant Time: 861216 09:58
Injected at: 861212 21:20

DC-SD-34


>D1265 35.0-500.0 amu. U-4442 9686.0319 12/12/86MEI 100UL SAMPL
TIC
SS#1- 2FLUOROPHENOL
SS#2- PHENOL D5
IS#1- 1,4-DICHLOROBENZENE D4
SS#3- NITROBENZENE D5
IS#2- NAPHTHALENE D8
SS#4- 2-FLUOROBIPHENYL
IS#3- ACENAPHTHALENE D10


>D1265 35.0-500.0 amu. U-4442 9686.0319 12/12/86MEI 100UL SAMPL
TIC
SS#5- 2,4,6-TRIBROMOPHENOL
IS#4- PHENANTHRENE D10
SS#6- P-TERPHENYL D14
IS#5- CHRYSENE D12
IS#6- PERYLENE D12

QUANT REPORT

ɔerator ID: USER8 Quant Rev: 4 Quant Time: 861216 09:58
ɹtput File: ^D1265::Q2 Injected at: 861212 21:20
ɜta File: >D1265::D3 Dilution Factor: 5.00
ɜme: U-4442 9686.0319 DC-SD-34
isc: 12/12/86MEI 100UL SAMPLE + 400UL MECL2 + 5UL IS (5X) BTL# 3

FINAL VOLUME: 5 ml

) File: BNADR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ɜst Calibration: 861211 15:37

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.37	190	38105	40.00	UG/L	90
2)	PHENOL-D5	(SURR)	99	9.15	179	5527	21.56	UG/L	98
5)	2-FLUOROPHENOL	(SURR)	112	6.17	33	4469	27.76	UG/L	99
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.43~~	~~193~~	~~428~~	~~1.59~~	~~UG/L~~ No Eff	68
1)	1,4-DICHLOROBENZENE		146	9.43	193	428	1.64	UG/L	70
~~2)~~	~~1,2-DICHLOROBENZENE~~		~~146~~	~~9.43~~	~~193~~	~~428~~	~~1.50~~	~~UG/L~~	71
~~2)~~	~~1,2-DICHLOROBENZENE~~		~~146~~	~~9.96~~	~~219~~	~~291~~	~~.99~~	~~UG/L~~ No Eff	90
~~3)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.18~~	~~279~~	~~287~~	~~1.07~~	~~UG/L~~	78
9)	*NAPHTHALENE-D8	(IS)	136	13.14	375	128791	40.00	UG/L	100
1)	NITROBENZENE-D5	(SURR)	82	11.18	279	2991	12.33	UG/L	92
~~2)~~	~~NAPHTHALENE~~		~~128~~	~~13.20~~	~~370~~	~~198~~	~~.33~~	~~UG/L~~ No Eff	100
3)	2-METHYLNAPHTHALENE		142	15.34	483	706	1.77	UG/L	96
~~3)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.65~~	~~498~~	~~611~~	~~1.54~~	~~UG/L~~ No Eff	93
4)	*ACENAPHTHENE-D10	(IS)	162	18.51	638	42583	40.00	UG/L	97
3)	2-FLUOROBIPHENYL	(SURR)	172	16.67	548	6866	19.41	UG/L	93
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.40~~	~~633~~	~~691~~	~~2.05~~	~~UG/L~~	100
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.51~~	~~630~~	~~14014~~	~~41.63~~	~~UG/L~~	100
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.69~~	~~647~~	~~250~~	~~.74~~	~~UG/L~~	100
~~3)~~	~~DIBENZOFURAN~~		~~168~~	~~18.67~~	~~646~~	~~451~~	~~1.31~~	~~UG/L~~ No Eff	100
~~3)~~	~~DIBENZOFURAN~~		~~168~~	~~18.81~~	~~653~~	~~191~~	~~.55~~	~~UG/L~~	100
~~3)~~	~~DIBENZOFURAN~~		~~168~~	~~18.96~~	~~660~~	~~641~~	~~1.86~~	~~UG/L~~	100
~~3)~~	~~FLUORENE~~		~~166~~	~~20.18~~	~~720~~	~~163~~	~~.68~~	~~UG/L~~	20
3)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.02	761	825	18.95	UG/L	99
~~2)~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.69~~	~~745~~	~~203~~	~~6.42~~	~~UG/L~~	100
~~2)~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.84~~	~~752~~	~~128~~	~~4.05~~	~~UG/L~~	100
~~2)~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.88~~	~~754~~	~~208~~	~~6.58~~	~~UG/L~~	100
~~1)~~	~~4-NITROPHENOL~~		~~139~~	~~19.37~~	~~680~~	~~160~~	~~4.63~~	~~UG/L~~	100
~~1)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~19.02~~	~~663~~	~~289~~	~~4.71~~	~~UG/L~~ No Eff	100
~~1)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~19.30~~	~~677~~	~~229~~	~~3.73~~	~~UG/L~~	100
~~1)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~19.39~~	~~681~~	~~234~~	~~3.81~~	~~UG/L~~	100
~~1)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~19.94~~	~~708~~	~~183~~	~~2.98~~	~~UG/L~~	100
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.98~~	~~612~~	~~186~~	~~2.72~~	~~UG/L~~	100
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.34~~	~~630~~	~~428~~	~~6.14~~	~~UG/L~~	100
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.51~~	~~638~~	~~5866~~	~~85.81~~	~~UG/L~~	100
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.67~~	~~646~~	~~214~~	~~3.13~~	~~UG/L~~	100
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.83~~	~~654~~	~~556~~	~~8.13~~	~~UG/L~~	100
3)	*PHENANTHRENE-D10	(IS)	188	22.96	856	45528	40.00	UG/L	93
~~3)~~	~~DI-N-BUTYLPHTHALATE~~		~~149~~	~~25.52~~	~~981~~	~~429~~	~~1.52~~	~~UG/L~~ No Eff	58
~~3)~~	~~DI-N-BUTYLPHTHALATE~~		~~149~~	~~25.59~~	~~984~~	~~503~~	~~1.78~~	~~UG/L~~	1
5)	*CHRYSENE-D12	(IS)	240	31.15	1255	26475	40.00	UG/L	100
3)	TERPHENYL-D14	(SURR)	244	28.17	1110	1764	12.62	UG/L	100
~~3)~~	~~BUTYLBENZYLPHTHALATE~~		~~149~~	~~29.67~~	~~1183~~	~~265~~	~~2.35~~	~~UG/L~~ No Eff	89
~~3)~~	~~BUTYLBENZYLPHTHALATE~~		~~149~~	~~29.79~~	~~1189~~	~~478~~	~~4.24~~	~~UG/L~~	35

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
~~1)~~	~~BENZO(A)ANTHRACENE~~	~~228~~	~~31.21~~	~~1258~~	~~376~~	~~2.80~~	~~UG/L~~	1
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~	~~149~~	~~31.83~~	~~1288~~	~~302~~	~~2.19~~	~~UG/L~~	51
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~	~~149~~	~~32.03~~	~~1298~~	~~1739~~	~~12.58~~	~~UG/L~~	45
2)	BIS(2-ETHYLHEXYL)PHTHALATE	149	32.12	1302	1590	11.50	UG/L	93
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~	~~149~~	~~32.28~~	~~1310~~	~~538~~	~~3.89~~	~~UG/L~~	77
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~	~~149~~	~~32.57~~	~~1324~~	~~560~~	~~4.05~~	~~UG/L~~	90
3)	CHRYSENE	228	31.21	1258	376	2.81	UG/L	3
4)	*PERYLENE-D12 (IS)	264	35.22	1453	22698	40.00	UG/L	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~	~~149~~	~~33.45~~	~~1367~~	~~840~~	~~2.58~~	~~UG/L~~	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~	~~149~~	~~33.62~~	~~1375~~	~~593~~	~~1.82~~	~~UG/L~~	100
5)	DI-N-OCTYL PHTHALATE	149	33.95	1391	3695	11.35	UG/L	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~	~~149~~	~~34.31~~	~~1409~~	~~516~~	~~1.59~~	~~UG/L~~	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~	~~149~~	~~34.40~~	~~1413~~	~~723~~	~~2.22~~	~~UG/L~~	100
~~6)~~	~~BENZO(B)FLUORANTHENE~~	~~252~~	~~33.95~~	~~1391~~	~~220~~	~~1.58~~	~~UG/L~~	100
6)	BENZO(B)FLUORANTHENE	252	34.27	1407	183	1.32	UG/L	100
~~7)~~	~~BENZO(K)FLUORANTHENE~~	~~252~~	~~33.95~~	~~1391~~	~~220~~	~~1.26~~	~~UG/L~~	100
~~7)~~	~~BENZO(K)FLUORANTHENE~~	~~252~~	~~34.27~~	~~1407~~	~~183~~	~~1.05~~	~~UG/L~~	100
~~7)~~	~~BENZO(K)FLUORANTHENE~~	~~252~~	~~34.79~~	~~1432~~	~~200~~	~~1.15~~	~~UG/L~~	100
~~8)~~	~~BENZO(A)PYRENE~~	~~252~~	~~34.79~~	~~1432~~	~~200~~	~~1.63~~	~~UG/L~~	100
~~8)~~	~~BENZO(A)PYRENE~~	~~252~~	~~34.93~~	~~1439~~	~~152~~	~~1.24~~	~~UG/L~~	100

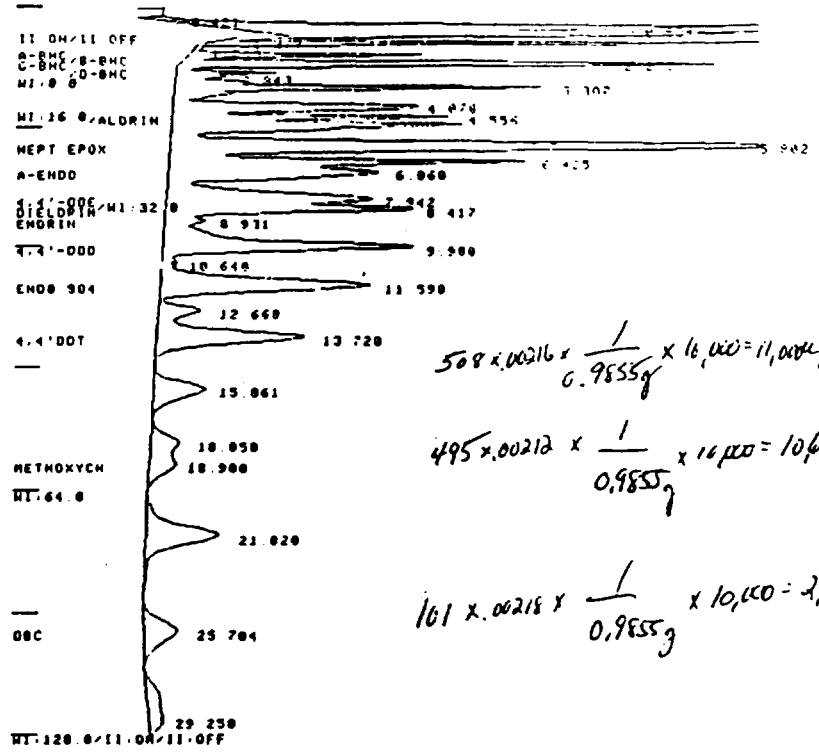
No BPH

No BPH

No BPH

* Compound is ISTD

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



508 x .00216 x 1/0.9855g x 16,000 = 11,000 ug/kg 1248

495 x .00212 x 1/0.9855g x 16,000 = 10,600 ug/kg 1250

101 x .00218 x 1/0.9855g x 10,000 = 2,200 J ug/kg 1260

DC-SD-34

CHANNEL: 1A - 1 TITLE: RUN8 46 15:05 20 NOV 86

SAMPLE: 9686.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT ~~UG/L~~	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.379		47[illegible]331	BB	3.05
2		0.0000	1.898		14[illegible]641	VV	4.38
3	~~A-BHC~~	15.1178	2.048	0.008	5[illegible]296	VV	4.19
4	~~B-BHC~~	672.0520	2.755	0.085	5[illegible]499	VV	5.19
5	~~D-BHC~~	39.9567	2.590	0.140	1[illegible]176	VV	7.44
6		0.0000	2.843		6[illegible]066	VV ?	8.13
7		0.0000	~~3.075~~		7[illegible]53	VV ?	8.38
8		0.0000	3.307		42[illegible]511	VV	[illegible]
9	~~HEPTACHLO~~	51.1525	3.513	0.277	12[illegible]973	VV	6.[illegible]
10		0.0000	4.078		57[illegible]642	VV	18.75
11	~~ALDRIN~~	147.9505	4.556	-0.114	49[illegible]024	VV	12.88
12		0.0000	4.882		65[illegible]189	VV	20.06
13	~~HEPT EPOX~~	658.6784	5.002	0.132	1[illegible]240	VV	19.25
14		0.0000	6.425		7[illegible]379	VV	17.25
15	~~A-ENDO~~	259.5192	6.060	-0.170	63[illegible]648	VV ?	[illegible].56
16	~~4,4'-DDE~~	264.0913	7.942	-0.148	73[illegible]639	VV	[illegible].94
17	~~DIELDRIN~~	226.2118	8.417	0.227	66[illegible]011	VV ?	25.00
18	~~ENDRIN~~	34.4052	8.931	-0.199	9[illegible]726	VV ?	23.69
19	~~4,4'-DDD~~	403.8932	9.900	-0.180	95[illegible]713	VV	23.44
20	~~ENDO 904~~	483.0678	11.590	-0.312	94[illegible]591	VV	32.06
21		0.0000	12.660		16[illegible]564	VV	27.56
22	~~4,4'DDT~~	428.6287	13.720	2.468	53[illegible]305	VV	32.56
23	~~ENO KETON~~	111.0361	15.861	0.591	21[illegible]129	VB	[illegible].38
24		0.0000	18.050		15[illegible]343	VB	[illegible].06
25	~~METHOXYCH~~	178.0869	~~18.900~~	-0.590	[illegible]	VB ?	61.31
26		0.0000	21.020		52[illegible]725	BB	43.63
27	~~DBC~~	120.9256	25.704	-0.906	27[illegible]254	BV	64.63
28	-	0.0000	29.250		13[illegible]311	VB	7131.00

TOTALS: 4095.573 -1.245 12172158

DETECTED PKS: 39 REJECTED PKS: 11

DIVISOR: 1.50000 MULTIPLIER: 10000.0000

NOISE: 22.9 OFFSET: 4

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SAMS[illegible]
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 620082 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER

weathered

SAMPLE NUMBER DC-SD-35

Sample Number
DC-SD-35

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U 4442
Lab Sample ID No: 9687
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Slotowicz
Date Sample Received: 11-7-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-17-86

Conc/Dil Factor: 2 pH 7.4

Percent Moisture: (Not Decanted) 45

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3600u
74-83-9	Bromomethane	3600u
75-01-4	Vinyl Chloride	3600u
75-00-3	Chloroethane	3600u
75-09-2	Methylene Chloride	8800 B
67-64-1	Acetone	23000B
75-15-0	Carbon Disulfide	1800u
75-35-4	1, 1-Dichloroethene	1800u
75-34-3	1, 1-Dichloroethane	1800u
156-60-5	Trans-1, 2-Dichloroethene	1800u
67-66-3	Chloroform	1800u
107-06-2	1, 2-Dichloroethane	1800u
78-93-3	2-Butanone	3600u
71-55-6	1, 1, 1-Trichloroethane	1800u
56-23-5	Carbon Tetrachloride	1800u
108-05-4	Vinyl Acetate	3600u
75-27-4	Bromodichloromethane	1800u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1800u
10061-02-6	Trans-1, 3-Dichloropropene	1800u
79-01-6	Trichloroethene	1800u
124-48-1	Dibromochloromethane	1800u
79-00-5	1, 1, 2-Trichloroethane	1800u
71-43-2	Benzene	1800u
10061-01-5	cis-1, 3-Dichloropropene	1800u
110-75-8	2-Chloroethylvinylether	3600u
75-25-2	Bromoform	1800u
108-10-1	4-Methyl-2-Pentanone	3600u
591-78-6	2-Hexanone	3600u
127-18-4	Tetrachloroethene	1800u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1800u
108-88-3	Toluene	1800u
108-90-7	Chlorobenzene	1800u
100-41-4	Ethylbenzene	1800u
100-42-5	Styrene	1800u
	Total Xylenes	1800u

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.
Case No U-4432/U-4442

Sample Number
DC-SD-35

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared 11-12-86
Date Analyzed 12-12-86
Conc/Dil Factor: 5
Percent Moisture (Decanted) 45

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	1500	U
111-44-4	bis(-2-Chloroethyl)Ether	1500	U
95-57-8	2-Chlorophenol	1500	U
541-73-1	1 3-Dichlorobenzene	1500	U
106-46-7	1. 4-Dichlorobenzene	130	J
100-51-6	Benzyl Alcohol	1500	U
95-50-1	1. 2-Dichlorobenzene	1500	U
95-48-7	2-Methylphenol	1500	U
39638-32-9	bis(2-chloroisopropyl)Ether	1500	U
106-44-5	4-Methylphenol	1500	U
621-64-7	N-Nitroso-Di-n-Propylamine	1500	U
67-72-1	Hexachloroethane	1500	U
98-95-3	Nitrobenzene	1500	U
78-59-1	Isophorone	1500	U
88-75-5	2-Nitrophenol	1500	U
105-67-9	2. 4-Dimethylphenol	1500	U
65-85-0	Benzoic Acid	7300	U
111-91-1	bis(-2-Chloroethoxy)Methane	1500	U
120-83-2	2. 4-Dichlorophenol	1500	U
120-82-1	1. 2. 4-Trichlorobenzene	90	J
91-20-3	Naphthalene	130	J
106-47-8	4-Chloroaniline	1000	J
87-68-3	Hexachlorobutadiene	1500	U
59-50-7	4-Chloro-3-Methylphenol	1500	U
91-57-6	2-Methylnaphthalene	1500	U
77-47-4	Hexachlorocyclopentadiene	1500	U
88-06-2	2 4. 6-Trichlorophenol	1500	U
95-95-4	2. 4. 5-Trichlorophenol	7300	U
91-58-7	2-Chloronaphthalene	1500	U
88-74-4	2-Nitroaniline	7300	U
131-11-3	Dimethyl Phthalate	1500	U
208-96-8	Acenaphthylene	1500	U
99-09-2	3-Nitroaniline	7300	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	1500	U
51-28-5	2. 4-Dinitrophenol	7300	U
100-02-7	4-Nitrophenol	7300	U
132-64-9	Dibenzofuran	1500	U
121-14-2	2 4-Dinitrotoluene	1500	U
606-20-2	2. 6-Dinitrotoluene	1500	U
84-66-2	Diethylphthalate	1500	U
7005-72-3	4-Chlorophenyl-phenylether	1500	U
86-73-7	Fluorene	1500	U
100-01-6	4-Nitroaniline	7300	U
534-52-1	4. 6-Dinitro-2-Methylphenol	7300	U
86-30-6	N-Nitrosodiphenylamine (1)	1500	U
101-55-3	4-Bromophenyl-phenylether	1500	U
118-74-1	Hexachlorobenzene	1100	J
87-86-5	Pentachlorophenol	800	J
85-01-8	Phenanthrene	1500	U
120-12-7	Anthracene	1500	U
84-74-2	Di-n-Butylphthalate	1500	U
206-44-0	Fluoranthene	600	J
129-00-0	Pyrene	1000	J
85-68-7	Butylbenzylphthalate	1500	U
91-94-1	3. 3'-Dichlorobenzidine	3000	U
56-55-3	Benzo(a)Anthracene	1500	U
117-81-7	bis(2-Ethylhexyl)Phthalate	130	J
218-01-9	Chrysene	1000	J
117-84-0	Di-n-Octyl Phthalate	8100	
205-99-2	Benzo(b)Fluoranthene	760	J
207-08-9	Benzo(k)Fluoranthene	1500	U
50-32-8	Benzo(a)Pyrene	430	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	570	J
53-70-3	Dibenz(a h)Anthracene	1500	U
191-24-2	Benzo(g h i)Perylene	960	J

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number DC-SD-35

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed 11-20-86

Conc/Dil Factor: 50

Percent Moisture (decanted) 45

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	16,000 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	71,000 c
11096-82-5	Aroclor-1260	24,000 c

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

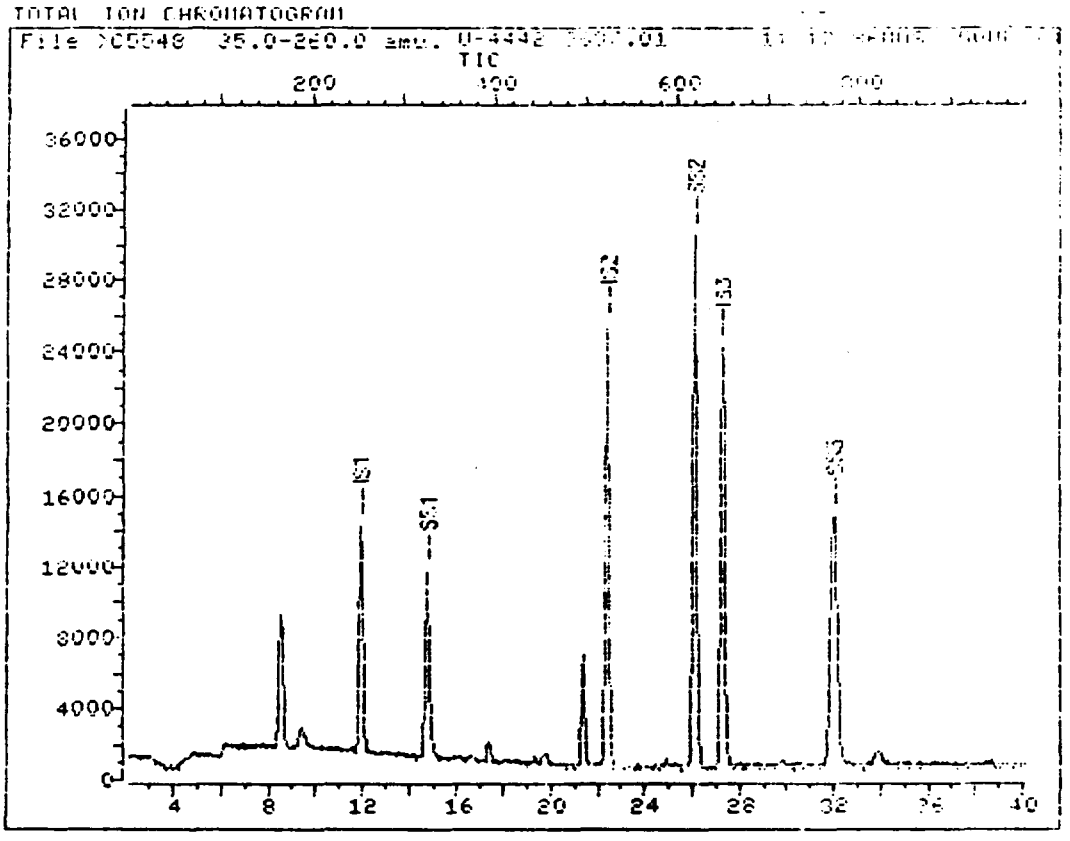
Case No u-4432 / u-4442

Sample Number DC-SD-35

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4 min	730 BJ
2.	Unknown Ketone	VOA	19.7 min	320 BJ
3.	Hexane isomer	VOA	21.4 min	2700 BJ
4.				
5. 104121	1-CHLORO-4-ISOCYANATOBENZENE	BNA	12.3	1400 J
6.	TETRACHLOROBENZENE ISOMER		16.8	2800 J
7. 608935	PENTACHLOROBENZENE		19.2	2400 J
8.	PCB		25.3-30.1	-
9.	UNKNOWN PHTHALATE		31.3	5400 J
10.	UNKNOWN PHTHALATE		32.0	12000 J
11.	UNKNOWN PHTHALATE		33.2	6100 J
12.	UNKNOWN PHTHALATE		35.0	12000 J
13.	UNKNOWN PHTHALATE		35.8	28000 J
14.	UNKNOWN PHTHALATE		36.8	3700 J
15.	UNKNOWN PHTHALATE		37.4	13000 J
16.	UNKNOWN PHTHALATE		38.4	2400 J
17.	UNKNOWN PHTHALATE	BNA	39.1	5200 J
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

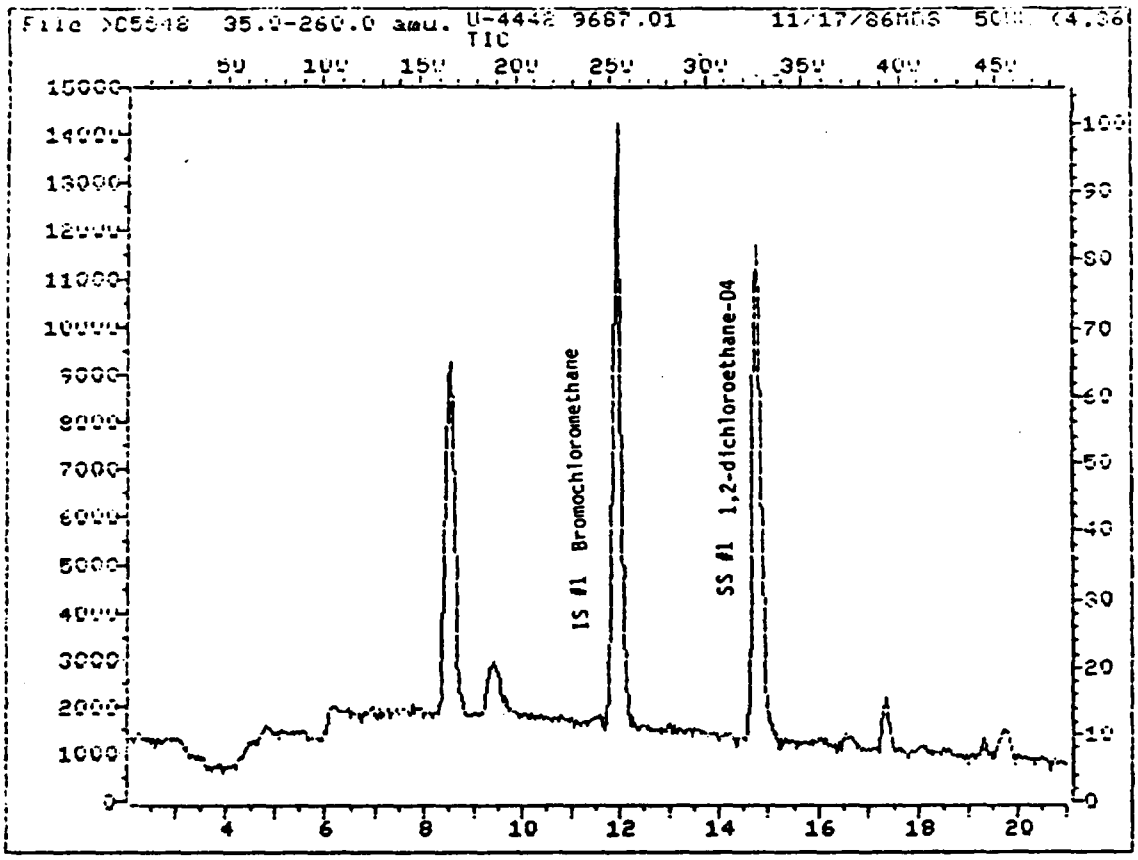


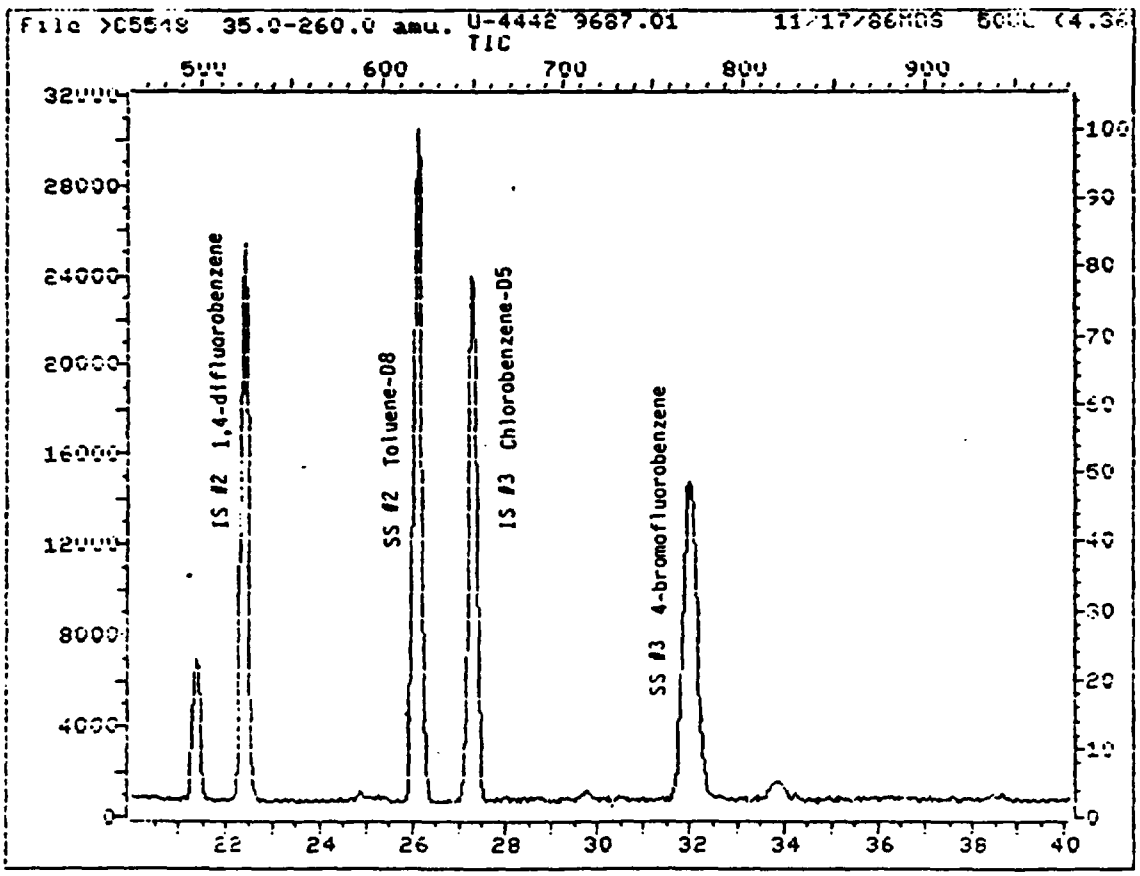
Data File: >C9548::D3
Name: U-4442 9687.01 DC-SD-35
Misc: 11/17/86MDS 500UL (4.36G/10MLS MEOH) + 10UL 15/55

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861117 11:28

Operator ID: USER8
Quant Time: 861117 13:53
Injected at: 861117 13:12

DC-SD-35


File >C5548 35.0-260.0 amu. U-4442 9687.01 11/17/86MDS
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5548 35.0-260.0 amu. U-4442 9687.01 11/17/86MDS
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

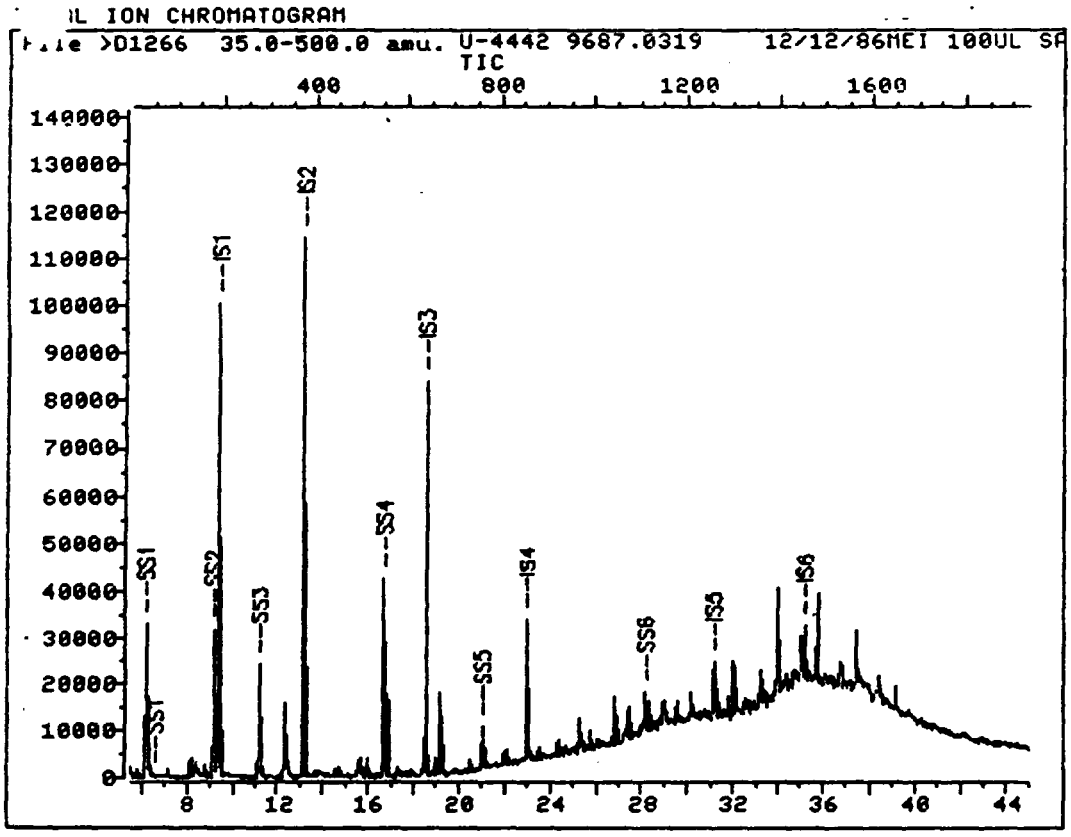
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861117 13:53
Output File: ^C5548::D2 Injected at: 861117 13:12
Data File: ^C5548::D3 Dilution Factor: 1.00
Name: U-4442 9687.01 DC-SD-35
Misc: 11/17/86MDS 50UL (4.36G/10MLS MEOH) + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861117 11:28

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.93	254	20040	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.48	165	21643	21.03	UG/L	100
7)	ACETONE		43	9.37	188	14909	54.48	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.76	327	42748	47.33	UG/L	92
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.40	524	111144	50.00	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.26	649	79354	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.09	619	124742	50.37	UG/L	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.03	772	56433	46.51	UG/L	100

* Compound is ISTD

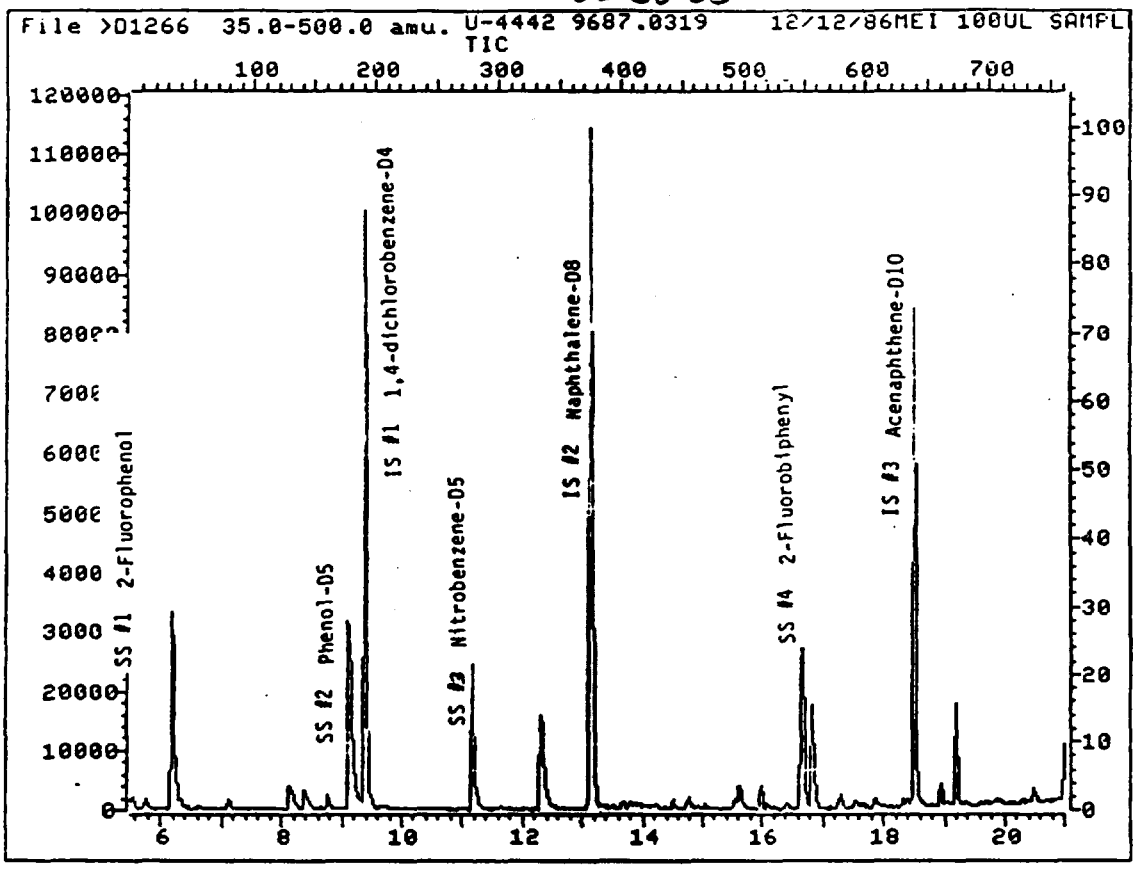


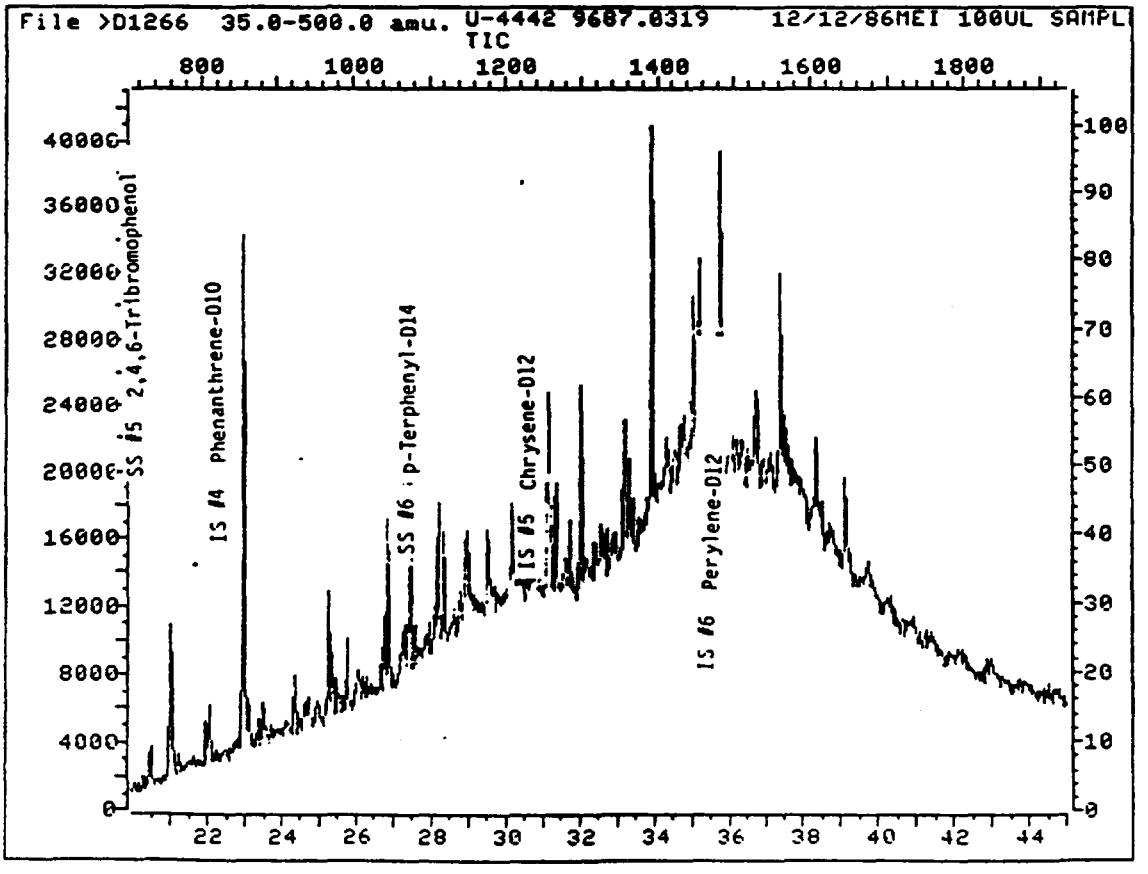
Data File: >D1266::D1
Name: U-4442 9687.0319 DC-SD-35
Misc: 12/12/86MEI 100UL SAMPLE + 400UL MECL2 + 5UL IS (5X) BTL# 4

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861211 15:37

Operator ID: USER8
Quant Time: 861215 18:35
Injected at: 861212 22:13

DC-SD-35


File >D1266 35.0-500.0 amu. U-4442 9687.0319 12/12/86MEI 100UL SAMPL
TIC
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


File >D1266 35.0-500.0 amu. U-4442 9687.0319 12/12/86MEI 100UL SAMPL
TIC
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

ɔerator ID: USER8 Quant Rev: 4 Quant Time: 861215 18:35
ɹtput File: ^D1266::Q2 Injected at: 861212 22:13
ɜta File: >D1266::D1 Dilution Factor: 5.00
ɜme: U-4442 9687.0319 DC-SD-35
isc: 12/12/86MEI 100UL SAMPLE + 400UL MECL2 + 5UL IS (5X) BTL# 4

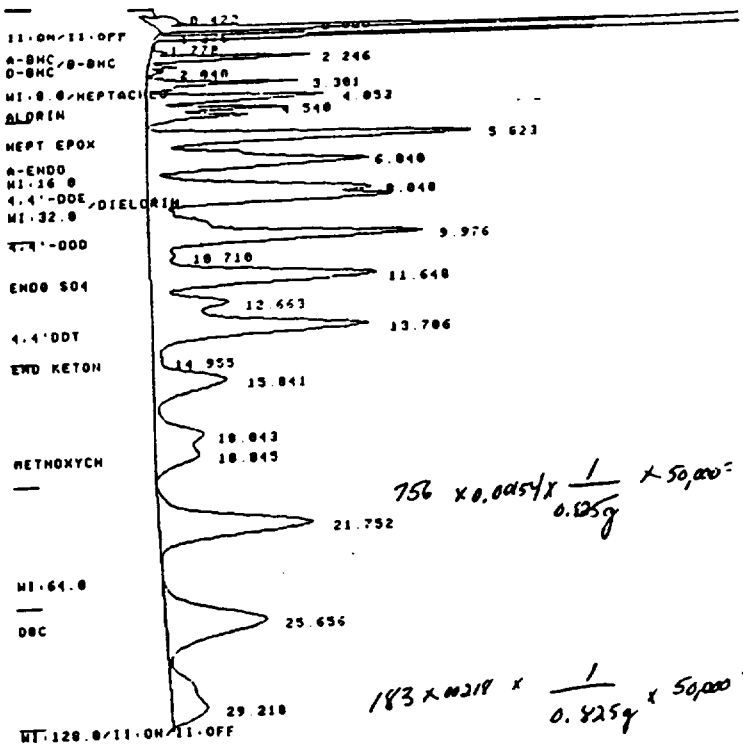
) File: BNADR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 861211 15:37

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.39	191	44615	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	9.10	177	43593	145.25	UG/L	99
5)	2-FLUOROPHENOL	(SURR)	112	6.17	33	29582	156.96	UG/L	75
5)	2-FLUOROPHENOL	(SURR)	112	6.54	51	193	1.02	UG/L	53
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.43~~	~~193~~	~~651~~	~~2.06~~	~~UG/L~~ NOBJK	~~77~~
0)	1,4-DICHLOROBENZENE		146	9.43	193	651	2.13	UG/L	79
~~7)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.16~~	~~278~~	~~3977~~	~~12.64~~	~~UG/L~~ NOBJK	96
9)	*NAPHTHALENE-D8	(IS)	136	13.16	376	155281	40.00	UG/L	100
0)	NITROBENZENE-D5	(SURR)	82	11.16	278	24094	82.35	UG/L	94
8)	1,2,4-TRICHLOROBENZENE		180	13.10	373	400	1.48	UG/L	100
9)	NAPHTHALENE		128	13.20	378	1559	2.18	UG/L	100
0)	4-CHLOROANILINE		127	13.81	408	4090	17.19	UG/L	89
~~3)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.34~~	~~483~~	~~301~~	~~.63~~	~~UG/L~~ NOBJK	84
~~3)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.64~~	~~498~~	~~563~~	~~1.17~~	~~UG/L~~	90
4)	*ACENAPHTHENE-D10	(IS)	162	18.52	639	49220	40.00	UG/L	97
8)	2-FLUOROBIPHENYL	(SURR)	172	16.66	548	41472	101.43	UG/L	93
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.86~~	~~607~~	~~1597~~	~~4.10~~	~~UG/L~~	100
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.43~~	~~635~~	~~179~~	~~.46~~	~~UG/L~~	100
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.52~~	~~639~~	~~15445~~	~~39.69~~	~~UG/L~~ NOBJK	100
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.64~~	~~645~~	~~190~~	~~.49~~	~~UG/L~~	100
~~3)~~	~~DIBENZOFURAN~~		~~168~~	~~18.66~~	~~646~~	~~262~~	~~.66~~	~~UG/L~~	100
8)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.00	761	4644	92.27	UG/L	96
~~9)~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.80~~	~~755~~	~~179~~	~~4.90~~	~~UG/L~~ NOBJK	100
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.52~~	~~639~~	~~6915~~	~~87.52~~	~~UG/L~~	100
5)	*PHENANTHRENE-D10	(IS)	188	22.96	857	38914	40.00	UG/L	93
9)	HEXACHLOROBENZENE		284	22.06	813	947	17.83	UG/L	95
0)	PENTACHLOROPHENOL		266	22.80	849	334	13.14	UG/L	100
4)	FLUORANTHENE		202	26.67	1039	1405	9.84	UG/L	87
5)	*CHRYSENE-D12	(IS)	240	31.13	1257	16455	40.00	UG/L	100
~~6)~~	~~BENZIDINE~~		~~184~~	~~27.45~~	~~1077~~	~~703~~	~~703.00~~	~~NO CALIB~~ NOBJK	
~~6)~~	~~BENZIDINE~~		~~184~~	~~27.57~~	~~1083~~	~~214~~	~~214.00~~	~~NO CALIB~~	100
7)	PYRENE		202	27.31	1070	2722	16.69	UG/L	91
8)	TERPHENYL-D14	(SURR)	244	28.17	1112	5970	68.73	UG/L	100
~~0)~~	~~3,3'DICHLOROBENZIDINE~~		~~252~~	~~31.72~~	~~1286~~	~~333~~	~~36.25~~	~~UG/L~~	100
~~1)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.19~~	~~1260~~	~~1445~~	~~17.29~~	~~UG/L~~	87
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~31.72~~	~~1286~~	~~180~~	~~2.10~~	~~UG/L~~	8
~~2~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.01~~	~~1300~~	~~16447~~	~~191.48~~	~~UG/L~~ NOBJK	41
2.	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.15	1307	181	2.11	UG/L	1
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.44~~	~~1321~~	~~300~~	~~3.49~~	~~UG/L~~	5
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.56~~	~~1327~~	~~1327~~	~~15.45~~	~~UG/L~~ NOBJK 390	94
3)	CHRYSENE		228	31.19	1260	1445	17.37	UG/L	89
4)	*PERYLENE-D12	(IS)	264	35.20	1456	13647	40.00	UG/L	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.64~~	~~1380~~	~~482~~	~~2.46~~	~~UG/L~~ NOBJK	100
5)	DI-N-OCTYL PHTHALATE		149	33.93	1394	26295	134.38	UG/L	100

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
5)	~~DI-N-OCTYL PHTHALATE~~	~~149~~	~~34.30~~	~~1416~~	~~1745~~	~~8.92~~	~~UG/L~~ No Q/L	100
6)	BENZO(B)FLUORANTHENE	252	34.24	1409	1050	12.56	UG/L	100
7)	~~BENZO(K)FLUORANTHENE~~	~~252~~	~~34.24~~	~~1409~~	~~1050~~	~~10.03~~	~~UG/L~~ No Q/L	100
8)	~~BENZO(A)PYRENE~~	~~252~~	~~34.91~~	~~1442~~	~~1197~~	~~16.20~~	~~UG/L~~	100
8)	BENZO(A)PYRENE	252	35.06	1449	523	7.08	UG/L	100
8)	~~BENZO(A)PYRENE~~	~~252~~	~~35.26~~	~~1459~~	~~283~~	~~3.83~~	~~UG/L~~ No Q/L	100
9)	INDENO(1,2,3-CD)PYRENE	276	37.80	1583	400	9.36	UG/L	100
1)	BENZO(G,H,I)PERYLENE	276	38.35	1610	746	15.86	UG/L	100

* Compound is ISTD

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



756 x 0.0054 x 1/0.525g x 50,000 = 71,000 ug/kg 1254

183 x 0.0218 x 1/0.525g x 50,000 = 24,000 ug/kg 1260

CHANNEL: 1A - 1 TITLE: RUN# 47 15:44 20 NOV 86

DC-SD-35

SAMPLE: 9687.03.19A1 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		55[illegible]924	VB	3.05
2	~~A-BHC~~	35.9802	2.047	0.007	2[illegible]868	BV	4.25
3	~~B-BHC~~	886.8954	2.246	0.076	21[illegible]363	VV	4.94
4	~~D-BHC~~	51.4875	2.575	0.125	2[illegible]341	VV	6.06
5		0.0000	3.301		16[illegible]072	BV	7.75
6		0.0000	3.515		[illegible]742	VV	? 8.38
7	~~HEPTACHLO~~	61.2182	3.609	-0.190	[illegible]	[illegible]	? 6.53
8		0.0000	4.053		34[illegible]571	VV	16.00
9	~~ALDRIN~~	346.2513	4.540	-0.130	21[illegible]108	VV	11.68
10		0.0000	4.858		17[illegible]203	VV	11.50
11	~~HEPT EPOX~~	1502.498	5.823	0.153	86[illegible]993	VV	? 20.19
12	~~A-ENDO~~	1650.088	6.840	-0.190	80[illegible]425	VV	? 26.55
13	~~4,4'-DDE~~	1400.696	8.048	-0.042	77[illegible]042	VV	? 17.[illegible]
14	~~DIELDRIN~~	1054.097	8.395	0.205	6[illegible]489	VV	? 16.31
15	~~4,4'-DDD~~	2425.499	9.976	-0.184	115[illegible]076	VV	25.38
16	~~ENDO.ALD.~~	170.4972	10.710	0.460	7[illegible]648	VV	? 44.88
17	~~ENDO SO4~~	2592.732	11.648	-0.262	101[illegible]819	VV	33.94
18		0.0000	12.663		31[illegible]639	VV	? 32.50
19	~~4,4'DDT~~	3484.903	13.706	0.446	11[illegible]655	VV	36.38
20	~~END KETON~~	43.1170	14.955	-0.315	[illegible]	VV	? 10.59
21		0.0000	15.841		41[illegible]416	VV	[illegible].19
22		0.0000	18.043		2[illegible]	VV	? 47.21
23	~~METHOXYCH~~	1359.504	18.845	-0.645	[illegible]	VV	? 66.19
24		0.0000	21.752		10[illegible]	VV	50.69
25	~~DBC~~	2086.435	25.656	-0.954	9[illegible]566	VV	73.94
26		0.0000	29.218		39[illegible]454	VB	?111.50
TOTALS:		19151.90		-1.440	12045231		

1259

1260

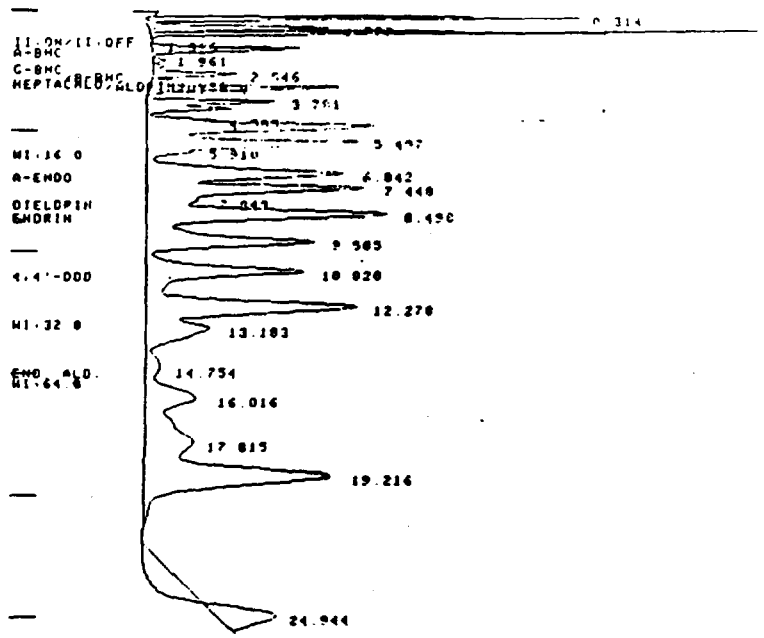
DETECTED PKS: 39 REJECTED PKS: 13

DIVISOR: 1.50000 MULTIPLIER: 50000.0000

NOISE: 22.9 OFFSET: 12

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SAMSON
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 600082 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 1B - 1 TITLE: RUN#22 23:41 21 NOV 86

DC-SD-35

SAMPLE: 9687 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	1.386		42274	BV	3.31
2	A-BHC	0.0000	1.538	-0.142	448790	VB	3.44
3		0.0000	1.961		41397	BV	4.44
4	G-BHC	0.0000	2.223	-0.177	21457	VV	5.44
5	B-BHC	0.0000	2.546	0.136	229074	VB	5.69
6	HEPTACHLO	0.0000	2.803	0.003	32627	BV	6.69
7		0.0000	2.988		23917	VV	? 6.81
8	ALDRIN	0.0000	3.188	0.038	532324	VV	10.05
9		0.0000	3.781		329299	VV	9.56
10		0.0000	4.049		222286	VV	10.81
11		0.0000	4.505		162136	VV	? 10.75
12	HEPT EPOX	0.0000	4.798	-0.302	1130342	VV	19.94
13		0.0000	5.497		1241992	VV	21.38
14		0.0000	5.910		135634	VV	? 16.19
15	4,4'-DDE	0.0000	6.042	0.032	1257674	VV	24.38
16		0.0000	7.448		1161662	VV	19.50
17	DIELDRIN	0.0000	7.849	-0.031	152977	VV	?
18	ENDRIN	0.0000	8.498	-0.312	1497996	VV	22.81
19		0.0000	9.505		1171436	VV	23.81
20	4,4'-DDD	0.0000	10.020	0.390	1257355	VV	26.56
21	B-ENDOSUL	0.0000	12.278	0.639	1733794	VV	30.69
22	4,4'DDT	0.0000	13.183	-0.767	711509	VV	? 51.81
23	END. ALD.	0.0000	14.754	-0.076	179163	VV	? 58.13
24		0.0000	16.016		553948	VV	51.06
25	ENDO SO4	0.0000	17.815	0.755	940024	VV	?119.63
26		0.0000	19.216		2236392	VB	45.63

TOTALS: 0.0000 0.185 17668580

DETECTED PKS: 37 REJECTED PKS: 11

DIVISOR: 1.50000 MULTIPLIER: 50000.0000

NOISE: 125.7 OFFSET: -8

NOTES:
NOTEBOOK:259-40 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB #U-4432;U-4442
INST: VARIAN 6000#2 B ECD 10V1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

POST RUN:
SAVE FILE: RAW CREE:682

SAMPLE NUMBER DC-SD-36

481095

Sample Number
DC-SD-36

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No. U-4432/U-4442
Lab Sample ID No: 9688
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 11-1-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-17-86

Conc/Dil Factor: 2 pH 7.7

Percent Moisture: (Not Decanted) 36

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	3200 u
74-83-9	Bromomethane	3200 u
75-01-4	Vinyl Chloride	3200 u
75-00-3	Chloroethane	3200 u
75-09-2	Methylene Chloride	7200 B
67-64-1	Acetone	6800 B
75-15-0	Carbon Disulfide	1600 u
75-35-4	1, 1-Dichloroethene	1600 u
75-34-3	1, 1-Dichloroethane	1600 u
156-60-5	Trans-1, 2-Dichloroethene	1600 u
67-66-3	Chloroform	1600 u
107-06-2	1, 2-Dichloroethane	1600 u
78-93-3	2-Butanone	12000 B
71-55-6	1, 1, 1-Trichloroethane	1600 u
56-23-5	Carbon Tetrachloride	1600 u
108-05-4	Vinyl Acetate	3200 u
75-27-4	Bromodichloromethane	1600 u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1600 u
10061-02-6	Trans-1, 3-Dichloropropene	1600 u
79-01-6	Trichloroethene	1600 u
124-48-1	Dibromochloromethane	1600 u
79-00-5	1, 1, 2-Trichloroethane	1600 u
71-43-2	Benzene	1600 u
10061-01-5	cis-1, 3-Dichloropropene	1600 u
110-75-8	2-Chloroethylvinylether	3200 u
75-25-2	Bromoform	1600 u
108-10-1	4-Methyl-2-Pentanone	3200 u
591-78-6	2-Hexanone	3200 u
127-18-4	Tetrachloroethene	1600 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1600 u
108-88-3	Toluene	1600 u
108-90-7	Chlorobenzene	480 J
100-41-4	Ethylbenzene	1600 u
100-42-5	Styrene	1600 u
	Total Xylenes	1600 u

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 5 µg/l is calculated, report as 5J.

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4442 / U-4432

Sample Number DC-SD-36

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 12-12-86

Conc/Dil Factor: 10

Percent Moisture (Decanted) 36

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	2600	U
111-44-4	bis(-2-Chloroethyl)Ether	2600	U
95-57-8	2-Chlorophenol	2600	U
541-73-1	1 3-Dichlorobenzene	550	J
106-46-7	1. 4-Dichlorobenzene	2900	
100-51-6	Benzyl Alcohol	2600	U
95-50-1	1. 2-Dichlorobenzene	2600	U
95-48-7	2-Methylphenol	2600	U
39638-32-9	bis(2-chloroisopropyl)Ether	2600	U
106-44-5	4-Methylphenol	2600	U
621-64-7	N-Nitroso-Di-n-Propylamine	2600	U
67-72-1	Hexachloroethane	2600	U
98-95-3	Nitrobenzene	2600	U
78-59-1	Isophorone	2600	U
88-75-5	2-Nitrophenol	2600	U
105-67-9	2. 4-Dimethylphenol	2600	U
65-85-0	Benzoic Acid	12000	U
111-91-1	bis(-2-Chloroethoxy)Methane	2600	U
120-83-2	2. 4-Dichlorophenol	2600	U
120-82-1	1. 2. 4-Trichlorobenzene	1500	J
91-20-3	Naphthalene	2600	U
106-47-8	4-Chloroaniline	2600	U
87-68-3	Hexachlorobutadiene	2600	U
59-50-7	4-Chloro-3-Methylphenol	2600	U
91-57-6	2-Methylnaphthalene	2600	U
77-47-4	Hexachlorocyclopentadiene	2600	U
88-06-2	2 4. 6-Trichlorophenol	2600	U
95-95-4	2. 4. 5-Trichlorophenol	12000	U
91-58-7	2-Chloronaphthalene	2600	U
88-74-4	2-Nitroaniline	12000	U
131-11-3	Dimethyl Phthalate	2600	U
208-96-8	Acenaphthylene	2600	U
99-09-2	3-Nitroaniline	12000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	170	J
51-28-5	2. 4-Dinitrophenol	12000	U
100-02-7	4-Nitrophenol	12000	U
132-64-9	Dibenzofuran	2600	U
121-14-2	2 4-Dinitrotoluene	2600	U
606-20-2	2. 6-Dinitrotoluene	2600	U
84-66-2	Diethylphthalate	2600	U
7005-72-3	4-Chlorophenyl-phenylether	2600	U
86-73-7	Fluorene	2600	U
100-01-6	4-Nitroaniline	12000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	12000	U
86-30-6	N-Nitrosodiphenylamine (1)	2600	U
101-55-3	4-Bromophenyl-phenylether	2600	U
118-74-1	Hexachlorobenzene	2600	U
87-86-5	Pentachlorophenol	12000	U
85-01-8	Phenanthrene	2600	U
120-12-7	Anthracene	2600	U
84-74-2	Di-n-Butylphthalate	900	J
206-44-0	Fluoranthene	2600	U
129-00-0	Pyrene	1400	J
85-68-7	Butylbenzylphthalate	2600	U
91-94-1	3. 3'-Dichlorobenzidine	5200	U
56-55-3	Benzo(a)Anthracene	2600	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2600	U
218-01-9	Chrysene	1700	J
117-84-0	Di-n-Octyl Phthalate	11000	
205-99-2	Benzo(b)Fluoranthene	1000	J
207-08-9	Benzo(k)Fluoranthene	2600	U
50-32-8	Benzo(a)Pyrene	540	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	2600	U
53-70-3	Dibenz(a h)Anthracene	2600	U
191-24-2	Benzo(g h i)Perylene	2600	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4432/V-4442

Sample Number DC-SD-36

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-12-86

Date Analyzed: 11-20-86

Conc/Dil Factor: 50

Percent Moisture (decanted) 36

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
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	38,000
11096-82-5	Aroclor-1260	13,000 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

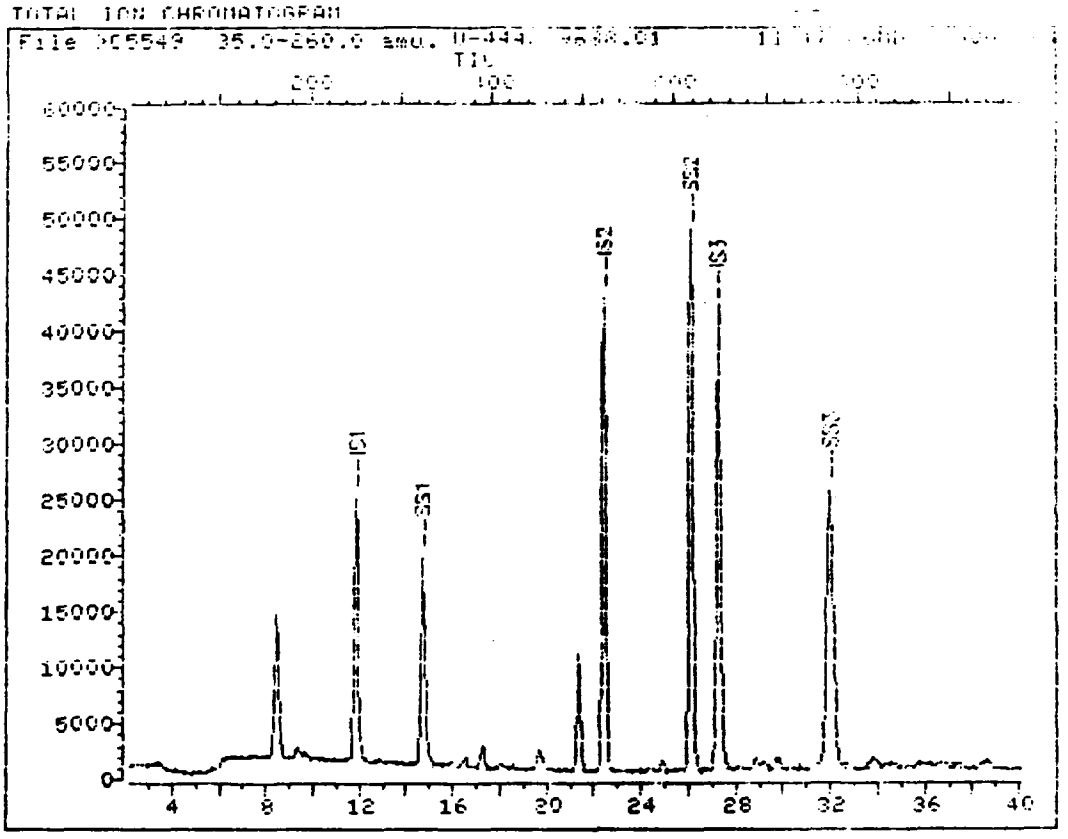
Case No U-4432 / U-4442

Sample Number DC-SD-36

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	17.3 min	660 BJ
2.	Unknown Ketone	VOA	19.6 min	370 BJ
3.	Hexane isomer	VOA	21.4 min	2200 BJ
4.				
5.	UNKNOWN HYDROCARBON	BNA	9.9	4600 J
6.	UNKNOWN HYDROCARBON		11.7	4400 J
7.	UNKNOWN HYDROCARBON		12.0	1300 J
8.	UNKNOWN HYDROCARBON		12.8	2200 J
9.	UNKNOWN HYDROCARBON		13.0	1600 J
10.	UNKNOWN HYDROCARBON		13.7	5700 J
11.	UNKNOWN HYDROCARBON		14.0	3500 J
12.	UNKNOWN HYDROCARBON		15.1	5600 J
13.	UNKNOWN HYDROCARBON		15.6	3400 J
14.	UNKNOWN HYDROCARBON		15.9	7700 J
15.	TETRACHLOROBENZENE ISOMER		16.8	4900 J
16.	UNKNOWN HYDROCARBON		16.9	12000 J
17.	UNKNOWN HYDROCARBON		17.3	3800 J
18.	UNKNOWN HYDROCARBON		18.4	13000 J
19.	UNKNOWN HYDROCARBON		21.2	15000 J
20.	UNKNOWN HYDROCARBON		22.1	12000 J
21.	UNKNOWN HYDROCARBON		23.5	12000 J
22.	UNKNOWN HYDROCARBON		37.5	9600 J
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

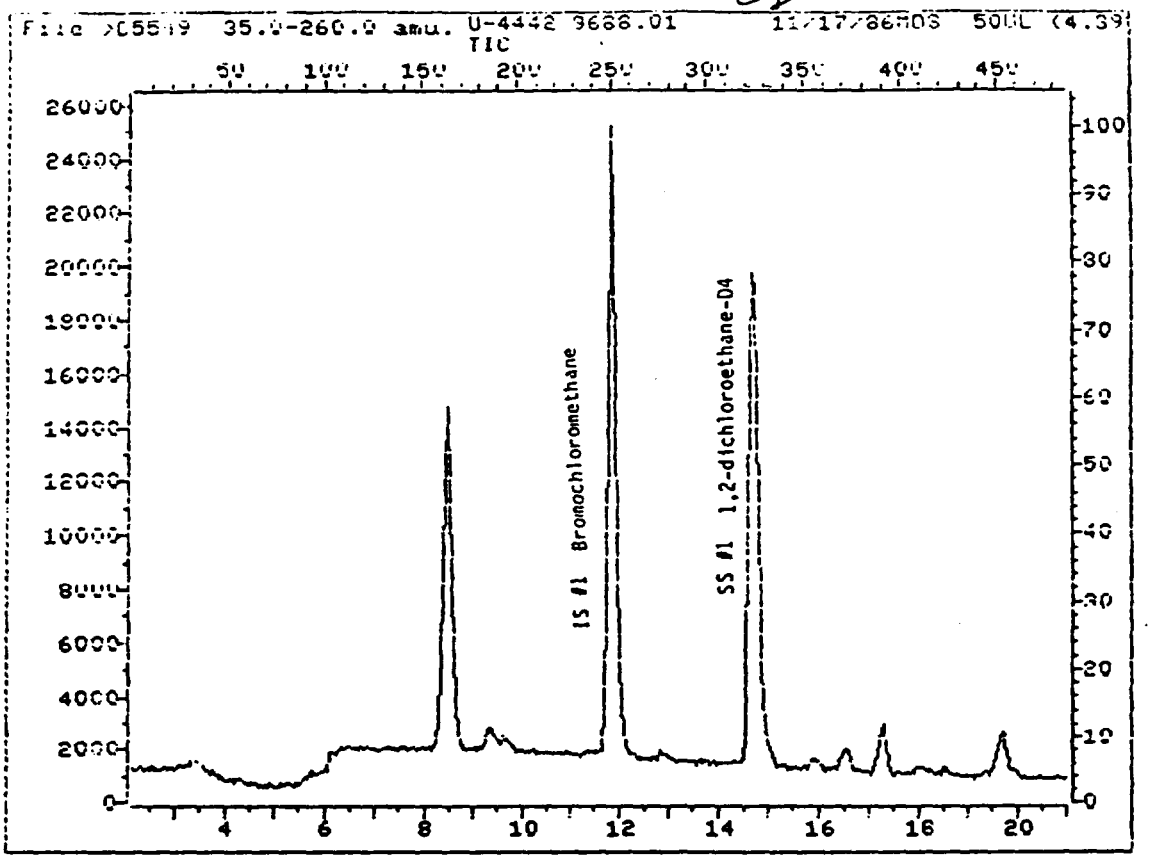


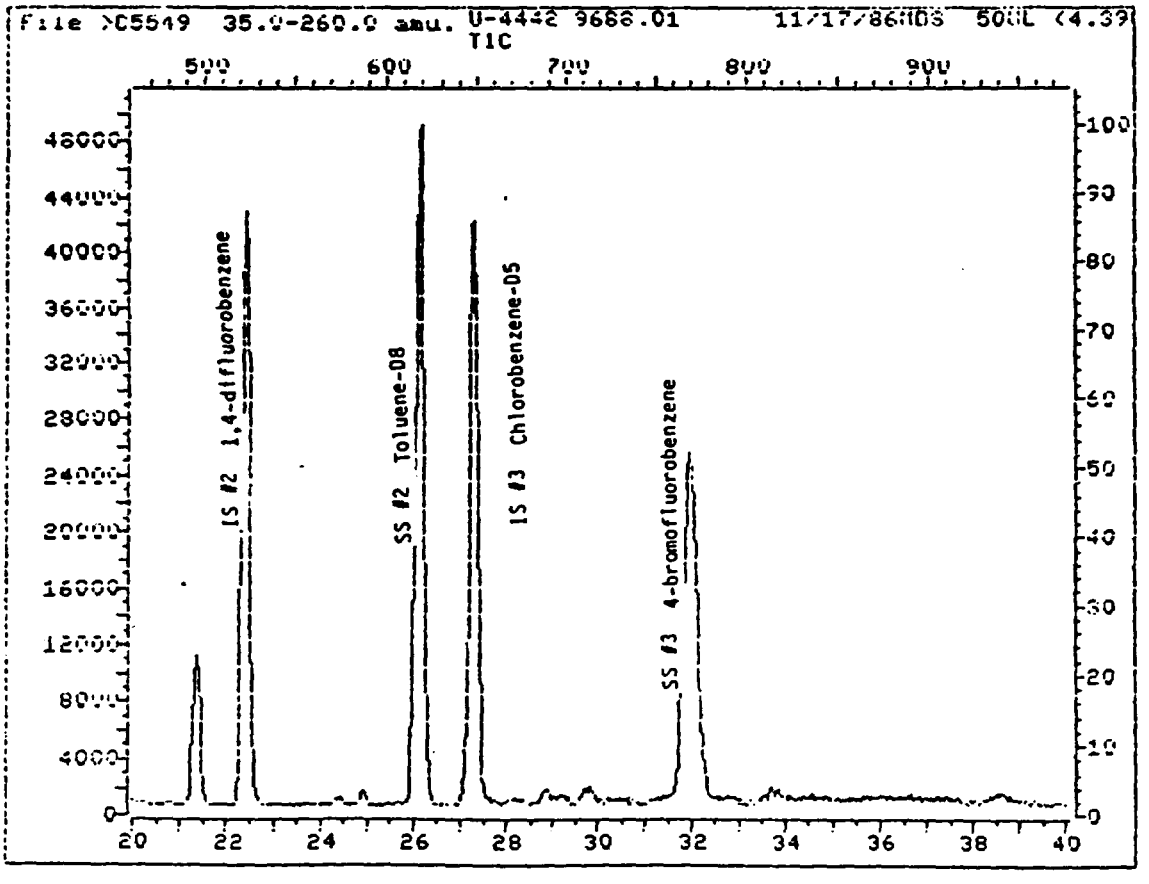
Data File: >C5549::D3
Name: U-4442 9688.01 DC-SD-36
Misc: 11/17/86MD5 50UL (4.39G/10MLS METH) + 10UL IS/SS

Id File: VOAUR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861117 11:28

Operator ID: USER8
Quant Time: 861117 14:43
Injected at: 861117 14:02

DC-SD-36


File >C5549 35.0-260.0 amu. U-4442 9666.01 11/17/86MDS 50UL (4.39)
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5549 35.0-260.0 amu. U-4442 9666.01 11/17/86MDS 50UL (4.39)
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

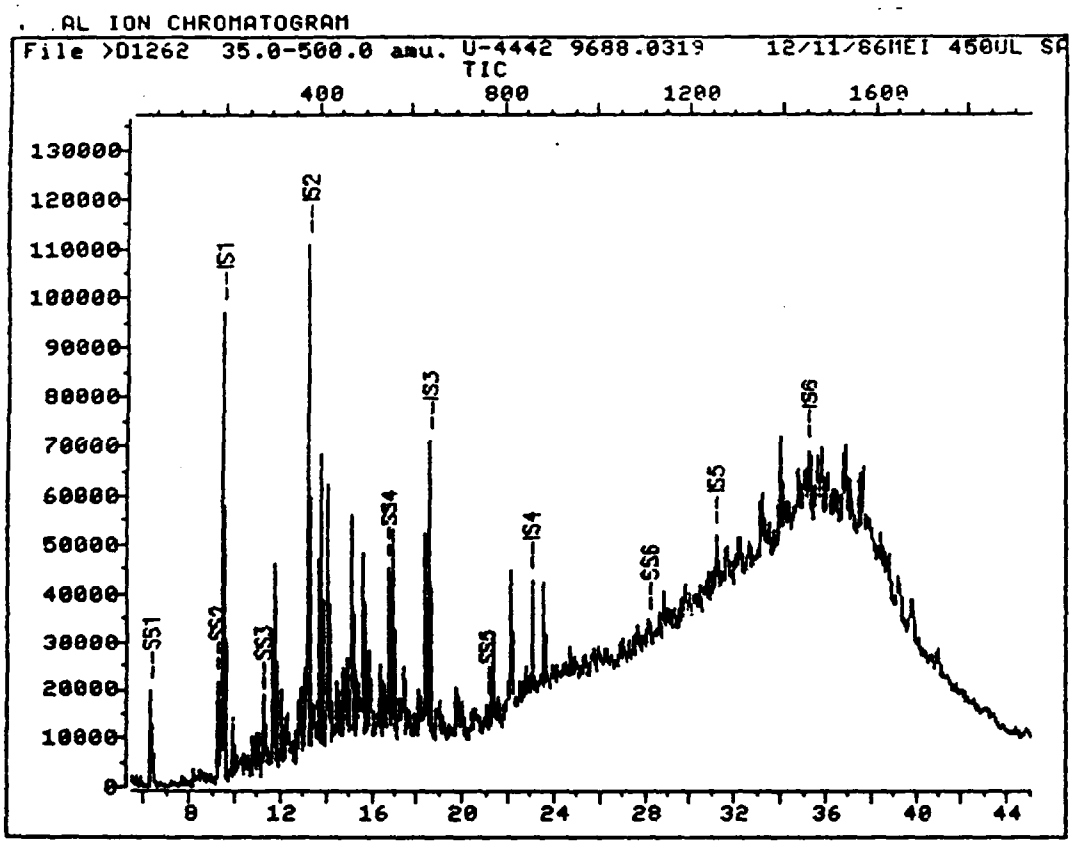
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861117 14:43
Output File: ^C5549::D2 Injected at: 861117 14:02 CW
Data File: >C5549::D3 Dilution Factor: ~~1.00~~ 100X
Name: U-4442 9688.01 DC-SD-36
Misc: 11/17/86MDS 50UL (4.396/10MLS MEOH) + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861117 11:28

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.85	291	37495	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.44	163	37659	19.55	UG/L	100
7)	ACETONE		43	9.37	187	9490	18.53	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.68	374	76848	45.47	UG/L	90
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.40	523	188082	50.00	UG/L	100
17)	2-BUTANONE		72	14.84	328	5192	33.05	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.26	648	137667	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.09	618	202450	47.12	UG/L	94
38)	CHLOROBENZENE		112	27.41	652	4481	1.32	UG/L	97
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.99	720	96484	45.79	UG/L	100

* Compound is ISTD

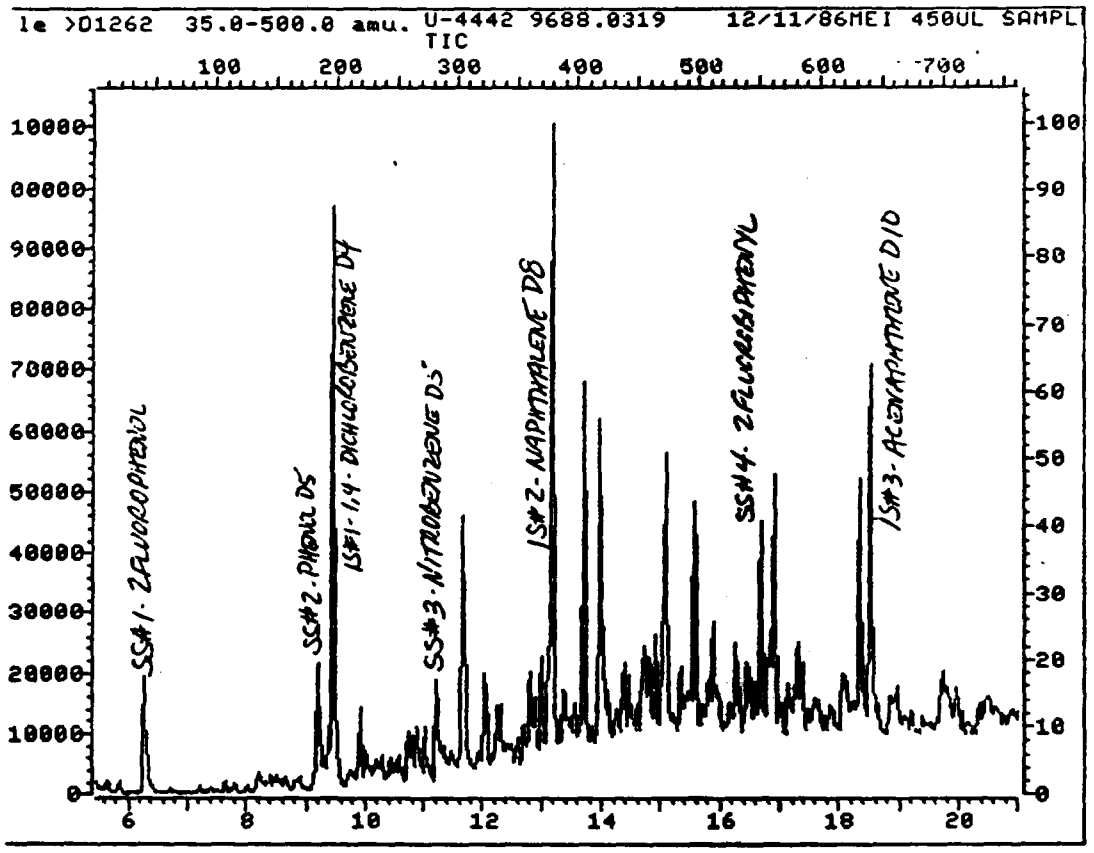


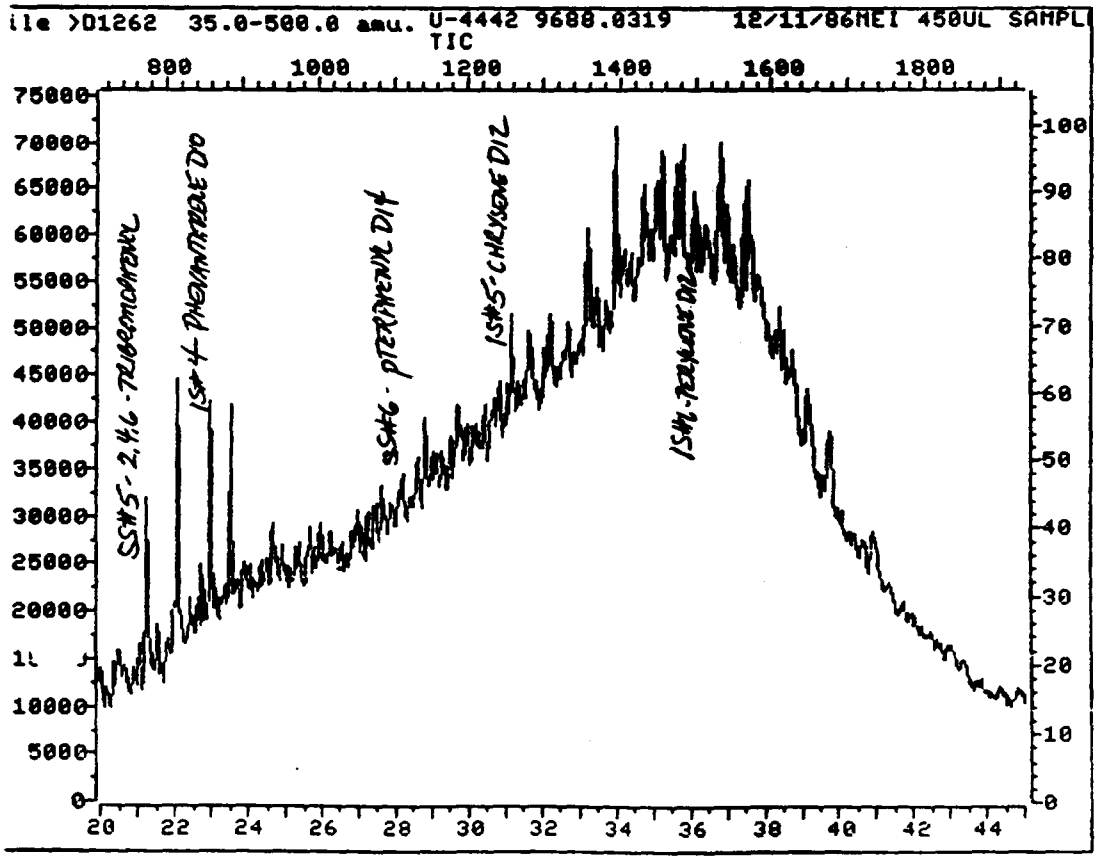
Data File: >D1262::BD DC-SD-36
Name: U-4442 9688.0319
Misc: 12/11/86MEI 450UL SAMPLE + 50UL MECL2 + 5UL IS (10X) BTL# 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861211 15:37

Operator ID: USER8
Quant Time: 861212 18:48
Injected at: 861212 18:00

DC-SD-36


le >D1262 35.0-500.0 amu. U-4442 9688.0319 12/11/86MEI 450UL SAMPL
TIC
SS#1- 2FLUOROPHENOL
SS#2- PHENOL D5
IS#1- 1,4- DICHLOROBENZENE D4
SS#3- NITROBENZENE D5
IS#2- NAPHTHALENE D8
SS#4- 2FLUOROBIPHENYL
IS#3- ACENAPHTHENE D10


ile >D1262 35.0-500.0 amu. U-4442 9688.0319 12/11/86MEI 450UL SAMPL
TIC
SS#5- 2,4,6- TRIBROMOPHENOL
IS#4- PHENANTHRENE D10
SS#6- PYRENE D14
IS#5- CHRYSENE D12
IS#6- PERYLENE D12

QUANT REPORT

perator ID: USER8 Quant Rev: 4 Quant Time: 861212 18:48
utput File: ^D1262::Q2 Injected at: 861212 18:00
ata File: >D1262::BD Dilution Factor: 10.00
ame: U-4442 9688.0319 DC-SD-36
isc: 12/1~~1~~/86MEI ~~1~~50UL SAMPLE + 450UL MECL2 + 5UL IS (10X) BTL# 3

D File: BNADR::D2
itle: BNA ID FILE FOR THE HP 5970 (B) Double Surr
ast Calibration: 861211 15:37

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4(IS)	152	9.45	196	43129	40.00	UG/L	86
2)	PHENOL-D5 (SURR)	99	9.18	183	25436	175.34	UG/L	96
5)	2-FLUOROPHENOL (SURR)	112	6.27	40	19440	213.40	UG/L	84
9)	1,3-DICHLOROBENZENE	146	9.33	190	1611	10.55	UG/L	94
~~9)~~	~~1,3-DICHLOROBENZENE~~	~~146~~	~~9.49~~	~~198~~	~~8247~~	~~54.02~~	~~UG/L~~	99
~~8)~~	~~1,4-DICHLOROBENZENE~~	~~146~~	~~9.33~~	~~190~~	~~1611~~	~~10.89~~	~~UG/L~~	94
0)	1,4-DICHLOROBENZENE	146	9.49	198	8247	55.74	UG/L	98
~~7)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~10.61~~	~~253~~	~~1204~~	~~7.92~~	~~UG/L~~	79
~~7)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~10.73~~	~~259~~	~~753~~	~~4.95~~	~~UG/L~~	68
~~7)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~10.79~~	~~262~~	~~741~~	~~4.87~~	~~UG/L~~	32
~~7)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~11.02~~	~~273~~	~~1111~~	~~7.31~~	~~UG/L~~	1
~~7)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~11.20~~	~~282~~	~~3696~~	~~24.31~~	~~UG/L~~	75
9)	*NAPHTHALENE-D8 (IS)	136	13.18	379	132540	40.00	UG/L	100
0)	NITROBENZENE-D5 (SURR)	82	11.20	282	14262	114.22	UG/L	98
~~1)~~	~~NITROBENZENE~~	~~77~~	~~11.69~~	~~306~~	~~698~~	~~5.60~~	~~UG/L~~	49
8)	1,2,4-TRICHLOROBENZENE	180	13.14	377	3400	29.58	UG/L	100
~~9)~~	~~NAPHTHALENE~~	~~128~~	~~13.22~~	~~381~~	~~417~~	~~1.37~~	~~UG/L~~	100
~~3)~~	~~2-METHYLNAPHTHALENE~~	~~142~~	~~15.67~~	~~501~~	~~244~~	~~1.19~~	~~UG/L~~	84
4)	*ACENAPHTHENE-D10 (IS)	162	18.53	641	34905	40.00	UG/L	98
8)	2-FLUOROBIPHENYL (SURR)	172	16.69	551	19552	134.86	UG/L	94
~~1)~~	~~DIMETHYL PHTHALATE~~	~~163~~	~~18.41~~	~~635~~	~~317~~	~~2.30~~	~~UG/L~~	100
~~1)~~	~~DIMETHYL PHTHALATE~~	~~163~~	~~18.53~~	~~641~~	~~11200~~	~~81.17~~	~~UG/L~~	100
~~3)~~	~~DIBENZOFURAN~~	~~168~~	~~18.67~~	~~648~~	~~400~~	~~2.84~~	~~UG/L~~	100
~~3)~~	~~DIBENZOFURAN~~	~~168~~	~~18.82~~	~~655~~	~~382~~	~~2.71~~	~~UG/L~~	100
7)	ACENAPHTHENE	153	18.61	645	365	3.29	UG/L	90
8)	2,4,6-TRIBROMOPHENOL(SURR)	330	21.02	763	1472	82.48	UG/L	92
~~9)~~	~~2,4-DINITROPHENOL~~	~~184~~	~~20.45~~	~~735~~	~~473~~	~~36.49~~	~~UG/L~~	100
~~9)~~	~~2,4-DINITROPHENOL~~	~~184~~	~~20.71~~	~~748~~	~~328~~	~~25.30~~	~~UG/L~~	100
~~9)~~	~~2,4-DINITROPHENOL~~	~~184~~	~~20.80~~	~~752~~	~~523~~	~~40.34~~	~~UG/L~~	100
~~9)~~	~~2,4-DINITROPHENOL~~	~~184~~	~~20.90~~	~~757~~	~~1044~~	~~80.53~~	~~UG/L~~	100
~~9)~~	~~2,4-DINITROPHENOL~~	~~184~~	~~21.00~~	~~762~~	~~214~~	~~16.51~~	~~UG/L~~	100
~~8)~~	~~4-NITROPHENOL~~	~~139~~	~~19.39~~	~~683~~	~~223~~	~~15.76~~	~~UG/L~~	100
~~1)~~	~~2,4-DINITROTOLUENE~~	~~165~~	~~19.41~~	~~684~~	~~176~~	~~6.99~~	~~UG/L~~	100
~~2)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~18.53~~	~~641~~	~~4959~~	~~177.00~~	~~UG/L~~	100
~~2)~~	~~2,6-DINITROTOLUENE~~	~~165~~	~~18.67~~	~~648~~	~~181~~	~~6.46~~	~~UG/L~~	100
5	*PHENANTHRENE-D10 (IS)	188	22.96	858	25256	40.00	UG/L	96
~~7)~~	~~N-NITROSODIPHENYLAMINE~~	~~169~~	~~21.21~~	~~772~~	~~2755~~	~~84.75~~	~~UG/L~~	45
~~3)~~	~~DI-N-BUTYLPHTHALATE~~	~~149~~	~~25.20~~	~~971~~	~~720~~	~~9.20~~	~~UG/L~~	1
3)	DI-N-BUTYLPHTHALATE	149	25.52	983	1350	17.25	UG/L	50
~~3)~~	~~DI-N-BUTYLPHTHALATE~~	~~149~~	~~25.62~~	~~988~~	~~579~~	~~7.40~~	~~UG/L~~	
5)	*CHRYSENE-D12 (IS)	240	31.14	1257	10902	40.00	UG/L	100
~~6)~~	~~BENZIDINE~~	~~184~~	~~27.39~~	~~1074~~	~~163~~	~~163.00~~	~~NO CAL~~	100
~~6)~~	~~BENZIDINE~~	~~184~~	~~27.67~~	~~1079~~	~~282~~	~~282.00~~	~~NO CAL~~	100

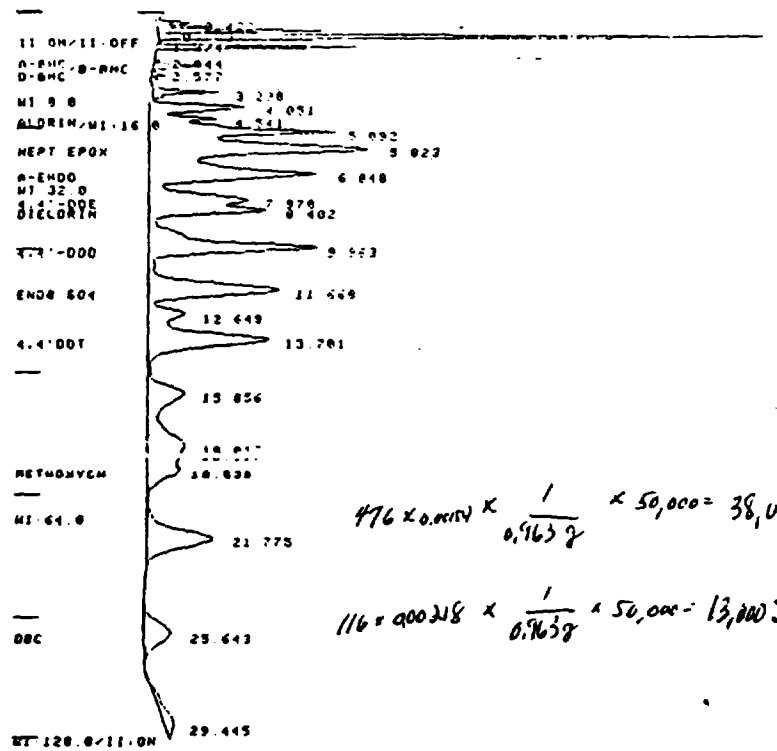
No Cpk

2104

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
~~1)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.20~~	~~1260~~	~~906~~	~~32.88~~	~~UG/L~~	~~77~~
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~31.65~~	~~1282~~	~~162~~	~~5.69~~	~~UG/L~~	54
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~31.89~~	~~1294~~	~~134~~	~~4.71~~	~~UG/L~~	59
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.04~~	~~1301~~	~~8497~~	~~298.62~~	~~UG/L~~	38
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.45~~	~~1321~~	~~173~~	~~6.08~~	~~UG/L~~	70
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.57~~	~~1327~~	~~769~~	~~27.03~~	~~UG/L~~	57
3)	CHRYSENE		228	31.20	1260	906	32.88	UG/L	80
4)	*PERYLENE-D12	(IS)	264	35.22	1456	9774	40.00	UG/L	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.45~~	~~1370~~	~~438~~	~~6.25~~	~~UG/L~~	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.68~~	~~1381~~	~~923~~	~~13.17~~	~~UG/L~~	100
5)	DI-N-OCTYL PHTHALATE		149	33.95	1394	14683	209.53	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.29~~	~~1411~~	~~1738~~	~~24.80~~	~~UG/L~~	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.42~~	~~1417~~	~~1207~~	~~17.22~~	~~UG/L~~	100
76)	BENZO(B)FLUORANTHENE		252	34.25	1409	577	19.27	UG/L	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~34.25~~	~~1409~~	~~577~~	~~15.39~~	~~UG/L~~	100
~~78)~~	~~BENZO(A)PYRENE~~		~~252~~	~~34.95~~	~~1443~~	~~572~~	~~21.62~~	~~UG/L~~	100
78)	BENZO(A)PYRENE		252	35.07	1449	272	10.28	UG/L	100

* Compound is ISTD

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



$476 \times 0.00154 \times \frac{1}{0.963\,g} \times 50{,}000 = 38{,}000$ pb 1254

$116 \times 0.00218 \times \frac{1}{0.963\,g} \times 50{,}000 = 13{,}000$ J pb 1260

CHANNEL: 1A - 1 TITLE: RUN# ~~47~~ AS 46 16:19 20 NOV 86

DC-SD-36

SAMPLE: 9688.03.19A1 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT ~~[illegible]~~	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.374		205650	BB	3.00
2	~~B-BHC~~	232.4260	2.243	0.073	57514	VB	4.81
3		0.0000	3.298		65172	BV	7.50
4	~~HEPTACHLO~~	385.2430	4.051	0.261	189241	BV	16.56
5	~~ALDRIN~~	184.5954	4.541	-0.129	112541	VV	? 12.88
6		0.0000	5.092		445102	VV	14.54
7	~~HEPT EPOX~~	1426.214	5.823	0.153	817279	VV	[illegible]
8	~~A-ENDO~~	1202.498	6.848	-0.182	647446	VV	[illegible].38
9	~~4,4'-DDE~~	618.8928	7.970	-0.120	341217	VV	? 32.56
10	~~DIELDRIN~~	518.0182	8.402	0.212	305403	VV	? 24.50
11	~~4,4'-DDD~~	1309.750	9.963	-0.197	625677	VV	23.75
12	~~ENDO SO4~~	1472.599	11.668	-0.242	574841	VV	33.31
13		0.0000	12.648		141018	VV	? 28.06
14	~~4,4'-DDT~~	1761.621	13.701	0.441	5[illegible]0431	VV	33.88
15	~~END KETON~~	444.6564	15.856	0.586	251601	VV	51.88
16		0.0000	18.017		305950	VV	[illegible].00
17	~~METHOXYCH~~	964.6223	~~[illegible]~~	-0.951	1[illegible]521	VV	? 94.00
18		0.0000	21.775		474172	VB	48.56
19	~~DBC~~	460.2497	25.643	-0.967	205631	BV	61.81
20		0.0000	29.445		73714	VB	?143.00
TOTALS:		10961.57		-1.062	6536221		

476 116 1254 1260

DETECTED PKS: 32 REJECTED PKS: 12

DIVISOR: 1.50000 MULTIPLIER: 50000.0000

NOISE: 91.4 OFFSET: -5

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SAMSON
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
[illegible]

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)

481095

Sample Number
DC-SD-13MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc
Case No: U-4432/U-4442
Lab Sample ID No: 9651 MS
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Stojtowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: - Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-12-86

Conc./Dil Factor: 2 pH 7.2

Percent Moisture: (Not Decanted) 48

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	10000 B
67-64-1	Acetone	6200 B
75-15-0	Carbon Disulfide	2000u
75-35-4	1, 1-Dichloroethene	SPIKE
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	13000
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	SPIKE
124-48-1	Dibromochloromethane	2000u
79-00-5	1, 1, 2-Trichloroethane	2000u
71-43-2	Benzene	SPIKE
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	2000u
79-34-5	1, 1, 2, 2-Tetrachloroethane	2000u
108-88-3	Toluene	SPIKE
108-90-7	Chlorobenzene	SPIKE
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/ul in the final extract should be confirmed by GC/MS.

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4432 / U-4442

Sample Number DC-SD-15MS

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-11-86

Date Analyzed: 11-21-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 34

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	SPIKE	
111-44-4	bis(-2-Chloroethyl)Ether	500	U
95-57-8	2-Chlorophenol	SPIKE	
541-73-1	1 3-Dichlorobenzene	500	U
106-46-7	1. 4-Dichlorobenzene	SPIKE	
100-51-6	Benzyl Alcohol	500	U
95-50-1	1. 2-Dichlorobenzene	500	U
95-48-7	2-Methylphenol	500	U
39638-32-9	bis(2-chloroisopropyl)Ether	500	U
106-44-5	4-Methylphenol	500	U
621-64-7	N-Nitroso-Di-n-Propylamine	SPIKE	
67-72-1	Hexachloroethane	500	U
98-95-3	Nitrobenzene	500	U
78-59-1	Isophorone	500	U
88-75-5	2-Nitrophenol	500	U
105-67-9	2. 4-Dimethylphenol	500	U
65-85-0	Benzoic Acid	2400	U
111-91-1	bis(-2-Chloroethoxy)Methane	500	U
120-83-2	2. 4-Dichlorophenol	500	U
120-82-1	1. 2. 4-Trichlorobenzene	SPIKE	
91-20-3	Naphthalene	500	U
106-47-8	4-Chloroaniline	500	U
87-68-3	Hexachlorobutadiene	500	U
59-50-7	4-Chloro-3-Methylphenol	SPIKE	
91-57-6	2-Methylnaphthalene	500	U
77-47-4	Hexachlorocyclopentadiene	500	U
88-06-2	2 4. 6-Trichlorophenol	500	U
95-95-4	2. 4. 5-Trichlorophenol	2400	U
91-58-7	2-Chloronaphthalene	500	U
88-74-4	2-Nitroaniline	2400	U
131-11-3	Dimethyl Phthalate	500	U
08-96-8	Acenaphthylene	500	U
99-09-2	3-Nitroaniline	2400	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	SPIKE	
51-28-5	2. 4-Dinitrophenol	2400	U
100-02-7	4-Nitrophenol	SPIKE	
132-64-9	Dibenzofuran	500	U
121-14-2	2 4-Dinitrotoluene	SPIKE	
606-20-2	2. 6-Dinitrotoluene	500	U
84-66-2	Diethylphthalate	500	U
7005-72-3	4-Chlorophenyl-phenylether	500	U
86-73-7	Fluorene	500	U
100-01-6	4-Nitroaniline	2400	U
534-52-1	4. 6-Dinitro-2-Methylphenol	2400	U
86-30-6	N-Nitrosodiphenylamine (1)	500	U
101-55-3	4-Bromophenyl-phenylether	500	U
118-74-1	Hexachlorobenzene	500	U
87-86-5	Pentachlorophenol	SPIKE	
85-01-8	Phenanthrene	500	U
120-12-7	Anthracene	500	U
84-74-2	Di-n-Butylphthalate	480	J
206-44-0	Fluoranthene	500	U
129-00-0	Pyrene	SPIKE	
85-68-7	Butylbenzylphthalate	500	U
91-94-1	3. 3'-Dichlorobenzidine	1000	U
56-55-3	Benzo(a)Anthracene	500	U
117-81-7	bis(2-Ethylhexyl)Phthalate	500	U
218-01-9	Chrysene	500	U
117-84-0	Di-n-Octyl Phthalate	150	J
205-99-2	Benzo(b)Fluoranthene	500	U
207-08-9	Benzo(k)Fluoranthene	500	U
50-32-8	Benzo(a)Pyrene	500	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	500	U
53-70-3	Dibenz(a h)Anthracene	500	U
191-24-2	Benzo(g h i)Perylene	500	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number DC-SD-15MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-11-86

Date Analyzed 11-19-86

Conc/Dil Factor: 2

Percent Moisture (decanted) 34

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	32 u
319-85-7	Beta-BHC	32 u
319-86-8	Delta-BHC	32 u
58-89-9	Gamma-BHC (Lindane)	38.8 S
76-44-8	Heptachlor	29.4 S
309-00-2	Aldrin	29.9 S
1024-57-3	Heptachlor Epoxide	32 u
959-98-8	Endosulfan I	32 u
60-57-1	Dieldrin	91.5 S
72-55-9	4,4'-DDE	64 u
72-20-8	Endrin	75.1 S
33213-65-9	Endosulfan II	64 u
72-54-8	4,4'-DDD	64 u
1031-07-8	Endosulfan Sulfate	64 u
50-29-3	4,4'-DDT	75.7 S
72-43-5	Methoxychlor	320 u
53494-70-5	Endrin Ketone	64 u
57-74-9	Chlordane	320 u
8001-35-2	Toxaphene	640 u
12674-11-2	Aroclor-1016	320 u
11104-28-2	Aroclor-1221	320 u
11141-16-5	Aroclor-1232	320 u
53469-21-9	Aroclor-1242	320 u
12672-29-6	Aroclor-1248	700 u
11097-69-1	Aroclor-1254	700 u
11096-82-5	Aroclor-1260	640 u

V_i = Volume of extract injected (ul)

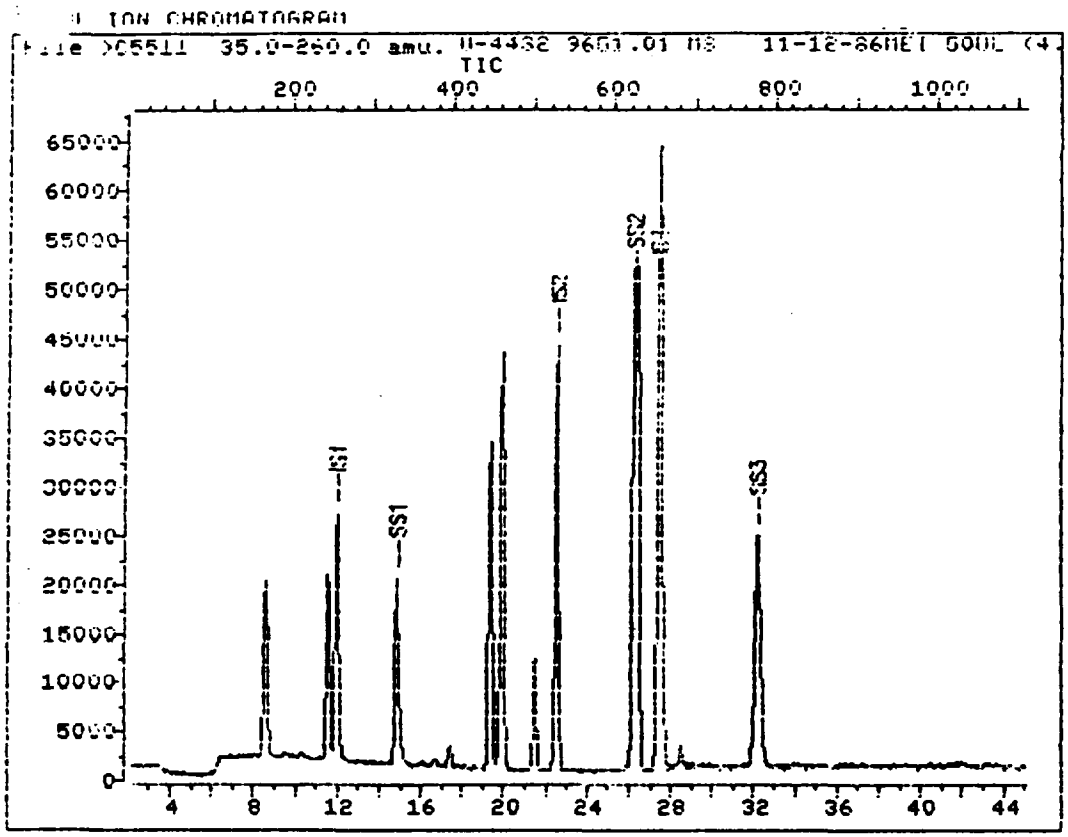
V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

Soil Compound

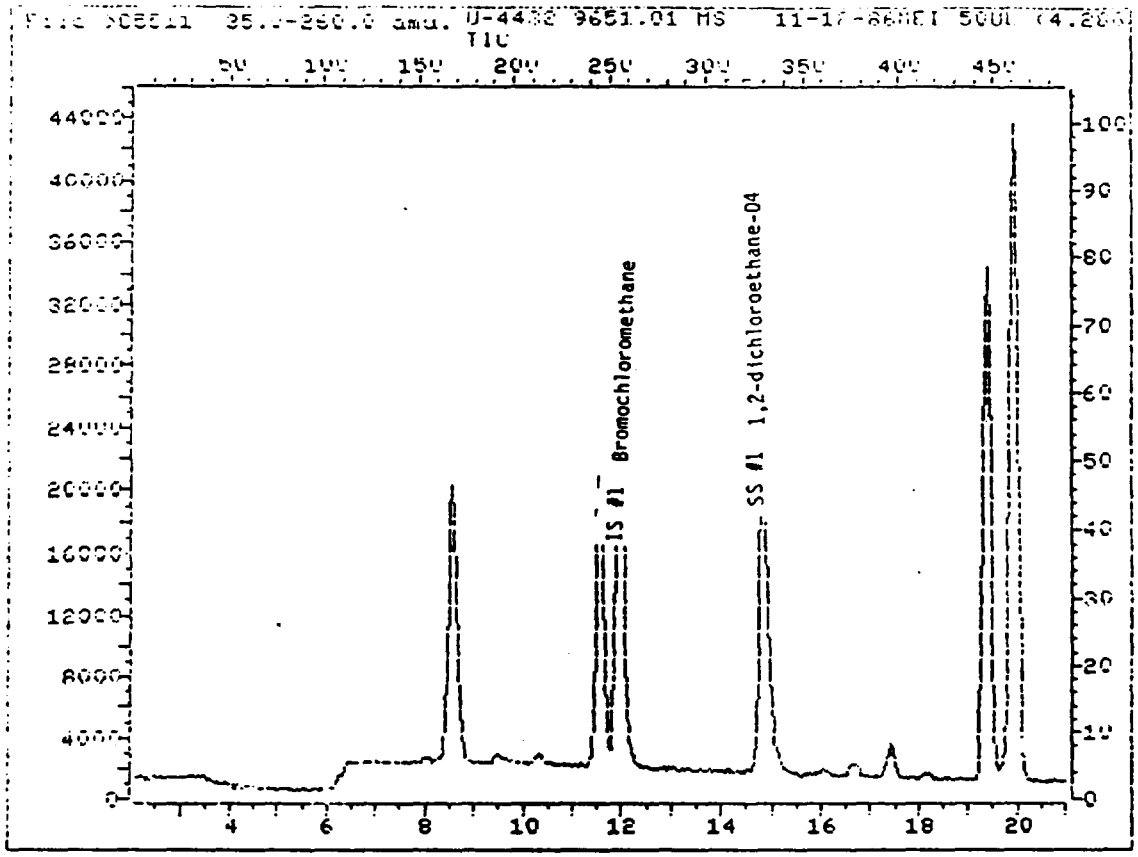


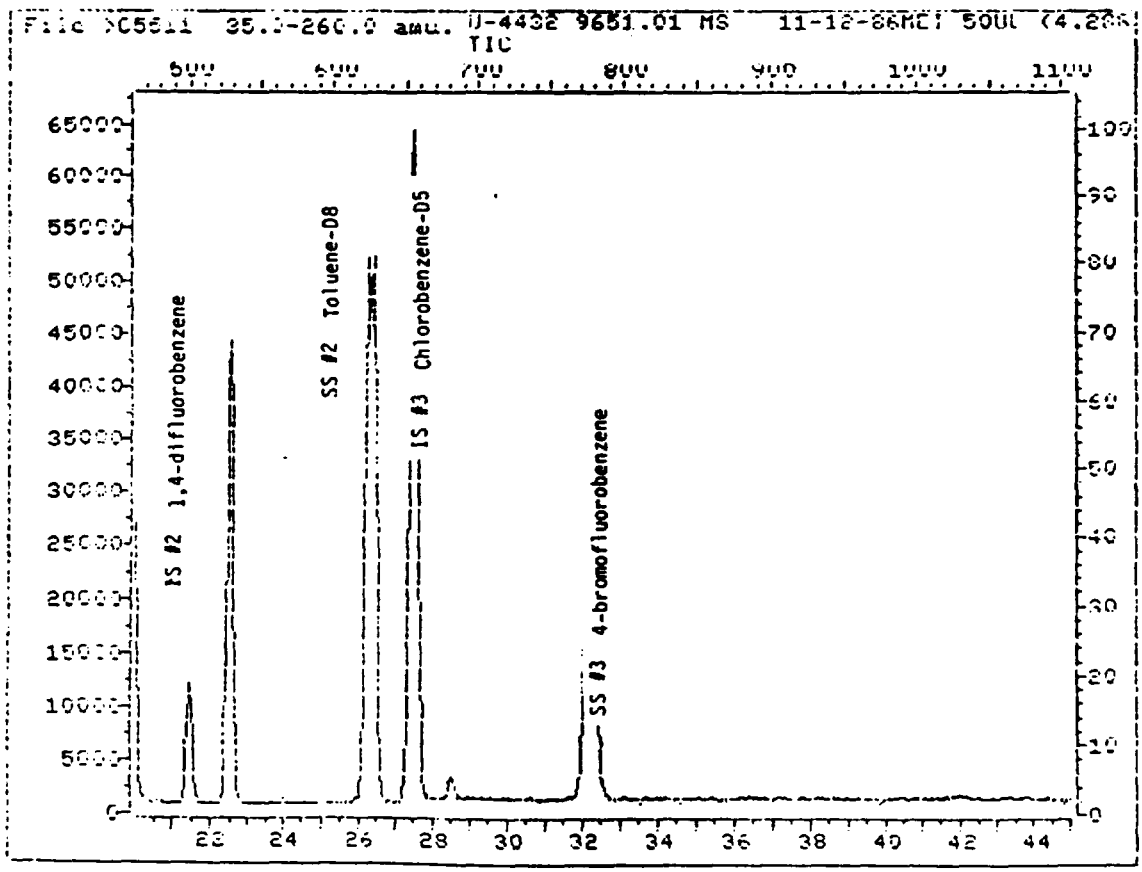
Data File: >C5511::D3
Name: U-4432 9651.01 MS DC-SD-13 MS
Misc: 11-12-86MEI 50UL (4.286/10MLS MEOH) + 100UL IS/SS/MS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861113 22:56

Operator ID: USER8
Quant Time: 861114 01:52
Injected at: 861114 01:06

DC-SD-13-MS


TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT

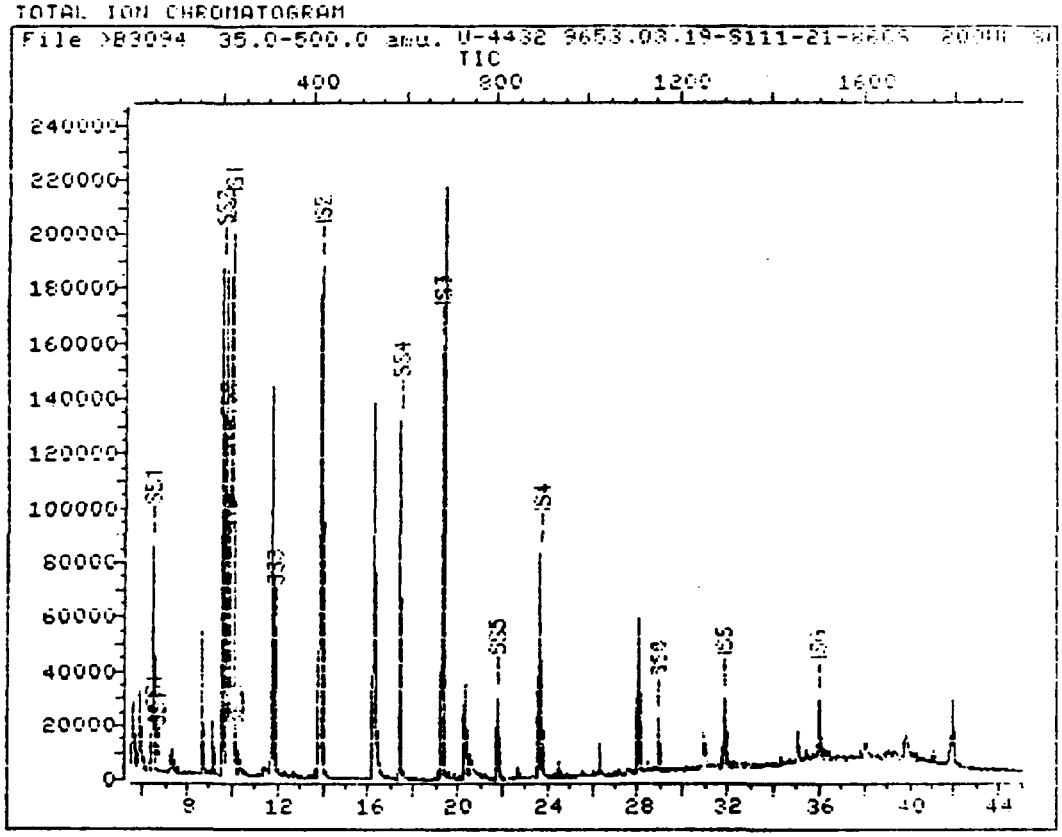
perator ID: USER8 Quant Rev: 4 Quant Time: 861114 01:52
utput File: >C5511::D2 Injected at: 861114 01:06
ata File: >C5511::D3 Dilution Factor: 1.00
ame: U-4432 9651.01 MS DC-SD-13 MS
isc: 11-12-86MEI 50UL (4.28G/10MLS MEOH) + 10UL IS/SS/MS

D File: VOACR::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861113 22:56

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.98	256	48492	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.56	168	49353	22.45	UG/L	100
2)	ACETONE		43	9.53	193	5224	13.81	UG/L	100
2)	~~ACETONE~~		~~43~~	~~9.77~~	~~199~~	~~3194~~	~~8.18~~	~~UG/L~~ no cal	~~100~~
9)	~~CARBON DISULFIDE~~		~~76~~	~~10.27~~	~~212~~	~~6492~~	~~1.42~~	~~UG/L~~ no cal	~~100~~
0)	1,1-DICHLOROETHENE		61	11.55	245	75318	31.27	UG/L 62%	97
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.85	330	78886	46.46	UG/L 92	89
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.53	528	194636	50.00	UG/L	100
2)	2-BUTANONE		72	14.96	333	5017	28.40	UG/L	100
4)	TRICHLOROETHENE		130	19.39	447	64519	40.68	UG/L 80%	91
2)	BENZENE		78	19.93	461	197120	42.23	UG/L 84%	100
8)	~~CIS-1,3-DICHLOROPROPENE~~		~~75~~	~~19.93~~	~~461~~	~~5806~~	~~2.51~~	~~UG/L~~ no cal	~~100~~
1)	*CHLOROBENZENE-D5	(IS)	117	27.39	653	140705	50.00	UG/L	100
6)	TOLUENE-D8	(SURR)	98	26.21	623	198276	47.04	UG/L 94	96
2)	TOLUENE		92	26.41	628	121369	41.72	UG/L 84%	95
8)	CHLOROBENZENE		112	27.54	657	144499	41.62	UG/L 84%	98
1)	4-BROMOFLUOROBENZENE	(SURR)	95	32.20	772	99594	45.13	UG/L 90	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

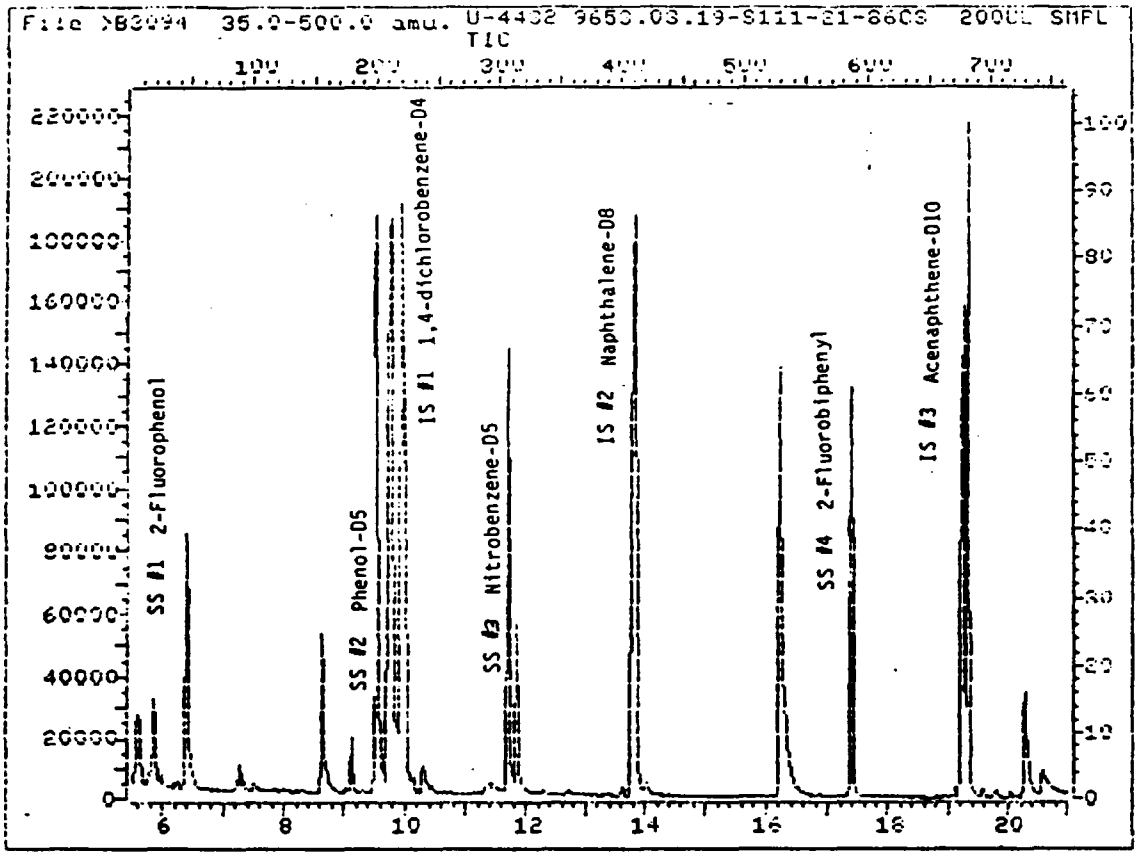


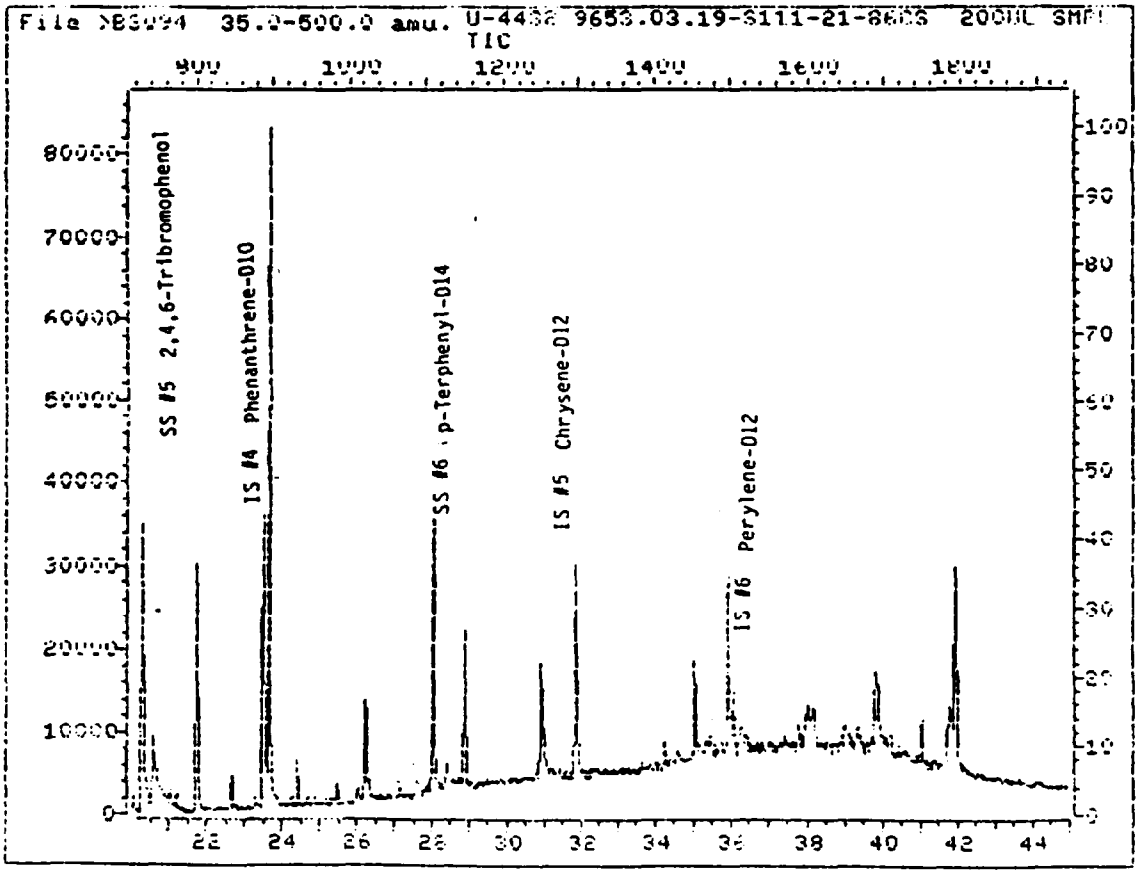
Data File: >B3094::D4
Name: U-4432 9653.03.19-S1 DC-SD-15MS
Misc: 11-21-86CS 200UL SMPL + 200UL MEOH2 + 5UL IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861121 14:38

Operator ID: USER8
Quant Time: 861121 17:24
Injected at: 861121 16:36

DC-SD-15 MS


File >B3094 35.0-500.0 amu. U-4432 9653.03.19-S111-21-8603 200UL SMPL
TIC
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


File >B3094 35.0-500.0 amu. U-4432 9653.03.19-S111-21-8603 200UL SMPL
TIC
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861121 17:24
Output File: ^B3094::Q2 Injected at: 861121 16:36
Data File: >B3094::D4 Dilution Factor: 2.00
Name: U-4432 9653.03.19-S1 DC-SD-15 MS
Misc: 11-21-86CS 200UL SMPL + 200UL MECL2 + 5UL IS

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861121 14:38

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.95	221	68350	40.00	UG/L	88
2)	PHENOL-D5	(SURR)	99	9.53	200	8579	7.08	UG/L	39
2)	PHENOL-D5	(SURR)	99	9.73	210	100028	87.60	UG/L	92
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~10.10~~	~~220~~	~~299~~	~~.25~~	~~UG/L~~	~~59~~
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~10.16~~	~~231~~	~~126~~	~~.10~~	~~UG/L~~	~~65~~
5)	2-FLUOROPHENOL	(SURR)	112	6.40	46	68654	78.48	UG/L	83
5)	2-FLUOROPHENOL	(SURR)	112	6.48	50	5857	6.67	UG/L	93
5)	2-FLUOROPHENOL	(SURR)	112	6.60	56	1044	1.19	UG/L	71
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.66~~	~~59~~	~~413~~	~~.47~~	~~UG/L~~	~~82~~
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.72~~	~~62~~	~~567~~	~~.65~~	~~UG/L~~	~~70~~
6)	PHENOL		94	9.77	212	201407	169.96	UG/L	58
~~7)~~	~~ANILINE~~		~~93~~	~~9.53~~	~~200~~	~~2737~~	~~3.10~~	~~UG/L~~	~~42~~
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~10.06~~	~~222~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~98~~
10)	1,4-DICHLOROBENZENE		146	10.00	223	105683	86.24	UG/L	94
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.36~~	~~[illegible]~~	~~[illegible]~~	~~.14~~	~~UG/L~~	~~100~~
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.42~~	~~[illegible]~~	~~[illegible]~~	~~.07~~	~~UG/L~~	~~100~~
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.42~~	~~307~~	~~[illegible]~~	~~.14~~	~~UG/L~~	~~100~~
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.49~~	~~307~~	~~[illegible]~~	~~.69~~	~~UG/L~~	~~100~~
15)	2-CHLOROPHENOL		128	9.53	200	181511	166.15	UG/L	95
17)	N-NITROSO-DI-N-PROPYLAMINE		70	11.70	307	76787	92.29	UG/L	93
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.05~~	~~314~~	~~[illegible]~~	~~11.62~~	~~UG/L~~	~~86~~
19)	*NAPHTHALENE-D8	(IS)	136	13.86	417	231196	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.85	314	51468	52.47	UG/L	98
~~24)~~	~~2,4-DIMETHYLPHENOL~~		~~122~~	~~13.90~~	~~419~~	~~[illegible]~~	~~.36~~	~~UG/L~~	~~63~~
28)	1,2,4-TRICHLOROBENZENE		180	13.80	419	108688	104.94	UG/L	100
~~28)~~	~~1,2,4-TRICHLOROBENZENE~~		~~180~~	~~14.14~~	~~429~~	~~[illegible]~~	~~.20~~	~~UG/L~~	~~100~~
~~29)~~	~~NAPHTHALENE~~		~~128~~	~~13.90~~	~~419~~	~~[illegible]~~	~~.16~~	~~UG/L~~	~~100~~
32)	4-CHLORO-3-METHYLPHENOL		107	16.22	529	135191	149.82	UG/L	92
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~16.10~~	~~529~~	~~[illegible]~~	~~.15~~	~~UG/L~~	~~91~~
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~16.22~~	~~535~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~18~~
34)	*ACENAPHTHENE-D10	(IS)	162	19.25	678	98517	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	17.40	587	102628	50.65	UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.05~~	~~635~~	~~[illegible]~~	~~1.62~~	~~UG/L~~	~~100~~
~~47)~~	~~ACENAPHTHENE~~		~~153~~	~~19.43~~	~~682~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~95~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.75	801	15752	49.69	UG/L	99
6	4-NITROPHENOL		139	20.59	744	17752	117.01	UG/L	100
51)	2,4-DINITROTOLUENE		165	20.29	724	[illegible]	[illegible]	UG/L	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	27.68	896	[illegible]	40.00	UG/L	96
60)	PENTACHLOROPHENOL		266	27.50	887	26914	170.18	UG/L	100
~~61)~~	~~PENTACHLOROPHENOL~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
63)	DI-N-BUTYLPHTHALATE		149	26.24	1072	[illegible]	9.47	UG/L	98
[illegible]	*[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

No Bfk

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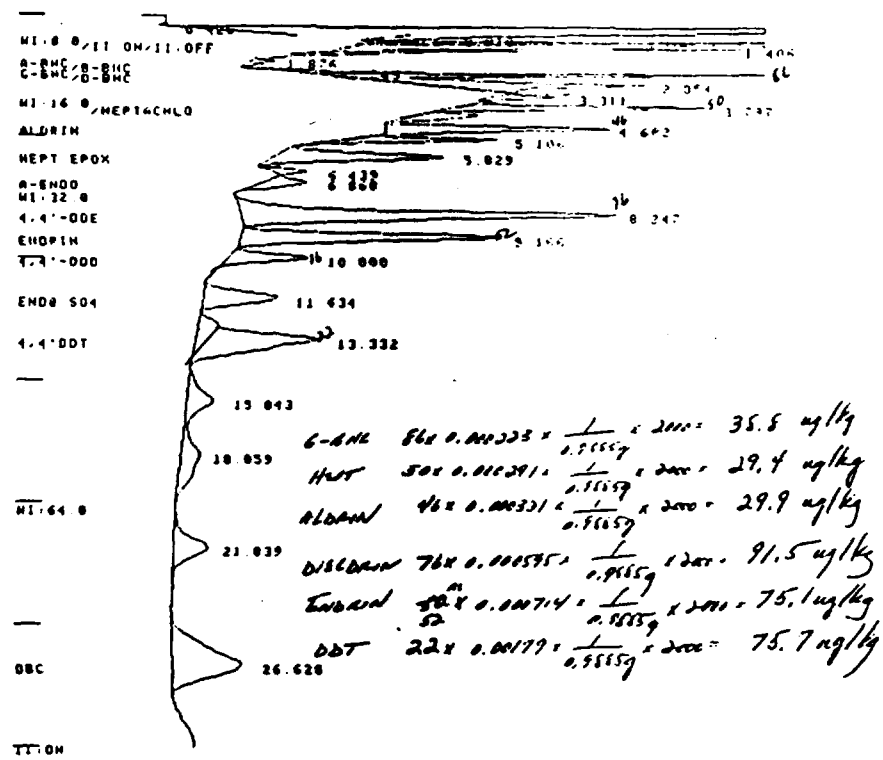
116

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
~~75)~~	~~DI-N-OCTYL PHTHALATE~~	~~149~~	~~34.16~~	~~1411~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~	~~149~~	~~[illegible]~~	~~1420~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~	~~149~~	~~[illegible]~~	~~1421~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
75)	DI-N-OCTYL PHTHALATE	149	34.63	1434	2195	2.97	UG/L	100
~~75)~~	~~DI-N-OCTYL PHTHALATE~~	~~149~~	~~[illegible]~~	~~1451~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100

* Compound is ISTD

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



RECALCULATE ON FILE: SLY457

CHANNEL: 1A - 1 TITLE: RUN# 22 11:04 19 NOV 86

DC-SD-15 MS

SAMPLE: 9653.1951A1 METHOD: DAVE CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	1.275		8676205	BV		3.63
2		0.0000	1.406		75526	T	?	3.75
3		0.0000	1.532		24514	T		2.44
4	B-BHC	8.9252	2.245	0.075	36326	VV	?	7.38
5	G-BHC ✓	37.6924	2.394	0.014	370390	VV		6.06
6		0.0000	2.854		464291	VV	?	19.00
7		0.0000	3.311		56423	BB	?	25.50
8		0.0000	3.550		70075	BB	?	35.63
9	HEPTACHLO ✓	30.6672	3.797	0.007	246876	BB	?	15.50
10		0.0000	4.085		112505	BB	?	24.38
11	ALDRIN ✓	37.0457	4.682	0.012	372115	BB		20.81
12		0.0000	5.106		131228	BB	?	15.00
13	HEPT EPOX	40.4249	5.029	0.159	381645	BB		21.56
14		0.0000	6.439		55885	BB	?	15.88
15	A-ENDO	10.7270	6.068	-0.162	95153	BB	?	29.56
16	DIELDRIN ✓	113.7450	8.247	0.057	1108423	BB		21.88
17	ENDRIN ✓	75.9632	9.166	0.036	674594	BB		21.00
18	4,4'-DDD	24.3470	10.000	-0.160	191616	BB		20.31
19	ENDO SO4	46.8625	11.634	-0.276	301299	BB		31.50
20	4,4'DDT ✓	136.4733	13.332	0.072	715291	BB		43.81
21	END KETON	20.7960	15.843	0.573	193862	VV		46.19
22		0.0000	18.059		219648	VB		60.13
23		0.0000	21.039		230267	BB		48.50
24	DBC	93.4272	26.628	0.018	687931	BB		78.69

TOTALS: 677.0967 0.425 15490198

DETECTED PKS: 34 REJECTED PKS: 10

DIVISOR: 0.98850 MULTIPLIER: 2000.00000

NOISE: 22.5 OFFSET: 7

NOTES:
NOTEBOOK: 259-41 ANALYST: K.JUREK
SECURE AREA: D JOB#:U-4465
INST:VARIAN 5000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C

[illegible] SPIKE DUPLICATE DATA

[illegible] OF UNSPIKED COMPOUNDS

[illegible]

[illegible]

[illegible]

Sample Number
DC-SD-13-MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc
Case No: U-4432/U-4442
Lab Sample ID No: 9651-MSD
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Stojowicz
Date Sample Received: 11-6-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-12-86

Conc./Dil Factor: 2 pH 7.2

Percent Moisture: (Not Decanted) 48

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	9800B
67-64-1	Acetone	6200B
75-15-0	Carbon Disulfide	2000u
75-35-4	1, 1-Dichloroethene	SPIKE
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	13000
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	SPIKE
124-48-1	Dibromochloromethane	2000u
79-00-5	1, 1, 2-Trichloroethane	2000u
71-43-2	Benzene	SPIKE
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	2000u
79-34-5	1, 1, 2, 2-Tetrachloroethane	2000u
108-88-3	Toluene	SPIKE
108-90-7	Chlorobenzene	SPIKE
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/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.

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4432 / U-4442

Sample Number DC-SD-15MSD

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-11-86

Date Analyzed: 11-21-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 34

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	SPIKE
111-44-4	bis(-2-Chloroethyl)Ether	500 U
95-57-8	2-Chlorophenol	SPIKE
541-73-1	1 3-Dichlorobenzene	500 U
106-46-7	1. 4-Dichlorobenzene	SPIKE
100-51-6	Benzyl Alcohol	500 U
95-50-1	1. 2-Dichlorobenzene	500 U
95-48-7	2-Methylphenol	500 U
39638-32-9	bis(2-chloroisopropyl)Ether	500 U
106-44-5	4-Methylphenol	500 U
621-64-7	N-Nitroso-Di-n-Propylamine	SPIKE
67-72-1	Hexachloroethane	500 U
98-95-3	Nitrobenzene	500 U
78-59-1	Isophorone	500 U
88-75-5	2-Nitrophenol	500 U
105-67-9	2. 4-Dimethylphenol	500 U
65-85-0	Benzoic Acid	2400 U
111-91-1	bis(-2-Chloroethoxy)Methane	500 U
120-83-2	2. 4-Dichlorophenol	500 U
120-82-1	1. 2. 4-Trichlorobenzene	SPIKE
91-20-3	Naphthalene	500 U
106-47-8	4-Chloroaniline	500 U
87-68-3	Hexachlorobutadiene	500 U
59-50-7	4-Chloro-3-Methylphenol	SPIKE
91-57-6	2-Methylnaphthalene	500 U
77-47-4	Hexachlorocyclopentadiene	500 U
88-06-2	2 4. 6-Trichlorophenol	500 U
95-95-4	2. 4. 5-Trichlorophenol	2400 U
91-58-7	2-Chloronaphthalene	500 U
88-74-4	2-Nitroaniline	2400 U
131-11-3	Dimethyl Phthalate	500 U
208-96-8	Acenaphthylene	500 U
99-09-2	3-Nitroaniline	2400 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	SPIKE
51-28-5	2. 4-Dinitrophenol	2400 U
100-02-7	4-Nitrophenol	SPIKE
132-64 9	Dibenzofuran	500 U
121-14-2	2 4-Dinitrotoluene	SPIKE
606-20-2	2. 6-Dinitrotoluene	500 U
84-66-2	Diethylphthalate	500 U
7005-72-3	4-Chlorophenyl-phenylether	500 U
86-73-7	Fluorene	500 U
100-01-6	4-Nitroaniline	2400 U
534-52-1	4. 6-Dinitro-2-Methylphenol	2400 U
86-30-6	N-Nitrosodiphenylamine (1)	500 U
101-55-3	4-Bromophenyl-phenylether	500 U
118-74-1	Hexachlorobenzene	500 U
87-86-5	Pentachlorophenol	SPIKE
85-01-8	Phenanthrene	500 U
120-12-7	Anthracene	500 U
84-74-2	Di-n-Butylphthalate	820
206-44-0	Fluoranthene	500 U
129-00-0	Pyrene	SPIKE
85-68-7	Butylbenzylphthalate	500 U
91-94-1	3. 3'-Dichlorobenzidine	1000 U
56-55-3	Benzo(a)Anthracene	500 U
117-81-7	bis(2-Ethylhexyl)Phthalate	500 U
218-01-9	Chrysene	500 U
117-84-0	Di-n-Octyl Phthalate	270 J
205-99-2	Benzo(b)Fluoranthene	500 U
207-08-9	Benzo(k)Fluoranthene	500 U
50-32-8	Benzo(a)Pyrene	500 U
193-39-5	Indeno(1 2. 3-cd)Pyrene	500 U
53-70-3	Dibenzo(a h)Anthracene	500 U
191-24-2	Benzo(g h i)Perylene	500 U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4432 / V-4442

Sample Number
DC-SD-15MSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-11-86

Date Analyzed: 11-19-86

Conc/Dil Factor: 2

Percent Moisture (decanted) 34

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	32 u
319-85-7	Beta-BHC	32 u
319-86-8	Delta-BHC	32 u
58-89-9	Gamma-BHC (Lindane)	37.9 S
76-44-8	Heptachlor	25.9 S
309-00-2	Aldrin	25.3 S
1024-57-3	Heptachlor Epoxide	32 u
959-98-8	Endosulfan I	32 u
60-57-1	Dieldrin	130 S
72-55-9	4, 4'-DDE	64 u
72-20-8	Endrin	69.3 S
33213-65-9	Endosulfan II	64 u
72-54-8	4, 4'-DDD	64 u
1031-07-8	Endosulfan Sulfate	64 u
50-29-3	4 4'-DDT	72.4 S
72-43-5	Methoxychlor	320 u
53494-70-5	Endrin Ketone	64 u
57-74-9	Chlordane	320 u
8001-35-2	Toxaphene	640 u
12674-11-2	Aroclor-1016	320 u
11104-28-2	Aroclor-1221	320 u
11141-16-5	Aroclor-1232	320 u
53469-21-9	Aroclor-1242	320 u
12672-29-6	Aroclor-1248	700 u
11097-69-1	Aroclor-1254	700 u
11096-82-5	Aroclor-1260	640 u

V_i = Volume of extract injected (ul)

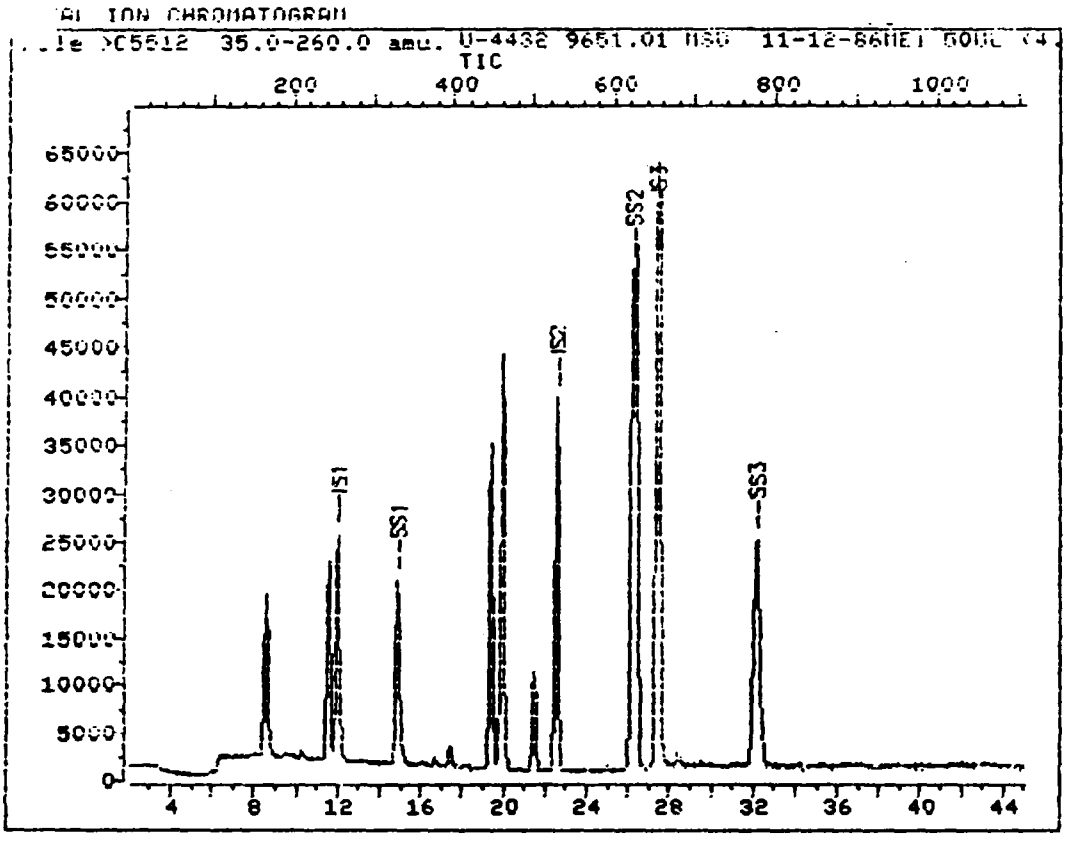
V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

S - Spiked Compound

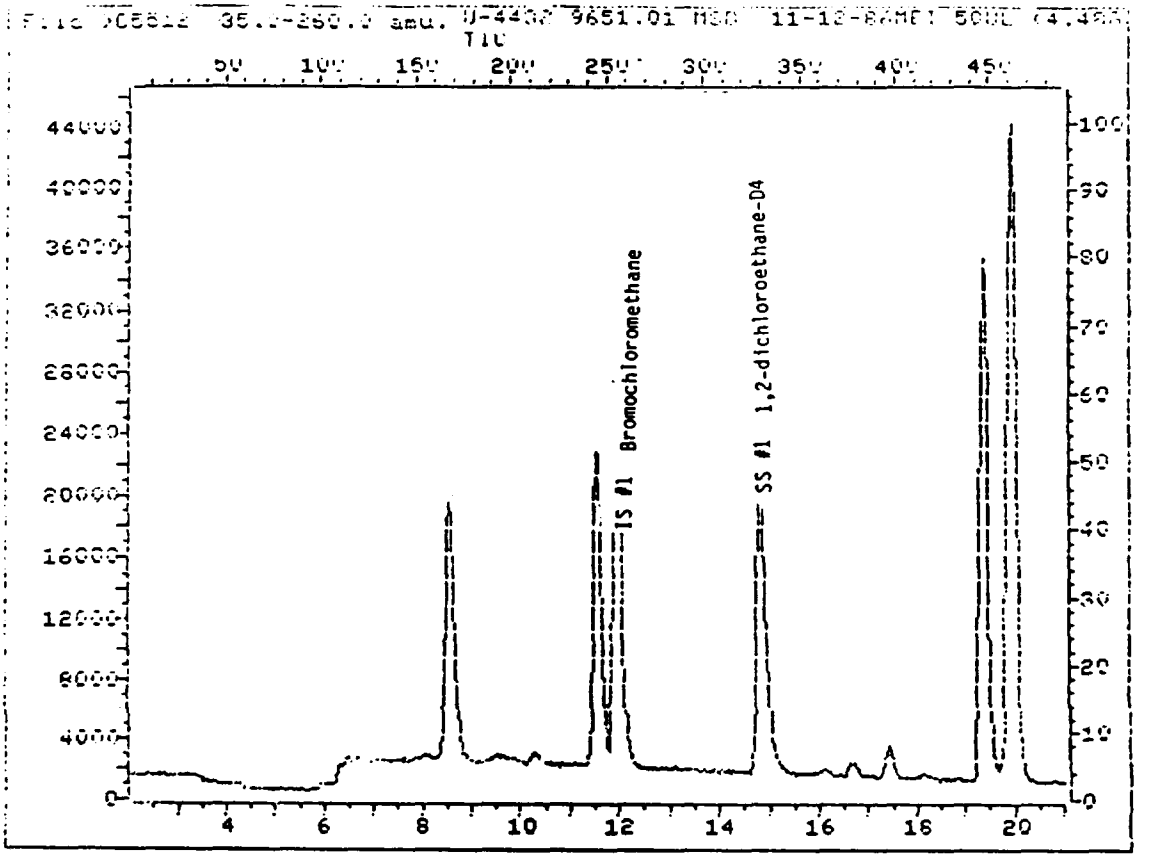


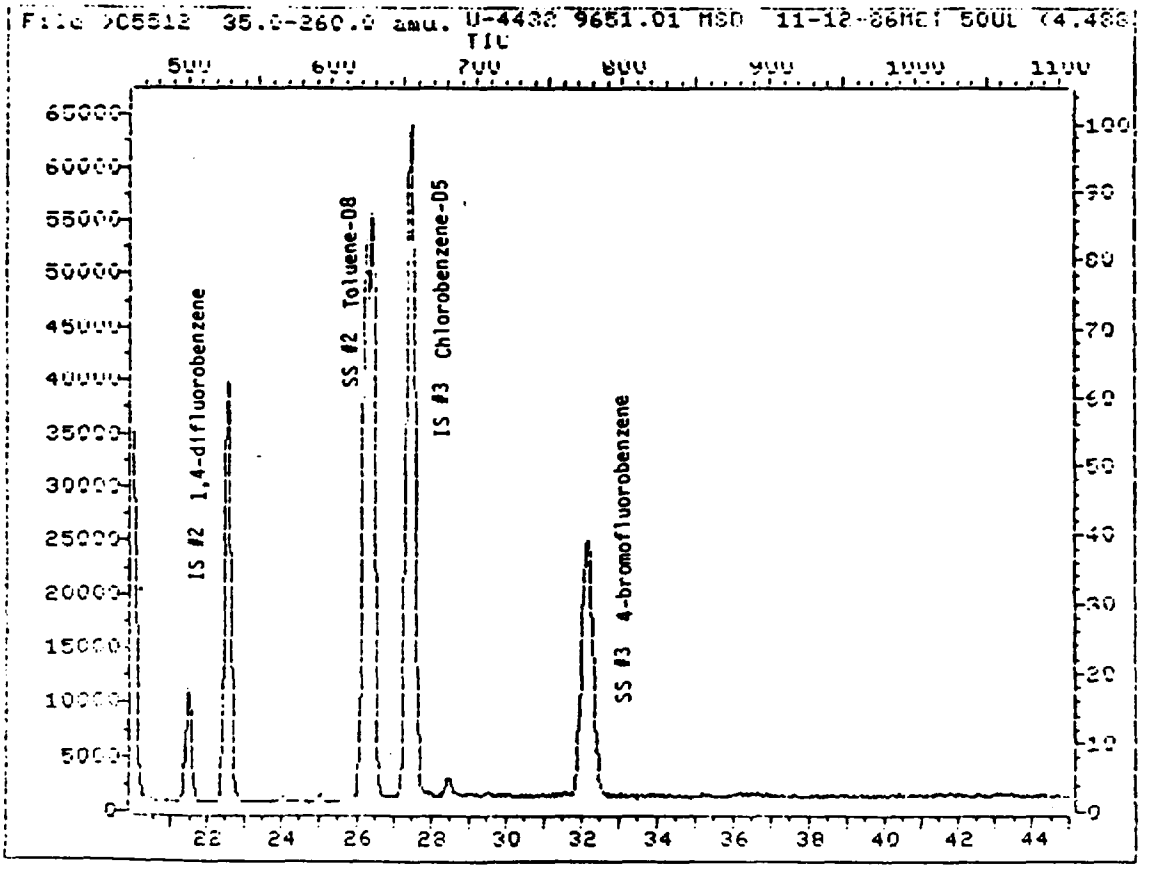
Data File: >C5512::D3
Name: U-4432 9651.01 MSD DC-SD-13 MSD
Misc: 11-12-86MEI 50UL (4.48G/10ML S MEOH) + 10UL IS/SS/MS

Id File: VOACR::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861113 22:56

Operator ID: USER8
Quant Time: 861114 02:49
Injected at: 861114 02:03

DC-SD-13 MSD


TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT

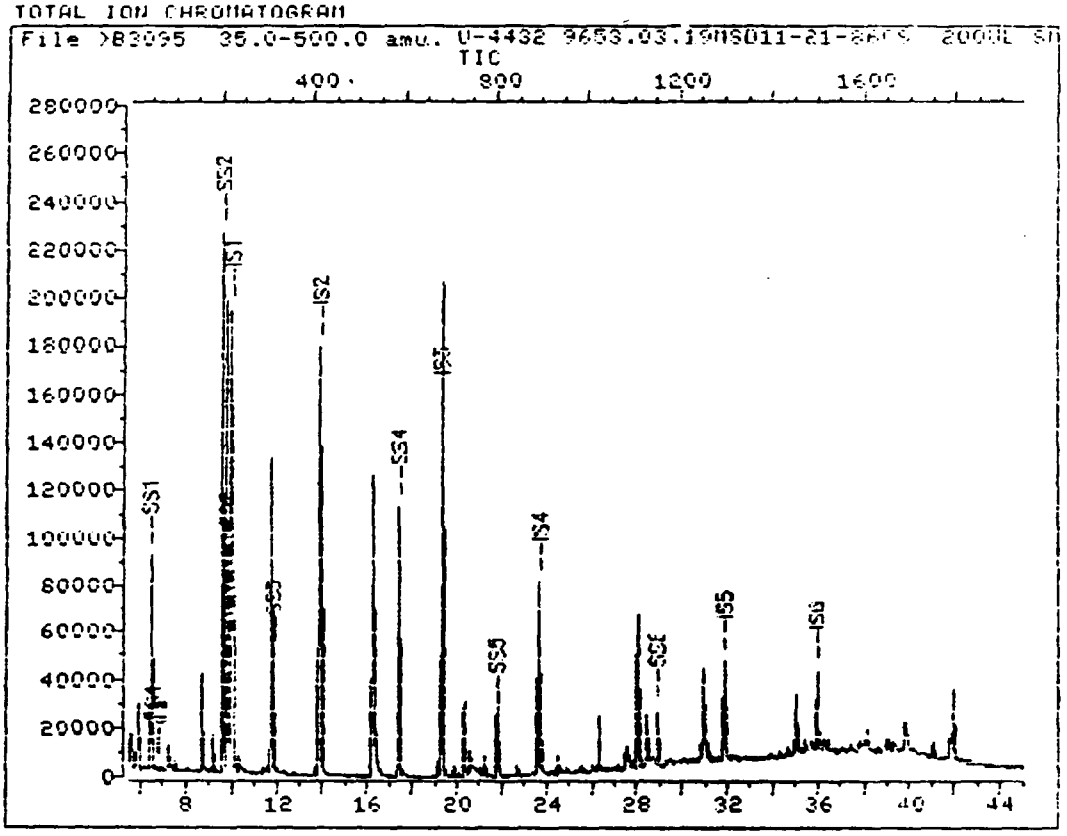
Operator ID: USER8 Quant Rev: 4 Quant Time: 861114 02:49
Output File: ^C5512::D2 Injected at: 861114 02:03
Data File: >C5512::D3 Dilution Factor: 1.00
Name: U-4432 9651.01 MSD DC-SD-13 MSD
Misc: 11-12-86MEI 50UL (4.48G/10MLS MEOH) + 100UL IS/SS/MS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861113 22:56

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.98	256	37953	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.57	168	46383	22.75	UG/L	100
7)	ACETONE		43	9.54	193	5106	14.40	UG/L	100
9)	~~CARBON DISULFIDE~~		~~76~~	~~10.41~~	~~213~~	~~6631~~	~~1.55~~	~~UG/L~~ no cur	100
10)	1,1-DICHLOROETHENE		61	11.55	245	86106	38.14	UG/L 76%	97
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.85	330	78936	49.60	UG/L 100	91
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.53	528	178411	50.00	UG/L	100
17)	2-BUTANONE		72	15.01	334	5053	31.21	UG/L	100
24)	TRICHLOROETHENE		130	19.39	447	66357	45.64	UG/L 92%	93
27)	BENZENE		78	19.93	461	196014	47.01	UG/L 94%	100
28)	~~CIS-1,3-DICHLOROPROPENE~~		~~75~~	~~19.97~~	~~462~~	~~3980~~	~~2.86~~	~~UG/L~~ no cur	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.39	653	133113	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.22	623	199420	50.72	UG/L 102	98
37)	TOLUENE		92	26.41	628	130068	47.93	UG/L 96%	98
38)	CHLOROBENZENE		112	27.50	656	155178	47.92	UG/L 96%	98
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.20	777	98353	47.88	UG/L 96	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

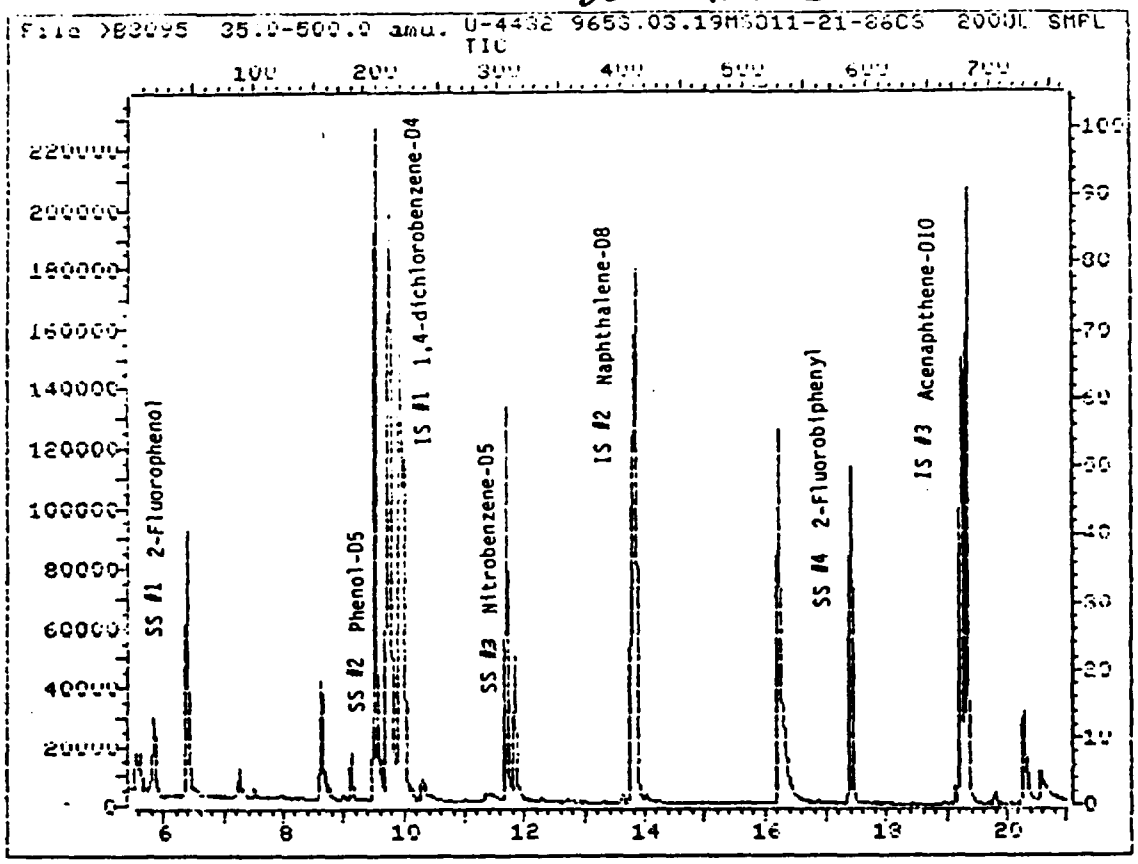


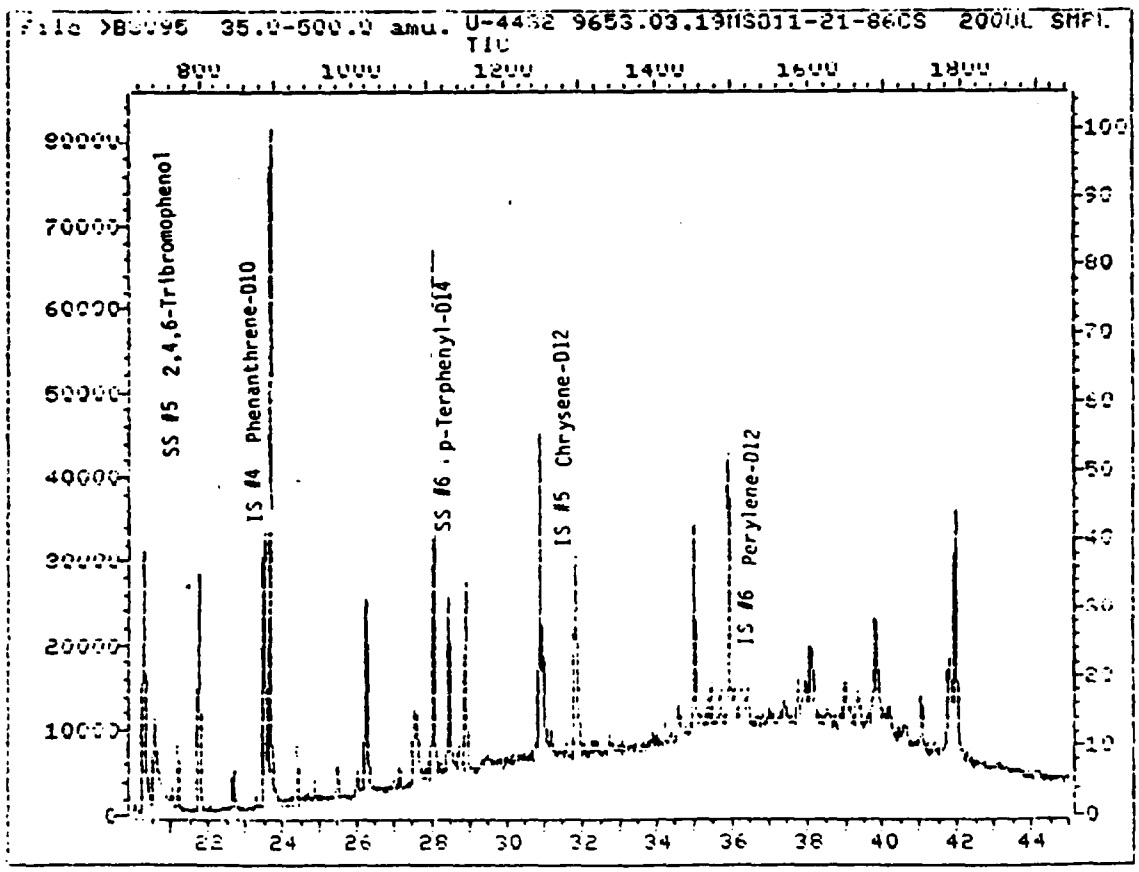
Data File: >B3095::D4
Name: U-4432 9653.03.19MSD DC-SD-15 MSD
Misc: 11-21-86CS 200UL SMPL + 200UL MECL2 + 50UL IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861121 14:38

Operator ID: USER8
Quant Time: 861121 18:15
Injected at: 861121 17:27

DC-SD-15 MSD


File >B0095 35.0-500.0 amu. U-4432 9653.03.19MS011-21-86CS 2000L SMPL
TIC
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


File >B0095 35.0-500.0 amu. U-4432 9653.03.19MS011-21-86CS 2000L SMPL
TIC
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

Operator ID: USER8 Quant Meth: 4 Quant Time: 861121 16:15
Output File: ^B3095::Q2 Created at: 861121 17:22
Data File: >B3095::04 Dilution Factor: 2.00
Name: U-4432 9653.03.19MSD DC-SD-15 MSD
Misc: 11-21-86CS 200UL SMPL + 200UL MECL2 + [illegible]

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861121 14:38

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	%
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.94	[illegible]	[illegible]	40.00	UG/L	89
2)	PHENOL-D5	(SURR)	99	9.63	200	[illegible]	6.94	UG/L	40
2)	PHENOL-D5	(SURR)	99	9.72	207	[illegible]	[illegible]	UG/L	92
5)	2-FLUOROPHENOL	(SURR)	112	6.38	[illegible]	[illegible]	[illegible]	UG/L	73
5)	2-FLUOROPHENOL	(SURR)	112	6.52	52	3364	2.81	UG/L	9
5)	2-FLUOROPHENOL	(SURR)	112	6.64	58	674	.80	UG/L	97
5)	2-FLUOROPHENOL	(SURR)	112	6.71	61	1162	1.38	UG/L	90
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.81~~	~~64~~	~~167~~	~~.19~~	~~UG/L~~	~~88~~ No Cpd
6)	PHENOL		94	9.76	211	181869	159.63	UG/L	55
~~7)~~	~~ANILINE~~		~~[illegible]~~	~~9.63~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~26~~ No Cpd
~~8)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~10.00~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~80~~
10)	1,4-DICHLOROBENZENE		146	10.00	[illegible]	85566	72.62	UG/L	97
~~13)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.34~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~ No Cpd
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~[illegible]~~	~~11.[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~[illegible]~~	~~11.71~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
15)	2-CHLOROPHENOL		128	9.53	200	166[illegible]2	158.6[illegible]	UG/L	94
17)	N-NITROSO-DI-N-PROPYLAMINE		70	11.71	30[illegible]	67468	86.34	UG/L	97
~~18)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~ No Cpd	~~80~~
19)	*NAPHTHALENE-D8	(IS)	136	13.84	417	225177	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.83	31[illegible]	43470	45.48	UG/L	92
28)	1,2,4-TRICHLOROBENZENE		180	13.80	410	90699	89.[illegible]	UG/L	100
~~28)~~	~~1,2,4-TRICHLOROBENZENE~~		~~180~~	~~14.13~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~ No Cpd	~~100~~
~~29)~~	~~NAPHTHALENE~~		~~128~~	~~13.90~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
32)	4-CHLORO-3-METHYLPHENOL		107	16.22	52[illegible]	124[illegible]22	141.86	UG/L	94
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.00~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~ No Cpd	~~91~~
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.42~~	~~[illegible]~~	~~[illegible]~~	~~60.29~~	~~UG/L~~	~~19~~
34)	*ACENAPHTHENE-D10	(IS)	162	19.23	6[illegible]	9[illegible]859	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	17.40	5[illegible]	[illegible]616	46.[illegible]1	UG/L	9[illegible]
~~41)~~	~~DIMETHYL PHTHALATE~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~ No Cpd	~~100~~
47)	ACENAPHTHENE		153	19.33	482	1[illegible]4514	85.[illegible]	UG/L	9[illegible]
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.73	[illegible]	16004	50.8[illegible]	UG/L	98
50)	4-NITROPHENOL		139	20.57	[illegible]	[illegible]	87.4[illegible]	UG/L	100
51)	2,4-DINITROTOLUENE		165	20.27	[illegible]	[illegible]	[illegible]	UG/L	100
~~51)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~ No Cpd	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~53)~~	~~DIETHYL PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~98~~
5[illegible]	*PHENANTHRENE-D10	(IS)	188	23.6[illegible]	[illegible]	[illegible]	40.00	UG/L	
6[illegible]	PENTACHLOROPHENOL		2[illegible]	23.50	9[illegible]	[illegible]	[illegible]	UG/L	10[illegible]
~~[illegible]~~	~~[illegible]~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ No Cpd	~~80~~
63)	DI-N-BUTYLPHTHALATE		149	26.29	1[illegible]	[illegible]	1[illegible]	UG/L	9[illegible]
~~65)~~	*CHRYSENE-D12	(IS)	240	31.89	1[illegible]	[illegible]	4[illegible]	UG/L	100
67)	PYRENE		202	[illegible]	1[illegible]	[illegible]	1[illegible]	UG/L	[illegible]
~~[illegible]~~	~~[illegible]~~	~~(SURR)~~	~~[illegible]~~	~~[illegible]~~	~~1[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~ No Cpd	~~[illegible]~~
~~[illegible]~~	~~[illegible]~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~

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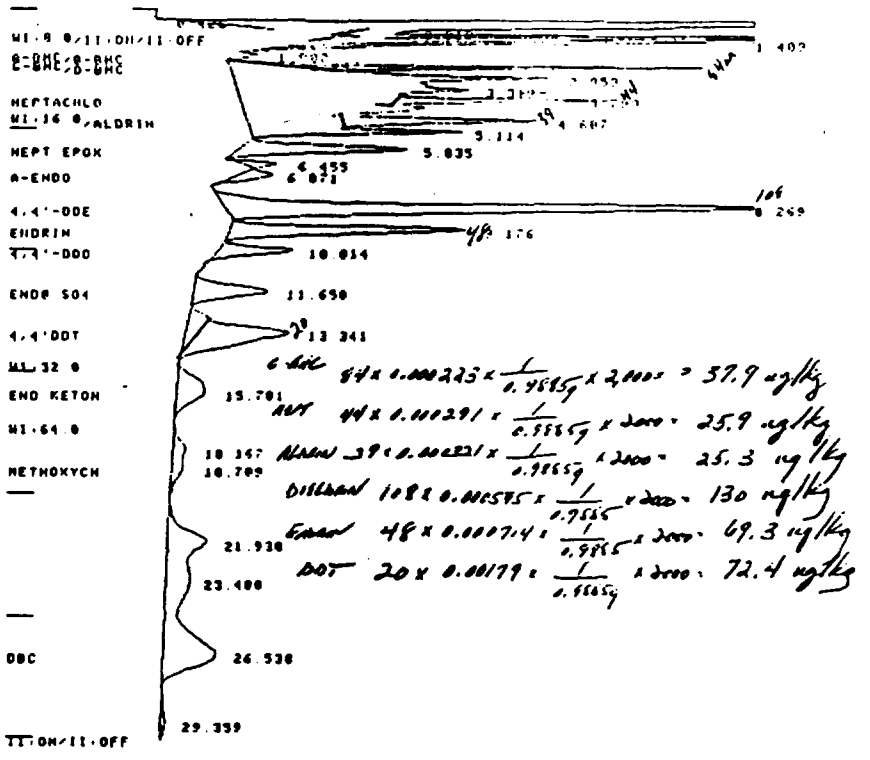
	Compound		R.T.	Scan#	Area	Conc	Units*	c
~~25)~~	~~DI-N-OCTYL PHTHALATE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	100
25)	DI-N-OCTYL PHTHALATE	149	34.64	1434	5149	[illegible]	UG/L	100
~~26)~~	~~DI-N-OCTYL PHTHALATE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	100
~~25)~~	~~DI-N-OCTYL PHTHALATE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	100
~~26)~~	~~BENZO(B)FLUORANTHENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	100
~~27)~~	~~BENZO(K)FLUORANTHENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	100
~~21)~~	~~BENZO(G,H,I)PERYLENE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	UG/L	100

NoGL

NoGL

* Compound is ISTD

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



RECALCULATE ON FILE: SLY458

CHANNEL: 1A - 1 TITLE: RUN# 22 23 11:46 19 NOV 86

DC-SD-15MSD SAMPLE: 9653.1951R1A METHOD: DAVE CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	1.275		7903280	BV		3.50
2		0.0000	1.409		115426	T	?	3.44
3		0.0000	1.535		38975	T		2.69
4	B-BHC	14.5729	2.237	0.067	59410	T	?	6.38
5	G-BHC ✓	40.1884	2.397	0.017	394917	T		5.81
6		0.0000	2.059		755117	T	?	18.19
7		0.0000	3.131		205675	T	?	8.81
8		0.0000	3.319		408652	T	?	22.19
9		0.0000	3.553		183052	T	?	8.50
10	HEPTACHLO ✓	73.6900	3.799	0.009	593217	T		13.63
11		0.0000	4.002		490408	T	?	31.50
12	ALDRIN ✓	72.0070	4.687	0.017	724095	T		19.81
13		0.0000	5.114		304842	T	?	13.44
14	HEPT EPOX	40.9163	5.035	0.165	306285	BB		19.50
15		0.0000	6.455		53010	BB	?	13.38
16	A-ENDO	0.0093	6.871	-0.159	78133	BB	?	28.00
17	DIELDRIN ✓	164.1037	8.269	0.079	1599159	BB		21.13
18	ENDRIN ✓	67.6240	9.176	0.046	600529	BB		21.13
19	4,4'-DDD	24.7129	10.014	-0.146	194496	BB		22.63
20	ENDO SO4	46.6048	11.650	-0.260	299641	BB		30.81
21	4,4'DDT ✓	125.2573	13.341	0.081	656505	BB		45.81
22	ENO KETON	25.3253	15.781	0.511	236085	BB	?	67.63
23		0.0000	18.167		78174	BV	?	43.94
24	METHOXYCH	18.0479	18.709	-0.781	56600	VV	?	74.19
25		0.0000	21.930		305662	VV		57.68
26		0.0000	23.400		317798	VV		7155.88
27	DBC	78.9537	26.538	-0.072	581630	VV		83.25
28		0.0000	29.359		35751	VB		82.63

TOTALS: 800.9225 -0.426 17656546

DETECTED PKS: 38 REJECTED PKS: 10

DIVISOR: 0.98850 MULTIPLIER: 2000.00000

NOISE: 22.9 OFFSET: -13

NOTES:
NOTEBOOK: 259-41 ANALYST: K.JUREK
SECURE AREA: D JOB#:U-4465
INST:VARIAN 600082 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT

BLANK DATA

1. FORM 1 PAGES 1 THROUGH 4

2. RAW DATA VOA, S-V, PESTICIDES

(a) RIC AND QUANT REPORTS (GC/MS)

(b) CHROMATOGRAMS AND CASTINGS (GC)

Sample Number
BLKC5482

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No. U-4432/U-4442
Lab Sample ID No: Method Blank
QC Report No:
Sample Matrix: Water for Soil
Contract No: IL-3150
Data Release Authorized By: C Stojowicz
Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-12-86

Conc./Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	3J
67-64-1	Acetone	10u
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data 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.

Laboratory Name Ecology & Environment, Inc

Case No U-4432/U-4442

Sample Number
BLK C5482

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4 min	2 J
2.	Unknown Ketone	VOA	19.9 min	1 J
3.	Hexane isomer	VOA	21.4 min	8 J
4.				
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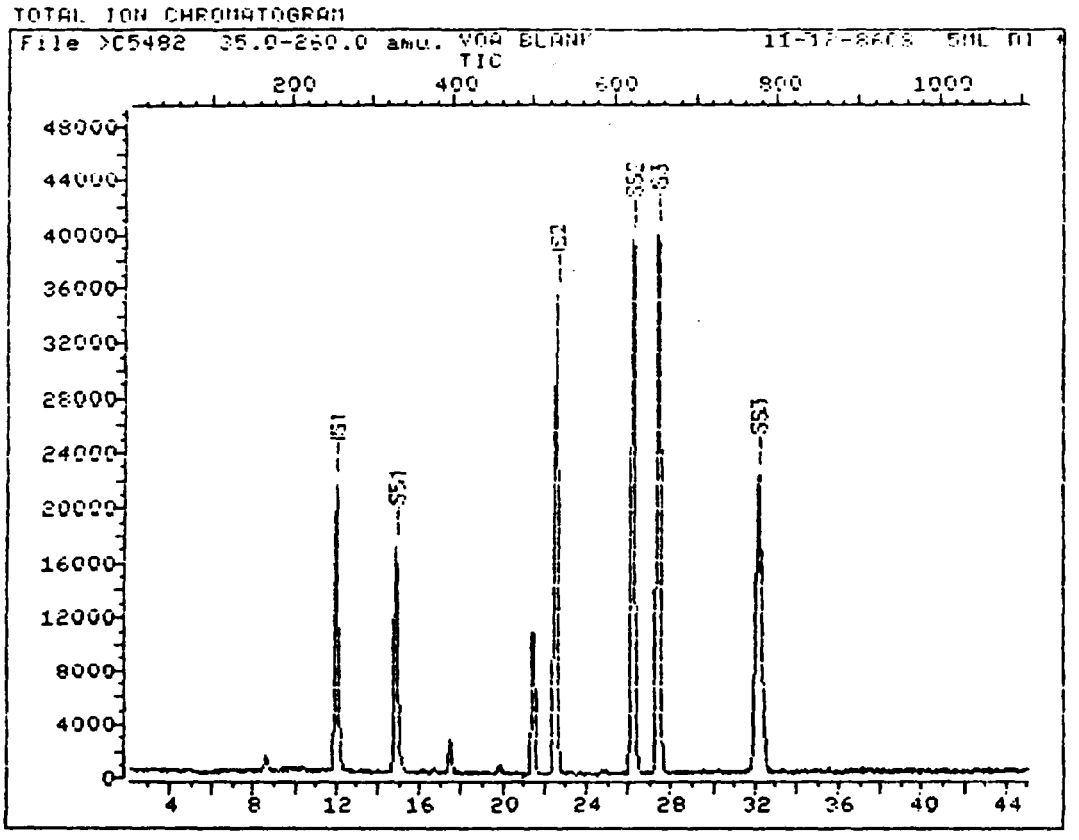
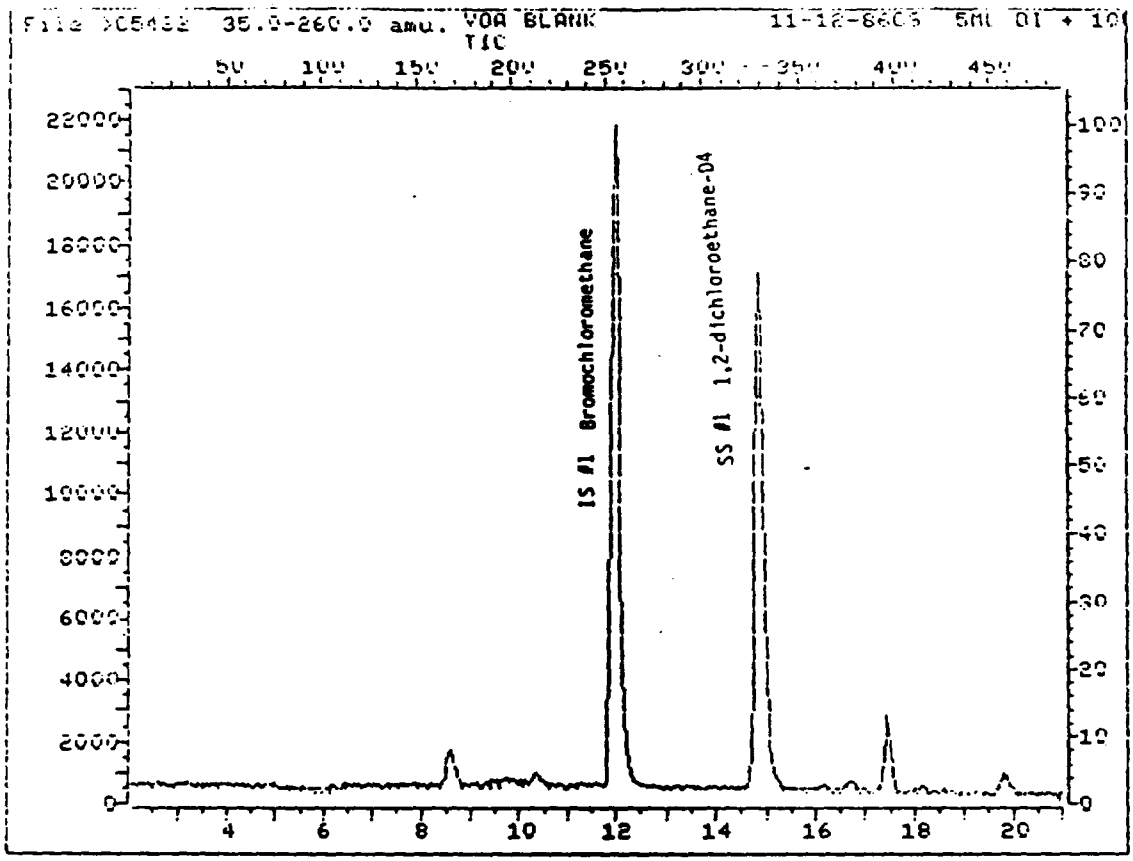
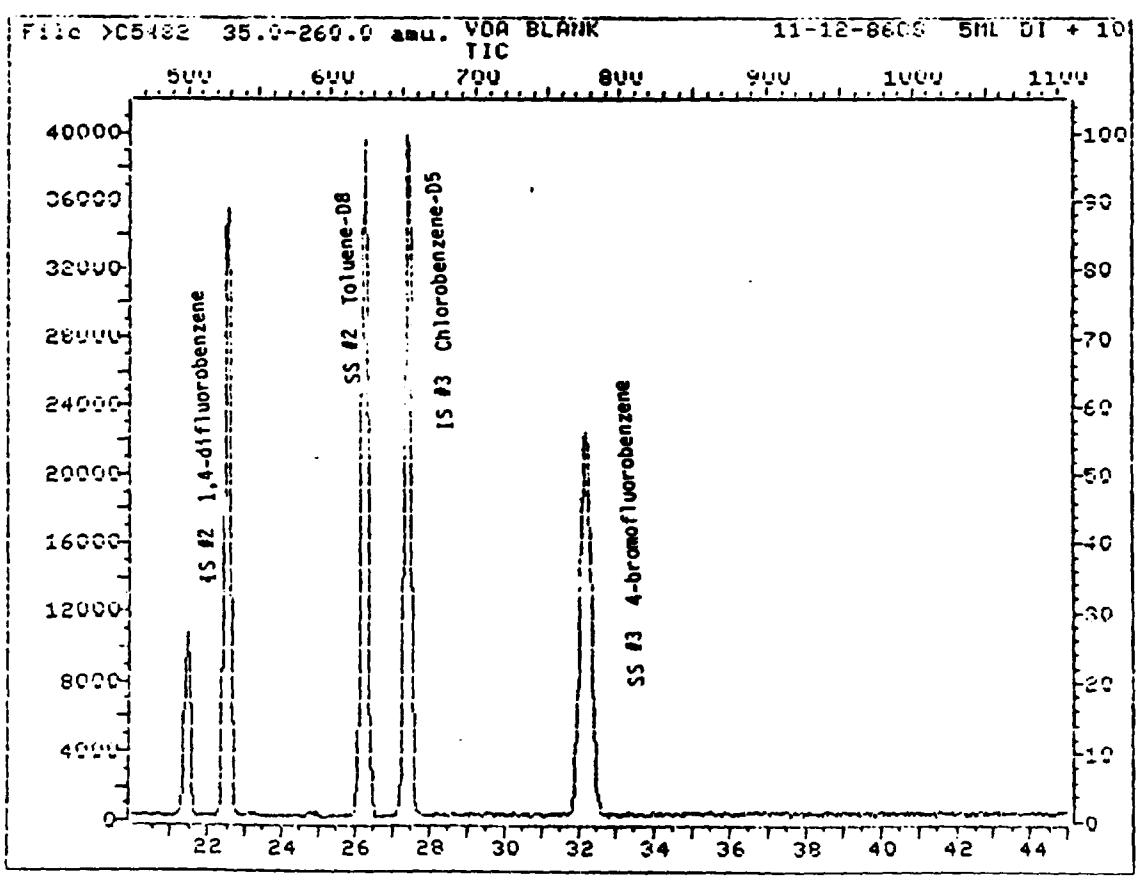


Data File: >C5482::D3
Name: VOA BLANK
Misc: 11-12-86CS 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861112 16:53

Operator ID: USER8
Quant Time: 861112 18:00
Injected at: 861112 17:14


File >C5482 35.0-260.0 amu. VOA BLANK
TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5482 35.0-260.0 amu. VOA BLANK
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861112 18:00
Output File: ^C5482::D2 Injected at: 861112 17:14
Data File: >C5482::D3 Dilution Factor: 1.00
Name: VOA BLANK
Misc: 11-12-86CS 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861112 16:53

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.98	256	32321	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.57	168	3576	17.24	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.85	330	73022	234.62	NGS	86
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.53	528	152219	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.39	653	129432	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98	26.21	623	160996	232.81	NGS	89
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.16	776	87410	194.21	NGS	100

* Compound is ISTD

Sample Number
BLK C5510

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc
Case No: U-11432/U 4442
Lab Sample ID No: Methanol Method Blank
QC Report No:
Sample Matrix: Water for Soil
Contract No: IL-3140
Data Release Authorized By: C Skojtowicz
Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc./Dil Factor: 2 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u
74-83-9	Bromomethane	2000u
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	3800
67-64-1	Acetone	1900 J
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	2000u
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	880 J
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/ul in the final extract should be confirmed by GC/MS.

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

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

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Laboratory Name Ecology & Environment, Inc

Case No U-4432/U-4442

Sample Number BLKC5510

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4 min	360 J
2.	Hexane isomer	VOA	21.5 min	990 J
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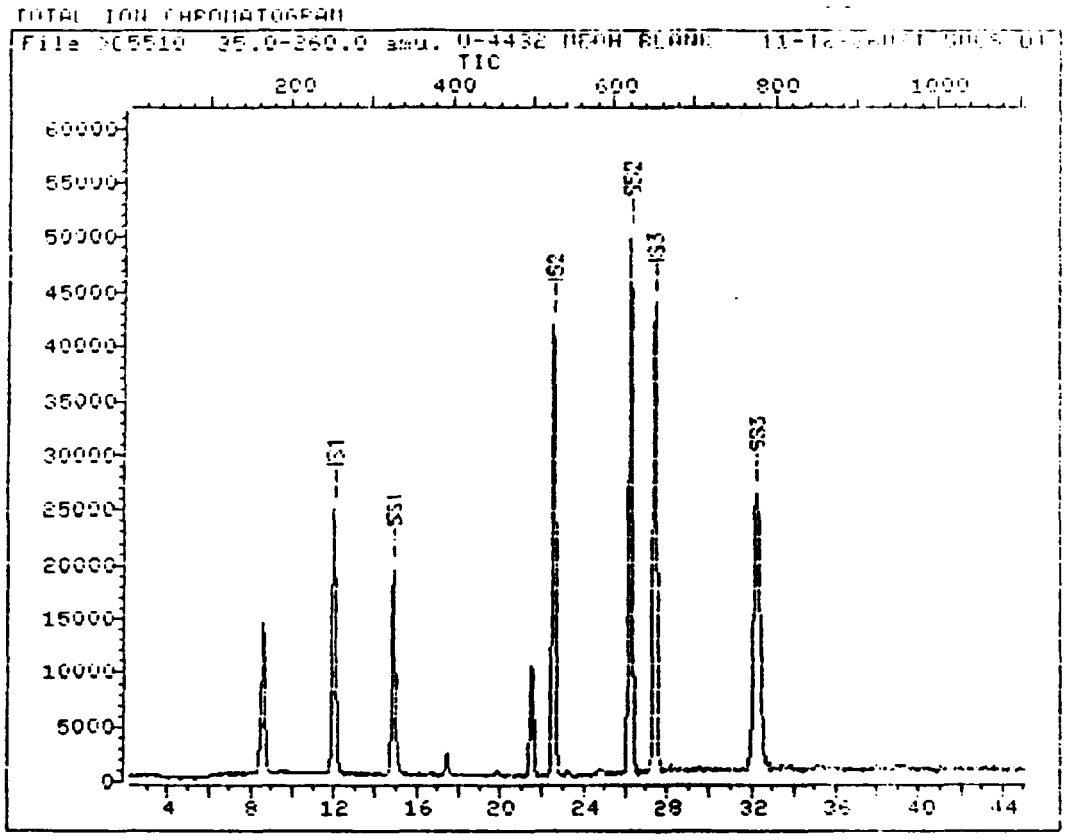
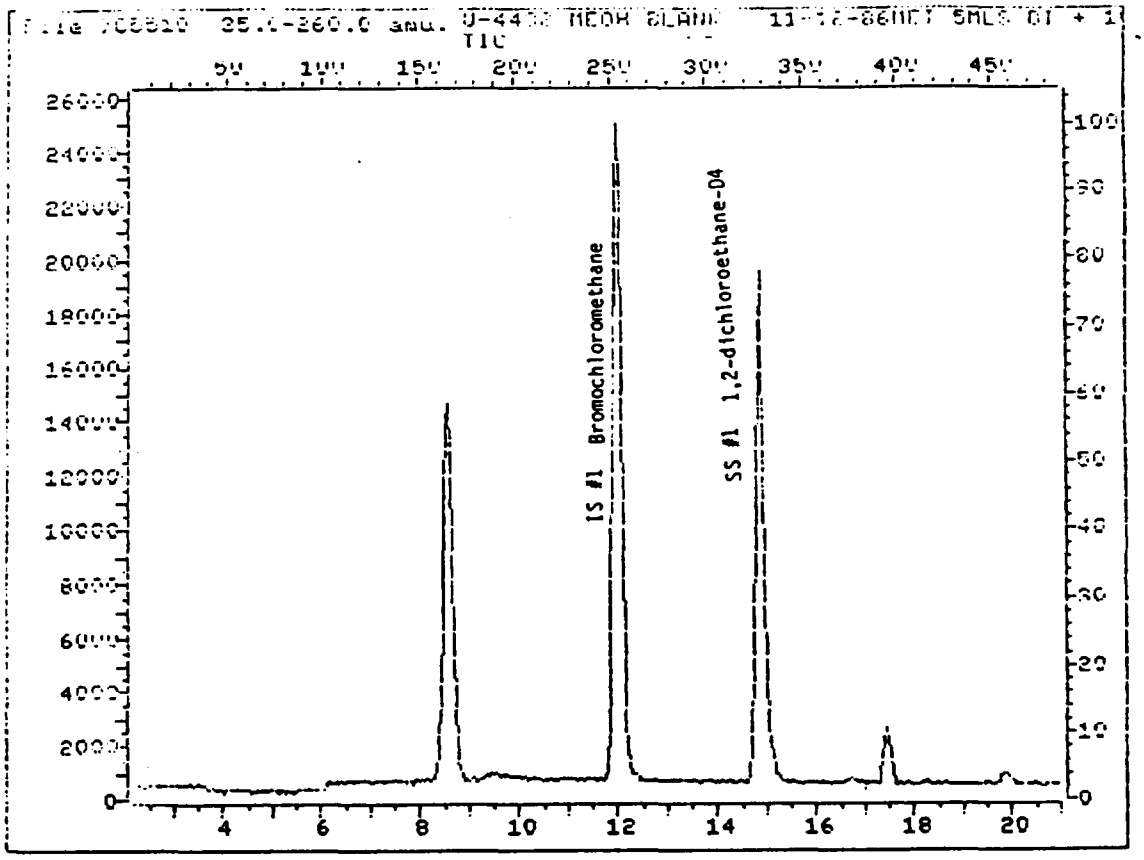
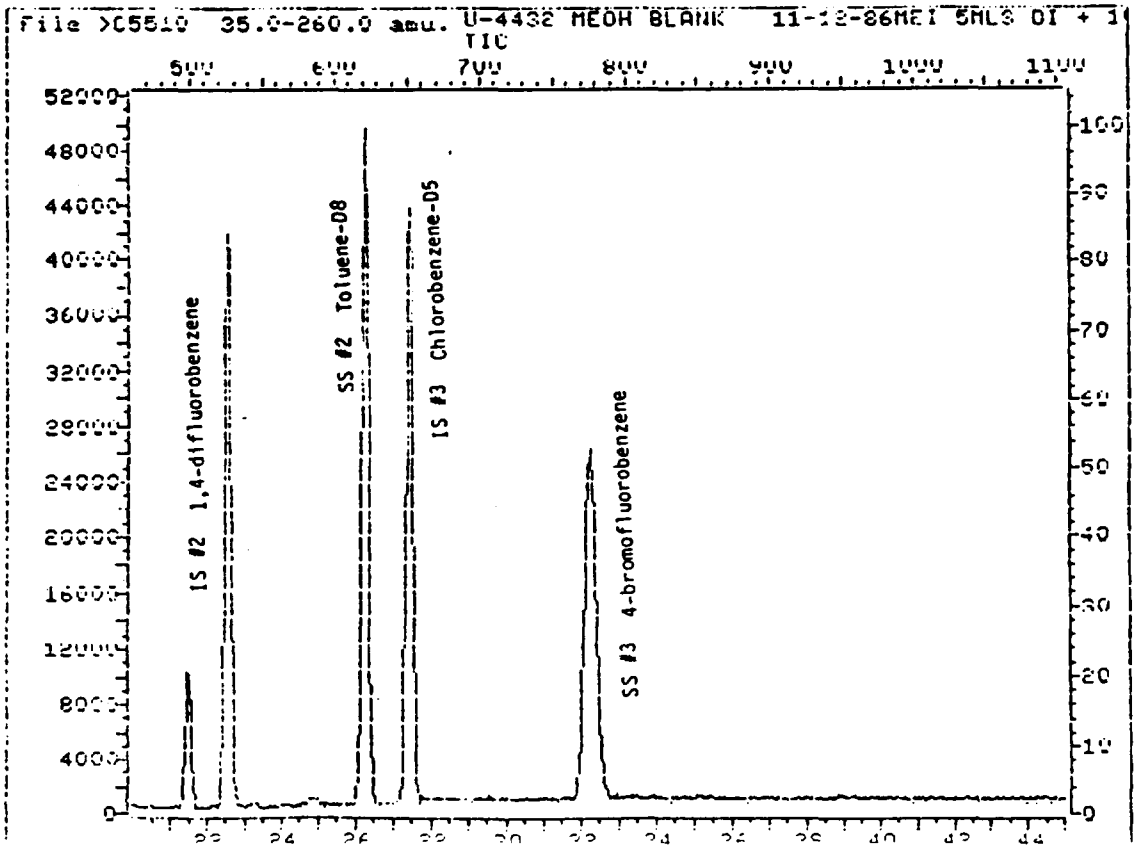


Data File: >C5510::D3
Name: U-4432 MEOH BLANK
Misc: 11-14-86MEI 5MLS DI + 10UL IS/SS + 50UL MEOH

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CH ..)
Last Calibration: 861113 22:56

Operator ID: USER8
Quant Time: 861114 00:56
Injected at: 861114 00:10


TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


File >C5510 35.0-260.0 amu. U-4432 MEOH BLANK 11-12-86MEI 5ML3 DI + 1
TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861114 00:56
Output File: ^C5510::D2 Injected at: 861114 00:10
Data File: >C5510::D3 Dilution Factor: 1.00
Name: U-4432 MEOH BLANK
Misc: 11-14-86MEI 5MLS DI + 10UL IS/SS + 50UL MEOH

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861113 22:56

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.98	294	39377	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.57	166	40958	19.16	UG/L	100
7)	ACETONE		43	9.46	189	3516	9.56	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.85	328	77847	47.15	UG/L	91
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.53	526	190161	50.00	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.42	652	145151	50.00	UG/L	100
33)	2-HEXANONE		43	24.82	585	3988	4.47	UG/L	100
35)	~~1,1,2,2-TETRACHLOROETHANE~~		~~83~~	~~25.01~~	~~590~~	~~2552~~	~~1.52~~	~~UG/L~~	100
36)	TOLUENE-D8	(SURR)	98	26.25	672	203045	47.36	UG/L	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.23	776	99244	44.30	UG/L	100

not cut

* Compound is ISTD

Sample Number
BLKC5527

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U 4432/U 4442
Lab Sample ID No: Methanol Blank >C5527
QC Report No:
Sample Matrix: Water (for soil)
Contract No: IL-3140
Data Release Authorized By: C Stoytowicz
Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc./Dil Factor: 2 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u
74-83-9	Bromomethane	2000u
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	6900
67-64-1	Acetone	3100
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	4600
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., 12J). 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.

Laboratory Name Ecology & Environment, Inc
Case No U-4432/U-4442

Sample Number
BLK C5527

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	17.3 min	380 J
2.	Unknown ketone	VOA	19.6 min	190 J
3.	Hexane isomer	VOA	21.3 min	1300 J
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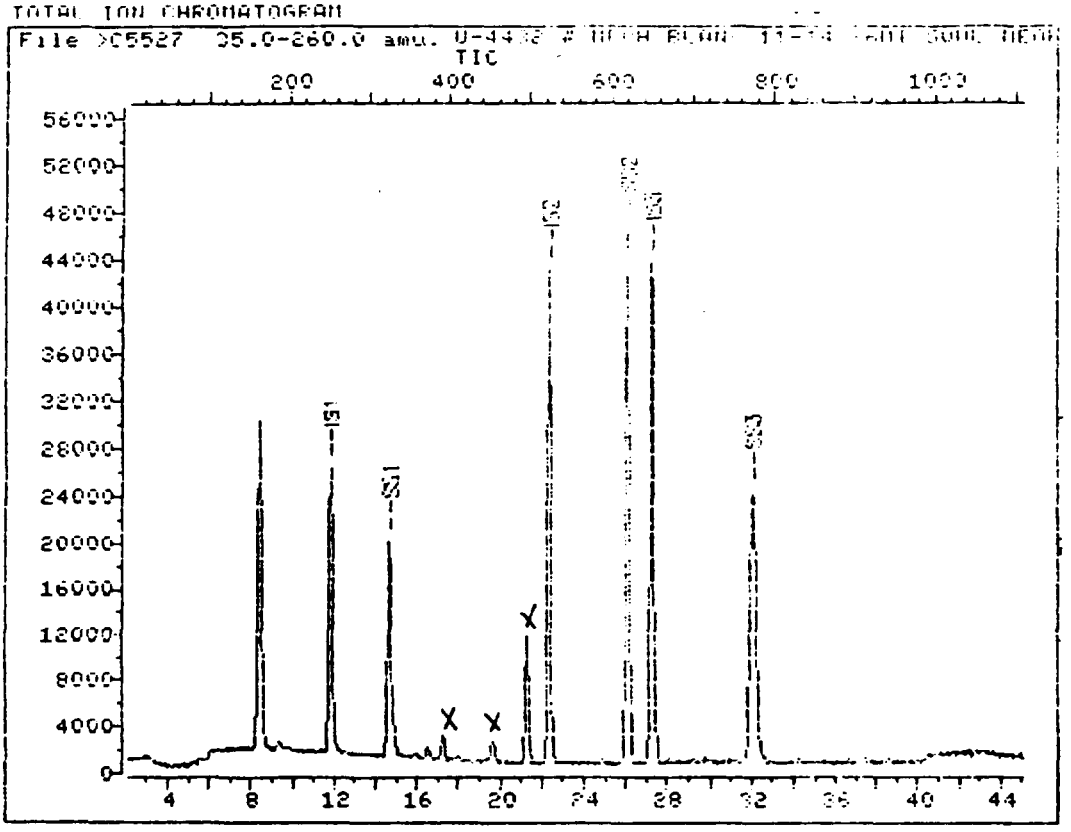
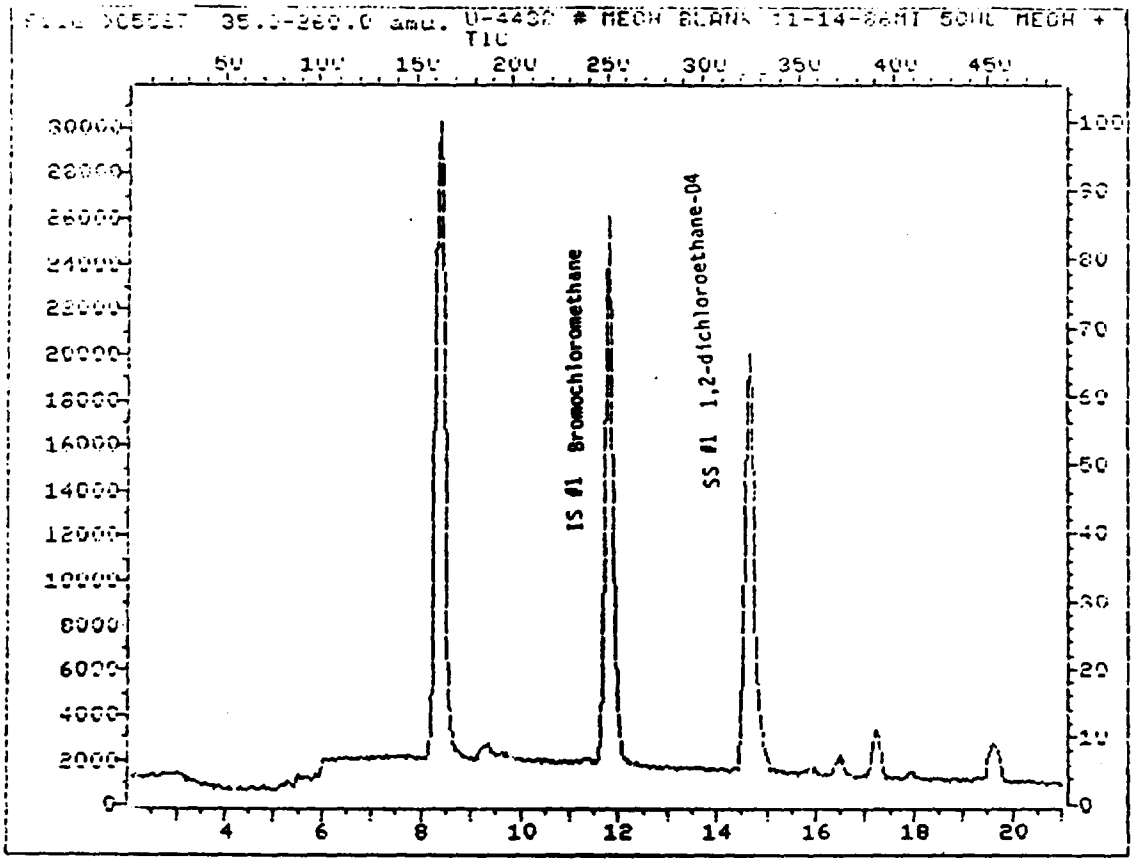
TOTAL ION CHROMATOGRAM

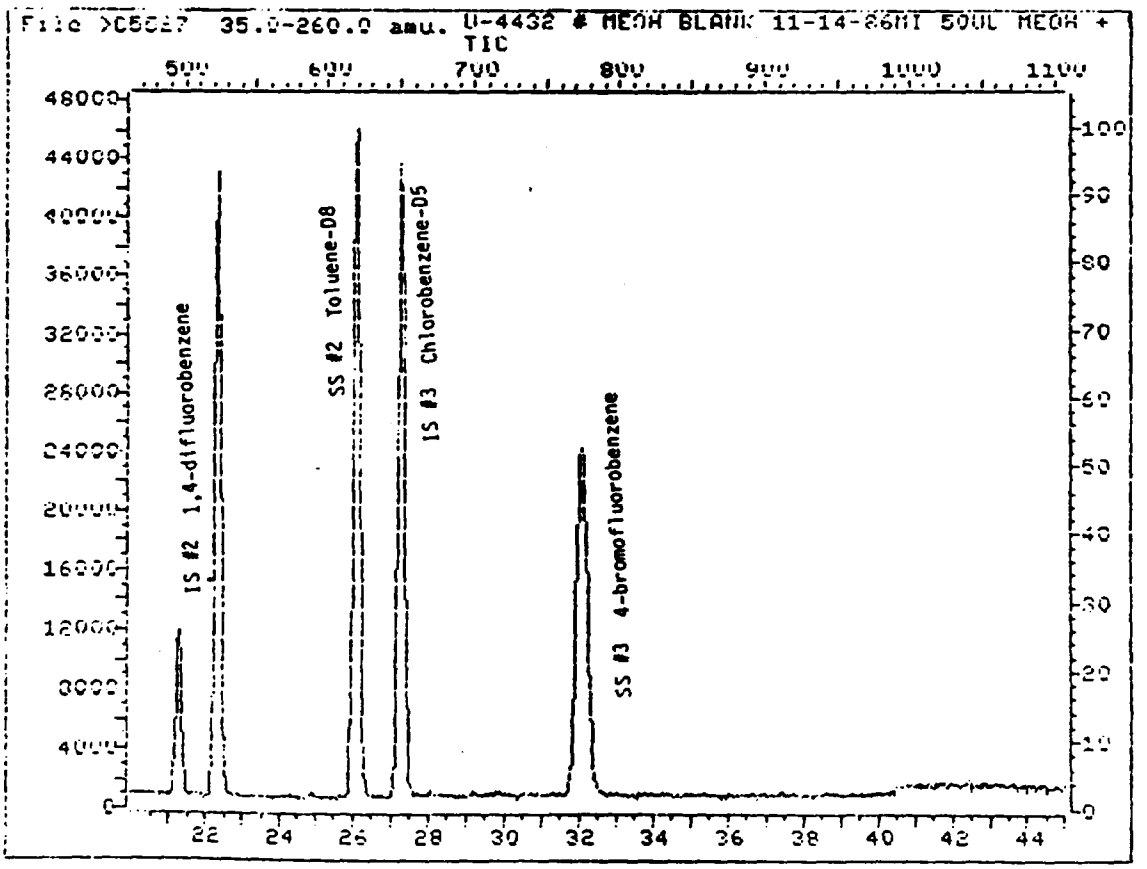


Data File: >C5527::D3
Name: U-4432 # MEOH BLANK
Misc: 11-14-86MI 50UL MEOH + 5ML S DI + [illegible]

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 11:38

Operator ID: USER8
Quant Time: 861114 17:47
Injected at: 861114 17:01


TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861114 12:47
Output File: ^C5527::D4 Injected at: 861114 12:01
Data File: >C5527::D3 Dilution Factor: 1.00
Name: U-4432 # MEOH BLANK
Misc: 11-14-86MI 50UL MEOH + 50ULS D1 + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 11:38

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.78	251	41131	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.37	163	80363	34.35	UG/L	100
7)	ACETONE		43	9.30	187	6864	15.20	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.66	325	74437	40.40	UG/L	89
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.33	523	194276	50.00	UG/L	100
17)	2-BUTANONE		72	14.77	328	5067	23.13	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.27	650	145928	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.10	620	193486	43.71	UG/L	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.08	774	94591	42.54	UG/L	100

* Compound is ISTD

445A

Sample Number
BLK C5539

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U-4442
Lab Sample ID No: Methanol Method Blank
QC Report No:
Sample Matrix: Water for Soil
Contract No: IL-3140
Data Release Authorized By: [illegible]
Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-14-86

Conc/Dil Factor: 2 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u
74-83-9	Bromomethane	2000u
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	4400
67-64-1	Acetone	4400
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	7000
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/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.

Laboratory Name Ecology & Environment, Inc
Case No U4432/V-4442

Sample Number
BLKC5539

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	17.5 min	400 J
2.	Unknown Ketone	VOA	19.9 min	630 J
3.	Hexane Isomer	VOA	21.6 min	1300 J
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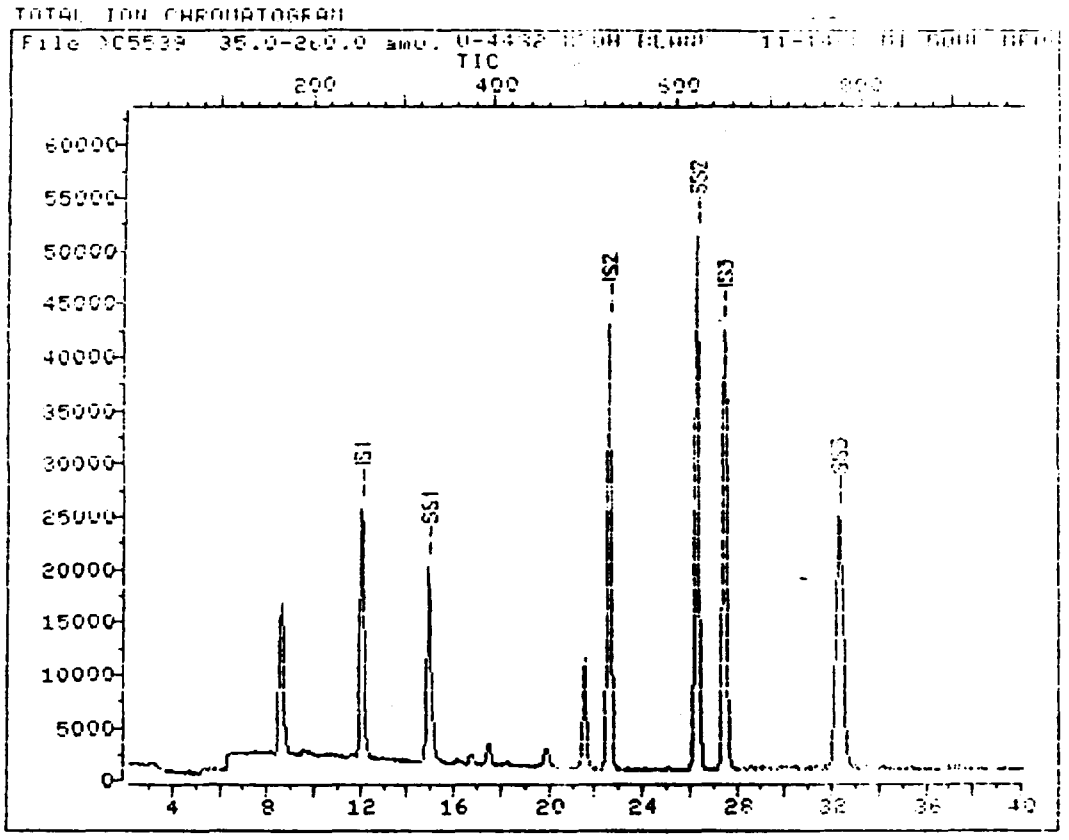
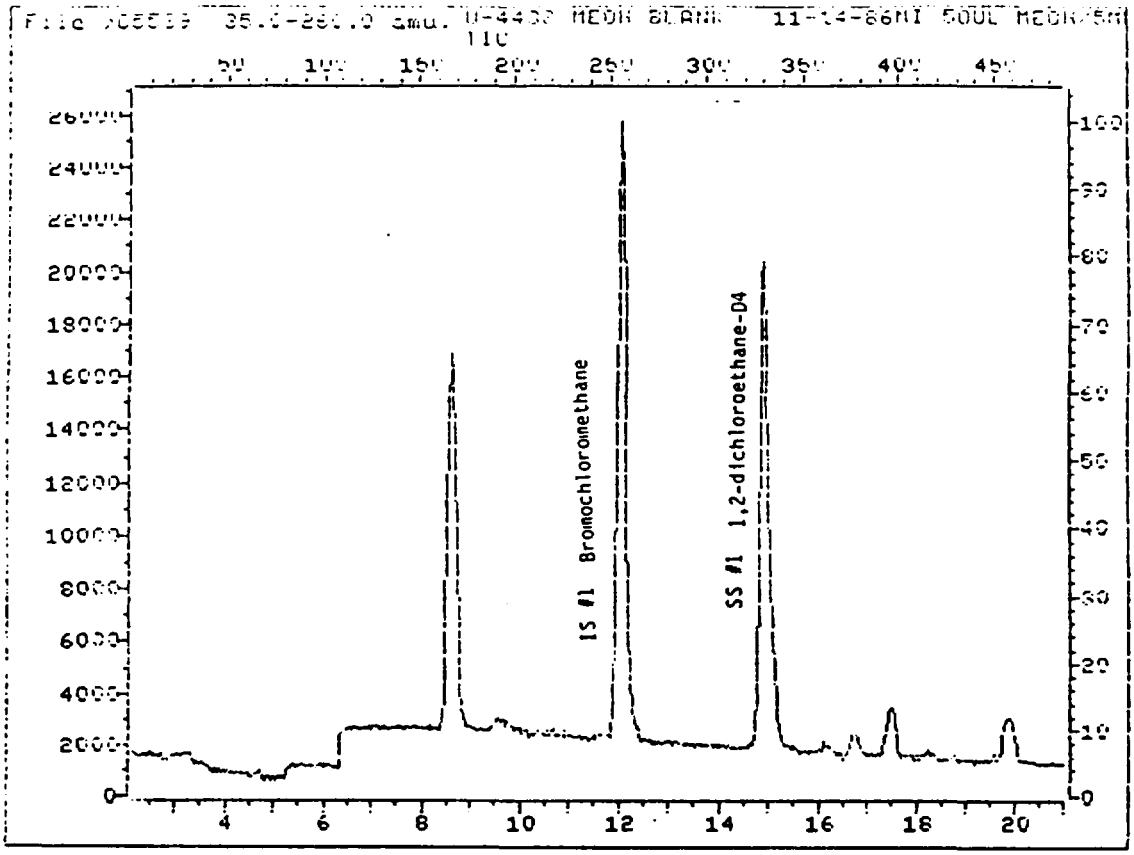
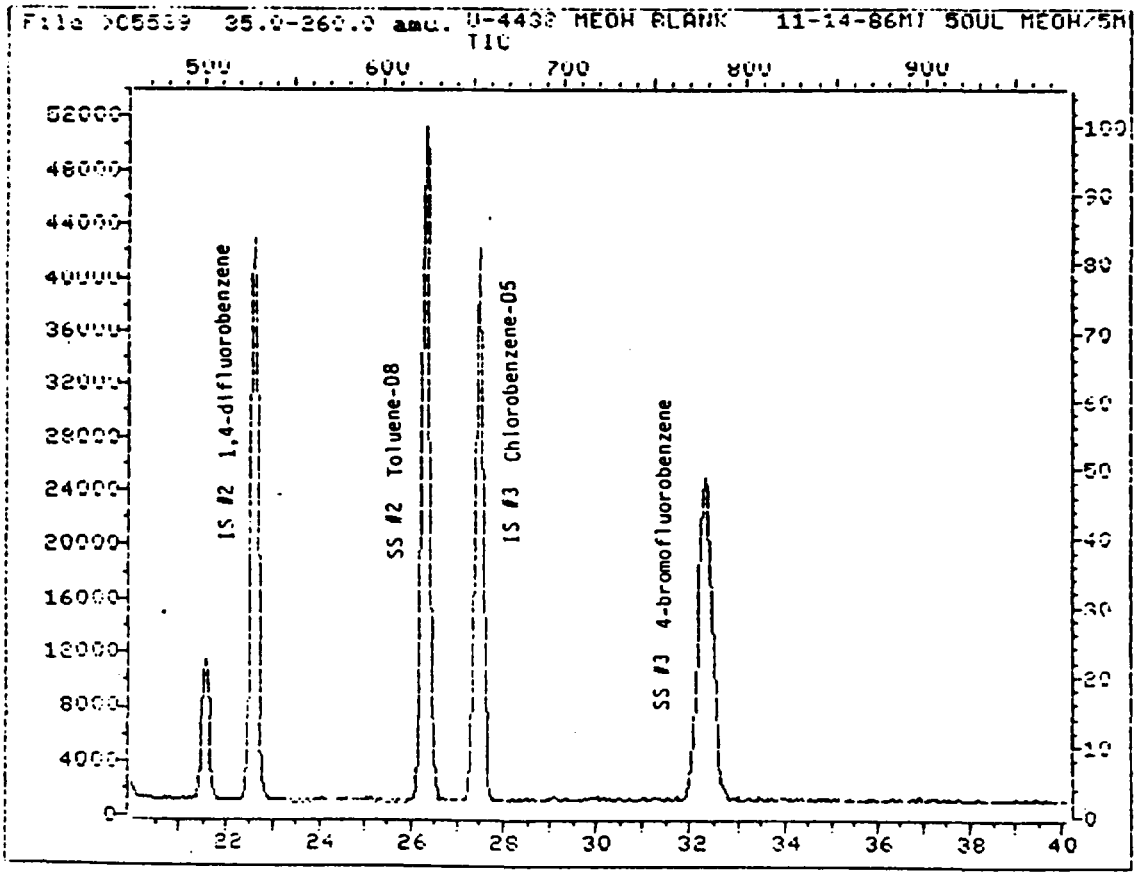


Data File: >C5539::D3
Name: U-4432 MEOH BLANK
Misc: 11-14-86MI 50UL MEOH/5MLS D1 + 1000 IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 21:27

Operator ID: USER8
Quant Time: 861115 14:05
Injected at: 861115 03:30


TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861115 14:05
Output File: ^C5539::D2 Injected at: 861115 0[illegible]:30
Data File: >C5539::D4 Dilution Factor: 1.00
Name: U-4432 MEOH BLANK
Misc: 11-14-86M1 50UL MEOH/50ML DI + 10UL [illegible]

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861114 21:27

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	12.05	256	37782	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.60	167	39744	22.15	UG/L	100
7)	ACETONE		43	9.57	192	5623	21.93	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.92	330	76131	48.07	UG/L	87
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.60	528	189157	50.00	UG/L	100
17)	2-BUTANONE		72	15.04	333	5013	35.07	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.46	613	142900	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.28	623	207005	50.48	UG/L	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	32.30	778	97623	47.90	UG/L	100

* Compound is ISTD

Sample Number
BLK . C5546

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-4432/U-4442
Lab Sample ID No: Methanol Method Blank
QC Report No:
Sample Matrix: 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: 11-17-86

Conc/Dil Factor: 2 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u
74-83-9	Bromomethane	2000u
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	3700
67-64-1	Acetone	4900
75-15-0	Carbon Disulfide	1000u
75-35-4	1, 1-Dichloroethene	1000u
75-34-3	1, 1-Dichloroethane	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u
67-66-3	Chloroform	1000u
107-06-2	1, 2-Dichloroethane	1000u
78-93-3	2-Butanone	8000
71-55-6	1, 1, 1-Trichloroethane	1000u
56-23-5	Carbon Tetrachloride	1000u
108-05-4	Vinyl Acetate	2000u
75-27-4	Bromodichloromethane	1000u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000u
10061-02-6	Trans-1, 3-Dichloropropene	1000u
79-01-6	Trichloroethene	1000u
124-48-1	Dibromochloromethane	1000u
79-00-5	1, 1, 2-Trichloroethane	1000u
71-43-2	Benzene	1000u
10061-01-5	cis-1, 3-Dichloropropene	1000u
110-75-8	2-Chloroethylvinylether	2000u
75-25-2	Bromoform	1000u
108-10-1	4-Methyl-2-Pentanone	2000u
591-78-6	2-Hexanone	560J
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/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.

Laboratory Name Ecology & Environment, Inc

Case No U-4432/U-4442

Sample Number BLK C5546

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	17.3 min	370 J
2.	Unknown Ketone	VOA	19.7 min	580 J
3.	Hexane isomer	VOA	21.3 min	1200 J
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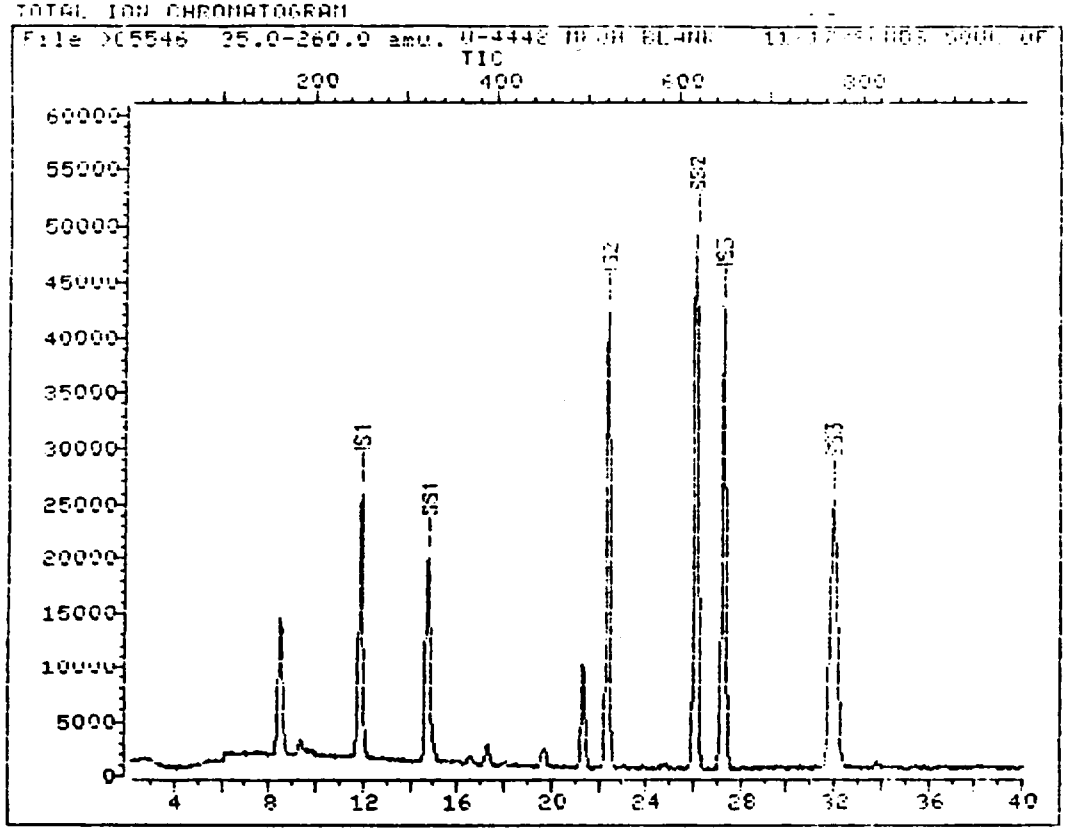
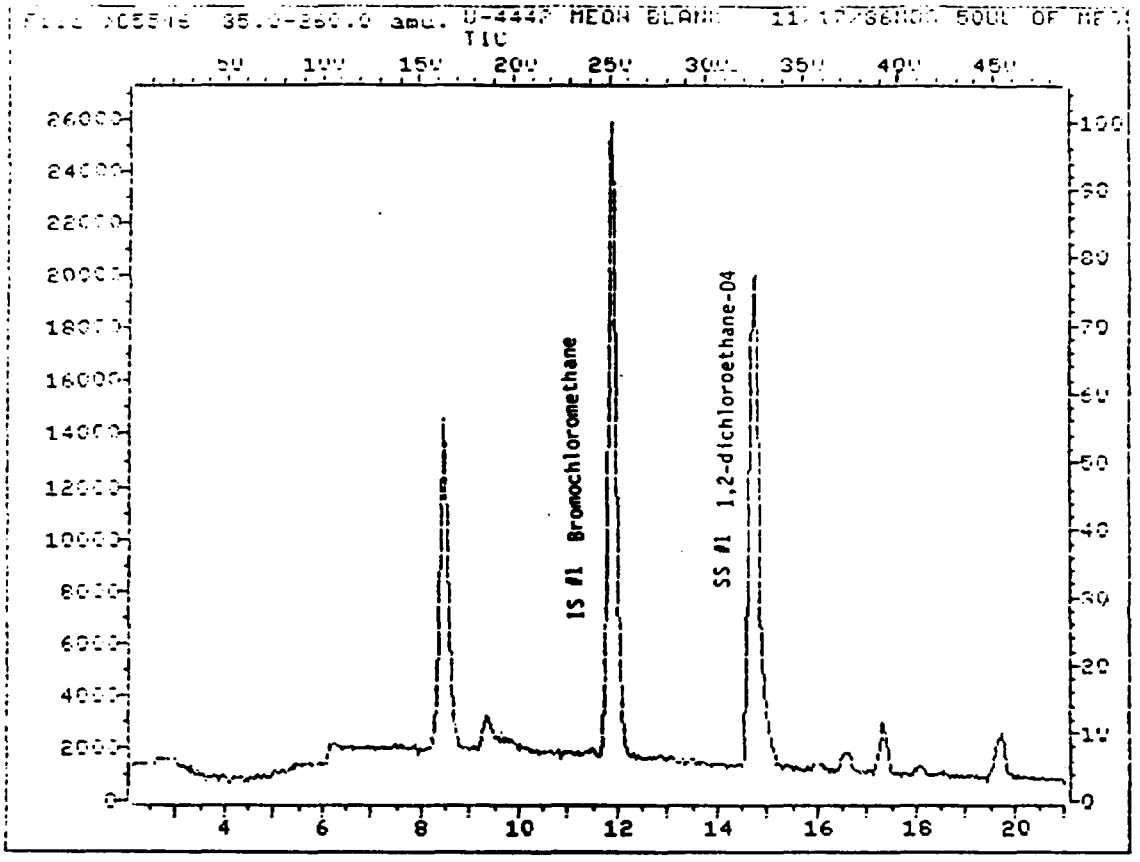
TOTAL ION CHROMATOGRAM

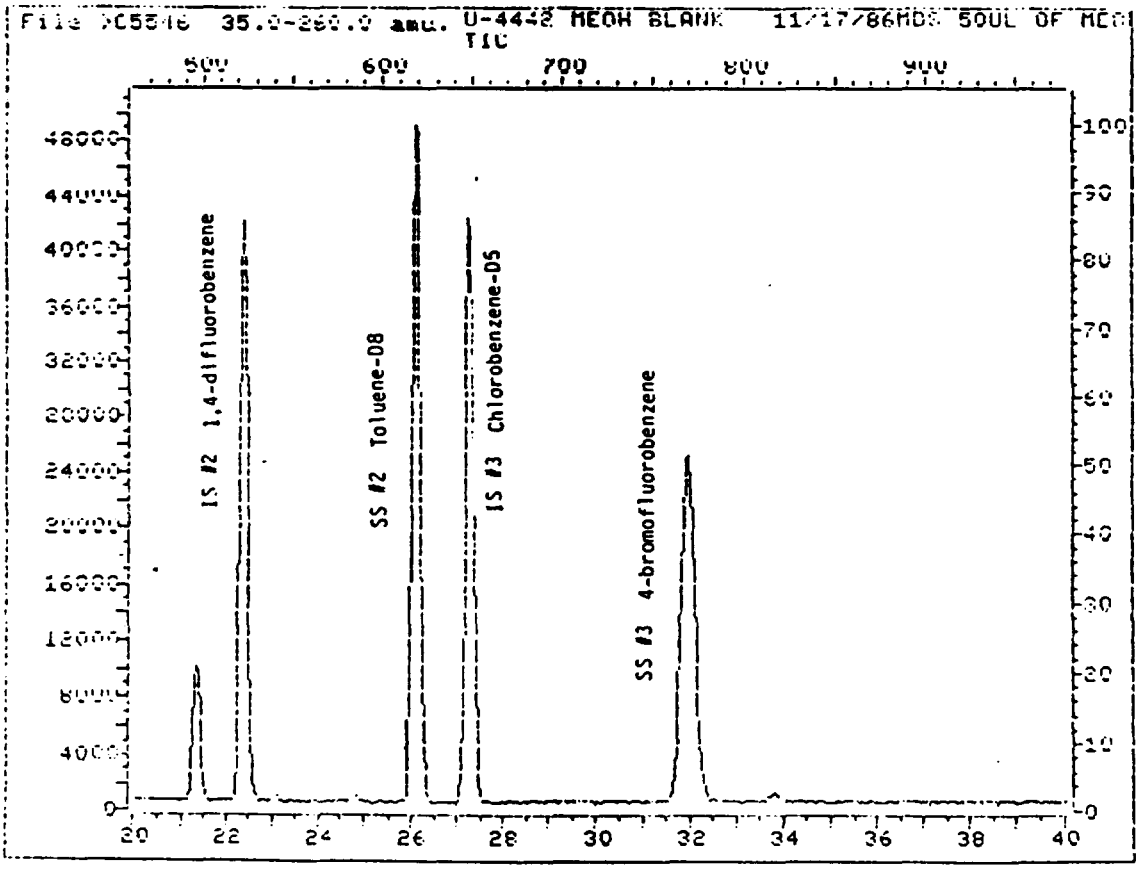


Data File: >C5546::D3
Name: U-4442 MEOH BLANK
Misc: 11/17/86MDS 50UL OF MEOH + 10UL [illegible] IN 5MLS DI

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861117 11:28

Operator ID: USER8
Quant Time: 861117 11:52
Injected at: 861117 11:11


TIC
IS #1 Bromochloromethane
SS #1 1,2-dichloroethane-D4


TIC
IS #2 1,4-difluorobenzene
SS #2 Toluene-D8
IS #3 Chlorobenzene-D5
SS #3 4-bromofluorobenzene

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861117 11:52
Output File: ^C5546::D2 Injected at: 861117 11:11
Data File: >C5546::D3 Dilution Factor: 1.00
Name: U-4442 MEOH BLANK
Misc: 11/17/86MDS 500UL OF MEOH + 100UL IS/SS IN 5MLS DI

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861117 11:28

	Compound		A/C	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.88	252	39206	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.47	164	37430	18.59	UG/L	100
7)	ACETONE		43	9.32	186	13166	24.59	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.75	326	79048	44.76	UG/L	88
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.39	523	186766	50.00	UG/L	100
17)	2-BUTANONE		72	14.87	329	6272	40.20	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.25	648	137665	50.00	UG/L	100
33)	2-HEXANONE		43	24.64	581	2331	2.84	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.08	613	203953	47.47	UG/L	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.94	769	97367	46.26	UG/L	100

* Compound is ISTD

Laboratory Name Ecology & Environment Inc.

Case No U-4432 / U-4442

Sample Number BLANK (11/11)

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-11-86

Date Analyzed: 11-20-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) –

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	330	U
111-44-4	bis(-2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1 3-Dichlorobenzene	330	U
106-46-7	1, 4-Dichlorobenzene	330	U
100-51-6	Benzyl Alcohol	330	U
95-50-1	1, 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	bis(2-chloroisopropyl)Ether	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2, 4-Dimethylphenol	330	U
65-85-0	Benzoic Acid	1600	U
111-91-1	bis(-2-Chloroethoxy)Methane	330	U
120-83-2	2, 4-Dichlorophenol	330	U
120-82-1	1, 2, 4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2 4 6-Trichlorophenol	330	U
95-95-4	2, 4, 5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	330	U
51-28-5	2, 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U
606-20-2	2 6-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1600	U
534-52-1	4, 6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	57	J
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3, 3-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	330	U
53-70-3	Dibenzo(a h)Anthracene	330	U
191-24-2	Benzo(g h i)Perylene	330	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432 / U-4442

Sample Number BLANK (11/11)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	UNKNOWN HYDROCARBON	BNA	27.6	690
2.	UNKNOWN	1	30.9	2000
3.	UNKNOWN	1	35.0	550
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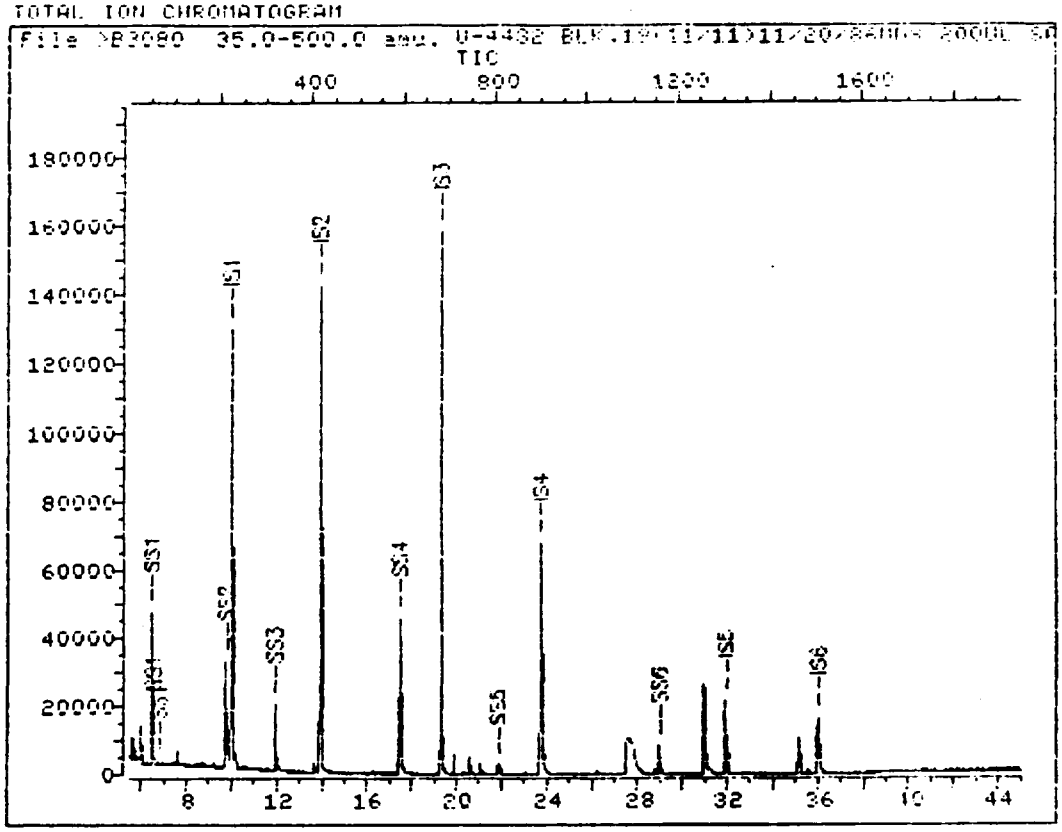
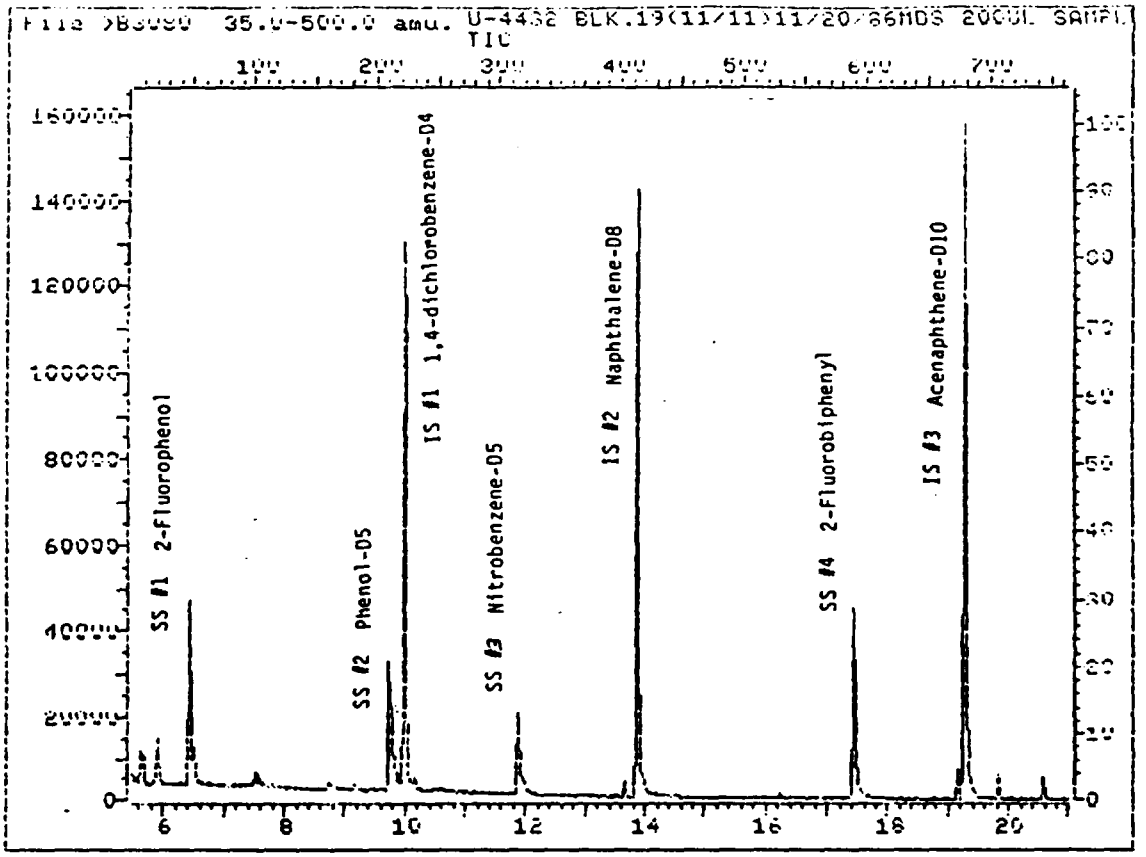
TOTAL ION CHROMATOGRAM

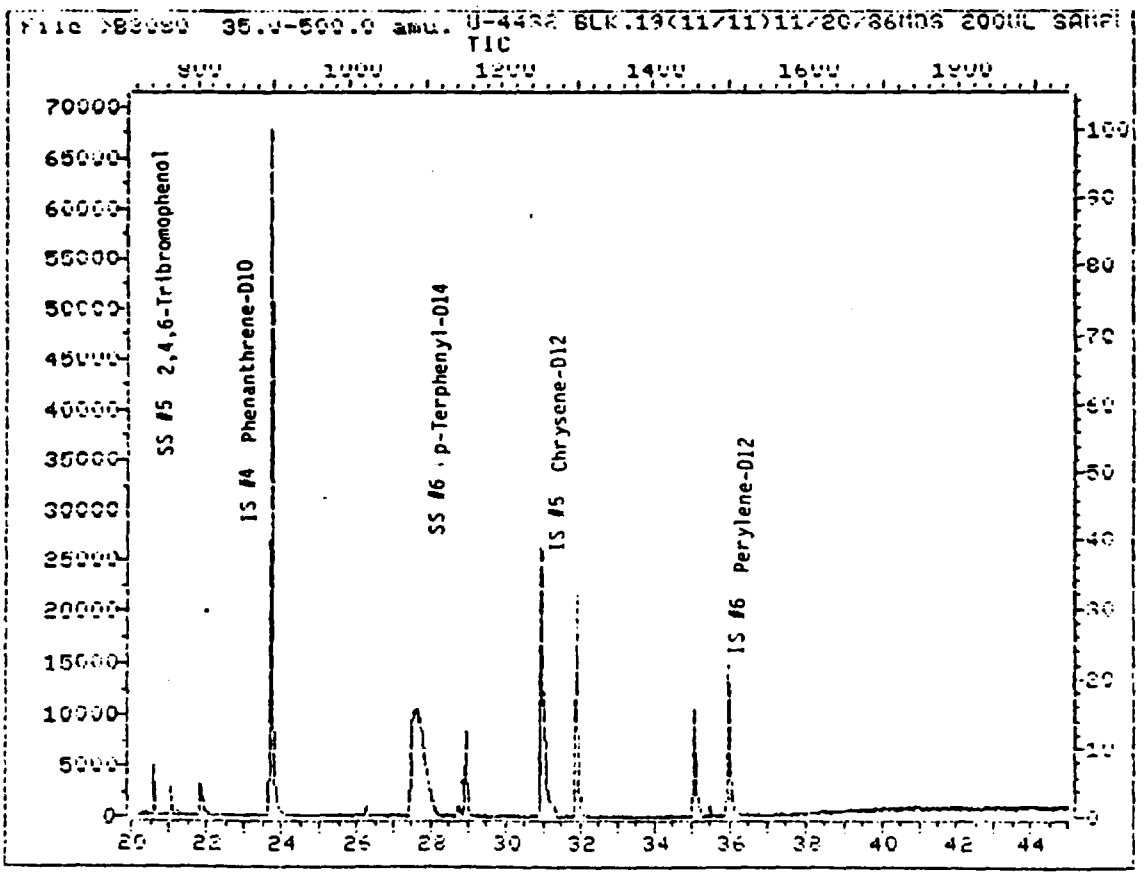


Data File: >B3080::D4
Name: U-4432 BLK.19(11/11)
Misc: 11/20/86MDS 200UL SAMPLE+ 200 UL MEOH + 4 UL IS (2%)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861120 12:20

Operator ID: USER8
Quant Time: 861120 16:07
Injected at: 861120 15:19


TIC
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


TIC
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861120 16:07
Output File: ^B3080::Q2 Injected at: 861120 19:19
Data File: >B3080::D4 Dilution Factor: 2.00
Name: U-4432 BLK.19(11/11)
Misc: 11/20/86MDS 200UL SAMPLE+ 200 UL MECL2 + 4 UL IS (2X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861120 12:20

	Compound		m/z	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.98	222	61118	40.00	UG/L	91
2)	PHENOL-D5	(SURR)	99	9.23	210	39523	38.76	UG/L	90
5)	2-FLUOROPHENOL	(SURR)	112	6.44	48	30148	47.36	UG/L	91
5)	2-FLUOROPHENOL	(SURR)	112	6.50	51	5910	9.28	UG/L	94
5)	2-FLUOROPHENOL	(SURR)	112	6.74	63	753	1.18	UG/L	92
~~12)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.92~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~78~~
19)	*NAPHTHALENE-D8	(IS)	136	13.88	414	213929	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.87	315	24668	27.16	UG/L	94
34)	*ACENAPHTHENE-D10	(IS)	162	19.27	679	95155	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	17.44	589	55790	28.25	UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~16.14~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.27~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.81	804	4730	13.87	UG/L	92
~~51)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~24.59~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.97~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	23.72	898	113100	40.00	UG/L	96
63)	DI-N-BUTYLPHTHALATE		149	26.28	1024	2802	1.72	UG/L	99
65)	*CHRYSENE-D12	(IS)	240	31.89	1300	41658	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.92	1154	15471	32.72	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.97	1501	35304	40.00	UG/L	100

* Compound is ISTD

Laboratory Name Ecology & Environment Inc.

Case No U-4432/U-4442

Sample Number BLANK (11/13)

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-12-86

Date Analyzed: 11-20-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) –

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	330	U
111-44-4	bis(-2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1 3-Dichlorobenzene	330	U
106-46-7	1. 4-Dichlorobenzene	330	U
100-51-6	Benzyl Alcohol	330	U
95-50-1	1. 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	bis(2-chloroisopropyl)Ether	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2. 4-Dimethylphenol	330	U
65-85-0	Benzoic Acid	1600	U
111-91-1	bis(-2-Chloroethoxy)Methane	330	U
120-83-2	2. 4-Dichlorophenol	330	U
120-82-1	1. 2. 4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2 4. 6-Trichlorophenol	330	U
95-95-4	2. 4. 5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	1600	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	330	U
51-28-5	2. 4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U
606-20-2	2 6-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1600	U
534-52-1	4. 6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3. 3 -Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	330	U
53-70-3	Dibenz(a h)Anthracene	330	U
191-24-2	Benzo(g h. i)Perylene	330	U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number BLANK(11/13)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	UNKNOWN HYDROCARBON	BNA	27.6	450
2.	UNKNOWN	⊥	30.9	1500
3.	UNKNOWN	⊥	35.1	440
4.				
5.				
6.				
7				
8.				
9.				
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11.				
12.				
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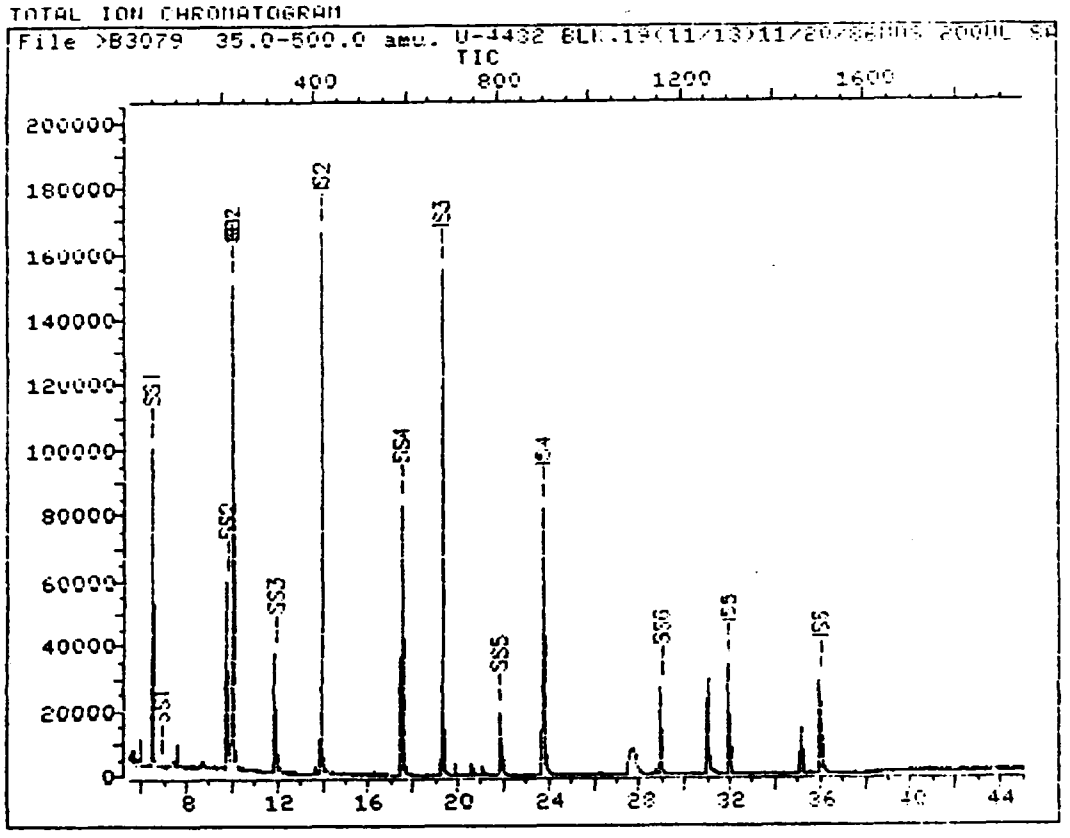
24.				
25.				
26.				
27.				
28.				
29.				
30				

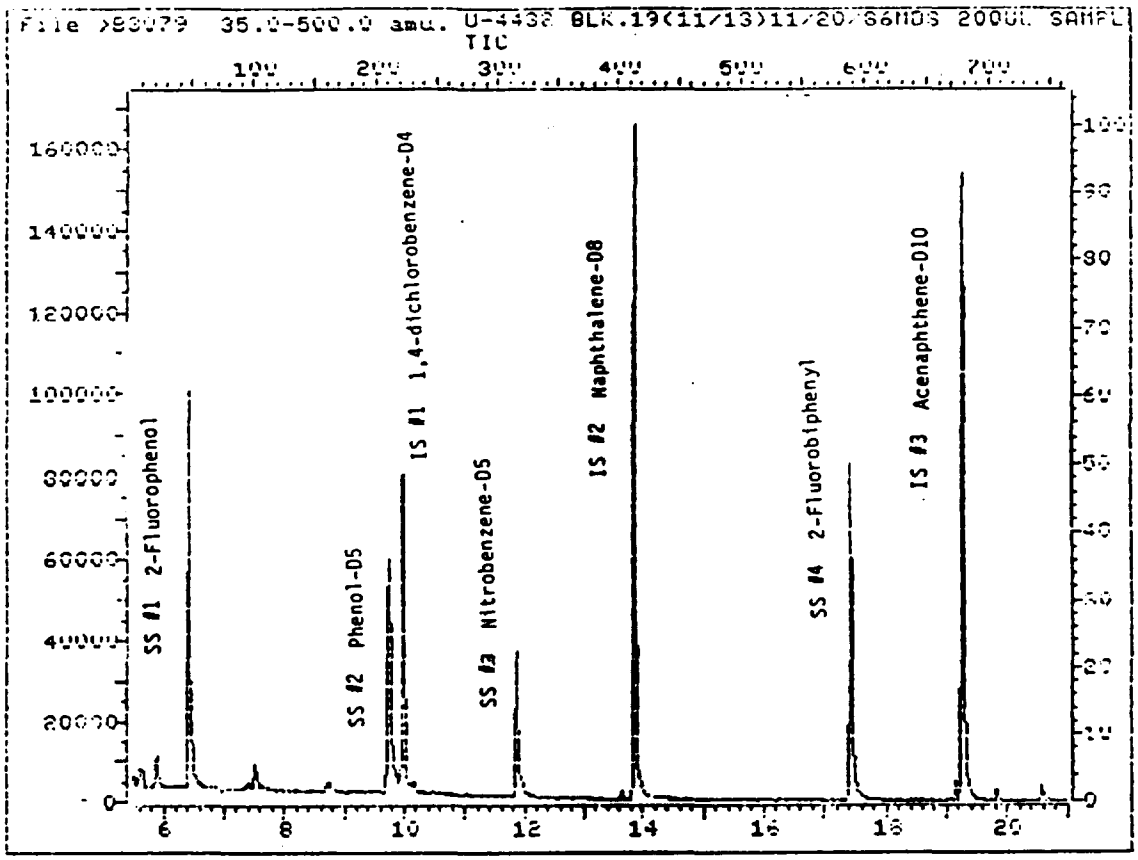
TOTAL ION CHROMATOGRAM

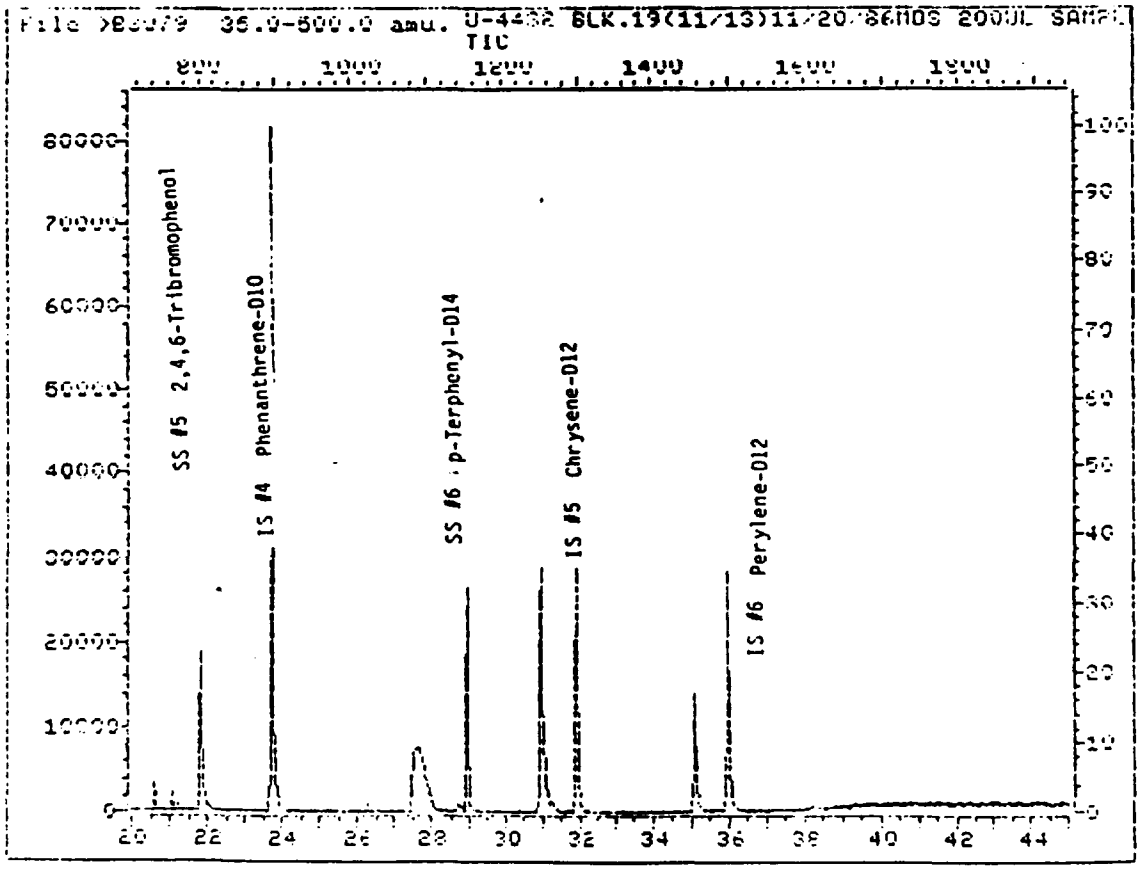


Data File: >B3079::D4
Name: U-4432 BLK.19(11/13)
Misc: 11/20/86MDS 200UL SAMPLE+ 200 UL MECL2 + 4 UL IS (2X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861120 12:20

Operator ID: USER8
Quant Time: 861120 15:06
Injected at: 861120 14:18


File >83079 35.0-500.0 amu. U-4432 BLK.19(11/13)11/20/86MOS 200UL SAMPL
TIC
SS #1 2-Fluorophenol
SS #2 Phenol-D5
IS #1 1,4-dichlorobenzene-D4
SS #3 Nitrobenzene-D5
IS #2 Naphthalene-D8
SS #4 2-Fluorobiphenyl
IS #3 Acenaphthene-D10


File >83079 35.0-500.0 amu. U-4432 BLK.19(11/13)11/20/86MOS 200UL SAMPL
TIC
SS #5 2,4,6-Tribromophenol
IS #4 Phenanthrene-D10
SS #6 p-Terphenyl-D14
IS #5 Chrysene-D12
IS #6 Perylene-D12

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861120 15:06
Output File: ^B3079::02 Injected at: 861120 14:18
Data File: >B3079::D4 Dilution Factor: 2.00
Name: U-4432 BLK.19(11/13)
Misc: 11/20/86MDS 200UL SAMPLE+ 200 UL MECL2 + 4 UL IS (2X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 861120 12:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.99	223	63329	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	9.75	211	67974	64.34	UG/L	94
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~9.99~~	~~223~~	~~2540~~	~~2.43~~	~~UG/L~~	71
5)	2-FLUOROPHENOL	(SURR)	112	6.41	47	60344	91.48	UG/L	95
~~7)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.86~~	~~60~~	~~653~~	~~.99~~	~~UG/L~~	87
~~12)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.46~~	~~315~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	78
19)	*NAPHTHALENE-D8	(IS)	136	13.87	414	222196	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.86	315	38139	40.43	UG/L	93
34)	*ACENAPHTHENE-D10	(IS)	162	19.26	679	95128	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	17.43	589	88294	44.71	UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.16~~	~~674~~	~~357~~	~~.17~~	~~UG/L~~	100
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.46~~	~~679~~	~~[illegible]~~	~~14.48~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.78	803	15743	46.17	UG/L	98
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.26~~	~~679~~	~~14446~~	~~32.34~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	23.71	898	126995	40.00	UG/L	97
65)	*CHRYSENE-D12	(IS)	240	31.86	1299	60910	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.92	1154	35304	56.68	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.95	1500	53613	40.00	UG/L	100

* Compound is ISTD

Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number BLANK

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-11-86

Date Analyzed 11-18-86

Conc/Dil Factor 1

Percent Moisture (decanted) —

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	8.0	U
319-85-7	Beta-BHC	8.0	U
319-86-8	Delta-BHC	8.0	U
58-89-9	Gamma-BHC (Lindane)	8.0	U
76-44-8	Heptachlor	8.0	U
309-00-2	Aldrin	8.0	U
1024-57-3	Heptachlor Epoxide	8.0	U
959-98-8	Endosulfan I	8.0	U
60-57-1	Dieldrin	16	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)

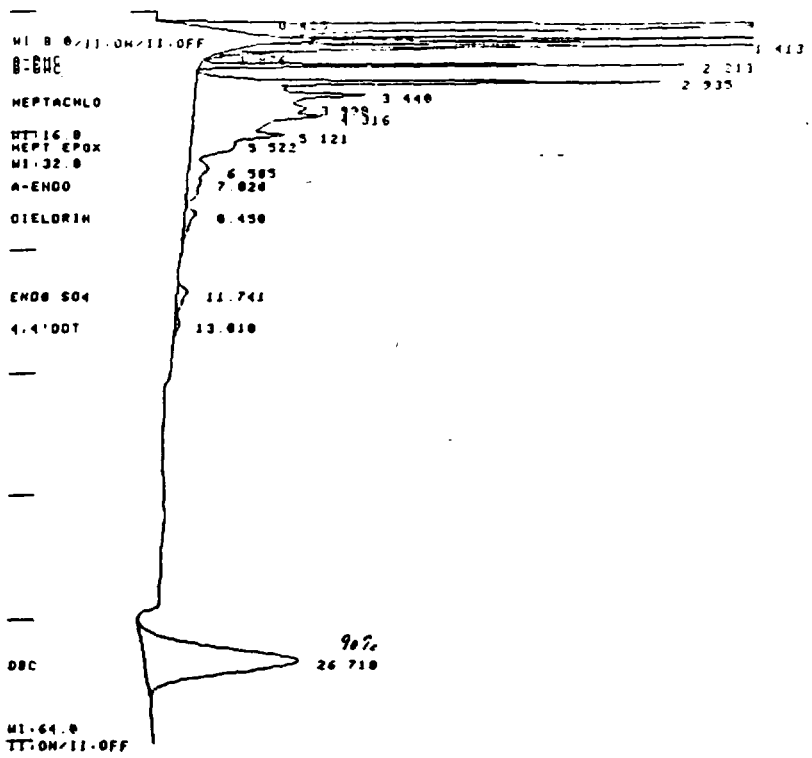
V_s = Volume of water extracted (ml)

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

ATTEN: 8 ZERO: 10% 5 MIN/TICK



CHANNEL: 1A - 1 TITLE: RUN# 14 20:55 18 NOV 86

SAMPLE: BLANK 11-11 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	1.249		142192	BV		2.56
2		0.0000	1.413		499574	VV		3.25
3		0.0000	1.537		138364	VV		3.56
4		0.0000	1.686		29944	VV		3.31
5	~~B-BHC~~	25.3203	2.213	0.043	313376	BV		4.81
6		0.0000	2.935		540100	VV		6.94
7		0.0000	3.143		93144	VV	?	6.25
8		0.0000	3.440		242730	VV	?	18.88
9	~~HEPTACHLO~~	6.4922	3.598	-0.192	158614	VV	?	
10		0.0000	3.998		287974	VV	?	17.81
11		0.0000	4.316		497945	VV	?	74.69
12		0.0000	5.121		238755	VV	?	26.58
13	~~HEPT EPOX~~	5.8812	5.522	-0.148	169507	VV	?	38.63
14		0.0000	6.585		94040	VV		32.13
15	A-ENDO ~~LEAK~~	2.6684	7.020	-0.010	71835	VV	?	34.88
16	~~DIELDRIN~~	2.8828	8.450	0.260	61597	VB		27.94
17	ENDO SO4	2.8926	11.741	-0.169	56442	BV		37.44
18	~~4,4'DDT~~	1.2883	13.010	-0.250	20492	VB		19.88
19	DBC	60.2359	26.718	0.108	1346200	BB		69.06

TOTALS: 106.8697 -0.358 5252825

DETECTED PKS: 28 REJECTED PKS: 9

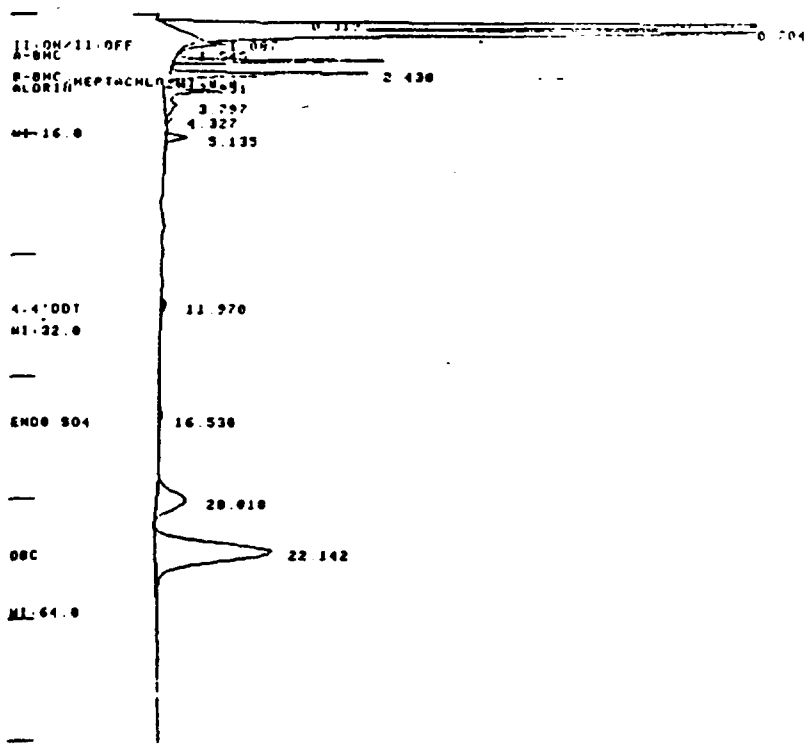
DIVISOR: 1.50000 MULTIPLIER: 1000.000000

NOISE: 217.1 OFFSET: -11

NOTES:
NOTEBOOK: 259-38 ANALYST:K.JUREK
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 600042 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: RAW SLY449

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 1B - 1 TITLE: RUN# 9 14:45 21 NOV 86

SAMPLE: BLANK 11/11 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/ML	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.875		361881	VB	4.06
2	B-BHC	0.0346	2.430	0.050	380403	BV	5.50
3		0.0000	2.954		32411	BV	7.56
4	ALDRIN	0.0046	3.191	0.081	136370	VV	7.63
5		0.0000	3.797		65003	VV	? 25.69
6	HEPT-EPOX	0.0000	4.327	-0.313	20443	VB	? 21.94
7		0.0000	5.135		60718	BB	11.31
8	4,4'DDT	0.0051	11.970	-0.390	32572	BB	26.31
9	ENDO-SO4	0.0024	16.530	-0.260	22236	BB	? 43.94
10		0.0000	20.010		349351	BV	47.06
11	DDC	0.0050	22.142	0.262	1519602	VB	50.31
TOTALS:		0.1333		-0.570	2981070		

DETECTED PKS: 27 REJECTED PKS: 16

DIVISOR: 1.00000 MULTIPLIER: 1.00000

NOISE: 91.4 OFFSET: 9

NOTES:
NOTEBOOK:259-40 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB #U-4432:U-4442
INST: VARIAN 6000#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

POST RUN:
SAVE FILE: RAW CREEK668

Laboratory Name ecology and environment, inc.

Case No U-4432/U-4442

Sample Number BLANK

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-12-86

Date Analyzed: 11-18-86

Conc/Dil Factor: 1

Percent Moisture (decanted) –

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	8.0	U
319-85-7	Beta-BHC	8.0	U
319-86-8	Delta-BHC	8.0	U
58-89-9	Gamma-BHC (Lindane)	8.0	U
76-44-8	Heptachlor	8.0	U
309-00-2	Aldrin	8.0	U
1024-57-3	Heptachlor Epoxide	8.0	U
959-98-8	Endosulfan I	8.0	U
60-57-1	Dieldrin	16	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)

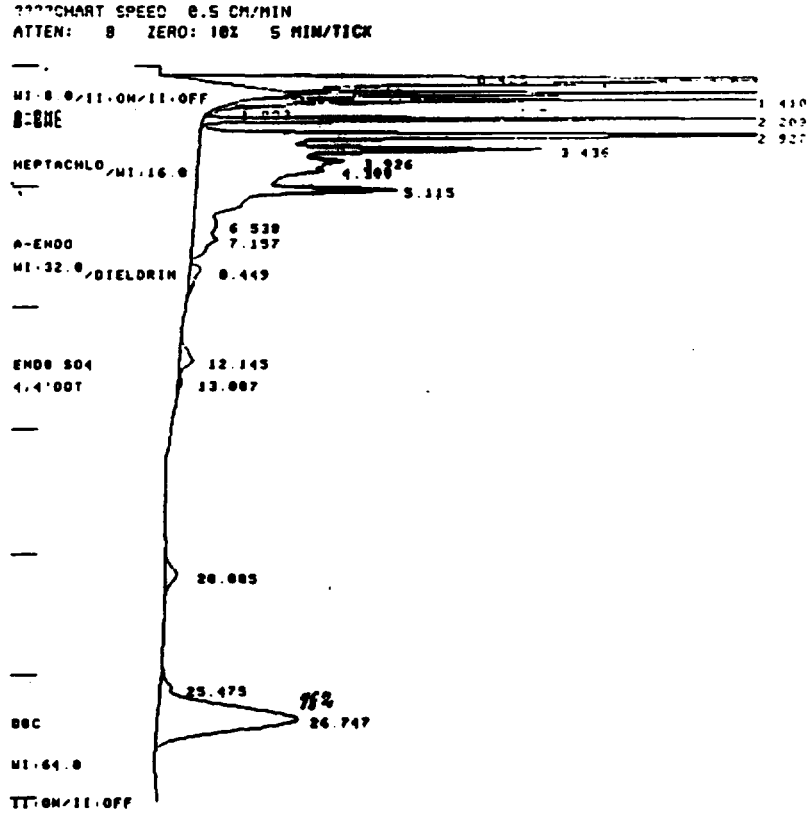
V_s = Volume of water extracted (ml)

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

7-85



CHANNEL: 1A - 1 TITLE: RUN0 /6 22:49 18 NOV 86

SAMPLE: BLANK 11-12 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	1.247		90138	BV	2.56
2		0.0000	1.410		313122	VV	3.25
3		0.0000	1.534		98466	VV	3.50
4	~~B-BHC~~	45.2828	2.209	0.039	560263	BV	4.88
5		0.0000	2.927		1265185	VV	7.13
6		0.0000	3.131		118355	VV	? 17.50
7		0.0000	3.436		655150	VV	10.06
8	~~HEPTACHLO~~	11.8462	3.926	0.136	259419	VV	? 18.19
9		0.0000	4.100		136939	VV	? 37.88
10		0.0000	4.300		471511	VV	? 28.75
11		0.0000	5.115		627982	VV	13.89
12		0.0000	6.530		115038	VV	? 65.19
13	~~A-ENDO~~	4.4078	7.157	0.127	116661	VB	? 33.75
14	~~DIELDRIN~~	1.9187	8.449	0.259	55745	BB	27.19
15	~~ENDO SO4~~	3.6789	12.145	0.235	71785	BV	45.80
16		0.0000	20.085		69750	BB	43.63
17		0.0000	25.475		38251	BV	? 26.25
18	DBC	51.7389	26.747	0.137	1155302	VB	63.13
TOTALS:		118.8733		0.933	6255872		

DETECTED PKS: 28 REJECTED PKS: 10

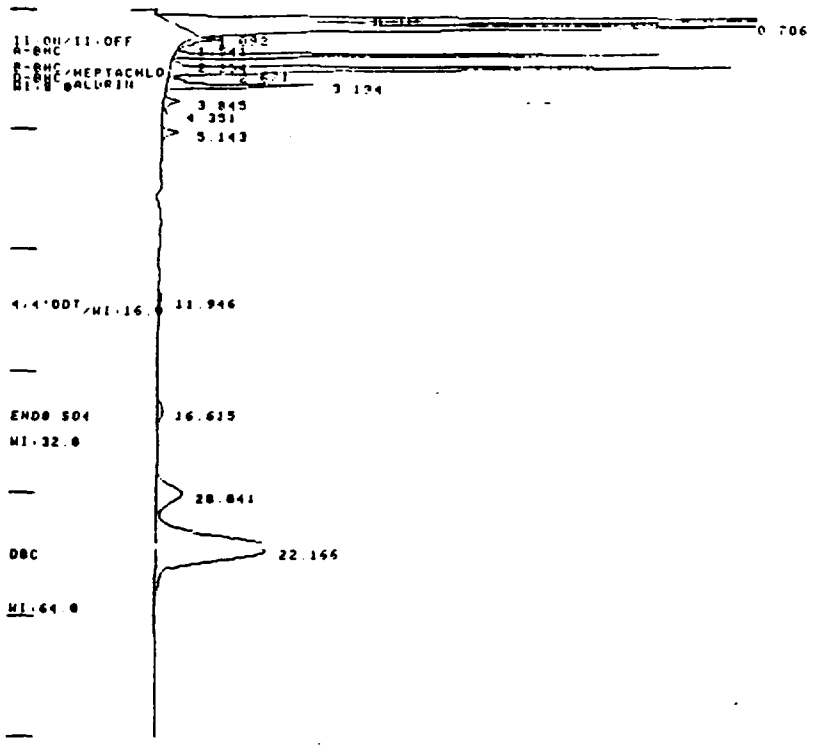
DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 22.9 OFFSET: 10

NOTES:
NOTEBOOK: 259-38 ANALYST: K. JUREK/ RICHARD SAMSON
SECURE AREA: D JOB#:U-4432,U-4442
INST:VARIAN 600002 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB ANALYSIS

POST RUN:
SAVE FILE: RAW SLY451

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 1B - 1 TITLE: RUN# 10 15:23 21 NOV 86

SAMPLE: BLANK 11/12 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/~~L~~G	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1	~~G-BHC~~	0.0284	1.880	-0.200	734103	VB		4.00
2		0.0000	2.254		22964	BV	?	6.13
3	~~B-BHC~~	0.1055	2.436	0.056	1161484	VV		5.25
4	~~HEPTACHLO~~	0.0036	2.621	0.061	91753	VV	?	7.19
5		0.0000	2.951		47208	VV		6.94
6	~~ALDRIN~~	0.0092	3.194	0.084	271533	VB		6.88
7		0.0000	3.845		54819	BV		9.50
8		0.0000	5.143		62945	BB		11.69
9	~~ENDO SO4~~	0.0060	16.615	-0.175	56524	BB	?	40.31
10		0.0000	20.841		322827	BV		47.38
11	DDC	0.0843	22.166	0.206	1492587	VB		50.56
TOTALS:		0.2371		0.112	4318747			

DETECTED PKS: 28 REJECTED PKS: 17

DIVISOR: 1.00000 MULTIPLIER: 1.00000

NOISE: 57.1 OFFSET: -23

NOTES:
NOTEBOOK:259-40 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB #U-4432;U-4442
INST: VARIAN 6000#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD CREEK

POST RUN:
SAVE FILE: RAW CREEK669