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REF 15m

157452

ORGANIC DATA VALIDATION REPORT

1.0 INTRODUCTION

Site:	Sauget Area 1
Laboratory:	Ecology and Environment, Inc.
Validation:	PRC Environmental Management, Inc.
Review Date:	July 1993
Case Number:	U-4618 and U-4651
Sample Numbers:	DC-LB-01 DC-L1-02 DC-L2-03 DC-L3-04 DC-N1-05 DC-N2-06 DC-NB-07 DC-K1-08 DC-L4-09 DC-L4-10 DC-J1-11 DC-J2-12 DC-J3-13 DC-H1-14 DC-H1-15
Analyses:	Volatiles, Semivolatiles, Pesticides/Polychlorinated Biphenyls
Collection Dates:	December 11, 12, 15, 16, 17, and 18 1986

The data for these 15 soil samples were reviewed according to the EPA document "Laboratory Data Validation Functional Guidelines for Evaluating Organics Analysis" (February 1988). Data sheets (Form I) with appropriate qualifiers are provided in Appendix A. The justifications for qualification of sample results are discussed in the following section.

2.0 DATA REVIEW REQUIREMENTS

This section discusses the various data review requirements. 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, including sample DC-N2-06, which was analyzed for volatile organic compounds (VOC) by both the low-level and medium-level methods.

2.2 INSTRUMENT PERFORMANCE

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

2.3 INITIAL AND CONTINUING CALIBRATION

All raw data for the calibration sample 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 July 14, 1986 run, the percent relative standard deviation (%RSD) for the response factor (RF) of bromomethane, was 31.0. This %RSD is just above the quality control (QC) limit of 30. Therefore, all results for that chemical based on this initial calibration are considered estimates and qualified as "J" (if detected) or "UJ" (if not detected). In the initial calibration on August 27, 1986, acetone had an average RF of 0.03 and 2-chloroethylvinyl ether had an average RF of 0.04, both below the QC limit of 0.05. Therefore, all related positive results for these chemicals are considered estimates (qualified "J"), and all nondetect results are considered unusable (qualified "R") as possible false negatives.

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

2.3.2 Semivolatile Organic Analyses

Two GC/MS instruments ("B" and "D") were used for SVOA, each with a single initial calibration. All chemicals for instrument B were within QC limits. For instrument D, 3-nitroaniline had a %RSD of 34.5 and 3,3'-dichlorobenzidine had one of 39.2 compared to the QC limit of 30. Therefore, all results for these are considered estimates and are qualified as either "J" or "UJ".

A number of chemicals exceeded the %D criterion of 25% in each continuing calibration requiring "J" or "UJ" flags. These are shown on Table 2.

2.3.3 Pesticide/Polychlorinated Biphenyl Analyses

In the linearity check for the last series of analyses, the %RSD for endrin was 17 and that for 4,4'-DDT was 30, well above the QC limit of 10. Therefore, results for these chemicals and the associated ones (4,4'-DDT and 4,4'-DDD) are considered estimates (flagged "UJ") in the samples run after this initial calibration (DC-L2-03, DC-K1-08, DC-J3-13, DC-H1-14, and DC-H1-15).

All other initial calibrations and all continuing calibration checks were satisfactory. The required analytical sequence was followed.

2.4 BLANKS

These analyses included the usual laboratory blanks plus two field blanks labeled DC-LB-01 and DC-NB-07. A number of common laboratory chemicals and a few other target and nontarget chemicals were found in these blanks. All reported sample concentrations up to 5 times the maximum blank concentration (10 times for common laboratory contaminants), adjusted for dilution, are considered artifacts and flagged "U" for nondetected. The various blank contaminants, the ensuing action levels, and the samples affected are listed in Table 3.

2.5 SURROGATE RECOVERY

Most surrogate recoveries were within QC limits. The only exception in the VOA samples was DC-H1-14, with high recoveries of toluene-d8 (138 percent, compared to the QC limits of 81 to 117 percent) and bromofluorobenzene (137 percent, compared to QC limits of 74 to 121 percent). This is probably a matrix effect caused by the extremely high concentrations of volatile and semivolatile chemicals, both

TABLE 1

VOLATILE ORGANIC ANALYSIS INITIAL AND CONTINUING CALIBRATIONS

Initial Calibration	Continuing Calibration		Chemical (%D)		Samples Affected
Date	Date	Time			
July 14, 1986	all		Bromomethane (%RSD = 31.0)		(see below)
July 14, 1986	December 17, 1986	1135	Vinyl chloride (39.5)	Chloroethane (48.0)	DC-LB-01, DC-L1-02, DC-L2-03
			Methylene chloride (44.2)	1,2-Dichloroethane (27.4)	
			2-Butanone (34.3)	Vinyl acetate (43.3)	
			2-Chloroethylvinylether (43.7)	Bromoform (26.9)	
			4-Methyl-2-pentanone (32.7)	2-Hexanone (36.1)	
July 14, 1986	December 22, 1986	1221	Vinyl chloride (33.5)	Chloroethane (50.4)	DC-N1-05. DC-NB-07, DC-K1-08, DC-J1-11, DC-J3-13
			2-Butanone (59.0)	Vinyl acetate (35.0)	
			2-Chloroethylvinylether (34.8)	Bromoform (30.8)	
			4-Methyl-2-pentanone (25.9)	2-Hexanone (28.3)	
			Styrene (32.0)	Xylenes (27.0)	
July 14, 1986	December 26, 1986	1113	Chloroethane (35.2)	Trichlorofluoromethane (45.6)	DC-N2-06[a], DC-L4-09, DC-L4-10, DC-H1-15
			Carbon disulfide (49.4)	1,1-Dichloroethene (38.1)	
			2-Butanone (83.4)	2-Chloroethylvinylether (31.8)	
			Bromoform (30.4)	Styrene (49.9)	
			Xylenes (44.6)		
August 27, 1986	all		Acetone (RF = 0.03), 2-Chloroethylvinylether (RF = 0.03)		(see below)
August 27, 1986	December 16, 1986	1003	Chloromethane (38.2)	Bromomethane (42.0)	DC-L3-04
			Acetone (42.0)	2-Butanone (41.1)	
			1,1,1-Trichloroethane (28.0)	Carbon tetrachloride (34.2)	
			2-chloroethylvinylether (37.7)	Styrene (35.0)	
			Xylenes (25.9)		

TABLE 1 (continued)

VOLATILE ORGANIC ANALYSIS INITIAL AND CONTINUING CALIBRATIONS

Initial Calibration	Continuing Calibration				
Date	Date	Time	Chemical (%D)		Samples Affected
August 27, 1986	December 23, 1986	1404	Bromomethane (55.6)	Acetone (89.2)	DC-N2-06[b], DC-H1-14
			Carbon disulfide (95.6)	Chloroform (32.4)	
			2-Butanone (67.2)	1,1,1-Trichloroethane (33.6)	
			Carbon tetrachloride (38.7)	Vinyl acetate (96.1)	
			Dibromochloromethane (25.8)	1,1,2-Trichloroethane (25.6)	
			cis-1,3-Dichloropropene (29.8)	2-Chloroethylvinylether (428.)	
			4-Methyl-2-pentanone (43.3)	2-Hexanone (32.0)	
			Chlorobenzene (29.8)	Ethylbenzene (28.0)	
			Styrene (77.7)	Xylenes (67.1)	
August 27, 1986	December 27, 1986	1039	Bromomethane (65.4)	Acetone (85.6)	DC-J2-12
			Carbon disulfide (60.0)	1,1-Dichloroethene (27.0)	
			2-Butanone (50.6)	Vinyl acetate (35.2)	
			2-Chloroethylvinylether (297.)	Bromoform (39.7)	
			Tetrachloroethene (26.8)	Styrene (37.3)	
			Xylenes (35.1)		

Notes:

[a] Low-level analysis
[b] Medium-level analysis

TABLE 2

SEMIVOLATILE ORGANIC ANALYSIS CONTINUING CALIBRATIONS

Instrument	Continuing Calibration		Chemical (%D)		Samples Affected
	Date	Times[a]			
D	January 2, 1987	1410/1204	4-Nitroaniline (32.4)	3-Nitroaniline (26.8)	DC-LB-01, DC-L1-02, DC-L2-03, DC-L3-04
			2,4-Dinitrotoluene (31.1)	Diethylphthlate (25.7)	
			4-Chlorophenyl-phenylether (26.9)	Hexachlorobenzene (32.2)	
			Benzidine (57.4)	Pyrene (46.2)	
			4-Nitrophenol (47.0)		
D	January 9, 1987	1324/1130	Nitrobenzene (33.0)	Isophorone (26.8)	DC-L4-09, DC-L4-10
			bis(2-Chloroethoxy)methane (36.7)	2-Nitroaniline (34.3)	
			4-Nitroaniline (26.5)	2,4-Dinitrotoluene (28.4)	
			Diethylphthalate (26.3)	Benzidine (32.8)	
			Pyrene (26.7)	Benzo(k)fluoranthene (29.1)	
			2,4-Dinitrophenol (31.7)	4-Nitrophenol (64.7)	
D	January 15, 1987	1317/1214	Aniline (37.3)	bis(2-Chloroethyl)ether (28.0)	DC-N1-05, DC-N2-06, DC-NB-07, DC-J1-11, DC-J3-13, DC-H1-15
			Benzyl alcohol (32.3)	bis(2-Chloroisopropyl)ether (26.7)	
			N-Nitroso-di-n-propylamine (31.7)	Isophorone (30.6)	
			2-Nitroaniline (39.2)	4-Nitroaniline (26.4)	
			2,4-Dinitrotoluene (30.6)	2,6-Dinitrotoluene (26.1)	
			Diethylphthalate (30.9)	Benzidine (49.4)	
			Pyrene (41.0)	3,3'-Dicholorobenzidine (96.6)	
			Benzo(k)fluoranthene (40.7)	Dibenz(ah)anthracene (29.9)	
			4-Nitrophenol (56.9)		
B	January 20, 1987	1436/1333	Benzyl alcohol (29.1)	3-Nitroaniline (29.5)	DC-K1-08, DC-J2-12
			3,3'-Dicholorobenzidine (74.0)	Dibenz(a,h) anthracene (26.7)	
			4-Nitrophenol (27.7)		

TABLE 2 (Continued)

SEMIVOLATILE ORGANIC ANALYSIS CONTINUING CALIBRATIONS

Instrument	Continuing Calibration		Chemical (%D)		Samples Affected
	Date	Times[a]			
B	January 22, 1987	1652/1250	Benzyl alcohol (31.0)	3-Nitroaniline (30.4)	DC-H1-14
			2,4-Dinitrotoluene (30.2)	Hexachlorobenzene (33.5)	
			Benzidine (50.2)	Pyrene (49.8)	
			3,3'-Dicholorobenzidine (118.)	Benzo(k)fluoranthene (36.5)	
			2,4-Dinitrophenol (26.6)	4-Nitrophenol (50.3)	

Note:

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

TABLE 3

BLANK CONTAMINATION

Analysis	Chemical	Concentration (micrograms/kilograms)		Samples Qualified
		Blank	Action Level	
VOA	Methylene chloride	13/2,600[a]	130/26,000	All samples
VOA	Acetone	25/5,000	250/50,000	All samples except DC-L1-02, DC-J1-11, and DC-J3-13
VOA	2-Butanone	48/9,600	480/96,000	DC-L1-02, DC-L3-04, DC-N2-06, DC-K1-08, DC-L4-09, DC-J1-11, DC-J2-12, and DC-H1-14
VOA	4-Methyl-2-pentanone	1/200	5/1,000	DC-N1-05, DC-J3-13
VOA	Hexene isomer (17.4)[b]	7/1,400	35/7,000	All samples
VOA	Hexene isomer (21.2)	34/6,800	170/34,000	All samples
SVOA	Phenanethrene	35	175	DC-L3-04, DC-N1-05, and DC-N2-06
SVOA	Unknown (34.0)	1,600	8,000	DC-LB-01, DC-L1-02, DC-N1-05, DC-N2-06, DC-NB-07, and DC-J3-13
SVOA	Unknown hydrocarbon (35.1)	390	1,950	DC-NB-07
SVOA	Unknown hydrocarbon (36.8)	440	2,200	DC-NB-07
P/PCB	None			None

Notes:

[a] The two numbers are for low-level and medium-level analyses, respectively.
[b] Nontarget compound; the number in parentheses indicates approximate retention time in minutes.

target and nontarget, in the sample. All VOA results for this sample are considered estimates and qualified "J" or "UJ".

2.6 MATRIX SPIKE/MATRIX SPIKE DUPLICATES

The matrix spike/matrix spike duplicate (MS/MSD) for the VOA was based on sample DC-N1-05. Recovery of 1,1-dichloroethene was somewhat low in both runs (58 and 52 percent, compared to QC limits of 59 to 172 percent) and recovery of trichloroethane was a bit low in the duplicate run (64 and 56 percent, compared to 62 to 137 percent). Since neither chemical was found in the parent sample, no action is warranted.

The SVOA MS/MSD runs, based on sample DC-L4-09, had low recoveries for 1,4-dichlorobenzene (10 and 11 percent, compared to 28 to 104 percent) and 1,2,4-trichlorobenzene (20 and 21 percent, compared to 38 to 107 percent) and high recoveries of 2,4-dinitrotoluene (121 and 109 percent, compared to 28 to 89 percent). Also, there was excessive variation in the recovery of 4-chloro-3-methylphenol (relative percent difference of 48, compared to 33). Again, none of these chemicals were found in the parent sample, so no action is warranted. These results do suggest that the quantitation in these samples may be somewhat less certain than normal, but there is no evidence firm enough for action.

The P/PCB MS/MSD, based on sample DC-L4-09, and the medium-level VOA MS, based on sample DC-N2-06, were satisfactory (no medium level MSD was done).

2.7 FIELD DUPLICATES

There was one set of field duplicates. Table 4 compares results in sample DC-L4-09 with those in sample DC-L4-10. Results in the two samples are quite similar. In all instances where a chemical is found in only one sample, that chemical is found at low concentrations, below the lowest calibration standard for target chemicals.

2.8 INTERNAL STANDARDS

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

TABLE 4

FIELD DUPLICATE RESULTS

Chemical	Concentration (micrograms per kilogram)	
	DC-LO-09	DC-L4-10
Chloroform	73	36
Benzene	5J	3J
4-Methyl-2-pentanone	52	36
Toluene	71	37
Tetrahydrofuran (12.7)[a]	28J	18J
Butanol (13.8)	450J	250J
Ethyl acetate (16.2)	32J	27J
Unknown hydrocarbon (30.4)	8J	U
Nitro benzene	U	36J
Diethylphthalate	U	230J
bis(2-Ethylhexyl)phthalate	570	960
Cyclohexasulfur (18.4)	940J	640J
Molecular sulfur (25.9)	10,000J	12,000J

Notes:

Qualifiers: J = estimated
U = nondetected

[a] Nontarget compounds; number in parentheses is the retention time in minutes.

2.9 COMPOUND IDENTIFICATION

The raw data for VOA and SVOA analyses omitted mass spectra, so identification could not be verified. However, notations on the available data imply that this was done carefully by the laboratory.

The P/PCB analysis results are acceptable. PCB identification in sample DC-H1-14 was based on pattern recognition rather than the usual retention time windows because the material was weathered Aroclor 1260, which is quite distinct from the original mixture used in calibration.

2.10 COMPOUND QUANTITATION

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

2.11 SYSTEM PERFORMANCE

There is no evidence of sudden shifts in system performance or similar problems. The high concentrations of organic compounds in many of these samples required dilutions that raised detection limits.

3.0 OVERALL ASSESSMENT

On the whole, these analyses produced results equivalent to Data Quality Level IV. For the final validated results, see Appendix A.

TABLE 5

DRY WEIGHT CONVERSION FACTORS

Sample	Percent Moisture	Factor
DC-LB-01	22	1.28
DC-L1-02	24	1.32
DC-L2-03	22	1.28
DC-L3-04	21	1.27
DC-N1-05	24	1.32
DC-N2-06	21	1.27
DC-NB-07	22	1.28
DC-K1-08	15	1.18
DC-L4-09	24	1.32
DC-L4-10	26	1.35
DC-J1-11	27	1.37
DC-J2-12	22	1.28
DC-J3-13	10	1.11
DC-H4-14	38	1.61
DC-H1-15	16	1.19

APPENDIX A

CORRECTED FORMS I

CASE NUMBERS U-4618 AND U-4651

Sample Number
DC-LB-01

.Organics Analysis Data Sheet
(Page 1)

.aboratory Name: ECOLOGY & ENVIRONMENT INC.
Case No: V-4618/V-4651
Lab Sample ID No: 10462
QC Report No:
Sample Matrix: SOIL
Contract No: IL-3140
Data Release Authorized By: C Stojowicz
Date Sample Received: 12-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-17-86

Conc/Dil Factor: 1 pH 7.68

Percent Moisture: (Not Decanted) 22

REPORTED - AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)		
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	J
75-01-4	Vinyl Chloride	10	U	J
75-00-3	Chloroethane	10	U	J
75-09-2	Methylene Chloride	13	~~B~~	UJ
67-64-1	Acetone	25	~~B~~	U
75-15-0	Carbon Disulfide	5	U	
75-35-4	1, 1-Dichloroethene	5	U	
75-34-3	1, 1-Dichloroethane	5	U	
156-60-5	Trans-1, 2-Dichloroethene	5	U	
67-66-3	Chloroform	5	U	
107-06-2	1, 2-Dichloroethane	5	U	J
78-93-3	2-Butanone	10	U	J
71-55-6	1, 1, 1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	J
75-27-4	Bromodichloromethane	5	U	

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

IVE July 93

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

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

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

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

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

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

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~~3~~ 10

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618 / U-4651

Sample Number DC-LB-01

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 12-18-86

Date Analyzed 1-2-87

Conc./Dil Factor 2

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	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 J

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 J
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U J
606-20-2	2 6-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U J
7005-72-3	4-Chlorophenyl-phenylether	330	U J
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1600	U J
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	35	J
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 J
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3 3 -Dichlorobenzidine	660	U J
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

14 HVE

7 85 93

Laboratory Name ecology and environment, inc.

Case No V-4618/V-4651

Sample Number DC-LB-01

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-18-86

Date Analyzed 12-30-86

Conc/Dil Factor 1

Percent Moisture (decanted) 22

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	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 1,000 V_i 4

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618 / U-4651

Sample Number DC-LB-01

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)	
1.	HEXENE ISOMER	VOA	17.1	~~2 BJ~~	4
2.	HEXANE ISOMER	VOA	21.2	~~11 BJ~~	4
3.					
4.	UNKNOWN	BNA	34.0	~~1400 BJ~~	4
5.					HE July 93
6.					
7.					
8.					
9.					
10.					
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30					

16 ~~23~~

Sample Number
DC-L1-02

.Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc.
Case No: U-4618/U-4651
Lab Sample ID No: 10463
QC Report No:
Sample Matrix: SOIL
Contract No: IL-3140
Data Release Authorized By: C Slotowicz
Date Sample Received: 12-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 12-17-86
Conc/Dil Factor: 1 pH 8.11
Percent Moisture: (Not Decanted) 24

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	UJ
75-01-4	Vinyl Chloride	10	UJ
75-00-3	Chloroethane	10	UJ
75-09-2	Methylene Chloride	11	~~B~~ UJ
67-64-1	Acetone	690	~~B~~ e
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U J
78-93-3	2-Butanone	12	U J
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U J
75-27-4	Bromodichloromethane	5	U

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

HC July 93

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

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

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

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

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

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

Laboratory Name Ecology & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-L1-02

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-18-86

Date Analyzed 1-2-87

Conc./Dil Factor 2

Percent Moisture (Decanted) 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
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
2[illegible]6-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	1600	U J

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 J
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U J
606-20-2	2 6-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U J
7005-72-3	4-Chlorophenyl-phenylether	330	U J
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1600	U J
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 J
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	130	J
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U J
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3 3-Dichlorobenzidine	660	U J
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

HVE

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Laboratory Name Ecology & Environment Inc.

Case No U-4618/U-4651

Sample Number DC-L1-02

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 12-18-86

Date Analyzed: 12-30-86

Conc/Dil Factor: 1

Percent Moisture (decanted) 24

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	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 1,000 V_i 4

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

Sample Number DC-L1-02

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)	
1.	HEXENE ISOMER	VOA	17.2	~~2 BJ~~	U
2.	HEXANE ISOMER	VOA	21.2	~~10 BJ~~	U
3.					
4.	UNKNOWN	BNA	34.0	~~3600 BJ~~	U
5.					
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Sample Number
DC-L2-03

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc.
Case No: U-4618/U-4651
Lab Sample ID No: 10464
QC Report No:
Sample Matrix: SOIL
Contract No: IL-3140
Data Release Authorized By: C Slytowicz
Date Sample Received: 12-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-17-86

Conc/Dil Factor: 10 pH 7.39

Percent Moisture: (Not Decanted) 22 = 1.28

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or ug/Kg (Circle One)		
74-87-3	Chloromethane	100	U	
74-83-9	Bromomethane	100	U	J
75-01-4	Vinyl Chloride	100	U	J
75-00-3	Chloroethane	100	U	J
75-09-2	Methylene Chloride	110	~~B~~	UJ
67-64-1	Acetone	350	~~B~~	U
75-15-0	Carbon Disulfide	50	U	
75-35-4	1, 1-Dichloroethene	50	U	
75-34-3	1, 1-Dichloroethane	50	U	
156-60-5	Trans-1, 2-Dichloroethene	50	U	
67-66-3	Chloroform	50	U	
107-06-2	1, 2-Dichloroethane	50	U	J
78-93-3	2-Butanone	100	U	J
71-55-6	1, 1, 1-Trichloroethane	50	U	
56-23-5	Carbon Tetrachloride	50	U	
108-05-4	Vinyl Acetate	100	U	J
75-27-4	Bromodichloromethane	50	U	

CAS Number		ug/l or ug/Kg (Circle One)		
78-87-5	1, 2-Dichloropropane	50	U	
10061-02-6	Trans-1, 3-Dichloropropene	50	U	
79-01-6	Trichloroethene	50	U	
124-48-1	Dibromochloromethane	50	U	
79-00-5	1, 1, 2-Trichloroethane	50	U	
71-43-2	Benzene	110		
10061-01-5	cis-1, 3-Dichloropropene	50	U	
110-75-8	2-Chloroethylvinylether	100	U	J
75-25-2	Bromoform	50	U	J
108-10-1	4-Methyl-2-Pentanone	130		J
591-78-6	2-Hexanone	100	U	J
127-18-4	Tetrachloroethene	50	U	
79-34-5	1, 1, 2, 2-Tetrachloroethane	50	U	
108-88-3	Toluene	1700		
108-90-7	Chlorobenzene	50	U	
100-41-4	Ethylbenzene	31	J	
100-42-5	Styrene	50	U	
	Total Xylenes	140		

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.

HVE
Jul 93

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

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

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

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/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-4618 / U-4651

Sample Number DC-L2-03

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 12-18-86

Date Analyzed 1-2-87

Conc./Dil Factor 2

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	270	J
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	69	J
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	120	J
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	260	J
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 J

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	34	J
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U J
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U J
606-20-2	2,6-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U J
7005-72-3	4-Chlorophenyl-phenylether	330	U J
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1600	U J
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 J
87-86-5	Pentachlorophenol	9000	
85-01-8	Phenanthrene	470	
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	290	J
206-44-0	Fluoranthene	350	
129-00-0	Pyrene	220	J
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U J
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	950	
218-01-9	Chrysene	160	J
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

22 July 93

Laboratory Name Ecology & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-L2-03

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 12-18-86

Date Analyzed: 12-29-86

Conc/Dil Factor: 50

Percent Moisture (decanted) 22

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	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	J
72-20-8	Endrin	800 U	J
33213-65-9	Endosulfan II	800 U	
72-54-8	4, 4'-DDD	800 U	J
1031-07-8	Endosulfan Sulfate	800 U	
50-29-3	4, 4'-DDT	800 U	J
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	

HVE July 93

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

Sample Number DC-L2-03

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)	
1.		UNKNOWN	VOA	13.8	32	J
2.		HEXENE ISOMER		16.4	36	J
3.		HEXENE ISOMER		17.1	~~88~~	~~BJ~~ U
4		HEXENE ISOMER		18.8	14	J
5.		HEXENE ISOMER		19.2	30	J
6.		HEXANE ISOMER		21.2	~~170~~	~~BJ~~ U
7.						
8.		UNKNOWN HYDROCARBON	BNA	25.3	5000	J
9.		UNKNOWN HYDROCARBON		25.8	8100	J
10.	10544500	MOLECULAR SULFUR		26.0	8600	J
11.		UNKNOWN HYDROCARBON		26.2	1300	J
12.		UNKNOWN HYDROCARBON		27.0	5400	J
13.		UNKNOWN HYDROCARBON		27.3	1600	J
14.		UNKNOWN HYDROCARBON		27.4	1900	J
15.		UNKNOWN HYDROCARBON		27.7	2200	J
16.		UNKNOWN HYDROCARBON		28.1	2800	J
17.		UNKNOWN HYDROCARBON		28.6	4800	J
18.		UNKNOWN HYDROCARBON		29.2	2400	J
19.		UNKNOWN HYDROCARBON		29.7	4300	J
20.		UNKNOWN HYDROCARBON		30.1	1900	J
21.		UNKNOWN HYDROCARBON		30.3	3000	J
22.		UNKNOWN HYDROCARBON		31.4	4400	J
23.		UNKNOWN HYDROCARBON		31.7	2000	J
24.		UNKNOWN HYDROCARBON		32.4	3300	J
25.		UNKNOWN HYDROCARBON		32.7	2000	J
26.		UNKNOWN HYDROCARBON		32.9	2200	J
27.		UNKNOWN HYDROCARBON		33.6	3600	J
28.						
29.						
30						

HB
Aug 93

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Sample Number
DC-L3-04

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC.
Case No: V-4651/V-4618
Lab Sample ID No. 10465
QC Report No:
Sample Matrix: SOIL
Contract No: IL-3140
Data Release Authorized By: C Skojtowicz
Date Sample Received: 12-13-86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-16-86

Conc/Dil Factor: 2 pH 7.42

Percent Moisture: (Not Decanted) 21

REPORTED - AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	2000 U	J
74-83-9	Bromomethane	2000 U	J
75-01-4	Vinyl Chloride	2000 U	
75-00-3	Chloroethane	2000 U	
75-09-2	Methylene Chloride	1800 ~~B~~	U
67-64-1	Acetone	3600 ~~B~~	UJ
75-15-0	Carbon Disulfide	1000 U	
75-35-4	1, 1-Dichloroethene	1000 U	
75-34-3	1, 1-Dichloroethane	1000 U	
156-60-5	Trans-1, 2-Dichloroethene	1000 U	
67-66-3	Chloroform	16000	
107-06-2	1, 2-Dichloroethane	1000 U	
78-93-3	2-Butanone	7900 ~~B~~	UJ
71-55-6	1, 1, 1-Trichloroethane	1000 U	J
56-23-5	Carbon Tetrachloride	1000 U	J
108-05-4	Vinyl Acetate	2000 U	
75-27-4	Bromodichloromethane	1000 U	

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	1000 U	
10061-02-6	Trans-1, 3-Dichloropropene	1000 U	
79-01-6	Trichloroethene	1000 U	
124-48-1	Dibromochloromethane	1000 U	
79-00-5	1, 1, 2-Trichloroethane	1000 U	
71-43-2	Benzene	3300	
10061-01-5	cis-1, 3-Dichloropropene	1000 U	
110-75-8	2-Chloroethylvinylether	~~2000 U~~	R
75-25-2	Bromoform	1000 U	
108-10-1	4-Methyl-2-Pentanone	2000 U	
591-78-6	2-Hexanone	2000 U	
127-18-4	Tetrachloroethene	1000 U	
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000 U	
108-88-3	Toluene	21,000	
108-90-7	Chlorobenzene	1000 U	
100-41-4	Ethylbenzene	1000 U	
100-42-5	Styrene	1000 U	J
	Total Xylenes	530 J	

Data Reporting Qualifiers

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

July 93

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

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

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

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

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

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

Laboratory Name Ecology & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-L3-04

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-18-86

Date Analyzed 1-2-87

Conc/Dil Factor: 10

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	1200 J
111-44-4	bis(-2-Chloroethyl)Ether	1600 U
95-57-8	2-Chlorophenol	1700
541-73-1	1 3-Dichlorobenzene	1600 U
106-46-7	1 4-Dichlorobenzene	170 J
100-51-6	Benzyl Alcohol	1600 U
95-50-1	1 2-Dichlorobenzene	1600 U
95-48-7	2-Methylphenol	1600 U
39638-32-9	bis(2-chloroisopropyl)Ether	1600 U
106-44-5	4-Methylphenol	860 J
621-64-7	N-Nitroso-Di-n-Propylamine	1600 U
67-72-1	Hexachloroethane	1600 U
98-95-3	Nitrobenzene	1600 U
78-59-1	Isophorone	1600 U
88-75-5	2-Nitrophenol	1600 U
105-67-9	2, 4-Dimethylphenol	1600 U
65-85-0	Benzoic Acid	8000 U
111-91-1	bis(-2-Chloroethoxy)Methane	1600 U
120-83-2	2 4-Dichlorophenol	1600 U
120-82-1	1 2, 4-Trichlorobenzene	1600 U
91-20-3	Naphthalene	420 J
106-47-8	4-Chloroaniline	1600 U
87-68-3	Hexachlorobutadiene	1600 U
59-50-7	4-Chloro-3-Methylphenol	1600 U
91-57-6	2-Methylnaphthalene	790 J
77-47-4	Hexachlorocyclopentadiene	1600 U
88-06-2	2 4 6-Trichlorophenol	1600 U
95-95-4	2 4 5-Trichlorophenol	8000 U
91-58-7	2-Chloronaphthalene	1600 U
88-74-4	2-Nitroaniline	8000 U
131-11-3	Dimethyl Phthalate	1600 U
8-96-8	Acenaphthylene	1600 U
99-09-2	3-Nitroaniline	8000 U J

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	1600 U
51-28-5	2, 4-Dinitrophenol	8000 U
100-02-7	4-Nitrophenol	8000 U
132-64-9	Dibenzofuran	1600 U
121-14-2	2 4-Dinitrotoluene	1600 U J
606-20-2	2 6-Dinitrotoluene	1600 U
84-66-2	Diethylphthalate	1600 U J
7005-72-3	4-Chlorophenyl-phenylether	1600 U J
86-73-7	Fluorene	1600 U
100-01-6	4-Nitroaniline	8000 U J
534-52-1	4, 6-Dinitro-2-Methylphenol	8000 U
86-30-6	N-Nitrosodiphenylamine (1)	1600 U
101-55-3	4-Bromophenyl-phenylether	1600 U
118-74-1	Hexachlorobenzene	1600 U J
87-86-5	Pentachlorophenol	46000
85-01-8	Phenanthrene 1600	~~1400 J~~ U
120-12-7	Anthracene	1600 U
84-74-2	Di-n-Butylphthalate	2200
206-44-0	Fluoranthene	1600 U
129-00-0	Pyrene	1600 U J
85-68-7	Butylbenzylphthalate	1600 U
91-94-1	3, 3-Dichlorobenzidine	3300 U J
56-55-3	Benzo(a)Anthracene	720 J
117-81-7	bis(2-Ethylhexyl)Phthalate	1600 U
218-01-9	Chrysene	1600 U
117-84-0	Di-n-Octyl Phthalate	1600 U
205-99-2	Benzo(b)Fluoranthene	1600 U
207-08-9	Benzo(k)Fluoranthene	1600 U
50-32-8	Benzo(a)Pyrene	1600 U
193-39-5	Indeno(1 2 3-cd)Pyrene	1600 U
53-70-3	Dibenz(a h)Anthracene	1600 U
191-24-2	Benzo(g h i)Perylene	1600 U

(1)-Cannot be separated from diphenylamine

HVE July 93

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Form I

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618 / U-4651

Sample Number DC-L3-04

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-18-86

Date Analyzed 12-29-86 12-30-86

Conc/Dil Factor 50 200

Percent Moisture (decanted) ~~22~~ 21

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	1600	U
319-85-7	Beta-BHC	1600	U
319-86-8	Delta-BHC	1600	U
58-89-9	Gamma-BHC (Lindane)	1600	U
76-44-8	Heptachlor	1600	U
309-00-2	Aldrin	1600	U
1024-57-3	Heptachlor Epoxide	1600	U
959-98-8	Endosulfan I	1600	U
60-57-1	Dieldrin	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	8,000	U
12674-11-2	Aroclor-1016	16,000	U
11104-28-2	Aroclor-1221	16,000	U
11141-16-5	Aroclor-1232	16,000	U
53469-21-9	Aroclor-1242	16,000	U
12672-29-6	Aroclor-1248	16,000	U
11097-69-1	Aroclor-1254	8,000	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 1,000 V_i 4

27 ~~28~~

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

Sample Number DC-L3-04

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.		HEXENE ISOMER	VOA	16.3	1200 J
2.		HEXENE ISOMER		17.1	~~4200 BJ~~ 4
3.		HEXENE ISOMER		18.8	1000 J
4.		HEXENE ISOMER		19.2	2300 J
5.		HEXANE ISOMER		21.2	~~11000 BJ~~ 4
6.		HEXANE ISOMER		24.2	1800 J
7.					
8.		UNKNOWN HYDROCARBON	BNA	19.8	13000 J
9.		UNKNOWN HYDROCARBON		24.5	11000 J
10.		UNKNOWN HYDROCARBON		25.3	9800 J
11.		UNKNOWN HYDROCARBON		25.7	23000 J
12.	10544500	MOLECULAR ~~SOLF~~ SULFUR		26.0	12000 J
13.		UNKNOWN HYDROCARBON		26.2	3200 J
14.		UNKNOWN HYDROCARBON		26.7	7200 J
15.		UNKNOWN HYDROCARBON		27.0	17000 J
16.		UNKNOWN HYDROCARBON		27.4	6500 J
17.		UNKNOWN HYDROCARBON		27.7	3700 J
18.		UNKNOWN HYDROCARBON		28.1	6900 J
19.		UNKNOWN HYDROCARBON		28.5	16000 J
20.		UNKNOWN HYDROCARBON		29.2	5200 J
21.		UNKNOWN HYDROCARBON		29.7	9400 J
22.		UNKNOWN HYDROCARBON		30.3	6600 J
23.		UNKNOWN HYDROCARBON		31.4	13000 J
24.		UNKNOWN HYDROCARBON		31.7	5400 J
25.		UNKNOWN HYDROCARBON		32.4	8800 J
26.		UNKNOWN HYDROCARBON		33.6	9200 J
27.		UNKNOWN HYDROCARBON		36.0	2600 J
28.					
29.					
30					

JE July 93

28 ~~23~~

Sample Number
DC-N1-05

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No: U-4618 / U-4651

Lab Sample ID No: 10614 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 12/19/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-22-86

Conc/Dil Factor: 1 pH 10.13

Percent Moisture: (Not Decanted) 24

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)		
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	J
75-01-4	Vinyl Chloride	10	U	J
75-00-3	Chloroethane	10	U	J
75-09-2	Methylene Chloride . 5	~~3~~ ~~BJ~~		U
67-64-1	Acetone	34	~~B~~	U
75-15-0	Carbon Disulfide	5	U	
75-35-4	1, 1-Dichloroethene	5	U	
75-34-3	1, 1-Dichloroethane	5	U	
156-60-5	Trans-1, 2-Dichloroethene	5	U	
67-66-3	Chloroform	5	U	
107-06-2	1, 2-Dichloroethane	5	U	
78-93-3	2-Butanone	10	U	J
71-55-6	1, 1, 1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	J
75-27-4	Bromodichloromethane	5	U	

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

HG July 93

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-N1-05

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-15-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	330 U	
111-44-4	bis(-2-Chloroethyl)Ether	330 U	J
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	J
95-50-1	1 2-Dichlorobenzene	330 U	
95-48-7	2-Methylphenol	330 U	
39638-32-9	bis(2-chloroisopropyl)Ether	330 U	J
106-44-5	4-Methylphenol	330 U	
621-64-7	N-Nitroso-Di-n-Propylamine	330 U	J
67-72-1	Hexachloroethane	330 U	
98-95-3	Nitrobenzene	330 U	
78-59-1	Isophorone	330 U	J
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	J
131-11-3	Dimethyl Phthalate	330 U	
[illegible]-96-8	Acenaphthylene	330 U	
99-09-2	3-Nitroaniline	1600 U	J

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	J
132-64-9	Dibenzofuran	330 U	
121-14-2	2 4-Dinitrotoluene	330 U	J
606-20-2	2 6-Dinitrotoluene	330 U	J
84-66-2	Diethylphthalate	330 U	J
7005-72-3	4-Chlorophenyl-phenylether	330 U	
86-73-7	Fluorene	330 U	
100-01-6	4-Nitroaniline	1600 U	J
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	520	
129-00-0	Pyrene	420	J
85-68-7	Butylbenzylphthalate	330 U	
91-94-1	3 3-Dichlorobenzidine	660 U	J
56-55-3	Benzo(a)Anthracene	200 J	
117-81-7	bis(2-Ethylhexyl)Phthalate	710	
218-01-9	Chrysene	210 J	
117-84-0	Di-n-Octyl Phthalate	330 U	
205-99-2	Benzo(b)Fluoranthene	220 J	
207-08-9	Benzo(k)Fluoranthene	330 U	J
50-32-8	Benzo(a)Pyrene	160 J	
193-39-5	Indeno(1 2 3-cd)Pyrene	330 U	
53-70-3	Dibenz(a h)Anthracene	330 U	J
191-24-2	Benzo(g h i)Perylene	330 U	

(1)-Cannot be separated from diphenylamine

30 July 93

Laboratory Name ecology and environment, inc.

Case No U4618 / U-4651

Sample Number DC-N1-05

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 1

Percent Moisture (decanted) 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	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 1,000 V_i 4

31 ~~[illegible]~~

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618 / U-4651

Sample Number DC-N1-05

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)	
1.	HEXENE ISOMER	VOA	17.1	~~8 BJ~~	U
2.	HEXANE ISOMER	VOA	21.2	~~33 BJ~~	U
3.					
4.	UNKNOWN HYDROCARBON	BNA	17.1	210 J	
5.	UNKNOWN HYDROCARBON		18.7	520 J	
6.	UNKNOWN HYDROCARBON		20.3	540 J	
7.	UNKNOWN HYDROCARBON		21.0	290 J	
8.	UNKNOWN HYDROCARBON		21.7	490 J	
9.	UNKNOWN HYDROCARBON		23.1	400 J	
10.	UNKNOWN HYDROCARBON		24.4	290 J	
11.	UNKNOWN HYDROCARBON		25.7	200 J	
12.	UNKNOWN HYDROCARBON		26.9	580 J	
13.	UNKNOWN		34.0	~~1200 J~~	= U
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30					

July 93

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Sample Number
DC-N2-06

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No: U-4618/U-4651

Lab Sample ID No: 10615 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 12/19/86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-23-86

Conc/Dil Factor: 2.25 pH 10.93

Percent Moisture: (Not Decanted) 21

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	2400 U	
74-83-9	Bromomethane	2400 U	J
75-01-4	Vinyl Chloride	2400 U	
75-00-3	Chloroethane	2400 U	
75-09-2	Methylene Chloride .1200	~~690 B~~	U
67-64-1	Acetone	3600 ~~B~~	UJ
75-15-0	Carbon Disulfide	1200 U	J
75-35-4	1, 1-Dichloroethene	1200 U	
75-34-3	1, 1-Dichloroethane	1200 U	
156-60-5	Trans-1, 2-Dichloroethene	1200 U	
67-66-3	Chloroform	1200 U	
107-06-2	1, 2-Dichloroethane	1200 U	
78-93-3	2-Butanone	7000 ~~B~~	UJ
71-55-6	1, 1, 1-Trichloroethane	1200 U	J
56-23-5	Carbon Tetrachloride	1200 U	J
108-05-4	Vinyl Acetate	2400 U	J
75-27-4	Bromodichloromethane	1200 U	

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

Data Reporting Qualifiers

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

July 93

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

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

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

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

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

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

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Sample Number
DC-N2-06

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No: U-4618 / U-4651

Lab Sample ID No: 10615 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: C Stojtowicz Date Sample Received: 12/19/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-26-86

Conc/Dil Factor: 1.25 pH 10.93

Percent Moisture: (Not Decanted) 21

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)		
74-87-3	Chloromethane	12	U	
74-83-9	Bromomethane	12	U	J
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	J
75-09-2	Methylene Chloride 6	~~5~~	~~J~~	U
67-64-1	Acetone 12	~~9~~	~~BJ~~	U
75-15-0	Carbon Disulfide	6	U	J
75-35-4	1, 1-Dichloroethene	6	U	J
75-34-3	1, 1-Dichloroethane	6	U	
156-60-5	Trans-1, 2-Dichloroethene	6	U	
67-66-3	Chloroform	6	U	
107-06-2	1, 2-Dichloroethane	6	U	
78-93-3	2-Butanone 12	~~11~~	~~BJ~~	UJ
71-55-6	1, 1, 1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
108-05-4	Vinyl Acetate	12	U	
75-27-4	Bromodichloromethane	6	U	

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

Data Reporting Qualifiers

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

HVS July 93

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-N2-06

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-15-87

Conc./Dil Factor 2

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U J
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 J
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	bis(2-chloroisopropyl)Ether	330	U J
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U J
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U J
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 J
131-11-3	Dimethyl Phthalate	330	U
[illegible]-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	1600	U J

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 J
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U J
606-20-2	2,6-Dinitrotoluene	330	U J
84-66-2	Diethylphthalate	330	U J
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1600	U J
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	~~1600~~ ~~J~~	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	200	J
129-00-0	Pyrene	170	J
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U J
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1000	
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	120	J
207-08-9	Benzo(k)Fluoranthene	330	U J
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 J
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) Cannot be separated from diphenylamine

35 7/85 93

Form I

Laboratory Name ecology and environment, inc.

Case No U-4618/U-4651

Sample Number DC-N2-06

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 1 + 200

Percent Moisture (decanted) 21

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	1600	U
319-85-7	Beta-BHC	1600	U
319-86-8	Delta-BHC	1600	U
58-89-9	Gamma-BHC (Lindane)	1600	U
76-44-8	Heptachlor	1600	U
309-00-2	Aldrin	1600	U
1024-57-3	Heptachlor Epoxide	1600	U
959-98-8	Endosulfan I	1600	U
60-57-1	Dieldrin	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	16000	U
11104-28-2	Aroclor-1221	16000	U
11141-16-5	Aroclor-1232	16000	U
53469-21-9	Aroclor-1242	16000	U
12672-29-6	Aroclor-1248	16000	U
11097-69-1	Aroclor-1254	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 1,000 V_i 4

36 ~~29~~

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

Sample Number DC-N2-06

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds
MEDIUM LEVEL ANALYSIS

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.1	~~1500 BJ~~ U
2.	HEXANE ISOMER	VOA	21.2	~~7500 BJ~~ U
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
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20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

HE
Jug
93

37

7/85

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618 / U-4651

Sample Number DC-N2-06

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

LOW LEVEL ANALYSIS

	CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)	
1.		HEXENE ISOMER	VOA	17.1	~~8 BJ~~	4
2.		HEXANE ISOMER		21.2	~~37 BJ~~	4
3.		UNKNOWN		28.2	6 J	
4		UNKNOWN HYDROCARBON		33.4	14 J	
5.		UNKNOWN HYDROCARBON		35.6	19 J	
6.						
7.	10544500	MOLECULAR SULFUR	BNA	26.0	2000 J	
8.		UNKNOWN	BNA	34.0	~~480 J~~	4
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						
21.						
22.						
23.						
24.						
25.						
26.						
27.						
28.						
29.						
30						

HS Julg 93

38 ~~35~~

Sample Number
DC-NB-07

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No: V-4618 / V-4651

Lab Sample ID No: 10616 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 12/19/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-22-86

Conc/Dil Factor: 1 pH 7.30

Percent Moisture: (Not Decanted) 22

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)		
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	J
75-01-4	Vinyl Chloride	10	U	J
75-00-3	Chloroethane	10	U	J
75-09-2	Methylene Chloride . 5	~~3~~ ~~BJ~~		J
67-64-1	Acetone	18	~~B~~	J
75-15-0	Carbon Disulfide	5	U	
75-35-4	1, 1-Dichloroethene	5	U	
75-34-3	1, 1-Dichloroethane	5	U	
156-60-5	Trans-1, 2-Dichloroethene	5	U	
67-66-3	Chloroform	5	U	
107-06-2	1, 2-Dichloroethane	5	U	
78-93-3	2-Butanone	10	U	J
71-55-6	1, 1, 1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	J
75-27-4	Bromodichloromethane	5	U	

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

VE July 93

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-NB-07

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-15-87

Conc/Dil Factor 2

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	330 U	
111-44-4	bis(-2-Chloroethyl)Ether	330 U	J
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	J
95-50-1	1,2-Dichlorobenzene	330 U	
95-48-7	2-Methylphenol	330 U	
39638-32-9	bis(2-chloroisopropyl)Ether	330 U	J
106-44-5	4-Methylphenol	330 U	
621-64-7	N-Nitroso-Di-n-Propylamine	330 U	J
67-72-1	Hexachloroethane	330 U	
98-95-3	Nitrobenzene	330 U	
78-59-1	Isophorone	330 U	J
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	J
[illegible]1-11-3	Dimethyl Phthalate	330 U	
[illegible]8-96-8	Acenaphthylene	330 U	
99-09-2	3-Nitroaniline	1600 U	J

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	J
132-64-9	Dibenzofuran	330 U	
121-14-2	2,4-Dinitrotoluene	330 U	J
606-20-2	2,6-Dinitrotoluene	330 U	J
84-66-2	Diethylphthalate	330 U	J
7005-72-3	4-Chlorophenyl-phenylether	330 U	
86-73-7	Fluorene	330 U	
100-01-6	4-Nitroaniline	1600 U	J
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	J
85-68-7	Butylbenzylphthalate	330 U	
91-94-1	3,3'-Dichlorobenzidine	660 U	J
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	J
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	J
191-24-2	Benzo(g,h,i)Perylene	330 U	

(1) Cannot be separated from diphenylamine

Jul 93

40 7 85

Form I

Laboratory Name ecology and environment, inc.

Case No U-4618/U-4651

Sample Number DC-NB-07

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 1

Percent Moisture (decanted) 22

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	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 1,000 V_i 4

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7 85
491095

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

Sample Number DC-NB-07

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)	
1.	HEXENE ISOMER	VOA	17.1	~~7 BJ~~	4
2.	HEXANE ISOMER	VOA	21.2	~~29 BJ~~	4
3.					
4.	UNKNOWN	BNA	34.0	~~560 J~~	4
5.	UNKNOWN HYDROCARBON	↓	35.1	~~390 J~~	4
6.	UNKNOWN HYDROCARBON	↓	36.8	~~490 J~~	4
7.					July 93
8.					
9.					
10.					
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30					

42

Sample Number
DC-K1-08

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No: U-4618 / U-4651

Lab Sample ID No: 10617 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 12/19/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-22-86

Conc/Dil Factor: 1 pH 8.44

Percent Moisture: (Not Decanted) 15

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)		
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	J
75-01-4	Vinyl Chloride	10	U	J
75-00-3	Chloroethane	10	U	J
75-09-2	Methylene Chloride	5	~~B~~	U
67-64-1	Acetone	180	~~B~~	U
75-15-0	Carbon Disulfide	5	U	
75-35-4	1, 1-Dichloroethene	5	U	
75-34-3	1, 1-Dichloroethane	5	U	
156-60-5	Trans-1, 2-Dichloroethene	5	U	
67-66-3	Chloroform	5	U	
107-06-2	1, 2-Dichloroethane	5	U	
78-93-3	2-Butanone	21	~~B~~	UJ
71-55-6	1, 1, 1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	J
75-27-4	Bromodichloromethane	5	U	

CAS Number		ug/l or ug/Kg (Circle One)		
78-87-5	1, 2-Dichloropropane	5	U	
10061-02-6	Trans-1, 3-Dichloropropene	5	U	
79-01-6	Trichloroethene	5	U	
124-48-1	Dibromochloromethane	5	U	
79-00-5	1, 1, 2-Trichloroethane	5	U	
71-43-2	Benzene	5	U	
10061-01-5	cis-1, 3-Dichloropropene	5	U	
110-75-8	2-Chloroethylvinylether	10	U	J
75-25-2	Bromoform	5	U	J
108-10-1	4-Methyl-2-Pentanone	9	J	
591-78-6	2-Hexanone	10	U	J
127-18-4	Tetrachloroethene	10	U	
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U	
108-88-3	Toluene	13		
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
100-42-5	Styrene	5	U	J
	Total Xylenes	5	U	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.

HVB
July 93

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-K1-08

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-20-87

Conc./Dil Factor: 10

Percent Moisture (Decanted) 15

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	1600 U	
111-44-4	bis(-2-Chloroethyl)Ether	1600 U	
95-57-8	2-Chlorophenol	1600 U	
541-73-1	1 3-Dichlorobenzene	1600 U	
106-46-7	1 4-Dichlorobenzene	1600 U	
100-51-6	Benzyl Alcohol	1600 U	J
95-50-1	1 2-Dichlorobenzene	1600 U	
95-48-7	2-Methylphenol	1600 U	
39638-32-9	bis(2-chloroisopropyl)Ether	1600 U	
106-44-5	4-Methylphenol	1600 U	
621-64-7	N-Nitroso-Di-n-Propylamine	1600 U	
67-72-1	Hexachloroethane	1600 U	
98-95-3	Nitrobenzene	1600 U	
78-59-1	Isophorone	1600 U	
88-75-5	2-Nitrophenol	1600 U	
105-67-9	2, 4-Dimethylphenol	1600 U	
65-85-0	Benzoic Acid	8000 U	
111-91-1	bis(-2-Chloroethoxy)Methane	1600 U	
120-83-2	2 4-Dichlorophenol	1600 U	
120-82-1	1, 2, 4-Trichlorobenzene	82 J	
91-20-3	Naphthalene	130 J	
106-47-8	4-Chloroaniline	1600 U	
87-68-3	Hexachlorobutadiene	1600 U	
59-50-7	4-Chloro-3-Methylphenol	1600 U	
91-57-6	2-Methylnaphthalene	100 J	
77-47-4	Hexachlorocyclopentadiene	1600 U	
88-06-2	2 4 6-Trichlorophenol	1600 U	
95-95-4	2 4 5-Trichlorophenol	8000 U	
91-58-7	2-Chloronaphthalene	1600 U	
88-74-4	2-Nitroaniline	8000 U	
[illegible]-11-3	Dimethyl Phthalate	1600 U	
[illegible]-95-8	Acenaphthylene	1600 U	
99-09-2	3-Nitroaniline	8000 U	J

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	150 J	
51-28-5	2, 4-Dinitrophenol	8000 U	
100-02-7	4-Nitrophenol	8000 U	J
132-64-9	Dibenzofuran	110 J	
121-14-2	2 4-Dinitrotoluene	1600 U	
606-20-2	2 6-Dinitrotoluene	1600 U	
84-66-2	Diethylphthalate	1600 U	
7005-72-3	4-Chlorophenyl-phenylether	1600 U	
86-73-7	Fluorene	1600 U	
100-01-6	4-Nitroaniline	8000 U	
534-52-1	4, 6-Dinitro-2-Methylphenol	8000 U	
86-30-6	N-Nitrosodiphenylamine (1)	1600 U	
101-55-3	4-Bromophenyl-phenylether	1600 U	
118-74-1	Hexachlorobenzene	1600 U	
87-86-5	Pentachlorophenol	8000 U	
85-01-8	Phenanthrene	1300 J	
120-12-7	Anthracene	250 J	
84-74-2	Di-n-Butylphthalate	1600 U	
206-44-0	Fluoranthene	1500 J	
129-00-0	Pyrene	1500 J	
85-68-7	Butylbenzylphthalate	1600 U	
91-94-1	3 3-Dichlorobenzidine	3300 U	J
56-55-3	Benzo(a)Anthracene	800 J	
117-81-7	bis(2-Ethylhexyl)Phthalate	18000 ~~[illegible]~~	J
218-01-9	Chrysene	880 J	
117-84-0	Di-n-Octyl Phthalate	2500	
205-99-2	Benzo(b)Fluoranthene	880 J	
207-08-9	Benzo(k)Fluoranthene	1600 U	
50-32-8	Benzo(a)Pyrene	790 J	
193-39-5	Indeno(1 2 3-cd)Pyrene	1600 U	
53-70-3	Dibenz(a h)Anthracene	1600 U	J
191-24-2	Benzo(g h i)Perylene	1600 U	

(1)-Cannot be separated from diphenylamine

44 ~~[illegible]~~ July 93

Laboratory Name ecology and environment, inc.

Case No U-4618 / U-4651

Sample Number DC-K1-08

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 200

Percent Moisture (decanted) 15

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	1600 U	
319-85-7	Beta-BHC	1600 U	
319-86-8	Delta-BHC	1600 U	
58-89-9	Gamma-BHC (Lindane)	1600 U	
76-44-8	Heptachlor	1600 U	
309-00-2	Aldrin	1600 U	
1024-57-3	Heptachlor Epoxide	1600 U	
959-98-8	Endosulfan I	1600 U	
60-57-1	Dieldrin	3200 U	
72-55-9	4,4'-DDE	3200 U	J
72-20-8	Endrin	3200 U	J
33213-65-9	Endosulfan II	3200 U	
72-54-8	4,4'-DDD	3200 U	J
1031-07-8	Endosulfan Sulfate	3200 U	
50-29-3	4,4'-DDT	3200 U	J
72-43-5	Methoxychlor	16,000 U	
53494-70-5	Endrin Ketone	3200 U	
57-74-9	Chlordane	16,000 U	
8001-35-2	Toxaphene	32,000 U	
12674-11-2	Aroclor-1016	16,000 U	
11104-28-2	Aroclor-1221	16,000 U	
11141-16-5	Aroclor-1232	16,000 U	
53469-21-9	Aroclor-1242	16,000 U	
12672-29-6	Aroclor-1248	100,000 C	
11097-69-1	Aroclor-1254	32,000 U	
11096-82-5	Aroclor-1260	32,000 U	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

VE July 93

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name ECOLOGY & ENVIRONMENT INC.
Case No V-4618/V-4651

Sample Number
DC-K1-08

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.2	~~5 BJ~~ 4
2.	HEXANE ISOMER	VOA	21.2	~~22 BJ~~ 4
3.				
4.	PCB	BNA	24.0 - 25.8	—
5. 10544500	MOLECULAR SULFUR	↓	26.0	59000 J
6.	PCB	↓	26.5 - 27.1	—
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HE July 93

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Sample Number
DC-L4-09

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No: U-4618 / U-4651

Lab Sample ID No: 10618 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 12/19/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-26-86

Conc/Dil Factor: 1.2 pH 3.62

Percent Moisture: (Not Decanted) 24

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)		
74-87-3	Chloromethane	12	U	
74-83-9	Bromomethane	12	U	J
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	J
75-09-2	Methylene Chloride	6		U
67-64-1	Acetone	24	~~B~~	U
75-15-0	Carbon Disulfide	6	U	J
75-35-4	1, 1-Dichloroethene	6	U	J
75-34-3	1, 1-Dichloroethane	6	U	
156-60-5	Trans-1, 2-Dichloroethene	6	U	
67-66-3	Chloroform	73		
107-06-2	1, 2-Dichloroethane	6	U	
78-93-3	2-Butanone	12	~~B~~	UJ
71-55-6	1, 1, 1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
108-05-4	Vinyl Acetate	12	U	
75-27-4	Bromodichloromethane	6	U	

CAS Number		ug/l or ug/Kg (Circle One)		
78-87-5	1, 2-Dichloropropane	6	U	
10061-02-6	Trans-1, 3-Dichloropropene	6	U	
79-01-6	Trichloroethene	6	U	
124-48-1	Dibromochloromethane	6	U	
79-00-5	1, 1, 2-Trichloroethane	6	U	
71-43-2	Benzene	5	J	
10061-01-5	cis-1, 3-Dichloropropene	6	U	
110-75-8	2-Chloroethylvinylether	12	U	J
75-25-2	Bromoform	6	U	J
108-10-1	4-Methyl-2-Pentanone	52	~~B~~	e
591-78-6	2-Hexanone	12	U	
127-18-4	Tetrachloroethene	6	U	
79-34-5	1, 1, 2, 2-Tetrachloroethane	6	U	
108-88-3	Toluene	71		
108-90-7	Chlorobenzene	6	U	
100-41-4	Ethylbenzene	6	U	
100-42-5	Styrene	6	U	J
	Total Xylenes	6	U	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.

HS
July 93

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

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

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

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

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

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

Laboratory Name Ecology & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-L4-09

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed: 1-9-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)		
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	J
78-59-1	Isophorone	330	U	J
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	J
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	J
[illegible]11-3	Dimethyl Phthalate	330	U	
[illegible]96-8	Acenaphthylene	330	U	
99-09-2	3-Nitroaniline	1600	U	J

CAS Number		ug/l or ug/Kg (Circle One)		
83-32-9	Acenaphthene	330	U	
51-28-5	2,4-Dinitrophenol	1600	U	J
100-02-7	4-Nitrophenol	1600	U	
132-64-9	Dibenzofuran	330	U	
121-14-2	2,4-Dinitrotoluene	330	U	J
606-20-2	2,6-Dinitrotoluene	330	U	
84-66-2	Diethylphthalate	330	U	J
7005-72-3	4-Chlorophenyl-phenylether	330	U	
86-73-7	Fluorene	330	U	
100-01-6	4-Nitroaniline	1600	U	J
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	J
85-68-7	Butylbenzylphthalate	330	U	
91-94-1	3,3'-Dichlorobenzidine	660	U	J
56-55-3	Benzo(a)Anthracene	330	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	570		
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	J
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

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Form I

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Laboratory Name ecology and environment, inc.

Case No U-4618/U-4651

Sample Number DC-L4-09

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 10 * 100

Percent Moisture (decanted) 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	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	160 U
72-55-9	4,4'-DDE	160 U
72-20-8	Endrin	160 U
33213-65-9	Endosulfan II	160 U
72-54-8	4,4'-DDD	160 U
1031-07-8	Endosulfan Sulfate	160 U
50-29-3	4,4'-DDT	160 U
72-43-5	Methoxychlor	800 U
53494-70-5	Endrin Ketone	160 U
57-74-9	Chlordane	800 U
8001-35-2	Toxaphene	1600 U
12674-11-2	Aroclor-1016	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	1600 U
11096-82-5	Aroclor-1260	1600 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

Sample Number DC-L4-09

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	109999	TETRAHYDROFURAN	VOA	12.7	28 J
2.		BUTANOL		13.8	450 J
3.	141786	ACETIC ACID, ETHYL ESTER		16.2	32 J
4.		HEXENE ISOMER		17.1	~~8 BJ~~ U
5.		HEXANE ISOMER		21.2	~~26 BJ~~ U
6.		UNKNOWN HYDROCARBON		30.4	8 J
7.					
8.		CYCLOHEXASULFUR	BNA	18.4	940 J
9.	10544500	MOLECULAR SULFUR	BNA	25.9	10,000 J
10.					
11.					
12.					
13.					
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Sample Number
DC-L4-10

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No.: V-4618 / V-4651

Lab Sample ID No: 10619 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: C Stojkovich Date Sample Received: 12/19/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-26-86

Conc/Dil Factor: 1.1 pH 3.60

Percent Moisture: (Not Decanted) 26

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CAS Number		ug/l or ug/Kg (Circle One)		
74-87-3	Chloromethane	11	U	
74-83-9	Bromomethane	11	U	J
75-01-4	Vinyl Chloride	11	U	
75-00-3	Chloroethane	11	U	J
75-09-2	Methylene Chloride . 10	~~4~~	~~J~~	U
67-64-1	Acetone	60	~~B~~	U
75-15-0	Carbon Disulfide	6	U	J
75-35-4	1, 1-Dichloroethene	6	U	J
75-34-3	1, 1-Dichloroethane	6	U	
156-60-5	Trans-1, 2-Dichloroethene	6	U	
67-66-3	Chloroform	36		
107-06-2	1, 2-Dichloroethane	6	U	
78-93-3	2-Butanone	11	U	J
71-55-6	1, 1, 1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
108-05-4	Vinyl Acetate	11	U	
75-27-4	Bromodichloromethane	6	U	

CAS Number		ug/l or ug/Kg (Circle One)		
78-87-5	1, 2-Dichloropropane	6	U	
10061-02-6	Trans-1, 3-Dichloropropene	6	U	
79-01-6	Trichloroethene	6	U	
124-48-1	Dibromochloromethane	6	U	
79-00-5	1, 1, 2-Trichloroethane	6	U	
71-43-2	Benzene	3	J	
10061-01-5	cis-1, 3-Dichloropropene	6	U	
110-75-8	2-Chloroethylvinylether	11	U	J
75-25-2	Bromoform	6	U	J
108-10-1	4-Methyl-2-Pentanone	36	~~B~~	
591-78-6	2-Hexanone	11	U	
127-18-4	Tetrachloroethene	6	U	
79-34-5	1, 1, 2, 2-Tetrachloroethane	6	U	
108-88-3	Toluene	37		
108-90-7	Chlorobenzene	6	U	
100-41-4	Ethylbenzene	6	U	
100-42-5	Styrene	6	U	J
	Total Xylenes	6	U	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.

HVE July 93

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-L4-10

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-9-87

Conc./Dil Factor: 2

Percent Moisture (Decanted) 26

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	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	36	J
78-59-1	Isophorone	330	U J
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 J
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 J
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
99-09 2	3-Nitroaniline	1600	U J

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	330	U
51-28-5	2, 4-Dinitrophenol	1600	U J
100-02-7	4-Nitrophenol	1600	U J
132-64-9	Dibenzofuran	330	U
121-14-2	2 4-Dinitrotoluene	330	U J
606-20-2	2 6-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	230	J
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1600	U J
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 J
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3 3-Dichlorobenzidine	660	U J
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	960	
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 J
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1 2 3-cd)Pyrene	330	U
53 70-3	Dibenzo(a h)Anthracene	330	U
191-24-2	Benzo(g h i)Perylene	330	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4618/U-4651

Sample Number DC-L4-10

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 10 • 100

Percent Moisture (decanted) 26

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	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	160 U
72-55-9	4,4'-DDE	160 U
72-20-8	Endrin	160 U
33213-65-9	Endosulfan II	160 U
72-54-8	4,4'-DDD	160 U
1031-07-8	Endosulfan Sulfate	160 U
50-29-3	4,4'-DDT	160 U
72-43-5	Methoxychlor	800 U
53494-70-5	Endrin Ketone	160 U
57-74-9	Chlordane	800 U
8001-35-2	Toxaphene	1600 U
12674-11-2	Aroclor-1016	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	1600 U
11096-82-5	Aroclor-1260	1600 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

Form 1

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618 / U-4651

Sample Number DC-L4-10

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	109999	TETRAHYDROFURAN	VOA	12.7	18 J
2.		BUTANOL		13.8	250 J
3.	141786	ACETIC ACID, ETHYL ESTER		16.2	27 J
4		HEXENE ISOMER		17.1	~~7 BJ~~ U
5.		HEXANE ISOMER		21.2	~~32 BJ~~ U
6.					
7.		CYCLOHEXASULFUR	BNA	18.4	640 J
8.	10544500	MOLECULAR SULFUR	BNA	26.0	12000 J
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11.					
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Sample Number
DC-J1-11

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No. U-4618 / U-4651

Lab Sample ID No. 10620 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received 12/19/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-22-86

Conc/Dil Factor: 1 pH 7.48

Percent Moisture: (Not Decanted) 27

REPORTED AS RECEIVED

CAS Number		ug/l or (ug/Kg) (Circle One)		
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	J
75-01-4	Vinyl Chloride	10	U	J
75-00-3	Chloroethane	10	U	J
75-09-2	Methylene Chloride 5	~~4~~ ~~BJ~~	U	
67-64-1	Acetone	410	~~BE~~	J
75-15-0	Carbon Disulfide	5	U	
75-35-4	1, 1-Dichloroethene	5	U	
75-34-3	1, 1-Dichloroethane	5	U	
156-60-5	Trans-1, 2-Dichloroethene	5	U	
67-66-3	Chloroform	5	U	
107-06-2	1, 2-Dichloroethane	5	U	
78-93-3	2-Butanone	16	~~B~~	UJ
71-55-6	1, 1, 1-Trichloroethane	5	U	J
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	J
75-27-4	Bromodichloromethane	5	U	

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

HVE July 93

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-J1-11

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-15-87

Conc./Dil Factor 2

Percent Moisture (Decanted) 27

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)		
108-95-2	Phenol	330	U	
111-44-4	bis(-2-Chloroethyl)Ether	330	U	J
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	J
95-50-1	1,2-Dichlorobenzene	330	U	
95-48-7	2-Methylphenol	330	U	
39638-32-9	bis(2-chloroisopropyl)Ether	330	U	J
106-44-5	4-Methylphenol	330	U	
621-64-7	N-Nitroso-Di-n-Propylamine	330	U	J
67-72-1	Hexachloroethane	330	U	
98-95-3	Nitrobenzene	330	U	
78-59-1	Isophorone	330	U	J
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	J
[illegible]-11-3	Dimethyl Phthalate	330	U	
[illegible]-96-8	Acenaphthylene	330	U	
99-09-2	3-Nitroaniline	1600	U	J

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	J
132-64-9	Dibenzofuran	330	U	
121-14-2	2,4-Dinitrotoluene	330	U	J
606-20-2	2,6-Dinitrotoluene	330	U	J
84-66-2	Diethylphthalate	330	U	J
7005-72-3	4-Chlorophenyl-phenylether	330	U	
86-73-7	Fluorene	330	U	
100-01-6	4-Nitroaniline	1600	U	J
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	J
85-68-7	Butylbenzylphthalate	330	U	
91-94-1	3,3'-Dichlorobenzidine	660	U	J
56-55-3	Benzo(a)Anthracene	330	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	750		
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	J
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	J
191-24-2	Benzo(g,h,i)Perylene	330	U	

(1)-Cannot be separated from diphenylamine

July 03

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Form I

7/85

Laboratory Name ecology and environment, inc.

Case No U-4618/U-4651

Sample Number DC-J1-11

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 1

Percent Moisture (decanted) 27

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	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 1,000 V_i 4

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Form 1

7 85
491095

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4618/V-4651

Sample Number DC-J1-11

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.2	~~10 BJ~~ U
2.	HEXANE ISOMER	VOA	21.2	~~31 BJ~~ U
3.				
4. 10544500	MOLECULAR SULFUR	BNA	26.0	850 J
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
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30				

HE July 93

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Sample Number
DC-J2-12

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc.
Case No: U-4618/U-4651
Lab Sample ID No: 10621
QC Report No:
Sample Matrix: SOIL
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 12-19-86

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared:
Date Analyzed: 12-29-86
Conc/Dil Factor: 2 pH 7.70
Percent Moisture: (Not Decanted) 22

REPORTED - AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	1200 U	
74-83-9	Bromomethane	1200 U	J
75-01-4	Vinyl Chloride	1200 U	
75-00-3	Chloroethane	1200 U	
75-09-2	Methylene Chloride .600	~~290 BJ~~	U
67-64-1	Acetone	3500 ~~B~~	UJ
75-15-0	Carbon Disulfide	620 U	J
75-35-4	1, 1-Dichloroethene	620 U	J
75-34-3	1, 1-Dichloroethane	620 U	
156-60-5	Trans-1, 2-Dichloroethene	620 U	
67-66-3	Chloroform	620 U	
107-06-2	1, 2-Dichloroethane	620 U	
78-93-3	2-Butanone	4700 ~~B~~	UJ
71-55-6	1, 1, 1-Trichloroethane	620 U	
56-23-5	Carbon Tetrachloride	620 U	
108-05-4	Vinyl Acetate	1200 U	J
75-27-4	Bromodichloromethane	620 U	

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	620 U	
10061-02-6	Trans-1, 3-Dichloropropene	620 U	
79-01-6	Trichloroethene	620 U	
124-48-1	Dibromochloromethane	620 U	
79-00-5	1, 1, 2-Trichloroethane	620 U	
71-43-2	Benzene	620 U	
10061-01-5	cis-1, 3-Dichloropropene	620 U	
110-75-8	2-Chloroethylvinylether	~~1200 U~~	R
75-25-2	Bromoform	620 U	J
108-10-1	4-Methyl-2-Pentanone	1200 U	
591-78-6	2-Hexanone	1200 U	
127-18-4	Tetrachloroethene	620 U	J
79-34-5	1, 1, 2, 2-Tetrachloroethane	620 U	
108-88-3	Toluene	620 U	
108-90-7	Chlorobenzene	620 U	
100-41-4	Ethylbenzene	1600	
100-42-5	Styrene	620 U	J
	Total Xylenes	6200	J

July 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

Laboratory Name Ecology & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-J2-12

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-20-87

Conc/Dil Factor: 20

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	3300 U	
111-44-4	bis(2-Chloroethyl)Ether	3300 U	
95-57-8	2-Chlorophenol	3300 U	
541-73-1	1,3-Dichlorobenzene	3300 U	
106-46-7	1,4-Dichlorobenzene	3300 U	
100-51-6	Benzyl Alcohol	3300 U	J
95-50-1	1,2-Dichlorobenzene	3300 U	
95-48-7	2-Methylphenol	3300 U	
39638-32-9	bis(2-chloroisopropyl)Ether	3300 U	
106-44-5	4-Methylphenol	3300 U	
621-64-7	N-Nitroso-Di-n-Propylamine	3300 U	
67-72-1	Hexachloroethane	3300 U	
98-95-3	Nitrobenzene	3300 U	
78-59-1	Isophorone	3300 U	
88-75-5	2-Nitrophenol	3300 U	
105-67-9	2,4-Dimethylphenol	3300 U	
65-85-0	Benzoic Acid	16000 U	
111-91-1	bis(2-Chloroethoxy)Methane	3300 U	
120-83-2	2,4-Dichlorophenol	3300 U	
120-82-1	1,2,4-Trichlorobenzene	3300 U	
91-20-3	Naphthalene	14000	
106-47-8	4-Chloroaniline	3300 U	
87-68-3	Hexachlorobutadiene	3300 U	
59-50-7	4-Chloro-3-Methylphenol	3300 U	
91-57-6	2-Methylnaphthalene	48000	
77-47-4	Hexachlorocyclopentadiene	3300 U	
88-06-2	2,4,6-Trichlorophenol	3300 U	
95-95-4	2,4,5-Trichlorophenol	16000 U	
91-58-7	2-Chloronaphthalene	3300 U	
88-74-4	2-Nitroaniline	16000 U	
131-11-3	Dimethyl Phthalate	3300 U	
208-96-8	Acenaphthylene	3300 U	
99-09-2	3-Nitroaniline	16000 U	J

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	1700 J	
51-28-5	2,4-Dinitrophenol	16000 U	
100-02-7	4-Nitrophenol	16000 U	J
132-64-9	Dibenzofuran	790 J	
121-14-2	2,4-Dinitrotoluene	3300 U	
606-20-2	2,6-Dinitrotoluene	3300 U	
84-66-2	Diethylphthalate	3300 U	
7005-72-3	4-Chlorophenyl-phenylether	3300 U	
86-73-7	Fluorene	2700 J	
100-01-6	4-Nitroaniline	16000 U	
534-52-1	4,6-Dinitro-2-Methylphenol	16000 U	
86-30-6	N-Nitrosodiphenylamine (1)	3300 U	
101-55-3	4-Bromophenyl-phenylether	3300 U	
118-74-1	Hexachlorobenzene	3300 U	
87-86-5	Pentachlorophenol	16000 U	
85-01-8	Phenanthrene	11000	
120-12-7	Anthracene	710 J	
84-74-2	Di-n-Butylphthalate	3300 U	
206-44-0	Fluoranthene	3300 U	
129-00-0	Pyrene	360 J	
85-68-7	Butylbenzylphthalate	3300 U	
91-94-1	3,3'-Dichlorobenzidine	6600 U	J
56-55-3	Benzo(a)Anthracene	3300 U	
117-81-7	bis(2-Ethylhexyl)Phthalate	2300 J	
218-01-9	Chrysene	3300 U	
117-84-0	Di-n-Octyl Phthalate	3300 U	
205-99-2	Benzo(b)Fluoranthene	3300 U	
207-08-9	Benzo(k)Fluoranthene	3300 U	
50-32-8	Benzo(a)Pyrene	3300 U	
193-39-5	Indeno(1,2,3-cd)Pyrene	3300 U	
53-70-3	Dibenz(a,h)Anthracene	3300 U	J
191-24-2	Benzo(g,h,i)Perylene	3300 U	

(1)-Cannot be separated from diphenylamine

July 93

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Laboratory Name ecology and environment, inc.

Case No U-4618/U-4651

Sample Number DC-J2-12

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 1 10

Percent Moisture (decanted) 22

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	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 1,000 V_i 4

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

Sample Number DC-J2-12

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.2	~~750 BJ~~ 4
2.	HEXANE ISOMER		21.2	~~3000 BJ~~ 4
3.	DIMETHYL CYCLOHEXANE ISOMER		27.4	1400 J
4	UNKNOWN ALCOHOL		28.7	4000 J
5.	CYCLOHEXANE ISOMER		30.2	1900 J
6.	UNKNOWN		35.6	3700 J
7.	UNKNOWN AROMATIC		36.4	4600 J
8.	UNKNOWN AROMATIC		40.4	23,000 J
9	UNKNOWN AROMATIC		41.9	16,000 J
10.	UNKNOWN AROMATIC		44.1	2500 J
11.	~~UNKNOWN AROMATIC~~			BJM.
12.				
13.	UNKNOWN HYDROCARBON	BNA	11.4	24000 J
14.	UNKNOWN HYDROCARBON		13.5	28000 J
15.	UNKNOWN HYDROCARBON		13.7	12000 J
16.	UNKNOWN HYDROCARBON		14.7	6100 J
17.	UNKNOWN HYDROCARBON		14.9	12000 J
18.	UNKNOWN HYDROCARBON		15.4	38000 J
19.	UNKNOWN HYDROCARBON		16.7	41000 J
20.	DIMETHYL NAPHTHALENE ISOMER		17.0	29000 J
21.	UNKNOWN HYDROCARBON		17.1	38000 J
22.	DIMETHYL NAPHTHALENE ISOMER		17.3	30000 J
23.	DIMETHYL NAPHTHALENE ISOMER		17.8	13000 J
24.	UNKNOWN HYDROCARBON		18.1	23000 J
25.	TRIMETHYL NAPHTHALENE		18.6	13000 J
26.	UNKNOWN HYDROCARBON		18.7	49000 J
27.	TRIMETHYL NAPHTHALENE		19.1	11000 J
28.	UNKNOWN HYDROCARBON		20.3	39000 J
29.	UNKNOWN HYDROCARBON		21.0	22000 J
30	UNKNOWN HYDROCARBON		21.7	35000 J
	UNKNOWN HYDROCARBON		21.8	20000 J
	UNKNOWN HYDROCARBON		23.1	19000 J

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Sample Number
DC-J3-13

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No: U-4618 / U-4651

Lab Sample ID No: 10622 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: C Slotowicz Date Sample Received: 12/19/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-22-86

Conc/Dil Factor: 1 pH 7.85

Percent Moisture: (Not Decanted) 10

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)		
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	J
75-01-4	Vinyl Chloride	10	U	J
75-00-3	Chloroethane	10	U	J
75-09-2	Methylene Chloride . 5	~~3~~ ~~BJ~~	U	
67-64-1	Acetone	420	~~BE~~	J
75-15-0	Carbon Disulfide	5	U	
75-35-4	1, 1-Dichloroethene	5	U	
75-34-3	1, 1-Dichloroethane	5	U	
156-60-5	Trans-1, 2-Dichloroethene	5	U	
67-66-3	Chloroform	5	U	
107-06-2	1, 2-Dichloroethane	5	U	
78-93-3	2-Butanone	10	U	J
71-55-6	1, 1, 1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	J
75-27-4	Bromodichloromethane	5	U	

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-J3-13

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-15-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 10

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	J
95-57-8	2-Chlorophenol	330	U	
541-73-1	1,3-Dichlorobenzene	330	U	
106-46-7	1,4-Dichlorobenzene	190	J	
100-51-6	Benzyl Alcohol	330	U	J
95-50-1	1,2-Dichlorobenzene	90	J	
95-48-7	2-Methylphenol	330	U	
39638-32-9	bis(2-chloroisopropyl)Ether	330	U	J
106-44-5	4-Methylphenol	330	U	
621-64-7	N-Nitroso-Di-n-Propylamine	330	U	J
67-72-1	Hexachloroethane	330	U	
98-95-3	Nitrobenzene	330	U	
78-59-1	Isophorone	330	U	J
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	J
1[illegible]1-11-3	Dimethyl Phthalate	330	U	
[illegible]-96-8	Acenaphthylene	330	U	
99-09-2	3-Nitroaniline	1600	U	J

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	J
132-64-9	Dibenzofuran	330	U	
121-14-2	2,4-Dinitrotoluene	330	U	J
606-20-2	2,6-Dinitrotoluene	330	U	J
84-66-2	Diethylphthalate	330	U	J
7005-72-3	4-Chlorophenyl-phenylether	330	U	
86-73-7	Fluorene	330	U	
100-01-6	4-Nitroaniline	1600	U	J
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	J
85-68-7	Butylbenzylphthalate	330	U	
91-94-1	3,3'-Dichlorobenzidine	660	U	J
56-55-3	Benzo(a)Anthracene	330	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	990		
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	J
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	J
191-24-2	Benzo(g,h,i)Perylene	330	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-4618 / U-4651

Sample Number DC-J3-13

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 1

Percent Moisture (decanted) 10

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	J
72-20-8	Endrin	16	U	J
33213-65-9	Endosulfan II	16	U	
72-54-8	4,4'-DDD	16	U	J
1031-07-8	Endosulfan Sulfate	16	U	
50-29-3	4,4'-DDT	16	U	J
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	161		

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)

YVE July 93

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

Sample Number DC-J3-13

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.1	~~7 BJ~~ U
2.	HEXANE ISOMER		21.2	~~33 BJ~~ U
3.	UNKNOWN ALCOHOL		24.2	5 J
4.				
5.	UNKNOWN HYDROCARBON	BNA	20.3	300 J
6.	UNKNOWN HYDROCARBON		21.7	460 J
7.	UNKNOWN HYDROCARBON		23.1	260 J
8. 10544500	MOLECULAR SULFUR		26.0	530 J
9.	UNKNOWN		34.0	~~530 J~~ U
10.				~~J~~
11.				
12.				
13.				
14.				
15.				
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HE July 93

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Sample Number
DC-H1-14

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No: U-4618 / U-4651

Lab Sample ID No: 10623 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 12/19/86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-23-86

Conc/Dil Factor: 2.1 pH 7.42

Percent Moisture: (Not Decanted) 38

REPORTED AS RECEIVED

CAS Number		ug/l or (ug/Kg) (Circle One)	
74-87-3	Chloromethane	2300 U	J
74-83-9	Bromomethane	2300 U	J
75-01-4	Vinyl Chloride	2300 U	J
75-00-3	Chloroethane	2300 U	J
75-09-2	Methylene Chloride .1100	~~440 B~~	UJ
67-64-1	Acetone	4400 ~~B~~	UJ
75-15-0	Carbon Disulfide	1100 U	J
75-35-4	1, 1-Dichloroethene	1100 U	J
75-34-3	1, 1-Dichloroethane	1100 U	J
156-60-5	Trans-1, 2-Dichloroethene	1100 U	J
67-66-3	Chloroform	1100 U	J
107-06-2	1, 2-Dichloroethane	1100 U	J
78-93-3	2-Butanone	6800 ~~B~~	UJ
71-55-6	1, 1, 1-Trichloroethane	1100 U	J
56-23-5	Carbon Tetrachloride	1100 U	J
108-05-4	Vinyl Acetate	2300 U	J
75-27-4	Bromodichloromethane	1100 U	J

CAS Number		ug/l or (ug/Kg) (Circle One)	
78-87-5	1, 2-Dichloropropane	1100 U	J
10061-02-6	Trans-1, 3-Dichloropropene	1100 U	J
79-01-6	Trichloroethene	1100 U	J
124-48-1	Dibromochloromethane	1100 U	J
79-00-5	1, 1, 2-Trichloroethane	1100 U	J
71-43-2	Benzene	38,000	J
10061-01-5	cis-1, 3-Dichloropropene	1100 U	J
110-75-8	2-Chloroethylvinylether	~~2300 U~~	~~J~~ R
75-25-2	Bromoform	1100 U	J
108-10-1	4-Methyl-2-Pentanone	2300 U	J
591-78-6	2-Hexanone	2300 U	J
127-18-4	Tetrachloroethene	3500	J
79-34-5	1, 1, 2, 2-Tetrachloroethane	1100 U	J
108-88-3	Toluene	16,000	J
108-90-7	Chlorobenzene	280,000 E	J
100-41-4	Ethylbenzene	6,200	J
100-42-5	Styrene	1100 U	J
	Total Xylenes	12,000	J

HVE
July 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.

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-H1-14

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-22-87

Conc/Dil Factor 2000

Percent Moisture (Decanted) 38

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	330,000 U	
111-44-4	bis(-2-Chloroethyl)Ether	330,000 U	
95-57-8	2-Chlorophenol	330,000 U	
541-73-1	1,3-Dichlorobenzene	150,000 J	
106-46-7	1,4-Dichlorobenzene	19,000,000	J
100-51-6	Benzyl Alcohol	330,000 U	
95-50-1	1,2-Dichlorobenzene	12,000,000	J
95-48-7	2-Methylphenol	330,000 U	
39638-32-9	bis(2-chloroisopropyl)Ether	330,000 U	
106-44-5	4-Methylphenol	330,000 U	
621-64-7	N-Nitroso-Di-n-Propylamine	330,000 U	
67-72-1	Hexachloroethane	330,000 U	
98-95-3	Nitrobenzene	330,000 U	
78-59-1	Isophorone	330,000 U	
88-75-5	2-Nitrophenol	330,000 U	
105-67-9	2,4-Dimethylphenol	330,000 U	
65-85-0	Benzoic Acid	1,600,000 U	
111-91-1	bis(-2-Chloroethoxy)Methane	330,000 U	
120-83-2	2,4-Dichlorophenol	460,000	
120-82-1	1,2,4-Trichlorobenzene	4,700,000	
91-20-3	Naphthalene	330,000 U	
106-47-8	4-Chloroaniline	330,000 U	
87-68-3	Hexachlorobutadiene	330,000 U	
59-50-7	4-Chloro-3-Methylphenol	330,000 U	
91-57-6	2-Methylnaphthalene	330,000 U	
77-47-4	Hexachlorocyclopentadiene	330,000 U	
88-06-2	2,4,6-Trichlorophenol	380,000	
95-95-4	2,4,5-Trichlorophenol	1,600,000 U	
91-58-7	2-Chloronaphthalene	330000 U	
88-74-4	2-Nitroaniline	1,600,000 U	
131-11-3	Dimethyl Phthalate	330000 U	
8-96-8	Acenaphthylene	330000 U	
99-09-2	3-Nitroaniline	1,600,000 U	J

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	330000 U	
51-28-5	2,4-Dinitrophenol	1,600,000 U	J
100-02-7	4-Nitrophenol	1,600,000 U	J
132-64-9	Dibenzofuran	330,000 U	
121-14-2	2,4-Dinitrotoluene	330,000 U	J
606-20-2	2,6-Dinitrotoluene	330,000 U	
84-66-2	Diethylphthalate	330,000 U	
7005-72-3	4-Chlorophenyl-phenylether	330,000 U	
86-73-7	Fluorene	330,000 U	
100-01-6	4-Nitroaniline	1,600,000 U	
534-52-1	4,6-Dinitro-2-Methylphenol	1,600,000 U	
86-30-6	N-Nitrosodiphenylamine (1)	330,000 U	
101-55-3	4-Bromophenyl-phenylether	330,000 U	
118-74-1	Hexachlorobenzene	330,000 U	J
87-86-5	Pentachlorophenol	1,600,000 U	
85-01-8	Phenanthrene	330,000 U	
120-12-7	Anthracene	330,000 U	
84-74-2	Di-n-Butylphthalate	330,000 U	
206-44-0	Fluoranthene	330,000 U	
129-00-0	Pyrene	330,000 U	J
85-68-7	Butylbenzylphthalate	330,000 U	
91-94-1	3,3'-Dichlorobenzidine	660,000 U	J
56-55-3	Benzo(a)Anthracene	330,000 U	
117-81-7	bis(2-Ethylhexyl)Phthalate	330,000 U	
218-01-9	Chrysene	330,000 U	
117-84-0	Di-n-Octyl Phthalate	330,000 U	
205-99-2	Benzo(b)Fluoranthene	330,000 U	
207-08-9	Benzo(k)Fluoranthene	330,000 U	J
50-32-8	Benzo(a)Pyrene	330,000 U	
193-39-5	Indeno(1,2,3-cd)Pyrene	330,000 U	
53-70-3	Dibenz(a,h)Anthracene	330,000 U	
191-24-2	Benzo(g,h,i)Perylene	330,000 U	

(1)-Cannot be separated from diphenylamine

HVE

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Form I

7/85

Laboratory Name ecology and environment, inc.

Case No U-4618/U-4651

Sample Number DC-H1-14

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 2000

Percent Moisture (decanted) 38

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	16,000 U	
319-85-7	Beta-BHC	16,000 U	
319-86-8	Delta-BHC	16,000 U	
58-89-9	Gamma-BHC (Lindane)	16,000 U	
76-44-8	Heptachlor	16,000 U	
309-00-2	Aldrin	16,000 U	
1024-57-3	Heptachlor Epoxide	16,000 U	
959-98-8	Endosulfan I	16,000 U	
60-57-1	Dieldrin	32,000 U	
72-55-9	4,4'-DDE	32,000 U	J
72-20-8	Endrin	32,000 U	J
33213-65-9	Endosulfan II	32,000 U	
72-54-8	4,4'-DDD	32,000 U	J
1031-07-8	Endosulfan Sulfate	32,000 U	
50-29-3	4,4'-DDT	32,000 U	J
72-43-5	Methoxychlor	160,000 U	
53494-70-5	Endrin Ketone	32,000 U	
57-74-9	Chlordane	160,000 U	
8001-35-2	Toxaphene	320,000 U	
12674-11-2	Aroclor-1016	160,000 U	
11104-28-2	Aroclor-1221	160,000 U	
11141-16-5	Aroclor-1232	160,000 U	
53469-21-9	Aroclor-1242	160,000 U	
12672-29-6	Aroclor-1248	160,000 U	
11097-69-1	Aroclor-1254	320,000 U	
11096-82-5	Aroclor-1260	611,000	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

RVE July 93

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618 / U-4651

Sample Number DC-H1-14

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)	
1.		HEXENE ISOMER	VOA	16.3	1100 J	
2.		HEXENE ISOMER		17.1	~~1900 BJ~~	4
3.		HEXANE ISOMER		21.2	~~6800 BJ~~	4
4.						
5.		TRICHLOROBENZENE ISOMER	BNA	13.5	570,000 J	
6.		TETRACHLOROBENZENE ISOMER		15.7	300,000 J	
7.		TETRACHLOROBENZENE ISOMER		16.6	690,000 J	
8.	120321	4-CHLORO-2-(PHENYLMETHYL)PHENOL		24.4	2,400,000 J	
9.		UNKNOWN HYDROCARBON		25.7	280,000 J	
10.	10544500	MOLECULAR SULFUR		25.9	540,000 J	
11.		UNKNOWN HYDROCARBON		26.9	1,100,000 J	
12.		UNKNOWN HYDROCARBON		28.1	1,100,000 J	
13.		UNKNOWN HYDROCARBON		29.2	840,000 J	
14.		UNKNOWN HYDROCARBON		30.3	620,000 J	
15.						
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HB Jul 93

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Sample Number
DC-H1-15

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc.
Case No: U-4618 / U-4651
Lab Sample ID No: 10624
QC Report No:
Sample Matrix: SOIL
Contract No: IL-3140
Data Release Authorized By: C Stoytowicz
Date Sample Received: 12/19/86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-26-86

Conc/Dil Factor: 2.5 pH 7.96

Percent Moisture: (Not Decanted) 16

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)		
74-87-3	Chloromethane	25	U	
74-83-9	Bromomethane	25	U	J
75-01-4	Vinyl Chloride	25	U	
75-00-3	Chloroethane	25	U	J
75-09-2	Methylene Chloride . 12	~~11~~	~~J~~	U
67-64-1	Acetone	25	~~B~~	U
75-15-0	Carbon Disulfide	12	U	J
75-35-4	1, 1-Dichloroethene	12	U	J
75-34-3	1, 1-Dichloroethane	12	U	
156-60-5	Trans-1, 2-Dichloroethene	12	U	
67-66-3	Chloroform	12	U	
107-06-2	1, 2-Dichloroethane	12	U	
78-93-3	2-Butanone	25	U	J
71-55-6	1, 1, 1-Trichloroethane	12	U	
56-23-5	Carbon Tetrachloride	12	U	
108-05-4	Vinyl Acetate	25	U	
75-27-4	Bromodichloromethane	12	U	

CAS Number		ug/l or ug/Kg (Circle One)		
78-87-5	1, 2-Dichloropropane	12	U	
10061-02-6	Trans-1, 3-Dichloropropene	12	U	
79-01-6	Trichloroethene	12	U	
124-48-1	Dibromochloromethane	12	U	
79-00-5	1, 1, 2-Trichloroethane	12	U	
71-43-2	Benzene	3	J	
10061-01-5	cis-1, 3-Dichloropropene	12	U	
110-75-8	2-Chloroethylvinylether	25	U	J
75-25-2	Bromoform	12	U	J
108-10-1	4-Methyl-2-Pentanone	25	U	
591-78-6	2-Hexanone	25	U	
127-18-4	Tetrachloroethene	12	U	
79-34-5	1, 1, 2, 2-Tetrachloroethane	12	U	
108-88-3	Toluene	12	U	
108-90-7	Chlorobenzene	20		
100-41-4	Ethylbenzene	12	U	
100-42-5	Styrene	12	U	J
	Total Xylenes	12	U	J

Data Reporting Qualifiers

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

HE
Jul 93

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

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

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

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/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-4618 / V-4651

Sample Number DC-H1-15

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-15-86

Conc/Dil Factor 2

Percent Moisture (Decanted) 16

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	J
95-57-8	2-Chlorophenol	330	U	
541-73-1	1,3-Dichlorobenzene	330	U	
106-46-7	1,4-Dichlorobenzene	1000		
100-51-6	Benzyl Alcohol	330	U	J
95-50-1	1,2-Dichlorobenzene	460		
95-48-7	2-Methylphenol	330	U	
39638-32-9	bis(2-chloroisopropyl)Ether	330	U	J
106-44-5	4-Methylphenol	330	U	
621-64-7	N-Nitroso-Di-n-Propylamine	330	U	J
67-72-1	Hexachloroethane	330	U	
98-95-3	Nitrobenzene	330	U	
78-59-1	Isophorone	330	U	J
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	140	J	
120-82-1	1,2,4-Trichlorobenzene	3400		
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	150	J	
95-95-4	2,4,5-Trichlorophenol	1600	U	
91-58-7	2-Chloronaphthalene	330	U	
88-74-4	2-Nitroaniline	1600	U	J
131-11-3	Dimethyl Phthalate	330	U	
208-96-8	Acenaphthylene	330	U	
99[illegible]2	3-Nitroaniline	1600	U	J

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	J
132-64-9	Dibenzofuran	330	U	
121-14-2	2,4-Dinitrotoluene	330	U	J
606-20-2	2,6-Dinitrotoluene	330	U	J
84-66-2	Diethylphthalate	330	U	J
7005-72-3	4-Chlorophenyl-phenylether	330	U	
86-73-7	Fluorene	330	U	
100-01-6	4-Nitroaniline	1600	U	J
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	600		
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	J
85-68-7	Butylbenzylphthalate	330	U	
91-94-1	3,3'-Dichlorobenzidine	660	U	J
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	J
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	J
191-24-2	Benzo(g,h,i)Perylene	330	U	

(1)-Cannot be separated from diphenylamine

July 93

Laboratory Name ecology and environment, inc.

Case No U-4618/U-4651

Sample Number DC-H1-15

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 10

Percent Moisture (decanted) 16

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)		
319-84-6	Alpha-BHC	80	U	
319-85-7	Beta-BHC	80	U	
319-86-8	Delta-BHC	80	U	
58-89-9	Gamma-BHC (Lindane)	80	U	
76-44-8	Heptachlor	80	U	
309-00-2	Aldrin	80	U	
1024-57-3	Heptachlor Epoxide	80	U	
959-98-8	Endosulfan I	80	U	
60-57-1	Dieldrin	160	U	
72-55-9	4,4'-DDE	160	U	J
72-20-8	Endrin	160	U	J
33213-65-9	Endosulfan II	160	U	
72-54-8	4,4'-DDD	160	U	J
1031-07-8	Endosulfan Sulfate	160	U	
50-29-3	4,4'-DDT	160	U	J
72-43-5	Methoxychlor	800	U	
53494-70-5	Endrin Ketone	160	U	
57-74-9	Chlordane	800	U	
8001-35-2	Toxaphene	1600	U	
12674-11-2	Aroclor-1016	800	U	
11104-28-2	Aroclor-1221	800	U	
11141-16-5	Aroclor-1232	800	U	
53469-21-9	Aroclor-1242	800	U	
12672-29-6	Aroclor-1248	800	U	
11097-69-1	Aroclor-1254	1600	U	
11096-82-5	Aroclor-1260	949	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 1,000 V_i 4

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

Sample Number DC-H1-15

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.2	~~16 BJ~~ 4
2.	HEXANE ISOMER	VOA	21.2	~~42 BJ~~ 4
3.				
4	TETRACHLOROBENZENE ISOMER	BNA	15.8	2200 J
5.	TETRACHLOROBENZENE ISOMER		16.6	16000 J
6. 608935	PENTACHLOROBENZENE		19.0	7600 J
7. 120321	4-CHLORO-2-(PHENYLMETHYL) PHENOL		24.5	340 J
8. 10544500	MOLECULAR SULFUR		26.0	5800 J
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

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~~230~~

ATTACHMENT A

FORMS I

CASE NUMBERS U-4618 AND U-4651

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

February 6, 1987

Job # U-4618
U-4651

Sample # DC-L1-02	DC-N2-06	DC-J1-11
DC-L2-03	DC-NB-07	DC-J2-12
DC-L3-04	DC-K1-08	DC-J3-13
DC-LB-01	DC-L4-09	DC-H1-14
DC-N1-05	DC-L4-10	DC-H1-15

CASE NARRATIVE

Enclosed are the organic analytical results for soil samples received on December 13 and December 19, 1986. All sample containers received on December 19 were leaking due to sediments under the container caps.

All results in this pack are reported on a wet weight basis. Percent moisture information has been reported on Form I.

Sample DC-H1-14 was not re-analyzed for volatile organics although two surrogate recoveries were outside of acceptable limits because of the high concentrations of dichlorobenzenes present.

No medium level volatile matrix spike duplicate was analyzed. This error was discovered after hold times had expired.

Due to the level of contaminants, particularly PCBs, in the semivolatile and pesticide/PCB fractions, extracts could not be concentrated and/or required dilutions preventing determination of surrogate recoveries.

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

recycled paper

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 factor for the following exceeded the 25% difference limit in the continuing calibration check:

vinyl chloride - file C6101 (12/17/86)
file C6162 (12/26/86)

ethylbenzene/chloroform - file C6179 (12/23/86)

1,1-dichloroethene - file C6196 (12/26/86)
file C6208 (12/29/86)

Ethylbenzene was detected in sample DC-H1-14 which was analyzed under the C6179 calibration check. We do not believe that the variation in response factor is significant as to invalidate the data. None of the other compounds whose calibration check was in question were detected. Therefore, the response factor should have no effect on data quality.

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

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

Sample DC-L4-09 was arbitrarily chosen for spiking and duplication. The poor recovery of the base neutral compounds is a result of the sample's pH of 10. Phenol recoveries were all within acceptable recoveries.

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

Andrew P. Clifton, Director
Analytical Services Center

APC/drb
Enclosures

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.	Project Name	Project Manager
IL3140	DEAD CREEK PROJECT	MIKE MILLER

Samplers (Signatures): Kevin Pohlhaus, Daniel T. Sewall

Field Team Leader: DAN SEWALL

STATION NUMBER	DATE	TIME	SAMPLE TYPE: COMP	GRAB	AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	Soil HSL ORGANICS	2 oz Metals + Cyanide	120 ml Volatile Organics				REMARKS: LOW COMPOSITE SOIL SAMPLES	E+E Sample #
DC-N1-05	12-15	1100	X			unknown / OVA screening = 46 ppm	BORING N1 (0'-10')	4	1	1	2					[illegible]
DC-N2-06	12-15	1500	X			unknown / OVA screening = 340 ppm	BORING N2 (5'-15')	4	1	1	2					[illegible]
DC-NB-07	12-16	0945	X			NONE- SOIL BLANK	SOIL BLANK	4	1	1	2				SOIL BLANK	[illegible]
DC-K1-08	12-16	0930	X			unknown / OVA screening = 70 ppm	BORING K1 (0'-10')	4	1	1	2					[illegible]
DC-L4-09	12-17	1130	X			unknown / OVA screening = 140 ppm	BORING L4 (10'-20')	4	1	1	2					[illegible]
DC-L4-10	12-17	1135	X			unknown / OVA screening = 140 ppm	BORING L4 (10'-20')	4	1	1	2				Duplicate of DC-L4-09	[illegible]
DC-J1-11	12-17	0900	X			unknown / OVA screening = 8.2 ppm	BORING J1 (10'-20')	4	1	1	2					[illegible]
DC-J2-12	12-17	1115	X			gasoline odors / OVA screening = >1000 ppm	BORING J2 (15-25')	4	1	1	2				Gasoline Odor / Suspected hydrocarbons	[illegible]
DC-J3-13	12-17	1300	X			unknown / OVA screening = 24 ppm	BORING J3 (0'-10')	4	1	1	2					[illegible]
DC-H1-14	12-13	1415	X			unknown / OVA screening >1000 ppm	BORING H1 (15'-25')	4	1	1	2				Very strong organic odor	[illegible]
DC-H1-15	12-13	1630	X			unknown NO OVA SCREEN AVAILABLE	BORING H1 (35-50')	4	1	1	2				STRONG ORGANIC ODOR	[illegible]

Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)	Ship Via
Daniel T. Sewall	12/15/86 1850	FEDERAL EXPRESS				FEDERAL EXPRESS
Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)	BL/Airb Number: #303 131 955
Relinquished By (Signature)	Date/Time	Received For Laboratory By (Signature)	Relinquished By (Signature)	Date/Time	Received For Laboratory By (Signature)	Date: 12-18-86

Distribution: Original Accompanies Shipment, Copy to Coordinator Field Files

*See CONCENTRATION RANGE on back of form.

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): Kevin Phillips
Field Team Leader: A. SIEWALL

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 HSL ORGANICS	1-8 oz METALS & CYANIDE	2-120 ml VOA				REMARKS
DC-B1-02	12-11-86	1530	X			UNKNOWN. OVA SCREENING - 23 ppm	S.TE L BORING 1, 5'-10'	4	1	1	2				
DC-B2-03	12-12-86	1100	X			OVA SCREENING - 690 ppm	S.TE L BORING 2 5'-10'	4	1	1	2				SURFACE ORGANIC ODOR
DC-B3-04	12-12-86	1400	X			OVA SCREENING - >1000 ppm	S.TE L BORING 3	4	1	1	2				SURFACE ORGANIC ODOR
DC-B4-01	12-12-86	[illegible]		X			BLANK	4	1	1	2				

Relinquished By (Signature)	Date/Time	Received By (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)
Kevin Phillips	12-12-86 / 1700	[illegible]			
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)
[illegible]	[illegible]	[illegible]			

Ship Via: FEDERAL EXPRESS
BL Airbill Number: 338139944
Date: 12-12-86.

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

*See CONCENTRATION RANGE on back of form

CASE NARRATIVE

SURROGATE PERCENT RECOVERY SUMMARY

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case N 'I-4618/U-4651 Contract Laboratory Ecology & Environment Inc. Contract No. IL-3140

Low X Medium

SMO TRAFFIC NO.	VOLATILE: TOLUENE-D8 (81-117)	VOLATILE: BFB (74-121)	VOLATILE: 1,2 DICHLORO-ETHANE-D4 (70-121)	SEMI-VOLATILE: NITRO-BENZENE-D5 (23-120)	SEMI-VOLATILE: 2-FLUORO-BIPHENYL (30-115)	SEMI-VOLATILE: TERPHENYL-D14 (18-137)	SEMI-VOLATILE:	SEMI-VOLATILE:	SEMI-VOLATILE: PHENOL-D5 (24-113)	SEMI-VOLATILE: 2-FLUORO-PHENOL (25-121)	SEMI-VOLATILE: 2,4,6 TRIBROMO PHENOL (19-122)	PESTICIDE: DIBUTYL-CHLORENDATE ** (20-150)
DC-L1-02	94	93	96	58	53	90			72	68	47	94
DC-L2-03	102	96	102	101	95	76			77	88	66	DL
DC-L3-04	—	—	—	111	87	80			67	75	50	DL
DC-LB-01	109	100	106	66	60	108			73	67	35	82
DC-N1-05	108	101	92	56	67	82			92	93	48	96
DC-N2-06	100	106	105	64	70	96			111	107	62	100
DC-NB-07	115	98	111	95	91	94			126*	107	65	93
DC-K1-08	112	91	100	78	106	97			99	82	77	DL
DC-L4-09	99	99	112	40	53	88			54	87	40	91
DC-L4-10	103	100	97	56	67	95			76	72	33	100
DC-J1-11	100	97	103	80	58	108			113	107	72	85
DC-J2-12	—	—	—	71	107	94			82	67	57	119
DC-J3-13	109	86	92	96	96	118			116*	108	90	110
DC-H1-14	—	—	—	—	—	—			—	—	—	—
DC-H1-15	102	103	101	61	67	107			98	82	88	INF.
DC-N1-05MS	96	84	91	—	—	—			—	—	—	—
DC-N1-05MSD	89	78	81	—	—	—			—	—	—	—
DC-N2-06MS	97	103	85	—	—	—			—	—	—	—
DC-L4-09MS	—	—	—	65	81	88			76	86	56	89
DC-L4-09MSD	—	—	—	52	78	87			72	59	37	115

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: _____ out of _____ ; outside of QC limits

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

Pesticides: _____ out of _____ ; outside of QC limits

7/85

page 1 of 2

Comments: DL = DILUTED OUT
INF = INTERFERENCE

FORM II

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case N 1-4618/V-4651 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 (30-116)	TERPHENYL-D14 (18-137)			PHENOL-D5 (24-113)	2-FLUORO-PHENOL (25-121)	2,4,6 TRIBROMO PHENOL (19-122)	DIBUTYL CHLOROENDATE (20-150)
C6102	91	94	98	—								—
C6163	104	104	111	—								—
C6197	100	106	102	—								—
D1430	—	—	—	75	80	125			77	74	41	—
D1527	—	—	—	83	86	124			99	80	64	—
BLANK 12/18	—										—	91
BLANK 12/22	—										—	95

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 54 ; outside of QC limits

Semi-Volatiles: 2 out of 96 ; outside of QC limits

Pesticides: 0 out of 19 ; outside of QC limits

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page 2 of 2

Comments:

FORM II

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case # U-4618/U-4651 Contract Laboratory Ecology & Environment Inc. Contract No. IL-3140

Low ____ Medium X

	VOLATILE			SEMI-VOLATILE								PESTICIDE**
SMO TRAFFIC NO.	TOLUENE-D8 (81-117)	BFB (74-121)	1,2 DICHLORO ETHANE-D4 (70-121)	NITRO BENZENE-D5 (23-120)	2-FLUORO-BIPHENYL (30-118)	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-L3-04	82	82	82									
DC-N2-06	103	101	87									
DC-J2-12	102	104	93									
DC-H1-14	138*	137*	90	DL	DL	DL			DL	DL	DL	DL
C6080	101	100	98									
C6182	109	105	95									
C6211	101	99	94									

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 2 out of 21 ; outside of QC limits

Semi-Volatiles: 0 out of 6 ; outside of QC limits

Pesticides: 0 out of 1 ; outside of QC limits

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Comments:

FORM II

MS/MSD SUMMARY

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. V-4618/V-4651 Contractor Ecology & Environment Inc. Contract No. IL-3140

Low Level ✓ Medium Level _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)		SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. DC-N1-05	1,1-Dicholorethene	45	50	0	26	58*	26	52*	0	22	59-172
	Trichloroethene	45	50	0	29	64	28	56*	3.5	24	62-137
	Chlorobenzene	45	50	0	38	84	37	74	2.7	21	60-133
	Toluene	45	50	0	35	78	35	70	0	21	59-139
	Benzene	45	50	0	34	76	34	68	0	21	66-142
B/N SMO SAMPLE NO. DC-L4-09	1,2,4-Trichlorobenzene	3300		0	650	20*	680	21*	4.5	23	38-107
	Acenaphthene	3300		0	2700	82	2800	85	3.6	19	31-137
	2,4 Dinitrotoluene	3300		0	4000	121*	3600	109*	10	47	28-89
	Pyrene	3300		0	2700	82	3000	91	10	36	35-142
	N-Nitrosodi-n-Propylamine	3300		0	3000	91	2600	79	14	38	41-126
	1,4-Dichlorobenzene	3300		0	320	9.7*	350	11*	8.9	27	28-104
ACID SMO SAMPLE NO. DC-L4-09	Pentachlorophenol	6600		0	4600	70	3600	54	24	47	17-109
	Phenol	6600		0	5500	83	5100	77	7.5	35	26-90
	2-Chlorophenol	6600		0	5600	85	4600	70	20	50	25-102
	4-Chloro-3-Methylphenol	6600		0	2700	41	4400	67	48*	33	26-103
	4-Nitrophenol	6600		0	4000	61	3000	45	28	50	11-114
PEST SMO SAMPLE NO. DC-L4-09	Lindane	35.0		0	DL	-	DL	-	-	50	46-127
	Heptachlor	35.0		0	DL	-	DL	-	-	31	35-130
	Aldrin	35.0		0	DL	-	DL	-	-	43	34-132
	Dieldrin	87.6		0	65.1	74	75.5	86	15	38	31-134
	Endrin	87.6		0	75.8	86	88.4	101	15	45	42-139
	4,4'-DDT	87.6		0	68.8	78	78.0	89	12	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

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

RECOVERY: VOAs 3 out of 10 ; outside QC limits
B/N 6 out of 12 ; outside QC limits
ACID 0 out of 10 ; outside QC limits
PEST 0 out of 12 ; outside QC limits

Comments:
DL = DILUTED OUT

FORM III

7/85

495095

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. U-4618/U-4651 Contractor Ecology & Environment Inc. Contract No. IL-3140

Low Level _____ Medium Level ✓

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. DC-N2-06	1,1-Dicholorethene								22	59-172
	Trichloroethene	11000	0	13000	118				24	62-137
	Chlorobenzene	11000	0	14600	133				21	60-133
	Toluene	11000	0	13000	118				21	59-139
	Benzene	11000	0	13000	118				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 ____ out of ____; 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 4; outside QC limits
B/N ____ out of ____; outside QC limits
ACID ____ out of ____; outside QC limits
PEST ____ out of ____; outside QC limits

Comments:
1,1-DICHLOROETHENE NOT ADDED TO SPIKING SOLUTION

NO MATRIX SPIKE DUPLICATE ANALYZED.

STANDARDS DATA

INITIAL CALIBRATION DATA

Case No: U-4618/U-4651 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%

Laboratory ID:		>D0036	>D0037	>D0038	>D0039	>D0040				
		RF	RF	RF	RF	RF				
Compound		20.00	50.00	80.00	120.00	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	.33700	.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 (**)

HSL Compounds

Case No: U-4618/U-4651 Instrument ID: HP-5970 B

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

Contract No: IL-314C

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

Laboratory ID:		>62318	>62317	>62320	>62321	>62322				
		RF	RF	RF	RF	RF				
Compound		20.00	50.00	80.00	120.00	160.00	$\overline{RF}$	% RSD	CCC	SPCC
ANILINE	93	1.53020	1.25644	1.62634	1.62245	1.58163	1.52341	10.122		
BIS(-2-CHLOROETHYL)ETHER	93	1.34445	1.22081	1.26618	1.07095	1.29722	1.23992	8.441		
1,3-DICHLOROBENZENE	146	1.46014	1.37957	1.42964	1.30860	1.33586	1.38276	4.559		
1,4-DICHLOROBENZENE	146	1.66736	1.29358	1.43871	1.25577	1.18343	1.36777	14.007	*	
BENZYL ALCOHOL	79	.98994	1.18557	1.00496	1.07361	1.14382	1.07958	7.887		
1,2-DICHLOROBENZENE	146	1.61074	1.48247	1.44441	1.30085	1.30196	1.42808	9.176		
BIS(2-CHLOROISOPROPYL)ETHER	45	3.10167	2.81979	3.04493	2.94413	2.94039	2.97018	3.652		
N-NITROSO-DI-N-PROPYLAMINE	70	1.28828	1.23766	1.29486	1.34328	1.29730	1.29228	2.904		**
HEXACHLOROETHANE	117	.79392	.72848	.72662	.65702	.63961	.70913	8.755		
NITROBENZENE-D5 (SURR)	82	.38965	.37305	.41065	.42325	.40762	.40084	4.898		
NITROBENZENE	77	.42892	.38234	.41415	.43943	.43255	.41948	5.417		
ISOPHORONE	82	.84007	.76477	.79107	.82839	.82546	.80995	3.848		
BIS(-2-CHLOROETHOXY)METHANE	93	.46623	.44982	.45355	.46561	.44362	.45577	2.178		
1,2,4-TRICHLOROBENZENE	180	.39238	.38210	.37397	.37375	.37036	.37851	2.345		
NAPHTHALENE	128	1.10454	.97856	1.02942	.88370	.92738	.98472	8.778		
4-CHLOROANILINE	127	.38955	.37023	.40760	.39766	.40786	.39458	3.953		
HEXACHLOROBUTADIENE	225	.28342	.26841	.25835	.24760	.23237	.25803	7.555	*	
2-METHYLNAPHTHALENE	142	.70829	.65392	.61126	.58244	.56184	.62355	9.404		
HEXACHLOROCYCLOPENTADIENE	237	.42682	.38196	.48139	.49313	.48657	.45397	10.605		**
2-FLUOROBIPHENYL (SURR)	172	1.43778	1.49608	1.31182	1.22836	1.17905	1.33061	10.128		
2-CHLORONAPHTHALENE	162	1.26208	1.35393	1.18900	1.10195	1.13384	1.20816	8.413		
2-NITROANILINE	65	.39563	.49064	.43475	.41930	.45448	.43896	8.209		
DIMETHYL PHTHALATE	163	1.53551	1.62787	1.36166	1.32005	1.34038	1.43709	9.517		
4-NITROANILINE	138	.22174	.31144	.26162	.25592	.24885	.25992	12.546		
DIBENZOFURAN	168	1.77467	1.85500	1.58680	1.39667	1.46174	1.61498	12.191		
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	.33892	.38691	.34388	.34507	.33955	.35087	5.793		
DIETHYLPHTHALATE	149	1.54518	1.59131	1.28601	1.21661	1.31157	1.39014	12.017		
4-CHLOROPHENYL-PHENYLETHER	204	.69494	.72268	.58641	.55946	.56319	.62534	12.397		
N-NITROSODIPHENYLAMINE	169	.46709	.47088	.43295	.40737	.34790	.42524	11.873	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26935	.26406	.29047	.26087	.25818	.26659	3.303		
HEXACHLOROBENZENE	284	.36253	.33008	.33921	.34540	.32747	.34094	4.119		

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

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

HSL Compounds

Case No: U-4618 / U-4651 Instrument ID: HP-5970 B

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

Con. ..ct No: IL-3140

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

Laboratory ID:		>82318	>82317	>82320	>82321	>82322				
		RF	RF	RF	RF	RF				
Compound		20.00	50.00	80.00	120.00	160.00	$\overline{RF}$	% RSD	CCC	SPCC
PHENANTHRENE	178	1.04931	1.01512	.98050	.95298	.88999	.97758	6.231		
ANTHRACENE	178	1.12091	1.02625	1.04493	.93788	.90233	1.00646	8.678		
DI-N-BUTYLPHTHALATE	149	1.27178	1.10891	1.06851	1.11508	1.07179	1.12721	7.409		
FLUORANTHENE	202	.93206	.85951	.80155	.77543	.70727	.81517	10.452	*	
BENZIDINE		-	-	-	-	-	-	-		
PYRENE	202	1.67420	1.68596	1.76714	1.46297	1.41935	1.60192	9.479		
TERPHENYL-D14 (SURR)	244	1.14639	1.09283	1.18955	1.06562	1.05822	1.11052	5.053		
BUTYLBENZYLPHTHALATE	149	.65885	.67321	.68349	.67508	.67739	.67361	1.353		
3,3'DICHLOROBENZIDINE	252	.27363	.29497	.31038	.35282	.36231	.31882	11.871		
BENZO(A)ANTHRACENE	228	1.11295	1.16545	1.14131	1.09826	1.08387	1.12037	2.943		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.89359	.90143	.88579	.90223	.92113	.90093	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 (**)

Initial Calibration Data
HSL Compounds

Case No: U-4618/U-4651 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%

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

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

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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

Initial Calibration Data
HSL Compounds

Case No: U-4618/U-4651 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				
ANILINE	93	1.44667	1.40722	1.59651	1.68331	1.56844	1.54043	7.321		
BIS(-2-CHLOROETHYL)ETHER	93	1.24523	1.09820	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	1.00872	1.21875	1.21807	1.21800	1.13473	10.092		
1,2-DICHLOROBENZENE	146	1.63938	1.36507	1.53750	1.47276	1.44493	1.49193	6.908		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68736	2.47658	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	.42178	.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	.23955	.25909	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	5.059		
2-CHLORONAPHTHALENE	162	1.47542	1.23459	1.36421	1.37148	1.41834	1.37281	6.493		
2-NITROANILINE	65	.43757	.43867	.51133	.51859	.47610	.47645	8.082		
DIMETHYL PHTHALATE	163	1.83005	1.68051	1.71649	1.69379	1.67638	1.71954	3.704		
4-NITROANILINE	138	.23949	.23631	.27642	.27327	.26539	.25828	7.365		
DIBENZOFURAN	168	2.04488	1.83571	1.94866	1.91782	1.79656	1.90873	5.115		
ACENAPHTHYLENE	152	2.24178	1.99625	2.09922	2.09094	2.07505	2.10065	4.229		
FLUORENE	166	1.55490	1.33626	1.34395	1.28944	1.20896	1.34670	9.518		
3-NITROANILINE	138	-	.04883	.11452	.11792	.08856	.09246	34.586		
ACENAPHTHENE	153	1.52777	1.33296	1.39452	1.37214	1.26556	1.37857	7.015	*	
2,4-DINITROTOLUENE	165	.35967	.32323	.34179	.32754	.30871	.33212	5.867		
2,6-DINITROTOLUENE	165	.38599	.35678	.37953	.36738	.36597	.37112	3.126		
DIETHYLPHTHALATE	149	1.88063	1.62618	1.53368	1.45917	1.43355	1.58664	11.393		
4-CHLOROPHENYL-PHENYLETHER	204	.78893	.66962	.70193	.69165	.66856	.70414	7.032		
N-NITROSODIPHENYLAMINE	169	.51567	.44734	.53097	.56655	.53802	.51771	8.111	*	
4-BROMOPHENYL-PHENYL ETHER	248	.31339	.30497	.33954	.35732	.35891	.33482	7.485		
HEXACHLOROBENZENE	284	.46739	.39403	.43794	.45763	.43251	.43791	6.477		

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-4618/U-4651 Instrument ID: HP-5970D

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

Contract No: IL-3140

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

Compound		Laboratory ID: D0965 RF 20.00	D0966 RF 50.00	D0967 RF 80.00	D0968 RF 120.00	D0969 RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
PHENANTHRENE	178	1.06803	.96082	1.02609	1.02304	.99723	1.01505	3.396		
ANTHRACENE	178	1.03628	.92880	1.01124	1.03132	.98639	.99874	4.397		
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	2.82356	2.68642	3.814		
TERPHENYL-D14 (SURR)	244	1.42937	1.47810	1.43324	1.50928	1.55799	1.48172	3.638		
BUTYLBENZYLPHTHALATE	149	.62104	.62940	.71297	.68630	.76414	.68277	8.708		
3,3'DICHLOROBENZIDINE	252	.08557	.07185	.16233	.19759	.14980	.13263	39.182		
BENZO(A)ANTHRACENE	228	.79361	.77498	.97287	1.00315	1.03159	.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	1.35598	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	1.15488	1.16456	1.18217	1.10877	7.641	*	
INDENO(1,2,3-CD)PYRENE	276	.67778	.93612	1.09730	1.40393	.87647	.99932	28.681		
DIBENZ(A,H)ANTHRACENE	278	.73019	.64673	.79793	.98482	.89827	.81159	16.475		
BENZO(G,H,I)PERYLENE	276	1.11119	1.08417	1.06321	1.25211	1.11363	1.10888	8.264		

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-4618/U-4657 Instrument ID: HP-5995C

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

Contract No: II-3140

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

Laboratory ID:		>C3505 RF 100.00	>C3500 RF 250.00	>C3501 RF 500.00	>C3502 RF 750.00	>C3503 RF 1000.00	$\overline{RF}$	% RSD	CCC	SPCC	
Compound											
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	19.611			
1,2-DICHLOROETHANE-D4(SURR)	65	2.49928	3.43723	3.57775	2.73884	2.73981	2.99858	15.920			(Conc=250.0,250.0,250.0,2
2-BUTANONE	72	.08583	.06613	.07162	.05146	.06484	.06798	18.283			
1,1,1-TRICHLOROETHANE	97	.80804	.54601	.53518	.59001	.51014	.59787	20.236			
CARBON TETRACHLORIDE	117	.80174	.53704	.52968	.57726	.50644	.59043	20.469			
VINYL ACETATE	43	1.11275	1.25689	1.26570	1.09893	1.21686	1.19023	6.667			
BROMODICHLOROMETHANE	83	.84389	.62463	.59798	.63866	.57245	.65552	16.525			
1,2-DICHLOROPROPANE	63	.49204	.49341	.47136	.44626	.44491	.46960	5.026	*		
TRANS-1,3-DICHLOROPROPENE	75	.81912	.69538	.68300	.69776	.62213	.70348	10.178			
TRICHLOROETHENE	130	.44634	.42371	.39853	.38452	.36368	.40336	8.047			
DIBROMOCHLOROMETHANE	129	.71128	.56494	.52585	.53419	.45559	.55837	16.903			
1,1,2-TRICHLOROETHANE	97	.44527	.37334	.34812	.35174	.29571	.36284	14.939			
BENZENE	78	1.33421	1.20242	1.13581	1.12616	1.03138	1.16600	9.612			
CIS-1,3-DICHLOROPROPENE	75	.67756	.52506	.49322	.50605	.42953	.52628	17.453			
2-CHLOROETHYLVINYLETHER	63	.35845	.34245	.33476	.30801	.31038	.33081	6.505			
BROMOFORM	173	.66385	.64313	.63732	.57829	.58969	.62246	5.895		**	
4-METHYL-2-PENTANONE	43	.90759	1.26859	1.32155	.96430	1.15534	1.12348	16.246			
2-HEXANONE	43	.77024	1.05625	1.09202	.77051	.95286	.92838	16.482			
TETRACHLOROETHENE	164	.50876	.52353	.48547	.41857	.41486	.47024	10.787			
1,1,2,2-TETRACHLOROETHANE	83	.87842	.82654	.81458	.77936	.70534	.80085	8.008		**	
TOLUENE-D8 (SURR)	98	1.32339	1.38280	1.45130	1.33957	1.31679	1.36277	4.093			(Conc=250.0,250.0,250.0,2
TOLUENE	92	1.05387	.94123	.86637	.82455	.79257	.89572	11.662	*		
CHLOROBENZENE	112	1.29244	1.13242	1.05881	1.03357	1.00289	1.10402	10.480		**	
ETHYLBENZENE	91	2.21736	1.84487	1.78724	1.76922	1.65807	1.85535	11.501	*		

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-4618/U-4651 Instrument ID: HP-5995C

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

Contract No: IL-3140

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

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

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-4618 / U-4651 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%

Compound		RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RF}$	% RSD	CCC	SPCC	
Laboratory ID:		>C4686	>C4687	>C4688	>C4689	>C4690					
CHLOROMETHANE	50	1.51261	1.36040	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	.27099	.43470	24.702			
METHYLENE CHLORIDE	84	2.70137	2.01260	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	3.10457	3.45580	3.04764	3.22905	4.939		**	
TRANS-1,2-DICHLOROETHENE	96	1.54663	1.48573	1.47992	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	2.71709	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	2.56508	6.743			(Conc=50.0,50.0,50.0,50.0,50.0)
2-BUTANONE	72	.04297	.03739	.03140	.02315	.03315	.03361	21.881			
1,1,1-TRICHLOROETHANE	97	.55645	.54439	.54279	.54039	.52853	.54251	1.838			
CARBON TETRACHLORIDE	117	.53155	.52778	.51992	.51554	.49734	.51843	2.579			
VINYL ACETATE	43	.58349	.57735	.56023	.49965	.54462	.55307	6.058			
BROMODICHLOROMETHANE	83	.61487	.60306	.59880	.56560	.60562	.59759	3.150			
1,2-DICHLOROPROPANE	63	.46335	.46387	.45272	.42721	.44731	.45089	3.328	*		
TRANS-1,3-DICHLOROPROPENE	75	.77766	.77132	.75522	.70766	.75337	.75304	3.639			
TRICHLOROETHENE	130	.40360	.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	.41053	.45805	6.645			
1,1,2,2-TETRACHLOROETHANE	83	.57441	.66566	.66212	.46259	.68781	.61052	15.292		**	
TOLUENE-D8 (SURR)	98	1.44801	1.45525	1.48425	1.54822	1.52029	1.49136	2.852			(Conc=50.0,50.0,50.0,50.0,50.0)
TOLUENE	92	.97767	.91986	.89142	.91055	.86557	.91301	4.566	*		
CHLOROBENZENE	112	1.09059	1.03528	1.02098	1.01667	.98461	1.02963	3.767		**	
ETHYLBENZENE	91	1.93098	1.85270	1.81066	1.86300	1.79359	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
NSL Compounds

Case No: U-4618 / U-4651 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	3.842		

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

C e No: U-4618/U-4651

Calibration Date: 01/02/87

Contractor: E & E, INC.

Time: 12:04

Contract No: IL-3140

Laboratory ID: >D1426

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	1.27984	16.92		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.27984	8.07		
1,3-DICHLOROBENZENE	146	1.47624	1.37455	6.89		
1,4-DICHLOROBENZENE	146	1.46874	1.36100	7.34	*	
BENZYL ALCOHOL	79	1.13473	.86679	23.61		
1,2-DICHLOROBENZENE	146	1.49193	1.38848	6.93		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	2.92409	9.05		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.13619	3.81		**
HEXACHLOROETHANE	117	.70841	.66203	6.55		
NITROBENZENE-D5 (SURR)	82	.37437	.37913	1.27		
NITROBENZENE	77	.37969	.38577	1.60		
ISOPHORONE	82	.75594	.71781	5.04		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.39814	3.52		
1,2,4-TRICHLOROBENZENE	180	.38442	.35695	7.15		
NAPHTHALENE	128	.96668	.91460	5.39		
4-CHLOROANILINE	127	.37796	.31986	15.37		
HEXACHLOROBUTADIENE	225	.25908	.24338	6.06	*	
2-METHYLNAPHTHALENE	142	.64484	.54604	15.32		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.53256	6.26		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.89030	17.18		
2-CHLORONAPHTHALENE	162	1.37281	1.45305	5.85		
2-NITROANILINE	65	.47645	.40269	15.48		
DIMETHYL PHTHALATE	163	1.71954	1.45586	15.33		
4-NITROANILINE	138	.25828	.17463	32.39		
DIBENZOFURAN	168	1.90873	1.57449	17.51		
ACENAPHTHYLENE	152	2.10065	2.01557	4.05		
FLUORENE	166	1.34670	1.05641	21.56		
3-NITROANILINE	138	.09246	.06768	26.80		
ACENAPHTHENE	153	1.37857	1.28109	7.07	*	
2,4-DINITROTOLUENE	165	.33212	.22871	31.14		
2,6-DINITROTOLUENE	165	.37112	.28711	22.63		
DIETHYLPHTHALATE	149	1.58664	1.17960	25.65		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.51479	26.89		
N-NITROSODIPHENYLAMINE	169	.51771	.53558	3.45	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.28298	15.48		
HEXACHLOROBENZENE	284	.43791	.29712	32.15		

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

C : No: U-4618/U-4651

Calibration Date: 01/02/87

Contractor: E & E, INC.

Time: 12:04

Contract No: IL-3140

Laboratory ID: >D1426

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	.95354	6.06		
ANTHRACENE	178	.99874	.91112	8.77		
DI-N-BUTYLPHTHALATE	149	.97124	.89762	7.58		
FLUORANTHENE	202	.62146	.64631	4.00	*	
BENZIDINE		.65247	.27814	57.37		
PYRENE	202	2.68642	1.44593	46.18		
TERPHENYL-D14 (SURR)	244	1.48172	.83159	43.88		
BUTYLBENZYLPHTHALATE	149	.68277	.60585	11.27		
3,3'DICHLOROBENZIDINE	252	.13263	.12920	2.59		
BENZO(A)ANTHRACENE	228	.91524	.97640	6.68		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.83852	2.79		
CHRYSENE	228	1.19137	.99573	16.42		
DI-N-OCTYL PHTHALATE	149	1.64173	1.65920	1.06	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.15749	2.00		
BENZO(K)FLUORANTHENE	252	1.55063	1.18871	23.34		
BENZO(A)PYRENE	252	1.10877	1.01589	8.38	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.02763	3.77		
DIBENZ(A,H)ANTHRACENE	278	.81159	.94482	16.42		
BENZO(G,H,I)PERYLENE	276	1.10886	1.07358	3.18		

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

C e No: U-4618/U-4651

Calibration Date: 01/02/87

Contractor: E & E, INC.

Time: 14:10

Contract No: IL-3140

Laboratory ID: >D1428

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	1.16905	16.53		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.92130	.86812	5.77		
PHENOL	94	1.34105	1.27613	4.84	*	
2-METHYL PHENOL	108	1.03158	.99171	3.86		
2-CHLOROPHENOL	128	1.13833	1.12818	.89		
4-METHYL PHENOL	108	1.07582	1.01299	5.84		
2-NITROPHENOL	139	.20262	.19705	2.75	*	
2,4-DIMETHYLPHENOL	122	.28916	.25761	10.91		
BENZOIC ACID	105	.20401	.16276	20.22		
2,4-DICHLOROPHENOL	162	.31568	.27165	13.95	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.25989	22.60	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.45073	1.04	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.45639	6.73		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32584	.18702	42.60		
2,4-DINITROPHENOL	184	.17071	.13676	19.89		**
4-NITROPHENOL	139	.32314	.17115	47.03		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.12397	2.95		
PENTACHLOROPHENOL	266	.18773	.14489	22.82	*	

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: V-4618/V-4651

Calibration Date: 01/09/87

Contractor: E & E, INC.

Time: 11:30

Contract No: IL-3140

Laboratory ID: >D1481

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	1.19219	22.61		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.06530	10.05		
1,3-DICHLOROBENZENE	146	1.47624	1.33975	9.25		
1,4-DICHLOROBENZENE	146	1.46874	1.37772	6.20	*	
BENZYL ALCOHOL	79	1.13473	1.00412	11.51		
1,2-DICHLOROBENZENE	146	1.49193	1.38653	7.06		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	2.70425	.85		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.11173	5.88		**
HEXACHLOROETHANE	117	.70841	.65942	6.92		
NITROBENZENE-D5 (SURR)	82	.37437	.50209	34.12		
NITROBENZENE	77	.37969	.50502	33.01		
ISOPHORONE	82	.75594	.95879	26.83		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.56397	36.67		
1,2,4-TRICHLOROBENZENE	180	.38442	.46110	19.95		
NAPHTHALENE	128	.96668	.84308	12.79		
4-CHLOROANILINE	127	.37796	.31395	16.93		
HEXACHLOROBUTADIENE	225	.25908	.29011	11.98	*	
2-METHYLNAPHTHALENE	142	.64484	.57099	11.45		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.59383	4.52		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.80980	12.19		
2-CHLORONAPHTHALENE	162	1.37281	1.41541	3.10		
2-NITROANILINE	65	.47645	.31319	34.27		
DIMETHYL PHTHALATE	163	1.71954	1.41759	17.56		
4-NITROANILINE	138	.25828	.18977	26.53		
DIBENZOFURAN	168	1.90873	1.70233	10.81		
ACENAPHTHYLENE	152	2.10065	1.92427	8.40		
FLUORENE	166	1.34670	1.13929	15.40		
3-NITROANILINE	138	.09246	.08478	8.31		
ACENAPHTHENE	153	1.37857	1.26032	8.58	*	
2,4-DINITROTOLUENE	165	.33212	.23773	28.42		
2,6-DINITROTOLUENE	165	.37112	.29953	19.29		
DIETHYLPHTHALATE	149	1.58664	1.16909	26.32		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.64369	8.59		
N-NITROSODIPHENYLAMINE	169	.51771	.49715	3.97	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.32639	2.52		
HEXACHLOROBENZENE	284	.43791	.32897	24.88		

R - 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-4618/U-4651

Calibration Date: 01/09/87

Contractor: E & E, INC.

Time: 11:30

Contract No: IL-3140

Laboratory ID: >D1481

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	.92212	9.16		
ANTHRACENE	178	.99874	.88543	11.35		
DI-N-BUTYLPHTHALATE	149	.97124	.75723	22.03		
FLUORANTHENE	202	.62146	.57485	7.50	*	
BENZIDINE		.65247	.43837	32.81		
PYRENE	202	2.68642	1.96888	26.71		
TERPHENYL-D14 (SURR)	244	1.48172	1.08984	26.45		
BUTYLBENZYLPHTHALATE	149	.68277	.55846	18.21		
3,3'DICHLOROBENZIDINE	252	.13263	.15457	16.54		
BENZO(A)ANTHRACENE	228	.91524	1.00452	9.76		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.83380	2.21		
CHRYSENE	228	1.19137	.96488	19.01		
DI-N-OCTYL PHTHALATE	149	1.64173	1.57617	3.99	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.33690	17.81		
BENZO(K)FLUORANTHENE	252	1.55063	1.09875	29.14		
BENZO(A)PYRENE	252	1.10877	1.05559	4.80	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	.99551	.52		
DIBENZ(A,H)ANTHRACENE	278	.81159	.91375	12.59		
BENZO(G,H,I)PERYLENE	276	1.10886	1.08987	1.71		

I - 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-4618/U-4651

Calibration Date: 01/09/87

Contractor: E & E, INC.

Time: 13:24

Contract No: IL-3140

Laboratory ID: >D1483

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	1.40262	.15		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.92130	1.02894	11.68		
PHENOL	94	1.34105	1.40801	4.99	*	
2-METHYL PHENOL	108	1.03158	1.05214	1.99		
2-CHLOROPHENOL	128	1.13833	1.20535	5.89		
4-METHYL PHENOL	108	1.07582	1.07308	.25		
2-NITROPHENOL	139	.20262	.16234	19.88	*	
2,4-DIMETHYLPHENOL	122	.28916	.22588	21.89		
BENZOIC ACID	105	.20401	.15573	23.67		
2,4-DICHLOROPHENOL	162	.31568	.24673	21.84	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.27007	19.57	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.54175	18.94	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.51531	5.31		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32584	.23485	27.93		
2,4-DINITROPHENOL	184	.17071	.11652	31.74		**
4-NITROPHENOL	139	.32314	.11396	64.73		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.12669	5.22		
PENTACHLOROPHENOL	266	.18773	.16423	12.52	*	

R - 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-4618/U-4651

Calibration Date: 01/15/86

Contractor: E & E, INC.

Time: 12:14

Contract No: IL-3140

Laboratory ID: >D1525

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	.96656	37.25		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	.85247	28.02		
1,3-DICHLOROBENZENE	146	1.47624	1.35434	8.26		
1,4-DICHLOROBENZENE	146	1.46874	1.35911	7.46	*	
BENZYL ALCOHOL	79	1.13473	.76849	32.28		
1,2-DICHLOROBENZENE	146	1.49193	1.35793	8.98		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	1.96466	26.73		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	.80634	31.73		**
HEXACHLOROETHANE	117	.70841	.56116	20.79		
NITROBENZENE-D5 (SURR)	82	.37437	.29393	21.49		
NITROBENZENE	77	.37969	.28816	24.11		
ISOPHORONE	82	.75594	.52503	30.55		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.32630	20.93		
1,2,4-TRICHLOROBENZENE	180	.38442	.40244	4.69		
NAPHTHALENE	128	.96668	.87925	9.04		
4-CHLOROANILINE	127	.37796	.31398	16.93		
HEXACHLOROBUTADIENE	225	.25908	.29572	14.14	*	
2-METHYLNAPHTHALENE	142	.64484	.56946	11.69		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.65012	14.43		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.89286	17.34		
2-CHLORONAPHTHALENE	162	1.37281	1.47945	7.77		
2-NITROANILINE	65	.47645	.28984	39.17		
DIMETHYL PHTHALATE	163	1.71954	1.34123	22.00		
4-NITROANILINE	138	.25828	.19009	26.40		
DIBENZOFURAN	168	1.90873	1.69977	10.95		
ACENAPHTHYLENE	152	2.10065	1.93943	7.67		
FLUORENE	166	1.34670	1.13373	15.81		
3-NITROANILINE	138	.09246	.11186	20.99		
ACENAPHTHENE	153	1.37857	1.25755	8.78	*	
2,4-DINITROTOLUENE	165	.33212	.23045	30.61		
2,6-DINITROTOLUENE	165	.37112	.27426	26.10		
DIETHYLPHTHALATE	149	1.58664	1.09629	30.90		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.63216	10.22		
N-NITROSODIPHENYLAMINE	169	.51771	.51305	.90	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.32387	3.27		
HEXACHLOROBENZENE	284	.43791	.33202	24.18		

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: V-4618/V-4651

Calibration Date: 01/15/86

Contractor: E & E, INC.

Time: 12:14

Contract No: IL-3140

Laboratory ID: >D1525

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	.93191	8.19		
ANTHRACENE	178	.99874	.89589	10.30		
DI-N-BUTYLPHTHALATE	149	.97124	.74861	22.92		
FLUORANTHENE	202	.62146	.61224	1.48	*	
BENZIDINE		.65247	.33012	49.40		
PYRENE	202	2.68642	1.58539	40.98		
TERPHENYL-D14 (SURR)	244	1.48172	.97630	34.11		
BUTYLBENZYLPHTHALATE	149	.68277	.53624	21.46		
3,3'DICHLOROBENZIDINE	252	.13263	.26118	96.92		
BENZO(A)ANTHRACENE	228	.91524	1.00124	9.40		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.92463	13.34		
CHRYSENE	228	1.19137	.98762	17.10		
DI-N-OCTYL PHTHALATE	149	1.64173	1.36071	17.12	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.30626	15.11		
BENZO(K)FLUORANTHENE	252	1.55063	.91981	40.68		
BENZO(A)PYRENE	252	1.10877	1.02598	7.47	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.17108	18.25		
DIBENZ(A,H)ANTHRACENE	278	.81159	1.05448	29.93		
BENZO(G,H,I)PERYLENE	276	1.10886	1.21117	9.23		

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

Continuing Calibration Check
HSL Compounds

Case No: U-4618/U-4651

Calibration Date: 01/15/86

Contractor: E & E, INC.

Time: 13:17

Contract No: IL-3140

Laboratory ID: >D1526

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	.94445	32.57		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.92130	.75623	17.92		
PHENOL	94	1.34105	1.02794	23.35	*	
2-METHYL PHENOL	108	1.03158	.83254	19.29		
2-CHLOROPHENOL	128	1.13833	1.01639	10.71		
4-METHYL PHENOL	108	1.07582	.88124	18.09		
2-NITROPHENOL	139	.20262	.19044	6.01	*	
2,4-DIMETHYLPHENOL	122	.28916	.24189	16.35		
BENZOIC ACID	105	.20401	.17979	11.87		
2,4-DICHLOROPHENOL	162	.31568	.32268	2.22	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.27350	18.55	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.51393	12.84	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.51105	4.45		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32584	.25407	22.03		
2,4-DINITROPHENOL	184	.17071	.13615	20.25		**
4-NITROPHENOL	139	.32314	.13925	56.91		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.12101	.50		
PENTACHLOROPHENOL	266	.18773.	.16122	14.12	*	

I - 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-4618/U-4651 Calibration Date: 01/20/87

Contractor: E & E, INC. Time: 13:33

Contract No: IL-3140 Laboratory ID: >B3291

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	1.39116	8.68		
BIS(-2-CHLOROETHYL)ETHER	93	1.23992	1.20638	2.71		
1,3-DICHLOROBENZENE	146	1.38276	1.32056	4.50		
1,4-DICHLOROBENZENE	146	1.36777	1.28856	5.79	*	
BENZYL ALCOHOL	79	1.07958	.76513	29.13		
1,2-DICHLOROBENZENE	146	1.42808	1.31808	7.70		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.97018	2.97248	.08		
N-NITROSO-DI-N-PROPYLAMINE	70	1.29228	1.07295	16.97		**
HEXACHLOROETHANE	117	.70913	.65557	7.55		
NITROBENZENE-D5 (SURR)	82	.40084	.36271	9.51		
NITROBENZENE	77	.41948	.36533	12.91		
ISOPHORONE	82	.80995	.69058	14.74		
BIS(-2-CHLOROETHOXY)METHANE	93	.45577	.42350	7.08		
1,2,4-TRICHLOROBENZENE	180	.37851	.35279	6.80		
NAPHTHALENE	128	.98472	.95844	2.67		
4-CHLOROANILINE	127	.39458	.39323	.34		
HEXACHLOROBUTADIENE	225	.25803	.23039	10.71	*	
2-METHYLNAPHTHALENE	142	.62355	.59681	4.29		
HEXACHLOROCYCLOPENTADIENE	237	.45397	.43028	5.22		**
2-FLUOROBIPHENYL (SURR)	172	1.33061	1.49367	12.25		
2-CHLORONAPHTHALENE	162	1.20816	1.22380	1.29		
2-NITROANILINE	65	.43896	.40650	7.39		
DIMETHYL PHTHALATE	163	1.43709	1.51825	5.65		
4-NITROANILINE	138	.25992	.29096	11.94		
DIBENZOFURAN	168	1.61498	1.78395	10.46		
ACENAPHTHYLENE	152	1.80371	1.98457	10.03		
FLUORENE	166	1.19425	1.32893	11.28		
3-NITROANILINE	138	.15454	.10897	29.48		
ACENAPHTHENE	153	1.18706	1.22483	3.18	*	
2,4-DINITROTOLUENE	165	.38188	.37977	.55		
2,6-DINITROTOLUENE	165	.35087	.33652	4.09		
DIETHYLPHTHALATE	149	1.39014	1.48178	6.59		
4-CHLOROPHENYL-PHENYLETHER	204	.62534	.67678	8.23		
N-NITROSODIPHENYLAMINE	169	.42524	.46088	8.38	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26659	.26325	1.25		
HEXACHLOROBENZENE	284	.34094	.28949	15.09		

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

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

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: U-4618/U-4651 Calibration Date: 01/20/87

Contractor: E & E, INC. Time: 13:33

Contract No: IL-3140 Laboratory ID: 083291

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	.98690	.95		
ANTHRACENE	178	1.00646	.92323	8.27		
DI-N-BUTYLPHTHALATE	149	1.12721	.98853	12.30		
FLUORANTHENE	202	.81517	.82248	.90	*	
BENZIDINE		-	-	-		
PYRENE	202	1.60192	1.77486	10.80		
TERPHENYL-D14 (SURR)	244	1.11052	.99935	10.01		
BUTYLBENZYLPHTHALATE	149	.67361	.58782	12.74		
3,3'DICHLOROBENZIDINE	252	.31882	.08281	74.03		
BENZO(A)ANTHRACENE	228	1.12037	1.02558	8.46		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.90083	.74832	16.93		
CHRYSENE	228	1.12666	.97265	13.67		
DI-N-OCTYL PHTHALATE	149	1.70682	1.66924	2.20	*	
BENZO(B)FLUORANTHENE	252	1.21474	1.30232	7.21		
BENZO(K)FLUORANTHENE	252	1.23716	1.10108	11.00		
BENZO(A)PYRENE	252	1.12089	.99921	10.86	*	
INDENO(1,2,3-CD)PYRENE	276	1.04154	.84428	18.94		
DIBENZ(A,H)ANTHRACENE	278	1.06755	.78309	26.65		
BENZO(G,H,I)PERYLENE	276	1.15866	.88425	23.68		

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

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

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: U-4618/U-4651 Calibration Date: 01/20/87

Contractor: E & E, INC. Time: 14:36

Contract No: IL-3140 Laboratory ID: >B3292

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5	(SURR) 99	1.37894	1.27450	7.57		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL	(SURR) 112	.86917	.90565	4.20		
PHENOL	94	1.27723	1.33681	4.67	*	
2-METHYL PHENOL	108	1.06214	1.01216	4.71		
2-CHLOROPHENOL	128	1.17232	1.20217	2.55		
4-METHYL PHENOL	108	1.06894	.99502	6.92		
2-NITROPHENOL	139	.19333	.19963	3.26	*	
2,4-DIMETHYLPHENOL	122	.27900	.26620	4.59		
BENZOIC ACID	105	.23920	.19344	19.13		
2,4-DICHLOROPHENOL	162	.30213	.30974	2.52	*	
4-CHLORO-3-METHYLPHENOL	107	.33099	.29467	10.97	*	
2,4,6-TRICHLOROPHENOL	196	.44521	.45215	1.56	*	
2,4,5-TRICHLOROPHENOL	196	.51987	.50164	3.51		
2,4,6-TRIBROMOPHENOL	(SURR) 330	.32822	.28473	13.25		
2,4-DINITROPHENOL	184	.16189	.18382	13.55		**
4-NITROPHENOL	139	.16233	.20722	27.66		**
4,6-DINITRO-2-METHYLPHENOL	198	.14211	.12904	9.20		
PENTACHLOROPHENOL	266	.17144	.17573	2.50	*	

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

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

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: V-4618/V-4651

Calibration Date: 01/22/86

Contractor: E & E, INC.

Time: 12:50

Contract No: IL-3140

Laboratory ID: >D1578

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	1.16876	24.13		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.16876	1.31		
1,3-DICHLOROBENZENE	146	1.47624	1.34359	8.99		
1,4-DICHLOROBENZENE	146	1.46874	1.38951	5.39	*	
BENZYL ALCOHOL	79	1.13473	.78342	30.96		
1,2-DICHLOROBENZENE	146	1.49193	1.38083	7.45		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	2.72719	1.71		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.13863	3.60		**
HEXACHLOROETHANE	117	.70841	.63911	9.78		
NITROBENZENE-D5 (SURR)	82	.37437	.35324	5.64		
NITROBENZENE	77	.37969	.35931	5.37		
ISOPHORONE	82	.75594	.66957	11.43		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.40032	2.99		
1,2,4-TRICHLOROBENZENE	180	.38442	.34726	9.67		
NAPHTHALENE	128	.96668	.90396	6.49		
4-CHLOROANILINE	127	.37796	.32855	13.07		
HEXACHLOROBUTADIENE	225	.25908	.21934	15.34	*	
2-METHYLNAPHTHALENE	142	.64484	.60286	6.51		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.47623	16.18		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.80410	11.83		
2-CHLORONAPHTHALENE	162	1.37281	1.47408	7.38		
2-NITROANILINE	65	.47645	.39720	16.63		
DIMETHYL PHTHALATE	163	1.71954	1.41982	17.43		
4-NITROANILINE	138	.25828	.20087	22.23		
DIBENZOFURAN	168	1.90873	1.69564	11.16		
ACENAPHTHYLENE	152	2.10065	2.01881	3.90		
FLUORENE	166	1.34670	1.13092	16.02		
3-NITROANILINE	138	.09246	.12055	30.38		
ACENAPHTHENE	153	1.37857	1.29358	6.17	*	
2,4-DINITROTOLUENE	165	.33212	.23179	30.21		
2,6-DINITROTOLUENE	165	.37112	.28527	23.13		
DIETHYLPHTHALATE	149	1.58664	1.22233	22.96		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.58384	17.08		
N-NITROSODIPHENYLAMINE	169	.51771	.55473	7.15	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.30041	10.28		
HEXACHLOROBENZENE	284	.43791	.29105	33.54		

R - 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-4618/U-4651

Calibration Date: 01/22/86

Contractor: E & E, INC.

Time: 12:50

Contract No: IL-3140

Laboratory ID: >D1578

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	.96341	5.09		
ANTHRACENE	178	.99874	.90753	9.13		
DI-N-BUTYLPHTHALATE	149	.97124	.87385	10.03		
FLUORANTHENE	202	.62146	.60006	3.44	*	
BENZIDINE		.65247	.32493	50.20		
PYRENE	202	2.68642	1.53605	42.82		
TERPHENYL-D14 (SURR)	244	1.48172	.89065	39.89		
BUTYLBENZYLPHTHALATE	149	.68277	.66995	1.88		
3,3'DICHLOROBENZIDINE	252	.13263	.28964	118.38		
BENZO(A)ANTHRACENE	228	.91524	1.01204	10.58		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.96257	17.99		
CHRYSENE	228	1.19137	1.00501	15.64		
DI-N-OCTYL PHTHALATE	149	1.64173	1.82282	11.03	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.34739	18.74		
BENZO(K)FLUORANTHENE	252	1.55063	.98509	36.47		
BENZO(A)PYRENE	252	1.10877	1.04511	5.74	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.10491	11.57		
DIBENZ(A,H)ANTHRACENE	278	.81159	1.00261	23.54		
BENZO(G,H,I)PERYLENE	276	1.10886	1.13371	2.24		

I - 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-4618/U-4651

Calibration Date: 01/22/86

Contractor: E & E, INC.

Time: 16:52

Contract No: IL-3140

Laboratory ID: >D1582

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	1.47718	5.47		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.92130	.89170	3.21		
PHENOL	94	1.34105	1.33679	.32	*	
2-METHYL PHENOL	108	1.03158	1.03028	.13		
2-CHLOROPHENOL	128	1.13833	1.15990	1.89		
4-METHYL PHENOL	108	1.07582	1.06710	.81		
2-NITROPHENOL	139	.20262	.19968	1.45	*	
2,4-DIMETHYLPHENOL	122	.28916	.26804	7.30		
BENZOIC ACID	105	.20401	.17008	16.63		
2,4-DICHLOROPHENOL	162	.31568	.30386	3.74	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.27505	18.08	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.50004	9.79	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.48219	1.45		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32584	.21241	34.81		
2,4-DINITROPHENOL	184	.17071	.12603	26.17		**
4-NITROPHENOL	139	.32314	.16065	50.28		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.12267	1.87		
PENTACHLOROPHENOL	266	.18773	.14662	21.90	*	

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-4618/V-4651 Calibration Date: 12/16/86

Contractor: E & E, INC. Time: 10:03

Contract No: IL-3140 Laboratory ID: >C6074

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	.88339	38.15		**
BROMOMETHANE	94	.79319	.46014	41.99		
VINYL CHLORIDE	62	.61396	.50094	18.41	*	
CHLOROETHANE	64	.43470	.42429	2.39		
METHYLENE CHLORIDE	84	2.01235	2.49605	24.04		
ACETONE	43	.50481	.71679	41.99		
TRICHLOROFLUOROMETHANE	101	2.81945	3.45364	22.49		
CARBON DISULFIDE	76	4.39246	5.36905	22.23		
1,1-DICHLOROETHENE	61	2.99736	3.06758	2.34	*	
1,1-DICHLOROETHANE	63	3.22905	3.40565	5.47		**
TRANS-1,2-DICHLOROETHENE	96	1.51692	1.76712	16.49		
CHLOROFORM	83	3.15897	3.94288	24.82	*	
1,2-DICHLOROETHANE	62	2.67624	3.04815	13.90		
1,2-DICHLOROETHANE-D4(SURR)	65	2.56588	2.47868	3.40		
2-BUTANONE	72	.03361	.04744	41.14		
1,1,1-TRICHLOROETHANE	97	.54251	.69426	27.97		
CARBON TETRACHLORIDE	117	.51843	.69592	34.24		
VINYL ACETATE	43	.55307	.63975	15.67		
BROMODICHLOROMETHANE	83	.59759	.71382	19.45		
1,2-DICHLOROPROPANE	63	.45089	.44820	.60	*	
TRANS-1,3-DICHLOROPROPENE	75	.75304	.85033	12.92		
TRICHLOROETHENE	130	.37764	.44999	19.16		
DIBROMOCHLOROMETHANE	129	.44848	.55384	23.49		
1,1,2-TRICHLOROETHANE	97	.30504	.36994	21.27		
BENZENE	78	1.11985	1.32373	18.21		
CIS-1,3-DICHLOROPROPENE	75	.38317	.47447	23.83		
2-CHLOROETHYLVINYLETHER	63	.03734	.17816	377.10		
BROMOFORM	173	.48429	.42680	11.87		**
4-METHYL-2-PENTANONE	43	.40583	.50102	23.45		
2-HEXANONE	43	.31982	.35054	9.61		
TETRACHLOROETHENE	164	.45805	.51374	12.16		
1,1,2,2-TETRACHLOROETHANE	83	.61052	.63005	3.20		**
TOLUENE-D8 (SURR)	98	1.49136	1.58716	6.42		
TOLUENE	92	.91301	1.08993	19.38	*	
CHLOROBENZENE	112	1.02963	1.28668	24.97		**
ETHYLBENZENE	91	1.85025	2.26945	22.66	*	

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

C No: U-4618/U-4651 Calibration Date: 12/16/86

Contractor: E & E, INC. Time: 10:03

Contract No: IL-3140 Laboratory ID: >C6074

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	.76617	14.13		
STYRENE	104	.99348	1.34101	34.98		
TOTAL XYLENES	91	1.43547	1.80724	25.90		

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

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

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case : U-4618/U-4651 Calibration Date: 12/17/86

Contractor: E & E INC. Time: 11:35

Contract No: IL-3140 Laboratory ID: >C6101

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	2.14221	6.98		**
BROMOMETHANE	94	1.43187	1.45357	1.52		
VINYL CHLORIDE	62	1.60438	.97138	39.45	*	
CHLOROETHANE	64	.69191	.35976	48.01		
METHYLENE CHLORIDE	84	1.38013	1.98995	44.19		
ACETONE	43	1.61869	1.36138	15.90		
TRICHLOROFLUOROMETHANE	101	3.13900	2.79077	11.09		
CARBON DISULFIDE	76	3.82990	4.12562	7.72		
1,1-DICHLOROETHENE	61	3.02810	2.42360	19.96	*	
1,1-DICHLOROETHANE	63	3.36439	2.69086	20.02		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.42882	8.28		
CHLOROFORM	83	3.56796	3.12181	12.50	*	
1,2-DICHLOROETHANE	62	3.55680	2.58318	27.37		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.30110	23.26		
2-BUTANONE	72	.06798	.09129	34.30		
1,1,1-TRICHLOROETHANE	97	.59787	.58455	2.23		
CARBON TETRACHLORIDE	117	.59043	.58804	.40		
VINYL ACETATE	43	1.19023	.67446	43.33		
BROMODICHLOROMETHANE	83	.65552	.60076	8.35		
1,2-DICHLOROPROPANE	63	.46960	.38338	18.36	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.72278	2.74		
TRICHLOROETHENE	130	.40336	.39725	1.51		
DIBROMOCHLOROMETHANE	129	.55837	.49545	11.27		
1,1,2-TRICHLOROETHANE	97	.36284	.34928	3.74		
BENZENE	78	1.16600	1.13817	2.39		
CIS-1,3-DICHLOROPROPENE	75	.52628	.42172	19.87		
2-CHLOROETHYLVINYLETHER	63	.33081	.18636	43.67		
BROMOFORM	173	.62246	.45529	26.86		**
4-METHYL-2-PENTANONE	43	1.12348	.75658	32.66		
2-HEXANONE	43	.92838	.59287	36.14		
TETRACHLOROETHENE	164	.47024	.45875	2.44		
1,1,2,2-TETRACHLOROETHANE	83	.80085	.71603	10.59		**
TOLUENE-D8 (SURR)	98	1.36277	1.48150	8.71		
TOLUENE	92	.89572	.92244	2.98	*	
CHLOROBENZENE	112	1.10402	.98437	10.84		**
ETHYLBENZENE	91	1.85535	1.85356	.17	*	

RF - Response Factor from daily standard file at 250.00 NGS

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

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Cas : U-4618/U-4651

Calibration Date: 12/17/86

Contractor: E & E INC.

Time: 11:35

Contract No: IL-3140

Laboratory ID: >C6101

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	.72265	1.63		
STYRENE	104	.98260	1.09817	11.76		
TOTAL XYLENES	91	1.41320	1.47052	4.06		

Continuing Calibration Check
HSL Compounds

Case No: U-4618/U-4651 Calibration Date: 12/22/86

Contractor: E & EM INC. Time: 12:21

Contract No: IL-3140 Laboratory ID:)C6162

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	2.09341	9.10		**
BROMOMETHANE	94	1.43187	1.34989	5.73		
VINYL CHLORIDE	62	1.60438	1.06773	33.45	*	
CHLOROETHANE	64	.69191	.34308	50.41		
METHYLENE CHLORIDE	84	1.38013	1.64374	19.10		
ACETONE	43	1.61869	1.42832	11.76		
TRICHLOROFLUOROMETHANE	101	3.13900	2.64786	15.65		
CARBON DISULFIDE	76	3.82990	3.95665	3.31		
1,1-DICHLOROETHENE	61	3.02810	2.52949	16.47	*	
1,1-DICHLOROETHANE	63	3.36439	3.08987	8.16		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.57083	.84		
CHLOROFORM	83	3.56796	3.53954	.80	*	
1,2-DICHLOROETHANE	62	3.55680	2.98849	15.98		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.46819	17.69		
2-BUTANONE	72	.06798	.10806	58.96		
1,1,1-TRICHLOROETHANE	97	.59787	.67023	12.10		
CARBON TETRACHLORIDE	117	.59043	.65656	11.20		
VINYL ACETATE	43	1.19023	.77353	35.01		
BROMODICHLOROMETHANE	83	.65552	.70665	7.80		
1,2-DICHLOROPROPANE	63	.46960	.47074	.24	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.85826	22.00		
TRICHLOROETHENE	130	.40336	.43688	8.31		
DIBROMOCHLOROMETHANE	129	.55837	.54258	2.83		
1,1,2-TRICHLOROETHANE	97	.36284	.41423	14.17		
BENZENE	78	1.16600	1.33598	14.58		
CIS-1,3-DICHLOROPROPENE	75	.52628	.51099	2.91		
2-CHLOROETHYLVINYLETHER	63	.33081	.21561	34.82		
BROMOFORM	173	.62246	.43058	30.83		**
4-METHYL-2-PENTANONE	43	1.12348	.83250	25.90		
2-HEXANONE	43	.92838	.66591	28.27		
TETRACHLOROETHENE	164	.47024	.41394	11.97		
1,1,2,2-TETRACHLOROETHANE	83	.80085	.78359	2.15		**
TOLUENE-D8 (SURR)	98	1.36277	1.52177	11.67		
TOLUENE	92	.89572	1.04507	16.67	*	
CHLOROBENZENE	112	1.10402	1.23722	12.06		**
ETHYLBENZENE	91	1.85535	2.21613	19.45	*	

F - Response Factor from daily standard file at 250.00 NGS

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

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

Continuing Calibration Check
HSL Compounds

ase No: V-4618/V-4651 Calibration Date: 12/22/86

ontractor: E & EM INC. Time: 12:21

ontract No: IL-3140 Laboratory ID: >C6162

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
-BROMOFLUOROBENZENE(SURR)	95	.71103	.42308	40.50		
TYRENE	104	.98260	1.29668	31.96		
OTAL XYLENES	91	1.41320	1.79461	26.99		

F - Response Factor from daily standard file at 250.00 NGS

F - Average Response Factor from Initial Calibration Form VI

Continuing Calibration Check
HSL Compounds

Case No: U-4618/U-4651 Calibration Date: 12/23/86

Contractor: E & E, INC. Time: 14:04

Contract No: IL-3140 Laboratory ID: >L6179

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	1.21717	14.78		**
BROMOMETHANE	94	.79319	1.23452	55.64		
VINYL CHLORIDE	62	.61396	.75992	23.77	*	
CHLOROETHANE	64	.43470	.49131	13.02		
METHYLENE CHLORIDE	84	2.01235	2.21432	10.04		
ACETONE	43	.50481	.95524	89.23		
TRICHLOROFLUOROMETHANE	101	2.81945	2.50021	11.32		
CARBON DISULFIDE	76	4.39246	8.59171	95.60		
1,1-DICHLOROETHENE	61	2.99736	2.56859	14.31	*	
1,1-DICHLOROETHANE	63	3.22905	3.69084	14.30		**
TRANS-1,2-DICHLOROETHENE	96	1.51692	1.89341	24.82		
CHLOROFORM	83	3.15897	4.18201	32.39	*	
1,2-DICHLOROETHANE	62	2.67624	3.29807	23.24		
1,2-DICHLOROETHANE-D4(SURR)	65	2.56588	2.44862	4.57		
2-BUTANONE	72	.03361	.05620	67.20		
1,1,1-TRICHLOROETHANE	97	.54251	.72474	33.59		
CARBON TETRACHLORIDE	117	.51843	.71909	38.71		
VINYL ACETATE	43	.55307	1.08426	96.05		
BROMODICHLOROMETHANE	83	.59759	.73696	23.32		
1,2-DICHLOROPROPANE	63	.45089	.48204	6.91	*	
TRANS-1,3-DICHLOROPROPENE	75	.75304	.89249	18.52		
TRICHLOROETHENE	130	.37764	.44499	17.84		
DIBROMOCHLOROMETHANE	129	.44848	.56439	25.84		
1,1,2-TRICHLOROETHANE	97	.30504	.38297	25.55		
BENZENE	78	1.11985	1.37077	22.41		
CIS-1,3-DICHLOROPROPENE	75	.38317	.49743	29.82		
2-CHLOROETHYLVINYLETHER	63	.03734	.19697	427.50		
BROMOFORM	173	.48429	.39017	19.43		**
4-METHYL-2-PENTANONE	43	.40583	.58164	43.32		
2-HEXANONE	43	.31982	.42203	31.96		
TETRACHLOROETHENE	164	.45805	.48037	4.87		
1,1,2,2-TETRACHLOROETHANE	83	.61052	.61984	1.53		**
TOLUENE-D8 (SURR)	98	1.49136	1.42787	4.25		
TOLUENE	92	.91301	1.11856	22.51	*	
CHLOROBENZENE	112	1.02963	1.33545	29.73		**
ETHYLBENZENE	91	1.85025	2.36870	28.02	*	

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

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

Continuing Calibration Check
HSL Compounds

ase No: U-4618/U-4651 Calibration Date: 12/23/86

ontractor: E & E, INC. Time: 14:04

ontract No: IL-3140 Laboratory ID: >C6179

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
-BROMOFLUOROBENZENE(SURR)	95 .89230	.71716	19.63		
TYRENE	104 .99348	1.76508	77.67		
OTAL XYLENES	91 1.43547	2.39872	67.10		

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

F - Average Response Factor from Initial Calibration Form VI

Continuing Calibration Check
HSL Compounds

ase U-4618/U-4651 Calibration Date: 12/26/86

ontractor: E & E INC. Time: 11:13

ontract No: IL-3140 Laboratory ID: >C6196

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

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
HLOROMETHANE	50	2.30296	1.93220	16.10		**
ROMOMETHANE	94	1.43187	1.30070	9.16		
INYL CHLORIDE	62	1.60438	1.24506	22.40	*	
HLOROETHANE	64	.69191	.44835	35.20		
ETHYLENE CHLORIDE	84	1.38013	1.09901	20.37		
CETONE	43	1.61869	1.86668	15.32		
RICHLOROFLUOROMETHANE	101	3.13900	1.70791	45.59		
RBON DISULFIDE	76	3.82990	5.72139	49.39		
,1-DICHLOROETHENE	61	3.02810	1.87597	38.05	*	
,1-DICHLOROETHANE	63	3.36439	2.80549	16.61		**
RANS-1,2-DICHLOROETHENE	96	1.55781	1.46387	6.03		
LOROFORM	83	3.56796	3.20537	10.16	*	
,2-DICHLOROETHANE	62	3.55680	2.73983	22.97		
,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.42208	19.23		
-BUTANONE	72	.06798	.12470	83.44		
,1,1-TRICHLOROETHANE	97	.59787	.60281	.83		
RBON TETRACHLORIDE	117	.59043	.57600	2.44		
NYL ACETATE	43	1.19023	1.22635	3.04		
OMODICHLOROMETHANE	83	.65552	.62268	5.01		
2-DICHLOROPROPANE	63	.46960	.43834	6.66	*	
ANS-1,3-DICHLOROPROPENE	75	.70348	.80212	14.02		
ICHLOROETHENE	130	.40336	.41141	2.00		
BROMOCHLOROMETHANE	129	.55837	.52708	5.60		
1,2-TRICHLOROETHANE	97	.36284	.40902	12.73		
NZENE	78	1.16600	1.22239	4.84		
S-1,3-DICHLOROPROPENE	75	.52628	.47249	10.22		
CHLOROETHYLVINYLETHER	63	.33081	.22579	31.75		
OMOFORM	173	.62246	.43302	30.43		**
METHYL-2-PENTANONE	43	1.12348	1.09651	2.40		
HEXANONE	43	.92838	.87352	5.91		
TRACHLOROETHENE	164	.47024	.43019	8.52		
1,2,2-TETRACHLOROETHANE	83	.80085	.80996	1.14		**
LUENE-D8 (SURR)	98	1.36277	1.42177	4.33		
LUENE	92	.89572	.97802	9.19	*	
LOROBENZENE	112	1.10402	1.14347	3.57		**
HYLBENZENE	91	1.85535	2.00112	7.86	*	

- Response Factor from daily standard file at 250.00 NGS

- Average Response Factor from Initial Calibration Form VI

iff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case U-4618/U-4651 Calibration Date: 12/26/86

Contractor: E & E INC. Time: 11:13

Contract No: IL-3140 Laboratory ID: >C6196

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	.71327	.32		
STYRENE	104	.98260	1.47306	49.92		
TOTAL XYLENES	91	1.41320	2.04386	44.63		

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-4618/V-4651 Calibration Date: 12/29/86

Contractor: E & E, INC. Time: 10:39

Contract No: IL-3140 Laboratory ID: >C6208

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	1.17916	17.44		**
BROMOMETHANE	94	.79319	1.31213	65.42		
VINYL CHLORIDE	62	.61396	.70030	14.06	*	
CHLOROETHANE	64	.43470	.48656	11.93		
METHYLENE CHLORIDE	84	2.01235	1.78556	11.27		
ACETONE	43	.50481	.93668	85.55		
TRICHLOROFLUOROMETHANE	101	2.81945	2.23774	20.63		
CARBON DISULFIDE	76	4.39246	7.02931	60.03		
1,1-DICHLOROETHENE	61	2.99736	2.18921	26.96	*	
1,1-DICHLOROETHANE	63	3.22905	3.10201	3.93		**
TRANS-1,2-DICHLOROETHENE	96	1.51692	1.55440	2.47		
CHLOROFORM	83	3.15897	3.62818	14.85	*	
1,2-DICHLOROETHANE	62	2.67624	3.03055	13.24		
1,2-DICHLOROETHANE-D4(SURR)	65	2.56588	2.77082	7.99		
2-BUTANONE	72	.03361	.05062	50.59		
1,1,1-TRICHLOROETHANE	97	.54251	.62420	15.06		
CARBON TETRACHLORIDE	117	.51843	.60830	17.34		
VINYL ACETATE	43	.55307	.74769	35.19		
BROMODICHLOROMETHANE	83	.59759	.63634	6.48		
1,2-DICHLOROPROPANE	63	.45089	.38265	15.13	*	
TRANS-1,3-DICHLOROPROPENE	75	.75304	.74702	.80		
TRICHLOROETHENE	130	.37764	.33953	10.09		
DIBROMOCHLOROMETHANE	129	.44848	.45537	1.54		
1,1,2-TRICHLOROETHANE	97	.30504	.31175	2.20		
BENZENE	78	1.11985	1.09569	2.16		
CIS-1,3-DICHLOROPROPENE	75	.38317	.42760	11.60		
2-CHLOROETHYLVINYLETHER	63	.03734	.14823	296.95		
BROMOFORM	173	.48429	.29193	39.72		**
4-METHYL-2-PENTANONE	43	.40583	.46787	15.29		
2-HEXANONE	43	.31982	.34507	7.90		
TETRACHLOROETHENE	164	.45805	.33535	26.79		
1,1,2,2-TETRACHLOROETHANE	83	.61052	.49643	18.69		**
TOLUENE-D8 (SURR)	98	1.49136	1.39901	6.19		
TOLUENE	92	.91301	.87437	4.23	*	
CHLOROBENZENE	112	1.02963	1.03664	.68		**
ETHYLBENZENE	91	1.85025	1.85247	.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

Continuing Calibration Check
HSL Compounds

Case : U-4618/U-4651 Calibration Date: 12/29/86

Contractor: E & E, INC. Time: 10:39

Contract No: IL-3140 Laboratory ID: >C6208

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	.71554	19.81		
STYRENE	104	.99348	1.36422	37.32		
TOTAL XYLENES	91	1.43547	1.93969	35.13		

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

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

%Diff - % Difference from original average or curve

PESTICIDE STANDARDS

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

Pesticide Evaluation Standards Summary
(Page 1)

Case No: V-4618 V-4651 Region: _____
Contract No: JL-3140
Date of Analysis 12-29-86 12-30-86

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	635	618	598	3.0
Endrin	595	593	557	3.7
4,4'- DDT(1)	236	270	284	9.4
Dibutyl Chlorendate	430	436	432	0.7

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

	Laboratory I.D.	Time of Analysis	Endrin	4,4'- DDT	Combined(1)
Eval Mix B 72 Hour					
Eval Mix B	RUN 2	12:12			17
Eval Mix B	RUN 19	0:59			7.8
Eval Mix B	RUN 31	12:22			9.9
Eval Mix B	RUN 43	19:22			11
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

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

SMO Sample No	Lab I D	Time of Analysis	Percent Diff	SMO Sample No.	Lab I D	Time of Analysis	Percent Diff
EVAL MIX A	RUN 1	1139	—				
EVAL MIX B	2	1212	0.22				
EVAL MIX C	3	1246	0.22				
IND MIX A	4	1347	0.56				
IND MIX B	5	1420	0.45				
TOXAPHENE	6	1453	0.26				
CHLORDANE	7	1527	0.37				
PCB 1016/1260	8	1600	0.30				
PCB 1221	9	1710	0.45				
PCB 1232	10	1743	0.56				
PCB 1242	11	1817	0.41				
PCB 1248	12	1917	0.41				
PCB 1254	13	1950	0.37				
BLANK 12-18	14	2026	0.33				
BLANK 12-22	15	2232	0.04				
DC-L2-03	16	2319	DL				
DC-L3-04	17	2353	DL				
DC-L4-09	18	0026	0.86				
EVAL MIX B	19	0059	0.82				
DC-L4-09 MS	20	0133	1.04				
DC-L4-09 MSD	21	0206	1.04				
DC-L4-10	22	0240	1.08				
DC-H1-15	23	0313	INF				
DC-K1-08	24	0347	DL				
PCB 1248	25	0421	1.04				
DC-H1-14	26	0455	DL				
DC-LB-01	27	1005	0.22				
DC-L1-02	28	1040	0.41				
DC-N1-05	29	1114	0.26				
DC-N2-06	30	1149	0.41				
EVAL MIX B	31	1222	0.45				
DC-N2-06	32	1300	DL				
DC-NB-07	33	1335	0.60				
DC-J1-11	34	1409	0.86				
DC-J2-12	35	1445	1.08				
DC-J2-12	36	1520	0.71				
PCB 1016/1260	37	1553	1.26				
DC-J3-13	38	1629	0.82				
DC-L3-04	39	1705	DL				
DC-L4-09	40	1743	DL				
DC-L4-09 MS	41	1816	DL				
DC-L4-09 MSD	42	1849	DL				
EVAL MIX B	43	1922	0.71				
DC-L4-10	44	2001	DL				
IND MIX A	45	2050	0.30				
IND MIX B	46	2132	0.41				

DL = DILUTED OUT

INF = INTERFERENCE

Pesticide Evaluation Standards Summary
(Page 1)

Case No: V-4618 V-4651 Region: _____
Contract No: IL-3140
Date of Analysis: 12-31-86

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

Evaluation Check for Linearity

Laboratory ID	RUN 1	RUN 2	RUN 3	
Pesticide	Calibration Factor Eval. Mix A	Calibration Factor Eval. Mix B	Calibration Factor Eval. Mix C	% RSD (≤10%)
Aldrin	775	766	794	1.8
Endrin	558	657	465	17
4,4'- DDT(1)	284	480	303	30
Dibutyl Chlorendate	530	547	538	1.6

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

	Laboratory I.D.	Time of Analysis	Endrin	4,4'- DDT	Combined(2)
Eval Mix B 72 Hour					
Eval Mix B	RUN 2	13:23	3.6	9.0	
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E, Section 7.5.4

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	Rvd 1	12:45	—				
	Eval Mix B	2	13:23	0.09				
	Eval Mix C	3	13:56	0.14				
	Ind Mix A	4	14:30	0.14				
	Ind Mix B	5	15:17	0.05				
	PCB 1016/1260	6	16:08	Ø				
	PCB 1248	7	16:42	0.09				
	Blank 12-18	8	17:12	0.09				
	Blank 1222	9	17:41	0.05				
DC-J3-13	10622	10	18:10	0.05				
DC-L2-03	10464	11	18:44	DL				
DC-K1-08	10617	12	19:18	DL				
	PCB 1248	13	19:52	0.14				
DC-H1-15	10624	14	20:26	0.14				
DC-H1-14	10623	15	21:00	DL				
	Ind Mix A	17	22:07	0.14				
	Ind Mix B	18	22:41	0.37				

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4618/U-4651 Laboratory ECOLOGY + ENVIRONMENT, INC.
Contract No. IL-3140 GC Column OV-1 GC Instrument ID VARIAN 6000 GC#2

	DATE OF ANALYSIS 12-29-86				DATE OF ANALYSIS 12-30-86			
	TIME OF ANALYSIS 13:47 / 14:20 16:00 19:17				TIME OF ANALYSIS 4:21			
	LABORATORY ID RUN 4 / RUN 5 RUN 8 RUN 12				LABORATORY ID RUN 25			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. ✡✡
alpha-BHC	2.05	2.01-2.09	637					
beta-BHC	2.19	2.15-2.23	237					
delta-BHC	2.48	2.44-2.52	572					
gamma-BHC	2.40	2.38-2.42	570					
Heptachlor	3.82	3.78-3.86	453					
Aldrin	4.71	4.66-4.76	596					
Heptachlor Epoxide	5.72	5.65-5.79	556					
Endosulfan I	7.09	6.99-7.19	530					
Dieldrin	8.26	8.14-8.38	568					
4,4'-DDE	8.14	7.98-8.30	528					
Endrin	9.20	9.01-9.39	330 *					
Endosulfan II	9.40	9.28-9.52	516					
4,4'-DDD	10.23	10.02-10.44	478					
Endosulfan Sulfate	12.01	11.75-12.27	385					
4,4'-DDT	12.36	13.19-13.53	135 *					
Methoxychlor	19.63	19.33-19.93	158					
Endrin Ketone	15.39	15.07-15.71	565					
Tech. Chlordane								
alpha-Chlordane✡								
gamma-Chlordane✡								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	5.82	5.65-5.99	38	QUANT.	5.89	38.3		0.79
Aroclor - 1254								
Aroclor - 1260	21.99	21.35-22.63	53	QUANT.				

✡ SEE EXHIBIT E, PART 7

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

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504095

PEAK Height

FORM IX

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4618/U-4651 Laboratory ECOLOGY + ENVIRONMENT, INC.

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

	DATE OF ANALYSIS 12-29-86				DATE OF ANALYSIS 12-30-86			
	TIME OF ANALYSIS 13:47 / 14:20 16:00 18:17				TIME OF ANALYSIS 15:53			
	LABORATORY ID RUN 4 / RUN 5 RUN 8 RUN 10				LABORATORY ID RUN 37			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.05	2.01-2.09	637					
beta-BHC	2.19	2.15-2.23	237					
delta-BHC	2.48	2.44-2.52	572					
gamma-BHC	2.40	2.38-2.42	570					
Heptachlor	3.82	3.78-3.86	453					
Aldrin	4.71	4.66-4.76	596					
Heptachlor Epoxide	5.72	5.65-5.79	556					
Endosulfan I	7.09	6.99-7.19	530					
Dieldrin	8.26	8.14-8.38	568					
4,4'-DDE	8.14	7.98-8.30	528					
Endrin	9.20	9.01-9.39	330					
Endosulfan II	9.40	9.28-9.52	516					
4,4'-DDD	10.23	10.02-10.44	478					
Endosulfan Sulfate	12.01	11.75-12.27	385					
4,4'-DDT	13.36	13.19-13.53	135					
Methoxychlor	19.63	19.33-19.93	158					
Endrin Ketone	15.39	15.07-15.71	565					
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	5.82	5.65-5.99	38	QUANT.				
Aroclor - 1254								
Aroclor - 1260	21.99	21.35-22.63	53	QUANT.	21.77	57		7.5

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* SEE EXHIBIT E, PART 7

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

504035

FORM IX

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4618/U-4651 Laboratory Ecology + Environment, Inc.
Contract No. IL-3140 GC Column OV-1 GC Instrument ID Varian 6000 GC#2

	DATE OF ANALYSIS 12-29-86				DATE OF ANALYSIS 12-30-86			
	TIME OF ANALYSIS 13:47 / 14:20 / 16:00 / 19:17				TIME OF ANALYSIS 20:50 /			
	LABORATORY ID Run 4 / Run 5 / Run 8 / Run 9				LABORATORY ID Run 45 / Run 46			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.05	2.01-2.09	637		2.05	651		2.2
beta-BHC	2.19	2.15-2.23	237		2.19	239		0.84
delta-BHC	2.48	2.44-2.52	572		2.47	596		4.2
gamma-BHC	2.40	2.38-2.42	570		2.40	570		-0
Heptachlor	3.82	3.78-3.86	453		3.82	487		7.5
Aldrin	4.71	4.66-4.76	596		4.71	586		1.7
Heptachlor Epoxide	5.72	5.65-5.79	556		5.72	545		2.0
Endosulfan I	7.09	6.99-7.19	530		7.09	518		2.3
Dieldrin	8.26	8.14-8.38	568		8.26	559		1.6
4,4'-DDE	8.14	7.98-8.30	528		8.16	529		0.19
Endrin	9.20	9.01-9.39	330*		9.21	380*		15
Endosulfan II	9.40	9.28-9.52	516		9.39	505		1.7
4,4'-DDD	10.23	10.02-10.44	478		10.24	466		2.6
Endosulfan Sulfate	12.01	11.75-12.27	385		12.01	400		3.9
4,4'-DDT	13.36	13.19-13.53	135*		13.36	150*		11
Methoxychlor	19.63	19.33-19.93	158		19.64	146		7.6
Endrin Ketone	15.39	15.07-15.71	565		15.39	569		0.71
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	5.82	5.65-5.99	38	QUANT.				
Aroclor - 1254								
Aroclor - 1260	21.99	21.35-22.63	53	QUANT.				

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* SEE EXHIBIT E, PART 7

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

504095

FORM IX

Peak Height

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4618/U-4651 Laboratory Ecology + Environment, Inc

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

12-31-86
Run 6 Run 7
16:08 16:42

DATE OF ANALYSIS	12-31-86				DATE OF ANALYSIS	12-31-86		
TIME OF ANALYSIS	14:30 / 15:17				TIME OF ANALYSIS	19:52		
LABORATORY ID	Run 4 / Run 5				LABORATORY ID	Run 13		
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC								
beta-BHC	2.37	2.32-2.42	31C					
delta-BHC								
gamma-BHC								
Heptachlor	2.55	2.53-2.57	693					
Aldrin								
Heptachlor Epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan Sulfate								
4,4'-DDT								
Methoxychlor								
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	4.72	4.58-4.86	40	CONF.	4.72	38		5.0
Aroclor - 1254								
Aroclor - 1260	18.88	18.31-19.45	96	CONF.				

* SEE EXHIBIT E, PART 7

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

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FORM IX

504095

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4618/U-4651 Laboratory ECOLOGY + ENVIRONMENT, INC.

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

12-31
Run 6 Run 7
16:08 16:42

DATE OF ANALYSIS	12-31-86				DATE OF ANALYSIS	12-31-86		
TIME OF ANALYSIS	14:30	15:17			TIME OF ANALYSIS	22:07	22:41	
LABORATORY ID	Run 4	Run 5			LABORATORY ID	Run 17	Run 18	
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC								
beta-BHC	2.37	2.32-2.42	310		2.37	313		0.96
delta-BHC								
gamma-BHC								
Heptachlor	2.55	2.53-2.57	693		2.56	642		7.4
Aldrin								
Heptachlor Epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan Sulfate								
4,4'-DDT								
Methoxychlor								
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248	4.72	4.58-4.86	40	CONF.				
Aroclor - 1254								
Aroclor - 1260	18.88	18.31-19.45	90	CONF.				

* SEE EXHIBIT E, PART 7

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

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FORM IX

504005

Pesticide/PCB Identification

Case No. U-4618/U-4651 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)
DC-K1-08	OV-1	PCB 1248	6.91	5.65-5.99	SP2250/SP2401	4.72	4.58-4.86	Y
DC-J3-L3	|	PCB 1260	21.86	21.35-22.63	|	18.86	18.31-19.45	N
DC-H1-14	|	PCB 1260	22.21	21.35-22.63	|	18.95	18.31-19.45	N
DC-H1-15	|	PCB 1260	22.21	21.35-22.63	|	18.91	18.31-19.45	N

4/84
505095

FORM X

GC/MS TUNING

1. DFTPP FORM V

2. BFB FORM V

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-4613/U-4651 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

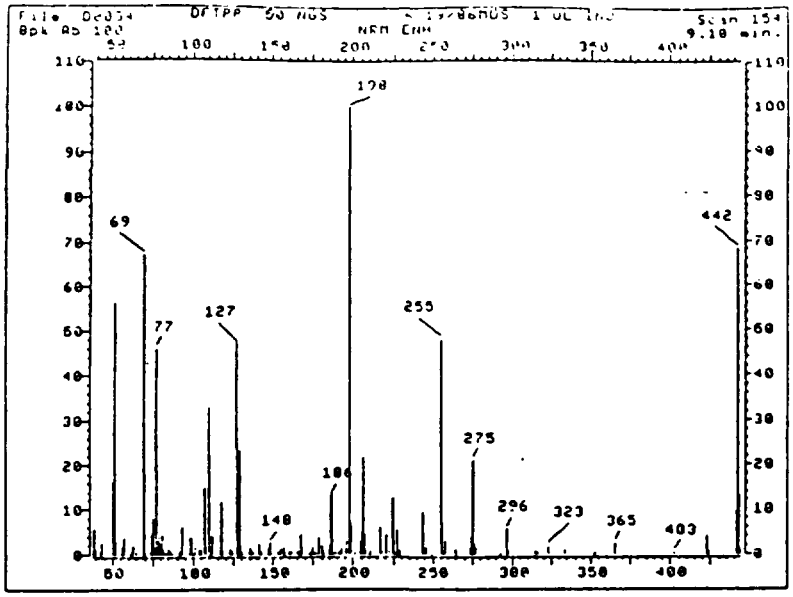
m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	56.4
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	67.0
70	less than 2.0% of mass 69	0.21 (0.31)[1]
127	40.0 - 60.0% of mass 198	46.9
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	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 µg/L	D0036	6-19-86	1632
	50 µg/L	D0037		1736
	80 µg/L	D0038		1836
	120 µg/L	D0039		1928
	160 µg/L	D0040		2024

FORM V



>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: DFTPPO Tuning file: MTDON3 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-4618/U-4651 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970B Date 7-30-86 Time 1051

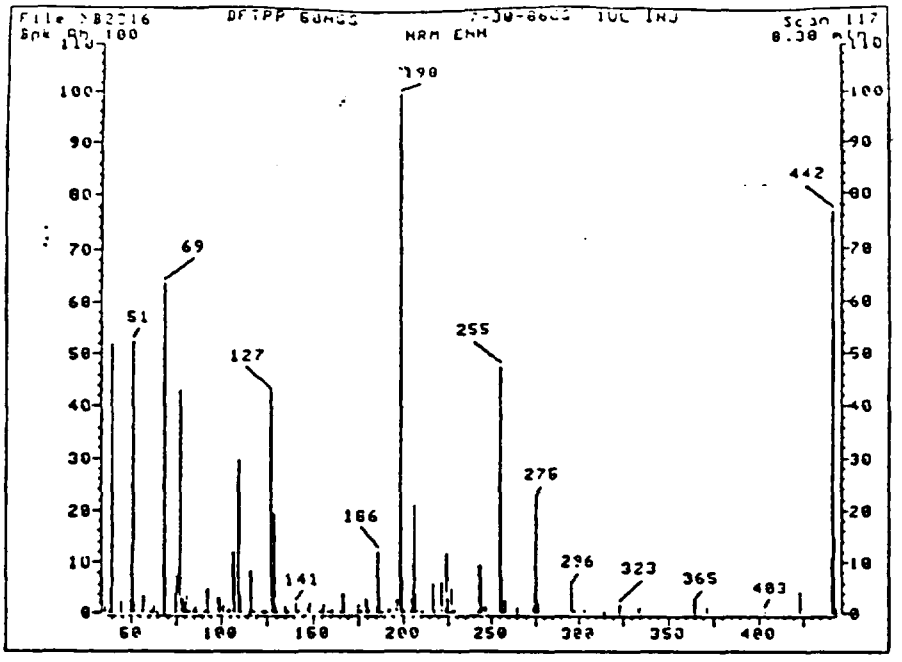
Lab ID B2316 Data Release Authorized By: [signature]

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 (189)[2]

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

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

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



>B2316 DFTPP 50NGS 7-30-86CS 1UL INJ
117 NRM ENH

File: >B2316 Scan #: 117 Retn. time: 8.38

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	1.46	91.10	.41	137.10	.39	191.05	.20	244.05	9.41
38.15	.49	92.00	.52	141.00	2.08	191.95	.73	245.05	1.02
39.15	5.09	93.00	4.94	142.10	.36	192.95	.62	246.05	1.49
40.05	51.88	94.00	.24	143.00	.28	196.05	2.98	255.05	47.58
44.05	2.55	98.00	3.16	147.10	.97	197.95	100.00	256.05	6.77
49.05	2.49	99.00	2.89	148.00	1.99	198.95	6.54	257.00	.27
50.05	13.27	101.00	1.69	153.00	.44	199.95	.28	258.00	2.64
51.15	52.38	103.00	.35	154.00	.36	201.35	.26	265.00	.91
52.10	2.35	104.00	.66	155.05	.90	202.95	.36	273.00	1.41
56.00	.87	104.90	.71	156.05	1.52	204.05	2.91	274.00	3.64
57.00	3.48	107.00	12.01	158.05	.26	205.05	4.95	275.00	22.14
61.10	.36	108.00	1.77	159.95	.35	206.05	20.98	276.00	2.79
62.10	.35	110.00	29.62	161.05	.58	207.05	4.00	276.90	1.69
63.00	1.39	111.00	3.98	164.95	.45	207.95	.42	296.00	5.45
65.10	.47	112.00	.28	166.05	.39	210.25	.26	297.10	.75
69.00	63.51	116.10	.39	167.05	4.02	211.05	.51	303.10	.57
73.10	.22	117.00	8.26	168.05	1.77	216.95	5.83	315.00	.48
74.10	3.84	118.10	.34	174.05	.73	217.95	.43	323.00	1.78
75.00	7.43	122.10	.46	174.95	1.54	221.05	6.08	326.90	.16
77.10	42.88	123.10	.70	176.05	.35	223.05	1.08	334.00	.96
78.10	2.86	124.00	.34	176.95	.78	224.05	11.72	364.95	2.32
79.10	3.13	125.00	.25	178.95	3.03	225.05	2.92	371.95	.89
80.00	2.00	127.00	42.62	180.05	1.56	226.15	.18	402.95	.53
81.00	3.61	128.10	2.95	181.05	.83	227.05	4.81	423.05	4.16
82.00	.44	129.00	19.25	185.05	1.25	227.95	.54	423.95	.76
83.00	.58	129.90	1.48	186.05	11.94	229.05	.84	441.05	10.76
84.90	.58	131.00	.18	187.05	3.14	230.95	.21	442.05	75.66
86.00	1.30	135.10	1.37	188.05	.18	242.05	.34	443.05	14.52
87.00	.26	136.00	.27	188.95	.45	243.05	.32	444.05	1.19

MS data file header from : >B2316

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

Chromatographic temperatures :	120.	250.	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-4618/U-4651 Contractor Ecology & Environment Inc. Contract No IL-3140

Instrument ID HP5970D Date 10-17-86 Time 1108

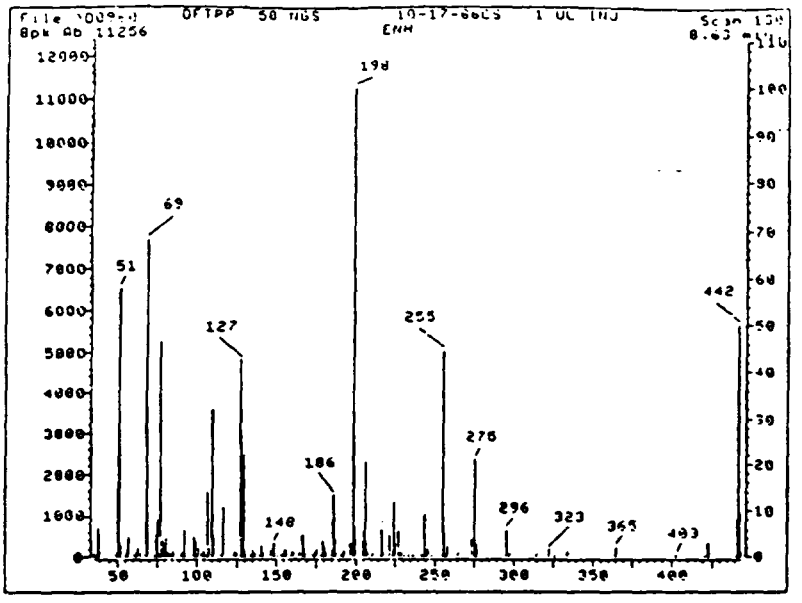
Lab ID D0960 Data Release Authorized By C Stoglowicz

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 - 20 µg/L	D0965	10-17-86	1554
	50 µg/L	D0966		1652
	80 µg/L	D0967		1747
	120 µg/L	D0968		1839
	160 µg/L	D0969		1931



>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	.40
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	169.90	.45	224.05	11.74	334.10	.92
73.05	.54	122.95	1.38	173.00	.60	225.05	2.51	365.00	2.07
74.05	4.85	124.05	.68	174.00	.93	227.05	5.44	401.90	.59
74.95	8.24	125.05	.60	175.00	1.61	228.05	.62	403.10	.46
76.05	.59	127.00	42.62	177.80	.11	229.05	.93	420.75	.36
77.05	46.36	128.10	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	.54
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	9.55
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
Misc : 10-17-86CS 1 UL INJ BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPD Tuning file: MTDON2 No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

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

GC/MS TUNING AND MASS CALIBRATION

Decafluorotriphenylphosphine (DFTPP)

Case No. U-4618 U-4651 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 1/2/87 Time 1031

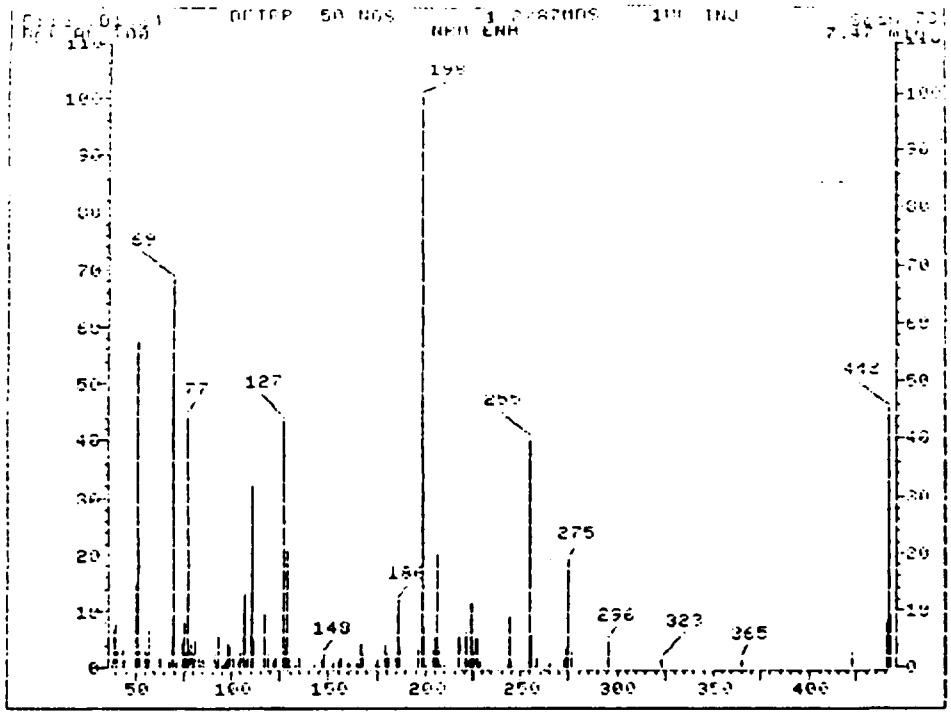
Lab ID D1424 Data Release Authorized By: C Stojowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	57.4
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	68.2
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	43.2
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.84
275	10.0 - 30.0% of mass 198	18.8
365	greater than 1.00% of mass 198	1.44
441	present, but less than mass 443	7.76
442	greater than 40.0% of mass 198	45.1
443	17.0 - 23.0% of mass 442	9.17 (20.3)[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
	BN STD - 50ng	D1426	1-2-87	1204
	AP STD - 50ng	D1428		1410
	BLANK	D1430		1625
DC-L1-02	10463	D1431		1724
DC-LB-01	10462	D1432		1817
DC-L3-04	10465	D1433		1909
DC-L2-03	10464	D1434		2002



>D1424 DFTPP 50 NGS 1/2/87MDS 1UL INJ
73 NRM ENH

File: >D1424 Scan #: 73 Retn. time: 7.47

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.05	.87	79.95	2.44	122.05	1.03	176.60	.18	227.95	.15
39.05	6.77	81.05	4.81	123.05	1.80	179.00	4.06	228.85	.91
40.05	2.86	83.15	1.96	127.00	43.20	180.00	2.46	242.90	.34
41.05	3.37	83.95	.75	128.00	3.78	181.00	1.55	244.00	9.01
43.15	3.23	85.05	1.31	129.00	20.64	185.05	1.92	245.10	1.09
44.05	1.39	86.05	1.24	129.90	1.79	186.05	11.91	255.00	39.88
50.00	14.91	91.10	2.32	130.90	.16	186.95	3.54	256.00	5.88
51.00	57.39	91.90	.68	133.00	.39	196.05	3.32	257.10	.15
51.90	2.95	93.00	5.75	135.00	1.65	197.95	100.00	258.00	2.46
52.10	.50	95.10	.52	143.00	.38	198.95	6.84	265.05	.58
55.00	2.98	96.10	.37	146.85	1.34	200.05	.27	272.85	1.22
56.10	2.24	97.10	1.09	147.95	2.34	204.05	3.02	274.05	3.38
57.00	6.54	98.10	4.10	152.85	.62	205.00	5.27	274.95	18.85
63.10	1.73	99.00	3.53	155.15	1.07	206.00	19.95	276.05	2.60
67.10	.98	101.00	2.01	156.05	1.84	207.00	3.75	296.00	4.71
68.95	68.16	104.00	1.02	159.95	.71	207.90	.64	322.90	1.36
71.05	1.10	105.10	2.50	161.05	.82	210.10	.28	323.10	.23
73.95	4.67	107.00	12.79	164.95	.67	217.00	5.92	364.90	1.44
75.05	8.12	108.05	2.14	166.10	.55	221.10	6.02	422.95	2.53
76.05	2.49	110.05	32.00	167.00	4.72	222.90	1.44	441.10	7.76
77.05	44.35	110.95	4.91	168.10	2.34	223.95	11.20	442.00	45.08
77.95	3.40	117.05	9.75	174.10	.31	225.05	2.71	443.00	9.17
79.05	4.14	119.15	2.46	175.00	1.30	226.95	5.08		

MS data file header from : >D1424

Sample: DFTPP 50 NGS Operator: USER6 MS 1/02/87 10:31
Misc : 1/2/87MDS 1UL INJ BIT # 1
Sys. #: 1 MS model: 70 SW/HW rev.: 1A ALS # : 0
Method file: DFTPPD Tuning file: MIDDN No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures :	150.	200.	0.	0.	0.
Chromatographic times, min. :	0.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

GC/MS TUNING AND MASS CALIBRATION

V-4618 Decafluorotriphenylphosphine (DFTPP)

Case No. V-4651 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 1/9/87 Time 1106

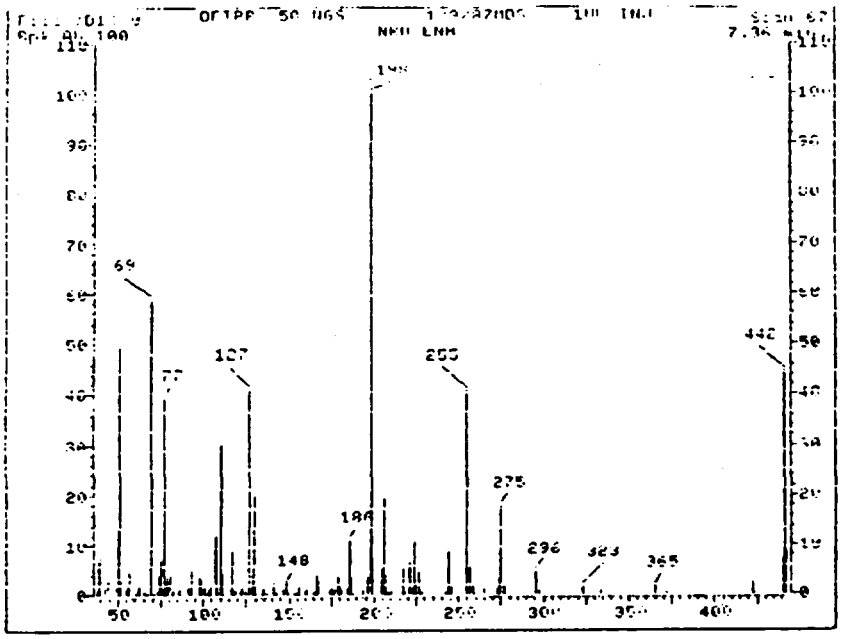
Lab ID D1480 Data Release Authorized By: C Stoytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	49.4
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	58.8
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	40.9
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.60
275	10.0 - 30.0% of mass 198	17.7
365	greater than 1.00% of mass 198	1.58
441	present, but less than mass 443	7.09
442	greater than 40.0% of mass 198	44.6
443	17.0 - 23.0% of mass 442	8.58 (19.2)[2]

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

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

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	BN STD - 50 ug/L	D1481	1-9-87	1130
	AP STD - 50 ug/L	D1483		1324
DC-L4-09	10618	D1490		1919
DC-L4-09 MS	10618 MS	D1491		2026
DC-L4-09 MSD	10618 MSD	D1492		2143
DC-L4-10	10619	D1493		2236



>D14:0 DF1PP 50 NGS 1/9/87/MOS 1U INJ
67 1NM 1NH

File: >D1480 Scan #: 67 Retn. time: 7.36

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
32.95	.46	83.05	.12	130.00	1.53	185.05	1.43	242.00	.75
38.95	6.41	85.05	1.09	134.10	.37	186.05	11.08	244.00	8.[illegible]
39.95	2.54	86.05	.98	135.00	1.42	186.95	3.54	245.00	.95
42.95	1.49	91.00	1.59	137.10	.25	188.05	.16	246.00	1.55
44.05	2.80	92.00	.94	141.00	2.27	193.05	.82	255.00	40.[illegible]
48.95	1.29	93.00	4.89	141.90	.50	196.05	3.45	256.00	6.[illegible]
50.00	13.42	95.00	.24	143.00	.46	197.95	100.00	258.00	2.[illegible]
51.00	49.41	98.00	3.55	147.05	1.11	198.95	6.60	259.00	.35
52.00	2.59	99.00	3.08	148.05	2.51	201.45	.16	264.95	.90
55.10	1.16	101.00	1.52	149.05	.38	204.05	2.64	2[illegible].95	1.[illegible]
56.10	1.89	103.10	.39	152.95	.52	205.00	5.21	224.05	3.[illegible]
57.10	4.49	105.90	1.04	153.95	.21	206.00	19.43	225.05	1[illegible]
61.00	.45	105.00	1.58	155.05	.46	207.00	4.01	226.05	2.56
63.00	1.68	106.10	12.02	156.05	1.68	208.00	.46	227.05	1.[illegible]
65.00	.81	107.95	1.27	156.95	.17	208.90	.2[illegible]	296.00	4.68
67.80	.29	110.05	30.04	159.95	.62	210.00	.13	297.10	.60
68.95	58.84	111.95	4.19	160.95	1.16	211.00	.62	40[illegible].05	.18
71.15	.50	111.95	.18	165.05	.59	215.90	.12	323.10	1.45
73.15	.68	116.05	.99	166.00	.44	217.00	5.16	334.10	.[illegible]1
73.95	3.98	117.05	8.61	167.00	4.03	218.00	.46	352.15	.18
75.05	7.02	118.05	.61	168.00	2.54	221.10	6.41	353.95	.[illegible]
76.15	1.28	119.05	.23	174.10	.72	223.20	1.79	365.00	1.58
77.05	39.18	122.15	.28	175.00	1.44	224.05	10.75	422.00	.[illegible]
77.95	2.68	123.05	1.58	175.90	.45	225.05	2.13	423.05	2.[illegible]
79.[illegible]	3.64	125.05	.79	176.90	.91	226.95	4.58	423.95	.[illegible]
80.05	2.43	127.00	40.87	179.00	3.48	227.95	.34	441.10	7.[illegible]
80.95	4.01	128.00	3.83	180.10	1.82	228.95	.57	442.00	44.56
82.05	.65	129.00	20.09	181.00	1.08	241.95	.36	443.00	8.[illegible]
83.05	1.11								

MS data file header from : >D1480

Sample: DF1PP 50 NGS Operator: USEPA MS 1/[illegible]/87 11:06
Misc : 1/9/87/MOS 1U INJ B[illegible] # 1
Sys. #: 1 MS method: 20 SW HW rev.: LR ALS # : 0
Method file: DF1PPU Tuning file: MIUUU No. of extra records: 1
Source temp.: 0 Analyzer temp.: [illegible] Transfer line temp.: [illegible]

Chromatographic temperatures : 150. 250. 0. 0. 0.
Chromatographic times, min. : 0.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 5.0 0.0 0.0 0.0 0.0

GC/MS TUNING AND MASS CALIBRATION

V-4618 **Decafluorotriphenylphosphine (DFTPP)**

Case No. V-4651 Contractor Ecology & Environment Inc. Contract No. IZ-3140

Instrument ID HP5970D Date 1/15/87 Time 1145

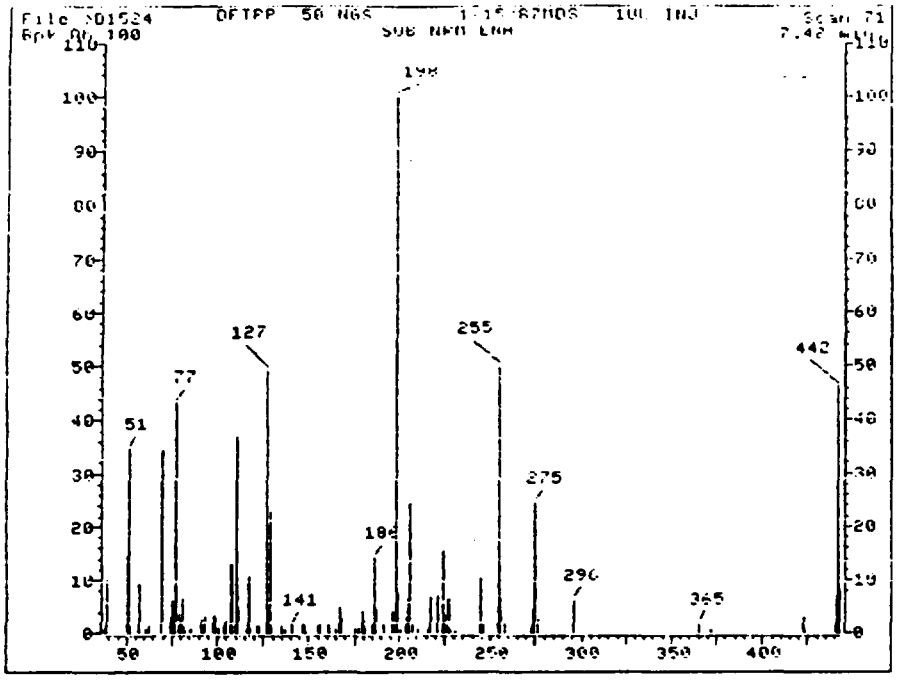
Lab ID D1524 Data Release Authorized By: C Stojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE	
51	30.0 - 60.0% of mass 198	34.6	
68	less than 2.0% of mass 69	0	(0)[1]
69	mass 69 relative abundance	34.5	
70	less than 2.0% of mass 69	0	(0)[1]
127	40.0 - 60.0% of mass 198	49.2	
197	less than 1.0% of mass 198	0	
198	base peak, 100% relative abundance	100	
199	5.0 - 9.0% of mass 198	7.48	
275	10.0 - 30.0% of mass 198	24.4	
365	greater than 1.00% of mass 198	1.72	
441	present, but less than mass 443	7.10	
442	greater than 40.0% of mass 198	46.1	
443	17.0 - 23.0% of mass 442	7.95	(17.2)[2]

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

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

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	BN STD - 50ug/L	D1525	1-15-87	1214
	AP STD - 50 ug/L	D1526		1317
	BLANK (12/22)	D1527		1420
DC-J1-11	10620	D1528		1515
DC-J3-13	10622	D1529		1613
DC-H1-15	10624	D1533		1757
DC-N1-05	10614	D1534		1850
DC-N2-06	10615	D1535		1942
DC-N3-07	10616	D1536		2035



>D1524 DFTPP 50 NGS 1/15/87MDS 1UL INJ
/1 SUB NRM ENH

File: >D1524 Scan #: 71 Retn. time: 7.42

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.05	.61	92.10	.87	129.90	1.57	185.95	14.14	231.05	.52
39.05	10.06	93.00	3.10	135.00	1.45	187.05	4.50	244.00	10.45
50.00	14.52	98.00	3.16	137.10	.61	191.85	1.56	244.90	.85
51.00	34.59	99.00	2.98	141.00	1.64	196.05	4.23	245.90	1.90
52.10	1.31	101.00	1.13	146.95	1.64	197.95	100.00	255.00	49.85
57.00	9.23	103.90	1.50	147.95	1.64	198.95	7.48	256.00	6.60
61.00	.69	105.00	2.17	149.05	.52	201.15	.69	258.00	2.09
63.10	1.31	107.10	13.32	155.05	1.55	204.05	2.91	273.95	1.12
68.95	34.49	108.05	1.51	156.05	1.57	205.00	6.33	274.05	4.44
74.05	2.88	108.85	.66	160.95	1.59	206.00	24.48	275.05	24.59
74.85	6.05	109.95	36.82	164.85	.76	208.00	1.56	276.05	2.64
75.85	2.33	111.05	4.90	165.15	.71	210.20	.61	276.95	1.18
77.05	43.20	116.05	.82	167.00	4.75	211.00	.76	296.00	6.22
79.05	3.70	116.95	10.52	168.00	2.52	216.10	.68	364.90	1.[illegible]
79.85	2.66	117.95	.93	175.00	.83	217.00	6.94	372.00	.79
81.05	6.60	122.05	1.21	176.90	1.16	221.10	7.04	423.95	2.90
82.15	1.42	123.05	1.24	179.00	4.12	223.95	15.30	423.95	.60
82.45	.49	127.00	49.17	180.00	2.19	224.95	3.76	441.00	7.10
86.05	.82	128.00	4.79	181.00	.93	227.05	6.41	442.00	46.10
91.20	2.22	129.00	22.72	185.05	1.81	227.95	.87	443.00	7.95

MS data file header from : >D1524

Sample: DFTPP 50 NGS Operator: USERo MS 1/15/86 11:45
Misc. : 1/15/87MDS 1UL INJ BII # 1
Sys. #: 1 MS model: 70 SW/HW rev.: 5A ALS # : 0
Method file: DFTPPD Tuning file: MI1000 No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 270

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

GC/MS TUNING AND MASS CALIBRATION

Decafluorotriphenylphosphine (DFTPP)

Case No. V-4618 V-4651 Contractor Ecology & Environment Inc. Contract No IL-3140

Instrument ID HP5970B Date 1/20/87 Time 1150

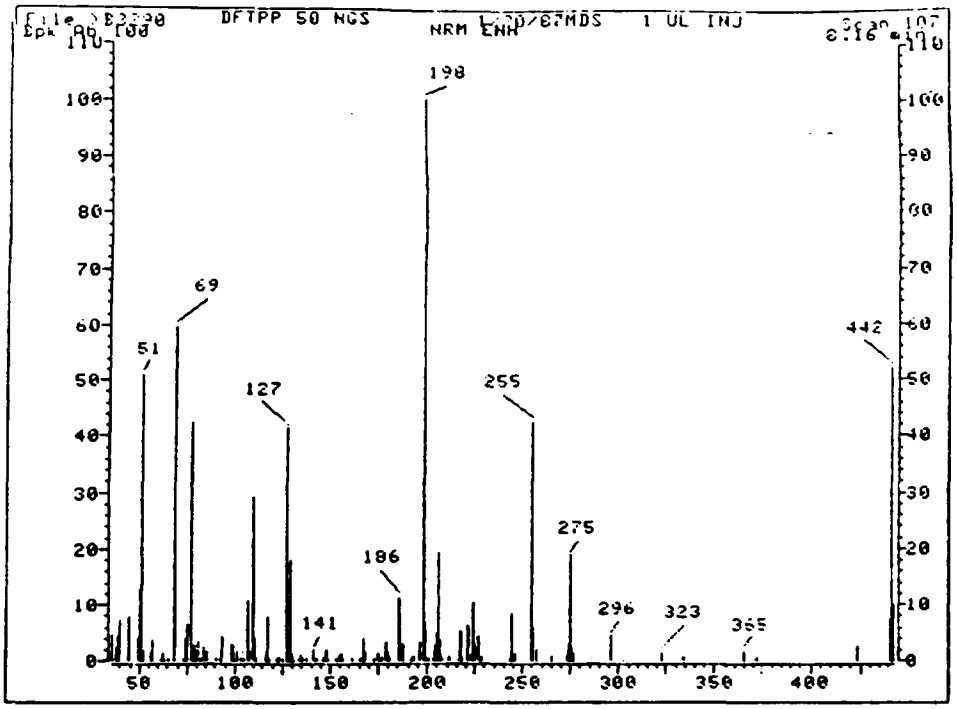
Lab ID B3290 Data Release Authorized By: C Stoytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	51.1
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	59.7
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	41.3
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.33
275	10.0 - 30.0% of mass 198	19.0
365	greater than 1.00% of mass 198	1.73
441	present, but less than mass 443	7.50
442	greater than 40.0% of mass 198	52.2
443	17.0 - 23.0% of mass 442	10.1 (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
	BN STD - 50ng/L	B3291	1-20-87	1333
	AP STD - 50ng/L	B3292		1436
DC-K1-08	10617	B3295		1739
DC-J2-12	10621	B3296		1830



>B3290 DFTPP 50 NGS 1/20/87MDS 1 UL INJ
107 NRM ENH

File: >B3290 Scan #: 107 Retn. time: 8.16

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	4.48	85.00	.98	131.00	.23	180.10	1.61	226.95	4.18
38.15	2.25	85.90	1.84	134.00	.25	181.10	.85	227.95	.55
39.05	4.30	91.00	.49	135.00	.98	185.10	1.30	228.95	.88
39.95	7.13	92.00	.42	136.00	.33	186.00	11.33	243.15	.54
44.05	7.67	93.00	4.33	137.10	.41	187.00	3.06	244.05	8.57
49.05	3.97	98.00	2.94	141.00	2.00	191.00	.20	244.95	1.00
50.05	12.83	99.00	2.73	142.00	.45	192.00	.86	245.95	1.42
51.05	51.10	100.00	.20	143.00	.30	193.00	.77	254.95	42.41
52.05	1.93	101.00	1.59	146.10	.20	196.00	3.27	255.95	5.75
55.95	1.24	102.90	.32	146.90	.88	197.95	100.00	257.95	1.89
57.05	3.63	104.00	.53	148.00	1.95	198.95	6.33	264.95	.87
62.05	.36	105.00	.49	148.90	.28	199.95	.25	272.95	1.17
63.05	1.45	107.00	10.65	153.00	.40	201.25	.45	274.05	3.12
63.95	.23	108.00	1.75	153.90	.32	202.95	.28	274.95	18.95
65.15	.48	110.00	29.35	155.00	.97	203.95	2.50	275.95	2.38
68.90	59.68	111.00	3.98	156.00	1.26	204.95	4.74	276.95	1.39
73.00	.27	112.00	.31	157.10	.29	205.95	19.22	295.95	4.44
74.00	3.85	116.10	.57	161.10	.54	206.95	3.48	302.85	.21
75.00	6.60	117.00	7.74	165.00	.43	208.05	.67	322.95	1.42
77.00	42.22	118.00	.34	166.00	.34	210.95	.84	333.90	.87
78.00	2.65	122.00	.41	167.00	3.80	215.95	.22	365.00	1.73
79.00	2.61	123.00	.70	168.00	1.65	216.95	5.29	372.00	.69
80.00	1.88	125.00	.31	173.00	.26	217.85	.36	423.00	2.70
81.00	3.16	127.00	41.33	175.10	1.36	220.95	6.26	441.10	7.50
82.00	.49	128.00	3.19	175.90	.54	222.95	1.03	442.00	52.25
83.10	.42	129.00	18.05	177.00	.73	223.95	10.33	443.00	10.09
84.00	2.30	130.00	1.33	179.00	3.26	224.95	2.45		

MS data file header from : >B3290

Sample: DFTPP 50 NGS Operator: MANAGER MS 1/20/87 11:50
Misc : 1/20/87MDS 1 UL INJ
Sys. #: 2 MS model: 70 SW/HW rev.: CH HLS # : 0
Method file: DFTPPB Tuning file: MTBUN No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures : 120. 130. 0. 0. 0.

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

V-4618

Case No. V-4651 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970D Date 1/22/87 Time 1219

Lab ID D1577 Data Release Authorized By: C Strojtowicz

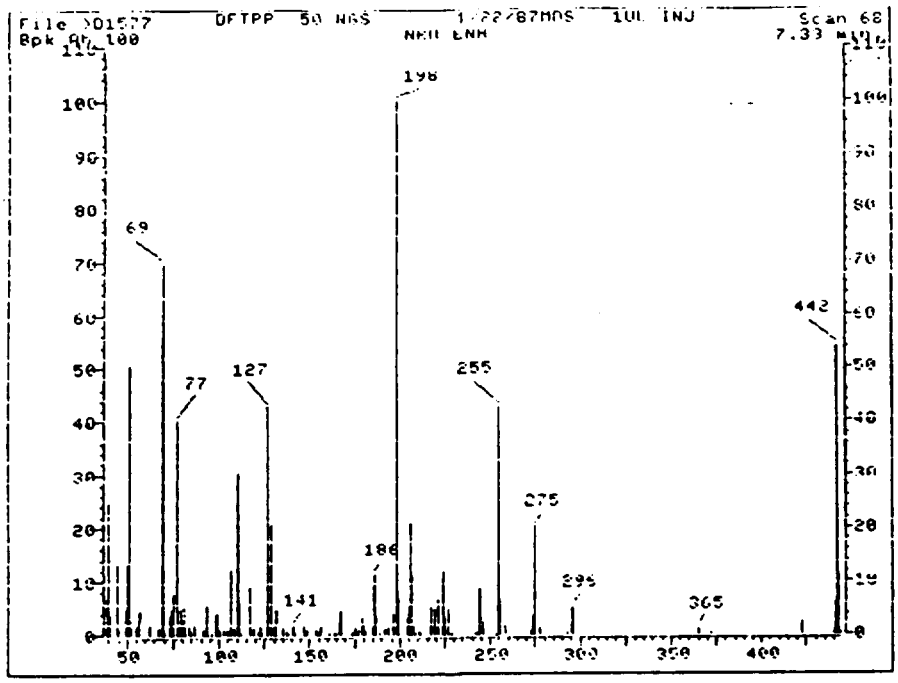
m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	50.6
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	69.6
70	less than 2.0% of mass 69	0.73 (1.05)
127	40.0 - 60.0% of mass 198	42.9
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.87
275	10.0 - 30.0% of mass 198	20.2
365	greater than 1.00% of mass 198	1.10
441	present, but less than mass 443	6.31
442	greater than 40.0% of mass 198	54.0
443	17.0 - 23.0% of mass 442	11.0 (20.4)[2]

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

[1] Value in parentheses is % mass 69

[2] Value in parentheses is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	BN STD - 50ng/L	D1578	1-22-87	1250
	AP STD - 50ng/L	D1582		1652
DC-H1-14	10623	D1588		2239



>D1577 DFTPP 50 NGS 1/22/87MOS 10L INJ
68 NRM ENH

File: >D1577 Scan #: 68 Retn. time: 7.33

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.95	6.66	84.05	2.57	128.05	4.04	177.10	.94	224.10	12.09
39.95	24.74	84.85	.67	128.95	20.50	179.00	3.59	225.10	3.16
41.05	3.58	85.05	.42	130.05	1.66	180.00	2.04	227.10	4.99
44.05	13.47	86.05	2.14	131.05	4.90	180.80	.67	228.90	.50
44.95	1.01	91.05	.91	135.00	1.21	181.00	.84	241.85	.42
48.85	5.01	91.95	.50	137.10	.76	185.00	1.50	242.05	.47
49.15	1.90	93.00	5.71	137.90	.51	186.00	11.41	242.95	.29
50.05	13.37	93.80	.73	141.00	1.90	187.10	3.76	244.05	8.03
51.05	50.59	95.70	.25	141.80	.50	189.00	.45	246.05	2.19
52.00	2.49	98.00	3.92	146.50	.45	191.20	.34	255.00	42.78
55.10	1.33	99.10	4.40	147.10	1.73	192.00	1.09	256.00	6.24
56.10	2.39	100.00	1.36	148.10	.81	193.10	1.43	258.10	1.90
57.00	4.69	101.10	.60	149.00	.95	196.05	3.80	273.10	.70
62.30	.48	103.10	.93	153.00	.93	196.55	.76	273.40	1.00
63.10	2.09	105.00	1.14	154.75	.88	197.95	100.00	274.10	3.51
67.10	1.50	107.00	12.37	155.05	.44	199.05	6.87	275.00	20.16
69.00	69.64	108.10	1.38	155.45	.43	204.05	3.19	277.05	1.28
70.00	.73	110.10	30.37	156.05	1.56	204.95	5.46	292.85	.50
73.05	3.89	111.10	6.14	160.85	.44	206.05	20.77	296.00	5.13
73.95	4.98	112.10	.25	163.95	.30	207.05	10.94	365.05	1.10
74.95	7.91	116.95	9.12	165.05	.34	207.95	2.05	372.15	.47
77.05	40.39	118.65	.30	167.05	4.54	208.75	.53	423.10	2.73
78.15	2.10	118.95	1.40	168.05	4.51	210.75	.63	440.15	.56
79.05	4.82	121.85	.59	173.70	.40	211.35	.49	441.05	6.51
80.05	2.93	123.05	1.75	173.90	.38	217.00	5.06	442.05	54.00
80.95	5.06	124.05	.47	175.00	1.36	219.10	4.79	443.05	10.98
81.95	1.53	127.05	42.88	175.80	.31	221.00	6.91	444.05	.50
83.35	.74								

MS data file header from : >D1577

Sample: DFTPP 50 NGS Operator: USERo MS 1/22/86 12:19
Misc : 1/22/87MOS 10L INJ BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: LA ALS # : 0
Method file: DFTPPD Tuning file: 111000 No. of extra records: 1
Source temp.: 0 Analyzer temp.: 225 Transfer line temp. : 70

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

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. V-4618 V-4651 Contractor Ecology & Environment Inc. Contract No IL-3140

Instrument ID HP5995C Date 7/14/86 Time 1426

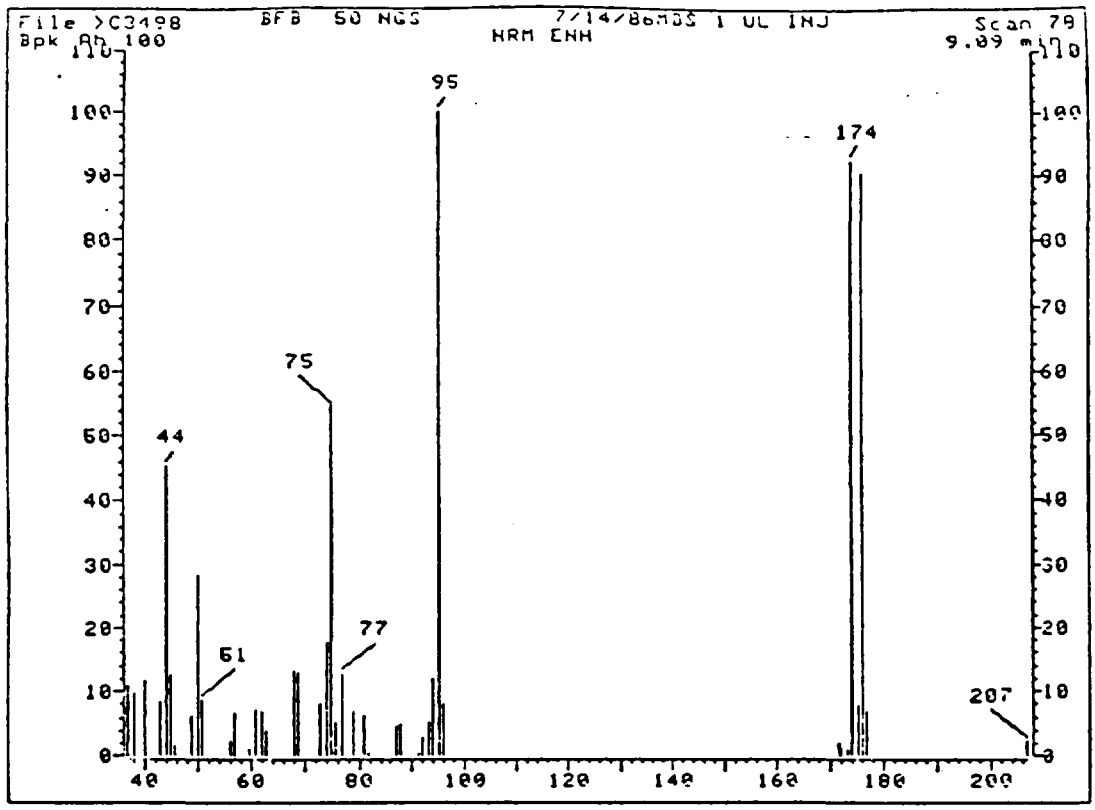
Lab ID C3498 Data Release Authorized By: C Hojtowicz

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	0
174	Greater than 50.0% of the base peak	92.7
175	5.0 - 9.0% of mass 174	7.74 (8.35)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	90.9 (98.0)[1]
177	5.0 - 9.0% of mass 176	6.77 (7.45)[2]

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

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

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	VOA STD - 250 ng C3500	7-14-86	1553
	500 ng C3501		1649
	750 ng C3502		1744
	1000 ng C3503		1839
	100 ng C3505		2051



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

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

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	11.06	51.05	8.60	73.15	8.12	87.00	4.44	171.70	2.10
38.10	9.79	55.95	2.40	74.05	17.82	88.00	4.79	172.00	1.15
40.00	11.49	57.05	6.57	75.05	54.39	91.20	.35	173.00	.89
43.10	8.50	59.95	.91	75.95	5.13	92.00	2.89	173.90	92.72
44.00	45.24	61.05	7.01	76.95	12.72	93.00	5.31	175.00	7.74
45.00	12.63	62.05	6.81	78.95	6.69	94.00	11.83	175.90	90.86
45.90	1.68	62.85	3.98	80.95	6.07	95.00	100.00	176.90	6.77
49.10	6.23	68.05	13.30	81.95	.49	96.00	8.01	206.95	2.20
50.00	28.25	69.05	12.87						

MS data file header from : >C3498

Sample: BFB 50 NGS Operator: USER8 MS 7/14/86 14:26
Misc : 7/14/86MDS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCU4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

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

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. V-4618 V-4651 Contractor Ecology & Environment Inc. Contract No IL-3140

Instrument ID HP5995C Date 8/26/86 Time 2211

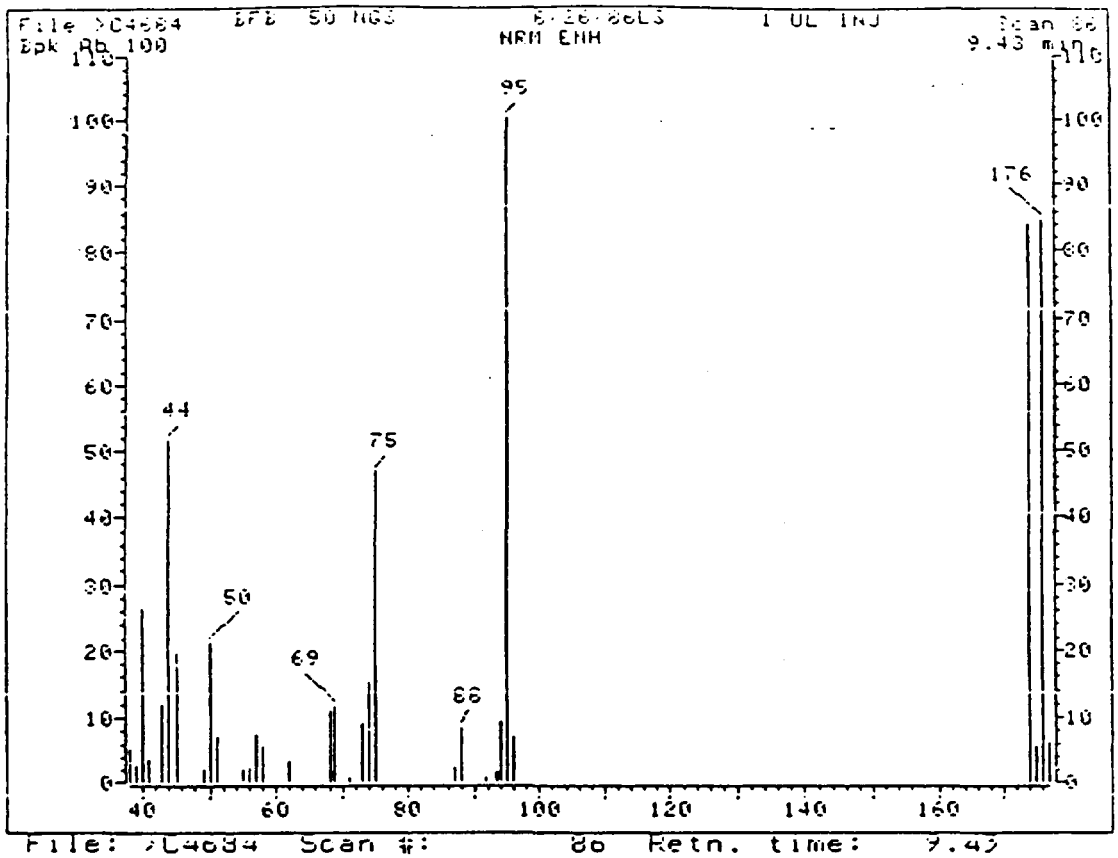
Lab ID C4684 Data Release Authorized By: C Stoytowicz

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	0
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
	50 ug/L C4687	8-27-86	0032
	100 ug/L C4688		0131
	150 ug/L C4689		0231
	200 ug/L C4690		0332



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 22:1
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. V-4618 V-4651 Contractor Ecology & Environment Inc. Contract No IL-3140

Instrument ID HP5995C Date 12/16/86 Time 0937

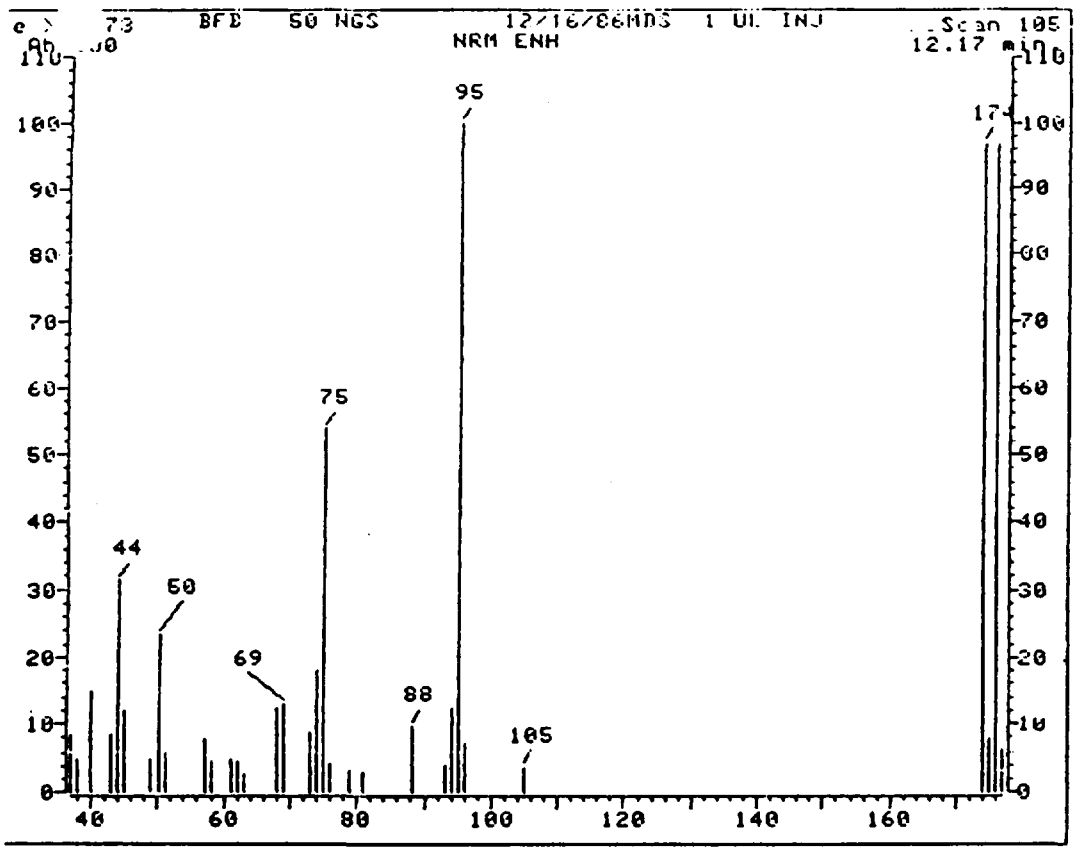
Lab ID C6073 Data Release Authorized By: C Hoytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	23.4
75	30.0 - 60.0% of the base peak	53.8
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.28
173	Less than 1.0% of the base peak	0
174	Greater than 50.0% of the base peak	96.9
175	5.0 - 9.0% of mass 174	7.90 (8.15)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	96.8 (99.9)[1]
177	5.0 - 9.0% of mass 176	6.30 (6.51)[2]

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

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

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	VOA STD - 50ug/L C6074	12-16-86	1003
	METHANOL BLANK C6080		1535
DC-L3-04	10465 C6083		1903



6073 BFB 50 NGS 12/16/86MDS 1 UL INJ
105 NRM ENH

le: >C6073 Scan #: 105 Retn. time: 12.17

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
7.10	8.28	50.10	23.38	67.95	12.17	78.85	3.24	96.15	7.28
8.00	4.75	51.10	5.92	69.05	12.80	80.85	3.11	104.90	3.66
0.00	14.67	57.10	7.78	72.95	8.68	88.05	9.68	173.95	96.93
3.00	8.39	58.00	4.44	74.05	18.07	93.05	3.77	175.05	7.90
4.00	31.35	60.95	4.91	75.05	53.80	94.05	12.11	175.95	96.75
5.10	11.97	61.95	4.56	75.85	4.30	95.05	100.00	177.05	6.30
9.00	5.04	63.05	2.58	76.05	.05				

data file header from : >C6073

mple: BFB 50 NGS Operator: USER8 MS 12/16/86 9:37
sc 12/16/86MDS 1 UL INJ
s. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCU4 No. of extra records: 1
ource temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures : 220. 225. 0. 0. 0.
Chromatographic times, min. : 10.0 10.0 0.0 0.0 0.0

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4618 U-4651 Contractor Ecology & Environment Inc. Contract No IL-3140

Instrument ID HP5995C Date 12/17/86 Time 1005

Lab ID C6099 Data Release Authorized By: C Stojowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	23.8
75	30.0 - 60.0% of the base peak	54.6
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.28
173	Less than 1.0% of the base peak	0
174	Greater than 50.0% of the base peak	96.9
175	5.0 - 9.0% of mass 174	~~8.51~~ 8.24 (8.51) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	97.0 (100.1) [1]
177	5.0 - 9.0% of mass 176	6.85 (7.06) [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	C6101	12-17-86	1135
	BLANK	C6102		1228
DC-LB-01	10462	C6103		1400
DC-L1-02	10463	C6104		1453
DC-L2-03	10464	C6110		1954

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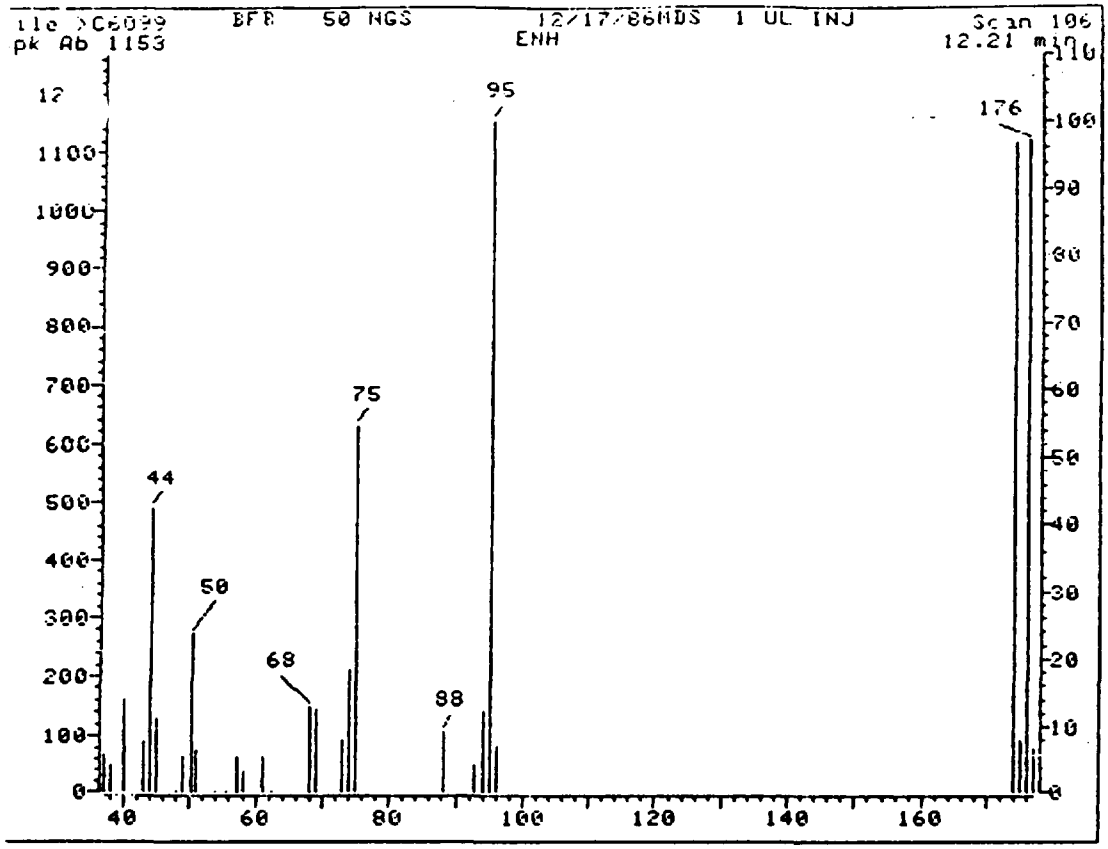

·C6099 BFB 50 NGS 12/17/86MDS 1 UL INJ
106 ENH

'ile: >C6099 Scan #: 106 Retn. time: 12.21

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.10	68.66	47.90	.46	57.10	63.05	73.05	94.30	95.05	1152.66
38.00	50.29	49.00	64.19	58.10	39.59	73.95	212.01	96.05	83.86
40.00	160.30	50.10	274.02	61.05	62.01	75.05	629.06	174.05	1116.79
43.00	90.63	51.00	72.95	62.55	.30	88.05	106.61	174.95	95.01
44.00	488.70	53.80	1.96	68.05	146.87	92.95	48.63	175.95	1118.50
45.10	131.75	55.40	.30	68.95	144.22	93.95	142.82	177.05	78.95

IS data file header from : >C6099

ample: BFB 50 NGS Operator: USER8 MS 12/17/86 10:05
isc : 12/17/86MDS 1 UL INJ
ys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	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)

V-4618

Case No. V-4651 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5995C Date 12/22/86 Time 1048

Lab ID C6160 Data Release Authorized By: C Hoytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	22.1
75	30.0 - 60.0% of the base peak	54.6
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	6.96
173	Less than 1.0% of the base peak	0
174	Greater than 50.0% of the base peak	92.3
175	5.0 - 9.0% of mass 174	6.76 (7.32) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	93.0 (100.7) [1]
177	5.0 - 9.0% of mass 176	5.65 (6.07) [2]

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

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

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	VOA STD - 250 ng	C6162	12-22-86	1221
	BLANK	C6163		1315
DC-N1-05	10614	C6164		1424
DC-NB-07	10616	C6165		1518
DC-K1-08	10617	C6166		1613
DC-J1-11	10620	C6167		1707
DC-J3-13	10622	C6168		1801
DC-N1-05 MS	10614 MS	C6169		1901
DC-N1-05 MSD	10614 MSD	C6170		1955

FORM V

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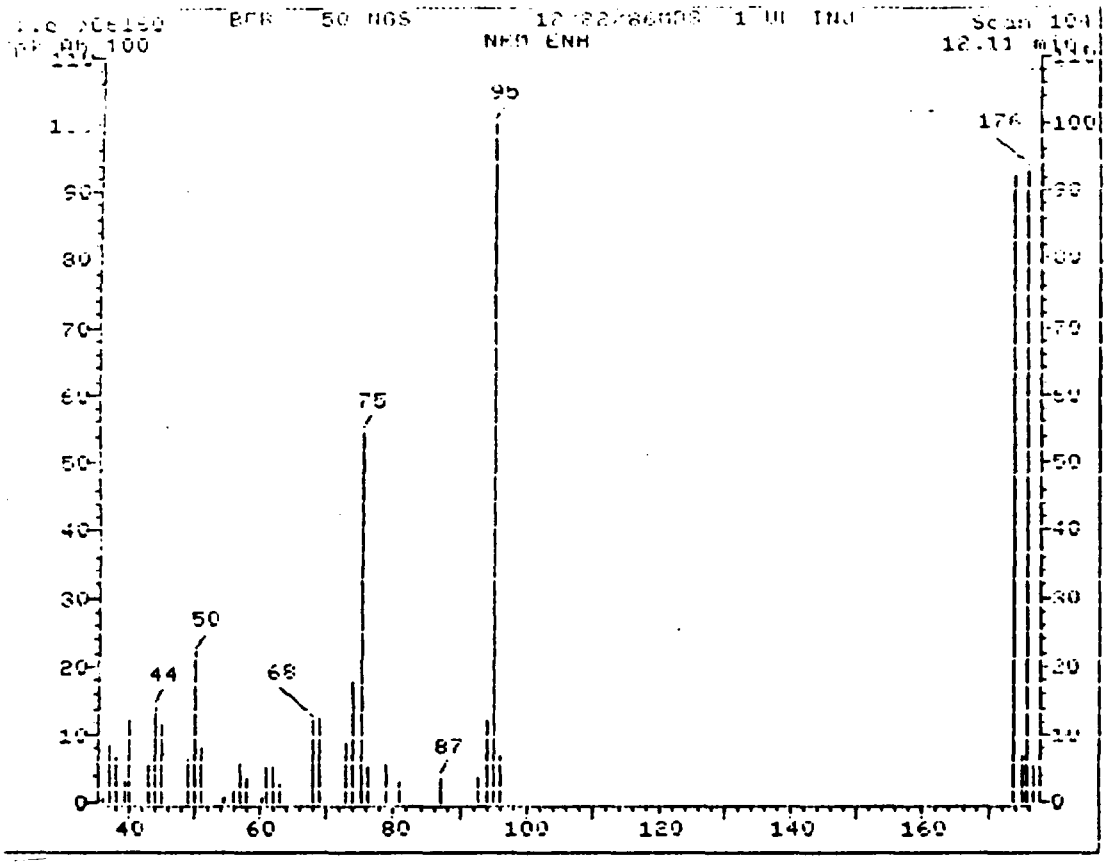
497095



>C6160 BFB 50 NGS 12/22/86MOS 1 UL INJ
104 NRM ENH

File: >C6160 Scan #: 104 Retn. time: 12.11

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.10	.63	48.90	6.28	60.95	.56	73.95	17.77	94.10	12.39
37.10	8.55	50.00	22.09	61.05	5.34	75.05	54.59	95.000	100.00
38.00	6.51	51.10	8.01	61.95	5.34	76.05	5.36	96.10	6.96
39.20	2.97	54.40	.73	62.85	2.70	78.85	5.44	173.90	97.27
40.00	12.38	54.65	.68	68.05	12.25	80.85	3.12	175.00	6.76
43.00	5.95	55.95	1.71	69.05	12.72	87.05	3.66	175.90	92.99
43.90	14.32	57.05	5.72	72.95	8.62	92.90	3.69	176.90	5.65
45.00	11.54	57.85	3.63						

MS data file header from : >C6160

Sample: BFB 50 NGS Operator: USER MS 12/22/86 10:48
File : 12/22/86MOS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MT004 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

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4618 U-4651 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5995C Date 12/23/86 Time 1337

Lab ID C6178 Data Release Authorized By: C Stoytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE	
50	15.0 - 40.0% of the base peak	23.5	
75	30.0 - 60.0% of the base peak	55.9	
95	Base peak, 100% relative abundance	100	
96	5.0 - 9.0% of the base peak	7.37	
173	Less than 1.0% of the base peak	0	
174	Greater than 50.0% of the base peak	91.5	
175	5.0 - 9.0% of mass 174	8.23	(8.99) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	88.0	(96.2) [1]
177	5.0 - 9.0% of mass 176	6.34	(7.20) [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- 50ug/L	C6179	12-23-86	1404
	METHANOL BLANK	C6182		1740
DC-N2-06	10615	C6185		2023
DC-H1-14	10623	C6188		2318
DC-N2-06 MS	10615 MS	C6189	12-24-86	0013

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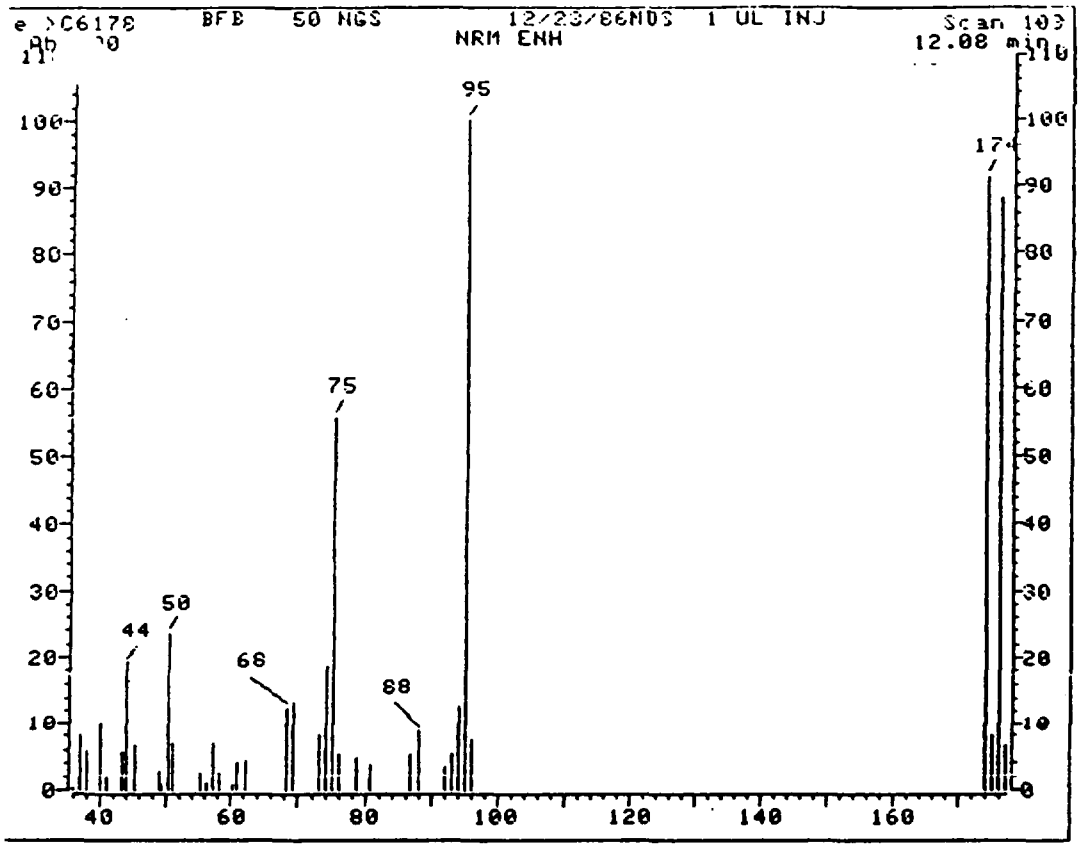
497095



6178 BFB 50 NGS 12/23/86MDS 1 UL INJ
103 NRM ENH

le: >C6178 Scan #: 103 Retn. time: 12.08

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
6.00	.49	48.90	2.68	60.25	.59	76.05	5.18	94.00	12.45
7.00	8.11	49.10	.73	60.95	3.96	78.95	4.42	95.00	100.00
8.00	5.76	50.10	23.53	62.05	4.13	80.95	3.56	96.10	7.37
0.00	9.97	51.00	6.77	68.05	12.36	86.95	5.06	173.90	91.47
1.00	2.15	55.05	2.24	69.05	13.31	88.05	8.60	175.00	8.23
3.10	5.56	56.05	1.18	73.05	8.16	92.00	3.29	175.90	88.00
4.00	19.22	57.05	6.87	74.05	18.51	93.00	5.19	177.00	6.34
5.10	6.48	58.05	2.35	75.05	55.89				

data file header from : >C6178

mple: BFB 50 NGS Operator: USER8 MS 12/23/86 13:37
sc : 12/23/86MDS 1 UL INJ
s. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
ource temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

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

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

U-4618

Case No. U-4651 Contractor Ecology & Environment Inc. Contract No IL-3140

Instrument ID HP5995C Date 12/26/86 Time 0951

Lab ID C6194 Data Release Authorized By: C Bogtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	23.2
75	30.0 - 60.0% of the base peak	53.6
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.31
173	Less than 1.0% of the base peak	0
174	Greater than 50.0% of the base peak	92.8
175	5.0 - 9.0% of mass 174	7.33 (7.90) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	92.6 (99.8) [1]
177	5.0 - 9.0% of mass 176	6.52 (7.04) [2]

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

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

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	VOA STD-250 ng	C6196	12-26-86	1113
	BLANK	C6197		1207
DC-L4-10	10619	C6198		1348
DC-L4-09	10618	C6199		1442
DC-N2-06	10615	C6202		1733
DC-H1-15	10624	C6203		1838

FORM V

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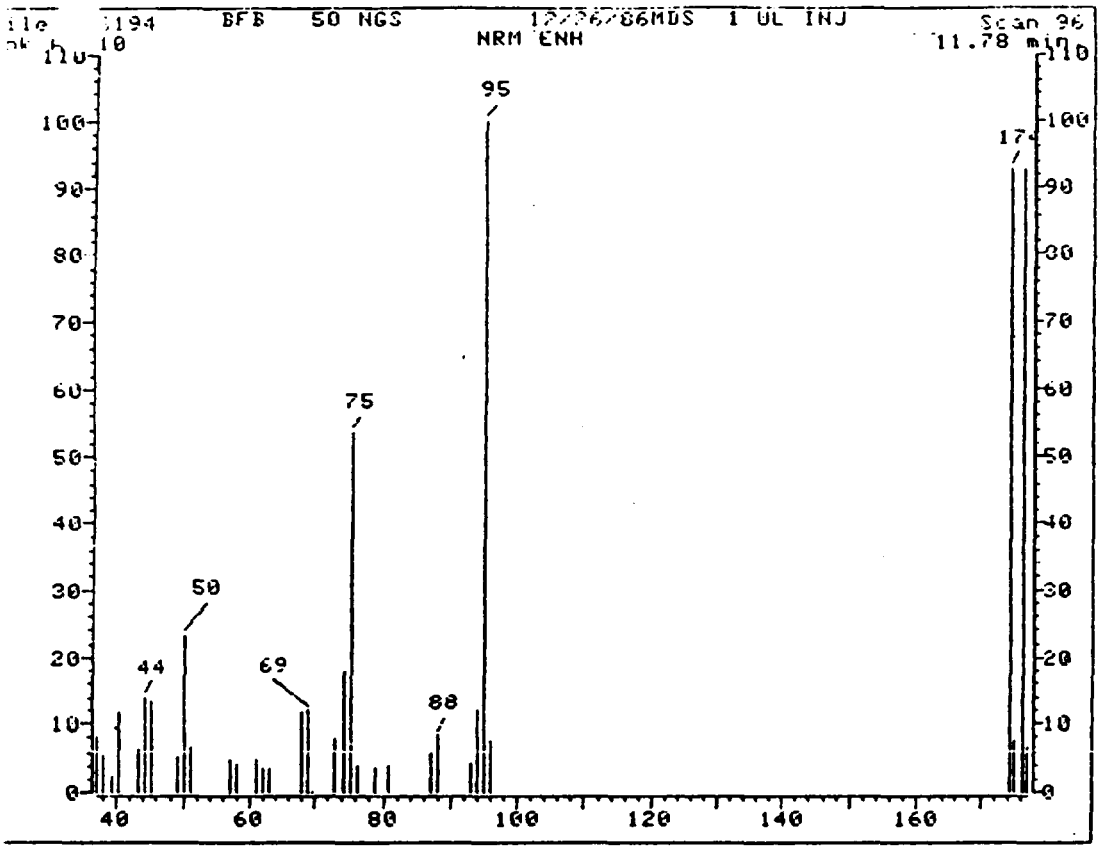
497095



C6194 BFB 50 NGS 12/26/86MDS 1 UL INJ
96 NRM ENH

ile: >C6194 Scan #: 96 Retn. time: 11.78

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	8.20	49.10	5.15	63.05	3.47	76.05	3.79	94.05	12.08
37.90	5.57	50.10	23.21	67.95	11.75	78.75	3.47	95.05	100.00
39.10	2.27	51.00	6.57	68.95	11.91	78.95	1.34	96.15	7.31
40.10	11.58	57.10	5.04	69.75	.10	80.95	3.80	174.05	92.75
43.10	6.13	58.10	4.27	72.95	7.87	87.05	5.83	174.95	7.33
44.10	13.91	60.95	4.92	74.05	17.90	88.05	8.27	176.05	92.55
45.10	13.26	61.95	3.71	75.05	53.57	92.95	4.28	176.95	6.52

S data file header from : >C6194

ample: BFB 50 NGS Operator: USER8 MS 12/26/86 9:51
isc : 12/26/86MDS 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. :	5.0	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-4618 U-4651 Contractor Ecology & Environment Contract No IL-3140

Instrument ID HP5995C Date 12/29/86 Time 0917

Lab ID C6206 Data Release Authorized By: C Bogtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	23.6
75	30.0 - 60.0% of the base peak	53.5
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	0
174	Greater than 50.0% of the base peak	92.8
175	5.0 - 9.0% of mass 174	7.26 (7.82) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	92.2 (99.4) [1]
177	5.0 - 9.0% of mass 176	6.82 (7.40) [2]

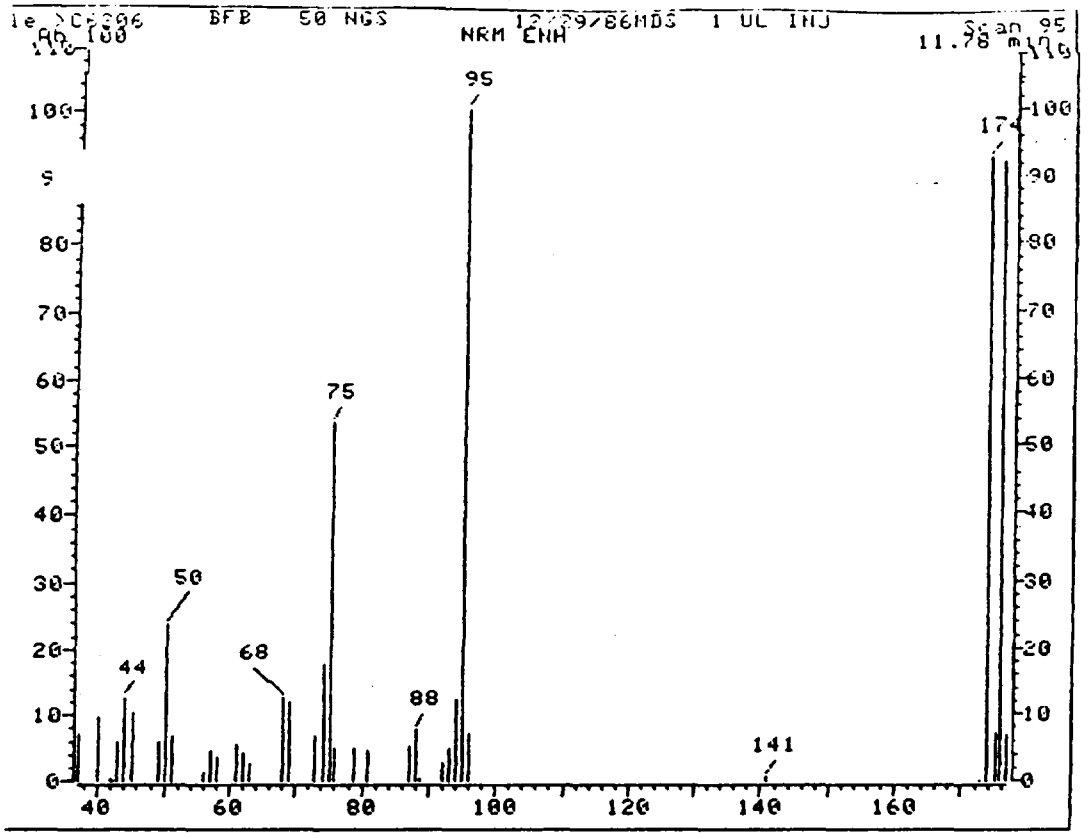
THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[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-50ug/L C6208	12-29-86	1039
	METHANOL BLANK C6211	1	1354
DC-J2-12	10621 C6212	1	1448

FORM V

7/85
497095



6206 BFB 50 NGS 12/29/86MDS 1 UL INJ
95 NRM ENH

le: >C6206 Scan #: 95 Retn. time: 11.78

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
7.00	7.16	50.00	23.65	62.95	2.67	80.95	4.68	96.00	7.15
0.00	9.69	51.10	6.72	68.05	12.44	86.95	5.21	140.85	.61
1.90	.38	55.95	1.42	69.05	11.92	88.05	7.68	172.80	.12
2.20	.16	57.05	4.56	72.95	6.85	88.85	.30	173.90	92.81
3.00	5.74	57.95	3.67	74.05	17.72	92.00	2.52	175.00	7.26
4.00	12.73	60.85	5.67	75.05	53.50	93.00	4.73	175.90	92.16
5.10	10.29	61.05	.29	75.95	5.03	94.00	12.11	176.90	6.82
9.10	5.77	62.05	4.28	78.95	4.81	95.00	100.00		

data file header from : >C6206

mple: BFB 50 NGS Operator: USER8 MS 12/29/86 9:17
sc : 12/29/86MDS 1 UL INJ
s. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
ource temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	5.0	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-L1-02

481095

Sample Number
DC-L1-02

.Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC.
Case No: V-4618/V-4651
Lab Sample ID No: 10463
QC Report No:
Sample Matrix: SOIL
Contract No: IL-3140
Data Release Authorized By: C Stoytowicz
Date Sample Received: 12-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 12-17-86
Conc/Dil Factor: 1 pH 8.11
Percent Moisture: (Not Decanted) 24
REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	11	B
67-64-1	Acetone	690	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	12	
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5	U
10061-02-6	Trans-1, 3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1, 1, 2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1, 3 Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	6	J
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	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-4618 / U-4651

Sample Number DC-L1-02

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 12-18-86

Date Analyzed 1-2-87

Conc./Dil Factor: 2

Percent Moisture (Decanted) 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
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
2[illegible]6-8	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	130	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

100

Laboratory Name Ecology & Environment Inc.

Case No U-4618/U-4651

Sample Number DC-L1-02

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12-18-86

Date Analyzed: 12-30-86

Conc/Dil Factor: 1

Percent Moisture (decanted) 24

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	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 1,000 V_i 4

Form 1

7 85
491095

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

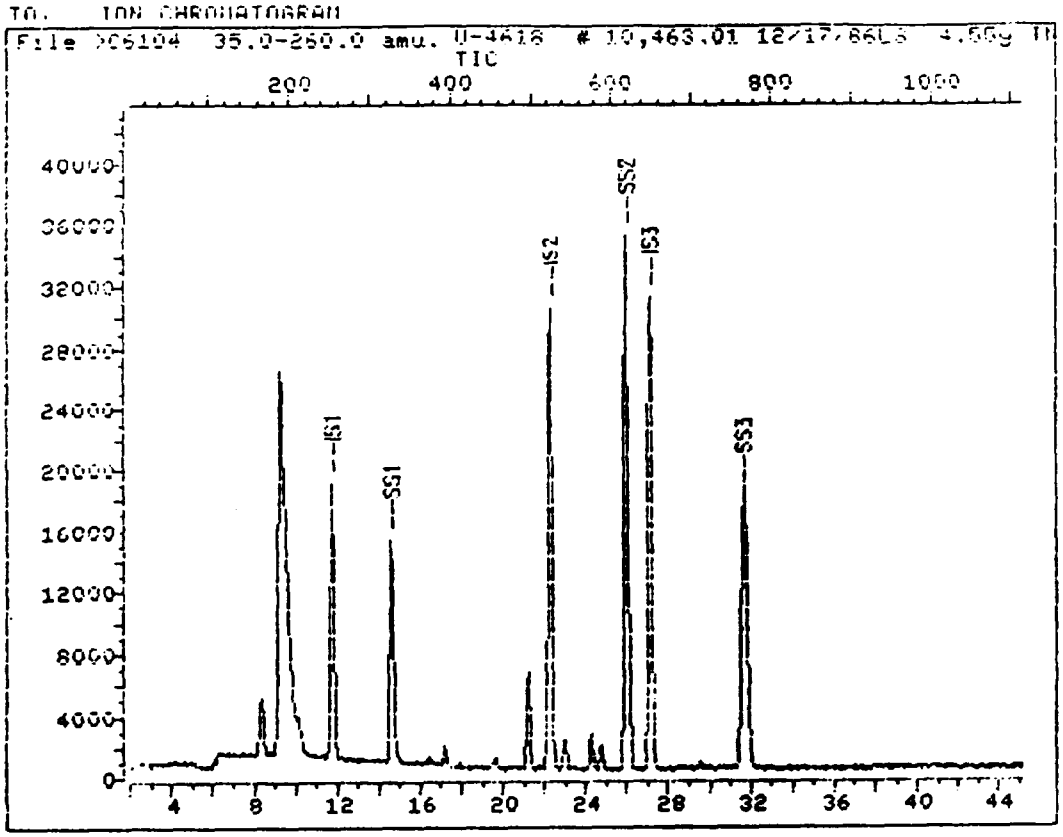
Sample Number DC-L1-02

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.2	2 BJ
2.	HEXANE ISOMER	VOA	21.2	10 BJ
3.				
4.	UNKNOWN	BNA	34.0	3600 BJ
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

TIC. ION CHROMATOGRAM

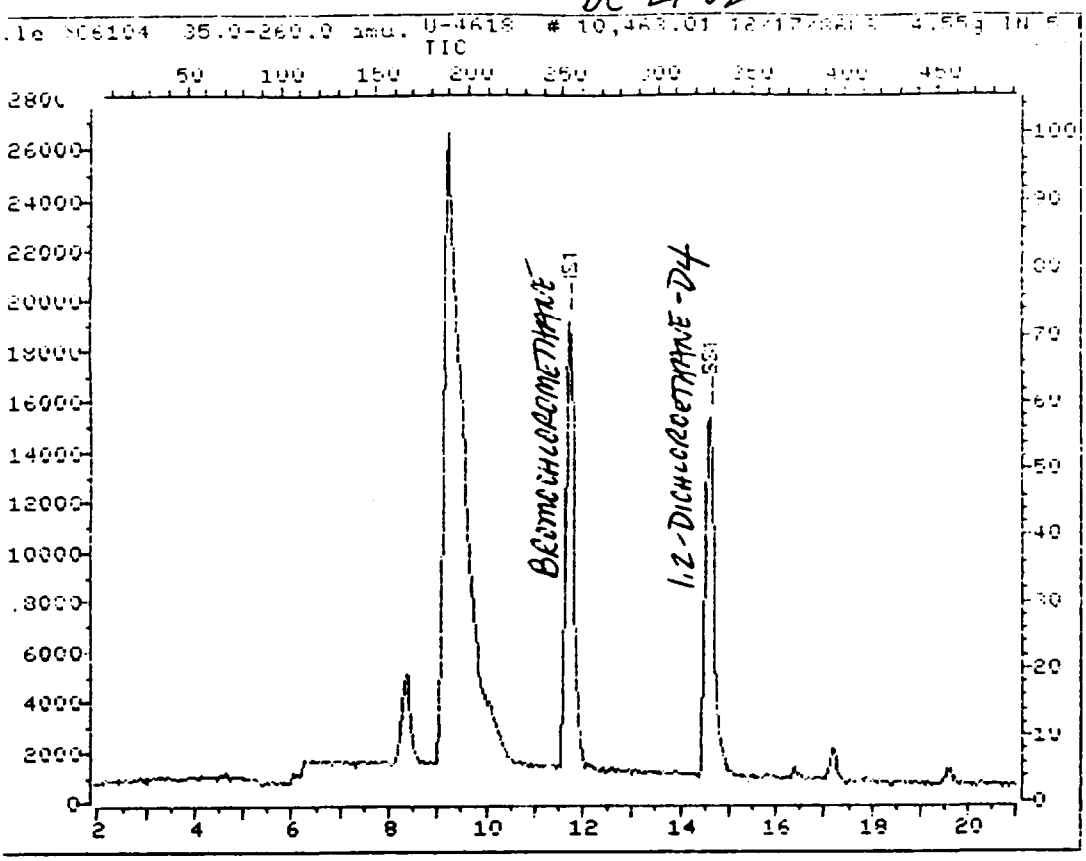


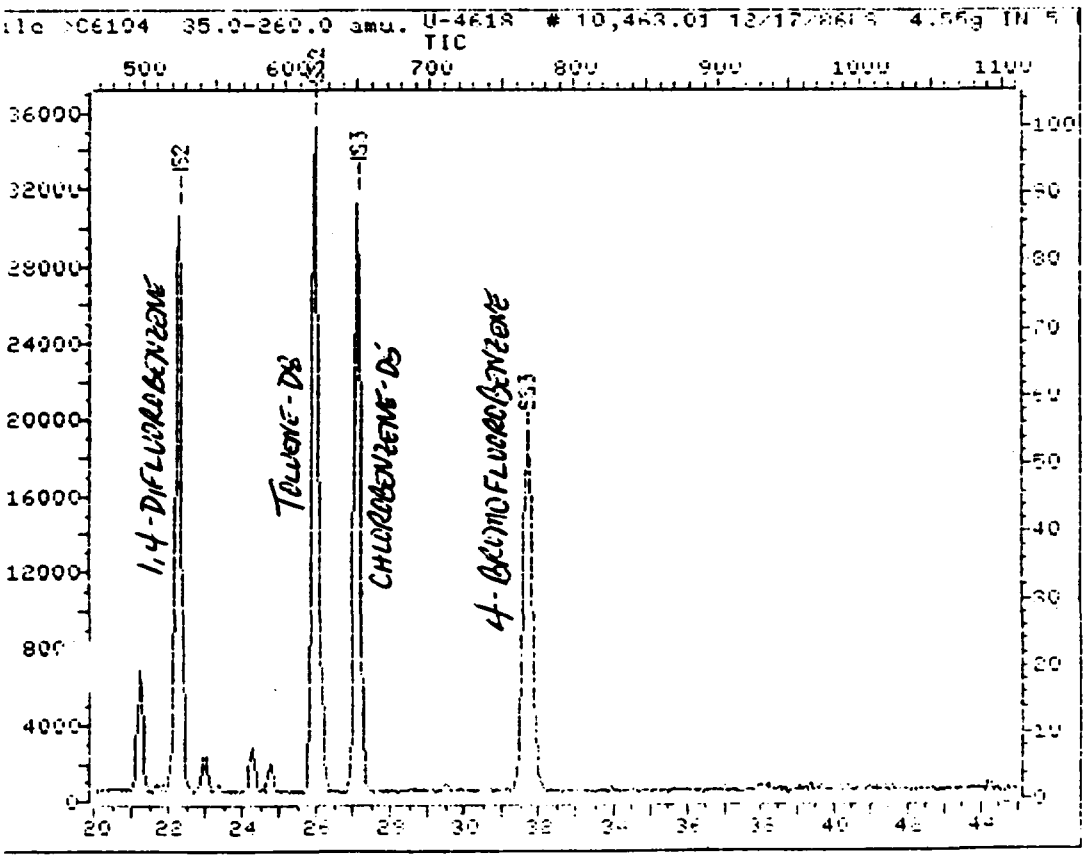
Data File: >C6104::D4
Name: U-4618 # 10,463.01 DC-LI-02
Misc: 12/17/86LS 4.55g IN 5 MLS DI + 10UL IS/SS

Id File: VOA:RS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861217 14:50

Operator ID: USER8
Quant Time: 861217 15:39
Injected at: 861217 14:53

DC-L1-02


35.0-260.0 amu.
TIC
BROMOCHLOROMETHANE
IS1
1,2-DICHLOROETHANE-D4
IS1


35.0-260.0 amu.
TIC
1,4-DIFLUOROBENZENE
IS2
TOLUENE-D8
CS1
CHLOROBENZENE-D5
IS3
4-BROMOFLUOROBENZENE
IS3

QUANT REPORT

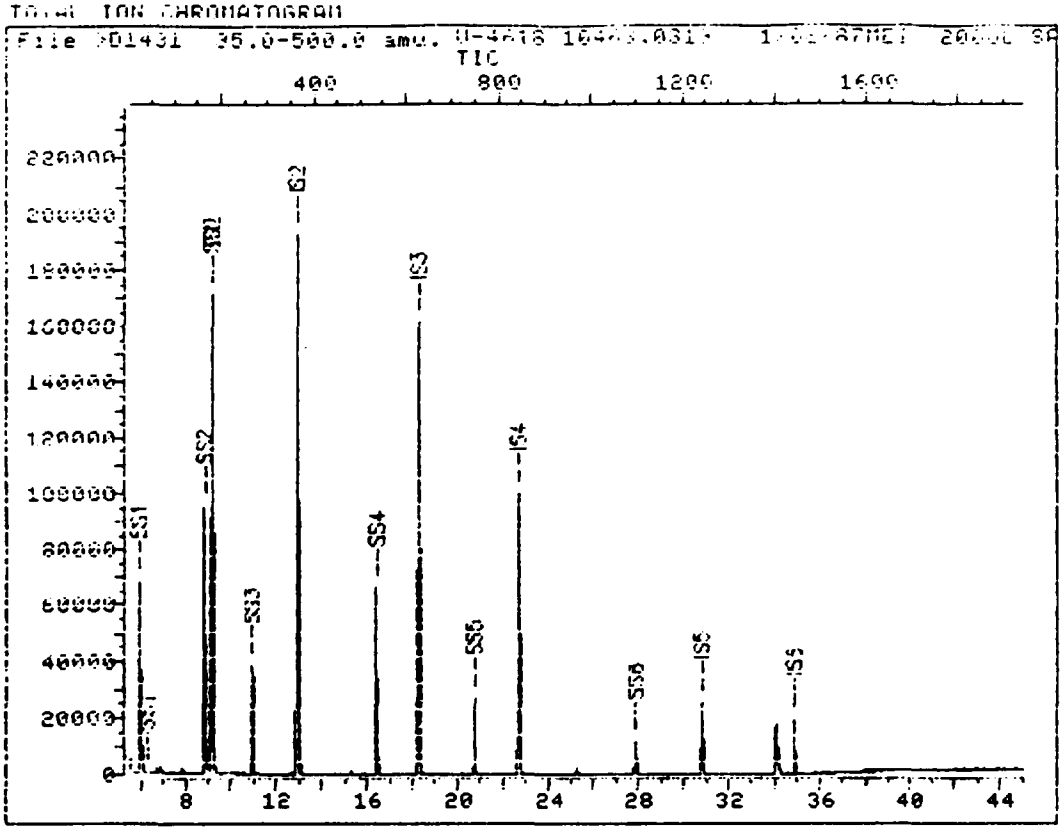
Operator ID: USFP8 Quant Rev: 4 Quant Time: 861217 15:59
Output File: ^C6104::D2 Injected at: 861217 14:53
Data File: >C6104::D4 Dilution Factor: 1.00
Name: U-4618 # 10,463.01 DC-L1-02
Misc: 12/17/86LS 4.55g IN 5 MLS DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861217 14:50

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.72	253	28553	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.35	166	11574	50.92	NGS	100
7)	ACETONE		43	9.24	189	487085	3132.67	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.59	327	63269	240.74	NGS	89
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.28	525	127183	250.00	NGS	100
17)	2-BUTANONE		72	14.71	330	2551	54.93	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.13	650	101164	250.00	NGS	100
32)	4-METHYL-2-PENTANONE		43	22.94	542	7733	25.26	NGS	86
~~33)~~	~~2-HEXANONE~~		~~43~~	~~24.29~~	~~577~~	~~5491~~	~~22.89~~	~~NGS~~	No BJL 100
~~34)~~	~~2-HEXANONE~~		~~43~~	~~24.26~~	~~589~~	~~4153~~	~~17.31~~	~~NGS~~	No BJL 100
36)	TOLUENE-D8	(SURR)	98	25.96	620	141144	235.44	NGS	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.67	767	67920	232.27	NGS	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

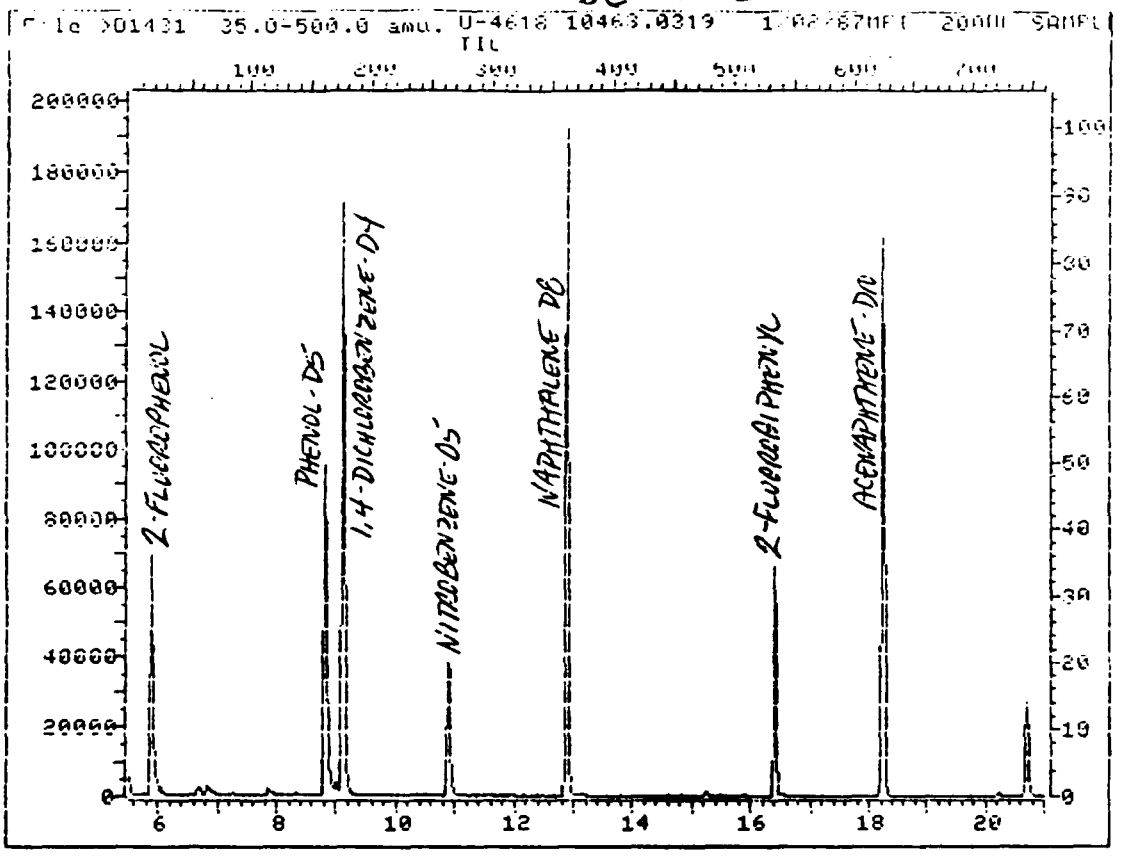


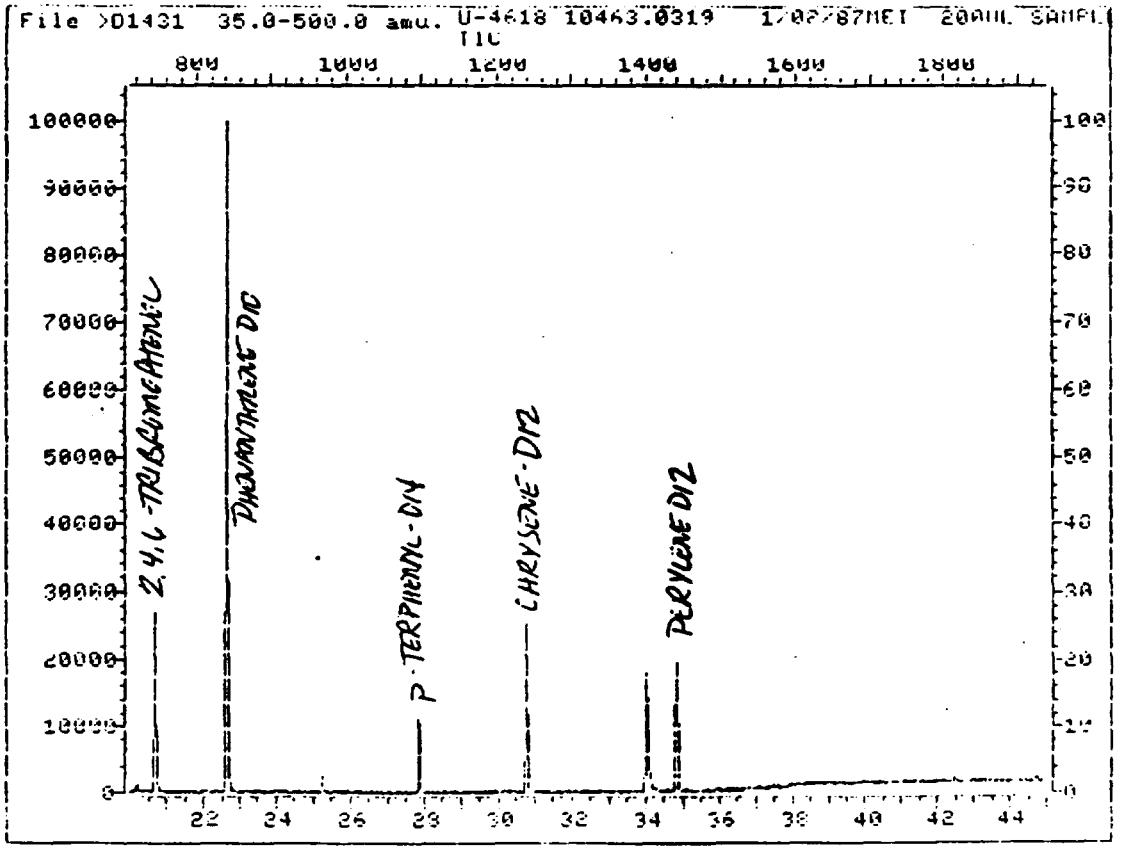
Data File: >D1431::D1
Name: U-4618 10463.0319 DC-L1-02
Misc: 1/02/87MEI 200UL SAMPLE + 200UL MECL2 + 4UL IS (2X) B'L# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870102 15:23

Operator ID: USER8
Quant Time: 870102 18:12
Injected at: 870102 17:24

DC-L1-02


File >D1431 35.0-500.0 amu. U-4618 10463.0319
TIC
2-FLUOROPHENOL
PHENOL-D5
1,4-DICHLOROBENZENE-D4
NITROBENZENE-D5
NAPHTHALENE D8
2-FLUOROBIPHENYL
ACENAPHTHENE-D10


File >D1431 35.0-500.0 amu. U-4618 10463.0319
TIC
2,4,6-TRIBROMOPHENOL
PHENANTHRENE D10
P-TERPHENYL-D14
CHRYSENE-D12
PERYLENE D12

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870102 18:12
Output File: ^D1431::D2 Injected at: 870102 17:24
Data File: >D1431::D1 Dilution Factor: 2.00
Name: U-4618 10463.0319 DC-L1-02
Misc: 1/02/87/MEL 200UL SAMPLE + 200UL MECL2 + 4UL IS (2X) BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870102 15:23

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.11	177	75490	40.00	UG/L	89
2)	PHENOL-D5	(SURR)	99	8.80	162	79666	72.22	UG/L	96
~~3)~~	~~PHENOL-D6~~	~~(SURR)~~	~~99~~	~~9.11~~	~~177~~	~~1005~~	~~.91~~	~~UG/L~~	77
5)	2-FLUOROPHENOL	(SURR)	112	5.87	18	55335	67.55	UG/L	97
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.22~~	~~35~~	~~496~~	~~.61~~	~~UG/L~~	89
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.88~~	~~264~~	~~5910~~	~~5.51~~	~~UG/L~~	97
19)	*NAPHTHALENE-D8	(IS)	136	12.88	362	258960	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.88	264	35854	29.22	UG/L	97
~~22)~~	~~NAPHTHALENE~~		~~128~~	~~12.92~~	~~364~~	~~134~~	~~.05~~	~~UG/L~~	100
34)	*ACENAPHTHENE-D10	(IS)	162	18.23	625	93740	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.40	535	58774	26.54	UG/L	94
~~40)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.23~~	~~625~~	~~29272~~	~~17.16~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.70	746	10300	47.00	UG/L	94
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.23~~	~~625~~	~~11907~~	~~35.39~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.65	842	103225	40.00	UG/L	99
63)	DI-N-BUTYLPHTHALATE		149	25.24	969	4432	3.83	UG/L	98
65)	*CHRYSENE-D12	(IS)	240	30.78	1241	29519	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.85	1097	13862	45.18	UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.83	1440	23246	40.00	UG/L	100

No Bgl

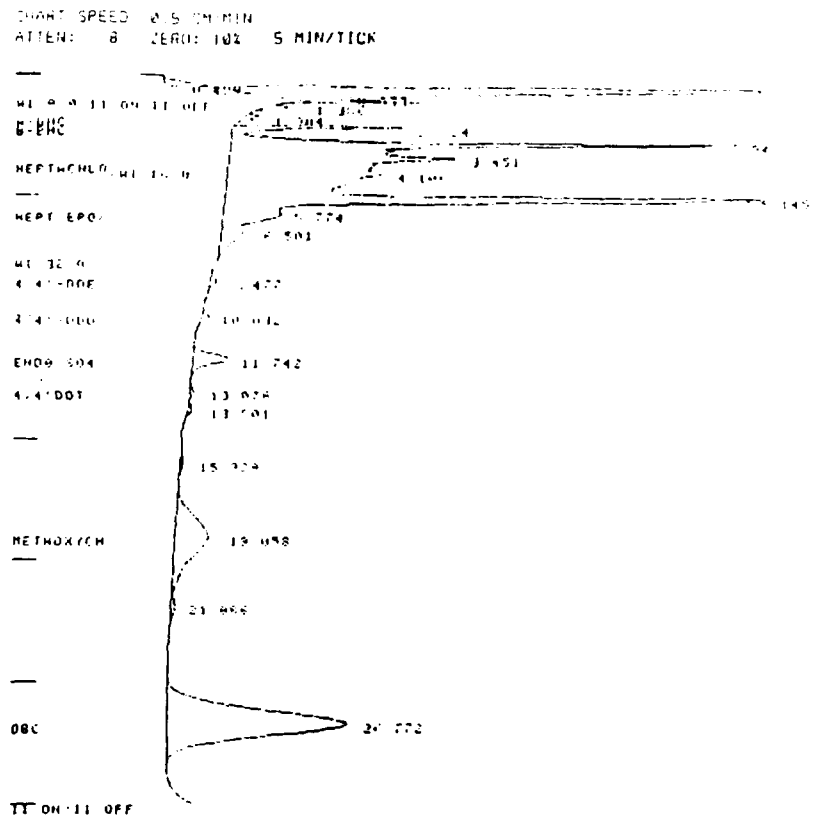
No Bgl

No Bgl

No Bgl

* Compound is ISTD

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



CHANNEL: 1A - 1 TITLE: RUN# 28 10:40 30 DEC 86

DC-L1-02

SAMPLE: 10463.03.19A METHOD: CEPA CALCULATION: ES ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WT 2 (SEC)
1		0.0000	1.306		22428	BB	4.19
2	6-BHC 16%	12.0321	2.224	0.044	130715	VV	5.13
3		0.0000	2.948		712454	VV	7.63
4		0.0000	3.153		201345	VV	? 7.44
5		0.0000	3.451		561713	VV	? 22.06
6	[illegible]	13.4221	3.768	-0.052	279067	VV	? 46.00
7		0.0000	4.106		773303	VV	? 38.13
8		0.0000	5.145		1530443	VV	11.25
9	[illegible]	7.9707	5.774	0.064	204264	VV	? 45.34
10		0.0000	5.501		105703	VB	? 24.75
11	[illegible]	0.9422	10.032	-0.188	20640	BB	16.56
12	[illegible]	7.0099	11.742	-0.258	122694	BV	25.94
13	[illegible]	64.7050	19.058	-0.562	466567	BV	?106.75
14		0.0000	21.886		25237	VB	25.00
15	DBC 94%	82.0632	26.772	0.042	1610350	BB	68.38

TOTALS: 188.2260 -0.910 6769925

DETECTED PKS: 28 REJECTED PKS: 13

DIVISOR: 1.14600 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: 9

NOTES:
NOTEBOOK:259-67:ANALYST:P. BRUTSCHER
SECURE AREA: D JOB#:D-4651
INST:VARIAN 6000#2 A FED 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 PRIMARY ANALYSIS
RESULT IN UG KG DRY WEIGHT

RUN:
SAVE FILE: [illegible]

SAMPLE NUMBER DC-L2-03

481095

Sample Number
DC-L2-03

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc.
Case No: U-4618/U-4651
Lab Sample ID No: 10464
QC Report No:
Sample Matrix: SOIL
Contract No: IL-3140
Data Release Authorized By: C Hoytowing
Date Sample Received: 12-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-17-86

Conc/Dil Factor: 10 pH 7.39

Percent Moisture: (Not Decanted) 22 = 1.28

CONCENTRATIONS REPORTED "AS RECEIVED"

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	100	U
74-83-9	Bromomethane	100	U
75-01-4	Vinyl Chloride	100	U
75-00-3	Chloroethane	100	U
75-09-2	Methylene Chloride	110	B
67-64-1	Acetone	350	B
75-15-0	Carbon Disulfide	50	U
75-35-4	1, 1-Dichloroethene	50	U
75-34-3	1, 1-Dichloroethane	50	U
156-60-5	Trans-1, 2-Dichloroethene	50	U
67-66-3	Chloroform	50	U
107-06-2	1, 2-Dichloroethane	50	U
78-93-3	2-Butanone	100	U
71-55-6	1, 1, 1-Trichloroethane	50	U
56-23-5	Carbon Tetrachloride	50	U
108-05-4	Vinyl Acetate	100	U
75-27-4	Bromodichloromethane	50	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	50	U
10061-02-6	Trans-1, 3-Dichloropropene	50	U
79-01-6	Trichloroethene	50	U
124-48-1	Dibromochloromethane	50	U
79-00-5	1, 1, 2-Trichloroethane	50	U
71-43-2	Benzene	110	
10061-01-5	cis-1, 3-Dichloropropene	50	U
110-75-8	2-Chloroethylvinylether	100	U
75-25-2	Bromoform	50	U
108-10-1	4-Methyl-2-Pentanone	130	
591-78-6	2-Hexanone	100	U
127-18-4	Tetrachloroethene	50	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	50	U
108-88-3	Toluene	1700	
108-90-7	Chlorobenzene	50	U
100-41-4	Ethylbenzene	31	J
100-42-5	Styrene	50	U
	Total Xylenes	140	

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-4618 / U-4651

Sample Number DC-L2-03

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 12-18-86

Date Analyzed 1-2-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	270	J
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	69	J
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	120	J
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	260	J
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
[illegible]-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	34	J
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	9000	
85-01-8	Phenanthrene	470	
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	290	J
206-44-0	Fluoranthene	350	
129-00-0	Pyrene	220	J
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	950	
218-01-9	Chrysene	160	J
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 & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-L2-03

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 12-18-86

Date Analyzed: 12-29-86

Conc/Dil Factor: 50

Percent Moisture (decanted) 22

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	400	U
319-85-7	Beta-BHC	400	U
319-86-8	Delta-BHC	400	U
58-89-9	Gamma-BHC (Lindane)	400	U
76-44-8	Heptachlor	400	U
309-00-2	Aldrin	400	U
1024-57-3	Heptachlor Epoxide	400	U
959-98-8	Endosulfan I	400	U
60-57-1	Dieldrin	800	U
72-55-9	4, 4'-DDE	800	U
72-20-8	Endrin	800	U
33213-65-9	Endosulfan II	800	U
72-54-8	4, 4'-DDD	800	U
1031-07-8	Endosulfan Sulfate	800	U
50-29-3	4, 4'-DDT	800	U
72-43-5	Methoxychlor	4000	U
53494-70-5	Endrin Ketone	800	U
57-74-9	Chlordane	4000	U
8001-35-2	Toxaphene	8000	U
12674-11-2	Aroclor-1016	4000	U
11104-28-2	Aroclor-1221	4000	U
11141-16-5	Aroclor-1232	4000	U
53469-21-9	Aroclor-1242	4000	U
12672-29-6	Aroclor-1248	4000	U
11097-69-1	Aroclor-1254	8000	U
11096-82-5	Aroclor-1260	8000	U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

113

Laboratory Name ECOLOGY & ENVIRONMENT INC.

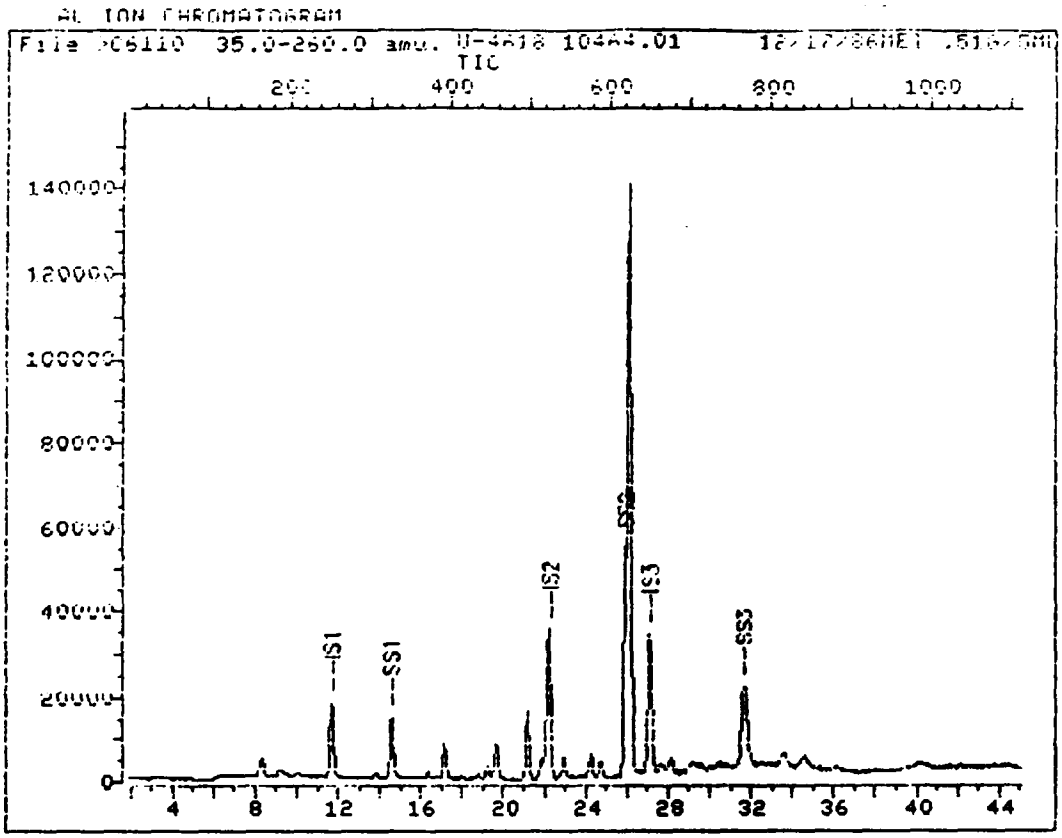
Case No U-4618/U-4651

Sample Number DC-L2-03

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)	
1.	UNKNOWN	VOA	13.8	32	J
2.	HEXENE ISOMER		16.4	36	J
3.	HEXENE ISOMER		17.1	88	BJ
4.	HEXENE ISOMER		18.8	14	J
5.	HEXENE ISOMER		19.2	30	J
6.	HEXANE ISOMER		21.2	170	BJ
7.					
8.	UNKNOWN HYDROCARBON	BNA	25.3	5000	J
9.	UNKNOWN HYDROCARBON		25.8	8100	J
10. 10544500	MOLECULAR SULFUR		26.0	8600	J
11.	UNKNOWN HYDROCARBON		26.2	1300	J
12.	UNKNOWN HYDROCARBON		27.0	5400	J
13.	UNKNOWN HYDROCARBON		27.3	1600	J
14.	UNKNOWN HYDROCARBON		27.4	1900	J
15.	UNKNOWN HYDROCARBON		27.7	2200	J
16.	UNKNOWN HYDROCARBON		28.1	2800	J
17.	UNKNOWN HYDROCARBON		28.6	4800	J
18.	UNKNOWN HYDROCARBON		29.2	2400	J
19.	UNKNOWN HYDROCARBON		29.7	4300	J
20.	UNKNOWN HYDROCARBON		30.1	1900	J
21.	UNKNOWN HYDROCARBON		30.3	3000	J
22.	UNKNOWN HYDROCARBON		31.4	4400	J
23.	UNKNOWN HYDROCARBON		31.7	2000	J
24.	UNKNOWN HYDROCARBON		32.4	3300	J
25.	UNKNOWN HYDROCARBON		32.7	2000	J
26.	UNKNOWN HYDROCARBON		32.9	2200	J
27.	UNKNOWN HYDROCARBON		33.6	3600	J
28.					
29.					
30					



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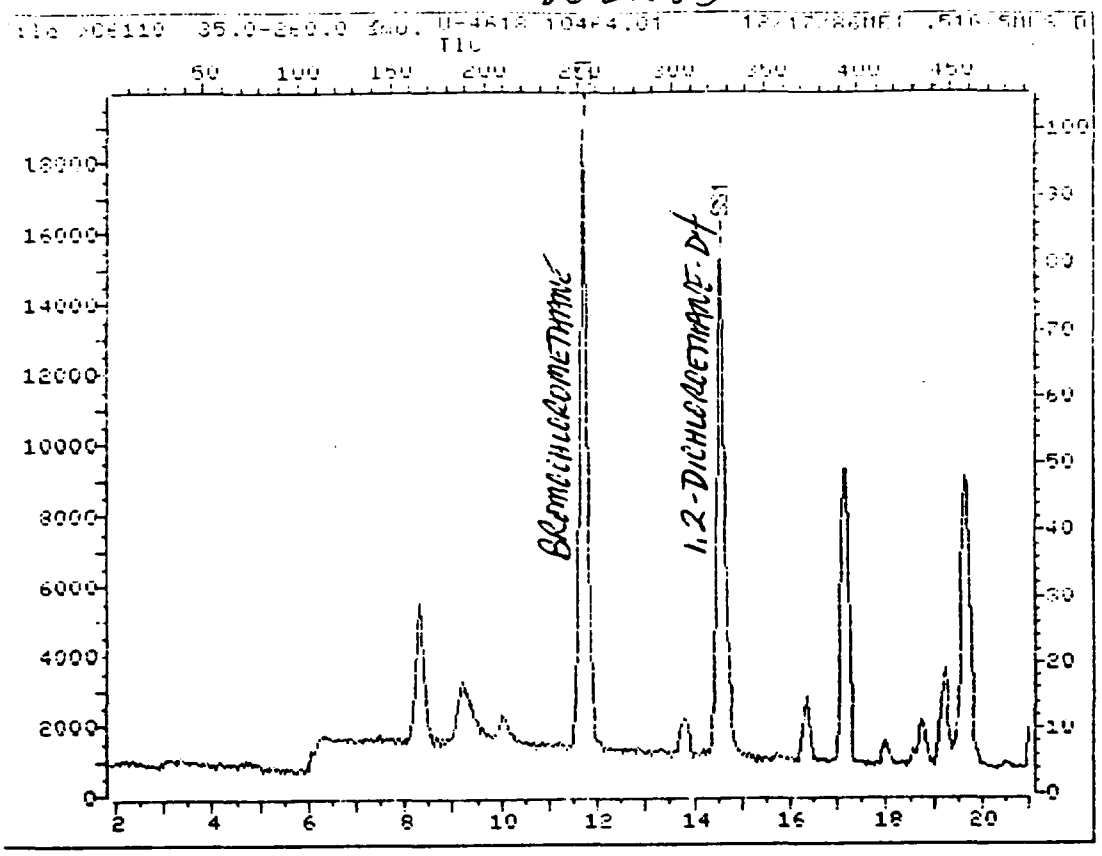
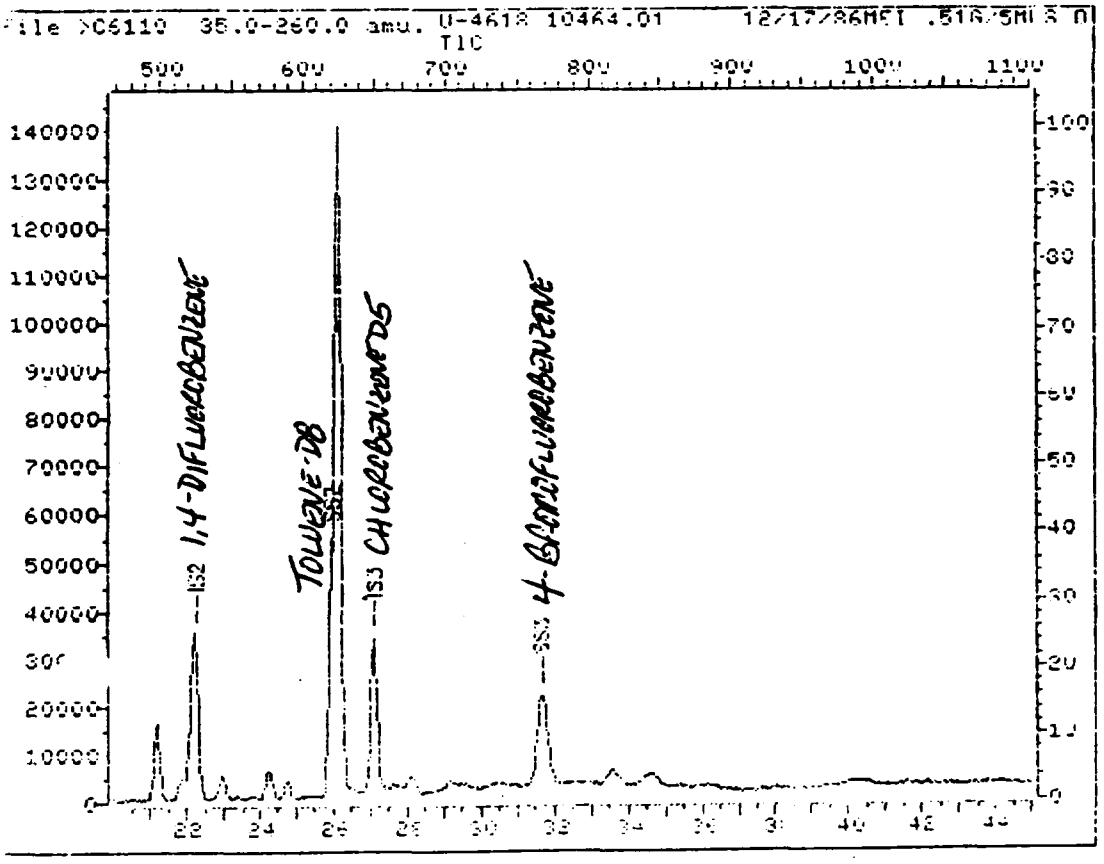
Name: U-4618 10464.01 DC-L2-Q3
Misc: 12/17/86MEI .516/5MLS DI + 100L IS/SS

Id File: VOA:RS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861217 14:50

Operator ID: USER8
Quant Time: 861217 20:48
Injected at: 861217 19:54

DC-L2-03


TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4
IS1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TIC
1,4-DIFLUOROBENZENE
IS2
TOLUENE-D8
SS1
CHLOROBENZENE-D5
IS3
4-BROMOFLUOROBENZENE
SS2

QUANT REPORT

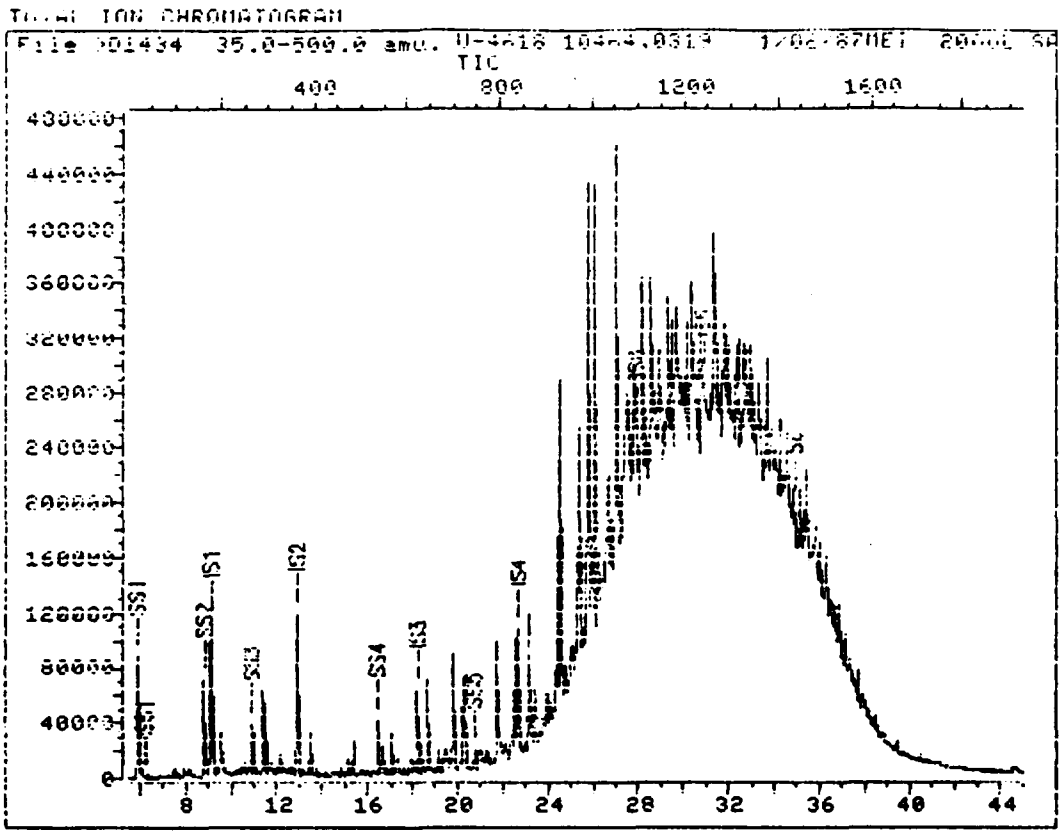
Operator ID: USEPB Quant Rev: 4 Quant Time: 861217 20:48
Output File: ^C6110::D2 Injected at: 861217 19:54
Data File: ^C6110::D4 Dilution Factor: 1.00
Name: U-4618 10464.01 DC-L2-03
Misc: 12/17/86MEI .51G/5MLS DI + 10UL IS/SS

ID File: VOAIRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861217 14:50

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.20	253	26844	250.00	NGS	100
5)	METHYLENE CHLORIDE		84	8.32	166	11834	55.38	NGS	100
7)	ACETONE		43	9.22	189	26336	180.16	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.53	326	62980	254.89	NGS	90
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.25	525	131278	250.00	NGS	100
27)	BENZENE		78	19.69	459	34605	57.68	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.10	650	105099	250.00	NGS	100
32)	4-METHYL-2-PENTANONE		43	22.95	543	20648	64.92	NGS	85
~~33)~~	~~2-HEXANONE~~		~~43~~	~~24.23~~	~~576~~	~~15423~~	~~60.28~~	~~NGS~~	100
~~34)~~	~~2-HEXANONE~~		~~43~~	~~24.24~~	~~589~~	~~10820~~	~~43.61~~	~~NGS~~	100
36)	TOLUENE-D8	(SURR)	98	25.94	620	153510	254.51	NGS	89
37)	TOLUENE		92	26.13	625	333292	859.47	NGS	95
39)	ETHYLBENZENE		91	29.21	704	12342	15.80	NGS	99
41)	4-BROMOFLUOROBENZENE	(SURR)	95	31.65	767	72559	238.84	NGS	100
42)	TOTAL XYLENES		91	33.63	818	21492	34.27	NGS	100
42)	TOTAL XYLENES		91	34.60	843	27541	36.46	NGS	100

No Info

* Compound is ISTD

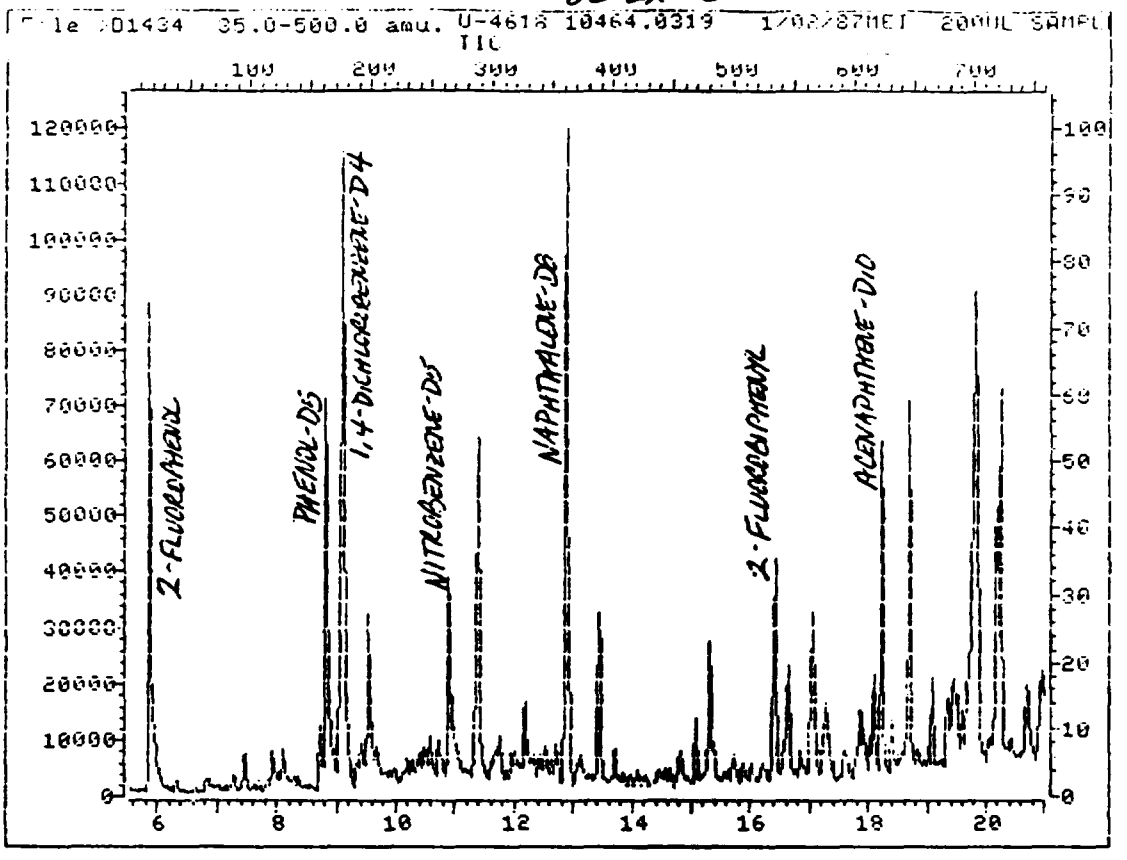


Data File: >D1434::D1
Name: U-4618 110464.0319 DC-L2-03
Misc: 1/02/87MET 200UL SAMPLE + 200UL METL2 + 40UL IS (2X) BT # 4

Id File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870102 15:23

Operator ID: USER8
Quant Time: 870102 20:49
Injected at: 870102 20:02

DC-L2-03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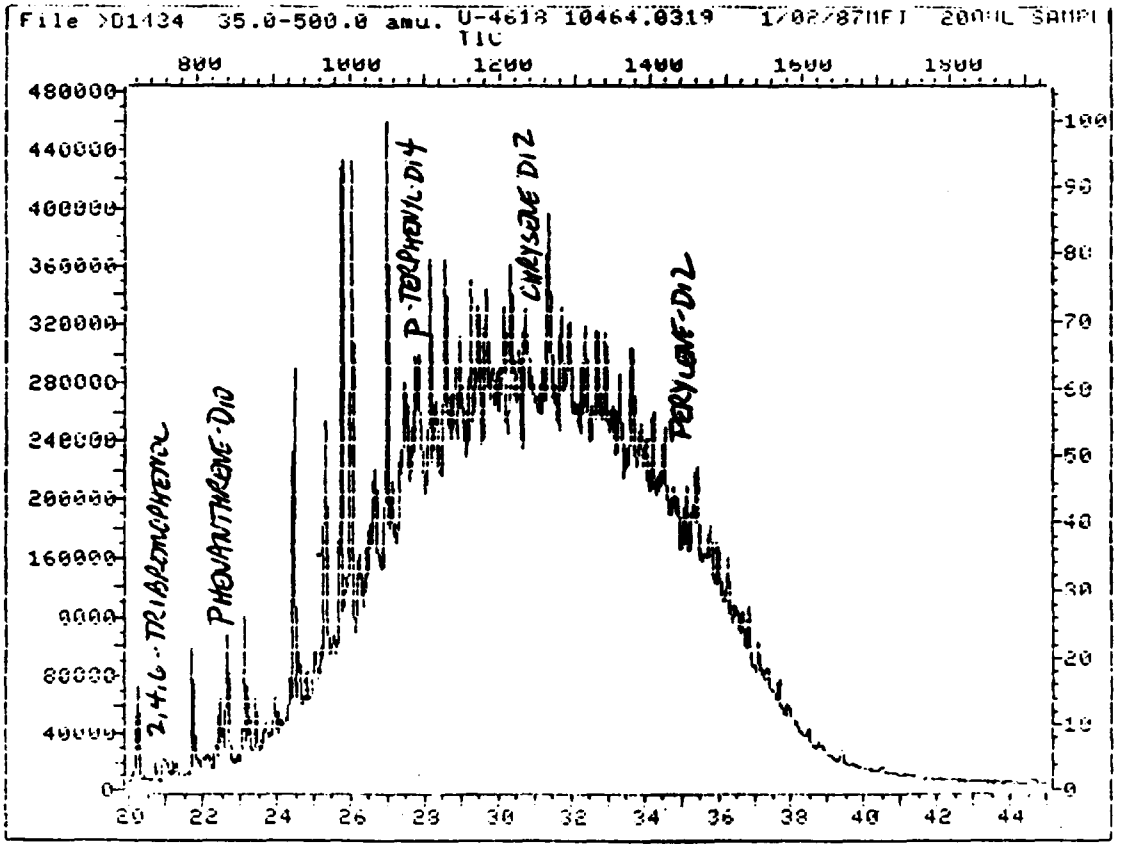
TIC
2-FLUOROPHENOL
PHENOL-D5
1,4-DICHLOROBENZENE-D4
NITROBENZENE-D5
NAPHTHALENE-D8
2-FLUOROBIPHENYL
ACENAPHTHENE-D10


File >D1434 35.0-500.0 amu. U-4618 10464.0319 1/02/87MEI 200NL SAMPL
TIC
2,4,6-TRIBROMOPHENOL
PHENANTHRENE-D10
P-TERPHENYL-D14
CHRYSENE D12
PERYLENE-D12

QUANT REPORT

Operator ID: DSFR8 | Quant Rev: 4 | Quant Time: 870102 20:49
Output File: ^01434::02 | Injected at: 870102 20:02
Data File: >01434::01 | Dilution Factor: 2.00
Name: U-4618 10464.0319 DC-L2-03
Misc: 1/0278/MEI 2000L SAMPLE + 2000L MECL2 + 4UL IS (2X) BTL# 4

ID File: BNAUR::02
Title: BNA ID FILE FOR THE HP 5920 (B)
Last Calibration: 870102 15:23

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4(IS)		152	9.11	122	61597	40.00	UG/L	86
[illegible]	PHENOL-D5	(SURR)	99	8.00	162	69320	22.01	UG/L	95
5)	2-FLUOROPHENOL	(SURR)	112	5.85	12	58923	88.23	UG/L	84
~~[illegible]~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.17~~	~~33~~	~~1170~~	~~1.75~~	~~UG/L~~	70
~~6)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.25~~	~~36~~	~~280~~	~~1.12~~	~~UG/L~~	83
6)	PHENOL		94	8.84	164	8069	8.21	UG/L	29
~~[illegible]~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.14~~	~~179~~	~~613~~	~~[illegible]~~	~~UG/L~~	91
~~[illegible]~~	~~1,4-DICHLOROBENZENE~~		~~146~~	~~9.16~~	~~129~~	~~613~~	~~.58~~	~~UG/L~~	93
~~12)~~	~~1,2-DICHLOROBENZENE~~		~~146~~	~~9.62~~	~~205~~	~~211~~	~~.67~~	~~UG/L~~	86
16)	4-METHYL PHENOL		108	10.98	269	1624	2.08	UG/L	88
~~[illegible]~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.43~~	~~242~~	~~413~~	~~.42~~	~~UG/L~~	12
~~[illegible]~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.49~~	~~245~~	~~405~~	~~.92~~	~~UG/L~~	67
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.60~~	~~251~~	~~701~~	~~.89~~	~~UG/L~~	1
~~[illegible]~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.72~~	~~256~~	~~412~~	~~.42~~	~~UG/L~~	72
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.80~~	~~264~~	~~6239~~	~~2.20~~	~~UG/L~~	81
19)	*NAPHTHALENE-D8	(IS)	136	12.88	362	150912	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.88	264	36239	50.62	UG/L	92
~~[illegible]~~	~~1,2,4-TRICHLOROBENZENE~~		~~180~~	~~12.84~~	~~360~~	~~356~~	~~.53~~	~~UG/L~~	100
29)	NAPHTHALENE		128	12.92	364	6415	3.22	UG/L	100
~~[illegible]~~	~~4-CHLOROANILINE~~		~~127~~	~~12.92~~	~~364~~	~~984~~	~~1.3~~	~~UG/L~~	1
33)	2-METHYLNAPHTHALENE		142	15.06	462	8119	2.88	UG/L	95
~~[illegible]~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.32~~	~~474~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	89
34)	*ACENAPHTHENE-D10	(IS)	162	18.22	624	28990	40.00	UG/L	92
38)	2-FLUOROBIPHENYL	(SURR)	172	16.41	535	32613	42.61	UG/L	95
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.22~~	~~624~~	~~1160~~	~~1.40~~	~~UG/L~~	100
~~[illegible]~~	~~DIBENZOFURAN~~		~~168~~	~~18.49~~	~~632~~	~~496~~	~~.64~~	~~UG/L~~	100
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~18.53~~	~~630~~	~~211~~	~~.32~~	~~UG/L~~	100
~~[illegible]~~	~~DIBENZOFURAN~~		~~168~~	~~18.94~~	~~654~~	~~538~~	~~.94~~	~~UG/L~~	100
~~[illegible]~~	~~ACENAPHTHYLENE~~		~~152~~	~~17.33~~	~~580~~	~~307~~	~~.52~~	~~UG/L~~	1
~~[illegible]~~	~~ACENAPHTHYLENE~~		~~152~~	~~17.49~~	~~603~~	~~228~~	~~.41~~	~~UG/L~~	1
42)	ACENAPHTHENE		153	18.33	629	473	1.02	UG/L	29
~~[illegible]~~	~~ACENAPHTHENE~~		~~153~~	~~18.67~~	~~646~~	~~742~~	~~1.60~~	~~UG/L~~	94
~~42)~~	~~ACENAPHTHENE~~		~~153~~	~~18.22~~	~~641~~	~~932~~	~~2.01~~	~~UG/L~~	42
48)	2,4,6-TRIBROMOPHENOL(SURR)		330	20.69	745	4488	66.22	UG/L	98
~~[illegible]~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.16~~	~~719~~	~~1316~~	~~2.45~~	~~UG/L~~	100
~~[illegible]~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.41~~	~~726~~	~~216~~	~~.46~~	~~UG/L~~	100
~~[illegible]~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.44~~	~~732~~	~~501~~	~~10.11~~	~~UG/L~~	100
~~[illegible]~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.51~~	~~736~~	~~400~~	~~.85~~	~~UG/L~~	100
~~[illegible]~~	~~2,4-DINITROPHENOL~~		~~184~~	~~20.59~~	~~740~~	~~904~~	~~20.00~~	~~UG/L~~	100
~~[illegible]~~	~~[illegible]~~		~~149~~	~~19.40~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~[illegible]~~	~~2,4-DINITROTOLUENE~~		~~16?~~	~~18.99~~	~~[illegible]~~	~~1400~~	~~[illegible]~~	~~UG/L~~	100
[illegible]	*PHENANTHRENE-D10	(IS)	188	22.66	841	31610	40.00	UG/L	95
~~[illegible]~~	~~N-NITROSODIPHENYLAMINE~~		~~169~~	~~20.14~~	~~719~~	~~684~~	~~[illegible]~~	~~UG/L~~	[illegible]
~~[illegible]~~	~~[illegible]~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~1011~~	~~[illegible]~~	~~[illegible]~~	

120

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
40)	PENTACHLOROPHENOL		266	22.45	831	19447	267.82	UG/L	100
41)	PHENANTHRENE		178	22.92	844	5183	14.02	UG/L	93
[illegible]	~~ANTHRACENE~~		~~178~~	~~22.92~~	[illegible]	[illegible]	[illegible]	[illegible]	93
[illegible]	~~DI-N-BUTYLPHTHALATE~~		~~149~~	~~24.[illegible]~~	[illegible]	[illegible]	[illegible]	[illegible]	26
[illegible]	~~DI-N-BUTYLPHTHALATE~~		~~149~~	~~24.[illegible]~~	[illegible]	[illegible]	[illegible]	[illegible]	1
[illegible]	~~DI-N-BUTYLPHTHALATE~~		~~149~~	~~25.12~~	[illegible]	[illegible]	[illegible]	[illegible]	93
53)	DI-N-BUTYLPHTHALATE		149	25.26	968	5160	8.63	UG/L	96
[illegible]	~~DI-N-BUTYLPHTHALATE~~		~~149~~	~~25.[illegible]~~	[illegible]	[illegible]	[illegible]	[illegible]	21
[illegible]	~~FLUORANTHENE~~		~~202~~	~~26.06~~	[illegible]	[illegible]	[illegible]	[illegible]	53
54)	FLUORANTHENE		202	26.37	1022	2701	10.58	UG/L	97
55)	*CHRYSENE-D12	(IS)	240	30.82	1238	20514	40.00	UG/L	100
[illegible]	~~BENZIDINE~~		~~184~~	~~26.05~~	[illegible]	[illegible]	[illegible]	NG CAL:B1	100
[illegible]	~~BENZIDINE~~		~~184~~	~~27.34~~	[illegible]	[illegible]	[illegible]	NG CAL:B1	100
[illegible]	~~BENZIDINE~~		~~184~~	~~27.54~~	[illegible]	[illegible]	[illegible]	NG CAL:B1	100
[illegible]	~~BENZIDINE~~		~~184~~	~~27.66~~	[illegible]	[illegible]	[illegible]	NG CAL:B1	100
[illegible]	~~BENZIDINE~~		~~184~~	~~27.71~~	[illegible]	[illegible]	[illegible]	NG CAL:B1	100
57)	PYRENE		202	26.99	1052	2419	6.52	UG/L	80
[illegible]	~~PYRENE~~		~~202~~	~~27.76~~	[illegible]	[illegible]	[illegible]	[illegible]	16
[illegible]	~~PYRENE~~		~~202~~	~~27.42~~	[illegible]	[illegible]	[illegible]	[illegible]	1
58)	TERPHENYL-D14	(SUPR)	244	27.87	1095	8056	32.78	UG/L	100
[illegible]	~~BUTYLBENZYLPHTHALATE~~		~~149~~	~~28.38~~	[illegible]	[illegible]	[illegible]	[illegible]	27
[illegible]	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~30.24~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~30.99~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~31.21~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~31.36~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~31.44~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
71)	~~BENZO(A)ANTHRACENE~~		~~228~~	~~30.24~~	[illegible]	[illegible]	[illegible]	[illegible]	21
[illegible]	~~BENZO(A)ANTHRACENE~~		~~228~~	~~30.99~~	[illegible]	[illegible]	[illegible]	[illegible]	41
[illegible]	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.21~~	[illegible]	[illegible]	[illegible]	[illegible]	61
[illegible]	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~31.60~~	[illegible]	[illegible]	[illegible]	[illegible]	31
[illegible]	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~31.67~~	[illegible]	[illegible]	[illegible]	[illegible]	23
[illegible]	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.83	1287	6117	28.40	UG/L	86
[illegible]	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.08~~	[illegible]	[illegible]	[illegible]	[illegible]	46
[illegible]	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.12~~	[illegible]	[illegible]	[illegible]	[illegible]	25
[illegible]	~~CHRYSENE~~		~~228~~	~~30.99~~	[illegible]	[illegible]	[illegible]	[illegible]	72
[illegible]	CHRYSENE		228	30.88	1241	1210	4.74	UG/L	41
[illegible]	~~CHRYSENE~~		~~228~~	~~31.21~~	[illegible]	[illegible]	[illegible]	[illegible]	61
74)	*PERYLENE-D12	(IS)	264	34.86	1434	18057	40.00	UG/L	100
[illegible]	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.17~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.44~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.65~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.71~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.02~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~33.65~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~33.93~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~33.99~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.06~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.18~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~33.47~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~33.13~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~33.99~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.18~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.47~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.43~~	[illegible]	[illegible]	[illegible]	[illegible]	100
[illegible]	~~BENZO(B)FLUORANTHENE~~		~~252~~	~~34.54~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

No Sp/C

No Sp/C

No Sp/C

No Sp/C

No Sp/C

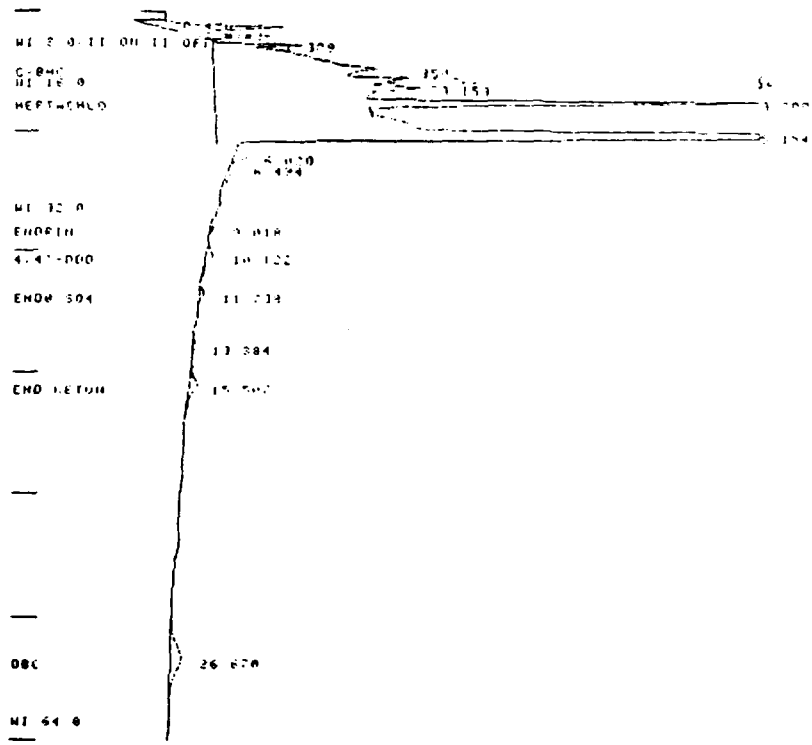
No Sp/C

121

	Compound	m/e	R.T.	Scan#	Area	Conc	Units	q
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

* Compound is ISTD

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



DC-L2-03

CHANNEL: 1A - 1 TITLE: RUN# 16 23:19 29 DEC 6

SAMPLE: 10464.03.19A METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	[illegible] (SEC)
1		0.0000	1.359		72312	PV	4.44
2	[illegible]	1634.820	2.350	-0.050	874288	VV	? 18.06
3		0.0000	2.768		327501	VV	18.19
4		0.0000	2.923		232053	VV	? 28.38
5		0.0000	3.153		367797	VV	? 21.94
6		0.0000	3.351		214698	VV	?128.44
⊖ C 7	HEPTACHLO	[illegible]	3.800	-0.020	1236737	VV	11.6 Baseline
8		0.0000	5.154		5234744	VV	10.75
9	[illegible]	75.5872	6.070	0.310	39654	T	? 45.50
10		0.0000	6.494		35026	T	? 88.00
11	[illegible]	63.8512	10.122	-0.098	28633	PV	21.69
12	[illegible]	83.0906	15.507	0.117	44055	BB	28.19
13	[illegible] DL	258.0952	26.670	-0.060	103680	BB	? 76.81

TOTALS: 5021.109 0.199 8811178

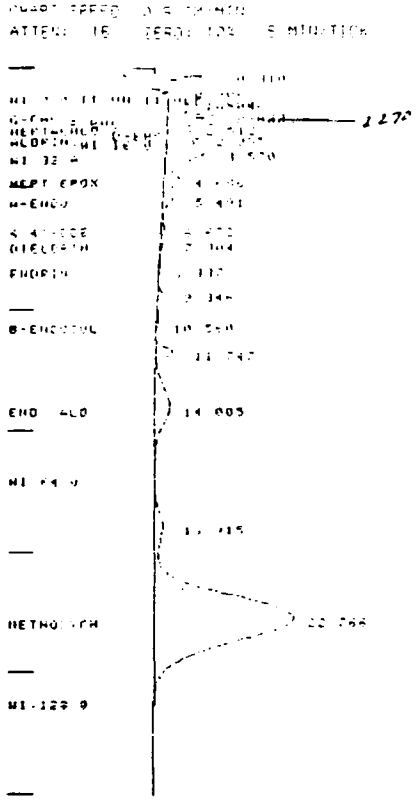
DETECTED PKS: 25 REJECTED PKS: 12

DIVISOR: 1.17300 MULTIPLIER: 50000.0000

NOISE: 34.3 OFFSET: 29

RACK: 1 VIAL: 14 INJ: 1

NOTES:
NOTEBOOK:[illegible] ANALYST:RICHARD [illegible]
SECURE AREA: [illegible]
INST:VARIAN [illegible]
COLUMN: [illegible]
LIQUID PHASE: [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
FEST FOR PRIMARY ANALYSIS



Negative Heptachlor

DC-L2-03

CHANNEL: 1B - 1 TITLE: RUN# 11 18:44 31 DEC 86

SAMPLE: 10464 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.504		41837	BV	7.10
2	[illegible]	75.7504	1.624	-0.016	62090	VV	7.81
3		0.0000	1.789		47060	VV	[illegible]
4	[illegible]	[illegible]	2.023	-0.017	93306	VV	[illegible]
5	[illegible]	[illegible]	[illegible]	-0.090	[illegible]	VV	[illegible]
6	[illegible]	111.5162	2.512	-0.038	71688	VV	7.10.50
7	[illegible]	90.1340	2.697	-0.063	55093	VV	7.28.50
8		0.0000	2.955		106771	VV	7.17.63
9	[illegible]	123.2644	3.164	0.084	89229	VV	7.25.94
10		0.0000	3.570		157182	VV	7.29.56
11		0.0000	3.678		218794	VV	7.36.69
12	[illegible]	208.8363	4.686	0.076	135019	VV	20.13
13	[illegible]	130.3755	5.491	-0.309	79350	VV	14.94
14	[illegible]	44.4167	6.677	0.012	26042	VV	14.89
15		0.0000	9.346		24723	BV	19.21
16	[illegible]	33.7723	10.560	0.150	20476	VV	40.89
17	[illegible]	288.9088	11.747	-0.543	132988	VV	29.05
18	[illegible]	951.8170	14.005	0.315	447913	VB	7100.50
19		0.0000	18.915		223272	BV	98.44
20	[illegible]	28718.72	22.766	-0.754	4655620	VB	128.56

TOTALS: 32104.30 -1.223 7031906

DETECTED PKS: 30 REJECTED PKS: 10

DIVISOR: 1.17300 MULTIPLIER: 50000.0000

NOISE: 45.7 OFFSET: -24

RACK: 1 VIAL: 11 INJ: 1

NOTES:
NOTEPOOL:259-68 ANALYST: RICHARD SAMSON
SECURE AREA: [illegible]
INST: [illegible]
COLUMN: [illegible] GLASS 4MM ID [illegible] SUPELCOPORT
PHASE: [illegible]
CARRIER GAS: [illegible] ML/MIN
DET: [illegible]
[illegible] INJECTION
RESTRICTED PCB CONFIRMATION:
DEAD CREEK

SAMPLE NUMBER DC-L3-04

481095

Sample Number
DC-L3-04

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC.
Case No: U-4651/U-4618
Lab Sample ID No: 10465
QC Report No:
Sample Matrix: SOIL
Contract No: IL-3140
Data Release Authorized By: C Slojkowicz
Date Sample Received: 12-13-86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-16-86

Conc/Dil Factor: 2 pH 7.42

Percent Moisture: (Not Decanted) 21

REPORTED - AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000 U
74-83-9	Bromomethane	2000 U
75-01-4	Vinyl Chloride	2000 U
75-00-3	Chloroethane	2000 U
75-09-2	Methylene Chloride	1800 B
67-64-1	Acetone	3600 B
75-15-0	Carbon Disulfide	1000 U
75-35-4	1, 1-Dichloroethene	1000 U
75-34-3	1, 1-Dichloroethane	1000 U
156-60-5	Trans-1, 2-Dichloroethene	1000 U
67-66-3	Chloroform	16000
107-06-2	1, 2-Dichloroethane	1000 U
78-93-3	2-Butanone	7900 B
71-55-6	1, 1, 1-Trichloroethane	1000 U
56-23-5	Carbon Tetrachloride	1000 U
108-05-4	Vinyl Acetate	2000 U
75-27-4	Bromodichloromethane	1000 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000 U
10061-02-6	Trans-1, 3-Dichloropropene	1000 U
79-01-6	Trichloroethene	1000 U
124-48-1	Dibromochloromethane	1000 U
79-00-5	1, 1, 2-Trichloroethane	1000 U
71-43-2	Benzene	3300
10061-01-5	cis-1, 3-Dichloropropene	1000 U
110-75-8	2-Chloroethylvinylether	2000 U
75-25-2	Bromoform	1000 U
108-10-1	4-Methyl-2-Pentanone	2000 U
591-78-6	2-Hexanone	2000 U
127-18-4	Tetrachloroethene	1000 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000 U
108-88-3	Toluene	21,000
108-90-7	Chlorobenzene	1000 U
100-41-4	Ethylbenzene	1000 U
100-42-5	Styrene	1000 U
	Total Xylenes	530 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

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618 / U-4651

Sample Number DC-L3-04

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-18-86

Date Analyzed 1-2-87

Conc/Dil Factor: 10

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	1200	J
111-44-4	bis(2-Chloroethyl)Ether	1600	U
95-57-8	2-Chlorophenol	1700	
541-73-1	1 3-Dichlorobenzene	1600	U
106-46-7	1 4-Dichlorobenzene	170	J
100-51-6	Benzyl Alcohol	1600	U
95-50-1	1 2-Dichlorobenzene	1600	U
95-48-7	2-Methylphenol	1600	U
39638-32-9	bis(2-chloroisopropyl)Ether	1600	U
106-44-5	4-Methylphenol	860	J
621-64-7	N-Nitroso-Di-n-Propylamine	1600	U
67-72-1	Hexachloroethane	1600	U
98-95-3	Nitrobenzene	1600	U
78-59-1	Isophorone	1600	U
88-75-5	2-Nitrophenol	1600	U
105-67-9	2. 4-Dimethylphenol	1600	U
65-85-0	Benzoic Acid	8000	U
111-91-1	bis(2-Chloroethoxy)Methane	1600	U
120-83-2	2 4-Dichlorophenol	1600	U
120-82-1	1 2. 4-Trichlorobenzene	1600	U
91-20-3	Naphthalene	420	J
106-47-8	4-Chloroaniline	1600	U
87-68-3	Hexachlorobutadiene	1600	U
59-50-7	4-Chloro-3-Methylphenol	1600	U
91-57-6	2-Methylnaphthalene	790	J
77-47-4	Hexachlorocyclopentadiene	1600	U
88-06-2	2 4 6-Trichlorophenol	1600	U
95-95-4	2 4 5-Trichlorophenol	8000	U
91-58-7	2-Chloronaphthalene	1600	U
88-74-4	2-Nitroaniline	8000	U
131-11-3	Dimethyl Phthalate	1600	U
208-96-8	Acenaphthylene	1600	U
99-09-2	3-Nitroaniline	8000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	1600	U
51-28-5	2. 4-Dinitrophenol	8000	U
100-02-7	4-Nitrophenol	8000	U
132-64-9	Dibenzofuran	1600	U
121-14-2	2 4-Dinitrotoluene	1600	U
606-20-2	2 6-Dinitrotoluene	1600	U
84-66-2	Diethylphthalate	1600	U
7005-72-3	4-Chlorophenyl-phenylether	1600	U
86-73-7	Fluorene	1600	U
100-01-6	4-Nitroaniline	8000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	8000	U
86-30-6	N-Nitrosodiphenylamine (1)	1600	U
101-55-3	4-Bromophenyl-phenylether	1600	U
118-74-1	Hexachlorobenzene	1600	U
87-86-5	Pentachlorophenol	46000	
85-01-8	Phenanthrene	1400	J
120-12-7	Anthracene	1600	U
84-74-2	Di-n-Butylphthalate	2200	
206-44-0	Fluoranthene	1600	U
129-00-0	Pyrene	1600	U
85-68-7	Butylbenzylphthalate	1600	U
91-94-1	3 3-Dichlorobenzidine	3300	U
56-55-3	Benzo(a)Anthracene	720	J
117-81-7	bis(2-Ethylhexyl)Phthalate	1600	U
218-01-9	Chrysene	1600	U
117-84-0	Di-n-Octyl Phthalate	1600	U
205-99-2	Benzo(b)Fluoranthene	1600	U
207-08-9	Benzo(k)Fluoranthene	1600	U
50-32-8	Benzo(a)Pyrene	1600	U
193-39-5	Indeno(1 2 3-cd)Pyrene	1600	U
53-70-3	Dibenz(a h)Anthracene	1600	U
191-24-2	Benzo(g h i)Perylene	1600	U

(1)-Cannot be separated from diphenylamine

7/85

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618 / U-4651

Sample Number DC-L3-04

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 12-18-86

Date Analyzed: 12-29-86 12-30-86

Conc/Dil Factor: 50 200

Percent Moisture (decanted) ~~22~~ 21

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	1600	U
319-85-7	Beta-BHC	1600	U
319-86-8	Delta-BHC	1600	U
58-89-9	Gamma-BHC (Lindane)	1600	U
76-44-8	Heptachlor	1600	U
309-00-2	Aldrin	1600	U
1024-57-3	Heptachlor Epoxide	1600	U
959-98-8	Endosulfan I	1600	U
60-57-1	Dieldrin	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	8,000	U
12674-11-2	Aroclor-1016	16,000	U
11104-28-2	Aroclor-1221	16,000	U
11141-16-5	Aroclor-1232	16,000	U
53469-21-9	Aroclor-1242	16,000	U
12672-29-6	Aroclor-1248	16,000	U
11097-69-1	Aroclor-1254	8,000	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 1,000 V_i 4

Laboratory Name ECOLOGY & ENVIRONMENT INC.

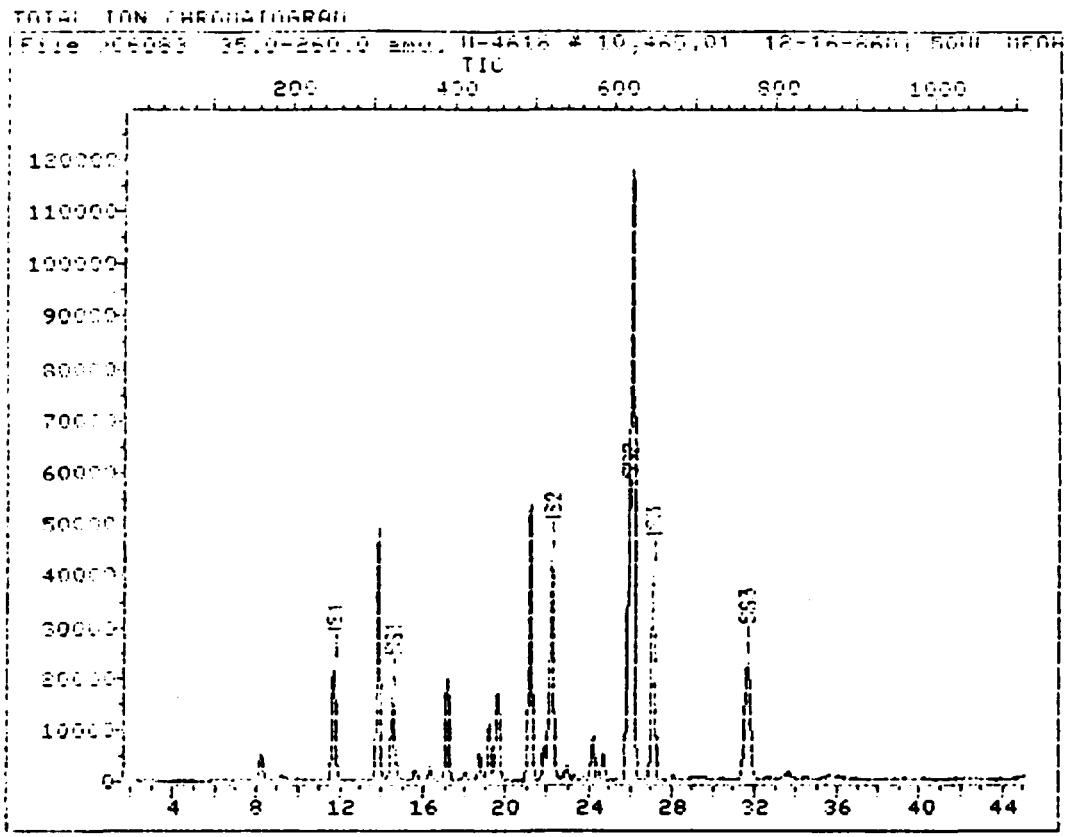
Case No U-4618/U-4651

Sample Number DC-L3-04

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	16.3	1200 J
2.	HEXENE ISOMER		17.1	4200 BJ
3.	HEXENE ISOMER		18.8	1000 J
4.	HEXENE ISOMER		19.2	2300 J
5.	HEXANE ISOMER		21.2	11000 BJ
6.	HEXANE ISOMER		24.2	1800 J
7.				
8.	UNKNOWN HYDROCARBON	BNA	19.8	13000 J
9.	UNKNOWN HYDROCARBON		24.5	11000 J
10.	UNKNOWN HYDROCARBON		25.3	9800 J
11.	UNKNOWN HYDROCARBON		25.7	23000 J
12. 10544500	MOLECULAR ~~SOLIC~~ SULFUR		26.0	12000 J
13.	UNKNOWN HYDROCARBON		26.2	3200 J
14.	UNKNOWN HYDROCARBON		26.7	7200 J
15.	UNKNOWN HYDROCARBON		27.0	17000 J
16.	UNKNOWN HYDROCARBON		27.4	6500 J
17.	UNKNOWN HYDROCARBON		27.7	3700 J
18.	UNKNOWN HYDROCARBON		28.1	6900 J
19.	UNKNOWN HYDROCARBON		28.5	16000 J
20.	UNKNOWN HYDROCARBON		29.2	5200 J
21.	UNKNOWN HYDROCARBON		29.7	9400 J
22.	UNKNOWN HYDROCARBON		30.3	6600 J
23.	UNKNOWN HYDROCARBON		31.4	13000 J
24.	UNKNOWN HYDROCARBON		31.7	5400 J
25.	UNKNOWN HYDROCARBON		32.4	8800 J
26.	UNKNOWN HYDROCARBON		33.6	9200 J
27.	UNKNOWN HYDROCARBON		36.0	2600 J
28.				
29.				
30				

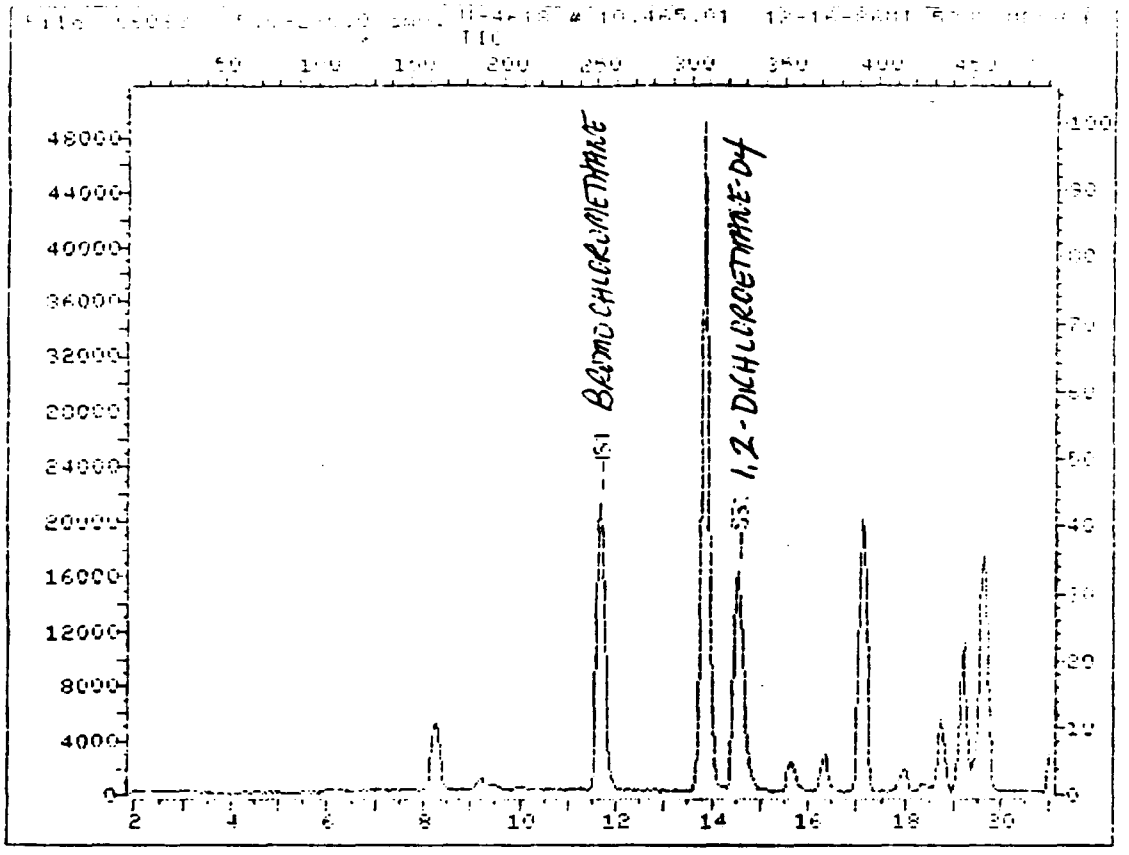


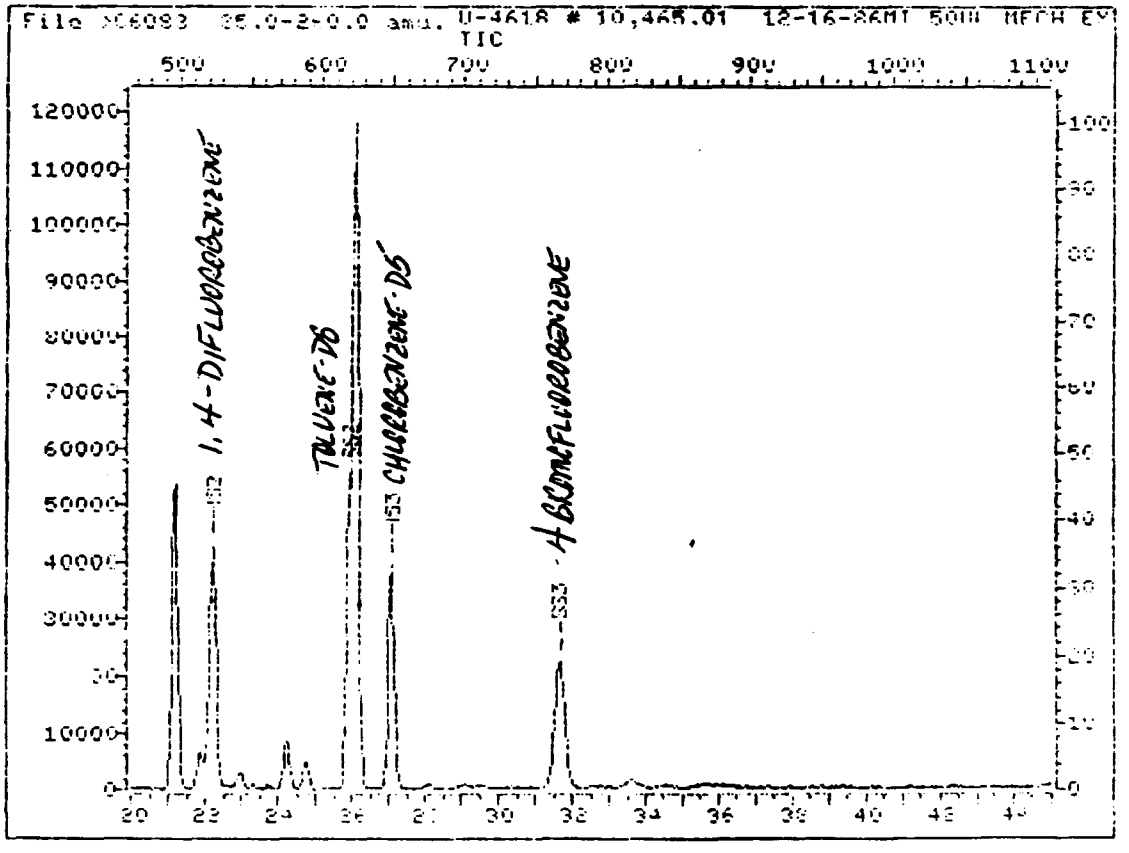
Data File: >C6083::D4
Name: U-4618 # 10,465.01 DC-L3-04
Misc: 12-16-86M 50UL MEOH EXT(4.5/G/10ML) IN 5ML DI + 10UL

TH File: VOAOR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861216 10:56

Operator ID: USERR
Mount Time: 861216 19:49
Injected at: 861216 19:03

DC-L3-04


TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4


File X06093 35.0-2-0.0 amu. U-4618 # 10,465.01 12-16-86MT 50M METH EV
TIC
1,4-DIFLUOROBENZENE
TOLUENE-D8
CHLOROBENZENE-D5
4-BROMOFLUOROBENZENE

QUANT REPORT

Operator ID: [illegible] Quant Rev: 4 Quant Time: 861216 19:29
Output File: [illegible]::D2 Injected at: 861216 19:[illegible]
Data File: [illegible]::D4 Dilution Factor: 1.00
Name: U-4618 # 10,465.01 DC-L3-04
Misc: D2-16-86MI 50UL MEOH EXT(4.5%G/10ML) IN 5ML DI + 10UL

ID File: VOAER::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861216 10:56

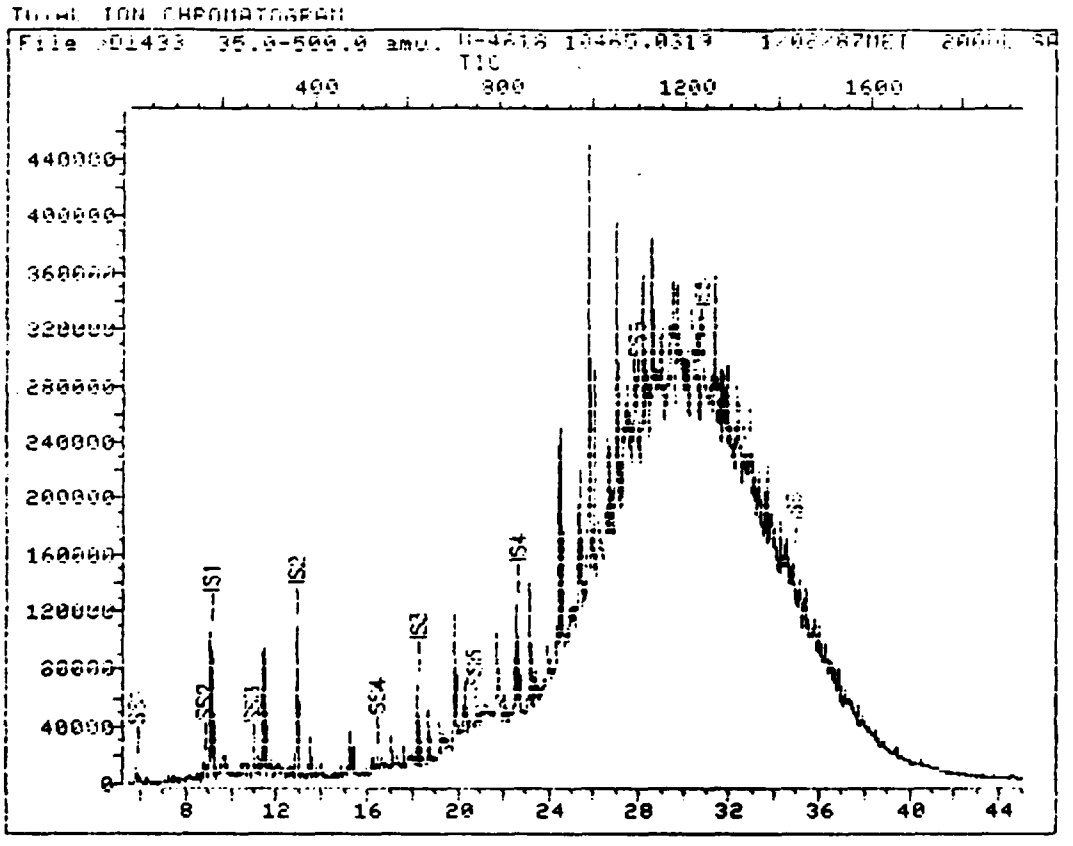
	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.68	252	540/8	50.00	UG/L	100
4)	METHYLENE CHLORIDE		84	8.32	164	14277	8.39	UG/L	100
7)	ACETONE		43	9.20	189	8115	16.61	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~10.05~~	~~210~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
13)	CHLOROFORM		83	13.86	308	211527	74.92	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.55	326	69113	48.91	UG/L	87
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	521	161075	50.00	UG/L	100
17)	2-BUTANONE		72	14.67	329	5595	36.16	UG/L	100
22)	BENZENE		78	19.64	457	64337	14.90	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.19	649	129740	50.00	UG/L	100
~~42)~~	~~4-METHYL-2-PENTANONE~~		~~43~~	~~22.94~~	~~547~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~73~~
~~43)~~	~~2-HEXANONE~~		~~43~~	~~24.02~~	~~575~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~44)~~	~~2-HEXANONE~~		~~43~~	~~24.72~~	~~589~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
46)	TOLUENE-D8	(SURR)	98	25.92	619	169335	41.12	UG/L	96
47)	TOLUENE		92	26.12	624	266180	94.12	UG/L	97
48)	4-BROMOFLUOROBENZENE	(SURR)	95	31.64	766	81549	41.02	UG/L	100
49)	TOTAL XYLENES		91	33.58	815	6215	1.33	UG/L	100
50)	TOTAL XYLENES		91	34.55	841	5072	1.08	UG/L	100

* Compound is ISTD

No Hit

No Hit

TOTAL ION CHROMATOGRAM

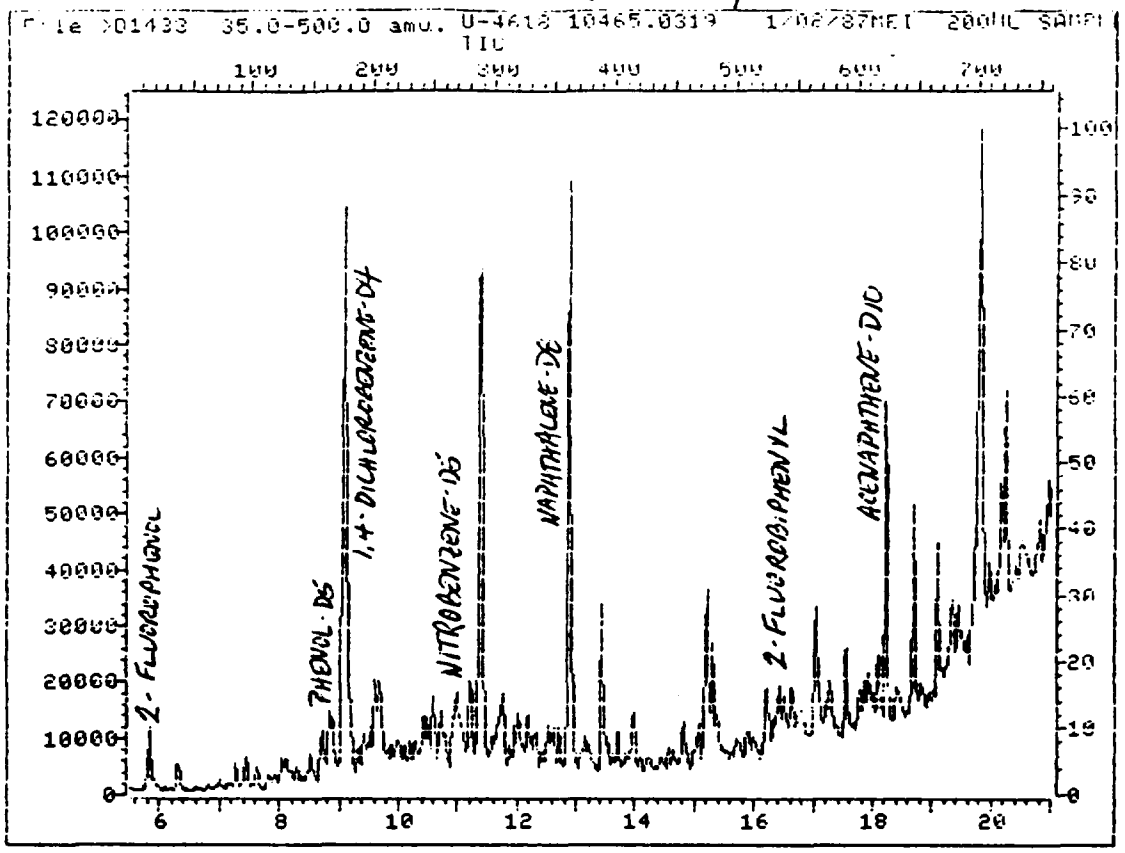


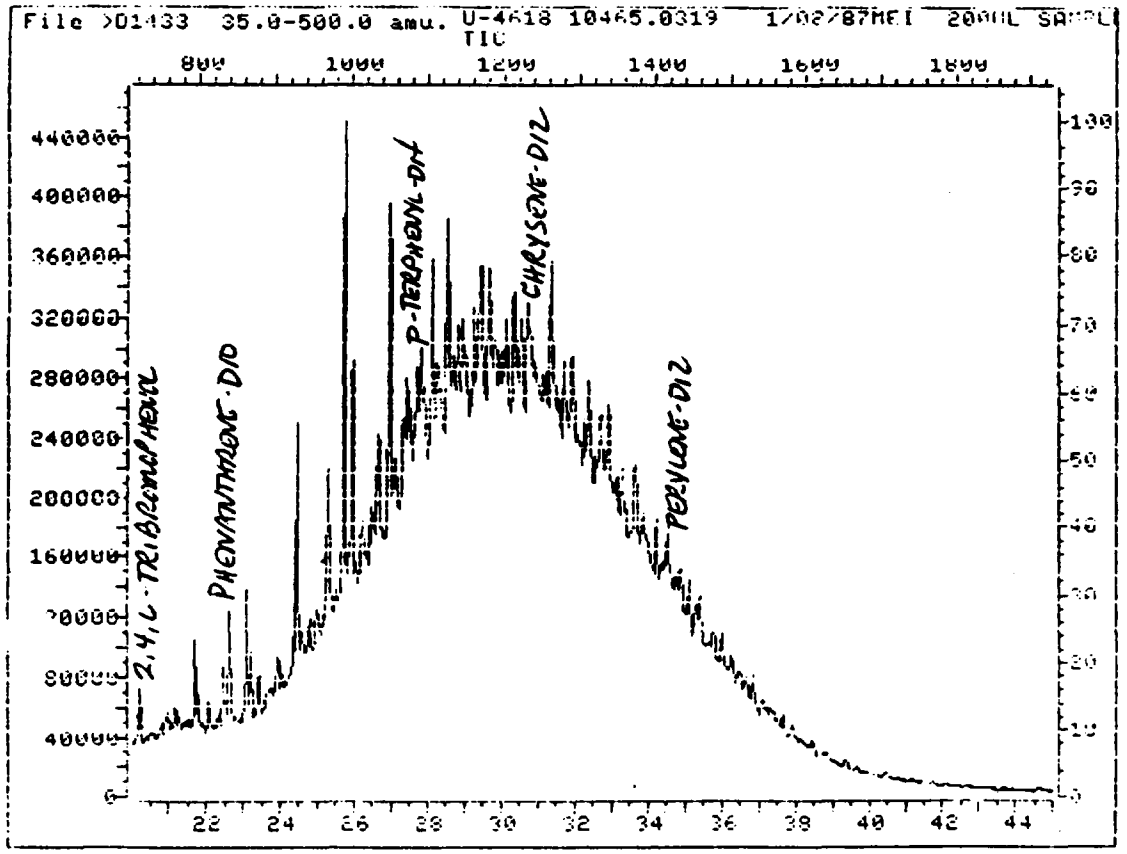
Data File: >D1433::D1
Name: U-4618 10465.0319 DC-L3-04
Misc: 1/02/87MEI 200UL SAMPLE + 200UL MEFL2 + 4UL IS (2X) BN # 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870102 15:23

Operator ID: USER8
Quant Time: 870102 19:57
Injected at: 870102 19:09

DC-L3-04


File >D1433 35.0-500.0 amu. U-4618 10465.0319 1/02/87MEI 200NL SAMPL
TIC
2-FLUOROPHENOL
PHENOL-D6
1,4-DICHLOROBENZENE-D4
NITROBENZENE-D5
NAPHTHALENE-D8
2-FLUOROBIPHENYL
ACENAPHTHENE-D10


File >D1433 35.0-500.0 amu. U-4618 10465.0319 1/02/87MEI 200NL SAMPL
TIC
2,4,6-TRIBROMOPHENOL
PHENANTHRENE-D10
P-TERPHENYL-D14
CHRYSENE-D12
PERYLENE-D12

QUANT REPORT

Type for ID: USER8 Quant Rev: 4 Quant Time: 870102 19:57
Output File: ^D1433::02 Injected at: 870102 19:09
Data File: >D1433::01 Dilution Factor: 2.00
Name: U-4618 10465.0319 DC-L3-04
Misc: 1/02/87MEI 200UL SAMPLE + 200UL MEOL2 + 4UL IS (2X) BTL# 3

FINAL VOLUME - 5.0 ml

ID File: BNADR::02
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870102 15:23

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.09	176	57801	40.00	UG/L	87
2)	PHENOL-D5	(SURR)	99	8.82	163	11248	13.32	UG/L	93
5)	2-FLUOROPHENOL	(SURR)	112	5.83	16	9433	15.04	UG/L	83
6)	PHENOL		94	8.86	165	6410	6.95	UG/L	69
9)	~~1,4-DICHLOROBENZENE~~		~~146~~	~~9.16~~	~~1[illegible]~~	~~994~~	~~1.00~~	~~UG/L~~	75
10)	1,4-DICHLOROBENZENE		146	9.15	179	994	1.01	UG/L	76
11)	~~BENZYL ALCOHOL~~		~~79~~	~~9.42~~	~~2[illegible]~~	~~993~~	~~1.59~~	~~UG/L~~	33
12)	~~1,4-DICHLOROBENZENE~~		~~146~~	~~9.15~~	~~179~~	~~994~~	~~.99~~	~~UG/L~~	78
14)	~~1,2-DICHLOROBENZENE~~		~~146~~	~~9.64~~	~~2[illegible]~~	~~292~~	~~.29~~	~~UG/L~~	87
15)	2-CHLOROPHENOL		128	8.68	156	8095	9.93	UG/L	98
16)	4-METHYL PHENOL		108	10.98	269	3800	5.19	UG/L	96
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.60~~	~~245~~	~~1053~~	~~1.28~~	~~UG/L~~	75
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.60~~	~~250~~	~~1362~~	~~1.67~~	~~UG/L~~	14
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.60~~	~~265~~	~~1105~~	~~1.35~~	~~UG/L~~	66
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.96~~	~~2[illegible]~~	~~576~~	~~.70~~	~~UG/L~~	76
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.09~~	~~274~~	~~254~~	~~.92~~	~~UG/L~~	30
19)	*NAPHTHALENE-D8	(IS)	136	12.88	362	138337	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.90	265	7258	11.07	UG/L	97
22)	~~1,2,4-TRICHLOROBENZENE~~		~~180~~	~~12.84~~	~~36[illegible]~~	~~300~~	~~.40~~	~~UG/L~~	100
29)	NAPHTHALENE		128	12.92	364	3969	2.51	UG/L	100
30)	~~4-CHLOROANILINE~~		~~127~~	~~12.94~~	~~36[illegible]~~	~~626~~	~~1.13~~	~~UG/L~~	1
33)	2-METHYLNAPHTHALENE		142	15.06	469	4462	4.73	UG/L	89
35)	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.37~~	~~4[illegible]~~	~~2[illegible]3~~	~~2.02~~	~~UG/L~~	96
34)	*ACENAPHTHENE-D10	(IS)	162	18.23	624	27327	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.41	535	5631	8.72	UG/L	96
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~10.43~~	~~5[illegible]~~	~~[illegible]~~	~~12.28~~	~~UG/L~~	100
42)	~~DIBENZOFURAN~~		~~168~~	~~10.70~~	~~6[illegible]~~	~~404~~	~~.75~~	~~UG/L~~	100
43)	~~DIBENZOFURAN~~		~~168~~	~~10.74~~	~~45[illegible]~~	~~361~~	~~.67~~	~~UG/L~~	100
44)	~~ACENAPHTHYLENE~~		~~152~~	~~17.27~~	~~5[illegible]~~	~~734~~	~~1.06~~	~~UG/L~~	1
45)	~~ACENAPHTHYLENE~~		~~152~~	~~17.43~~	~~658~~	~~176~~	~~.26~~	~~UG/L~~	16
47)	~~ACENAPHTHENE~~		~~154~~	~~18.41~~	~~6[illegible]~~	~~247~~	~~.56~~	~~UG/L~~	97
48)	~~ACENAPHTHENE~~		~~153~~	~~18.48~~	~~446~~	~~594~~	~~1.33~~	~~UG/L~~	93
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.70	745	638	9.99	UG/L	99
49)	~~2,4-DINITROPHENOL~~		~~184~~	~~20.15~~	~~718~~	~~456~~	~~9.76~~	~~UG/L~~	100
49)	~~2,4-DINITROPHENOL~~		~~184~~	~~20.50~~	~~74[illegible]~~	~~324~~	~~7.84~~	~~UG/L~~	100
50)	~~4-NITROPHENOL~~		~~139~~	~~18.94~~	~~659~~	~~[illegible]~~	~~4.26~~	~~UG/L~~	100
50)	~~4-NITROPHENOL~~		~~139~~	~~19.43~~	~~67[illegible]~~	~~392~~	~~4.71~~	~~UG/L~~	100
50)	~~4-NITROPHENOL~~		~~139~~	~~19.49~~	~~6[illegible]~~	~~212~~	~~3.63~~	~~UG/L~~	100
50)	~~4-NITROPHENOL~~		~~139~~	~~19.70~~	~~6[illegible]~~	~~2[illegible]~~	~~4.04~~	~~UG/L~~	100
50)	~~4-NITROPHENOL~~		~~139~~	~~19.94~~	~~7[illegible]~~	~~469~~	~~9.02~~	~~UG/L~~	100
50)	~~2,4-DINITROTOLUENE~~		~~165~~	~~19.93~~	~~6[illegible]~~	~~3[illegible]~~	~~3.04~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.64	840	29342	40.00	UG/L	93
57)	~~N-NITROSODIPHENYLAMINE~~		~~169~~	~~20.06~~	~~72[illegible]~~	~~34[illegible]~~	~~1.50~~	~~UG/L~~	66
57)	~~N-NITROSODIPHENYLAMINE~~		~~169~~	~~20.50~~	~~73[illegible]~~	~~612~~	~~0.66~~	~~UG/L~~	47
57)	~~N-NITROSODIPHENYLAMINE~~		~~169~~	~~20.69~~	~~7[illegible]~~	~~[illegible]~~	~~2.00~~	~~UG/L~~	77
60)	PENTACHLOROPHENOL		266	22.46	831	14915	278.78	UG/L	100

No GPC

No GPC

No GPC

No GPC

No GPC

No GPC

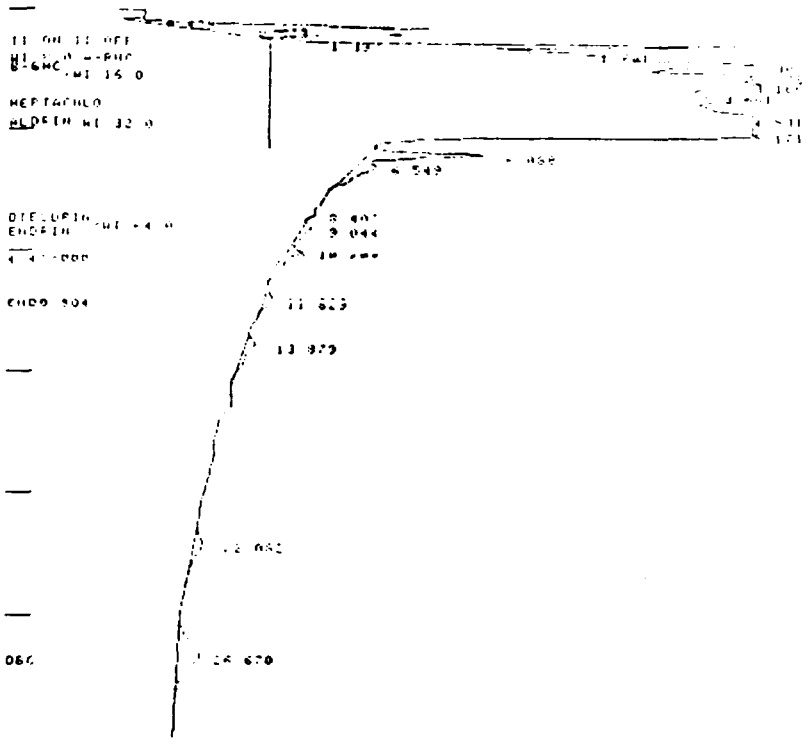
No GPC

No GPC

1.35

	Compound		m/z	R.T.	Scan#	Area	Conc	Units	q
61)	PHENANTHRENE		178	22.23	844	2914	8.13	UG/L	99
62)	ANTHRACENE		178	22.43	844	2414	8.22	UG/L	99
63)	DI-N-BUTYLPHTHALATE		149	25.16	962	2655	9.06	UG/L	83
63)	DI-N-BUTYLPHTHALATE		149	25.25	967	4358	15.24	UG/L	94
63)	DI-N-BUTYLPHTHALATE		149	25.43	976	1274	4.00	UG/L	84
64)	DI-N-BUTYLPHTHALATE		149	25.56	982	1423	4.52	UG/L	96
64)	FLUORANTHENE		202	26.02	1002	1222	5.18	UG/L	7
64)	FLUORANTHENE		202	26.15	1011	493	1.66	UG/L	10
64)	FLUORANTHENE		202	26.36	1021	1594	6.22	UG/L	22
65)	*CHRYSENE-D12	(IS)	240	30.91	1237	19905	40.00	UG/L	100
66)	BENZIDINE		184	26.96	1050	1120	1100.00	NG/L	100
66)	BENZIDINE		184	27.26	1065	163	160.00	NG/L	100
66)	BENZIDINE		184	27.33	1068	234	230.00	NG/L	100
67)	PYRENE		202	27.70	1082	339	.94	UG/L	
67)	PYRENE		202	27.45	1072	490	1.37	UG/L	1
68)	TERPHENYL-D14	(SURR)	244	27.88	1095	1660	8.02	UG/L	100
69)	BUTYLBENZYLPHTHALATE		149	29.37	1162	1032	4.88	UG/L	91
69)	BUTYLBENZYLPHTHALATE		149	30.01	1189	576	2.49	UG/L	56
69)	BUTYLBENZYLPHTHALATE		149	30.21	1198	411	2.29	UG/L	65
70)	3,3'-DICHLOROBENZIDINE		252	30.23	1233	437	14.59	UG/L	100
70)	3,3'-DICHLOROBENZIDINE		252	30.96	1244	154	4.21	UG/L	100
70)	3,3'-DICHLOROBENZIDINE		252	31.14	1253	216	6.22	UG/L	100
70)	3,3'-DICHLOROBENZIDINE		252	31.35	1263	1445	44.95	UG/L	100
71)	BENZO(A)ANTHRACENE		228	30.40	1212	1412	6.33	UG/L	71
71)	BENZO(A)ANTHRACENE		228	30.90	1241	1051	4.32	UG/L	70
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.41	1264	259	1.04	UG/L	83
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.68	1274	225	1.00	UG/L	46
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.01	1288	209	1.00	UG/L	8
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.24	1296	154	.79	UG/L	87
73)	CHRYSENE		228	30.90	1241	1051	4.24	UG/L	71
74)	*PERYLENE-D12	(IS)	264	34.82	1434	17150	40.00	UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	32.17	1291	1164	4.28	UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	33.58	1371	559	1.67	UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	33.78	1377	624	1.82	UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	33.84	1383	553	.99	UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	34.01	1392	232	2.02	UG/L	100
76)	BENZO(B)FLUORANTHENE		252	33.62	1374	1014	4.00	UG/L	100
76)	BENZO(B)FLUORANTHENE		252	33.84	1384	218	.88	UG/L	100
76)	BENZO(B)FLUORANTHENE		252	34.11	1392	334	1.35	UG/L	100
76)	BENZO(B)FLUORANTHENE		252	34.19	1401	408	1.65	UG/L	100
76)	BENZO(B)FLUORANTHENE		252	34.41	1411	262	1.06	UG/L	100
77)	BENZO(K)FLUORANTHENE		252	33.62	1374	1013	3.98	UG/L	100
77)	BENZO(K)FLUORANTHENE		252	33.84	1384	218	.86	UG/L	100
77)	BENZO(K)FLUORANTHENE		252	34.11	1392	334	1.31	UG/L	100
77)	BENZO(K)FLUORANTHENE		252	34.19	1401	408	1.60	UG/L	100
77)	BENZO(K)FLUORANTHENE		252	34.41	1411	262	1.03	UG/L	100
78)	BENZO(A)PYRENE		252	34.44	1408	142	.60	UG/L	100
78)	BENZO(A)PYRENE		252	34.60	1411	242	1.00	UG/L	100
78)	BENZO(A)PYRENE		252	34.52	1412	396	1.22	UG/L	100
78)	BENZO(A)PYRENE		252	34.72	1420	141	.44	UG/L	100

* Compound is (SIU



See Run 39 for Front End Resolution

DC-L3-04

CHANNEL: 1A - 1 TITLE: RUN# 17 23:53 29 DEC 66

SAMPLE: 10465.03.19A METHOD: CEFA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.392		497707	BV	3.98
2		0.0000	1.689		467697	VV	? 9.25
3		0.0000	1.791		179679	VV	? 7.06
4	[illegible]	757.3417	1.919	-0.131	458558	VV	? 12.81
5	[illegible]	3449.959	2.302	-0.098	1969549	VV	? 18.91
6		0.0000	2.778		956439	VV	? 21.94
7		0.0000	2.945		601104	VV	? 21.25
8		0.0000	3.166		1513967	VV	? 15.81
9		0.0000	3.561		627086	VV	? 12.94
10	[illegible]	2695.794	3.803	-0.017	1162079	VV	? 43.94
11	[illegible]	3598.601	4.531	-0.169	2040639	VV	? 76.38
12		0.0000	5.171		12935836	VV	11.41
13	[illegible]	386.8094	6.088	0.378	205520	I	? 32.25
14		0.0000	6.549		126266	I	? 68.06
15	[illegible]	142.8468	9.066	0.134	58351	I	? 62.61
16	[illegible]	195.5005	10.201	0.019	88790	I	? 54.[illegible]
17	[illegible]	77.8110	11.829	-0.171	28467	BB	22.36
18	[illegible]	221.0725	13.879	0.519	47720	BB	22.[illegible]
19		0.0000	22.082		56045	BB	33.94
20	[illegible] DL	520.3818	26.670	-0.060	211717	BB	67.38

TOTALS: 12046.01 0.098 24131380

DETECTED PKS: 31 REJECTED PKS: 11

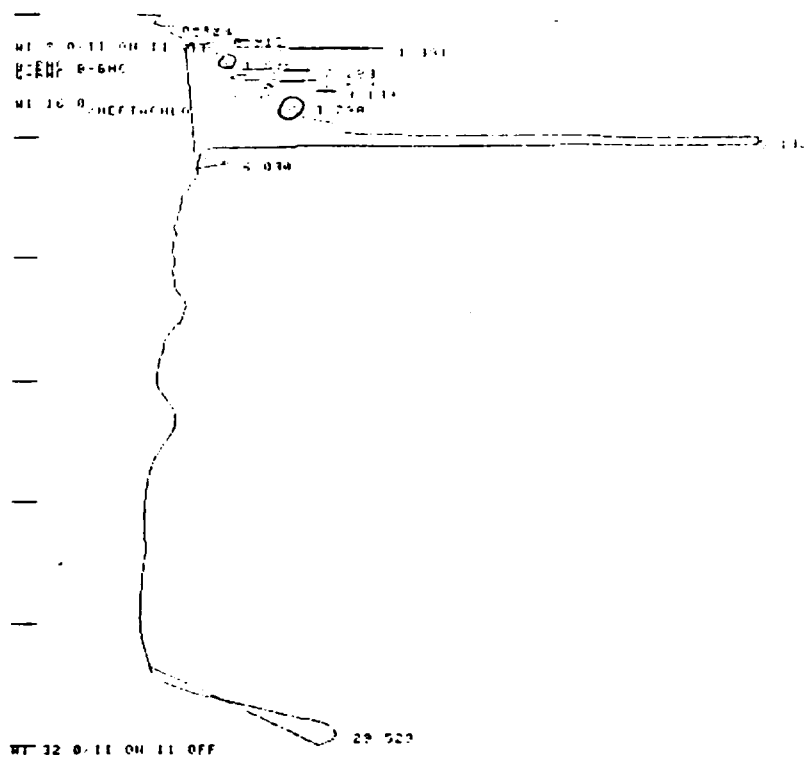
DIVISOR: 1.18520 MULTIPLIER: 50000.0000

NOISE: 34.3 OFFSET: -138

RACK: 1 VIAL: 15 INT: 1

NOTES:
NOTEBOOK:259 66 ANALYST:RICHARD SAMSON
SECURE AREA: 0 [illegible]
INST:VARIAN 6000 [illegible]
COLUMN: 6' GLASS [illegible] 120 SHEEL[illegible]
LIQUID PHASE: [illegible]
CARRIER [illegible] MIN.
DET: [illegible]
[illegible] INJECTION
[illegible]
RESOURCE PRIMARY ANALYSIS

CHART SPEED 0.5 CM/MIN
ATTEN: 0 ZERO: 102 5 MIN/TICK



DC-L3-04

CHANNEL: 1A - 1 TITLE: RUN# 39 17:05 30 DEC 86

SAMPLE: 10465.03.19A 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	1.331		159158	BV	3.50
2		0.0000	1.671		54219	BV	12.63
3		0.0000	1.908		77292	BV	8.80
4	[illegible]	260.6361	2.066	0.016	[illegible] Baseline		19.94
5	[illegible]	3769.633	2.203	0.103	212769	VV	9.75
6		0.0000	2.668		193557	VV	8.88
7		0.0000	2.921		180278	VV	17.56
8		0.0000	3.139		25[illegible]	BV	13.06
9	[illegible]	3312.233	3.798	-0.022	[illegible] Baseline		35.88
10		0.0000	5.132		6236526	VV	10.94
11	[illegible]	420.7399	6.030	0.320	55887	T	10.63
12		0.0000	29.529		312402	BB	2175.56

TOTALS: 7763.442 0.417 8052247

DETECTED PKS: 20 REJECTED PKS: 8

DIVISOR: 1.18800 MULTIPLIER: 200000.000

NOISE: 102.9 OFFSET: -18

NOTES:
NOTEBOOK:259-67 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4651
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 PRIMARY ANALYSIS
RESULT IN UG/KG DRY WEIGHT

POST RUN:
SAVE FILE: RAW [illegible]

SAMPLE NUMBER DC-LB-01

481095

Sample Number
DC-LB-01

.Organics Analysis Data Sheet
(Page 1)

.aboratory Name: ECOLOGY & ENVIRONMENT INC.
Case No: V-4618/V-4651
Lab Sample ID No: 10462
QC Report No:
Sample Matrix: SOIL
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 12-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 12-17-86
Conc/Dil Factor: 1 pH 7.68
Percent Moisture: (Not Decanted) 22

REPORTED - AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	13	B
67-64-1	Acetone	25	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5	U
10061-02-6	Trans-1, 3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1, 1, 2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1, 3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	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-4618 / U-4651

Sample Number DC-LB-01

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-18-86

Date Analyzed 1-2-87

Conc./Dil Factor: 2

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	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	35	J
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 V-4618/V-4651

Sample Number DC-LB-01

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 12-18-86

Date Analyzed 12-30-86

Conc/Dil Factor 1

Percent Moisture (decanted) 22

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	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 1,000 V_i 4

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

Sample Number DC-LB-01

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.1	2 BJ
2.	HEXANE ISOMER	VOA	21.2	11 BJ
3.				
4.	UNKNOWN	BNA	34.0	1400 BJ
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
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17.				
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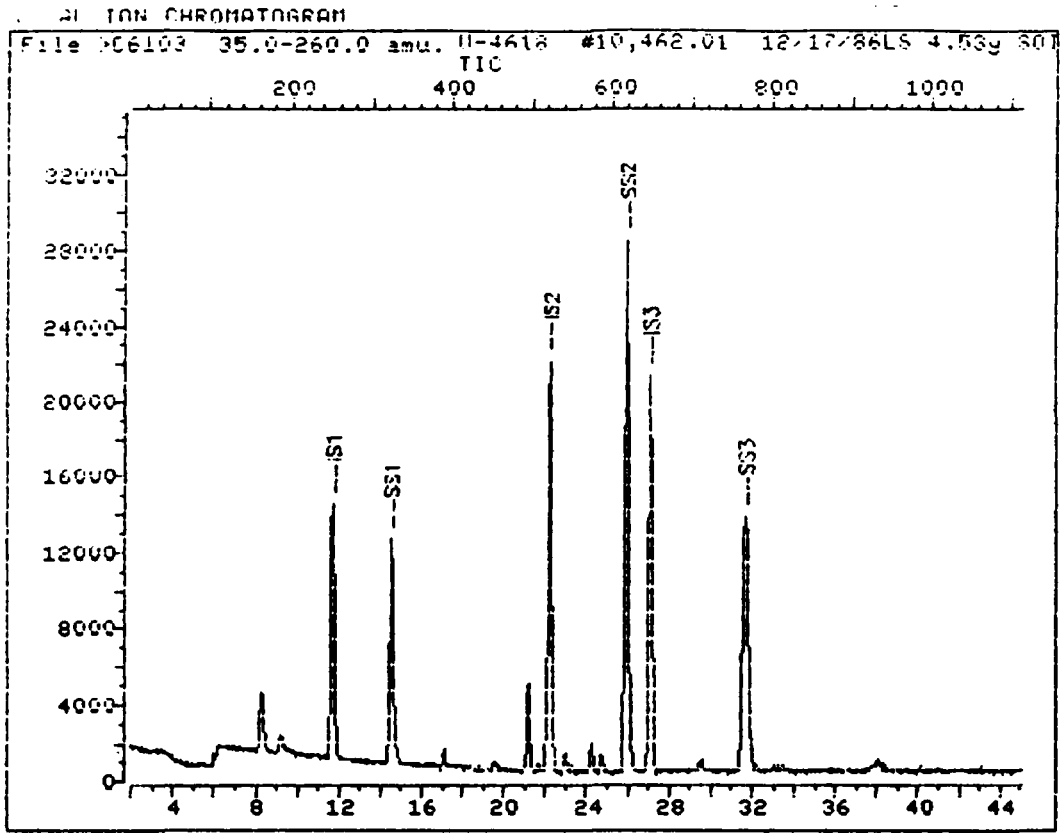
25.				
26.				
27.				
28.				
29.				
30				

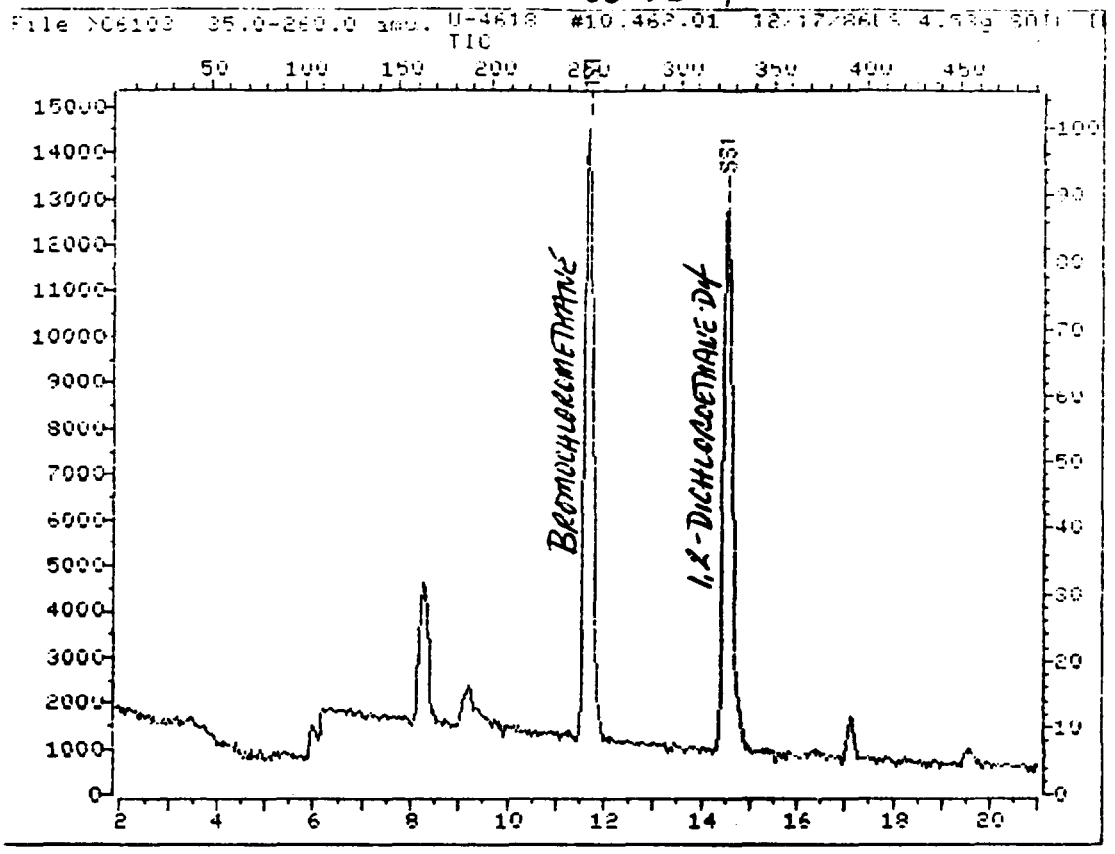


Data File: >C6103::D4
Name: U-4618 #10,462.01 DC-LB-01
Misc: 12/17/86LS 4.53g SOIL IN 5 MLS DI + 10 ULS IS/SS

Id File: VOAERS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861217 14:50

Operator ID: USER8
Quant Time: 861217 14:51
Injected at: 861217 14:00

DC-LB-01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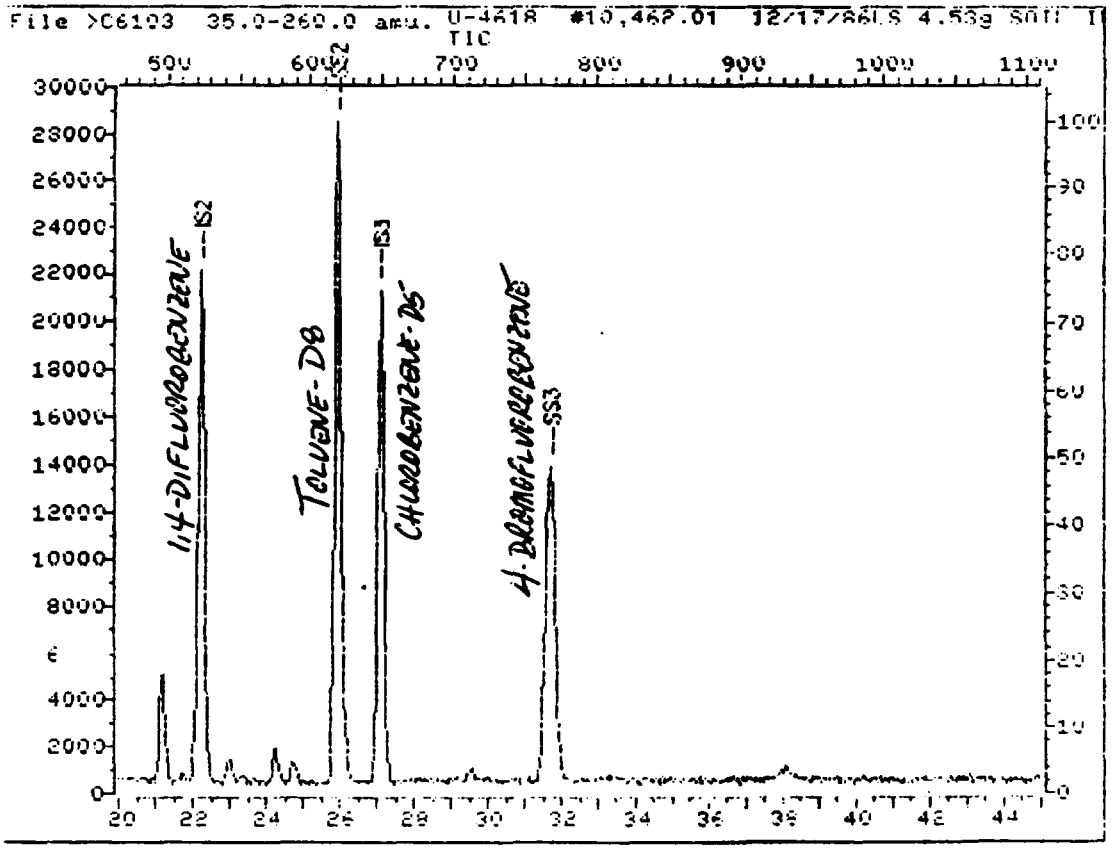
TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4
SS1


File >C6103 35.0-260.0 amu. U-4618 #10,462.01 12/17/86 LS 4.53g Soil
TIC
1,4-DIFLUOROBENZENE
IS2
TOLUENE-D8
IS3
CHLOROBENZENE-D5
4-BROMOFLUOROBENZENE
SS3

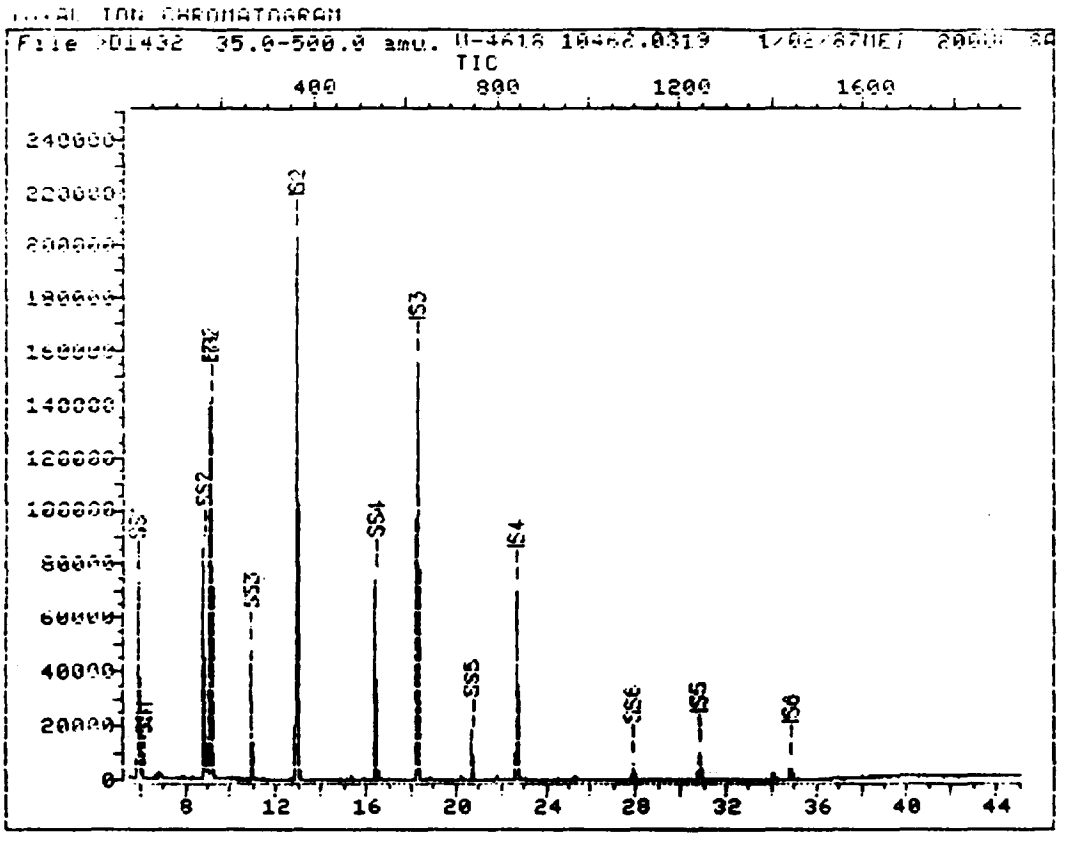
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861217 14:51
Output File: ^C6103::D2 Injected at: 861217 14:00
Data File: >C6103::D4 Dilution Factor: 1.00
Name: U-4618 #10,462.01 DC-LB-01
Misc: 12/17/86LS 4.53g SOIL IN 5 MLS DI + 10 ULS IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861217 14:50

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.69	252	21517	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.27	164	9880	52.22	NGS	100
7)	ACETONE		43	9.20	188	13325	115.72	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	325	52446	264.81	NGS	89
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.24	524	92477	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.09	649	70174	250.00	NGS	100
~~44)~~	~~2-HEXANONE~~		~~43~~	~~24.26~~	~~576~~	~~3810~~	~~22.89~~	~~NGS~~ No Spk	100
36)	TOLUENE-D8	(SURR)	98	25.93	619	113814	273.69	NGS	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.71	768	50505	248.98	NGS	100

* Compound is ISTD

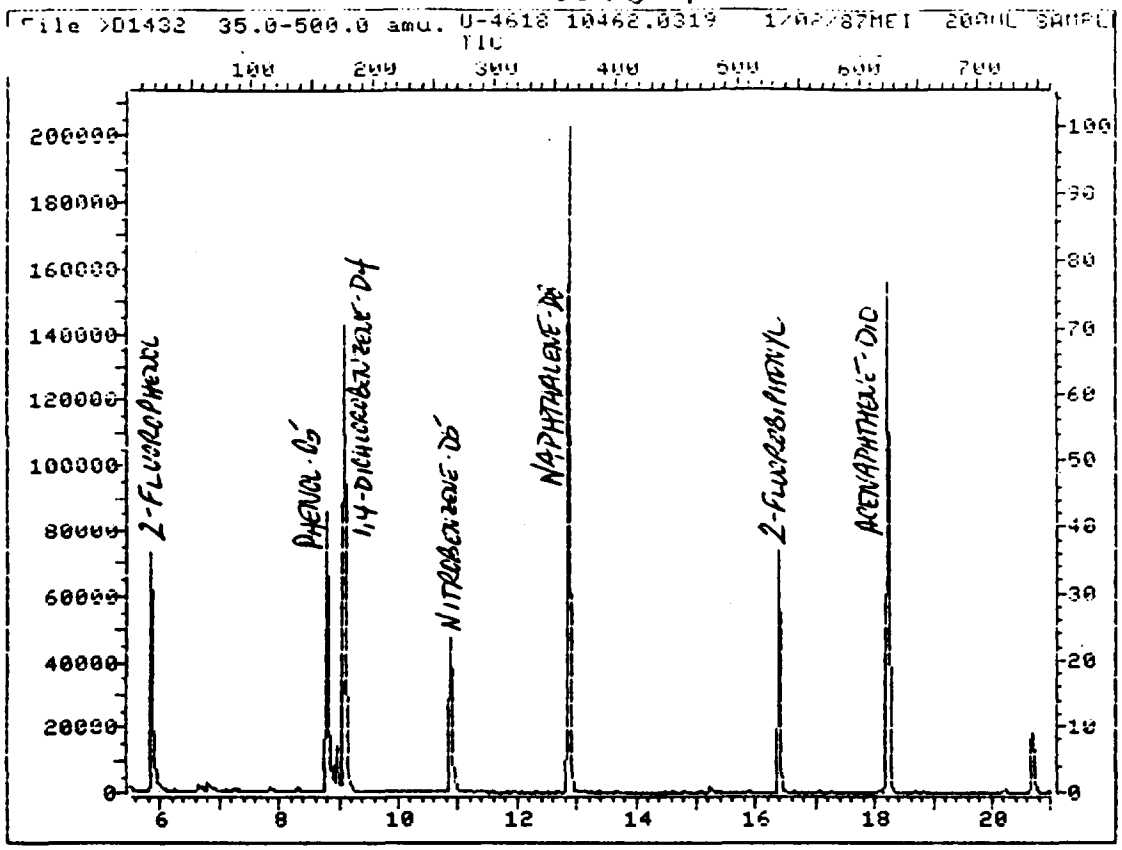


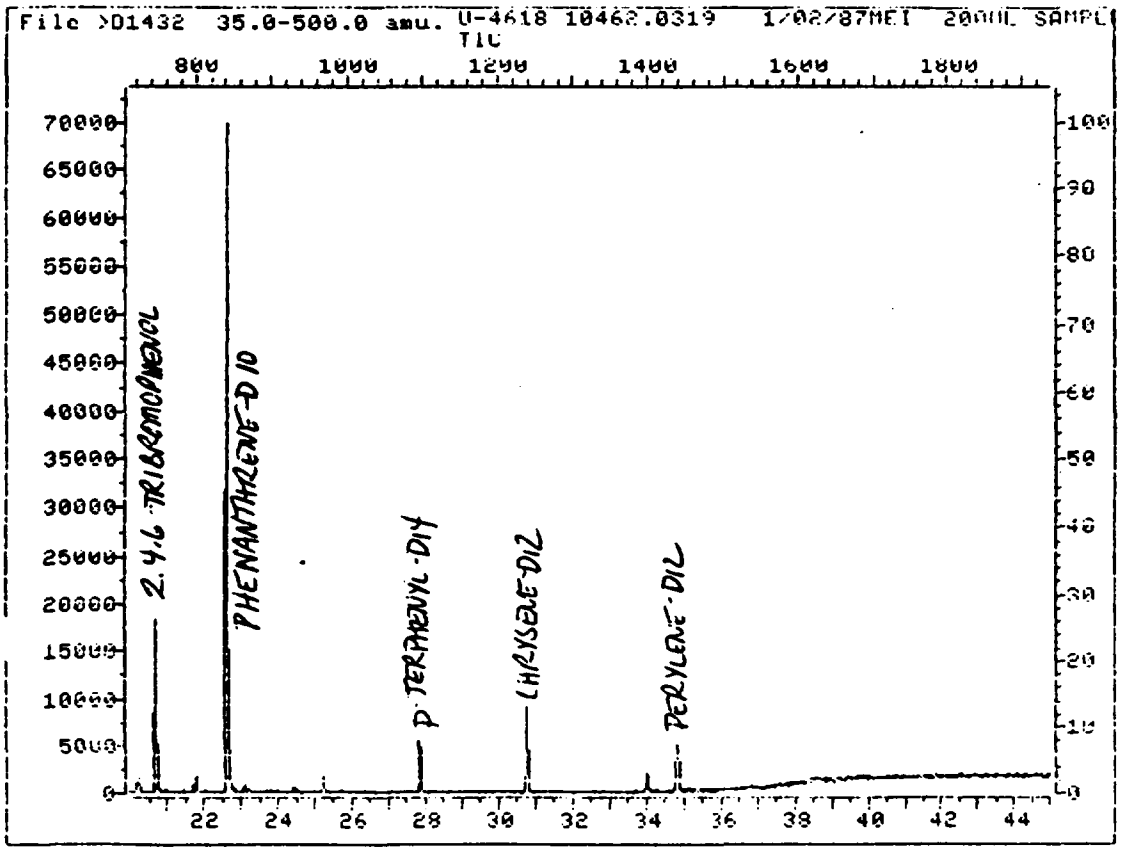
Data File: >D1432::D1
Name: U-4618 10462.0319 DC-LB-01
Misc: 1/02/87MEI 200UL SAMPLE + 200UL MEIL2 + 40UL IS (2X) BH # 2

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870102 15:23

Operator ID: USER8
Quant Time: 870102 19:04
Injected at: 870102 18:17

DC-LB-01


File >D1432 35.0-500.0 amu. U-4618 10462.0319 1/02/87MEI 200UL SAMPL
TIC
2-FLUOROPHENOL
PHENOL-D5
1,4-DICHLOROBENZENE-D4
NITROBENZENE-D5
NAPHTHALENE-D8
2-FLUOROBIPHENYL
ACENAPHTHENE-D10


File >D1432 35.0-500.0 amu. U-4618 10462.0319 1/02/87MEI 200UL SAMPL
TIC
2,4,6-TRIBROMOPHENOL
PHENANTHRENE-D10
P-TERPHENYL-D14
CHRYSENE-D12
PERYLENE-D12

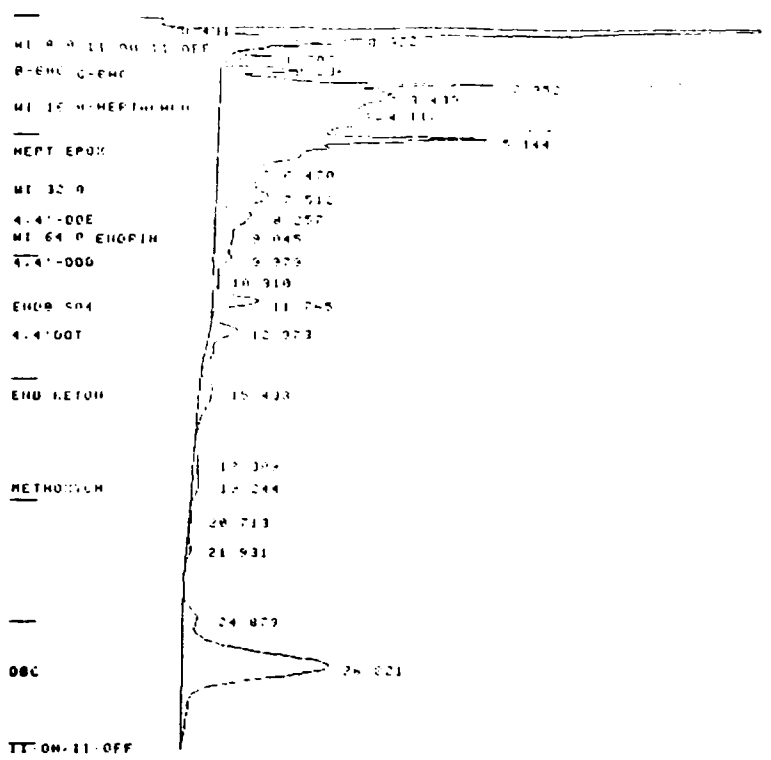
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870102 19:04
Output File: ^D1432::Q2 Injected at: 870102 18:17
Data File: >D1432::D1 Dilution Factor: 2.00
Name: U-4618 10462.0319 DC-LB-01
Misc: 1/02/87MFI 200UL SAMPLE + 200UL MECL2 + 4UL IS (2X) BTL# 2

ID File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870102 15:23

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.09	176	70993	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	8.80	162	75547	72.82	UG/L	94
~~3)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~9.09~~	~~176~~	~~1602~~	~~1.54~~	~~UG/L~~ No BPM	92
5)	2-FLUOROPHENOL	(SURR)	112	5.85	17	51915	67.39	UG/L	90
~~6)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.09~~	~~29~~	~~800~~	~~1.04~~	~~UG/L~~	96
~~8)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.17~~	~~33~~	~~782~~	~~1.02~~	~~UG/L~~ No BPM	95
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.88~~	~~264~~	~~6395~~	~~6.34~~	~~UG/L~~	90
19)	*NAPHTHALENE-D8	(IS)	136	12.87	362	245690	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.88	264	38523	33.09	UG/L	96
~~29)~~	~~NAPHTHALENE~~		~~128~~	~~12.92~~	~~364~~	~~554~~	~~.20~~	~~UG/L~~	100
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.07~~	~~470~~	~~516~~	~~.31~~	~~UG/L~~ No BPM	99
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.38~~	~~485~~	~~326~~	~~.19~~	~~UG/L~~	93
34)	*ACENAPHTHENE-D10	(IS)	162	18.23	625	86575	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.40	535	61676	30.15	UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.23~~	~~625~~	~~26621~~	~~16.90~~	~~UG/L~~ No BPM	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.68	745	7107	35.11	UG/L	95
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.23~~	~~625~~	~~10076~~	~~35.33~~	~~UG/L~~ No BPM	100
55)	*PHENANTHRENE-D10	(IS)	188	22.65	842	75483	40.00	UG/L	94
61)	PHENANTHRENE		178	22.71	845	936	1.04	UG/L	96
~~[illegible])~~	~~ANTHRACENE~~		~~178~~	~~22.71~~	~~845~~	~~936~~	~~1.09~~	~~UG/L~~ No BPM	96
[illegible])	*CHRYSENE-D12	(IS)	240	30.78	1241	12181	40.00	UG/L	100
[illegible])	TERPHENYL-D14	(SURR)	244	27.85	1097	6847	54.08	UG/L	100
[illegible])	*PERYLENE-D12	(IS)	264	34.83	1440	7588	40.00	UG/L	100

* Compound is ISTD



DC-LB-01

CHANNEL: 1A - 1 TITLE: RUN#27 10:05 30 DEC 86

SAMPLE: 10462.03.19A METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WIDTH (SEC)
1		0.0000	1.366		23047	BB		3.75
2		0.0000	1.707		25049	BV		4.19
3	[illegible]	4.2455	2.236	0.056	47028	VV	?	5.94
4	[illegible]	2.8979	2.348	-0.052	77190	VV	?	7.31
5		0.0000	2.952		470116	VV	?	8.75
6		0.0000	3.278		330367	VV	?	18.00
7		0.0000	3.439		392650	VV	?	31.50
8	[illegible]	12.4313	3.772	-0.048	263540	VV	?	42.13
9		0.0000	4.112		295559	VV	?	17.00
10		0.0000	4.348		685536	VV	?	33.44
11		0.0000	5.144		550652	VV		15.44
12	HEPT EPOX	19.2794	5.446	-0.264	503771	VV	?	72.44
13		0.0000	6.470		242603	VV	?	58.38
14	[illegible]	12.4266	7.512	0.432	308665	VV	?	63.50
15	[illegible]	7.1751	8.257	-0.003	190924	VV	?	55.25
16	[illegible]	5.1773	9.045	-0.145	104008	VV	?	102.44
17	[illegible]	4.0323	9.979	-0.241	91191	VV	?	24.94
18	[illegible]	9.4552	11.765	-0.235	170119	VV		25.06
19	[illegible]	17.2654	12.973	-0.387	183204	BB		32.88
20	[illegible]	5.0426	15.478	0.048	133188	VV		69.56
21		0.0000	18.389		34603	VV	?	49.25
22	METHOXYCH	5.7629	19.244	-0.376	42498	VV	?	42.63
23		0.0000	21.931		27088	VB		28.50
24		0.0000	24.879		53635	BV	?	56.63
25	DBC 82%	70.4113	26.821	0.031	1403829	VB		68.88

TOTALS: 175.6529 -1.124 6675392

DETECTED PKS: 36 REJECTED PKS: 11

DIVISOR: 1.16850 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: 0

NOTES:
NOTEBOOK:259-67:[illegible] BRUESCHER
SECURE AREA: [illegible]
INST:VARIAN 6000#2 [illegible]
COLUMN: 6' GLASS 4MM ID [illegible] SUPELCOPORT
LIQUID PHASE:3% [illegible]
CARRIER GAS: N2 [illegible] ML/MIN.
DET:[illegible] INJ:[illegible]
[illegible]
[illegible]
RESULT IN [illegible]

SAMPLE NUMBER DC-N1-05

481095

Sample Number
DC-N1-05

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No: U-4618/U-4651

Lab Sample ID No: 10614 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 12/19/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-22-86

Conc/Dil Factor: 1 pH 10.13

Percent Moisture: (Not Decanted) 24

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	BJ
67-64-1	Acetone	34	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

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

Form 1

Laboratory Name Ecology & Environment Inc.

Case No V-4618 / V-4651

Sample Number DC-N1-05

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-15-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
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-Chloroethoxyl)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
[illegible]-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	
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	520	
129-00-0	Pyrene	420	
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3 3-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	200	J
117-81-7	bis(2-Ethylhexyl)Phthalate	710	
218-01-9	Chrysene	210	J
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	220	J
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	160	J
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 U4618/U-4651

Sample Number DC-N1-05

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 1

Percent Moisture (decanted) 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	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 1,000 V_i 4

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618 / U-4651

Sample Number DC-N1-05

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.1	8 BJ
2.	HEXANE ISOMER	VOA	21.2	33 BJ
3.				
4.	UNKNOWN HYDROCARBON	BNA	17.1	210 J
5.	UNKNOWN HYDROCARBON		18.7	520 J
6.	UNKNOWN HYDROCARBON		20.3	540 J
7.	UNKNOWN HYDROCARBON		21.0	290 J
8.	UNKNOWN HYDROCARBON		21.7	490 J
9.	UNKNOWN HYDROCARBON		23.1	400 J
10.	UNKNOWN HYDROCARBON		24.4	290 J
11.	UNKNOWN HYDROCARBON		25.7	200 J
12.	UNKNOWN HYDROCARBON		26.9	580 J
13.	UNKNOWN		34.0	1200 J
14.				
15.				
16.				
17.				
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22.				
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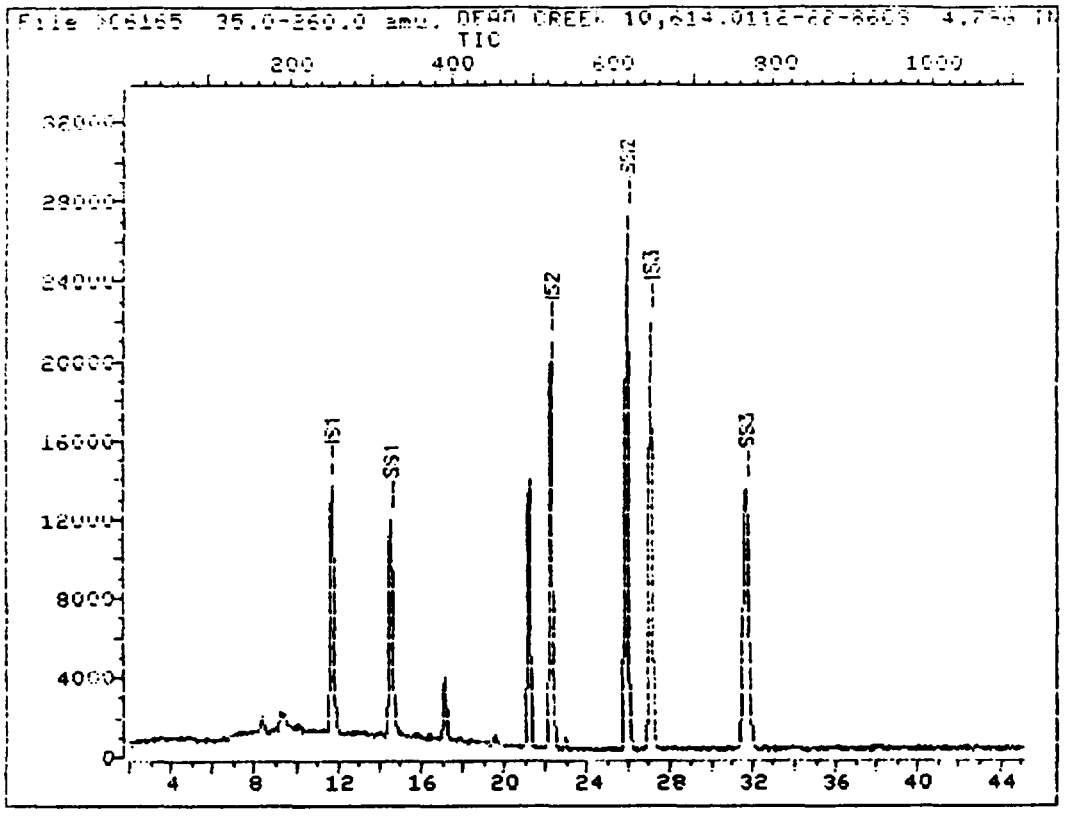
26.				
27.				
28.				
29.				
30				

TOTAL ION CHROMATOGRAM



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Misc: 12-22-86CS 4.79G IN 5ML DI + 10UL IS/SS

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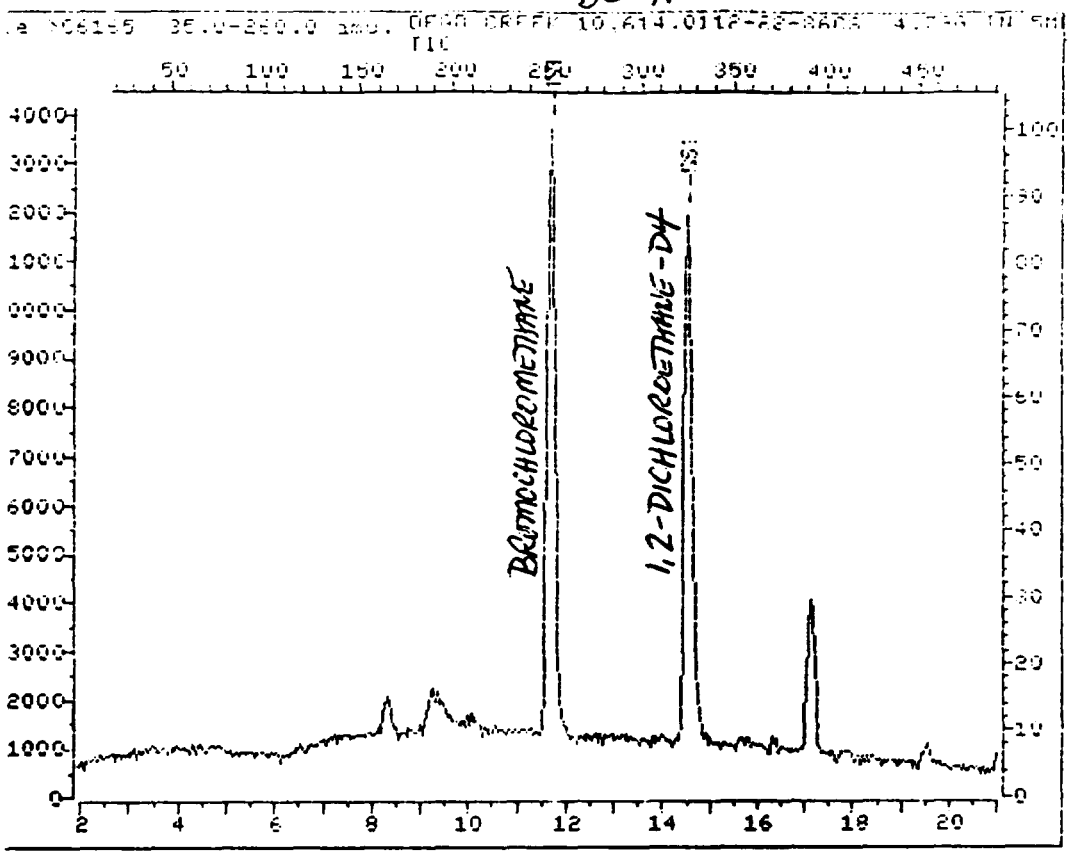
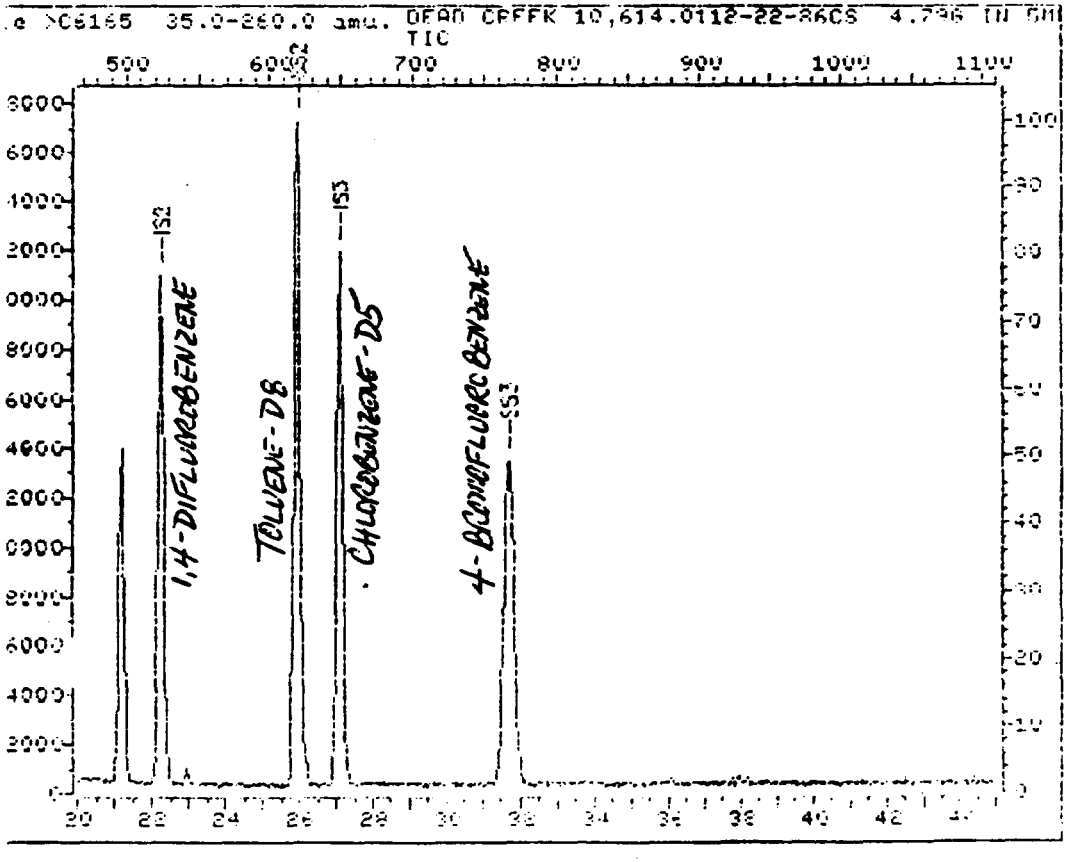
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861222 13:20

Operator ID: USER8
Quant Time: 861222 16:04
Injected at: 861222 15:18

DC-N1-05


TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4
IS1


TIC
1,4-DIFLUOROBENZENE
IS2
TOLUENE-D8
IS3
CHLOROBENZENE-D5
4-BROMOFLUOROBENZENE
IS3

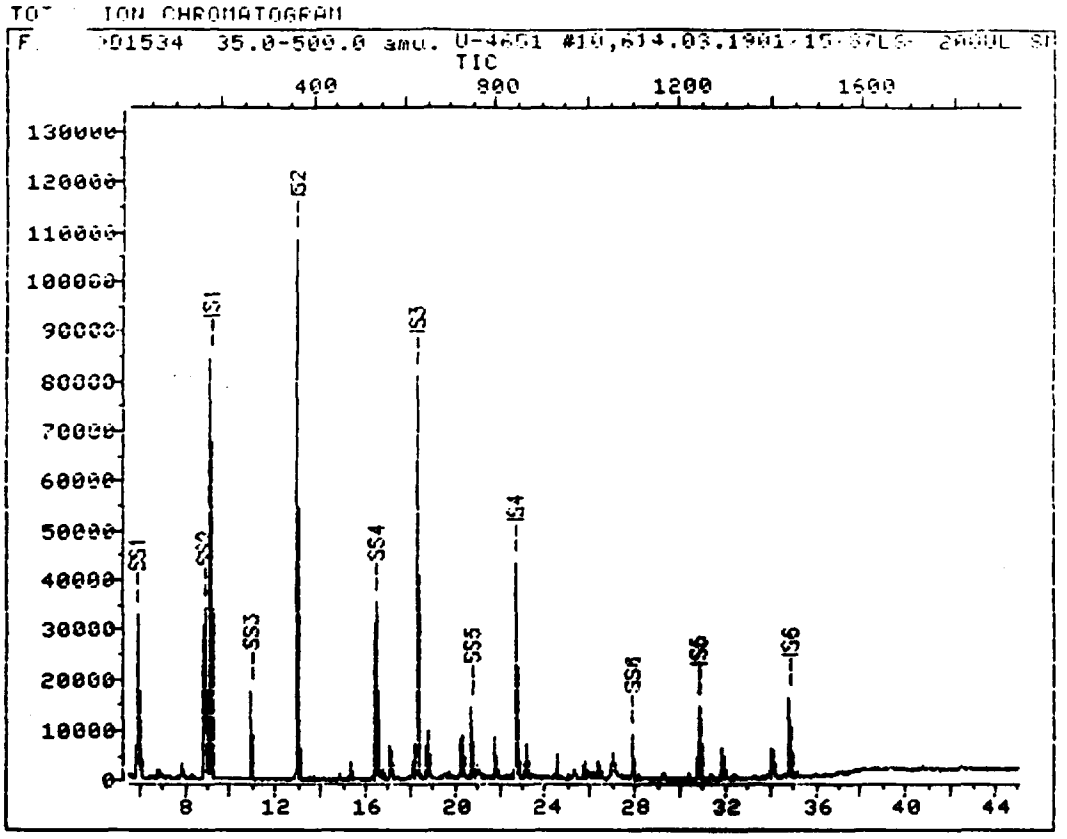
QUANT REPORT

erator ID: USER8 Quant Rev: 4 Quant Time: 861222 16:04
tput File: ^C6165::U7 Injected at: 861222 15:18
ta File: >C6165::D3 Dilution Factor: 1.00
me: DEAD CREEK 10,614.01 DC-N1-05
sc: 12-22-86CS 4.79G IN 5ML DI + 10UL IS/SS

) File: VOACRS::D2
tle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
st Calibration: 861222 13:20

	Compound	m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.69	252	18099	250.00	NGS	100
2)	METHYLENE CHLORIDE	84	8.42	165	1960	13.46	NGS	100
3)	ACETONE	43	9.25	189	16191	167.68	NGS	100
4)	1,2-DICHLOROETHANE-D4(SURR)	65	14.53	325	44023	230.95	NGS	86
5)	*1,4-DIFLUOROBENZENE (IS)	114	22.25	524	82889	250.00	NGS	100
6)	*CHLOROBENZENE-D5 (IS)	117	27.10	649	64097	250.00	NGS	100
7)	4-METHYL-2-PENTANONE	43	22.91	541	2775	13.57	NGS	90
8)	TOLUENE-D8 (SURR)	98	25.93	619	104976	271.36	NGS	92
9)	4-BROMOFLUOROBENZENE(SURR)	95	31.69	767	49496	257.41	NGS	100

* Compound is ISTD



Data File: >D1534::D1
Name: U-4651 #10,614.03.19 DC-N1-05
Misc: 01/15/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860115 14:20

Operator ID: USER6
Quant Time: 860116 11:45
Injected at: 860115 18:50

QUANT REPORT

perator ID: USER6 Quant Rev: 4 Quant Time: 860116 11:45
utput File: ^D1534::W2 Injected at: 860115 18:50
ata File: >D1534::D1 Dilution Factor: 2.00
ame: U-4651 #10,614.03.19 DC-N1-05
isc: 01/15/87LS 200UL SMPL + 200UL MECL2 + 40UL IS (2X) BTL# 1

D File: BNADR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 860115 14:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.08	176	41171	40.00	UG/L	92
2)	PHENOL-D5	(SURR)	99	8.86	165	44683	91.93	UG/L	93
5)	2-FLUOROPHENOL	(SURR)	112	5.87	18	36209	93.04	UG/L	94
~~7)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.48~~	~~265~~	~~2220~~	~~5.37~~	~~UG/L~~ No Eff	75
9)	*NAPHTHALENE-D8	(IS)	136	12.89	363	134384	40.00	UG/L	100
0)	NITROBENZENE-D5	(SURR)	82	10.90	265	13907	28.17	UG/L	94
4)	*ACENAPHTHENE-D10	(IS)	162	18.25	626	47214	40.00	UG/L	98
8)	2-FLUOROBIPHENYL	(SURR)	172	16.44	537	37370	33.45	UG/L	93
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.25~~	~~626~~	~~15116~~	~~19.10~~	~~UG/L~~ No Eff	100
8)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.72	747	7158	47.74	UG/L	93
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.25~~	~~626~~	~~6092~~	~~32.64~~	~~UG/L~~ No Eff	100
5)	*PHENANTHRENE-D10	(IS)	188	22.67	843	50977	40.00	UG/L	88
1)	PHENANTHRENE		178	22.73	846	5913	9.96	UG/L	99
~~2)~~	~~ANTHRACENE~~		~~178~~	~~22.73~~	~~846~~	~~5913~~	~~10.36~~	~~UG/L~~ No Eff	99
4)	FLUORANTHENE		202	26.36	1024	6051	15.51	UG/L	89
5)	*CHRYSENE-D12	(IS)	240	30.78	1241	21661	40.00	UG/L	100
7)	PYRENE		202	26.99	1055	5421	12.63	UG/L	88
8)	TERPHENYL-D14	(SURR)	244	27.87	1098	10838	41.00	UG/L	100
1)	BENZO(A)ANTHRACENE		228	30.76	1240	1672	6.17	UG/L	89
~~1)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~30.86~~	~~1245~~	~~1707~~	~~6.30~~	~~UG/L~~ No Eff	88
2)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.82	1292	5363	21.42	UG/L	98
~~3)~~	~~CHRYSENE~~		~~228~~	~~30.76~~	~~1240~~	~~1672~~	~~6.25~~	~~UG/L~~ No Eff	88
3)	CHRYSENE		228	30.86	1245	1707	6.38	UG/L	90
4)	*PERYLENE-D12	(IS)	264	34.83	1440	21546	40.00	UG/L	100
6)	BENZO(B)FLUORANTHENE		252	33.88	1393	2336	6.64	UG/L	100
~~7)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.88~~	~~1393~~	~~2336~~	~~9.43~~	~~UG/L~~ No Eff	100
8)	BENZO(A)PYRENE		252	34.69	1433	1345	4.87	UG/L	100

* Compound is ISTD

SAMPLE NUMBER DC-N2-06

Sample Number
DC-N2-06

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No: U-4618 / U-4651

Lab Sample ID No: 10615 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 12/19/86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-23-86

Conc/Dil Factor: 2.25 pH 10.93

Percent Moisture: (Not Decanted) 21

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	2400	U
74-83-9	Bromomethane	2400	U
75-01-4	Vinyl Chloride	2400	U
75-00-3	Chloroethane	2400	U
75-09-2	Methylene Chloride	670	BJ
67-64-1	Acetone	3600	B
75-15-0	Carbon Disulfide	1200	U
75-35-4	1, 1-Dichloroethene	1200	U
75-34-3	1, 1-Dichloroethane	1200	U
156-60-5	Trans-1, 2-Dichloroethene	1200	U
67-66-3	Chloroform	1200	U
107-06-2	1, 2-Dichloroethane	1200	U
78-93-3	2-Butanone	7000	B
71-55-6	1, 1, 1-Trichloroethane	1200	U
56-23-5	Carbon Tetrachloride	1200	U
108-05-4	Vinyl Acetate	2400	U
75-27-4	Bromodichloromethane	1200	U

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

Sample Number
DC-N2-06

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No: V-4618 / V-4651

Lab Sample ID No: 10615 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: C Stojtowicz Date Sample Received: 12/19/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-26-86

Conc/Dil Factor: 1.25 pH 10.93

Percent Moisture: (Not Decanted) 21

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	5	J
67-64-1	Acetone	9	BJ
75-15-0	Carbon Disulfide	6	U
75-35-4	1, 1-Dichloroethene	6	U
75-34-3	1, 1-Dichloroethane	6	U
156-60-5	Trans-1, 2-Dichloroethene	6	U
67-66-3	Chloroform	6	U
107-06-2	1, 2-Dichloroethane	6	U
78-93-3	2-Butanone	11	BJ
71-55-6	1, 1, 1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	6	U
10061-02-6	Trans-1, 3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1, 1, 2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1, 3-Dichloropropene	6	U
110-75-8	2-Chloroethylvinylether	12	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
	Total Xylenes	6	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-4618 / U-4651

Sample Number DC-N2-06

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-15-87

Conc./Dil Factor 2

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
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
[illegible]-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	160	J
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	200	J
129-00-0	Pyrene	170	J
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	1000	
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	120	J
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-4618/U-4651

Sample Number DC-N2-06

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 1 + 200

Percent Moisture (decanted) 21

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	1600	U
319-85-7	Beta-BHC	1600	U
319-86-8	Delta-BHC	1600	U
58-89-9	Gamma-BHC (Lindane)	1600	U
76-44-8	Heptachlor	1600	U
309-00-2	Aldrin	1600	U
1024-57-3	Heptachlor Epoxide	1600	U
959-98-8	Endosulfan I	1600	U
60-57-1	Dieldrin	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	16000	U
11104-28-2	Aroclor-1221	16000	U
11141-16-5	Aroclor-1232	16000	U
53469-21-9	Aroclor-1242	16000	U
12672-29-6	Aroclor-1248	16000	U
11097-69-1	Aroclor-1254	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 1,000 V_i 4

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

Sample Number DC-N2-06

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

MEDIUM LEVEL ANALYSIS

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.1	1500 BJ
2.	HEXANE ISOMER	VOA	21.2	7500 BJ
3.				
4.				
5.				
6.				
7.				
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28.				
29.				
30				

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

Sample Number DC-N2-06

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

LOW LEVEL ANALYSIS

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.1	8 BJ
2.	HEXANE ISOMER		21.2	37 BJ
3.	UNKNOWN		28.2	6 J
4	UNKNOWN HYDROCARBON		33.4	14 J
5.	UNKNOWN HYDROCARBON		35.6	19 J
6.				
7. 10544500	MOLECULAR SULFUR	BNA	26.0	2000 J
8.	UNKNOWN	BNA	34.0	480 J
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
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23.				
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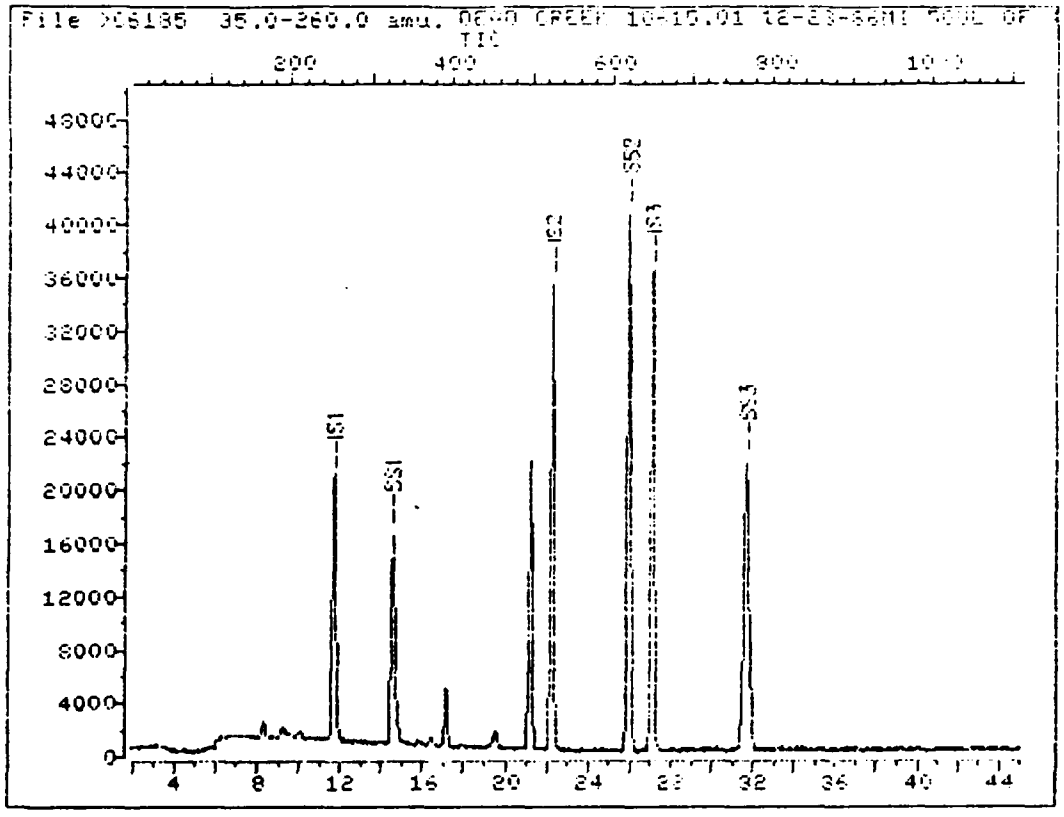
27.				
28.				
29.				
30				

TOTAL ION CHROMATOGRAM

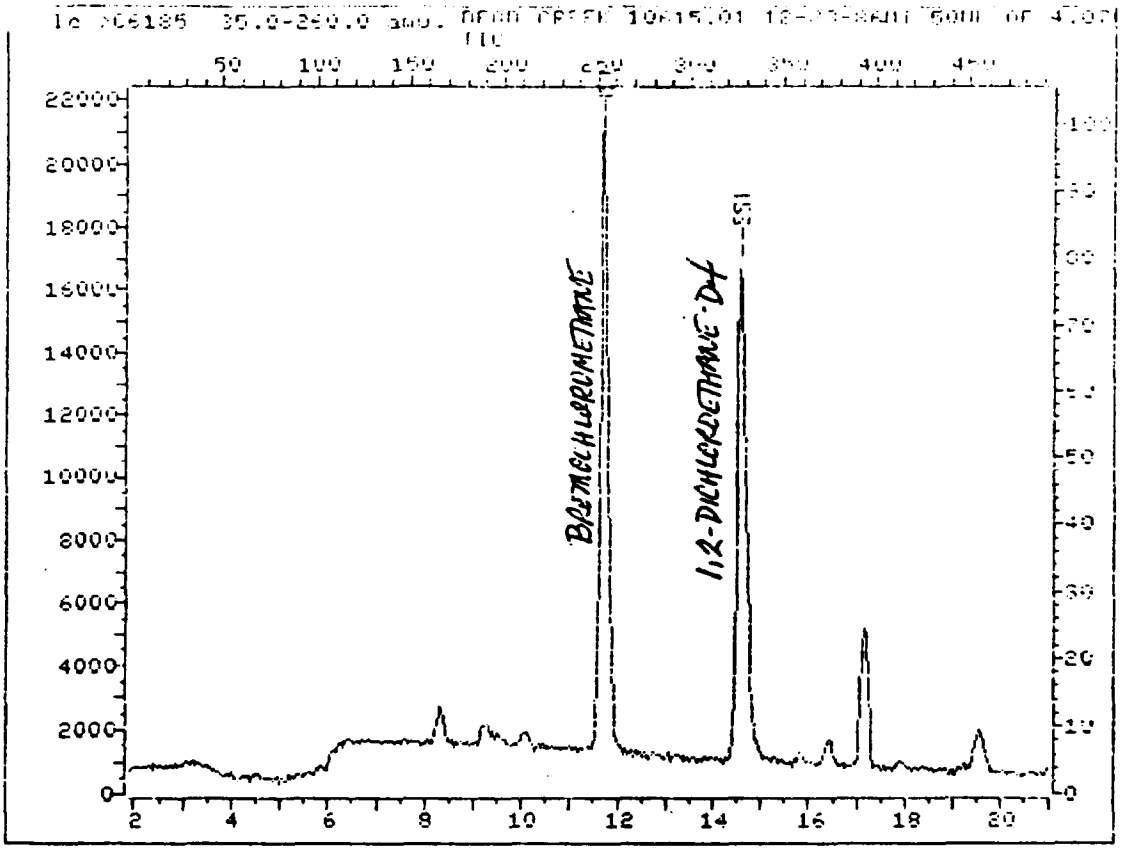


Data File: >C6185::D3
Name: DEAD CREEK 10615.01 DC-N2-06
Misc: 12-23-86MI 50UL OF 4.0ZG/10MLS MEOH + 10UL IS SS
MEDIUM LEVEL ANALYSIS

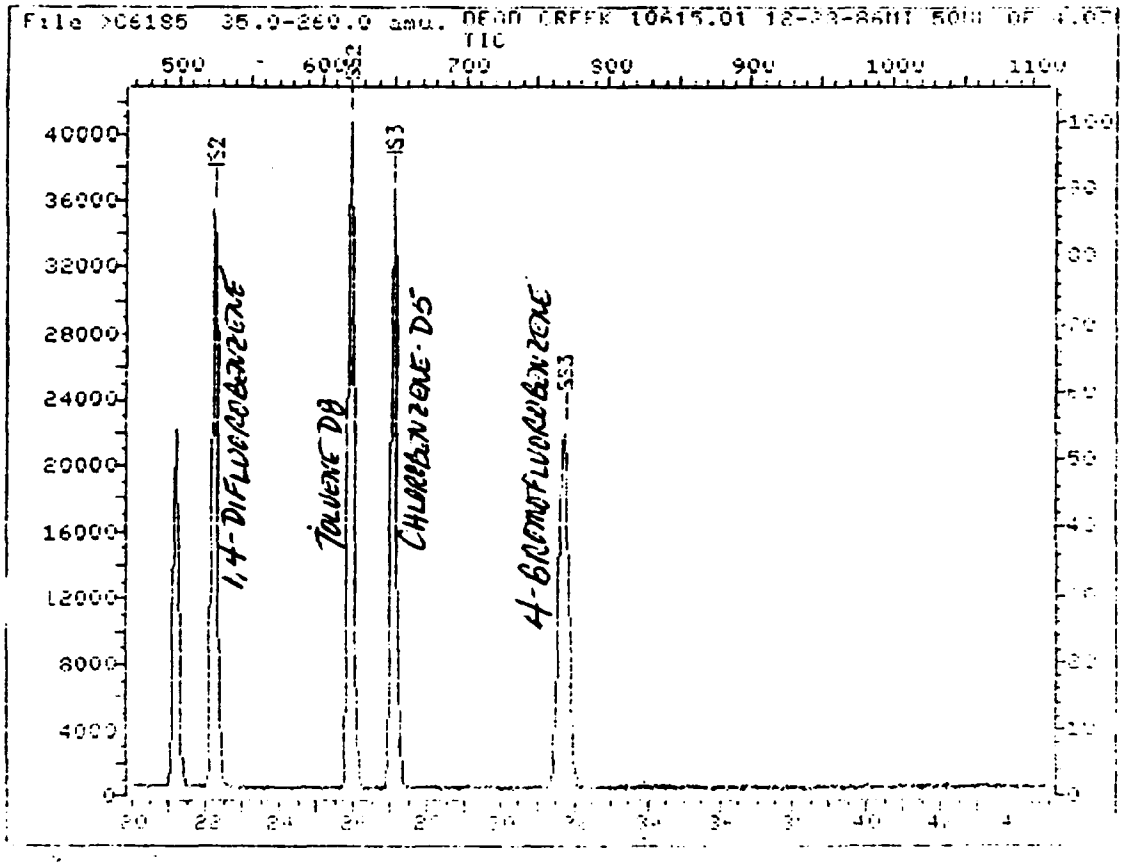
Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861223 16:29

Operator ID: USER8
Quant Time: 861223 21:09
Injected at: 861223 20:23

DC-N2-06



BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4
IS1



1,4-DIFLUOROBENZENE
TOLUENE D8
CHLOROBENZENE-D5
4-BROMOFLUOROBENZENE
IS2
IS3
SS3

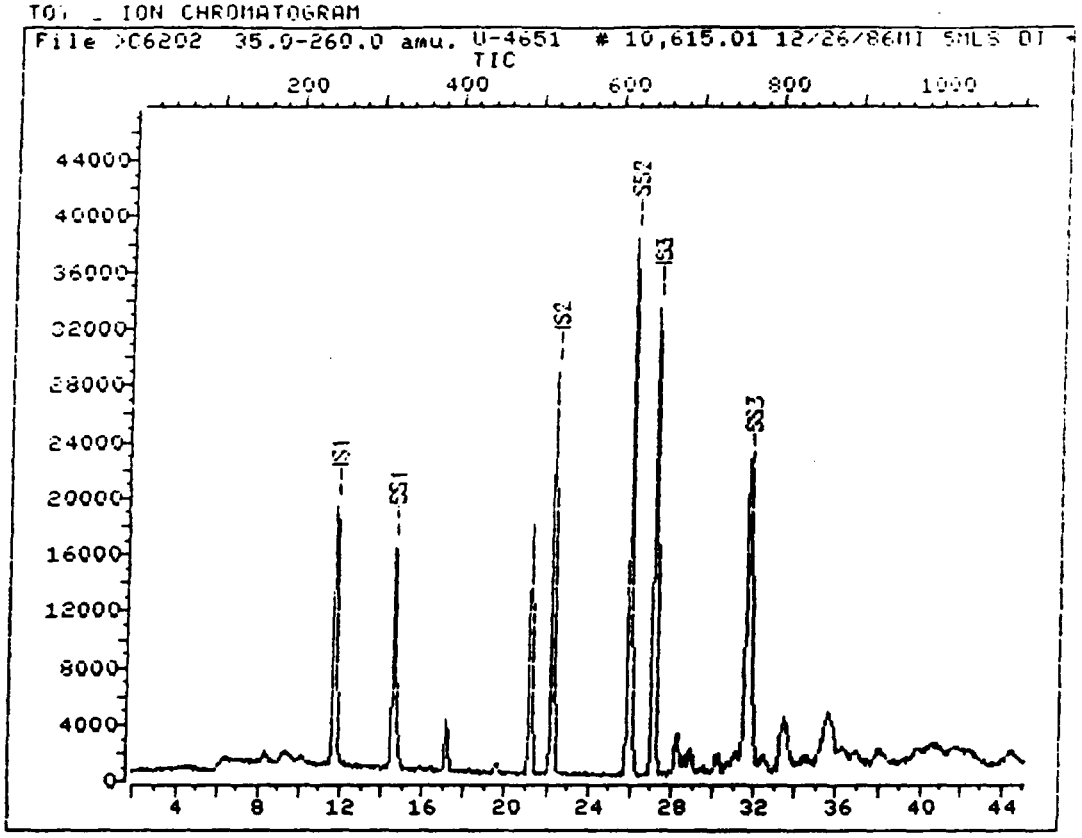
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861223 21:09
Output File: >C6185::D2 Injected at: 861223 20:23
Data File: >C6185::D3 Dilution Factor: 1.00
Name: DEAD CREEK 10615.01 DC-N2-06
Misc: 12-23-86MI 50UL OF 4.07G/10MLS MEOH + 100UL IS SS
MEDIUM LEVEL ANALYSIS
ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861223 16:29

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.68	253	32172	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.30	166	3447	2.73	UG/L	100
7)	ACETONE		43	9.23	190	7723	14.70	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~10.09~~	~~212~~	~~4941~~	~~.73~~	~~UG/L~~	~~100~~
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.55	327	65995	43.34	UG/L	87
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.23	525	149850	50.00	UG/L	100
17)	2-BUTANONE		72	14.70	331	4237	28.64	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.08	650	118706	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	25.92	670	167041	51.47	UG/L	97
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.71	769	79908	50.62	UG/L	100

* Compound is ISTD

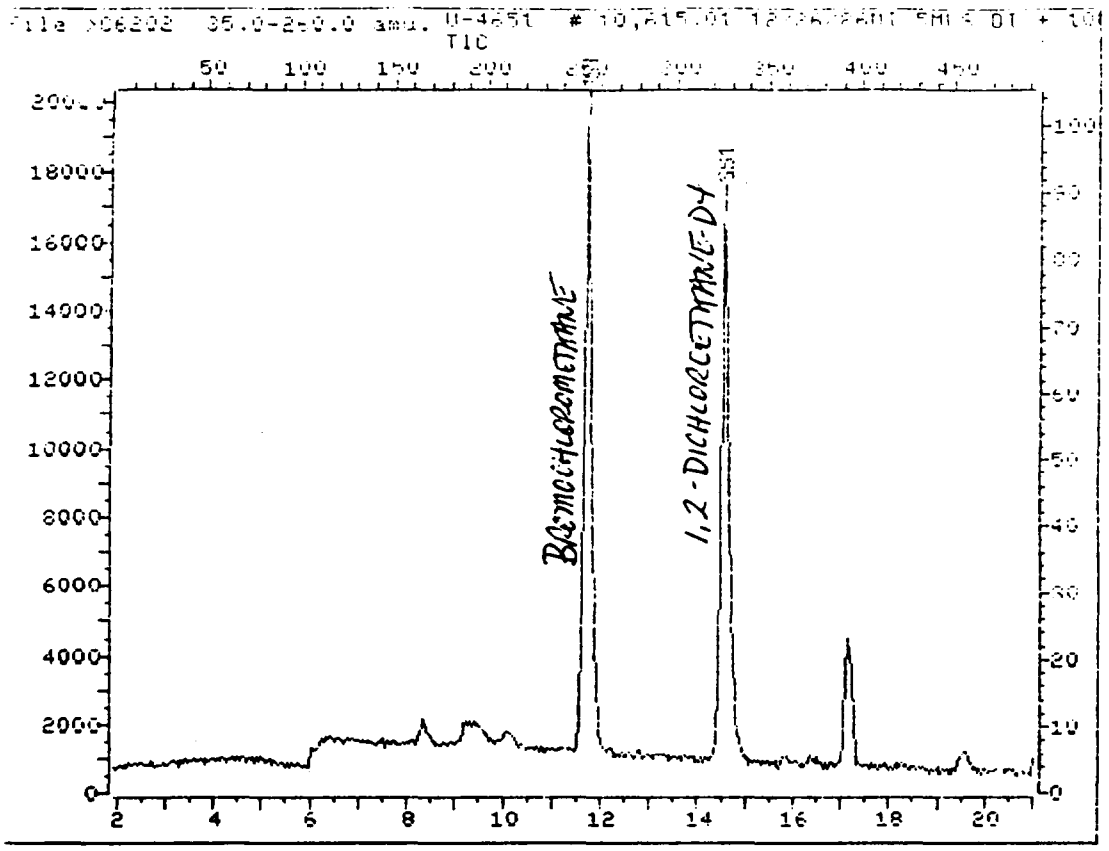
TOTAL ION CHROMATOGRAM

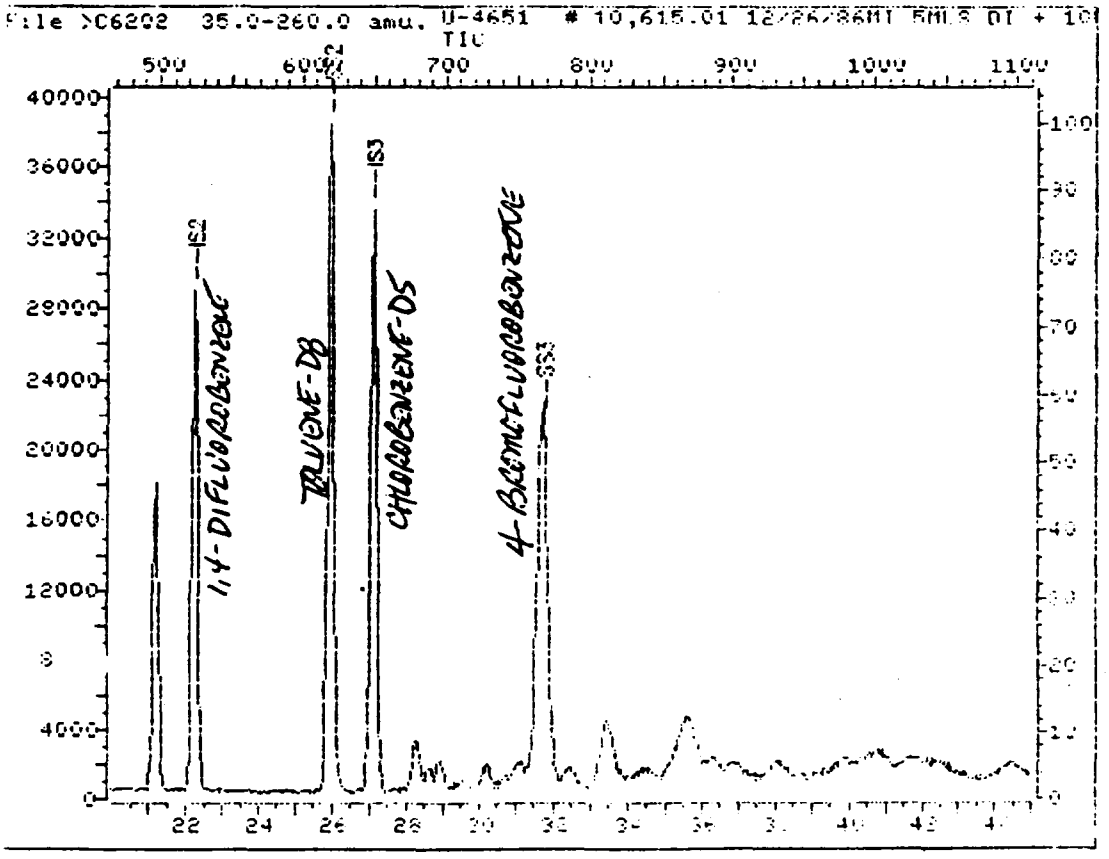


Data File: >C6202::D3
Name: U-4651 # 10,615.01 DC-N2-06
Misc: 12/26/86MI 5MLS DI + 10UL IS/SS + 4.08g SAMPLE
LOW LEVEL ANALYSIS
Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861226 12:05

Operator ID: USER8
Quant Time: 861226 18:19
Injected at: 861226 17:33

DC-N2-06


File >C6202 35.0-260.0 amu. U-4651 # 10,615.01 12/26/86MI 5MLS DI + 10
TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4
SS1

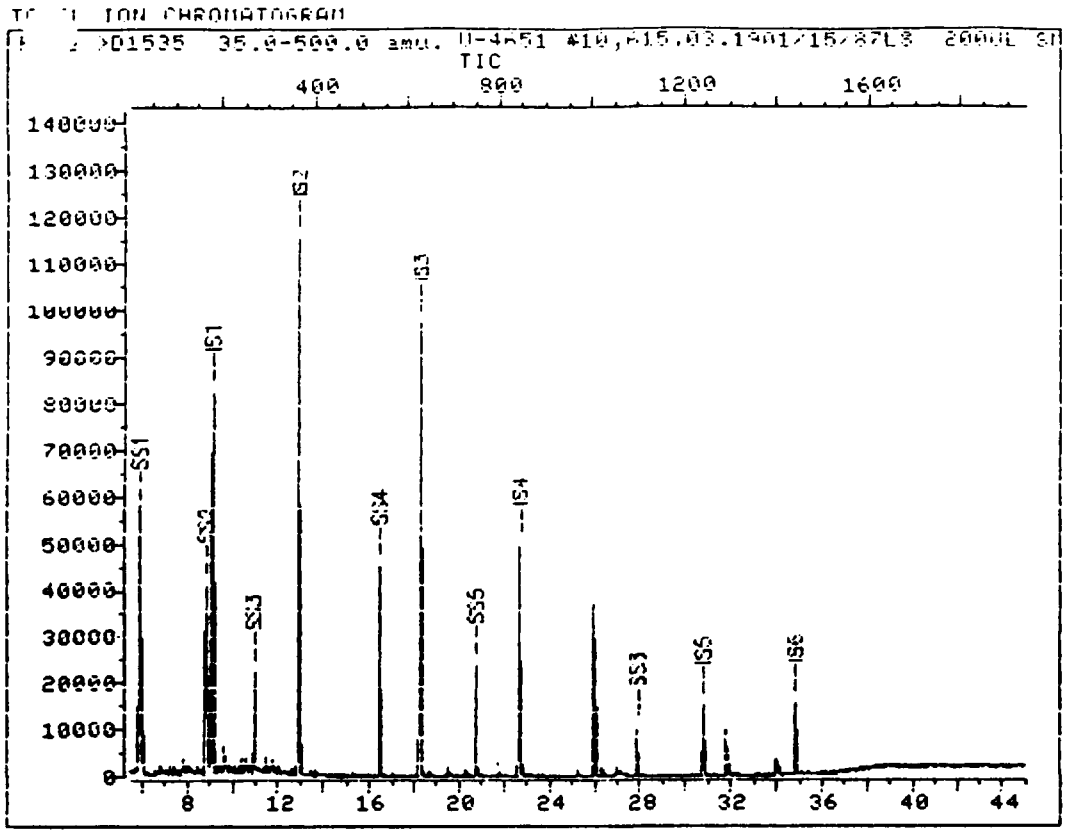

File >C6202 35.0-260.0 amu. U-4651 # 10,615.01 12/26/86MI 5MLS DI + 10
TIC
1,4-DIFLUOROBENZENE
TOLUENE-D8
CHLOROBENZENE-D5
4-BROMOFLUOROBENZENE
IS2
IS3
SS3

QUANT REPORT

perator ID: USER8 Quant Rev: 4 Quant Time: 861226 18:19
utput File: ^C6202::Q2 Injected at: 861226 17:33
ata File: >C6202::D3 Dilution Factor: 1.00
lame: U-4651 # 10,615.01 DC-N2-06
lisc: 12/26/86MI 5MLS DI + 10UL IS/SS + 4.08g SAMPLE
LOW LEVEL ANALYSIS
D File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861226 12:05

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.71	253	27040	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.33	166	2431	20.45	NGS	100
7)	ACETONE		43	9.26	190	7376	36.53	NGS	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.54	326	68886	262.95	NGS	84
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.26	525	121033	250.00	NGS	100
7)	2-BUTANONE		72	14.73	331	2683	44.44	NGS	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.10	650	105158	250.00	NGS	100
6)	TOLUENE-D8	(SURR)	98	25.94	620	148781	248.78	NGS	97
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.73	769	79911	266.35	NGS	100

* Compound is ISTD

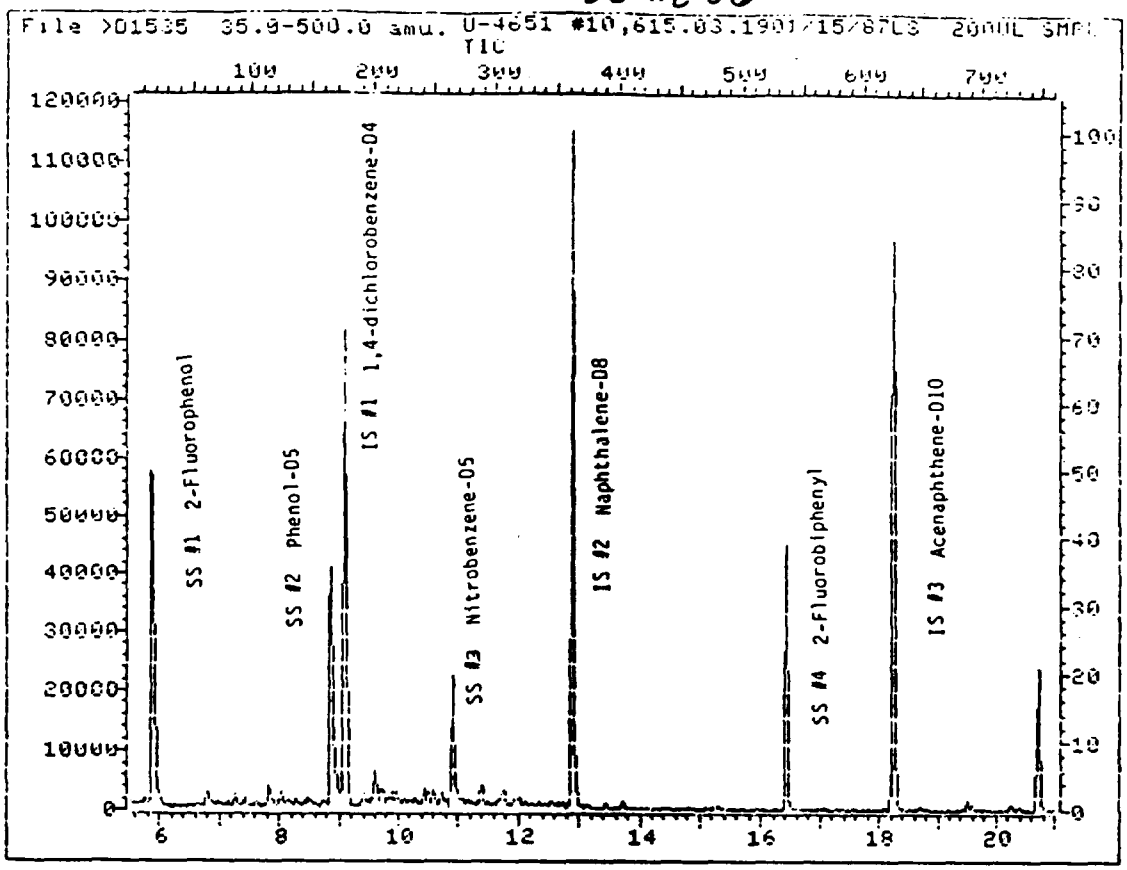


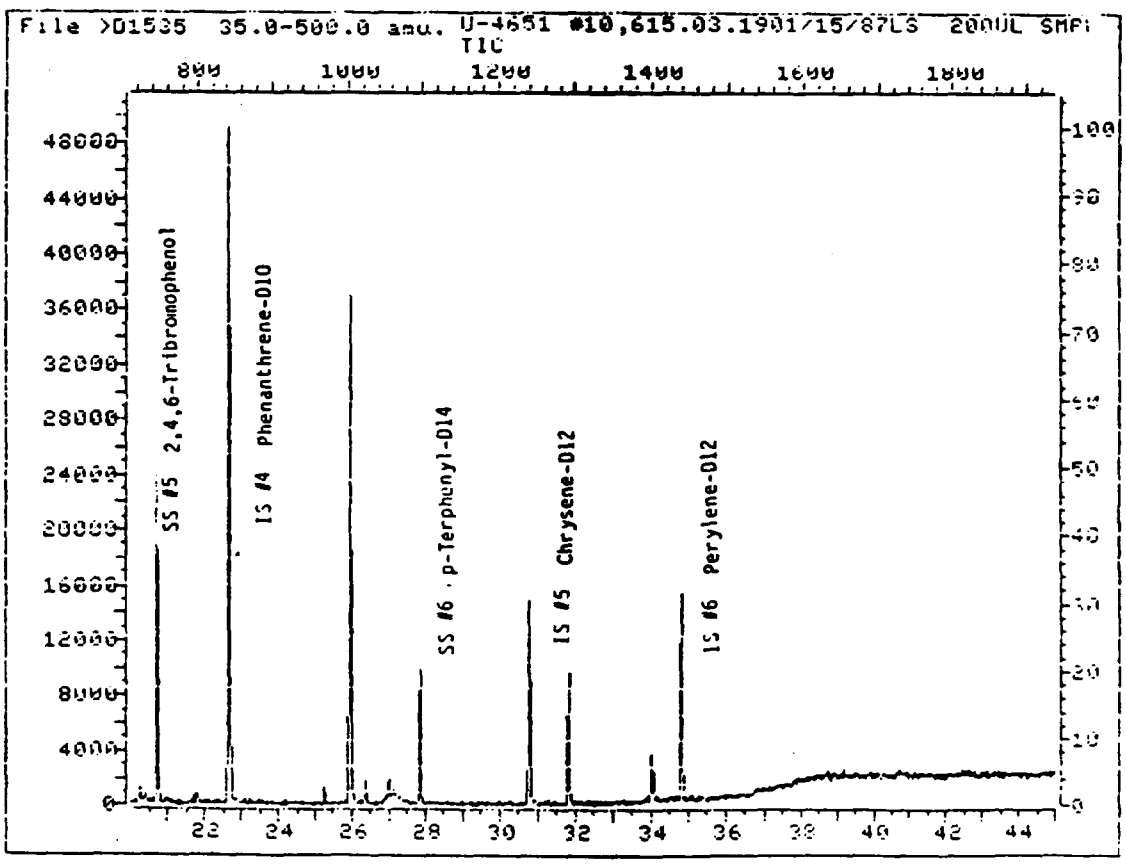
Data File: >D1535::D1
Name: U-4651 #10,615.03.19 DC-N2-06
Misc: 01/15/87LS 200UL SMPL + 200UL MECL2 + 40UL IS (2X) BTL# 2

Id File: BNAUR::U2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860115 14:20

Operator ID: USER6
Quant Time: 860116 12:19
Injected at: 860115 19:42

DC-N2-06


File >01535 35.0-500.0 amu. U-4651 #10,615.03.1901/15/87LS 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 >01535 35.0-500.0 amu. U-4651 #10,615.03.1901/15/87LS 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

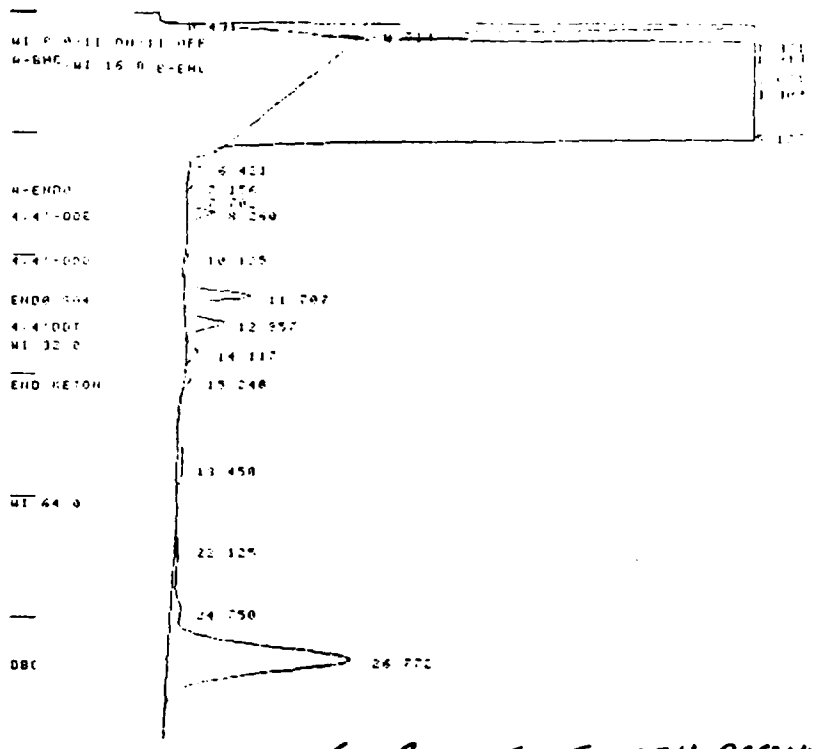
Operator ID: USER6 Quant Rev: 4 Quant Time: 860116 12:19
Output File: ^D1535::02 Injected at: 860115 19:42
Data File: >D1535::01 Dilution Factor: 2.00
Name: U-4651 #10,615.03.19 DC-NZ-06
Misc: 01/15/87LS 200UL SMPL + 200UL MELL2 + 40UL IS (2X) BIL# 2

ID File: BNAUR::02
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860115 14:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.10	177	42125	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	8.86	165	55095	110.79	UG/L	96
5)	2-FLUOROPHENOL	(SURR)	112	5.87	18	42572	106.91	UG/L	91
~~12)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.90~~	~~265~~	~~3279~~	~~7.92~~	~~UG/L~~ No Conf	83
19)	*NAPHTHALENE-D8	(IS)	136	12.90	363	145764	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.90	265	17023	31.79	UG/L	97
34)	*ACENAPHTHENE-D10	(IS)	162	18.25	626	56285	40.00	UG/L	99
38)	2-FLUOROBIPHENYL	(SURR)	172	16.42	536	46416	34.85	UG/L	91
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.25~~	~~626~~	~~17661~~	~~10.72~~	~~UG/L~~ No Conf	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.72	747	11177	62.53	UG/L	98
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.25~~	~~626~~	~~7219~~	~~37.41~~	~~UG/L~~ No Conf	100
55)	*PHENANTHRENE-D10	(IS)	188	22.67	843	59186	40.00	UG/L	89
61)	PHENANTHRENE		178	22.73	846	3308	4.80	UG/L	90
~~62)~~	~~ANTHRACENE~~		~~178~~	~~22.73~~	~~846~~	~~3308~~	~~4.99~~	~~UG/L~~ No Conf	90
64)	FLUORANTHENE		202	26.36	1024	2743	6.06	UG/L	90
65)	*CHRYSENE-D12	(IS)	240	30.78	1241	22280	40.00	UG/L	100
67)	PYRENE		202	26.99	1055	2227	5.04	UG/L	94
68)	TERPHENYL-D14	(SURR)	244	27.87	1098	13042	47.97	UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.82	1292	8038	31.21	UG/L	96
74)	*PERYLENE-D12	(IS)	264	34.83	1440	20541	40.00	UG/L	100
76)	BENZO(B)FLUORANTHENE		252	33.90	1394	1236	3.69	UG/L	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.90~~	~~1394~~	~~1236~~	~~3.23~~	~~UG/L~~ No Conf	100

* Compound is ISTD

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



SEE RUN 32 FOR FRONT END RESOLUTION

DC-N2-06

CHANNEL: 1A - 1 TITLE: RUN# 30 11:49 30 DEC 86

SAMPLE: 10615.03.19A 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	1.371		2267632	BV	[illegible]
2		0.0000	1.700		1603241	VV	[illegible]
3	[illegible]	55.2576	1.913	-0.137	1672879	VV	[illegible]
4	[illegible]	257.0890	2.221	0.041	2995349	VV	[illegible]
5	[illegible]	57.1304	2.671	0.211	1552280	VV	[illegible]
6		0.0000	2.939		1889787	VV	[illegible]
7		0.0000	3.309		1403746	VV	[illegible]
8		0.0000	3.438		1634239	VV	[illegible]
9		0.0000	5.127		29608372	VB	[illegible]
10		0.0000	6.421		21130	BB	[illegible]
11	[illegible]	3.0040	8.260	0.000	81268	VB	[illegible]
12	[illegible]	12.0335	11.707	-0.293	220121	BV	[illegible]
13	[illegible]	13.2804	12.857	-0.503	143420	BB	[illegible]
14		0.0000	14.117		44696	BB	[illegible]
15		0.0000	18.450		70742	BB	[illegible]
16		0.0000	22.125		46909	BV	[illegible]
17		0.0000	24.750		72650	VV	[illegible]
18	DBC 100%	84.3934	26.772	0.042	1716770	VB	[illegible]

TOTALS: 482.1962 -0.639 47145236

DETECTED PKS: 23 REJECTED PKS: 10

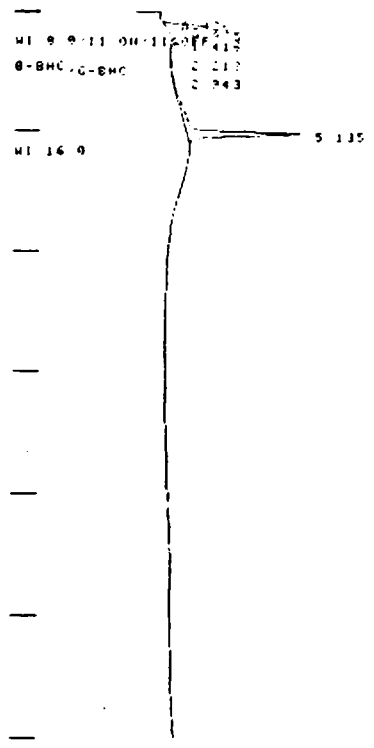
DIVISOR: 1.18800 MULTIPLIER: 1000.00000

NOISE: 22.9 OFFSET: 14

NOTES:
NOTEBOOK:259-67:ANALYST:P. BRUTSCHER
SECURE AREA: D JOB#:U-4551
INST:VARIAN 6000#2 A ECD [illegible]
COLUMN: [illegible] GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% [illegible]
CARRIER GAS: N2 [illegible] ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
[illegible] PRIMARY ANALYSIS
RESULT [illegible]

POST [illegible]
[illegible]

CHART SPEED 0.5 CM/MIN
ATTEN: 6 ZERO: 10% 5 MIN/TICK



DC-N2-06

CHANNEL: 1A - 1 TITLE: RUN# 32 13:00 30 DEC 86

SAMPLE: 10615.03.19A METHOD: CEFA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	5.135		196274	VB	12.06
TOTALS:		0.0000			196274		

DETECTED PKS: 13 REJECTED PKS: 12

DIVISOR: 1.18800 MULTIPLIER: 200200.000

NOISE: 11.4 OFFSET: -17

NOTES:
NOTEBOOK:259-67:ANALYST:P. BRUTSCHER
SECURE AREA: D JOB#:U-4651
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 PRIMARY ANALYSIS
RESULT IN UG/KG DRY WEIGHT

POST RUN:
SAVE FILE: RAW [illegible]

SAMPLE NUMBER DC-NB-07

481095

Sample Number
DC-NB-07

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No. V-4618 / V-4651

Lab Sample ID No: 10616 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 12/19/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-22-86

Conc/Dil Factor: 1 pH 7.30

Percent Moisture: (Not Decanted) 22

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	BJ
67-64-1	Acetone	18	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-NB-07

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-15-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	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-Chloroethoxyl)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-4618/U-4651

Sample Number DC-NB-07

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 1

Percent Moisture (decanted) 22

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	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 1,000 V_i 4

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

Sample Number DC-NB-07

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.1	7 BJ
2.	HEXANE ISOMER	VOA	21.2	29 BJ
3.				
4.	UNKNOWN	BNA	34.0	560 J
5.	UNKNOWN HYDROCARBON	↓	35.1	390 J
6.	UNKNOWN HYDROCARBON	↓	36.8	440 J
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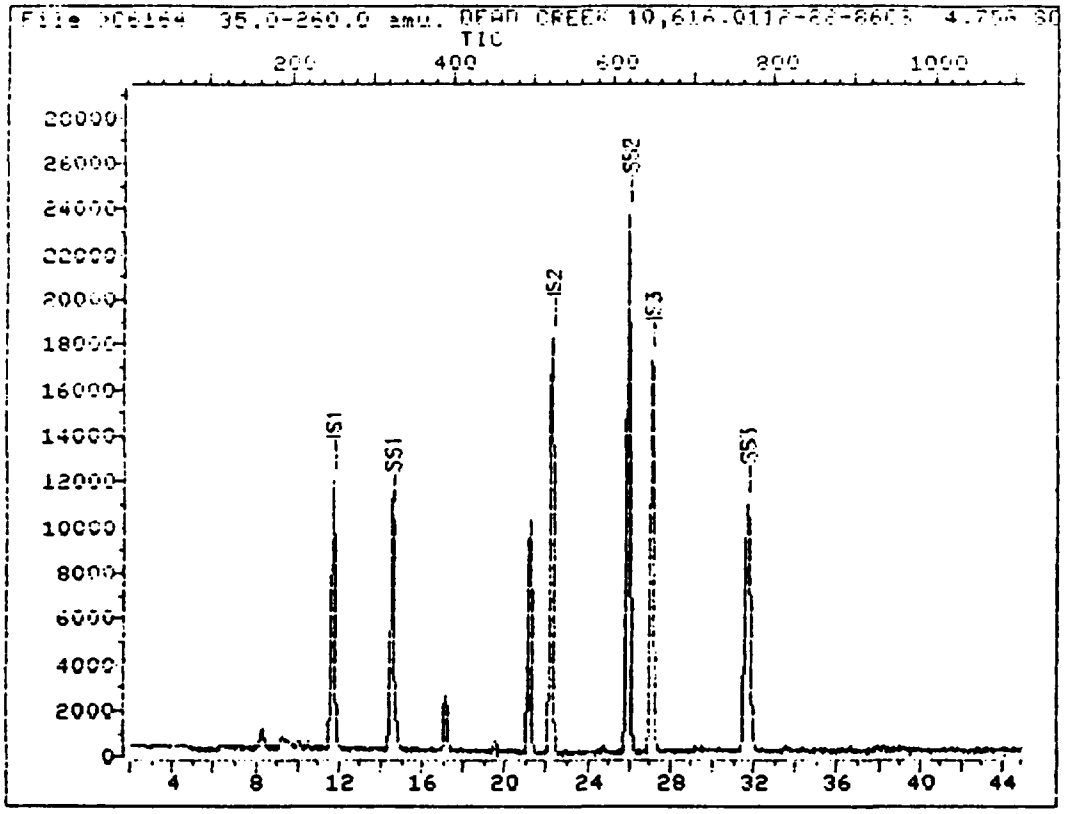
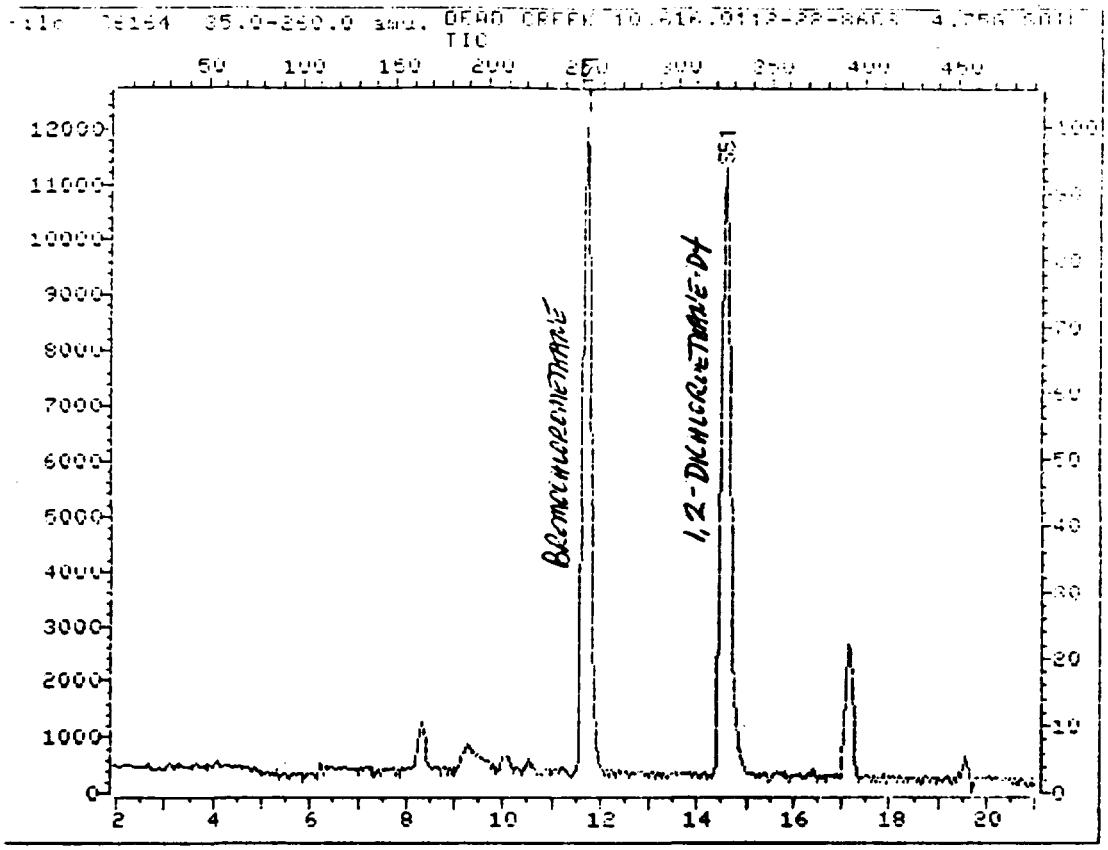
TOTAL ION CHROMATOGRAM

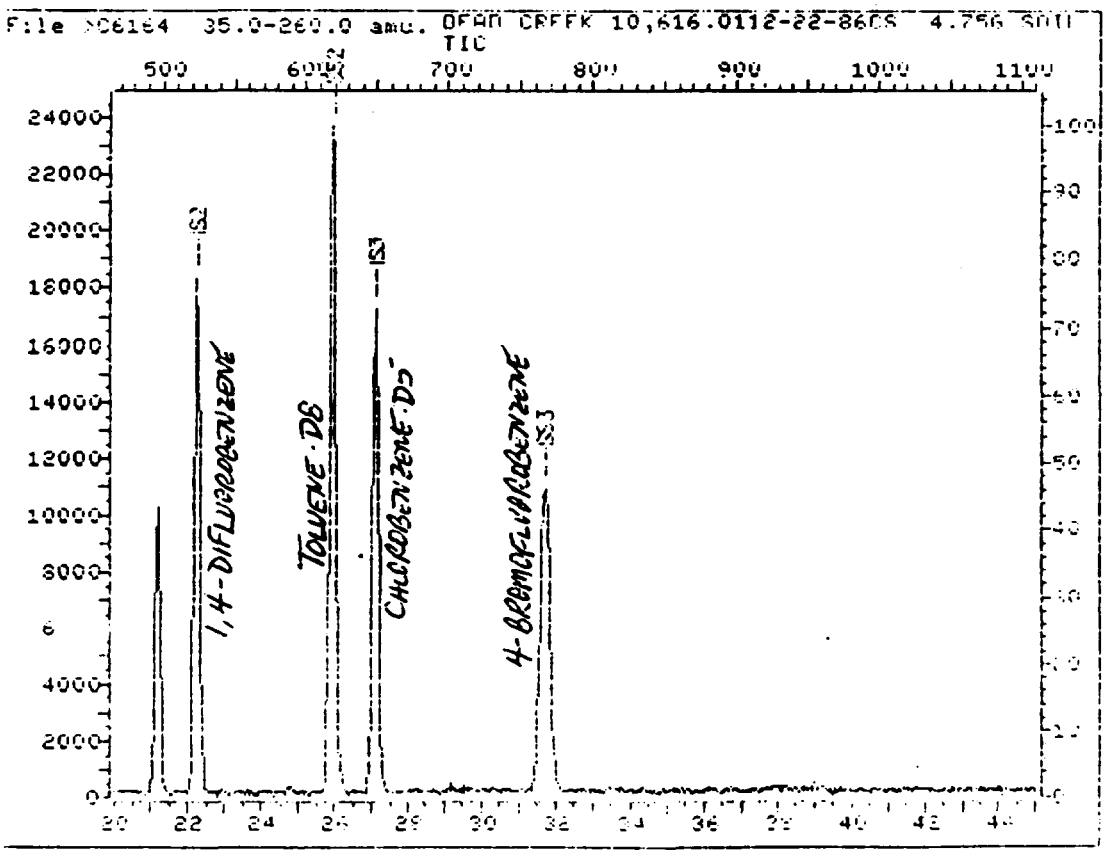


Data File: >C6164::D3
Name: DEAD CREEK 10,616.01 DC-NB-07
Misc: 12-22-86CS 4.75G SOIL IN 5ML DI + 10UL IS SS

Id File: VOA:RS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861222 13:20

Operator ID: USER8
Quant Time: 861222 15:10
Injected at: 861222 14:24


TIC
BROMOFLUOROMETHANE
1,2-DICHLOROETHANE-D4
IS1


TIC
1,4-DIFLUOROBENZENE
TOLUENE-D8
CHLOROBENZENE-D5
4-BROMOFLUOROBENZENE
IS2
IS3
IS3

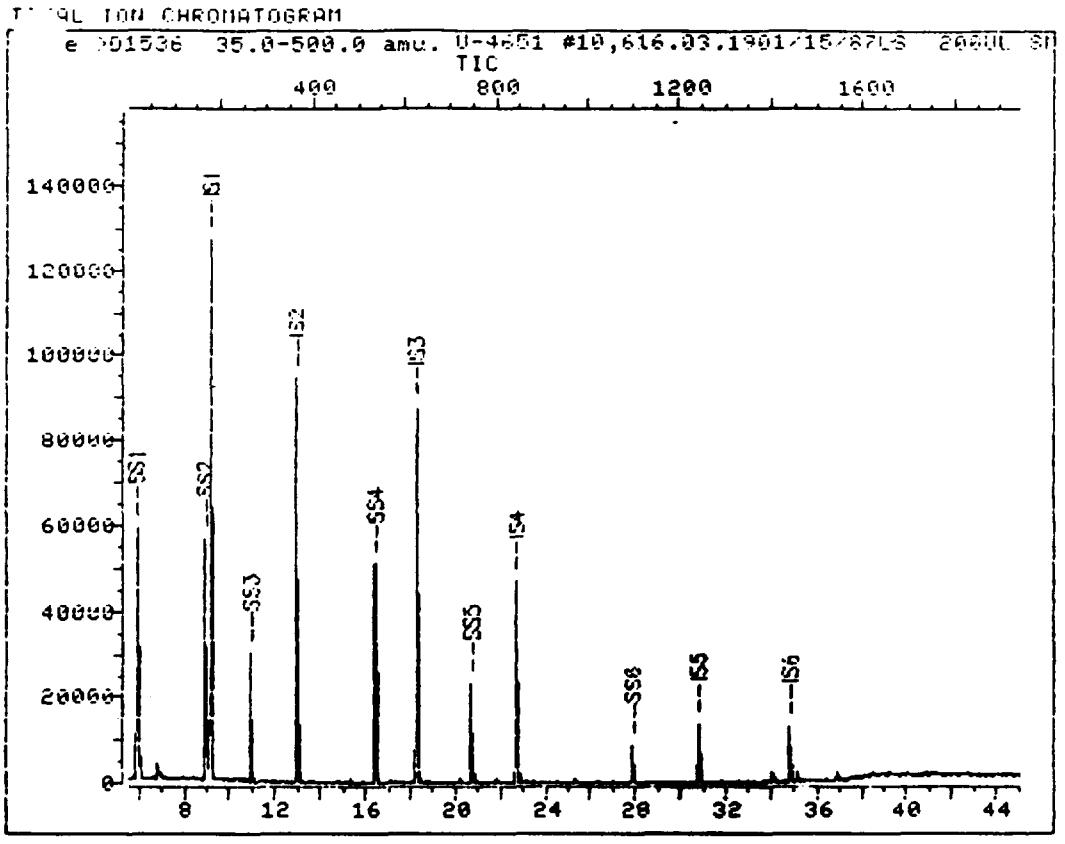
QUANT REPORT

Operator ID: USF88 Quant Rev: 4 Quant Time: 861222 15:10
Output File: ^C6164::Q2 Injected at: 861222 14:24
Data File: >C6164::D3 Dilution Factor: 1.00
Name: DEAD CREEK 10,616.01 DC-NB-07
Misc: 12-22-86CS 4.75G SOIL IN 5ML DI + 100L IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861222 13:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.69	252	17135	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.36	166	2172	15.76	NGS	100
7)	ACETONE		43	9.25	189	8283	87.91	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.53	325	50009	277.12	NGS	85
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.25	524	74294	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.10	649	53444	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.93	619	92937	288.12	NGS	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.69	767	40087	245.17	NGS	100

* Compound is ISTD

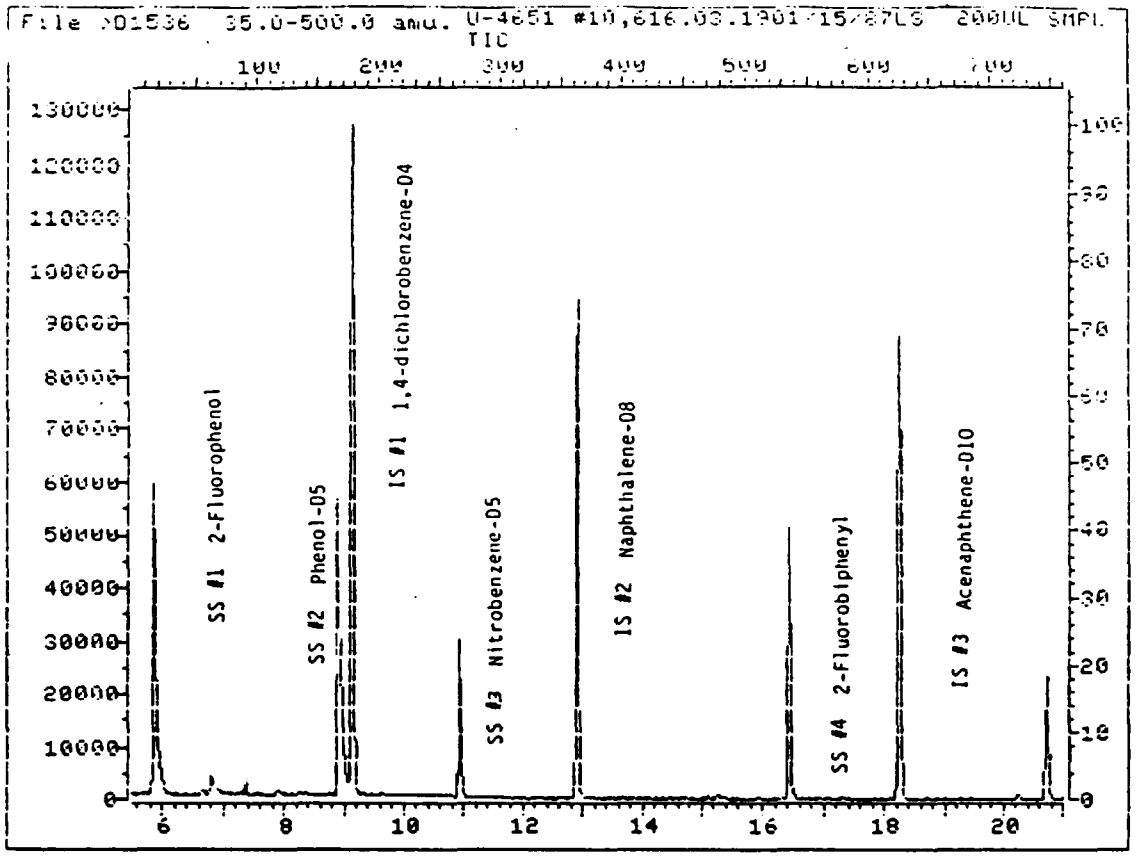


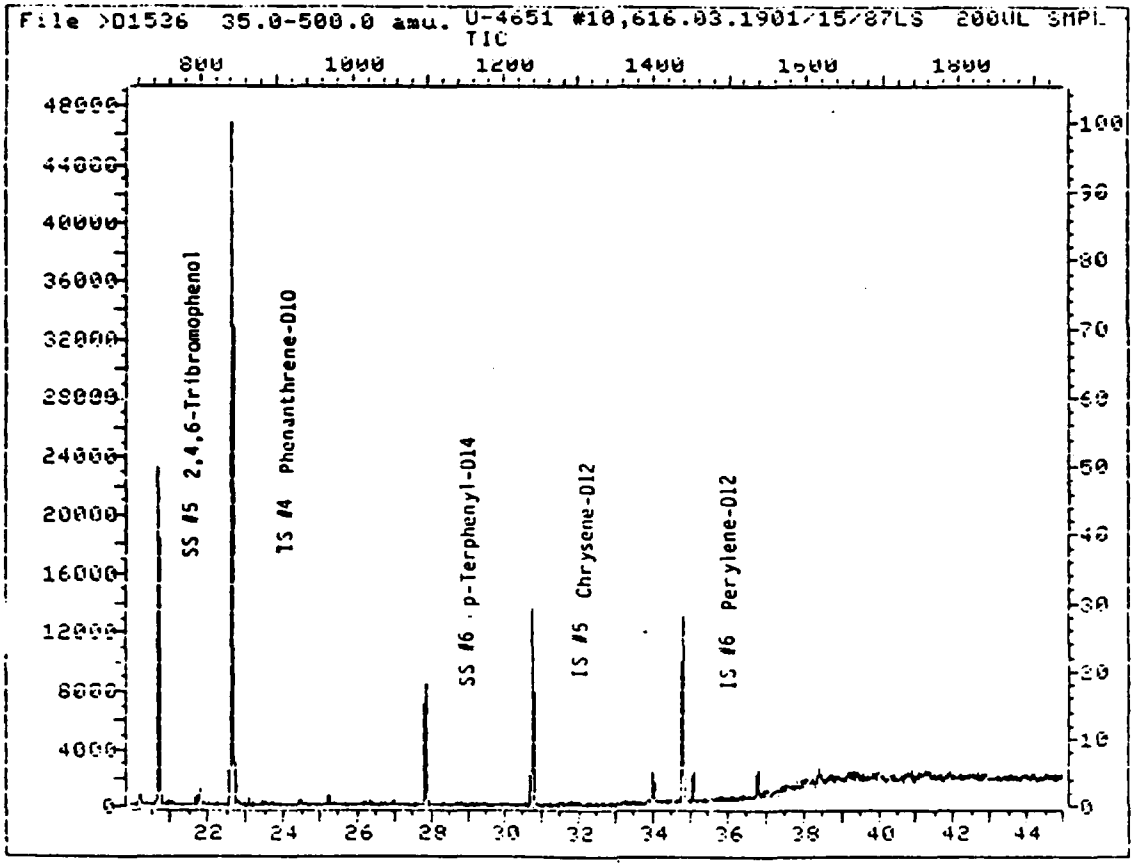
Data File: >D1536::D1
Name: U-4651 #10,616.03.19 DC-NB-07
Misc: 01/15/87LS 200UL SMPL + 200UL MECL2 + 40UL IS (2X) BTL# 3

Id File: BNAUR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860115 14:20

Operator ID: USER6
Quant Time: 860116 11:48
Injected at: 860115 20:35

DC-NG-07


File >D1536 35.0-500.0 amu. U-4651 #10,616.03.1901/15/87LS 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 >D1536 35.0-500.0 amu. U-4651 #10,616.03.1901/15/87LS 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

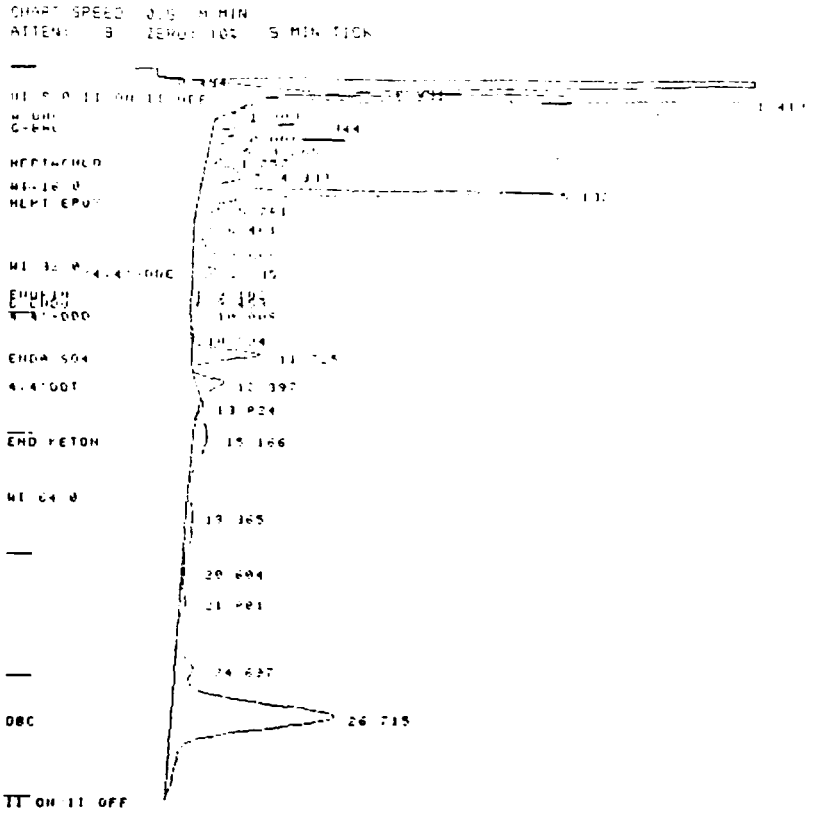
QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 860116 11:48
Output File: ^D1536::Q2 Injected at: 860115 20:35
Data File: >D1536::D1 Dilution Factor: 2.00
Name: U-4651 #10,616.03.19 DC-NB-07
Misc: 01/15/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 3

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860115 14:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.13	178	50296	40.00	UG/L	88
2)	PHENOL-D5	(SURR)	99	8.88	166	74763	125.91	UG/L	98
5)	2-FLUOROPHENOL	(SURR)	112	5.85	17	50903	107.06	UG/L	92
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.92~~	~~266~~	~~3821~~	~~7.54~~	~~UG/L~~ No GPR	82
19)	*NAPHTHALENE-D8	(IS)	136	12.92	364	130493	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.92	266	22784	47.52	UG/L	97
34)	*ACENAPHTHENE-D10	(IS)	162	18.25	626	51605	40.00	UG/L	99
38)	2-FLUOROBIPHENYL	(SURR)	172	16.42	536	55831	45.73	UG/L	92
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.25~~	~~626~~	~~16364~~	~~10.91~~	~~UG/L~~ No GPR	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.72	747	10640	64.92	UG/L	99
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.25~~	~~626~~	~~6476~~	~~36.60~~	~~UG/L~~ No GPR	100
55)	*PHENANTHRENE-D10	(IS)	188	22.67	843	57515	40.00	UG/L	93
65)	*CHRYSENE-D12	(IS)	240	30.78	1241	19955	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.87	1098	11504	47.24	UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.83	1440	18354	40.00	UG/L	100

* Compound is ISTD



DC-NB-07

CHANNEL: 1A - 1 TITLE: RUN#33 13:35 30 DEC 86

SAMPLE: 10616.03.19A METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/LG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.419		343243	BV	3.30
2	[illegible]	4.2123	2.344	-0.056	111915	VV	8.50
3	[illegible]	1.0590	2.667	0.207	28228	VV	9.19
4		0.0000	2.944		152800	VV	6.81
5		0.0000	3.265		53779	VV	? 8.35
6		0.0000	3.422		72903	VV	? 12.06
7	[illegible]	1.0221	3.757	-0.063	21613	VV	? 8.94
8		0.0000	4.104		44874	VV	? 12.38
9		0.0000	4.339		164203	VV	21.19
10		0.0000	5.132		580093	VV	10.75
11		0.0000	5.423		59615	VV	? 11.63
12	[illegible]	1.0991	5.781	0.071	49256	VV	9.75
13		0.0000	6.461		67205	VV	35.56
14		0.0000	7.555		102570	VV	? 34.89
15	[illegible]	3.6195	8.235	-0.025	95826	VV	32.75
16	[illegible]	1.0140	9.102	-0.088	20319	VV	? 22.31
17	[illegible]	1.0078	9.458	0.068	24275	VV	? 37.50
18	[illegible]	1.4437	10.008	-0.212	32163	VV	22.13
19	[illegible]	13.1565	11.725	-0.275	226105	VV	26.94
20	[illegible]	10.4496	12.597	-0.463	110645	BB	37.44
21	[illegible]	8.3923	15.166	-0.224	166298	VB	?143.06
22		0.0000	16.365		36278	BV	93.94
23		0.0000	21.681		45091	VB	34.00
24		0.0000	24.597		120556	BV	? 54.44
25	DBC 93%	79.9296	26.715	-0.015	1595170	VB	67.88

TOTALS: 125.1873 -1.075 4396023

DETECTED PKS: 36 REJECTED PKS: 13

DIVISOR: 1.16550 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: -3

NOTES:
NOTE: [illegible] BRUISCHLER
SECURE AREA: [illegible]
INST: [illegible]
COLUMN: [illegible]
LIQUID PHASE: [illegible]
CARRIER: [illegible] ml/min.
DET: [illegible]
[illegible]
AUTOSAMPLER
[illegible]
[illegible]

SAMPLE NUMBER DC-K1-08

431095

Sample Number
DC-K1-08

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No: V-4618 / V-4651

Lab Sample ID No: 10617 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 12/19/86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-22-86

Conc/Dil Factor: 1 pH 8.44

Percent Moisture: (Not Decanted) 15

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	B
67-64-1	Acetone	180	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	21	B
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5	U
10061-02-6	Trans-1, 3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1, 1, 2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1, 3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	9	J
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
108-88-3	Toluene	13	
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	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

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

Laboratory Name Ecology & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-K1-08

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-20-87

Conc./Dil Factor 10

Percent Moisture (Decanted) 15

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	1600 U
111-44-4	bis(2-Chloroethyl)Ether	1600 U
95-57-8	2-Chlorophenol	1600 U
541-73-1	1 3-Dichlorobenzene	1600 U
106-46-7	1 4-Dichlorobenzene	1600 U
100-51-6	Benzyl Alcohol	1600 U
95-50-1	1 2-Dichlorobenzene	1600 U
95-48-7	2-Methylphenol	1600 U
39638-32-9	bis(2-chloroisopropyl)Ether	1600 U
106-44-5	4-Methylphenol	1600 U
621-64-7	N-Nitroso-Di-n-Propylamine	1600 U
67-72-1	Hexachloroethane	1600 U
98-95-3	Nitrobenzene	1600 U
78-59-1	Isophorone	1600 U
88-75-5	2-Nitrophenol	1600 U
105-67-9	2, 4-Dimethylphenol	1600 U
65-85-0	Benzoic Acid	8000 U
111-91-1	bis(2-ChloroethoxylMethane	1600 U
120-83-2	2 4-Dichlorophenol	1600 U
120-82-1	1 2, 4-Trichlorobenzene	82 J
91-20-3	Naphthalene	130 J
106-47-8	4-Chloroaniline	1600 U
87-68-3	Hexachlorobutadiene	1600 U
59-50-7	4-Chloro-3-Methylphenol	1600 U
91-57-6	2-Methylnaphthalene	100 J
77-47-4	Hexachlorocyclopentadiene	1600 U
88-06-2	2 4 6-Trichlorophenol	1600 U
95-95-4	2 4 5-Trichlorophenol	8000 U
91-58-7	2-Chloronaphthalene	1600 U
88-74-4	2-Nitroaniline	8000 U
[illegible]-11-3	Dimethyl Phthalate	1600 U
[illegible]-96-8	Acenaphthylene	1600 U
99-09-2	3-Nitroaniline	8000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	150 J
51-28-5	2, 4-Dinitrophenol	8000 U
100-02-7	4-Nitrophenol	8000 U
132-64-9	Dibenzofuran	110 J
121-14-2	2 4-Dinitrotoluene	1600 U
606-20-2	2 6-Dinitrotoluene	1600 U
84-66-2	Diethylphthalate	1600 U
7005-72-3	4-Chlorophenyl-phenylether	1600 U
86-73-7	Fluorene	1600 U
100-01-6	4-Nitroaniline	8000 U
534-52-1	4, 6-Dinitro-2-Methylphenol	8000 U
86-30-6	N-Nitrosodiphenylamine (1)	1600 U
101-55-3	4-Bromophenyl-phenylether	1600 U
118-74-1	Hexachlorobenzene	1600 U
87-86-5	Pentachlorophenol	8000 U
85-01-8	Phenanthrene	1300 J
120-12-7	Anthracene	250 J
84-74-2	Di-n-Butylphthalate	1600 U
206-44-0	Fluoranthene	1500 J
129-00-0	Pyrene	1500 J
85-68-7	Butylbenzylphthalate	1600 U
91-94-1	3 3-Dichlorobenzidine	3300 U
56-55-3	Benzo(a)Anthracene	800 J
117-81-7	bis(2-EthylhexylPhthalate	18000 E
218-01-9	Chrysene	880 J
117-84-0	Di-n-Octyl Phthalate	2500
205-99-2	Benzo(b)Fluoranthene	880 J
207-08-9	Benzo(k)Fluoranthene	1600 U
50-32-8	Benzo(a)Pyrene	790 J
193-39-5	Indeno(1 2 3-cd)Pyrene	1600 U
53-70-3	Dibenz(a h)Anthracene	1600 U
191-24-2	Benzo(g h i)Perylene	1600 U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4618 / U-4651

Sample Number DC-K1-08

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 200

Percent Moisture (decanted) 15

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	1600 U
319-85-7	Beta-BHC	1600 U
319-86-8	Delta-BHC	1600 U
58-89-9	Gamma-BHC (Lindane)	1600 U
76-44-8	Heptachlor	1600 U
309-00-2	Aldrin	1600 U
1024-57-3	Heptachlor Epoxide	1600 U
959-98-8	Endosulfan I	1600 U
60-57-1	Dieldrin	3200 U
72-55-9	4,4'-DDE	3200 U
72-20-8	Endrin	3200 U
33213-65-9	Endosulfan II	3200 U
72-54-8	4,4'-DDD	3200 U
1031-07-8	Endosulfan Sulfate	3200 U
50-29-3	4,4'-DDT	3200 U
72-43-5	Methoxychlor	16,000 U
53494-70-5	Endrin Ketone	3200 U
57-74-9	Chlordane	16,000 U
8001-35-2	Toxaphene	32,000 U
12674-11-2	Aroclor-1016	16,000 U
11104-28-2	Aroclor-1221	16,000 U
11141-16-5	Aroclor-1232	16,000 U
53469-21-9	Aroclor-1242	16,000 U
12672-29-6	Aroclor-1248	100,000 C
11097-69-1	Aroclor-1254	32,000 U
11096-82-5	Aroclor-1260	32,000 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

Sample Number DC-K1-08

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.2	5 BJ
2.	HEXANE ISOMER	VOA	21.2	22 BJ
3.				
4.	PCB	BNA	24.0-25.8	—
5. 10544500	MOLECULAR SULFUR	↓	26.0	59000 J
6.	PCB	↓	26.5-27.1	—
7.				
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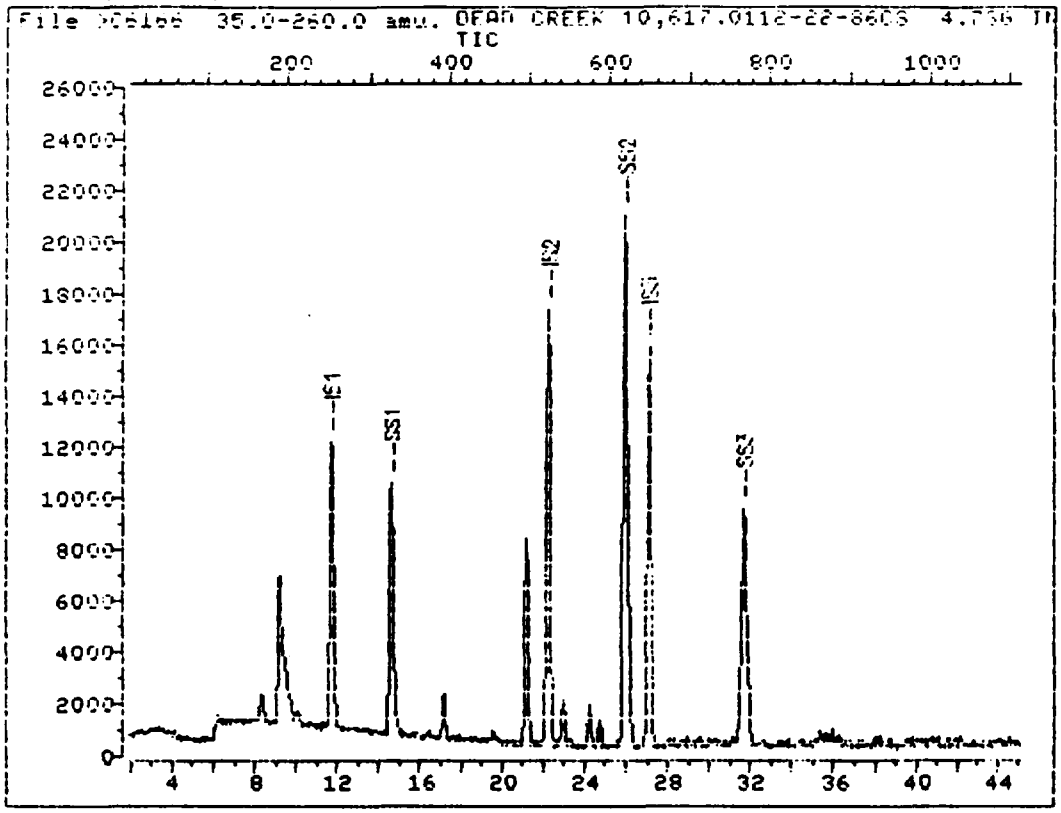
TOTAL ION CHROMATOGRAM

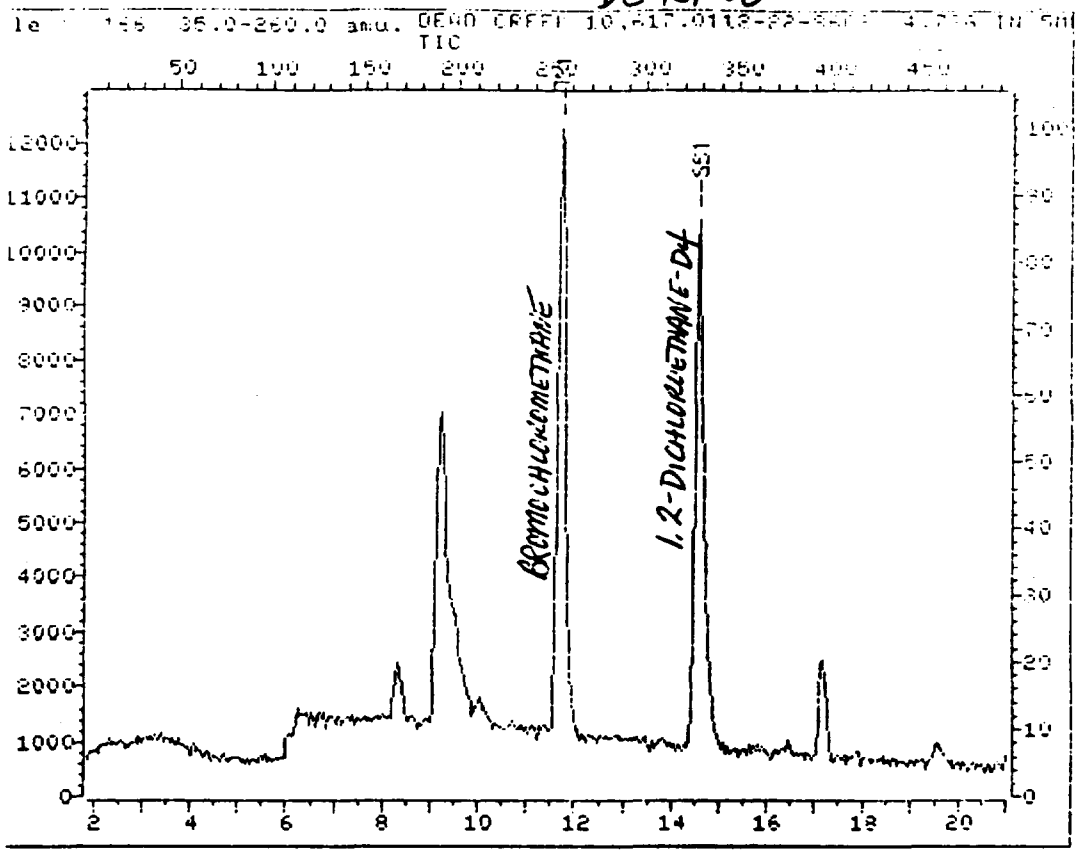


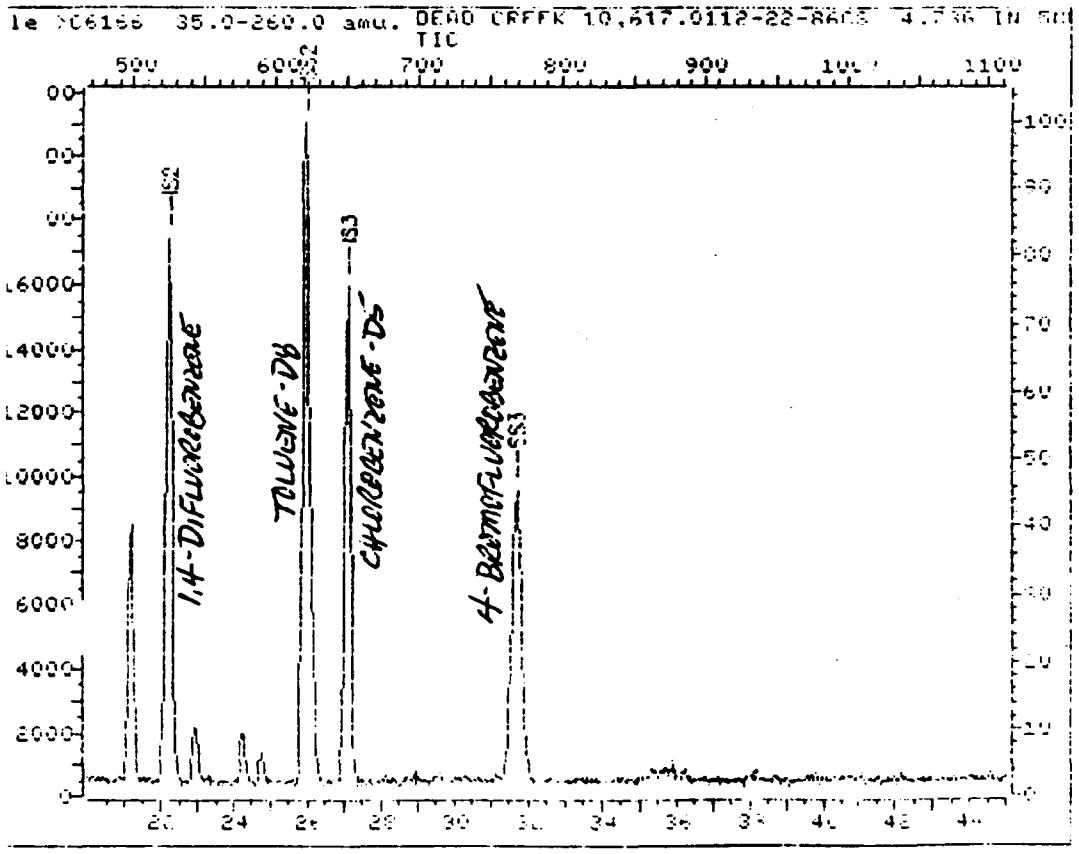
Data File: >C6166::D3
Name: DEAD CREEK 10,617.01 DC-KI-06
Misc: 12-22-86CS 4.73G IN 5ML DI + 10UL IS/SS

Id File: VOA:RS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861222 13:20

Operator ID: USER8
Quant Time: 861222 16:59
Injected at: 861222 16:13

DC-K1-08


35.0-260.0 amu. DEAD CREEK
TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4
SS1


35.0-260.0 amu. DEAD CREEK
TIC
1,4-DIFLUOROBENZENE
TOLUENE-D8
CHLOROBENZENE-D5
4-BROMOFLUOROBENZENE
SS1
SS2
SS3

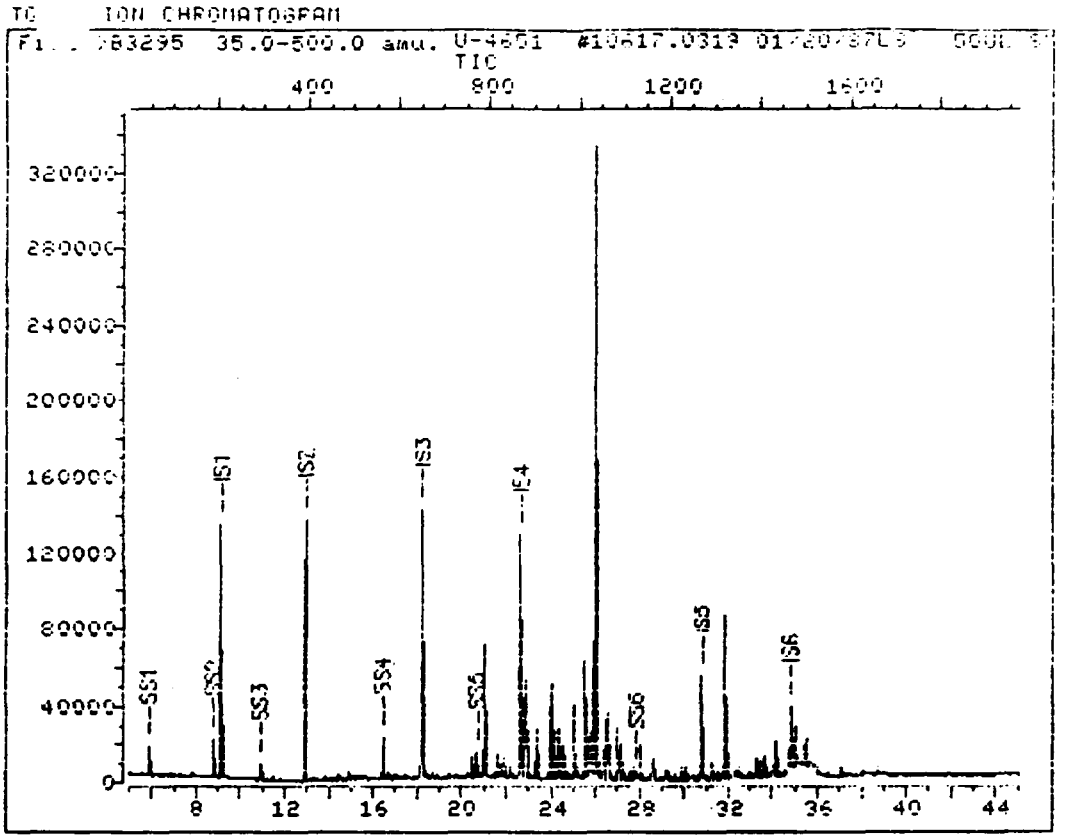
QUANT REPORT

perator ID: USER8 Quant Rev: 4 Quant Time: 861222 16:59
utput File: ^C6166::Q2 Injected at: 861222 16:13
ata File: >C6166::D3 Dilution Factor: 1.00
ame: DEAD CREEK 10,617.01 DC-K1-08
isc: 12-22-86CS 4.73G IN 5ML DI + 10UL IS/SS

D File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861222 13:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.70	254	17140	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.33	167	3092	22.43	NGS	100
7)	ACETONE		43	9.22	190	82271	872.90	NGS	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.57	328	45201	250.40	NGS	86
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.26	526	71423	250.00	NGS	100
7)	2-BUTANONE		72	14.73	332	2656	100.56	NGS	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.11	651	48162	250.00	NGS	100
2)	4-METHYL-2-PENTANONE		43	22.92	543	6611	43.02	NGS	81
~~3)~~	~~2-HEXANONE~~		~~43~~	~~24.24~~	~~577~~	~~3464~~	~~29.62~~	~~NGS~~	~~100~~
~~3)~~	~~2-HEXANONE~~		~~43~~	~~24.74~~	~~598~~	~~2446~~	~~20.91~~	~~NGS~~	~~100~~
6)	TOLUENE-D8	(SURR)	98	25.94	621	81137	279.13	NGS	98
7)	TOLUENE		92	26.14	626	12682	61.91	NGS	99
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.69	769	33376	226.52	NGS	100

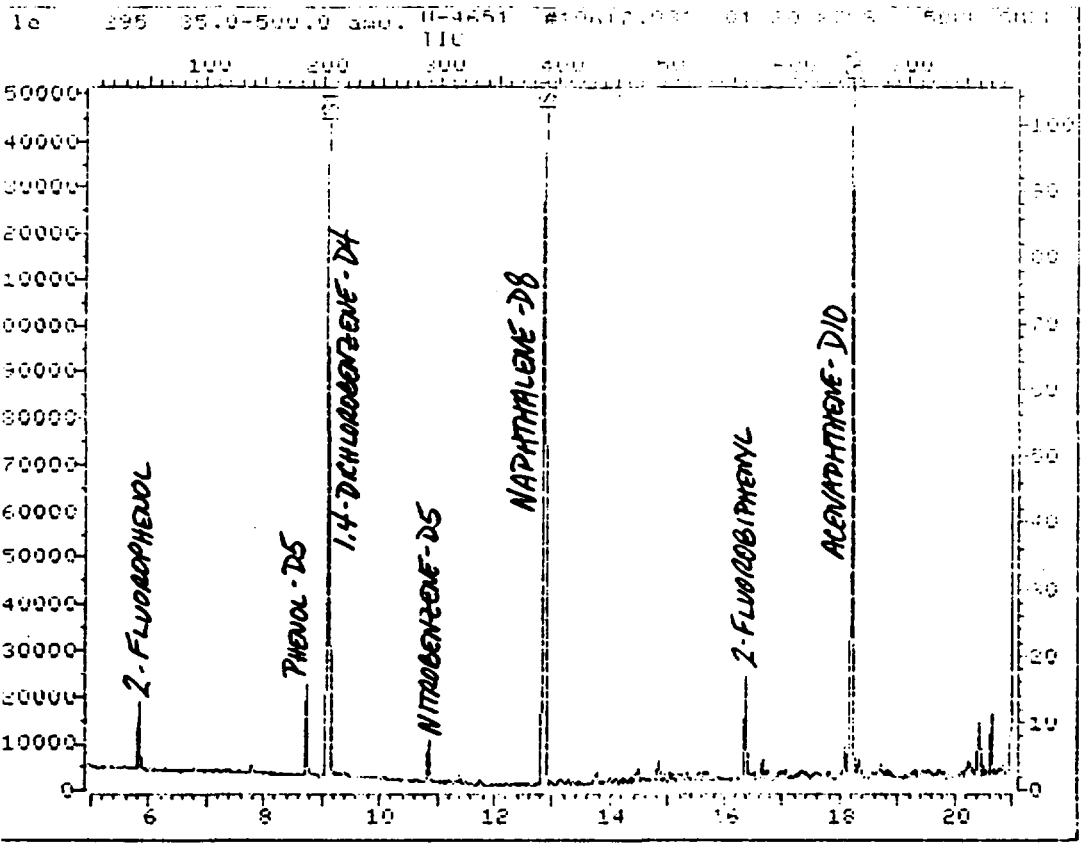
* Compound is ISTD

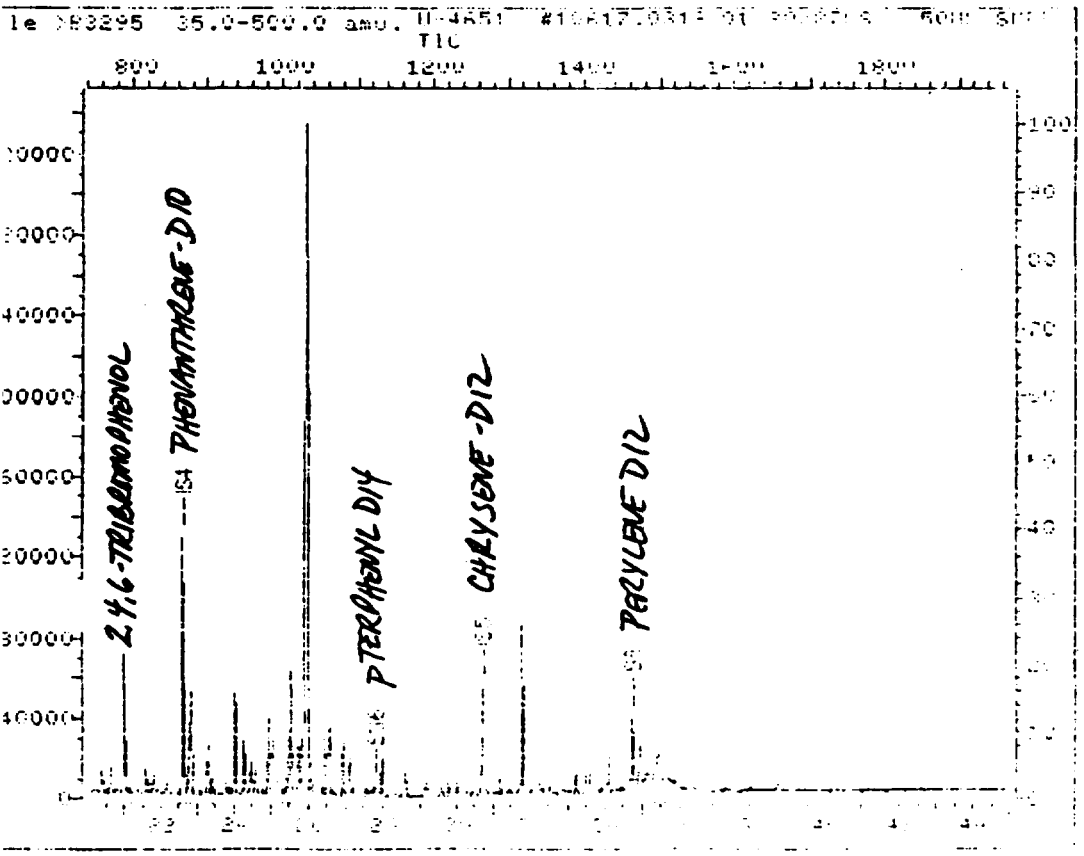


Data File: >B3295::D4
Name: U-4651 #10617.0319 DC-K1-08
Misc: 01/20/87LS 500UL SMPL + 450UL MECL2 + 50UL IS (100)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870120 15:41

Operator ID: MANAGER
Quant Time: 870120 18:27
Injected at: 870120 17:39


TIC
2-FLUOROPHENOL
PHENOL-D5
1,4-DICHLOROBENZENE-D4
NITROBENZENE-D5
NAPHTHALENE-D8
2-FLUOROBIPHENYL
ACENAPHTHENE-D10


TIC
2,4,6-TRIBROMOPHENOL
PHENANTHRENE-D10
PYRENE-D14
CHRYSENE-D12
PERYLENE D12

QUANT REPORT

Operator ID: MANAGER Quant Rev: 4 Quant Time: 870120 18:22
Output File: ^B3295::Q2 Injected at: 870120 17:49
Data File: >B3295::D4 Dilution Factor: 10.00
Name: U-4651 #10617.0319 DC-K1-08
Misc: 01/20/87LS 50UL SMPL + 450UL MECL2 + 5UL IS (10X)

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870120 15:41

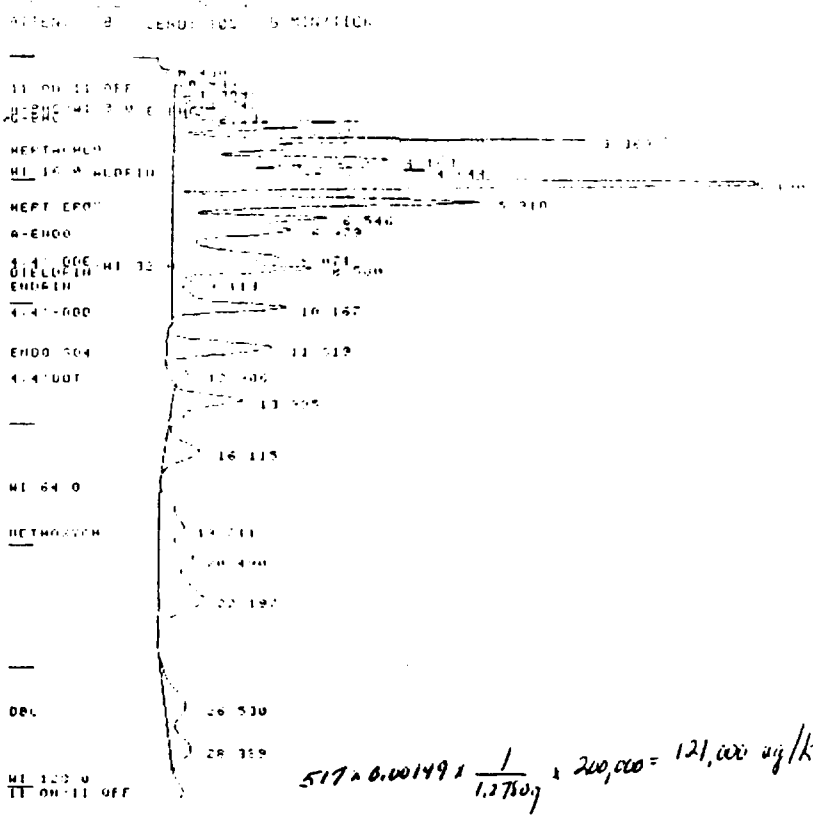
	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.11	204	46483	40.00	UG/L	88
2)	PHENOL-D5	(SURR)	99	8.74	186	14699	99.25	UG/L	94
5)	2-FLUOROPHENOL	(SURR)	112	5.83	43	8582	81.54	UG/L	83
~~7)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.86~~	~~290~~	~~990~~	~~2.94~~	~~UG/L~~	~~92~~ No Gfit
9)	*NAPHTHALENE-D8	(IS)	136	12.87	389	168730	40.00	UG/L	100
0)	NITROBENZENE-D5	(SURR)	82	10.86	290	6010	39.28	UG/L	91
8)	1,2,4-TRICHLOROBENZENE		180	12.81	386	368	2.47	UG/L	100
9)	NAPHTHALENE		128	12.91	391	1564	3.87	UG/L	100
3)	2-METHYLNAPHTHALENE		142	15.03	495	792	3.15	UG/L	83
~~3)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.37~~	~~510~~	~~646~~	~~2.57~~	~~UG/L~~ No Gfit	~~86~~
4)	*ACENAPHTHENE-D10	(IS)	162	18.20	651	80714	40.00	UG/L	95
8)	2-FLUOROBIPHENYL	(SURR)	172	16.37	561	16048	53.24	UG/L	92
~~1)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.22~~	~~652~~	~~25082~~	~~81.8~~	~~UG/L~~ No Gfit	~~100~~
3)	DIBENZOFURAN		168	18.79	680	1175	3.26	UG/L	100
7)	ACENAPHTHENE		153	18.28	655	1086	4.49	UG/L	91
8)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.64	771	4419	76.91	UG/L	93
~~0)~~	~~4-NITROPHENOL~~		~~139~~	~~18.79~~	~~680~~	~~370~~	~~9.1~~	~~UG/L~~	~~100~~
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.20~~	~~651~~	~~10498~~	~~154.08~~	~~UG/L~~ No Gfit	~~100~~
5)	*PHENANTHRENE-D10	(IS)	188	22.61	868	130971	40.00	UG/L	94
1)	PHENANTHRENE		178	22.67	871	12243	37.89	UG/L	97
~~1)~~	~~PHENANTHRENE~~		~~178~~	~~22.80~~	~~877~~	~~2296~~	~~7.11~~	~~UG/L~~	~~89~~
~~2)~~	~~ANTHRACENE~~		~~178~~	~~22.67~~	~~871~~	~~12243~~	~~40.50~~	~~UG/L~~ No Gfit	~~97~~
2)	ANTHRACENE		178	22.80	877	2296	7.60	UG/L	89
4)	FLUORANTHENE		202	26.30	1049	12501	46.42	UG/L	97
5)	*CHRYSENE-D12	(IS)	240	30.73	1267	52558	40.00	UG/L	100
~~6)~~	~~BENZIDINE~~		~~184~~	~~26.93~~	~~1080~~	~~672~~	~~672.00~~	~~NG ON COL UG/L~~	~~91~~
~~6)~~	~~BENZIDINE~~		~~184~~	~~27.05~~	~~1086~~	~~489~~	~~489.00~~	~~NG ON COL UG/L~~	~~91~~
~~6)~~	~~BENZIDINE~~		~~184~~	~~27.11~~	~~1089~~	~~1415~~	~~1415.00~~	~~NG ON COL UG/L~~	~~100~~ No Gfit
~~6)~~	~~BENZIDINE~~		~~184~~	~~27.23~~	~~1095~~	~~480~~	~~480.00~~	~~NG ON COL UG/L~~	~~91~~
~~6)~~	~~BENZIDINE~~		~~184~~	~~27.42~~	~~1114~~	~~445~~	~~435.00~~	~~NG ON COL UG/L~~	~~100~~
7)	PYRENE		202	26.93	1080	10739	46.05	UG/L	88
~~7)~~	~~PYRENE~~		~~202~~	~~27.03~~	~~1085~~	~~296~~	~~1.27~~	~~UG/L~~ No Gfit	~~9~~
8)	TERPHENYL-D14	(SURR)	244	27.80	1193	6351	48.37	UG/L	100
1)	BENZO(A)ANTHRACENE		228	30.69	1265	3242	24.06	UG/L	95
~~1)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~30.79~~	~~1270~~	~~3373~~	~~25.03~~	~~UG/L~~ No Gfit	
2)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.81	1320	52811	537.10	UG/L	92
~~2)~~	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.26~~	~~1342~~	~~246~~	~~2.12~~	~~UG/L~~	~~100~~
~~3)~~	~~CHRYSENE~~		~~228~~	~~30.69~~	~~1265~~	~~3242~~	~~25.33~~	~~UG/L~~ No Gfit	~~96~~
3)	CHRYSENE		228	30.79	1270	3373	26.39	UG/L	96
4)	*PERYLENE-D12	(IS)	264	34.76	1465	36894	40.00	UG/L	100
~~4)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.50~~	~~1403~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~ No Gfit	~~100~~
5)	DI-N-OCTYL PHTHALATE		149	33.62	1409	11418	24.16	UG/L	100
~~6)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.75~~	~~1414~~	~~479~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~6)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.81~~	~~1420~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~ No Gfit	~~100~~
~~6)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~[illegible]~~

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
~~6)~~	~~BENZO(B)FLUORANTHENE~~	~~252~~	~~34.07~~	~~1431~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~7)~~	~~BENZO(K)FLUORANTHENE~~	~~252~~	~~33.20~~	~~1418~~	~~3165~~	~~[illegible]~~	~~UG/L~~	100
~~7)~~	~~BENZO(K)FLUORANTHENE~~	~~252~~	~~34.07~~	~~1431~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~8)~~	~~BENZO(A)PYRENE~~	~~252~~	~~34.47~~	~~1451~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
8)	BENZO(A)PYRENE	252	34.60	1457	2176	23.61	UG/L	100
~~8)~~	~~BENZO(A)PYRENE~~	~~252~~	~~34.82~~	~~1468~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	100
~~9)~~	~~INDENO(1,2,3-CD)PYRENE~~	~~276~~	~~37.34~~	~~1592~~	~~1143~~	~~[illegible]~~	~~UG/L~~	100
~~1)~~	~~BENZO(G,H,I)PERYLENE~~	~~276~~	~~37.85~~	~~1617~~	~~1193~~	~~14.63~~	~~UG/L~~	100

No GPM

No GPM

* Compound is ISTD



$517 \times 0.00149 \times \frac{1}{1.2750g} \times 200{,}000 = 121{,}000$ ug/kg 1,248

CHANNEL: 1A - 1 TITLE: RUN# 24 3:47 20 DEC 86

DC-KI-08

SAMPLE: 10617.03.19A METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/FG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WIDTH (SEC)
1		0.0000	1.393		[illegible]1069	BV	[illegible]
2		0.0000	1.742		[illegible]107	VV	[illegible]
3	[illegible]	285.6093	2.093	0.043	[illegible]508	VV	[illegible]
4	[illegible]	230.0473	[illegible]	[illegible]	[illegible]	VV	[illegible]
5	[illegible]	1268.312	2.633	0.173	[illegible]359	VV	[illegible]
6		0.0000	2.998		[illegible]216	VV	[illegible]
7		0.0000	3.369		[illegible]363	VV	[illegible]
8		0.0000	3.596	PCB	[illegible]210	VV	[illegible]
9	[illegible]	1900.511	[illegible]	1248 31	[illegible]	VV	[illegible]
10		0.0000	4.163		[illegible]943	VV	[illegible]
11	[illegible]	3036.228	4.644	-0.056	[illegible]043	VV	[illegible]
12		0.0000	[illegible]		[illegible]	VV	[illegible]
13	[illegible]	[illegible]	[illegible]	0.200	[illegible]	VV	[illegible]
14		0.0000	6.546	517	[illegible]004	VV	[illegible]
15	[illegible]	2010.320	6.979	-0.101	[illegible]319	VV	[illegible]
16	[illegible]	2056.184	8.071	-0.069	[illegible]531	VV	[illegible]
17	[illegible]	2558.920	8.580	0.320	[illegible]361	VV	[illegible]
18	[illegible]	358.5624	9.113	0.077	[illegible]391	VV	[illegible]
19	[illegible]	3269.775	10.167	-0.053	[illegible]382	VB	[illegible]
20	[illegible]	4241.133	11.817	-0.101	[illegible]	BV	[illegible]
21	[illegible]	918.2275	12.906	-0.454	[illegible]305	BB	[illegible]
22		0.0000	13.995		[illegible]151	VV	[illegible]
23	[illegible]	1464.066	16.115	0.725	[illegible]576	VB	[illegible]
24	[illegible]	5655.554	19.211	-0.409	[illegible]073	BV	[illegible]
25		0.0000	20.490		[illegible]737	VV	[illegible]
26		0.0000	22.197		[illegible]743	VV	[illegible]
27	[illegible]	1937.216	26.530	-0.200	[illegible]066	VV	[illegible]
28		0.0000	28.389		[illegible]398	VB	[illegible]
TOTALS:		30084.32		-0.339	[illegible]055		

DETECTED PKS: [illegible] REJECTED PKS: 9

DIVISOR: 1.27500 MULTIPLIER: 200000.000

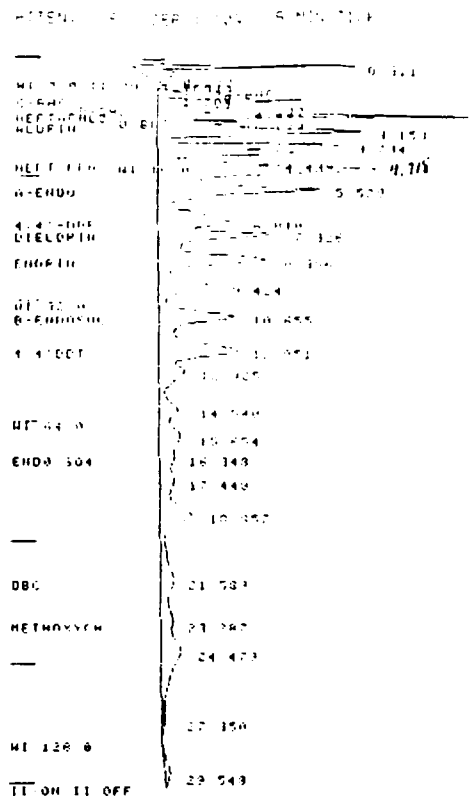
NOISE: 34.3 OFFSET: -15

RACK: 2 VIAL: 9 INJ: 1

NOTES:

[illegible]

205



positive PCB 1248

DC-K1-08

CHANNEL: 18 - 1 TITLE: RUN# 12 19:18 31 DEC 86

SAMPLE: 10617 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	[illegible]	194.1331	1.517	-0.123	43342	VV	5.05
2	[illegible]	1262.324	1.942	-0.138	244432	VV	5.75
3	[illegible]	2410.975	2.233	0.127	190853	VV	? 9.69
4	[illegible]	3746.199	2.516	[illegible]	655952	VV	5.75
5	[illegible]	1068.989	2.763	[illegible]	177973	VV	? 5.50
6		0.0000	2.951		170533	VV	? 9.6[illegible]
7	[illegible]	3513.255	3.158	0.078	692709	VV	[illegible]
8		0.0000	3.734		515646	VV	11.[illegible]
9		0.0000	3.993		438754	VV	? 13.55
10		0.0000	4.439		305082	VV	? 17.5[illegible]
11	[illegible]	5875.394	4.719	0.108	1034661	VV	18.75
12	[illegible]	6492.941	5.529	-0.272	1076379	VV	21.6[illegible]
13	[illegible]	3728.297	6.910	0.150	595403	VV	? 26.[illegible]
14	[illegible]	3853.261	7.276	0.246	677843	VV	20.[illegible]
15	[illegible]	6362.221	8.356	-0.234	722990	VV	25.55
16		0.0000	9.424		450723	VV	30.88
17	[illegible]	3777.437	10.555	0.215	[illegible]	VV	29.17
18	[illegible]	6116.608	12.051	-0.239	766894	VV	37.75
19		0.0000	12.925		290573	VV	? 65.6[illegible]
20		0.0000	14.540		218743	VV	? 67.19
21		0.0000	15.654		319995	VV	? 68.00
22	[illegible]	2347.855	16.349	-0.172	127819	VV	?
23		0.0000	17.448		197119	VV	? 99.19
24		0.0000	18.957		433375	VV	66.[illegible]
25	[illegible]	2558.820	21.589	-0.171	326953	VV	?148.75
26	[illegible]	4131.780	23.287	-0.233	182441	VV	? 99.00
27		0.0000	24.479		515218	VV	?202.55
28		0.0000	27.350		32294	VV	?176.55
29		0.0000	29.548		57335	VB	?143.31

TOTALS: 57440.58 -0.913 12085718

DETECTED PKS: 41 REJECTED PKS: 12

DIVISOR: 1.27800 MULTIPLIER: 200000.000

NOISE: 45.7 OFFSET: 0

RACK: 1 VIAL: 12 INJ: 1

NOTES:
NOTEPOOL: [illegible] CP ANALYST: RICHARD SAMSON
SECURE [illegible]
INST: [illegible]
COLUMN: [illegible] SUPELCOPORT
[illegible]
[illegible]

SAMPLE NUMBER DC-L4-09

481095

Sample Number
DC-L4-09

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No: U-4618 / U-4651

Lab Sample ID No: 10618 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: [illegible] Date Sample Received: 12/19/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-26-86

Conc/Dil Factor: 1.2 pH 3.62

Percent Moisture. (Not Decanted) 24

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	
67-64-1	Acetone	24	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1, 1-Dichloroethene	6	U
75-34-3	1, 1-Dichloroethane	6	U
156-60-5	Trans-1, 2-Dichloroethene	6	U
67-66-3	Chloroform	73	
107-06-2	1, 2-Dichloroethane	6	U
78-93-3	2-Butanone	12	B
71-55-6	1, 1, 1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	6	U
10061-02-6	Trans-1, 3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1, 1, 2-Trichloroethane	6	U
71-43-2	Benzene	5	J
10061-01-5	cis-1, 3-Dichloropropene	6	U
110-75-8	2-Chloroethylvinylether	12	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	52	B
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	6	U
108-88-3	Toluene	71	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
	Total Xylenes	6	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-4618 / U-4651

Sample Number DC-L4-09

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed: 1-9-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
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
[illegible]11-3	Dimethyl Phthalate	330	U
[illegible]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	570	
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-4618/U-4651

Sample Number DC-L4-09

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 10 * 100

Percent Moisture (decanted) 24

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	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	160 U
72-55-9	4,4'-DDE	160 U
72-20-8	Endrin	160 U
33213-65-9	Endosulfan II	160 U
72-54-8	4,4'-DDD	160 U
1031-07-8	Endosulfan Sulfate	160 U
50-29-3	4,4'-DDT	160 U
72-43-5	Methoxychlor	800 U
53494-70-5	Endrin Ketone	160 U
57-74-9	Chlordane	800 U
8001-35-2	Toxaphene	1600 U
12674-11-2	Aroclor-1016	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	1600 U
11096-82-5	Aroclor-1260	1600 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

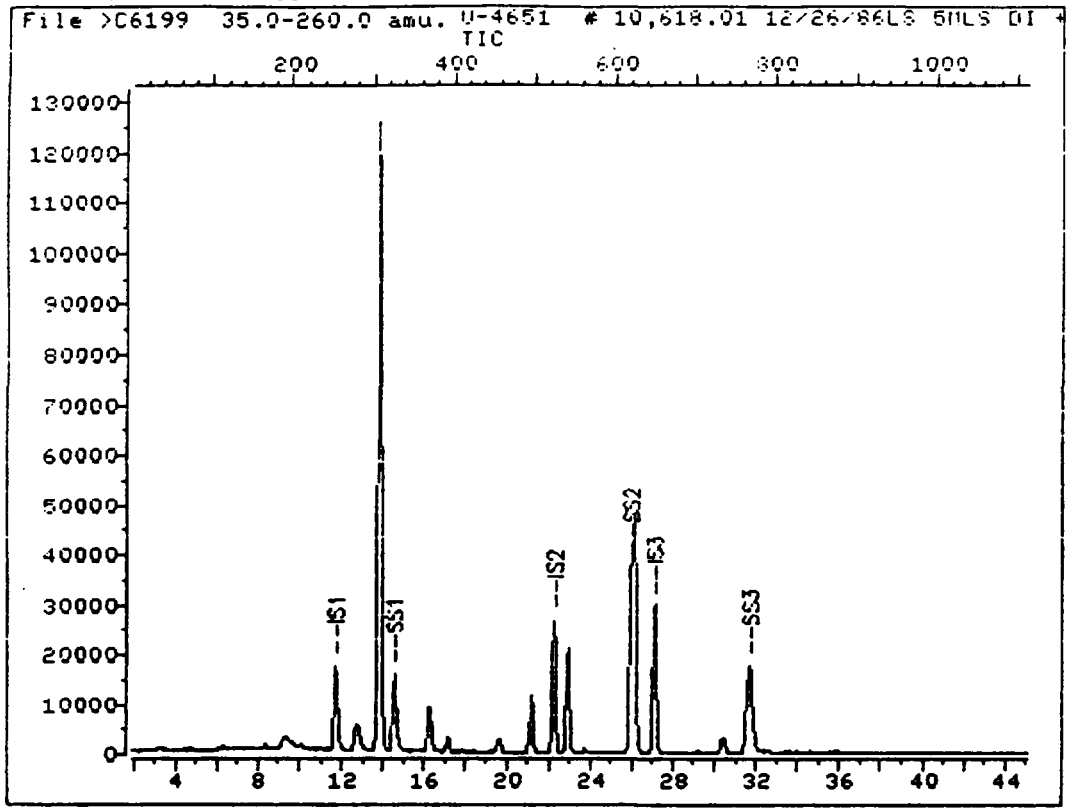
Sample Number DC-L4-09

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1. 109999	TETRAHYDROFURAN	VOA	12.7	28 J
2.	BUTANOL		13.8	450 J
3. 141786	ACETIC ACID, ETHYL ESTER		16.2	32 J
4.	HEXENE ISOMER		17.1	8 BJ
5.	HEXANE ISOMER		21.2	26 BJ
6.	UNKNOWN HYDROCARBON		30.4	8 J
7.				
8.	CYCLOHEXA-SULFUR	BNA	18.4	940 J
9. 10544500	MOLECULAR SULFUR	BNA	25.9	10,000 J
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

TOT. ION CHROMATOGRAM

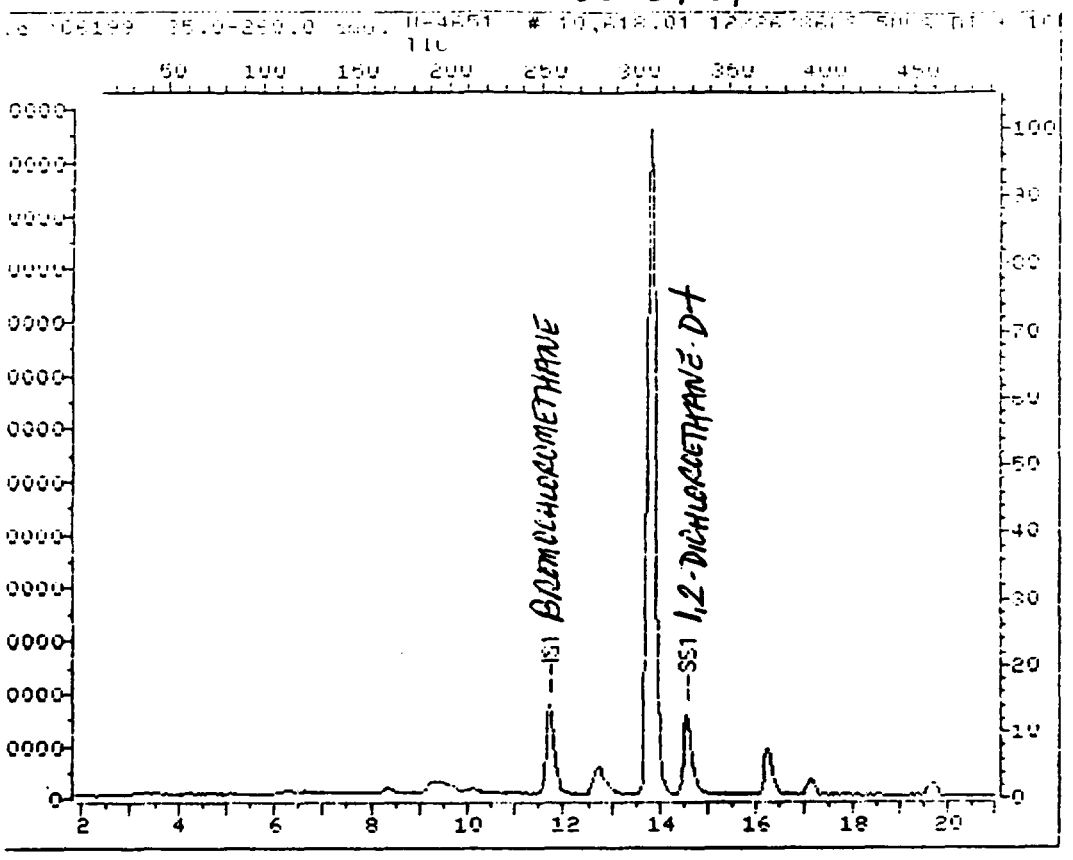


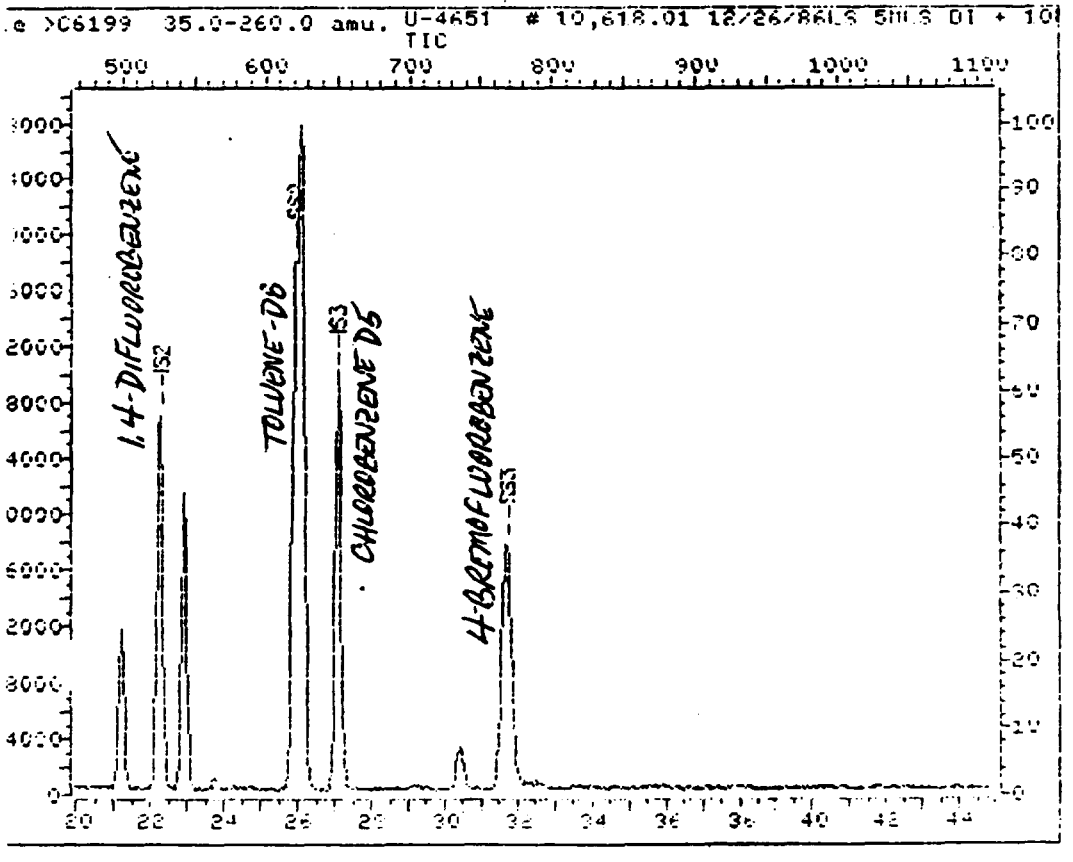
Data File: >C6199::D3
Name: U-4651 # 10,618.01 DC-L4-09
Misc: 12/26/86LS 5MLS DI + 10UL IS/SS + 4.20g SAMPLE

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861226 12:05

Operator ID: USER8
Quant Time: 861226 15:28
Injected at: 861226 14:42

DC-L4-09


TIC
BROMOCHLOROMETHANE
--IS1
1,2-DICHLOROETHANE-D4
--SS1


TIC
1,4-DIFLUOROBENZENE
--IS2
TOLUENE-D8
--SS2
--IS3
CHLOROBENZENE D5
4-BROMOFLUOROBENZENE
--SS3

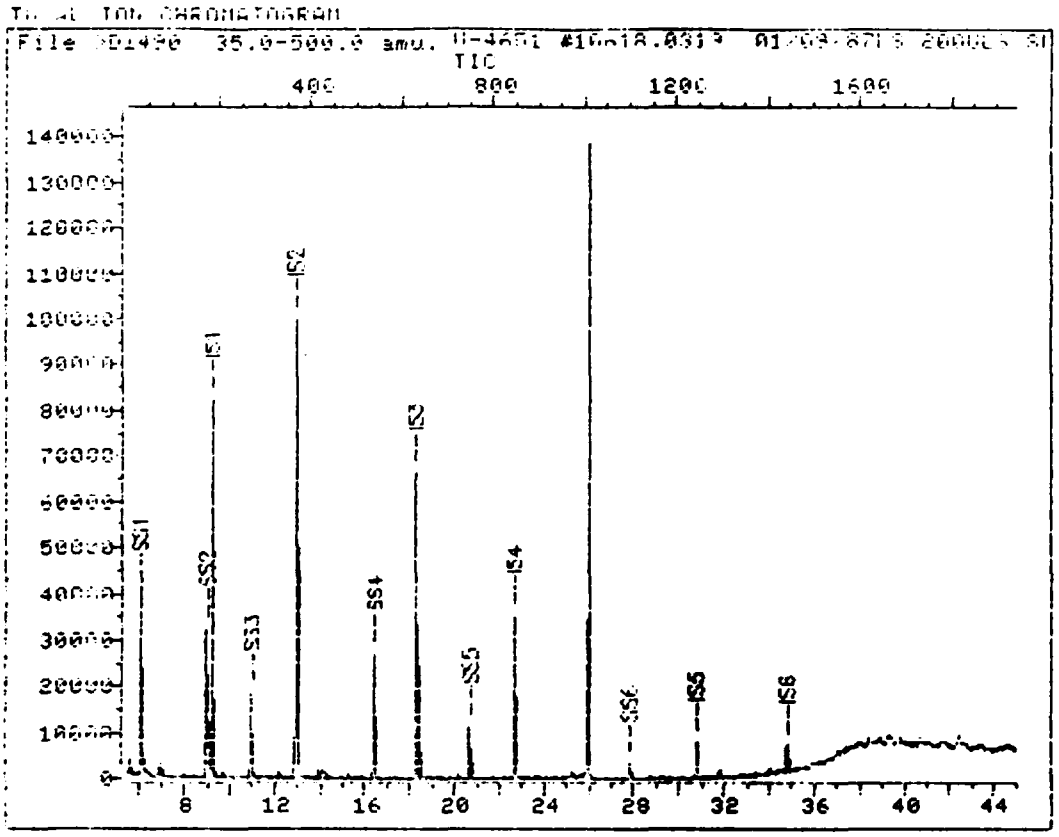
QUANT REPORT

perator ID: USER8 Quant Rev: 4 Quant Time: 861226 15:28
utput File: ^C6199::Q2 Injected at: 861226 14:42
ata File: >C6199::D3 Dilution Factor: 1.00
ame: U-4651 # 10,618.01 DC-L4-09
isc: 12/26/86LS 5MLS DI + 10UL IS/SS + 4.20g SAMPLE

D File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CHL.)
ast Calibration: 861226 12:05

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.72	254	24636	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.35	167	2571	23.74	NGS	100
7)	ACETONE		43	9.32	192	18988	103.22	NGS	100
3)	CHLOROFORM		83	13.90	310	97327	308.12	NGS	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.56	327	66833	280.01	NGS	84
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.27	526	112719	250.00	NGS	100
7)	2-BUTANONE		72	14.75	332	2825	50.25	NGS	100
~~9)~~	~~VINYL ACETATE~~		~~43~~	~~16.22~~	~~370~~	~~67479~~	~~122.04~~	~~NGS~~	100
7)	BENZENE		78	19.68	459	10756	19.52	NGS	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.08	650	94217	250.00	NGS	100
2)	4-METHYL-2-PENTANONE		43	22.93	543	91342	221.04	NGS	90
6)	TOLUENE-D8	(SURR)	98	25.96	621	132742	247.74	NGS	94
7)	TOLUENE		92	26.11	625	110148	298.84	NGS	99
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.71	769	66331	246.76	NGS	100

* Compound is ISTD

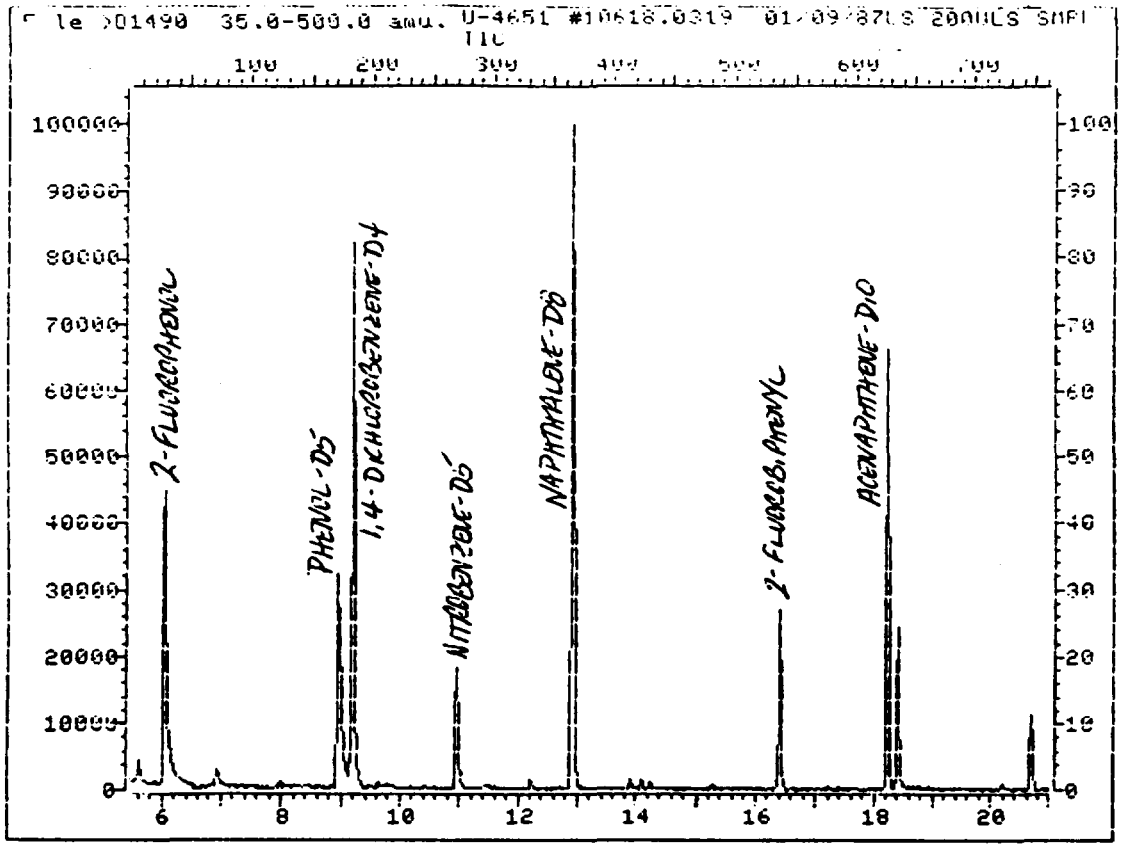


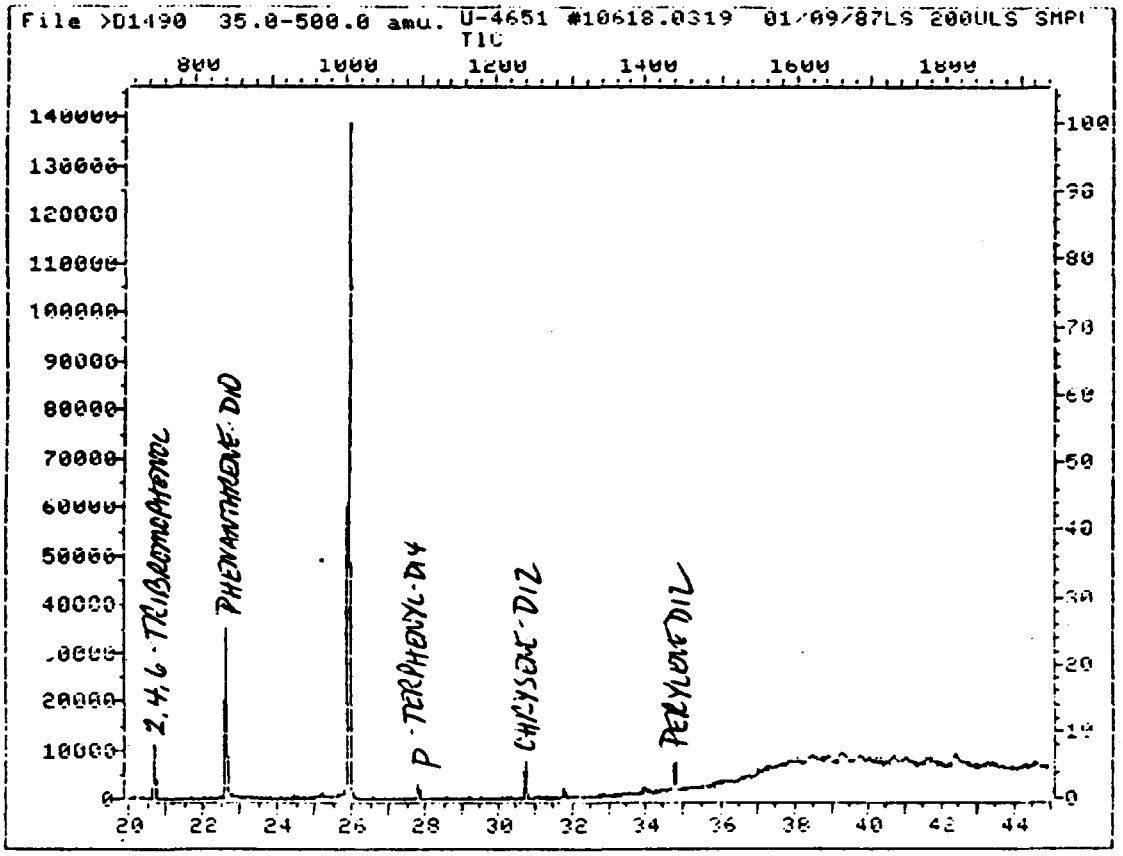
Data File: >D1490::D1
Name: U-4651 #10618.0319 DC-L4-09
Misc: 01/09/87LS 200ULS SMPL + 200UL MECL2 + 4UL IS (2X) BU # 1

Id File: BNFDR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870109 14:56

Operator ID: USER6
Quant Time: 870109 20:07
Injected at: 870109 19:19

DC-L4-09


File >D1490 35.0-500.0 amu. U-4651 #10618.0319 01/09/87LS 200ULS SMPI
TIC
2-FLUOROPHENOL
PHENOL-D5
1,4-DICHLOROBENZENE-D4
NITROBENZENE-D5
NAPHTHALENE-D8
2-FLUOROB.PHENYL
ACENAPHTHENE-D10


File >D1490 35.0-500.0 amu. U-4651 #10618.0319 01/09/87LS 200ULS SMPI
TIC
2,4,6-TRIBROMOPHENOL
PHENANTHRENE-D10
P-TERPHENYL-D14
CHRYSENE-D12
PERYLENE-D12

QUANT REPORT

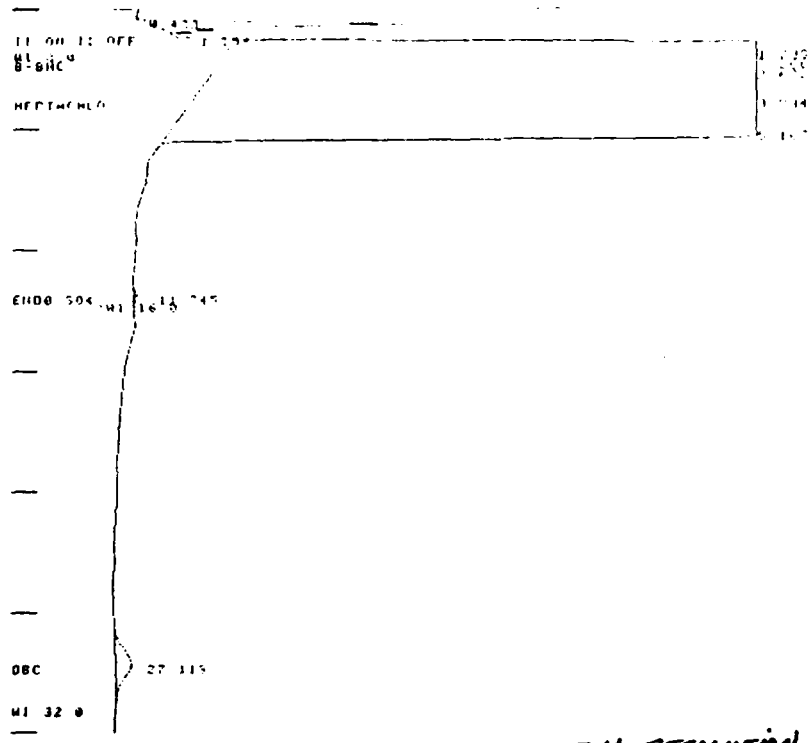
Operator ID: USER6 Quant Rev: 4 Quant Time: 870109 20:02
Output File: ^D1490::Q2 Injected at: 870109 19:19
Data File: >D1490::D1 Dilution Factor: 2.00
Name: U-4651 #10618.0319 DC-L4-09
Misc: 01/09/87 LS 200ULS SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870109 14:56

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.20	184	42000	40.00	UG/L	84
2)	PHENOL-D5	(SURR)	99	8.96	172	40070	54.41	UG/L	96
5)	2-FLUOROPHENOL	(SURR)	112	6.02	28	47125	87.24	UG/L	99
~~[illegible]~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.95~~	~~270~~	~~2602~~	~~[illegible].46~~	~~UG/L~~ No BPH	88
19)	*NAPHTHALENE-D8	(IS)	136	12.91	366	129449	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.95	270	16194	19.93	UG/L	97
~~[illegible]~~	~~NAPHTHALENE~~		~~128~~	~~12.97~~	~~369~~	~~347~~	~~.25~~	~~UG/L~~ No BPH	100
34)	*ACENAPHTHENE-D10	(IS)	162	18.72	627	42088	40.00	UG/L	96
38)	2-FLUOROBIPHENYL	(SURR)	172	16.41	538	25292	26.56	UG/L	95
~~[illegible]~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.25~~	~~628~~	~~13217~~	~~17.72~~	~~UG/L~~ No BPH	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.69	748	4932	39.92	UG/L	97
~~[illegible]~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.72~~	~~627~~	~~5487~~	~~34.18~~	~~UG/L~~ No BPH	100
55)	*PHENANTHRENE-D10	(IS)	188	22.64	844	37273	40.00	UG/L	94
65)	*CHRYSENE-D12	(IS)	240	30.75	1242	10278	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.82	1098	6151	43.93	UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.79	1293	1837	17.15	UG/L	91
74)	*PERYLENE-D12	(IS)	264	34.79	1440	8569	40.00	UG/L	100

* Compound is ISTD

CHART SPEED 0.5 CM/MIN
ATTEN: 0 ZERO: 10% 5 MIN/TICK



SEE RUN 40 FOR FRONT END RESOLUTION

DC-L4-09

CHANNEL: 1A - 1 TITLE: RUN# 18 0:26 30 DEC 86

SAMPLE: 10618.03.19A 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		2869305	BV	5.06
2		0.0000	1.738		2948917	VV	? 9.05
3		0.0000	1.775		415563	VV	? 23.13
4		0.0000	1.798		5686544	VV	?123.63
5	~~[illegible]~~	3618.584	2.266	0.025	3915756	VV	?
6	~~8-BHC~~	1474.559	2.682	0.222	3849682	VV	? 32.75
7		0.0000	2.932		8424753	VV	?
8	~~[illegible]~~	1020.869	3.834	0.014	2114211	VV	?
9		0.0000	4.075		1469917	VV	?
10		0.0000	5.167		23788762	VB	11.94
11	DBC	9179.2567	27.118	0.388	154917	BB	? 78.25

TOTALS: 6193.269 0.710 55637332

DETECTED PKS: 18 REJECTED PKS: 7

DIVISOR: 1.14153 MULTIPLIER: 10000.0000

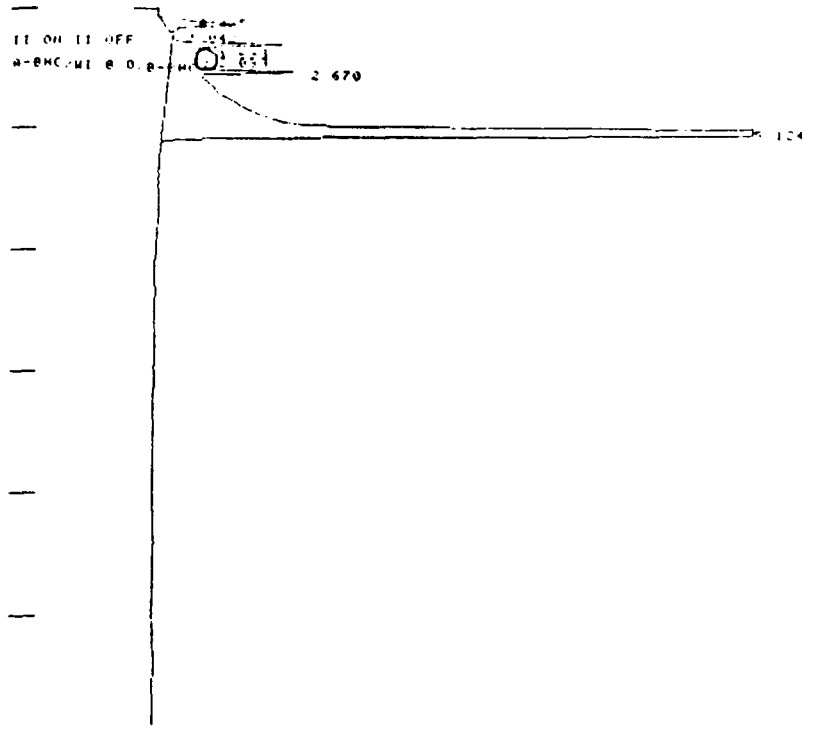
NOISE: 34.3 OFFSET: -273

RACK: 2 VIAL: 1 INJ: 1

NOTES:
NOTEBOOK:259-66 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4651
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: FT GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:3% OV 1
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INT:220 C
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB PRIMARY ANALYSIS

POST RUN:
SAVE FILE: RAW EE6606

CHART SPEED 0.5 CM/MIN
ATTEN: 0 ZERO: 10% 5 MIN/TICK



DC-L4-09

CHANNEL: 1A - 1 TITLE: RUN# 40 17:43 30 DEC 86

SAMPLE: 10618.03.19A 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	1.369		139292	BV	3.56
2		0.0000	1.693		56304	VV	? 9.31
3	~~[illegible]~~	~~[illegible]~~	2.083	0.033	~~[illegible]~~	B [illegible]	? 39.56
4	~~[illegible]~~	318.5251	2.290	-0.110	82885	VV	? 24.75
5	~~[illegible]~~	676.9974	2.670	0.210	176746	VV	6.81
6		0.0000	5.124		5977304	VB	10.81

TOTALS: 1317.738 0.133 6526251

DETECTED PKS: 12 REJECTED PKS: 6

DIVISOR: 1.14150 MULTIPLIER: 100000.000

NOISE: 11.4 OFFSET: -1

NOTES:
NOTEBOOK:259-67 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4651
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 PRIMARY ANALYSIS
RESULT IN UG/KG DRY WEIGHT

POST RUN:
SAVE FILE: RAW EPA628

SAMPLE NUMBER DC-L4-10

481095

Sample Number
DC-L4-10

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No: U-4618/U-4651

Lab Sample ID No: 10619 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: C Stojowicz Date Sample Received: 12/19/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-26-86

Conc/Dil Factor: 1.1 pH 3.60

Percent Moisture: (Not Decanted) 26

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	60	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1, 1-Dichloroethene	6	U
75-34-3	1, 1-Dichloroethane	6	U
156-60-5	Trans-1, 2-Dichloroethene	6	U
67-66-3	Chloroform	36	
107-06-2	1, 2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1, 1, 1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	6	U
10061-02-6	Trans-1, 3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1, 1, 2-Trichloroethane	6	U
71-43-2	Benzene	3	J
10061-01-5	cis-1, 3-Dichloropropene	6	U
110-75-8	2-Chloroethylvinylether	11	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	36	B
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	6	U
108-88-3	Toluene	37	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
	Total Xylenes	6	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-4618 / U-4651

Sample Number DC-L4-10

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-9-87

Conc./Dil Factor 2

Percent Moisture (Decanted) 26

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	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	36	J
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	230	J
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	960	
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-4618/U-4651

Sample Number DC-L4-10

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 10 x 100

Percent Moisture (decanted) 26

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	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	160 U
72-55-9	4,4'-DDE	160 U
72-20-8	Endrin	160 U
33213-65-9	Endosulfan II	160 U
72-54-8	4,4'-DDD	160 U
1031-07-8	Endosulfan Sulfate	160 U
50-29-3	4,4'-DDT	160 U
72-43-5	Methoxychlor	800 U
53494-70-5	Endrin Ketone	160 U
57-74-9	Chlordane	800 U
8001-35-2	Toxaphene	1600 U
12674-11-2	Aroclor-1016	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	1600 U
11096-82-5	Aroclor-1260	1600 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618 / U-4651

Sample Number DC-L4-10

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)	
1.	109999	TETRAHYDROFURAN	VOA	12.7	18	J
2.		BUTANOL		13.8	250	J
3.	141786	ACETIC ACID, ETHYL ESTER		16.2	27	J
4		HEXENE ISOMER		17.1	7	BJ
5.		HEXANE ISOMER		21.2	32	BJ
6.						
7.		CYCLOHEXA SULFUR	BNA	18.4	640	J
8.	10544500	MOLECULAR SULFUR	BNA	26.0	12000	J
9						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						
21.						
22.						
23.						
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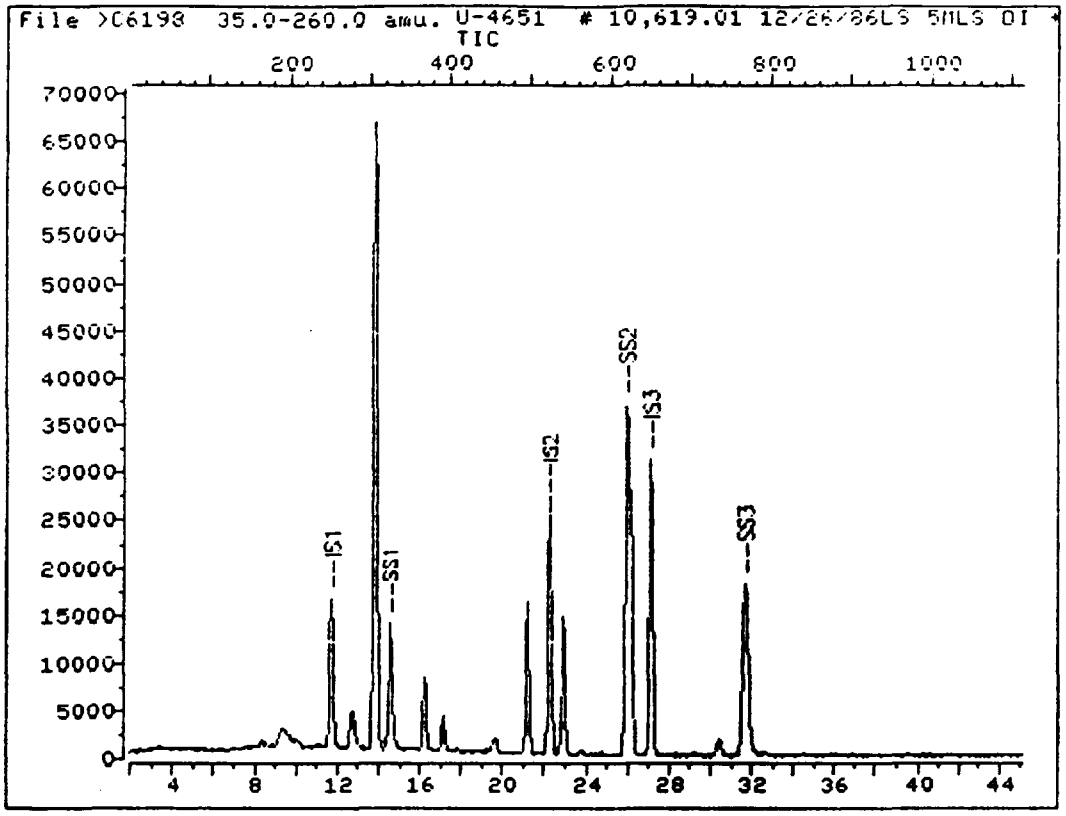
25.						
26.						
27.						
28.						
29.						
30						

TOTAL ION CHROMATOGRAM

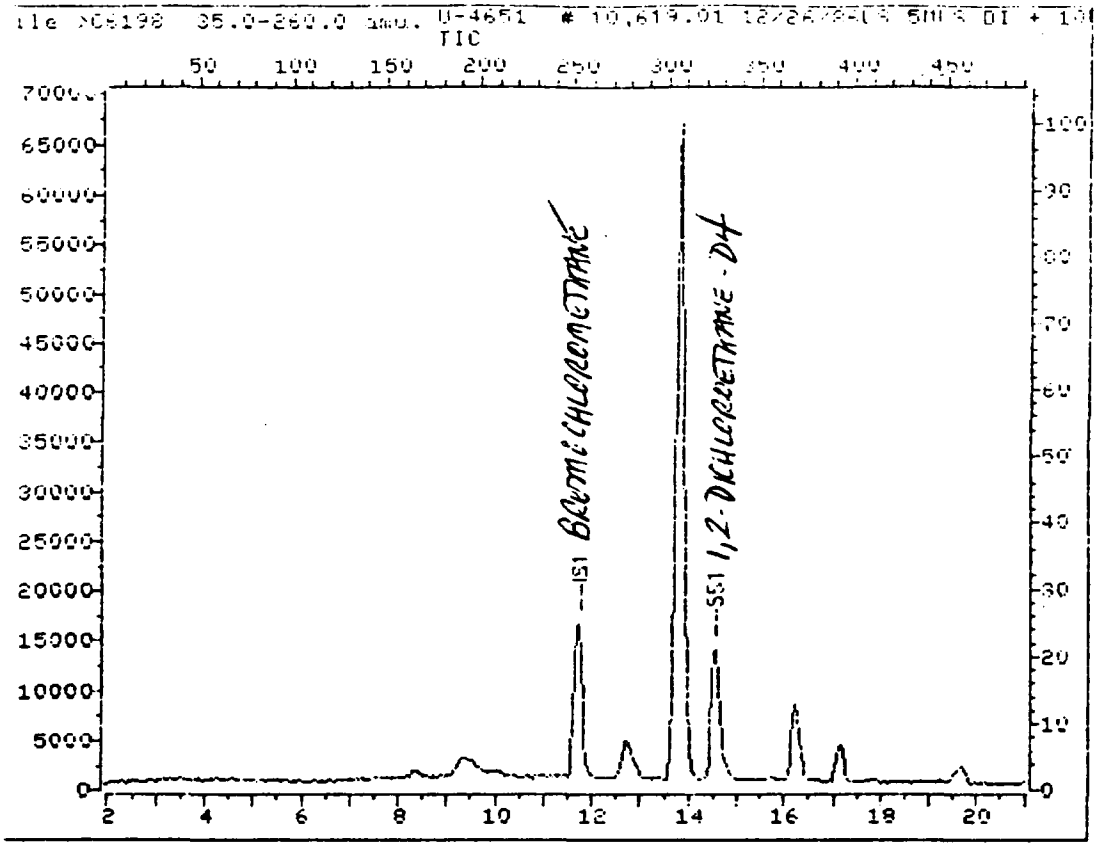


Data File: >C6198::D3
Name: U-4651 # 10,619.01 DC-L4-10
Misc: 12/26/86LS 5MLS DI + 10UL IS/SS + 4.42g SAMPLE

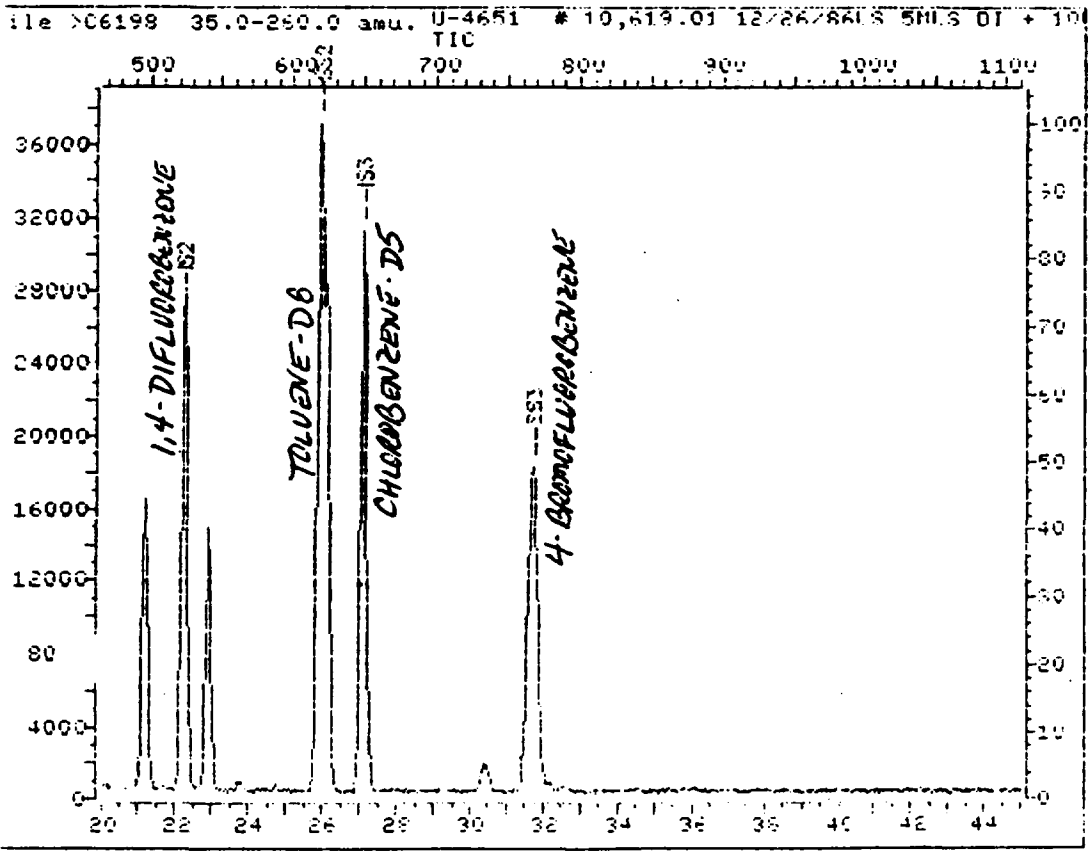
Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861226 12:05

Operator ID: USER8
Quant Time: 861226 14:34
Injected at: 861226 13:48

DC-L4-10



ile >C6198 35.0-260.0 amu. U-4651 # 10,619.01 12/26/86LS 5MLS DI + 10
TIC
IS1 BROMOCHLOROMETHANE
SS1 1,2-DICHLOROETHANE-D4



ile >C6198 35.0-260.0 amu. U-4651 # 10,619.01 12/26/86LS 5MLS DI + 10
TIC
IS2 1,4-DIFLUOROBENZENE
IS1 TOLUENE-D8
IS3 CHLOROBENZENE-D5
SS3 4-BROMOFLUOROBENZENE

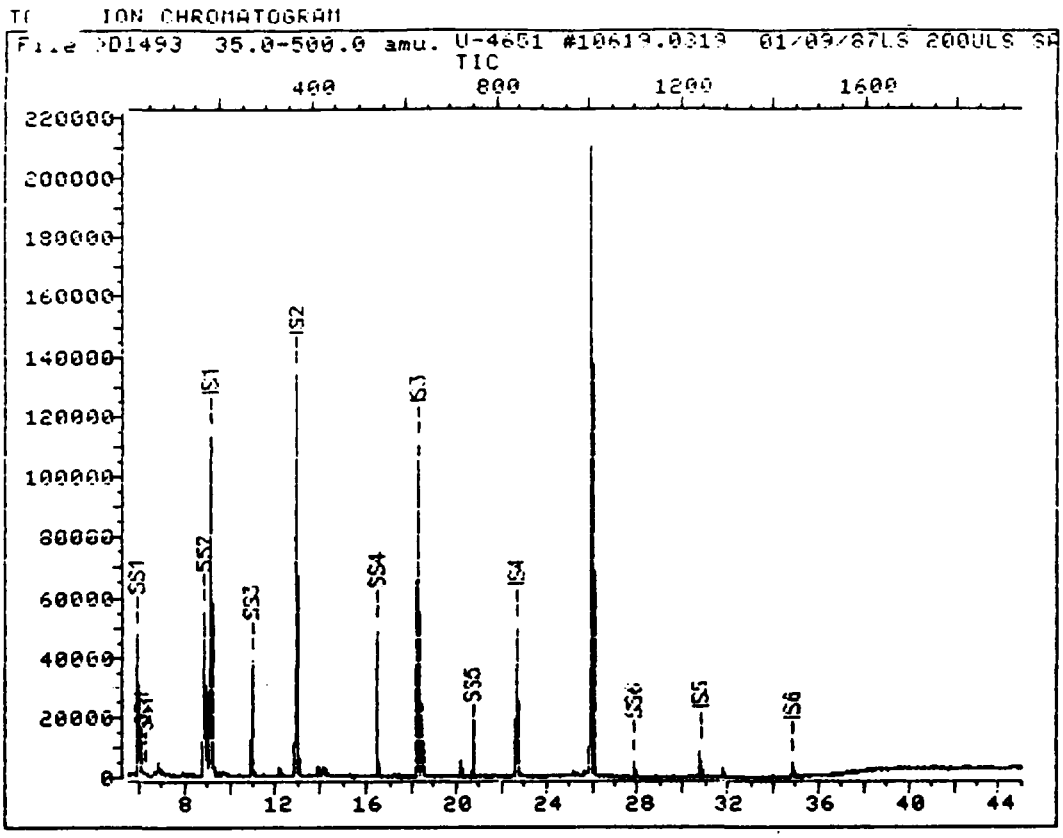
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861226 14:34
Output File: ^C6198::Q2 Injected at: 861226 13:48
Data File: >C6198::D3 Dilution Factor: 1.00
Name: U-4651 # 10,619.01 DC-L4-10
Misc: 12/26/86LS 5ML5 DI + 10UL IS/SS + 4.42g SAMPLE

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861226 12:05

	Compound		M/Z	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.72	253	23041	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.35	166	1763	17.41	NGS	100
7)	ACETONE		43	9.35	192	45552	264.77	NGS	100
3)	CHLOROFORM		83	13.85	308	47783	161.75	NGS	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.51	325	54278	243.15	NGS	87
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.23	524	115478	250.00	NGS	100
~~0)~~	~~VINYL ACETATE~~		~~43~~	~~16.22~~	~~369~~	~~52604~~	~~92.86~~	~~NGS~~ NGS	100
7)	BENZENE		78	19.67	458	7236	12.82	NGS	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.12	650	93070	250.00	NGS	100
2)	4-METHYL-2-PENTANONE		43	22.93	542	64540	158.11	NGS	89
6)	TOLUENE-D8	(SURR)	98	25.95	620	136132	257.19	NGS	94
7)	TOLUENE		92	26.15	625	59877	164.45	NGS	96
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.70	768	66501	250.44	NGS	100

* Compound is ISTD

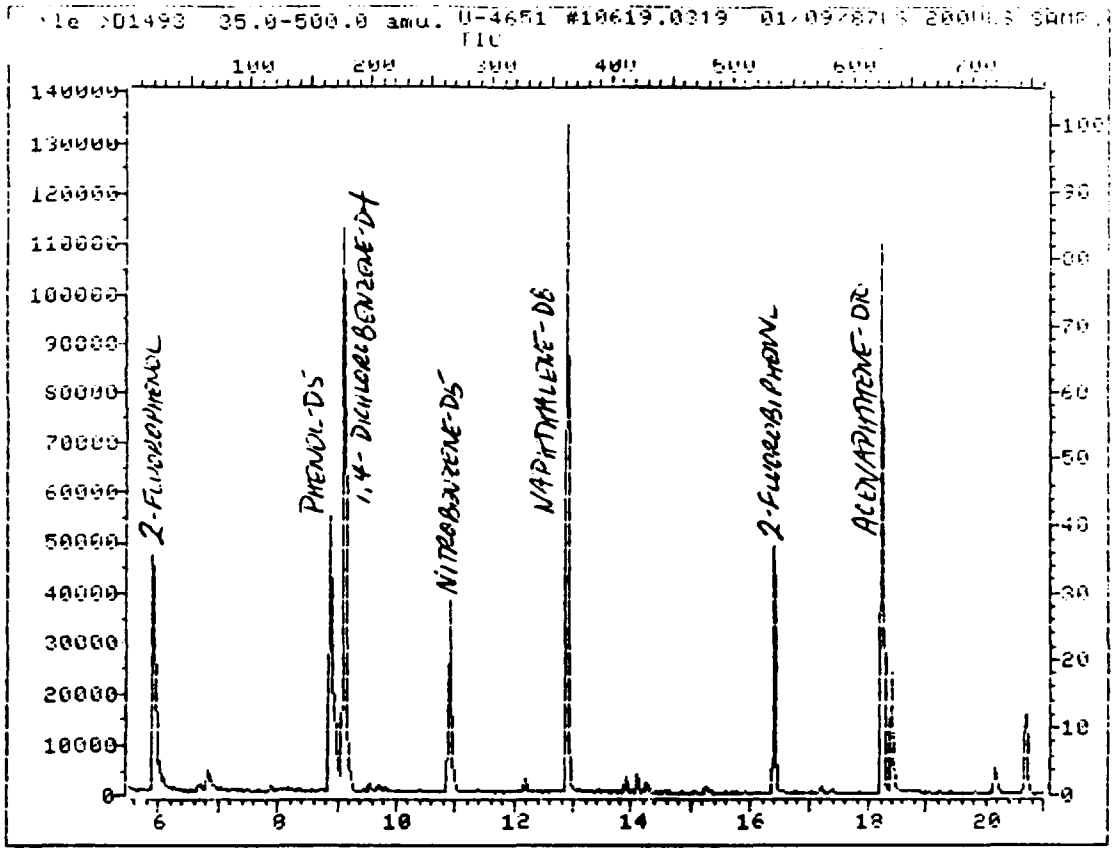


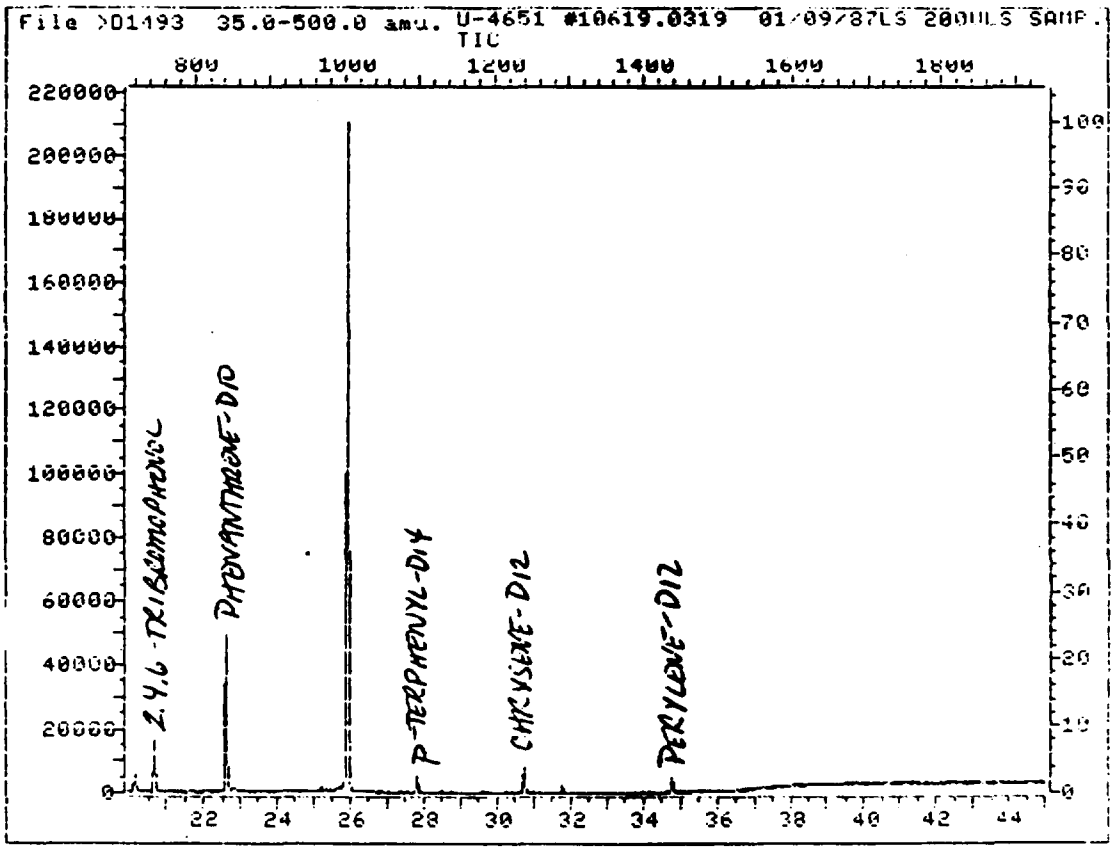
Data File: >D1493::D1
Name: U-4651 #10619.0319 DC-L4-10
Misc: 01/09/87LS 200ULS SAMP.+ 200UL MECL2 + 4UL IS (2X) BTL# 4

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870109 14:56

Operator ID: USER6
Quant Time: 870109 23:23
Injected at: 870109 22:36

DC-L4-10


File >D1493 35.0-500.0 amu. U-4651 #10619.0319 01/09/87LS 200ULS SAMP.
TIC
2-FLUOROPHENOL
PHENOL-D5
1,4-DICHLOROBENZENE-D4
NITROBENZENE-D5
NAPHTHALENE-D8
2-FLUOROBIPHENYL
ACEN/ACENAPHTHENE-D10


File >D1493 35.0-500.0 amu. U-4651 #10619.0319 01/09/87LS 200ULS SAMP.
TIC
2,4,6-TRIBROMOPHENOL
PHENANTHRENE-D10
P-TERPHENYL-D14
CHRYSENE-D12
PERYLENE-D12

QUANT REPORT

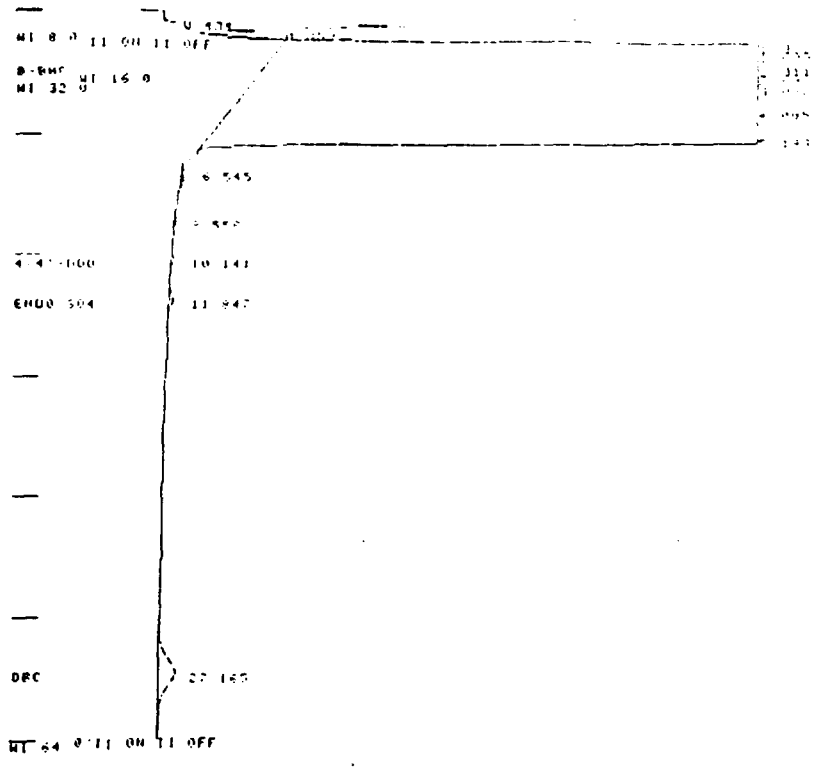
Operator ID: USER6 Quant Rev: 4 Quant Time: 870109 23:23
Output File: ^D1493::W2 Injected at: 870109 22:36
Data File: >D1493::D1 Dilution Factor: 2.00
Name: U-4651 #10619.0319 DC-L4-10
Misc: 01/09/87LS 200ULS SAMP.+ 200UL MECL2 + 4UL IS (2X) BH.# 4

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870109 14:56

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.11	177	54909	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	8.86	165	73094	75.93	UG/L	95
5)	2-FLUOROPHENOL	(SURR)	112	5.89	19	46648	66.05	UG/L	96
5)	2-FLUOROPHENOL	(SURR)	112	6.09	29	2765	3.92	UG/L	83
5)	2-FLUOROPHENOL	(SURR)	112	6.21	35	1585	2.24	UG/L	86
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.90~~	~~265~~	~~5410~~	~~7.09~~	~~UG/L~~ No GM	96
19)	*NAPHTHALENE-D8	(IS)	136	12.90	363	180545	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.90	265	32041	28.28	UG/L	93
21)	NITROBENZENE		77	10.96	268	1229	1.08	UG/L	90
29)	~~NAPHTHALENE~~		~~128~~	~~12.94~~	~~365~~	~~631~~	~~.33~~	~~UG/L~~ No GM	100
34)	*ACENAPHTHENE-D10	(IS)	162	18.23	625	58398	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	16.40	535	44213	33.47	UG/L	90
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.23~~	~~625~~	~~18379~~	~~17.76~~	~~UG/L~~ No GM	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.68	745	5691	33.20	UG/L	98
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.23~~	~~625~~	~~7398~~	~~33.83~~	~~UG/L~~ No GM	100
53)	DIETHYLPHTHALATE		149	20.17	720	5878	6.89	UG/L	95
55)	*PHENANTHRENE-D10	(IS)	188	22.63	841	46787	40.00	UG/L	98
65)	*CHRYSENE-D12	(IS)	240	30.76	1240	10340	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.83	1096	6684	47.45	UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.80	1291	3113	28.89	UG/L	87
74)	*PERYLENE-D12	(IS)	264	34.81	1439	7655	40.00	UG/L	100

* Compound is ISTD

CHART SPEED 0.5 CM/MIN
ATTEN: 0 ZERO: 10% 5 MIN/TICK



SEE RUN 44 FOR FRONT END RESOLUTION

DC-L4-10

CHANNEL: 1A - 1 TITLE: RUN# 22 2:40 20 DEC 85

SAMPLE: 10619.03.19A METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	[illegible]
1		0.0000	1.380		3606673	VV	[illegible]
2		0.0000	1.698		3010334	VV	[illegible]
3		0.0000	1.771		1013665	VV	[illegible]
4	[illegible]	1944.725	1.856	-0.194	5239234	VV	[illegible]
5	[illegible]	1540.794	2.311	-0.089	3914545	VV	[illegible]
6		0.0000	2.692		4042378	VV	[illegible]
7		0.0000	3.128		9260626	VV	[illegible]
8	[illegible]	1345.161	4.005	0.165	2719925	VV	[illegible]
9		0.0000	5.193		28651486	VB	[illegible]
10	DBC [illegible]	89.3449	27.165	0.435	170505	BB	[illegible]

TOTALS: 4820.026 0.337 60829372

DETECTED PKS: 21 REJECTED PKS: 11

DIVISOR: 1.11450 MULTIPLIER: 10000.0000

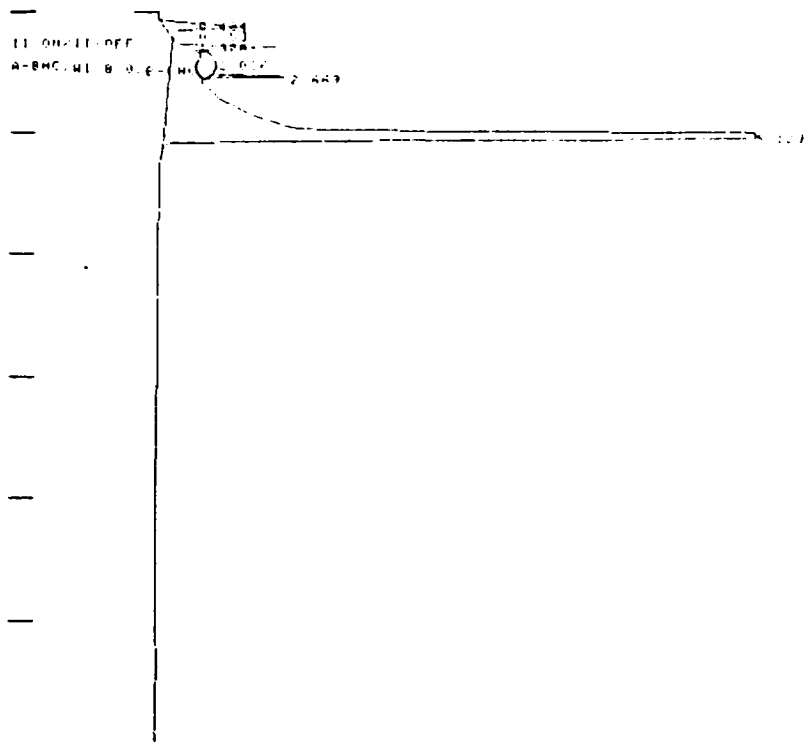
NOISE: 34.3 OFFSET: -14

RACK: 2 VIAL: 5 INJ: 1

NOTES:
NOTEBOOK:259-66 ANALYST:RICHARD SAMSON
SECURE AREA: 0 JOB#:U-4651
INST:VARIAN 6000#2 A FCD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELLOPORT
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 PRIMARY ANALYSIS

POST RUN:
SAVE FILE: PAW FPA610

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



DC-L4-10

CHANNEL: 1A - 1 TITLE: RUN# 44 20:0: 30 DEC 86

SAMPLE: 10619.03.19A 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	1.370		128670	BV	3.44
2		0.0000	1.692		53352	VB	? 9.13
3	~~4-BMC~~	259.3239	2.006	0.036	[illegible]	[illegible]	? 8.94
4	~~4-BMC~~	346.8313	2.297	-0.103	98116	VV	? 46.63
5	~~4-BMC~~	554.3390	2.669	0.209	141300	VV	6.75
6		0.0000	2.841		25508	VV	? 28.81
7		0.0000	5.123		5903752	VB	10.63
TOTALS:		1160.494		0.142	6414357		

DETECTED PKS: 14 REJECTED PKS: 7

DIVISOR: 1.11450 MULTIPLIER: 100000.000

NOISE: 22.9 OFFSET: 5

NOTES:
NOTEBOOK:259-67 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4651
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 PRIMARY ANALYSIS
RESULT IN UG/KG DRY WEIGHT

POST RUN:
SAVE FILE: RAW [illegible]

SAMPLE NUMBER DC-J1-11

481095

Sample Number
DC-J1-11

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No: U-4618 / U-4651

Lab Sample ID No: 10620 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 12/19/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-22-86

Conc/Dil Factor: 1 pH 7.48

Percent Moisture: (Not Decanted) 27

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	BJ
67-64-1	Acetone	410	BE
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	16	B
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

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

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

Laboratory Name Ecology & Environment Inc.

Case No U-4618 / U-4651

Sample Number DC-J1-11

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-15-87

Conc./Dil Factor: 2

Percent Moisture (Decanted) 27

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
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	750	
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-4618 / U-4651

Sample Number DC-J1-11

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 1

Percent Moisture (decanted) 27

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	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 1,000 V_i 4

Form 1

7 85
491095

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

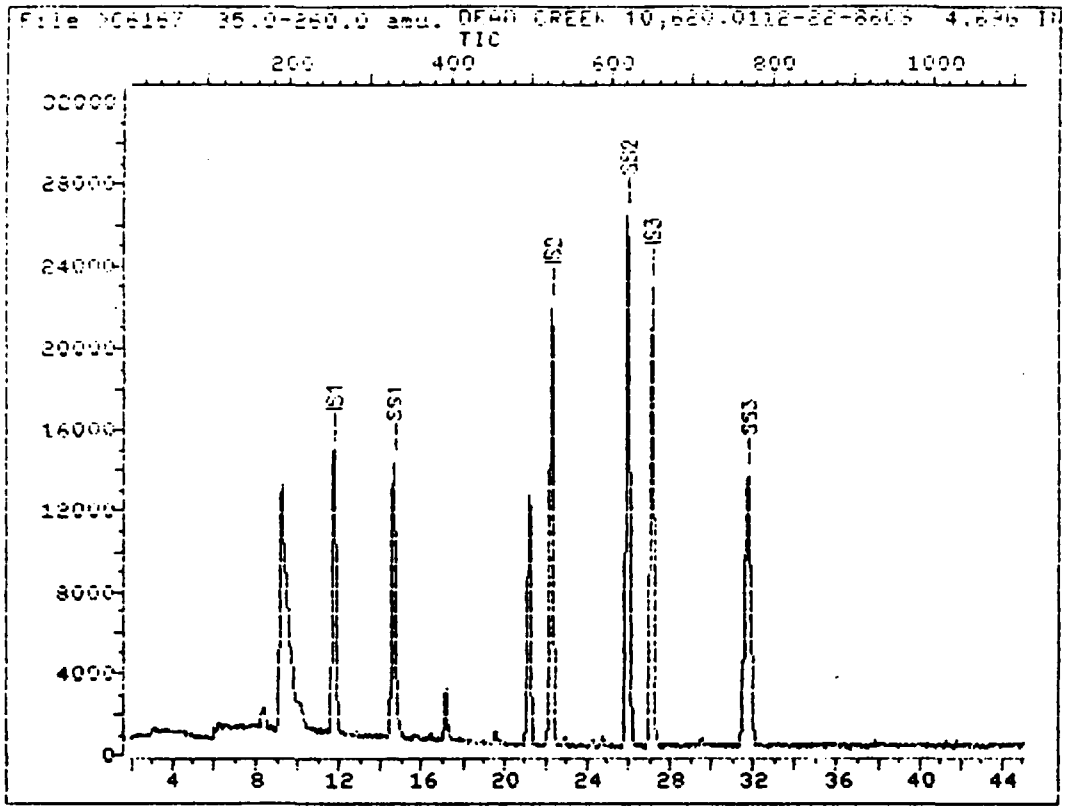
Sample Number DC-J1-11

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.2	10 BJ
2.	HEXANE ISOMER	VOA	21.2	31 BJ
3.				
4. 10544500	MOLECULAR SULFUR	BNA	26.0	850 J
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

TOTAL ION CHROMATOGRAM

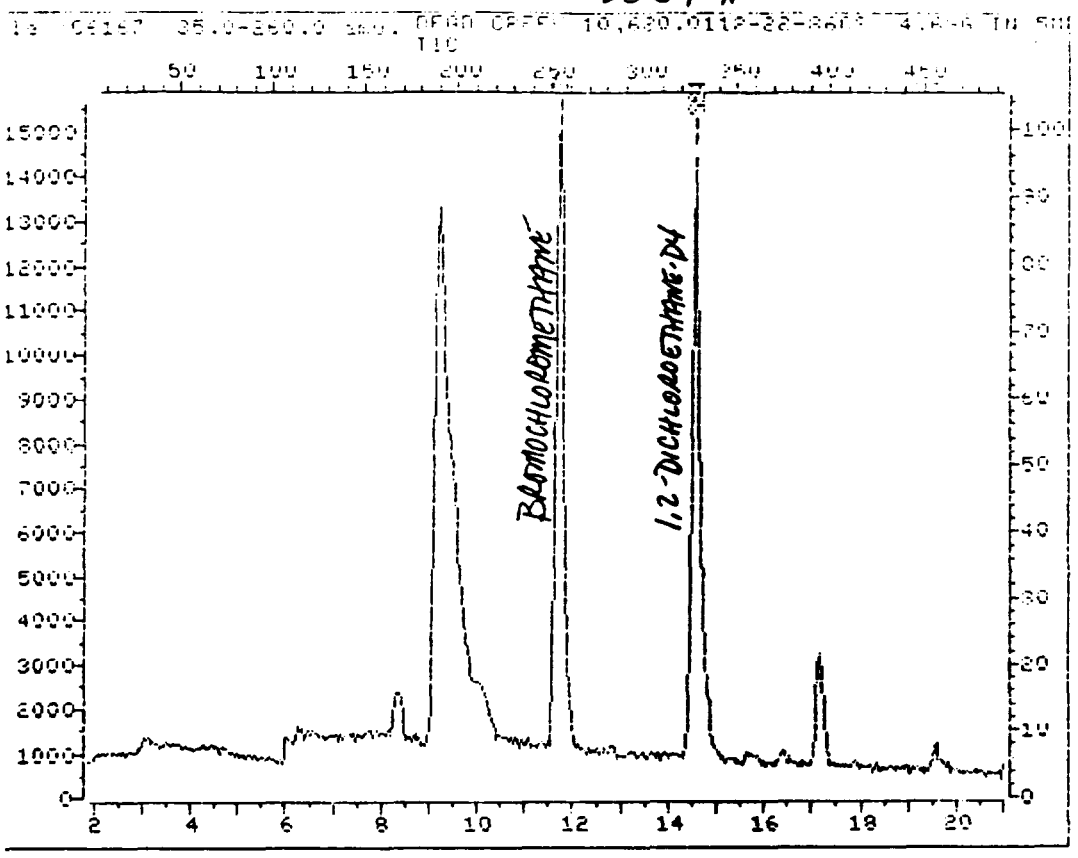


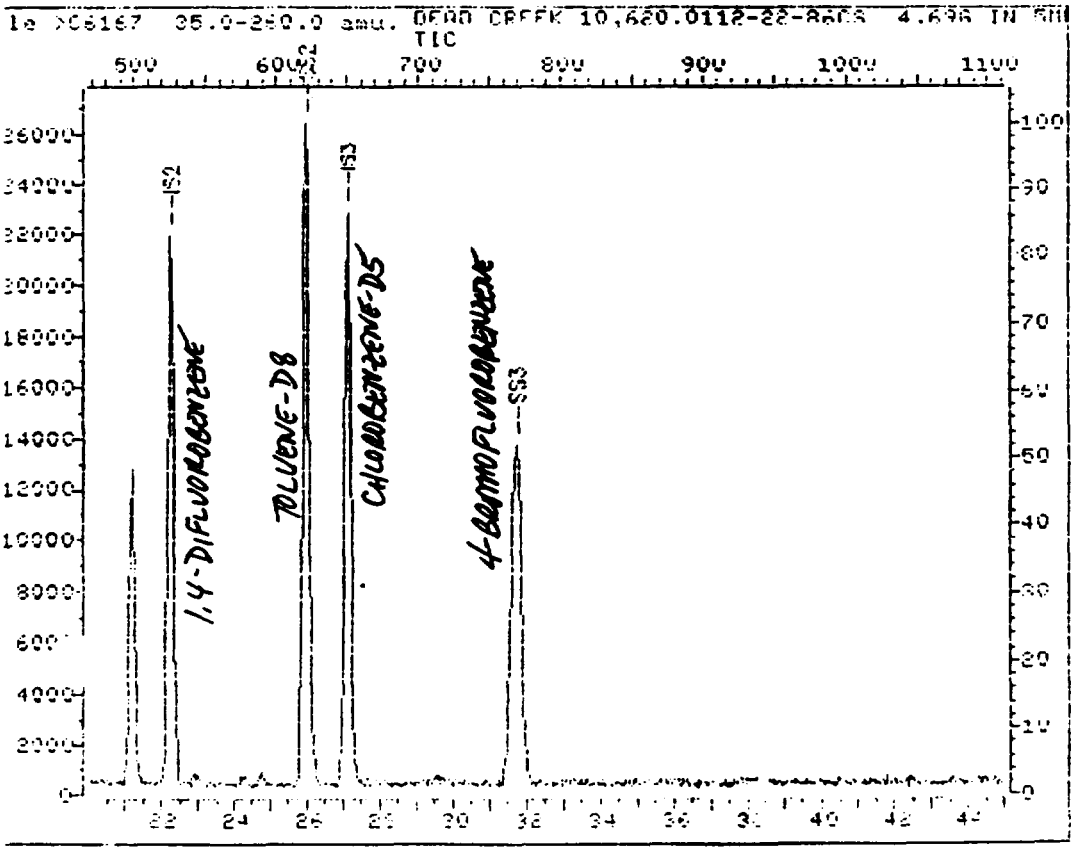
Data File: >C6167::D5
Name: DEAD CREEK 10,620.01 DC-JT-11
Misc: 12-22-86CS 4.69G IN 5ML DI + 10UL IS/SS

Id File: VOA:RS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861222 13:20

Operator ID: USERR
Quant Time: 861222 17:55
Injected at: 861222 17:07

DC-J1-11


TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4


TIC
IS2
1,4-DIFLUOROBENZENE
TOLUENE-D8
IS3
CHLOROBENZENE-D5
4-BROMOFLUOROBENZENE
SS3

QUANT REPORT

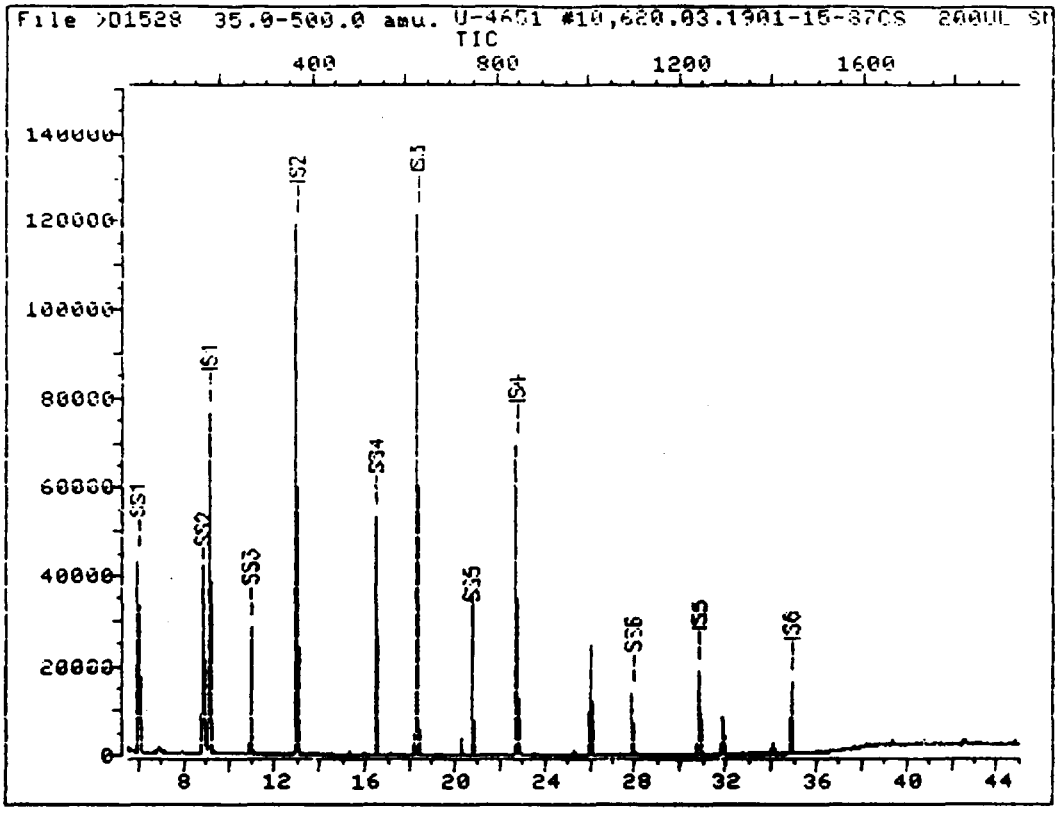
Operator ID: USER8 Quant Rev: 4 Quant Time: 861222 17:53
Output File: ^C6167::Q2 Injected at: 861222 17:02
Data File: >C6167::D3 Dilution Factor: 1.00
Name: DEAD CREEK 10,620.01 DC-J1-11
Misc: 12-22-86 CS 4.696 IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861222 13:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.20	254	21295	250.00	NGS	100
4)	METHYLENE CHLORIDE		84	8.43	167	3268	18.64	NGS	100
7)	ACETONE		43	9.22	190	229121	1911.77	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.57	328	59988	252.42	NGS	86
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.26	526	88983	250.00	NGS	100
17)	2-BUTANONE		72	14.69	331	2514	76.40	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.11	651	70110	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.94	621	105920	248.78	NGS	92
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.73	770	52139	249.08	NGS	100

* Compound is ISTD

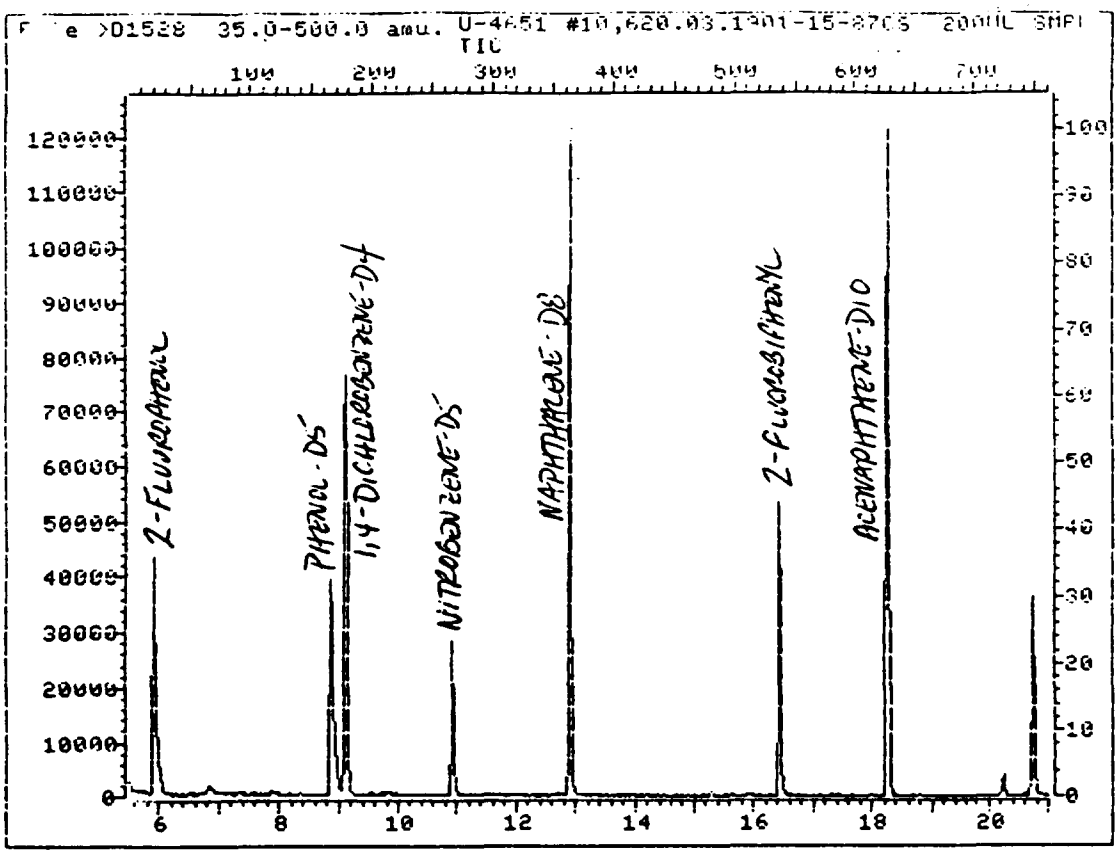
TOTAL ION CHROMATOGRAM

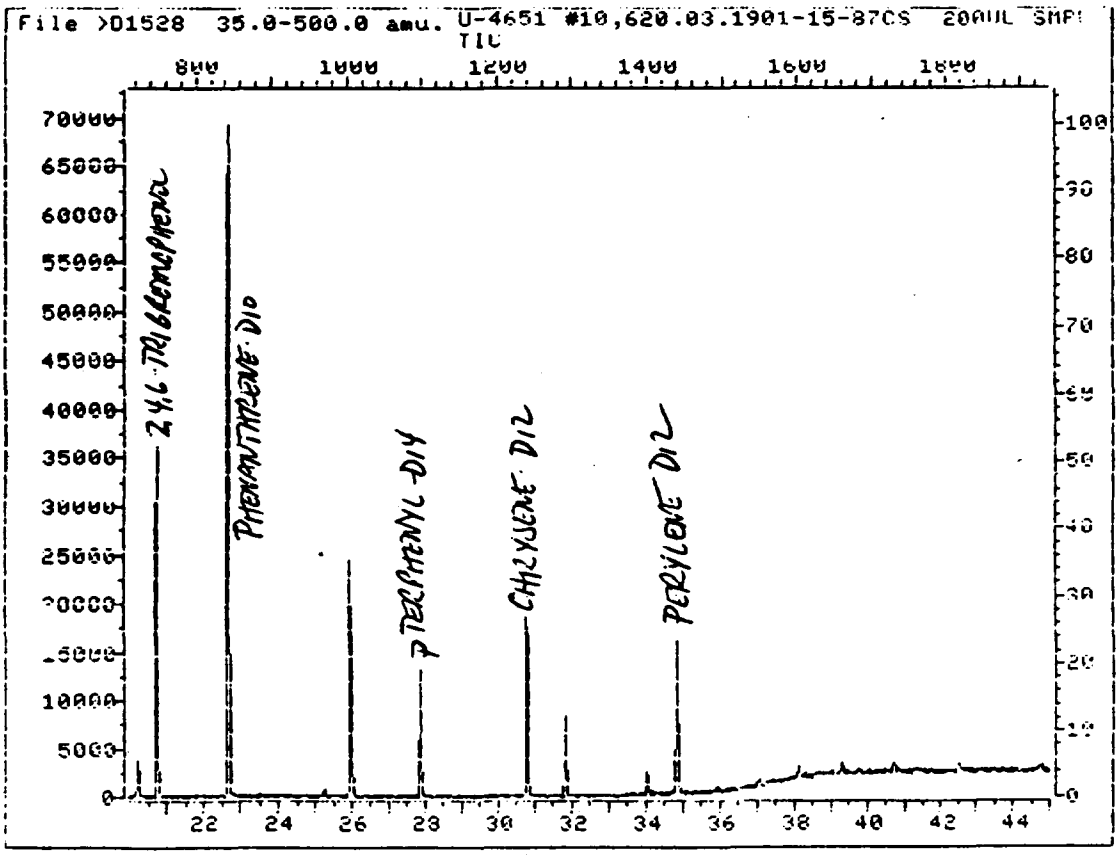


Data File: >D1528::D1
Name: U-4651 #10,620.03.19 DC-J1-11
Misc: 01-15-87CS 200UL SMPL + 200UL MEOL2 + 4UL IS (2X) BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860115 14:20

Operator ID: USER6
Quant Time: 860115 16:03
Injected at: 860115 15:15


File >D1528 35.0-500.0 amu. U-4651 #10,620.03.1901-15-87CS 20UUL SMPI
TIC
2-FLUOROPHENOL
PHENOL-D5
1,4-DICHLOROBENZENE-D4
NITROBENZENE-D5
NAPHTHALENE-D8
2-FLUOROBIPHENYL
ACENAPHTHENE-D10


File >D1528 35.0-500.0 amu. U-4651 #10,620.03.1901-15-87CS 20UUL SMPI
TIC
2,4,6-TRIBROMOPHENOL
PHENANTHRENE-D10
p-TERPHENYL-D14
CHRYSENE-D12
PERYLENE-D12

QUANT REPORT

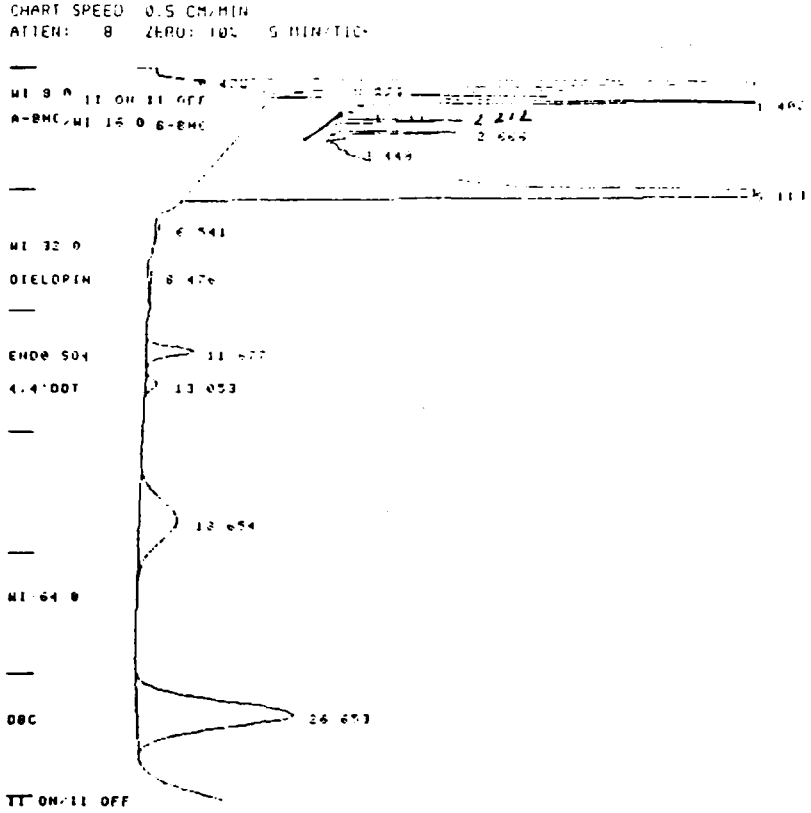
Operator ID: USER6 Quant Rev: 4 Quant Time: 860115 16:03
Output File: ^D1528::Q2 Injected at: 860115 15:15
Data File: >D1528::D1 Dilution Factor: 2.00
Name: U-4651 #10,620.03.19 DC-J1-11
Misc: 01-15-87CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

D File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860115 14:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.12	178	39331	40.00	UG/L	84
2)	PHENOL-D5	(SURR)	99	8.86	165	52327	112.69	UG/L	98
5)	2-FLUOROPHENOL	(SURR)	112	5.91	20	39761	106.94	UG/L	95
~~7)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.92~~	~~266~~	~~3333~~	~~8.41~~	~~UG/L~~ No BFM	80
9)	*NAPHTHALENE-D8	(IS)	136	12.91	364	149540	40.00	UG/L	100
0)	NITROBENZENE-D5	(SURR)	82	10.92	266	21848	39.77	UG/L	96
4)	*ACENAPHTHENE-D10	(IS)	162	18.27	627	71608	40.00	UG/L	97
8)	2-FLUOROBIPHENYL	(SURR)	172	16.44	537	49416	29.17	UG/L	92
~~1)~~	~~DIMETHYL-PHTHALATE~~		~~163~~	~~18.27~~	~~627~~	~~22326~~	~~18.60~~	~~UG/L~~ No BFM	100
8)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.71	747	16398	72.11	UG/L	96
~~2)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.27~~	~~627~~	~~8898~~	~~36.25~~	~~UG/L~~ No BFM	100
5)	*PHENANTHRENE-D10	(IS)	188	22.69	844	89284	40.00	UG/L	90
5)	*CHRYSENE-D12	(IS)	240	30.80	1242	27114	40.00	UG/L	100
8)	TERPHENYL-D14	(SURR)	244	27.88	1099	17804	53.81	UG/L	100
2)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.84	1293	7074	22.57	UG/L	97
4)	*PERYLENE-D12	(IS)	264	34.85	1441	22480	40.00	UG/L	100

* Compound is ISTD

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



DC-J1-11

CHANNEL: 1A - 1 TITLE: RUN# 34 14:09 30 DEC 86

SAMPLE: 10620.03.19A 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	1.402		716516	BV	5.00
2		0.0000	1.580		80622	VV	? 5.63
3		0.0000	1.675		116558	VV	? 14.00
4	~~A-BHC~~	6.3202	1.899	-0.151	175878	VV	? 17.94
5	B-BHC 16 ug B	~~[illegible]~~	2.212	0.032	~~[illegible]~~ Baseline		6.50
6	~~B-BHC~~	10.4751	2.666	0.206	261617	VV	6.63
7		0.0000	2.911		183574	VV	? 17.75
8		0.0000	3.448		374646	VV	? 35.88
9		0.0000	5.113		11216449	VB	10.88
10	~~DIELDRIN~~	1.0898	8.476	0.216	25111	BB	? 27.19
11	~~ENDO SO4~~	9.6657	11.677	-0.323	162522	BV	25.81
12	~~4,4'DDT~~	4.3647	13.053	-0.307	43301	BB	27.56
13	~~[illegible]~~	80.6256	18.654	-0.966	555640	BB	?111.75
14	DBC 85%	78.0995	26.653	-0.077	1460353	BB	71.31

TOTALS: 221.9413 -1.370 15697639

DETECTED PKS: 23 REJECTED PKS: 9

DIVISOR: 1.09200 MULTIPLIER: 1000.00000

NOISE: 22.9 OFFSET: -12

NOTES:
NOTEBOOK:259-67:ANALYST:P. BRUTSCHER
SECURE AREA: 0 JOB#:0 4651
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 PRIMARY ANALYSIS
RESULT IN UG/KG DRY WEIGHT

POST RUN:
SAVE FILE: RAW EPA622

SAMPLE NUMBER DC-J2-12

481095

Sample Number
DC-J2-12

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc.
Case No: U-4618/U-4651
Lab Sample ID No: 10621
QC Report No:
Sample Matrix: SOIL
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 12-19-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-29-86

Conc/Dil Factor: 2 pH 7.70

Percent Moisture: (Not Decanted) 22

REPORTED - AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl Chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene Chloride	290	BJ
67-64-1	Acetone	3500	B
75-15-0	Carbon Disulfide	620	U
75-35-4	1, 1-Dichloroethene	620	U
75-34-3	1, 1-Dichloroethane	620	U
156-60-5	Trans-1, 2-Dichloroethene	620	U
67-66-3	Chloroform	620	U
107-06-2	1, 2-Dichloroethane	620	U
78-93-3	2-Butanone	4700	B
71-55-6	1, 1, 1-Trichloroethane	620	U
56-23-5	Carbon Tetrachloride	620	U
108-05-4	Vinyl Acetate	1200	U
75-27-4	Bromodichloromethane	620	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	620	U
10061-02-6	Trans-1, 3-Dichloropropene	620	U
79-01-6	Trichloroethene	620	U
124-48-1	Dibromochloromethane	620	U
79-00-5	1, 1, 2-Trichloroethane	620	U
71-43-2	Benzene	620	U
10061-01-5	cis-1, 3-Dichloropropene	620	U
110-75-8	2-Chloroethylvinylether	1200	U
75-25-2	Bromoform	620	U
108-10-1	4-Methyl-2-Pentanone	1200	U
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	620	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	620	U
108-88-3	Toluene	620	U
108-90-7	Chlorobenzene	620	U
100-41-4	Ethylbenzene	1600	
100-42-5	Styrene	620	U
	Total Xylenes	6200	

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-4618 / U-4651

Sample Number DC-J2-12

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-20-87

Conc/Dil Factor: 20

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	3300 U
111-44-4	bis(2-Chloroethyl)Ether	3300 U
95-57-8	2-Chlorophenol	3300 U
541-73-1	1,3-Dichlorobenzene	3300 U
106-46-7	1,4-Dichlorobenzene	3300 U
100-51-6	Benzyl Alcohol	3300 U
95-50-1	1,2-Dichlorobenzene	3300 U
95-48-7	2-Methylphenol	3300 U
39638-32-9	bis(2-chloroisopropyl)Ether	3300 U
106-44-5	4-Methylphenol	3300 U
621-64-7	N-Nitroso-Di-n-Propylamine	3300 U
67-72-1	Hexachloroethane	3300 U
98-95-3	Nitrobenzene	3300 U
78-59-1	Isophorone	3300 U
88-75-5	2-Nitrophenol	3300 U
105-67-9	2,4-Dimethylphenol	3300 U
65-85-0	Benzoic Acid	16000 U
111-91-1	bis(2-Chloroethoxy)Methane	3300 U
120-83-2	2,4-Dichlorophenol	3300 U
120-82-1	1,2,4-Trichlorobenzene	3300 U
91-20-3	Naphthalene	14000
106-47-8	4-Chloroaniline	3300 U
87-68-3	Hexachlorobutadiene	3300 U
59-50-7	4-Chloro-3-Methylphenol	3300 U
91-57-6	2-Methylnaphthalene	48000
77-47-4	Hexachlorocyclopentadiene	3300 U
88-06-2	2,4,6-Trichlorophenol	3300 U
95-95-4	2,4,5-Trichlorophenol	16000 U
91-58-7	2-Chloronaphthalene	3300 U
88-74-4	2-Nitroaniline	16000 U
131-11-3	Dimethyl Phthalate	3300 U
208-96-8	Acenaphthylene	3300 U
99-09-2	3-Nitroaniline	16000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	1700 J
51-28-5	2,4-Dinitrophenol	16000 U
100-02-7	4-Nitrophenol	16000 U
132-64-9	Dibenzofuran	790 J
121-14-2	2,4-Dinitrotoluene	3300 U
606-20-2	2,6-Dinitrotoluene	3300 U
84-66-2	Diethylphthalate	3300 U
7005-72-3	4-Chlorophenyl-phenylether	3300 U
86-73-7	Fluorene	2700 J
100-01-6	4-Nitroaniline	16000 U
534-52-1	4,6-Dinitro-2-Methylphenol	16000 U
86-30-6	N-Nitrosodiphenylamine (1)	3300 U
101-55-3	4-Bromophenyl-phenylether	3300 U
118-74-1	Hexachlorobenzene	3300 U
87-86-5	Pentachlorophenol	16000 U
85-01-8	Phenanthrene	11000
120-12-7	Anthracene	710 J
84-74-2	Di-n-Butylphthalate	3300 U
206-44-0	Fluoranthene	3300 U
129-00-0	Pyrene	360 J
85-68-7	Butylbenzylphthalate	3300 U
91-94-1	3,3'-Dichlorobenzidine	6600 U
56-55-3	Benzo(a)Anthracene	3300 U
117-81-7	bis(2-Ethylhexyl)Phthalate	2300 J
218-01-9	Chrysene	3300 U
117-84-0	Di-n-Octyl Phthalate	3300 U
205-99-2	Benzo(b)Fluoranthene	3300 U
207-08-9	Benzo(k)Fluoranthene	3300 U
50-32-8	Benzo(a)Pyrene	3300 U
193-39-5	Indeno(1,2,3-cd)Pyrene	3300 U
53-70-3	Dibenz(a,h)Anthracene	3300 U
191-24-2	Benzo(g,h,i)Perylene	3300 U

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4618/U-4651

Sample Number DC-J2-12

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 1 10

Percent Moisture (decanted) 22

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	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 1,000 V_i 4

Laboratory Name ECOLOGY & ENVIRONMENT INC.

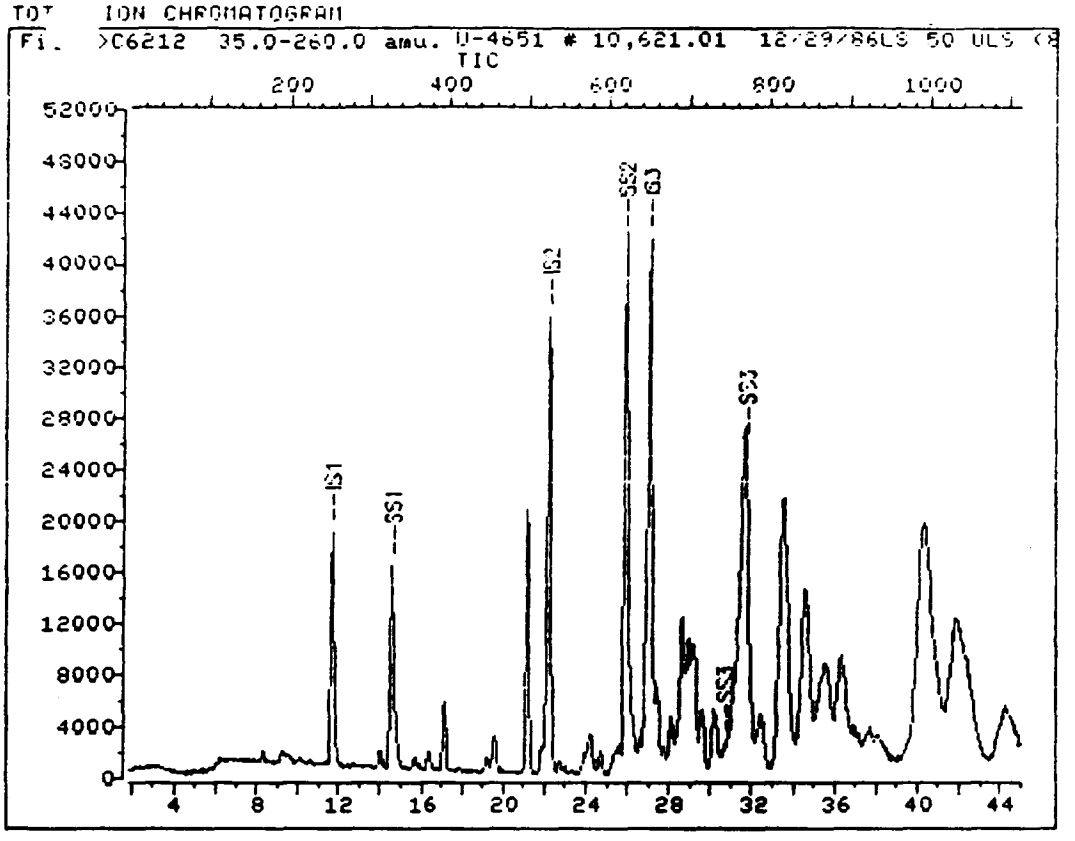
Case No U-4618/U-4651

Sample Number DC-J2-12

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.2	750 BJ
2.	HEXANE ISOMER		21.2	3000 BJ
3.	DIMETHYL CYCLOHEXANE ISOMER		27.4	1400 J
4.	UNKNOWN ALCOHOL		28.7	4000 J
5.	CYCLOHEXANE ISOMER		30.2	1900 J
6.	UNKNOWN		35.6	3700 J
7.	UNKNOWN AROMATIC		36.4	4600 J
8.	UNKNOWN AROMATIC		40.4	23,000 J
9.	UNKNOWN AROMATIC		41.9	16,000 J
10.	UNKNOWN AROMATIC		44.1	2500 J
11.	~~UNKNOWN AROMATIC~~			BJM.
12.				
13.	UNKNOWN HYDROCARBON	BNA	11.4	24000 J
14.	UNKNOWN HYDROCARBON		13.5	28000 J
15.	UNKNOWN HYDROCARBON		13.7	12000 J
16.	UNKNOWN HYDROCARBON		14.7	6100 J
17.	UNKNOWN HYDROCARBON		14.9	12000 J
18.	UNKNOWN HYDROCARBON		15.4	38000 J
19.	UNKNOWN HYDROCARBON		16.7	41000 J
20.	DIMETHYL NAPHTHALENE ISOMER		17.0	29000 J
21.	UNKNOWN HYDROCARBON		17.1	38000 J
22.	DIMETHYL NAPHTHALENE ISOMER		17.3	30000 J
23.	DIMETHYL NAPHTHALENE ISOMER		17.8	13000 J
24.	UNKNOWN HYDROCARBON		18.1	23000 J
25.	TRIMETHYL NAPHTHALENE		18.6	13000 J
26.	UNKNOWN HYDROCARBON		18.7	49000 J
27.	TRIMETHYL NAPHTHALENE		19.1	11000 J
28.	UNKNOWN HYDROCARBON		20.3	39000 J
29.	UNKNOWN HYDROCARBON		21.0	22000 J
30	UNKNOWN HYDROCARBON		21.7	35000 J
	UNKNOWN HYDROCARBON		21.8	20000 J
	UNKNOWN HYDROCARBON		23.1	19000 J

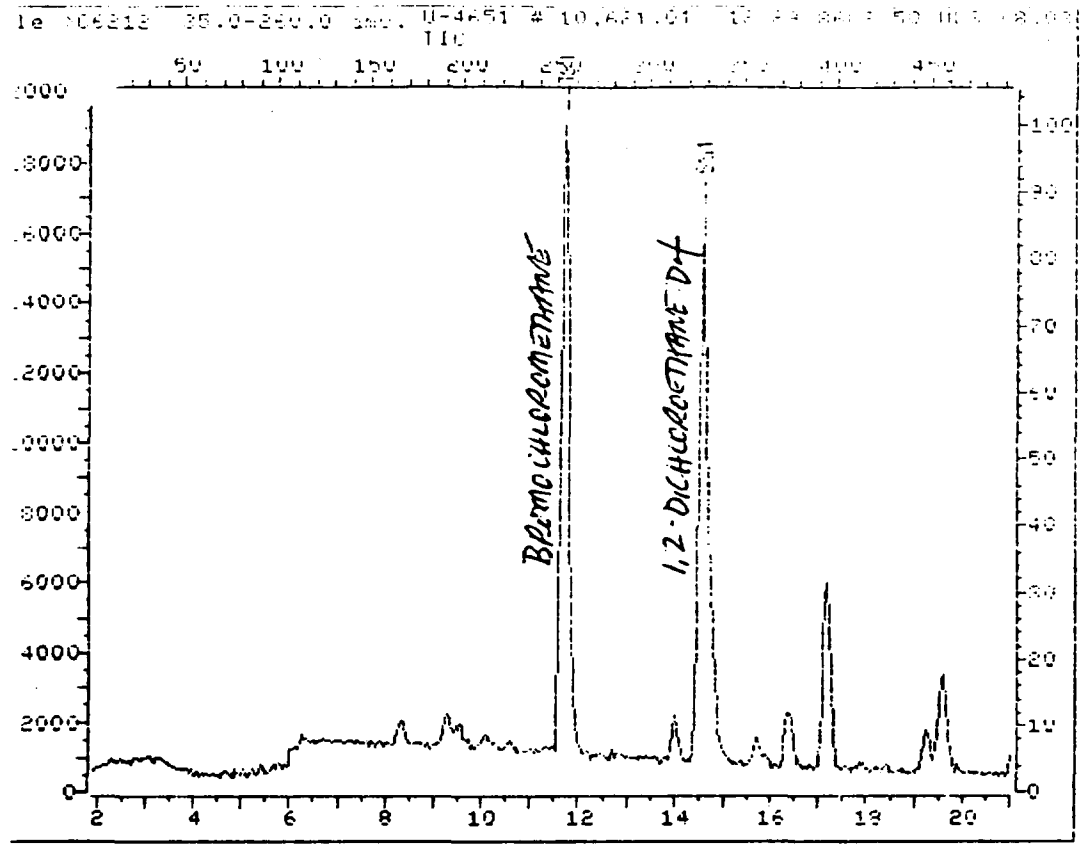


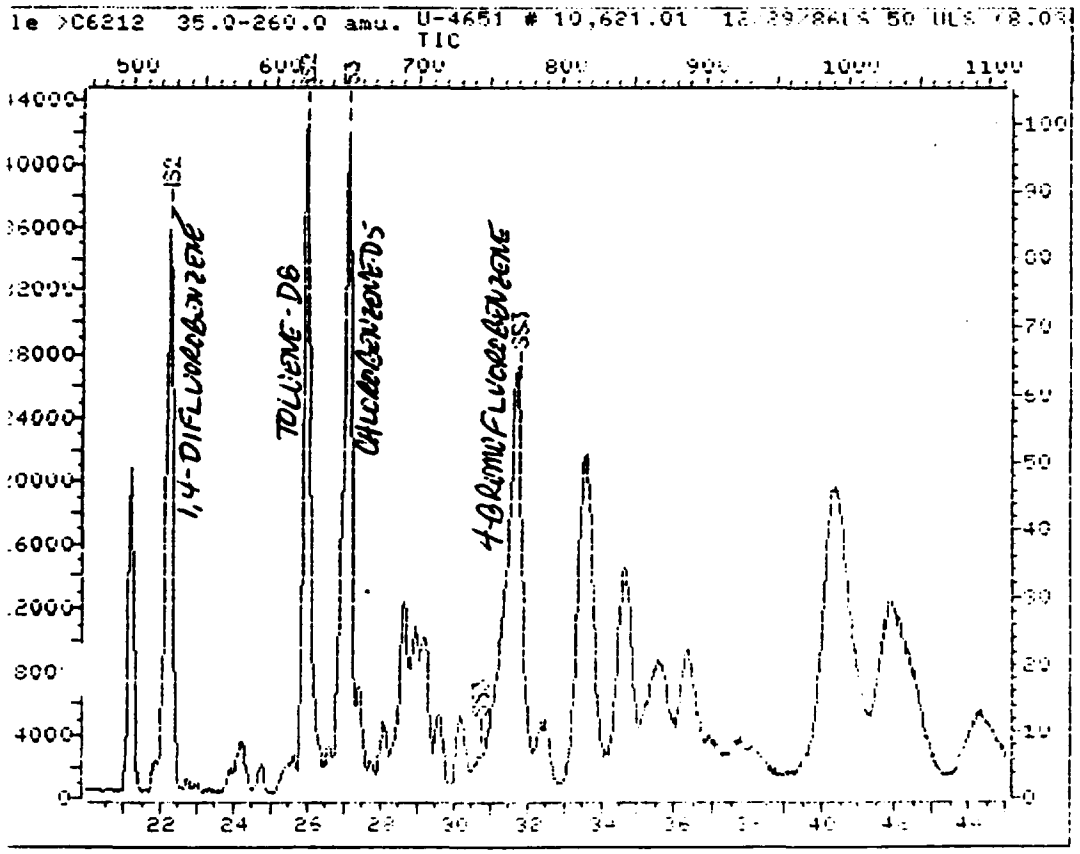
Data File: >C6212::D3
Name: U-4651 # 10,621.01 DC-J2-12
Misc: 12/29/86LS 50 ULS (8.03g IN 10 MLS MEOH) + 10 ULS IS/S

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861229 13:13

Operator ID: USER8
Quant Time: 861229 15:34
Injected at: 861229 14:48

DC-J2-12


TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE D4
IS1


TIC
1,4-DIFLUOROBENZENE
IS2
TOLUENE-D8
CHLOROBENZENE-D5
4-BROMOFLUOROBENZENE
IS3

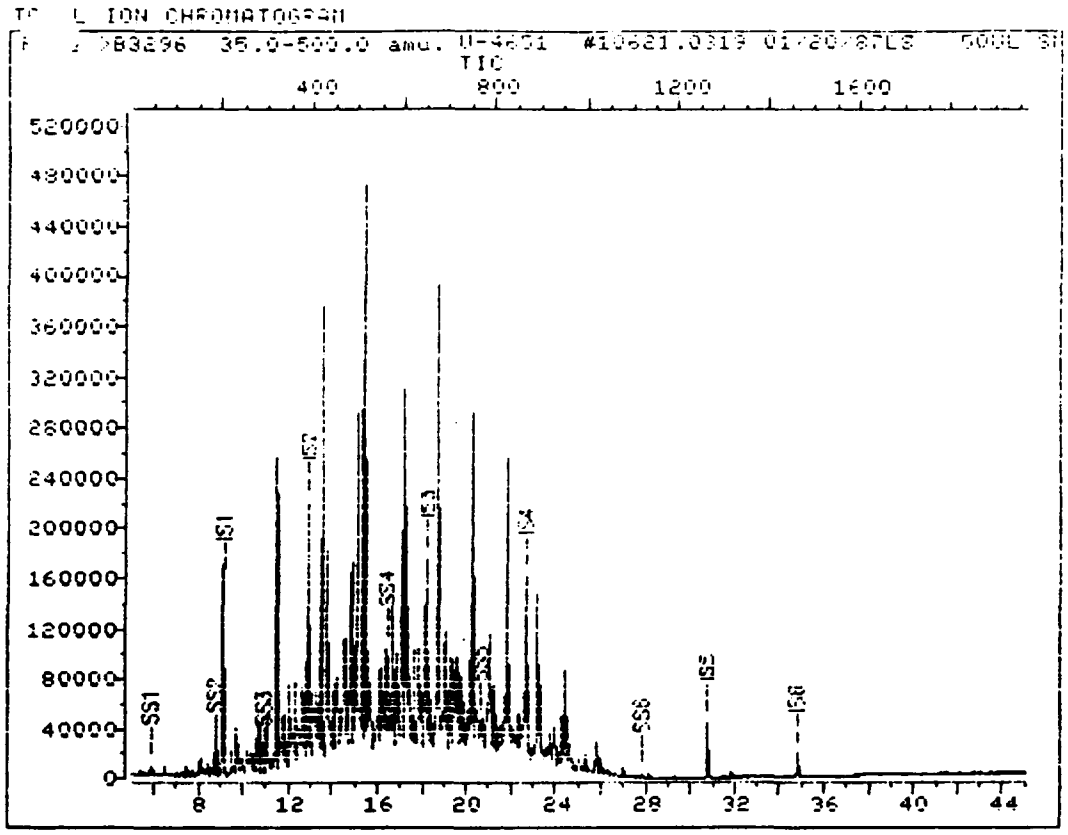
QUANT REPORT

perator ID: USER8 Quant Rev: 4 Quant Time: 861229 15:34
utput File: ^C6212::Q2 Injected at: 861229 14:48
ata File: >C6212::D3 Dilution Factor: 1.00
ame: U-4651 # 10,621.01 DC-J2-12
isc: 12/29/86LS 50 ULS (8.03g IN 10 MLS MEOH) + 10 ULS IS/S

D File: VOACR::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861229 13:13

	Compound		m/z	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.70	254	26325	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.29	166	2197	2.34	UG/L	100
7)	ACETONE		43	9.26	191	8438	17.11	UG/L	100
7)	ACETONE		43	9.49	197	5338	10.82	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~10.04~~	~~211~~	~~3452~~	~~.93~~	~~UG/L~~ N.C.F.	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.58	328	67971	46.59	UG/L	85
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.26	526	134424	50.00	UG/L	100
7)	2-BUTANONE		72	14.73	332	5173	38.01	UG/L	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.11	651	107726	50.00	UG/L	100
~~3)~~	~~2-HEXANONE~~		~~43~~	~~24.28~~	~~578~~	~~5685~~	~~7.65~~	~~UG/L~~ N.C.F.	100
~~3)~~	~~2-HEXANONE~~		~~43~~	~~24.78~~	~~591~~	~~5307~~	~~7.14~~	~~UG/L~~	100
6)	TOLUENE-D8	(SURR)	98	25.94	621	153463	50.91	UG/L	95
9)	ETHYLBENZENE		91	29.25	706	52107	13.06	UG/L	95
~~0)~~	~~4-BROMOFLUOROBENZENE~~	~~(SURR)~~	~~95~~	~~30.73~~	~~744~~	~~2622~~	~~1.70~~	~~UG/L~~ N.C.F.	100
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.74	770	80237	52.05	UG/L	100
2)	TOTAL XYLENES		91	33.68	820	100307	24.00	UG/L	100
2)	TOTAL XYLENES		91	34.65	845	107387	25.70	UG/L	100
~~2)~~	~~TOTAL XYLENES~~		~~91~~	~~36.36~~	~~889~~	~~64301~~	~~15.32~~	~~UG/L~~	100
~~2)~~	~~TOTAL XYLENES~~		~~91~~	~~37.56~~	~~920~~	~~2515~~	~~.60~~	~~UG/L~~ N.C.F.	100

* Compound is ISTD

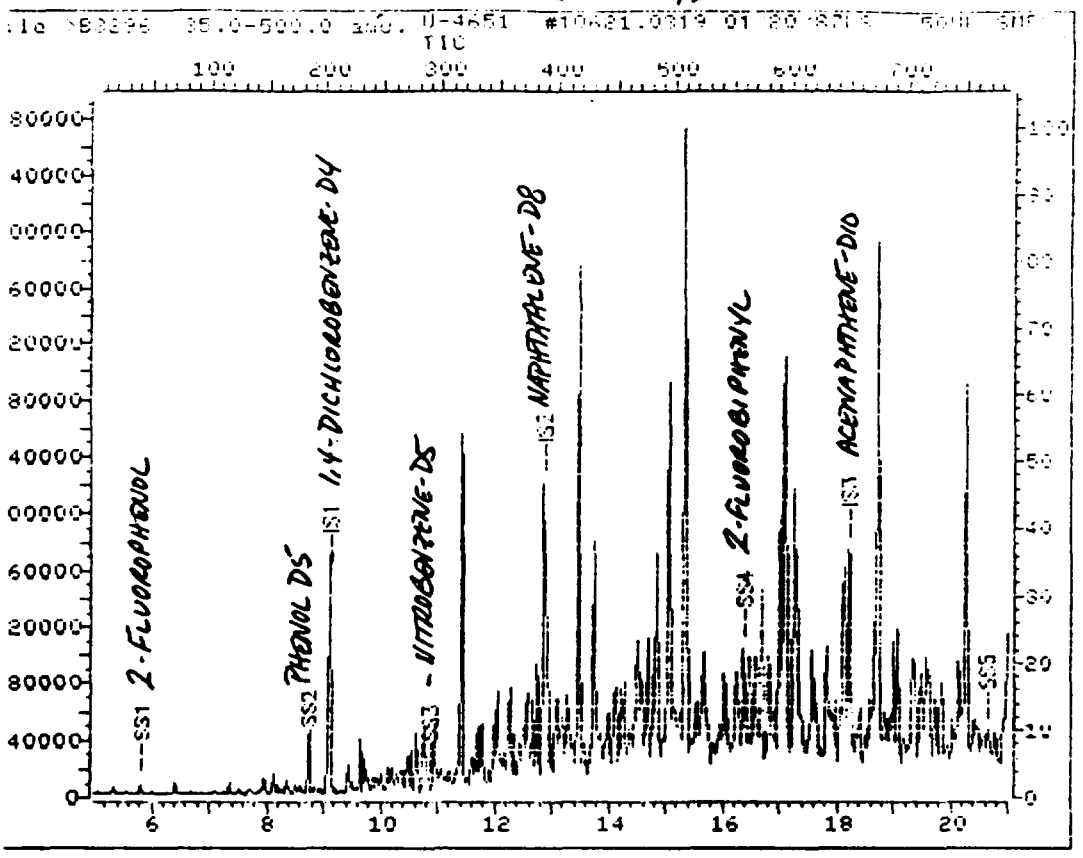


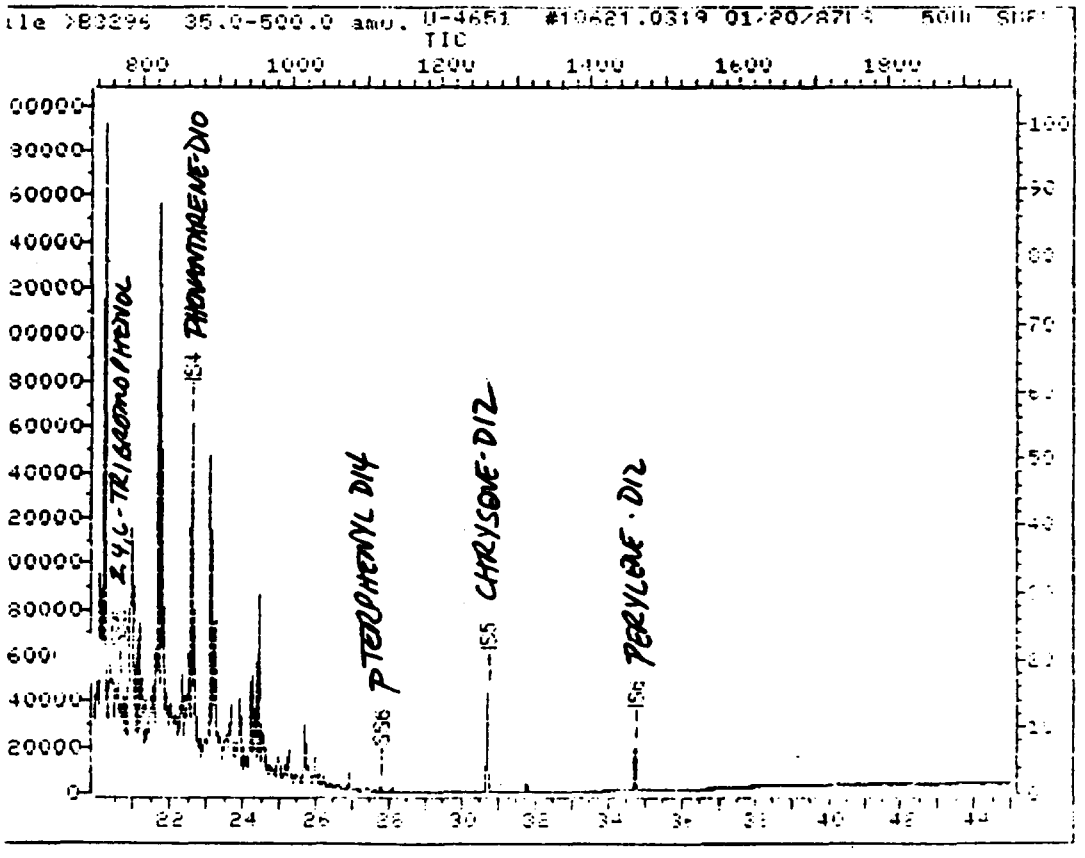
Data File: >B3296::D4
Name: U-4651 #10621.0319 DC-J2-12
Misc: 01/20/87LS 50UL SMPL + 950UL MFCL2 + 10UL IS (20X)

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870120 15:41

Operator ID: MANAGER
Quant Time: 870120 19:18
Injected at: 870120 18:30

DC-J2-12


TIC
2-FLUOROPHENOL
PHENOL D5
1,4-DICHLOROBENZENE-D4
NITROBENZENE-D5
NAPHTHALENE-D8
2-FLUOROBIPHENYL
ACENAPHTHENE-D10


TIC
2,4,6-TRIBROMOPHENOL
PHENANTHRENE-D10
PTERPHENYL D14
CHRYSENE-D12
PERYLENE-D12

QUANT REPORT

perator ID: MANAGER Quant Rev: 4 Quant Time: 870120 19:18
utput File: ^B3296::D2 Injected at: 870120 18:30
ata File: >B3296::D4 Dilution Factor: 20.00
ame: U-4651 #10621.0319 DC-J2-12
isc: 01/20/87LS 50UL SMPL + 950UL MECL2 + 10UL IS (20X)

D File: BNABR::D2
itle: BNA ID FILE FOR THE HP 5970 (8)
ast Calibration: 870120 15:41

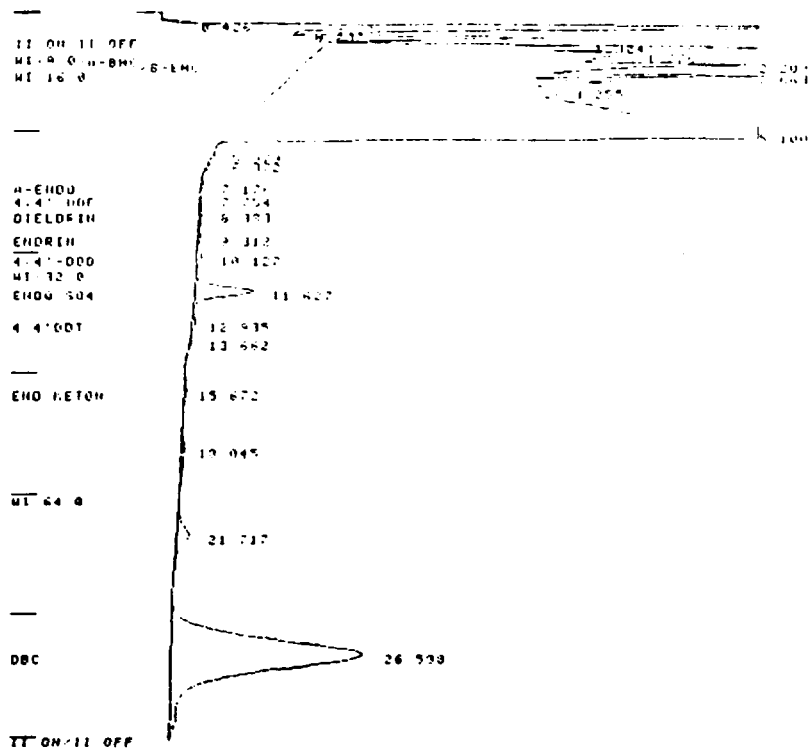
	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.11	203	48079	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	8.73	184	6316	82.46	UG/L	94
5)	2-FLUOROPHENOL	(SURR)	112	5.82	41	3637	66.87	UG/L	63
7)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.46~~	~~269~~	~~1666~~	~~25.84~~	~~UG/L~~	55
7)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.54~~	~~273~~	~~2637~~	~~41.00~~	~~UG/L~~	69
7)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.95~~	~~293~~	~~690~~	~~10.70~~	~~UG/L~~	30
7)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.01~~	~~296~~	~~1130~~	~~17.52~~	~~UG/L~~	66
7)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.09~~	~~300~~	~~1669~~	~~25.87~~	~~UG/L~~	55
9)	*NAPHTHALENE-D8	(IS)	136	12.86	387	182890	40.00	UG/L	100
0)	NITROBENZENE-D5	(SURR)	82	10.86	289	2952	35.60	UG/L	90
1)	~~NITROBENZENE~~		~~77~~	~~11.33~~	~~312~~	~~1046~~	~~12.86~~	~~UG/L~~	74
1)	~~NITROBENZENE~~		~~77~~	~~11.39~~	~~315~~	~~2649~~	~~31.72~~	~~UG/L~~	27
6)	~~BIS(2-CHLOROETHOXY)METHANE~~		~~93~~	~~12.33~~	~~341~~	~~409~~	~~4.99~~	~~UG/L~~	55
6)	~~BIS(2-CHLOROETHOXY)METHANE~~		~~93~~	~~12.74~~	~~381~~	~~646~~	~~6.67~~	~~UG/L~~	62
6)	~~BIS(2-CHLOROETHOXY)METHANE~~		~~93~~	~~13.00~~	~~399~~	~~299~~	~~3.00~~	~~UG/L~~	64
9)	NAPHTHALENE		128	12.92	390	91766	416.53	UG/L	100
9)	NAPHTHALENE		128	12.96	392	914	4.13	UG/L	100
9)	~~NAPHTHALENE~~		~~128~~	~~13.02~~	~~398~~	~~4232~~	~~22.61~~	~~UG/L~~	100
9)	~~NAPHTHALENE~~		~~128~~	~~13.17~~	~~409~~	~~855~~	~~3.41~~	~~UG/L~~	100
9)	~~NAPHTHALENE~~		~~128~~	~~13.27~~	~~407~~	~~3268~~	~~14.91~~	~~UG/L~~	100
0)	~~4-CHLOROANILINE~~		~~127~~	~~12.92~~	~~390~~	~~13316~~	~~1[illegible].12~~	~~UG/L~~	92
3)	2-METHYLNAPHTHALENE		142	15.06	495	196576	1440.77	UG/L	95
3)	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.35~~	~~511~~	~~96406~~	~~700.59~~	~~UG/L~~	91
4)	*ACENAPHTHENE-D10	(IS)	162	18.21	649	83638	40.00	UG/L	97
8)	2-FLUOROBIPHENYL	(SURR)	172	16.37	559	8329	53.66	UG/L	95
0)	~~2-NITROANILINE~~		~~65~~	~~16.57~~	~~569~~	~~766~~	~~12.02~~	~~UG/L~~	67
1)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.23~~	~~650~~	~~26473~~	~~166.78~~	~~UG/L~~	100
1)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.29~~	~~653~~	~~295~~	~~1.42~~	~~UG/L~~	100
1)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.37~~	~~657~~	~~1999~~	~~7.24~~	~~UG/L~~	100
3)	~~DIBENZOFURAN~~		~~168~~	~~18.37~~	~~657~~	~~7462~~	~~40.01~~	~~UG/L~~	100
3)	~~DIBENZOFURAN~~		~~168~~	~~18.49~~	~~663~~	~~3635~~	~~19.49~~	~~UG/L~~	100
3)	~~DIBENZOFURAN~~		~~168~~	~~18.66~~	~~671~~	~~897~~	~~4.76~~	~~UG/L~~	100
3)	~~DIBENZOFURAN~~		~~168~~	~~18.76~~	~~676~~	~~3616~~	~~14.05~~	~~UG/L~~	100
3)	DIBENZOFURAN		168	18.80	678	4403	23.61	UG/L	100
4)	~~ACENAPHTHYLENE~~		~~152~~	~~17.22~~	~~613~~	~~16499~~	~~[illegible]~~	~~UG/L~~	1
4)	~~ACENAPHTHYLENE~~		~~152~~	~~17.31~~	~~605~~	~~7269~~	~~34.99~~	~~UG/L~~	1
4)	~~ACENAPHTHYLENE~~		~~152~~	~~17.52~~	~~619~~	~~6369~~	~~30.41~~	~~UG/L~~	1
4)	~~ACENAPHTHYLENE~~		~~152~~	~~17.82~~	~~630~~	~~2964~~	~~14.29~~	~~UG/L~~	1
4)	~~ACENAPHTHYLENE~~		~~152~~	~~18.02~~	~~637~~	~~274~~	~~1.34~~	~~UG/L~~	5
5)	FLUORENE		166	19.84	729	11254	81.00	UG/L	97
7)	~~ACENAPHTHENE~~		~~153~~	~~17.86~~	~~644~~	~~3193~~	~~24.93~~	~~UG/L~~	41
7)	ACENAPHTHENE		153	18.29	653	6656	51.98	UG/L	96
7)	~~ACENAPHTHENE~~		~~153~~	~~18.53~~	~~665~~	~~3441~~	~~26.[illegible]~~	~~UG/L~~	71
7)	~~ACENAPHTHENE~~		~~153~~	~~18.66~~	~~671~~	~~10229~~	~~84.22~~	~~UG/L~~	66
2)	~~[illegible]~~		~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	[illegible]

255

Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
~~9) 2,4-DINITROPHENOL~~	~~184~~	~~20.13~~	~~743~~	~~14469~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~9) 2,4-DINITROPHENOL~~	~~184~~	~~20.29~~	~~751~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~9) 2,4-DINITROPHENOL~~	~~184~~	~~20.41~~	~~757~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~9) 2,4-DINITROPHENOL~~	~~184~~	~~20.49~~	~~761~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~9) 2,4-DINITROPHENOL~~	~~184~~	~~20.64~~	~~763~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~8) 4-NITROPHENOL~~	~~139~~	~~18.88~~	~~678~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~8) 4-NITROPHENOL~~	~~139~~	~~19.00~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~8) 4-NITROPHENOL~~	~~139~~	~~19.09~~	~~692~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~8) 4-NITROPHENOL~~	~~139~~	~~19.37~~	~~706~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~8) 4-NITROPHENOL~~	~~139~~	~~19.53~~	~~716~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~1) 2,4-DINITROTOLUENE~~	~~165~~	~~18.74~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~1) 2,4-DINITROTOLUENE~~	~~165~~	~~19.00~~	~~688~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~1) 2,4-DINITROTOLUENE~~	~~165~~	~~19.09~~	~~692~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~1) 2,4-DINITROTOLUENE~~	~~165~~	~~19.33~~	~~704~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~1) 2,4-DINITROTOLUENE~~	~~165~~	~~19.53~~	~~714~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~2) 2,6-DINITROTOLUENE~~	~~165~~	~~17.98~~	~~633~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~2) 2,6-DINITROTOLUENE~~	~~165~~	~~18.09~~	~~643~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~2) 2,6-DINITROTOLUENE~~	~~165~~	~~18.91~~	~~649~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~2) 2,6-DINITROTOLUENE~~	~~165~~	~~18.37~~	~~662~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
~~2) 2,6-DINITROTOLUENE~~	~~165~~	~~18.49~~	~~663~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~100~~
5) *PHENANTHRENE-D10 (IS)	188	22.62	865	141864	40.00	UG/L	93
~~7) N-NITROSODIPHENYLAMINE~~	~~169~~	~~20.13~~	~~743~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~1~~
~~7) N-NITROSODIPHENYLAMINE~~	~~169~~	~~20.94~~	~~783~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~35~~
~~1) PHENANTHRENE~~	~~178~~	~~22.37~~	~~853~~	~~306~~	~~1.75~~	~~UG/L~~	~~1~~
~~1) PHENANTHRENE~~	~~178~~	~~22.52~~	~~860~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~1~~
1) PHENANTHRENE	178	22.68	868	55702	318.29	UG/L	98
~~1) PHENANTHRENE~~	~~178~~	~~22.80~~	~~874~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~89~~
~~2) ANTHRACENE~~	~~178~~	~~22.37~~	~~853~~	~~306~~	~~1.87~~	~~UG/L~~	~~1~~
~~2) ANTHRACENE~~	~~178~~	~~22.52~~	~~860~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~1~~
~~2) ANTHRACENE~~	~~178~~	~~22.63~~	~~868~~	~~[illegible]~~	~~[illegible]~~	~~UG/L~~	~~98~~
2) ANTHRACENE	178	22.80	874	3480	21.26	UG/L	89
~~4) FLUORANTHENE~~	~~202~~	~~26.01~~	~~1031~~	~~1036~~	~~7.10~~	~~UG/L~~	~~1~~
5) *CHRYSENE-D12 (IS)	240	30.73	1263	44728	40.00	UG/L	100
7) PYRENE	202	26.92	1076	1071	10.79	UG/L	84
8) TERPHENYL-D14 (SURR)	244	27.80	1119	2614	46.78	UG/L	100
2) BIS(2-ETHYLHEXYL)PHTHALATE	149	31.80	1316	2875	68.72	UG/L	91
4) *PERYLENE-D12 (IS)	264	34.75	1461	24969	40.00	UG/L	100

* Compound is ISTD

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



SEE RUN 36 FOR FRONT END RESOLUTION

DC-J2-12

CHANNEL: 1A - 1 TITLE: RUN# 35 14:45 30 DEC 86

SAMPLE: 10621.03.19A 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	1.374		1152034	BV	5.94
2		0.0000	1.660		519468	VV	? 21.31
3		0.0000	1.776		201407	VV	? 94.25
4	~~A-ENDO~~	14.1132	1.960	-0.070	421331	VV	? 14.19
5	~~[illegible]~~ 16 B	~~[illegible]~~	2.209	0.029	~~[illegible]~~	[illegible]	30.19
6	~~[illegible]~~	22.4367	2.663	0.203	601158	VV	? 11.94
7		0.0000	2.926		578340	VV	? 20.06
8		0.0000	3.255		482251	VV	? 19.19
9		0.0000	3.418		435276	VV	? 33.56
10		0.0000	5.100		16012106	VB	11.44
11	~~[illegible]~~	0.9163	10.127	-0.093	20518	VB	28.50
12	~~ENDO SO4~~	10.7689	11.627	-0.373	194614	BV	25.31
13		0.0000	18.045		29042	BB	51.31
14		0.0000	21.717		63397	BB	44.38
15	DBC 119	102.2031	26.588	-0.142	2050187	BB	77.44

TOTALS: 248.9004 -0.446 23874394

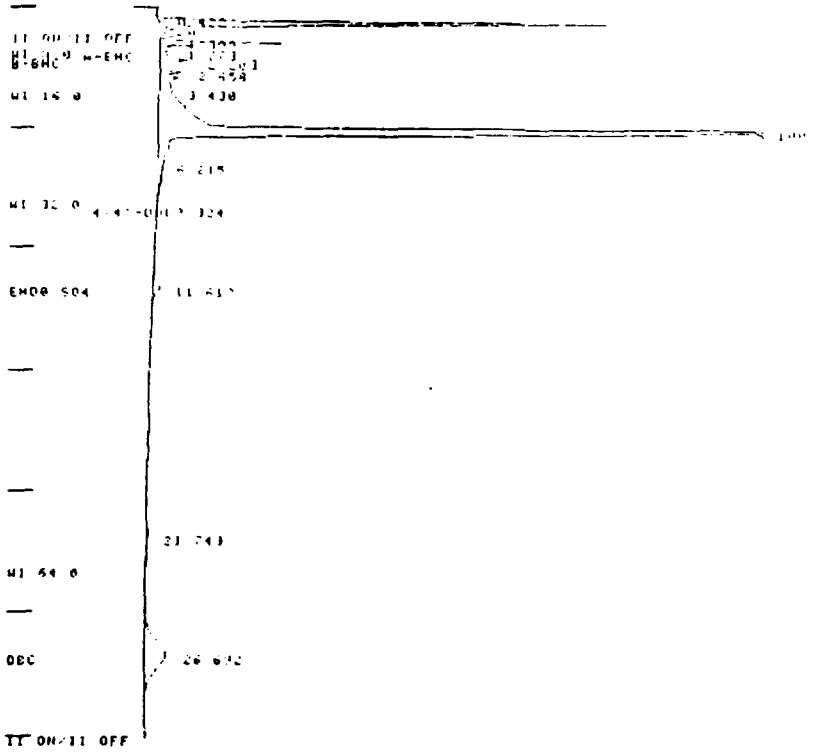
DETECTED PKS: 34 REJECTED PKS: 19

DIVISOR: 1.17150 MULTIPLIER: 1000.00000

NOISE: 22.9 OFFSET: -2

NOTES:
NOTEBOOK:259-67:ANALYST:P. BRUTSCHER
SECURE AREA: D [illegible]:U-4651
INST:VARIAN 6000#2 A [illegible]
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: [illegible]
CARRIER GAS: [illegible] MIN.
DET: [illegible]
200 [illegible]
AUTOSAMPLER
[illegible]
[illegible]

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



DC-J2-12

CHANNEL: 1A - 1 TITLE: RUN# 36 15:20 30 DEC 86

SAMPLE: 10621.03.13A METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WT % (%)
1		0.0000	1.399		72668	BV	4.38
2 [redacted]		38.0357	2.203	0.023	42241	VV	7.88
3 [redacted]		7.7612	2.650	0.198	20735	VV	6.68
4		0.0000	2.918		25655	VV	1.31
5		0.0000	3.430		34926	VV	15.19
6		0.0000	5.100		2034298	VV	10.81
7 [redacted]		14.4647	11.611	-0.389	26092	BB	21.21
8	DBC	112.8085	26.692	-0.038	226293	BB	79.38
TOTALS:		173.0701		-0.206	2482968		

DETECTED PKS: 23 REJECTED PKS: 15

DIVISOR: 1.17150 MULTIPLIER: 10000.0000

NOISE: 22.9 OFFSET: -14

NOTES:
NOTEBOOK:259-67:ANALYST:P. BRUTSCHER
SECURE AREA: D JOB#:U-4651
INST:VARIAN 600082 4 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
200 C ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
PEST/PCB PRIMARY ANALYSIS
RESULT IN UG/KG DRY WEIGHT

POST RUN:
SAVE FILE: RAW EPA624

SAMPLE NUMBER DC-J3-13

481095

Sample Number
DC-J3-13

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc. Case No. U-4618 / U-4651

Lab Sample ID No: 10622 QC Report No:

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: C Szytowicz Date Sample Received: 12/19/86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-22-86

Conc/Dil Factor: 1 pH 7.85

Percent Moisture: (Not Decanted) 10

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	BJ
67-64-1	Acetone	420	BE
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

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

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

200

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618 / U-4651

Sample Number DC-J3-13

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-15-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 10

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	190	J
100-51-6	Benzyl Alcohol	330	U
95-50-1	1 2-Dichlorobenzene	90	J
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
[illegible]-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	990	
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-4618 / U-4651

Sample Number DC-J3-13

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 1

Percent Moisture (decanted) 10

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	161	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

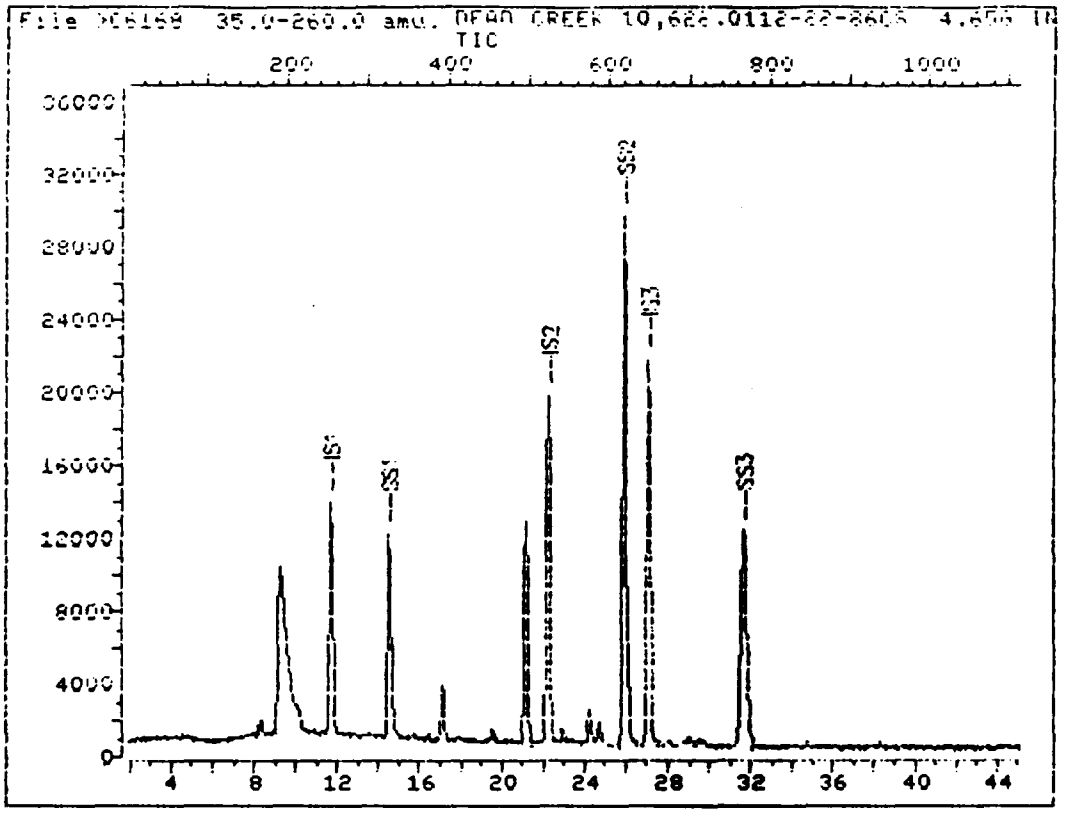
Sample Number DC-J3-13

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.1	7 BJ
2.	HEXANE ISOMER		21.2	33 BJ
3.	UNKNOWN ALCOHOL		24.2	5 J
4.				
5.	UNKNOWN HYDROCARBON	BNA	20.3	300 J
6.	UNKNOWN HYDROCARBON		21.7	460 J
7.	UNKNOWN HYDROCARBON		23.1	260 J
8. 10544500	MOLECULAR SULFUR		26.0	530 J
9.	UNKNOWN		34.0	530 J
10.				~~J~~
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

TOTAL ION CHROMATOGRAM

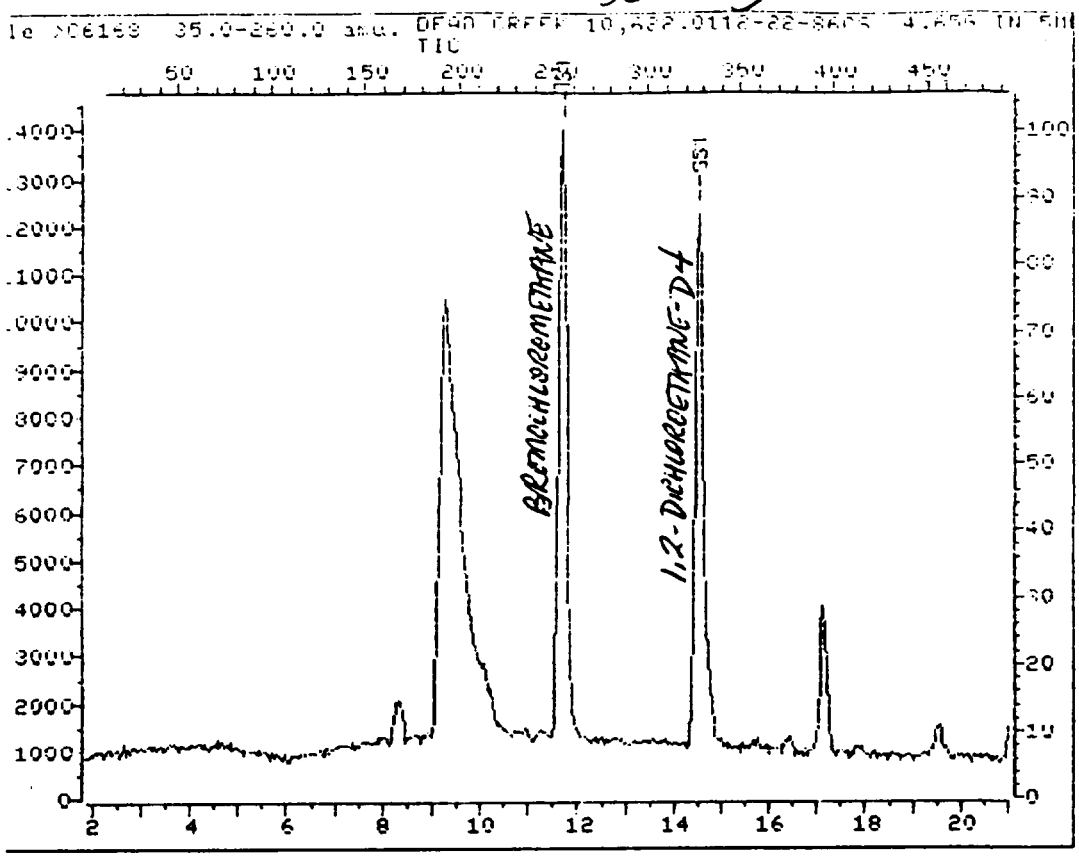


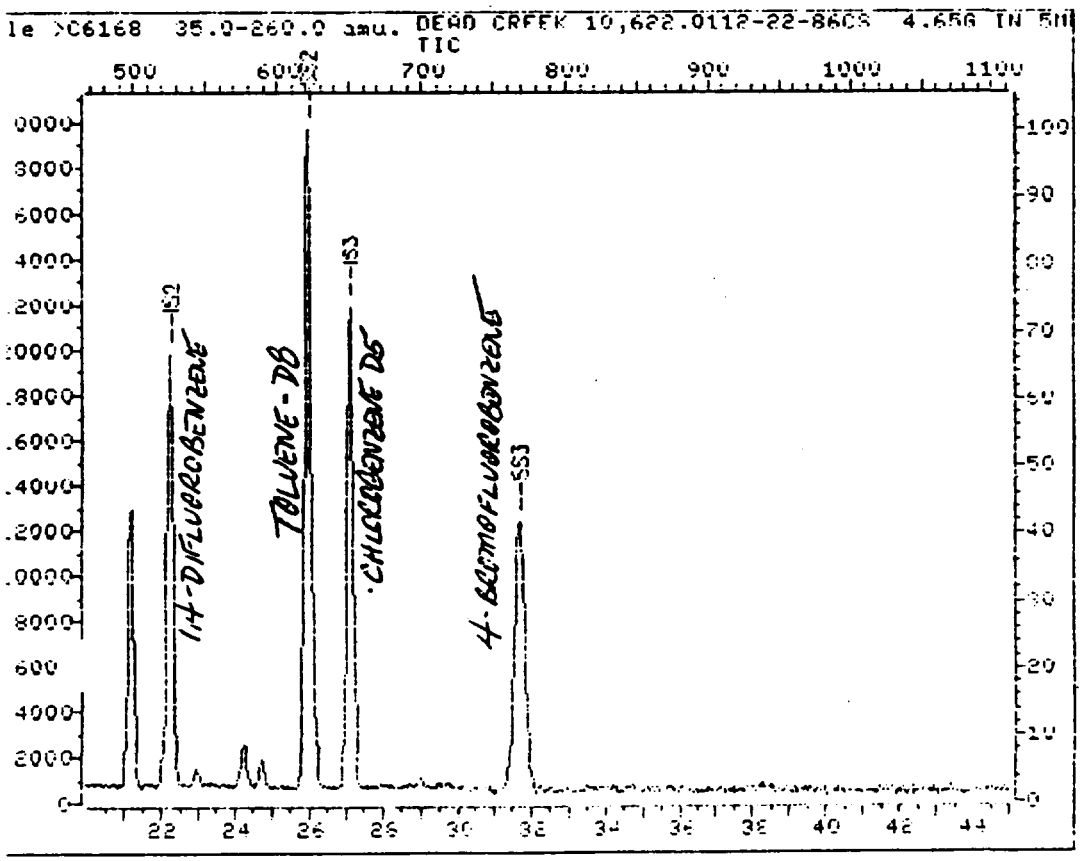
Data File: >C6168::D3
Name: DEAD CREEK 10,622.01 DC-J3-13
Misc: 12-22-86CS 4.65G IN 5ML DI + 10UL IS/SS

Id File: VOAERS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861222 13:20

Operator ID: USER8
Quant Time: 861222 18:47
Injected at: 861222 18:01

DC-J3-13


le >C6168 35.0-260.0 amu. DEAD CREEK 10,622.0112-22-8605 4.65G IN 5M
TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4
--SS1


le >C6168 35.0-260.0 amu. DEAD CREEK 10,622.0112-22-8605 4.65G IN 5M
TIC
1,4-DIFLUOROBENZENE
--IS2
TOLUENE-D8
--IS3
CHLOROBENZENE D5
4-BROMOFLUOROBENZENE
--SS3

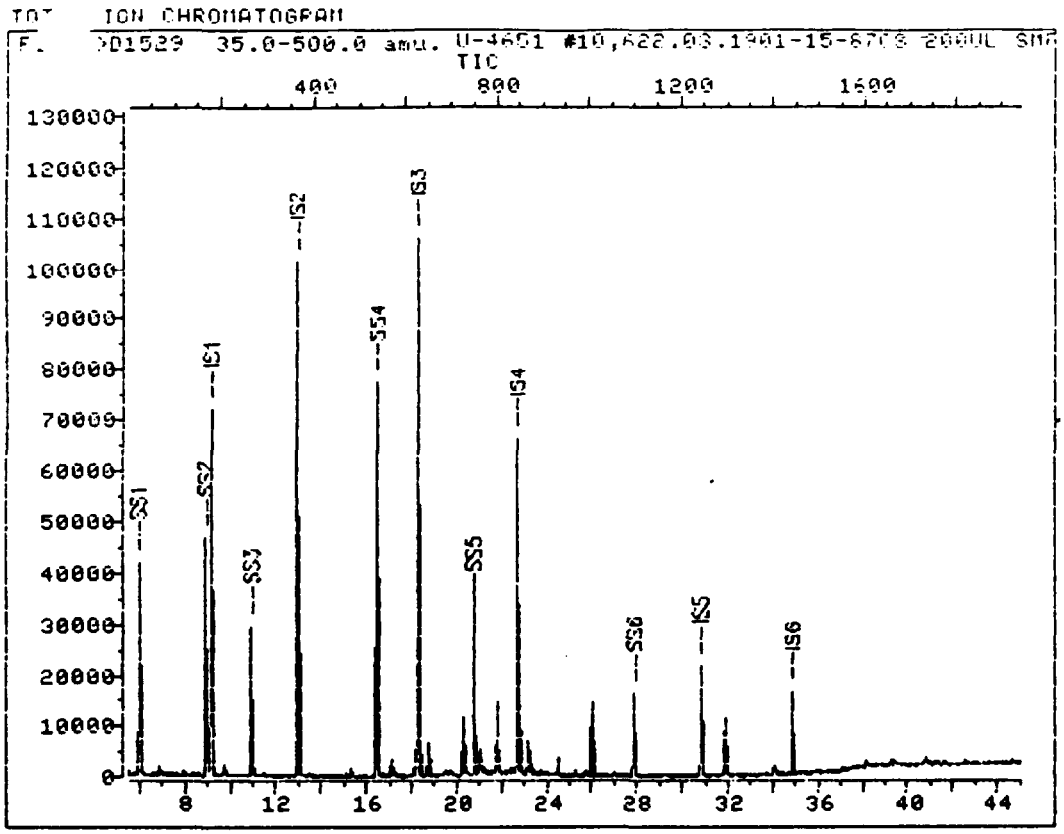
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861222 18:42
Output File: ^C6168::Q2 Injected at: 861222 18:01
Data File: ^C6168::D3 Dilution Factor: 1.00
Name: DEAD CREEK 10,622.01 DC-J3-13
Disc: 12-22-86CS 4.65G IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861222 13:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.70	254	19062	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.33	167	2160	14.09	NGS	100
7)	ACETONE		43	9.26	191	204014	1946.34	NGS	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.54	327	46072	229.49	NGS	84
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.26	526	83133	250.00	NGS	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.11	651	67544	250.00	NGS	100
2)	4-METHYL-2-PENTANONE		43	22.96	544	3769	17.49	NGS	64
~~3)~~	~~2-HEXANONE~~		~~43~~	~~24.24~~	~~577~~	~~[illegible]~~	~~[illegible]~~	~~NGS~~	100
~~3)~~	~~2-HEXANONE~~		~~43~~	~~24.20~~	~~589~~	~~[illegible]~~	~~[illegible]~~	~~NGS~~	100
6)	TOLUENE-D8	(SURR)	98	25.94	621	110874	271.98	NGS	95
10)	4-BROMOFLUOROBENZENE	(SURR)	95	31.70	769	44641	216.03	NGS	100

* Compound is ISTD

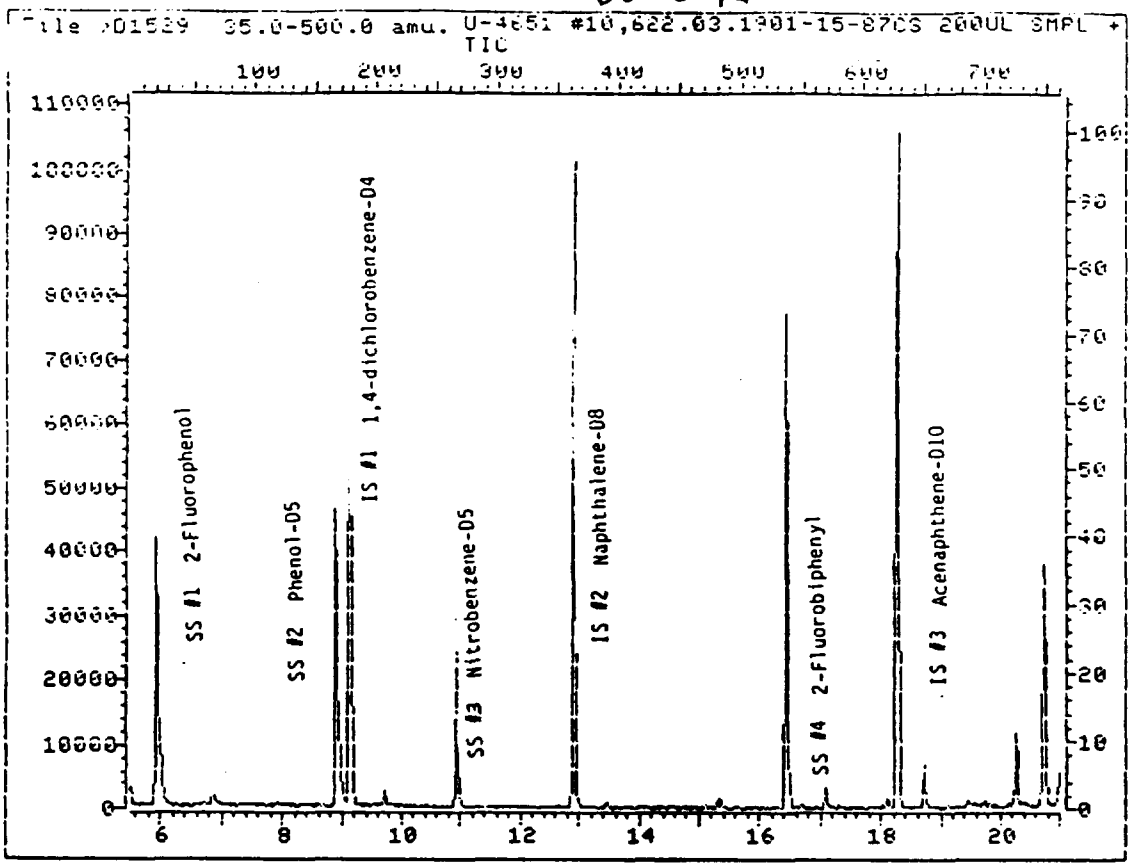


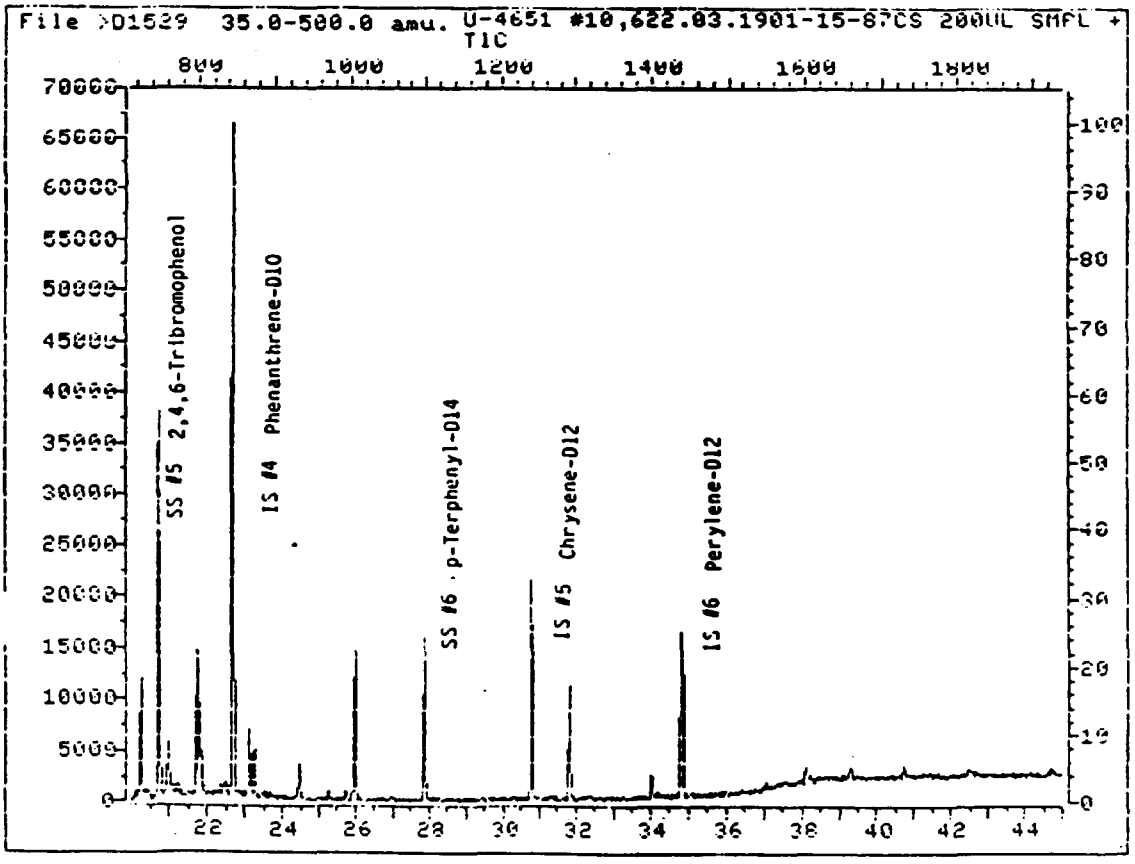
Data File: >D1529::D1
Name: U-4651 #10,622.03.19 DC-J3-13
Misc: 01-15-87CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

Id File: BNAUR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860115 14:20

Operator ID: USER6
Quant Time: 860116 11:31
Injected at: 860115 16:13

DC-J3-13


File >D1529 35.0-500.0 amu. U-4651 #10,622.03.1901-15-87CS 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 >D1529 35.0-500.0 amu. U-4651 #10,622.03.1901-15-87CS 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

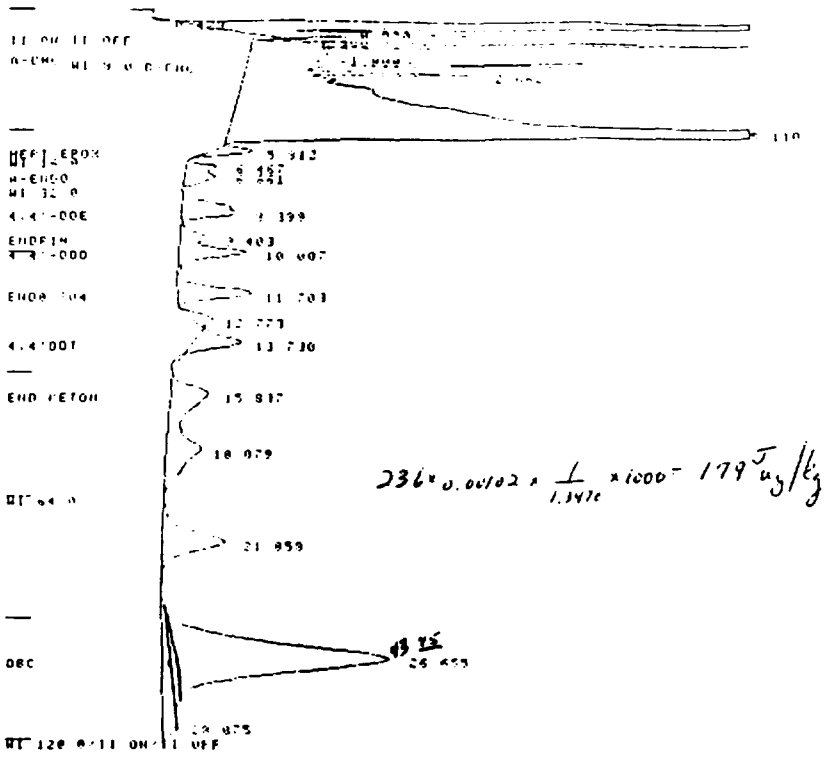
Operator ID: USER6 Quant Rev: 4 Quant Time: 860116 11:31
Output File: ^D1529::Q2 Injected at: 860115 16:13
Data File: >D1529::D1 Dilution Factor: 2.00
Name: U-4651 #10,622.03.19 DC-J3-13
Misc: 01-15-87CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860115 14:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.13	178	35756	40.00	UG/L	92
2)	PHENOL-D5	(SURR)	99	8.88	166	49151	116.44	UG/L	99
5)	2-FLUOROPHENOL	(SURR)	112	5.93	21	36415	107.74	UG/L	96
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.19~~	~~181~~	~~3537~~	~~5.84~~	~~UG/L~~ No GPR	98
10)	1,4-DICHLOROBENZENE		146	9.19	181	3537	5.82	UG/L	99
12)	1,2-DICHLOROBENZENE		146	9.72	207	1643	2.71	UG/L	97
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.92~~	~~266~~	~~3738~~	~~10.37~~	~~UG/L~~ No GPR	83
19)	*NAPHTHALENE-D8	(IS)	136	12.91	364	127433	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.92	266	22358	47.75	UG/L	93
34)	*ACENAPHTHENE-D10	(IS)	162	18.27	627	62344	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.44	537	70697	47.93	UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.27~~	~~627~~	~~19210~~	~~18.38~~	~~UG/L~~ No GPR	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.72	747	17788	89.84	UG/L	99
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.27~~	~~627~~	~~7894~~	~~36.93~~	~~UG/L~~ No GPR	100
55)	*PHENANTHRENE-D10	(IS)	188	22.67	843	85752	40.00	UG/L	86
65)	*CHRYSENE-D12	(IS)	240	30.80	1242	29183	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.87	1098	21109	59.27	UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.84	1293	9995	29.63	UG/L	90
74)	*PERYLENE-D12	(IS)	264	34.85	1441	23181	40.00	UG/L	100

* Compound is ISTD

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



$236 \times 0.00102 \times \frac{1}{1.3476} \times 1000 = 179$ Jug/kg 1260

CHANNEL: 1A - 1 TITLE: RUN# 38 16:29 30 DEC 86

DC-J3-13

SAMPLE: 10622.03.19 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	1.398		659078	BV	5.19
2		0.0000	1.571		59804	VV	? 5.13
3		0.0000	1.690		93442	VV	? 13.38
4	[illegible]	5.7297	1.900	-0.150	171023	VV	? 26.88
5	[illegible]	36.7212	2.275	0.095	407812	VV	7.50
6	[illegible]	9.7172	2.662	0.202	260357	VV	6.94
7		0.0000	2.942		147925	VV	? 15.63
8		0.0000	5.110		11249525	VB	10.94
9	[illegible]	3.4530	5.812	0.102	[illegible]	BB	13.50
10		0.0000	[illegible]		[illegible]	BV	? 15.56
11	[illegible]	3.9227	6.861	[illegible]219	[illegible]	VB	? 33.19
12	[illegible]	9.6675	8.399	[illegible].139	257907	BV	38.00
13	[illegible]	3.3123	9.403	0.013	[illegible]0191	VV	? 25.44
14	[illegible]	10.4267	10.007	-0.213	[illegible]486	VV	24.50
15	[illegible]	15.5980	11.703	-0.297	281362	VV	30.13
16		0.0000	12.773		95022	BB	? 31.56
17	[illegible]	18.4880	13.730	0.370	[illegible]767	BB	42.63
18	[illegible]	11.4473	15.837	0.447	[illegible]118	BV	61.61
19		0.0000	18.079		[illegible]	VB	59.69
20		0.0000	[illegible]		[illegible]	BB	49.56
21	DBC 110%	[illegible]	26.655	-0.075	[illegible]		77.75
22		0.0000	28.875		87521	VB	?117.44

PCB 1260 236 45min

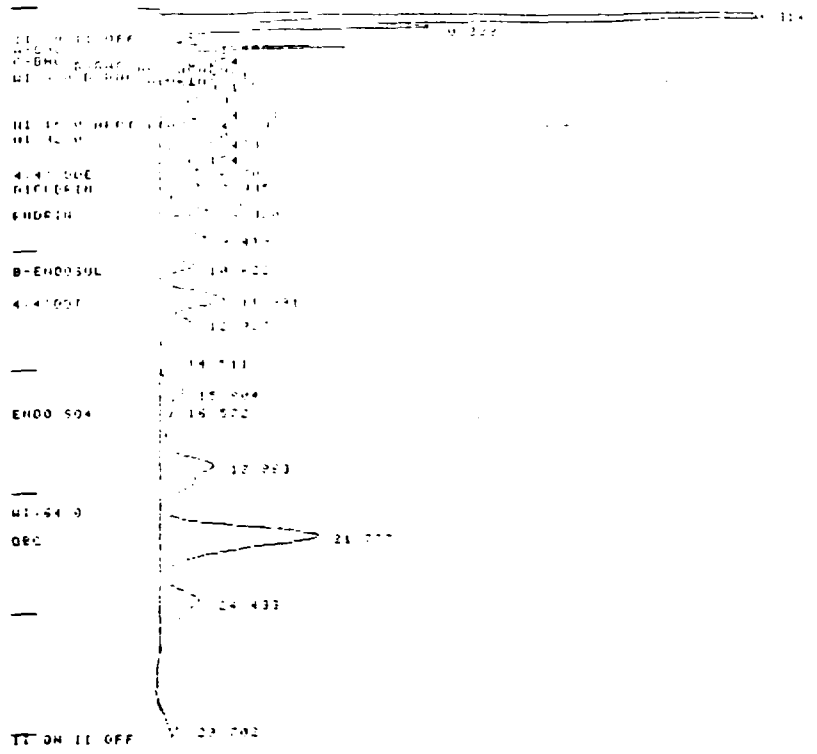
TOTALS: 250.2164 0.414 18116968

DETECTED PKS: 30 REJECTED PKS: 8

DIVISOR: 1.3476 MULTIPLIER: 1000.00000

NOISE: 731.4 OFFSET: -27

NOTES:
NOTEBOOK:259-67 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4651
INST:VARIAN 6000#2 A FCD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:7% OV 1
CARRIER GAS: N2 @ 50 ML/MIN.
OUT:220 C INT:220 C
200 - ISOTHERMAL 4 UL INJECTION
AUTOSAMPLER
FEST FCD PRIMARY ANALYSIS
RESULT IN UG/KG DRY WEIGHT



positive PCB 1260

DC-J3-13

CHANNEL: 18 - 1 TITLE: RUN# 10 18:10 31 DEC 86

SAMPLE: 10622 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	[redacted]	5.0303	1.599	-0.041	236740	BB	4.69
2		0.0000	1.845		30917	BV	5.31
3	[redacted]	4.9009	2.257	-0.103	81780	VV	5.94
4	[redacted]	1.2624	2.512	-0.028	46594	VV	? 8.13
5	[redacted]	1.5319	2.677	-0.083	53761	VV	? [illegible].56
6		0.0000	2.897		30890	VV	? [illegible].75
7	[redacted]	[illegible]	3.175	0.095	117671	VV	10.75
8		0.0000	3.722		146145	VV	? 14.63
9		0.0000	4.271		401439	VV	? 33.19
10	[redacted]	6.0883	4.723	0.113	226007	VV	? [illegible]
11		0.0000	5.088		75260	VV	? 25.19
12	[redacted]	6.7531	5.483	-0.317	235990	VV	? 29.88
13		0.0000	6.154		51313	VV	? 24.31
14	[redacted]	6.6169	6.707	0.047	222753	VV	22.25
15	[redacted]	[illegible]	[illegible]	[illegible]	[illegible]	VV	24.13
16	[redacted]	12.0238	9.320	[illegible].270	287547	VV	22.75
17		0.0000	9.419		326799	VV	24.44
18	[redacted]	8.8000	10.622	[illegible]212	306341	VV	28.31
19	[redacted]	26.2534	11.991	-0.299	693868	VV	42.25
20		0.0000	12.928		323328	VV	? 47.50
21		0.0000	14.511		72779	VV	46.88
22		0.0000	15.904		280923	VV	? 42.25
23	[redacted]	18.5543	16.572	0.052	212929	VV	?100.50
24		[illegible]	[illegible]		[illegible]	VV	77.63
25	OBC	[illegible]	[illegible]	0.017	2490818	VV	57.75
26	[redacted]	87.0501	24.433	0.913	810347	VB	72.81
27		0.0000	29.702		31572	BB	? 64.19

PCB 1260

TOTALS: 287.7799 0.553 9053062

DETECTED PKS: 26 REJECTED PKS: 9

DIVISOR: 1.24720 MULTIPLIER: 1000.00000

NOISE: 45.7 OFFSET: 1

RACK: 1 VIAL: 10 INJ: 1

NOTES:
[illegible]

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SAMPLE NUMBER DC-H1-14

481095

Sample Number
DC-H1-14

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC. Case No: U-4618 / U-4651

Lab Sample ID No: 10623 QC Report No.

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 12/19/86

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-23-86

Conc/Dil Factor: 2.1 pH 7.42

Percent Moisture: (Not Decanted) 38

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2300 U
74-83-9	Bromomethane	2300 U
75-01-4	Vinyl Chloride	2300 U
75-00-3	Chloroethane	2300 U
75-09-2	Methylene Chloride	440 BJ
67-64-1	Acetone	4400 B
75-15-0	Carbon Disulfide	1100 U
75-35-4	1, 1-Dichloroethene	1100 U
75-34-3	1, 1-Dichloroethane	1100 U
156-60-5	Trans-1, 2-Dichloroethene	1100 U
67-66-3	Chloroform	1100 U
107-06-2	1, 2-Dichloroethane	1100 U
78-93-3	2-Butanone	6800 B
71-55-6	1, 1, 1-Trichloroethane	1100 U
56-23-5	Carbon Tetrachloride	1100 U
108-05-4	Vinyl Acetate	2300 U
75-27-4	Bromodichloromethane	1100 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1100 U
10061-02-6	Trans-1, 3-Dichloropropene	1100 U
79-01-6	Trichloroethene	1100 U
124-48-1	Dibromochloromethane	1100 U
79-00-5	1, 1, 2-Trichloroethane	1100 U
71-43-2	Benzene	38,000
10061-01-5	cis-1, 3-Dichloropropene	1100 U
110-75-8	2-Chloroethylvinylether	2300 U
75-25-2	Bromoform	1100 U
108-10-1	4-Methyl-2-Pentanone	2300 U
591-78-6	2-Hexanone	2300 U
127-18-4	Tetrachloroethene	3500
79-34-5	1, 1, 2, 2-Tetrachloroethane	1100 U
108-88-3	Toluene	16,000
108-90-7	Chlorobenzene	280,000 E
100-41-4	Ethylbenzene	6,200
100-42-5	Styrene	1100 U
	Total Xylenes	12,000

Data Reporting Qualifiers

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

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

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

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

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

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618 / U-4651

Sample Number DC-H1-14

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-22-87

Conc/Dil Factor 2000

Percent Moisture (Decanted) 38

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	330,000 U	
111-44-4	bis(2-Chloroethyl)Ether	330,000 U	
95-57-8	2-Chlorophenol	330,000 U	
541-73-1	1,3-Dichlorobenzene	150,000 J	
106-46-7	1,4-Dichlorobenzene	19,000,000	E
100-51-6	Benzyl Alcohol	330,000 U	
95-50-1	1,2-Dichlorobenzene	12,000,000	E
95-48-7	2-Methylphenol	330,000 U	
39638-32-9	bis(2-chloroisopropyl)Ether	330,000 U	
106-44-5	4-Methylphenol	330,000 U	
621-64-7	N-Nitroso-Di-n-Propylamine	330,000 U	
67-72-1	Hexachloroethane	330,000 U	
98-95-3	Nitrobenzene	330,000 U	
78-59-1	Isophorone	330,000 U	
88-75-5	2-Nitrophenol	330,000 U	
105-67-9	2,4-Dimethylphenol	330,000 U	
65-85-0	Benzoic Acid	1,600,000 U	
111-91-1	bis(2-Chloroethoxy)Methane	330,000 U	
120-83-2	2,4-Dichlorophenol	460,000	
120-82-1	1,2,4-Trichlorobenzene	4,700,000	
91-20-3	Naphthalene	330,000 U	
106-47-8	4-Chloroaniline	330,000 U	
87-68-3	Hexachlorobutadiene	330,000 U	
59-50-7	4-Chloro-3-Methylphenol	330,000 U	
91-57-6	2-Methylnaphthalene	330,000 U	
77-47-4	Hexachlorocyclopentadiene	330,000 U	
88-06-2	2,4,6-Trichlorophenol	380,000	
95-95-4	2,4,5-Trichlorophenol	1,600,000 U	
91-58-7	2-Chloronaphthalene	330000 U	
88-74-4	2-Nitroaniline	1,600,000 U	
131-11-3	Dimethyl Phthalate	330000 U	
208-96-8	Acenaphthylene	330000 U	
99-09-2	3-Nitroaniline	1,600,000 U	

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	330000 U	
51-28-5	2,4-Dinitrophenol	1,600,000 U	
100-02-7	4-Nitrophenol	1,600,000 U	
132-64-9	Dibenzofuran	330,000 U	
121-14-2	2,4-Dinitrotoluene	330,000 U	
606-20-2	2,6-Dinitrotoluene	330,000 U	
84-66-2	Diethylphthalate	330,000 U	
7005-72-3	4-Chlorophenyl-phenylether	330,000 U	
86-73-7	Fluorene	330,000 U	
100-01-6	4-Nitroaniline	1,600,000 U	
534-52-1	4,6-Dinitro-2-Methylphenol	1,600,000 U	
86-30-6	N-Nitrosodiphenylamine (1)	330,000 U	
101-55-3	4-Bromophenyl-phenylether	330,000 U	
118-74-1	Hexachlorobenzene	330,000 U	
87-86-5	Pentachlorophenol	1,600,000 U	
85-01-8	Phenanthrene	330,000 U	
120-12-7	Anthracene	330,000 U	
84-74-2	Di-n-Butylphthalate	330,000 U	
206-44-0	Fluoranthene	330,000 U	
129-00-0	Pyrene	330,000 U	
85-68-7	Butylbenzylphthalate	330,000 U	
91-94-1	3,3'-Dichlorobenzidine	660,000 U	
56-55-3	Benzo(a)Anthracene	330,000 U	
117-81-7	bis(2-Ethylhexyl)Phthalate	330,000 U	
218-01-9	Chrysene	330,000 U	
117-84-0	Di-n-Octyl Phthalate	330,000 U	
205-99-2	Benzo(b)Fluoranthene	330,000 U	
207-08-9	Benzo(k)Fluoranthene	330,000 U	
50-32-8	Benzo(a)Pyrene	330,000 U	
193-39-5	Indeno(1,2,3-cd)Pyrene	330,000 U	
53-70-3	Dibenzo(a,h)Anthracene	330,000 U	
191-24-2	Benzo(g,h,i)Perylene	330,000 U	

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4618/U-4651

Sample Number DC-H1-14

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 2000

Percent Moisture (decanted) 38

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16,000 U
319-85-7	Beta-BHC	16,000 U
319-86-8	Delta-BHC	16,000 U
58-89-9	Gamma-BHC (Lindane)	16,000 U
76-44-8	Heptachlor	16,000 U
309-00-2	Aldrin	16,000 U
1024-57-3	Heptachlor Epoxide	16,000 U
959-98-8	Endosulfan I	16,000 U
60-57-1	Dieldrin	32,000 U
72-55-9	4,4'-DDE	32,000 U
72-20-8	Endrin	32,000 U
33213-65-9	Endosulfan II	32,000 U
72-54-8	4,4'-DDD	32,000 U
1031-07-8	Endosulfan Sulfate	32,000 U
50-29-3	4,4'-DDT	32,000 U
72-43-5	Methoxychlor	160,000 U
53494-70-5	Endrin Ketone	32,000 U
57-74-9	Chlordane	160,000 U
8001-35-2	Toxaphene	320,000 U
12674-11-2	Aroclor-1016	160,000 U
11104-28-2	Aroclor-1221	160,000 U
11141-16-5	Aroclor-1232	160,000 U
53469-21-9	Aroclor-1242	160,000 U
12672-29-6	Aroclor-1248	160,000 U
11097-69-1	Aroclor-1254	320,000 U
11096-82-5	Aroclor-1260	611,000

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

Form 1

7 85
491095

Laboratory Name Ecology & Environment Inc.

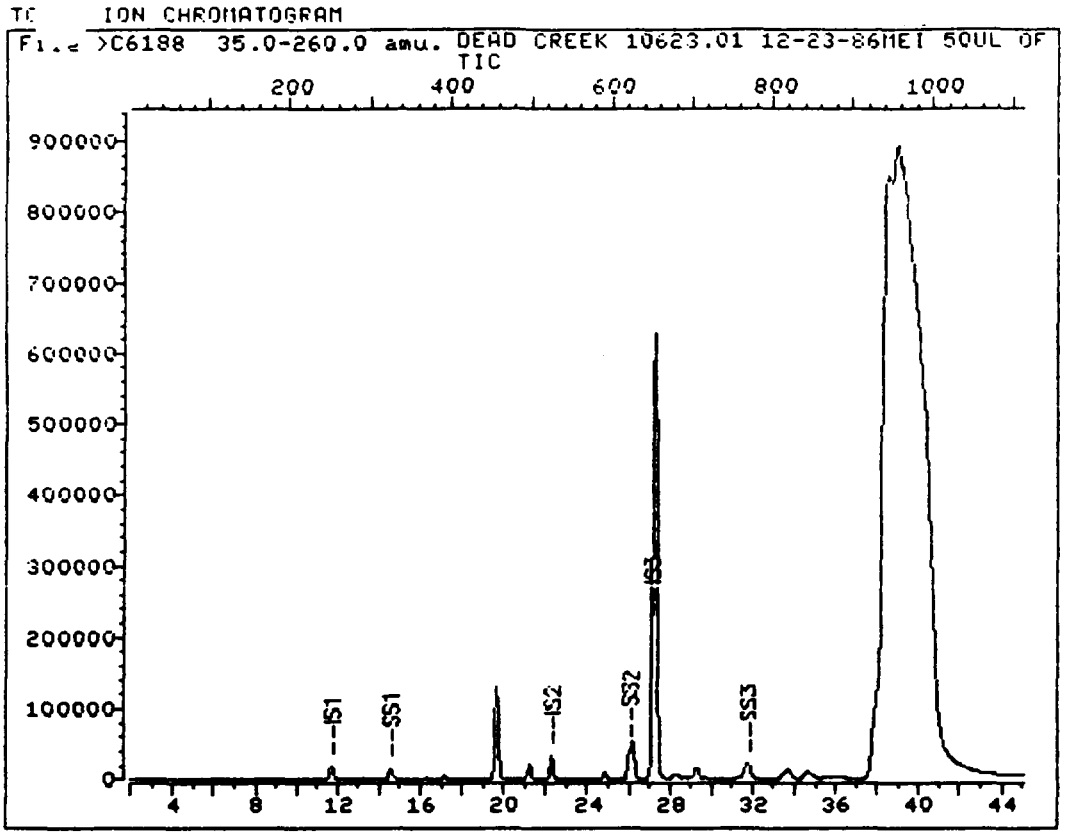
Case No U-4618 / U-4651

Sample Number DC-H1-14

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	16.3	1100 J
2.	HEXENE ISOMER		17.1	1700 BJ
3.	HEXANE ISOMER		21.2	6800 BJ
4.				
5.	TRICHLOROBENZENE ISOMER	BNA	13.5	570,000 J
6.	TETRACHLOROBENZENE ISOMER		15.7	300,000 J
7.	TETRACHLOROBENZENE ISOMER		16.6	690,000 J
8. 120321	4-CHLORO-2-(PHENYLMETHYL)PHENOL		24.4	2,400,000 J
9.	UNKNOWN HYDROCARBON		25.7	280,000 J
10 10544500	MOLECULAR SULFUR		25.9	540,000 J
11.	UNKNOWN HYDROCARBON		26.9	1,100,000 J
12.	UNKNOWN HYDROCARBON		28.1	1,100,000 J
13.	UNKNOWN HYDROCARBON		29.2	840,000 J
14.	UNKNOWN HYDROCARBON		30.3	620,000 J
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

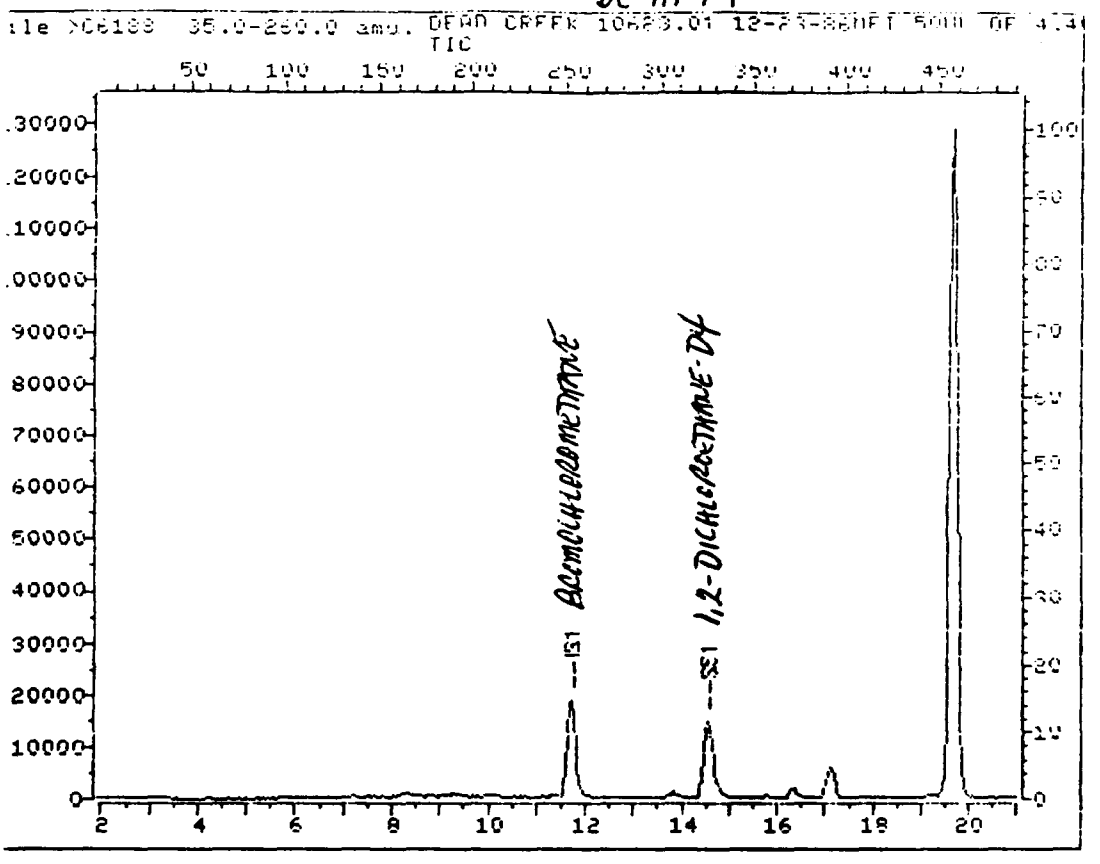


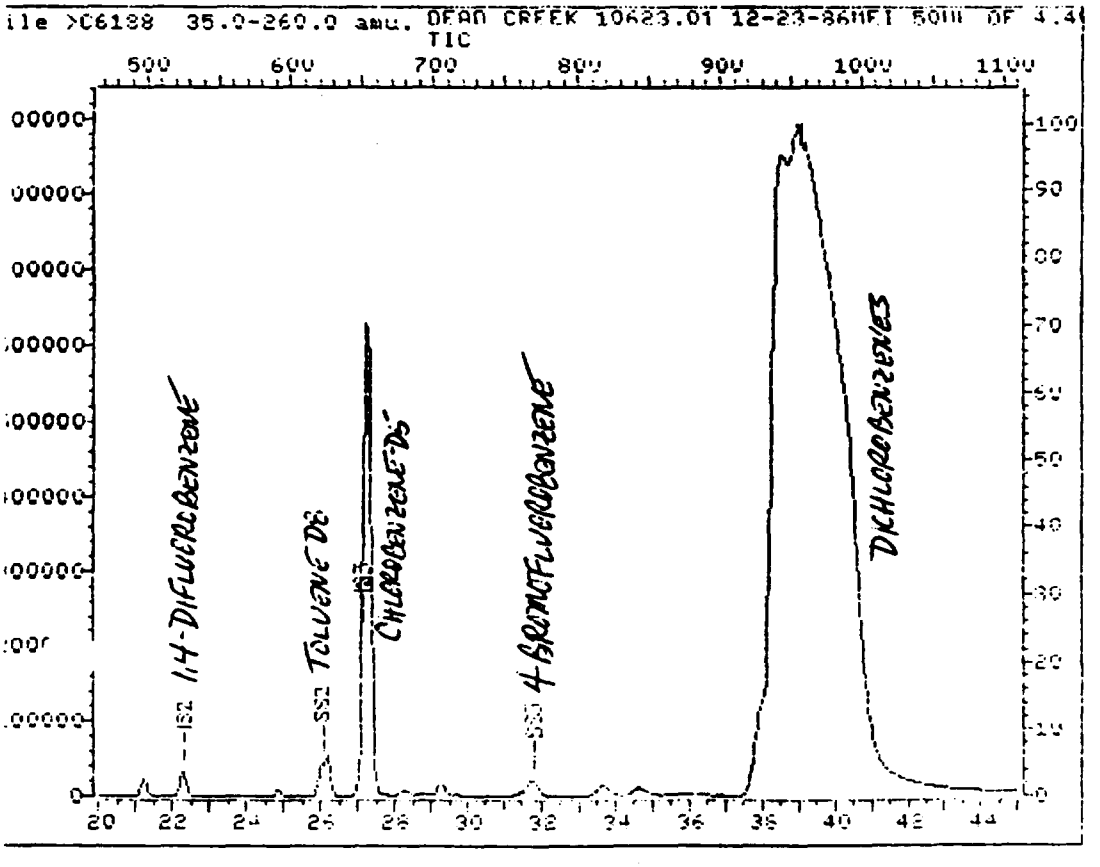
Data File: >C6188::D3
Name: DEAD CREEK 10623.01 DC-H1-14
Misc: 12-23-86MEI 50UL OF 4.40G/10MLS MEOH + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861223 16:29

Operator ID: USER8
Quant Time: 861224 00:04
Injected at: 861223 23:18

DC-H1-14


ile >C6188 35.0-260.0 amu. DEAD CREEK 10623.01 12-23-86HFI 50m OF 4.4
TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4


ile >C6188 35.0-260.0 amu. DEAD CREEK 10623.01 12-23-86HFI 50m OF 4.4
TIC
1,4-DIFLUOROBENZENE
TOLUENE D8
CHLOROBENZENE-D5
4-BROMOFLUOROBENZENE
DICHLOROBENZENES

QUANT REPORT

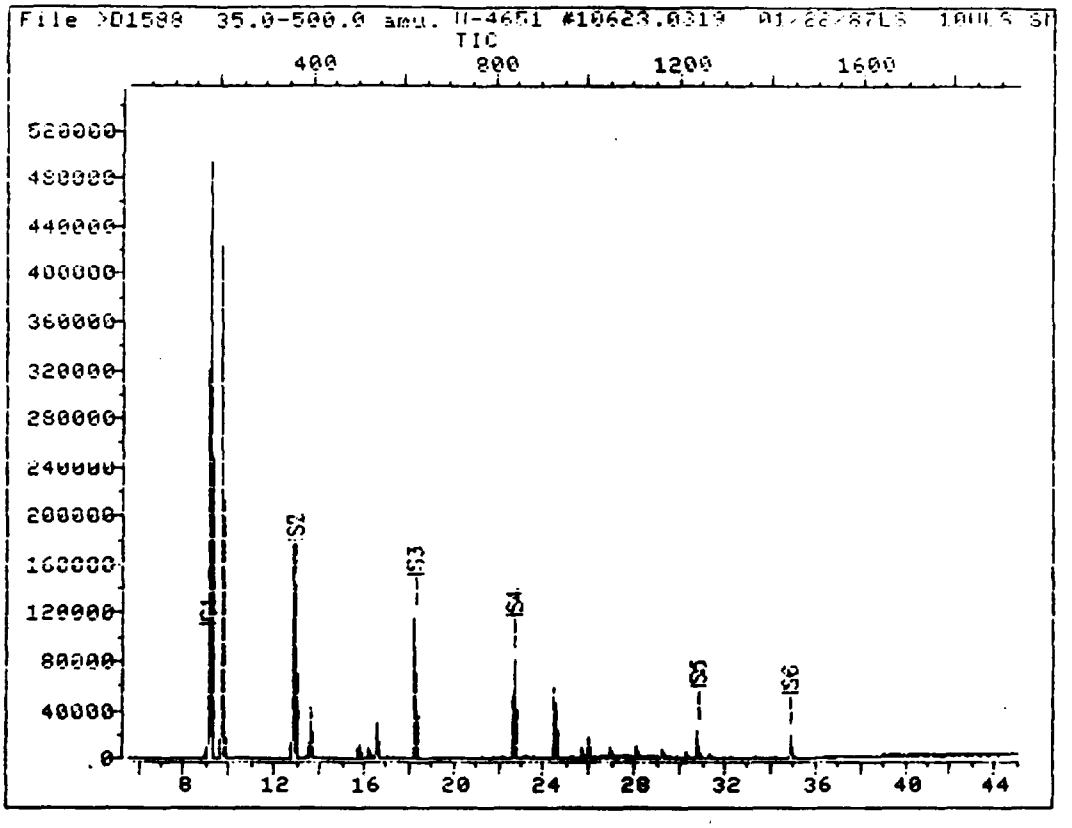
perator ID: USER8 Quant Rev: 4 Quant Time: 861224 00:04
utput File: ^C6188::Q2 Injected at: 861223 23:18
ata File: >C6188::D3 Dilution Factor: 1.00
ame: DEAD CREEK 10623.01 DC-H1-14
isc: 12-23-86MEI 50UL OF 4.40G/10MLS MEOH + 10UL IS/SS

) File: VOACR::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861223 16:29

	Compound	M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.72	253	29133	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.31	165	2190	1.92	UG/L	100
7)	ACETONE	43	9.24	189	9270	19.36	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~	~~76~~	~~10.05~~	~~210~~	~~3767~~	~~.83~~	~~UG/L~~ No Bfl	100
5)	1,2-DICHLOROETHANE-D4(SURR)	65	14.56	326	61914	44.91	UG/L	90
6)	*1,4-DIFLUOROBENZENE (IS)	114	22.32	526	141361	50.00	UG/L	100
7)	2-BUTANONE	72	14.67	329	4195	30.06	UG/L	100
7)	BENZENE	78	19.68	458	576187	165.41	UG/L	100
~~8)~~	~~CIS 1,3-DICHLOROPROPENE~~	~~75~~	~~19.68~~	~~458~~	~~11534~~	~~9.25~~	~~UG/L~~ No Bfl	100
1)	*CHLOROBENZENE-D5 (IS)	117	27.13	650	83552	50.00	UG/L	100
~~3)~~	~~2-HEXANONE~~	~~43~~	~~24.33~~	~~578~~	~~2581~~	~~4.17~~	~~UG/L~~ No Bfl	100
4)	TETRACHLOROETHENE	164	24.84	591	11205	15.35	UG/L	93
~~5)~~	~~1,1,2,2-TETRACHLOROETHANE~~	~~83~~	~~24.45~~	~~581~~	~~2837~~	~~3.07~~	~~UG/L~~ No Bfl	100
6)	TOLUENE-D8 (SURR)	98	26.04	622	158191	69.24	UG/L	90
7)	TOLUENE	92	26.20	626	120752	70.93	UG/L	92
8)	CHLOROBENZENE	112	27.25	653	2459886	1214.89	UG/L	97
9)	ETHYLBENZENE	91	29.31	706	97425	27.38	UG/L	96
0)	4-BROMOFLUOROBENZENE(SURR)	95	31.79	770	76370	68.73	UG/L	100
2)	TOTAL XYLENES	91	33.70	819	99438	27.52	UG/L	100
2)	TOTAL XYLENES	91	34.67	844	93896	25.99	UG/L	100
~~2)~~	~~TOTAL XYLENES~~	~~91~~	~~36.26~~	~~885~~	~~18515~~	~~5.12~~	~~UG/L~~ No Bfl	100
3)	1,3-DICHLOROBENZENE	146	38.43	941	3058450	3058450.	NO CALIB	100
4)	1,2-DICLHLOROBENZENE	146	38.43	941	3058450	3058450.	NO CALIB	100
5)	1,4-DICHLOROBENZENE	146	38.43	941	3058450	3058450.	NO CALIB	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

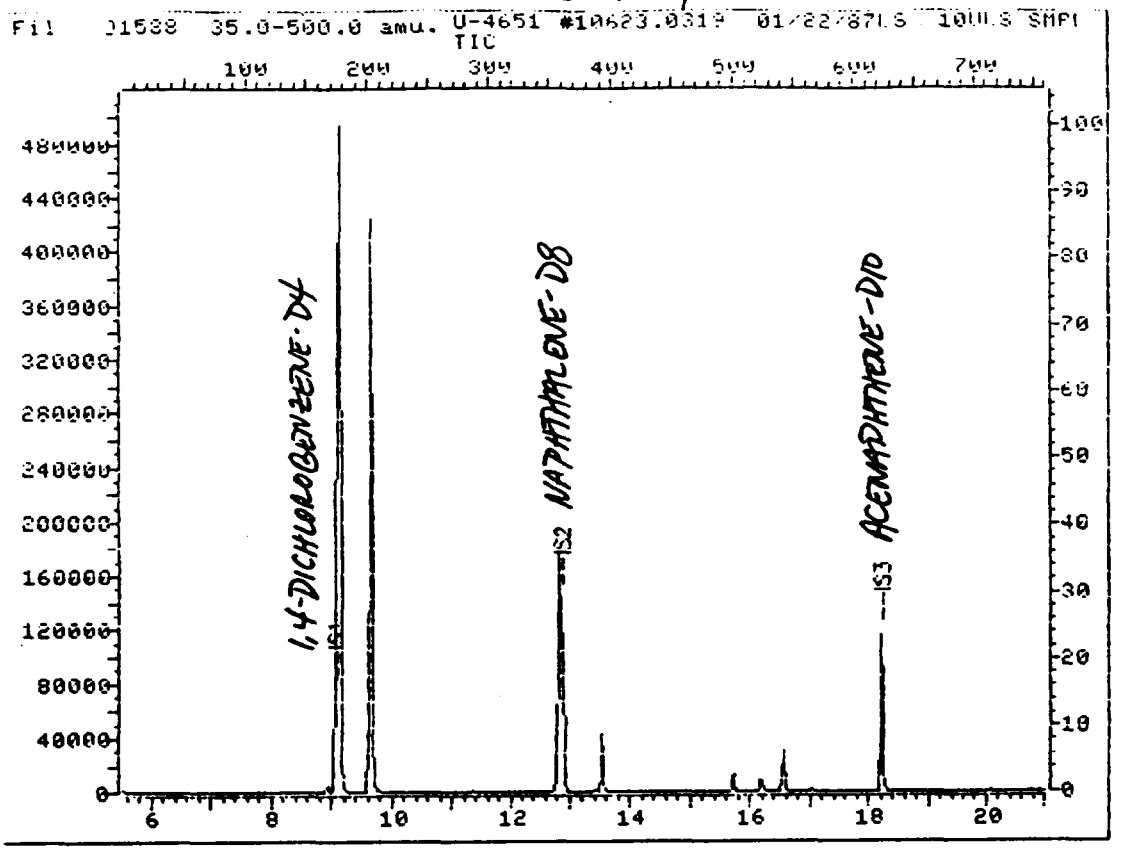


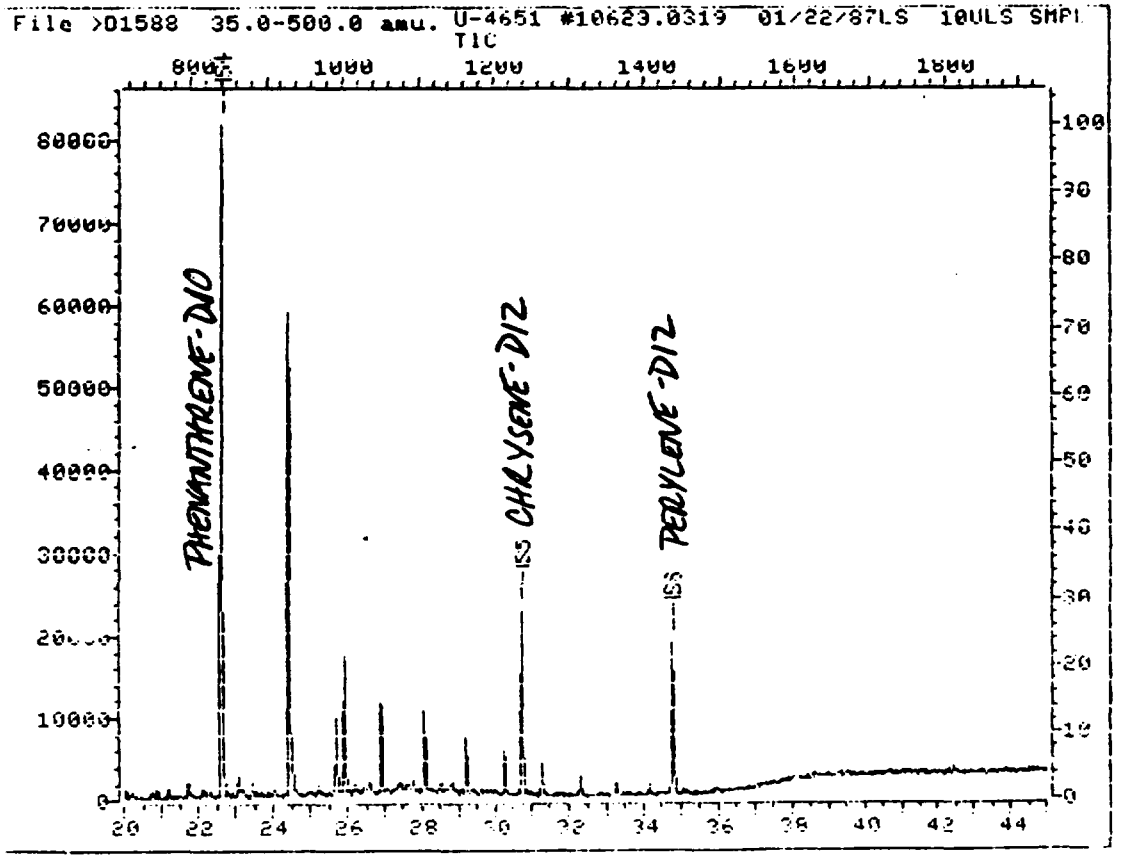
Data File: >D1588::D3
Name: U-4651 #10623.0319 DC-H1-14
Misc: 01/22/87LS 10ULS SMPL IN 2 MLS MECL2 BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860122 18:02

Operator ID: USER6
Quant Time: 860122 23:27
Injected at: 860122 22:39

DCH1-14


File D1588 35.0-500.0 amu. U-4651 #10623.0319 01/22/87LS 10ULS SMPL
TIC
1,4-DICHLOROBENZENE-D4
IS1
NAPHTHALENE-D8
IS2
ACENAPHTHENE-D10
IS3


File >D1588 35.0-500.0 amu. U-4651 #10623.0319 01/22/87LS 10ULS SMPL
TIC
PHENANTHRENE-D10
CHRYSENE-D12
IS5
PERYLENE-D12
IS6

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 860122 23:22
Output File: ^D1588::Q2 Injected at: 860122 22:39
Data File: >D1588::D3 Dilution Factor: 200.00
Name: U-4651 #10623.0319 DC-HI-14
Misc: 01/22/87LS 100ILS SMPL IN 2 MLS MECL2 BTL# 1

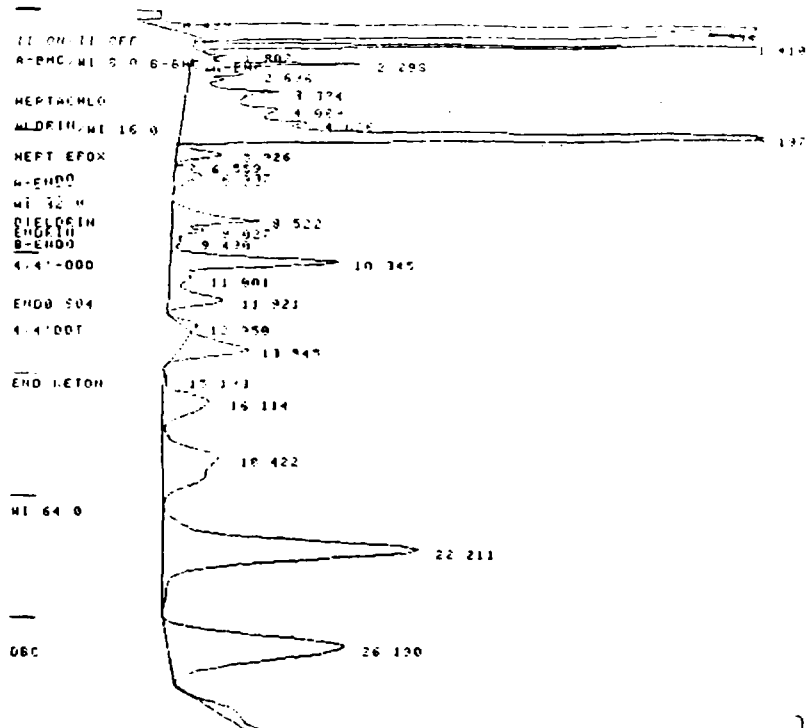
FINAL VOLUME = 10 ml

ID File: BNAUR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860122 18:02

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.06	174	39514	40.00	UG/L	89
9)	1,3-DICHLOROBENZENE		146	8.94	168	2947	444.07	UG/L	98
9)	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.12~~	~~177~~	~~394919~~	~~59500.53~~	~~UG/L~~	~~99~~
10)	~~1,4-DICHLOROBENZENE~~		~~146~~	~~8.94~~	~~168~~	~~2947~~	~~444.39~~	~~UG/L~~	~~99~~
10)	1,4-DICHLOROBENZENE		146	9.12	177	394919	57541.95	UG/L	98
12)	1,2-DICHLOROBENZENE		146	9.65	203	253716	37200.27	UG/L	99
19)	*NAPHTHALENE-D8	(IS)	136	12.87	361	149188	40.00	UG/L	100
27)	2,4-DICHLOROPHENOL		162	12.77	356	7837	1383.01	UG/L	96
28)	1,2,4-TRICHLOROBENZENE		180	12.83	359	91094	14066.49	UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162	18.23	624	61682	40.00	UG/L	99
36)	2,4,6-TRICHLOROPHENOL		196	16.19	524	4410	1143.84	UG/L	94
~~37)~~	~~2,4,5-TRICHLOROPHENOL~~		~~196~~	~~16.19~~	~~524~~	~~4410~~	~~1186.19~~	~~UG/L~~	~~96~~
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.23~~	~~624~~	~~14543~~	~~1766.94~~	~~UG/L~~	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.23~~	~~624~~	~~7552~~	~~3433.51~~	~~UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.65	841	84140	40.00	UG/L	96
65)	*CHRYSENE-D12	(IS)	240	30.76	1239	27619	40.00	UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.81	1438	21969	40.00	UG/L	100

* Compound is ISTD

ATTEN: 9 ZERO: 102 5 MIN/TICK



$395A \times \frac{1}{0.9270} \times 2{,}000{,}000 = 96{,}000 / Ka \cdot 1260$

DC-HI-14

CHANNEL: 1A - 1 TITLE: RUN# 26 4:55 30 DEC 06

SAMPLE: 10623.03.19A 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	1.263		3579	BV	2.94
2		0.0000	1.410		44241	VV	3.38
3		0.0000	1.802		3914	T	7.56
4	~~[illegible]~~	5359.768	2.099	0.040	6307	VV	5.50
5	~~[illegible]~~	15069.24	2.298	-0.102	15220	VV	5.50
6		0.0000	2.696		2994	VV	10.38
7		0.0000	2.900		5540	VV	? 10.63
8		0.0000	3.304		17335	VV	? 10.88
9		0.0000	3.571		6521	VV	? 21.94
10	~~HEPTACHLO~~	6804.949	3.671	-0.149	9223	VV	?
11		0.0000	4.089		34981	VV	? 17.75
12	~~ALDRIN~~	27576.34	4.626	-0.074	30051	VV	? 18.25
13		0.0000	5.197		25316	VV	10.81
14	~~HEPT EPOX~~	11235.44	5.976	[illegible]	11453	T	20.31
15		0.0000	~~[illegible]~~ DEATHERED		~~[illegible]~~	T	? 13.44
16	~~A-ENDO~~	8656.397	6.937	[illegible]143	9299	T	? 27.25
17	~~DIELDRIN~~	28925.57	8.517	[illegible]	30209	BV	24.31
18	~~ENDRIN~~	9834.745	9.026	[illegible]	7269	VV	? 22.25
19	~~B-ENDO~~.	67131.86	~~10.345~~	0.015	~~[illegible]~~	VV	24.75
20		0.0000	~~11.901~~		~~[illegible]~~	VV	? 32.44
21	~~ENDO 504~~	30758.99	~~11.923~~	-0.073	~~[illegible]~~	VV	30.00
22	~~4,4'DDT~~	8953.317	12.950	-0.410	2701	BB	? 29.44
23		0.0000	13.945		23455	VV	47.63
24	~~END KETON~~	28950.01	16.114	0.724	32204	VV	55.94
25		0.0000	18.422		55151	VV	91.00
26		0.0000	22.211		[illegible]	VV	52.81
27	~~DBC~~ DL	189013.4	26.190	-0.510	[illegible]	VV	60.31
28		0.0000	29.809		14373	VB	?145.19

TOTALS: 438270.7 -0.401 1161535

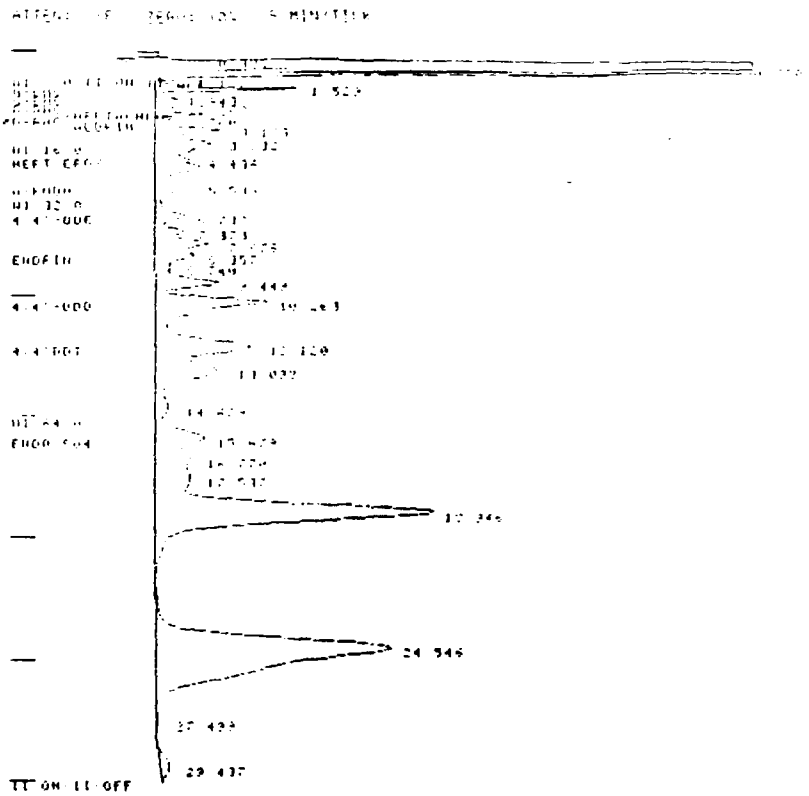
DETECTED PKS: 28 REJECTED PKS: 10

* DIVISOR: 0.92700 MULTIPLIER: 2000000.00

NOISE: 34.3 OFFSET: -25

RACK: 2 VIAL: 9 INJ: 1

NOTES:
NOTEBOOK:250-66 ANALYST:RICHARD SAMPON
SECURE AREA: D JOB#:U-4251
INST:VARIAN 6000LC & ECD 1051
COLUMN: [illegible] 100/120 SUPELCOPORT
LIQUID PHASE: [illegible]
CARRIER GAS: [illegible] MIN.
[illegible]
[illegible]



positive PCB1260

CHANNEL: 1B - 1 TITLE: RUN# 15 21:00 31 DEC 86

DC-H1-14

SAMPLE: 10623 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.379		52474	BV	5.31
2	[illegible]	13677.15	1.529	-0.111	221409	VV	4.63
3	[illegible]	7507.692	1.943	-0.137	49267	VV	6.75
4	[illegible]	8929.110	2.268	-0.092	51270	VV	9.91
5	[illegible]	7141.062	2.522	-0.028	90697	VV	6.81
6	[illegible]	3038.130	2.760	0.000	36699	VV	? 9.75
7		0.0000	2.963		23710	VV	? 10.69
8	[illegible]	17575.65	3.173	0.093	251363	VV	14.00
9		0.0000	3.722		252123	VV	? 17.94
10		0.0000	4.004		167997	VV	? 22.88
11		0.0000	4.436		139799	VV	? 19.38
12	[illegible]	18829.88	4.725	0.115	240524	VV	? 25.56
13	[illegible]	24024.55	5.538	-0.262	298997	VV	? 31.00
14	[illegible]	18327.90	6.738	0.078	217306	VV	24.81
15	[illegible]	11677.05	7.373	0.293	148995	VV	? 22.56
16		0.0000	7.978		299228	VV	24.19
17		0.0000	8.357		238439	VV	? 30.00
18	[illegible]	6148.065	8.740	PCB 150	50677	VV	?
19		0.0000	9.449		427151	VV	24.69
20	[illegible]	98270.92	10.263	1260 [illegible]	940538	VV	28.00
21	[illegible]	113398.8	12.120	-0.170	1031293	VV	40.69
22	[illegible]	79536.87	13.098	WEATHERED	732893	VV	? 51.69
23		0.0000	14.629		176996	VV	? 73.38
24		0.0000	15.879		562898	VV	? 45.00
25	[illegible]	80453.10	16.770	0.250	317699	VV	? 35.44
26		0.0000	17.537		482951	VV	?139.06
27		0.0000	19.946		3459777	VV	44.50
28	[illegible]	1458389.	24.546	1.026	4670974	VV	73.13
29		0.0000	29.437		104105	VB	? 77.31

TOTALS: 1962920. 0.686 15711679

DETECTED PKS: 39 REJECTED PKS: 10

DIVISOR: 0.92700 MULTIPLIER: 2000000.00

NOISE: 45.7 OFFSET: -5

RACK: 1 VIAL: 15 INJ: 1

NOTES:
NOTEBOOK:259-68 ANALYST: RICHARD SAMSON
SECURE AREA: [illegible]
INST: VARIAN [illegible] ATT:16
COLUMN: [illegible]
PHASE: [illegible]
CARRIER GAS: [illegible]
[illegible]

SAMPLE NUMBER DC-H1-15

481095

Sample Number
DC-H1-15

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc. Case No: U-4618 / U-4651

Lab Sample ID No: 10624 QC Report No.

Sample Matrix: SOIL Contract No: IL-3140

Data Release Authorized By: C Stojowicz Date Sample Received: 12/19/86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-26-86

Conc/Dil Factor: 2.5 pH 7.96

Percent Moisture: (Not Decanted) 16

REPORTED AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	25	U
74-83-9	Bromomethane	25	U
75-01-4	Vinyl Chloride	25	U
75-00-3	Chloroethane	25	U
75-09-2	Methylene Chloride	11	J
67-64-1	Acetone	25	B
75-15-0	Carbon Disulfide	12	U
75-35-4	1, 1-Dichloroethene	12	U
75-34-3	1, 1-Dichloroethane	12	U
156-60-5	Trans-1, 2-Dichloroethene	12	U
67-66-3	Chloroform	12	U
107-06-2	1, 2-Dichloroethane	12	U
78-93-3	2-Butanone	25	U
71-55-6	1, 1, 1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
108-05-4	Vinyl Acetate	25	U
75-27-4	Bromodichloromethane	12	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	12	U
10061-02-6	Trans-1, 3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1, 1, 2-Trichloroethane	12	U
71-43-2	Benzene	3	J
10061-01-5	cis-1, 3-Dichloropropene	12	U
110-75-8	2-Chloroethylvinylether	25	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	25	U
591-78-6	2-Hexanone	25	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	20	
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
	Total Xylenes	12	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-4618 / U-4651

Sample Number: DC-H1-15

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12-22-86

Date Analyzed: 1-15-86

Conc/Dil Factor: 2

Percent Moisture (Decanted): 16

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	1000	
100-51-6	Benzyl Alcohol	330	U
95-50-1	1 2-Dichlorobenzene	460	
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	140	J
120-82-1	1, 2, 4-Trichlorobenzene	3400	
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	150	J
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[illegible]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	600	
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-4618/U-4651

Sample Number DC-H1-15

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 10

Percent Moisture (decanted) 16

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	80	U
319-85-7	Beta-BHC	80	U
319-86-8	Delta-BHC	80	U
58-89-9	Gamma-BHC (Lindane)	80	U
76-44-8	Heptachlor	80	U
309-00-2	Aldrin	80	U
1024-57-3	Heptachlor Epoxide	80	U
959-98-8	Endosulfan I	80	U
60-57-1	Dieldrin	160	U
72-55-9	4,4'-DDE	160	U
72-20-8	Endrin	160	U
33213-65-9	Endosulfan II	160	U
72-54-8	4,4'-DDD	160	U
1031-07-8	Endosulfan Sulfate	160	U
50-29-3	4,4'-DDT	160	U
72-43-5	Methoxychlor	800	U
53494-70-5	Endrin Ketone	160	U
57-74-9	Chlordane	800	U
8001-35-2	Toxaphene	1600	U
12674-11-2	Aroclor-1016	800	U
11104-28-2	Aroclor-1221	800	U
11141-16-5	Aroclor-1232	800	U
53469-21-9	Aroclor-1242	800	U
12672-29-6	Aroclor-1248	800	U
11097-69-1	Aroclor-1254	1600	U
11096-82-5	Aroclor-1260	949	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 1,000 V_i 4

Form 1

7/85
491095

Laboratory Name ECOLOGY & ENVIRONMENT INC.

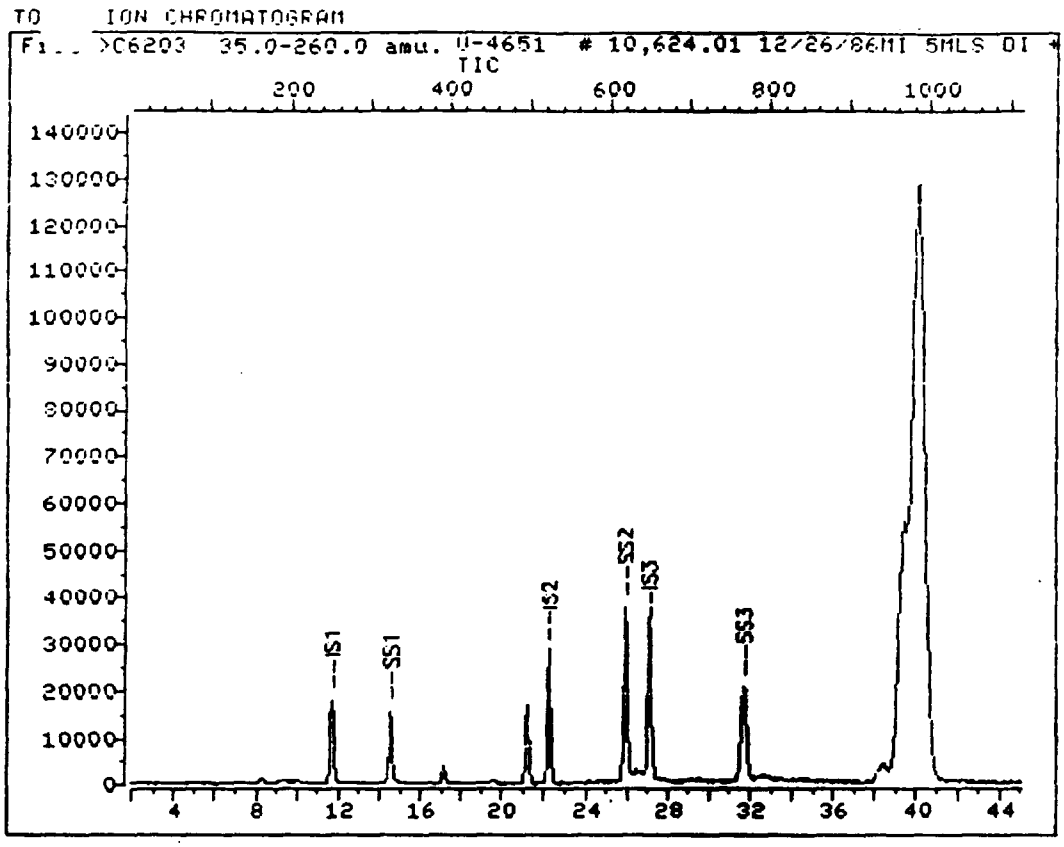
Case No U-4618/U-4651

Sample Number DC-H1-15

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.2	16 BJ
2.	HEXANE ISOMER	VOA	21.2	42 BJ
3.				
4	TETRACHLOROBENZENE ISOMER	BNA	15.8	2200 J
5.	TETRACHLOROBENZENE ISOMER		16.6	16000 J
6. 608935	PENTACHLOROBENZENE		19.0	7600 J
7. 120321	4-CHLORO-2-(PHENYLMETHYL) PHENOL		24.5	340 J
8. 10544500	MOLECULAR SULFUR		26.0	5800 J
9				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

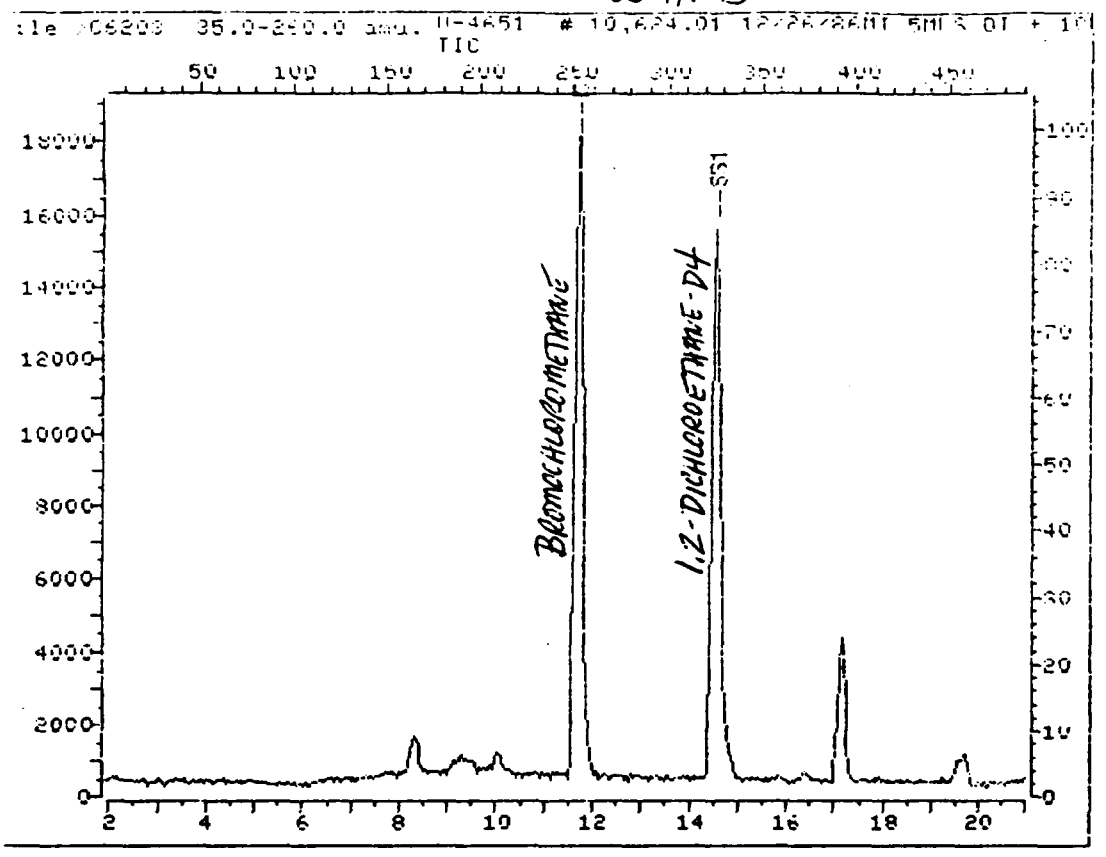


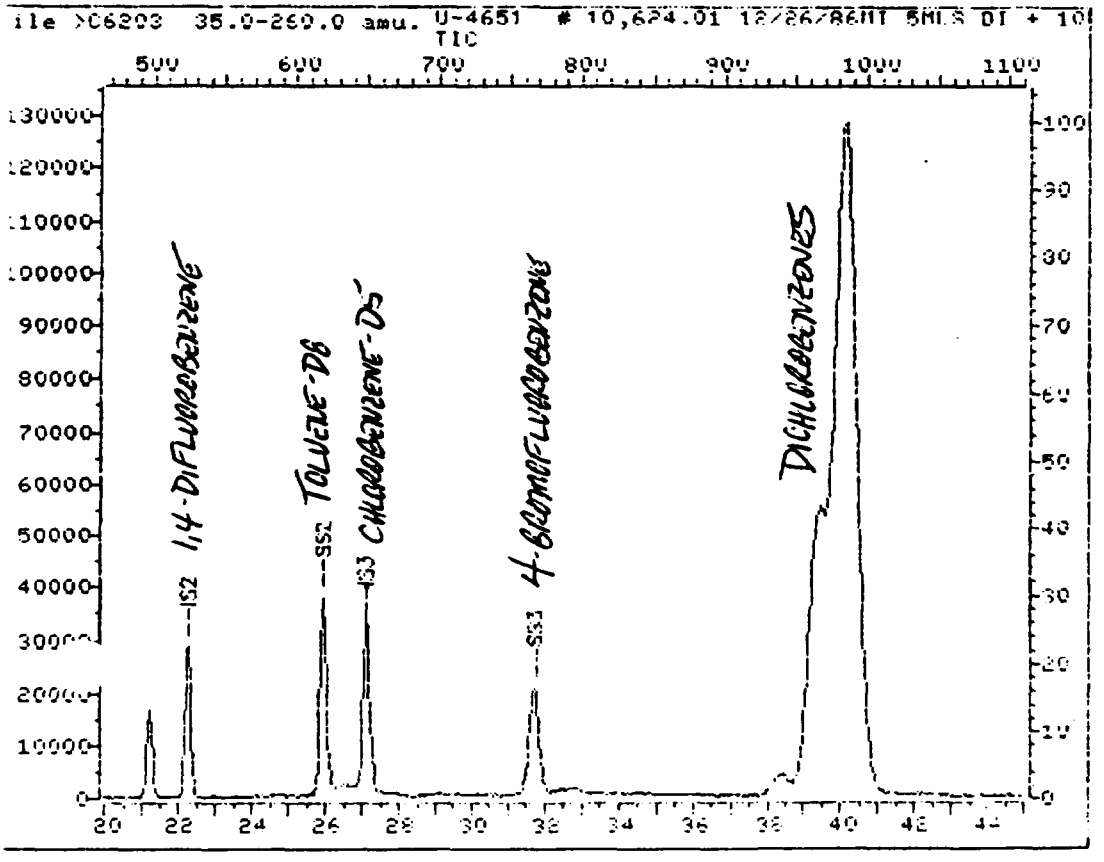
Data File: >C6203::D3
Name: U-4651 # 10,624.01 DC-HI-15
Misc: 12/26/86MI 5MLS DI + 10UL IS/SS + 2.02g SAMPLE

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861226 12:05

Operator ID: USER8
Quant Time: 861226 19:24
Injected at: 861226 18:38

DC-111-15


ile >06203 35.0-260.0 amu. U-4651 # 10,624.01 12/26/86MT SMLS DI + 10
TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4
SS1


ile >06203 35.0-260.0 amu. U-4651 # 10,624.01 12/26/86MT SMLS DI + 10
TIC
1,4-DIFLUOROBENZENE
IS2
TOLUENE-D8
SS2
CHLOROBENZENE-D5
IS3
4-BROMOFLUOROBENZENE
SS3
DICHLOROBENZENES

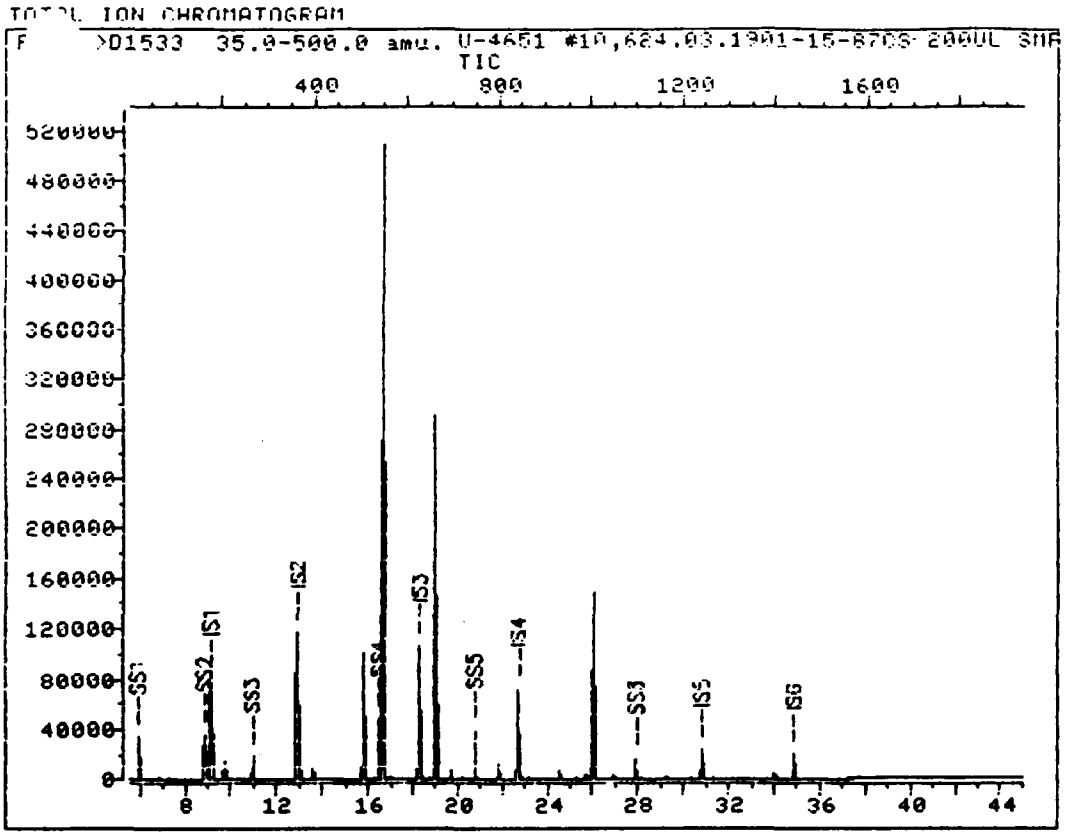
QUANT REPORT

perator ID: USER8 Quant Rev: 4 Quant Time: 861226 19:24
utput File: ^C6203::Q2 Injected at: 861226 18:38
ata File: >C6203::D3 Dilution Factor: 1.00
ame: U-4651 # 10,624.01 DC-141-15
isc: 12/26/86MI 5MLS DI + 10UL IS/SS + 2.02g SAMPLE

D File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861226 12:05

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.69	252	26450	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.35	166	2636	22.67	NGS	100
7)	ACETONE		43	9.24	189	10045	50.86	NGS	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.56	326	64452	251.51	NGS	85
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.24	524	120777	250.00	NGS	100
7)	BENZENE		78	19.71	459	3411	5.78	NGS	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.08	649	103598	250.00	NGS	100
6)	TOLUENE-D8	(SURR)	98	25.92	619	150217	254.96	NGS	92
8)	CHLOROBENZENE		112	27.24	653	19327	40.79	NGS	99
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.71	768	75981	257.06	NGS	100
3)	1,3-DICHLOROBENZENE		146	38.38	940	24082	24082.00	NO CALIB	100
3)	1,3-DICHLOROBENZENE		146	39.47	968	369962	369962.0	NO CALIB	100
3)	1,3-DICHLOROBENZENE		146	40.09	984	946753	946753.0	NO CALIB	100
4)	1,2-DICHLOROBENZENE			38.38	940	24082	24082.00	NO CALIB	100
4)	1,2-DICHLOROBENZENE			39.47	968	369962	369962.0	NO CALIB	100
4)	1,2-DICHLOROBENZENE			40.09	984	883374	883374.0	NO CALIB	100
5)	1,4-DICHLOROBENZENE		146	38.38	940	24082	24082.00	NO CALIB	100
5)	1,4-DICHLOROBENZENE		146	39.47	968	382491	382491.0	NO CALIB	100
5)	1,4-DICHLOROBENZENE		146	40.09	984	1227567	1227567.	NO CALIB	100

* Compound is ISTD

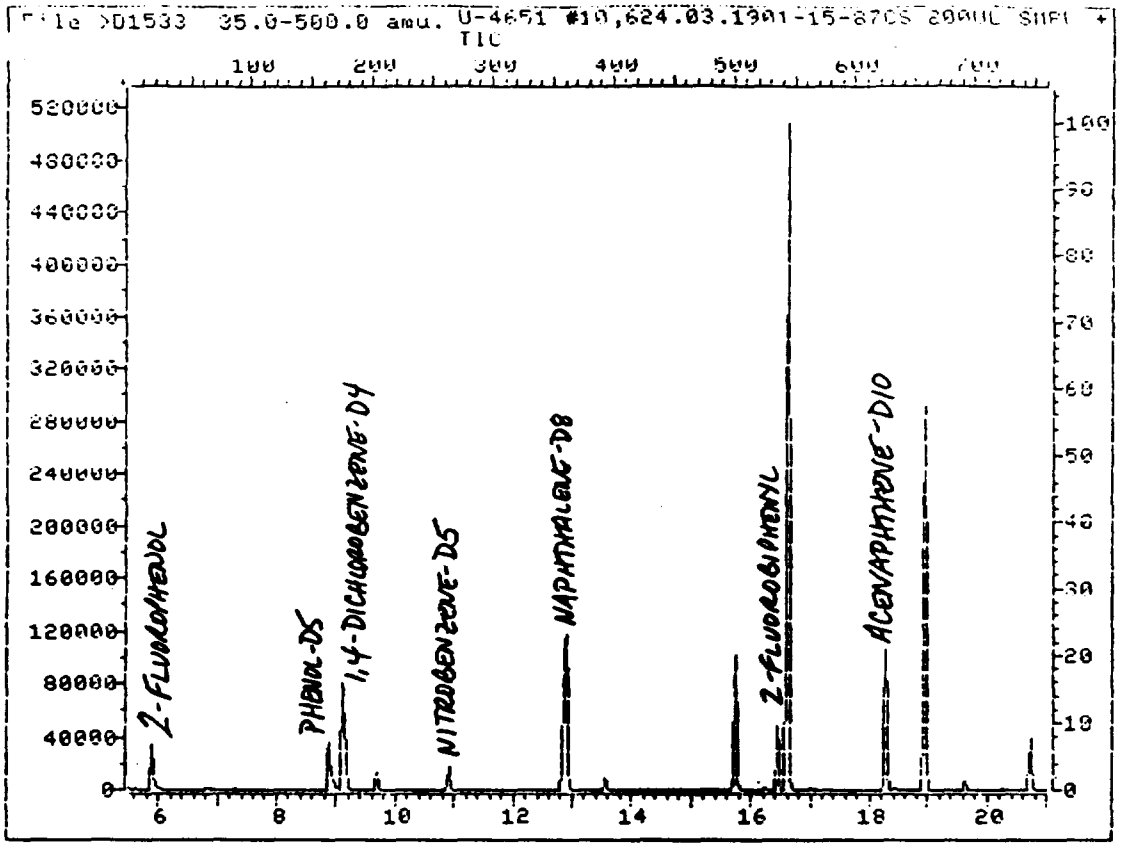


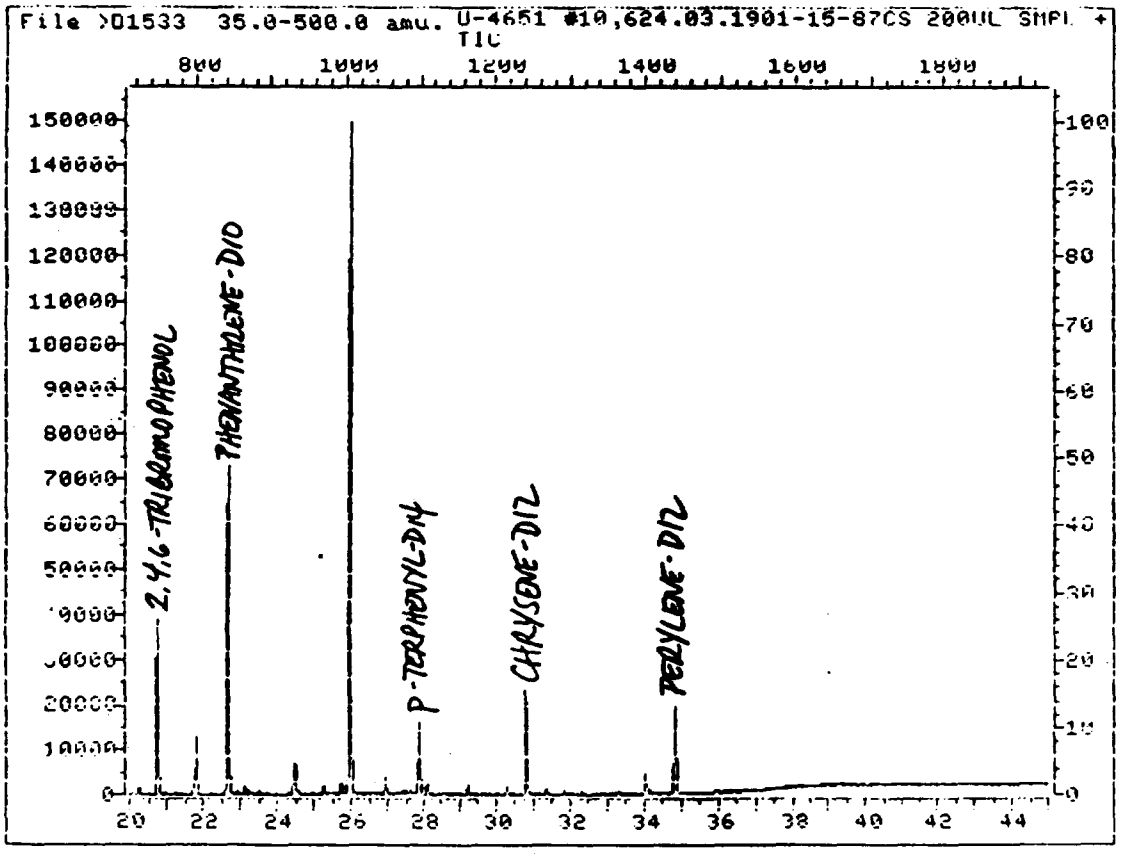
Data File: >D1533::D1
Name: U-4651 #10,624.03.19 DC-H1-15
Misc: 01-15-87CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 5

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860115 14:20

Operator ID: USER6
Quant Time: 860116 11:43
Injected at: 860115 17:57

DC-111-15


File >D1533 35.0-500.0 amu. U-4651 #10,624.03.1901-15-87CS 200UL SMPL
TIC
2-FLUOROPHENOL
PHENOL-D5
1,4-DICHLOROBENZENE-D4
NITROBENZENE-D5
NAPHTHALENE-D8
2-FLUOROBIPHENYL
ACENAPHTHENE-D10


File >D1533 35.0-500.0 amu. U-4651 #10,624.03.1901-15-87CS 200UL SMPL
TIC
2,4,6-TRIBROMOPHENOL
PHENANTHRENE-D10
P-TERPHENYL-D14
CHRYSENE-D12
PERYLENE-D12

QUANT REPORT

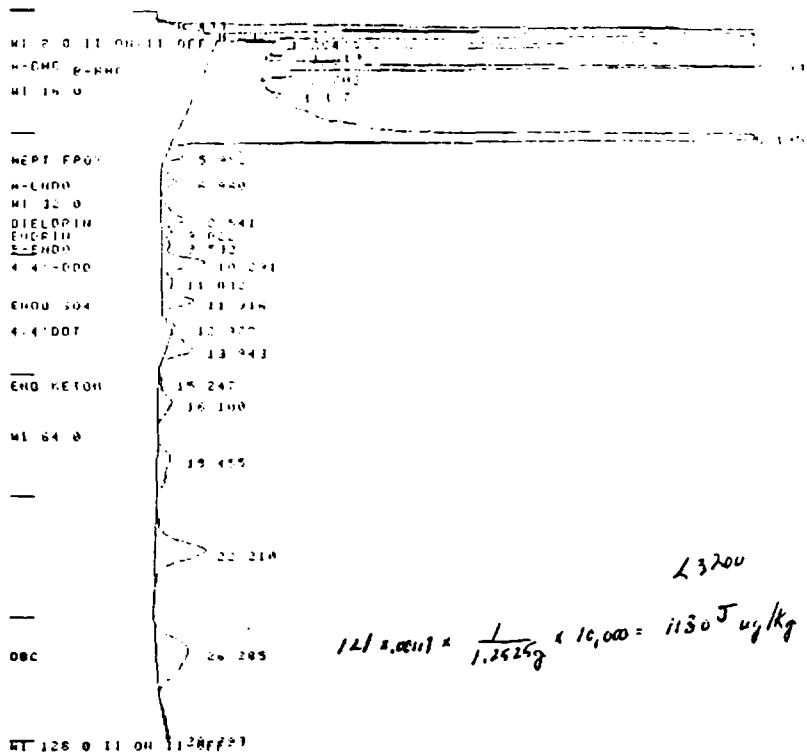
Operator ID: USER6 Quant Rev: 4 Quant Time: 860116 11:43
Output File: ^D1533::Q2 Injected at: 860115 17:57
Data File: >D1533::D1 Dilution Factor: 2.00
Name: U-4651 #10,624.03.19 DC-H1-15
Misc: 01-15-87CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 5

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860115 14:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.09	176	40396	40.00	UG/L	88
2)	PHENOL-D5	(SURR)	99	8.87	165	46671	97.86	UG/L	98
5)	2-FLUOROPHENOL	(SURR)	112	5.87	18	31122	81.50	UG/L	93
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.15~~	~~179~~	~~21376~~	~~31.26~~	~~UG/L~~ No BPH	98
10)	1,4-DICHLOROBENZENE		146	9.15	179	21376	31.15	UG/L	97
12)	1,2-DICHLOROBENZENE		146	9.68	205	9484	13.83	UG/L	96
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.90~~	~~265~~	~~2459~~	~~6.04~~	~~UG/L~~ No BPH	86
19)	*NAPHTHALENE-D8	(IS)	136	12.90	363	135259	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.90	265	15175	30.54	UG/L	96
27)	2,4-DICHLOROPHENOL		162	12.84	360	2364	4.33	UG/L	87
28)	1,2,4-TRICHLOROBENZENE		180	12.86	361	69219	101.73	UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162	18.26	626	61404	40.00	UG/L	97
36)	2,4,6-TRICHLOROPHENOL		196	16.24	527	1818	4.61	UG/L	91
~~37)~~	~~2,4,5-TRICHLOROPHENOL~~		~~196~~	~~16.24~~	~~527~~	~~1818~~	~~4.63~~	~~UG/L~~ No BPH	93
38)	2-FLUOROBIPHENYL	(SURR)	172	16.45	537	48564	33.43	UG/L	91
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.26~~	~~626~~	~~18930~~	~~18.39~~	~~UG/L~~ No BPH	100
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~18.42~~	~~634~~	~~1447~~	~~1.11~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.72	747	17100	87.69	UG/L	98
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.26~~	~~626~~	~~7873~~	~~37.40~~	~~UG/L~~ No BPH	100
55)	*PHENANTHRENE-D10	(IS)	188	22.68	843	86602	40.00	UG/L	91
59)	HEXACHLOROBENZENE		284	21.78	799	6519	18.14	UG/L	88
65)	*CHRYSENE-D12	(IS)	240	30.79	1241	31731	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.87	1098	20763	53.62	UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.84	1440	28057	40.00	UG/L	100

* Compound is ISTD

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



121 = .0011 × 1/1.2525g × 10,000 = 1130 J ug/kg 1260

L 3200

DC-H1-15

CHANNEL: 1A - 1 TITLE: RUN# 23 3:13 30 DEC 86

SAMPLE: 10624.03.19 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/LG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.409		6957537	VV	4.00
2	[illegible]	15.9751	2.093	0.043	50989	T	6.19
3	[illegible]	617.3024	2.293	-0.107	1762512	VV	9.19
4		0.0000	2.702		27413	T	? 14.69
5		0.0000	5.195		5[illegible]	VV	10.63
6	[illegible]	13.4427	5.952	0.242	37651	T	16.75
7	[illegible]	21.1330	6.980	-0.100	96294	T	24.44
8	[illegible]	33.4998	8.535	0.275	96549	T	25.19
9	[illegible]	12.5922	9.055	0.165	27415	T	? 29.94
10	[illegible]	10.3357	9.532	0.142	36753	T	? 33.88
11	ENO.KETO.	70.8199	10.291	-0.039	199500	T	28.75
12		0.0000	11.082		10294	T	? 32.94
13	[illegible] 304	64.1000	11.916	-0.084	1[illegible]3794	T	31.25
14	[illegible]	106.5058	13.943	0.583	1[illegible]1191	BB	51.31
15	ENO KETON	30.9671	16.100	0.710	87669	VB	49.25
16		0.0000	18.455		1[illegible]9269	BV	82.50
17		0.0000	22.210		[illegible]	VV	50.25
18	DBC INF.	166.9230	26.285	-0.445	350000	VV	102.00

PCB 1260

121

TOTALS: 1163.694 1.055 16193760

DETECTED PKS: 33 REJECTED PKS: 15

DIVISOR: 1.25250 MULTIPLIER: 10000.0000

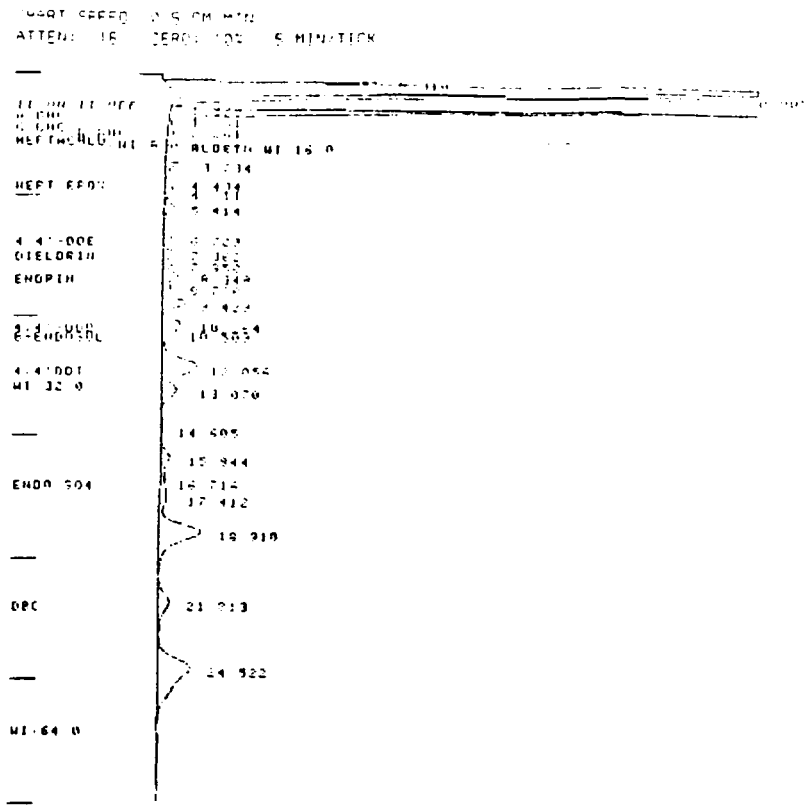
NOISE: 34.3 OFFSET: -15

RACK: 2 VIAL: 6 INJ: 1

NOTES:
NOTEBOOK:259-66 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4651
INST:VARIAN 6000#2 A ECD 10X1
COLUMN: 6' GLASS 4MM ID 10%/120 SWI COPORT
LIQUID PHASE: [illegible]
CARRIER GAS: [illegible] ML/MIN.
DET:300 C [illegible]
200 C [illegible] INJECTION
AUTOSAMPLER
PEST/PCB PREPARED ANALYSIS

LAST RUN:
SAVE FILE: [illegible]

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



positive PCB 1260

DC-HH15

CHANNEL: 18 - 1 TITLE: RUN# 14 20:26 31 DEC 86

SAMPLE: 10624 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.370		66507	BV	4.06
2	[illegible]	586.0679	1.525	-0.115	2564686	VV	3.56
3	HEPTACHLOR	6.4663	2.514	-0.036	22193	T	? 7.50
4		0.0000	3.732		46159	BV	11.31
5	HEPT EPOX	14.6407	4.811	0.201	50536	VV	22.13
6	[illegible]	20.3205	5.414	-0.396	66029	VB	19.38
7	[illegible]	13.5437	6.729	0.069	42395	BV	20.31
8	DIELDRIN	16.1598	7.362	0.282	55719	VV	24.00
9		0.0000	7.850		[illegible]	VV	? 22.94
10		0.0000	8.348		85581	VV	23.00
11	ENDRIN	19.4212	8.788	PCB 1260 198	43259	VV	? 28.69
12		0.0000	9.429		150882	VV	22.88
13	[illegible]	44.3196	10.264	[illegible]	114624	VV	? 23.81
14	[illegible]	24.2661	10.509	0.099	78548	VV	? 42.56
15	[illegible]	169.4707	12.056	-0.234	416482	VV	? 46.81
16	[illegible]	64.6702	13.070	-0.620	161027	VV	? 49.06
17		0.0000	15.844		93081	VV	41.31
18	[illegible]	36.7523	16.716	0.196	39218	VV	? 30.00
19		0.0000	17.412		90239	VV	? 75.63
20		0.0000	18.910		517704	VB	44.94
21	[illegible] DBC	60.3743	21.813	0.053	151708	BV	50.13
22	[illegible]	741.2713	24.522	1.002	641563	VB	70.19

TOTALS: 1817.744 0.783 5539909

DETECTED PKS: 36 REJECTED PKS: 14

DIVISOR: 1.25250 MULTIPLIER: 10000.0000

NOISE: 45.7 OFFSET: -18

RACK: 1 VIAL: 14 INJ: 1

NOTES:
NOTEBOOK: 259-68 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB #U-1651
INST: VARIAN 6000#? 8 ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100 120 SUPELCOPORT
PHASE: 1.5% SP2250/1.95% SP2401
CARRIER GAS: [illegible] 60 ML/MIN.
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIRMATIONS
DEAD [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)

Sample Number
DC-N1-05 MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc. Case No: V-4618 / V-4651

Lab Sample ID No: 10614 MS QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Stoglowicz Date Sample Received: 12-19-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-22-86

Conc/Dil Factor: 1 pH 10.13

Percent Moisture: (Not Decanted) 24

REPORTED - AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	33	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	SPIKE	
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

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

Sample Number
DC-NZ-06 MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc.
Case No: V-4618/V-4651
Lab Sample ID No: 10615 MS
QC Report No:
Sample Matrix: SOIL
Contract No: IL-3140
Data Release Authorized By: O Stoylowicz
Date Sample Received: 12-19-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 12-24-86
Conc/Dil Factor: 2 pH 10.93
Percent Moisture: (Not Decanted) 21

REPORTED - AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	2200	U
74-83-9	Bromomethane	2200	U
75-01-4	Vinyl Chloride	2200	U
75-00-3	Chloroethane	2200	U
75-09-2	Methylene Chloride	440	BJ
67-64-1	Acetone	3900	
75-15-0	Carbon Disulfide	1100	U
75-35-4	1, 1-Dichloroethene	1100	U
75-34-3	1, 1-Dichloroethane	1100	U
156-60-5	Trans-1, 2-Dichloroethene	1100	U
67-66-3	Chloroform	1100	U
107-06-2	1, 2-Dichloroethane	1100	U
78-93-3	2-Butanone	11000	
71-55-6	1, 1, 1-Trichloroethane	1100	U
56-23-5	Carbon Tetrachloride	1100	U
108-05-4	Vinyl Acetate	2200	U
75-27-4	Bromodichloromethane	1100	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	1100	U
10061-02-6	Trans-1, 3-Dichloropropene	1100	U
79-01-6	Trichloroethene	SPIKE	
124-48-1	Dibromochloromethane	1100	U
79-00-5	1, 1, 2-Trichloroethane	1100	U
71-43-2	Benzene	SPIKE	
10061-01-5	cis-1, 3-Dichloropropene	1100	U
110-75-8	2-Chloroethylvinylether	2200	U
75-25-2	Bromoform	1100	U
108-10-1	4-Methyl-2-Pentanone	2200	U
591-78-6	2-Hexanone	2200	U
127-18-4	Tetrachloroethene	1100	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1100	U
108-88-3	Toluene	SPIKE	
108-90-7	Chlorobenzene	SPIKE	
100-41-4	Ethylbenzene	1100	U
100-42-5	Styrene	1100	U
	Total Xylenes	1100	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-4618 / U-4651

Sample Number DC-L4-09 MS

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed: 1-9-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 24

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	SPIKE
111-44-4	bis(-2-Chloroethyl)Ether	330 U
95-57-8	2-Chlorophenol	SPIKE
541-73-1	1 3-Dichlorobenzene	330 U
106-46-7	1. 4-Dichlorobenzene	SPIKE
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	SPIKE
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	SPIKE
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	SPIKE
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
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	SPIKE
51-28-5	2. 4-Dinitrophenol	1600 U
100-02-7	4-Nitrophenol	SPIKE
132-64-9	Dibenzofuran	330 U
121-14-2	2 4-Dinitrotoluene	SPIKE
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	SPIKE
85-01-8	Phenanthrene	330 U
120-12-7	Anthracene	330 U
84-74-2	Di-n-Butylphthalate	260 J
206-44-0	Fluoranthene	330 U
129-00-0	Pyrene	SPIKE
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	680
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-4618/U-4651

Sample Number DC-L4-09 MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 10 x 100

Percent Moisture (decanted) 24

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	800	U
319-85-7	Beta-BHC	800	U
319-86-8	Delta-BHC	800	U
58-89-9	Gamma-BHC (Lindane)	DL	S
76-44-8	Heptachlor	DL	S
309-00-2	Aldrin	DL	S
1024-57-3	Heptachlor Epoxide	800	U
959-98-8	Endosulfan I	800	U
60-57-1	Dieldrin	49.5	S
72-55-9	4,4'-DDE	160	U
72-20-8	Endrin	57.6	S
33213-65-9	Endosulfan II	160	U
72-54-8	4,4'-DDD	160	U
1031-07-8	Endosulfan Sulfate	160	U
50-29-3	4,4'-DDT	52.2	S
72-43-5	Methoxychlor	800	U
53494-70-5	Endrin Ketone	160	U
57-74-9	Chlordane	800	U
8001-35-2	Toxaphene	1600	U
12674-11-2	Aroclor-1016	8,000	U
11104-28-2	Aroclor-1221	8,000	U
11141-16-5	Aroclor-1232	8,000	U
53469-21-9	Aroclor-1242	8,000	U
12672-29-6	Aroclor-1248	8,000	U
11097-69-1	Aroclor-1254	1600	U
11096-82-5	Aroclor-1260	1600	U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

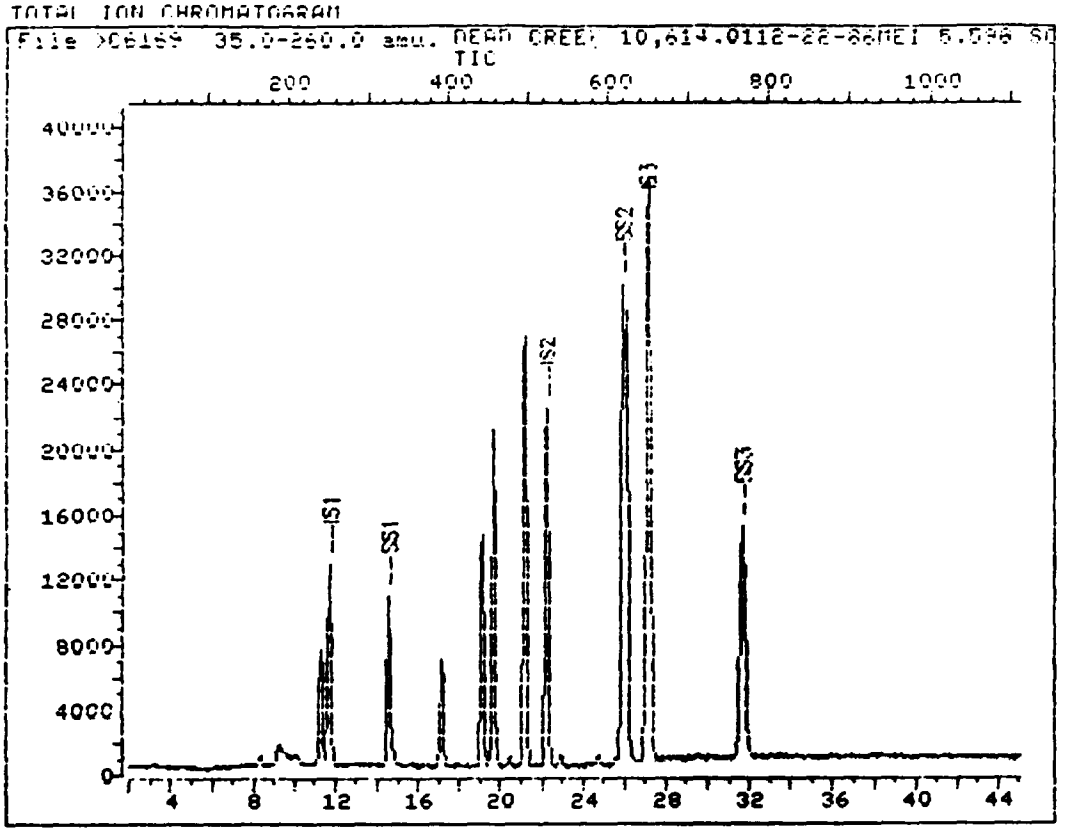
W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

S = SPIKED COMPOUND
DL = DILUTED OUT

TOTAL ION CHROMATOGRAM



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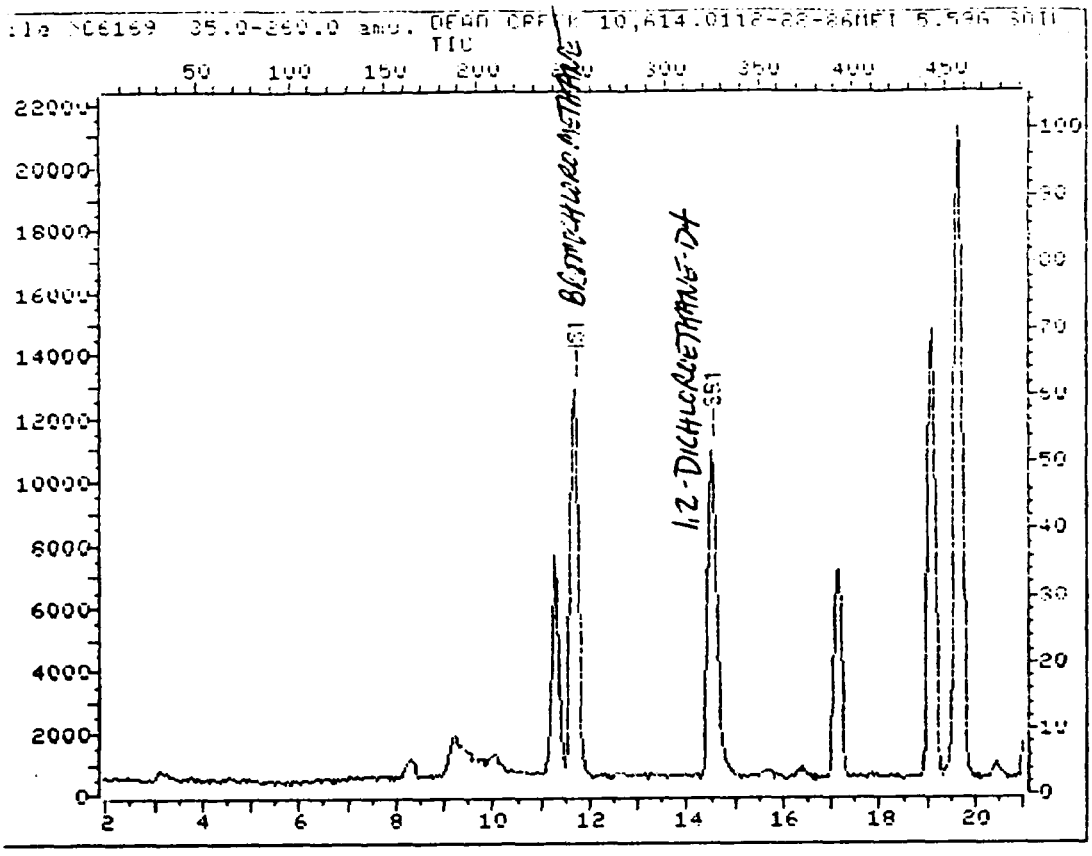
Name: DEAD CREEK 10,614.01 DC-N1-05 MS
Misc: 12-22-86MEI 5.59G SOIL IN 5ML DI + 10UL IS/SS/MS

Id File: VOAIRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861222 13:20

Operator ID: USER8
Quant Time: 861222 19:47
Injected at: 861222 19:01

DC-N1-05 MS



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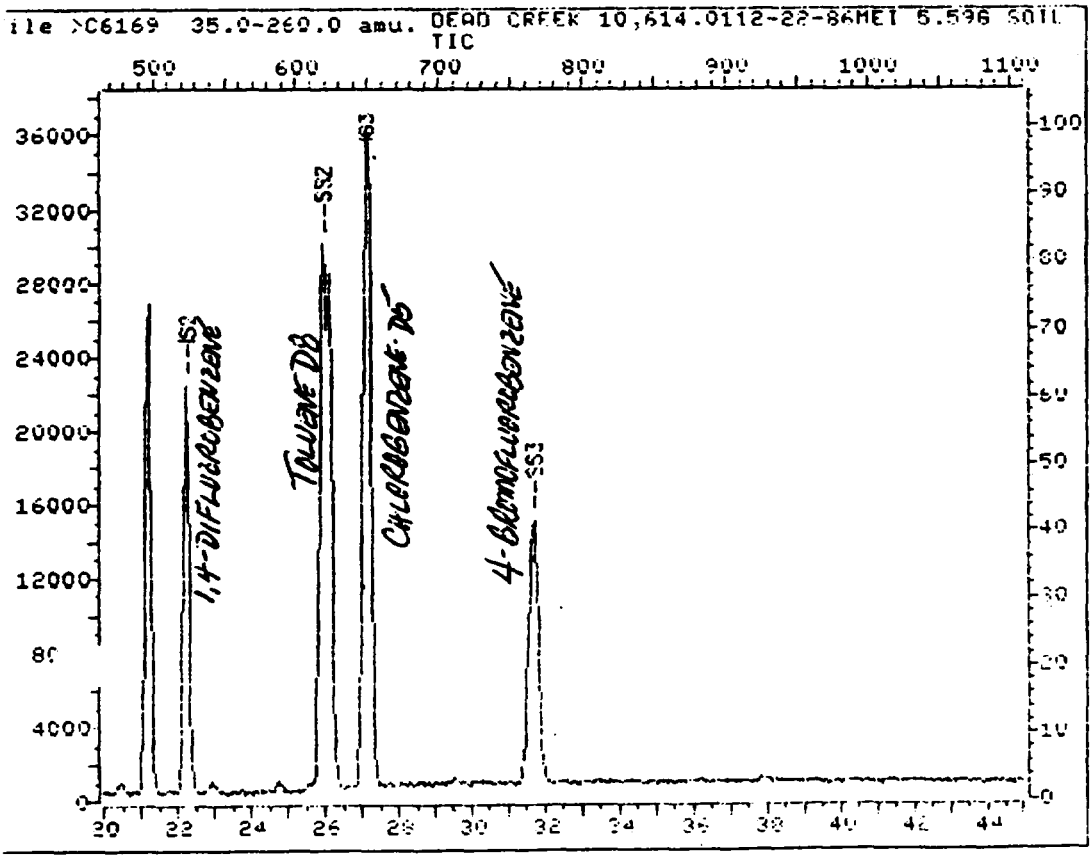
BROMOCHLOROMETHANE
IS1
1,2-DICHLOROETHANE-D4
SS1



ile >C6169 35.0-260.0 amu. DEAD CREEK 10,614.0112-22-86MEI 5.596 SOIL
TIC
IS2
1,4-DIFLUOROBENZENE
TOLUENE D8
SS2
IS3
CHLOROBENZENE-D5
4-BROMOFLUOROBENZENE
SS3

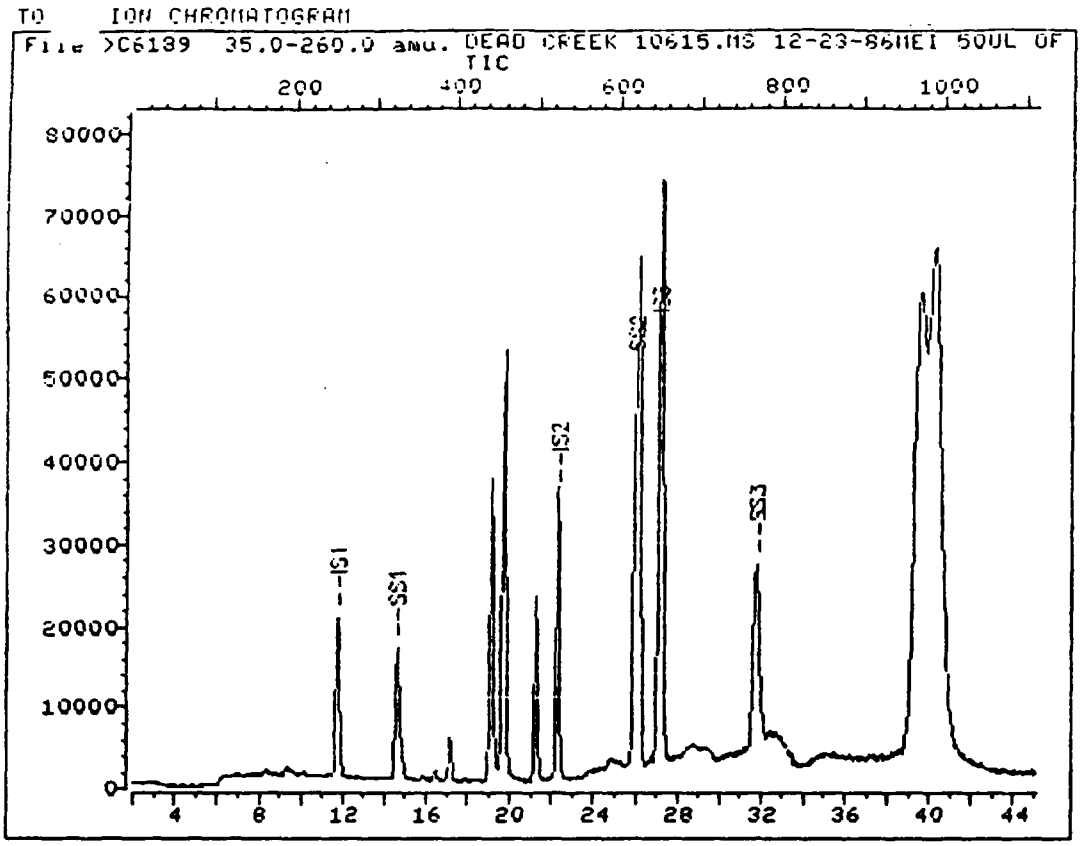
QUANT REPORT

Operator ID: USEPB Quant Rev: 4 Quant Time: 861222 19:42
Output File: ^C6169::Q2 Injected at: 861222 19:01
Data File: >C6169::D3 Dilution Factor: 1.00
Name: DEAD CREEK 10,614.01 -MS DC-N1-05 MS
Misc: 12-22-86MFT 5.59G SOIL IN 5ML DI + 10UL IS/SS/MS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861222 13:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.69	252	18185	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.32	165	1611	11.01	NGS	100
7)	ACETONE		43	9.25	189	18243	182.44	NGS	100
10)	1,1-DICHLOROETHENE		61	11.30	242	27903	146.82	NGS	96
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	325	43390	226.56	NGS	89
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.25	524	93691	250.00	NGS	100
24)	TRICHLOROETHENE		130	19.10	443	26972	162.98	NGS	90
27)	BENZENE		78	19.65	457	90061	190.07	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.10	649	75938	250.00	NGS	100
32)	4-METHYL-2-PENTANONE		43	22.91	541	4248	12.53	NGS	90
~~33)~~	~~2-HEXANONE~~		~~43~~	~~24.73~~	~~588~~	~~2635~~	~~14.29~~	~~NGS~~ No BFB	100
36)	TOLUENE-D8	(SURR)	98	25.93	619	110241	240.53	NGS	92
37)	TOLUENE		92	26.13	624	63820	197.59	NGS	97
38)	CHLOROBENZENE		112	27.21	652	79414	211.23	NGS	99
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.68	767	48900	210.48	NGS	100

* Compound is ISTD

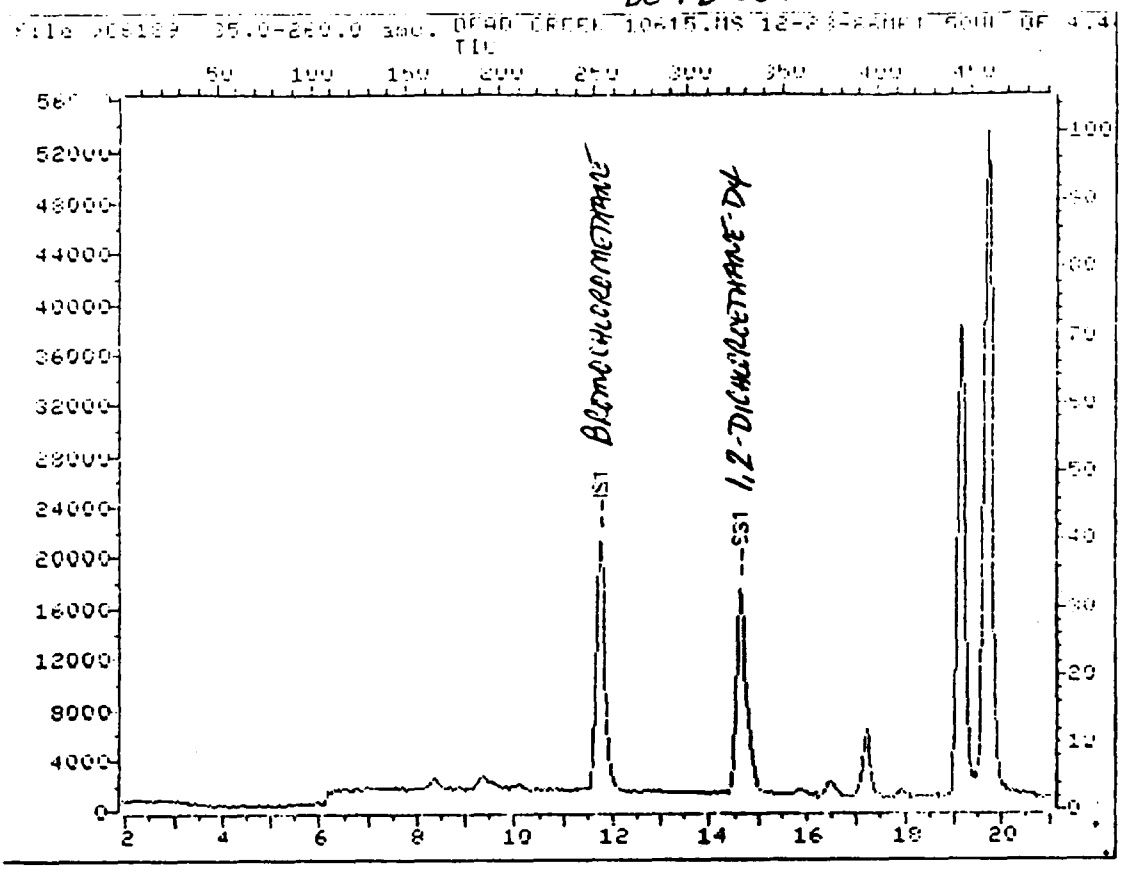


Data File: >C6189::D3
Name: DEAD CREEK 10615.MS DC-N2-06 MS
Misc: 12-23-86MEI 50UL OF 4.44G/9ML MEOH/1ML MS + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861223 16:29

Operator ID: USER8
Quant Time: 861224 00:59
Injected at: 861224 00:13

DC-N2-06 MS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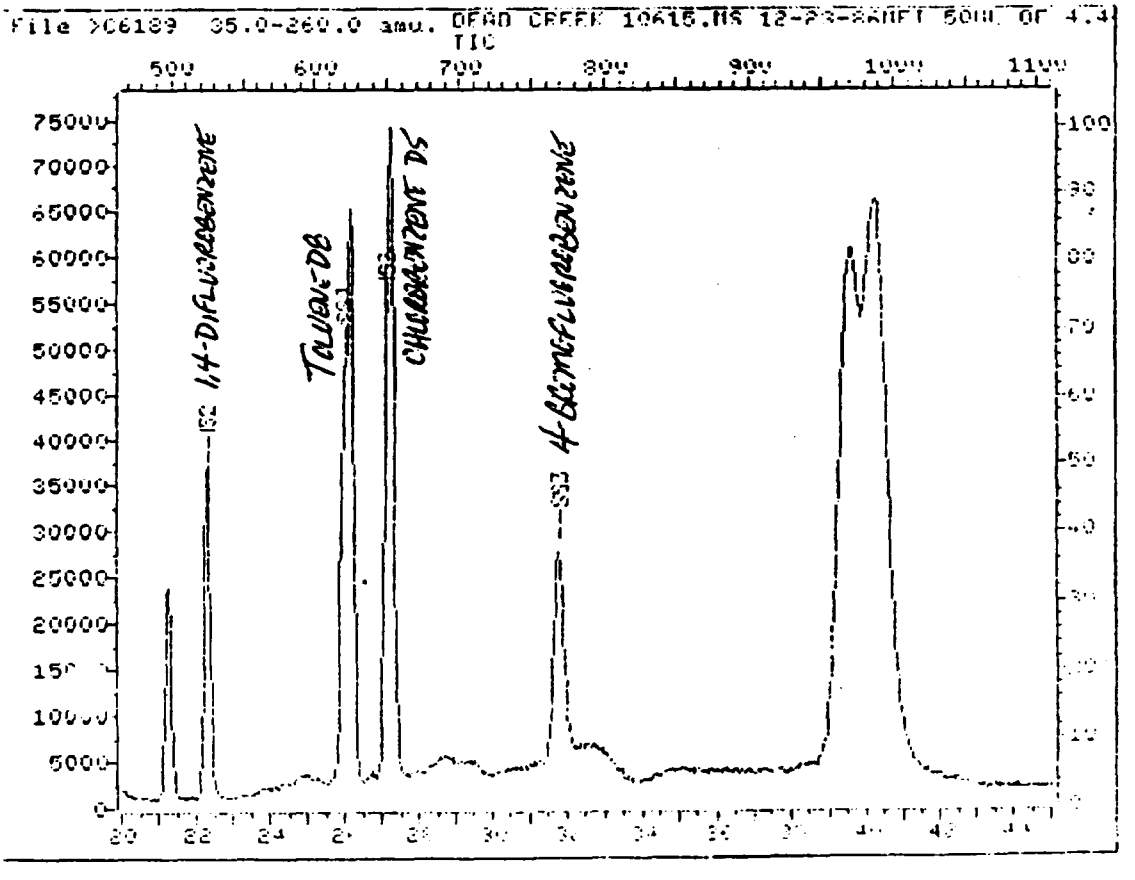
TIC
IS1 BROMOCHLOROMETHANE
SS1 1,2-DICHLOROETHANE-D4


File >C6189 35.0-260.0 amu. DEAD CREEK 10615.MS 12-23-86MET 50UL OF 4.4
TIC
IS2 1,4-DIFLUOROBENZENE
TOLUENE-D8
IS3 CHLOROBENZENE D5
SS3 4-BROMOFLUOROBENZENE

QUANT REPORT

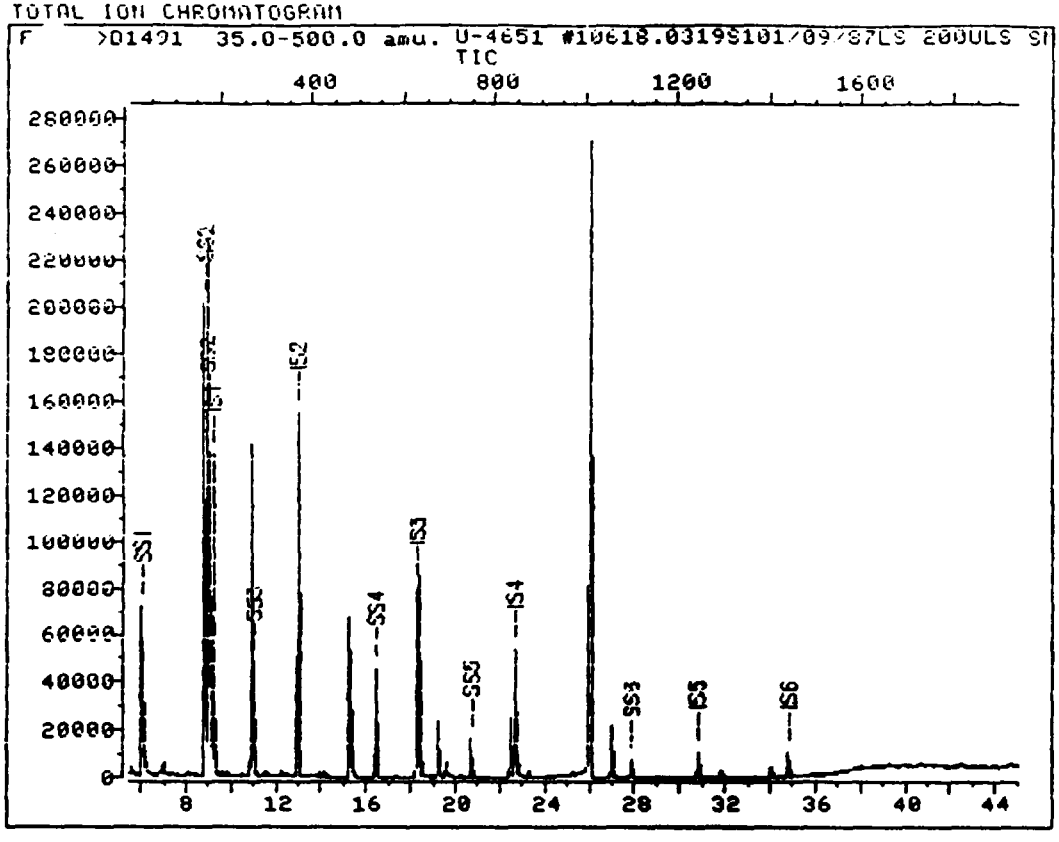
Operator ID: USER8 Quant Rev: 4 Quant Time: 861224 00:59
Output File: ^C6189::Q2 Injected at: 861224 00:13
Data File: >C6189::D3 Dilution Factor: 1.00
Name: DEAD CREEK 10615.MS DC-N2-06 MS
Misc: 12-23-86MEI 50UL OF 4.44G/9ML MEOH/1ML MS + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861223 16:29

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.73	253	33464	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.35	166	2553	1.95	UG/L	100
7)	ACETONE		43	9.36	192	9526	17.32	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~10.10~~	~~211~~	~~4569~~	~~.87~~	~~UG/L~~ NC DM	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.60	327	67288	42.49	UG/L	86
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.28	525	160150	50.00	UG/L	100
17)	2-BUTANONE		72	14.75	331	7867	49.76	UG/L	100
24)	TRICHLOROETHENE		130	19.14	444	74189	56.63	UG/L	98
~~26)~~	~~1,1,2-TRICHLOROETHANE~~		~~97~~	~~19.18~~	~~445~~	~~46452~~	~~42.39~~	~~UG/L~~	13
27)	BENZENE		78	19.72	459	225561	57.16	UG/L	100
~~28)~~	~~CIS 1,3-DICHLOROPROPENE~~		~~75~~	~~19.72~~	~~459~~	~~4754~~	~~3.37~~	~~UG/L~~ NC DM	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.13	650	123931	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	26.01	621	164596	48.57	UG/L	94
37)	TOLUENE		92	26.16	625	145875	57.77	UG/L	96
38)	CHLOROBENZENE		112	27.26	653	195018	64.93	UG/L	97
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.80	770	84575	51.32	UG/L	100
43)	1,3-DICHLOROBENZENE		146	39.60	971	506227	506227.0	NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	39.60	971	506227	506227.0	NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	39.60	971	506227	506227.0	NO CALIB	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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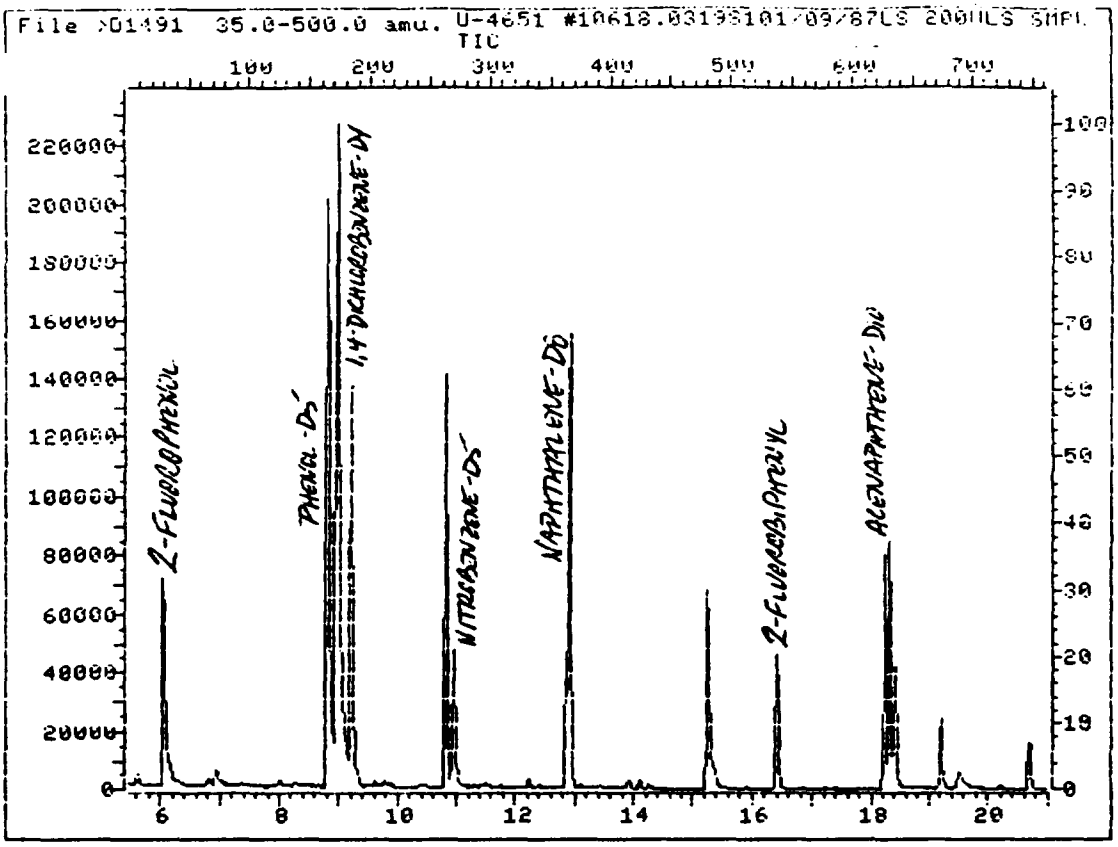
Misc: 01/09/87LS 200ULS SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 2

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870109 14:56

Operator ID: USER6
Quant Time: 870109 21:14
Injected at: 870109 20:26

DC-L4-09 MS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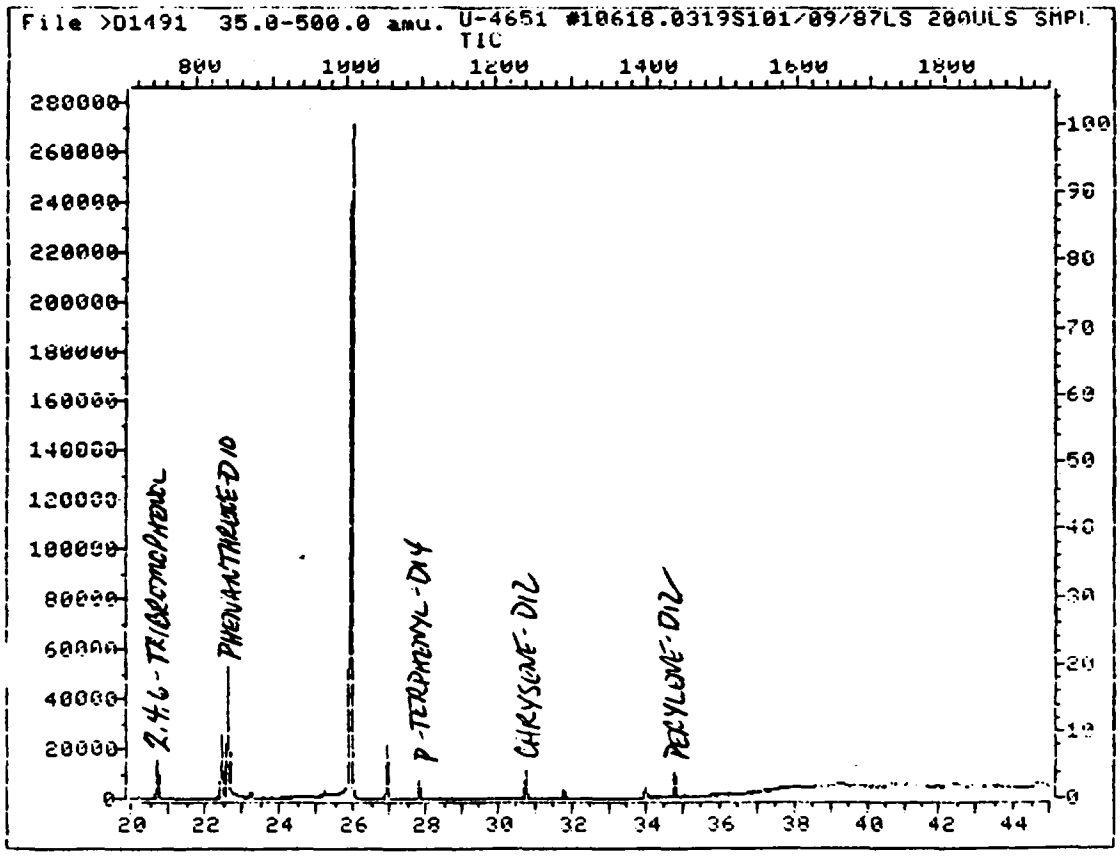
TIC
2-FLUOROPHENOL
PHENOL-D5
1,4-DICHLOROBENZENE-D4
NITROBENZENE-D5
NAPHTHALENE-D8
2-FLUOROBIPHENYL
ACENAPHTHENE-D10


File >D1491 35.0-500.0 amu. U-4651 #10618.0319S101/09/87LS 200ULS SMPL
TIC
2,4,6-TRIBROMOPHENOL
PHENANTHRENE-D10
P-TERPHENYL-D14
CHRYSENE-D12
PERYLENE-D12

QUANT REPORT

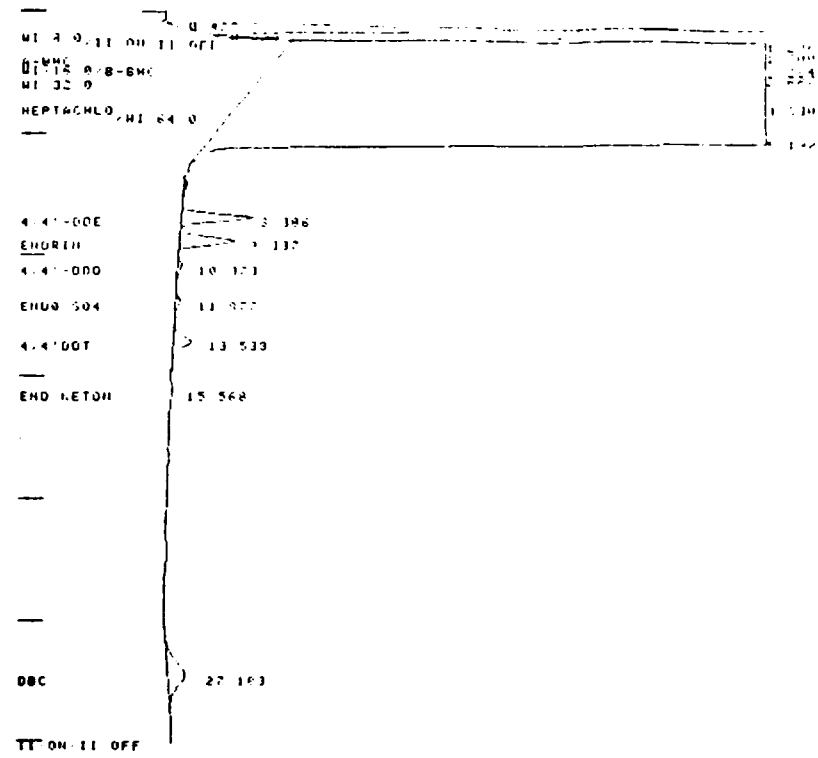
Operator ID: USER6 Quant Rev: 4 Quant Time: 87/01/09 21:14
Output File: ^01491::Q2 Injected at: 87/01/09 20:26
Data File: >01491::01 Dilution Factor: 2.00
Name: U-4651 #10618.031951 DC-L4-09MS
Misc: 01/09/87LS 200ULS SMPL + 200UL MECL2 + 40UL IS (2X) BTL# 2

ID File: BNAUR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 87/01/09 14:56

	Compound		M/Z	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.19	183	61134	40.00	UG/L	88
~~2)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~8.41~~	~~164~~	~~7468~~	~~6.96~~	~~UG/L~~	41
2)	PHENOL-D5	(SURR)	99	8.95	171	81898	76.41	UG/L	91
5)	2-FLUOROPHENOL	(SURR)	112	6.04	28	67735	86.14	UG/L	95
6)	PHENOL		94	8.97	172	178572	165.96	UG/L	64
~~7)~~	~~ANILINE~~		~~93~~	~~8.01~~	~~164~~	~~3413~~	~~3.75~~	~~UG/L~~	19
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.24~~	~~185~~	~~10239~~	~~10.00~~	~~UG/L~~	96
10)	1,4-DICHLOROBENZENE		146	9.24	185	10239	9.73	UG/L	95
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.82~~	~~263~~	~~763~~	~~.37~~	~~UG/L~~	100
15)	2-CHLOROPHENOL		128	8.81	164	154606	167.85	UG/L	95
17)	N-NITROSO-DI-N-PROPYLAMINE		70	10.82	263	77153	90.82	UG/L	87
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.95~~	~~269~~	~~7498~~	~~8.82~~	~~UG/L~~	80
19)	*NAPHTHALENE-D8	(IS)	136	12.92	366	201343	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.95	269	41189	32.60	UG/L	97
~~21)~~	~~NITROBENZENE~~		~~77~~	~~11.01~~	~~270~~	~~1311~~	~~1.03~~	~~UG/L~~	92
~~27)~~	~~2,4-DICHLOROPHENOL~~		~~162~~	~~12.48~~	~~364~~	~~416~~	~~.67~~	~~UG/L~~	96
28)	1,2,4-TRICHLOROBENZENE		180	12.86	363	22569	19.45	UG/L	100
~~29)~~	~~NAPHTHALENE~~		~~128~~	~~12.96~~	~~369~~	~~257~~	~~.36~~	~~UG/L~~	100
32)	4-CHLORO-3-METHYLPHENOL		107	15.25	480	55458	81.59	UG/L	95
34)	*ACENAPHTHENE-D10	(IS)	162	18.24	627	46076	40.00	UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	16.41	537	42315	40.60	UG/L	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.44~~	~~627~~	~~14613~~	~~17.90~~	~~UG/L~~	100
47)	ACENAPHTHENE		153	18.32	631	58872	81.10	UG/L	97
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.68	747	7540	55.74	UG/L	99
50)	4-NITROPHENOL		139	19.50	689	7805	118.92	UG/L	100
51)	2,4-DINITROTOLUENE		165	19.20	674	16500	120.51	UG/L	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.24~~	~~627~~	~~6039~~	~~39.81~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.64	843	41618	40.00	UG/L	91
60)	PENTACHLOROPHENOL		266	22.46	834	11833	138.50	UG/L	100
~~60)~~	~~PENTACHLOROPHENOL~~		~~266~~	~~22.62~~	~~842~~	~~169~~	~~1.98~~	~~UG/L~~	100
63)	DI-N-BUTYLPHTHALATE		149	25.23	970	3127	7.94	UG/L	91
65)	*CHRYSENE-D12	(IS)	240	30.75	1241	16008	40.00	UG/L	100
67)	PYRENE		202	26.96	1055	32077	81.42	UG/L	91
68)	TERPHENYL-D14	(SURR)	244	27.84	1098	9583	43.94	UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.79	1292	3385	20.29	UG/L	94
74)	*PERYLENE-D12	(IS)	264	34.80	1440	14305	40.00	UG/L	100

* Compound is ISTD

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



SEE RUN 41 FOR FRONT END RESOLUTION

DC-L4-09 MS

CHANNEL: 1A - 1 TITLE: RUN# 20 1:33 30 DEC 86

SAMPLE: 10618 MS 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	1.292		2312595	BV	? 3.25
2		0.0000	1.391		4618354	VV	5.31
3		0.0000	1.695		4642712	VV	? 9.44
4		0.0000	1.815		1311395	VV	? 5.94
5		0.0000	1.847		634729	VV	? 1.75
6		0.0000	1.891		1507529	VV	? 69.31
7	~~BHC~~	2090.451	1.948	-0.102	6080958	VV	?
8	~~BHC~~	197.0976	2.260	0.080	213284	VV	?
9		0.0000	2.301		1855418	VV	? 49.69
10	~~BHC~~	1656.845	2.409	0.009	4311360	VV	? 59.75
11		0.0000	2.690		3531328	VV	? 33.00
12		0.0000	2.881		13692013	VV	? 65.44
13	~~HEPTACHLO~~	3037.225	3.843	0.023	6290068	VV	? 92.75
14		0.0000	5.185		33798312	VV	12.81
15	DIELDRIN	65.0917	8.368	0.108	169177	BV	19.13
ENDRIN 16	~~ENDO~~ 15.76	~~[illegible]~~	9.319	-0.071	148571	VV	20.13
17	4,4'DDT	68.7843	13.521	0.161	71332	BB	29.00
18	DBC 87%	78.0708	27.162	0.432	152599	BB	? 85.56

TOTALS: 7256.536 0.640 85421736

DETECTED PKS: 28 REJECTED PKS: 10

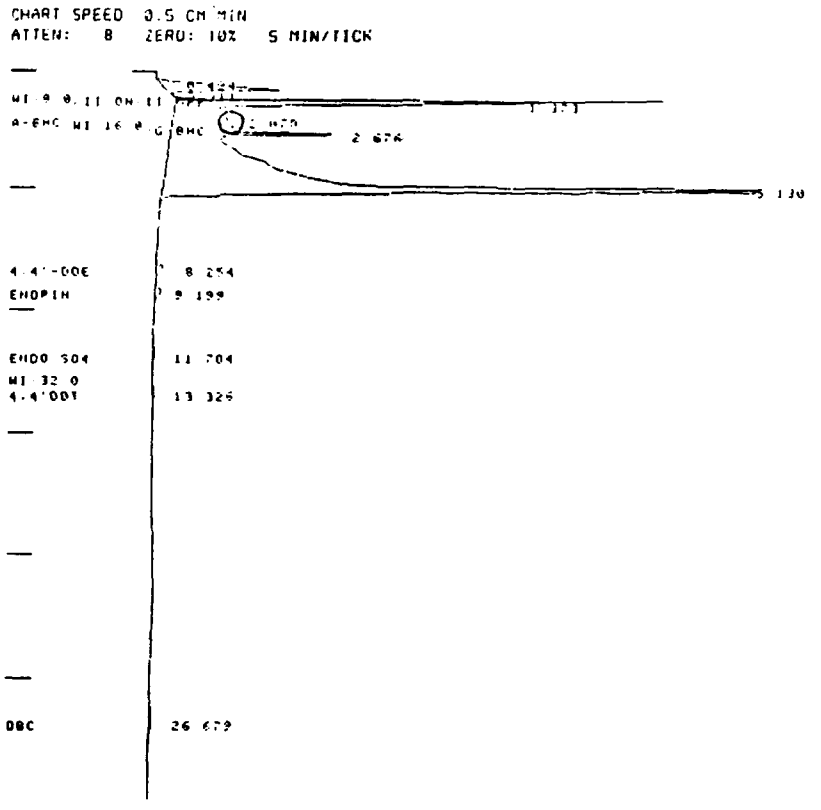
DIVISOR: 1.14150 MULTIPLIER: 10000.0000

NOISE: 34.3 OFFSET: -32

RACK: 2 VIAL: 3 INJ: 1

NOTES:
NOTEBOOK:259-65 ANALYST:RICHARD SAMSON
SECURE AREA: [illegible]
INST:VARIAN 6000#2 [illegible] 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE:[illegible]
CARRIER GAS: [illegible] ML MIN.
DET:300 C INJ:[illegible] C
200 C ISOTHERMAL 4 UL INJECTION
AUTO SPELLER
PEST PCB PRIMARY ANALYSIS

[illegible]



DC-L4-09MS

CHANNEL: 1A - 1 TITLE: RUN# 41 18:16 30 DEC 86

SAMPLE: 10618 MS 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	1.278		266070	BV	3.31
2		0.0000	1.373		216267	VV	? 4.06
3		0.0000	1.692		100508	VV	? 16.69
4	2-BHC	484.3308	2.078	0.028	140888	VV	17.94
5	4-BHC	523.7784	2.391	-0.009	126296	VV	? 33.88
6	2-BHC	800.9242	2.676	0.216	209100	VV	7.25
7		0.0000	2.855		51816	VV	?153.63
8		0.0000	5.130		7362356	VB	10.88

TOTALS: 1809.033 0.235 8483300

DETECTED PKS: 20 REJECTED PKS: 12

DIVISOR: 1.14150 MULTIPLIER: 100000.000

NOISE: 11.4 OFFSET: -10

NOTES:
NOTEBOOK:259-67 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4651
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
PESTICIDE PRIMARY ANALYSIS
RESULT IN UG/KG DRY WEIGHT

POST RUN:
SAVE FILE: RAW TPAG29

MATRIX SPIKE DUPLICATE DATA

1. FORM I OF NON-SPIKED COMPOUNDS
2. RAW DATA VOA, S-V, PESTICIDES
   (a) RIC AND QUANT REPORTS (GC/MS)
   (b) CHROMATOGRAMS AND LISTING (GC)

Sample Number
DC-N1-05 MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc.
Case No: U-4618 / U-4651
Lab Sample ID No: 10614 MSD
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: C Stoytowicz
Date Sample Received: 12-19-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 12-22-86
Conc/Dil Factor: 1 pH 10.13
Percent Moisture: (Not Decanted) 24

REPORTED - AS RECEIVED

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	39	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	SPIKE	
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5	U
10061-02-6	Trans-1, 3-Dichloropropene	5	U
79-01-6	Trichloroethene	SPIKE	
124-48-1	Dibromochloromethane	5	U
79-00-5	1, 1, 2-Trichloroethane	5	U
71-43-2	Benzene	SPIKE	
10061-01-5	cis-1, 3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	3	J
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
108-88-3	Toluene	SPIKE	
108-90-7	Chlorobenzene	SPIKE	
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	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-4618/U-4651

Sample Number DC-L4-09 MSD

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 1-9-87

Conc./Dil Factor: 2

Percent Moisture (Decanted) 24

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	SPIKE	
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	SPIKE	
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	SPIKE	
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	SPIKE	
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	SPIKE	
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	SPIKE	
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
[illegible]-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	SPIKE	
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	SPIKE	
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	SPIKE	
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	SPIKE	
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	210	J
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	SPIKE	
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	740	
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-4618/U-4651

Sample Number DC-L4-09 MSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-30-86

Conc/Dil Factor 10 * 100

Percent Moisture (decanted) 24

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	800	U
319-85-7	Beta-BHC	800	U
319-86-8	Delta-BHC	800	U
58-89-9	Gamma-BHC (Lindane)	DL	S
76-44-8	Heptachlor	DL	S
309-00-2	Aldrin	DL	S
1024-57-3	Heptachlor Epoxide	800	U
959-98-8	Endosulfan I	800	U
60-57-1	Dieldrin	57.4	S
72-55-9	4,4'-DDE	160	U
72-20-8	Endrin	67.2	S
33213-65-9	Endosulfan II	160	U
72-54-8	4,4'-DDD	160	U
1031-07-8	Endosulfan Sulfate	160	U
50-29-3	4,4'-DDT	59.4	S
72-43-5	Methoxychlor	800	U
53494-70-5	Endrin Ketone	160	U
57-74-9	Chlordane	800	U
8001-35-2	Toxaphene	1600	U
12674-11-2	Aroclor-1016	8,000	U
11104-28-2	Aroclor-1221	8,000	U
11141-16-5	Aroclor-1232	8,000	U
53469-21-9	Aroclor-1242	8,000	U
12672-29-6	Aroclor-1248	8,000	U
11097-69-1	Aroclor-1254	1600	U
11096-82-5	Aroclor-1260	1600	U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

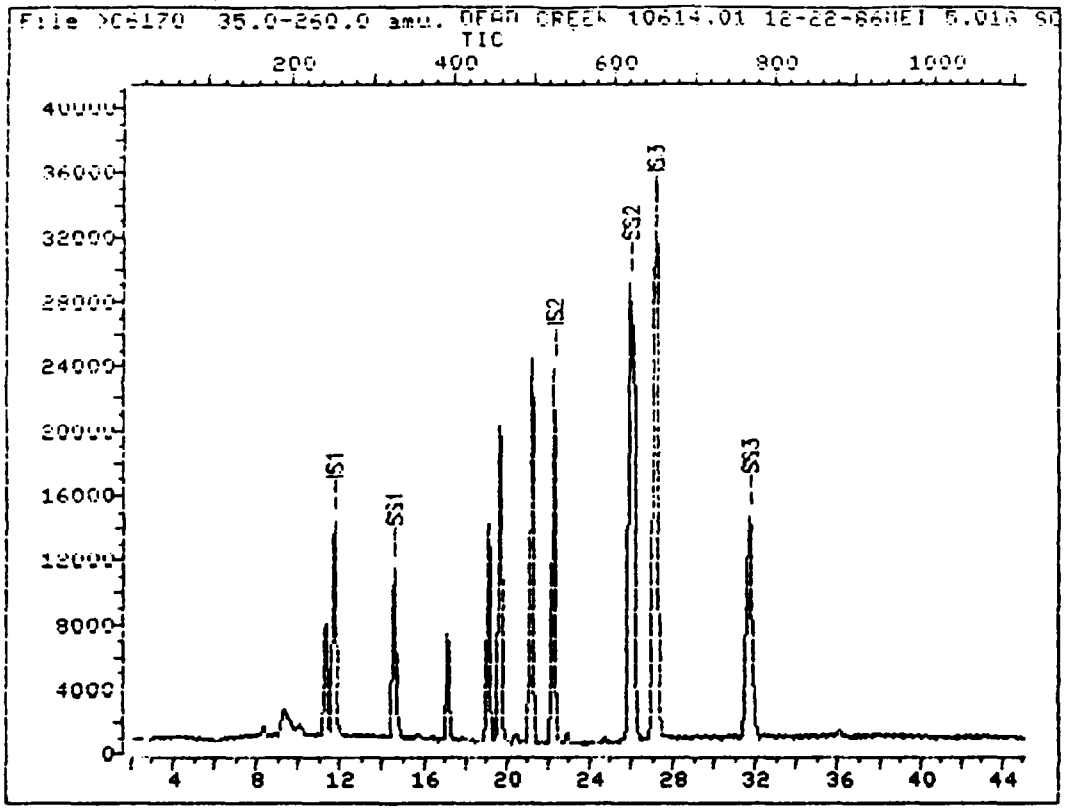
V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

S = SPIKED COMPOUND

DL = DILUTED OUT

TOTAL ION CHROMATOGRAM

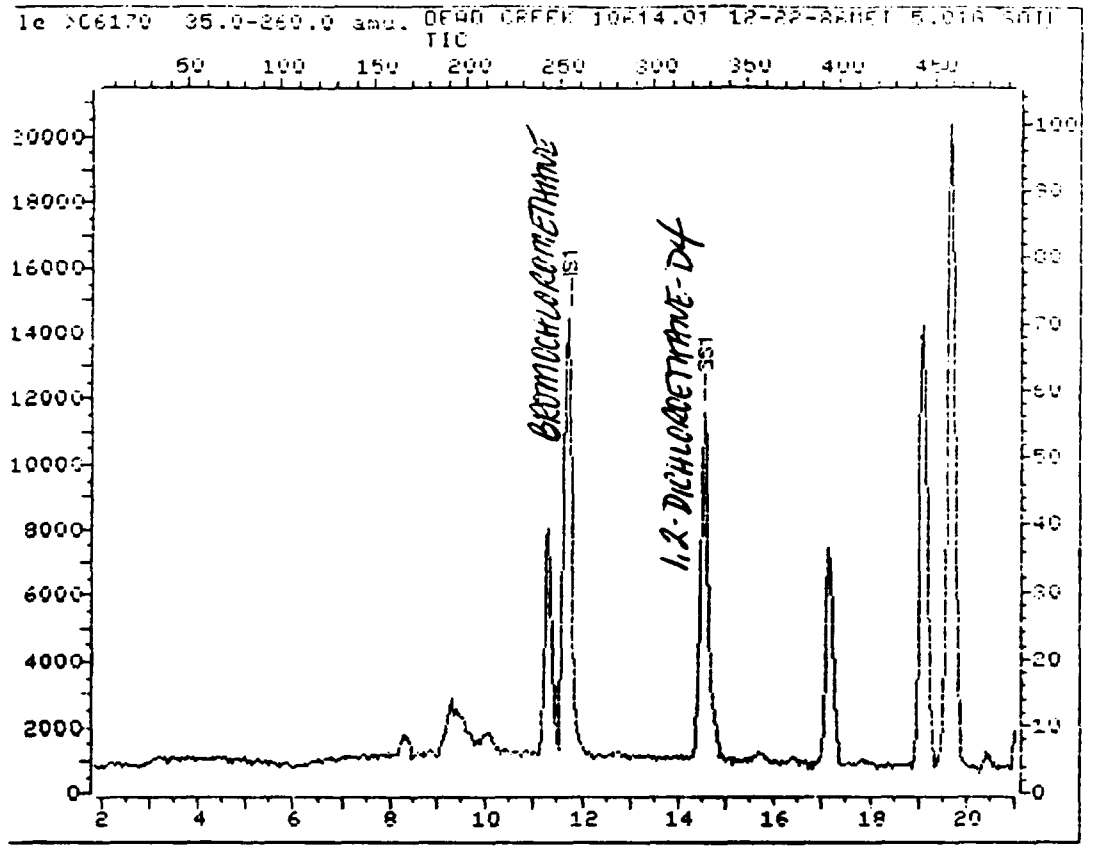


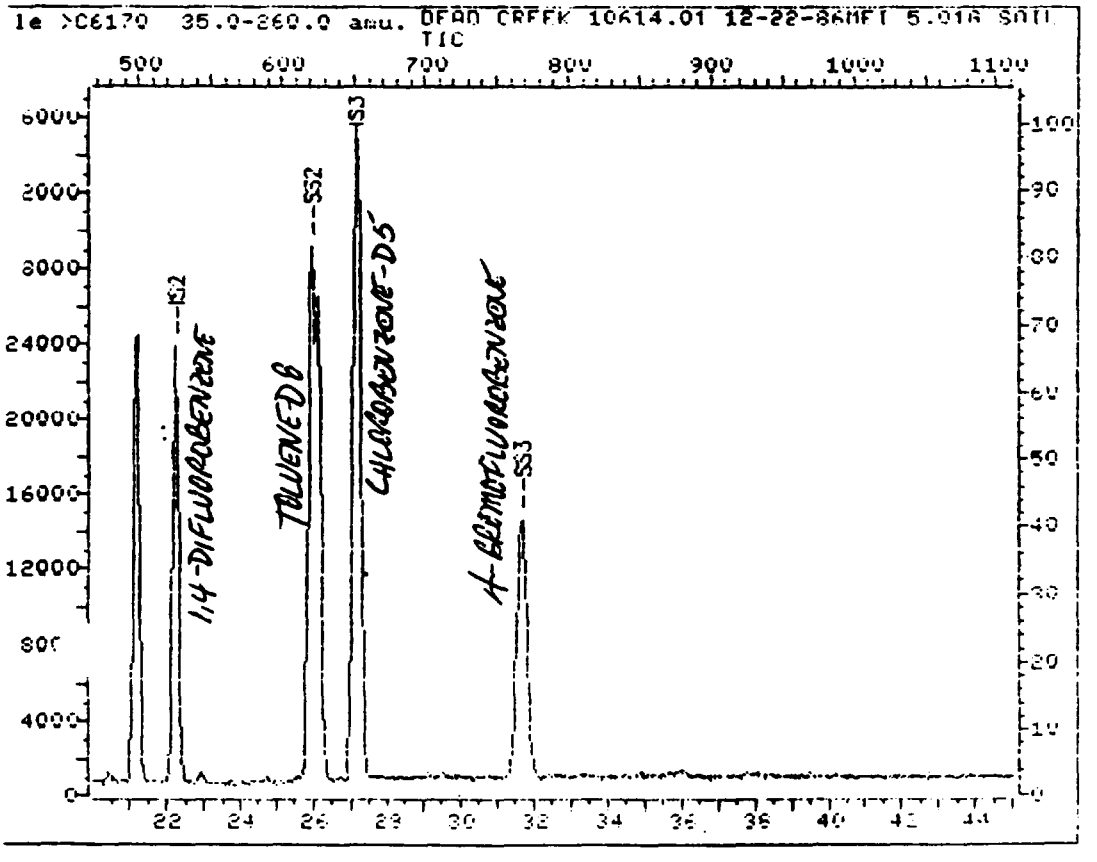
Data File: >C6170::D5
Name: DEAD CREEK 10614.01 DC-N1-05 MSD
Misc: 12-22-86MET 5.01G SOIL IN 5ML DI + 10UL IS/SS/MS

Id File: VOAERS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861222 13:20

Operator ID: USER8
Quant Time: 861222 20:41
Injected at: 861222 19:55

DC-N1-05 MSD


1e >C6170 35.0-260.0 amu. DEAD CREEK 10614.01 12-22-88MFT 5.01G SOIL
TIC
BROMOCHLOROMETHANE
IS1
1,2-DICHLOROETHANE-D4
SS1


1e >C6170 35.0-260.0 amu. DEAD CREEK 10614.01 12-22-88MFT 5.01G SOIL
TIC
IS2
1,4-DIFLUOROBENZENE
TOLUENE-D8
SS2
IS3
CHLOROBENZENE-D5
4-BROMOFLUOROBENZENE
SS3

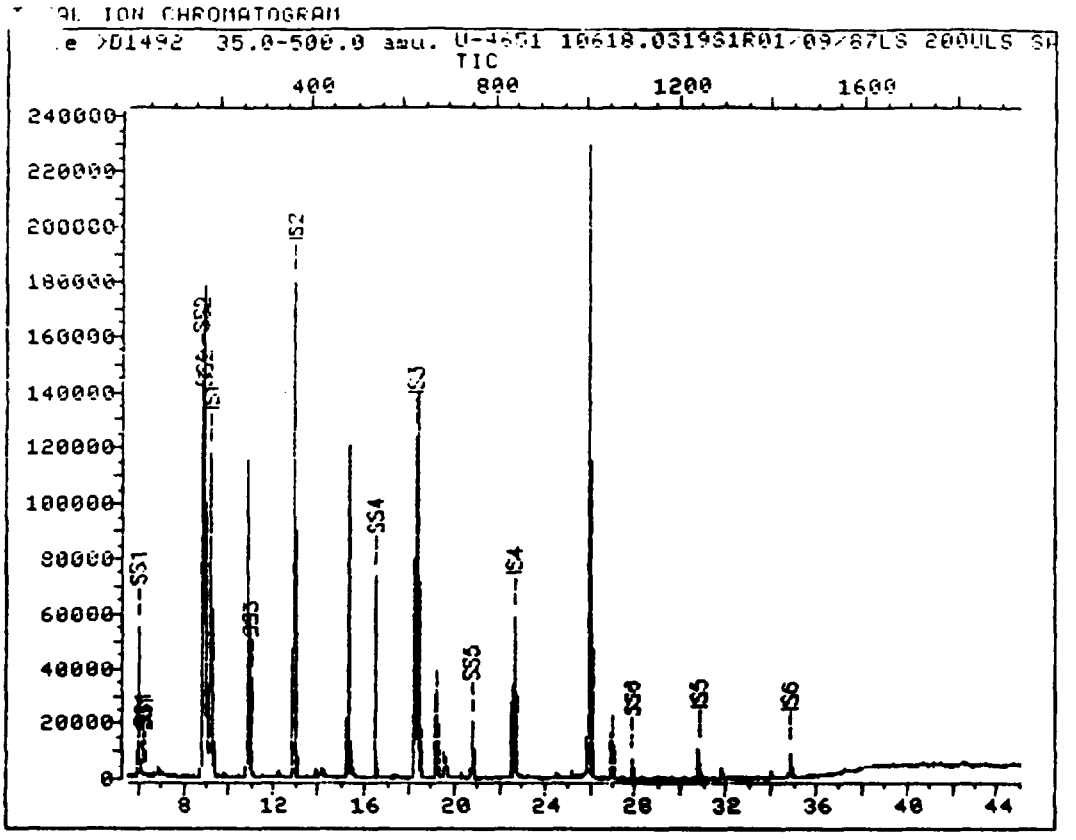
QUANT REPORT

Operator ID: USER98 Quant Rev: 4 Quant Time: 861222 20:41
Output File: ^C6120::D2 Injected at: 861222 19:55
Data File: >C6120::D3 Dilution Factor: 1.00
Name: DEAD CREEK 10614.01-MSD DC-N1-05 MSD
Misc: 12-22-86MEI 5.01G SOIL IN 5ML DI + 100UL IS/SS/MS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861222 13:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.20	254	19836	250.00	NGS	100
4)	METHYLENE CHLORIDE		84	8.33	167	1403	8.79	NGS	100
7)	ACETONE		43	9.30	192	32103	294.32	NGS	100
10)	1,1-DICHLOROETHENE		61	11.31	244	26827	129.41	NGS	92
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.53	327	42459	203.24	NGS	85
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.26	526	98413	250.00	NGS	100
24)	TRICHLOROETHENE		130	19.02	444	24867	143.05	NGS	92
27)	BENZENE		78	19.66	459	84793	170.36	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.11	651	79379	250.00	NGS	100
32)	4-METHYL-2-PENTANONE		43	22.91	543	3789	14.96	NGS	83
36)	TOLUENE-D8	(SURR)	98	25.94	621	102185	223.73	NGS	93
37)	TOLUENE		92	26.14	626	59445	176.06	NGS	98
38)	CHLOROBENZENE		112	27.22	654	73388	186.74	NGS	98
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.69	769	47652	196.22	NGS	100

* Compound is ISTD

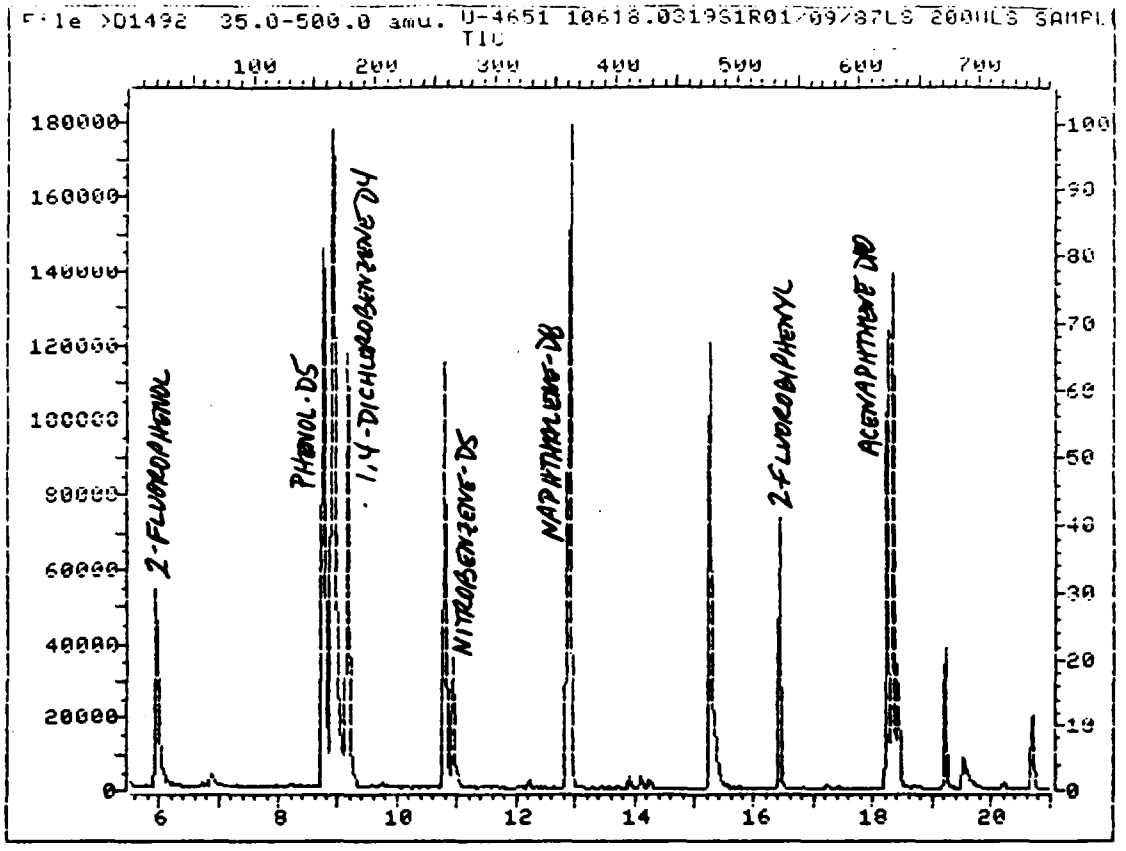


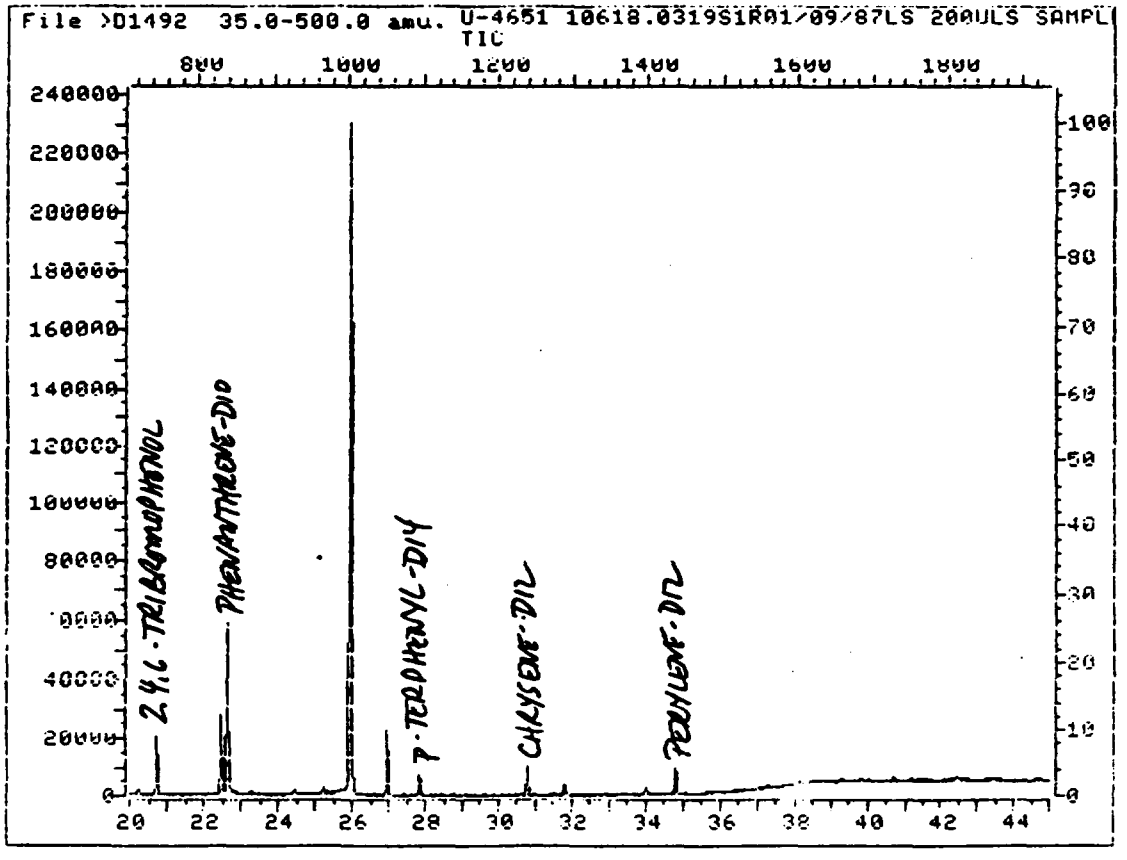
Data File: >D1492::D1
Name: U-4651 10618.0319S1R DC-L4-09 MSD
Misc: 01/09/87LS 200ULS SAMPLE + 2UUUL MECL2 + 4UL IS (2X) BTL# 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870109 14:56

Operator ID: USER6
Quant Time: 870109 22:31
Injected at: 870109 21:43

DC-L4-09 MSD


File >D1492 35.0-500.0 amu. U-4651 10618.0319S1R01/09/87LS 200ULS SAMPL
TIC
2-FLUOROPHENOL
PHENOL-D5
1,4-DICHLOROBENZENE-D4
NITROBENZENE-D5
NAPHTHALENE-D8
2-FLUOROBIPHENYL
ACENAPHTHENE-D10


File >D1492 35.0-500.0 amu. U-4651 10618.0319S1R01/09/87LS 200ULS SAMPL
TIC
2,4,6-TRIBROMOPHENOL
PHENANTHRENE-D10
2-TERPHENYL-D14
CHRYSENE-D12
PERYLENE-D12

QUANT REPORT

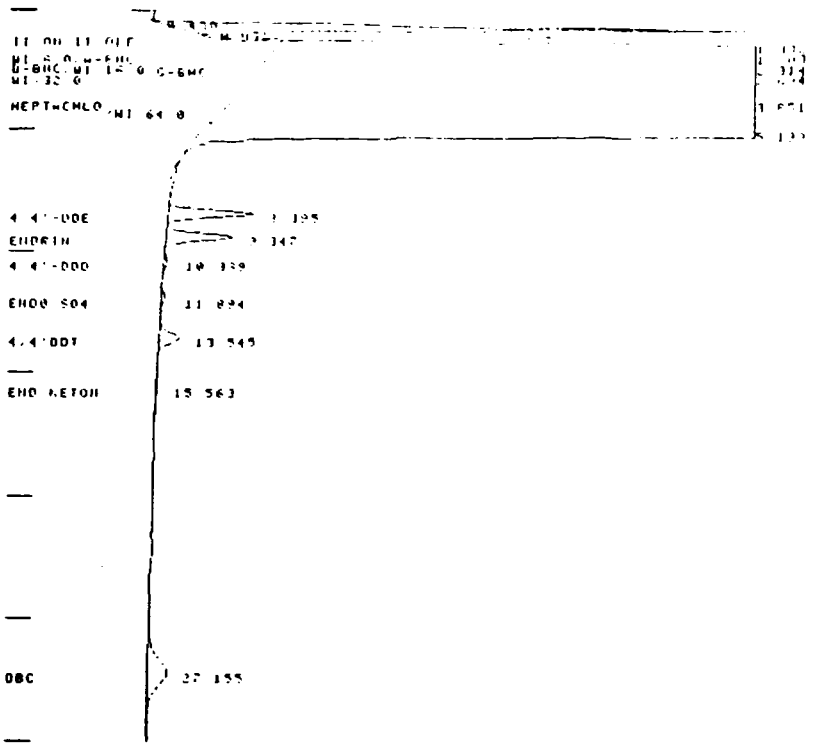
Operator ID: USER6 Quant Rev: 4 Quant Time: 870109 22:31
Output File: ^D1492::Q2 Injected at: 870109 21:43
Data File: >D1492::D1 Dilution Factor: 2.00
Name: U-4651 10618.0319S1R DC-L4-09MSD
Misc: 01/09/87LS 200ULS SAMPLE + 200UL MECL2 + 4UL IS (2X) BTL# 3

ID File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870109 14:56

	Compound		m/z	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.13	178	60081	40.00	UG/L	89
~~1)~~	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~8.72~~	~~158~~	~~6299~~	~~6.98~~	~~UG/L~~	39
2)	PHENOL-D5	(SURR)	99	8.87	165	76257	72.39	UG/L	98
5)	2-FLUOROPHENOL	(SURR)	112	5.93	21	45895	59.39	UG/L	95
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.14~~	~~31~~	~~1388~~	~~1.80~~	~~UG/L~~	76
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.20~~	~~34~~	~~912~~	~~1.18~~	~~UG/L~~	74
~~5)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.26~~	~~37~~	~~1195~~	~~1.55~~	~~UG/L~~	97
6)	PHENOL		94	8.89	166	160374	151.66	UG/L	64
~~7)~~	~~ANILINE~~		~~93~~	~~8.72~~	~~158~~	~~2481~~	~~2.68~~	~~UG/L~~	7
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.17~~	~~180~~	~~10770~~	~~10.70~~	~~UG/L~~	98
10)	1,4-DICHLOROBENZENE		146	9.17	180	10770	10.41	UG/L	97
~~14)~~	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.78~~	~~259~~	~~674~~	~~.33~~	~~UG/L~~	100
15)	2-CHLOROPHENOL		128	8.72	158	126424	139.66	UG/L	96
17)	N-NITROSO-DI-N-PROPYLAMINE		70	10.78	259	65428	78.36	UG/L	93
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.93~~	~~266~~	~~6716~~	~~8.04~~	~~UG/L~~	79
19)	*NAPHTHALENE-D8	(IS)	136	12.90	363	210910	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.91	265	34651	26.18	UG/L	99
28)	1,2,4-TRICHLOROBENZENE		180	12.84	360	24760	20.37	UG/L	100
~~29)~~	~~NAPHTHALENE~~		~~128~~	~~12.94~~	~~365~~	~~678~~	~~.31~~	~~UG/L~~	100
32)	4-CHLORO-3-METHYLPHENOL		107	15.24	478	93848	131.81	UG/L	96
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.34~~	~~479~~	~~23983~~	~~49.15~~	~~UG/L~~	19
34)	*ACENAPHTHENE-D10	(IS)	162	18.24	625	68020	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	16.41	535	59941	38.95	UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.24~~	~~625~~	~~20487~~	~~17.25~~	~~UG/L~~	100
47)	ACENAPHTHENE		153	18.32	629	88407	82.50	UG/L	97
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.69	745	7389	37.00	UG/L	97
50)	4-NITROPHENOL		139	19.52	688	8732	90.12	UG/L	100
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~19.61~~	~~702~~	~~388~~	~~4.00~~	~~UG/L~~	100
51)	2,4-DINITROTOLUENE		165	19.22	673	21638	107.05	UG/L	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.94~~	~~625~~	~~8654~~	~~33.98~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.64	841	48859	40.00	UG/L	99
60)	PENTACHLOROPHENOL		266	22.46	832	10821	107.88	UG/L	100
63)	DI-N-BUTYLPHTHALATE		149	25.23	968	2897	6.26	UG/L	93
65)	*CHRYSENE-D12	(IS)	240	30.77	1240	13182	40.00	UG/L	100
67)	PYRENE		202	26.96	1053	29125	89.77	UG/L	96
68)	TERPHENYL-D14	(SURR)	244	27.84	1096	7797	43.42	UG/L	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.79	1290	3060	22.27	UG/L	98
74)	*PERYLENE-D12	(IS)	264	34.80	1438	10996	40.00	UG/L	100

* Compound is ISTD

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 102 5 MIN/TICK



SEE RUN 12 FOR FRONT END RESOLUTION

DC-L4-09 MSD

CHANNEL: 1A - 1 TITLE: RUN# 21 2:06 30 DEC 86

SAMPLE: 10618 MSD 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	1.294		2013521	BV	3.56
2		0.0000	1.302		4367939	VV	? 5.19
3		0.0000	1.703		4105169	VV	? 9.41
4		0.0000	1.705		735092	VV	? 134.44
5		0.0000	1.807		702910	VV	?
6	[illegible]	2518.303	1.905	-0.145	7325564	VV	? 94.69
7		0.0000	2.314		1585763	VV	? 60.50
8	[illegible]	1577.694	2.407	0.007	4105396	VV	? 43.06
9		0.0000	2.694		3489496	VV	? 20.56
10		0.0000	2.866		12750444	VV	? 87.60
11	[illegible]	2869.966	3.851	0.051	5943677	VV	? 67.00
12		0.0000	5.199		33363222	VB	? 14.94
13	DIELDRIN	75.5277	8.395	0.175	196331	BV	10.13
ENDRIN 14	[illegible] 88.36	[illegible]	9.347	-0.042	172362	VV	20.25
15	4,4'DDT	78.0530	13.545	0.195	80944	BB	20.81
16	DBC 105%	100.7314	27.155	0.425	196892	BB	71.56

TOTALS: 7293.772 0.595 82814336

DETECTED PKS: 29 REJECTED PKS: 13

DIVISOR: 1.14150 MULTIPLIER: 10000.0000

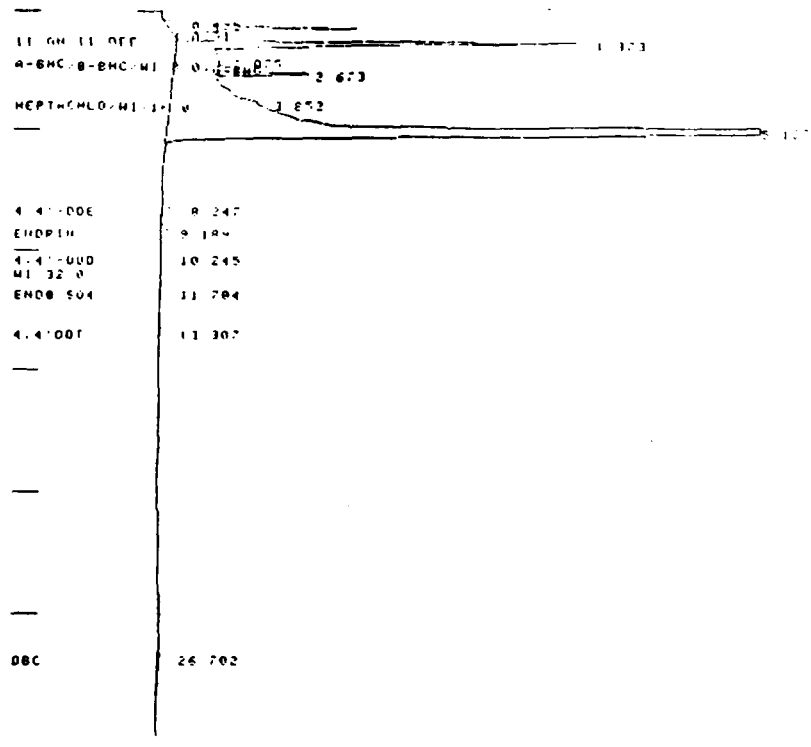
NOISE: 34.3 OFFSET: -44

RACK: 2 VIAL: 4 INJ: 1

NOTES:
NOTEBOOK: 259-66 ANALYST: EDWARD SAMSON
SECURE AREA: D 3[illegible]-D 46[illegible]
INST: VARIAN 6[illegible] A E/D [illegible]
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 [illegible] INJECTION
AUTOSAMPLER
FEST/PCB ORIGINAL [illegible]

PUT RUN:
SAVE FILE: PAW [illegible]

CHART SPEED 0.5 CM/MIN
ATTEN: 0 ZERO: 10% 5 MIN/TICK



CHANNEL: 1A - 1 TITLE: RUN# 42 18:49 30 DEC 85

DC-L4-09 MSD

SAMPLE: 10618 MSD METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	1.278		305757	BV		3.19
2		0.0000	1.373		175448	VV	?	3.94
3		0.0000	1.694		79373	VV	?	36.00
4	~~A-BHC~~	340.2430	2.075	0.025	98974	VV	?	9.00
5	~~B-BHC~~	466.6641	2.395	-0.005	121433	VV	?	24.44
6	~~C-BHC~~	642.0992	2.673	0.213	167635	VV		7.06
7		0.0000	2.855		56596	VV	?	18.13
8	~~HEPTACHLO~~	2077.898	3.852	0.032	430331	VV	?	17.81
9		0.0000	5.127		6253101	VB		10.81

TOTALS: 3526.904 0.265 7688648

DETECTED PKS: 25 REJECTED PKS: 16

DIVISOR: 1.14150 MULTIPLIER: 100000.000

NOISE: 11.4 OFFSET: -14

NOTES:
NOTEBOOK:259-67 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4651
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 PRIMARY ANALYSIS
RESULT IN UG/KG DRY WEIGHT

POST RUN:
SAVE FILE: RAW EPA630

BLANK DATA

1. FORM I PAGES 1 THROUGH 4
2. RAW DATA VOA, S-V, PESTICIDES
   (a) RIC AND QUANT REPORTS (GC/MS)
   (b) CHROMATOGRAMS AND LISTINGS (GC)

Sample Number
C6080

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC.
Case No: U-4618/U-4651
Lab Sample ID No: METHANOL BLANK
QC Report No:
Sample Matrix: WATER FOR SOIL
Contract No: IL-3140
Data Release Authorized By: C Stoglowicz
Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-16-86

Conc/Dil Factor: 2 pH -

Percent Moisture: (Not Decanted) -

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	2000	U
74-83-9	Bromomethane	2000	U
75-01-4	Vinyl Chloride	2000	U
75-00-3	Chloroethane	2000	U
75-09-2	Methylene Chloride	1900	
67-64-1	Acetone	2200	
75-15-0	Carbon Disulfide	1000	U
75-35-4	1, 1-Dichloroethene	1000	U
75-34-3	1, 1-Dichloroethane	1000	U
156-60-5	Trans-1, 2-Dichloroethene	1000	U
67-66-3	Chloroform	1000	U
107-06-2	1, 2-Dichloroethane	1000	U
78-93-3	2-Butanone	5600	
71-55-6	1, 1, 1-Trichloroethane	1000	U
56-23-5	Carbon Tetrachloride	1000	U
108-05-4	Vinyl Acetate	2000	U
75-27-4	Bromodichloromethane	1000	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	1000	U
10061-02-6	Trans-1, 3-Dichloropropene	1000	U
79-01-6	Trichloroethene	1000	U
124-48-1	Dibromochloromethane	1000	U
79-00-5	1, 1, 2-Trichloroethane	1000	U
71-43-2	Benzene	1000	U
10061-01-5	cis-1, 3-Dichloropropene	1000	U
110-75-8	2-Chloroethylvinylether	2000	U
75-25-2	Bromoform	1000	U
108-10-1	4-Methyl-2-Pentanone	2000	U
591-78-6	2-Hexanone	2000	U
127-18-4	Tetrachloroethene	1000	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000	U
108-88-3	Toluene	1000	U
108-90-7	Chlorobenzene	1000	U
100-41-4	Ethylbenzene	1000	U
100-42-5	Styrene	1000	U
	Total Xylenes	1000	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-4618/U-4651

Sample Number C6086

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.2	510 J
2.	HEXANE ISOMER	VOA	21.2	2700 J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
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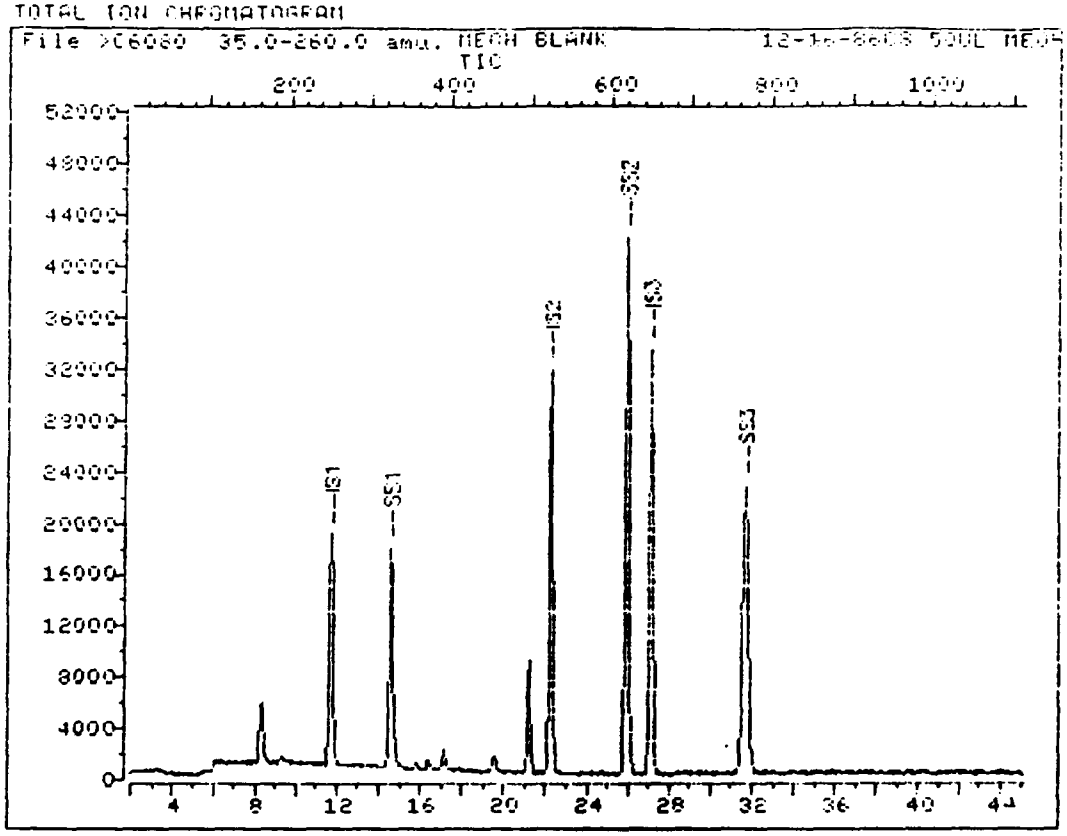
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

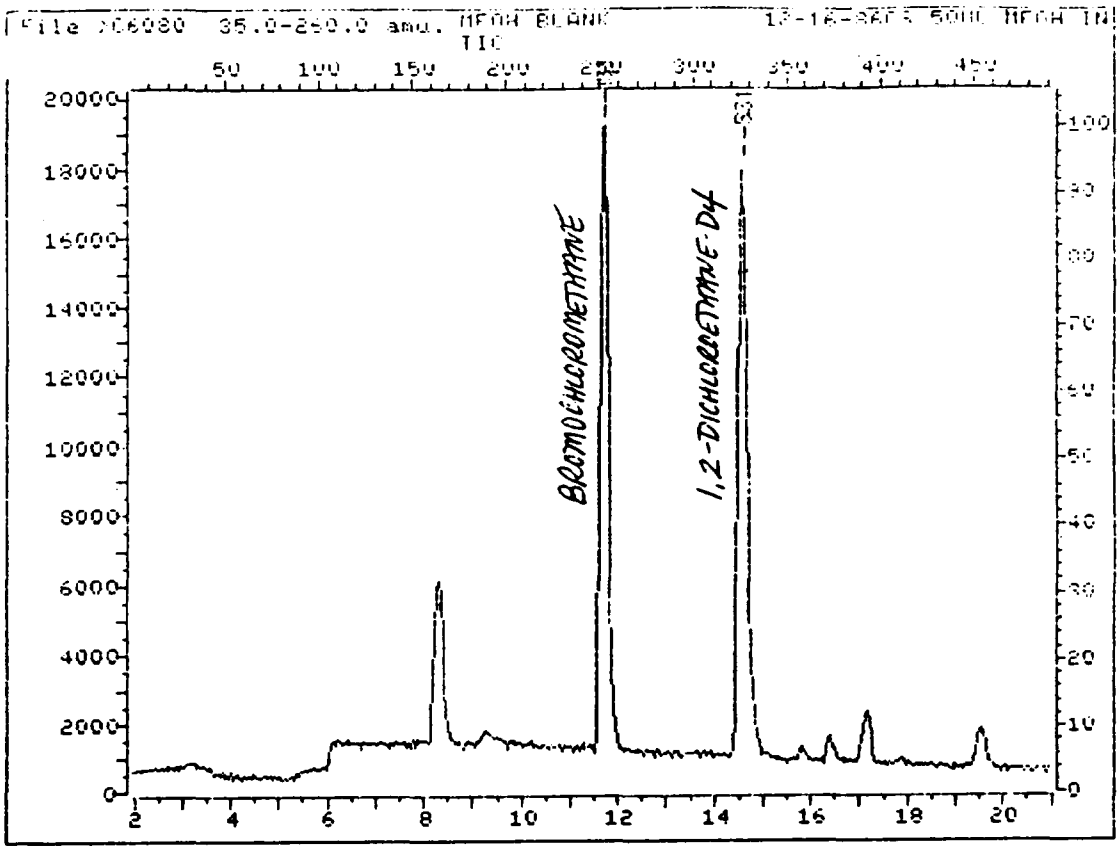
TOTAL ION CHROMATOGRAM

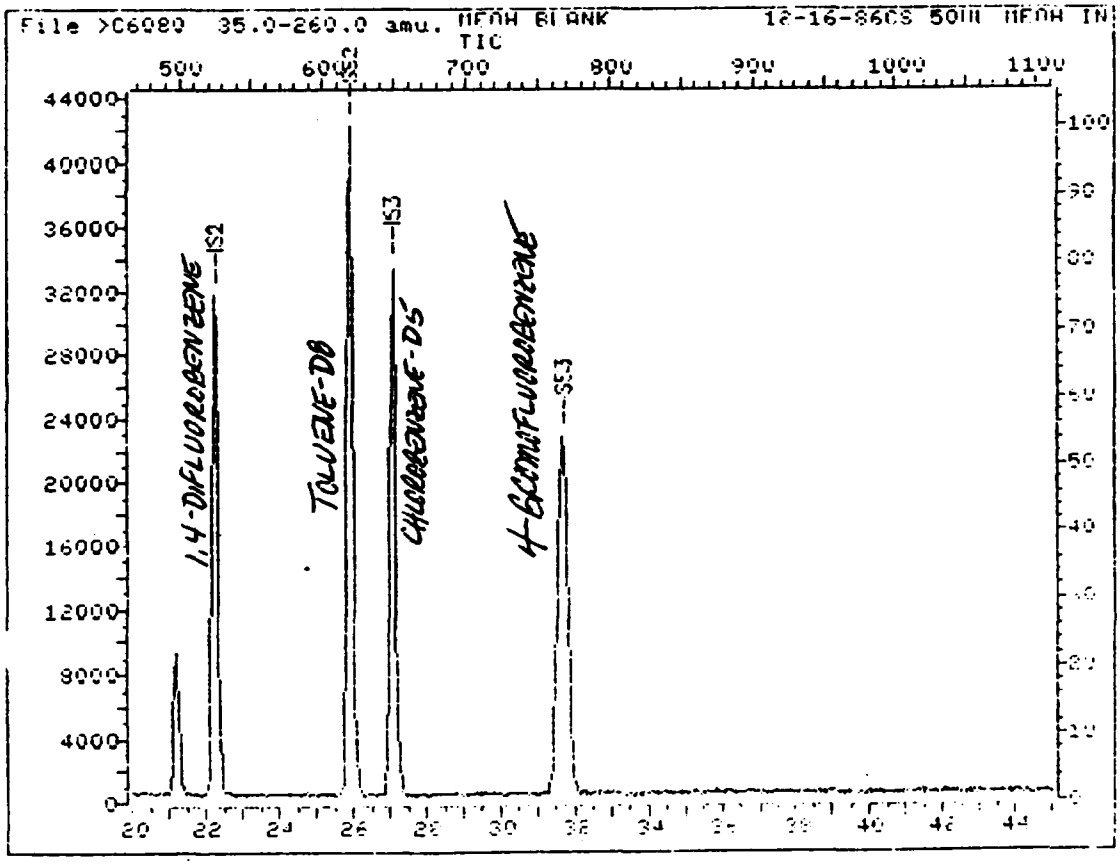


Data File: >C6080::D4
Name: MEOH BLANK
Misc: 12-16-86CS 50UL MEOH IN 5ML DI + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CHL.)
Last Calibration: 861216 10:56

Operator ID: USER8
Quant Time: 861216 16:21
Injected at: 861216 15:35


File >C6080 35.0-260.0 amu. MEOH BLANK
TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4
IS1


File >C6080 35.0-260.0 amu. MEOH BLANK
TIC
1,4-DIFLUOROBENZENE
IS2
TOLUENE-D8
CHLOROBENZENE-D5
IS3
4-BROMOFLUOROBENZENE
IS3

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861216 10:01
Output File: ^C6080::D2 Injected at: 861216 15:45
Data File: >C6080::D4 Dilution Factor: 1.00
Name: MEOH BLANK
Misc: 12-16-86CS 50UL MEOH IN 5ML DI + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861216 10:56

	Compound		M/Z	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.68	252	29599	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.30	165	14038	9.50	UG/L	100
7)	ACETONE		43	9.27	190	4642	10.94	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.55	326	71942	49.03	UG/L	89
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.23	594	139845	50.00	UG/L	100
17)	2-BUTANONE		72	14.67	329	3748	28.25	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.08	649	108872	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	25.92	619	174513	50.50	UG/L	9[illegible]
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.67	767	83254	49.90	UG/L	100

* Compound is ISTD

Sample Number
C6102

.Organics Analysis Data Sheet
(Page 1)

boratory Name: ECOLOGY & ENVIRONMENT INC.
Case No: V-4618/V-4651
Lab Sample ID No: BLANK
QC Report No:
Sample Matrix: WATER FOR SOIL
Contract No: IL-3140
Data Release Authorized By: C Slotowicz
Date Sample Received:

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-17-86

Conc/Dil Factor: 1 pH -

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	6	
67-64-1	Acetone	8	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

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

. 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-4618/U-4651

Sample Number C6102

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.1	3 J
2.	HEXANE ISOMER	VOA	21.2	13 J
3.				
4.				
5.				
6.				
7.				
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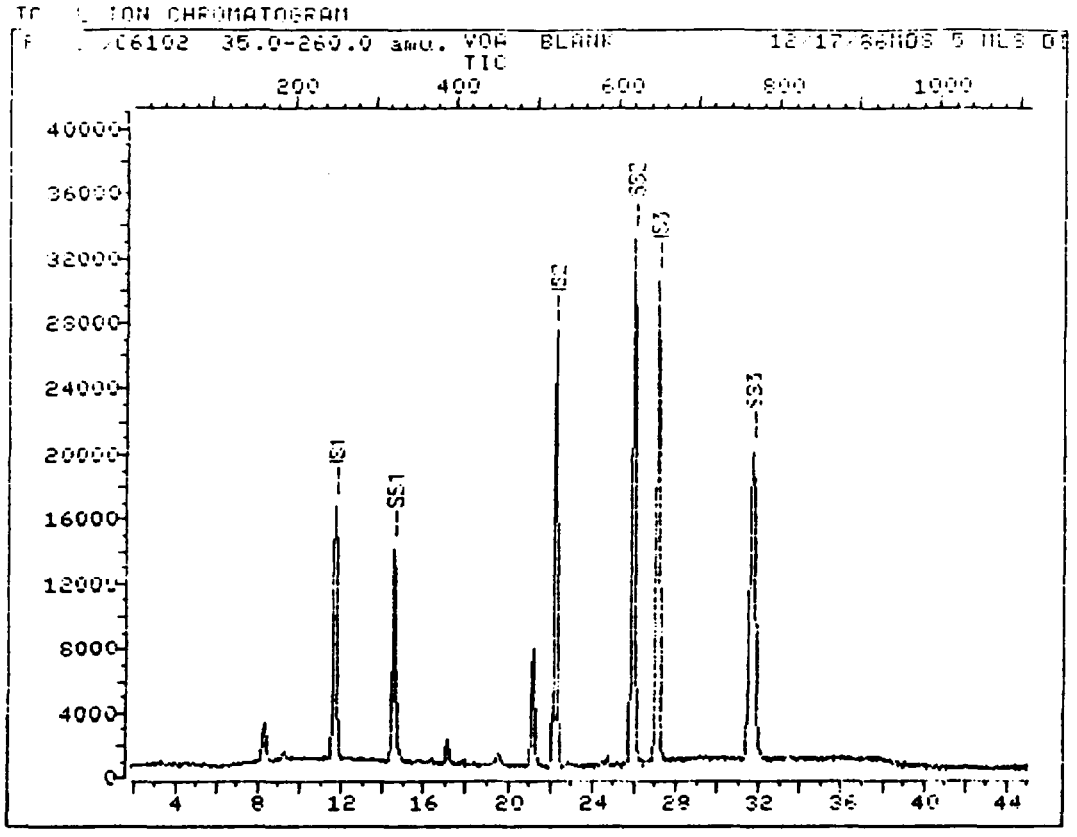
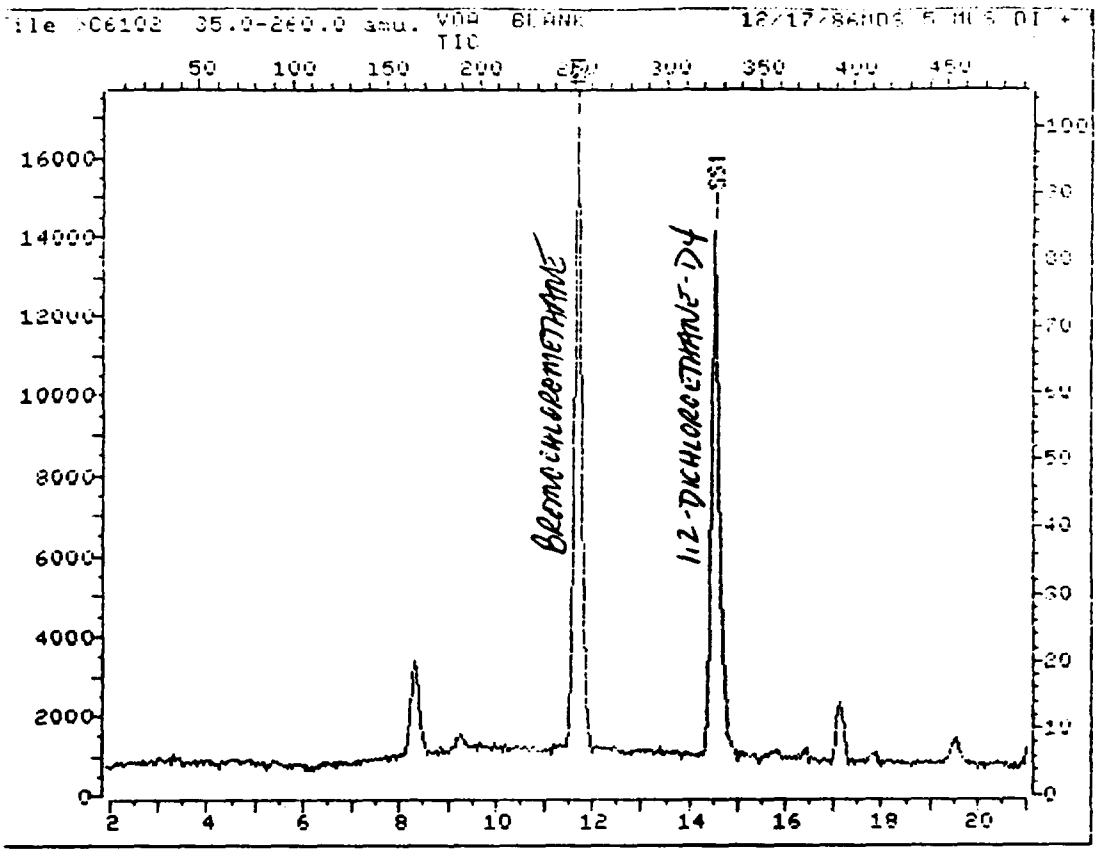
30				

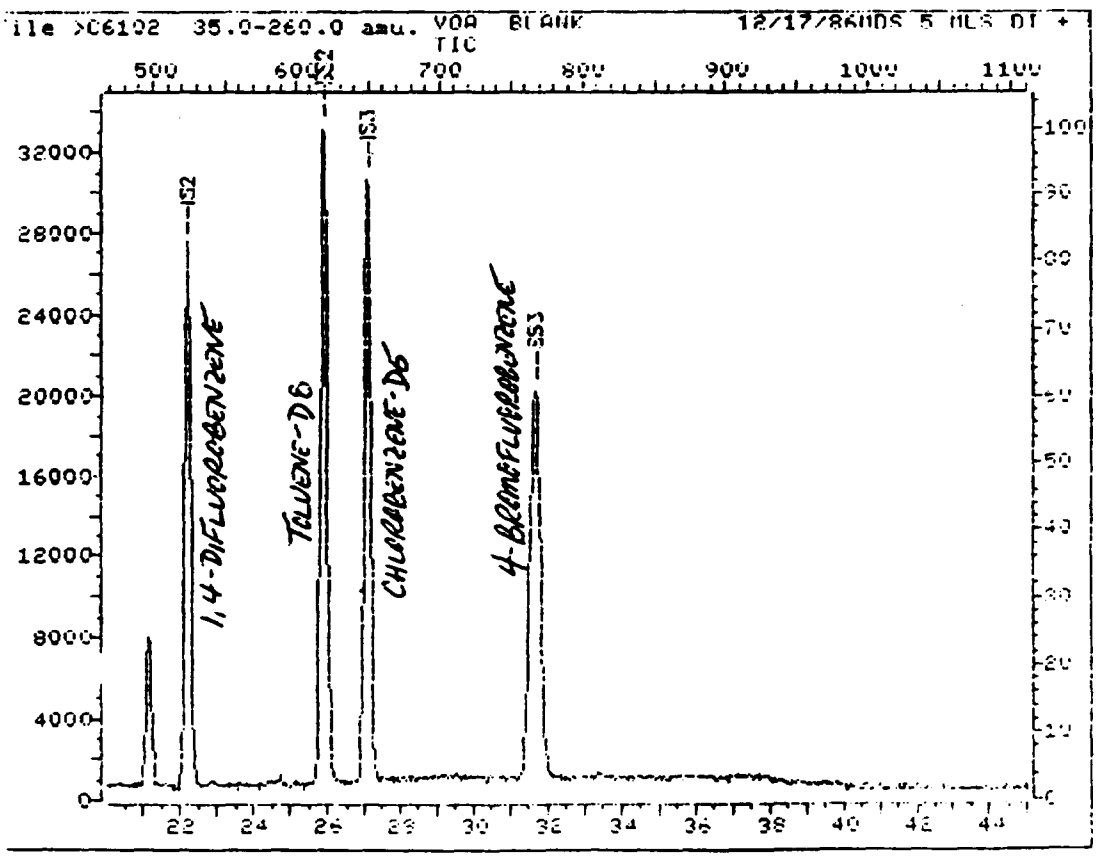


Data File: >C6102::D4
Name: VOA BLANK
Misc: 12/17/86MDS 5 MLS D1 + 5UL TCL,PURG C + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861217 14:50

Operator ID: USER8
Quant Time: 861217 14:54
Injected at: 861217 12:28


TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4
IS1


TIC
IS2
1,4-DIFLUOROBENZENE
TOLUENE-D6
IS3
CHLOROBENZENE-D5
4-BROMOFLUOROBENZENE
IS4

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861217 14:54
Output File: ^C6102::Q2 Injected at: 861217 12:98
Data File: >C6102::D4 Dilution Factor: 1.00
Name: VOA BLANK
Misc: 12/17/86MOS 5 MLS DI + 5UL TCL,PURG C + 100UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861217 14:50

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.66	292	23565	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.32	166	6186	32.98	NGS	100
7)	ACETONE		43	9.21	189	5172	40.30	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.53	326	53448	246.42	NGS	87
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.21	524	118202	250.00	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.06	649	98874	250.00	NGS	100
~~37)~~	~~2-HEXANONE~~		~~43~~	~~24.46~~	~~582~~	~~2819~~	~~10.00~~	~~NGS~~	100
36)	TOLUENE-D8	(SURR)	98	25.90	619	133887	228.50	NGS	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.65	767	67172	235.03	NGS	100

NoGM

* Compound is ISTD

Sample Number
C6163

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC.
Case No: U-4618/U-4651
Lab Sample ID No: VOA BLANK
QC Report No:
Sample Matrix: WATER FOR SOIL
Contract No: IL-3140
Data Release Authorized By: C Slogowicz
Date Sample Received:

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-22-86

Conc/Dil Factor: 1 pH -

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	4	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	13	
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5	U
10061-02-6	Trans-1, 3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1, 1, 2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1, 3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	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 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-4618/U-4651

Sample Number C6163

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.2	? J
2.	HEXANE ISOMER	VOA	21.2	34 J
3.				
4.				
5.				
6.				
7.				
8.				
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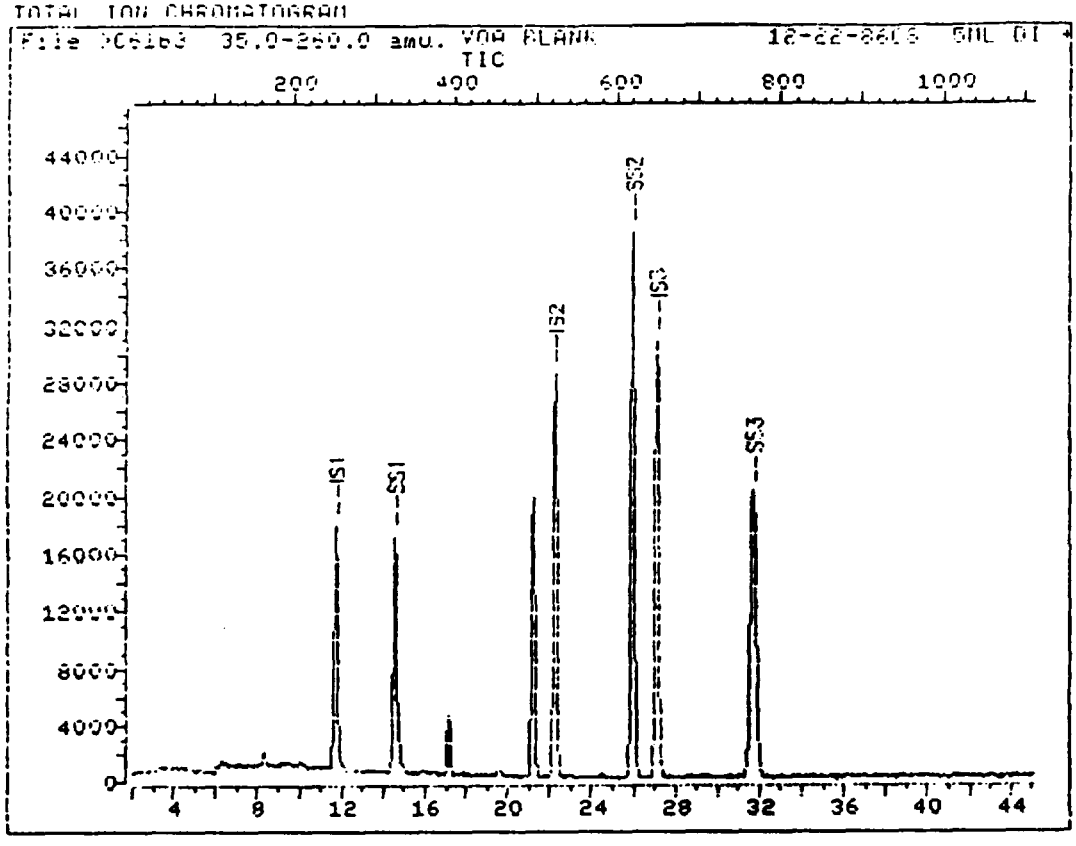
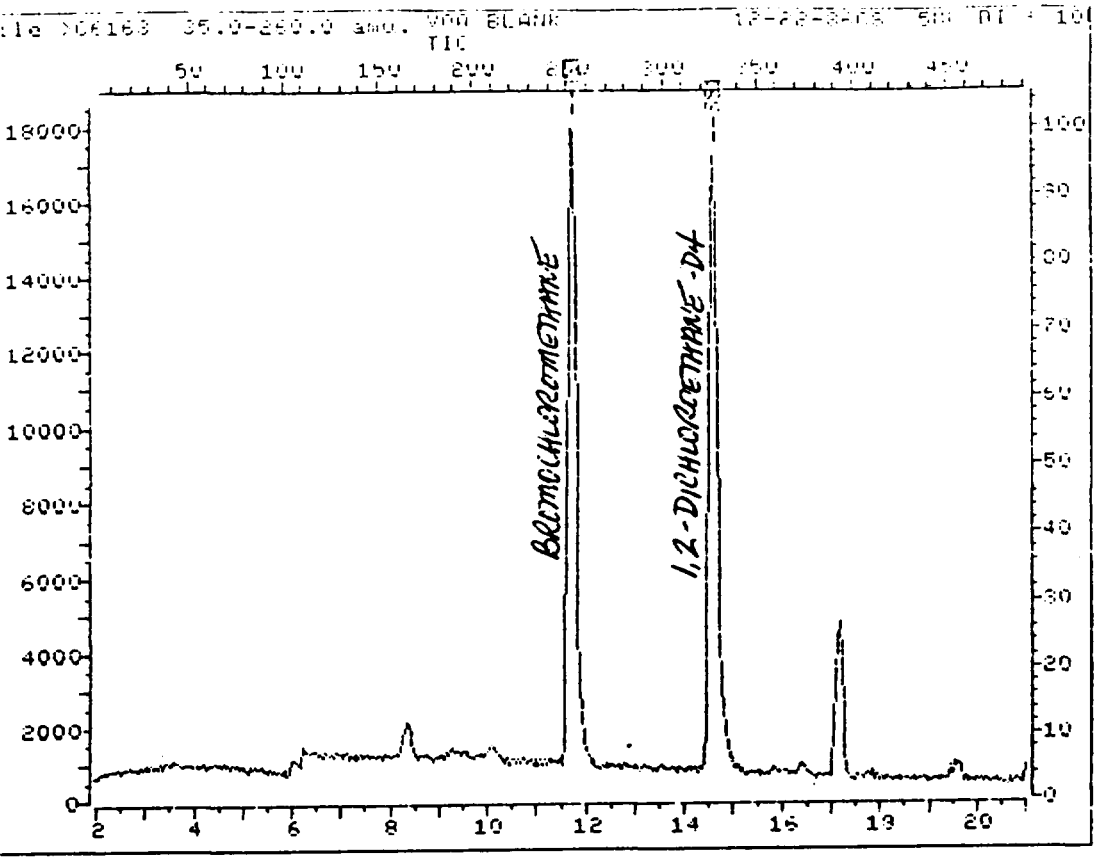
TOTAL ION CHROMATOGRAM



Data File: >C6163::D3
Name: VOA BLANK
Misc: 12-22-86CS 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861222 13:20

Operator ID: USER8
Quant Time: 861222 14:01
Injected at: 861222 13:15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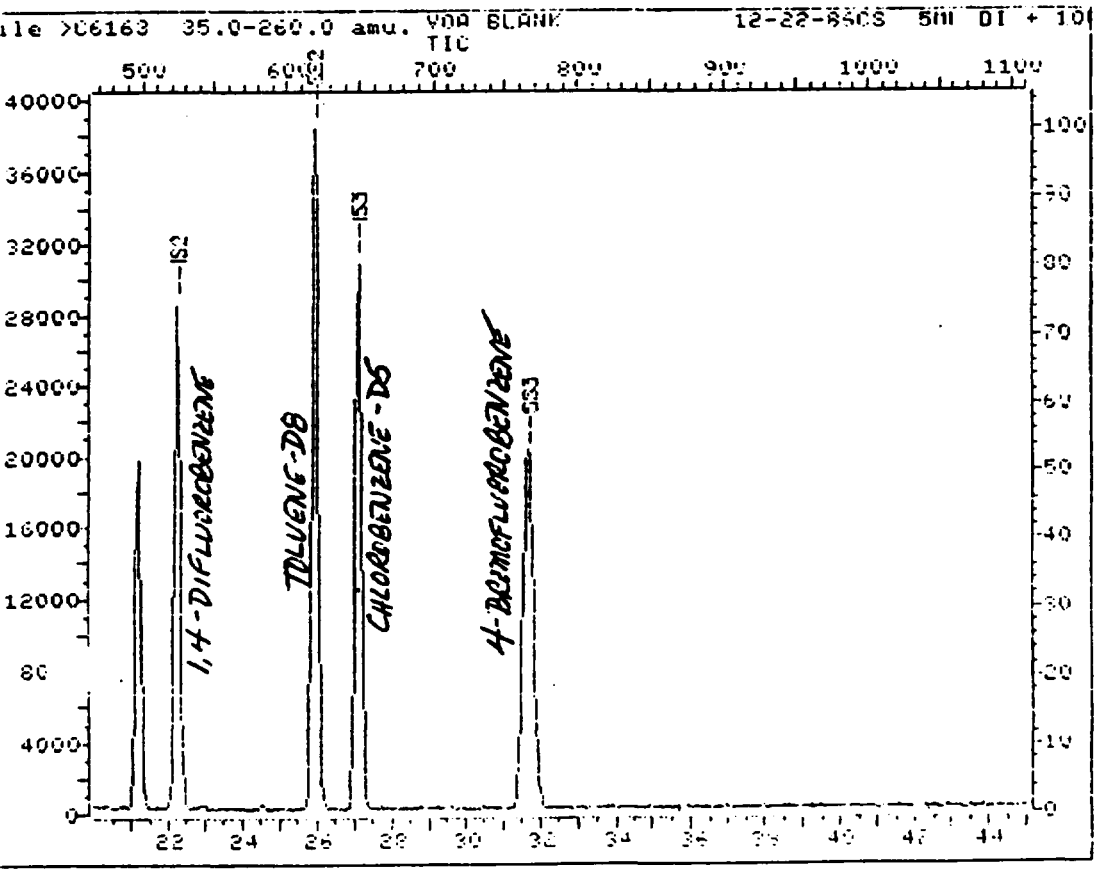
TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4


35.0-260.0 amu.
TIC
1,4-DIFLUOROBENZENE
TOLUENE-D8
CHLOROBENZENE-D5
4-BROMOFLUOROBENZENE

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861222 14:01
Output File: ^C6163::Q2 Injected at: 861222 13:15
Data File: >C6163::D3 Dilution Factor: 1.00
Name: VOA BLANK
Misc: 12-22-86CS 5ML D1 + 10UL 15/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861222 13:20

	Compound		m/e	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.70	252	25453	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.33	165	3184	15.55	NGS	100
7)	ACETONE		43	9.30	191	3163	22.60	NGS	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.57	326	74326	272.27	NGS	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.26	524	114662	250.00	NGS	100
7)	2-BUTANONE		72	14.81	332	2726	64.29	NGS	100
11)	*CHLOROBENZENE-D5	(IS)	117	27.11	649	94707	250.00	NGS	100
6)	TOLUENE-D8	(SURR)	98	25.94	619	148534	259.85	NGS	94
10)	4-BROMOFLUOROBENZENE	(SURR)	95	31.71	767	75721	261.34	NGS	100

* Compound is ISTD

Sample Number
C6182

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC.
Case No: U-4618/U-4651
Lab Sample ID No: METHANOL BLANK
QC Report No:
Sample Matrix: WATER FOR SOIL
Contract No: IL-3140
Data Release Authorized By: C Stoytowicz
Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 12-23-86

Conc/Dil Factor: 2 pH -

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	2000	U
74-83-9	Bromomethane	2000	U
75-01-4	Vinyl Chloride	2000	U
75-00-3	Chloroethane	2000	U
75-09-2	Methylene Chloride	340	J
67-64-1	Acetone	3400	
75-15-0	Carbon Disulfide	1000	U
75-35-4	1, 1-Dichloroethene	1000	U
75-34-3	1, 1-Dichloroethane	1000	U
156-60-5	Trans-1, 2-Dichloroethene	1000	U
67-66-3	Chloroform	1000	U
107-06-2	1, 2-Dichloroethane	1000	U
78-93-3	2-Butanone	4800	
71-55-6	1, 1, 1-Trichloroethane	1000	U
56-23-5	Carbon Tetrachloride	1000	U
108-05-4	Vinyl Acetate	2000	U
75-27-4	Bromodichloromethane	1000	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	1000	U
10061-02-6	Trans-1, 3-Dichloropropene	1000	U
79-01-6	Trichloroethene	1000	U
124-48-1	Dibromochloromethane	1000	U
79-00-5	1, 1, 2-Trichloroethane	1000	U
71-43-2	Benzene	1000	U
10061-01-5	cis-1, 3-Dichloropropene	1000	U
110-75-8	2-Chloroethylvinylether	2000	U
75-25-2	Bromoform	1000	U
108-10-1	4-Methyl-2-Pentanone	2000	U
591-78-6	2-Hexanone	2000	U
127-18-4	Tetrachloroethene	1000	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000	U
108-88-3	Toluene	1000	U
108-90-7	Chlorobenzene	1000	U
100-41-4	Ethylbenzene	1000	U
100-42-5	Styrene	1000	U
	Total Xylenes	1000	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-4618/U-4651

Sample Number C6182

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN.	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.2	1400 J
2.	HEXANE ISOMER	VOA	21.2	6600 J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
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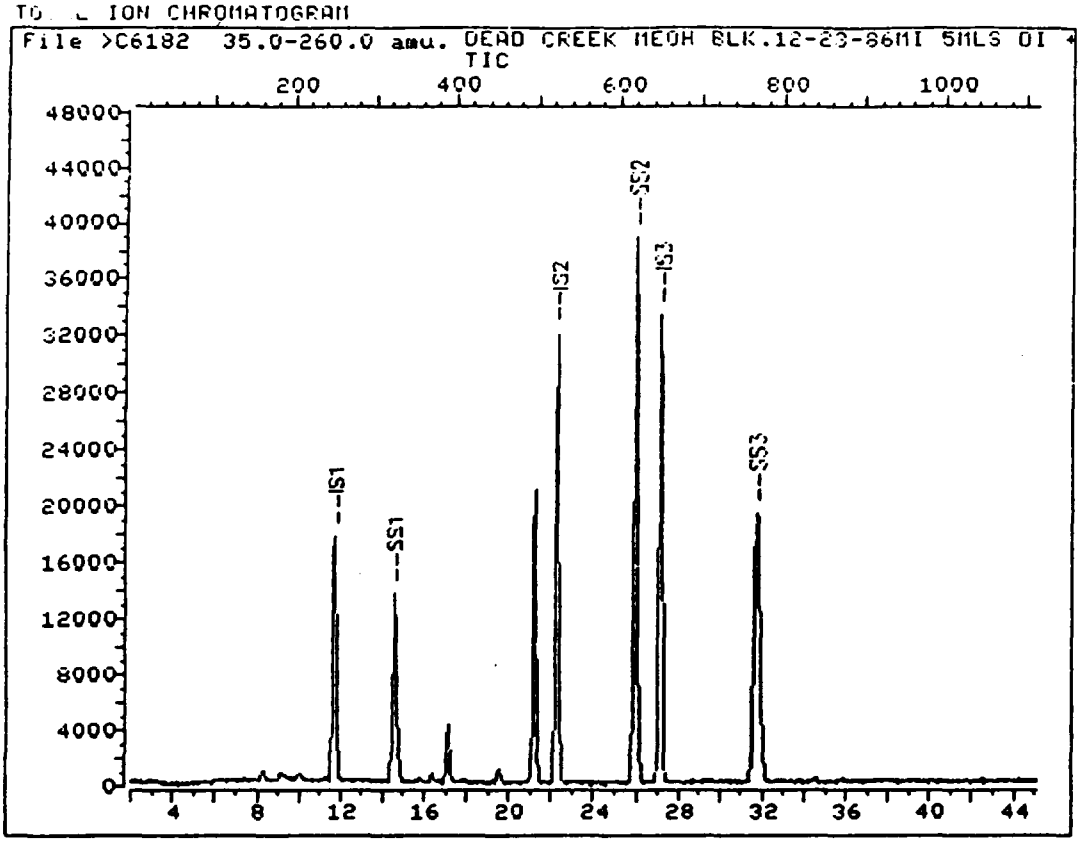
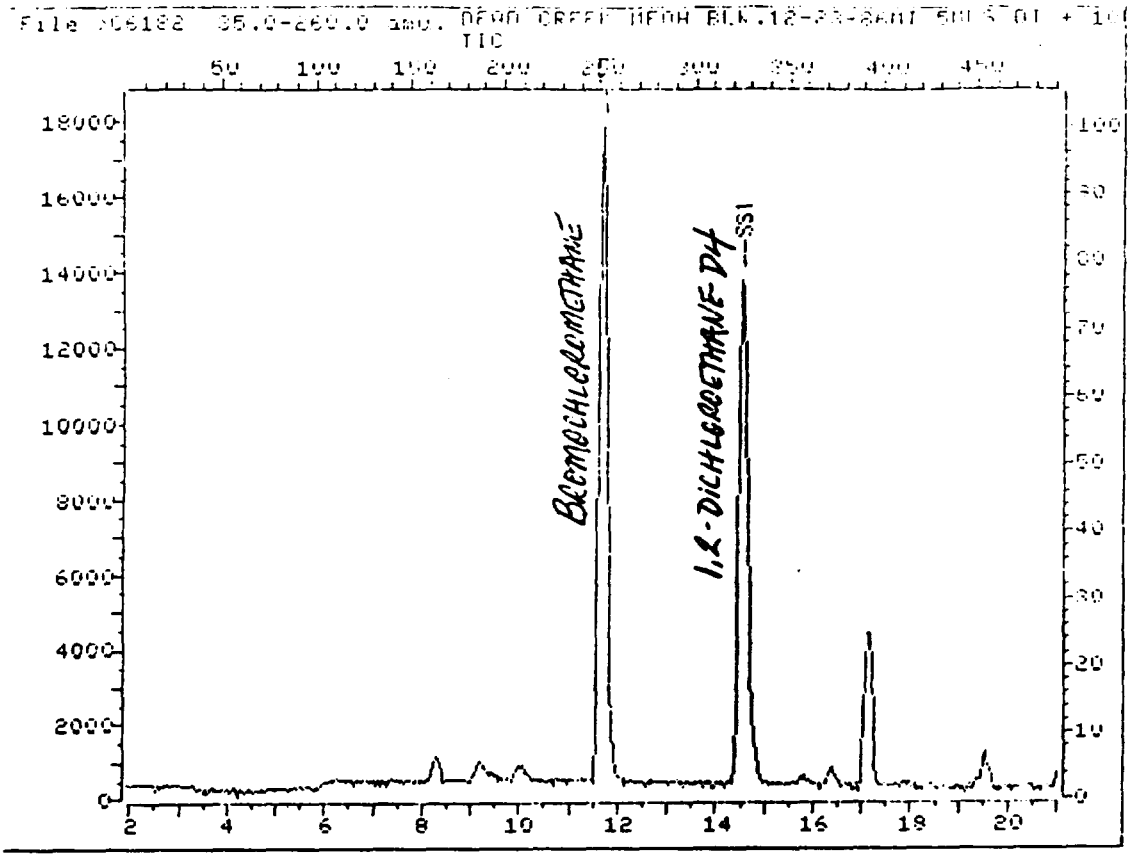
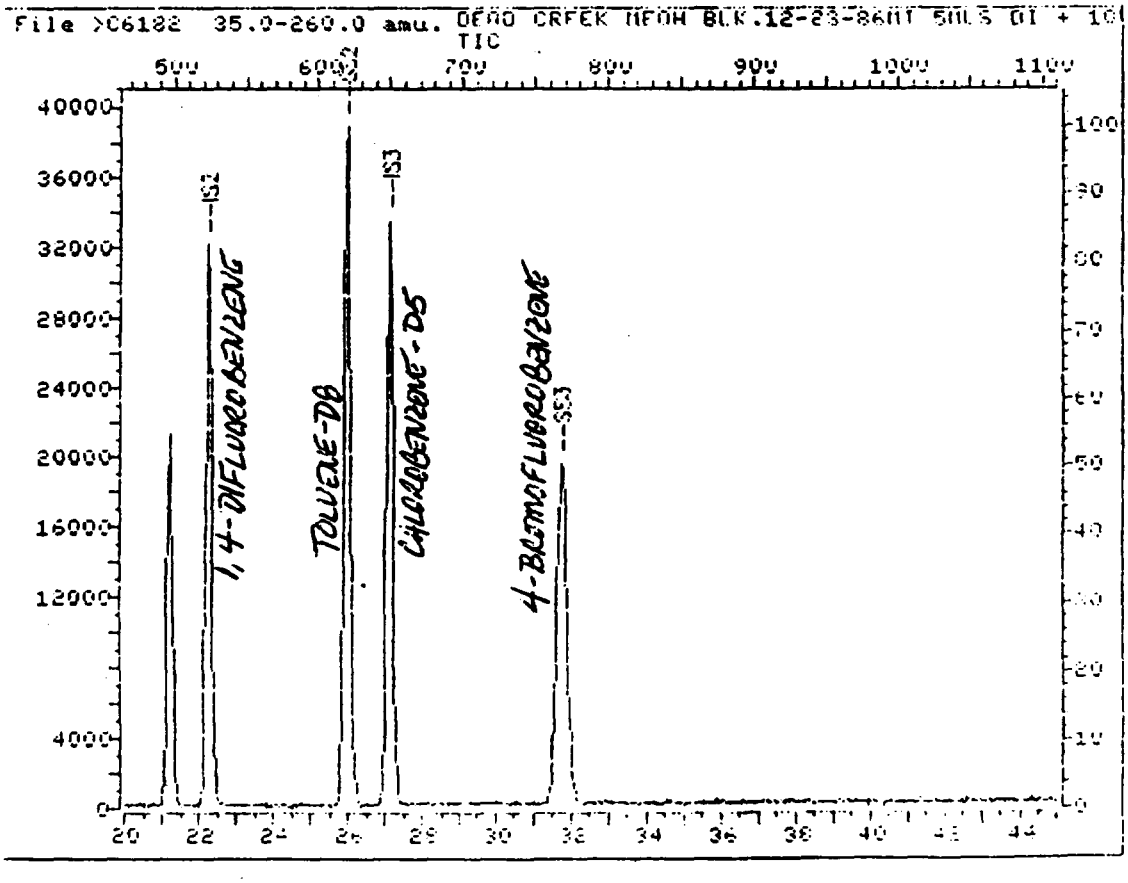


Data File: >C6182::D3
Name: DEAD CREEK MEOH BLK.
Misc: 12-23-86MI 5MLS DI + 10UL IS/SS + 50UL MEOH

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861223 16:29

Operator ID: USER8
Quant Time: 861223 18:26
Injected at: 861223 17:40


File >06182 35.0-260.0 amu. DEAD CREEK MEOH BLK.12-23-86MT 5ML5 DI + 10
TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4
SS1


File >06182 35.0-260.0 amu. DEAD CREEK MEOH BLK.12-23-86MT 5ML5 DI + 10
TIC
1,4-DIFLUOROBENZENE
IS2
TOLUENE-D8
SS2
CHLOROBENZENE-D5
IS3
4-BROMOFLUOROBENZENE
SS3

QUANT REPORT

perator ID: USER8 Quant Rev: 4 Quant Time: 861223 18:26
utput File: ^C6182::Q2 Injected at: 861223 17:40
ata File: >C6182::D3 Dilution Factor: 1.00
ame: DEAD CREEK MEOH BLK.
isc: 12-23-86MI 5MLS DI + 10UL IS/SS + 50UL MEOH

) File: VOACR::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861223 16:29

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.69	252	26122	50.00	UG/L	100
5)	METHYLENE CHLORIDE		84	8.28	164	1729	1.69	UG/L	100
7)	ACETONE		43	9.17	187	7207	16.79	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~10.02~~	~~209~~	~~4879~~	~~1.20~~	~~UG/L~~	~~100~~
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	325	58481	47.31	UG/L	87
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.25	524	134437	50.00	UG/L	100
7)	2-BUTANONE		72	14.68	329	3217	24.24	UG/L	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.14	650	105545	50.00	UG/L	100
6)	TOLUENE-D8	(SURR)	98	25.97	620	157827	54.69	UG/L	93
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.72	768	73617	52.45	UG/L	100

* Compound is ISTD

Sample Number
C6197

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC.
Case No: V-4618/V-4651
Lab Sample ID No: 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: 12-26-86
Conc/Dil Factor: 1 pH -
Percent Moisture: (Not Decanted) -

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	4	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	9	J
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5	U
10061-02-6	Trans-1, 3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1, 1, 2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1, 3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	1	J
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	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-4618 / U-4651

Sample Number C6197

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.1	7 J
2.	HEXANE ISOMER	VOA	21.2	33 J
3.				
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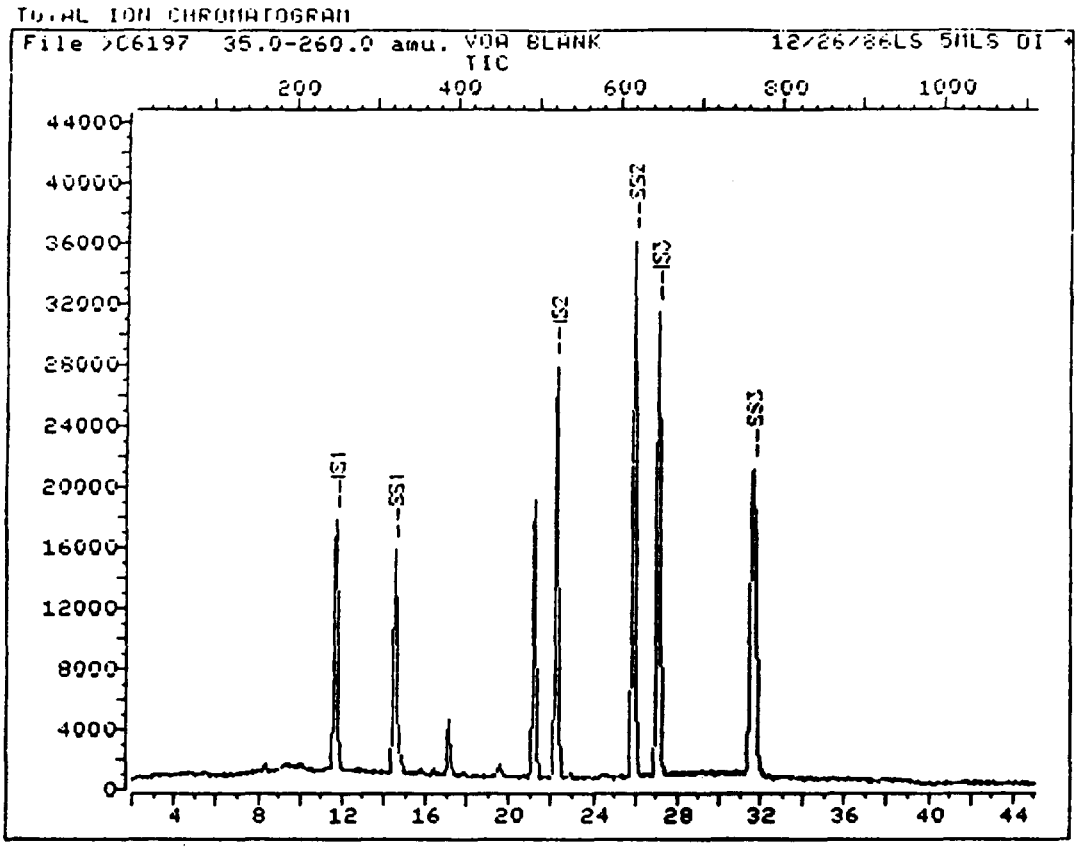
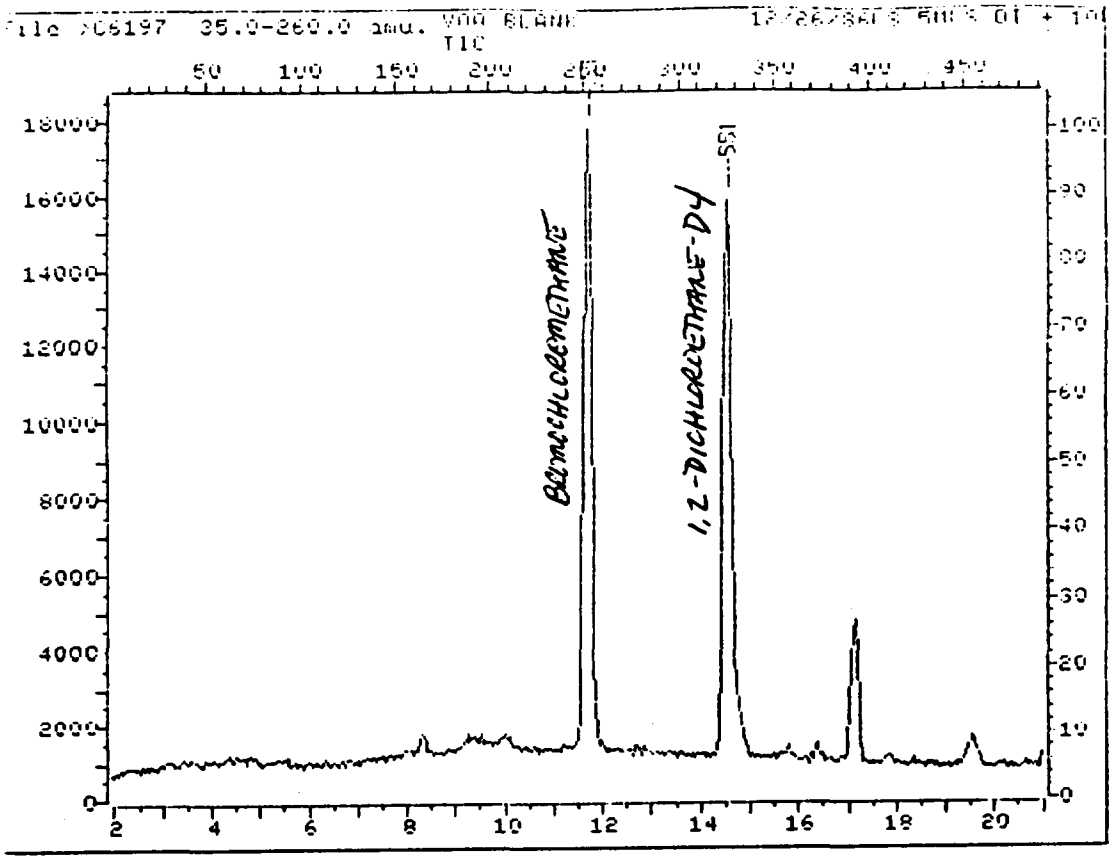
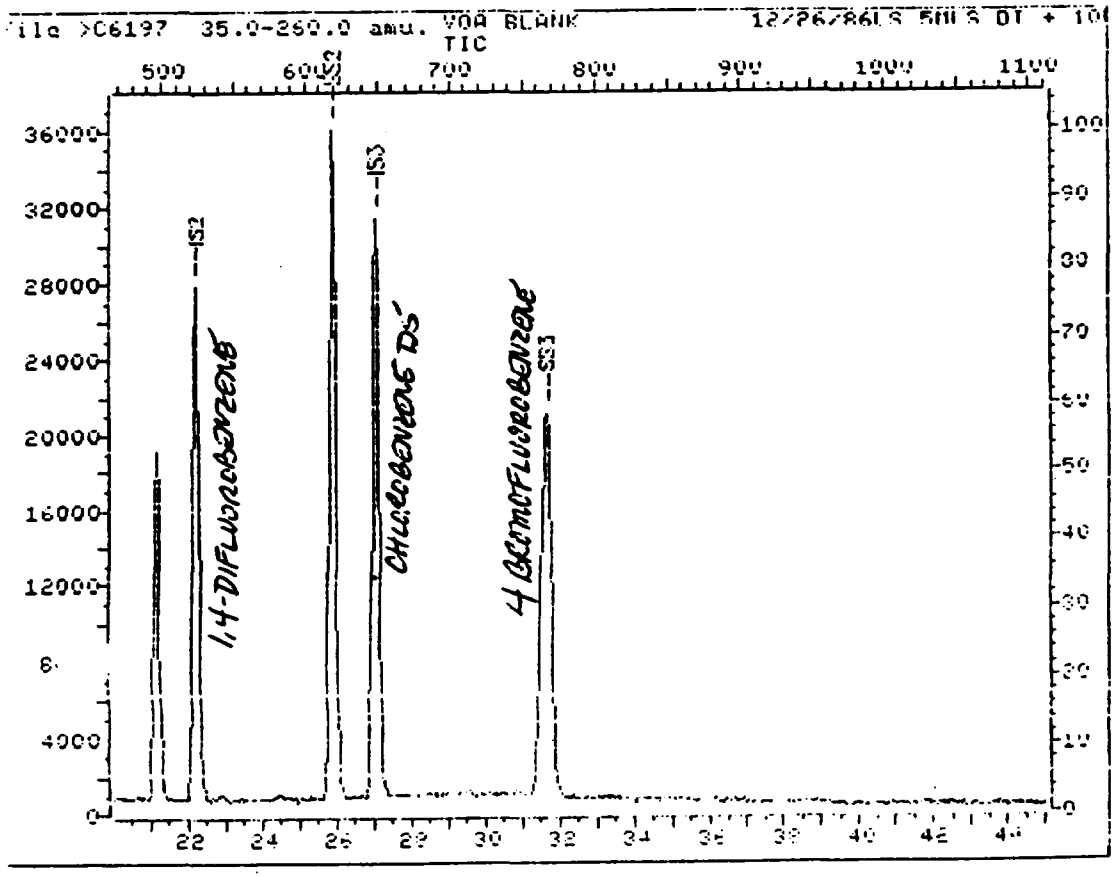


Data File: >C6197::D3
Name: VOA BLANK
Misc: 12/26/86LS 5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861226 12:05

Operator ID: USER8
Quant Time: 861226 12:53
Injected at: 861226 12:07


File >C6197 35.0-260.0 amu. VOA BLANK
TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4
IS1


File >C6197 35.0-260.0 amu. VOA BLANK
TIC
1,4-DIFLUOROBENZENE
IS2
CHLOROBENZENE D5
IS3
4-BROMOFLUOROBENZENE
IS3

QUANT REPORT

perator ID: USER8 Quant Rev: 4 Quant Time: 861226 12:53
utput File: ^C6197::Q2 Injected at: 861226 12:07
ata File: >C6197::D3 Dilution Factor: 1.00
ame: VOA BLANK
isc: 12/26/86LS 5MLS DI + 10UL IS/SS

D File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 861226 12:05

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.68	252	24116	250.00	NGS	100
7)	ACETONE		43	9.28	190	3997	22.20	NGS	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.51	325	59891	256.34	NGS	87
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.23	524	118965	250.00	NGS	100
7)	2-BUTANONE		72	14.71	330	2815	47.44	NGS	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.08	649	98551	250.00	NGS	100
2)	4-METHYL-2-PENTANONE		43	22.93	542	2862	6.62	NGS	79
~~3)~~	~~2-HEXANONE~~		~~43~~	~~24.40~~	~~582~~	~~3402~~	~~9.88~~	~~NGS~~	100
6)	TOLUENE-D8	(SURR)	98	25.91	619	140269	250.27	NGS	97
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.66	767	74900	266.38	NGS	100

* Compound is ISTD

Sample Number
C6211

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ECOLOGY & ENVIRONMENT INC.
Case No: U-4618/U-4651
Lab Sample ID No: METHANOL 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: 12-29-86
Conc/Dil Factor: 2 pH -
Percent Moisture: (Not Decanted) -

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000 U
74-83-9	Bromomethane	2000 U
75-01-4	Vinyl Chloride	2000 U
75-00-3	Chloroethane	2000 U
75-09-2	Methylene Chloride	590 J
67-64-1	Acetone	4200
75-15-0	Carbon Disulfide	1000 U
75-35-4	1, 1-Dichloroethene	1000 U
75-34-3	1, 1-Dichloroethane	1000 U
156-60-5	Trans-1, 2-Dichloroethene	1000 U
67-66-3	Chloroform	1000 U
107-06-2	1, 2-Dichloroethane	1000 U
78-93-3	2-Butanone	9600
71-55-6	1, 1, 1-Trichloroethane	1000 U
56-23-5	Carbon Tetrachloride	1000 U
108-05-4	Vinyl Acetate	2000 U
75-27-4	Bromodichloromethane	1000 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000 U
10061-02-6	Trans-1, 3-Dichloropropene	1000 U
79-01-6	Trichloroethene	1000 U
124-48-1	Dibromochloromethane	1000 U
79-00-5	1, 1, 2-Trichloroethane	1000 U
71-43-2	Benzene	1000 U
10061-01-5	cis-1, 3-Dichloropropene	1000 U
110-75-8	2-Chloroethylvinylether	2000 U
75-25-2	Bromoform	1000 U
108-10-1	4-Methyl-2-Pentanone	2000 U
591-78-6	2-Hexanone	2000 U
127-18-4	Tetrachloroethene	1000 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000 U
108-88-3	Toluene	1000 U
108-90-7	Chlorobenzene	1000 U
100-41-4	Ethylbenzene	1000 U
100-42-5	Styrene	1000 U
	Total Xylenes	1000 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-4618/U-4651

Sample Number C6211

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	HEXENE ISOMER	VOA	17.1	1200 J
2.	HEXANE ISOMER	VOA	21.2	6200 J
3.				
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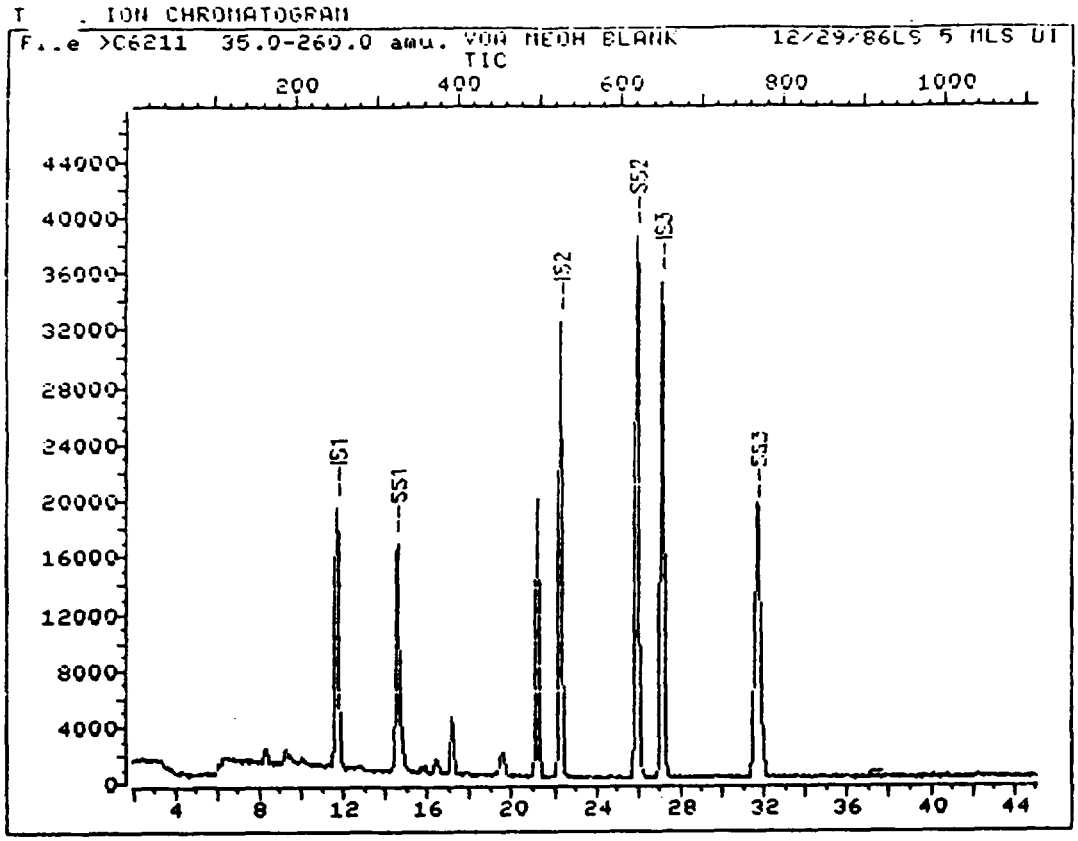
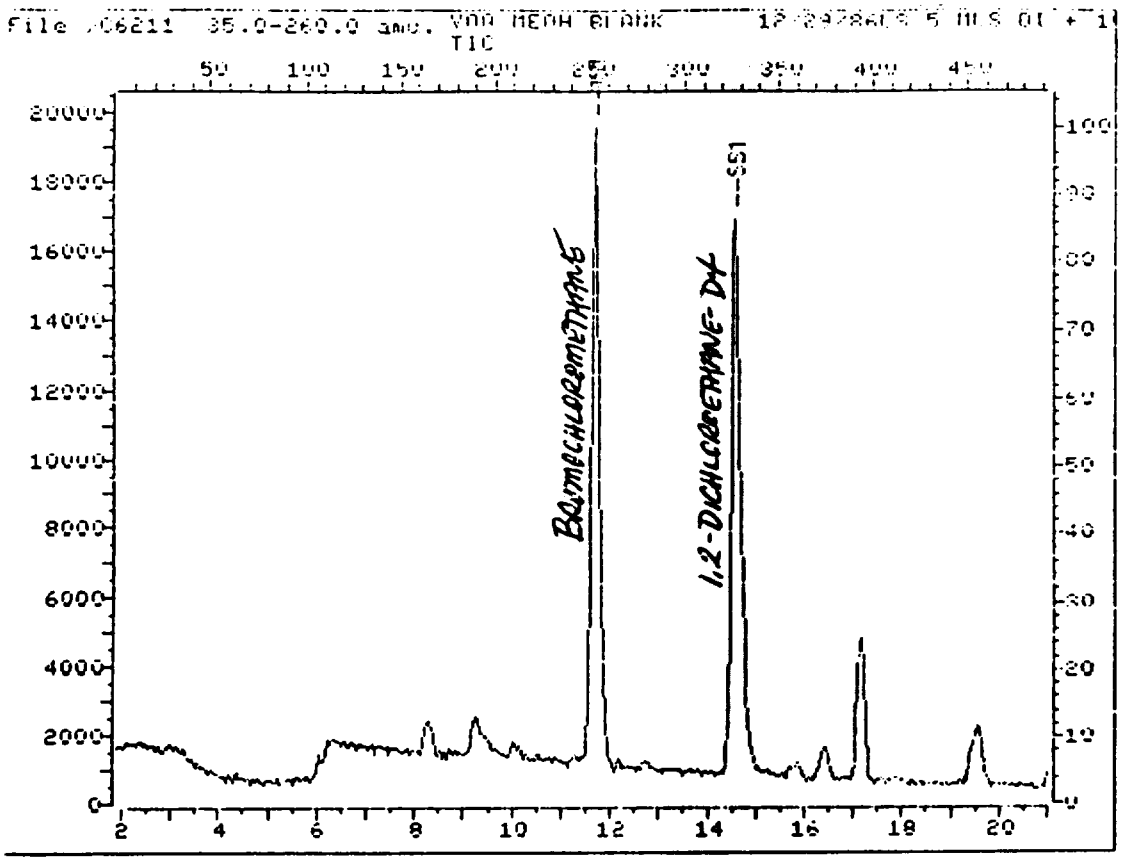


Data File: >C6211::D3
Name: VOA MEOH BLANK
Misc: 12/29/86LS 5 MLS DI + 10 UL IS/SS + 50ULS MEOH

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861229 13:13

Operator ID: USER8
Quant Time: 861229 14:39
Injected at: 861229 13:54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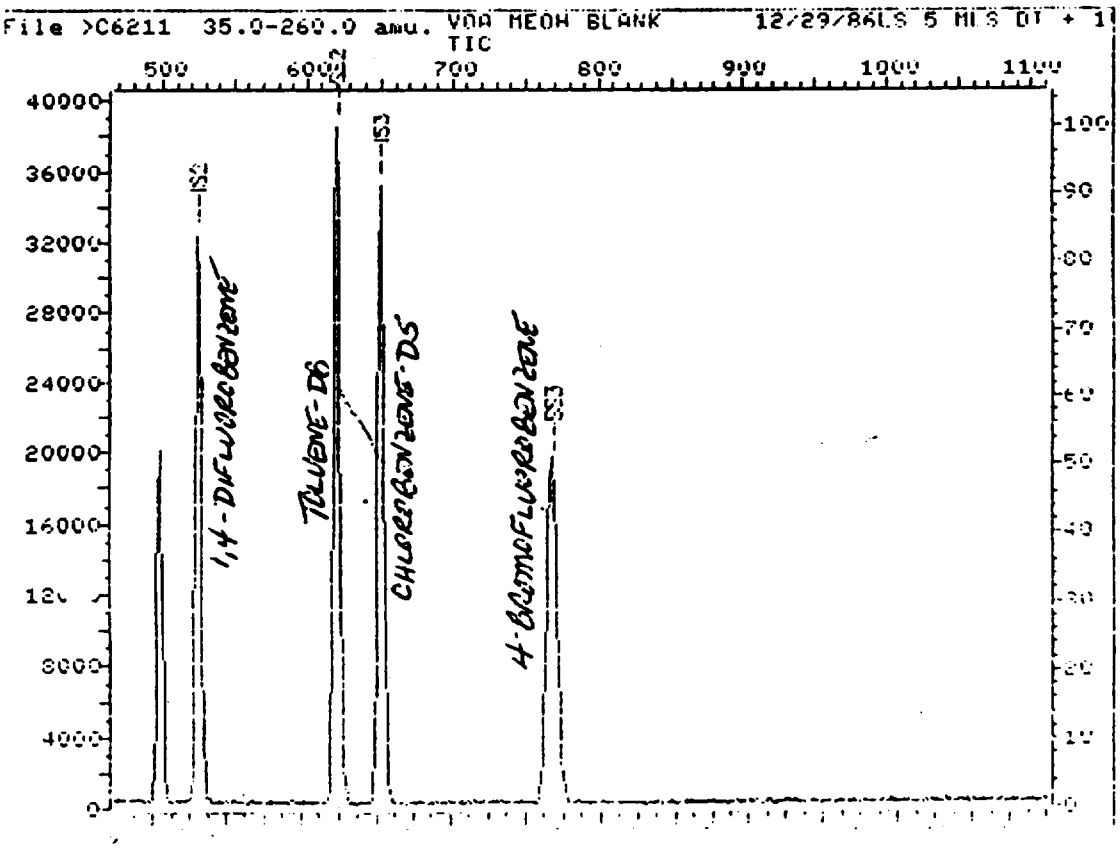
TIC
BROMOCHLOROMETHANE
1,2-DICHLOROETHANE-D4
SS1


File >C6211 35.0-260.0 amu. VOA MEOH BLANK
TIC
1,4-DIFLUOROBENZENE
TOLUENE-D8
CHLOROBENZENE-D5
4-BROMOFLUOROBENZENE
SS3

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 861229 14:39
Output File: ^C6211::Q2 Injected at: 861229 13:54
Data File: >C6211::D3 Dilution Factor: 1.00
Name: VOA MEOH BLANK
Misc: 12/29/86LS 5 MLS DI + 10 UL IS/SS + 50ULS MEOH

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 861229 13:13

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.70	253	27145	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	8.29	165	2861	2.95	UG/L	100
7)	ACETONE		43	9.26	190	10762	21.16	UG/L	100
~~9)~~	~~CARBON DISULFIDE~~		~~76~~	~~10.03~~	~~210~~	~~3641~~	~~.95~~	~~UG/L~~	~~100~~
.5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.57	327	70741	47.03	UG/L	86
.6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.26	525	131733	50.00	UG/L	100
.7)	2-BUTANONE		72	14.73	331	6379	47.83	UG/L	100
1)	*CHLOROBENZENE-D5	(IS)	117	27.11	650	104553	50.00	UG/L	100
6)	TOLUENE-D8	(SURR)	98	25.94	620	148324	50.70	UG/L	93
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.74	769	73801	49.32	UG/L	100

* Compound is ISTD

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4618/U-4651

Sample Number D1430

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12-18-86

Date Analyzed: 1-2-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) -

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	330	U
111-44-4	bis(-2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1 3-Dichlorobenzene	330	U
106-46-7	1 4-Dichlorobenzene	330	U
100-51-6	Benzyl Alcohol	330	U
95-50-1	1 2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	bis(2-chloroisopropyl)Ether	330	U
106-44-5	4-Methylpheno	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2 4-Dimethylphenol	330	U
65-85-0	Benzoic Acid	1600	U
111-91-1	bis(-2-Chloroethoxy)Methane	330	U
120-83-2	2 4-Dichlorophenol	330	U
120-82-1	1 2 4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2 4 6-Trichlorophenol	330	U
95-95-4	2 4 5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
8-96-8	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	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 & ENVIRONMENT INC.

Case No U-4618 | U-4651

Sample Number D1430

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	UNKNOWN	BNA	34.1	1600 J
2.				
3.				
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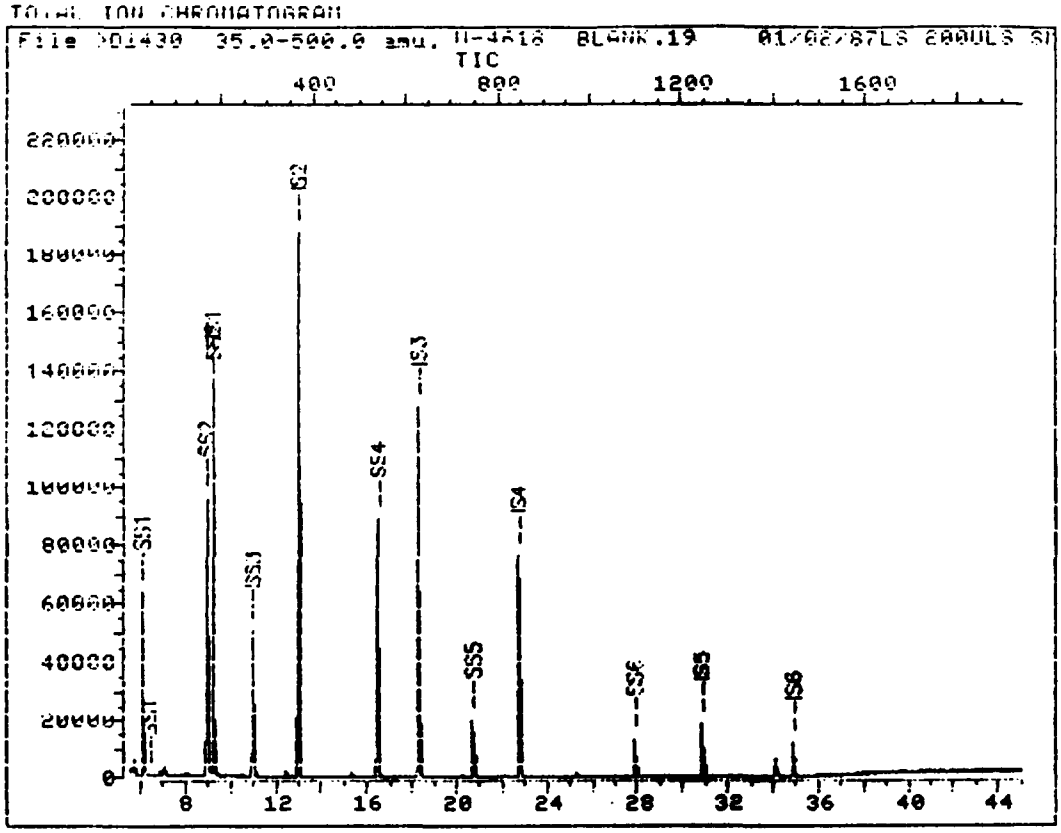
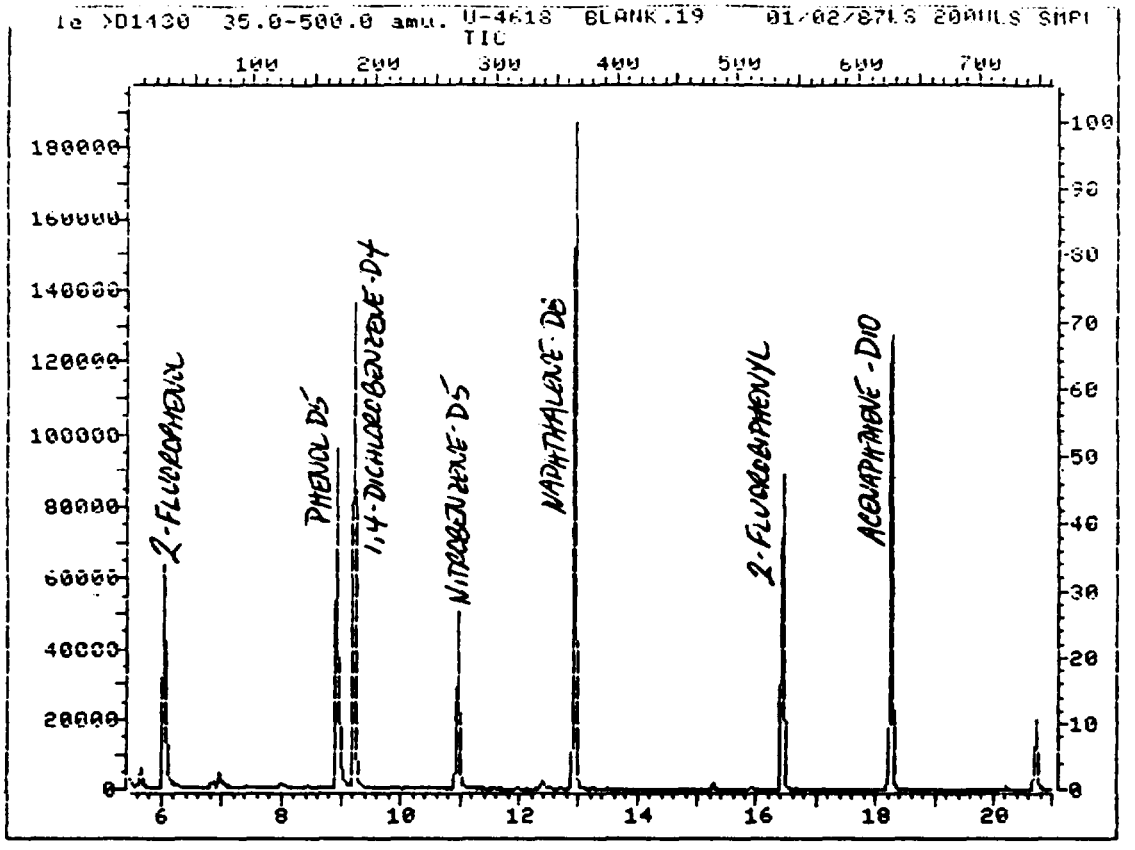
TOTAL ION CHROMATOGRAM

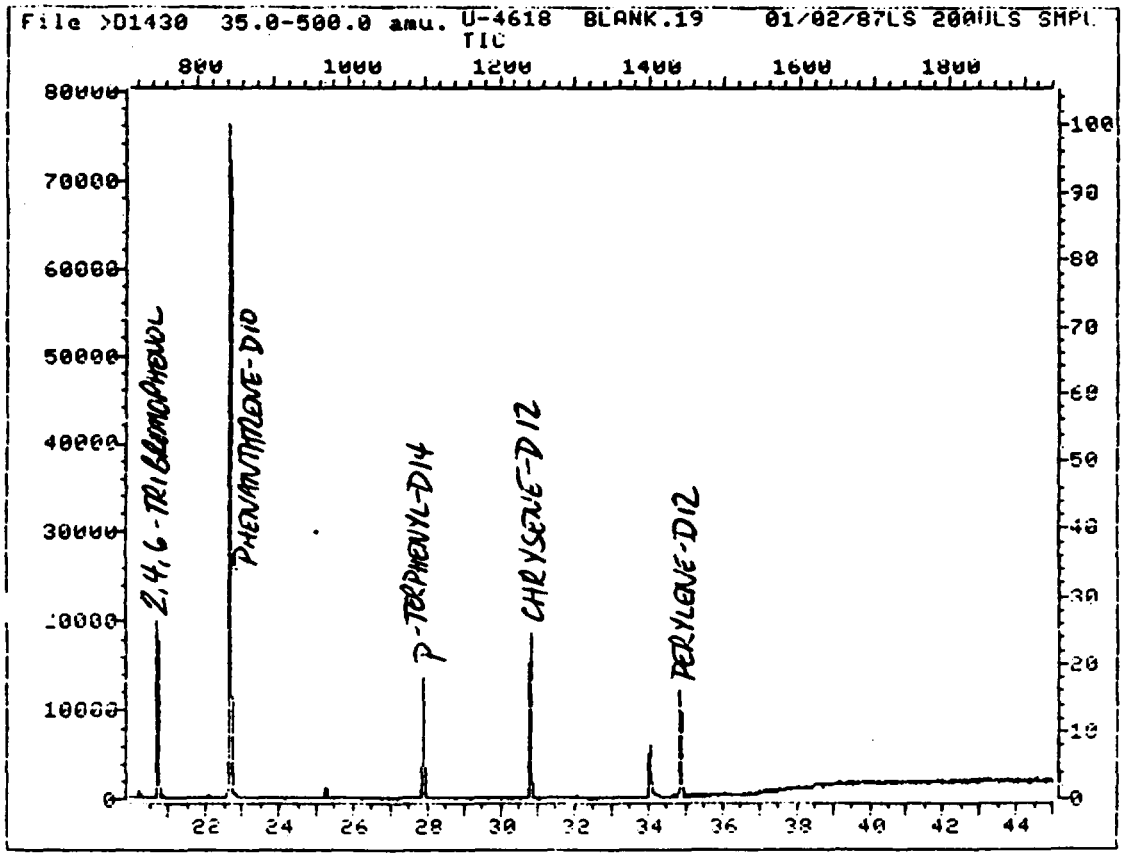


Data File: >D1430::D1
Name: U-4618 BLANK.19
Misc: 01/02/87LS 200ULS SMPL + 200ULS MECL2 + 40ULS IS(2X) (1BTL# 2

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870102 15:23

Operator ID: USER8
Quant Time: 870102 17:12
Injected at: 870102 16:25


File >D1430 35.0-500.0 amu. U-4618 BLANK.19 01/02/87LS 200ULS SMPL
TIC
2-FLUOROPHENOL
PHENOL D5
1,4-DICHLOROBENZENE-D4
NITROBENZENE-D5
NAPHTHALENE-D8
2-FLUOROBIPHENYL
ACENAPHTHENE-D10


File >D1430 35.0-500.0 amu. U-4618 BLANK.19 01/02/87LS 200ULS SMPL
TIC
2,4,6-TRIBROMOPHENOL
PHENANTHRENE-D10
P-TERPHENYL-D14
CHRYSENE-D12
PERYLENE-D12

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870102 17:12
Output File: ^D1430::D2 Injected at: 870102 16:25
Data File: >D1430::D1 Dilution Factor: 2.000
Name: U-4518 BLANK.19
Misc: 01/02/87LS 200ULS SMPL + 200ULS MECL2 + 40ULS IS(2X) (1BTL# 2

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870102 15:23

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.21	183	64965	40.00	UG/L	89
2)	PHENOL-D5	(SURR)	99	8.92	169	72891	76.78	UG/L	98
~~3)~~	~~PHENOL-D5~~	~~(SURR)~~	~~94~~	~~9.23~~	~~184~~	~~2872~~	~~2.18~~	~~UG/L~~	83
5)	2-FLUOROPHENOL	(SURR)	112	6.113	27	51938	73.67	UG/L	92
~~6)~~	~~2-FLUOROPHENOL~~	~~(SURR)~~	~~112~~	~~6.30~~	~~44~~	~~219~~	~~.31~~	~~UG/L~~	97
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.46~~	~~269~~	~~6592~~	~~2.14~~	~~UG/L~~	95
19)	*NAPHTHALENE-D8	(IS)	136	12.94	366	224641	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.96	269	39743	37.33	UG/L	92
34)	*ACENAPHTHENE-D10	(IS)	162	18.27	628	77985	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	16.44	538	74049	40.19	UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.27~~	~~628~~	~~24646~~	~~17.37~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.72	748	7424	40.72	UG/L	98
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.25~~	~~627~~	~~14069~~	~~35.98~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.67	844	88841	40.00	UG/L	96
65)	*CHRYSENE-D12	(IS)	240	30.82	1244	22815	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.89	1100	14725	62.30	UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.87	1443	14678	40.00	UG/L	100

* Compound is ISTD

Laboratory Name Ecology & Environment Inc.

Case No U-4618/U-4651

Sample Number D1527

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 12/22/86

Date Analyzed 1/15/87

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 & ENVIRONMENT INC.

Case No U-4618/U-4651

Sample Number D1527

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NO SEMI-VOLATILE COMPOUNDS FOUND			
2.				
3.				
4.				
5.				
6.				
7.				
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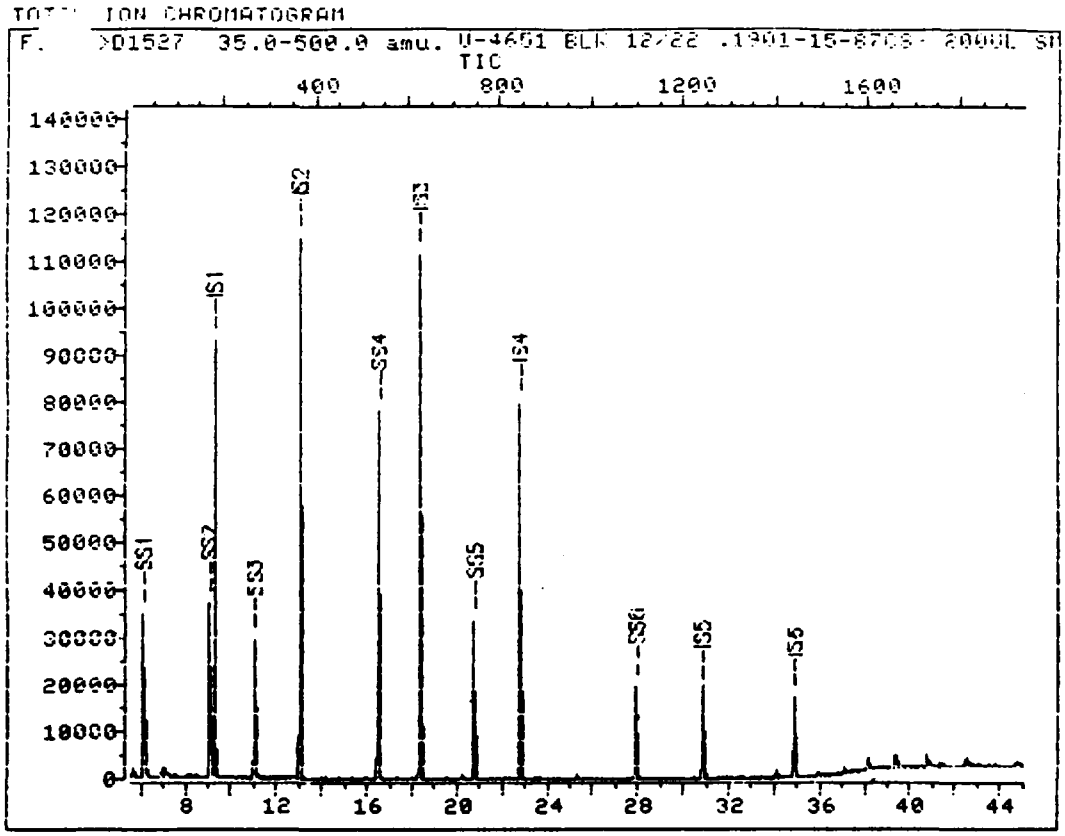
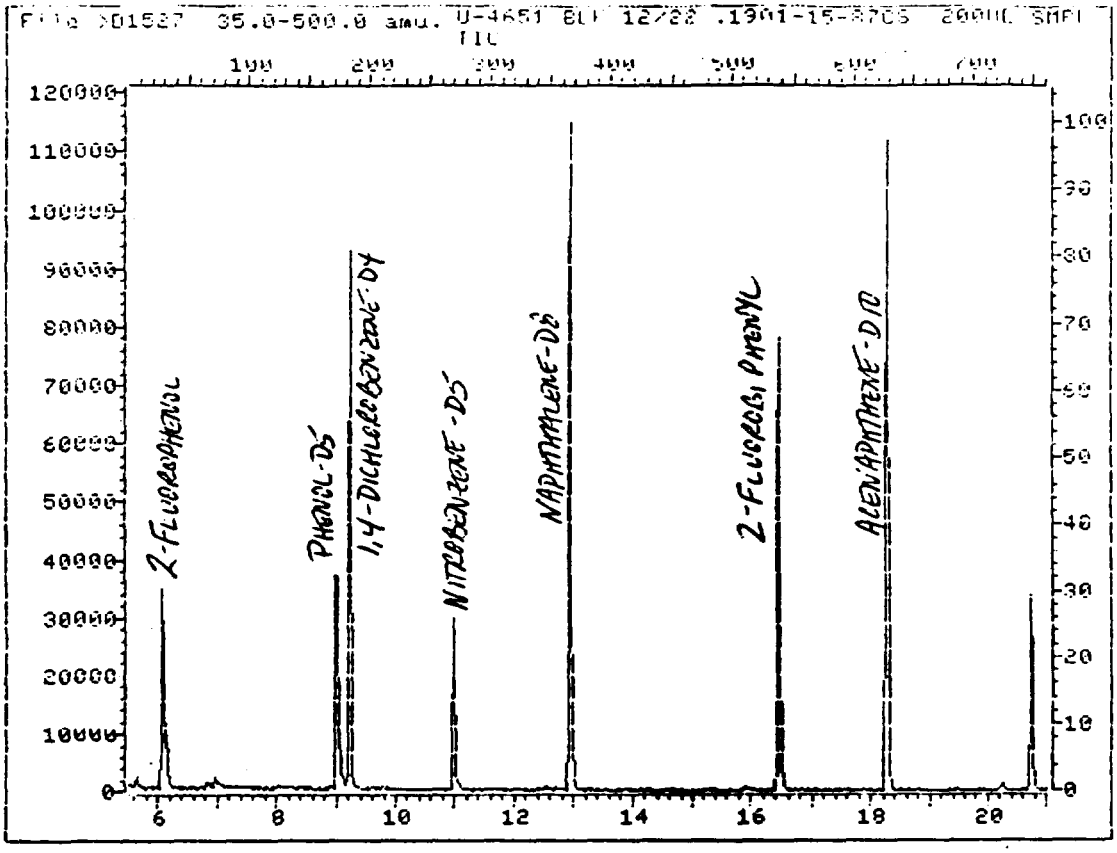
26.				
27.				
28.				
29.				
30				

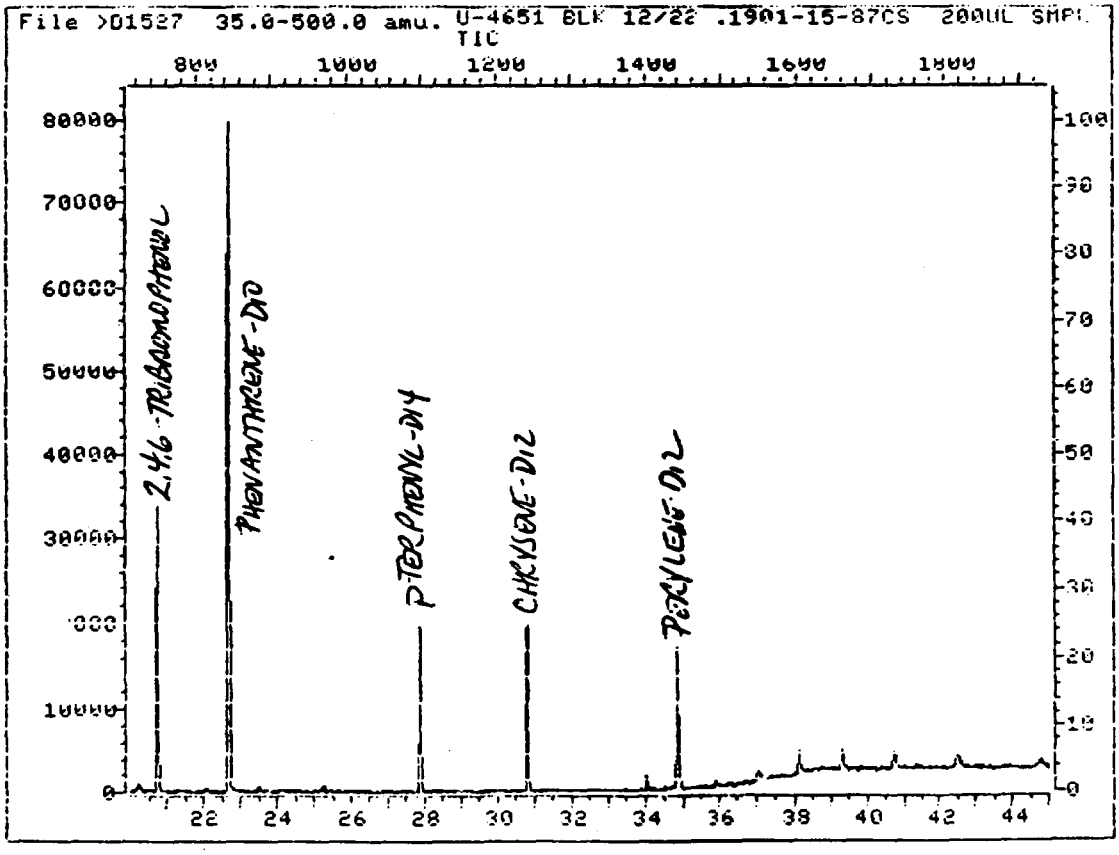


Data File: >D1527::D1
Name: U-4651 BLK 12/22 .19
Misc: 01-15-87CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860115 14:20

Operator ID: USER6
Quant Time: 860116 11:34
Injected at: 860115 14:20


File >D1527 35.0-500.0 amu. U-4651 BLK 12/22 .1901-15-87CS 200UL SMPL
TIC
2-FLUOROPHENOL
PHENOL-D5
1,4-DICHLOROBENZENE-D4
NITROBENZENE-D5
NAPHTHALENE-D8
2-FLUOROBIPHENYL
ACENAPHTHENE-D10


File >D1527 35.0-500.0 amu. U-4651 BLK 12/22 .1901-15-87CS 200UL SMPL
TIC
2,4,6-TRIBROMOPHENOL
PHENANTHRENE-D10
P-TERPHENYL-D14
CHRYSENE-D12
PERYLENE-D12

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 860116 11:34
Output File: ^D1527::Q2 Injected at: 860115 14:20
Data File: >D1527::D1 Dilution Factor: 2.00
Name: U-4651 BLK 12/22 .19
Misc: 01-15-87CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 860115 14:20

	Compound		M/E	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.23	183	41406	40.00	UG/L	88
2)	PHENOL-D5	(SURR)	99	8.98	171	48445	99.10	UG/L	99
5)	2-FLUOROPHENOL	(SURR)	112	6.07	28	31396	80.21	UG/L	97
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.98~~	~~269~~	~~3611~~	~~8.65~~	~~UG/L~~ NoGM	~~95~~
19)	*NAPHTHALENE-D8	(IS)	136	12.95	366	147564	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.98	269	22609	41.70	UG/L	93
34)	*ACENAPHTHENE-D10	(IS)	162	18.27	627	72588	40.00	UG/L	99
38)	2-FLUOROBIPHENYL	(SURR)	172	16.46	538	73976	43.07	UG/L	94
~~41)~~	~~DIMETHYL-PHTHALATE~~		~~163~~	~~18.27~~	~~627~~	~~22319~~	~~18.34~~	~~UG/L~~ NoGM	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.73	748	14689	63.72	UG/L	99
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.27~~	~~627~~	~~9248~~	~~37.15~~	~~UG/L~~ NoGM	100
55)	*PHENANTHRENE-D10	(IS)	188	22.69	844	94553	40.00	UG/L	88
65)	*CHRYSENE-D12	(IS)	240	30.80	1242	29443	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.88	1099	22241	61.90	UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.85	1441	23686	40.00	UG/L	100

* Compound is ISTD

Laboratory Name ecology and environment, inc.

Case No V-4618/V-4651

Sample Number BLANK 12-18

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-18-86

Date Analyzed 12-29-86

Conc/Dil Factor 1

Percent Moisture (decanted) —

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8.0 u
319-85-7	Beta-BHC	8.0 u
319-86-8	Delta-BHC	8.0 u
58-89-9	Gamma-BHC (Lindane)	8.0 u
76-44-8	Heptachlor	8.0 u
309-00-2	Aldrin	8.0 u
1024-57-3	Heptachlor Epoxide	8.0 u
959-98-8	Endosulfan I	8.0 u
60-57-1	Dieldrin	16.0 u
72-55-9	4,4'-DDE	16.0 u
72-20-8	Endrin	16.0 u
33213-65-9	Endosulfan II	16.0 u
72-54-8	4,4'-DDD	16.0 u
1031-07-8	Endosulfan Sulfate	16.0 u
50-29-3	4,4'-DDT	16.0 u
72-43-5	Methoxychlor	80.0 u
53494-70-5	Endrin Ketone	16.0 u
57-74-9	Chlordane	80.0 u
8001-35-2	Toxaphene	160 u
12674-11-2	Aroclor-1016	80.0 u
11104-28-2	Aroclor-1221	80.0 u
11141-16-5	Aroclor-1232	80.0 u
53469-21-9	Aroclor-1242	80.0 u
12672-29-6	Aroclor-1248	80.0 u
11097-69-1	Aroclor-1254	160.0 u
11096-82-5	Aroclor-1260	160.0 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

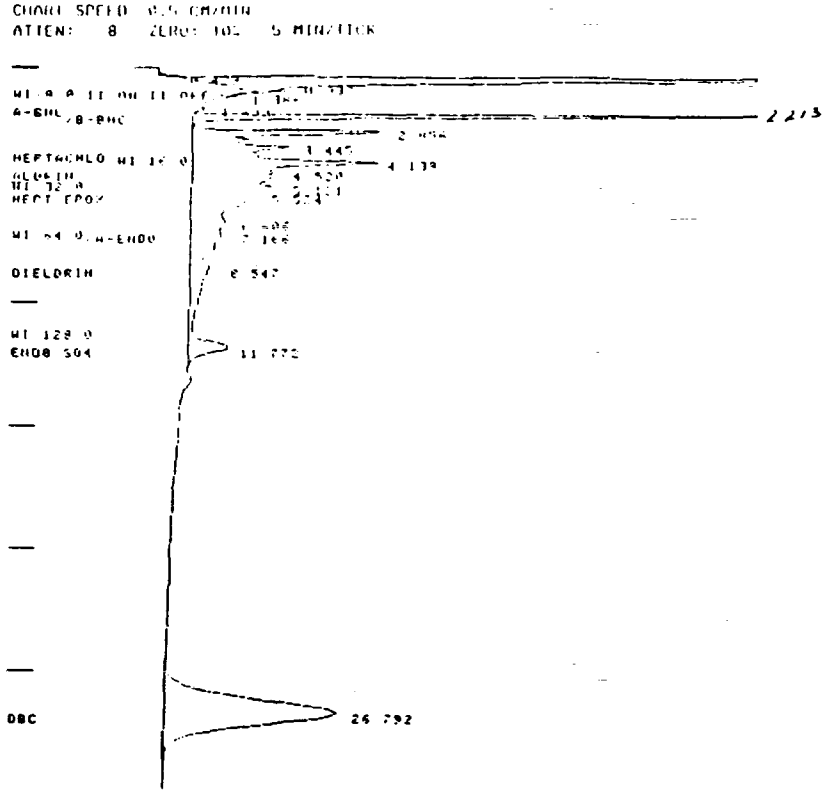
V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

Form 1

7 85
491095

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



RECALCULATE ON FILE: EPA600

CHANNEL: 1A - 1 TITLE: RUN# 14 20:26 29 DEC 86

SAMPLE: BLK 12-18 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	84.6259	2.213	0.033	1203360	VV	5.00
2		0.0000	2.856		304322	VV	12.38
3		0.0000	3.134		69012	VV	? 8.13
4		0.0000	3.445		214144	VV	? 14.06
5	~~HEPTACHLO~~	3.4649	3.790	-0.030	94293	VV	? 12.94
6		0.0000	4.138		462999	VV	15.00
7		0.0000	4.520		132095	VV	? 38.19
8	~~ALDRIN~~	4.8824	4.812	0.112	174789	VV	? 32.94
9		0.0000	5.121		222757	VV	? 32.06
10	~~HEPT EPOX~~	9.9172	5.524	-0.186	332654	VV	? 83.81
11		0.0000	6.606		150125	VV	? 77.25
12	~~A-ENDO~~	7.2170	7.166	0.096	230120	VV	?101.94
13	~~DIELDRIN~~	6.3998	8.547	0.287	218265	VV	? 99.88
14	~~ENDO SO4~~	6.0050	11.772	-0.228	138694	VB	27.81
15	DBC 9/2	60.4760	26.792	0.062	1553322	BV	68.00

TOTALS: 182.9782 0.136 5500961

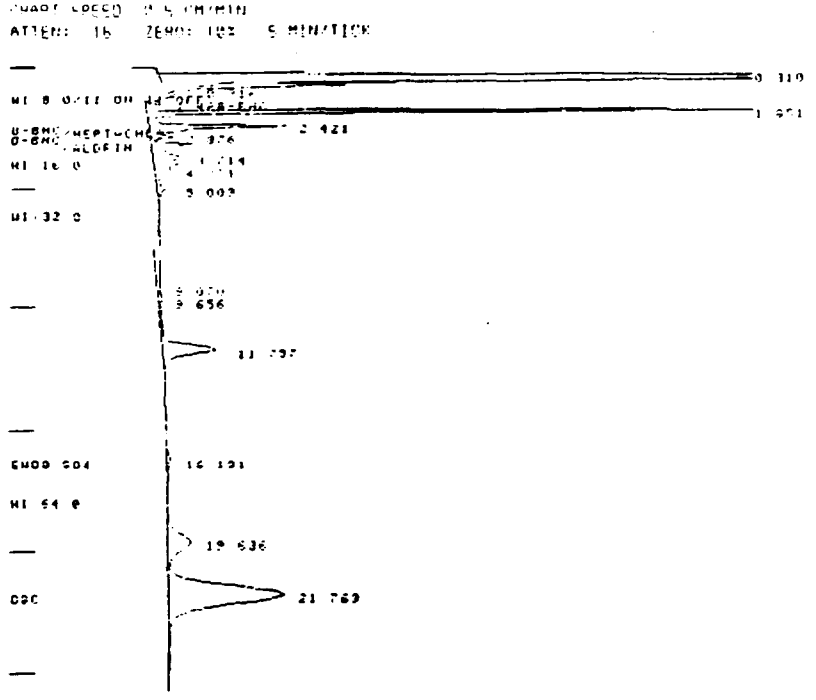
DETECTED PKS: 27 REJECTED PKS: 12

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: -20

NOTES:
NOTEBOOK:259-66 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-1651
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

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



Negative B-BHC

CHANNEL: 18 - 1 TITLE: RUN# 8 17:12 31 DEC 85

SAMPLE: BLK,12-18 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	[illegible]	0.6149	1.489	-0.151	32219	BV	11.50
2		0.0000	1.851		1614270	VV	4.44
3	[illegible]	16.0576	2.421	0.061	298385	VV	7.19
4	[illegible]	1.6748	2.579	0.029	68840	VV	? 9.75
5	[illegible]	1.5229	2.876	0.116	59516	VV	11.44
6	[illegible]	2.8973	3.160	0.080	134101	VV	19.50
7		0.0000	3.714		113533	VV	? 18.31
8		0.0000	3.973		78450	VV	? 20.06
9		0.0000	4.221		68316	VV	? 23.39
10		0.0000	5.009		58464	VB	? 71.25
11	[illegible]	3.7129	9.070	0.480	99044	BV	? 63.00
12	[illegible]	0.9497	9.655	-0.534	29415	VV	? 25.31
13	[illegible]	14.0437	11.757	-0.533	413329	VB	30.44
14	[illegible]	2.7659	16.191	-0.329	35347	BB	48.63
15		0.0000	19.636		281913	BV	47.19
16	DBC	51.8737	21.769	0.009	1555905	VV	49.81

TOTALS: 96.1133 -0.772 4941046

DETECTED PKS: 23 REJECTED PKS: 7

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 57.1 OFFSET: -9

NOTES:
NOTEBOOK:259-68 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB #U-4651
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 HNY779

Laboratory Name ecology and environment, inc.

Case No V-4618/V-4651

Sample Number BLANK 12-22

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 12-22-86

Date Analyzed 12-29-86

Conc/Dil Factor 1

Percent Moisture (decanted) —

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	16.0 U
72-55-9	4,4'-DDE	16.0 U
72-20-8	Endrin	16.0 U
33213-65-9	Endosulfan II	16.0 U
72-54-8	4,4'-DDD	16.0 U
1031-07-8	Endosulfan Sulfate	16.0 U
50-29-3	4,4'-DDT	16.0 U
72-43-5	Methoxychlor	80.0 U
53494-70-5	Endrin Ketone	16.0 U
57-74-9	Chlordane	80.0 U
8001-35-2	Toxaphene	160 U
12674-11-2	Aroclor-1016	80.0 U
11104-28-2	Aroclor-1221	80.0 U
11141-16-5	Aroclor-1232	80.0 U
53469-21-9	Aroclor-1242	80.0 U
12672-29-6	Aroclor-1248	80.0 U
11097-69-1	Aroclor-1254	160 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)

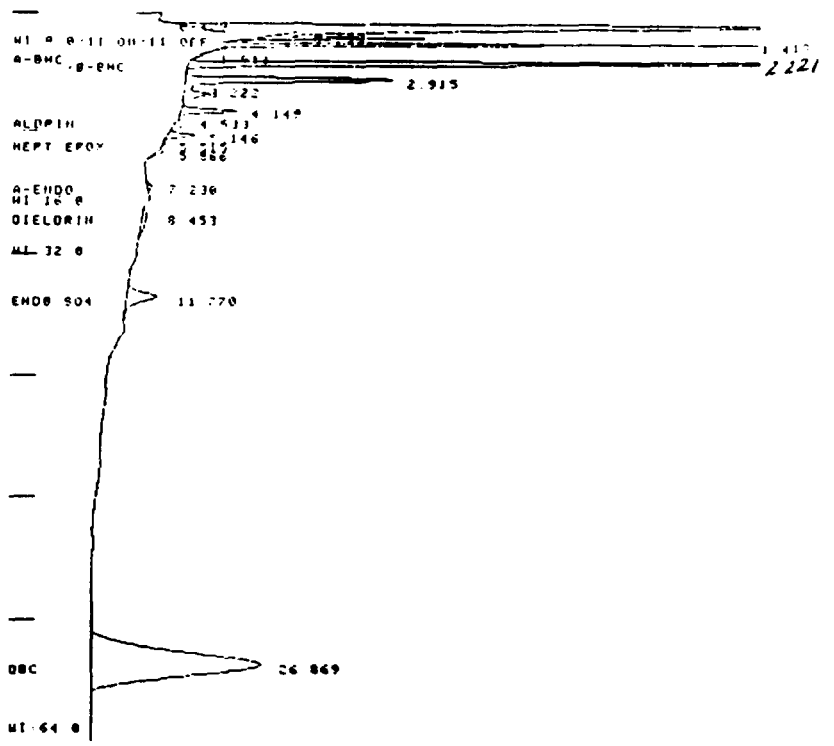
V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

Form 1

7 85
491095

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



CHANNEL: 1A - 1 TITLE: RUN# 15 22:32 29 DEC 86

SAMPLE: BLK 12-22 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	1.418		310993	BV	3.31
2	B-BHC	92.4322	2.221	0.041	1314363	VB	5.06
3		0.0000	2.915		312346	BV	11.44
4		0.0000	3.456		45979	VB	10.38
5		0.0000	4.149		69886	BB	9.06
6		0.0000	5.146		35903	VB	8.94
7	~~DIELDRIN~~	0.8462	8.453	0.193	28905	BB	25.13
8	~~ENDO SO4~~	4.6308	11.770	-0.230	106956	BB	24.75
9	DBC 95%	63.4850	26.869	0.139	1630607	BB	66.94
TOTALS:		161.3942		0.143	3855938		

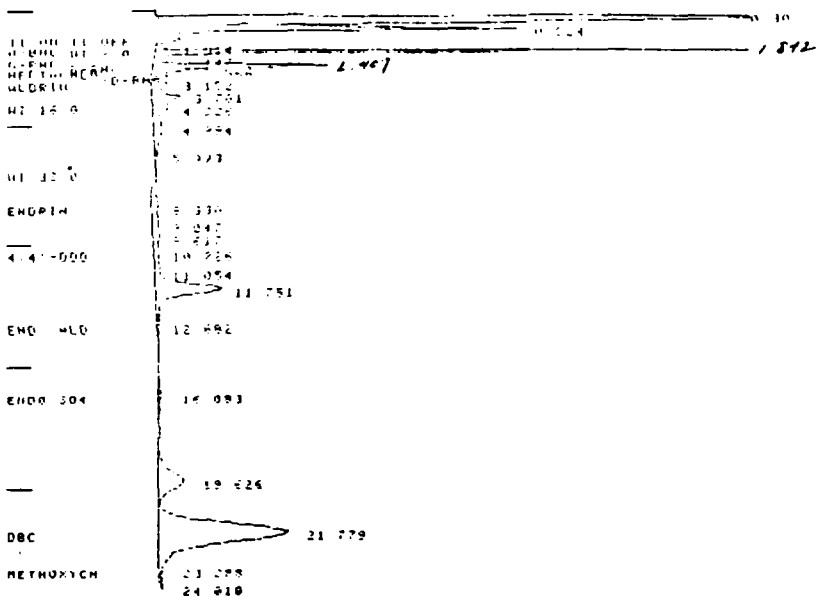
DETECTED PKS: 27 REJECTED PKS: 18

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 45.7 OFFSET: 16

NOTES:
NOTEBOOK:259-66 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4651
INST:VARIAN 6000#2 - 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 PRIMARY ANALYSIS

POST RUN:



Negative B-BHC

CHANNEL: 18 - 1 TITLE: RUN# 9 17:41 31 DEC 86

SAMPLE: BLK 12-22 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1	~~BHC~~	0.4537	1.514	-0.126	23779	BV	?	8.81
2		0.0000	1.842		2511391	VV		3.56
3	~~B-BHC~~	18.4118	2.407	0.047	342131	VV		6.63
4	~~[illegible]~~	1.6703	2.566	0.016	68655	VV	?	7.88
5	~~[illegible]~~	1.2807	2.868	0.108	50050	VV		9.13
6	~~[illegible]~~	1.1992	3.152	0.072	51294	VV	?	7.69
7		0.0000	3.701		135702	VV	?	14.25
8		0.0000	3.962		58417	VV	?	19.56
9		0.0000	4.226		79203	VV	?	37.44
10		0.0000	4.994		71119	VV	?	34.38
11		0.0000	5.197		60898	VV	?	
12	~~ENDRIN~~	2.9512	8.330	-0.260	78726	BV	?	59.00
13		0.0000	9.047		55770	VV	?	32.69
14		0.0000	9.617		64214	VV	?	23.06
15	~~[illegible]~~	1.6739	10.226	0.036	51848	VV	?	70.13
16		0.0000	11.054		41754	VV	?	33.56
17		0.0000	11.751		515040	VV		29.50
18	~~[illegible]~~	1.0926	12.682	0.392	32156	VB	?	
19	~~ENDO SO4~~	2.6070	16.083	-0.437	32316	BB		46.50
20		0.0000	19.626		342986	BV		47.25
21	DBC	60.8463	21.779	0.019	1825031	VV		51.69
TOTALS:		92.0958		-0.133	6493480			

DETECTED PKS: 34 REJECTED PKS: 13

DIVISOR: 1.50000 MULTIPLIER: 1000.00000

NOISE: 45.7 OFFSET: 7

NOTES:
NOTEBOOK:259-68 ANALYST: RICHARD SAMSON
SECURE AREA: D 108 #11-4651
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:270 C
200 C ISOTHERMAL 4 UL INJECTION
PESTICIDE/PCB CONFIGURATIONS
DEAD CREEK

POST RUN:
SAVE FILE: P:9U MN:79A

SUBSURFACE SOIL ORGANICS

Date 2-6-87

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

Lab Name Ecology and Environment, Inc. Case No. U-4618/U-4651

SOW No. 784 Q.C. Report No. _____

Sample Numbers

	Lab ID No.			Lab ID No.
DC-LB-01	10462		DC-L4-10	10619
DC-N1-02	10463		DC-J1-11	10620
DC-L2-03	10464		DC-J2-12	10621
DC-L3-04	10465		DC-J3-13	10622
DC-N1-05	10614		DC-H1-14	10623
DC-N2-06	10615		DC-H1-15	10624
DC-NB-07	10616			
DC-K1-08	10617			
DC-L4-09	10618			

Comments: _____

ICP Interelement and background corrections applied? Yes X No ____.

If yes, corrections applied before X or after _____ generation of raw data.

Footnotes:

NR - not required by contract at this time

Form I:

Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract required detection limit, report the value in brackets (i.e., [10]). Indicate the analytical method used with P (for ICP/Flame AA) or F (for furnace).

U - Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., 10U).

E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.

s - Indicates value determined by Method of Standard Addition.

R - Indicates spike sample recovery is not within control limits.

* - Indicates duplicate analysis is not within control limits.

\+ - Indicates the correlation coefficient for method of standard addition is less than 0.995

C