SDMS US EPA REGION V -1

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REF 15c

157431

ORGANIC DATA VALIDATION REPORT

1.0 INTRODUCTION

Site:	Sauget Area 1
Laboratory:	Ecology and Environment, Inc.
Validation:	PRC Environmental Management, Inc.
Review Date:	May 1993
Case Numbers:	U-4906, U-4928, U-4971, and U-4989
Sample Numbers:	DC-P1-53, DC-P2-54, DC-P5-55, DC-P5-56, DC-I12-57, DC-I12-58, DC-01-59, DC-02-60, DC-03-61, DC-04-62, DC-05-63, DC-05-64, DC-0B-65, DC-06-66, DC-G6-67, DC-GB-68, DC-G7-69, DC-G8-70, DC-G9-71, DC-09-72, DC-09-73, DC-010-74, DC-010-75
Analyses:	Volatiles, Semivolatiles, Pesticides/Polychlorinated Biphenyls
Collection Dates:	February 11, 12, 13, 16, 17, 18, 23, 24, and 26, 1987

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

2.0 DATA REVIEW REQUIREMENTS

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

2.1 HOLDING TIMES

Holding time requirements were met. Five samples (DC-P2-54, DC-P5-55, DC-P5-56, DC-I12-57, and DC-I12-58) were initially extracted for the semivolatile organic analysis (SVOA) as medium

concentration samples, then reextracted as low concentration samples after the holding time limit to produce lower detection limits; the latter result is reported. This should not significantly affect results.

2.2 INSTRUMENT PERFORMANCE

In the volatile organic analyses (VOA) and SVOA, all requirements for gas chromatography/mass spectroscopy (GC/MS) tuning were met, with one exception. During one run, three SVOA samples (DC-02-60, DC-06-66, and DC-GB-68) were run more than the 12 hours after the tuning specified in the Contract Laboratory Program protocol. However, they were run within the 24-hour period specified in the Method 8270 and Method 625 protocols. Since the instruments remained within the quality control (QC) limits on all runs, no qualifications are warranted.

In the pesticide/polychlorinated biphenyl (P/PCB) analyses, all instrument performance checks were successful.

2.3 CALIBRATION

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

2.3.1 Volatile Organic Analyses

During the initial calibration, the average response factor (RF) for 2-butanone was 0.04, below the QC limit of 0.05. Therefore, all positive results for 2-butanone are considered estimates (flagged "J"), all nondetects are considered unusable (flagged "R"), meaning the chemical may be present but was not detected.

During the continuing calibrations, a variety of chemicals had RFs for which the percent difference (%D) from the initial calibration exceeded the QC criterion of 25 percent. The associated sample results are considered estimates (qualified "J" if detected or "UJ" if not detected). These chemicals are listed in Table 1.

TABLE 1

VOLATILE ORGANIC ANALYSIS CONTINUING CALIBRATIONS

Continuing Calibration		Chemical (%D)		Samples Affected
Date	Time			
20 February	1104	Bromomethane (35.4)	Chloroethane (65.7)	DC-P1-53, DC-P2-54, DC-P5-55, DC-P5-56, DC-I12-57, DC-I12-58
		Methylene chloride (25.9)	Acetone (91.1)	
		Carbon disulfide (31.5)	1,1-Dichloroethane (26.6)	
		Trichloroethene (26.2)	1,1,2-Trichloroethane (28.4)	
		Styrene (34.9)	Xylenes (30.8)	
23 February	1240	Chloromethane (43.7)	Acetone (64.4)	DC-04-62
		Trichlorofluoromethane (31.7)	Carbon disulfide (43.6)	
24 February	1454	Chloromethane (43.7)	Chloroethane (41.9)	DC-01-59, DC-02-60, DC-03-61, DC-05-63, DC-05-64, DC-08-65, DC-06-66
		Trichlorofluoromethane (36.2)	Carbon disulfide (41.0)	
		Chloroform (30.0)	Vinyl acetate (26.0)	
		cis-1,3-Dichloropropene (25.6)	Bromoform (38.8)	
		4-Methyl-2-pentanone (26.8)	2-Hexanone (31.6)	
26 February	1400	Chloromethane (42.9)	Bromomethane (37.3)	DC-G6-67, DC-G7-69, DC-G8-70, DC-G9-71
		Acetone (58.5)		
4 March	0942	Chloromethane (53.7)	Bromomethane (48.5)	DC-GB-68
		Vinyl chloride (30.0)	Methylene chloride (28.9)	
		Carbon disulfide (37.54)	Vinyl acetate (39.0)	
		2-Chlorovinylether (37.1)	Bromoform (25.4)	
		4-Methyl-2-pentanone (49.2)	2-Hexanone (44.2)	
9 March	1126	Chloromethane (31.4)	Bromomethane (46.9)	DC-09-72, DC-09-73, DC-010-74, DC-010-75
		Acetone (77.1)		

2.3.2 Semivolatile Organic Analyses

During initial calibration, 3-nitroaniline and 3,3'-dichlorobenzidine had percent relative standard deviations (% RSD) of 34.5 and 39.2 percent, respectively, exceeding the QC requirement of 30 percent. All results for these chemicals are considered estimates and qualified as "J" or "UJ."

As with VOA, there were a number of continuing calibration results with %D exceeding 25 percent. These are listed in Table 2.

2.3.3 Pesticide/Polychlorinated Biphenyl Analyses

Calibrations for the P/PCB analyses were satisfactory except for one day when the %RSD for 4,4'-DDT was 18 percent, well over the QC limit of 10 percent. Therefore, all results for these samples (DC-04-62, DC-05-63, and DC-05-64) are considered estimates and qualified "J" or "UJ."

2.4 BLANKS

A number of common laboratory chemicals, and some other chemicals, including nontarget chemicals (tentatively identified compounds [TIC]) were found in the various blanks run during these assays. All sample concentrations up to 5 times the maximum blank concentration (10 times for common laboratory contaminants) are considered artifacts and flagged "U" for nondetected. There were no field blanks. The various blank contaminants, their maximum concentrations and the ensuing action levels, and the samples affected are listed in Table 3.

2.5 SURROGATE RECOVERY

All surrogate recoveries in the VOA samples were always within limits. In the SVOA, an occasional single surrogate (usually 2-fluorobiphenyl) was slightly beyond QC limits. No action is warranted for this minimal effect.

TABLE 2
SEMIVOLATILE ORGANIC ANALYSIS CONTINUING CALIBRATION

Continuing Calibration		Chemical (%D)		Samples Affected
Date	Times[a]			
5 March	1556/1147	Bis(2-Chloroisopropyl)ether (26.3)	Dimethylphthalate (31.9)	DC-P1-53, DC-01-59, DC-02-60, DC-03-61, DC-04-62, DC-05-63, DC-05-64, DC-0B-65, DC-06-66, DC-GB-68
		4-Nitroaniline (47.1)	Dibenzofuran (27.7)	
		Fluorene (31.5)	3-Nitroaniline (81.2)	
		2,4-Dinitrotoluene (48.0)	2,6-Dinitrotoluene (36.7)	
		Diethylphthalate (45.0)	4-Chlorophenylphenylether (39.2)	
		Benzidine (63.6)	Pyrene (50.5)	
		3,3'-Dichlorobenzidine (92.9)	Dibenz(a,h)anthracene (26.4)	
		2,4,5-Trichlorophenol (25.5)	2,4-Dinitrophenol (71.6)	
17 March	1341/1445	Aniline (47.6)	Bis(2-Chloroisopropyl)ether (29.1)	DC-G6-67, DC-G8-70, DC-G9-71, DC-09-72, DC-09-73, DC-010-75
		Hexachlorocyclopentadiene (49.1)	3-Nitroaniline (45.5)	
		Hexachlorobenzene (27.3)	Benzidine (35.1)	
		3,3'-Dichlorobenzidine (85.8)	bis(2-Ethylhexyl)phthalate (39.2)	
		4-Nitrophenol (41.6)	4-Chloroaniline (31.2)	
18 March	1304/1202	Aniline (44.1)	Bis(2-Chloroisopropyl)ether (34.5)	DC-P2-54, DC-P5-55, DC-I12-57, DC-I12-58, DC-G7-69, DC-010-74
		4-Chloroaniline (33.8)	Hexachlorocyclopentadiene (49.9)	
		3-Nitroaniline (41.9)	Hexachlorobenzene (29.8)	
		Benzo(b)fluoranthene (36.5)	Benzo(k)fluoranthene (29.9)	
		4-Nitrophenol (55.1)		
26 March	1151/1053	Aniline (38.5)	Bis(2-Chloroisopropyl)ether (27.5)	DC-P5-56
		Benzyl alcohol (44.2)	N-Nitroso-di-n-propylamine (32.5)	
		Nitrobenzene (28.1)	Isophorone (29.8)	
		Hexachlorocyclopentadiene (47.0)	2-Nitroaniline (49.1)	
		Dimethylphthalate (29.0)	3-Nitroaniline (44.5)	
		2,4-Dinitrotoluene (25.7)	2,6-Dinitrotoluene (25.8)	
		Diethylphthalate (31.5)	Hexaclorobenzene (37.8)	
		3,3'-Dichlorobenzidine (53.0)	Dibenz(a,h)anthracene (29.4)	
		4-Nitrophenol (45.0)		

Note: [a] Separate calibration standards for bases/neutrals and acids/phenols were used here.

TABLE 3

BLANK CONTAMINATION

Analysis	Chemical	Concentration (micrograms/kilograms)		Samples Qualified
		Blank	Action Level[a]	
VOA	Methylene chloride	680[c]	34/6,800	All samples except DC-05-63, DC-0B-65, and DC-GB-68
VOA	Acetone	8,300[c]	415/83,000	DC-P5-55, DC-P5-56, DC-04-62, DC-0B-65, DC-06-67, DC-G6-67, DC-GB-68, DC-G7-69, DC-G8-70, DC-G9-71, DC-09-72, DC-09-73, DC-010-74, and DC-010-75
VOA	trans-1,2-Dichloroethene	2[b]	10/2,000	DC-03-61 and DC-G8-70
VOA	2-Butanone	12,000[c]	600/12,000	All samples except DC-02-60, DC-0B-65, DC-GB-68
VOA	4-Methyl-2-pentanone	2[b]	10/2,000	DC-12-58, DC-G6-67, DC-G7-69, and DC-G8-70
VOA	2-Hexanone	1,000[c]	25/5,000	DC-P2-54
VOA	Xylenes	720[c]	18/3,600	DC-G6-67, DC-09-73, and DC-010-75
VOA	Hexene isomer (17.1)[d]	1,700[c]	425/8,500	DC-P1-53, DC-04-62, DC-G7-69, DC-G9-71, DC-09-72, DC-09-73, DC-010-74, and DC-010-75
VOA	Hexane isomer (21.2)	7,800[c]	195/39,000	All samples except DC-02-60, DC-05-63, DC-05-64, DC-0B-65, DC-0B-67, DC-G6-68, and DC-G8-70
SVOA	Diethylphthalate	1,200[c]	1,200/12,000	DC-G8-70
SVOA	Di-n-butylphthalate	6,500[c]	6,500/65,000	All samples except DC-I12-57, DC-02-60, DC-04-62, DC-05-64, DC-06-66, DC-G7-69, DC-G8-70, and DC-010-74
SVOA	Bis(2-ethylhexyl)phthalate	1,500[c]	1,500/15,000	DC-P5-56, DC-01-59, DC-03-61, DC-05-64, DC-09-73, and DC-010-75
SVOA	Unknown (21.10)	6,200[c]	3,100/31,000	DC-P2-54, DC-G7-69, DC-09-73, and DC-010-75
SVOA	Tetradecanoic acid (24.34)	6,100[c]	3,050/30,500	DC-G7-69
SVOA	Unknown (24.34)	8,200[c]	4,100/41,000	DC-G8-70
P/PCB	None			None

Notes:

[a] The numbers are for low/medium level analyses.
[b] Low level analysis
[c] High level analysis
[d] Nontarget compound; number is approximate retention time in minutes.

A number of the P/PCB surrogates were diluted below their detection limit. In six other samples, surrogate recovery exceeded the QC limits of 20 to 150 percent. These are samples DC-P5-56 (155 percent), DC-I12-58 (151 percent), DC-02-60 (153 percent), DC-03-61 (179 percent), DC-04-62 (166 percent) and DC-0B-65 (164 percent). There is no obvious explanation in the chemical results for these discrepancies, although surrogates may have been added twice to the samples. No action is required.

2.6 MATRIX SPIKE/MATRIX SPIKE DUPLICATES

In the VOA samples, recoveries for two matrix spike/matrix spike duplicates (MS/MSD) were out of QC limits. In the MS/MSD based on sample DC-P5-55, the recoveries of trichloroethene were 57 and 67 percent, compared to QC limits of 62 to 137 percent. Since no trichloroethene was found in the parent sample, no action is warranted. In the MS/MSD based on sample DC-G8-70, chlorobenzene recoveries were 103 and 190 percent, compared to QC limits of 60 to 133 percent. However, the parent sample had more than 12 times as much chlorobenzene as the added spike. Therefore, this exceedance represents variation in the parent sample, rather than the spike, so no action is warranted.

The MS/MSD results for SVOA and P/PCB samples were within QC limits.

2.7 FIELD DUPLICATES

There were two pairs of field duplicates in this group of samples. Analytical results for the first pair, samples DC-P5-55 and DC-P5-56, were essentially identical, with no contaminants. The other pair, samples DC-05-63 and DC-05-64, are acceptable as duplicates. The concentrations of target chemicals, shown in Table 4, are within the usual standards, a range of two contract-required quantitation limits (for lower concentrations) or a 35 relative percent difference, used for laboratory duplicates. Both contain similar collections of nontarget compounds, mostly semivolatile alkylbenzene derivatives such as 1-propyloctylbenzene. These results imply good sampling and analysis techniques were used and a relatively consistently contaminated area was sampled.

TABLE 4

COMPARISON OF FIELD DUPLICATES

Chemical	Concentration (milligrams per kilogram)	
	DC-05-63	DC-05-64
Acetone	7,100	9,400
Chlorobenzene	61	130
Ethylbenzene	30 J	47 J
Xylene	200	210
Aroclor 1232	22,000	24,900
Aroclor 1260	4,500 J	3,200 J

2.8 INTERNAL STANDARDS

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

2.9 COMPOUND IDENTIFICATION

The VOA and SVOA omitted mass spectra, so identification could not be verified. The laboratory took great care in identifying TICs, as shown by the careful distinction in two chemicals with the same retention time in two blanks (note the SVOA section of Table 3), so no problem is expected.

Compound identification was satisfactory in the P/PCB analyses. The laboratory noted that sample DC-G8-70 actually contained Aroclor 1268, a nontarget analyte. This is reported as Aroclor 1260, a target not found in that sample, so the information is not lost.

2.10 COMPOUND QUANTITATION

Spot checks revealed no problems. A number of results exceeded the analytical calibration range and were flagged "E" by the laboratory, which did not rerun the samples at a higher dilution. This has been changed to "J" (for estimated) in the attached Forms I. 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 results by the corresponding factor in Table 5.

2.11 SYSTEM PERFORMANCE

There is no evidence of sudden shifts in system performance or similar problems. The heterogeneity of the samples, some of which were highly contaminated, caused some complications, which the laboratory handled well.

3.0 OVERALL ASSESSMENT

On the whole, these analyses produced results equivalent to Data Quality Level IV. The greatest uncertainties are in chemicals not reported (possible false negatives), so these results are fully suited for scoring. They are less useful (although still usable) for a definitive risk assessment. For the final validated results, see Appendix A.

TABLE 5

DRY WEIGHT CONVERSION FACTORS

Sample	Percent Moisture	Factor
DC-P1-53	20	1.25
DC-P2-54	16	1.19
DC-P5-55	19	1.23
DC-P5-56	20	1.25
DC-I12-57	11	1.12
DC-I12-58	18	1.22
DC-01-59	13	1.15
DC-02-60	22	1.28
DC-03-61	16	1.19
DC-04-62	22	1.28
DC-05-63	18	1.22
DC-05-64	18	1.22
DC-0B-65	21	1.27
DC-06-66	19	1.23
DC-G6-67	15	1.18
DC-GB-68	21	1.27
DC-G7-69	35	1.54
DC-G8-70	30	1.43
DC-G9-71	14	1.16
DC-09-72	18	1.22
DC-09-73	19	1.23
DC-010-74	22	1.28
DC-010-75	12	1.14

APPENDIX A

CORRECTED FORMS I

CASE NUMBERS U-4906, U-4928, U-4971, AND U-4989

DC - P1-53

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1032

QC Report No:

Sample Matrix: Soil

Contract No: EL-3140

Data Release Authorized By: C Bogtowicz

Date Sample Received: 2-14-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 1 pH 10.2

Percent Moisture: (Not Decanted) 20

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10u	
74-83-9	Bromomethane	10u J	
75-01-4	Vinyl Chloride	10u	
75-00-3	Chloroethane	10u J	
75-09-2	Methylene Chloride	14 ~~B~~	UJ
67-64-1	Acetone	820 ~~BE~~	J
75-15-0	Carbon Disulfide	5u J	
75-35-4	1, 1-Dichloroethene	5u	
75-34-3	1, 1-Dichloroethane	5u J	
156-60-5	Trans-1, 2-Dichloroethene	5u	
67-66-3	Chloroform	10	
107-06-2	1, 2-Dichloroethane	5u	
78-93-3	2-Butanone	150 ~~B~~	UJ
71-55-6	1, 1, 1-Trichloroethane	5u	
56-23-5	Carbon Tetrachloride	5u	
108-05-4	Vinyl Acetate	10u	
75-27-4	Bromodichloromethane	5u	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u J
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u J
71-43-2	Benzene	39
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5u
108-10-1	4-Methyl-2-Pentanone	39
591-78-6	2-Hexanone	30
127-18-4	Tetrachloroethene	5u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
108-88-3	Toluene	330
108-90-7	Chlorobenzene	110
100-41-4	Ethylbenzene	95
100-42-5	Styrene	5u J
	Total Xylenes	360 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 1 µg/l is calculated, report as 1J.

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

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number
DC-P1-53

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 2-16-87

Date Analyzed 03-05-87

Conc/Dil Factor: 100

Percent Moisture (Decanted) 20

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	3100 J
111-44-4	bis(2-Chloroethyl)Ether	16000u
95-57-8	2-Chlorophenol	16000u
541-73-1	1,3-Dichlorobenzene	16000u
106-46-7	1,4-Dichlorobenzene	7100 J
100-51-6	Benzyl Alcohol	16000u
95-50-1	1,2-Dichlorobenzene	2900 J
95-48-7	2-Methylphenol	16000u
39638-32-9	bis(2-chloroisopropyl)Ether	16000u J
106-44-5	4-Methylphenol	16000u
621-64-7	N-Nitroso-Di-n-Propylamine	16000u
67-72-1	Hexachloroethane	16000u
98-95-3	Nitrobenzene	16000u
78-59-1	Isophorone	16000u
88-75-5	2-Nitrophenol	16000u
105-67-9	2,4-Dimethylphenol	16000u
65-85-0	Benzoic Acid	80000u
111-91-1	bis(2-Chloroethoxy)Methane	16000u
120-83-2	2,4-Dichlorophenol	16000u
120-82-1	1,2,4-Trichlorobenzene	16000u
91-20-3	Naphthalene	16000u
106-47-8	4-Chloroaniline	16000u
87-68-3	Hexachlorobutadiene	16000u
59-50-7	4-Chloro-3-Methylphenol	16000u
91-57-6	2-Methylnaphthalene	16000u
77-47-4	Hexachlorocyclopentadiene	16000u
88-06-2	2,4,6-Trichlorophenol	16000u
95-95-4	2,4,5-Trichlorophenol	80000u J
91-58-7	2-Chloronaphthalene	16000u
88-74-4	2-Nitroaniline	80000u
131-11-3	Dimethyl Phthalate	16000u J
208-96-8	Acenaphthylene	16000u
99-09-2	3-Nitroaniline	80000u J

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	16000u
51-28-5	2,4-Dinitrophenol	80000u J
100-02-7	4-Nitrophenol	80000u
132-64-9	Dibenzofuran	16000u J
121-14-2	2,4-Dinitrotoluene	16000u J
606-20-2	2,6-Dinitrotoluene	16000u J
84-66-2	Diethylphthalate	16000u J
7005-72-3	4-Chlorophenyl-phenylether	16000u J
86-73-7	Fluorene	16000u J
100-01-6	4-Nitroaniline	80000u J
534-52-1	4,6-Dinitro-2-Methylphenol	80000u
86-30-6	N-Nitrosodiphenylamine (1)	16000u
101-55-3	4-Bromophenyl-phenylether	16000u
118-74-1	Hexachlorobenzene	16000u
87-86-5	Pentachlorophenol	80000u
85-01-8	Phenanthrene	16000u
120-12-7	Anthracene	16000u
84-74-2	Di-n-Butylphthalate	~~13000 J~~ 16,000
206-44-0	Fluoranthene	16000u
129-00-0	Pyrene	16000u J
85-68-7	Butylbenzylphthalate	16000u
91-94-1	3,3'-Dichlorobenzidine	32000u J
56-55-3	Benzo(a)Anthracene	16000u
117-81-7	bis(2-Ethylhexyl)Phthalate	16000u
218-01-9	Chrysene	16000u
117-84-0	Di-n-Octyl Phthalate	16000u
205-99-2	Benzo(b)Fluoranthene	16000u
207-08-9	Benzo(k)Fluoranthene	16000u
50-32-8	Benzo(a)Pyrene	16000u
193-39-5	Indeno(1,2,3-cd)Pyrene	16000u
53-70-3	Dibenz(a,h)Anthracene	16000u J
191-24-2	Benzo(g,h,i)Perylene	16000u

(1) Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-P1-53

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-16-87

Date Analyzed 2-23-87

Conc/Dil Factor 50

Percent Moisture (decanted) 20

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	4000 U
319-85-7	Beta-BHC	4000 U
319-86-8	Delta-BHC	4000 U
58-89-9	Gamma-BHC (Lindane)	4000 U
76-44-8	Heptachlor	4000 U
309-00-2	Aldrin	4000 U
1024-57-3	Heptachlor Epoxide	4000 U
959-98-8	Endosulfan I	4000 U
60-57-1	Dieldrin	8000 U
72-55-9	4,4'-DDE	8000 U
72-20-8	Endrin	8000 U
33213-65-9	Endosulfan II	8000 U
72-54-8	4,4'-DDD	8000 U
1031-07-8	Endosulfan Sulfate	8000 U
50-29-3	4,4'-DDT	8000 U
72-43-5	Methoxychlor	40,000 U
53494-70-5	Endrin Ketone	8000 U
57-74-9	Chlordane	40,000 U
8001-35-2	Toxaphene	80,000 U
12674-11-2	Aroclor-1016	40,000 U
11104-28-2	Aroclor-1221	40,000 U
11141-16-5	Aroclor-1232	40,000 U
53469-21-9	Aroclor-1242	40,000 U
12672-29-6	Aroclor-1248	40,000 U
11097-69-1	Aroclor-1254	80,000 U
11096-82-5	Aroclor-1260	80,000 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1,000 V_i 4

14

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Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-P1-53

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number nec.ic.	Estimated Concentration (ug/l or ug/kg)
1.	14898794	2-Butanol	VOA	15.4	77 J
2.		Unknown hydrocarbon	VOA	16.7	120 J
3.		Hexene isomer	VOA	17.1	~~39 BJ~~ U
4.		Hexene isomer	VOA	19.2	14 J
5.		Unknown hydrocarbon	VOA	28.2	21 J
6.		Hexane isomer	VOA	21.2	~~100 BJ~~ U
7.		Unknown hydrocarbon	VOA	35.9	40 J
8.					
9.					
10.	629505	Tridecane	BNA	18.98	130,000 J
11.		Unknown hydrocarbon		19.22	63,000 J
12.		Unknown hydrocarbon		19.32	58,000 J
13.	544763	Hexadecane		19.77	150,000 J
14.		Unknown hydrocarbon		20.48	52,000 J
15.		Unknown hydrocarbon		21.22	70,000 J
16.		Unknown hydrocarbon		21.30	82,000 J
17.	55045119	5-Propyl-Tridecane		21.85	140,000 J
18.		Unknown hydrocarbon		21.95	47,000 J
19.		Unknown hydrocarbon		22.73	71,000 J
20.		Unknown hydrocarbon		22.61	170,000 J
21.		Unknown hydrocarbon		23.93	110,000 J
22.		Unknown hydrocarbon		24.46	52,000 J
23.		Unknown hydrocarbon		25.20	160,000 J
24	10544500	Molecular Sulfur		25.34	85,000 J
25.		Unknown hydrocarbon		26.41	76,000 J
26.		Unknown hydrocarbon		27.98	110,000 J
27.		Unknown hydrocarbon		29.07	77,000 J
28.		Unknown hydrocarbon		30.77	57,000 J
29.		Unknown hydrocarbon		33.04	97,000 J
30					

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May 93

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DC-P2-54

Organics Analysis Data Sheet
(Page 1)

aboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

ab Sample ID No: 1033

QC Report No:

ample Matrix: Soil

Contract No. IL-3140

ata Release Authorized By: C Szytowicz

Date Sample Received: 2-14-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 1 pH 8.0

Percent Moisture: (Not Decanted) 16

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
4-87-3	Chloromethane	10u
4-83-9	Bromomethane	10u J
5-01-4	Vinyl Chloride	10u
5-00-3	Chloroethane	10u J
5-09-2	Methylene Chloride	10 ~~4BJ~~ UJ
7-64-1	Acetone	870 ~~BE~~ J
5-15-0	Carbon Disulfide	5u J
5-35-4	1, 1-Dichloroethene	5u
5-34-3	1, 1-Dichloroethane	5u J
56-60-5	Trans-1, 2-Dichloroethene	5u
7-66-3	Chloroform	5u
07-06-2	1, 2-Dichloroethane	5u
3-93-3	2-Butanone	64 ~~B~~ UJ
-55-6	1, 1, 1-Trichloroethane	5u
5-23-5	Carbon Tetrachloride	5u
08-05-4	Vinyl Acetate	10u
-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

May 93

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

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 e instrument detection limit.) The footnote should read: U-ompound 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

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

16 ~~120~~

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number
DC-P2-54

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 03-05-87

Date Analyzed 03-18-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 16

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1,3-Dichlorobenzene	330u
106-46-7	1,4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1,2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u J
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2,4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(2-Chloroethoxy)Methane	330u
120-83-2	2,4-Dichlorophenol	330u
120-82-1	1,2,4-Trichlorobenzene	330u
91-20-3	Naphthalene	330u
106-47-8	4-Chloroaniline	330u J
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u J
88-06-2	2,4,6-Trichlorophenol	330u
95-95-4	2,4,5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u J

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2,4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u J
132-64-9	Dibenzofuran	330u
121-14-2	2,4-Dinitrotoluene	330u
606-20-2	2,6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	1600u
534-52-1	4,6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u J
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	130 J 330u
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
95-68-7	Butylbenzylphthalate	330u
91-94-1	3,3'-Dichlorobenzidine	660u J
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1,2,3-cd)Pyrene	330u
53-70-3	Dibenz(a,h)Anthracene	330u
191-24-2	Benzo(g,h,i)Perylene	330u

(1)-Cannot be separated from diphenylamine

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Form I

7/85

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-P2-54

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2/16/87

Date Analyzed 2/23/87

Conc/Dil Factor 1

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	1600 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1,000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-P2-54

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.	Hexane isomer	VOA	21.2	~~66 BJ~~ U
2.	Unknown alcohol (?)	VOA	23.7	10 J
3.	Unknown alcohol (?)	VOA	37.8	19 J
4.	Dichlorobenzene isomers	VOA	40.1	62 J
5.				
6.	Unknown	BNA	19.4	1200 J
7.	Unknown hydrocarbon	BNA	20.3	220 J
8.	Unknown	BNA	21.0	1400 J
9.	Unknown hydrocarbon	BNA	21.1	~~630 J~~ U
10.	Unknown	BNA	22.4	1100 J
11. 17312775	2,3-Dimethyl Undecane	BNA	23.2	470 J
12. 544763	Hexadecane	BNA	24.0	560 J
13.	Unknown hydrocarbon	BNA	25.3	330 J
14.	Unknown	BNA	25.7	250 J
15.	Unknown hydrocarbon	BNA	26.6	230 J
16. 10544500	Molecular Sulfur	BNA	26.7	290 J
17.	Unknown	BNA	29.3	1100 J
18.	Unknown hydrocarbon	BNA	31.1	640 J
19.				
20.				
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29.				
3				

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DC-P5-55

Organics Analysis Data Sheet
(Page 1)

ıbc ·tory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

ıb Sample ID No: 1034

QC Report No:

ımple Matrix: Soil

Contract No: IL-3140

ıta Release Authorized By: C Stojtowicz

Date Sample Received: 2-14-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 1 pH 8.3

Percent Moisture: (Not Decanted) 19

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
4-87-3	Chloromethane	10u
4-83-9	Bromomethane	10u J
5-01-4	Vinyl Chloride	10u
5-00-3	Chloroethane	10u J
5-09-2	Methylene Chloride	10 ~~2 BJ~~ UJ
7-64-1	Acetone	270 ~~BE~~ UJ
5-15-0	Carbon Disulfide	5u J
5-35-4	1, 1-Dichloroethene	5u
5-34-3	1, 1-Dichloroethane	5u J
56-60-5	Trans-1, 2-Dichloroethene	5u
7-66-3	Chloroform	5u
07-06-2	1, 2-Dichloroethane	5u
3-93-3	2-Butanone	18 ~~B~~ UJ
-55-6	1, 1, 1-Trichloroethane	5u
-23-5	Carbon Tetrachloride	5u
08-05-4	Vinyl Acetate	10u
-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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May 93

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

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 [illegible]

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

20 ~~193~~

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number
DC-P5-55

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 03-05-87

Date Analyzed 03-18-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 19

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1 3-Dichlorobenzene	330u
106-46-7	1 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u J
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2 4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(2-Chloroethoxy)Methane	330u
120-83-2	2 4-Dichlorophenol	330u
120-82-1	1 2 4-Trichlorobenzene	330u
91-20-3	Naphthalene	330u
106-47-8	4-Chloroaniline	330u J
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u J
88-06-2	2 4 6-Trichlorophenol	330u
95-95-4	2 4 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u J

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u J
132-64-9	Dibenzofuran	330u
121-14-2	2 4-Dinitrotoluene	330u
606-20-2	2 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	1600u
534-52-1	4 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u J
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	~~51 J~~ 330 u
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3 3-Dichlorobenzidine	660u J
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u J
207-08-9	Benzo(k)Fluoranthene	330u J
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1,2,3-cd)Pyrene	330u
53-70-3	Dibenz(a,h)Anthracene	330u
191-24-2	Benzo(g,h,i)Perylene	330u

(1) Cannot be separated from diphenylamine

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May 93

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-P5-55

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-16-87

Date Analyzed 2-24-87

Conc/Dil Factor 1

Percent Moisture (decanted) 19

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1,000 V_i 4

22

~~175~~

Laboratory Name Ecology & Environment Inc.

Case No IL-4906, 4928, 4971, 4989

Sample Number
DC-P5-55

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MLC-IC	Estimated Concentration (ug/l or ug/kg)
1.	Hexane isomer	VOA	21.2	~~76 BJ~~ 4
2.				
3.	No TIC's in BNA fraction			
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HVS Mar 93

DC - P5 - 56

.Organics Analysis Data Sheet
(Page 1)

.al ...tory.Name: ecology and environment, inc.

.ab Sample ID No: 1035

Sample Matrix: Soil

Data Release Authorized By: C Slotowicz

Case No: U-4906, 4928, 4971, 4989.

QC Report No:

Contract No: EL-3140

Date Sample Received: 2-14-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 1 pH 8.4

Percent Moisture: (Not Decanted) 20

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u J
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u J
75-09-2	Methylene Chloride	10 ~~48 J~~ UJ
67-64-1	Acetone	330 ~~BE~~ UJ
75-15-0	Carbon Disulfide	5u J
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u J
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	21 ~~B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

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

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥40 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 analytical exceeds the

24 ~~146~~

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number
DC-P5-56

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 03-05-87

Date Analyzed 03-26-87

Conc/Dil Factor 2

Percent Moisture (Decanted) 20

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1 3-Dichlorobenzene	330u
106-46-7	1 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u J
95-50-1	1 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u J
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u J
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u J
78-59-1	Isophorone	330u J
88-75-5	2-Nitrophenol	330u
105-67-9	2 4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(2-Chloroethoxy)Methane	330u
120-83-2	2 4-Dichlorophenol	330u
120-82-1	1 2 4-Trichlorobenzene	330u
91-20-3	Naphthalene	330u
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u J
88-06-2	2 4 6-Trichlorophenol	330u
95-95-4	2 4 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u J
131-11-3	Dimethyl Phthalate	330u J
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u J

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u J
132-64-9	Dibenzofuran	330u
121-14-2	2 4-Dinitrotoluene	330u J
606-20-2	2 6-Dinitrotoluene	330u J
84-66-2	Diethylphthalate	330u J
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	1600u
534-52-1	4 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u J
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	~~260 J~~ 330 u
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3 3-Dichlorobenzidine	660u J
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	~~180 J~~ 330 u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1,2,3-cd)Pyrene	330u
53-70-3	Dibenz(a,h)Anthracene	330u J
191-24-2	Benzo(g,h,i)Perylene	330u

(1) Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-P5-56

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-16-87

Date Analyzed 2-24-87

Conc/Dil Factor 1

Percent Moisture (decanted) 20

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1,000 V_i 4

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Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4926, 4971, 4989

Sample Number DC-P5-56

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MCC-IC	Estimated Concentration (ug/l or ug/kg)
1.	Hexane isomer	VOA	21.2	~~17 BJ~~ U
2.				
3.	No TIC's in BNA fraction			
4.				
5.				
6.				
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DC-I12-57

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1036

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: CSlotowicz

Date Sample Received: 2-14-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 1 pH 8.3

Percent Moisture: (Not Decanted) 11

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u J
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u J
75-09-2	Methylene Chloride	15 ~~8~~u J
67-64-1	Acetone	1300 ~~86~~ J
75-15-0	Carbon Disulfide	5u J
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u J
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	11 ~~8~~ UJ
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

HE
May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number
DC-I12-57

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 03-05-87

Date Analyzed: 03-18-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 11

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1,3-Dichlorobenzene	330u
106-46-7	1,4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1,2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u J
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2,4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(2-Chloroethoxy)Methane	330u
120-83-2	2,4-Dichlorophenol	330u
120-82-1	1,2,4-Trichlorobenzene	330u
91-20-3	Naphthalene	330u
106-47-8	4-Chloroaniline	330u J
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u J
88-06-2	2,4,6-Trichlorophenol	330u
95-95-4	2,4,5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u J

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2,4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u J
132-64-9	Dibenzofuran	330u
121-14-2	2,4-Dinitrotoluene	330u
606-20-2	2,6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	1600u
534-52-1	4,6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u J
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	330u
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3,3'-Dichlorobenzidine	660u J
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u J
207-08-9	Benzo(k)Fluoranthene	330u J
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1,2,3-cd)Pyrene	330u
53-70-3	Dibenz(a,h)Anthracene	330u
191-24-2	Benzo(g,h,i)Perylene	330u

(1) Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4906, 4928, 4971, 4989

Sample Number DC-I12-57

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-16-87

Date Analyzed 2-24-87

Conc/Dil Factor 2

Percent Moisture (decanted) 11

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1,000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-I12-57

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)	
1.	Hexane isomer	VOA	21.2	~~12 BJ~~	U
2.	Unknown alcohol (?)	VOA	23.7	7 ~~ug~~ J	
3.					
4.	No TIC's in BNA fraction				
5.					
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DC-I-12-58

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989

Lab Sample ID No: 1037

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-14-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 1 pH 8.3

Percent Moisture: (Not Decanted) 18

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10u	
74-83-9	Bromomethane	10u J	
75-01-4	Vinyl Chloride	10u	
75-00-3	Chloroethane	10u J	
75-09-2	Methylene Chloride	~~14 B~~	UJ
67-64-1	Acetone	~~450 BE~~	J
75-15-0	Carbon Disulfide	5u J	
75-35-4	1, 1-Dichloroethene	5u	
75-34-3	1, 1-Dichloroethane	5u J	
156-60-5	Trans-1, 2-Dichloroethene	5u	
67-66-3	Chloroform	5u	
107-06-2	1, 2-Dichloroethane	5u	
78-93-3	2-Butanone	~~22 B~~	UJ
71-55-6	1, 1, 1-Trichloroethane	5u	
56-23-5	Carbon Tetrachloride	5u	
108-05-4	Vinyl Acetate	10u	
75-27-4	Bromodichloromethane	5u	

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

VE
May 93

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If sample 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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~~172~~

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number DC-I12-58

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 03-05-87

Date Analyzed 03-18-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 18

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1 3-Dichlorobenzene	330u
106-46-7	1 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u J
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2 4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
120-83-2	2 4-Dichlorophenol	330u
120-82-1	1 2 4-Trichlorobenzene	330u
91-20-3	Naphthalene	330u
106-47-8	4-Chloroaniline	330u J
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u J
88-06-2	2 4 6-Trichlorophenol	330u
95-95-4	2 4 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u J

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u J
132-64-9	Dibenzofuran	330u
121-14-2	2 4-Dinitrotoluene	330u
606-20-2	2 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	1600u
534-52-1	4 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u J
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	~~110 J~~ 330 U
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3 3-Dichlorobenzidine	660u J
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u J
207-08-9	Benzo(k)Fluoranthene	330u J
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1,2,3-cd)Pyrene	330u
53-70-3	Dibenz(a,h)Anthracene	330u
191-24-2	Benzo(g,h,i)Perylene	330u

(1)-Cannot be separated from diphenylamine

May 93

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Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-I12-58

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-16-87

Date Analyzed 2-24-87

Conc/Dil Factor 1

Percent Moisture (decanted) 18

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1,000 V_i 4

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~~174~~

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-I12-58

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MCR	Estimated Concentration (ug/l or ug/kg)
1.	Hexane isomer	VOA	21.1	~~14 BJ~~ U
2.	Unknown alcohol (?)	VOA	23.7	9 J
3.	Unknown	VOA	27.8	10 J
4.				
5.	No TIC's in BNA fraction			
6.				
7.				
8.				
9.				
10.				
11.				
12.				
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30				

HVZ May 93

DC-01-59

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1110

QC Report No:

Sample Matrix: Soil

Contract No: EL-3140

Data Release Authorized By: C Stoytowicz

Date Sample Received: 2-19-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-24-87

Conc/Dil Factor: 1 pH 7.2

Percent Moisture: (Not Decanted) 13

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10µJ
74-83-9	Bromomethane	10µ
75-01-4	Vinyl Chloride	10µ
75-00-3	Chloroethane	10µJ
75-09-2	Methylene Chloride	5µ
67-64-1	Acetone	1200 ~~B~~ J
75-15-0	Carbon Disulfide	5µJ
75-35-4	1, 1-Dichloroethene	5µ
75-34-3	1, 1-Dichloroethane	5µ
156-60-5	Trans-1, 2-Dichloroethene	5µ
67-66-3	Chloroform	5µJ
107-06-2	1, 2-Dichloroethane	5µ
78-93-3	2-Butanone	26 ~~B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	5µ
56-23-5	Carbon Tetrachloride	5µ
108-05-4	Vinyl Acetate	10µJ
75-27-4	Bromodichloromethane	5µ

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

HE
May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range. 36 ~~184~~

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number
DC-01-59

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 02-19-87

Date Analyzed 03-06-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 13

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

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

CAS Number		ug/Lo ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2. 4-Dinitrophenol	16000u J
100-02-7	4-Nitrophenol	16000u
132-64-9	Dibenzofuran	3300u J
121-14-2	2 4-Dinitrotoluene	3300u J
606-20-2	2 6-Dinitrotoluene	3300u J
84-66-2	Diethylphthalate	3300u J
7005-72-3	4-Chlorophenyl-phenylether	3300u J
86-73-7	Fluorene	3300u J
100-01-6	4-Nitroaniline	16000u J
534-52-1	4 6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	16000u
85-01-8	Phenanthrene	3300u
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	4600 U
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	3300u J
85-68-7	Butylbenzylphthalate	3300u
91-94-1	3 3-Dichlorobenzidine	6600u J
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	~~1200 BJ~~ 3300 U
218-01-9	Chrysene	3300u
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1,2,3-cd)Pyrene	3300u
53-70-3	Dibenz(a,h)Anthracene	3300u J
191-24-2	Benzo(g,h,i)Perylene	3300u

(1) Cannot be separated from diphenylamine

May 93

Laboratory Name ecology and environment, inc.

Case No V-4906, 4928, 4971, 4989

Sample Number DC-01-59

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-24-87

Conc/Dil Factor 1

Percent Moisture (decanted) 13

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-01-59

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexane isomer	VOA	21.2	9 J
2.				
3.	Unknown	BNA	11.43	1500 J
4.				
5.				
6.				
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U

May 93

DC-02-60

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1111

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Hojtowicz

Date Sample Received: 2-19-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-24-87

Conc/Dil Factor: 2 pH 7.4

Percent Moisture: (Not Decanted) 22

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	20u J
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u J
75-09-2	Methylene Chloride	27 U
67-64-1	Acetone	7100 ~~BE~~ J
75-15-0	Carbon Disulfide	10u J
75-35-4	1, 1-Dichloroethene	10u
75-34-3	1, 1-Dichloroethane	8 J
156-60-5	Trans-1, 2-Dichloroethene	150
67-66-3	Chloroform	10u J
107-06-2	1, 2-Dichloroethane	18
78-93-3	2-Butanone	20,000 ~~BE~~ J
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u J
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	54
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	520
10061-01-5	cis-1, 3-Dichloropropene	10u J
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u J
108-10-1	4-Methyl-2-Pentanone	970 J ~~BE~~
591-78-6	2-Hexanone	49 J
127-18-4	Tetrachloroethene	10u
79-34-5	1, 1, 2, 2-Tetrachloroethane	22
108-88-3	Toluene	10u
108-90-7	Chlorobenzene	1300
100-41-4	Ethylbenzene	36
100-42-5	Styrene	10u
	Total Xylenes	110

HE
May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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

40

~~197~~

Laboratory Name Ecology & Environment

Case No V-4906, 4928, 4971, 4989

Sample Number DC-02-60

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 3-6-87

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

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

(1)-Cannot be separated from diphenylamine

Form I 41

May 93

198 7 82

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-02-60

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-25-87

Conc/Dil Factor 1

Percent Moisture (decanted) 22

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

42

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Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-02-60

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. 78922	Butanol	VOA	15.5	70 J
2.	Unknown hydrocarbon	VOA	23.7	14 J
3.	Dichlorobenzene isomer	VOA	39.4	120 J
4.	Dichlorobenzene isomer	VOA	40.1	180 J
5.				
6.	No TIC's in BNA fraction			
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DC-03-61

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1112

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Slojtowicz

Date Sample Received: 2-19-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-24-87

Conc/Dil Factor: 2 pH 7.8

Percent Moisture: (Not Decanted) 16

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	20u J
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u J
75-09-2	Methylene Chloride	10 ~~8 J~~ U
67-64-1	Acetone	3700 ~~BE~~ J
75-15-0	Carbon Disulfide	10u J
75-35-4	1, 1-Dichloroethene	10u
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	10 ~~5 J~~ U
67-66-3	Chloroform	10u J
107-06-2	1, 2-Dichloroethane	10u
78-93-3	2-Butanone	30 ~~B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u J
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	10u
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	20
10061-01-5	cis-1, 3-Dichloropropene	10u J
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u J
108-10-1	4 Methyl-2 Pentanone	20u J
591-78-6	2-Hexanone	20u J
127-18-4	Tetrachloroethene	10u
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	10u
108-90-7	Chlorobenzene	52
100-41-4	Ethylbenzene	140
100-42-5	Styrene	10u
	Total Xylenes	820

Data Reporting Qualifiers

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

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

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

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

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

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

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

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

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~~210~~

May 93

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number DC-03-61

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 3-5-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 16

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2, 4-Dinitrophenol	16000u J
100-02-7	4-Nitrophenol	16000u
132-64-9	Dibenzofuran	3300u J
121-14-2	2 4-Dinitrotoluene	3300u J
606-20-2	2 6-Dinitrotoluene	3300u J
84-66-2	Diethylphthalate	3300u J
7005-72-3	4-Chlorophenyl-phenylether	3300u J
86-73-7	Fluorene	3300u J
100-01-6	4-Nitroaniline	16000u J
534-52-1	4 6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	19000
85-01-8	Phenanthrene	3300u
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	4500 U
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	3300u J
85-68-7	Butylbenzylphthalate	3300u
91-94-1	3 3-Dichlorobenzidine	6600u J
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	~~1600 BJ~~ 3300 U
218-01-9	Chrysene	3300u
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	3300u
53-70-3	Dibenz(a, h)Anthracene	3300u J
191-24-2	Benzo(g, h, i)Perylene	3300u

(1) Cannot be separated from diphenylamine

Form I 45

2~~1~~1 May 93

7 85

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-03-61

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-25-87

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-03-61

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.	Hexane isomer	VOA	21.2	3 J
2.	Dichlorobenzene isomer	VOA	39.3	230 J
3.	Dichlorobenzene isomer	VOA	40.1	130 J
4.				
5.	Unknown	BNA	11.43	3000 J
6. 10544500	Molecular Sulfur	BNA	25.35	2400 J
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4

May 93

DC-04-62

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1113

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Slotowicz

Date Sample Received: 2-19-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-23-87

Conc/Dil Factor: 2 pH 10.5

Percent Moisture: (Not Decanted) 22

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)		CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u J		78-87-5	1, 2-Dichloropropane	1000u
74-83-9	Bromomethane	2000u		10061-02-6	Trans-1, 3-Dichloropropene	1000u
75-01-4	Vinyl Chloride	2000u		79-01-6	Trichloroethene	1000u
75-00-3	Chloroethane	2000u		124-48-1	Dibromochloromethane	1000u
75-09-2	Methylene Chloride	~~650 BJ~~	1000 U	79-00-5	1, 1, 2-Trichloroethane	1000u
67-64-1	Acetone	6000 ~~B~~	UJ	71-43-2	Benzene	24000
75-15-0	Carbon Disulfide	1000u J		10061-01-5	cis-1, 3-Dichloropropene	1000u
75-35-4	1, 1-Dichloroethene	1000u		110-75-8	2-Chloroethylvinylether	2000u
75-34-3	1, 1-Dichloroethane	1000u		75-25-2	Bromoform	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u		108-10-1	4-Methyl-2-Pentanone	6000
67-66-3	Chloroform	1000u		591-78-6	2-Hexanone	2000u
107-06-2	1, 2-Dichloroethane	1000u		127-18-4	Tetrachloroethene	1000u
78-93-3	2-Butanone	5600 ~~BE~~	UJ	79-34-5	1, 1, 2, 2-Tetrachloroethane	1000u
71-55-6	1, 1, 1-Trichloroethane	1100		108-88-3	Toluene	23000
56-23-5	Carbon Tetrachloride	1000u		108-90-7	Chlorobenzene	30000
108-05-4	Vinyl Acetate	2000u		100-41-4	Ethylbenzene	130,000 ~~E~~ J
75-27-4	Bromodichloromethane	1000u		100-42-5	Styrene	1000u
					Total Xylenes	480,000 ~~E~~ 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 actions. (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 1 µg/l is calculated, report as 1J.

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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May 93

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number
DC-04-62

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 3-5-87

Conc/Dil Factor: 50

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	83000u
111-44-4	bis(-2-Chloroethyl)Ether	83000u
95-57-8	2-Chlorophenol	83000u
541-73-1	1 3-Dichlorobenzene	83000u
106-46-7	1 4-Dichlorobenzene	83000u
100-51-6	Benzyl Alcohol	83000u
95-50-1	1 2-Dichlorobenzene	19000 J
95-48-7	2-Methylphenol	83000u
39638-32-9	bis(2-chloroisopropyl)Ether	83000u J
106-44-5	4-Methylphenol	83000u
621-64-7	N-Nitroso-Di-n-Propylamine	83000u
67-72-1	Hexachloroethane	83000u
98-95-3	Nitrobenzene	83000u
78-59-1	Isophorone	83000u
88-75-5	2-Nitrophenol	83000u
105-67-9	2 4-Dimethylphenol	83000u
65-85-0	Benzoic Acid	410000u
111-91-1	bis(-2-Chloroethoxy)Methane	83000u
120-83-2	2 4-Dichlorophenol	83000u
120-82-1	1 2 4-Trichlorobenzene	21000 J
91-20-3	Naphthalene	27000 J
106-47-8	4-Chloroaniline	83000u
87-68-3	Hexachlorobutadiene	83000u
59-50-7	4-Chloro-3-Methylphenol	83000u
91-57-6	2-Methylnaphthalene	125,000
77-47-4	Hexachlorocyclopentadiene	83000u
88-06-2	2 4 6-Trichlorophenol	83000u
95-95-4	2 4 5-Trichlorophenol	410,000u J
91-58-7	2-Chloronaphthalene	83000u
88-74-4	2-Nitroaniline	410,000u
131-11-3	Dimethyl Phthalate	83000u J
208-96-8	Acenaphthylene	83000u
99-09-2	3-Nitroaniline	410000u J

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	83000u
51-28-5	2 4-Dinitrophenol	410,000u J
100-02-7	4-Nitrophenol	410,000 ~~u J~~ U
132-64-9	Dibenzofuran	83,000u J
121-14-2	2 4-Dinitrotoluene	83,000u J
606-20-2	2 6-Dinitrotoluene	83000u J
84-66-2	Diethylphthalate	83000u J
7005-72-3	4-Chlorophenyl-phenylether	83000u J
86-73-7	Fluorene	83000u J
100-01-6	4-Nitroaniline	410000u J
534-52-1	4 6-Dinitro-2-Methylphenol	410000u
86-30-6	N-Nitrosodiphenylamine (1)	39000 J
101-55-3	4-Bromophenyl-phenylether	83000u
118-74-1	Hexachlorobenzene	83000u
87-86-5	Pentachlorophenol	370,000 J
85-01-8	Phenanthrene	170,000
120-12-7	Anthracene	83000u
84-74-2	Di-n-Butylphthalate	83000u
206-44-0	Fluoranthene	34000 J
129-00-0	Pyrene	220,000 J
85-68-7	Butylbenzylphthalate	83000u
91-94-1	3 3-Dichlorobenzidine	170000u J
56-55-3	Benzo(a)Anthracene	95000
117-81-7	bis(2-Ethylhexyl)Phthalate	83000u
218-01-9	Chrysene	220000
117-84-0	Di-n-Octyl Phthalate	83000u
205-99-2	Benzo(b)Fluoranthene	62000 J
207-08-9	Benzo(k)Fluoranthene	83000u
50-32-8	Benzo(a)Pyrene	52000 J
193-39-5	Indeno(1,2,3-cd)Pyrene	83000u
53-70-3	Dibenz(a,h)Anthracene	83000u J
191-24-2	Benzo(g,h,i)Perylene	41000 J

(1) Cannot be separated from diphenylamine

May 93

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-04-62

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-26-87

Conc/Dil Factor 500

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	40,000 U	U
319-85-7	Beta-BHC	40,000 U	U
319-86-8	Delta-BHC	40,000 U	U
58-89-9	Gamma-BHC (Lindane)	40,000 U	U
76-44-8	Heptachlor	40,000 U	U
309-00-2	Aldrin	40,000 U	U
1024-57-3	Heptachlor Epoxide	40,000 U	U
959-98-8	Endosulfan I	40,000 U	U
60-57-1	Dieldrin	80,000 U	U
72-55-9	4,4'-DDE	80,000 U	U
72-20-8	Endrin	80,000 U	U
33213-65-9	Endosulfan II	80,000 U	U
72-54-8	4,4'-DDD	80,000 U	U
1031-07-8	Endosulfan Sulfate	80,000 U	U
50-29-3	4,4'-DDT	80,000 U	U
72-43-5	Methoxychlor	400,000 U	U
53494-70-5	Endrin Ketone	80,000 U	U
57-74-9	Chlordane	400,000 U	U
8001-35-2	Toxaphene	800,000 U	U
12674-11-2	Aroclor-1016	400,000 U	U
11104-28-2	Aroclor-1221	400,000 U	U
11141-16-5	Aroclor-1232	400,000 U	U
53469-21-9	Aroclor-1242	1,460,000	J
12672-29-6	Aroclor-1248	400,000 U	UJ
11097-69-1	Aroclor-1254	400,000 U	U
11096-82-5	Aroclor-1260	800,000 U	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)

IV HE May 93

V_s _____ or W_s 3 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-04-62

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.	110827	Cyclohexane	VOA	16.3	4300 J
2.		Hexene isomer	VOA	17.2	~~1600 B J~~ 4
3.		Unknown	VOA	19.2	1100 J
4.		Hexane isomer	VOA	21.2	~~8600 B J~~ 4
5.		Dichlorobenzene isomer	VOA	39.5	18000 J
6.		Dichlorobenzene isomer	VOA	40.4	27000 J
7.					
8.					
9.	1120214	Undecane	BNA	10.94	91,000 J
10.	112403	Dodecane		13.00	190,000 J
11.	100005	Benzene, 1-chloro-4-nitro-		13.64	74,000 J
12.	629505	Tridecane		14.86	310,000 J
13.	629594	Tetradecane		16.59	370,000 J
14.		Dimethyl naphthalene isomer		16.78	140,000 J
15.		Unknown hydrocarbon		17.63	260,000 J
16.	629629	Pentadecane		18.22	540,000 J
17.	544763	Hexadecane		19.75	430,000 J
18.		Unknown hydrocarbon		21.22	400,000 J
19.	2719633	Benzene (1-butyloctyl)-		21.69	99000 J
20.	629789	Heptadecane		22.61	320,000 J
21.	4534490	Benzene, (1-pentyloctyl)		22.98	120,000 J
22.	832644	Phenanthrene, 4-methyl-		23.71	140,000 J
23.		Methyl phenanthrene or methyl anthracene		23.79	150,000 J
24		Unknown hydrocarbon		23.92	240,000 J
25.	10544500	Molecular sulfur		25.32	110,000 J
26.					
27.	**	PCB Confirmation **			
28.	2050682	1,1'-Biphenyl, 4,4'-dichloro-		21.12	see
29.	25323686	1,1'-Biphenyl, trichloro-		22.28	GC
30		Trichloro 1,1'-biphenyl isomer		23.51	Results

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DC-05-63

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1114

QC Report No:

Sample Matrix: Soil

Contract No: EL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-19-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-24-87

Conc/Dil Factor: 10 pH 7.8

Percent Moisture: (Not Decanted) 18

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	100u J
74-83-9	Bromomethane	100u
75-01-4	Vinyl Chloride	100u
75-00-3	Chloroethane	100u J
75-09-2	Methylene Chloride	50u
67-64-1	Acetone	7100 BE J
75-15-0	Carbon Disulfide	50u J
75-35-4	1, 1-Dichloroethene	50u
75-34-3	1, 1-Dichloroethane	50u
156-60-5	Trans-1, 2-Dichloroethene	50u
67-66-3	Chloroform	50u J
107-06-2	1, 2-Dichloroethane	50u
78-93-3	2-Butanone	200 B J
71-55-6	1, 1, 1-Trichloroethane	50u
56-23-5	Carbon Tetrachloride	50u
108-05-4	Vinyl Acetate	100u J
75-27-4	Bromodichloromethane	50u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	50u
10061-02-6	Trans-1, 3-Dichloropropene	50u
79-01-6	Trichloroethene	50u
124-48-1	Dibromochloromethane	50u
79-00-5	1, 1, 2-Trichloroethane	50u
71-43-2	Benzene	50u
10061-01-5	cis-1, 3-Dichloropropene	50u J
110-75-8	2-Chloroethylvinylether	100u
75-25-2	Bromoform	50u J
108-10-1	4-Methyl-2-Pentanone	100u J
591-78-6	2-Hexanone	100u J
127-18-4	Tetrachloroethene	50u
79-34-5	1, 1, 2, 2-Tetrachloroethane	50u
108-88-3	Toluene	50u
108-90-7	Chlorobenzene	61
100-41-4	Ethylbenzene	30 J
100-42-5	Styrene	50u
	Total Xylenes	200

Data Reporting Qualifiers

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

HE May 93

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

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

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

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

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

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

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 IL-3140

Sample Number DC-05-63

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed: 03-05-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 18

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2, 4-Dinitrophenol	16000u J
100-02-7	4-Nitrophenol	16000u
132-64-9	Dibenzofuran	3300u J
121-14-2	2 4-Dinitrotoluene	3300u J
606-20-2	2 6-Dinitrotoluene	3300u J
84-66-2	Diethylphthalate	3300u J
7005-72-3	4-Chlorophenyl-phenylether	3300u J
86-73-7	Fluorene	3300u J
100-01-6	4-Nitroaniline	16000u J
534-52-1	4 6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	16000u
85-01-8	Phenanthrene	790 J
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	~~3100 J~~ 3300 u
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	3300u J
85-68-7	Butylbenzylphthalate	3300u
91-94-1	3 3-Dichlorobenzidine	6600u J
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	3300u
218-01-9	Chrysene	3300u
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	3300u
53-70-3	Dibenz(a, h)Anthracene	3300u J
191-24-2	Benzo(g, h, i)Perylene	3300u

(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-4906, 4928, 4971, 4989

Sample Number DC-05-63

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-25-87

Conc/Dil Factor 5

Percent Moisture (decanted) 18

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	J
319-85-7	Beta-BHC	400 U	J
319-86-8	Delta-BHC	400 U	J
58-89-9	Gamma-BHC (Lindane)	400 U	J
76-44-8	Heptachlor	400 U	J
309-00-2	Aldrin	400 U	J
1024-57-3	Heptachlor Epoxide	400 U	J
959-98-8	Endosulfan I	400 U	J
60-57-1	Dieldrin	800 U	J
72-55-9	4,4'-DDE	800 U	J
72-20-8	Endrin	800 U	J
33213-65-9	Endosulfan II	800 U	J
72-54-8	4,4'-DDD	800 U	J
1031-07-8	Endosulfan Sulfate	800 U	J
50-29-3	4,4'-DDT	800 U	J
72-43-5	Methoxychlor	4000 U	J
53494-70-5	Endrin Ketone	800 U	J
57-74-9	Chlordane	4000 U	J
8001-35-2	Toxaphene	8000 U	J
12674-11-2	Aroclor-1016	4000 U	J
11104-28-2	Aroclor-1221	4000 U	J
11141-16-5	Aroclor-1232	22,000	d J
53469-21-9	Aroclor-1242	4000 U	J
12672-29-6	Aroclor-1248	4000 U	J
11097-69-1	Aroclor-1254	8000 U	J
11096-82-5	Aroclor-1260	4500 J	d 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)

III

May 93

V_s _____ or W_s 3 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment Inc.

Case No IL-4906, 4928, 4971, 4989

Sample Number DC-05-63

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Dichlorobenzene isomer	VOA	39.3	980 J
2.	Dichlorobenzene isomer	VOA	40.1	680 J
3.				
4.				
5. 4536883	Benzene, (1-methyldecyl)-	BNA	21.23	9400 J
6. 2719622	Benzene, (1-pentylheptyl)-		21.62	6900 J
7. 2719633	Benzene, (1-butyloctyl)-		21.68	5400 J
8. 2719644	Benzene, (1-propylnonyl)-		21.84	5100 J
9. 2[illegible]	Unknown hydrocarbon		22.60	3800 J
10. 2719611	Benzene, (1-methylundecyl)-		22.66	4600 J
11. 4534490	Benzene, (1-pentyloctyl)-		22.96	5200 J
12. 4534514	Benzene, (1-propyldecyl)-		23.06	3500 J
13. 4534503	Benzene, (1-butylnonyl)-		23.23	3500 J
14.	Unknown hydrocarbon		23.51	2900 J
15. 92524	1,1'-Biphenyl		16.14	3700 J
16. 2051607	1,1'-Biphenyl, 2-chloro-		18.14	3500 J
17.	Unknown hydrocarbon		18.23	4400 J
18.	Unknown hydrocarbon		19.76	9300 J
19. 4536861	Benzene, (1-propyloctyl)-		20.42	4700 J
20. 4536872	Benzene, (1-ethylnonyl)-		20.70	4100 J
21. 4537159	Benzene, (1-butylheptyl)-		20.27	14000 J
22.	Unknown hydrocarbon		23.92	2600 J
23. 4534536	Benzene, (1-methyldodecyl)		24.82	2600 J
24 10544500	Molecular Sulfur		25.33	2000 J
25.				
26.				
27.				
28.				
29.				
30				

DC-05-64

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989

Lab Sample ID No: U15

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-19-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-25-87

Conc/Dil Factor: 10 pH 7.7

Percent Moisture: (Not Decanted) 18

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	100u J
74-83-9	Bromomethane	100u
75-01-4	Vinyl Chloride	100u
75-00-3	Chloroethane	100u J
75-09-2	Methylene Chloride	50 ~~15 J~~ U
67-64-1	Acetone	9400 ~~BE~~ J
75-15-0	Carbon Disulfide	50u
75-35-4	1, 1-Dichloroethene	50u
75-34-3	1, 1-Dichloroethane	50u
156-60-5	Trans-1, 2-Dichloroethene	50u
67-66-3	Chloroform	50u J
107-06-2	1, 2-Dichloroethane	50u UJ
78-93-3	2-Butanone	140 B ~~UJ~~
71-55-6	1, 1, 1-Trichloroethane	50u
56-23-5	Carbon Tetrachloride	50u
108-05-4	Vinyl Acetate	100u J
75-27-4	Bromodichloromethane	50u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	50u
10061-02-6	Trans-1, 3-Dichloropropene	50u
79-01-6	Trichloroethene	50u
124-48-1	Dibromochloromethane	50u
79-00-5	1, 1, 2-Trichloroethane	50u
71-43-2	Benzene	15 J
10061-01-5	cis-1, 3-Dichloropropene	50u J
110-75-8	2-Chloroethylvinylether	100u
75-25-2	Bromoform	50u J
108-10-1	4-Methyl-2-Pentanone	100u J
591-78-6	2-Hexanone	100u J
127-18-4	Tetrachloroethene	50u
79-34-5	1, 1, 2, 2-Tetrachloroethane	50u
108-88-3	Toluene	50u
108-90-7	Chlorobenzene	130
100-41-4	Ethylbenzene	47 J
100-42-5	Styrene	50u
	Total Xylenes	210

Data Reporting Qualifiers

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

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

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

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

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 IL-3140

Sample Number DC-05-64

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 03-05-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 18

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2, 4-Dinitrophenol	16000u J
100-02-7	4-Nitrophenol	16000u
132-64-9	Dibenzofuran	3300u J
121-14-2	2 4-Dinitrotoluene	3300u J
606-20-2	2 6-Dinitrotoluene	3300u J
84-66-2	Diethylphthalate	3300u J
7005-72-3	4-Chlorophenyl-phenylether	3300u J
86-73-7	Fluorene	3300u J
100-01-6	4-Nitroaniline	16000u J
534-52-1	4 6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	16000u
85-01-8	Phenanthrene	3300u
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	3300u
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	3300u J
95-68-7	Butylbenzylphthalate	3300u
91-94-1	3 3'-Dichlorobenzidine	6600u J
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	~~2000 JB~~ 3300 u
218-01-9	Chrysene	1600 J
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	3300u
53-70-3	Dibenz(a, h)Anthracene	3300u J
191-24-2	Benzo(g, h, i)Perylene	3300u

(1) Cannot be separated from diphenylamine

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Form I

~~284~~ May 93

7 85

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-05-64

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-25-87

Conc/Dil Factor 5

Percent Moisture (decanted) 18

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	J
319-85-7	Beta-BHC	400 u	J
319-86-8	Delta-BHC	400 u	J
58-89-9	Gamma-BHC (Lindane)	400 u	J
76-44-8	Heptachlor	400 u	J
309-00-2	Aldrin	400 u	J
1024-57-3	Heptachlor Epoxide	400 u	J
959-98-8	Endosulfan I	400 u	J
60-57-1	Dieldrin	800 u	J
72-55-9	4,4'-DDE	800 u	J
72-20-8	Endrin	800 u	J
33213-65-9	Endosulfan II	800 u	J
72-54-8	4,4'-DDD	800 u	J
1031-07-8	Endosulfan Sulfate	800 u	J
50-29-3	4,4'-DDT	800 u	J
72-43-5	Methoxychlor	4000 u	J
53494-70-5	Endrin Ketone	800 u	J
57-74-9	Chlordane	4000 u	J
8001-35-2	Toxaphene	8000 u	J
12674-11-2	Aroclor-1016	4000 u	J
11104-28-2	Aroclor-1221	4000 u	J
11141-16-5	Aroclor-1232	24,900 J	
53469-21-9	Aroclor-1242	4000 u	J
12672-29-6	Aroclor-1248	4000 u	J
11097-69-1	Aroclor-1254	8000 u	J
11096-82-5	Aroclor-1260	3200 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)

YVE May 93

V_s _____ or W_s 3 V_t 1000 V_i 4

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~~255~~

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-05-64

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 hydrocarbon	VOA	27.8	66 J
2.	Dichlorobenzene isomer	VOA	39.5	690 J
3.	Dichlorobenzene isomer	VOA	40.2	420 J
4.				
5.				
6. 629505	Tridecane	BNA	19.77	4400 J
7. 4537159	Benzene, (1-butylheptyl)		20.28	15000 J
8. 4536861	Benzene, (1-propyloctyl)		20.42	7100 J
9. 4536872	Benzene, (1-ethylnonyl)		20.70	4500 J
10. 4536883	Benzene, (1-methyldecyl)		21.23	8500 J
11. 2719622	Benzene, (1-pentylheptyl)		21.62	6400 J
12. 2719633	Benzene, (1-butyloctyl)		21.68	5200 J
13. 2719644	Benzene, (1-propylnonyl)		21.84	4500 J
14.	~~Unknown~~ cw		~~22.4~~ cw	
15.	Unknown hydrocarbon		22.62	3300 J
16. 2719611	Benzene, (1-methylundecyl)		22.66	5000 J
17. 2400013	Benzene (1-hexylheptyl)		22.97	5800 J
18. 4534503	Benzene, (1-butylnonyl)		23.07	3700 J
19.	Unknown		23.23	2700 J
20.	Unknown		23.52	2800 J
21.	Unknown hydrocarbon		23.92	2600 J
22.	Unknown hydrocarbon		25.19	2800 J
23. 10544500	Molecular Sulfur		25.35	2700 J
24				
25.				
26.				
27.				
28.				
29.				
30				

DC-OB-65

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1116

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-19-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-24-87

Conc/Dil Factor: 1 pH 7.4

Percent Moisture: (Not Decanted) 21

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u J
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u J
75-09-2	Methylene Chloride	5u
67-64-1	Acetone	110 ~~B~~ 4
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u J
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	~~10u~~ R
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u J
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

E — This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range. 60 ~~268~~

May 93

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number
DC-OB-65

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 3-5-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2, 4-Dinitrophenol	16000u J
100-02-7	4-Nitrophenol	16000u
132-64-9	Dibenzofuran	3300u J
121-14-2	2 4-Dinitrotoluene	3300u J
606-20-2	2 6-Dinitrotoluene	3300u J
84-66-2	Diethylphthalate	3300u J
7005-72-3	4-Chlorophenyl-phenylether	3300u J
86-73-7	Fluorene	3300u J
100-01-6	4-Nitroaniline	16000u J
534-52-1	4 6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	16000u
85-01-8	Phenanthrene	3300u
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	~~2200 J~~ 3300 U
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	3300u J
85-68-7	Butylbenzylphthalate	3300u
91-94-1	3 3-Dichlorobenzidine	6600u J
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	3300u
218-01-9	Chrysene	3300u
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	3300u
53-70-3	Dibenz(a, h)Anthracene	3300u J
191-24-2	Benzo(g, h, i)Perylene	3300u

(1)-Cannot be separated from diphenylamine

~~269~~ May 93

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Form I

7 85

Laboratory Name ecology and environment, inc.

Case No V-4906, 4928, 4971, 4989

Sample Number DC-OB-65

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-25-87

Conc/Dil Factor 1

Percent Moisture (decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

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~~270~~

7 EE
491033

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number

DC-OB-6S

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MCC-IC	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.	No TIC's in BNA fraction			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
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DC-06-66

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989

Lab Sample ID No: 1117

QC Report No:

Sample Matrix: Soil

Contract No: EL-3140

Data Release Authorized By: C Goytowicz

Date Sample Received: 2-19-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-24-87

Conc/Dil Factor: 1 pH 7.7

Percent Moisture: (Not Decanted) 19

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u J
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u J
75-09-2	Methylene Chloride	5 ~~3 J~~ u
67-64-1	Acetone	370 ~~32~~ u
75-15-0	Carbon Disulfide	5u J
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u J
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	16 ~~8~~ u J
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u J
75-27-4	Bromodichloromethane	5u

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

HE
May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

Case No V-4906, 4928, 4971, 4989

Sample Number DC-06-66

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 3-6-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 19

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

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

(1)-Cannot be separated from diphenylamine

HE

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Form I 65

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Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-06-66

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-25-87

Conc/Dil Factor 1

Percent Moisture (decanted) 19

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-06-66

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number nec.	Estimated Concentration (ug/l or ug/kg)
1.	Hexane isomer	VOA	21.2	~~6 J~~
2.				
3.	No TIC's in BNA fraction			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
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17.				
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28.				
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30				

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93

DC-G6-67

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1274

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-26-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-26-84

Conc/Dil Factor: 2 pH 6.5

Percent Moisture: (Not Decanted) 15

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u J
74-83-9	Bromomethane	2000u J
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	~~420 BJ~~ 1000 U
67-64-1	Acetone	3500 ~~B~~ UJ
75-15-0	Carbon Disulfide	1000u
75-35-4	1, 1-Dichloroethene	1000u
75-34-3	1, 1-Dichloroethane	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u
67-66-3	Chloroform	1000u
107-06-2	1, 2-Dichloroethane	370 J
78-93-3	2-Butanone	7600 ~~B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	1000u
56-23-5	Carbon Tetrachloride	1000u
108-05-4	Vinyl Acetate	2000u
75-27-4	Bromodichloromethane	1000u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000u
10061-02-6	Trans-1, 3-Dichloropropene	1000u
79-01-6	Trichloroethene	970 J
124-48-1	Dibromochloromethane	1000u
79-00-5	1, 1, 2-Trichloroethane	1000u
71-43-2	Benzene	8400
10061-01-5	cis-1, 3-Dichloropropene	1000u
110-75-8	2-Chloroethylvinylether	2000u
75-25-2	Bromoform	1000u
108-10-1	4-Methyl-2-Pentanone	~~1000 J~~ 2000 U
591-78-6	2-Hexanone	2000u
127-18-4	Tetrachloroethene	10000
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000u
108-88-3	Toluene	100,000
108-90-7	Chlorobenzene	23000 B
100-41-4	Ethylbenzene	840 J
100-42-5	Styrene	1000u
	Total Xylenes	1900 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.

May 93

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

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

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

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

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

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

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

Case No U-4906, 4928, 4971, 4989

Sample Number DC-G6-67

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 02-26-87

Date Analyzed: 03-18-87

Conc/Dil Factor: 20

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	33000u
111-44-4	bis(2-Chloroethyl)Ether	33000u
95-57-8	2-Chlorophenol	33000u
541-73-1	1,3-Dichlorobenzene	33000u
106-46-7	1,4-Dichlorobenzene	33000u
100-51-6	Benzyl Alcohol	33000u
95-50-1	1,2-Dichlorobenzene	33000u
95-48-7	2-Methylphenol	33000u
39638-32-9	bis(2-chloroisopropyl)Ether	33000u J
106-44-5	4-Methylphenol	33000u
621-64-7	N-Nitroso-Di-n-Propylamine	33000u
67-72-1	Hexachloroethane	33000u
98-95-3	Nitrobenzene	33000u
78-59-1	Isophorone	33000u
88-75-5	2-Nitrophenol	33000u
105-67-9	2,4-Dimethylphenol	33000u
65-85-0	Benzoic Acid	160000u
111-91-1	bis(2-Chloroethoxy)Methane	33000u
120-83-2	2,4-Dichlorophenol	12000 J
120-82-1	1,2,4-Trichlorobenzene	88000
91-20-3	Naphthalene	290000
106-47-8	4-Chloroaniline	33000u J
87-68-3	Hexachlorobutadiene	33000u
59-50-7	4-Chloro-3-Methylphenol	33000u
91-57-6	2-Methylnaphthalene	7400 J
77-47-4	Hexachlorocyclopentadiene	33000u J
88-06-2	2,4,6-Trichlorophenol	33000u
95-95-4	2,4,5-Trichlorophenol	160000u
91-58-7	2-Chloronaphthalene	33000u
88-74-4	2-Nitroaniline	160000u
131-11-3	Dimethyl Phthalate	33000u
208-96-8	Acenaphthylene	33000u
99-09-2	3-Nitroaniline	160000u J

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	33000u
51-28-5	2,4-Dinitrophenol	160000u
100-02-7	4-Nitrophenol	160000u J
132-64-9	Dibenzofuran	33000u
121-14-2	2,4-Dinitrotoluene	33000u
606-20-2	2,6-Dinitrotoluene	33000u
84-66-2	Diethylphthalate	33000u
7005-72-3	4-Chlorophenyl-phenylether	33000u
86-73-7	Fluorene	33000u
100-01-6	4-Nitroaniline	160000u
534-52-1	4,6-Dinitro-2-Methylphenol	160000u
86-30-6	N-Nitrosodiphenylamine (1)	33000u
101-55-3	4-Bromophenyl-phenylether	33000u
118-74-1	Hexachlorobenzene	33000u J
87-86-5	Pentachlorophenol	20000 J
85-01-8	Phenanthrene	11000 J
120-12-7	Anthracene	33000u
84-74-2	Di-n-Butylphthalate	~~15000 J~~ 33,000 u
206-44-0	Fluoranthene	5600 J
129-00-0	Pyrene	33000u
85-68-7	Butylbenzylphthalate	33000u
91-94-1	3,3'-Dichlorobenzidine	660000u J
56-55-3	Benzo(a)Anthracene	33000u
117-81-7	bis(2-Ethylhexyl)Phthalate	33000u J
218-01-9	Chrysene	33000u
117-84-0	Di-n-Octyl Phthalate	33000u
205-99-2	Benzo(b)Fluoranthene	33000u
207-08-9	Benzo(k)Fluoranthene	33000u
50-32-8	Benzo(a)Pyrene	33000u
193-39-5	Indeno(1,2,3-cd)Pyrene	33000u
53-70-3	Dibenz(a,h)Anthracene	33000u
191-24-2	Benzo(g,h,i)Perylene	33000u

(1)-Cannot be separated from diphenylamine

Form I

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Mar 93

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Laboratory Name ecology and environment, inc.

Case No

Sample Number
DG-G6-67

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-26-87

Date Analyzed 3-11-87

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	16,000u
319-85-7	Beta-BHC	16,000u
319-86-8	Delta-BHC	16,000u
58-89-9	Gamma-BHC (Lindane)	16,000u
76-44-8	Heptachlor	16,000u
309-00-2	Aldrin	16,000u
1024-57-3	Heptachlor Epoxide	16,000u
959-98-8	Endosulfan I	16,000u
60-57-1	Dieldrin	32,000u
72-55-9	4,4'-DDE	45,000
72-20-8	Endrin	32,000u
33213-65-9	Endosulfan II	32,000u
72-54-8	4,4'-DDD	32,000u
1031-07-8	Endosulfan Sulfate	32,000u
50-29-3	4,4'-DDT	32,000u
72-43-5	Methoxychlor	160,000u
53494-70-5	Endrin Ketone	32,000u
57-74-9	Chlordane	160,000u
8001-35-2	Toxaphene	320,000u
12674-11-2	Aroclor-1016	160,000u
11104-28-2	Aroclor-1221	160,000u
11141-16-5	Aroclor-1232	160,000u
53469-21-9	Aroclor-1242	160,000u
12672-29-6	Aroclor-1248	160,000u
11097-69-1	Aroclor-1254	320,000u
11096-82-5	Aroclor-1260	650,000

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 3 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-G6-67

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.	Dichlorobenzene isomer	VOA	39.3	8200 J
2.	Dichlorobenzene isomer	VOA	40.0	28000 J
3.				
4.				
5. 95943	Benzene, 1,2,4,5-tetrachloro-	BNA	16.58	77,000 J
6. 95829	Benzenamine, 2,5-dichloro-		16.68	390,000 J
7. 608311	Benzenamine, 2,6-dichloro-		17.00	200,000 J
8. 634662	Benzene, 1,2,3,4-tetrachloro		17.43	120,000 J
9.	Unknown chlorinated Compound		18.00	62,000 J
10. 608935	Pentachlorobenzene		19.76	37,000 J
11.	Unknown hydrocarbon		20.59	61,000 J
12. 55191258	Benzene, (1,1-dimethylnonyl)-		20.84	51,000 J
13.	Butenedioic acid ester		20.88	63,000 J
14.	Isomeric Dodecylbenzene		21.06	58,000 J
15.	Unknown substituted benzene		21.12	62,000 J
16.	Unknown substituted benzene		21.63	160,000 J
17.	Unknown substituted benzene		21.69	330,000 J
18.	Unknown substituted benzene		21.84	160,000 J
19. 27854406	Benzene, (1,1-dimethyldecyl)-		21.92	220,000 J
20.	Unknown substituted benzene		22.00	230,000 J
21.	~~Unknown substituted benzene~~ cw		~~22.00~~	~~230,000 J~~
22.	Unknown substituted benzene		22.57	300,000 J
23.	Unknown substituted benzene		22.65	130,000 J
24	Unknown substituted benzene		22.80	82,000 J
25.				
26.				
27.				
28.				
29.				
30				

DC-GB-68

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1275

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Woytowicz

Date Sample Received: 2-26-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 3-04-87

Conc/Dil Factor: 1 pH 7.2

Percent Moisture: (Not Decanted) 21

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u J
74-83-9	Bromomethane	10u J
75-01-4	Vinyl Chloride	10u J
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	38 ~~B~~ J
67-64-1	Acetone	14 ~~B~~ U
75-15-0	Carbon Disulfide	5u J
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	21 ~~B~~ U J
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u J
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

HB May 93

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

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

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

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

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

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

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

Case No V-4906, 4928, 4971, 4989

Sample Number DC-GB-68

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 02-26-87

Date Analyzed 03-06-87

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2,4-Dinitrophenol	16000u J
100-02-7	4-Nitrophenol	16000u
132-64-9	Dibenzofuran	3300u J
121-14-2	2,4-Dinitrotoluene	3300u J
606-20-2	2,6-Dinitrotoluene	3300u J
84-66-2	Diethylphthalate	3300u J
7005-72-3	4-Chlorophenyl-phenylether	3300u J
85-73-7	Fluorene	3300u J
100-01-6	4-Nitroaniline	16000u J
534-52-1	4,6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	16000u
85-01-8	Phenanthrene	3300u
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	7900 BR u
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	3300u J
85-68-7	Butylbenzylphthalate	3300u
91-94-1	3,3'-Dichlorobenzidine	6600u J
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	3300u
218-01-9	Chrysene	3300u
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1,2,3-cd)Pyrene	3300u
53-70-3	Dibenzo(a,h)Anthracene	3300u J
191-24-2	Benzo(g,h,i)Perylene	3300u

(1)-Cannot be separated from diphenylamine

HE May 93

Laboratory Name ecology and environment, inc.

Case No V-4906, 4928, 4971, 4989

Sample Number DC-GB-68

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 2-26-87

Date Analyzed 3-11-87

Conc/Dil Factor 2

Percent Moisture (decanted) 21

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

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Form 1

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Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-GB-68

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 TIC's in VOA fraction			
2.				
3.	No TIC's in BNA fraction			
4.				
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				

DC-G7-69

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1276

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-26-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-26-87

Conc/Dil Factor: 2 pH 6.9

Percent Moisture: (Not Decanted) 35

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u J
74-83-9	Bromomethane	2000u J
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	~~420 B~~ 1000 u
67-64-1	Acetone	10000 ~~B~~ UJ
75-15-0	Carbon Disulfide	1000u
75-35-4	1, 1-Dichloroethene	1000u
75-34-3	1, 1-Dichloroethane	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u
67-66-3	Chloroform	1000u
107-06-2	1, 2-Dichloroethane	1000u
78-93-3	2-Butanone	6300 ~~B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	1000u
56-23-5	Carbon Tetrachloride	1000u
108-05-4	Vinyl Acetate	2000u
75-27-4	Bromodichloromethane	1000u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000u
10061-02-6	Trans-1, 3-Dichloropropene	1000u
79-01-6	Trichloroethene	2500
124-48-1	Dibromochloromethane	1000u
79-00-5	1, 1, 2-Trichloroethane	1000u
71-43-2	Benzene	14000
10061-01-5	cis-1, 3-Dichloropropene	1000u
110-75-8	2-Chloroethylvinylether	2000u
75-25-2	Bromoform	1000u
108-10-1	4-Methyl-2-Pentanone	2700 U
591-78-6	2-Hexanone	2000u
127-18-4	Tetrachloroethene	29000
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000u
108-88-3	Toluene	25000
108-90-7	Chlorobenzene	350,000 ~~E~~ J
100-41-4	Ethylbenzene	11000
100-42-5	Styrene	1000u
	Total Xylenes	27000

Data Reporting Qualifiers

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

May 93

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

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

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

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

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

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

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

Case No U-4906, 4928, 4971, 4989

Sample Number DC-G7-69

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 02-26-87

Date Analyzed: 03-18-87

Conc/Dil Factor: 100

Percent Moisture (Decanted) 35

GPC Cleanup ☐Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	160000u
111-44-4	bis(-2-Chloroethyl)Ether	160,000u
95-57-8	2-Chlorophenol	160,000u
541-73-1	1 3-Dichlorobenzene	160,000u
106-46-7	1 4-Dichlorobenzene	160,000u
100-51-6	Benzyl Alcohol	160,000u
95-50-1	1 2-Dichlorobenzene	160,000u
95-48-7	2-Methylphenol	160,000u
39638-32-9	bis(2-chloroisopropyl)Ether	160,000u J
106-44-5	4-Methylphenol	160,000u
621-64-7	N-Nitroso-Di-n-Propylamine	160,000u
67-72-1	Hexachloroethane	160,000u
98-95-3	Nitrobenzene	160,000u
78-59-1	Isophorone	160,000u
88-75-5	2-Nitrophenol	160,000u
105-67-9	2, 4-Dimethylphenol	160,000u
65-85-0	Benzoic Acid	830,000u
111-91-1	bis(-2-Chloroethoxy)Methane	160,000u
120-83-2	2, 4-Dichlorophenol	160,000u
120-82-1	1 2, 4-Trichlorobenzene	78000 J
91-20-3	Naphthalene	71000 J
106-47-8	4-Chloroaniline	150000 J
87-68-3	Hexachlorobutadiene	160000u
59-50-7	4-Chloro-3-Methylphenol	160000u
91-57-6	2-Methylnaphthalene	160000u
77-47-4	Hexachlorocyclopentadiene	160000u J
88-06-2	2 4 6-Trichlorophenol	160000u
95-95-4	2 4, 5-Trichlorophenol	830000u
91-58-7	2-Chloronaphthalene	160000u
88-74-4	2-Nitroaniline	830000u
131-11-3	Dimethyl Phthalate	160000u
208-96-8	Acenaphthylene	160000u
99-09-2	3-Nitroaniline	830000u J

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	160000u
51-28-5	2, 4-Dinitrophenol	830000u
100-02-7	4-Nitrophenol	830000u J
132-64-9	Dibenzofuran	22000 J
121-14-2	2 4-Dinitrotoluene	160000u
606-20-2	2 6-Dinitrotoluene	160000u
84-66-2	Diethylphthalate	160000u
7005-72-3	4-Chlorophenyl-phenylether	160000u
86-73-7	Fluorene	160000u
100-01-6	4-Nitroaniline	830000u
534-52-1	4 6-Dinitro-2-Methylphenol	830000u
86-30-6	N-Nitrosodiphenylamine (1)	160000u
101-55-3	4-Bromophenyl-phenylether	160000u
118-74-1	Hexachlorobenzene	160000u J
87-86-5	Pentachlorophenol	3100000
85-01-8	Phenanthrene	160000u
120-12-7	Anthracene	160000u
84-74-2	Di-n-Butylphthalate	160000u
206-44-0	Fluoranthene	160000u
129-00-0	Pyrene	160000u
85-68-7	Butylbenzylphthalate	160000u
91-94-1	3, 3'-Dichlorobenzidine	320000u J
56-55-3	Benzo(a)Anthracene	160000u
117-81-7	bis(2-Ethylhexyl)Phthalate	160000u
218-01-9	Chrysene	160000u
117-84-0	Di-n-Octyl Phthalate	160000u J
205-99-2	Benzo(b)Fluoranthene	160000u J
207-08-9	Benzo(k)Fluoranthene	160000u
50-32-8	Benzo(a)Pyrene	160000u
193-39-5	Indeno(1 2, 3-cd)Pyrene	160000u
53-70-3	Dibenz(a h)Anthracene	160000u
191-24-2	Benzo(g h i)Perylene	160000u

(1)-Cannot be separated from diphenylamine

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Form I 77

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Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-G7-69

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-26-87

Date Analyzed 3-12-87

Conc/Dil Factor 1000

Percent Moisture (decanted) 35

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	80,000 u
319-85-7	Beta-BHC	80,000 u
319-86-8	Delta-BHC	80,000 u
58-89-9	Gamma-BHC (Lindane)	80,000 u
76-44-8	Heptachlor	80,000 u
309-00-2	Aldrin	80,000 u
1024-57-3	Heptachlor Epoxide	80,000 u
959-98-8	Endosulfan I	80,000 u
60-57-1	Dieldrin	160,000 u
72-55-9	4,4'-DDE	88,000 J
72-20-8	Endrin	160,000 u
33213-65-9	Endosulfan II	160,000 u
72-54-8	4,4'-DDD	160,000 u
1031-07-8	Endosulfan Sulfate	160,000 u
50-29-3	4,4'-DDT	160,000 u
72-43-5	Methoxychlor	800,000 u
53494-70-5	Endrin Ketone	160,000 u
57-74-9	Chlordane	800,000 u
8001-35-2	Toxaphene	1,600,000 u
12674-11-2	Aroclor-1016	800,000 u
11104-28-2	Aroclor-1221	800,000 u
11141-16-5	Aroclor-1232	800,000 u
53469-21-9	Aroclor-1242	800,000 u
12672-29-6	Aroclor-1248	800,000 u
11097-69-1	Aroclor-1254	1,600,000 u
11096-82-5	Aroclor-1260	430,000 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

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~~324~~

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-G7-69

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	109660	Pentane	VOA	15.7	5000 J
2.	110827	Cyclohexane	VOA	16.3	5100 J
3.		Hexene isomer	VOA	17.1	~~2000 BJ~~ U
4.		Hexane isomer	VOA	21.2	~~4000 BJ~~ U
5.		Dichlorobenzene isomer	VOA	39.4	20,000 J
6.		Dichlorobenzene isomer	VOA	40.1	34,000 J
7.					
8.					
9.		Chloromethylpyridine isomer	BNA	12.62	175,000 J
10.		Unknown		16.10	220,000 J
11.	1985575	Benzene, (1,1-dimethylbutyl)-		20.83	70,000 J
12.		Unknown		21.14	~~140,000 J~~ U
13.		Unknown		21.26	230,000 J
14.	26356116	Benzene, (1,1,2-trimethylpropyl)-		21.54	140,000 J
15.		Isomeric dodecylbenzene		21.71	670,000 J
16.		Unknown		21.85	280,000 J
17.	27854406	Benzene, (1,1-dimethyldecyl)-		21.91	470,000 J
18.		Unknown substituted benzene		21.99	420,000 J
19.		Unknown substituted benzene		22.22	670,000 J
20.	1985575	Benzene, (1,1-dimethylbutyl)-		22.58	570,000 J
21.	55134071	Benzene, (1,1,4,6,6-pentamethylheptyl)-		22.65	270,000 J
22.		Unknown substituted benzene		22.81	210,000 J
23.	544638	Tetradecanoic acid		24.34	~~130,000 J~~ U
24	10224916	Ethane, 1,1-bis(p-ethylphenyl)-		25.34	290,000 J
25.	10544500	Molecular Sulfur		26.70	110,000 J
26.		Unknown		27.01	1,000,000 J
27.		Unknown		29.37	740,000 J
28.					
29.					
30					

May 93

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DC-G870

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1277

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Bogtowicz

Date Sample Received: 2-26-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-26-87

Conc/Dil Factor: 4 pH 7.4

Percent Moisture: (Not Decanted) 30

Concentrations reported "as received"

CAS Number		ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	4000u J
74-83-9	Bromomethane	4000u J
75-01-4	Vinyl Chloride	4000u
75-00-3	Chloroethane	4000u
75-09-2	Methylene Chloride	~~610 BJ~~ 2000 U
67-64-1	Acetone	9000 ~~B~~ UJ
75-15-0	Carbon Disulfide	2000u
75-35-4	1, 1-Dichloroethene	2000u
75-34-3	1, 1-Dichloroethane	2000u
156-60-5	Trans-1, 2-Dichloroethene	~~490 J~~ 2000 U
67-66-3	Chloroform	2000u
107-06-2	1, 2-Dichloroethane	2000u
78-93-3	2-Butanone	8600 UJ
71-55-6	1, 1, 1-Trichloroethane	2000u
56-23-5	Carbon Tetrachloride	2000u
108-05-4	Vinyl Acetate	4000u
75-27-4	Bromodichloromethane	2000u

CAS Number		ug/L or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2000u
10061-02-6	Trans-1, 3-Dichloropropene	2000u
79-01-6	Trichloroethene	1400J
124-48-1	Dibromochloromethane	2000u
79-00-5	1, 1, 2-Trichloroethane	2000u
71-43-2	Benzene	3600
10061-01-5	cis-1, 3-Dichloropropene	2000u
110-75-8	2-Chloroethylvinylether	4000u
75-25-2	Bromoform	2000u
108-10-1	4-Methyl-2-Pentanone	4200U
591-78-6	2-Hexanone	4000u
127-18-4	Tetrachloroethene	41,000
79-34-5	1, 1, 2, 2-Tetrachloroethane	2000u
108-88-3	Toluene	8500
108-90-7	Chlorobenzene	70,000 ~~B~~ J
100-41-4	Ethylbenzene	10,000
100-42-5	Styrene	2000u
	Total Xylenes	25,000

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.

RVE May 93

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment

Case No U-4906, 4928, 4971, 4989

Sample Number DC-G8-70

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 02-26-87

Date Analyzed: 03-18-87

Conc/Dil Factor: 100

Percent Moisture (Decanted) 30

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	160,000u
111-44-4	bis(-2-Chloroethyl)Ether	160,000u
95-57-8	2-Chlorophenol	160,000u
541-73-1	1,3-Dichlorobenzene	160,000u
106-46-7	1,4-Dichlorobenzene	160,000u
100-51-6	Benzyl Alcohol	160,000u
95-50-1	1,2-Dichlorobenzene	160,000u
95-48-7	2-Methylphenol	160,000u
39638-32-9	bis(2-chloroisopropyl)Ether	160,000u J
106-44-5	4-Methylphenol	160,000u
621-64-7	N-Nitroso-Di-n-Propylamine	160,000u
67-72-1	Hexachloroethane	160,000u
98-95-3	Nitrobenzene	160,000u
78-59-1	Isophorone	160,000u
88-75-5	2-Nitrophenol	160,000u
105-67-9	2,4-Dimethylphenol	160,000u
65-85-0	Benzoic Acid	830,000u
111-91-1	bis(-2-Chloroethoxy)Methane	160,000u
120-83-2	2,4-Dichlorophenol	99000 J
120-82-1	1,2,4-Trichlorobenzene	160,000u
91-20-3	Naphthalene	3,800,000
106-47-8	4-Chloroaniline	160,000u J
87-68-3	Hexachlorobutadiene	160,000u
59-50-7	4-Chloro-3-Methylphenol	160,000u
91-57-6	2-Methylnaphthalene	26000 J
77-47-4	Hexachlorocyclopentadiene	160,000u J
88-06-2	2,4,6-Trichlorophenol	160,000u
95-95-4	2,4,5-Trichlorophenol	830,000u
91-58-7	2-Chloronaphthalene	160,000u
88-74-4	2-Nitroaniline	830,000u
131-11-3	Dimethyl Phthalate	160,000u
208-96-8	Acenaphthylene	160,000u
99-09-2	3-Nitroaniline	830,000u J

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	160,000u
51-28-5	2,4-Dinitrophenol	830,000u
100-02-7	4-Nitrophenol	830,000u J
132-64-9	Dibenzofuran	160,000u
121-14-2	2,4-Dinitrotoluene	160,000u
606-20-2	2,6-Dinitrotoluene	160,000u
84-66-2	Diethylphthalate	~~16000 J~~ 160,000 U
7005-72-3	4-Chlorophenyl-phenylether	160,000u
86-73-7	Fluorene	160,000u
100-01-6	4-Nitroaniline	830,000u
534-52-1	4,6-Dinitro-2-Methylphenol	830,000u
86-30-6	N-Nitrosodiphenylamine (1)	160,000u
101-55-3	4-Bromophenyl-phenylether	160,000u
118-74-1	Hexachlorobenzene	160,000u J
87-86-5	Pentachlorophenol	130000 J
85-01-8	Phenanthrene	36000 J
120-12-7	Anthracene	160,000u
84-74-2	Di-n-Butylphthalate	160,000u
206-44-0	Fluoranthene	160,000u
129-00-0	Pyrene	160,000u
85-68-7	Butylbenzylphthalate	160,000u
91-94-1	3,3'-Dichlorobenzidine	320,000u J
56-55-3	Benzo(a)Anthracene	160,000u
117-81-7	bis(2-Ethylhexyl)Phthalate	160,000u J
218-01-9	Chrysene	160,000u
117-84-0	Di-n-Octyl Phthalate	160,000u
205-99-2	Benzo(b)Fluoranthene	160,000u
207-08-9	Benzo(k)Fluoranthene	160,000u
50-32-8	Benzo(a)Pyrene	160,000u
193-39-5	Indeno(1,2,3-cd)Pyrene	160,000u
53-70-3	Dibenz(a,h)Anthracene	160,000u
191-24-2	Benzo(g,h,i)Perylene	160,000u

(1)-Cannot be separated from diphenylamine

Form I 81

~~377~~ 7/85

May 93

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-68-70

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-26-87

Date Analyzed 3-12-87

Conc/Dil Factor 1000

Percent Moisture (decanted) 30

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha BHC	80,000u
319-85-7	Beta-BHC	80,000u
319-86-8	Delta-BHC	80,000u
58-89-9	Gamma-BHC (Lindane)	80,000u
76-44-8	Heptachlor	80,000u
309-00-2	Aldrin	80,000u
1024-57-3	Heptachlor Epoxide	80,000u
959-98-8	Endosulfan I	80,000u
60-57-1	Dieldrin	160,000u
72-55-9	4,4'-DDE	160,000u
72-20-8	Endrin	160,000u
33213-65-9	Endosulfan II	160,000u
72-54-8	4,4'-DDD	160,000u
1031-07-8	Endosulfan Sulfate	160,000u
50-29-3	4,4'-DDT	160,000u
72-43-5	Methoxychlor	800,000u
53494-70-5	Endrin Ketone	160,000u
57-74-9	Chlordane	800,000u
8001-35-2	Toxaphene	1,600,000u
12674-11-2	Aroclor-1016	800,000u
11104-28-2	Aroclor-1221	800,000u
11141-16-5	Aroclor-1232	800,000u
53469-21-9	Aroclor-1242	800,000u
12672-29-6	Aroclor-1248	800,000u
11097-69-1	Aroclor-1254	1,600,000u
11096-82-5	Aroclor-1260	3,100,000 1268 as 1260

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-G8-70

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number nec.ic.	Estimated Concentration (ug/l or ug/kg)
1.	Dichlorobenzene isomer	VOA	39.4	6400 J
2.	Dichlorobenzene isomer	VOA	40.0	5200 J
3.				
4.	Chlorobenzenamine isomer	BNA	1265	120,000 J
5. 95829	Benzenamine, 2,5-dichloro-	BNA	16.66	91,000 J
6.	Isomeric dodecylbenzene	BNA	21.69	180,000 J
7.	Unknown Substituted benzene	BNA	22.20	170,000 J
8.	Unknown	BNA	24.34	~~270,000 J~~ 4
9.	Unknown	BNA	31.14	690,000 J
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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DC-G9-71

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1278

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Szytowicz

Date Sample Received: 2-26-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-26-87

Conc/Dil Factor: 2 pH 7.5

Percent Moisture: (Not Decanted) 14

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u J
74-83-9	Bromomethane	2000u J
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	~~400 BJ~~ 1000 u
67-64-1	Acetone	5200 ~~B~~ UJ
75-15-0	Carbon Disulfide	1000u
75-35-4	1, 1-Dichloroethene	1000u
75-34-3	1, 1-Dichloroethane	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u
67-66-3	Chloroform	10000
107-06-2	1, 2-Dichloroethane	1000u
78-93-3	2-Butanone	8200 ~~B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	1000u
56-23-5	Carbon Tetrachloride	1000u
108-05-4	Vinyl Acetate	2000u
75-27-4	Bromodichloromethane	1000u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000u
10061-02-6	Trans-1, 3-Dichloropropene	1000u
79-01-6	Trichloroethene	1000u
124-48-1	Dibromochloromethane	1000u
79-00-5	1, 1, 2-Trichloroethane	1000u
71-43-2	Benzene	39000
10061-01-5	cis-1, 3-Dichloropropene	1000u
110-75-8	2-Chloroethylvinylether	2000u
75-25-2	Bromoform	1000u
108-10-1	4-Methyl-2-Pentanone	2000u
591-78-6	2-Hexanone	2000u
127-18-4	Tetrachloroethene	11000
79-34-5	1, 1, 2, 2-Tetrachloroethane	500 J
108-88-3	Toluene	81000
108-90-7	Chlorobenzene	170000 ~~E~~ J
100-41-4	Ethylbenzene	6200
100-42-5	Styrene	1000u
	Total Xylenes	14000 ~~J~~ J

HE
Mg 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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

Case No U-4906, 4928, 4971, 4989

Sample Number DC-G9-71

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared: 02-26-87

Date Analyzed: 03-18-87

Conc/Dil Factor: 10

Percent Moisture (Decanted) 14

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	16000u
111-44-4	bis(2-Chloroethyl)Ether	16000u
95-57-8	2-Chlorophenol	16000u
541-73-1	1 3-Dichlorobenzene	16000u
106-46-7	1 4-Dichlorobenzene	16000u
100-51-6	Benzyl Alcohol	16000u
95-50-1	1 2-Dichlorobenzene	16000u
95-48-7	2-Methylphenol	16000u
39638-32-9	bis(2-chloroisopropyl)Ether	16000u J
106-44-5	4-Methylphenol	16000u
621-64-7	N-Nitroso-Di-n-Propylamine	16000u
67-72-1	Hexachloroethane	16000u
98-95-3	Nitrobenzene	16000u
78-59-1	Isophorone	16000u
88-75-5	2-Nitrophenol	16000u
105-67-9	2. 4-Dimethylphenol	16000u
65-85-0	Benzoic Acid	83000u
111-91-1	bis(2-Chloroethoxy)Methane	16000u
120-83-2	2. 4-Dichlorophenol	16000u
120-82-1	1 2. 4-Trichlorobenzene	13000 J
91-20-3	Naphthalene	94000
106-47-8	4-Chloroaniline	6900 J
87-68-3	Hexachlorobutadiene	16000u
59-50-7	4-Chloro-3-Methylphenol	16000u
91-57-6	2-Methylnaphthalene	12000 J
77-47-4	Hexachlorocyclopentadiene	16000u J
88-06-2	2 4 6-Trichlorophenol	16000u
95-95-4	2 4 5-Trichlorophenol	83000u
91-58-7	2-Chloronaphthalene	16000u
88-74-4	2-Nitroaniline	83000u
131-11-3	Dimethyl Phthalate	16000u
208-96-8	Acenaphthylene	16000u
99-09-2	3-Nitroaniline	83000u J

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	2300 J
51-28-5	2. 4-Dinitrophenol	12000 J
100-02-7	4-Nitrophenol	83000u J
132-64-9	Dibenzofuran	3700 J
121-14-2	2 4-Dinitrotoluene	16000u
606-20-2	2 6-Dinitrotoluene	16000u
84-66-2	Diethylphthalate	16000u
7005-72-3	4-Chlorophenyl-phenylether	16000u
86-73-7	Fluorene	9700 J
100-01-6	4-Nitroaniline	83000u
534-52-1	4. 6-Dinitro-2-Methylphenol	83000u
86-30-6	N-Nitrosodiphenylamine (1)	16000u
101-55-3	4-Bromophenyl-phenylether	16000u
118-74-1	Hexachlorobenzene	16000u J
87-86-5	Pentachlorophenol	83000u
85-01-8	Phenanthrene	22000
120-12-7	Anthracene	7300 J
84-74-2	Di-n-Butylphthalate	~~15000 BJ~~
206-44-0	Fluoranthene	16000u
129-00-0	Pyrene	6500 J
85-68-7	Butylbenzylphthalate	20000
91-94-1	3. 3'-Dichlorobenzidine	32000u J
56-55-3	Benzo(a)Anthracene	16000u
117-81-7	bis(2-Ethylhexyl)Phthalate	16000u J
218-01-9	Chrysene	16000u
117-84-0	Di-n-Octyl Phthalate	16000u
205-99-2	Benzo(b)Fluoranthene	16000u
207-08-9	Benzo(k)Fluoranthene	16000u
50-32-8	Benzo(a)Pyrene	16000u
193-39-5	Indeno(1 2. 3-cd)Pyrene	16000u
53-70-3	Dibenz(a h)Anthracene	16000u
191-24-2	Benzo(g h i)Perylene	16000u

83,000 u

(1)-Cannot be separated from diphenylamine

Form I 85

May 93

~~352~~ 365

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number

DC-G9-71

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-26-87

Date Analyzed 3-12-87

Conc/Dil Factor 100

Percent Moisture (decanted) 14

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	8,000u	
319-85-7	Beta-BHC	8,000u	
319-86-8	Delta-BHC	8,000u	
58-89-9	Gamma-BHC (Lindane)	8,000u	
76-44-8	Heptachlor	8,000u	
309-00-2	Aldrin	8,000u	
1024-57-3	Heptachlor Epoxide	8,000u	
959-98-8	Endosulfan I	8,000u	
60-57-1	Dieldrin	16,000u	
72-55-9	4,4'-DDE	16,000u	
72-20-8	Endrin	16,000u	
33213-65-9	Endosulfan II	16,000u	
72-54-8	4,4'-DDD	16,000u	
1031-07-8	Endosulfan Sulfate	16,000u	
50-29-3	4,4'-DDT	16,000u	
72-43-5	Methoxychlor	80,000u	
53494-70-5	Endrin Ketone	16,000u	
57-74-9	Chlordane	80,000u	
8001-35-2	Toxaphene	160,000u	
12674-11-2	Aroclor-1016	80,000u	
11104-28-2	Aroclor-1221	80,000u	
11141-16-5	Aroclor-1232	80,000u	
53469-21-9	Aroclor-1242	80,000u	
12672-29-6	Aroclor-1248	150,000	C
11097-69-1	Aroclor-1254	160,000u	
11096-82-5	Aroclor-1260	230,000	C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-G9-71

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. 110827	Cyclohexane	VOA	16.3	5000 J
2.	Hexene isomer	VOA	17.1	~~1300 J~~ 4
3.	Hexane isomer	VOA	21.2	~~2200 J~~ 4
4.	Unknown	VOA	24.2	2700 J
5.	Unknown hydrocarbon	VOA	28.2	2400 J
6.	Unknown hydrocarbon	VOA	28.6	3700 J
7.	Dichlorobenzene isomer	VOA	39.4	11000 J
8.	Dichlorobenzene isomer	VOA	40.1	26000 J
9.				
10.				
11. 100005	Benzene, 1-chloro-4-nitro-	BNA	14.92	36000 J
12. 92524	1,1'-Biphenyl		17.47	61000 J
13. 643583	1,1'-Biphenyl, 2-methyl-		17.86	130,000 J
14. 1560969	Tridecane, 2-methyl		17.96	50000 J
15. 644086	1,1'-Biphenyl, 4-methyl-		19.25	78000 J
16. 643939	1,1'-Biphenyl, 3-methyl-		19.39	56000 J
17. 629629	Pentadecane		19.60	71000 J
18. 544763	Hexadecane		21.13	81000 J
19.	Isomeric Dodecylbenzene		21.70	72000 J
20.	Unknown hydrocarbon		21.85	52000 J
21. 27854406	Benzene, (1,1-dimethyldecyl)-		21.91	54000 J
22.	Unknown (dodecyl benzene isomer?)		21.99	39000 J
23.	Unknown (dodecylbenzene isomer?)		22.21	57000 J
24 629787	Heptadecane		22.58	100,000 J
25.	Unknown hydrocarbon		22.66	54,000 J
26.	Unknown hydrocarbon		23.97	59000 J
27.	Unknown hydrocarbon		25.30	320,000 J
28.	Unknown hydrocarbon		26.56	300,000 J
29. 5097121	Benzene, 1,1'-Sulfonylbis [2-methyl-		28.04	230,000 J
30 1241947	Phosphoric acid, 2-ethylhexyl diphenyl ester		31.40	240,000 J

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May 93

DC-09-72

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1427

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-28-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 3-09-87

Conc/Dil Factor: 2 pH 7.0

Percent Moisture: (Not Decanted) 18

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000U J
74-83-9	Bromomethane	2000U J
75-01-4	Vinyl Chloride	2000U
75-00-3	Chloroethane	2000U
75-09-2	Methylene Chloride . 100	0 U 420 ~~B~~
67-64-1	Acetone	2000U J
75-15-0	Carbon Disulfide	1000U
75-35-4	1, 1-Dichloroethene	1000U
75-34-3	1, 1-Dichloroethane	1000U
156-60-5	Trans-1, 2-Dichloroethene	1000U
67-66-3	Chloroform	1000U
107-06-2	1, 2-Dichloroethane	1000U
78-93-3	2-Butanone	~~1000U~~ R
71-55-6	1, 1, 1-Trichloroethane	1000U
56-23-5	Carbon Tetrachloride	1000U
108-05-4	Vinyl Acetate	2000U
75-27-4	Bromodichloromethane	1000U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000U
10061-02-6	Trans-1, 3-Dichloropropene	1000U
79-01-6	Trichloroethene	1000U
124-48-1	Dibromochloromethane	1000U
79-00-5	1, 1, 2-Trichloroethane	1000U
71-43-2	Benzene	1000U
10061-01-5	cis-1, 3-Dichloropropene	1000U
110-75-8	2-Chloroethylvinylether	2000U
75-25-2	Bromoform	1000U
108-10-1	4-Methyl-2-Pentanone	2000U
591-78-6	2-Hexanone	2000U
127-18-4	Tetrachloroethene	1000U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000U
108-88-3	Toluene	240 J
108-90-7	Chlorobenzene	690 J
100-41-4	Ethylbenzene	2000
100-42-5	Styrene	1000U
	Total Xylenes	18000

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.

ITE
May 93

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

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

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

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

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

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

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

Case No V-4906, 4928, 4971, 4989

Sample Number DC-09-72

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 03-03-87

Date Analyzed 03-17-87

Conc/Dil Factor 10

Percent Moisture (Decanted) 18

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	16000u
111-44-4	bis(2-Chloroethyl)Ether	16000u
95-57-8	2-Chlorophenol	16000u
541-73-1	1,3-Dichlorobenzene	16000u
106-46-7	1,4-Dichlorobenzene	3800 J
100-51-6	Benzyl Alcohol	16000u
95-50-1	1,2-Dichlorobenzene	27000
95-48-7	2-Methylphenol	16000u
39638-32-9	bis(2-chloroisopropyl)Ether	16000u J
106-44-5	4-Methylphenol	16000u
621-64-7	N-Nitroso-Di-n-Propylamine	16000u
67-72-1	Hexachloroethane	16000u
98-95-3	Nitrobenzene	16000u
78-59-1	Isophorone	16000u
88-75-5	2-Nitrophenol	16000u
105-67-9	2,4-Dimethylphenol	16000u
65-85-0	Benzoic Acid	83000u
111-91-1	bis(2-Chloroethoxy)Methane	16000u
120-83-2	2,4-Dichlorophenol	16000u
120-82-1	1,2,4-Trichlorobenzene	21000
91-20-3	Naphthalene	5500 J
106-47-8	4-Chloroaniline	16000u J
87-68-3	Hexachlorobutadiene	16000u
59-50-7	4-Chloro-3-Methylphenol	16000u
91-57-6	2-Methylnaphthalene	26000
77-47-4	Hexachlorocyclopentadiene	16000u J
88-06-2	2,4,6-Trichlorophenol	16000u
95-95-4	2,4,5-Trichlorophenol	83000u
91-58-7	2-Chloronaphthalene	16000u
88-74-4	2-Nitroaniline	83000u
131-11-3	Dimethyl Phthalate	16000u
208-96-8	Acenaphthylene	16000u
99-09-2	3-Nitroaniline	83000u J

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	2100 J
51-28-5	2,4-Dinitrophenol	83000u
100-02-7	4-Nitrophenol	83000u J
132-64-9	Dibenzofuran	1200 J
121-14-2	2,4-Dinitrotoluene	16000u
606-20-2	2,6-Dinitrotoluene	16000u
84-66-2	Diethylphthalate	16000u
7005-72-3	4-Chlorophenyl-phenylether	16000u
86-73-7	Fluorene	2500 J
100-01-6	4-Nitroaniline	83000u
534-52-1	4,6-Dinitro-2-Methylphenol	83000u
86-30-6	N-Nitrosodiphenylamine (1)	8400 J
101-55-3	4-Bromophenyl-phenylether	16000u
118-74-1	Hexachlorobenzene	16000u J
87-86-5	Pentachlorophenol	270,000
85-01-8	Phenanthrene	18000
120-12-7	Anthracene	3400 J
84-74-2	Di-n-Butylphthalate	~~5900 J~~ 33,000 4
206-44-0	Fluoranthene	6000 J
129-00-0	Pyrene	51000
85-68-7	Butylbenzylphthalate	16000u
91-94-1	3,3'-Dichlorobenzidine	33000u J
56-55-3	Benzo(a)Anthracene	21000
117-81-7	bis(2-Ethylhexyl)Phthalate	16000u J
218-01-9	Chrysene	51000
117-84-0	Di-n-Octyl Phthalate	16000u
205-99-2	Benzo(b)Fluoranthene	14000 J
207-08-9	Benzo(k)Fluoranthene	16000u
50-32-8	Benzo(a)Pyrene	16000
193-39-5	Indeno(1,2,3-cd)Pyrene	16000u
53-70-3	Dibenz(a,h)Anthracene	16000u
191-24-2	Benzo(g,h,i)Perylene	14000 J

(1)-Cannot be separated from diphenylamine

HVE May 93

Form I 89

Laboratory Name ecology and environment, inc.

Case No V-4906, 4928, 4971, 4989

Sample Number DC-09-72

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 3-3-87

Date Analyzed 3-12-87

Conc/Dil Factor 200

Percent Moisture (decanted) 18

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	520,000 Y
12672-29-6	Aroclor-1248	160,000 u
11097-69-1	Aroclor-1254	320,000 u
11096-82-5	Aroclor-1260	320,000 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

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~~389~~

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-09-72

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.2	~~1300 BJ~~ U
2.	Hexane isomer	VOA	21.2	~~6200 BJ~~ U
3.	Dichlorobenzene isomers	VOA	39.4	27000 J
4.	Methyl ethyl benzene isomer	VOA	41.9	390 J
5.				
6.				
7. 629505	Tridecane	BNA	16.21	120,000 J
8. 629594	Tetradecane		17.97	130,000 J
9. 629629	Pentadecane		19.60	95,000 J
10. 544763	Hexadecane		21.14	100,000 J
11. 4537159	Benzene, (1-butylheptyl)-		21.65	120,000 J
12. 4536861	Benzene, (1-propyloctyl)-		21.79	67,000 J
13. 4536872	Benzene, (1-ethylnonyl)-		22.08	55,000 J
14. 4536883	Benzene, (1-methyldecyl)-		22.61	120,000 J
15. 2719622	Benzene, (1-pentylheptyl)-		23.00	95,000 J
16. 2719633	Benzene, (1-butyloctyl)-		23.08	79,000 J
17. 2719644	Benzene, (1-propylnonyl)-		23.22	73,000 J
18. 629787	Heptadecane		23.98	50,000 J
19. 4534490	Benzene, (1-pentyloctyl)-		24.35	110,000 J
20. 4534503	Benzene, (1-butylnonyl)-		24.43	58,000 J
21. 4534514	Benzene, (1-propyldecyl)-		24.59	51,000 J
22. 4534525	Benzene, (1-ethylundecyl)-		24.90	56,000 J
23. 4534536	Benzene, (1-methyldodecyl)-		25.41	50,000 J
24.				
25.	PCB Confirmation			
26. 2051607	1,1'-Biphenyl, 2-chloro-		19.48	See GC Results
27. 13029088	1,1'-Biphenyl, 2,2'-dichloro-		21.32	
28. 33146451	1,1'-Biphenyl, 2,6-dichloro-		22.34	
29. 2050682	1,1'-Biphenyl, 4,4'-dichloro-		22.46	
30				

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May 93

DC-09-73

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4906, 4928, 4971, 4989.
Lab Sample ID No: 1428
QC Report No:
Sample Matrix: Soil
Contract No: IL-3140
Data Release Authorized By: [signature]
Date Sample Received: 2-28-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 3-09-87

Conc/Dil Factor: 1 pH 7.6

Percent Moisture: (Not Decanted) 19

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	1000u J
74-83-9	Bromomethane	1000u J
75-01-4	Vinyl Chloride	1000u
75-00-3	Chloroethane	1000u
75-09-2	Methylene Chloride .500	u ~~420 B~~
67-64-1	Acetone	2100 ~~B~~ UJ
75-15-0	Carbon Disulfide	500u
75-35-4	1, 1-Dichloroethene	500u
75-34-3	1, 1-Dichloroethane	500u
156-60-5	Trans-1, 2-Dichloroethene	500u
67-66-3	Chloroform	500u
107-06-2	1, 2-Dichloroethane	500u
78-93-3	2-Butanone	3600 ~~B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	500u
56-23-5	Carbon Tetrachloride	500u
108-05-4	Vinyl Acetate	1000u
75-27-4	Bromodichloromethane	500u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	500u
10061-02-6	Trans-1, 3-Dichloropropene	500u
79-01-6	Trichloroethene	500u
124-48-1	Dibromochloromethane	500u
79-00-5	1, 1, 2-Trichloroethane	500u
71-43-2	Benzene	500u
10061-01-5	cis-1, 3-Dichloropropene	500u
110-75-8	2-Chloroethylvinylether	1000u
75-25-2	Bromoform	500u
108-10-1	4-Methyl-2-Pentanone	1000u
591-78-6	2-Hexanone	1000u
127-18-4	Tetrachloroethene	500u
79-34-5	1, 1, 2, 2-Tetrachloroethane	500u
108-88-3	Toluene	500u
108-90-7	Chlorobenzene	500u
100-41-4	Ethylbenzene	60 J
100-42-5	Styrene	500u
	Total Xylenes	~~190 J~~ 500 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.

HE III May 93

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where 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
Case No V-4906, 4928, 4971, 4989

Sample Number
DC-09-73

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared 03-03-87
Date Analyzed 03-17-87
Conc/Dil Factor 2
Percent Moisture (Decanted) 19

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

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2,4-Dinitrophenol	16000u
100-02-7	4-Nitrophenol	16000u J
132-64-9	Dibenzofuran	3300u
121-14-2	2,4-Dinitrotoluene	3300u
606-20-2	2,6-Dinitrotoluene	3300u
84-66-2	Diethylphthalate	3300u
7005-72-3	4-Chlorophenyl-phenylether	3300u
86-73-7	Fluorene	3300u
100-01-6	4-Nitroaniline	16000u
534-52-1	4,6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u J
87-86-5	Pentachlorophenol	5200 J
85-01-8	Phenanthrene	380 J
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	4900 U
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	1300 J
85-68-7	Butylbenzylphthalate	3300u
91-94-1	3,3'-Dichlorobenzidine	16000u J
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	740 J
218-01-9	Chrysene	1300 J
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1,2,3-cd)Pyrene	3300u
53-70-3	Dibenz(a,h)Anthracene	3300u
191-24-2	Benzo(g,h,i)Perylene	3300u

3300 UJ

(1)-Cannot be separated from diphenylamine

Form I 93

384 Mg 93

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Laboratory Name ecology and environment, inc.

Case No V-4906, 4928, 4971, 4989

Sample Number DC-09-73

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 3-3-87

Date Analyzed 3-12-87

Conc/Dil Factor 10

Percent Moisture (decanted) 19

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	900 u
319-85-7	Beta-BHC	900 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	1,600 u
72-55-9	4,4'-DDE	1,600 u
72-20-8	Endrin	1,600 u
33213-65-9	Endosulfan II	1,600 u
72-54-8	4,4'-DDD	1,600 u
1031-07-8	Endosulfan Sulfate	1,600 u
50-29-3	4,4'-DDT	1,600 u
72-43-5	Methoxychlor	1,600 u
53494-70-5	Endrin Ketone	1,600 u
57-74-9	Chlordane	800 u
8001-35-2	Toxaphene	16,000 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	20,000
12672-29-6	Aroclor-1248	8,000 u
11097-69-1	Aroclor-1254	160,000 u
11096-82-5	Aroclor-1260	160,000 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_i 1000 V_t 4

94

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Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-09-73

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	~~840 BJ~~ 4
2.	Hexane isomer	VOA	21.2	~~3600 BJ~~ 4
3.				
4.				
5.	Unknown hydrocarbon	BNA	19.59	2200 J
6.	Unknown		21.10	~~5500 JB~~ 4
7. 4537159	Benzene, (1-butylheptyl)-		21.63	2600 J
8.	Unknown hydrocarbon		22.58	4500 J
9. 2719622	Benzene, (1-pentylheptyl)-		22.99	4500 J
10. 2719633	Benzene, (1-butyloctyl)-		23.05	3400 J
11. 2719644	Benzene, (1-propylnonyl)-		23.22	3100 J
12.	Unknown hydrocarbon		23.97	2300 J
13. 2719611	Benzene, (1-methylundecyl)-		24.03	2800 J
14. 4534490	Benzene, (1-pentyloctyl)-		24.34	13000 J
15. 4534503	Benzene, (1-butylnonyl)-		24.42	3200 J
16. 4534514	Benzene, (1-propyldecyl)-		24.58	2500 J
17. 4534525	Benzene, (1-ethylundecyl)-		24.89	2900 J
18.	Unknown hydrocarbon		25.30	2900 J
19.	Substituted benzene		25.64	3000 J
20.	Unknown hydrocarbon		26.56	2300 J
21.				
22.				
23.				
24				
25.				
26.				
27.				
28.				
29.				
30				

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May
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DC-010-74

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1429

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-28-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 3-09-87

Conc/Dil Factor: 2 pH 7.8

Percent Moisture: (Not Decanted) 22

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u J
74-83-9	Bromomethane	2000u J
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	~~570 B~~ 1000 U
67-64-1	Acetone	3000 ~~B~~ UJ
75-15-0	Carbon Disulfide	1000u
75-35-4	1, 1-Dichloroethene	1000u
75-34-3	1, 1-Dichloroethane	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u
67-66-3	Chloroform	1000u
107-06-2	1, 2-Dichloroethane	1000u
78-93-3	2-Butanone	5800 ~~B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	1000u
56-23-5	Carbon Tetrachloride	1000u
108-05-4	Vinyl Acetate	2000u
75-27-4	Bromodichloromethane	1000u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000u
10061-02-6	Trans-1, 3-Dichloropropene	1000u
79-01-6	Trichloroethene	1000u
124-48-1	Dibromochloromethane	1000u
79-00-5	1, 1, 2-Trichloroethane	1000u
71-43-2	Benzene	1400
10061-01-5	cis-1, 3-Dichloropropene	1000u
110-75-8	2-Chloroethylvinylether	2000u
75-25-2	Bromoform	1000u
108-10-1	4-Methyl-2-Pentanone	2000u
591-78-6	2-Hexanone	2000u
127-18-4	Tetrachloroethene	1000u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000u
108-88-3	Toluene	3400
108-90-7	Chlorobenzene	46000
100-41-4	Ethylbenzene	7100
100-42-5	Styrene	1000u
	Total Xylenes	23000

Data Reporting Qualifiers

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

May 93

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

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

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

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

96 ~~388~~

Laboratory Name Ecology & Environment

Case No V-4906, 4928, 4971, 4989

Sample Number DC-010-74

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 03-03-87

Date Analyzed 03-18-87

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	33000u
111-44-4	bis(2-Chloroethyl)Ether	33000u
95-57-8	2-Chlorophenol	33000u
541-73-1	1,3-Dichlorobenzene	33000u
106-46-7	1,4-Dichlorobenzene	88,000
100-51-6	Benzyl Alcohol	33000u
95-50-1	1,2-Dichlorobenzene	78000
95-48-7	2-Methylphenol	33000u
39638-32-9	bis(2-chloroisopropyl)Ether	33000u J
106-44-5	4-Methylphenol	33000u
621-64-7	N-Nitroso-Di-n-Propylamine	33000u
67-72-1	Hexachloroethane	33000u
98-95-3	Nitrobenzene	33000u
78-59-1	Isophorone	33000u
88-75-5	2-Nitrophenol	33000u
105-67-9	2,4-Dimethylphenol	33000u
65-85-0	Benzoic Acid	160000u
111-91-1	bis(2-Chloroethoxy)Methane	33000u
120-83-2	2,4-Dichlorophenol	33000u
120-82-1	1,2,4-Trichlorobenzene	33000u
91-20-3	Naphthalene	33000u
106-47-8	4-Chloroaniline	33000u J
87-68-3	Hexachlorobutadiene	33000u
59-50-7	4-Chloro-3-Methylphenol	33000u
91-57-6	2-Methylnaphthalene	5700 J
77-47-4	Hexachlorocyclopentadiene	33000u J
88-06-2	2,4,6-Trichlorophenol	33000u
95-95-4	2,4,5-Trichlorophenol	160,000u
91-58-7	2-Chloronaphthalene	33,000u
88-74-4	2-Nitroaniline	160,000u
131-11-3	Dimethyl Phthalate	33,000u
208-96-8	Acenaphthylene	33000u
99-09-2	3-Nitroaniline	160000u J

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	33000u
51-28-5	2,4-Dinitrophenol	160000u
100-02-7	4-Nitrophenol	160000u J
132-64-9	Dibenzofuran	33000u
121-14-2	2,4-Dinitrotoluene	33000u
606-20-2	2,6-Dinitrotoluene	33000u
84-66-2	Diethylphthalate	33000u
7005-72-3	4-Chlorophenyl-phenylether	33000u
86-73-7	Fluorene	33000u
100-01-6	4-Nitroaniline	160000u
534-52-1	4,6-Dinitro-2-Methylphenol	160000u
86-30-6	N-Nitrosodiphenylamine (1)	33000u
101-55-3	4-Bromophenyl-phenylether	33000u
118-74-1	Hexachlorobenzene	33000u J
87-86-5	Pentachlorophenol	88000 J
85-01-8	Phenanthrene	33000
120-12-7	Anthracene	33000u
84-74-2	Di-n-Butylphthalate	33000u
206-44-0	Fluoranthene	8600 J
129-00-0	Pyrene	64000 J
85-68-7	Butylbenzylphthalate	3,000,000E J
91-94-1	3,3'-Dichlorobenzidine	66000u J
56-55-3	Benzo(a)Anthracene	33000u
117-81-7	bis(2-Ethylhexyl)Phthalate	33000u
218-01-9	Chrysene	64000
117-84-0	Di-n-Octyl Phthalate	33000u
205-99-2	Benzo(b)Fluoranthene	33000u J
207-08-9	Benzo(k)Fluoranthene	33000u J
50-32-8	Benzo(a)Pyrene	33000u
193-39-5	Indeno(1,2,3-cd)Pyrene	33000u
53-70-3	Dibenz(a,h)Anthracene	33000u
191-24-2	Benzo(g,h,i)Perylene	33000u

(1)-Cannot be separated from diphenylamine

May 93

Laboratory Name ecology and environment, inc.

Case No V-4906, 4928, 4971, 4989

Sample Number

DC-010-74

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 3-3-87

Date Analyzed 3-12-87

Conc/Dil Factor 200

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

98 ~~400~~

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-010-74

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number nec.	Estimated Concentration (ug/l or ug/kg)
1.		Hexene isomer	VOA	17.2	~~1700 BJ~~ U
2.		Hexane isomer	VOA	21.2	7300 BJ U
3.		Unknown hydrocarbon	VOA	28.1	39000 J
4.		Unknown hydrocarbon	VOA	29.7	8400 J
5.		Chlorotoluene isomer	VOA	36.1	22000 J
6.		Chlorotoluene isomer	VOA	38.2	5700 J
7.		Dichlorobenzene isomer	VOA	38.4	6400 J
8.		Dichlorobenzene isomer	VOA	39.4	38000 J
9.					
10.					
11.	99876	Benzene, 1-methyl-4-(1-methylethyl)-	BNA	10.02	190,000 J
12.	615601	Benzene, 4-chloro-1,2-dimethyl-		10.91	22,000 J
13.	1124056	Benzene, 1,4-dichloro-2,5-dimethyl-		14.74	20,000 J
14.	100005	Benzene, 1-chloro-4-nitro		14.93	79,000 J
15.		Dichloro-nitro-benzene isomer		17.66	19,000 J
16.	629629	Pentadecane		19.59	90,000 J
17.		Unknown hydrocarbon		21.02	72,000 J
18.	544763	Hexadecane		21.14	190,000 J
19.	4537159	Benzene, (1-butylheptyl)-		21.65	110,000 J
20.	4536883	Benzene (1-methyldecyl)-		22.61	220,000 J
21.	2719622	Benzene, (1-pentylheptyl)-		23.00	140,000 J
22.	2719633	Benzene, (1-butyloctyl)-		23.06	120,000 J
23.	2719644	Benzene, (1-propylnonyl)-		23.23	130,000 J
24	629787	Heptadecane		23.98	170,000 J
25.	4534490	Benzene, (1-pentyloctyl)-		24.35	150,000 J
26.	4534503	Benzene, (1-butylnonyl)-		24.45	85,000 J
27.	4534514	Benzene, (1-propyldecyl)-		24.59	80,000 J
28.		Unknown hydrocarbon		25.31	120,000 J
29.	4534536	Benzene, (1-methyldodecyl)-		25.41	78000 J
30	10544500	Molecular Sulfur		26.72	100,000 J

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DC-010-75

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1430

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-28-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 3-09-87

Conc/Dil Factor: 2 pH 7.8

Percent Moisture: (Not Decanted) 12

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u J
74-83-9	Bromomethane	2000u J
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	~~300 BJ~~ 100 D u
67-64-1	Acetone	2300 ~~B~~ UJ
75-15-0	Carbon Disulfide	1000u
75-35-4	1, 1-Dichloroethene	1000u
75-34-3	1, 1-Dichloroethane	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u
67-66-3	Chloroform	1000u
107-06-2	1, 2-Dichloroethane	1000u
78-93-3	2-Butanone	5900 ~~B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	1000u
56-23-5	Carbon Tetrachloride	1000u
108-05-4	Vinyl Acetate	2000u
75-27-4	Bromodichloromethane	1000u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000u
10061-02-6	Trans-1, 3-Dichloropropene	1000u
79-01-6	Trichloroethene	1000u
124-48-1	Dibromochloromethane	1000u
79-00-5	1, 1, 2-Trichloroethane	1000u
71-43-2	Benzene	1000u
10061-01-5	cis-1, 3-Dichloropropene	1000u
110-75-8	2-Chloroethylvinylether	2000u
75-25-2	Bromoform	1000u
108-10-1	4-Methyl-2-Pentanone	2000u
591-78-6	2-Hexanone	2000u
127-18-4	Tetrachloroethene	1000u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000u
108-88-3	Toluene	1000u
108-90-7	Chlorobenzene	1100
100-41-4	Ethylbenzene	300 J
100-42-5	Styrene	1000u
	Total Xylenes	~~980 J~~ 1000u

Data Reporting Qualifiers

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

May 93

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

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

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

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

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

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

E This flag indicates an approximate concentration. The amount detected in the analysis exceeds the calibrated range. 100 ~~413~~

Laboratory Name Ecology & Environment

Case No U-4906, 4928, 4971, 4989

Sample Number DC-010-75

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 03-03-87

Date Analyzed: 03-17-87

Conc./Dil Factor: 2

Percent Moisture (Decanted) 12

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2, 4-Dinitrophenol	16000u
100-02-7	4-Nitrophenol	16000u J
132-64-9	Dibenzofuran	3300u
121-14-2	2, 4-Dinitrotoluene	3300u
606-20-2	2, 6-Dinitrotoluene	3300u
84-66-2	Diethylphthalate	3300u
7005-72-3	4-Chlorophenyl-phenylether	3300u
86-73-7	Fluorene	3300u
100-01-6	4-Nitroaniline	16000u
534-52-1	4, 6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u J
87-86-5	Pentachlorophenol	6300 J
85-01-8	Phenanthrene	760 J
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	4400 ~~J~~ U
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	1300 J
85-68-7	Butylbenzylphthalate	59000
91-94-1	3, 3'-Dichlorobenzidine	6600u J
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	~~950 J~~ 3300 UJ
218-01-9	Chrysene	1600 J
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	3300u
53-70-3	Dibenz(a, h)Anthracene	3300u
191-24-2	Benzo(g, h, i)Perylene	3300u

(1)-Cannot be separated from diphenylamine

III

HE

May 93

Form I 101

4~~14~~ 7 85

Laboratory Name ecology and environment, inc.

Case No

Sample Number DC-010-75

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 3-3-87

Date Analyzed 3-12-87

Conc/Dil Factor 10

Percent Moisture (decanted) 12

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	800u
319-85-7	Beta-BHC	800u
319-86-8	Delta-BHC	800u
58-89-9	Gamma-BHC (Lindane)	800u
76-44-8	Heptachlor	800u
309-00-2	Aldrin	800u
1024-57-3	Heptachlor Epoxide	800u
959-98-8	Endosulfan I	800u
60-57-1	Dieldrin	1600u
72-55-9	4,4'-DDE	1600u
72-20-8	Endrin	1600u
33213-65-9	Endosulfan II	1600u
72-54-8	4,4'-DDD	1600u
1031-07-8	Endosulfan Sulfate	1600u
50-29-3	4,4'-DDT	1600u
72-43-5	Methoxychlor	8,000u
53494-70-5	Endrin Ketone	1600u
57-74-9	Chlordane	8,000u
8001-35-2	Toxaphene	16,000u
12674-11-2	Aroclor-1016	8,000u
11104-28-2	Aroclor-1221	8,000u
11141-16-5	Aroclor-1232	8,000u
53469-21-9	Aroclor-1242	10,000
12672-29-6	Aroclor-1248	8,000u
11097-69-1	Aroclor-1254	16,000u
11096-82-5	Aroclor-1260	16,000u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

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Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-010-7.5

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.		Hexene isomer	VOA	17.2	~~1500 BJ~~ U
2.		Hexane isomer	VOA	21.2	~~6500 BJ~~ U
3.					
4.		Unknown hydrocarbon	BNA	21.13	~~7600 BJ~~ U
5.	4536861	Benzene, (1-propyloctyl)		21.78	2000 J
6.	4536872	Benzene, (1-ethylnonyl)		22.06	2000 J
7.		Unknown hydrocarbon		22.59	7200 J
8.	2719622	Benzene, (1-pentylheptyl)		23.00	4400 J
9.	2719633	Benzene, (1-butyloctyl)		23.06	4200 J
10.	2719644	Benzene, (1-propylnonyl)		23.23	4400 J
11.		Unknown hydrocarbons		23.98	4800 J
12.	2719611	Benzene, (1-methylundecyl)		24.02	4300 J
13.		Unknown		24.25	7800 J
14.	4534490	Benzene, (1-pentyloctyl)		24.35	9800 J
15.	4534503	Benzene, (1-butylnonyl)		24.43	31600 J
16.	4534514	Benzene, (1-propyldecyl)		24.59	2900 J
17.	4534525	Benzene, (1-ethylundecyl)		24.90	3000 J
18.		Unknown hydrocarbon		25.31	4900 J
19.	4534536	Benzene, (1-methyldodecyl)		25.39	3200 J
20.		Substituted benzene		25.66	3300 J
21.		Unknown hydrocarbon		26.55	3800 J
22.	10544500	Molecular Sulfur		26.70	2900 J
23.		Unknown		35.26	5700 J
24.					
25.					
26.					
27.					
28.					
29.					
30.					

May 93

Laboratory Name Ecology & Environment

Case No U-4906, 4928, 4971, 4989

Sample Number DC-010-75R

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 03-03-87

Date Analyzed: 03-17-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 12

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2 4-Dinitrophenol	16000u
100-02-7	4-Nitrophenol	16000u J
132-64-9	Dibenzofuran	3300u
121-14-2	2 4-Dinitrotoluene	3300u
606-20-2	2 6-Dinitrotoluene	3300u
84-66-2	Diethylphthalate	3300u
7005-72-3	4-Chlorophenyl-phenylether	3300u
86-73-7	Fluorene	3300u
100-01-6	4-Nitroaniline	16000u
534-52-1	4 6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u J
87-86-5	Pentachlorophenol	5600 J
85-01-8	Phenanthrene	660 J
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	4300 U
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	1100 J
85-68-7	Butylbenzylphthalate	51000
91-94-1	3 3'-Dichlorobenzidine	6600u J
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	~~460 J~~ 3300 UJ
218-01-9	Chrysene	1300 J
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1 2 3-cd)Pyrene	3300u
53-70-3	Dibenz(a h)Anthracene	3300u
191-24-2	Benzo(g h i)Perylene	3300u

(1)-Cannot be separated from diphenylamine

Form I 104

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Laboratory Name ecology and environment, inc.

Case No V-4906, 4928, 4971, 4989

Sample Number

DC-010-75R

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 3-3-87

Date Analyzed 3-12-87

Conc/Dil Factor 10

Percent Moisture (decanted) 12

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	800u
319-85-7	Beta-BHC	800u
319-86-8	Delta-BHC	800u
58-89-9	Gamma-BHC (Lindane)	800u
76-44-8	Heptachlor	800u
309-00-2	Aldrin	800u
1024-57-3	Heptachlor Epoxide	800u
959-98-8	Endosulfan I	800u
60-57-1	Dieldrin	1600u
72-55-9	4,4'-DDE	1600u
72-20-8	Endrin	1600u
33213-65-9	Endosulfan II	1600u
72-54-8	4,4'-DDD	1600u
1031-07-8	Endosulfan Sulfate	1600u
50-29-3	4,4'-DDT	1600u
72-43-5	Methoxychlor	8,000u
53494-70-5	Endrin Ketone	1,600u
57-74-9	Chlordane	8,000u
8001-35-2	Toxaphene	16,000u
12674-11-2	Aroclor-1016	8,000u
11104-28-2	Aroclor-1221	8,000u
11141-16-5	Aroclor-1232	8,000u
53469-21-9	Aroclor-1242	10,000
12672-29-6	Aroclor-1248	8,000u
11097-69-1	Aroclor-1254	16,000u
11096-82-5	Aroclor-1260	16,000u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

105

~~428~~

ATTACHMENT A

FORMS I

CASE NUMBERS U-4906, U-4928, U-4971, AND U-4989

L163020000005
ST. CLAIR
SAUGET - SAUGET
LAB - DATA

SUBSURFACE
ORGANICS

SUBSURFACE SOIL ORGANICS

CASE NARRATIVE

May 12, 1987

Job # U-4906; U-4928; U-4971; U-4989

Sample #	DC-P1-53	DC-I12-58	DC-05-63	DC-GB-68	DC-09-73
	DC-P2-54	DC-01-59	DC-05-64	DC-G7-69	DC-010-74
	DC-P5-55	DC-02-60	DC-0B-65	DC-G8-70	DC-010-75
	DC-P5-56	DC-03-61	DC-06-66	DC-G9-71	
	DC-I12-57	DC-04-62	DC-G6-67	DC-09-72	

CASE NARRATIVE

Enclosed are the organic analytical results for samples received on February 14, February 19, February 26, and February 28, 1987. All samples were received in good condition.

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

All samples for semi-volatile and Pesticide/PCB analyses were initially extracted utilizing 3 grams. Some of the samples which were not contaminated at a 3 gram level were re-extracted at 30 grams and their results are included in this report (DC-P2-54, DC-P5-55, DC-P5-56, DC-I12-57, DC-I12-58). Additionally, the following samples have been re-extracted and their results will be provided at a later date:

DC-03-61
DC-GB-75
DC-0B-65

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

As agreed upon in a November 24, 1986 conversation with Ron Trupin of IEPA, PCB second column confirmation was not performed on all samples. 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.

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 value are possibly underestimated.

Vinyl chloride in the continuing calibration check on March 4, 1987, exceeded the allowed relative percent difference. As vinyl chloride was not observed in any of the samples analyzed that day, the data have not been compromised.

On March 5, 1987, three BNA analyses exceeded the 12-hour tune clock, but all analyses were within the 24-hour tune clock allowed by other EPA methodology (600 series, SW-846).

PCB-1268 was detected in sample DC-G8-70 and is reported in PCB 1260.

The percent relative standard deviation (% RSD) for 4,4'DDT in the March 3, 1987 evaluation check for linearity exceeded 10%. Since 4,4'-DDT was not detected in samples associated with this standard, we feel data quality has not been affected.

All results are expressed on as "as received" basis. To convert these results to a dry weight concentration, all values reported (including U or "less than" values but excluding pH values) should be multiplied by a factor equal to:

$$\frac{1}{(1 - M)}$$

where M is the moisture percentage expressed as a decimal. (10% moisture, M = 0.1).

For this case, factors are as follows:

Field_ID	Lab_ID	%_Moisture	Multiply_By
DC-P1-53	1032	20	1.25
DC-P2-54	1033	16	1.19
DC-P5-55	1034	19	1.23
DC-P5-56	1035	20	1.25
DC-I12-57	1036	11	1.12
DC-I12-58	1037	18	1.22
DC-01-59	1110	13	1.15
DC-02-60	1111	22	1.28
DC-03-61	1112	16	1.19
DC-04-62	1113	22	1.28
DC-05-63	1114	18	1.22

Field_ID	Lab_ID	%_Moisture	Multiply_By
DC-05-64	1115	18	1.22
DC-0B-65	1116	21	1.27
DC-06-66	1117	19	1.23
DC-G6-67	1274	15	1.18
DC-GB-68	1275	21	1.27
DC-G7-69	1276	35	1.54
DC-G8-70	1277	30	1.43
DC-G9-71	1278	14	1.16
DC-09-72	1427	18	1.22
DC-09-73	1428	19	1.23
DC-010-74	1429	22	1.28
DC-010-75	1430	12	1.14

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

Andrew P. Clifton

Andrew P. Clifton
Director of Analytical Services

APC/drb
Enclosures

ecology and environment, inc.
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International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.:	Project Name:	Project Manager:
IL 3140	DEAD CREEK / SAUGET SITES	MIKE MILLER
Samplers: (Signatures) 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	VOL ORGANICS - 9oz	METALS & CYANIDE - 9oz	VOLATILE ORGANICS - 120ml				REMARKS
DC-66-67	2-23-87	1215	X			UNKNOWN / OVA SCREEN >1000 PPM	BORING G-6 20'-30'	4	1	1	2				STRONG HYDROCARBON ODOR
DC-68-68	2-24-87	0900	X			UNKNOWN / BLANK (EXPECTED LOW)	SOIL BLANK	4	1	1	2				
DC-67-69	2-24-87	0915	X			UNKNOWN / OVA SCREEN >1000 PPM	BORING G-7, 10'-25'	4	1	1	2				VERY STRONG ORGANIC ODOR
DC-69-70	2-24-87	1200	X			UNKNOWN / OVA SCREEN >1000 PPM	BORING G-8, 10'-30'	4	1	1	2				VERY STRONG ORGANIC ODOR
DC-69-71	2-24-87	1545	X			UNKNOWN / OVA SCREEN >1000 PPM	BORING G-9, 35'-40'	4	1	1	2				STRONG ORGANIC ODOR

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via:
Daniel T. Sewall	2-25-87/1730	FEDERAL EXPRESS				FEDERAL EXPRESS
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	BL/Airbill Number: 22851 99081
Relinquished By: (Signature) Fed. Express	Date/Time: 2-26-87/0845	Received For Laboratory By: (Signature) William H. Howard	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Date: 2/25/87

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*See CONCENTRATION RANGE on back of form.

234055

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CHAIN-OF-CUSTODY RECORD

Project No.: 14 3140
Project Name: ARA CREEK / SANGET SITES
Project Manager: MIKE MILLER
Samplers: (Signatures) [signature]
Field Team Leader: DAN SEWALL

STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE TYPE AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	VOLATILES - $22	PHAN & CHEM - $25	VOLATILE ORGANICS - 120 ml				REMARKS
AC 01-59	2-6-87	1445	X			UNKNOWN / OVA SCREEN 85 PPM	BORING 0-1, 15'-25'	4	1	1	2				
AC 02-60	2-17-87	1000	X			UNKNOWN / OVA SCREEN 740 PPM	BORING 0-2, 20'-30'	4	1	1	2				SLIGHT ORGANIC ODOR
AC 03-61	2-17-87	1300	X			UNKNOWN / OVA SCREEN - 420 PPM	BORING 0-3, 10'-20'	4	1	1	2				SLIGHT ORGANIC ODOR
AC 04-62	2-17-87	1500	X			UNKNOWN / OVA SCREEN - >1000 PPM	BORING 0-4, 0'-10'	4	1	1	2				STRONG ORGANIC ODOR
AC 05-63	2-17-87	1630	X			UNKNOWN / OVA SCREEN - >1000 PPM	BORING 0-5, 8.5'-20'	4	1	1	2				STRONG ORGANIC ODOR
AC 05-64	2-17-87	1630	X			UNKNOWN / OVA SCREEN >1000 PPM	BORING 0-5, 8.5'-20'	4	1	1	2				DUPLICATE OF AC-05-63
AC 06-65	2-18-87	0900	X			UNKNOWN / BLANK	SOIL BLANK	4	1	1	2				
AC 06-66	2-18-87	1400	X			UNKNOWN / NOT SCREENED (LOW)	BORING 0-6 15'-25'	4	1	1	2				

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via:
[signature]	2-18-87/1700	FEDERAL EXPRESS				FEDERAL EXPRESS
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	BL/Airbill Number: 2885199070
Relinquished By: (Signature) Fed. Express	Date/Time: 2-19-87/0845	Received For Laboratory By: (Signature) [signature]	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Date: 2-18-87

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CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project No.: IL 3140
Project Name: ARA CREEK / SAUGET SITES
Project Manager: MIKE MILLER
Samplers: (Signatures) Daniel T. Sewell
Field Team Leader: DAN SEWALL

STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	GRAB	AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	Acid Extractables (8.02)	Acids & Cyanide (8.02)	Volatile Aromatics (1.2.3.4)				REMARKS
AC-A1-53	2-11-87	0930	X			UNKNOWN / OVA SCREEN >1000 PPM	BORING A1-A4 0'-10'	4	1	1	2				SCREEN POSSIBLY DUE TO METHANE
AC-A3-54	2-4-87	1030	X			UNKNOWN / OVA SCREEN 260 PPM	BORING A1-A4 25'-35'	4	1	1	2				SLIGHT ORGANIC ODOR
AC-A5-55	2-13-87	1230	X			UNKNOWN / OVA SCREEN 180 PPM	BORING A-5 15'-25'	4	1	1	2				SLIGHT ORGANIC ODOR
AC-A5-56	2-13-87	1230	X			UNKNOWN / OVA SCREEN 180 PPM	BORING A-5 10'-25'	4	1	1	2				DUPLICATE OF AC-A5-55
AC-B2-57	2-13-87	0800	X			UNKNOWN - SUSPECTED LOW	BORING E-12 3½'-12½' FT	4	1	1	2				BACKGROUND LOCATION
AC-B2-58	2-13-87	0830	X			UNKNOWN - SUSPECTED LOW	BORING E-12 18½'-27½' FT	4	1	1	2				BACKGROUND LOCATION

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via:
Daniel T. Sewell	2-13-87/1400	FEDERAL EXPRESS				FEDERAL EXPRESS
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	BL/Airbill Number: 2285199066
Relinquished By: (Signature) Fed Express	Date/Time: 2-14-87/1000	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Date: 2-13-87

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CHAIN-OF-CUSTODY RECORD

Project No.: IL3140

Project Name: ACME CREEK / SANGAT SITES

Project Manager: MIKE MILLER

Samplers: (Signature) [signature]

Field Team Leader: DAN SENAKE

STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	GRAB	AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	1 litre amber glass - 8oz	1 amber glass f/ca - 5oz	2 VOA's - 120ml				REMARKS	EPC #
AC-09-73	2-26-87	1430	X			UNKNOWN / OVA SCREEN 2.2ppm	BORING 9-9 0'-10'	4	1	1	2					1431
AC-09-73	2-26-87	1545	X			UNKNOWN / OVA SCREEN 6.0ppm	BORING 9-9 10'-15'	4	1	1	2					1429
AC-009-74	2-26-87	1630	X			UNKNOWN / OVA SCREEN >1000ppm	BORING 9-10 5'-10'	4	1	1	2				STRONG ORGANIC ODOR	1429
AC-010-75	2-26-87	1700	X			UNKNOWN / OVA SCREEN 8.4ppm	BORING 9-10 10'-15'	4	1	1	2				ORGANIC ODOR	1430

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via:
[signature]	2-27-87 1130	FEDERAL EXPRESS				FEDERAL EXPRESS
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	
						BL/Airbill Number: 0285199092 — Date: 2-27-87
Relinquished By: (Signature)	Date/Time: 2-28-87	Received For Laboratory By: (Signature) [signature]	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	

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*See CONCENTRATION RANGE on back of form.

2340

SURROGATE PERCENT RECOVERY SUMMARY

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. U-4906, 4928, U-4971, 4989 Contract Laboratory Ecology & Environment 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-P1-53	97	74	89									
DC-P2-54	96	88	84									
DC-P5-55	97	87	87									
DC-P5-56	112	97	94									
DC-E12-57	113	104	100									
DC-D2-58	87	89	87									
DC-01-59	88	87	93									
DC-02-60	101	95	106									
DC-03-61	99	97	92									
DC-05-63	100	98	97									
DC-05-64	103	99	99									
DC-08-65	108	87	103									
DC-06-66	100	96	99									
DC-GB-68	116	106	107									
C6894	93	87	82									
C6941	108	102	105									
C7040	93	90	98									
DC-P5-55MS	88	79	74									
DC-P5-55MSD	89	79	79									

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 57 ; outside of QC limits

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

Pesticides: ____ out of ____ ; outside of QC limits

7/85

Comments: ____

FORM II

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. U-4906, 4928 U-4971, 4989 Contract Laboratory Ecology & Environment Contract No. IL-3140

Low _____ Medium X

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 (30-118)	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-04-62	90	95	86	DL	93	99			52	DL	DL	DL
DC-G6-67	98	96	98	(122)DL	(159)DL	(148)DL			112	118	91	DL
DC-G7-69	110	113	96	DL	DL	DL			DL	DL	DL	DL
DC-G8-70	97	97	95	DL	DL	DL			DL	DL	DL	DL
DC-G9-71	100	106	96	113	143*	109			106	108	63	DL
DC-09-72	94	89	84	91	120*	107			82	79	69	DL
DC-09-73	99	97	93	88	92	90			76	71	59	124
DC-010-74	85	83	82	113	140*	126			98	84	75	DL
DC-010-75	87	86	84	77	91	83			72	68	68	INF
DC-010-75R	–	–	–	81	86	76			73	75	65	INF
C6894 CW												
C6920	86	82	86									
C6964	97	97	105									
C7138	97	90	93									
DC-G8-70MS	96	95	95									
DC-G8-70MSD	94	100	100									
DC-P1-53	–	–	–	76	99	89			74	93	DL	DL
DC-P2-54	–	–	–	51	52	45			46	46	40	144
DC-P5-55	–	–	–	47	50	46			41	44	36	132
DC-P5-56	–	–	–	94	93	117			86	83	81	155**
DC-I12-57	–	–	–	46	51	48			43	42	39	143
DC-I12-58	–	–	–	52	58	52			48	46	40	151**
DC-01-59	–	–	–	73	72	82			30	46	17*	148

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

DL = Diluted Out

Volatiles: 0 out of 42 ; outside of QC limits

Semi-Volatiles: 4 out of 83 ; outside of QC limits

Pesticides: 2 out of 7 ; outside of QC limits

7/85

Comments: INF = Interference

FORM II

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. U-4906, 4928 U-4971, 4989 Contract Laboratory Ecology & Environment Contract No. IL-3140

Low _____ Medium X

SMO TRAFFIC NO.	VOLATILE: TOLUENE-D8 (81-117)	VOLATILE: BFB (74-121)	VOLATILE: 1,2 DICHLORO-ETHANE-D4 (70-121)	SEMI-VOLATILE: NITRO-BENZENE-D5 (23-120)	SEMI-VOLATILE: 2-FLUORO-BIPHENYL (30-116)	SEMI-VOLATILE: TERPHENYL-D14 (18-137)	SEMI-VOLATILE:	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-02-60	—	—	—	88	102	121			67	110	16 *	153*	
DC-03-61	—	—	—	70	76	82			33	52	28	179*	
DC-05-63	—	—	—	64	69	75			46	88	35	166*	
DC-05-64	—	—	—	73	90	92			58	88	50	125	
DC-08-65	—	—	—	69	77	101			55	93	32	164*	
DC-06-66	—	—	—	64	78	89			44	53	27	147	
DC-GB-68	—	—	—	76	90	100			61	100	47	112	
DC-I12-57MS	—	—	—	54	55	59			47	48	53	142	
DC-I12-57MSD	—	—	—	58	62	56			55	51	51	149	
D1885	—	—	—	92	90	101			62	66	32	137	2/16
D1898	—	—	—	99	100	110			80	143*	64	140	2/19
D2020	—	—	—	79	91	66			70	70	171*	96	2/26
D2021	—	—	—	81	90	88			71	71	104	92	3/3
	—	—	—	—	—	—			—	—	—		
	—	—	—	—	—	—			—	—	—		

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: _____ out of _____ ; outside of QC limits

Semi-Volatiles: 3 out of 78 ; outside of QC limits

Pesticides: 4 out of 13 ; outside of QC limits

7/85

Comments: _____

FORM II

MS/MSD SUMMARY

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. U-4906, 4928 / U-4971, 4989 Contractor Ecology & Environment Inc. Contract No. IL-3140

Low Level X Medium Level ____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. DC-P5-55	1,1-Dichloroethene	60	0	52	87	55	92	6	22	59-172
	Trichloroethene	↓	↓	34	57+	40	67	16	24	62-137
	Chlorobenzene			46	77	49	78	2	21	60-133
	Toluene			45	75	47	78	6	21	59-139
	Benzene			43	72	49	82	13	21	66-142
B/N SMO SAMPLE NO. ____	1,2,4-Trichlorobenzene								23	38-107
	Acenaphthene								19	31-137
	2,4 Dinitrotoluene								47	28-89
	Pyrene								36	35-142
	N-Nitrosodi-n-Propylamine								38	41-126
	1,4-Dichlorobenzene								27	28-104
ACID SMO SAMPLE NO. ____	Pentachlorophenol								47	17-109
	Phenol								35	26-90
	2-Chlorophenol								50	25-102
	4-Chloro-3-Methylphenol								33	26-103
	4-Nitrophenol								50	11-114
PEST SMO SAMPLE NO. ____	Lindane								50	46-127
	Heptachlor								31	35-130
	Aldrin								43	34-132
	Dieldrin								38	31-134
	Endrin								45	42-139
	4,4'-DDT								50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

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

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

Comments: ____

FORM III

7/85

495095

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. U-4906, 4928, U-4971, 4989 Contractor ECOLOGY & ENVIRONMENT INC. Contract No. IL-3140

Low Level _____ Medium Level X

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. DC-G8-70	1,1-Dicholorethene	5800	0	5200	90	4800	83	8	22	59-172
	Trichloroethene		1400	6700	91	6500	88	3	24	62-137
	Chlorobenzene		70,000	76000	103	81,000	190*	6	21	60-133
	Toluene		8500	14000	95	14000	95	0	21	59-139
	Benzene		3600	9400	100	9100	95	3	21	66-142
B/N SMO SAMPLE NO. DC-I12-57	1,2,4-Trichlorobenzene	33000	0	15000	45	16000	48	6	23	38-107
	Acenaphthene			17000	52	18000	55	6	19	31-137
	2,4 Dinitrotoluene			18000	55	17000	52	6	47	28-89
	Pyrene			18000	55	17000	52	6	36	35-142
	N-Nitrosodi-n-Propylamine			16000	48	16000	48	0	38	41-126
	1,4-Dichlorobenzene			13000	39	13000	39	0	27	28-104
ACID SMO SAMPLE NO. DC-I12-57	Pentachlorophenol	66000		30000	45	30000	45	0	47	17-109
	Phenol			28000	42	31000	47	10	35	26-90
	2-Chlorophenol			31000	47	33000	50	6	50	25-102
	4-Chloro-3-Methylphenol			26000	39	26000	39	0	33	26-103
	4-Nitrophenol			20000	30	19000	29	5	50	11-114
PEST SMO SAMPLE NO. DC-I12-57	Lindane	267	0	264	99	267	100	1.1	50	46-127
	Heptachlor	267		283	106	325	122	14	31	35-130
	Aldrin	267		281	105	296	111	5.2	43	34-132
	Dieldrin	667		631	95	636	95	0.8	38	31-134
	Endrin	667		710	106	717	107	1.0	45	42-139
	4,4'-DDT	667		742	111	758	114	2.1	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

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

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

Comments: _____

STANDARDS DATA

INITIAL CALIBRATION DATA

481085

VOLATILE HSL Compounds

Case No: U-4906 ; U-4928 U-4971 ; U-4989

Instrument ID: HP-5995C

Contractor: E & EM INC.

Calibration Date: 07/14/86

Contract No: IL-3140

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

Laboratory ID:		>C3505	>C3500	>C3501	>C3502	>C3503					
		RF	RF	RF	RF	RF					
Compound		100.00	250.00	500.00	750.00	1000.00	$\overline{RF}$	% RSD	CCC	SPCC	
CHLOROMETHANE	50	1.83030	2.98119	2.68303	1.98464	2.03565	2.30296	21.718		**	
BROMOMETHANE	94	1.12916	2.03110	1.78724	1.13974	1.07212	1.43187	31.072			
VINYL CHLORIDE	62	1.29793	2.25090	1.81480	1.33200	1.32627	1.60438	26.217	*		
CHLOROETHANE	64	.63087	.90688	.69912	.60274	.61992	.69191	18.156			
METHYLENE CHLORIDE	84	2.02322	1.43855	1.20025	1.26031	.97834	1.38013	28.644			
ACETONE	43	1.82548	2.34411	1.47396	1.33672	1.11317	1.61869	29.708			
TRICHLOROFLUOROMETHANE	101	3.86178	3.31082	2.95608	2.88263	2.68368	3.13900	14.758			
CARBON DISULFIDE	76	4.78482	3.89176	3.40709	3.72181	3.34401	3.82990	15.125			
1,1-DICHLOROETHENE	61	3.28335	3.33314	3.06918	2.76682	2.68799	3.02810	9.682	*		
1,1-DICHLOROETHANE	63	3.41019	3.92213	3.61341	2.93357	2.94262	3.36439	12.773		**	
TRANS-1,2-DICHLOROETHENE	96	1.57932	1.84750	1.68174	1.33898	1.34149	1.55781	14.152			
CHLOROFORM	83	3.76351	4.28933	3.89481	2.94600	2.94612	3.56796	16.810	*		
1,2-DICHLOROETHANE	62	3.71406	4.39110	3.91144	2.88767	2.87971	3.55680	18.611			
1,2-DICHLOROETHANE-D4(SURR)	65	2.49928	3.43723	3.57775	2.73884	2.73981	2.99858	15.920			(Conc=250.0,250.0,250.0,25
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 (**)

VOLATILE HSL Compounds

Case No: V-4906; V-4928 V-4971; V-4989

Instrument ID: HP-5995C

Contractor: E & EM INC.

Calibration Date: 07/14/86

Contract No: IL-3140

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

Maximum % RSD for CCC is 30%

Laboratory ID:	>C3505 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=250.0,250.0,250.0,25
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

e No: U-4906, 4928, 4971, 4989 Instrument ID: HP-5995C

tr. r: E & E, INC. Calibration Date: ~~01/25/87~~ 1-27-87

tract No: IL-3140

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

Compound		Laboratory ID: >C6596 RF 20.00	>C6597 RF 50.00	>C6598 RF 100.00	>C6601 RF 150.00	>C6600 RF 200.00	$\overline{RF}$	% RSD	CCC	SPCC	
LOROMETHANE	50	2.12447	2.61562	2.64220	2.23683	2.53305	2.43043	9.666		**	
OMOMETHANE	94	1.37360	.85090	1.49079	.78242	1.03971	1.10748	28.333			
INYL CHLORIDE	62	1.26378	1.91741	1.62120	1.07270	1.02484	1.37999	27.619	*		
HLOROETHANE	64	.71412	1.06725	.91401	.88431	.99939	.91582	14.608			
ETHYLENE CHLORIDE	84	2.02390	1.82978	1.87682	1.82862	1.84614	1.88105	4.369			
CETONE	43	.59984	.54514	.58876	.48302	.59266	.56188	8.724			
~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~			
RBON DISULFIDE	76	5.41111	5.19185	5.31658	5.22865	5.51722	5.33308	2.500			
1-DICHLOROETHENE	61	3.52165	3.34397	3.38225	3.31844	3.46913	3.40709	2.518	*		
1-DICHLOROETHANE	63	3.87093	3.60100	3.72198	3.74062	3.77956	3.74282	2.615		**	
ANS-1,2-DICHLOROETHENE	96	1.75784	1.64597	1.69829	1.66798	1.72785	1.69959	2.642			
LOROFORM	83	2.62984	2.50538	2.52604	2.50948	2.49531	2.53321	2.177	*		
2-DICHLOROETHANE	62	3.20370	3.18262	3.20115	3.20444	3.12406	3.18319	1.076			
~~[illegible] (SURR)~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~			(Conc=50.0,50.0,50.0,50.0,50.0)
BUTANONE	72	.04995	.04035	.03750	.03895	.03268	.03989	15.859			
1,1-TRICHLOROETHANE	97	.64838	.63406	.61422	.64709	.64371	.63749	2.222			
RBON TETRACHLORIDE	117	.69068	.66160	.64699	.67838	.67099	.66973	2.474			
NYL ACETATE	43	.73237	.73455	.65905	.82546	.59143	.70857	12.440			
OMODICHLOROMETHANE	83	.65377	.65186	.63465	.68810	.65161	.65600	2.979			
2-DICHLOROPROPANE	63	.44836	.43485	.42752	.46544	.44045	.44332	3.277	*		
ANS-1,3-DICHLOROPROPENE	75	.77151	.78890	.76792	.84197	.79552	.79316	3.736			
ICHLOROETHENE	130	.44261	.41135	.40221	.41760	.41742	.41824	3.586			
BROMOCHLOROMETHANE	129	.48132	.49985	.48904	.52508	.48709	.49648	3.493			
,1,2-TRICHLOROETHANE	97	.32534	.32254	.30479	.32191	.29501	.31392	4.241			
NZENE	78	1.25996	1.20022	1.17115	1.20860	1.18181	1.20435	2.858			
IS-1,3-DICHLOROPROPENE	75	.42302	.42904	.41924	.45784	.42248	.43032	3.668			
-CHLOROETHYLVINYLETHER	63	.16774	.16872	.15971	.16061	.13746	.15885	7.950			
ROMOFORM	173	.34305	.37308	.37652	.43733	.39129	.38425	8.968		**	
-METHYL-2-PENTANONE	43	.39722	.44457	.43898	.49417	.44329	.44365	7.752			
-HEXANONE	43	.29447	.32074	.32552	.35942	.32311	.32465	7.121			
ETRACHLOROETHENE	164	.52835	.47793	.46854	.49696	.48933	.49222	4.656			
,1,2,2-TETRACHLOROETHANE	83	.49533	.54849	.53286	.58165	.52036	.53574	6.011		**	
~~[illegible] (SURR)~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~			(Conc=50.0,50.0,50.0,50.0,50.0)
OLUENE	92	1.05082	.96957	.93706	.97526	.95948	.97844	4.396	*		
HLOROBENZENE	112	1.24962	1.18677	1.15142	1.21144	1.17467	1.19479	3.141		**	
THYLBENZENE	91	2.19363	2.05718	1.98682	2.05409	2.05733	2.06981	3.646	*		

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

$\overline{F}$ - Average Response Factor

RSD - Percent Relative Standard Deviation

Initial Calibration Data
VOLATILE HSL Compounds

e No: U-4906; U-4928 U-4971; U-4989 Instrument ID: HP-5995C

tractor: E & E, INC. Calibration Date: 1/27/87

tract No: IL-3140

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

Laboratory ID:	>C6596 RF 20.00	>C6597 RF 50.00	>C6598 RF 100.00	>C6601 RF 150.00	>C6600 RF 200.00	$\overline{RF}$	% RSD	CCC	SPCC	
Compound										
BROMOFLUOROBENZENE(SURR)	95	.72568	.71423	.80065	.73269	.63746	.72214	8.051		(Conc=50.0,50.0,50.0,50.0,50.0)
YRENE	104	1.28684	1.24583	1.20802	1.24619	1.22491	1.24236	2.377		
TAL XYLENES	91	1.88691	1.75995	1.70230	1.72756	1.73928	1.76320	4.096		

F Response Factor (Subscript is amount in UG/L)

$\overline{F}$ - Average Response Factor

RSD - Percent Relative Standard Deviation

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

HSL Compounds

se No: V-4906; 4928; 4971; 4989. Instrument ID: HP-5970D

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

nt. No: IL-3140

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

Compound	Laboratory ID:	>D0036 RF 20.00	>D0037 RF 50.00	>D0038 RF 80.00	>D0039 RF 120.00	>D0040 RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
HENOL-D5 (SURR)	99	1.45905	1.41913	1.41915	1.33738	1.36821	1.40059	3.415		
ENTAFLUOROPHENOL	184	-	-	-	-	-	-	-		
-FLUOROPHENOL (SURR)	112	.92276	.93267	.97441	.89171	.88493	.92130	3.895		
HENOL	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		
ENZOIC ACID	105	-	.15595	.20240	.22265	.23506	.20401	17.036		
,4-DICHLOROPHENOL	162	.28939	.33168	.32894	.32204	.30635	.31568	5.601	*	
-CHLORO-3-METHYLPHENOL	107	.29459	.33844	.35108	.35646	.33826	.33577	7.252	*	
,4,6-TRICHLOROPHENOL	196	.42290	.47918	.46473	.45782	.45268	.45546	4.555	*	
,4,5-TRICHLOROPHENOL	196	-	.49037	.49512	.49589	.47584	.48930	1.901		
4,6-TRIBROMOPHENOL(SURR)	330	.29588	.32928	.34498	.31993	.33911	.32584	5.917		
2,4-DINITROPHENOL	184	-	.13902	.16374	.19064	.18943	.17071	14.351		**
-NITROPHENOL	139	-	.28898	.31865	.33700	.34792	.32314	7.977		**
,6-DINITRO-2-METHYLPHENOL	198	-	.10474	.11556	.12900	.13233	.12041	10.560		
ENTACHLOROPHENOL	266	-	.17917	.18989	.19137	.19048	.18773	3.054	*	

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

$\overline{\ }$ Average Response Factor

RSD - Percent Relative Standard Deviation

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

recycled paper Form 01 Page 1 of 1 ecology and environment

Initial Calibration Data
HSL Compounds

.e No: U-4906; 4928; 4971; 4989 Instrument ID: HP-5970D

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

Contract No: IL-3140

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

Laboratory ID:		>D0965	>D0966	>D0967	>D0968	>D0969				
		RF	RF	RF	RF	RF				
Compound		20.00	50.00	80.00	120.00	160.00	$\overline{RF}$	% RSD	CCC	SPCC
ANILINE	93	1.44667	1.40722	1.59651	1.68331	1.56844	1.54043	7.321		
BIS(-2-CHLOROETHYL)ETHER	93	1.24523	1.09828	1.23677	1.16323	1.17789	1.18428	5.058		
1,3-DICHLOROBENZENE	146	1.57666	1.39985	1.51213	1.50440	1.38815	1.47624	5.436		
1,4-DICHLOROBENZENE	146	1.61777	1.38930	1.48504	1.45121	1.40035	1.46374	6.256	*	
BENZYL ALCOHOL	79	1.01010	1.00872	1.21875	1.21807	1.21800	1.13473	10.082		
1,2-DICHLOROBENZENE	146	1.63938	1.36507	1.53750	1.47276	1.44493	1.49193	6.908		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68736	2.47650	2.77020	2.69646	2.77634	2.68137	4.535		
N-NITROSO-DI-N-PROPYLAMINE	70	1.12218	1.08234	1.21987	1.19548	1.28596	1.18117	6.816		**
HEXACHLOROETHANE	117	.74389	.66875	.73696	.70875	.68371	.70941	4.605		
NITROBENZENE-D5 (SURR)	82	.35564	.33927	.38027	.40789	.38878	.37437	7.253		
NITROBENZENE	77	.39592	.35266	.39754	.39299	.35937	.37969	5.744		
ISOPHORONE	82	.79161	.70915	.78705	.75762	.73425	.75594	4.631		
BIS(-2-CHLOROETHOXY)METHANE	93	.40059	.38692	.42170	.42353	.43054	.41266	4.415		
1,2,4-TRICHLOROBENZENE	180	.41095	.34484	.39226	.39897	.37508	.38442	6.671		
NAPHTHALENE	128	1.07749	.91373	.97630	.97339	.89249	.96668	7.446		
4-CHLOROANILINE	127	.33401	.32798	.42540	.44310	.35932	.37796	14.044		
HEXACHLOROBUTADIENE	225	.29443	.24392	.26045	.25805	.23955	.25908	8.420	*	
2-METHYLNAPHTHALENE	142	.67945	.60785	.66493	.68192	.59005	.64424	6.646		
HEXACHLOROCYCLOPENTADIENE	237	.56264	.50376	.58602	.60451	.58378	.56814	6.952		**
2-FLUOROBIPHENYL (SURR)	172	1.70967	1.49275	1.58507	1.65769	1.62088	1.61321	5.059		
2-CHLORONAPHTHALENE	162	1.47542	1.23459	1.36421	1.37148	1.41834	1.37281	6.493		
2-NITROANILINE	65	.43757	.43867	.51133	.51859	.47610	.47645	8.082		*
DIMETHYL PHTHALATE	163	1.83005	1.68051	1.71649	1.69378	1.67688	1.71954	3.704		
4-NITROANILINE	138	.23949	.23631	.27642	.27327	.26589	.25828	7.365		
DIBENZOFURAN	168	2.04488	1.83571	1.94866	1.91782	1.79656	1.90873	5.115		
ACENAPHTHYLENE	152	2.24178	1.99625	2.09922	2.09094	2.07505	2.10065	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	34.506		
ACENAPHTHENE	153	1.52777	1.33286	1.39452	1.37214	1.26556	1.37857	7.016	*	
2,4-DINITROTOLUENE	165	.35967	.32328	.34179	.32754	.30831	.33212	5.867		
2,6-DINITROTOLUENE	165	.38599	.35678	.37953	.36730	.36597	.37112	3.126		
DIETHYLPHTHALATE	149	1.88063	1.62618	1.53368	1.45917	1.43355	1.58664	11.393		
4-CHLOROPHENYL-PHENYLETHER	204	.78893	.66962	.70193	.69165	.66856	.70414	7.032		
N-NITROSODIPHENYLAMINE	169	.51567	.44734	.53097	.55655	.53802	.51771	8.111	*	
4-BROMOPHENYL-PHENYL ETHER	248	.31338	.30497	.33954	.35732	.35891	.33492	7.486		
HEXACHLOROBENZENE	284	.46739	.39403	.43794	.45763	.43251	.43791	6.471		

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

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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Initial Calibration Data
HSL Compounds

No: U-4906; 4928; 4971; 4989 Instrument ID: HP-5970D

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

Contract No: IL-3140

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

Laboratory ID:		>D0965	>D0966	>D0967	>D0968	>D0969				
		RF	RF	RF	RF	RF				
Compound		20.00	50.00	80.00	120.00	160.00	$\overline{RF}$	% RSD	CCC	SPCC
PHENANTHRENE	178	1.06803	.96082	1.02609	1.02304	.99723	1.01505	3.896		
ANTHRACENE	178	1.03628	.92880	1.01124	1.03132	.98608	.99874	4.387		
DI-N-BUTYLPHTHALATE	149	1.16959	.91435	.95835	.92928	.88461	.97124	11.741		
FLUORANTHENE	202	.74089	.58463	.63445	.60617	.54197	.62146	11.974	*	
BENZIDINE		-	.65247	-	-	-	.65247	-		
PYRENE	202	2.67187	2.35714	2.57294	2.60959	2.82056	2.68642	3.814		
TERPHENYL-D14 (SURR)	244	1.42937	1.47810	1.43324	1.50928	1.55799	1.48172	3.638		
BUTYLBENZYLPHTHALATE	149	.62184	.62940	.71297	.68630	.76414	.68277	8.728		
3,3'DICHLOROBENZIDINE	252	.08557	.07185	.16233	.19359	.14980	.13263	39.182		
BENZO(A)ANTHRACENE	228	.79361	.77498	.97287	1.00315	1.03158	.91524	13.276		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.78298	.70108	.85062	.83155	.91270	.81579	9.708		
CHRYSENE	228	1.34326	1.12613	1.17809	1.12675	1.18262	1.19137	7.479		
DI-N-OCTYL PHTHALATE	149	1.37470	1.35508	1.83002	1.65900	1.98983	1.64173	16.968	*	
BENZO(B)FLUORANTHENE	252	.92969	.97296	1.14091	1.25304	1.37734	1.13479	16.551		
BENZO(K)FLUORANTHENE	252	1.68215	1.48612	1.68304	1.46335	1.43849	1.55063	7.844		
BENZO(A)PYRENE	252	1.05697	.98495	1.15488	1.16496	1.18217	1.10877	7.641	*	
INDENO(1,2,3-CD)PYRENE	276	.67778	.93612	1.09730	1.40393	.87647	.99032	28.681		
DIBENZ(A,H)ANTHRACENE	278	.73019	.64673	.79793	.98482	.89827	.81159	16.475		
BENZO(G,H,I)PERYLENE	276	1.11119	1.00417	1.06321	1.25211	1.11363	1.10886	8.264		

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

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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CONTINUING CALIBRATION DATA

Continuing Calibration Check
HSL Compounds

Case No: V-4906; V-4928 V-4971; V-4989

Calibration Date: 02/20/87

Co. actor: E & EM INC.

Time: 11:04

Contract No: IL-3140

Laboratory ID: >C6893

Instrument ID: HP-5995C

Initial Calibration Date: 07/14/86

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

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.30296	1.80863	21.47		**
BROMOMETHANE	94	1.43187	1.93909	35.42		
VINYL CHLORIDE	62	1.60438	1.83648	14.47	*	
CHLOROETHANE	64	.69191	1.14637	65.68		
METHYLENE CHLORIDE	84	1.38013	1.73721	25.87		
ACETONE	43	1.61869	3.09368	91.12		
TRICHLOROFLUOROMETHANE	101	3.13900	2.41083	23.20		
CARBON DISULFIDE	76	3.82990	2.62471	31.47		
1,1-DICHLOROETHENE	61	3.02810	2.85559	5.70	*	
1,1-DICHLOROETHANE	63	3.36439	4.25873	26.58		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.76606	13.37		
CHLOROFORM	83	3.56796	2.95065	17.30	*	
1,2-DICHLOROETHANE	62	3.55680	4.17976	17.51		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	3.43472	14.54		
2-BUTANONE	72	.06798	.12800	88.30		
1,1,1-TRICHLOROETHANE	97	.59787	.60722	1.56		
CARBON TETRACHLORIDE	117	.59043	.61253	3.74		
VINYL ACETATE	43	1.19023	1.23834	4.04		
BROMODICHLOROMETHANE	83	.65552	.68989	5.24		
1,2-DICHLOROPROPANE	63	.46960	.50689	7.94	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.83119	18.15		
TRICHLOROETHENE	130	.40336	.50887	26.16		
DIBROMOCHLOROMETHANE	129	.55837	.56802	1.73		
1,1,2-TRICHLOROETHANE	97	.36284	.46592	28.41		
BENZENE	78	1.16600	1.36693	17.23		
CIS-1,3-DICHLOROPROPENE	75	.52628	.49714	5.54		
2-CHLOROETHYLVINYLETHER	63	.33081	.32125	2.89		
BROMOFORM	173	.62246	.50728	18.50		**
4-METHYL-2-PENTANONE	43	1.12348	1.22611	9.14		
2-HEXANONE	43	.92838	.98119	5.69		
TETRACHLOROETHENE	164	.47024	.53360	13.47		
1,1,2,2-TETRACHLOROETHANE	83	.80085	.80388	.38		**
TOLUENE-D8 (SURR)	98	1.36277	1.43151	5.04		
TOLUENE	92	.89572	1.07616	20.14	*	
CHLOROBENZENE	112	1.10402	1.31368	18.99		**
ETHYLBENZENE	91	1.85535	2.23227	20.32	*	

RF - Response Factor from daily standard file at 250.00 NGS

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

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

Case No: U-4906; U-4928 U-4971; U-4989

Calibration Date: 02/20/87

Contractor: E & EM INC.

Time: 11:04

Contract No: FL-3140

Laboratory ID: >C6893

Instrument ID: HP-5995C

Initial Calibration Date: 07/14/86

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

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.71103	.81505	14.63		
STYRENE	104	.98260	1.32557	34.90		
TOTAL XYLENES	91	1.41320	1.84837	30.79		

Continuing Calibration Check
HSL Compounds

Case No: V-4906, V-4928 V-4971, V-4989

Calibration Date: 02/23/87

Contractor: E & E, INC.

Time: 12:40

Contract No: IL-3140

Laboratory ID: >C6910

Instrument ID: HP-5995C

Initial Calibration Date: ~~01/28/87~~ 1/27/87

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

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.43043	1.36878	43.68		**
BROMOMETHANE	94	1.10748	1.26845	14.53		
VINYL CHLORIDE	62	1.37999	1.09548	20.62	*	
CHLOROETHANE	64	.91582	.86217	5.86		
METHYLENE CHLORIDE	84	1.88105	2.00734	6.71		
ACETONE	43	.56188	.92398	64.44		
TRICHLOROFLUOROMETHANE	101	3.74934	2.56152	31.68		
CARBON DISULFIDE	76	5.33308	3.00678	43.62		
1,1-DICHLOROETHENE	61	3.40709	2.59144	23.94	*	
1,1-DICHLOROETHANE	63	3.74282	3.70795	.93		**
TRANS-1,2-DICHLOROETHENE	96	1.69959	1.62655	4.30		
CHLOROFORM	83	2.53321	2.78166	9.81	*	
1,2-DICHLOROETHANE	62	3.18319	3.57950	12.45		
1,2-DICHLOROETHANE-D4(SURR)	65	2.69697	2.82910	4.90		
2-BUTANONE	72	.03989	.04150	4.05		
1,1,1-TRICHLOROETHANE	97	.63749	.62800	1.49		
CARBON TETRACHLORIDE	117	.66973	.70690	5.55		
VINYL ACETATE	43	.70857	.63033	11.04		
BROMODICHLOROMETHANE	83	.65600	.75647	15.32		
1,2-DICHLOROPROPANE	63	.44332	.47014	6.05	*	
TRANS-1,3-DICHLOROPROPENE	75	.79316	.89276	12.56		
TRICHLOROETHENE	130	.41824	.44984	7.56		
DIBROMOCHLOROMETHANE	129	.49648	.55316	11.42		
1,1,2-TRICHLOROETHANE	97	.31392	.37328	18.91		
BENZENE	78	1.20435	1.27659	6.00		
CIS-1,3-DICHLOROPROPENE	75	.43032	.50192	16.64		
2-CHLOROETHYLVINYLETHER	63	.15885	.18865	18.76		
BROMOFORM	173	.38425	.40978	6.38		**
4-METHYL-2-PENTANONE	43	.44365	.43116	2.82		
2-HEXANONE	43	.32465	.32147	.98		
TETRACHLOROETHENE	164	.49222	.48705	1.05		
1,1,2,2-TETRACHLOROETHANE	83	.53574	.56504	5.47		**
TOLUENE-D8 (SURR)	98	1.41330	1.38864	1.74		
TOLUENE	92	.97844	1.02147	4.40	*	
CHLOROBENZENE	112	1.19479	1.26079	5.52		**
ETHYLBENZENE	91	2.06981	2.21296	6.92	*	

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

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

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

ase No: V-4906; V-4928 V-4971; V-4989

Calibration Date: 02/23/87

ontractor: E & E, INC.

Time: 12:40

ontract No: IL-3140

Laboratory ID: 2C6910

nstrument ID: HP-5995C

Initial Calibration Date: ~~01/28/87~~ 1/27/87

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

Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
-BROMOFLUOROBENZENE(SURR) 95	.72214	.73687	2.04		
TYRENE 104	1.24236	1.35623	9.17		
OTAL XYLENES 91	1.76320	1.89487	7.47		

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

ase No: U-4906; U-4928 U-4971; U-4989 Calibration Date: 03/04/87

ontractor: E & EM INC. Time: 09:42

ontract No: IL-3140 Laboratory ID: >C7038

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	1.06652	53.69		**
ROMOMETHANE	94	1.43187	.73716	48.52		
INYL CHLORIDE	62	1.60438	1.12382	29.95	*	
CHLOROETHANE	64	.69191	.84946	22.77		
METHYLENE CHLORIDE	84	1.38013	1.77840	28.86		
ACETONE	43	1.61869	1.22653	24.23		
TRICHLOROFLUOROMETHANE	101	3.13900	3.66594	16.79		
CARBON DISULFIDE	76	3.82990	5.26752	37.54		
,1-DICHLOROETHENE	61	3.02810	3.07012	1.39	*	
,1-DICHLOROETHANE	63	3.36439	3.22058	4.27		**
TRANS-1,2-DICHLOROETHENE	96	1.55721	1.79942	15.51		
HLOROFORM	83	3.56796	3.50665	1.72	*	
,2-DICHLOROETHANE	62	3.55680	2.87829	19.06		
,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.39776	20.04		
-BUTANONE	72	.06798	.07021	3.28		
,1,1-TRICHLOROETHANE	97	.59767	.61162	2.30		
ARBON TETRACHLORIDE	117	.59043	.67081	13.61		
INYL ACETATE	43	1.19023	.72658	38.95		
BROMODICHLOROMETHANE	83	.65552	.63945	2.45		
,2-DICHLOROPROPANE	63	.46960	.41212	12.24	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.78026	10.91		
TRICHLOROETHENE	130	.40336	.42680	5.81		
DIBROMOCHLOROMETHANE	129	.55837	.54018	3.26		
1,1,2-TRICHLOROETHANE	97	.36234	.34701	4.36		
BENZENE	78	1.16600	1.21633	4.32		
CIS-1,3-DICHLOROPROPENE	75	.52628	.43300	17.73		
2-CHLOROETHYLVINYLETHER	63	.33081	.20804	37.11		
BROMOFORM	173	.62246	.46463	25.35		**
4-METHYL-2-PENTANONE	43	1.12348	.57096	49.18		
2-HEXANONE	43	.92838	.51827	44.17		
TETRACHLOROETHENE	164	.47024	.47865	1.79		
1,1,2,2-TETRACHLOROETHANE	83	.80095	.63189	21.10		**
TOLUENE-D8 (SURR)	98	1.36277	1.36466	.14		
TOLUENE	92	.89572	1.00248	11.92	*	
CHLOROBENZENE	112	1.10402	1.15054	4.21		**
ETHYLBENZENE	91	1.85535	1.94857	5.02	*	

RF - Response Factor from daily standard file at 250.00 NGS

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

%Diff - % Difference from original average or curve

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

Continuing Calibration Check
HSL Compounds

ase No: V-4906, V-4928 V-4971, V-4989

Calibration Date: 03/04/87

or tor: E & EM INC.

Time: 09:42

ontract No: IL-3140

Laboratory ID: >C7038

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
4-BROMOFLUOROBENZENE(SURR)	95	.71103	.74076	4.18		
STYRENE	104	.98260	1.18691	20.79		
TOTAL XYLENES	91	1.41320	1.60160	13.33		

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 (**)

HSL Compounds

Case No: U-4906, U-4928, U-4971, U-4989

Calibration Date: 03/09/87

Contractor: E & E, INC.

Time: 11:26

Contract No: IL-3140

Laboratory ID: >C7137

Instrument ID: HP-5995C

Initial Calibration Date: ~~01/28/87~~ 1/27/87

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

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.43043	1.66818	31.36		**
BROMOMETHANE	94	1.10748	1.62667	46.88		
VINYL CHLORIDE	62	1.37999	1.58988	15.21	*	
CHLOROETHANE	64	.91582	.93653	2.26		
METHYLENE CHLORIDE	84	1.88105	1.96792	4.62		
ACETONE	43	.56188	.99489	77.06		
TRICHLOROFLUOROMETHANE	101	3.74934	4.43021	18.16		
CARBON DISULFIDE	76	5.33308	6.03883	13.23		
1,1-DICHLOROETHENE	61	3.40709	3.49492	2.58	*	
1,1-DICHLOROETHANE	63	3.74282	3.67349	1.85		**
TRANS-1,2-DICHLOROETHENE	96	1.69959	1.98139	16.58		
CHLOROFORM	83	2.53321	2.66134	5.06	*	
1,2-DICHLOROETHANE	62	3.18319	3.17693	.20		
1,2-DICHLOROETHANE-D4(SURR)	65	2.69697	2.60976	3.23		
2-BUTANONE	72	.03989	.04598	15.28		
1,1,1-TRICHLOROETHANE	97	.63749	.74662	17.12		
CARBON TETRACHLORIDE	117	.66973	.78265	16.86		
VINYL ACETATE	43	.70857	.57191	19.29		
BROMODICHLOROMETHANE	83	.65600	.70070	6.81		
1,2-DICHLOROPROPANE	63	.44332	.43278	2.38	*	
TRANS-1,3-DICHLOROPROPENE	75	.79316	.85544	7.85		
TRICHLOROETHENE	130	.41824	.47459	13.47		
DIBROMOCHLOROMETHANE	129	.49648	.53452	7.66		
1,1,2-TRICHLOROETHANE	97	.31392	.34554	10.07		
BENZENE	78	1.20435	1.32216	9.78		
CIS-1,3-DICHLOROPROPENE	75	.43032	.46228	7.43		
2-CHLOROETHYLVINYLETHER	63	.15885	.18709	17.78		
BROMOFORM	173	.38425	.39103	1.76		**
4-METHYL-2-PENTANONE	43	.44365	.34887	21.36		
2-HEXANONE	43	.32465	.31027	4.43		
TETRACHLOROETHENE	164	.49222	.52056	5.76		
1,1,2,2-TETRACHLOROETHANE	83	.53574	.49227	8.11		**
TOLUENE-D8 (SURR)	98	1.41330	1.52238	7.72		
TOLUENE	92	.97844	1.06102	8.44	*	
CHLOROBENZENE	112	1.19479	1.24503	4.21		**
ETHYLBENZENE	91	2.06981	2.22346	7.42	*	

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

$\overline{}$ - 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

V-4906; V-4928

Case No: V-4971; V-4989 Calibration Date: 03/09/87

Contractor: E & E, INC. Time: 11:26

Contract No: IL-3140 Laboratory ID: >C7137

Instrument ID: HP-5995C Initial Calibration Date: ~~01/28/87~~ BJK 1/27/87

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.72214	.77488	7.30		
STYRENE	104	1.24236	1.39227	12.07		
TOTAL XYLENES	91	1.76320	1.89607	7.54		

- 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-4906, 4928, 4971, 4989

Calibration Date: 03/04/87

Contractor: E & E, INC.

Time: 12:27

Contract No: IL-3140

Laboratory ID: >D1880

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

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

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.54043	.13889	90.98		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.17304	.95		
1,3-DICHLOROBENZENE	146	1.47624	1.44687	1.99		
1,4-DICHLOROBENZENE	146	1.46874	1.48636	1.20	*	
BENZYL ALCOHOL	79	1.13473	.96852	14.65		
1,2-DICHLOROBENZENE	146	1.49193	1.44904	2.87		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	3.34288	24.67		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.22732	3.91		**
HEXACHLOROETHANE	117	.70841	.69192	2.33		
NITROBENZENE-D5 (SURR)	82	.37437	.39725	6.11		
NITROBENZENE	77	.37969	.42161	11.04		
ISOPHORONE	82	.75594	.79418	5.06		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.43937	6.47		
1,2,4-TRICHLOROBENZENE	180	.38442	.35108	8.67		
NAPHTHALENE	128	.96668	1.00317	3.78		
4-CHLOROANILINE	127	.37796	.25629	32.19		
HEXACHLOROBUTADIENE	225	.25908	.24284	6.27	*	
2-METHYLNAPHTHALENE	142	.64484	.57785	10.39		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.49669	12.58		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.51663	5.99		
2-CHLORONAPHTHALENE	162	1.37281	1.28543	6.37		
2-NITROANILINE	65	.47645	.34834	26.89		
DIMETHYL PHTHALATE	163	1.71954	1.03955	39.55		
4-NITROANILINE	138	.25828	.12894	50.08		
DIBENZOFURAN	168	1.90873	1.36795	28.33		
ACENAPHTHYLENE	152	2.10065	1.78977	14.80		
FLUORENE	166	1.34670	.91843	31.80		
3-NITROANILINE	138	.09246	.03527	61.85		
ACENAPHTHENE	153	1.37857	1.15093	16.51	*	
2,4-DINITROTOLUENE	165	.33212	.16072	51.61		
2,6-DINITROTOLUENE	165	.37112	.21932	40.90		
DIETHYLPHTHALATE	149	1.58664	.82515	47.99		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.43473	38.26		
N-NITROSODIPHENYLAMINE	169	.51771	.50778	1.92	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.31400	6.22		
HEXACHLOROBENZENE	284	.43791	.37770	13.75		

- 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-4906, 4928, 4971, 4989

Calibration Date: 03/04/87

tractor: E & E, INC.

Time: 12:27

Contract No: IL-3140

Laboratory ID: >D1880

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

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

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	1.01505	1.00378	1.11		
ANTHRACENE	178	.99874	.96419	3.46		
DI-N-BUTYLPHTHALATE	149	.97124	.88620	8.76		
FLUORANTHENE	202	.62146	.74958	20.62	*	
BENZIDINE		.65247	.21826	66.55		
PYRENE	202	2.68642	1.39955	47.90		
TERPHENYL-D14 (SURR)	244	1.48172	.79741	46.18		
BUTYLBENZYLPHTHALATE	149	.68277	.47132	30.97		
3,3'DICHLOROBENZIDINE	252	.13263	.23417	76.56		
BENZO(A)ANTHRACENE	228	.91524	.94337	3.07		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.66916	17.97		
CHRYSENE	228	1.19137	1.06133	10.92		
DI-N-OCTYL PHTHALATE	149	1.64173	1.22563	25.35	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.28150	12.93		
BENZO(K)FLUORANTHENE	252	1.55063	1.16902	24.61		
BENZO(A)PYRENE	252	1.10877	1.08726	1.94	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.08629	9.69		
DIBENZ(A,H)ANTHRACENE	278	.81159	1.06637	31.39		
BENZO(G,H,I)PERYLENE	276	1.10886	1.23250	11.15		

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: U-4906; 4928; 4971; 4989

Calibration Date: 03/04/87

Contractor: E & E, INC.

Time: 13:26

Contract No: IL-3140

Laboratory ID: >D1881

Instrument ID: HP-5970D

Initial Calibration Date: ~~06/20/86~~ 6/19/86

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

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5 (SURR)	99	1.40059	1.40569	.36		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.92130	.95140	3.27		
PHENOL	94	1.34105	1.53177	14.22	*	
2-METHYL PHENOL	108	1.03158	1.12703	9.25		
2-CHLOROPHENOL	128	1.13833	1.15859	1.78		
4-METHYL PHENOL	108	1.07582	1.10895	3.08		
2-NITROPHENOL	139	.20262	.18667	7.87	*	
2,4-DIMETHYLPHENOL	122	.28916	.25540	11.67		
BENZOIC ACID	105	.20401	.13089	35.84		
2,4-DICHLOROPHENOL	162	.31568	.26479	16.12	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.25939	22.75	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.40082	12.00	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.38115	22.10		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32584	.17456	46.43		
2,4-DINITROPHENOL	184	.17071	.06858	59.83		**
4-NITROPHENOL	139	.32314	.06039	81.31		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.11043	8.29		
PENTACHLOROPHENOL	266	.18773	~~.13716~~ .14762	~~26.93~~ 21.36	*	

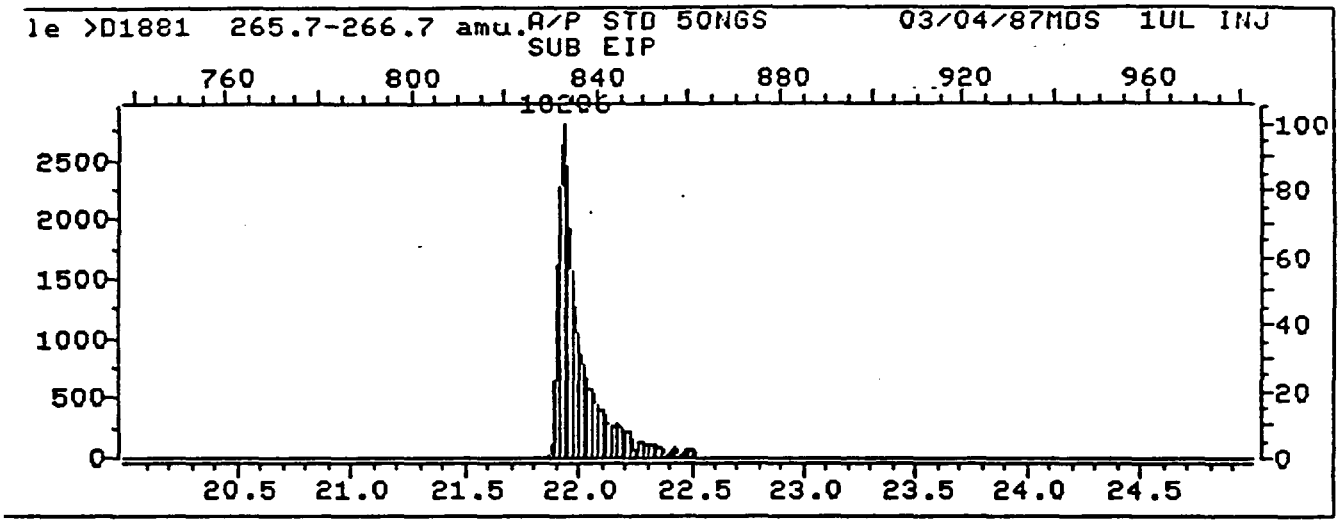
see manual integ.

This RF was used to Quant

- 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



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

Sum of corrected areas: 18206.

TR

Manual Integration of Pentachlorophenol GM

Continuing Calibration Check
HSL Compounds

Case No: U-4906; 4928; 4971; 4989

Calibration Date: 03/05/87

tractor: E & E, INC.

Time: 15:56

Contract No: IL-3140

Laboratory ID: >D1897

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

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

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.54043	1.37050	11.03		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.14803	3.06		
1,3-DICHLOROBENZENE	146	1.47624	1.44052	2.42		
1,4-DICHLOROBENZENE	146	1.46874	1.47877	.68	*	
BENZYL ALCOHOL	79	1.13473	1.04867	7.58		
1,2-DICHLOROBENZENE	146	1.49193	1.46202	2.00		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	3.38522	26.25		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.22084	3.36		**
HEXACHLOROETHANE	117	.70841	.69553	1.82		
NITROBENZENE-D5 (SURR)	82	.37437	.42609	13.82		
NITROBENZENE	77	.37969	.44739	17.83		
ISOPHORONE	82	.75594	.80365	6.31		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.45715	10.78		
1,2,4-TRICHLOROBENZENE	180	.38442	.35072	8.77		
NAPHTHALENE	128	.96668	.99838	3.28		
4-CHLOROANILINE	127	.37796	.29431	22.13		
HEXACHLOROBUTADIENE	225	.25908	.23308	10.03	*	
2-METHYLNAPHTHALENE	142	.64484	.56216	12.82		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.46548	18.07		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.61533	.13		
2-CHLORONAPHTHALENE	162	1.37281	1.30106	5.23		
2-NITROANILINE	65	.47645	.37781	20.70		
DIMETHYL PHTHALATE	163	1.71954	1.17031	31.94		
4-NITROANILINE	138	.25828	.13665	47.09		
DIBENZOFURAN	168	1.90873	1.38060	27.67		
ACENAPHTHYLENE	152	2.10065	1.81211	13.74		
FLUORENE	166	1.34670	.92261	31.49		
3-NITROANILINE	138	.09246	.01738	81.20		
ACENAPHTHENE	153	1.37857	1.14663	16.82	*	
2,4-DINITROTOLUENE	165	.33212	.17280	47.97		
2,6-DINITROTOLUENE	165	.37112	.23510	36.65		
DIETHYLPHTHALATE	149	1.58664	.87280	44.99		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.42817	39.19		
N-NITROSODIPHENYLAMINE	169	.51771	.57163	10.41	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.30591	8.64		
HEXACHLOROBENZENE	284	.43791	.34406	21.43		

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: U-4906; 4928; 4971; 4989

Calibration Date: 03/05/87

C .tractor: E & E, INC.

Time: 15:56

Contract No: IL-3140

Laboratory ID: >D1897

Instrument ID: HP-5970D

Initial Calibration Date: 10/17/86

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

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	1.01505	.95084	6.33		
ANTHRACENE	178	.99874	.94201	5.68		
DI-N-BUTYLPHTHALATE	149	.97124	.94088	3.13		
FLUORANTHENE	202	.62146	.69431	11.72	*	
BENZIDINE		.65247	.23942	63.31		
PYRENE	202	2.68642	1.32992	50.49		
TERPHENYL-D14 (SURR)	244	1.48172	.78510	47.01		
BUTYLBENZYLPHTHALATE	149	.68277	.52169	23.59		
3,3'DICHLOROBENZIDINE	252	.13263	.25588	92.93		
BENZO(A)ANTHRACENE	228	.91524	.98745	7.89		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.74287	8.94		
CHRYSENE	228	1.19137	1.03189	13.39		
DI-N-OCTYL PHTHALATE	149	1.64173	1.40043	14.70	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.16636	2.78		
BENZO(K)FLUORANTHENE	252	1.55063	1.30185	16.04		
BENZO(A)PYRENE	252	1.10877	1.13135	2.04	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.05633	6.67		
DIBENZ(A,H)ANTHRACENE	278	.81159	1.02577	26.39		
BENZO(G,H,I)PERYLENE	276	1.10886	1.17447	5.92		

- 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-4906; 4928; 4971; 4989

Calibration Date: 03/05/87

.ıtractor: E & E, INC.

Time: 11:47

Contract No: IL-3140

Laboratory ID: >D1893

Instrument ID: HP-5970D

Initial Calibration Date: ~~06/20/86~~ 6/19/86

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

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5	(SURR) 99	1.40059	1.52194	8.66		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL	(SURR) 112	.92130	.68556	25.59		
PHENOL	94	1.34105	1.61233	20.23	*	
2-METHYL PHENOL	108	1.03158	1.07849	4.55		
2-CHLOROPHENOL	128	1.13833	1.12917	.80		
4-METHYL PHENOL	108	1.07582	1.11766	3.89		
2-NITROPHENOL	139	.20262	.20014	1.22	*	
2,4-DIMETHYLPHENOL	122	.28916	.25711	11.08		
BENZOIC ACID	105	.20401	.16339	19.91		
2,4-DICHLOROPHENOL	162	.31568	.26707	15.40	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.26260	21.79	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.41237	9.46	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.36471	25.46		
2,4,6-TRIBROMOPHENOL	(SURR) 330	.32584	.18635	42.81		
2,4-DINITROPHENOL	184	.17071	.08233	51.77		**
4-NITROPHENOL	139	.32314	.09192	71.56		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.12369	2.72		
PENTACHLOROPHENOL	266	.18773	.15717	16.28	*	

- 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-4906;4928;4971;4989

Calibration Date: 03/17/87

Contractor: E & E, INC.

Time: 13:41

Contract No: IL-3140

Laboratory ID: >D2017

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	.80678	47.63		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.28491	8.50		
1,3-DICHLOROBENZENE	146	1.47624	1.39381	5.58		
1,4-DICHLOROBENZENE	146	1.46874	1.45048	1.24	*	
BENZYL ALCOHOL	79	1.13473	1.01643	10.43		
1,2-DICHLOROBENZENE	146	1.49193	1.44503	3.14		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	3.46212	29.12		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.31859	11.63		**
HEXACHLOROETHANE	117	.70841	.72417	2.22		
NITROBENZENE-D5 (SURR)	82	.37437	.39440	5.35		
NITROBENZENE	77	.37969	.40856	7.60		
ISOPHORONE	82	.75594	.79220	4.80		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.46056	11.61		
1,2,4-TRICHLOROBENZENE	180	.38442	.36049	6.23		
NAPHTHALENE	128	.96668	.99040	2.45		
4-CHLOROANILINE	127	.37796	.26011	31.18		
HEXACHLOROBUTADIENE	225	.25908	.23685	8.58	*	
2-METHYLNAPHTHALENE	142	.64484	.66800	3.59		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.28895	49.14		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.19801	25.74		
2-CHLORONAPHTHALENE	162	1.37281	1.04770	23.68		
2-NITROANILINE	65	.47645	.46503	2.40		
DIMETHYL PHTHALATE	163	1.71954	1.31151	23.73		
4-NITROANILINE	138	.25828	.24159	6.46		
DIBENZOFURAN	168	1.90873	1.58777	16.82		
ACENAPHTHYLENE	152	2.10065	1.69024	19.54		
FLUORENE	166	1.34670	1.21050	10.11		
3-NITROANILINE	138	.09246	.13452	45.50		
ACENAPHTHENE	153	1.37857	1.10134	20.11	*	
2,4-DINITROTOLUENE	165	.33212	.32473	2.23		
2,6-DINITROTOLUENE	165	.37112	.31671	14.66		
DIETHYLPHTHALATE	149	1.58664	1.35557	14.56		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.58408	17.05		
N-NITROSODIPHENYLAMINE	169	.51771	.45273	12.55	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.27299	18.47		
HEXACHLOROBENZENE	284	.43791	.31869	27.23		

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: U-4906, 4928, 4971, 4989

Calibration Date: 03/17/87

Contractor: E & E, INC.

Time: 13:41

Contract No: IL-3140

Laboratory ID: >D2017

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	.98556	2.91		
ANTHRACENE	178	.99874	.90470	9.42		
DI-N-BUTYLPHTHALATE	149	.97124	1.04233	7.32		
FLUORANTHENE	202	.62146	.72281	16.31	*	
BENZIDINE		.65247	.42369	35.06		
PYRENE	202	2.68642	2.34226	12.81		
TERPHENYL-D14 (SURR)	244	1.48172	1.23090	16.93		
BUTYLBENZYLPHTHALATE	149	.68277	.68596	.47		
3,3'DICHLOROBENZIDINE	252	.13263	.01886	85.78		
BENZO(A)ANTHRACENE	228	.91524	1.07047	16.96		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	1.13532	39.17		
CHRYSENE	228	1.19137	1.01690	14.64		
DI-N-OCTYL PHTHALATE	149	1.64173	1.86802	13.78	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.26188	11.20		
BENZO(K)FLUORANTHENE	252	1.55063	1.27335	17.88		
BENZO(A)PYRENE	252	1.10877	1.12351	1.33	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.06362	7.40		
DIBENZ(A,H)ANTHRACENE	278	.81159	.99858	23.04		
BENZO(G,H,I)PERYLENE	276	1.10886	1.12460	1.42		

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-4906;4928;4971;4989

Contractor: E & E, INC.

Contract No: IL-3140

Instrument ID: HP-5970D

Calibration Date: 03/17/87

Time: 14:45

Laboratory ID: >D2018

Initial Calibration Date: ~~06/20/86~~ BM 6/19/86

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	1.50519	7.47		
PENTAFLUOROPHENOL		184	-	-	-		
2-FLUOROPHENOL	(SURR)	112	.92130	.95578	3.74		
PHENOL		94	1.34105	1.64761	22.86	*	
2-METHYL PHENOL		108	1.03158	1.23520	19.74		
2-CHLOROPHENOL		128	1.13833	1.21845	7.04		
4-METHYL PHENOL		108	1.07582	1.31002	21.77		
2-NITROPHENOL		139	.20262	.20480	1.08	*	
2,4-DIMETHYLPHENOL		122	.28916	.27403	5.23		
BENZOIC ACID		105	.20401	.22454	10.06		
2,4-DICHLOROPHENOL		162	.31568	.30521	3.32	*	
4-CHLORO-3-METHYLPHENOL		107	.33577	.33931	1.06	*	
2,4,6-TRICHLOROPHENOL		196	.45546	.39807	12.60	*	
2,4,5-TRICHLOROPHENOL		196	.48930	.39815	18.63		
2,4,6-TRIBROMOPHENOL	(SURR)	330	.32584	.23854	26.79		
2,4-DINITROPHENOL		184	.17071	.17875	4.71		**
4-NITROPHENOL		139	.32314	.18872	41.60		**
4,6-DINITRO-2-METHYLPHENOL		198	.12041	.14988	24.48		
PENTACHLOROPHENOL		266	.18773	.18346	2.27	*	

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

  Average Response Factor from Initial Calibration Form VI

- % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: U-4906; 4928; 4971; 4989

Calibration Date: 03/18/87

Contractor: E & E, INC.

Time: 13:04

Contract No: IL-3140

Laboratory ID: >D2040

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	.86072	44.12		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	1.20606	1.84		
1,3-DICHLOROBENZENE	146	1.47624	1.36618	7.45		
1,4-DICHLOROBENZENE	146	1.46874	1.46988	.08	*	
BENZYL ALCOHOL	79	1.13473	1.02034	10.08		
1,2-DICHLOROBENZENE	146	1.49193	1.41761	4.98		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	3.60582	34.48		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	1.36440	15.51		**
HEXACHLOROETHANE	117	.70841	.69964	1.24		
NITROBENZENE-D5 (SURR)	82	.37437	.38976	4.11		
NITROBENZENE	77	.37969	.41242	8.62		
ISOPHORONE	82	.75594	.81813	8.23		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.46639	13.02		
1,2,4-TRICHLOROBENZENE	180	.38442	.35270	8.25		
NAPHTHALENE	128	.96668	.98606	2.01		
4-CHLOROANILINE	127	.37796	.25036	33.76		
HEXACHLOROBUTADIENE	225	.25908	.22398	13.55	*	
2-METHYLNAPHTHALENE	142	.64484	.65289	1.25		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.28460	49.91		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.21854	24.46		
2-CHLORONAPHTHALENE	162	1.37281	1.07649	21.58		
2-NITROANILINE	65	.47645	.45644	4.20		
DIMETHYL PHTHALATE	163	1.71954	1.30121	24.33		
4-NITROANILINE	138	.25828	.23169	10.30		
DIBENZOFURAN	168	1.90873	1.52754	19.97		
ACENAPHTHYLENE	152	2.10065	1.73065	17.61		
FLUORENE	166	1.34670	1.12181	16.70		
3-NITROANILINE	138	.09246	.13118	41.88		
ACENAPHTHENE	153	1.37857	1.11415	19.18	*	
2,4-DINITROTOLUENE	165	.33212	.30830	7.17		
2,6-DINITROTOLUENE	165	.37112	.30915	16.70		
DIETHYLPHTHALATE	149	1.58664	1.27355	19.73		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.54694	22.33		
N-NITROSODIPHENYLAMINE	169	.51771	.47535	8.18	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.26245	21.61		
HEXACHLOROBENZENE	284	.43791	.30747	29.79		

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-4906; 4928; 4971; 4989

Calibration Date: 03/18/87

Contractor: E & E, INC.

Time: 13:04

Contract No: II-3140

Laboratory ID: >D2040

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	.98761	2.70		
ANTHRACENE	178	.99874	.92228	7.66		
DI-N-BUTYLPHTHALATE	149	.97124	1.08410	11.62		
FLUORANTHENE	202	.62146	.73387	18.09	*	
BENZIDINE		.65247	-	-		
PYRENE	202	2.68642	2.04417	23.91		
TERPHENYL-D14 (SURR)	244	1.48172	1.06672	28.01		
BUTYLBENZYLPHTHALATE	149	.68277	.68023	.37		
3,3'DICHLOROBENZIDINE	252	.13263	.12540	5.45		
BENZO(A)ANTHRACENE	228	.91524	1.06881	16.78		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.86828	6.43		
CHRYSENE	228	1.19137	1.01461	14.84		
DI-N-OCTYL PHTHALATE	149	1.64173	1.93782	18.04	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.54878	36.48		
BENZO(K)FLUORANTHENE	252	1.55063	1.09609	29.31		
BENZO(A)PYRENE	252	1.10877	1.12128	1.13	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	.99013	.02		
DIBENZ(A,H)ANTHRACENE	278	.81159	.92550	14.04		
BENZO(G,H,I)PERYLENE	276	1.10886	1.01244	8.70		

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

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

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: U-4906; 4928; 4971; 4989

Calibration Date: 03/18/87

Contractor: E & E, INC.

Time: 12:02

Contract No: IL-3140

Laboratory ID: >D2039

Instrument ID: HP-5970D

Initial Calibration Date: ~~06/20/86~~ BJK 6/19/86

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	1.44167	2.93		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.92130	.92631	.54		
PHENOL	94	1.34105	1.60945	20.01	*	
2-METHYL PHENOL	108	1.03158	1.20517	16.83		
2-CHLOROPHENOL	128	1.13833	1.18720	4.29		
4-METHYL PHENOL	108	1.07582	1.20517	12.02		
2-NITROPHENOL	139	.20262	.20797	2.64	*	
2,4-DIMETHYLPHENOL	122	.28916	.27866	3.63		
BENZOIC ACID	105	.20401	.21524	5.51		
2,4-DICHLOROPHENOL	162	.31568	.30150	4.49	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.33327	.74	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.39089	14.18	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.41145	15.91		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32584	.18104	44.44		
2,4-DINITROPHENOL	184	.17071	.15038	11.91		**
4-NITROPHENOL	139	.32314	.14503	55.12		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.14598	21.24		
PENTACHLOROPHENOL	266	.18773	.14946	20.38	*	

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

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

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: V-4906; 4928; 4971; 4989

Calibration Date: 03/26/87

Contractor: E & E, INC.

Time: 11:51

Contract No: IL-3140

Laboratory ID: >D2108

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	.94774	38.48		
BIS(-2-CHLOROETHYL)ETHER	93	1.18428	.85837	27.52		
1,3-DICHLOROBENZENE	146	1.47624	1.42204	3.67		
1,4-DICHLOROBENZENE	146	1.46874	1.45891	.67	*	
BENZYL ALCOHOL	79	1.13473	.63347	44.17		
1,2-DICHLOROBENZENE	146	1.49193	1.46740	1.64		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.68137	2.01836	24.73		
N-NITROSO-DI-N-PROPYLAMINE	70	1.18117	.79774	32.46		**
HEXACHLOROETHANE	117	.70841	.58763	17.05		
NITROBENZENE-D5 (SURR)	82	.37437	.26680	28.73		
NITROBENZENE	77	.37969	.27319	28.05		
ISOPHORONE	82	.75594	.53065	29.80		
BIS(-2-CHLOROETHOXY)METHANE	93	.41266	.34415	16.60		
1,2,4-TRICHLOROBENZENE	180	.38442	.40828	6.21		
NAPHTHALENE	128	.96668	.94755	1.98		
4-CHLOROANILINE	127	.37796	.33429	11.56		
HEXACHLOROBUTADIENE	225	.25908	.26177	1.04	*	
2-METHYLNAPHTHALENE	142	.64484	.66478	3.09		
HEXACHLOROCYCLOPENTADIENE	237	.56814	.30097	47.03		**
2-FLUOROBIPHENYL (SURR)	172	1.61321	1.34075	16.89		
2-CHLORONAPHTHALENE	162	1.37281	1.13158	17.57		
2-NITROANILINE	65	.47645	.24249	49.10		
DIMETHYL PHTHALATE	163	1.71954	1.22070	29.01		
4-NITROANILINE	138	.25828	.21125	18.21		
DIBENZOFURAN	168	1.90873	1.54979	18.81		
ACENAPHTHYLENE	152	2.10065	1.64771	21.56		
FLUORENE	166	1.34670	1.12034	16.81		
3-NITROANILINE	138	.09246	.13361	44.51		
ACENAPHTHENE	153	1.37857	1.10786	19.64	*	
2,4-DINITROTOLUENE	165	.33212	.24693	25.65		
2,6-DINITROTOLUENE	165	.37112	.27530	25.82		
DIETHYLPHTHALATE	149	1.58664	1.08762	31.45		
4-CHLOROPHENYL-PHENYLETHER	204	.70414	.54872	22.07		
N-NITROSODIPHENYLAMINE	169	.51771	.49756	3.89	*	
4-BROMOPHENYL-PHENYL ETHER	248	.33482	.26230	21.66		
HEXACHLOROBENZENE	284	.43791	.27231	37.81		

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-4906;4928;4971;4989

Calibration Date: 03/26/87

Contractor: E & E, INC.

Time: 11:51

Contract No: IL-3140

Laboratory ID: >D2108

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	.99956	1.53		
ANTHRACENE	178	.99874	.94130	5.75		
DI-N-BUTYLPHTHALATE	149	.97124	.81498	16.09		
FLUORANTHENE	202	.62146	.60303	2.97	*	
BENZIDINE		.65247	.54895	15.87		
PYRENE	202	2.68642	2.55645	4.84		
TERPHENYL-D14 (SURR)	244	1.48172	1.24071	16.27		
BUTYLBENZYLPHTHALATE	149	.68277	.58574	14.21		
3,3'DICHLOROBENZIDINE	252	.13263	.20293	53.01		
BENZO(A)ANTHRACENE	228	.91524	1.04070	13.71		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.81579	.73621	9.76		
CHRYSENE	228	1.19137	1.07856	9.47		
DI-N-OCTYL PHTHALATE	149	1.64173	1.43057	12.86	*	
BENZO(B)FLUORANTHENE	252	1.13479	1.41016	24.27		
BENZO(K)FLUORANTHENE	252	1.55063	1.19133	23.17		
BENZO(A)PYRENE	252	1.10877	1.09798	.97	*	
INDENO(1,2,3-CD)PYRENE	276	.99032	1.11592	12.68		
DIBENZ(A,H)ANTHRACENE	278	.81159	1.05015	29.39		
BENZO(G,H,I)PERYLENE	276	1.10886	1.19417	7.69		

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

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

%Diff - % Difference from original average or curve

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Continuing Calibration Check
HSL Compounds

Case No: V-4906, 4928, 4971, 4989

Calibration Date: 03/26/87

Contractor: E & E, INC.

Time: 10:53

Contract No: II-3140

Laboratory ID: >D2107

Instrument ID: HP-5970D

Initial Calibration Date: ~~06/20/86~~ AML 6/19/86

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	1.15366	17.63		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.92130	.76118	17.38		
PHENOL	94	1.34105	1.15351	13.98	*	
2-METHYL PHENOL	108	1.03158	.96432	6.52		
2-CHLOROPHENOL	128	1.13833	1.09120	4.14		
4-METHYL PHENOL	108	1.07582	1.02124	5.07		
2-NITROPHENOL	139	.20262	.21010	3.70	*	
2,4-DIMETHYLPHENOL	122	.28916	.25046	13.38		
BENZOIC ACID	105	.20401	.18465	9.49		
2,4-DICHLOROPHENOL	162	.31568	.33418	5.86	*	
4-CHLORO-3-METHYLPHENOL	107	.33577	.27825	17.13	*	
2,4,6-TRICHLOROPHENOL	196	.45546	.40157	11.83	*	
2,4,5-TRICHLOROPHENOL	196	.48930	.41433	15.32		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32584	.17534	46.19		
2,4-DINITROPHENOL	184	.17071	.17084	.08		**
4-NITROPHENOL	139	.32314	.17765	45.02		**
4,6-DINITRO-2-METHYLPHENOL	198	.12041	.14318	18.91		
PENTACHLOROPHENOL	266	.18773	.14902	20.62	*	

- 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

U-4906; 4928; 4971; 4989 (Page 1)

Case No: _____ Region: _____

Contract No: IL-3140

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

Laboratory: ECOLOGY AND ENVIRONMENT, INC.

GC Column: OV-1

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

Evaluation Check for 4,4'- DDT/Endrin Breakdown

(percent breakdown expressed as total degradation)

	Laboratory I.D.	Time of Analysis	Endrin	4,4'- DDT	Combined(2)
Eval Mix B 72 Hour					
Eval Mix B	RUN 2	9:32	NA	NA	12.2
Eval Mix B	Run 19	0:16	NA	NA	8.6
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E, Section 7 5 4

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

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

SMO Sample No	Lab I D	Time of Analysis	Percent Diff	SMO Sample No	Lab I D	Time of Analysis	Percent Diff
EVAL A	RUN 1	8:56	—				
EVAL B	2	9:32	0.04				
EVAL C	3	10:08	0.04				
IND A	4	10:48	0.14				
IND B	5	11:46	0.07				
TOXAPHENE	6	13:29	0.18				
CHLORDANE	7	12:23	0.11				
PCB 1016/1260	8	15:01	0.81				
PCB 1221	9	15:38	0.11				
PCB 1232	10	16:13	0.21				
PCB 1242	11	16:49	0.25				
PCB 1248	12	17:25	0.21				
PCB 1254	13	18:00	0.32				
0900	14	18:49	DL				
0901	15	19:57	DL				
BLANK 2-16	16	21:03	0.35				
1032	17	22:07	DL				
1033	18	23:11	0.64				
EVAL B	19	0:16	1.02				
1034	20	1:19	1.3				
1035	21	2:23	1.3				
1036	22	3:28	1.5				
1036 MS	23	4:32	1.6				
1036 MSD	24	5:36	1.5				
1037	25	8:32	0.46				
IND A	26	9:19	0.49				
IND B	27	9:55	0.28				

Pesticide Evaluation Standards Summary

U-4906; 4928; 4971; 4989 (Page 1)

Case No: _____ Region: _____

Contract No: IL-3140

Date of Analysis: 2-24/2-25-87

Laboratory: ECOLOGY AND ENVIRONMENT, INC.

GC Column: OV-1

Instrument ID: VARIAN

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	650	659	664	1.1
Endrin	652	665	641	1.8
4,4'- DDT(1)	384	422	427	5.7
Dibutyl Chlorendate	461	481	490	3.1

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	13:24	NA	NA	9.4
Eval Mix B	RUN 19	3:48	NA	NA	7.5
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E, Section 7.5.4

(2) See Exhibit E, Section 7.3.1.2.2.1

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

SMO Sample No	Lab ID	Time of Analysis	Percent Diff	SMO Sample No	Lab ID	Time of Analysis	Percent Diff
EVAL A	RUN 1	11:55	—				
EVAL B	2	13:24	0.04				
EVAL C	3	14:02	0.04				
IND A	4	15:01	0.14				
IND B	5	15:40	0				
TOXAPHENE	6	16:16	0.14				
CHLORDANE	7	17:45	0.04				
PCB 1016/1260	8	18:24	0.77				
PCB 1221	9	19:03	0.07				
PCB 1232	10	19:42	0.07				
PCB 1242	11	20:21	0.11				
PCB 1248	12	20:59	0.18				
PCB 1254	13	21:37	0.39				
BLANK	14	22:26	0.21				
1110	15	23:30	0.25				
1111	16	0:35	0.42				
1112	17	1:39	0.46				
1112 MS	18	2:44	0.53				
EVAL B	19	3:48	0.35				
1112 MSD	20	4:53	0.35				
1113	21	5:57	DL				
1114	22	7:01	0.11				
1115	23	8:06	0.60				
1116	24	9:11	0.32				
1117	26	10:16	0.21				
IND A	26	11:20	0.18				
IND B	27	11:59	0.18				

Pesticide Evaluation Standards Summary

(Page 1)

U-4906; 4928; 4971; 4989

Case No: _____ Region _____

Contract No: IL-3140

Date of Analysis: 3-3-87

Laboratory: Ecology and Environment, Inc.

GC Column: SP2250/SP2401

Instrument ID: VARIAN 6000 #2

Evaluation Check for Linearity

Laboratory ID	RUN 1	RUN 2	RUN 3	
Pesticide	Calibration Factor Eval Mix A	Calibration Factor Eval Mix B	Calibration Factor Eval Mix C	% RSD (≤ 10%)
Aldrin	881	889	943	3.7
Endrin	693	717	780	6.2
4,4'- DDT(1)	362	412	510	18
Dibutyl Chlorendate	623	643	721	7.8

Evaluation Check for 4,4'- DDT/Endrin Breakdown

(percent breakdown expressed as total degradation)

	Laboratory ID	Time of Analysis	Endrin	4,4'- DDT	Combined(2)
Eval Mix B 72 Hour					
Eval Mix B	RUN 2	10:43	9.5	17	NA
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E Section 7.5.4

(2) See Exhibit E Section 7.3.1.2.2.1

Pesticide Evaluation Standards Summary
(Page 2)

Evaluation of Retention Time Shift for Dibutyl Chlorendate

Report all standards, blanks and samples

SMO Sample No	Lab I.D	Time of Analysis	Percent Diff	SMO Sample No.	Lab I.D.	Time of Analysis	Percent Diff
EVALA	RUN 1	10:04	—				
EVALB	2	10:43	0.21				
EVALC	3	11:22	0.21				
PCB1016/1260	4	12:01	0.38				
PCB1232	5	12:40	0.30				
PCB1242	6	13:19	0.13				
BLANK	7	14:05	0.13				
1114	8	15:37	DL				
1115	9	16:41	DL				
1113	10	17:46	DL				
PCB 1242	11	18:51	0.13				

Pesticide Evaluation Standards Summary

U-4906; 4928; 4971; 4989 (Page 1)

Case No: _____ Region: _____

Contract No: IL-3140

Date of Analysis: 3-11-87, 3-12-87

Laboratory: Ecology & Environment, Inc.

GC Column: OV-1

Instrument ID: VARIAN 6000 GC #2

Evaluation Check for Linearity

Laboratory ID	RUN 1	RUN 2	RUN 3	
Pesticide	Calibration Factor Eval Mix A	Calibration Factor Eval Mix B	Calibration Factor Eval Mix C	% RSD (≤10%)
Aldrin	715	703	714	0.94
Endrin	665	685	679	1.5
*4,4'- DDT(1)	155	175	185	8.9
Dibutyl Chlorendate	502	485	562	7.8

Evaluation Check for 4,4'- DDT/Endrin Breakdown

(percent breakdown expressed as total degradation)

	Laboratory I.D.	Time of Analysis	Endrin	4,4'- DDT	Combined(2)
Eval Mix B 72 Hour					
Eval Mix B	RUN#2	12:06	NA	NA	14
Eval Mix B	RUN#19	2:57	NA	NA	10
* Eval Mix B	RUN#31	16:47	NA	NA	9.5
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E, Section 7.5.4

(2) See Exhibit E, Section 7.3.1.2.2.1

* PEAK HEIGHT

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

SMO Sample No	Lab ID	Time of Analysis	Percent Diff	SMO Sample No	Lab ID	Time of Analysis	Percent Diff
EVAL A	1	11:32	—				
EVAL B	2	12:06	0.14				
EVAL C	3	13:38	0.04				
IND A	4	14:34	0.26				
IND B	5	15:12	0.42				
TOXAPHENE	6	15:51	0.18				
CHLORDANE	7	16:30	0.40				
PCB 1016/1260	8	17:09	1.5				
PCB 1221	9	17:48	0.56				
PCB 1232	10	18:27	0.32				
PCB 1242	11	19:06	0.28				
PCB 1248	12	19:45	0.32				
PCB 1254	13	20:24	0.28				
BLANK 2-26	14	21:27	0.18				
1274	15	22:37	D.L.				
1275	16	23:43	0.32				
1275 MS	17	0:48	0.14				
1275 MSD	18	1:52	0.11				
EVAL B	19	2:57	0.04				
1276	20	4:01	D.L.				
1277	21	5:08	D.L.				
1278	22	6:12	D.L.				
BLANK 3-3	23	7:17	—				
1427	24	8:22	D.L.				
PCB 1016/1260	25	9:25	1.3				
1428	26	10:13	D.L.				
1429	27	11:43	D.L.				
1430	28	12:48	D.L.				
1427	29	14:38	D.L.				
1428	30	15:43	0.28				
EVAL B	31	16:47	0.28				
1429	32	17:51	D.L.				
1430	33	18:56	INT				
1430 A1	34	20:01	INT				
IND MIX A	35	21:04	0.18				
IND MIX B	36	22:08	0.18				

Pesticide Evaluation Standards Summary

(Page 1)

U-4906; 4928; 4971; 4989

Case No: _____ Region: _____

Contract No: IL-3140

Date of Analysis: 3/16/87 3/17/87

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	885*	879	938	3.6
Endrin	941	985	1050	5.5
4,4'- DDT(1)	475	510	556	7.9
Dibutyl Chlorendate	565	569	635	6.7

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	22:03	<1.0	5.4	NA
Eval Mix B	RUN 19	16:03	<1.0	5.1	NA
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E, Section 7.5.4

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

SMO Sample No	Lab ID	Time of Analysis	Percent Diff	SMO Sample No	Lab ID	Time of Analysis	Percent Diff
EVAL A	RUN 1	20:02	0				
EVAL B	2	22:03	0.13				
EVAL C	3	23:08	0.13				
IND A	4	0:12	0.55				
IND B	5	1:17	0.89				
PCB 1016/1260	6	2:22	0.63				
PCB 1242	7	3:27	0.72				
PCB 1248	8	4:32	0.55				
BLANK 2/26	9	5:37	0.25				
1274.03.19A1	10	6:41	DL				
1276.03.19A1	11	7:46	DL				
1277.03.19A1	12	8:50	DL				
1278.03.19A1	13	9:55	DL				
PCB 1016/1260	14	11:02	0.46				
BLANK 3/3	15	12:08	0.38				
1427.03.19A1	16	13:12	DL				
1276.03.19A1	17	14:22	DL				
1277.03.19A1	18	14:58	DL				
EVAL B	19	16:03	0.38				
IND A	20	17:54	0.08				
IND B	21	18:41	0.25				

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4906; 4928; 4971; 4989 Laboratory Ecology & Environment Inc.

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

	DATE OF ANALYSIS 2-23-87 TIME OF ANALYSIS 1048 → 1800 LABORATORY ID RUN 4 → RUN 13				DATE OF ANALYSIS 2/24/87 TIME OF ANALYSIS 919 – 955 LABORATORY ID RUN 26 – RUN 27			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	2.24	2.21-2.27	728		2.25	757		4.0
beta-BHC	2.38	2.35-2.41	229		2.39	245		7.0
delta-BHC	2.68	2.65-2.71	628		2.69	667		6.2
gamma-BHC	2.60	2.57-2.63	614		2.61	639		4.1
Heptachlor	4.12	4.08-4.16	561		4.13	585		4.3
Aldrin	5.06	5.02-5.10	652		5.08	666		2.1
Heptachlor Epoxide	6.12	6.07-6.17	611		6.14	625		2.3
Endosulfan I	7.58	7.52-7.64	577		7.60	598		3.6
Dieldrin	8.81	8.74-8.88	621		8.84	638		2.7
4,4'-DDE	8.70	8.63-8.77	593		8.73	618		4.3
Endrin	9.82	9.74-9.90	473		9.84	526		11
Endosulfan II	10.01	9.92-10.10	578		10.04	583		0.87
4,4'-DDD	10.91	10.82-11.00	550		10.92	550		0
Endosulfan Sulfate	12.78	12.68-12.88	446		12.81	456		2.2
4,4'-DDT	14.20	14.10-14.30	395		14.24	393		0.51
Methoxychlor	20.81	20.67-20.95	209		20.87	215		2.9
Endrin Ketone	16.35	16.21-16.49	635		16.39	659		3.8
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene	14.22	14.12-14.32	45.3					
Aroclor - 1016	3.66	3.55-3.65	30.5					
Aroclor - 1221	2.26	2.23-2.29	11.3					
Aroclor - 1232	3.60	3.55-3.65	17.7					
Aroclor - 1242	3.60	3.55-3.65	21.4					
Aroclor - 1248	6.24	6.18-6.30	38.8					
Aroclor - 1254	14.69	14.63-14.75	33.8					
Aroclor - 1260	23.24	22.92-23.56	71					

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* SEE EXHIBIT E, PART 7

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

504095

FORM IX

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4906; 4928; 4971; 4989 Laboratory ECOLOGY AND ENVIRONMENT, INC.

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

	DATE OF ANALYSIS 2-24-87 TIME OF ANALYSIS 15:01 - 21:37 LABORATORY ID RUN 4 - RUN 13				DATE OF ANALYSIS 2-25-87 TIME OF ANALYSIS 11:20-11:59 LABORATORY ID RUN 25 - RUN 27			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha - BHC	2.25	2.22-2.28	705		2.25	766		8.2
beta - BHC	2.39	2.36-2.42	228		2.39	252		11
delta - BHC	2.69	2.66-2.72	618		2.69	674		9.1
gamma - BHC	2.61	2.58-2.64	606		2.62	667		10
Heptachlor	4.13	4.09-4.17	561		4.13	605		7.8
Aldrin	5.08	5.04-5.12	632		5.08	697		10
Heptachlor Epoxide	6.14	6.09-6.19	594		6.14	652		9.8
Endosulfan I	7.60	7.54-7.66	566		7.61	620		9.5
Dieldrin	8.84	8.77-8.91	602		8.86	655		9.3
4,4'-DDE	8.74	8.67-8.81	571		8.75	624		9.3
Endrin	9.85	9.77-9.93	475		9.87	543		14
Endosulfan II	10.05	9.96-10.14	558		10.05	609		9.1
4,4'-DDD	10.94	10.85-11.03	524		10.96	555		5.9
Endosulfan Sulfate	12.84	12.74-12.94	410		12.84	424		3.4
4,4'-DDT	14.25	14.15-14.35	403		14.27	424		5.2
Methoxychlor	20.90	20.76-21.04	216		20.92	236		9.3
Endrin Ketone	16.41	16.27-16.55	611		16.43	659		7.9
Tech. Chlordane	7.01	6.92-7.10	843					
alpha - Chlordane*								
gamma - Chlordane*								
Toxaphene	14.27	14.17-14.37	10.3 *					
Aroclor - 1016	3.61	3.56-3.66	31.8					
Aroclor - 1221	2.27	2.24-2.30	11.6					
Aroclor - 1232	3.61	3.56-3.66	17.8	QUANT.				
Aroclor - 1242	3.61	3.56-3.66	21.5	QUANT.				
Aroclor - 1248	6.27	6.21-6.33	40					
Aroclor - 1254	14.77	14.71-14.83	56					
Aroclor - 1260	22.33	23.01-23.65	71.8	QUANT.				

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* SEE EXHIBIT E, PART 7

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

* PEAK HEIGHT

FORM IX

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4906;4928;4971;4989 Laboratory ECOLOGY + ENVIRONMENT, INC.
Contract No. IL-3140 GC Column SP2250/SP2401 GC Instrument ID VARIAN 6000 #2

	DATE OF ANALYSIS 3-3-87 TIME OF ANALYSIS 12:01 → 13:19 LABORATORY ID RUN 4 → RUN 6				DATE OF ANALYSIS 3-3-87 TIME OF ANALYSIS 18:51 LABORATORY ID RUN 11			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC								
beta-BHC								
delta-BHC								
gamma-BHC								
Heptachlor								
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	2.70	2.68-2.72	20.0	CONF.				
Aroclor - 1242	2.71	2.68-2.74	25.7	CONF.	2.70	25.7		0
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260	20.37	20.14-20.60	110	CONF.				

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* SEE EXHIBIT E, PART 7

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

FORM IX

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4906; 4928; 4971; 4989 Laboratory ECOLOGY + ENVIRONMENT, INC

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

	DATE OF ANALYSIS 3-11-87 TIME OF ANALYSIS 14:34 → 20:24 LABORATORY ID RUN 4 → 13				DATE OF ANALYSIS 3-12-87 TIME OF ANALYSIS 9:25 LABORATORY ID RUN 25			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.24	2.21 → 2.27	750					
beta-BHC	2.38	2.35 → 2.41	236					
delta-BHC	2.68	2.65 → 2.71	641					
gamma-BHC	2.61	2.58 - 2.64	687					
Heptachlor	4.13	4.09 → 4.17	612					
Aldrin	5.07	5.03 → 5.11	710					
Heptachlor Epoxide	6.14	6.09 → 6.19	669					
Endosulfan I	7.60	7.54 → 7.66	631					
Dieldrin	8.84	8.77 → 8.91	665					
4,4'-DDE	8.72	8.65 → 8.79	605	QUANT.				
Endrin	9.83	9.75 → 9.91	483					
Endosulfan II	10.05	9.96 → 10.14	614					
4,4'-DDD	10.93	10.84 → 11.02	555					
Endosulfan Sulfate	12.83	12.73 → 12.93	402					
4,4'-DDT	14.23	14.13 → 14.33	397					
Methoxychlor	20.89	20.75 → 21.03	223					
Endrin Ketone	16.39	16.25 → 16.53	646					
Tech. Chlordane	7.00	6.91 → 7.09	95.5					
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene	14.23	14.13 → 14.33	71.8					
Aroclor - 1016	3.60	3.55 → 3.65	33.0		3.60	32.2		2.4
Aroclor - 1221	2.26	2.23 → 2.29	12.4					
Aroclor - 1232	3.60	3.55 → 3.65	18.8					
Aroclor - 1242	3.60	3.55 → 3.65	23.7	QUANT.				
Aroclor - 1248	6.25	6.19 → 6.31	41.9	QUANT.				
Aroclor - 1254	10.72	10.66 → 10.78	40.7					
Aroclor - 1260	23.26	22.94 → 23.58	75.6	QUANT.	23.30	73.8		2.4

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* SEE EXHIBIT E, PART 7

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

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4906; 4928; 4971; 4989 Laboratory ECOLOGY + ENVIRONMENT, INC

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

	DATE OF ANALYSIS 3-11-87 TIME OF ANALYSIS 14:34 → 20:24 LABORATORY ID RUN 4 → 13				DATE OF ANALYSIS 3-12-87 TIME OF ANALYSIS 21:04 → 22:09 LABORATORY ID RUN 35 → 36			
COMPOUND *	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.24	2.21 → 2.27	750		2.24	742		1.1
beta-BHC	2.38	2.35 → 2.41	236		2.39	241		2.1
delta-BHC	2.68	2.65 → 2.71	641		2.69	641		0
gamma-BHC	2.61	2.58 - 2.64	687		2.62	639		7.0
Heptachlor	4.13	4.09 → 4.17	612		4.13	587		4.1
Aldrin	5.07	5.03 → 5.11	710		5.08	668		5.9
Heptachlor Epoxide	6.14	6.09 → 6.19	669		6.15	626		6.4
Endosulfan I	7.60	7.54 → 7.66	631		7.62	596		5.5
Dieldrin	8.84	8.77 → 8.91	665		8.87	635		4.5
4,4'-DDE	8.72	8.65 → 8.79	605	QUANT.	8.76	604		0.17
Endrin	9.83	9.75 → 9.91	483		9.87	473		2.1
Endosulfan II	10.05	9.96 → 10.14	614		10.08	579		5.7
4,4'-DDD	10.93	10.84 → 11.02	555		10.98	562		1.3
Endosulfan Sulfate	12.83	12.73 → 12.93	402		12.88	399		0.75
4,4'-DDT	14.23	14.13 → 14.33	397		14.29	396		0.25
Methoxychlor	20.89	20.75 → 21.03	223		20.96	216		3.1
Endrin Ketone	16.39	16.25 → 16.53	646		16.48	639		1.1
Tech. Chlordane	7.00	6.91 → 7.09	95.5					
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene	14.23	14.13 → 14.33	71.8					
Aroclor - 1016	3.60	3.55 → 3.65	33.0					
Aroclor - 1221	2.26	2.23 → 2.29	12.4					
Aroclor - 1232	3.60	3.55 → 3.65	18.8					
Aroclor - 1242	3.60	3.55 → 3.65	23.7	QUANT.				
Aroclor - 1248	6.25	6.19 → 6.31	41.9	QUANT.				
Aroclor - 1254	10.72	10.66 → 10.78	40.7					
Aroclor - 1260	23.26	22.94 → 23.58	75.6	QUANT.				

* SEE EXHIBIT E, PART 7

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

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FORM IX

PESTICIDE/PCB STANDARDS SUMMARY

Case No. V-4906; 4928; 4971; 4989 Laboratory ECOLOGY AND ENVIRONMENT, INC.
Contract No. IL-3140 GC Column SP2250/SP2401 GC Instrument ID VARIAN 6000 GC #2

	DATE OF ANALYSIS 3/16/87 TIME OF ANALYSIS 0:12 → 4:32 LABORATORY ID RUN 4 → RUN 8				DATE OF ANALYSIS 3/17/87 TIME OF ANALYSIS 11:02 LABORATORY ID RUN 14			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	1.79	1.76-1.82	1096					
beta-BHC	2.56	2.53-2.59	350					
delta-BHC	2.99	2.96-3.02	763					
gamma-BHC	2.25	2.22-2.28	873					
Heptachlor	2.77	2.73-2.81	807					
Aldrin	3.35	3.31-3.39	866					
Heptachlor Epoxide	5.01	4.96-5.06	776					
Endosulfan I	6.31	6.25-6.37	732					
Dieldrin	7.70	7.63-7.77	794					
4,4'-DDE	7.28	7.21-7.35	758	CONF.				
Endrin	9.36	9.28-9.44	672					
Endosulfan II	11.33	11.23-11.43	705					
4,4'-DDD	11.14	11.04-11.24	606					
Endosulfan Sulfate	17.87	17.72-18.02	390					
4,4'-DDT	13.45	13.30-13.60	497					
Methoxychlor	25.84	25.60-26.08	234					
Endrin Ketone	23.87	23.65-24.09	602					
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016	2.73	2.70-2.76	42.3		2.70	38.0		10
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242	2.73	2.70-2.76	24.3	CONF.				
Aroclor - 1248	5.13	5.07-5.19	43.3	CONF.				
Aroclor - 1254								
Aroclor - 1260	20.67	20.44-20.90	114	CONF.	20.45	110		3.5

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

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PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-4906; 4928; 4971; 4989 Laboratory Ecology & Environment Inc.
Contract No. IL-3140 GC Column SP2250/SP2401 GC Instrument ID VARIAN 6000 #2

	DATE OF ANALYSIS 3-16-87 TIME OF ANALYSIS 012-432 LABORATORY ID RUN 4 - RUN 8				DATE OF ANALYSIS 3-17-87 TIME OF ANALYSIS 1754-1841 LABORATORY ID RUN 20 - RUN 21			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC	1.79	1.76-1.82	1096		1.77	1079		1.6
beta-BHC	2.56	2.53-2.59	350		2.55	346		1.1
delta-BHC	2.99	2.96-3.02	763		2.97	758		0.66
gamma-BHC	2.25	2.22-2.28	873		2.24	896		2.6
Heptachlor	2.77	2.73-2.81	807		2.76	847		5.0
Aldrin	3.35	3.31-3.39	866		3.33	886		2.3
Heptachlor Epoxide	5.01	4.96-5.06	776		4.98	784		1.0
Endosulfan I	6.31	6.25-6.37	732		6.26	747		2.0
Dieldrin	7.70	7.63-7.77	794		7.65	812		2.3
4,4'-DDE	7.28	7.21-7.35	758	CONF	7.24	745		1.7
Endrin	9.36	9.28-9.44	672		9.30	649		3.4
Endosulfan II	11.33	11.23-11.43	705		11.24	717		1.7
4,4'-DDD	11.14	11.04-11.24	606		11.07	592		2.3
Endosulfan Sulfate	17.87	17.72-18.02	390		17.77	381		2.3
4,4'-DDT	13.45	13.30-13.60	497		13.34	511		2.8
Methoxychlor	25.84	25.60-26.08	234		25.64	245		4.7
Endrin Ketone	23.87	23.65-24.09	602		23.72	592		1.7
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016	2.73	2.70-2.76	42.3					
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242	2.73	2.70-2.76	24.3	CONF.				
Aroclor - 1248	5.13	5.07-5.19	43.3	CONF.				
Aroclor - 1254								
Aroclor - 1260	20.67	20.44-20.90	114	CONF.				

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* SEE EXHIBIT E, PART 7

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

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FORM IX

Pesticide/PCB Identification

Case No. V-4906, 4928, 4971, 4989

Laboratory ECOLOGY AND 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)
1113	OV-1	1242	3.61	3.56-3.66	SP2250/SP2401	2.70	2.68-2.74	Y
1114	↓	1232	3.61	3.56-3.66	↓	2.71	2.68-2.72	Y
1114	↓	1260	23.36	23.01-23.65	↓	20.41	20.14-20.60	Y
1115	↓	1232	3.62	3.56-3.66	↓	2.70	2.68-2.72	N
1115	↓	1260	23.51	23.01-23.65	↓	20.39	20.14-20.60	N

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505095

FORM X

Pesticide/PCB Identification

Case No. V-4906, 4928, 4971, 4989

Laboratory Ecology and 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)
1274	OV-1	4,4'DDE	8.74	8.65-8.79	SP2250/SP2401	7.25	7.21-7.35	N
1274		1260	23.32	22.94-23.58		20.56	20.44-20.90	N
1276		4,4'DDE	8.76	8.65-8.79		7.23	7.21-7.35	N
1276		1260	23.36	22.94-23.58		20.45	20.44-20.90	N
1277		1260	23.37	22.94-23.58		20.46	20.44-20.90	N
1278		1248	6.28	6.19-6.31		5.10	5.07-5.19	Y
1278		1260	23.38	22.94-23.58		20.51	20.44-20.90	Y
1427		1242	3.60	3.55-3.65		2.71	2.70-2.76	Y
1428		1242	3.60	3.55-3.65				N
1429		1242	3.59	3.55-3.65				N
1430		1242	3.60	3.55-3.65				N
1430R1	OV-1	1242	3.61	3.55-3.65				N

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505095

FORM X

GC/MS TUNING

1. DFTPP FORM V

2. BFB FORM V

GC/MS TUNING AND MASS CALIBRATION

U-4906; 4928 Decafluorotriphenylphosphine (DFTPP)

Case No. 4971; 4989 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 Szajtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE	
51	30.0 - 60.0% of mass 198	56.4	
68	less than 2.0% of mass 69	0	(0)[1]
69	mass 69 relative abundance	67.0	
70	less than 2.0% of mass 69	0.21	(0.31)[1]
127	40.0 - 60.0% of mass 198	46.9	
197	less than 1.0% of mass 198	0	
198	base peak, 100% relative abundance	100	
199	5.0 - 9.0% of mass 198	6.93	
275	10.0 - 30.0% of mass 198	21.0	
365	greater than 1.00% of mass 198	2.47	
441	present, but less than mass 443	9.97	
442	greater than 40.0% of mass 198	68.1	
443	17.0 - 23.0% of mass 442	13.0	(19.1)[2]

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

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

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	AP STD- 20 ug/L	D0036	6-19-86	1632
	50 ug/L	D0037		1736
	80 ug/L	D0038		1836
	120 ug/L	D0039		1928
	160 ug/L	D0040		2024

FORM V

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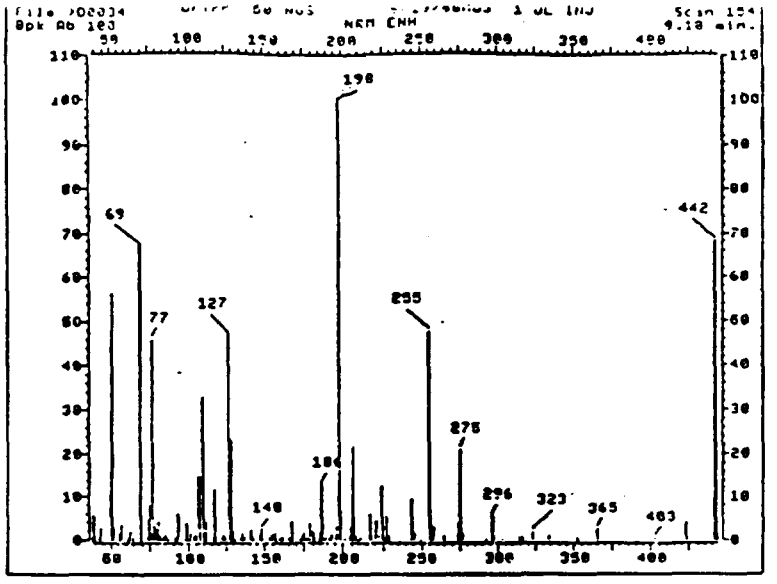

>D0034 DFTPP 50 NGS 6/19/86MDS 1 UL INJ
154 NRM ENH

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	314.00	.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	.99
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	177.80	.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	180.80	2.16	227.95	.79	441.05	9.97
84.00	.38	134.00	.49	180.90	.97	228.95	.96	442.05	68.07
85.00	1.30	135.00	1.64	184.05	.18	233.85	.14	443.05	13.00
86.00	1.03	136.10	.61	185.05	2.02	237.05	.18	444.05	1.14
86.90	.40	137.10	.66	186.05	13.07	242.05	.54		

MS data file header from : >D0034

Sample: DFTPP 50 NGS Operator: MANAGER MS 6/19/86 14:36
Misc : 6/19/86MDS 1 UL INJ
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # :***
Method file: DFTPPD Tuning file: 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

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GC/MS TUNING AND MASS CALIBRATION

U-4906; 4923 Decafluorotriphenylphosphine (DFTPP)

Case No. 4971; 4989 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 Stojtowicz

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

FORM V

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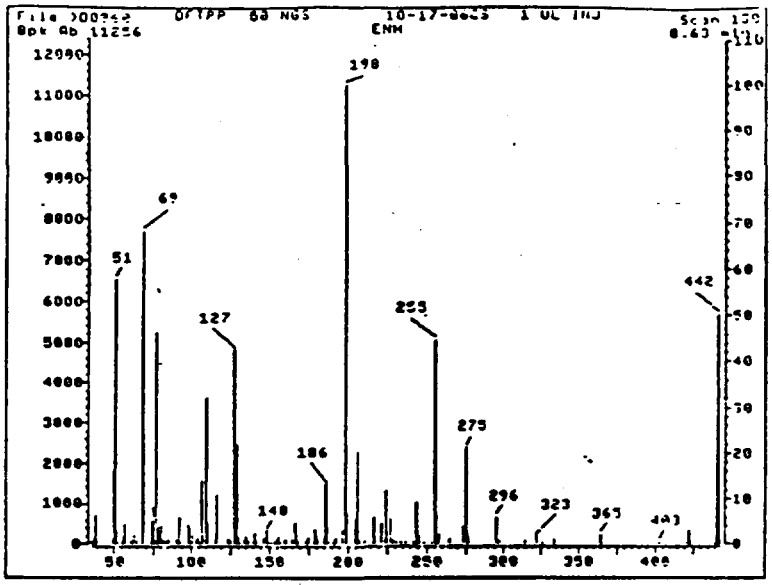

>D0960 DFTPP 50 NGS 10-17-86CS 1 UL INJ
130 NRM ENH

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	168.90	.45	224.05	11.74	334.10	.93
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	.38
74.95	8.24	125.05	.60	175.00	1.61	228.05	.62	403.10	.40
76.05	.59	127.00	42.62	177.80	.11	229.05	.93	420.75	.36
77.05	46.36	128.10	3.57	178.00	.40	230.95	.38	421.05	.09
78.15	3.18	129.00	21.86	179.00	3.29	234.05	.32	422.95	3.01
79.05	3.88	130.00	1.67	180.10	1.87	236.75	.38	423.95	.58
80.05	2.68	131.00	.42	181.10	1.09	241.95	.67	439.40	.20
81.05	3.98	134.10	.63	185.05	1.78	242.25	.11	439.80	.07
82.05	.91	135.10	1.72	186.05	13.11	242.90	.15	441.00	8.55
83.05	.85	136.00	.74	187.05	3.55	244.00	9.07	442.00	50.14
84.05	.53	136.90	.68	188.05	.36	245.00	1.13	443.00	9.72
84.95	1.02	140.00	.29	191.15	.49	246.00	1.80	444.10	.94

MS data file header from : >D0960

Sample: DFTPP 50 NGS Operator: USER6 MS 10/17/86 11:08
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

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GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. 4971, 4989 (4906, 4928) Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP5970D Date 03-04-87 Time 12:03

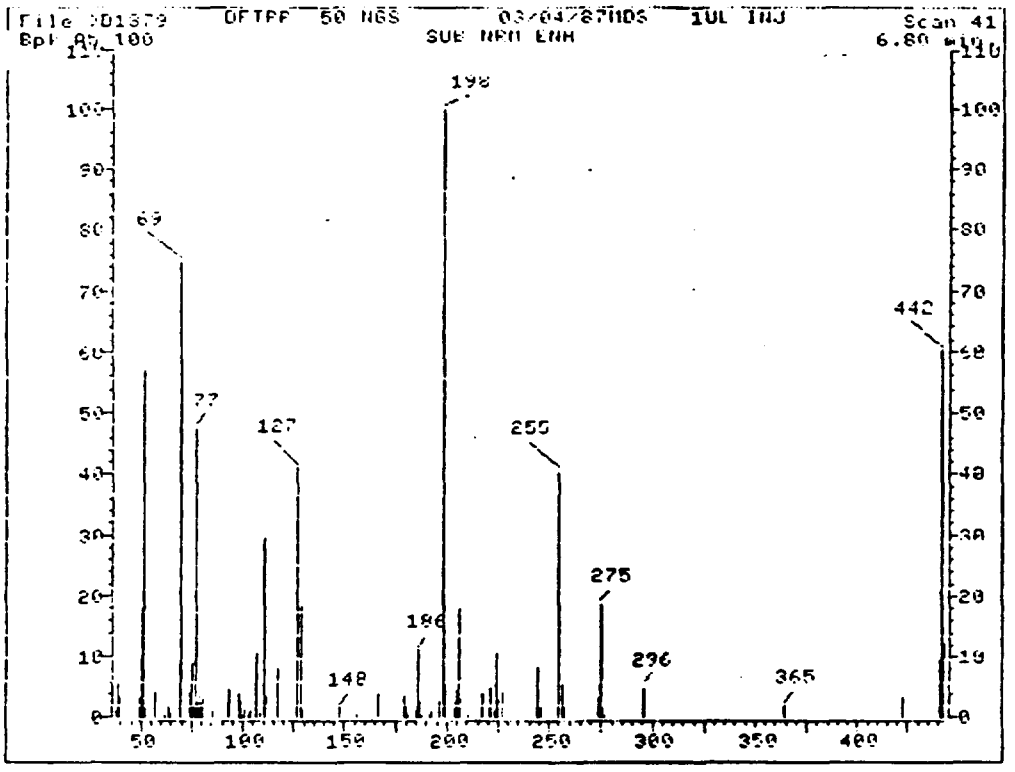
Lab ID D1879 Data Release Authorized By: C Stojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	57.09
68	less than 2.0% of mass 69	0.00 (0.00)[1]
69	mass 69 relative abundance	74.89
70	less than 2.0% of mass 69	0.00 (0.00)[1]
127	40.0 - 60.0% of mass 198	40.91
197	less than 1.0% of mass 198	0.00
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	5.51
275	10.0 - 30.0% of mass 198	18.66
365	greater than 1.00% of mass 198	1.95
441	present, but less than mass 443	9.68
442	greater than 40.0% of mass 198	60.27
443	17.0 - 23.0% of mass 442	12.32 (20.43)[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
	Cont Calib Check B/N D1880	03-04-87	12:27
	Cont Calib Check A/P D1881	03-04-87	13:26
D1885	Method Blank (2/16)	03-04-87	17:43



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

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

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.05	.92	78.05	2.36	117.05	8.08	188.05	.27	226.95	4.17
39.05	5.99	79.15	3.47	127.00	40.91	191.75	.36	244.00	8.43
40.05	3.17	79.85	2.35	128.10	3.36	192.95	1.12	245.80	1.59
43.95	.16	80.95	3.14	129.00	18.48	195.95	2.64	255.00	40.57
49.05	3.19	85.95	1.18	129.70	1.21	198.05	100.00	256.10	5.49
50.00	18.07	93.00	4.62	147.55	.46	199.05	5.51	257.80	1.87
51.00	57.09	98.00	3.81	147.95	1.62	204.05	2.79	273.95	3.21
51.90	2.34	98.90	2.63	155.95	.44	204.90	4.52	275.05	18.66
57.00	4.37	100.00	.27	167.00	3.81	206.10	17.87	275.75	1.58
61.40	.32	101.00	1.23	179.00	3.57	207.10	2.94	276.05	.54
63.20	2.14	102.70	.29	180.00	2.09	210.40	.40	296.00	5.00
65.00	.78	104.00	1.15	181.00	.39	217.00	3.92	364.80	1.95
68.95	74.89	107.00	10.62	184.95	1.17	220.90	4.84	422.95	3.31
73.95	4.18	108.15	.80	186.05	11.26	223.00	1.19	441.00	9.68
74.95	9.05	109.95	29.60	186.85	2.64	224.05	10.52	442.00	60.27
76.05	2.03	111.05	3.63	187.05	1.16	225.05	2.83	443.00	12.32
77.05	47.57								

MS data file header from : >D1879

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

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

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

U-4906; 4928

Case No. 4971; 4989 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID #P5970 D Date 03-05-87 Time 11:13

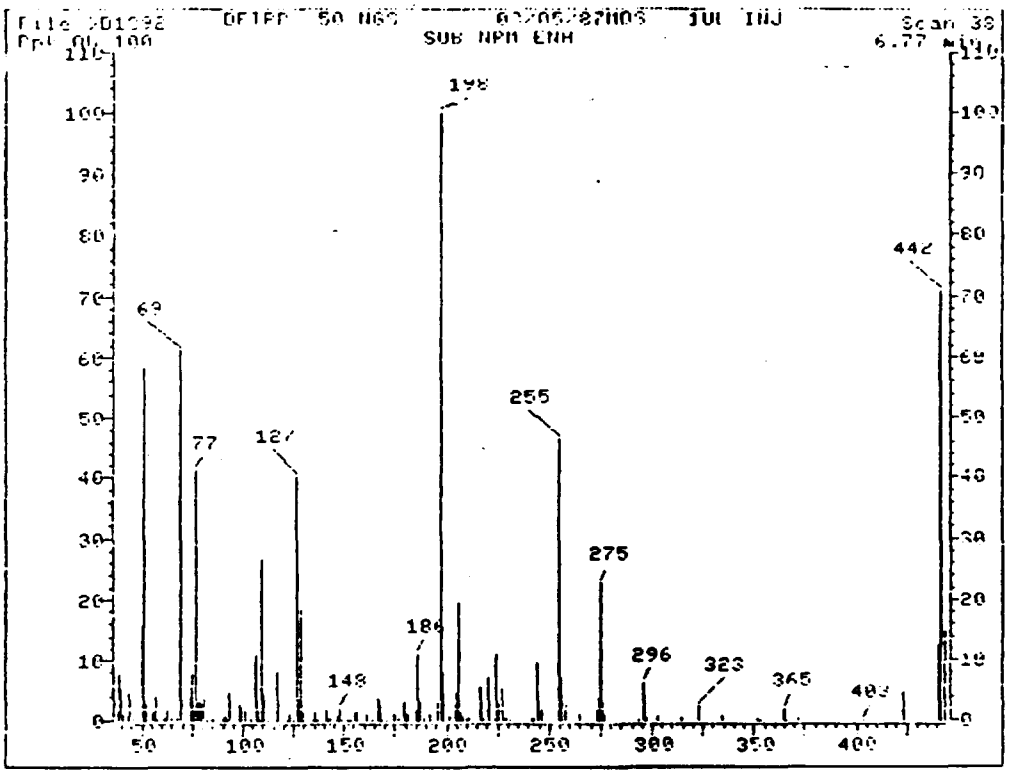
Lab ID >D1892 Data Release Authorized By: C Stojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	58.25
68	less than 2.0% of mass 69	0.32 (0.53)[1]
69	mass 69 relative abundance	61.21
70	less than 2.0% of mass 69	0.02 (0.03)[1]
127	40.0 - 60.0% of mass 198	40.04
197	less than 1.0% of mass 198	0.00
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	8.23
275	10.0 - 30.0% of mass 198	22.79
365	greater than 1.00% of mass 198	1.92
441	present, but less than mass 443	12.58
442	greater than 40.0% of mass 198	70.73
443	17.0 - 23.0% of mass 442	14.86 (21.01)[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
	Cont Calib Check A/P D1893	03-05-87	11:47
	Cont Calib Check B/N D1897	03-05-87	15:56
D1898	Method Blank	03-05-87	17:00
DC-P1-53	#1032 D1900	03-05-87	18:46
DC-01-59	#1110 D1908	03-06-87	10:05
DC-05-63	#1114 D1901	03-05-87	19:38
DC-05-64	#1115 D1902	03-05-87	20:31
DC-04-62	#1113 D1903	03-05-87	21:24
DC-03-61	#1112 D1904	03-05-87	22:17
DC-08-65	#1116 D1905	03-05-87	23:10
DC-02-60	#1111 D1906	03-06-87	00:03
DC-06-66	#1117 D1907	03-06-87	09:13
DC-GB-68	#1275 D1909	03-06-87	10:57



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

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

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.05	1.33	83.15	.04	135.90	.22	191.95	.99	255.00	46.40
39.15	7.91	85.05	.25	137.00	.04	196.05	2.95	256.00	7.01
39.95	5.09	85.25	.03	141.00	1.74	197.95	100.00	258.00	2.57
41.05	1.15	90.80	.28	141.90	.04	198.95	8.23	264.85	.96
43.05	.66	91.80	.59	143.10	.49	201.45	.57	272.95	1.53
43.95	4.66	92.10	.05	146.25	.02	204.10	2.56	274.05	3.58
45.15	.30	92.30	.05	147.05	.85	205.00	4.44	275.05	22.79
50.00	15.85	93.00	4.59	147.95	2.14	206.00	19.59	275.95	3.06
51.00	58.25	98.00	2.61	149.05	.02	207.10	1.41	277.05	1.10
52.10	2.72	99.10	2.44	151.25	.02	207.80	.25	292.90	.03
54.90	1.51	101.00	1.54	152.25	.02	210.10	.35	296.00	6.32
56.10	1.46	104.00	.45	153.85	.02	210.40	.03	297.00	.34
57.00	3.93	107.00	11.00	155.05	1.28	211.00	.46	302.95	.85
57.90	.02	107.85	1.69	156.05	1.32	212.00	5.48	314.05	.02
61.10	.38	108.65	.02	161.05	1.16	218.00	.42	314.25	.49
62.20	.48	109.95	26.76	164.05	.02	221.00	7.17	323.00	2.22
63.00	1.82	110.95	4.43	166.90	3.56	223.10	.43	334.00	.85
64.80	.54	112.05	.04	167.80	2.38	224.05	10.86	352.05	.40
67.90	.32	116.05	.03	169.00	.03	224.95	2.78	352.25	.03
68.95	61.21	117.05	8.02	170.70	.03	226.95	5.11	353.95	.03
69.25	.02	122.15	.05	175.10	.93	227.95	.55	364.90	1.92
73.95	3.93	123.05	1.03	176.90	.33	228.95	.42	365.90	.04
74.95	7.75	125.15	.04	179.00	2.92	230.95	.19	372.10	.32
76.05	1.88	127.00	40.04	180.00	1.18	241.85	.32	403.00	.03
77.05	41.07	128.10	3.42	181.10	1.16	242.90	.48	423.05	4.58
78.05	3.09	129.00	18.22	184.95	1.75	244.00	9.61	441.00	17.58
78.95	3.42	130.00	1.41	185.95	11.00	244.90	.29	442.00	70.73
80.05	2.80	134.00	.20	186.85	2.84	246.00	2.08	443.00	14.86
81.15	3.67	135.00	1.29	188.85	.35	252.80	.02	443.80	1.53
81.85	.54								

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	58.25	58.25	Ok
68	Less then 2% of mass 69	.32	.53	Ok
69	(reference only)	61.21	61.21	Ok
70	Less then 2% of mass 69	.02	.03	Ok
127	40-60% of mass 198	40.04	40.04	Ok
197	Less then 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	8.23	8.23	Ok
275	10-30% of mass 198	22.79	22.79	Ok
365	Greater then 1% of mass 198	1.92	1.92	Ok
441	Less then mass 443	12.58	84.69	Ok
442	Greater then 40% of mass 198	70.73	70.73	Ok
443	17-23% of mass 442	14.86	21.01	Ok

Injection Date: 03/05/87
Injection Time: 11:13
Data File: >D1892
Scan: 38

U-4906; 4928;

Decafluorotriphenylphosphine (DFTPP)

Case No. 4971; 4989 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP5970D Date 03-17-87 Time 13:20

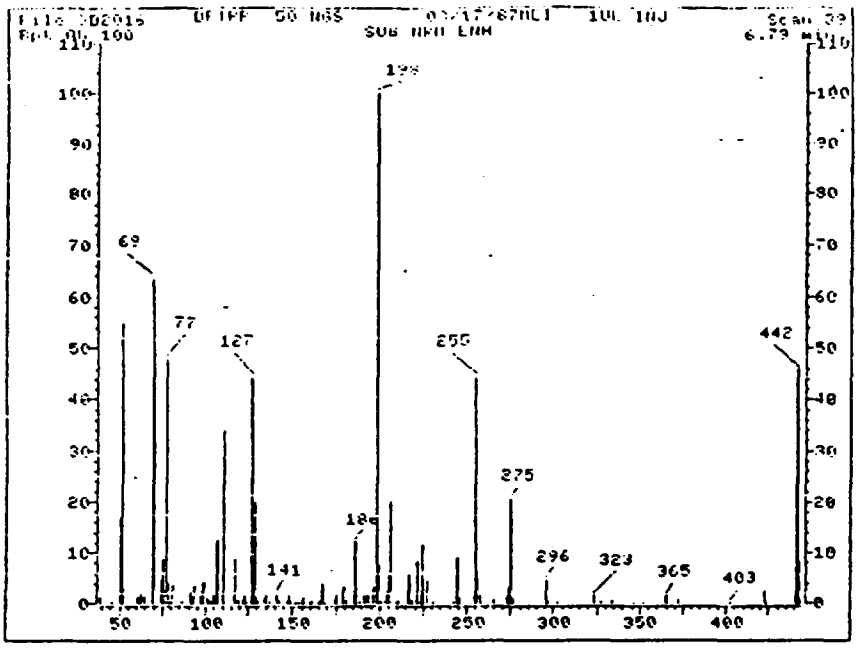
Lab ID >D2016 Data Release Authorized By: C. Hightower

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	54.96
68	less than 2.0% of mass 69	0.00 (0.00)[1]
69	mass 69 relative abundance	63.58
70	less than 2.0% of mass 69	0.00 (0.00)[1]
127	40.0 - 60.0% of mass 198	44.31
197	less than 1.0% of mass 198	0.00
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	7.52
275	10.0 - 30.0% of mass 198	20.52
365	greater than 1.00% of mass 198	1.65
441	present, but less than mass 443	7.18
442	greater than 40.0% of mass 198	45.75
443	17.0 - 23.0% of mass 442	8.36 (18.27)[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
	Cont Calib Check B/N >D2017	03-17-87	13:41
	Cont Calib Check A/P >D2018	03-17-87	14:45
D2021	Method Blank 3/3 >D2021	03-17-87	17:44
DC-09-73	1428 >D2022	03-17-87	18:49
DC-010-75	1430 >D2023	03-17-87	20:15
DC-09-72	1427 >D2025	03-17-87	22:08
D2020	method blank 2/26 >D2020	03-17-87	16:48
DC-G9-71	1278 >D2027	03-18-87	00:03
DC-G6-67	1274 >D2028	03-18-87	01:02
DC-G8-70	1277 >D2029	03-18-87	02:00



>D2016 DFTPP 50 NGS 03/17/87MEI 1UL INJ
39 SUB NRM ENH

File: >D2016 Scan #: 39 Retn. time: 6.29

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
39.05	1.49	101.00	1.27	147.00	.26	198.90	7.52	258.95	.23
45.05	.39	101.90	.67	148.10	1.70	199.90	.50	265.00	.74
50.05	16.97	103.00	.58	149.10	.62	200.75	.16	273.00	1.29
51.05	54.96	103.90	.55	151.60	.40	201.35	.51	274.10	3.39
52.05	3.10	105.00	2.08	153.10	.51	203.05	.32	275.00	20.52
60.90	1.22	106.10	.29	154.90	.81	203.95	2.19	276.00	1.47
62.20	.33	107.00	12.60	156.10	1.37	204.95	5.57	277.10	1.00
62.90	2.16	108.00	2.06	157.80	.21	205.95	20.02	295.95	4.70
65.10	1.23	110.00	33.89	159.75	.48	210.05	.18	296.75	.26
69.00	63.58	110.90	3.63	161.05	.66	210.75	.83	302.85	.28
74.00	4.84	111.90	.40	164.65	.40	216.95	5.73	323.00	1.60
74.95	8.87	117.05	8.70	165.95	.56	218.65	.56	327.05	.26
75.75	2.73	118.65	.56	167.05	3.88	221.05	8.41	334.15	.66
76.95	47.84	122.05	.77	167.95	2.54	221.70	.89	345.95	.14
78.05	4.27	122.95	1.73	168.85	.13	222.70	.81	351.90	.18
78.95	1.76	123.95	.46	174.05	.30	224.00	11.68	365.00	1.65
79.85	.84	126.95	44.31	175.05	1.63	225.00	2.08	365.80	.23
80.05	.84	127.95	3.57	179.05	3.23	226.90	4.50	372.05	.66
80.95	3.71	128.95	19.83	181.00	.78	230.80	.33	402.00	.13
86.95	.47	129.95	1.30	186.00	12.10	241.90	.54	403.10	.26
90.95	2.20	130.95	.78	187.00	2.89	243.95	9.07	423.05	2.36
91.95	.95	133.95	1.05	189.00	.37	244.95	1.18	424.05	.23
92.95	3.63	135.05	1.56	191.40	.20	245.95	1.21	441.10	7.18
93.75	.60	136.85	.44	191.90	1.65	254.95	44.33	442.00	45.75
96.20	1.58	140.90	2.12	193.10	1.79	256.05	6.02	443.00	8.36
97.90	4.30	142.00	.68	196.00	3.51	257.95	1.91	444.10	.59
98.90	4.40	143.00	.46	198.00	100.00				

MS data file header from : >D2016

Sample: DFTPP 50 NGS Operator: USER8 MS 3/17/87 13:20
Misc : 03/17/87MEI 1UL INJ BIL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPD Tuning file: MTDUN No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

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

GC/MS TUNING AND MASS CALIBRATION

U-4906; 4928 **Decafluorotriphenylphosphine (DFTPP)**

Case No. 4971; 4989 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP 5995C Date 03-18-87 Time 11:08.

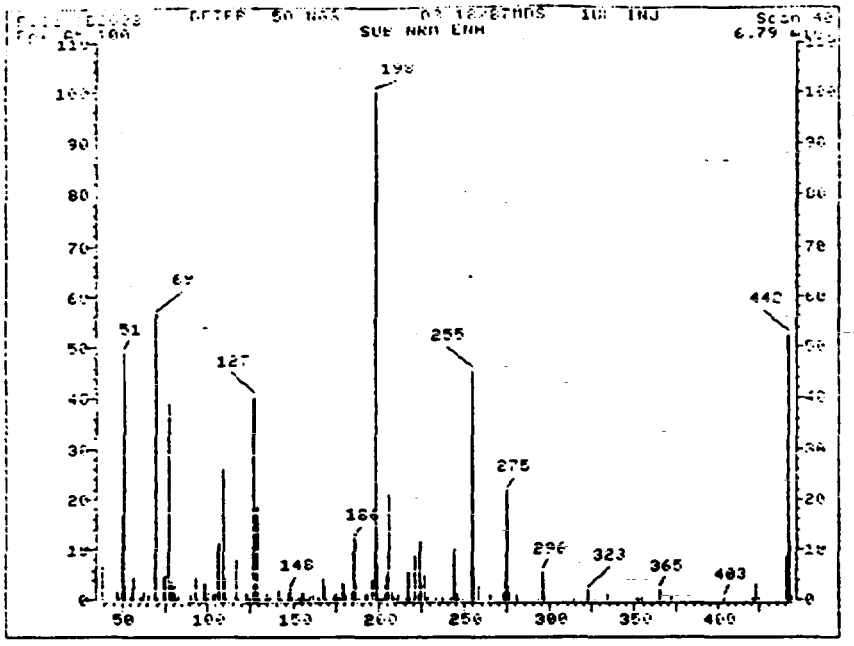
Lab ID >D2038 Data Release Authorized By: C Stojowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	49.22
68	less than 2.0% of mass 69	0.00 (0.00)[1]
69	mass 69 relative abundance	56.62
70	less than 2.0% of mass 69	0.36 (0.63)[1]
127	40.0 - 60.0% of mass 198	40.46
197	less than 1.0% of mass 198	0.00
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	7.10
275	10.0 - 30.0% of mass 198	21.80
365	greater than 1.00% of mass 198	2.13
441	present, but less than mass 443	8.56
442	greater than 40.0% of mass 198	52.38
443	17.0 - 23.0% of mass 442	10.21 (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
	Cont Calib Check A/P	D2039	03-18-87	12:02
	Cont Calib Check B/N	D2040	03-18-87	13:04
D2041	Method Blank	D2041	03-18-87	14:04
DC-I12-57	1036	D2042	03-18-87	15:00
DC-I12-57 MS	1036 MS	D2043	03-18-87	15:56
DC-I12-57 MSD	1036 MSD	D2044	03-18-87	16:52
DC-I12-58	1037	D2045	03-18-87	17:48
DC-P5-55	1034	D2046	03-18-87	18:44
DC-P2-54	1033	D2048	03-18-87	20:37
DC-G7-69	1276	D2049	03-18-87	21:42
DC-010-74	1429	D2050	03-18-87	22:39



>D2038 DFTPP 50 NGS 03/18/87MDS 1UL INJ
40 SUB BKG ENH

File: >D2038 Scan #: 40 Retn. time: 6.79

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.95	.14	103.90	1.01	153.10	.17	201.05	.30	258.45	.23
39.05	6.42	105.00	1.22	154.00	.30	201.55	.21	265.00	1.08
46.95	1.55	107.00	11.40	154.50	.13	203.25	.45	273.00	1.45
47.85	.46	107.90	1.90	155.00	1.27	204.05	3.03	274.10	3.98
50.95	16.68	110.00	25.95	156.10	1.33	205.05	4.84	275.00	21.80
51.05	49.22	111.10	4.35	157.10	.20	206.05	21.23	276.00	2.59
52.05	2.72	112.00	.27	157.30	.08	207.95	2.10	277.00	1.44
54.80	.59	114.80	.07	158.85	.11	208.95	.71	280.80	1.09
56.00	2.33	116.10	.61	159.85	.57	210.25	.55	281.10	.14
57.00	4.61	116.95	8.10	161.05	.90	210.55	.23	292.65	.22
61.00	.87	118.05	.35	164.75	.56	211.05	.99	295.95	5.61
62.10	.41	123.05	1.29	164.95	.15	216.05	.44	296.95	.71
63.10	1.79	124.95	.31	166.95	4.41	216.95	5.67	314.10	.15
65.10	.92	126.95	40.46	167.95	2.57	218.05	.54	321.90	.12
69.00	56.62	127.95	3.41	169.05	.17	219.95	.08	323.10	1.87
70.00	.36	128.95	18.54	173.15	.34	221.05	8.65	324.65	.15
74.10	4.55	129.95	1.67	174.05	.93	223.00	1.09	327.05	.09
74.95	4.92	130.75	.09	174.85	1.25	224.00	11.62	334.05	.95
76.95	39.22	130.95	.09	176.05	.51	224.90	2.91	351.90	.54
78.05	3.05	133.95	.41	176.75	.71	227.00	4.72	352.20	.09
78.95	3.91	134.25	.09	178.15	.20	227.80	.43	353.00	.20
79.85	2.75	134.95	1.40	178.95	3.14	228.00	.13	354.10	.52
80.95	3.60	136.05	.31	180.00	2.23	229.00	.66	365.00	2.13
81.05	.76	137.05	.67	180.90	.66	230.90	.17	372.05	.83
82.85	1.02	141.00	2.03	182.60	.06	234.00	.26	402.00	.10
87.05	.13	142.20	.51	185.00	1.56	237.00	.33	403.10	.50
90.95	.95	142.80	.37	186.00	12.12	242.05	.34	420.95	.40
93.05	4.63	143.00	.08	186.90	3.42	243.95	9.90	422.15	.20
93.65	.06	146.40	.16	188.10	.31	244.95	1.05	423.05	3.07
97.95	.09	147.00	1.43	191.90	.92	245.95	1.34	424.15	.45
98.00	3.43	148.00	2.21	193.10	1.06	247.05	.18	441.10	8.56
99.00	3.58	149.10	.26	196.00	3.94	249.05	.24	442.10	52.38
99.80	.37	150.20	.07	198.00	100.00	254.95	45.30	443.00	10.21
101.00	1.76	151.00	.07	199.00	7.10	256.05	6.60	444.10	.74
103.30	.10	152.80	.33	200.00	.20	258.05	2.76		

MS data file header from : >D2038

Sample: DFTPP 50 NGS Operator: USERB MS 3/18/87 11:00
Disc : 03/18/87MS 1UL INJ BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPD Tuning file: MTUUN No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 280

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)

U-4906; 4928; 4971; 4989

Case No. Contractor Ecology & Environment Contract No IL-3140

Instrument ID HP5970 D Date 03-26-87 Time 10:28

Lab ID >D2106 Data Release Authorized By: C Wojtowicz

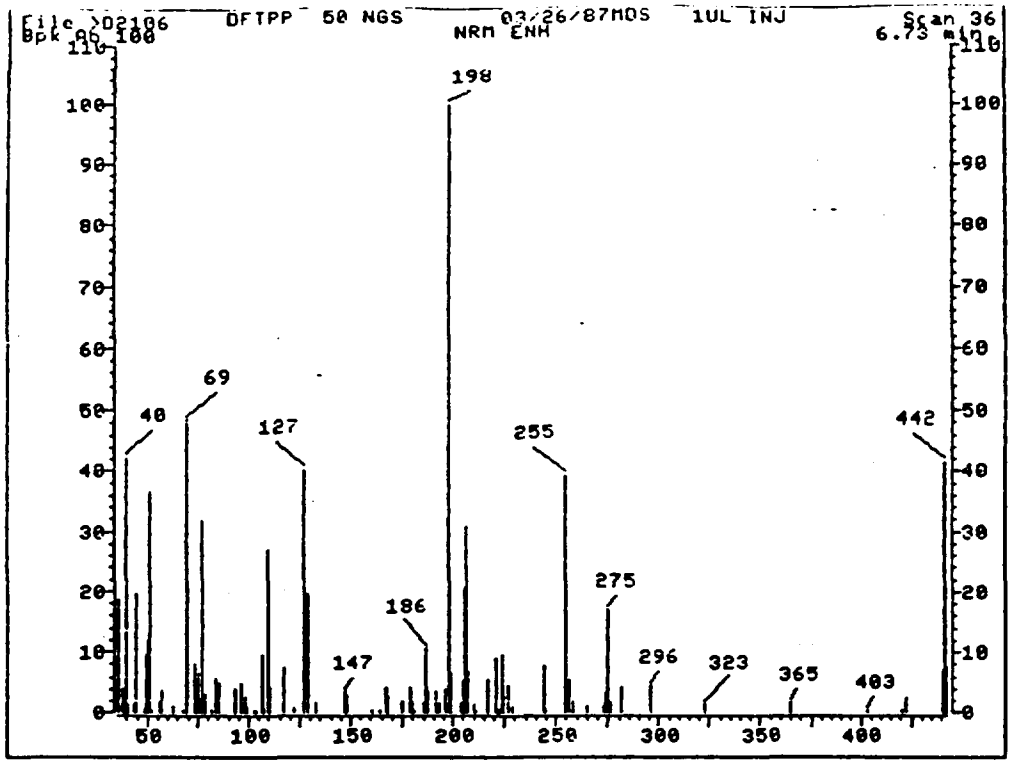
m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	36.49
68	less than 2.0% of mass 69	0.34 (0.70)[1]
69	mass 69 relative abundance	48.30
70	less than 2.0% of mass 69	0.00 (0.00)[1]
127	40.0 - 60.0% of mass 198	40.20
197	less than 1.0% of mass 198	0.00
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	6.36
275	10.0 - 30.0% of mass 198	17.05
365	greater than 1.00% of mass 198	1.56
441	present, but less than mass 443	7.14
442	greater than 40.0% of mass 198	41.46
443	17.0 - 23.0% of mass 442	7.42 (17.89)[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
	Cont Calib Std A/P D2107	03-26-87	10:53
	Cont Calib Std B/N D2108	03-26-87	11:51
DC-P5-56	1035 D2111	03-26-87	15:07

87



>D2106 DFTPP 50 NGS 03/26/87MDS 1UL INJ
36 NRM ENH

File: >D2106 Scan #: 36 Retn. time: 6.73

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
35.95	18.76	77.05	31.87	129.00	19.71	198.85	6.36	256.90	.44
37.75	3.77	78.05	3.04	132.80	1.58	204.05	1.80	258.00	1.89
38.85	2.63	78.95	2.93	147.15	3.53	205.00	5.07	264.75	.93
40.05	42.07	81.85	.33	147.95	3.04	206.00	20.60	264.95	.30
40.95	1.42	83.85	5.88	160.35	.33	207.00	30.89	272.95	1.04
43.05	1.21	84.85	3.10	164.55	.27	208.00	6.78	273.95	3.21
43.95	19.50	85.95	4.83	166.90	4.30	210.30	1.28	275.05	17.05
47.95	.31	92.90	3.84	168.00	2.61	211.60	.34	276.05	2.14
49.05	9.80	95.90	4.86	174.70	1.86	217.00	5.40	277.05	1.68
49.90	11.78	98.00	2.55	179.00	4.20	221.10	9.09	281.05	4.37
51.10	36.49	98.80	1.13	179.90	1.96	221.80	.55	296.00	4.47
51.80	.48	103.30	.33	180.80	.29	223.00	.86	322.90	1.25
56.10	1.98	103.50	.35	185.15	1.61	223.95	9.80	364.80	1.56
57.10	3.46	107.10	9.83	185.95	10.61	225.15	2.64	402.90	.34
62.80	1.11	107.85	.80	187.05	3.71	226.95	4.41	420.95	.26
67.80	.34	110.05	27.10	190.95	3.54	229.05	1.01	422.15	.38
68.95	48.30	111.05	4.33	191.85	.48	244.00	7.87	422.95	2.39
73.05	8.24	116.95	7.32	193.05	1.78	244.70	.31	441.00	7.14
73.95	3.55	121.75	.62	196.05	3.77	255.00	39.25	442.00	41.46
75.05	6.51	127.00	40.20	197.95	100.00	256.00	5.62	443.00	7.42
76.25	2.25								

MS data file header from : >D2106

Sample: DFTPP 50 NGS Operator: USER6 MS 3/26/87 10:28
Misc : 03/26/87MDS 1UL INJ BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPD Tuning file: MTDON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 20

Chromatographic temperatures :	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. U-4906; 4928; 4971; 4989 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 Boytourics

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	28.2
75	30.0 - 60.0% of the base peak	54.4
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	8.01
173	Less than 1.0% of the base peak	NONE PRESENT
174	Greater than 50.0% of the base peak	92.7
175	5.0 - 9.0% of mass 174	7.74 (8.35)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	90.9 (98.0)[1]
177	5.0 - 9.0% of mass 176	6.77 (7.45)[2]

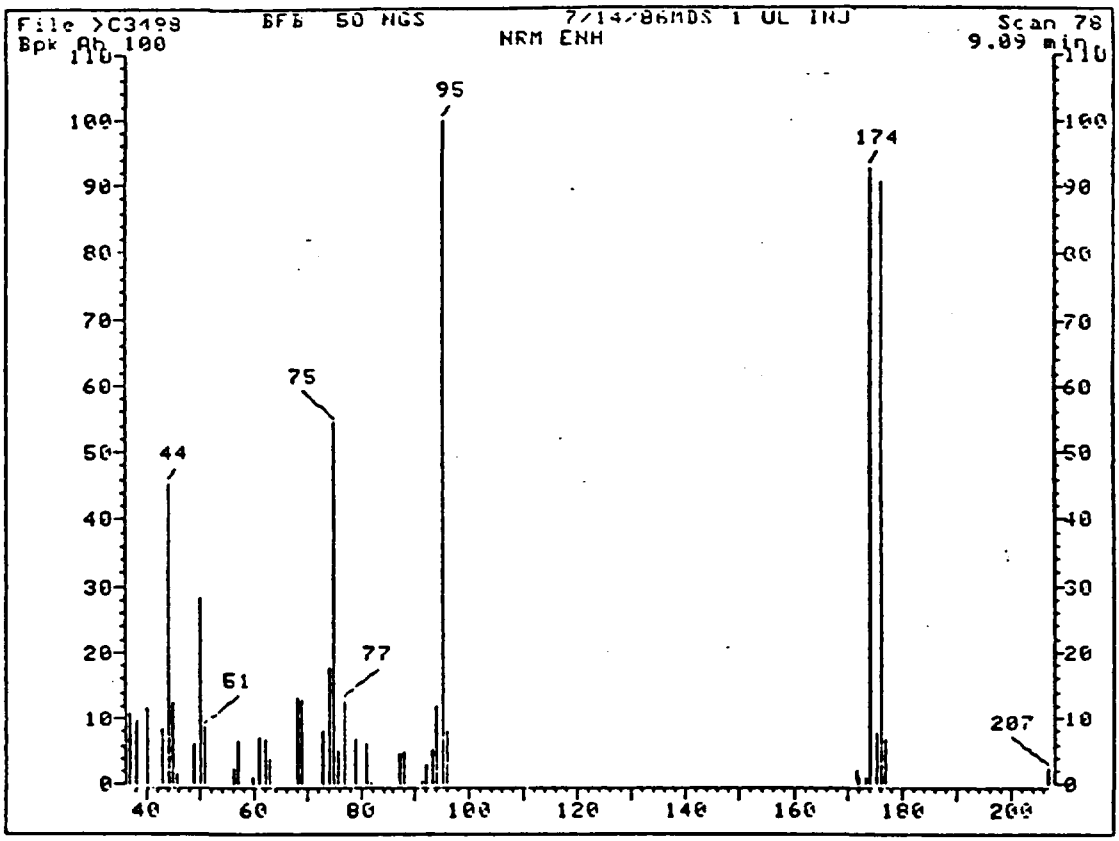
THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

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

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

FORM V

7/85 497095



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

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

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	11.06	51.05	8.60	73.15	8.12	87.00	4.44	171.70	2.10
38.10	9.79	55.95	2.40	74.05	17.82	88.00	4.79	172.00	1.15
40.00	11.49	57.05	6.57	75.05	54.39	91.20	.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 14:2
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 TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-4906; 4928 4971; 4989 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5995C Date 1-27-87 Time 1409

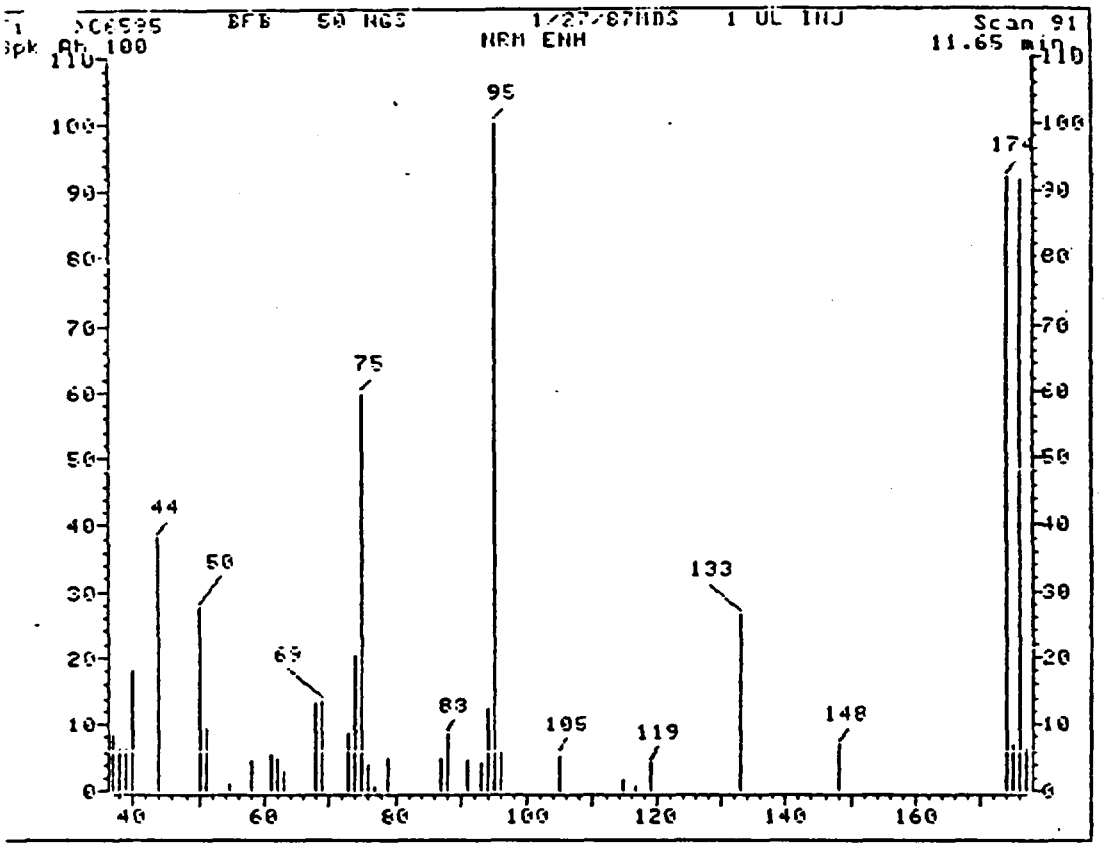
Lab ID C6595 Data Release Authorized By: C Szytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	27.6
75	30.0 - 60.0% of the base peak	59.7
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	5.79
173	Less than 1.0% of the base peak	0
174	Greater than 50.0% of the base peak	91.9
175	5.0 - 9.0% of mass 174	6.70 (7.29) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	91.7 (99.8) [1]
177	5.0 - 9.0% of mass 176	6.16 (6.72) [2]

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

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

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	VOA STD - 20 ug/L	C6596	1-27-87	1434
	- 50 ug/L	C6597		1527
	- 100 ug/L	C6598		1621
	- 200 ug/L	C6600		1808
	- 150 ug/L	C6601		1903



>C6595 BFB 50 NGS 1/27/87MDS 1 UL INJ
91 NRM ENH

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

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	8.53	57.90	4.55	74.95	59.65	92.95	4.25	119.10	4.09
37.90	6.05	60.85	5.69	75.85	3.85	94.05	12.16	133.10	26.21
39.00	6.26	61.95	4.99	76.85	.76	95.05	100.00	148.15	6.77
40.00	17.86	62.95	2.96	78.95	5.01	96.05	5.79	173.95	91.93
44.00	38.11	68.05	13.32	86.95	5.03	104.90	5.35	174.95	6.70
50.00	27.56	68.95	13.50	88.05	8.26	114.90	1.59	175.95	91.72
51.10	9.39	73.05	8.26	91.05	4.70	116.90	.64	176.95	6.16
54.90	.89	73.95	20.12						

MS data file header from : >C6595

Sample: BFB 50 NGS Operator: USER8 MS 1/27/87 14:09
Misc : 1/27/87MDS 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. :	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-4906,4928 4971, 4989 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID 11P5995C Date 2/20/87 Time 10:33

Lab ID >C6892 Data Release Authorized By: C Hoytowicz

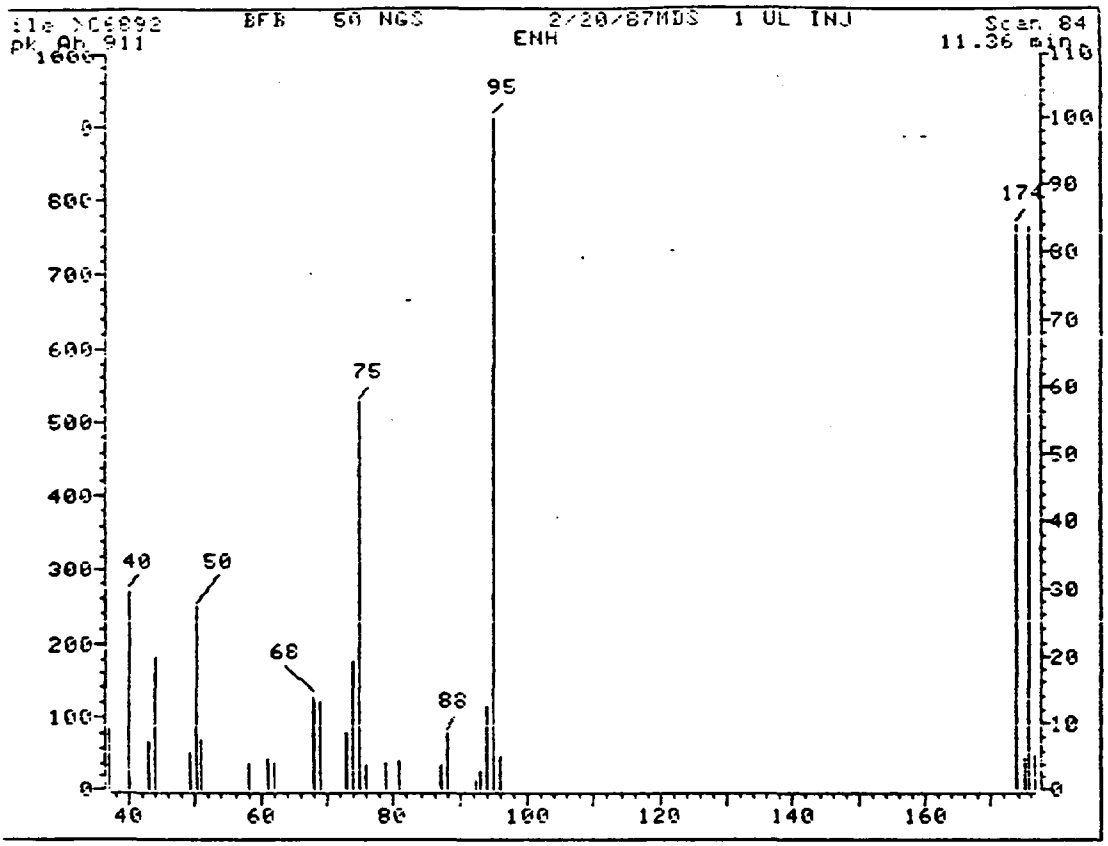
m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	27.24
75	30.0 - 60.0% of the base peak	57.59
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	5.32
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	83.85
175	5.0 - 9.0% of mass 174	4.76 (5.67)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	83.70 (99.82)[1]
177	5.0 - 9.0% of mass 176	5.12 (6.12)[2]

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

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

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check >C6893	2-20-87	11:04
C6894	Method Blank	2-20-87	12:16
DC-P5-55	1034 >C6895	2-20-87	13:08
DC-P5-56	1035 >C6896	2-20-87	14:00
DC-P2-54	1033 >C6897	2-20-87	14:52
DC-I12-58	1037 >C6898	2-20-87	16:04
DC-I12-57	1036 >C6899	2-20-87	16:56
DC-P5-55 MS	1034 MS >C6900	2-20-87	17:48
DC-P5-55 MSD	1034 MSD >C6901	2-20-87	18:40
DC-P1-53	1032 >C6902	2-20-87	19:36

FORM V 7/85
497095



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

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

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

MS data file header from : >C6892

Sample: BFB 50 NGS Operator: USER8 MS 2/20/87 10:33
Misc : 2/20/87MDS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

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

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. 4971, 4989 (U-4906,4928) Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP5995C Date 2/23/87 Time 12:12

Lab ID YC 6909 Data Release Authorized By: C Slogtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	24.82
75	30.0 - 60.0% of the base peak	55.54
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	6.89
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	84.64
175	5.0 - 9.0% of mass 174	5.90 (6.97) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	83.37 (98.5) [1]
177	5.0 - 9.0% of mass 176	4.72 (5.66) [2]

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

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

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check YC6910	2-23-87	12:40
C 6920	Method Blank	2-23-87	22:07
DC-04-62	1113 YC6921	2-23-87	23:01

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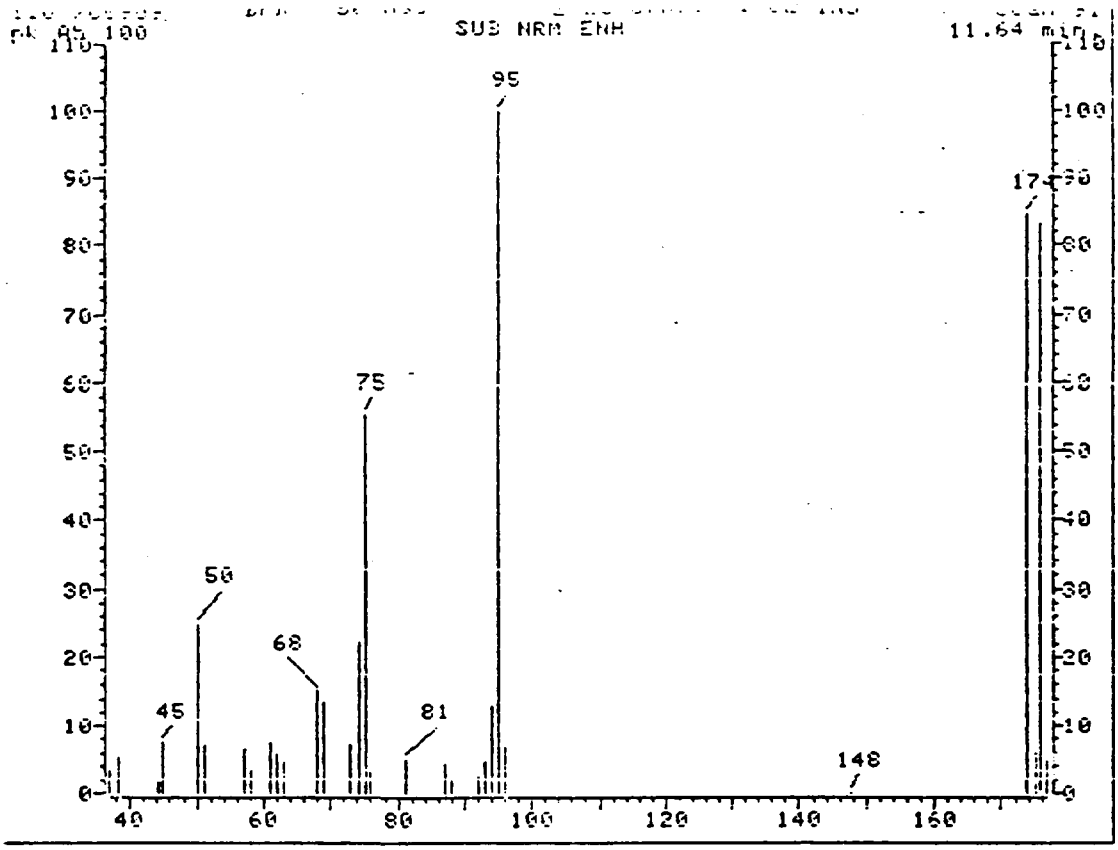
497095



>C6909 BFB 50 NGS 2/23/87MDS 1 UL INJ
91 SUB NRM ENH

File: >C6909 Scan #: 91 Retn. time: 11.64

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	3.36	58.15	3.39	72.75	1.52	87.05	4.36	96.00	6.89
38.10	5.34	61.05	7.45	72.95	7.25	88.15	2.06	147.75	.19
44.10	1.55	61.95	5.83	74.05	22.13	91.90	2.22	173.90	84.64
45.00	7.58	62.85	4.50	75.05	55.54	93.00	4.51	175.00	5.90
50.00	24.82	67.95	15.04	75.95	3.20	94.10	13.04	175.90	83.37
51.10	7.06	69.05	13.50	81.05	5.03	95.00	100.00	176.90	4.72
56.95	6.63								

MS data file header from : >C6909

Sample: BFB 50 NGS Operator: USER8 MS 2/23/87 12:12
Misc : 2/23/87MDS 1 UL INJ
Sys. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

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

Continuing Calibration Check
HSL Compounds

Case No: U-4906; U-4928 U-4971; U-4989

Calibration Date: 02/24/87

Contractor: E & EM INC.

Time: 14:54

Contract No: IL-3140

Laboratory ID: >C6940

Instrument ID: HP-5995C

Initial Calibration Date: 07/14/86

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

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	2.30296	1.57104	31.78		**
BROMOMETHANE	94	1.43187	1.59751	11.57		
VINYL CHLORIDE	62	1.60438	1.50198	6.38	*	
CHLOROETHANE	64	.69191	.98151	41.86		
METHYLENE CHLORIDE	84	1.38013	1.50636	9.15		
ACETONE	43	1.61869	1.44518	10.72		
TRICHLOROFLUOROMETHANE	101	3.13900	2.00381	36.16		
CARBON DISULFIDE	76	3.82990	2.25823	41.04		
1,1-DICHLOROETHENE	61	3.02810	2.46221	18.69	*	
1,1-DICHLOROETHANE	63	3.36439	3.51873	4.59		**
TRANS-1,2-DICHLOROETHENE	96	1.55781	1.44988	6.93		
CHLOROFORM	83	3.56796	2.49720	30.01	*	
1,2-DICHLOROETHANE	62	3.55690	3.28365	7.69		
1,2-DICHLOROETHANE-D4(SURR)	65	2.99858	2.60977	12.97		
2-BUTANONE	72	.06798	.07019	3.25		
1,1,1-TRICHLOROETHANE	97	.59787	.53040	11.29		
CARBON TETRACHLORIDE	117	.59043	.53136	10.01		
VINYL ACETATE	43	1.19023	.88040	26.03		
BROMODICHLOROMETHANE	83	.65552	.60988	6.96		
1,2-DICHLOROPROPANE	63	.46960	.44530	5.18	*	
TRANS-1,3-DICHLOROPROPENE	75	.70348	.73562	4.57		
TRICHLOROETHENE	130	.40336	.39404	2.31		
DIBROMOCHLOROMETHANE	129	.55837	.46153	17.34		
1,1,2-TRICHLOROETHANE	97	.36294	.36457	.48		
BENZENE	78	1.16600	1.15219	1.18		
CIS-1,3-DICHLOROPROPENE	75	.52628	.39136	25.64		
2-CHLOROETHYLVINYLETHER	63	.33081	.23078	30.24		
BROMOFORM	173	.62246	.38122	38.76		**
4-METHYL-2-PENTANONE	43	1.12348	.82297	26.75		
2-HEXANONE	43	.92838	.63516	31.58		
TETRACHLOROETHENE	164	.47024	.45628	2.97		
1,1,2,2-TETRACHLOROETHANE	83	.80085	.70217	12.32		**
TOLUENE-D8 (SURR)	98	1.36277	1.25597	7.84		
TOLUENE	92	.89572	.93165	4.01	*	
CHLOROBENZENE	112	1.10402	1.10885	.44		**
ETHYLBENZENE	91	1.85535	1.97067	6.22	*	

RF - Response Factor from daily standard file at 250.00 NGS

$\overline{R}$ - 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-4906; U-4928 U-4971; U-4989

Calibration Date: 02/24/87

Contractor: E & EM INC.

Time: 14:54

Contract No: IL-3140

Laboratory ID: >C6940

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	.69748	1.90		
STYRENE	104	.98260	1.14449	16.48		
TOTAL XYLENES	91	1.41320	1.65217	16.91		

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 (**)

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. 4971, 4989 (u-4906,4928) Contractor Ecology & Environment Contract No. IL-3140

Instrument ID 11P5995C Date 2/24/87 Time 14:31

Lab ID >C6939 Data Release Authorized By: C Szytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	25.66
75	30.0 - 60.0% of the base peak	57.63
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	7.23
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	87.57
175	5.0 - 9.0% of mass 174	6.08 (6.94)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	85.97 (98.17)[1]
177	5.0 - 9.0% of mass 176	5.13 (5.97)[2]

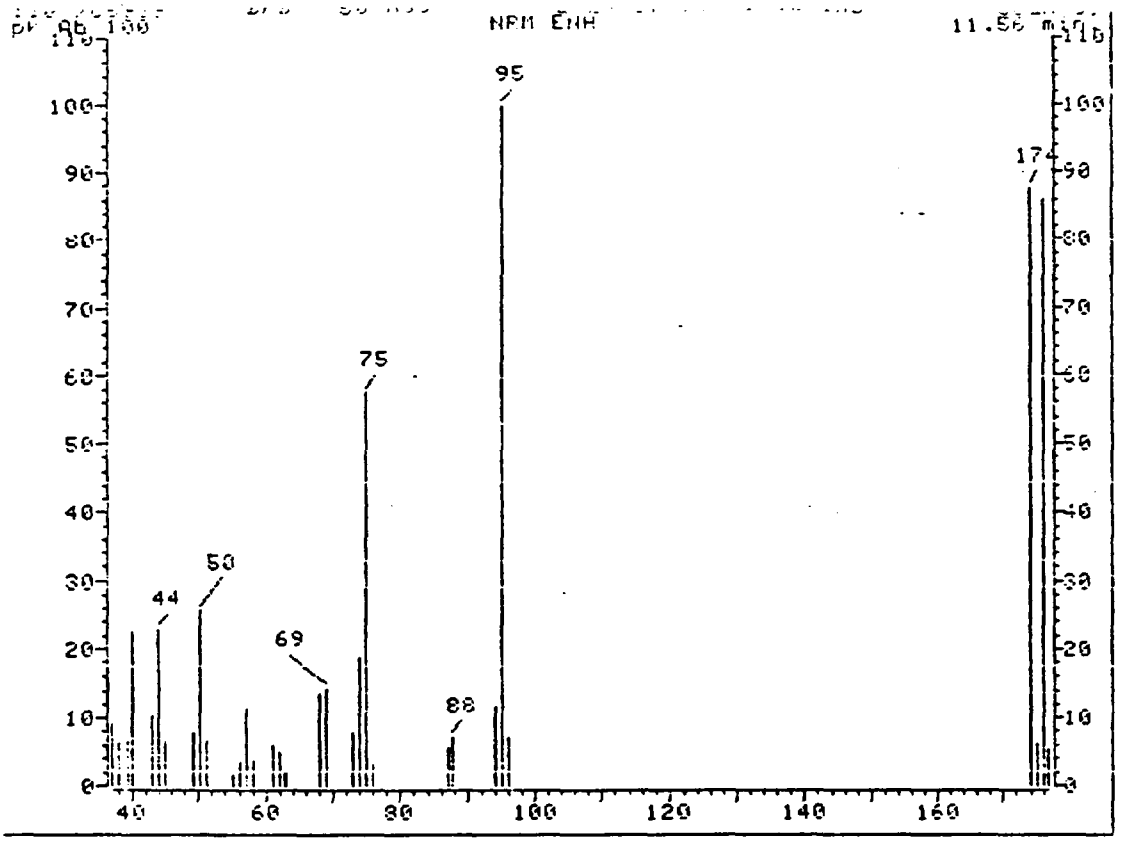
THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

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

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check >C6940	2-24-87	14:54
C6941	Method Blank >C6941	2-24-87	15:53
DC-01-59	1110 >C6942	2-24-87	16:45
DC-08-65	1116 >C6943	2-24-87	17:39
DC-06-66	1117 >C6944	2-24-87	18:31
DC-03-61	1112 >C6945	2-24-87	19:33
DC-02-60	1111 >C6946	2-24-87	20:25
DC-05-63	1114 >C6948	2-24-87	22:27
DC-05-64	1115 >C6951	2-25-87	01:02

FORM V 7/85

497095



>C6939 BFB 50 NGS 2/24/87MDS 1 UL INJ
89 NRM ENH

File: >C6939 Scan #: 89 Retn. time: 11.56

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.10	9.19	49.10	7.71	60.95	5.82	74.05	18.50	95.10	100.00
38.10	6.19	50.20	25.66	61.95	4.90	75.05	57.63	96.10	7.23
39.20	6.34	51.10	6.52	62.75	1.92	76.05	2.93	174.00	87.57
40.00	22.63	55.20	1.83	62.95	1.93	87.05	5.51	175.10	6.08
43.10	10.44	56.15	3.27	68.05	13.55	87.95	7.26	176.00	85.97
44.10	22.83	57.05	11.26	69.05	14.21	94.00	11.57	176.90	5.13
45.10	6.35	58.25	3.50	73.05	7.77				

MS data file header from : >C6939

Sample: BFB 50 NGS Operator: USER8 MS 2/24/87 14:31
Misc : 2/24/87MDS 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. :	5.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

Continuing Calibration Check
HSL Compounds

V-4906, V-4928
se V-4971, V-4989

Calibration Date: 02/26/87

ntractor: E & E, INC.

Time: 14:00

ntract No: IL-3140

Laboratory ID: XC6963

strument ID: HP-5995C

Initial Calibration Date: ~~01/28/87~~ RJM 1/27/87

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
HLOROMETHANE	50	2.43043	1.38811	42.89		**
ROMOMETHANE	94	1.10748	1.52053	37.30		
VINYL CHLORIDE	62	1.37999	1.44532	4.73	*	
CHLOROETHANE	64	.91582	.92353	.84		
ETHYLENE CHLORIDE	84	1.88105	1.72788	8.14		
ETONE	43	.56188	.89036	58.46		
ICHLOROFLUOROMETHANE	101	3.74934	3.86132	2.99		
RBON DISULFIDE	76	5.33308	5.30649	.50		
1-DICHLOROETHENE	61	3.40709	3.17447	6.83	*	
1-DICHLOROETHANE	63	3.74282	3.27332	12.54		**
ANS-1,2-DICHLOROETHENE	96	1.69959	1.61050	5.24		
LOROFORM	83	2.53321	2.35097	7.19	*	
2-DICHLOROETHANE	62	3.18319	3.06470	3.72		
2-DICHLOROETHANE-D4(SURR)	65	2.69697	2.44146	9.47		
BUTANONE	72	.03989	.04478	12.27		
1,1-TRICHLOROETHANE	97	.63749	.65792	3.20		
RBON TETRACHLORIDE	117	.66973	.67774	1.20		
NYL ACETATE	43	.70857	.56820	19.81		
OMODICHLOROMETHANE	83	.65600	.64980	.94		
2-DICHLOROPROPANE	63	.44332	.40112	9.52	*	
ANS-1,3-DICHLOROPROPENE	75	.79316	.77290	2.56		
ICHLOROETHENE	130	.41824	.40108	4.10		
BROMOCHLOROMETHANE	129	.49648	.47087	5.16		
1,2-TRICHLOROETHANE	97	.31392	.30953	1.40		
NZENE	78	1.20435	1.20423	.01		
S-1,3-DICHLOROPROPENE	75	.43032	.42630	.94		
CHLOROETHYLVINYLETHER	63	.15885	.15464	2.65		
OMOFORM	173	.38425	.34279	10.79		**
METHYL-2-PENTANONE	43	.44365	.35345	20.33		
HEXANONE	43	.32465	.30629	5.65		
TRACHLOROETHENE	164	.49222	.43575	11.47		
,1,2,2-TETRACHLOROETHANE	83	.53574	.49263	8.05		**
OLUENE-D8 (SURR)	98	1.41330	1.29745	8.20		
OLUENE	92	.97844	.91401	6.58	*	
LOROBENZENE	112	1.19479	1.06016	11.27		**
THYLBENZENE	91	2.06981	1.97256	4.70	*	

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

F - Average Response Factor from Initial Calibration Form VI

Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

U-4906; U-4928

se U-4971; U-4989 Calibration Date: 02/26/87

ntractor: E & E, INC. Time: 14:00

ntract No: IL-3140 Laboratory ID:)C6963

strument ID: HP-5995C Initial Calibration Date: ~~01/28/87~~ BJL 1/27/87

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

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	.72214	.67854	6.04		
STYRENE	104	1.24236	1.14376	7.94		
TOTAL XYLENES	91	1.76320	1.61522	8.39		

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

- Average Response Factor from Initial Calibration Form VI

Diff - % Difference from original average or curve

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. u-4906,4928 4971, 4989 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP5995C Date 2/26/87 Time 13:25

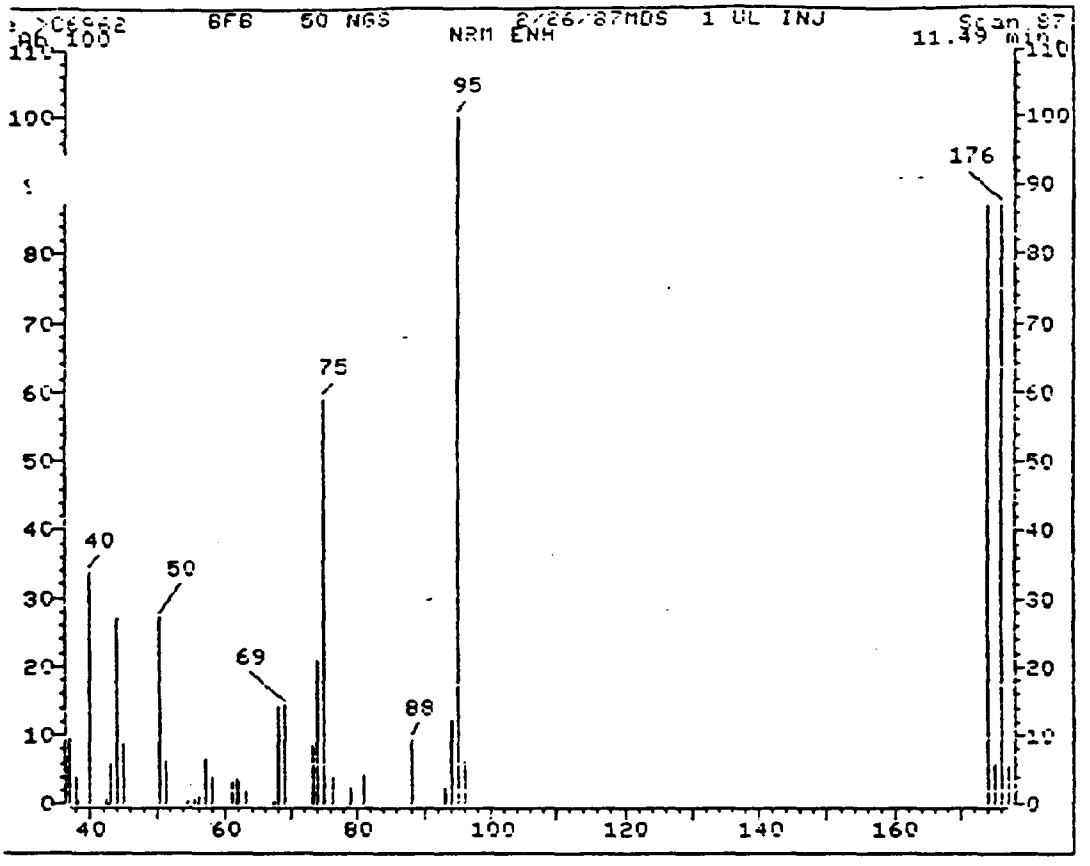
Lab ID >C6962 Data Release Authorized By: C Hoytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	27.28
75	30.0 - 60.0% of the base peak	59.02
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	6.13
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	86.77
175	5.0 - 9.0% of mass 174	5.72 (6.59)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	86.96 (100.22)[1]
177	5.0 - 9.0% of mass 176	5.38 (6.19)[2]

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

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

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check >C6963	2-26-87	14:00
C6964	Method Blank	2-26-87	14:52
DC-G6-67	1274 >C6966	2-26-87	16:53
DC-G7-69	1276 >C6967	2-26-87	17:45
DC-G9-71	1278 >C6969	2-26-87	19:33
DC-G8-70	1277 >C6970	2-26-87	20:39
DC-G8-70MS	1277 MS >C6972	2-26-87	22:23
DC-G8-70MSD	1277 MSD >C6973	2-26-87	23:15



6962 BFB 50 NGS 2/26/87MDS 1 UL INJ
87 NRM ENH

le: >C6962 Scan #: 87 Retn. time: 11.49

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
7.10	9.63	45.10	8.89	61.15	3.40	74.05	21.04	94.00	12.27
8.00	3.82	50.10	27.28	61.75	3.50	75.05	59.02	95.10	100.00
8.20	.56	51.20	6.24	62.05	3.41	76.15	3.78	96.10	6.13
0.10	33.78	54.50	.25	63.05	2.13	79.05	2.25	174.00	86.77
2.20	.60	55.65	.82	67.35	.24	81.05	4.19	175.00	5.72
2.60	.21	56.25	.94	68.05	14.28	88.05	9.52	176.00	86.96
3.10	5.87	57.15	6.60	69.15	14.42	93.00	2.37	177.00	5.38
4.10	26.85	58.05	3.92	73.15	8.32				

data file header from : >C6962

mple: BFB 50 NGS Operator: USER8 MS 2/26/87 13:25
sc : 2/26/87MDS 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

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. u-4906,4928 4971, 4989 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID 11P5995C Date 3/4/87 Time 09:10

Lab ID >C7037 Data Release Authorized By: C Slojtowicz

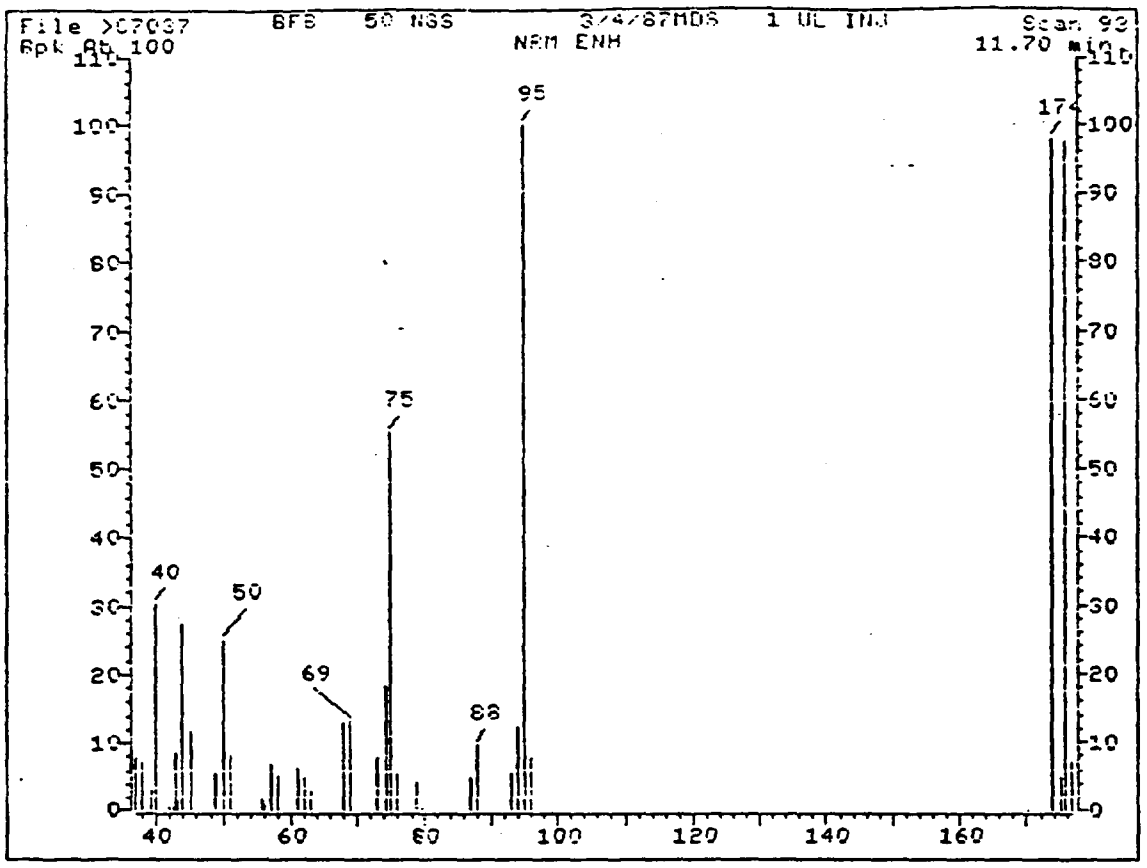
m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	24.90
75	30.0 - 60.0% of the base peak	55.36
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	7.83
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	97.80
175	5.0 - 9.0% of mass 174	4.92 (5.03) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	97.31 (99.50) [1]
177	5.0 - 9.0% of mass 176	7.08 (7.27) [2]

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

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

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check >C7038	3-4-87	09:42
C7040	Method Blank	3-4-87	11:32
DC-GB-68	1275 >C7041	3-4-87	12:33

FORM V 7/85
497095



>C7037 BFB 50 NGS 3/4/87MDS 1 UL INJ
93 NRM ENH

File: >C7037 Scan #: 93 Retn. time: 11.70

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	7.92	44.00	27.35	58.05	5.26	74.95	55.36	95.00	100.00
38.00	7.00	45.10	11.48	60.95	6.28	75.95	5.38	96.00	7.83
39.20	2.94	48.90	5.66	62.05	4.87	78.95	4.09	170.30	.16
40.00	30.28	50.05	24.90	62.85	3.11	79.95	.27	173.90	97.80
42.00	.51	51.05	8.13	67.95	12.95	87.00	4.98	175.00	4.92
42.40	.38	55.65	1.78	69.05	13.19	88.00	9.56	175.90	97.31
43.00	8.30	55.95	.76	72.95	7.66	93.00	5.52	176.90	7.08
43.20	1.34	56.95	6.77	74.05	18.26	94.10	12.16		

MS data file header from : >C7037

Sample: BFB 50 NGS Operator: USER8 MS 3/04/87 9:10
Misc : 3/4/87MDS 1 UL INJ
Sys. #: 1 MS model: 9o SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTCV4 No. of extra records: 1
Source temp.: 200 Analyzer temp.: 220 Transfer line temp. : 200

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

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. u-4906,4928 4971, 4989 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID 11P5995C Date 3-09-87 Time 10:02

Lab ID >C7135 Data Release Authorized By: C Slytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	23.39
75	30.0 - 60.0% of the base peak	54.94
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	7.50
173	Less than 1.0% of the base peak	0.24
174	Greater than 50.0% of the base peak	95.88
175	5.0 - 9.0% of mass 174	6.17 (6.44)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	95.82 (99.93)[1]
177	5.0 - 9.0% of mass 176	6.78 (7.08)[2]

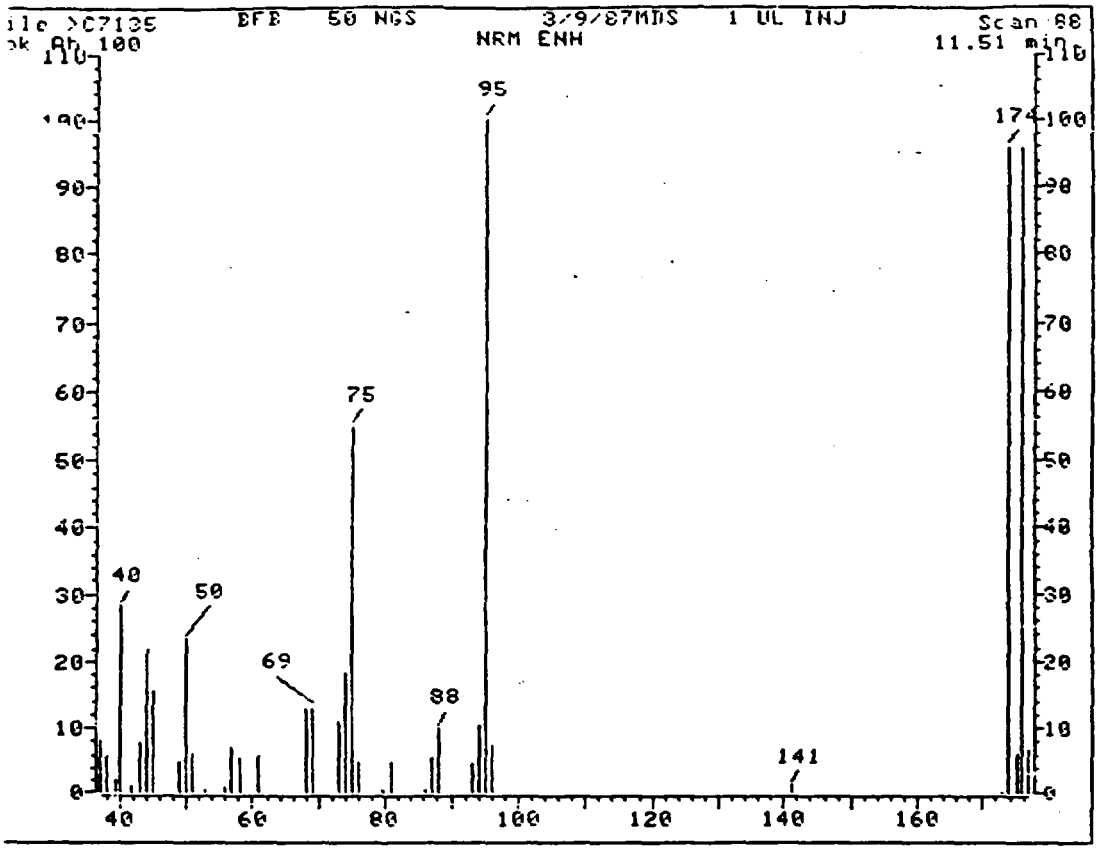
THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

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

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check >C7137	3-09-87	11:26
C 7138	Method Blank	3-09-87	12:18
DC-09-73	1428 >C7139	3-09-87	13:54
DC-09-72	1427 >C7140	3-09-87	14:46
DC-010-75	1430 >C7141	3-09-87	15:38
DC-010-74	1429 >C7143	3-09-87	17:23

FORM V 7/85

497095



:7135 BFB 50 NGS 3/9/87MDS 1 UL INJ
88 NRM ENH

le: >C7135 Scan #: 88 Retn. time: 11.51

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
7.20	7.98	49.00	4.87	67.95	12.87	80.95	4.81	96.10	7.50
8.00	5.86	50.10	23.39	68.95	13.00	86.35	.43	141.05	1.21
9.30	1.97	51.00	6.15	73.05	10.89	87.05	5.45	172.70	.24
0.00	28.13	53.10	.41	74.05	18.48	88.05	9.97	173.90	95.88
1.80	1.16	55.75	.74	75.05	54.94	93.00	4.66	175.00	6.17
2.90	7.67	57.05	7.05	76.05	5.03	94.20	10.48	175.90	95.82
4.10	21.74	58.05	5.67	79.75	.48	95.00	100.00	176.90	6.78
5.10	15.31	60.95	5.97						

data file header from : >C7135

mple: BFB 50 NGS Operator: USER8 MS 3/09/87 10:02
sc : 3/9/87MDS 1 UL INJ
s. #: 1 MS model: 96 SW/HW rev.: CA ALS # : 0
M 1 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. : 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-P1-53

DC - P1-53

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989

Lab Sample ID No: 1032

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Bogtowicz

Date Sample Received: 2-14-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 1 pH 10.2

Percent Moisture: (Not Decanted) 20

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	14 B
67-64-1	Acetone	820 BE
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	10
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	150 B
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	Trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-2	Benzene	39
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5u
108-10-1	4-Methyl-2-Pentanone	39
591-78-6	2-Hexanone	30
127-18-4	Tetrachloroethene	5u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
108-88-3	Toluene	330
108-90-7	Chlorobenzene	110
100-41-4	Ethylbenzene	95
100-42-5	Styrene	5u
	Total Xylenes	360

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.

alue — 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 1 µg/l is calculated, report as 1J.

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

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number DC-P1-53

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 2-16-87

Date Analyzed: 03-05-87

Conc/Dil Factor: 100

Percent Moisture (Decanted) 20

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/Lo ug/Kg (Circle One)
108-95-2	Phenol	3100 J
111-44-4	bis(2-Chloroethyl)Ether	16000u
95-57-8	2-Chlorophenol	16000u
541-73-1	1 3-Dichlorobenzene	16000u
106-46-7	1 4-Dichlorobenzene	7100 J
100-51-6	Benzyl Alcohol	16000u
95-50-1	1 2-Dichlorobenzene	2900 J
95-48-7	2-Methylphenol	16000u
39638-32-9	bis(2-chloroisopropyl)Ether	16000u
106-44-5	4-Methylphenol	16000u
621-64-7	N-Nitroso-Di-n-Propylamine	16000u
67-72-1	Hexachloroethane	16000u
98-95-3	Nitrobenzene	16000u
78-59-1	Isophorone	16000u
88-75-5	2-Nitrophenol	16000u
105-67-9	2 4-Dimethylphenol	16000u
65-85-0	Benzoic Acid	80000u
111-91-1	bis(2-Chloroethoxy)Methane	16000u
120-83-2	2 4-Dichlorophenol	16000u
120-82-1	1 2 4-Trichlorobenzene	16000u
91-20-3	Naphthalene	16000u
106-47-8	4-Chloroaniline	16000u
87-68-3	Hexachlorobutadiene	16000u
59-50-7	4-Chloro-3-Methylphenol	16000u
91-57-6	2-Methylnaphthalene	16000u
77-47-4	Hexachlorocyclopentadiene	16000u
88-06-2	2 4 6-Trichlorophenol	16000u
95-95-4	2 4 5-Trichlorophenol	80000u
91-58-7	2-Chloronaphthalene	16000u
88-74-4	2-Nitroaniline	80000u
-11-3	Dimethyl Phthalate	16000u
208-96-8	Acenaphthylene	16000u
99-09-2	3-Nitroaniline	80000u

CAS Number		ug/Lo ug/Kg (Circle One)
83-32-9	Acenaphthene	16000u
51-28-5	2 4-Dinitrophenol	80000u
100-02-7	4-Nitrophenol	80000u
132-64-9	Dibenzofuran	16000u
121-14-2	2 4-Dinitrotoluene	16000u
606-20-2	2 6-Dinitrotoluene	16000u
84-66-2	Diethylphthalate	16000u
7005-72-3	4-Chlorophenyl-phenylether	16000u
86-73-7	Fluorene	16000u
100-01-6	4-Nitroaniline	80000u
534-52-1	4 6-Dinitro-2-Methylphenol	80000u
86-30-6	N-Nitrosodiphenylamine (1)	16000u
101-55-3	4-Bromophenyl-phenylether	16000u
118-74-1	Hexachlorobenzene	16000u
87-86-5	Pentachlorophenol	80000u
85-01-8	Phenanthrene	16000u
120-12-7	Anthracene	16000u
84-74-2	Di-n-Butylphthalate	13000 J
206-44-0	Fluoranthene	16000u
129-00-0	Pyrene	16000u
85-68-7	Butylbenzylphthalate	16000u
91-94-1	3 3'-Dichlorobenzidine	32000u
56-55-3	Benzo(a)Anthracene	16000u
117-81-7	bis(2-Ethylhexyl)Phthalate	16000u
218-01-9	Chrysene	16000u
117-84-0	Di-n-Octyl Phthalate	16000u
205-99-2	Benzo(b)Fluoranthene	16000u
207-08-9	Benzo(k)Fluoranthene	16000u
50-32-8	Benzo(a)Pyrene	16000u
193-39-5	Indeno(1,2,3-cd)Pyrene	16000u
53-70-3	Dibenz(a,h)Anthracene	16000u
191-24-2	Benzo(g,h,i)Perylene	16000u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number
DC-P1-53

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-16-87

Date Analyzed 2-23-87

Conc/Dil Factor 50

Percent Moisture (decanted) 20

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	4000 u
319-85-7	Beta-BHC	4000 u
319-86-8	Delta-BHC	4000 u
58-89-9	Gamma-BHC (Lindane)	4000 u
76-44-8	Heptachlor	4000 u
309-00-2	Aldrin	4000 u
1024-57-3	Heptachlor Epoxide	4000 u
959-98-8	Endosulfan I	4000 u
60-57-1	Dieldrin	8000 u
72-55-9	4,4'-DDE	8000 u
72-20-8	Endrin	8000 u
33213-65-9	Endosulfan II	8000 u
72-54-8	4,4'-DDD	8000 u
1031-07-8	Endosulfan Sulfate	8000 u
50-29-3	4,4'-DDT	8000 u
72-43-5	Methoxychlor	40,000 u
53494-70-5	Endrin Ketone	8000 u
57-74-9	Chlordane	40,000 u
8001-35-2	Toxaphene	80,000 u
12674-11-2	Aroclor-1016	40,000 u
11104-28-2	Aroclor-1221	40,000 u
11141-16-5	Aroclor-1232	40,000 u
53469-21-9	Aroclor-1242	40,000 u
12672-29-6	Aroclor-1248	40,000 u
11097-69-1	Aroclor-1254	80,000 u
11096-82-5	Aroclor-1260	80,000 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1,000 V_i 4

aboratory Name Ecology & Environment Inc.

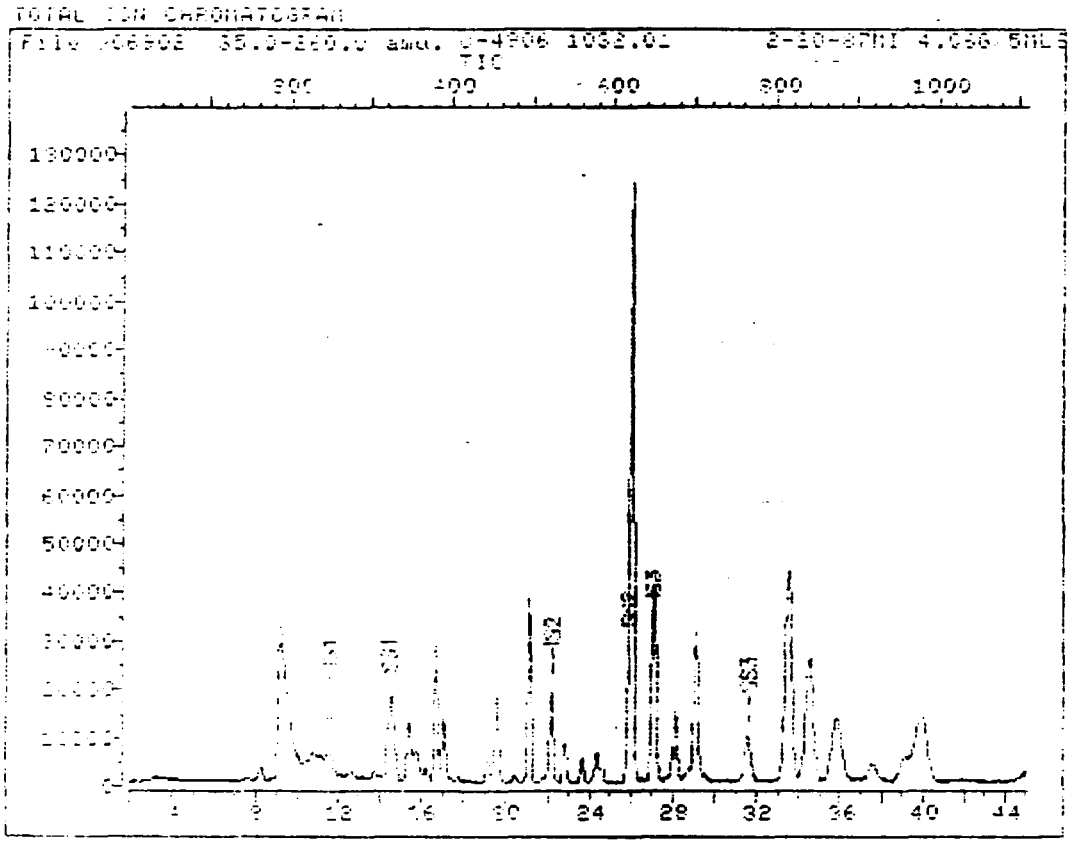
ase No W-4906, 4926, 4971, 4989

Sample Number
DC-P1-53

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.	14898794	2-Butanol	VOA	15.4	77 J
2.		Unknown hydrocarbon	VOA	16.7	120 J
3.		Hexene isomer	VOA	17.1	39 BJ
4.		Hexene isomer	VOA	19.2	14 J
5.		Unknown hydrocarbon	VOA	28.2	21 J
6.		Hexane isomer	VOA	21.2	100 BJ
7.		Unknown hydrocarbon	VOA	35.9	40 J
8.					
9.					
10.	629505	Tridecane	BNA	18.98	130,000 J
11.		Unknown hydrocarbon		19.22	63,000 J
12.		Unknown hydrocarbon		19.32	58,000 J
13.	544763	Hexadecane		19.77	150,000 J
14.		Unknown hydrocarbon		20.48	52,000 J
15.		Unknown hydrocarbon		21.22	70,000 J
16.		Unknown hydrocarbon		21.30	82,000 J
17.	55045119	5-Propyl-Tridecane		21.85	140,000 J
18.		Unknown hydrocarbon		21.95	47,000 J
19.		Unknown hydrocarbon		22.73	71,000 J
20.		Unknown hydrocarbon		22.61	170,000 J
21.		Unknown hydrocarbon		23.93	110,000 J
22.		Unknown hydrocarbon		24.46	52,000 J
23.		Unknown hydrocarbon		25.20	160,000 J
24	10544500	Molecular Sulfur		25.34	85,000 J
25.		Unknown hydrocarbon		26.41	76,000 J
26.		Unknown hydrocarbon		27.98	110,000 J
27.		Unknown hydrocarbon		29.07	77,000 J
28.		Unknown hydrocarbon		30.77	57,000 J
29.		Unknown hydrocarbon		33.04	97,000 J
30					

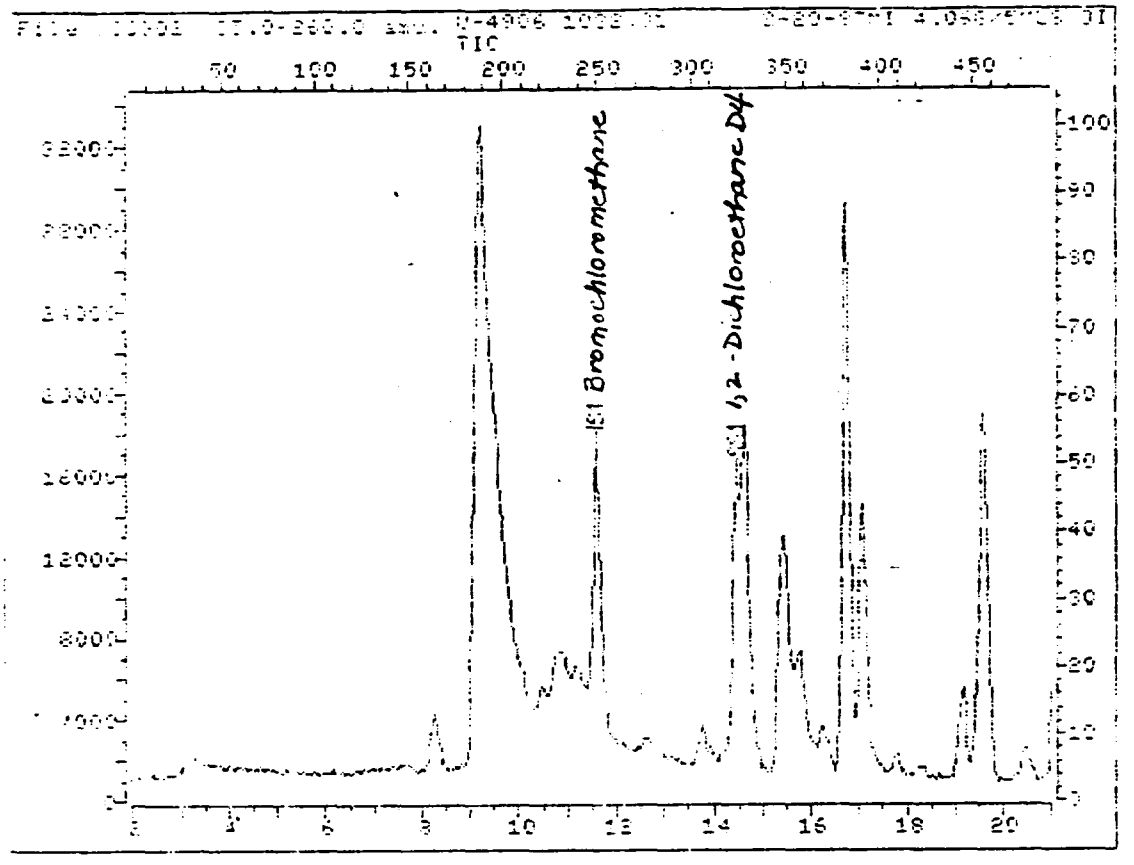


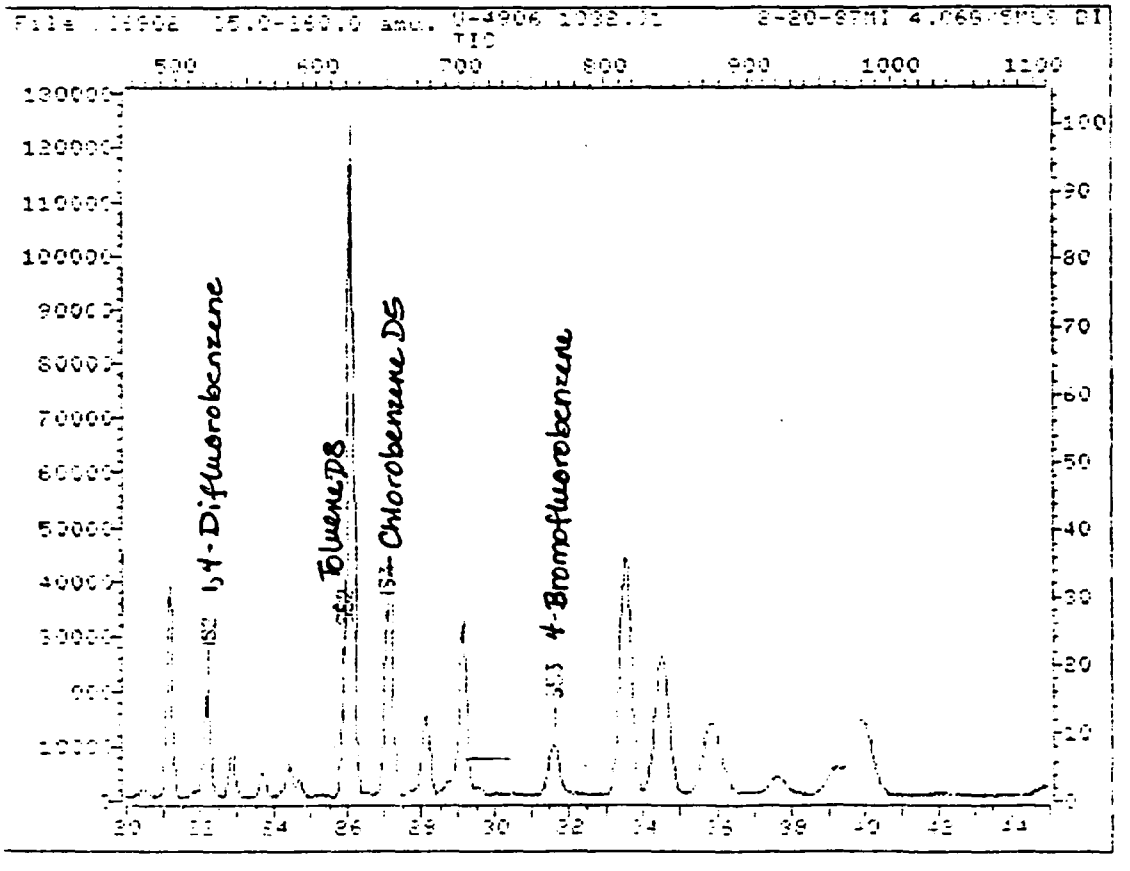
Data File: 04902::03
Name: U-4906 1002.01 DC-PI-53
Misc: 2-20-87MI 4.06G/FMLS DI + 10UL IS/SS

Id File: MDACFB::D2
Title: MDH ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

Operator ID: USER3
Quant Time: 870220 20:22
Injected at: 870220 19:36

DC-71-53


TIC
Bromochloromethane
1,2-Dichloroethane D4


TIC
1,4-Difluorobenzene
Toluene D8
Chlorobenzene D5
4-Bromofluorobenzene

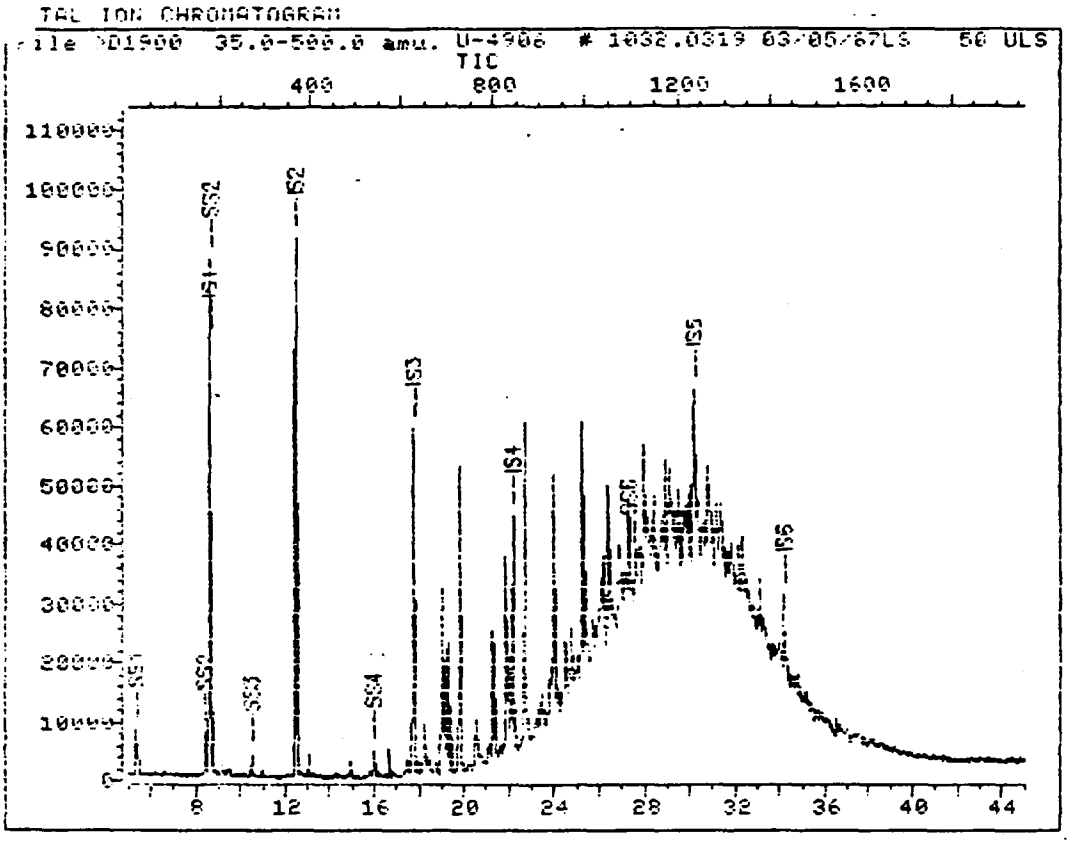
QUANT REPORT

Operator ID: USERS Quant Rev: 4 Quant Time: 870220 20:22
Output File: ^C6902::02 Injected at: 870220 19:36
Data File: ^C6902::D3 Dilution Factor: 1.00
Name: U-4906 1032.11 DC-P1-53
Misc: 2-20-87MI 4.1G/5MLS DI - 10UL IS/SS

ID File: VOACRS::02
Title: VOC ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.57	249	16848	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.27	164	6674	57.01	NGS	100
7)	ACETONE	43	9.28	190	695427	3335.55	NGS	100
~~8)~~	~~TRICHLOROFLUOROMETHANE~~	~~101~~	~~10.48~~	~~221~~	~~3186~~	~~19.57~~	~~NGS~~ cw	87
13)	CHLOROFORM	83	13.74	305	8371	42.10	NGS	100
15)	1,2-DICHLOROETHANE-D4 (SURR)	65	14.44	323	51464	222.33	NGS 89	81 ✓
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.20	523	75755	250.00	NGS	100
17)	2-BUTANONE	72	14.63	328	23673	610.32	NGS	100
~~17)~~	~~2-BUTANONE~~	~~72~~	~~15.41~~	~~348~~	~~3001~~	~~77.37~~	~~NGS~~ cw	100
27)	BENZENE	78	19.60	456	66273	160.01	NGS	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.05	648	49881	250.00	NGS	100
32)	4-METHYL-2-PENTANONE	43	22.86	540	39282	160.57	NGS	89
~~32)~~	~~4-METHYL-2-PENTANONE~~	~~43~~	~~23.71~~	~~562~~	~~10309~~	~~42.14~~	~~NGS~~ } nocw	64
~~33)~~	~~2-HEXANONE~~	~~43~~	~~23.71~~	~~562~~	~~10309~~	~~52.66~~	~~NGS~~	100
33)	2-HEXANONE	43	24.41	580	23870	121.93	NGS	100
36)	TOLUENE-D8 (SURR)	98	25.99	613	69243	242.43	NGS 97	96 ✓
37)	TOLUENE	92	26.08	623	285587	1330.05	NGS	99
38)	CHLOROBENZENE	112	27.17	651	116541	444.63	NGS	99
39)	ETHYLBENZENE	91	29.16	702	171199	384.38	NGS	95
40)	4-BROMOFLUOROBENZENE (SURR)	95	31.60	765	30091	185.04	NGS 74	100 ✓
~~41)~~	~~STYRENE~~	~~104~~	~~33.42~~	~~812~~	~~4403~~	~~16.65~~	~~NGS~~ nocw	100
~~41)~~	~~STYRENE~~	~~104~~	~~34.55~~	~~841~~	~~4738~~	~~17.31~~	~~NGS~~	100
42)	TOTAL XYLENES	91	33.50	814	325788	883.39	NGS	100
42)	TOTAL XYLENES	91	34.55	841	219588	595.42	NGS	100
43)	1,3-DICHLOROBENZENE	146	39.25	962	31535	31535.00	NO CALIB	100
43)	1,3-DICHLOROBENZENE	146	39.91	979	109000	109000.0	NO CALIB	100
44)	1,2-DICHLOROBENZENE		39.25	962	31535	31535.00	NO CALIB	100
44)	1,2-DICHLOROBENZENE		39.91	979	105855	105855.0	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	39.25	962	31535	31535.00	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	39.91	979	119965	119965.0	NO CALIB	100

* Compound is ISTD

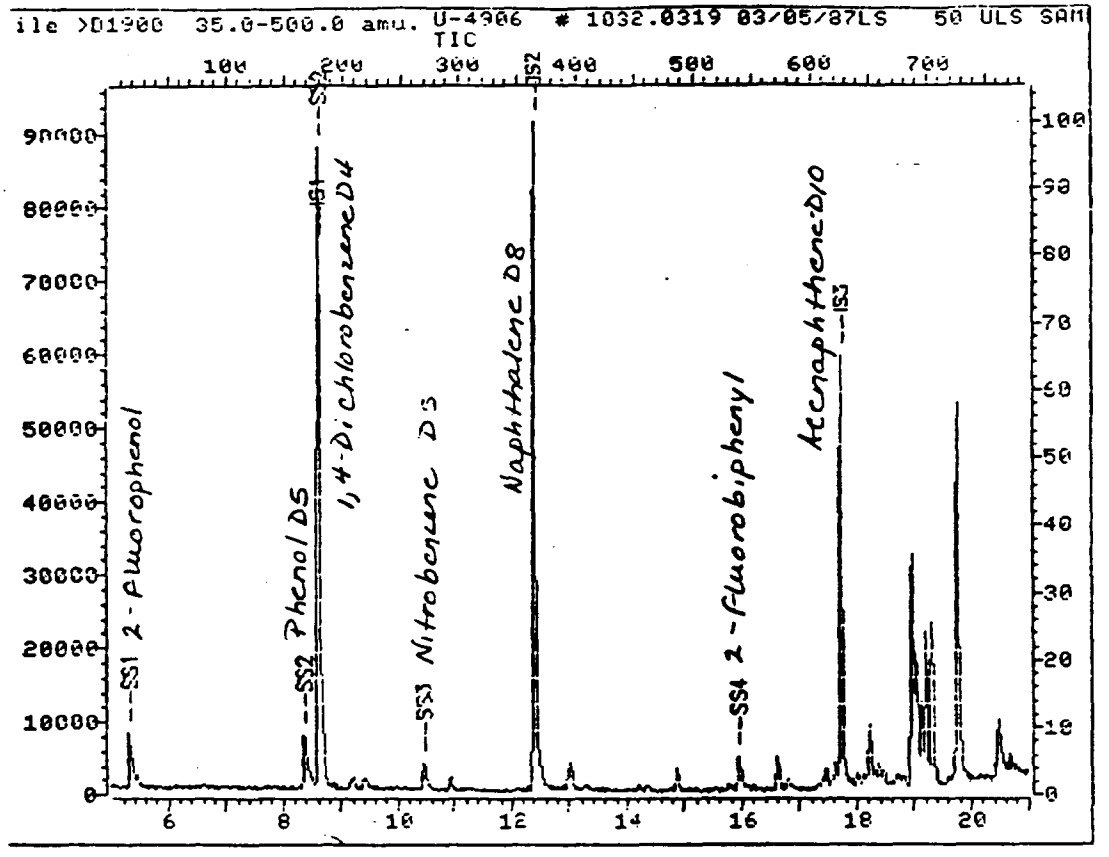


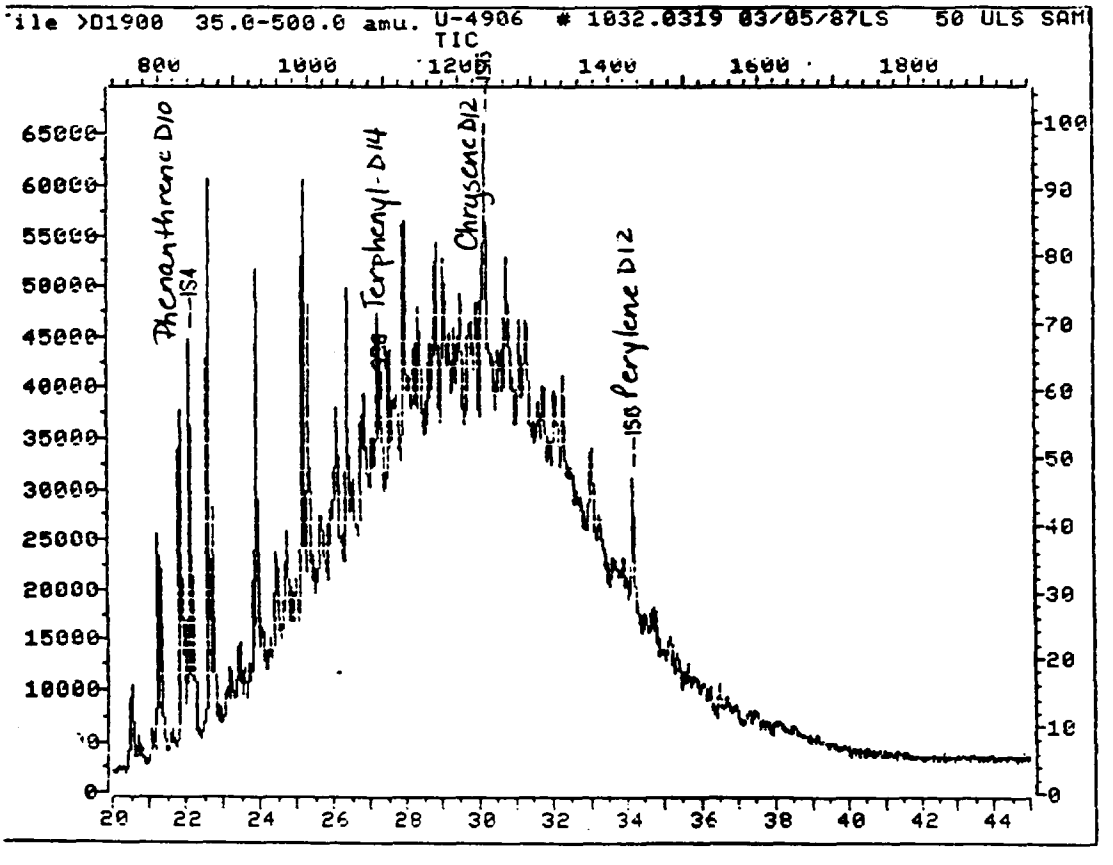
Data File: >D1900::D3
Name: U-4906 # 1032.0319 DC-P1-53
Misc: 03/05/87LS 50 ULS SAMPLE + 450 ULS MECL2 + 5 ULS IS BTL# 2

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

Operator ID: USER6
Quant Time: 870305 19:33
Injected at: 870305 18:46

DC-P1-53


ile >D1900 35.0-500.0 amu. U-4906 # 1032.0319 03/05/87LS 50 ULS SAM
TIC
SS1 2-Fluorophenol
SS2 Phenol D5
IS1 1,4-Dichlorobenzene D4
SS3 Nitrobenzene D5
IS2 Naphthalene D8
SS4 2-Fluorobiphenyl
IS3 Acenaphthene D10


ile >D1900 35.0-500.0 amu. U-4906 # 1032.0319 03/05/87LS 50 ULS SAM
TIC
IS4 Phenanthrene D10
Terphenyl-D14
IS5 Chrysene D12
IS6 Perylene D12

QUANT REPORT

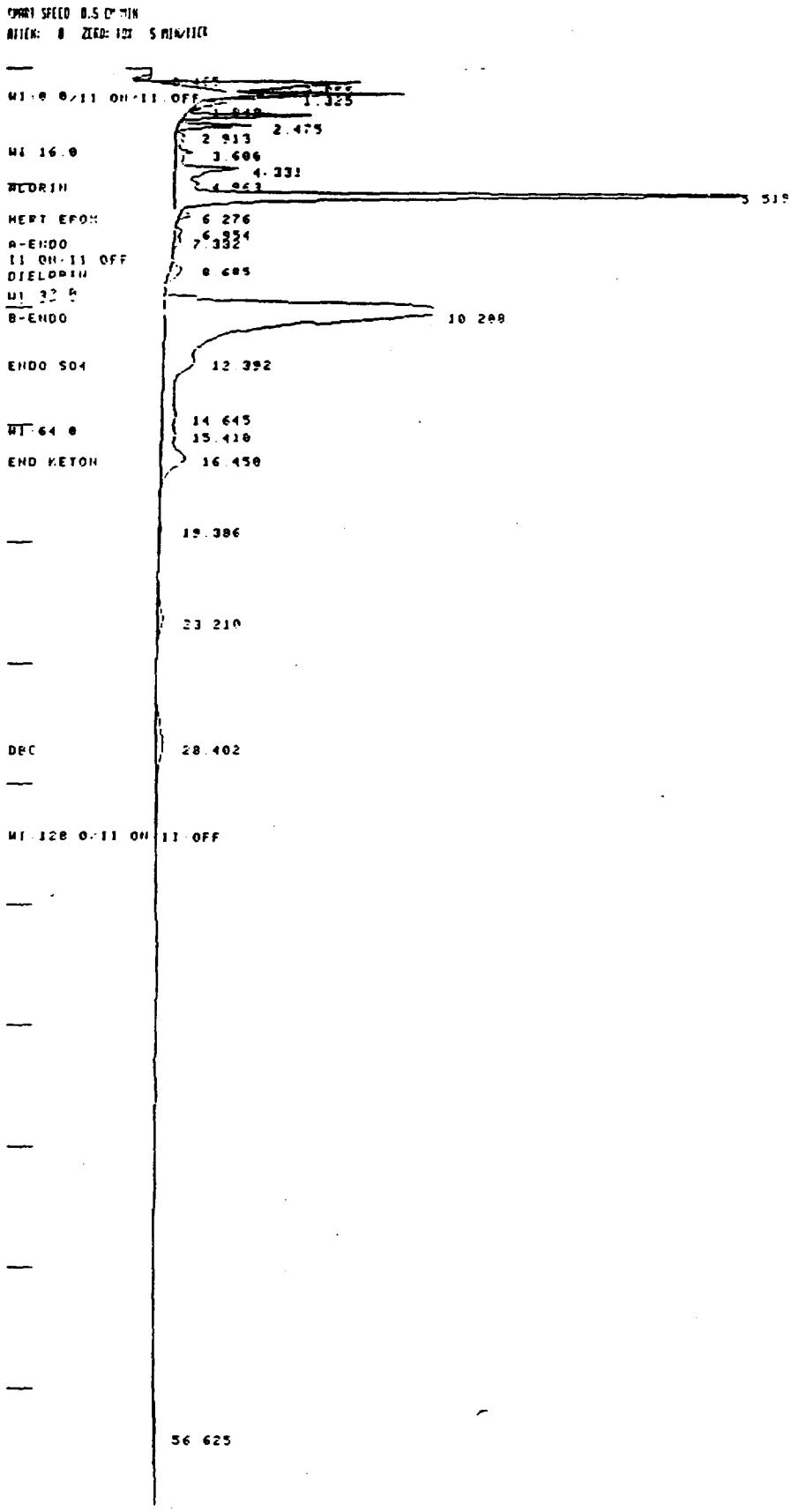
Operator ID: USER6 Quant Rev: 4 -- Quant Time: 870305 19:33
Output File: ^D1900::Q2 Injected at: 870305 18:46
Data File: >D1900::D3 Dilution Factor: 10.00
Name: U-4906 # 1032.0319 DC-D1-53
Misc: 03/05/87LS 50 ULS SAMPLE + 450 ULS MECL2 + 5 ULS IS BTL# 2

ID File: BNAUR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.61	178	44770	40.00 UG/L	86
2)	PHENOL-D5	(SURR)	99	8.56	166	11296	66.31 UG/L 74 ✓	95
2)	PHENOL-D5	(SURR)	99	8.63	179	1314	7.71 UG/L	76
5)	2-FLUOROPHENOL	(SURR)	112	5.31	16	7098	92.50 UG/L 93 ✓	84
6)	PHENOL		94	8.40	168	1698	9.41 UG/L yes	79
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~8.67~~	~~181~~	~~3545~~	~~21.99 UG/L~~	~~99~~
10)	1,4-DICHLOROBENZENE		146	8.67	181	3545	21.42 UG/L yes	98
12)	1,2-DICHLOROBENZENE		146	9.20	207	1409	8.61 UG/L yes	90
19)	*NAPHTHALENE-D8	(IS)	136	12.42	365	130179	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.46	269	5292	38.16 UG/L 76 ✓	92
34)	*ACENAPHTHENE-D10	(IS)	162	17.73	626	37078	40.00 UG/L	99
38)	2-FLUOROBIPHENYL	(SURR)	172	15.94	538	7398	49.41 UG/L 99 ✓	93
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.73~~	~~626~~	~~7012~~	~~64.64 UG/L~~	~~100~~
~~42)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.73~~	~~626~~	~~4594~~	~~210.81 UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.12	841	33656	40.00 UG/L	89
63)	DI-N-BUTYLPHTHALATE		149	24.71	968	3108	39.26 UG/L yes	96
65)	*CHRYSENE-D12	(IS)	240	30.17	1235	23828	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.29	1094	2088	44.65 UG/L 89 ✓	100
74)	*PERYLENE-D12	(IS)	264	34.18	1431	20892	40.00 UG/L	100

* Compound is ISTD

2,4,6-Tribromophenol (surr) not present ok
Report Diluted out



CHANNEL: 1A - 1 TITLE: RUN# 17 22:07 23 FEB 87 DC- P1-53

SAMPLE: 1032 METHOD: CEPB CALIBRATION: CS - ANALYS

56 625

CHANNEL: 1A - 1 TITLE: RUN: 17 22:07 23 FEB 87

SAMPLE: 1032 METHOD: CEPA CALCULATION: ES - ANALYS DC - P1-53

PEAK NO	PEAK NAME	RESULT UG/Kg	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.325		20775	BV	3.44
2		0.0000	1.545		22262	VV	5.44
3		0.0000	2.102		119903	VV	6.44
4	B-BHC	2756.292	2.475	0.095	75060	VV	7.19
5		0.0000	3.608		43625	VV	13.19
6		0.0000	4.331		111303	VV	13.00
7		0.0000	4.575		45378	VV	? 20.44
8	~~ALGAIN~~	655.0016	4.963	-0.097	51172	VV	? 18.69
9		0.0000	5.519		1393991	VV	12.56
10	~~HEPT EPOX~~	331.4945	6.276	0.156	24315	T	22.50
11	~~4,4'-DDE~~	760.2549	8.685	-0.095	54674	BB	35.00
12	~~B-EMSO~~	26900.67	10.208	0.199	1063780	BV	45.31
13	~~ENDO SO~~	4241.201	12.392	-0.388	226784	VV	? 71.31
14	~~4,4'-EDT~~	2061.385	14.645	0.455	97696	VV	?116.81
15		0.0000	15.410		60120	VV	? 74.50
16	~~ENG-METOX~~	2166.497	16.450	0.110	165065	VV	46.38
17		0.0000	23.210		44877	BB	61.31
18	~~[illegible]~~	1776.638	28.402	0.092	102670	BB	111.19

TOTALS: 41657.43 0.616 4524266

DETECTED PKS: 30 REJECTED PKS: 12

DIVISOR: 0.15000 MULTIPLIER: 50000.0000

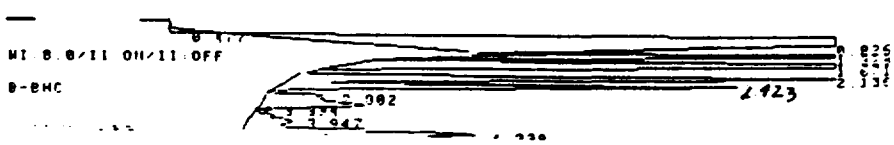
NOISE: 11.4 OFFSET: -11

RACK: 2 VIAL: 2 INJ: 1

NOTES:
NOTEBOOK:259-115,116 ANALYST: RICHARD SAMSON
SECURE AREA: 0 JOB#:U-4872,4906
INST: VARIAN 6905A 2A ECD 10X1
COLUMN: 6' GLASS 9M ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

POST RUN:
SAVE FILE: RAW DC1109

CHART SPEED 0.5 CM/MIN
ATTEN: 0 ZERO: 10% 5 MIN/TICK



SAMPLE NUMBER DC-P2-54

DC-P2-54

.Organics Analysis Data Sheet
(Page 1)

aboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

ab Sample ID No: 1033

QC Report No:

ample Matrix: Soil

Contract No: EL-3140

ata Release Authorized By: CStoytowicz

Date Sample Received: 2-14-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 1 pH 8.0

Percent Moisture: (Not Decanted) 16

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
4-87-3	Chloromethane	10u
4-83-9	Bromomethane	10u
5-01-4	Vinyl Chloride	10u
5-00-3	Chloroethane	10u
5-09-2	Methylene Chloride	4BJ
7-64-1	Acetone	870BE
5-15-0	Carbon Disulfide	5u
5-35-4	1, 1-Dichloroethene	5u
5-34-3	1, 1-Dichloroethane	5u
56-60-5	Trans-1, 2-Dichloroethene	5u
7-66-3	Chloroform	5u
07-06-2	1, 2-Dichloroethane	5u
3-93-3	2-Butanone	64B
-55-6	1, 1, 1-Trichloroethane	5u
5-23-5	Carbon Tetrachloride	5u
08-05-4	Vinyl Acetate	10u
-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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 e instrument detection limit.) The footnote should read: U-ompound 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., 10 B). If limit of detection is 10 µg/l and a

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

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

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

E — This flag indicates an approximate concentration. The amount detected in the

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number DC-P2-54

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 03-05-87

Date Analyzed 03-18-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 16

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1 3-Dichlorobenzene	330u
106-46-7	1 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2 4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
120-83-2	2 4-Dichlorophenol	330u
120-82-1	1 2 4-Trichlorobenzene	330u
91-20-3	Naphthalene	330u
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2 4 6-Trichlorophenol	330u
95-95-4	2 4 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u
132-64-9	Dibenzofuran	330u
121-14-2	2 4-Dinitrotoluene	330u
606-20-2	2 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	1600u
534-52-1	4 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	130 J
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3 3-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1,2,3-cd)Pyrene	330u
53-70-3	Dibenz(a,h)Anthracene	330u
191-24-2	Benzo(g,h,i)Perylene	330u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number
DC-P2-54

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2/16/87

Date Analyzed 2/23/87

Conc/Dil Factor 1

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	1600 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1,000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

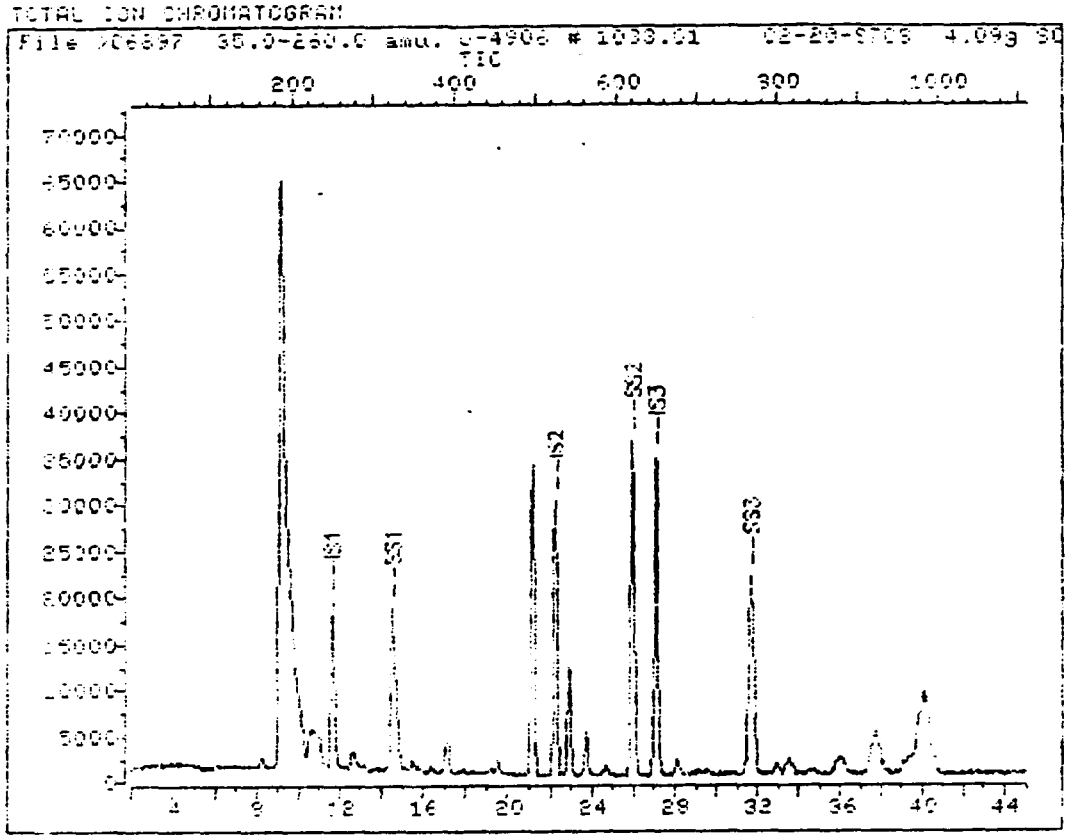
Sample Number DC-P2-54

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.	Hexane isomer	VOA	21.2	66 BJ
2.	Unknown alcohol (?)	VOA	23.7	10 J
3.	Unknown alcohol (?)	VOA	37.8	19 J
4.	Dichlorobenzene isomers	VOA	40.1	62 J
5.				
6.	Unknown	BNA	19.4	1200 J
7.	Unknown hydrocarbon	BNA	20.3	220 J
8.	Unknown	BNA	21.0	1400 J
9.	Unknown hydrocarbon	BNA	21.1	630 J
10.	Unknown	BNA	22.4	1100 J
11. 17312775	2,3-Dimethyl Undecane	BNA	23.2	470 J
12. 544763	Hexadecane	BNA	24.0	560 J
13.	Unknown hydrocarbon	BNA	25.3	330 J
14.	Unknown	BNA	25.7	250 J
15.	Unknown hydrocarbon	BNA	26.6	230 J
16. 10544500	Molecular Sulfur	BNA	26.7	290 J
17.	Unknown	BNA	29.3	1100 J
18.	Unknown hydrocarbon	BNA	31.1	640 J
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

TOTAL ION CHROMATOGRAM

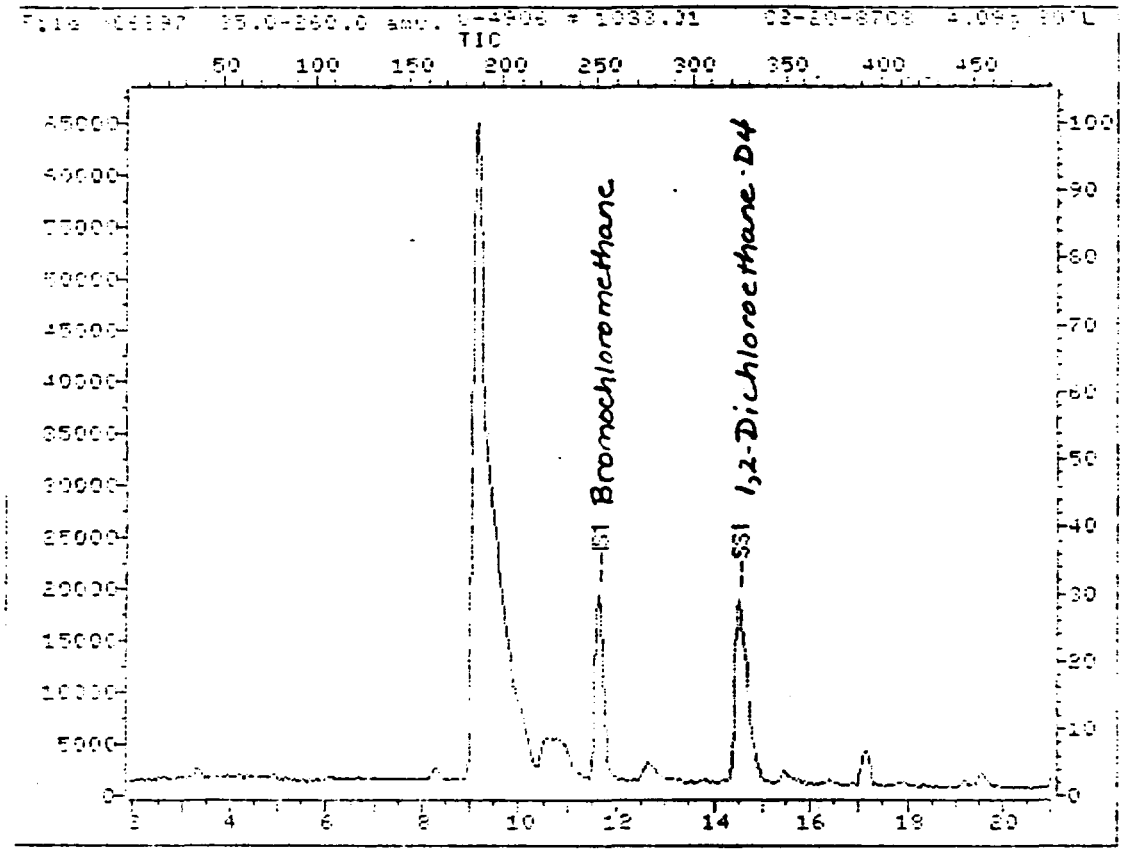


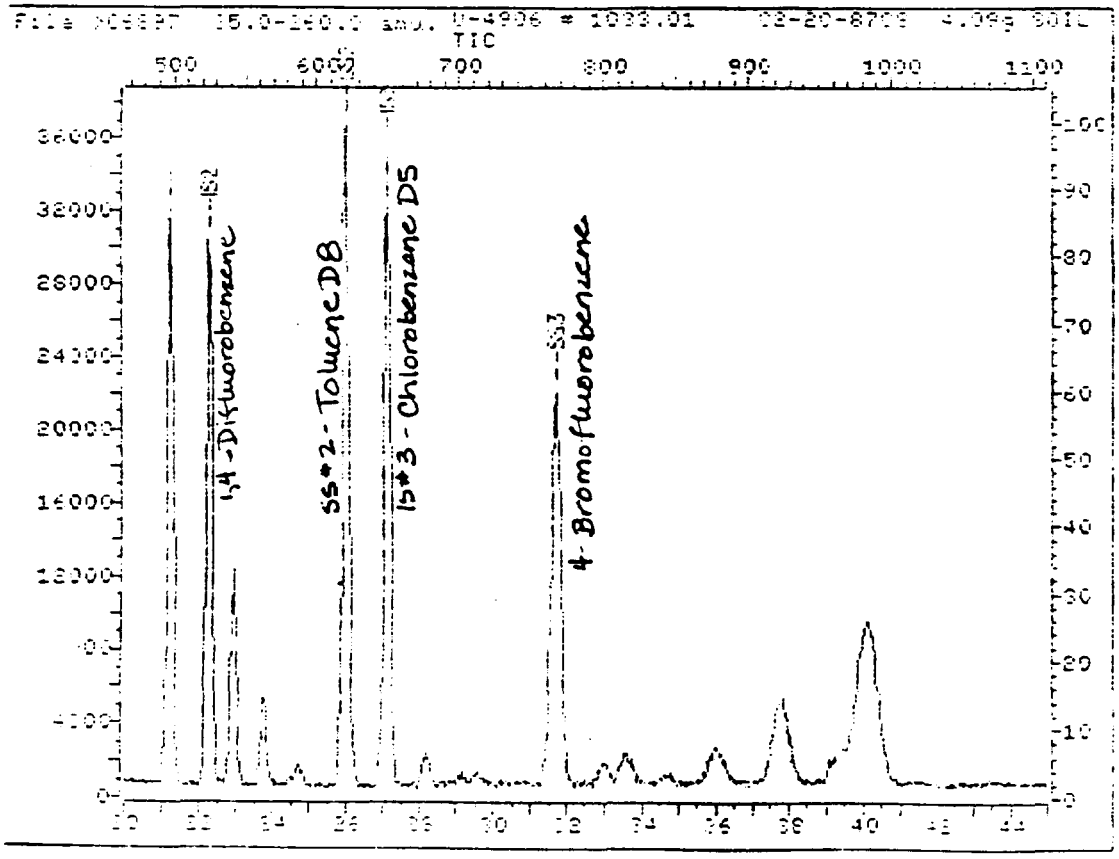
Data File: >C6897::D3
Name: U-4906 # 1033.01 DC-P2-54
Misc: 02-20-8709 4.09g SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACPS::D2
Title: VOA IC FILE FOR HP-5995 (CONT. CAL.
Last Calibration: 870220 12:09

Operator ID: USER8
Quant Time: 870220 15:38
Injected at: 870220 14:52

DC-P2-54


TIC
Bromochloromethane
1,2-Dichloroethane-D4


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

QUANT REPORT

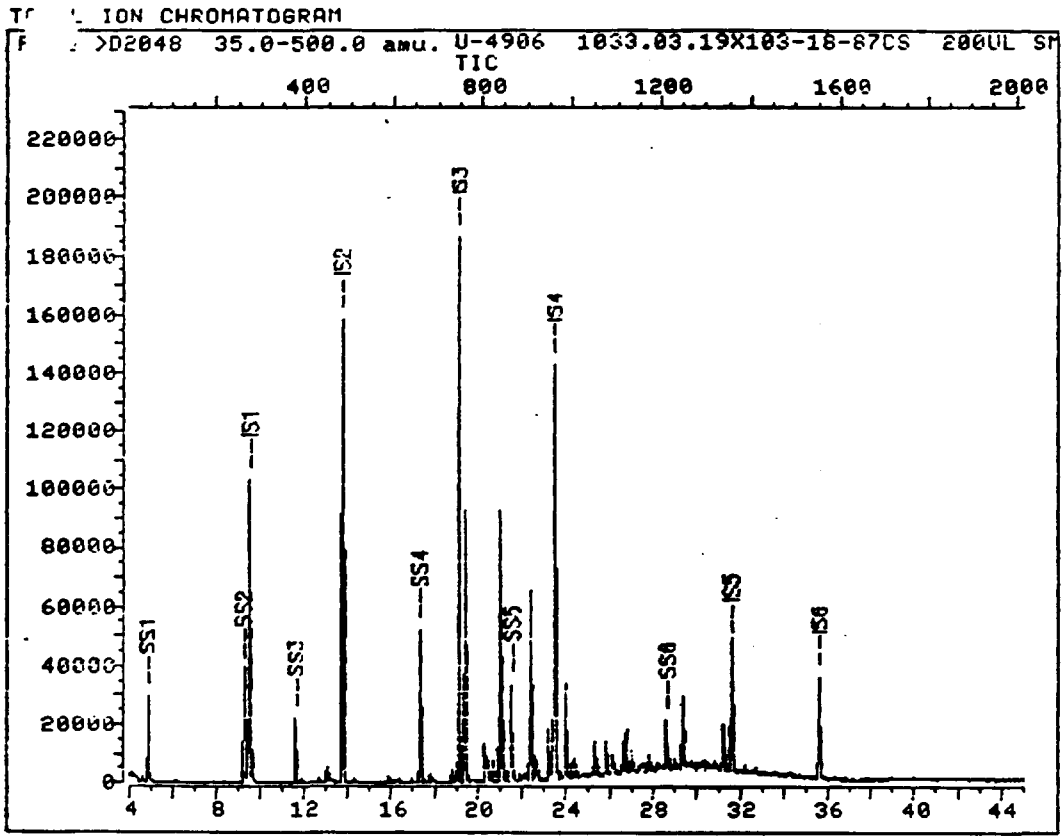
Operator ID: USERS Quant Rev: 4 Quant Time: 870220 15:38
Output File: \C6897::02 Injected at: 870220 14:52
Data File: \C6897::07 Dilution Factor: 1.00
Name: U-4906 # 1077.01 DC-P2-54
Misc: 02-20-87CS 4.09g SOIL IN 5ML DI - 10UL IS/SS

ID File: VOACPS::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.65	251	26422	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.31	165	2847	15.51	NGS	100
7)	ACETONE		43	9.16	187	1161252	3551.61	NGS E	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	325	75793	208.79	NGS	82
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.24	524	123885	250.00	NGS 84	100
17)	2-BUTANONE		72	14.67	329	16553	260.96	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.09	649	104561	250.00	NGS	100
32)	4-METHYL-2-PENTANONE		43	22.90	541	50177	97.85	NGS	90
~~33)~~	~~2-HEXANONE~~		~~43~~	~~23.77~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~NGS~~ 100	100
33)	2-HEXANONE		43	24.53	583	3331	8.12	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.97	620	143721	240.05	NGS 96	93
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.68	767	74663	219.03	NGS 80	100
43)	1,3-DICHLOROBENZENE		146	39.32	964	10267	10267.00	NO CALIB	100
43)	1,3-DICHLOROBENZENE		146	40.02	982	16466	16466.00	NO CALIB	100
44)	1,2-DICHLOROBENZENE			39.32	964	10267	10267.00	NO CALIB	100
44)	1,2-DICHLOROBENZENE			40.02	982	16466	16466.00	NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	39.32	964	10267	10267.00	NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	40.02	982	16466	16466.00	NO CALIB	100

* Compound is ISTD

CW

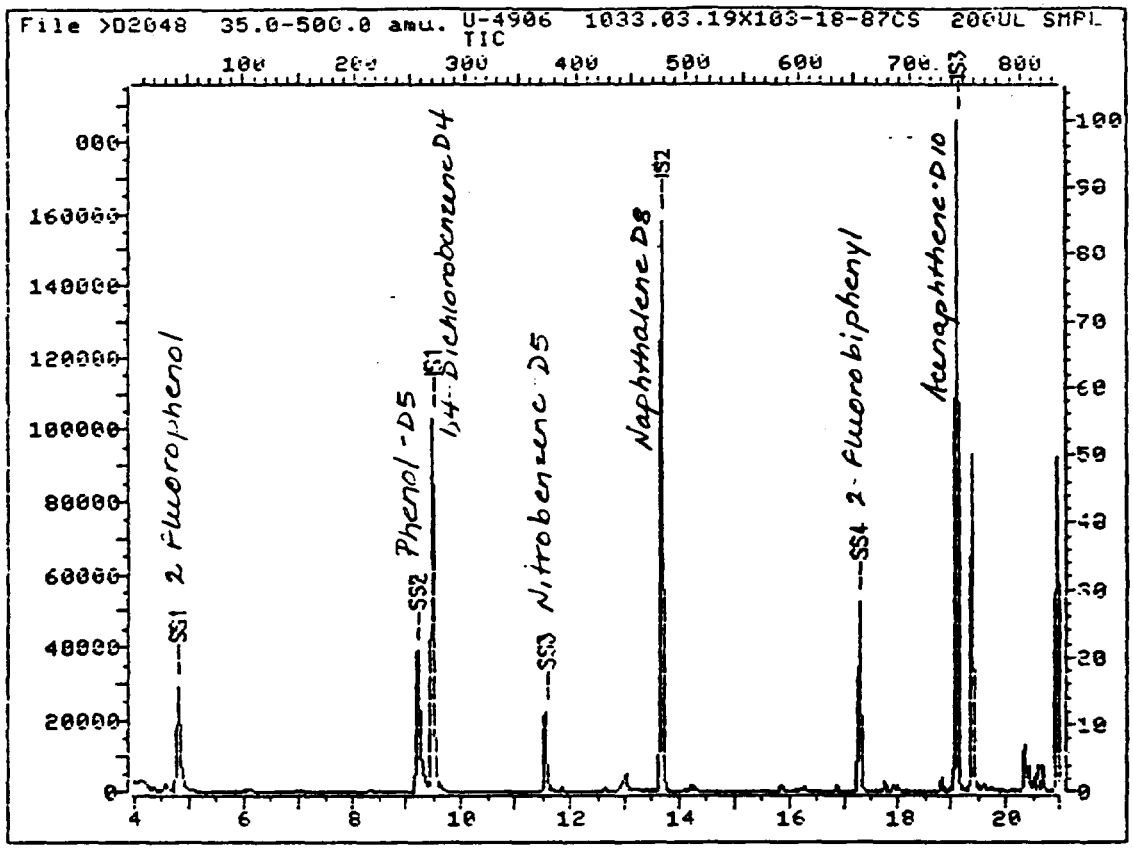


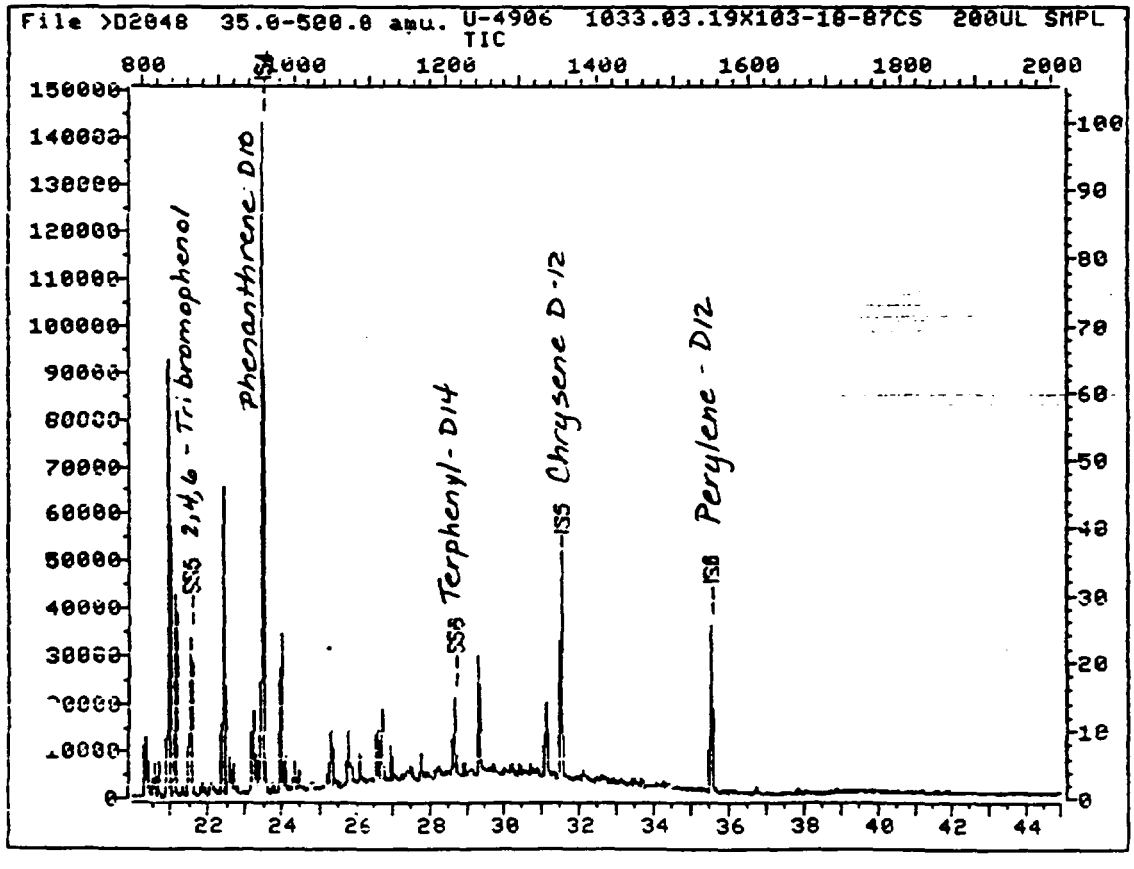
Data File: >D2048::D1
Name: U-4906 1033.03.19X1 DC-P2-54
Misc: 03-18-87CS 200UL SMPL + 200UL A/P + 4UL IS (2X) BTL# 7

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870318 14:12

Operator ID: USER8
Quant Time: 870318 21:25
Injected at: 870318 20:37

DC-P2-54


File >D2048 35.0-500.0 amu. U-4906 1033.03.19X103-18-87CS 200UL SMPL
TIC
SS1 2 Fluorophenol
SS2 Phenol-D5
IS1 1,4-Dichlorobenzene D4
SS3 Nitrobenzene D5
IS2 Naphthalene D8
SS4 2-Fluorobiphenyl
IS3 Acenaphthene-D10


File >D2048 35.0-500.0 amu. U-4906 1033.03.19X103-18-87CS 200UL SMPL
TIC
SS5 2,4,6-Tribromophenol
Phenanthrene D10
SS6 Terphenyl-D14
IS5 Chrysene D-12
IS6 Perylene-D12

QUANT REPORT

ıerator ID: USER8 Quant Rev: 4 Quant Time: 870318 21:25
ıtput File: ^D2048::Q2 Injected at: 870318 20:37
ıta File: >D2048::D1 Dilution Factor: 2.00
ıme: U-4906 1033.03.19X1 DC-P2-54
.sc: 03-18-87CS 200UL SMPL + 200UL A/P + 4UL IS (2X) BTL# 7

) File: BNADR::D2
:tle: BNA ID FILE FOR THE HP 5970 (B)
ıst Calibration: 870318 14:12

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.48	271	52269	40.00 UG/L	84
2)	PHENOL-D5	(SURR)	99	9.19	257	43291	45.96 UG/L	96
5)	2-FLUOROPHENOL	(SURR)	112	4.79	41	27855	46.02 UG/L	85
6)	PHENOL		94	9.23	259	14426	13.72 UG/L yes	63
7)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.55~~	~~373~~	~~3841~~	~~4.31 UG/L~~ cw	98
9)	*NAPHTHALENE-D8	(IS)	136	13.67	477	186161	40.00 UG/L	100
1)	NITROBENZENE-D5	(SURR)	82	11.55	373	23320	25.71 UG/L	88
4)	*ACENAPHTHENE-D10	(IS)	162	19.11	744	108593	40.00 UG/L	95
3)	2-FLUOROBIPHENYL	(SURR)	172	17.28	654	43150	26.09 UG/L	96
1)	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.11~~	~~744~~	~~20245~~	~~11.46~~ UG/L cw	100
3)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.54	863	9827	39.99 UG/L	99
2)	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.11~~	~~744~~	~~14505~~	~~34.57~~ UG/L cw	100
5)	*PHENANTHRENE-D10	(IS)	188	23.49	959	138496	40.00 UG/L	82
3)	DI-N-BUTYLPHTHALATE		149	26.08	1086	7036	3.75 UG/L yes	97
5)	*CHRYSENE-D12	(IS)	240	31.52	1353	48765	40.00 UG/L	100
3)	TERPHENYL-D14	(SURR)	244	28.65	1212	14643	22.52 UG/L	100
4)	*PERYLENE-D12	(IS)	264	35.54	1550	35690	40.00 UG/L	100

* Compound is ISTD

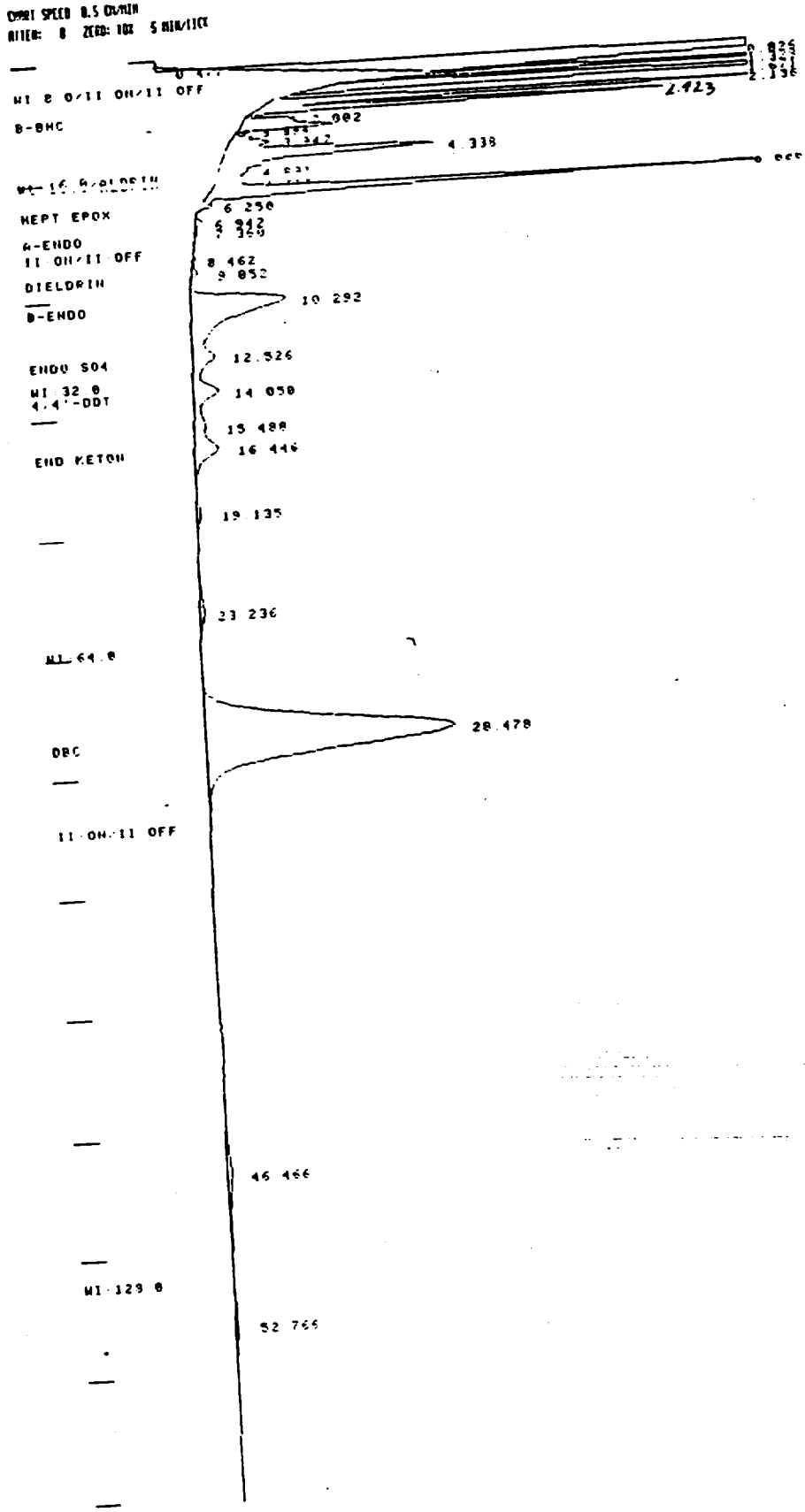
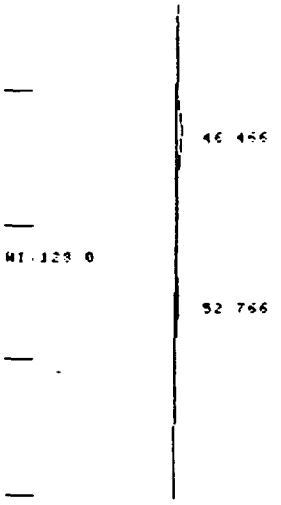


CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 102 5 MIN/TICK
HI 8 0/II ON/II OFF
B-BHC
HEPT EPOX
A-ENDO
II ON/II OFF
DIELDRIN
B-ENDO
ENDO SO4
HI 32 0
4,4'-DDT
END KETON
HI 64 0
DBC
II ON/II OFF
HI 129 0
2.423
4.338
6 250
8 462
10 292
12.526
14 050
15 488
16 446
19 135
23 236
28.478
46 466
52 766

DC-P2-54



CHANNEL: 1A - 1 TITLE: RUN# 18 23:11 23 FEB 87

DC-P2-54

SAMPLE: 1033 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	1.326		1136362	VV	5.25
2		0.0000	1.671		1623107	VV	5.31
3	[illegible]	219.6709	2.136	-0.104	950924	VV	6.13
4	[illegible]	201.2327	2.423	0.043	387011	VV	6.50
5	[illegible]	11.6381	2.892	0.122	43059	VV	? 7.94
6		0.0000	2.920		43092	VV	? 6.44
7		0.0000	3.149		153903	VV	? 14.63
8		0.0000	3.753		25411	VV	? 10.13
9	[illegible]	21.9111	3.947	-0.173	73692	VV	? 13.13
10		0.0000	4.338		544793	VV	14.25
11		0.0000	5.526		2131555	VV	12.56
12	[illegible]	204.2060	10.292	0.202	707691	VV	58.01
13	[illegible]	55.3677	12.526	-0.254	149030	VV	? 47.19
14	[illegible]	64.1334	14.050	-0.140	151975	VV	39.25
15		0.0000	15.488		62949	VV	? 62.63
16		0.0000	19.135		21642	VV	42.63
17		0.0000	23.236		44270	VV	61.00
18	DPC	958.0945	28.470	0.160	2760362	VV	83.31
19		0.0000	46.466		81520	VV	122.00
20		0.0000	52.766		30577	VV	90.63
TOTALS:		1016.335		-0.056	11130834		

DETECTED PKS: 33 REJECTED PKS: 13

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: -22

RACK: 2 VIAL: 3 INJ: 1

NOTES:
NOTEBOOK:259-115,116 ANALYST: RICHARD SAMSON
SECURE AREA: 0 JOB#:U-4872,4906
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

POST RUN:
SAVE FILE: RAW DC1190

SAMPLE NUMBER DC-P5-55

DC-P5-55

Organics Analysis Data Sheet
(Page 1)

ıbc ·tory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

ıb Sample ID No: 1034

QC Report No:

ımple Matrix: Soil

Contract No: IL-3140

ıta Release Authorized By: C Stojtowicz

Date Sample Received: 2-14-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 1 pH 8.3

Percent Moisture: (Not Decanted) 19

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
4-87-3	Chloromethane	10u
4-83-9	Bromomethane	10u
5-01-4	Vinyl Chloride	10u
5-00-3	Chloroethane	10u
5-09-2	Methylene Chloride	2 BJ
7-64-1	Acetone	270 BE
5-15-0	Carbon Disulfide	5u
5-35-4	1, 1-Dichloroethene	5u
5-34-3	1, 1-Dichloroethane	5u
56-60-5	Trans-1, 2-Dichloroethene	5u
7-66-3	Chloroform	5u
07-06-2	1, 2-Dichloroethane	5u
3-93-3	2-Butanone	18 B
-55-6	1, 1, 1-Trichloroethane	5u
-23-5	Carbon Tetrachloride	5u
08-05-4	Vinyl Acetate	10u
-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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 [illegible]

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

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number
DC-P5-55

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 03-05-87

Date Analyzed 03-18-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 19

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/L or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1,3-Dichlorobenzene	330u
106-46-7	1,4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1,2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2,4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(2-Chloroethoxy)Methane	330u
120-83-2	2,4-Dichlorophenol	330u
120-82-1	1,2,4-Trichlorobenzene	330u
91-20-3	Naphthalene	330u
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2,4,6-Trichlorophenol	330u
95-95-4	2,4,5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/L or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2,4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u
132-64-9	Dibenzofuran	330u
121-14-2	2,4-Dinitrotoluene	330u
606-20-2	2,6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	1600u
534-52-1	4,6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	51 J
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3,3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1,2,3-cd)Pyrene	330u
53-70-3	Dibenz(a,h)Anthracene	330u
191-24-2	Benzo(g,h,i)Perylene	330u

(1) Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-P5-55

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-16-87

Date Analyzed 2-24-87

Conc/Dil Factor 1

Percent Moisture (decanted) 19

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1,000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No IL-4906, 4928, 4971, 4989

Sample Number
DC-P5-55

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.	Hexane isomer	VOA	21.2	16 BJ
2.				
3.	No TIC's in BNA fraction			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
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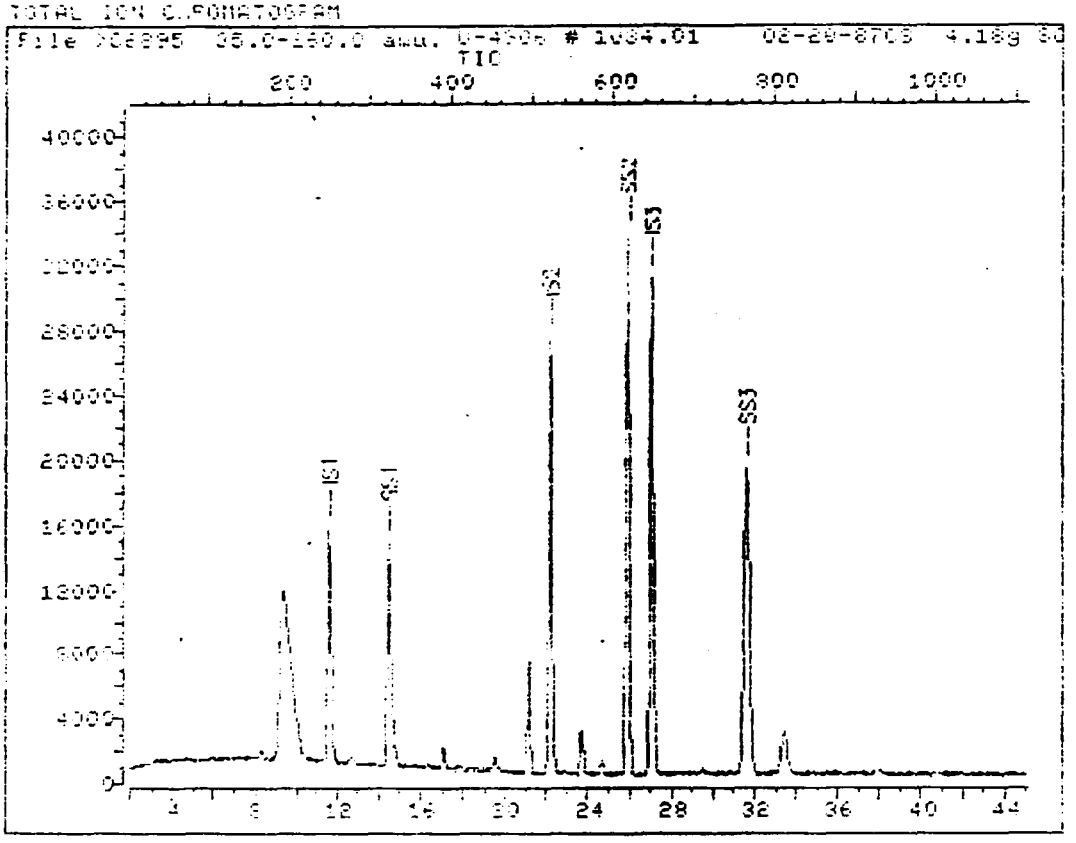
TOTAL ION CHROMATOGRAM

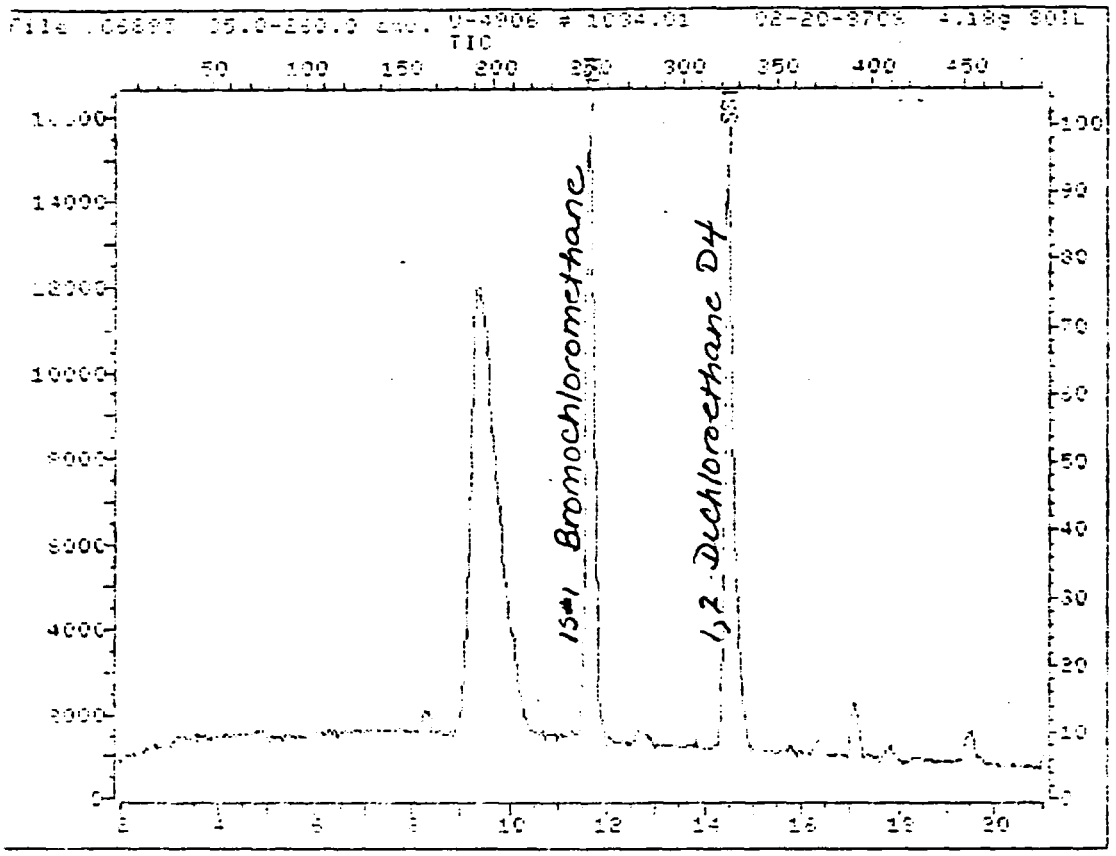


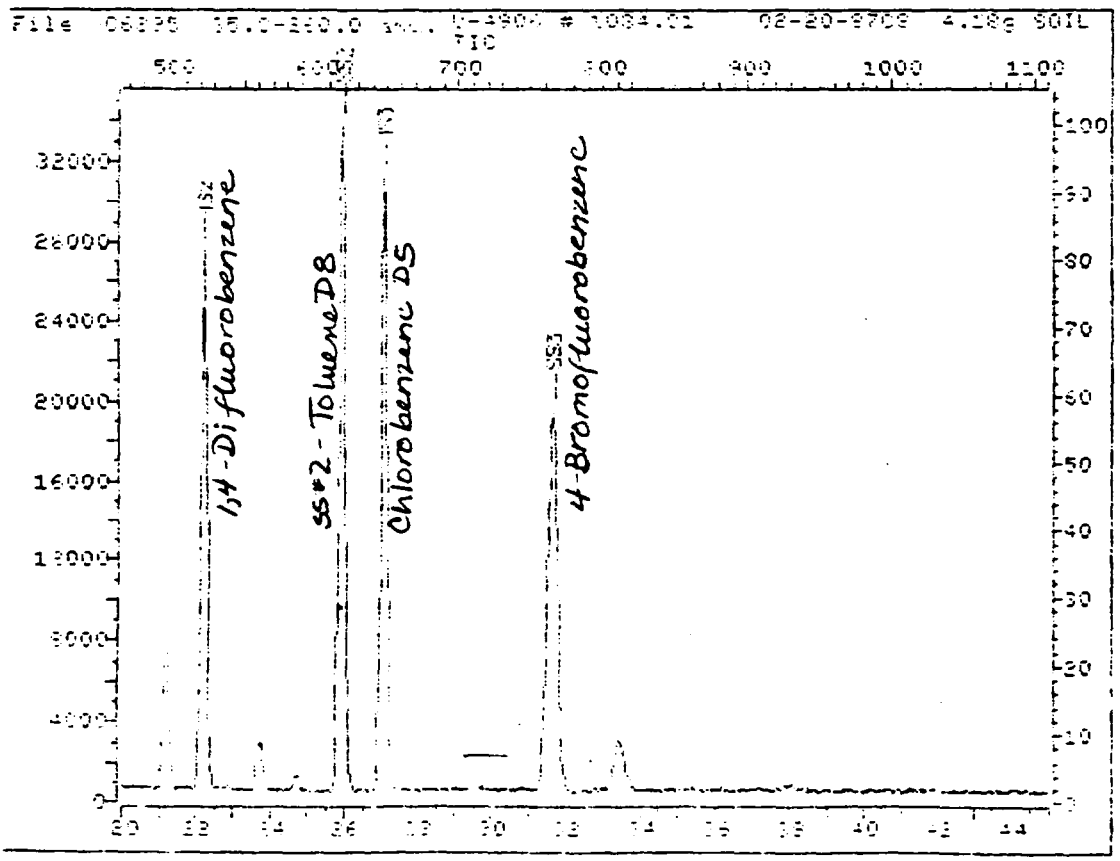
Data File: 068895::D7
Name: U-4906 # 1034.01 DC-P5-55
Misc: 02-20-8705 4.18g SOIL IN 5ML DI - 10UL IS/SS

Id File: VOACF3::D2
Title: VOA ID FILE FOR -P-5495 (CONT. CAL.)
Last Calibration: 970221 10:09

Operator ID: USER8
Quant Time: 970220 13:54
Injected at: 970220 13:08

DC-P5-55


TIC
IS#1 Bromochloromethane
1,2-Dichloroethane D4


TIC
1,4-Difluorobenzene
SS#2 - Toluene D8
Chlorobenzene D5
4-Bromofluorobenzene

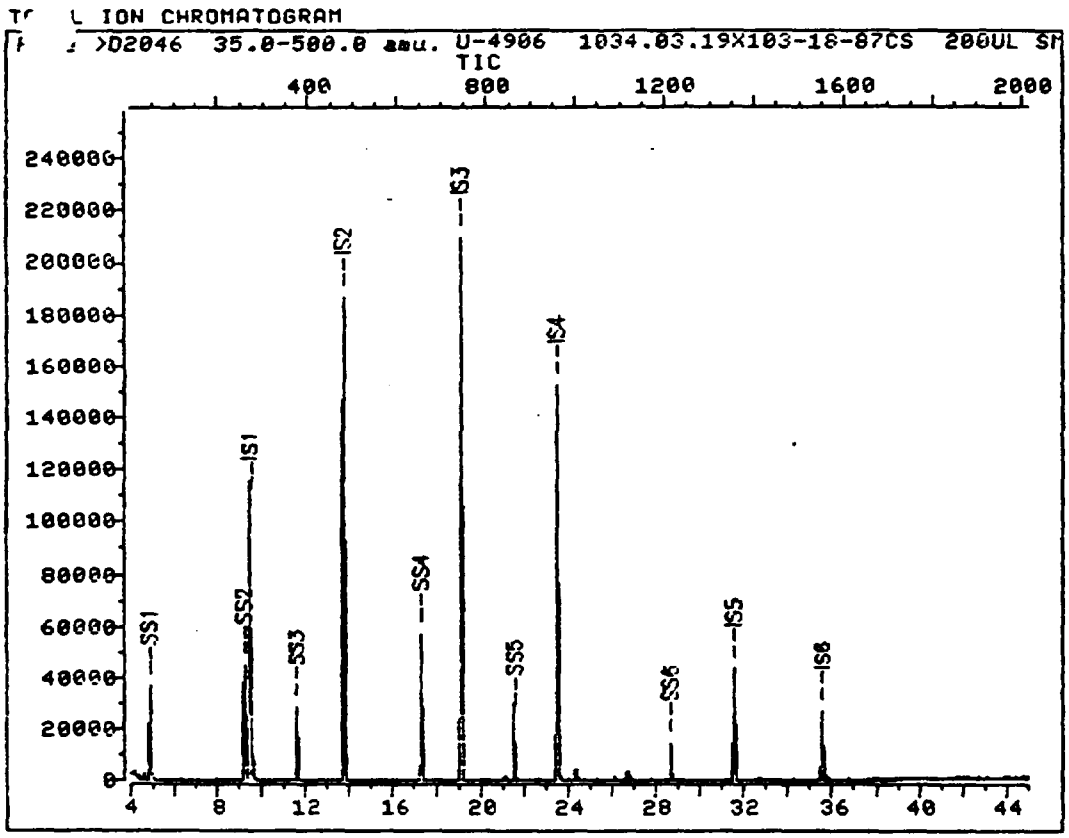
QUANT REPORT

Operator ID: USER2 Quant Rev: 4 Quant Time: 870220 13:54
Output File: ^C6895::02 Injected at: 870220 13:08
Data File: >C6895::03 Dilution Factor: 1.00
Name: U-4906 # 1034.01 DC-P5-55
Misc: 02-20-87CS 4.18g SOIL IN 5ML DI + 10UL IS/SS

ID File: VOACRS::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.65	251	20129	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.27	164	1396	9.98	NGS	100
7)	ACETONE	43	9.36	192	282988	1136.08	NGS	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.49	324	58089	210.05	NGS 84 ✓	83
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.20	523	109529	250.00	NGS	100
17	2-BUTANONE	72	14.67	329	4188	74.68	NGS	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.05	648	91854	250.00	NGS	100
33	~~2-HEXANONE~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NGS	100
36)	TOLUENE-D8 (SURR)	98	25.92	619	127392	242.21	NGS 97 ✓	95
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.64	766	65014	217.10	NGS 87 ✓	100

* Compound is ISTD

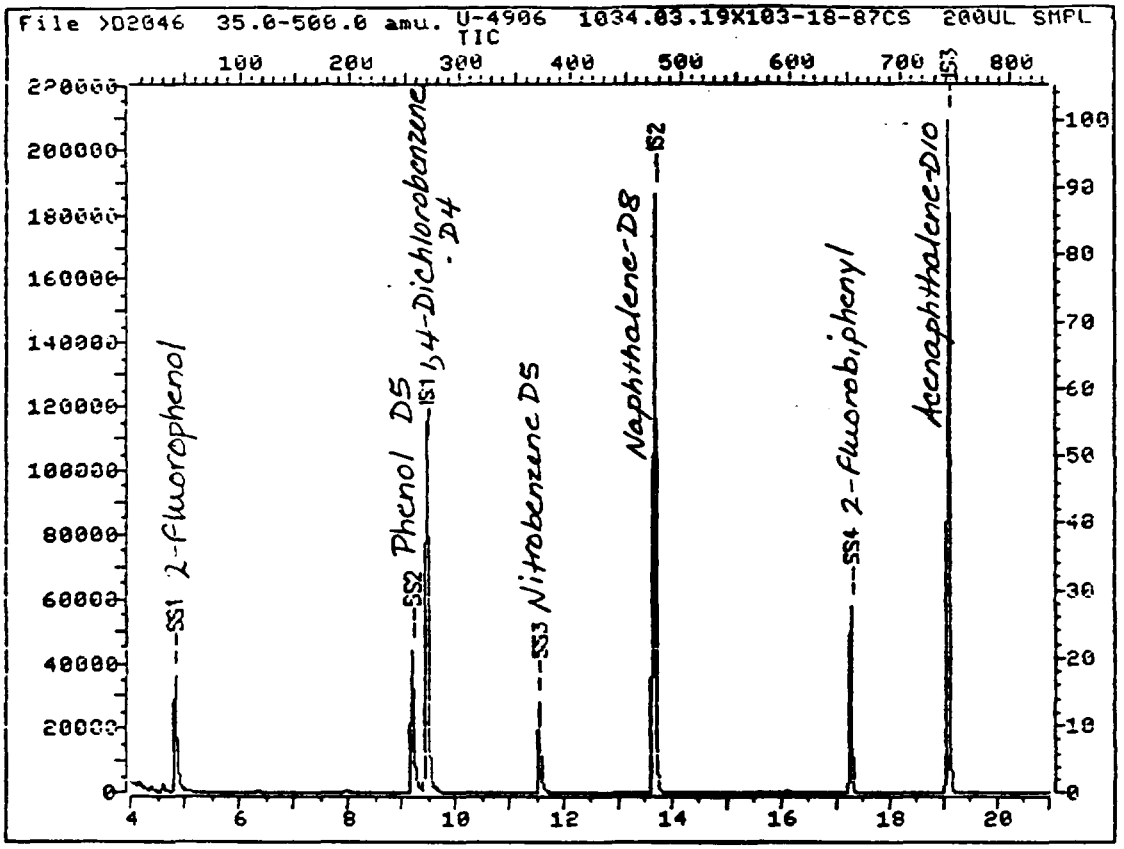


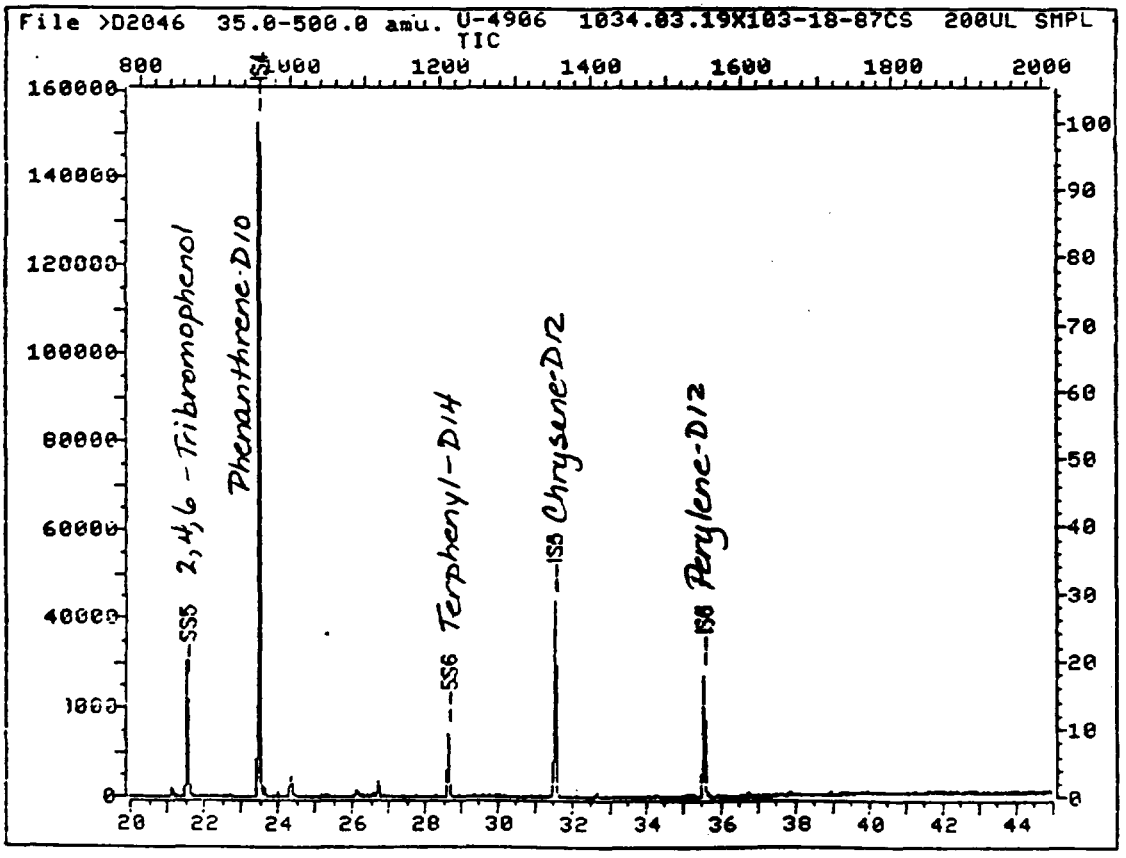
Data File: >D2046::D1
Name: U-4906 1034.03.19X1 DC-P5-55
Misc: 03-18-87CS 200UL SMPL + 200UL A/P + 4UL IS (2X) BTL# 5

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870318 14:12

Operator ID: USER8
Quant Time: 870318 19:32
Injected at: 870318 18:44

DC-P5-55


File >D2046 35.0-500.0 amu. U-4906 1034.03.19X103-18-87CS 200UL SMPL
TIC
SS1 2-Fluorophenol
SS2 Phenol D5
IS1 1,4-Dichlorobenzene-D4
SS3 Nitrobenzene D5
IS2 Naphthalene-D8
SS4 2-Fluorobiphenyl
IS3 Acenaphthalene-D10


File >D2046 35.0-500.0 amu. U-4906 1034.03.19X103-18-87CS 200UL SMPL
TIC
SS5 2,4,6-Tribromophenol
IS4 Phenanthrene-D10
SS6 Terphenyl-D14
IS5 Chrysene-D12
IS6 Perylene-D12

QUANT REPORT

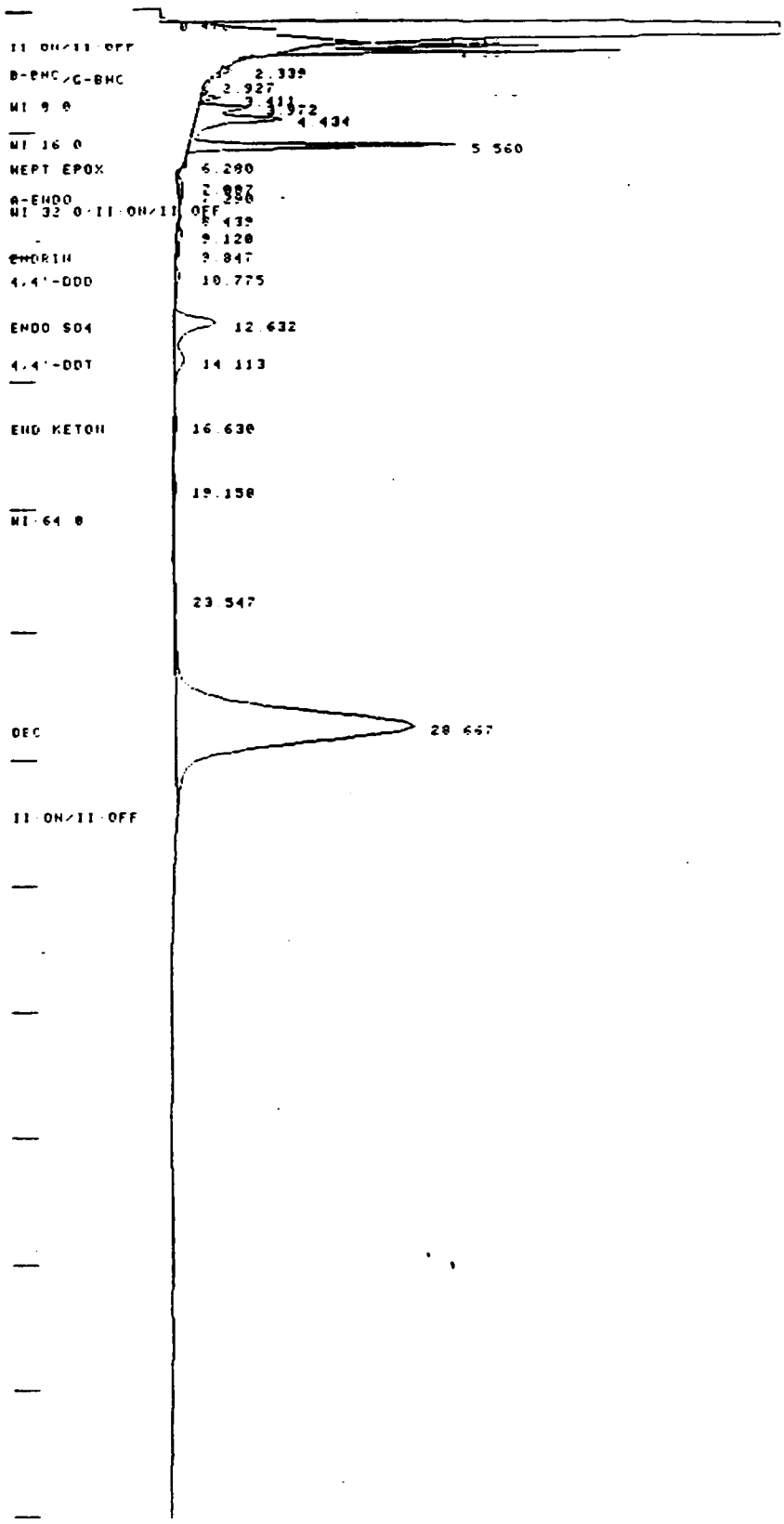
perator ID: USER8 Quant Rev: 4 Quant Time: 870318 19:32
utput File: ^D2046::Q2 Injected at: 870318 18:44
ata File: >D2046::D1 Dilution Factor: 2.00
ame: U-4906 1034.03.19X1 DC-P5-55
isc: 03-18-87CS 200UL SMPL + 200UL A/P + 4UL IS (2X) BTL# 5

) File: BNADR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 870318 14:12

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.47	270	63423	40.00 UG/L	88
2)	PHENOL-D5	(SURR)	99	9.20	257	47325	41.41 UG/L	98
5)	2-FLUOROPHENOL	(SURR)	112	4.80	41	32394	44.11 UG/L	75
7)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.55~~	~~372~~	~~4470~~	~~4.13~~ UG/L CW	87
9)	*NAPHTHALENE-D8	(IS)	136	13.68	477	228761	40.00 UG/L	100
0)	NITROBENZENE-D5	(SURR)	82	11.55	372	26382	23.67 UG/L	92
4)	*ACENAPHTHENE-D10	(IS)	162	19.10	743	133597	40.00 UG/L	95
3)	2-FLUOROBIPHENYL	(SURR)	172	17.29	654	51069	25.10 UG/L	94
1)	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.10~~	~~743~~	~~25897~~	~~11.92~~ UG/L CW	100
3)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.53	862	10862	35.93 UG/L	99
2)	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.10~~	~~743~~	~~18079~~	~~35.02~~ UG/L CW	100
5)	*PHENANTHRENE-D10	(IS)	188	23.48	958	179063	40.00 UG/L	92
3)	DI-N-BUTYLPHTHALATE		149	26.11	1087	3718	1.53 UG/L-JS	98
5)	*CHRYSENE-D12	(IS)	240	31.53	1353	52845	40.00 UG/L	100
8)	TERPHENYL-D14	(SURR)	244	28.66	1212	16291	23.12 UG/L	100
4)	*PERYLENE-D12	(IS)	264	35.54	1550	32816	40.00 UG/L	100

* Compound is ISTD

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



CHANNEL: 1A - 1 TITLE: RUN 20 1:19 24 FEB 87 DC-PE-55

SAMPLE: 1034 METHOD: CEFR CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT (NG/µg)	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.9[illegible]	1.279		145959	BV	4.13

CHANNEL: 1A - 1 TITLE: [illegible] 1:19 24 FEB 87

DC-P5-55

SAMPLE: 1034 METHOD: CEFR CALCULATION: CS - ANALYS

PEAK NO	PEAK NAME	RESULT DG/KG	TIME (MIN)	TIME OFFSET	AREA (COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.270		145059	BV	4.13
2		0.0000	1.567		365400	BB	4.80
3		0.0000	3.411		27196	VB	7.94
4	[illegible]	20.9329	3.972	-0.148	97300	BV	12.75
5		0.0000	4.434		232529	VV	16.13
6		0.0000	5.560		415910	VB	12.25
7	[illegible]	6.1000	10.779	-0.125	20435	VV	34.63
8	[illegible]	66.5414	12.632	-0.148	177594	VV	31.69
9	[illegible]	21.7537	14.113	-0.077	51549	VB	39.13
10	BBC	878.9686	28.667	0.357	2525443	VB	83.13

TOTALS: 1002.284 -0.141 [illegible]

REJECTED PKS: 29 REJECTED FLS: 19

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: 3

BACK: 2 VIAL: 5 INJ: 1

NOTES:
NOTEBOOK:259-115,116 ANALYST: RICHARD SAMSON
SECURE AREA: 0 JOB#:0-1872,1996
INST: HP5890 6000# 20 ECD 10XI
COLUMN: 6' GLASS 4mm ID 100/120 SUPELCOPORT
LIQUID PHASE: SE 54-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 1 UL INJECTION

POST RUN:
SAVE FILE: RAW BC3192

CHART SPEED 0.5 CM/MIN
ATTEN: 0 ZERO: 10% 5 MIN/TICK

SAMPLE NUMBER DC-P5-56

481095

DC - P5 - 56

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1035

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Hoytowicz

Date Sample Received: 2-14-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 1 pH 8.4

Percent Moisture: (Not Decanted) 20

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	4BJ
67-64-1	Acetone	330 BE
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	21 B
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

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

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥40 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

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number DC-P5-56

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 03-05-87

Date Analyzed 03-26-87

Conc/Dil Factor 2

Percent Moisture (Decanted) 20

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1 3-Dichlorobenzene	330u
106-46-7	1 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2 4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
120-83-2	2 4-Dichlorophenol	330u
120-82-1	1 2, 4-Trichlorobenzene	330u
91-20-3	Naphthalene	330u
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2 4 6-Trichlorophenol	330u
95-95-4	2 4 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
-11-3	Dimethyl Phthalate	330u
208-95-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u
132-64-9	Dibenzofuran	330u
121-14-2	2 4-Dinitrotoluene	330u
606-20-2	2 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	1600u
534-52-1	4 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	260 J
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3 3-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	180 J
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1,2,3-cd)Pyrene	330u
53-70-3	Dibenz(a,h)Anthracene	330u
191-24-2	Benzo(g,h,i)Perylene	330u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-P5-56

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-16-87

Date Analyzed 2-24-87

Conc/Dil Factor 1

Percent Moisture (decanted) 20

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1,000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4926, 4971, 4989

Sample Number DC-P5-56

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MCC-R	Estimated Concentration (ug/l or ug/kg)
1.	Hexane isomer	VOA	21.2	17 BJ
2.				
3.	No TIC's in BNA fraction			
4.				
5.				
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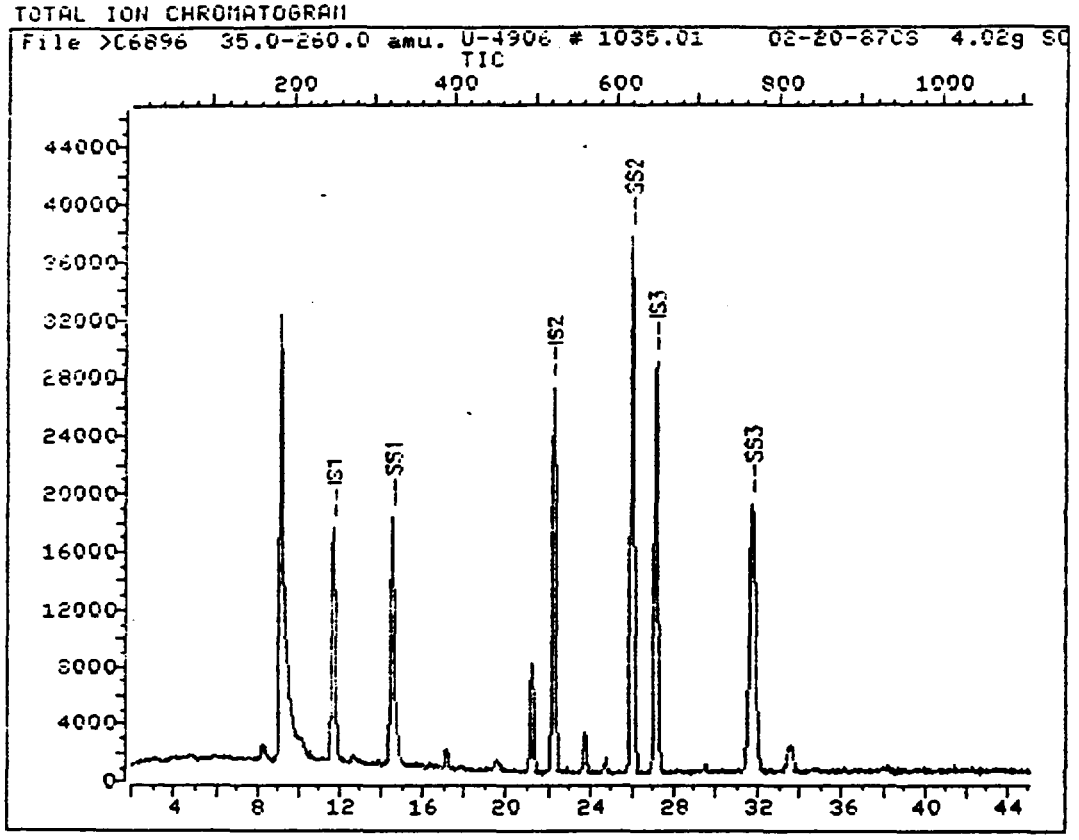
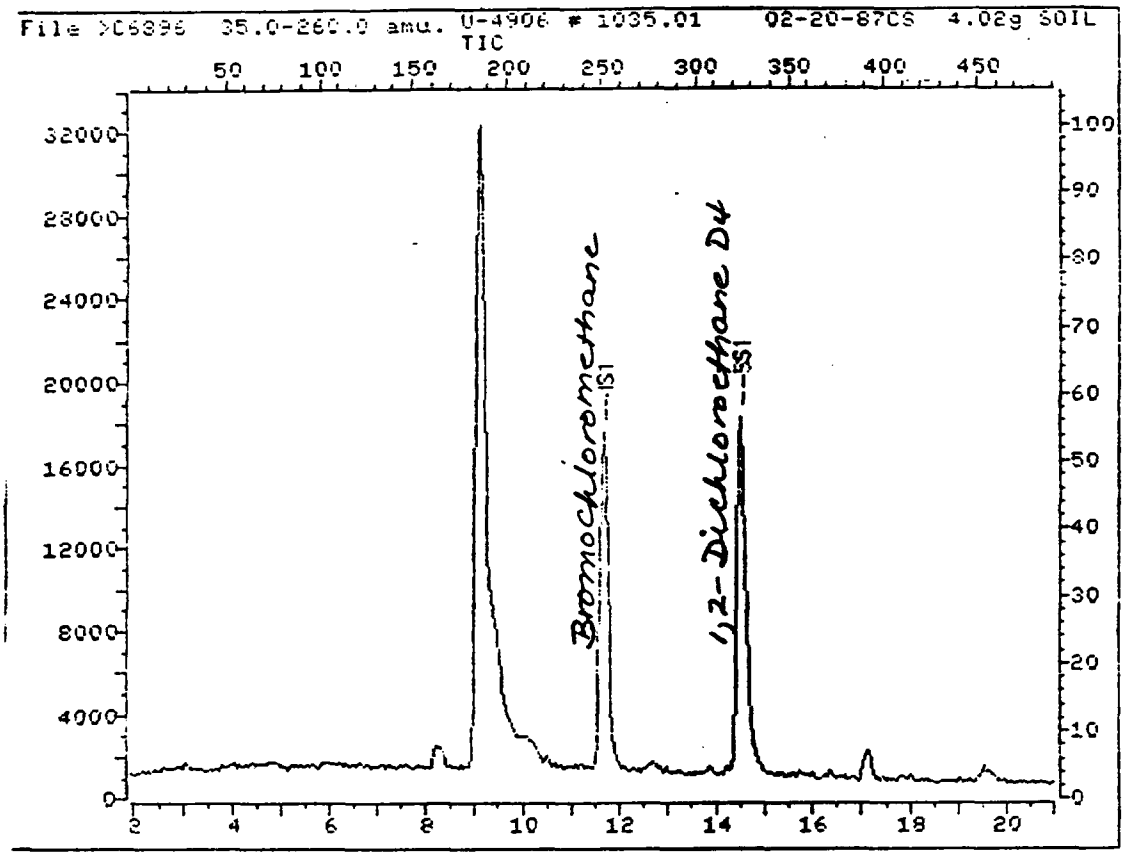
TOTAL ION CHROMATOGRAM



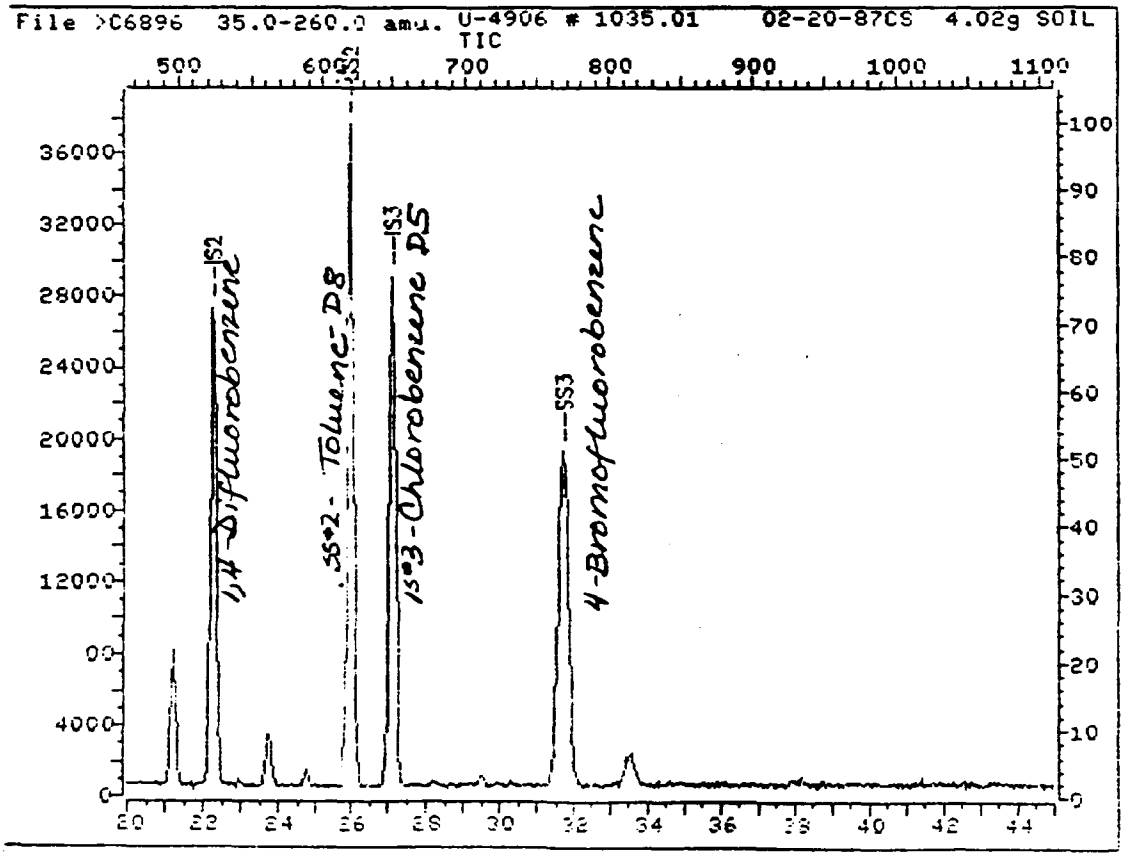
Data File: >C6896::D3
Name: U-4906 # 1035.01 JC-P5-56
Misc: 02-20-87CS 4.02g SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

Operator ID: USER8
Quant Time: 870220 14:46
Injected at: 870220 14:00


File >C6896 35.0-260.0 amu. U-4906 # 1035.01 02-20-87CS 4.02g SOIL
TIC
Bromochloromethane
IS1
1,2-Dichloroethane D4
SS1

DC-P5-56


File >C6896 35.0-260.0 amu. U-4906 # 1035.01 02-20-87CS 4.02g SOIL
TIC
1,4-Difluorobenzene
IS2
SS2 - Toluene-D8
IS3
IS3 - Chlorobenzene D5
SS3
4-Bromofluorobenzene

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870220 14:46
Output File: ^C6896::Q2 Injected at: 870220 14:00
Data File: ^C6896::D3 Dilution Factor: 1.00
Name: U-4906 # 1035.01 DC-P5-56
Misc: 02-20-87CS 4.02g SOIL IN 5ML DI - 10UL IS/SS

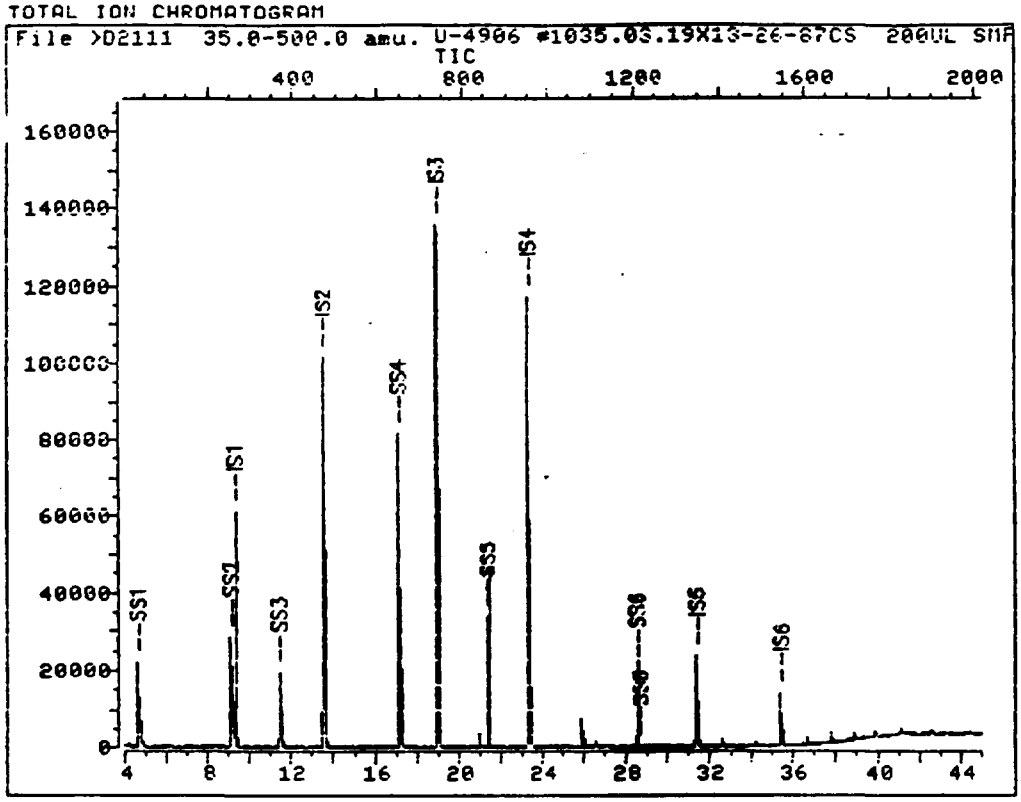
ID File: VOACPS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.68	252	23560	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.27	164	2872	17.54	NGS	100
7)	ACETONE		43	9.12	186	392061	1344.75	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	325	76149	235.25	NGS 94	83
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.24	524	110213	250.00	NGS	100
17)	2-BUTANONE		72	14.63	328	4661	82.60	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.13	650	87784	250.00	NGS	100
~~33)~~	~~2-HEXANONE~~		~~43~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~NGS~~ no cut	100
36)	TOLUENE-D8	(SURR)	98	25.96	620	141328	281.16	NGS 112	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.72	768	69458	242.70	NGS 97	100

* Compound is ISTD

OK
CW

TOTAL ION CHROMATOGRAM

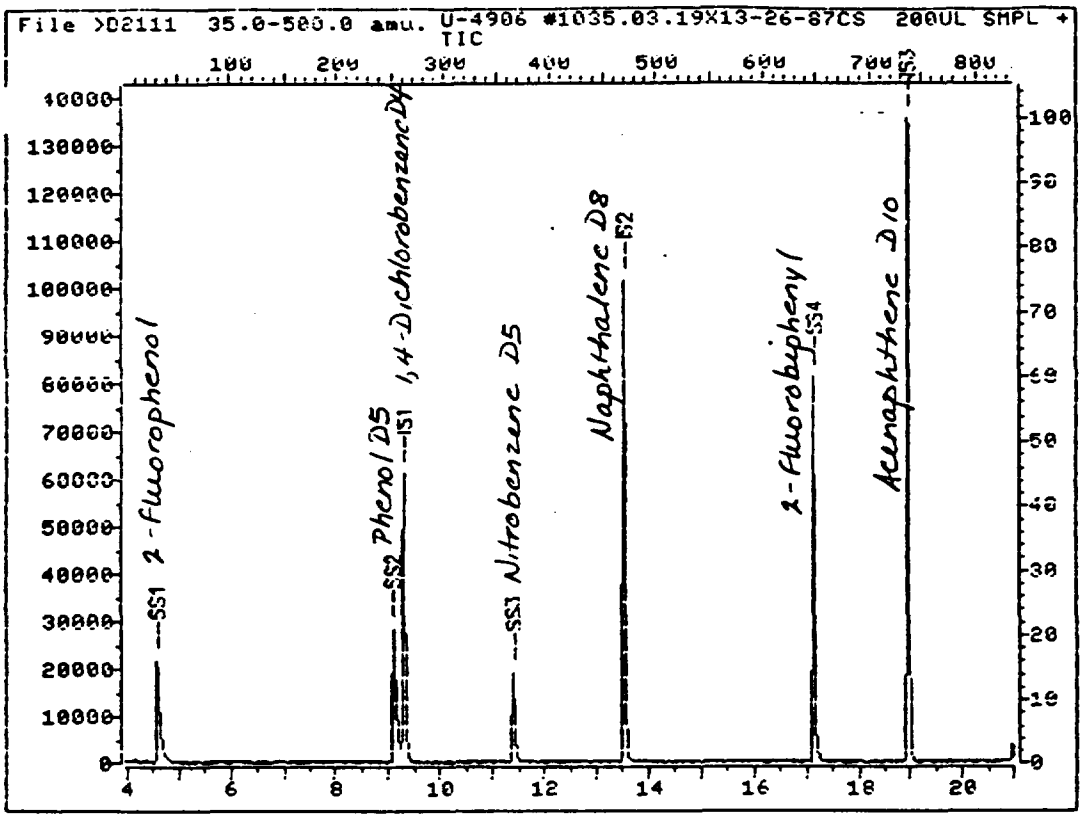


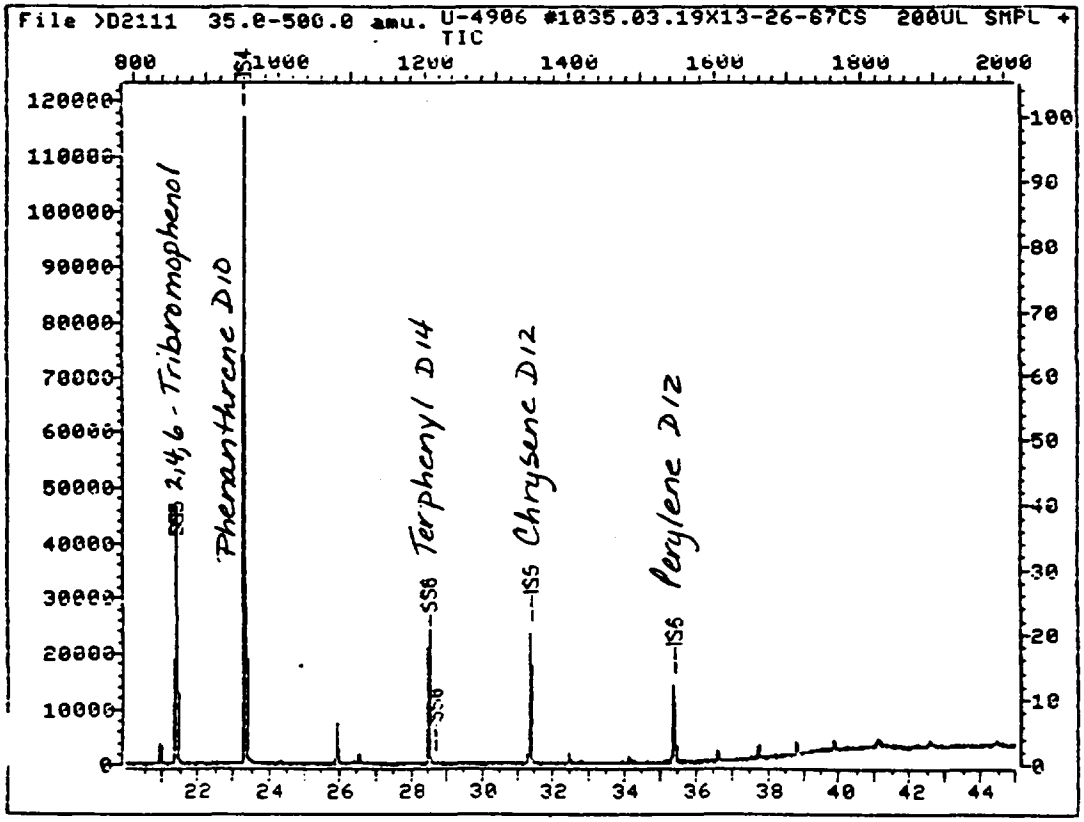
Data File: >D2111::D3
Name: U-4906 #1035.03.19X1 DC-P5-56
Misc: 3-26-87CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870326 13:30

Operator ID: USER6
Quant Time: 870326 15:55
Injected at: 870326 15:07

DC-P5-56


File >D2111 35.0-500.0 amu. U-4906 #1035.03.19X13-26-87CS 200UL SMPL +
TIC
2-Fluorophenol
Phenol D5
1,4-Dichlorobenzene D4
Nitrobenzene D5
Naphthalene D8
2-Fluorobiphenyl
Acenaphthene D10


File >D2111 35.0-500.0 amu. U-4906 #1035.03.19X13-26-87CS 200UL SMPL +
TIC
2,4,6-Tribromophenol
Phenanthrene D10
Terphenyl D14
Chrysene D12
Perylene D12

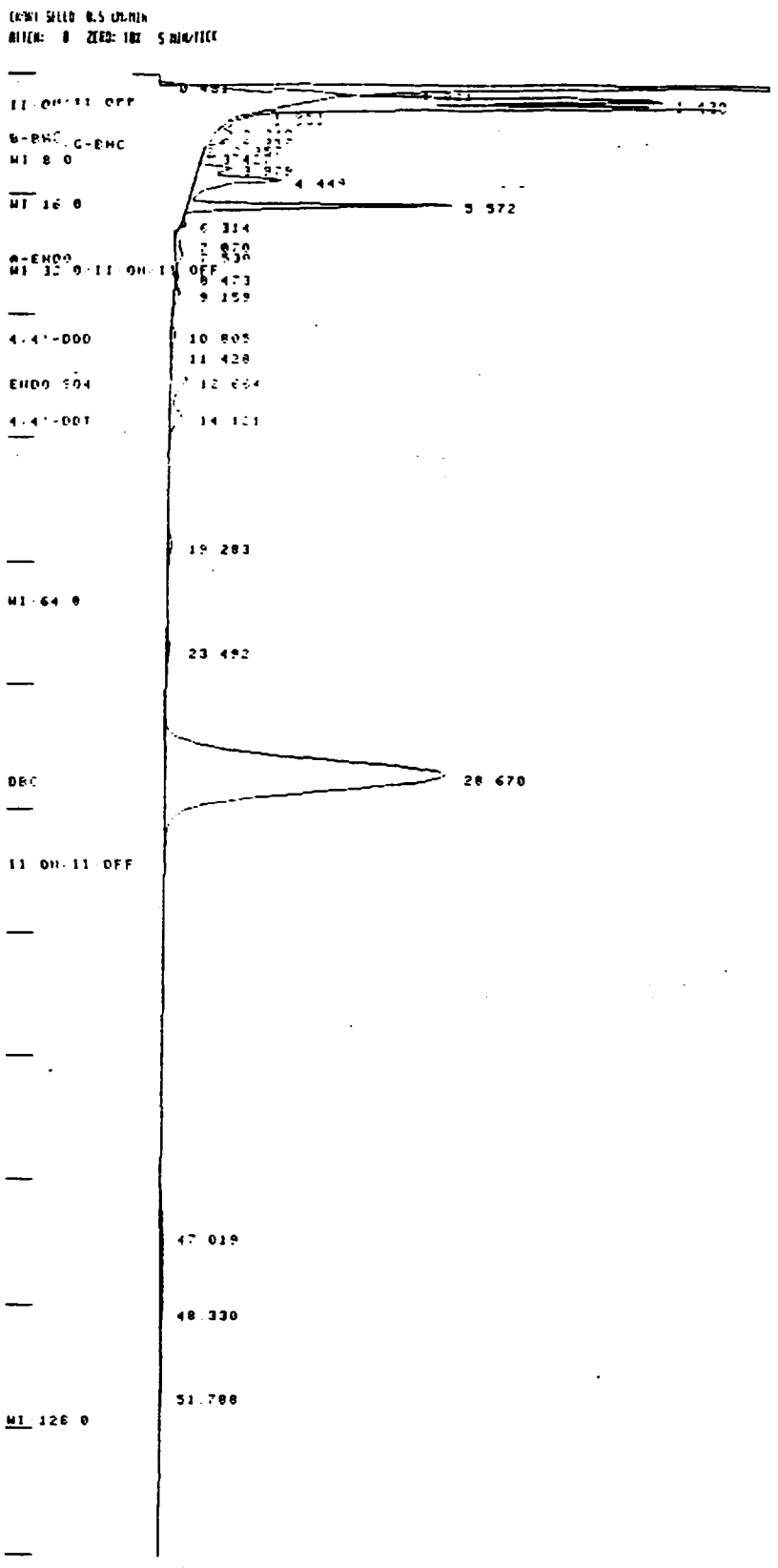
QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870326 15:55
Output File: ^D2111::Q2 Injected at: 870326 15:07
Data File: >D2111::D3 Dilution Factor: 2.00
me: U-4906 #1035.03.19X1 DC-P5-56
Misc: 3-26-87CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870326 13:30

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.29	262	37398	40.00 UG/L	89
2)	PHENOL-D5	(SURR)	99	9.09	252	46177	85.62 UG/L	89
5)	2-FLUOROPHENOL	(SURR)	112	4.59	31	29708	83.49 UG/L	85
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.39~~	~~365~~	~~2969~~	~~7.96~~ UG/L cw	76
19)	*NAPHTHALENE-D8	(IS)	136	13.53	470	136801	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.39	365	21378	46.86 UG/L	88
34)	*ACENAPHTHENE-D10	(IS)	162	18.95	736	99307	40.00 UG/L	95
38)	2-FLUOROBIPHENYL	(SURR)	172	17.15	648	77147	46.35 UG/L	93
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.95~~	~~736~~	~~18766~~	~~12.38~~ UG/L cw	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.39	856	17697	81.31 UG/L	97
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.95~~	~~736~~	~~13088~~	~~38.30~~ UG/L cw	100
55)	*PHENANTHRENE-D10	(IS)	188	23.32	951	151526	40.00 UG/L	90
63)	DI-N-BUTYLPHTHALATE		149	25.95	1080	12179	7.89 UG/L	96
65)	*CHRYSENE-D12	(IS)	240	31.39	1347	29684	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.50	1205	26881	58.39 UG/L	100
68)	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~28.66~~	~~1213~~	~~63~~	~~.14~~ UG/L cw	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.49	1401	1459	5.34 UG/L	97
74)	*PERYLENE-D12	(IS)	264	35.40	1544	17004	40.00 UG/L	100

* Compound is ISTD



CHANNEL: 10 - 1 TITLE: BLNK 2-1 2:23 24 FEB 87

DC-P5-56

SAMPLE: 1655 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.285		196249	BV	4.19
2		0.0000	1.930		261556	BV	4.63
3		0.0000	1.574		392447	BV	4.55
4	[illegible]	15.7645	2.349	-0.001	21694	BV	6.61
5		0.0000	3.427		27054	BV	7.15
6	[illegible]	19.9567	3.979	-0.141	6591[illegible]	BV	17.52

W1 128 0

51 788

CHANNEL: 1A - 1 TITLE: RUN 21 2:23 24 FEB 87 DC-PS-56

SAMPLE: 1035 METHOD: CEPA CALCULATION: CS - ANALYS

PEAK NO	PEAK NAME	RESULT UG/MG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.285		195249	UV	4.19
2		0.0000	1.430		261056	UV	4.63
3		0.0000	1.574		392447	UV	4.56
4	[illegible]	15.7646	2.349	-0.031	21694	UV	6.01
5		0.0000	3.427		27054	UV	7.19
6	[illegible]	19.0357	3.979	-0.141	66917	UV	17.88
7		0.0000	4.449		233800	UV	15.63
8		0.0000	5.572		427957	UV	12.19
9	[illegible]	6.4661	7.530	-0.040	22400	UV	? 39.06
10	[illegible]	6.4891	9.159	0.349	24213	UV	19.30
11	[illegible]	31.7750	12.664	-0.116	84953	UV	35.30
12	[illegible]	27.0045	14.121	-0.059	66077	UV	37.56
13		0.0000	19.283		29432	UV	56.31
14		0.0000	23.492		21952	UV	? 59.30
15	DEC	1030.909	28.670	0.360	2970757	UV	82.30
16		0.0000	47.019		40612	UV	?125.30
17		0.0000	48.330		45741	UV	162.69

TOTALS: 1139.195 0.312 4942111

DETECTED PKS: 33 REJECTED PKS: 16

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: -17

RACK: 2 VIAL: 6 INJ: 1

NOTES:
NOTEBOOK:253-115,116 ANALYST: RICHARD SAMSON
SECURE AREA: 0 JOB#:0-4872,4906
INST: VARIAN 6000A 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

POST RUN:
SAVE FILE: RAW DC1193

SAMPLE NUMBER DC-J12-57

481095

DC-I12-57

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1036

QC Report No:

Sample Matrix: Soil

Contract No: EL-3140

Data Release Authorized By: CSkotowicz

Date Sample Received: 2-14-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 1 pH 8.3

Percent Moisture: (Not Decanted) 11

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	15 B
67-64-1	Acetone	1300 BE
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	11 B
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

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

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number DC-I12-57

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 03-05-87

Date Analyzed: 03-18-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 11

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1 3-Dichlorobenzene	330u
106-46-7	1 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2 4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(2-Chloroethoxy)Methane	330u
120-83-2	2 4-Dichlorophenol	330u
120-82-1	1 2 4-Trichlorobenzene	330u
91-20-3	Naphthalene	330u
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2 4 6-Trichlorophenol	330u
95-95-4	2 4 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u
132-64-9	Dibenzofuran	330u
121-14-2	2 4-Dinitrotoluene	330u
606-20-2	2 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	1600u
534-52-1	4 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	330u
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3 3-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1,2,3-cd)Pyrene	330u
53-70-3	Dibenz(a,h)Anthracene	330u
191-24-2	Benzo(g,h,i)Perylene	330u

(1) Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4906, 4928, 4971, 4989

Sample Number DC-I12-57

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-16-87

Date Analyzed 2-24-87

Conc/Dil Factor 2

Percent Moisture (decanted) 11

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1,000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

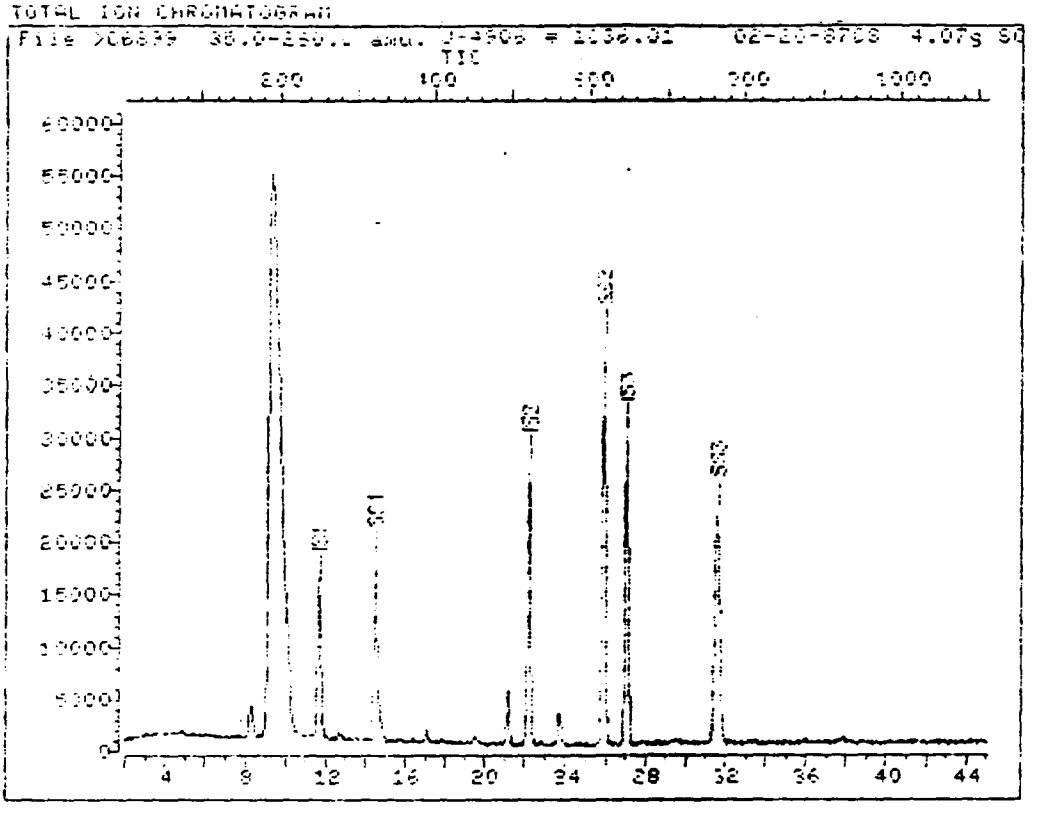
Sample Number DC-I12-57

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MCAC	Estimated Concentration (ug/l or ug/kg)
1.	Hexane isomer	VOA	21.2	12 BJ
2.	Unknown alcohol (?)	VOA	23.7	7 ~~B~~J
3.				
4.	No TIC's in BNA fraction			
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

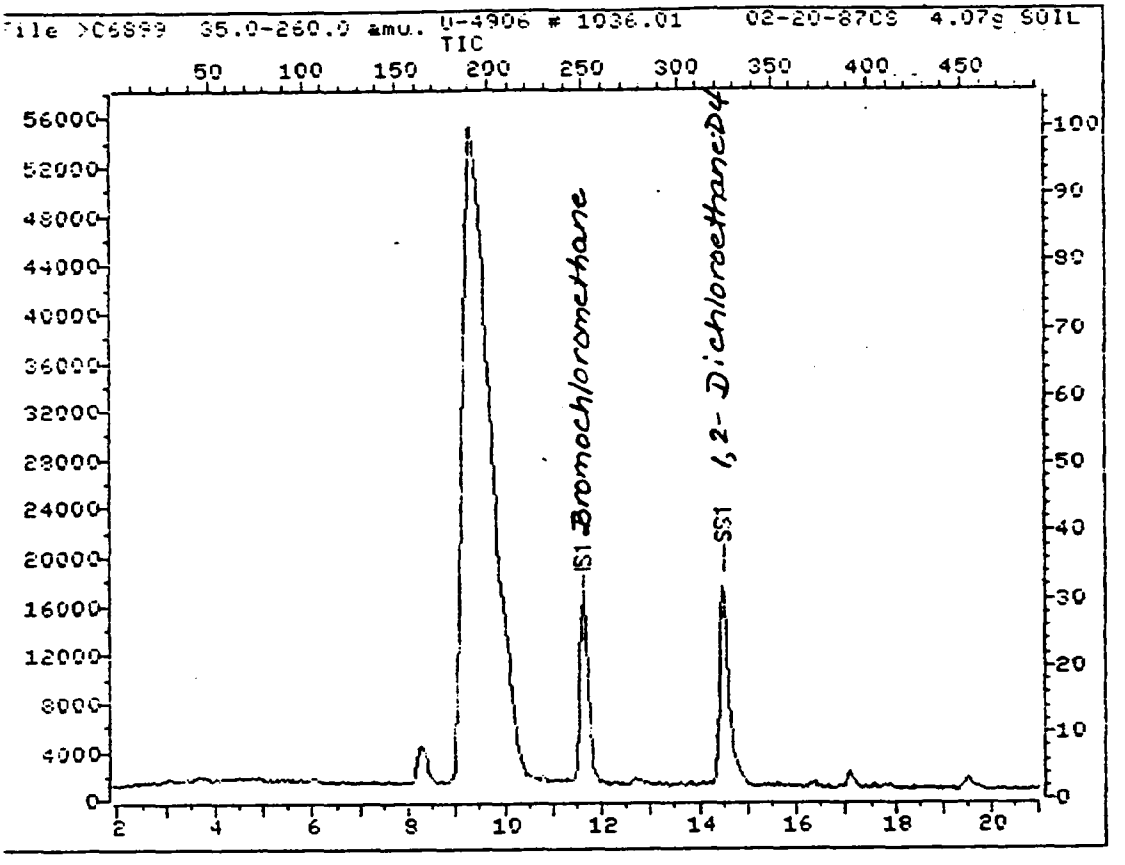


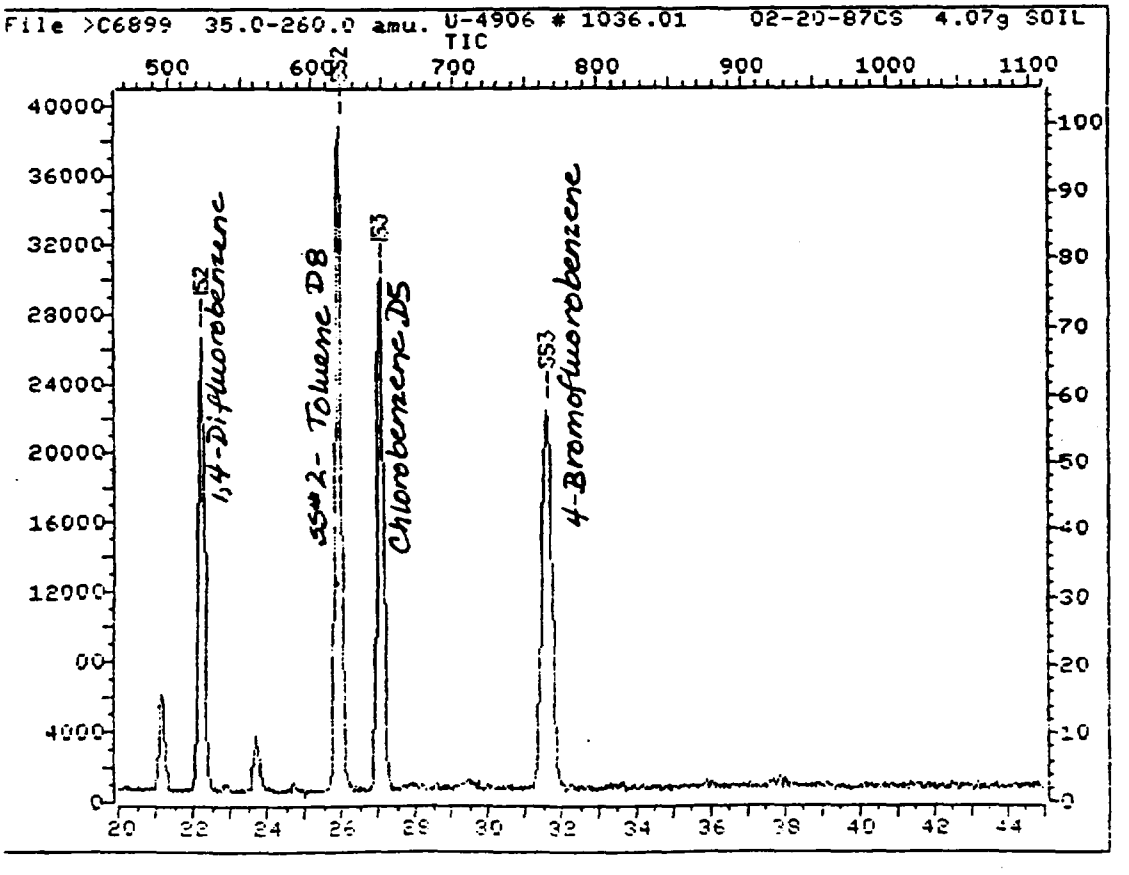
Data File: C6899::D3
Name: U-490c # 1031.01 DC-I12-57
Misc: 02-20-87D3 4.07g SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACPS::D2
Title: VOA ID FILE FOR HP-F995 (CONT. CAL.)
Last Calibration: 870220 12:04

Operator ID: USER3
Quant Time: 870220 17:41
Injected at: 870220 16:56

DC-I12-57


File >C6899 35.0-260.0 amu. U-4906 # 1036.01 02-20-87CS 4.07g SOIL
TIC
IS1 Bromochloromethane
SS1 1,2-Dichloroethane-D4


File >C6899 35.0-260.0 amu. U-4906 # 1036.01 02-20-87CS 4.07g SOIL
TIC
IS2 1,4-Difluorobenzene
SS#2 2-Toluene D8
IS3 Chlorobenzene-D5
SS3 4-Bromofluorobenzene

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870220 17:42
Output File: ^C6899::02 Injected at: 870220 16:56
Data File: ^C6899::D3 Dilution Factor: 1.00
Name: U-4906 # 1036.01 DC-I12-57
Misc: 02-20-87CS 4.07g SOIL IN 5ML DI + 10UL IS/SS

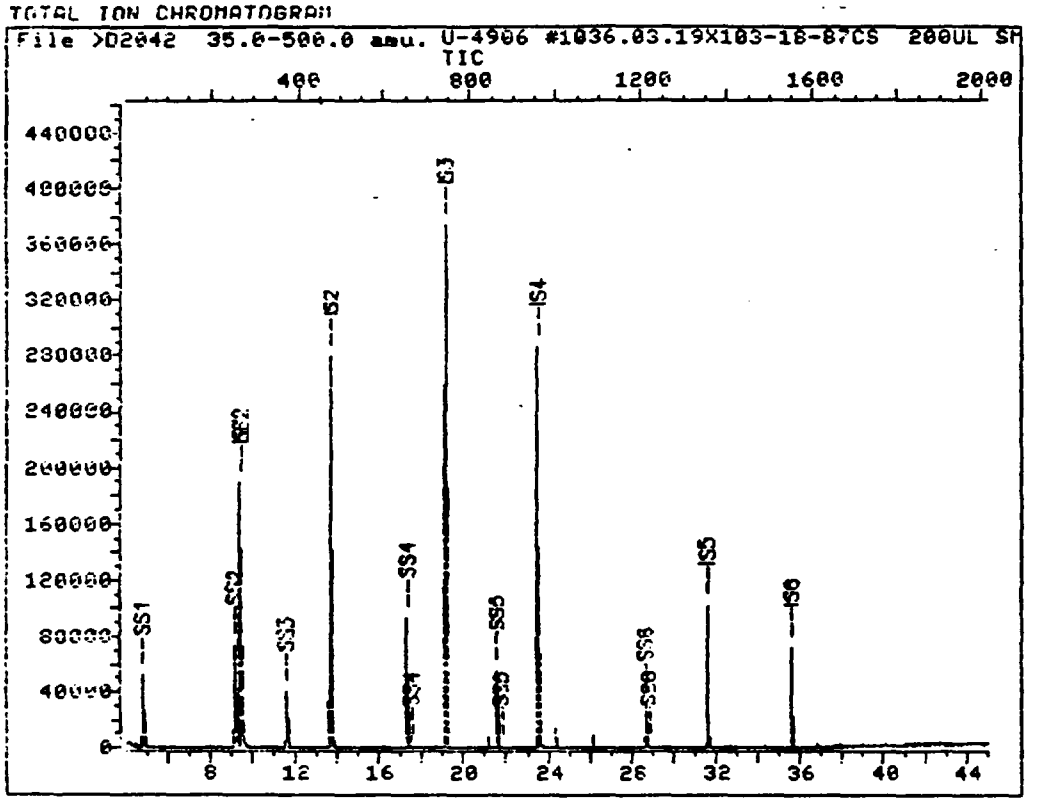
ID File: VOACPS::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

	Compound			P.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.61	250	21720	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.27	164	9156	60.66	NGS	100
7)	ACETONE		43	9.32	191	1435364	5340.31	NGS E	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.48	324	74859	250.86	NGS 100	85 V
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	523	108268	250.00	NGS	100
17)	2-BUTANONE		72	14.67	329	2482	44.77	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.05	648	91175	250.00	NGS	100
~~32)~~	~~4-METHYL-2-PENTANONE~~		~~43~~	~~23.71~~	~~562~~	~~4935~~	~~11.04~~	~~NGS~~	58
~~33)~~	~~2-HEXANONE~~		~~43~~	~~23.71~~	~~562~~	~~4935~~	~~13.79~~	~~NGS~~	100
36)	TOLUENE-D8	(SURR)	98	25.93	619	147676	282.87	NGS 113	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.60	765	77221	259.79	NGS 104	100

no CW

* Compound is ISTD

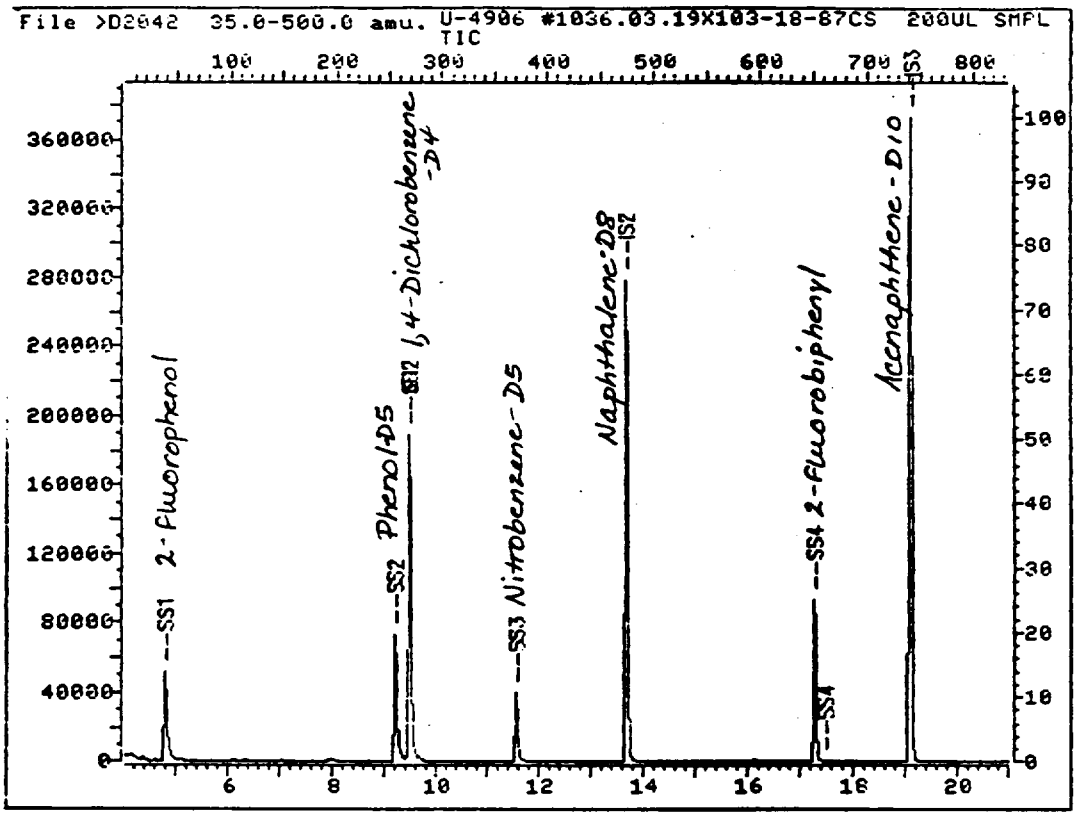
TOTAL ION CHROMATOGRAM



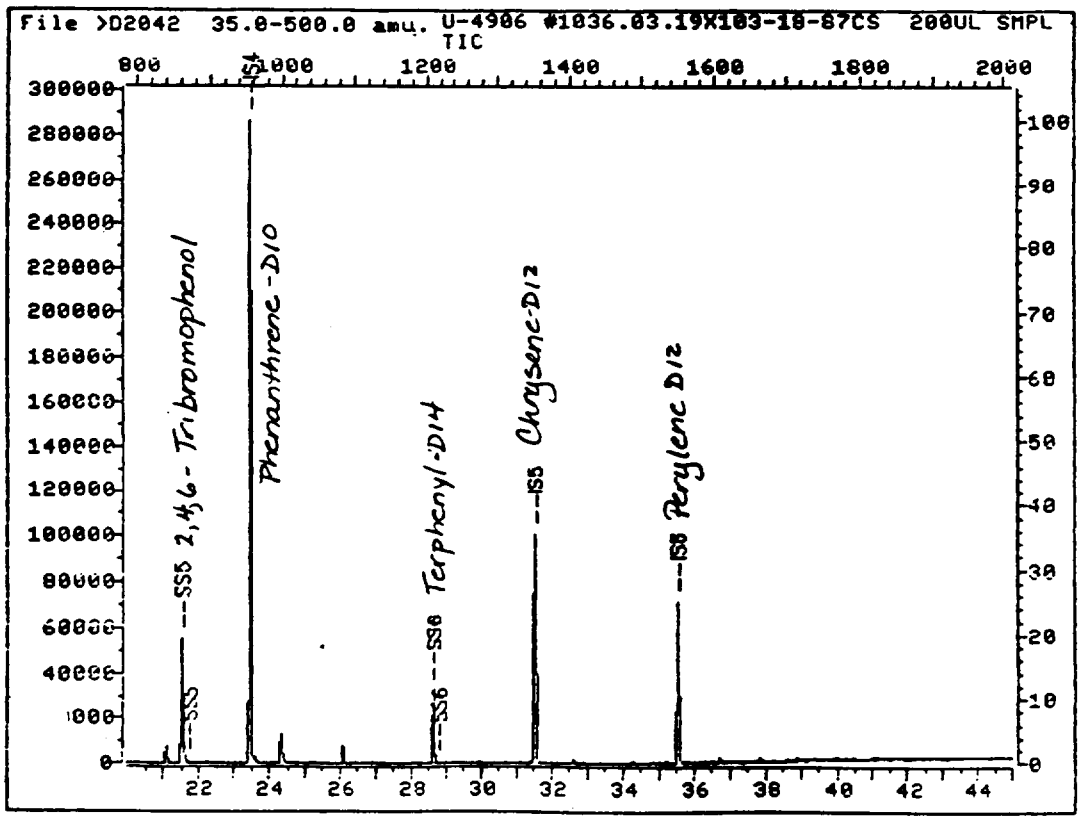
Data File: >D2042::D1
Name: U-4906 #1036.03.19X1 DC-512-57
Misc: 03-18-87CS 200UL SMPL + 200UL A/P + 4UL IS (2X) BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870318 14:12

Operator ID: USER8
Quant Time: 870318 15:48
Injected at: 870318 15:00


File >D2042 35.0-500.0 amu. U-4906 #1036.03.19X103-18-87CS 200UL SMPL
TIC
2-Fluorophenol
SS1
Phenol-D5
SS2
1,4-Dichlorobenzene-D4
IS1
Nitrobenzene-D5
SS3
Naphthalene-D8
IS2
2-Fluorobiphenyl
SS4
Acenaphthene-D10
IS3

DC-I12-57


File >D2042 35.0-500.0 amu. U-4906 #1036.03.19X103-18-87CS 200UL SMPL
TIC
2,4,6-Tribromophenol
SS5
Phenanthrene-D10
IS4
Terphenyl-D14
SS6
Chrysene-D12
IS5
Perylene D12
IS6

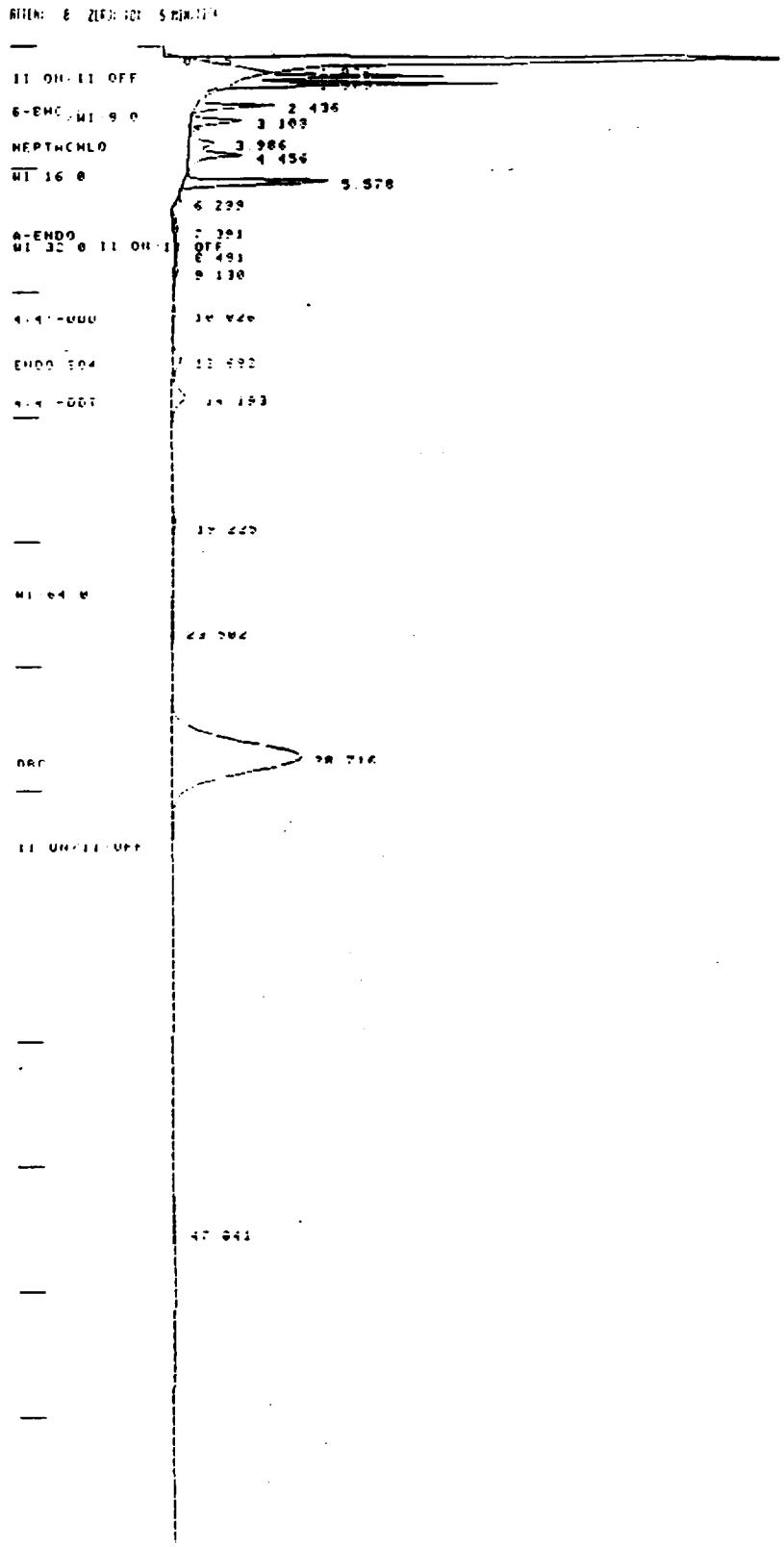
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870318 15:48
Output File: ^D2042::Q2 Injected at: 870318 15:00
Data File: >D2042::D1 Dilution Factor: 2.00
Name: U-4906 #1036.03.19X1 DC-I12-57
Misc: 03-18-87CS 200UL SMPL + 200UL A/P + 4UL IS (2X) BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870318 14:12

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.47	268	99864	40.00 UG/L	85
2)	PHENOL-D5	(SURR)	99	9.19	254	74800	41.56 UG/L	97
2)	PHENOL-D5	(SURR)	99	9.47	268	1912	1.06 UG/L	70
5)	2-FLUOROPHENOL	(SURR)	112	4.79	38	48221	41.70 UG/L	76
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.55~~	~~370~~	~~6548~~	~~3.84 UG/L~~ CW	96
19)	*NAPHTHALENE-D8	(IS)	136	13.67	474	361294	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.55	370	48888	23.23 UG/L	90
34)	*ACENAPHTHENE-D10	(IS)	162	19.11	741	213876	40.00 UG/L	93
38)	2-FLUOROBIPHENYL	(SURR)	172	17.27	651	83664	25.68 UG/L	96
~~39)~~	~~2-FLUOROBIPHENYL~~	~~(SURR)~~	~~172~~	~~17.48~~	~~661~~	~~278~~	~~.09 UG/L~~ 16 BM	84
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.11~~	~~741~~	~~40638~~	~~11.68 UG/L~~ CW	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.53	860	18797	38.84 UG/L	98
48)	~~2,4,6-TRIBROMOPHENOL~~	~~(SURR)~~	~~330~~	~~21.74~~	~~870~~	~~251~~	~~.52 UG/L~~ 16 BM	92
52)	~~2,4-DINITROTOLUENE~~		~~165~~	~~19.11~~	~~741~~	~~28786~~	~~34.83 UG/L~~ CW	100
55)	*PHENANTHRENE-D10	(IS)	188	23.49	956	294937	40.00 UG/L	91
~~6.7~~	~~DI-N-BUTYLPHTHALATE~~		~~149~~	~~26.07~~	~~1083~~	~~12778~~	~~3.28 UG/L~~ 16 BM	~~99~~
65)	*CHRYSENE-D12	(IS)	240	31.53	1351	104717	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.64	1209	33675	24.12 UG/L	100
68)	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~28.80~~	~~1217~~	~~70~~	~~.05 UG/L~~ CW	100
74)	*PERYLENE-D12	(IS)	264	35.55	1548	78094	40.00 UG/L	100

* Compound is ISTD



CHANNEL: 1A - 1 TITLE: RUN 22 3:28 21 FEB 87

SAMPLE: 1036 METHOD: CEPA CALCULATION: ES - ANALYS

DC-I12-57

PEAK NO	PEAK NAME	RESULT WD/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.233		113877	BV	1.25
2		0.0000	1.375		233373	VB	1.00
3	[illegible]	130.1132	2.135	0.035	87733	BV	6.11
4		0.0000	3.169		73016	BV	12.39
5	[illegible]	35.1511	3.144	-0.137	37415	VB	13.05
6		0.0000	3.144		129021	VB	11.89

47 041

DC-I12-57

CHANNEL: 1A - 1 TITLE: RUN 22 3:28 21 FEB 87

SAMPLE: 1036 METHOD: CEPA CALCULATION: C5 - ANALYS

PEAK NO	PEAK NAME	RESULT UG/AQ	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.293		115677	BV	1.25
2		0.0000	1.573		233373	VB	1.00
3	[illegible]	130.1132	2.136	0.036	89753	BB	6.11
4		0.0000	3.106		79016	BV	12.30
5	[illegible]	35.1511	3.306	-0.131	59615	VV	19.00
6		0.0000	4.156		120921	VB	11.00
7		0.0000	5.570		233505	BB	12.00
8	[illegible]	12.5012	7.371	-0.173	21732	BB	73.73
9	[illegible]	35.1013	12.662	-0.070	77030	VV	31.30
10	[illegible]	57.1237	11.133	0.003	70163	VB	37.30
11		0.0000	19.223		22292	BB	60.00
12	DBC	553.3912	26.716	0.106	1377673	BB	81.91

TOTALS: 1226.973 0.051 2171700

DETECTED PKS: 25 REJECTED PKS: 13

DIVISOR: 0.15000 MULTIPLIER: 2000.00000

NOISE: 11.1 OFFSET: 5

RACK: 2 VIAL: 7 INJ: 1

NOTES:
NOTEBOOK:237-115,115 ANALYST: RICHARD SANSON
SECURE AREA: B 3000-0-1072,1700
INJ: VARIAN 6000 LA CEA INJ
COLUMN: 6' GLASS 0% ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: HE @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 1 UL INJECTION

POST RUN:
SAVE FILE: RAW DC1131

SAMPLE NUMBER DC-I/2-58

DC-I-12-58

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1037

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: O Sojtowicz

Date Sample Received: 2-14-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 1 pH 8.3

Percent Moisture: (Not Decanted) 18

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	14 B
67-64-1	Acetone	450 BE
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	22 B
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

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

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number
DC-I12-58

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 03-05-87

Date Analyzed 03-18-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 18

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1,3-Dichlorobenzene	330u
106-46-7	1,4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1,2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2,4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(2-Chloroethoxy)Methane	330u
120-83-2	2,4-Dichlorophenol	330u
120-82-1	1,2,4-Trichlorobenzene	330u
91-20-3	Naphthalene	330u
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2,4,6-Trichlorophenol	330u
95-95-4	2,4,5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2,4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u
132-64-9	Dibenzofuran	330u
121-14-2	2,4-Dinitrotoluene	330u
606-20-2	2,6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	1600u
534-52-1	4,6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	110 J
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3,3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1,2,3-cd)Pyrene	330u
53-70-3	Dibenz(a,h)Anthracene	330u
191-24-2	Benzo(g,h,i)Perylene	330u

(1) Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-112-58

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-16-87

Date Analyzed 2-24-87

Conc/Dil Factor 1

Percent Moisture (decanted) 18

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1,000 V_i 4

Form 1

7/85

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-I12-58

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.	Hexane isomer	VOA	21.1	14 BJ
2.	Unknown alcohol (3)	VOA	23.7	9 J
3.	Unknown	VOA	27.8	10 J
4.				
5.	No TIC's in BNA fraction			
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
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21.				
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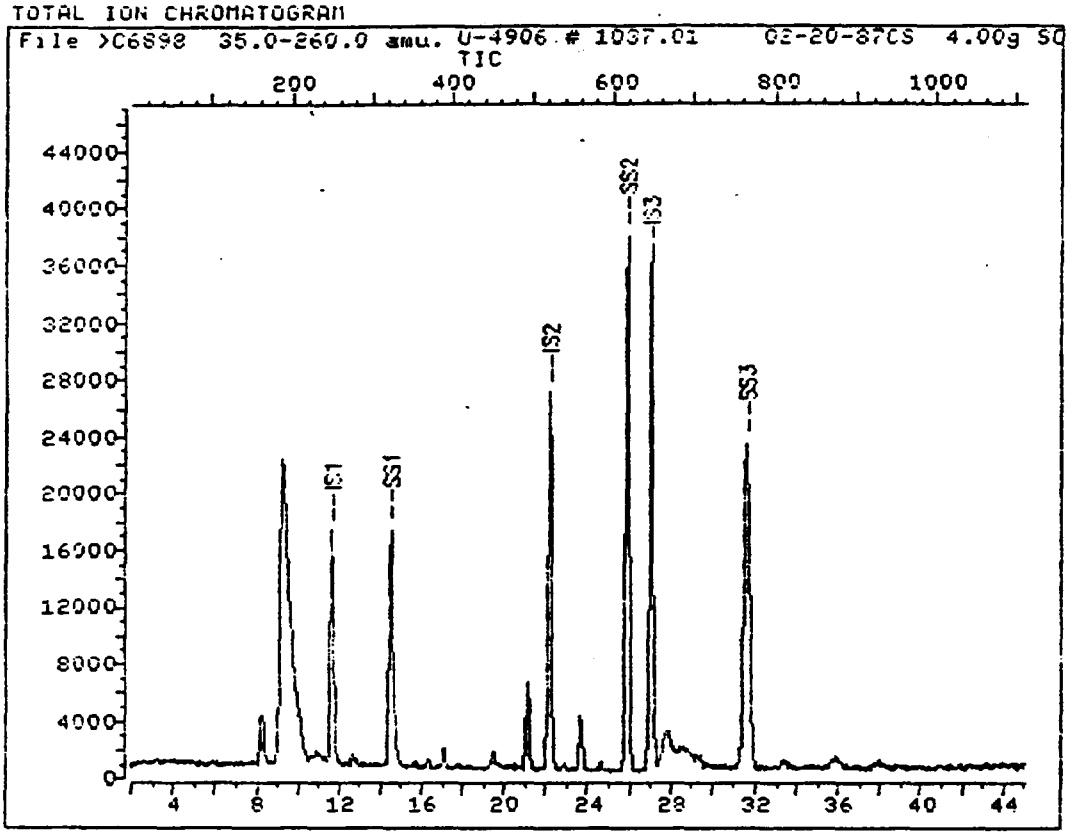
24				
25.				
26.				
27.				
28.				
29.				
30				

TOTAL ION CHROMATOGRAM

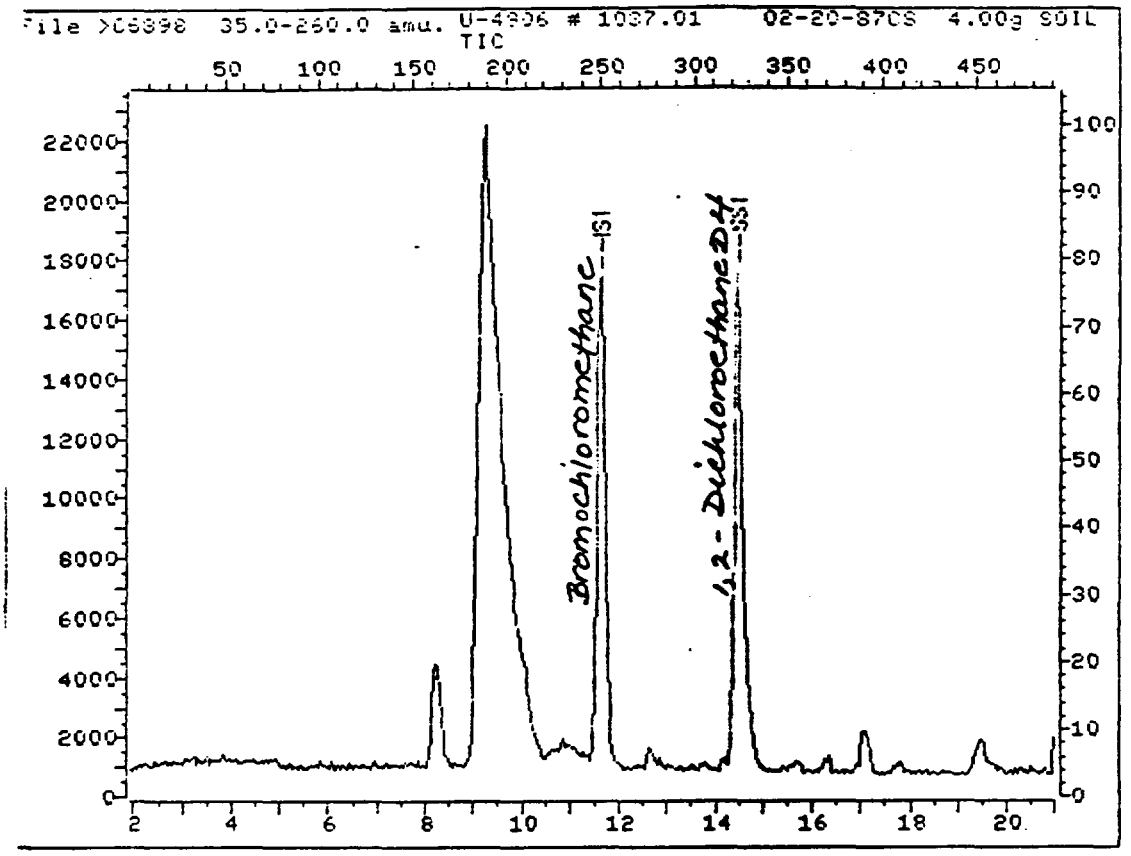


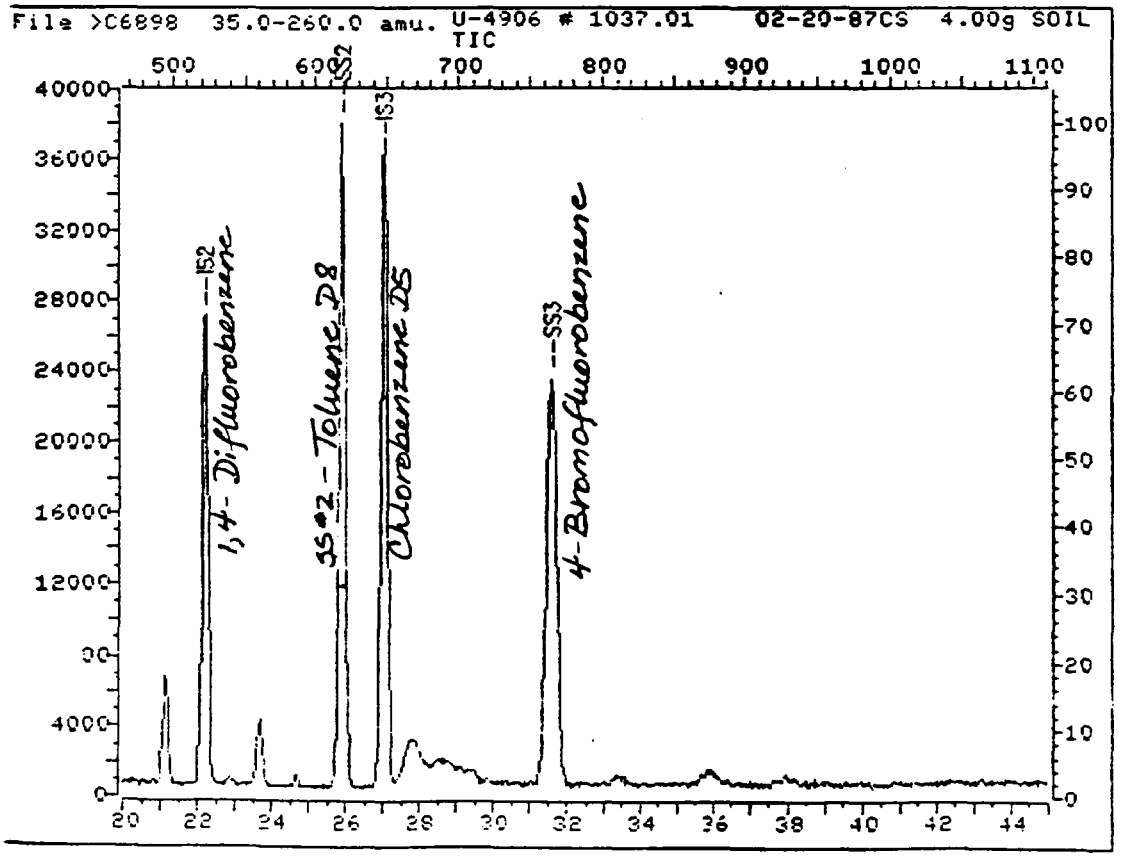
Data File: >C6898::D3
Name: U-4906 # 1037.01 DC-112-58
Misc: 02-20-87CS 4.00g SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

Operator ID: USER8
Quant Time: 870220 16:50
Injected at: 870220 16:04

DC-I12-58


File >C6898 35.0-260.0 amu. U-4906 # 1037.01 02-20-87CS 4.00g SOIL
TIC
Bromochloromethane
--IS1
1,2-Dichloroethane D4
--SS1


File >C6898 35.0-260.0 amu. U-4906 # 1037.01 02-20-87CS 4.00g SOIL
TIC
--IS2
1,4-Difluorobenzene
--SS2
35*2-Toluene D8
--IS3
Chlorobenzene D5
--SS3
4-Bromofluorobenzene

QUANT REPORT

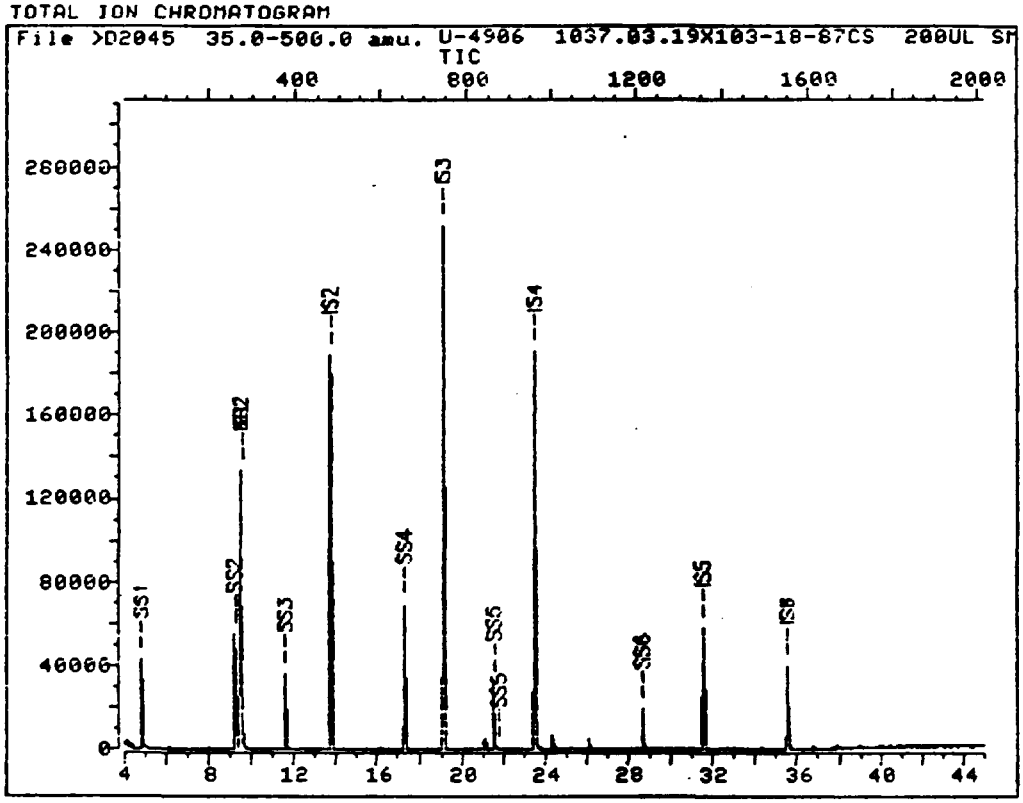
Operator ID: USER8 Quant Rev: 4 Quant Time: 870220 16:50
Output File: ^C6898::Q2 Injected at: 870220 16:04
Data File: >C6898::D3 Dilution Factor: 1.00
Name: U-4906 # 1037.01 DC-I12-58
Misc: 02-20-87CS 4.00g SOIL IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS) 128	11.61	250	22581	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.23	163	8769	55.88	NGS	100
7)	ACETONE	43	9.24	189	502281	1797.50	NGS E	100
15)	1,2-DICHLOROETHANE-D4	(SURR) 65	14.48	324	67811	218.58	NGS 87	84 ✓
16)	*1,4-DIFLUOROBENZENE	(IS) 114	22.16	522	112535	250.00	NGS	100
17)	2-BUTANONE	72	14.67	329	5096	88.44	NGS	100
31)	*CHLOROBENZENE-D5	(IS) 117	27.01	647	111363	250.00	NGS	100
32)	4-METHYL-2-PENTANONE	43	22.86	540	2381	4.36	NGS	93
~~32)~~	~~4-METHYL-2-PENTANONE~~	~~43~~	~~23.67~~	~~561~~	~~7730~~	~~14.17~~	~~NGS~~ no cw	67
~~33)~~	~~2-HEXANONE~~	~~43~~	~~23.67~~	~~561~~	~~7730~~	~~17.78~~	~~NGS~~ 87	100
36)	TOLUENE-D8	(SURR) 98	25.89	618	138903	217.83	NGS	91 ✓
40)	4-BROMOFLUOROBENZENE	(SURR) 95	31.60	765	81041	223.21	NGS 89	100 ✓

* Compound is ISTD

TOTAL ION CHROMATOGRAM

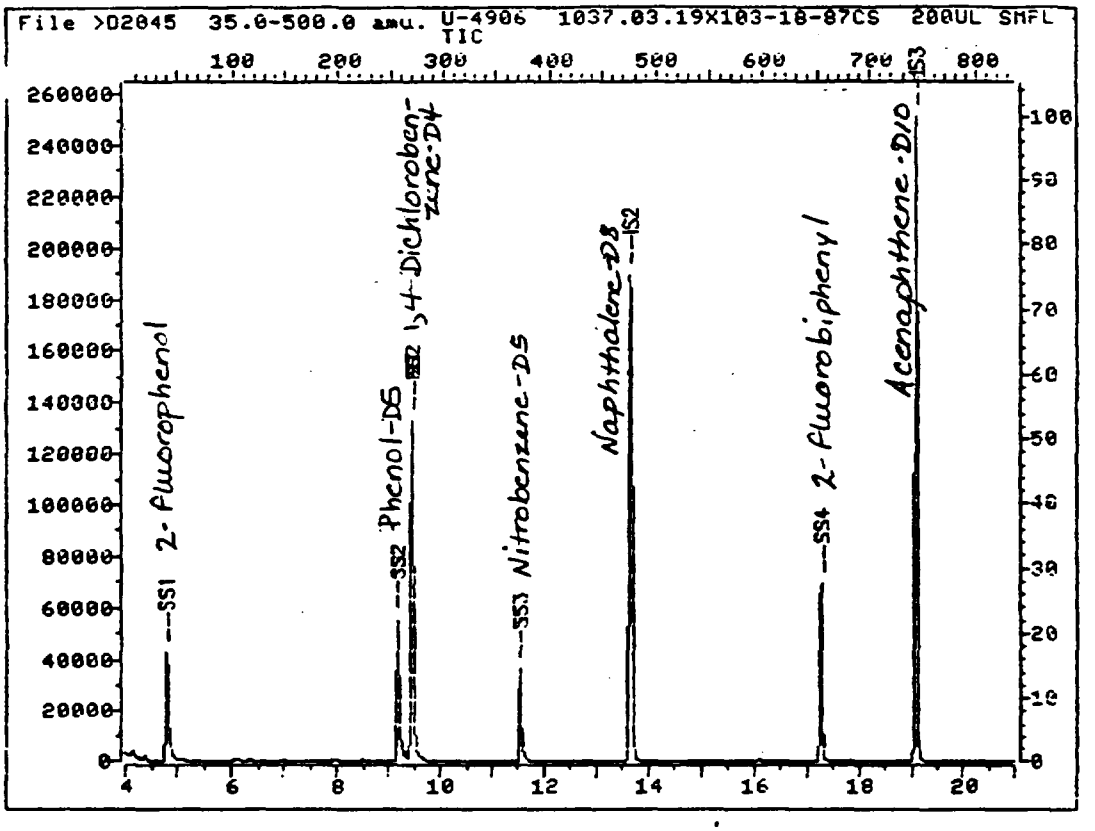


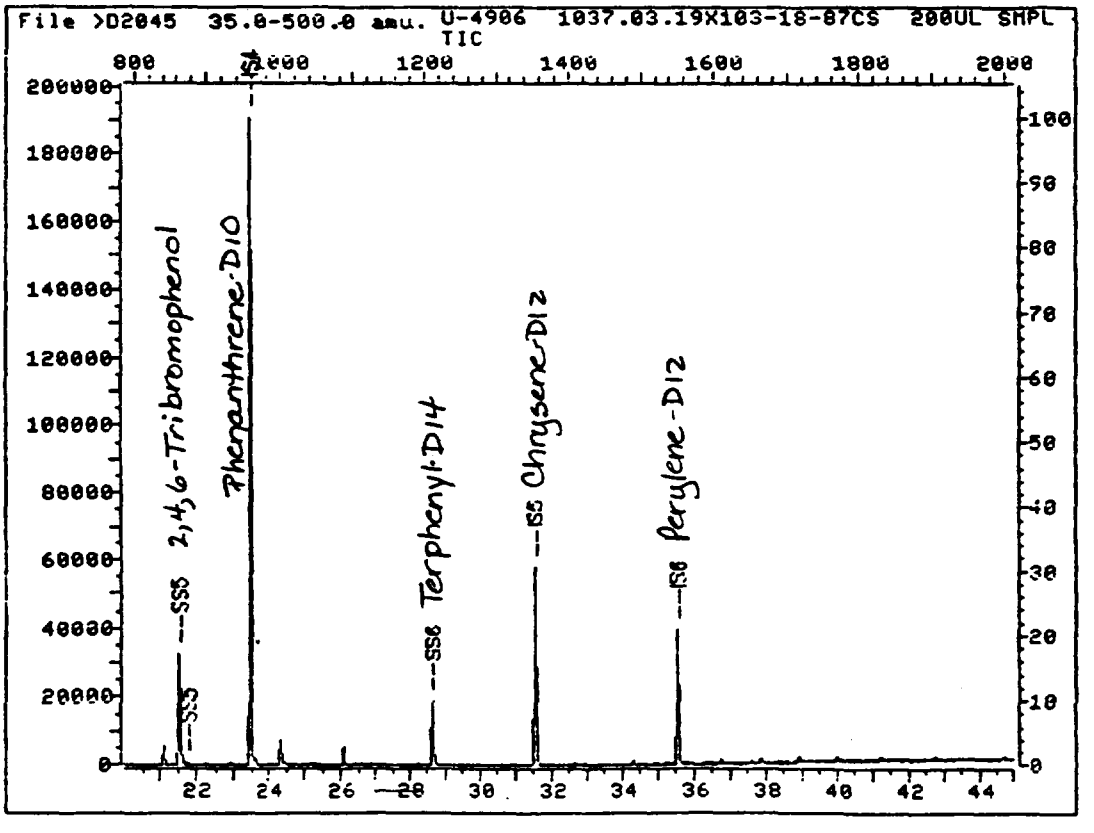
Data File: >D2045::D1
Name: U-4906 1037.03.19X1 DC-I12-58
Misc: 03-18-87CS 200UL SMPL + 200UL A/P + 4UL IS (2X) BTL# 4

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870318 14:12

Operator ID: USER8
Quant Time: 870318 18:35
Injected at: 870318 17:48

DC-I12-58


File >D2045 35.0-500.0 amu. U-4906 1037.03.19X103-18-87CS 200UL SMPL
TIC
SS1 2-Fluorophenol
SS2 Phenol-D5
1,4-Dichlorobenzene-D4
SS3 Nitrobenzene-D5
Naphthalene-D8 IS2
SS4 2-Fluorobiphenyl
Acenaphthene-D10 IS3


File >D2045 35.0-500.0 amu. U-4906 1037.03.19X103-18-87CS 200UL SMPL
TIC
SS5 2,4,6-Tribromophenol
Phenanthrene-D10 IS4
SS6 Terphenyl-D14
IS5 Chrysene-D12
IS6 Perylene-D12

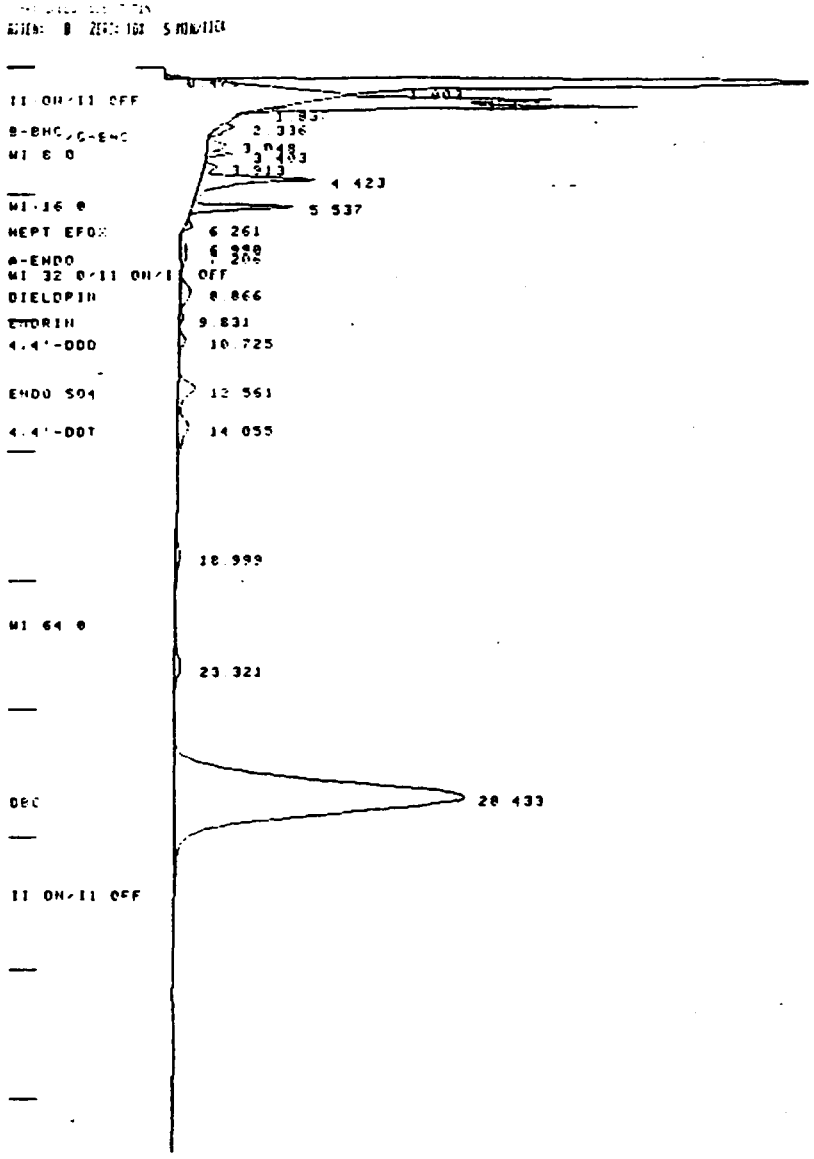
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870318 18:35
Output File: ^D2045::Q2 Injected at: 870318 17:48
Data File: >D2045::D1 Dilution Factor: 2.00
Name: U-4906 1037.03.19X1 DC-I12-58
Misc: 03-18-87CS 200UL SMPL + 200UL A/P + 4UL IS (2X) BTL# 4

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870318 14:12

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.47	270	71759	40.00 UG/L	87
2)	PHENOL-D5	(SURR)	99	9.18	256	59199	45.78 UG/L	99
2)	PHENOL-D5	(SURR)	99	9.47	270	2427	1.88 UG/L	69
5)	2-FLUOROPHENOL	(SURR)	112	4.78	40	38086	45.84 UG/L	84
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.55~~	~~372~~	~~5538~~	~~4.53 UG/L~~ aw	91
19)	*NAPHTHALENE-D8	(IS)	136	13.67	476	260584	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.55	372	33210	26.16 UG/L	92
34)	*ACENAPHTHENE-D10	(IS)	162	19.10	743	147335	40.00 UG/L	96
38)	2-FLUOROBIPHENYL	(SURR)	172	17.29	654	65509	29.19 UG/L	96
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.10~~	~~743~~	~~28265~~	~~11.79 UG/L~~ aw	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.53	862	13193	39.57 UG/L	95
48)	~~2,4,6-TRIBROMOPHENOL~~	~~(SURR)~~	~~330~~	~~21.77~~	~~874~~	~~68~~	~~.28 UG/L~~ aw	93
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.10~~	~~743~~	~~20083~~	~~35.27 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	23.48	958	201598	40.00 UG/L	94
63)	DI-N-BUTYLPHTHALATE		149	26.09	1086	9185	3.36 UG/L jes	98
65)	*CHRYSENE-D12	(IS)	240	31.53	1353	64576	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.64	1211	22231	25.82 UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.54	1550	45937	40.00 UG/L	100

* Compound is ISTD



CHANNEL: 1A - 1 TITLE: RUN 25 8:32 24 FEB 87

DC-I12-58

SAMPLE: 1037 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	1.270		159204	BV	4.19
2		0.0000	1.427		101400	VV	4.25
3		0.0000	1.566		411611	VV	4.63
4		0.0000	3.048		20596	BV	? 9.38
5		0.0000	3.403		25122	VB	7.38
6		0.0000	3.913		22587	BV	12.19
7		0.0000	4.423		254609	VV	15.13
8		0.0000	5.537		140645	VB	11.75
9	DIELDRIN	12.6520	8.866	0.056	47209	BV	40.25
10	[illegible]	7.3041	10.725	-0.175	24385	VV	30.69
11	[illegible]	27.0809	12.561	-0.219	72403	VV	33.63
12	[illegible]	27.7718	14.055	-0.135	65810	VB	46.00
13		0.0000	18.999		30562	BB	54.00
14		0.0000	23.321		44007	BB	53.25
15	DBC	1008.406	28.433	0.123	2913737	BB	81.56

TOTALS: 1083.295 -0.350 4350127

DETECTED PKS: 29 REJECTED PKS: 13

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: -17

RACK: 2 COL: 10 INJ: 1

SAMPLE NUMBER DC-01-59

481095

DC-01-59

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1110

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: CSlotowicz

Date Sample Received: 2-19-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-24-87

Conc/Dil Factor: 1 pH 7.2

Percent Moisture: (Not Decanted) 13

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	5u
67-64-1	Acetone	1200 BE
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	26 B
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

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

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number
DC-01-59

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 02-19-87

Date Analyzed 03-06-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 13

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2 4-Dinitrophenol	16000u
100-02-7	4-Nitrophenol	16000u
132-64-9	Dibenzofuran	3300u
121-14-2	2 4-Dinitrotoluene	3300u
606-20-2	2 6-Dinitrotoluene	3300u
84-66-2	Diethylphthalate	3300u
7005-72-3	4-Chlorophenyl-phenylether	3300u
86-73-7	Fluorene	3300u
100-01-6	4-Nitroaniline	16000u
534-52-1	4 6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	16000u
85-01-8	Phenanthrene	3300u
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	4600
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	3300u
85-68-7	Butylbenzylphthalate	3300u
91-94-1	3 3 -Dichlorobenzidine	6600u
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	1200 BJ
218-01-9	Chrysene	3300u
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1,2,3-cd)Pyrene	3300u
53-70-3	Dibenz(a,h)Anthracene	3300u
191-24-2	Benzo(g,h,i)Perylene	3300u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4906, 4928, 4971, 4989

Sample Number DC-01-59

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-24-87

Conc/Dil Factor 1

Percent Moisture (decanted) 13

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

Form 1

7/85
491025

Laboratory Name Ecology & Environment Inc.

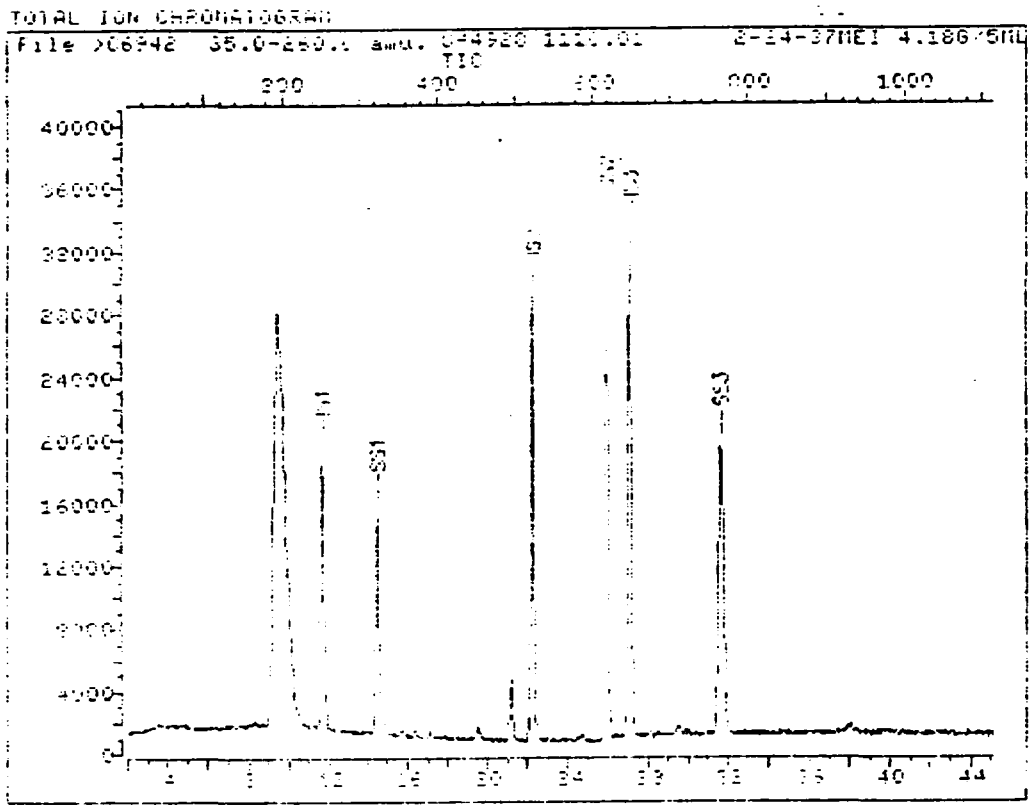
Case No U-4906, 4928, 4971, 4989

Sample Number DC-01-59

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexane isomer	VOA	21.2	9 J
2.				
3.	Unknown	BNA	11.43	1500 J
4.				
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				

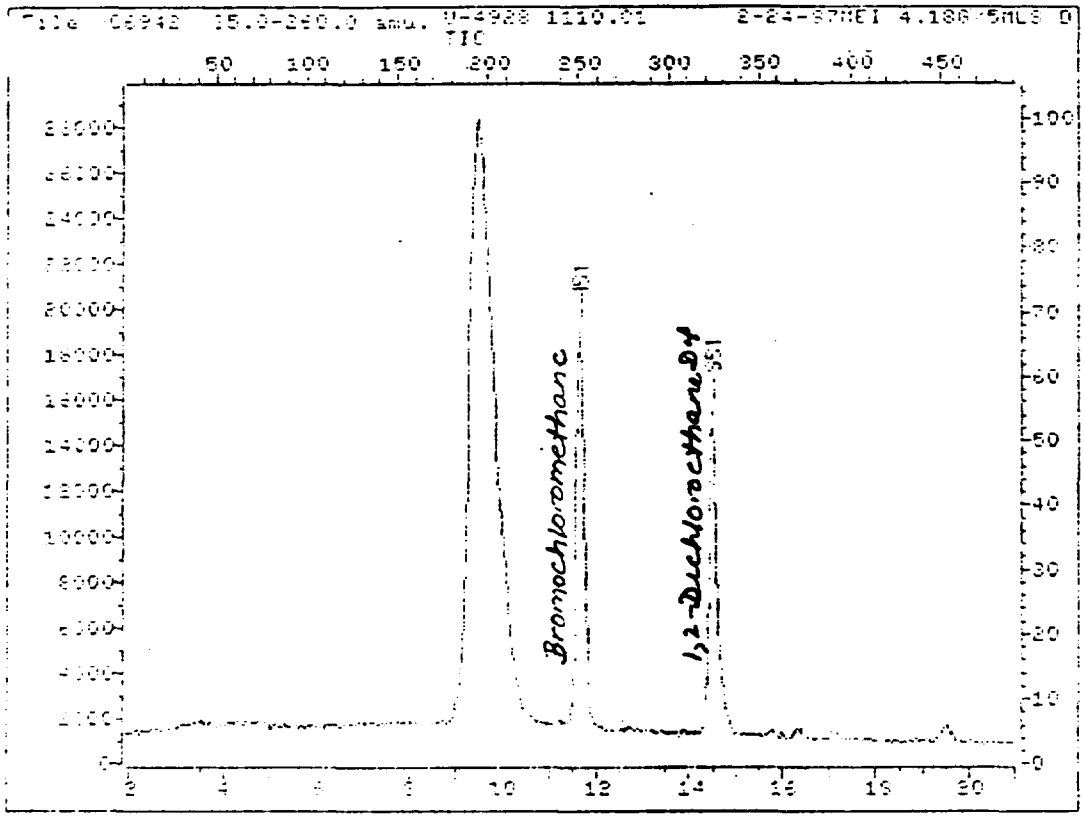


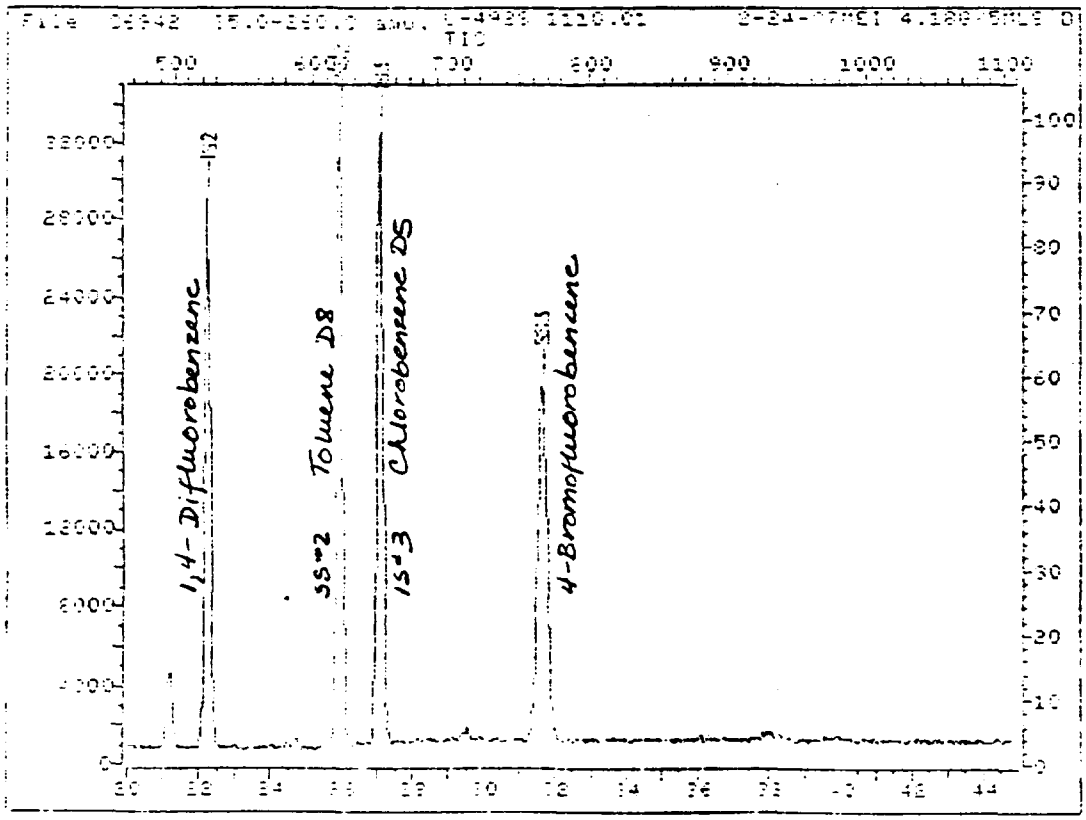
Data File: >C6942::D1
Name: 0-4920 1110.01 DC-01-59
Misc: 2-24-87MEI 4.18G/5ML5 DI - 10UL IP/SS

Id File: VOACRS::DC
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870224 15:45

Operator ID: USER3
Quant Time: 870224 17:31
Injected at: 870224 16:45

DC-01-59


Bromochloromethane
1,2-Dichloroethane D4


1,4-Difluorobenzene
Toluene D8
IS#2
IS#3
Chlorobenzene D5
4-Bromofluorobenzene

QUANT REPORT

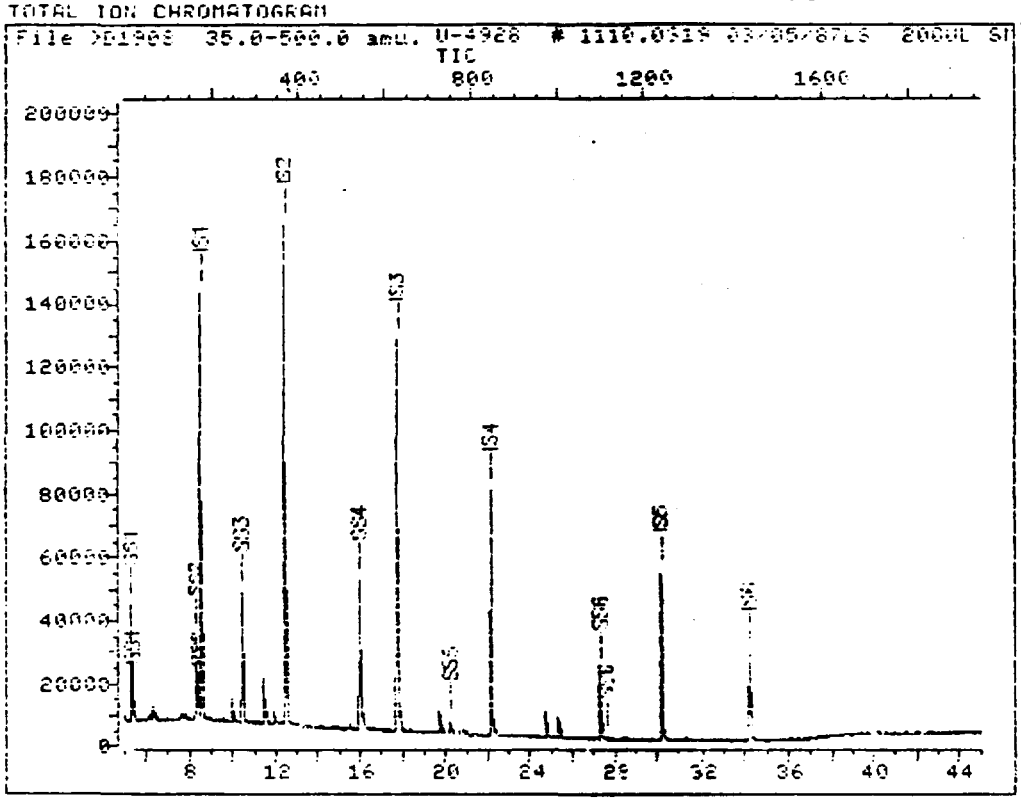
Operator ID: USER3 Quant Rev: 4 Quant Time: 870224 17:31
Output File: ^C6942::D2 Injected at: 870224 16:45
Data File: ^C6942::D1 Dilution Factor: 1.00
Name: U-4928 1110.01 DC-01-59
Misc: 2-24-87MEI 4.18G/5MLS DI - 10UL IS/SI

ID File: VOACRS::D2
Title: VOA ID FILE FOR [illegible] (CONT. CAL.)
Last Calibration: 870224 15:45

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	129	11.65	251	24120	250.00	NGS	100
7)	ACETONE		43	9.48	195	684615	4910.07	NGS E yes	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.48	324	58631	232.86	NGS 93	84
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.24	524	114837	250.00	NGS	100
17)	2-BUTANONE		72	14.72	330	3466	107.50	NGS yes	100
31)	*CHLOROBENZENE-D5	(IS)	117	17.10	649	107211	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.93	619	118012	219.10	NGS 88	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	[illegible]	[illegible]	64810	216.[illegible]	NGS 7%	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

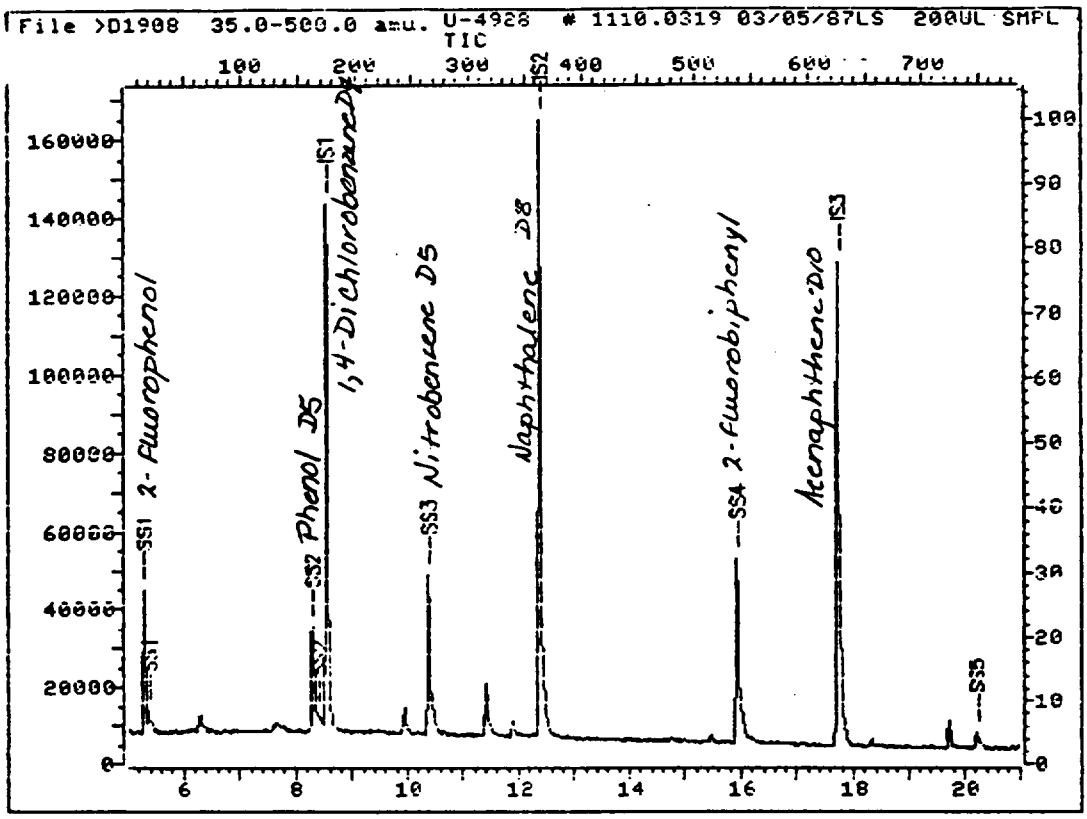


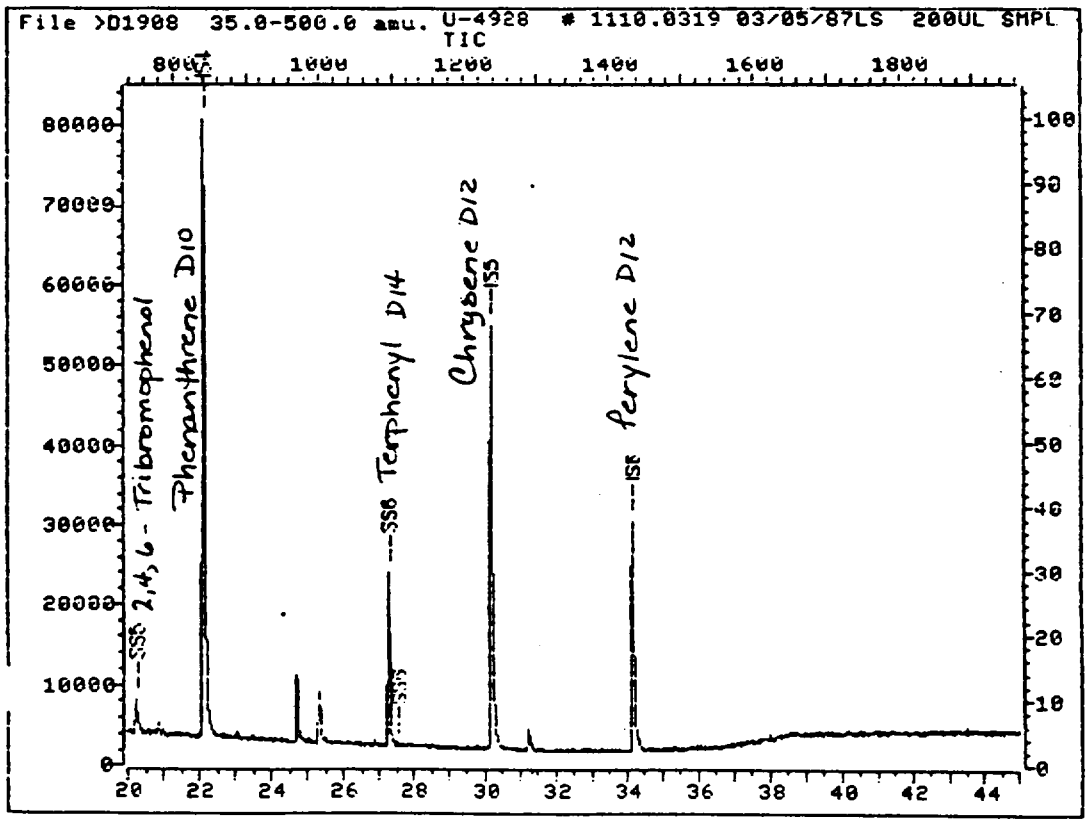
Data File: >01908::03
Name: U-4928 # 1110.0319 DC-01-59
Misc: 03/05/87LS 2000UL SMPL + 2000UL MEOL2 + 4UL IS (2X) BIL# 5

Id File: BNADR::02
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

Operator ID: USER6
Quant Time: 870306 10:52
Injected at: 870306 10:05

DC-01-59


File >D1908 35.0-500.0 amu. U-4928 # 1110.0319 03/05/87LS 200UL SMPL
TIC
2-Fluorophenol
Phenol D5
1,4-Dichlorobenzene D4
Nitrobenzene D5
Naphthalene D8
2-Fluorobiphenyl
Acenaphthene D10


File >D1908 35.0-500.0 amu. U-4928 # 1110.0319 03/05/87LS 200UL SMPL
TIC
2,4,6-Tribromophenol
Phenanthrene D10
Terphenyl D14
Chrysene D12
Perylene D12

QUANT REPORT

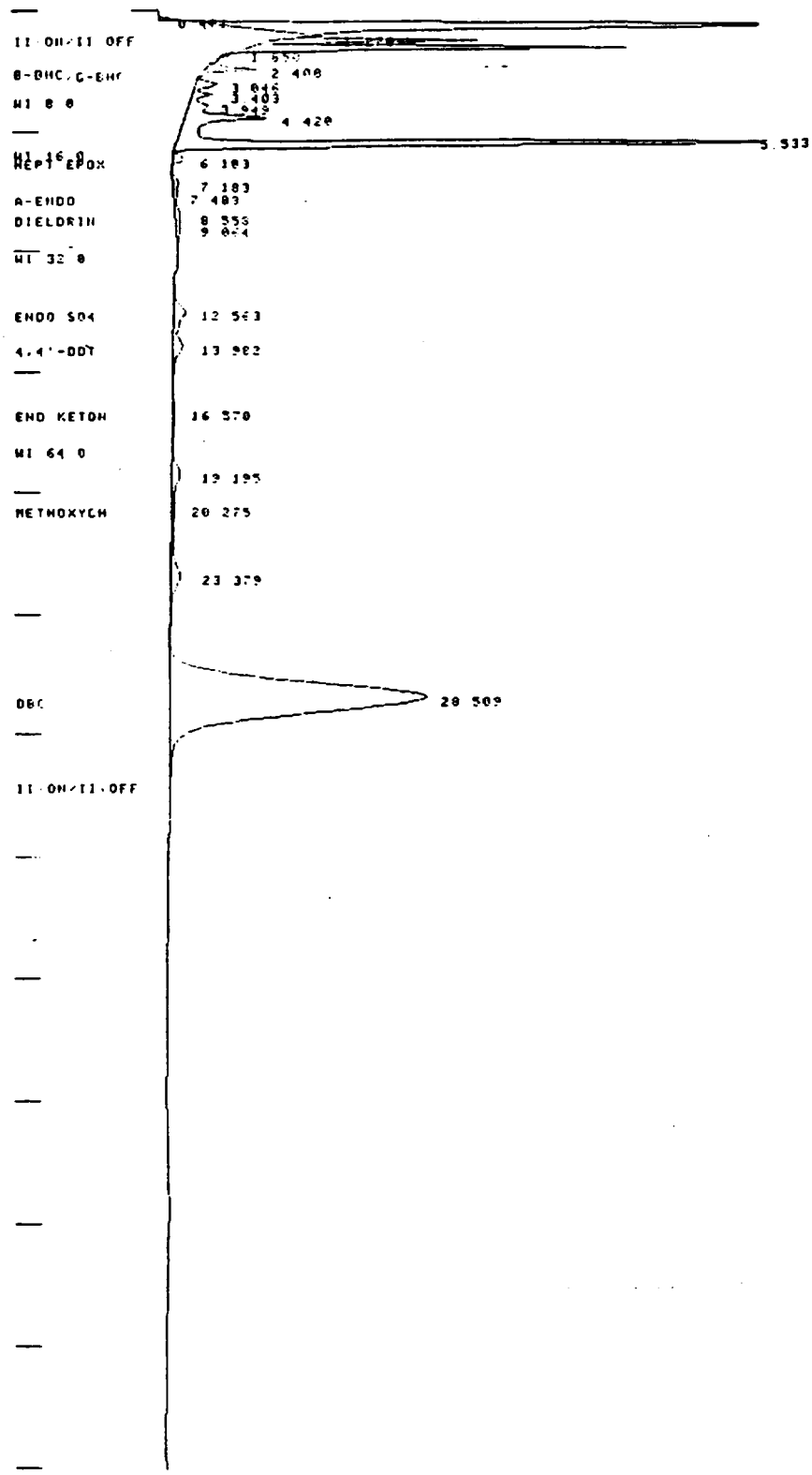
Operator ID: USER6 Quant Rev: 4 Quant Time: 870306 10:52
Output File: ^D1908::02 Injected at: 870306 10:05
Data File: >D1908::03 Dilution Factor: 2.00
Name: U-4928 # 1110.0319 DC-01-59
Misc: 03/05/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 5

ID File: BNAUR::D2
Title: PNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.55	175	64520	40.00 UG/L	89
2)	PHENOL-D5	(SURR)	99	8.30	163	32515	26.49 UG/L	97
2)	PHENOL-D5	(SURR)	99	8.40	168	3932	3.20 UG/L	87
5)	2-FLUOROPHENOL	(SURR)	112	5.29	15	22651	40.97 UG/L	73
5)	2-FLUOROPHENOL	(SURR)	112	5.37	19	2634	4.76 UG/L	96
17)	~~N-NITROSODI-N-PROPYLAMINE~~		~~70~~	~~10.30~~	~~266~~	~~6741~~	~~6.85 UG/L~~	81
19)	*NAPHTHALENE-D8	(IS)	136	12.40	364	276769	40.00 UG/L	100
21)	NITROBENZENE-D5	(SURR)	82	10.40	266	43944	36.38 UG/L	95
34)	*ACENAPHTHENE-D10	(IS)	162	17.23	626	87509	40.00 UG/L	96
38)	2-FLUOROBIPHENYL	(SURR)	172	15.94	538	63600	35.99 UG/L	97
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.73~~	~~626~~	~~16014~~	~~12.51 UG/L~~	100
49)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.22	748	3505	17.19 UG/L	94
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.73~~	~~626~~	~~11394~~	~~44.31 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.11	841	119126	40.00 UG/L	93
63)	DI-N-BUTYLPHTHALATE		149	24.72	969	19197	13.70 UG/L	99
65)	*CHRYSENE-D12	(IS)	240	30.16	1236	90248	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.29	1045	36335	41.03 UG/L	100
~~[illegible]~~	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~27.57~~	~~1100~~	~~112~~	~~.13 UG/L~~	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.24	1289	2991	3.57 UG/L	90
74)	*PERYLENE-D12	(IS)	264	34.17	1433	53812	40.00 UG/L	100

* Compound is ISTD

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 102 5 MIN/TICK



CHANNEL: 1A - 1 TITLE: RUN: 15 DC-01-59 23:30 24 FEB 87

SAMPLE: 1110 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		144935	BV	4.25
2		0.0000	1.555		462146	VB	5.05
3	[illegible]	42.4434	[illegible]	0.018	57351	BV ?	8.38
4		[illegible]	[illegible]		[illegible]	[illegible] ?	9.19

CHANNEL: 1A - 1 TITLE: RUN: 15 DC-01-59 23:30 24 FEB 87

SAMPLE: 1110 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/G	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.278		144935	BV	4.25
2		0.0000	1.566		462146	VB	5.06
3	[illegible]	42.4494	2.408	0.018	57991	BV	? 8.38
4		0.0000	3.046		36493	BV	? 9.19
5		0.0000	3.403		26425	VV	8.06
6	[illegible]	13.9529	3.949	-0.181	49130	VV	? 11.81
7		0.0000	4.420		226638	VV	14.44
8		0.0000	5.533		1094512	VB	12.19
9	[illegible]	7.0467	6.183	0.043	25107	BV	21.13
10	[illegible]	6.1262	8.558	-0.182	20980	VV	? 30.00
11	[illegible]	30.8718	12.563	-0.287	76164	BV	40.25
12	[illegible]	22.2202	12.982	-0.268	53672	VB	41.56
13		0.0000	19.195		55985	BV	59.19
14	[illegible]	24.4475	20.275	-0.625	31750	VV	?100.00
15		0.0000	22.379		82913	VV	55.00
16	DBC 148	989.9122	28.509	0.029	2759978	VB	81.75

TOTALS: 1137.026 -1.453 5204816

DETECTED PKS: 26 REJECTED PKS: 10

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

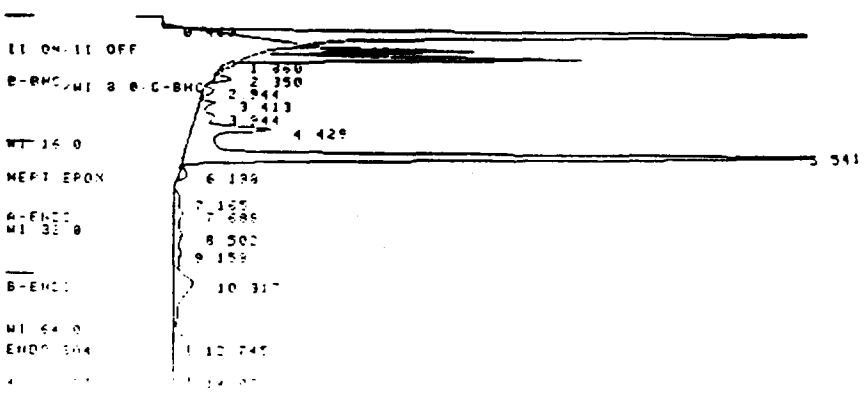
NOISE: 11.4 OFFSET: -16

RACK: 1 VIAL: 15 INJ: 1

NOTES:
NOTEBOOK:259-117,118 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4828
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

POST RUN:
SAVE FILE: RAW TURK213

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



SAMPLE NUMBER DC-02-60

DC-02-60

.Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1111

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Hojtowicz

Date Sample Received: 2-19-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-24-87

Conc/Dil Factor: 2 pH 7.4

Percent Moisture: (Not Decanted) 22

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	27
67-64-1	Acetone	7100 BE
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	10u
75-34-3	1, 1-Dichloroethane	85
156-60-5	Trans-1, 2-Dichloroethene	150
67-66-3	Chloroform	10u
107-06-2	1, 2-Dichloroethane	18
78-93-3	2-Butanone	20,000BE
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	54
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	520
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	970 B
591-78-6	2-Hexanone	49
127-18-4	Tetrachloroethene	10u
79-34-5	1, 1, 2, 2-Tetrachloroethane	22
108-88-3	Toluene	10u
108-90-7	Chlorobenzene	1300
100-41-4	Ethylbenzene	36
100-42-5	Styrene	10u
	Total Xylenes	110

Data Reporting Qualifiers

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

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

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

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

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

Case No U-4906, 4928, 4971, 4989

Sample Number DC-02-60

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 3-6-87

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

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

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-02-60

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-25-87

Conc/Dil Factor 1

Percent Moisture (decanted) 22

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

Form 1

7/85
491095

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number
DC-02-60

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. 78922	Butanol	VOA	15.5	70 J
2.	Unknown hydrocarbon	VOA	23.7	14 J
3.	Dichlorobenzene isomer	VOA	39.4	120 J
4.	Dichlorobenzene isomer	VOA	40.1	180 J
5.				
6.	No TIC's in BNA fraction			
7.				
8.				
9.				
10.				
11.				
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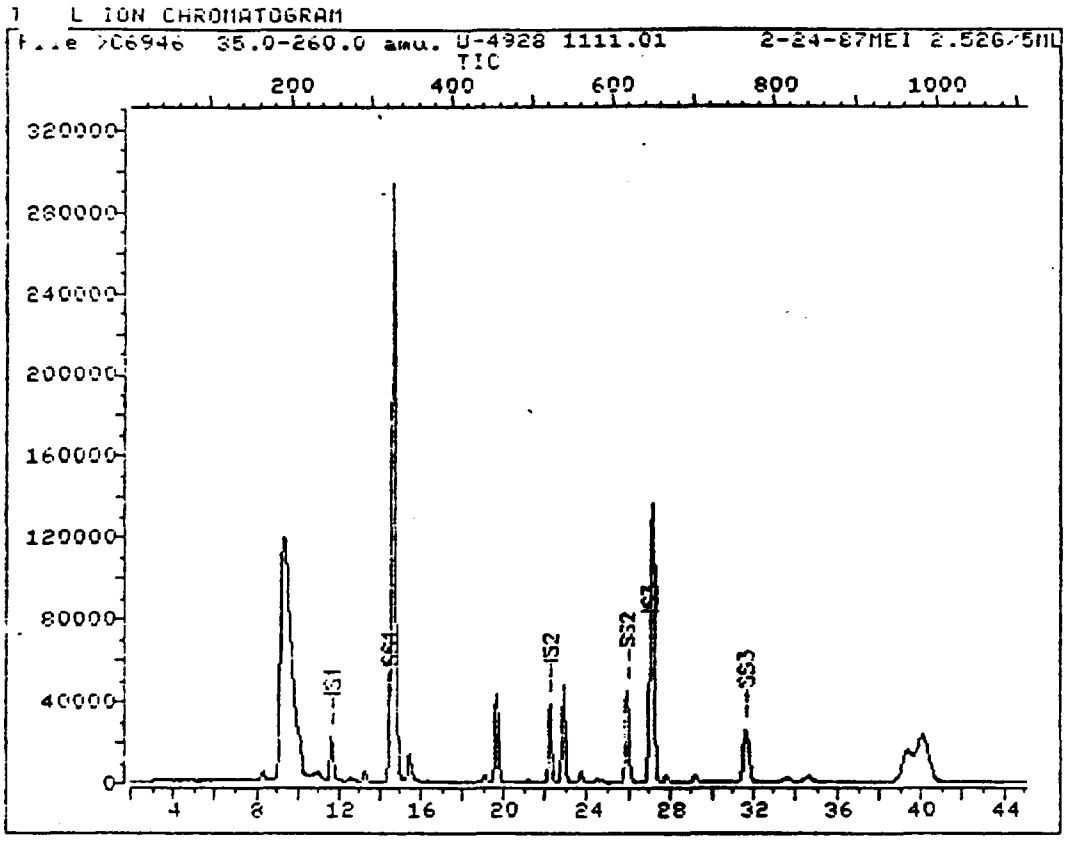
30				



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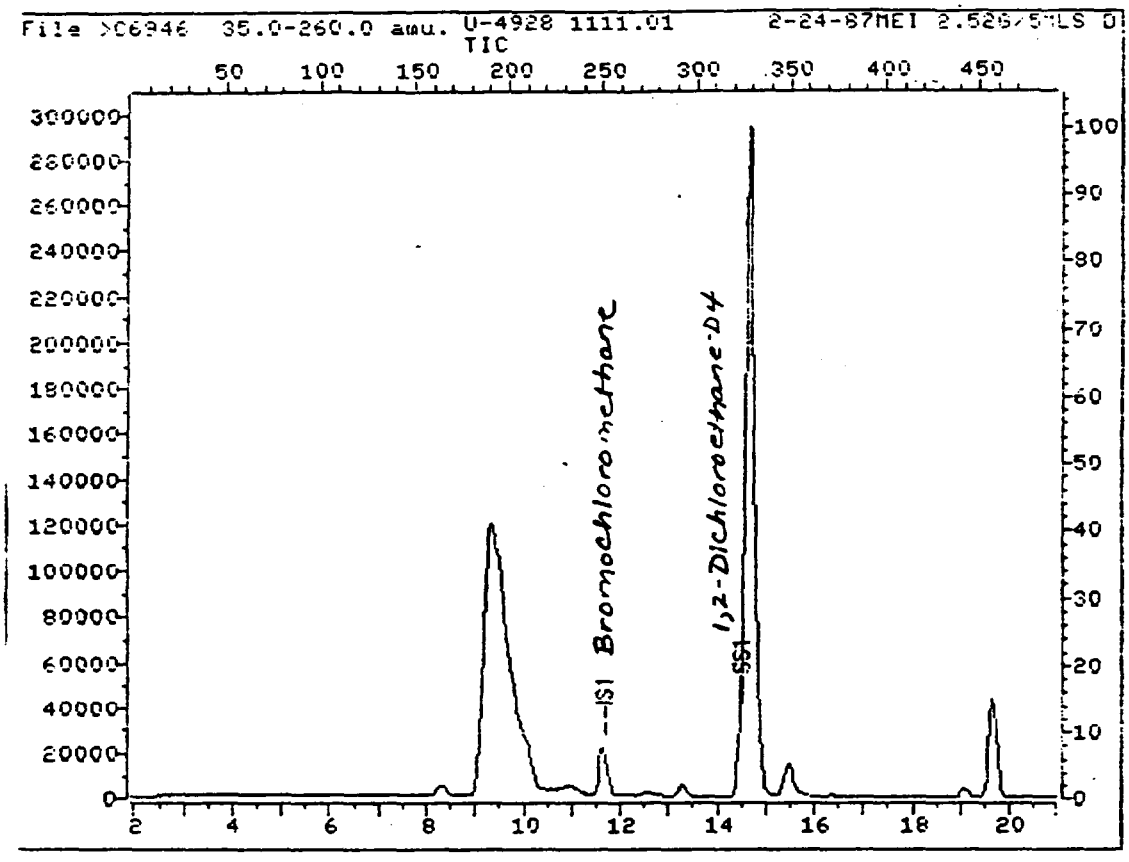
Misc: 2-24-87MEI 2.52G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870224 15:45

Operator ID: USER8
Quant Time: 870224 21:11
Injected at: 870224 20:25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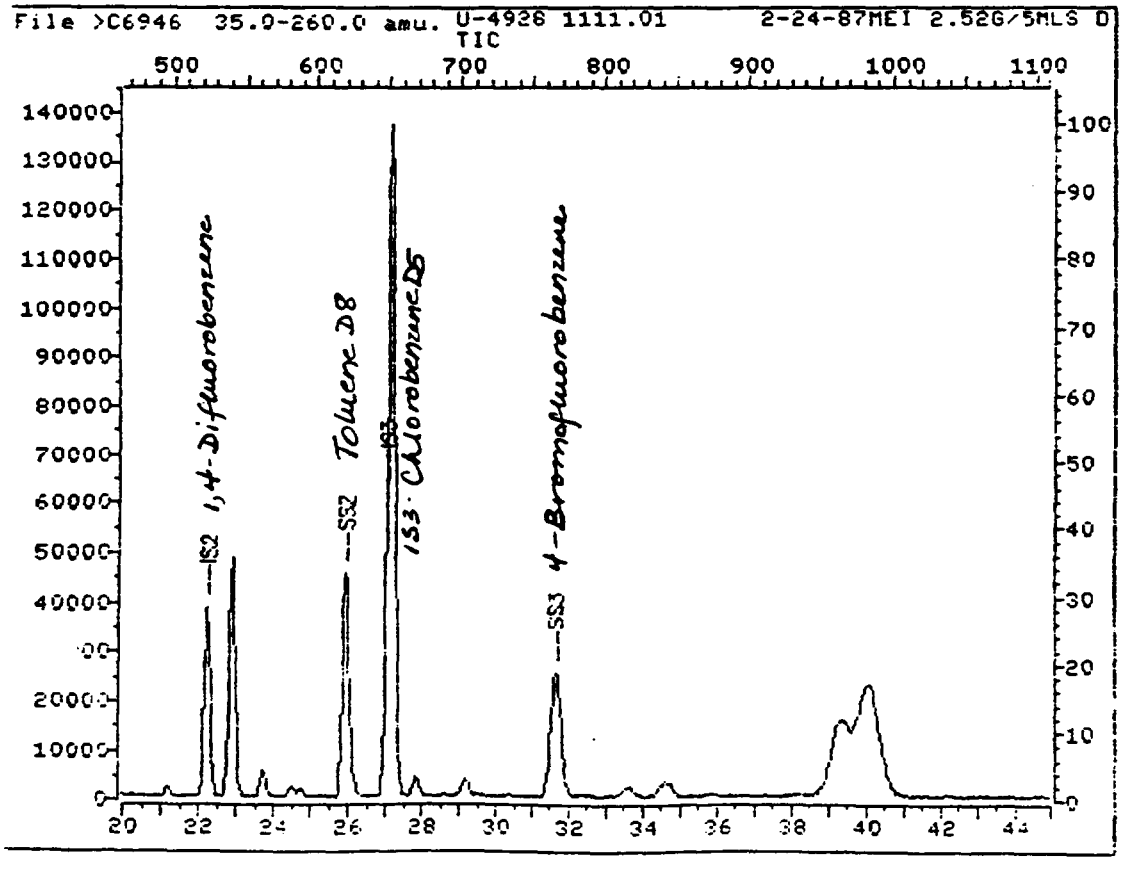
TIC
--IS1 Bromochloromethane
1,2-Dichloroethane-D4
SS1

DC-02-60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TIC
--IS2 1,4-Difluorobenzene
--SS2 Toluene D8
IS3
1,3-Chlorobenzene D5
--SS3 4-Bromofluorobenzene

QUANT REPORT

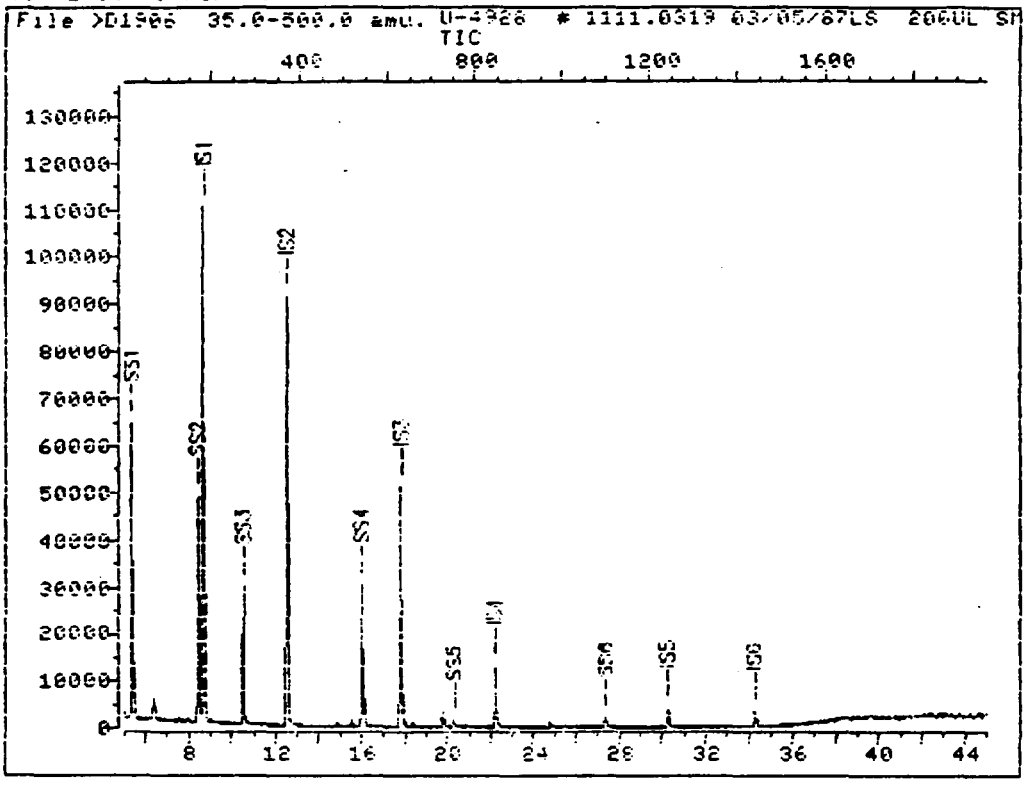
Operator ID: USER8 Quant Rev: 4 Quant Time: 870224 21:11
Output File: ^C6946::Q2 Injected at: 870224 20:25
Data File: >C6946::D3 Dilution Factor: 1.00
Name: U-4928 1111.01 DC-02-60
Misc: 2-24-87MEI 2.52G/5MLS DI + 10UL IS/SS

D File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870224 15:45

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.65	251	28641	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.31	165	11900	68.96	NGS yes	100
7)	ACETONE	43	9.36	192	2955918	17853.49	NGS yes	100 E
11)	1,1-DICHLOROETHANE	63	12.54	274	7850	19.47	NGS yes	94
12)	TRANS-1,2-DICHLOROETHENE	96	13.28	293	12121	72.97	NGS yes	77
.4)	1,2-DICHLOROETHANE	62	14.60	327	3327	8.84	NGS yes	89 ✓
.5)	1,2-DICHLOROETHANE-D4(SURR)	65	14.48	324	79649	266.40	NGS	81 ✓
.6)	*1,4-DIFLUOROBENZENE (IS)	114	22.24	524	160186	250.00	NGS	100
.7)	2-BUTANONE	72	14.63	328	442984	9849.66	NGS yes	100 E
.7)	~~2-BUTANONE~~	~~72~~	~~15.45~~	~~349~~	~~3509~~	~~79.85~~	~~NGS~~ NO CW	100
24)	TRICHLOROETHENE	130	19.06	442	6723	26.63	NGS yes	84
27)	BENZENE	78	19.64	457	186892	253.15	NGS yes	100
28)	~~CIS-1,3-DICHLOROPROPENE~~	~~75~~	~~19.64~~	~~457~~	~~3531~~	~~14.08~~	~~NGS~~ NO CW	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.05	648	135239	250.00	NGS	100
32)	4-METHYL-2-PENTANONE	43	22.90	541	211310	474.65	NGS yes	91
32)	~~4-METHYL-2-PENTANONE~~	~~43~~	~~23.71~~	~~562~~	~~9522~~	~~21.50~~	~~NGS~~ CW	61
33)	~~2-HEXANONE~~	~~43~~	~~23.71~~	~~562~~	~~9522~~	~~27.71~~	~~NGS~~ CW	100
33)	2-HEXANONE	43	24.49	582	8209	23.89	NGS yes	100
35)	1,1,2,2-TETRACHLOROETHANE	83	24.53	583	4030	10.61	NGS yes	100 ✓
36)	TOLUENE-D8 (SURR)	98	25.93	619	171275	252.09	NGS	99 ✓
38)	CHLOROBENZENE	112	27.17	651	377742	629.74	NGS yes	98
39)	ETHYLBENZENE	91	29.16	702	18967	17.79	NGS yes	90
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.64	766	89443	237.06	NGS	100 ✓
42)	TOTAL XYLENES	91	33.62	817	18274	20.45	NGS yes	100
42)	TOTAL XYLENES	91	34.59	842	28161	31.51	NGS yes	100
43)	1,3-DICHLOROBENZENE yes	146	39.32	964	118742	118742.0	NO CALIB	100
43)	1,3-DICHLOROBENZENE	146	40.06	983	147266	147266.0	NO CALIB	100
44)	1,2-DICHLOROBENZENE		39.32	964	118742	118742.0	NO CALIB	100
44)	1,2-DICHLOROBENZENE		40.06	983	136323	136323.0	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	39.32	964	121498	121498.0	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	40.06	983	184198	184198.0	NO CALIB	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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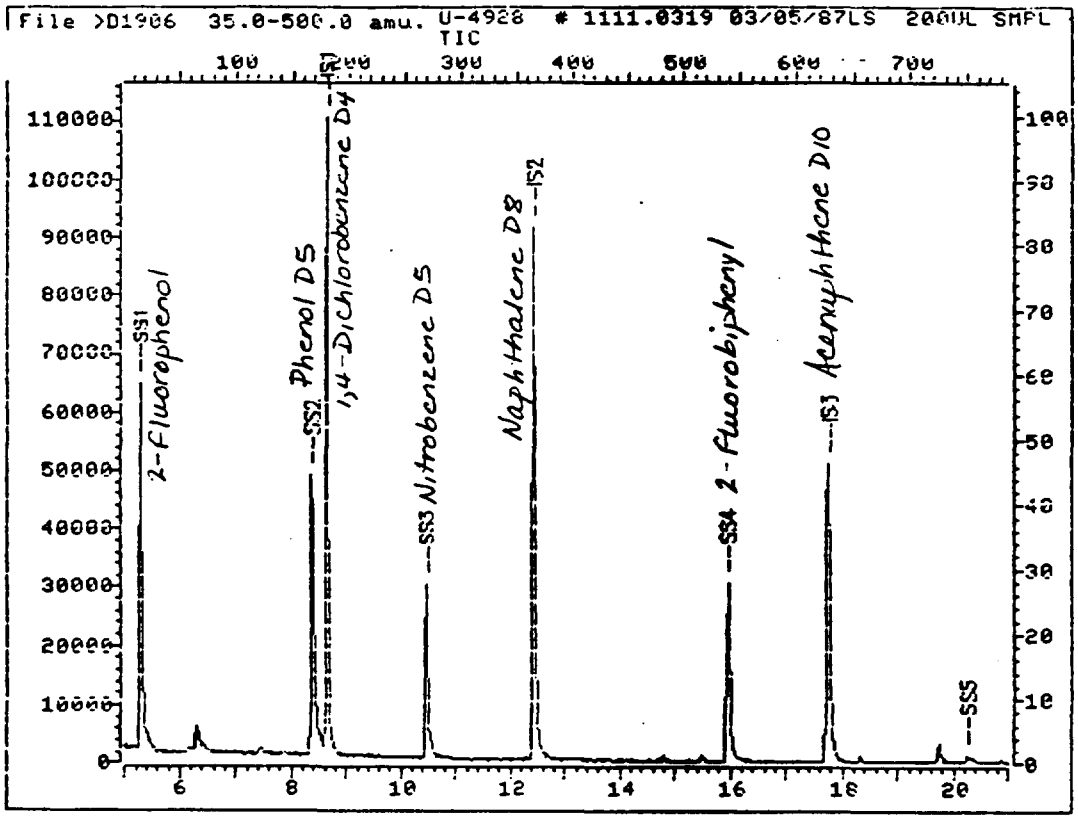
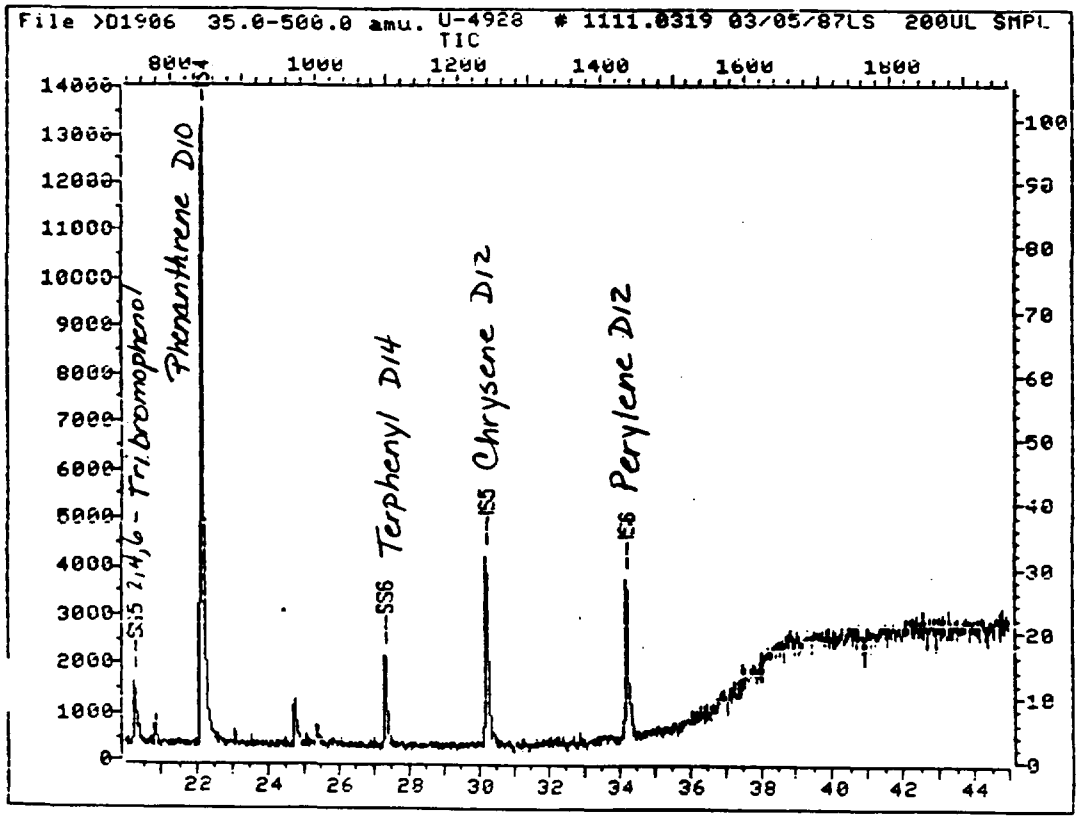
Misc: 03/05/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

Operator ID: USER6
Quant Time: 870306 00:51
Injected at: 870306 00:03


File >D1906 35.0-500.0 amu. U-4928 # 1111.0319 03/05/87LS 200UL SMPL
TIC
2-Fluorophenol
Phenol D5
1,4-Dichlorobenzene D4
Nitrobenzene D5
Naphthalene D8
2-Fluorobiphenyl
Acenaphthene D10

DC-02-60


File >D1906 35.0-500.0 amu. U-4928 # 1111.0319 03/05/87LS 200UL SMPL
TIC
2,4,6-Tribromophenol
Phenanthrene D10
Terphenyl D14
Chrysene D12
Perylene D12

QUANT REPORT

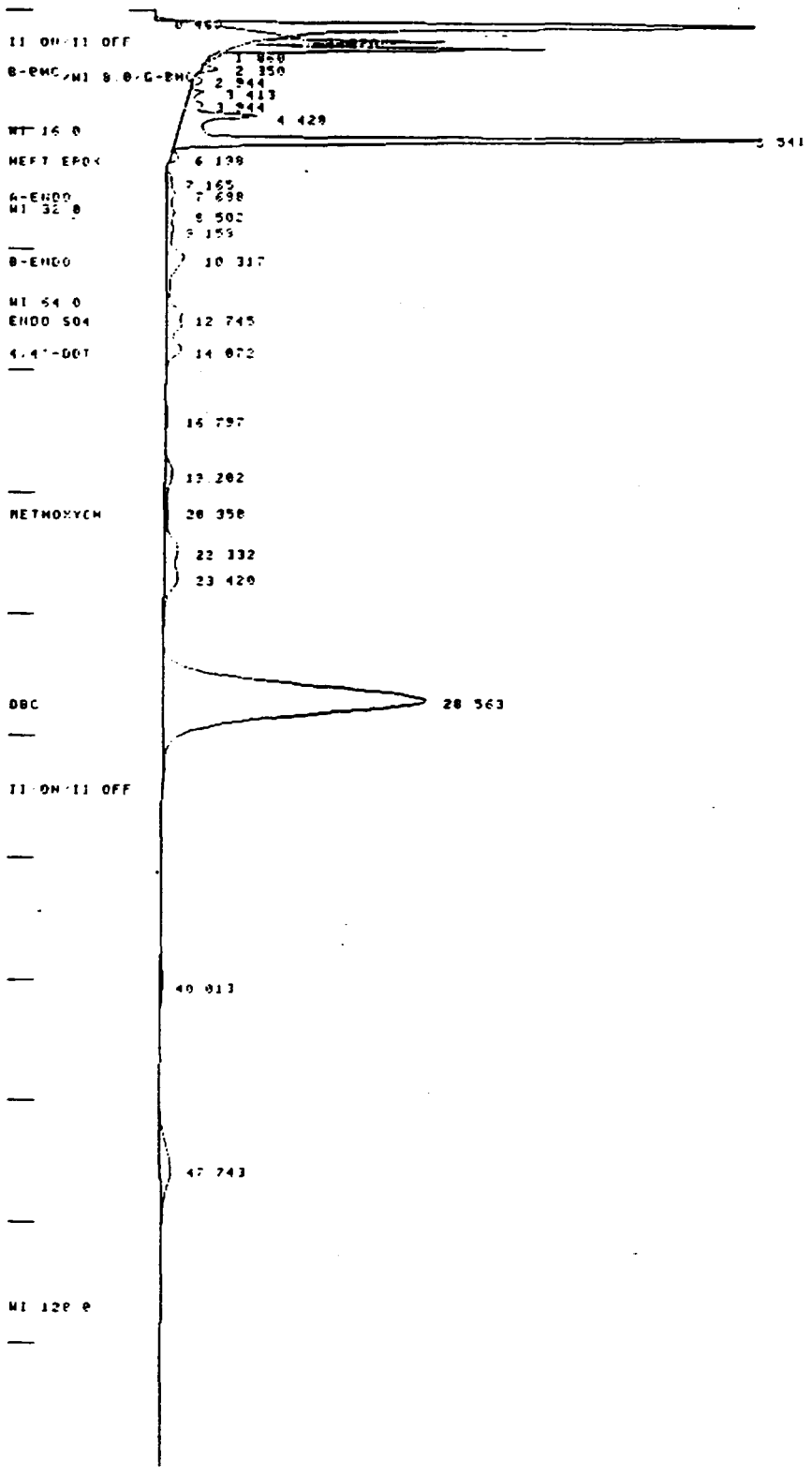
Operator ID: USER6 Quant Rev: 4 Quant Time: 870306 00:51
Output File: ^D1906::Q2 Injected at: 870306 00:03
Data File: >D1906::D3 Dilution Factor: 2.00
Name: U-4928 # 1111.0319 DC-02-60
Misc: 03/05/87LS 20HUL SMPL + 200UL MEOL2 + 4UL IS (2X) BTL# 3

ID File: BN90R::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

	Compound		R.I.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.64	180	45765	40.00 UG/L	84
2)	PHENOL-D5	(SURR)	99	8.36	166	58440	67.12 UG/L 67 ✓	97
5)	2-FLUOROPHENOL	(SURR)	112	5.28	15	45166	110.07 UG/L 110 ✓	43
~~[illegible]~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.46~~	~~269~~	~~5902~~	~~7.88 UG/L~~	~~91~~ CW
19)	*NAPHTHALENE-D8	(IS)	136	12.43	366	144838	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.46	269	33961	44.02 UG/L 88 ✓	91
34)	*ACENAPHTHENE-D10	(IS)	162	17.25	627	41721	40.00 UG/L	93
38)	2-FLUOROBIPHENYL	(SURR)	172	15.45	539	43091	51.15 UG/L 102 ✓	92
~~[illegible]~~	~~DIMETHYL PHTHALATE~~		~~[illegible]~~	~~17.25~~	~~627~~	~~7952~~	~~13.03 UG/L~~	~~144~~ CW
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.25	750	1555	16.00 UG/L 16 LOW	
~~[illegible]~~	~~2,4-DINITRO-O-CRESOL~~		~~[illegible]~~	~~17.25~~	~~627~~	~~5450~~	~~44.45 UG/L~~	~~100~~ CW
55)	*PHENANTHRENE-D10	(IS)	188	22.13	842	30904	40.00 UG/L	90
65)	*CHRYSENE-D12	(IS)	240	30.21	1239	12449	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.32	1097	7415	60.69 UG/L 121	100 ✓
74)	*PERYLENE-D12	(IS)	264	34.22	1436	8996	40.00 UG/L	100

* Compound is ISTD

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

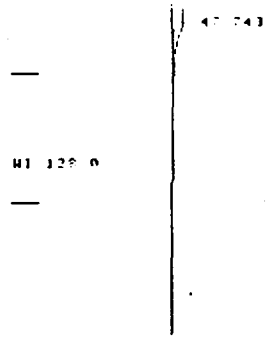


DC-02-60

CHANNEL: 1A - 1 TITLE: RUN# 16 0:35 25 FEB 87

SAMPLE: 1111 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	1.279		134793	BV	4.25
2		0.0000	1.565		376477	VB	5.00



DC-02-60

CHANNEL: 1A - 1 TITLE: RUN# 16 0:35 25 FEB 87

SAMPLE: 1111 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/[illegible]	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.278		134783	BV	4.25
2		0.0000	1.566		376477	VB	5.00
3	[illegible]	15.9883	2.350	-0.040	21842	VB	7.81
4		0.0000	3.413		24792	VV	9.00
5	[illegible]	14.2629	3.944	-0.186	50221	VV	? 14.31
6		0.0000	4.426		199820	VV	15.25
7		0.0000	5.541		1748447	VV	12.19
8		0.0000	7.165		20330	BV	? 34.88
9	[illegible]	8.0388	7.688	0.088	27281	VV	? 41.75
10	[illegible]	9.9712	8.502	-0.238	34148	VV	? 39.25
11	[illegible]	9.2205	9.158	0.318	33247	VV	? 59.75
12	[illegible]	39.8878	10.317	0.267	133553	VV	51.38
13	[illegible]	26.5327	12.745	-0.105	65459	VV	? 51.06
14		0.0000	12.996		61123	VV	? 30.75
15	[illegible]	30.6016	14.072	-0.178	73917	VB	40.88
16		0.0000	19.202		62501	VV	58.50
17		0.0000	22.332		102086	VV	? 58.94
18		0.0000	23.420		116581	VV	? 73.81
19	DBC 153	1019.756	28.563	0.083	2843298	VB	80.69
20		0.0000	40.013		26360	BB	80.00
21		0.0000	47.743		174482	BB	124.25

TOTALS: 1174.300 0.009 6330848

DETECTED PKS: 33 REJECTED PKS: 12

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

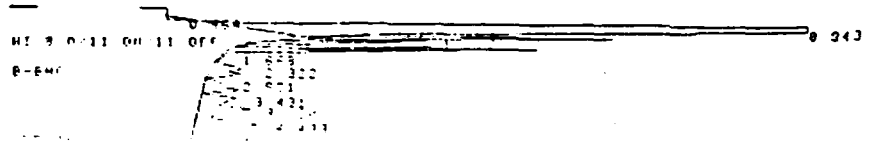
NOISE: 11.4 OFFSET: -11

RACK: 2 VIAL: 1 INJ: 1

NOTES:
NOTEBOOK:259-117,118 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4928
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

POST RUN:
SAVE FILE: RAW TURK214

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



SAMPLE NUMBER DC-03-61

DC-03-61

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1112

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Slojtowicz

Date Sample Received: 2-19-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-24-87

Conc/Dil Factor: 2 pH 7.8

Percent Moisture: (Not Decanted) 16

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	20u
74-83-9	Bromomethane	20u
75-01-4	Vinyl Chloride	20u
75-00-3	Chloroethane	20u
75-09-2	Methylene Chloride	8 J
67-64-1	Acetone	3700 BE
75-15-0	Carbon Disulfide	10u
75-35-4	1, 1-Dichloroethene	10u
75-34-3	1, 1-Dichloroethane	10u
156-60-5	Trans-1, 2-Dichloroethene	5 J
67-66-3	Chloroform	10u
107-06-2	1, 2-Dichloroethane	10u
78-93-3	2-Butanone	30 B
71-55-6	1, 1, 1-Trichloroethane	10u
56-23-5	Carbon Tetrachloride	10u
108-05-4	Vinyl Acetate	20u
75-27-4	Bromodichloromethane	10u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	10u
10061-02-6	Trans-1, 3-Dichloropropene	10u
79-01-6	Trichloroethene	10u
124-48-1	Dibromochloromethane	10u
79-00-5	1, 1, 2-Trichloroethane	10u
71-43-2	Benzene	20
10061-01-5	cis-1, 3-Dichloropropene	10u
110-75-8	2-Chloroethylvinylether	20u
75-25-2	Bromoform	10u
108-10-1	4-Methyl-2-Pentanone	20u
591-78-6	2-Hexanone	20u
127-18-4	Tetrachloroethene	10u
79-34-5	1, 1, 2, 2-Tetrachloroethane	10u
108-88-3	Toluene	10u
108-90-7	Chlorobenzene	52
100-41-4	Ethylbenzene	140
100-42-5	Styrene	10u
	Total Xylenes	820

Data Reporting Qualifiers

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

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

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

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

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

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

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

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

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number DC-03-61

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed: 3-5-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 16

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300µ
51-28-5	2 4-Dinitrophenol	16000µ
100-02-7	4-Nitrophenol	16000µ
132-64-9	Dibenzofuran	3300µ
121-14-2	2 4-Dinitrotoluene	3300µ
606-20-2	2 6-Dinitrotoluene	3300µ
84-66-2	Diethylphthalate	3300µ
7005-72-3	4-Chlorophenyl-phenylether	3300µ
86-73-7	Fluorene	3300µ
100-01-6	4-Nitroaniline	16000µ
534-52-1	4 6-Dinitro-2-Methylphenol	16000µ
86-30-6	N-Nitrosodiphenylamine (1)	3300µ
101-55-3	4-Bromophenyl-phenylether	3300µ
118-74-1	Hexachlorobenzene	3300µ
87-86-5	Pentachlorophenol	19000
85-01-8	Phenanthrene	3300µ
120-12-7	Anthracene	3300µ
84-74-2	Di-n-Butylphthalate	4500
206-44-0	Fluoranthene	3300µ
129-00-0	Pyrene	3300µ
85-68-7	Butylbenzylphthalate	3300µ
91-94-1	3 3 -Dichlorobenzidine	6600µ
56-55-3	Benzo(a)Anthracene	3300µ
117-81-7	bis(2-Ethylhexyl)Phthalate	1600 BJ
218-01-9	Chrysene	3300µ
117-84-0	Di-n-Octyl Phthalate	3300µ
205-99-2	Benzo(b)Fluoranthene	3300µ
207-08-9	Benzo(k)Fluoranthene	3300µ
50-32-8	Benzo(a)Pyrene	3300µ
193-39-5	Indeno(1,2,3-cd)Pyrene	3300µ
53-70-3	Dibenz(a,h)Anthracene	3300µ
191-24-2	Benzo(g,h,i)Perylene	3300µ

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-03-61

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-25-87

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No u-4906, 4928, 4971, 4989

Sample Number DC-03-61

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MCC-IC	Estimated Concentration (ug/l or ug/kg)
1.	Hexane isomer	VOA	21.2	3 J
2.	Dichlorobenzene isomer	VOA	39.3	230 J
3.	Dichlorobenzene isomer	VOA	40.1	130 J
4.				
5.	Unknown	BNA	11.43	3000 J
6. 10544500	Molecular Sulfur	BNA	25.35	2400 J
7.				
8.				
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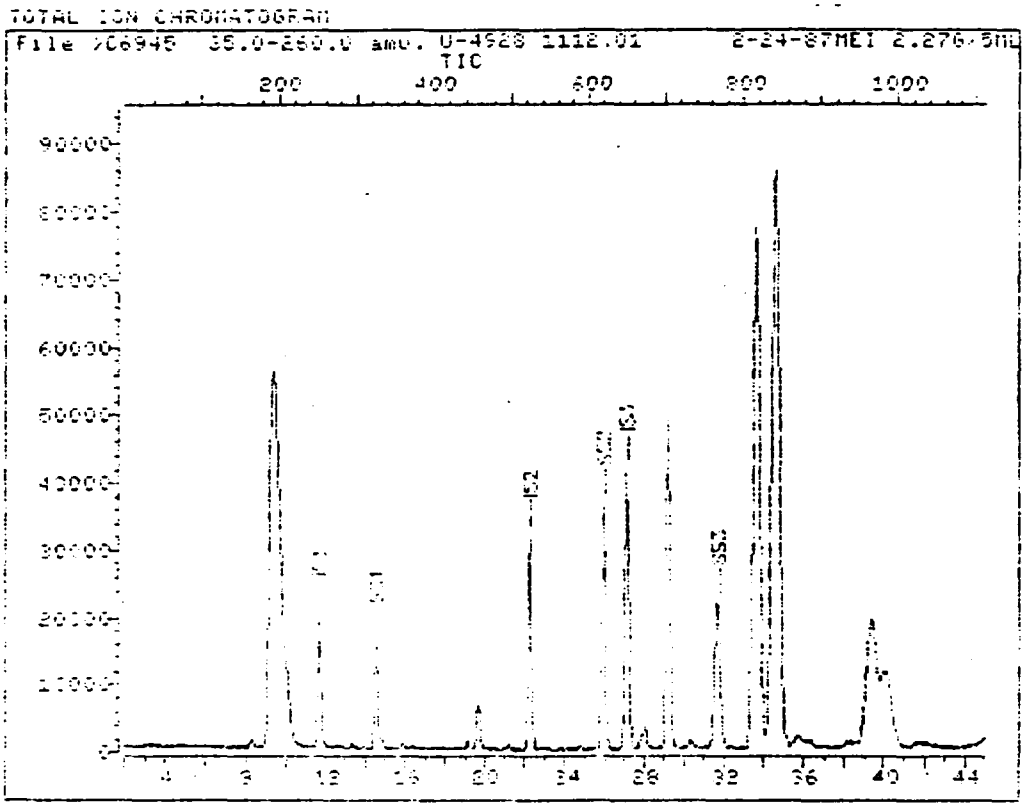
30				

TOTAL ION CHROMATOGRAM

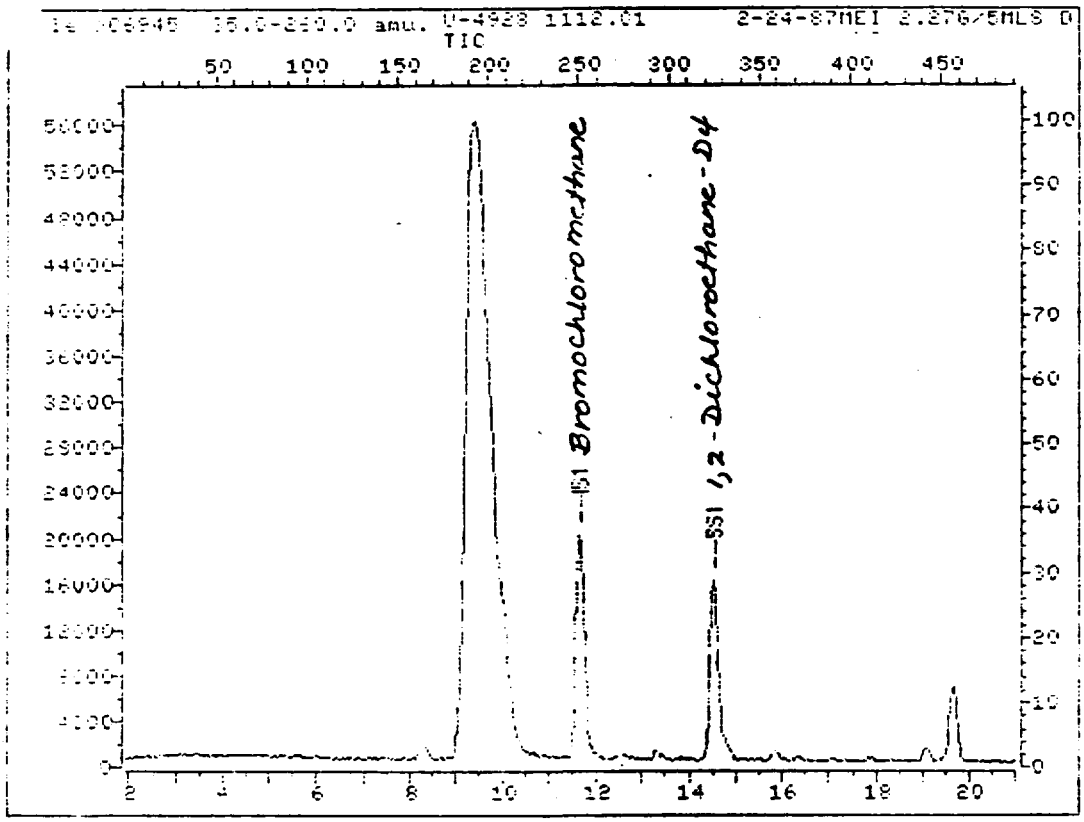


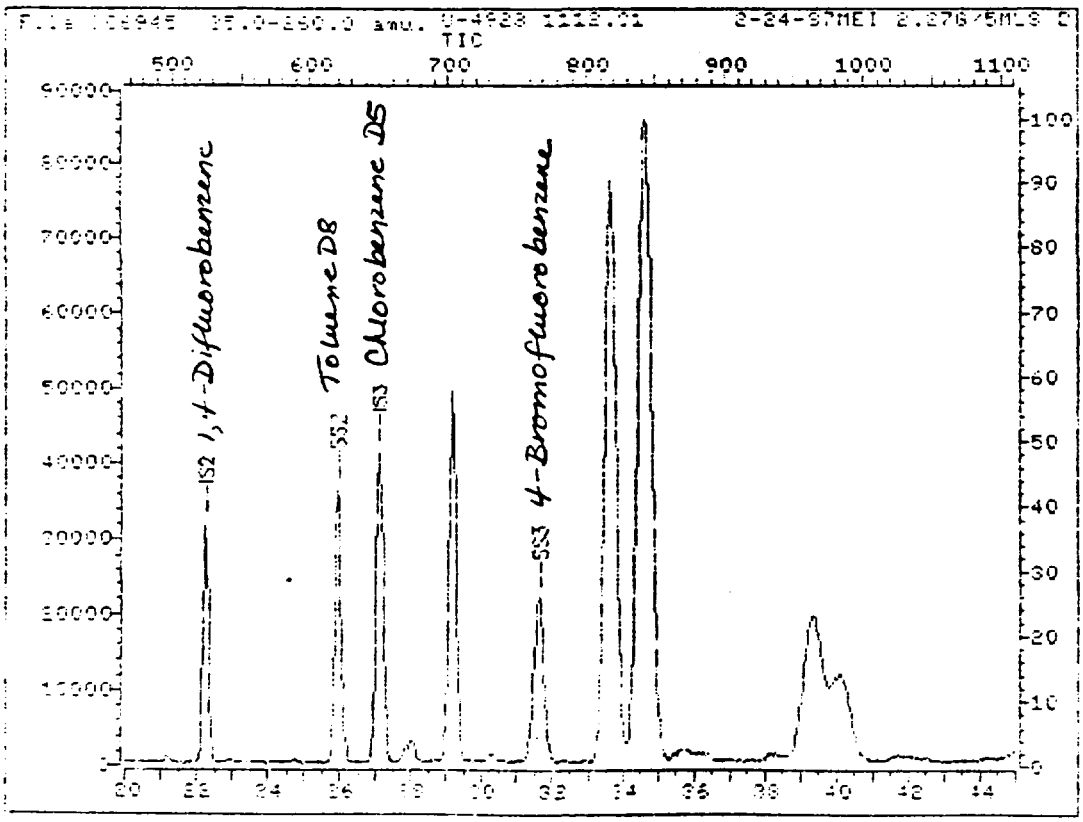
Data File: C6945::03
Name: U-4928 1112.01 DC-03-61
Misc: 2-24-87MEI 2.27G/5ML9 DI + 10UL IS/SS

Id File: VOACRS::DC
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870224 15:45

Operator ID: USERS
Quant Time: 870224 20:19
Injected at: 870224 19:33

DC-03-61


TIC
Bromochloromethane
1,2-Dichloroethane-D4


TIC
1,4-Difluorobenzene
Toluene D8
Chlorobenzene D5
4-Bromofluorobenzene

QUANT REPORT --

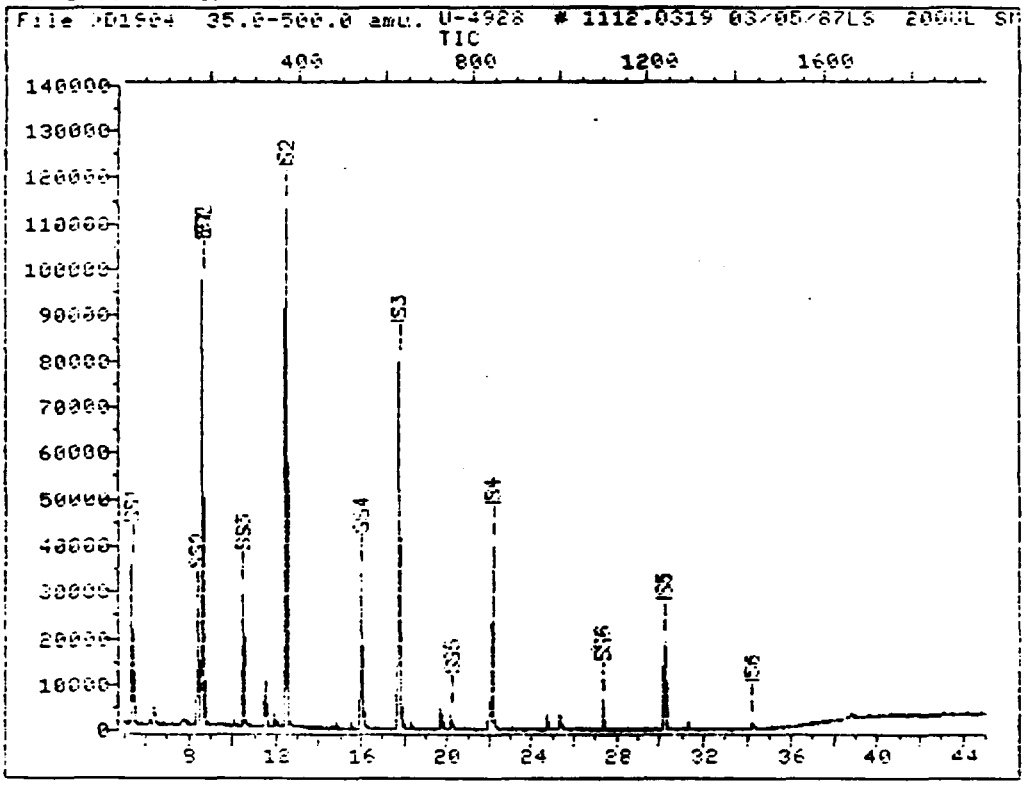
Operator ID: USER8 Quant Rev: 4 Quant Time: 870224 20:19
Output File: ^C6945::D2 Injected at: 870224 19:33
Data File: >C6945::D3 Dilution Factor: 1.00
Name: U-4928 1112.01 DC-03-61
Misc: 2-24-87MEI 2 [illegible] - 10UL IS/SC

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.
Last Calibration: 870224 15:45

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.65	251	29721	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.31	165	3445	19.24	NGS yes	100
7)	ACETONE	43	9.40	193	1435868	8357.38	NGS yes	100 E
10)	TRANS-1,2-DICHLOROETHENE	96	13.31	294	2060	11.95	NGS yes	88
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.52	325	71529	230.55	NGS	81 ✓
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.24	524	132985	250.00	NGS	100
17)	2-BUTANONE	72	14.71	330	2556	68.46	NGS yes	100
27)	BENZENE	78	19.64	457	28187	45.99	NGS yes	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.09	649	110844	250.00	NGS	100
36)	TOLUENE-D8 (SURR)	98	25.93	619	137283	246.53	NGS	98 ✓
38)	CHLOROBENZENE	112	27.21	652	57517	116.99	NGS yes	96
39)	ETHYLBENZENE	91	29.19	703	271683	310.94	NGS yes	96
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.69	767	75014	242.57	NGS	100 ✓
~~41)~~	~~STYRENE~~	~~[illegible]~~	~~[illegible]~~	~~817~~	~~11833~~	~~[illegible]~~	~~NGS~~ NO	100
~~41)~~	~~STYRENE~~	~~[illegible]~~	~~[illegible]~~	~~841~~	~~17209~~	~~[illegible]~~	~~NGS~~ NO	100
42)	TOTAL XYLENES	91	33.62	817	587960	802.64	NGS yes	100
42)	TOTAL XYLENES	91	34.63	843	768502	1049.10	NGS yes	100 E
43)	1,3-DICHLOROBENZENE	146	38.27	937	3583	3583.00	NO CALIB	100
43)	1,3-DICHLOROBENZENE	146	39.28	963	79135	79135.00	NO CALIB	100
44)	1,2-DICHLOROBENZENE		38.27	937	3583	3583.00	NO CALIB	100
44)	1,2-DICHLOROBENZENE		39.28	963	79135	79135.00	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	38.27	937	3583	3583.00	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	39.28	963	79135	79135.00	NO CALIB	100

* Compound is ISTD

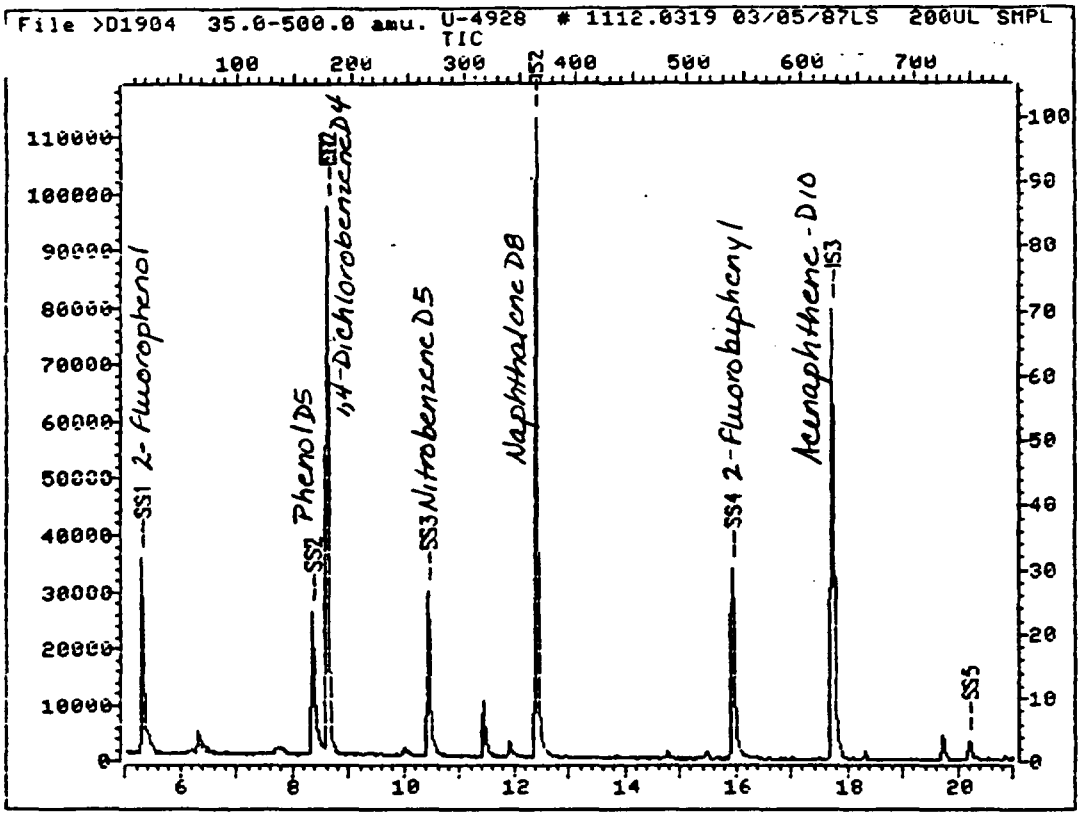
TOTAL ION CHROMATOGRAM



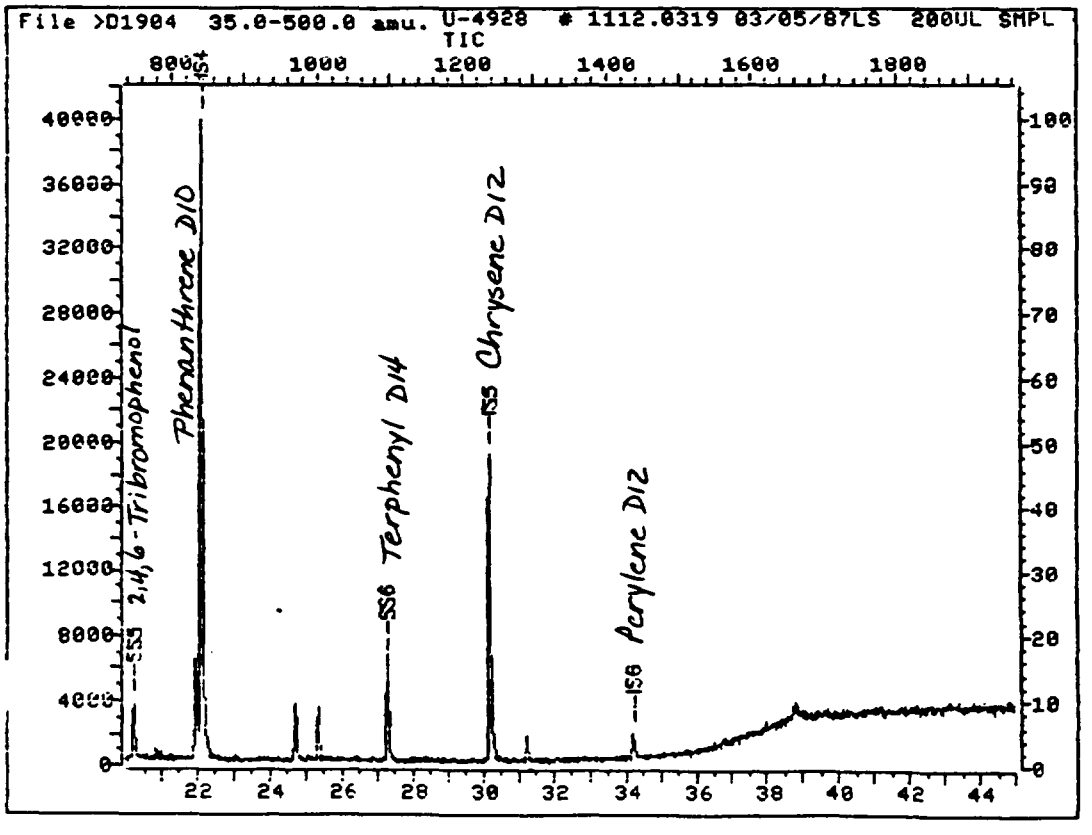
Data File: >D1904::D3
Name: U-4928 # 1112.0319 DC-03-61
Misc: 03/05/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

Id File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

Operator ID: USER6
Quant Time: 870305 23:05
Injected at: 870305 22:17


File >D1904 35.0-500.0 amu. U-4928 # 1112.0319 03/05/87LS 200UL SMPL
TIC
SS1 2-Fluorophenol
SS2 Phenol D5
1,4-Dichlorobenzene D4
SS3 Nitrobenzene D5
Naphthalene D8
SS4 2-Fluorobiphenyl
Acenaphthene-D10
SS5

DC-03-61


File >D1904 35.0-500.0 amu. U-4928 # 1112.0319 03/05/87LS 200UL SMPL
TIC
SS3 2,4,6-Tribromophenol
Phenanthrene D10
SS6 Terphenyl D14
IS5 Chrysene D12
IS6 Perylene D12

QUANT REPORT

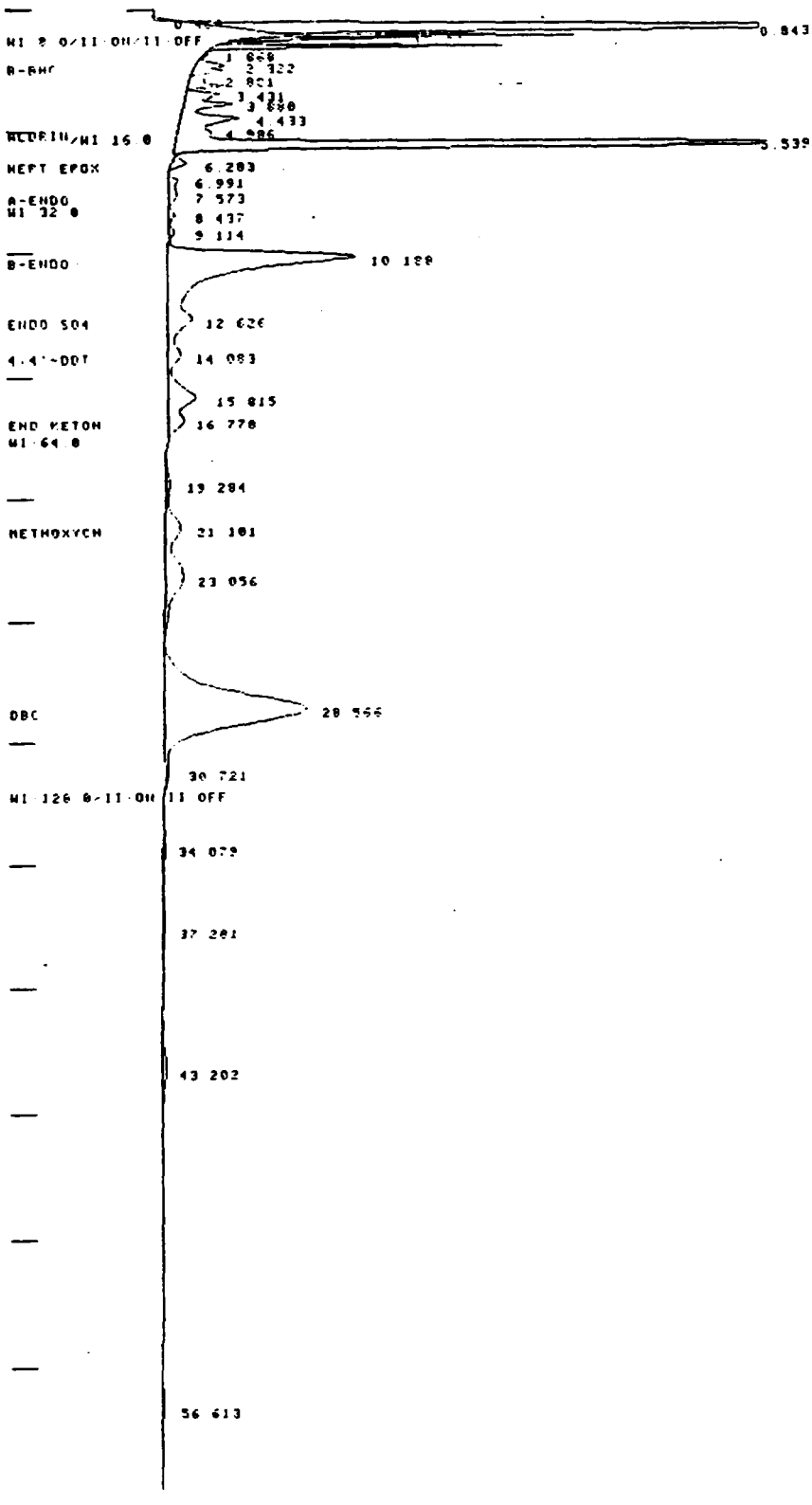
Operator ID: USER6 Quant Rev: 4 Quant Time: 870305 23:05
Output File: ^D1904::Q2 Injected at: 870305 22:17
Data File: >D1904::D3 Dilution Factor: 2.00
Name: U-4928 # 1112.0319 DC-03-61
Misc: 03/05/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

ID File: BNADP::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.62	179	50161	40.00	UG/L	84
2)	PHENOL-D5	(SURR)	99	8.36	166	29951	31.39	UG/L 33 ✓	99
2)	PHENOL-D5	(SURR)	99	8.62	179	1581	1.66	UG/L	96
5)	2-FLUOROPHENOL	(SURR)	112	5.30	16	22480	52.30	UG/L 52 ✓	66
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.44~~	~~268~~	~~5407~~	~~7.05~~	~~UG/L~~	~~[illegible]~~ CW
19)	*NAPHTHALENE-D8	(IS)	136	12.41	365	167933	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.44	268	31301	35.00	UG/L 70 ✓	90
34)	*ACENAPHTHENE-D10	(IS)	162	17.73	626	56996	40.00	UG/L	94
38)	2-FLUOROBIPHENYL	(SURR)	172	15.94	538	43581	37.87	UG/L 76 ✓	9[illegible]
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.73~~	~~626~~	~~11113~~	~~13.33~~	~~UG/L~~	~~100~~ CW
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.21	748	3693	27.82	UG/L 28 ✓	95
~~[illegible]~~	~~2,4-DINITROTOLUENE~~		~~[illegible]~~	~~17.73~~	~~626~~	~~7446~~	~~44.45~~	~~UG/L~~	~~100~~ CW
55)	*PHENANTHRENE-D10	(IS)	188	22.11	841	58227	40.00	UG/L	91
60)	PENTACHLOROPHENOL		266	21.97	834	6576	57.49	UG/L yes	100
63)	DI-N-BUTYLPHTHALATE		149	24.72	969	9522	13.90	UG/L yes	99
65)	*CHRYSENE-D12	(IS)	240	30.17	1237	36168	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.28	1095	14522	40.91	UG/L 82 ✓	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.25	1290	1651	4.92	UG/L	97
74)	*PERYLENE-D12	(IS)	264	34.21	1435	4340	40.00	UG/L yes	100

* Compound is ISTD

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



DC-03-61

CHANNEL: 1A - 1 TITLE: RUN# 17 1:39 25 FEB 87

SAMPLE: 1112 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	1.277		80167	BB	3.81
2		0.0000	1.567		186475	BB	5.00
3		65.0199	[illegible]	-0.068	44433	VV	11.94
4		0.0000	2.490		37829	VV	7.69
[illegible]		[illegible]	[illegible]		[illegible]	[illegible]	[illegible]

56 613

DC-03-61

CHANNEL: 1A - 1 TITLE: RUN# 17 1:39 25 FEB 87

SAMPLE: 1112 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	1.277		80167	BB	3.81
2		0.0000	1.567		188475	BB	5.00
3	[illegible]	65.0499	2.322	-0.068	44433	VV	11.94
4		0.0000	2.490		37829	VV	7.69
5		0.0000	2.881		21177	VV	? 10.38
6		0.0000	3.116		43208	VV	8.63
7		0.0000	3.431		42258	VV	? 8.69
8		0.0000	3.609		31071	VV	? 13.88
9		0.0000	3.880		96808	VV	11.94
10		0.0000	4.433		175632	VV	22.38
11	[illegible]	37.9179	4.986	-0.094	71996	VV	? 17.44
12		0.0000	5.539		1910925	VV	12.25
13	[illegible]	21.0781	6.283	0.143	37550	T	18.25
14		0.0000	6.991		23019	T	? 18.06
15	[illegible]	18.0371	7.573	-0.027	30606	T	? 42.81
16	[illegible]	655.9532	10.188	0.138	1114877	VV	38.38
17	[illegible]	124.7121	12.626	-0.224	153839	VV	? 54.88
18	[illegible]	56.4348	14.083	-0.157	68158	VV	43.50
19		0.0000	15.815		177958	VV	51.19
20	[illegible]	39.2700	16.778	0.368	72011	VB	? 48.19
21		0.0000	19.284		29355	BV	? 48.88
22	METHOXYCH	189.1690	21.101	0.201	122837	VV	62.75
23		0.0000	23.056		227097	VB	89.19
24	DBC 179	1195.832	28.566	0.086	1667052	BV	84.44
25		0.0000	34.079		22517	BV	80.00
26		0.0000	37.281		21870	VV	72.00
27		0.0000	43.202		51367	VB	94.13
TOTALS:		2413.454		0.356	6564092		

DETECTED PKS: 37 REJECTED PKS: 10

DIVISOR: 0.15000 MULTIFLIER: 2000.00000

NOISE: 11.4 OFFSET: -20

RACK: 2 VIAL: 2 INJ: 1

NOTES:
NOTEBOOK:259-117,118 ANALYST:RICHARD SAMSON
SECURE AREA: O JOB#:U-4928
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

POST RUN:
SAVE FILE: RAW TURK215

SAMPLE NUMBER DC-04-62

481095

DC-04-62

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1113

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Stoztowicz

Date Sample Received: 2-19-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-23-87

Conc/Dil Factor: 2 pH 10.5

Percent Moisture: (Not Decanted) 22

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u
74-83-9	Bromomethane	2000u
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	650 BJ
67-64-1	Acetone	6000 B
75-15-0	Carbon Disulfide	1000u
75-35-4	1, 1-Dichloroethene	1000u
75-34-3	1, 1-Dichloroethane	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u
67-66-3	Chloroform	1000u
107-06-2	1, 2-Dichloroethane	1000u
78-93-3	2-Butanone	5600 B
71-55-6	1, 1, 1-Trichloroethane	1100
56-23-5	Carbon Tetrachloride	1000u
108-05-4	Vinyl Acetate	2000u
75-27-4	Bromodichloromethane	1000u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000u
10061-02-6	Trans-1, 3-Dichloropropene	1000u
79-01-6	Trichloroethene	1000u
124-48-1	Dibromochloromethane	1000u
79-00-5	1, 1, 2-Trichloroethane	1000u
71-43-2	Benzene	24000
10061-01-5	cis-1, 3-Dichloropropene	1000u
110-75-8	2-Chloroethylvinylether	2000u
75-25-2	Bromoform	1000u
108-10-1	4-Methyl-2-Pentanone	6000
591-78-6	2-Hexanone	2000u
127-18-4	Tetrachloroethene	1000u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000u
108-88-3	Toluene	23000
108-90-7	Chlorobenzene	30000
100-41-4	Ethylbenzene	130,000 E
100-42-5	Styrene	1000u
	Total Xylenes	480,000 E

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 IL-3140

Sample Number
DC-04-62

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed: 3-5-87

Conc/Dil Factor: 50

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	83000u
111-44-4	bis(2-Chloroethyl)Ether	83000u
95-57-8	2-Chlorophenol	83000u
541-73-1	1,3-Dichlorobenzene	83000u
106-46-7	1,4-Dichlorobenzene	83000u
100-51-6	Benzyl Alcohol	83000u
95-50-1	1,2-Dichlorobenzene	19000 J
95-48-7	2-Methylphenol	83000u
39638-32-9	bis(2-chloroisopropyl)Ether	83000u
106-44-5	4-Methylphenol	83000u
621-64-7	N-Nitroso-Di-n-Propylamine	83000u
67-72-1	Hexachloroethane	83000u
98-95-3	Nitrobenzene	83000u
78-59-1	Isophorone	83000u
88-75-5	2-Nitrophenol	83000u
105-67-9	2,4-Dimethylphenol	83000u
65-85-0	Benzoic Acid	410,000u
111-91-1	bis(2-Chloroethoxy)Methane	83000u
120-83-2	2,4-Dichlorophenol	83000u
120-82-1	1,2,4-Trichlorobenzene	21000 J
91-20-3	Naphthalene	27000 J
106-47-8	4-Chloroaniline	83000u
87-68-3	Hexachlorobutadiene	83000u
59-50-7	4-Chloro-3-Methylphenol	83000u
91-57-6	2-Methylnaphthalene	125,000
77-47-4	Hexachlorocyclopentadiene	83000u
88-06-2	2,4,6-Trichlorophenol	83000u
95-95-4	2,4,5-Trichlorophenol	410,000u
91-58-7	2-Chloronaphthalene	83000u
88-74-4	2-Nitroaniline	410,000u
131-11-3	Dimethyl Phthalate	83000u
208-96-8	Acenaphthylene	83,000u
99-09-2	3-Nitroaniline	410,000u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	83000u
51-28-5	2,4-Dinitrophenol	410,000u
100-02-7	4-Nitrophenol	410,000u
132-64-9	Dibenzofuran	83,000u
121-14-2	2,4-Dinitrotoluene	83,000u
606-20-2	2,6-Dinitrotoluene	83000u
84-66-2	Diethylphthalate	83000u
7005-72-3	4-Chlorophenyl-phenylether	83000u
86-73-7	Fluorene	83000u
100-01-6	4-Nitroaniline	410000u
534-52-1	4,6-Dinitro-2-Methylphenol	410000u
85-30-6	N-Nitrosodiphenylamine (1)	39000 J
101-55-3	4-Bromophenyl-phenylether	83000u
118-74-1	Hexachlorobenzene	83000u
87-86-5	Pentachlorophenol	370,000 J
85-01-8	Phenanthrene	170,000
120-12-7	Anthracene	83000u
84-74-2	Di-n-Butylphthalate	83000u
206-44-0	Fluoranthene	34000 J
129-00-0	Pyrene	220,000
85-68-7	Butylbenzylphthalate	83000u
91-94-1	3,3'-Dichlorobenzidine	170000u
56-55-3	Benzo(a)Anthracene	95000
117-81-7	bis(2-Ethylhexyl)Phthalate	83000u
218-01-9	Chrysene	220000
117-84-0	Di-n-Octyl Phthalate	83000u
205-99-2	Benzo(b)Fluoranthene	62000 J
207-08-9	Benzo(k)Fluoranthene	83000u
50-32-8	Benzo(a)Pyrene	52000 J
193-39-5	Indeno(1,2,3-cd)Pyrene	83000u
53-70-3	Dibenz(a,h)Anthracene	83000u
191-24-2	Benzo(g,h,i)Perylene	41000 J

(1) Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-04-62

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-25-87

Conc/Dil Factor 500

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	40,000 u
319-85-7	Beta-BHC	40,000 u
319-86-8	Delta-BHC	40,000 u
58-89-9	Gamma-BHC (Lindane)	40,000 u
76-44-8	Heptachlor	40,000 u
309-00-2	Aldrin	40,000 u
1024-57-3	Heptachlor Epoxide	40,000 u
959-98-8	Endosulfan I	40,000 u
60-57-1	Dieldrin	80,000 u
72-55-9	4,4'-DDE	80,000 u
72-20-8	Endrin	80,000 u
33213-65-9	Endosulfan II	80,000 u
72-54-8	4,4'-DDD	80,000 u
1031-07-8	Endosulfan Sulfate	80,000 u
50-29-3	4,4'-DDT	80,000 u
72-43-5	Methoxychlor	400,000 u
53494-70-5	Endrin Ketone	80,000 u
57-74-9	Chlordane	400,000 u
8001-35-2	Toxaphene	800,000 u
12674-11-2	Aroclor-1016	400,000 u
11104-28-2	Aroclor-1221	400,000 u
11141-16-5	Aroclor-1232	400,000 u
53469-21-9	Aroclor-1242	1,460,000
12672-29-6	Aroclor-1248	400,000 u C
11097-69-1	Aroclor-1254	400,000 u
11096-82-5	Aroclor-1260	800,000 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

Form 1

7/85
491035

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

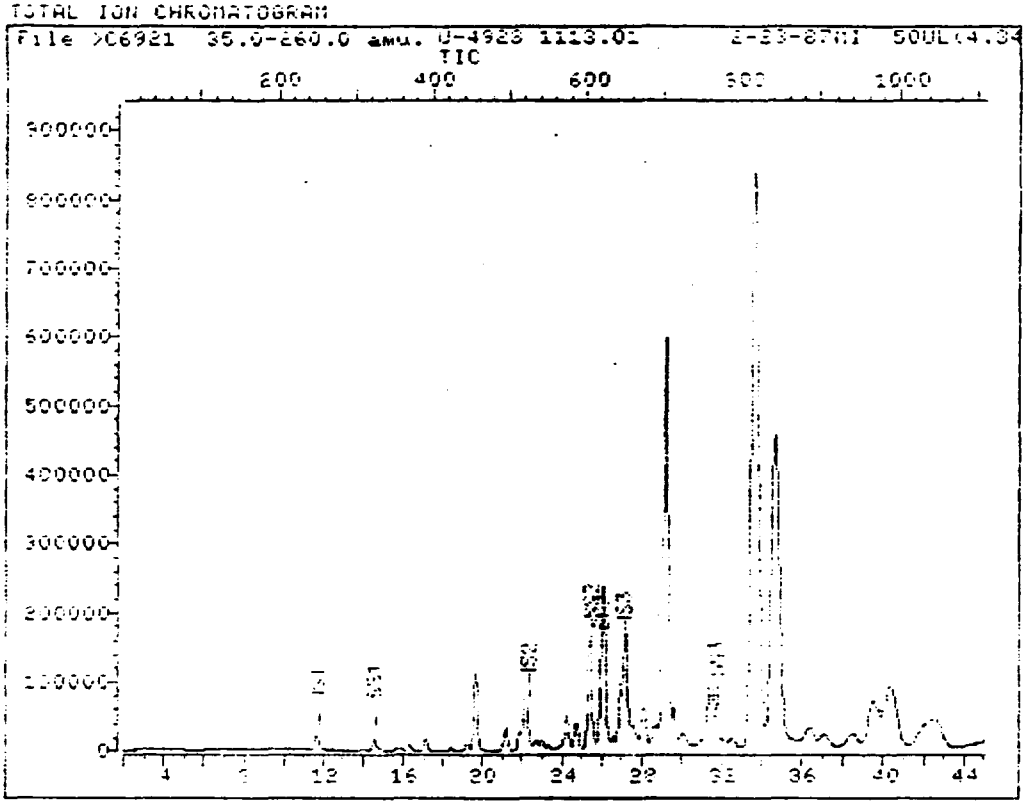
Sample Number DC-04-62

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.	110827	Cyclohexane	VOA	16.3	4300 J
2.		Hexene isomer	VOA	17.2	1600 B J
3.		Unknown	VOA	19.2	1100 J
4.		Hexane isomer	VOA	21.2	8600 B J
5.		Dichlorobenzene isomer	VOA	39.5	18000 J
6.		Dichlorobenzene isomer	VOA	40.4	27000 J
7.					
8.					
9.	1120214	Undecane	BNA	10.94	91,000 J
10.	112403	Dodecane		13.00	190,000 J
11.	100005	Benzene, 1-chloro-4-nitro-		13.64	74,000 J
12.	629505	Tridecane		14.86	310,000 J
13.	629594	Tetradecane		16.59	370,000 J
14.		Dimethyl naphthalene isomer		16.78	140,000 J
15.		Unknown hydrocarbon		17.63	260,000 J
16.	629629	Pentadecane		18.22	540,000 J
17.	544763	Hexadecane		19.75	430,000 J
18.		Unknown hydrocarbon		21.22	400,000 J
19.	2719633	Benzene (1-butyloctyl)-		21.69	99000 J
20.	629789	Heptadecane		22.61	320,000 J
21.	4534490	Benzene, (1-pentyloctyl)		22.98	120,000 J
22.	832644	Phenanthrene, 4-methyl-		23.71	140,000 J
23.		Methyl phenanthrene or methyl anthracene		23.79	150,000 J
24.		Unknown hydrocarbon		23.92	240,000 J
25.	10544500	Molecular sulfur		25.32	110,000 J
26.					
27.	**	PCB Confirmation **			
28.	2050682	1,1'-Biphenyl, 4,4'-dichloro-		21.12	see GC Results
29.	25323686	1,1'-Biphenyl, trichloro-		22.28	
30.		Trichloro 1,1'-biphenyl isomer		23.51	

TOTAL ION CHROMATOGRAM

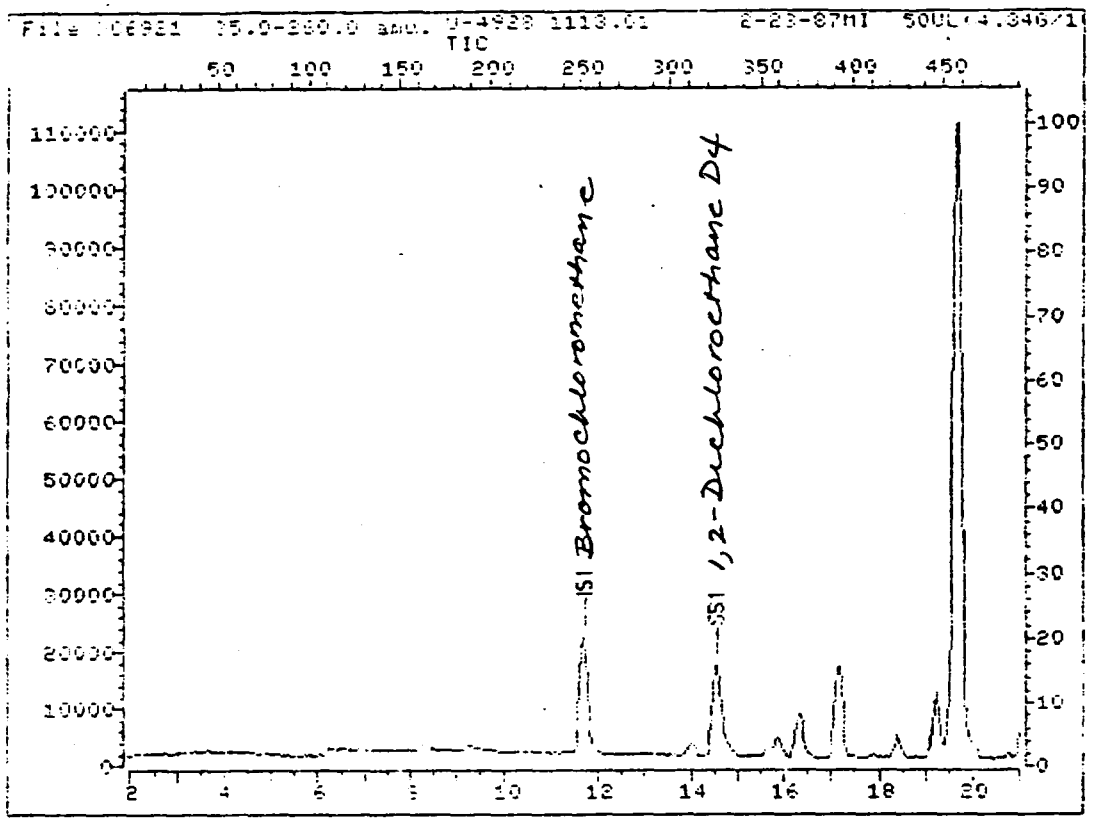


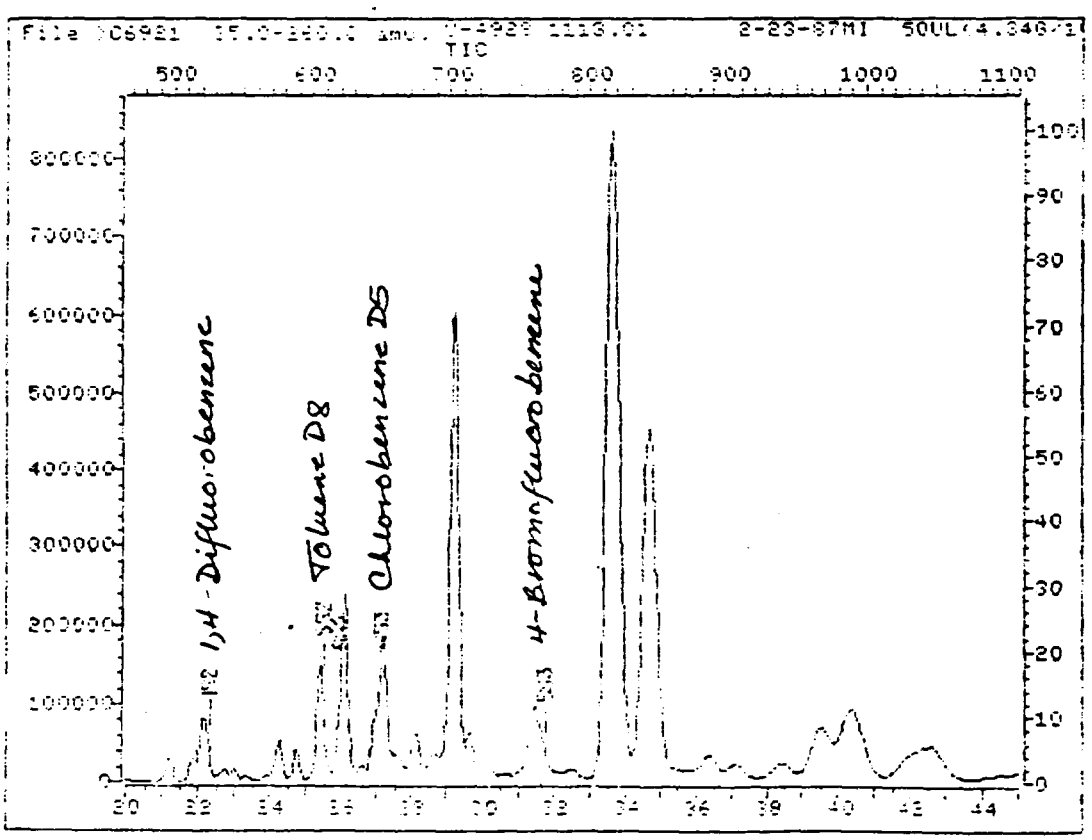
Data File: >C6921::D1
Name: U-4928 1113.01 DC-04-62
Misc: 2-23-87MI 50UL(4.34G/10MLE - 10UL IS/SS

Ic File: UDACP::D2
Title: UOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 970223 13:31

Operator ID: USER8
Quant Time: 970223 23:47
Injected at: 970223 23:01

DC-04-62


File 106921 35.0-260.0 amu. U-4920 1113.01 2-23-87MI 50UL(4.346/1)
TIC
Bromochloromethane
1,2-Dichloroethane D4


File 106921 35.0-260.0 amu. U-4920 1113.01 2-23-87MI 50UL(4.346/1)
TIC
1,4-Difluorobenzene
Toluene D8
Chlorobenzene D5
4-Bromofluorobenzene

QUANT REPORT

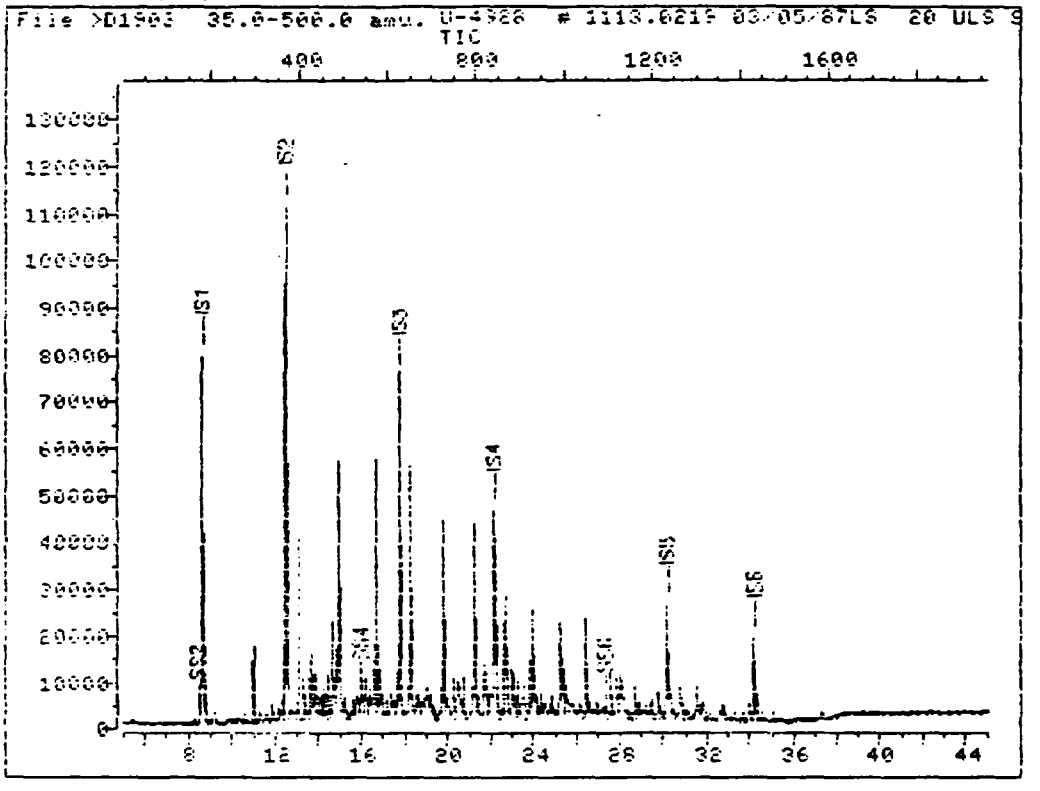
Operator ID: USER5 Quant Rev: 4 Quant Time: 870223 23:47
Output File: ^C6911::02 Injected at: 870223 23:01
Data File: >C6911::01 Dilution Factor: 1.00
Name: U-4928 1113.01 DC-0462
Misc: 2-27-87 FILE 0.743/10MLE) - 10LL IS/SS

ID File: M0409::01
Title: UGA II FILE FOR 4-15-86 (CONT. CAL.)
Last Calibration: 870227 13:31

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.69	252	29844	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84	9.35	166	3384	2.82	UG/L	100
7)	ACETONE		43	9.28	190	14256	25.85	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SUPR)	65	14.52	325	72340	42.84	UG/L S6	85
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.28	525	171542	50.00	UG/L	100
17)	2-BUTANONE		72	14.71	330	3494	24.54	UG/L	100
18)	1,1,1-TRICHLOROETHANE		97	15.85	360	9994	4.64	UG/L	97
27)	BENZENE		78	19.65	459	453915	103.64	UG/L no cal	100
~~28)~~	~~CYCLOHEXANE, METHYLENE~~		~~77~~	~~19.96~~	~~459~~	~~9364~~	~~9.64~~	~~UG/L~~	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.09	649	143717	50.00	UG/L	100
32)	4-METHYL-2-PENTANONE		43	22.95	543	32526	26.25	UG/L	53
~~33)~~	~~2-HEXANONE~~		~~43~~	~~24.21~~	~~571~~	~~116485~~	~~125.07~~	~~UG/L~~	100
~~34)~~	~~2-HEPTANONE~~		~~43~~	~~24.75~~	~~589~~	~~112905~~	~~122.19~~	~~UG/L~~	100
~~35)~~	~~2-HEXANONE~~		~~43~~	~~25.48~~	~~606~~	~~232843~~	~~251.99~~	~~UG/L~~	100
~~36)~~	~~1,1,2,2-TETRACHLOROETHANE~~		~~83~~	~~24.12~~	~~573~~	~~10075~~	~~6.50~~	~~UG/L~~	100
~~37)~~	~~1,1,2,2-TETRACHLOROETHANE~~		~~83~~	~~24.57~~	~~584~~	~~3536~~	~~2.19~~	~~UG/L~~	100
~~38)~~	~~1,1,2,2-TETRACHLOROETHANE~~		~~83~~	~~26.32~~	~~605~~	~~16725~~	~~10.70~~	~~UG/L~~	100
~~39)~~	~~TOLUENE-D8~~	(SUPR)	~~98~~	~~27.[illegible]~~	~~607~~	~~5908~~	~~1.48~~	~~UG/L~~	62
36)	TOLUENE-D8	(SUPR)	98	25.97	620	178696	44.77	UG/L	99
37)	TOLUENE		92	26.12	624	286896	97.71	UG/L	97
~~37)~~	~~TOLUENE~~		~~92~~	~~27.02~~	~~647~~	~~2632~~	~~.70~~	~~UG/L~~ cw	72
38)	CHLOROBENZENE		112	27.21	652	479114	132.21	UG/L	97
~~38)~~	~~CHLOROBENZENE~~		~~112~~	~~28.11~~	~~675~~	~~13442~~	~~3.71~~	~~UG/L~~ cw	69
39)	ETHYLBENZENE		91	29.24	704	3545826	557.45	UG/L E	95
40)	4-BROMOFLUOROBENZENE	(SUPR)	95	31.72	768	100218	47.32	UG/L	100
~~41)~~	~~STYRENE~~		~~104~~	~~33.67~~	~~817~~	~~141092~~	~~36.19~~	~~UG/L~~	100
~~41)~~	~~STYRENE~~		~~104~~	~~34.02~~	~~844~~	~~96111~~	~~24.65~~	~~UG/L~~ cw	100
~~42)~~	~~TOTAL XYLENES~~		~~91~~	~~31.77~~	~~754~~	~~6022~~	~~1.11~~	~~UG/L~~	100
42)	TOTAL XYLENES		91	33.67	817	6916277	1269.86	UG/L	100
42)	TOTAL XYLENES		91	34.69	844	4322139	793.56	UG/L	100
~~42)~~	~~TOTAL XYLENES~~		~~91~~	~~36.72~~	~~888~~	~~252268~~	~~46.72~~	~~UG/L~~ cw	100
43)	1,3-DICHLOROBENZENE		146	38.48	942	26214	26214.00	NO CALIB	100
43)	1,3-DICHLOROBENZENE		146	39.53	969	553397	553397.0	NO CALIB	100
44)	1,2-DICHLOROBENZENE		146	38.48	942	26214	26214.00	NO CALIB	100
44)	1,2-DICHLOROBENZENE		146	39.53	969	553397	553397.0	NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	38.48	942	26214	26214.00	NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	39.53	969	553397	553397.0	NO CALIB	100

* Compound is ISTD

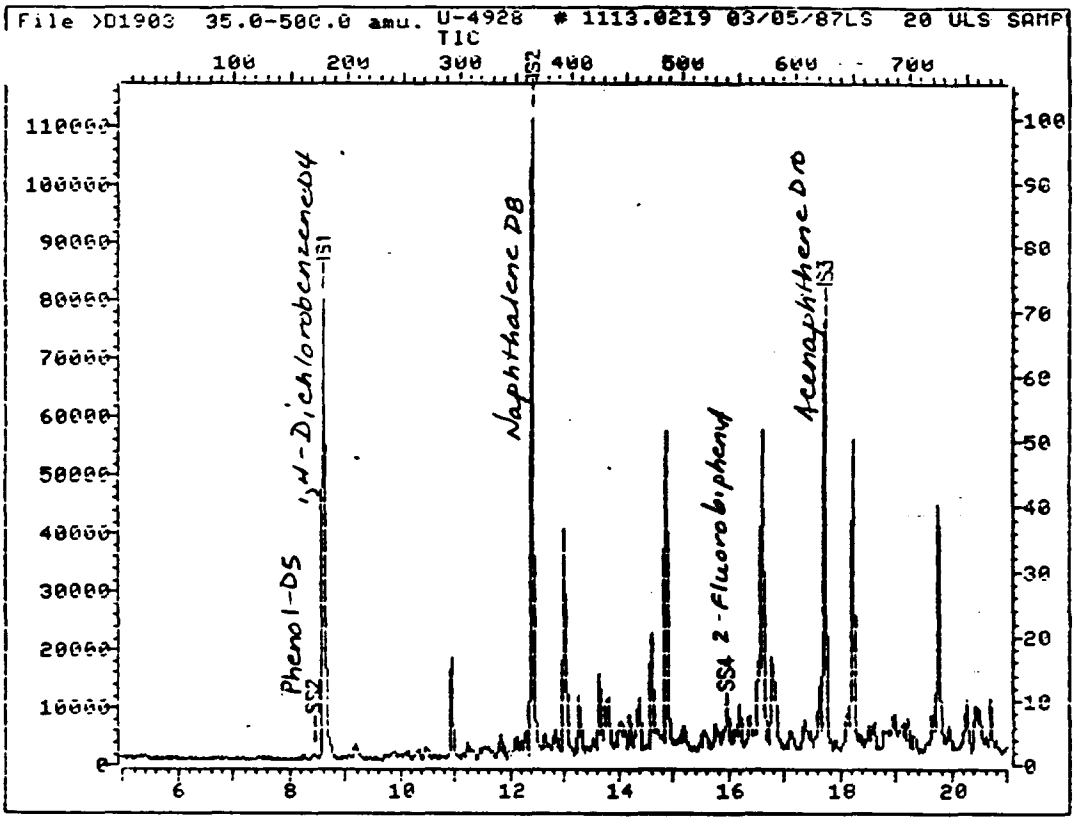
TOTAL ION CHROMATOGRAM



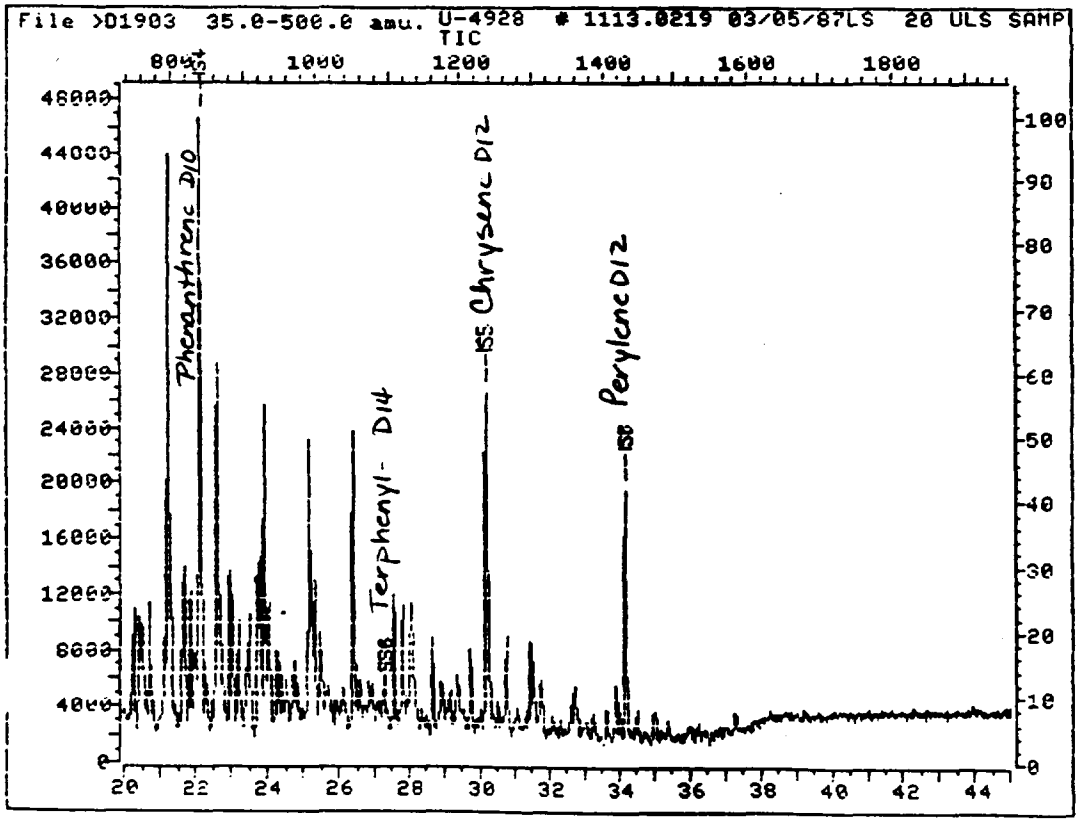
Data File: >D1903::D3
Name: U-4928 # 1113.0219 DC-04-62
Misc: 03/05/87LS 20 ULS SAMPLE + 980 ULS MEOL2 + 10 ULS IS BTL# 5

Id File: BNAOR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

Operator ID: USER6
Quant Time: 870305 22:12
Injected at: 870305 21:24


File >D1903 35.0-500.0 amu. U-4928 # 1113.0219 03/05/87LS 20 ULS SAMP
TIC
Phenol-D5
1,4-Dichlorobenzene D4
Naphthalene D8
2-Fluorobiphenyl
Acenaphthene D10

DC-04-62


File >D1903 35.0-500.0 amu. U-4928 # 1113.0219 03/05/87LS 20 ULS SAMP
TIC
Phenanthrene D10
Terphenyl- D14
Chrysene D12
Perylene D12

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870305 22:12
Output File: ^D1903::Q2 Injected at: 870305 21:24
Data File: >D1903::D3 Dilution Factor: 50.00
Name: U-4928 # 1113.0219 DC-04-62
Misc: 03/05/8/LS 20 ULS SAMPLE + 980 ULS MECL2 + 10 ULS IS BTL# 5

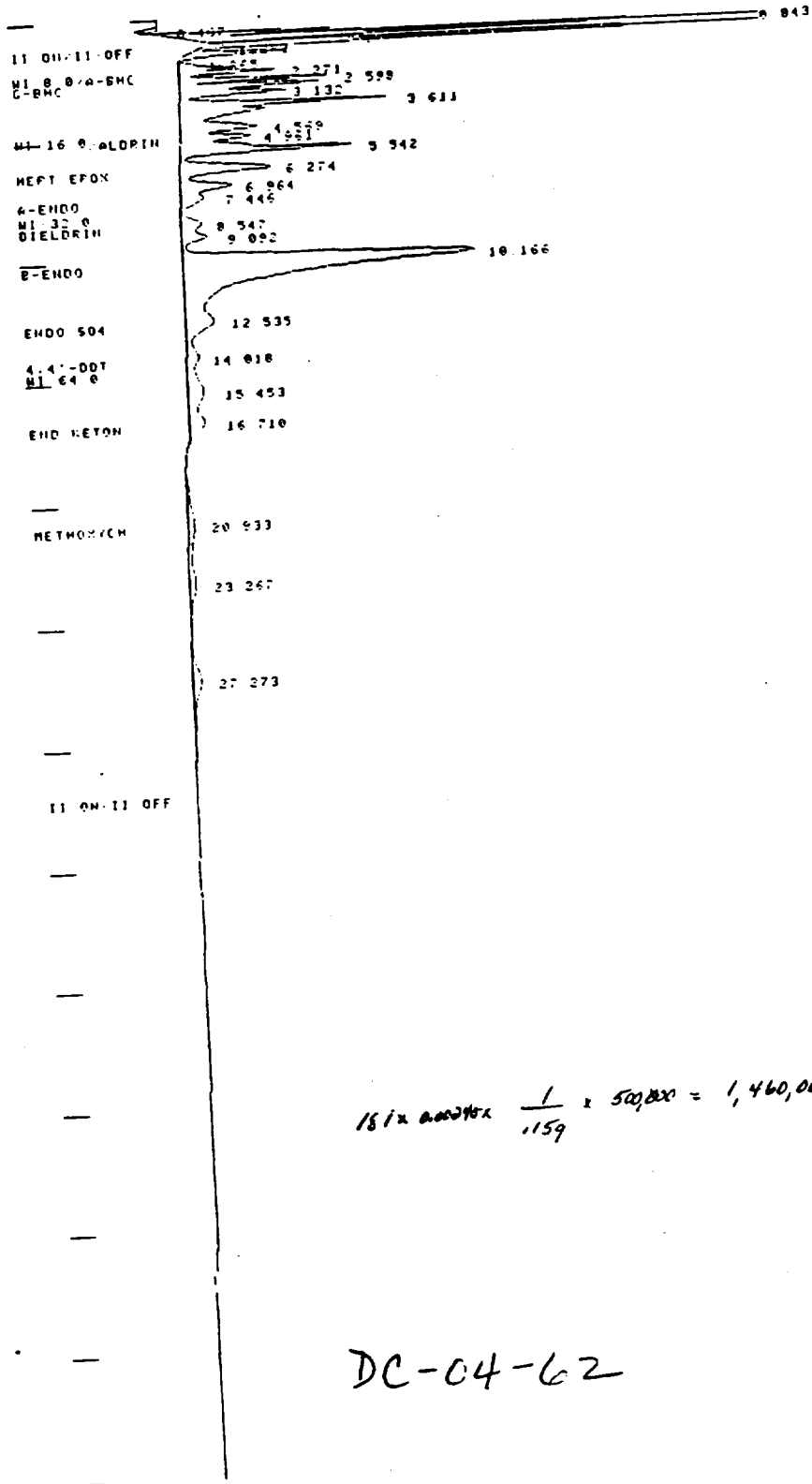
ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.60	178	42719	40.00 UG/L	89
2)	PHENOL-D5	(SURR)	99	8.42	169	1682	51.74 UG/L	89
12)	1,2-DICHLOROBENZENE		146	9.21	208	1921	61.52 UG/L yes	89
19)	*NAPHTHALENE-D8	(IS)	136	12.41	365	145210	40.00 UG/L	100
28)	1,2,4-TRICHLOROBENZENE		180	12.37	363	1689	66.33 UG/L yes	100
29)	NAPHTHALENE		128	12.45	367	6238	86.06 UG/L yes	100
33)	2-METHYLNAPHTHALENE		142	14.59	472	16241	397.91 UG/L yes	95
~~[illegible]~~)	~~2-METHYLNAPHTHALENE~~		~~142~~	~~14.48~~	~~436~~	~~8143~~	~~199.51 UG/L~~	~~97~~ CW
34)	*ACENAPHTHENE-D10	(IS)	160	17.71	625	50357	40.00 UG/L	98
38)	2-FLUOROBIPHENYL	(SURR)	172	15.94	538	1892	46.52 UG/L	91
~~42)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.74~~	~~626~~	~~9244~~	~~334.68 UG/L~~	~~100~~ CW
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.71~~	~~625~~	~~6349~~	~~1072.57 UG/L~~	~~100~~ CW
55)	*PHENANTHRENE-D10	(IS)	188	22.10	840	49779	40.00 UG/L	93
57)	N-NITROSODIPHENYLAMINE		169	20.08	741	1755	123.35 UG/L yes	48
60)	PENTACHLOROPHENOL		266	21.98	834	4635	1184.85 UG/L yes	100
61)	PHENANTHRENE		178	22.16	843	13102	553.62 UG/L yes	97
~~62)~~	~~ANTHRACENE~~		~~178~~	~~22.16~~	~~843~~	~~13102~~	~~558.81 UG/L~~	~~97~~ CW
64)	FLUORANTHENE		202	25.77	1020	1890	109.37 UG/L yes	81
65)	*CHRYSENE-D12	(IS)	240	30.16	1235	30165	40.00 UG/L	100
67)	PYRENE		202	26.39	1050	13989	697.41 UG/L yes	92
68)	TERPHENYL-D14	(SURR)	244	27.28	1094	584	49.32 UG/L	100
71)	BENZO(A)ANTHRACENE		228	30.12	1233	4495	301.81 UG/L yes	96
~~71)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~30.22~~	~~1238~~	~~10763~~	~~722.67 UG/L~~	~~93~~ CW
~~73)~~	~~CHRYSENE~~		~~228~~	~~30.12~~	~~1233~~	~~4495~~	~~288.82 UG/L~~	~~97~~ CW
73)	CHRYSENE		228	30.22	1238	10763	691.55 UG/L yes	94
74)	*PERYLENE-D12	(IS)	264	34.18	1432	27036	40.00 UG/L	100
76)	BENZO(B)FLUORANTHENE		252	33.24	1386	3116	197.63 UG/L yes	100
~~77)~~	~~BENZO(K)FLUORANTHENE~~		~~252~~	~~33.24~~	~~1386~~	~~3116~~	~~172.06 UG/L~~	~~100~~ CW
~~78)~~	~~BENZO(A)PYRENE~~		~~252~~	~~33.99~~	~~1418~~	~~5123~~	~~334.98 UG/L~~	~~100~~ CW
79)	BENZO(A)PYRENE		252	34.03	1425	2530	165.43 UG/L yes	100
81)	BENZO(G,H,I)PERYLENE		276	37.27	1584	2063	129.94 UG/L yes	100

* Compound is ISTD

OK

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



PCB 1242

$181 \times 0.00245 \times \frac{1}{.159} \times 500{,}000 = 1{,}460{,}000$ ug/kg

DC-04-62

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5:57 25 FEB 87

CHANNEL: 1A - 1 TITLE: RUN# 31

181 x [illegible] x $\frac{1}{1159}$ x [illegible] = [illegible] ug/kg

DC-04-62

CHANNEL: 1A - 1 TITLE: RUN# 21 5:57 25 FEB 87

SAMPLE: 1113 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	1.427		89146	VB	5.13
2		0.0000	2.023		63566	VV	8.50
3	~~[illegible]~~	11824.08	2.271	0.021	100488	VV	7.19
4	~~[illegible]~~	20956.38	2.598	-0.012	150595	VV	7.38
5		0.0000	2.850		170565	VV	9.44
6		0.0000	3.132		151164	VV	11.25
7		0.0000	3.611	PCB 1242	305465	VV	10.75
8		0.0000	3.848		193580	VV	? 21.63
9		0.0000	4.569		217337	VV	? 23.56
10	~~[illegible]~~	17971.05	4.961	-0.119	136489	VV	16.44
11		0.0000	~~5.542~~		~~[illegible]~~	VV	14.00
12	~~[illegible]~~	37118.72	6.274	0.134	264504	VV	22.13
13		0.0000	6.964	181	131810	VV	17.94
14	~~[illegible]~~	10467.29	~~7.446~~	-0.154	~~71045~~	VB	? 29.69
15	~~[illegible]~~	10060.56	8.547	-0.193	68908	BV	? 29.38
16	~~[illegible]~~	10452.27	9.092	0.252	75377	VV	? 25.44
17	~~[illegible]~~	256328.5	10.166	0.116	1716486	VV	38.25
18	~~[illegible]~~	39088.92	12.535	-0.315	192873	VV	? 61.81
19	~~[illegible]~~	13799.03	14.018	-0.232	66662	VV	? 55.25
20		0.0000	15.453		137873	VV	83.38
21	~~[illegible]~~	11318.12	16.710	0.300	83018	VB	? 46.88
22	~~[illegible]~~	40666.39	20.833	-0.067	105627	BV	92.00
23		0.0000	23.267		71191	VB	72.81
24	~~[illegible]~~	17855.32	27.273	-1.207	99565	BB	72.31
TOTALS:		497906.7		-1.476	5053835		

DETECTED PKS: 30 REJECTED PKS: 6

DIVISOR: 0.15000 MULTIPLIER: 500000.000

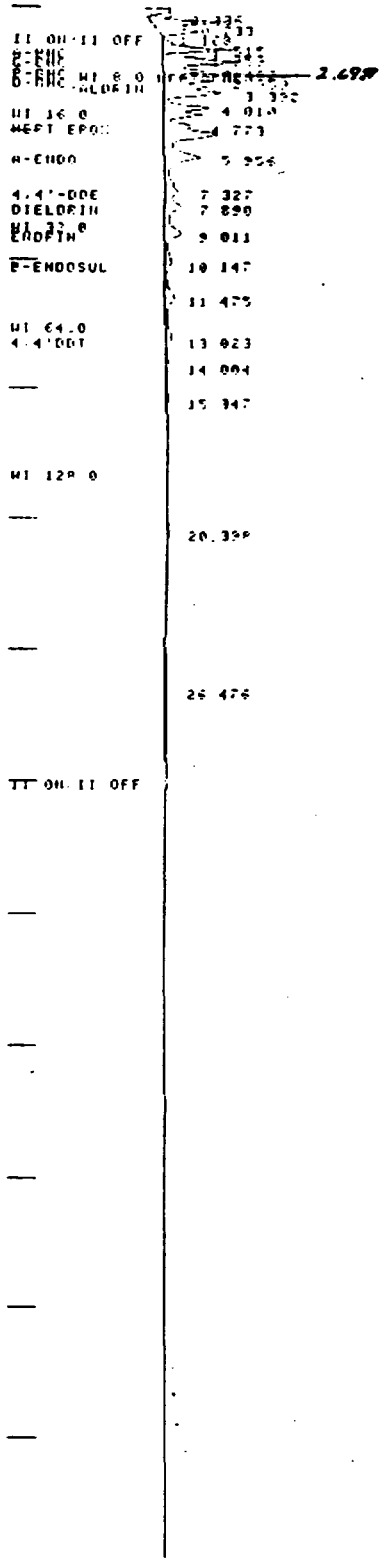
NOISE: 11.4 OFFSET: -17

RACK: 2 VIAL: 6 INJ: 1

NOTES:
NOTEBOOK:259-117,118 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4928
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

POST RUN:
SAVE FILE: RAW TURK219

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



DC-C4-62

CHANNEL: 1B - 1 TITLE: RUN# 10 17:46 3 MAR 87

SAMPLE: 1113.03.19A1 METHOD: PEFA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT MG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.515		33335	VV	? 4.88
2	[illegible]	0.0000	1.628	-0.132	116774	VV	4.44
3		0.0000	1.959		114002	VV	5.19
4		0.0000	2.080		121422	VV	5.88
5	[illegible]	0.0000	2.239	0.029	40544	VV	? 6.19
6	[illegible]	0.0000	1248 2.402	-0.128	91558	VV	? 11.25
7	[illegible]	0.0000	*2.599	-0.022	284620	VV	6.94

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DC-04-62

CHANNEL: 1B - 1 TITLE: RUN# 10 17:46 3 MAR 87

SAMPLE: 1113.03.19A1 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT MG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	1.515		33335	VV	?	4.88
2	[redacted]	0.0000	1.628	-0.132	116774	VV		4.44
3	[redacted]	0.0000	1.959		114002	VV		5.19
4		0.0000	2.088		121422	VV		5.88
5	[redacted]	0.0000	2.239	0.029	40544	VV	?	6.19
6	[redacted]	0.0000	2.402	-0.138	91558	VV	?	11.25
7	[redacted]	0.0000	2.698	-0.022	284620	VV		6.94
8	[redacted]	0.0000	2.959	-0.001	107900	VV		9.00
9		0.0000	3.169		92132	VV	?	10.75
10	[redacted]	0.0000	3.392	0.092	198298	VV	?	16.13
11		0.0000	4.010		142812	VV		12.88
12		0.0000	4.300		125207	VV	?	15.31
13		0.0000	4.773		84921	VV	?	14.00
14	[redacted]	0.0000	5.061	0.121	243865	VV		19.31
15	[redacted]	0.0000	5.956	-0.264	242091	VV		21.69
16	[redacted]	0.0000	7.327	0.137	124361	VV	?	46.13
17	[redacted]	0.0000	7.890	0.290	98146	VV	?	28.88
18	[redacted]	0.0000	9.011	-0.239	134436	VV		34.88
19	[redacted]	0.0000	10.147	-0.253	70500	VV	?	64.94
20	[redacted]	0.0000	11.475	0.465	101188	VV		56.13
21	[redacted]	0.0000	13.023	-0.227	65674	VV	?	67.25
22		0.0000	14.004		27157	VV	?	85.38
23	[redacted]	0.0000	15.347	0.637	21587	VB	?	96.81
24		0.0000	20.398		20822	BB		42.81
25	[redacted]	0.0000	26.476	1.036	26924	BB	?	61.69
TOTALS:		0.0000		1.531	2730276			

DETECTED PKS: 38 REJECTED PKS: 13

DIVISOR: 0.15000 MULTIPLIER: 500000.000

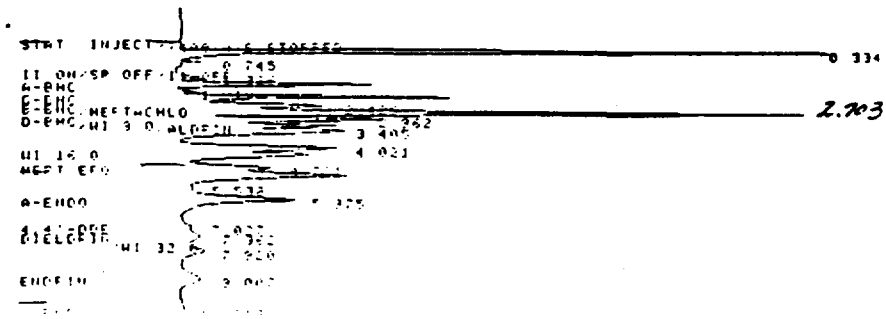
NOISE: 57.1 OFFSET: -17

RACK: 1 VIAL: 11 INJ: 1

NOTES:
NOTEBOOK: 259-130 ANALYST: K.JUPEK
SECURE AREA: D JOB#:U-4928
INST: VARIAN 6000#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
CONFIRMATION ANALYSIS

POST RUN:
SAVE FILE: RAW SAS077

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



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SAMPLE NUMBER DC-05-63

481095

DC-05-63

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1114

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Sojowra

Date Sample Received: 2-19-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-24-87

Conc/Dil Factor: 10 pH 7.8

Percent Moisture: (Not Decanted) 18

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	100u
74-83-9	Bromomethane	100u
75-01-4	Vinyl Chloride	100u
75-00-3	Chloroethane	100u
75-09-2	Methylene Chloride	50u
67-64-1	Acetone	7100 BE
75-15-0	Carbon Disulfide	50u
75-35-4	1, 1-Dichloroethene	50u
75-34-3	1, 1-Dichloroethane	50u
156-60-5	Trans-1, 2-Dichloroethene	50u
67-66-3	Chloroform	50u
107-06-2	1, 2-Dichloroethane	50u
78-93-3	2-Butanone	200 B
71-55-6	1, 1, 1-Trichloroethane	50u
56-23-5	Carbon Tetrachloride	50u
108-05-4	Vinyl Acetate	100u
75-27-4	Bromodichloromethane	50u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	50u
10061-02-6	Trans-1, 3-Dichloropropene	50u
79-01-6	Trichloroethene	50u
124-48-1	Dibromochloromethane	50u
79-00-5	1, 1, 2-Trichloroethane	50u
71-43-2	Benzene	50u
10061-01-5	cis-1, 3-Dichloropropene	50u
110-75-8	2-Chloroethylvinylether	100u
75-25-2	Bromoform	50u
108-10-1	4 Methyl-2-Pentanone	100u
591-78-6	2-Hexanone	100u
127-18-4	Tetrachloroethene	50u
79-34-5	1, 1, 2, 2-Tetrachloroethane	50u
108-88-3	Toluene	50u
108-90-7	Chlorobenzene	61
100-41-4	Ethylbenzene	30 J
100-42-5	Styrene	50u
	Total Xylenes	200

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 IL-3140

Sample Number DC-05-63

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 03-05-87

Conc/Dil Factor 2

Percent Moisture (Decanted) 18

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

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

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2,4-Dinitrophenol	16000u
100-02-7	4-Nitrophenol	16000u
132-64-9	Dibenzofuran	3300u
121-14-2	2,4-Dinitrotoluene	3300u
606-20-2	2,6-Dinitrotoluene	3300u
84-66-2	Diethylphthalate	3300u
7005-72-3	4-Chlorophenyl-phenylether	3300u
86-73-7	Fluorene	3300u
100-01-6	4-Nitroaniline	16000u
534-52-1	4,6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	16000u
85-01-8	Phenanthrene	790 J
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	3100 JB
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	3300u
85-68-7	Butylbenzylphthalate	3300u
91-94-1	3,3'-Dichlorobenzidine	6600u
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	3300u
218-01-9	Chrysene	3300u
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1,2,3-cd)Pyrene	3300u
53-70-3	Dibenz(a,h)Anthracene	3300u
191-24-2	Benzo(g,h,i)Perylene	3300u

(1) Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number
DC-05-63

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-25-87

Conc/Dil Factor 5

Percent Moisture (decanted) 18

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	22,000	C
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	4500 J	C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

Form 1

7/85
491095

Laboratory Name Ecology & Environment Inc.

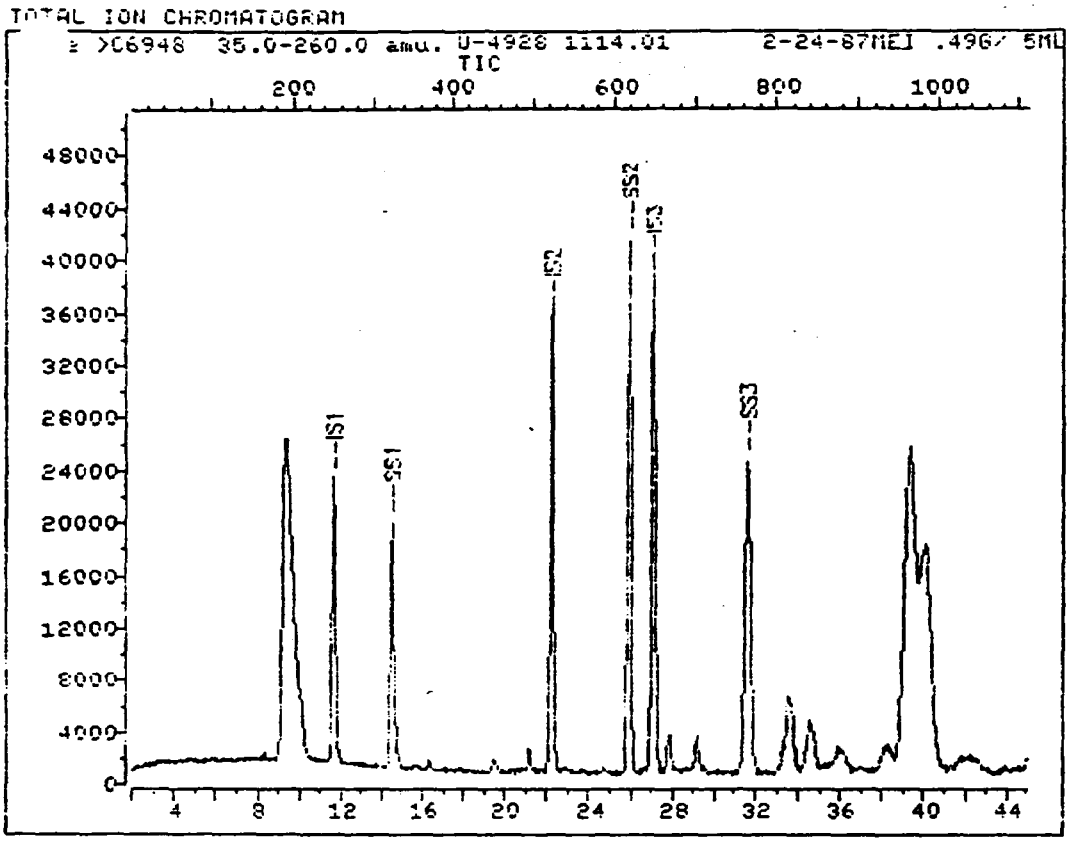
Case No U-4906, 4928, 4971, 4989

Sample Number DC-05-63

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.		Dichlorobenzene isomer	VOA	39.3	980 J
2.		Dichlorobenzene isomer	VOA	40.1	680 J
3.					
4.					
5.	4536883	Benzene, (1-methyldecyl)-	BNA	21.23	9400 J
6.	2719622	Benzene, (1-pentylheptyl)-		21.62	6900 J
7.	2719633	Benzene, (1-butyloctyl)-		21.68	5400 J
8.	2719644	Benzene, (1-propylnonyl)-		21.84	5100 J
9.	2nd	Unknown hydrocarbon		22.60	3800 J
10.	2719611	Benzene, (1-methylundecyl)-		22.66	4600 J
11.	4534490	Benzene, (1-pentyloctyl)-		22.96	5200 J
12.	4534514	Benzene, (1-propyldecyl)-		23.06	3500 J
13.	4534503	Benzene, (1-butylnonyl)-		23.23	3500 J
14.		Unknown hydrocarbon		23.51	2900 J
15.	92524	1,1'-Biphenyl		16.14	3700 J
16.	2051607	1,1'-Biphenyl, 2-chloro-		18.14	3500 J
17.		Unknown hydrocarbon		18.23	4400 J
18.		Unknown hydrocarbon		19.76	9300 J
19.	4536861	Benzene, (1-propyloctyl)-		20.42	4700 J
20.	4536872	Benzene, (1-ethylnonyl)-		20.70	4100 J
21.	4537159	Benzene, (1-butylheptyl)-		20.27	14000 J
22.		Unknown hydrocarbon		23.92	2600 J
23.	4534536	Benzene, (1-methyldodecyl)		24.82	2600 J
24	10544500	Molecular Sulfur		25.33	2000 J
25.					
26.					
27.					
28.					
29.					
30					

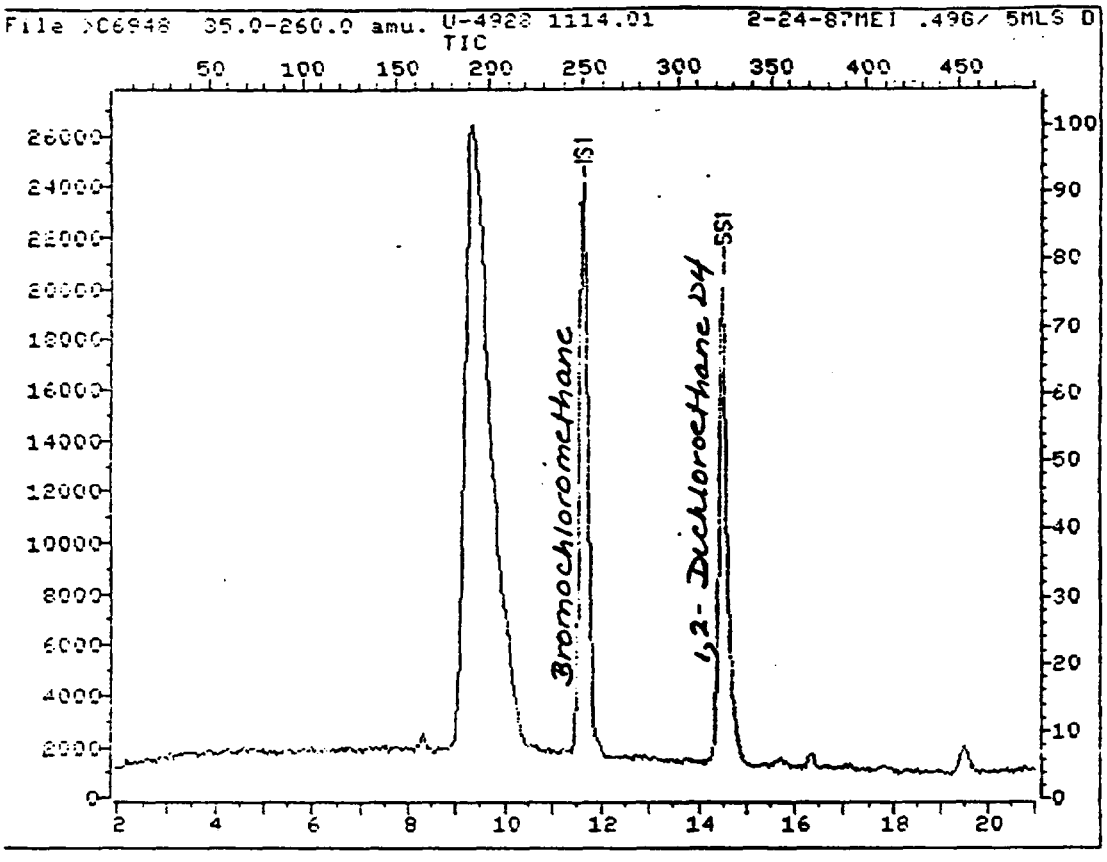


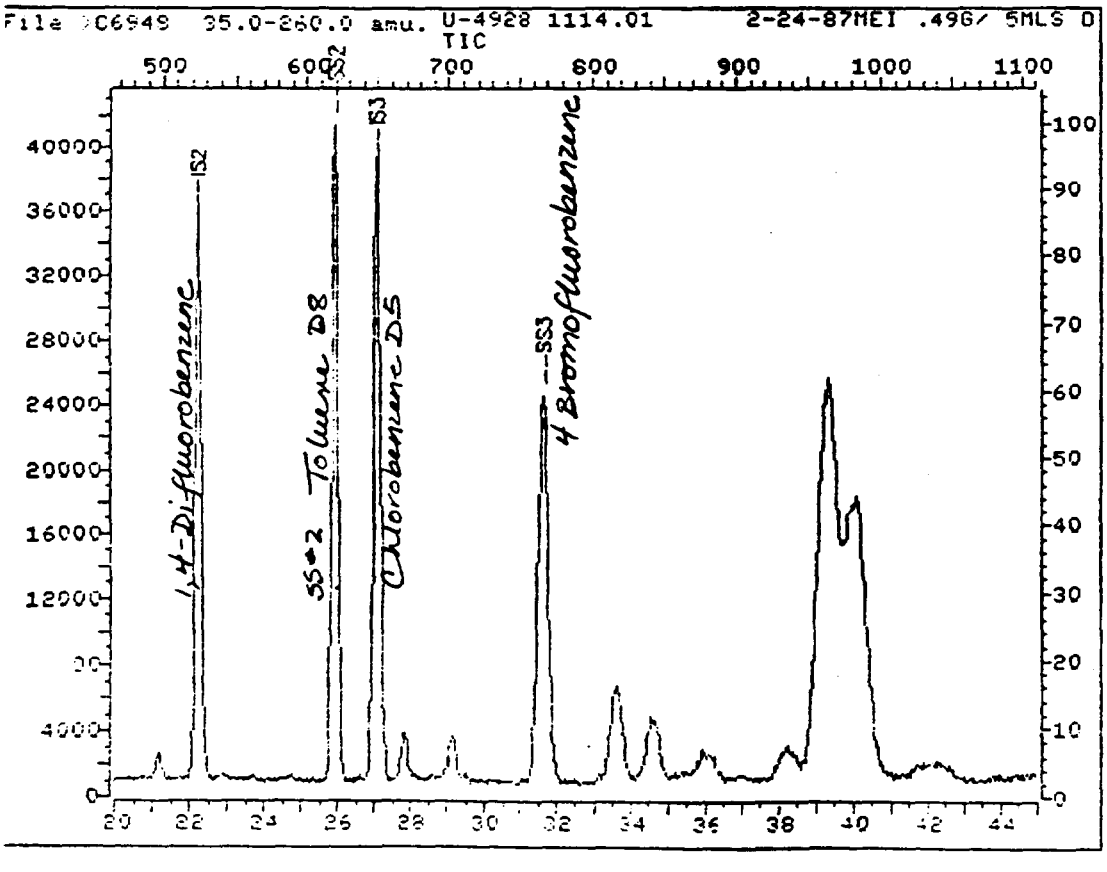
Data File: >C6948::D3
Name: U-4928 1114.01 DC-05-63
Misc: 2-24-87MEI .49G/ 5MLS DI + 10UL IS/SS

Id File: VOACP3::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870224 15:45

Operator ID: USER3
Quant Time: 870224 23:13
Injected at: 870224 22:27

DC-05-63


File DC6948 35.0-260.0 amu. U-4928 1114.01 2-24-87MEI .49G/ 5MLS D
TIC
IS1
SS1
Bromochloromethane
1,2-Dichloroethane D4


File DC6949 35.0-260.0 amu. U-4928 1114.01 2-24-87MEI .49G/ 5MLS D
TIC
IS2
SS2
IS3
SS3
1,4-Difluorobenzene
Toluene D8
Chlorobenzene D5
4 Bromofluorobenzene

QUANT REPORT

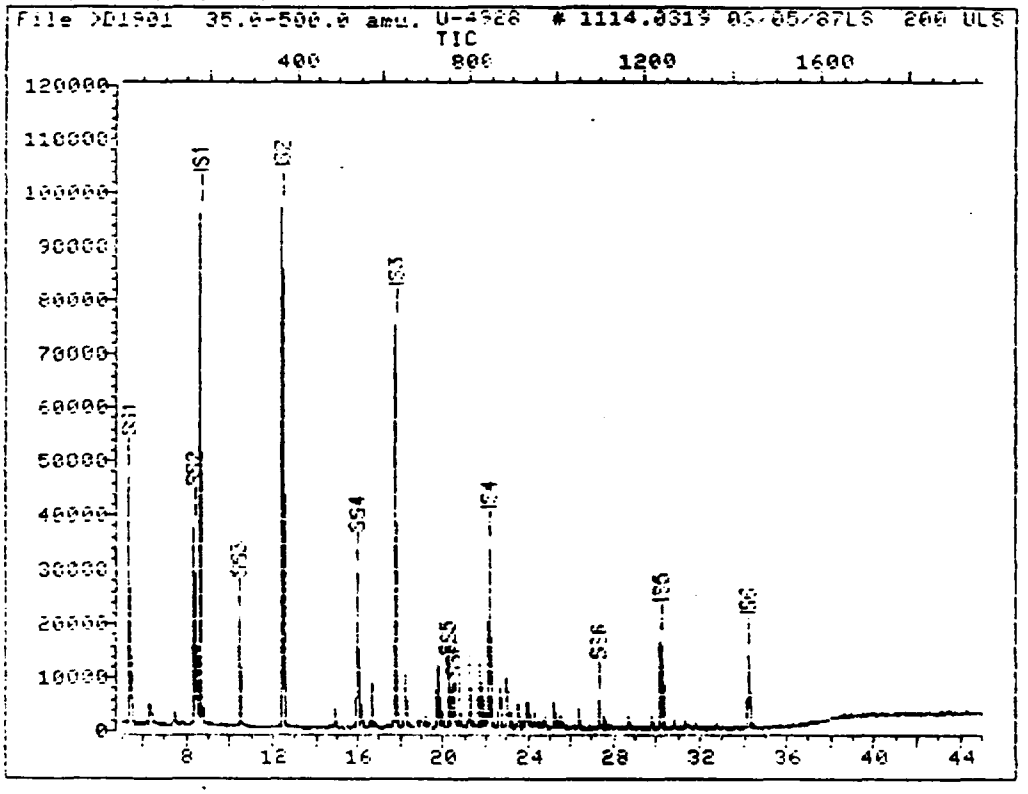
perator ID: USER8 Quant Rev: 4 Quant Time: 870224 23:13
utput File: ^C6948::Q2 Injected at: 870224 22:27
ata File: >C6949::D3 Dilution Factor: 1.00
ame: U-4928 1114.01 DC-05-63
isc: 2-24-87MEI .49G/ 5MLS DI + 10UL IS/SS

D File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 870224 15:45

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.61	250	30749	250.00 NGS	100
2)	ACETONE		43	9.32	191	615511	3462.77 NGS	100 E
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.48	324	78111	243.34 NGS	84
6)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	523	144843	250.00 NGS	100
7)	2-BUTANONE		72	14.67	329	4072	100.13 NGS	100
1)	*CHLOROBENZENE-DF	(IS)	117	27.05	648	120147	250.00 NGS	100
6)	TOLUENE-D8	(SURR)	98	25.92	619	151338	250.72 NGS	94
8)	CHLOROBENZENE		112	27.21	652	15903	29.84 NGS	99
9)	ETHYLBENZENE		91	29.19	703	13909	14.69 NGS	95
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.64	766	82421	245.88 NGS	100
2)	TOTAL XYLENES		91	33.62	817	44727	56.33 NGS	100
2)	TOTAL XYLENES		91	34.59	842	34909	43.97 NGS	100
~~2)~~	~~TOTAL XYLENES~~		~~91~~	~~36.02~~	~~879~~	~~20746~~	~~26.13 NGS~~ NO CW	100
3)	1,3-DICHLOROBENZENE		146	38.31	938	9403	9403.00 NO CALIB	100
3)	1,3-DICHLOROBENZENE		146	39.32	964	194261	194261.0 NO CALIB	100
4)	1,2-DICHLOROBENZENE			38.31	938	9403	9403.00 NO CALIB	100
4)	1,2-DICHLOROBENZENE			39.32	964	194261	194261.0 NO CALIB	100
5)	1,4-DICHLOROBENZENE		146	38.31	938	9403	9403.00 NO CALIB	100
5)	1,4-DICHLOROBENZENE		146	39.32	964	194261	194261.0 NO CALIB	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

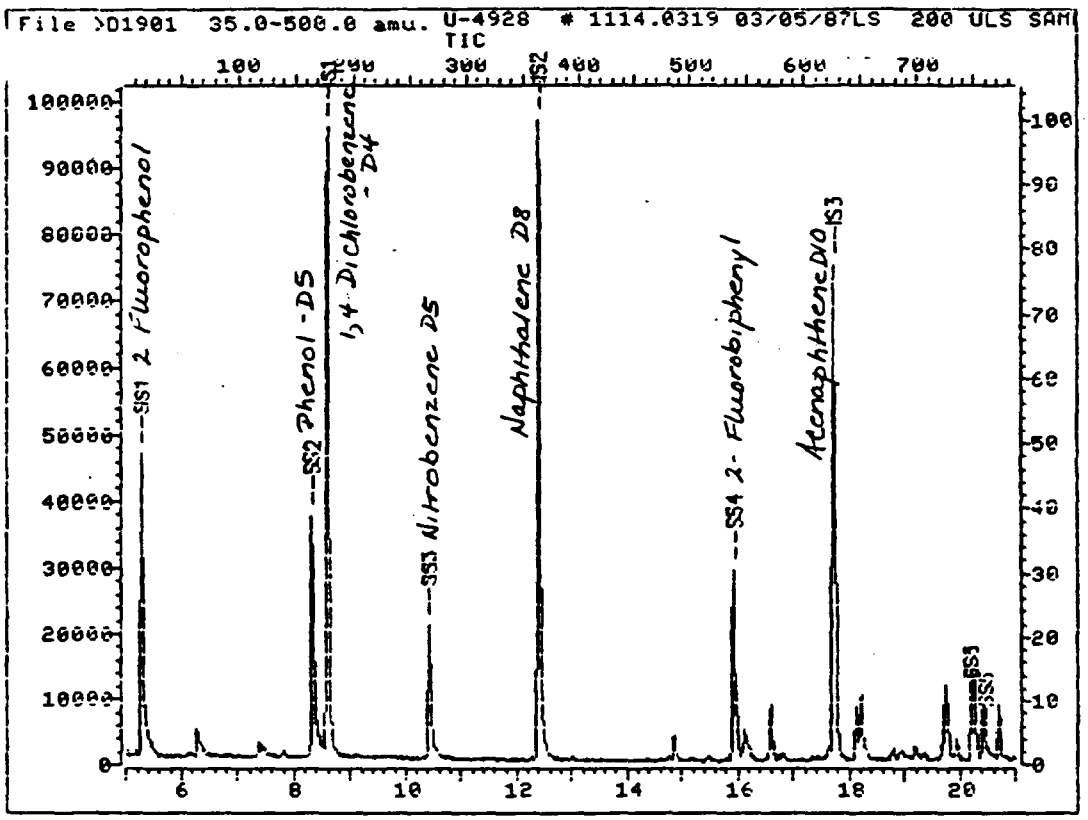


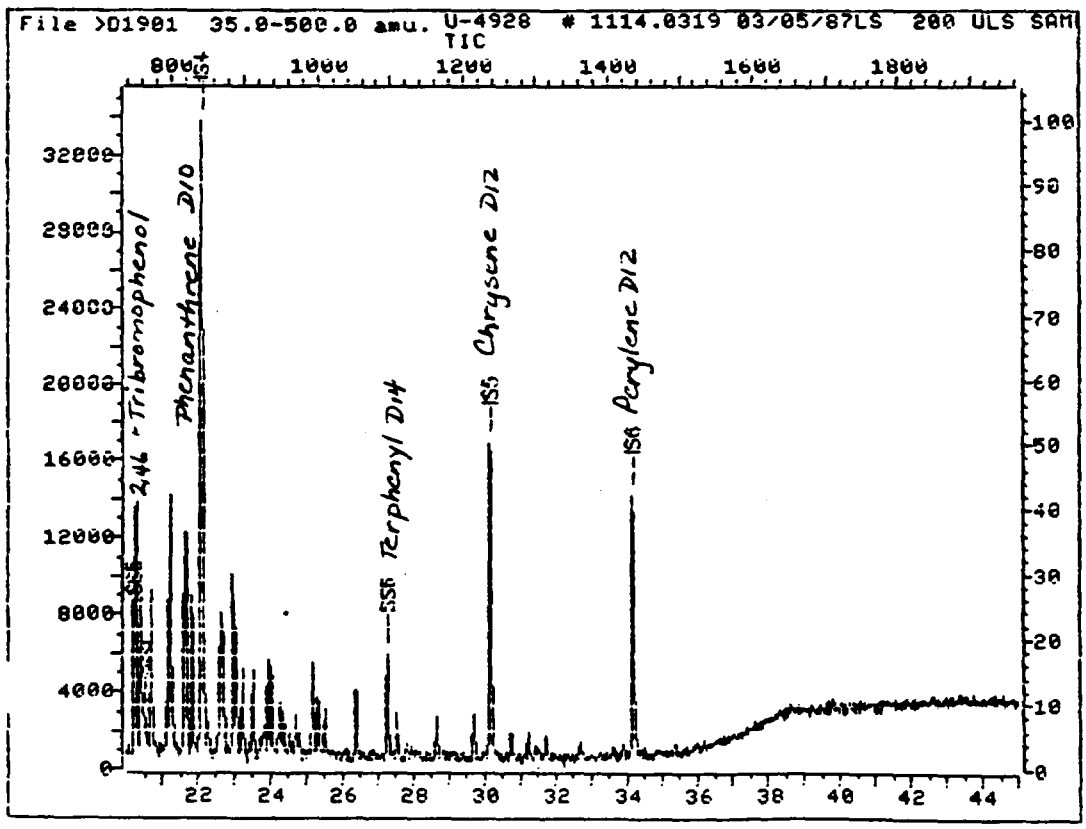
Data File: >D1901::D3
Name: U-4928 # 1114.0319 DC-05-63
Misc: 03/05/87LS 200 ULS SAMPLE + 200 ULS MECL2 + 4 ULS IS BTL# 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

Operator ID: USER6
Quant Time: 870305 20:26
Injected at: 870305 19:38

DC-05-63


File >D1901 35.0-500.0 amu. U-4928 # 1114.0319 03/05/87LS 200 ULS SAM
TIC
SS1 2 Fluorophenol
SS2 Phenol-D5
1,4 Dichlorobenzene-D4
SS3 Nitrobenzene D5
IS2 Naphthalene D8
SS4 2-Fluorobiphenyl
IS3 Acenaphthene D10


File >D1901 35.0-500.0 amu. U-4928 # 1114.0319 03/05/87LS 200 ULS SAM
TIC
SS6 2,4,6-Tribromophenol
IS4 Phenanthrene D10
SS8 Terphenyl D14
IS5 Chrysene D12
IS6 Perylene D12

QUANT REPORT

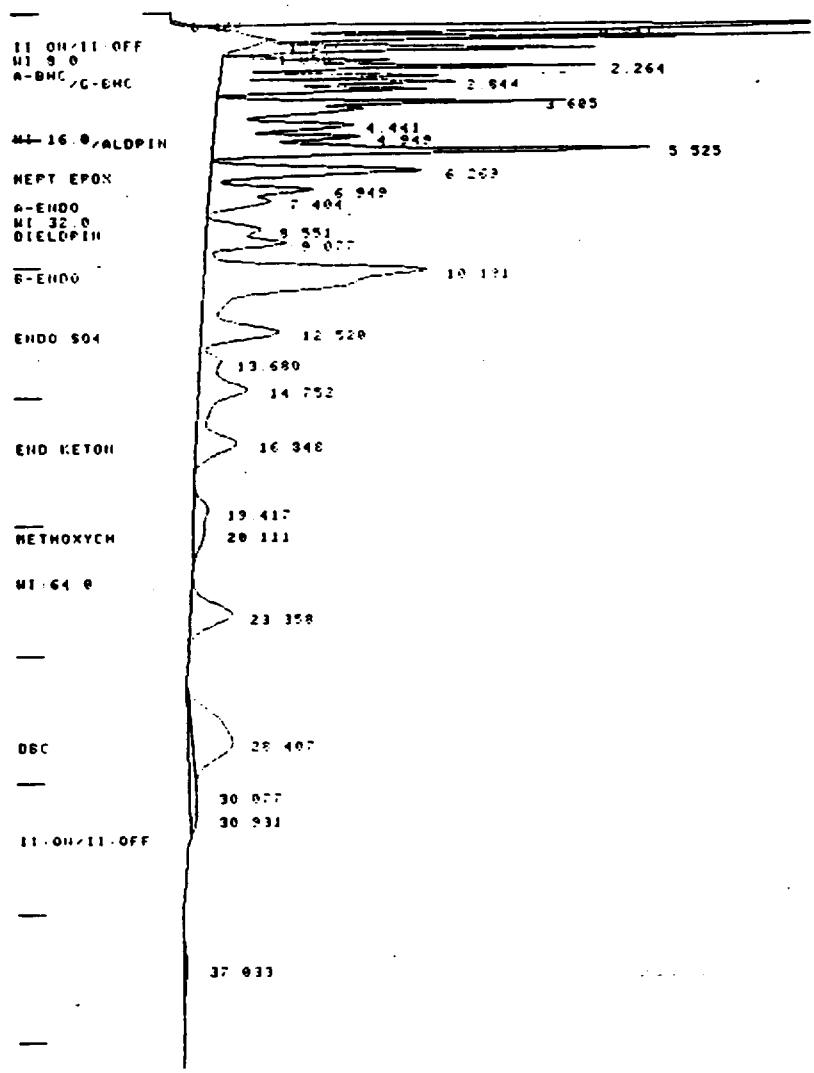
Operator ID: USER6 Quant Rev: 4 Quant Time: 870305 20:26
Output File: ^D1901::02 Injected at: 870305 19:38
Data File: >D1901::03 Dilution Factor: 2.00
Name: U-4928 # 1114.0319 JC-05-63
Misc: 03/05/87LS 200 ULS SAMPLE + 200 ULS MECL2 + 4 ULS IS BTL# 3

ID File: BNADR::02
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.60	178	46474	40.00 UG/L	83
2)	PHENOL-D5	(SURR)	99	8.31	164	40563	45.88 UG/L 49 ✓	99
5)	2-FLUOROPHENOL	(SURR)	112	5.28	15	35156	88.27 UG/L 88 ✓	70
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.43~~	~~268~~	~~4344~~	~~6.15 UG/L~~	~~84~~ CW
19)	*NAPHTHALENE-D8	(IS)	136	12.39	364	145879	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.41	267	24735	31.83 UG/L 64 ✓	94
34)	*ACENAPHTHENE-D10	(IS)	162	17.72	626	49001	40.00 UG/L	99
39)	2-FLUOROBIPHENYL	(SURR)	172	15.93	538	34345	34.71 UG/L 69 ✓	91
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.72~~	~~626~~	~~9347~~	~~19.04 UG/L~~	~~100~~ CW
43)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.19	747	4041	35.40 UG/L 35 ✓	95
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.46	760	50	.44 UG/L	74
~~52)~~	~~2,6-DINITROTOLUENE~~		~~169~~	~~17.72~~	~~626~~	~~6623~~	~~45.99 UG/L~~	~~100~~ CW
55)	*PHENANTHRENE-D10	(IS)	188	22.11	841	45228	40.00 UG/L	90
61)	PHENANTHRENE		178	22.17	844	1268	2.36 UG/L yes	86
~~62)~~	~~ANTHRACENE~~		~~178~~	~~22.17~~	~~844~~	~~1268~~	~~2.38 UG/L~~	~~86~~ CW
63)	DI-N-BUTYLPHTHALATE		149	24.72	969	5016	9.43 UG/L yes	95
65)	*CHRYSENE-D12	(IS)	240	30.15	1236	27183	40.00 UG/L	100
69)	TERPHENYL-D14	(SURR)	244	27.28	1095	10067	37.74 UG/L 75 ✓	100
~~71)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~30.22~~	~~1239~~	~~1710~~	~~5.10 UG/L~~	~~93~~ CW
73)	CHRYSENE		228	30.22	1239	1710	4.88 UG/L yes	95
74)	*PERYLENE-D12	(IS)	264	34.17	1433	24175	40.00 UG/L	100

* Compound is ISTD

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



22

$\cancel{300}^{259} \times 0.00353 \times \frac{1}{115} \times 5000 = 22{,}000$ ug/kg 1232

$\cancel{152}^{146} \times 0.00093 \times \frac{1}{115} \times 5000^{J} = 4{,}500$ ug/kg 1260

DC-05-63

RECALCULATE ON FILE: TURK220

CHANNEL: 1A - 1 TITLE: RUN# 22 7:01 25 FEB 87

SAMPLE: ~~1114~~ 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	1.389		105227	VV	?	5.13
2		0.0000	1.534		319952	VB		6.63
3		0.0000	1.858		39043	BV		5.88
		[illegible]	[illegible]		[illegible]	[illegible]	?	7.13

146 ~~152~~ x 0.00093 x $\frac{1}{115}$ x 5000 = 7,500 ug/kg 1300

RECALCULATE ON FILE: TURK220 DC-05-63

CHANNEL: 1A - 1 TITLE: RUN# 22 7:01 25 FEB 87

SAMPLE: 1114 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	1.389		105227	VV	?	5.13
2		0.0000	1.534		319962	VB		6.63
3		0.0000	1.858		39043	BV		5.88
4		0.0000	2.027		175067	VV	?	7.13
5	~~[illegible]~~	379.1808	2.264	0.014	322250	VV		7.13
6	~~[illegible]~~C	351.4662	2.590	-0.020	256922	VV		8.00
7		0.0000	2.844		276535	VV		9.06
8		0.0000	3.113	259	233799	VV		9.56
9		0.0000	*3.605	1232	462019	VV		10.44
10		0.0000	3.845		290919	VV	?	18.63
11		0.0000	4.441		360495	VV		22.06
12	~~[illegible]~~	358.4467	4.949	-0.131	272238	VV		15.19
13		0.0000	~~5.525~~		~~864537~~	VV		13.50
14	~~[illegible]~~	777.8115	6.269	0.129	554260	VV		22.31
15		0.0000	6.949		243224	VV		19.69
16	~~[illegible]~~	265.6096	~~7.404~~	-0.196	~~[illegible]~~	VB	?	31.94
17	~~[illegible]~~	264.0191	~~8.551~~	-0.189	180835	BV	?	29.75
18	~~[illegible]~~	323.8172	~~9.077~~	0.237	233522	VV	?	26.50
19	~~[illegible]~~	2114.001	10.181	0.131	1415626	VV		55.56
20	~~[illegible]~~	766.3191	12.520	-0.330	378118	VV		36.38
21		0.0000	13.680		94017	VV	?	30.81
22	~~[illegible]~~	702.4566	14.752	1260 0.502	339351	VV		39.81
23	~~[illegible]~~	351.8358	16.849	0.438	259071	VB		41.19
24		0.0000	19.417		100354	BV	?	49.94
25	~~[illegible]~~	245.5915	~~20.111~~	-0.789	146 ~~62790~~	VB	?	88.00
26		0.0000	*23.358		292152	BB		54.75
27	DBC 146	1106.264	28.407	-0.073	616876	BV	?	126.69
28		0.0000	30.077		36082	VV	?	
29		0.0000	30.931		26939	VB	?	
30		0.0000	37.033		33203	BB		92.00
31		0.0000	43.231		78835	BB		94.75
32		0.0000	48.736		24569	BB		98.00

TOTALS: 6006.820 -0.277 9128115

DETECTED PKS: 41 REJECTED PKS: 9

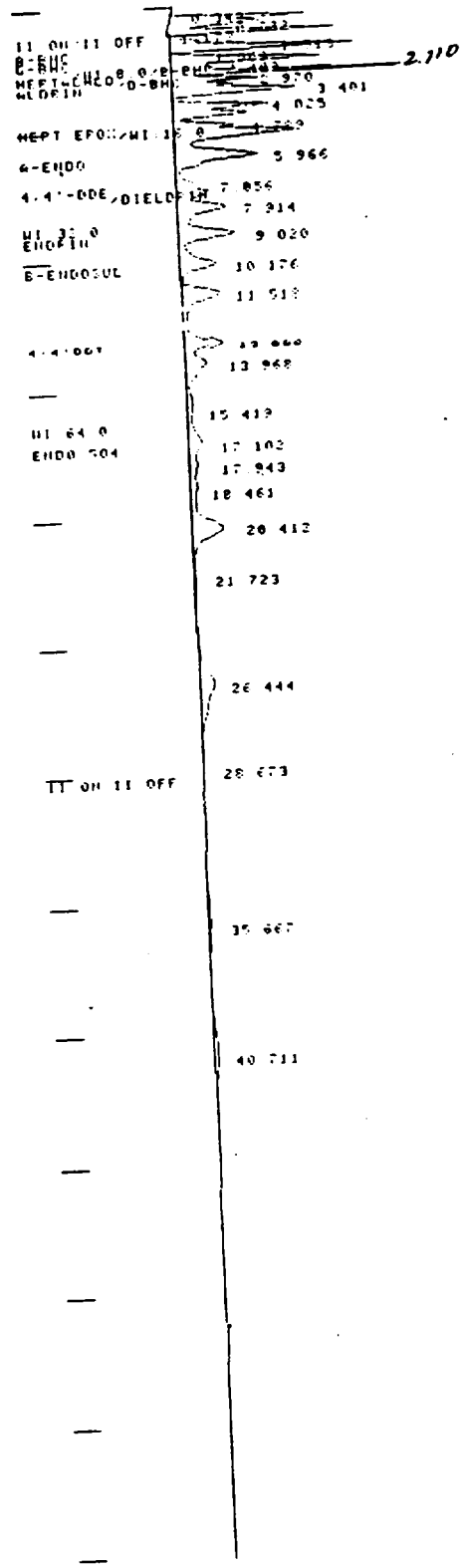
DIVISOR: 0.15000 MULTIPLIER: 5000.00000

NOISE: 11.4 OFFSET: 4

RACK: 2 VIAL: 7 INJ: 1

NOTES:
NOTEBOOK:259-117,118 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4928
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

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



DC-05-63

CHANNEL: 1B - 1 TITLE: RUN# 8 15:37 3 MAR 87

SAMPLE: 1114.03.1301 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT MG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	1.326		38430	BV		4.19
2		0.0000	1.454		91989	VV	?	4.56
3		0.0000	1.512		87142	VV	?	8.63
4		0.0000	1.626	-0.124	359879	VB		4.81
5		[illegible]	[illegible]		181524	BV	?	5.00

250

CHANNEL: 1B - 1 TITLE: RUN# 8 DC-0563 15:37 3 MAR 87

SAMPLE: 1114.03.19A1 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT MG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.326		38430	BV	4.19
2		0.0000	1.454		91989	VV	? 4.56
3		0.0000	1.518		87142	VV	? 8.63
4	[illegible]	0.0000	1.636	-0.124	359878	VB	4.81
5		0.0000	1.969		181684	BV	? 5.00
6		0.0000	2.090		216035	VV	? 6.44
7	[illegible]	0.0000	2.248	0.038	68752	VV	? 6.38
8	[illegible]	0.0000	2.409	-0.131	155286	VV	? 13.00
9	[illegible]	0.0000	2.710	-0.010	487630	VV	6.94
10	[illegible]	0.0000	2.970	0.010	176611	VV	8.69
11		0.0000	3.173		115170	VV	? 9.38
12	[illegible]	0.0000	3.401	0.101	398885	VV	14.00
13		0.0000	4.025		263497	VV	11.38
14		0.0000	4.308		221688	VV	? 13.50
15		0.0000	4.789		154387	VV	? 12.44
16	[illegible]	0.0000	5.075	0.135	545722	VV	18.75
17	[illegible]	0.0000	5.966	-0.254	525996	VV	22.19
18	[illegible]	0.0000	7.056	-0.134	75549	VV	? 23.63
19		0.0000	7.346		176372	VV	? 30.31
20	[illegible]	0.0000	7.914	0.314	317830	VV	24.00
21	[illegible]	0.0000	9.020	-0.230	347811	VV	25.44
22	[illegible]	0.0000	10.176	-0.224	267050	VV	27.56
23	[illegible]	0.0000	11.518	0.509	306160	VV	29.44
24	[illegible]	0.0000	13.026	-0.224	333188	VV	34.75
25		0.0000	13.968		235726	VV	? 57.69
26	[illegible]	0.0000	15.419	0.709	87843	VV	?151.19
27		0.0000	17.102		175429	VV	? 65.88
28	[illegible]	0.0000	17.943	0.253	75870	VV	? 60.31
29		0.0000	18.461		84247	VV	?
30		0.0000	20.412		370504	VV	48.69
31		0.0000	21.723		21129	VV	?
32	[illegible]	0.0000	26.444	1.004	317651	VV	107.25
33		0.0000	35.667		43272	BB	? 80.75
34		0.0000	40.711		87526	BB	92.75
TOTALS:		0.0000		1.741	7411939		

DETECTED PKS: 45 REJECTED PKS: 11

DIVISOR: 0.15000 MULTIPLIER: 5000.00000

NOISE: 57.1 OFFSET: 1

RACK: 1 VIAL: 9 INJ: 1

NOTES:
NOTEBOOK: 259-130 ANALYST: K.JUREK
SECURE AREA: D JOB#:U-4920
INST: VARIAN 6000#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
CONFIRMATION ANALYSIS

POST RUN:
SAVE FILE: RAW SAS075

TOTALS: 0.0000 -0.685 9230643

DETECTED PKS: 34 REJECTED PKS: 5

DIVISOR: 1.00000 MULTIPLIER: 1.00000

NOISE: 57.1 OFFSET: 0

RACK: 1 VIAL: 12 INJ: 1

SAMPLE NUMBER DC-05-64

DC-05-64

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1115

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-19-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-25-87

Conc/Dil Factor: 10 pH 7.7

Percent Moisture: (Not Decanted) 18

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	100u
74-83-9	Bromomethane	100u
75-01-4	Vinyl Chloride	100u
75-00-3	Chloroethane	100u
75-09-2	Methylene Chloride	15 J
67-64-1	Acetone	9400 BE
75-15-0	Carbon Disulfide	50u
75-35-4	1, 1-Dichloroethene	50u
75-34-3	1, 1-Dichloroethane	50u
156-60-5	Trans-1, 2-Dichloroethene	50u
67-66-3	Chloroform	50u
107-06-2	1, 2-Dichloroethane	50u
78-93-3	2-Butanone	140 B
71-55-6	1, 1, 1-Trichloroethane	50u
56-23-5	Carbon Tetrachloride	50u
108-05-4	Vinyl Acetate	100u
75-27-4	Bromodichloromethane	50u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	50u
10061-02-6	Trans-1, 3-Dichloropropene	50u
79-01-6	Trichloroethene	50u
124-48-1	Dibromochloromethane	50u
79-00-5	1, 1, 2-Trichloroethane	50u
71-43-2	Benzene	15 J
10061-01-5	cis-1, 3-Dichloropropene	50u
110-75-8	2-Chloroethylvinylether	100u
75-25-2	Bromoform	50u
108-10-1	4-Methyl-2-Pentanone	100u
591-78-6	2-Hexanone	100u
127-18-4	Tetrachloroethene	50u
79-34-5	1, 1, 2, 2-Tetrachloroethane	50u
108-88-3	Toluene	50u
108-90-7	Chlorobenzene	130
100-41-4	Ethylbenzene	47 J
100-42-5	Styrene	50u
	Total Xylenes	210

Data Reporting Qualifiers

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

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

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

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

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

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

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

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

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number DC-05-64

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 03-05-87

Conc/Dil Factor 2

Percent Moisture (Decanted) 18

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2 4-Dinitrophenol	16000u
100-02-7	4-Nitrophenol	16000u
132-64 9	Dibenzofuran	3300u
121-14-2	2 4-Dinitrotoluene	3300u
606-20-2	2 6-Dinitrotoluene	3300u
84-66-2	Diethylphthalate	3300u
7005-72-3	4-Chlorophenyl-phenylether	3300u
86-73-7	Fluorene	3300u
100-01-6	4-Nitroaniline	16000u
534-52-1	4 6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	16000u
85-01-8	Phenanthrene	3300u
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	3300u
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	3300u
85-68 7	Butylbenzylphthalate	3300u
91-94-1	3 3-Dichlorobenzidine	6600u
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	2600 JB
218-01-9	Chrysene	1600 J
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50 32-8	Benzo(a)Pyrene	3300u
193-39 5	Indeno(1,2,3-cd)Pyrene	3300u
53-70-3	Dibenz(a,h)Anthracene	3300u
191 24 2	Benzo(g,h,i)Perylene	3300u

(1) Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-05-64

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-25-87

Conc/Dil Factor 5

Percent Moisture (decanted) 18

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	24,900
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	3200 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

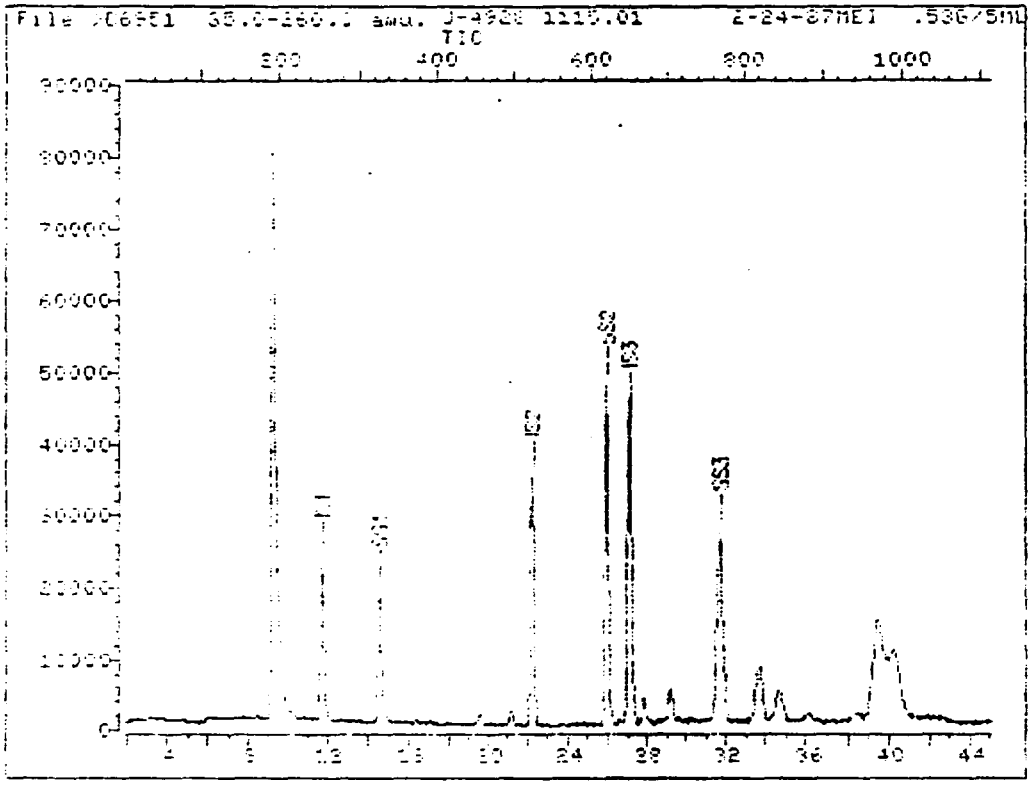
Sample Number DC-05-64

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 hydrocarbon	VOA	27.8	66 J
2.	Dichlorobenzene isomer	VOA	39.5	690 J
3.	Dichlorobenzene isomer	VOA	40.2	420 J
4.				
5.				
6. 629505	Tridecane	BNA	19.77	4400 J
7. 4537159	Benzene, (1-butylheptyl)		20.28	15000 J
8. 4536861	Benzene, (1-propyloctyl)		20.42	7100 J
9. 4536872	Benzene, (1-ethylnonyl)		20.70	4500 J
10. 4536883	Benzene, (1-methyldecyl)		21.23	8500 J
11. 2719622	Benzene, (1-pentylheptyl)		21.62	6400 J
12. 2719633	Benzene, (1-butyloctyl)		21.68	5200 J
13. 2719644	Benzene, (1-propylnonyl)		21.84	4500 J
14.	~~Unknown~~ cw		~~22.11~~ cw	
15.	Unknown hydrocarbon		22.62	3300 J
16. 2719611	Benzene, (1-methylundecyl)		22.66	5000 J
17. 2400013	Benzene (1-hexylheptyl)		22.97	5800 J
18. 4534503	Benzene, (1-butylnonyl)		23.07	3700 J
19.	Unknown		23.23	2700 J
20.	Unknown		23.52	2800 J
21.	Unknown hydrocarbon		23.92	2600 J
22.	Unknown hydrocarbon		25.19	2800 J
23. 10544500	Molecular Sulfur		25.35	2700 J
24				
25.				
26.				
27.				
28.				
29.				
30				

TOTAL ION CHROMATOGRAM

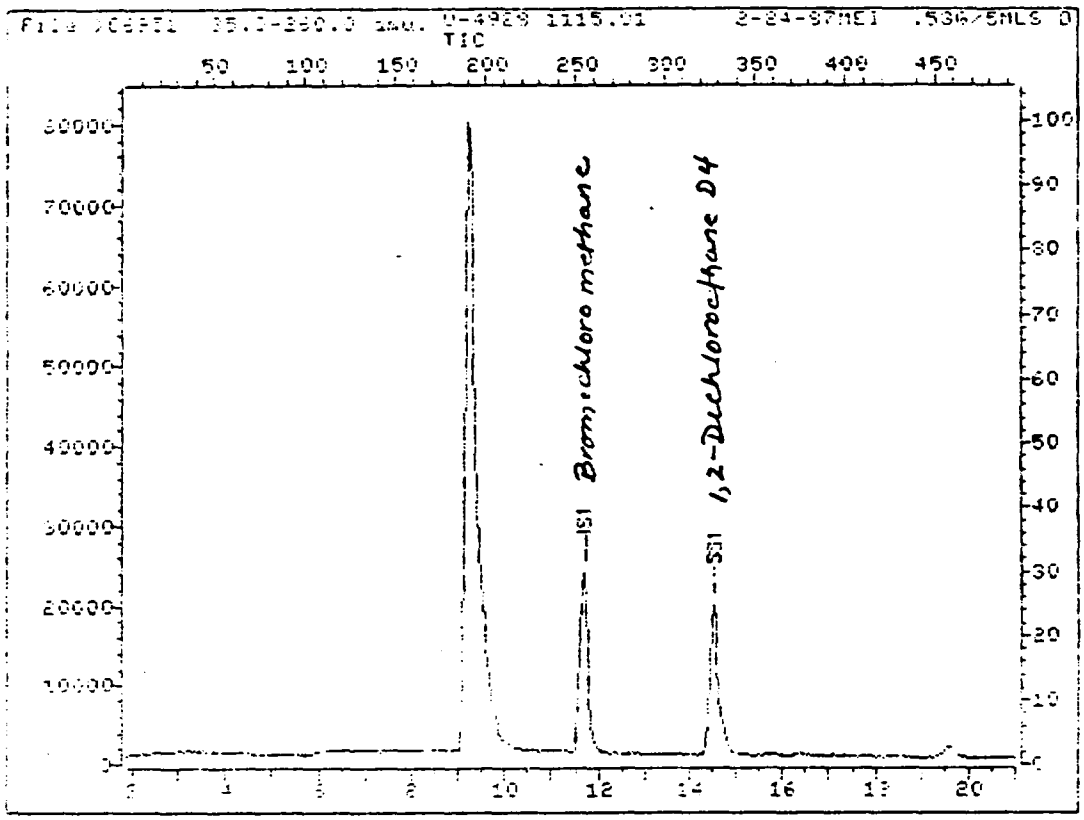


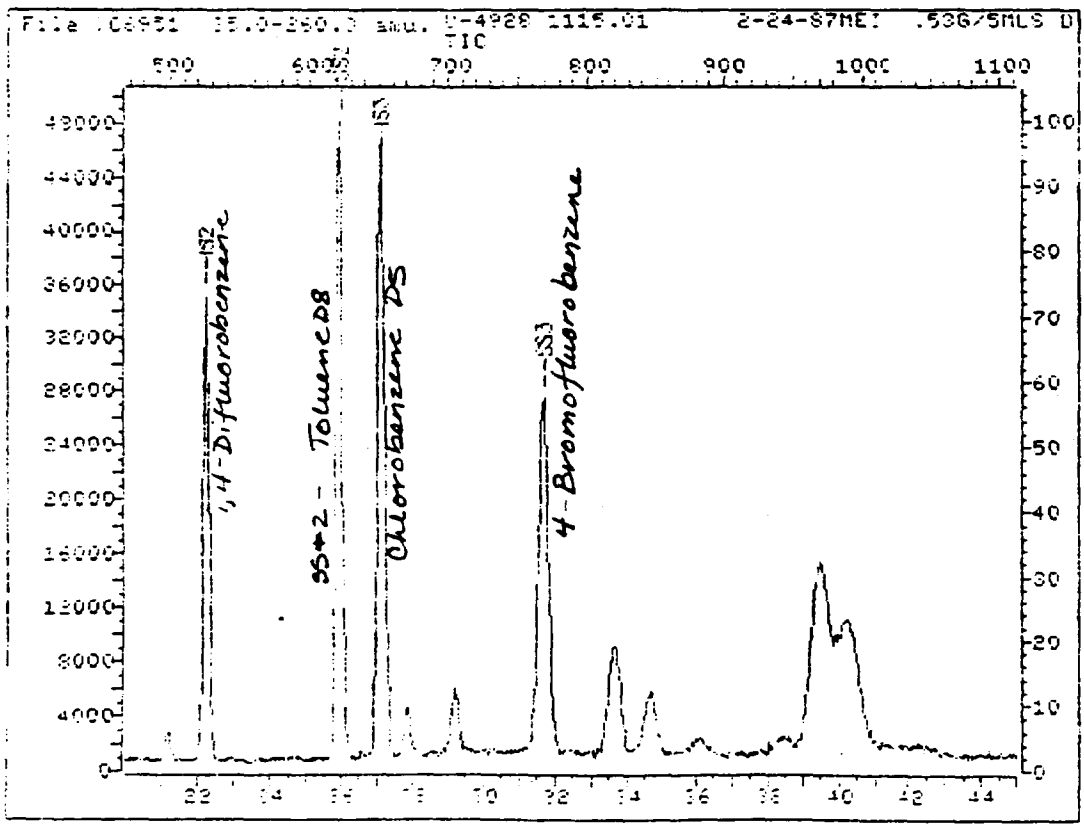
Data File: [illegible]
Name: U-4928 1115.01 DC-05-64
Misc: 2-24-87MEI .53G/5MLS DI - 10UL IS/SS

Id File: [illegible]
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870224 15:45

Operator ID: USER
Quant Time: 870225 01:46
Injected at: 870225 01:02

DC-05-64


TIC
Bromochloromethane
1,2-Dichloroethane D4
IS1
SS1


TIC
1,4-Difluorobenzene
SS+2 - Toluene D8
Chlorobenzene D5
4-Bromofluorobenzene
IS2
IS1
SS1

QUANT REPORT

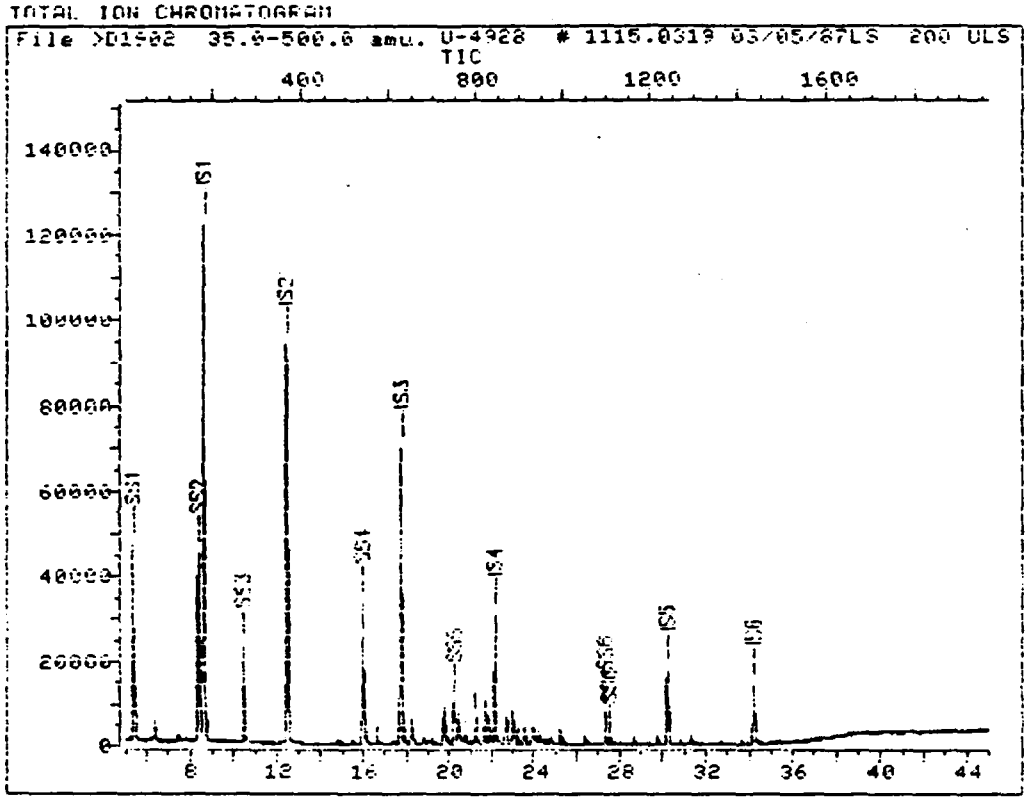
Operator ID: USER8 Quant Rev: 4 Quant Time: 870225 01:48
Output File: ^C6951::02 Injected at: 870225 01:02
Data File: >C6951::D3 Dilution Factor: 1.00
Name: U-4928 1115.01 DC-05-64
Misc: 2-24-87MEI .53G/5ML DI - 10UL IS/SS

ID File: VOACPS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870224 15:45

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.70	254	32036	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.36	168	1550	8.03	NGS yes	100
7)	ACETONE		43	9.21	190	921296	4974.85	NGS yes	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.53	327	82625	247.05	NGS	85
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.21	525	146336	250.00	NGS	100
17)	2-BUTANONE		72	14.72	332	3059	74.45	NGS yes	100
27)	BENZENE		78	19.65	459	5510	8.17	NGS yes	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.06	650	141445	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98	25.94	621	182434	256.73	NGS	90
38)	CHLOROBENZENE		112	27.19	653	42698	68.05	NGS yes	99
39)	ETHYLBENZENE		91	29.20	705	27346	24.97	NGS yes	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.69	769	97558	247.21	NGS	100
42)	TOTAL XYLENES		91	33.71	821	64274	68.76	NGS yes	100
42)	TOTAL XYLENES		91	34.68	846	42239	45.19	NGS yes	100
43)	1,3-DICHLOROBENZENE	yes	146	39.53	971	113294	113294.0	NO CALIB	100
44)	1,2-DICHLOROBENZENE			39.53	971	113294	113294.0	NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	39.53	971	113294	113294.0	NO CALIB	100

* Compound is ISTD

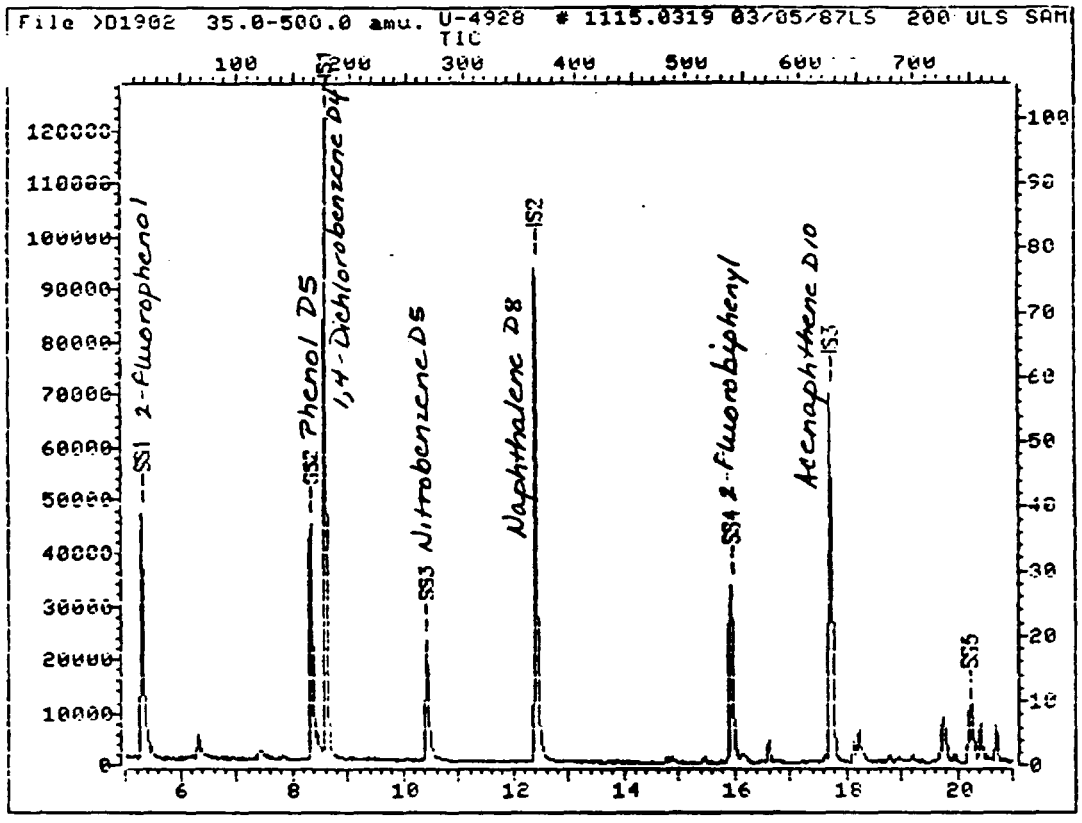
TOTAL ION CHROMATOGRAM



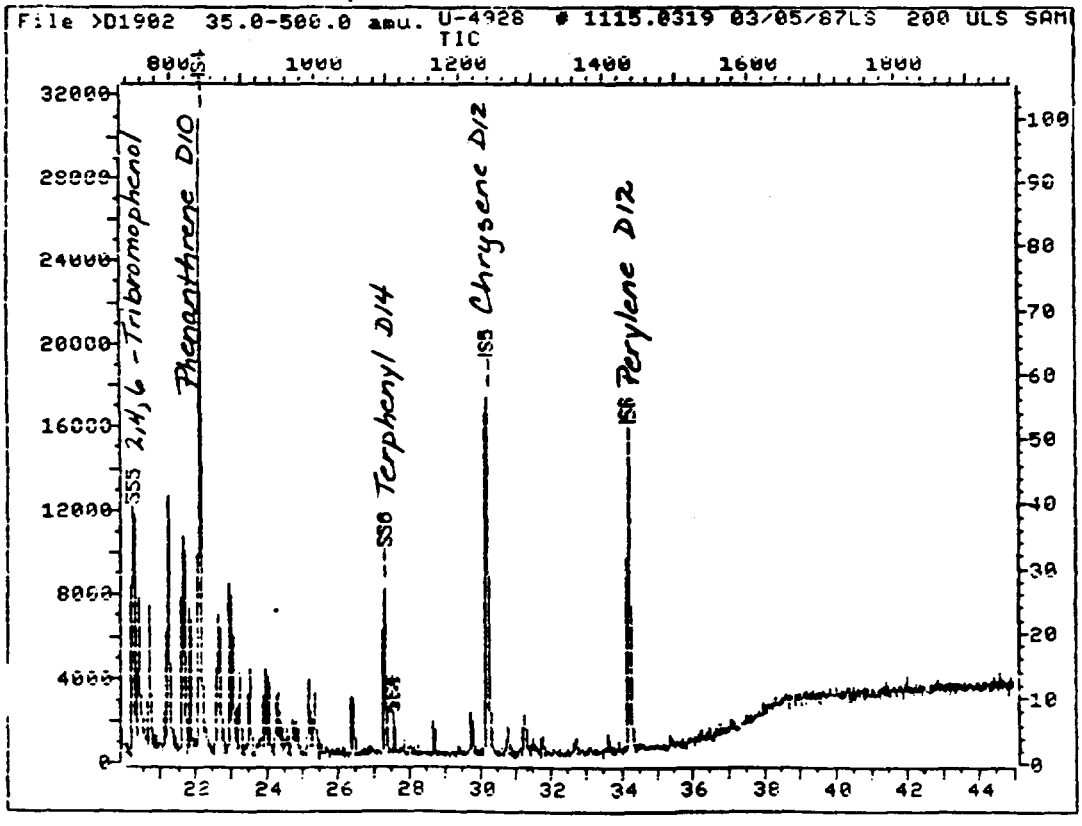
Data File: >D1902::D5
Name: U-4928 # 1115.0319 DC-05-64
Misc: 03/05/87LS 200 ULS SAMPLE + 200 ULS MEDL2 + 4 ULS IS BTL# 4

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

Operator ID: USER6
Quant Time: 870305 21:19
Injected at: 870305 20:31


File >D1902 35.0-500.0 amu. U-4928 # 1115.0319 03/05/87LS 200 ULS SAM
TIC
SS1 2-Fluorophenol
SS2 Phenol D5
1,4-Dichlorobenzene D4
SS3 Nitrobenzene D5
Naphthalene D8
IS2
SS4 2-Fluorobiphenyl
Acenaphthene D10
IS3
SS5

DC-05-64


File >D1902 35.0-500.0 amu. U-4928 # 1115.0319 03/05/87LS 200 ULS SAM
TIC
SS5 2,4,6-Tribromophenol
Phenanthrene D10
IS4
SS6 Terphenyl D14
IS5 Chrysene D12
IS6 Perylene D12

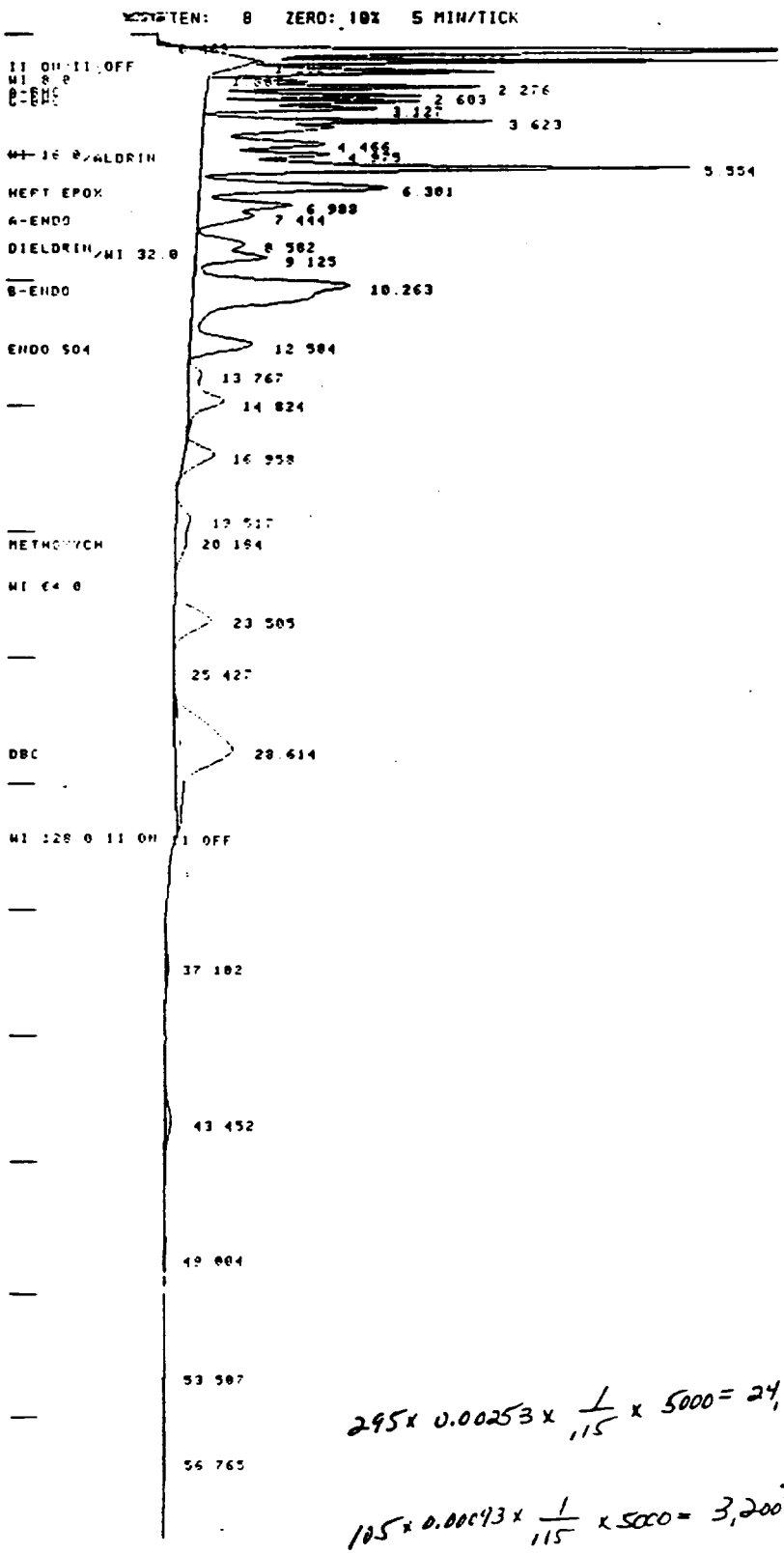
QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870305 21:19
Output File: ^D1902::02 Injected at: 870305 20:31
Data File: >D1902::03 Dilution Factor: 2.00
Name: U-4928 # 1115.0319 DC-05-64
Misc: 03/05/87LS 200 ULS SAMPLE + 200 ULS MECL2 + 4 ULS IS BTL# 4

ID File: BNADR::02
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.60	178	49201	40.00 UG/L	87
2)	PHENOL-D5	(SURR)	99	8.34	165	53271	58.09 UG/L 58 ✓	99
5)	2-FLUOROPHENOL	(SURR)	112	5.30	16	36430	88.20 UG/L 88 ✓	77
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.54~~	~~268~~	~~4719~~	~~6.42 UG/L~~	~~92~~ CW
19)	*NAPHTHALENE-D8	(IS)	136	12.39	364	149581	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.42	267	28981	36.38 UG/L 73 ✓	95
34)	*ACENAPHTHENE-D10	(IS)	162	17.73	626	46184	40.00 UG/L	95
38)	2-FLUOROBIPHENYL	(SURR)	172	15.94	538	41892	44.92 UG/L 89 ✓	91
~~51)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.77~~	~~626~~	~~5710~~	~~12.89 UG/L~~	~~100~~ CW
49)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.21	748	5429	50.46 UG/L 50 ✓	99
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.73~~	~~626~~	~~6184~~	~~44.97 UG/L~~	~~100~~ CW
55)	*PHENANTHRENE-D10	(IS)	188	22.11	841	43972	40.00 UG/L	94
65)	*CHRYSENE-D12	(IS)	240	30.18	1237	29514	40.00 UG/L	100
69)	TERPHENYL-D14	(SURR)	244	27.28	1095	13351	46.09 UG/L 92 ✓	100
~~68)~~	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~27.47~~	~~1104~~	~~125~~	~~.43 UG/L~~	~~100~~
68)	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~27.51~~	~~1106~~	~~132~~	~~.46 UG/L~~	~~100~~
~~71)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~30.24~~	~~1240~~	~~1876~~	~~5.15 UG/L~~	~~90~~ CW
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.24	1289	1676	6.12 UG/L yes	99
73)	CHRYSENE		228	30.24	1240	1876	4.93 UG/L yes	89
74)	*PERYLENE-D12	(IS)	264	34.17	1433	26070	40.00 UG/L	100

* Compound is ISTD



$295 \times 0.00253 \times \frac{1}{115} \times 5000 = 24{,}900$ ug/kg 1232

$105 \times 0.00093 \times \frac{1}{115} \times 5000 = 3{,}200$ ug/kg 1260

DC-05-64

295 x 0.00253 x 1/.15 x 5000 = 29,[illegible]

105 x 0.00093 x 1/.15 x 5000 = 3,200 ug/kg 1260

DC-05-64

CHANNEL: 1A - 1 TITLE: RUN# 23 8:06 25 FEB 87

SAMPLE: 1115 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	1.282		24768	BV	3.94
2		0.0000	1.394		76112	VV	? 4.81
3		0.0000	1.542		274256	VB	6.44
4		0.0000	1.867		32646	BV	5.94
5		0.0000	2.043		120850	VV	? 7.75
6	[illegible]	319.8251	2.276 ✓	0.026	271806	VV	7.13
7	[illegible]	321.0238	2.503	-0.007	233745	VV	7.81
8		0.0000	2.858 ✓		242502	VV	9.00
9		0.0000	3.127 ✓		218657	VV	9.56
10		0.0000	3.623 ✓	295	408054	VV	10.44
11		0.0000	3.864 ✓		263612	VV	? 18.63
12		0.0000	4.466 ✓		333559	VV	22.38
13	[illegible]	317.9315	4.975	-0.105	241467	VV	15.69
14		0.0000	~~5.554~~		~~852778~~	VV	13.31
15	[illegible]	741.1691	6.301 ✓	0.161	528149	VV	22.38
16		0.0000	6.998 ✓		235600	VV	19.94
17	[illegible]	262.0500	7.444	-0.156	177862	VV	? 32.19
18	[illegible]	245.6113	8.562	-0.158	168229	VV	? 29.06
19	[illegible]	298.7227	9.125	0.285	215425	VV	? 27.38
20	[illegible]	1606.133	10.263	0.213	1075536	VV	56.25
21	[illegible]	584.3241	12.594	-0.266	209308	VV	33.00
22	[illegible]	112.5356	13.767	-0.483	54365	VV	? 31.94
23		0.0000	14.924		203545	VB	39.75
24	[illegible]	236.8896	16.958	0.548	173765	BB	41.56
25		0.0000	19.517		92614	BV	? 47.63
26	[illegible]	250.1075	~~20.184~~	-0.716	~~64963~~	VB	? 95.06
27		0.0000	23.505		252054	BV	56.06
28	DBC 125	~~[illegible]~~ 834	28.514	0.134	~~812255~~ 10,000		111.25
29		0.0000	37.182		28410	BB	82.00
30		0.0000	43.452		70602	BV	91.75
31		0.0000	49.004		24151	VB	92.00

TOTALS: 6752.947 -0.524 8158646

DETECTED PKS: 39 REJECTED PKS: 8

DIVISOR: 0.15000 MULTIPLIER: 5000.00000

NOISE: 11.4 OFFSET: -12

RACK: 2 VIAL: 8 INJ: 1

NOTES:
NOTEBOOK:259-117,118 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4928
INST: VARIAN 6000# ZA ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

POST RUN:
SAVE FILE: RAW TURK221

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 12% 5 MIN/TICK

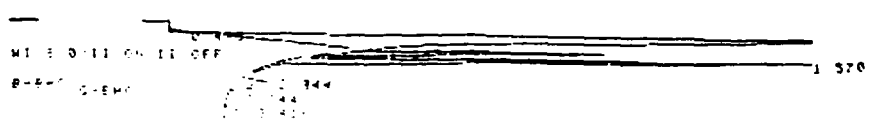
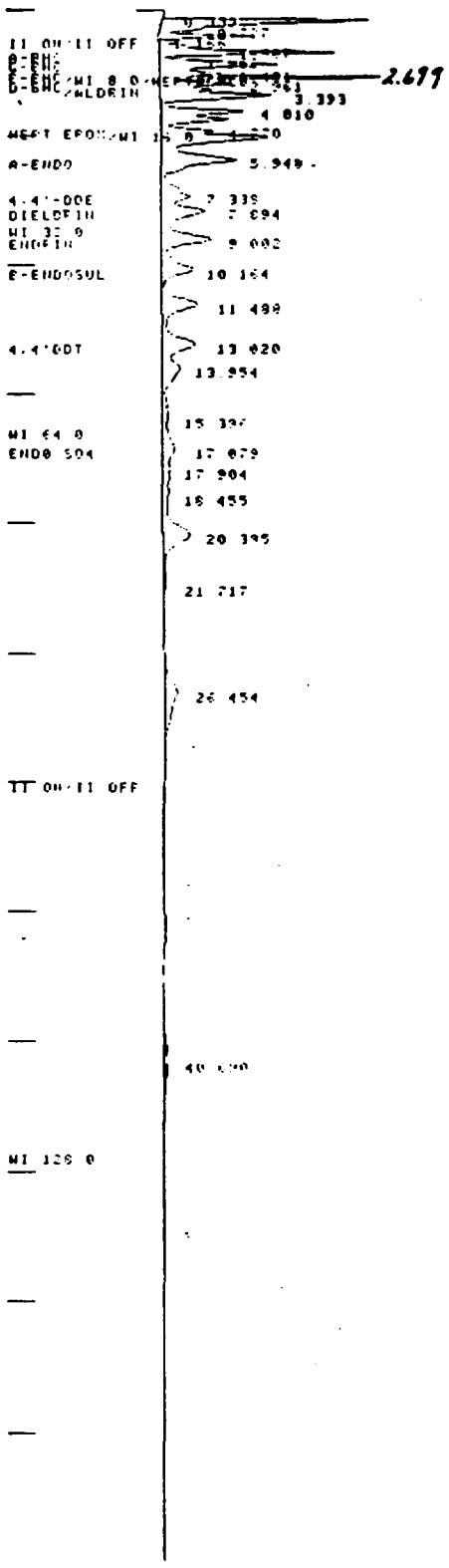


CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



DC-05-64

CHANNEL: 1E - 1 TITLE: RUN# 9 16:41 3 MAR 87

SAMPLE: 1115.03.19A1 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT MG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
		0.0000	1.221		31020	BV	4.13

DC-05-64

CHANNEL: 1E - 1 TITLE: RUN# 9 16:41 3 MAR 87

SAMPLE: 1115.03.19A1 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT MG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	1.321		31020	BV		4.13
2		0.0000	1.446		85522	VV	?	4.13
3		0.0000	1.507		34813	VV	?	9.94
4	[illegible]	0.0000	1.629	-0.131	303444	VV		4.56
5		0.0000	1.962		158760	VV		5.38
6		0.0000	2.083		182554	VV		5.88
7	[illegible]	0.0000	2.240	0.030	60032	VV	?	6.38
8	[illegible]	0.0000	2.401	-0.139	133545	VV	?	11.25
9	[illegible]	0.0000	2.699	-0.021	427924	VV		6.81
10	[illegible]	0.0000	2.961	0.001	156598	VV		8.75
11		0.0000	3.165		101965	VV	?	9.44
12	[illegible]	0.0000	3.393	0.093	359787	VV		14.06
13		0.0000	4.010		241855	VV		11.50
14		0.0000	4.296		201689	VV	?	13.38
15		0.0000	4.770		140519	VV	?	12.31
16	[illegible]	0.0000	5.059	0.119	495369	VV		19.00
17	[illegible]	0.0000	5.948	-0.272	483313	VV		22.00
18	[illegible]	0.0000	7.338	0.148	238769	VV	?	41.81
19	[illegible]	0.0000	7.894	0.294	291743	VV		24.25
20	[illegible]	0.0000	9.002	-0.248	320787	VV		25.94
21	[illegible]	0.0000	10.164	-0.236	250105	VV		28.75
22	[illegible]	0.0000	11.488	0.478	282145	VV		30.00
23	[illegible]	0.0000	13.070	-0.230	304038	VV		36.25
24		0.0000	13.954		222467	VV	?	60.63
25	[illegible]	0.0000	15.396	0.686	84616	VV	?	153.63
26		0.0000	17.079		168868	VV	?	79.00
27	[illegible]	0.0000	17.904	0.214	72558	VV	?	91.06
28		0.0000	18.455		74834	VV	?	
29		0.0000	20.385		338509	VV		54.00
30		0.0000	21.717		20098	VB	?	
31	[illegible]	0.0000	26.454	1.014	246160	BB		87.13
32		0.0000	40.690		95826	BB		99.81
TOTALS:		0.0000		1.800	6610232			

DETECTED PKS: 42 REJECTED PKS: 10

DIVISOR: 0.15000 MULTIPLIER: 5000.00000

NOISE: 57.1 OFFSET: -10

RACK: 1 VIAL: 10 INJ: 1

NOTES:
NOTEBOOK: 259-130 ANALYST: K.JUREK
SECURE AREA: D JOB#:U-4928
INST: VARIAN 6000#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
CONFIRMATION ANALYSIS

POST RUN:
SAVE FILE: RAW SAS076

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

SAMPLE NUMBER DC-OB-65

481095

DC-OB-65

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1116

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Sojtowicz

Date Sample Received: 2-19-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-24-87

Conc/Dil Factor: 1 pH 7.4

Percent Moisture: (Not Decanted) 21

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	5u
67-64-1	Acetone	110 B
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

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

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/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 IL-3140

Sample Number
DC-OB-65

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 3-5-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300µ
51-28-5	2 4-Dinitrophenol	16000µ
100-02-7	4-Nitrophenol	16000µ
132-64-9	Dibenzofuran	3300µ
121-14-2	2 4-Dinitrotoluene	3300µ
606-20-2	2 6-Dinitrotoluene	3300µ
84-66-2	Diethylphthalate	3300µ
7005-72-3	4-Chlorophenyl-phenylether	3300µ
86-73-7	Fluorene	3300µ
100-01-6	4-Nitroaniline	16000µ
534-52-1	4 6-Dinitro-2-Methylphenol	16000µ
86-30-6	N-Nitrosodiphenylamine (1)	3300µ
101-55-3	4-Bromophenyl-phenylether	3300µ
118-74-1	Hexachlorobenzene	3300µ
87-86-5	Pentachlorophenol	16000µ
85-01-8	Phenanthrene	3300µ
120-12-7	Anthracene	3300µ
84-74-2	Di-n-Butylphthalate	2200 J
206-44-0	Fluoranthene	3300µ
129-00-0	Pyrene	3300µ
85-68-7	Butylbenzylphthalate	3300µ
91-94-1	3 3'-Dichlorobenzidine	6600µ
56-55-3	Benzo(a)Anthracene	3300µ
117-81-7	bis(2-Ethylhexyl)Phthalate	3300µ
218-01-9	Chrysene	3300µ
117-84-0	Di-n-Octyl Phthalate	3300µ
205-99-2	Benzo(b)Fluoranthene	3300µ
207-08-9	Benzo(k)Fluoranthene	3300µ
50-32-8	Benzo(a)Pyrene	3300µ
193-39-5	Indeno(1,2,3-cd)Pyrene	3300µ
53-70-3	Dibenz(a,h)Anthracene	3300µ
191-24-2	Benzo(g,h,i)Perylene	3300µ

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4906, 4928, 4971, 4989

Sample Number
DC-OB-65

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-25-87

Conc/Dil Factor 1

Percent Moisture (decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-OB-6S

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MLC-10	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.	No TIC's in BNA fraction			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
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24				
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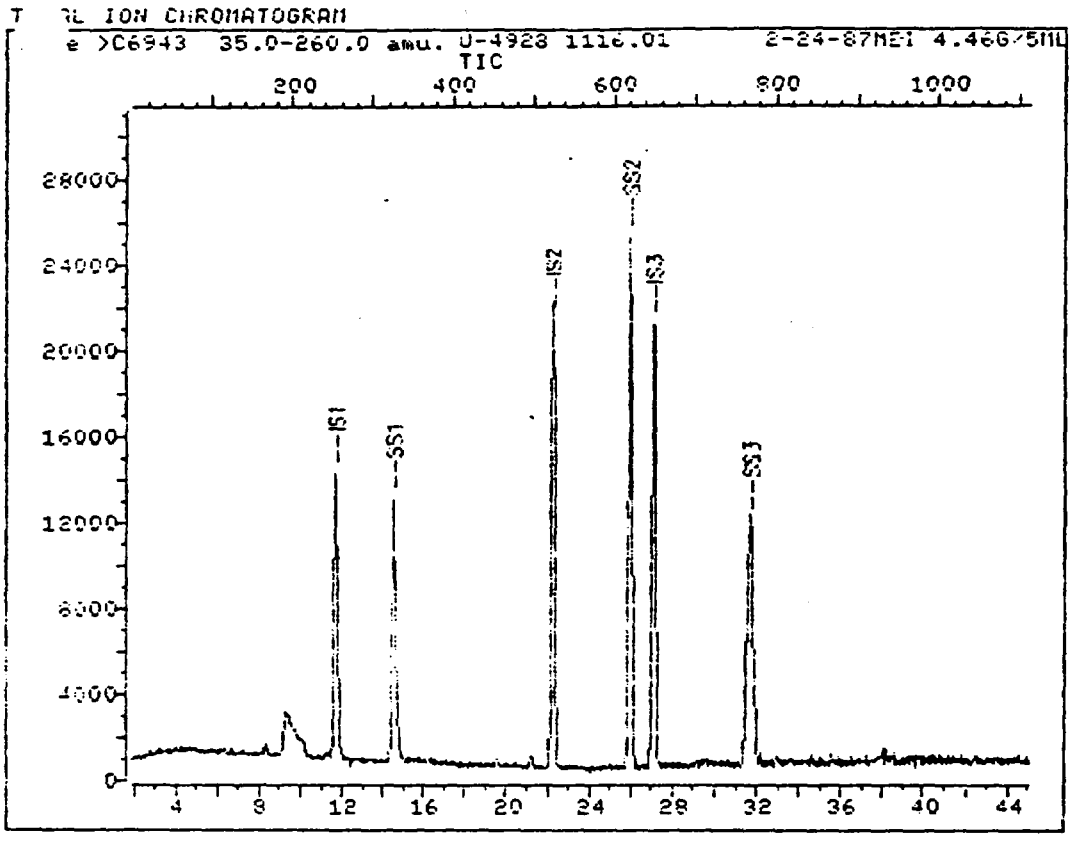
27.				
28.				
29.				
30				



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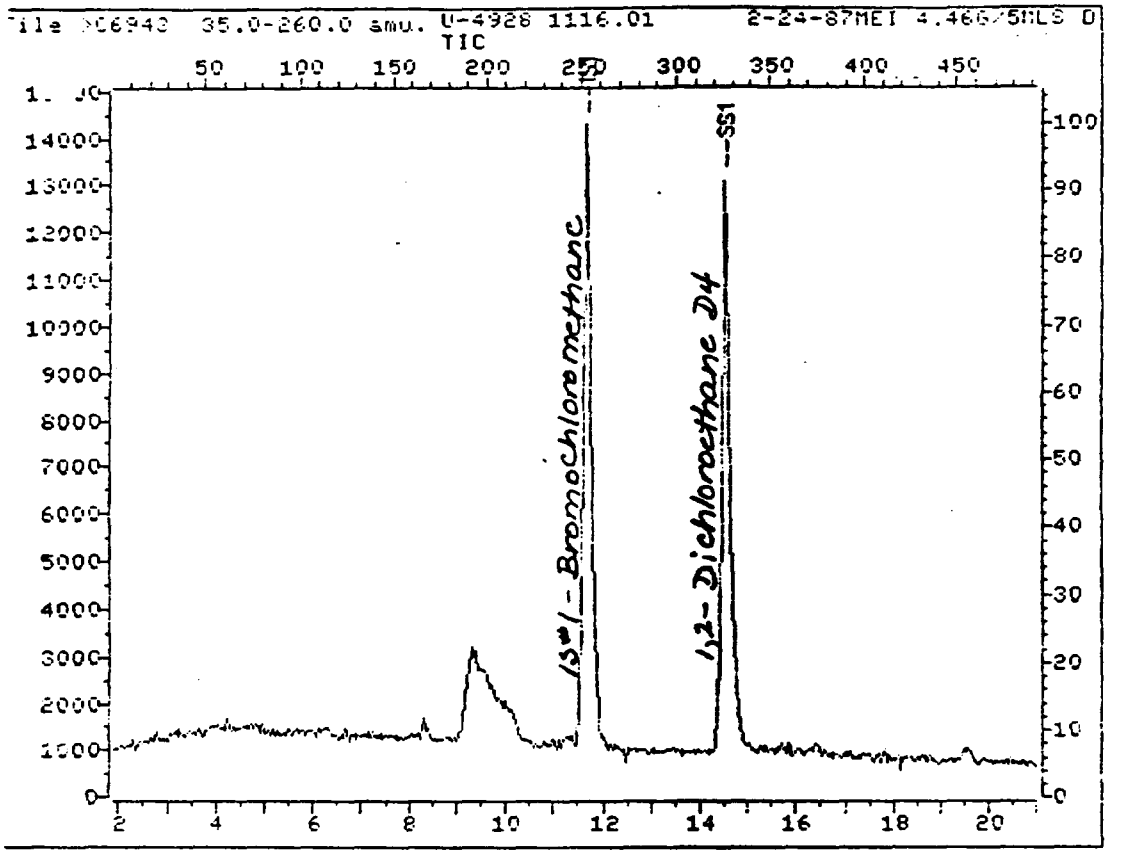
Misc: 2-24-87MEI 4.46G/5MLS DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870224 15:45

Operator ID: USER8
Quant Time: 870224 18:25
Injected at: 870224 17:39

DC-OB-65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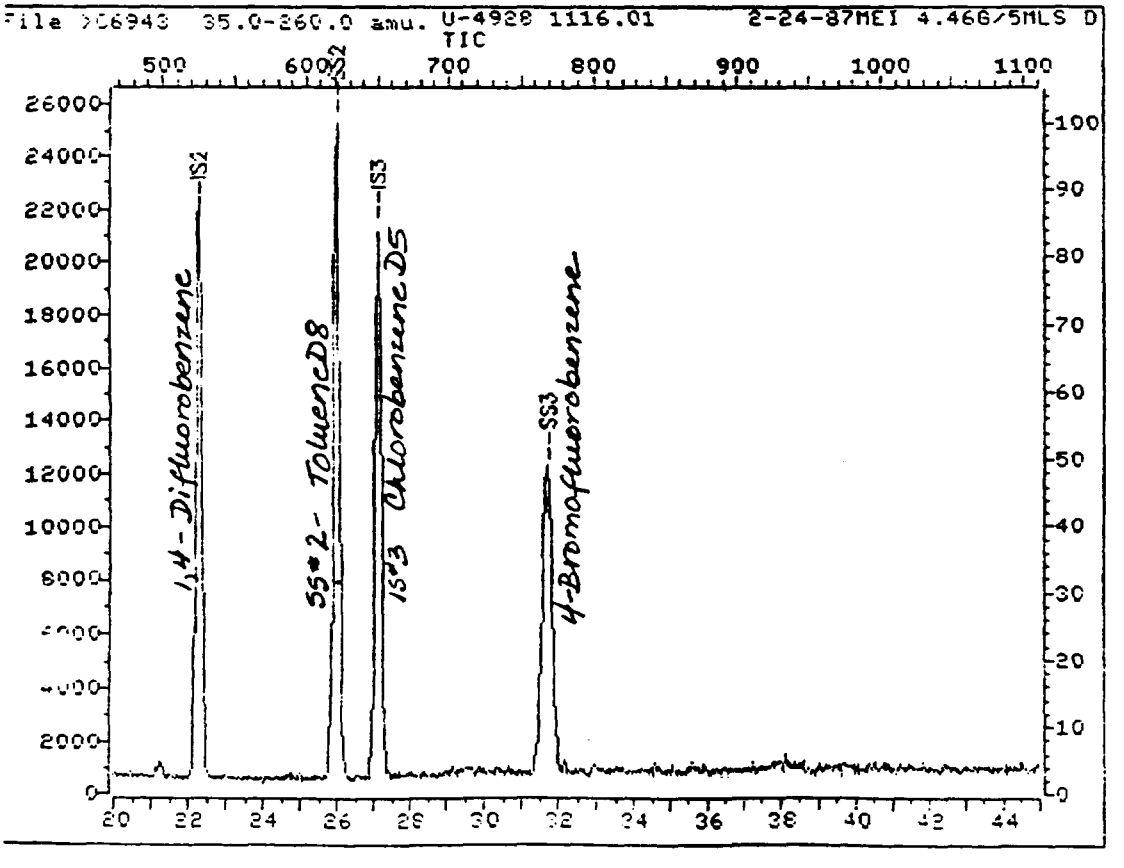
TIC
IS#1 - Bromochloromethane
1,2-Dichloroethane D4
--SS1


File >06943 35.0-260.0 amu. U-4928 1116.01 2-24-87MEI 4.466/5MLS D
TIC
--IS2
1,4-Difluorobenzene
SS#2 - Toluene D8
--IS3
IS#3 Chlorobenzene D5
--SS3
4-Bromofluorobenzene

QUANT REPORT

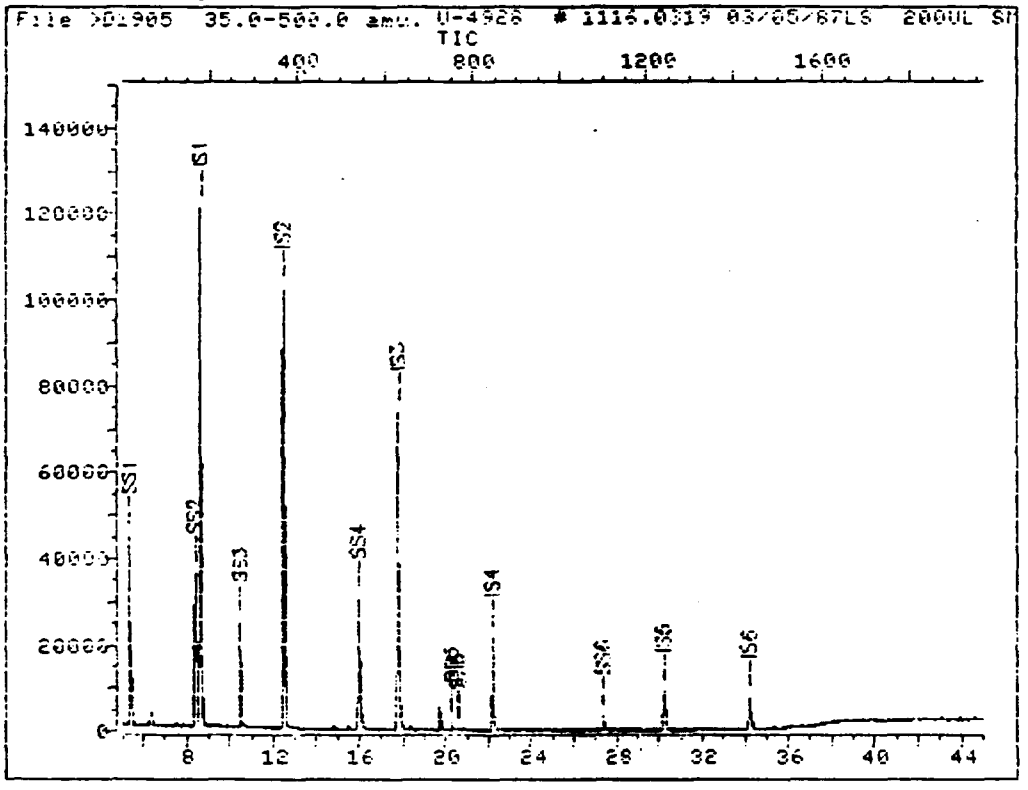
perator ID: USER8 Quant Rev: 4 Quant Time: 870224 18:25
utput File: ^C6943::Q2 Injected at: 870224 17:39
ata File: >C6943::D1 Dilution Factor: 1.00
ame: U-4928 1116.01 DC-08-65
ise: 2-24-87MEI 4.46G/5MLS DI + 10UL IS/SS

D File: VOACRS::D2
itle: VOA ID FILE FOR HP-5995 (CONT. CAL.)
ast Calibration: 870224 15:45

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.68	253	19807	250.00 NGS	100
7)	ACETONE		43	9.39	194	55399	483.84 NGS 92	100 ✓
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	326	53056	256.60 NGS 102	85
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.24	525	91839	250.00 NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.09	650	69338	250.00 NGS	100 ✓
6)	TOLUENE-D8	(SURR)	98	25.96	621	93616	268.74 NGS 107	94 ✓
0)	4-BROMOFLUOROBENZENE	(SURR)	95	31.71	769	42082	217.54 NGS 87	100 ✓

* Compound is ISTD

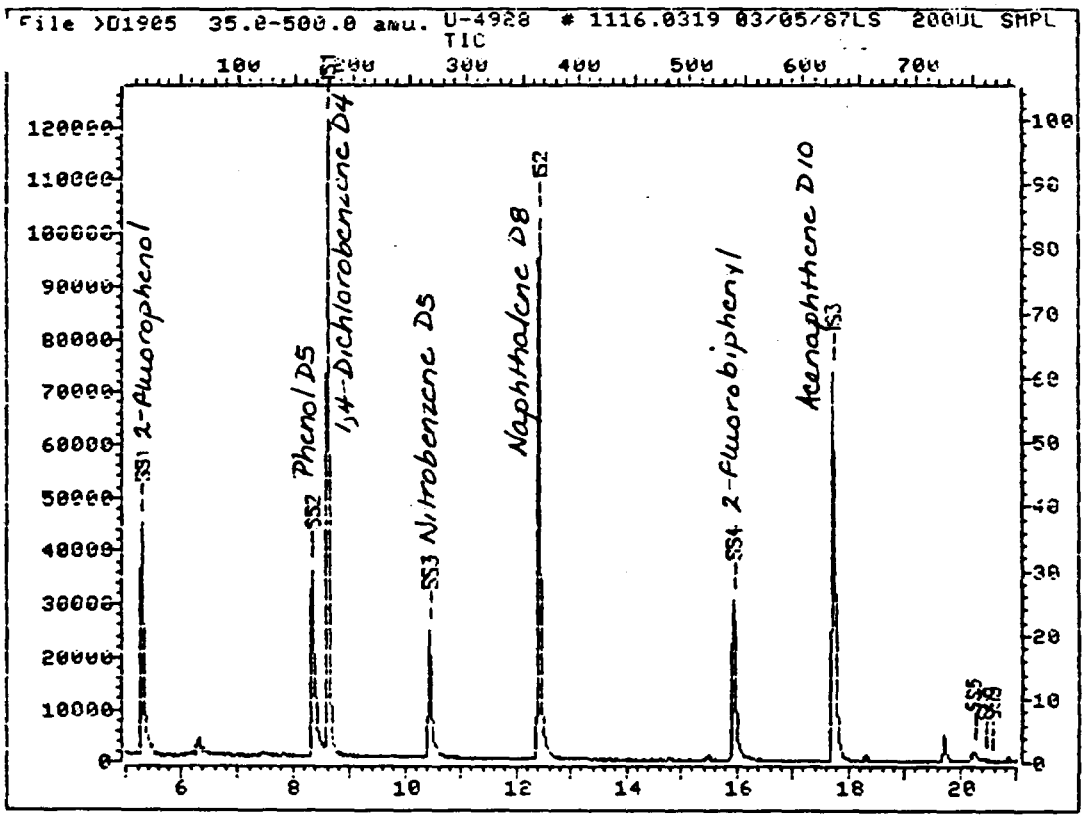
TOTAL ION CHROMATOGRAM



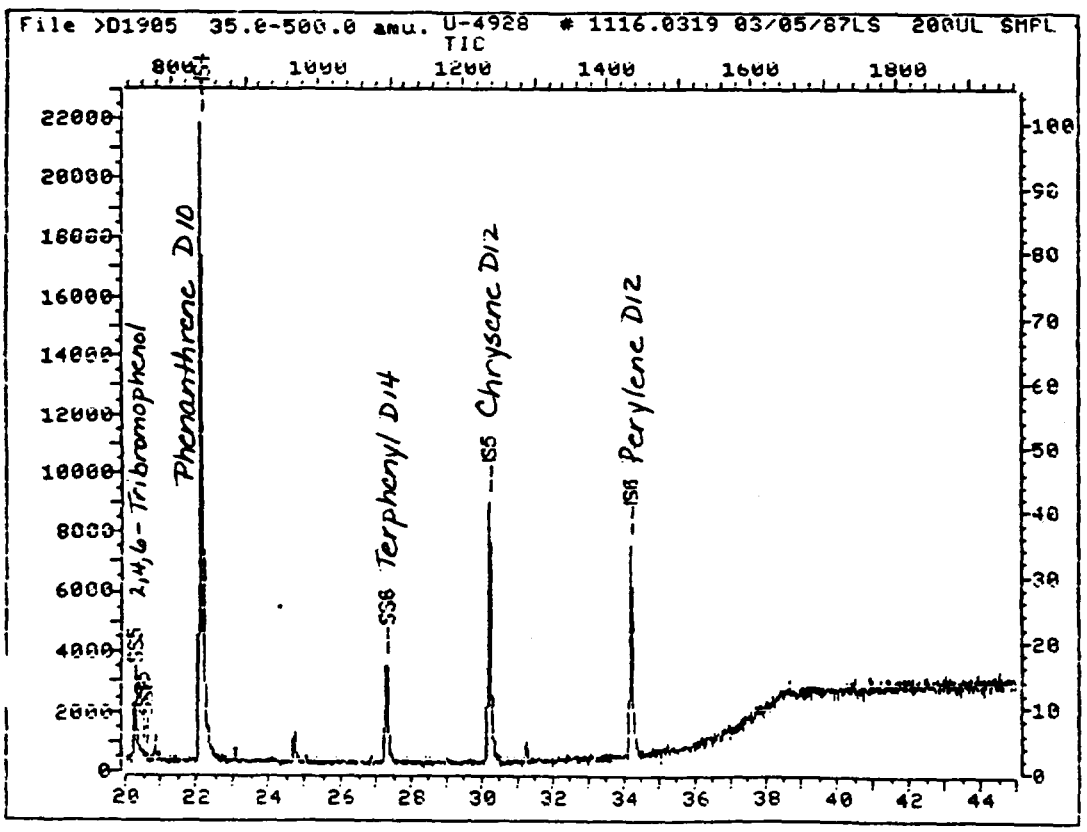
Data File: >D1905::03
Name: U-4928 # 1116.0319 DC-08-65
Misc: 03/05/87LS 200UL SMPL + 200UL MSLL2 + 40L IS (2X) BTL# 2

Id File: BNADR::02
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

Operator ID: USER6
Quant Time: 870305 23:57
Injected at: 870305 23:10


File >D1905 35.0-500.0 amu. U-4928 # 1116.0319 03/05/87LS 200UL SMPL
TIC
2-Fluorophenol
Phenol D5
1,4-Dichlorobenzene D4
Nitrobenzene D5
Naphthalene D8
2-Fluorobiphenyl
Acenaphthene D10

DC-08-65


File >D1905 35.0-500.0 amu. U-4928 # 1116.0319 03/05/87LS 200UL SMPL
TIC
2,4,6-Tribromophenol
Phenanthrene D10
Terphenyl D14
Chrysene D12
Perylene D12

QUANT REPORT

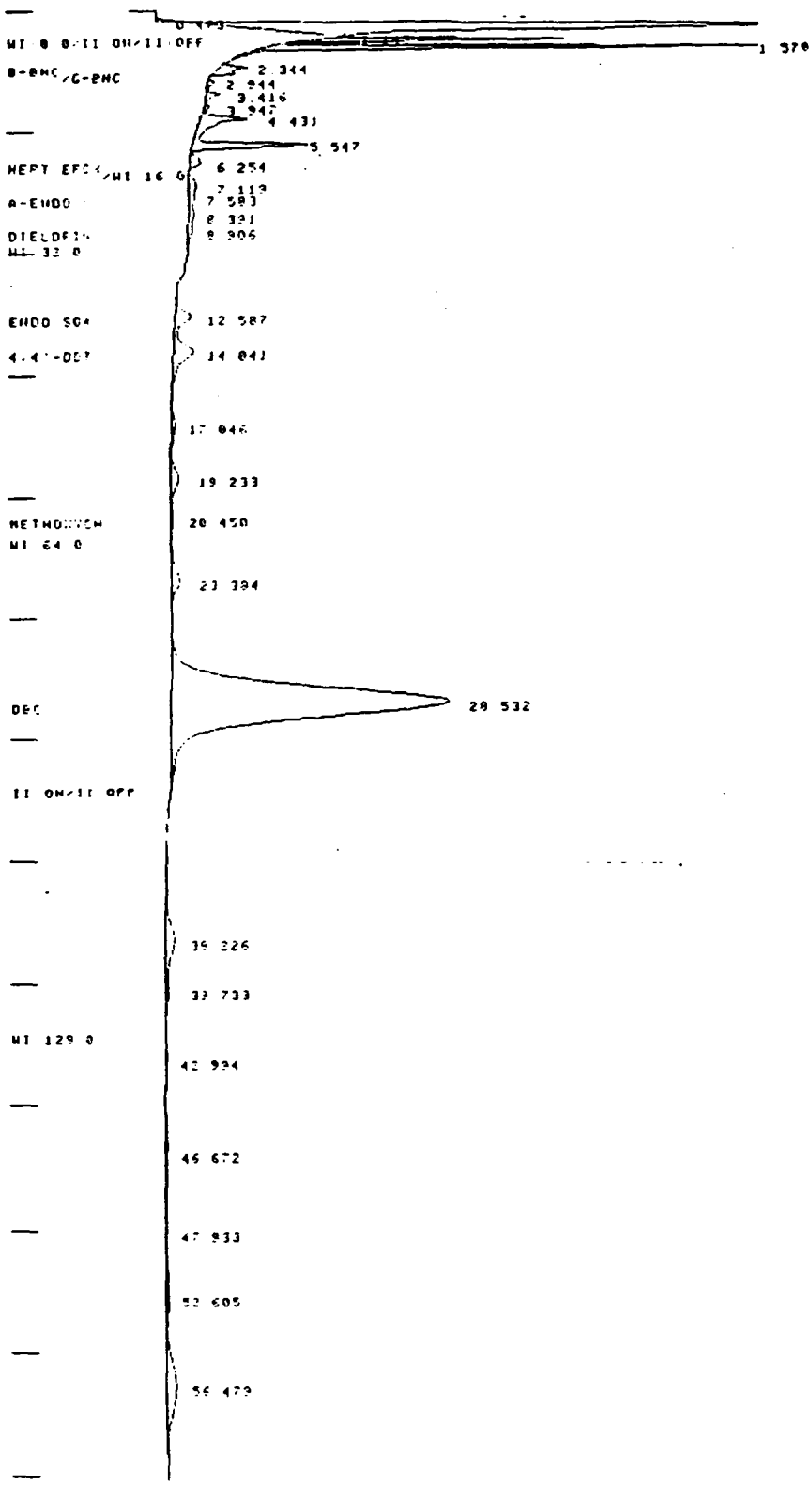
Operator ID: USER6 Quant Rev: 4 Quant Time: 870305 23:57
Output File: ^D1905::02 Injected at: 870305 23:10
Data File: >D1905::03 Dilution Factor: 2.00
Name: U-4928 # 1116.0319 DC-08-65
Misc: 03/05/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 2

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.60	178	49494	40.00	UG/L	87
2)	PHENOL-D5	(SURR)	99	8.34	165	52144	55.38	UG/L 55 ✓	98
5)	2-FLUOROPHENOL	(SURR)	112	5.28	15	39313	92.69	UG/L 93 ✓	69
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~73~~	~~10.44~~	~~268~~	~~4522~~	~~6.12~~	~~UG/L~~	~~90~~ CW
19)	*NAPHTHALENE-D8	(IS)	136	12.41	365	163522	40.00	UG/L	100
20)	NITROBENZ-NE-D5	(SURR)	82	10.44	268	30000	34.45	UG/L 69 ✓	89
34)	*ACENAPHTHENE-D10	(IS)	162	17.73	626	54844	40.00	UG/L	94
38)	2-FLUOROBIPHENYL	(SURR)	172	15.94	538	42874	38.72	UG/L 77 ✓	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~151~~	~~17.73~~	~~626~~	~~10446~~	~~13.02~~	~~UG/L~~	~~100~~ CW
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.24	749	3246	25.41	UG/L 32 ✓	96
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.44	759	518	4.05	UG/L	99
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.56	765	336	2.63	UG/L	92
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.73~~	~~626~~	~~7388~~	~~49.83~~	~~UG/L~~	~~100~~ CW
55)	*PHENANTHRENE-D10	(IS)	188	22.11	841	47276	40.00	UG/L	94
63)	DI-N-BUTYLPHTHALATE		149	24.74	970	3656	6.58	UG/L yes	96
65)	*CHRYSENE-D12	(IS)	240	30.17	1237	21133	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.30	1096	10430	50.29	UG/L 101 ✓	100
74)	*PERYLENE-D12	(IS)	264	34.19	1434	17161	40.00	UG/L	100

* Compound is ISTD

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



CHANNEL: TA - 1 TITLE: RUN# 24 DC-OB-65 9:11 25 FEB 87

SAMPLE: 1116 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		[illegible]	[illegible]		[illegible]	BV	4.25

DC-OB-65

CHANNEL: 1A - 1 TITLE: RUN# 24 9:11 25 FEB 87

SAMPLE: 1116 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/mg	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.280		161048	BV	4.25
2		0.0000	1.570		392549	VB	5.00
3		21.2858	2.344	-0.046	29079	BV	7.50
4		5.9103	2.566	-0.044	21518	VV	? 6.38
5		0.0000	3.416		20096	VB	8.13
6		0.0000	4.431		88224	VV	13.63
7		0.0000	4.675		44196	VV	? 11.81
8		0.0000	5.547		184776	VV	11.63
9		11.0487	6.254	0.114	39366	VB	? 23.94
10		0.0000	7.119		37099	BV	? 30.38
11		9.6646	8.391	-0.349	33098	VV	? 69.69
12		28.2104	12.587	-0.263	69596	BV	30.75
13		49.4010	14.041	-0.209	119326	VB	36.94
14		8.3101	17.046	0.636	30477	BV	60.63
15		0.0000	19.233		50571	VV	51.06
16		0.0000	23.384		57278	BB	56.56
17	DBC 164%	1090.514	28.532	0.052	3040467	BB	81.19
18		0.0000	38.226		101336	BV	93.38
19		0.0000	39.733		21098	VB	?130.00
20		0.0000	46.672		23030	VV	?106.69
21		0.0000	47.933		27892	VV	?
22		0.0000	52.605		34821	VV	?168.25
23		0.0000	56.479		159719	VV	136.31
TOTALS:		1224.345		-0.109	4786662		

DETECTED PKS: 36 REJECTED PKS: 13

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

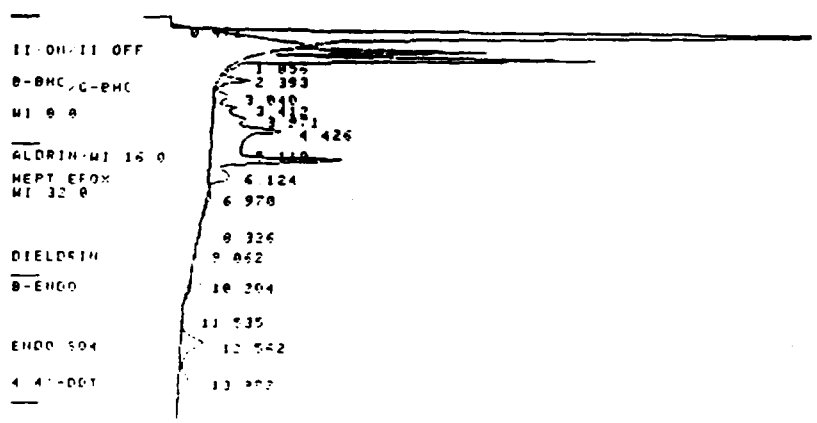
NOISE: 11.4 OFFSET: -14

RACK: 2 VIAL: 9 INJ: 1

NOTES:
NOTEBOOK:259-117,118 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4928
INST: VARIAN 6030# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

POST RUN:
SAVE FILE: RAW TURK222

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



SAMPLE NUMBER DC-06-66

481095

DC-06-66

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1117

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Sojtowicz

Date Sample Received: 2-19-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-24-87

Conc/Dil Factor: 1 pH 7.7

Percent Moisture: (Not Decanted) 19

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	3 J
67-64-1	Acetone	370 B
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	16 B
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

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

Laboratory Name Ecology & Environment

Case No V-4906, 4928, 4971, 4989

Sample Number DC-06-66

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared: 2-19-87

Date Analyzed: 3-6-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 19

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

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

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-06-66

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-25-87

Conc/Dil Factor 1

Percent Moisture (decanted) 19

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

Form 1

7/85
491005

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

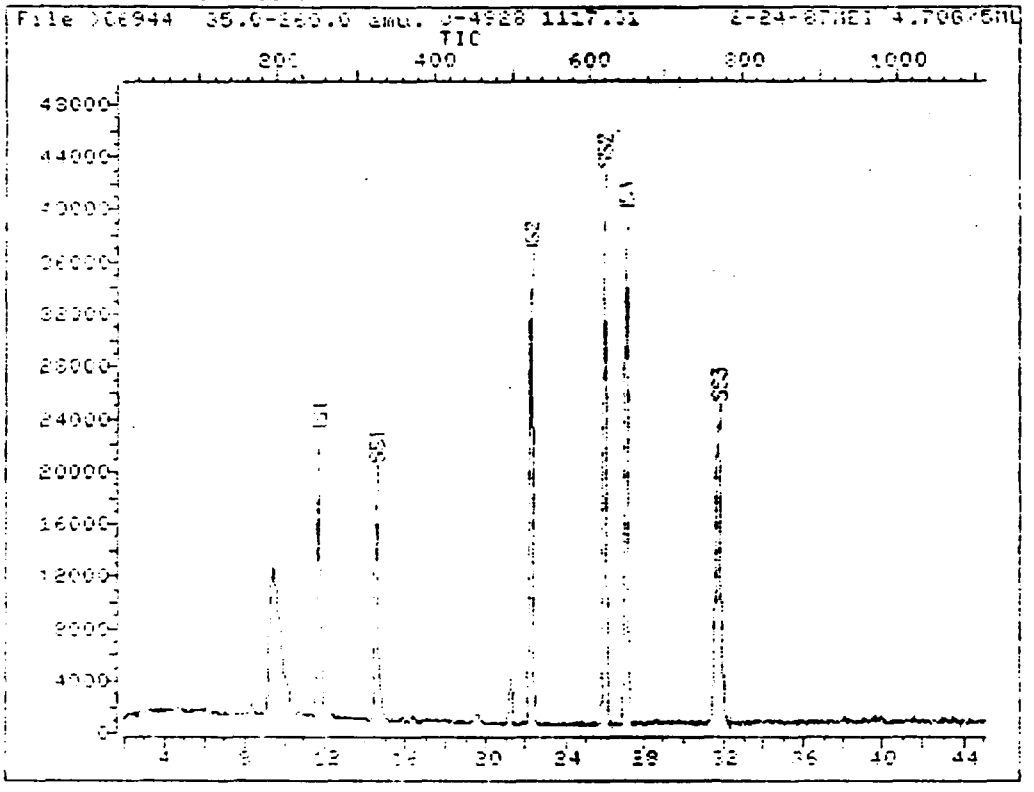
Sample Number DC-06-66

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexane isomer	VOA	21.2	6 J
2.				
3.	No TIC's in BNA fraction			
4.				
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

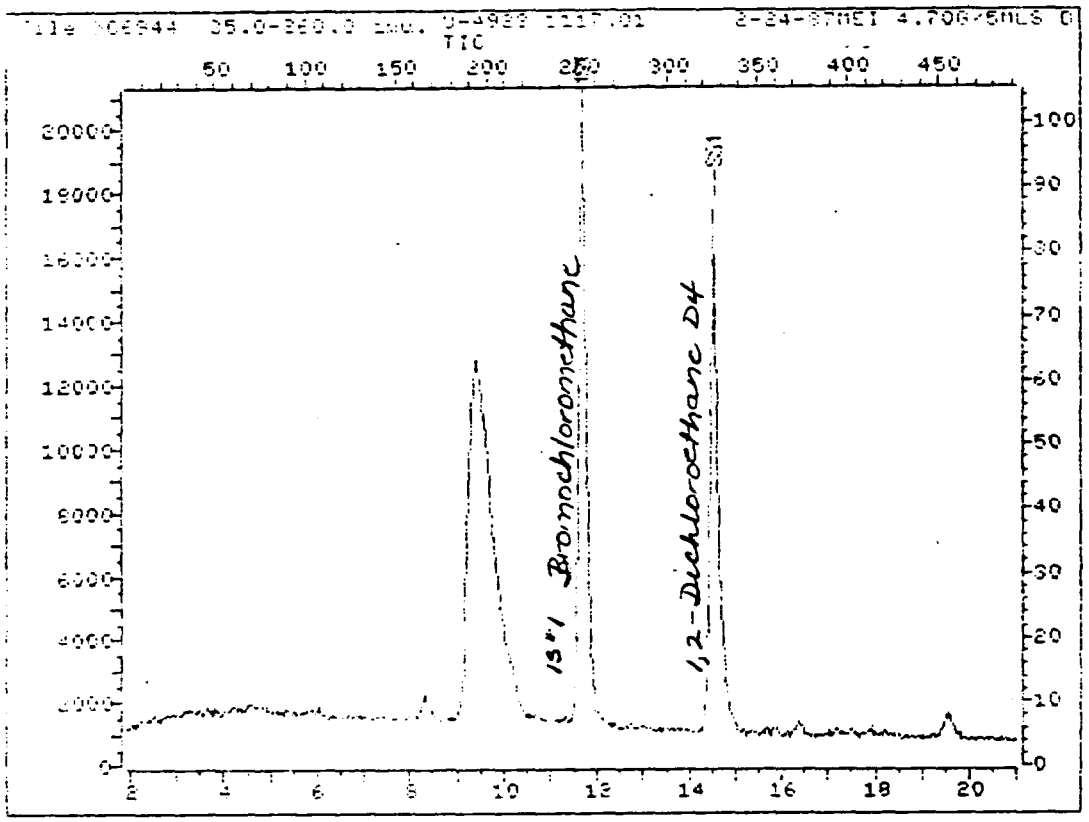


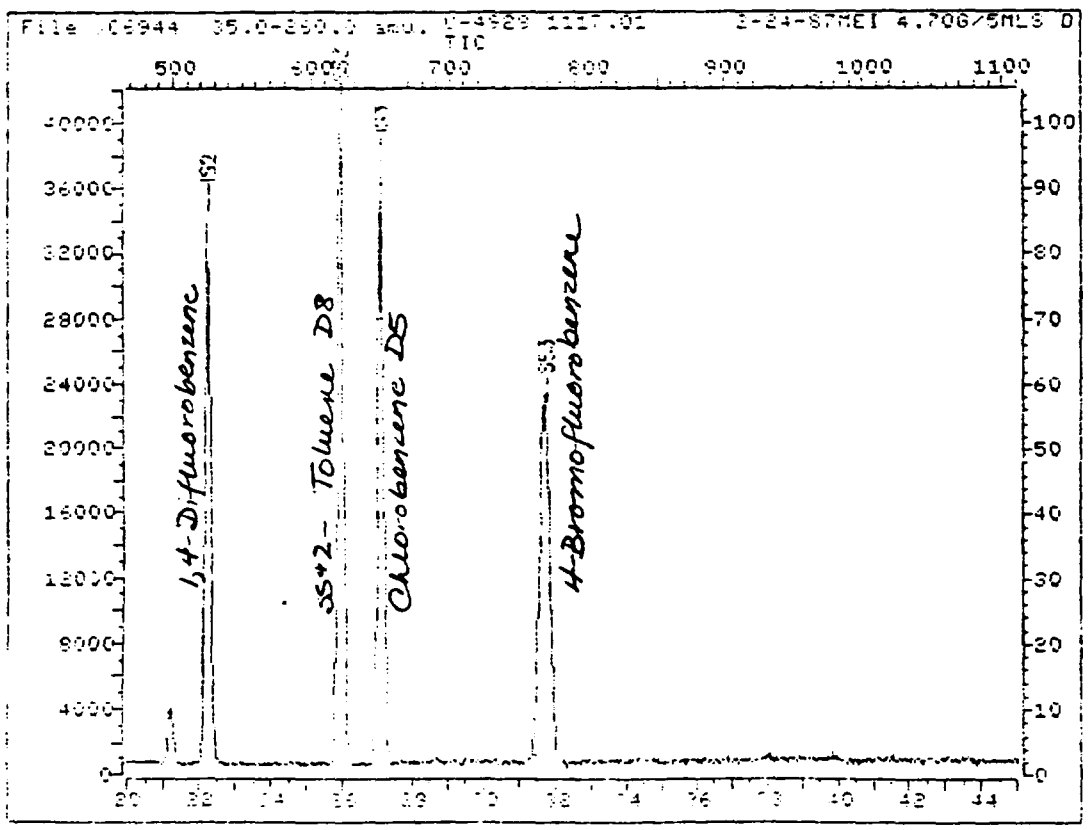
Data File: >C6944::D1
Name: U-4928 1117.0 DC-06-66
Misc: 2-24-87MEI 4.70G/5MLS DI + 10UL IS/SS

Id File: VOAIFS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870224 15:45

Operator ID: USER8
Quant Time: 870224 19:17
Injected at: 870224 18:31

DC-06-66


TIC
13*1 Bromochloromethane
1,2-Dichloroethane D4


TIC
1,4-Difluorobenzene
35*2- Toluene D8
Chlorobenzene D5
4-Bromofluorobenzene

QUANT REPORT

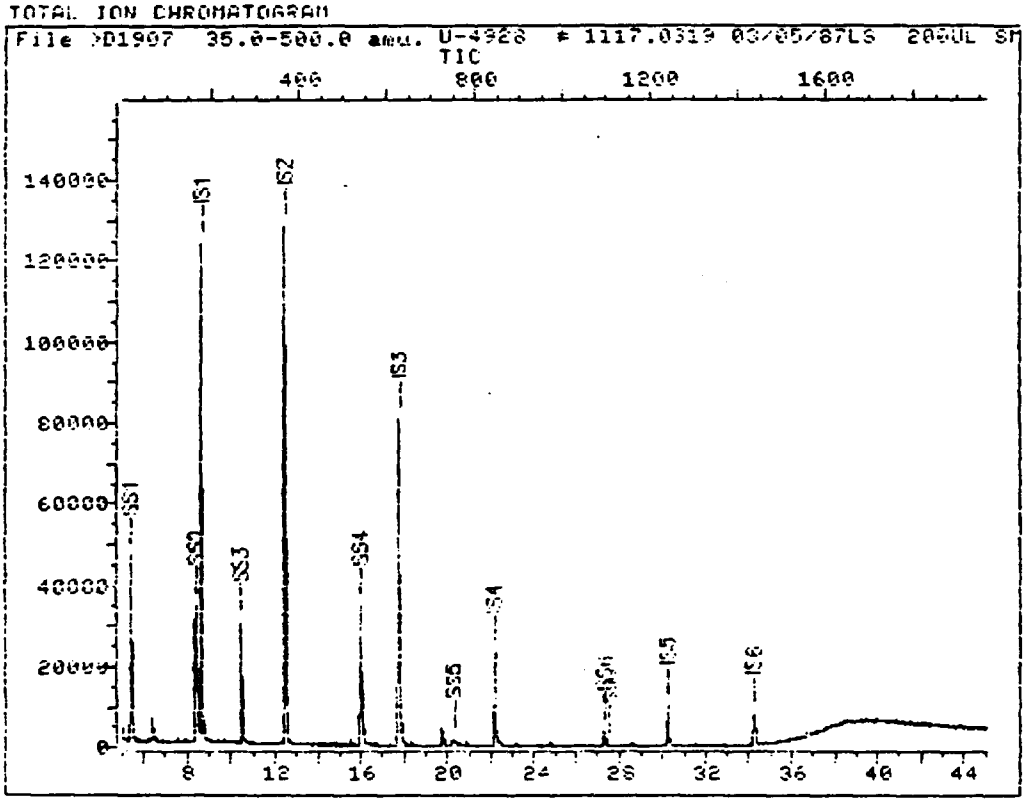
Operator ID: USER3 Quant Rev: 4 Quant Time: 870224 19:17
Output File: \C6944::Q2 Injected at: 870224 18:31
Data File: \C6944::D1 Dilution Factor: 1.00
Name: U-4928 1117.01 DC-06-66
Misc: 2-24-87MEI 4.7AG/5MLS DI - 10UL IS/SS

ID File: VOACPS::DC
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.
Last Calibration: 870224 15:45

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.66	252	28992	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.32	166	2113	12.10	NGS	100
7)	ACETONE	43	9.41	194	290113	1731.04	NGS E	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.57	326	74637	246.61	NGS	83 ✓
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.25	525	135168	250.00	NGS	100
17)	2-BUTANONE	72	14.76	332	2863	75.44	NGS	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.10	650	118418	250.00	NGS	100 ✓
36)	TOLUENE-D8 SURR	98	25.94	620	148291	249.26	NGS	95 ✓
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.77	769	79703	241.25	NGS	100 ✓

* Compound is ISTD

TOTAL ION CHROMATOGRAM

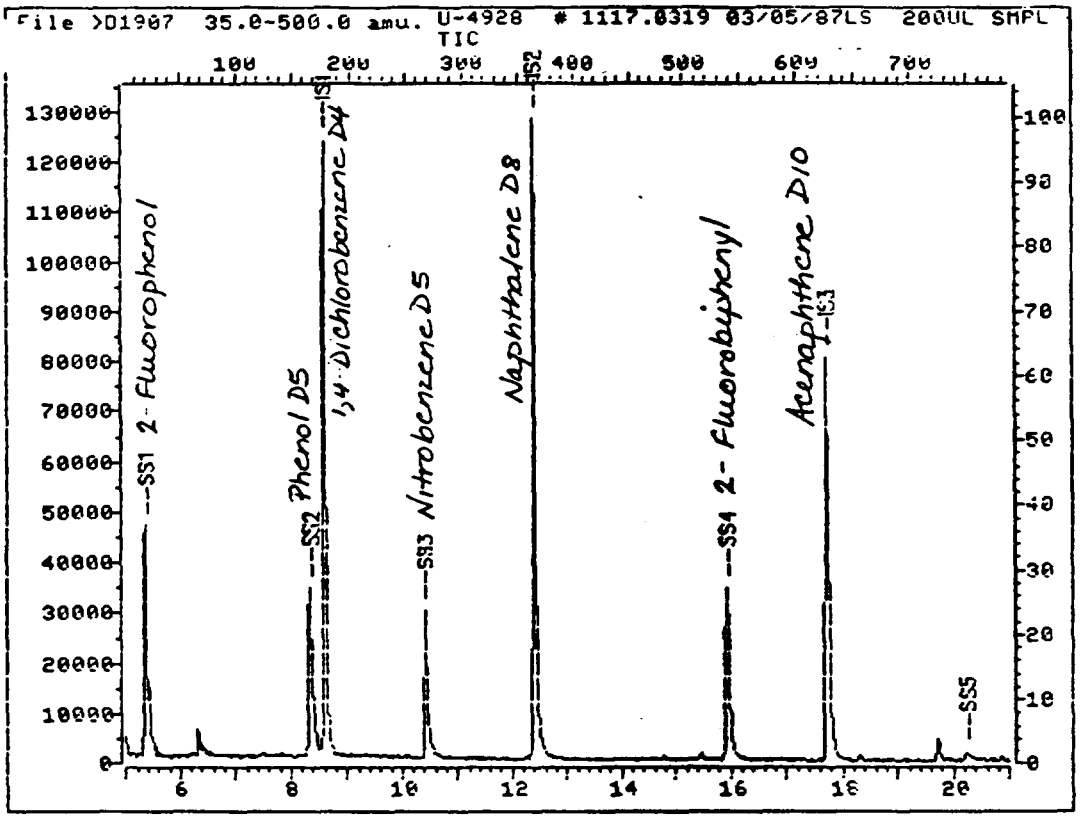


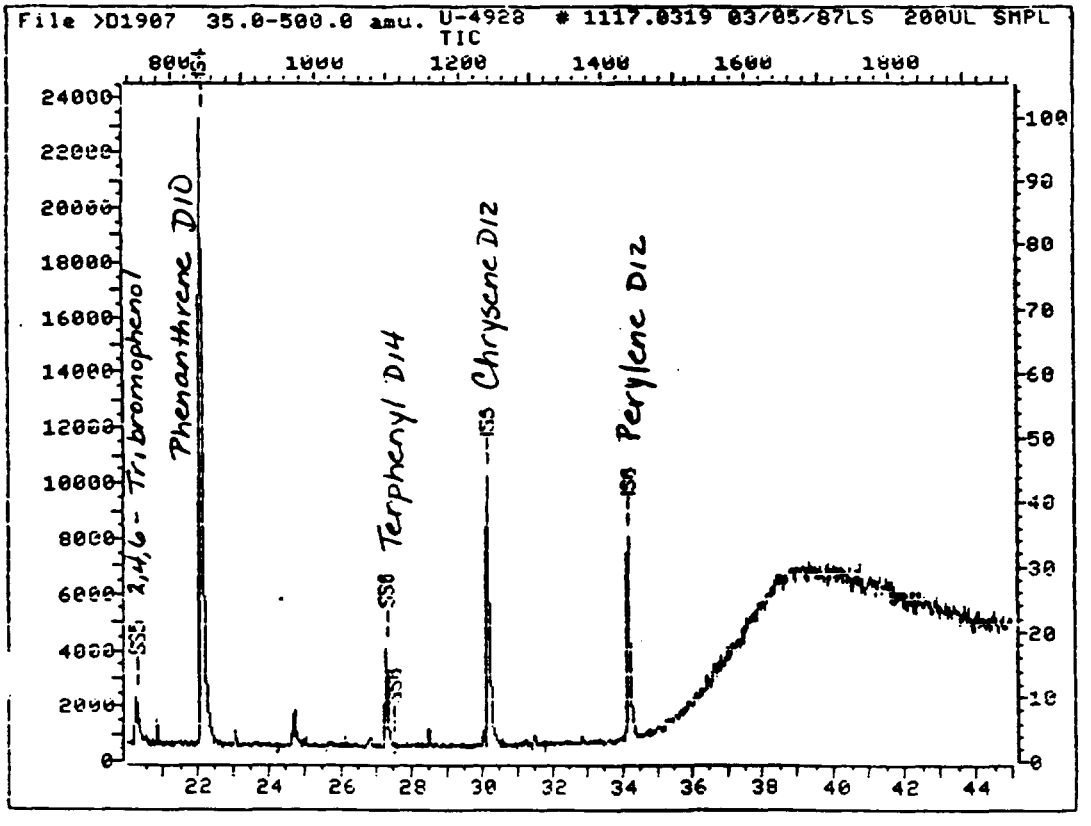
Data File: >D1907::D3
Name: U-4928 # 1117.0319 DC-06-66
Misc: 03/05/87LS 200UL SMPL + 200UL MEOL2 + 4UL IS (2X) BIL# 4

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

Operator ID: USER6
Quant Time: 870306 10:00
Injected at: 870306 09:13

DC-06-66


File >D1907 35.0-500.0 amu. U-4928 # 1117.0319 03/05/87LS 200UL SMPL
TIC
SS1 2-Fluorophenol
SS2 Phenol D5
1,4-Dichlorobenzene D4
SS3 Nitrobenzene D5
Naphthalene D8
SS4 2-Fluorobiphenyl
Acenaphthene D10
SS5


File >D1907 35.0-500.0 amu. U-4928 # 1117.0319 03/05/87LS 200UL SMPL
TIC
SS5 2,4,6-Tribromophenol
Phenanthrene D10
SS6 Terphenyl D14
Chrysene D12
Perylene D12

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870306 10:00
Output File: ^D1907::02 Injected at: 870306 09:13
Data File: >D1907::03 Dilution Factor: 2.00
Name: U-4928 # 1117.0319 DC-06-66
Misc: 03/05/87LS 200UL SMPL + 200UL MEOH2 + 4UL IS (2X) BTL# 4

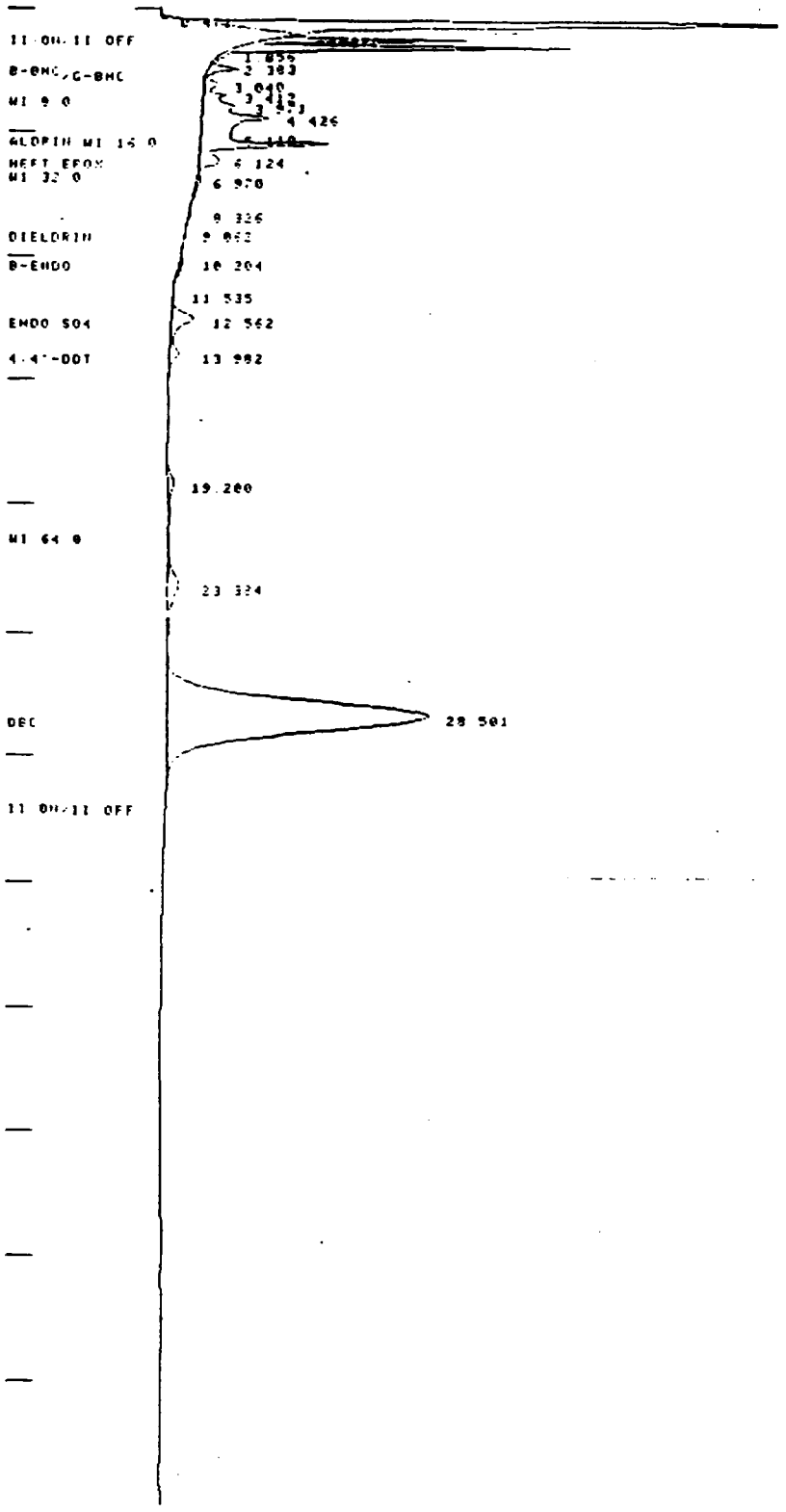
ID File: BNADR::02
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.60	178	63713	40.00 UG/L	88
2)	PHENOL-D5	(SURR)	99	8.36	166	53734	44.33 UG/L	90
5)	2-FLUOROPHENOL	(SURR)	112	5.36	19	29064	53.23 UG/L	90
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~[illegible]~~	~~10.41~~	~~267~~	~~5329~~	~~5.48 UG/L~~	~~99~~
19)	*NAPHTHALENE-D8	(IS)	136	12.39	364	197937	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.41	267	33666	31.93 UG/L	94
34)	*ACENAPHTHENE-D10	(IS)	162	17.23	626	63055	40.00 UG/L	95
38)	2-FLUOROBIPHENYL	(SURR)	172	15.43	548	49580	38.94 UG/L	97
~~41)~~	~~DIMETHYL P-TERPHTHALATE~~		~~[illegible]~~	~~17.23~~	~~628~~	~~12191~~	~~1[illegible].22 UG/L~~	~~100~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.25	750	3961	26.97 UG/L	93
~~52)~~	~~2,6-DINITROTOLUENE~~		~~[illegible]~~	~~17.93~~	~~625~~	~~8318~~	~~44.89 UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.11	841	51326	40.00 UG/L	93
65)	*CHRYSENE-D12	(IS)	240	30.17	1237	25513	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.30	1096	11087	44.28 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.52	1107	218	.87 UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.18	1434	19585	40.00 UG/L	100

CW CW

* Compound is ISTD

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



DC-06-66

CHANNEL: 1A - 1 TITLE: RUN# 25 10:16 25 FEB 87

SAMPLE: 1117 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/g	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.273		138645	BV	4.31
2		0.0000	1.597		381674	VB	5.05

DC-06-66

CHANNEL: 1A - 1 TITLE: RUN# 25 10:16 25 FEB 87

SAMPLE: 1117 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/A2	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.279		138646	BV	4.31
2		0.0000	1.567		381674	VB	5.06
3	[redacted]	26.2729	2.383	-0.007	35892	VV	? 9.56
4		0.0000	3.040		28355	BV	? 14.31
5		0.0000	3.412		29370	VV	? 9.00
6	[redacted]	29.7726	3.971	-0.159	104833	VV	? 18.13
7		0.0000	4.426		261945	VV	26.88
8	[redacted]	7.8584	5.110	0.030	29842	VV	?
9		0.0000	5.539		244006	VV	13.31
10	[redacted]	19.5088	6.124	-0.016	69509	VB	27.81
11	[redacted]	38.7203	12.562	-0.288	95527	VV	29.94
12	[redacted]	17.1818	13.982	-0.268	41502	VB	28.06
13		0.0000	19.200		36432	BB	57.44
14		0.0000	23.384		88981	BV	64.00
15	DBC 147%	980.3447	28.501	0.021	2733303	VB	81.56
TOTALS:		1119.653		-0.687	4319817		

DETECTED PKS: 27 REJECTED PKS: 12

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

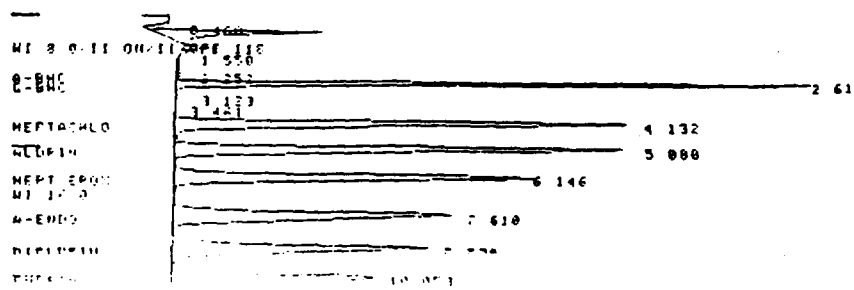
NOISE: 11.4 OFFSET: 9

RACK: 2 VIAL: 10 INJ: 1

NOTES:
NOTEBOOK:259-117,118 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4928
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

POST RUN:
SAVE FILE: RAW TURK223

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



SAMPLE NUMBER DC-66-67

481095

DC-G6-67

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989

Lab Sample ID No: 1274

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-26-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-26-84

Conc/Dil Factor: 2 pH 6.5

Percent Moisture: (Not Decanted) 15

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000U
74-83-9	Bromomethane	2000U
75-01-4	Vinyl Chloride	2000U
75-00-3	Chloroethane	2000U
75-09-2	Methylene Chloride	920 BJ
67-64-1	Acetone	3500 B
75-15-0	Carbon Disulfide	1000U
75-35-4	1, 1-Dichloroethene	1000U
75-34-3	1, 1-Dichloroethane	1000U
156-60-5	Trans-1, 2-Dichloroethene	1000U
67-66-3	Chloroform	1000U
107-06-2	1, 2-Dichloroethane	370 J
78-93-3	2-Butanone	7600 B
71-55-6	1, 1, 1-Trichloroethane	1000U
56-23-5	Carbon Tetrachloride	1000U
108-05-4	Vinyl Acetate	2000U
75-27-4	Bromodichloromethane	1000U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000U
10061-02-6	Trans-1, 3-Dichloropropene	1000U
79-01-6	Trichloroethene	970 J
124-48-1	Dibromochloromethane	1000U
79-00-5	1, 1, 2-Trichloroethane	1000U
71-43-2	Benzene	8400
10061-01-5	cis-1, 3-Dichloropropene	1000U
110-75-8	2-Chloroethylvinylether	2000U
75-25-2	Bromoform	1000U
108-10-1	4-Methyl-2-Pentanone	1000 J
591-78-6	2-Hexanone	2000U
127-18-4	Tetrachloroethene	10000
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000U
108-88-3	Toluene	100,000
108-90-7	Chlorobenzene	23000 B
100-41-4	Ethylbenzene	840 J
100-42-5	Styrene	1000U
	Total Xylenes	1900

Data Reporting Qualifiers

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

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

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

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

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

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

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

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

Laboratory Name Ecology & Environment

Case No U-4906, 4928, 4971, 4989

Sample Number DC-G6-67

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 02-26-87

Date Analyzed 03-18-87

Conc/Dil Factor: 20

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	33000u
111-44-4	bis(2-Chloroethyl)Ether	33000u
95-57-8	2-Chlorophenol	33000u
541-73-1	1,3-Dichlorobenzene	33000u
106-46-7	1,4-Dichlorobenzene	33000u
100-51-6	Benzyl Alcohol	33000u
95-50-1	1,2-Dichlorobenzene	33000u
95-48-7	2-Methylphenol	33000u
39638-32-9	bis(2-chloroisopropyl)Ether	33000u
106-44-5	4-Methylphenol	33000u
621-64-7	N-Nitroso-Di-n-Propylamine	33000u
67-72-1	Hexachloroethane	33000u
98-95-3	Nitrobenzene	33000u
78-59-1	Isophorone	33000u
88-75-5	2-Nitrophenol	33000u
105-67-9	2,4-Dimethylphenol	33000u
65-85-0	Benzoic Acid	160000u
111-91-1	bis(2-Chloroethoxy)Methane	33000u
120-83-2	2,4-Dichlorophenol	12000 J
120-82-1	1,2,4-Trichlorobenzene	88000
91-20-3	Naphthalene	290000
106-47-8	4-Chloroaniline	33000u
87-68-3	Hexachlorobutadiene	33000u
59-50-7	4-Chloro-3-Methylphenol	33000u
91-57-6	2-Methylnaphthalene	7400 J
77-47-4	Hexachlorocyclopentadiene	33000u
88-06-2	2,4,6-Trichlorophenol	33000u
95-95-4	2,4,5-Trichlorophenol	160000u
91-58-7	2-Chloronaphthalene	33000u
88-74-4	2-Nitroaniline	160000u
131-11-3	Dimethyl Phthalate	33000u
208-96-8	Acenaphthylene	33000u
99-09-2	3-Nitroaniline	160000u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	33000u
51-28-5	2,4-Dinitrophenol	160000u
100-02-7	4-Nitrophenol	160000u
132-64-9	Dibenzofuran	33000u
121-14-2	2,4-Dinitrotoluene	33000u
606-20-2	2,6-Dinitrotoluene	33000u
84-66-2	Diethylphthalate	33000u
7005-72-3	4-Chlorophenyl-phenylether	33000u
86-73-7	Fluorene	33000u
100-01-6	4-Nitroaniline	160000u
534-52-1	4,6-Dinitro-2-Methylphenol	160000u
86-30-6	N-Nitrosodiphenylamine (1)	33000u
101-55-3	4-Bromophenyl-phenylether	33000u
118-74-1	Hexachlorobenzene	33000u
87-86-5	Pentachlorophenol	20000 J
85-01-8	Phenanthrene	11000 J
120-12-7	Anthracene	33000u
84-74-2	Di-n-Butylphthalate	15000 J
206-44-0	Fluoranthene	5600 J
129-00-0	Pyrene	33000u
85-68-7	Butylbenzylphthalate	33000u
91-94-1	3,3'-Dichlorobenzidine	66000u
56-55-3	Benzo(a)Anthracene	33000u
117-81-7	bis(2-Ethylhexyl)Phthalate	33000u
218-01-9	Chrysene	33000u
117-84-0	Di-n-Octyl Phthalate	33000u
205-99-2	Benzo(b)Fluoranthene	33000u
207-08-9	Benzo(k)Fluoranthene	33000u
50-32-8	Benzo(a)Pyrene	33000u
193-39-5	Indeno(1,2,3-cd)Pyrene	33000u
53-70-3	Dibenz(a,h)Anthracene	33000u
191-24-2	Benzo(g,h,i)Perylene	33000u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No

Sample Number DG-G6-67

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-26-87

Date Analyzed 3-11-87

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	16,000u
319-85-7	Beta-BHC	16,000u
319-86-8	Delta-BHC	16,000u
58-89-9	Gamma-BHC (Lindane)	16,000u
76-44-8	Heptachlor	16,000u
309-00-2	Aldrin	16,000u
1024-57-3	Heptachlor Epoxide	16,000u
959-98-8	Endosulfan I	16,000u
60-57-1	Dieldrin	32,000u
72-55-9	4,4'-DDE	45,000
72-20-8	Endrin	32,000u
33213-65-9	Endosulfan II	32,000u
72-54-8	4,4'-DDD	32,000u
1031-07-8	Endosulfan Sulfate	32,000u
50-29-3	4,4'-DDT	32,000u
72-43-5	Methoxychlor	160,000u
53494-70-5	Endrin Ketone	32,000u
57-74-9	Chlordane	160,000u
8001-35-2	Toxaphene	320,000u
12674-11-2	Aroclor-1016	160,000u
11104-28-2	Aroclor-1221	160,000u
11141-16-5	Aroclor-1232	160,000u
53469-21-9	Aroclor-1242	160,000u
12672-29-6	Aroclor-1248	160,000u
11097-69-1	Aroclor-1254	320,000u
11096-82-5	Aroclor-1260	650,000

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 3 V_t 1000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

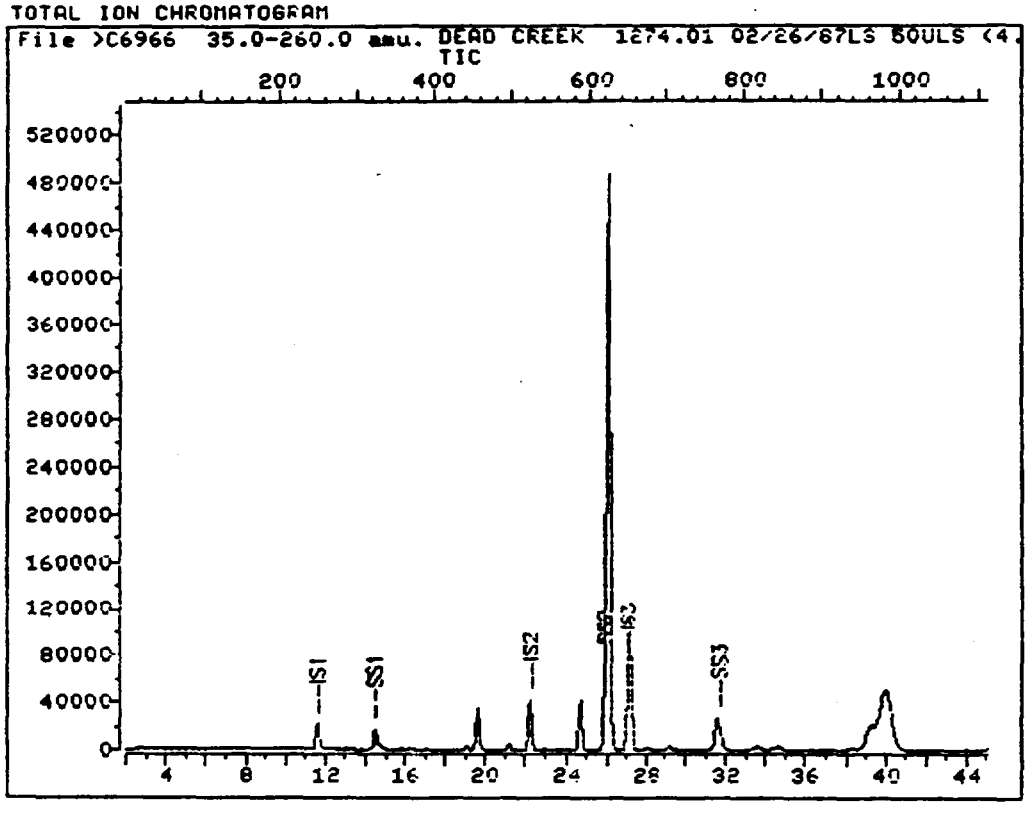
Sample Number DC-G6-67

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Dichlorobenzene isomer	VOA	39.3	8200 J
2.	Dichlorobenzene isomer	VOA	40.0	28000 J
3.				
4.				
5. 95943	Benzene, 1,2,4,5-tetrachloro-	BNA	16.58	77,000 J
6. 95829	Benzenamine, 2,5-dichloro-		16.68	390,000 J
7. 608311	Benzenamine, 2,6-dichloro-		17.00	200,000 J
8. 634662	Benzene, 1,2,3,4-tetrachloro		17.43	120,000 J
9.	Unknown chlorinated Compound		18.00	62,000 J
10. 608935	Pentachlorobenzene		19.76	37,000 J
11.	Unknown hydrocarbon		20.59	61,000 J
12. 55191258	Benzene, (1,1-dimethylnonyl)-		20.84	51,000 J
13.	Butenedioic acid ester		20.88	63,000 J
14.	Isomeric Dodecylbenzene		21.06	58,000 J
15.	Unknown substituted benzene		21.12	62,000 J
16.	Unknown substituted benzene		21.63	160,000 J
17.	Unknown substituted benzene		21.69	330,000 J
18.	Unknown substituted benzene		21.84	160,000 J
19. 27854406	Benzene, (1,1-dimethyldecyl)-		21.92	220,000 J
20.	Unknown substituted benzene		22.00	230,000 J
21.	~~Unknown substituted benzene~~ cw		~~22.00~~	~~230,000 J~~
22.	Unknown substituted benzene		22.57	300,000 J
23.	Unknown substituted benzene		22.65	130,000 J
24	Unknown substituted benzene		22.80	82,000 J
25.				
26.				
27.				
28.				
29.				
30				

TOTAL ION CHROMATOGRAM

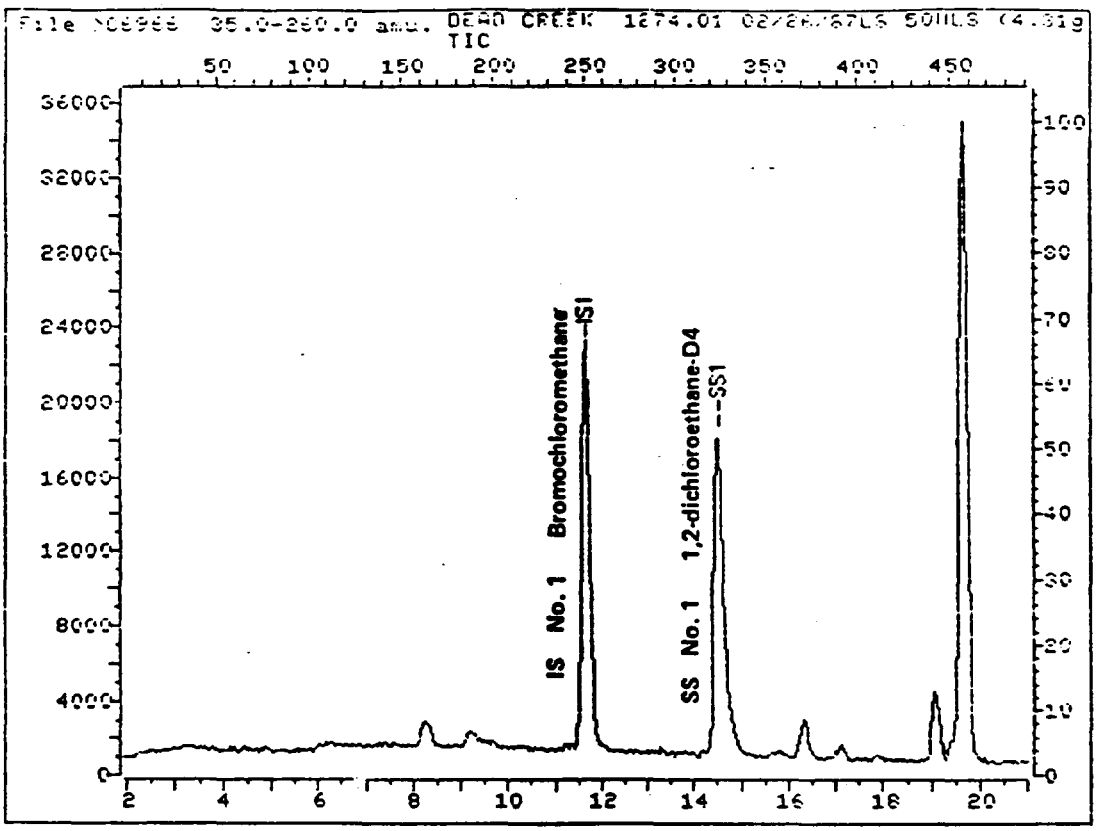


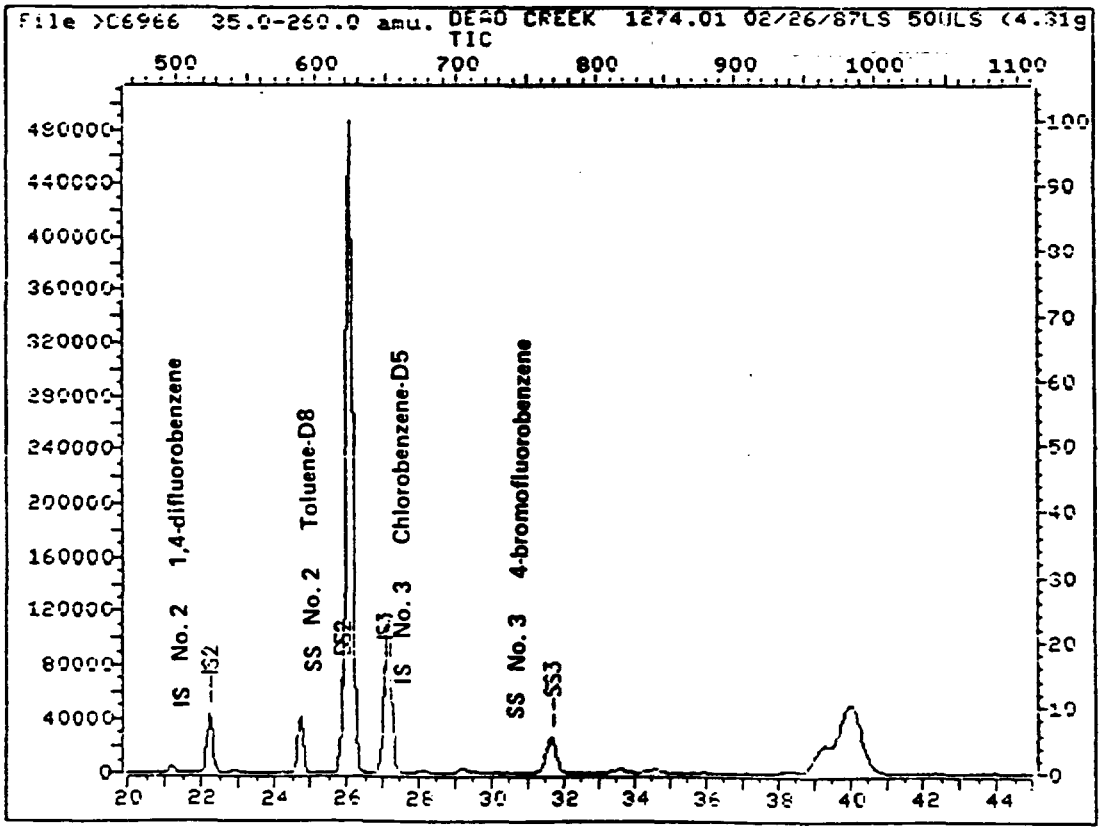
Data File: >C6966::D3
Name: DEAD CREEK 1274.01 DC-G6-67
Misc: 02/26/87LS 50ULS (4.31g SOIL IN 10ML MEOH) + 10 ULS IS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870226 14:59

Operator ID: USER8
Quant Time: 870226 17:39
Injected at: 870226 16:53

DC-G6-67


File >C6966 35.0-260.0 amu. DEAD CREEK 1274.01 02/26/87LS 50ULS (4.31g
TIC
IS No. 1 Bromochloromethane
IS1
SS No. 1 1,2-dichloroethane-D4
SS1


File >C6966 35.0-260.0 amu. DEAD CREEK 1274.01 02/26/87LS 50ULS (4.31g
TIC
IS No. 2 1,4-difluorobenzene
IS2
SS No. 2 Toluene-D8
SS2
IS No. 3 Chlorobenzene-D5
IS3
SS No. 3 4-bromofluorobenzene
SS3

QUANT REPORT

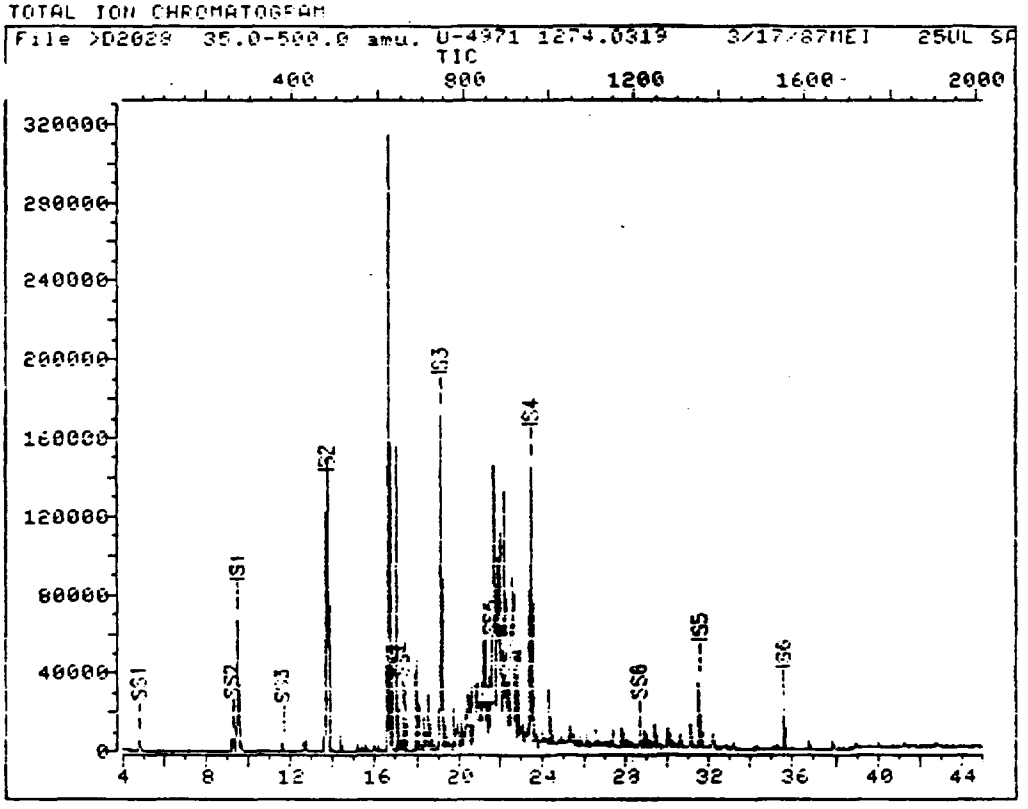
Operator ID: USER8 Quant Rev: 4 Quant Time: 870226 17:39
Output File: ^C6966::Q2 Injected at: 870226 16:53
Data File: >C6966::D3 Dilution Factor: 1.00
Name: DEAD CREEK 1274.01 DC-G6-67
Misc: 02/26/87LS 50ULS (4.31g SOIL IN 10ML MEOH) + 10 ULS IS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870226 14:59

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS) 128	11.62	250	32780	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.28	164	4488	3.96	UG/L	100
7)	ACETONE	43	9.21	188	8767	15.02	UG/L	100
12)	~~TRANS-1,2-DICHLOROETHENE~~	~~96~~	~~15.29~~	~~293~~	~~563~~	~~.93~~	~~UG/L~~ DW	87
14)	1,2-DICHLOROETHANE	62	14.61	327	3190	1.59	UG/L	65
15)	1,2-DICHLOROETHANE-D4	(SURR) 65	14.49	324	78549	49.07	UG/L 98	83
16)	*1,4-DIFLUOROBENZENE	(IS) 114	22.25	524	172291	50.00	UG/L	100
17)	2-BUTANONE	72	14.68	329	5042	32.68	UG/L	100
24)	TRICHLOROETHENE	130	19.07	442	5795	4.19	UG/L	85
27)	BENZENE	78	19.65	457	150296	36.22	UG/L	100
28)	~~CIS-1,3-DICHLOROPROPENE~~	~~75~~	~~19.65~~	~~457~~	~~3088~~	~~2.10~~	~~UG/L~~ DW	100
31)	*CHLOROBENZENE-D5	(IS) 117	27.06	648	143550	50.00	UG/L	100
32)	4-METHYL-2-PENTANONE	43	22.91	541	4353	4.29	UG/L	81
34)	TETRACHLOROETHENE	164	24.73	588	53971	43.14	UG/L	93
36)	TOLUENE-D8	(SURR) 98	25.90	618	181560	48.74	UG/L 98	94
37)	TOLUENE	92	26.09	623	1192653	454.50	UG/L	98
38)	CHLOROBENZENE	112	27.18	651	303611	99.75	UG/L	98
39)	ETHYLBENZENE	91	29.20	703	20372	3.60	UG/L	97
40)	4-BROMOFLUOROBENZENE	(SURR) 95	31.69	767	93628	48.06	UG/L 96	100
42)	TOTAL XYLENES	91	33.63	817	23114	4.98	UG/L	100
42)	TOTAL XYLENES	91	34.56	841	14433	3.11	UG/L	100
43)	1,3-DICHLOROBENZENE	146	38.21	935	2984	2984.00	NO CALIB	100
43)	1,3-DICHLOROBENZENE	146	39.33	964	122001	122001.0	NO CALIB	100
43)	1,3-DICHLOROBENZENE	146	39.99	981	416034	416034.0	NO CALIB	100
44)	1,2-DICLHLOROBENZENE	146	38.21	935	2984	2984.00	NO CALIB	100
44)	1,2-DICLHLOROBENZENE	146	39.33	964	122001	122001.0	NO CALIB	100
44)	1,2-DICLHLOROBENZENE	146	39.99	981	416034	416034.0	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	38.21	935	2984	2984.00	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	39.33	964	122001	122001.0	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	39.99	981	416034	416034.0	NO CALIB	100

* Compound is ISTD

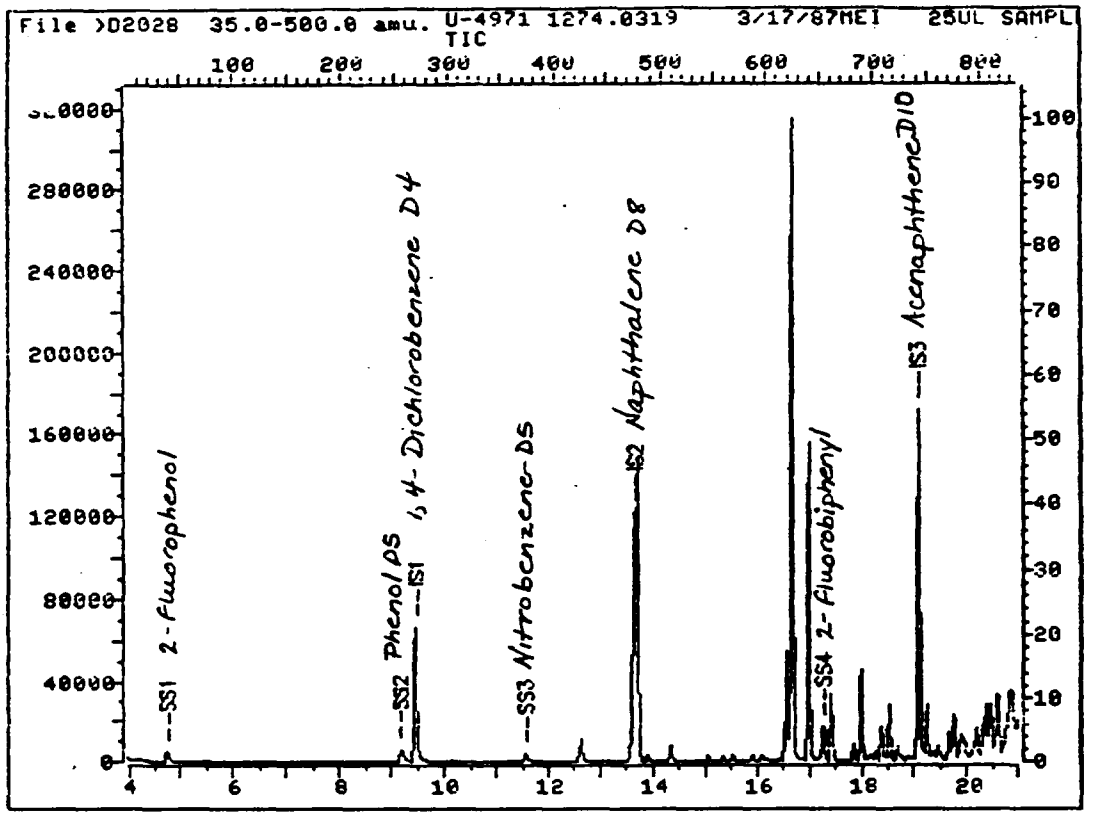
TOTAL ION CHROMATOGRAM



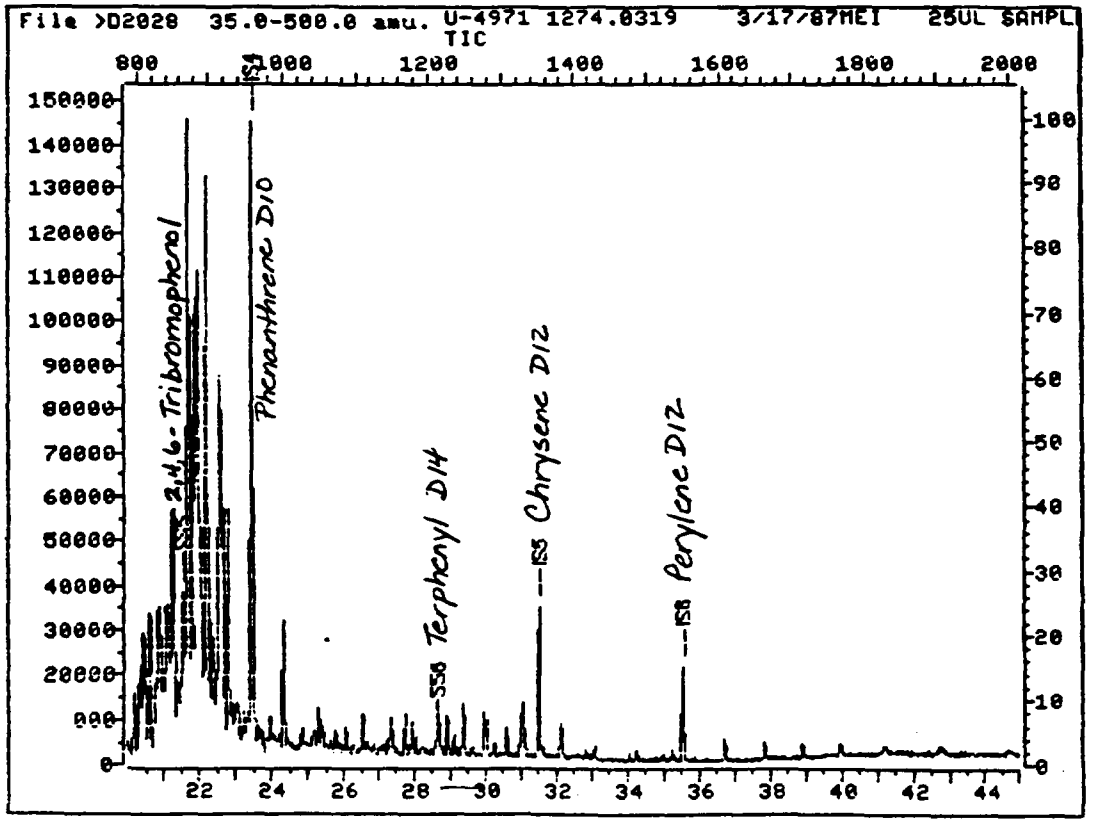
Data File: >D2028::D3
Name: U-4971 1274.0319 DC-G6-67
Misc: 3/17/87MEI 25UL SAMPLE/475UL MECL2 + 5UL IS (20X) BTL# 9

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870317 16:30

Operator ID: USER8
Quant Time: 870318 01:49
Injected at: 870318 01:02


File >D2028 35.0-500.0 amu. U-4971 1274.0319 3/17/87MEI 25UL SAMPL
TIC
--SS1 2-Fluorophenol
--SS2 Phenol D5
--IS1 1,4-Dichlorobenzene D4
--SS3 Nitrobenzene-D5
IS2 Naphthalene D8
--SS4 2-Fluorobiphenyl
--IS3 Acenaphthene D10

DC-G6-67


File >D2028 35.0-500.0 amu. U-4971 1274.0319 3/17/87MEI 25UL SAMPL
TIC
2,4,6-Tribromophenol
IS4 Phenanthrene D10
SS6 Terphenyl D14
--IS5 Chrysene D12
--IS6 Perylene D12

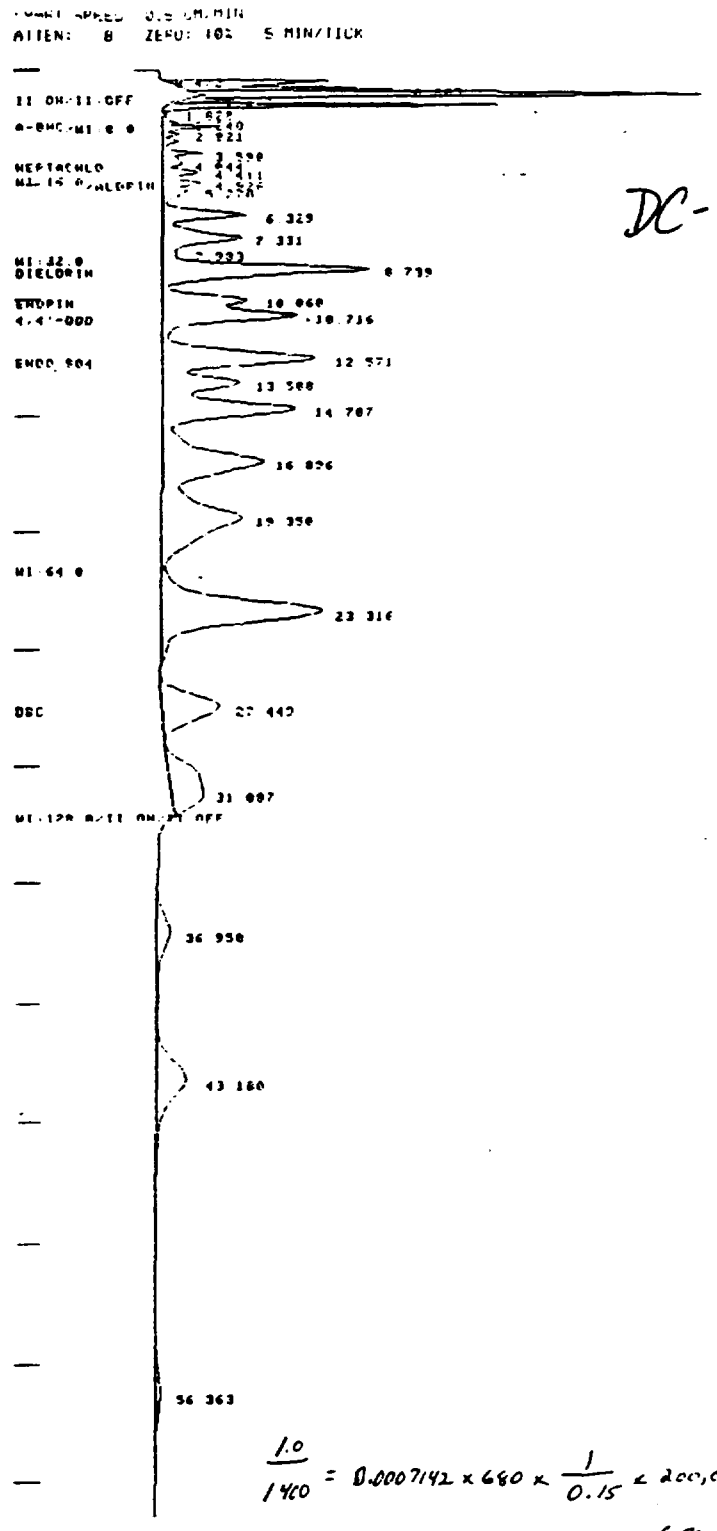
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870318 01:49
Output File: ^D2028::Q2 Injected at: 870318 01:02
Data File: >D2028::D3 Dilution Factor: 20.00
Name: U-4971 1274.0319 DC-G6-67
Misc: 3/17/87MEI 25UL SAMPLE/475UL MECL2 + 5UL IS (20X) BTL# 9

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870317 16:30

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.47	270	36207	40.00	UG/L	84
2)	PHENOL-D5	(SURR)	99	9.18	256	7623	111.90	UG/L	98
5)	2-FLUOROPHENOL	(SURR)	112	4.74	38	5102	117.94	UG/L	73
19)	*NAPHTHALENE-D8	(IS)	136	13.66	476	136906	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.56	373	4142	61.37	UG/L	85
27)	2,4-DICHLOROPHENOL		162	13.56	471	1839	35.21	UG/L yes	89
28)	1,2,4-TRICHLOROBENZENE		180	13.62	474	16600	269.08	UG/L yes	100
29)	NAPHTHALENE		128	13.72	479	147988	873.14	UG/L yes	100
~~32)~~	~~4-CHLORO-3-METHYLPHENOL~~		~~107~~	~~16.58~~	~~619~~	~~2178~~	~~37.51~~	~~UG/L~~	~~24~~
33)	2-METHYLNAPHTHALENE		142	15.92	587	2574	22.52	UG/L yes	96
34)	*ACENAPHTHENE-D10	(IS)	162	19.08	742	92801	40.00	UG/L	94
38)	2-FLUOROBIPHENYL	(SURR)	172	17.27	653	11033	79.39	UG/L	95
~~39)~~	~~2-CHLORONAPHTHALENE~~		~~162~~	~~17.00~~	~~640~~	~~7392~~	~~60.82~~	~~UG/L~~	~~81~~
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.39~~	~~708~~	~~7562~~	~~49.71~~	~~UG/L~~	~~100~~
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.95~~	~~742~~	~~17328~~	~~113.90~~	~~UG/L~~	~~100~~
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~19.25~~	~~750~~	~~3701~~	~~20.09~~	~~UG/L~~	~~100~~
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~19.39~~	~~757~~	~~1665~~	~~9.04~~	~~UG/L~~	~~100~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.53	862	2522	91.14	UG/L	96
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.08~~	~~742~~	~~12531~~	~~341.08~~	~~UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	23.47	957	122889	40.00	UG/L	92
60)	PENTACHLOROPHENOL		266	23.29	948	1705	60.50	UG/L yes	100
61)	PHENANTHRENE		178	23.53	960	4902	32.38	UG/L yes	96
~~62)~~	~~ANTHRACENE~~		~~178~~	~~23.53~~	~~960~~	~~4902~~	~~35.27~~	~~UG/L~~	~~96~~
63)	DI-N-BUTYLPHTHALATE		149	26.08	1085	7522	46.98	UG/L yes	98
64)	FLUORANTHENE		202	27.14	1137	1887	17.00	UG/L yes	91
65)	*CHRYSENE-D12	(IS)	240	31.52	1352	30804	40.00	UG/L	100
~~66)~~	~~BENZIDINE~~		~~184~~	~~27.36~~	~~1148~~	~~693~~	~~693.00~~	~~NO CALIB~~	~~100~~
~~66)~~	~~BENZIDINE~~		~~184~~	~~27.94~~	~~1176~~	~~625~~	~~625.00~~	~~NO CALIB~~	~~100~~
68)	TERPHENYL-D14	(SURR)	244	28.63	1210	3497	73.78	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.54	1549	19912	40.00	UG/L	100

* Compound is ISTD



DC-G6-67

$$\frac{1.0}{1400} = 0.0007142 \times 680 \times \frac{1}{0.15} \times 200{,}000$$

650,000 ug/Kg 1260

CHANNEL: 1A - 1 TITLE: RUN# 15 22:37 11 MAR 87

SAMPLE: 1274 DC-G6-67 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	1.271		43203	BB	4.63
2		0.0000	1.528		272607	BV	5.13
3	[illegible]	942.5145	2.240	0.000	21207	VV	7.06
4	[illegible]	9372.257	2.468	0.088	66215	VV	7.63
5		0.0000	2.821		21359	VV	9.25
6		0.0000	3.114		23133	VV	10.06
7		0.0000	3.598		62816	VV	10.56
8	[illegible]	2162.712	4.044	-0.076	39710	VV	? 19.56
9		0.0000	4.411		88290	VV	19.13
10	[illegible]	3853.295	4.926	-0.134	80869	VV	16.25
11		0.0000	5.270		53979	VV	? 19.00
12		0.0000	5.504		27561	VV	? 12.81
13	[illegible]	13318.71	6.329	0.199	267313	VV	23.44
14	[illegible]	18897.69	7.331	-0.259	357683	VV	31.19
15		0.0000	7.983		28743	VV	? 46.13
16	4,4'-DDE	45340.53	8.739	0.019	832256	VV	27.44
17	[illegible] 1260	17766.66	10.060	0.020	327165	VV	? 30.63
18	[illegible]	35460.90	10.716	-0.214	590507	VV	34.75
19	[illegible]	66472.74	12.571	-0.249	801069	VV	38.31
20		0.0000	13.588		372232	VV	38.88
21	[illegible]	64052.55	14.707	0.477	762937	VV	42.13
22	[illegible]	46869.30	16.896	0.506	908351	VV	63.13
23		0.0000	19.350	PCB	967788	VV	83.75
24		0.0000	23.316	1260	1444526	VB	62.25
25	[illegible]	36613.43	27.449	-0.931	553541	BV	75.75
26		0.0000	31.087	1260	471478	VB	?138.94
27		0.0000	36.950		181759	BV	90.75
28		0.0000	43.180	680	470695	VB	107.44
29		0.0000	56.363		100907	BB	139.19

TOTALS: 361123.3 -0.554 10229899

DETECTED PKS: 37 REJECTED PKS: 8

DIVISOR: 0.15000 MULTIPLIER: 200000.000

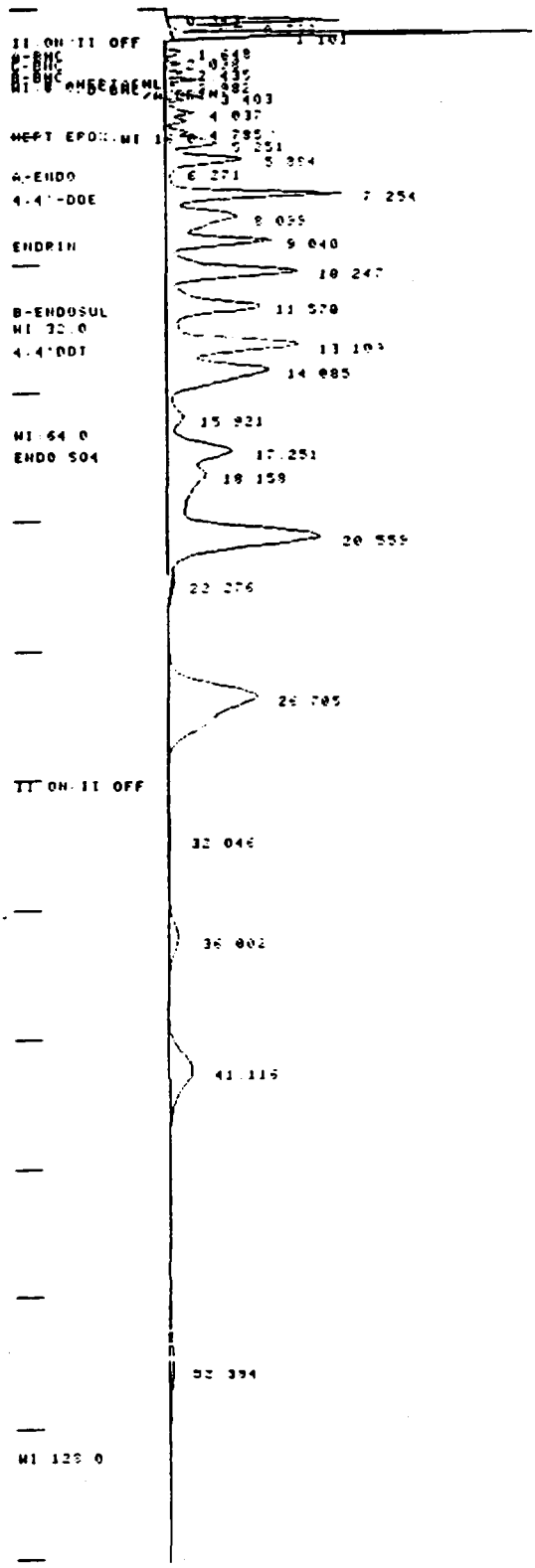
NOISE: 11.4 OFFSET: 12

RACK: 1 VIAL: 15 INJ: 1

NOTES:
NOTEBOOK:259-146,147 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#'S U-4971,4989
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
DEAD CREEK PRIMARY ANALYSIS
AUTOSAMPLER

POST RUN:
SAVE FILE: RAW S.CROP387

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



DC-G6-67

306

CHANNEL: 16 - 1 TITLE: RUN# 10 6:41 17 MAR 87

SAMPLE: 1274 METHOD: FEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT NG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)

CHANNEL: 18 - 1 TITLE: RUN# 10 DC-66-67 6:41 17 MAR 87

SAMPLE: 1274 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT MG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	[redacted]	1867.020	1.648	-0.132	61415	VV	3.81
2	[redacted]	966.0275	2.098	-0.152	25294	VV	5.19
3	[redacted]	4015.729	2.435	-0.125	42136	VV	7.94
4	[redacted]0	2861.354	2.716	-0.054	69300	VV	6.50
5	[redacted]	973.9990	2.982	0.002	22297	VV	8.06
6	[redacted]	4273.919	3.403	0.053	110989	VV	11.81
7		0.0000	4.037		99691	VV	11.94
8		0.0000	4.329		63406	VV	12.81
9	[redacted]	2953.227	4.785	-0.225	68774	VV	? 12.69
10		0.0000	5.251		268890	VV	23.44
11		0.0000	5.884		389037	VV	19.75
12	[redacted]	1258.286	6.271	-0.029	27631	VV	?
13	4,4'-DDE	36921.55 ← *	7.254	-0.026	839534	VV	17.75
14	[redacted]	27220.58	8.099	0.399	648035	VV	42.63
15	[redacted]	29910.51	9.040	-0.310	602917	VV	22.69
16		0.0000	10.247		926596	VV	25.50
17	[redacted]	38858.70	11.570	0.250	821836	VV	31.69
18	[redacted]	75187.10	13.109	-0.331	1121184	VV	32.63
19		0.0000	14.005		1140903	VV	48.69
20		0.0000	15.921		180591	VV	48.00
21		0.0000	17.251		712136	VV	48.25
22	[redacted]	54941.16	19.159	0.299	642721	VV	?155.13
23		PCB 1260 * 20.559			1977912	VV	48.56
24		0.0000	22.276		21570	T	? 63.31
25	[redacted]	260073.6	25.705	0.875	1823783	VB	84.63
26		0.0000	32.046		37745	BB	76.63
27		0.0000	36.002		200987	BB	80.00
28		0.0000	41.116		560568	BB	93.81
29		0.0000	52.304		106782	BB	112.75
TOTALS:		542283.6		0.493	13614660		

DETECTED PKS: 43 REJECTED PKS: 14

DIVISOR: 0.15000 MULTIPLIER: 200000.000

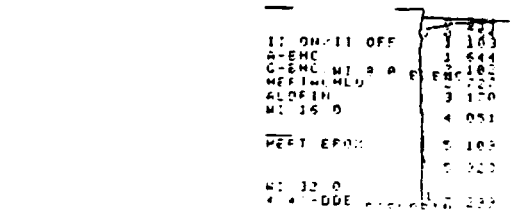
NOISE: 365.7 OFFSET: -21

RACK: 1 VIAL: 10 INJ: 1

NOTES:
NOTEBOOK:259-154 ANALYST:RICHARD SAMSON
SECURE AREA D JOB #U-4971, U-4989
INST: VARIAN 6000#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
CONFIRMATION RUNS AUTOSAMPLER

POST RUN:
SAVE FILE: RAW D.CRK.103

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



SAMPLE NUMBER DC-GB-68

DC-GB-68

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1275

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-26-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 3-04-87

Conc/Dil Factor: 1 pH 7.2

Percent Moisture: (Not Decanted) 21

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	38 B
67-64-1	Acetone	14 B
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	21 B
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

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

Laboratory Name Ecology & Environment

Case No V-4906, 4928, 4971, 4989

Sample Number DC-GB-68

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 02-26-87

Date Analyzed 03-06-87

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2,4-Dinitrophenol	16000u
100-02-7	4-Nitrophenol	16000u
132-64-9	Dibenzofuran	3300u
121-14-2	2,4-Dinitrotoluene	3300u
606-20-2	2,6-Dinitrotoluene	3300u
84-66-2	Diethylphthalate	3300u
7005-72-3	4-Chlorophenyl-phenylether	3300u
86-73-7	Fluorene	3300u
100-01-6	4-Nitroaniline	16000u
534-52-1	4,6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	16000u
85-01-8	Phenanthrene	3300u
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	7900 B
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	3300u
85-68-7	Butylbenzylphthalate	3300u
91-94-1	3,3'-Dichlorobenzidine	6600u
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	3300u
218-01-9	Chrysene	3300u
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1,2,3-cd)Pyrene	3300u
53-70-3	Dibenz(a,h)Anthracene	3300u
191-24-2	Benzo(g,h,i)Perylene	3300u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4906, 4928, 4971, 4989

Sample Number DC-GB-68

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-26-87

Date Analyzed 3-11-87

Conc/Dil Factor 2

Percent Moisture (decanted) 21

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No u-4906, 4928, 4971, 4989

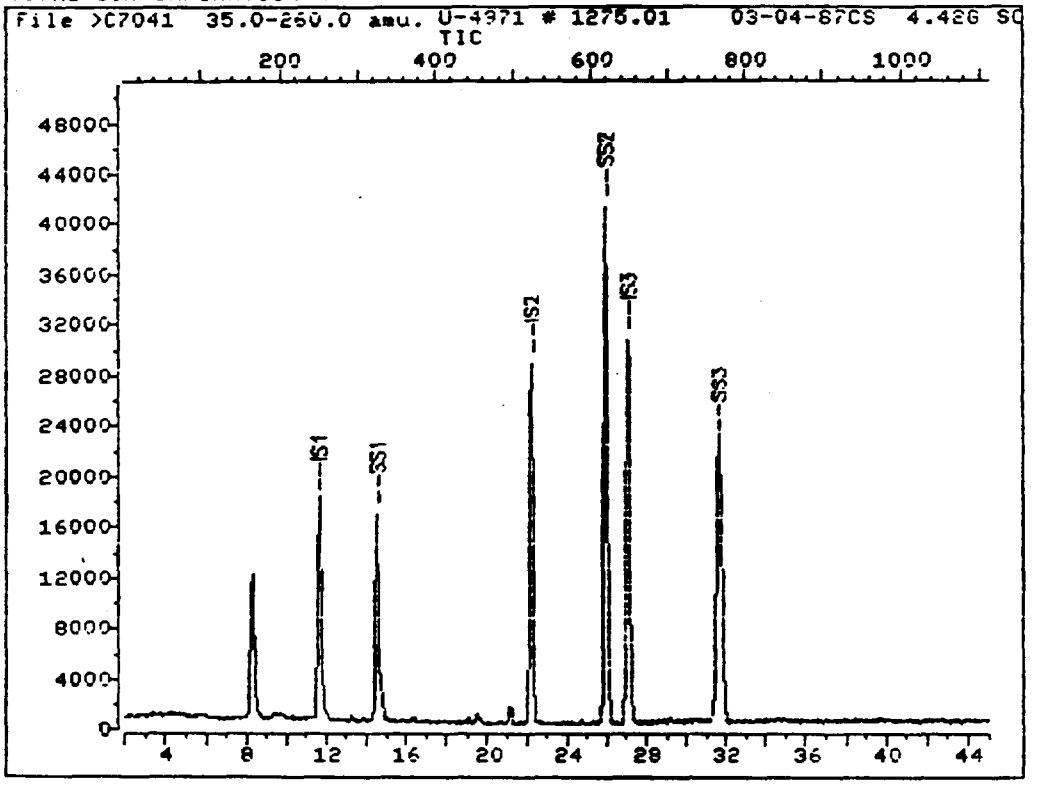
Sample Number
DC-GB-68

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 TIC's in VOA fraction			
2.				
3.	No TIC's in BNA fraction			
4.				
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

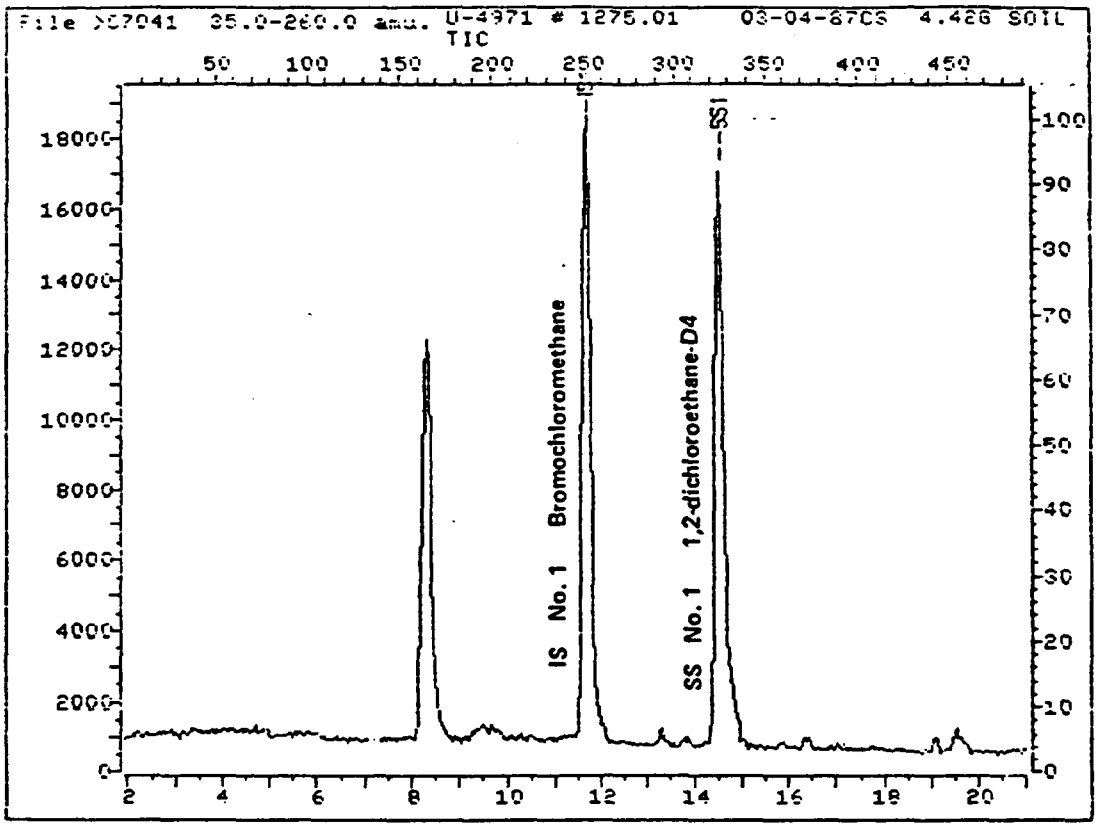


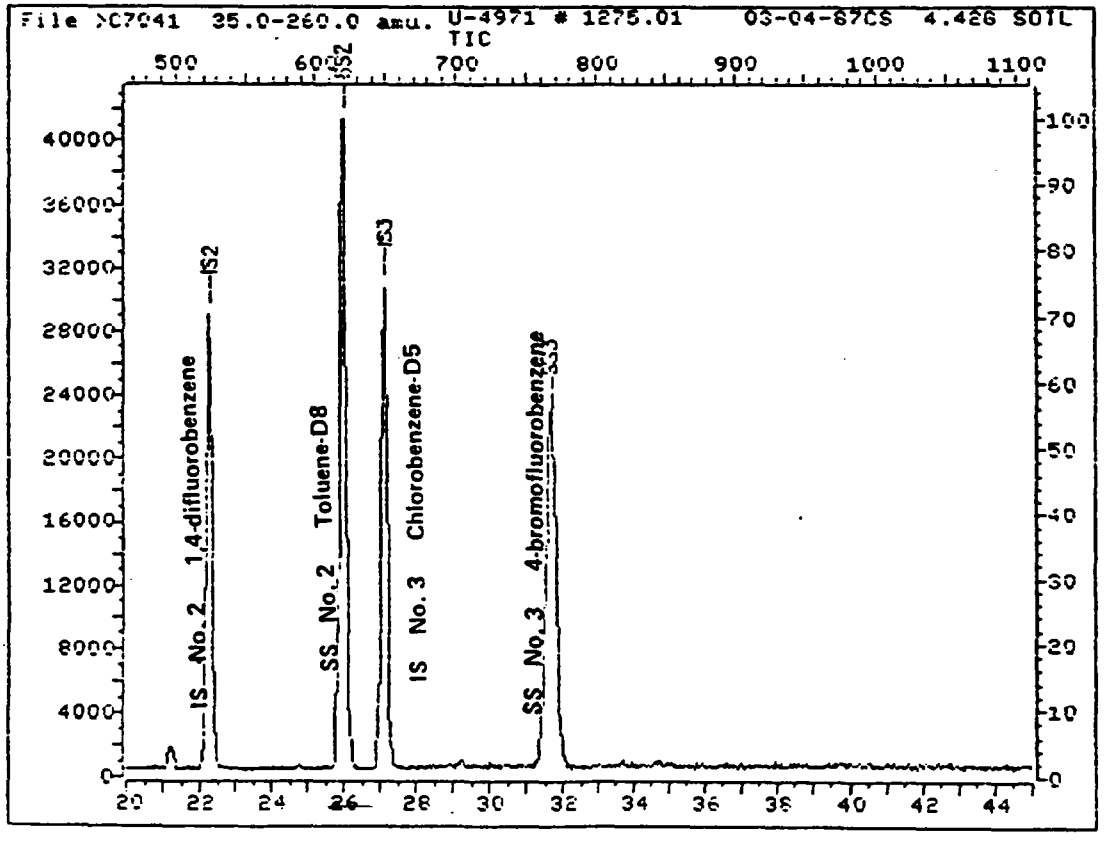
Data File: >C7041::D1
Name: U-4971 # 1275.01 DC-GB-68
Misc: 03-04-87CS 4.42G SOIL IN 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870304 11:54

Operator ID: USER8
Quant Time: 870304 13:18
Injected at: 870304 12:33

DC-GB-68


File >C7041 35.0-260.0 amu. U-4971 # 1275.01 03-04-87CS 4.426 SOIL
TIC
IS No. 1 Bromochloromethane
SS No. 1 1,2-dichloroethane-D4
SS1


File >C7041 35.0-260.0 amu. U-4971 # 1275.01 03-04-87CS 4.426 SOIL
TIC
IS No. 2 1,4-difluorobenzene
IS2
SS No. 2 Toluene-D8
SS2
IS3
IS No. 3 Chlorobenzene-D5
SS No. 3 4-bromofluorobenzene
SS3

QUANT REPORT

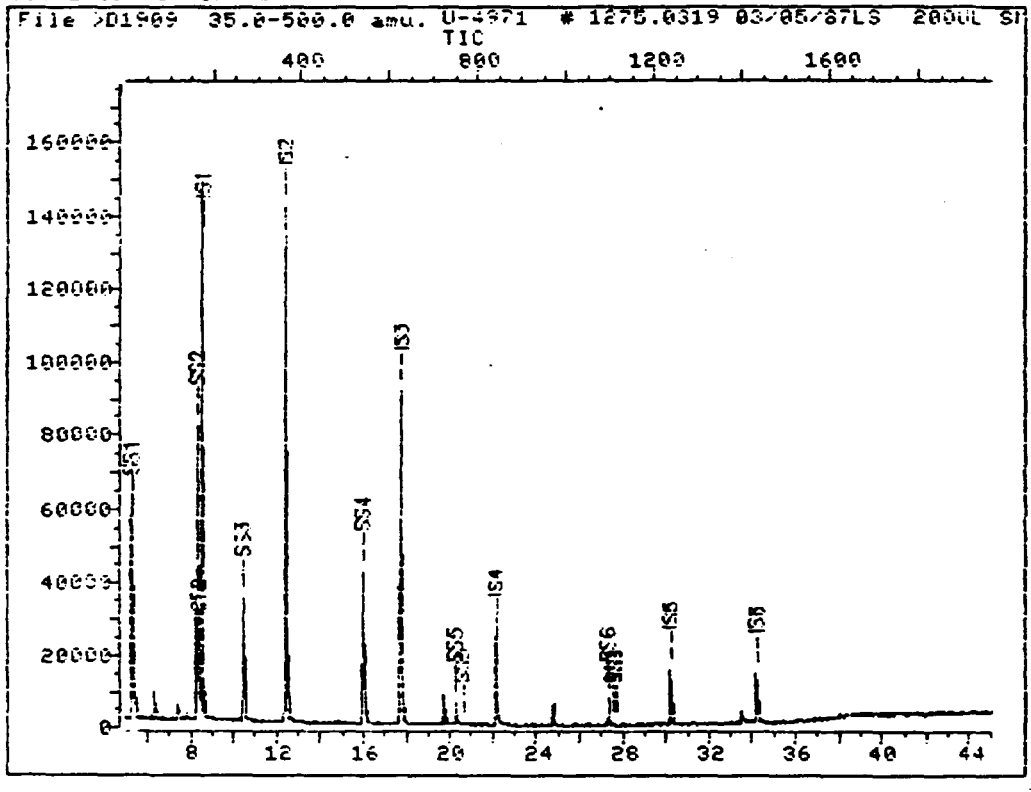
Operator ID: USER8 Quant Rev: 4 Quant Time: 870304 13:18
Output File: ^C7041::Q2 Injected at: 870304 12:33
Data File: >C7041::D1 Dilution Factor: 1.00
Name: U-4971 # 1275.01 DC-GB-68
Misc: 03-04-87CS 4.42G SOIL IN 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870304 11:54

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128 11.65	251	28891	250.00	NGS	100
6)	METHYLENE CHLORIDE		84 8.31	165	34443	167.59	NGS	100
7)	ACETONE		43 9.43	194	8883	62.67	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65 14.52	325	74160	267.63	NGS	87
16)	*1,4-DIFLUOROBENZENE	(IS)	114 22.24	524	127415	250.00	NGS	100
17)	2-BUTANONE		72 14.75	331	3282	91.72	NGS	100
31)	*CHLOROBENZENE-D5	(IS)	117 27.09	649	105244	250.00	NGS	100
36)	TOLUENE-D8	(SURR)	98 25.92	619	167233	291.10	NGS	95
38)	CHLOROBENZENE		112 27.17	651	2839	5.86	NGS	99
40)	4-BROMOFLUOROBENZENE	(SURR)	95 31.64	766	82237	263.71	NGS	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

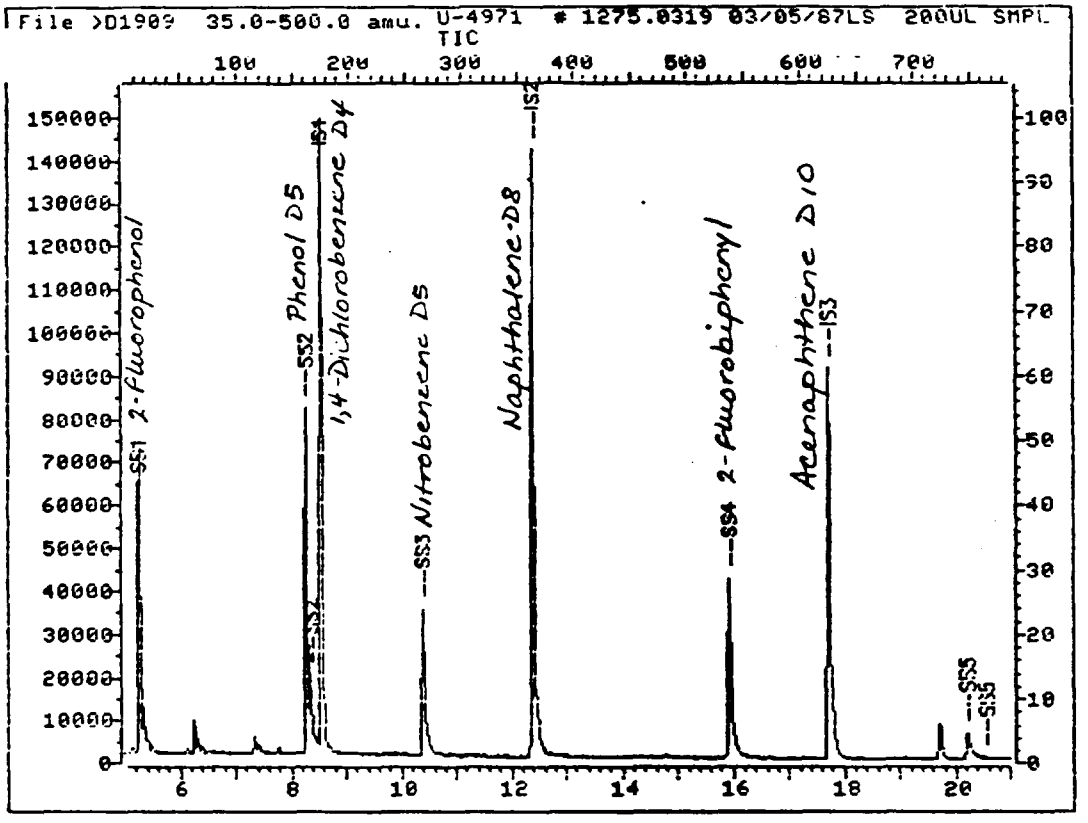


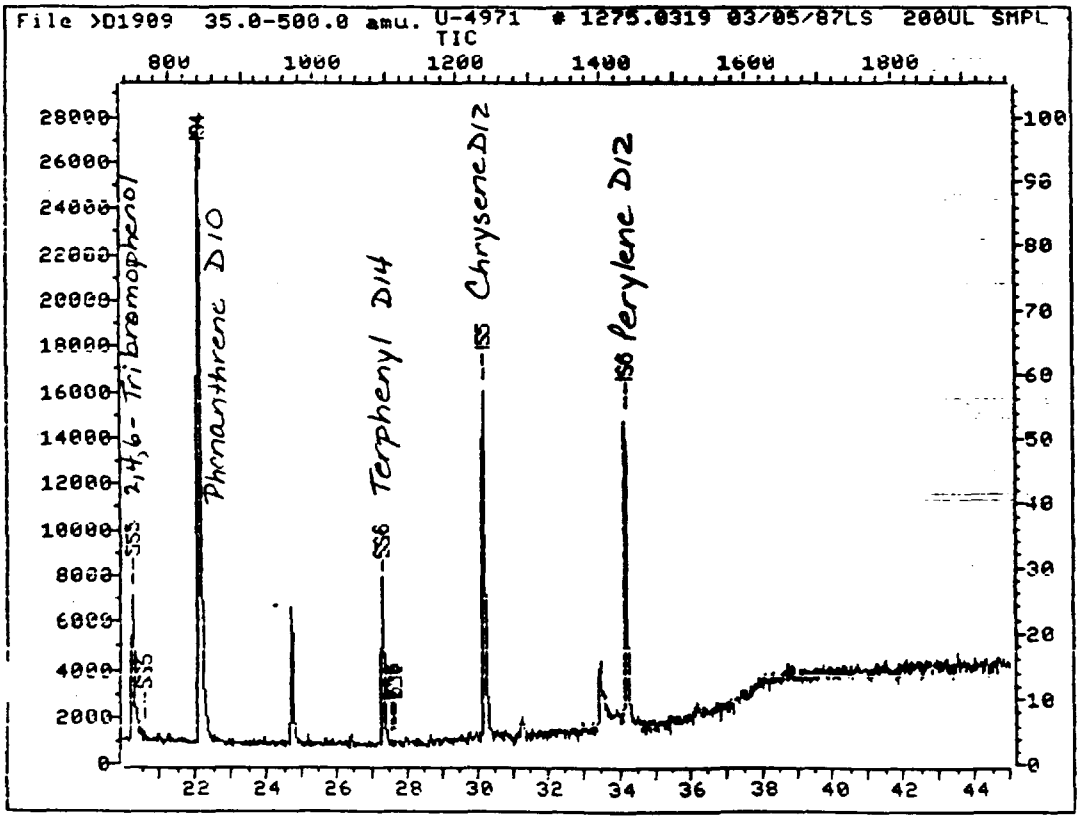
Data File: >D1909::D3
Name: U-4971 # 1275.0319 DC-GB-68
Misc: 03/05/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BIL# 6

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

Operator ID: USER6
Quant Time: 870306 11:45
Injected at: 870306 10:57

DC-GB-68


File >D1909 35.0-500.0 amu. U-4971 # 1275.0319 03/05/87LS 200UL SMPL
TIC
2-Fluorophenol
Phenol D5
1,4-Dichlorobenzene D4
Nitrobenzene D5
Naphthalene-D8
2-Fluorobiphenyl
Acenaphthene D10


File >D1909 35.0-500.0 amu. U-4971 # 1275.0319 03/05/87LS 200UL SMPL
TIC
2,4,6-Tribromophenol
Phenanthrene D10
Terphenyl D14
Chrysene D12
Perylene D12

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870306 11:45
Output File: ^D1909::U2 Injected at: 870306 10:57
Data File: >D1909::D3 Dilution Factor: 2.00
Name: U-4971 # 1275.0319 DC-GB-68
Misc: 03/05/87LS 200UL SMPL + 200UL MEOL2 + 4UL IS (2X) B-L# 6

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.53	174	67004	40.00 UG/L	86
2)	PHENOL-D5	(SURR)	99	8.27	~~161~~	58247	45.69 UG/L	96
2)	PHENOL-D5	(SURR)	99	8.35	165	19482	15.28 UG/L	91
5)	2-FLUOROPHENOL	(SURR)	112	5.23	12	57371	99.92 UG/L	64
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~(SURR)~~	~~70~~	~~10.70~~	~~265~~	~~6965~~	~~3.81 UG/L~~	78
19)	*NAPHTHALENE-D8	(IS)	136	12.58	363	205985	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.39	265	41933	36.22 UG/L	95
34)	*ACENAPHTHENE-D10	(IS)	162	17.72	625	65849	40.00 UG/L	94
38)	2-FLUOROBIPHENYL	(SURR)	172	15.93	537	59845	45.01 UG/L	94
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.72~~	~~625~~	~~12832~~	~~12.45 UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.21	747	6939	45.24 UG/L	95
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.55	764	241	1.57 UG/L	82
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.72~~	~~625~~	~~8725~~	~~45.09 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.10	840	55799	40.00 UG/L	95
63)	DI-N-BUTYLPHTHALATE		149	24.71	968	16303	24.84 UG/L	99
65)	*CHRYSENE-D12	(IS)	240	30.17	1236	30006	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.27	1094	14682	49.86 UG/L	100
68)	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~27.50~~	~~1105~~	~~144~~	~~.49 UG/L~~	100
68)	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~27.54~~	~~1102~~	~~113~~	~~.38 UG/L~~	100
68)	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~27.58~~	~~1109~~	~~202~~	~~.69 UG/L~~	100
68)	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~27.64~~	~~1112~~	~~68~~	~~.23 UG/L~~	100
74)	*PERYLENE-D12	(IS)	264	34.16	1432	25580	40.00 UG/L	100

* Compound is ISTD

3.16g

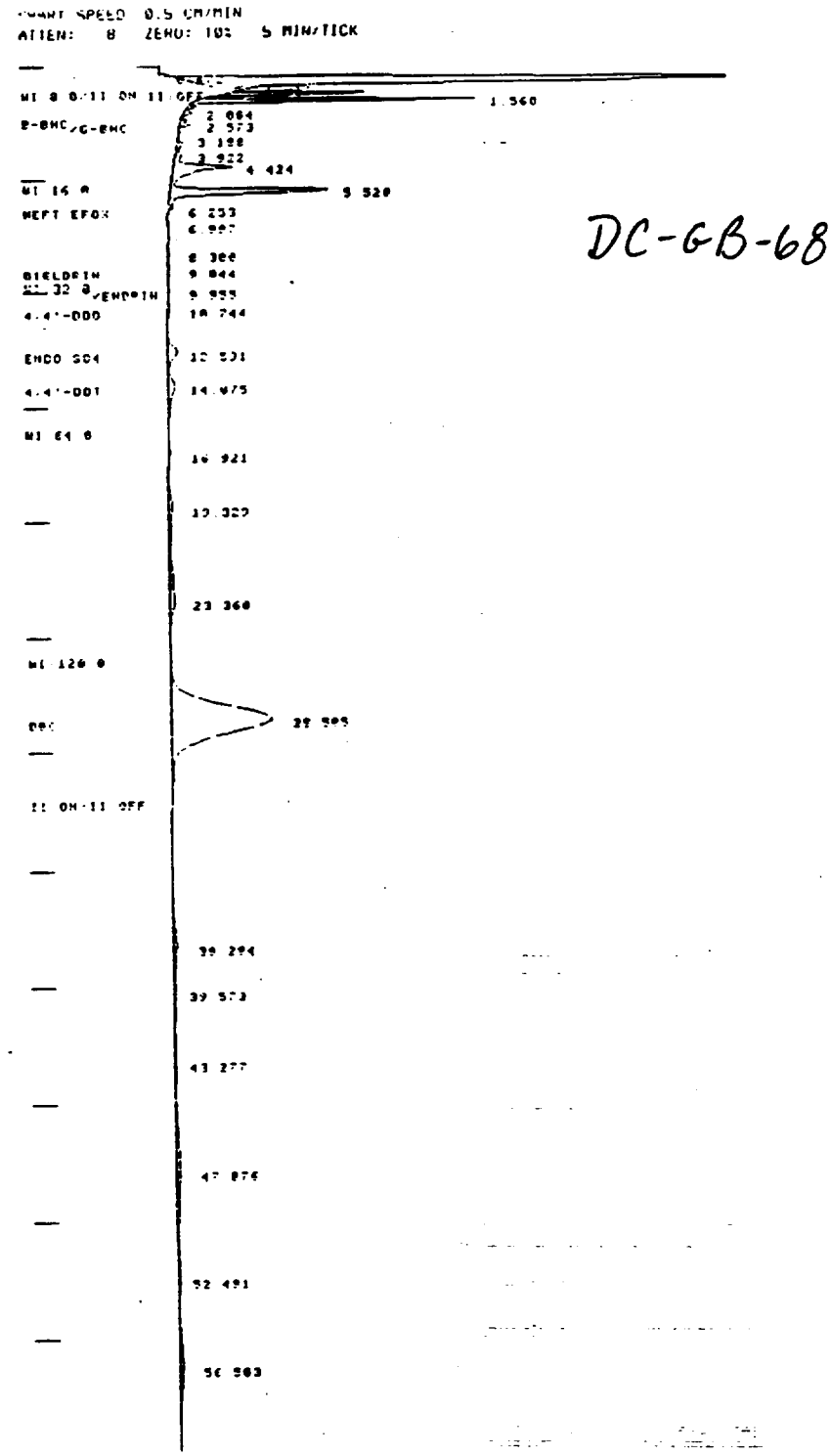


CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK
1.560
2 084
2 573
3 188
3 922
4 424
5 520
6 253
8 300
9 844
9 955
10 744
12 531
14 075
16 921
19 329
23 360
39 294
39 573
43 277
47 876
52 491
56 503
DC-GB-68

CHANNEL: 1A - 1 TITLE: RUN# 16 23:43 11 MAR 87

SAMPLE: 1275 DC-GB-68 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/G	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.271		97935	BV	4.44
2		0.0000	1.558		204598	VB	5.25
3		0.0000	4.424		158960	VV	14.56
4		0.0000	5.528		305463	VV	12.94
5	~~ENDO-SO4~~	40.8727	12.591	-0.229	49256	BV	35.25
6	~~4,11-BDT~~	47.3348	14.075	-0.155	56381	VB	50.63
7		0.0000	19.329		45731	BV	122.63
8		0.0000	23.360		83807	VB	?126.69
9	DBC	748.2589	28.585	0.205	1131257	BB	79.88
10		0.0000	38.284		44757	BV	?100.44
11		0.0000	47.876		85598	VV	?248.00
12		0.0000	52.491		24034	VV	?202.75
13		0.0000	56.503		66265	VV	168.00
TOTALS:		836.4664		-0.179	2354042		

DETECTED PKS: 34 REJECTED PKS: 21

DIVISOR: 0.15000 MULTIPLIER: 2000.00000

NOISE: 11.4 OFFSET: 2

RACK: 2 VIAL: 1 INJ: 1

NOTES:
NOTERBOOK:259-146,147 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#'S U-4971,4989
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
DEAD CREEK PRIMARY ANALYSIS
AUTOSAMPLER

POST RUN:
SAVE FILE: RAW S.CROP388

SAMPLE NUMBER DC-G7-69

481095

DC-G7-69

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1276

QC Report No:

Sample Matrix: Soil

Contract No: EL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-26-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-26-87

Conc/Dil Factor: 2 pH 6.9

Percent Moisture: (Not Decanted) 35

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u
74-83-9	Bromomethane	2000u
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	420 BJ
67-64-1	Acetone	10000 B
75-15-0	Carbon Disulfide	1000u
75-35-4	1, 1-Dichloroethene	1000u
75-34-3	1, 1-Dichloroethane	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u
67-66-3	Chloroform	1000u
107-06-2	1, 2-Dichloroethane	1000u
78-93-3	2-Butanone	6300 B
71-55-6	1, 1, 1-Trichloroethane	1000u
56-23-5	Carbon Tetrachloride	1000u
108-05-4	Vinyl Acetate	2000u
75-27-4	Bromodichloromethane	1000u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000u
10061-02-6	Trans-1, 3-Dichloropropene	1000u
79-01-6	Trichloroethene	2500
124-48-1	Dibromochloromethane	1000u
79-00-5	1, 1, 2-Trichloroethane	1000u
71-43-2	Benzene	14000
10061-01-5	cis-1, 3-Dichloropropene	1000u
110-75-8	2-Chloroethylvinylether	2000u
75-25-2	Bromoform	1000u
108-10-1	4-Methyl-2-Pentanone	2700
591-78-6	2-Hexanone	2000u
127-18-4	Tetrachloroethene	29000
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000u
108-88-3	Toluene	25000
108-90-7	Chlorobenzene	350,000 E
100-41-4	Ethylbenzene	11000
100-42-5	Styrene	1000u
	Total Xylenes	27000

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

Case No V-4906, 4928, 4971, 4989

Sample Number DC-G7-69

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared 02-26-87

Date Analyzed: 03-18-87

Conc/Dil Factor: 100

Percent Moisture (Decanted) 35

GPC Cleanup ☐Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	160000u
111-44-4	bis(2-Chloroethyl)Ether	160,000u
95-57-8	2-Chlorophenol	160,000u
541-73-1	1,3-Dichlorobenzene	160,000u
106-46-7	1,4-Dichlorobenzene	160,000u
100-51-6	Benzyl Alcohol	160,000u
95-50-1	1,2-Dichlorobenzene	160,000u
95-48-7	2-Methylphenol	160,000u
39638-32-9	bis(2-chloroisopropyl)Ether	160,000u
106-44-5	4-Methylphenol	160,000u
621-64-7	N-Nitroso-Di-n-Propylamine	160,000u
67-72-1	Hexachloroethane	160,000u
98-95-3	Nitrobenzene	160,000u
78-59-1	Isophorone	160,000u
88-75-5	2-Nitrophenol	160,000u
105-67-9	2,4-Dimethylphenol	160,000u
65-85-0	Benzoic Acid	830,000u
111-91-1	bis(2-Chloroethoxy)Methane	160,000u
120-83-2	2,4-Dichlorophenol	160,000u
120-82-1	1,2,4-Trichlorobenzene	78000 J
91-20-3	Naphthalene	71000 J
106-47-8	4-Chloroaniline	150000 J
87-68-3	Hexachlorobutadiene	160000u
59-50-7	4-Chloro-3-Methylphenol	160000u
91-57-6	2-Methylnaphthalene	160000u
77-47-4	Hexachlorocyclopentadiene	160000u
88-06-2	2,4,6-Trichlorophenol	160000u
95-95-4	2,4,5-Trichlorophenol	830000u
91-58-7	2-Chloronaphthalene	160000u
88-74-4	2-Nitroaniline	830000u
131-11-3	Dimethyl Phthalate	160000u
208-96-8	Acenaphthylene	160000u
99-09-2	3-Nitroaniline	830000u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	160000u
51-28-5	2,4-Dinitrophenol	830000u
100-02-7	4-Nitrophenol	830000u
132-64-9	Dibenzofuran	22000 J
121-14-2	2,4-Dinitrotoluene	160000u
606-20-2	2,6-Dinitrotoluene	160000u
84-66-2	Diethylphthalate	160000u
7005-72-3	4-Chlorophenyl-phenylether	160000u
86-73-7	Fluorene	160000u
100-01-6	4-Nitroaniline	830000u
534-52-1	4,6-Dinitro-2-Methylphenol	830000u
86-30-6	N-Nitrosodiphenylamine (1)	160000u
101-55-3	4-Bromophenyl-phenylether	160000u
118-74-1	Hexachlorobenzene	160000u
87-86-5	Pentachlorophenol	3100000
85-01-8	Phenanthrene	160000u
120-12-7	Anthracene	160000u
84-74-2	Di-n-Butylphthalate	160000u
206-44-0	Fluoranthene	160000u
129-00-0	Pyrene	160000u
85-68-7	Butylbenzylphthalate	160000u
91-94-1	3,3'-Dichlorobenzidine	320000u
56-55-3	Benzo(a)Anthracene	160000u
117-81-7	bis(2-Ethylhexyl)Phthalate	160000u
218-01-9	Chrysene	160000u
117-84-0	Di-n-Octyl Phthalate	160000u
205-99-2	Benzo(b)Fluoranthene	160000u
207-08-9	Benzo(k)Fluoranthene	160000u
50-32-8	Benzo(a)Pyrene	160000u
193-39-5	Indeno(1,2,3-cd)Pyrene	160000u
53-70-3	Dibenzo(a,h)Anthracene	160000u
191-24-2	Benzo(g,h,i)Perylene	160000u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-G7-69

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-26-87

Date Analyzed 3-12-87

Conc/Dil Factor 1000

Percent Moisture (decanted) 35

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	80,000 u
319-85-7	Beta-BHC	80,000 u
319-86-8	Delta-BHC	80,000 u
58-89-9	Gamma-BHC (Lindane)	80,000 u
76-44-8	Heptachlor	80,000 u
309-00-2	Aldrin	80,000 u
1024-57-3	Heptachlor Epoxide	80,000 u
959-98-8	Endosulfan I	80,000 u
60-57-1	Dieldrin	160,000 u
72-55-9	4,4'-DDE	88,000 J
72-20-8	Endrin	160,000 u
33213-65-9	Endosulfan II	160,000 u
72-54-8	4,4'-DDD	160,000 u
1031-07-8	Endosulfan Sulfate	160,000 u
50-29-3	4,4'-DDT	160,000 u
72-43-5	Methoxychlor	800,000 u
53494-70-5	Endrin Ketone	160,000 u
57-74-9	Chlordane	800,000 u
8001-35-2	Toxaphene	1,600,000 u
12674-11-2	Aroclor-1016	800,000 u
11104-28-2	Aroclor-1221	800,000 u
11141-16-5	Aroclor-1232	800,000 u
53469-21-9	Aroclor-1242	800,000 u
12672-29-6	Aroclor-1248	800,000 u
11097-69-1	Aroclor-1254	1,600,000 u
11096-82-5	Aroclor-1260	430,000 J

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

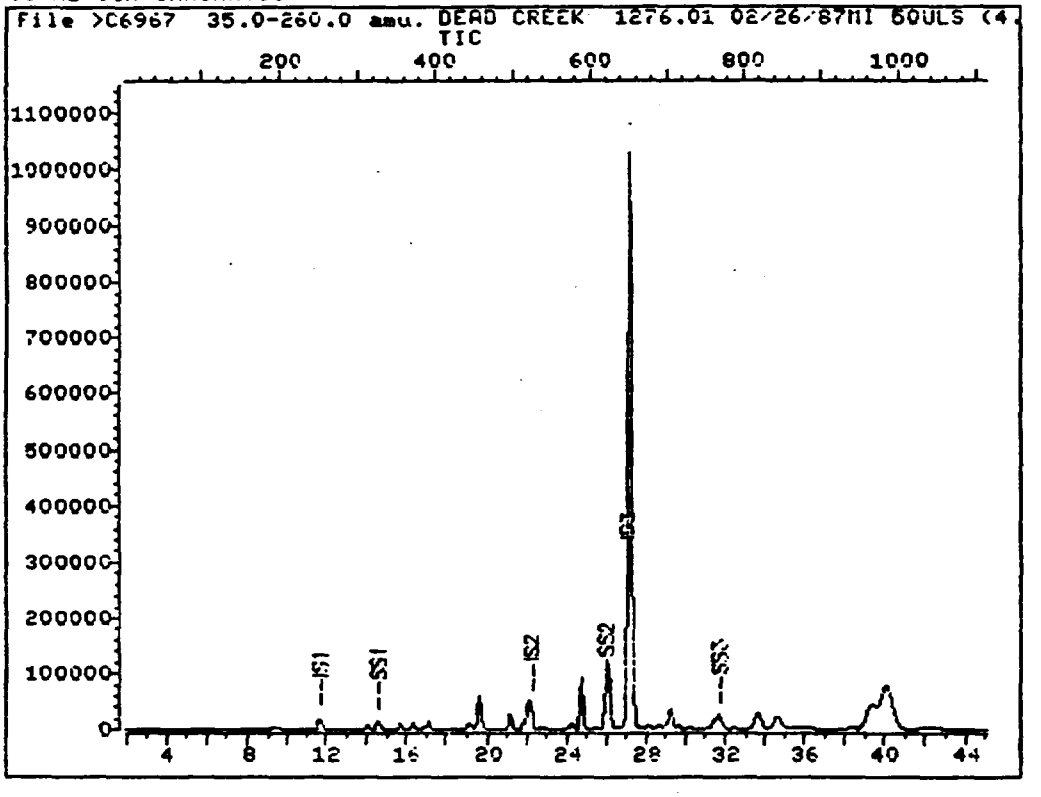
Sample Number DC-G7-69

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1. 109660	Pentane	VOA	15.7	5000 J
2. 110827	Cyclohexane	VOA	16.3	5100 J
3.	Hexene isomer	VOA	17.1	2000 BJ
4.	Hexane isomer	VOA	21.2	4000 BJ
5.	Dichlorobenzene isomer	VOA	39.4	20,000 J
6.	Dichlorobenzene isomer	VOA	40.1	34,000 J
7.				
8.				
9.	Chloromethylpyridine isomer	BNA	12.62	175,000 J
10.	Unknown		16.10	220,000 J
11. 1985575	Benzene, (1,1-dimethylbutyl)-		20.83	70,000 J
12.	Unknown		21.14	140,000 J
13.	Unknown		21.26	230,000 J
14. 26356116	Benzene, (1,1,2-trimethylpropyl)-		21.54	140,000 J
15.	Isomeric dodecylbenzene		21.71	670,000 J
16.	Unknown		21.85	280,000 J
17. 27854406	Benzene, (1,1-dimethyldecyl)-		21.91	470,000 J
18.	Unknown substituted benzene		21.99	420,000 J
19.	Unknown substituted benzene		22.22	670,000 J
20. 1985575	Benzene, (1,1-dimethylbutyl)-		22.58	570,000 J
21. 55134071	Benzene, (1,1,4,6,6-pentamethylheptyl)-		22.65	270,000 J
22.	Unknown substituted benzene		22.81	210,000 J
23. 544638	Tetradecanoic acid		24.34	130,000 J
24 10224916	Ethane, 1,1-bis(p-ethylphenyl)-		25.34	290,000 J
25. 10544500	Molecular Sulfur		26.70	110,000 J
26.	Unknown		27.01	1,000,000 J
27.	Unknown		29.37	740,000 J
28.				
29.				
30				

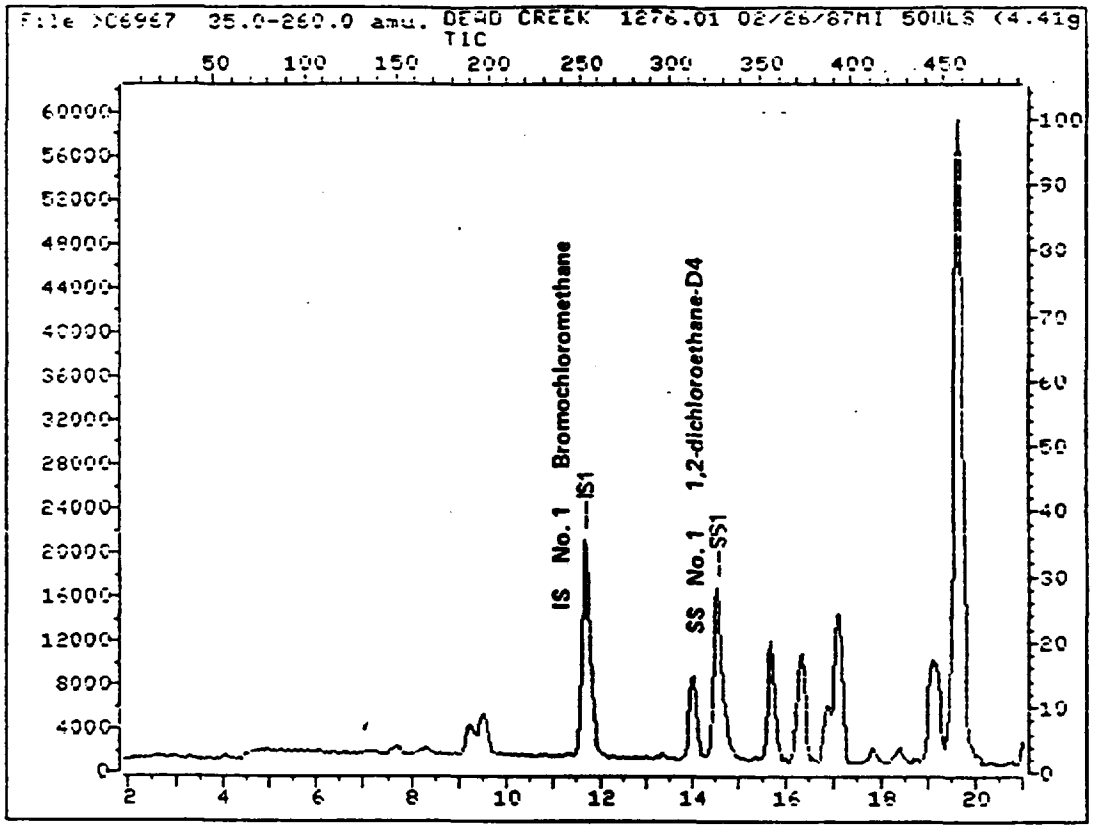
TOTAL ION CHROMATOGRAM



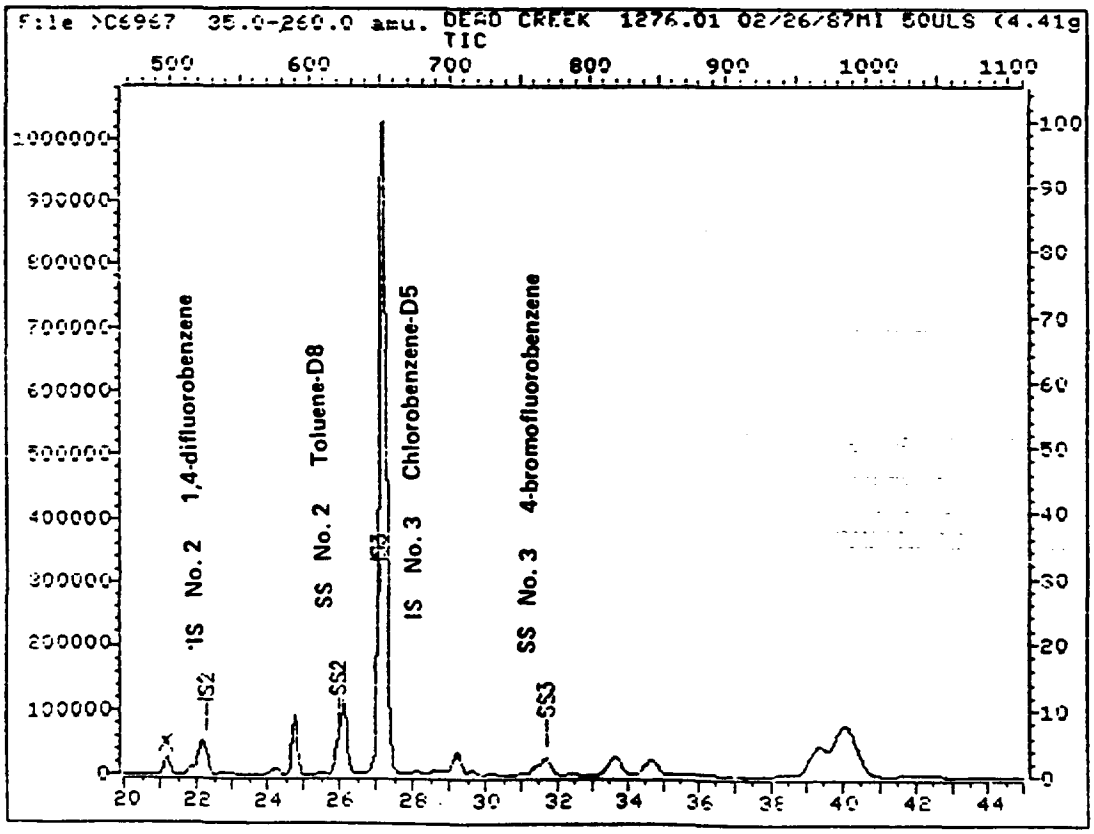
Data File: >C6967::D3
Name: DEAD CREEK 1276.01 DC-G7-69
Misc: 02/26/87MI 50ULS (4.41g SOIL IN 10ML MEOH) + 10 ULS IS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870226 14:59

Operator ID: USER8
Quant Time: 870226 18:31
Injected at: 870226 17:45


File >C6967 35.0-260.0 amu. DEAD CREEK 1276.01 02/26/87MI 50ULS (4.41g
TIC
IS No. 1 Bromochloromethane
IS1
SS No. 1 1,2-dichloroethane-D4
SS1

DC-G7-69


File >C6967 35.0-260.0 amu. DEAD CREEK 1276.01 02/26/87MI 50ULS (4.41g
TIC
IS No. 2 1,4-difluorobenzene
IS2
SS No. 2 Toluene-D8
SS2
IS No. 3 Chlorobenzene-D5
IS3
SS No. 3 4-bromofluorobenzene
SS3

QUANT REPORT

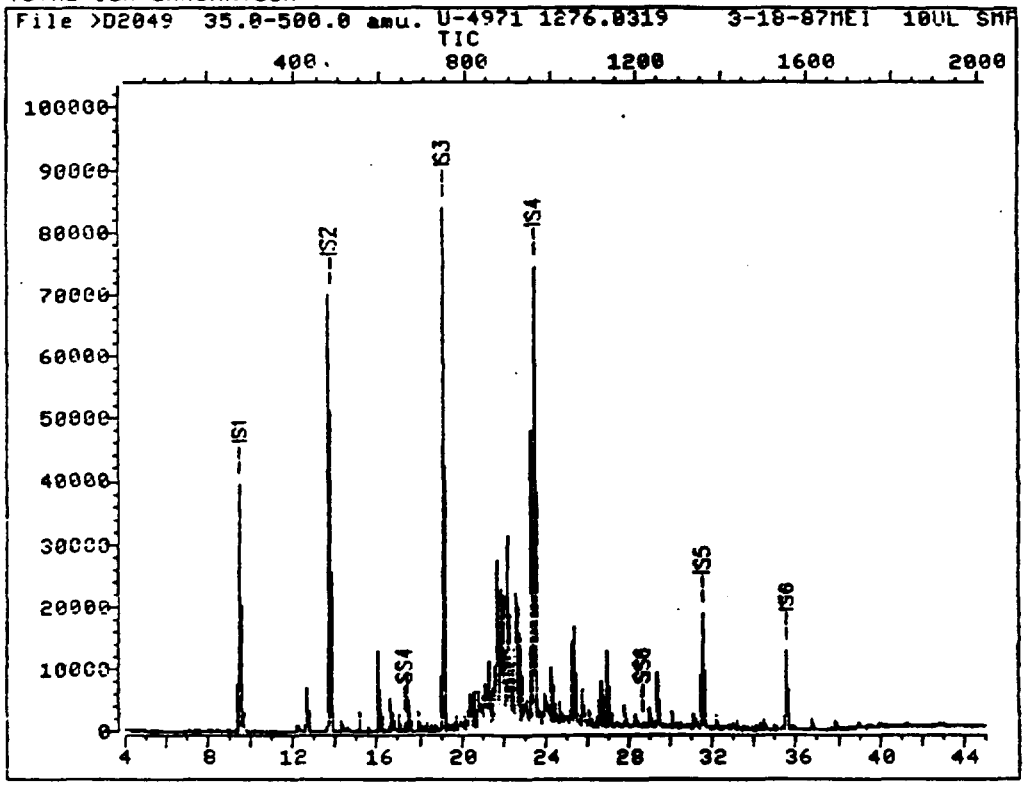
Operator ID: USER8 Quant Rev: 4 Quant Time: 870226 18:31
Output File: ^C6967::Q2 Injected at: 870226 17:45
Data File: >C6967::D3 Dilution Factor: 1.00
Name: DEAD CREEK 1276.01 DC-G7-69
Misc: 02/26/87MI 50ULS (4.41g SOIL IN 10ML MEOH) + 10 ULS IS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870226 14:59

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128 11.68	253	30039	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84 8.35	167	1906	1.84	UG/L	100
7)	ACETONE		43 9.28	191	23861	44.61	UG/L	100
7)	~~ACETONE~~		~~43 9.51~~	~~197~~	~~23788~~	~~44.47~~	~~UG/L~~ cw	100
12)	~~TRANS-1,2-DICHLOROETHENE~~		~~96 13.35~~	~~296~~	~~523~~	~~.54~~	~~UG/L~~	47
15)	1,2-DICHLOROETHANE-D4	(SURR)	65 14.55	327	70434	48.02	UG/L 96	82
16)	*1,4-DIFLUOROBENZENE	(IS)	114 22.24	525	151676	50.00	UG/L	100
17)	2-BUTANONE		72 14.75	332	3774	27.78	UG/L	100
17)	~~2-BUTANONE~~		~~72 15.68~~	~~356~~	~~3338~~	~~24.57~~	~~UG/L~~	100
~~20)~~	~~VINYL ACETATE~~		~~43 15.68~~	~~356~~	~~36918~~	~~21.42~~	~~UG/L~~	100
24)	TRICHLOROETHENE		130 19.06	443	13447	11.05	UG/L	81
27)	BENZENE		78 19.64	458	233994	64.05	UG/L	100
28)	~~CIS-1,3-DICHLOROPROPENE~~		~~75 19.64~~	~~458~~	~~4769~~	~~3.69~~	~~UG/L~~	100
31)	*CHLOROBENZENE-D5	(IS)	117 27.05	649	104971	50.00	UG/L	100
32)	4-METHYL-2-PENTANONE		43 22.98	544	8916	12.02	UG/L	63
33)	~~2-HEXANONE~~		~~43 24.26~~	~~577~~	~~23999~~	~~36.63~~	~~UG/L~~ NO CW	100
33)	~~2-HEXANONE~~		~~43 24.76~~	~~598~~	~~20714~~	~~32.21~~	~~UG/L~~ NO CW	100
34)	TETRACHLOROETHENE		164 24.76	590	117300	128.22	UG/L	91
35)	~~1,1,2,2-TETRACHLOROETHANE~~		~~83 24.14~~	~~574~~	~~3812~~	~~3.69~~	~~UG/L~~ cw	100
~~35)~~	~~1,1,2,2-TETRACHLOROETHANE~~		~~83 24.76~~	~~598~~	~~3294~~	~~3.18~~	~~UG/L~~	100
36)	TOLUENE-D8	(SURR)	98 25.96	621	150596	55.29	UG/L 110	98
37)	TOLUENE		92 26.12	625	214874	111.98	UG/L	98
38)	CHLOROBENZENE		112 27.21	653	3476169	1561.82	UG/L	98
38)	~~CHLOROBENZENE~~		~~112 28.07~~	~~675~~	~~3783~~	~~1.70~~	~~UG/L~~ cw	98
39)	ETHYLBENZENE		91 29.23	705	191980	46.36	UG/L	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95 31.68	768	80522	56.52	UG/L 114	100
~~41)~~	~~STYRENE~~		~~104 33.70~~	~~820~~	~~3849~~	~~1.60~~	~~UG/L~~ cw	100
~~41)~~	~~STYRENE~~		~~104 34.59~~	~~843~~	~~2399~~	~~1.00~~	~~UG/L~~	100
42)	TOTAL XYLENES		91 33.70	820	198341	58.49	UG/L	100
42)	TOTAL XYLENES		91 34.63	844	209385	61.75	UG/L	100
42)	~~TOTAL XYLENES~~		~~91 36.30~~	~~887~~	~~6116~~	~~1.80~~	~~UG/L~~ cw	100
43)	1,3-DICHLOROBENZENE		146 38.32	939	7999	7999.00	NO CALIB	100
43)	1,3-DICHLOROBENZENE		146 39.40	967	360552	360552.0	NO CALIB	100
43)	1,3-DICHLOROBENZENE		146 40.06	984	571532	571532.0	NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146 38.32	939	7999	7999.00	NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146 39.40	967	360552	360552.0	NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146 40.06	984	571532	571532.0	NO CALIB	100
45)	1,4-DICHLOROBENZENE		146 38.32	939	7999	7999.00	NO CALIB	100
45)	1,4-DICHLOROBENZENE		146 39.40	967	360552	360552.0	NO CALIB	100
45)	1,4-DICHLOROBENZENE		146 40.06	984	571532	571532.0	NO CALIB	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

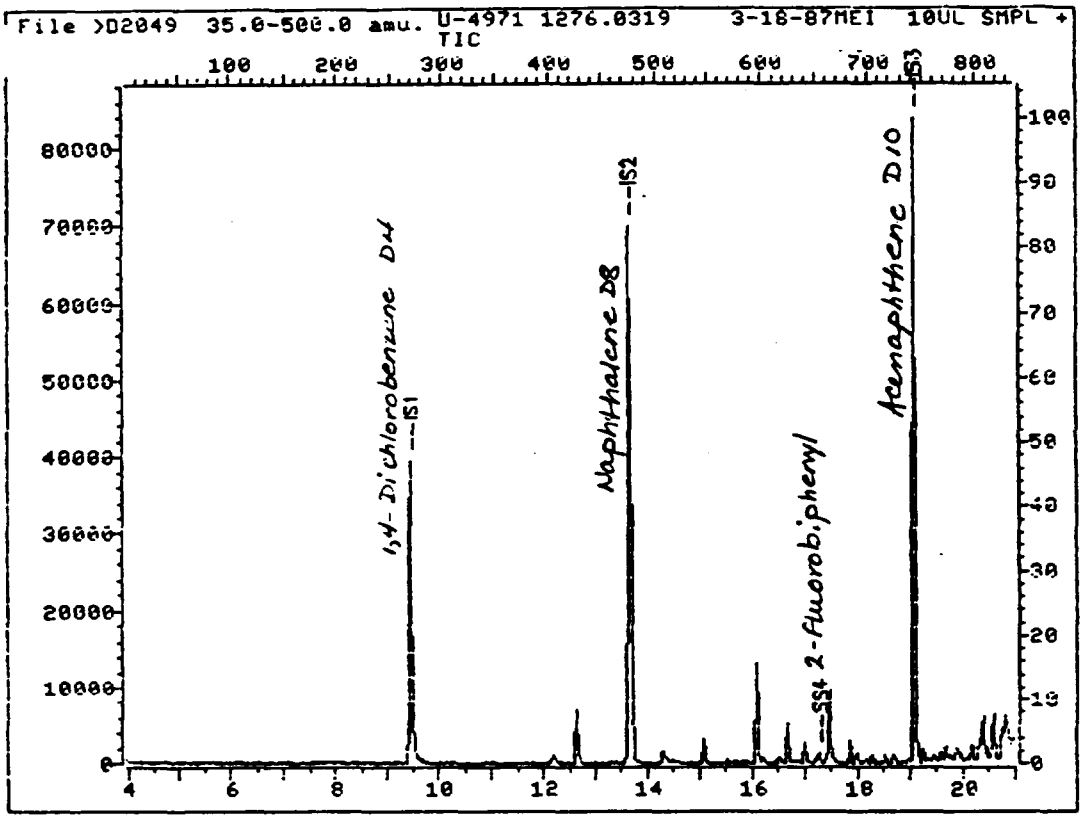


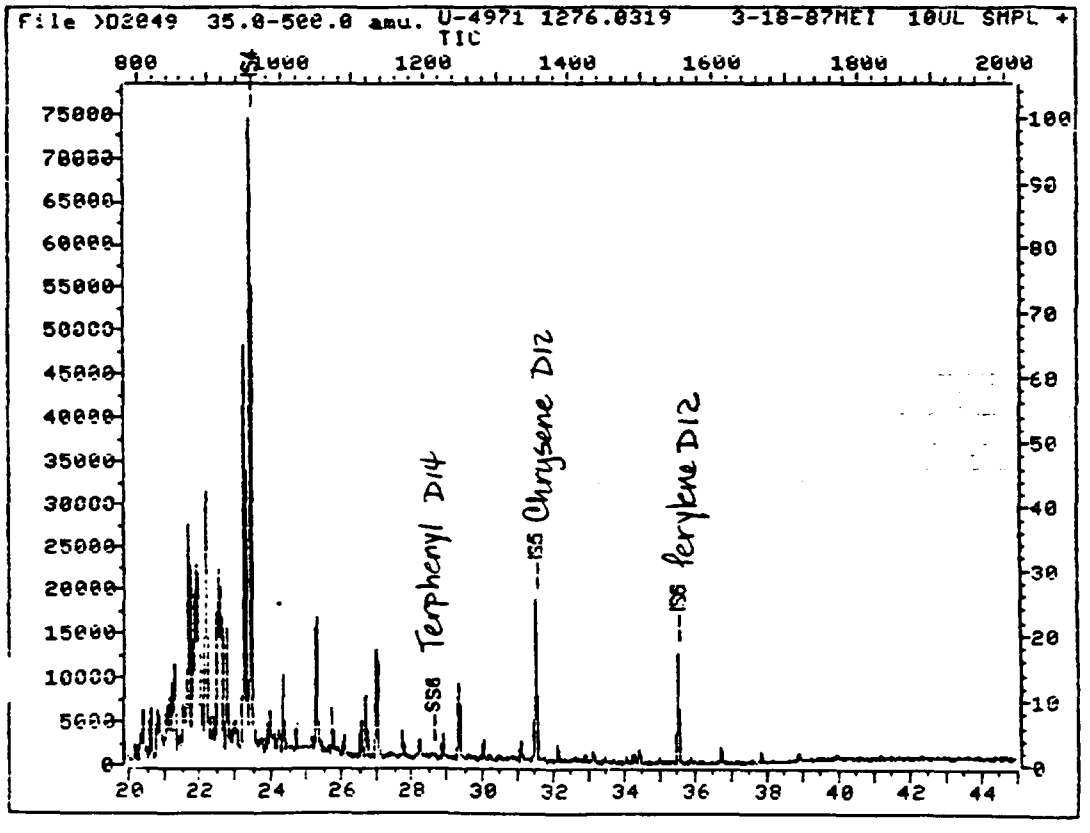
Data File: >D2049::D1
Name: U-4971 1276.0319 DC-G7-69
Misc: 3-18-87MEI 10UL SMPL + 990UL MECL2 +10UL IS (100X) BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870318 14:12

Operator ID: USER8
Quant Time: 870318 22:30
Injected at: 870318 21:42

DC-G7-69


File >D2049 35.0-500.0 amu. U-4971 1276.0319 3-18-87MEI 10UL SMPL +
TIC
1,4-Dichlorobenzene D4
IS1
Naphthalene D8
IS2
2-Fluorobiphenyl
SS4
Acenaphthene D10
IS3


File >D2049 35.0-500.0 amu. U-4971 1276.0319 3-18-87MEI 10UL SMPL +
TIC
Terphenyl D14
SS6
Chrysene D12
IS5
Perylene D12
IS6

QUANT REPORT

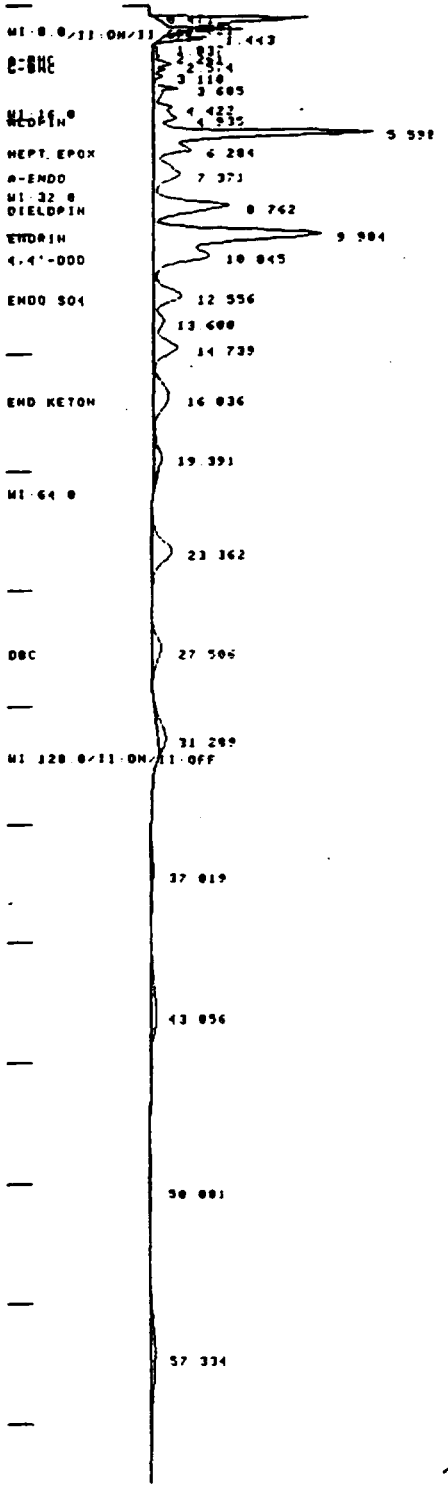
Operator ID: USER8 Quant Rev: 4 Quant Time: 870318 22:30
Output File: ^D2049::Q2 Injected at: 870318 21:42
Data File: >D2049::D1 Dilution Factor: 100.00
Name: U-4971 1276.0319 DC-G7-69
Misc: 3-18-87MEI 10UL SMPL + 990UL MECL2 +10UL IS (100X) BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870318 14:12

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152 9.46	270	22404	40.00	UG/L	88
19)	*NAPHTHALENE-D8	(IS)	136 13.66	476	80463	40.00	UG/L	100
28)	1,2,4-TRICHLOROBENZENE		180 13.62	474	1716	241.86	UG/L yes	100
29)	NAPHTHALENE		128 13.72	479	4389	221.27	UG/L yes	100
30)	4-CHLOROANILINE		127 14.29	507	2383	473.17	UG/L yes	97
34)	*ACENAPHTHENE-D10	(IS)	162 19.10	743	47145	40.00	UG/L	94
38)	2-FLUOROBIPHENYL	(SURR)	172 17.29	654	865	60.23	UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163 19.10~~	~~743~~	~~8894~~	~~579.93~~	~~UG/L~~	~~100~~
43)	DIBENZOFURAN		168 19.26	751	1238	68.76	UG/L yes	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165 19.08~~	~~742~~	~~6266~~	~~1719.68~~	~~UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188 23.48	958	59790	40.00	UG/L	84
60)	PENTACHLOROPHENOL		266 23.28	948	21892	9798.98	UG/L yes	100
65)	*CHRYSENE-D12	(IS)	240 31.53	1353	18497	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244 28.64	1211	223	45.21	UG/L	100
74)	*PERYLENE-D12	(IS)	264 35.54	1550	12940	40.00	UG/L	100

* Compound is ISTD

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



DC-G7-69

RECALCULATE ON FILE: S.CROP392

CHANNEL: 1A - 1 TITLE: RUN# 20 4:01 12 MAR 87

SAMPLE: 1276 DC-GT-69 METHOD: CASE1 CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/Kg	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.443		27991	VV	? 4.38
2		0.0000	1.527		32417	VV	? 5.38
3	~~a-BHC~~	6472.720	2.574	-0.036	26671	VV	12.06
4		0.0000	3.605		36478	VV	10.31
5		0.0000	3.842		21999	VV	? 29.00
6		0.0000	4.422		35416	VV	? 14.06
7	~~ALDRIN~~	17721.47	4.935	-0.125	74384	VV	? 33.75
8		0.0000	5.598		548033	VV	17.06
9	~~HEPT EPOX~~	31418.03	6.284	0.154	126115	VV	? 31.75
10	~~A-ENDO~~	40587.33	7.371	-0.219	153642	VV	? 42.81
11	4,4'-DDE	87770.57	8.762	0.042	318346	VV	30.00
12	~~B-ENDO~~ -	187615.3	9.984	-0.056	690970	VV	30.13
13	~~4,4'-DDD~~ - 1260	77580.68	10.845	-0.085	258380	VV	? 42.00
14	~~ENDO SO4~~	58945.70	12.556	-0.264	142072	VV	37.81
15		0.0000	13.600		50796	VV	42.38
16	~~4,4'-DDT~~	54925.60	14.739	0.509	130845	VV	41.19
17	~~ENG KETON~~	36915.95	16.836	0.446	143090	VV	? 75.88
18		0.0000	19.391 1260		77971	VB	67.00
19		0.0000	23.362 1260		178952	BB	60.00
20	~~DDD~~	29114.94	27.506	-0.874	88035	BV	75.88
21		0.0000	31.289		66741	VB	?106.19
22		0.0000	37.019		29328	BV	96.00
23		0.0000	43.056		131813	VB	140.00
24		0.0000	57.334		122752	BB	202.00

72.4

TOTALS: 629068.3 -0.508 3513237

DETECTED PKS: 36 REJECTED PKS: 12

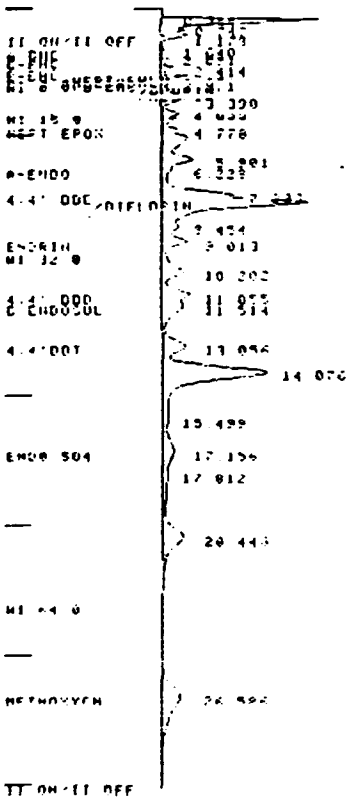
DIVISOR: 0.15000 MULTIPLIER: 1000000.00

NOISE: 11.4 OFFSET: -4

RACK: 2 VIAL: 5 INJ: 1

NOTES:
NOTERBOOK:259-146,147 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#'S U-4971,4989
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
DEAD CREEK PRIMARY ANALYSIS
AUTOSAMPLER

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



DC-G7-69

CHANNEL: 16 - 1 TITLE: RUN#17 14:22 17 MAR 87

SAMPLE: 1276 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT MG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	[illegible]	15546.70	2.414	-0.136	31517	VV	6.69
2	[illegible]	8537.920	2.707	-0.063	40136	VV	6.25
3	ALDRIN	12256.87	3.390	0.050	64714	VV	13.13
4		0.0000	4.022		60290	VV	13.19
5		0.0000	4.318		50224	VV	? 17.88
6		0.0000	4.778		45735	VV	? 17.13
7	HEPT EPOX	38601.44	5.081	0.081	178791	VV	36.75
8		0.0000	5.901		167330	VV	23.56
9	A-ENDO	9158.840	6.228	-0.062	39999	VV	?
10	4,4'-DDE *	66065.32	← 7.233 *	-0.027	290453	VV	? 19.81
11	DIELDRIN	171157.0	7.561	-0.129	811459	VV	20.94
12		0.0000	8.454		84221	VV	? 32.75
13	ENDRIN	38540.75	9.013	-0.317	152164	VV	27.25
14		0.0000	10.202		163300	VV	28.69
15	4,4' DDD	49224.19	11.055	-0.045	174676	VV	? 28.31
16	E-ENDOSUL	39405.10	11.514	0.224	165361	VV	? 49.56
17	4,4' DDT	62071.34	13.056	-0.354	179647	VV	35.44
18	ENDO SO4	293832.9	[illegible]	-0.694	[illegible]	VV	34.38
19		0.0000	15.499		57099	VV	?
20		0.0000	17.156		160191	VV	? 73.31
21	ENDO SO4	44443.01	17.812	0.002	99696	VV	?
22		0.0000 *	20.448 * PCB 1260		237642	VB	53.69
23	METHOXYCH	257055.4	26.586	0.836	352260	BB	71.44

TOTALS: 1105899. -0.634 4562455

DETECTED PKS: 41 REJECTED PKS: 18

DIVISOR: 0.15000 MULTIPLIER: 1000000.00

NOISE: 34.3 OFFSET: -4

PACK: 2 VIAL: 2 INJ: 1

NOTES:
NOTEBOOK:259-15 ANALYST:[illegible] SAMSON

SAMPLE NUMBER DC-G8-70

481095

DC-G870

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1277

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Sbytowicz

Date Sample Received: 2-26-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-26-87

Conc/Dil Factor: 4 pH 7.4

Percent Moisture: (Not Decanted) 30

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	4000u
74-83-9	Bromomethane	4000u
75-01-4	Vinyl Chloride	4000u
75-00-3	Chloroethane	4000u
75-09-2	Methylene Chloride	610 BJ
67-64-1	Acetone	9000 B
75-15-0	Carbon Disulfide	2000u
75-35-4	1, 1-Dichloroethene	2000u
75-34-3	1, 1-Dichloroethane	2000u
156-60-5	Trans-1, 2-Dichloroethene	490 J
67-66-3	Chloroform	2000u
107-06-2	1, 2-Dichloroethane	2000u
78-93-3	2-Butanone	8600
71-55-6	1, 1, 1-Trichloroethane	2000u
56-23-5	Carbon Tetrachloride	2000u
108-05-4	Vinyl Acetate	4000u
75-27-4	Bromodichloromethane	2000u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2000u
10061-02-6	Trans-1, 3-Dichloropropene	2000u
79-01-6	Trichloroethene	1400J
124-48-1	Dibromochloromethane	2000u
79-00-5	1, 1, 2-Trichloroethane	2000u
71-43-2	Benzene	3600
10061-01-5	cis-1, 3-Dichloropropene	2000u
110-75-8	2-Chloroethylvinylether	4000u
75-25-2	Bromoform	2000u
108-10-1	4-Methyl-2-Pentanone	4200
591-78-6	2-Hexanone	4000u
127-18-4	Tetrachloroethene	41,000
79-34-5	1, 1, 2, 2-Tetrachloroethane	2000u
108-88-3	Toluene	8500
108-90-7	Chlorobenzene	70,000 B
100-41-4	Ethylbenzene	10,000
100-42-5	Styrene	2000u
	Total Xylenes	25,000

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 1 µg/l is calculated, report as 1J.

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

Laboratory Name Ecology & Environment

Case No U-4906, 4928, 4971, 4989

Sample Number
DC-G8-70

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared 02-26-87

Date Analyzed 03-18-87

Conc/Dil Factor: 100

Percent Moisture (Decanted) 30

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	160,000u
111-44-4	bis(2-Chloroethyl)Ether	160,000u
95-57-8	2-Chlorophenol	160,000u
541-73-1	1,3-Dichlorobenzene	160,000u
106-46-7	1,4-Dichlorobenzene	160,000u
100-51-6	Benzyl Alcohol	160,000u
95-50-1	1,2-Dichlorobenzene	160,000u
95-48-7	2-Methylphenol	160,000u
39638-32-9	bis(2-chloroisopropyl)Ether	160,000u
106-44-5	4-Methylphenol	160,000u
621-64-7	N-Nitroso-Di-n-Propylamine	160,000u
67-72-1	Hexachloroethane	160,000u
98-95-3	Nitrobenzene	160,000u
78-59-1	Isophorone	160,000u
88-75-5	2-Nitrophenol	160,000u
105-67-9	2,4-Dimethylphenol	160,000u
65-85-0	Benzoic Acid	830,000u
111-91-1	bis(2-Chloroethoxy)Methane	160,000u
120-83-2	2,4-Dichlorophenol	99000 J
120-82-1	1,2,4-Trichlorobenzene	160,000u
91-20-3	Naphthalene	3,800,000
106-47-8	4-Chloroaniline	160,000u
87-68-3	Hexachlorobutadiene	160,000u
59-50-7	4-Chloro-3-Methylphenol	160,000u
91-57-6	2-Methylnaphthalene	26000 J
77-47-4	Hexachlorocyclopentadiene	160,000u
88-06-2	2,4,6-Trichlorophenol	160,000u
95-95-4	2,4,5-Trichlorophenol	830,000u
91-58-7	2-Chloronaphthalene	160,000u
88-74-4	2-Nitroaniline	830,000u
131-11-3	Dimethyl Phthalate	160,000u
208-96-8	Acenaphthylene	160,000u
99-09-2	3-Nitroaniline	830,000u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	160,000u
51-28-5	2,4-Dinitrophenol	830,000u
100-02-7	4-Nitrophenol	830,000u
132-64-9	Dibenzofuran	160,000u
121-14-2	2,4-Dinitrotoluene	160,000u
606-20-2	2,6-Dinitrotoluene	160,000u
84-66-2	Diethylphthalate	16000 J
7005-72-3	4-Chlorophenyl-phenylether	160,000u
86-73-7	Fluorene	160,000u
100-01-6	4-Nitroaniline	830,000u
534-52-1	4,6-Dinitro-2-Methylphenol	830,000u
86-30-6	N-Nitrosodiphenylamine (1)	160,000u
101-55-3	4-Bromophenyl-phenylether	160,000u
118-74-1	Hexachlorobenzene	160,000u
87-86-5	Pentachlorophenol	130000 J
85-01-8	Phenanthrene	36000 J
120-12-7	Anthracene	160,000u
84-74-2	Di-n-Butylphthalate	160,000u
206-44-0	Fluoranthene	160,000u
129-00-0	Pyrene	160,000u
85-68-7	Butylbenzylphthalate	160,000u
91-94-1	3,3'-Dichlorobenzidine	320,000u
56-55-3	Benzo(a)Anthracene	160,000u
117-81-7	bis(2-Ethylhexyl)Phthalate	160,000u
218-01-9	Chrysene	160,000u
117-84-0	Di-n-Octyl Phthalate	160,000u
205-99-2	Benzo(b)Fluoranthene	160,000u
207-08-9	Benzo(k)Fluoranthene	160,000u
50-32-8	Benzo(a)Pyrene	160,000u
193-39-5	Indeno(1,2,3-cd)Pyrene	160,000u
53-70-3	Dibenz(a,h)Anthracene	160,000u
191-24-2	Benzo(g,h,i)Perylene	160,000u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-68-70

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-26-87

Date Analyzed 3-12-87

Conc/Dil Factor 1000

Percent Moisture (decanted) 30

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	80,000u
319-85-7	Beta-BHC	80,000u
319-86-8	Delta-BHC	80,000u
58-89-9	Gamma-BHC (Lindane)	80,000u
76-44-8	Heptachlor	80,000u
309-00-2	Aldrin	80,000u
1024-57-3	Heptachlor Epoxide	80,000u
959-98-8	Endosulfan I	80,000u
60-57-1	Dieldrin	160,000u
72-55-9	4,4'-DDE	160,000u
72-20-8	Endrin	160,000u
33213-65-9	Endosulfan II	160,000u
72-54-8	4,4'-DDD	160,000u
1031-07-8	Endosulfan Sulfate	160,000u
50-29-3	4,4'-DDT	160,000u
72-43-5	Methoxychlor	800,000u
53494-70-5	Endrin Ketone	160,000u
57-74-9	Chlordane	800,000u
8001-35-2	Toxaphene	1,600,000u
12674-11-2	Aroclor-1016	800,000u
11104-28-2	Aroclor-1221	800,000u
11141-16-5	Aroclor-1232	800,000u
53469-21-9	Aroclor-1242	800,000u
12672-29-6	Aroclor-1248	800,000u
11097-69-1	Aroclor-1254	1,600,000u
11096-82-5	Aroclor-1260	3,100,000 1268 as 1260

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4926, 4971, 4989

Sample Number
DC-G8-70

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MCC-IC	Estimated Concentration (ug/l or ug/kg)
1.	Dichlorobenzene isomer	VOA	39.4	6400 J
2.	Dichlorobenzene isomer	VOA	40.0	5200 J
3.				
4.	Chlorobenzenamine isomer	BNA	1265	120,000 J
5. 95829	Benzenamine, 2,5-dichloro-	BNA	16.66	91,000 J
6.	Isomeric dodecylbenzene	BNA	21.69	180,000 J
7.	Unknown Substituted benzene	BNA	22.20	170,000 J
8.	Unknown	BNA	24.34	270,000 J
9.	Unknown	BNA	31.4	690,000 J
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
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21.				
22.				
23.				
24.				
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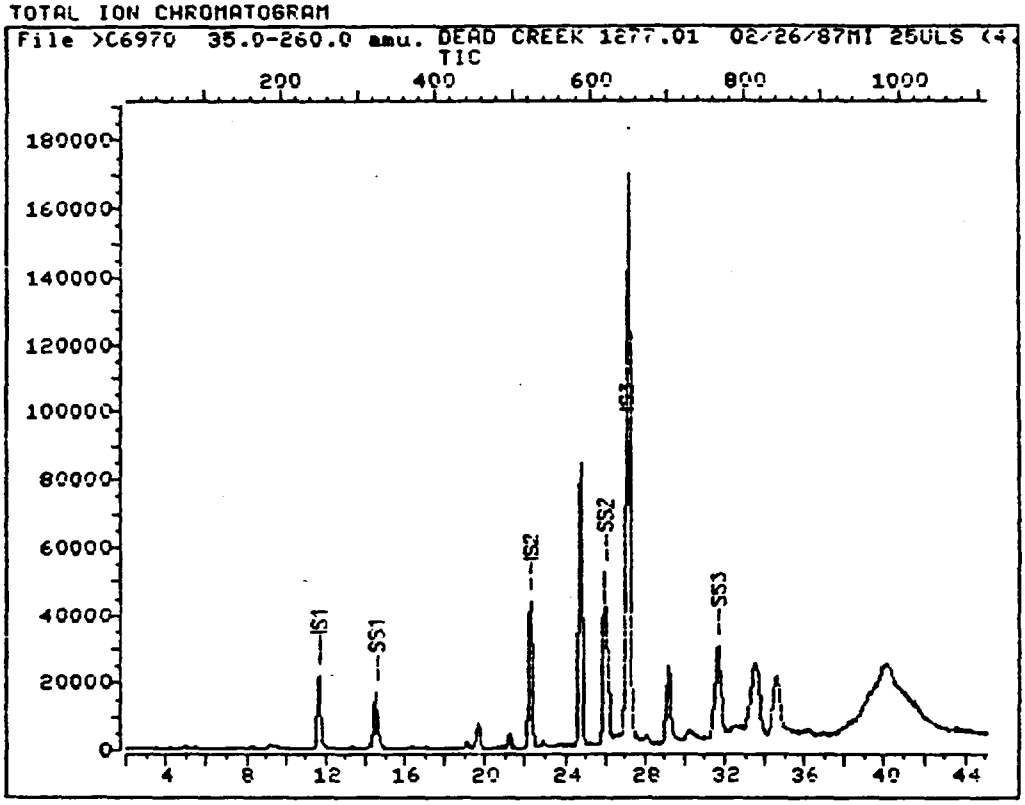
26.				
27.				
28.				
29.				
30.				

TOTAL ION CHROMATOGRAM

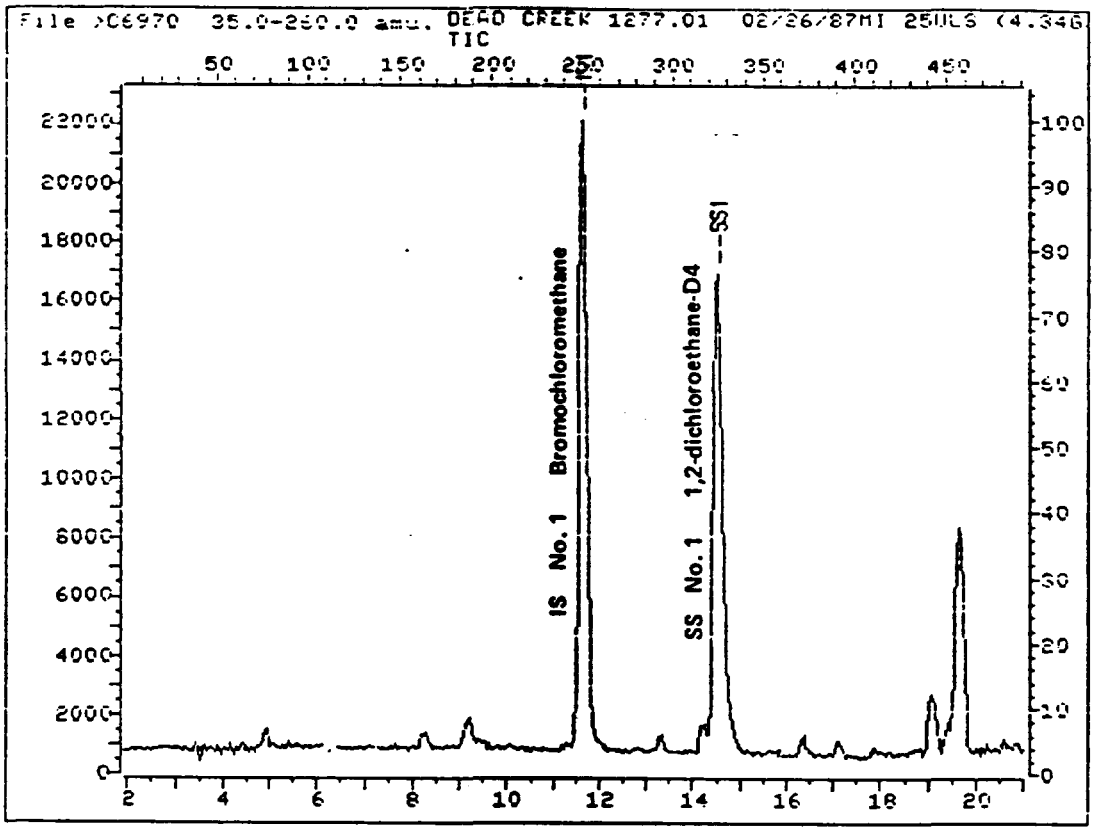


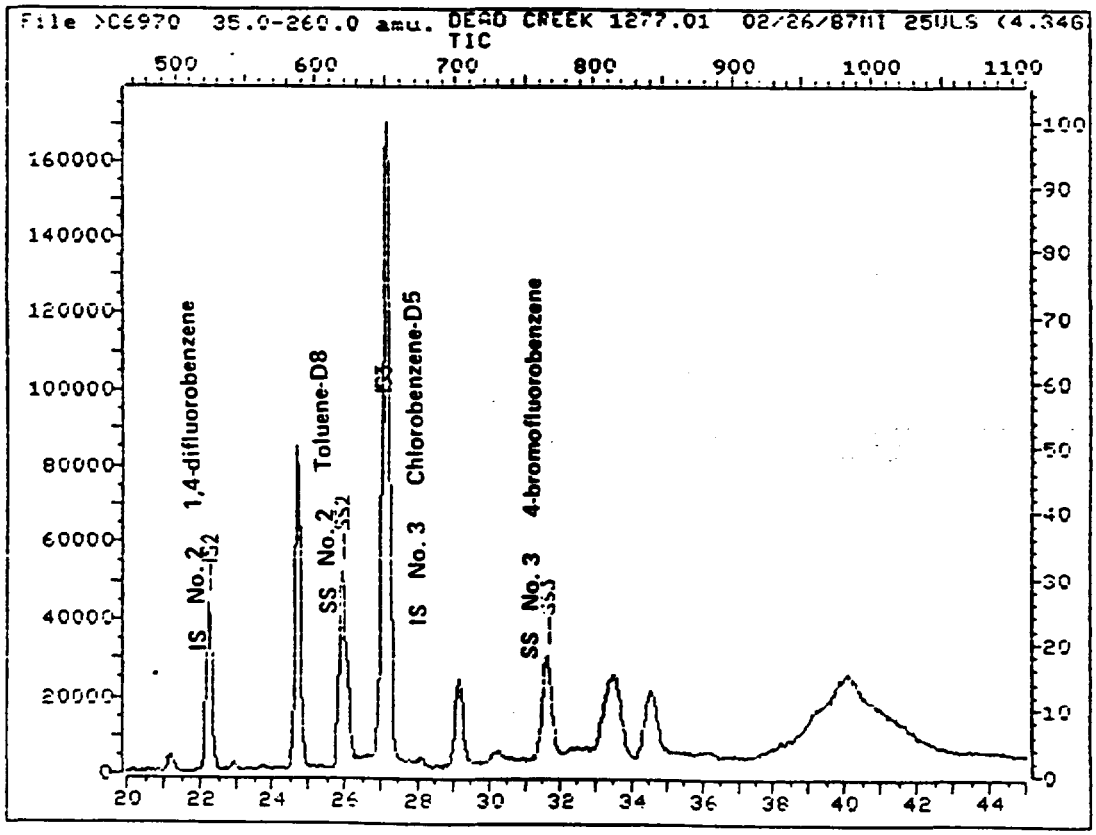
Data File: >C6970::D3
Name: DEAD CREEK 1277.01 DC-G8-70
Misc: 02/26/87MI 25ULS (4.34G/10MLS MEOH) + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870226 14:59

Operator ID: USER8
Quant Time: 870226 21:25
Injected at: 870226 20:39

DC-G8-70


File >C6970 35.0-260.0 amu. DEAD CREEK 1277.01 02/26/87HI 25ULS (4.346
TIC
IS No. 1 Bromochloromethane
SS No. 1 1,2-dichloroethane-D4
SS1


File >C6970 35.0-260.0 amu. DEAD CREEK 1277.01 02/26/87HI 25ULS (4.346
TIC
IS No. 2 1,4-difluorobenzene
IS2
SS No. 2 Toluene-D8
SS2
IS No. 3 Chlorobenzene-D5
IS3
SS No. 3 4-bromofluorobenzene
SS3

QUANT REPORT

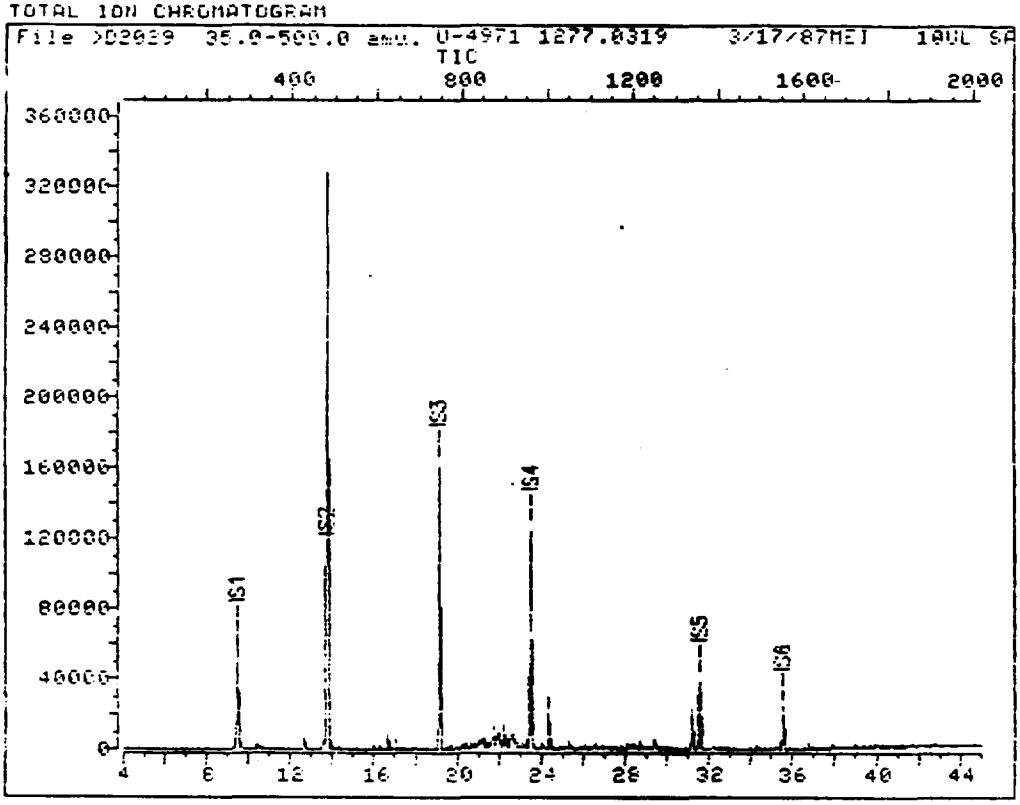
Operator ID: USER8 Quant Rev: 4 Quant Time: 870226 21:25
Output File: ^C6970::Q2 Injected at: 870226 20:39
Data File: >C6970::D3 Dilution Factor: 1.00
Name: DEAD CREEK 1277.01 DC-G8-70
Misc: 02/26/87MI 25ULS (4.34G/10MLS MEOH) + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870226 14:59

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.65	251	31413	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.24	163	1443	1.33 UG/L	100
7)	ACETONE		43	9.17	187	10955	19.58 UG/L	100
12)	TRANS-1,2-DICHLOROETHENE		96	13.32	294	1068	1.06 UG/L	87
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	325	73194	47.72 UG/L	85
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.25	524	180003	50.00 UG/L	100
17)	2-BUTANONE		72	14.68	329	3008	18.66 UG/L	100
24)	TRICHLOROETHENE		130	19.06	442	4276	2.96 UG/L	86
27)	BENZENE		78	19.65	457	34336	7.92 UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.06	648	147890	50.00 UG/L	100
32)	4-METHYL-2-PENTANONE		43	22.91	541	9552	9.14 UG/L	85
~~33)~~	~~2-HEXANONE~~		~~43~~	~~24.73~~	~~588~~	~~2532~~	~~2.79 UG/L~~ NO CW	100
34)	TETRACHLOROETHENE		164	24.73	588	115040	89.26 UG/L	92
~~35)~~	~~1,1,2,2-TETRACHLOROETHANE~~		~~83~~	~~24.73~~	~~588~~	~~3909~~	~~2.68 UG/L~~ CW	100
36)	TOLUENE-D8	(SURR)	98	25.93	619	185754	48.40 UG/L	92
37)	TOLUENE		92	26.13	624	50135	18.54 UG/L	97
38)	CHLOROBENZENE		112	27.18	651	475360	151.59 UG/L	98
39)	ETHYLBENZENE		91	29.16	702	132383	22.69 UG/L	97
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.65	766	96991	48.33 UG/L	100
~~41)~~	~~STYRENE~~		~~104~~	~~34.56~~	~~841~~	~~3375~~	~~1.00 UG/L~~ CW	100
42)	TOTAL XYLENES		91	33.59	816	102421	21.44 UG/L	100
42)	TOTAL XYLENES		91	34.56	841	152353	31.89 UG/L	100
43)	1,3-DICHLOROBENZENE		146	39.38	965	20653	20653.00 NO CALIB	100
43)	1,3-DICHLOROBENZENE		146	40.00	981	16987	16987.00 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	39.38	965	20653	20653.00 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	40.00	981	16987	16987.00 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	39.38	965	20653	20653.00 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	40.00	981	16987	16987.00 NO CALIB	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

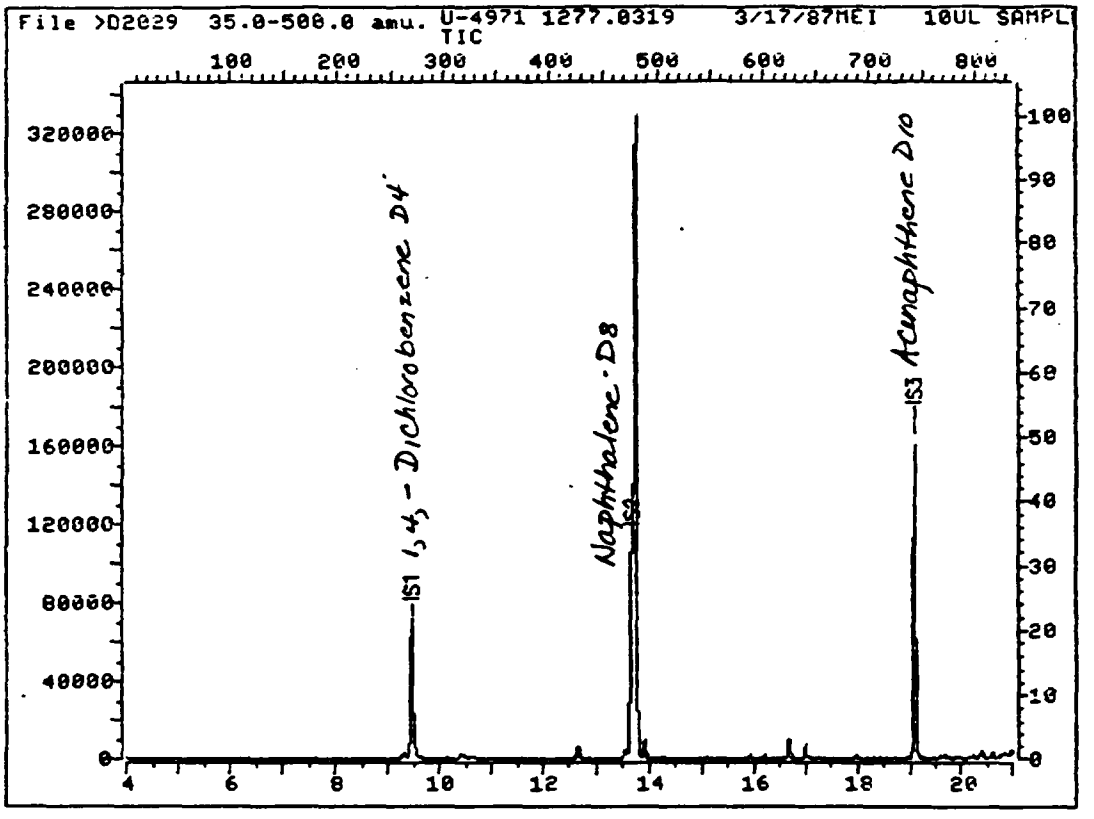


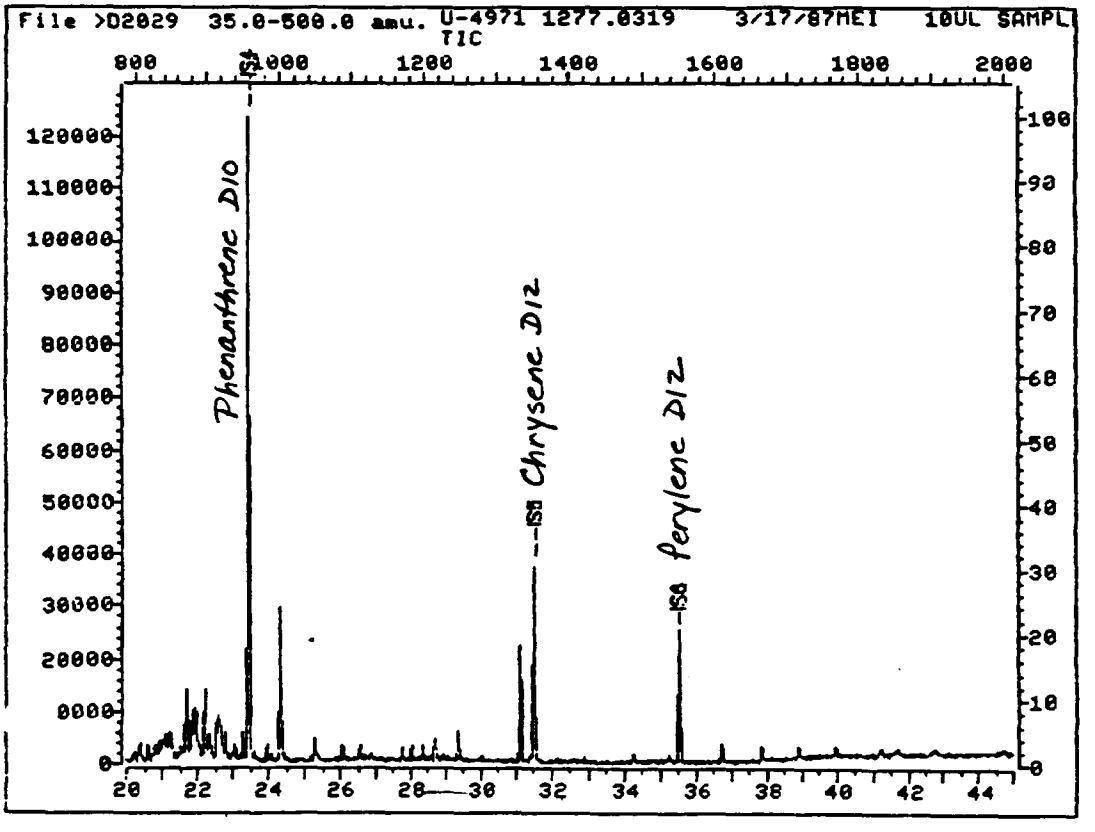
Data File: >D2029::D1
Name: U-4971 1277.0319 DC-G8-70
Misc: 3/17/87MEI 10UL SAMPLE/990UL MECL2 +10UL IS (100X)_ BTL#10

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870317 16:30

Operator ID: USER8
Quant Time: 870318 02:47
Injected at: 870318 02:00

DC-G8-70


File >D2029 35.0-500.0 amu. U-4971 1277.0319 3/17/87MEI 10UL SAMPL
TIC
1,4,-Dichlorobenzene D4
Naphthalene-D8
Acenaphthene D10
ISTD


File >D2029 35.0-500.0 amu. U-4971 1277.0319 3/17/87MEI 10UL SAMPL
TIC
Phenanthrene D10
Chrysene D12
Perylene D12
ISTD

QUANT REPORT

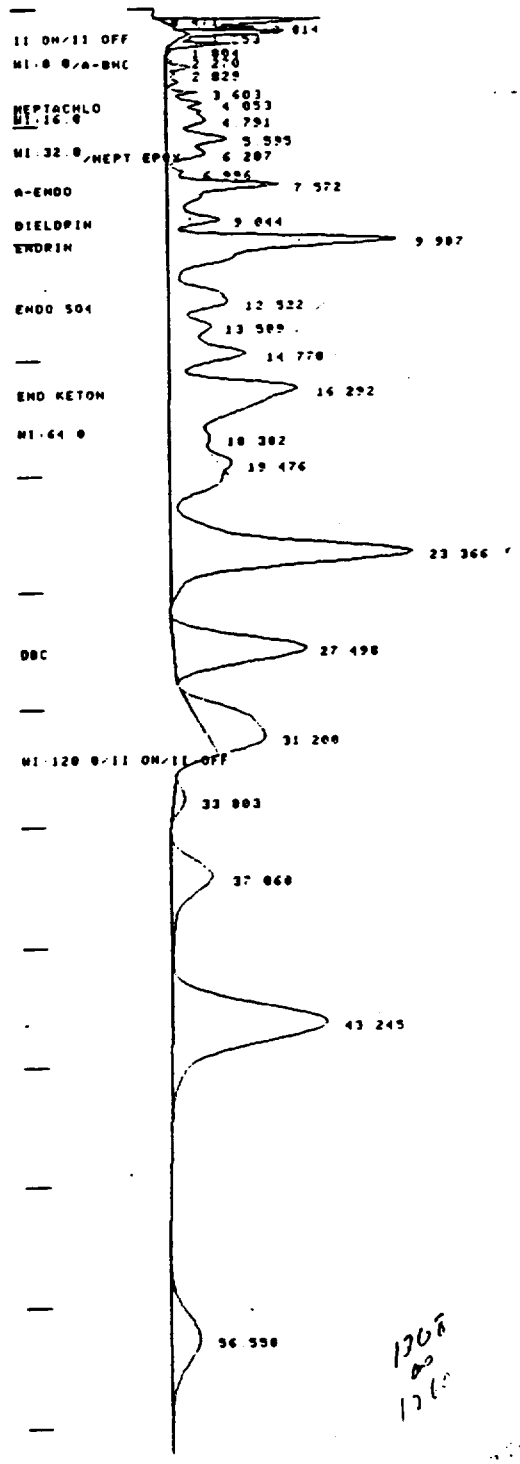
erator ID: USER8 Quant Rev: 4 -- Quant Time: 870318 02:47
utput File: ^D2029::Q2 Injected at: 870318 02:00
Data File: >D2029::D1 Dilution Factor: 100.00
Name: U-4971 1277.0319 DC-G8-70
Misc: 3/17/87MEI 10UL SAMPLE/990UL MECL2 +10UL IS (100X)_ BTL#10

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870317 16:30

	Compound		R.T.	Scan#	Area	Conc	Units		q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152 9.45	269	36934	40.00	UG/L		87
19)	*NAPHTHALENE-D8	(IS)	136 13.66	476	138092	40.00	UG/L		100
27)	2,4-DICHLOROPHENOL		162 13.54	470	3299	313.09	UG/L	yes	90
29)	NAPHTHALENE		128 13.75	480	404910	11842.36	UG/L	yes	100
~~29)~~	~~NAPHTHALENE~~		~~128 13.79~~	~~482~~	~~1479~~	~~43.26~~	~~UG/L~~		~~100~~
33)	2-METHYLNAPHTHALENE		142 15.93	587	1910	82.82	UG/L	yes	88
34)	*ACENAPHTHENE-D10	(IS)	162 19.08	742	87360	40.00	UG/L		94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163 19.08~~	~~742~~	~~16699~~	~~582.99~~	~~UG/L~~		~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165 19.08~~	~~742~~	~~11690~~	~~1691.18~~	~~UG/L~~		~~100~~
53)	DIETHYLPHTHALATE		149 21.04	838	1456	49.18	UG/L	yes	96
55)	*PHENANTHRENE-D10	(IS)	188 23.46	957	131926	40.00	UG/L		93
60)	PENTACHLOROPHENOL		266 23.28	948	2453	405.40	UG/L	yes	100
61)	PHENANTHRENE		178 23.52	960	3694	113.64	UG/L	yes	98
~~62)~~	~~ANTHRACENE~~		~~178 23.52~~	~~960~~	~~3694~~	~~123.00~~	~~UG/L~~		~~98~~
65)	*CHRYSENE-D12	(IS)	240 31.53	1353	38891	40.00	UG/L		100
74)	*PERYLENE-D12	(IS)	264 35.52	1549	24929	40.00	UG/L		100

* Compound is ISTD

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



DC-G8-70

RECALCULATE ON FILE: S.CROP393

CHANNEL: 1A - 1 TITLE: RUN# 21 5:08 12 MAR 87

SAMPLE: 1277DC-G8-70 METHOD: CASE1 CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/kg	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.514		64071	VV	7.00
2	~~G-BHC~~	9714.298	2.506	-0.104	40028	VV	12.56
3		0.0000	3.603		46723	VV	10.38
4	~~HEPTACHLO~~	20558.84	4.053	-0.067	75497	VV	? 17.31
5		0.0000	4.371		61754	VV	? 17.63
6		0.0000	4.791		155406	VV	? 50.00
7		0.0000	5.595		230196	VV	? 35.13
8	~~HEPT-EPOX~~	41688.83	6.207	0.077	167343	VV	? 44.56
9		0.0000	6.996		35385	VV	? 20.13
10	~~A-ENDO~~ -	124024.0	7.572	-0.018	469489	VV	24.13
11	~~DIELDRIN~~	51906.50	9.044	0.204	207154	VV	27.81
12	~~B-ENDO~~ -	340817.9	9.987	-0.053	1255201	VV	32.94
13	~~ENDO-SO4~~	186400.1	12.522	-0.298	449265	VV	? 60.06
14		0.0000	13.589		241103	VV	? 47.94
15	~~4,4-DDE~~ -	213639.1	14.770	0.540	508936	VV	49.81
16	~~ENDRIN~~ 1260	347935.6	16.292	-0.098	1348634	VV	85.25
17		0.0000	18.382		245775	VV	? 54.94
18		0.0000	19.476		812833	VV	?117.63
19		0.0000	*23.366 PCB 1260		2304151	VB	64.88
20	~~DDD~~	412892.1	27.498	-0.~~2860~~	1248464	BV	74.31
21		0.0000	31.200		806138	VB	?147.13
22		0.0000	33.803		82556	BV	54.69
23		0.0000	37.068		558771	VV	96.44
24		0.0000	43.245		2360172	VB	110.44
25		0.0000	56.550		563260	BB	144.75

TOTALS: 1749577. -0.699 14338305

DETECTED PKS: 38 REJECTED PKS: 13

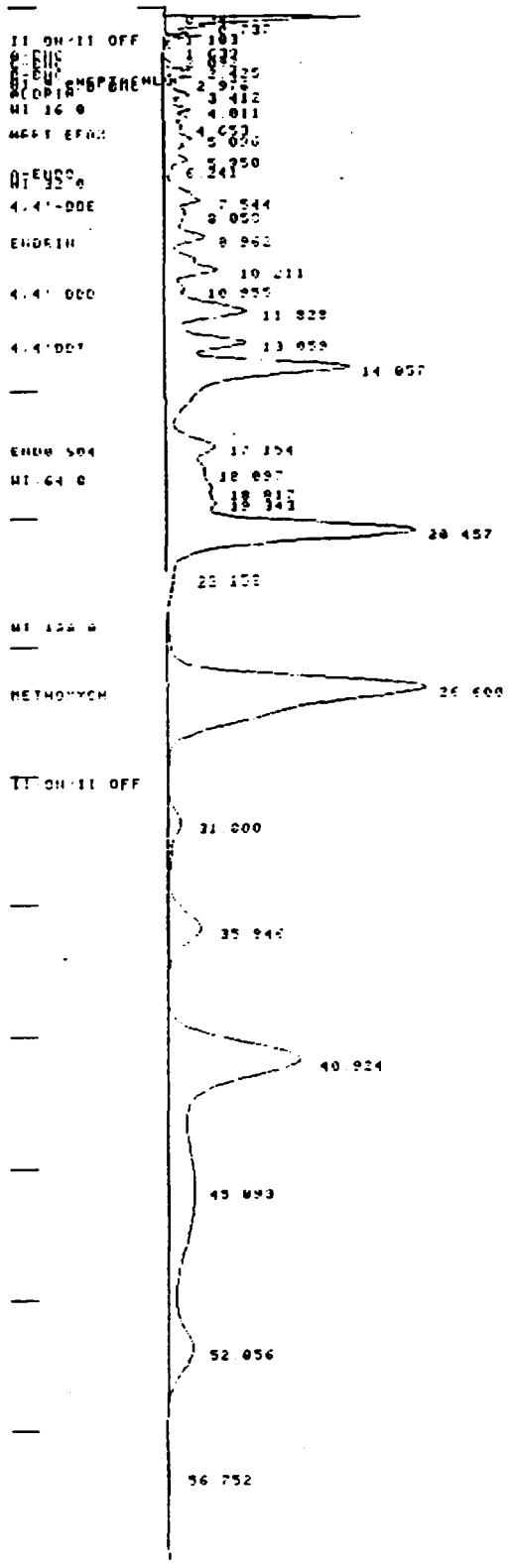
DIVISOR: 0.15000 MULTIPLIER: 1000000.00

NOISE: 11.4 OFFSET: -5

RACK: 2 VIAL: 6 INJ: 1

NOTES:
NOTERBOOK:259-146,147 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#'S U-4971,4989
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
DEAD CREEK PRIMARY ANALYSIS
AUTOSAMPLER

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



CHANNEL: 16 - 1 TITLE: RUN# 18 DC-G8-7Q 12:58 17 MAR 87

SAMPLE: 1277 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT MG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		25643.9[illegible]	2.425	-0.125	51950	VV	6.63
2		[illegible]	[illegible]	[illegible]	[illegible]		[illegible]

DC-G8-70

CHANNEL: 10 - 1 TITLE: RUN# 18 14:58 17 MAR 87

SAMPLE: 1277 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT MG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	[illegible]	25643.98	2.425	-0.125	51960	VV	6.63
2	[illegible]	13515.04	2.706	-0.064	63533	VV	7.81
3	[illegible]	7030.633	2.976	-0.004	30780	VV	? 10.69
4	[illegible]	16785.07	3.412	0.072	99187	VV	16.38
5		0.0000	3.695		31214	VV	? 14.86
6		0.0000	4.011		92375	VV	? 14.75
7		0.0000	4.312		76627	VV	? 17.94
8		0.0000	4.653		49429	VV	? 17.44
9		0.0000	4.704		42577	VV	?
10	[illegible]	29845.51	5.096	0.096	138236	VV	? 22.63
11		0.0000	5.427		74661	VV	? 24.36
12		0.0000	5.950		137856	VV	? 29.06
13	[illegible]	8705.695	6.241	-0.049	38020	VV	?
14	[illegible]	68017.01	7.544	-0.146	322470	VV	38.63
15		0.0000	8.058		190680	VV	? 75.06
16	[illegible]	75120.32	8.962	-0.368	296585	VV	31.19
17		0.0000	10.211		503715	VV	45.94
18	[illegible]	32364.77	10.955	-0.145	114849	VV	? 27.63
19	[illegible]	196190.5	11.828	0.538	823301	VV	41.25
20	[illegible]	245690.1	13.059	-0.351	711077	VV	37.25
21	[illegible]	697389.4	[illegible]	-0.713	[illegible]	VV	39.63
22		0.0000	17.154		592504	VV	? 51.25
23	[illegible]	127651.3	18.097	0.267	286353	VV	? 43.69
24		0.0000	18.817		414379	VV	? 53.06
25		0.0000	19.343		419230	VV	? 36.25
26		0.0000	* 20.457	PCB 1268	3303664	VV	49.63
27	[illegible]	3820322.	26.547	0.40 1260	5335236	VB	76.63
28		0.0000	31.760		287709	BV	76.88
29		0.0000	35.816		674585	VB	61.56
30		0.0000	40.866		3368248	BV	55.13
31		0.0000	45.954		1848523	VV	153.19
32		0.0000	52.056		782820	VB	125.56
33		0.0000	56.752		22112	BB	85.00

TOTALS: 5366273. -0.175 23394442

DETECTED PKS: 53 REJECTED PKS: 20

DIVISOR: 0.15000 MULTIPLIER: 1000000.00

NOISE: 297.1 OFFSET: -16

RACK: 2 VIAL: 3 INJ: 1

NOTES:
NOTEBOOK:259-154 ANALYST:RICHARD SAMSON
SECURE AREA D JOB #U-4571, U-4989
INST: VARIAN 6000#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
CONFIRMATION RUNS AUTOSAMPLER

POST RUN:
SAVE FILE: RAW D.CRK.111

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

SAMPLE NUMBER DC-G9-71

461095

DC-G9-71

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1278

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: CSlojowicz

Date Sample Received: 2-26-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-26-87

Conc/Dil Factor: 2 pH 7.5

Percent Moisture: (Not Decanted) 14

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	2000u
74-83-9	Bromomethane	2000u
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	400 BJ
67-64-1	Acetone	5200 B
75-15-0	Carbon Disulfide	1000u
75-35-4	1, 1-Dichloroethene	1000u
75-34-3	1, 1-Dichloroethane	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u
67-66-3	Chloroform	10000
107-06-2	1, 2-Dichloroethane	1000u
78-93-3	2-Butanone	8200 B
71-55-6	1, 1, 1-Trichloroethane	1000u
56-23-5	Carbon Tetrachloride	1000u
108-05-4	Vinyl Acetate	2000u
75-27-4	Bromodichloromethane	1000u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	1000u
10061-02-6	Trans-1, 3-Dichloropropene	1000u
79-01-6	Trichloroethene	1000u
124-48-1	Dibromochloromethane	1000u
79-00-5	1, 1, 2-Trichloroethane	1000u
71-43-2	Benzene	39000
10061-01-5	cis-1, 3-Dichloropropene	1000u
110-75-8	2-Chloroethylvinylether	2000u
75-25-2	Bromoform	1000u
108-10-1	4-Methyl-2-Pentanone	2000u
591-78-6	2-Hexanone	2000u
127-18-4	Tetrachloroethene	11000
79-34-5	1, 1, 2, 2-Tetrachloroethane	500 J
108-88-3	Toluene	81000
108-90-7	Chlorobenzene	170000 E
100-41-4	Ethylbenzene	6200
100-42-5	Styrene	1000u
	Total Xylenes	14000 E

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

Case No U-4906, 4928, 4971, 4989

Sample Number DC-G9-71

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared: 02-26-87

Date Analyzed: 03-18-87

Conc/Dil Factor: 10

Percent Moisture (Decanted) 14

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	16000u
111-44-4	bis(-2-Chloroethyl)Ether	16000u
95-57-8	2-Chlorophenol	16000u
541-73-1	1 3-Dichlorobenzene	16000u
106-46-7	1 4-Dichlorobenzene	16000u
100-51-6	Benzyl Alcohol	16000u
95-50-1	1 2-Dichlorobenzene	16000u
95-48-7	2-Methylphenol	16000u
39638-32-9	bis(2-chloroisopropyl)Ether	16000u
106-44-5	4-Methylphenol	16000u
621-64-7	N-Nitroso-Di-n-Propylamine	16000u
67-72-1	Hexachloroethane	16000u
98-95-3	Nitrobenzene	16000u
78-59-1	Isophorone	16000u
88-75-5	2-Nitrophenol	16000u
105-67-9	2, 4-Dimethylphenol	16000u
65-85-0	Benzoic Acid	83000u
111-91-1	bis(-2-Chloroethoxy)Methane	16000u
120-83-2	2, 4-Dichlorophenol	16000u
120-82-1	1 2, 4-Trichlorobenzene	13000 J
91-20-3	Naphthalene	94000
106-47-8	4-Chloroaniline	6900 J
87-68-3	Hexachlorobutadiene	16000u
59-50-7	4-Chloro-3-Methylphenol	16000u
91-57-6	2-Methylnaphthalene	12000 J
77-47-4	Hexachlorocyclopentadiene	16000u
88-06-2	2 4 6-Trichlorophenol	16000u
95-95-4	2 4 5-Trichlorophenol	83000u
91-58-7	2-Chloronaphthalene	16000u
88-74-4	2-Nitroaniline	83000u
131-11-3	Dimethyl Phthalate	16000u
208-96-8	Acenaphthylene	16000u
99-09-2	3-Nitroaniline	83000u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	2300 J
51-28-5	2, 4-Dinitrophenol	12000 J
100-02-7	4-Nitrophenol	83000u
132-64-9	Dibenzofuran	3700 J
121-14-2	2 4-Dinitrotoluene	16000u
606-20-2	2 6-Dinitrotoluene	16000u
84-66-2	Diethylphthalate	16000u
7005-72-3	4-Chlorophenyl-phenylether	16000u
86-73-7	Fluorene	9700 J
100-01-6	4-Nitroaniline	83000u
534-52-1	4, 6-Dinitro-2-Methylphenol	83000u
86-30-6	N-Nitrosodiphenylamine (1)	16000u
101-55-3	4-Bromophenyl-phenylether	16000u
118-74-1	Hexachlorobenzene	16000u
87-86-5	Pentachlorophenol	83000u
85-01-8	Phenanthrene	22000
120-12-7	Anthracene	7300 J
84-74-2	Di-n-Butylphthalate	15000 BJ
206-44-0	Fluoranthene	16000u
129-00-0	Pyrene	6500 J
85-68-7	Butylbenzylphthalate	20000
91-94-1	3, 3'-Dichlorobenzidine	32000u
56-55-3	Benzo(a)Anthracene	16000u
117-81-7	bis(2-Ethylhexyl)Phthalate	16000u
218-01-9	Chrysene	16000u
117-84-0	Di-n-Octyl Phthalate	16000u
205-99-2	Benzo(b)Fluoranthene	16000u
207-08-9	Benzo(k)Fluoranthene	16000u
50-32-8	Benzo(a)Pyrene	16000u
193-39-5	Indeno(1 2, 3-cd)Pyrene	16000u
53-70-3	Dibenz(a h)Anthracene	16000u
191-24-2	Benzo(g h i)Perylene	16000u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number

DC-G9-71

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-26-87

Date Analyzed 3-12-87

Conc/Dil Factor 100

Percent Moisture (decanted) 14

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	8,000u	
319-85-7	Beta-BHC	8,000u	
319-86-8	Delta-BHC	8,000u	
58-89-9	Gamma-BHC (Lindane)	8,000u	
76-44-8	Heptachlor	8,000u	
309-00-2	Aldrin	8,000u	
1024-57-3	Heptachlor Epoxide	8,000u	
959-98-8	Endosulfan I	8,000u	
60-57-1	Dieldrin	16,000u	
72-55-9	4,4'-DDE	16,000u	
72-20-8	Endrin	16,000u	
33213-65-9	Endosulfan II	16,000u	
72-54-8	4,4'-DDD	16,000u	
1031-07-8	Endosulfan Sulfate	16,000u	
50-29-3	4,4'-DDT	16,000u	
72-43-5	Methoxychlor	80,000u	
53494-70-5	Endrin Ketone	16,000u	
57-74-9	Chlordane	80,000u	
8001-35-2	Toxaphene	160,000u	
12674-11-2	Aroclor-1016	80,000u	
11104-28-2	Aroclor-1221	80,000u	
11141-16-5	Aroclor-1232	80,000u	
53469-21-9	Aroclor-1242	80,000u	
12672-29-6	Aroclor-1248	150,000	C
11097-69-1	Aroclor-1254	160,000u	
11096-82-5	Aroclor-1260	230,000	C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

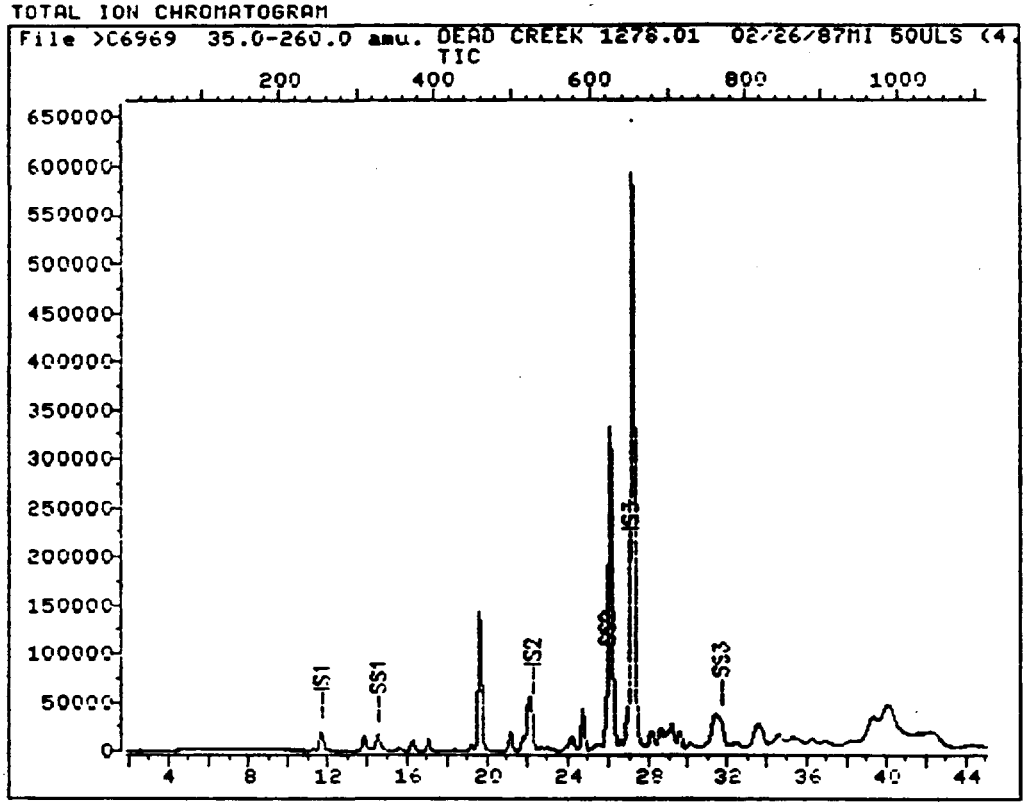
Sample Number DC-G9-71

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. 110827	Cyclohexane	VOA	16.3	5000 J
2.	Hexene isomer	VOA	17.1	1300 J
3.	Hexane isomer	VOA	21.2	2200 J
4.	Unknown	VOA	24.2	2700 J
5.	Unknown hydrocarbon	VOA	28.2	2400 J
6.	Unknown hydrocarbon	VOA	28.6	3700 J
7.	Dichlorobenzene isomer	VOA	39.4	11000 J
8.	Dichlorobenzene isomer	VOA	40.1	26000 J
9.				
10.				
11. 100005	Benzene, 1-chloro-4-nitro-	BNA	14.92	36000 J
12. 92524	1,1'-Biphenyl		17.47	61000 J
13. 643583	1,1'-Biphenyl, 2-methyl-		17.86	130,000 J
14. 1560969	Tridecane, 2-methyl		17.96	50000 J
15. 644086	1,1'-Biphenyl, 4-methyl-		19.25	78000 J
16. 643939	1,1'-Biphenyl, 3-methyl-		19.39	56000 J
17. 629629	Pentadecane		19.60	71000 J
18. 544763	Hexadecane		21.13	81000 J
19.	Isomeric Dodecylbenzene		21.70	72000 J
20.	Unknown hydrocarbon		21.85	52000 J
21. 27854406	Benzene, (1,1-dimethyldecyl)-		21.91	54000 J
22.	Unknown (dodecyl benzene isomer?)		21.99	39000 J
23.	Unknown (dodecylbenzene isomer?)		22.21	57000 J
24 629787	Heptadecane		22.58	100,000 J
25.	Unknown hydrocarbon		22.66	54,000 J
26.	Unknown hydrocarbon		23.97	59000 J
27.	Unknown hydrocarbon		25.30	320,000 J
28.	Unknown hydrocarbon		26.56	300,000 J
29. 5097121	Benzene, 1,1'-Sulfonylbis [2-methyl-		28.04	230,000 J
30 1241947	Phosphoric acid, 2-ethylhexyl diphenyl ester		31.40	240,000 J

TOTAL ION CHROMATOGRAM

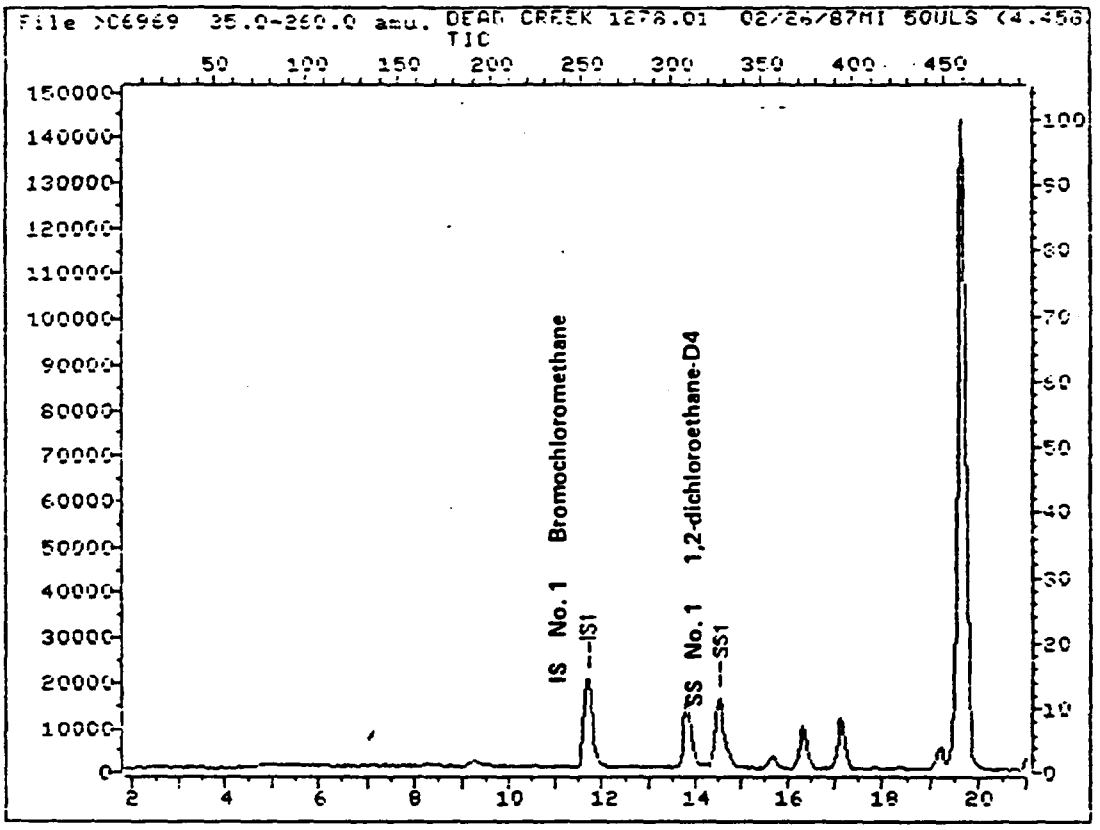


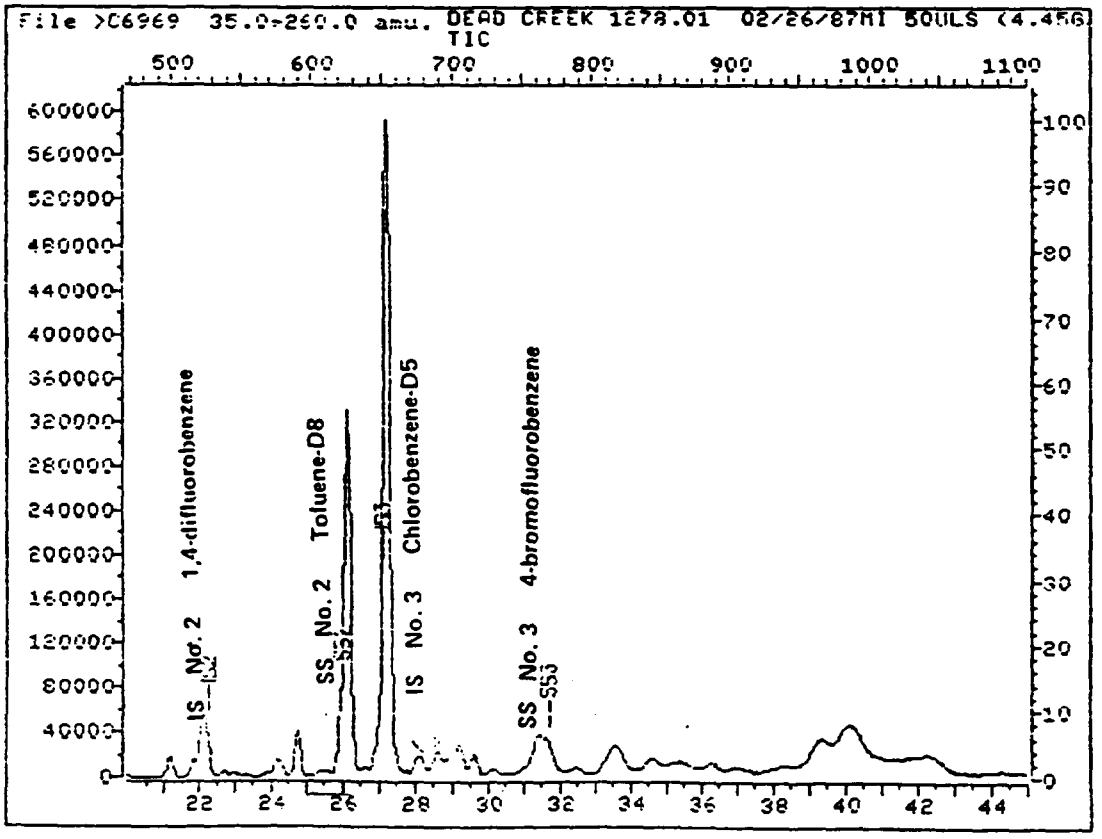
Data File: >C6969::D3
Name: DEAD CREEK 1278.01 DC-G9-71
Misc: 02/26/87MI 50ULS (4.45G/10MLS MEOH) + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870226 14:59

Operator ID: USER8
Quant Time: 870226 20:19
Injected at: 870226 19:33

DC-G9-71


File >C6969 35.0-260.0 amu. DEAD CREEK 1278.01 02/26/87MI 50ULS (4.456)
TIC
IS No. 1 Bromochloromethane
--IS1
SS No. 1 1,2-dichloroethane-D4
--SS1


File >C6969 35.0-260.0 amu. DEAD CREEK 1278.01 02/26/87MI 50ULS (4.456)
TIC
IS No. 2 1,4-difluorobenzene
SS No. 2 Toluene-D8
IS No. 3 Chlorobenzene-D5
SS No. 3 4-bromofluorobenzene
--SS3

QUANT REPORT

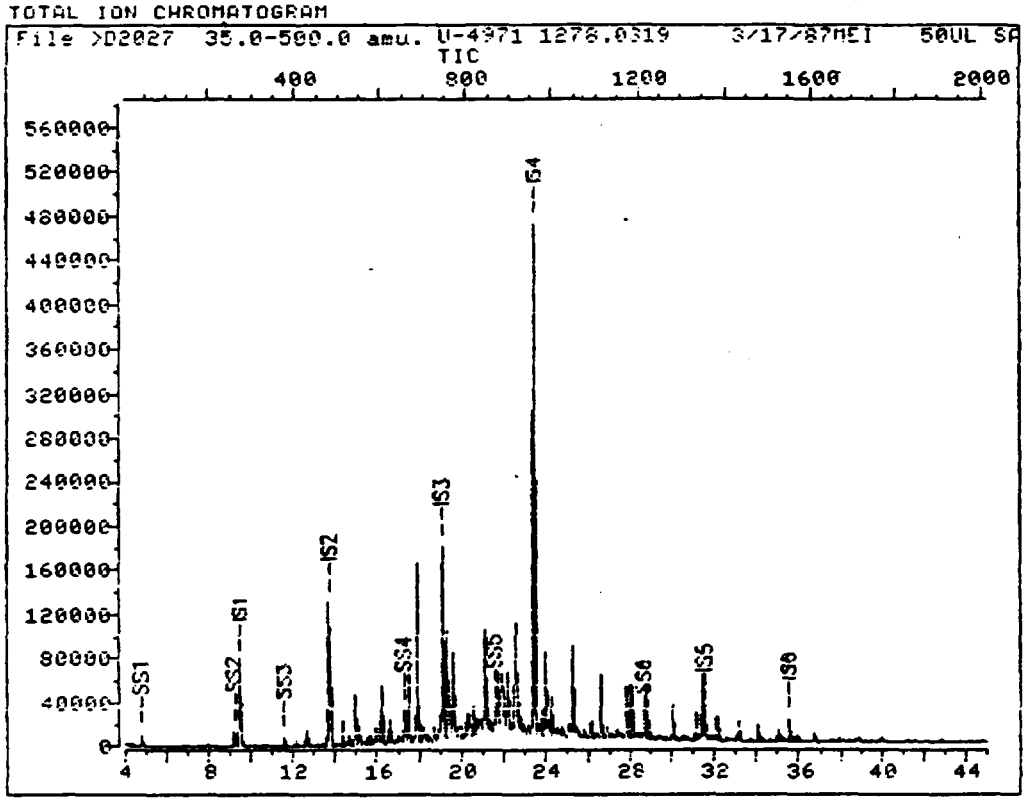
Operator ID: USER8 Quant Rev: 4 Quant Time: 870226 20:19
Output File: ^C6969::Q2 Injected at: 870226 19:33
Data File: >C6969::D3 Dilution Factor: 1.00
Name: DEAD CREEK 1278.01 DC-G9-71
Misc: 02/26/87MI 50ULS (4.45G/10MLS MEOH) + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870226 14:59

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.67	253	29441	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.25	165	1776	1.75 UG/L	100
7)	ACETONE		43	9.26	191	12028	22.94 UG/L	100
13)	CHLOROFORM		83	13.84	309	61720	44.59 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.54	327	68765	47.83 UG/L 96	82
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.26	526	147142	50.00 UG/L	100
17)	2-BUTANONE		72	14.69	331	4801	36.43 UG/L	100
27)	BENZENE		78	19.66	459	610385	172.24 UG/L	100
~~28)~~	~~CIS-1,3-DICHLOROPROPENE~~		~~75~~	~~19.66~~	~~459~~	~~12210~~	~~9.73 UG/L~~ CW	100
~~29)~~	~~2-CHLOROETHYLVINYLETHER~~		~~63~~	~~21.87~~	~~516~~	~~268~~	~~.57 UG/L~~	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.07	650	111725	50.00 UG/L	100
~~33)~~	~~2-HEXANONE~~		~~43~~	~~24.28~~	~~578~~	~~30915~~	~~45.17 UG/L~~ NO CW	100
~~33)~~	~~2-HEXANONE~~		~~43~~	~~24.74~~	~~590~~	~~25290~~	~~36.95 UG/L~~ NO CW	100
~~33)~~	~~2-HEXANONE~~		~~43~~	~~25.40~~	~~607~~	~~5915~~	~~8.64 UG/L~~	100
34)	TETRACHLOROETHENE		164	24.74	590	46174	47.42 UG/L	93
~~35)~~	~~1,1,2,2-TETRACHLOROETHANE~~		~~83~~	~~24.16~~	~~575~~	~~8883~~	~~7.34 UG/L~~ CW	100
35)	1,1,2,2-TETRACHLOROETHANE		83	24.59	586	2387	2.17 UG/L yes	100
~~35)~~	~~1,1,2,2-TETRACHLOROETHANE~~		~~83~~	~~25.40~~	~~607~~	~~3018~~	~~2.74 UG/L~~ CW	100
36)	TOLUENE-D8	(SURR)	98	25.95	621	144733	49.92 UG/L 100	94
37)	TOLUENE		92	26.14	626	740324	362.49 UG/L	96
38)	CHLOROBENZENE		112	27.19	653	1818330	767.57 UG/L	98
39)	ETHYLBENZENE		91	29.22	705	120888	27.43 UG/L	96
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.66	768	80349	52.99 UG/L 106	100
42)	TOTAL XYLENES		91	33.64	819	121087	33.55 UG/L	100
42)	TOTAL XYLENES		91	34.66	845	99070	27.45 UG/L	100
~~42)~~	~~TOTAL XYLENES~~		~~91~~	~~36.33~~	~~888~~	~~37017~~	~~10.26 UG/L~~ CW	100
43)	1,3-DICHLOROBENZENE		146	39.36	966	168958	168958.0 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	39.36	966	168958	168958.0 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	39.36	966	168958	168958.0 NO CALIB	100

* Compound is ISTD

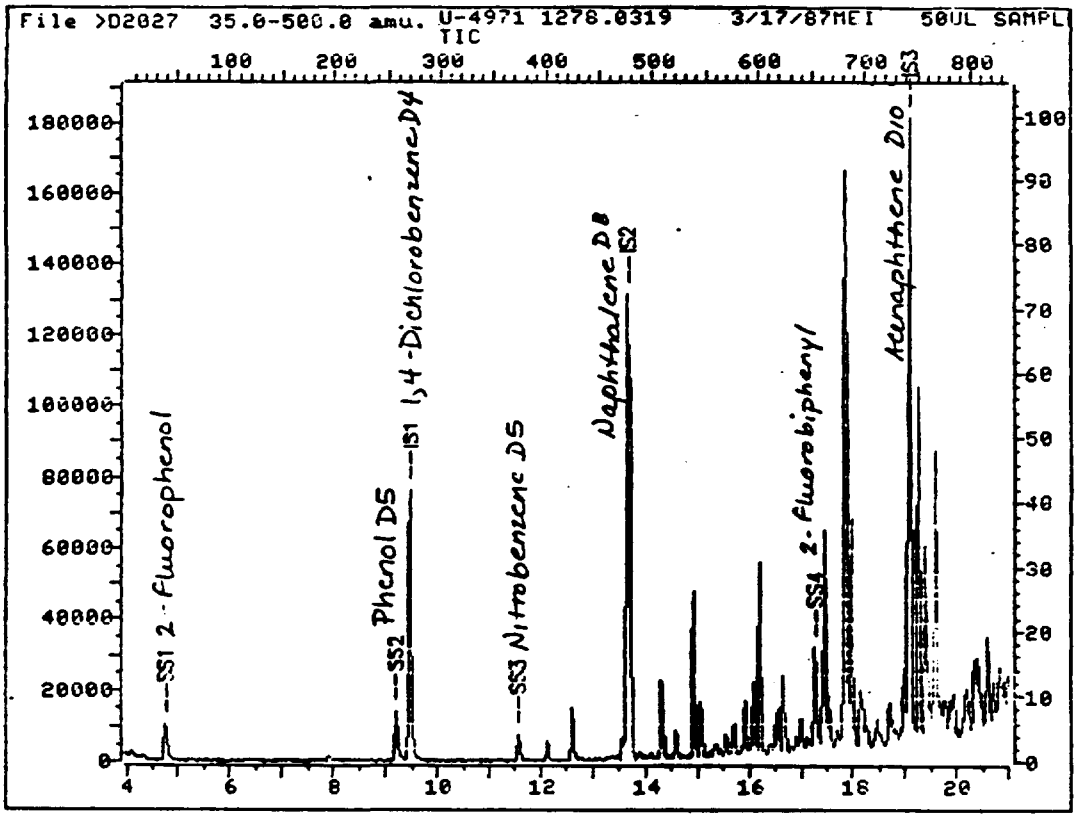
TOTAL ION CHROMATOGRAM



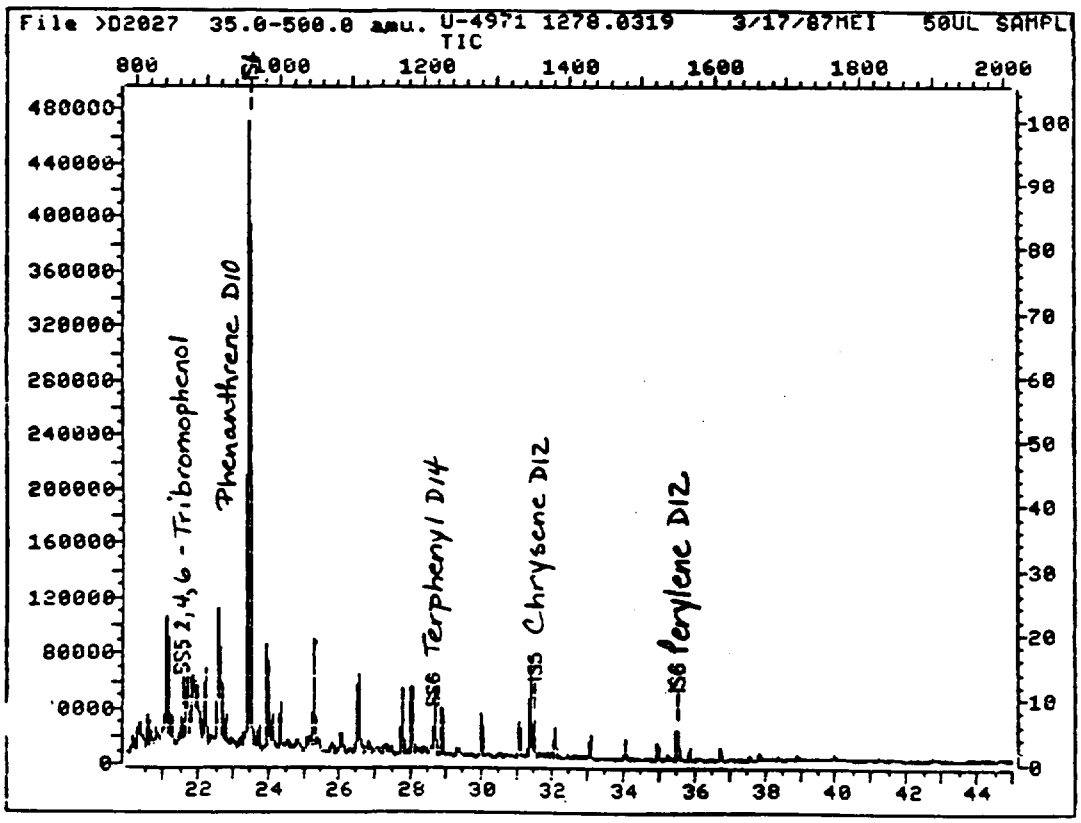
Data File: >D2027::D3
Name: U-4971 1278.0319 DC-G9-71
Misc: 3/17/87MEI 50UL SAMPLE/450UL MECL2 + 5UL IS (10X) BTL# 8

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870317 16:30

Operator ID: USER8
Quant Time: 870318 00:51
Injected at: 870318 00:03


File >D2027 35.0-500.0 amu. U-4971 1278.0319 3/17/87MEI 50UL SAMPL
TIC
SS1 2-Fluorophenol
SS2 Phenol D5
IS1 1,4-Dichlorobenzene D4
SS3 Nitrobenzene D5
Naphthalene D8
IS2
SS4 2-Fluorobiphenyl
Acenaphthene D10
IS3

DC-G9-71


File >D2027 35.0-500.0 amu. U-4971 1278.0319 3/17/87MEI 50UL SAMPL
TIC
SS5 2,4,6-Tribromophenol
Phenanthrene D10
SS6 Terphenyl D14
IS5 Chrysene D12
IS6 Perylene D12

QUANT REPORT

erator ID: USER8 Quant Rev: 4 .. Quant Time: 870318 00:51
utput File: ^D2027::02 Injected at: 870318 00:03
Data File: >D2027::03 Dilution Factor: 10.00
Name: U-4971 1278.0319 DC-G9-71
Misc: 3/17/87MEI 50UL SAMPLE/450UL MECL2 + 5UL IS (10X) BTL# 8

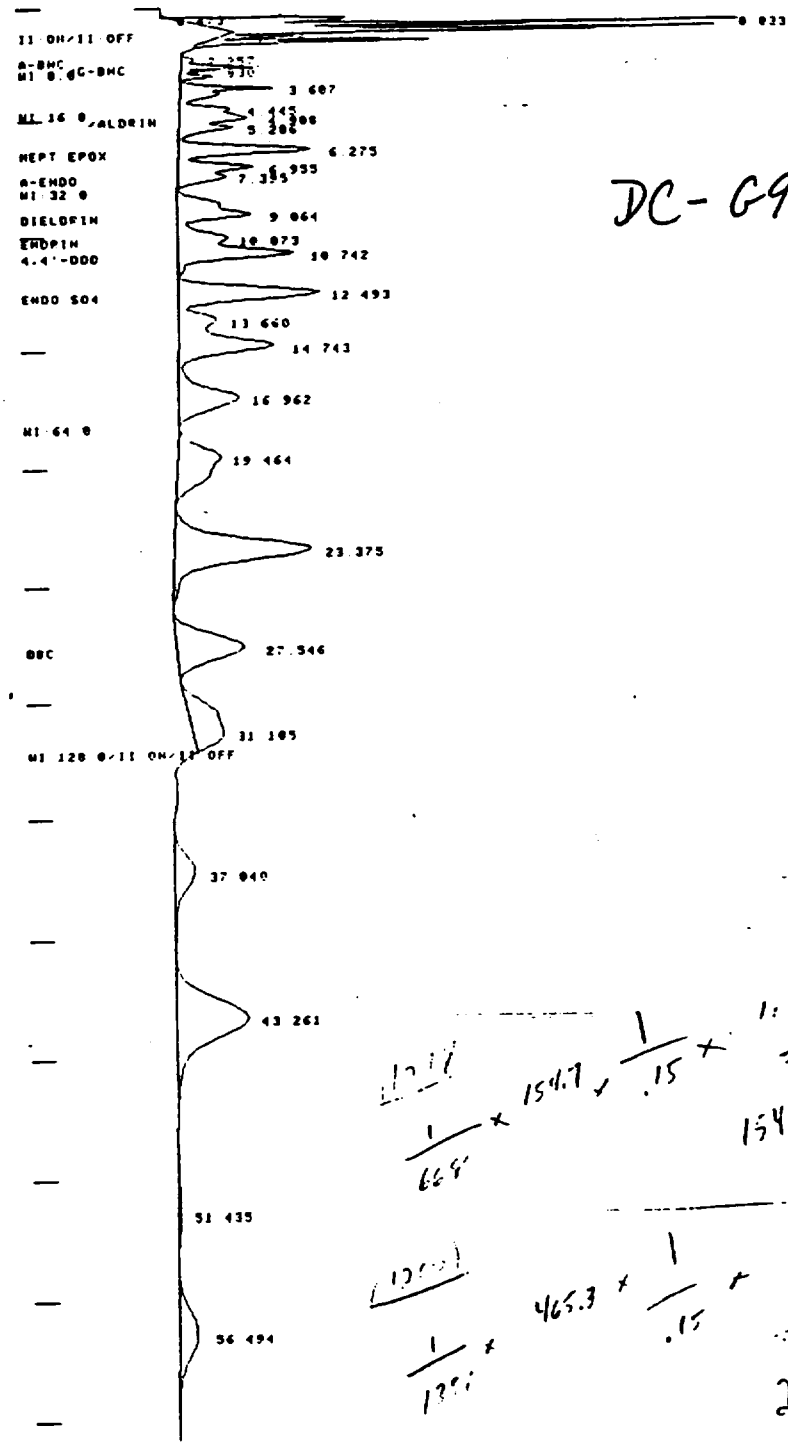
ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870317 16:30

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.46	270	39413	40.00 UG/L	87
2)	PHENOL-D5	(SURR)	99	9.18	256	15785	106.43 UG/L	98
5)	2-FLUOROPHENOL	(SURR)	112	4.74	38	10198	108.29 UG/L	79
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.56~~	~~373~~	~~1349~~	~~10.38 UG/L~~	~~81~~
19)	*NAPHTHALENE-D8	(IS)	136	13.66	476	153494	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.54	372	8537	56.41 UG/L	96
~~27)~~	~~2,4-DICHLOROPHENOL~~		~~162~~	~~13.54~~	~~470~~	~~3765~~	~~32.15 UG/L~~	~~93~~
28)	1,2,4-TRICHLOROBENZENE		180	13.62	474	5453	39.42 UG/L yes	100
29)	NAPHTHALENE		128	13.72	479	110665	291.18 UG/L yes	100
30)	4-CHLOROANILINE		127	14.29	507	2120	21.24 UG/L yes	87
33)	2-METHYLNAPHTHALENE		142	15.92	587	9713	37.89 UG/L yes	90
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.21~~	~~601~~	~~5491~~	~~21.42 UG/L~~	~~90~~
34)	*ACENAPHTHENE-D10	(IS)	162	19.09	742	90056	40.00 UG/L	96
38)	2-FLUOROBIPHENYL	(SURR)	172	17.27	653	19234	71.31 UG/L	95
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.09~~	~~742~~	~~17341~~	~~58.73 UG/L~~	~~100~~
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.25~~	~~750~~	~~1490~~	~~5.05 UG/L~~	~~100~~
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~19.25~~	~~750~~	~~50730~~	~~169.89 UG/L~~	~~100~~
~~43)~~	~~DIBENZOFURAN~~		~~168~~	~~19.39~~	~~757~~	~~31035~~	~~86.82 UG/L~~	~~100~~
43)	DIBENZOFURAN		168	19.68	771	4062	11.36 UG/L yes	100
~~44)~~	~~ACENAPHTHYLENE~~		~~152~~	~~15.13~~	~~695~~	~~1268~~	~~3.33 UG/L~~	~~1~~
45)	FLUORENE		166	20.72	822	8129	29.83 UG/L yes	98
47)	ACENAPHTHENE		153	19.17	746	1737	7.01 UG/L yes	94
~~47)~~	~~ACENAPHTHENE~~		~~153~~	~~19.25~~	~~750~~	~~10501~~	~~42.35 UG/L~~	~~1~~
~~47)~~	~~ACENAPHTHENE~~		~~153~~	~~19.39~~	~~757~~	~~6312~~	~~25.46 UG/L~~	~~2~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.54	862	3408	63.46 UG/L 31	98
49)	2,4-DINITROPHENOL		184	21.01	836	1524	37.87 UG/L yes	100
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~19.88~~	~~781~~	~~199~~	~~4.68 UG/L~~	~~100~~
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~19.94~~	~~784~~	~~237~~	~~5.58 UG/L~~	~~100~~
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~20.44~~	~~808~~	~~152~~	~~3.58 UG/L~~	~~100~~
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~20.72~~	~~822~~	~~823~~	~~19.37 UG/L~~	~~100~~
~~51)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~19.64~~	~~769~~	~~1237~~	~~16.92 UG/L~~	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.09~~	~~742~~	~~12075~~	~~169.34 UG/L~~	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.25~~	~~750~~	~~16060~~	~~225.23 UG/L~~	~~100~~
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.39~~	~~757~~	~~11536~~	~~161.78 UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	23.48	957	86225	40.00 UG/L	82
61)	PHENANTHRENE		178	23.54	960	14174	66.72 UG/L yes	96
~~61)~~	~~PHENANTHRENE~~		~~178~~	~~23.66~~	~~966~~	~~4395~~	~~20.69 UG/L~~	~~92~~
~~62)~~	~~ANTHRACENE~~		~~178~~	~~23.54~~	~~960~~	~~14174~~	~~72.69 UG/L~~	~~96~~
62)	ANTHRACENE.		178	23.66	966	4395	22.54 UG/L yes	92
63)	DI-N-BUTYLPHTHALATE		149	26.07	1084	10541	46.91 UG/L yes	99
65)	*CHRYSENE-D12	(IS)	240	31.52	1351	25925	40.00 UG/L	100
~~66)~~	~~BENZIDINE~~		~~184~~	~~27.36~~	~~1147~~	~~218~~	~~218.00 NO CALIB~~	~~100~~
~~66)~~	~~BENZIDINE~~		~~184~~	~~28.06~~	~~1181~~	~~325~~	~~325.00 NO CALIB~~	~~100~~
67)	PYRENE		202	27.73	1165	3016	19.87 UG/L yes	89
68)	TERPHENYL-D14	(SURR)	244	28.65	1210	4356	54.60 UG/L	100
69)	BUTYLBENZYLPHTHALATE		149	30.53	1302	2694	60.60 UG/L yes	89

	Compound			R.T.	Scan#	Area	Conc	Units	q
~~73)~~	~~3,3'-DICHLOROBENZIDINE~~		~~252~~	~~31.48~~	~~1545~~	~~4499~~	~~3679.62~~	~~UG/L~~	~~100~~
74)	*PERYLENE-D12	(IS)	264	35.52	1547	19824	40.00	UG/L	100

* Compound is ISTD

CHART SPEED 2.5 CM/MIN
ATTEN: 0 ZERO: 10% 5 MIN/TICK



DC-G9-71

$\frac{1}{668} \times 154.7 \times \frac{1}{.15} \times$ [illegible] = 154,000 us/kg

$\frac{1}{1[illegible]} \times 465.3 \times \frac{1}{.15} \times$ [illegible] = 234,000 us/kg

RECALCULATE ON FILE: S.CROP394

RECALCULATE ON FILE: S.CROP394

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

SAMPLE: 1278 DC-G9-71 METHOD: CASE1 CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/kg	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.274		58303	BV	4.81
2		0.0000	1.529		195155	VB	5.06
3	~~C-BHC~~	2297.499	2.586	-0.024	94669	VV	? 8.44
4		0.0000	2.830		45385	VV	8.06
5		0.0000	3.115		38426	VV	8.31
6		0.0000	3.607		147808	VV	10.63
7		0.0000	3.846		88050	VV	? 19.19
8		0.0000	4.445		111447	VV	? 15.94
9	~~ALDRIN~~	5316.607	4.908	-0.152	223159	VV	? 34.38
10		0.0000	5.286		136251	VV	? 18.00
11	~~HEPT EPOX~~	10105.71	*6.275	PCB1248 0.145	405653	VV	23.31
12		0.0000	6.955		194567	VV	20.69
13	~~A-ENDO~~	4114.658	7.395	-0.195	155759	VB	? 30.25
14	~~DIELDRIN~~	9885.574	9.064	0.224	394524	BV	46.88
15	~~B-ENDO~~	5481.945	10.073	0.033	201895	VV	? 34.75
16	~~4,4'-DDD~~	14325.88	10.742	-0.188	477119	VV	30.44
17	~~ENDO-SO4~~	27880.33	12.493	-0.327	671977	VV	36.75
18		0.0000	13.660		185972	VV	? 37.06
19	~~4,4'-DDT~~	23310.63	14.743	0.513	555311	VV	42.94
20	~~ENB-KETON~~	11947.80	16.962	0.572	463109	VB	56.63
21		0.0000	19.464		511471	BV	96.38
22		0.0000	*23.379	PCB1260	1191011	VV	61.50
23	~~DDE~~	21439.62	27.546	-0.834	648271	VV	76.38
24		0.0000	31.185		421703	VB	?146.88
25		0.0000	37.040		262011	BV	94.94
26		0.0000	43.261		1116475	VB	111.75
27		0.0000	51.435		50432	BV	156.00
28		0.0000	56.494		337070	VB	137.69
TOTALS:		136106.2		-0.233	9384983		

DETECTED PKS: 35 REJECTED PKS: 7

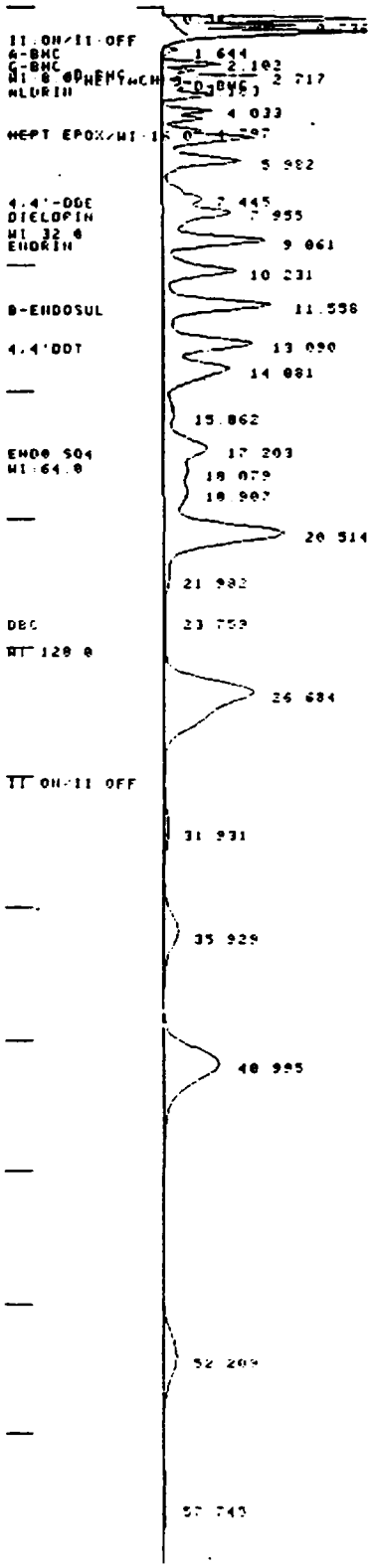
DIVISOR: 0.15000 MULTIPLIER: 100000.000

NOISE: 11.4 OFFSET: 11

RACK: 2 VIAL: 7 INJ: 1

NOTES:
NOTERBOOK:259-146,147 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#'S U-4971,4989
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
DEAD CREEK PRIMARY ANALYSIS
AUTOSAMPLER

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



DC-G9-71

CHANNEL: 18 - 1 TITLE: RUN#13 9:55 17 MAR 87

SAMPLE: 1278 METHOD: PEPA CALCULATION: ES - ANAL+S

PEAK	PEAK	RESULT	TIME	TIME	AREA	SEP	W1/2

57.745

DC-69-71

CHANNEL: 1B - 1 TITLE: RUN# 13 9:55 17 MAR 87

SAMPLE: 1278 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT MG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	[illegible]	632.3035	1.644	-0.136	41581	BV	3.69
2		0.0000	2.102		44852	VV ?	5.25
3	[illegible]	1572.038	2.190	-0.060	82323	VV ?	6.38
4	[illegible]	3334.686	2.423	-0.137	69980	VV ?	8.56
5	[illegible]	3534.845	2.717	-0.053	171223	VV	6.38
6	[illegible]	1390.013	2.977	-0.003	63641	VV	8.13
7		0.0000	3.183		44373	VV ?	9.44
8	[illegible]	3049.725	3.414	0.064	158396	VV	12.69
9		0.0000	4.033		145439	VV	11.63
10		0.0000	4.321		121957	VV	13.31
11		0.0000	[illegible]		108068	VV ?	12.36
12	[illegible]	8742.754 *	5.039	0.089	427198	VV	19.31
13	[illegible]	10353.60	[illegible]	-0.318	[illegible]	VV	21.13
14	[illegible]	6904.314	7.445	0.165	313985	VV ?	35.25
15	[illegible]	10631.02	7.955	0.255	515704	VV	30.44
16	[illegible]	15952.75	9.061	-0.289	643131	VV	25.00
17		0.0000	10.234		555918	VV	27.56
18	[illegible]	15425.73	11.558	0.236	821683	VV	29.19
19	[illegible]	24691.52	13.030	-0.350	735338	VV	33.19
20		0.0000	14.084		728568	VV	47.36
21		0.0000	15.862		135534	VV ?	71.56
22		0.0000	17.283		552047	VV ?	56.25
23	[illegible]	9477.234	18.079	0.219	221736	VV ?	93.50
24		0.0000	18.907		305631	VV ?	53.25
25		0.0000 *	[illegible]		1521296	VV	49.31
26		0.0000	21.962		81247	VV	7123.81
27	[illegible]	973.1716	23.759	-0.031	33711	VV	7122.38
28	[illegible]	133578.0	26.684	0.854	1673449	VB	89.75
29		0.0000	31.931		82662	BV	83.81
30		0.0000	35.929		313415	VV	83.75
31		0.0000	52.209		377689	BV	115.13
32		0.0000	57.745		43120	VB	136.00
TOTALS:		254483.8		0.507	11787658		

DETECTED PKS: 44 REJECTED PKS: 12

DIVISOR: 0.15000 MULTIPLIER: 100000.000

NOISE: 45.7 OFFSET: -1

RACK: 1 VIAL: 13 INJ: 1

NOTES:
NOTEBOOK:259-154 ANALYST:RICHARD SAMSON
SECURE AREA D JOB #U-4571, U-4985
INST: VARIAN 6000#2 6 ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
CONFIRMATION RUNS AUTOSAMPLER

POST RUN:
SAVE FILE: RAW D.CRK.106

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

SAMPLE NUMBER DC-09-72

481095

DC-09-72

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1427

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-28-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 3-09-87

Conc/Dil Factor: 2 pH 7.0

Percent Moisture: (Not Decanted) 18

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000U
74-83-9	Bromomethane	2000U
75-01-4	Vinyl Chloride	2000U
75-00-3	Chloroethane	2000U
75-09-2	Methylene Chloride	720 BJ
67-64-1	Acetone	2000U
75-15-0	Carbon Disulfide	1000U
75-35-4	1, 1-Dichloroethene	1000U
75-34-3	1, 1-Dichloroethane	1000U
156-60-5	Trans-1, 2-Dichloroethene	1000U
67-66-3	Chloroform	1000U
107-06-2	1, 2-Dichloroethane	1000U
78-93-3	2-Butanone	1000U
71-55-6	1, 1, 1-Trichloroethane	1000U
56-23-5	Carbon Tetrachloride	1000U
108-05-4	Vinyl Acetate	2000U
75-27-4	Bromodichloromethane	1000U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000U
10061-02-6	Trans-1, 3-Dichloropropene	1000U
79-01-6	Trichloroethene	1000U
124-48-1	Dibromochloromethane	1000U
79-00-5	1, 1, 2-Trichloroethane	1000U
71-43-2	Benzene	1000U
10061-01-5	cis-1, 3-Dichloropropene	1000U
110-75-8	2-Chloroethylvinylether	2000U
75-25-2	Bromoform	1000U
108-10-1	4-Methyl-2-Pentanone	2000U
591-78-6	2-Hexanone	2000U
127-18-4	Tetrachloroethene	1000U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000U
108-88-3	Toluene	240 J
108-90-7	Chlorobenzene	690 J
100-41-4	Ethylbenzene	2000
100-42-5	Styrene	1000U
	Total Xylenes	18000

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

Case No V-4906, 4928, 4971, 4989

Sample Number DC-09-72

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 03-03-87

Date Analyzed: 03-17-87

Conc/Dil Factor: 10

Percent Moisture (Decanted) 18

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	16000u
111-44-4	bis(2-Chloroethyl)Ether	16000u
95-57-8	2-Chlorophenol	16000u
541-73-1	1,3-Dichlorobenzene	16000u
106-46-7	1,4-Dichlorobenzene	5900 J
100-51-6	Benzyl Alcohol	16000u
95-50-1	1,2-Dichlorobenzene	27000
95-48-7	2-Methylphenol	16000u
39638-32-9	bis(2-chloroisopropyl)Ether	16000u
106-44-5	4-Methylphenol	16000u
621-64-7	N-Nitroso-Di-n-Propylamine	16000u
67-72-1	Hexachloroethane	16000u
98-95-3	Nitrobenzene	16000u
78-59-1	Isophorone	16000u
88-75-5	2-Nitrophenol	16000u
105-67-9	2,4-Dimethylphenol	16000u
65-85-0	Benzoic Acid	83000u
111-91-1	bis(2-Chloroethoxy)Methane	16000u
120-83-2	2,4-Dichlorophenol	16000u
120-82-1	1,2,4-Trichlorobenzene	21000
91-20-3	Naphthalene	5500 J
106-47-8	4-Chloroaniline	16000u
87-68-3	Hexachlorobutadiene	16000u
59-50-7	4-Chloro-3-Methylphenol	16000u
91-57-6	2-Methylnaphthalene	26000
77-47-4	Hexachlorocyclopentadiene	16000u
88-06-2	2,4,6-Trichlorophenol	16000u
95-95-4	2,4,5-Trichlorophenol	83000u
91-58-7	2-Chloronaphthalene	16000u
88-74-4	2-Nitroaniline	83000u
131-11-3	Dimethyl Phthalate	16000u
208-96-8	Acenaphthylene	16000u
99-09-2	3-Nitroaniline	83000u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	2100 J
51-28-5	2,4-Dinitrophenol	83000u
100-02-7	4-Nitrophenol	83000u
132-64-9	Dibenzofuran	1200 J
121-14-2	2,4-Dinitrotoluene	16000u
606-20-2	2,6-Dinitrotoluene	16000u
84-66-2	Diethylphthalate	16000u
7005-72-3	4-Chlorophenyl-phenylether	16000u
86-73-7	Fluorene	2500 J
100-01-6	4-Nitroaniline	83000u
534-52-1	4,6-Dinitro-2-Methylphenol	83000u
86-30-6	N-Nitrosodiphenylamine (1)	8400 J
101-55-3	4-Bromophenyl-phenylether	16000u
118-74-1	Hexachlorobenzene	16000u
87-86-5	Pentachlorophenol	270,000
85-01-8	Phenanthrene	18000
120-12-7	Anthracene	3400 J
84-74-2	Di-n-Butylphthalate	5900 J
206-44-0	Fluoranthene	6000 J
129-00-0	Pyrene	51000
85-68-7	Butylbenzylphthalate	16000u
91-94-1	3,3'-Dichlorobenzidine	33000u
56-55-3	Benzo(a)Anthracene	21000
117-81-7	bis(2-Ethylhexyl)Phthalate	16000u
218-01-9	Chrysene	51000
117-84-0	Di-n-Octyl Phthalate	16000u
205-99-2	Benzo(b)Fluoranthene	14000 J
207-08-9	Benzo(k)Fluoranthene	16000u
50-32-8	Benzo(a)Pyrene	16000
193-39-5	Indeno(1,2,3-cd)Pyrene	16000u
53-70-3	Dibenz(a,h)Anthracene	16000u
191-24-2	Benzo(g,h,i)Perylene	14000 J

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number DC-09-72

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 3-3-87

Date Analyzed 3-12-87

Conc/Dil Factor 200

Percent Moisture (decanted) 18

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	16,000u
319-85-7	Beta-BHC	16,000u
319-86-8	Delta-BHC	16,000u
58-89-9	Gamma-BHC (Lindane)	16,000u
76-44-8	Heptachlor	16,000u
309-00-2	Aldrin	16,000u
1024-57-3	Heptachlor Epoxide	16,000u
959-98-8	Endosulfan I	16,000u
60-57-1	Dieldrin	32,000u
72-55-9	4,4'-DDE	32,000u
72-20-8	Endrin	32,000u
33213-65-9	Endosulfan II	32,000u
72-54-8	4,4'-DDD	32,000u
1031-07-8	Endosulfan Sulfate	32,000u
50-29-3	4,4'-DDT	32,000u
72-43-5	Methoxychlor	160,000u
53494-70-5	Endrin Ketone	32,000u
57-74-9	Chlordane	160,000u
8001-35-2	Toxaphene	320,000u
12674-11-2	Aroclor-1016	160,000u
11104-28-2	Aroclor-1221	160,000u
11141-16-5	Aroclor-1232	160,000u
53469-21-9	Aroclor-1242	520,000 Y
12672-29-6	Aroclor-1248	160,000u
11097-69-1	Aroclor-1254	320,000u
11096-82-5	Aroclor-1260	320,000u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

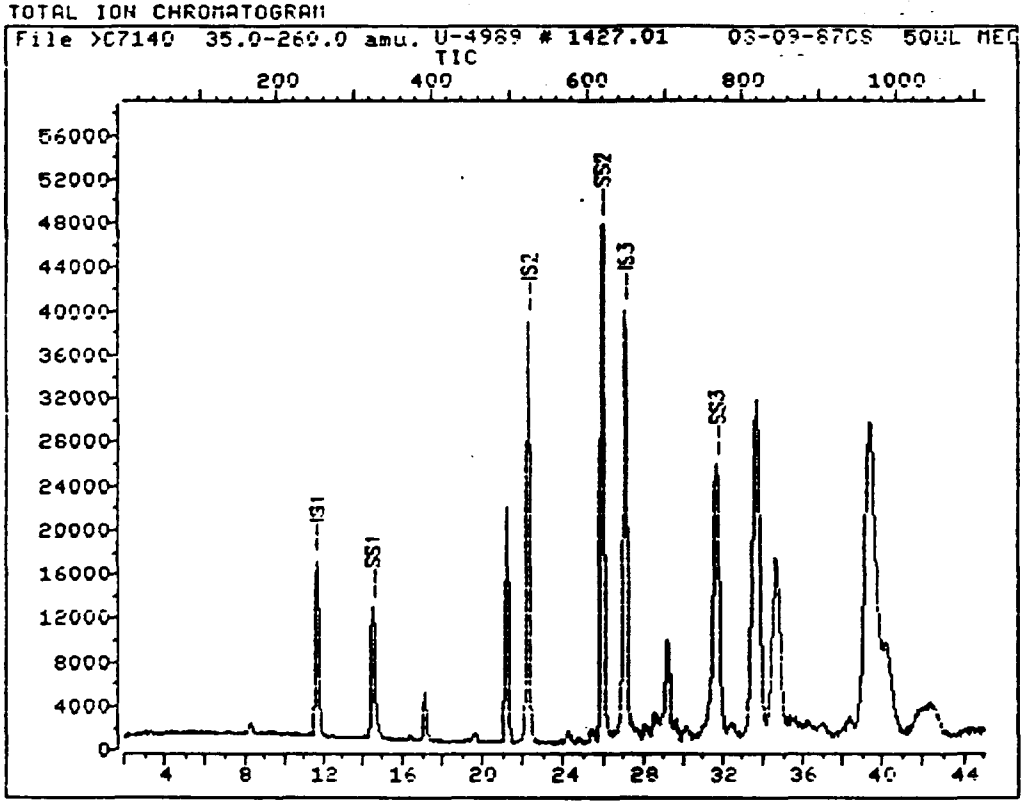
Sample Number DC-09-72

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	1300 BJ
2.	Hexane isomer	VOA	21.2	6200 BJ
3.	Dichlorobenzene isomers	VOA	39.4	27000 J
4.	Methyl ethyl benzene isomer	VOA	41.9	390 J
5.				
6.				
7. 629505	Tridecane	BNA	16.21	120,000 J
8. 629594	Tetradecane		17.97	130,000 J
9. 629629	Pentadecane		19.60	95,000 J
10. 544763	Hexadecane		21.14	100,000 J
11. 4537159	Benzene, (1-butylheptyl)-		21.65	120,000 J
12. 4536861	Benzene, (1-propyloctyl)-		21.79	67,000 J
13. 4536872	Benzene, (1-ethylnonyl)-		22.08	55,000 J
14. 4536883	Benzene, (1-methyldecyl)-		22.61	120,000 J
15. 2719622	Benzene, (1-pentylheptyl)-		23.00	95,000 J
16. 2719633	Benzene, (1-butyloctyl)-		23.08	79,000 J
17. 2719644	Benzene, (1-propylnonyl)-		23.22	73,000 J
18. 629787	Heptadecane		23.98	50,000 J
19. 4534490	Benzene, (1-pentyloctyl)-		24.35	110,000 J
20. 4534503	Benzene, (1-butylnonyl)-		24.43	58,000 J
21. 4534514	Benzene, (1-propyldecyl)-		24.59	51,000 J
22. 4534525	Benzene, (1-ethylundecyl)-		24.90	56,000 J
23. 4534536	Benzene, (1-methyldodecyl)-		25.41	50,000 J
24.				
25.	PCB Confirmation			
26. 2051607	1,1'-Biphenyl, 2-chloro-		19.48	see GC Results
27. 13029088	1,1'-Biphenyl, 2,2'-dichloro-		21.32	
28. 33146451	1,1'-Biphenyl, 2,6-dichloro-		22.34	
29. 2050682	1,1'-Biphenyl, 4,4'-dichloro-		22.46	
30				

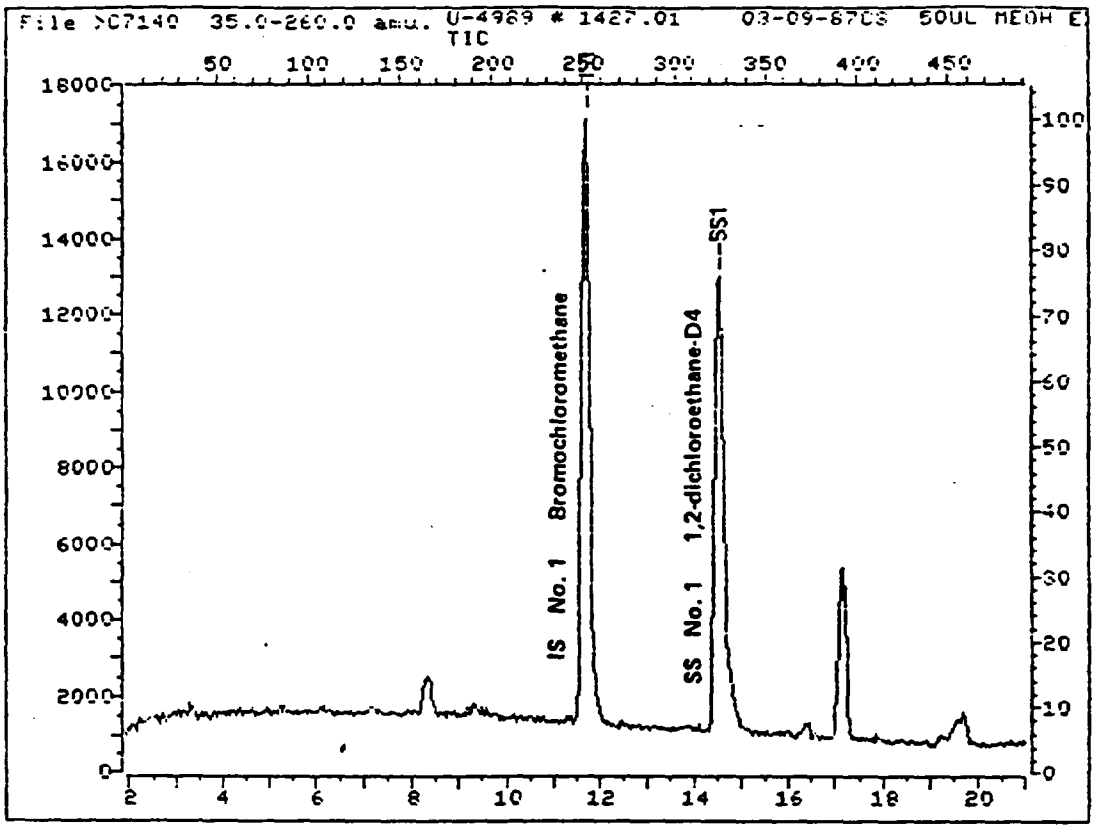
TOTAL ION CHROMATOGRAM



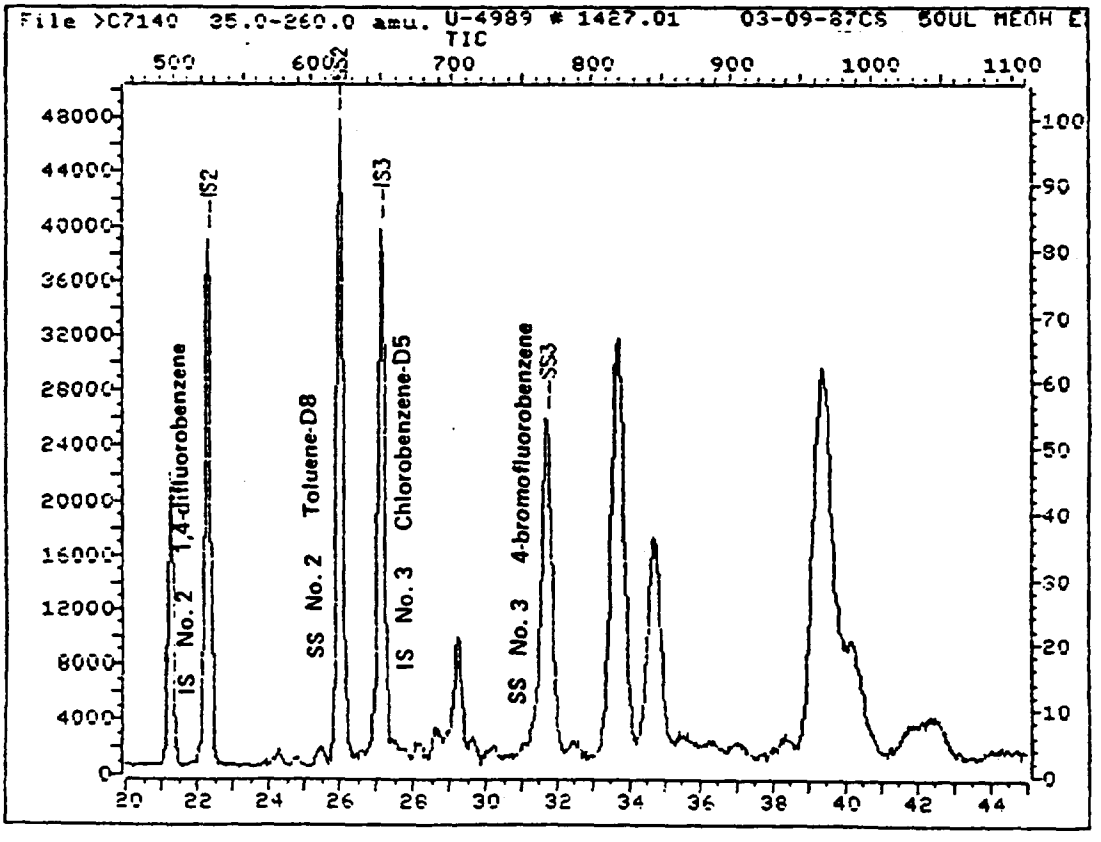
Data File: >C7140::D3
Name: U-4989 # 1427.01 DC-09-72
Misc: 03-09-87CS 50UL MEOH EXT (4.27g/10ML) + 5ML DI + 10UL

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870309 12:26

Operator ID: USER8
Quant Time: 870309 15:32
Injected at: 870309 14:46


File >C7140 35.0-260.0 amu. U-4989 # 1427.01 03-09-87CS 50UL MEOH E
TIC
IS No. 1 Bromochloromethane
SS No. 1 1,2-dichloroethane-D4
SS1

DC-09-72


File >C7140 35.0-260.0 amu. U-4989 # 1427.01 03-09-87CS 50UL MEOH E
TIC
IS No. 2 1,4-difluorobenzene
IS2
SS No. 2 Toluene-D8
IS No. 3 Chlorobenzene-D5
IS3
SS No. 3 4-bromofluorobenzene
SS3

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870309 15:32
Output File: ^C7140::Q1 Injected at: 870309 14:46
Data File: >C7140::D3 Dilution Factor: 1.00
Name: U-4989 # 1427.01 DC-09-72
Misc: 03-09-87CS 50UL MEOH EXT (4.27g/10ML) + 5ML DI + 10UL

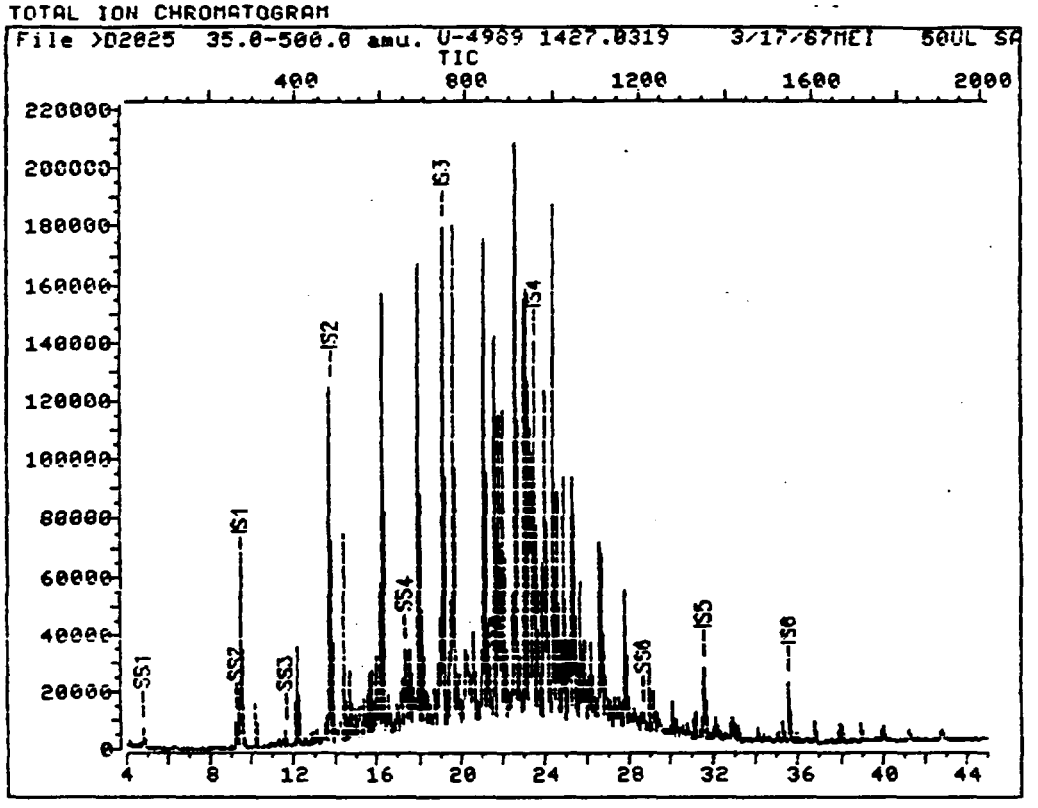
ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870309 12:26

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.68	252	25629	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.31	165	3103	3.08 UG/L yes	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	325	56078	41.92 UG/L 84	86
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.28	525	164718	50.00 UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.13	650	131150	50.00 UG/L	100
36)	TOLUENE-D8	(SURR)	98	25.96	620	187822	47.04 UG/L 94 ✓	95
37)	TOLUENE		92	26.16	625	2904	1.04 UG/L yes	97
38)	CHLOROBENZENE		112	27.25	653	9569	2.93 UG/L yes	94
39)	ETHYLBENZENE		91	29.23	704	50895	8.73 UG/L yes	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.72	768	90807	44.68 UG/L 94 ✓	100
42)	TOTAL XYLENES		91	33.70	819	228880	46.02 UG/L yes	100
42)	TOTAL XYLENES		91	34.67	844	144328	29.02 UG/L yes	100
~~42)~~	~~TOTAL XYLENES~~		~~91~~	~~36.10~~	~~881~~	~~4555~~	~~.92 UG/L~~ no	100
~~42)~~	~~TOTAL XYLENES~~		~~91~~	~~36.22~~	~~884~~	~~7169~~	~~1.44 UG/L~~ cw	100
43)	1,3-DICHLOROBENZENE		146	38.35	939	3414	3414.00 NO CALIB	100
43)	1,3-DICHLOROBENZENE		146	39.40	966	310538	310538.0 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	38.35	939	3414	3414.00 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	39.40	966	310538	310538.0 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	38.35	939	3414	3414.00 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	39.40	966	310538	310538.0 NO CALIB	100

* Compound is ISTD

ok cw

TOTAL ION CHROMATOGRAM

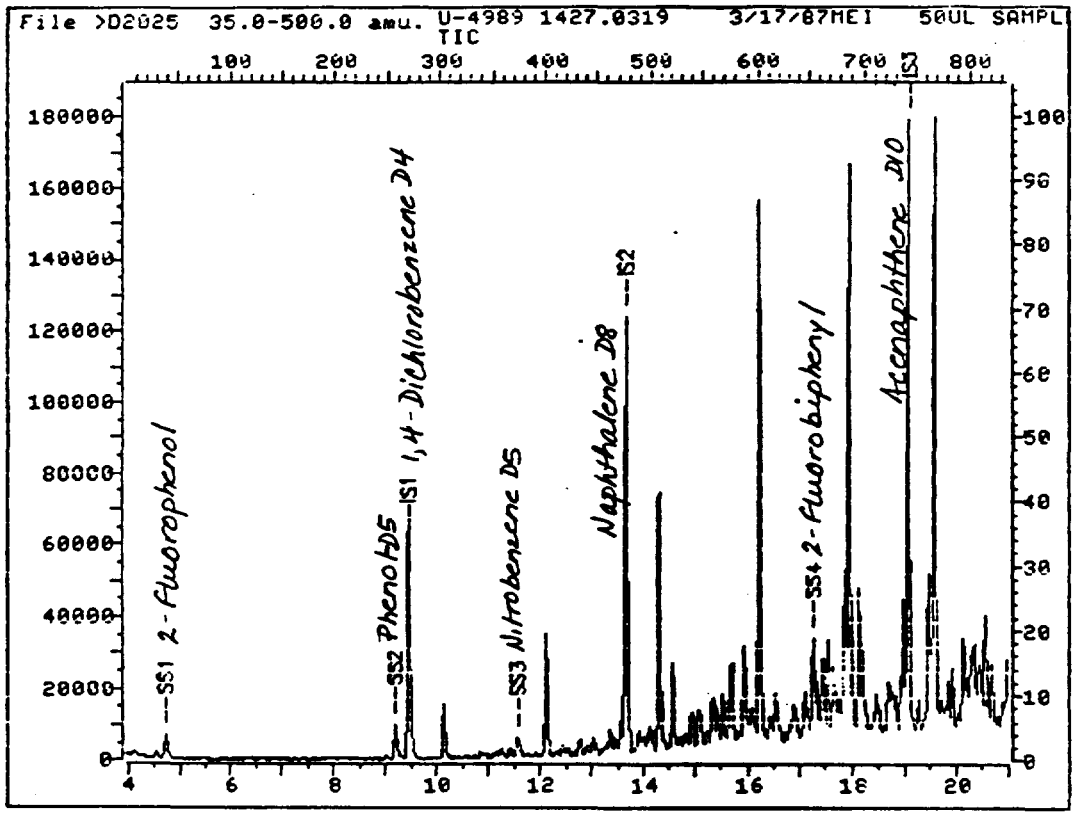


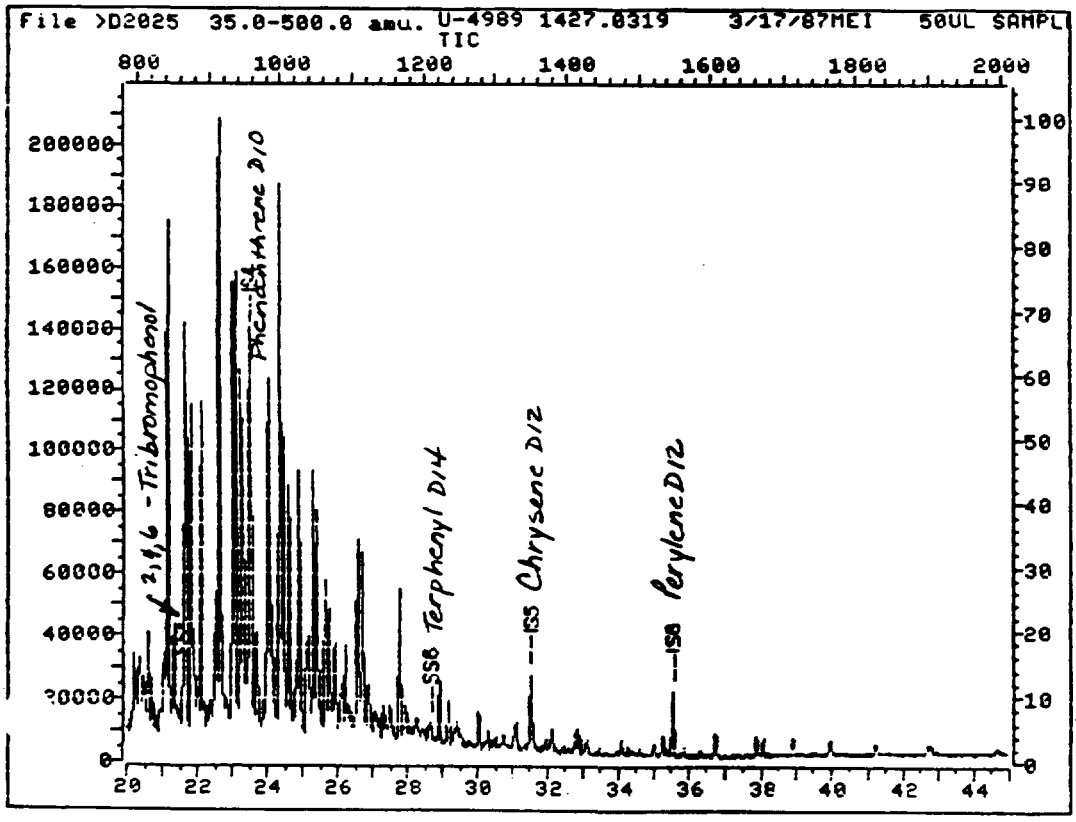
Data File: >D2025::D3
Name: U-4989 1427.0319 DC-09-72
Misc: 3/17/87MEI 50UL SAMPLE/450UL MECL2 + 5UL IS (10X) BTL# 6

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870414 09:44

Operator ID: USER8
Quant Time: 870414 09:58
Injected at: 870317 22:08

DC-09-72


File >D2025 35.0-500.0 amu. U-4989 1427.0319 3/17/87MEI 50UL SAMPL
TIC
SS1 2-Fluorophenol
SS2 Phenol D5
IS1 1,4-Dichlorobenzene D4
SS3 Nitrobenzene D5
Naphthalene D8
IS2
SS4 2-Fluorobiphenyl
Acenaphthene D10
IS3


File >D2025 35.0-500.0 amu. U-4989 1427.0319 3/17/87MEI 50UL SAMPL
TIC
2,4,6-Tribromophenol
IS4
Phenanthrene D10
SS6 Terphenyl D14
IS5 Chrysene D12
IS6 Perylene D12

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870414 09:58
put File: ^D2025::Q2 Injected at: 870317 22:08
Data File: >D2025::D3 Dilution Factor: 10.00
Name: U-4989 1427.0319 DC-09-72
Misc: 3/17/87MEI 50UL SAMPLE/450UL MECL2 + 5UL IS (10X) BIL# 6

3.1q

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870414 09:44

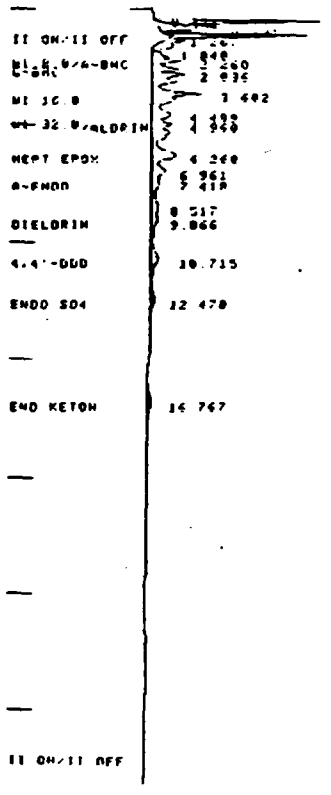
	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.44	269	34298	40.00 UG/L	89
2)	PHENOL-D5	(SURR)	99	9.18	256	10556	81.79 UG/L	94
5)	2-FLUOROPHENOL	(SURR)	112	4.72	37	6511	79.45 UG/L	70
9)	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.51~~	~~272~~	~~1461~~	~~12.22~~ UG/L	93
10)	1,4-DICHLOROBENZENE		146	9.51	272	1461	11.75 UG/L yes	95
12)	1,2-DICHLOROBENZENE		146	10.14	303	10482	84.60 UG/L yes	99
19)	*NAPHTHALENE-D8	(IS)	136	13.66	476	135917	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.56	373	6127	45.72 UG/L yes	91
28)	1,2,4-TRICHLOROBENZENE		180	13.62	474	7945	64.86 UG/L yes	100
29)	NAPHTHALENE		128	13.70	478	5774	17.16 UG/L yes	100
33)	2-METHYLNAPHTHALENE		142	15.91	586	18386	81.00 UG/L yes	95
33)	~~2-METHYLNAPHTHALENE~~		~~142~~	~~16.21~~	~~641~~	~~12079~~	~~53.22~~ UG/L	83
34)	*ACENAPHTHENE-D10	(IS)	162	19.09	742	85974	40.00 UG/L	95
38)	2-FLUOROBIPHENYL	(SURR)	172	17.27	653	15483	60.13 UG/L	93
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.09~~	~~742~~	~~16563~~	~~58.76~~ UG/L	100
43)	DIBENZOFURAN		168	19.26	750	1288	3.77 UG/L yes	100
45)	FLUORENE		166	20.71	821	2055	7.90 UG/L yes	98
47)	ACENAPHTHENE		153	19.17	746	1534	6.48 UG/L	96
47)	~~ACENAPHTHENE~~		~~153~~	~~19.62~~	~~762~~	~~1489~~	~~6.29~~ UG/L	50
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.52	861	3534	68.93 UG/L	97
49)	~~2,4-DINITROPHENOL~~		~~184~~	~~21.01~~	~~836~~	~~3880~~	~~80.17~~ UG/L	100
49)	~~2,4-DINITROPHENOL~~		~~184~~	~~21.28~~	~~849~~	~~1939~~	~~50.36~~ UG/L	100
49)	~~2,4-DINITROPHENOL~~		~~184~~	~~21.44~~	~~857~~	~~2827~~	~~73.58~~ UG/L	100
50)	~~4-NITROPHENOL~~		~~139~~	~~19.91~~	~~777~~	~~276~~	~~6.80~~ UG/L	100
50)	~~4-NITROPHENOL~~		~~139~~	~~19.89~~	~~781~~	~~270~~	~~6.66~~ UG/L	100
50)	~~4-NITROPHENOL~~		~~139~~	~~19.95~~	~~784~~	~~607~~	~~14.96~~ UG/L	100
50)	~~4-NITROPHENOL~~		~~139~~	~~20.20~~	~~796~~	~~708~~	~~17.45~~ UG/L	100
50)	~~4-NITROPHENOL~~		~~139~~	~~20.46~~	~~809~~	~~328~~	~~8.09~~ UG/L	100
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.09~~	~~742~~	~~11568~~	~~169.94~~ UG/L	100
55)	*PHENANTHRENE-D10	(IS)	188	23.49	957	100074	40.00 UG/L	84
57)	~~N-NITROSODIPHENYLAMINE~~		~~169~~	~~20.99~~	~~835~~	~~1791~~	~~15.81~~ UG/L	14
57)	~~N-NITROSODIPHENYLAMINE~~		~~169~~	~~21.36~~	~~853~~	~~1768~~	~~15.61~~ UG/L	39
57)	N-NITROSODIPHENYLAMINE		169	21.44	857	2942	25.97 UG/L yes	45
60)	PENTACHLOROPHENOL		266	23.28	947	38945	848.50 UG/L yes	100
61)	PHENANTHRENE		178	23.53	959	13576	55.06 UG/L yes	94
61)	~~PHENANTHRENE~~		~~178~~	~~23.67~~	~~966~~	~~2404~~	~~9.75~~ UG/L	91
62)	~~ANTHRACENE~~		~~178~~	~~23.53~~	~~959~~	~~13576~~	~~59.98~~ UG/L	94
62)	ANTHRACENE		178	23.67	966	2404	10.62 UG/L yes	91
63)	DI-N-BUTYLPHTHALATE		149	26.08	1084	4741	18.18 UG/L yes	90
64)	~~FLUORANTHENE~~		~~202~~	~~26.84~~	~~1121~~	~~1510~~	~~8.35~~ UG/L	1
64)	FLUORANTHENE		202	27.13	1135	3348	18.51 UG/L	88
)	*CHRYSENE-D12	(IS)	240	31.52	1350	23035	40.00 UG/L	100
66)	~~BENZIDINE~~		~~184~~	~~27.35~~	~~1146~~	~~345~~	~~345.00~~ NO CAL	18100
67)	PYRENE		202	27.74	1165	21458	159.08 UG/L yes	92
68)	TERPHENYL-D14	(SURR)	244	28.64	1209	3786	53.41 UG/L	100
71)	BENZO(A)ANTHRACENE		228	31.47	1348	4054	65.76 UG/L yes	97

	Compound		R.T.	Scan#	Area	Conc	Units	q
71)	~~BENZO(A)ANTHRACENE~~		~~228 31.60~~	~~1354~~	~~9339~~	~~151.50~~	~~UG/L~~	93
73)	~~CHRYSENE~~		~~228 31.47~~	~~1348~~	~~4054~~	~~69.23~~	~~UG/L~~	96
73)	CHRYSENE		228 31.60	1354	9339	159.47	UG/L yes	94
74)	*PERYLENE-D12	(IS)	264 35.53	1547	16451	40.00	UG/L	100
76)	BENZO(B)FLUORANTHENE		252 34.57	1500	2282	43.97	UG/L yes	100
77)	~~BENZO(K)FLUORANTHENE~~		~~252 34.57~~	~~1500~~	~~2282~~	~~43.57~~	~~UG/L~~	100
78)	~~BENZO(A)PYRENE~~		~~252 35.25~~	~~1533~~	~~4054~~	~~87.74~~	~~UG/L~~	100
78)	BENZO(A)PYRENE		252 35.37	1539	2274	49.21	UG/L yes	100
81)	BENZO(G,H,I)PERYLENE		276 38.61	1698	2060	44.54	UG/L yes	100

* Compound is ISTD

DC-09-72

ATTEN: 8 ZERO: 10% 5 MIN/TICK



24

SEE RUN29

RECALCULATE ON FILE: S.CROP396

CHANNEL: 1A - 1 TITLE: RUN# 24 8:22 12 MAR 87

SAMPLE: 1427 DC-09-72 METHOD: CASE1 CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/Kg	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	2.017		22548	VV	? 9.06
2	[illegible]	7986.284	2.260	0.020	35939	VV	9.13
3	[illegible]	10006.49	2.584	-0.026	41232	VV	10.75
4		0.0000	2.836		40218	VV	11.00
5		0.0000	3.110		40038	VV	? 13.69
6		0.0000	3.602		88540	VV	12.44
7		0.0000	3.840		58909	VV	? 29.44
8		0.0000	4.489		65109	VV	? 29.81
9	ALDRIN	11349.89	4.960	-0.100	47640	VV	? 24.81
10		0.0000	5.310		63336	VV	? 29.81
11	HEPT EPOX	22625.51	6.268	0.138	90821	VV	27.44
12		0.0000	6.961		50097	VV	? 27.81
13	A-ENDO	9622.593	7.418	-0.172	36426	VV	? 62.38
14	[illegible]	9529.851	8.517	-0.203	34565	VV	? 47.63
15	DIELDRIN	8790.484	9.066	0.226	35082	VV	? 38.44
16	4,4'-DDD	17426.98	10.715	-0.215	58040	VV	46.81
17	END KETON	6574.129	16.767	0.377	25482	BB	43.00

TOTALS: 103912.2 0.045 842022

DETECTED PKS: 27 REJECTED PKS: 10

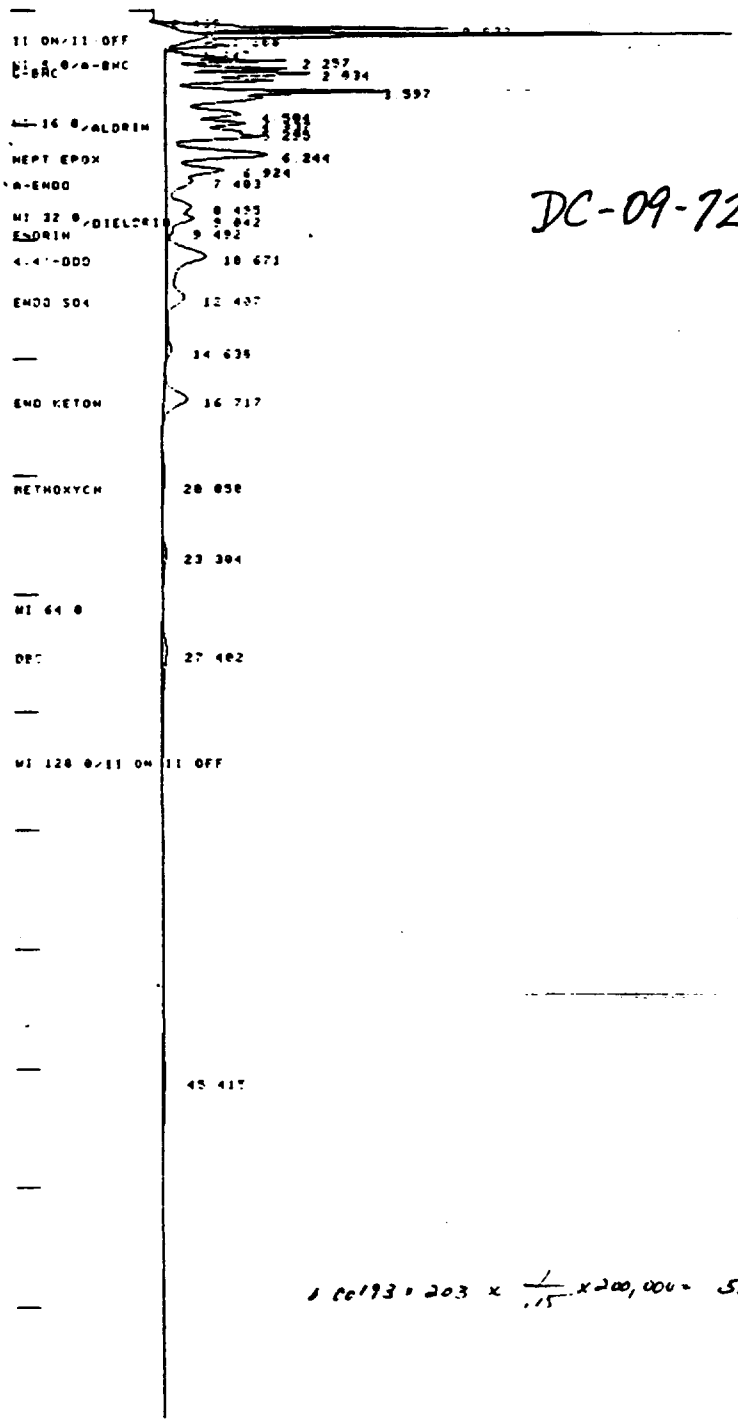
DIVISOR: 0.15000 MULTIPLIER: 1000000.00

NOISE: 11.4 OFFSET: -5

RACK: 2 VIAL: 9 INJ: 1

NOTES:
NOTERBOOK:259-146,147 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#'S U-4971,4989
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
CEAD CREEK PRIMARY ANALYSIS
AUTOSAMPLER

CHART SPEED 2.5 CM/MIN
ATTEN: B ZERO: 10% 5 MIN/TICK



DC-09-72

1 cc193 = 203 x $\frac{1}{.15}$ x 200,000 = 520,000 ug/kg
1342

CHANNEL: 1A - 1 TITLE: RUN# 29 14:38 12 MAR 87

SAMPLE: 1427DC-09-72 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	1.527		39304	VB	4.56
2		0.0000	2.016		66072	VV	? 7.31
3	~~A-BHC~~	5464.201	2.257	0.017	122947	VV	7.63
4	~~G-BHC~~	7412.212	2.582	-0.028	152711	VV	8.38
5		0.0000	2.834		192541	VV	9.75
6		0.0000	3.104		149246	VV	? 11.94
7		0.0000	*3.597 PCB1242 203		362759	VV	11.56
8		0.0000	3.832		210616	VV	? 21.25
9		0.0000	4.504		229526	VV	? 27.69
10	~~ALDRIN~~	7813.609	4.937	-0.123	163984	VV	? 17.31
11		0.0000	5.295		114377	VV	? 19.00
12		0.0000	~~5.488~~		~~124204~~	VV	? 17.94
13	~~HEPT-EPOX~~	16546.88	6.244	0.114	332104	VV	24.38
14		0.0000	6.924		182534	VV	21.44
15	~~A-ENDO~~	4813.040	7.403	-0.187	91098	VV	? 43.00
16	~~4,4'-DDE~~	5431.836	8.495	-0.225	98507	VV	? 31.31
17	~~DIELDRIN~~	4556.659	9.042	0.202	90926	VV	? 32.19
18	~~4,4'-DDE~~	15225.60	10.671	-0.259	253542	VV	42.19
19	~~ENDO SUL~~	8467.864	12.407	-0.413	102047	VV	42.38
20	~~4,4'-DDT~~	3184.085	14.638	0.408	37926	VB	45.63
21	~~END KETON~~	7011.012	16.717	0.327	135877	BB	40.06
22	~~METHOXYCH~~	5041.001	20.050	-0.830	33657	BV	?103.75
23		0.0000	23.304		43287	VB	66.00
24	~~DDD~~	4203.122	27.402	-0.978	63545	BB	99.19
25		0.0000	45.415		36080	BB	108.00

TOTALS: 95171.14 -1.975 3479417

DETECTED PKS: 33 REJECTED PKS: 8

DIVISOR: 0.15000 MULTIPLIER: 200000.000

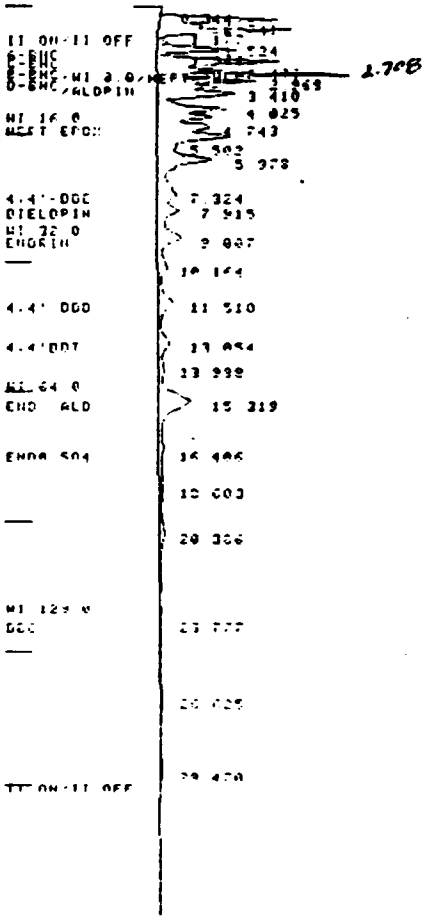
NOISE: 11.4 OFFSET: 9

RACK: 2 VIAL: 14 INJ: 1

NOTES:
NOTERBOOK:259-146,147 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#'S U-4971,4989
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
DEAD CREEK PRIMARY ANALYSIS
AUTOSAMPLER

POST RUN:
SAVE FILE: RAW S.CROP401

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



DC-09-72

CHANNEL: 16 - 1 TITLE: RUN# 16 13:12 17 MAR 87

SAMPLE: 1427 METHOD: FEFA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT MG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	1.449		23368	VV	?	3.44
2		0.0000	1.524		56182	VV	?	4.31
3		4974.305	1.637	-0.143	163558	VV		4.25
4		0.0000	1.960		154536	VV		4.88
5		0.0000	2.092		169987	VV		5.56
6		2592.470	2.246	-0.004	67880	VV	?	8.56
7		14361.64	2.486	-0.154	150693	VV	?	11.81
8		16058.60	2.966	-0.062	389897	VV		6.75
9		9081.619	2.966	-0.012	207903	VV		8.94
10		0.0000	3.170		120595	VV	?	11.13
11		10309.85	3.410	0.060	283317	VV		16.44
12		0.0000	4.025		244187	VV		13.50
13		0.0000	4.313		174415	VV	?	15.88
14		0.0000	4.743		248380	VV	?	26.81
15		14376.29	5.072	0.062	334838	VV		19.63
16		0.0000	5.502		58038	VV	?	29.31
17		15764.44	5.978	-0.322	346175	VV		20.69
18		8782.978	7.324	0.044	199710	VV	?	47.75
19		6644.782	7.915	0.215	158191	VV	?	29.31
20		5632.213	9.007	-0.343	194160	VV		34.38
21		0.0000	10.164		103476	VV	?	63.19
22		7457.018	11.510	0.190	157711	VV		35.56
23		8241.460	13.054	-0.386	122836	VV		54.25
24		0.0000	13.966		65446	VV	?	85.68
25		21505.66	15.319	0.503	359513	VV		46.25
26		0.0000	16.405		84618	VV	?	
27		6135.508	16.603	0.743	71780	VV	?	132.69
28		0.0000	20.386		117260	VV	?	106.69
29		1518.377	23.777	-0.013	26160	VV	?	166.81
30		6209.854	26.525	0.795	43547	VV	?	222.63

SAMPLE NUMBER DC-09-23

DC-09-73

.Organics Analysis Data Sheet
(Page 1)

.aboratory.Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1428

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-28-87

Volatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared:

Date Analyzed: 3-09-87

Conc/Dil Factor: 1 pH 7.6

Percent Moisture: (Not Decanted) 19

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	1000U
74-83-9	Bromomethane	1000U
75-01-4	Vinyl Chloride	1000U
75-00-3	Chloroethane	1000U
75-09-2	Methylene Chloride	420 BJ
67-64-1	Acetone	2100 B
75-15-0	Carbon Disulfide	500U
75-35-4	1, 1-Dichloroethene	500U
75-34-3	1, 1-Dichloroethane	500U
156-60-5	Trans-1, 2-Dichloroethene	500U
67-66-3	Chloroform	500U
107-06-2	1, 2-Dichloroethane	500U
78-93-3	2-Butanone	3600 B
71-55-6	1, 1, 1-Trichloroethane	500U
56-23-5	Carbon Tetrachloride	500U
108-05-4	Vinyl Acetate	1000U
75-27-4	Bromodichloromethane	500U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	500U
10061-02-6	Trans-1, 3-Dichloropropene	500U
79-01-6	Trichloroethene	500U
124-48-1	Dibromochloromethane	500U
79-00-5	1, 1, 2-Trichloroethane	500U
71-43-2	Benzene	500U
10061-01-5	cis-1, 3-Dichloropropene	500U
110-75-8	2-Chloroethylvinylether	1000U
75-25-2	Bromoform	500U
108-10-1	4-Methyl-2-Pentanone	1000U
591-78-6	2-Hexanone	1000U
127-18-4	Tetrachloroethene	500U
79-34-5	1, 1, 2, 2-Tetrachloroethane	500U
108-88-3	Toluene	500U
108-90-7	Chlorobenzene	500U
100-41-4	Ethylbenzene	60 J
100-42-5	Styrene	500U
	Total Xylenes	190 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. 10 U). 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
Case No V-4906, 4928, 4971, 4989

Sample Number
DC-09-73

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared 03-03-87
Date Analyzed 03-17-87
Conc/Dil Factor 2
Percent Moisture (Decanted) 19

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

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2,4-Dinitrophenol	16000u
100-02-7	4-Nitrophenol	16000u
132-64-9	Dibenzofuran	3300u
121-14-2	2,4-Dinitrotoluene	3300u
606-20-2	2,6-Dinitrotoluene	3300u
84-66-2	Diethylphthalate	3300u
7005-72-3	4-Chlorophenyl-phenylether	3300u
86-73-7	Fluorene	3300u
100-01-6	4-Nitroaniline	16000u
534-52-1	4,6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	5200 J
85-01-8	Phenanthrene	380 J
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	4900
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	1300 J
85-68-7	Butylbenzylphthalate	3300u
91-94-1	3,3'-Dichlorobenzidine	16000u
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	740 J
218-01-9	Chrysene	1300 J
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1,2,3-cd)Pyrene	3300u
53-70-3	Dibenzo(a,h)Anthracene	3300u
191-24-2	Benzo(g,h,i)Perylene	3300u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4906, 4928, 4971, 4989

Sample Number DC-09-73

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 3-3-87

Date Analyzed 3-12-87

Conc/Dil Factor 10

Percent Moisture (decanted) 19

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	900 u
319-85-7	Beta-BHC	900 u
319-86-8	Delta-BHC	900 u
58-89-9	Gamma-BHC (Lindane)	900 u
76-44-8	Heptachlor	900 u
309-00-2	Aldrin	900 u
1024-57-3	Heptachlor Epoxide	900 u
959-98-8	Endosulfan I	900 u
60-57-1	Dieldrin	1,600 u
72-55-9	4,4'-DDE	1,600 u
72-20-8	Endrin	1,600 u
33213-65-9	Endosulfan II	1,600 u
72-54-8	4,4'-DDD	1,600 u
1031-07-8	Endosulfan Sulfate	1,600 u
50-29-3	4,4'-DDT	1,600 u
72-43-5	Methoxychlor	1,600 u
53494-70-5	Endrin Ketone	1,600 u
57-74-9	Chlordane	900 u
8001-35-2	Toxaphene	16,000 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	20,000
12672-29-6	Aroclor-1248	8,000 u
11097-69-1	Aroclor-1254	160,000 u
11096-82-5	Aroclor-1260	160,000 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

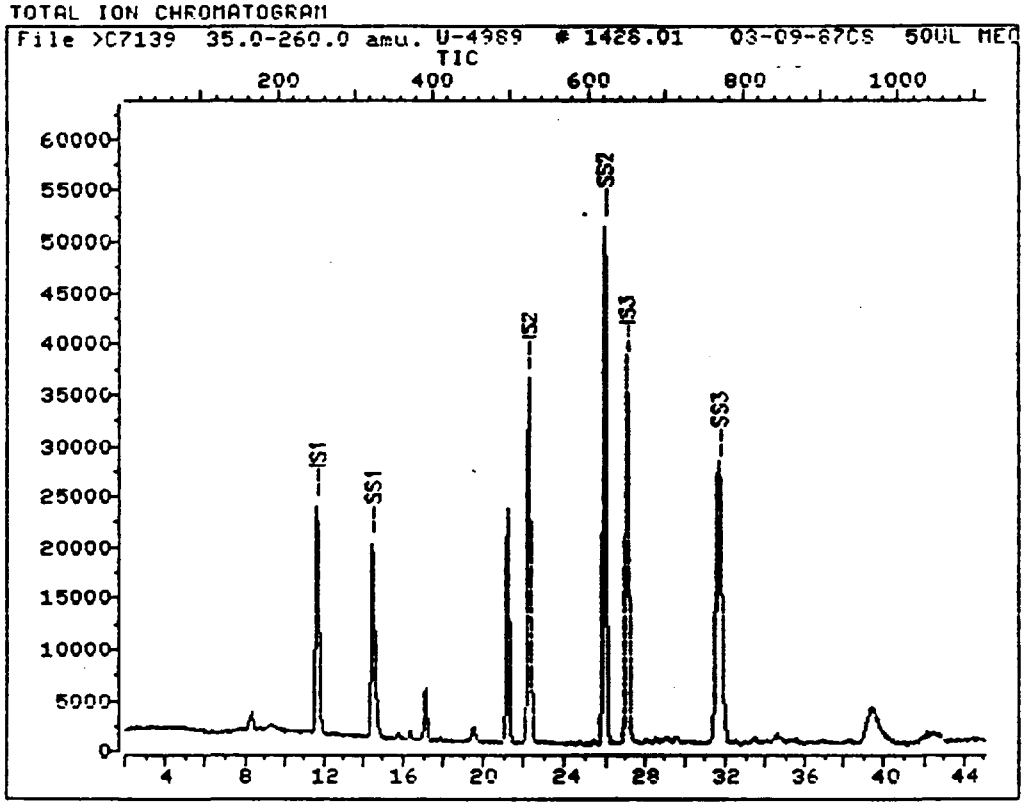
Sample Number DC-09-73

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	840 BJ
2.	Hexane isomer	VOA	21.2	3600 BJ
3.				
4.				
5.	Unknown hydrocarbon	BNA	19.59	2200 J
6.	Unknown		21.10	5500 JB
7. 4537159	Benzene, (1-butylheptyl)-		21.63	2600 J
8.	Unknown hydrocarbon		22.58	4500 J
9. 2719622	Benzene, (1-pentylheptyl)-		22.99	4500 J
10. 2719633	Benzene, (1-butyloctyl)-		23.05	3400 J
11. 2719644	Benzene, (1-propylnonyl)-		23.22	3100 J
12.	Unknown hydrocarbon		23.97	2300 J
13. 2719611	Benzene, (1-methylundecyl)-		24.03	2800 J
14. 4534490	Benzene, (1-pentyloctyl)-		24.34	13000 J
15. 4534503	Benzene, (1-butylnonyl)-		24.42	3200 J
16. 4534514	Benzene, (1-propyldecyl)-		24.58	2500 J
17. 4534525	Benzene, (1-ethylundecyl)-		24.89	2900 J
18.	Unknown hydrocarbon		25.30	2900 J
19.	Substituted benzene		25.64	3000 J
20.	Unknown hydrocarbon		26.56	2300 J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

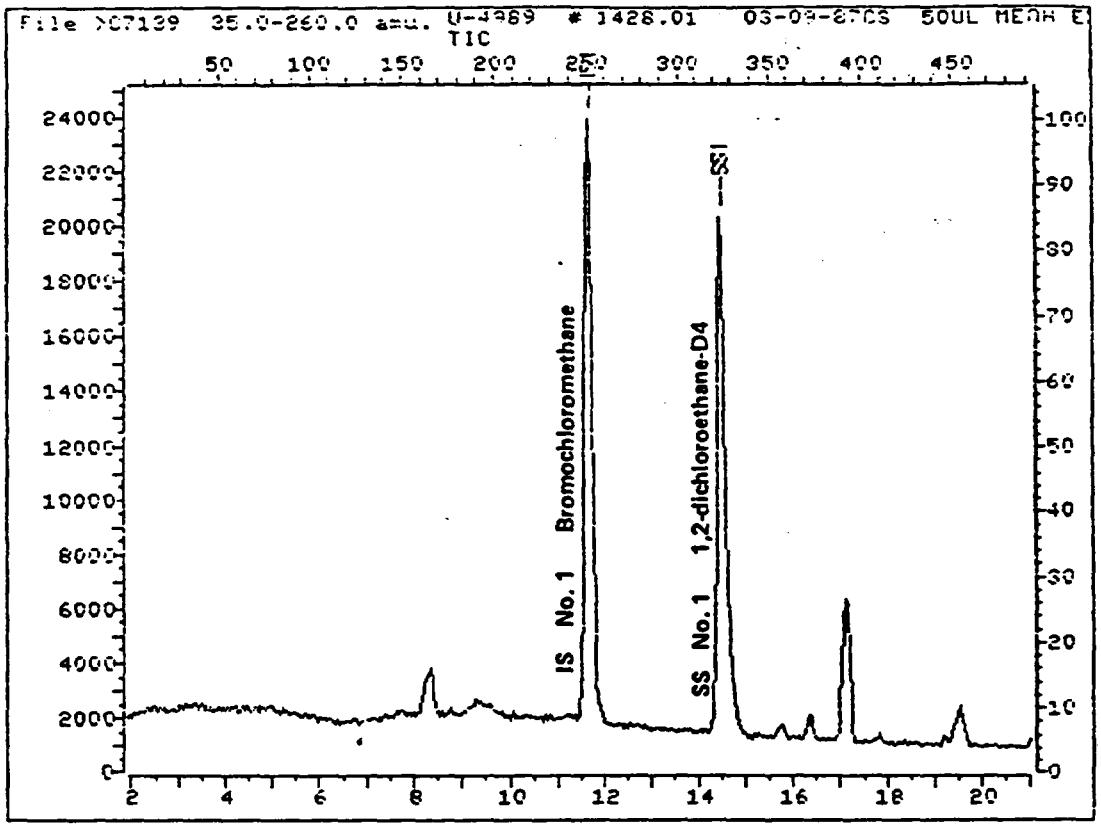
TOTAL ION CHROMATOGRAM



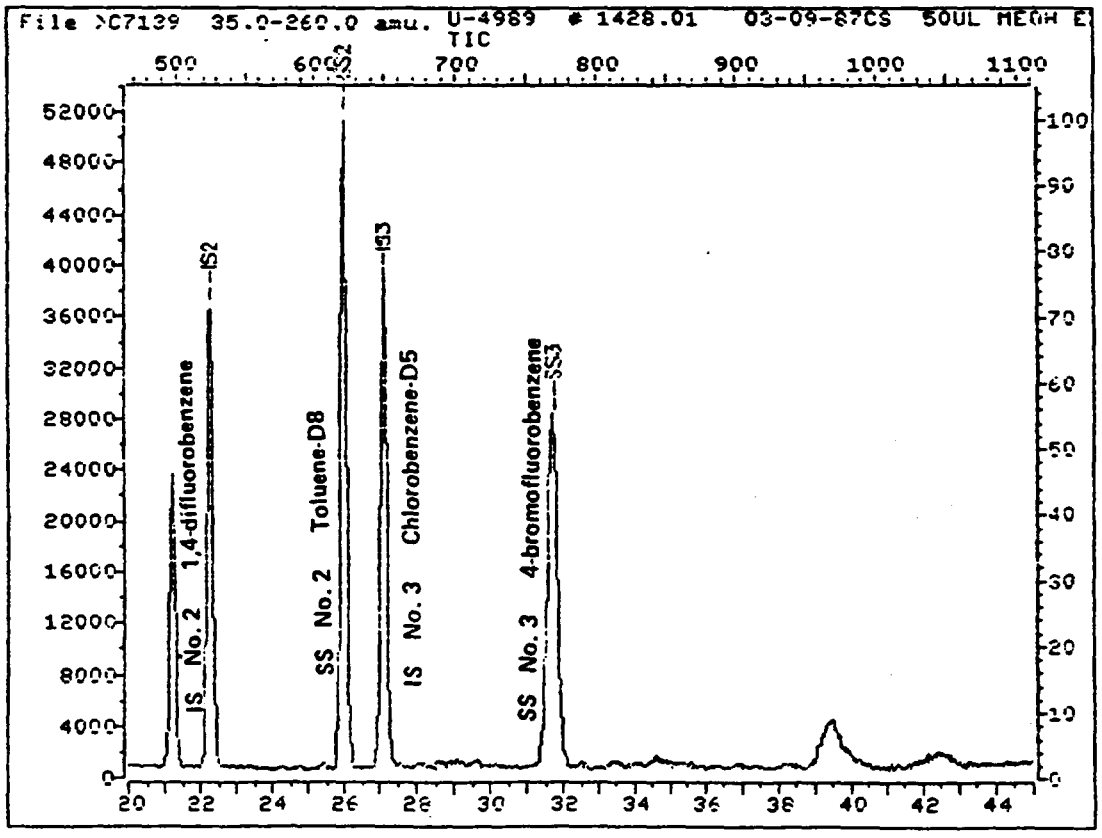
Data File: >C7139::D3
Name: U-4989 # 1428.01 DC-09-73
Misc: 03-09-87CS 50UL MEOH EXT (8.31g/10ML)+ 5ML DI + 10UL

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870309 12:26

Operator ID: USER8
Quant Time: 870309 14:40
Injected at: 870309 13:54


File >C7139 35.0-260.0 amu. U-4989 # 1428.01 03-09-87CS 50UL MEOH E
TIC
IS No. 1 Bromochloromethane
SS No. 1 1,2-dichloroethane-D4
SS1

DC-09-73


File >C7139 35.0-260.0 amu. U-4989 # 1428.01 03-09-87CS 50UL MEOH E
TIC
IS No. 2 1,4-difluorobenzene
IS2
SS No. 2 Toluene-D8
SS2
IS No. 3 Chlorobenzene-D5
IS3
SS No. 3 4-bromofluorobenzene
SS3

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870309 14:40
Output File: ^C7139::Q1 Injected at: 870309 13:54
Data File: >C7139::D3 Dilution Factor: 1.00
Name: U-4989 # 1428.01 DC-09-73
Misc: 03-09-87CS 50UL MEOH EXT (8.31g/10ML)+ 5ML DI + 10UL

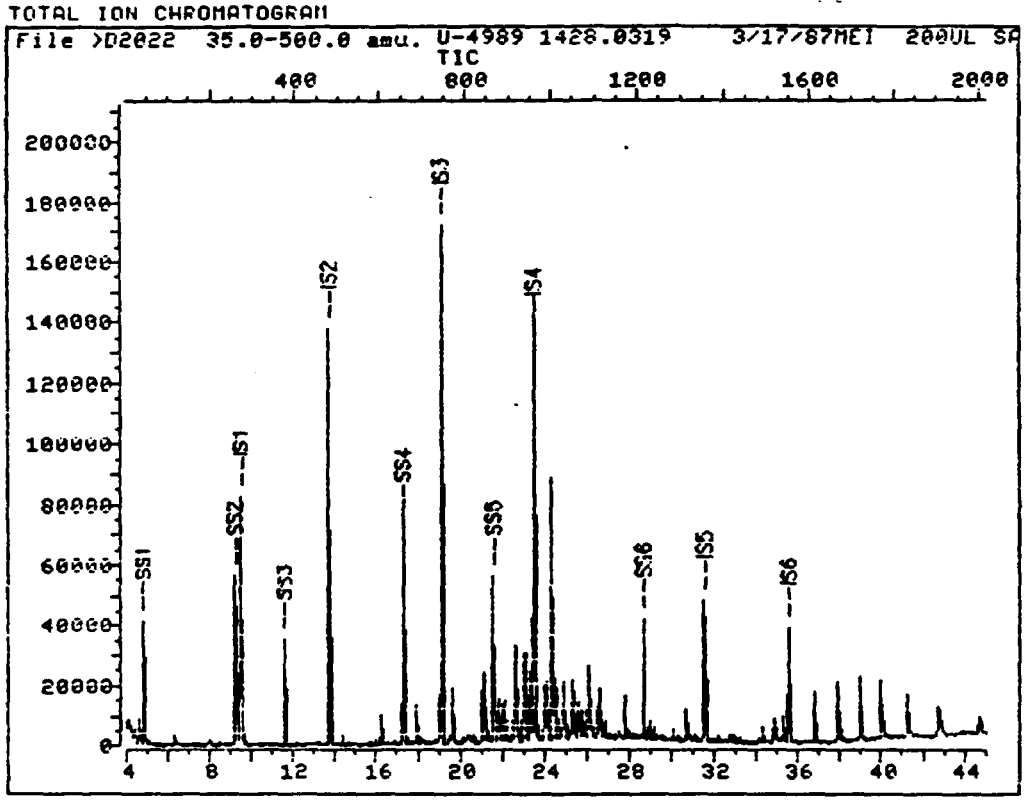
ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870309 12:26

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS) 128	11.65	251	32187	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.31	165	4460	3.52	UG/L	100
7)	ACETONE	43	9.32	191	11193	17.48	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR) 65	14.48	324	78531	46.74	UG/L 94	87
16)	*1,4-DIFLUOROBENZENE	(IS) 114	22.24	524	156581	50.00	UG/L	100
17)	2-BUTANONE	72	14.67	329	4314	29.96	UG/L	100
31)	*CHLOROBENZENE-D5	(IS) 117	27.09	649	130435	50.00	UG/L	100
36)	TOLUENE-D8	(SURR) 98	25.96	620	197321	49.69	UG/L 100	95
39)	ETHYLBENZENE	91	29.23	704	2970	.51	UG/L	98
40)	4-BROMOFLUOROBENZENE	(SURR) 95	31.71	768	97983	48.47	UG/L 96	100
42)	TOTAL XYLENES	91	34.66	844	7868	1.59	UG/L	100
43)	1,3-DICHLOROBENZENE	146	39.36	965	16684	16684.00	NO CALIB	100
44)	1,2-DICLHLOROBENZENE	146	39.36	965	16684	16684.00	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	39.36	965	16684	16684.00	NO CALIB	100

* Compound is ISTD

OK CW

TOTAL ION CHROMATOGRAM

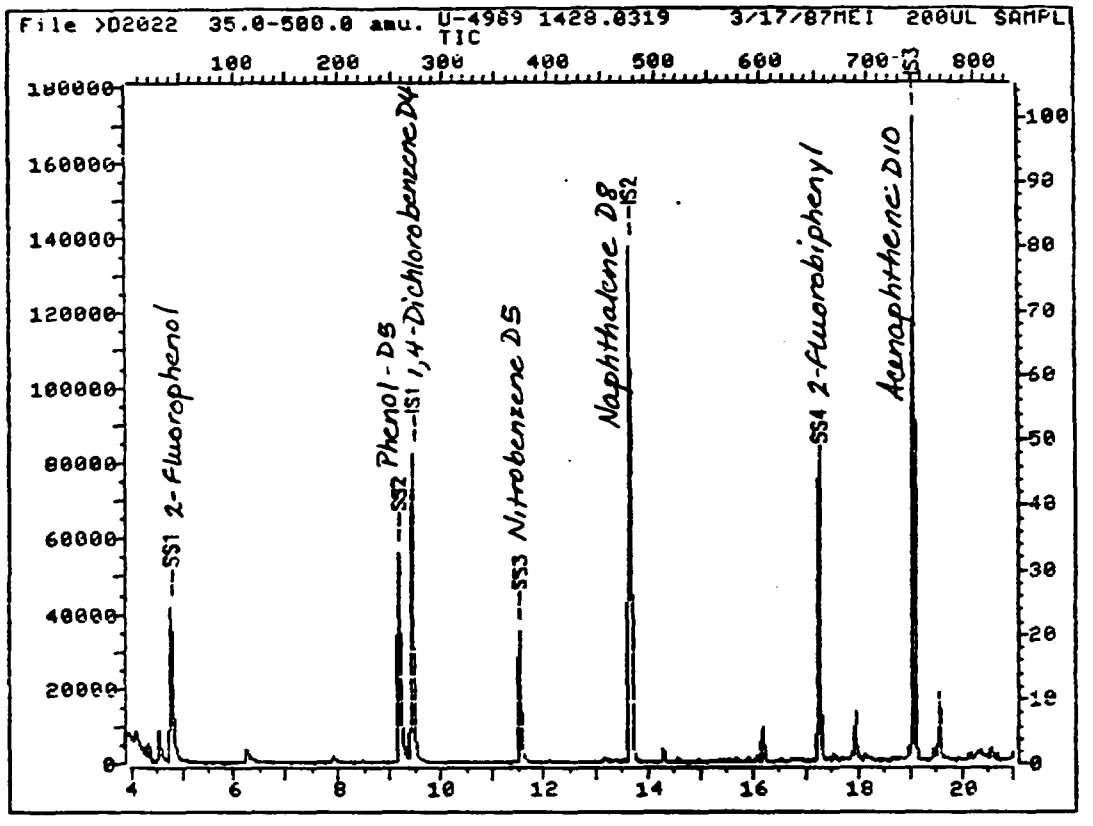


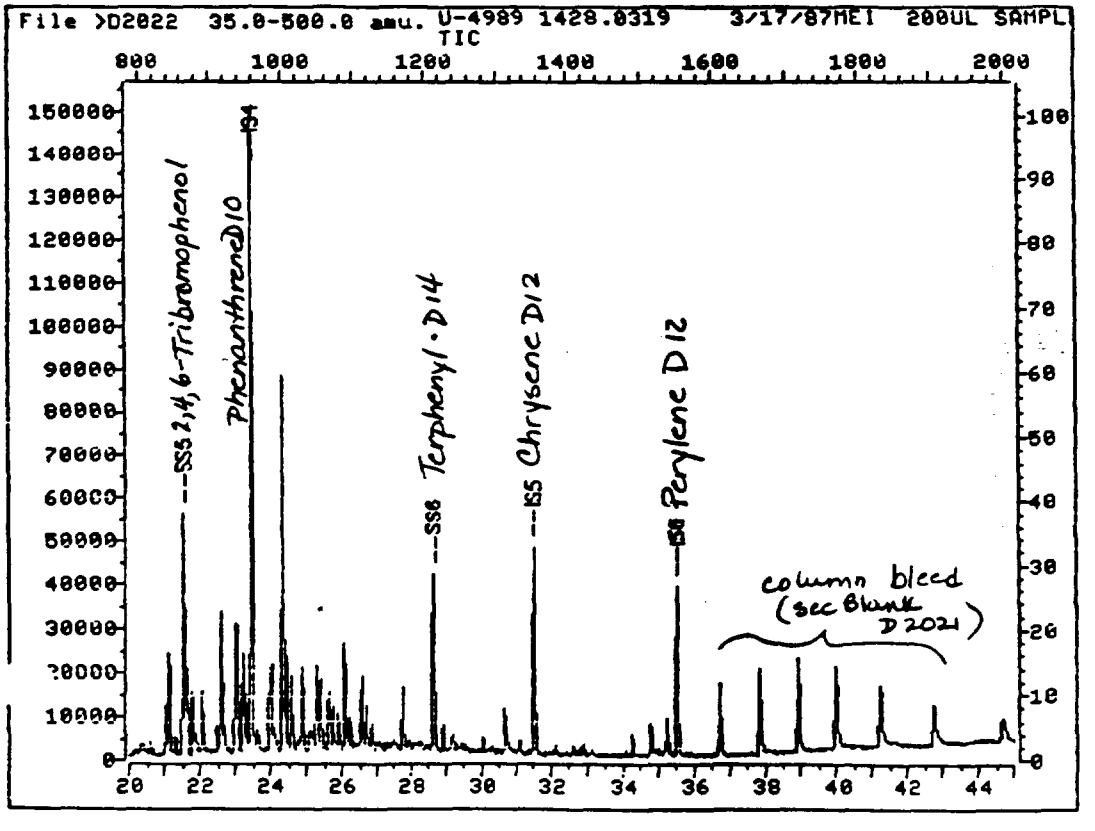
Data File: >D2022::D3
Name: U-4989 1428.0319 DC-09-73
Misc: 3/17/87MEI 200UL SAMPLE/200UL MECL2 + 4UL IS(2X) BTL# 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870414 09:44

Operator ID: USER8
Quant Time: 870414 09:49
Injected at: 870317 18:49

DC-09-73


File >D2022 35.0-500.0 amu. U-4969 1428.0319 3/17/87MEI 200UL SAMPL
TIC
SS1 2-Fluorophenol
SS2 Phenol-D5
IS1 1,4-Dichlorobenzene D4
SS3 Nitrobenzene D5
IS2 Naphthalene D8
SS4 2-Fluorobiphenyl
IS3 Acenaphthene D10


File >D2022 35.0-500.0 amu. U-4989 1428.0319 3/17/87MEI 200UL SAMPL
TIC
SS5 2,4,6-Tribromophenol
IS4 Phenanthrene D10
SS6 Terphenyl-D14
IS5 Chrysene D12
IS6 Perylene D12
column bleed (see Blank D2021)

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870414 09:49
Output File: ^D2022::Q2 Injected at: 870317 18:49
Data File: >D2022::D3 Dilution Factor: 2.00
Name: U-4989 1428.0319 DC-09-73
Misc: 3/17/87MEI 200UL SAMPLE/200UL MECL2 + 4UL IS(2X) BTL# 3

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870414 09:44

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.46	270	41770	40.00 UG/L	87
2)	PHENOL-D5	(SURR)	99	9.18	256	59916	76.24 UG/L 76	97
5)	2-FLUOROPHENOL	(SURR)	112	4.78	40	35382	70.90 UG/L 71	80
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.54~~	~~372~~	~~5614~~	~~8.15 UG/L~~	97
19)	*NAPHTHALENE-D8	(IS)	136	13.66	476	158475	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.54	372	34342	43.96 UG/L 88	92
34)	*ACENAPHTHENE-D10	(IS)	162	19.08	742	103454	40.00 UG/L	94
38)	2-FLUOROBIPHENYL	(SURR)	172	17.27	653	71344	46.05 UG/L 92	95
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.08~~	~~742~~	~~19579~~	~~11.54 UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.52	862	18128	58.77 UG/L 59	99
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.08~~	~~742~~	~~14039~~	~~34.28 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	23.46	957	157509	40.00 UG/L	96
60)	PENTACHLOROPHENOL		266	23.28	948	5782	16.01 UG/L yes	100
61)	PHENANTHRENE		178	23.52	960	2237	1.15 UG/L yes	97
62)	~~ANTHRACENE~~		~~178~~	~~23.52~~	~~960~~	~~2237~~	~~1.26 UG/L~~	97
63)	DI-N-BUTYLPHTHALATE		149	26.07	1085	30390	14.81 UG/L yes	98
65)	*CHRYSENE-D12	(IS)	240	31.52	1352	53498	40.00 UG/L	100
67)	PYRENE		202	27.74	1167	6256	3.99 UG/L yes	86
68)	TERPHENYL-D14	(SURR)	244	28.64	1211	37215	45.21 UG/L 90	100
71)	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.60~~	~~1356~~	~~2675~~	~~3.74 UG/L~~ NO	91
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.62	1406	1710	2.25 UG/L yes	94
73)	CHRYSENE		228	31.60	1356	2675	3.93 UG/L yes	92
74)	*PERYLENE-D12	(IS)	264	35.53	1549	33116	40.00 UG/L	100

* Compound is ISTD

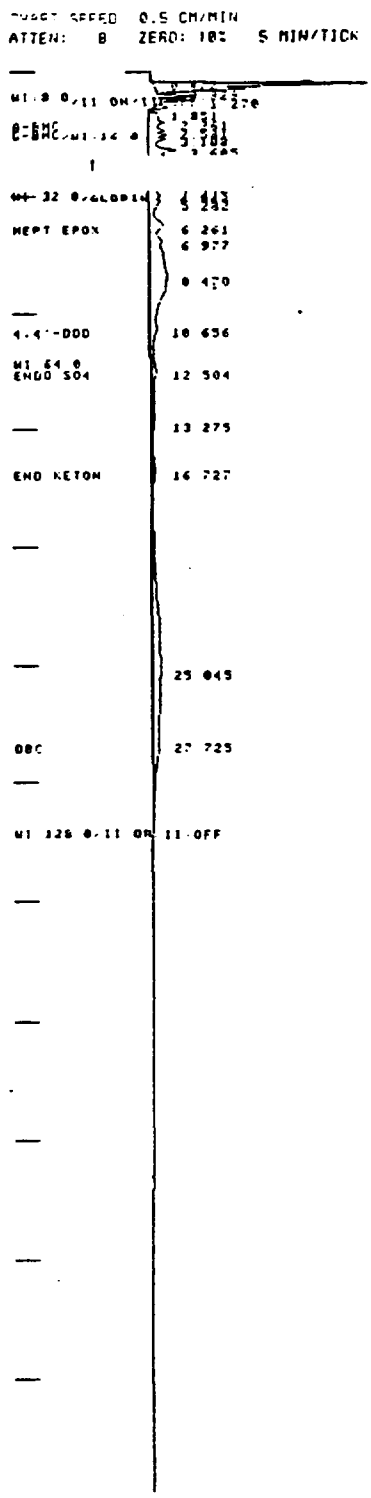


CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK
HEPT EPOX
6 261
6 977
8 470
4,4'-DDD
10 656
ENDO SO4
12 504
13 275
END KETON
16 727
25 045
DBC
27 725
11-OFF

DC-09-73

SEE RUN 30

CHANNEL: 1A - 1 TITLE: RUN# 26 10:13 12 MAR 87

SAMPLE: 1428 DC-09-73 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/Kg	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~A-BHC~~	530.4338	2.261	0.021	23870	VV	? 13.44
2	~~G-BHC~~	700.1537	2.581	-0.029	28850	VV	? 19.38
3		0.0000	2.839		30768	VV	? 12.63
4		0.0000	3.108		30440	VV	? 15.31
5		0.0000	3.605		58338	VV	15.06
6		0.0000	3.839		38617	VV	? 34.50
7		0.0000	4.442		47837	VV	? 26.13
8	~~ALDRIN~~	706.4859	4.942	-0.118	29654	VV	? 27.69
9		0.0000	5.282		39088	VV	? 47.13
10	~~HEPT EPOX~~	1549.390	6.261	0.131	62194	VV	? 34.44
11		0.0000	6.977		41206	VV	? 34.25
12	~~4,4'-DDE~~	8512.681	8.470	-0.250	308757	VV	?141.56
13	~~4,4'-DDD~~	1651.449	10.656	-0.274	55001	VV	? 73.31
14	~~ENDO SO4~~	1870.162	12.504	-0.316	45075	VV	? 72.38
15		0.0000	13.275		49126	VV	?
16	~~ENDO KETON~~	1260.338	16.727	0.337	48852	VV	? 94.31
17		0.0000	25.045		399650	VV	76.75
18	~~DDT~~	3031.777	27.725	-0.655	91672	VB	?256.00
TOTALS:		19812.87		-1.153	1428995		

DETECTED PKS: 27 REJECTED PKS: 9

DIVISOR: 0.15000 MULTIPLIER: 100000.000

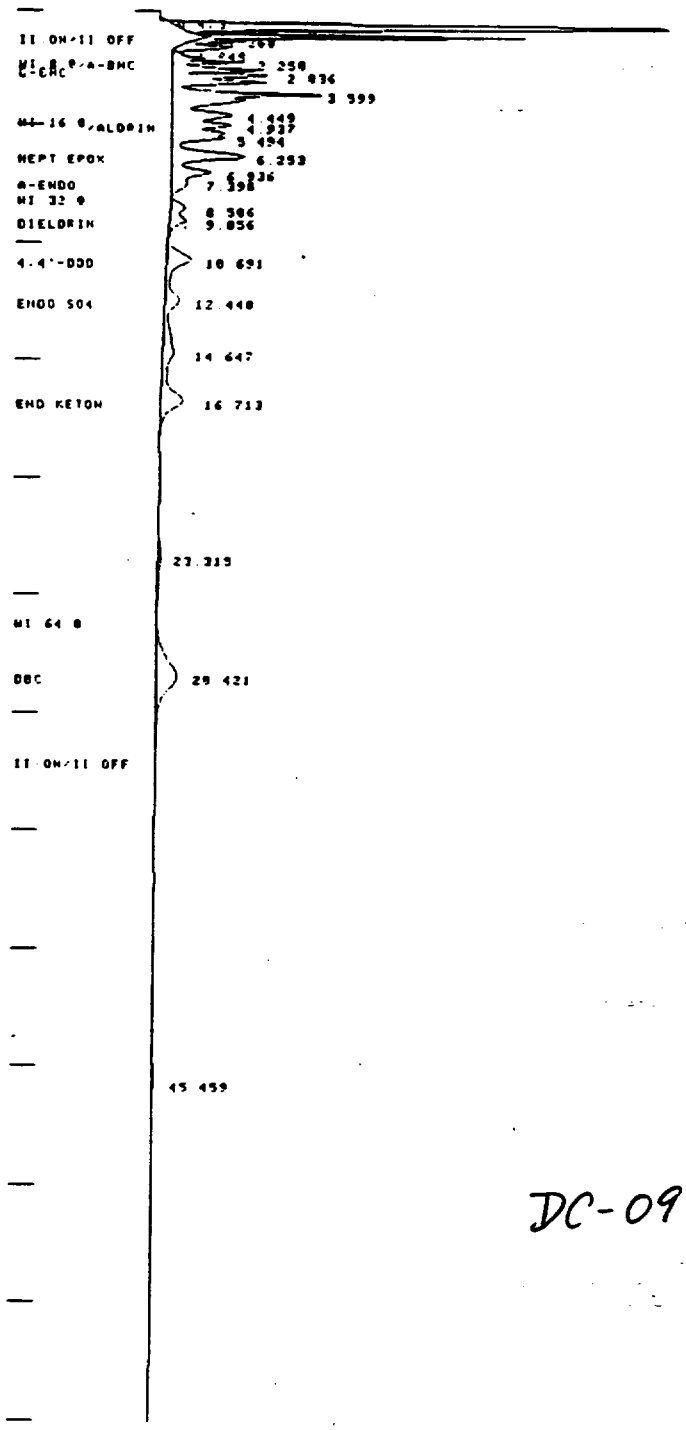
NOISE: 22.9 OFFSET: -26

RACK: 2 VIAL: 11 INJ: 1

NOTES:
NOTERBOOK:259-146,147 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#'S U-4971,4989
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
DEAD CREEK PRIMARY ANALYSIS
AUTOSAMPLER

POST RUN:
SAVE FILE: RAW S.CROP398

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



DC-09-23

CHANNEL: 1A - 1 TITLE: RUN# 30 15:43 12 MAR 87

SAMPLE: 1428DC-09-73 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	1.268		48094	BV	4.31
2		0.0000	1.548		69682	VV	5.56
3		0.0000	2.017		34108	VV	? 7.19
4	~~A-BHC~~	159.4390	2.258	0.018	71749	VV	7.50
5	~~G-BHC~~	278.1273	2.582	-0.028	114603	VV	8.56
6		0.0000	2.836		124031	VV	9.69
7		0.0000	3.104		124763	VV	10.44
8		0.0000	*3.599		243956	VV	11.63
9		0.0000	3.833		157587	VV	? 22.25
10		0.0000	4.449		182096	VV	? 27.13
11	~~ALDRIN~~	290.1657	4.937	-0.123	121794	VV	? 23.31
12		0.0000	5.285		94806	VV	? 17.75
13		0.0000	~~5.494~~		~~92747~~	VV	? 18.06
14	~~HEPT EPOX~~	585.9078	6.253	0.123	235189	VV	24.25
15		0.0000	6.936		105730	VV	20.31
16	~~A-ENDO~~	129.8995	~~7.398~~	-0.192	~~49173~~	VB	? 39.50
17	~~4,4' DDE~~	130.6636	8.506	-0.214	47392	BV	? 25.94
18	~~DIELDRIN~~	142.3411	9.056	0.216	56807	VV	? 23.88
19	~~4,4' DDD~~	417.8482	10.691	-0.239	139163	VV	36.75
20	~~ENDO SUP~~	363.0999	12.448	-0.372	87515	VV	38.63
21	~~4,4' DDT~~	543.7612	14.647	0.417	129536	VV	? 79.25
22	~~END KETON~~	429.1812	16.713	0.323	166355	VB	40.13
23		0.0000	23.315		35115	BB	59.00
24	~~DBC~~ DBC	824.6407	28.421	0.041	249347	BB	87.56
TOTALS:		4295.075		-0.030	2781338		

PCB1242

158

1240

20,335

$\frac{1}{518} + 158 + \frac{1}{.15} + 10,000$

= 20,000

DETECTED PKS: 32 REJECTED PKS: 8

DIVISOR: 0.15000 MULTIPLIER: 10000.0000

NOISE: 11.4 OFFSET: 0

RACK: 2 VIAL: 15 INJ: 1

NOTES:
NOTERBOOK:259-146,147 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#'S U-4971,4989
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
DEAD CREEK PRIMARY ANALYSIS
AUTOSAMPLER

POST RUN:
SAVE FILE: RAW S.CROP402

SAMPLE NUMBER DC-010-74

DC-010-74

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989

Lab Sample ID No: 1429

QC Report No:

Sample Matrix: Soil

Contract No: EL-3140

Data Release Authorized By: O Stoytowicz

Date Sample Received: 2-28-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 3-09-87

Conc/Dil Factor: 2 pH 7.8

Percent Moisture: (Not Decanted) 22

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000U
74-83-9	Bromomethane	2000U
75-01-4	Vinyl Chloride	2000U
75-00-3	Chloroethane	2000U
75-09-2	Methylene Chloride	570 BJ
67-64-1	Acetone	3000 B
75-15-0	Carbon Disulfide	1000U
75-35-4	1, 1-Dichloroethene	1000U
75-34-3	1, 1-Dichloroethane	1000U
156-60-5	Trans-1, 2-Dichloroethene	1000U
67-66-3	Chloroform	1000U
107-06-2	1, 2-Dichloroethane	1000U
78-93-3	2-Butanone	5800 B
71-55-6	1, 1, 1-Trichloroethane	1000U
56-23-5	Carbon Tetrachloride	1000U
108-05-4	Vinyl Acetate	2000U
75-27-4	Bromodichloromethane	1000U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000U
10061-02-6	Trans-1, 3-Dichloropropene	1000U
79-01-6	Trichloroethene	1000U
124-48-1	Dibromochloromethane	1000U
79-00-5	1, 1, 2-Trichloroethane	1000U
71-43-2	Benzene	1400
10061-01-5	cis-1, 3-Dichloropropene	1000U
110-75-8	2-Chloroethylvinylether	2000U
75-25-2	Bromoform	1000U
108-10-1	4-Methyl-2-Pentanone	2000U
591-78-6	2-Hexanone	2000U
127-18-4	Tetrachloroethene	1000U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000U
108-88-3	Toluene	3400
108-90-7	Chlorobenzene	46000
100-41-4	Ethylbenzene	7100
100-42-5	Styrene	1000U
	Total Xylenes	23000

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
Case No U-4906, 4928, 4971, 4989

Sample Number
DC-010-74

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared: 03-03-87
Date Analyzed: 03-18-87
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	33000u
111-44-4	bis(2-Chloroethyl)Ether	33000u
95-57-8	2-Chlorophenol	33000u
541-73-1	1,3-Dichlorobenzene	33000u
106-46-7	1,4-Dichlorobenzene	88,000
100-51-6	Benzyl Alcohol	33000u
95-50-1	1,2-Dichlorobenzene	78000
95-48-7	2-Methylphenol	33000u
39638-32-9	bis(2-chloroisopropyl)Ether	33000u
106-44-5	4-Methylphenol	33000u
621-64-7	N-Nitroso-Di-n-Propylamine	33000u
67-72-1	Hexachloroethane	33000u
98-95-3	Nitrobenzene	33000u
78-59-1	Isophorone	33000u
88-75-5	2-Nitrophenol	33000u
105-67-9	2,4-Dimethylphenol	33000u
65-85-0	Benzoic Acid	160000u
111-91-1	bis(2-Chloroethoxy)Methane	33000u
120-83-2	2,4-Dichlorophenol	33000u
120-82-1	1,2,4-Trichlorobenzene	33000u
91-20-3	Naphthalene	33000u
106-47-8	4-Chloroaniline	33000u
87-68-3	Hexachlorobutadiene	33000u
59-50-7	4-Chloro-3-Methylphenol	33000u
91-57-6	2-Methylnaphthalene	5700J
77-47-4	Hexachlorocyclopentadiene	33000u
88-06-2	2,4,6-Trichlorophenol	33000u
95-95-4	2,4,5-Trichlorophenol	160,000u
91-58-7	2-Chloronaphthalene	33,000u
88-74-4	2-Nitroaniline	160,000u
131-11-3	Dimethyl Phthalate	33,000u
208-96-8	Acenaphthylene	33000u
99-09-2	3-Nitroaniline	160000u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	33000u
51-28-5	2,4-Dinitrophenol	160000u
100-02-7	4-Nitrophenol	160000u
132-64-9	Dibenzofuran	33000u
121-14-2	2,4-Dinitrotoluene	33000u
606-20-2	2,6-Dinitrotoluene	33000u
84-66-2	Diethylphthalate	33000u
7005-72-3	4-Chlorophenyl-phenylether	33000u
86-73-7	Fluorene	33000u
100-01-6	4-Nitroaniline	160000u
534-52-1	4,6-Dinitro-2-Methylphenol	160000u
86-30-6	N-Nitrosodiphenylamine (1)	33000u
101-55-3	4-Bromophenyl-phenylether	33000u
118-74-1	Hexachlorobenzene	33000u
87-86-5	Pentachlorophenol	88000 J
85-01-8	Phenanthrene	33000
120-12-7	Anthracene	33000u
84-74-2	Di-n-Butylphthalate	33000u
206-44-0	Fluoranthene	8600 J
129-00-0	Pyrene	64000 J
85-68-7	Butylbenzylphthalate	3,000,000E
91-94-1	3,3'-Dichlorobenzidine	66000u
56-55-3	Benzo(a)Anthracene	33000u
117-81-7	bis(2-Ethylhexyl)Phthalate	33000u
218-01-9	Chrysene	64000
117-84-0	Di-n-Octyl Phthalate	33000u
205-99-2	Benzo(b)Fluoranthene	33000u
207-08-9	Benzo(k)Fluoranthene	33000u
50-32-8	Benzo(a)Pyrene	33000u
193-39-5	Indeno(1,2,3-cd)Pyrene	33000u
53-70-3	Dibenz(a,h)Anthracene	33000u
191-24-2	Benzo(g,h,i)Perylene	33000u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4906, 4928, 4971, 4989

Sample Number

DC-010-74

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 3-3-87

Date Analyzed 3-12-87

Conc/Dil Factor 200

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	16,000u
319-85-7	Beta-BHC	16,000u
319-86-8	Delta-BHC	16,000u
58-89-9	Gamma-BHC (Lindane)	16,000u
76-44-8	Heptachlor	16,000u
309-00-2	Aldrin	16,000u
1024-57-3	Heptachlor Epoxide	16,000u
959-98-8	Endosulfan I	16,000u
60-57-1	Dieldrin	32,000u
72-55-9	4,4'-DDE	32,000u
72-20-8	Endrin	32,000u
33213-65-9	Endosulfan II	32,000u
72-54-8	4,4'-DDD	32,000u
1031-07-8	Endosulfan Sulfate	32,000u
50-29-3	4,4'-DDT	32,000u
72-43-5	Methoxychlor	160,000u
53494-70-5	Endrin Ketone	32,000u
57-74-9	Chlordane	160,000u
8001-35-2	Toxaphene	320,000u
12674-11-2	Aroclor-1016	160,000u
11104-28-2	Aroclor-1221	160,000u
11141-16-5	Aroclor-1232	160,000u
53469-21-9	Aroclor-1242	360,000
12672-29-6	Aroclor-1248	160,000u
11097-69-1	Aroclor-1254	320,000u
11096-82-5	Aroclor-1260	320,000u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

400

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

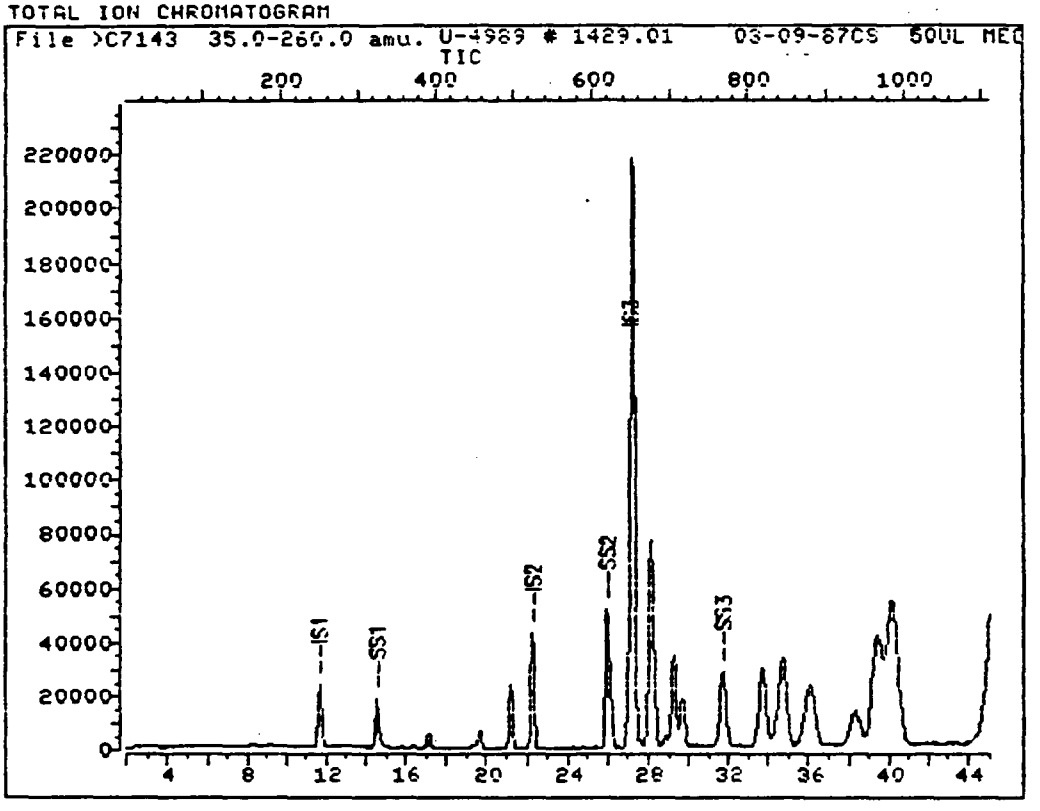
Sample Number DC-010-74

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	1700 BJ
2.	Hexane isomer	VOA	21.2	7300 BJ
3.	Unknown hydrocarbon	VOA	28.1	39000 J
4.	Unknown hydrocarbon	VOA	29.7	8400 J
5.	Chlorotoluene isomer	VOA	36.1	22000 J
6.	Chlorotoluene isomer	VOA	38.2	5700 J
7.	Dichlorobenzene isomer	VOA	38.4	6400 J
8.	Dichlorobenzene isomer	VOA	39.4	38000 J
9.				
10.				
11. 99876	Benzene, 1-methyl-4-(1-methylethyl)-	BNA	10.02	190,000 J
12. 615601	Benzene, 4-chloro-1,2-dimethyl-		10.91	22,000 J
13. 1124056	Benzene, 1,4-dichloro-2,5-dimethyl-		14.74	20,000 J
14. 100005	Benzene, 1-chloro-4-nitro		14.93	79,000 J
15.	Dichloro-nitro-benzene isomer		17.66	19,000 J
16. 629629	Pentadecane		19.59	90,000 J
17.	Unknown hydrocarbon		21.02	72,000 J
18. 544763	Hexadecane		21.14	190,000 J
19. 4537159	Benzene, (1-butylheptyl)-		21.65	110,000 J
20. 4536883	Benzene (1-methyldecyl)-		22.61	220,000 J
21. 2719622	Benzene, (1-pentylheptyl)-		23.00	140,000 J
22. 2719633	Benzene, (1-butyloctyl)-		23.06	120,000 J
23. 2719644	Benzene, (1-propylnonyl)-		23.23	130,000 J
24 629787	Heptadecane		23.98	170,000 J
25. 4534490	Benzene, (1-pentyloctyl)-		24.35	150,000 J
26. 4534503	Benzene, (1-butylnonyl)-		24.45	85,000 J
27. 4534514	Benzene, (1-propyldecyl)-		24.59	80,000 J
28.	Unknown hydrocarbon		25.31	120,000 J
29. 4534536	Benzene, (1-methyldodecyl)-		25.41	78000 J
30 10544500	Molecular Sulfur		26.72	100,000 J

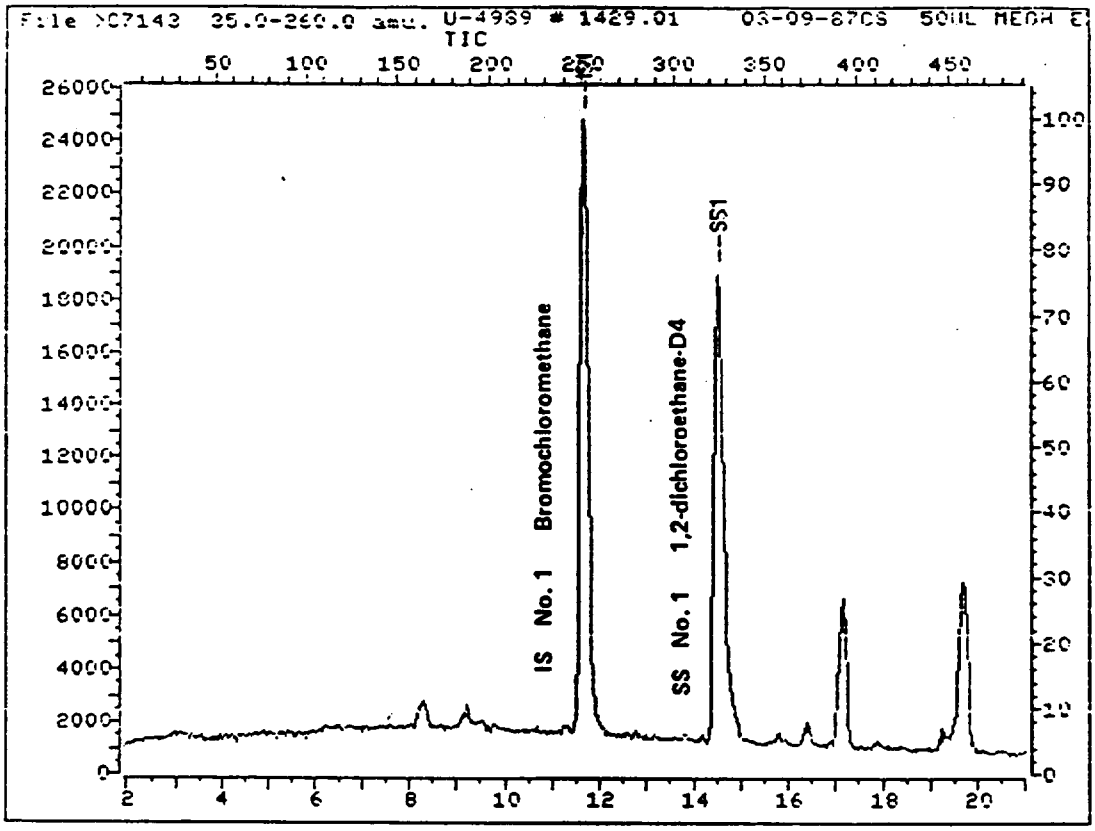
TOTAL ION CHROMATOGRAM



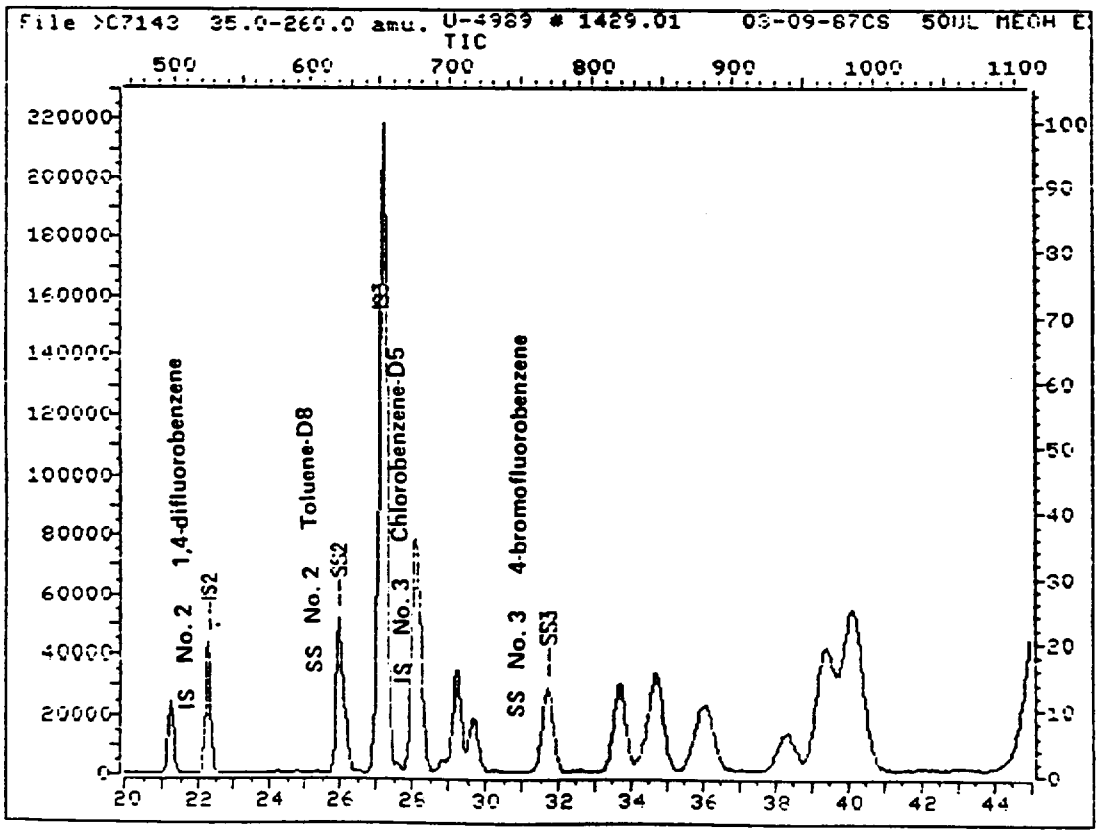
Data File: >C7143::D3
Name: U-4989 # 1429.01 DC-010-74
Misc: 03-09-87CS 50UL MEOH EXT (3.81g/10ML) + 5ML DI + 10UL

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870309 12:26

Operator ID: USER8
Quant Time: 870309 18:09
Injected at: 870309 17:23


File >C7143 35.0-260.0 amu. U-4989 # 1429.01 03-09-87CS 50UL MEOH E
TIC
IS No. 1 Bromochloromethane
SS No. 1 1,2-dichloroethane-D4
SS1

DC-010-74


File >C7143 35.0-260.0 amu. U-4989 # 1429.01 03-09-87CS 50UL MEOH E
TIC
IS No. 2 1,4-difluorobenzene
IS2
SS No. 2 Toluene-D8
SS2
IS No. 3 Chlorobenzene-D5
IS3
SS No. 3 4-bromofluorobenzene
SS3

QUANT REPORT

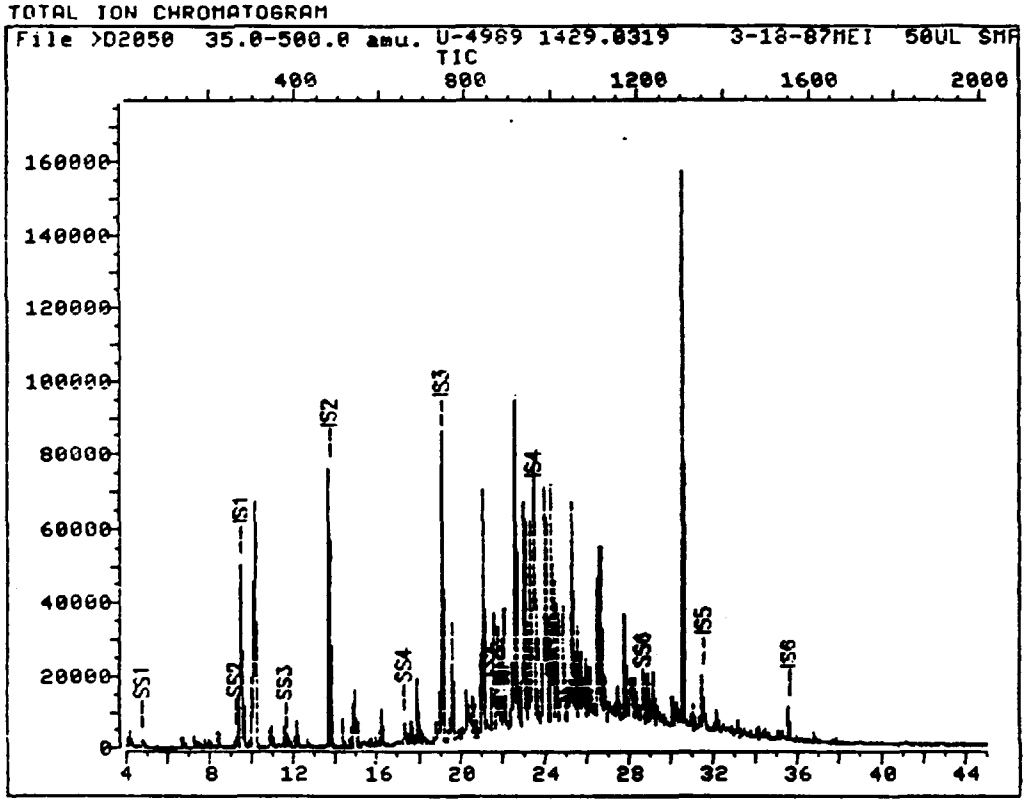
Operator ID: USER8 Quant Rev: 4. Quant Time: 870309.18:09
Output File: ^C7143::Q2 Injected at: 870309 17:23
Data File: >C7143::D3 Dilution Factor: 1.00
Name: U-4989 # 1429.01 DC-010-74
Misc: 03-09-87CS 50UL MEOH EXT (3.81g/10ML) + 5ML DI + 10UL

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870309 12:26

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.65	251	37963	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.31	165	3275	2.19	UG/L	100
7)	ACETONE	43	9.20	188	8625	11.42	UG/L	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.52	325	81314	41.04	UG/L 82	87 ✓
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.28	525	188094	50.00	UG/L	100
17)	2-BUTANONE	72	14.71	330	3825	22.11	UG/L	100
27)	BENZENE	78	19.68	458	27448	5.52	UG/L	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.13	650	155101	50.00	UG/L	100
36)	TOLUENE-D8 (SURR)	98	25.96	620	200422	42.44	UG/L 85	95 ✓
37)	TOLUENE	92	26.16	625	42359	12.87	UG/L	97
~~37)~~	~~TOLUENE~~	~~92~~	~~27.05~~	~~640~~	~~21869~~	~~6.64~~	~~UG/L~~ 40 CW	84
38)	CHLOROBENZENE	112	27.25	653	670573	173.63	UG/L	96
39)	ETHYLBENZENE	91	29.27	705	187340	27.16	UG/L	96
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.72	768	100028	41.61	UG/L 83	100 ✓
~~41)~~	~~STYRENE~~	~~104~~	~~33.74~~	~~820~~	~~3189~~	~~.74~~	~~UG/L~~ 40 CW	100
~~41)~~	~~STYRENE~~	~~104~~	~~34.67~~	~~844~~	~~4074~~	~~.94~~	~~UG/L~~	100
42)	TOTAL XYLENES	91	33.70	819	227986	38.76	UG/L	100
42)	TOTAL XYLENES	91	34.71	845	291454	49.55	UG/L	100
~~42)~~	~~TOTAL XYLENES~~	~~91~~	~~36.11~~	~~881~~	~~197470~~	~~33.58~~	~~UG/L~~ 40 CW	100
43)	1,3-DICHLOROBENZENE	146	38.40	940	50548	50548.00	NO CALIB	100
43)	1,3-DICHLOROBENZENE	146	39.37	965	231201	231201.0	NO CALIB	100
44)	1,2-DICLHLOROBENZENE	146	38.40	940	50548	50548.00	NO CALIB	100
44)	1,2-DICLHLOROBENZENE	146	39.37	965	231201	231201.0	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	38.40	940	50548	50548.00	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	39.37	965	231201	231201.0	NO CALIB	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

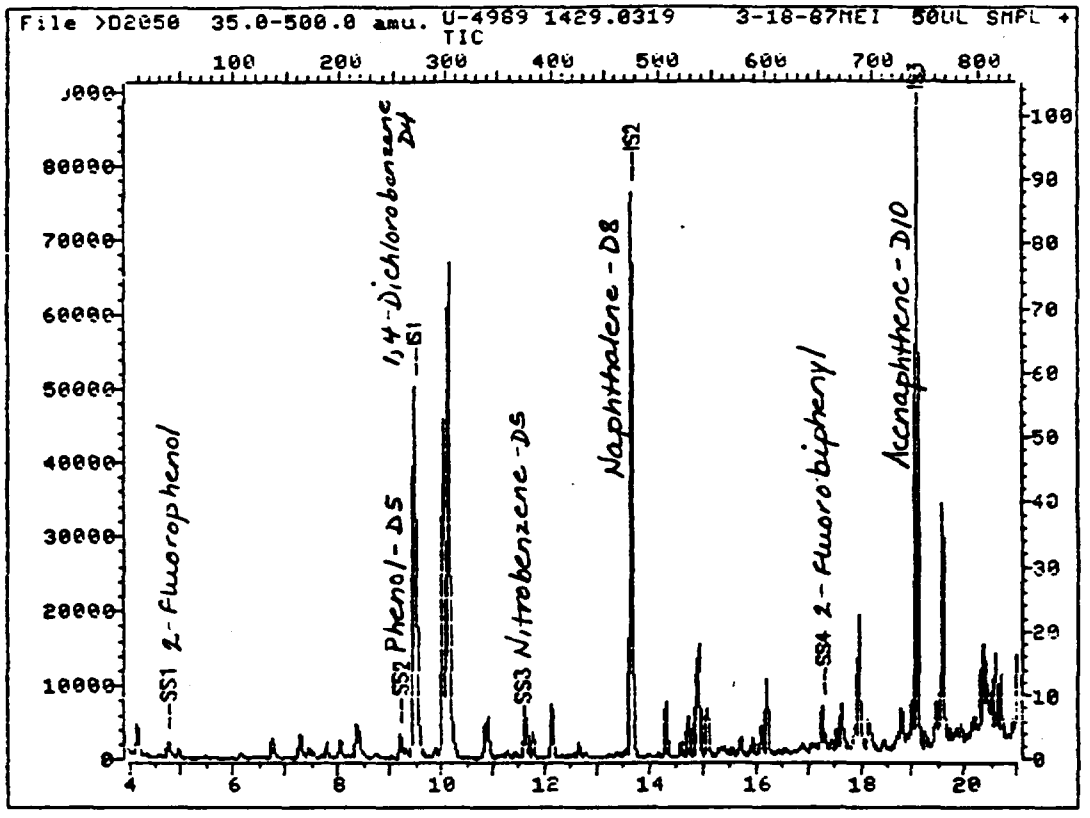


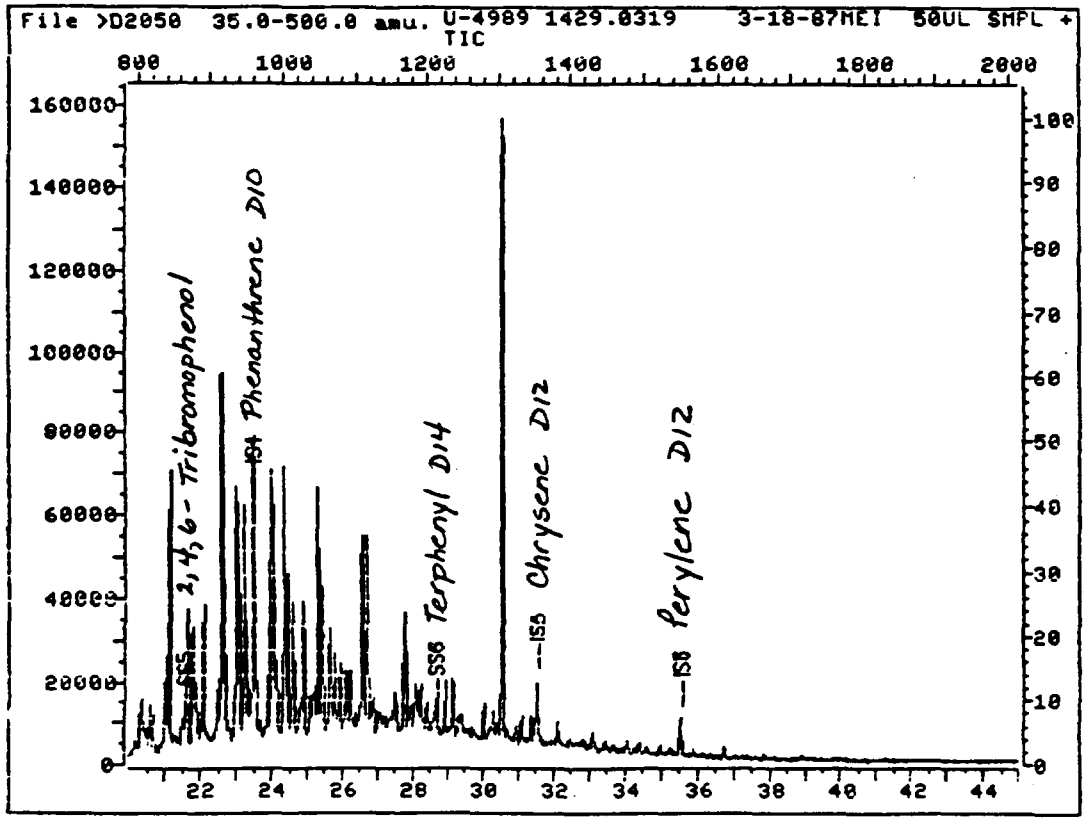
Data File: >D2050::D1
Name: U-4989 1429.0319 DC-010-74
Misc: 3-18-87MEI 50UL SMPL + 950UL MECL2 +10UL IS (20X) BTL# 2

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870318 14:12

Operator ID: USER8
Quant Time: 870318 23:27
Injected at: 870318 22:39

DC-010-74


File >D2050 35.0-500.0 amu. U-4989 1429.0319 3-18-87MEI 50UL SMPL +
TIC
SS1 2-Fluorophenol
SS2 Phenol-D5
1,4-Dichlorobenzene D4
IS1
SS3 Nitrobenzene-D5
Naphthalene-D8
IS2
SS4 2-Fluorobiphenyl
Acenaphthene-D10
IS3


File >D2050 35.0-500.0 amu. U-4989 1429.0319 3-18-87MEI 50UL SMPL +
TIC
2,4,6-Tribromophenol
IS4 Phenanthrene D10
SS6 Terphenyl D14
IS5 Chrysene D12
IS6 Perylene D12

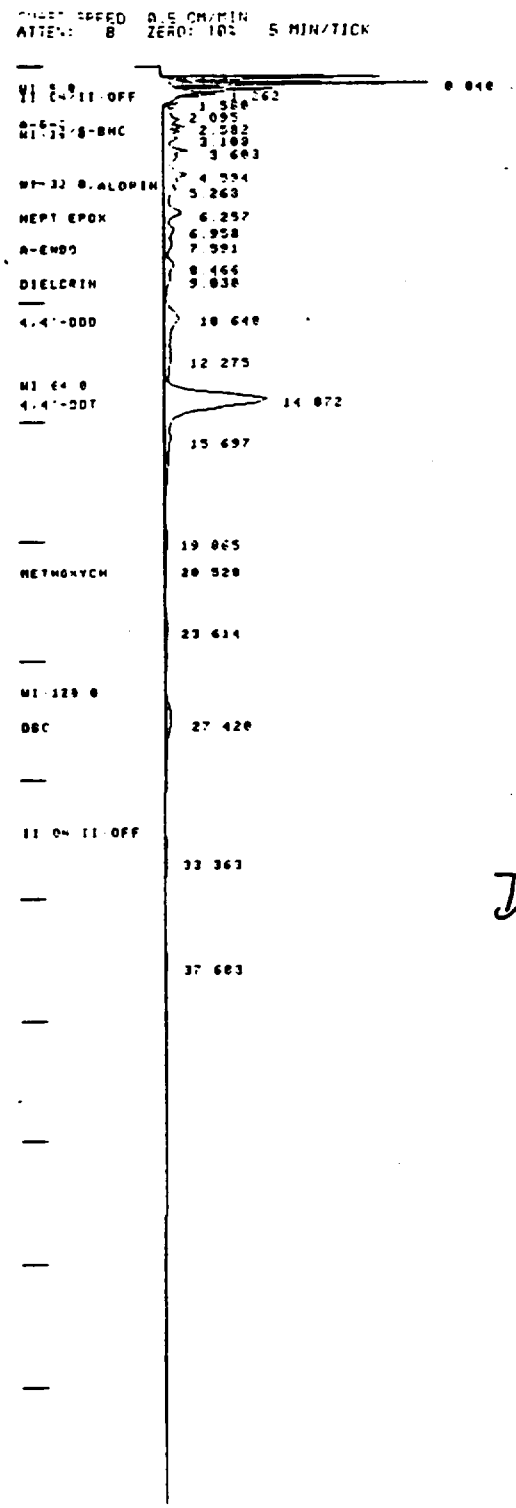
QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870318 23:27
Output File: ^D2050::Q2 Injected at: 870318 22:39
Data File: >D2050::D1 Dilution Factor: 20.00
Name: U-4989 1429.0319 DC-010-74
Misc: 3-18-87MEI 50UL SMPL + 950UL MECL2 +10UL IS (20X) BTL# 2

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870318 14:12

	Compound		R.T.	Scan#	Area	Conc	Units		q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.47	270	24278	40.00 UG/L		90
2)	PHENOL-D5	(SURR)	99	9.20	257	4275	97.71 UG/L	98	97
5)	2-FLUOROPHENOL	(SURR)	112	4.74	38	2357	83.85 UG/L	84	71
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.53~~	~~273~~	~~11725~~	~~282.80 UG/L~~		~~99~~
10)	1,4-DICHLOROBENZENE		146	9.53	273	11725	262.85 UG/L	yes	98
12)	1,2-DICHLOROBENZENE		146	10.14	303	10014	232.77 UG/L	yes	99
19)	*NAPHTHALENE-D8	(IS)	136	13.66	476	89063	40.00 UG/L		100
20)	NITROBENZENE-D5	(SURR)	82	11.57	373	2458	56.65 UG/L	114	92
33)	2-METHYLNAPHTHALENE		142	15.93	587	1248	17.17 UG/L	yes	80
34)	*ACENAPHTHENE-D10	(IS)	162	19.08	742	52027	40.00 UG/L		97
38)	2-FLUOROBIPHENYL	(SURR)	172	17.29	654	5559	70.15 UG/L	70	88
~~41)~~	~~DIMETHYL-PHTHALATE~~		~~163~~	~~19.18~~	~~743~~	~~9632~~	~~113.82 UG/L~~		~~100~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.55	863	886	75.25 UG/L	75	89
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.08~~	~~742~~	~~7109~~	~~353.59 UG/L~~		~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	23.47	957	58210	40.00 UG/L		91
60)	PENTACHLOROPHENOL		266	23.31	949	2880	264.82 UG/L	yes	100
61)	PHENANTHRENE		178	23.53	960	7221	100.49 UG/L	yes	97
~~62)~~	~~ANTHRACENE~~		~~178~~	~~23.53~~	~~960~~	~~7221~~	~~107.60 UG/L~~		~~97~~
~~63)~~	~~DI-N-BUTYLPHTHALATE~~		~~149~~	~~26.08~~	~~1085~~	~~2771~~	~~35.13 UG/L~~	NO	~~87~~
64)	FLUORANTHENE		202	27.15	1137	1374	25.73 UG/L	yes	74
65)	*CHRYSENE-D12	(IS)	240	31.53	1352	14359	40.00 UG/L		100
67)	PYRENE		202	27.74	1166	7068	192.64 UG/L	yes	95
68)	TERPHENYL-D14	(SURR)	244	28.66	1211	1210	63.20 UG/L	126	100
69)	BUTYLBENZYLPHTHALATE		149	30.55	1304	110630	9061.19 UG/L	yes	95
~~71)~~	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.59~~	~~1355~~	~~3481~~	~~181.45 UG/L~~		~~96~~
73)	CHRYSENE		228	31.59	1355	3481	191.15 UG/L	yes	97
74)	*PERYLENE-D12	(IS)	264	35.55	1549	9667	40.00 UG/L		100

* Compound is ISTD


ATTEN: 8 ZERO: 10% 5 MIN/TICK
0.040
1.262
1.580
2.095
2.582
3.109
3.603
4.594
5.263
HEPT EPOX
6.257
6.958
A-ENDO
7.591
8.466
DIELDRIN
9.038
4,4'-DDD
10.640
12.275
4,4'-DDT
14.872
15.697
19.865
METHOXYCH
20.520
23.614
DBC
27.420
33.363
37.683

DC-010-74

SEE RUN 32

CHANNEL: 1A - 1 TITLE: RUN# 27 11:43 12 MAR 87

SAMPLE: 1429DC-010-74 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/Kg	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~A-BHC~~	5546.777	2.273	0.033	24961	VV	? 12.88
2	~~G-BHC~~	7720.862	2.582	-0.028	31814	VV	12.75
3		0.0000	2.841		24389	VV	? 12.00
4		0.0000	3.108		27194	VV	? 16.81
5		0.0000	3.603		49086	VV	13.81
6		0.0000	3.850		37695	VV	? 28.69
7		0.0000	4.594		70461	VV	? 30.38
8	~~ALDRIN~~	8026.408	4.927	-0.133	33690	VV	? 29.75
9		0.0000	5.268		39835	VV	? 41.00
10	~~HEPT EPOX~~	17388.72	6.257	0.127	69800	VV	28.19
11		0.0000	6.958		41867	VV	? 28.00
12	~~A-ENDO~~	10181.30	7.591	0.001	38541	VV	? 48.13
13	~~4,4'-DDE~~	12858.20	8.466	-0.254	46637	VV	? 34.38
14	~~DIELDRIN~~	8636.384	9.030	0.190	34467	VV	? 44.88
15	~~4,4'-DDD~~	37986.55	10.648	-0.282	126513	VV	64.50
16	~~ENDO SO4~~	27113.31	12.275	-0.545	65349	VV	?104.50
17	~~4,4'-DDT~~	243544.0	14.072	-0.158	580176	VV	40.13
18	~~END KETON~~	23073.17	15.697	-0.693	89434	VV	?188.69
19		0.0000	19.865		28297	VV	? 60.88
20	~~METHOXYCH~~	18715.22	20.528	-0.352	24991	VV	?171.56
21		0.0000	23.614		46391	VV	?142.00
22	~~DDD~~	25816.34	27.420	-0.960	78061	VB	86.00
TOTALS:		446607.3		-3.054	1609649		

DETECTED PKS: 33 REJECTED PKS: 11

DIVISOR: 0.15000 MULTIPLIER: 1000000.00

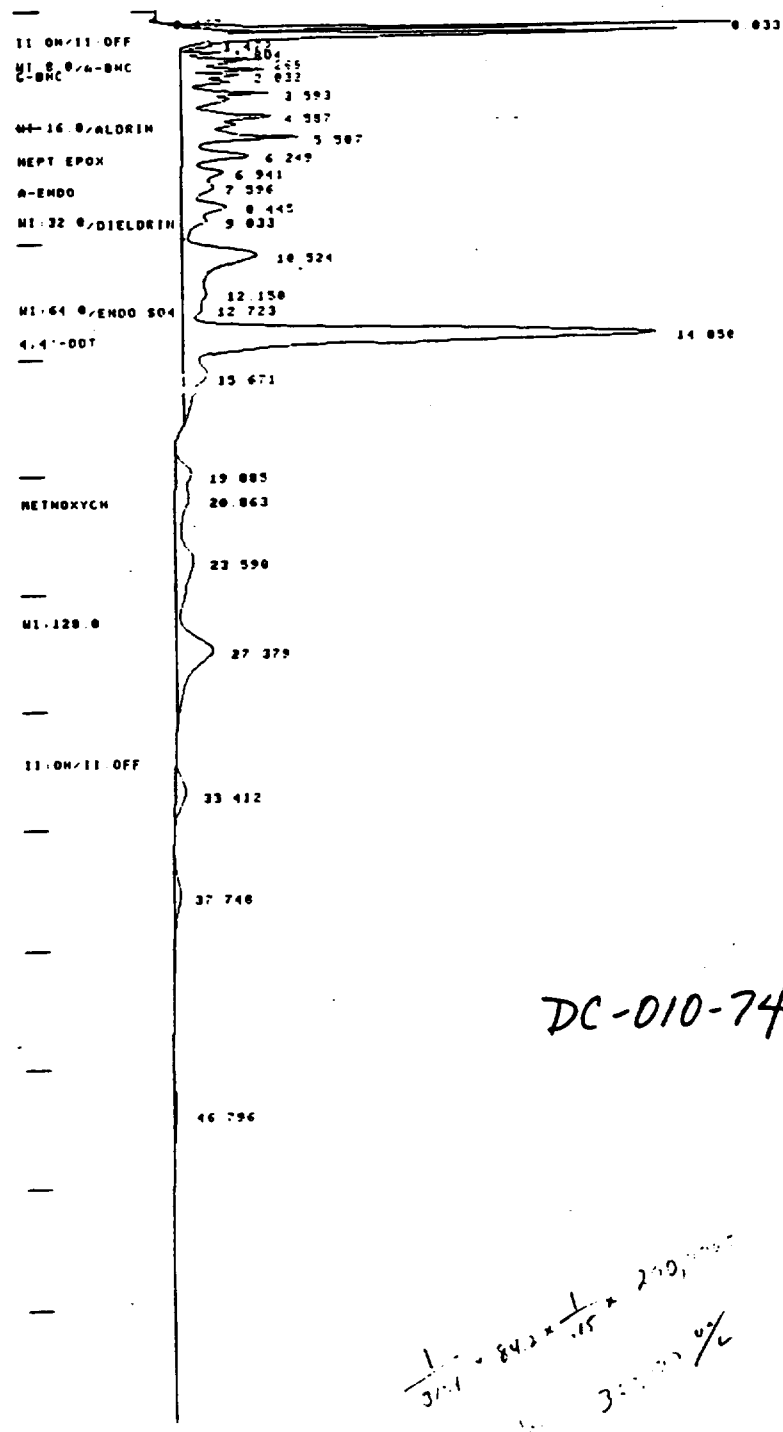
NOISE: 11.4 OFFSET: -14

RACK: 2 VIAL: 12 INJ: 1

NOTES:
NOTERBOOK:259-146,147 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#'S U-4971,4989
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
DEAD CREEK PRIMARY ANALYSIS
AUTOSAMPLER

POST RUN:
SAVE FILE: RAW S.CROP399

ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-010-74

CHANNEL: 1A - 1 TITLE: RUN# 32 17:51 12 MAR 87

SAMPLE: 1429 DC-010-74 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.804		37443	BV	6.56
2		0.0000	2.084		78694	VV	6.38
3	~~4-ENB~~	3043.494	2.268	0.028	68480	VV	? 12.00
4	~~6-BHC~~	5265.738	2.579	-0.031	108488	VV	9.38
5		0.0000	2.832		75963	VV	10.19
6		0.0000	3.099	PCB 1242	79747	VV	? 13.31
7		0.0000	*3.593		157420	VV	11.81
8		0.0000	3.841		118171	VV	? 22.31
9		0.0000	~~4.587?~~		~~240632~~	VV	? 20.50
10	~~ALDRIN~~	5750.377	~~4.829~~	-0.131	~~120683~~	VV	? 25.75
11		0.0000	~~5.507~~		~~315597~~	VV	15.94
12	~~HEPT-EPOX~~	11725.77	6.249	0.119	842 235342	VV	25.63
13		0.0000	6.941		154140	VV	? 23.56
14	~~A-ENDO~~	7358.143	7.596	0.006	139270	VV	? 51.25
15	~~4,4'-DDE~~	10139.93	8.445	-0.275	183889	VV	32.94
16	~~DIELDRIN~~	4897.884	9.033	0.193	97735	VV	? 38.50
17	~~4,4'-DDD~~	34634.23	10.524	-0.406	576741	VV	51.88
18		0.0000	12.150		128348	VV	? 78.13
19	~~ENDO-SO4~~	6166.328	12.723	-0.097	74552	VV	?110.94
20	~~4,4'-DDT~~	216748.9	14.050	-0.180	2581721	VV	39.06
21	~~END-KETON~~	10382.59	15.671	-0.719	201220	VB	? 64.63
22		0.0000	19.885		112504	BV	? 54.44
23	~~METHOXYCH~~	19458.11	20.863	-0.017	129915	VV	?114.75
24		0.0000	23.590		270259	VV	112.63
25	~~DDG~~	28382.86	27.379	-1.001	429107	VB	82.69
26		0.0000	33.412		103366	BV	73.38
27		0.0000	37.748		91390	VB	93.31
28		0.0000	46.796		45377	BB	117.31
TOTALS:		363974.5		-2.511	6956194		

DETECTED PKS: 33 REJECTED PKS: 5

DIVISOR: 0.15000 MULTIPLIER: 200000.000

NOISE: 11.4 OFFSET: 2

RACK: 3 VIAL: 2 INJ: 1

NOTES:
NOTERBOOK:259-146,147 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#'S U-4971,4989
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
DEAD CREEK PRIMARY ANALYSIS
AUTOSAMPLER

POST RUN:
SAVE FILE: RAW S.CROP404

SAMPLE NUMBER DC-010-75

DC-010-75

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: 1430

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received: 2-28-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 3-09-87

Conc/Dil Factor: 2 pH 7.8

Percent Moisture: (Not Decanted) 12

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000U
74-83-9	Bromomethane	2000U
75-01-4	Vinyl Chloride	2000U
75-00-3	Chloroethane	2000U
75-09-2	Methylene Chloride	300 BJ
67-64-1	Acetone	2300 B
75-15-0	Carbon Disulfide	1000U
75-35-4	1, 1-Dichloroethene	1000U
75-34-3	1, 1-Dichloroethane	1000U
156-60-5	Trans-1, 2-Dichloroethene	1000U
67-66-3	Chloroform	1000U
107-06-2	1, 2-Dichloroethane	1000U
78-93-3	2-Butanone	5900 B
71-55-6	1, 1, 1-Trichloroethane	1000U
56-23-5	Carbon Tetrachloride	1000U
108-05-4	Vinyl Acetate	2000U
75-27-4	Bromodichloromethane	1000U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000U
10061-02-6	Trans-1, 3-Dichloropropene	1000U
79-01-6	Trichloroethene	1000U
124-48-1	Dibromochloromethane	1000U
79-00-5	1, 1, 2-Trichloroethane	1000U
71-43-2	Benzene	1000U
10061-01-5	cis-1, 3-Dichloropropene	1000U
110-75-8	2-Chloroethylvinylether	2000U
75-25-2	Bromoform	1000U
108-10-1	4-Methyl-2-Pentanone	2000U
591-78-6	2-Hexanone	2000U
127-18-4	Tetrachloroethene	1000U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000U
108-88-3	Toluene	1000U
108-90-7	Chlorobenzene	1100
100-41-4	Ethylbenzene	300 J
100-42-5	Styrene	1000U
	Total Xylenes	980 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/µl in the final extract should be confirmed by GC/MS.

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

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

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

Laboratory Name Ecology & Environment

Case No U-4906, 4928, 4971, 4989

Sample Number DC-010-75

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 03-03-87

Date Analyzed: 03-17-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 12

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2,4-Dinitrophenol	16000u
100-02-7	4-Nitrophenol	16000u
132-64-9	Dibenzofuran	3300u
121-14-2	2,4-Dinitrotoluene	3300u
606-20-2	2,6-Dinitrotoluene	3300u
84-66-2	Diethylphthalate	3300u
7005-72-3	4-Chlorophenyl-phenylether	3300u
86-73-7	Fluorene	3300u
100-01-6	4-Nitroaniline	16000u
534-52-1	4,6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	6300 J
85-01-8	Phenanthrene	760 J
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	4400 J
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	1300 J
85-68-7	Butylbenzylphthalate	59000
91-94-1	3,3'-Dichlorobenzidine	6600u
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	950 J
218-01-9	Chrysene	1600 J
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1,2,3-cd)Pyrene	3300u
53-70-3	Dibenz(a,h)Anthracene	3300u
191-24-2	Benzo(g,h,i)Perylene	3300u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No

Sample Number DC-010-75

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 3-3-87

Date Analyzed 3-12-87

Conc/Dil Factor 10

Percent Moisture (decanted) 12

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	800u
319-85-7	Beta-BHC	800u
319-86-8	Delta-BHC	800u
58-89-9	Gamma-BHC (Lindane)	800u
76-44-8	Heptachlor	800u
309-00-2	Aldrin	800u
1024-57-3	Heptachlor Epoxide	800u
959-98-8	Endosulfan I	800u
60-57-1	Dieldrin	1600u
72-55-9	4,4'-DDE	1600u
72-20-8	Endrin	1600u
33213-65-9	Endosulfan II	1600u
72-54-8	4,4'-DDD	1600u
1031-07-8	Endosulfan Sulfate	1600u
50-29-3	4,4'-DDT	1600u
72-43-5	Methoxychlor	8,000u
53494-70-5	Endrin Ketone	1600u
57-74-9	Chlordane	8,000u
8001-35-2	Toxaphene	16,000u
12674-11-2	Aroclor-1016	8,000u
11104-28-2	Aroclor-1221	8,000u
11141-16-5	Aroclor-1232	8,000u
53469-21-9	Aroclor-1242	10,000
12672-29-6	Aroclor-1248	8,000u
11097-69-1	Aroclor-1254	16,000u
11096-82-5	Aroclor-1260	16,000u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

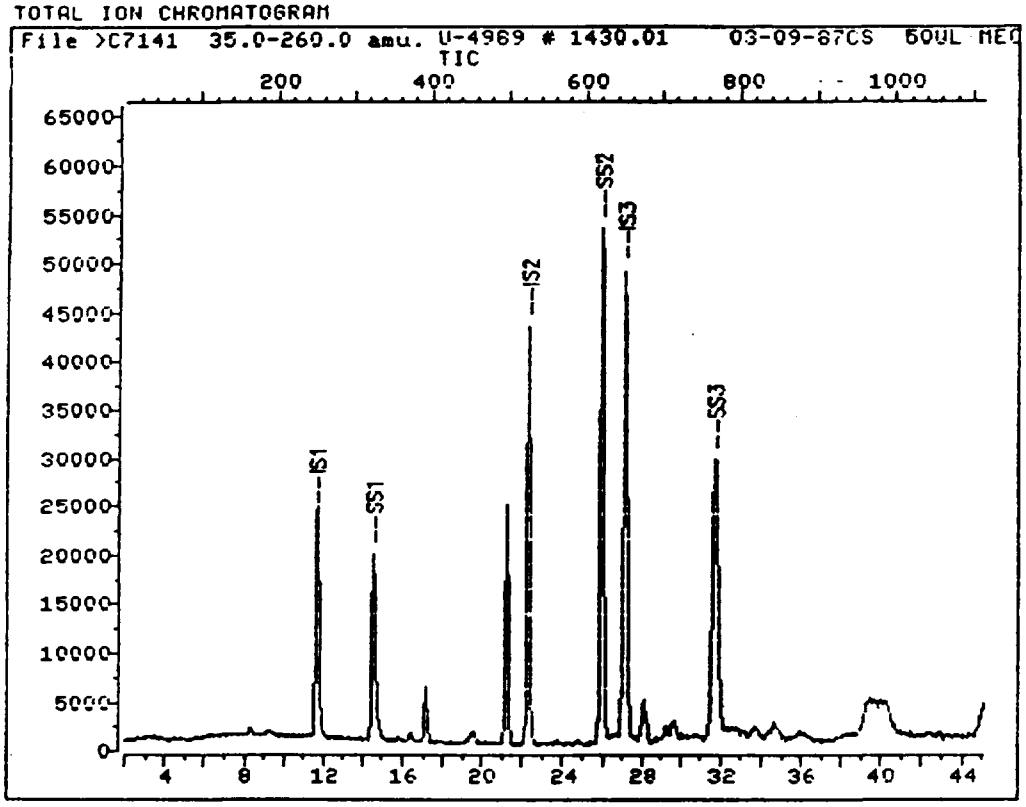
Sample Number DC-010-75

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.2	1500 BJ
2.	Hexane isomer	VOA	21.2	6500 BJ
3.				
4.	Unknown hydrocarbon	BNA	21.13	7600 BJ
5. 4536861	Benzene, (1-propyloctyl)		21.78	2000 J
6. 4536872	Benzene, (1-ethylnonyl)		22.06	2000 J
7.	Unknown hydrocarbon		22.59	7200 J
8. 2719622	Benzene, (1-pentylheptyl)		23.00	4400 J
9. 2719633	Benzene, (1-butyloctyl)		23.06	4200 J
10. 2719644	Benzene, (1-propylnonyl)		23.23	4400 J
11.	Unknown hydrocarbons		23.98	4800 J
12. 2719611	Benzene, (1-methylundecyl)		24.02	4300 J
13.	Unknown		24.25	7800 J
14. 4534490	Benzene, (1-pentyloctyl)		24.35	9800 J
15. 4534503	Benzene, (1-butylnonyl)		24.43	3600 J
16. 4534514	Benzene, (1-propyldecyl)		24.59	2900 J
17. 4534525	Benzene, (1-ethylundecyl)		24.90	3000 J
18.	Unknown hydrocarbon		25.31	4900 J
19. 4534536	Benzene, (1-methyldodecyl)		25.39	3200 J
20.	Substituted benzene		25.66	3300 J
21.	Unknown hydrocarbon		26.55	3800 J
22. 10544500	Molecular Sulfur		26.70	2900 J
23.	Unknown		35.26	5700 J
24				
25.				
26.				
27.				
28.				
29.				
30				

TOTAL ION CHROMATOGRAM

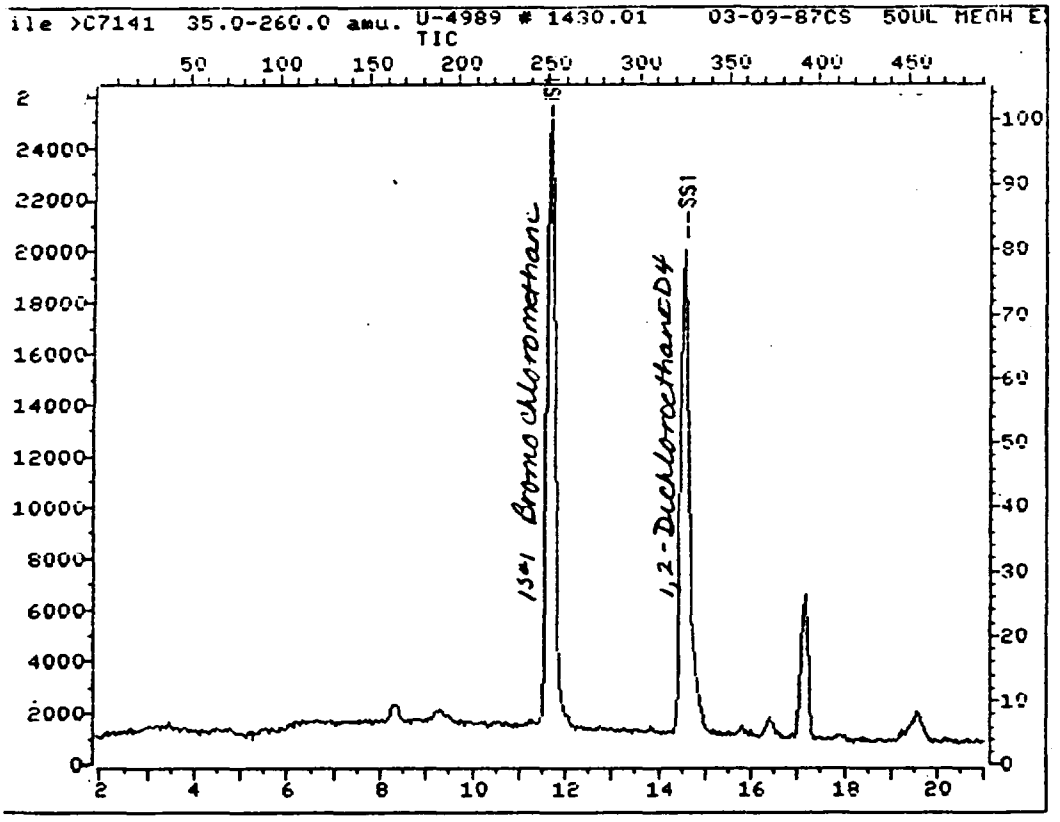


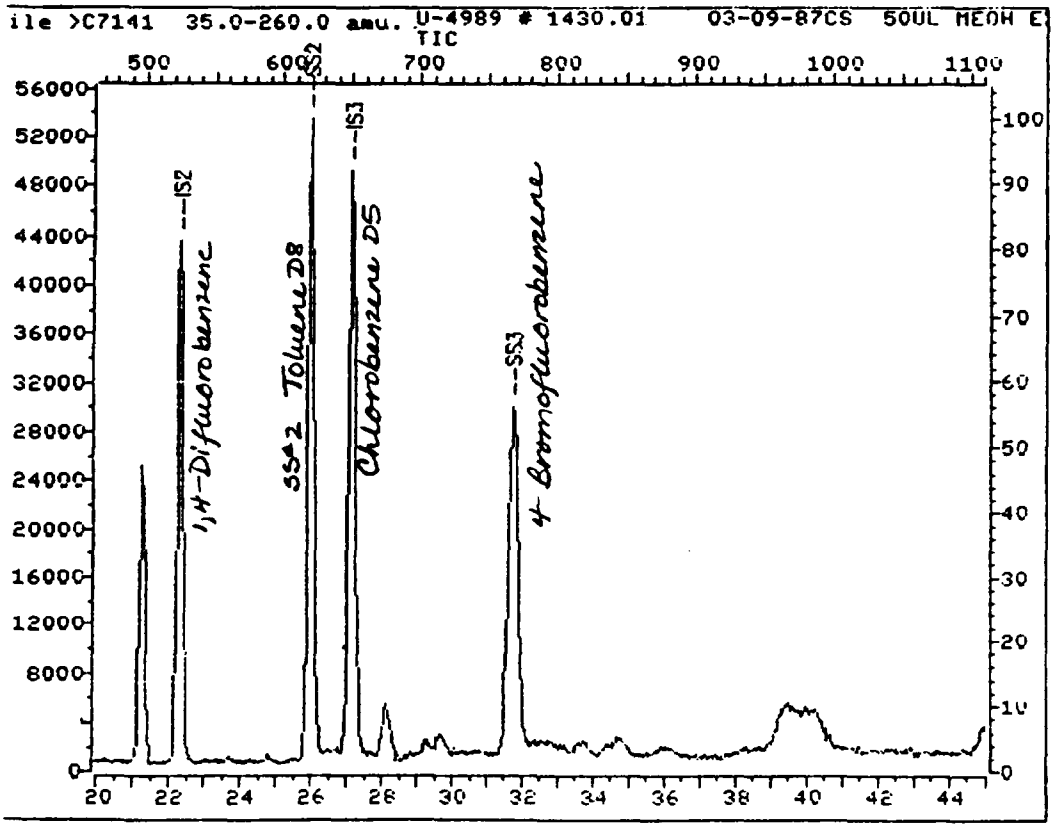
Data File: >C7141::D3
Name: U-4989 # 1430.01 DC-010-75
Misc: 03-09-87CS 50UL MEOH EXT (4.14g/10ML) + 5ML DI + 10UL

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870309 12:26

Operator ID: USER8
Quant Time: 870309 16:24
Injected at: 870309 15:38

DC-010-75


ile >C7141 35.0-260.0 amu. U-4989 # 1430.01 03-09-87CS 50UL MEOH E
TIC
IS#1 Bromochloromethane
1,2-Dichloroethane D4
SS1


ile >C7141 35.0-260.0 amu. U-4989 # 1430.01 03-09-87CS 50UL MEOH E
TIC
IS2
1,4-Difluorobenzene
SS#2 Toluene D8
SS2
IS3
Chlorobenzene D5
SS3
4-Bromofluorobenzene

QUANT REPORT

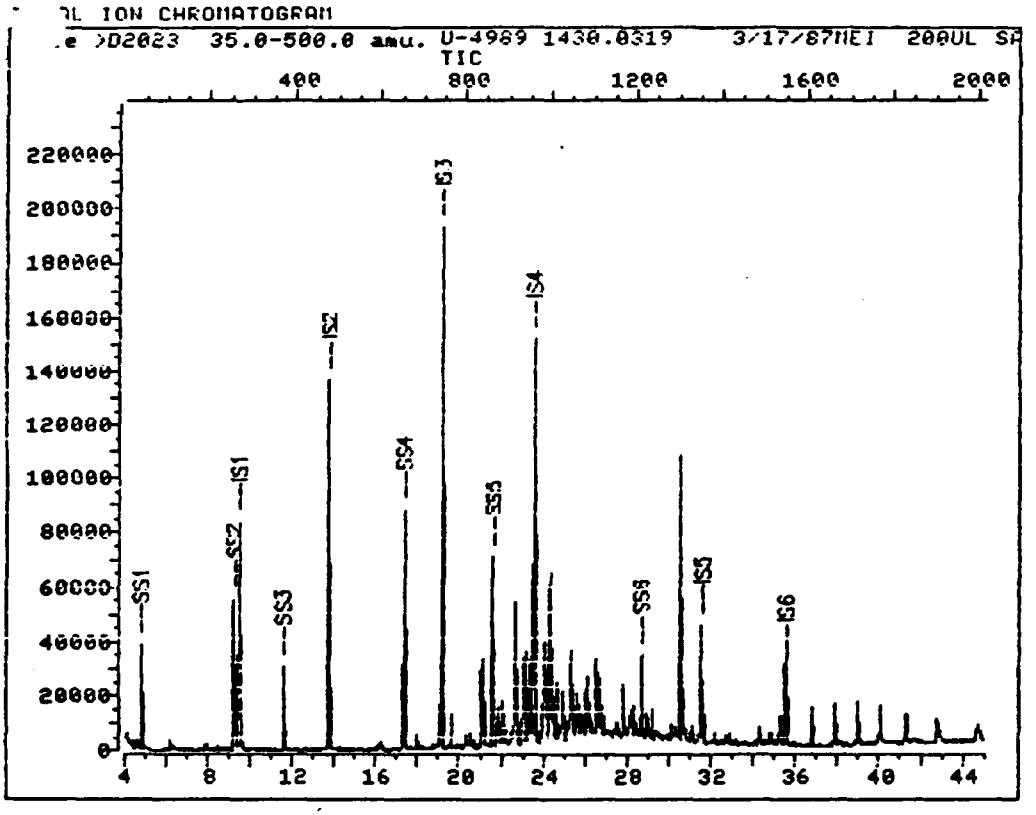
Operator ID: USER8 Quant Rev: 4 Quant Time: 870309 16:24
Input File: ^C7141::Q1 Injected at: 870309 15:38
Data File: >C7141::D3 Dilution Factor: 1.00
Name: U-4989 # 1430.01 DC-010-75
Misc: 03-09-87CS 50UL MEOH EXT (4.14g/10ML) + 5ML DI + 10UL

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870309 12:26

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.65	251	38898	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.31	165	1932	1.26	UG/L	100
7)	ACETONE	43	9.32	191	7270	9.39	UG/L	100
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.56	326	85704	42.21	UG/L 84	84
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.28	525	189891	50.00	UG/L	100
17)	2-BUTANONE	72	14.71	330	4254	24.36	UG/L	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.13	650	158503	50.00	UG/L	100
36)	TOLUENE-D8 (SURR)	98	25.96	620	209884	43.49	UG/L 86	96
38)	CHLOROBENZENE	112	27.26	653	18217	4.62	UG/L	98
39)	ETHYLBENZENE	91	29.27	705	8651	1.23	UG/L	97
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.72	768	105092	42.78	UG/L 86	100
42)	TOTAL XYLENES	91	33.70	819	10967	1.82	UG/L	100
42)	TOTAL XYLENES	91	34.71	845	13530	2.25	UG/L	100
43)	1,3-DICHLOROBENZENE	146	39.40	966	14022	14022.00	NO CALIB	100
44)	1,2-DICLHLOROBENZENE	146	39.40	966	14022	14022.00	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	39.40	966	14022	14022.00	NO CALIB	100

* Compound is ISTD

no rerun required CSF

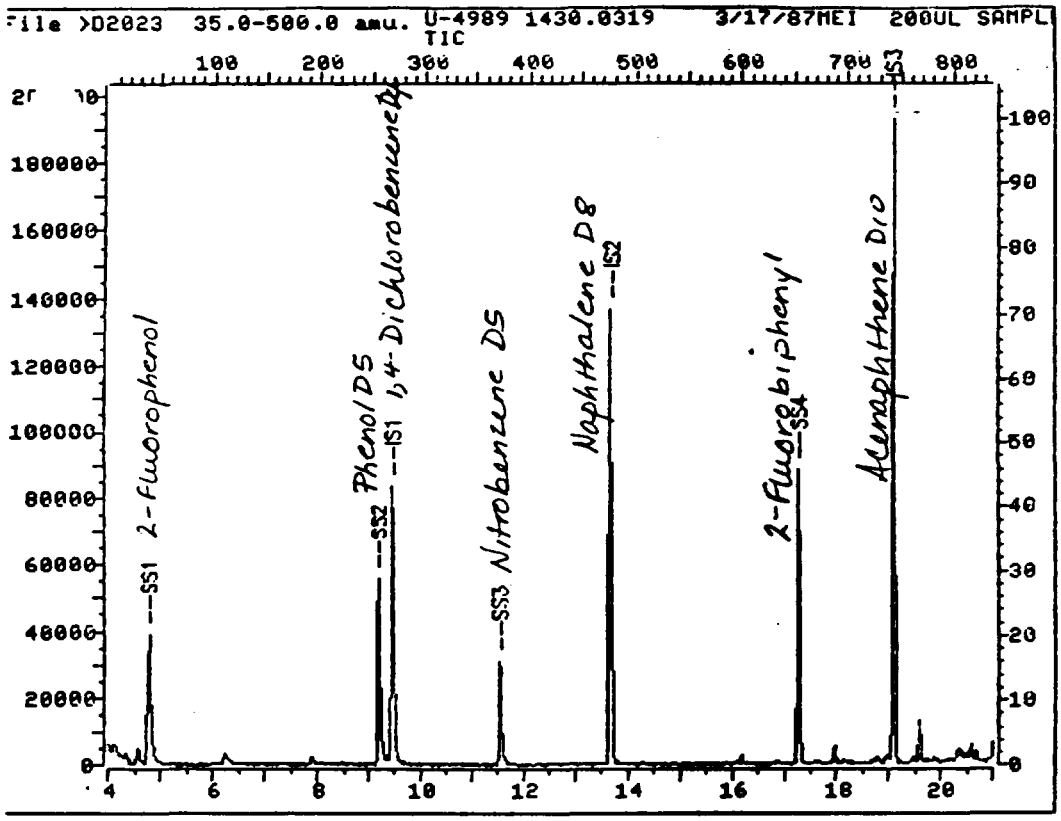


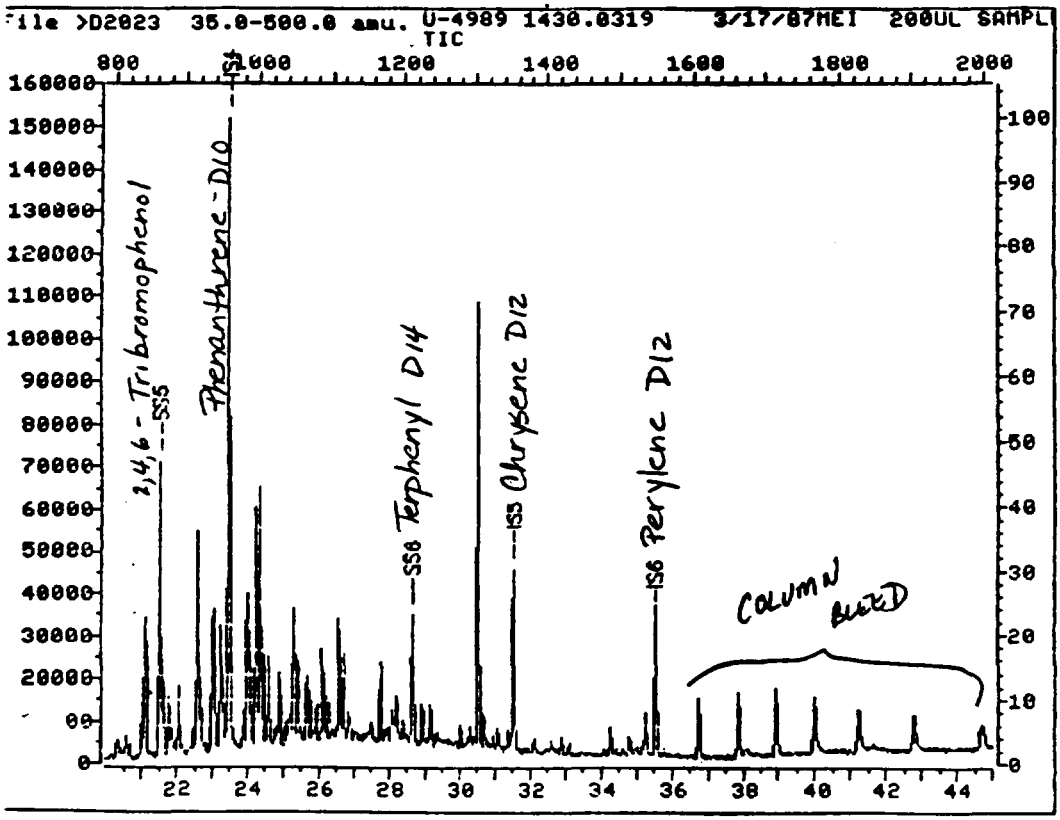
Data File: >D2023::D3
Name: U-4989 1430.0319 DC-010-75
Misc: 3/17/87MEI 200UL SAMPLE/200UL MECL2 + 4UL IS(2X) BTL# 4

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870414 09:44

Operator ID: USER8
Quant Time: 870414 09:52
Injected at: 870317 20:15

DC-010-75


File >D2023 35.0-500.0 amu. U-4989 1430.0319 3/17/87MEI 200UL SAMPL
TIC
SS1 2-Fluorophenol
SS2 Phenol D5
IS1 1,4-Dichlorobenzene
SS3 Nitrobenzene D5
IS2 Naphthalene D8
SS4 2-Fluorobiphenyl
IS3 Acenaphthene D10


File >D2023 35.0-500.0 amu. U-4989 1430.0319 3/17/87MEI 200UL SAMPL
TIC
SS5 2,4,6-Tribromophenol
IS4 Phenanthrene-D10
SS6 Terphenyl D14
IS5 Chrysene D12
IS6 Perylene D12
COLUMN BLEED

QUANT REPORT

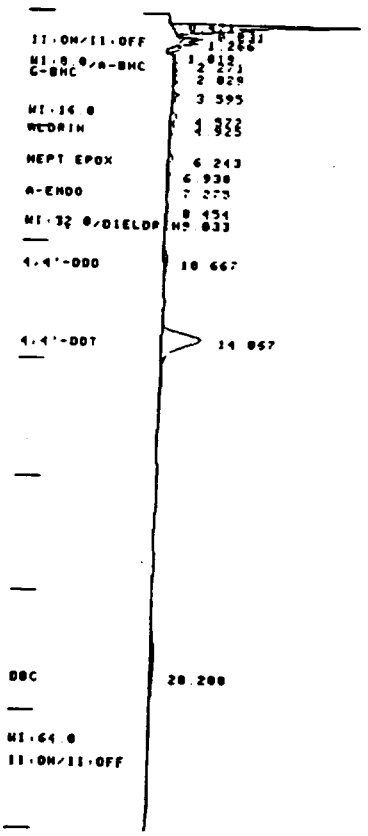
Operator ID: USER8 Quant Rev: 4 Quant Time: 870414 09:52
Output File: ^D2023::Q2 Injected at: 870317 20:15
Data File: >D2023::D3 Dilution Factor: 2.00
Name: U-4989 1430.0319 DC-010-75
Misc: 3/17/87MEI 200UL SAMPLE/200UL MECL2 + 4UL IS(2X) BTL# 4

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870414 09:44

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.45	269	44165	40.00 UG/L	87
2)	PHENOL-D5	(SURR)	99	9.19	256	59478	71.58 UG/L 72	94
5)	2-FLUOROPHENOL	(SURR)	112	4.77	39	35774	67.80 UG/L 68	75
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.53~~	~~371~~	~~5379~~	~~7.39 UG/L~~	81
19)	*NAPHTHALENE-D8	(IS)	136	13.67	476	165401	40.00 UG/L	100
0)	NITROBENZENE-D5	(SURR)	82	11.53	371	31236	38.31 UG/L 76	95
4)	*ACENAPHTHENE-D10	(IS)	162	19.09	742	102994	40.00 UG/L	95
8)	2-FLUOROBIPHENYL	(SURR)	172	17.28	653	69970	45.37 UG/L 90	93
1)	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.09~~	~~742~~	~~19880~~	~~11.77 UG/L~~	100
8)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.53	862	20914	68.10 UG/L 68	96
2)	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.09~~	~~742~~	~~13972~~	~~34.27 UG/L~~	100
5)	*PHENANTHRENE-D10	(IS)	188	23.47	957	144637	40.00 UG/L	91
0)	PENTACHLOROPHENOL		266	23.29	948	6387	19.26 UG/L yes	100
1)	PHENANTHRENE		178	23.53	960	4126	2.32 UG/L yes	97
2)	~~ANTHRACENE~~		~~178~~	~~23.53~~	~~960~~	~~4126~~	~~2.52 UG/L~~	97
3)	DI-N-BUTYLPHTHALATE		149	26.08	1085	25334	13.44 UG/L yes	99
5)	*CHRYSENE-D12	(IS)	240	31.53	1352	44115	40.00 UG/L	100
7)	PYRENE		202	27.74	1166	5088	3.94 UG/L yes	92
8)	TERPHENYL-D14	(SURR)	244	28.63	1210	28281	41.67 UG/L	100
9)	BUTYLBENZYLPHTHALATE		149	30.55	1304	67613	178.75 UG/L yes	86
1)	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.59~~	~~1355~~	~~2711~~	~~4.59 UG/L~~	98
2)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.61	1405	1822	2.91 UG/L yes	97
3)	CHRYSENE		228	31.59	1355	2711	4.83 UG/L yes	98
4)	*PERYLENE-D12	(IS)	264	35.53	1548	28291	40.00 UG/L	100

* Compound is ISTD

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



28

SEE RUN 33

CHANNEL: 1A - 1 TITLE: RUN# 28 12:48 12 MAR 87

RECALCULATE ON FILE: S.CROP400

CHANNEL: 1A - 1 TITLE: RUN# 28 12:48 12 MAR 87

SAMPLE: 1430 DC-010-75 METHOD: CASE1 CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~4,4'-DDE~~	897.8018	10.667	-0.263	29901	BV	46.50
2	~~4,4'-DDT~~	10494.36	14.067	-0.163	249999	VV	39.00
3	~~DDC~~	1708.334	20.200	-0.172	51655	BB	7115.38
TOTALS:		13100.49		-0.598	331555		

DETECTED PKS: 27 REJECTED PKS: 24

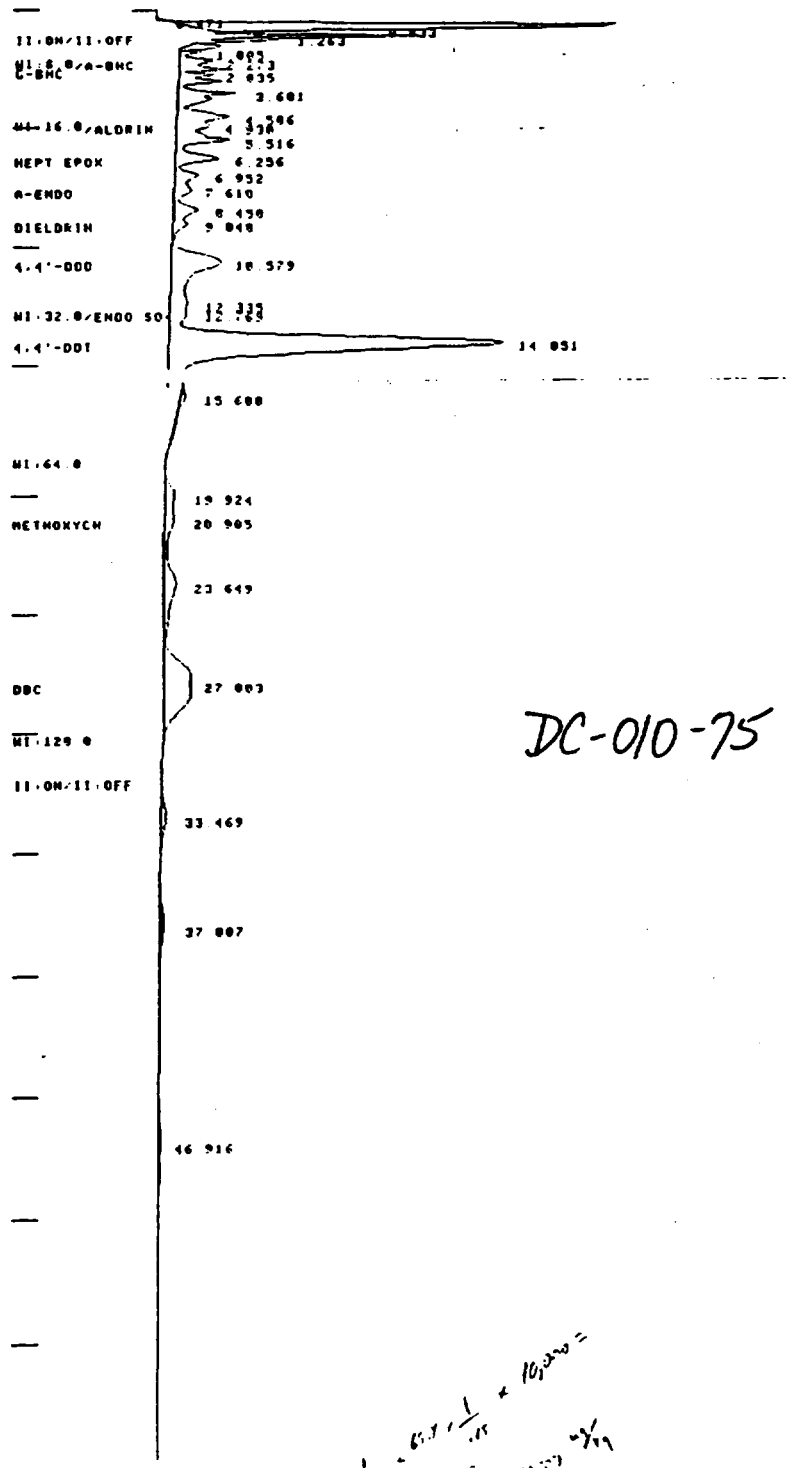
DIVISOR: 0.15000 MULTIPLIER: 100000.000

NOISE: 11.4 OFFSET: -17

RACK: 2 VIAL: 13 INJ: 1

NOTES:
NOTEBOOK:259-146,147 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#'S U-4971,4989
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
DEAD CREEK PRIMARY ANALYSIS
AUTOSAMPLER

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



33

DC-010-75

CHANNEL: 1A - 1 TITLE: RUN# 33 18:56 12 MAR 87

SAMPLE: 1430DC-010-75 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		32652	BB	3.75
2		0.0000	1.554		46712	BV	5.13
3		0.0000	2.087		29106	VV	6.44
4	~~A-BHC~~	88.6916	2.273	0.033	38912	VV	? 9.63
5	~~G-BHC~~	150.8279	2.582	-0.028	62149	VV	11.63
6		0.0000	2.835		40746	VV	9.00
7		0.0000	3.101		60527	VV	9.81
8		0.0000	*3.601 PCB 1242	63.6	98487	VV	11.19
9		0.0000	3.839		76915	VV	? 21.56
10		0.0000	~~4.586~~		~~161672~~	VV	? 28.38
11	~~ALDRIN~~	169.3694	4.930	-0.130	71091	VV	? 28.00
12		0.0000	~~5.616~~		~~151086~~	VV	21.81
13	~~HEPT EPOX~~	331.2676	6.256	0.126	132974	VV	21.56
14		0.0000	6.952		75973	VV	20.06
15	~~A-ENDO~~	178.2053	7.610	0.020	67459	VV	? 29.50
16	~~4,4'-DDE~~	239.0472	8.450	-0.270	86703	VV	23.13
17	~~DIELDRIN~~	130.4616	9.048	0.208	52066	VV	? 22.44
18	~~4,4'-DDD~~	1097.590	10.579	-0.351	365549	VV	? 52.31
19		0.0000	12.335		84524	VV	? 34.25
20	~~ENDO SO4~~	297.8237	12.769	-0.051	71782	VV	? 62.88
21	~~4,4'-DDT~~	8399.956	14.051	-0.179	2001056	VV	39.19
22	~~END KETON~~	104.8270	15.688	-0.702	40632	T	? 81.81
23		0.0000	19.900		64591	BV	? 54.00
24	~~METHOXYCH~~	607.1832	20.905	0.025	81079	VV	? 99.94
25		0.0000	23.649		161150	VV	95.44
26	~~DDO~~ INF	1474.902	27.803	-0.577	445967	VB	131.31
27		0.0000	33.469		51227	BV	72.63
28		0.0000	37.807		46879	VB	91.19
29		0.0000	46.916		34813	BB	120.00
TOTALS:		13270.15		-1.876	4725479		

DETECTED PKS: 35 REJECTED PKS: 6

DIVISOR: 0.15000 MULTIPLIER: 10000.0000

NOISE: 11.4 OFFSET: -11

RACK: 3 VIAL: 3 INJ: 1

NOTES:
NOTERBOOK:259-146,147 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#'S U-4971,4989
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
DEAD CREEK PRIMARY ANALYSIS
AUTOSAMPLER

POST RUN:
SAVE FILE: RAW S.CROP405

SAMPLE NUMBER DC-010-75R

481095

Laboratory Name Ecology & Environment
Case No U-4906, 4928, 4971, 4989

Sample Number
DC-010-75R

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared 03-03-87
Date Analyzed 03-17-87
Conc/Dil Factor 2
Percent Moisture (Decanted) 12

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2,4-Dinitrophenol	16000u
100-02-7	4-Nitrophenol	16000u
132-64-9	Dibenzofuran	3300u
121-14-2	2,4-Dinitrotoluene	3300u
606-20-2	2,6-Dinitrotoluene	3300u
84-66-2	Diethylphthalate	3300u
7005-72-3	4-Chlorophenyl-phenylether	3300u
86-73-7	Fluorene	3300u
100-01-6	4-Nitroaniline	16000u
534-52-1	4,6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	5600 J
85-01-8	Phenanthrene	660 J
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	4300
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	1100 J
85-68-7	Butylbenzylphthalate	51000
91-94-1	3,3'-Dichlorobenzidine	6600u
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	460 J
218-01-9	Chrysene	1300 J
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1,2,3-cd)Pyrene	3300u
53-70-3	Dibenz(a,h)Anthracene	3300u
191-24-2	Benzo(g,h,i)Perylene	3300u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No V-4906, 4928, 4971, 4989

Sample Number

DC-010-75R

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 3-3-87

Date Analyzed 3-12-87

Conc/Dil Factor 10

Percent Moisture (decanted) 12

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	800u
319-85-7	Beta-BHC	800u
319-86-8	Delta-BHC	800u
58-89-9	Gamma-BHC (Lindane)	800u
76-44-8	Heptachlor	800u
309-00-2	Aldrin	800u
1024-57-3	Heptachlor Epoxide	800u
959-98-8	Endosulfan I	800u
60-57-1	Dieldrin	1600u
72-55-9	4,4'-DDE	1600u
72-20-8	Endrin	1600u
33213-65-9	Endosulfan II	1600u
72-54-8	4,4'-DDD	1600u
1031-07-8	Endosulfan Sulfate	1600u
50-29-3	4,4'-DDT	1600u
72-43-5	Methoxychlor	8,000u
53494-70-5	Endrin Ketone	1,600u
57-74-9	Chlordane	8,000u
8001-35-2	Toxaphene	16,000u
12674-11-2	Aroclor-1016	8,000u
11104-28-2	Aroclor-1221	8,000u
11141-16-5	Aroclor-1232	8,000u
53469-21-9	Aroclor-1242	10,000
12672-29-6	Aroclor-1248	8,000u
11097-69-1	Aroclor-1254	16,000u
11096-82-5	Aroclor-1260	16,000u

V_i = Volume of extract injected (ul)

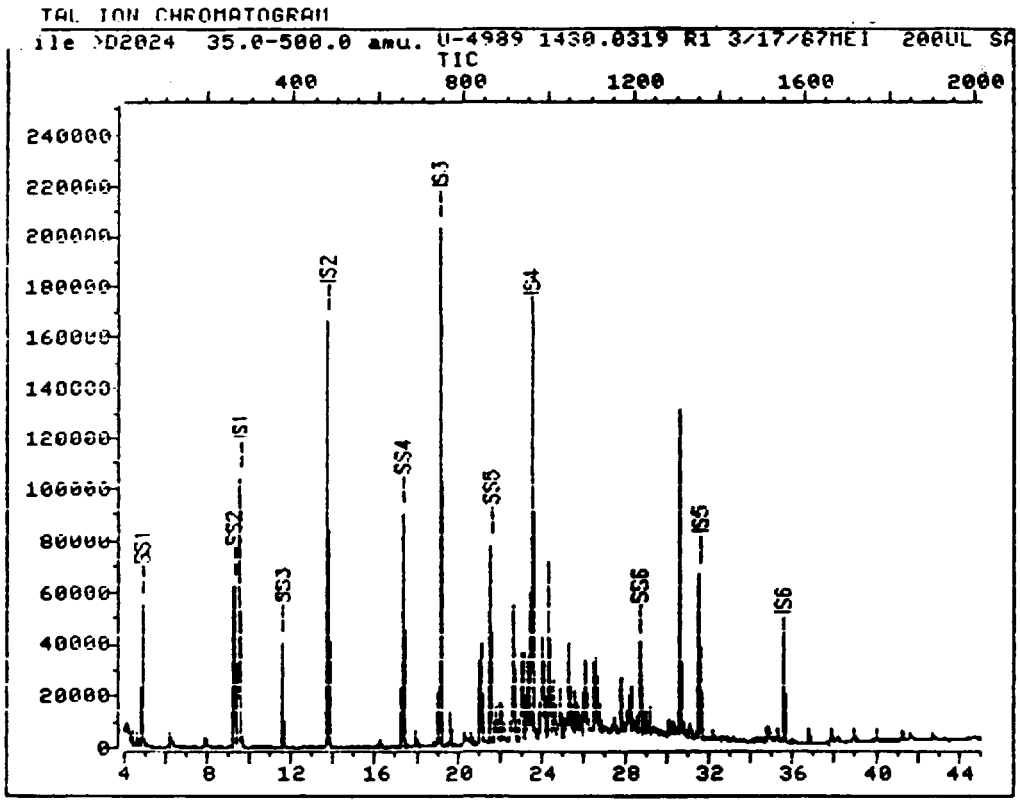
V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

DC-010-75R

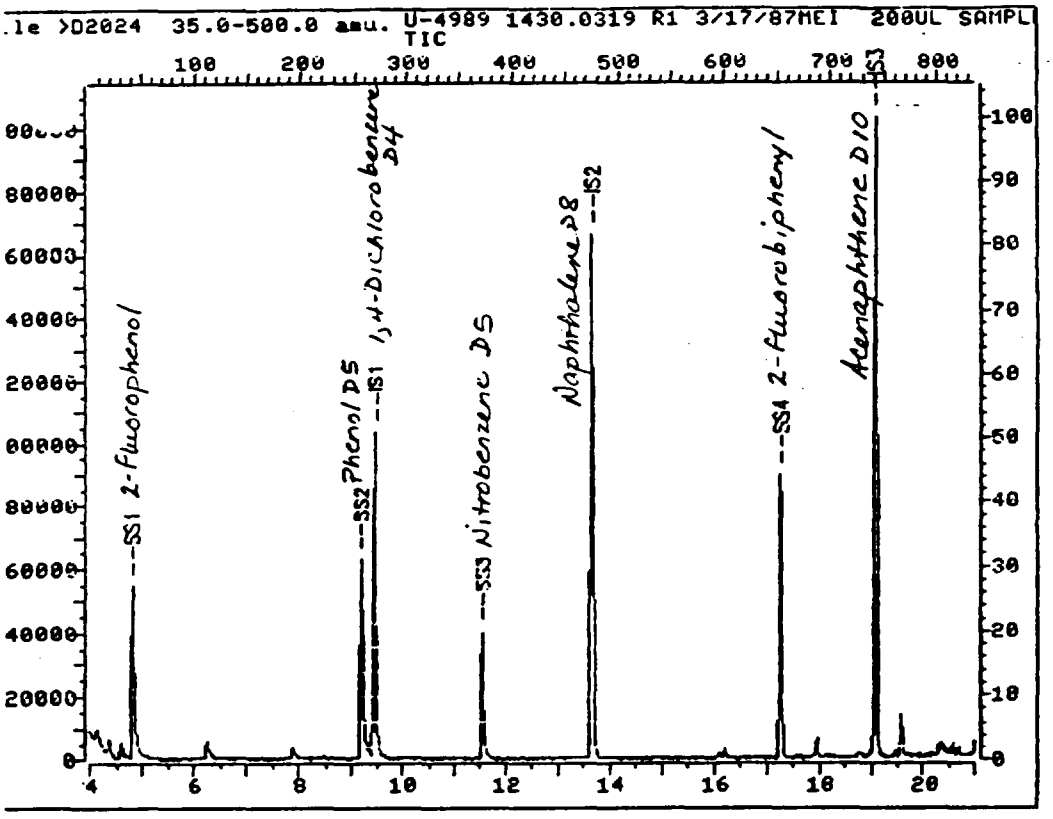


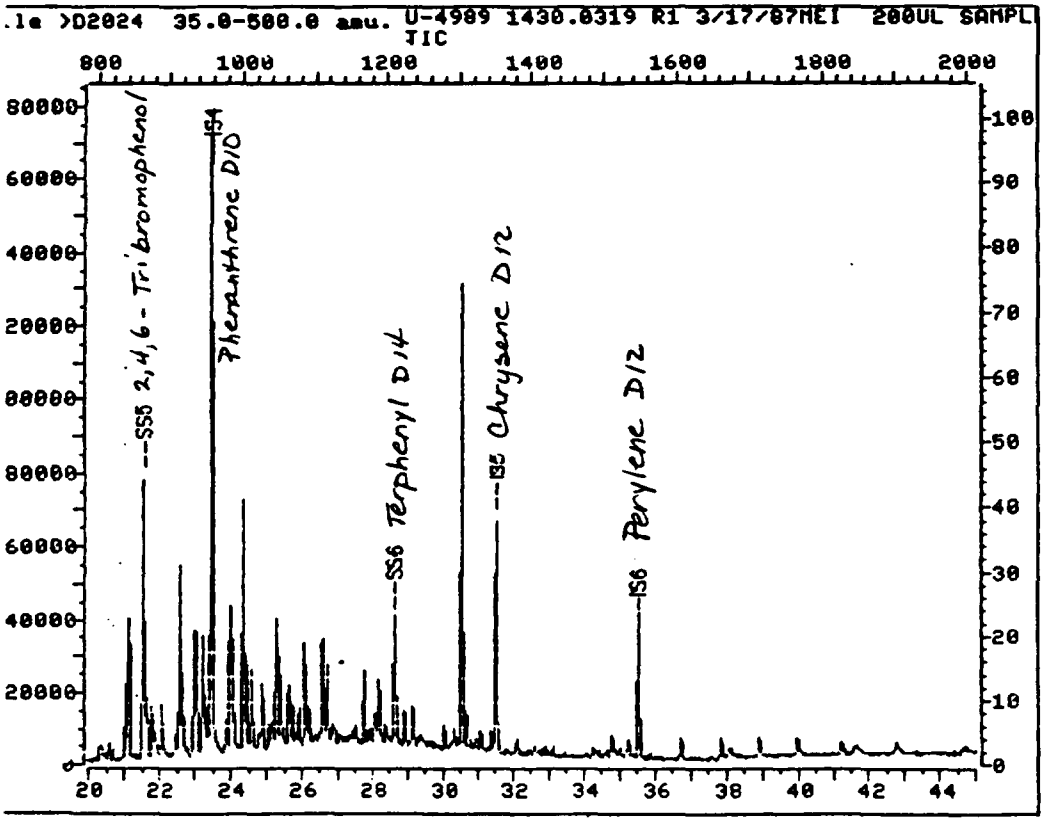
Data File: >D2024::D3
Name: U-4989 1430.0319 R1
Misc: 3/17/87MEI 200UL SAMPLE/200UL MECL2 + 4UL IS(2X) BTL# 5

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870414 09:44

Operator ID: USER8
Quant Time: 870414 09:55
Injected at: 870317 21:12

DC-010-75R


.1e >D2024 35.0-500.0 amu. U-4989 1430.0319 R1 3/17/87MEI 200UL SAMPL
TIC
--SS1 2-Fluorophenol
--SS2 Phenol D5
--IS1 1,4-Dichlorobenzene D4
--SS3 Nitrobenzene D5
Naphthalene D8 --IS2
--SS4 2-Fluorobiphenyl
Acenaphthene D10 --IS3


.1e >D2024 35.0-500.0 amu. U-4989 1430.0319 R1 3/17/87MEI 200UL SAMPL
TIC
--SS5 2,4,6-Tribromophenol
IS4 Phenanthrene D10
--SS6 Terphenyl D14
--IS5 Chrysene D12
IS6 Perylene D12

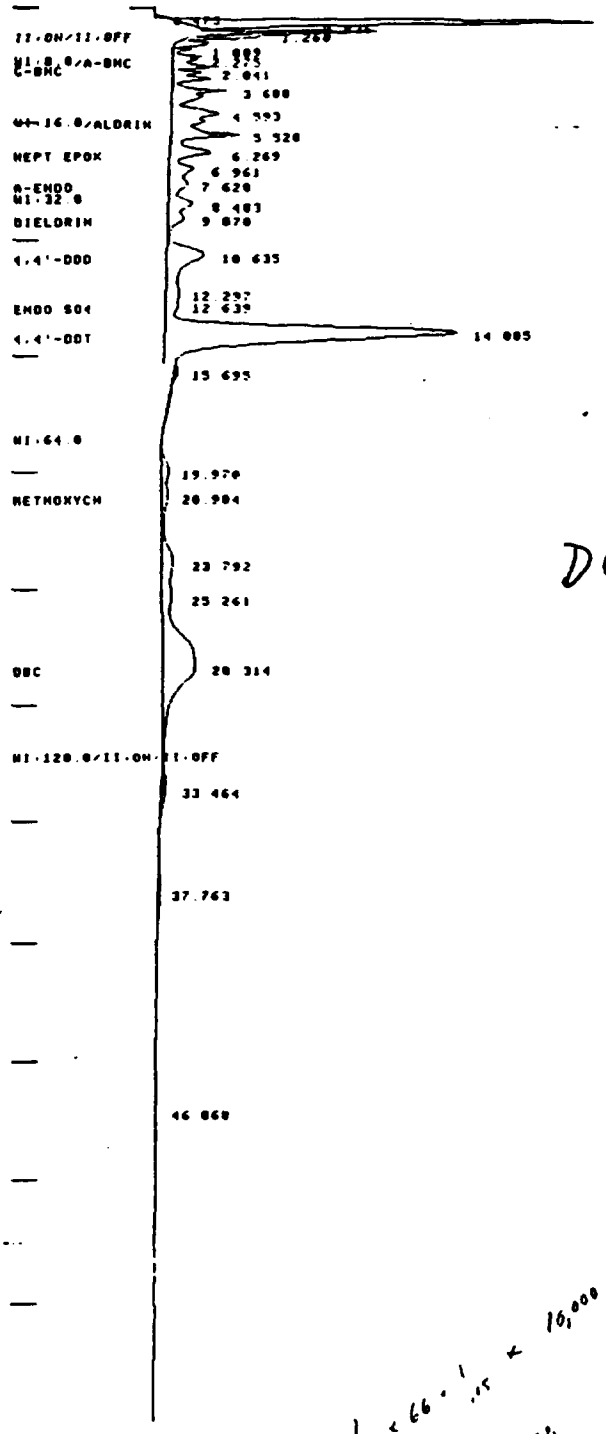
QUANT REPORT

)perator ID: USER8 Quant Rev: 4 Quant Time: 870414 09:55
)utput File: ^D2024::Q2 Injected at: 870317 21:12
)ata File: >D2024::D3 Dilution Factor: 2.00
)ame: U-4989 1430.0319 R1 DC-010-75R
)isc: 3/17/87MEI 200UL SAMPLE/200UL MECL2 + 4UL IS(2X) BTL# 5

D File: BNADR::D2
'itle: BNA ID FILE FOR THE HP 5970 (B)
.ast Calibration: 870414 09:44

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.47	270	50841	40.00 UG/L	86
2)	PHENOL-D5	(SURR)	99	9.18	256	69357	72.51 UG/L 72	99
5)	2-FLUOROPHENOL	(SURR)	112	4.80	41	45420	74.78 UG/L 75	78
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.55~~	~~372~~	~~6437~~	~~7.68 UG/L~~ CW	94
19)	*NAPHTHALENE-D8	(IS)	136	13.66	476	196392	40.00 UG/L	100
0)	NITROBENZENE-D5	(SURR)	82	11.55	372	39217	40.50 UG/L 81	93
4)	*ACENAPHTHENE-D10	(IS)	162	19.08	742	125650	40.00 UG/L	93
8)	2-FLUOROBIPHENYL	(SURR)	172	17.27	653	80960	43.03 UG/L 86	93
1)	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.08~~	~~742~~	~~23718~~	~~11.51 UG/L~~ CW	100
8)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.53	862	24200	64.59 UG/L 65	98
2)	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.08~~	~~742~~	~~17035~~	~~34.25 UG/L~~ CW	100
3)	~~DIETHYLPHTHALATE~~		~~149~~	~~21.04~~	~~838~~	~~1571~~	~~.74 UG/L~~	92
5)	*PHENANTHRENE-D10	(IS)	188	23.47	957	183056	40.00 UG/L	96
0)	PENTACHLOROPHENOL		266	23.28	948	7098	16.91 UG/L	100
1)	PHENANTHRENE		178	23.53	960	4563	2.02 UG/L	92
2)	~~ANTHRACENE~~		~~178~~	~~23.53~~	~~960~~	~~4563~~	~~2.20 UG/L~~ CW	92
3)	DI-N-BUTYLPHTHALATE		149	26.08	1085	31098	13.04 UG/L	98
5)	*CHRYSENE-D12	(IS)	240	31.53	1352	62653	40.00 UG/L	100
7)	PYRENE		202	27.73	1166	5873	3.20 UG/L	94
8)	TERPHENYL-D14	(SURR)	244	28.63	1210	36760	38.13 UG/L 76	100
9)	BUTYLBENZYLPHTHALATE		149	30.55	1304	82532	153.63 UG/L	91
1)	~~BENZO(A)ANTHRACENE~~		~~228~~	~~31.59~~	~~1355~~	~~3153~~	~~3.76 UG/L~~ CW	94
2)	BIS(2-ETHYLHEXYL)PHTHALATE		149	32.61	1405	1253	1.41 UG/L	86
3)	CHRYSENE		228	31.59	1355	3153	3.96 UG/L	95
4)	*PERYLENE-D12	(IS)	264	35.52	1548	39462	40.00 UG/L	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.40~~	~~1493~~	~~1224~~	~~1.33 UG/L~~ CW	100
~~5)~~	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.60~~	~~1503~~	~~1976~~	~~2.14 UG/L~~	100

* Compound is ISTD



DC-010-75R

$\frac{1}{1/200} \times 66 \times \frac{1}{.15} \times 16{,}000$

$\frac{\text{ng}}{1\text{ptr}}$ 15,000 ng/kg

RECALCULATE ON FILE: S.CROP406

CHANNEL: 1A - 1 TITLE: RUN# 34 20:01 12 MAR 87

SAMPLE: 1430R1 METHOD: CEPA CALCULATION: ES - ANALYS

DC-010-75 R1

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.268		34687	BB	3.81
2		0.0000	1.557		44947	BV	5.00
3		0.0000	2.091		26058	VV	6.50
4	~~A-BHC~~	77.4962	2.275	0.035	34874	VV	11.69
5	~~G-BHC~~	136.8151	2.586	-0.024	56375	VV	11.50
6		0.0000	2.841		36951	VV	9.38
7		0.0000	3.107		53772	VV	10.06
8		0.0000	* 3.608	PB 1242	91748	VV	11.56
9		0.0000	3.846		73424	VV	? 22.00
10		0.0000	~~4.593~~		147505	VV	? 24.50
11	~~ALDRIN~~	202.6662	4.933	-0.127	85067	VV	? 26.81
12		0.0000	~~5.528~~		183459	VV	15.44
13	~~HEPT EPOX~~	352.0419	6.269	0.139	141313	VV	23.56
14		0.0000	6.961		87122	VV	28.56
15	~~A-ENDO~~	210.8485	7.628	0.038	79816	VV	? 38.63
16	~~4,4'-DDE~~	280.1746	8.483	-0.237	101620	VV	26.13
17	~~DIELDRIN~~	158.6983	9.070	0.230	63335	VV	? 25.69
18	~~4,4'-DDD~~	833.3633	10.635	-0.295	277549	VV	47.56
19		0.0000	12.297		73773	VV	? 45.75
20	~~ENDO SO4~~	221.7849	12.639	-0.181	53455	VV	?
21	~~4,4'-DDT~~	7387.027	14.085	-0.145	1759754	VV	39.31
22	~~END KETON~~	76.0274	15.695	-0.695	29469	T	? 60.88
23		0.0000	19.947		58435	BV	? 54.88
24	~~METHOXYCH~~	555.1961	20.984	0.104	74137	VV	?129.56
25		0.0000	23.792		129386	VV	? 94.06
26		0.0000	25.261		79944	VV	?177.25
27	DBC INF	2212.438	28.314	-0.066	668976	VB	?165.94
28		0.0000	33.464		43682	BB	61.31
29		0.0000	37.763		31435	BB	78.00
30		0.0000	46.868		27782	BB	124.00
TOTALS:		12704.57		-1.224	4649850		

DETECTED PKS: 36 REJECTED PKS: 6

DIVISOR: 0.15000 MULTIPLIER: 10000.0000

NOISE: 11.4 OFFSET: -12

RACK: 3 VIAL: 4 INJ: 1

NOTES:
NOTERBOOK:259-146,147 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#'S U-4971,4989
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
DEAD CREEK PRIMARY ANALYSIS
AUTOSAMPLER

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)

DC-G8-70 MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989

Lab Sample ID No: 1277 MS

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Slotowicz

Date Sample Received: 2-26-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-26-87

Conc/Dil Factor: ~~2~~ 4 pH 7.4

Percent Moisture: (Not Decanted) 30

Concentrations reported "as received"

CAS Number		ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	4000u
74-83-9	Bromomethane	4000u
75-01-4	Vinyl Chloride	4000u
75-00-3	Chloroethane	4000u
75-09-2	Methylene Chloride	570BJ
67-64-1	Acetone	7600 B
75-15-0	Carbon Disulfide	2000u
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	2000u
156-60-5	Trans-1, 2-Dichloroethene	250 J
67-66-3	Chloroform	2000u
107-06-2	1, 2-Dichloroethane	2000u
78-93-3	2-Butanone	8900 BCW
71-55-6	1, 1, 1-Trichloroethane	2000u
56-23-5	Carbon Tetrachloride	2000u
108-05-4	Vinyl Acetate	4000u
75-27-4	Bromodichloromethane	2000u

CAS Number		ug/L or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2000u
10061-02-6	Trans-1, 3-Dichloropropene	2000u
79-01-6	Trichloroethene	SPIKE
124-48-1	Dibromochloromethane	2000u
79-00-5	1, 1, 2-Trichloroethane	2000u
71-43-2	Benzene	SPIKE
10061-01-5	cis-1, 3-Dichloropropene	2000u
110-75-8	2-Chloroethylvinylether	4000u
75-25-2	Bromoform	2000u
108-10-1	4-Methyl-2-Pentanone	5600
591-78-6	2-Hexanone	4000u
127-18-4	Tetrachloroethene	39000
79-34-5	1, 1, 2, 2-Tetrachloroethane	2000u
108-88-3	Toluene	SPIKE
108-90-7	Chlorobenzene	SPIKE
100-41-4	Ethylbenzene	11,000
100-42-5	Styrene	2000u
	Total Xylenes	25,000

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., 100U 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

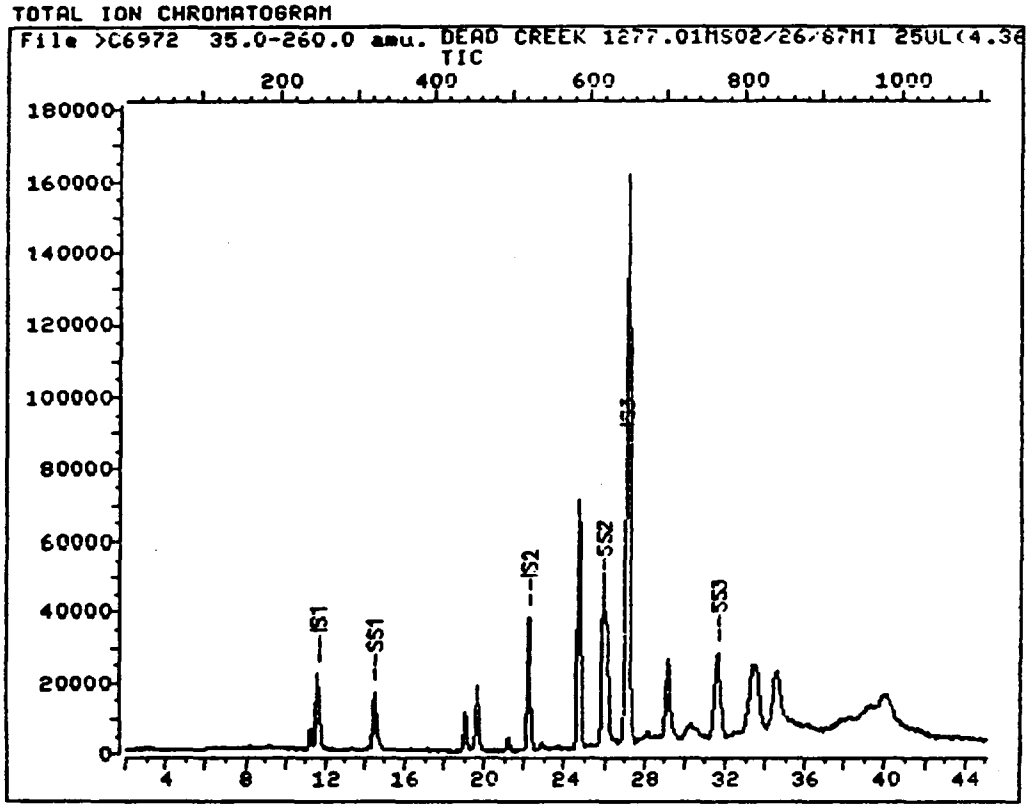
C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

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.

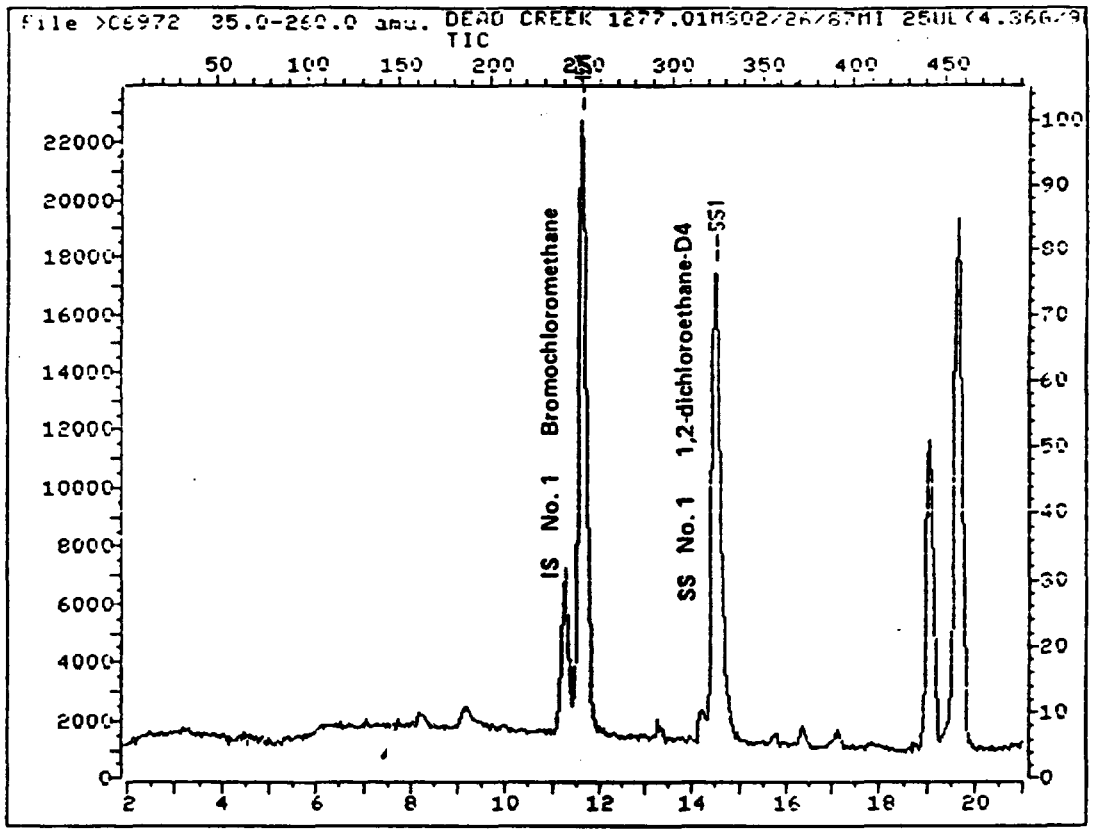
TOTAL ION CHROMATOGRAM



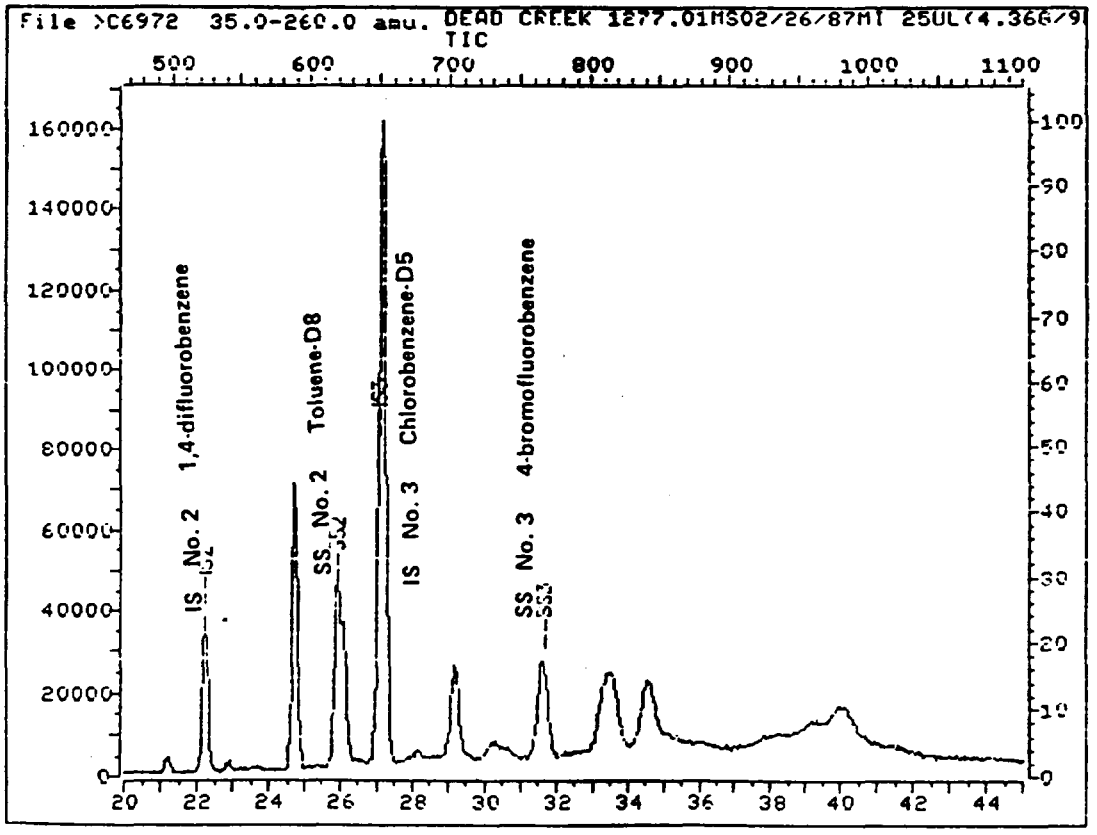
Data File: >C6972::D3
Name: DEAD CREEK 1277.01MS DC-G8-70 MS
Misc: 02/26/87MI 25UL(4.36G/9ML MEOH/1ML MS) + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870226 14:59

Operator ID: USER8
Quant Time: 870226 23:09
Injected at: 870226 22:23


File >C6972 35.0-260.0 amu. DEAD CREEK 1277.01MS02/26/87MI 25UL(4.366/9
TIC
IS No. 1 Bromochloromethane
SS No. 1 1,2-dichloroethane-D4
551

DC-G8-70MS


File >C6972 35.0-260.0 amu. DEAD CREEK 1277.01MS02/26/87MI 25UL(4.366/9
TIC
IS No. 2 1,4-difluorobenzene
SS No. 2 Toluene-D8
IS No. 3 Chlorobenzene-D5
SS No. 3 4-bromofluorobenzene

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870226 23:09
Output File: ^C6972::Q2 Injected at: 870226 22:23
Data File: >C6972::D3 Dilution Factor: 1.00
Name: DEAD CREEK 1277.01MS DC-G8-70 MS
Misc: 02/26/87MI 25UL(4.36G/9ML MEOH/1ML MS) + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870226 14:59

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.62	250	31039	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.28	164	1340	1.25 UG/L	100
7)	ACETONE		43	9.17	187	9116	16.49 UG/L	100
10)	1,1-DICHLOROETHENE		61	11.27	241	22234	11.28 UG/L 90%	96
12)	TRANS-1,2-DICHLOROETHENE		96	13.25	292	544	.54 UG/L	1
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.49	324	72003	47.51 UG/L 96	87
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.21	523	159107	50.00 UG/L	100
17)	2-BUTANONE		72	14.64	328	2773	19.46 UG/L	100
24)	TRICHLOROETHENE		130	19.07	442	18334	14.37 UG/L 91%	79
27)	BENZENE		78	19.65	457	77845	20.31 UG/L 99%	100
~~29)~~	~~2-CHLOROETHYLVINYLETHER~~		~~63~~	~~21.32~~	~~588~~	~~246~~	~~.50 UG/L~~ 20 CW	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.06	648	130389	50.00 UG/L	100
32)	4-METHYL-2-PENTANONE		43	22.91	541	11241	12.20 UG/L	86
34)	TETRACHLOROETHENE		164	24.69	587	95742	84.25 UG/L	93
~~35)~~	~~1,1,2,2-TETRACHLOROETHANE~~		~~83~~	~~24.69~~	~~587~~	~~2674~~	~~2.08 UG/L~~ 90 CW	100
36)	TOLUENE-D8	(SURR)	98	25.90	618	162231	47.95 UG/L 96	91
37)	TOLUENE		92	26.09	623	73285	30.75 UG/L 95%	96
38)	CHLOROBENZENE		112	27.18	651	450392	162.91 UG/L 90%	97
39)	ETHYLBENZENE		91	29.21	703	121401	23.60 UG/L	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.65	766	83836	47.38 UG/L 94	100
42)	TOTAL XYLENES		91	33.63	817	93235	22.13 UG/L	100
42)	TOTAL XYLENES		91	34.57	841	135287	32.12 UG/L	100
43)	1,3-DICHLOROBENZENE		146	39.19	960	12214	12214.00 NO CALIB	100
43)	1,3-DICHLOROBENZENE		146	40.00	981	65214	65214.00 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	39.19	960	12214	12214.00 NO CALIB	100
44)	1,2-DICLHLOROBENZENE		146	40.00	981	65214	65214.00 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	39.19	960	12214	12214.00 NO CALIB	100
45)	1,4-DICHLOROBENZENE		146	40.00	981	65214	65214.00 NO CALIB	100

* Compound is ISTD

DC-P5-55MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: IL-4906, 4928, 4971, 4989.

Lab Sample ID No: 1034 MS

QC Report No:

Sample Matrix: Soil

Contract No: IL-3140

Data Release Authorized By: C Slotowicz

Date Sample Received: 2-14-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 1 pH 8.3

Percent Moisture: (Not Decanted) 19

Concentrations reported "as received"

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	6 B
67-64-1	Acetone	320 B
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	25 B
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but

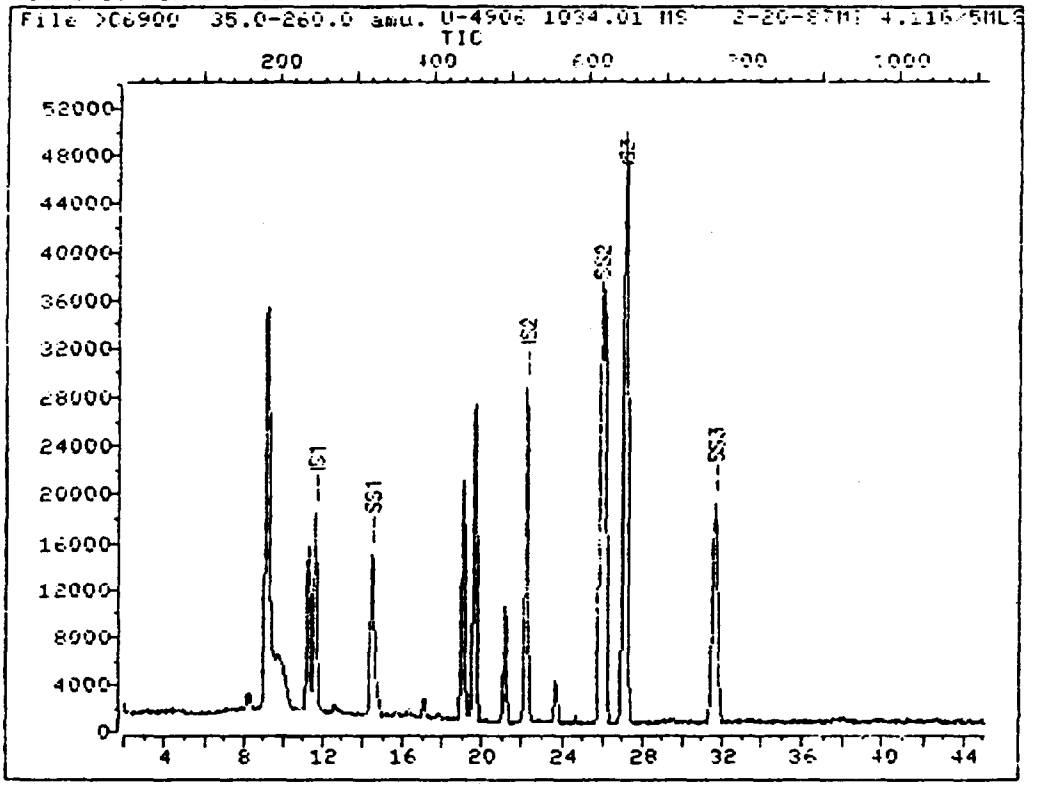
C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

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.

TOTAL ION CHROMATOGRAM

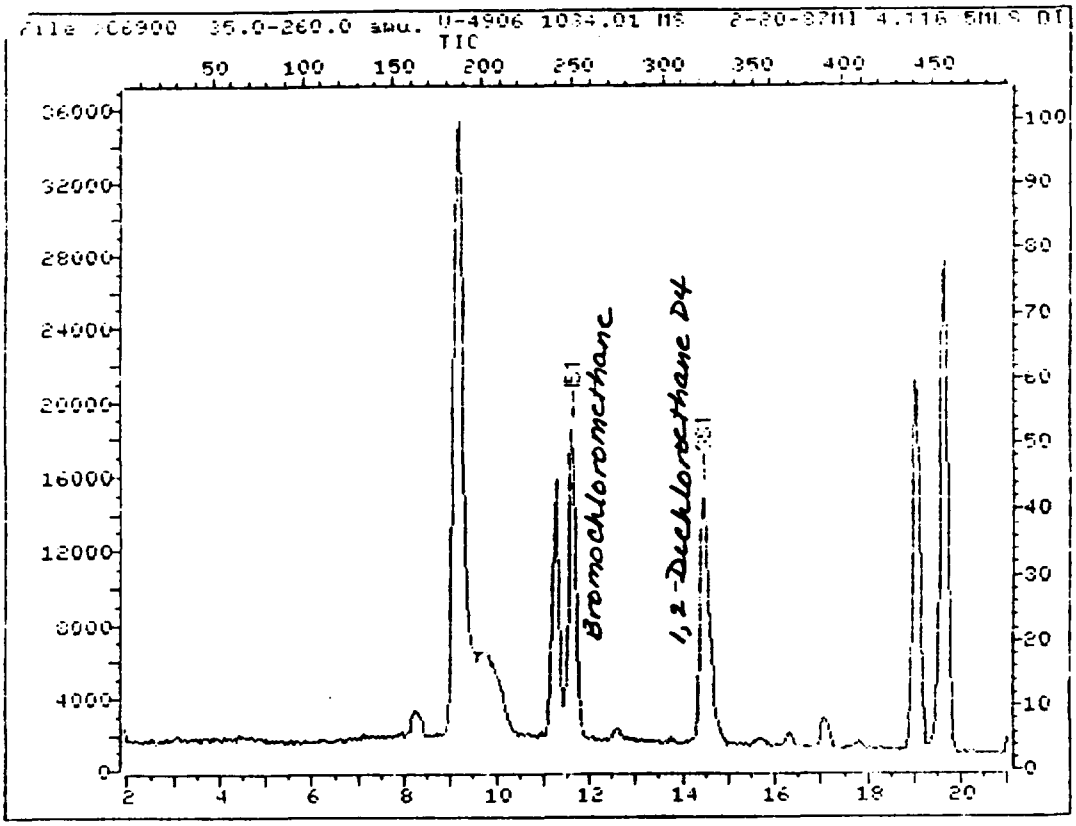


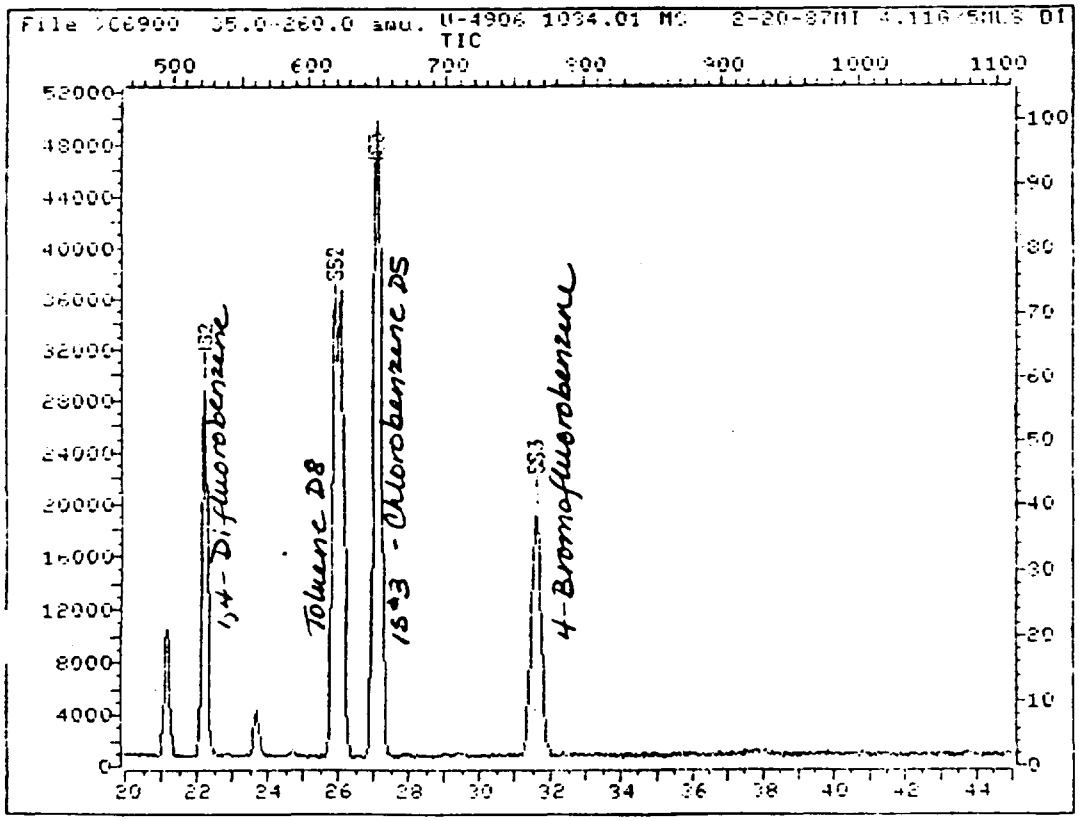
Data File: >C6900::D3
Name: U-4906 1034.01 MS DC-P5-55-MS
Misc: 2-20-87MI 4.11G/5MLS DI + 10UL IS/SS/MS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CHL.)
Last Calibration: 870220 12:09

Operator ID: USER8
Quant Time: 870220 18:34
Injected at: 870220 17:48

DC-P5-55 MS


File >C6900 35.0-260.0 amu. U-4906 1034.01 MS 2-20-87HI 4.116 5ML/S DI
TIC
Bromochloromethane
1,2-Dichloroethane D4


File >C6900 35.0-260.0 amu. U-4906 1034.01 MS 2-20-87HI 4.116 5ML/S DI
TIC
1,4-Difluorobenzene
Toluene D8
1,4-3-Chlorobenzene D5
4-Bromofluorobenzene

QUANT REPORT

Operator ID: USER8 Quant Per: 4 Quant Time: 870220 18:34
Output File: ^C6900::02 Injected at: 870220 17:48
Data File: >C6900::03 Dilution Factor: 1.00
Name: U-4906 1034.01 MS DC-P5-55 MS
Misc: 2-20-87MI 4.11G/5MLS DI + 10UL IS/SS/MS

ID File: VOACRS::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.61	250	22152	250.00	NGS	100
6)	METHYLENE CHLORIDE		84	8.23	163	3769	24.49	NGS	100
7)	ACETONE		43	9.16	187	362418	1322.09	NGS	100
7)	ACETONE		43	9.74	202	88394	322.46	NGS	100
10)	1,1-DICHLOROETHENE		61	11.26	241	55732	220.26	NGS 88%	92 ✓
15)	1,2-DICHLOROETHANE-D4	(SUPR)	65	14.44	323	56555	185.83	NGS 74	84 ✓
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.20	523	115618	250.00	NGS	100
17)	2-BUTANONE		72	14.63	328	6172	104.26	NGS	100
24)	TRICHLOROETHENE		130	19.02	441	33786	143.56	NGS 57%	85
27)	BENZENE		78	19.64	457	115141	182.14	NGS 73%	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.05	648	101324	250.00	NGS	100
~~33)~~	~~2-HEXANONE~~		~~43~~	~~23.71~~	~~522~~	~~6737~~	~~16.94~~	~~NGS~~ 76 cw	100
36)	TOLUENE-D8	(SURR)	98	25.88	618	127719	220.13	NGS 88	98 ✓
37)	TOLUENE		92	26.08	623	81628	187.15	NGS 75%	96
38)	CHLOROBENZENE		112	27.17	651	102687	192.87	NGS 77%	98
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.60	765	65085	197.03	NGS 79	100 ✓

* Compound is ISTD

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number
DC-I12-57 MS

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: ~~Low~~ DW Medium (Circle One)

Date Extracted/Prepared 02-16-87

Date Analyzed: 03-18-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 11

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

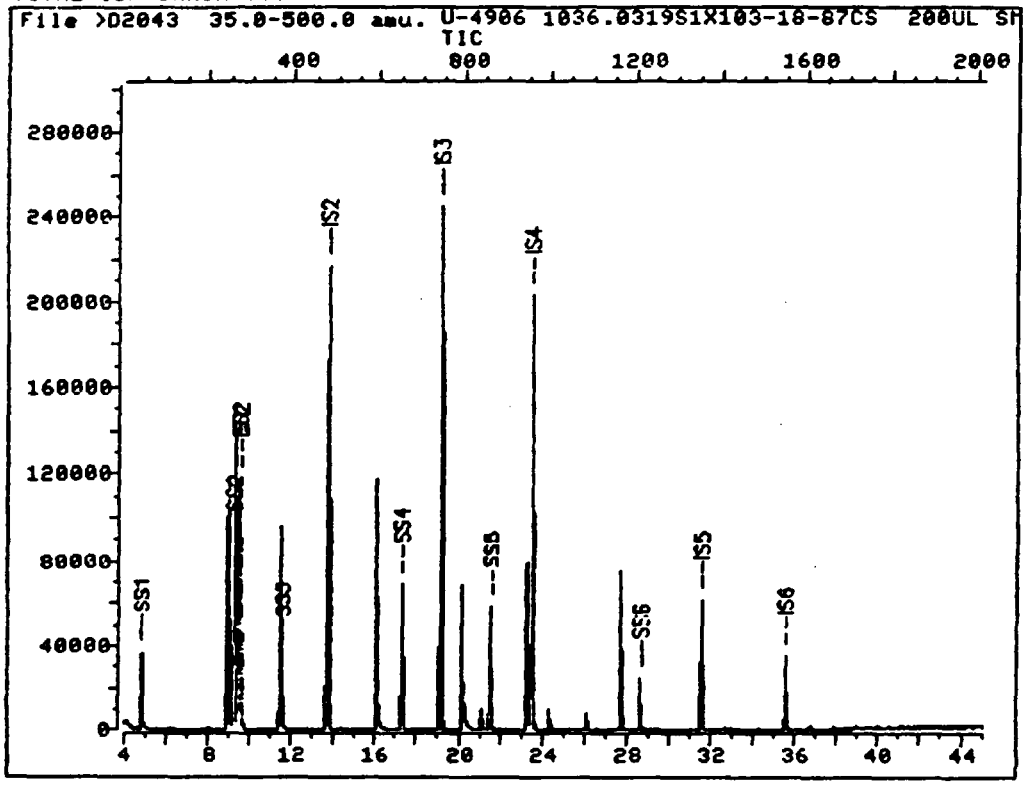
Concentrations reported "as received" basis

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	SPIKE
51-28-5	2 4-Dinitrophenol	16000u
100-02-7	4-Nitrophenol	SPIKE
132-64-9	Dibenzofuran	3300u
121-14-2	2 4-Dinitrotoluene	SPIKE
606-20-2	2 6-Dinitrotoluene	3300u
84-66-2	Diethylphthalate	3300u
7005-72-3	4-Chlorophenyl-phenylether	3300u
86-73-7	Fluorene	3300u
100-01-6	4-Nitroaniline	16000u
534-52-1	4 6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	SPIKE
85-01-8	Phenanthrene	3300u
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	1200 BJ
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	SPIKE
95-68-7	Butylbenzylphthalate	3300u
91-94-1	3 3-Dichlorobenzidine	16000u
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	3300u
218-01-9	Chrysene	3300u
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1,2,3-cd)Pyrene	3300u
53-70-3	Dibenz(a,h)Anthracene	3300u
191-24-2	Benzo(g,h,i)Perylene	3300u

(1)-Cannot be separated from diphenylamine

TOTAL ION CHROMATOGRAM

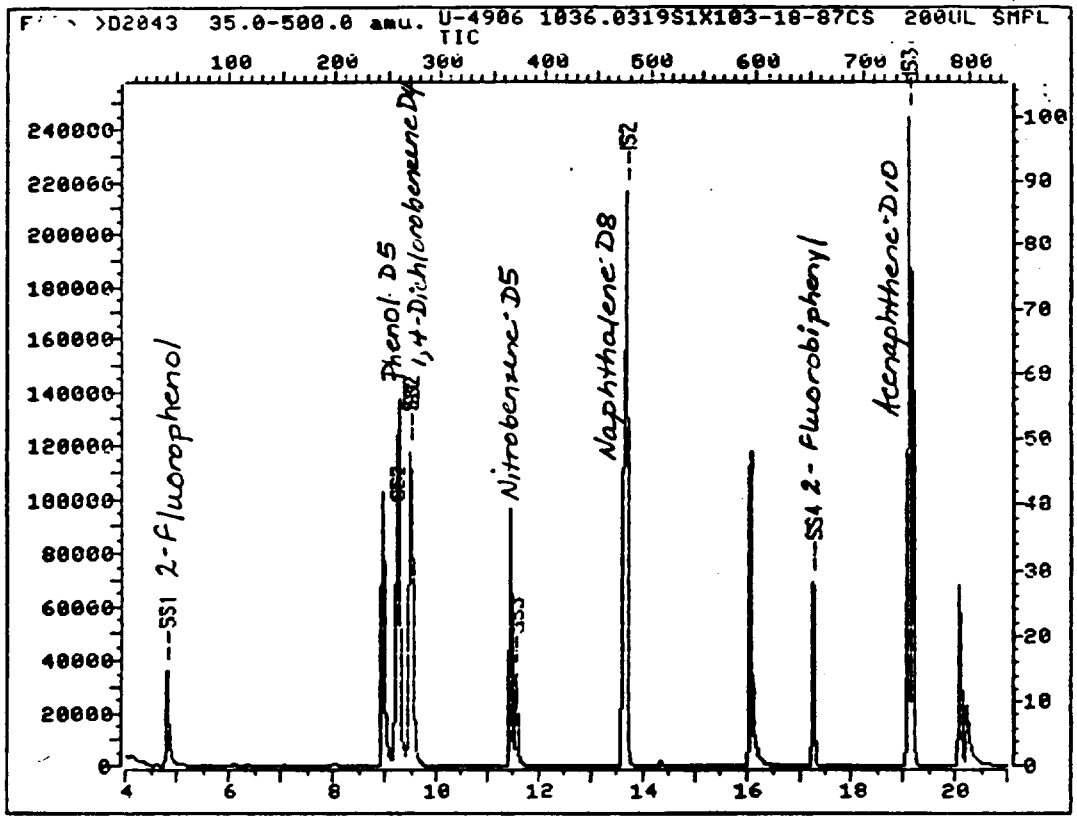


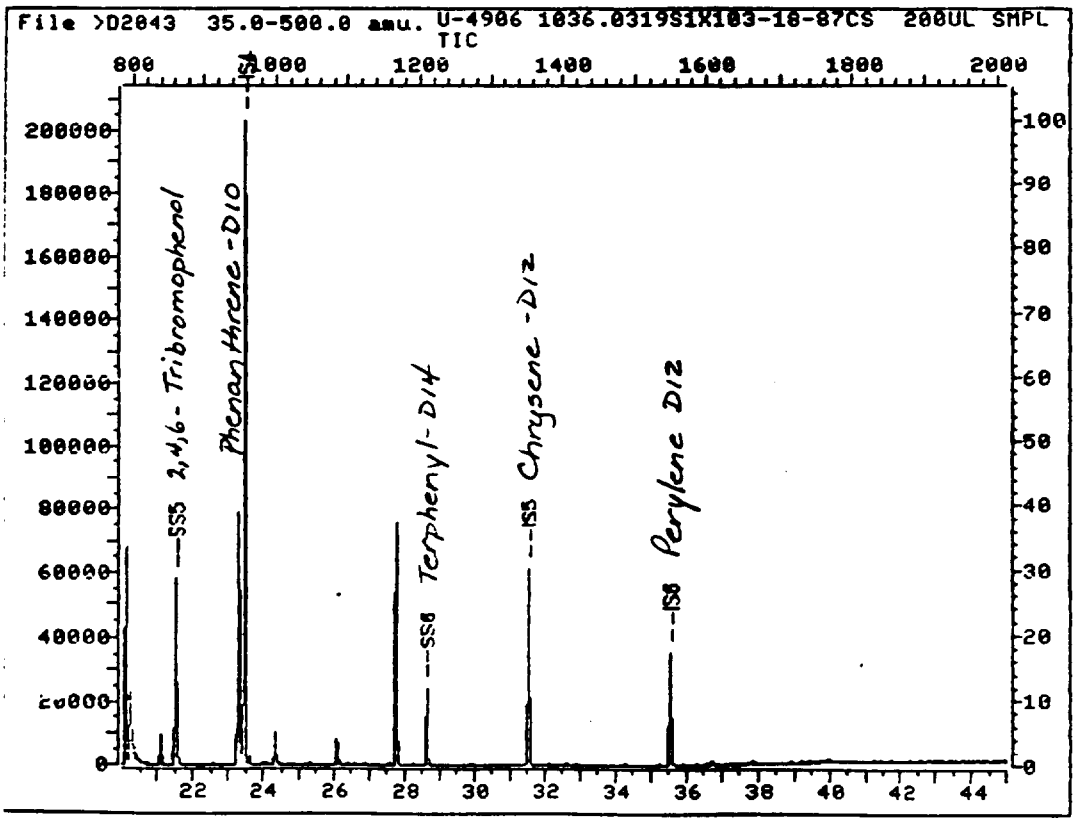
Data File: >D2043::D1
Name: U-4906 1036.0319S1X1 DC-I12-57 MS
Misc: 03-18-87CS 200UL SMPL + 200UL A/P + 4UL IS (2X) BTL# 2

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870318 14:12

Operator ID: USER8
Quant Time: 870318 16:44
Injected at: 870318 15:56

DC-I12-57MS


File >D2043 35.0-500.0 amu. U-4906 1036.0319S1X103-18-87CS 200UL SMPL
TIC
SS1 2-Fluorophenol
Phenol-D5
1,4-Dichlorobenzene-D4
Nitrobenzene-D5
Naphthalene-D8
SS4 2-Fluorobiphenyl
Acenaphthene-D10


File >D2043 35.0-500.0 amu. U-4906 1036.0319S1X103-18-87CS 200UL SMPL
TIC
SS5 2,4,6-Tribromophenol
Phenanthrene-D10
SS6 Terphenyl-D14
IS5 Chrysene-D12
IS6 Perylene D12

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870318 16:44
Output File: ^D2043::Q2 Injected at: 870318 15:56
Data File: >D2043::D1 Dilution Factor: 2.00
Name: U-4906 1036.0319S1X1 DC-I12-57MS
Misc: 03-18-87CS 200UL SMPL + 200UL A/P + 4UL IS (2X) BTL# 2

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870318 14:12

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.49	271	67718	40.00 UG/L	87
2)	PHENOL-D5	(SURR)	99	9.23	258	55699	45.64 UG/L 47	✓99
2)	PHENOL-D5	(SURR)	99	9.49	271	1301	1.07 UG/L	90
5)	2-FLUOROPHENOL	(SURR)	112	4.79	40	37995	48.46 UG/L 48	✓86
6)	PHENOL		94	9.27	260	113569	83.36 UG/L 42%	58
7)	~~ANILINE~~		~~93~~	~~8.96~~	~~245~~	~~2013~~	~~2.76 UG/L~~ CW	26
9)	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.53~~	~~273~~	~~49241~~	~~42.58 UG/L~~	99
10)	1,4-DICHLOROBENZENE		146	9.53	273	49241	39.58 UG/L 40%	99
15)	2-CHLOROPHENOL		128	8.94	244	93399	92.94 UG/L 46%	95
17)	N-NITROSO-DI-N-PROPYLAMINE		70	11.45	367	54558	47.24 UG/L 47%	90
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.55~~	~~372~~	~~7986~~	~~6.91 UG/L~~ CW	95
19)	*NAPHTHALENE-D8	(IS)	136	13.69	477	245211	40.00 UG/L	✓100
20)	NITROBENZENE-D5	(SURR)	82	11.55	372	32260	27.00 UG/L 54	✓95
28)	1,2,4-TRICHLOROBENZENE		180	13.63	474	50274	46.50 UG/L 47%	100
32)	4-CHLORO-3-METHYLPHENOL		107	16.09	595	80475	78.78 UG/L 39%	96
33)	~~2-METHYLNAPHTHALENE~~		~~142~~	~~16.07~~	~~594~~	~~60678~~	~~30.32 UG/L~~ CW	19
34)	*ACENAPHTHENE-D10	(IS)	162	19.11	743	154883	40.00 UG/L	95
38)	2-FLUOROBIPHENYL	(SURR)	172	17.27	653	65682	27.84 UG/L 56	✓96
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.11~~	~~743~~	~~29617~~	~~11.76 UG/L~~ CW	100
47)	ACENAPHTHENE		153	19.19	747	110413	51.19 UG/L 51%	✓95
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.53	862	18613	53.11 UG/L 53	✓97
50)	4-NITROPHENOL		139	20.21	797	17053	60.73 UG/L 30%	100
51)	2,4-DINITROTOLUENE		165	20.09	791	32971	55.24 UG/L 55%	100
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.11~~	~~743~~	~~20736~~	~~34.65 UG/L~~ CW	100
55)	*PHENANTHRENE-D10	(IS)	188	23.49	958	224830	40.00 UG/L	94
60)	PENTACHLOROPHENOL		266	23.28	948	37973	90.40 UG/L 45%	100
63)	DI-N-BUTYLPHTHALATE		149	26.07	1085	11108	3.65 UG/L	99
65)	*CHRYSENE-D12	(IS)	240	31.53	1353	62153	40.00 UG/L	100
67)	PYRENE		202	27.75	1167	87179	54.89 UG/L 54%	✓93
68)	TERPHENYL-D14	(SURR)	244	28.64	1211	24723	29.83 UG/L 60	100
74)	*PERYLENE-D12	(IS)	264	35.55	1550	39438	40.00 UG/L	100

* Compound is ISTD

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number
DC-I12-57 MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-16-87

Date Analyzed 2-24-87

Conc/Dil Factor 2

Percent Moisture (decanted) 11

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	160 U
319-85-7	Beta-BHC	160 U
319-86-8	Delta-BHC	160 U
58-89-9	Gamma-BHC (Lindane)	264 S
76-44-8	Heptachlor	283 S
309-00-2	Aldrin	281 S
1024-57-3	Heptachlor Epoxide	160 U
959-98-8	Endosulfan I	160 U
60-57-1	Dieldrin	631 S
72-55-9	4,4'-DDE	320 U
72-20-8	Endrin	710 S
33213-65-9	Endosulfan II	320 U
72-54-8	4,4'-DDD	320 U
1031-07-8	Endosulfan Sulfate	320 U
50-29-3	4,4'-DDT	742 S
72-43-5	Methoxychlor	1600 U
53494-70-5	Endrin Ketone	320 U
57-74-9	Chlordane	1600 U
8001-35-2	Toxaphene	2200 U
12674-11-2	Aroclor-1016	1600 U
11104-28-2	Aroclor-1221	1600 U
11141-16-5	Aroclor-1232	1600 U
53469-21-9	Aroclor-1242	1600 U
12672-29-6	Aroclor-1248	1600 U
11097-69-1	Aroclor-1254	3200 U
11096-82-5	Aroclor-1260	3200 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

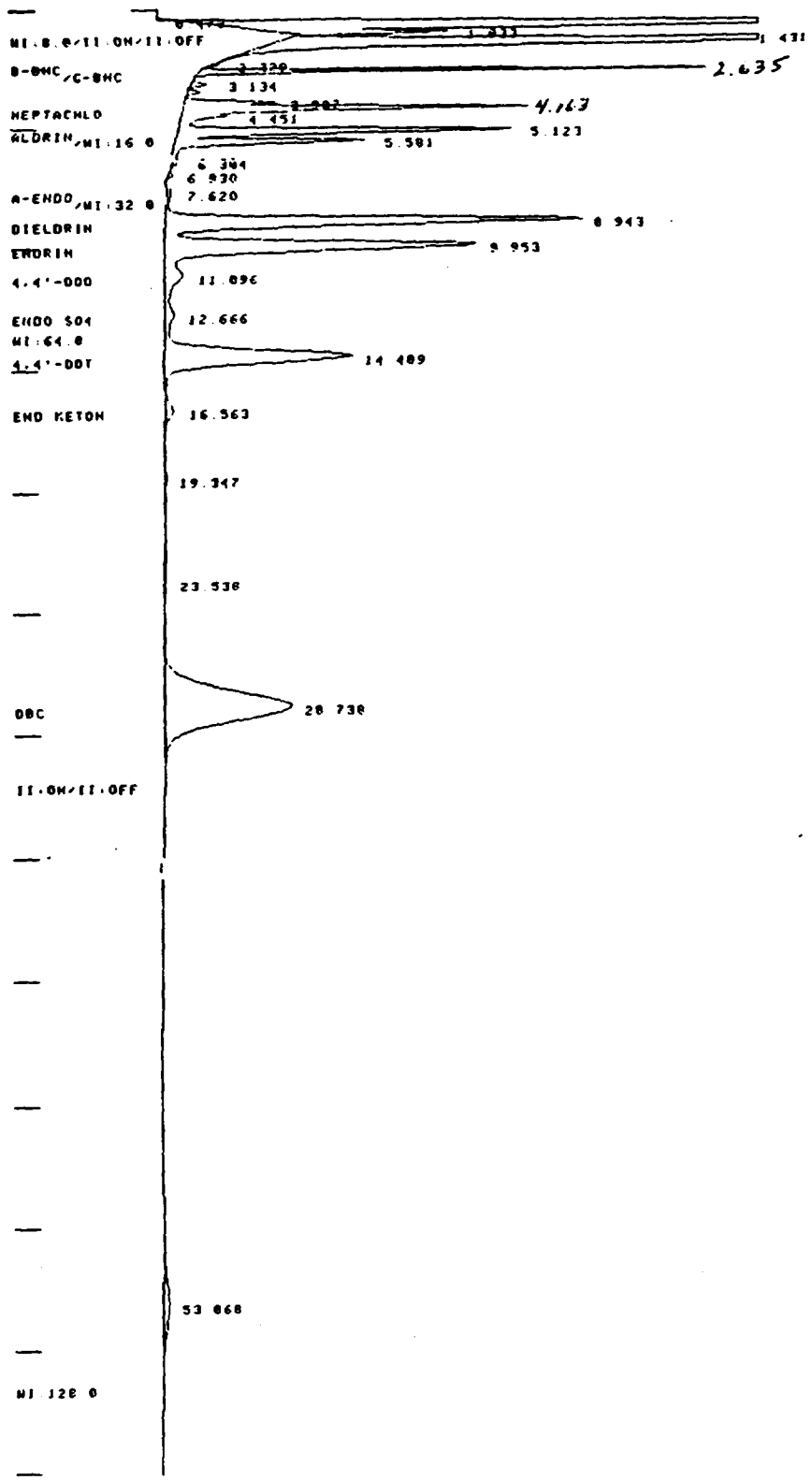
W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1,000 V_i 4

Form 1 7/85

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



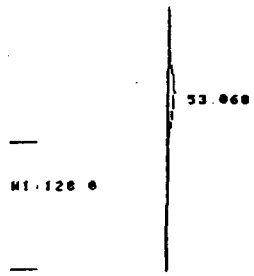
DC-I12-57MS

448

RECALCULATE ON FILE: DC1195

CHANNEL: 1A - 1 TITLE: RUN# 23 4:32 24 FEB 87

SAMPLE: 1036 MS METHOD: CEPA CALCULATION: ES - ANALYS



RECALCULATE ON FILE: DC1195

CHANNEL: 1A - 1 TITLE: RUN# 23 4:32 24 FEB 87 DC-E12-57MS

SAMPLE: 1036 MS METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/g	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.289		48804	BV	? 4.31
2		0.0000	1.431		11123381	VB	5.56
3	G-BHC	264.4176	2.635	0.035	487256	VB	6.75
4		0.0000	3.907		102340	VV	? 9.69
5	HEPTACHLO	283.0696	4.163	0.043	476014	VV	10.44
6		0.0000	4.451		88684	VV	? 15.75
7	ALDRIN	200.5166	5.123	0.063	547884	VV	12.31
8		0.0000	5.581		340366	VV	12.06
9	DIELDRIN	631.2734	8.943	0.133	1177749	VV	21.75
10	~~P-EHEP~~ ENDRIN/~~SOLT.0061~~ P/C	9.953	-0.057	1006365	VV	24.56
11	~~END-ALD~~	74.6987	11.096	0.086	113639	VV	? 52.44
12	~~END-SOL~~	49.4101	12.666	-0.114	66051	VV	50.50
13	4,4'-DDT	741.6177	14.409	0.219	878694	VV	34.63
14	~~END-KETON~~	22.0161	16.563	0.223	41935	T	37.56
15	DBC	949.0347	20.738	0.428	1371092	BB	81.88
16		0.0000	53.068		94112	BB	126.00

TOTALS: 3877.062 1.059 17964366

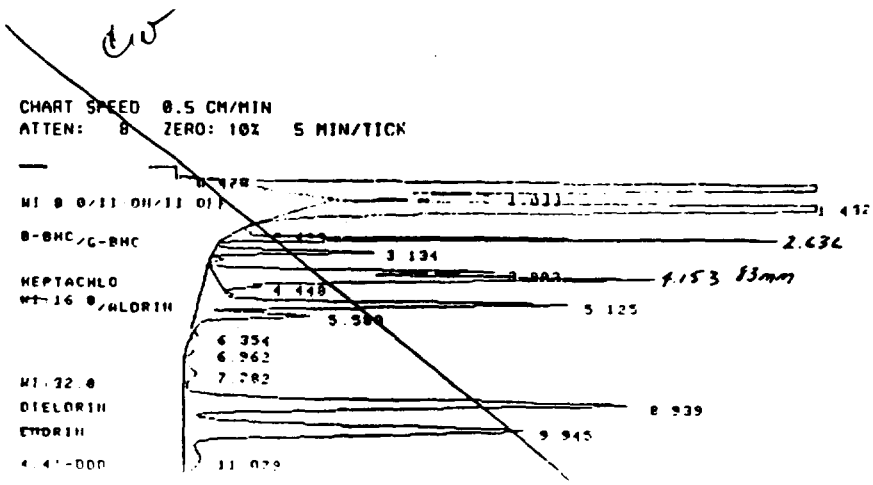
DETECTED PKS: 30 REJECTED PKS: 14

DIVISOR: 0.15000 MULTIPLIER: 2000.00000

NOISE: 11.4 OFFSET: 1

RACK: 2 VIAL: 8 INJ: 1

NOTES:
NOTEBOOK:259-115,116 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#:U-4872,4906
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION



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)

DC-G8-70 MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: IL-4906, 4928, 4971, 4989.

Lab Sample ID No: 1277 MSD

QC Report No:

Sample Matrix: Soil

Contract No. IL-3140

Data Release Authorized By: C Hoytowicz

Date Sample Received: 2-26-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-26-87

Conc/Dil Factor: 4 pH 7.4

Percent Moisture: (Not Decanted) 30

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	4000u
74-83-9	Bromomethane	4000u
75-01-4	Vinyl Chloride	4000u
75-00-3	Chloroethane	4000u
75-09-2	Methylene Chloride	600 BJ
67-64-1	Acetone	7300 B
75-15-0	Carbon Disulfide	2000u
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	2000u
156-60-5	Trans-1, 2-Dichloroethene	220 J
67-66-3	Chloroform	2000u
107-06-2	1, 2-Dichloroethane	2000u
78-93-3	2-Butanone	12000
71-55-6	1, 1, 1-Trichloroethane	2000u
56-23-5	Carbon Tetrachloride	2000u
108-05-4	Vinyl Acetate	4000u
75-27-4	Bromodichloromethane	2000u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	2000u
10061-02-6	Trans-1, 3-Dichloropropene	2000u
79-01-6	Trichloroethene	SPIKE
124-48-1	Dibromochloromethane	2000u
79-00-5	1, 1, 2-Trichloroethane	2000u
71-43-2	Benzene	SPIKE
10061-01-5	cis-1, 3-Dichloropropene	2000u
110-75-8	2-Chloroethylvinylether	4000u
75-25-2	Bromoform	2000u
108-10-1	4-Methyl-2-Pentanone	5700
591-78-6	2-Hexanone	4000u
127-18-4	Tetrachloroethene	41,000
79-34-5	1, 1, 2, 2-Tetrachloroethane	2000u
108-88-3	Toluene	SPIKE
108-90-7	Chlorobenzene	SPIKE
100-41-4	Ethylbenzene	12000
100-42-5	Styrene	2000u
	Total Xylenes	34000

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

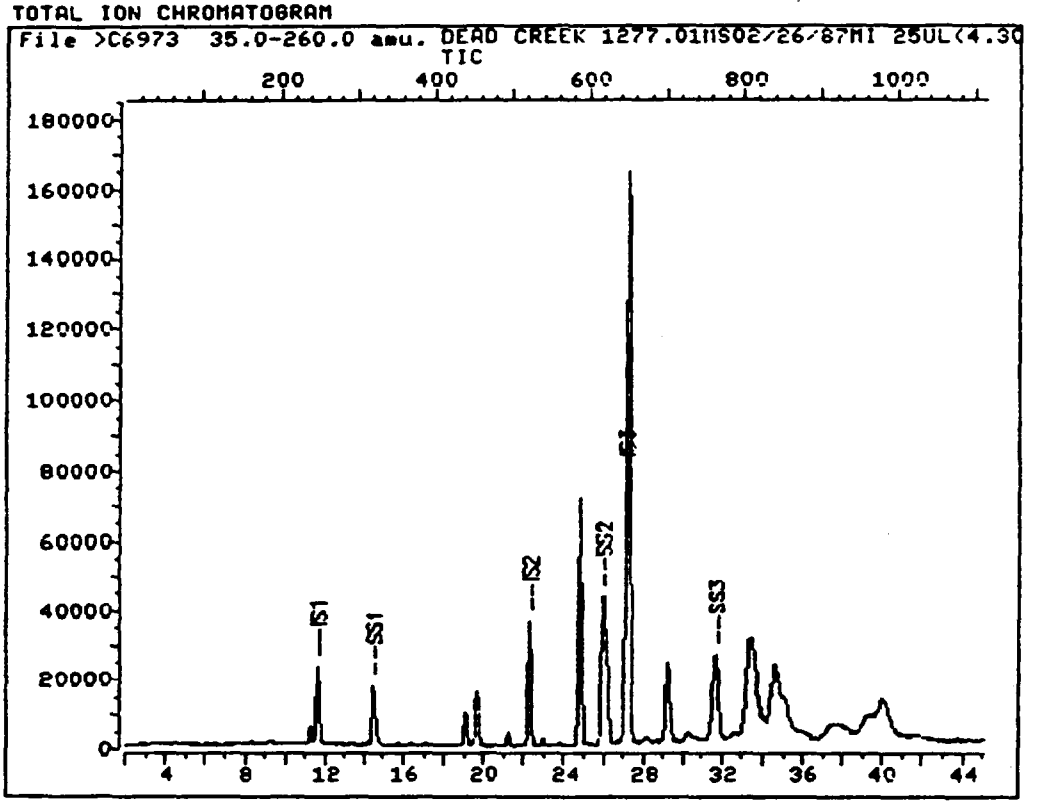
C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

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

TOTAL ION CHROMATOGRAM

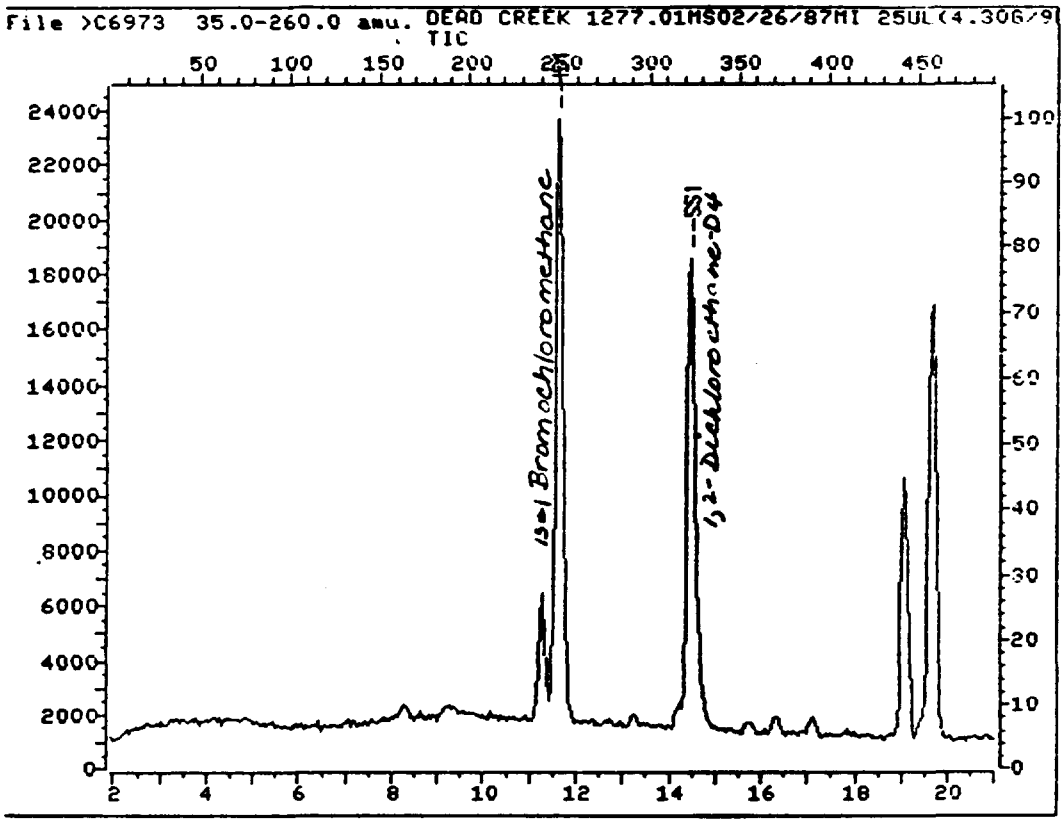


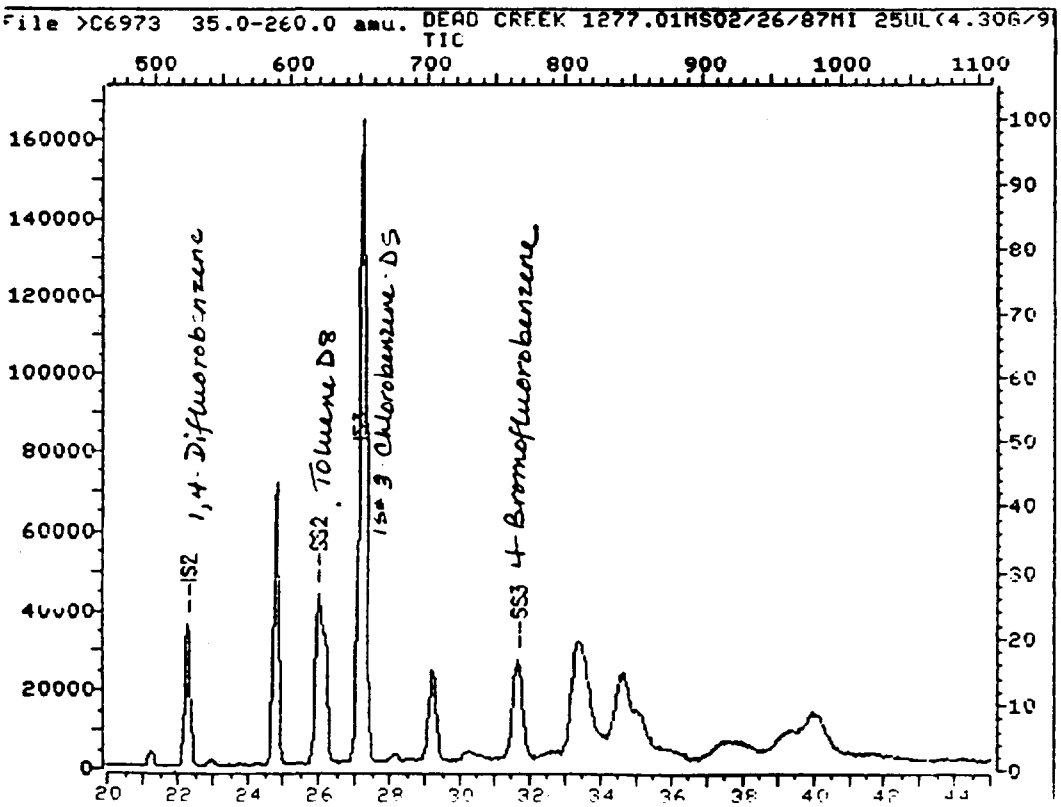
Data File: >C6973::D3
Name: DEAD CREEK 1277.01MS-DC-G8-70 MSD
Misc: 02/26/87MI 25UL(4.30G/9ML MEOH/1ML MS) + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870226 14:59

Operator ID: USER8
Quant Time: 870227 00:01
Injected at: 870226 23:15

DC-G8-70MSD


File >C6973 35.0-260.0 amu. DEAD CREEK 1277.01MS02/26/87MI 25UL(4.306/9
TIC
Isa-1 Bromochloromethane
--SS1
1,2-Dichloroethane-D4


File >C6973 35.0-260.0 amu. DEAD CREEK 1277.01MS02/26/87MI 25UL(4.306/9
TIC
--IS2
1,4-Difluorobenzene
--SS2
Toluene D8
IS3
Isa-3 Chlorobenzene-D5
--SS3
4-Bromofluorobenzene

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870227 00:01
Output File: ^C6973::Q2 Injected at: 870226 23:15
Data File: >C6973::D3 Dilution Factor: 1.00
Name: DEAD CREEK 1277.01MS D~ DC-G8-70 MSD
Misc: 02/26/87MI 25UL(4.30G/9ML MEOH/1ML MS) + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870226 14:59

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.61	250	28849	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	8.27	164	1294	1.30	UG/L	100
7)	ACETONE	43	9.24	189	8057	15.68	UG/L	100
10)	1,1-DICHLOROETHENE	61	11.26	241	18854	10.29	UG/L	97
12)	TRANS-1,2-DICHLOROETHENE	96	13.28	293	444	.48	UG/L	84
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.48	324	70705	50.19	UG/L/60	82
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.28	525	142658	50.00	UG/L	100
17)	2-BUTANONE	72	14.67	329	3322	26.00	UG/L	100
24)	TRICHLOROETHENE	130	19.06	442	16045	14.02	UG/L	83
27)	BENZENE	78	19.68	458	67362	19.61	UG/L	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.09	649	123763	50.00	UG/L	100
32)	4-METHYL-2-PENTANONE	43	22.98	543	10799	12.34	UG/L	87
33)	~~2-HEXANONE~~	~~43~~	~~23.83~~	~~565~~	~~3834~~	~~5.86~~	~~UG/L~~ CW	100
34)	TETRACHLOROETHENE	164	24.80	590	95144	88.21	UG/L	90
36)	TOLUENE-D8 (SURR)	98	25.97	620	151587	47.20	UG/L 94	95
37)	TOLUENE	92	26.16	625	68203	30.15	UG/L	97
38)	CHLOROBENZENE	112	27.21	652	457878	174.48	UG/L	98
39)	ETHYLBENZENE	91	29.19	703	126480	25.90	UG/L	97
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.68	767	84064	50.05	UG/L/50	100
42)	TOTAL XYLENES	91	33.58	816	113310	28.34	UG/L	100
42)	TOTAL XYLENES	91	34.63	843	175548	43.91	UG/L	100
43)	1,3-DICHLOROBENZENE	146	39.29	963	17487	17487.00	NO CALIB	100
43)	1,3-DICHLOROBENZENE	146	39.99	981	7946	7946.00	NO CALIB	100
44)	1,2-DICLHLOROBENZENE	146	39.29	963	17487	17487.00	NO CALIB	100
44)	1,2-DICLHLOROBENZENE	146	39.99	981	7946	7946.00	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	39.29	963	17487	17487.00	NO CALIB	100
45)	1,4-DICHLOROBENZENE	146	39.99	981	7946	7946.00	NO CALIB	100

* Compound is ISTD

DC-P5-55 MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.
Case No: U-4906, 4928, 4971, 4989
Lab Sample ID No: 1034 MSD
QC Report No:
Sample Matrix: Soil
Contract No. IL-3140
Data Release Authorized By: C Hoytowicz
Date Sample Received: 2-14-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 1 pH 8.3

Percent Moisture: (Not Decanted) 19

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	5 B
67-64-1	Acetone	300 B
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	SPIKE
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	23 B
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but

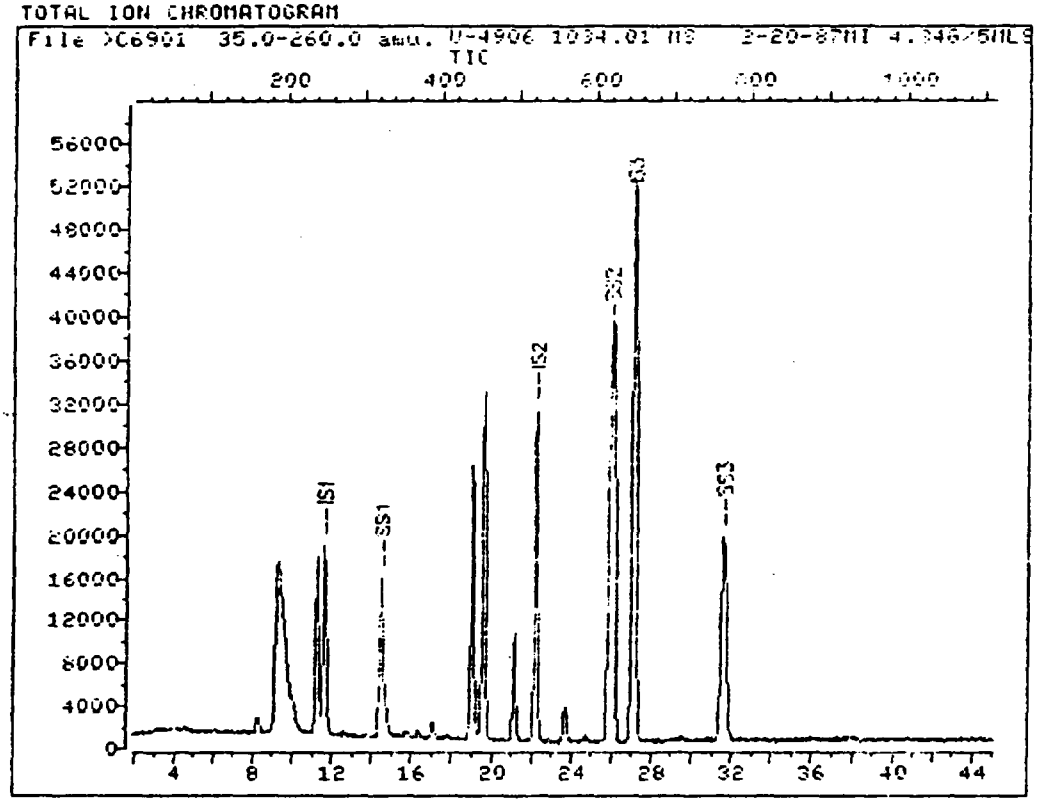
C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

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.

TOTAL ION CHROMATOGRAM

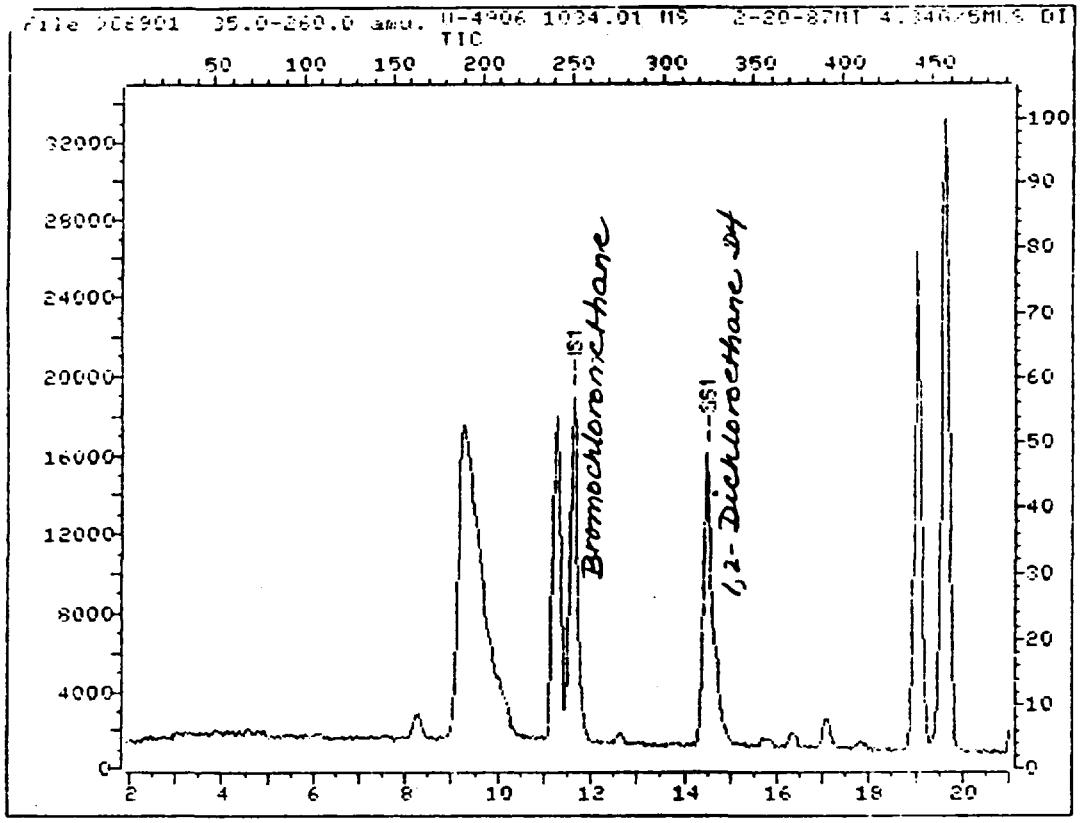


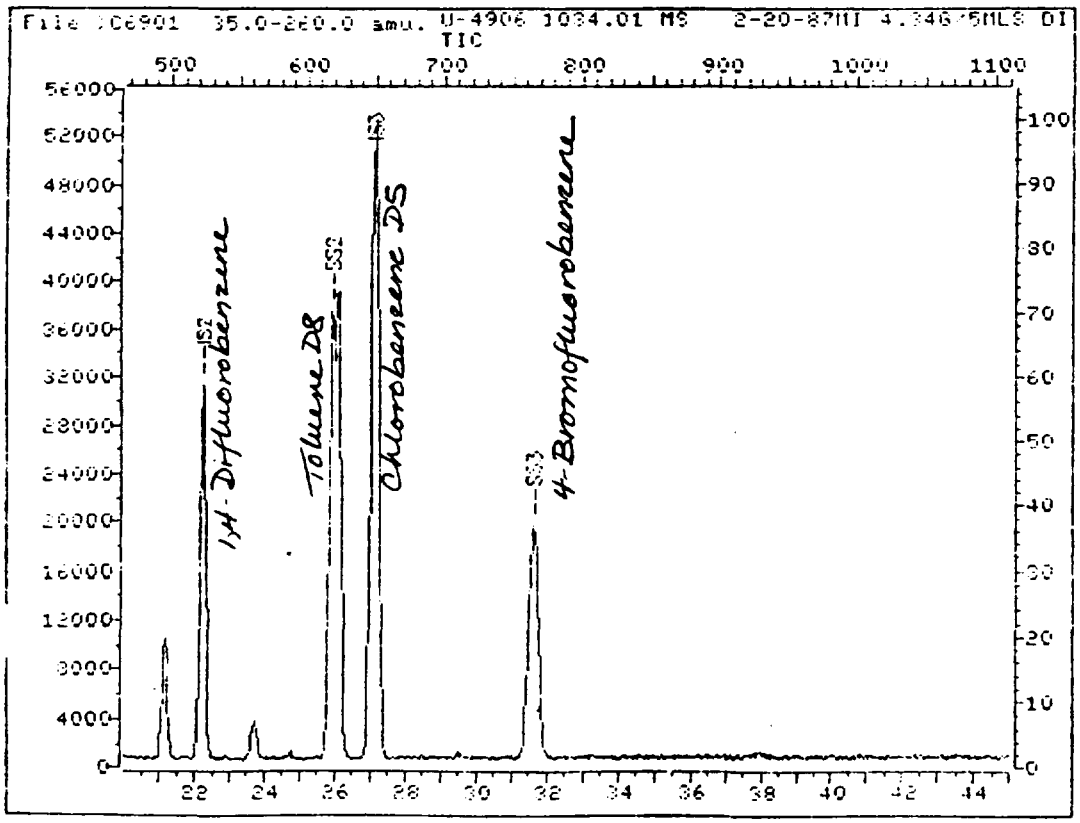
Data File: >C6901::D3
Name: U-4906 1034.01 MS DC-P5-55 MSD
Misc: 2-20-87MI 4.34G/5MLS DI + 10UL IS/SS/MS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

Operator ID: USEP8
Quant Time: 870220 19:2[illegible]
Injected at: 870220 18:40

DC-P5-55 MSD


File DC6901 35.0-260.0 amu. U-4906 1034.01 MS 2-20-87MI 4.34G/5MLS DI
TIC
IS1
Bromochloromethane
SS1
1,2-Dichloroethane D4


File DC6901 35.0-260.0 amu. U-4906 1034.01 MS 2-20-87MI 4.34G/5MLS DI
TIC
IS2
1,4-Difluorobenzene
SS2
Toluene D8
IS3
Chlorobenzene D5
SS3
4-Bromofluorobenzene

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870220 19:26
Output File: ^C6901::02 Injected at: 870220 18:40
Data File: >C6901::D3 Dilution Factor: 1.00
Name: U-4906 1034.01 MS DC-P5-55 MSD
Misc: 2-20-87MI 4.34G/5MLS DI + 10UL IS/SS/MS

ID File: VOACPS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS) 128	11.62	251	24806	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.24	164	4048	23.48	NGS	100
7)	ACETONE	43	9.25	190	395211	1287.47	NGS	100
10)	1,1-DICHLOROETHENE	61	11.27	242	65619	231.59	NGS 92%	96
15)	1,2-DICHLOROETHANE-D4	(SURR) 65	14.49	325	67271	197.39	NGS 79	83✓
16)	*1,4-DIFLUOROBENZENE	(IS) 114	22.22	524	125390	250.00	NGS	100
17)	2-BUTANONE	72	14.69	330	6538	101.84	NGS	100
24)	TRICHLOROETHENE	130	19.04	442	43029	168.59	NGS 68%	83
27)	BENZENE	78	19.62	457	140128	204.39	NGS 82%	100
28)	~~CIS-1,3-DICHLOROPROPENE~~	~~75~~	~~19.62~~	~~457~~	~~2852~~	~~11.44~~	~~NGS~~ NO CW	100
31)	*CHLOROBENZENE-D5	(IS) 117	27.07	649	105426	250.00	NGS	100
33)	~~2-HEXANONE~~	~~43~~	~~23.73~~	~~563~~	~~5420~~	~~13.10~~	~~NGS~~ NO CW	100
36)	TOLUENE-D8	(SURR) 98	25.90	619	134107	222.15	NGS 87	93✓
37)	TOLUENE	92	26.10	624	89298	196.77	NGS 79%	97
38)	CHLOROBENZENE	112	27.19	652	110407	199.30	NGS 80%	99
40)	4-BROMOFLUOROBENZENE	(SURR) 95	31.62	766	67659	196.85	NGS 79	100✓

* Compound is ISTD

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number
DC-IL2-57-MSD

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared 02-16-87

Date Analyzed 03-18-87

Conc/Dil Factor 2

Percent Moisture (Decanted) 11

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

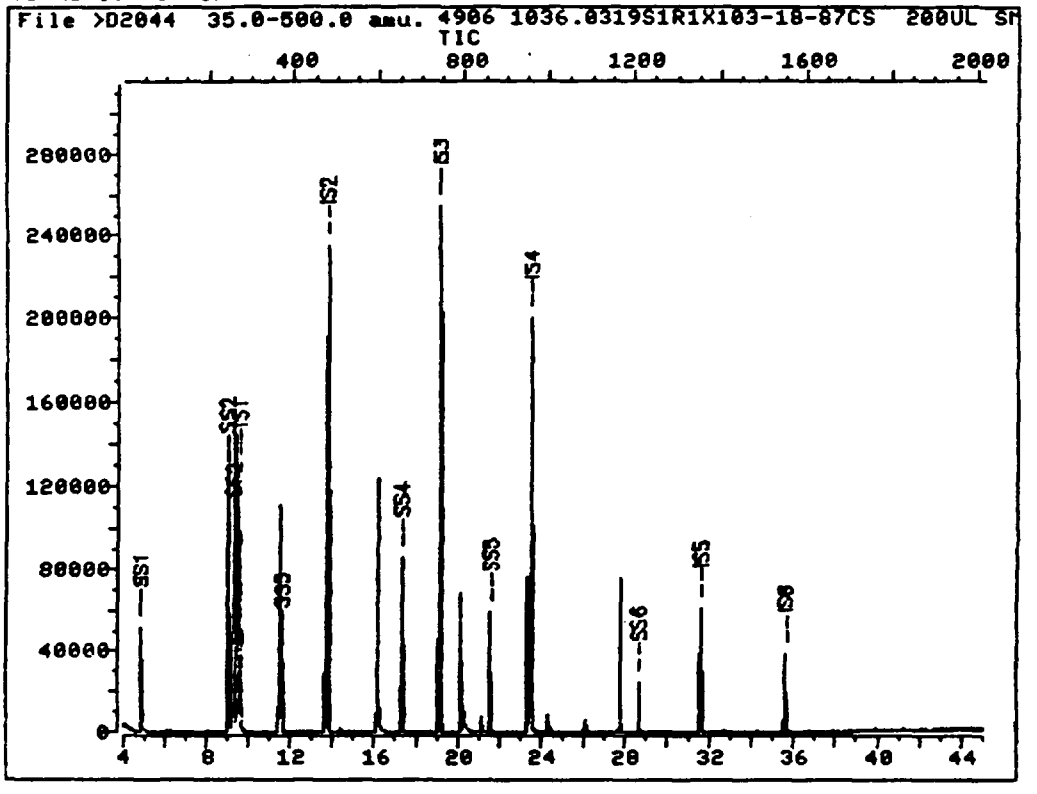
Concentrations reported "as received" basis

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

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

(1)-Cannot be separated from diphenylamine

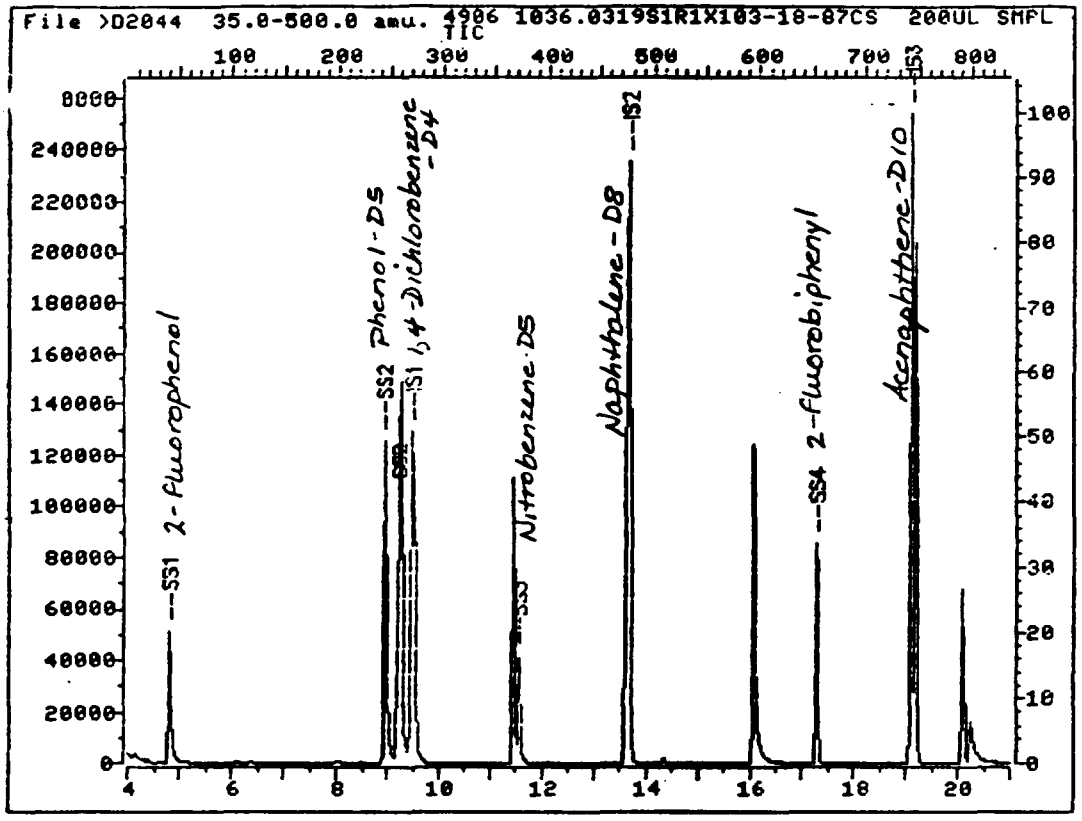
TOTAL ION CHROMATOGRAM



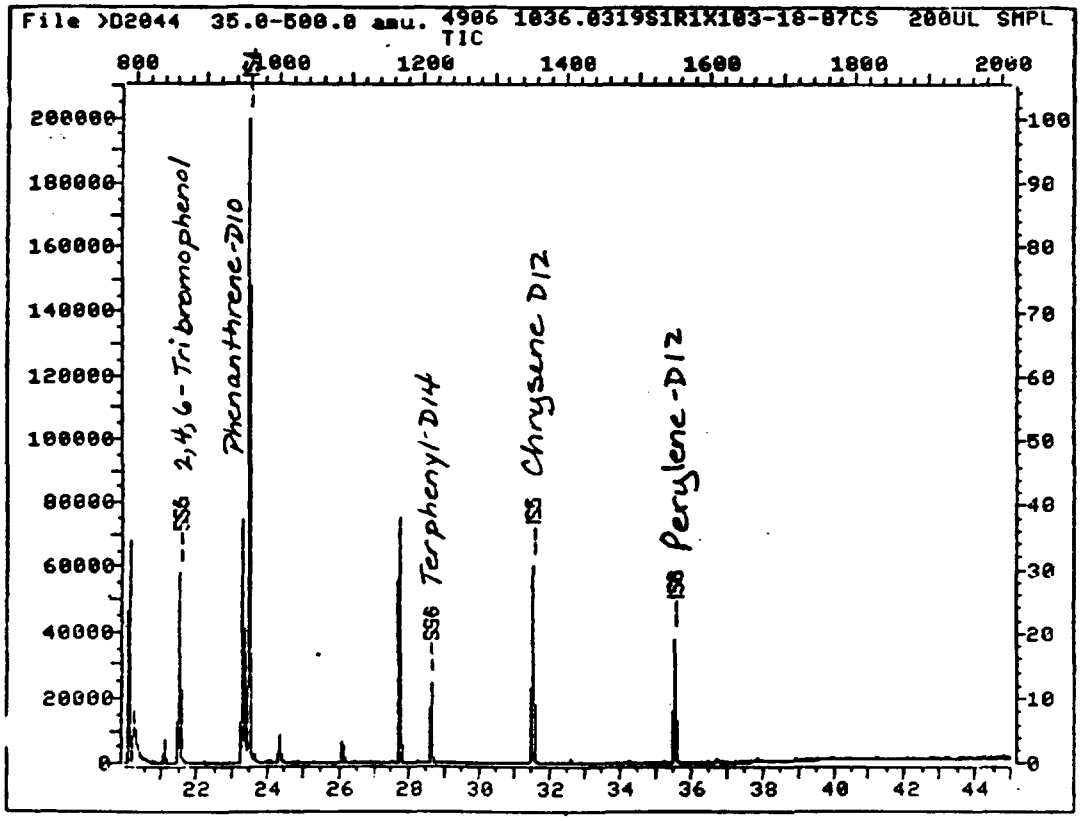
Data File: >D2044::D1
Name: 4906 1036.0319S1R1X1 DC-I12-51 MSD
Misc: 03-18-87CS 200UL SMPL + 200UL A/P + 4UL IS (2X) BTL# 3

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870318 14:12

Operator ID: USER8
Quant Time: 870318 17:40
Injected at: 870318 16:52


File >D2044 35.0-500.0 amu. 4906 1036.0319S1R1X103-18-87CS 200UL SMPL
TIC
SS1 2-Fluorophenol
SS2 Phenol-D5
S1 1,4-Dichlorobenzene-D4
Nitrobenzene-D5
IS2 Naphthalene-D8
SS4 2-Fluorobiphenyl
IS3 Acenaphthene-D10

DC-I12-57-MSD


File >D2044 35.0-500.0 amu. 4906 1036.0319S1R1X103-18-87CS 200UL SMPL
TIC
SS5 2,4,6-Tribromophenol
Phenanthrene-D10
SS6 Terphenyl-D14
IS5 Chrysene D12
IS6 Perylene-D12

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870318 17:40
Output File: ^D2044::Q2 Injected at: 870318 16:52
Data File: >D2044::D1 Dilution Factor: 2.00
Name: 4906 1036.0319S1R1X1 DC-I12-57 MSD
Misc: 03-18-87CS 200UL SMPL + 200UL A/P + 4UL IS (2X) BTL# 3

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870318 14:12

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.49	271	75503	40.00 UG/L	87
2)	PHENOL-D5	(SURR)	99	8.94	244	5361	3.94 UG/L 55 ✓	42
2)	PHENOL-D5	(SURR)	99	9.23	258	69773	51.28 UG/L	96
5)	2-FLUOROPHENOL	(SURR)	112	4.79	40	44299	50.67 UG/L 51 ✓	78
6)	PHENOL		94	9.27	260	140838	92.72 UG/L 46%	59
~~7)~~	~~ANILINE~~		~~93~~	~~8.96~~	~~245~~	~~2357~~	~~2.90 UG/L~~	~~37~~
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.53~~	~~273~~	~~55904~~	~~43.36 UG/L~~ CW	~~98~~
10)	1,4-DICHLOROBENZENE		146	9.53	273	55904	40.30 UG/L 40%	99
15)	2-CHLOROPHENOL		128	8.94	244	110140	98.30 UG/L 49%	95
17)	N-NITROSO-DI-N-PROPYLAMINE		70	11.45	367	63388	49.23 UG/L 49%	88
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.55~~	~~372~~	~~9268~~	~~7.20 UG/L~~ CW	~~98~~
19)	*NAPHTHALENE-D8	(IS)	136	13.69	477	272909	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.55	372	38661	29.08 UG/L 58 ✓	94
28)	1,2,4-TRICHLOROBENZENE		180	13.63	474	59119	49.13 UG/L 49%	100
32)	4-CHLORO-3-METHYLPHENOL		107	16.07	594	88078	77.47 UG/L 39%	98
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~16.07~~	~~594~~	~~68346~~	~~30.69 UG/L~~ CW	~~19~~
34)	*ACENAPHTHENE-D10	(IS)	162	19.11	743	161896	40.00 UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	17.28	653	76182	30.89 UG/L 62 ✓	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.11~~	~~743~~	~~31282~~	~~11.88 UG/L~~ CW	~~100~~
47)	ACENAPHTHENE		153	19.19	747	119326	52.92 UG/L 53%	95
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.53	862	18828	51.39 UG/L 51 ✓	97
50)	4-NITROPHENOL		139	20.21	797	16944	57.73 UG/L 29%	100
~~50)~~	~~4-NITROPHENOL~~		~~139~~	~~20.76~~	~~824~~	~~259~~	~~.88 UG/L~~ CW	~~100~~
51)	2,4-DINITROTOLUENE		165	20.09	791	32100	51.45 UG/L 51%	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.11~~	~~743~~	~~21884~~	~~34.85 UG/L~~ CW	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	23.49	958	205478	40.00 UG/L	90
60)	PENTACHLOROPHENOL		266	23.29	948	34667	90.30 UG/L 45%	100
63)	DI-N-BUTYLPHTHALATE		149	26.08	1085	9280	3.33 UG/L	99
65)	*CHRYSENE-D12	(IS)	240	31.54	1353	64059	40.00 UG/L	100
67)	PYRENE		202	27.75	1167	85405	52.18 UG/L 52%	94
68)	TERPHENYL-D14	(SURR)	244	28.64	1211	24084	28.20 UG/L 56 ✓	100
74)	*PERYLENE-D12	(IS)	264	35.55	1550	43352	40.00 UG/L	100

* Compound is ISTD

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number
DC-I12-57MSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-16-87

Date Analyzed 2-24-87

Conc/Dil Factor 2

Percent Moisture (decanted) 11

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	160 U
319-85-7	Beta-BHC	160 U
319-86-8	Delta-BHC	160 U
58-89-9	Gamma-BHC (Lindane)	267 S
76-44-8	Heptachlor	325 S
309-00-2	Aldrin	296 S
1024-57-3	Heptachlor Epoxide	160 U
959-98-8	Endosulfan I	160 U
60-57-1	Dieldrin	636 S
72-55-9	4,4'-DDE	320 U
72-20-8	Endrin	717 S
33213-65-9	Endosulfan II	320 U
72-54-8	4,4'-DDD	320 U
1031-07-8	Endosulfan Sulfate	320 U
50-29-3	4,4'-DDT	758 S
72-43-5	Methoxychlor	1600 U
53494-70-5	Endrin Ketone	320 U
57-74-9	Chlordane	1600 U
8001-35-2	Toxaphene	3200 U
12674-11-2	Aroclor-1016	1600 U
11104-28-2	Aroclor-1221	1600 U
11141-16-5	Aroclor-1232	1600 U
53469-21-9	Aroclor-1242	1600 U
12672-29-6	Aroclor-1248	1600 U
11097-69-1	Aroclor-1254	3200 U
11096-82-5	Aroclor-1260	3200 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

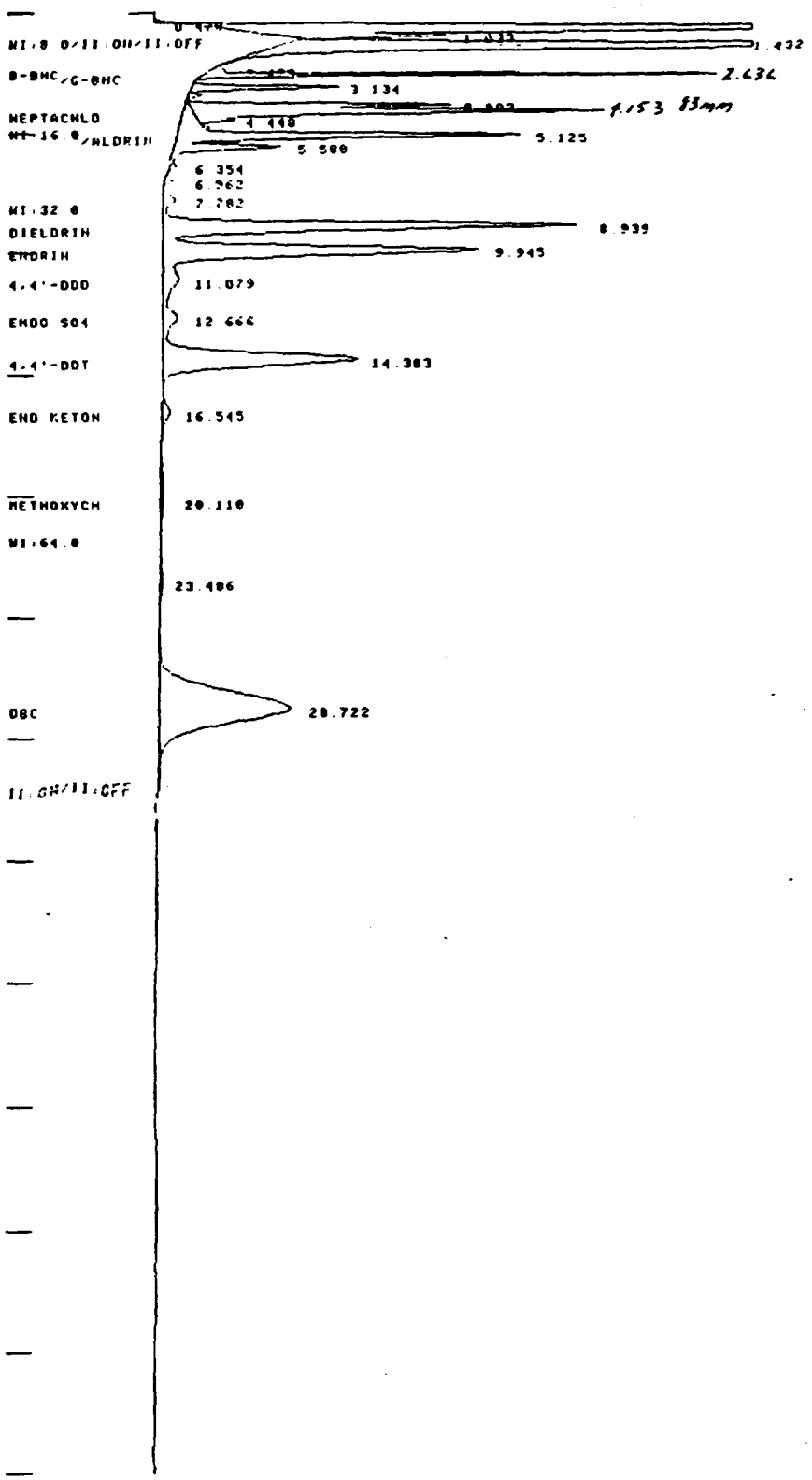
W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1,000 V_i 4

< - Critical Compound

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



DC-I12-57 MSD

RECALCULATE ON FILE: DC1196

CHANNEL: 1A - 1 TITLE: RUN# 24 5:36 24 FEB 87

SAMPLE: 1036 MSD METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
		[illegible]	[illegible]		[illegible]	[illegible]	[illegible]

DC-I12-57 MSD

RECALCULATE ON FILE: DC1196

CHANNEL: 1A - 1 TITLE: RUN# 24 5:36 24 FEB 87

SAMPLE: 1036 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	1.288		81903	BV	?	4.56
2		0.0000	1.432		11427369	VB		5.63
3	6-BHC	266.7983	2.636	0.036	491643	VB		6.63
4		0.0000	3.134		170082	BV		8.00
5		0.0000	3.903		329962	VV	?	9.94
6	HEPTACHLO	~~361.0780~~ 325	4.153	0.033	607194	85mm		11.44
7		0.0000	4.448		85076	VV	?	16.69
8		0.0000	4.779		44712	VV	?	13.56
9	ALDRIN	295.7891	5.125	0.065	577713	VV		12.38
10		0.0000	5.580		192514	VV		11.50
11	~~A-ENDO~~	23.6072	7.782	0.212	40890	VV		28.25
12	DIELDRIN	636.3864	8.939	0.129	1187288	VV		21.94
13	~~B-ENDO~~ Endrin	~~637.2733~~ 717	9.945	-0.065	1017117	VV		24.44
14	~~ENDO-ALD~~	72.2429	11.079	0.069	109903	VV	?	64.25
15	~~ENDO-GPA~~	65.9034	12.666	-0.114	88099	VV		42.44
16	4,4'-DDT	757.6250	14.383	0.193	897660	VB		34.63
17	~~END RETAN~~	22.5490	16.545	0.205	42950	BB		38.56
18	~~METHOXYCH~~	54.0485	20.110	-0.690	33865	BB	?	94.63
19	DBC	996.2340	20.722	0.412	1439282	BB		82.31
TOTALS:		4139.477		0.485	18865224			

DETECTED PKS: 30 REJECTED PKS: 11

DIVISOR: 0.15000 MULTIPLIER: 2000.00000

NOISE: 11.4 OFFSET: -9

RACK: 2 VIAL: 9 INJ: 1

NOTES:
NOTEBOOK:259-115,116 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#:U-4872,4906
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

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)

C6894

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: IL-4906, 4928, 4971, 4989.

Lab Sample ID No: Method Blank

QC Report No:

Sample Matrix: ~~Soil~~ Water for Soil

Contract No. IL-3140

Data Release Authorized By: C Stojowicz

Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-20-87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

Concentrations reported "as received"

CAS Number		ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	3 J
67-64-1	Acetone	25
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	12
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but

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.

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number C6894

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	2 J
2.	Hexane isomer	VOA	21.2	10 J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
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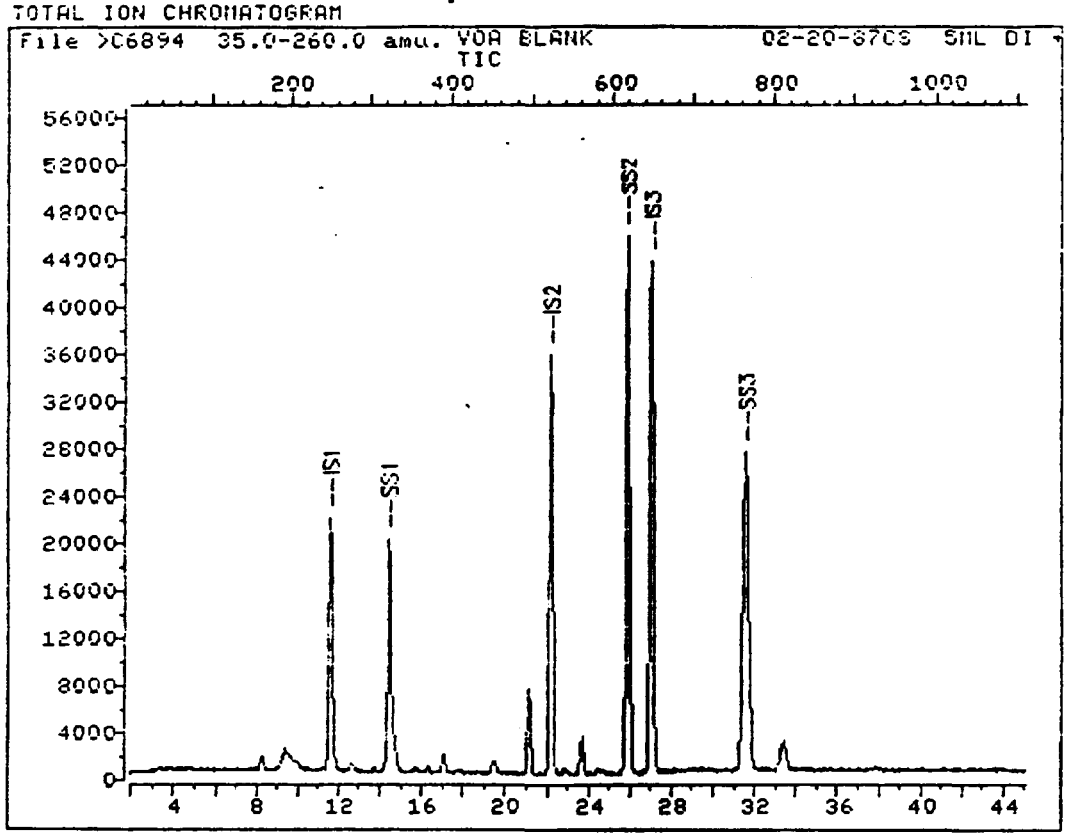
21.				
22.				
23.				
24				
25.				
26.				
27.				
28.				
29.				
0				

TOTAL ION CHROMATOGRAM

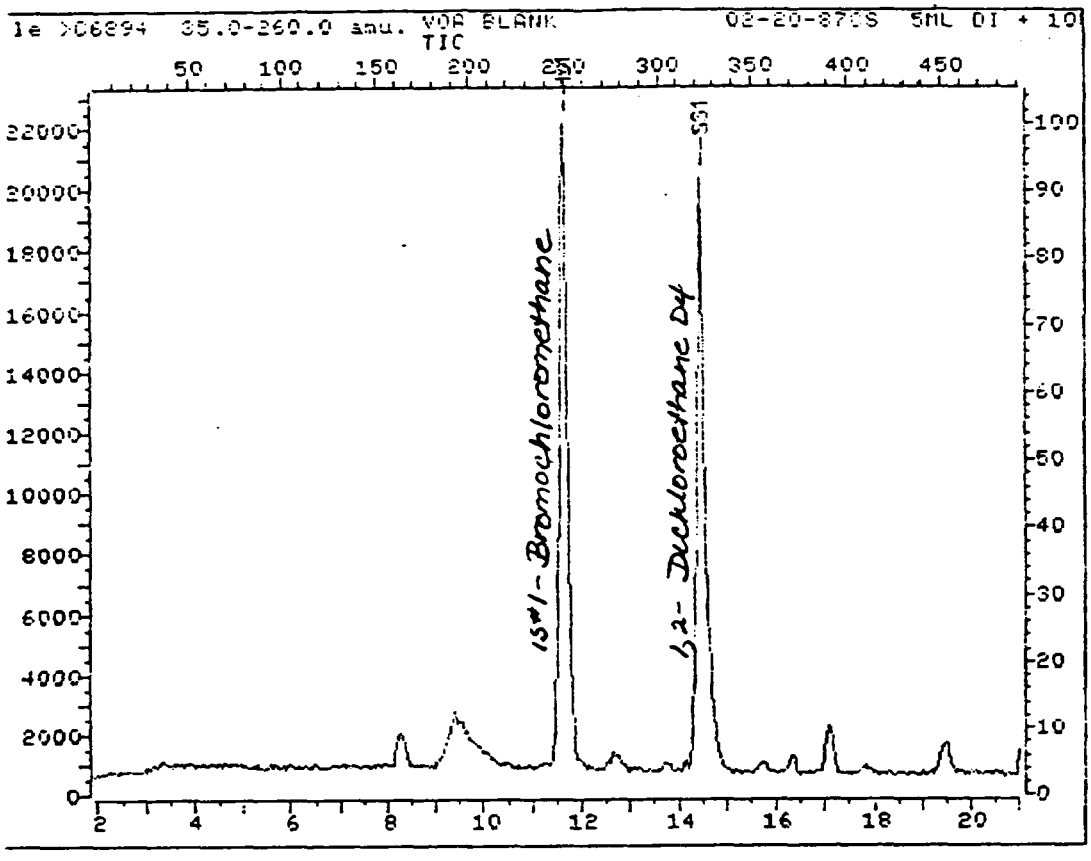


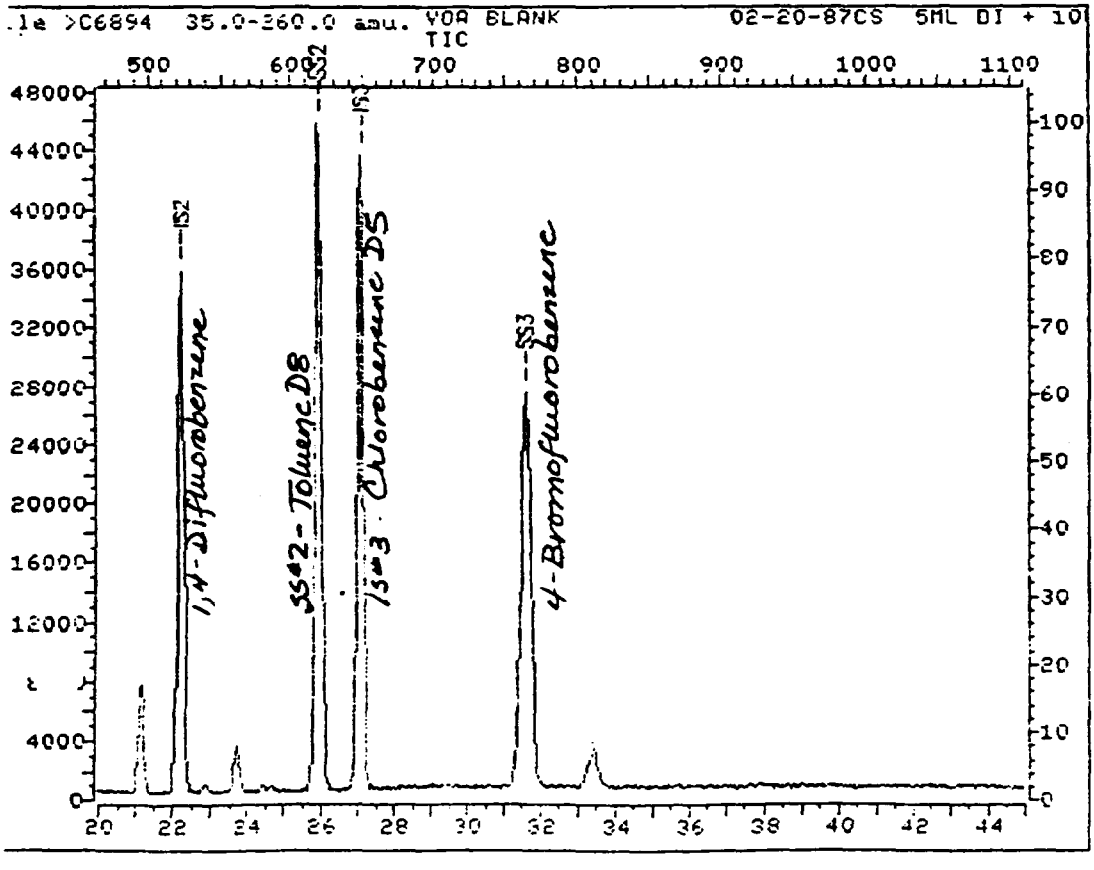
Data File: >C6894::D3
Name: VOA BLANK
Misc: 02-20-87CS 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

Operator ID: USER8
Quant Time: 870220 13:02
Injected at: 870220 12:16

C6894.


le >C6894 35.0-260.0 amu. VOA BLANK 02-20-87CS 5ML DI + 10
TIC
IS#1- Bromochloromethane
S1 1,2- Dichloroethane D4


le >C6894 35.0-260.0 amu. VOA BLANK 02-20-87CS 5ML DI + 10
TIC
IS2 1,4-Difluorobenzene
S2 S42- Toluene D8
IS3 Chlorobenzene D5
S3 4-Bromofluorobenzene

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870220 13:02
Output File: ^C6894::02 Injected at: 870220 12:16
Data File: >C6894::03 Dilution Factor: 1.00
Name: VOA BLANK
Misc: 02-20-87CS 5ML DI - 10UL IS/SS

ID File: VOACRS::02
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870220 12:09

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS) 128	11.61	250	29949	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.27	164	3235	15.54	NGS	100
7)	ACETONE	43	9.40	193	46636	125.84	NGS	100
15)	1,2-DICHLOROETHANE-D4	(SURR) 65	14.44	323	84196	204.62	NGS 82	83
16)	*1,4-DIFLUOROBENZENE	(IS) 114	22.20	523	144286	250.00	NGS	100
17)	2-BUTANONE	72	14.64	328	4596	62.21	NGS	100
31)	*CHLOROBENZENE-D5	(IS) 117	27.05	648	129534	250.00	NGS	100
32)	4-METHYL-2-PENTANONE	43	22.86	540	3289	5.18	NGS	85
~~32)~~	~~4-METHYL-2-PENTANONE~~	~~43~~	~~23.72~~	~~568~~	~~6590~~	~~10.37~~	~~NGS~~	69
~~33)~~	~~2-HEXANONE~~	~~43~~	~~23.72~~	~~568~~	~~6590~~	~~12.96~~	~~NGS~~	100
33)	2-HEXANONE	43	24.42	580	2975	5.85	NGS	100
36)	TOLUENE-D8	(SURR) 98	25.89	618	171844	231.68	NGS 93	95
40)	4-BROMOFLUOROBENZENE	(SURR) 95	31.56	764	91791	217.36	NGS 87	100

no cut

* Compound is ISTD

C6920

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: IL-4906, 4928, 4971, 4989.

Lab Sample ID No: Method Blank

QC Report No:

Sample Matrix: ~~Soil~~ Water for Soil

Contract No: IL-3140

Data Release Authorized By: [signature]

Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-23-87

Conc/Dil Factor: 2 pH

Percent Moisture: (Not Decanted)

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u
74-83-9	Bromomethane	2000u
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	680 J
67-64-1	Acetone	4200
75-15-0	Carbon Disulfide	1000u
75-35-4	1, 1-Dichloroethene	1000u
75-34-3	1, 1-Dichloroethane	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u
67-66-3	Chloroform	1000u
107-06-2	1, 2-Dichloroethane	1000u
78-93-3	2-Butanone	8900
71-55-6	1, 1, 1-Trichloroethane	1000u
56-23-5	Carbon Tetrachloride	1000u
108-05-4	Vinyl Acetate	2000u
75-27-4	Bromodichloromethane	1000u

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

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but

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 on the

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

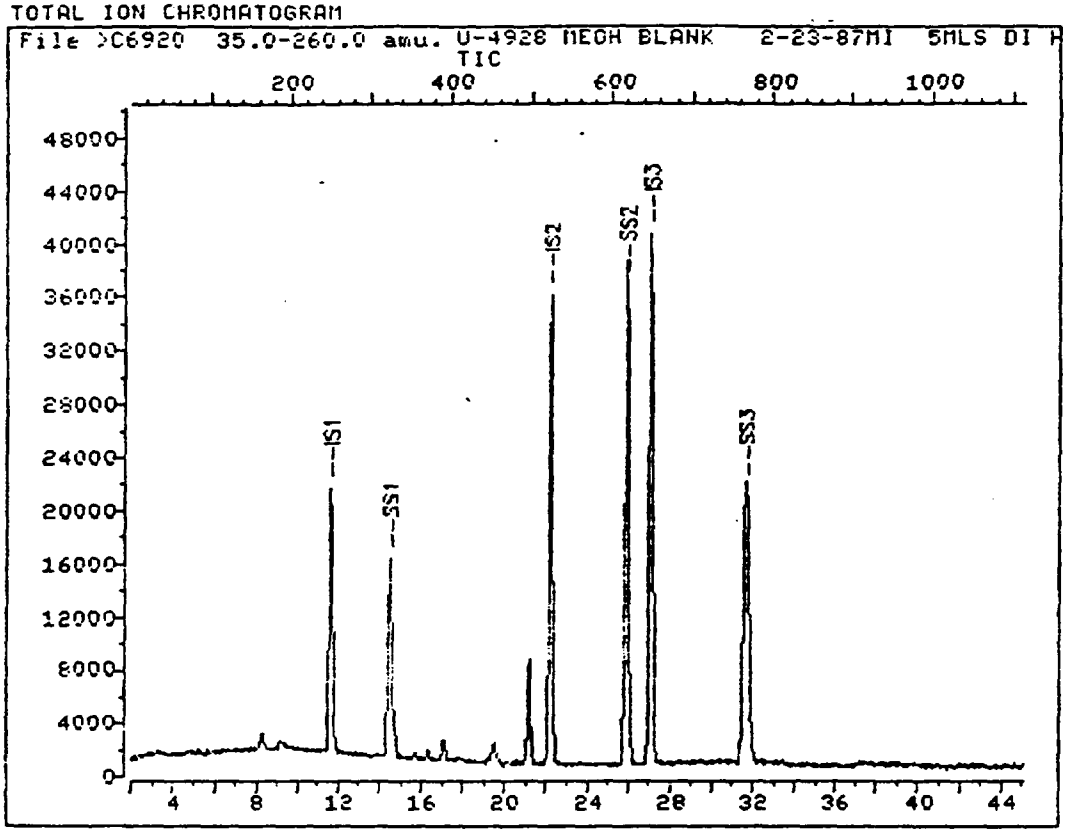
Sample Number C6920

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	560 J
2.	Hexane isomer	VOA	21.2	2800 J
3.				
4.				
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

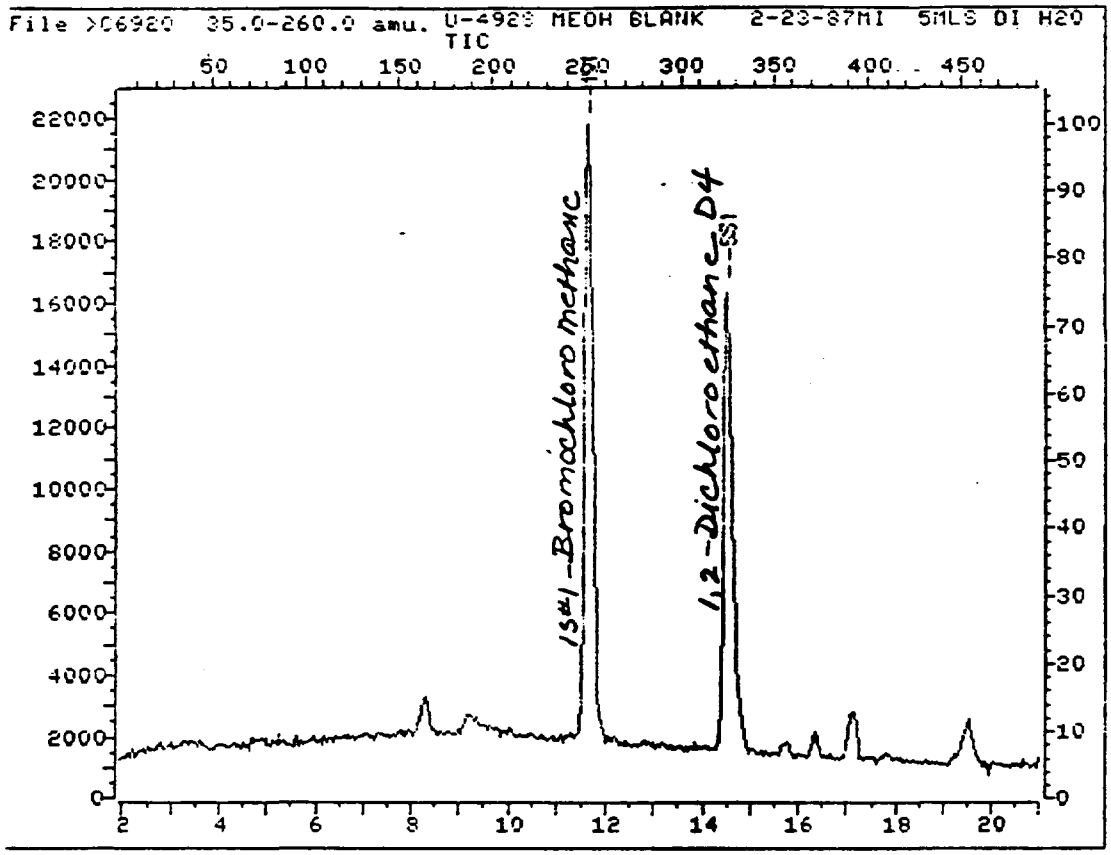


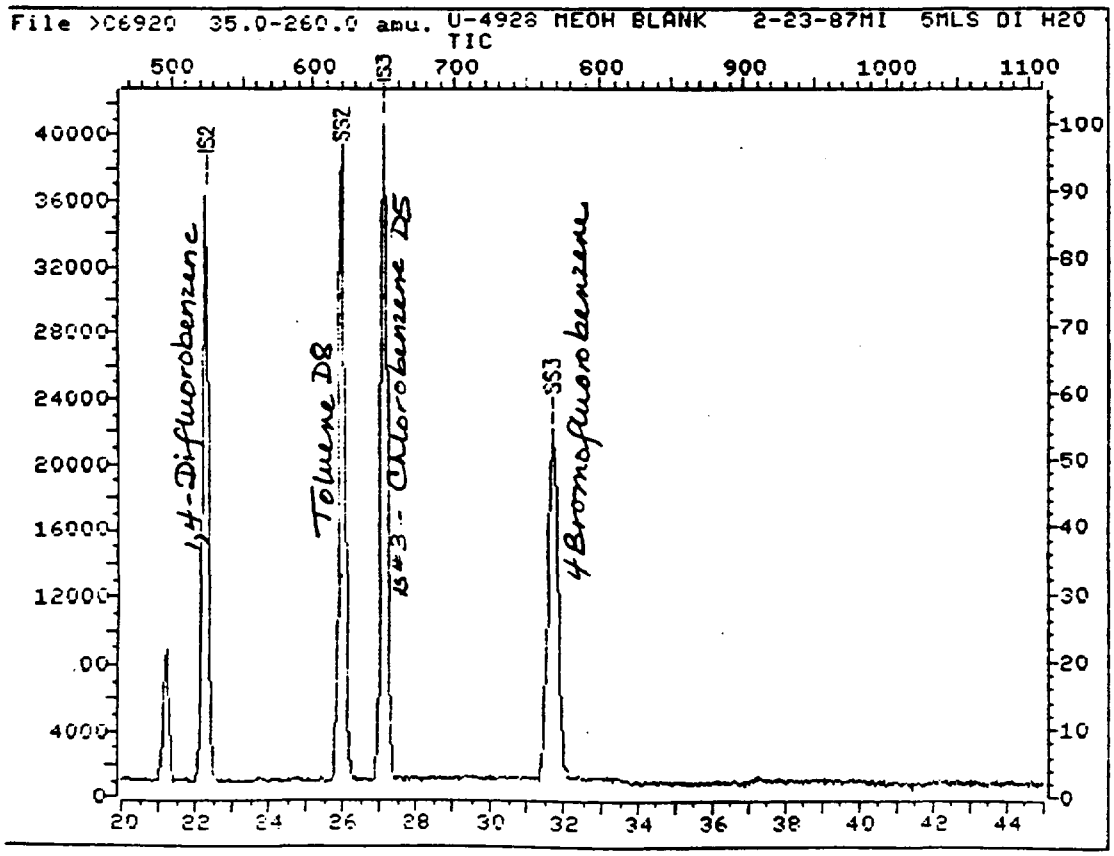
Data File: >C6920::D1
Name: U-4928 MEOH BLANK
Misc: 2-23-87MI 5MLS DI H20 + 10UL IS/SS + 50UL MEOH

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870223 13:31

Operator ID: USER8
Quant Time: 870223 22:53
Injected at: 870223 22:07

C6920


File >C6920 35.0-260.0 amu. U-4928 MEOH BLANK 2-23-87MI 5MLS DI H2O
TIC
IS#1 - Bromochloromethane
1,2-Dichloroethane D4
SS1


File >C6920 35.0-260.0 amu. U-4928 MEOH BLANK 2-23-87MI 5MLS DI H2O
TIC
1,4-Difluorobenzene
IS2
Toluene D8
SS2
IS#3 - Chlorobenzene D5
IS3
4 Bromofluorobenzene
SS3

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870223 22:53
Output File: ^C6920::Q2 Injected at: 870223 22:07
Data File: >C6920::D1 Dilution Factor: 1.00
Name: U-4928 MEOH BLANK
Misc: 2-23-87MI 5MLS DI H20 + 10UL IS/SS + 50UL MEOH

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870223 13:31

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128 11.64	251	27382	50.00	UG/L	100
6)	METHYLENE CHLORIDE		84 8.27	164	2975	2.71	UG/L	100
7)	ACETONE		43 9.24	189	8527	16.85	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65 14.52	325	63504	40.99	UG/L 82	83
16)	*1,4-DIFLUOROBENZENE	(IS)	114 22.24	524	141829	50.00	UG/L	100
17)	2-BUTANONE		72 14.67	329	4202	35.70	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117 27.09	649	120037	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98 25.92	619	142180	42.65	UG/L 86	94
40)	4-BROMOFLUOROBENZENE	(SURR)	95 31.67	767	71824	40.60	UG/L 82	100

* Compound is ISTD

C6941

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: Method Blank

QC Report No:

Sample Matrix: ~~Soil~~ water for Soil

Contract No. EL-3140

Data Release Authorized By: C Slojtowicz

Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-24-87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	5u
67-64-1	Acetone	16
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethene	5u
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethene	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-93-3	2-Butanone	20
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

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

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but

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.

477

E This flag indicates an approximate concentration.

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

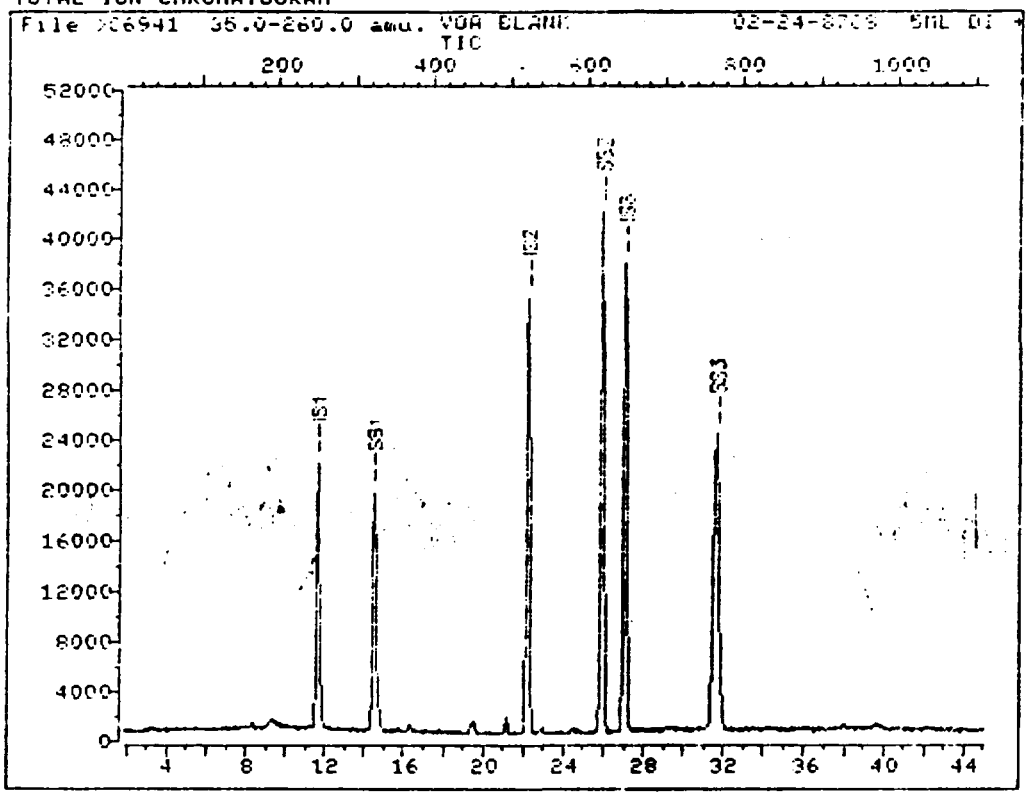
Sample Number C6941

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 TIC's in VOA fraction			
2.				
3.				
4.				
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.				
0				

TOTAL ION CHROMATOGRAM

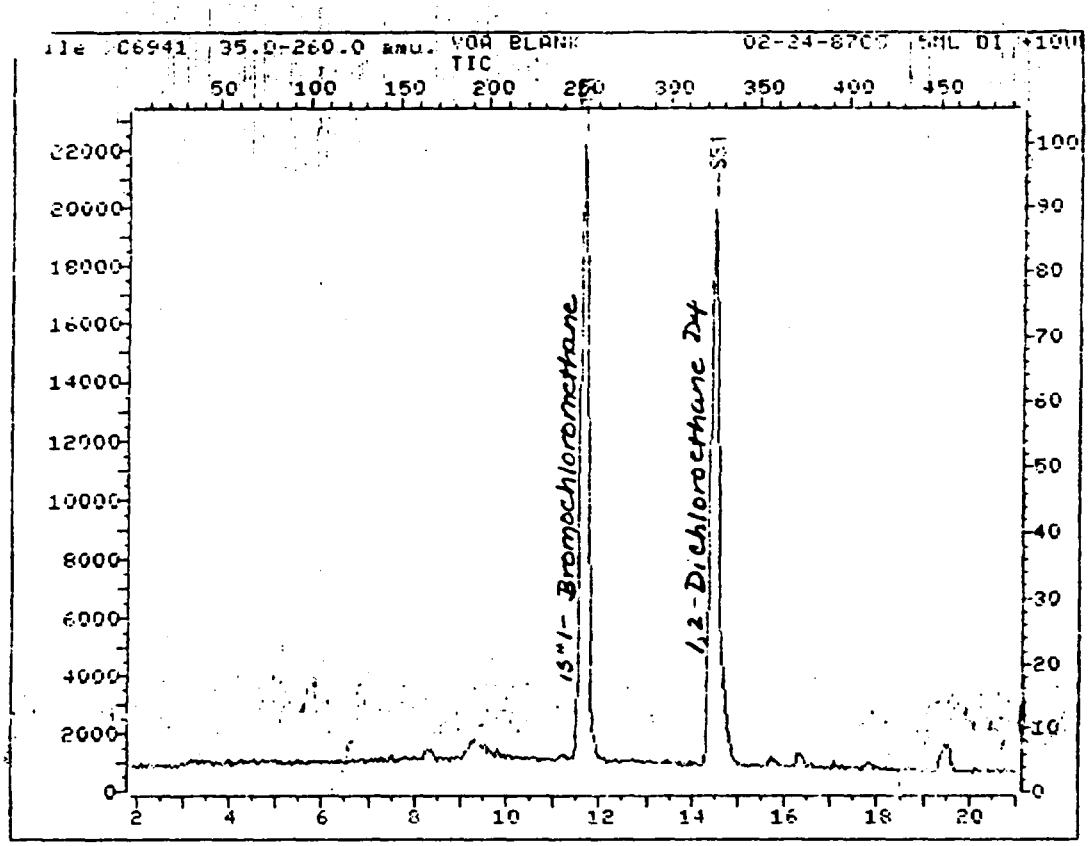


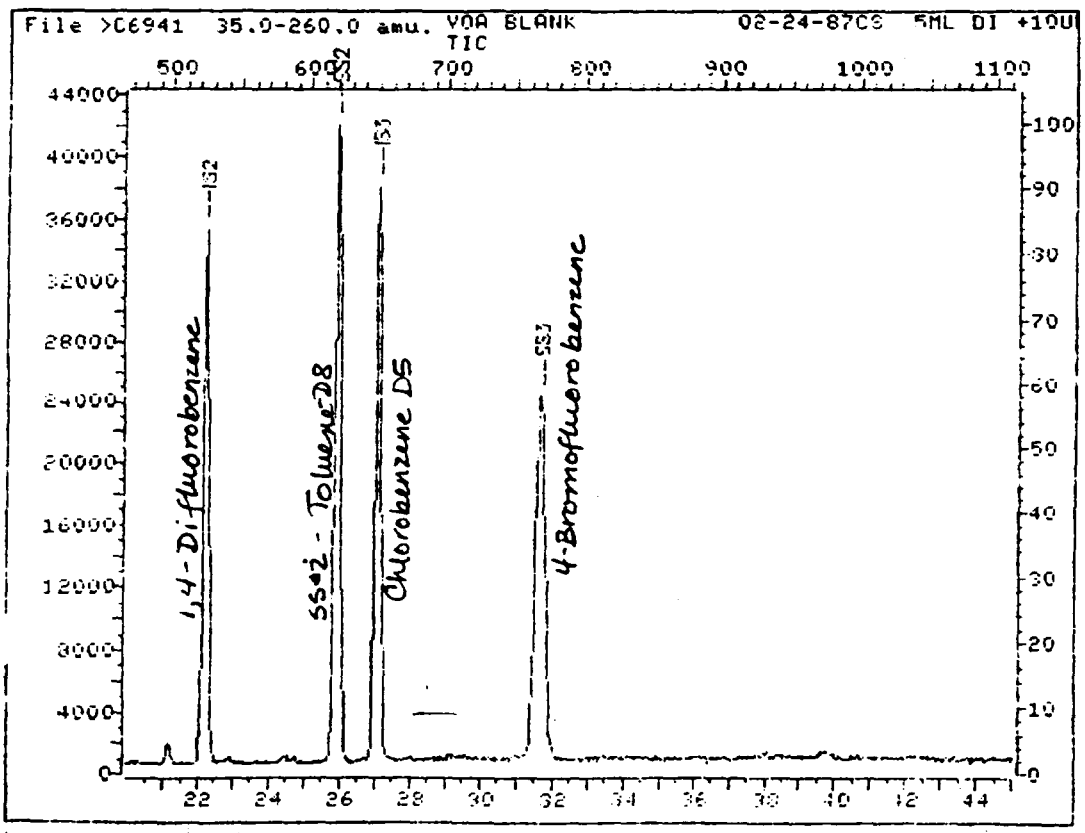
Data File: >C6941::D1
Name: VOA BLANK
Misc: 02-24-87CS 5ML DI +10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870224 15:45

Operator ID: USER8
Quant Time: 870224 16:38
Injected at: 870224 15:53

C6941


File >C6941 35.0-260.0 amu. VOA BLANK 02-24-87CS 5ML DI +10U
TIC
15*1- Bromochloromethane
1,2-Dichloroethane D4
--SS1


File >C6941 35.0-260.0 amu. VOA BLANK 02-24-87CS 5ML DI +10U
TIC
1,4-Difluorobenzene
--I32
SS*2 - Toluene-D8
--I33
Chlorobenzene D5
--SS3
4-Bromofluorobenzene

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870224 16:38
Output File: ^C6941::Q2 Injected at: 870224 15:53
Data File: >C6941::D1 Dilution Factor: 1.00
Name: VOA BLANK
Misc: 02-24-87CS 5ML DI +10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870224 15:45

	Compound		P.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128 11.63	252	29092	250.00	NGS	100
7)	ACETONE		43 9.30	192	13425	79.83	NGS 96	100 ✓
15)	1,2-DICHLOROETHANE-D4	(SURR)	65 14.46	325	79430	261.55	NGS 105	83 ✓
16)	*1,4-DIFLUOROBENZENE	(IS)	114 22.22	525	140145	250.00	NGS 96	100
17)	2-BUTANONE		72 14.65	330	3841	97.62	NGS	100
30)	~~BROMOFORM~~		~~173 18.19~~	~~554~~	~~228~~	~~1.07~~	~~NGS~~ NO CW	100
31)	*CHLOROBENZENE-D5	(IS)	117 27.07	650	115956	250.00	NGS	100
32)	4-METHYL-2-PENTANONE		43 22.92	543	3780	9.90	NGS 96	70
~~33)~~	~~2-HEXANONE~~		~~43 24.43~~	~~582~~	~~3391~~	~~11.51~~	~~NGS~~ NO CW	100 ✓
36)	TOLUENE-D8	(SURR)	98 25.91	620	156524	268.69	NGS 108	98
40)	4-BROMOFLUOROBENZENE	(SURR)	95 31.66	768	82782	255.89	NGS 102	100 ✓

* Compound is ISTD

C6964

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: U-4906, 4928, 4971, 4989.

Lab Sample ID No: Method Blank

QC Report No:

Sample Matrix: ~~Soil~~ Water for Soil

Contract No. IL-3140

Data Release Authorized By: C Hojtowicz

Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 2-26-87

Conc/Dil Factor: 2 pH

Percent Moisture: (Not Decanted)

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u
74-83-9	Bromomethane	2000u
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	670 J
67-64-1	Acetone	8300
75-15-0	Carbon Disulfide	1000u
75-35-4	1, 1-Dichloroethene	1000u
75-34-3	1, 1-Dichloroethane	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u
67-66-3	Chloroform	1000u
107-06-2	1, 2-Dichloroethane	1000u
78-93-3	2-Butanone	12000
71-55-6	1, 1, 1-Trichloroethane	1000u
56-23-5	Carbon Tetrachloride	1000u
108-05-4	Vinyl Acetate	2000u
75-27-4	Bromodichloromethane	1000u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000u
10061-02-6	Trans-1, 3-Dichloropropene	1000u
79-01-6	Trichloroethene	1000u
124-48-1	Dibromochloromethane	1000u
79-00-5	1, 1, 2-Trichloroethane	1000u
71-43-2	Benzene	1000u
10061-01-5	cis-1, 3-Dichloropropene	1000u
110-75-8	2-Chloroethylvinylether	2000u
75-25-2	Bromoform	1000u
108-10-1	4-Methyl-2-Pentanone	2000u
591-78-6	2-Hexanone	1000 J
127-18-4	Tetrachloroethene	1000u
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000u
108-88-3	Toluene	1000u
108-90-7	Chlorobenzene	1000u
100-41-4	Ethylbenzene	1000u
100-42-5	Styrene	1000u
	Total Xylenes	720 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

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

Laboratory Name Ecology & Environment Inc.

ase No U-4906, 4928, 4971, 4989

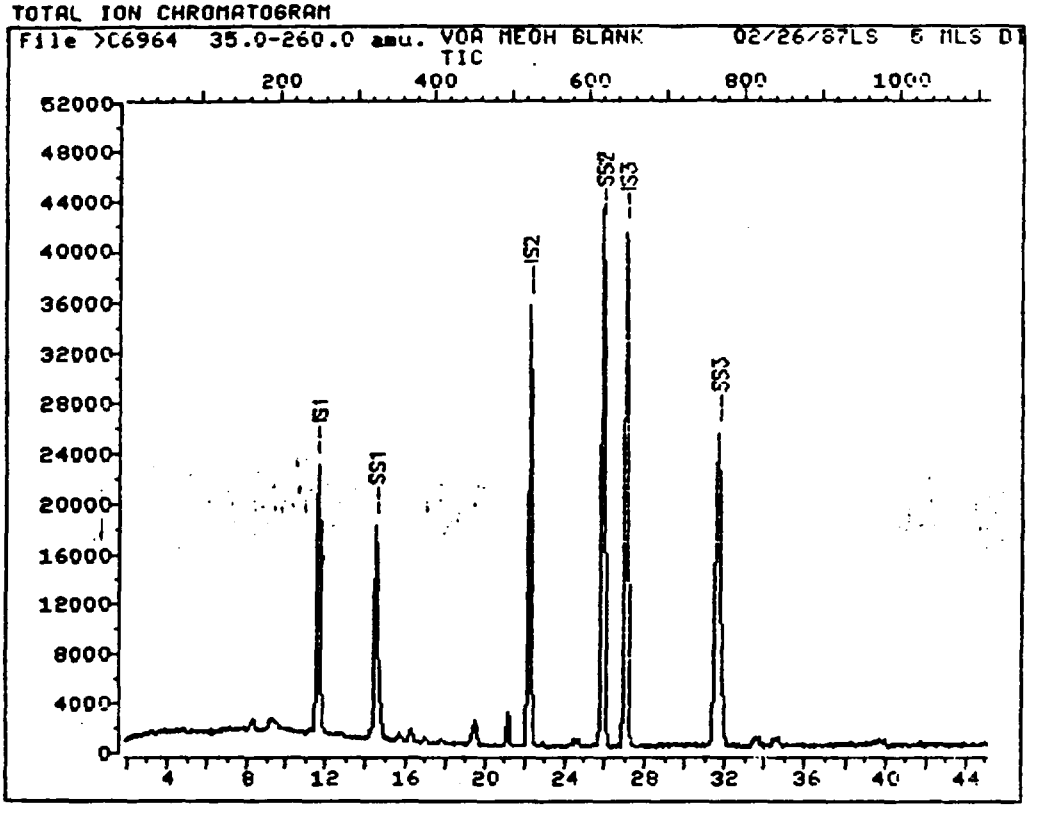
Sample Number C6964

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MLC-1C	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.				
4.				
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.				
0				

TOTAL ION CHROMATOGRAM

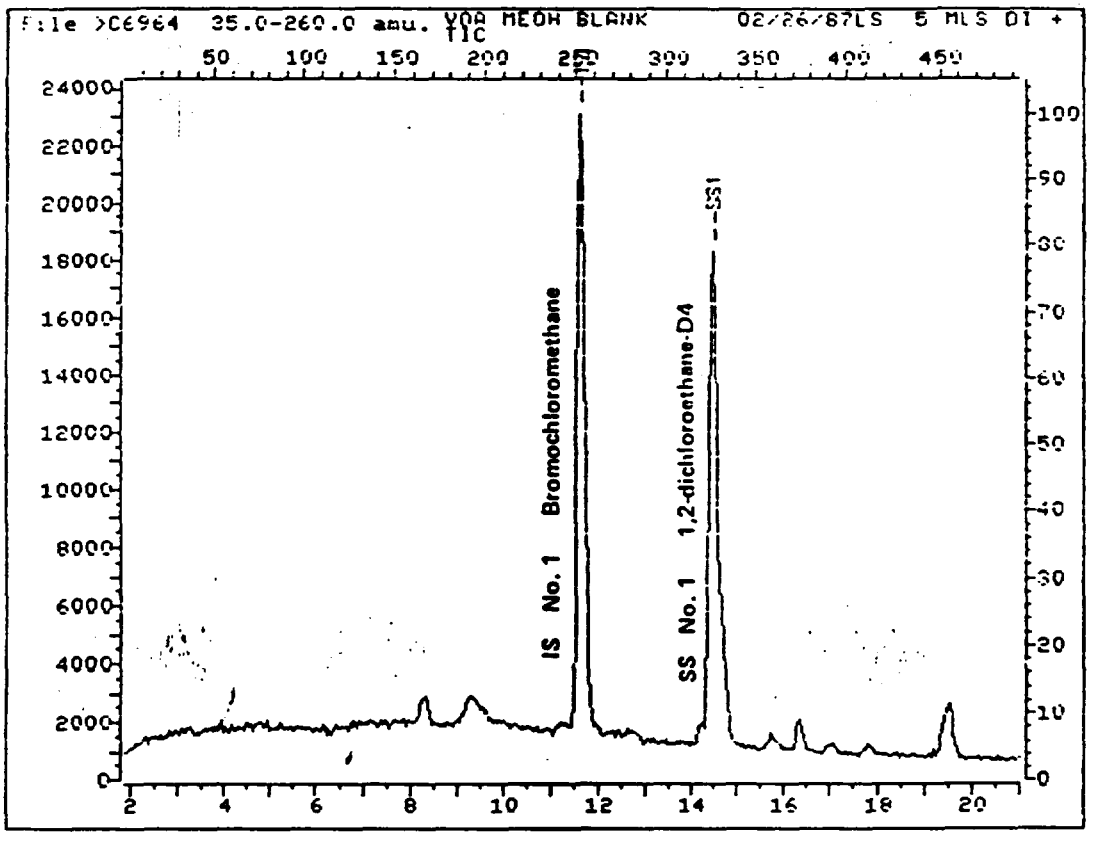


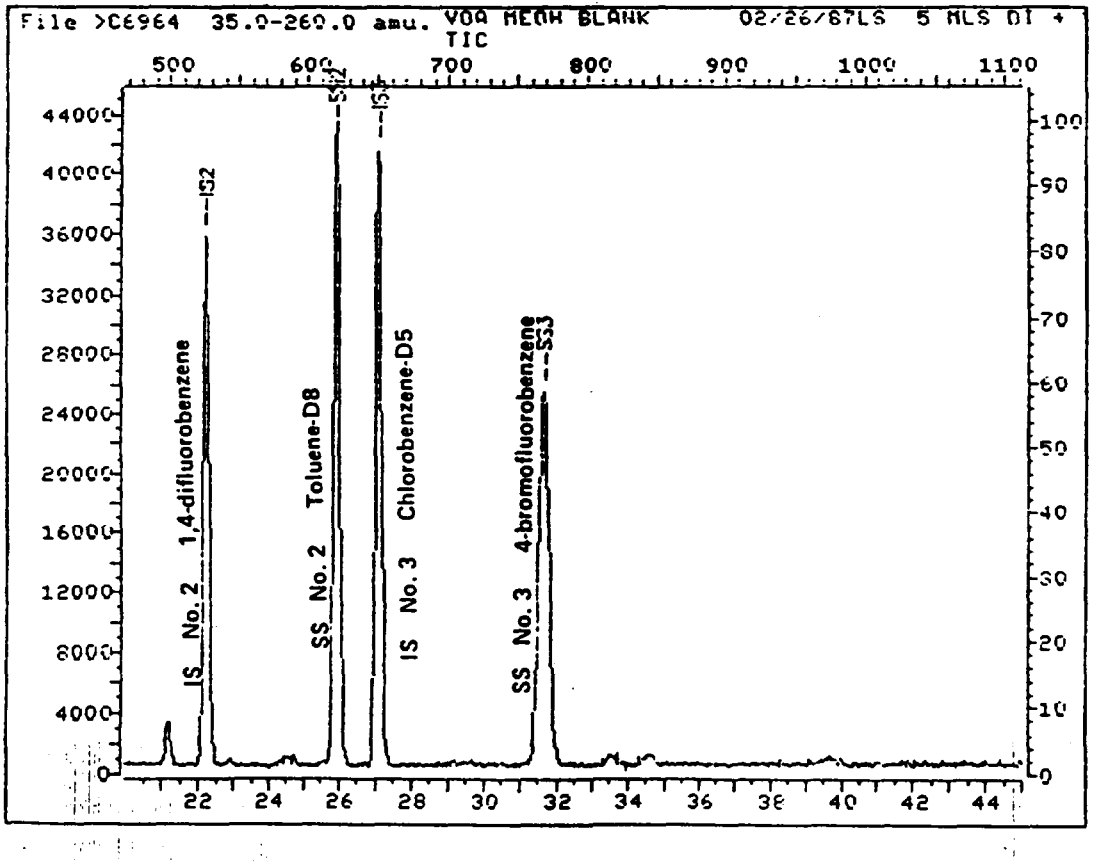
Data File: >C6964::D3
Name: VOA MEOH BLANK
Misc: 02/26/87LS 5 MLS DI + 10 ULS IS/SS + 50 ULS MEOH

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870226 14:59

Operator ID: USER8
Quant Time: 870226 15:37
Injected at: 870226 14:52

C6964


File >C6964 35.0-260.0 amu. VOA MEOH BLANK 02/26/87LS 5 MLS DI +
TIC
IS No. 1 Bromochloromethane
SS No. 1 1,2-dichloroethane-D4
SS1


File >C6964 35.0-260.0 amu. VOA MEOH BLANK 02/26/87LS 5 MLS DI +
TIC
IS No. 2 1,4-difluorobenzene
IS2
SS No. 2 Toluene-D8
SS2
IS No. 3 Chlorobenzene-D5
IS3
SS No. 3 4-bromofluorobenzene
SS3

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870226 15:37
Output File: ^C6964::Q2 Injected at: 870226 14:52
Data File: >C6964::D3 Dilution Factor: 1.00
Name: VOA MEOH BLANK
Misc: 02/26/87LS 5 MLS DI + 10 ULS IS/SS + 50 ULS MEOH

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870226 14:59

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.62	252	28625	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.29	166	2646	2.67 UG/L	100
7)	ACETONE		43	9.30	192	16823	33.00 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.49	326	73454	52.55 UG/L 105	8~~0~~ ✓
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.22	525	146323	50.00 UG/L	100
17)	2-BUTANONE		72	14.69	331	6460	49.30 UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.07	650	134164	50.00 UG/L	100
33)	2-HEXANONE		43	24.43	582	3354	4.08 UG/L	100
36)	TOLUENE-D8	(SURR)	98	25.90	620	168480	48.39 UG/L 97	93 ✓
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.65	768	88732	48.73 UG/L 97	100 ✓
42)	TOTAL XYLENES		91	33.59	818	5138	1.19 UG/L	100
42)	TOTAL XYLENES		91	34.60	844	7326	1.69 UG/L	100

* Compound is ISTD

C7040

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: IL-4906, 4928, 4971, 4989.

Lab Sample ID No: Method Blank

QC Report No:

Sample Matrix: ~~Soil~~ 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: 3-04-87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

Concentrations reported "as received"

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

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

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the results [illegible]

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.

487

E This flag indicates an approximate concentration.

Laboratory Name Ecology & Environment Inc.

Case No U-4906, 4928, 4971, 4989

Sample Number C7040

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number MLCAC	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.				
4.				
5.				
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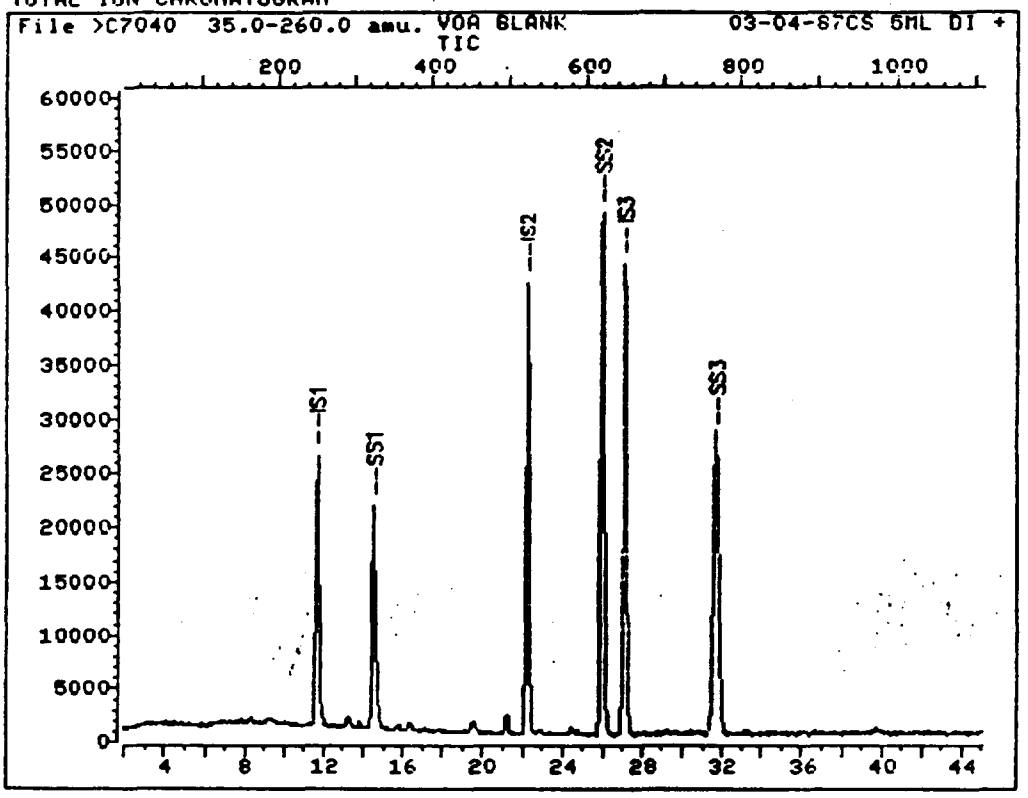
27.				
28.				
29.				
0				

TOTAL ION CHROMATOGRAM

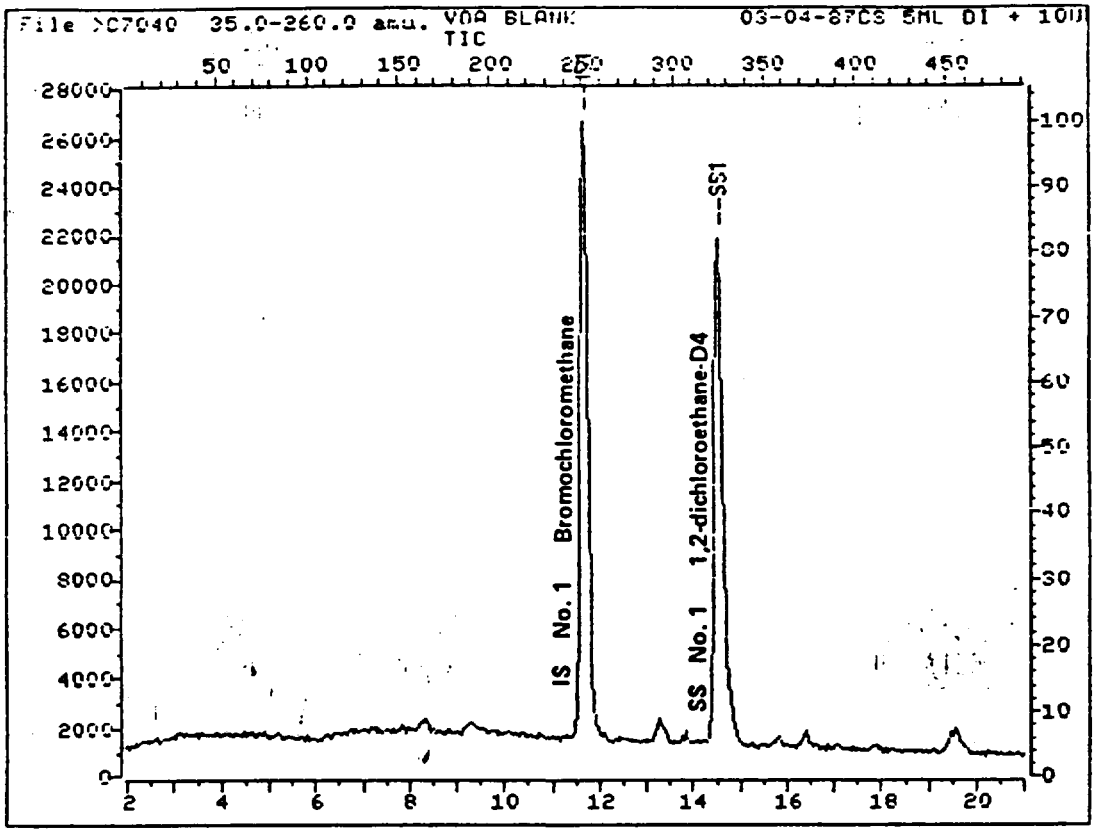


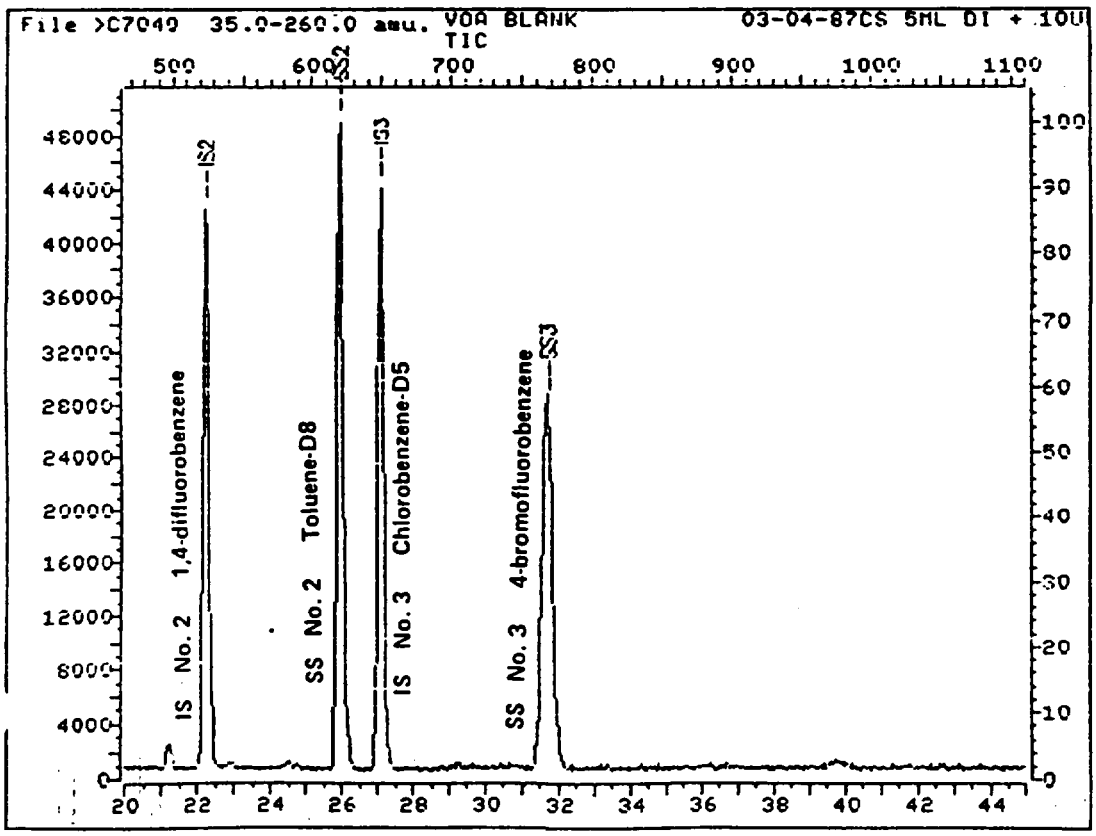
Data File: >C7040::D1
Name: VOA BLANK
Misc: 03-04-87CS 5ML DI + 10UL IS/SS

Id File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870304 11:54

Operator ID: USER8
Quant Time: 870304 12:18
Injected at: 870304 11:32

C7040


File >C7040 35.0-260.0 amu. VOA BLANK
TIC
03-04-87CS 5ML DI + 10U
IS No. 1 Bromochloromethane
SS No. 1 1,2-dichloroethane-D4
SS1


File >C7040 35.0-260.0 amu. VOA BLANK
TIC
03-04-87CS 5ML DI + 10U
IS No. 2 1,4-difluorobenzene
SS No. 2 Toluene-D8
IS No. 3 Chlorobenzene-D5
SS No. 3 4-bromofluorobenzene
IS2
SS2
IS3
SS3

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870304 12:18
Output File: ^C7040::Q2 Injected at: 870304 11:32
Data File: >C7040::D1 Dilution Factor: 1.00
Name: VOA BLANK
Misc: 03-04-87CS 5ML DI + 10UL IS/SS

ID File: VOACRS::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870304 11:54

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	11.65	251	38429	250.00	NGS	100
6)	METHYLENE CHLORIDE	84	8.32	165	1278	4.68	NGS	100
7)	ACETONE	43	9.29	190	9521	50.50	NGS	100
12)	TRANS-1,2-DICHLOROETHENE	96	13.25	292	2819	10.19	NGS +	85
15)	1,2-DICHLOROETHANE-D4(SURR)	65	14.53	325	89928	243.99	NGS	85
16)	*1,4-DIFLUOROBENZENE (IS)	114	22.25	524	182868	250.00	NGS	100
17)	2-BUTANONE	72	14.72	330	4568	88.95	NGS	100
31)	*CHLOROBENZENE-D5 (IS)	117	27.10	649	153369	250.00	NGS	100
32)	4-METHYL-2-PENTANONE	43	22.91	541	2656	7.58	NGS +	92
33)	2-HEXANONE	43	24.50	582	3398	10.69	NGS +	100
36)	TOLUENE-D8 (SURR)	98	25.97	620	194355	232.15	NGS	95
40)	4-BROMOFLUOROBENZENE(SURR)	95	31.72	768	102726	226.05	NGS	100

* Compound is ISTD

+ carryover - 2 standards preceeded this blank

C 7138

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: ecology and environment, inc.

Case No: IL-4906, 4928, 4971, 4989.

Lab Sample ID No: Method Blank

QC Report No:

Sample Matrix: ~~Soil~~ Water for Soil

Contract No: IL-3140

Data Release Authorized By: [illegible]

Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 3-09-87

Conc/Dil Factor: 2 pH

Percent Moisture: (Not Decanted)

Concentrations reported "as received"

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2000u
74-83-9	Bromomethane	2000u
75-01-4	Vinyl Chloride	2000u
75-00-3	Chloroethane	2000u
75-09-2	Methylene Chloride	320 J
67-64-1	Acetone	3200
75-15-0	Carbon Disulfide	1000u
75-35-4	1, 1-Dichloroethene	1000u
75-34-3	1, 1-Dichloroethane	1000u
156-60-5	Trans-1, 2-Dichloroethene	1000u
67-66-3	Chloroform	1000u
107-06-2	1, 2-Dichloroethane	1000u
78-93-3	2-Butanone	5600
71-55-6	1, 1, 1-Trichloroethane	1000u
56-23-5	Carbon Tetrachloride	1000u
108-05-4	Vinyl Acetate	2000u
75-27-4	Bromodichloromethane	1000u

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

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit.

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.

Laboratory Name Ecology & Environment Inc.

ase No U-4906, 4928, 4971, 4989

Sample Number C7138

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexene, isomer	VOA	17.2	1700 J
2.	Hexane, isomer	VOA	21.2	7800 J
3.				
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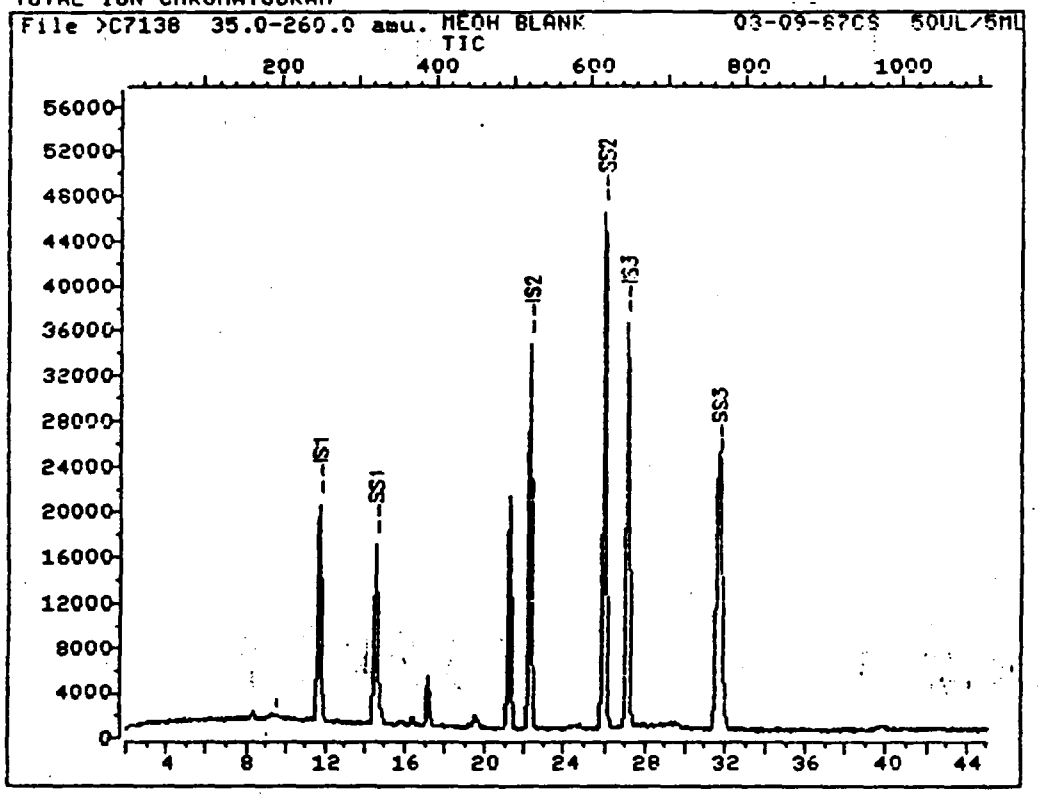
TOTAL ION CHROMATOGRAM

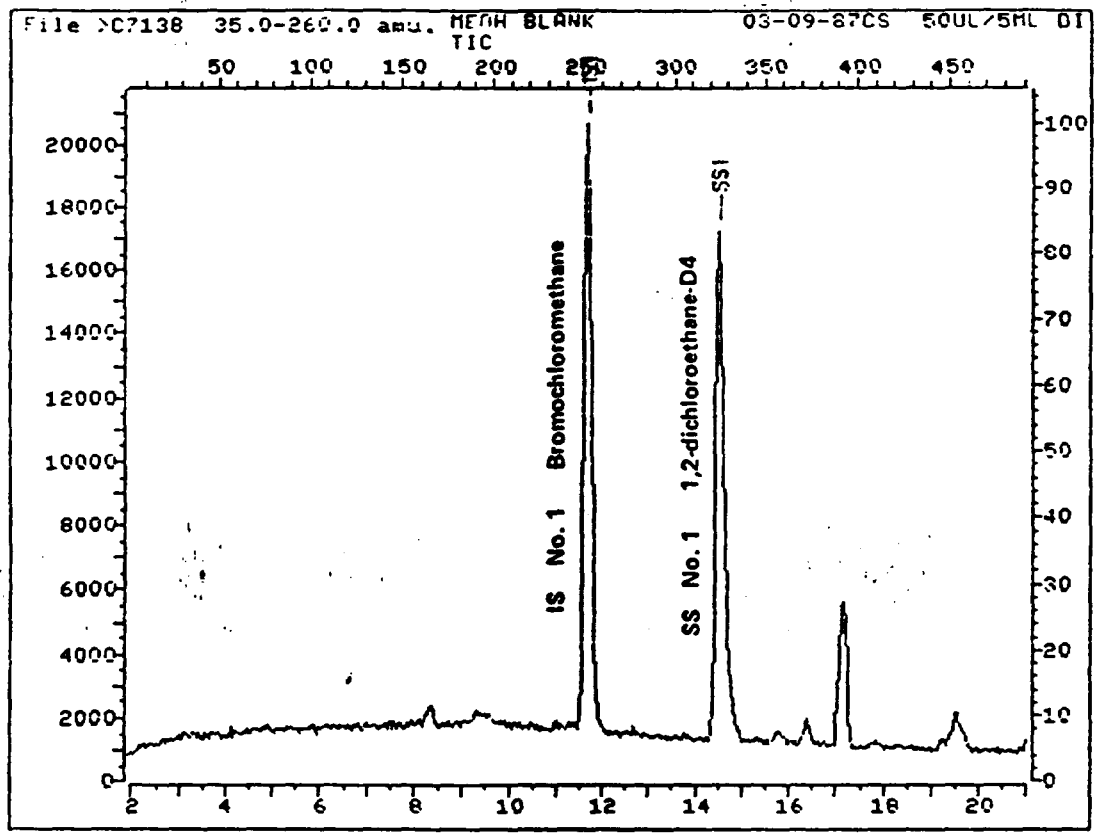


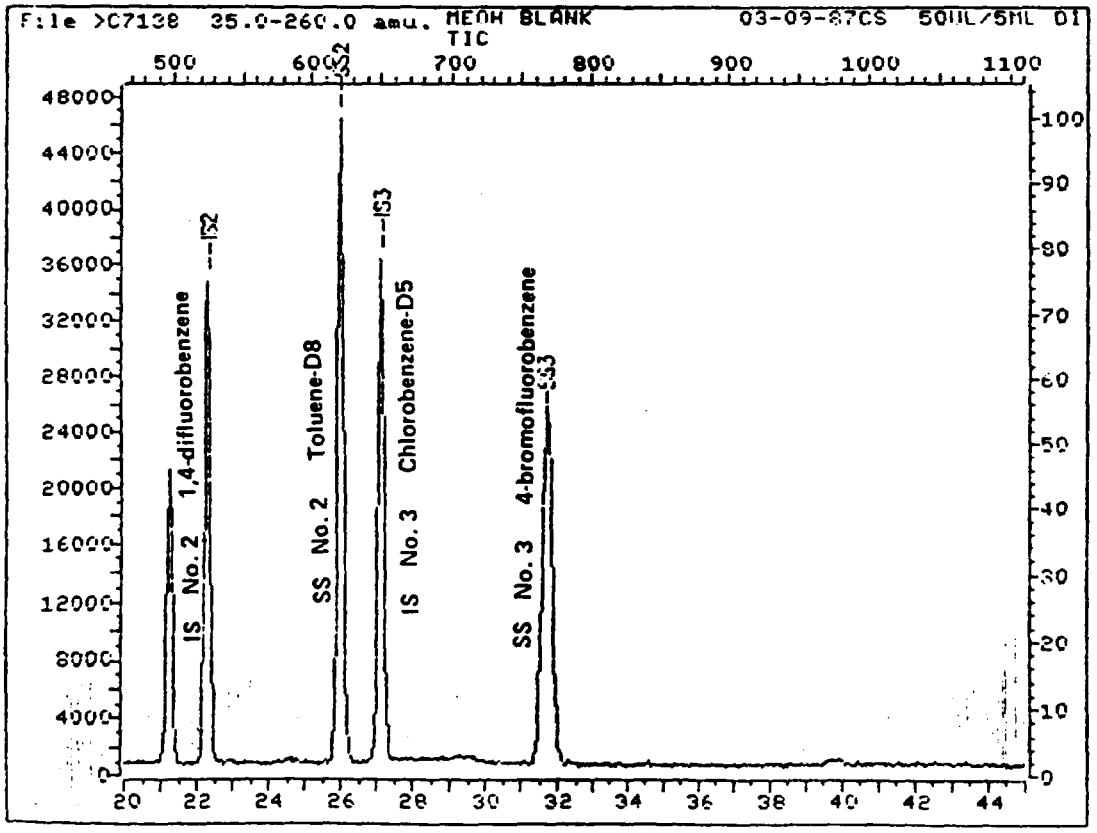
Data File: >C7138::D3
Name: MEOH BLANK
Misc: 03-09-87CS 50UL/5ML DI + 10UL IS/SS

Id File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870309 12:26

Operator ID: USER8
Quant Time: 870309 13:04
Injected at: 870309 12:18

C7138


File >C7138 35.0-260.0 amu. MEOH BLANK 03-09-87CS 50UL/5ML DI
TIC
IS No. 1 Bromochloromethane
SS No. 1 1,2-dichloroethane-D4
SS1


File >C7138 35.0-260.0 amu. MEOH BLANK 03-09-87CS 50UL/5ML DI
TIC
IS No. 2 1,4-difluorobenzene
IS2
SS No. 2 Toluene-D8
SS2
IS No. 3 Chlorobenzene-D5
IS3
SS No. 3 4-bromofluorobenzene
SS3

:LSTGA

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870309 13:04
Output File: ^C7138::Q2 Injected at: 870309 12:18
Data File: >C7138::D3 Dilution Factor: 1.00
Name: MEOH BLANK
Misc: 03-09-87CS 50UL/5ML DI + 10UL IS/SS

ID File: VOACR::D2
Title: VOA ID FILE FOR HP-5995 (CONT. CAL.)
Last Calibration: 870309 12:26

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	11.69	252	28371	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	8.35	166	1769	1.58 UG/L	100
7)	ACETONE		43	9.43	194	8993	15.93 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	14.52	325	68917	46.54 UG/L 94 ✓	86
16)	*1,4-DIFLUOROBENZENE	(IS)	114	22.28	525	144946	50.00 UG/L	100
17)	2-BUTANONE		72	14.71	330	3727	27.96 UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	27.13	650	122780	50.00 UG/L	100
36)	TOLUENE-D8	(SURR)	98	25.96	620	181482	48.55 UG/L 98 ✓	93
40)	4-BROMOFLUOROBENZENE	(SURR)	95	31.68	767	86173	45.29 UG/L 90 ✓	100

* Compound is ISTD

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number D1885

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 02-16-87

Date Analyzed 03-04-87

Conc/Dil Factor 2

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2 4-Dinitrophenol	16000u
100-02-7	4-Nitrophenol	16000u
132-64-9	Dibenzofuran	3300u
121-14-2	2 4-Dinitrotoluene	3300u
606-20-2	2 6-Dinitrotoluene	3300u
84-66-2	Diethylphthalate	3300u
7005-72-3	4-Chlorophenyl-phenylether	3300u
86-73-7	Fluorene	3300u
100-01-6	4-Nitroaniline	16000u
534-52-1	4 6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	16000u
85-01-8	Phenanthrene	3300u
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	3300u
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	3300u
95-68-7	Butylbenzylphthalate	3300u
91-94-1	3 3-Dichlorobenzidine	6600u
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	3300u
218-01-9	Chrysene	3300u
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1,2,3-cd)Pyrene	3300u
53-70-3	Dibenz(a,h)Anthracene	3300u
191-24-2	Benzo(g,h,i)Perylene	3300u

(1)-Cannot be separated from diphenylamine

Laboratory Name Ecology & Environment

Case No 4-4906,4928, 4971, 4989

Sample Number D1885

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in BNA fraction			
2.				
3.				
4.				
5.				
6.				
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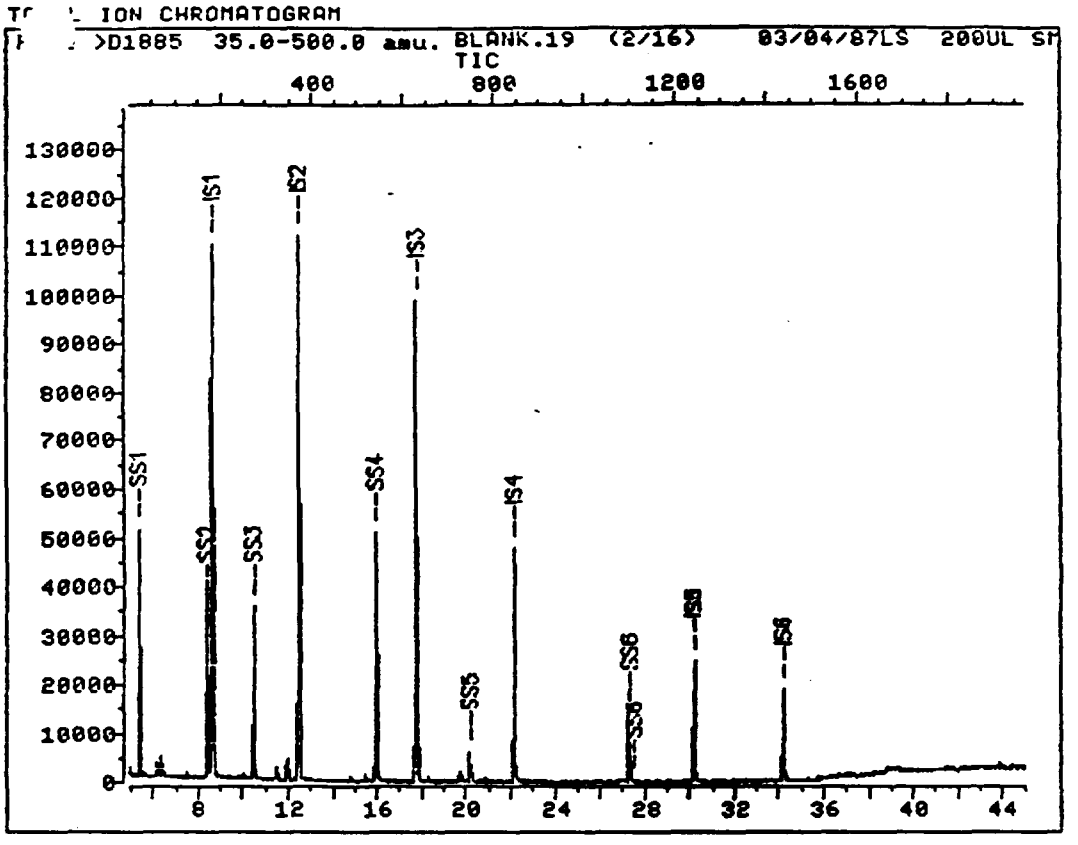
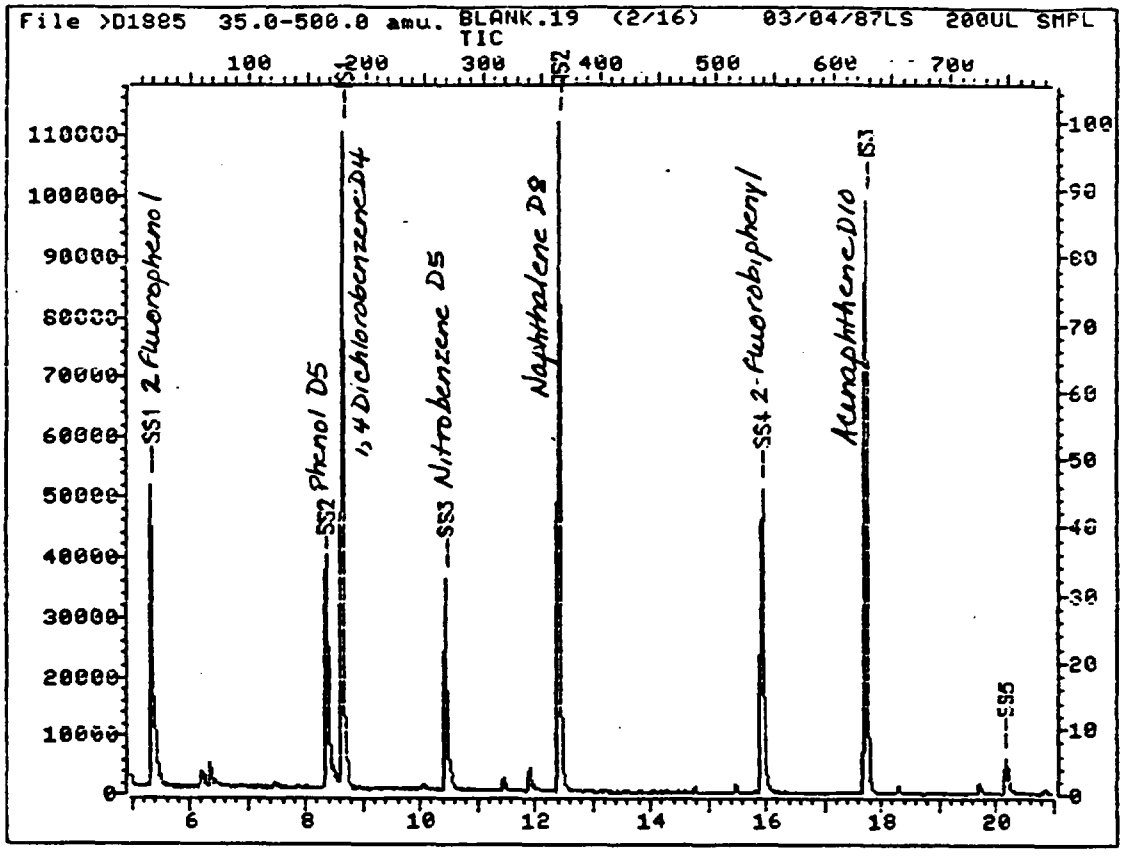
30				



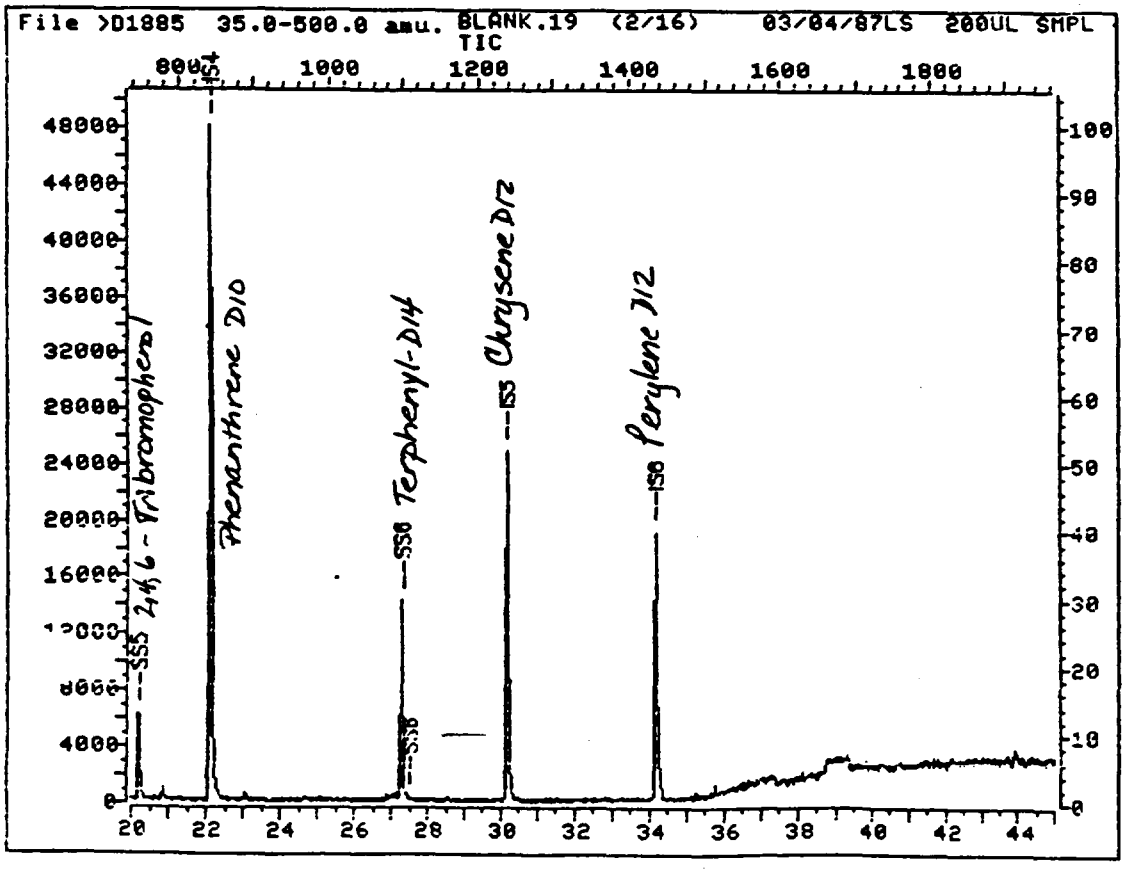
Data File: >D1885::D3
Name: BLANK.19 (2/16)
Misc: 03/04/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870304 18:41

Operator ID: USER6
Quant Time: 870304 20:19
Injected at: 870304 17:43


File >D1885 35.0-500.0 amu. BLANK.19 (2/16) 03/04/87LS 200UL SMPL
TIC
SS1 2 Fluorophenol
SS2 Phenol D5
1,4 Dichlorobenzene-D4
SS3 Nitrobenzene D5
Naphthalene D8
SS4 2-Fluorobiphenyl
Acenaphthene D10
SS5

D1885


File >D1885 35.0-500.0 amu. BLANK.19 (2/16) 03/04/87LS 200UL SMPL
TIC
SS5 2,4,6-Tribromophenol
Phenanthrene D10
SS6 Terphenyl-D14
Chrysene D12
Perylene D12

U-4906

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870304 20:19
Output File: ^D1885::Q2 Injected at: 870304 17:43
Data File: >D1885::D3 Dilution Factor: 2.00
Name: BLANK.19 (2/16)
Misc: 03/04/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870304 18:41

	Compound			R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.65	181	49052	40.00	UG/L	85
2)	PHENOL-D5	(SURR)	99	8.34	166	53455	62.02	UG/L	91
5)	2-FLUOROPHENOL	(SURR)	112	5.33	18	38508	66.01	UG/L	70
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.44~~	~~269~~	~~5717~~	~~7.60~~	~~UG/L~~	90
19)	*NAPHTHALENE-D8	(IS)	136	12.42	366	155691	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.44	269	35441	45.84	UG/L	93
34)	*ACENAPHTHENE-D10	(IS)	162	17.74	627	63544	40.00	UG/L	95
38)	2-FLUOROBIPHENYL	(SURR)	172	15.94	539	54311	45.08	UG/L	90
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.74~~	~~627~~	~~12030~~	~~14.57~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.18	747	4377	31.57	UG/L	98
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.74~~	~~627~~	~~8319~~	~~47.75~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.11	842	66233	40.00	UG/L	86
65)	*CHRYSENE-D12	(IS)	240	30.16	1237	40274	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.29	1096	20292	50.55	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.51	1107	86	.21	UG/L	100
74)	*PERYLENE-D12	(IS)	264	34.17	1434	32640	40.00	UG/L	100

* Compound is ISTD

Laboratory Name Ecology & Environment

Case No U-4906, 4928, 4971, 4989

Sample Number D1898

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 02-19-87

Date Analyzed: 03-05-87

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2,4-Dinitrophenol	16000u
100-02-7	4-Nitrophenol	16000u
132-64-9	Dibenzofuran	3300u
121-14-2	2,4-Dinitrotoluene	3300u
606-20-2	2,6-Dinitrotoluene	3300u
84-66-2	Diethylphthalate	1200 J
7005-72-3	4-Chlorophenyl-phenylether	3300u
86-73-7	Fluorene	3300u
100-01-6	4-Nitroaniline	16000u
534-52-1	4,6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	16000u
85-01-8	Phenanthrene	3300u
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	3300u
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	3300u
85-68-7	Butylbenzylphthalate	3300u
91-94-1	3,3'-Dichlorobenzidine	6600u
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	1500 J
218-01-9	Chrysene	3300u
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1,2,3-cd)Pyrene	3300u
53-70-3	Dibenzo(a,h)Anthracene	3300u
191-24-2	Benzo(g,h,i)Perylene	3300u

(1)-Cannot be separated from diphenylamine

Laboratory Name Ecology & Environment

ase No U-4906,4928, 4971, 4989

Sample Number D1898

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 TIC's in BNA fraction			
2.				
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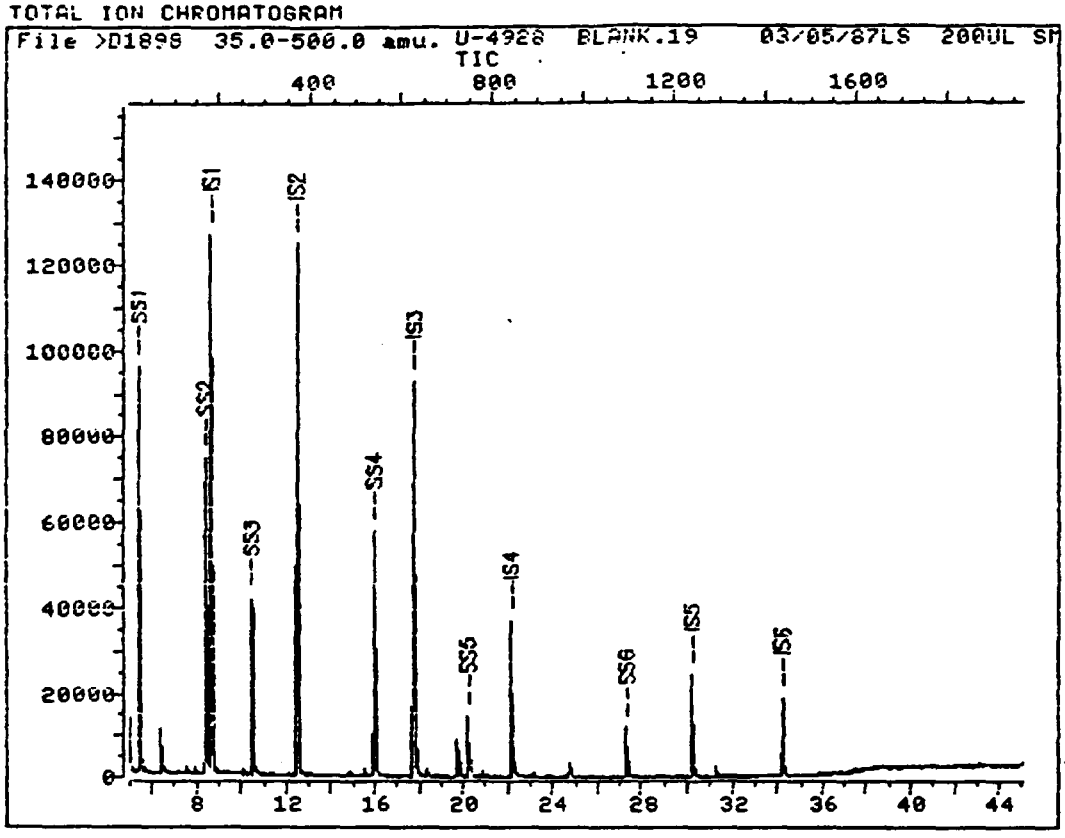
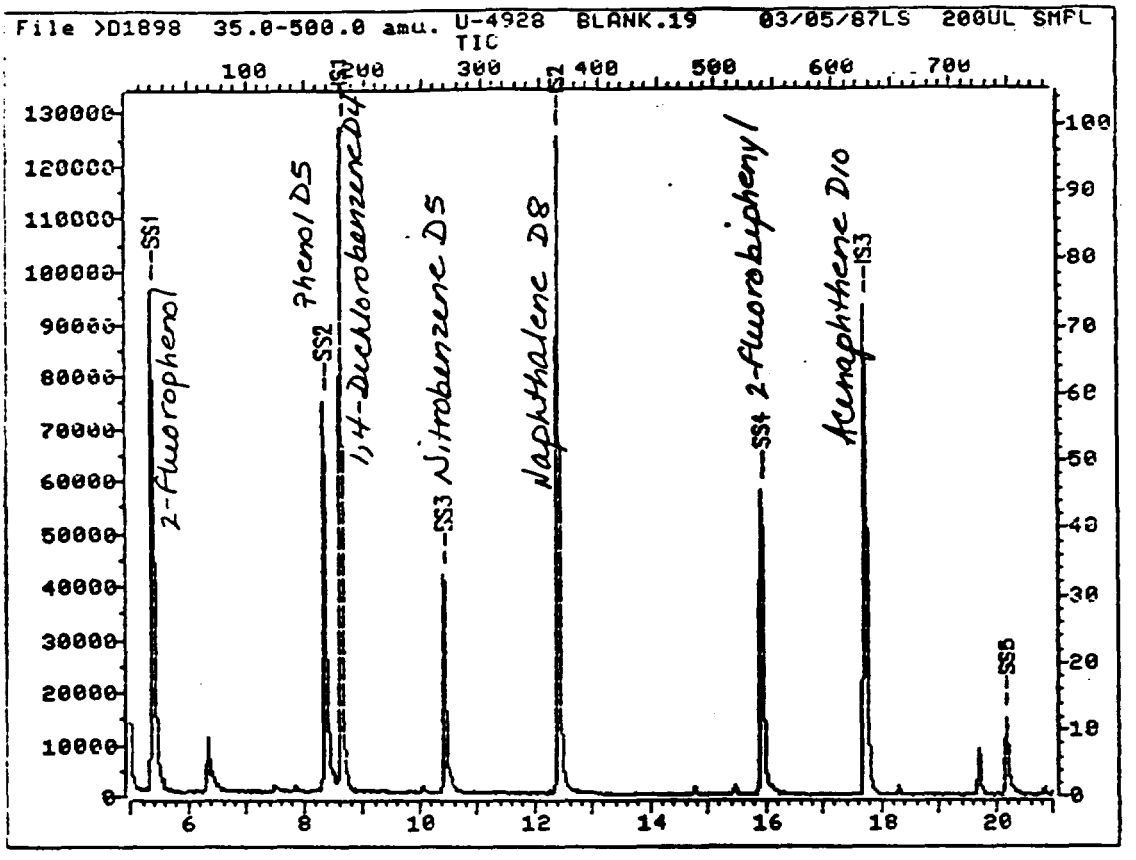
TOTAL ION CHROMATOGRAM



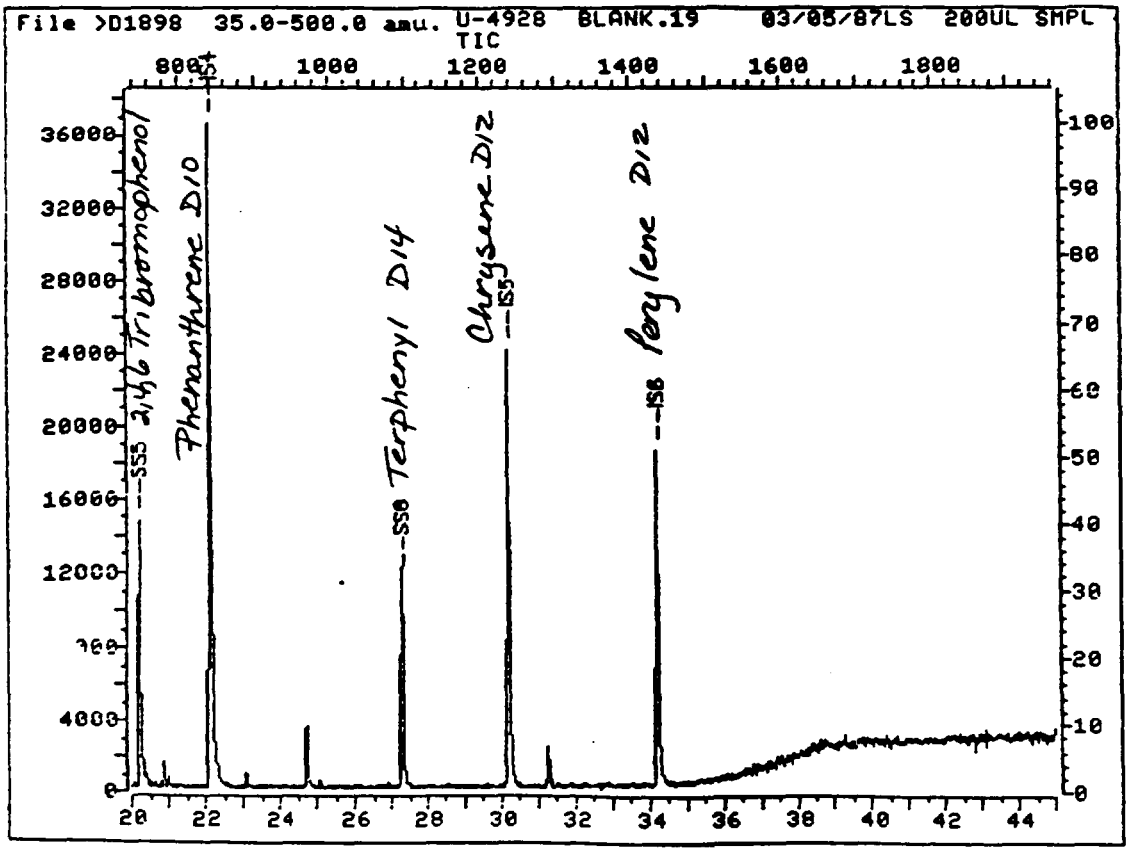
Data File: >D1898::D3
Name: U-4928 BLANK.19
Misc: 03/05/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

Operator ID: USER6
Quant Time: 870305 17:48
Injected at: 870305 17:00


File >D1898 35.0-500.0 amu. U-4928 BLANK.19 03/05/87LS 200UL SMPL
TIC
2-Fluorophenol
Phenol D5
1,4-Dichlorobenzene D4
Nitrobenzene D5
Naphthalene D8
2-Fluorobiphenyl
Acenaphthene D10
SS1
SS2
SS3
SS4
SS5
IS1
IS2
IS3

D1898


File >D1898 35.0-500.0 amu. U-4928 BLANK.19 03/05/87LS 200UL SMPL
TIC
2,4,6 Tribromophenol
Phenanthrene D10
Terphenyl D14
Chrysene D12
Perylene D12
SS5
SS6
IS4
IS5
IS6

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870305 17:48
Output File: ^D1898::D2 Injected at: 870305 17:00
Data File: >D1898::D3 Dilution Factor: 2.00
Name: U-4928 BLANK.19
Misc: 03/05/87LS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870305 17:22

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.65	188	53808	40.00 UG/L	89
2)	PHENOL-D5	(SURR)	99	8.36	166	81693	79.81 UG/L ✓	88
5)	2-FLUOROPHENOL	(SURR)	112	5.39	20	66141	143.44 UG/L HIGH	64
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.44~~	~~268~~	~~8398~~	~~10.23 UG/L~~	~~80~~
19)	*NAPHTHALENE-D8	(IS)	136	12.41	365	182332	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.44	268	48061	49.49 UG/L 99 ✓	96
34)	*ACENAPHTHENE-D10	(IS)	162	17.73	626	65883	40.00 UG/L	95
38)	2-FLUOROBIPHENYL	(SURR)	172	15.94	538	66719	50.15 UG/L 100 ✓	97
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.73~~	~~626~~	~~12409~~	~~12.88 UG/L~~	~~100~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.19	747	9781	63.73 UG/L ✓	94
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.73~~	~~626~~	~~8422~~	~~43.50 UG/L~~	~~100~~
53)	DIETHYLPHTHALATE		149	19.71	723	2573	3.58 UG/L YES	90
55)	*PHENANTHRENE-D10	(IS)	188	22.11	841	63731	40.00 UG/L	93
65)	*CHRYSENE-D12	(IS)	240	30.18	1237	40340	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	27.28	1095	21701	54.82 UG/L 110 ✓	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.25	1290	1722	4.60 UG/L YES	93
74)	*PERYLENE-D12	(IS)	264	34.19	1434	32245	40.00 UG/L	100

* Compound is ISTD

Laboratory Name Ecology & Environment

Case No U-4906, 4928, 4991, 4989

Sample Number D2020

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 02-26-87

Date Analyzed: 03-17-87

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2. 4-Dinitrophenol	16000u
100-02-7	4-Nitrophenol	16000u
132-64-9	Dibenzofuran	3300u
121-14-2	2 4-Dinitrotoluene	3300u
606-20-2	2 6-Dinitrotoluene	3300u
84-66-2	Diethylphthalate	3300u
7005-72-3	4-Chlorophenyl-phenylether	3300u
86-73-7	Fluorene	3300u
100-01-6	4-Nitroaniline	16000u
534-52-1	4. 6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	16000u
85-01-8	Phenanthrene	3300u
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	6500
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	3300u
85-68-7	Butylbenzylphthalate	3300u
91-94-1	3. 3 -Dichlorobenzidine	6600u
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	3300u
218-01-9	Chrysene	3300u
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1 2. 3-cd)Pyrene	3300u
53-70-3	Dibenzo(a h)Anthracene	3300u
191-24-2	Benzo(g h i)Perylene	3300u

(1)-Cannot be separated from diphenylamine

Laboratory Name Ecology & Environment

ıse No V-4906, 4928, 4971, 4989

Sample Number
D2020

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. 544638	Tetradecanoic acid	BNA	24.34	6100 J
2.				
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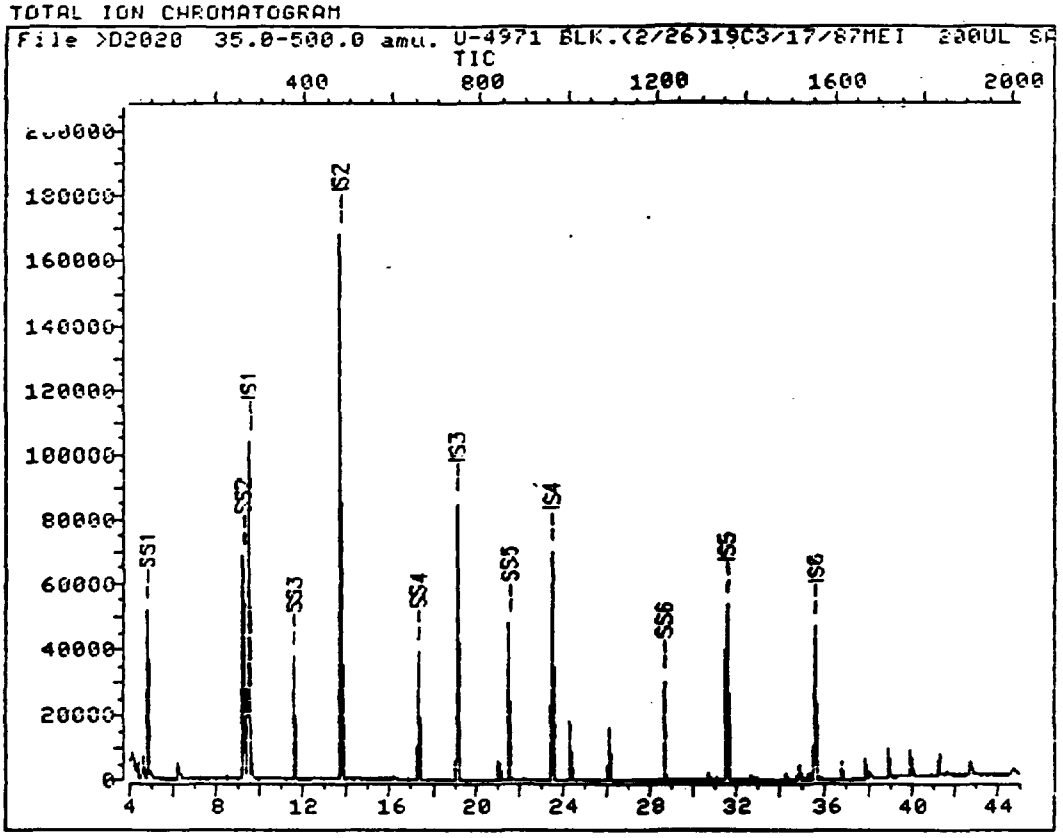
30				

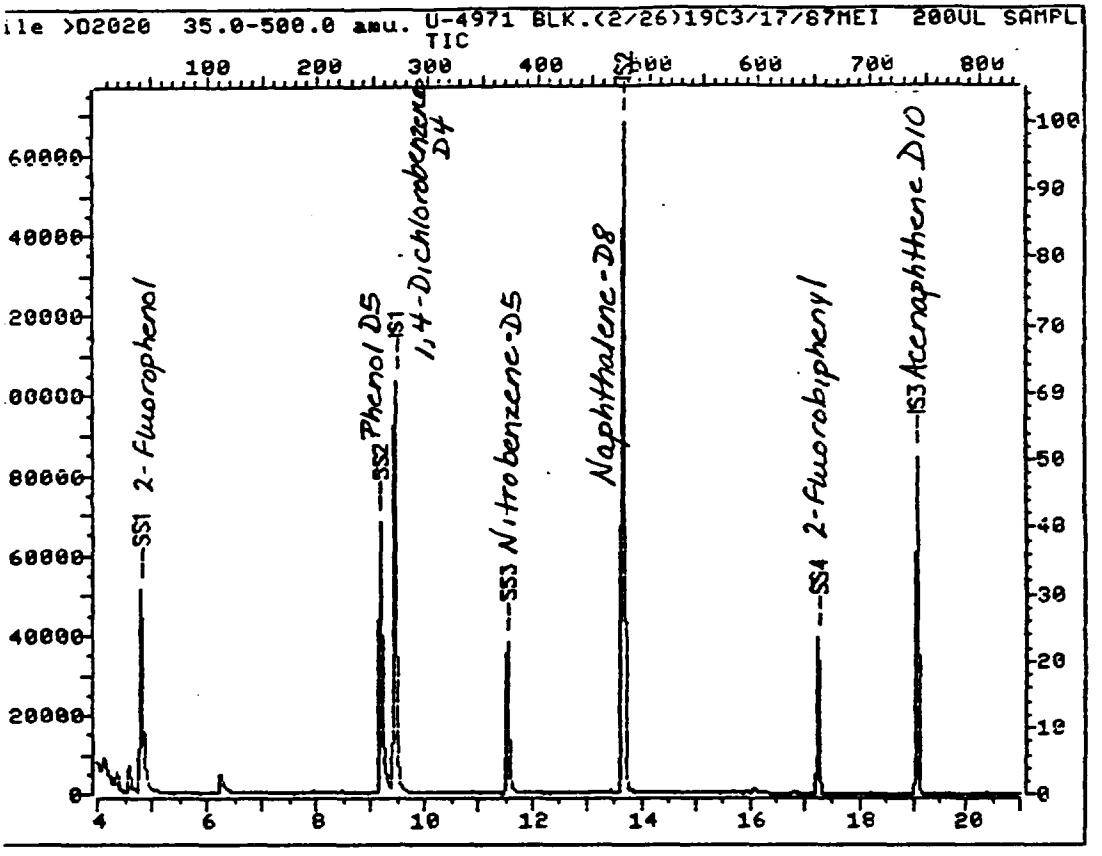
TOTAL ION CHROMATOGRAM



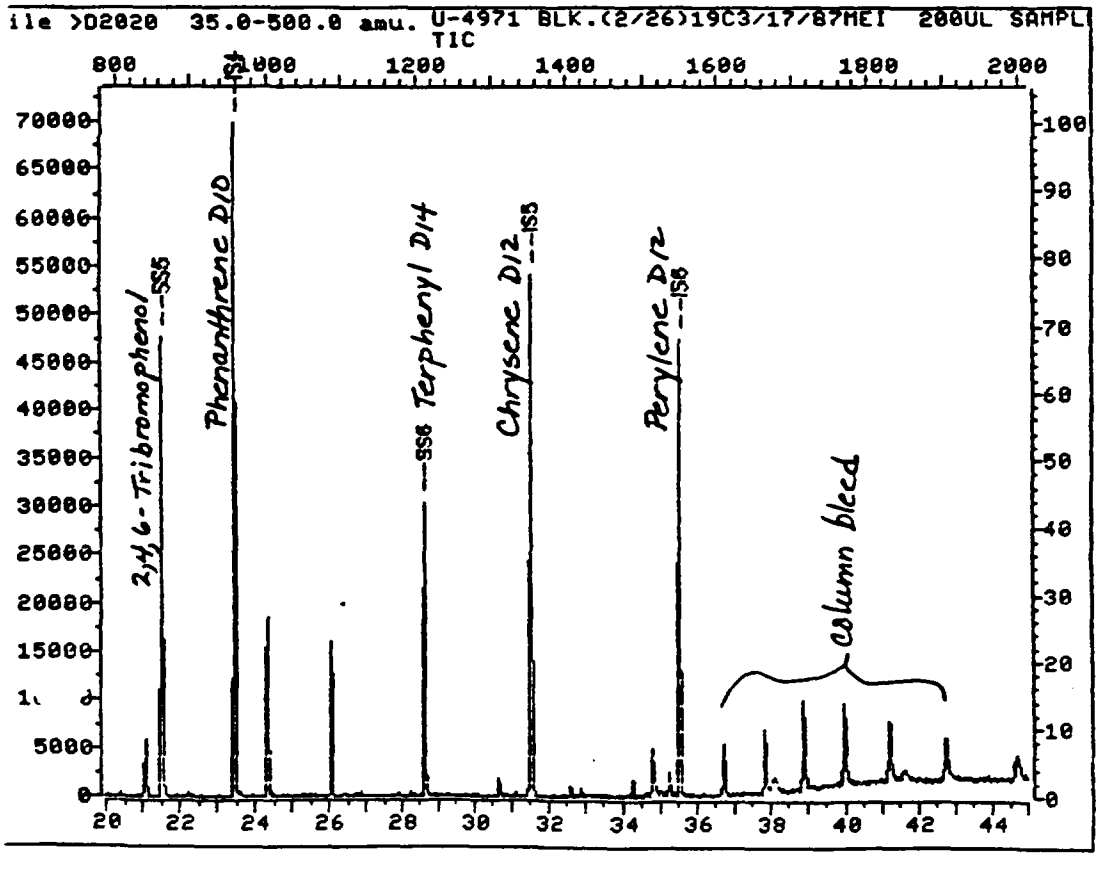
Data File: >D2020::D1
Name: U-4971 BLK.(2/26)19C
Misc: 3/17/87MEI 200UL SAMPLE/200UL MECL2 + 4UL IS(2X) BTL# 1

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870317 16:30

Operator ID: USER8
Quant Time: 870317 17:35
Injected at: 870317 16:48


ile >D2020 35.0-500.0 amu. U-4971 BLK.(2/26)19C3/17/87MEI 200UL SAMPL
TIC
SS1 2-Fluorophenol
SS2 Phenol D5
IS1 1,4-Dichlorobenzene D4
SS3 Nitrobenzene-D5
Naphthalene-D8
SS4 2-Fluorobiphenyl
IS3 Acenaphthene D10

D-2020


ile >D2020 35.0-500.0 amu. U-4971 BLK.(2/26)19C3/17/87MEI 200UL SAMPL
TIC
2,4,6-Tribromophenol SS5
Phenanthrene D10
SS6 Terphenyl D14
Chrysene D12 IS5
Perylene D12 IS6
column bleed

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870317 17:35
Output File: ^D2020::Q2 Injected at: 870317 16:48
Data File: >D2020::D1 Dilution Factor: 2.00
Name: U-4971 BLK.(2/26)19C
Misc: 3/17/87MEI 200UL SAMPLE/200UL MECL2 + 4UL IS(2X) BTL# 1

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870317 16:30

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.47	270	54467	40.00 UG/L	86
2)	PHENOL-D5	(SURR)	99	9.18	256	71701	69.97 UG/L 90%	95
5)	2-FLUOROPHENOL	(SURR)	112	4.78	40	45758	70.32 UG/L 70%	80
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.55~~	~~372~~	~~6330~~	~~7.05 UG/L~~	~~94~~
19)	*NAPHTHALENE-D8	(IS)	136	13.66	476	202540	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.55	372	39268	39.33 UG/L 78	91
34)	*ACENAPHTHENE-D10	(IS)	162	19.08	742	52687	40.00 UG/L	94
38)	2-FLUOROBIPHENYL	(SURR)	172	17.27	653	35915	45.52 UG/L 92	92
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.08~~	~~742~~	~~10776~~	~~12.48 UG/L~~	~~100~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.53	862	26878	171.09 UG/L 171%	97 High
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.08~~	~~742~~	~~6902~~	~~33.09 UG/L~~	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	23.46	957	89012	40.00 UG/L	92
63)	DI-N-BUTYLPHTHALATE		149	26.07	1085	22463	19.37 UG/L 4	99
65)	*CHRYSENE-D12	(IS)	240	31.53	1353	74469	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.64	1211	37909	33.09 UG/L 66	100
74)	*PERYLENE-D12	(IS)	264	35.54	1550	66132	40.00 UG/L	100

* Compound is ISTD

Laboratory Name Ecology & Environment

Case No U-4906, 4928, 4971, 4989

Sample Number D2021

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 03-03-87

Date Analyzed: 03-17-87

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	3300u
51-28-5	2,4-Dinitrophenol	16000u
100-02-7	4-Nitrophenol	16000u
132-64-9	Dibenzofuran	3300u
121-14-2	2,4-Dinitrotoluene	3300u
606-20-2	2,6-Dinitrotoluene	3300u
84-66-2	Diethylphthalate	3300u
7005-72-3	4-Chlorophenyl-phenylether	3300u
86-73-7	Fluorene	3300u
100-01-6	4-Nitroaniline	16000u
534-52-1	4,6-Dinitro-2-Methylphenol	16000u
86-30-6	N-Nitrosodiphenylamine (1)	3300u
101-55-3	4-Bromophenyl-phenylether	3300u
118-74-1	Hexachlorobenzene	3300u
87-86-5	Pentachlorophenol	16000u
85-01-8	Phenanthrene	3300u
120-12-7	Anthracene	3300u
84-74-2	Di-n-Butylphthalate	4000
206-44-0	Fluoranthene	3300u
129-00-0	Pyrene	3300u
85-68-7	Butylbenzylphthalate	3300u
91-94-1	3,3'-Dichlorobenzidine	6600u
56-55-3	Benzo(a)Anthracene	3300u
117-81-7	bis(2-Ethylhexyl)Phthalate	3300u
218-01-9	Chrysene	3300u
117-84-0	Di-n-Octyl Phthalate	3300u
205-99-2	Benzo(b)Fluoranthene	3300u
207-08-9	Benzo(k)Fluoranthene	3300u
50-32-8	Benzo(a)Pyrene	3300u
193-39-5	Indeno(1,2,3-cd)Pyrene	3300u
53-70-3	Dibenz(a,h)Anthracene	3300u
191-24-2	Benzo(g,h,i)Perylene	3300u

(1)-Cannot be separated from diphenylamine

Laboratory Name Ecology & Environment

Case No V-4906, 4928, 4971, 4989

Sample Number D2021

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	21.10	6200 J
2.	Unknown	BNA	24.34	8200 J
3.				
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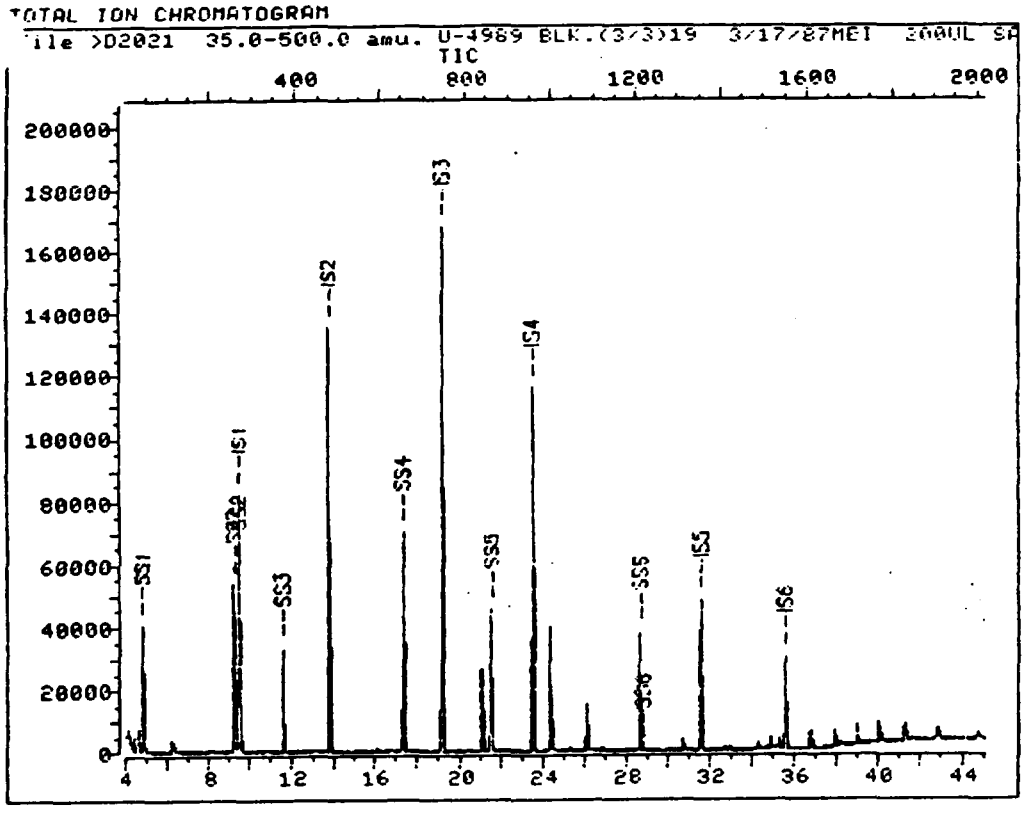
29.				
30				

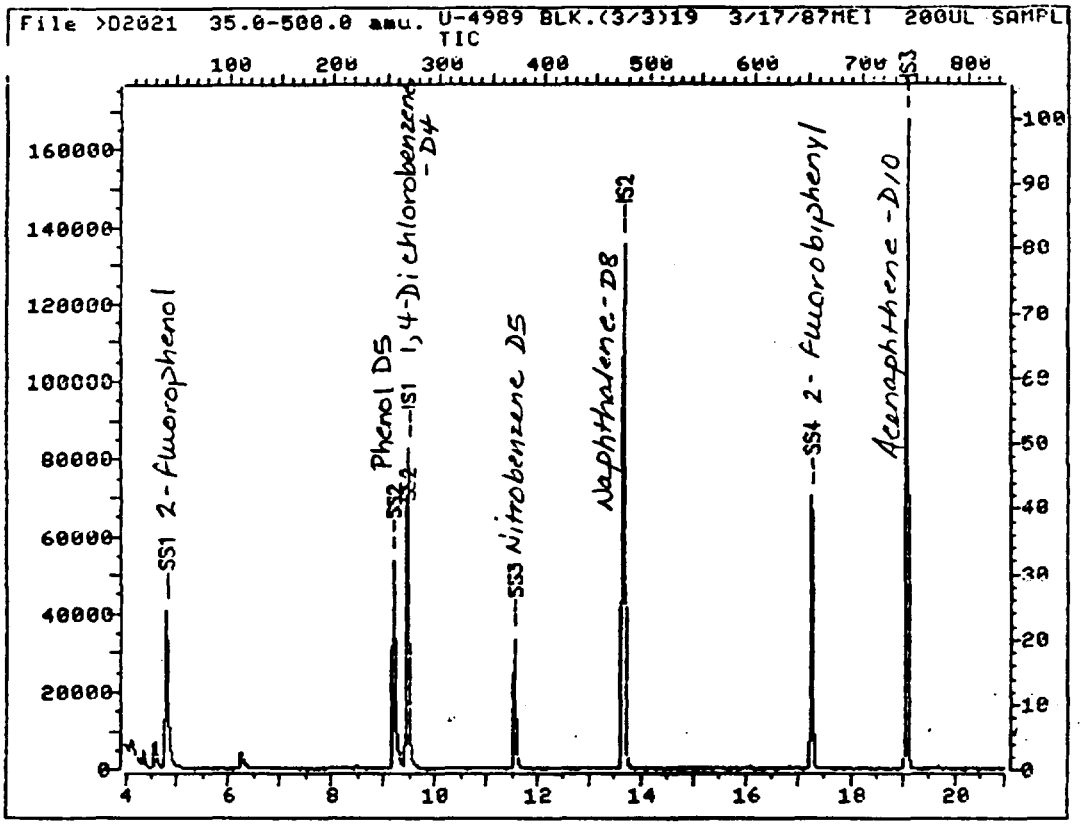


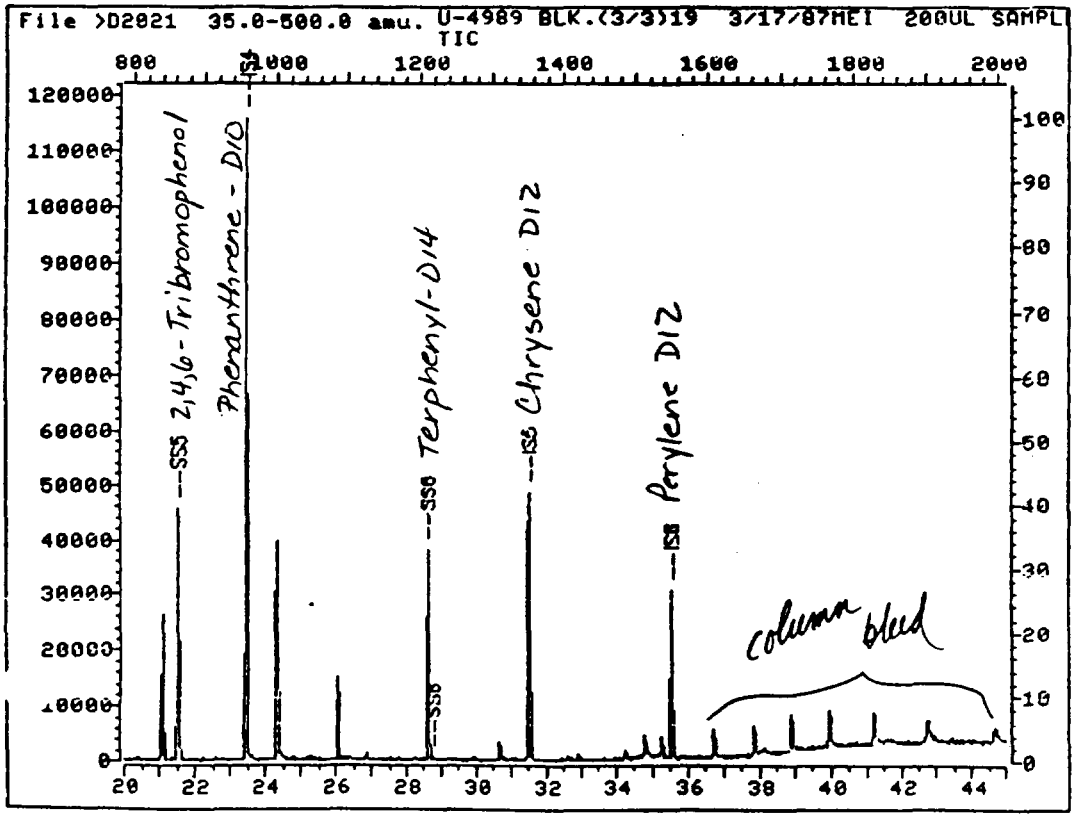
Data File: >D2021::D1
Name: U-4989 BLK.(3/3)19
Misc: 3/17/87MEI 200UL SAMPLE/200UL MECL2 + 4UL IS(2X) BTL# 2

Id File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870317 16:30

Operator ID: USER8
Quant Time: 870317 18:32
Injected at: 870317 17:44

D2021


File >D2021 35.0-500.0 amu. U-4989 BLK.(3/3)19 3/17/87MEI 200UL SAMPL
TIC
SS1 2-Fluorophenol
SS2 Phenol D5
IS1 1,4-Dichlorobenzene - D4
SS3 Nitrobenzene D5
IS2 Naphthalene-D8
SS4 2-Fluorobiphenyl
IS3 Acenaphthene-D10


File >D2021 35.0-500.0 amu. U-4989 BLK.(3/3)19 3/17/87MEI 200UL SAMPL
TIC
SS5 2,4,6-Tribromophenol
IS4 Phenanthrene - D10
SS6 Terphenyl-D14
IS5 Chrysene D12
IS6 Perylene D12
column bleed

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870317 18:32
Output File: ^D2021::Q2 Injected at: 870317 17:44
Data File: >D2021::D1 Dilution Factor: 2.00
Name: U-4989 BLK.(3/3)19
Misc: 3/17/87MEI 200UL SAMPLE/200UL MECL2 + 4UL IS(2X) BTL# 2

ID File: BNADR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870317 16:30

	Compound		R.T.	Scan#	Area	Conc	Units	q	
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.47	270	42463	40.00	UG/L	87	✓
2)	PHENOL-D5	(SURR)	99	9.18	256	56332	70.51	UG/L	99	
2)	PHENOL-D5	(SURR)	99	9.45	269	1926	2.41	UG/L	91	✓
5)	2-FLUOROPHENOL	(SURR)	112	4.78	40	36000	70.96	UG/L	77	
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.55~~	~~372~~	~~5193~~	~~7.42~~	~~UG/L~~	96	
19)	*NAPHTHALENE-D8	(IS)	136	13.66	476	155885	40.00	UG/L	100	
20)	NITROBENZENE-D5	(SURR)	82	11.55	372	31189	40.58	UG/L	92	✓
34)	*ACENAPHTHENE-D10	(IS)	162	19.08	742	94936	40.00	UG/L	94	
38)	2-FLUOROBIPHENYL	(SURR)	172	17.27	653	63916	44.96	UG/L	94	✓
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~19.08~~	~~742~~	~~10331~~	~~11.78~~	UG/L	100	✓
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.53	862	14750	52.11	UG/L	97	✓
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.08~~	~~742~~	~~12492~~	~~33.24~~	UG/L	100	
55)	*PHENANTHRENE-D10	(IS)	188	23.46	957	132322	40.00	UG/L	96	
63)	DI-N-BUTYLPHTHALATE		149	26.07	1085	20728	12.02	UG/L yes	98	
65)	*CHRYSENE-D12	(IS)	240	31.53	1353	52636	40.00	UG/L	100	
68)	TERPHENYL-D14	(SURR)	244	28.63	1211	35574	43.93	UG/L	100	✓
68)	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~28.76~~	~~1217~~	~~70~~	~~.09~~	~~UG/L~~	100	
74)	*PERYLENE-D12	(IS)	264	35.54	1550	30252	40.00	UG/L	100	

* Compound is ISTD

Laboratory Name Ecology & Environment, Inc

Case No IL-3140

Sample Number
D 2041

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 3-5-87

Date Analyzed 3-17-87

Conc/Dil Factor 2

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

Concentrations reported "as received" basis

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330µ
111-44-4	bis(-2-Chloroethyl)Ether	330µ
95-57-8	2-Chlorophenol	330µ
541-73-1	1 3-Dichlorobenzene	330µ
106-46-7	1 4-Dichlorobenzene	330µ
100-51-6	Benzyl Alcohol	330µ
95-50-1	1 2-Dichlorobenzene	330µ
95-48-7	2-Methylphenol	330µ
39638-32-9	bis(2-chloroisopropyl)Ether	330µ
106-44-5	4-Methylphenol	330µ
621-64-7	N-Nitroso-Di-n-Propylamine	330µ
67-72-1	Hexachloroethane	330µ
98 95-3	Nitrobenzene	330µ
78 59-1	Isophorone	330µ
88-75-5	2-Nitrophenol	330µ
105-67-9	2 4-Dimethylphenol	330µ
65-85-0	Benzoic Acid	1600µ
111-91-1	bis(-2-Chloroethoxy)Methane	330µ
120-83-2	2 4-Dichlorophenol	330µ
120-82-1	1 2 4-Trichlorobenzene	330µ
91-20-3	Naphthalene	330µ
106-47-8	4-Chloroaniline	330µ
87-68-3	Hexachlorobutadiene	330µ
59-50-7	4-Chloro-3-Methylphenol	330µ
91-57-6	2-Methylnaphthalene	330µ
77-47-4	Hexachlorocyclopentadiene	330µ
88-06-2	2 4 6-Trichlorophenol	330µ
95 95-4	2 4 5-Trichlorophenol	1600µ
91-58-7	2-Chlorohaphthalene	330µ
88-74-4	2-Nitroaniline	1600µ
131-11-3	Dimethyl Phthalate	330µ
208-96-8	Acenaphthylene	330µ
99-09-2	3-Nitroaniline	1600µ

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330µ
51-28-5	2 4-Dinitrophenol	1600µ
100-02-7	4-Nitrophenol	1600µ
132-64-9	Dibenzofuran	330µ
121-14-2	2 4-Dinitrotoluene	330µ
606-20-2	2 6-Dinitrotoluene	330µ
84-66-2	Diethylphthalate	330µ
7005-72-3	4-Chlorophenyl-phenylether	330µ
86-73-7	Fluorene	330µ
100-01-6	4-Nitroaniline	1600µ
534-52-1	4 6-Dinitro-2-Methylphenol	1600µ
86-30-6	N-Nitrosodiphenylamine (1)	330µ
101-55-3	4-Bromophenyl-phenylether	330µ
118-74-1	Hexachlorobenzene	330µ
87-86-5	Pentachlorophenol	1600µ
85-01-8	Phenanthrene	330µ
120-12-7	Anthracene	330µ
84-74-2	Di-n-Butylphthalate	330µ
206-44-0	Fluoranthene	330µ
129-00-0	Pyrene	330µ
85-68-7	Butylbenzylphthalate	330µ
91-94-1	3 3'-Dichlorobenzidine	660µ
56-55-3	Benzo(a)Anthracene	330µ
117-81-7	bis(2-Ethylhexyl)Phthalate	330µ
218-01-9	Chrysene	330µ
117-84-0	Di-n-Octyl Phthalate	330µ
205-99-2	Benzo(b)Fluoranthene	330µ
207-08-9	Benzo(k)Fluoranthene	330µ
50-32-8	Benzo(a)Pyrene	330µ
193-39-5	Indeno(1,2,3-cd)Pyrene	330µ
53-70-3	Dibenz(a,h)Anthracene	330µ
191-24-2	Benzo(g,h,i)Perylene	330µ

(1)-Cannot be separated from diphenylamine

Laboratory Name Ecology & Environment

Case No V-4906, 4928, 4971, 4989

Sample Number D2041

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 TIC's in BNA fraction			
2.				
3.				
4.				
5.				
6.				
7				
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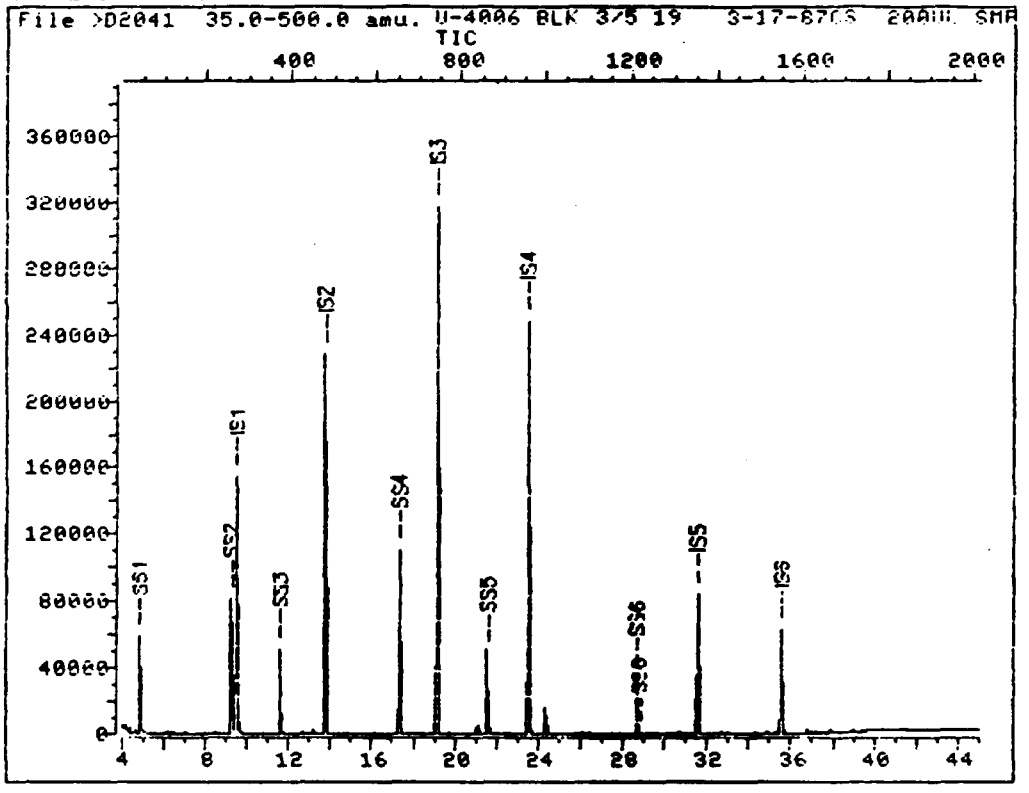
30				

TOTAL ION CHROMATOGRAM

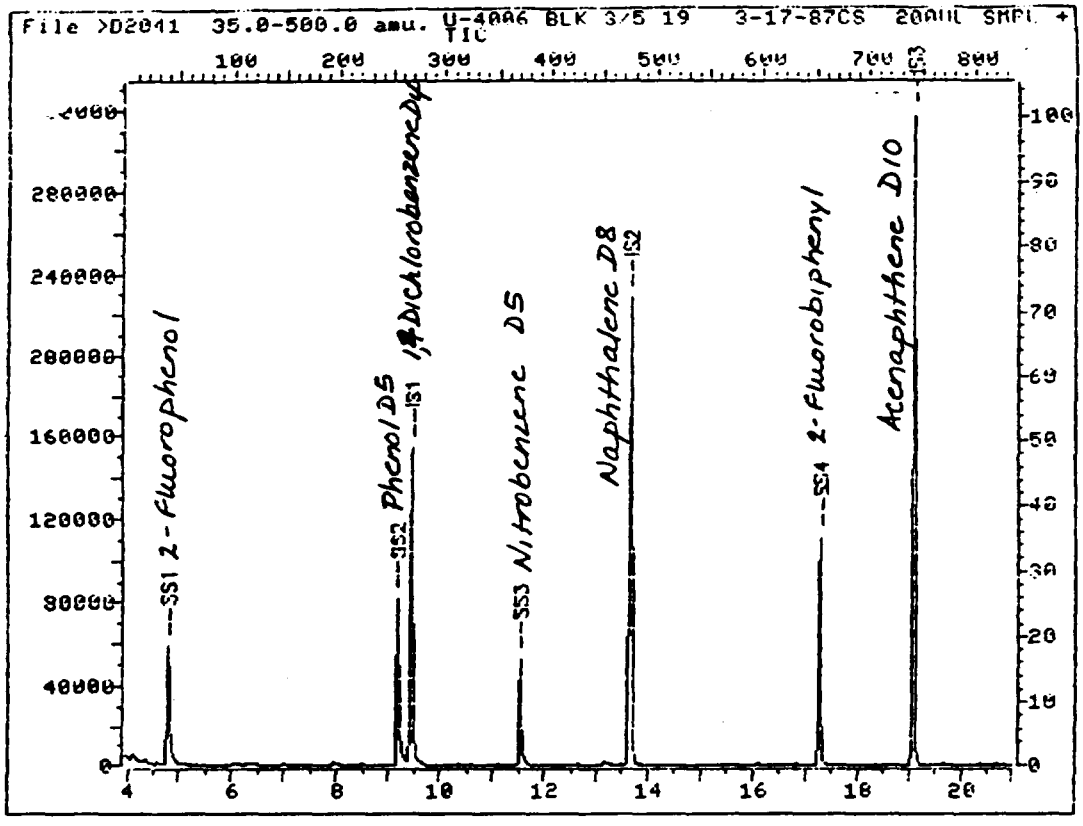


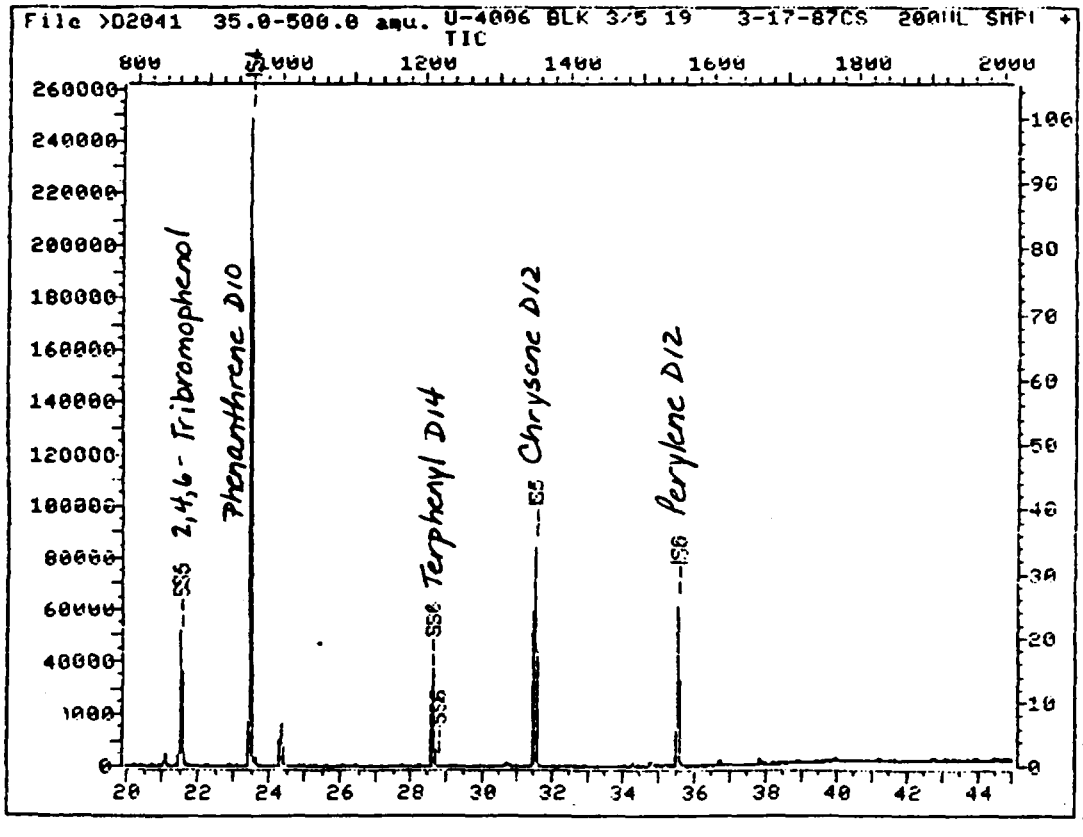
Data File: >D2041
Name: U-4006 BLK 3/5 19
Misc: 3-17-87CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BTL# 1

Id File: BNAUR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870318 14:12

Operator ID: USER8
Quant Time: 870318 14:52
Injected at: 870318 14:04

D 2041


File >D2041 35.0-500.0 amu. U-4006 BLK 3/5 19 3-17-87CS 200UL SMPL +
TIC
SS1 2-Fluorophenol
SS2 Phenol D5
IS1 1,4-Dichlorobenzene D4
SS3 Nitrobenzene D5
Naphthalene D8
IS2
SS4 2-Fluorobiphenyl
Acenaphthene D10
IS3


File >D2041 35.0-500.0 amu. U-4006 BLK 3/5 19 3-17-87CS 200UL SMPL +
TIC
SS5 2,4,6-Tribromophenol
Phenanthrene D10
IS4
SS6 Terphenyl D14
SS6
IS5 Chrysene D12
IS6 Perylene D12

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870318 14:52
Output File: ^D2041::D3 Injected at: 870318 14:04
Data File: >D2041::D1 Dilution Factor: 2.00
Name: U-4006 BLK 3/5 19
Misc: 3-17-87CS 200UL SMPL + 200UL MECL2 + 4UL IS (2X) BIL# 1

ID File: BNAUR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870318 14:12

	Compound		R.T.	Scan#	Area	Conc	Units		q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.47	270	78233	40.00	UG/L	86
2)	PHENOL-D5	(SURR)	99	9.18	256	84220	59.74	UG/L 60	99
5)	2-FLUOROPHENOL	(SURR)	112	4.78	40	49669	54.83	UG/L	77
~~12)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.54~~	~~372~~	~~8102~~	~~6.07~~	~~UG/L~~ NCW	~~98~~
19)	*NAPHTHALENE-D8	(IS)	136	13.66	476	288910	40.00	UG/L 70	100
20)	NITROBENZENE-D5	(SURR)	82	11.54	372	48981	34.80	UG/L	91
34)	*ACENAPHTHENE-D10	(IS)	162	19.10	743	180252	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	17.29	654	98179	35.76	UG/L 72	92
~~41)~~	~~DIMETHYL-PHTHALATE~~		~~163~~	~~19.10~~	~~743~~	~~34160~~	~~11.65~~	~~UG/L~~ NCW	~~100~~
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.53	862	19633	48.13	UG/L 48	98
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~19.10~~	~~743~~	~~23908~~	~~34.32~~	~~UG/L~~ NCW	~~00~~
55)	*PHENANTHRENE-D10	(IS)	188	23.48	958	259377	40.00	UG/L	93
65)	*CHRYSENE-D12	(IS)	240	31.53	1353	93753	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.63	1211	40612	32.49	UG/L 65	100
68)	TERPHENYL-D14	(SURR)	244	28.78	1218	113	.09	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.54	1550	68908	40.00	UG/L	100

* Compound is ISTD

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number BLANK (2/16)

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 2-16-87

Date Analyzed: 2/23/87

Conc/Dil Factor: 1

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1,000 V_i 4

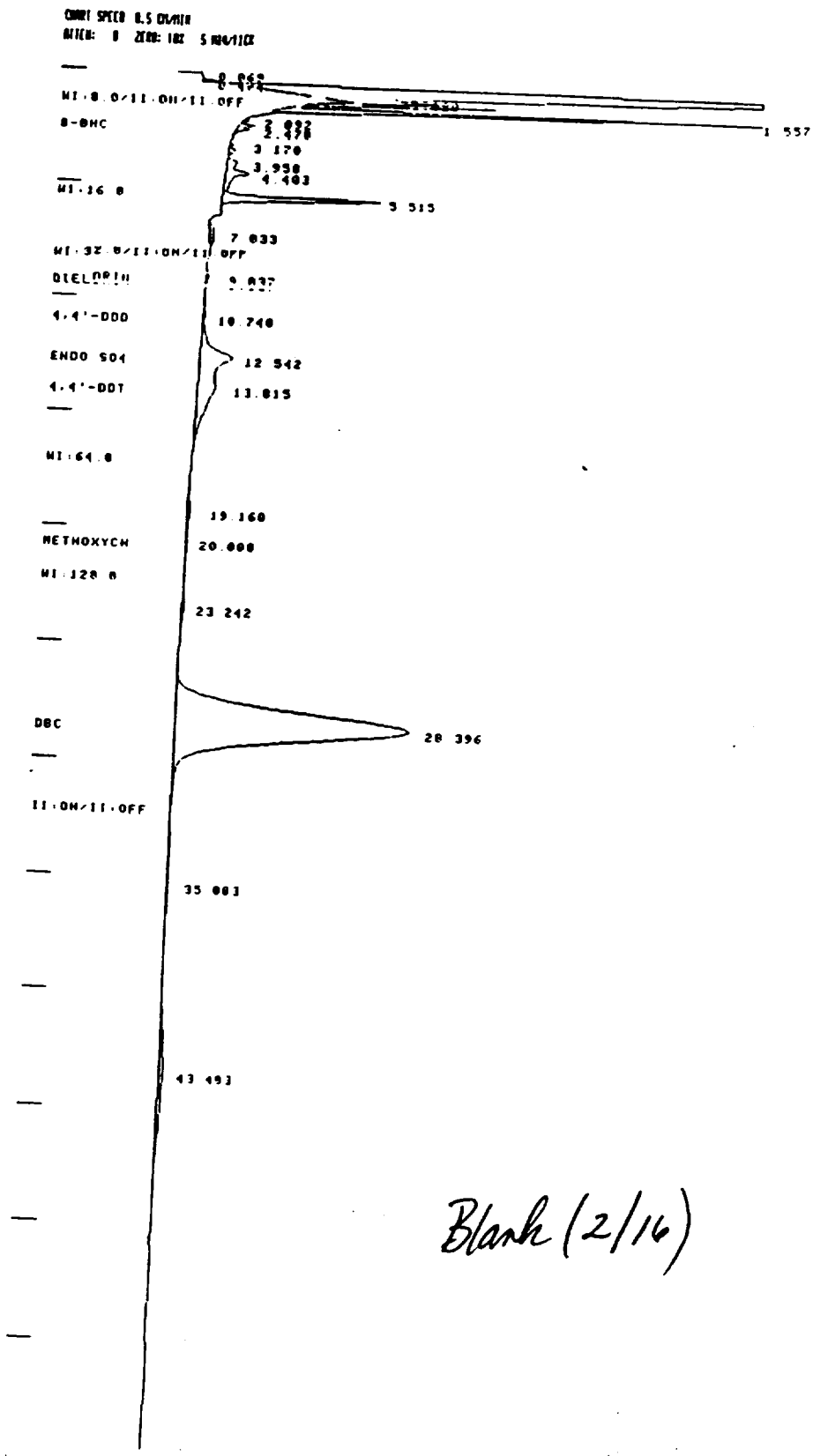


CHART SPEED 0.5 CM/MIN
MI:8.0/II:ON/II:OFF
B-BHC
MI:16.0
MI:32.0/II:ON/II:OFF
DIELDRIN
4,4'-DDD
ENDO SO4
4,4'-DDT
MI:64.0
METHOXYCH
MI:128.0
DBC
II:ON/II:OFF
1.557
3.170
3.515
7.833
10.740
12.542
13.815
19.160
20.000
23.242
28.396
35.003
43.493

Blank (2/16)

CHANNEL: 10 - 1 TITLE: [illegible] 16 21:03 23 FEB 87

SAMPLE: BLANK 2-16 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/[illegible]	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.273		142510	BB	4.00
2		0.0000	1.557		340071	BB	5.00
3	[illegible]	7.2746	3.958	-0.162	24466	BV	? 13.44
4		0.0000	4.403		74491	VV	14.01
5		0.0000	5.515		277414	VB	12.19
6		0.0000	7.033		25200	BB	? 61.69
7	[illegible]	94.7009	12.542	-0.238	253212	VV	46.00
8	[illegible]	81.4954	13.015	-0.375	193117	BB	? 96.00
9	DDC	916.7631	20.396	0.006	2640937	BB	81.00
10		0.0000	35.083		32212	BB	172.00
11		0.0000	43.403		132748	BB	240.00

TOTALS: 1100.241 -0.609 4113170

DETECTED PKS: 27 REJECTED PKS: 16

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

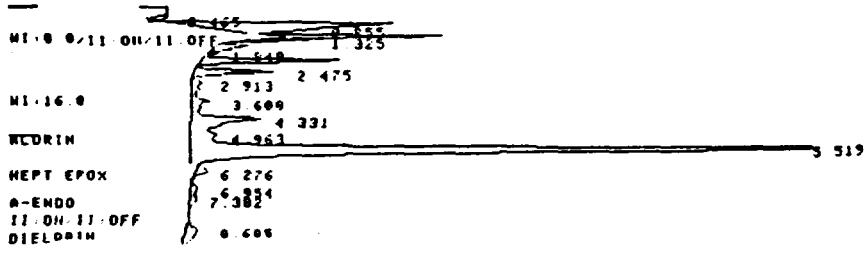
NOISE: 11.4 OFFSET: 6

RACK: 2 VIAL: 1 INJ: 1

NOTES:
NOTEBOOK:259-115,116 ANALYST: RICHARD SAMSON
SECURE AREA: 0 JOBS:0-4872,9906
INST: VARIAN 60004 2A ECD 10X1
COLUMN: 6' GLASS 4M 10 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

POST RUN:
SAVE FILE: PAU DC1100

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



Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number BLANK (2/19)

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-19-87

Date Analyzed 2-24-87

Conc/Dil Factor 1

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

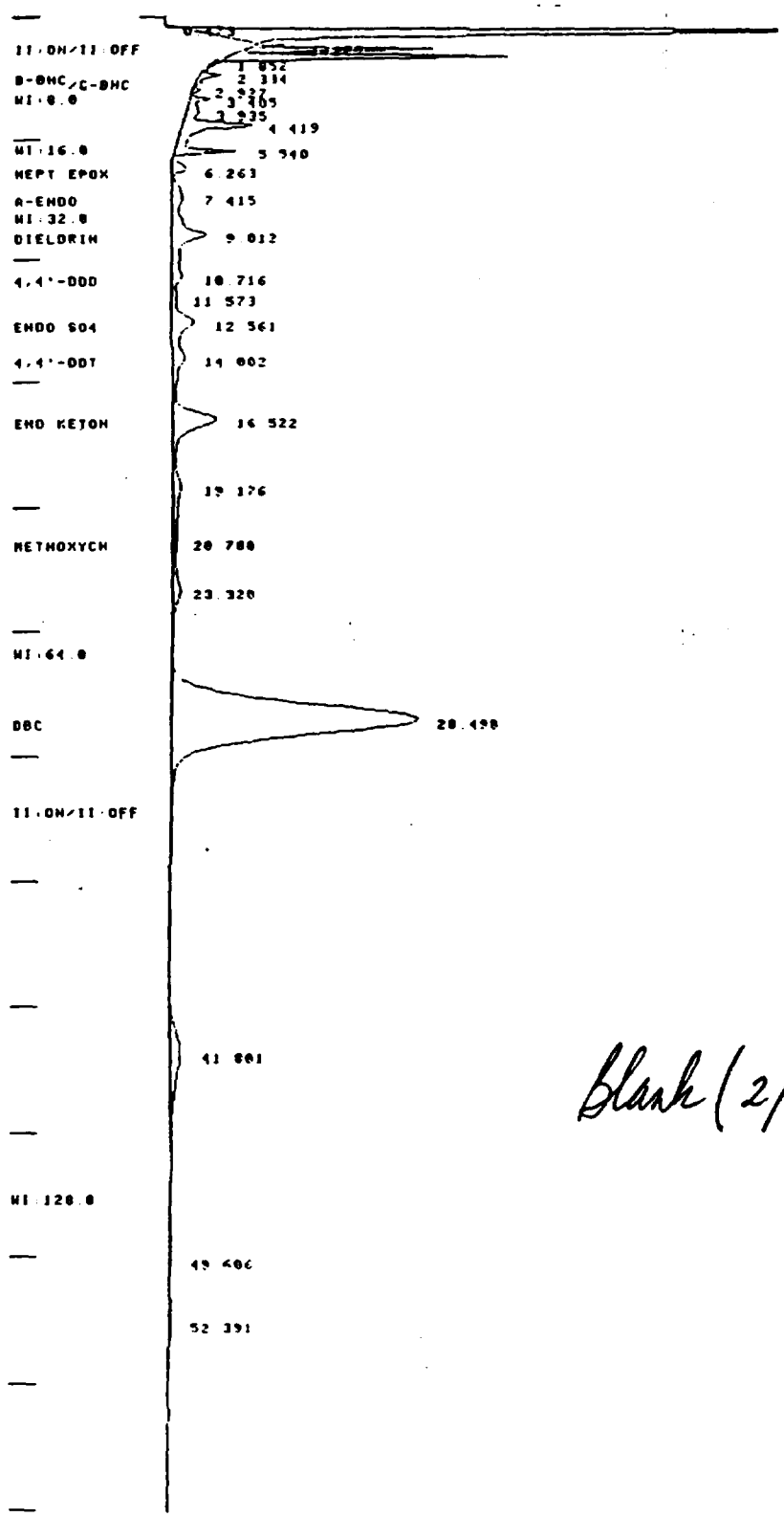
V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

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



Blank (2/19)

CHANNEL: 1A - 1 TITLE: RUN# 14 22:26 24 FEB 87

SAMPLE: BLK METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)

CHANNEL: 1A - 1 TITLE: RUN# 14 22:26 24 FEB 87

SAMPLE: BLK 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	1.279		128937	BV	4.25
2		0.0000	1.566		331923	VB	5.00
3		0.0000	3.405		26158	VV	8.38
4	HEPT-SHLD	7.6123	3.935	-0.195	26804	VV	? 16.81
5		0.0000	4.419		191614	VV	13.81
6		0.0000	5.540		102669	VV	10.94
7	HEPT-EPOX	12.2480	6.263	0.123	43639	VV	27.56
8	A-ENDO	20.9546	7.415	-0.185	71113	VV	? 67.94
9	DIELDRIN	53.0913	9.012	0.172	191435	VV	30.44
10	4,4'-DDD	21.1674	10.716	-0.224	66564	VV	? 54.56
11	ENDO-SO4	53.8611	12.561	-0.289	132881	VV	42.19
12	4,4'-DDT	43.5673	14.002	-0.248	105235	VV	?115.25
13	END KETON	75.3683	16.522	0.112	276412	VV	44.56
14		0.0000	19.176		104410	VV	? 70.19
15	METHOXYCHLOR	30.2533	20.780	-0.120	39290	VV	?
16		0.0000	23.320		81411	VB	? 87.31
17	DBC **	932.1072	28.498	0.018	2598812	BB	81.25
18		0.0000	41.001		169072	BB	163.38
19		0.0000	52.391		22503	VB	?117.63
TOTALS:		1250.231		-0.036	4710882		

DETECTED PKS: 31 REJECTED PKS: 12

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: 10

RACK: 1 VIAL: 14 INJ: 1

NOTES:
NOTEBOOK:259-117,118 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-4928
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C-INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION

POST RUN:
SAVE FILE: RAW TURK212

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

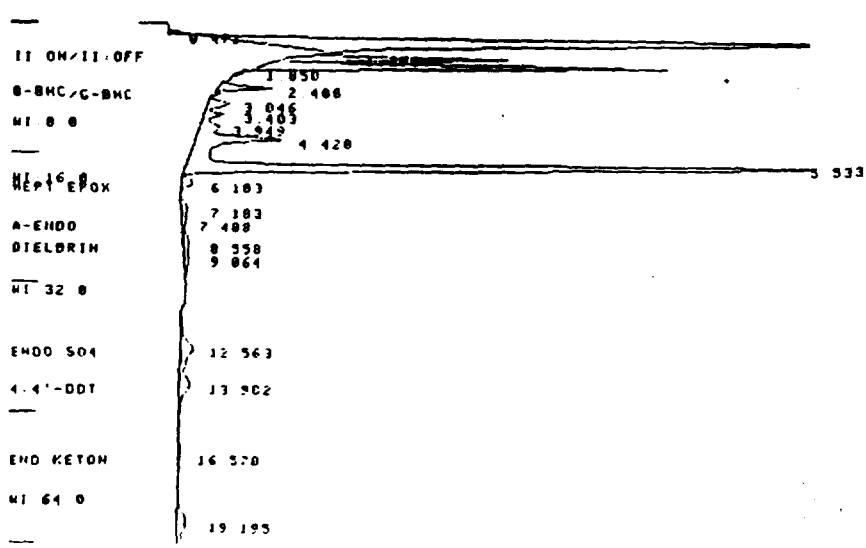
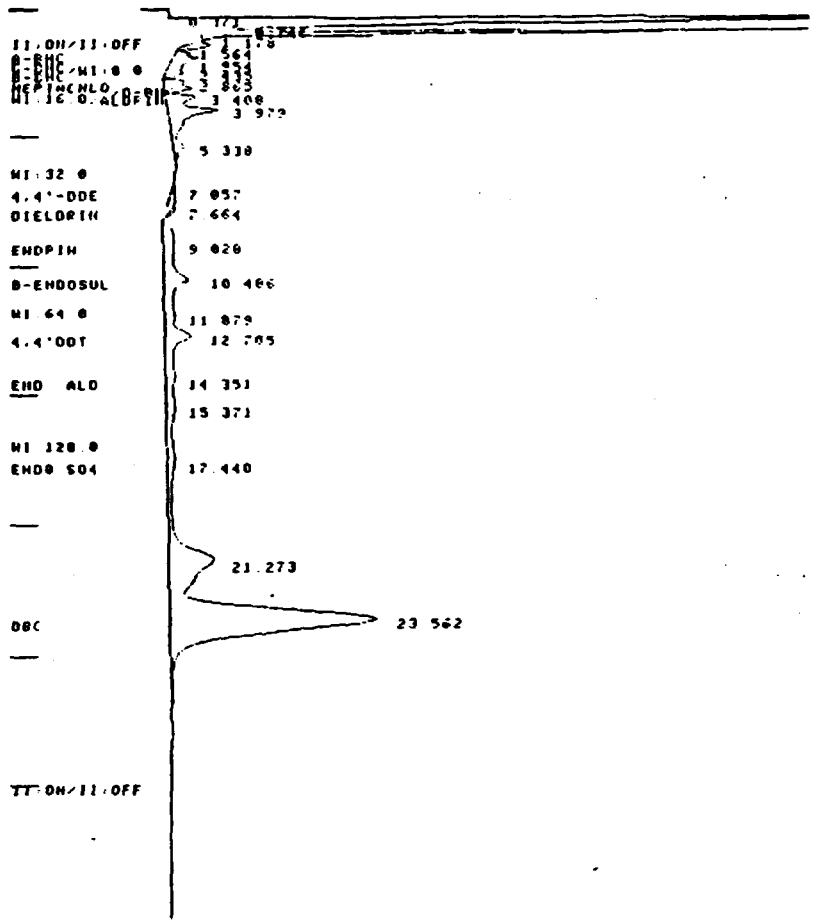


CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



CHANNEL: 18 - 1 TITLE: RUN# 7 14:05 3 MAR 87

SAMPLE: BLK.19 2/19 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT MG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		WI/2 (SEC)
1		0.0000	1.273		23303	BV		3.44
2		0.0000	1.414		20020	VV	?	2.13
3		0.0000	1.639		24184	VV	?	6.81
4	~~A-BHC~~	0.0000	1.842	0.082	62455	VV		6.63
5		0.0000	1.954		33181	VV	?	18.44
6	~~G-BHC~~	0.0000	2.237	0.027	36836	VV	?	8.50
7	~~B-BHC~~	0.0000	2.435	-0.105	52670	VV		5.25
8	~~D-BHC~~	0.0000	2.865	-0.095	62214	VV	?	17.25
9		0.0000	3.087		85820	VV	?	17.81
10	~~ALDRIN~~	0.0000	3.408	0.108	136238	VV	?	10.63
11		0.0000	3.979		322379	VV		20.56
12		0.0000	5.338		71262	VB	?	36.63
13	~~4,4'-DDE~~	0.0000	7.057	-0.133	81192	BV		17.13
14	~~ENDRIN~~	0.0000	9.028	-0.222	182114	VV	?	59.50
15	~~B-ENDOSUL~~	0.0000	10.486	0.286	265546	VV		49.50
16		0.0000	11.879		135957	VV	?	78.13
17	~~4,4'-DDT~~	0.0000	12.705	-0.545	264797	VV		42.19
18	~~ENDRIN ALD.~~	0.0000	14.351	-0.249	141561	VV	?	134.44
19		0.0000	15.371		154227	VV	?	108.06
20	~~ENDO SO4~~	0.0000	17.440	-0.250	162049	VV	?	152.25
21		0.0000	21.273		871534	VV		92.81
22	DBC	0.0000	23.562	0.302	2965849	VB		57.88
TOTALS:		0.0000		-1.404	6175588			

DETECTED PKS: 22 REJECTED PKS: 12

Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number BLANK (2/26)

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 2-26-87

Date Analyzed 3-11-87

Conc/Dil Factor 1.0

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

V_i = Volume of extract injected (ul)

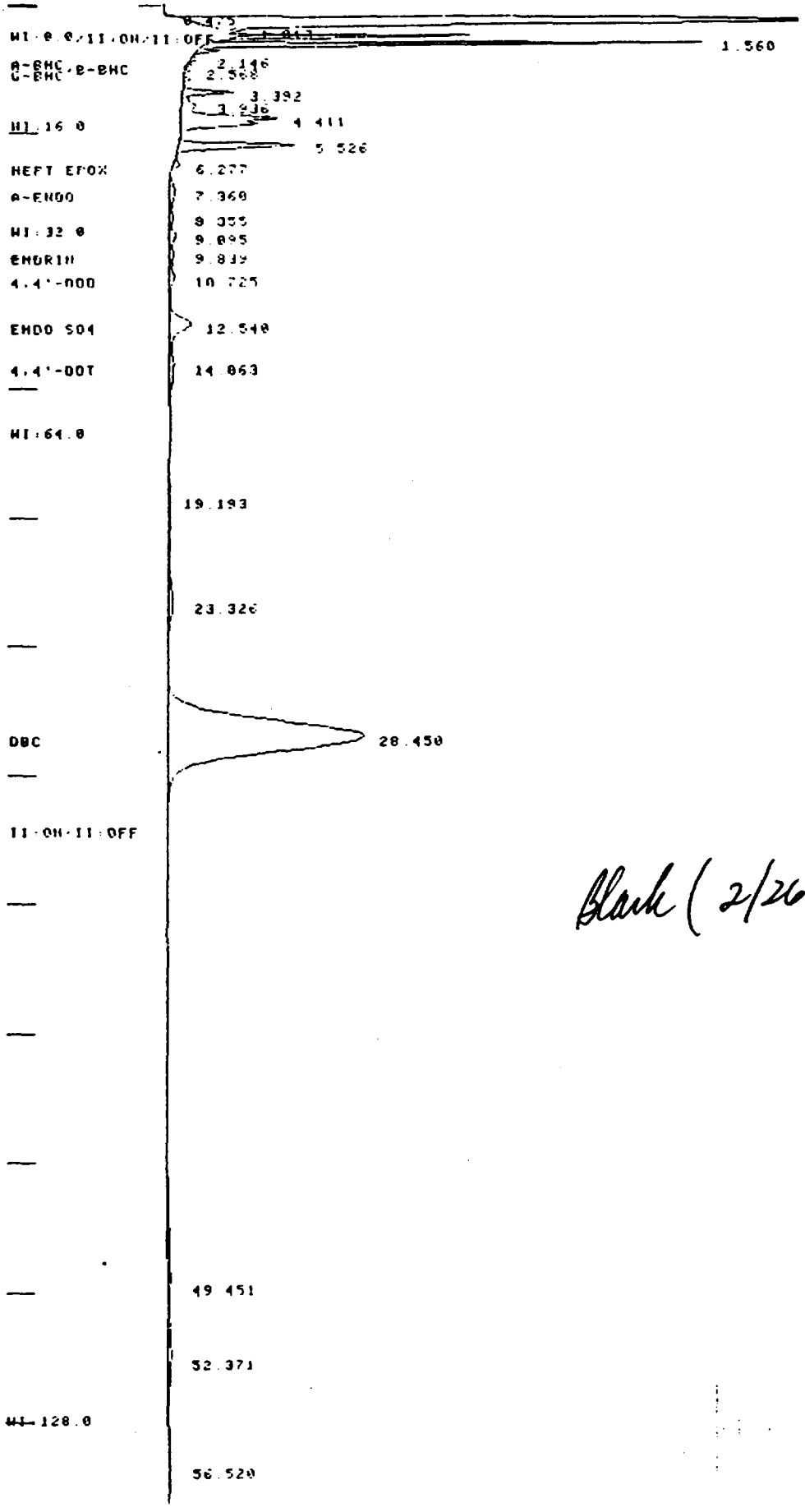
V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

ATTEN: 8 ZERO: 10% 5 MIN/TICK



Blank (2/26)

CHANNEL: 1A - 1 TITLE: RUN# 14 21:27 11 MAR 87

SAMPLE: BLANK 2-26 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	1.270		138226	BB	4.38
2		0.0000	1.559		325166	BV	5.25
3		0.0000	1.809		20191	T	7.00
4		0.0000	3.392		59899	VV	8.94
5	~~HEPTACHLO~~	9.2644	3.936	-0.184	34021	VV	? 18.44
6		0.0000	4.411		182049	VV	? 15.56
7		0.0000	4.656		113313	VB	? 16.81
8		0.0000	5.526		182387	BB	12.44
9	~~A-ENDO~~	9.7589	7.360	-0.230	36942	VV	? 77.00
10	~~DIELDRIN~~	6.3018	9.095	0.255	25150	VV	36.63
11	~~4,4'-DDE~~	8.1193	10.725	-0.205	27041	VV	? 45.56
12	~~ENDO-SO4~~	41.2154	12.540	-0.280	99338	VV	35.69
13	~~4,4'-DDT~~	15.7714	14.063	-0.167	37571	VB	? 87.44
14		0.0000	23.326		61404	VB	87.00
15	DBC 96%	639.2430	28.450	0.070	1932882	BB	79.13
16		0.0000	49.451		65654	BV	?123.25
17		0.0000	52.371		66044	VV	?218.50
18		0.0000	56.520		39625	VV	241.88
TOTALS:		729.6741		-0.741	3446903		

DETECTED PKS: 30 REJECTED PKS: 12

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

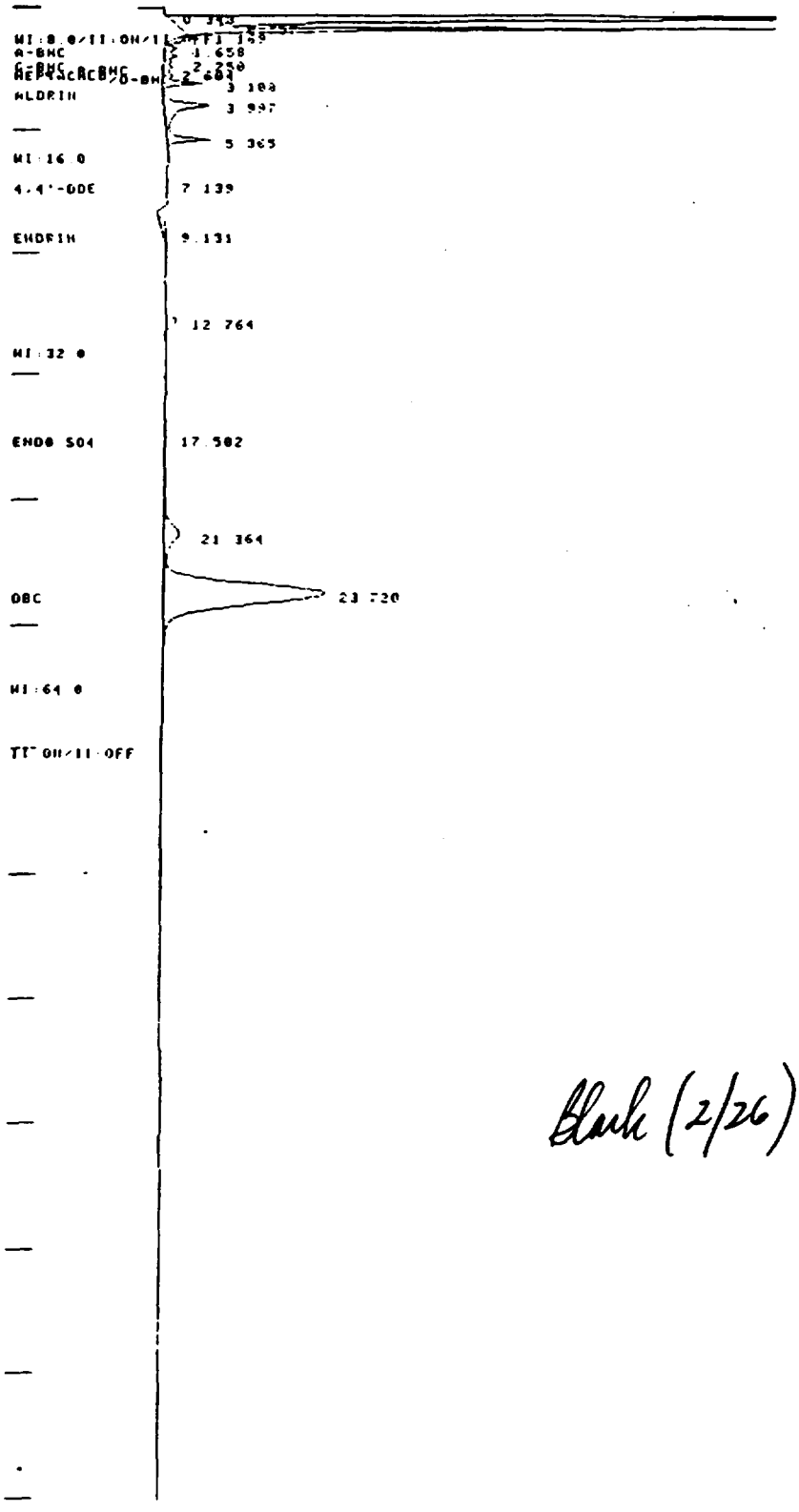
NOISE: 11.4 OFFSET: 10

RACK: 1 VIAL: 14 INJ: 1

NOTES:
NOTERBOOK:259-146,147 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#'S U-4971,4989
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
DEAD CREEK PRIMARY ANALYSIS
AUTOSAMPLER

POST RUN:
SAVE FILE: RAW S.CROP386

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



Blank (2/26)

CHANNEL: 1B - 1 TITLE: RUN# 9 5:37 17 MAR 87

532

CHANNEL: 1B - 1 TITLE: RUN# 9 5:37 17 MAR 87

SAMPLE: BK.19C 2/26 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT MG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.282		30521	BV	3.38
2	A-BHC	4.0858	1.658	-0.122	26869	VV	? 12.00
3		0.0000	2.012		29052	VV	7.44
4	B-BHC	10.3567	2.434	-0.126	21734	VV	8.19
5	HEPTACHLOR	7.2120	2.833	0.063	34934	VV	? 18.00
6	G-BHC	20.3670	3.108	0.128	93249	VV	7.69
7		0.0000	3.997		252666	VV	14.50
8		0.0000	5.365		155796	VB	13.94
9	ENDRIN	15.1483	9.131	-0.219	61070	BB	? 22.88
10	[illegible]	27.0143	12.764	-0.676	80567	BB	28.00
11	ENDO-SUL	8.5781	17.502	-0.358	20070	BB	? 44.44
12		0.0000	21.364		205131	BV	49.81
13	DDC	673.8265	23.720	-0.070	2334158	VB	55.75
TOTALS:		766.5888		-1.380	3345817		

DETECTED PKS: 26 REJECTED PKS: 13

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

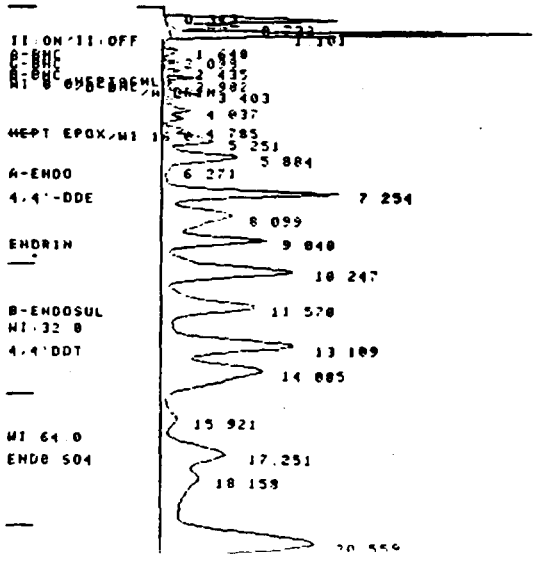
NOISE: 365.7 OFFSET: 5

RACK: 1 VIAL: 9 INJ: 1

NOTES:
NOTEBOOK:259-154 ANALYST:RICHARD SAMSON
SECURE AREA D JOB #U-4971, U-4989
INST: VARIAN 6000#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
CONFIRMATION RUNS AUTOSAMPLER

POST RUN:
SAVE FILE: RAW D.CRK.102

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



Laboratory Name ecology and environment, inc.

Case No U-4906, 4928, 4971, 4989

Sample Number BLANK (3/3)

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 3-3-87

Date Analyzed 3-12-87

Conc/Dil Factor 1

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

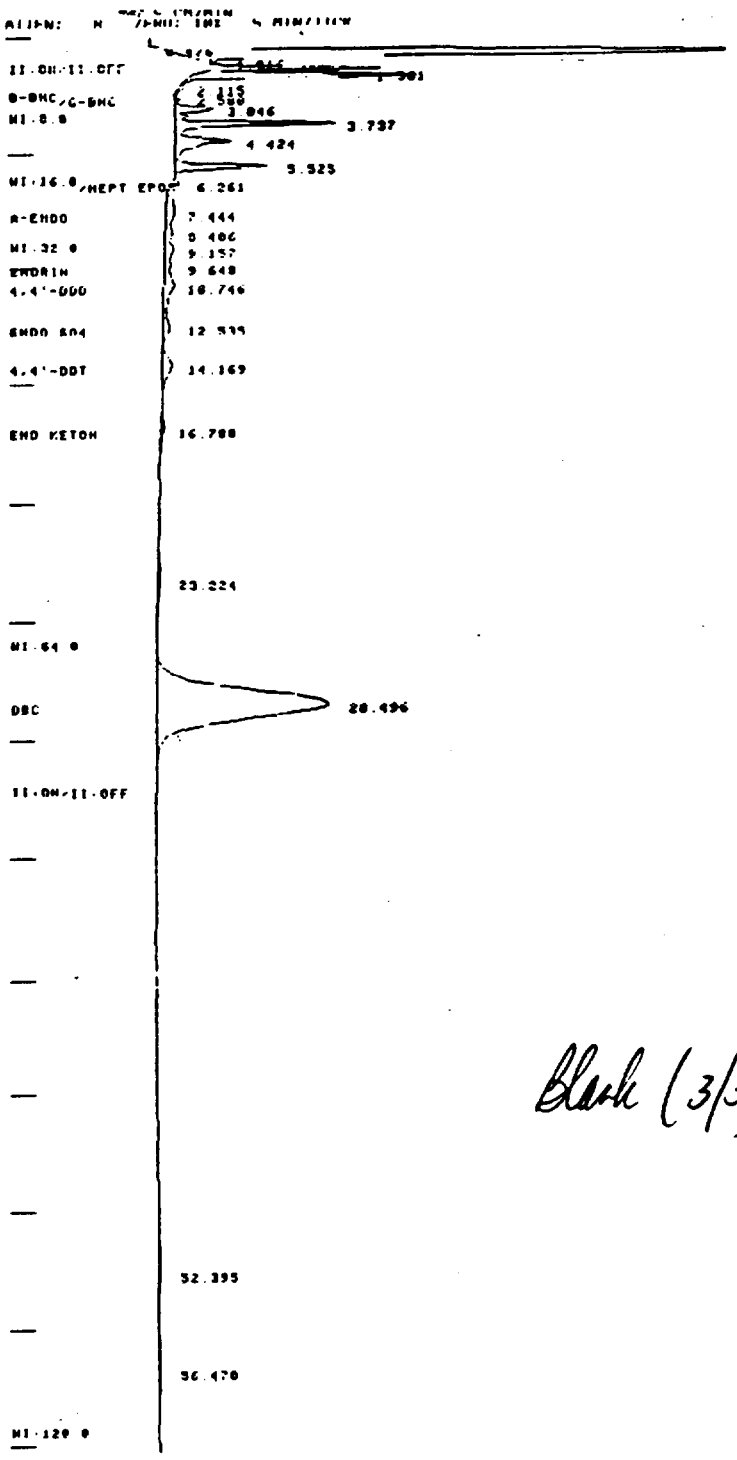
V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 3 V_t 1000 V_i 4

534



II.ON/II.OFF
B-BHC/G-BHC
WI.8.0
3.046
3.737
4.424
5.525
WI.16.0/HEPT EPO
6.261
A-ENDO
7.444
WI.32.0
9.157
ENDRIN
9.648
4,4'-DDD
10.746
ENDO SO4
12.535
4,4'-DDT
14.169
END KETON
16.788
23.224
WI.64.0
DBC
28.496
II.ON/II.OFF
52.395
56.470
WI.120.0

Blank (3/3)

CHANNEL: 1A - 1 TITLE: RUN# 23 7:17 12 MAR 87

SAMPLE: BLANK3-3 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/Kg	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.272		144382	BB	4.44
2		0.0000	1.561		310116	BV	5.13
3		0.0000	3.046		65989	VV	8.56
4		0.0000	3.737		238880	VV	9.94
5		0.0000	4.424		160256	VV	16.25
6		0.0000	5.525		163198	VB	12.81
7	~~N-ENDU~~	17.9241	7.444	-0.146	67851	VV	? 56.56
8	~~4,4'-DDE~~	8.0347	8.406	-0.314	29142	VV	? 42.00
9	~~DIELDRIN~~	10.1476	9.157	0.317	40498	VV	? 49.50
10	~~4,4'-DDD~~	23.7654	10.746	-0.184	79150	VV	42.44
11	~~ENDU-304~~	16.4284	12.535	-0.285	39596	VV	30.00
12	~~4,4'-DDT~~	27.7732	14.169	-0.061	66162	VB	45.63
13	~~END-KETON~~	5.7914	16.780	0.390	22448	BB	46.00
14		0.0000	23.224		35427	BB	? 75.81
15	DBC	615.4536	28.496	0.116	1860950	BB	79.13
16		0.0000	52.395		29940	BV	130.00
17		0.0000	56.470		37245	VV	?143.31
TOTALS:		725.3184		-0.167	3391230		

DETECTED PKS: 29 REJECTED PKS: 12

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

NOISE: 11.4 OFFSET: 19

RACK: 2 VIAL: 8 INJ: 1

NOTES:
NOTERBOOK:259-146,147 ANALYST: RICHARD SAMSON
SECURE AREA: D JOB#'S U-4971,4989
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
DEAD CREEK PRIMARY ANALYSIS
AUTOSAMPLER

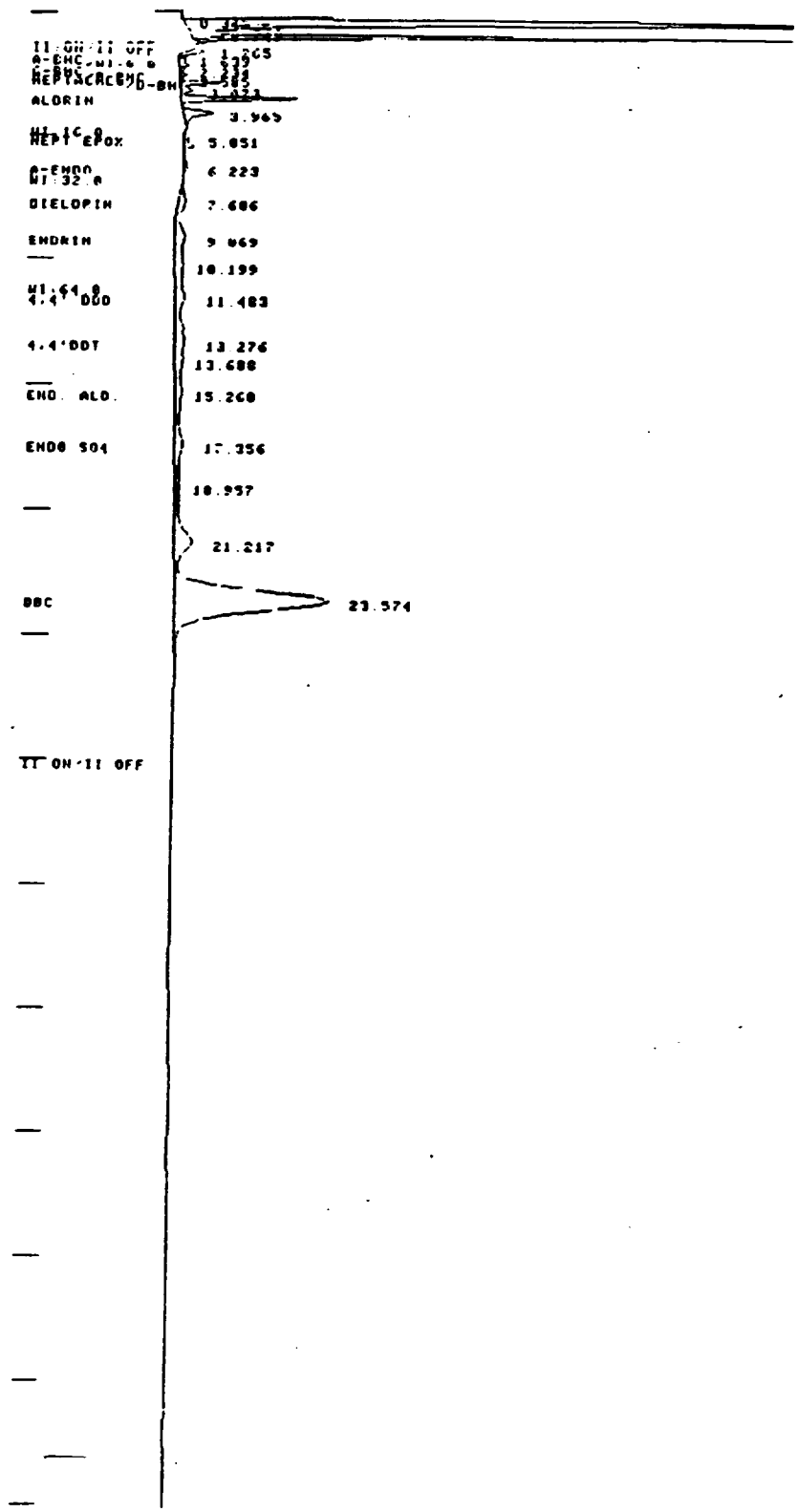
POST RUN:
SAVE FILE: RAW S.CROP395

recycled paper ecology and environment

SAVE FILE: RAW D.CRK.107

Blank (3/3)

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



CHANNEL: 1B - 1 TITLE: RUN# 16 12:08 17 MAR 87

SAMPLE: BK.19 3-3 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT MG/KG	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.265		20352	BV	2.88
2		0.0000	1.987		24292	VV	7.44
3	~~HEPTACHLOR~~	17.1584	2.770	0.008	83113	VV	7.13
4	~~B-BHC~~	6.8940	3.073	0.093	31564	VV	12.50
5	~~ALDRIN~~	43.9220	3.377	0.027	228121	VV	7.50
6		0.0000	3.965		112649	VB	14.25
7	~~HEPT-EPOX~~	7.1870	5.330	0.320	33474	VV	13.44
8	~~A-ENDO~~	5.8215	6.223	-0.077	25567	VB	25.25
9	~~DIELDRIN~~	18.3584	7.606	-0.094	87411	BV	35.56
10	~~ENDRIN~~	32.3249	9.069	-0.281	130317	VV	? 65.00
11		0.0000	10.199		157734	VV	? 66.00
12	~~B-ENDOSUL~~	30.8438	11.483	0.163	130465	VV	? 75.00
13	~~4,4'DDT~~	57.9248	13.276	-0.164	172754	VV	?115.13
14		0.0000	13.688		107895	VV	?
15	~~END. ALD.~~	42.0915	15.260	0.450	130160	VV	?118.44
16	~~ENDO-SO4~~	63.2414	17.356	-0.584	147964	VV	? 84.81
17		0.0000	18.957		92754	VV	?169.50
18		0.0000	21.217		292044	VV	73.31
19	DBC	647.1210	23.574	-0.216	2241649	VB	57.25
TOTALS:		972.8887		-0.275	4259079		

DETECTED PKS: 35 REJECTED PKS: 16

DIVISOR: 0.15000 MULTIPLIER: 1000.00000

NOISE: 365.7 OFFSET: 0

RACK: 1 VIAL: 15 INJ: 1

NOTES:
NOTEBOOK:259-154 ANALYST:RICHARD SAMSON
SECURE AREA D JOB #U-4971, U-4989
INST: VARIAN 600#2 B ECD 10X1 ATT:16
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
CONFIRMATION RUNS AUTOSAMPLER

POST RUN:
SAVE FILE: RAW D.CRK.108

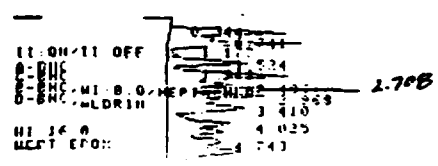



CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK