SDMS US EPA REGION V -1

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157483

ORGANIC DATA VALIDATION REPORT

1.0 INTRODUCTION

REF 15e

Site:	Sauget Area 1
Laboratory:	Ecology and Environment, Inc.
Validation:	PRC Environmental Management, Inc.
Review Date:	May 1993
Case Number:	U-4474
Sample Numbers:	DC-SS-24 through DC-SS-48
Analyses:	Volatiles, Semivolatiles, Pesticides/Polychlorinated Biphenyls
Collection Dates:	November 11, 12, and 13, 1986

The data for these 25 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. Also, tuning, continuing calibration, and other support records for sample DC-SS-45 were omitted from this data package but were included in Case U-4465; those data were applied here.

2.1 HOLDING TIMES

All holding time requirements were met for the initial analyses. Surrogates for some samples required reanalysis, generally outside the holding time limits. The reported results include both runs, with the later results identified with the suffix "RE" on the sample number.

2.2 INSTRUMENT PERFORMANCE

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

In the pesticide/polychlorinated biphenyl (P/PCB) analyses, the dibutylchlorendate surrogate was usually diluted out. All other quality control (QC) results were satisfactory.

2.3 INITIAL AND CONTINUING 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

In the initial VOA calibration, the percent relative standard deviation (%RSD) for bromomethane was 31.0, slightly above the QC limit of 30. Therefore all results for this compound are considered estimates and qualified "J" (if detected) or "UJ" (if not detected).

During the continuing calibrations, a number of chemicals had response factors (RF) for which the percent difference (%D) from the initial calibration exceeded the QC limit of 25. Therefore, the results for these chemicals are also considered estimates and similarly qualified. Table 1 lists these chemicals and the affected samples.

2.3.2 Semivolatile Organic Analyses

Two machines were used for the SVOA. The initial calibrations for machine B were within QC limits. For machine D, the %RSD for 3-nitroaniline was 34.5 and that for 3,3'-dichlorobenzidine was 39.2. Therefore, all results for those chemicals in samples on machine "D" are considered estimates.

TABLE 1

VOLATILE ORGANIC ANALYSIS CONTINUING CALIBRATIONS

Continuing Calibration		Chemical (%D)		Samples Affected
Date	Time			
November 18, 1986	2142	Methylene chloride (31.1)	Acetone (68.4)	DC-SS-25, DC-SS-45
		2-Chloroethylvinylether (56.6)	Bromoform (30.5)	
		4-Methyl-2-pentanone (28.4)	2-Hexanone (32.0)	
		Styrene (48.7)	Xylene (37.0)	
November 19, 1986	1806	2-Butanone (33.9)	2-Chloroethylvinylether (48.7)	DC-SS-26, DC-SS-27, DC-SS-28, DC-SS-29, DC-SS-31, DC-SS-32
November 20, 1986	1138	Acetone (65.4)	2-Butanone (33.6)	DC-SS-37
		2-Chloroethylvinylether (48.3)	4-Methyl-2-pentanone (37.8)	
		2-Hexanone (40.4)		
November 20, 1986	2258	Acetone (63.1)	2-Butanone (48.2)	DC-SS-39, DC-SS-40, DC-SS-41, DC-SS-42, DC-SS-44, DC-SS-47
		2-Chloroethylvinylether (52.2)	Styrene (42.0)	
		Xylene (38.7)		
November 21, 1986	1028	Acetone (48.6)	2-Butanone (27.7)	DC-SS-36, DC-SS-37RE
		cis-1,3-Dichloropropene (27.1)	2-Chloroethylvinylether (55.4)	
		Bromoform (31.7)	4-Methyl-2-pentanone (41.2)	
		2-Hexanone (40.7)		
November 24, 1986	2306	2-Butanone (37.1)	2-Chloroethylvinylether (46.6)	DC-SS-30, DC-SS-34
		Bromoform (25.9)	4-Methyl-2-pentanone (31.1)	
		2-Hexanone (29.2)	Toluene (25.3)	

TABLE 1 (Continued)

VOLATILE ORGANIC ANALYSIS CONTINUING CALIBRATIONS

Continuing Calibration		Chemical (%D)		Samples Affected
Date	Time			
November 25, 1986	0958	Acetone (42.6)	Carbon disulfide (32.4)	DC-SS-25RE, DC-SS-45RE
		2-Butanone (53.5)	2-Chloroethylvinylether (39.3)	
		Styrene (68.6)	Xylene (62.2)	
November 25, 1986	2207	Chloromethane (31.8)	Bromomethane (34.2)	DC-SS-35, DC-SS-38
		Vinyl chloride (42.4)	Chloroethane (53.8)	
		Methylene chloride (58.0)	Acetone (67.4)	
		Carbon disulfide (35.1)	2-Butanone (41.1)	
		2-Chloroethylvinylether (50.7)	4-Methyl-2-pentanone (25.3)	
		2-Hexanone (27.5)		
November 26, 1986	1000	Chloromethane (31.4)	Chloroethane (29.3)	DC-SS-43, DC-SS-46, DC-SS-48, DC-SS-39RE, DC-SS-40RE
		Methylene chloride (28.6)	Vinyl acetate (26.0)	
		2-Chloroethylvinylether (47.5)		
November 26, 1986	2027	Chloromethane (40.7)	Bromomethane (27.7)	DC-SS-24, DC-SS-33, DC-SS-27RE, DC-SS-31RE
		Chloroethane (30.6)	Methylene chloride (38.7)	
		Acetone (38.8)	Carbon disulfide (29.4)	
		2-Chloroethylvinylether (38.6)		

As with VOA, a number of %D problems were encountered in the various continuing calibrations, requiring "J" flags. These are summarized in Table 2.

2.3.3 Pesticide/Polychlorinated Biphenyl Analyses

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

2.4 BLANKS

A number of common laboratory chemicals, and some other chemicals, including nontarget chemicals (tentatively identified compounds [TIC]) were found in the various blanks run during these assays. The presence of Aroclor 1260 in one blank is unusual. All sample concentrations up to 5 times the maximum blank concentrations (10 times for common laboratory contaminants), corrected for dilutions, are considered artifacts and flagged "U" for nondetected. The laboratory blank contaminants, their maximum concentrations, the resulting action levels, and samples affected are shown in Table 3. Sample DC-SS-45 was designated a field blank (in another case). After correction for laboratory blank contamination, it contained no detectable organic chemicals.

2.5 SURROGATE RECOVERY

In the VOA, one surrogate in each of seven samples (DC-SS-25, DC-SS-27, DC-SS-31, DC-SS-37, DC-SS-39, DC-SS-40, and DC-SS-45) exceeded QC limits. In accordance with procedures of the analysis, all these were reassayed. This time, two surrogates in samples DC-SS-39RE and DC-SS-40RE were out of limits and one surrogate was out of limits in the other five. This strongly suggests the existence of a matrix effect in these samples. Since DC-SS-45 was labelled a field blank, this matrix effect is probably due to that soil itself, rather than the various organic contaminants. If the other samples are from similar soils, the soil rather than other contaminants would be causing the effects. The best estimate of true results for these samples would be an average of the two runs.

In the SVOA and P/PCB analyses, the high concentrations of chemicals, mostly nontarget hydrocarbons, resulted in about half of semivolatile surrogates and three quarters of P/PCB surrogates

TABLE 2
SEMIVOLATILE ORGANIC ANALYSIS CONTINUING CALIBRATION

Machine	Continuing Calibration		Chemical (%D)		Samples Affected
	Date	Times[a]			
B	December 4, 1986	1034/1131	4-Nitrophenol (39.4)	Aniline (39.6)	DC-SS-26, DC-SS-28, DC-SS-31, DC-SS-32, DC-SS-33, DC-SS-34
			bis(2-Chloroethyl)ether (25.8)	Benzyl alcohol (28.7)	
			bis(2-Chloroisopropyl)ether (26.5)	N-Nitroso-di-n-propylamine (29.6)	
			4-Nitroaniline (58.6)	3-Nitroaniline (82.3)	
			2,4-Dinitrotoluene (35.6)	3-3'-Dichlorobenzidine (53.7)	
B	December 19, 1986	1352/1148	Benzoic acid (27.1)	4-Nitrophenol (45.6)	DC-SS-24, DC-SS-25, DC-SS-29, DC-SS-30, DC-SS-35, DC-SS-38
			Aniline (37.5)	Benzyl alcohol (30.2)	
			4-Chloroaniline (68.6)	Hexachlorobenzene (26.9)	
B	December 22, 1986	1347/1247	Benzoic acid (31.1)	Aniline (27.7)	DC-SS-36, DC-SS-37 DC-SS-43, DC-SS-44 DC-SS-47
			Benzyl alcohol (37.0)	4-Chloroaniline (88.8)[b]	
			4-Nitroaniline (85.7)[b]	3-Nitroaniline (75.4)[b]	
			2,4-Dinitrotoluene (26.4)	3,3'-Dichlorobenzidine (35.5)	
B	December 23, 1986	1812/1903	Aniline (33.5)	Nitrobenzene (26.0)	DC-SS-27, DC-SS-39, DC-SS-41
			4-Chloroaniline (87.0)[b]	3,3'-Dichlorobenzidine (47.7)	
D	December 22, 1986	1059/1158	2,4-Dinitrophenol (32.1)	4-Nitrophenol (65.0)	DC-SS-45
			Hexachlorocyclopentadiene (35.3)		
D	December 22, 1986	1313/1210	Aniline (29.3)	3-Nitroaniline (46.2)	DC-SS-40, DC-SS-42, DC-SS-48
			Pyrene (50.8)	3,3'-Dichlorobenzidine (67.1)	
			Benzo(k)fluroanthene (37.4)		
D	January 9, 1987	1324/1130	2,4-Dinitrophenol (31.7)	4-Nitrophenol (64.7)	DC-SS-46
			Nitrobenzene (33.0)	Isophorone (26.8)	
			bis(2-Chloroethoxy)methane (36.7)	2-Nitroaniline (34.3)	
			4-Nitroaniline (26.5)	2,4-Dinitrotoluene (28.4)	
			Diethylphthalate (26.3)	Benzidine (32.8)	
			Pyrene (26.7)	Benzo(k)fluroanthene (29.1)	

Notes:

a Times represent the two standards, acids/phenols and bases/neutrals, used for calibration.

b Response factor less than 0.05, so nondetects qualified "R."

TABLE 3

BLANK CONTAMINATION

Analysis	Chemical	Concentration (micrograms/kilograms)		Samples Qualified
		Blank	Action Level	
VOA	Methylene chloride	24	240	All samples
VOA	Acetone	12	120	All samples except DC-SS-35, DC-SS-37RE, and DC-SS-40RE
VOA	2-Butanone	17	170	All samples except DC-SS-24, DC-SS-25, DC-SS-30, DC-SS-31, DC-SS-31RE, DC-SS-33, DC-SS-35, DC-SS-37RE, DC-SS-39RE, DC-SS-40RE, DC-SS-44, DC-SS-45, AND DC-SS-45RE
VOA	4-Methyl-2-pentanone	2	10	DC-SS-32 AND DC-SS-39
VOA	2-Hexanone	2	10	DC-SS-25RG, DC-SS-31RE, and DC-SS-33
VOA	Toluene	7	70	DC-SS-25, DC-SS-26, DC-SS-34, and DC-SS-40
VOA	Hexene isomer (17.4)[a]	2	10	DC-SS-26, DC-SS-28, DC-SS-29, DC-SS-31, and DC-SS-45
VOA	Unknown ketone (19.8)	2.4	12	DC-SS-29, DC-SS-31, and DC-SS-32
VOA	Hexane isomer (21.3)	6	30	DC-SS-26, DC-SS-27, DC-SS-28, DC-SS-29, DC-SS-30, DC-SS-31, DC-SS-32, DC-SS-34, and DC-SS-35
SVOA	Di-n-butylphthalate	1,300	13,000	DC-SS-27, DC-SS-40, DC-SS-44, DC-SS-45, DC-SS-46, and DC-SS-47
SVOA	Unknown (20.2)	580	2,900	DC-SS-45 and DC-SS-46
SVOA	Unknown (34.0)	1,300	6,500	DC-SS-44, DC-SS-45, DC-SS-46, and DC-SS-47
P/PCB	Aroclor 1260	220	1,100	All samples except DC-SS-27, DC-SS-31, DC-SS-44, DC-SS-45, DC-SS-46, DC-SS-47, and DC-SS-48

Notes:

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

being diluted out. A few samples had a single semivolatile surrogate out of limits, but no action is warranted for those samples.

2.6 MATRIX SPIKE/MATRIX SPIKE DUPLICATES

The matrix spike/matrix spike duplicate (MS/MSD) results confirmed the problems inherent in the samples. The VOA MS/MSD was based on sample DC-SS-24; 1,1-dichloroethene had low recovery (49 and 51 percent, compared to 59 to 172 percent QC limits), while toluene had high recovery (150 and 190 percent, compared to 59 to 139 percent). Blank contamination may have contributed to the high toluene recovery.

In the SVOA MS/MSD, based on sample DC-SS-36, 8 of 10 spiked chemicals exceeded QC limits for recovery, difference between MS and MSD, or both. The P/PCB spikes, based on the same sample, were diluted out.

The MS/MSD results indicate that the multiple contaminants in many of these samples interfered with the analysis of individual compounds. Therefore, the quantitation of all results is somewhat uncertain. Also, there may be false negatives for target chemicals, due to the many nontarget chemicals in the samples.

2.7 FIELD DUPLICATES

There were no field duplicates in these samples.

2.8 INTERNAL STANDARDS

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

2.9 COMPOUND IDENTIFICATION

The VOA and SVOA raw data omitted mass spectra, so identification could not be verified.

In the P/PCB analyses, the PCB found in these samples did not match the standards very well, so the laboratory used manual pattern matching rather than the usual retention time windows. Note that most of the Aroclor 1260 reported in these samples was apparently blank contamination. Although the reported concentrations are much higher than the blank concentration, they must be corrected for extraction ratios and dilutions to account for the contamination which apparently comes from the laboratory solvents and reagents.

2.10 COMPOUND QUANTITATION

Spot checks revealed no problems.

2.11 SYSTEM PERFORMANCE

There was no evidence of sudden shifts in system performance or similar problems.

3.0 OVERALL ASSESSMENT

On the whole, these analyses were as successful as practical in producing results equivalent to Data Quality Level IV. The main problem was the high concentrations of chemicals, mostly nontarget hydrocarbons, in the semivolatile range, which includes the P/PCB targets. A number of the target analytes may be present, but their identity may be masked by the nontarget chemicals. The PCB blank contamination in these samples is unusual. However, it was found by the laboratory and appropriate adjustments are included here. All chemicals reported as present in the Appendix A are present in approximately the identified concentrations. Therefore, these analyses are acceptable for screening purposes.

APPENDIX A

CORRECTED FORMS I

CASE NUMBER U-4474

Sample Number
DC-SS-24

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9790 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [illegible] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-27-86

Conc./Dil Factor: 3 pH 6.7

Percent Moisture: (Not Decanted) 28

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u J
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u J
75-09-2	Methylene Chloride	71 BU J
67-64-1	Acetone	39 BU J
75-15-0	Carbon Disulfide	15u J
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	320
591-78-6	2-Hexanone	51 BU
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

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Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name: ECOLOGY & ENVIRONMENT INC.

Case No: U-4474

Sample Number: DC-SS-24

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-17-86

Date Analyzed: 12-19-86

Conc/Dil Factor: 50

Percent Moisture (Decanted): 28

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	11000	U
111-44-4	bis(-2-Chloroethyl)Ether	11000	U
95-57-8	2-Chlorophenol	11000	U
541-73-1	1 3-Dichlorobenzene	11000	U
106-46-7	1 4-Dichlorobenzene	11000	U
100-51-6	Benzyl Alcohol	11000	U
95-50-1	1 2-Dichlorobenzene	11000	U
95-48-7	2-Methylphenol	11000	U
39638-32-9	bis(2-chloroisopropyl)Ether	11000	U
106-44-5	4-Methylphenol	11000	U
621-64-7	N-Nitroso-Di-n-Propylamine	11000	U
67-72-1	Hexachloroethane	11000	U
98-95-3	Nitrobenzene	11000	U
78-59-1	Isophorone	11000	U
88-75-5	2-Nitrophenol	11000	U
105-67-9	2, 4-Dimethylphenol	11000	U
65-85-0	Benzoic Acid	56000	U
111-91-1	bis(-2-Chloroethoxy)Methane	11000	U
120-83-2	2 4-Dichlorophenol	11000	U
120-82-1	1 2, 4-Trichlorobenzene	11000	U
91-20-3	Naphthalene	11000	U
106-47-8	4-Chloroaniline	11000	U
87-68-3	Hexachlorobutadiene	11000	U
59-50-7	4-Chloro-3-Methylphenol	11000	U
91-57-6	2-Methylnaphthalene	11000	U
77-47-4	Hexachlorocyclopentadiene	11000	U
88-06-2	2 4 6-Trichlorophenol	11000	U
95-95-4	2 4 5-Trichlorophenol	56000	U
91-58-7	2-Chloronaphthalene	11000	U
88-74-4	2-Nitroaniline	56000	U
131-11-3	Dimethyl Phthalate	11000	U
[illegible]-96-8	Acenaphthylene	11000	U
[illegible]09-2	3-Nitroaniline	56000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	11000	U
51-28-5	2, 4-Dinitrophenol	56000	U
100-02-7	4-Nitrophenol	56000	U
132-64-9	Dibenzofuran	11000	U
121-14-2	2 4-Dinitrotoluene	11000	U
606-20-2	2 6-Dinitrotoluene	11000	U
84-66-2	Diethylphthalate	11000	U
7005-72-3	4-Chlorophenyl-phenylether	11000	U
86-73-7	Fluorene	11000	U
100-01-6	4-Nitroaniline	56000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	56000	U
86-30-6	N-Nitrosodiphenylamine (1)	11000	U
101-55-3	4-Bromophenyl-phenylether	11000	U
118-74-1	Hexachlorobenzene	11000	U
87-86-5	Pentachlorophenol	56000	U
85-01-8	Phenanthrene	11000	U
120-12-7	Anthracene	11000	U
84-74-2	Di-n-Butylphthalate	11000	U
206-44-0	Fluoranthene	11000	U
129-00-0	Pyrene	5500	J
85-68-7	Butylbenzylphthalate	11000	U
91-94-1	3 3 -Dichlorobenzidine	23000	U
56-55-3	Benzo(a)Anthracene	11000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	11000	U
218-01-9	Chrysene	11000	U
117-84-0	Di-n-Octyl Phthalate	11000	U
205-99-2	Benzo(b)Fluoranthene	11000	U
207-08-9	Benzo(k)Fluoranthene	6500	J
50-32-8	Benzo(a)Pyrene	11000	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	11000	U
53-70-3	Dibenz(a h)Anthracene	11000	U
191-24-2	Benzo(g h i)Perylene	11000	U

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number DC-SS-24

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-17-86

Date Analyzed: 12-9-86

Conc/Dil Factor: 500

Percent Moisture (decanted) 27.8

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	8,000 U
319-85-7	Beta-BHC	8,000 U
319-86-8	Delta-BHC	8,000 U
58-89-9	Gamma-BHC (Lindane)	8,000 U
76-44-8	Heptachlor	8,000 U
309-00-2	Aldrin	8,000 U
1024-57-3	Heptachlor Epoxide	8,000 U
959-98-8	Endosulfan I	8,000 U
60-57-1	Dieldrin	16,000 U
72-55-9	4,4'-DDE	16,000 U
72-20-8	Endrin	16,000 U
33213-65-9	Endosulfan II	16,000 U
72-54-8	4,4'-DDD	16,000 U
1031-07-8	Endosulfan Sulfate	16,000 U
50-29-3	4,4'-DDT	16,000 U
72-43-5	Methoxychlor	80,000 U
53494-70-5	Endrin Ketone	16,000 U
57-74-9	Chlordane	80,000 U
8001-35-2	Toxaphene	160,000 U
12674-11-2	Aroclor-1016	80,000 U
11104-28-2	Aroclor-1221	80,000 U
11141-16-5	Aroclor-1232	80,000 U
53469-21-9	Aroclor-1242	80,000 U
12672-29-6	Aroclor-1248	80,000 U
11097-69-1	Aroclor-1254	160,000 U
11096-82-5	Aroclor-1260	~~117,000 J~~ 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 (ml)

RE May 93

V_s _____ or W_s 30 V_t 1000 V_i 4 ~~115~~ 12

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-24

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)	
1.		HEXENE ISOMER	VOA	18.0	440	J
2.		HEXENE ISOMER		18.8	1200	J
3.		HEXENE ISOMER		19.5	28	J
4.		HEXENE ISOMER		19.9	130	J
5.		UNKNOWN ALCOHOL		23.8	69	J
6.		HEXANE ISOMER		24.3	22	J
7.		UNKNOWN HYDROCARBON		24.8	37	J
8.						
9.		UNKNOWN AROMATIC	BNA	20.8	33000	J
10.		UNKNOWN AROMATIC		20.9	17000	J
11.		UNKNOWN AROMATIC		21.0	17000	J
12.		UNKNOWN AROMATIC		21.3	22000	J
13.		UNKNOWN		22.5	15000	J
14.		UNKNOWN		22.6	17000	J
15.		UNKNOWN HYDROCARBON		23.2	7900	J
16.		UNKNOWN		23.4	49000	J
17.		UNKNOWN HYDROCARBON		24.3	8600	J
18.		UNKNOWN		24.5	150000	J
19.		UNKNOWN HYDROCARBON		25.4	7800	J
20.		UNKNOWN		25.8	160000	J
21.	10544500	MOLECULAR SULFUR		26.0	10000	J
22.		UNKNOWN HYDROCARBON		26.6	15000	J
23.		UNKNOWN HYDROCARBON		27.2	31000	J
24.		UNKNOWN HYDROCARBON		28.4	58000	J
25.		UNKNOWN HYDROCARBON		29.3	52000	J
26.		UNKNOWN HYDROCARBON		31.3	58000	J
27.	3268879	OCTACHLORODIBENZO[B,E][1,4] DIOXIN		37.4	36000	J
28.						
29.						
30.						

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~~116~~

Sample Number
DC-SS-25

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No. U-4474

Lab Sample ID No: 9791 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-19-86

Conc./Dil Factor: 3 pH 6.7

Percent Moisture: (Not Decanted) 31

CAS Number		ug/l or (ug/Kg) (Circle One)	
74-87-3	Chloromethane	30u	
74-83-9	Bromomethane	30u J	
75-01-4	Vinyl Chloride	30u	
75-00-3	Chloroethane	30u	
75-09-2	Methylene Chloride	79 B	UJ
67-64-1	Acetone	90	UJ
75-15-0	Carbon Disulfide	15u	
75-35-4	1, 1-Dichloroethene	15u	
75-34-3	1, 1-Dichloroethane	15u	
156-60-5	Trans-1, 2-Dichloroethene	15u	
67-66-3	Chloroform	15u	
107-06-2	1, 2-Dichloroethane	15u	
78-93-3	2-Butanone	30u	
71-55-6	1, 1, 1-Trichloroethane	15u	
56-23-5	Carbon Tetrachloride	15u	
108-05-4	Vinyl Acetate	30u	
75-27-4	Bromodichloromethane	15u	

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u J
108-10-1	4-Methyl-2-Pentanone	610 J
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	45 U
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u J
	Total Xylenes	15u J

HVE
May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Sample Number
DC-SS-25-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9791 RE QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Slojkowicz Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-25-86

Conc/Dil Factor: 3 pH: 6.7

Percent Moisture (Not Decanted): 31

CAS Number		ug/L or (ug/Kg) (Circle One)	
74-87-3	Chloromethane	30u	
74-83-9	Bromomethane	30u	
75-01-4	Vinyl Chloride	30u	
75-00-3	Chloroethane	30u	
75-09-2	Methylene Chloride	76 B	U
67-64-1	Acetone	47 B	UJ
75-15-0	Carbon Disulfide	15u J	
75-35-4	1, 1-Dichloroethene	15u	
75-34-3	1, 1-Dichloroethane	15u	
156-60-5	Trans-1, 2-Dichloroethene	15u	
67-66-3	Chloroform	15u	
107-06-2	1, 2-Dichloroethane	15u	
78-93-3	2-Butanone	54 B	UJ
71-55-6	1, 1, 1-Trichloroethane	15u	
56-23-5	Carbon Tetrachloride	15u	
108-05-4	Vinyl Acetate	30u	
75-27-4	Bromodichloromethane	15u	

CAS Number		ug/L or (ug/Kg) (Circle One)	
78-87-5	1, 2-Dichloropropane	15u	
10061-02-6	Trans-1, 3-Dichloropropene	15u	
79-01-6	Trichloroethene	15u	
124-48-1	Dibromochloromethane	15u	
79-00-5	1, 1, 2-Trichloroethane	15u	
71-43-2	Benzene	15u	
10061-01-5	cis-1, 3-Dichloropropene	15u	
110-75-8	2-Chloroethylvinylether	30u J	
75-25-2	Bromoform	15u	
108-10-1	4-Methyl-2-Pentanone	91 B	
591-78-6	2-Hexanone 30	~~18 B~~	U
127-18-4	Tetrachloroethene	15u	
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u	
108-88-3	Toluene	15u	
108-90-7	Chlorobenzene	15u	
100-41-4	Ethylbenzene	15u	
100-42-5	Styrene	15u J	
	Total Xylenes	15u J	

RVE May 93

Data Reporting Qualifiers

For reporting results to CLP, 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 15 ug/L and a concentration of 3 ug/L is reported, report as 3J).

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

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

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

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Laboratory Name: ECOLOGY & ENVIRONMENT INC.

Case No: U-4474

Sample Number: DC-SS-25

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-17-86

Date Analyzed: 12-19-86

Conc/Dil Factor: 50

Percent Moisture (Decanted): 31

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	12000	U
111-44-4	bis(-2-Chloroethyl)Ether	12000	U
95-57-8	2-Chlorophenol	12000	U
541-73-1	1 3-Dichlorobenzene	12000	U
106-46-7	1. 4-Dichlorobenzene	12000	U
100-51-6	Benzyl Alcohol	12000	U
95-50-1	1 2-Dichlorobenzene	12000	U
95-48-7	2-Methylphenol	12000	U
39638-32-9	bis(2-chloroisopropyl)Ether	12000	U
106-44-5	4-Methylphenol	12000	U
621-64-7	N-Nitroso-Di-n-Propylamine	12000	U
67-72-1	Hexachloroethane	12000	U
98-95-3	Nitrobenzene	12000	U
78-59-1	Isophorone	12000	U
88-75-5	2-Nitrophenol	12000	U
105-67-9	2. 4-Dimethylphenol	12000	U
65-85-0	Benzoic Acid	58000	U
111-91-1	bis(-2-Chloroethoxy)Methane	12000	U
120-83-2	2. 4-Dichlorophenol	12000	U
120-82-1	1. 2. 4-Trichlorobenzene	12000	U
91-20-3	Naphthalene	12000	U
106-47-8	4-Chloroaniline	12000	U
87-68-3	Hexachlorobutadiene	12000	U
59-50-7	4-Chloro-3-Methylphenol	12000	U
91-57-6	2-Methylnaphthalene	12000	U
77-47-4	Hexachlorocyclopentadiene	12000	U
88-06-2	2 4 6-Trichlorophenol	12000	U
95-95-4	2. 4. 5-Trichlorophenol	58000	U
91-58-7	2-Chloronaphthalene	12000	U
88-74-4	2-Nitroaniline	58000	U
131-11-3	Dimethyl Phthalate	12000	U
[illegible]-96-8	Acenaphthylene	12000	U
[illegible]09-2	3-Nitroaniline	58000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	12000	U
51-28-5	2. 4-Dinitrophenol	58000	U
100-02-7	4-Nitrophenol	58000	U
132-64-9	Dibenzofuran	12000	U
121-14-2	2 4-Dinitrotoluene	12000	U
606-20-2	2 6-Dinitrotoluene	12000	U
84-66-2	Diethylphthalate	12000	U
7005-72-3	4-Chlorophenyl-phenylether	12000	U
86-73-7	Fluorene	12000	U
100-01-6	4-Nitroaniline	58000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	58000	U
86-30-6	N-Nitrosodiphenylamine (1)	12000	U
101-55-3	4-Bromophenyl-phenylether	12000	U
118-74-1	Hexachlorobenzene	12000	U
87-86-5	Pentachlorophenol	18000	J
85-01-8	Phenanthrene	12000	U
120-12-7	Anthracene	12000	U
84-74-2	Di-n-Butylphthalate	12000	U
206-44-0	Fluoranthene	6700	J
129-00-0	Pyrene	9000	J
85-68-7	Butylbenzylphthalate	12000	U
91-94-1	3 3 -Dichlorobenzidine	24000	U
56-55-3	Benzo(a)Anthracene	5100	J
117-81-7	bis(2-Ethylhexyl)Phthalate	12000	U
218-01-9	Chrysene	6400	J
117-84-0	Di-n-Octyl Phthalate	12000	U
205-99-2	Benzo(b)Fluoranthene	12000	U
207-08-9	Benzo(k)Fluoranthene	10000	J
50-32-8	Benzo(a)Pyrene	4500	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	12000	U
53-70-3	Dibenzo(a h)Anthracene	12000	U
191-24-2	Benzo(g h i)Perylene	12000	U

(1) Cannot be separated from diphenylamine

III
HE
May 93

No

Form I

~~1/85~~

Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number DC-SS-25

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed 12-9-86

Conc/Dil Factor 500

Percent Moisture (decanted) 30.7

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	8,000 U
319-85-7	Beta-BHC	8,000 U
319-86-8	Delta-BHC	8,000 U
58-89-9	Gamma-BHC (Lindane)	8,000 U
76-44-8	Heptachlor	8,000 U
309-00-2	Aldrin	8,000 U
1024-57-3	Heptachlor Epoxide	8,000 U
959-98-8	Endosulfan I	8,000 U
60-57-1	Dieldrin	16,000 U
72-55-9	4,4'-DDE	16,000 U
72-20-8	Endrin	16,000 U
33213-65-9	Endosulfan II	16,000 U
72-54-8	4,4'-DDD	16,000 U
1031-07-8	Endosulfan Sulfate	16,000 U
50-29-3	4,4'-DDT	16,000 U
72-43-5	Methoxychlor	80,000 U
53494-70-5	Endrin Ketone	16,000 U
57-74-9	Chlordane	80,000 U
8001-35-2	Toxaphene	160,000 U
12674-11-2	Aroclor-1016	80,000 U
11104-28-2	Aroclor-1221	80,000 U
11141-16-5	Aroclor-1232	80,000 U
53469-21-9	Aroclor-1242	80,000 U
12672-29-6	Aroclor-1248	80,000 U
11097-69-1	Aroclor-1254	160,000 U
11096-82-5	Aroclor-1260	~~122,000 J~~ 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)

HVE May 93

V_s _____ or W_s 30 V_t 1000 V_i 4

Laboratory Name ecology and environment, inc.

Case No 11-1111711

Sample Number DC-SS-25

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	79209	Acetic Acid, methyl ester	VOA	11.5	440 J
2.		Hexene isomer		18.3	140 J
3.		Hexene isomer		19.0	390 J
4.		Hexene isomer		20.1	36 J
5.		Unknown alcohol		24.0	120 J
6.		Unknown hydrocarbon		25.0	23 J
7.		Dichlorobenzene isomer		41.0	120BJ *
8.					
9.		UNKNOWN AROMATIC	BNA	20.4	21000 J
10.		UNKNOWN AROMATIC		20.8	48000 J
11.		UNKNOWN AROMATIC		21.0	34000 J
12.		UNKNOWN AROMATIC		21.1	24000 J
13.		UNKNOWN AROMATIC		21.3	29000 J
14.		UNKNOWN AROMATIC		21.6	18000 J
15.		UNKNOWN		22.5	23000 J
16.		UNKNOWN		22.6	100000 J
17.		UNKNOWN HYDROCARBON		23.2	14000 J
18.		UNKNOWN		23.4	61000 J
19.		UNKNOWN HYDROCARBON		24.3	15000 J
20.		UNKNOWN		24.5	270000 J
21.		UNKNOWN		25.8	200000 J
22.	10544500	MOLECULAR SULFUR		26.0	25000 J
23.		UNKNOWN HYDROCARBON		26.6	20000 J
24.		UNKNOWN HYDROCARBON		27.2	54000 J
25.		UNKNOWN HYDROCARBON		28.4	86000 J
26.		~~UNKNOWN~~		~~30.8~~	
27.	3268879	OCTACHLORODIBENZO[B,E][1,4]DIOXIN		37.4	130,000 J
28.					
29.					
30					

* carryover peak from previous analysis. Incorrect retention time.

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Laboratory Name ecology and environment, inc.

Case No 11-11171

Sample Number
DC-SS-25-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	(RT) or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	18.0	250 J
2.	Hexene isomer		18.8	640 J
3.	Hexene isomer		19.6	16 J
4.	Hexene isomer		20.0	69 J
5.	Unknown alcohol		23.8	53 J
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
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28.				
29.				
30				

19

Sample Number
DC-SS-26

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9792 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Slyglowicz Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-19-86

Conc/Dil Factor: 3 pH 6.8

Percent Moisture: (Not Decanted) 21

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	68 ~~B~~ U
67-64-1	Acetone	30 ~~14 BJ~~ U
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	40 ~~B~~ U J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	12 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	37 U
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

HE
May 93

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data 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 ug/l and a concentration of 3 ug/l is calculated, report as 3J).

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No. U-4474

Sample Number DC-SS-26

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-17-86

Date Analyzed: 12-4-86

Conc/Dil Factor: 50

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	10000	U
111-44-4	bis(-2-Chloroethyl)Ether	10000	U J
95-57-8	2-Chlorophenol	10000	U
541-73-1	1 3-Dichlorobenzene	10000	U
106-46-7	1. 4-Dichlorobenzene	10000	U
100-51-6	Benzyl Alcohol	10000	U J
95-50-1	1. 2-Dichlorobenzene	10000	U
95-48-7	2-Methylphenol	10000	U
39638-32-9	bis(2-chloroisopropyl)Ether	10000	U J
106-44-5	4-Methylpheno	10000	U
621-64-7	N-Nitroso-Di-n-Propylamine	10000	U J
67-72-1	Hexachloroethane	10000	U
98-95-3	Nitrobenzene	10000	U
78-59-1	Isophorone	10000	U
88-75-5	2-Nitrophenol	10000	U
105-67-9	2. 4-Dimethylphenol	10000	U
65-85-0	Benzoic Acid	51000	U
111-91-1	bis(-2-Chloroethoxyl)Methane	10000	U
120-83-2	2 4-Dichlorophenol	10000	U
120-82-1	1. 2. 4-Trichlorobenzene	10000	U
91-20-3	Naphthalene	10000	U
106-47-8	4-Chloroaniline	10000	U
87-68-3	Hexachlorobutadiene	10000	U
59-50-7	4-Chloro-3-Methylphenol	10000	U
91-57-6	2-Methylnaphthalene	10000	U
77-47-4	Hexachlorocyclopentadiene	10000	U
88-06-2	2 4 6-Trichlorophenol	10000	U
95-95-4	2. 4 5-Trichlorophenol	51000	U
91-58-7	2-Chloronaphthalene	10000	U
88-74-4	2-Nitroaniline	51000	U
131-11-3	Dimethyl Phthalate	10000	U
8-96-8	Acenaphthylene	10000	U
9-09-2	3-Nitroaniline	51000	U J

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	10000	U
51-28-5	2. 4-Dinitrophenol	51000	U
100-02-7	4-Nitrophenol	51000	U J
132-64-9	Dibenzofuran	10000	U
121-14-2	2 4-Dinitrotoluene	10000	U J
606-20-2	2 6-Dinitrotoluene	10000	U
84-66-2	Diethylphthalate	10000	U
7005-72-3	4-Chlorophenyl-phenylether	10000	U
86-73-7	Fluorene	10000	U
100-01-6	4-Nitroaniline	51000	U J
534-52-1	4. 6-Dinitro-2-Methylphenol	51000	U
86-30-6	N-Nitrosodiphenylamine (1)	10000	U
101-55-3	4-Bromophenyl-phenylether	10000	U
118-74-1	Hexachlorobenzene	10000	U
87-86-5	Pentachlorophenol	51000	U
85-01-8	Phenanthrene	10000	U
120-12-7	Anthracene	10000	U
84-74-2	Di-n-Butylphthalate	10000	U
206-44-0	Fluoranthene	4800	J
129-00-0	Pyrene	10000	U
85-68-7	Butylbenzylphthalate	10000	U
91-94-1	3 3 -Dichlorobenzidine	21000	U J
56-55-3	Benzo(a)Anthracene	10000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10000	U
218-01-9	Chrysene	10000	U
117-84-0	Di-n-Octyl Phthalate	10000	U
205-99-2	Benzo(b)Fluoranthene	10000	U
207-08-9	Benzo(k)Fluoranthene	10000	U
50-32-8	Benzo(a)Pyrene	10000	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	10000	U
53-70-3	Dibenz(a h)Anthracene	10000	U
191-24-2	Benzo(g h i)Perylene	10000	U

(1) Cannot be separated from diphenylamine

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Form I

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May 93

Laboratory Name ecology and environment, inc.

Case No V-4474

Sample Number
DC-SS-26

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-17-86

Date Analyzed: 12-9-86

Conc/Dil Factor: 100

Percent Moisture (decanted) 20.6

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	1600 U
319-85-7	Beta-BHC	1,600 U
319-86-8	Delta-BHC	1,600 U
58-89-9	Gamma-BHC (Lindane)	1,600 U
76-44-8	Heptachlor	1,600 U
309-00-2	Aldrin	1,600 U
1024-57-3	Heptachlor Epoxide	1,600 U
959-98-8	Endosulfan I	1,600 U
60-57-1	Dieldrin	3,200 U
72-55-9	4,4'-DDE	3,200 U
72-20-8	Endrin	3,200 U
33213-65-9	Endosulfan II	3,200 U
72-54-8	4,4'-DDD	3,200 U
1031-07-8	Endosulfan Sulfate	3,200 U
50-29-3	4,4'-DDT	3,200 U
72-43-5	Methoxychlor	16,000 U
53494-70-5	Endrin Ketone	3,200 U
57-74-9	Chlordane	16,000 U
8001-35-2	Toxaphene	32,000 U
12674-11-2	Aroclor-1016	16,000 U
11104-28-2	Aroclor-1221	16,000 U
11141-16-5	Aroclor-1232	16,000 U
53469-21-9	Aroclor-1242	16,000 U
12672-29-6	Aroclor-1248	16,000 U
11097-69-1	Aroclor-1254	32,000 U
11096-82-5	Aroclor-1260	120,000 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)

HVE
May 93

V_s _____ or W_s 30 V_t 1000 V_i 4

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~~24~~ 4

Laboratory Name ecology and environment, inc.

Case No 11-14474

Sample Number DC-SS-26

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4	~~3 BJ~~ U
2.	Hexane isomer		21.4	~~9 BJ~~ U
3.	Unknown hydrocarbon		23.2	9 J
4.	Unknown hydrocarbon		24.5	19 J
5.				
6.	UNKNOWN AROMATIC	BNA	20.0	16000 J
7.	UNKNOWN AROMATIC		20.7	20000 J
8.	UNKNOWN AROMATIC		21.0	11000 J
9.	UNKNOWN AROMATIC		21.2	34000 J
10.	UNKNOWN AROMATIC		21.4	76000 J
11.	UNKNOWN AROMATIC		21.5	12000 J
12.	UNKNOWN AROMATIC		21.6	15000 J
13.	UNKNOWN AROMATIC		21.8	190,000 J
14.	UNKNOWN AROMATIC		22.0	100,000 J
15.	UNKNOWN AROMATIC		22.1	100,000 J
16.	UNKNOWN AROMATIC		22.2	13000 J
17.	UNKNOWN AROMATIC		22.3	160000 J
18.	UNKNOWN AROMATIC		22.5	18000 J
19.	DIMETHYL DECYL BENZENE		22.7	71000 J
20.	DIMETHYL DECYL BENZENE		22.8	77000 J
21.	DIMETHYL DECYL BENZENE		22.9	27000 J
22.	UNKNOWN		29.5	4700 J
23.	UNKNOWN		29.8	5300 J
24.				
25.				
26.				
27.				
28.				
29.				
30				

HE
May 93

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Sample Number
DC-SS-27

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No. U-4474

Lab Sample ID No: 9793 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Hoytowa Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-19-86

Conc/Dil Factor: 3 pH 7.2

Percent Moisture: (Not Decanted) 22

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	~~636~~ U
67-64-1	Acetone	30 ~~1785~~ U
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	~~46 B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 12J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

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

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

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

HF
May 93

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Form I 11/85

Laboratory Name: ECOLOGY & ENVIRONMENT INC.

Case No: U-4474

Sample Number: DC-SS-27

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-17-86

Date Analyzed: 12-23-86

Conc/Dil Factor: 10

Percent Moisture (Decanted) 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	2100	U
111-44-4	bis(-2-Chloroethyl)Ether	2100	U
95-57-8	2-Chlorophenol	2100	U
541-73-1	1 3-Dichlorobenzene	2100	U
106-46-7	1 4-Dichlorobenzene	2100	U
100-51-6	Benzyl Alcohol	2100	U
95-50-1	1 2-Dichlorobenzene	2100	U
95-48-7	2-Methylphenol	2100	U
39638-32-9	bis(2-chloroisopropyl)Ether	2100	U
106-44-5	4-Methylphenol	2100	U
621-64-7	N-Nitroso-Di-n-Propylamine	2100	U
67-72-1	Hexachloroethane	2100	U
98-95-3	Nitrobenzene	2100	U
78-59-1	Isophorone	2100	U
88-75-5	2-Nitrophenol	2100	U
105-67-9	2, 4-Dimethylphenol	2100	U
65-85-0	Benzoic Acid	10000	U
111-91-1	bis(-2-Chloroethoxy)Methane	2100	U
120-83-2	2, 4-Dichlorophenol	2100	U
120-82-1	1, 2, 4-Trichlorobenzene	140	J
91-20-3	Naphthalene	2100	U
106-47-8	4-Chloroaniline	2100	U
87-68-3	Hexachlorobutadiene	2100	U
59-50-7	4-Chloro-3-Methylphenol	2100	U
91-57-6	2-Methylnaphthalene	2100	U
77-47-4	Hexachlorocyclopentadiene	2100	U
88-06-2	2 4 6-Trichlorophenol	2100	U
95-95-4	2, 4, 5-Trichlorophenol	10000	U
91-58-7	2-Chloronaphthalene	2100	U
88-74-4	2-Nitroaniline	10000	U
131-11-3	Dimethyl Phthalate	2100	U
208-96-8	Acenaphthylene	2100	U
99-09-2	3-Nitroaniline	10000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2100	U
51-28-5	2, 4-Dinitrophenol	10000	U
100-02-7	4-Nitrophenol	10000	U
132-64-9	Dibenzofuran	2100	U
121-14-2	2 4-Dinitrotoluene	2100	U
606-20-2	2 6-Dinitrotoluene	2100	U
84-66-2	Diethylphthalate	2100	U
7005-72-3	4-Chlorophenyl-phenylether	2100	U
86-73-7	Fluorene	2100	U
100-01-6	4-Nitroaniline	10000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	10000	U
86-30-6	N-Nitrosodiphenylamine (1)	2100	U
101-55-3	4-Bromophenyl-phenylether	2100	U
118-74-1	Hexachlorobenzene	2100	U
87-86-5	Pentachlorophenol	10000	U
85-01-8	Phenanthrene	180	J
120-12-7	Anthracene	2100	U
84-74-2	Di-n-Butylphthalate	~~330~~	~~J~~ 2100 U
206-44-0	Fluoranthene	2100	U
129-00-0	Pyrene	2100	U
85-68-7	Butylbenzylphthalate	2100	U
91-94-1	3 3'-Dichlorobenzidine	4200	U
56-55-3	Benzo(a)Anthracene	2100	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2100	U
218-01-9	Chrysene	270	J
117-84-0	Di-n-Octyl Phthalate	2100	U
205-99-2	Benzo(b)Fluoranthene	2100	U
207-08-9	Benzo(k)Fluoranthene	2100	U
50-32-8	Benzo(a)Pyrene	2100	U
193-39-5	Indeno(1 2 3-cd)Pyrene	2100	U
53-70-3	Dibenzo(a h)Anthracene	2100	U
191-24-2	Benzo(g h i)Perylene	2100	U

(1) Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number DC-SS-27

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed 12-10-86

Conc/Dil Factor: 1000

Percent Moisture (decanted) ~~11.9~~ 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	16,000 u
319-85-7	Beta-BHC	16,000 u
319-86-8	Delta-BHC	16,000 u
58-89-9	Gamma-BHC (Lindane)	16,000 u
76-44-8	Heptachlor	16,000 u
309-00-2	Aldrin	16,000 u
1024-57-3	Heptachlor Epoxide	16,000 u
959-98-8	Endosulfan I	16,000 u
60-57-1	Dieldrin	32,000 u
72-55-9	4,4'-DDE	32,000 u
72-20-8	Endrin	32,000 u
33213-65-9	Endosulfan II	32,000 u
72-54-8	4,4'-DDD	32,000 u
1031-07-8	Endosulfan Sulfate	32,000 u
50-29-3	4,4'-DDT	32,000 u
72-43-5	Methoxychlor	160,000 u
53494-70-5	Endrin Ketone	32,000 u
57-74-9	Chlordane	160,000 u
8001-35-2	Toxaphene	320,000 u
12674-11-2	Aroclor-1016	160,000 u
11104-28-2	Aroclor-1221	160,000 u
11141-16-5	Aroclor-1232	160,000 u
53469-21-9	Aroclor-1242	160,000 u
12672-29-6	Aroclor-1248	160,000 u
11097-69-1	Aroclor-1254	320,000 u
11096-82-5	Aroclor-1260	2,200,000 C

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4 ~~2.0~~

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Sample Number
DC-SS-27-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9793 RE QC Report No:

Sample Matrix: Soil Contract No: EL-3140

Data Release Authorized By: [illegible] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-26-86

Conc/Dil Factor: 3 pH 7.2

Percent Moisture (Not Decanted) 22

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u J
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	~~38 B~~ UJ
67-64-1	Acetone	~~31 B~~ UJ
75-15-0	Carbon Disulfide	15u J
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	~~51 B~~ U
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

WE May 93

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

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 (e.g. 5 and a concentration of 3 is reported, 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 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.

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Laboratory Name ecology and environment, inc.

Case No 11-11471

Sample Number DC-SS-27

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	21.4	~~5 BJ~~ U
2.				
3.	UNKNOWN AROMATIC	BNA	20.6	1200 J
4.	UNKNOWN AROMATIC		21.4	1600 J
5.	UNKNOWN AROMATIC		21.5	990 J
6.	UNKNOWN AROMATIC		21.6	1200 J
7.	UNKNOWN AROMATIC		23.0	1700 J
8.	UNKNOWN AROMATIC		23.3	950 J
9.	UNKNOWN AROMATIC		23.5	1400 J
10.	UNKNOWN AROMATIC		23.6	1200 J
11.	UNKNOWN AROMATIC		24.2	1500 J
12.	UNKNOWN AROMATIC		24.4	2700 J
13.	UNKNOWN AROMATIC		25.6	880 J
14.	UNKNOWN		26.3	740 J
15.	PCB		28.4-31.2	—
16. 3268879	OCTACHLORODIBENZO [B,E] [1,4] DIOXIN		37.2	2600 J
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

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Laboratory Name ecology and environment, inc.

Case No 11-1111741

Sample Number
DC-SS-27-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	(RT) or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	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.				
30				

29

~~100~~

Sample Number
DC-SS-28

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9794 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-19-86

Conc./Dil Factor: 3 pH 7.4

Percent Moisture: (Not Decanted) 16

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	63 ~~B~~ U
67-64-1	Acetone	~~13 B J~~ 30 U
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	36 ~~B~~ U J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-28

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed 12-4-86

Conc/Dil Factor: 50

Percent Moisture (Decanted) 16

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	9800	U
111-44-4	bis(-2-Chloroethyl)Ether	9800	U J
95-57-8	2-Chlorophenol	9800	U
541-73-1	1 3-Dichlorobenzene	9800	U
106-46-7	1 4-Dichlorobenzene	9800	U
100-51-6	Benzyl Alcohol	9800	U J
95-50-1	1 2-Dichlorobenzene	9800	U
95-48-7	2-Methylphenol	9800	U
39638-32-9	bis(2-chloroisopropyl)Ether	9800	U J
106-44-5	4-Methylphenol	9800	U
621-64-7	N-Nitroso-Di-n-Propylamine	9800	U J
67-72-1	Hexachloroethane	9800	U
98-95-3	Nitrobenzene	9800	U
78-59-1	Isophorone	9800	U
88-75-5	2-Nitrophenol	9800	U
105-67-9	2. 4-Dimethylphenol	9800	U
65-85-0	Benzoic Acid	48000	U
111-91-1	bis(-2-Chloroethoxyl)Methane	9800	U
120-83-2	2 4-Dichlorophenol	9800	U
120-82-1	1 2. 4-Trichlorobenzene	1800	J
91-20-3	Naphthalene	9800	U
106-47-8	4-Chloroaniline	9800	U
87-68-3	Hexachlorobutadiene	9800	U
59-50-7	4-Chloro-3-Methylphenol	9800	U
91-57-6	2-Methylnaphthalene	9800	U
77-47-4	Hexachlorocyclopentadiene	9800	U
88-06-2	2 4 6-Trichlorophenol	9800	U
95-95-4	2. 4 5-Trichlorophenol	48000	U
91-58-7	2-Chloronaphthalene	9800	U
88-74-4	2-Nitroaniline	34000	J
131-11-3	Dimethyl Phthalate	9800	U
208-96-8	Acenaphthylene	9800	U
99-09-2	3-Nitroaniline	48000	U J

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	9800	U
51-28-5	2. 4-Dinitrophenol	48000	U
100-02-7	4-Nitrophenol	48000	U J
132-64-9	Dibenzofuran	9800	U
121-14-2	2 4-Dinitrotoluene	9800	U J
606-20-2	2 6-Dinitrotoluene	9800	U
84-66-2	Diethylphthalate	9800	U
7005-72-3	4-Chlorophenyl-phenylether	9800	U
86-73-7	Fluorene	9800	U
100-01-6	4-Nitroaniline	48000	U J
534-52-1	4. 6-Dinitro-2-Methylphenol	48000	U
86-30-6	N-Nitrosodiphenylamine (1)	9800	U
101-55-3	4-Bromophenyl-phenylether	9800	U
118-74-1	Hexachlorobenzene	9800	U
87-86-5	Pentachlorophenol	23000	J
85-01-8	Phenanthrene	9800	U
120-12-7	Anthracene	9800	U
84-74-2	Di-n-Butylphthalate	9800	U
206-44-0	Fluoranthene	9800	U
129-00-0	Pyrene	9800	U
85-68-7	Butylbenzylphthalate	9800	U
91-94-1	3. 3 -Dichlorobenzidine	20000	U J
56-55-3	Benzo(a)Anthracene	9800	U
117-81-7	bis(2-Ethylhexyl)Phthalate	9800	U
218-01-9	Chrysene	9800	U
117-84-0	Di-n-Octyl Phthalate	9800	U
205-99-2	Benzo(b)Fluoranthene	9800	U
207-08-9	Benzo(k)Fluoranthene	9800	U
50-32-8	Benzo(a)Pyrene	9800	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	9800	U
53-70-3	Dibenz(a h)Anthracene	9800	U
191-24-2	Benzo(g h i)Perylene	9800	U

(1)-Cannot be separated from diphenylamine

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Form I

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May 93

Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number
DC-SS-28

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-19-86

Date Analyzed 12-9-86

Conc/Dil Factor 1000

Percent Moisture (decanted) 16.2

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16,000 U
319-85-7	Beta-BHC	16,000 U
319-86-8	Delta-BHC	16,000 U
58-89-9	Gamma-BHC (Lindane)	16,000 U
76-44-8	Heptachlor	16,000 U
309-00-2	Aldrin	16,000 U
1024-57-3	Heptachlor Epoxide	16,000 U
959-98-8	Endosulfan I	16,000 U
60-57-1	Dieldrin	32,000 U
72-55-9	4,4'-DDE	32,000 U
72-20-8	Endrin	32,000 U
33213-65-9	Endosulfan II	32,000 U
72-54-8	4,4'-DDD	32,000 U
1031-07-8	Endosulfan Sulfate	32,000 U
50-29-3	4,4'-DDT	32,000 U
72-43-5	Methoxychlor	160,000 U
53494-70-5	Endrin Ketone	32,000 U
57-74-9	Chlordane	160,000 U
8001-35-2	Toxaphene	320,000 U
12674-11-2	Aroclor-1016	160,000 U
11104-28-2	Aroclor-1221	160,000 U
11141-16-5	Aroclor-1232	160,000 U
53469-21-9	Aroclor-1242	160,000 U
12672-29-6	Aroclor-1248	160,000 U
11097-69-1	Aroclor-1254	246,000 J
11096-82-5	Aroclor-1260	625,000 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)

HVE May 93

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No 11-4171

Sample Number
DC-SS-28

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4	~~3 J~~ 4
2.	Hexane isomer		[illegible]	~~[illegible]~~ 4
3.	Unknown hydrocarbon		23.2	13
4.	Unknown hydrocarbon		24.5	[illegible]
5.	Unknown hydrocarbon		[illegible]	17
6.				
7.	UNKNOWN AROMATIC	BNA	21.3	58000 J
8.	UNKNOWN AROMATIC		21.8	110000 J
9.	UNKNOWN AROMATIC		21.9	39000 J
10.	UNKNOWN AROMATIC		22.0	56000 J
11.	UNKNOWN AROMATIC		22.1	83000 J
12.	UNKNOWN AROMATIC		22.3	160000 J
13.	UNKNOWN AROMATIC		22.5	43000 J
14.	UNKNOWN AROMATIC		22.6	120000 J
15.	PENTAMETHYL HEPTYL BENZENE		22.7	76000 J
16.	DIMETHYL DECYL BENZENE		22.9	48000 J
17.	UNKNOWN AROMATIC		23.0	23000 J
18.	UNKNOWN ~~HYDROCARBON~~ AROMATIC		23.1	32000 J
19.	UNKNOWN AROMATIC		23.3	32000 J
20.	UNKNOWN AROMATIC		23.4	36000 J
21.	UNKNOWN AROMATIC		23.8	58000 J
22.	UNKNOWN AROMATIC		24.1	29000 J
23.	UNKNOWN AROMATIC		24.2	50000 J
24.	UNKNOWN AROMATIC		24.3	58000 J
25.	UNKNOWN AROMATIC		24.4	36000 J
26.	UNKNOWN AROMATIC		25.3	45000 J
27. 3268879	OCTACHLORODIBENZO[B,E][1,4]DIOXIN		38.4	52000 J
28.				
29.				
30.				

May 93

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Sample Number
DC-SS-29

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-44474
Lab Sample ID No: 9795 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-20-86
Conc/Dil Factor: 3 pH 5.3
Percent Moisture: (Not Decanted) 43

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	80 ~~B~~ u
67-64-1	Acetone	37 ~~B~~ u
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	56 ~~B~~ uJ
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

May 93

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-29

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed 12-19-86

Conc/Dil Factor: 50

Percent Moisture (Decanted) 44

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	15000	U
111-44-4	bis(-2-Chloroethyl)Ether	15000	U
95-57-8	2-Chlorophenol	15000	U
541-73-1	1 3-Dichlorobenzene	15000	U
106-46-7	1 4-Dichlorobenzene	15000	U
100-51-6	Benzyl Alcohol	15000	U J
95-50-1	1 2-Dichlorobenzene	15000	U
95-48-7	2-Methylphenol	15000	U
39638-32-9	bis(2-chloroisopropyl)Ether	15000	U
106-44-5	4-Methylphenol	15000	U
621-64-7	N-Nitroso-Di-n-Propylamine	15000	U
67-72-1	Hexachloroethane	15000	U
98-95-3	Nitrobenzene	15000	U
78-59-1	Isophorone	15000	U
88-75-5	2-Nitrophenol	15000	U
105-67-9	2, 4-Dimethylphenol	15000	U
65-85-0	Benzoic Acid	71000	U J
111-91-1	bis(-2-Chloroethoxy)Methane	15000	U
120-83-2	2 4-Dichlorophenol	15000	U
120-82-1	1 2, 4-Trichlorobenzene	15000	U
91-20-3	Naphthalene	15000	U
106-47-8	4-Chloroaniline	15000	U J
87-68-3	Hexachlorobutadiene	15000	U
59-50-7	4-Chloro-3-Methylphenol	15000	U
91-57-6	2-Methylnaphthalene	15000	U
77-47-4	Hexachlorocyclopentadiene	15000	U
88-06-2	2 4 6-Trichlorophenol	15000	U
95-95-4	2, 4 5-Trichlorophenol	71000	U
91-58-7	2-Chloronaphthalene	15000	U
88-74-4	2-Nitroaniline	71000	U
131-11-3	Dimethyl Phthalate	15000	U
208-96-8	Acenaphthylene	15000	U
99-09-2	3-Nitroaniline	71000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	15000	U
51-28-5	2, 4-Dinitrophenol	71000	U
100-02-7	4-Nitrophenol	71000	U J
132-64-9	Dibenzofuran	15000	U
121-14-2	2 4-Dinitrotoluene	15000	U
606-20-2	2 6-Dinitrotoluene	15000	U
84-66-2	Diethylphthalate	15000	U
7005-72-3	4-Chlorophenyl-phenylether	15000	U
86-73-7	Fluorene	15000	U
100-01-6	4-Nitroaniline	71000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	71000	U
86-30-6	N-Nitrosodiphenylamine (1)	15000	U
101-55-3	4-Bromophenyl-phenylether	15000	U
118-74-1	Hexachlorobenzene	15000	U J
87-86-5	Pentachlorophenol	71000	U
85-01-8	Phenanthrene	15000	U
120-12-7	Anthracene	15000	U
84-74-2	Di-n-Butylphthalate	15000	U
206-44-0	Fluoranthene	15000	U
129-00-0	Pyrene	15000	U
85-68-7	Butylbenzylphthalate	15000	U
91-94-1	3, 3 -Dichlorobenzidine	29000	U
56-55-3	Benzo(a)Anthracene	15000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2900	J
218-01-9	Chrysene	15000	U
117-84-0	Di-n-Octyl Phthalate	15000	U
205-99-2	Benzo(b)Fluoranthene	15000	U
207-08-9	Benzo(k)Fluoranthene	15000	U
50-32-8	Benzo(a)Pyrene	15000	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	15000	U
53-70-3	Dibenz(a h)Anthracene	15000	U
191-24-2	Benzo(g h i)Perylene	15000	U

(1)-Cannot be separated from diphenylamine

Form I 35

~~108~~ 7 May 93

Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number DC-SS-29

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-17-86

Date Analyzed: 12-10-86

Conc/Dil Factor: 50

Percent Moisture (decanted) 43.5

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	800 U
319-85-7	Beta-BHC	800 U
319-86-8	Delta-BHC	800 U
58-89-9	Gamma-BHC (Lindane)	800 U
76-44-8	Heptachlor	800 U
309-00-2	Aldrin	800 U
1024-57-3	Heptachlor Epoxide	800 U
959-98-8	Endosulfan I	800 U
60-57-1	Dieldrin	1600 U
72-55-9	4,4'-DDE	1600 U
72-20-8	Endrin	1600 U
33213-65-9	Endosulfan II	1600 U
72-54-8	4,4'-DDD	1600 U
1031-07-8	Endosulfan Sulfate	1600 U
50-29-3	4,4'-DDT	1600 U
72-43-5	Methoxychlor	8,000 U
53494-70-5	Endrin Ketone	1,600 U
57-74-9	Chlordane	8,000 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	8,000 U
12672-29-6	Aroclor-1248	21,000
11097-69-1	Aroclor-1254	16,000 U
11096-82-5	Aroclor-1260	23,000 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)

HVE May 93

V_s _____ or W_s 30 V_t 1000 V_i 4

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~~1.89~~

7/85
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Laboratory Name ecology and environment, inc.

Case No 11-11174

Sample Number DC-SS-29

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4	~~68 J~~ U
2.	Hexane isomer	VOA	21.4	~~16 J~~ U
3.	Unknown ketone	VOA	19.6	~~46 J~~ U
4.				
5.	UNKNOWN AROMATIC	BNA	19.9	120000 J
6.	UNKNOWN AROMATIC		20.4	200,000 J
7.	UNKNOWN AROMATIC		20.6	120000 J
8.	UNKNOWN AROMATIC		20.8	470000 J
9.	UNKNOWN AROMATIC		20.9	260000 J
10.	UNKNOWN AROMATIC		21.0	380000 J
11.	UNKNOWN AROMATIC		21.1	400000 J
12.	UNKNOWN AROMATIC		21.4	600000 J
13.	UNKNOWN AROMATIC		21.5	190000 J
14.	UNKNOWN AROMATIC		21.7	490000 J
15.	UNKNOWN AROMATIC		21.8	280000 J
16.	DIMETHYL DECYL BENZENE		21.9	220000 J
17.	UNKNOWN AROMATIC		22.0	83000 J
18.	UNKNOWN AROMATIC		22.2	140000 J
19.	UNKNOWN AROMATIC		22.3	99000 J
20.	UNKNOWN AROMATIC		22.8	120000 J
21.	UNKNOWN AROMATIC		23.0	77000 J
22.	UNKNOWN AROMATIC		23.2	75000 J
23.	UNKNOWN AROMATIC		24.1	63000 J
24.	UNKNOWN AROMATIC		24.3	65000 J
25.				
26.				
27.				
28.				
29.				
30				

HC May 93

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Sample Number
DC-SS-30

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9796 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-25-86

Conc/Dil Factor: 3 pH 6.7

Percent Moisture: (Not Decanted) 31

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	~~62 B~~ U
67-64-1	Acetone 30	~~46 BJ~~ U
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3 Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u J
108-10-1	4-Methyl-2-Pentanone	47 J
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u J
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No U-4474

Sample Number DC-SS-30

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed 12-19-86

Conc./Dil Factor: 100

Percent Moisture (Decanted) 31

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	24000	U
111-44-4	bis(2-Chloroethyl)Ether	24000	U
95-57-8	2-Chlorophenol	24000	U
541-73-1	1,3-Dichlorobenzene	24000	U
106-46-7	1,4-Dichlorobenzene	24000	U
100-51-6	Benzyl Alcohol	24000	U J
95-50-1	1,2-Dichlorobenzene	24000	U
95-48-7	2-Methylphenol	24000	U
39638-32-9	bis(2-chloroisopropyl)Ether	24000	U
106-44-5	4-Methylphenol	24000	U
621-64-7	N-Nitroso-Di-n-Propylamine	24000	U
67-72-1	Hexachloroethane	24000	U
98-95-3	Nitrobenzene	24000	U
78-59-1	Isophorone	24000	U
88-75-5	2-Nitrophenol	24000	U
105-67-9	2,4-Dimethylphenol	24000	U
65-85-0	Benzoic Acid	120000	U J
111-91-1	bis(2-Chloroethoxy)Methane	24000	U
120-83-2	2,4-Dichlorophenol	24000	U
120-82-1	1,2,4-Trichlorobenzene	24000	U
91-20-3	Naphthalene	24000	U
106-47-8	4-Chloroaniline	24000	U J
87-68-3	Hexachlorobutadiene	24000	U
59-50-7	4-Chloro-3-Methylphenol	24000	U
91-57-6	2-Methylnaphthalene	24000	U
77-47-4	Hexachlorocyclopentadiene	24000	U
88-06-2	2,4,6-Trichlorophenol	24000	U
95-95-4	2,4,5-Trichlorophenol	120000	U
91-58-7	2-Chloronaphthalene	24000	U
88-74-4	2-Nitroaniline	120000	U
131-11-3	Dimethyl Phthalate	24000	U
208-96-8	Acenaphthylene	24000	U
99-09-2	3-Nitroaniline	120000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	24000	U
51-28-5	2,4-Dinitrophenol	120000	U
100-02-7	4-Nitrophenol	120000	U J
132-64-9	Dibenzofuran	24000	U
121-14-2	2,4-Dinitrotoluene	24000	U
606-20-2	2,6-Dinitrotoluene	24000	U
84-66-2	Diethylphthalate	24000	U
7005-72-3	4-Chlorophenyl-phenylether	24000	U
86-73-7	Fluorene	24000	U
100-01-6	4-Nitroaniline	120000	U
534-52-1	4,6-Dinitro-2-Methylphenol	120000	U
86-30-6	N-Nitrosodiphenylamine (1)	24000	U
101-55-3	4-Bromophenyl-phenylether	24000	U
118-74-1	Hexachlorobenzene	24000	U J
87-86-5	Pentachlorophenol	120000	U
85-01-8	Phenanthrene	24000	U
120-12-7	Anthracene	24000	U
84-74-2	Di-n-Butylphthalate	24000	U
206-44-0	Fluoranthene	24000	U
129-00-0	Pyrene	24000	U
85-68-7	Butylbenzylphthalate	24000	U
91-94-1	3,3'-Dichlorobenzidine	48000	U
56-55-3	Benzo(a)Anthracene	24000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	24000	U
218-01-9	Chrysene	24000	U
117-84-0	Di-n-Octyl Phthalate	24000	U
205-99-2	Benzo(b)Fluoranthene	24000	U
207-08-9	Benzo(k)Fluoranthene	24000	U
50-32-8	Benzo(a)Pyrene	24000	U
193-39-5	Indeno(1,2,3-cd)Pyrene	24000	U
53-70-3	Dibenz(a,h)Anthracene	24000	U
191-24-2	Benzo(g,h,i)Perylene	24000	U

(1)-Cannot be separated from diphenylamine

HB May 93

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Laboratory Name ecology and environment, inc.

Case No V-4474

Sample Number DC-SS-30

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed 12-9-86

Conc/Dil Factor 100

Percent Moisture (decanted) 30.7

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	1600 U
319-85-7	Beta-BHC	1,600 U
319-86-8	Delta-BHC	1,600 U
58-89-9	Gamma-BHC (Lindane)	1,600 U
76-44-8	Heptachlor	1,600 U
309-00-2	Aldrin	1,600 U
1024-57-3	Heptachlor Epoxide	1,600 U
959-98-8	Endosulfan I	1,600 U
60-57-1	Dieldrin	3,200 U
72-55-9	4,4'-DDE	3,200 U
72-20-8	Endrin	3,200 U
33213-65-9	Endosulfan II	3,200 U
72-54-8	4,4'-DDD	3,200 U
1031-07-8	Endosulfan Sulfate	3,200 U
50-29-3	4,4'-DDT	3,200 U
72-43-5	Methoxychlor	16,000 U
53494-70-5	Endrin Ketone	3,200 U
57-74-9	Chlordane	16,000 U
8001-35-2	Toxaphene	32,000 U
12674-11-2	Aroclor-1016	16,000 U
11104-28-2	Aroclor-1221	16,000 U
11141-16-5	Aroclor-1232	16,000 U
53469-21-9	Aroclor-1242	16,000 U
12672-29-6	Aroclor-1248	30,300
11097-69-1	Aroclor-1254	32,000 U
11096-82-5	Aroclor-1260	35,600 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_i 1000 V_t 4 ~~3~~

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May 93

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No V-4474

Sample Number DC-SS-30

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number MIN	Estimated Concentration (ug/l or ug/kg)
1.	79209	ACETIC ACID, METHYL ESTER	VOA	11.3	150 J
2.		UNKNOWN KETONE		18.1	10 J
3.		HEXENE ISOMER		18.8	29 J
4.		HEXANE ISOMER		21.2	~~9 BJ~~ 4
5.					
6.		UNKNOWN	BNA	23.4	250000 J
7.		UNKNOWN		24.5	290000 J
8.		UNKNOWN		25.4	16000 J
9.		UNKNOWN		25.8	220000 J
10.		UNKNOWN HYDROCARBON		26.9	43000 J
11.		UNKNOWN HYDROCARBON		28.2	16000 J
12.		UNKNOWN HYDROCARBON		28.4	65000 J
13.		UNKNOWN HYDROCARBON		29.3	52000 J
14.		UNKNOWN HYDROCARBON		29.6	30000 J
15.		UNKNOWN HYDROCARBON		30.0	18000 J
16.		UNKNOWN		30.1	18000 J
17.		UNKNOWN HYDROCARBON		30.2	19000 J
18.		UNKNOWN HYDROCARBON		30.6	27000 J
19.		UNKNOWN HYDROCARBON		31.3	44000 J
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30					

HVS May 93

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Sample Number
DC-SS-31

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No. U-4474

Lab Sample ID No: 9797 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [illegible] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-20-86

Conc./Dil Factor: 3 pH 6.3

Percent Moisture: (Not Decanted) 36

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	50u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	71 B-U
67-64-1	Acetone	30 ~~21~~ B U
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

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

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

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

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

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

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Sample Number
DC-SS-31-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9797 QC Report No: ____

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: ____

Date Analyzed: 11-27-86

Conc/Dil Factor: 3 pH 6.3

Percent Moisture: (Not Decanted) 36

CAS Number		ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	30u J
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u J
75-09-2	Methylene Chloride	90 ~~B~~ U J
67-64-1	Acetone	36 ~~B~~ U J
75-15-0	Carbon Disulfide	15u J
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2 Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/L or ug/Kg (Circle One)
78-87-5	1, 2 Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3 Dichloropropene	15u
110-75-8	2 Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2 Pentanone	190
591-78-6	2-Hexanone	30 ~~U B J~~ U
127-18-4	Tetrachloroethene	21
79-34-5	1, 1, 2, 2 Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

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

~~TR~~ AE 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. 10 J). If level of detection is 10 ug/L and a concentration of 3 ug/L is reported, report as 3J.

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-31

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed: 12-4-86

Conc/Dil Factor: 50

Percent Moisture (Decanted) 36

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	13000	U
51-28-5	2. 4-Dinitrophenol	62000	U
100-02-7	4-Nitrophenol	62000	U
132-64-9	Dibenzofuran	13000	U
121-14-2	2 4-Dinitrotoluene	13000	U
606-20-2	2 6-Dinitrotoluene	13000	U
84-66-2	Diethylphthalate	13000	U
7005-72-3	4-Chlorophenyl-phenylether	13000	U
86-73-7	Fluorene	13000	U
100-01-6	4-Nitroaniline	62000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	62000	U
86-30-6	N-Nitrosodiphenylamine (1)	13000	U
101-55-3	4-Bromophenyl-phenylether	13000	U
118-74-1	Hexachlorobenzene	13000	U
87-86-5	Pentachlorophenol	62000	U
85-01-8	Phenanthrene	13000	U
120-12-7	Anthracene	13000	U
84-74-2	Di-n-Butylphthalate	13000	U
206-44-0	Fluoranthene	13000	U
129-00-0	Pyrene	13000	U
85-68-7	Butylbenzylphthalate	13000	U
91-94-1	3. 3 -Dichlorobenzidine	26000	U
56-55-3	Benzo(a)Anthracene	13000	U
117-81-7	bis(2-EthylhexylPhthalate	13000	U
218-01-9	Chrysene	13000	U
117-84-0	Di-n-Octyl Phthalate	13000	U
205-99-2	Benzo(b)Fluoranthene	13000	U
207-08-9	Benzo(k)Fluoranthene	13000	U
50-32-8	Benzo(a)Pyrene	13000	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	13000	U
53-70-3	Dibenzo(a h)Anthracene	13000	U
191-24-2	Benzo(g h i)Perylene	13000	U

(1)-Cannot be separated from diphenylamine

YE

~~216~~ May 93

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Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number DC-SS-31

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed 12-10-86

Conc/Dil Factor: 100

Percent Moisture (decanted) 36

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	1600 u
319-85-7	Beta-BHC	1,600 u
319-86-8	Delta-BHC	1,600 u
58-89-9	Gamma-BHC (Lindane)	1,600 u
76-44-8	Heptachlor	1,600 u
309-00-2	Aldrin	1,600 u
1024-57-3	Heptachlor Epoxide	1,600 u
959-98-8	Endosulfan I	1,600 u
60-57-1	Dieldrin	3,200 u
72-55-9	4,4'-DDE	3,200 u
72-20-8	Endrin	3,200 u
33213-65-9	Endosulfan II	3,200 u
72-54-8	4,4'-DDD	3,200 u
1031-07-8	Endosulfan Sulfate	3,200 u
50-29-3	4,4'-DDT	3,200 u
72-43-5	Methoxychlor	16,000 u
53494-70-5	Endrin Ketone	3,200 u
57-74-9	Chlordane	16,000 u
8001-35-2	Toxaphene	32,000 u
12674-11-2	Aroclor-1016	16,000 u
11104-28-2	Aroclor-1221	16,000 u
11141-16-5	Aroclor-1232	16,000 u
53469-21-9	Aroclor-1242	16,000 u
12672-29-6	Aroclor-1248	16,000 u
11097-69-1	Aroclor-1254	32,000 u
11096-82-5	Aroclor-1260	32,000 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No 11-1/1/74

Sample Number DC-SS-31

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1. 79209	Acetic acid methyl ester	VOA	11.4	29 J
2.	Hexene isomer		18.1	25 J
3.	Hexene isomer		18.7	55 J
4.	Hexene isomer		19.7	~~12 BJ~~ 4
5.	Unknown Ketone		20.0	~~26 BJ~~ 4
6.	Hexane isomer		21.3	~~24 BJ~~ 4
7.	Unknown alcohol		24.0	44 J
8.	Unknown hydrocarbon		24.9	53 J
9.				
10.				
11.	UNKNOWN	BNA	24.4	180000 J
12.	UNKNOWN		25.6	430000 J
13.	UNKNOWN		26.8	160000 J
14.	UNKNOWN HYDROCARBON		27.2	9000 J
15.	UNKNOWN HYDROCARBON		27.6	31000 J
16.	UNKNOWN HYDROCARBON		27.9	43000 J
17.	UNKNOWN HYDROCARBON		29.5	59000 J
18.	UNKNOWN HYDROCARBON		30.4	56000 J
19.	UNKNOWN HYDROCARBON		30.6	54000 J
20.	UNKNOWN		33.7	72000 J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
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AVG
May 93

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Laboratory Name ecology and environment, inc.

Case No IC-41471

Sample Number DC-SS-31-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	(RT) or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	18.1	730 J
2.	Hexene isomer	VOA	18.8	2500 J
3.	Hexene isomer	VOA	19.5	110 J
4.	Hexene isomer	VOA	19.9	360 J
5.	Unknown alcohol	VOA	23.4	64 J
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
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27.				
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29.				
30				

Sample Number
DC-SS-32

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9798 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [illegible] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-20-86

Conc./Dil Factor: 3 pH 6.0

Percent Moisture: (Not Decanted) 25

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

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	~~29 J~~ 30U
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

YE May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-32

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed 12-4-86

Conc/Dil Factor 50

Percent Moisture (Decanted) 25

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	11000	U
111-44-4	bis(-2-Chloroethyl)Ether	11000	U J
95-57-8	2-Chlorophenol	11000	U
541-73-1	1 3-Dichlorobenzene	11000	U
106-46-7	1 4-Dichlorobenzene	11000	U
100-51-6	Benzyl Alcohol	11000	U J
95-50-1	1 2-Dichlorobenzene	11000	U
95-48-7	2-Methylphenol	11000	U
39638-32-9	bis(2-chloroisopropyl)Ether	11000	U J
106-44-5	4-Methylpheno	11000	U
621-64-7	N-Nitroso-Di-n-Propylamine	11000	U J
67-72-1	Hexachloroethane	11000	U
98-95-3	Nitrobenzene	11000	U
78-59-1	Isophorone	11000	U
88-75-5	2-Nitrophenol	11000	U
105-67-9	2. 4-Dimethylphenol	11000	U
65-85-0	Benzoic Acid	53000	U
111-91-1	bis(-2-Chloroethoxy)Methane	11000	U
120-83-2	2. 4-Dichlorophenol	11000	U
120-82-1	1 2. 4-Trichlorobenzene	11000	U
91-20-3	Naphthalene	11000	U
106-47-8	4-Chloroaniline	11000	U
87-68-3	Hexachlorobutadiene	11000	U
59-50-7	4-Chloro-3-Methylphenol	11000	U
91-57-6	2-Methylnaphthalene	11000	U
77-47-4	Hexachlorocyclopentadiene	11000	U
88-06-2	2 4 6-Trichlorophenol	11000	U
95-95-4	2. 4. 5-Trichlorophenol	53000	U
91-58-7	2-Chloronaphthalene	11000	U
88-74-4	2-Nitroaniline	53000	U
131-11-3	Dimethyl Phthalate	11000	U
208-96-8	Acenaphthylene	11000	U
99-09-2	3-Nitroaniline	53000	U J

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	11000	U
51-28-5	2. 4-Dinitrophenol	53000	U
100-02-7	4-Nitrophenol	53000	U J
132-64-9	Dibenzofuran	11000	U
121-14-2	2 4-Dinitrotoluene	11000	U J
606-20-2	2 6-Dinitrotoluene	11000	U
84-66-2	Diethylphthalate	11000	U
7005-72-3	4-Chlorophenyl-phenylether	11000	U
86-73-7	Fluorene	11000	U
100-01-6	4-Nitroaniline	53000	U J
534-52-1	4. 6-Dinitro-2-Methylphenol	53000	U
86-30-6	N-Nitrosodiphenylamine (1)	11000	U
101-55-3	4-Bromophenyl-phenylether	11000	U
118-74-1	Hexachlorobenzene	11000	U
87-86-5	Pentachlorophenol	53000	U
85-01-8	Phenanthrene	11000	U
120-12-7	Anthracene	11000	U
84-74-2	Di-n-Butylphthalate	11000	U
206-44-0	Fluoranthene	11000	U
129-00-0	Pyrene	11000	U
85-68-7	Butylbenzylphthalate	11000	U
91-94-1	3. 3 -Dichlorobenzidine	22000	U J
56-55-3	Benzo(a)Anthracene	11000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	11000	U
218-01-9	Chrysene	11000	U
117-84-0	Di-n-Octyl Phthalate	11000	U
205-99-2	Benzo(b)Fluoranthene	11000	U
207-08-9	Benzo(k)Fluoranthene	11000	U
50-32-8	Benzo(a)Pyrene	11000	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	11000	U
53-70-3	Dibenzo(a h)Anthracene	11000	U
191-24-2	Benzo(g h i)Perylene	11000	U

(1)-Cannot be separated from diphenylamine

SM HE May 93

Form I 49

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Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number DC-SS-32

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-17-86

Date Analyzed: 12-10-86

Conc/Dil Factor: 50

Percent Moisture (decanted) 25.1

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	800 U
319-85-7	Beta-BHC	800 U
319-86-8	Delta-BHC	800 U
58-89-9	Gamma-BHC (Lindane)	800 U
76-44-8	Heptachlor	800 U
309-00-2	Aldrin	800 U
1024-57-3	Heptachlor Epoxide	800 U
959-98-8	Endosulfan I	800 U
60-57-1	Dieldrin	1600 U
72-55-9	4,4'-DDE	1600 U
72-20-8	Endrin	1600 U
33213-65-9	Endosulfan II	1600 U
72-54-8	4,4'-DDD	1600 U
1031-07-8	Endosulfan Sulfate	1600 U
50-29-3	4,4'-DDT	1600 U
72-43-5	Methoxychlor	8,000 U
53494-70-5	Endrin Ketone	1,600 U
57-74-9	Chlordane	8,000 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	8,000 U
12672-29-6	Aroclor-1248	8,000 U
11097-69-1	Aroclor-1254	16,000 U
11096-82-5	Aroclor-1260	~~12,600 J~~ 16,000 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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May 93

Form 1

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ecology and environment

Laboratory Name ecology and environment, inc.

Case No 11-4-174

Sample Number DC-SS-32

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	18.2	1 J
2.	Unknown Ketone	VOA	18.7	~~15 J~~ — U
3.	Hexane isomer	VOA	21.4	~~11 J~~ U
4.	Unknown hydrocarbon	VOA	23.1	17 J
5.	Unknown hydrocarbon	VOA	24.4	27 J
6.	Unknown hydrocarbon	VOA	24.7	17 J
7.				
8.	UNKNOWN AROMATIC	BNA	21.3	84000 J
9.	UNKNOWN AROMATIC		21.8	230000 J
10.	UNKNOWN AROMATIC		21.9	92000 J
11.	UNKNOWN AROMATIC		22.0	170000 J
12.	UNKNOWN AROMATIC		22.1	170000 J
13.	UNKNOWN AROMATIC		22.3	290000 J
14.	UNKNOWN AROMATIC		22.7	240000 J
15.	DIMETHYLDECYLBENZENE		22.8	140000 J
16.	UNKNOWN AROMATIC		22.9	120000 J
17.	UNKNOWN AROMATIC		23.0	46000 J
18.	UNKNOWN AROMATIC		23.3	58000 J
19.	UNKNOWN AROMATIC		23.5	64000 J
20.	UNKNOWN AROMATIC		23.8	100000 J
21.	UNKNOWN AROMATIC		24.0	80000 J
22.	UNKNOWN AROMATIC		24.1	52000 J
23.	UNKNOWN AROMATIC		24.2	94000 J
24.	UNKNOWN AROMATIC		24.4	55000 J
25.	UNKNOWN AROMATIC		25.3	120000 J
26.	UNKNOWN AROMATIC		25.6	92000 J
27.	UNKNOWN AROMATIC		25.8	78000 J
28.				
29.				
30				

HG
May 93

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Sample Number
DC-SS-33

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-44474

Lab Sample ID No: 9799 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-27-86

Conc./Dil Factor: 10 pH 5.0

Percent Moisture: (Not Decanted) 32

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	100u J
74-83-9	Bromomethane	100u J
75-01-4	Vinyl Chloride	100u
75-00-3	Chloroethane	100u J
75-09-2	Methylene Chloride	230 ~~B~~ u J
67-64-1	Acetone	170 ~~B~~ u 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
107-06-2	1, 2-Dichloroethane	50u
78-93-3	2-Butanone	100u
71-55-6	1, 1, 1-Trichloroethane	50u
56-23-5	Carbon Tetrachloride	50u
108-05-4	Vinyl Acetate	100u
75-27-4	Bromodichloromethane	50u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	50u
10061-02-6	Trans-1, 3-Dichloropropene	50u
79-01-6	Trichloroethene	50u
124-48-1	Dibromochloromethane	50u
79-00-5	1, 1, 2-Trichloroethane	50u
71-43-2	Benzene	50u
10061-01-5	cis-1, 3-Dichloropropene	50u
110-75-8	2-Chloroethylvinylether	100u J
75-25-2	Bromoform	50u
108-10-1	4-Methyl-2-Pentanone	2000
591-78-6	2-Hexanone	~~84 B~~ 100 u
127-18-4	Tetrachloroethene	50u
79-34-5	1, 1, 2, 2-Tetrachloroethane	50u
108-88-3	Toluene	50u
108-90-7	Chlorobenzene	50u
100-41-4	Ethylbenzene	50u
100-42-5	Styrene	50u
	Total Xylenes	50u

HVE May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-33

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed 12-4-86

Conc/Dil Factor 50

Percent Moisture (Decanted) 32

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	12000	U
111-44-4	bis(-2-Chloroethyl)Ether	12000	U J
95-57-8	2-Chlorophenol	12000	U
541-73-1	1 3-Dichlorobenzene	12000	U
106-46-7	1 4-Dichlorobenzene	12000	U
100-51-6	Benzyl Alcohol	12000	U J
95-50-1	1 2-Dichlorobenzene	12000	U
95-48-7	2-Methylphenol	12000	U
39638-32-9	bis(2-chloroisopropyl)Ether	12000	U J
106-44-5	4-Methylphenol	12000	U
621-64-7	N-Nitroso-Di-n-Propylamine	12000	U J
67-72-1	Hexachloroethane	12000	U
98-95-3	Nitrobenzene	12000	U
78-59-1	Isophorone	12000	U
88-75-5	2-Nitrophenol	12000	U
105-67-9	2, 4-Dimethylphenol	12000	U
65-85-0	Benzoic Acid	59000	U
111-91-1	bis(-2-Chloroethoxyl)Methane	12000	U
120-83-2	2 4-Dichlorophenol	12000	U
120-82-1	1 2, 4-Trichlorobenzene	12000	U
91-20-3	Naphthalene	12000	U
106-47-8	4-Chloroaniline	12000	U
87-68-3	Hexachlorobutadiene	12000	U
59-50-7	4-Chloro-3-Methylphenol	12000	U
91-57-6	2-Methylnaphthalene	12000	U
77-47-4	Hexachlorocyclopentadiene	12000	U
88-06-2	2 4 6-Trichlorophenol	12000	U
95-95-4	2 4, 5-Trichlorophenol	59000	U
91-58-7	2-Chloronaphthalene	12000	U
88-74-4	2-Nitroaniline	59000	U
131-11-3	Dimethyl Phthalate	12000	U
208-96-8	Acenaphthylene	12000	U
99-09-2	3-Nitroaniline	59000	U J

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	12000	U
51-28-5	2, 4-Dinitrophenol	59000	U
100-02-7	4-Nitrophenol	59000	U J
132-64-9	Dibenzofuran	12000	U
121-14-2	2 4-Dinitrotoluene	12000	U J
606-20-2	2 6-Dinitrotoluene	12000	U
84-66-2	Diethylphthalate	12000	U
7005-72-3	4-Chlorophenyl-phenylether	12000	U
86-73-7	Fluorene	12000	U
100-01-6	4-Nitroaniline	59000	U J
534-52-1	4, 6-Dinitro-2-Methylphenol	59000	U
86-30-6	N-Nitrosodiphenylamine (1)	12000	U
101-55-3	4-Bromophenyl-phenylether	12000	U
118-74-1	Hexachlorobenzene	12000	U
87-86-5	Pentachlorophenol	59000	U
85-01-8	Phenanthrene	12000	U
120-12-7	Anthracene	12000	U
84-74-2	Di-n-Butylphthalate	12000	U
206-44-0	Fluoranthene	12000	U
129-00-0	Pyrene	12000	U
85-68-7	Butylbenzylphthalate	12000	U
91-94-1	3, 3 -Dichlorobenzidine	24000	U J
56-55-3	Benzo(a)Anthracene	12000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1400	J
218-01-9	Chrysene	12000	U
117-84-0	Di-n-Octyl Phthalate	2000	J
205-99-2	Benzo(b)Fluoranthene	12000	U
207-08-9	Benzo(k)Fluoranthene	12000	U
50-32-8	Benzo(a)Pyrene	12000	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	12000	U
53-70-3	Dibenzo(a,h)Anthracene	12000	U
191-24-2	Benzo(g,h,i)Perylene	12000	U

(1)-Cannot be separated from diphenylamine

HVE

May 93

Form I 53

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Laboratory Name ecology and environment, inc.

Case No V-4474

Sample Number DC-SS-33

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed 12-10-86

Conc/Dil Factor: 100

Percent Moisture (decanted) ~~29.8~~ 32

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	1600 U
319-85-7	Beta-BHC	1,600 U
319-86-8	Delta-BHC	1,600 U
58-89-9	Gamma-BHC (Lindane)	1,600 U
76-44-8	Heptachlor	1,600 U
309-00-2	Aldrin	1,600 U
1024-57-3	Heptachlor Epoxide	1,600 U
959-98-8	Endosulfan I	1,600 U
60-57-1	Dieldrin	3,200 U
72-55-9	4,4'-DDE	3,200 U
72-20-8	Endrin	3,200 U
33213-65-9	Endosulfan II	3,200 U
72-54-8	4,4'-DDD	3,200 U
1031-07-8	Endosulfan Sulfate	3,200 U
50-29-3	4,4'-DDT	3,200 U
72-43-5	Methoxychlor	16,000 U
53494-70-5	Endrin Ketone	3,200 U
57-74-9	Chlordane	16,000 U
8001-35-2	Toxaphene	32,000 U
12674-11-2	Aroclor-1016	16,000 U
11104-28-2	Aroclor-1221	16,000 U
11141-16-5	Aroclor-1232	16,000 U
53469-21-9	Aroclor-1242	16,000 U
12672-29-6	Aroclor-1248	16,000 U
11097-69-1	Aroclor-1254	32,000 U
11096-82-5	Aroclor-1260	~~26,600 J~~ 32,000 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

HUE May 93

V_s _____ or W_s 30 V_t 1000 V_i 4 ~~28~~

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Laboratory Name ecology and environment, inc.

Case No 11-11474

Sample Number DC-SS-33

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1. 79209	Acetic acid, methyl ester	VOA	11.3	240 J
2.	Hexene isomer		18.0	5800 J
3.	Hexene isomer		18.8	15000 J
4.	Hexene isomer		19.5	910 J
5.	Hexene isomer		19.9	3600 J
6.	Unknown alcohol		23.8	430 J
7.	Unknown hydrocarbon		26.8	230 J
8.				
9.	UNKNOWN AROMATIC	BNA	20.4	39000 J
10.	UNKNOWN AROMATIC	BNA	20.7	68000 J
11.	UNKNOWN AROMATIC		21.2	47000 J
12.	UNKNOWN AROMATIC		21.4	230000 J
13.	DIMETHYL DECYL BENZENE		21.6	100000 J
14.	DIMETHYL DECYL BENZENE		21.8	610000 J
15.	UNKNOWN AROMATIC		21.9	290000 J
16.	UNKNOWN AROMATIC		22.0	370000 J
17.	UNKNOWN AROMATIC		22.1	470000 J
18.	UNKNOWN AROMATIC		22.3	650000 J
19.	UNKNOWN AROMATIC		22.5	120000 J
20.	DIMETHYL DECYL BENZENE		22.7	400000 J
21.	UNKNOWN AROMATIC		22.8	260000 J
22.	UNKNOWN AROMATIC		22.9	180000 J
23.	UNKNOWN		23.5	65000 J
24.	UNKNOWN		23.6	74000 J
25.	UNKNOWN		25.5	60000 J
26.	UNKNOWN		26.8	420000 J
27 10544500	MOLECULAR SULFUR		27.0	220000 J
28.	UNKNOWN AROMATIC		29.8	51000 J
29.				
30				

Form 1, Part B

7 85
491095

Sample Number
DC-SS-34

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No. U-4474

Lab Sample ID No: 9800 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: Glogowicz Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-25-86

Conc./Dil Factor: 3 pH 6.2

Percent Moisture: (Not Decanted) 24

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	~~46B~~ U
67-64-1	Acetone 30	~~19BJ~~ UJ
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	~~37B~~ UJ
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u J
108-10-1	4-Methyl-2-Pentanone	68 J
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	32 UJ
108-90-7	Chlorobenzene	18
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u
	Total Xylenes	15u

Data Reporting Qualifiers

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

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 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

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

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

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

~~260~~

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-34

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed: 12-4-86

Conc/Dil Factor: 50

Percent Moisture (Decanted) 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	11000	U
111-44-4	bis(-2-Chloroethyl)Ether	11000	U
95-57-8	2-Chlorophenol	11000	U
541-73-1	1 3-Dichlorobenzene	11000	U
106-46-7	1 4-Dichlorobenzene	11000	U
100-51-6	Benzyl Alcohol	11000	U
95-50-1	1 2-Dichlorobenzene	11000	U
95-48-7	2-Methylphenol	11000	U
39638-32-9	bis(2-chloroisopropyl)Ether	11000	U
106-44-5	4-Methylphenol	11000	U
621-64-7	N-Nitroso-Di-n-Propylamine	11000	U
67-72-1	Hexachloroethane	11000	U
98-95-3	Nitrobenzene	11000	U
78-59-1	Isophorone	11000	U
88-75-5	2-Nitrophenol	11000	U
105-67-9	2. 4-Dimethylphenol	11000	U
65-85-0	Benzoic Acid	53000	U
111-91-1	bis(-2-Chloroethoxy)Methane	11000	U
120-83-2	2. 4-Dichlorophenol	11000	U
120-82-1	1. 2. 4-Trichlorobenzene	35000	
91-20-3	Naphthalene	11000	U
106-47-8	4-Chloroaniline	11000	U
87-68-3	Hexachlorobutadiene	11000	U
59-50-7	4-Chloro-3-Methylphenol	11000	U
91-57-6	2-Methylnaphthalene	11000	U
77-47-4	Hexachlorocyclopentadiene	11000	U
88-06-2	2 4 6-Trichlorophenol	11000	U
95-95-4	2. 4. 5-Trichlorophenol	53000	U
91-58-7	2-Chloronaphthalene	11000	U
88-74-4	2-Nitroaniline	53000	U
131-11-3	Dimethyl Phthalate	11000	U
208-96-8	Acenaphthylene	11000	U
99-09-2	3-Nitroaniline	53000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	11000	U
51-28-5	2. 4-Dinitrophenol	53000	U
100-02-7	4-Nitrophenol	53000	U
132-64-9	Dibenzofuran	11000	U
121-14-2	2 4-Dinitrotoluene	11000	U
606-20-2	2 6-Dinitrotoluene	11000	U
84-66-2	Diethylphthalate	11000	U
7005-72-3	4-Chlorophenyl-phenylether	11000	U
86-73-7	Fluorene	11000	U
100-01-6	4-Nitroaniline	53000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	53000	U
86-30-6	N-Nitrosodiphenylamine (1)	11000	U
101-55-3	4-Bromophenyl-phenylether	11000	U
118-74-1	Hexachlorobenzene	11000	U
87-86-5	Pentachlorophenol	9900	J
85-01-8	Phenanthrene	11000	U
120-12-7	Anthracene	11000	U
84-74-2	Di-n-Butylphthalate	11000	U
206-44-0	Fluoranthene	11000	U
129-00-0	Pyrene	11000	U
85-68-7	Butylbenzylphthalate	11000	U
91-94-1	3. 3 -Dichlorobenzidine	22000	U
56-55-3	Benzo(a)Anthracene	11000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	11000	U
218-01-9	Chrysene	11000	U
117-84-0	Di-n-Octyl Phthalate	11000	U
205-99-2	Benzo(b)Fluoranthene	11000	U
207-08-9	Benzo(k)Fluoranthene	11000	U
50-32-8	Benzo(a)Pyrene	11000	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	11000	U
53-70-3	Dibenzo(a h)Anthracene	11000	U
191-24-2	Benzo(g h i)Perylene	11000	U

(1)-Cannot be separated from diphenylamine

HV May 93

Form I 57

7 85

Laboratory Name ecology and environment, inc.

Case No V-4474

Sample Number DC-SS-34

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-17

Date Analyzed 12-9-86

Conc/Dil Factor 10,000

Percent Moisture (decanted) 23.8

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	160,000 u
319-85-7	Beta-BHC	160,000 u
319-86-8	Delta-BHC	160,000 u
58-89-9	Gamma-BHC (Lindane)	160,000 u
76-44-8	Heptachlor	160,000 u
309-00-2	Aldrin	160,000 u
1024-57-3	Heptachlor Epoxide	160,000 u
959-98-8	Endosulfan I	160,000 u
60-57-1	Dieldrin	320,000 u
72-55-9	4,4'-DDE	320,000 u
72-20-8	Endrin	320,000 u
33213-65-9	Endosulfan II	320,000 u
72-54-8	4,4'-DDD	320,000 u
1031-07-8	Endosulfan Sulfate	320,000 u
50-29-3	4,4'-DDT	320,000 u
72-43-5	Methoxychlor	1,600,000 u
53494-70-5	Endrin Ketone	320,000 u
57-74-9	Chlordane	1,600,000 u
8001-35-2	Toxaphene	3,200,000 u
12674-11-2	Aroclor-1016	1,600,000 u
11104-28-2	Aroclor-1221	1,600,000 u
11141-16-5	Aroclor-1232	1,600,000 u
53469-21-9	Aroclor-1242	1,600,000 u
12672-29-6	Aroclor-1248	1,600,000 u
11097-69-1	Aroclor-1254	3,200,000 u
11096-82-5	Aroclor-1260	5,250,000 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

VE May 93

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No IC-44474

Sample Number DC-SS-34

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	18-0	14
2.	Hexene isomer		18-7	39
3.	Hexane isomer		19.5	6
4.	Hexane isomer		21.2	~~7~~ 4
5.	Unknown hydrocarbon		30.4	32
6.	Dichlorobenzene isomer		39.3	73
7.	Dichlorobenzene isomer		40.0	110
8.				
9.	PCB	BNA	27.6	—
10.	UNKNOWN HYDROCARBON		29.4	130000 J
11.	PCB		29.6-31.4	—
12.	UNKNOWN HYDROCARBON		32.3	120000 J
13.	PCB		32.4	—
14.	UNKNOWN HYDROCARBON		32.6	54000 J
15.	UNKNOWN HYDROCARBON		32.8	86000 J
16.	PCB		33.1	—
17.	UNKNOWN HYDROCARBON		33.3	100000 J
18.	UNKNOWN HYDROCARBON		33.8	84000 J
19.	UNKNOWN HYDROCARBON		34.2	97000 J
20.	UNKNOWN HYDROCARBON		34.6	170000 J
21.	UNKNOWN HYDROCARBON		35.2	56000 J
22.	UNKNOWN HYDROCARBON		36.1	60000 J
23.	UNKNOWN HYDROCARBON		36.3	74000 J
24.	UNKNOWN HYDROCARBON		37.0	53000 J
25.				
26.				
27.				
28.				
29.				
30				

HVE May 93

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~~283~~

Sample Number
DC-SS-35

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9801 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [illegible] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-26-86

Conc/Dil Factor: 3 pH 6.6

Percent Moisture: (Not Decanted) 13

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u J
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u J
75-00-3	Chloroethane	30u J
75-09-2	Methylene Chloride	238u J
67-64-1	Acetone	30u J
75-15-0	Carbon Disulfide	15u J
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2 Butanone	30u J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

TV= 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. 10 J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

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

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

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

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ecology and environment

Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-35

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed: 12-19-86

Conc/Dil Factor: 50

Percent Moisture (Decanted) 13

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	9500	U
111-44-4	bis(2-Chloroethyl)Ether	9500	U
95-57-8	2-Chlorophenol	9500	U
541-73-1	1,3-Dichlorobenzene	9500	U
106-46-7	1,4-Dichlorobenzene	9500	U
100-51-6	Benzyl Alcohol	9500	U
95-50-1	1,2-Dichlorobenzene	9500	U
95-48-7	2-Methylphenol	9500	U
39638-32-9	bis(2-chloroisopropyl)Ether	9500	U
106-44-5	4-Methylphenol	9500	U
621-64-7	N-Nitroso-Di-n-Propylamine	9500	U
67-72-1	Hexachloroethane	9500	U
98-95-3	Nitrobenzene	9500	U
78-59-1	Isophorone	9500	U
88-75-5	2-Nitrophenol	9500	U
105-67-9	2,4-Dimethylphenol	9500	U
65-85-0	Benzoic Acid	46000	U
111-91-1	bis(2-Chloroethoxy)Methane	9500	U
120-83-2	2,4-Dichlorophenol	9500	U
120-82-1	1,2,4-Trichlorobenzene	9500	U
91-20-3	Naphthalene	9500	U
106-47-8	4-Chloroaniline	9500	U
87-68-3	Hexachlorobutadiene	9500	U
59-50-7	4-Chloro-3-Methylphenol	9500	U
91-57-6	2-Methylnaphthalene	9500	U
77-47-4	Hexachlorocyclopentadiene	9500	U
88-06-2	2,4,6-Trichlorophenol	9500	U
95-95-4	2,4,5-Trichlorophenol	46000	U
91-58-7	2-Chloronaphthalene	9500	U
88-74-4	2-Nitroaniline	46000	U
131-11-3	Dimethyl Phthalate	9500	U
208-96-8	Acenaphthylene	9500	U
99-09-2	3-Nitroaniline	46000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	9500	U
51-28-5	2,4-Dinitrophenol	46000	U
100-02-7	4-Nitrophenol	46000	U
132-64-9	Dibenzofuran	9500	U
121-14-2	2,4-Dinitrotoluene	9500	U
606-20-2	2,6-Dinitrotoluene	9500	U
84-66-2	Diethylphthalate	9500	U
7005-72-3	4-Chlorophenyl-phenylether	9500	U
86-73-7	Fluorene	9500	U
100-01-6	4-Nitroaniline	46000	U
534-52-1	4,6-Dinitro-2-Methylphenol	46000	U
86-30-6	N-Nitrosodiphenylamine (1)	9500	U
101-55-3	4-Bromophenyl-phenylether	9500	U
118-74-1	Hexachlorobenzene	9500	U
87-86-5	Pentachlorophenol	46000	U
85-01-8	Phenanthrene	9500	U
120-12-7	Anthracene	9500	U
84-74-2	Di-n-Butylphthalate	9500	U
206-44-0	Fluoranthene	9500	U
129-00-0	Pyrene	9500	U
85-68-7	Butylbenzylphthalate	9500	U
91-94-1	3,3'-Dichlorobenzidine	19000	U
56-55-3	Benzo(a)Anthracene	9500	U
117-81-7	bis(2-Ethylhexyl)Phthalate	9500	U
218-01-9	Chrysene	9500	U
117-84-0	Di-n-Octyl Phthalate	9500	U
205-99-2	Benzo(b)Fluoranthene	9500	U
207-08-9	Benzo(k)Fluoranthene	9500	U
50-32-8	Benzo(a)Pyrene	9500	U
193-39-5	Indeno(1,2,3-cd)Pyrene	9500	U
53-70-3	Dibenz(a,h)Anthracene	9500	U
191-24-2	Benzo(g,h,i)Perylene	9500	U

(1)-Cannot be separated from diphenylamine

HE May 93

Form I 61

7/85

Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number DC-SS-35

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-17-86

Date Analyzed: 12-18-86

Conc/Dil Factor: 100

Percent Moisture (decanted) 13.2

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	1600 u
319-85-7	Beta-BHC	1600 u
319-86-8	Delta-BHC	1600 u
58-89-9	Gamma-BHC (Lindane)	1600 u
76-44-8	Heptachlor	1600 u
309-00-2	Aldrin	1600 u
1024-57-3	Heptachlor Epoxide	1600 u
959-98-8	Endosulfan I	1600 u
60-57-1	Dieldrin	3200 u
72-55-9	4,4'-DDE	3200 u
72-20-8	Endrin	3200 u
33213-65-9	Endosulfan II	3200 u
72-54-8	4,4'-DDD	3200 u
1031-07-8	Endosulfan Sulfate	3200 u
50-29-3	4,4'-DDT	3200 u
72-43-5	Methoxychlor	16,000 u
53494-70-5	Endrin Ketone	3200 u
57-74-9	Chlordane	16,000 u
8001-35-2	Toxaphene	32,000 u
12674-11-2	Aroclor-1016	16,000 u
11104-28-2	Aroclor-1221	16,000 u
11141-16-5	Aroclor-1232	16,000 u
53469-21-9	Aroclor-1242	16,000 u
12672-29-6	Aroclor-1248	16,000 u
11097-69-1	Aroclor-1254	32,000 u
11096-82-5	Aroclor-1260	96,000 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)

HVE May 93

V_s _____ or W_s 30 V_t 1000 V_i 4

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Form 1

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491095

Laboratory Name ecology and environment, inc.

Case No 11-4474

Sample Number DC-SS-35

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1. 7424-09	Hexanoic acid, methyl ester	VOA	11.3	130 J
2.	Hexene isomer		15.0	51 J
3.	Hexene isomer		15.7	210 J
4.	Hexene isomer		17.4	5 J
5.	Hexene isomer		17.8	24 J
6.	Hexane isomer		21.7	25 J
7.	Unknown hydrocarbon		23.3	11 J
8.	Unknown alcohol		23.8	19 J
9.	Unknown hydrocarbon		24.2	59 J
10.	Unknown hydrocarbon		24.7	47 J
11.				
12.	UNKNOWN AROMATIC	BNA	23.4	80000 J
13.	UNKNOWN HYDROCARBON		24.4	43000 J
14.	UNKNOWN		24.5	79000 J
15.	UNKNOWN HYDROCARBON		24.9	18000 J
16.	UNKNOWN HYDROCARBON		25.2	20000 J
17.	UNKNOWN HYDROCARBON		25.7	33000 J
18.	UNKNOWN		25.8	150000 J
19. 10544500	MOLECULAR SULFUR		26.0	12000 J
20.	UNKNOWN HYDROCARBON		26.6	23000 J
21.	UNKNOWN HYDROCARBON		26.9	64000 J
22.	UNKNOWN HYDROCARBON		27.0	36000 J
23.	UNKNOWN HYDROCARBON		27.2	68000 J
24.	UNKNOWN HYDROCARBON		27.7	63000 J
25.	UNKNOWN HYDROCARBON		28.0	45000 J
26.	UNKNOWN HYDROCARBON		28.4	110000 J
27.	UNKNOWN HYDROCARBON		29.3	100000 J
28.	UNKNOWN HYDROCARBON		29.6	67000 J
29.	UNKNOWN HYDROCARBON		30.6	46000 J
30	UNKNOWN HYDROCARBON		31.3	80000 J
	UNKNOWN HYDROCARBON		31.8	100000 J

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Sample Number
DC-SS-36

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9802 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-21-86

Conc./Dil Factor: 3 pH 7.2

Percent Moisture: (Not Decanted) 27

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	55 ~~B~~ u
67-64-1	Acetone	30 25 ~~B~~ uJ
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	48 ~~B~~ uJ
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

III
May 9 '3

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

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

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

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-36

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed 12-22-86

Conc/Dil Factor 4

Percent Moisture (Decanted) 27

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	900	U
111-44-4	bis(-2-Chloroethyl)Ether	900	U
95-57-8	2-Chlorophenol	900	U
541-73-1	1 3-Dichlorobenzene	900	U
106-46-7	1 4-Dichlorobenzene	240	J
100-51-6	Benzyl Alcohol	900	U
95-50-1	1. 2-Dichlorobenzene	900	U
95-48-7	2-Methylphenol	900	U
39638-32-9	bis(2-chloroisopropyl)Ether	900	U
106-44-5	4-Methylphenol	900	U
621-64-7	N-Nitroso-Di-n-Propylamine	900	U
67-72-1	Hexachloroethane	900	U
98-95-3	Nitrobenzene	900	U
78-59-1	Isophorone	900	U
88-75-5	2-Nitrophenol	900	U
105-67-9	2. 4-Dimethylphenol	900	U
65-85-0	Benzoic Acid	4400	U
111-91-1	bis(-2-Chloroethoxy)Methane	900	U
120-83-2	2. 4-Dichlorophenol	900	U
120-82-1	1. 2. 4-Trichlorobenzene	65	J
91-20-3	Naphthalene	71	J
106-47-8	4-Chloroaniline	~~900~~	~~U~~ R
87-68-3	Hexachlorobutadiene	900	U
59-50-7	4-Chloro-3-Methylphenol	900	U
91-57-6	2-Methylnaphthalene	50	J
77-47-4	Hexachlorocyclopentadiene	900	U
88-06-2	2 4 6-Trichlorophenol	900	U
95-95-4	2. 4. 5-Trichlorophenol	4400	U
91-58-7	2-Chloronaphthalene	900	U
88-74-4	2-Nitroaniline	1100	J
131-11-3	Dimethyl Phthalate	900	U
208-96-8	Acenaphthylene	900	U
99-09-2	3-Nitroaniline	~~4400~~	~~U~~ R

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	200	J
51-28-5	2. 4-Dinitrophenol	4400	U
100-02-7	4-Nitrophenol	4400	U
132-64-9	Dibenzofuran	95	J
121-14-2	2 4-Dinitrotoluene	900	U
606-20-2	2 6-Dinitrotoluene	900	U
84-66-2	Diethylphthalate	900	U
7005-72-3	4-Chlorophenyl-phenylether	900	U
86-73-7	Fluorene	900	U
100-01-6	4-Nitroaniline	~~4400~~	~~U~~ R
534-52-1	4. 6-Dinitro-2-Methylphenol	4400	U
86-30-6	N-Nitrosodiphenylamine (1)	900	U
101-55-3	4-Bromophenyl-phenylether	900	U
118-74-1	Hexachlorobenzene	900	U
87-86-5	Pentachlorophenol	1600	J
85-01-8	Phenanthrene	2800	
120-12-7	Anthracene	600	
84-74-2	Di-n-Butylphthalate	900	U
206-44-0	Fluoranthene	4600	
129-00-0	Pyrene	3100	
85-68-7	Butylbenzylphthalate	900	U
91-94-1	3. 3'-Dichlorobenzidine	1800	U
56-55-3	Benzo(a)Anthracene	2100	
117-81-7	bis(2-Ethylhexyl)Phthalate	900	U
218-01-9	Chrysene	2700	
117-84-0	Di-n-Octyl Phthalate	900	U
205-99-2	Benzo(b)Fluoranthene	4800	
207-08-9	Benzo(k)Fluoranthene	900	U
50-32-8	Benzo(a)Pyrene	1900	
193-39-5	Indeno(1 2. 3-cd)Pyrene	1700	
53-70-3	Dibenz(a h)Anthracene	550	J
191-24-2	Benzo(g h i)Perylene	1500	

(1)-Cannot be separated from diphenylamine

Form I 65

May 93

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Laboratory Name ecology and environment, inc.

Case No V-4474

Sample Number DC-SS-36

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed 12-9-86

Conc/Dil Factor 250

Percent Moisture (decanted) 27.4

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	4,000 u
319-85-7	Beta-BHC	4,000 u
319-86-8	Delta-BHC	4,000 u
58-89-9	Gamma-BHC (Lindane)	4,000 u
76-44-8	Heptachlor	4,000 u
309-00-2	Aldrin	4,000 u
1024-57-3	Heptachlor Epoxide	4,000 u
959-98-8	Endosulfan I	4,000 u
60-57-1	Dieldrin	8,000 u
72-55-9	4,4'-DDE	8,000 u
72-20-8	Endrin	8,000 u
33213-65-9	Endosulfan II	8,000 u
72-54-8	4,4'-DDD	8,000 u
1031-07-8	Endosulfan Sulfate	8,000 u
50-29-3	4,4'-DDT	8,000 u
72-43-5	Methoxychlor	40,000 u
53494-70-5	Endrin Ketone	8,000 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	144,000 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 30g V_t 1,000 V_i 4 µl

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May 93

Laboratory Name ecology and environment, inc.

Case No 11-4-174

Sample Number DC-SS-36

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.	UNKNOWN AROMATIC	BNA	20.3	3500 J
4.	PENTA METHYL HEPTYL BENZENE		20.9	7200 J
5.	UNKNOWN AROMATIC		21.0	4300 J
6.	UNKNOWN AROMATIC		21.2	6100 J
7.	PENTA METHYL HEPTYL BENZENE		21.7	3800 J
8.	UNKNOWN		25.7	2900 J
9.	PCB		28.5-32.0	—
10. 198550	PERYLENE		34.5	2200 J
11. 3268879	OCTACHLORODIBENZO [B,E] [1,4] DIOXIN		37.3	7300 J
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

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Sample Number
DC-SS-37

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9803 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-20-86

Conc./Dil Factor: 3 pH 6.2

Percent Moisture: (Not Decanted) 27

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	~~69 B~~ u J
67-64-1	Acetone	~~48 B~~ u J
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	~~34 B~~ u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	2 J
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	30u J
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	12 J
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	55
100-42-5	Styrene	15u
	Total Xylenes	150

Data Reporting Qualifiers

For reporting results to 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 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-37

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed 12-22-86

Conc/Dil Factor 50

Percent Moisture (Decanted) 27

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	11000	U
111-44-4	bis(-2-Chloroethyl)Ether	11000	U
95-57-8	2-Chlorophenol	11000	U
541-73-1	1 3-Dichlorobenzene	11000	U
106-46-7	1 4-Dichlorobenzene	11000	U
100-51-6	Benzyl Alcohol	11000	U J
95-50-1	1 2-Dichlorobenzene	11000	U
95-48-7	2-Methylphenol	11000	U
39638-32-9	bis(2-chloroisopropyl)Ether	11000	U
106-44-5	4-Methylphenol	11000	U
621-64-7	N-Nitroso-Di-n-Propylamine	11000	U
67-72-1	Hexachloroethane	11000	U
98-95-3	Nitrobenzene	11000	U
78-59-1	Isophorone	11000	U
88-75-5	2-Nitrophenol	11000	U
105-67-9	2. 4-Dimethylphenol	11000	U
65-85-0	Benzoic Acid	55000	U J
111-91-1	bis(-2-Chloroethoxy)Methane	11000	U
120-83-2	2. 4-Dichlorophenol	11000	U
120-82-1	1. 2. 4-Trichlorobenzene	5300	J
91-20-3	Naphthalene	26000	
106-47-8	4-Chloroaniline	~~11000~~	~~U~~ R
87-68-3	Hexachlorobutadiene	11000	U
59-50-7	4-Chloro-3-Methylphenol	11000	U
91-57-6	2-Methylnaphthalene	11000	U
77-47-4	Hexachlorocyclopentadiene	11000	U
88-06-2	2 4 6-Trichlorophenol	11000	U
95-95-4	2. 4. 5-Trichlorophenol	55000	U
91-58-7	2-Chloronaphthalene	11000	U
88-74-4	2-Nitroaniline	220000	
131-11-3	Dimethyl Phthalate	11000	U
208-96-8	Acenaphthylene	11000	U
99-09-2	3-Nitroaniline	~~55000~~	~~U~~ R

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	11000	U
51-28-5	2. 4-Dinitrophenol	55000	U
100-02-7	4-Nitrophenol	55000	U
132-64-9	Dibenzofuran	11000	U
121-14-2	2 4-Dinitrotoluene	11000	U J
606-20-2	2 6-Dinitrotoluene	11000	U
84-66-2	Diethylphthalate	11000	U
7005-72-3	4-Chlorophenyl-phenylether	11000	U
86-73-7	Fluorene	11000	U
100-01-6	4-Nitroaniline	~~55000~~	~~U~~ R
534-52-1	4. 6-Dinitro-2-Methylphenol	55000	U
86-30-6	N-Nitrosodiphenylamine (1)	11000	U
101-55-3	4-Bromophenyl-phenylether	11000	U
118-74-1	Hexachlorobenzene	11000	U
87-86-5	Pentachlorophenol	55000	U
85-01-8	Phenanthrene	4900	J
120-12-7	Anthracene	11000	U
84-74-2	Di-n-Butylphthalate	11000	U
206-44-0	Fluoranthene	11000	U
129-00-0	Pyrene	11000	U
85-68-7	Butylbenzylphthalate	11000	U
91-94-1	3. 3'-Dichlorobenzidine	23000	U J
56-55-3	Benzo(a)Anthracene	11000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	11000	U
218-01-9	Chrysene	11000	U
117-84-0	Di-n-Octyl Phthalate	11000	U
205-99-2	Benzo(b)Fluoranthene	11000	U
207-08-9	Benzo(k)Fluoranthene	11000	U
50-32-8	Benzo(a)Pyrene	11000	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	11000	U
53-70-3	Dibenzo(a h)Anthracene	11000	U
191-24-2	Benzo(g h i)Perylene	11000	U

(1)-Cannot be separated from diphenylamine

HV May 93

Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number DC-SS-37

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed 12-9-86

Conc/Dil Factor 500

Percent Moisture (decanted) 27.3

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8,000 U
319-85-7	Beta-BHC	8,000 U
319-86-8	Delta-BHC	8,000 U
58-89-9	Gamma-BHC (Lindane)	8,000 U
76-44-8	Heptachlor	8,000 U
309-00-2	Aldrin	8,000 U
1024-57-3	Heptachlor Epoxide	8,000 U
959-98-8	Endosulfan I	8,000 U
60-57-1	Dieldrin	16,000 U
72-55-9	4,4'-DDE	16,000 U
72-20-8	Endrin	16,000 U
33213-65-9	Endosulfan II	16,000 U
72-54-8	4,4'-DDD	16,000 U
1031-07-8	Endosulfan Sulfate	16,000 U
50-29-3	4,4'-DDT	16,000 U
72-43-5	Methoxychlor	80,000 U
53494-70-5	Endrin Ketone	16,000 U
57-74-9	Chlordane	80,000 U
8001-35-2	Toxaphene	160,000 U
12674-11-2	Aroclor-1016	80,000 U
11104-28-2	Aroclor-1221	80,000 U
11141-16-5	Aroclor-1232	80,000 U
53469-21-9	Aroclor-1242	80,000 U
12672-29-6	Aroclor-1248	80,000 U
11097-69-1	Aroclor-1254	160,000 U
11096-82-5	Aroclor-1260	~~151,000 J~~ 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)

III VF May 93

V_s _____ or W_s 30 V_t 1000 V_i 4

70

~~320~~

Sample Number
DC-SS-37-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9803 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-21-86

Conc./Dil Factor: 3 pH 6.2

Percent Moisture: (Not Decanted) 27

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

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

YVS
May 93

Data Reporting Qualifiers

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

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

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

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

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Laboratory Name ecology and environment, inc.

Case No 11-44474

Sample Number DC-SS-37

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TICs in VOA fraction			
2.				
3.	TETRACHLOROBENZENE ISOMER	BNA	16.5	7800 J
4. 99092	3-NITROBENZENAMINE		17.1	99000 J
5.	UNKNOWN AROMATIC		18.9	8100 J
6.	UNKNOWN AROMATIC		19.6	11000 J
7.	UNKNOWN AROMATIC		20.1	16000 J
8.	UNKNOWN AROMATIC		20.3	30000 J
9.	UNKNOWN AROMATIC		20.6	15000 J
10.	UNKNOWN AROMATIC		20.7	180000 J
11.	UNKNOWN AROMATIC		20.8	35000 J
12.	UNKNOWN AROMATIC		20.9	79000 J
13.	UNKNOWN AROMATIC		21.0	99000 J
14.	UNKNOWN AROMATIC		21.2	130000 J
15.	UNKNOWN AROMATIC		21.4	28000 J
16.	UNKNOWN AROMATIC		21.6	70000 J
17.	DIMETHYLDECYL BENZENE		21.7	50000 J
18.	UNKNOWN AROMATIC		21.8	24000 J
19.	UNKNOWN AROMATIC		22.0	10000 J
20.	UNKNOWN AROMATIC		22.8	12000 J
21.	UNKNOWN AROMATIC		23.3	10000 J
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

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Laboratory Name ecology and environment, inc.

Case No 11-1-171

Sample Number
DC-SS-37-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	(RT) or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
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26.				
27.				
28.				
29.				
30				

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Sample Number
DC-SS-38

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9804 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-26-86

Conc./Dil Factor: 3 pH 6.3

Percent Moisture: (Not Decanted) 27

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	30u J
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u J
75-00-3	Chloroethane	30u J
75-09-2	Methylene Chloride	40 B-U J
67-64-1	Acetone	43 B-U J
75-15-0	Carbon Disulfide	15u J
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	35 B-U J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	19
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	80
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	140 J
591-78-6	2-Hexanone	30u J
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	1400
108-90-7	Chlorobenzene	40
100-41-4	Ethylbenzene	140
100-42-5	Styrene	15u
	Total Xylenes	170

Data Reporting Qualifiers

For reporting results to 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 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-38

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-17-86

Date Analyzed 12-19-86

Conc/Dil Factor 50

Percent Moisture (Decanted) 27

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	11000	U
111-44-4	bis(-2-Chloroethyl)Ether	11000	U
95-57-8	2-Chlorophenol	11000	U
541-73-1	1, 3-Dichlorobenzene	11000	U
106-46-7	1, 4-Dichlorobenzene	2600	J
100-51-6	Benzyl Alcohol	11000	U J
95-50-1	1, 2-Dichlorobenzene	11000	U
95-48-7	2-Methylphenol	11000	U
39638-32-9	bis(2-chloroisopropyl)Ether	11000	U
106-44-5	4-Methylpheno	11000	U
621-64-7	N-Nitroso-Di-n-Propylamine	11000	U
67-72-1	Hexachloroethane	11000	U
98-95-3	Nitrobenzene	11000	U
78-59-1	Isophorone	11000	U
88-75-5	2-Nitrophenol	11000	U
105-67-9	2, 4-Dimethylphenol	11000	U
65-85-0	Benzoic Acid	55000	U J
111-91-1	bis(-2-Chloroethoxy)Methane	11000	U
120-83-2	2, 4-Dichlorophenol	11000	U
120-82-1	1, 2, 4-Trichlorobenzene	11000	U
91-20-3	Naphthalene	110,000	
106-47-8	4-Chloroaniline	11000	U J
87-68-3	Hexachlorobutadiene	11000	U
59-50-7	4-Chloro-3-Methylphenol	11000	U
91-57-6	2-Methylnaphthalene	850	J
77-47-4	Hexachlorocyclopentadiene	11000	U
88-06-2	2, 4, 6-Trichlorophenol	11000	U
95-95-4	2, 4, 5-Trichlorophenol	55000	U
91-58-7	2-Chloronaphthalene	11000	U
88-74-4	2-Nitroaniline	55000	U
131-11-3	Dimethyl Phthalate	11000	U
208-96-8	Acenaphthylene	11000	U
99-09-2	3-Nitroaniline	55000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	11000	U
51-28-5	2, 4-Dinitrophenol	55000	U
100-02-7	4-Nitrophenol	55000	U J
132-64-9	Dibenzofuran	11000	U
121-14-2	2, 4-Dinitrotoluene	11000	U
606-20-2	2, 6-Dinitrotoluene	11000	U
84-66-2	Diethylphthalate	11000	U
7005-72-3	4-Chlorophenyl-phenylether	11000	U
86-73-7	Fluorene	11000	U
100-01-6	4-Nitroaniline	55000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	55000	U
86-30-6	N-Nitrosodiphenylamine (1)	11000	U
101-55-3	4-Bromophenyl-phenylether	11000	U
118-74-1	Hexachlorobenzene	11000	U J
87-86-5	Pentachlorophenol	55000	U
85-01-8	Phenanthrene	11000	U
120-12-7	Anthracene	11000	U
84-74-2	Di-n-Butylphthalate	11000	U
206-44-0	Fluoranthene	11000	U
129-00-0	Pyrene	5800	J
85-68-7	Butylbenzylphthalate	11000	U
91-94-1	3, 3'-Dichlorobenzidine	23000	U
56-55-3	Benzo(a)Anthracene	11000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	11000	U
218-01-9	Chrysene	8400	J
117-84-0	Di-n-Octyl Phthalate	11000	U
205-99-2	Benzo(b)Fluoranthene	11000	U
207-08-9	Benzo(k)Fluoranthene	11000	U
50-32-8	Benzo(a)Pyrene	1900	J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	11000	U
53-70-3	Dibenz(a, h)Anthracene	11000	U
191-24-2	Benzo(g, h, i)Perylene	11000	U

(1)-Cannot be separated from diphenylamine

VII
May 93

Form I 75 325 7/85

Laboratory Name ecology and environment, inc.

Case No V-4474

Sample Number DC-SS-38

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared: 11-17-86

Date Analyzed: 12-10-86

Conc/Dil Factor: 10X

Percent Moisture (decanted) 26.9

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	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	1,600 u
53494-70-5	Endrin Ketone	320 u
57-74-9	Chlordane	1,600 u
8001-35-2	Toxaphene	3,200 u
12674-11-2	Aroclor-1016	1,600 u
11104-28-2	Aroclor-1221	1,600 u
11141-16-5	Aroclor-1232	1,600 u
53469-21-9	Aroclor-1242	1,600 u
12672-29-6	Aroclor-1248	1,600 u
11097-69-1	Aroclor-1254	3,200 u
11096-82-5	Aroclor-1260	8,700 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

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V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No 11-4474

Sample Number DC-SS-38

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	110827	Cyclohexane	VOA	16.3	24 J
2.	96377	Methyl Cyclopentane		17.2	8 J
3.		Hexane isomer		21.2	10 J
4.		Unknown alcohol		23.8	67 J
5.		Unknown hydrocarbon		25.4	44 J
6.		Unknown hydrocarbon		28.1	8 J
7.		Unknown hydrocarbon		28.6	15 J
8.		Unknown hydrocarbon		29.5	18 J
9.	98828	Benzene, (1-methylethyl)-		42.1	66 J
10.					
11.	100005	1-CHLORO-4-NITROBENZENE	BNA	14.5	4,000,000 J
12.		UNKNOWN HYDROCARBON		29.2	120000 J
13.		UNKNOWN HYDROCARBON		30.2	140000 J
14.		UNKNOWN HYDROCARBON		30.5	52000 J
15.		UNKNOWN HYDROCARBON		31.3	180000 J
16.		UNKNOWN HYDROCARBON		31.6	61000 J
17.		UNKNOWN HYDROCARBON		32.3	180000 J
18.		UNKNOWN HYDROCARBON		32.6	50000 J
19.		UNKNOWN HYDROCARBON		32.8	75000 J
20.		UNKNOWN HYDROCARBON		33.2	270000 J
21.		UNKNOWN HYDROCARBON		33.5	210000 J
22.		UNKNOWN HYDROCARBON		33.9	52000 J
23.		UNKNOWN HYDROCARBON		34.2	200000 J
24.		UNKNOWN HYDROCARBON		34.4	48000 J
25.		UNKNOWN HYDROCARBON		35.0	180000 J
26.		UNKNOWN HYDROCARBON		35.3	80000 J
27.		UNKNOWN HYDROCARBON		35.7	70000 J
28.		UNKNOWN HYDROCARBON		35.9	140000 J
29.		UNKNOWN HYDROCARBON		36.2	50000 J
30		UNKNOWN HYDROCARBON		36.8	140000 J
		UNKNOWN		37.0	120000 J

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~~327~~

Sample Number
DC-SS-39

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-44474

Lab Sample ID No: 9805 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-21-86

Conc./Dil Factor: 3 pH 6.9

Percent Moisture: (Not Decanted) 23

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	63 ~~8 U~~ U
67-64-1	Acetone	66 ~~8~~ U J
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	59 ~~8~~ U J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	~~12 J~~ 30 U
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	15u
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u J
	Total Xylenes	15u J

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-39

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-18-86

Date Analyzed: 12-23-86

Conc/Dil Factor: 100

Percent Moisture (Decanted) 23

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
108-95-2	Phenol	21000	U
111-44-4	bis(-2-Chloroethyl)Ether	21,000	U
95-57-8	2-Chlorophenol	21000	U
541-73-1	1 3-Dichlorobenzene	21000	U
106-46-7	1 4-Dichlorobenzene	21000	U
100-51-6	Benzyl Alcohol	21000	U
95-50-1	1 2-Dichlorobenzene	21000	U
95-48-7	2-Methylphenol	21000	U
39638-32-9	bis(2-chloroisopropyl)Ether	21000	U
106-44-5	4-Methylphenol	21000	U
621-64-7	N-Nitroso-Di-n-Propylamine	21000	U
67-72-1	Hexachloroethane	21000	U
98-95-3	Nitrobenzene	21000	U J
78-59-1	Isophorone	21000	U
88-75-5	2-Nitrophenol	21000	U
105-67-9	2, 4-Dimethylphenol	21000	U
65-85-0	Benzoic Acid	100,000	U
111-91-1	bis(-2-Chloroethoxy)Methane	21000	U
120-83-2	2 4-Dichlorophenol	21000	U
120-82-1	1 2, 4-Trichlorobenzene	1800	J
91-20-3	Naphthalene	21000	U
106-47-8	4-Chloroaniline	~~21000~~	~~U~~ R
87-68-3	Hexachlorobutadiene	21000	U
59-50-7	4-Chloro-3-Methylphenol	21000	U
91-57-6	2-Methylnaphthalene	21000	U
77-47-4	Hexachlorocyclopentadiene	21000	U
88-06-2	2 4 6-Trichlorophenol	21000	U
95-95-4	2, 4, 5-Trichlorophenol	100,000	U
91-58-7	2-Chloronaphthalene	21000	U
88-74-4	2-Nitroaniline	100,000	U
131-11-3	Dimethyl Phthalate	21000	U
208-96-8	Acenaphthylene	21000	U
99-09-2	3-Nitroaniline	100,000	U

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	21000	U
51-28-5	2, 4-Dinitrophenol	100,000	U
100-02-7	4-Nitrophenol	100,000	U
132-64-9	Dibenzofuran	21000	U
121-14-2	2 4-Dinitrotoluene	21000	U
606-20-2	2 6-Dinitrotoluene	21000	U
84-66-2	Diethylphthalate	21000	U
7005-72-3	4-Chlorophenyl-phenylether	21000	U
86-73-7	Fluorene	21000	U
100-01-6	4-Nitroaniline	100,000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	100,000	U
86-30-6	N-Nitrosodiphenylamine (1)	21000	U
101-55-3	4-Bromophenyl-phenylether	21000	U
118-74-1	Hexachlorobenzene	21000	U
87-86-5	Pentachlorophenol	21,000,000	
85-01-8	Phenanthrene	21000	U
120-12-7	Anthracene	21000	U
84-74-2	Di-n-Butylphthalate	21000	U
206-44-0	Fluoranthene	21000	U
129-00-0	Pyrene	21000	U
85-68-7	Butylbenzylphthalate	21000	U
91-94-1	3, 3'-Dichlorobenzidine	43000	U J
56-55-3	Benzo(a)Anthracene	21000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	21000	U
218-01-9	Chrysene	21000	U
117-84-0	Di-n-Octyl Phthalate	21000	U
205-99-2	Benzo(b)Fluoranthene	21000	U
207-08-9	Benzo(k)Fluoranthene	21000	U
50-32-8	Benzo(a)Pyrene	3900	J
193-39-5	Indeno(1 2, 3-cd)Pyrene	21000	U
53-70-3	Dibenzo(a h)Anthracene	21000	U
191-24-2	Benzo(g h i)Perylene	21000	U

(1)-Cannot be separated from diphenylamine

HVE May 93

Laboratory Name ecology and environment, inc.

Case No V-4474

Sample Number DC-SS-39

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-18-86

Date Analyzed 12-10-86

Conc/Dil Factor 1000

Percent Moisture (decanted) 23

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	16,000 u
319-85-7	Beta-BHC	16,000 u
319-86-8	Delta-BHC	16,000 u
58-89-9	Gamma-BHC (Lindane)	16,000 u
76-44-8	Heptachlor	16,000 u
309-00-2	Aldrin	16,000 u
1024-57-3	Heptachlor Epoxide	16,000 u
959-98-8	Endosulfan I	16,000 u
60-57-1	Dieldrin	32,000 u
72-55-9	4,4'-DDE	32,000 u
72-20-8	Endrin	32,000 u
33213-65-9	Endosulfan II	32,000 u
72-54-8	4,4'-DDD	32,000 u
1031-07-8	Endosulfan Sulfate	32,000 u
50-29-3	4,4'-DDT	32,000 u
72-43-5	Methoxychlor	160,000 u
53494-70-5	Endrin Ketone	32,000 u
57-74-9	Chlordane	160,000 u
8001-35-2	Toxaphene	320,000 u
12674-11-2	Aroclor-1016	160,000 u
11104-28-2	Aroclor-1221	160,000 u
11141-16-5	Aroclor-1232	160,000 u
53469-21-9	Aroclor-1242	160,000 u
12672-29-6	Aroclor-1248	160,000 u
11097-69-1	Aroclor-1254	320,000 u
11096-82-5	Aroclor-1260	544,000 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)

May 03

V_s _____ or W_s 30 V_t 1,000 V_i 4

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~~320~~

Sample Number
DC-SS-39-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9805 RE QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Stojowczy Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-26-86

Conc/Dil Factor: 3 pH 6.9

Percent Moisture: (Not Decanted) 23

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u J
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u J
75-09-2	Methylene Chloride	30 ~~B~~ U J
67-64-1	Acetone	30 14 ~~BJ~~ U
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u J
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

HVE
May 93

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

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

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

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

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

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

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Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number DC-SS-39

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	(RT) or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.	UNKNOWN AROMATIC	BNA	23.2	92000 J
4.	UNKNOWN AROMATIC		23.3	41000 J
5.	UNKNOWN AROMATIC		23.5	60000 J
6.	UNKNOWN AROMATIC		23.6	60000 J
7.	UNKNOWN AROMATIC		23.8	32000 J
8.	UNKNOWN AROMATIC		23.9	82000 J
9.	UNKNOWN AROMATIC		24.0	91000 J
10.	UNKNOWN AROMATIC		24.2	120000 J
11.	UNKNOWN AROMATIC		24.3	82000 J
12.	UNKNOWN AROMATIC		24.4	110000 J
13.	UNKNOWN AROMATIC		24.50	100000 J
14.	UNKNOWN AROMATIC		24.7	120000 J
15.	UNKNOWN AROMATIC		24.8	83000 J
16.	UNKNOWN AROMATIC		24.9	86000 J
17.	UNKNOWN AROMATIC		25.6	49000 J
18.	UNKNOWN AROMATIC		25.8	31000 J
19.	UNKNOWN AROMATIC		26.0	44000 J
20.	UNKNOWN AROMATIC		26.3	29000 J
21.	UNKNOWN AROMATIC		26.4	14000 J
22.	UNKNOWN AROMATIC		26.6	7500 J
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

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Laboratory Name ecology and environment, inc.

Case No 11-1111711

Sample Number
DC-SS-39-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	(RT) or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
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17.				
18.				
19.				
20.				
21.				
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25.				
26.				
27.				
28.				
29.				
30				

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Sample Number
DC-SS-40

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-44724

Lab Sample ID No: 9806 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-21-86

Conc./Dil Factor: 3 pH 6.6

Percent Moisture: (Not Decanted) 17

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	40 B U
67-64-1	Acetone	150 B U J
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	46 B U J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	15u
10061-02-6	Trans-1, 3-Dichloropropene	15u
79-01-6	Trichloroethene	15u
124-48-1	Dibromochloromethane	15u
79-00-5	1, 1, 2-Trichloroethane	15u
71-43-2	Benzene	15u
10061-01-5	cis-1, 3-Dichloropropene	15u
110-75-8	2-Chloroethylvinylether	30u J
75-25-2	Bromoform	15u
108-10-1	4-Methyl-2-Pentanone	31
591-78-6	2-Hexanone	30u
127-18-4	Tetrachloroethene	15u
79-34-5	1, 1, 2, 2-Tetrachloroethane	15u
108-88-3	Toluene	33 U
108-90-7	Chlorobenzene	15u
100-41-4	Ethylbenzene	15u
100-42-5	Styrene	15u J
	Total Xylenes	15u J

HE May 93

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Sample Number
DC-SS-40-RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9806 RE QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Stoflowicz Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-26-86

Conc/Dil Factor: 3 pH 6.6

Percent Moisture: (Not Decanted) 17

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u J
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u J
75-09-2	Methylene Chloride	44 B-U J
67-64-1	Acetone	30u
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u J
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

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 indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10 J). If limit of detection is 10 (ug/l) and a concentration of 3 (ug/l) is calculated, report as 3J.

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-40

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-18-86

Date Analyzed: 12-22-86

Conc/Dil Factor: 10

Percent Moisture (Decanted) 17

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	2000	U
111-44-4	bis(-2-Chloroethyl)Ether	2000	U
95-57-8	2-Chlorophenol	2000	U
541-73-1	1 3-Dichlorobenzene	2000	U
106-46-7	1 4-Dichlorobenzene	2000	U
100-51-6	Benzyl Alcohol	2000	U
95-50-1	1 2-Dichlorobenzene	2000	U
95-48-7	2-Methylphenol	2000	U
39638-32-9	bis(2-chloroisopropyl)Ether	2000	U
106-44-5	4-Methylpheno	2000	U
621-64-7	N-Nitroso-Di-n-Propylamine	2000	U
67-72-1	Hexachloroethane	2000	U
98-95-3	Nitrobenzene	2000	U
78-59-1	Isophorone	2000	U
88-75-5	2-Nitrophenol	2000	U
105-67-9	2. 4-Dimethylphenol	2000	U
65-85-0	Benzoic Acid	9600	U
111-91-1	bis(-2-Chloroethoxy)Methane	2000	U
120-83-2	2. 4-Dichlorophenol	6200	
120-82-1	1. 2. 4-Trichlorobenzene	2000	U
91-20-3	Naphthalene	140	J
106-47-8	4-Chloroaniline	2000	U
87-68-3	Hexachlorobutadiene	2000	U
59-50-7	4-Chloro-3-Methylphenol	2000	U
91-57-6	2-Methylnaphthalene	2000	U
77-47-4	Hexachlorocyclopentadiene	2000	U
88-06-2	2 4 6-Trichlorophenol	1500	J
95-95-4	2. 4. 5-Trichlorophenol	9600	U
91-58-7	2-Chloronaphthalene	2000	U
88-74-4	2-Nitroaniline	9600	U
131-11-3	Dimethyl Phthalate	2000	U
208-96-8	Acenaphthylene	2000	U
99-09-2	3-Nitroaniline	9600	U J

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2000	U
51-28-5	2. 4-Dinitrophenol	9600	U
100-02-7	4-Nitrophenol	1,000,000	
132-64-9	Dibenzofuran	2000	U
121-14-2	2 4-Dinitrotoluene	2000	U
606-20-2	2 6-Dinitrotoluene	2000	U
84-66-2	Diethylphthalate	2000	U
7005-72-3	4-Chlorophenyl-phenylether	2000	U
86-73-7	Fluorene	2000	U
100-01-6	4-Nitroaniline	9600	U
534-52-1	4. 6-Dinitro-2-Methylphenol	9600	U
86-30-6	N-Nitrosodiphenylamine (1)	2000	U
101-55-3	4-Bromophenyl-phenylether	2000	U
118-74-1	Hexachlorobenzene	2000	U
87-86-5	Pentachlorophenol	1100	J
85-01-8	Phenanthrene	920	J
120-12-7	Anthracene	810	J
84-74-2	Di-n-Butylphthalate	~~880~~ ~~J~~	2000 U
206-44-0	Fluoranthene	2600	
129-00-0	Pyrene	2400	J
85-68-7	Butylbenzylphthalate	2000	U
91-94-1	3. 3 -Dichlorobenzidine	4000	U J
56-55-3	Benzo(a)Anthracene	1400	J
117-81-7	bis(2-Ethylhexyl)Phthalate	2500	
218-01-9	Chrysene	2500	
117-84-0	Di-n-Octyl Phthalate	2000	U
205-99-2	Benzo(b)Fluoranthene	3600	
207-08-9	Benzo(k)Fluoranthene	2000	U J
50-32-8	Benzo(a)Pyrene	1700	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	2100	
53-70-3	Dibenzo(a h)Anthracene	530	J
191-24-2	Benzo(g h i)Perylene	2400	

(1)-Cannot be separated from diphenylamine

HE

~~3/88~~ May 93

Form I 86 7 85

Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number DC-SS-40

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-18-86

Date Analyzed 12-10-86

Conc/Dil Factor 500

Percent Moisture (decanted) 16.9

GPC Cleanup ☐Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8,000 u
319-85-7	Beta-BHC	8,000 u
319-86-8	Delta-BHC	8,000 u
58-89-9	Gamma-BHC (Lindane)	8,000 u
76-44-8	Heptachlor	8,000 u
309-00-2	Aldrin	8,000 u
1024-57-3	Heptachlor Epoxide	8,000 u
959-98-8	Endosulfan I	8,000 u
60-57-1	Dieldrin	16,000 u
72-55-9	4,4'-DDE	16,000 u
72-20-8	Endrin	16,000 u
33213-65-9	Endosulfan II	16,000 u
72-54-8	4,4'-DDD	16,000 u
1031-07-8	Endosulfan Sulfate	16,000 u
50-29-3	4,4'-DDT	16,000 u
72-43-5	Methoxychlor	80,000 u
53494-70-5	Endrin Ketone	16,000 u
57-74-9	Chlordane	80,000 u
8001-35-2	Toxaphene	160,000 u
12674-11-2	Aroclor-1016	80,000 u
11104-28-2	Aroclor-1221	80,000 u
11141-16-5	Aroclor-1232	80,000 u
53469-21-9	Aroclor-1242	80,000 u
12672-29-6	Aroclor-1248	80,000 u
11097-69-1	Aroclor-1254	119,000 J c
11096-82-5	Aroclor-1260	279,000 c 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)

HF May 93

V_s _____ or W_s 30 V_t 1000 V_i 4

87

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Laboratory Name ecology and environment, inc.

Case No 11-1/1/71

Sample Number
DC-SS-40

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	(RT) or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexane isomer	VOA	22.9	19 J
2.	Unknown hydrocarbon	VOA	24.2	13 J
3.				
4.	UNKNOWN AROMATIC	BNA	20.3	7300 J
5.	UNKNOWN AROMATIC		20.7	19000 J
6.	UNKNOWN AROMATIC		21.0	14000 J
7.	UNKNOWN AROMATIC		21.1	16000 J
8.	UNKNOWN AROMATIC		21.3	27000 J
9.	UNKNOWN AROMATIC		21.6	18000 J
10.	UNKNOWN AROMATIC		21.7	21000 J
11.	UNKNOWN AROMATIC		21.9	5700 J
12.	UNKNOWN AROMATIC		22.8	5200 J
13.	UNKNOWN AROMATIC		24.5	2900 J
14. 157/698	2,7-DIMETHYLPHENANTHRENE		24.8	5200 J
15.	PCB		24.9-25.4	—
16.	UNKNOWN		25.8	7100 J
17.	PCB		26.4-28.2	—
18.	UNKNOWN AROMATIC		28.4	8300 J
19.	PCB		28.5-	—
20.	UNKNOWN AROMATIC		28.8	13000 J
21.	UNKNOWN AROMATIC		29.0	4900 J
22.	PCB		29.1-29.4	—
23.	UNKNOWN		29.6	3900 J
24.	PCB		29.8-31.3	—
25.				
26.				
27.				
28.				
29.				
30.				

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Laboratory Name ecology and environment, inc.

Case No 11-1171

Sample Number
DC-SS-40-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	(RT) or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
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20.				
21.				
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23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

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Sample Number
DC-SS-41

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-44474

Lab Sample ID No: 9807 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-21-86

Conc/Dil Factor: 3 pH 6.4

Percent Moisture: (Not Decanted) 34

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	37 B-U
67-64-1	Acetone	41 B-U J
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	37 B-U J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

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, etc. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
*C	This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.
B	This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
Other	Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-41

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-18-86

Date Analyzed: 12-23-86

Conc/Dil Factor: 100

Percent Moisture (Decanted) 34

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

CAS Number		ug/l or (ug/Kg) (Circle One)	
83-32-9	Acenaphthene	25000	U
51-28-5	2, 4-Dinitrophenol	120000	U
100-02-7	4-Nitrophenol	120000	U
132-64-9	Dibenzofuran	25000	U
121-14-2	2 4-Dinitrotoluene	25000	U
606-20-2	2 6-Dinitrotoluene	25000	U
84-66-2	Diethylphthalate	25000	U
7005-72-3	4-Chlorophenyl-phenylether	25000	U
86-73-7	Fluorene	25000	U
100-01-6	4-Nitroaniline	120000	U
534-52-1	4, 6-Dinitro-2-Methylphenol	120000	U
86-30-6	N-Nitrosodiphenylamine (1)	25000	U
101-55-3	4-Bromophenyl-phenylether	25000	U
118-74-1	Hexachlorobenzene	25000	U
87-86-5	Pentachlorophenol	120000	U
85-01-8	Phenanthrene	25000	U
120-12-7	Anthracene	25000	U
84-74-2	Di-n-Butylphthalate	25000	U
206-44-0	Fluoranthene	25000	U
129-00-0	Pyrene	25000	U
85-68-7	Butylbenzylphthalate	25000	U
91-94-1	3, 3'-Dichlorobenzidine	50000	U J
56-55-3	Benzo(a)Anthracene	25000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	25000	U
218-01-9	Chrysene	25000	U
117-84-0	Di-n-Octyl Phthalate	25000	U
205-99-2	Benzo(b)Fluoranthene	25000	U
207-08-9	Benzo(k)Fluoranthene	25000	U
50-32-8	Benzo(a)Pyrene	25000	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	25000	U
53-70-3	Dibenzo(a h)Anthracene	25000	U
191-24-2	Benzo(g h i)Perylene	25000	U

(1)-Cannot be separated from diphenylamine

HB

Form I 91

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Laboratory Name ecology and environment, inc.

Case No V-4474

Sample Number DC-SS-41

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-18-86

Date Analyzed 12-10-86

Conc/Dil Factor 200

Percent Moisture (decanted) 34.3

GPC Cleanup ☐Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	3,200U
319-85-7	Beta-BHC	3,200U
319-86-8	Delta-BHC	3,200U
58-89-9	Gamma-BHC (Lindane)	3,200U
76-44-8	Heptachlor	3,200U
309-00-2	Aldrin	3,200U
1024-57-3	Heptachlor Epoxide	3,200U
959-98-8	Endosulfan I	3,200U
60-57-1	Dieldrin	6,400U
72-55-9	4, 4'-DDE	6,400U
72-20-8	Endrin	6,400U
33213-65-9	Endosulfan II	6,400U
72-54-8	4, 4'-DDD	6,400U
1031-07-8	Endosulfan Sulfate	6,400U
50-29-3	4, 4'-DDT	6,400U
72-43-5	Methoxychlor	32,000U
53494-70-5	Endrin Ketone	6,400U
57-74-9	Chlordane	32,000U
8001-35-2	Toxaphene	64,000U
12674-11-2	Aroclor-1016	32,000U
11104-28-2	Aroclor-1221	32,000U
11141-16-5	Aroclor-1232	32,000U
53469-21-9	Aroclor-1242	32,000U
12672-29-6	Aroclor-1248	26,600J
11097-69-1	Aroclor-1254	64,000U
11096-82-5	Aroclor-1260	85,800U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

RVE May 93

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No 11-11171

Sample Number DC-SS-41

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	(RT) or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1. 79209	Acetic acid, methyl ester	VOA	11.3	52 J
2.	Hexene isomer		18.0	67 J
3.	Hexene isomer		18.8	170 J
4.	Hexene isomer		19.5	7 J
5.	Unknown hydrocarbon		19.9	22 J
6.	Unknown alcohol		23.8	14 J
7.	Unknown hydrocarbon		24.3	13 J
8.	Unknown hydrocarbon		24.7	12 J
9.				
10.	UNKNOWN AROMATIC	BNA	19.8	52000 J
11.	UNKNOWN AROMATIC		20.0	69000 J
12.	UNKNOWN AROMATIC		20.1	54000 J
13.	UNKNOWN AROMATIC		20.2	210000 J
14.	UNKNOWN AROMATIC		20.4	50000 J
15.	UNKNOWN AROMATIC		20.5	100000 J
16.	UNKNOWN AROMATIC		20.7	610000 J
17.	UNKNOWN AROMATIC		20.8	230000 J
18.	UNKNOWN AROMATIC		20.9	390000 J
19.	UNKNOWN AROMATIC		21.0	470000 J
20.	UNKNOWN AROMATIC		21.2	720000 J
21.	UNKNOWN AROMATIC		21.3	150000 J
22.	DIMETHYL DECYL BENZENE		21.5	450000 J
23.	UNKNOWN AROMATIC		21.6	360000 J
24.	UNKNOWN AROMATIC		21.8	240000 J
25.	UNKNOWN AROMATIC		22.1	54000 J
26.	UNKNOWN		22.4	77000 J
27.	UNKNOWN AROMATIC		22.7	52000 J
28.	UNKNOWN		24.4	110000 J
29.	UNKNOWN		25.7	120000 J
30				

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Sample Number
DC-SS-42

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9808 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-21-86

Conc./Dil Factor: 3 pH 7.2

Percent Moisture: (Not Decanted) 20

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	60 B U
67-64-1	Acetone	58 B U J
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	39 B U J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

May 93

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Laboratory Name: Ecology & Environment Inc.

Case No: U-4474

Sample Number: DC-SS-42

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-86

Date Analyzed: 12-22-86

Conc/Dil Factor: 10

Percent Moisture (Decanted): 20

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	2100	U
111-44-4	bis(-2-Chloroethyl)Ether	2100	U
95-57-8	2-Chlorophenol	2100	U
541-73-1	1 3-Dichlorobenzene	2100	U
106-46-7	1 4-Dichlorobenzene	2100	U
100-51-6	Benzyl Alcohol	2100	U
95-50-1	1 2-Dichlorobenzene	2100	U
95-48-7	2-Methylphenol	2100	U
39638-32-9	bis(2-chloroisopropyl)Ether	2100	U
106-44-5	4-Methylphenol	2100	U
621-64-7	N-Nitroso-Di-n-Propylamine	2100	U
67-72-1	Hexachloroethane	2100	U
98-95-3	Nitrobenzene	2100	U
78-59-1	Isophorone	2100	U
88-75-5	2-Nitrophenol	2100	U
105-67-9	2. 4-Dimethylphenol	2100	U
65-85-0	Benzoic Acid	10000	U
111-91-1	bis(-2-Chloroethoxy)Methane	2100	U
120-83-2	2. 4-Dichlorophenol	2100	U
120-82-1	1. 2. 4-Trichlorobenzene	2100	U
91-20-3	Naphthalene	290	J
106-47-8	4-Chloroaniline	2100	U
87-68-3	Hexachlorobutadiene	2100	U
59-50-7	4-Chloro-3-Methylphenol	2100	U
91-57-6	2-Methylnaphthalene	2100	U
77-47-4	Hexachlorocyclopentadiene	2100	U
88-06-2	2 4 6-Trichlorophenol	2100	U
95-95-4	2. 4. 5-Trichlorophenol	10000	U
91-58-7	2-Chloronaphthalene	2100	U
88-74-4	2-Nitroaniline	10000	U
131-11-3	Dimethyl Phthalate	2100	U
208-96-8	Acenaphthylene	2100	U
99-09-2	3-Nitroaniline	10000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	2100	U
51-28-5	2. 4-Dinitrophenol	10000	U
100-02-7	4-Nitrophenol	10000	U
132-64-9	Dibenzofuran	2100	U
121-14-2	2 4-Dinitrotoluene	2100	U
606-20-2	2 6-Dinitrotoluene	2100	U
84-66-2	Diethylphthalate	2100	U
7005-72-3	4-Chlorophenyl-phenylether	2100	U
86-73-7	Fluorene	2100	U
100-01-6.	4-Nitroaniline	10000	U
534-52-1	4. 6-Dinitro-2-Methylphenol	10000	U
86-30-6	N-Nitrosodiphenylamine (1)	2100	U
101-55-3	4-Bromophenyl-phenylether	2100	U
118-74-1	Hexachlorobenzene	2100	U
87-86-5	Pentachlorophenol	20000	
85-01-8	Phenanthrene	2100	U
120-12-7	Anthracene	2100	U
84-74-2	Di-n-Butylphthalate	2100	U
206-44-0	Fluoranthene	2100	U
129-00-0	Pyrene	2100	U J
85-68-7	Butylbenzylphthalate	2100	U
91-94-1	3. 3'-Dichlorobenzidine	4100	U J
56-55-3	Benzo(a)Anthracene	2100	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2100	U
218-01-9	Chrysene	2100	U
117-84-0	Di-n-Octyl Phthalate	2100	U
205-99-2	Benzo(b)Fluoranthene	2100	U
207-08-9	Benzo(k)Fluoranthene	750	J
50-32-8	Benzo(a)Pyrene	180	J
193-39-5	Indeno(1 2. 3-cd)Pyrene	2100	U
53-70-3	Dibenzo(a h)Anthracene	2100	U
191-24-2	Benzo(g h i)Perylene	2100	U

(1)-Cannot be separated from diphenylamine

HS May 93

Form I 95

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Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number DC-SS-42

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-18-86

Date Analyzed 12-10-86

Conc/Dil Factor: 100

Percent Moisture (decanted) 20.3

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	1600 u
319-85-7	Beta-BHC	1,600 u
319-86-8	Delta-BHC	1,600 u
58-89-9	Gamma-BHC (Lindane)	1,600 u
76-44-8	Heptachlor	1,600 u
309-00-2	Aldrin	1,600 u
1024-57-3	Heptachlor Epoxide	1,600 u
959-98-8	Endosulfan I	1,600 u
60-57-1	Dieldrin	3,200 u
72-55-9	4,4'-DDE	3,200 u
72-20-8	Endrin	3,200 u
33213-65-9	Endosulfan II	3,200 u
72-54-8	4,4'-DDD	3,200 u
1031-07-8	Endosulfan Sulfate	3,200 u
50-29-3	4,4'-DDT	3,200 u
72-43-5	Methoxychlor	16,000 u
53494-70-5	Endrin Ketone	3,200 u
57-74-9	Chlordane	16,000 u
8001-35-2	Toxaphene	32,000 u
12674-11-2	Aroclor-1016	16,000 u
11104-28-2	Aroclor-1221	16,000 u
11141-16-5	Aroclor-1232	16,000 u
53469-21-9	Aroclor-1242	16,000 u
12672-29-6	Aroclor-1248	16,000 u
11097-69-1	Aroclor-1254	32,000 u
11096-82-5	Aroclor-1260	52,800 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)

HE May 93

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number DC-SS-42

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	(RT) or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.	UNKNOWN AROMATIC	BNA	19.7	35000 J
4.	UNKNOWN AROMATIC		19.9	31000 J
5.	UNKNOWN AROMATIC		20.0	52000 J
6.	UNKNOWN AROMATIC		20.2	57000 J
7.	UNKNOWN AROMATIC		20.4	71000 J
8.	UNKNOWN AROMATIC		20.5	24000 J
9.	UNKNOWN AROMATIC		20.8	220000 J
10.	UNKNOWN AROMATIC		20.9	57000 J
11.	UNKNOWN AROMATIC		21.0	62000 J
12.	UNKNOWN AROMATIC		21.1	96000 J
13.	UNKNOWN AROMATIC		21.4	140000 J
14.	UNKNOWN AROMATIC		21.5	40000 J
15.	UNKNOWN AROMATIC		21.7	93000 J
16.	DIMETHYL DECYL BENZENE		21.8	62000 J
17.	UNKNOWN AROMATIC		21.9	37000 J
18.	UNKNOWN AROMATIC		22.2	20000 J
19.	UNKNOWN AROMATIC		22.8	18000 J
20.	UNKNOWN AROMATIC		23.2	17000 J
21.	UNKNOWN AROMATIC		23.4	13000 J
22.	UNKNOWN AROMATIC		23.7	13000 J
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

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Sample Number
DC-SS-43

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9809 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-26-86

Conc./Dil Factor: 3 pH 7.3

Percent Moisture: (Not Decanted) 22

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u J
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u J
75-09-2	Methylene Chloride	29 BU
67-64-1	Acetone 30	~~21 BJU~~
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	40 B-U
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u J
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

HVE May 93

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

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

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

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

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

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

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Laboratory Name: Ecology & Environment Inc.

Case No: U-4474

Sample Number: DC-SS-43

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-86

Date Analyzed: 12-22-86

Conc/Dil Factor: 10

Percent Moisture (Decanted): 22

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	2100	U
111-44-4	bis(-2-Chloroethyl)Ether	2100	U
95-57-8	2-Chlorophenol	2100	U
541-73-1	1 3-Dichlorobenzene	2100	U
106-46-7	1 4-Dichlorobenzene	210	J
100-51-6	Benzyl Alcohol	2100	U J
95-50-1	1 2-Dichlorobenzene	2100	U
95-48-7	2-Methylphenol	2100	U
39638-32-9	bis(2-chloroisopropyl)Ether	2100	U
106-44-5	4-Methylphenol	2100	U
621-64-7	N-Nitroso-Di-n-Propylamine	2100	U
67-72-1	Hexachloroethane	2100	U
98-95-3	Nitrobenzene	2100	U
78-59-1	Isophorone	2100	U
88-75-5	2-Nitrophenol	2100	U
105-67-9	2, 4-Dimethylphenol	2100	U
65-85-0	Benzoic Acid	10000	U J
111-91-1	bis(-2-Chloroethoxy)Methane	2100	U
120-83-2	2, 4-Dichlorophenol	2100	U
120-82-1	1, 2, 4-Trichlorobenzene	2100	U
91-20-3	Naphthalene	110	J
106-47-8	4-Chloroaniline	~~2100~~	~~U~~ R
87-68-3	Hexachlorobutadiene	2100	U
59-50-7	4-Chloro-3-Methylphenol	2100	U
91-57-6	2-Methylnaphthalene	2100	U
77-47-4	Hexachlorocyclopentadiene	2100	U
88-06-2	2 4 6-Trichlorophenol	2100	U
95-95-4	2, 4, 5-Trichlorophenol	10000	U
91-58-7	2-Chloronaphthalene	2100	U
88-74-4	2-Nitroaniline	10000	U
131-11-3	Dimethyl Phthalate	2100	U
208-96-8	Acenaphthylene	2100	U
99-09-2	3-Nitroaniline	~~10000~~	~~U~~ R

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	770	J
51-28-5	2, 4-Dinitrophenol	10000	U
100-02-7	4-Nitrophenol	10000	U
132-64-9	Dibenzofuran	460	J
121-14-2	2 4-Dinitrotoluene	2100	U J
606-20-2	2 6-Dinitrotoluene	2100	U
84-66-2	Diethylphthalate	2100	U
7005-72-3	4-Chlorophenyl-phenylether	2100	U
86-73-7	Fluorene	1500	J
100-01-6	4-Nitroaniline	~~10000~~	~~U~~ R
534-52-1	4, 6-Dinitro-2-Methylphenol	10000	U
86-30-6	N-Nitrosodiphenylamine (1)	2100	U
101-55-3	4-Bromophenyl-phenylether	2100	U
118-74-1	Hexachlorobenzene	2100	U
87-86-5	Pentachlorophenol	25000	
85-01-8	Phenanthrene	15000	
120-12-7	Anthracene	4100	
84-74-2	Di-n-Butylphthalate	2100	U
206-44-0	Fluoranthene	20000	
129-00-0	Pyrene	19000	
85-68-7	Butylbenzylphthalate	2100	U
91-94-1	3, 3'-Dichlorobenzidine	4200	U J
56-55-3	Benzo(a)Anthracene	10000	
117-81-7	bis(2-Ethylhexyl)Phthalate	2100	U
218-01-9	Chrysene	10000	
117-84-0	Di-n-Octyl Phthalate	2100	U
205-99-2	Benzo(b)Fluoranthene	15000	
207-08-9	Benzo(k)Fluoranthene	2100	U
50-32-8	Benzo(a)Pyrene	7800	
193-39-5	Indeno(1 2, 3-cd)Pyrene	5200	
53-70-3	Dibenz(a h)Anthracene	1500	J
191-24-2	Benzo(g h i)Perylene	5400	

(1)-Cannot be separated from diphenylamine

~~334~~ 100 NV = May 93

Form I 99

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Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number DC-SS-43

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-86

Date Analyzed: 12-10-86

Conc/Dil Factor: 50

Percent Moisture (decanted) ~~44 gm~~ 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	800 U
319-85-7	Beta-BHC	800 U
319-86-8	Delta-BHC	800 U
58-89-9	Gamma-BHC (Lindane)	800 U
76-44-8	Heptachlor	800 U
309-00-2	Aldrin	800 U
1024-57-3	Heptachlor Epoxide	800 U
959-98-8	Endosulfan I	800 U
60-57-1	Dieldrin	1600 U
72-55-9	4, 4'-DDE	1600 U
72-20-8	Endrin	1600 U
33213-65-9	Endosulfan II	1600 U
72-54-8	4, 4'-DDD	1600 U
1031-07-8	Endosulfan Sulfate	1600 U
50-29-3	4 4'-DDT	1600 U
72-43-5	Methoxychlor	8,000 U
53494-70-5	Endrin Ketone	1,600 U
57-74-9	Chlordane	8,000 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	8,000 U
12672-29-6	Aroclor-1248	17,000
11097-69-1	Aroclor-1254	16,000 U
11096-82-5	Aroclor-1260	30,100 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)

HVE May 93

V_s _____ or W_s 30 V_t 1000 V_i 4

100

Form 1

~~3/85~~ 7 85
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Laboratory Name ecology and environment, inc.

Case No 11-11171

Sample Number DC-SS-43

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	(RT) or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3. 100005	1-CHLORO-4-NITROBENZENE	BNA	14.2	4500 J
4.	UNKNOWN AROMATIC		20.7	1300 J
5.	UNKNOWN AROMATIC		21.6	1200 J
6. 832644	4-METHYLPHENANTHRENE		24.2	1400 J
7. 613127	2-METHYLANTHRACENE		24.3	1800 J
8.	UNKNOWN		24.5	2000 J
9.	UNKNOWN		27.0	3200 J
10. 2381217	1-METHYLPYRENE		28.1	2600 J
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
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23.				
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29.				
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Sample Number
DC-SS-44

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474
Lab Sample ID No: 9810 QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: C Hojtowicz Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-21-86
Conc./Dil Factor: 3 pH 7.5
Percent Moisture: (Not Decanted) 23

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	52B u
67-64-1	Acetone	30 ~~18B J~~ NJ
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

May 93

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-44

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-20-86

Date Analyzed 12-22-86

Conc/Dil Factor 2

Percent Moisture (Decanted) 23

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

CAS Number		ug/l or (ug/Kg) (Circle One)		
83-32-9	Acenaphthene	430	U	
51-28-5	2. 4-Dinitrophenol	2100	U	
100-02-7	4-Nitrophenol	2100	U	
132-64-9	Dibenzofuran	430	U	
121-14-2	2 4-Dinitrotoluene	430	U	J
606-20-2	2. 6-Dinitrotoluene	430	U	
84-66-2	Diethylphthalate	430	U	
7005-72-3	4-Chlorophenyl-phenylether	430	U	
86-73-7	Fluorene	430	U	
100-01-6	4-Nitroaniline	~~2100~~	~~U~~	R
534-52-1	4. 6-Dinitro-2-Methylphenol	2100	U	
86-30-6	N-Nitrosodiphenylamine (1)	430	U	
101-55-3	4-Bromophenyl-phenylether	430	U	
118-74-1	Hexachlorobenzene	430	U	
87-86-5	Pentachlorophenol	2100	U	
85-01-8	Phenanthrene	430	U	
120-12-7	Anthracene	430	U	
84-74-2	Di-n-Butylphthalate	~~150~~	~~J~~	430 U
206-44-0	Fluoranthene	430	U	
129-00-0	Pyrene	430	U	
85-68-7	Butylbenzylphthalate	430	U	
91-94-1	3. 3'-Dichlorobenzidine	860	U	J
56-55-3	Benzo(a)Anthracene	430	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	430	U	
218-01-9	Chrysene	430	U	
117-84-0	Di-n-Octyl Phthalate	430	U	
205-99-2	Benzo(b)Fluoranthene	81	J	
207-08-9	Benzo(k)Fluoranthene	430	U	
50-32-8	Benzo(a)Pyrene	430	U	
193-39-5	Indeno(1 2. 3-cd)Pyrene	430	U	
53-70-3	Dibenz(a h)Anthracene	430	U	
191-24-2	Benzo(g h i)Perylene	430	U	

(1)-Cannot be separated from diphenylamine

IV HE

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Laboratory Name ecology and environment, inc.

Case No V-4474

Sample Number DC-SS-44

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-18-86

Date Analyzed 12-9-86

Conc/Dil Factor: 1

Percent Moisture (decanted) 23.2

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No 11-1/1/71

Sample Number DC-SS-44

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	(RT) or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.	UNKNOWN	BNA	34.0	~~710 J~~ U
4.	UNKNOWN HYDROCARBON	L	35.0	330 J
5.	UNKNOWN HYDROCARBON	L	36.7	380 J
6.				
7.				
8.				
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Sample Number
DC-SS-45

Organics Analysis Data Sheet
(Page 1)

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

Lab Sample ID No: 9771 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

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

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-19-86

Conc./Dil Factor: 3 pH 7.6

Percent Moisture: (Not Decanted) 21

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	65 ~~B~~ UJ
67-64-1	Acetone 30	~~28 J~~ UJ
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Sample Number
DC-SS-45 RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4465
Lab Sample ID No: 9771-RE QC Report No:
Sample Matrix: Soil Contract No: IL-3140
Data Release Authorized By: C Stoytowicz Date Sample Received: 11-13-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-25-86
Conc./Dil Factor: 3 pH 7.6
Percent Moisture: (Not Decanted) 21

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	51 ~~B~~ U
67-64-1	Acetone 30	~~17 BJ~~ UJ
75-15-0	Carbon Disulfide	15u J
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	30u J
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

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

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

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4465

Sample Number DC-SS-45

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed: 12-2-86

Conc./Dil Factor: 2

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

CAS Number		ug/l or ug/Kg (Circle One)		
83-32-9	Acenaphthene	420	U	
51-28-5	2, 4-Dinitrophenol	2000	U	J
100-02-7	4-Nitrophenol	2000	U	J
132-64-9	Dibenzofuran	420	U	
121-14-2	2 4-Dinitrotoluene	420	U	
606-20-2	2 6-Dinitrotoluene	420	U	
84-66-2	Diethylphthalate	420	U	
7005-72-3	4-Chlorophenyl-phenylether	420	U	
86-73-7	Fluorene	420	U	
100-01-6	4-Nitroaniline	2000	U	
534-52-1	4, 6-Dinitro-2-Methylphenol	2000	U	
86-30-6	N-Nitrosodiphenylamine (1)	420	U	
101-55-3	4-Bromophenyl-phenylether	420	U	
118-74-1	Hexachlorobenzene	420	U	
87-86-5	Pentachlorophenol	2000	U	
85-01-8	Phenanthrene	420	U	
120-12-7	Anthracene	420	U	
84-74-2	Di-n-Butylphthalate	1500	~~B~~	U
206-44-0	Fluoranthene	420	U	
129-00-0	Pyrene	420	U	
85-68-7	Butylbenzylphthalate	420	U	
91-94-1	3, 3'-Dichlorobenzidine	840	U	J
56-55-3	Benzo(a)Anthracene	420	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	420	U	
218-01-9	Chrysene	420	U	
117-84-0	Di-n-Octyl Phthalate	~~79 BJ~~		420 U
205-99-2	Benzo(b)Fluoranthene	420	U	
207-08-9	Benzo(k)Fluoranthene	420	U	
50-32-8	Benzo(a)Pyrene	420	U	
193-39-5	Indeno(1 2, 3-cd)Pyrene	420	U	
53-70-3	Dibenz(a h)Anthracene	420	U	
191-24-2	Benzo(g h i)Perylene	420	U	

(1)-Cannot be separated from diphenylamine

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Laboratory Name ecology and environment, inc.

Case No V-4465

Sample Number DC-SS-45

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-14-86

Date Analyzed 11-25-86

Conc/Dil Factor 1

Percent Moisture (decanted) 20.9

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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ecology and environment

Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-45

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Hexene isomer	VOA	17.4	~~5 BJ~~ U
2.	Hexane isomer	VOA	21.5	~~15 BJ~~ U
3.				
4.	UNKNOWN	BNA	7.0	~~1400 BJ~~ U
5.	UNKNOWN	1	20.4	~~720 BJ~~ U
6.	UNKNOWN	1	34.3	~~510 BJ~~ U
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Laboratory Name ecology and environment, inc.

Case No U-4465

Sample Number DC-SS-45-RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC is Volatile fraction			
2.				
3.				
4.				
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ecology and environment

Sample Number
DC-SS-46

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474
Lab Sample ID No: 9811 QC Report No:
Sample Matrix: Soil Contract No: IL-3140.
Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared:
Date Analyzed: 11-26-86
Conc./Dil Factor: 3 pH 9.0
Percent Moisture: (Not Decanted) 28

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u J
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u
75-09-2	Methylene Chloride	~~40 B~~ UJ
67-64-1	Acetone	30 ~~18 BJ~~ u
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-05-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	54 ~~B~~ u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u J
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name Ecology & Environment Inc.

Case No V-4474

Sample Number DC-SS-46

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 1/2/87

Date Analyzed: 1/9/87

Conc/Dil Factor: 2

Percent Moisture (Decanted) 28

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	460	U
51-28-5	2, 4-Dinitrophenol	2200	U J
100-02-7	4-Nitrophenol	2200	U J
132-64-9	Dibenzofuran	460	U
121-14-2	2 4-Dinitrotoluene	460	U J
606-20-2	2. 6-Dinitrotoluene	460	U
84-66-2	Diethylphthalate	460	U J
7005-72-3	4-Chlorophenyl-phenylether	460	U
86-73-7	Fluorene	460	U
100-01-6	4-Nitroaniline	2200	U J
534-52-1	4, 6-Dinitro-2-Methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	460	U
101-55-3	4-Bromophenyl-phenylether	460	U
118-74-1	Hexachlorobenzene	460	U
87-86-5	Pentachlorophenol	2200	U
85-01-8	Phenanthrene	460	U
120-12-7	Anthracene	460	U
84-74-2	Di-n-Butylphthalate	1600	~~B~~ U
206-44-0	Fluoranthene	460	U
129-00-0	Pyrene	460	U J
85-68-7	Butylbenzylphthalate	460	U
91-94-1	3. 3'-Dichlorobenzidine	920	U J
56-55-3	Benzo(a)Anthracene	460	U
117-81-7	bis(2-Ethylhexyl)Phthalate	240	J
218-01-9	Chrysene	460	U
117-84-0	Di-n-Octyl Phthalate	460	U
205-99-2	Benzo(b)Fluoranthene	460	U
207-08-9	Benzo(k)Fluoranthene	460	U J
50-32-8	Benzo(a)Pyrene	460	U
193-39-5	Indeno(1 2. 3-cd)Pyrene	460	U
53-70-3	Dibenzo(a h)Anthracene	460	U
191-24-2	Benzo(g h. i)Perylene	460	U

(1)-Cannot be separated from diphenylamine

HE

~~230~~ May 93

Form I 113

7 85

Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number DC-SS-46

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 11-18-86

Date Analyzed 12-9-86

Conc/Dil Factor 1

Percent Moisture (decanted) 27.7

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4

114 ~~121~~

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Laboratory Name ecology and environment, inc.

Case No 11-1/1/71

Sample Number DC-SS-46

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	(RT) or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.	UNKNOWN HYDROCARBON	BNA	20.2	~~1200 BJ~~ U
4.	UNKNOWN HYDROCARBON	1	21.7	500 J
5.	UNKNOWN		34.0	~~30000 BJ~~ U
6.				
7.				
8.				
9.				
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30				

HVE
Mar 93

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Sample Number
DC-SS-47

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9812 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: C Stoytowicz Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-21-86

Conc./Dil Factor: 3 pH 8.3

Percent Moisture: (Not Decanted) 12

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	30u	
74-83-9	Bromomethane	30u J	
75-01-4	Vinyl Chloride	30u	
75-00-3	Chloroethane	30u	
75-09-2	Methylene Chloride	32B	U
67-64-1	Acetone	33B	UJ
75-15-0	Carbon Disulfide	15u	
75-35-4	1, 1-Dichloroethene	15u	
75-34-3	1, 1-Dichloroethane	15u	
156-60-5	Trans-1, 2-Dichloroethene	15u	
67-66-3	Chloroform	15u	
107-06-2	1, 2-Dichloroethane	15u	
78-93-3	2-Butanone	30B	UJ
71-55-6	1, 1, 1-Trichloroethane	15u	
56-23-5	Carbon Tetrachloride	15u	
108-05-4	Vinyl Acetate	30u	
75-27-4	Bromodichloromethane	15u	

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

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

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

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-47

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-18-86

Date Analyzed: 12-22-86

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

CAS Number		ug/l or (ug/Kg) (Circle One)		
83-32-9	Acenaphthene	380	U	
51-28-5	2. 4-Dinitrophenol	1800	U	
100-02-7	4-Nitrophenol	1800	U	
132-64-9	Dibenzofuran	380	U	
121-14-2	2 4-Dinitrotoluene	380	U	J
606-20-2	2 6-Dinitrotoluene	380	U	
84-66-2	Diethylphthalate	380	U	
7005-72-3	4-Chlorophenyl-phenylether	380	U	
86-73-7	Fluorene	380	U	
100-01-6	4-Nitroaniline	~~1800~~	~~U~~	R
534-52-1	4. 6-Dinitro-2-Methylphenol	1800	U	
86-30-6	N-Nitrosodiphenylamine (1)	380	U	
101-55-3	4-Bromophenyl-phenylether	380	U	
118-74-1	Hexachlorobenzene	380	U	
87-86-5	Pentachlorophenol	1800	U	
85-01-8	Phenanthrene	380	U	
120-12-7	Anthracene	380	U	
84-74-2	Di-n-Butylphthalate	~~230~~	~~J~~	380 U
206-44-0	Fluoranthene	380	U	
129-00-0	Pyrene	380	U	
85-68-7	Butylbenzylphthalate	380	U	
91-94-1	3. 3'-Dichlorobenzidine	750	U	J
56-55-3	Benzo(a)Anthracene	380	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	380	U	
218-01-9	Chrysene	380	U	
117-84-0	Di-n-Octyl Phthalate	380	U	
205-99-2	Benzo(b)Fluoranthene	380	U	
207-08-9	Benzo(k)Fluoranthene	380	U	
50-32-8	Benzo(a)Pyrene	380	U	
193-39-5	Indeno(1 2. 3-cd)Pyrene	380	U	
53-70-3	Dibenzo(a h)Anthracene	380	U	
191-24-2	Benzo(g h i)Perylene	380	U	

(1)-Cannot be separated from diphenylamine

HV2 May 93

Form I 117

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Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number DC-SS-47

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 11-18-86

Date Analyzed 12-9-86

Conc/Dil Factor 2X

Percent Moisture (decanted) 12.6

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1,000 V_i 4 µl

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Form 1

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Laboratory Name ecology and environment, inc.

Case No IL-41171

Sample Number
DC-SS-47

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	(RT) or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.	UNKNOWN	BNA	34.0	~~1700 J~~ U
4.				
5.				
6.				
7.				
8.				
9.				
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May 93

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Sample Number
DC-SS-48

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment, Inc Case No: U-4474

Lab Sample ID No: 9813 QC Report No:

Sample Matrix: Soil Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 11-14-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 11-26-86

Conc/Dil Factor: 3 pH 8.6

Percent Moisture: (Not Decanted) 9.3

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	30u J
74-83-9	Bromomethane	30u J
75-01-4	Vinyl Chloride	30u
75-00-3	Chloroethane	30u J
75-09-2	Methylene Chloride	~~24 B~~ UJ
67-64-1	Acetone 30	~~12 BJ~~ u
75-15-0	Carbon Disulfide	15u
75-35-4	1, 1-Dichloroethene	15u
75-34-3	1, 1-Dichloroethane	15u
156-60-5	Trans-1, 2-Dichloroethene	15u
67-66-3	Chloroform	15u
107-06-2	1, 2-Dichloroethane	15u
78-93-3	2-Butanone	35 B u
71-55-6	1, 1, 1-Trichloroethane	15u
56-23-5	Carbon Tetrachloride	15u
108-05-4	Vinyl Acetate	30u J
75-27-4	Bromodichloromethane	15u

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

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Laboratory Name ECOLOGY & ENVIRONMENT INC.

Case No U-4474

Sample Number DC-SS-48

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 11-18-86

Date Analyzed: 12-22-86

Conc/Dil Factor: 2

Percent Moisture (Decanted) 9

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	360	U
111-44-4	bis(-2-Chloroethyl)Ether	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1 3-Dichlorobenzene	360	U
106-46-7	1 4-Dichlorobenzene	360	U
100-51-6	Benzyl Alcohol	360	U
95-50-1	1 2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
39638-32-9	bis(2-chloroisopropyl)Ether	360	U
106-44-5	4-Methylpheno	360	U
621-64-7	N-Nitroso-Di-n-Propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2, 4-Dimethylphenol	360	U
65-85-0	Benzoic Acid	1800	U
111-91-1	bis(-2-Chloroethoxy)Methane	360	U
120-83-2	2, 4-Dichlorophenol	360	U
120-82-1	1, 2, 4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-Methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2 4 6-Trichlorophenol	360	U
95-95-4	2, 4, 5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethyl Phthalate	360	U
208-96-8	Acenaphthylene	360	U
99-09-2	3-Nitroaniline	1800	U J

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	360	U
51-28-5	2, 4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	360	U
121-14-2	2 4-Dinitrotoluene	360	U
606-20-2	2 6-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4, 6-Dinitro-2-Methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
84-74-2	Di-n-Butylphthalate	360	U
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	360	U J
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3, 3'-Dichlorobenzidine	720	U J
56-55-3	Benzo(a)Anthracene	360	U
117-81-7	bis(2-Ethylhexyl)Phthalate	360	U
218-01-9	Chrysene	360	U
117-84-0	Di-n-Octyl Phthalate	360	U
205-99-2	Benzo(b)Fluoranthene	360	U
207-08-9	Benzo(k)Fluoranthene	360	U J
50-32-8	Benzo(a)Pyrene	360	U
193-39-5	Indeno(1 2, 3-cd)Pyrene	360	U
53-70-3	Dibenzo(a h)Anthracene	360	U
191-24-2	Benzo(g h, i)Perylene	360	U

(1)-Cannot be separated from diphenylamine

Form I 121 ~~5.16~~ 7 85

May 93

Laboratory Name ecology and environment, inc.

Case No U-4474

Sample Number DC-SS-48

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-86

Date Analyzed: 12-9-86

Conc/Dil Factor: 5x

Percent Moisture (decanted) 9.3

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30 V_t 1000 V_i 4

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Laboratory Name ecology and environment, inc.

Case No IL-414741

Sample Number DC-SS-48

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	(RT) or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.	No Semi-Volatile Compounds Found			
4.				
5.				
6.				
7.				
8.				
9.				
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27.				
28.				
29.				
30				

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ATTACHMENT A

FORMS I

CASE NUMBER U-4474