

SAMPLE DATA SUMMARY PACKAGE



RECRA  
ENVIRONMENTAL  
INC.

CASE NARRATIVE

Laboratory Name: Recra Environmental, Inc.

Laboratory Code: RECNY

Case Number: RA093

SDG Number: 81393

Contract Number: COO2412

Sample Identification:

RA093 81393 SP1B  
RA093 81393 SP1SSW  
LAB CONTROL SAMPLE  
VHB

METHODOLOGY

Analyses were performed in accordance with 1991 New York State Analytical Services Protocol.

COMMENTS

Comments pertain to data on one or all pages of this report.

The enclosed data has been reported utilizing data qualifiers (Q) as defined on the Organic and Inorganic Data comment Pages.

Results for the analysis of soils are corrected for moisture content and reported on a dry weight basis.

VOLATILE DATA

Volatile sample and standard areas are listed on the corresponding data system printouts.

Volatile data are processed utilizing Finnigan Autoquantitation and QA Formaster software. All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. Unedited quantitation reports have been submitted with this analytical data package.



Samples RA093 81393 SP1B and RA093 81393 SP1BRE both exhibited surrogate Bromofluorobenzene as outside of quality control limits indicating sample matrix interference.

Concentrations of Toluene, Chlorobenzene and Total Xylenes were detected in Volatile Method Blank 61 at a level below the detection limit.

#### SEMIVOLATILE DATA

Semivolatile sample and standard areas are listed on the corresponding data system printouts.

Semivolatile data are processed utilizing Finnigan Autoquantitation and QA Formaster software. All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. Unedited quantitation reports have been submitted with this analytical data package.

No deviations from protocol were encountered during analysis.

#### PESTICIDE / PCB DATA

The retention time for compound beta-BHC is outside of the established retention time window for PEM05 analyzed on 08/26/93 at 17:31 on the DB1701 column.

The Relative Percent Difference for compound Endosulfan I is outside of quality control limits for INDAM06 analyzed on 08/28/93 at 01:00 on the DB1701 column.

A concentration of beta-BHC was detected in PBLK75 at a level below the detection limit.

#### METALS DATA

The extra zzzzzz's found on the form14's of the flame inorganic data represent the re-zeroing of the instrument after each sample.

All samples were re-digested and re-analyzed for Sodium due to a non-compliant Laboratory Control sample.



"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."



Robert K. Wyeth  
Laboratory Director

9/15/93

Date



NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE IDENTIFICATION  
AND  
ANALYTICAL REQUEST SUMMARY

LAB NAME RECRA ENVIRONMENTAL, INC.

CUSTOMER SAMPLE CODE	LABORATORY SAMPLE CODE	ANALYTICAL REQUIREMENTS					
		VOA GC/MS	BNA GC/MS	VOA GC	PEST/ PCB	METALS	OTHER
RA093 81393 SP1B	93-2646	ASP91	ASP91	-	ASP91	ASP91	-
SH093 0809 SP1SSW	93-2646	ASP91	-ASP91	-	ASP91	ASP91	-

I.D. #A3-2646.1

NYSDEC-1

RECRA  
ENVIRONMENTAL  
INC.

NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY  
VOLATILE ANALYSIS

LAB NAME RECRA ENVIRONMENTAL INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
RA093 81393 SP1B	SOIL	08/14/93	08/17/93	-	08/18/93
RA093 81393 SP1SSW	SOIL	08/13/93	08/17/93	-	08/18/93

D. #A3-2618.2

NYSDEC-2



RECRA  
ENVIRONMENTAL  
INC.

NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE PREPARATION AND ANALYSIS SUMMARY  
B/N-A ANALYSIS

LAB NAME RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
RA093 81393 SP1B	SOIL	08/14/93	08/17/93	08/19/93	08/30/93
RA093 81393 SP1SSW	SOIL	08/13/93	08/17/93	08/19/93	08/30/93

I.D. #A3-2646.3

NYSDEC-3

RECRA  
ENVIRONMENTAL  
INC.

NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
SAMPLE PREPARATION AND ANALYSIS SUMMARY  
PESTICIDE/PCB ANALYSIS

LAB NAME RECRA ENVIRONMENTAL INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
RA093 81393 SP1B	SOIL	08/14/93	08/17/93	08/19/93	09/01/93
RA093 81393 SP1SSW	SOIL	08/13/93	08/17/93	08/19/93	09/01/93

I.D. #A3-2646.4

NYSDEC-4



RECRA  
ENVIRONMENTAL  
INC.

NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
SAMPLE PREPARATION AND ANALYTICAL SUMMARY  
INORGANIC ANALYSIS

LAB NAME RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	METALS REQUESTED	DATE RECEIVED AT LAB	DATE DIGESTED	DATE ANALYZED
RA093 81393 SP1B	SOIL	T-METALS	08/17/93	08/23/93	08/24,30,31/93 09/01,07/93
RA093 81393 SP1SSW	SOIL	T-METALS	08/17/93	08/23/93	08/24,30,31/93 09/01,07/93

I.D. #A3-2646.5

NYSDEC-5



RECRA  
ENVIRONMENTAL  
INC.

NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE PREPARATION AND ANALYSIS SUMMARY  
ORGANIC ANALYSIS

LAB NAME RECRA ENVIRONMENTAL INC.

SAMPLE IDENTIFICATION	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
RA093 81393 SP1B	SOIL	ASP91	SONC*	AS REQUIRED	AS REQUIRED
RA093 81393 SP1SSW	SOIL	ASP91	SONC*	AS REQUIRED	AS REQUIRED

\* SEMIVOLATILES AND PESTICIDE / PCB ANALYSIS ONLY

I.D. #A3-2646.6

NYSDEC-6

RECRA  
ENVIRONMENTAL  
INC.

NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATIONSAMPLE PREPARATION AND ANALYSIS SUMMARY  
INORGANIC ANALYSIS

LAB NAME RECRA ENVIRONMENTAL, INC.

LABORATORY SAMPLE CODE	MATRIX	ANALYTICAL PROTOCOL	DIGESTION PROCEDURE	MATRIX MODIFIER	DIL/CONC FACTOR
RA093 81393 SP1B	SOIL	ASP91	ASP91	AS REQUIRED	AS REQUIRED
RA093 81393 SP1SSW	SOIL	ASP91	ASP91	AS REQUIRED	AS REQUIRED

I.D. #A3-2646.7

NYSDEC-7

RECRA  
ENVIRONMENTAL  
INC.

\*\*\*\*\* VOA IDL Study \*\*\*\*\*

Compound (units of measure = ug/l)	instr.: I50H		date: 05/19/93		analyst: CAS			ave.	S.D.	IDL
	H1856	H1857	H1858	H1859	H1860	H1861	H1862			
C010 CHLOROMETHANE	9.17	9.42	9.33	8.47	8.48	9.15	9.67	9.10	0.46	1.38
C015 BROMOMETHANE	10.49	11.55	10.45	10.75	10.42	11.00	11.48	10.88	0.48	1.44
C020 VINYL CHLORIDE	9.76	11.03	10.67	10.53	9.49	10.45	10.64	10.37	0.54	1.63
C025 CHLOROETHANE	11.75	12.65	13.69	14.14	13.19	14.15	14.48	13.43	0.97	2.92
C030 METHYLENE CHLORIDE	10.84	11.59	11.65	11.33	12.19	11.44	11.67	11.53	0.41	1.22
C035 ACETONE	15.09	22.22	19.30	18.27	19.20	17.32	16.88	18.33	2.25	6.76
C040 CARBON DISULFIDE	8.65	9.14	8.65	8.33	8.29	8.38	9.29	8.68	0.40	1.19
C045 1,1-DICHLOROETHENE	9.98	10.95	9.92	8.71	9.79	9.83	10.65	9.97	0.72	2.15
C050 1,1-DICHLOROETHANE	9.23	10.57	9.27	9.29	10.09	9.38	9.72	9.65	0.51	1.54
C057 TRANS-1,2-DICHLOROETHENE	9.47	10.11	10.57	8.81	10.12	9.73	10.82	9.95	0.68	2.04
C060 CHLOROFORM	9.84	10.12	9.26	9.41	10.47	9.40	10.06	9.79	0.45	1.35
C065 1,2-DICHLOROETHANE	10.09	10.53	10.07	9.98	11.37	9.94	10.36	10.34	0.50	1.51
C110 2-BUTANONE	11.53	10.81	11.15	11.26	13.69	10.59	10.08	11.30	1.16	3.47
C115 1,1,1-TRICHLOROETHANE	10.88	11.74	10.89	10.28	11.85	11.24	13.11	11.43	0.92	2.75
C120 CARBON TETRACHLORIDE	11.14	11.47	10.26	10.33	11.43	11.08	12.48	11.17	0.76	2.27
C125 VINYL ACETATE	9.65	9.80	8.88	9.64	9.90	7.86	9.78	9.36	0.74	2.22
C130 BROMODICHLOROMETHANE	11.04	10.67	9.92	9.97	11.92	11.11	11.55	10.88	0.76	2.27
C056 CIS-1,2-DICHLOROETHENE	9.95	10.10	9.30	9.02	10.47	9.77	10.51	9.87	0.56	1.68
C036 ACROLEIN	86.37	95.23	83.79	87.53	91.77	55.36	73.17	81.89	13.61	40.82
C038 ACRYLONITRILE	84.84	84.65	80.83	88.60	99.20	82.56	83.17	86.26	6.20	18.59
C275 TRICHLOROFUOROMETHANE	9.68	10.28	9.78	9.36	9.80	9.38	10.25	9.79	0.37	1.11
C300 ACETONITRILE	67.01	0.00	76.05	71.15	56.17	61.43	44.67	53.78	25.86	77.58
C140 1,2-DICHLOROPROPANE	10.84	11.07	10.30	11.03	12.78	10.76	13.02	11.40	1.06	3.17
C145 CIS-1,3-DICHLOROPROPENE	11.08	10.97	9.53	10.39	11.19	10.40	11.44	10.71	0.65	1.96
C150 TRICHLOROETHENE	11.33	11.52	10.87	11.09	12.81	12.44	12.94	11.85	0.85	2.56
C155 DIBROMOCHLOROMETHANE	10.51	10.88	9.73	10.11	12.19	10.29	11.60	10.76	0.87	2.61
C160 1,1,2-TRICHLOROETHANE	12.11	11.62	11.53	11.59	13.90	12.07	13.36	12.31	0.94	2.83
C165 BENZENE	10.86	10.95	10.49	10.38	11.61	11.03	11.96	11.04	0.57	1.71
C170 TRANS-1,3-DICHLOROPROPENE	9.89	10.56	9.59	9.29	12.27	10.89	11.91	10.63	1.14	3.42
C180 BROMOFORM	10.13	9.61	9.30	9.43	11.08	9.76	10.65	9.99	0.66	1.99
C161 2-CHLOROETHYL VINYL ETHER	11.72	11.08	10.67	10.83	12.51	11.21	12.45	11.50	0.75	2.25
C163 1,2-DIBROMOETHANE	11.31	11.00	10.68	10.73	12.81	11.09	12.17	11.40	0.80	2.39
C286 1,2-DIBROMO-3-CHLOROPROPANE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C210 4-METHYL-2-PENTANONE	12.05	10.49	10.38	10.72	11.89	10.27	11.02	10.97	0.72	2.17
C215 2-HEXANONE	12.10	10.83	11.28	11.06	14.05	10.44	12.59	11.76	1.25	3.75
C220 TETRACHLOROETHENE	11.16	11.15	10.87	10.82	11.38	10.73	12.02	11.16	0.44	1.32
C225 1,1,2,2-TETRACHLOROETHANE	11.29	10.50	10.57	10.71	12.10	10.28	11.51	10.99	0.66	1.97
C230 TOLUENE	11.01	10.95	10.81	10.85	11.41	10.78	11.83	11.09	0.39	1.18
C235 CHLOROBENZENE	10.69	10.69	10.39	10.24	11.63	10.53	11.26	10.77	0.50	1.49
C240 ETHYLBENZENE	10.24	10.20	10.14	10.17	10.99	10.22	11.48	10.49	0.53	1.58
C245 STYRENE	10.63	10.44	9.95	10.28	11.32	10.28	11.31	10.60	0.53	1.59
C246 M,P-XYLENE	21.10	21.36	20.42	21.22	21.87	20.55	23.75	21.47	1.12	3.36
C247 O-XYLENE	10.91	10.89	9.92	10.34	11.15	10.26	11.93	10.77	0.67	2.02
C260 1,3-DICHLOROBENZENE	10.87	10.48	10.14	10.11	11.28	10.23	11.63	10.68	0.60	1.80
C267 1,4-DICHLOROBENZENE	10.80	10.42	10.23	10.31	11.67	10.26	11.28	10.71	0.57	1.70
C249 1,2-DICHLOROBENZENE	11.12	10.65	10.20	10.32	11.62	10.35	11.83	10.87	0.66	1.98

# = Less than 7 hits for the compound in this row

IDL  
I507  
June 1993

BN = 10ng		AP = 20ng		instr.: 1502				date: 6-5-93		analyst: SMW		ave.	S.D.	IDL
Compound (units of measure = ug/l)		14536Z	14537Z	14538Z	14539Z	14540Z	14541Z	14542Z						
1	C130 1,4-DICHLOROBENZENE D4	40	40	40	40	40	40	40	40	40	40	0	0	
2	C140 NAPHTHALENE D8	40	40	40	40	40	40	40	40	40	40	0	0	
3	C150 ACENAPHTHENE D10	40	40	40	40	40	40	40	40	40	40	0	0	
4	C160 PHENANTHRENE D10	40	40	40	40	40	40	40	40	40	40	0	0	
5	C170 CHRYSENE D12	40	40	40	40	40	40	40	40	40	40	0	0	
6	C175 PERYLENE D12	40	40	40	40	40	40	40	40	40	40	0	0	
7	CS20 NITROBENZENE D5	49.44	50.80	49.84	51.23	49.26	49.64	51.01	50.17	0.81	2.44			
8	CS25 2-FLUOROBIPHENYL	46.14	45.79	47.64	48.19	47.12	48.14	47.68	47.24	0.95	2.85			
9	CS30 TERPHENYL D14	51.45	51.13	50.68	50.95	49.92	51.65	54.38	51.45	1.41	4.23			
10	CS45 PHENOL D5	51.29	50.96	52.20	50.57	48.84	50.44	49.34	50.52	1.14	3.43			
11	CS50 2-FLUOROPHENOL	54.92	50.28	54.35	48.20	50.80	48.71	52.78	51.43	2.65	7.95			
12	CS55 2,4,6-TRIBROMOPHENOL	51.26	51.09	51.98	52.44	51.00	50.54	50.85	51.31	0.67	2.00			
13	C315 PHENOL	52.71	50.77	54.89	51.47	52.02	47.67	47.01	50.93	2.78	8.34			
14	C325 BIS(2-CHLOROETHYL) ETHER	50.37	50.43	51.87	50.27	50.71	50.22	49.50	50.48	0.71	2.14			
15	C330 2-CHLOROPHENOL	49.04	49.00	49.93	48.10	48.50	48.24	48.23	48.72	0.65	1.95			
16	C335 1,3-DICHLOROBENZENE	49.23	48.53	49.69	48.38	47.90	48.94	47.93	48.66	0.67	2.00			
17	C340 1,4-DICHLOROBENZENE	48.38	48.48	47.39	48.16	47.17	48.36	47.13	47.87	0.61	1.83			
18	C345 BENZYL ALCOHOL	48.93	50.44	50.60	49.97	50.47	51.55	51.87	50.55	0.98	2.93			
19	C350 1,2-DICHLOROBENZENE	50.85	51.28	50.52	51.25	50.55	49.57	48.34	50.34	1.05	3.15			
20	C355 2-METHYLPHENOL	49.32	49.41	50.09	50.25	49.60	50.74	51.56	50.14	0.80	2.41			
21	C360 BIS(2-CHLOROISOPROPYL)ETHER	51.00	52.23	53.82	53.12	53.51	51.94	51.62	52.46	1.04	3.13			
22	C365 4-METHYLPHENOL	52.32	52.76	54.69	54.14	52.26	49.87	49.10	52.16	2.05	6.16			
23	C370 N-NITROSO-DI-N-PROPYLAMINE	48.81	49.18	49.79	50.10	49.73	52.42	51.71	50.25	1.33	3.98			
24	C375 HEXACHLOROETHANE	49.31	50.01	50.30	50.90	49.82	50.03	49.62	50.00	0.51	1.53			
25	C410 NITROBENZENE	47.72	47.37	49.28	48.73	47.72	50.07	51.27	48.88	1.43	4.29			
26	C415 ISOPHORONE	48.76	50.35	49.59	49.28	49.07	49.15	50.39	49.51	0.64	1.91			
27	C420 2-NITROPHENOL	49.00	50.40	49.41	49.47	48.43	48.52	48.69	49.13	0.69	2.08			
28	C425 2,4-DIMETHYLPHENOL	50.37	51.26	50.71	51.38	49.88	49.21	48.84	50.24	0.98	2.93			
29	C430 BENZOIC ACID	49.10	51.99	46.03	46.03	47.12	47.06	47.05	47.77	2.12	6.37			
30	C435 BIS(2-CHLOROETHOXY)METHANE	48.77	49.66	50.20	49.80	49.17	50.26	49.97	49.69	0.55	1.64			
31	C440 2,4-DICHLOROPHENOL	50.47	52.55	51.88	52.49	51.12	49.80	51.66	51.43	1.02	3.07			
32	C445 1,2,4-TRICHLOROBENZENE	49.88	50.05	48.87	50.15	49.17	49.10	50.01	49.61	0.54	1.61			
33	C450 NAPHTHALENE	48.91	49.76	49.22	49.10	48.43	50.06	50.15	49.38	0.64	1.91			
34	C455 4-CHLOROANILINE	49.04	49.45	48.51	49.03	50.03	50.79	52.44	49.90	1.35	4.04			
35	C460 HEXACHLOROBUTADIENE	49.97	50.02	49.45	50.79	49.46	49.14	48.97	49.69	0.62	1.87			
36	C465 4-CHLORO-3-METHYLPHENOL	51.83	52.25	52.19	51.82	52.67	49.65	49.59	51.43	1.27	3.81			
37	C470 2-METHYLNAPHTHALENE	50.72	52.57	50.12	51.34	50.55	49.36	49.40	50.58	1.13	3.39			
38	C510 HEXACHLOROCYCLOPENTADIENE	46.90	45.16	45.79	48.46	45.65	45.22	45.30	46.07	1.21	3.64			
39	C515 2,4,6-TRICHLOROPHENOL	49.17	49.27	49.31	51.74	49.01	49.28	49.23	49.57	0.96	2.89			
40	C520 2,4,5-TRICHLOROPHENOL	46.34	46.59	48.10	48.59	47.70	48.67	50.43	48.06	1.39	4.16			
41	C525 2-CHLORONAPHTHALENE	46.55	45.64	46.85	46.88	47.06	48.60	49.41	47.28	1.29	3.86			
42	C530 2-NITROANILINE	50.40	49.38	53.45	51.46	49.65	51.23	53.40	51.28	1.65	4.95			
43	C535 DIMETHYL PHTHALATE	49.91	50.31	49.64	50.60	50.28	50.56	51.61	50.41	0.63	1.89			
44	C540 ACENAPHTHYLENE	48.72	48.50	48.45	48.21	48.43	49.33	49.98	48.80	0.63	1.89			
45	C542 2,6-DINITROTOLUENE	50.36	51.56	52.25	52.83	54.15	51.31	52.41	52.12	1.21	3.63			
46	C545 3-NITROANILINE	48.46	47.57	48.57	48.49	48.57	50.23	51.67	49.08	1.39	4.17			
47	C550 ACENAPHTHENE	50.58	50.89	51.49	50.89	49.96	50.25	50.12	50.60	0.54	1.61			
48	C555 2,4-DINITROPHENOL	50.78	53.21	56.60	56.35	55.39	57.82	58.45	55.51	2.69	8.08			
49	C560 4-NITROPHENOL	50.36	50.63	50.00	50.69	51.93	51.32	51.89	50.97	0.75	2.25			
50	C565 DIBENZOFURAN	49.52	50.85	50.48	49.72	49.80	49.29	49.70	49.91	0.55	1.66			
51	C570 2,4-DINITROTOLUENE	49.99	50.28	50.66	50.94	50.48	52.11	54.76	51.32	1.66	4.99			
52	C580 DIETHYL PHTHALATE	51.98	51.37	52.00	52.10	51.62	51.78	51.79	51.81	0.25	0.76			
53	C585 4-CHLOROPHENYL PHENYL ETHER	49.90	47.89	48.33	49.33	48.43	50.24	51.01	49.30	1.14	3.43			
54	C590 FLUORENE	50.12	48.67	48.46	48.53	48.49	50.19	50.10	49.22	0.86	2.57			
55	C595 4-NITROANILINE	51.78	49.76	50.55	50.90	50.40	50.62	51.29	50.76	0.65	1.95			
56	C610 4,6-DINITRO-2-METHYL PHENOL	55.76	57.50	57.57	58.10	59.02	62.28	62.38	58.94	2.51	7.53			
57	C615 N-NITROSODIPHENYLAMINE	52.82	54.88	53.08	54.70	53.16	55.05	52.95	53.81	1.01	3.04			
58	C625 4-BROMOPHENYL PHENYL ETHER	52.26	52.40	52.84	54.71	53.87	56.46	55.49	54.00	1.62	4.86			

10013

IDL  
I507  
June 1993

BN = 10ng AP = 20ng		instr.: 150Z				date:			analyst: SMW			ave.	S.D.	IDL
Compound (units of measure = ug/l)		145362	145372	145382	145392	145402	145412	145422						
59	C630 HEXACHLOROBENZENE	54.18	54.44	55.36	55.83	53.94	54.31	53.97	54.58	0.73	2.19			
60	C635 PENTACHLOROPHENOL	49.94	51.39	53.64	51.93	50.78	53.32	51.52	51.79	1.32	3.96			
61	C640 PHENANTHRENE	51.89	52.27	51.94	52.42	51.14	50.98	48.84	51.35	1.23	3.70			
62	C645 ANTHRACENE	52.36	52.62	53.26	51.99	50.53	52.44	52.39	52.23	0.84	2.52			
63	C650 DI-N-BUTYL PHTHALATE	54.28	54.04	55.32	54.54	50.54	51.81	51.52	53.15	1.82	5.47			
64	C655 FLUORANTHENE	50.63	51.01	53.84	52.37	49.77	48.63	50.12	50.91	1.73	5.18			
65	C715 PYRENE	53.79	53.47	53.34	53.71	49.91	51.41	53.01	52.66	1.46	4.38			
66	C720 BUTYLBENZYLPHthalate	50.14	48.98	49.08	48.37	47.45	48.04	49.90	48.85	0.97	2.92			
67	C725 3,3' DICHLOROBENZIDINE	48.03	48.11	47.28	48.36	49.01	50.16	49.45	48.63	0.97	2.92			
68	C730 BENZO(A)ANTHRACENE	48.83	47.73	47.60	47.81	47.86	48.22	49.15	48.17	0.59	1.78			
69	C735 CHRYSENE	49.10	48.23	47.32	48.36	48.68	49.72	49.90	48.76	0.90	2.70			
70	C740 BIS(2-ETHYLHEXYL)PHTHALATE	50.02	48.13	48.08	47.87	47.48	48.25	46.25	48.01	1.12	3.36			
71	C760 DI-N-OCTYLPHthalate	49.08	46.93	47.30	48.45	48.34	47.83	49.19	48.16	0.85	2.56			
72	C765 BENZO(B)FLUORANTHENE	49.96	50.47	50.83	50.06	50.70	49.19	51.95	50.45	0.86	2.58			
73	C770 BENZO(K)FLUORANTHENE	45.54	46.01	46.34	45.63	50.49	49.00	50.17	47.60	2.21	6.62			
74	C775 BENZO(A)PYRENE	47.67	48.19	46.87	47.39	48.26	48.36	50.37	48.16	1.11	3.34			
75	C780 INDENO(1,2,3-CD)PYRENE	49.10	47.92	49.41	47.74	46.03	45.76	47.56	47.64	1.38	4.15			
76	C785 DIBENZO(A,H)ANTHRACENE	48.51	49.49	50.96	48.03	46.75	44.76	48.34	48.12	1.97	5.91			
77	C790 BENZO(G,H,I)PERYLENE	49.54	50.34	50.21	47.54	44.69	44.35	45.78	47.49	2.59	7.78			
78	C710A BENZIDINE	58.96	57.61	54.12	51.69	47.42	47.94	48.13	52.27	4.77	14.30			
79	CA315 N-NITROSODIMETHYLAMINE								0.00	ERR	ERR #			
80	C620 1,2-DIPHENYLHYDRAZINE	53.93	55.08	54.77	54.72	54.69	57.47	—	47.24	1.22	3.66 #			
81	CARBazole.	52.13	53.37	<del>52.60</del> 52.68	<del>52.06</del> 53.26	50.46	52.78	53.15	52.55	1.01	3.04			

sw  
6-29-93.

MDL Study  
Priority Pollutant

Date: 2/93  
Instrument: HP5890 #9 A DB608  
Analyst: [Signature]

ASP 91-3

Compound (ug/L)	#1	#2	#3	#4	#5	#6	#7	Standard Deviation	MDL
alpha BHC	0.0059	0.0062	0.0060	0.0055	0.0059	0.0060	0.0059	0.00021	0.00066
beta BHC	0.0059	0.0064	0.0062	0.0057	0.0060	0.0065	0.0060	0.00028	0.00089
gamma BHC	0.0065	0.0068	0.0068	0.0063	0.0069	0.0069	0.0067	0.00022	0.00070
delta BHC	0.0033	0.0035	0.0034	0.0032	0.0033	0.0036	0.0034	0.00013	0.00042
Aldrin	0.0052	0.0057	0.0052	0.0048	0.0053	0.0057	0.0053	0.00031	0.00098
Heptachlor	0.0058	0.0062	0.0061	0.0057	0.0060	0.0063	0.0063	0.00024	0.00074
Heptachlor Epoxide	0.0051	0.0053	0.0054	0.0050	0.0054	0.0056	0.0053	0.00020	0.00063
Endosulfan I	0.0063	0.0065	0.0067	0.0062	0.0076	0.0068	0.0064	0.00047	0.0015
Endosulfan II	0.0055	0.0058	0.0059	0.0055	0.0058	0.0061	0.0058	0.00021	0.00067
Dieldrin	0.0060	0.0064	0.0066	0.0060	0.0064	0.0067	0.0064	0.00027	0.00085
4,4'-DDD	0.0057	0.0063	0.0062	0.0059	0.0064	0.0068	0.0062	0.00035	0.0011
4,4'-DDE	0.0054	0.0056	0.0055	0.0051	0.0053	0.0056	0.0052	0.00020	0.00061
4,4'-DDT	0.0056	0.0063	0.0063	0.0059	0.0063	0.0067	0.0062	0.00035	0.0011
Endrin	0.0071	0.0078	0.0077	0.0072	0.0076	0.0080	0.0076	0.00032	0.0010
Endrin Aldehyde	0.0046	0.0052	0.0054	0.0048	0.0048	0.0050	0.0051	0.00027	0.00086
Endrin Ketone	0.0056	0.0058	0.0059	0.0055	0.0060	0.0062	0.0058	0.00024	0.00074
Endosulfan Sulfate	0.0058	0.0065	0.0047	0.0055	0.0058	0.0048	0.0062	0.00139	0.0044
Methoxychlor	0.0043	0.0050	0.0050	0.0048	0.0056	0.0058	0.0054	0.00051	0.0016
Tech chlordane	0.0135	0.0140	0.0122	0.0134	0.0149	0.0141	0.0135	0.00083	0.0026
Toxaphene	0.130	0.141	0.137	0.141	0.142	0.139	0.141	0.0042	0.0013
Aroclor 1242	0.121	0.115	0.117	0.148	0.113	0.114	0.154	0.0174	0.0545

ORGANIC DATA COMMENT PAGE

Laboratory Name RECRA ENVIRONMENTAL, INC.

## USEPA Defined Organic Data Qualifiers:

- U - Indicates compound was analyzed for but not detected.
- 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 sample quantitation limit but greater than zero.
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B - This flag is used when the analyte is found in the associated blank as well as in the sample.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- T - This flag is used when the analyte is found in the associated TCLP extraction as well as in the sample.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results.
- P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a "P".
- A - This flag indicates that a TIC is a suspected aldol-condensation product.



INORGANIC DATA COMMENT PAGE

Laboratory Name RECRA ENVIRONMENTAL, INC.

## USEPA Defined Inorganic Data Qualifiers:

- B - Indicates a value greater than or equal to the instrument detection limit but less than the contract required detection limit.
- U - Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., 100).
- E - Indicates a value estimated or not reported due to the presence of interference.
- S - Indicates value determined by Method of Standard Addition.
- N - Indicates spike sample recovery is not within control limits.
- \* - Indicates duplicate analysis is not within control limits.
- + - Indicates the correlation coefficient for method of standard addition is less than 0.995.
- M - Indicates duplicate injection results exceeded control limits.
- W - Post digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

SP1B

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393

Matrix: (soil/water) SOIL Lab Sample ID: AS042456

Sample wt/vol: 5.1 (g/mL) G Lab File ID: H2308

Level: (low/med) LOW Date Received: 08/17/93

% Moisture: not dec. 7 Date Analyzed: 08/18/93

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	<u>Q</u>
74-87-3	-----Chloromethane	11	U
74-83-9	-----Bromomethane	11	U
75-01-4	-----Vinyl Chloride	11	U
75-00-3	-----Chloroethane	11	U
75-09-2	-----Methylene Chloride	11	U
67-64-1	-----Acetone	11	U
75-15-0	-----Carbon Disulfide	11	U
75-35-4	-----1,1-Dichloroethene	11	U
75-34-3	-----1,1-Dichloroethane	11	U
540-59-0	-----1,2-Dichloroethene (total)	11	U
67-66-3	-----Chloroform	11	U
107-06-2	-----1,2-Dichloroethane	11	U
78-93-3	-----2-Butanone	11	U
71-55-6	-----1,1,1-Trichloroethane	11	U
56-23-5	-----Carbon Tetrachloride	11	U
75-27-4	-----Bromodichloromethane	11	U
78-87-5	-----1,2-Dichloropropane	11	U
10061-01-5	-----cis-1,3-dichloropropene	11	U
79-01-6	-----Trichloroethene	11	U
124-48-1	-----Dibromochloromethane	11	U
79-00-5	-----1,1,2-Trichloroethane	11	U
71-43-2	-----Benzene	11	U
10061-02-6	-----trans-1,3-dichloropropene	11	U
75-25-2	-----Bromoform	11	U
108-10-1	-----4-Methyl-2-Pentanone	11	U
591-78-6	-----2-Hexanone	11	U
127-18-4	-----Tetrachloroethene	11	U
79-34-5	-----1,1,2,2-Tetrachloroethane	11	U
108-88-3	-----Toluene	11	U
108-90-7	-----Chlorobenzene	11	U
100-41-4	-----Ethylbenzene	11	U
100-42-5	-----Styrene	11	U
1330-20-7	-----Total Xylenes	11	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

**10019**  
EPA SAMPLE NO.

SP1B

Lab Name: RECRA ENVIRON Contract: C002412  
 Lab Code: RECN Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393  
 Matrix: (soil/water) SOIL Lab Sample ID: AS042456  
 Sample wt/vol: 5.1 (g/mL) G Lab File ID: H2308  
 Level: (low/med) LOW Date Received: 08/17/93  
 % Moisture: not dec. 7 Date Analyzed: 08/18/93  
 GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	21.60	1600	J
2.	UNKNOWN	21.92	1400	J
3.	UNKNOWN	22.02	290	J
4.	UNKNOWN	22.35	810	J
5.	UNKNOWN	22.65	440	J
6.	UNKNOWN	22.77	290	J
7.	UNKNOWN	22.88	1400	J
8.	UNKNOWN	23.33	400	J
9.	DECAHYDRO NAPHTHALENE ISOMER	23.72	2300	J
10.	UNKNOWN	24.73	680	J

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

**10020**  
EPA SAMPLE NO.

SP1BRE

Lab Name: RECRA ENVIRON Contract: C002412  
 Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393  
 Matrix: (soil/water) SOIL Lab Sample ID: AS042456RI  
 Sample wt/vol: 5.2 (g/mL) G Lab File ID: H2310  
 Level: (low/med) LOW Date Received: 08/17/93  
 % Moisture: not dec. 7 Date Analyzed: 08/18/93  
 GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	UU
75-01-4	Vinyl Chloride	10	UUU
75-00-3	Chloroethane	10	UUUU
75-09-2	Methylene Chloride	10	UUUUU
67-64-1	Acetone	10	UUUUU
75-15-0	Carbon Disulfide	10	UUUUU
75-35-4	1,1-Dichloroethene	10	UUUUU
75-34-3	1,1-Dichloroethane	10	UUUUU
540-59-0	1,2-Dichloroethene (total)	10	UUUUU
67-66-3	Chloroform	10	UUUUU
107-06-2	1,2-Dichloroethane	10	UUUUU
78-93-3	2-Butanone	10	UUUUU
71-55-6	1,1,1-Trichloroethane	10	UUUUU
56-23-5	Carbon Tetrachloride	10	UUUUU
75-27-4	Bromodichloromethane	10	UUUUU
78-87-5	1,2-Dichloropropane	10	UUUUU
10061-01-5	cis-1,3-dichloropropene	10	UUUUU
79-01-6	Trichloroethene	10	UUUUU
124-48-1	Dibromochloromethane	10	UUUUU
79-00-5	1,1,2-Trichloroethane	10	UUUUU
71-43-2	Benzene	10	UUUUU
10061-02-6	trans-1,3-dichloropropene	10	UUUUU
75-25-2	Bromoform	10	UUUUU
108-10-1	4-Methyl-2-Pentanone	10	UUUUU
591-78-6	2-Hexanone	10	UUUUU
127-18-4	Tetrachloroethene	10	UUUUU
79-34-5	1,1,2,2-Tetrachloroethane	10	UUUUU
108-88-3	Toluene	10	UUUUU
108-90-7	Chlorobenzene	10	UUUUU
100-41-4	Ethylbenzene	10	UUUUU
100-42-5	Styrene	10	UUUUU
1330-20-7	Total Xylenes	10	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SP1BRE

Lab Name: RECRA ENVIRON Contract: C002412  
 Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393  
 Matrix: (soil/water) SOIL Lab Sample ID: AS042456RI  
 Sample wt/vol: 5.2 (g/mL) G Lab File ID: H2310  
 Level: (low/med) LOW Date Received: 08/17/93  
 % Moisture: not dec. 7 Date Analyzed: 08/18/93  
 GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	21.87	3500	J
2.	UNKNOWN	21.97	720	J
3.	UNKNOWN	22.30	2300	J
4.	UNKNOWN	22.85	3400	J
5.	UNKNOWN	23.20	490	J
6.	UNKNOWN	23.32	980	J
7.	DECAHYDRO NAPHTHALENE ISOMER	23.68	5400	J
8.	UNKNOWN	23.92	790	J
9.	UNKNOWN	24.07	1700	J
10.	UNKNOWN	24.68	1800	J

0022

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SP1SSW

Lab Name: RECRA ENVIRON

Contract: C002412

Lab Code: RECNY Case No.: RA093

SAS No.: \_\_\_\_\_

SDG No.: 81393

Matrix: (soil/water) SOIL

Lab Sample ID: AS042455

Sample wt/vol: 5.1 (g/mL) G

Lab File ID: H2307

Level: (low/med) LOW

Date Received: 08/17/93

% Moisture: not dec. 3

Date Analyzed: 08/18/93

GC Column: DB-624 ID: 0.530 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

74-87-3-----	Chloromethane	10	U
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	10	U
75-00-3-----	Chloroethane	10	U
75-09-2-----	Methylene Chloride	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
75-35-4-----	1,1-Dichloroethene	10	U
75-34-3-----	1,1-Dichloroethane	10	U
540-59-0-----	1,2-Dichloroethene (total)	10	U
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	10	U
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	10	U
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
10061-01-5-----	cis-1,3-dichloropropene	10	U
79-01-6-----	Trichloroethene	10	U
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	10	U
10061-02-6-----	trans-1,3-dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	10	U
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	10	U
100-42-5-----	Styrene	10	U
1330-20-7-----	Total Xylenes	10	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SP1SSW

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393

Matrix: (soil/water) SOIL Lab Sample ID: AS042455

Sample wt/vol: 5.1 (g/mL) G Lab File ID: H2307

Level: (low/med) LOW Date Received: 08/17/93

% Moisture: not dec. 3 Date Analyzed: 08/18/93

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SP1B

Lab Name: RECRA ENVIRON Contract: C002412  
 Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393  
 Matrix: (soil/water) SOIL Lab Sample ID: AS042456  
 Sample wt/vol: 30.1 (g/mL) G Lab File ID: 15337Z  
 Level: (low/med) LOW Date Received: 08/17/93  
 % Moisture: 6 decanted: (Y/N) N Date Extracted: 08/19/93  
 Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/30/93  
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0  
 GPC Cleanup: (Y/N) Y pH: 6.6

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350	U
111-44-4	bis(2-Chloroethyl) Ether	350	U
95-57-8	2-Chlorophenol	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-Di-n-Propylamine	350	U
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
111-91-1	bis(2-Chloroethoxy)Methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
91-20-3	Naphthalene	350	U
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-Methylphenol	350	U
91-57-6	2-Methylnaphthalene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	850	U
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	850	U
131-11-3	Dimethyl Phthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U
99-09-2	3-Nitroaniline	850	U
83-32-9	Acenaphthene	350	U

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SP1B

Lab Name: RECRA ENVIRON Contract: C002412  
 Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393  
 Matrix: (soil/water) SOIL Lab Sample ID: AS042456  
 Sample wt/vol: 30.1 (g/mL) G Lab File ID: 15337Z  
 Level: (low/med) LOW Date Received: 08/17/93  
 % Moisture: 6 decanted: (Y/N) N Date Extracted: 08/19/93  
 Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/30/93  
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0  
 GPC Cleanup: (Y/N) Y pH: 6.6

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
51-28-5	2,4-Dinitrophenol	850	U
100-02-7	4-Nitrophenol	850	U
132-64-9	Dibenzofuran	350	U
121-14-2	2,4-Dinitrotoluene	350	U
84-66-2	Diethylphthalate	350	U
7005-72-3	4-Chlorophenyl-phenylether	350	U
86-73-7	Fluorene	350	U
100-01-6	4-Nitroaniline	850	U
534-52-1	4,6-Dinitro-2-Methylphenol	850	U
86-30-6	N-Nitrosodiphenylamine (1)	350	U
101-55-3	4-Bromophenyl-phenylether	350	U
118-74-1	Hexachlorobenzene	350	U
87-86-5	Pentachlorophenol	850	U
85-01-8	Phenanthrene	350	U
120-12-7	Anthracene	350	U
86-74-8	Carbazole	350	U
84-74-2	Di-n-Butylphthalate	350	U
206-44-0	Fluoranthene	350	U
129-00-0	Pyrene	350	U
85-68-7	Butylbenzylphthalate	350	U
91-94-1	3,3'-Dichlorobenzidine	350	U
56-55-3	Benzo (a) Anthracene	350	U
218-01-9	Chrysene	350	U
117-81-7	Bis (2-Ethylhexyl) Phthalate	710	
117-84-0	Di-n-Octyl Phthalate	100	J
205-99-2	Benzo (b) Fluoranthene	350	U
207-08-9	Benzo (k) Fluoranthene	350	U
50-32-8	Benzo (a) Pyrene	350	U
193-39-5	Indeno (1,2,3-cd) Pyrene	350	U
53-70-3	Dibenz (a,h) Anthracene	350	U
191-24-2	Benzo (g,h,i) Perylene	350	U

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

**0026**  
EPA SAMPLE NO.

SP1B
------

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393

Matrix: (soil/water) SOIL Lab Sample ID: AS042456

Sample wt/vol: 30.1 (g/mL) G Lab File ID: 15337Z

Level: (low/med) LOW Date Received: 08/17/93

% Moisture: 6 decanted: (Y/N) N Date Extracted: 08/19/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/30/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Number TICs found: 20

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	SATURATED HYDROCARBON	6.48	570	J
2.	UNKNOWN	7.25	540	J
3.	UNKNOWN	7.33	660	J
4.	UNKNOWN	7.82	660	J
5.	UNKNOWN	8.47	1200	J
6.	UNKNOWN	8.67	1200	J
7.	SATURATED HYDROCARBON	8.78	1200	J
8.	UNKNOWN	8.97	380	J
9.	UNKNOWN HYDROCARBON	9.10	840	J
10.	UNKNOWN	9.20	1600	J
11.	UNKNOWN	9.37	1100	J
12.	UNKNOWN	9.63	1300	J
13.	UNKNOWN	9.90	370	J
14.	UNKNOWN	10.13	1100	J
15.	UNKNOWN	10.20	390	J
16.	UNKNOWN	10.40	690	J
17.	UNKNOWN	10.72	1100	J
18.	UNKNOWN HYDROCARBON	20.55	1100	J
19.	UNKNOWN	35.72	4200	J
20.	UNKNOWN	36.03	4100	J

1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SP1SSW

Lab Name: RECRA ENVIRON Contract: C002412  
 Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393  
 Matrix: (soil/water) SOIL Lab Sample ID: AS042455  
 Sample wt/vol: 30.2 (g/mL) G Lab File ID: 15336Z  
 Level: (low/med) LOW Date Received: 08/17/93  
 % Moisture: 2 decanted: (Y/N) N Date Extracted: 08/19/93  
 Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/30/93  
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0  
 GPC Cleanup: (Y/N) Y pH: 5.6

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl) Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	810	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	810	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	810	U
83-32-9	Acenaphthene	330	U

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SP1SSW

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393

Matrix: (soil/water) SOIL Lab Sample ID: AS042455

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 15336Z

Level: (low/med) LOW Date Received: 08/17/93

% Moisture: 2 decanted: (Y/N) N Date Extracted: 08/19/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/30/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.6

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	810	U
100-02-7	4-Nitrophenol	810	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	810	U
534-52-1	4,6-Dinitro-2-Methylphenol	810	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	810	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	Bis(2-Ethylhexyl) Phthalate	510	
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b) Fluoranthene	330	U
207-08-9	Benzo(k) Fluoranthene	330	U
50-32-8	Benzo(a) Pyrene	330	U
193-39-5	Indeno(1,2,3-cd) Pyrene	330	U
53-70-3	Dibenz(a,h) Anthracene	330	U
191-24-2	Benzo(g,h,i) Perylene	330	U

0029

EPA SAMPLE NO.

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SP1SSW

Lab Name: RECRA ENVIRON Contract: C002412  
 Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393  
 Matrix: (soil/water) SOIL Lab Sample ID: AS042455  
 Sample wt/vol: 30.2 (g/mL) G Lab File ID: 15336Z  
 Level: (low/med) LOW Date Received: 08/17/93  
 % Moisture: 2 decanted: (Y/N) N Date Extracted: 08/19/93  
 Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/30/93  
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0  
 GPC Cleanup: (Y/N) Y pH: 5.6

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Number TICs found: 5

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.05	1300	J
2.	OXYGENATED COMPOUND	9.32	100	J
3.	UNKNOWN	24.03	90	J
4.	UNKNOWN	35.42	180	J
5.	UNKNOWN	36.17	180	J

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

SP1B

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393

Matrix: (soil/water) SOIL Lab Sample ID: AS042456

Sample wt/vol: 30.4 (g/mL) G Lab File ID: \_\_\_\_\_

% Moisture: 6 decanted: (Y/N) N Date Received: 08/17/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/19/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/01/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.7 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	Q
319-84-6	alpha-BHC	1.8 U
319-85-7	beta-BHC	1.8 U
319-86-8	delta-BHC	1.8 U
58-89-9	gamma-BHC (Lindane)	1.8 U
76-44-8	Heptachlor	1.8 U
309-00-2	Aldrin	1.8 U
1024-57-3	Heptachlor epoxide	1.8 U
959-98-8	Endosulfan I	1.8 U
60-57-1	Dieldrin	3.5 U
72-55-9	4,4'-DDE	3.5 U
72-20-8	Endrin	3.5 U
33213-65-9	Endosulfan II	3.5 U
72-54-8	4,4'-DDD	3.5 U
1031-07-8	Endosulfan sulfate	3.5 U
50-29-3	4,4'-DDT	1.8 J
72-43-5	Methoxychlor	18 U
53494-70-5	Endrin ketone	3.5 U
7421-93-4	Endrin aldehyde	3.5 U
5103-71-9	alpha-Chlordane	0.51 JP
5103-74-2	gamma-Chlordane	1.8 U
8001-35-2	Toxaphene	180 U
12674-11-2	Aroclor-1016	35 U
11104-28-2	Aroclor-1221	70 U
11141-16-5	Aroclor-1232	35 U
53469-21-9	Aroclor-1242	35 U
12672-29-6	Aroclor-1248	35 U
11097-69-1	Aroclor-1254	35 U
11096-82-5	Aroclor-1260	35 U

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SP1SSW

Lab Name: RECRA ENVIRON Contract: C002412  
 Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393  
 Matrix: (soil/water) SOIL Lab Sample ID: AS042455  
 Sample wt/vol: 30.1 (g/mL) G Lab File ID: \_\_\_\_\_  
 % Moisture: 2 decanted: (Y/N) N Date Received: 08/17/93  
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/19/93  
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/01/93  
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00  
 GPC Cleanup: (Y/N) Y pH: 5.6 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.4	U
72-55-9	4,4'-DDE	3.4	U
72-20-8	Endrin	3.4	U
33213-65-9	Endosulfan II	3.4	U
72-54-8	4,4'-DDD	3.4	U
1031-07-8	Endosulfan sulfate	3.4	U
50-29-3	4,4'-DDT	0.37	JP
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.4	U
7421-93-4	Endrin aldehyde	3.4	U
5103-71-9	alpha-Chlordane	0.39	J
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	34	U
11104-28-2	Aroclor-1221	68	U
11141-16-5	Aroclor-1232	34	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254	34	U
11096-82-5	Aroclor-1260	34	U



NYSDEC ASP

1  
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

SP1B

Lab Name: RECRA\_ENVIRONMENTAL\_INC. Contract: C002412

Lab Code: RECNY Case No.: RA093 SAS No.: SDG No.: 81393

Matrix (soil/water): SOIL Lab Sample ID: 9942

Level (low/med): LOW Date Received: 08/17/93

% Solids: 93.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1220	-	E	P
7440-36-0	Antimony	1.0	U	W	F
7440-38-2	Arsenic	0.83	B		F
7440-39-3	Barium	5.0	B		P
7440-41-7	Beryllium	0.63	U		P
7440-43-9	Cadmium	8.3	B		F
7440-70-2	Calcium	617	B		A
7440-47-3	Chromium	80.8			P
7440-48-4	Cobalt	4.2	U		P
7440-50-8	Copper	6.0			P
7439-89-6	Iron	3210			P
7439-92-1	Lead	26.1		+	F
7439-95-4	Magnesium	413	B		P
7439-96-5	Manganese	36.7			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	112	B		P
7782-49-2	Selenium	0.62	B	W	F
7440-22-4	Silver	4.5			P
7440-23-5	Sodium	170	U		P
7440-28-0	Thallium	0.62	U		F
7440-62-2	Vanadium	4.2	U		P
7440-66-6	Zinc	4.7			P
	Cyanide	20.7			C

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

LAB SAMPLE ID: AS042456  
RE-DIGESTION ID: 0264

NYSDEC ASP

1  
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

SP1SSW

Lab Name: RECRA\_ENVIRONMENTAL\_INC. Contract: C002412

Lab Code: RECNY Case No.: RA093 SAS No.: SDG No.: 81393

Matrix (soil/water): SOIL Lab Sample ID: 9941

Level (low/med): LOW Date Received: 08/17/93

% Solids: 96.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	732		E	P
7440-36-0	Antimony	1.0	U	W	F
7440-38-2	Arsenic	0.61	U		F
7440-39-3	Barium	4.0	U		P
7440-41-7	Beryllium	0.61	U		P
7440-43-9	Cadmium	0.82	B		F
7440-70-2	Calcium	662	B		A
7440-47-3	Chromium	10			P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	2760			P
7439-92-1	Lead	1.0		W	F
7439-95-4	Magnesium	152	B		P
7439-96-5	Manganese	20.0			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	108	B		P
7782-49-2	Selenium	0.61	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	170	U		P
7440-28-0	Thallium	0.61	U		F
7440-62-2	Vanadium	4.0	U		P
7440-66-6	Zinc	3.2	B		P
	Cyanide	1.0	U		C

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

LAB SAMPLE ID: AS042455  
RE-DIGESTION ID: 0263

2B

## SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: RECRA ENVIRON Contract: C002412Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393Level: (low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
	=====	=====	=====	=====	=====	=====
01	SP1B	96	131 *	100	0	1
02	SP1BRE	96	176 *	94	0	1
03	SP1SSW	100	95	104	0	0
04	VBLK61	100	96	95	0	0

## QC LIMITS

SMC1 (TOL) = Toluene-d8 ( 84-138)  
 SMC2 (BFB) = Bromofluorobenzene ( 59-113)  
 SMC3 (DCE) = 1,2-Dichloroethane-d4 ( 70-121)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2D  
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
01	SP1B	98	79	86	89	86	57	73	92	0
02	SP1SSW	77	74	78	78	86	63	80	73	0
03	SBLK05	59	62	77	62	61	65	60	63	0

QC LIMITS

S1 (NBZ) = Nitrobenzene-d5 ( 23-120)  
 S2 (FBP) = 2-Fluorobiphenyl ( 30-115)  
 S3 (TPH) = Terphenyl-d14 ( 18-137)  
 S4 (PHL) = Phenol-d5 ( 24-113)  
 S5 (2FP) = 2-Fluorophenol ( 25-121)  
 S6 (TBP) = 2,4,6-Tribromophenol ( 19-122)  
 S7 (2CP) = 2-Chlorophenol-d4 ( 20-130) (advisory)  
 S8 (DCB) = 1,2-Dichlorobenzene-d4 ( 20-130) (advisory)

# Column to be used to flag recovery values  
 \* Values outside of contract required QC limits  
 D Surrogate diluted out

2F  
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393

GC Column(1): DB608 ID: 0.53(mm) GC Column(2): DB1701 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====
01	PBLK75	72	73	72	80			0
02	SP1B	78	83	95	99			0
03	SP1SSW	68	71	70	76			0

ADVISORY  
QC LIMITS

TCX = Tetrachloro-m-xylene ( 60-150)  
DCB = Decachlorobiphenyl ( 60-150)

# Column to be used to flag recovery values  
\* Values outside of contract required QC limits  
D Surrogate diluted out

4A  
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK61

Lab Name: RECRA ENVIRON Contract: C002412  
 Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393  
 Lab File ID: H2305 Lab Sample ID: AM002962  
 Date Analyzed: 08/18/93 Time Analyzed: 1330  
 GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) Y  
 Instrument ID: I50H

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
	=====	=====	=====	=====
01	SP1B	AS042456	H2308	1510
02	SP1BRE	AS042456RI	H2310	1724
03	SP1SSW	AS042455	H2307	1437

COMMENTS: VBLK61  
I50H

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK61

Lab Name: RECRA ENVIRON Contract: C002412  
 Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393  
 Matrix: (soil/water) SOIL Lab Sample ID: AM002962  
 Sample wt/vol: 5.0 (g/mL) G Lab File ID: H2305  
 Level: (low/med) LOW Date Received: \_\_\_\_\_  
 % Moisture: not dec. \_\_\_\_\_ Date Analyzed: 08/18/93  
 GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	0.8	J
108-90-7	Chlorobenzene	1	J
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	0.5	J

10040

EPA SAMPLE NO.

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK61

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393

Matrix: (soil/water) SOIL Lab Sample ID: AM002962

Sample wt/vol: 5.0 (g/mL) G Lab File ID: H2305

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: not dec. \_\_\_\_\_ Date Analyzed: 08/18/93

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

4B  
SEMIVOLATILE METHOD BLANK SUMMARY

10041  
EPA SAMPLE NO.

SBLK05

Lab Name: RECRA ENVIRON Contract: C002412  
 Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393  
 Lab File ID: 15335Z Lab Sample ID: AM002971  
 Instrument ID: I50Z Date Extracted: 08/19/93  
 Matrix: (soil/water) SOIL Date Analyzed: 08/30/93  
 Level: (low/med) LOW Time Analyzed: 1029

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	=====	=====	=====	=====
01	SP1B	AS042456	15337Z	08/30/93
02	SP1SSW	AS042455	15336Z	08/30/93

COMMENTS: SBLK05 JOB2646 SS9241  
AUTOSAMPLR I50Z

1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK05

Lab Name: RECRA ENVIRON Contract: C002412  
 Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393  
 Matrix: (soil/water) SOIL Lab Sample ID: AM002971  
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: 15335Z  
 Level: (low/med) LOW Date Received: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 08/19/93  
 Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/30/93  
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0  
 GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl) Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK05

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393

Matrix: (soil/water) SOIL Lab Sample ID: AM002971

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 15335Z

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 08/19/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/30/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
51-28-5	2,4-Dinitrophenol	800	U
100-02-7	4-Nitrophenol	800	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	800	U
534-52-1	4,6-Dinitro-2-Methylphenol	800	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	800	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SBLK05

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393

Matrix: (soil/water) SOIL Lab Sample ID: AM002971

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 15335Z

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 08/19/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 08/30/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

4C  
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK75

Lab Name: RECRA ENVIRON Contract: C002412  
 Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393  
 Lab Sample ID: AG001123 Lab File ID: \_\_\_\_\_  
 Matrix: (soil/water) SOIL Extraction: (SepF/Cont/Sonc) SONC  
 Sulfur Cleanup: (Y/N) N Date Extracted: 08/19/93  
 Date Analyzed (1): 09/01/93 Date Analyzed (2): 09/01/93  
 Time Analyzed (1): 1213 Time Analyzed (2): 1213  
 Instrument ID (1): 5890A9 Instrument ID (2): 5890B9  
 GC Column (1): DB608 ID: 0.53 (mm) GC Column (2): DB1701 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	SP1B	AS042456	09/01/93	09/01/93
02	SP1SSW	AS042455	09/01/93	09/01/93

COMMENTS:

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK75

Lab Name: RECRA ENVIRON Contract: C002412  
 Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393  
 Matrix: (soil/water) SOIL Lab Sample ID: AG001123  
 Sample wt/vol: 30.0 (g/mL) G Lab File ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: \_\_\_\_\_  
 Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 08/19/93  
 Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/01/93  
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00  
 GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	0.42	JP
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-93-4	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

## NYSDEC ASP

3  
BLANKS

Lab Name: RECRA\_ENVIRONMENTAL\_INC.\_\_\_\_\_ Contract: C002412\_\_\_\_\_

Lab Code: RECNY\_\_\_\_\_ Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393\_\_\_\_\_

Preparation Blank Matrix (soil/water): SOIL\_\_\_\_\_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
Aluminum	70.0	U	73.6	B	70.0	U	70.0	U	14.000	U	P
Antimony	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	F
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	F
Barium	20.0	U	20.0	U	20.0	U	20.0	U	4.000	U	P
Beryllium	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
Cadmium	0.2	U	0.2	U	0.2	U	0.2	U	0.040	U	F
Calcium	100.0	U	100.0	U	100.0	U	100.0	U	87.000	B	A
Chromium	10.0	U	10.0	U	10.0	U	10.0	U	2.000	U	P
Cobalt	20.0	U	20.0	U	20.0	U	20.0	U	4.000	U	P
Copper	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Iron	40.0	U	40.0	U	40.0	U	40.0	U	8.000	U	P
Lead	-2.0	B	-2.0	B	-2.0	B	-2.0	B	-0.400	B	F
Magnesium	300.0	U	300.0	U	300.0	U	300.0	U	60.000	U	P
Manganese	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.020	U	CV
Nickel	30.0	U	30.0	U	30.0	U	30.0	U	6.000	U	P
Potassium	200.0	U	200.0	U	200.0	U	200.0	U	40.000	U	P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	F
Silver	10.0	U	10.0	U	10.0	U	10.0	U	2.000	U	P
Sodium	800.0	U	800.0	U	800.0	U	800.0	U	160.000	U	P
Thallium	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	F
Vanadium	20.0	U	20.0	U	20.0	U	20.0	U	4.000	U	P
Zinc	10.0	U	10.0	U	10.0	U	10.0	U	2.000	U	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	C

NYSDEC ASP

3  
BLANKS

Lab Name: RECRA\_ENVIRONMENTAL\_INC. Contract: C002412

Lab Code: RECNY Case No.: RA093 SAS No.: SDG No.: 81393

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		1	C	2	C	3	C		
Aluminum		70.0	U	90.3	B			P	
Antimony		5.0	U					F	
Arsenic		3.0	U	3.0	U			F	
Barium		20.0	U	20.0	U			P	
Beryllium		3.0	U	3.0	U			P	
Cadmium		0.2	U	0.2	U	0.2	U	F	
Calcium		100.0	U	100.0	U	100.0	U	A	
Chromium		10.0	U	10.0	U			P	
Cobalt		20.0	U	20.0	U			P	
Copper		5.0	U	5.0	U			P	
Iron		40.0	U	40.9	B			P	
Lead								NR	
Magnesium		300.0	U	300.0	U			P	
Manganese		5.0	U	5.0	U			P	
Mercury		0.2	U					CV	
Nickel		30.0	U	30.0	U			P	
Potassium		200.0	U	200.0	U			P	
Selenium		3.0	U	3.0	U			F	
Silver		10.0	U	10.0	U	10.0	U	P	
Sodium								NR	
Thallium		3.0	U					F	
Vanadium		20.0	U	20.0	U			P	
Zinc		10.0	U	10.0	U			P	
Cyanide		10.0	U					C	

3  
BLANKS

Lab Name: RECRA\_ENVIRONMENTAL\_INC.\_ Contract: C002412\_\_

Lab Code: RECNY\_ Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393\_

Preparation Blank Matrix (soil/water): \_\_\_\_\_

Preparation Blank Concentration Units (ug/L or mg/kg): \_\_\_\_\_

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C		1	C	2	C	3	C	C		
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium			100.0	U	100.0	U	100.0	U			A
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver			10.0	U	10.0	U	10.0	U			P
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

NYSDEC ASP

3  
BLANKS

Lab Name: RECRA\_ENVIRONMENTAL\_INC.\_ Contract: C002412\_\_

Lab Code: RECNY\_ Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393\_

Preparation Blank Matrix (soil/water): \_\_\_\_\_

Preparation Blank Concentration Units (ug/L or mg/kg): \_\_\_\_\_

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C		1	C	2	C	3	C			
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver			10.0	U							P
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: RECRA ENVIRON Contract: C002412  
 Lab Code: RECNY Case No.: RA093 SAS No.: \_\_\_\_\_ SDG No.: 81393  
 Lab File ID (Standard): H2302 Date Analyzed: 08/18/93  
 Instrument ID: I50H Time Analyzed: 1052  
 GC Column: DB-624 ID: 0.530(mm) Heated Purge: (Y/N) Y

	IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	31358	12.55	114327	14.62	107585	19.59
UPPER LIMIT	62716	13.05	228654	15.12	215170	20.09
LOWER LIMIT	15679	12.05	57164	14.12	53792	19.09
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 SP1B	34690	12.45	128499	14.52	124648	19.47
02 SP1BRE	34093	12.34	120928	14.39	115913	19.39
03 SP1SSW	32893	12.47	120277	14.52	111088	19.49
04 VBLK61	33161	12.49	115856	14.52	109254	19.50

IS1 (BCM) = Bromochloromethane  
 IS2 (DFB) = 1,4-Difluorobenzene  
 IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = + 100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: RECRA ENVIRON

Contract: C002412

Lab Code: RECNY Case No.: RA093

SAS No.: \_\_\_\_\_ SDG No.: 81393

Lab File ID (Standard): 15334Z

Date Analyzed: 08/30/93

Instrument ID: I50Z

Time Analyzed: 0921

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	11126	8.12	39200	11.74	21202	17.05
UPPER LIMIT	22252	8.62	78400	12.24	42404	17.55
LOWER LIMIT	5563	7.62	19600	11.24	10601	16.55
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 SP1B	8681	8.17	34518	11.74	18258	17.05
02 SP1SSW	8340	8.15	28532	11.72	18124	17.04
03 SBLK05	8316	8.12	28272	11.70	16778	17.04

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

8C

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: RECRA ENVIRONContract: C002412Lab Code: RECNY Case No.: RA093SAS No.: \_\_\_\_\_ SDG No.: 81393Lab File ID (Standard): 15334ZDate Analyzed: 08/30/93Instrument ID: I50ZTime Analyzed: 0921

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	31732	21.60	35922	29.82	28575	33.92
UPPER LIMIT	63464	22.10	71844	30.32	57150	34.42
LOWER LIMIT	15866	21.10	17961	29.32	14288	33.42
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 SP1B	32736	21.62	26694	29.81	25692	33.91
02 SP1SSW	32810	21.59	30802	29.81	31122	33.92
03 SBLK05	27300	21.59	20896	29.77	21774	33.87

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.