9. Fairchild Main Plant Site Remedial Invest. Report Vol. III 5-97

APPENDIX O

VALIDATION REPORTS FOR GROUNDWATER SAMPLE ANALYSES

GROUNDWATER SAMPLING ROUND DATA - 1992

HEARTLAND ENVIRONMENTAL SERVICES, INC.
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Data Validation Report

October 12, 1994

Prepared for

Eder Associates
480 Forest Avenue
Locust Valley, NY 11560

This Data Validation Report is a review of the analytical results of sampling conducted in support of Eder Associates project on June 30 & July 1, 1992 at the Fairchild Industries Main Plant RI. There were twenty (20) water samples, including two (2) trip blanks and two (2) field blanks, with one (1) MS/MSD pair, which were received and analyzed by IEA Laboratories, Connecticut, **SDG # A0931.**

Heartland ESI personnel have reviewed the data presented for the Samples listed below for the Analytical Fractions indicated. The CLP fractions have been validated utilizing: the "Laboratory Data Validation Functional Guidelines For Evaluating Organics Analysis, June, 1991; the "Laboratory Data Validation Functional Guideline for Evaluating Inorganic Analysis, July 1, 1988; specific method requirements in NYSDEC ASP Methods OLMO1.8 and ILMO2.1; NYSDEC Catagory B requirements; and good professional judgement.

Analytical data in this report were screened to determine usability of results and also to determine contractual compliance relative to these requirements and deliverables. This screening assumes analytical results are correct as reported and merely provides an interpretation of the reported quality control results. A minimum of 10% of all laboratory calculations have been verified as part of this validation. All instrument output, i.e. spectra, chromatogram, etc., for each sample have been carefully reviewed. The end-user is urged to review the **Specific Findings** and associated **Data Qualifications** presented in this report. Annotated Form Is for all samples reviewed are included after the **Narratives**. Form Is for MS/MSD samples are not annotated.

The release of this Data Validation Report is authorized by the following signature:

Craig B. Hedges for
Eugene M. Watson, Vice President Heartland ESI

10-12-94
Date

HEARTLAND ENVIRONMENTAL SERVICES, INC.

SDG #A0931

SAMPLES AND FRACTIONS REVIEWED

Sample Identifications			Analytical Fractions
EDER ID	**IEA/CT ID**	**Matrix**	**VOA**
FB630	0931021	WATER	X
MW15D	0931022	WATER	X
MW17D	0931023	WATER	X
MW17S	0931024	WATER	X
MW15S	0931025	WATER	X
MW-3D	0931026	WATER	X
TB630	0931027	WATER	X
MW-16S	0931028	WATER	X
MW-16D	0931029	WATER	X
MW-2D	0931030	WATER	X
MW-14S	0931031	WATER	X
MW-14SMS	0931031MS	WATER	X
MW-14SMSD	0931031MSD	WATER	X
REP-2	0931032	WATER	X
TB71	0931033	WATER	X
MW-6S	0931034	WATER	X
MW-19S	0931035	WATER	X
S-2684	0931036	WATER	X
FB71	0931037	WATER	X
S-66157	0931038	WATER	X
MW-1S	0931039	WATER	X
MW-7S	0931040	WATER	X

Total Samples (Water/Soil) 22/0

Total Billable Samples (Water/Soil) 22/0

MS - Matrix Spike MD - Matrix Spike/Matrix Duplicate

* - Non-billable sample

Individual fractions were reviewed as follows:

	Primary	Secondary
VOA - Volatiles (CLP, OLM01.8)	Dan Heil	Gene Watson

DATA ASSESSMENT NARRATIVE

VOLATILE ORGANICS

General

The organic findings offered in this screening report assumes that all analytical results are correct as reported and is based upon the examination of the reported holding times, blank analysis results, surrogate and matrix spike recoveries, GC/MS performance, tuning results, calibration results and internal standard areas. This report was prepared in compliance relative to the analytical and deliverable requirements specified in the U.S. EPA CLP, 3/90 SOW, NYSDEC 91-1 Modifications; the National Functional Guidelines for Organic Data Review, EPA DQO Level IV and NYSDEC Category B. All comments made within this report should be considered when examining the analytical results (Form I's).

SDG A0931

Holding Times

The analytical holding times for all of the samples exceeded the NYSDEC analytical holding times (seven (7) from VTSR). However, the analytical holding times met the Organic Functional Guidelines and the CLP SOW (fourteen (14) days from collection date).

Specific findings:

1. The samples listed below exceeded the NYSDEC analytical holding times by one (1) to two (2) days. Qualify all positive results as estimated (J).

   All samples

Tuning

All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria of the SOW and the Organic Functional Guidelines. No qualifications are required.

Initial Calibrations

The three (3) initial calibrations that were analyzed by the laboratory for these samples were not acceptable for all compound %RSDs. The average RRFs for all of the compounds met the initial calibration criteria of ≥ 0.05. Acetone, 2-butanone, 4-methyl-2-pentanone, and 2-hexanone exhibited %RSDs greater than 30% in the 7/08/92 initial calibration on instrument HP5995A; acetone and 2-butanone exhibited %RSDs greater than 30% in the 07/08/92 initial calibration on instrument HP5995G; and chloroethane exhibited a %RSD greater than 30% in the 07/09/92 initial calibration on instrument HP5995G. However, no qualifications are required for these initial calibration since samples were not analyzed within the same tuning period.

Continuing Calibrations

The four (4) continuing calibrations that were analyzed with this data package exhibited %Ds that were not within %D continuing calibration criteria. All RRFs were within the calibration criteria ≥ 0.05.

Specific Finding:

2. The continuing calibration A1609 contained compounds with %Ds greater than 25%, but less than 50%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J).

VBLKA9	2-hexanone
MW-3D	
MW-16S	
MW-16D	
MW-2D	
MW-14S	
MW-14MS	
MW-6S	
TB71	

Continuing Calibrations - continued

3. The continuing calibration G0624 contained compounds with %Ds greater than 25%, but less than 50%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J).

VBLKGV	acetone
FB630	carbon disulfide
TB630	2-hexanone
MW-15D	
MW-17D	
MW-17S	
MW-15S	

4. The continuing calibration G0665 contained compounds with %Ds greater than 25%, but less than 50%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J).

VBLKGX	chloromethane
MW-14SMSD	chloroethane
REP-2	
S-2684	
MW-7S	
MSBMW-14S	

5. The continuing calibration G0682 contained compounds with %Ds greater than 25%, but less than 50%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J).

VBLKGU	chloromethane
FB71	chloroethane
S-66157	
MW-1S	
MW-19S	

Internal Standards

All internal standard EICP areas met the internal standard EICP area QA/QC criteria. No qualifications are required.

Method Blanks

The five (5) of the method blanks that was analyzed exhibited contamination for methylene chloride and acetone that resulted in qualifications. The method blank results will be compared to their associated samples. Refer to the glossary of data qualifiers for a list and definition of the blank qualifiers: CRQL, U and No Action.

Specific findings:

6. The following samples have been qualified for blank contamination.

MW-19S	methylene chloride	+BJ	CRQL	6
TB71	acetone	+BJ	CRQL	6
FB630				
MW-15D				
MW-17D				
MW-17S				
MW-15S				
TB630				
REP-2				
MW-7S				
FB71				
S-66157				
MW-19S				
MW-2D	acetone	+B	U	6
MW-14S				
MW-6S				
S-2684				

Trip Blanks

The trip blanks, TB630 and TB71, exhibited contamination for methylene chloride, trichloroethene, 4-methyl-2-pentanone, and tetrachloroethene that resulted in qualifications. The trip blank results will be compared to their associated samples. Refer to the glossary of data qualifiers for a list and definition of the blank qualifiers: CRQL, U and No Action.

Trip Blanks - continued

Specific findings:

7. The following samples have been qualified for blank contamination.

MW-3D MW-16S MW-16D MW-2D MW-14S MW-6S MW-7S REP-2	methylene chloride	+J	CRQL 7
MW-15D MW-17D MW-2D MW-1S MW-7S REP-2	trichloroethene	+J	CRQL 7
MW-17D	4-methyl-2-pentanone	+J	CRQL 7
MW-3D MW-16D MW-6S MW-1S MW-7S MW-17S	tetrachloroethene	+J	CRQL 7

Rinseate Blanks

A rinseate blank was not identified in this SDG by the laboratory.

Field Blanks

One (1) of the two (2) field blanks, FB630, exhibited contamination for 4-methyl-2-pentanone, 2-hexanone, 1,1,2,2-tetrachloroethane, and toluene. The field blank results will be compared to their associated samples. Refer to the glossary of data qualifiers for a list and definition of the blank qualifiers: CRQL, U and No Action.

Field Blanks - continued

8. The following samples have been qualified for blank contamination.

MW-17D MW-19S REP-2 S-2684	toluene	+J	CRQL 8

Surrogates

All of the surrogate recoveries for the samples and blanks were not acceptable. No qualifications are required.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

The MS/MSD, MW-14S, exhibited acceptable percent recoveries and RPDs. No qualifications are required.

Blank Spikes

The blank spike analyzed exhibited acceptable percent recoveries. No qualifications are required.

Duplicates

A field duplicate sample was not identified in this SDG.

Compound Identification/Quantitation

The laboratory reported low level (less than 1.0 μg/L) concentrations for several compounds. Low concentration results should be viewed by the end user as suspect due to possible laboratory and/or field contamination. No qualifications are required.

System Performance and Overall Assessment

The overall system performance was fair. The data reviewer estimates that less than 5% of the data is qualified.

GLOSSARY OF DATA QUALIFIERS

QUALIFICATION CODES

U = Not detected

J = Estimated value

UJ = Reported quantitation limit is qualified as estimated

R = Result is rejected and unusable

NJ = Presumptive evidence for the presence of the material at an estimated value

K = Result is biased high

L = Result is biased low

METHOD BLANK QUALIFICATION CODES

CRQL = The sample result for the blank contaminant is less than the sample CRQL and is less than 10X the method blank value. The sample result for the blank contaminant is rejected and the CRQL for that analyte is reported.

U = The sample result for the blank contaminant is greater than the sample CRQL and is less than 10X the method blank value. The sample result for the blank contaminant is qualified as non detected at the analyte value reported.

No Action = The sample result for the blank contaminant is greater than the sample CRQL and is greater than 10X the method blank value. The sample result for the blank contaminant is not qualified with any blank qualifiers.

The specific findings will be noted in numerical form on the Form Is in this data validation report. These specific finding footnotes will reflect the conclusions found in the data validation process that resulted in the qualification of the data.

SUMMARY OF DATA QUALIFICATIONS

SAMPLE ID	ANALYTE ID	DL	QL	SPECIFIC FINDINGS
All samples	all compounds	+	J	1
VBLKA9 MW-3D MW-16S MW-16D MW-2D MW-14S MW-14MS MW-6S TB71	2-hexanone	+	J	2
VBLKGV FB630 TB630 MW-15D MW-17D MW-17S MW-15S	acetone carbon disulfide 2-hexanone	+	J	3
VBLKGX MW-14SMSD REP-2 S-2684 MW-7S MSBMW-14S	chloromethane chloroethane	+	J	4
VBLKGU FB71 S-66157 MW-1S MW-19S	chloromethane chloroethane	+	J	5
MW-19S	methylene chloride	+BJ	CRQL	6

* DL denotes the Form I qualifier supplied by the laboratory
QL denotes the qualifier used by the data validation firm
\+ in the DL column denotes a positive result
\- in the DL column denotes a non detect result

SUMMARY OF DATA QUALIFICATIONS

SAMPLE ID	ANALYTE ID	DL	QL	SPECIFIC FINDINGS
TB71 FB630 MW-15D MW-17D MW-17S MW-15S TB630 REP-2 MW-7S FB71 S-66157 MW-19S	acetone	+BJ	CRQL	6
MW-2D MW-14S MW-6S S-2684	acetone	+B	U	6
MW-3D MW-16S MW-16D MW-2D MW-14S MW-6S MW-7S REP-2	methylene chloride	+J	CRQL	7
MW-15D MW-17D MW-2D MW-1S MW-7S REP-2	trichloroethene	+J	CRQL	7

* DL denotes the Form I qualifier supplied by the laboratory
QL denotes the qualifier used by the data validation firm
\+ in the DL column denotes a positive result
\- in the DL column denotes a non detect result

SUMMARY OF DATA QUALIFICATIONS

SAMPLE ID	ANALYTE ID	DL	QL	SPECIFIC FINDINGS
MW-17D	4-methyl-2-pentanone	+J	CRQL	7
MW-3D MW-16D MW-6S MW-1S MW-7S MW-17S	tetrachloroethene	+J	CRQL	7
MW-17D MW-19S REP-2 S-2684	toluene	+J	CRQL	8

* DL denotes the Form I qualifier supplied by the laboratory
QL denotes the qualifier used by the data validation firm
\+ in the DL column denotes a positive result
\- in the DL column denotes a non detect result

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB630

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931021 031

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0633.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 ~~5~~	~~JB~~ U	06
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	2	J	J /
591-78-6	2-Hexanone	0.8	J	J /
127-18-4	Tetrachloroethene	10	U	
79-34-5	1,1,2,2-Tetrachloroethane	0.8	J	J /
108-88-3	Toluene	0.2	J	J /
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

10/19/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FB630

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931021 032

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0633.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1 PS - 08/05/94

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALKANE	27.02	29	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
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30.					

10/19/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW15D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931 044

Matrix: (soil/water) WATER Lab Sample ID: 0931022

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0634.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 2	J B	06
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	2	J	J
540-59-0	1,2-Dichloroethene (total)	2	J	J
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	0.8	J	J
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 5	J	07
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	0.6	J	J
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	2	J	J
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

10/19/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

045

MW15D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931022

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0634.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: ~~0~~ 2 PS 08/05/94

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	1634044	METHYL TERT BUTYL ETHER	7.94	8	JN
2.		UNKNOWN ALKANE	27.08	5	J
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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10/19/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW17D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

060

Matrix: (soil/water) WATER Lab Sample ID: 0931023

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0635.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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~~	~~JB~~	U 6
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)	2	J	J/
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	0.5	J	J/
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~~	U 7
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	0.7	J	J/
10061-02-6	trans-1,3-Dichloropropene	10	U	
75-25-2	Bromoform	10	U	
108-10-1	4-Methyl-2-Pentanone	~~10~~	~~U~~	U 7
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~~ ~~0.3~~	~~U~~	U 8
108-90-7	Chlorobenzene	~~10~~ ~~0.5~~	~~U~~ U	LMP 08/05/94
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

FORM I VOA 3/90

10/19/94

015

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW19D

061

Lab Name: TEA/CT Contract: _____

Lab Code: TEACT Case No.: 0931A SAS No.: _____ SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931023

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >G0635

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Date Analyzed: 07/09/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 4 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN AROMATIC	24.91	11	J
2.	556672	OCTAMETHYL CYCLOTETRASILOXANE	22.84	7	JN
3.		UNKNOWN ALKYLBENZENE	24.11	6	JN
4.		UNKNOWN SILOXANE	25.68	6	J
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

10/19/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

078

MW17S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931024

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0636.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 ~~9~~	~~JB~~	U 6
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	2	J	J/
540-59-0	1,2-Dichloroethene (total)	2	J	J/
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	J/
79-01-6	Trichloroethene	13		
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	4	J	J/
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	10 ~~1~~	~~J~~	U 7
79-34-5	1,1,2,2-Tetrachloroethane	3	J	J/
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	Xylene (total)	10	U	

10/19/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: MW175

Lab Name: IEA/CT Contract: _____

Lab Code: IEA.CT Case No.: 0931A SAS No.: _____ SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931024

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >G0636

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Date Analyzed: 07/09/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 2 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN SILOXANE	25.70	6	JB
2.		UNKNOWN SILOXANE	28.39	6	JB
3.					
4.					
5.					
6.					
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9.					
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10/19/94

1A

EPA SAMPLE NO. 094

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW15S

Lab Name: IEA/CT Contract: 3092

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931 Box 332

Matrix: (soil/water) WATER Lab Sample ID: 0931025

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0637.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	10.3	JB	06
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	1	J	J1
540-59-0	1,2-Dichloroethene (total)	3	J	J1
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	0.5	J	J1
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	18		J1
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	Xylene (total)	10	U	

10/19/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: MW155

Lab Name: IEA/CT Contract: _____

Lab Code: IEACT Case No.: 0931A SAS No.: _____ SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 093105

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >G0037 095

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Date Analyzed: 07/09/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 4 3 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALKANE	27.00	22	JB
2.		UNKNOWN SILOXANE	25.66	15	JB
3.		UNKNOWN SILOXANE	28.31	8	JB
4.		~~UNKNOWN ISOMER OF DICHLOROBENZENE~~	8.03	6	JB
5.					
6.					
7.					
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VMP 12/9/94

10/19/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 094

MW15S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931025

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0637.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	103	~~B~~	06
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	1	J	J/
540-59-0	1,2-Dichloroethene (total)	3	J	J/
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	0.5	J	J/
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	18		J/
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	Xylene (total)	10	U	

10/19/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: MW155

Lab Name: IEA/CT Contract: _____

Lab Code: IEA.CT Case No.: 0931A SAS No.: _____ SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 093102S

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >G0037 095

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Date Analyzed: 07/09/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 4 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALKANE	27.00	22	JB
2.		UNKNOWN SILOXANE	25.66	15	J
3.		UNKNOWN SILOXANE	28.31	8	J
4.		UNKNOWN ISOMER OF DICHLOROETHENE	10.03	6	J
5.					
6.					
7.					
8.					
9.					
10.					
11.					
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7/10/92

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3D

110

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931026

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1612.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	102	J U 7
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	3	J J/
540-59-0	1,2-Dichloroethene (total)	20	J/
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	6	J J/
71-55-6	1,1,1-Trichloroethane	1	J J/
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	62	J/
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	106	J U 7
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	Xylene (total)	10	U

7/01/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-3D

Lab Name: TEA/CT Contract:

Lab Code: TEA.CT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931026

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A1612

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. Date Analyzed: 07/09/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1

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

Number TICs found: 10 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	1634-04-4	~~UNKNOWN~~ METHYL TERT-BUTYL ETHER	7.44	230	JN
2.		UNKNOWN C2 ALKYLBENZENE	24.87	26	JN
3.	556672	OCTAMETHYLCYCLOTETRASILOXANE	21.64	15	JN
4.	354234	ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO	5.39	11	JN
5.		UNKNOWN ALKYLBENZENE	22.69	8	JN
6.		UNKNOWN ISOMER OF TRICHLOROBENZENE	25.81	8	JN
7.		UNKNOWN SILOXANE	24.46	7	JN
8.		UNKNOWN	19.95	6	JN
9.		UNKNOWN ALKANE	10.62	6	JN
10.		UNKNOWN	20.39	5	JN
11.					
12.					
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CMD 08/09/92

10/11/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB630

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

135

Matrix: (soil/water) WATER Lab Sample ID: 0931027

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0638.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 ~~3~~	~~JB~~	U 6
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	1	J	J/
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	0.8	J	J/
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	Xylene (total)	10	U	

10/19/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TB630 - -

136

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931027

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0638.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-16S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931028

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1613.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

142

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 2.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	20	U	
74-83-9	Bromomethane	20	U	
75-01-4	Vinyl Chloride	20	U	
75-00-3	Chloroethane	20	U	
75-09-2	Methylene Chloride	20 ~~6~~	~~J~~ U	U7
67-64-1	Acetone	20	U	
75-15-0	Carbon Disulfide	20	U	
75-35-4	1,1-Dichloroethene	20	U	
75-34-3	1,1-Dichloroethane	20	U	
540-59-0	1,2-Dichloroethene (total)	19	J	J/
67-66-3	Chloroform	20	U	
107-06-2	1,2-Dichloroethane	20	U	
78-93-3	2-Butanone	20	U	
71-55-6	1,1,1-Trichloroethane	20	U	
56-23-5	Carbon Tetrachloride	20	U	
75-27-4	Bromodichloromethane	20	U	
78-87-5	1,2-Dichloropropane	20	U	
10061-01-5	cis-1,3-Dichloropropene	20	U	
79-01-6	Trichloroethene	260		J/
124-48-1	Dibromochloromethane	20	U	
79-00-5	1,1,2-Trichloroethane	20	U	
71-43-2	Benzene	20	U	
10061-02-6	trans-1,3-Dichloropropene	20	U	
75-25-2	Bromoform	20	U	
108-10-1	4-Methyl-2-Pentanone	20	U	
591-78-6	2-Hexanone	20	U	
127-18-4	Tetrachloroethene	20	U	
79-34-5	1,1,2,2-Tetrachloroethane	20	U	
108-88-3	Toluene	20	U	
108-90-7	Chlorobenzene	20	U	
100-41-4	Ethylbenzene	20	U	
100-42-5	Styrene	20	U	
1330-20-7	Xylene (total)	20	U	

10/19/94

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-16S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931028

143

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1613.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 2.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

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

PS 08/05/94

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN SILOXANE	24.38	15	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
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10/1/94

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-16D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931029

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1614.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

154

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	2	J	J1
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	10 2	~~J~~ U	U7
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	5	J	J1
540-59-0	1,2-Dichloroethene (total)	4	J	J1
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	13		J1
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 1	~~J~~ U	U7
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	Xylene (total)	10	U	

7/01/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-16D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

155

Matrix: (soil/water) WATER Lab Sample ID: 0931029

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1614.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 2 PSJ 08/05/92

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	1634044	METHYL TERT BUTYL ETHER	7.41	47	JN
2.		UNKNOWN SILOXANE	24.48	10	J
3.					
4.					
5.					
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10/19/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931030

170

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1615.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 2	J 07
67-64-1	Acetone	35	B 06
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	12	J /
75-34-3	1,1-Dichloroethane	3	J
540-59-0	1,2-Dichloroethene (total)	2	J
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	68	J /
56-23-5	Carbon Tetrachloride	9	J /
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 1	J 07
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	Xylene (total)	10	U

10/19/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2D

171

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931030

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1615.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
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10/19/94

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14S - - 184

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931031

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1616.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 2	~~B~~ U	7
67-64-1	Acetone	10	~~B~~ U	6
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	2	J	J/
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	2	J	J/
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	66		J/
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	Xylene (total)	10	U	

10/19/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: MW-14S

Name: FEA/CT Contract: _____

Lab Code: FEA.CT Case No.: D931A SAS No.: _____ SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931031

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A1616

Level: (low/med) LOW Date Received: 07/01/93

% Moisture: not dec. _____ Date Analyzed: 07/09/93

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 6 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	7.06	8	J
2.		Unknown C4 ALKYLBENZENE	22.63	7	J
3.	1634-04-4	~~Unknown~~ METHYL TERT-BUTYL ETHER	7.48	6	JN
4.		Unknown	9.19	6	J
5.		Unknown	4.71	6	J
		Unknown	10.49	5	J
7.					
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LMP 08/04/93

10/1/94

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

REP-2

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931032

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0675.D

202

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/10/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	100	U
74-83-9	Bromomethane	100	U
75-01-4	Vinyl Chloride	100	U
75-00-3	Chloroethane	100	U
75-09-2	Methylene Chloride	100 ~~19~~	~~J~~ 07
67-64-1	Acetone	100 ~~70~~	~~JB~~ 06
75-15-0	Carbon Disulfide	100	U
75-35-4	1,1-Dichloroethene	100	U
75-34-3	1,1-Dichloroethane	100	U
540-59-0	1,2-Dichloroethene (total)	100	U
67-66-3	Chloroform	100	U
107-06-2	1,2-Dichloroethane	100	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	100	U
56-23-5	Carbon Tetrachloride	100	U
75-27-4	Bromodichloromethane	100	U
78-87-5	1,2-Dichloropropane	100	U
10061-01-5	cis-1,3-Dichloropropene	100	U
79-01-6	Trichloroethene	100 ~~10~~	~~J~~ 07
124-48-1	Dibromochloromethane	100	U
79-00-5	1,1,2-Trichloroethane	100	U
71-43-2	Benzene	100	U
10061-02-6	trans-1,3-Dichloropropene	100	U
75-25-2	Bromoform	100	U
108-10-1	4-Methyl-2-Pentanone	100	U
591-78-6	2-Hexanone	100	U
127-18-4	Tetrachloroethene	1400	J /
79-34-5	1,1,2,2-Tetrachloroethane	100	U
108-88-3	Toluene	100 ~~3~~	~~J~~ 08
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	100	U
100-42-5	Styrene	100	U
1330-20-7	Xylene (total)	100	U

10/19

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

REP-2

Lab Name: IEA/CT Contract: _____

Lab Code: IEA.CT Case No.: 0931A SAS No.: _____ SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931039

Sample wt/vol: 0.5 ~~5.0~~ (g/mL) ML Lab File ID: >G0675

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Date Analyzed: 07/10/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 10

Soil Extract Volume: _____ (uL) PAS 08/02/92 Soil Aliquot Volume: _____ (uL)

Number TICs found: 4 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALKYLBENZENE	24.10	140	J
2.		UNKNOWN ALKYLBENZENE	27.01	120	J
3.		UNKNOWN ALKYLBENZENE	24.37	62	J
4.	541059	HEXAMETHYL CYCLOTRISILOXANE	17.99	52	JN
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10/19/94

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 220

TB71

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931033

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1624.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	3	J	J/
67-64-1	Acetone	10 ~~4~~	JB	UB
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	3	J	J/
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	Xylene (total)	10	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TB71

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931033

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1624.D

221

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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10/1/92

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-6S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

228

Matrix: (soil/water) WATER Lab Sample ID: 0931034

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1625.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 ~~3~~	~~J~~ U 07
67-64-1	Acetone	46	~~B~~ U 06
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 ~~2~~	~~J~~ U 07
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	Xylene (total)	10	U

10/1/92

037

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-6S

229

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931034

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1625.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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10/19/94

038

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-19S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931035 236

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0687.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/11/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 20.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
74-87-3	Chloromethane	200	U	
74-83-9	Bromomethane	200	U	
75-01-4	Vinyl Chloride	200	U	
75-00-3	Chloroethane	200 ~~460~~	J	5, J
75-09-2	Methylene Chloride	200 ~~50~~	~~JB~~	U6 LHD
67-64-1	Acetone	200 ~~160~~	~~JB~~	U 6 08/05/92
75-15-0	Carbon Disulfide	200	U	
75-35-4	1,1-Dichloroethene	200	U	
75-34-3	1,1-Dichloroethane	130	J	J/
540-59-0	1,2-Dichloroethene (total)	1200		J/
67-66-3	Chloroform	200	U	
107-06-2	1,2-Dichloroethane	200	U	
78-93-3	2-Butanone	200	U	
71-55-6	1,1,1-Trichloroethane	200	U	
56-23-5	Carbon Tetrachloride	200	U	
75-27-4	Bromodichloromethane	200	U	
78-87-5	1,2-Dichloropropane	200	U	
10061-01-5	cis-1,3-Dichloropropene	200	U	
79-01-6	Trichloroethene	930		J/
124-48-1	Dibromochloromethane	200	U	
79-00-5	1,1,2-Trichloroethane	200	U	
71-43-2	Benzene	12	J	J/
10061-02-6	trans-1,3-Dichloropropene	200	U	
75-25-2	Bromoform	200	U	
108-10-1	4-Methyl-2-Pentanone	200	U	
591-78-6	2-Hexanone	200	U	
127-18-4	Tetrachloroethene	3100		J/
79-34-5	1,1,2,2-Tetrachloroethane	200	U	~~J~~ U 8
108-88-3	Toluene	200 ~~12~~	~~J~~	~~J~~ U 8
108-90-7	Chlorobenzene	200	U	10.11.92
100-41-4	Ethylbenzene	200	U	
100-42-5	Styrene	200	U	
1330-20-7	Xylene (total)	36	J	J/

10/1/92

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-195

Lab Name: TEA/CT Contract: _____

Lab Code: TEA.CT Case No.: 0931A SAS No.: _____ SDG No.: A0931

237

Matrix: (soil/water) WATER Lab Sample ID: 0931035

Sample wt/vol: 0.25 ~~5.0~~ (g/mL) ML Lab File ID: >G0687

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Date Analyzed: 07/11/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 20

Soil Extract Volume: _____ (uL) PAS 8/04/92 Soil Aliquot Volume: _____ (uL)

Number TICs found: 10 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110827	CYCLOHEXANE	11.50	330	JN
2.		~~unknown~~ ALKYLBENZENE	24.08	230	JN
3.		unknown	7.44	190	JN
4.		unknown ALKYLBENZENE	26.99	190	JN
5.	1634-04-4	~~unknown~~ METHYL-TERT-BUTYLETHER	7.98	170	JN
6.		unknown C3 ALKYLBENZENE	24.57	150	JN
7.		unknown ALKYLBENZENE	24.34	130	JN
8.		unknown C3 ALKYLBENZENE	23.65	110	JN
9.	541059	CYCLOTRISILOXANE, HEXAMETHYL-	18.01	110	JN
10.		unknown	8.56	100	JN
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

LHD 08/04/92

FORM I VOA-TIC 3/90

JW 10/1/94

040

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-2684

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931036

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0677.D

Level: (low/med) LOW Date Received: 07/02/92 264

% Moisture: not dec. _____ Data Analyzed: 07/10/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	3	J	J
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	10	U	
67-64-1	Acetone	13	~~B~~ U	U6
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	4	J	J
540-59-0	1,2-Dichloroethene (total)	22		J
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	18		J
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	0.8	J	J
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	120		J
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10 ~~0.3~~	~~J~~ U	U8
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

FORM I VOA 3/90

10/19/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: S-2684

Lab Name: IEA/CT Contract: _____

Lab Code: IEA.CT Case No.: 0931A SAS No.: _____ SDG No.: A0931

265

Matrix: (soil/water) WATER Lab Sample ID: 0931036

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >60G17

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Date Analyzed: 07/14/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 10 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN BRANCHED CYCLOALKANE	9.94	130	JB
2.	110827	CYCLOHEXANE	11.51	88	
3.	107835	2-METHYL-PENTANE	7.45	80	
4.		UNKNOWN	7.99	65	
5.		UNKNOWN	8.56	29	
6.		UNKNOWN ALKANE	27.08	21	
7.	108872	METHYL CYCLOHEXANE	14.29	17	
8.		UNKNOWN BRANCHED ALKANE	11.82	15	
9.		UNKNOWN BRANCHED CYCLOALKANE	12.36	12	
10.		UNKNOWN BRANCHED CYCLOALKANE	12.62	10	
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

10/1/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB71

288

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931037

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0684.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/11/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 ~~6~~	~~JB~~ U 06
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	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. 289

FB71

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931037

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0684.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/11/92

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

7/11/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-66157 294

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931038

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0685.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/11/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	JB U 6
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)	19	
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	44	
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	1	J
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	Xylene (total)	10	U

7/10/92

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. S-66157

Lab Name: FEA/CT Contract: _____

Lab Code: FEA.CT Case No.: 0931A SAS No.: _____ SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931038

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >G0685

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Date Analyzed: 07/11/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	624920	DISULFIDE, DIMETHYL	16.25	16	JN
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.					

10/14/92

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1S 307

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931039

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0686.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/11/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	7	J
75-34-3	1,1-Dichloroethane	20	
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	37	
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 ~~2~~	~~J~~ 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 ~~6~~	~~J~~ 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	Xylene (total)	10	U

10/19/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-15

Lab Name: IEA/CT Contract: _____

Lab Code: IEA.CT Case No.: D9314 SAS No.: _____ SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931039

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >60686

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Date Analyzed: 07/11/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 3 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	1634-04-4	~~TAFENDUM~~ METHYL TERT-BUTYL ETHER	7.94	27	JN
2.		UNKNOWN ALKYLBENZENE	20.99	8	JN
3.		UNKNOWN ALKYLBENZENE	24.08	7	JN
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.					

LHH 08/04/92

10/19/92

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7S 323

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931040

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0681.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/10/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 ~~1~~	~~J~~	U7
67-64-1	Acetone	10 ~~5~~	~~JB~~	U6
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)	2	J	J/
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	0.8	J	J/
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 ~~4~~	~~J~~	U7
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 ~~0.9~~	~~J~~	U7
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	Xylene (total)	10	U	

7/10/94

1E

EPA SAMPLE NO. 324

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-75

Lab Name: TEA/CT Contract:

Lab Code: TEA.CT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931040

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >60681

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. Date Analyzed: 07/10/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1

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

Number TICs found: 10 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN BRANCHED CYCLOALKANE	9.94	130	JN
2.	110827	CYCLOHEXANE	11.51	88	JN
3.	107835	2-METHYL PENTANE	7.45	80	JN
4.		UNKNOWN	7.99	65	JN
5.		UNKNOWN	8.56	29	JN
6.		UNKNOWN ALKANE	27.08	21	JN
7.	108872	METHYL CYCLOHEXANE	14.27	17	JN
8.		UNKNOWN ALKANE	11.82	15	JN
9.		UNKNOWN BRANCHED CYCLOALKANE	12.36	12	JN
10.		UNKNOWN BRANCHED CYCLOALKANE	12.62	10	JN
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

7/01/94

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 475

MW-14SMS

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931031MS

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1621.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	3	J
67-64-1	Acetone	5	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	49	
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	2	J
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	48	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	53	
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	71	
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	46	
108-90-7	Chlorobenzene	51	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 479

MW-14SMSD

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix: (soil/water) WATER Lab Sample ID: 0931031MSD

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0673.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/10/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	7	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	50	
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	44	
124-48-1	Dibromochloromethane	67	
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	50	
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	68	
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	47	
108-90-7	Chlorobenzene	52	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

RW 10/19/94

HEARTLAND ESI VOA 1 OLMO1.8

QA/QC LEVEL

- ☐ NEESA C
- ☐ NEESA D
- ☐ DQO LEVEL III
- ☐ DQO LEVEL IV
- ☑ NYSDEC B

CASE NUMBER: A0931
LABORATORY: IEA - CT
PROJECT: FAIRCHILD REPUBLIC
REVIEWER: [signature]
DATE: 10.11.94
ANALYSIS MODIFICATIONS: NYSDEC

VOLATILE HOLDING TIMES

1. Was the holding time exceeded on any volatile analysis?

Yes No

If yes, complete the following form for all samples that exceeded holding times.

EPA SAMPLE NO.	MATRIX	VSTR OR DATE SAMP	DATE OF ANALYSIS	DA	QUALIFICATION
All Samples	WATER	7.1.92	7.9-11.92	1-3	J

10/11/94

Holding Times:

CLP	=	10 days from VSTR
Non CLP	=	14 days from date of sampling
Region I	=	10 days from VSTR (Aqueous and Non Aqueous)

NOTE: DA - The number of days that the holding time was exceeded.

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC ANALYSIS

Associated Samples and Blanks: None

A. **BFB GC/MS Tuning** 92

Injection Date: 7/8/94 10.11.94 Injection Time: 8:21 Heated: Y (N)

Instrument ID: HP5971A File ID: A1593

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No
If no, reject all associated data and list all affected samples:

B. **Calibration**

1. Date(s) of calibration: 7.8.94

RRF010 File ID: A1591

RRF020 File ID: A1592

RRF050 File ID: A1590

RRF100 File ID: A1593

RRF200 File ID: A1596

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum average RRF criteria are within the CLP guidelines? (Yes) No

If no, enter the laboratory average RRF. If a compound has an average RRF less than 0.05, for samples anayzed within the initial calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %RSD criteria are within the CLP guidelines? Yes (No)

If no, enter the laboratory %RSD. For the samples analyzed within the initial calibration tuning period, qualify positive results for that analyte as estimated (J). Non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
chloromethane	0.050		30.0		
bromomethane	0.100		30.0		
vinyl chloride	0.100		30.0		
chloroethane	0.050		30.0		
methylene chloride	0.050		30.0		
acetone	0.050		30.0	44.1	J
carbon disulfide	0.050		30.0		
1,1-dichloroethene	0.100		30.0		
1,1-dichloroethane	0.200		30.0		
1,2-dichloroethene (total)	0.050		30.0		
chloroform	0.200		30.0		
1,2-dichloroethane	0.100		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
2-butanone	0.050		30.0	40.6	J
1,1,1-trichloroethane	0.100		30.0		
carbon tertachloride	0.100		30.0		
bromodichloromethane	0.200		30.0		
1,2-dichloropropane	0.050		30.0		
cis-1,3-dichloropropene	0.200		30.0		
trichloroethene	0.300		30.0		
dibromochloromethane	0.100		30.0		
1,1,2-trichloroethane	0.100		30.0		
benzene	0.500		30.0		
trans-1,3-dichloropropene	0.100		30.0		
bromoform	0.100		30.0		
4-methyl-2-pentanone	0.050		30.0	35.2	J
2-hexanone	0.050		30.0	50.1	J
tetrachloroethene	0.200		30.0		
1,1,2,2-tetrachloroethane	0.500		30.0		
toluene	0.400		30.0		
chlorobenzene	0.500		30.0		
ethylbenzene	0.100		30.0		
styrene	0.300		30.0		
xylene (total)	0.300		30.0		
toluene-d_8	0.050		30.0		
bromofluorobenzene	0.200		30.0		
1,2-dichloroethane-d_4	0.050		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calcualtions:

c. Calculate the RRF of one of the standards for one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: Chloroform VSTD010

Lab Value: 3.672

$$\frac{1761 \times 50}{23985 \times 10} = 3.672$$

d. Calculate the %RSD of one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: 2-Hexanone

Lab Value: 50.1%

SD = 0.194

$\sqrt{\ } = 0.386$

$$\frac{0.194}{0.386} \times 100 = 50.1\%$$

=

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC ANALYSIS

Associated Samples and Blanks: None

A. BFB GC/MS Tuning

Injection Date: 7/8/92 Injection Time: 11:31 Heated: Y (N)

Instrument ID: HP5995G File ID: GB831

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No
If no, reject all associated data and list all affected samples:

B. Calibration

1. Date(s) of calibration: 7-8-9-4

RRF010 File ID: G0619

RRF020 File ID: G0620

RRF050 File ID: G0618

RRF100 File ID: G0621

RRF200 File ID: G0622

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum average RRF criteria are within the CLP guidelines? (Yes) No

If no, enter the laboratory average RRF. If a compound has an average RRF less than 0.05, for samples anayzed within the initial calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %RSD criteria are within the CLP guidelines? Yes (No)

If no, enter the laboratory %RSD. For the samples analyzed within the initial calibration tuning period, qualify positive results for that analyte as estimated (J). Non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
chloromethane	0.050		30.0		
bromomethane	0.100		30.0		
vinyl chloride	0.100		30.0		
chloroethane	0.050		30.0		
methylene chloride	0.050		30.0		
acetone	0.050		30.0	35.3	
carbon disulfide	0.050		30.0		
1,1-dichloroethene	0.100		30.0		
1,1-dichloroethane	0.200		30.0		
1,2-dichloroethene (total)	0.050		30.0		
chloroform	0.200		30.0		
1,2-dichloroethane	0.100		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
2-butanone	0.050		30.0	49.0	J
1,1,1-trichloroethane	0.100		30.0		
carbon tertachloride	0.100		30.0		
bromodichloromethane	0.200		30.0		
1,2-dichloropropane	0.050		30.0		
cis-1,3-dichloropropene	0.200		30.0		
trichloroethene	0.300		30.0		
dibromochloromethane	0.100		30.0		
1,1,2-trichloroethane	0.100		30.0		
benzene	0.500		30.0		
trans-1,3-dichloropropene	0.100		30.0		
bromoform	0.100		30.0		
4-methyl-2-pentanone	0.050		30.0		
2-hexanone	0.050		30.0		
tetrachloroethene	0.200		30.0		
1,1,2,2-tetrachloroethane	0.500		30.0		
toluene	0.400		30.0		
chlorobenzene	0.500		30.0		
ethylbenzene	0.100		30.0		
styrene	0.300		30.0		
xylene (total)	0.300		30.0		
toluene-d_8	0.050		30.0		
bromofluorobenzene	0.200		30.0		
1,2-dichloroethane-d_4	0.050		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calcualtions:

c. Calculate the RRF of one of the standards for one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: Toluene VSTD200

Lab Value: 1.564

$$\frac{64925 \times 50}{103814 \times 200} = 1.564$$

d. Calculate the %RSD of one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: Acetone

Lab Value: 35.3%

SD = 0.396

$\bar{X}$ = 1.122

$$\frac{0.396}{1.122} \times 100 = 35.3\%$$

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC ANALYSIS

Associated Samples and Blanks: None

A. BFB GC/MS Tuning

Injection Date: 7/9/92 Injection Time: 09:10 Heated: Y (N)

Instrument ID: HP5995G File ID: GB837

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No
If no, reject all associated data and list all affected samples:

B. Calibration

1. Date(s) of calibration: 7.9.92

RRF010 File ID: G0650

RRF020 File ID: G0651

RRF050 File ID: G0655

RRF100 File ID: G0652

RRF200 File ID: G0653

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum average RRF criteria are within the CLP guidelines? (Yes) No

If no, enter the laboratory average RRF. If a compound has an average RRF less than 0.05, for samples anayzed within the initial calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %RSD criteria are within the CLP guidelines? Yes (No)

If no, enter the laboratory %RSD. For the samples analyzed within the initial calibration tuning period, qualify positive results for that analyte as estimated (J). Non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
chloromethane	0.050		30.0		
bromomethane	0.100		30.0		
vinyl chloride	0.100		30.0		
chloroethane	0.050		30.0	31.8	
methylene chloride	0.050		30.0		
acetone	0.050		30.0		
carbon disulfide	0.050		30.0		
1,1-dichloroethene	0.100		30.0		
1,1-dichloroethane	0.200		30.0		
1,2-dichloroethene (total)	0.050		30.0		
chloroform	0.200		30.0		
1,2-dichloroethane	0.100		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
2-butanone	0.050		30.0		
1,1,1-trichloroethane	0.100		30.0		
carbon tertachloride	0.100		30.0		
bromodichloromethane	0.200		30.0		
1,2-dichloropropane	0.050		30.0		
cis-1,3-dichloropropene	0.200		30.0		
trichloroethene	0.300		30.0		
dibromochloromethane	0.100		30.0		
1,1,2-trichloroethane	0.100		30.0		
benzene	0.500		30.0		
trans-1,3-dichloropropene	0.100		30.0		
bromoform	0.100		30.0		
4-methyl-2-pentanone	0.050		30.0		
2-hexanone	0.050		30.0		
tetrachloroethene	0.200		30.0		
1,1,2,2-tetrachloroethane	0.500		30.0		
toluene	0.400		30.0		
chlorobenzene	0.500		30.0		
ethylbenzene	0.100		30.0		
styrene	0.300		30.0		
xylene (total)	0.300		30.0		
toluene-d_8	0.050		30.0		
bromofluorobenzene	0.200		30.0		
1,2-dichloroethane-d_4	0.050		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calcualtions:

c. Calculate the RRF of one of the standards for one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: Bromoform VSTD020

Lab Value: 0.265

$$\frac{17294 \times 50}{163185 \times 20} \cdot 0.265$$

d. Calculate the %RSD of one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: Chloroethane

Lab Value: 35.8%

SD= 0.274

$\bar{X}$= 0.764

$$\frac{0.274}{0.764} \times 100 = 35.8\%$$

=

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

Associated Samples and Blanks: VBLKA9, MW-30, -16S, -16D, -2D, -14S, -14SMS, -6S, TB71

A. BFB GC/MS Tuning

Injection Date: 7/9/92 7.10.92 Injection Time: 07:54 Heated: Y (N)

Instrument ID: HPT995A File ID: A1800

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No

If no, reject all associated data and list all affected samples:

B. **Calibration**

1. Date of calibration: 7.9.92

RRF050 File ID: A1609

Date(s) of Initial Calibration: 7.8.92

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum RRF criteria are within the CLP guidelines
(Yes) No

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples anayzed within the continuing calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines:
Yes (No)

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive values as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
chloromethane	0.050		25.0		
bromomethane	0.100		25.0	--	
vinyl chloride	0.100		25.0		
chloroethane	0.050		25.0		
methylene chloride	0.050		25.0		
acetone	0.050		25.0		
carbon disulfide	0.050		25.0		
1,1-dichloroethene	0.100		25.0		
1,1-dichloroethane	0.200		25.0		
1,2-dichloroethene (total)	0.050		25.0		
chloroform	0.200		25.0		
1,2-dichloroethane	0.100		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-butanone	0.050		25.0		
1,1,1-trichloroethane	0.100		25.0		
carbon tetrachloride	0.100		25.0		
bromodichloromethane	0.200		25.0		
1,2-dichloropropane	0.050		25.0		
cis-1,3-dichloropropene	0.200		25.0		
trichloroethene	0.300		25.0		
dibromochloromethane	0.100		25.0		
1,1,2-trichloroethane	0.100		25.0		
benzene	0.500		25.0		
trans-1,3-dichloropropene	0.100		25.0		
bromoform	0.100		25.0		
4-methyl-2-pentanone	0.050		25.0		
2-hexanone	0.050		25.0	27.8	F
tetrachlorethene	0.200		25.0		
1,1,2,2-tetrachloroethane	0.500		25.0	--	
toluene	0.400		25.0		
chlorobenzene	0.500		25.0		
ethylbenzene	0.100		25.0		
styrene	0.300		25.0		
xylenes (total)	0.300		25.0		
toluene-d_8	0.050		25.0		
bromofluorobenzene	0.200		25.0		
1,2-dichloroethane-d_4	0.050		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calculations

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: Ethylbenzene

Lab Value: 0.493

$$\frac{51830 \times 50}{10190 \times 10} = 0.493$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: Vinyl Chloride

Lab Value: -14.6%

$$\frac{1.534 - 1.718}{1.534} \times 100 = -14.6\%$$

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

Associated Samples and Blanks: VBLKGV, FB630, TB630, MW 15D, -17D, -17S, -15S

A. BFB GC/MS Tuning

Injection Date: 7/8/92 Injection Time: 17:01 Heated: Y (N)

Instrument ID: HP5971G File ID: GB836

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No

If no, reject all associated data and list all affected samples:

B. **Calibration**

1. Date of calibration: 7-8-92

RRF050 File ID: G0624

Date(s) of Initial Calibration: 7-8-92

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum RRF criteria are within the CLP guidelines
(Yes) No

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples anayzed within the continuing calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines:
Yes (No)

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive values as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
chloromethane	0.050		25.0		
bromomethane	0.100		25.0	--	
vinyl chloride	0.100		25.0		
chloroethane	0.050		25.0		
methylene chloride	0.050		25.0		
acetone	0.050		25.0	25.4	J
carbon disulfide	0.050		25.0	-25.3	J
1,1-dichloroethene	0.100		25.0		
1,1-dichloroethane	0.200		25.0		
1,2-dichloroethene (total)	0.050		25.0		
chloroform	0.200		25.0		
1,2-dichloroethane	0.100		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-butanone	0.050		25.0		
1,1,1-trichloroethane	0.100		25.0		
carbon tetrachloride	0.100		25.0		
bromodichloromethane	0.200		25.0		
1,2-dichloropropane	0.050		25.0		
cis-1,3-dichloropropene	0.200		25.0		
trichloroethene	0.300		25.0		
dibromochloromethane	0.100		25.0		
1,1,2-trichloroethane	0.100		25.0		
benzene	0.500		25.0		
trans-1,3-dichloropropene	0.100		25.0		
bromoform	0.100		25.0		
4-methyl-2-pentanone	0.050		25.0		
2-hexanone	0.050		25.0	-26.0	J
tetrachlorethene	0.200		25.0		
1,1,2,2-tetrachloroethane	0.500		25.0	--	
toluene	0.400		25.0		
chlorobenzene	0.500		25.0		
ethylbenzene	0.100		25.0		
styrene	0.300		25.0		
xylenes (total)	0.300		25.0		
toluene-d_8	0.050		25.0		
bromofluorobenzene	0.200		25.0		
1,2-dichloroethane-d_4	0.050		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calculations

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: Chlorobenzene

Lab Value: 1.009

$$\frac{106820 \times 10}{101875 \times 10} \cdot 1.009$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: 1,1-Dichloroethene

Lab Value: -18.3%

$$\frac{0.971 - 1.149}{0.971} \times 100 = -18.3\%$$

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

Associated Samples and Blanks: VBLKGX, MW-14SMSD, RFP-2, S-2684, MW-7S, MSBMW-14I

A. BFB GC/MS Tuning

Injection Date: 7/10/92 Injection Time: 08:17 Heated: Y (N)

Instrument ID: HP5971G File ID: GB838

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No

If no, reject all associated data and list all affected samples:

B. Calibration

1. Date of calibration: 7.10.92

RRF050 File ID: G066

Date(s) of Initial Calibration: 7.9.92

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum RRF criteria are within the CLP guidelines
Yes (No)

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples anayzed within the continuing calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines:
Yes (No)

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive values as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
chloromethane	0.050		25.0	41.5	J
bromomethane	0.100		25.0	--	
vinyl chloride	0.100		25.0		
chloroethane	0.050		25.0	44.9	J
methylene chloride	0.050		25.0		
acetone	0.050		25.0		
carbon disulfide	0.050		25.0		
1,1-dichloroethene	0.100		25.0		
1,1-dichloroethane	0.200		25.0		
1,2-dichloroethene (total)	0.050		25.0		
chloroform	0.200		25.0		
1,2-dichloroethane	0.100		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-butanone	0.050		25.0		
1,1,1-trichloroethane	0.100		25.0		
carbon tetrachloride	0.100		25.0		
bromodichloromethane	0.200		25.0		
1,2-dichloropropane	0.050		25.0		
cis-1,3-dichloropropene	0.200		25.0		
trichloroethene	0.300		25.0		
dibromochloromethane	0.100		25.0		
1,1,2-trichloroethane	0.100		25.0		
benzene	0.500		25.0		
trans-1,3-dichloropropene	0.100		25.0		
bromoform	0.100		25.0		
4-methyl-2-pentanone	0.050		25.0		
2-hexanone	0.050		25.0		
tetrachlorethene	0.200		25.0		
1,1,2,2-tetrachloroethane	0.500	0.478	25.0	--	Isolation >0.05
toluene	0.400		25.0		
chlorobenzene	0.500		25.0		
ethylbenzene	0.100		25.0		
styrene	0.300		25.0		
xylenes (total)	0.300		25.0		
toluene-d_8	0.050		25.0		
bromofluorobenzene	0.200		25.0		
1,2-dichloroethane-d_4	0.050		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calculations

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: 1,1,1-Trichloroethane

Lab Value: 0.486

$$\frac{78889 \times 50}{162344 \times 50} = 0.486$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: BCB

Lab Value: 6.1%

$$\frac{0.629 - 0.590}{0.629} \times 100 = 6.2\%$$

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

Associated Samples and Blanks: VBLKGO, FB71, S-66157, MW-15, MW-19S

A. BFB GC/MS Tuning

Injection Date: 7/10/92 Injection Time: 20:32 Heated: Y (N)

Instrument ID: HP5995G File ID: GB839

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No

If no, reject all associated data and list all affected samples:

B. **Calibration**

1. Date of calibration: 7-10-92

RRF050 File ID: G0682

Date(s) of Initial Calibration: 7-9-92

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum RRF criteria are within the CLP guidelines
Yes (No)

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples anayzed within the continuing calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines:
Yes (No)

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive values as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
chloromethane	0.050		25.0	30.1	J
bromomethane	0.100		25.0	--	
vinyl chloride	0.100		25.0		
chloroethane	0.050		25.0	47.3	J
methylene chloride	0.050		25.0		
acetone	0.050		25.0		
carbon disulfide	0.050		25.0		
1,1-dichloroethene	0.100		25.0		
1,1-dichloroethane	0.200		25.0		
1,2-dichloroethene (total)	0.050		25.0		
chloroform	0.200		25.0		
1,2-dichloroethane	0.100		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-butanone	0.050		25.0		
1,1,1-trichloroethane	0.100		25.0		
carbon tetrachloride	0.100		25.0		
bromodichloromethane	0.200		25.0		
1,2-dichloropropane	0.050		25.0		
cis-1,3-dichloropropene	0.200		25.0		
trichloroethene	0.300		25.0		
dibromochloromethane	0.100		25.0		
1,1,2-trichloroethane	0.100		25.0		
benzene	0.500		25.0		
trans-1,3-dichloropropene	0.100		25.0		
bromoform	0.100		25.0		
4-methyl-2-pentanone	0.050		25.0		
2-hexanone	0.050		25.0		
tetrachlorethene	0.200		25.0		
1,1,2,2-tetrachloroethane	0.500	6.492	25.0	--	Solution >0.01
toluene	0.400		25.0		
chlorobenzene	0.500		25.0		
ethylbenzene	0.100		25.0		
styrene	0.300		25.0		
xylenes (total)	0.300		25.0		
toluene-d_8	0.050		25.0		
bromofluorobenzene	0.200		25.0		
1,2-dichloroethane-d_4	0.050		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calculations

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: Vinyl Chloride

Lab Value: 0.870

$$\frac{24711 \times 50}{28392 \times 50} = 0.870$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: Chloromethane

Lab Value: 36.5%

$$\frac{0.367 - 0.25}{0.367} \times 100. \quad 36.5\%$$

INTERNAL STANDARD AREA SUMMARY
VOLATILE ORGANIC FRACTION

1. Is the EICP area for each internal standard in all associated field samples, QC samples, and blanks within - 50% and + 100% of the respective internal standard EICP areas? (Yes) No

If the EICP area of one (1) or more internal standard is less than -50%:
- Positive results for those compounds that are quantified using the particular internal standard are flagged as estimated (J).
- Non detected for that fraction are flagged with the sample quantitation limit classified as estimated (UJ).

If the EICP area of one (1) or more internal standards is greater than +100%:
- Positive results for those compounds that are quantified using the particular internal standard are flagged as estimated (J).

If no, list non-compliant sample IDs and areas below.

Standard ID: All Standards.

	BCM	RT	1,4-DFB	RT	CBZ-d_5	RT
12-HOUR STD						
UPPER LIMIT						
LOWER LIMIT						
EPA SAMPLE NO.						

10.1-94

METHOD BLANK SUMMARY
VOLATILE ORGANIC FRACTION

1. Blank qualification guidelines:

   a) If a compound is found in the blank but not in the sample, no action is taken.

   b) Any compound (other than the four (4) listed below) detected in the sample, which was also detected in the associated blank, must be qualified by elevating the limit of detection or adjusting the limit of detection to the sample result, when the sample concentration is less than five (5) times the blank concentration. For the following four (4) compounds, the results are qualified by elevating the limit of detection or adjusting the limit of detection to the sample result, when the sample concentration is less than ten (10) times the blank concentration.

   Common laboratory contaminants: methylene chloride
   acetone
   2-butanone

   c) The reviewer should take note that the blank analysis may not involve the same weights, volumes or dilution factors as associated samples. These factors must be taken into consideration when applying the 5X and 10X criteria.

   d) In addition, the reviewer must review the trip blanks, rinseate blanks and field blanks (if they were submitted with the data package) and all associated samples. Apply the same data validation guidelines used in assessing the method blanks.

   e) Qualification/Action codes:

   U - The sample result is greater than the CRQL and less than ten times (10X) the blank value. Cross out the "B" flag and qualify the sample result with a "U".

   CRQL - The sample result is less than the CRQL and less than ten times (10X) the blank value. Reject the sample result, cross out the "B" flag, and report the CRQL.

   No Action - The sample result is greater than the CRQL and greater than ten times (10X) the blank value.

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKA9

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931 014

Lab File ID: A1610.D Lab Sample ID: VBLKA9

Date Analyzed: 07/09/92 Time Analyzed: 0927

GC Column:007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5995A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW-3D	0931026	A1612.D	1057
02	MW-16S	0931028	A1613.D	1130
03	MW-16D	0931029	A1614.D	1203
04	MW-2D	0931030	A1615.D	1235
05	MW-14S	0931031	A1616.D	1314
06	MW-14SMS	0931031MS	A1621.D	1600
07	TB71	0931033	A1624.D	1738
08	MW-6S	0931034	A1625.D	1811
09				
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COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: VBLKA9 File ID: A1610

Purge: heated non heated Page ____ of ____

Analysis date/time: 7/9/92 0927

COMPOUND	CONCENTRATION	CRQL
Acetone	14	10

Acetone · U	Acetone · BQL		
MW-2D	TB71		
MW-14S			
MW-6S			

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO. 015

VBLKGV

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Lab File ID: G0631.D Lab Sample ID: VBLKGV

Date Analyzed: 07/08/92 Time Analyzed: 2341

GC Column:007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5995G

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	FB630	0931021	G0633.D	0123
02	MW15D	0931022	G0634.D	0159
03	MW17D	0931023	G0635.D	0235
04	MW17S	0931024	G0636.D	0311
05	MW15S	0931025	G0637.D	0347
06	TB630	0931027	G0638.D	0423
07				
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09				
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COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: VBLKGV File ID: G0631

Purge: heated (non heated) Page ____ of ____

Analysis date/time: 7/8 92 2341

COMPOUND	CONCENTRATION	CRQL
CH2Cl2	2	10
Acetone	6	10

Acetone CRQL			
FB630			
MW15D			
MW17D			
MW17S			
MW15S			
TB630			

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKGX

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Lab File ID: G0666.D Lab Sample ID: VBLKGX

Date Analyzed: 07/10/92 Time Analyzed: 0957

GC Column:007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5995G

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW-14SMSD	0931031MSD	G0673.D	1450
02	MSBMW-14S	0931031MSB	G0674.D	1526
03	REP-2	0931032	G0675.D	1602
04	S-2684	0931036	G0677.D	1713
05	MW-7S	0931040	G0681.D	1936
06				
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COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: VBLKGx File ID: G0666

Purge: heated non heated Page ____ of ____

Analysis date/time: 7/10/92 09:57

COMPOUND	CONCENTRATION	CRQL
Acetone	8	10
2-Butanone	1	10

Acetone-CRQL	Acetone-U		
LEP-2	S-2684		
MW-75			

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKGY 017

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Lab File ID: G0683.D Lab Sample ID: VBLKGY

Date Analyzed: 07/10/92 Time Analyzed: 2259

GC Column:007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5995G

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	FB71	0931037	G0684.D	0009
02	S-66157	0931038	G0685.D	0056
03	MW-1S	0931039	G0686.D	0132
04	MW-19S	0931035	G0687.D	0208
05				
06				
07				
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COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: VBLKGY File ID: G0683

Purge: heated non heated Page _____ of _____

Analysis date/time: 7/10 1992 22:59

COMPOUND	CONCENTRATION	CRQL
CH_2Cl_2	5	10
Acetone	11	10
4-Met-2-Pent.	1	10

Acetone - CRQL	CH_2Cl_2 - CRQL		
FB71	MW-195		
S-66,67			
MW-195			

HEARTLAND ESI VOA 14 OLMO1.8

TRIP BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

10.11.94

Sample ID: TB630 File ID: ~~7.9.92~~ G0638

Purge: heated non heated Page ____ of ____

Analysis date/time: ~~7/9/92 0423~~ 10.11.94
7/10 92

COMPOUND	CONCENTRATION	CRQL
Dichloroethene	1	10
4-Met-2-Pent	0.8	10

Dichloroethene - CRQL		4-Met-2-Pent - CRQL	
MW15D			
MW17D			
MW20D			
REP-2			
MW15			
MW25			

092

TRIP BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: TB71 File ID: A1624

Purge: heated non heated Page ____ of ____

Analysis date/time: 7/9/92 17:38

COMPOUND	CONCENTRATION	CRQL
CH2Cl2	3	10
Tetrachloroethene	3	10
* Analyzed after	MS.	

CH2Cl2 - CRQL		Tetrachloroethene - CRQL	
MW-3D		MW-3D	
MW-16S		MW-16D	
MW-16D		MW-6S	
MW-2D		S-66157	
MW 14S		MW-1S	
LEP-2		MW-7S	
MW-6S			
MW 7S			

RINSEATE BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID:_____ File ID:_____

Purge:___heated___non heated___ Page _____ of _____

Analysis date/time:____/____/_____:____

COMPOUND	CONCENTRATION	CRQL

not identified

1,97

10

FIELD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: FB71 File ID: G0684

Purge: heated non heated Page _____ of _____

Analysis date/time: 7/11/98 10:09

COMPOUND	CONCENTRATION	CRQL
MB Cont.		

FIELD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: FB630 File ID: G0633

Purge: heated non heated Page ____ of ____

Analysis date/time: 7/9/92 01:23

COMPOUND	CONCENTRATION	CRQL
4-Met.-2-Pent.	2	10
2-hexanone	0.8	↓
1.1.2.2-TCA	0.8	
Toluene	0.2	

Toluene. CRQL			
MW-170			
REP-2			
MW-195			
8-2684			

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: IEA/CT Contract: 011

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKGV	98	104	97		0
02	FB630	99	100	87		0
03	MW15D	98	97	92		0
04	MW17D	101	104	83		0
05	MW17S	100	98	91		0
06	MW15S	98	104	88		0
07	TB630	97	102	88		0
08	VBLKA9	97	106	101		0
09	MW-3D	102	106	101		0
10	MW-16S	96	108	99		0
11	MW-16D	98	109	98		0
12	MW-2D	104	103	100		0
13	MW-14S	100	109	94		0
14	MW-14SMS	99	103	105		0
15	TB71	99	96	99		0
16	MW-6S	101	93	105		0
17	VBLKGX	102	99	104		0
18	MW-14SMSD	106	109	93		0
19	MSBMW-14S	100	106	86		0
20	REP-2	99	108	84		0
21	S-2684	94	104	82		0
22	MW-7S	102	97	84		0
23	VBLKGY	88	96	85		0
24	FB71	94	101	88		0
25	S-66157	96	99	87		0
26	MW-1S	96	100	84		0
27	MW-19S	104	105	85		0
28						
29						
30						

	QC LIMITS
SMC1 (TOL) = Toluene-d8	(88-110)
SMC2 (BFB) = Bromofluorobenzene	(86-115)
SMC3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

SURROGATE RECOVERY SUMMARY
VOLATILE ORGANIC FRACTION

1. Did all the surrogate recoveries for the blanks, QC samples, and field samples meet the acceptance criteria? (Yes) No

   If no, list all the samples and their respective surrogate recoveries that do not meet QA/QC criteria.

EPA SAMPLE NO.	TOL-d_8	BFB	DCE-d_4	QUALIFICATION

RECOVERY LIMITS

		WATER	SOIL
toluene-d_8	(TOL-d_8)	88-110	84-138
bromofluorobenzene	(BFB)	86-115	59-113
1,2-dichloroethane-d_4	(DCE-d_4)	76-114	70-121

NOTE: D - denotes that surrogate was diluted out.

Comments: _____

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931A SAS No.: SDG No.: A0931

Matrix Spike - EPA Sample No.: MW-14S

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	49	98	61-145
Trichloroethene	50	0	48	96	71-120
Benzene	50	2	53	102	76-127
Toluene	50	0	46	92	76-125
Chlorobenzene	50	0	51	102	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	50	100	2	14	61-145
Trichloroethene	50	44	88	9	14	71-120
Benzene	50	50	96	6	11	76-127
Toluene	50	47	94	2	13	76-125
Chlorobenzene	50	52	104	2	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

MATRIX SPIKE/ MATRIX SPIKE DUPLICATE SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: MW-14

Purge: heated non heated

Advisory Limits for Spike Recoveries:

	Water	Max RPD	Soil	Max RPD
1,1,-Dichloroethene	61-145	14	59-172	22
Trichloroethene	71-120	14	62-137	24
Benzene	76-127	11	66-142	21
Toluene	76-125	13	59-139	21
Chlorobenzene	75-130	13	60-133	21

1. Were the percent recoveries and the RPDs in compliance with the advisory limits?

Yes No

If no, list the non compliant MS/MSD information below as applicable.

COMPOUND	MS %REC.	MSD %REC.	RPD	QUALIFICATION
1,1-dichloroethene				
trichloroethene				
benzene				
toluene				
chlorobenzene				

10/19/94

* - denotes non-compliant % Recoveries or %RPD

Comments:

SAMPLE CALUCULATION
VOLATILE ORGANIC FRACTION

EPA SAMPLE ID: MW19S

COMPOUND: Trichloroethene

CONCENTRATION: 930 UNITS: (µg/L) µg/Kg

$$\frac{4913 \times 250 \times 20}{132633 \times 5 \times 0.399} = 928 \approx 930 \text{ µg/L}$$

EPA SAMPLE ID.: MW19S		STD. ID.: G0682
COMPOUND	RRT	STD. RRT
Chloroethane	0.520	0.527
1,1-DCA	0.827	0.827
1,2-DCE (total)	0.945	0.945
Trichloroethene	1.056	1.056
Benzene	0.932	0.932
Tetrachloroethene	0.911	0.911
Toluene	0.831	0.833
Total Xylene	1.067	1.066

3-ASP

VOLATILE MATRIX SPIKE BLANK RECOVERY SUMMARY

Lab Name: IEA-CT Lab Project No: 0931A

Lab Code: IEACT SDG Number: A0931

Client Sample No.: MW-145 Concentration Units: UG/L

COMPOUND	SPIKE ADDED	SAMPLE CONC.	MSB CONC.	MSB % Rec.	QC Limits % Rec.
1,1-Dichloroethene	50	0	44	88	61-145
Trichloroethene	50		46	92	71-120
Benzene	50		47	94	76-127
Toluene	50		45	90	76-125
Chlorobenzene	50		44	92	75-130

Spike Recovery: 0 out of 5 outside limits.

Comments:

HEARTLAND ESI VOA 20 OLMO1.0

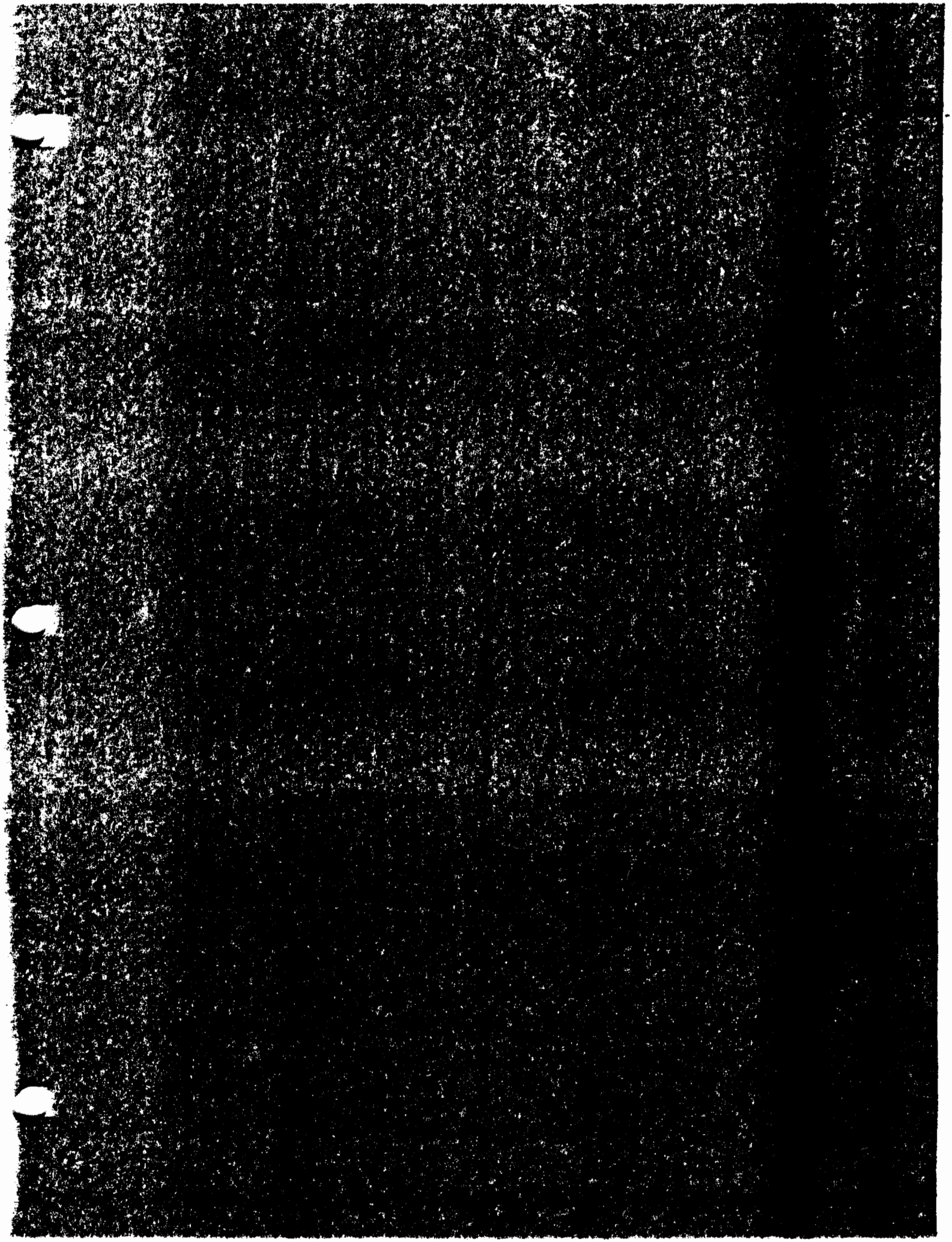
SAMPLE RESULT VERIFICATION
VOLATILE ORGANIC FRACTION

1. Were the sample results reported within the calibration range? (Yes) No
2. Were the percent moistures reported? Yes No (NR)
3. Were the data reported on a dry weight basis? Yes No (NR)
4. Did the GC/MS RIC and TIC exhibit interferences, off scale peaks or elevated baseline? Yes (No)
5. Did the data contain elevated detection limits that could not be accounted for? Yes (No)
6. Were any computational or transcription errors found? Yes (No)

Specific Comments:

* Blank MS recovery acceptable.

Reviewer: [signature] **Date:** 10/11/94



HEARTLAND ENVIRONMENTAL SERVICES, INC.
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Data Validation Report

October 12, 1994

Prepared for

Eder Associates
480 Forest Avenue
Locust Valley, NY 11560

This Data Validation Report is a review of the analytical results of sampling conducted in support of Eder Associates project on July 1, 1992 at the Fairchild Industries Main Plant RI. There were six (6) water samples, including one (1) trip blank and one (1) field blank, which were received and analyzed by IEA Laboratories, Connecticut, **SDG # B0931.**

Heartland ESI personnel have reviewed the data presented for the Samples listed below for the Analytical Fractions indicated. The CLP fractions have been validated utilizing: the "Laboratory Data Validation Functional Guidelines For Evaluating Organics Analysis, June, 1991; the "Laboratory Data Validation Functional Guideline for Evaluating Inorganic Analysis, July 1, 1988; specific method requirements in NYSDEC ASP Methods OLMO1.8 and ILMO2.1; NYSDEC Catagory B requirements; and good professional judgement.

Analytical data in this report were screened to determine usability of results and also to determine contractual compliance relative to these requirements and deliverables. This screening assumes analytical results are correct as reported and merely provides an interpretation of the reported quality control results. A minimum of 10% of all laboratory calculations have been verified as part of this validation. All instrument output, i.e. spectra, chromatogram, etc., for each sample have been carefully reviewed. The end-user is urged to review the **Specific Findings** and associated **Data Qualifications** presented in this report. Annotated Form Is for all samples reviewed are included after the **Narratives**. Form Is for MS/MSD samples are not annotated.

The release of this Data Validation Report is authorized by the following signature:

Craig H. Scofoss
for Eugene M. Watson, Vice President Heartland ESI

10·12·94
Date

HEARTLAND ENVIRONMENTAL SERVICES, INC.

SDG # B0931

SAMPLES AND FRACTIONS REVIEWED

Sample Identifications			Analytical Fractions
EDER ID	**IEA/CT ID**	**Matrix**	**VOA**
S-66133	0931042	WATER	X
MW-2S	0931041	WATER	X
S-3623	0931043	WATER	X
MW-19D	0931044	WATER	X
MW-7D	0931045	WATER	X
MW-6D	0931046	WATER	X

Total Samples (Water/Soil) 6/0

Total Billable Samples (Water/Soil) 6/0

MS - Matrix Spike MD - Matrix Spike/Matrix Duplicate

* - Non-billable sample

Individual fractions were reviewed as follows:

	Primary	Secondary
VOA - Volatiles (CLP, OLM01.8)	Dan Heil	Gene Watson

DATA ASSESSMENT NARRATIVE

VOLATILE ORGANICS

General

The organic findings offered in this screening report assumes that all analytical results are correct as reported and is based upon the examination of the reported holding times, blank analysis results, surrogate and matrix spike recoveries, GC/MS performance, tuning results, calibration results and internal standard areas. This report was prepared in compliance relative to the analytical and deliverable requirements specified in the U.S. EPA CLP, 3/90 SOW, NYSDEC 91-1 Modifications; the National Functional Guidelines for Organic Data Review, EPA DQO Level IV and NYSDEC Category B. All comments made within this report should be considered when examining the analytical results (Form I's).

SDG B0931

Holding Times

The analytical holding times for all of the samples exceeded the NYSDEC analytical holding times (seven (7) from VTSR). However, the analytical holding times met the Organic Functional Guidelines and the CLP SOW (fourteen (14) days from collection date).

Specific findings:

1. The samples listed below exceeded the NYSDEC analytical holding times by one (1) to two (2) days. Qualify all positive results as estimated (J).

   All samples

Tuning

All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria of the SOW and the Organic Functional Guidelines. No qualifications are required.

Initial Calibrations

The two (2) initial calibrations that were analyzed by the laboratory for these samples were not acceptable for all compound %RSDs. The average RRFs for all of the compounds met the initial calibration criteria of ≥ 0.05. Acetone, 2-butanone, 4-methyl-2-pentanone, and 2-hexanone exhibited %RSDs greater than 30% in the 7/08/92 initial calibration on instrument HP5995A; and chloroethane exhibited a %RSD greater than 30% in the 07/09/92 initial calibration on instrument HP5995G. However, no qualifications are required for these initial calibration since samples were not analyzed within the same tuning period.

Continuing Calibrations

The four (4) continuing calibrations that were analyzed with this data package exhibited %Ds that were not within %D continuing calibration criteria. All RRFs were within the calibration criteria ≥ 0.05.

Specific Finding:

2. The continuing calibration A1646 contained compounds with %Ds greater than 25%, but less than 50%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J).

VBLKAB	chloromethane
MW-7D	chloroethane
MW-19D	carbon disulfide
	2-butanone
	1,2-dichloropropane

3. The continuing calibration A1654 contained compounds with %Ds greater than 25%, but less than 50%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J).

VBLKAC	1,2-dichloropropane
S-66133	

Continuing Calibrations- continued

4. The continuing calibration A1654 contained compounds with %Ds greater than 50%, but less than 90%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J) and non detect results as estimated (UJ).

VBLKAC	2-butanone
S-66133	

5. The continuing calibration G0682 contained compounds with %Ds greater than 25%, but less than 50%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J).

VBLKGY	chloromethane
MW-2S	chloroethane
S-3623	
MW-6D	

Internal Standards

All of the internal standard EICP areas met the QA/QC limits. No qualifications are required.

Method Blanks

The three (3) method blanks that was analyzed exhibited contamination for methylene chloride and acetone that resulted in qualifications. The method blank results will be compared to their associated samples. Refer to the glossary of data qualifiers for a list and definition of the blank qualifiers: CRQL, U and No Action.

Specific findings:

6. The following samples have been qualified for blank contamination.

MW-19D	methylene chloride	+BJ CRQL 6
S-66133		
MW-2S		

Internal Standards - specific finding #6 continued

S-66133 MW-2S S-3623 MW-6D	acetone	+B	U	6
MW-19D	acetone	+B	U	6

Trip Blanks

A trip blank was not identified in this SDG by the laboratory.

Rinseate Blanks

A rinseate blank was not identified in this SDG by the laboratory.

Field Blanks

A field blank was not identified in this SDG by the laboratory.

Surrogates

All of the surrogate recoveries for the samples and blanks were not acceptable. No qualifications are required.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

The MS/MSD, MW-13S associated with SDG B0913, exhibited acceptable a low percent recovery for toluene in the MS. In addition, 1,1-dichloroethene exhibited a RPD greater than the advisory limits. However, qualifications are not required.

Blank Spikes

A blank spike was not analyzed with this SDG.

Duplicates

A field duplicate sample was not identified in this SDG.

Compound Identification/Quantitation

The laboratory reported low level (less than 1.0 μg/L) concentrations for several compounds. Low concentration results should be viewed by the end user as suspect due to possible laboratory and/or field contamination. No qualifications are required.

System Performance and Overall Assessment

The overall system performance was fair. The data reviewer estimates that less than 5% of the data is qualified.

GLOSSARY OF DATA QUALIFIERS

QUALIFICATION CODES

U = Not detected

J = Estimated value

UJ = Reported quantitation limit is qualified as estimated

R = Result is rejected and unusable

NJ = Presumptive evidence for the presence of the material at an estimated value

K = Result is biased high

L = Result is biased low

METHOD BLANK QUALIFICATION CODES

CRQL = The sample result for the blank contaminant is less than the sample CRQL and is less than 10X the method blank value. The sample result for the blank contaminant is rejected and the CRQL for that analyte is reported.

U = The sample result for the blank contaminant is greater than the sample CRQL and is less than 10X the method blank value. The sample result for the blank contaminant is qualified as non detected at the analyte value reported.

No Action = The sample result for the blank contaminant is greater than the sample CRQL and is greater than 10X the method blank value. The sample result for the blank contaminant is not qualified with any blank qualifiers.

The specific findings will be noted in numerical form on the Form Is in this data validation report. These specific finding footnotes will reflect the conclusions found in the data validation process that resulted in the qualification of the data.

SUMMARY OF DATA QUALIFICATIONS

SAMPLE ID	ANALYTE ID	DL	QL	SPECIFIC FINDINGS
All samples	all compounds	+	J	1
VBLKAB MW-7D MW-19D	chloromethane chloroethane carbon disulfide 2-butanone 1,2-dichloropropane	+	J	2
VBLKAC S-66133	1,2-dichloropropane	+	J	3
VBLKAC S-66133	2-butanone	+/-	J/UJ	4
VBLKGY MW-2S S-3623 MW-6D	chloromethane chloroethane	+	J	5
MW-19D S-66133 MW-2S	methylene chloride	+BJ	CRQL	6
S-66133 MW-2S S-3623 MW-6D	acetone	+B	U	6
MW-19D	acetone	+B	U	6

* DL denotes the Form I qualifier supplied by the laboratory
QL denotes the qualifier used by the data validation firm
+ in the DL column denotes a positive result
- in the DL column denotes a non detect result

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-66133

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931B SAS No.: SDG No.: B0931

Matrix: (soil/water) WATER Lab Sample ID: 0931042 022

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1657.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/12/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	50	U	
74-83-9	Bromomethane	50	U	
75-01-4	Vinyl Chloride	50	U	
75-00-3	Chloroethane	50	U	
75-09-2	Methylene Chloride	50 ~~7~~	~~JB~~	U 6
67-64-1	Acetone	50 ~~34~~	~~JB~~	U 6
75-15-0	Carbon Disulfide	50	U	
75-35-4	1,1-Dichloroethene	50	U	
75-34-3	1,1-Dichloroethane	50	U	
540-59-0	1,2-Dichloroethene (total)	44	J	
67-66-3	Chloroform	50	U	
107-06-2	1,2-Dichloroethane	50	U	
78-93-3	2-Butanone	50	U	U 5 4
71-55-6	1,1,1-Trichloroethane	50	U	
56-23-5	Carbon Tetrachloride	50	U	
75-27-4	Bromodichloromethane	50	U	
78-87-5	1,2-Dichloropropane	50	U	
10061-01-5	cis-1,3-Dichloropropene	50	U	
79-01-6	Trichloroethene	540		J 1
124-48-1	Dibromochloromethane	50	U	
79-00-5	1,1,2-Trichloroethane	50	U	
71-43-2	Benzene	50	U	
10061-02-6	trans-1,3-Dichloropropene	50	U	
75-25-2	Bromoform	50	U	
108-10-1	4-Methyl-2-Pentanone	50	U	
591-78-6	2-Hexanone	50	U	
127-18-4	Tetrachloroethene	10	J	
79-34-5	1,1,2,2-Tetrachloroethane	50	U	
108-88-3	Toluene	50	U	
108-90-7	Chlorobenzene	50	U	
100-41-4	Ethylbenzene	50	U	
100-42-5	Styrene	50	U	
1330-20-7	Xylene (total)	50	U	

1/01/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S-66133

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931B SAS No.: SDG No.: B0931

023

Matrix: (soil/water) WATER Lab Sample ID: 0931042

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1657.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/12/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931B SAS No.: SDG No.: B0931

032

Matrix: (soil/water) WATER Lab Sample ID: 0931041

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0688.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/11/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 ~~2~~	~~JB~~ U	U 6
67-64-1	Acetone	10 ~~8~~	~~JB~~ U	U 6
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	10		J/
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~~ 6	~~U~~ J	LMD 08/04/94
71-55-6	1,1,1-Trichloroethane	4	J	J/
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	1	J	J/
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	Xylene (total)	10	U	

FORM I VOA

3/90

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931B SAS No.: SDG No.: B0931

033

Matrix: (soil/water) WATER Lab Sample ID: 0931041

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0688.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/11/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 8 PSJ 08/04/94

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALKYLBENZENE	26.97	14	JBJ 08/04/94
2.		↓	24.01	12	
3.		↓	24.29	8	
4.		UNKNOWN BRANCHED ALKANE	15.55	8	
5.		UNKNOWN AROMATIC	26.01	7	
6.		UNKNOWN AROMATIC	26.55	6	
7.		UNKNOWN AROMATIC	25.78	6	
8.		UNKNOWN AROMATIC	27.62	6	
9.					
10.					
11.					
12.					
13.					
14.					
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29.					
30.					

10/2/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S-3623

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931B SAS No.: SDG No.: B0931

053

Matrix: (soil/water) WATER Lab Sample ID: 0931043

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0690.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/11/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 ~~7~~	~~JB~~ U 6
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	2	J J,
540-59-0	1,2-Dichloroethene (total)	2	J J,
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	3	J J/
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U J/
71-43-2	Benzene	2	J
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	6	J J/
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S-3623

0514

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931B SAS No.: SDG No.: B0931

Matrix: (soil/water) WATER Lab Sample ID: 0931043

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0690.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/11/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 4 PSy 08/04/99

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	556672	OCTAMETHYL CYCLOTETRASILOXANE	22.86	15	JN
2.	1634044	METHYL-TERT-BUTYL ETHER	7.99	13	JN
3.		UNKNOWN SILOXANE	25.70	9	J
4.		UNKNOWN	27.12	8	J
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
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29.					
30.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-19D 071

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931B SAS No.: SDG No.: B0931

Matrix: (soil/water) WATER Lab Sample ID: 0931044

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1652.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/11/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	100	U
74-83-9	Bromomethane	100	U
75-01-4	Vinyl Chloride	100	U
75-00-3	Chloroethane	100	U
75-09-2	Methylene Chloride	100 15	JB 06
67-64-1	Acetone	120	B 06
75-15-0	Carbon Disulfide	100	U
75-35-4	1,1-Dichloroethene	100	U
75-34-3	1,1-Dichloroethane	100	U
540-59-0	1,2-Dichloroethene (total)	100	U
67-66-3	Chloroform	100	U
107-06-2	1,2-Dichloroethane	100	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	100	U
56-23-5	Carbon Tetrachloride	100	U
75-27-4	Bromodichloromethane	100	U
78-87-5	1,2-Dichloropropane	100	U
10061-01-5	cis-1,3-Dichloropropene	100	U
79-01-6	Trichloroethene	100	U
124-48-1	Dibromochloromethane	100	U
79-00-5	1,1,2-Trichloroethane	100	U
71-43-2	Benzene	100	U
10061-02-6	trans-1,3-Dichloropropene	100	U
75-25-2	Bromoform	100	U
108-10-1	4-Methyl-2-Pentanone	100	U
591-78-6	2-Hexanone	100	U
127-18-4	Tetrachloroethene	1800	J1
79-34-5	1,1,2,2-Tetrachloroethane	100	U
108-88-3	Toluene	100	U
108-90-7	Chlorobenzene	100	U
100-41-4	Ethylbenzene	100	U
100-42-5	Styrene	100	U
1330-20-7	Xylene (total)	100	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. 072

MW-19D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931B SAS No.: SDG No.: B0931

Matrix: (soil/water) WATER Lab Sample ID: 0931044

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1652.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/11/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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29.					
30.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-7D 079

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931B SAS No.: SDG No.: B0931

Matrix: (soil/water) WATER Lab Sample ID: 0931045

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1650.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/11/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	0.8	J	J1
540-59-0	1,2-Dichloroethene (total)	3	J	J1
67-66-3	Chloroform	10	U	
107-06-2	1,2-Dichloroethane	10	U	
78-93-3	2-Butanone	15		J2,1
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 ~~20~~	U	LHD 8/04/94
10061-01-5	cis-1,3-Dichloropropene	10	U	J1
79-01-6	Trichloroethene	1	J	
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	Xylene (total)	10	U	

10/28/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. 080

MW-7D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931B SAS No.: SDG No.: B0931

Matrix: (soil/water) WATER Lab Sample ID: 0931045

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1650.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/11/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1 PFM 08/04/94

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALDEHYDE	8.86	8	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-6D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931B SAS No.: SDG No.: B0931

Matrix: (soil/water) WATER Lab Sample ID: 0931046

092

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0693.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/11/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 ~~6~~	~~JB~~	U6
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	1	J	J/
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	11		J/
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	2	J	J/
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	Xylene (total)	10	U	

7/01/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-6D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931B SAS No.: SDG No.: B0931

093

Matrix: (soil/water) WATER Lab Sample ID: 0931046

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0693.D

Level: (low/med) LOW Date Received: 07/02/92

% Moisture: not dec. _____ Data Analyzed: 07/11/92

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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30.					

HEARTLAND ESI VOA 1 OLMO1.8

QA/QC LEVEL

- ☐ NEESA C
- ☐ NEESA D
- ☐ DQO LEVEL III
- ☐ DQO LEVEL IV
- ☑ NYSDEC B

CASE NUMBER: 50931
LABORATORY: IEA - CT
PROJECT: FAIRCHILD REPUBLIC
REVIEWER: [signature]
DATE: 10.11.94
ANALYSIS MODIFICATIONS: NYSDEC

VOLATILE HOLDING TIMES

1. Was the holding time exceeded on any volatile analysis?

Yes No

If yes, complete the following form for all samples that exceeded holding times.

EPA SAMPLE NO.	MATRIX	VSTR OR DATE SAMP	DATE OF ANALYSIS	DA	QUALIFICATION
All Samples	WATER	7.2.92	7.11.94	2	J
NYSDEC — Holding Times 7 days VTSR					

Holding Times:

CLP	=	10 days from VSTR
Non CLP	=	14 days from date of sampling
Region I	=	10 days from VSTR (Aqueous and Non Aqueous)

NOTE: DA - The number of days that the holding time was exceeded.

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC ANALYSIS

Associated Samples and Blanks: None

A. **BFB GC/MS Tuning** 92

Injection Date: 7/8/94 10:11:94 Injection Time: 8:21 Heated: Y (N)

Instrument ID: HP5971A File ID: A1598

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No
If no, reject all associated data and list all affected samples:

B. **Calibration**

1. Date(s) of calibration: 7.8.94

RRF010 File ID: A1591

RRF020 File ID: A1592

RRF050 File ID: A1590

RRF100 File ID: A1593

RRF200 File ID: A1596

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum average RRF criteria are within the CLP guidelines? (Yes) No

If no, enter the laboratory average RRF. If a compound has an average RRF less than 0.05, for samples anayzed within the initial calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %RSD criteria are within the CLP guidelines? Yes (No)

If no, enter the laboratory %RSD. For the samples analyzed within the initial calibration tuning period, qualify positive results for that analyte as estimated (J). Non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
chloromethane	0.050		30.0		
bromomethane	0.100		30.0		
vinyl chloride	0.100		30.0		
chloroethane	0.050		30.0		
methylene chloride	0.050		30.0		
acetone	0.050		30.0	44.1	J
carbon disulfide	0.050		30.0		
1,1-dichloroethene	0.100		30.0		
1,1-dichloroethane	0.200		30.0		
1,2-dichloroethene (total)	0.050		30.0		
chloroform	0.200		30.0		
1,2-dichloroethane	0.100		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
2-butanone	0.050		30.0	40.6	J
1,1,1-trichloroethane	0.100		30.0		
carbon tertachloride	0.100		30.0		
bromodichloromethane	0.200		30.0		
1,2-dichloropropane	0.050		30.0		
cis-1,3-dichloropropene	0.200		30.0		
trichloroethene	0.300		30.0		
dibromochloromethane	0.100		30.0		
1,1,2-trichloroethane	0.100		30.0		
benzene	0.500		30.0		
trans-1,3-dichloropropene	0.100		30.0		
bromoform	0.100		30.0		
4-methyl-2-pentanone	0.050		30.0	35.2	J
2-hexanone	0.050		30.0	50.1	J
tetrachloroethene	0.200		30.0		
1,1,2,2-tetrachloroethane	0.500		30.0		
toluene	0.400		30.0		
chlorobenzene	0.500		30.0		
ethylbenzene	0.100		30.0		
styrene	0.300		30.0		
xylene (total)	0.300		30.0		
toluene-d_8	0.050		30.0		
bromofluorobenzene	0.200		30.0		
1,2-dichloroethane-d_4	0.050		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calcualtions:

c. Calculate the RRF of one of the standards for one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: Chloroform VSTD010

Lab Value: 3.672

$$\frac{1761 \times 50}{23985 \times 10} = 3.672$$

d. Calculate the %RSD of one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: 2-Hexanone

Lab Value: 50.1%

SD = 0.194

$\sqrt{\ } = 0.386$

$$\frac{0.194}{0.386} \times 100 = 50.1\%$$

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC ANALYSIS

Associated Samples and Blanks: None

A. **BFB GC/MS Tuning**

Injection Date: 7/9/92 Injection Time: 09:10 Heated: Y (N)

Instrument ID: HP5995G File ID: GB837

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No
If no, reject all associated data and list all affected samples:

B. **Calibration**

1. Date(s) of calibration: 7.9.92

RRF010 File ID: G0650

RRF020 File ID: G0651

RRF050 File ID: G0655

RRF100 File ID: G0652

RRF200 File ID: G0653

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum average RRF criteria are within the CLP guidelines? (Yes) No

If no, enter the laboratory average RRF. If a compound has an average RRF less than 0.05, for samples anayzed within the initial calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %RSD criteria are within the CLP guidelines? Yes (No)

If no, enter the laboratory %RSD. For the samples analyzed within the initial calibration tuning period, qualify positive results for that analyte as estimated (J). Non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
chloromethane	0.050		30.0		
bromomethane	0.100		30.0		
vinyl chloride	0.100		30.0		
chloroethane	0.050		30.0	35.8	
methylene chloride	0.050		30.0		
acetone	0.050		30.0		
carbon disulfide	0.050		30.0		
1,1-dichloroethene	0.100		30.0		
1,1-dichloroethane	0.200		30.0		
1,2-dichloroethene (total)	0.050		30.0		
chloroform	0.200		30.0		
1,2-dichloroethane	0.100		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
2-butanone	0.050		30.0		
1,1,1-trichloroethane	0.100		30.0		
carbon tertachloride	0.100		30.0		
bromodichloromethane	0.200		30.0		
1,2-dichloropropane	0.050		30.0		
cis-1,3-dichloropropene	0.200		30.0		
trichloroethene	0.300		30.0		
dibromochloromethane	0.100		30.0		
1,1,2-trichloroethane	0.100		30.0		
benzene	0.500		30.0		
trans-1,3-dichloropropene	0.100		30.0		
bromoform	0.100		30.0		
4-methyl-2-pentanone	0.050		30.0		
2-hexanone	0.050		30.0		
tetrachloroethene	0.200		30.0		
1,1,2,2-tetrachloroethane	0.500		30.0		
toluene	0.400		30.0		
chlorobenzene	0.500		30.0		
ethylbenzene	0.100		30.0		
styrene	0.300		30.0		
xylene (total)	0.300		30.0		
toluene-d_8	0.050		30.0		
bromofluorobenzene	0.200		30.0		
1,2-dichloroethane-d_4	0.050		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calcualtions:

c. Calculate the RRF of one of the standards for one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: Same form VSTD020

Lab Value: 0.265

$$\frac{17294 \times 50}{163185 \times 20} = 0.265$$

d. Calculate the %RSD of one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: Chloroethane

Lab Value: 35.8%

SD = 0.274

$\bar{X}$ = 0.764

$$\frac{0.274}{0.764} \times 100 = 35.8\%$$

=

GC/MS TUNING AND CONTINUING MASS CALIBRATION VOLATILE ORGANIC FRACTION

Associated Samples and Blanks: VBLAB, MW-7D, -19D

A. BFB GC/MS Tuning

Injection Date: 7/11/92 Injection Time: 09:43 Heated: Y (N)

Instrument ID: HP5971A File ID: AB805

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No

If no, reject all associated data and list all affected samples:

B. Calibration

1. Date of calibration: 7.11.92

RRF050 File ID: A1646

Date(s) of Initial Calibration: 7.8.92

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum RRF criteria are within the CLP guidelines
(Yes) No

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples anayzed within the continuing calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines:
Yes (No)

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive values as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
chloromethane	0.050		25.0	-35.4	J
bromomethane	0.100		25.0	--	
vinyl chloride	0.100		25.0		
chloroethane	0.050		25.0	-31.8	J
methylene chloride	0.050		25.0		
acetone	0.050		25.0		
carbon disulfide	0.050		25.0	-29.8	J
1,1-dichloroethene	0.100		25.0		
1,1-dichloroethane	0.200		25.0		
1,2-dichloroethene (total)	0.050		25.0		
chloroform	0.200		25.0		
1,2-dichloroethane	0.100		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-butanone	0.050		25.0	-41.0	J
1,1,1-trichloroethane	0.100		25.0		
carbon tetrachloride	0.100		25.0		
bromodichloromethane	0.200		25.0		
1,2-dichloropropane	0.050		25.0	-28.8	J
cis-1,3-dichloropropene	0.200		25.0		
trichloroethene	0.300		25.0		
dibromochloromethane	0.100		25.0		
1,1,2-trichloroethane	0.100		25.0		
benzene	0.500		25.0		
trans-1,3-dichloropropene	0.100		25.0		
bromoform	0.100		25.0		
4-methyl-2-pentanone	0.050		25.0		
2-hexanone	0.050		25.0		
tetrachlorethene	0.200		25.0		
1,1,2,2-tetrachloroethane	0.500		25.0	--	
toluene	0.400		25.0		
chlorobenzene	0.500		25.0		
ethylbenzene	0.100		25.0		
styrene	0.300		25.0		
xylenes (total)	0.300		25.0		
toluene-d_8	0.050		25.0		
bromofluorobenzene	0.200		25.0		
1,2-dichloroethane-d_4	0.050		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calculations

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: Benzene

Lab Value: 1.375

$$\frac{152687 \times 50}{111026 \times 50} = 1.375$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: 1,1,2,2-tetrachloroethane

Lab Value: -3.9%

$$\frac{0.562 - 0.583}{0.562} \times 100 = -3.7\%$$

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

Associated Samples and Blanks: VBLAC, 5-66133

A. BFB GC/MS Tuning

Injection Date: 7/12/92 Injection Time: 10:18 Heated: Y (N)

Instrument ID: HP5971A File ID: AB806

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

---

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No

If no, reject all associated data and list all affected samples:

B. Calibration

1. Date of calibration: 7.12.92

RRF050 File ID: A1657

Date(s) of Initial Calibration: 7.8.92

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum RRF criteria are within the CLP guidelines
(Yes) No

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples anayzed within the continuing calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines:
Yes (No)

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive values as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
chloromethane	0.050		25.0		
bromomethane	0.100		25.0	--	
vinyl chloride	0.100		25.0		
chloroethane	0.050		25.0		
methylene chloride	0.050		25.0		
acetone	0.050		25.0		
carbon disulfide	0.050		25.0		
1,1-dichloroethene	0.100		25.0		
1,1-dichloroethane	0.200		25.0		
1,2-dichloroethene (total)	0.050		25.0		
chloroform	0.200		25.0		
1,2-dichloroethane	0.100		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-butanone	0.050		25.0	-51.8	J/UJ
1,1,1-trichloroethane	0.100		25.0		
carbon tetrachloride	0.100		25.0		
bromodichloromethane	0.200		25.0		
1,2-dichloropropane	0.050		25.0	-28.5	J
cis-1,3-dichloropropene	0.200		25.0		
trichloroethene	0.300		25.0		
dibromochloromethane	0.100		25.0		
1,1,2-trichloroethane	0.100		25.0		
benzene	0.500		25.0		
trans-1,3-dichloropropene	0.100		25.0		
bromoform	0.100		25.0		
4-methyl-2-pentanone	0.050		25.0		
2-hexanone	0.050		25.0		
tetrachlorethene	0.200		25.0		
1,1,2,2-tetrachloroethane	0.500		25.0	--	
toluene	0.400		25.0		
chlorobenzene	0.500		25.0		
ethylbenzene	0.100		25.0		
styrene	0.300		25.0		
xylenes (total)	0.300		25.0		
toluene-d_8	0.050		25.0		
bromofluorobenzene	0.200		25.0		
1,2-dichloroethane-d_4	0.050		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calculations

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: Vinyl Chloride

Lab Value: 1.647

$$\frac{3387 \times 50}{21490 \times 10} = 1.647$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: 1,2-Dichloropropane

Lab Value: -28.5%

$$\frac{0.449 - 0.576}{0.449} \times 100 = -28.3\%$$

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

Associated Samples and Blanks: VBLKGY, MW-25, 5-3623, MW-6D

A. BFB GC/MS Tuning

Injection Date: 7/10/92 Injection Time: 20:32 Heated: Y (N)

Instrument ID: HP5995G File ID: GB839

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No

If no, reject all associated data and list all affected samples:

B. Calibration

1. Date of calibration: 7-10-92

RRF050 File ID: G0682

Date(s) of Initial Calibration: 7-9-92

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum RRF criteria are within the CLP guidelines
Yes (No)

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples anayzed within the continuing calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines:
Yes (No)

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive values as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
chloromethane	0.050		25.0	30.1	J
bromomethane	0.100		25.0	--	
vinyl chloride	0.100		25.0		
chloroethane	0.050		25.0	47.3	J
methylene chloride	0.050		25.0		
acetone	0.050		25.0		
carbon disulfide	0.050		25.0		
1,1-dichloroethene	0.100		25.0		
1,1-dichloroethane	0.200		25.0		
1,2-dichloroethene (total)	0.050		25.0		
chloroform	0.200		25.0		
1,2-dichloroethane	0.100		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-butanone	0.050		25.0		
1,1,1-trichloroethane	0.100		25.0		
carbon tetrachloride	0.100		25.0		
bromodichloromethane	0.200		25.0		
1,2-dichloropropane	0.050		25.0		
cis-1,3-dichloropropene	0.200		25.0		
trichloroethene	0.300		25.0		
dibromochloromethane	0.100		25.0		
1,1,2-trichloroethane	0.100		25.0		
benzene	0.500		25.0		
trans-1,3-dichloropropene	0.100		25.0		
bromoform	0.100		25.0		
4-methyl-2-pentanone	0.050		25.0		
2-hexanone	0.050		25.0		
tetrachlorethene	0.200		25.0		
1,1,2,2-tetrachloroethane	0.500	6.492	25.0	--	Solution >0.01
toluene	0.400		25.0		
chlorobenzene	0.500		25.0		
ethylbenzene	0.100		25.0		
styrene	0.300		25.0		
xylenes (total)	0.300		25.0		
toluene-d_8	0.050		25.0		
bromofluorobenzene	0.200		25.0		
1,2-dichloroethane-d_4	0.050		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calculations

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: Vinyl Chloride

Lab Value: 0.870

$$\frac{24711 \times 50}{28392 \times 50} = 0.870$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: Chloromethane

Lab Value: 36.5%

$$\frac{0.367 - 0.255}{0.367} \times 100. \quad 30.5\%$$

INTERNAL STANDARD AREA SUMMARY
VOLATILE ORGANIC FRACTION

1. Is the EICP area for each internal standard in all associated field samples, QC samples, and blanks within - 50% and + 100% of the respective internal standard EICP areas? (Yes) No

If the EICP area of one (1) or more internal standard is less than -50%:
- Positive results for those compounds that are quantified using the particular internal standard are flagged as estimated (J).
- Non detected for that fraction are flagged with the sample quantitation limit classified as estimated (UJ).

If the EICP area of one (1) or more internal standards is greater than +100%:
- Positive results for those compounds that are quantified using the particular internal standard are flagged as estimated (J).

If no, list non-compliant sample IDs and areas below.

Standard ID: All Standards.

	BCM	RT	1,4-DFB	RT	CBZ-d_5	RT
12-HOUR STD						
UPPER LIMIT					-	
LOWER LIMIT						
EPA SAMPLE NO.						

10/19/94

040A

METHOD BLANK SUMMARY
VOLATILE ORGANIC FRACTION

1. Blank qualification guidelines:

   a) If a compound is found in the blank but not in the sample, no action is taken.

   b) Any compound (other than the four (4) listed below) detected in the sample, which was also detected in the associated blank, must be qualified by elevating the limit of detection or adjusting the limit of detection to the sample result, when the sample concentration is less than five (5) times the blank concentration. For the following four (4) compounds, the results are qualified by elevating the limit of detection or adjusting the limit of detection to the sample result, when the sample concentration is less than ten (10) times the blank concentration.

   Common laboratory contaminants: methylene chloride
   acetone
   2-butanone

   c) The reviewer should take note that the blank analysis may not involve the same weights, volumes or dilution factors as associated samples. These factors must be taken into consideration when applying the 5X and 10X criteria.

   d) In addition, the reviewer must review the trip blanks, rinseate blanks and field blanks (if they were submitted with the data package) and all associated samples. Apply the same data validation guidelines used in assessing the method blanks.

   e) Qualification/Action codes:

      U - The sample result is greater than the CRQL and less than ten times (10X) the blank value. Cross out the "B" flag and qualify the sample result with a "U".

      CRQL - The sample result is less than the CRQL and less than ten times (10X) the blank value. Reject the sample result, cross out the "B" flag, and report the CRQL.

      No Action - The sample result is greater than the CRQL and greater than ten times (10X) the blank value.

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKAB

009

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931B SAS No.: SDG No.: B0931

Lab File ID: A1648.D Lab Sample ID: VBLKAB

Date Analyzed: 07/11/92 Time Analyzed: 1152

GC Column:007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5995A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW-7D	0931045	A1650.D	1329
02	MW-19D	0931044	A1652.D	1511
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
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30				

COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: VBLKAB File ID: A1648

Purge: heated (non heated) Page ____ of ____

Analysis date/time: 7/11/92 11:12

COMPOUND	CONCENTRATION	CRQL
CH2Cl2	2	10
Acetone	10	10

CH2Cl2-CLOG	Acetone-U		
MW-19D	MW-19D		

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKAC

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931B SAS No.: SDG No.: B0931

Lab File ID: A1655.D Lab Sample ID: VBLKAC

Date Analyzed: 07/12/92 Time Analyzed: 1208

GC Column:007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5995A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	S-66133	0931042	A1657.D	1416
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
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COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: VBLKAC File ID: A16TT

Purge: heated non heated Page ____ of ____

Analysis date/time: 7/12/92 12:08

COMPOUND	CONCENTRATION	CRQL
CH_2Cl_2	2	10
Acetone	10	1
Chloroform	1	1
2-hexanone	2	1

CH_2Cl_2 - CRQ	Acetone CRQ		
5.66133	5.66133		

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO. 011

VBLKGY

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931B SAS No.: SDG No.: B0931

Lab File ID: G0683.D Lab Sample ID: VBLKGY

Date Analyzed: 07/10/92 Time Analyzed: 2259

GC Column:007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5995G

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW-2S	0931041	G0688.D	0243
02	S-3623	0931043	G0690.D	0355
03	MW-6D	0931046	G0693.D	0542
04				
05				
06				
07				
08				
09				
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COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: VBLKGY File ID: G0683

Purge: heated non heated Page ____ of ____

Analysis date/time: 7/10/98 2215

COMPOUND	CONCENTRATION	CRQL
CH2Cl2	1	10
Acetone	15	1
4-Met. 2-Pent	1	1

CH2Cl2 - CRQL	Acetone - CRQL		
MW-25	MW25		
	5-3623		
	MW6D		

HEARTLAND ESI VOA 14 OLMO1.8

TRIP BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID:__________ File ID:__________

Purge:___ heated ___ non heated ___ Page ___ of ___

Analysis date/time:___/___/___ ___:___

COMPOUND	CONCENTRATION	CRQL
not identified w/ this SDG		

JW 10/1/94

RINSEATE BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID:_____ File ID:_____

Purge:___heated___non heated___ Page ____ of ____

Analysis date/time:___/___/____:____

COMPOUND	CONCENTRATION	CRQL
Not identified in this SDG		

HEARTLAND ESI VOA 16 OLMO1.8

FIELD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID:_____ File ID:_____

Purge: heated non heated Page _____ of _____

Analysis date/time:__/__/____:____

COMPOUND	CONCENTRATION	CRQL
Not identified as / this SDG		

10/1/94

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: IEA/CT Contract: 007

Lab Code: IEACT Case No.: 0931B SAS No.: SDG No.: B0931

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKGY	88	96	85		0
02	MW-2S	93	96	87		0
03	S-3623	92	99	91		0
04	MW-6D	94	100	85		0
05	VBLKAB	98	91	90		0
06	MW-7D	106	98	87		0
07	MW-19D	97	98	93		0
08	VBLKAC	104	102	102		0
09	S-66133	100	104	95		0
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	QC LIMITS
SMC1 (TOL) = Toluene-d8	(88-110)
SMC2 (BFB) = Bromofluorobenzene	(86-115)
SMC3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

SURROGATE RECOVERY SUMMARY
VOLATILE ORGANIC FRACTION

1. Did all the surrogate recoveries for the blanks, QC samples, and field samples meet the acceptance criteria? (Yes) No

   If no, list all the samples and their respective surrogate recoveries that do not meet QA/QC criteria.

EPA SAMPLE NO.	TOL-d_8	BFB	DCE-d_4	QUALIFACATION

RECOVERY LIMITS

		WATER	SOIL
toluene-d_8	(TOL-d_8)	88-110	84-138
bromofluorobenzene	(BFB)	86-115	59-113
1,2-dichloroethane-d_4	(DCE-d_4)	76-114	70-121

NOTE: D - denotes that surrogate was diluted out.

Comments: _____

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 09315 SAS No.: SDG No.: Z0931

Matrix Spike - EPA Sample No.: MW-13S

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	49	98	61-145
Trichloroethene	50	29	71	84	71-120
Benzene	50	0.7	48	95	76-127
Toluene	50	0.4	37	73*	76-125
Chlorobenzene	50	0.8	40	78	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	59	118	18*	14	61-145
Trichloroethene	50	68	78	7	14	71-120
Benzene	50	44	87	9	11	76-127
Toluene	50	39	77	5	13	76-125
Chlorobenzene	50	45	88	12	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 5 outside limits
Spike Recovery: 1 out of 10 outside limits

COMMENTS: _____

MATRIX SPIKE/ MATRIX SPIKE DUPLICATE SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: MW-13S associated w/ SDG 09136

Purge: heated non heated

Advisory Limits for Spike Recoveries:

	Water	Max RPD	Soil	Max RPD
1,1,-Dichloroethene	61-145	14	59-172	22
Trichloroethene	71-120	14	62-137	24
Benzene	76-127	11	66-142	21
Toluene	76-125	13	59-139	21
Chlorobenzene	75-130	13	60-133	21

1. Were the percent recoveries and the RPDs in compliance with the advisory limits?

Yes No

If no, list the non compliant MS/MSD information below as applicable.

COMPOUND	MS %REC.	MSD %REC.	RPD	QUALIFICATION
1,1-dichloroethene			18	no action
trichloroethene				
benzene				
toluene	73			no action
chlorobenzene				

* - denotes non-compliant % Recoveries or %RPD

Comments:

HEARTLAND ESI VOA 19 OLMO1.8

SAMPLE CALUCULATION
VOLATILE ORGANIC FRACTION

EPA SAMPLE ID: MW-25

COMPOUND: 1,1-Dichloroethane

CONCENTRATION: 10 UNITS: (µg/L) µg/Kg

$$\frac{16992 \times 250}{2715 \times 5 \times 3.253} = 10 \text{ µg/L}$$

EPA SAMPLE ID.: MW-25		STD. ID.: 60682
COMPOUND	RRT	STD. RRT
1,1-DCA	0.827	0.827
1,1,1-TCA	0.867	0.867
TCE	0.911	0.911

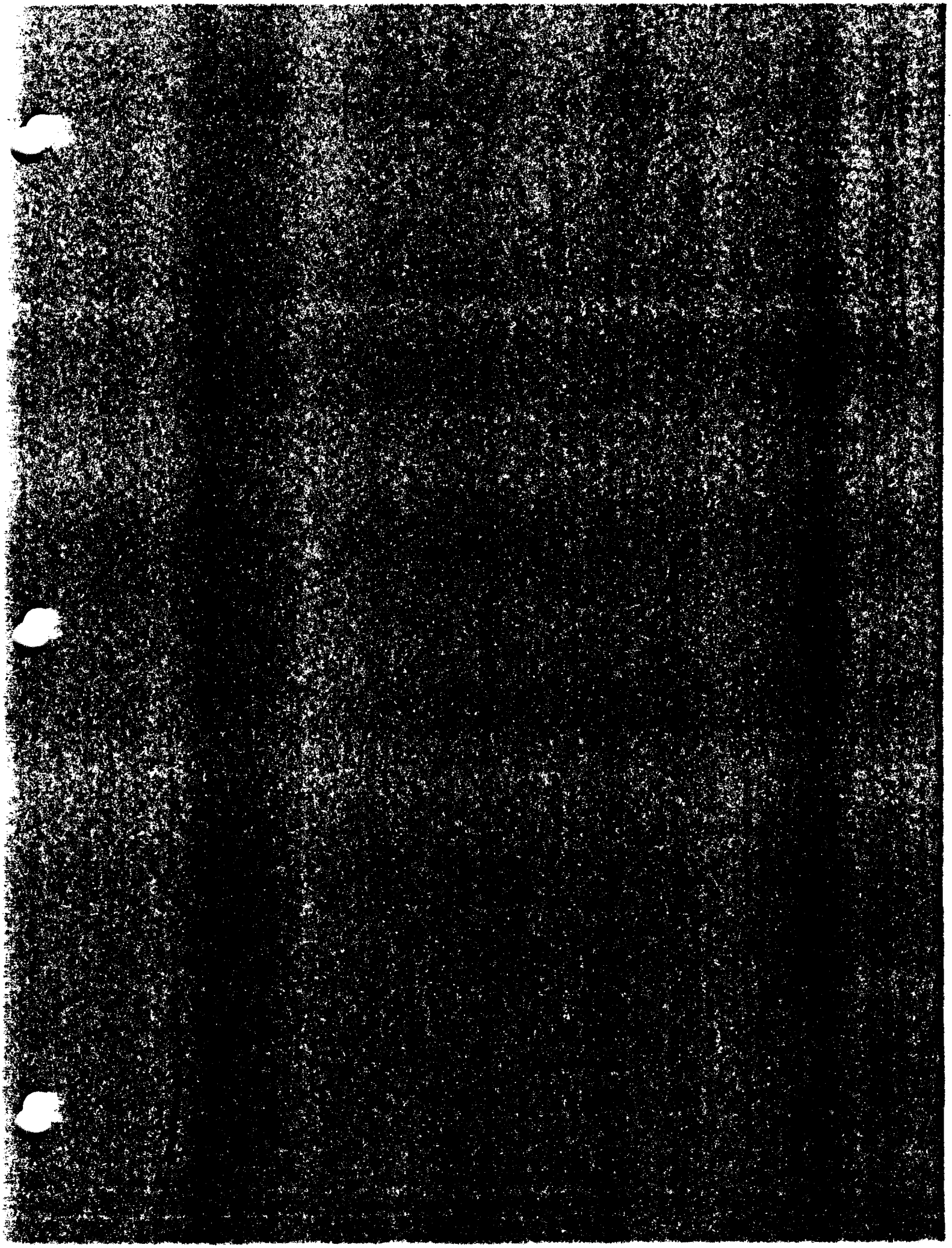
SAMPLE RESULT VERIFICATION
VOLATILE ORGANIC FRACTION

1. Were the sample results reported within the calibration range? (Yes) No
2. Were the percent moistures reported? Yes No (NR)
3. Were the data reported on a dry weight basis? Yes No (NR)
4. Did the GC/MS RIC and TIC exhibit interferences, off scale peaks or elevated baseline? Yes (No)
5. Did the data contain elevated detection limits that could not be accounted for? Yes (No)
6. Were any computational or transcription errors found? Yes (No)

Specific Comments: _____

10/11/94

Reviewer: _____ **Date:** 10/11/94



HEARTLAND ENVIRONMENTAL SERVICES, INC.
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Data Validation Report

October 12, 1994

Prepared for

Eder Associates
480 Forest Avenue
Locust Valley, NY 11560

This Data Validation Report is a review of the analytical results of sampling conducted in support of Eder Associates project on June 29, 1992 at the Fairchild Industries Main Plant RI. There were nineteen (19) water samples, including one (1) trip blank and one (1) field blank, with one (1) MS/MSD pair, which were received and analyzed by IEA Laboratories, Connecticut, **SDG # Z0931.**

Heartland ESI personnel have reviewed the data presented for the Samples listed below for the Analytical Fractions indicated. The CLP fractions have been validated utilizing: the "Laboratory Data Validation Functional Guidelines For Evaluating Organics Analysis, June, 1991; the "Laboratory Data Validation Functional Guideline for Evaluating Inorganic Analysis, July 1, 1988; specific method requirements in NYSDEC ASP Methods OLM01.8 and ILM02.1; NYSDEC Catagory B requirements; and good professional judgement.

Analytical data in this report were screened to determine usability of results and also to determine contractual compliance relative to these requirements and deliverables. This screening assumes analytical results are correct as reported and merely provides an interpretation of the reported quality control results. A minimum of 10% of all laboratory calculations have been verified as part of this validation. All instrument output, i.e. spectra, chromatogram, etc., for each sample have been carefully reviewed. The end-user is urged to review the **Specific Findings** and associated **Data Qualifications** presented in this report. Annotated Form Is for all samples reviewed are included after the **Narratives**. Form Is for MS/MSD samples are not annotated.

The release of this Data Validation Report is authorized by the following signature:

Craig H. Sederholm for
Eugene M. Watson, Vice President Heartland ESI

10·12·94
Date

HEARTLAND ENVIRONMENTAL SERVICES, INC.

SDG # Z0931

SAMPLES AND FRACTIONS REVIEWED

Sample Identifications			Analytical Fractions
EDER ID	**IEA/CT ID**	**Matrix**	**VOA**
MW-18D	0931001	WATER	X
MW-8D	0931002	WATER	X
0S-2	0931003	WATER	X
MW-10S	0931004	WATER	X
MW-9D	0931005	WATER	X
MW-10D	0931006	WATER	X
MW-8S	0931007	WATER	X
MW-11S	0931008	WATER	X
MW-13D	0931009	WATER	X
MW-11D	0931010	WATER	X
MW-13S	0931011	WATER	X
MW-13SMS	0931011MS	WATER	X
MW-13SMSD	0931011MSD	WATER	X
MW-9S	0931012	WATER	X
REP-1	0931013	WATER	X
MW-18S	0931014	WATER	X
FB629	0931016	WATER	X
TB628	0931017	WATER	X
MW-15 15	0931018	WATER	X
MW-3S	0931019	WATER	X
MW-14D	0931020	WATER	X

Total Samples (Water/Soil) 21/0

Total Billable Samples (Water/Soil) 21/0

MS - Matrix Spike MD - Matrix Spike/Matrix Duplicate

* - Non-billable sample

Individual fractions were reviewed as follows:

	Primary	Secondary
VOA - Volatiles (CLP, OLM01.8)	Dan Heil	Gene Watson

DATA ASSESSMENT NARRATIVE

VOLATILE ORGANICS

General

The organic findings offered in this screening report assumes that all analytical results are correct as reported and is based upon the examination of the reported holding times, blank analysis results, surrogate and matrix spike recoveries, GC/MS performance, tuning results, calibration results and internal standard areas. This report was prepared in compliance relative to the analytical and deliverable requirements specified in the U.S. EPA CLP, 3/90 SOW, NYSDEC 91-1 Modifications; the National Functional Guidelines for Organic Data Review, EPA DQO Level IV and NYSDEC Category B. All comments made within this report should be considered when examining the analytical results (Form I's).

SDG Z0931

Holding Times

The analytical holding times for all of the samples exceeded the NYSDEC analytical holding times (seven (7) from collection). However, the analytical holding times met the Organic Functional Guidelines and the CLP SOW (fourteen (14) days from collection date).

Specific findings:

1. The samples listed below exceeded the NYSDEC analytical holding times by one (1) to two (2) days. Qualify all positive results as estimated (J).

   All samples except
   MW-8D
   MW-9D
   MW-15
   MW-14D
   OS-2

Tuning

All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria of the SOW and the Organic Functional Guidelines. No qualifications are required.

Initial Calibrations

The three (3) initial calibrations that were analyzed by the laboratory for these samples were not acceptable for all compound %RSDs. The average RRFs for all of the compounds met the initial calibration criteria of ≥ 0.05. Chloromethane exhibited a %RSD greater than 30% in the 7/05/92 initial calibration; acetone and 2-butanone exhibited %RSDs greater than 30% in the 07/08/92 initial calibration on instrument HP5995G. However, no qualifications are required for these initial calibration since samples were not analyzed within the same tuning period.

Specific findings:

2. The initial calibration analyzed on 07/08/92 on instrument HP5995A contained compounds with %Ds greater than 25%, but less than 50% (the VTSD050 standard is used for quantitation, not the average RRF). For the samples and compounds listed below, qualify all positive results as estimated (J).

VBLKA8	acetone
MW-18D	2-hexanone
MW-10S	
MW-15	
MW-14D	

Continuing Calibrations

The four (4) continuing calibrations that were analyzed with this data package exhibited %Ds that were not within %D continuing calibration criteria. All RRFs were within the calibration criteria ≥ 0.05.

Specific Finding:

3. The continuing calibration A1609 contained compounds with %Ds greater than 25%, but less than 50%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J).

VBLKA9	2-hexanone
MW-11D	

Continuing Calibrations - continued

4. The continuing calibration B9536 contained compounds with %Ds greater than 25%, but less than 50%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J).

VBLKBL	2-hexanone
MW-8D	
MW-9D	
OS-2	

5. The continuing calibration B9536 contained compounds with %Ds greater than 50%, but less than 90%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J) and all non detect results as estimated (UJ).

VBLKBL	chloromethane
MW-8D	
MW-9D	
OS-2	

6. The continuing calibration B9555 contained compounds with %Ds greater than 50%, but less than 90%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J) and all non detect results as estimated (UJ).

VBLKBM	chloromethane
FB269	
TB628	
MW-13S	
MW-13SMS	
MW-13SMSD	
MW-9S	
MW-18S	
MW-10D	
MW-8S	
MW-11S	
MW-3S	
REP-1	

Continuing Calibrations - continued

7. The continuing calibration G0624 contained compounds with %Ds greater than 25%, but less than 50%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J).

VBLKGV	acetone
MW-13D	carbon disulfide
	2-hexanone

Internal Standards

All internal standard EICP areas met the internal standard EICP area QA/QC criteria. No qualifications are required.

Method Blanks

The five (5) of the method blanks that was analyzed exhibited contamination for methylene chloride and acetone that resulted in qualifications. The method blank results will be compared to their associated samples. Refer to the glossary of data qualifiers for a list and definition of the blank qualifiers: CRQL, U and No Action.

Specific findings:

8. The following samples have been qualified for blank contamination.

MW-18D MW-10S MW-14D MW-13D	methylene chloride	+BJ	CRQL	8
MW-15 MW-11D OS-2 FB629 TB628 MW-18S REP-1	acetone	+BJ	CRQL	8
MW-11S MW-13D	acetone	+B	U	8

Trip Blanks

The trip blank, TB628, that was analyzed exhibited contamination for methylene chloride and toluene that resulted in qualifications. The trip blank results will be compared to their associated samples. Refer to the glossary of data qualifiers for a list and definition of the blank qualifiers: CRQL, U and No Action.

Specific findings:

9. The following samples have been qualified for blank contamination.

MW-8D OS-2 MW-9D MW-10D MW-8S MW-11S MW-11D MW-13S MW-9S MW-18S MW-3S REP-1	methylene chloride	+J	CRQL 9
OS-2 MW-11D MW-13S MW-14D	toluene	+J	CRQL 9

Rinseate Blanks

A rinseate blank was not identified in this SDG by the laboratory.

Field Blanks

The field blank, FB629, exhibited contamination for methylene chloride. However, all qualifications performed for blank contamination for methylene chloride were performed per the method and trip blanks.

Surrogates

All of the surrogate recoveries for the samples and blanks were not acceptable. No qualifications are required.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

The MS/MSD, MW-13S, exhibited acceptable a low percent recovery for toluene in the MS. In addition, 1,1-dichloroethene exhibited a RPD greater than the advisory limits. However, qualifications are not required.

Blank Spikes

A blank spike was not performed in this SDG.

Duplicates

A field duplicate sample was not identified in this SDG.

Compound Identification/Quantitation

The laboratory reported low level (less than 1.0 μg/L) concentrations for several compounds. Low concentration results should be viewed by the end user as suspect due to possible laboratory and/or field contamination. No qualifications are required.

System Performance and Overall Assessment

The overall system performance was fair. The data reviewer estimates that less than 5% of the data is qualified.

GLOSSARY OF DATA QUALIFIERS

QUALIFICATION CODES

U = Not detected

J = Estimated value

UJ = Reported quantitation limit is qualified as estimated

R = Result is rejected and unusable

NJ = Presumptive evidence for the presence of the material at an estimated value

K = Result is biased high

L = Result is biased low

METHOD BLANK QUALIFICATION CODES

CRQL = The sample result for the blank contaminant is less than the sample CRQL and is less than 10X the method blank value. The sample result for the blank contaminant is rejected and the CRQL for that analyte is reported.

U = The sample result for the blank contaminant is greater than the sample CRQL and is less than 10X the method blank value. The sample result for the blank contaminant is qualified as non detected at the analyte value reported.

No Action = The sample result for the blank contaminant is greater than the sample CRQL and is greater than 10X the method blank value. The sample result for the blank contaminant is not qualified with any blank qualifiers.

The specific findings will be noted in numerical form on the Form Is in this data validation report. These specific finding footnotes will reflect the conclusions found in the data validation process that resulted in the qualification of the data.

SUMMARY OF DATA QUALIFICATIONS

SAMPLE ID	ANALYTE ID	DL	QL	SPECIFIC FINDINGS
All samples except MW-8D MW-9D MW-15 MW-14D OS-2	all compounds	+	J	1
VBLKA8 MW-18D MW-10S MW-15 MW-14D	acetone 2-hexanone	+	J	2
VBLKA9 MW-11D	2-hexanone	+	J	3
VBLKBL MW-8D MW-9D OS-2	2-hexanone	+	J	4
VBLKBL MW-8D MW-9D OS-2	chloromethane	+/-	J/UJ	5

* DL denotes the Form I qualifier supplied by the laboratory
QL denotes the qualifier used by the data validation firm
+ in the DL column denotes a positive result
- in the DL column denotes a non detect result

SUMMARY OF DATA QUALIFICATIONS

SAMPLE ID	ANALYTE ID	DL	QL	SPECIFIC FINDINGS
VBLKBM FB269 TB628 MW-13S MW-13SMS MW-13SMSD MW-9S MW-18S MW-10D MW-8S MW-11S MW-3S REP-1	chloromethane	+/-	J/UJ	6
VBLKGV MW-13D	acetone carbon disulfide 2-hexanone	+	J	7
MW-18D MW-10S MW-14D MW-13D	methylene chloride	+B	J CRQL	8
MW-15 MW-11D OS-2 FB629 TB628 MW-18S REP-1	acetone	+B	J CRQL	8
MW-11S MW-13D	acetone	+B	U	8

* DL denotes the Form I qualifier supplied by the laboratory
QL denotes the qualifier used by the data validation firm
\+ in the DL column denotes a positive result
\- in the DL column denotes a non detect result

SUMMARY OF DATA QUALIFICATIONS

SAMPLE ID	ANALYTE ID	DL	QL	SPECIFIC FINDINGS
MW-8D	methylene chloride	+J	CRQL 9	
OS-2				
MW-9D				
MW-10D				
MW-8S				
MW-11S				
MW-11D				
MW-13S				
MW-9S				
MW-18S				
MW-3S				
REP-1				
OS-2	toluene	+J	CRQL 9	
MW-11D				
MW-13S				
MW-14D				

* DL denotes the Form I qualifier supplied by the laboratory
QL denotes the qualifier used by the data validation firm
\+ in the DL column denotes a positive result
\- in the DL column denotes a non detect result

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-18D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931001

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1599.D 34

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 2.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	20	U	
74-83-9	Bromomethane	20	U	
75-01-4	Vinyl Chloride	140		J /
75-00-3	Chloroethane	20	U	
75-09-2	Methylene Chloride	20 ~~8~~	~~JB~~	C 8
67-64-1	Acetone	20	U	
75-15-0	Carbon Disulfide	20	U	
75-35-4	1,1-Dichloroethene	20	U	
75-34-3	1,1-Dichloroethane	20	U	
540-59-0	1,2-Dichloroethene (total)	340		J /
67-66-3	Chloroform	20	U	
107-06-2	1,2-Dichloroethane	20	U	
78-93-3	2-Butanone	20	U	
71-55-6	1,1,1-Trichloroethane	19	J	J /
56-23-5	Carbon Tetrachloride	20	U	
75-27-4	Bromodichloromethane	20	U	
78-87-5	1,2-Dichloropropane	20	U	
10061-01-5	cis-1,3-Dichloropropene	20	U	
79-01-6	Trichloroethene	8	J	J /
124-48-1	Dibromochloromethane	20	U	
79-00-5	1,1,2-Trichloroethane	20	U	
71-43-2	Benzene	9	J	J /
10061-02-6	trans-1,3-Dichloropropene	20	U	
75-25-2	Bromoform	20	U	
108-10-1	4-Methyl-2-Pentanone	20	U	
591-78-6	2-Hexanone	20	U	
127-18-4	Tetrachloroethene	4	J	J /
79-34-5	1,1,2,2-Tetrachloroethane	20	U	
108-88-3	Toluene	20	U	
108-90-7	Chlorobenzene	4	J	J /
100-41-4	Ethylbenzene	20	U	
100-42-5	Styrene	20	U	
1330-20-7	Xylene (total)	21		J /

10.1144

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-18D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931001

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1599.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 2.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

35

Number TICs found: 8

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

PSq 08/03/94

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN CYCLOALKANE	10.46	460	J
2.		UNKNOWN	7.00	140	J
3.	76131	ETHANE, 1,1,2-TRICHLORO-1,2,2-TRI	6.04	140	JN
4.		UNKNOWN BRANCHED ALKANE	8.00	100	J
5.	354234	ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUO	5.34	35	JN
6.		UNKNOWN BRANCHED ALKENE	12.84	22	J
7.		UNKNOWN	5.21	14	J
8.		UNKNOWN BRANCHED CYCLOALKANE	11.43	11	J
9.					
10.					
11.					
12.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-8D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

59

Matrix: (soil/water) WATER Lab Sample ID: 0931002

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9546.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/07/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	UJ 5
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 3	3	U9
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	0.6	J	
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	0.9	J	
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	1	J	
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	Xylene (total)	10	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-8D 60

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931002

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9546.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/07/92

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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10/1/92

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OS-2

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

68

Matrix: (soil/water) WATER Lab Sample ID: 0931003

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9547.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/07/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	UJ 5
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	27		
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	10 8	8 U	09
67-64-1	Acetone	10 6	~~B~~ U	08
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	2	J	
540-59-0	1,2-Dichloroethene (total)	44		
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	2	J	
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	0.9	J	
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	2	J	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10 ~~0.4~~	~~J~~	09
108-90-7	Chlorobenzene	10	U	
100-41-4	Ethylbenzene	2	J	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	4	J	

10/1/94

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

OS-2

69

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931003

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9547.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/07/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 10 DSL 08/03/94

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN C4 ALKYLBENZENE	26.15	140	JN
2.	354234	ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO-	5.30	120	JN
3.		UNKNOWN C4 ALKYLBENZENE	24.74	90	JN
4.		UNKNOWN C4 ALKYLBENZENE	23.10	85	JN
5.		UNKNOWN INDENE	25.07	77	JN
6.		UNKNOWN C4 ALKYLBENZENE	25.54	71	JN
7.		UNKNOWN C4 ALKYLBENZENE	24.18	71	JN
8.		UNKNOWN C4 ALKYLBENZENE	24.87	66	JN
9.		UNKNOWN C4 ALKYLBENZENE	25.46	55	JN
10.		UNKNOWN ALKYLBENZENE	24.29	39	JN
11.					
12.					
13.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931004 98

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1600.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
74-87-3	Chloromethane		50	U	
74-83-9	Bromomethane		50	U	
75-01-4	Vinyl Chloride		200		J/
75-00-3	Chloroethane		50	U	
75-09-2	Methylene Chloride	50	~~13~~	~~JB~~	U 8
67-64-1	Acetone		50	U	
75-15-0	Carbon Disulfide		50	U	
75-35-4	1,1-Dichloroethene		50	U	
75-34-3	1,1-Dichloroethane		9	J	J/
540-59-0	1,2-Dichloroethene (total)		780		J/
67-66-3	Chloroform		50	U	
107-06-2	1,2-Dichloroethane		50	U	
78-93-3	2-Butanone		50	U	
71-55-6	1,1,1-Trichloroethane		6	J	J/
56-23-5	Carbon Tetrachloride		50	U	
75-27-4	Bromodichloromethane		50	U	
78-87-5	1,2-Dichloropropane		50	U	
10061-01-5	cis-1,3-Dichloropropene		50	U	
79-01-6	Trichloroethene		17	J	J/
124-48-1	Dibromochloromethane		50	U	
79-00-5	1,1,2-Trichloroethane		50	U	
71-43-2	Benzene		8	J	J/
10061-02-6	trans-1,3-Dichloropropene		50	U	
75-25-2	Bromoform		50	U	
108-10-1	4-Methyl-2-Pentanone		50	U	
591-78-6	2-Hexanone		50	U	
127-18-4	Tetrachloroethene		6	J	J/
79-34-5	1,1,2,2-Tetrachloroethane		50	U	
108-88-3	Toluene		50	U	
108-90-7	Chlorobenzene		4	J	J/
100-41-4	Ethylbenzene		7	J	J/
100-42-5	Styrene		50	U	
1330-20-7	Xylene (total)		17	J	J/

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-10S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

99

Matrix: (soil/water) WATER Lab Sample ID: 0931004

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1600.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 10

PSy 08/03/94

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	354234	ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUORO	5.38	330	JN
2.	110827	CYCLOHEXANE	10.52	270	JN
3.		UNKNOWN AROMATIC	25.24	240	J
4.		UNKNOWN C3 ALKYLBENZENE	22.33	190	J
5.		UNKNOWN C4 ALKYLBENZENE	24.02	160	J
6.		UNKNOWN C4 ALKYLBENZENE	24.63	100	J
7.		UNKNOWN C4 ALKYLBENZENE	23.88	100	J
8.		UNKNOWN C4 ALKYLBENZENE	24.57	97	J
9.		UNKNOWN	25.49	94	J
10.		UNKNOWN C4 ALKYLBENZENE	23.49	91	J
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
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10.1.94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931005

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9549.D

128

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/07/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 2	2
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	2	J
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	2	J
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	5	J
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	Xylene (total)	10	U

U5 5

U 9

7/01/92

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-9D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931005 129

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9549.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/07/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 3 PSy 08/03/94

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	1634044	PROPANE, 2-METHOXY-2-METHYL	7.38	530	JN
2.		UNKNOWN PAH	22.13	9	J
3.		UNKNOWN ISOMER OF NAPHTHALENE, METHYL	29.43	8	J
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-10D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9567.D

Level: (low/med) LOW Date Received: 06/30/92 143

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	U56
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 2	~~J~~	U9
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	6	J	J1
75-34-3	1,1-Dichloroethane	100		~~J1~~
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	89		J1
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	3	J	J1
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	4	J	J1
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	Xylene (total)	10	U	

7/1/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-10D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9567.D 144

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 2 PSL 08/03/94 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		unknown	4.20	46	J
2.		unknown	3.76	12	J
3.					
4.					
5.					
6.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-8S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931007

159

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9568.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	U56
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 ~~2~~	J	U9
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	2	J	J1
540-59-0	1,2-Dichloroethene (total)	25		J1
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	5	J	J1
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	6	J	J1
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	7	J	J1
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	Xylene (total)	10	U	

7/01/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-8S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931007

160

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9568.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
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30.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-11S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931008 170

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9569.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	UJ 6
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 B	B	U 9
67-64-1	Acetone	12	B	U 8
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	2	J	J 1
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	2	J	J 1
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		J 1
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	Xylene (total)	10	U	

10/1/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-11S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931008

171

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9569.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
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27.					
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29.					
30.					

10/1/92

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-13D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931009 180

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0632.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	50	U	
74-83-9	Bromomethane	50	U	
75-01-4	Vinyl Chloride	50	U	
75-00-3	Chloroethane	50	U	
75-09-2	Methylene Chloride	50 ~~12~~	~~JB~~	U 08
67-64-1	Acetone	67	~~B~~	U 08
75-15-0	Carbon Disulfide	50	U	
75-35-4	1,1-Dichloroethene	50	U	
75-34-3	1,1-Dichloroethane	6	J	J/
540-59-0	1,2-Dichloroethene (total)	26	J	J/
67-66-3	Chloroform	50	U	
107-06-2	1,2-Dichloroethane	50	U	
78-93-3	2-Butanone	50	U	
71-55-6	1,1,1-Trichloroethane	10	J	J/
56-23-5	Carbon Tetrachloride	50	U	
75-27-4	Bromodichloromethane	50	U	
78-87-5	1,2-Dichloropropane	50	U	
10061-01-5	cis-1,3-Dichloropropene	50	U	
79-01-6	Trichloroethene	920		J/
124-48-1	Dibromochloromethane	50	U	
79-00-5	1,1,2-Trichloroethane	50	U	
71-43-2	Benzene	2	J	J/
10061-02-6	trans-1,3-Dichloropropene	50	U	
75-25-2	Bromoform	50	U	
108-10-1	4-Methyl-2-Pentanone	5	J	J/
591-78-6	2-Hexanone	5	J	J/
127-18-4	Tetrachloroethene	10	J	J/
79-34-5	1,1,2,2-Tetrachloroethane	50	U	
108-88-3	Toluene	50	U	
108-90-7	Chlorobenzene	50	U	
100-41-4	Ethylbenzene	50	U	
100-42-5	Styrene	50	U	
1330-20-7	Xylene (total)	50	U	

Rev 10.1.94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-13D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931009

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: G0632.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

181

Number TICs found: 2 PS 08/03/94 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	7.97	770	J
2.		UNKNOWN BRANCHED ALKANE	28.33	310	J
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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29.					
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10/1.94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-11D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931010

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1611.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

199

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	50	U	
74-83-9	Bromomethane	50	U	
75-01-4	Vinyl Chloride	50	U	
75-00-3	Chloroethane	50	U	
75-09-2	Methylene Chloride	50 ~~18~~	~~J~~	09
67-64-1	Acetone	50 ~~40~~	~~JB~~	08
75-15-0	Carbon Disulfide	50	U	
75-35-4	1,1-Dichloroethene	50	U	
75-34-3	1,1-Dichloroethane	50	U	
540-59-0	1,2-Dichloroethene (total)	50	U	
67-66-3	Chloroform	50	U	
107-06-2	1,2-Dichloroethane	50	U	
78-93-3	2-Butanone	50	U	
71-55-6	1,1,1-Trichloroethane	50	U	
56-23-5	Carbon Tetrachloride	50	U	
75-27-4	Bromodichloromethane	50	U	
78-87-5	1,2-Dichloropropane	50	U	
10061-01-5	cis-1,3-Dichloropropene	50	U	
79-01-6	Trichloroethene	50	U	
124-48-1	Dibromochloromethane	50	U	
79-00-5	1,1,2-Trichloroethane	50	U	
71-43-2	Benzene	5	J	~~J~~/
10061-02-6	trans-1,3-Dichloropropene	50	U	
75-25-2	Bromoform	50	U	
108-10-1	4-Methyl-2-Pentanone	50	U	
591-78-6	2-Hexanone	50	U	
127-18-4	Tetrachloroethene	50	U	
79-34-5	1,1,2,2-Tetrachloroethane	50	U	
108-88-3	Toluene	50 ~~2~~	~~J~~	09
108-90-7	Chlorobenzene	50	U	
100-41-4	Ethylbenzene	270		~~J~~/
100-42-5	Styrene	50	U	
1330-20-7	Xylene (total)	1200		~~J~~/

FORM I VOA 3/90

7/01/92

029

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-11D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931010

200

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1611.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/09/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 8 PS 08/03/94

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN C3 ALKYLBENZENE	20.33	330	J
2.	103651	PROPYLBENZENE	21.41	85	JN
3.		UNKNOWN	18.40	83	J
4.		UNKNOWN C3 ALKYLBENZENE	21.58	80	J
5.		UNKNOWN C3 ALKYLBENZENE	21.72	77	J
6.		UNKNOWN C3 ALKYLBENZENE	22.99	68	J
7.		UNKNOWN C3 ALKYLBENZENE	22.05	63	J
8.		UNKNOWN INDENE	23.29	63	J
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
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27.					
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29.					
30.					

JW 10/14/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-13S

222

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931011

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9559.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		
74-87-3	Chloromethane	10	U	W6
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	23		J1
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	~~10~~ 2	~~U~~ J	U9
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	48		J1
540-59-0	1,2-Dichloroethene (total)	83		J1
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	4	J	J1
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	29		J1
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	0.7	J	J1
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	150		J1
79-34-5	1,1,2,2-Tetrachloroethane	10	U	
108-88-3	Toluene	10 ~~0.4~~	~~J~~ U	U9
108-90-7	Chlorobenzene	0.8	J	J1
100-41-4	Ethylbenzene	10	U	
100-42-5	Styrene	10	U	
1330-20-7	Xylene (total)	10	U	

10/1/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-13S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931 223

Matrix: (soil/water) WATER Lab Sample ID: 0931011

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9559.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 26 6 PS 08/03/94 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110827	CYCLOHEXANE	10.63	170	JD
2.		UNKNOWN	2.37	74	J
3.	107835	2-METHYL PENTANE	6.88	62	JN
4.	354234	ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUO	5.30	59	JN
5.		UNKNOWN CYCLOALKANE	13.23	14	JD
6.		UNKNOWN	11.41	9	J
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
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27.					
28.					
29.					
30.					

8/11/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-9S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931012

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9560.D 247

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	UJ 6
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	3	J	J/
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	102	~~J~~ U	U 9
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)	23	J	J/
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	38	J	J/
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	3	J	J/
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	Xylene (total)	10	U	

10/19/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-9S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931012

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9560.D 248

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 10 PS 08/08/94 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALKYLBENZENE	25.11	28	JBBBBBBBBB
2.			25.44	15	
3.			25.69	15	
4.			25.91	14	
5.		UNKNOWN CS ALKYLBENZENE	26.27	14	
6.		UNKNOWN ALKYLBENZENE	24.39	13	
7.			26.25	12	
8.			25.25	12	
9.		UNKNOWN	7.35	9	
10.		UNKNOWN ALKYLBENZENE	24.89	8	
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
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29.					
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10/1/94

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

REP-1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931013

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9566.D 270

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		
74-87-3	Chloromethane	10	U	UJ6
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	19		J1
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	~~10~~ 2	~~J~~	U9
67-64-1	Acetone	~~10~~ 4	~~JB~~	U8
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	47		J1
540-59-0	1,2-Dichloroethene (total)	87		J1
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	4	J	J1
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	32		J1
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	0.8	J	J1
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	130		J1
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	Xylene (total)	10	U	

7/01/94

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

REP-1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931013

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9566.D

271

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 6 PS 08/03/92 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110827	CYCLOHEXANE	10.63	150	JN
2.		UNKNOWN BRANCHED ALKANE	7.37	63	J
3.	354234	ETHANE, 1,2-DICHLORO-1,1,2-TRIFLUO	5.33	51	JN
4.	107835	2-METHYL PENTANE	6.90	51	JN
5.	108872	METHYL CYCLOHEXANE	13.23	12	JN
6.		UNKNOWN	11.41	8	J
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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10/1/92

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-18S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931014

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9562.D 294

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	056
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~~ 3	~~B~~ J	09
67-64-1	Acetone	~~10~~ 8	~~JB~~	08
75-15-0	Carbon Disulfide	10	U	
75-35-4	1,1-Dichloroethene	10	U	
75-34-3	1,1-Dichloroethane	1	J	J/
540-59-0	1,2-Dichloroethene (total)	40		J/
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	4	J	J/
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	15		J/
124-48-1	Dibromochloromethane	10	U	
79-00-5	1,1,2-Trichloroethane	10	U	
71-43-2	Benzene	1	J	J/
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	24		J/
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	Xylene (total)	10	U	

7/01/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-18S

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931 295

Matrix: (soil/water) WATER Lab Sample ID: 0931014

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9562.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 5 PSq 08/03/94 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN CYCLOALKANE	10.62	97	J
2.		UNKNOWN	7.38	84	J
3.	107835	2-METHYL BUTANE	6.88	58	JN
4.		UNKNOWN	11.56	7	J
5.		UNKNOWN	11.42	5	J
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
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22.					
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25.					
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10.1.94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB629

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931016

315

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9557.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	UJ 6
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	3	J	J 1
67-64-1	Acetone	10A	JB	J 8
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	Xylene (total)	10	U	

7/11/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FB629

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931016

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9557.D

316

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
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23.				
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27.				
28.				
29.				
30.				

10/1/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB628

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931017

322

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9558.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	3	J
67-64-1	Acetone	10 ~~4~~	~~JB~~
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	0.4	J
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

056

51

03

10/19/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TB628

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931017

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9558.D 323

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (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/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
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9.				
10.				
11.				
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14.				
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27.				
28.				
29.				
30.				

10/19/92

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-15

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

330

Matrix: (soil/water) WATER Lab Sample ID: 0931018

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1604.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	8	J
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	2	J
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	Xylene (total)	10	U

10/19

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-15

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931018 331

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1604.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 10 PSy 08/03/94

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN C3 ALKYLBENZENE	22.28	25	J
2.		UNKNOWN AROMATIC	25.21	25	J
3.		UNKNOWN C3 ALKYLBENZENE	22.94	13	J
4.	119642	NAPHTHALENE, 1,2,3,4-TETRAHYD	25.43	10	JN
5.		UNKNOWN AROMATIC	24.13	8	J
6.		UNKNOWN C4 ALKYLBENZENE	23.99	7	J
7.		UNKNOWN C4 ALKYLBENZENE	23.44	7	J
8.		UNKNOWN ALKANE	26.59	7	J
9.		UNKNOWN C4 ALKYLBENZENE	24.41	6	J
10.		UNKNOWN INDENE	25.71	6	J
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

10/19/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3S

351

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931019

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9570.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	100	U
74-83-9	Bromomethane	100	U
75-01-4	Vinyl Chloride	100	U
75-00-3	Chloroethane	100	U
75-09-2	Methylene Chloride	100 20	J U
67-64-1	Acetone	100	U
75-15-0	Carbon Disulfide	100	U
75-35-4	1,1-Dichloroethene	100	U
75-34-3	1,1-Dichloroethane	13	J
540-59-0	1,2-Dichloroethene (total)	36	J
67-66-3	Chloroform	100	U
107-06-2	1,2-Dichloroethane	100	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	100	U
56-23-5	Carbon Tetrachloride	100	U
75-27-4	Bromodichloromethane	100	U
78-87-5	1,2-Dichloropropane	100	U
10061-01-5	cis-1,3-Dichloropropene	100	U
79-01-6	Trichloroethene	100	U
124-48-1	Dibromochloromethane	100	U
79-00-5	1,1,2-Trichloroethane	100	U
71-43-2	Benzene	93	J
10061-02-6	trans-1,3-Dichloropropene	100	U
75-25-2	Bromoform	100	U
108-10-1	4-Methyl-2-Pentanone	100	U
591-78-6	2-Hexanone	100	U
127-18-4	Tetrachloroethene	100	U
79-34-5	1,1,2,2-Tetrachloroethane	100	U
108-88-3	Toluene	1500	
108-90-7	Chlorobenzene	29	J
100-41-4	Ethylbenzene	670	
100-42-5	Styrene	100	U
1330-20-7	Xylene (total)	2000	

056

10/19/94

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-3S 352

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931019

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9570.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 10 FS 08/03/92

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN C3 ALKYLBENZENE	22.35	400	JBHBHBHBH
2.			23.84	380	
3.			22.85	370	
4.			22.49	270	
5.		UNKNOWN	24.18	270	
6.	103651	PROPYLBENZENE	22.19	220	NJ
7.		UNKNOWN CYCLOALKANE	10.65	160	
8.		UNKNOWN ALKANE	5.21	130	
9.		UNKNOWN BRANCHED ALKANE	6.92	110	
10.		UNKNOWN C4 ALKYLBENZENE	24.78	110	
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
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29.					
30.					

10.1.94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-14D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931020

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1605.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

378

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	67	
75-09-2	Methylene Chloride	~~1~~ 2	~~J~~ B C 8
67-64-1	Acetone	12	B
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	6	J
540-59-0	1,2-Dichloroethene (total)	5	J
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 ~~26~~	U ~~J~~
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	30	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	5	J
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 ~~1~~	~~J~~ C 9
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	140	
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	59	

LAD 08/04/94

10/11/94

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-14D

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

379

Matrix: (soil/water) WATER Lab Sample ID: 0931020

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: A1605.D

Level: (low/med) LOW Date Received: 07/01/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 10 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

PSy 08/03/94

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN C3 ALKYLBENZENE	22.30	100	BBBBBBBBBB
2.		UNKNOWN AROMATIC	23.27	43	
3.		UNKNOWN C3 ALKYLBENZENE	21.58	18	
4.		UNKNOWN C4 ALKYLBENZENE	23.99	17	
5.		UNKNOWN ALKYLBENZENE	23.44	14	
6.		UNKNOWN C4 ALKYLBENZENE	23.85	14	
7.		UNKNOWN ALKYLBENZENE	20.64	14	
8.		UNKNOWN CYCLOALKANE	10.49	12	
9.		UNKNOWN C3 ALKYLBENZENE	22.97	12	
10.		UNKNOWN C4 ALKYLBENZENE	25.21	12	
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
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30.					

LHD 08/04/94

10/1/94

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 547

MW-13SMS

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931011MS

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9564.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	16	
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	49	
75-34-3	1,1-Dichloroethane	41	
540-59-0	1,2-Dichloroethene (total)	79	
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	71	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	48	
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	130	
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	37	
108-90-7	Chlorobenzene	40	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

10/1/94

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 551

MW-13SMSD

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix: (soil/water) WATER Lab Sample ID: 0931011MSD

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: B9565.D

Level: (low/med) LOW Date Received: 06/30/92

% Moisture: not dec. _____ Data Analyzed: 07/08/92

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	19	
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	7	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	59	
75-34-3	1,1-Dichloroethane	52	
540-59-0	1,2-Dichloroethene (total)	94	
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	4	J
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	68	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	44	
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	140	
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	39	
108-90-7	Chlorobenzene	45	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	2	J

12/94

HEARTLAND ESI VOA 1 OLMO1.8

QA/QC LEVEL

- ☐ NEESA C
- ☐ NEESA D
- ☐ DQO LEVEL III
- ☐ DQO LEVEL IV
- ☑ NYSDEC B

CASE NUMBER: Z093/
LABORATORY: IEA /CT
PROJECT: FAIRCHILD REPUBLIC
REVIEWER: [illegible]
DATE: 10.11.94
ANALYSIS MODIFICATIONS: NYSDEC

VOLATILE HOLDING TIMES

1. Was the holding time exceeded on any volatile analysis?

(Yes) No

If yes, complete the following form for all samples that exceeded holding times.

EPA SAMPLE NO.	MATRIX	VSTR OR DATE SAMP	DATE OF ANALYSIS	DA	QUALIFICATION
All Samples	WATER	6.30.92	7-8-9.92	1-2	J
Except		7.1.92			
MW8D					
OS-2					
MW9D					
MW-15					
MW-14D					
+ Criteria - 7 day VTSR - NYSDEC					
				EM	10/11/94

Holding Times:

CLP	=	10 days from VSTR
Non CLP	=	14 days from date of sampling
Region I	=	10 days from VSTR (Aqueous and Non Aqueous)

NOTE: DA - The number of days that the holding time was exceeded.

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC ANALYSIS

Associated Samples and Blanks: VBLK18, MW-18D, -10S, -15, -14D

A. **BFB GC/MS Tuning** 92

Injection Date: 7/8/92 10:11:94 Injection Time: 8:21 Heated: Y (N)

Instrument ID: HP5971A File ID: A1593

1. Is the BFB GC/MS Tune acceptable? (Yes) No

   If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No
   If no, reject all associated data and list all affected samples:

B. **Calibration**

1. Date(s) of calibration: 7.8.92

   RRF010 File ID: A1591

   RRF020 File ID: A1592

   RRF050 File ID: A1590

   RRF100 File ID: A1593

   RRF200 File ID: A1596

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum average RRF criteria are within the CLP guidelines? (Yes) No

If no, enter the laboratory average RRF. If a compound has an average RRF less than 0.05, for samples anayzed within the initial calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %RSD criteria are within the CLP guidelines? Yes (No)

If no, enter the laboratory %RSD. For the samples analyzed within the initial calibration tuning period, qualify positive results for that analyte as estimated (J). Non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
chloromethane	0.050		30.0		
bromomethane	0.100		30.0		
vinyl chloride	0.100		30.0		
chloroethane	0.050		30.0		
methylene chloride	0.050		30.0		
acetone	0.050		30.0	44.1	J
carbon disulfide	0.050		30.0		
1,1-dichloroethene	0.100		30.0		
1,1-dichloroethane	0.200		30.0		
1,2-dichloroethene (total)	0.050		30.0		
chloroform	0.200		30.0		
1,2-dichloroethane	0.100		30.0		

Acetone 26.3% D - J
2-butanone 38.7% D - J

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
2-butanone	0.050		30.0	40.6	J
1,1,1-trichloroethane	0.100		30.0		
carbon tertachloride	0.100		30.0		
bromodichloromethane	0.200		30.0		
1,2-dichloropropane	0.050		30.0		
cis-1,3-dichloropropene	0.200		30.0		
trichloroethene	0.300		30.0		
dibromochloromethane	0.100		30.0		
1,1,2-trichloroethane	0.100		30.0		
benzene	0.500		30.0		
trans-1,3-dichloropropene	0.100		30.0		
bromoform	0.100		30.0		
4-methyl-2-pentanone	0.050		30.0	35.2	J
2-hexanone	0.050		30.0	50.1	J
tetrachloroethene	0.200		30.0		
1,1,2,2-tetrachloroethane	0.500		30.0		
toluene	0.400		30.0		
chlorobenzene	0.500		30.0		
ethylbenzene	0.100		30.0		
styrene	0.300		30.0		
xylene (total)	0.300		30.0		
toluene-d_8	0.050		30.0		
bromofluorobenzene	0.200		30.0		
1,2-dichloroethane-d_4	0.050		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calcualtions:

c. Calculate the RRF of one of the standards for one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: Chloroform VSTD010

Lab Value: 3.672

$$\frac{1761 \times 50}{23985 \times 10} = 3.672$$

d. Calculate the %RSD of one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: 2-Hexanone

Lab Value: 50.1%

SD = 0.194

$\bar{Y}$ = 0.386

$$\frac{0.194}{0.386} \times 100 = 50.1\%$$

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC ANALYSIS

Associated Samples and Blanks: None

A. BFB GC/MS Tuning

Injection Date: 7/5/92 Injection Time: 12:01 Heated: Y (N)

Instrument ID: HP5973B File ID: BB137

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No
If no, reject all associated data and list all affected samples:

B. Calibration

1. Date(s) of calibration: 7.5.92

RRF010 File ID: B9502

RRF020 File ID: B9503

RRF050 File ID: B9504

RRF100 File ID: B9505

RRF200 File ID: B9506

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum average RRF criteria are within the CLP guidelines? (Yes) No

If no, enter the laboratory average RRF. If a compound has an average RRF less than 0.05, for samples anayzed within the initial calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

0.119f

b. All compounds with maximum %RSD criteria are within the CLP guidelines? (Yes) (No)

If no, enter the laboratory %RSD. For the samples analyzed within the initial calibration tuning period, qualify positive results for that analyte as estimated (J). Non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
chloromethane	0.050		30.0	32.6	
bromomethane	0.100		30.0		
vinyl chloride	0.100		30.0		
chloroethane	0.050		30.0		
methylene chloride	0.050		30.0		
acetone	0.050		30.0		
carbon disulfide	0.050		30.0		
1,1-dichloroethene	0.100		30.0		
1,1-dichloroethane	0.200		30.0		
1,2-dichloroethene (total)	0.050		30.0		
chloroform	0.200		30.0		
1,2-dichloroethane	0.100		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
2-butanone	0.050		30.0		
1,1,1-trichloroethane	0.100		30.0		
carbon tertachloride	0.100		30.0		
bromodichloromethane	0.200		30.0		
1,2-dichloropropane	0.050		30.0		
cis-1,3-dichloropropene	0.200		30.0		
trichloroethene	0.300		30.0		
dibromochloromethane	0.100		30.0		
1,1,2-trichloroethane	0.100		30.0		
benzene	0.500		30.0		
trans-1,3-dichloropropene	0.100		30.0		
bromoform	0.100		30.0		
4-methyl-2-pentanone	0.050		30.0		
2-hexanone	0.050		30.0		
tetrachloroethene	0.200		30.0		
1,1,2,2-tetrachloroethane	0.500		30.0		
toluene	0.400		30.0		
chlorobenzene	0.500		30.0		
ethylbenzene	0.100		30.0		
styrene	0.300		30.0		
xylene (total)	0.300		30.0		
toluene-d_8	0.050		30.0		
bromofluorobenzene	0.200		30.0		
1,2-dichloroethane-d_4	0.050		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calcualtions:

c. Calculate the RRF of one of the standards for one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: Carbon Tetrachloride RSTD 0.20

Lab Value: 0.31

$$\frac{19210 \times 50}{131690 \times 20} = 0.31$$

d. Calculate the %RSD of one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: Vinyl Chloride

Lab Value: 22.4%

$$SD = 0.251 \qquad \frac{0.251}{1.137} \times 100 = 22.4\%$$

$$= \bar{X} \; 1.137$$

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC ANALYSIS

Associated Samples and Blanks: None

A. **BFB GC/MS Tuning**

Injection Date: 7/8/92 Injection Time: 11:31 Heated: Y (N)

Instrument ID: HP5995G File ID: GB831

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No
If no, reject all associated data and list all affected samples:

B. **Calibration**

1. Date(s) of calibration: 7-8-92

RRF010 File ID: G0619

RRF020 File ID: G0620

RRF050 File ID: G0618

RRF100 File ID: G0621

RRF200 File ID: G0622

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum average RRF criteria are within the CLP guidelines? (Yes) No

If no, enter the laboratory average RRF. If a compound has an average RRF less than 0.05, for samples anayzed within the initial calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %RSD criteria are within the CLP guidelines? Yes (No)

If no, enter the laboratory %RSD. For the samples analyzed within the initial calibration tuning period, qualify positive results for that analyte as estimated (J). Non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
chloromethane	0.050		30.0		
bromomethane	0.100		30.0		
vinyl chloride	0.100		30.0		
chloroethane	0.050		30.0		
methylene chloride	0.050		30.0		
acetone	0.050		30.0	35.3	
carbon disulfide	0.050		30.0		
1,1-dichloroethene	0.100		30.0		
1,1-dichloroethane	0.200		30.0		
1,2-dichloroethene (total)	0.050		30.0		
chloroform	0.200		30.0		
1,2-dichloroethane	0.100		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
2-butanone	0.050		30.0	49.0	J
1,1,1-trichloroethane	0.100		30.0		
carbon tertachloride	0.100		30.0		
bromodichloromethane	0.200		30.0		
1,2-dichloropropane	0.050		30.0		
cis-1,3-dichloropropene	0.200		30.0		
trichloroethene	0.300		30.0		
dibromochloromethane	0.100		30.0		
1,1,2-trichloroethane	0.100		30.0		
benzene	0.500		30.0		
trans-1,3-dichloropropene	0.100		30.0		
bromoform	0.100		30.0		
4-methyl-2-pentanone	0.050		30.0		
2-hexanone	0.050		30.0		
tetrachloroethene	0.200		30.0		
1,1,2,2-tetrachloroethane	0.500		30.0		
toluene	0.400		30.0		
chlorobenzene	0.500		30.0		
ethylbenzene	0.100		30.0		
styrene	0.300		30.0		
xylene (total)	0.300		30.0		
toluene-d_8	0.050		30.0		
bromofluorobenzene	0.200		30.0		
1,2-dichloroethane-d_4	0.050		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calcualtions:

c. Calculate the RRF of one of the standards for one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: 2-Hexanone VSTD200

Lab Value: 1.564

$$\frac{64925 \times 50}{103814 \times 200} = 1.564$$

d. Calculate the %RSD of one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: Acetone

Lab Value: 35.3%

SD = 0.396

$\bar{X}$ = 1.122

$$\frac{0.396}{1.122} \times 100 = 35.3\%$$

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

Associated Samples and Blanks: VBLK19, MW-11D

A. BFB GC/MS Tuning

Injection Date: 7/9/92 7/9/92 15:11 94 Injection Time: 07:54 Heated: Y (N)

Instrument ID: HP5971A File ID: AB800

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No

If no, reject all associated data and list all affected samples:

B. Calibration

1. Date of calibration: 7.9.92

RRF050 File ID: A1609

Date(s) of Initial Calibration: 7.8.92

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum RRF criteria are within the CLP guidelines
(Yes) No

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples anayzed within the continuing calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines:
Yes (No)

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive values as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
chloromethane	0.050		25.0		
bromomethane	0.100		25.0	--	
vinyl chloride	0.100		25.0		
chloroethane	0.050		25.0		
methylene chloride	0.050		25.0		
acetone	0.050		25.0		
carbon disulfide	0.050		25.0		
1,1-dichloroethene	0.100		25.0		
1,1-dichloroethane	0.200		25.0		
1,2-dichloroethene (total)	0.050		25.0		
chloroform	0.200		25.0		
1,2-dichloroethane	0.100		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-butanone	0.050		25.0		
1,1,1-trichloroethane	0.100		25.0		
carbon tetrachloride	0.100		25.0		
bromodichloromethane	0.200		25.0		
1,2-dichloropropane	0.050		25.0		
cis-1,3-dichloropropene	0.200		25.0		
trichloroethene	0.300		25.0		
dibromochloromethane	0.100		25.0		
1,1,2-trichloroethane	0.100		25.0		
benzene	0.500		25.0		
trans-1,3-dichloropropene	0.100		25.0		
bromoform	0.100		25.0		
4-methyl-2-pentanone	0.050		25.0		
2-hexanone	0.050		25.0	27.8	I
tetrachlorethene	0.200		25.0		
1,1,2,2-tetrachloroethane	0.500		25.0	--	
toluene	0.400		25.0		
chlorobenzene	0.500		25.0		
ethylbenzene	0.100		25.0		
styrene	0.300		25.0		
xylenes (total)	0.300		25.0		
toluene-d_8	0.050		25.0		
bromofluorobenzene	0.200		25.0		
1,2-dichloroethane-d_4	0.050		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calculations

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: Ethyl Benzene

Lab Value: 0.493

$$\frac{51830 \times 50}{10190 \times 10} = 0.493$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: Vinyl Chloride

Lab Value: -14.6%

$$\frac{1.534 - 1.718}{1.534} \times 100 = -14.6\%$$

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

Associated Samples and Blanks: VBLKBL, MW8D, -9D, DS-2

A. BFB GC/MS Tuning

Injection Date: 7/7/92 Injection Time: 10:51 Heated: Y (N)

Instrument ID: HP599B File ID: BB144

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No

If no, reject all associated data and list all affected samples:

B. Calibration

1. Date of calibration: 7-7-92

RRF050 File ID: BB536

Date(s) of Initial Calibration: 7-5-92

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum RRF criteria are within the CLP guidelines
Yes No

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples anayzed within the continuing calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines:
Yes No

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive values as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
chloromethane	0.050		25.0	52.8	J/UJ
bromomethane	0.100		25.0	--	
vinyl chloride	0.100		25.0		
chloroethane	0.050		25.0		
methylene chloride	0.050		25.0		
acetone	0.050		25.0		
carbon disulfide	0.050		25.0		
1,1-dichloroethene	0.100		25.0		
1,1-dichloroethane	0.200		25.0		
1,2-dichloroethene (total)	0.050		25.0		
chloroform	0.200		25.0		
1,2-dichloroethane	0.100		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-butanone	0.050		25.0		
1,1,1-trichloroethane	0.100		25.0		
carbon tetrachloride	0.100		25.0		
bromodichloromethane	0.200		25.0		
1,2-dichloropropane	0.050		25.0		
cis-1,3-dichloropropene	0.200		25.0		
trichloroethene	0.300		25.0		
dibromochloromethane	0.100		25.0		
1,1,2-trichloroethane	0.100		25.0		
benzene	0.500		25.0		
trans-1,3-dichloropropene	0.100		25.0		
bromoform	0.100		25.0		
4-methyl-2-pentanone	0.050		25.0		
2-hexanone	0.050	—	25.0	32.2	J
tetrachlorethene	0.200		25.0		
1,1,2,2-tetrachloroethane	0.500		25.0	--	
toluene	0.400		25.0		
chlorobenzene	0.500		25.0		
ethylbenzene	0.100		25.0		
styrene	0.300		25.0		
xylenes (total)	0.300		25.0		
toluene-d_8	0.050		25.0		
bromofluorobenzene	0.200		25.0		
1,2-dichloroethane-d_4	0.050		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calculations

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: Bromomethane

Lab Value: 1.337

$$\frac{44457 \times 50}{33253 \times 50} = 1.337$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: Bromodichloromethane

Lab Value: -3.2%

$$\frac{0.441 - 0.457}{0.441} \times 100 = -3.2\%$$

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

Associated Samples and Blanks: VBLKBM, FB269, TB628, MW-13S, -9S, -18S, -10D, -8S, -11S, -3S, -13SMS, -13SMSD, REP-1

A. BFB GC/MS Tuning

Injection Date: 7/8/92 Injection Time: 08:27 Heated: Y (N)

Instrument ID: HP199B File ID: BB146

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No

If no, reject all associated data and list all affected samples:

B. Calibration

1. Date of calibration: 7-8-92

RRF050 File ID: BB111

Date(s) of Initial Calibration: 7-1-92

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. **Performance Check**

a. All compounds with minimum RRF criteria are within the CLP guidelines
(Yes) No

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples anayzed within the continuing calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines:
Yes (No)

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive values as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
chloromethane	0.050		25.0	51.5	J/UJ
bromomethane	0.100		25.0	--	
vinyl chloride	0.100		25.0		
chloroethane	0.050		25.0		
methylene chloride	0.050		25.0		
acetone	0.050		25.0		
carbon disulfide	0.050		25.0		
1,1-dichloroethene	0.100		25.0		
1,1-dichloroethane	0.200		25.0		
1,2-dichloroethene (total)	0.050		25.0		
chloroform	0.200		25.0		
1,2-dichloroethane	0.100		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-butanone	0.050		25.0		
1,1,1-trichloroethane	0.100		25.0		
carbon tetrachloride	0.100		25.0		
bromodichloromethane	0.200		25.0		
1,2-dichloropropane	0.050		25.0		
cis-1,3-dichloropropene	0.200		25.0		
trichloroethene	0.300		25.0		
dibromochloromethane	0.100		25.0		
1,1,2-trichloroethane	0.100		25.0		
benzene	0.500		25.0		
trans-1,3-dichloropropene	0.100		25.0		
bromoform	0.100		25.0		
4-methyl-2-pentanone	0.050		25.0		
2-hexanone	0.050		25.0		
tetrachlorethene	0.200		25.0		
1,1,2,2-tetrachloroethane	0.500		25.0	--	
toluene	0.400		25.0		
chlorobenzene	0.500		25.0		
ethylbenzene	0.100		25.0		
styrene	0.300		25.0		
xylenes (total)	0.300		25.0		
toluene-d_8	0.050		25.0		
bromofluorobenzene	0.200		25.0		
1,2-dichloroethane-d_4	0.050		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calculations

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: dichloroethene

Lab Value: 0.423

$$\frac{626.9 \times 10}{1488.98 \times 10} = 0.423$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: 1,1,2,2-tetrachloroethane

Lab Value: -3.4%

$$\frac{0.541 - 0.560}{0.541} \times 100 = -3.5\%$$

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

Associated Samples and Blanks: VBLKGV, MW-13D

A. BFB GC/MS Tuning

Injection Date: 7/8/92 Injection Time: 17:01 Heated: Y (N)

Instrument ID: HP5971G File ID: GB836

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No

If no, reject all associated data and list all affected samples:

B. **Calibration**

1. Date of calibration: 7-8-92

RRF050 File ID: G0624

Date(s) of Initial Calibration: 7-8-92

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum RRF criteria are within the CLP guidelines
(Yes) No

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples anayzed within the continuing calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines:
Yes (No)

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive values as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
chloromethane	0.050		25.0		
bromomethane	0.100		25.0	--	
vinyl chloride	0.100		25.0		
chloroethane	0.050		25.0		
methylene chloride	0.050		25.0		
acetone	0.050		25.0	25.4	J
carbon disulfide	0.050		25.0	-25.3	J
1,1-dichloroethene	0.100		25.0		
1,1-dichloroethane	0.200		25.0		
1,2-dichloroethene (total)	0.050		25.0		
chloroform	0.200		25.0		
1,2-dichloroethane	0.100		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-butanone	0.050		25.0		
1,1,1-trichloroethane	0.100		25.0		
carbon tetrachloride	0.100		25.0		
bromodichloromethane	0.200		25.0		
1,2-dichloropropane	0.050		25.0		
cis-1,3-dichloropropene	0.200		25.0		
trichloroethene	0.300		25.0		
dibromochloromethane	0.100		25.0		
1,1,2-trichloroethane	0.100		25.0		
benzene	0.500		25.0		
trans-1,3-dichloropropene	0.100		25.0		
bromoform	0.100		25.0		
4-methyl-2-pentanone	0.050		25.0		
2-hexanone	0.050		25.0	-26.0	J
tetrachlorethene	0.200		25.0		
1,1,2,2-tetrachloroethane	0.500		25.0	--	
toluene	0.400		25.0		
chlorobenzene	0.500		25.0		
ethylbenzene	0.100		25.0		
styrene	0.300		25.0		
xylenes (total)	0.300		25.0		
toluene-d_8	0.050		25.0		
bromofluorobenzene	0.200		25.0		
1,2-dichloroethane-d_4	0.050		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calculations

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: Chlorobenzene

Lab Value: 1.009

$$\frac{106820 \times 10}{101875 \times 10} \cdot 1.009$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: 1,1-Dichloroethene

Lab Value: -18.3%

$$\frac{0.971 - 1.149}{0.971} \times 100 = -18.3\%$$

INTERNAL STANDARD AREA SUMMARY
VOLATILE ORGANIC FRACTION

1. Is the EICP area for each internal standard in all associated field samples, QC samples, and blanks within - 50% and + 100% of the respective internal standard EICP areas? (Yes) No

If the EICP area of one (1) or more internal standard is less than -50%:
- Positive results for those compounds that are quantified using the particular internal standard are flagged as estimated (J).
- Non detected for that fraction are flagged with the sample quantitation limit classified as estimated (UJ).

If the EICP area of one (1) or more internal standards is greater than +100%:
- Positive results for those compounds that are quantified using the particular internal standard are flagged as estimated (J).

If no, list non-compliant sample IDs and areas below.

Standard ID: All Standards.

	BCM	RT	1,4-DFB	RT	CBZ-d_5	RT
12-HOUR STD						
UPPER LIMIT						
LOWER LIMIT						
EPA SAMPLE NO.						

10.11.91

METHOD BLANK SUMMARY
VOLATILE ORGANIC FRACTION

1. Blank qualification guidelines:

   a) If a compound is found in the blank but not in the sample, no action is taken.

   b) Any compound (other than the four (4) listed below) detected in the sample, which was also detected in the associated blank, must be qualified by elevating the limit of detection or adjusting the limit of detection to the sample result, when the sample concentration is less than five (5) times the blank concentration. For the following four (4) compounds, the results are qualified by elevating the limit of detection or adjusting the limit of detection to the sample result, when the sample concentration is less than ten (10) times the blank concentration.

Common laboratory contaminants:	methylene chloride
	acetone
	2-butanone

   c) The reviewer should take note that the blank analysis may not involve the same weights, volumes or dilution factors as associated samples. These factors must be taken into consideration when applying the 5X and 10X criteria.

   d) In addition, the reviewer must review the trip blanks, rinseate blanks and field blanks (if they were submitted with the data package) and all associated samples. Apply the same data validation guidelines used in assessing the method blanks.

   e) Qualification/Action codes:

      U - The sample result is greater than the CRQL and less than ten times (10X) the blank value. Cross out the "B" flag and qualify the sample result with a "U".

      CRQL - The sample result is less than the CRQL and less than ten times (10X) the blank value. Reject the sample result, cross out the "B" flag, and report the CRQL.

      No Action - The sample result is greater than the CRQL and greater than ten times (10X) the blank value.

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKA8

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

13

Lab File ID: A1598.D Lab Sample ID: VBLKA8

Date Analyzed: 07/08/92 Time Analyzed: 1447

GC Column:007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5995A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW-18D	0931001	A1599.D	1617
02	MW-10S	0931004	A1600.D	1658
03	MW-15	0931018	A1604.D	1926
04	MW-14D	0931020	A1605.D	2002
05				
06				
07				
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COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: VBLKA8 File ID: A1598

Purge: heated non heated Page ____ of ____

Analysis date/time: 7/8 92 14:47

COMPOUND	CONCENTRATION	CRQL
CH2Cl2	4	10
Acetone	8	1
1,2-DCA	2	1

CH2Cl2. CRQL	Acetone. CRQL		
MW-18D	MW-15		
MW-10S			
MW-14D			
AMW-			

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKA9

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931 14

Lab File ID: A1610.D Lab Sample ID: VBLKA9

Date Analyzed: 07/09/92 Time Analyzed: 0927

GC Column:007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5995A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW-11D	0931010	A1611.D	1025
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
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COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: VBLKA9 File ID: A1610

Purge: heated (non heated) Page _____ of _____

Analysis date/time: 7/9/92 0927

COMPOUND	CONCENTRATION	CRQL
Acetone	14	10

Acetone - CRQL			
MW-11D			

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKBL

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Lab File ID: B9537.D Lab Sample ID: VBLKBL 15

Date Analyzed: 07/07/92 Time Analyzed: 1234

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5995B

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW-8D	0931002	B9546.D	1938
02	OS-2	0931003	B9547.D	2018
03	MW-9D	0931005	B9549.D	2137
04				
05				
06				
07				
08				
09				
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COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: VBLKBL File ID: B9537

Purge: heated (non heated) Page _____ of _____

Analysis date/time: 7/7/92 12:34

COMPOUND	CONCENTRATION	CRQL
Acetone	8	10
2-Butanone	8	10
2-Hexanone	3	10

Acetone-CRQL			
01-2			

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKBM

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Lab File ID: B9556.D Lab Sample ID: VBLKBM

Date Analyzed: 07/08/92 Time Analyzed: 1014

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5995B

16

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	FB629	0931016	B9557.D	1108
02	TB628	0931017	B9558.D	1148
03	MW-13S	0931011	B9559.D	1228
04	MW-9S	0931012	B9560.D	1308
05	MW-18S	0931014	B9562.D	1427
06	MW-13SMS	0931011MS	B9564.D	1547
07	MW-13SMSD	0931011MSD	B9565.D	1627
08	REP-1	0931013	B9566.D	1707
09	MW-10D	0931006	B9567.D	1746
10	MW-8S	0931007	B9568.D	1826
11	MW-11S	0931008	B9569.D	1906
12	MW-3S	0931019	B9570.D	2000
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COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: VBLKBM File ID: 59FF6

Purge: heated non heated Page ____ of ____

Analysis date/time: 7/8/94 10:14

COMPOUND	CONCENTRATION	CRQL
Acetone	6	10

Acetone-CLOC	Acetone-U		
FB629	MW-115		
TB628			
MW-185			
REP-1			

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKGV

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

17

Lab File ID: G0631.D Lab Sample ID: VBLKGV

Date Analyzed: 07/08/92 Time Analyzed: 2341

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5995G

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW-13D	0931009	G0632.D	0047
02				
03				
04				
05				
06				
07				
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09				
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COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: VBLKGV File ID: G063/

Purge: heated (non heated) Page _____ of _____

Analysis date/time: 7 8 92 23:41

COMPOUND	CONCENTRATION	CRQL
CH2Cl2	2	10
Acetone	5	10

CH2Cl2 CROL	Acetone U		
MW-13D	MW-13D		

TRIP BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: TB628 File ID: B9518

Purge: heated (non heated) Page ____ of ____

Analysis date/time: 7/8/92 11:48

COMPOUND	CONCENTRATION	CRQL
CH2Cl2	3	10
Toluene	0.4	10

CH2Cl2 CRQL	Toluene CRQL		
MW-8D	OS-2		
OS-2	MW11D		
MW-9D	MW-13S		
MW-10D	MW-14D		
MW-8S			
MW-11S			
MW-11D			
MW-13S			
MW-9S			
REP-1			
MW-13S			
MW-3S			

RINSEATE BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID:_____ File ID:_____

Purge:___heated___non heated___ Page _____ of _____

Analysis date/time:___/___/_____:____

COMPOUND	CONCENTRATION	CRQL
Not Identified		

10-11-94

FIELD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: FB629 File ID: 59117

Purge: heated (non heated) Page ____ of ____

Analysis date/time: 7/8/92 11:08

COMPOUND	CONCENTRATION	CRQL
CH_2Cl_2	3	10
* Qualifications performed per TB.		

10.1.92

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKBL	101	92	93		0
02	MW-8D	99	96	100		0
03	OS-2	98	99	98		0
04	MW-9D	101	91	103		0
05	VBLKBM	92	95	96		0
06	FB629	96	100	94		0
07	TB628	102	94	100		0
08	MW-13S	101	101	101		0
09	MW-9S	99	104	94		0
10	MW-18S	95	89	104		0
11	VBLKA8	96	102	94		0
12	MW-13SMS	90	89	103		0
13	MW-18D	99	103	86		0
14	MW-13SMSD	91	96	111		0
15	MW-10S	98	101	87		0
16	REP-1	94	89	103		0
17	MW-10D	102	100	107		0
18	MW-8S	97	94	107		0
19	MW-11S	100	99	95		0
20	MW-15	98	100	86		0
21	MW-3S	93	93	100		0
22	MW-14D	106	101	87		0
23	VBLKGV	98	104	97		0
24	MW-13D	96	103	95		0
25	VBLKA9	97	106	101		0
26	MW-11D	98	104	87		0
27						
28						
29						
30						

	QC LIMITS
SMC1 (TOL) = Toluene-d8	(88-110)
SMC2 (BFB) = Bromofluorobenzene	(86-115)
SMC3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

SURROGATE RECOVERY SUMMARY
VOLATILE ORGANIC FRACTION

1. Did all the surrogate recoveries for the blanks, QC samples, and field samples meet the acceptance criteria? (Yes) No

   If no, list all the samples and their respective surrogate recoveries that do not meet QA/QC criteria.

EPA SAMPLE NO.	TOL-d_8	BFB	DCE-d_4	QUALIFACATION

RECOVERY LIMITS

		WATER	SOIL
toluene-d_8	(TOL-d_8)	88-110	84-138
bromofluorobenzene	(BFB)	86-115	59-113
1,2-dichloroethane-d_4	(DCE-d_4)	76-114	70-121

NOTE: D - denotes that surrogate was diluted out.

Comments: _____

_____

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0931 SAS No.: SDG No.: Z0931

Matrix Spike - EPA Sample No.: MW-13S

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	49	98	61-145
Trichloroethene	50	29	71	84	71-120
Benzene	50	0.7	48	95	76-127
Toluene	50	0.4	37	73*	76-125
Chlorobenzene	50	0.8	40	78	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	59	118	18*	14	61-145
Trichloroethene	50	68	78	7	14	71-120
Benzene	50	44	87	9	11	76-127
Toluene	50	39	77	5	13	76-125
Chlorobenzene	50	45	88	12	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 5 outside limits
Spike Recovery: 1 out of 10 outside limits

COMMENTS: _____

MATRIX SPIKE/ MATRIX SPIKE DUPLICATE SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: MW-25

Purge: heated (non heated)

Advisory Limits for Spike Recoveries:

	Water	Max RPD	Soil	Max RPD
1,1,-Dichloroethene	61-145	14	59-172	22
Trichloroethene	71-120	14	62-137	24
Benzene	76-127	11	66-142	21
Toluene	76-125	13	59-139	21
Chlorobenzene	75-130	13	60-133	21

1. Were the percent recoveries and the RPDs in compliance with the advisory limits?

Yes (No)

If no, list the non compliant MS/MSD information below as applicable.

COMPOUND	MS %REC.	MSD %REC.	RPD	QUALIFICATION
1,1-dichloroethene			18	No action
trichloroethene				
benzene				
toluene	73			No action
chlorobenzene				

* - denotes non-compliant % Recoveries or %RPD

Comments:

SAMPLE CALUCULATION
VOLATILE ORGANIC FRACTION

EPA SAMPLE ID: MW13S

COMPOUND: Tetrachloroethene

CONCENTRATION: 150 UNITS: (µg/L) µg/Kg

$$\frac{160084 \times 250}{11673 \times 5 \times 0.461} = 147 \approx 150 \text{ µg/L}$$

EPA SAMPLE ID.: MW13S		STD. ID.: 85555
COMPOUND	RRT	STD. RRT
Vinyl Chloride	0.441	0.433
1,1-DCA	0.831	0.830
1,2-DCE (total)	0.753/0.951	0.752/0.951
Trichloroethene	1.055	1.058
Tetrachloroethene	0.900	0.899

SAMPLE RESULT VERIFICATION
VOLATILE ORGANIC FRACTION

1. Were the sample results reported within the calibration range? (Yes) No
2. Were the percent moistures reported? Yes No (NR)
3. Were the data reported on a dry weight basis? Yes No (NR)
4. Did the GC/MS RIC and TIC exhibit interferences, off scale peaks or elevated baseline? Yes (No)
5. Did the data contain elevated detection limits that could not be accounted for? Yes (No)
6. Were any computational or transcription errors found? Yes (No)

Specific Comments:

* Data package is sloppy.

Reviewer: [signature] **Date:** 10/11/94

GROUNDWATER SAMPLING ROUND DATA - JULY 1994

HEARTLAND ENVIRONMENTAL SERVICES, INC.
6716 MEXICO ROAD • ST. PETERS, MO 63376
(314) 928-9533 • (314) 278-1828 • FAX (314) 278-2709

Data Validation Report

October 12, 1994

Prepared for

Eder Associates
480 Forest Avenue
Locust Valley, NY 11560

This Data Validation Report is a review of the analytical results of sampling conducted in support of the Eder Associates project on July 12, 13 & 14, 1994 at Fairchild Industries Main Plant RI. There were twenty (20) water samples, including two (2) trip blanks and two (2) field blanks, with one (1) MS/MSD pair, which were received and analyzed by IEA Laboratories, Connecticut, **SDG # Z0666.**

Heartland ESI personnel have reviewed the data presented for the Samples listed below for the Analytical Fractions indicated. The CLP fractions have been validated utilizing: the "Laboratory Data Validation Functional Guidelines For Evaluating Organics Analysis, June, 1991; the "Laboratory Data Validation Functional Guideline for Evaluating Inorganic Analysis, July 1, 1988; specific method requirements in NYSDEC ASP Methods OLM01.8 and ILMO2.1; NYSDEC Catagory B requirements; and good professional judgement.

Analytical data in this report were screened to determine usability of results and also to determine contractual compliance relative to these requirements and deliverables. This screening assumes analytical results are correct as reported and merely provides an interpretation of the reported quality control results. A minimum of 10% of all laboratory calculations have been verified as part of this validation. All instrument output, i.e. spectra, chromatogram, etc., for each sample have been carefully reviewed. The end-user is urged to review the **Specific Findings** and associated **Data Qualifications** presented in this report. Annotated Form Is for all samples reviewed are included after the **Narratives**. Form Is for MS/MSD samples are not annotated.

The release of this Data Validation Report is authorized by the following signature:

for Craig B. Sergeson — 10·12·94

Eugene M. Watson, Vice President Heartland ESI — Date

HEARTLAND ENVIRONMENTAL SERVICES, INC.

SDG # Z0666

SAMPLES AND FRACTIONS REVIEWED

Sample Identifications			Analytical Fractions					
EDER ID	**IEA/CT ID**	**Matrix**	**VOA**	**SV**	**P/P**	**TM**	**DM**	**WET**
MW1D1	0666001	WATER	X	X	X	X	X	X
MW2D1	0666002	WATER	X	X	X	X	X	X
MW2D1MS	0666002MS	WATER	X	X	X	X	X	X
MW2D1MSD	0666002MSD	WATER	X	X	X	X	X	X
MW2S1	0666003	WATER	X	X	X	X	X	X
MW40D1	0666004	WATER	X	X	X	X	X	X
MW991	0666005	WATER	X	X	X	X	X	X
FB1940712	0666006	WATER	X	X	X	X	X	X
CB1940712	0666007	WATER	X					
TB1940712	0666008	WATER	X					
MW33D1	0666009	WATER	X	X	X	X	X	X
MW3S1	0666010	WATER	X	X	X	X	X	X
MW3D1	0666011	WATER	X	X	X	X	X	X
FB2940713	0666012	WATER	X	X	X	X	X	X
TB2940713	0666013	WATER	X					
MW7S1	0666014	WATER	X	X	X	X	X	X
MW7D1	0666015	WATER	X	X	X	X	X	X
MW8S1	0666016	WATER	X	X	X	X	X	X
MW8D1	0666017	WATER	X	X	X	X	X	X
MW9S1	0666018	WATER	X	X	X	X	X	X
MW9D1	0666019	WATER	X	X	X	X	X	X
MW1991	0666020	WATER	X	X	X	X	X	X
Total Samples (Water/Soil)			22/0	19/0	19/0	19/0	19/0	19/0
Total Billable Samples (Water/Soil)			22/0	19/0	19/0	19/0	19/0	19/0

MS - Matrix Spike MD - Matrix Spike/Matrix Duplicate
* - Non-billable sample

Individual fractions were reviewed as follows:

	Primary	Secondary
VOA - Volatiles (CLP, OLM01.8)	Dan Heil	Gene Watson
SV - Semivolatiles (CLP, OLM01.8)	Dan Heil	Gene Watson
P/P - Pesticide/PCBs (CLP, OLM01.8)	J. Cleveland	Gene Watson
TM - Total Metals (CLP, ILM02.1)	Paul Humburg	
DM - Dissolved Metals (CLP, ILM02.1)	Paul Humburg	
WET - Wet Chemistry (CLP, ILM02.1)	Paul Humburg	

DATA ASSESSMENT NARRATIVES

DATA ASSESSMENT NARRATIVE

VOLATILE ORGANICS

General

The organic findings offered in this screening report assumes that all analytical results are correct as reported and is based upon the examination of the reported holding times, blank analysis results, surrogate and matrix spike recoveries, GC/MS performance, tuning results, calibration results and internal standard areas. This report was prepared in compliance relative to the analytical and deliverable requirements specified in the U.S. EPA CLP, 3/90 SOW, NYSDEC 91-1 Modifications; the National Functional Guidelines for Organic Data Review, EPA DQO Level IV and NYSDEC Category B. All comments made within this report should be considered when examining the analytical results (Form I's).

SDG Z0666

Holding Times

The analytical holding times for all of the samples met the NYSDEC analytical holding times (seven (7) from VTSR). In addition, the analytical holding times met the Organic Functional Guidelines and the CLP SOW (fourteen (14) days from collection date). No qualifications are required.

Tuning

All of the BFB tunes in the initial and continuing calibrations met the percent relative abundance criteria of the SOW and the Organic Functional Guidelines. No qualifications are required.

Initial Calibrations

The initial calibration that was analyzed by the laboratory for these samples was not acceptable for all compound %RSDs. The average RRFs for all of the compounds met the initial calibration criteria of $\geq$ 0.05. Acetone exhibited a %RSD greater than 30% in the 5/24/94 initial calibration on instrument HP5995D. However, no qualifications are required for these initial calibration since samples were not analyzed within the same tuning period.

Continuing Calibrations

The four (4) continuing calibrations that were analyzed with this data package exhibited %Ds that were not within %D continuing calibration criteria. All RRFs were within the calibration criteria $\geq$ 0.05.

Continuing Calibrations - continued

Specific Finding:

1. The continuing calibration D2298 contained compounds with %Ds greater than 50%, but less than 90%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J) and non detect results as estimated (UJ).

VBLKD7	2-hexanone
TB1940712	
FB1940712	
MW1D1	
MW2D1	
MW2S1	
MW40D1	
MW991	
CB1940712	
MSBMW2D1	
MW2D1MS	
MW2D1MSD	

2. The continuing calibration D2315 contained compounds with %Ds greater than 25%, but less than 50%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J).

VBLKD8	acetone
MW33D1	
MW3D1	
FB2940713	
TB2940713	
MW7S1	
MW7D1	
MW8S1	
MW8D1	

Continuing Calibrations - continued

3. The continuing calibration D2315 contained compounds with %Ds greater than 50%, but less than 90%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J) and non detect results as estimated (UJ).

VBLKD8	2-hexanone
MW33D1	
MW3D1	
FB2940713	
TB2940713	
MW7S1	
MW7D1	
MW8S1	
MW8D1	

4. The continuing calibration D2330 contained compounds with %Ds greater than 25%, but less than 50%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J).

VBLKD9	acetone
MW9S1	4-methyl-2-pentanone
MW9D1	
MW1991	
MW3S1	

5. The continuing calibration D2330 contained compounds with %Ds greater than 50%, but less than 90%. For the samples and non compliant compound listed below, qualify all positive results as estimated (J) and non detect results as estimated (UJ).

VBLKD9	2-hexanone
MW9S1	
MW9D1	
MW1991	
MW3S1	

Internal Standards

All of the internal standard EICP areas met the QA/QC criteria. No qualifications are required.

Method Blanks

The three (3) method blanks that was analyzed exhibited contamination for methylene chloride and chloroform. However, the associated samples did not exhibit similar contamination; therefore, qualifications are not required.

Trip Blanks

The two (2) trip blanks did not exhibit contamination for TCLs. No qualifications are required.

Rinseate Blanks

The rinseate blank, CB1940712, that was analyzed exhibited contamination for tetrachloroethene. The rinseate blank results will be compared to their associated samples. Refer to the glossary of data qualifiers for a list and definition of the blank qualifiers: CRQL, U and No Action.

Specific findings:

6. The following samples have been qualified for blank contamination.

MW-40D1	tetrachloroethene	+J	CRQL 6
MW991			
MW3D1			
MW8S1			
MW9S1			
MW9D1			
MW1991			

Field Blanks

The two (2) field blanks did not exhibit any contamination for TCLs. No qualifications are required.

Surrogates

All of the surrogate recoveries for the samples and blanks were not acceptable. No qualifications are required.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

The MS/MSD, MW2D1, exhibited acceptable percent recoveries and RPDs. No qualifications are required.

Blank Spikes

The blank spike exhibited acceptable percent recoveries. No qualifications are required.

Duplicates

The field duplicate pair of MW9D1 and MW1991 exhibited acceptable RPDs. The field duplicate pair of MW40D1 and MW991 exhibited acceptable RPDs for all compounds except ethylbenzene, which was detected below the CRQL and xylene (total). Due to the RPD of the xylene (total), qualifications are required. Qualify the xylene (total) results in MW40D1 and MW991 as estimated due to poor analytical precision (**Specific finding #7**).

Sample ID	Compound	Sample Conc. µg/L	Duplicate Conc. µg/L	RPD
MW9D1	1,1,1-Trichloroethane	2	2	0
	Trichloroethene	4	4	0
MW40D1	Toluene	2	2	0
	Chlorobenzene	12	13	8
	Ethylbenzene	3	4	29
	Xylene (total)	40	15	91

Compound Identification/Quantitation

The laboratory reported low level (less than 1.0 µg/L) concentrations for several compounds. Low concentration results should be viewed by the end user as suspect due to possible laboratory and/or field contamination. No qualifications are required.

System Performance and Overall Assessment

The overall system performance was fair. The data reviewer estimates that less than 5% of the data is qualified.

GLOSSARY OF DATA QUALIFIERS

QUALIFICATION CODES

U = Not detected

J = Estimated value

UJ = Reported quantitation limit is qualified as estimated

R = Result is rejected and unusable

NJ = Presumptive evidence for the presence of the material at an estimated value

K = Result is biased high

L = Result is biased low

METHOD BLANK QUALIFICATION CODES

CRQL = The sample result for the blank contaminant is less than the sample CRQL and is less than 10X the method blank value. The sample result for the blank contaminant is rejected and the CRQL for that analyte is reported.

U = The sample result for the blank contaminant is greater than the sample CRQL and is less than 10X the method blank value. The sample result for the blank contaminant is qualified as non detected at the analyte value reported.

No Action = The sample result for the blank contaminant is greater than the sample CRQL and is greater than 10X the method blank value. The sample result for the blank contaminant is not qualified with any blank qualifiers.

The specific findings will be noted in numerical form on the Form Is in this data validation report. These specific finding footnotes will reflect the conclusions found in the data validation process that resulted in the qualification of the data.

SUMMARY OF DATA QUALIFICATIONS

SAMPLE ID	ANALYTE ID	DL	QL	SPECIFIC FINDINGS
VBLKD7	2-hexanone	+/-	J/UJ	1
TB1940712				
FB1940712				
MW1D1				
MW2D1				
MW2S1				
MW40D1				
MW991				
CB1940712				
MSBMW2D1				
MW2D1MS				
MW2D1MSD				
VBLKD8	acetone	+	J	2
MW33D1				
MW3D1				
FB2940713				
TB2940713				
MW7S1				
MW7D1				
MW8S1				
MW8D1				
VBLKD8	2-hexanone	+/-	J/UJ	3
MW33D1				
MW3D1				
FB2940713				
TB2940713				
MW7S1				
MW7D1				
MW8S1				
MW8D1				

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QL denotes the qualifier used by the data validation firm
\+ in the DL column denotes a positive result
\- in the DL column denotes a non detect result

SUMMARY OF DATA QUALIFICATIONS

SAMPLE ID	ANALYTE ID	DL	QL	SPECIFIC FINDINGS
VBLKD9 MW9S1 MW9D1 MW1991 MW3S1	acetone 4-methyl-2-pentanone	+	J	4
VBLKD9 MW9S1 MW9D1 MW1991 MW3S1	2-hexanone	+/-	J/UJ	5
MW-40D1 MW991 MW3D1 MW8S1 MW9S1 MW9D1 MW1991	tetrachloroethene	+J	CRQL	6
MW40D1 MW991	xylene (total)	+	J	7

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\+ in the DL column denotes a positive result
\- in the DL column denotes a non detect result

DATA ASSESSMENT NARRATIVE

SEMIVOLATILE ORGANIC

General

The organic findings offered in this screening report assumes that all analytical results are correct as reported and is based upon the examination of the reported holding times, blank analysis results, surrogate and matrix spike recoveries, GC/MS performance, tuning results, calibration results and internal standard areas. This report was prepared in compliance relative to the analytical and deliverable requirements specified in the U.S. EPA CLP, 3/90 SOW, NYSDEC 91-2 Modifications; the National Functional Guidelines for Organic Data Review, and DQO Level IV. All comments made within this report should be considered when examining the analytical results (Form I's).

SDG # Z0666

Holding Times

All extraction and analysis holding times for all samples were met for all samples per the SOW and National Functional Guidelines. No qualifications are required.

Tuning

All of the DFTPP tunes in the initial and continuing calibrations met the percent relative abundance criteria of the SOW and the Organic Functional Guidelines. No qualifications are required.

Initial Calibrations

The initial calibration that was analyzed by the laboratory for these samples was acceptable for all compound %RSDs. The average RRFs for all of the criteria compounds met the initial calibration criteria.

Continuing Calibrations

The continuing calibrations that were analyzed require qualification for non compliant %Ds. All of the criteria and non criteria compounds met RRF requirements.

Continuing Calibrations

Specific Findings:

1. The continuing calibration, I7472, contained compounds with %Ds greater than 25% D but less than 50% D. For the samples and non compliant compounds listed below, qualify all positive results as estimated (J).

MW8D1	3-nitroaniline
MW9S1	4-nitroaniline
MW9D1	carbazole
MW1991	
MW7S1	
MW7D1	
MW8S1	
MW2D1MS	
MW2D1MSD	

2. The continuing calibration, I7488, contained compounds with %Ds greater than 25% D but less than 50% D. For the samples and non compliant compounds listed below, qualify all positive results as estimated (J).

FB2940713	bis(2-chloroethyl)ether
SBLKYI	n-nitrosodiphenylamine
	2,4,6-tribromophenol

Internal Standards

All of the blank and sample internal standard EICP areas met the EICP internal standard area QA/QC criteria. No qualifications are required.

Method Blanks

The method blanks that were analyzed exhibited contamination for diethylphthalate, di-n-butylphthalate, bis(2-ethylhexyl)phthalate and TICs. The method blank results will be compared to their associated samples. Refer to the glossary of data qualifiers for a list and definition of the method blank qualifiers: CRQL, U and No Action.

Method Blanks (continued)

Specific Finding:

3. The following samples have been qualified for blank contamination. Qualifications are for all method blanks.

MW1D1 MW2D1 MW2S1 MW40D1 MW991 FB1940712 MW2D1MS MW2D1MSD MW33D1 MW3S1 MW3D1 FB2940713 MW7S1 MW7D1 MW8S1 MW8S1 MW9S1 MW9D1 MW1991	bis(2-ethylhexyl)- phthalate	U
MW1D1 MW2S1 MW40D1 MW991 FB1940712 MW2D1MS	di-n-butylphthalate	CRQL
MW7D1 MW8D1 MW9D1 MW1991	diethylphthalate	CRQL

4. Reject all TICs flagged with the laboratory qualifier "B", due to method blank contamination.

Rinseate Blanks

The associated rinseate blank was identified for this SDG. No qualifications are required.

Field Blanks

The field blanks that were analyzed exhibited contamination for diethylphthalate, di-n-butylphthalate and bis(2-ethylhexyl)phthalate. The field blank results will be compared to their associated samples. Refer to the glossary of data qualifiers for a list and definition of the method blank qualifiers: CRQL, U and No Action.

Specific Findings:

7. The following samples have been qualified for blank contamination. Qualifications are for all field blanks.

MW1D1 MW40D1 MW33D1 MW3S1 MW3D1	diethylphthalate	CRQL
MW33D1 MW3S1 MW3D1	di-n-butylphthalate	CRQL

Surrogates

The surrogate recoveries for all blanks and samples were not within the QA/QC limits. The SOW and Functional Guidelines allow one surrogate from each fraction to fall outside of the QA/QC criteria as long as the recoveries are greater than 10%. No qualifications are required.

Matrix Spike/Matrix Spike Duplicate

All spike and RPD recoveries were not within advisory limits for MS/MSD MW2D1. The MS/MSD samples exhibited high recoveries for 4-nitrophenol and pentachlorophenol. No qualifications are required.

Blank Spike

The blank spike that was analyzed did not exhibit acceptable recovery levels. The spike recoveries for phenol, 4-nitrophenol and 2,4-dinitrotoluene exceeded the QA/QC limits. No qualifications are required.

Field Duplicate Summary

The RPD for all compounds found in the field duplicate samples were not within QA/QC limits. However, all of the positive results were less than the CRQL. No qualifications are required.

Sample ID: MW9D1 Dup. Sample ID: MW1991

Compound Name	Sample Concentration	Duplicate Concentration	RPD	Action
bis(2-EH)phthalate	2JB	3JB	40	NA
diethylphthalate	1JB	0.7JB	35	NA

Field Duplicate Summary (continued)

Sample ID: MW40D-1 Dup. Sample ID: MW991

Compound Name	Sample Concentration	Duplicate Concentration	RPD	Action
1,2-DCB	3J	3J	0	NA
2,4-dimethylphenol	4J	ND	200	NA
naphthalene	11	9J	20	NA
2-methylnaphthalene	8J	6J	28	NA
acenaphthene	2J	1J	66	NA
dibenzofuran	1J	0.9J	10.5	NA
diethylphthalate	0.7J	ND	200	NA
di-n-butylphthalate	2JB	0.7JB	96	NA
butylbenzylphthalate	0.8J	ND	200	NA
bis(2-EH)phthalate	5JB	1JB	133	NA

Compound Identification/Quantitation

No qualifications are required.

System Performance and Overall Assessment

Overall performance was good. The laboratory did not encounter any large problems. The data reviewer estimates less than 5% of data required qualification.

GLOSSARY OF DATA QUALIFIERS

QUALIFICATION CODES

U = Not detected

J = Estimated value

UJ = Reported Quantitation limit is qualified as estimated

R = Result is rejected and unusable

NJ = Presumptive evidence for the presence of the material at an estimated value

K = Result is biased high

L = Result is biased low

METHOD BLANK QUALIFICATION CODES

CRQL = The sample result for the blank contaminant is less than the sample CRQL and is less than 10X the method blank value. The sample result for the blank contaminant is rejected and the CRQL for that analyte is reported.

U = The sample result for the blank contaminant is greater than the sample CRQL and is less than 10X the method blank value. The sample result for the blank contaminant is qualified as non detected at the analyte value reported.

No Action = The sample result for the blank contaminant is greater than the sample CRQL and is greater than 10X the method blank value. The sample result for the blank contaminant is not qualified with any blank qualifiers.

The specific findings will be noted in numerical form on the Form Is in this data validation report. These specific finding footnotes will reflect the conclusions found in the data validation process that resulted in the qualification of the data.

SUMMARY OF DATA QUALIFICATIONS

SAMPLE ID	ANALYTE ID	DL	QL	SPECIFIC FINDINGS
MW8D1 MW9S1 MW9D1 MW1991 MW7S1 MW7D1 MW8S1 MW2D1MS MW2D1MSD	3-nitroaniline 4-nitroaniline carbazole	+	J	1
FB2940713 SBLKYI	bis(2-chloroethyl)ether n-nitrosodiphenylamine 2,4,6-tribromophenol	+	J	2
MW1D1 MW2D1 MW2S1 MW40D1 MW991 FB1940712 MW2D1MS MW2D1MSD MW33D1 MW3S1 MW3D1 FB2940713 MW7S1 MW7D1 MW8S1 MW8S1 MW9S1 MW9D1 MW1991	bis(2-ethylhexyl)- phthalate	+	U	3

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\+ in the DL column denotes a positive result
\- in the DL column denotes a non detect result

SUMMARY OF DATA QUALIFICATIONS

SAMPLE ID	ANALYTE ID	DL	QL	SPECIFIC FINDINGS
MW1D1 MW2S1 MW40D1 MW991 FB1940712 MW2D1MS	di-n-butylphthalate	+	CRQL	3
MW7D1 MW8D1 MW9D1 MW1991	diethylphthalate	+	CRQL	3
All samples	"B" flagged TICs	+	R	4
MW1D1 MW40D1 MW33D1 MW3S1 MW3D1	diethylphthalate	+	CRQL	5
MW33D1 MW3S1 MW3D1	di-n-butyl- phthalate	+	CRQL	5

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\+ in the DL column denotes a positive result
\- in the DL column denotes a non detect result

DATA ASSESSMENT NARRATIVE

PESTICIDE/AROCLOR ANALYSIS

General

The organic findings offered in this screening report assume that all analytical results are correct as reported and are based upon the examination of the reported holding times, blank analysis results, surrogate and matrix spike recoveries, GC instrument performance, and calibration results. This report was prepared in compliance relative to the analytical and deliverable requirements specified in the U.S. EPA CLP, 3/90 SOW, NYSDEC 91-3 Modifications; the National Functional Guidelines for Organic Data Review, EPA DQO Level IV and NYSDEC Category B. All comments made within this report should be considered when examining the analytical results (Form Is).

Laboratory Case # 0666, SDG # Z0666.

Holding Times

All extraction and analysis holding times were met based on COC records and extraction and analysis information contained in the data package.

GC Instrument Performance

The resolution requirements were met on all columns on all sequences utilized for the analysis of the samples. The RTWs of endosulfan II and 4,4'-DDD overlapped on the DB-1701 column on both sequences. The RTWs of endosulfan II and 4,4'-DDD, endosulfan I and alpha-chlordane, and of endrin aldehyde and 4,4'-DDT overlapped on the RTX-35 column on both sequences. 4,4'-DDT was reported in two samples and alpha-chlordane was reported in one sample. It is the professional opinion of the reviewer that the result does not require qualification because the peaks were clearly within the RTWs of the compounds on the DB-1701 column. The laboratory should modify the method to control overlapping RTWs. Some of the peaks chosen for aroclor identification and quantitation were the same from aroclor to aroclor. AR1232 and AR1242 identification and quantitation peaks were almost identical. However, the aroclors were not identified in the samples. Further, aroclor identification is based primarily on pattern recognition. There was no impact to the data. However, if multiple aroclors were present in the samples the statement of work states that "a peak common to both analytes present in the sample must not be used to quantitate either compound." The laboratory should attempt to select unique peaks for the identification and quantitation of each aroclor. All pertinent surrogate retention times were within the established RTWs. The percent breakdown for Endrin and DDT were within the QC limit on both columns in the sequence. All PEM RPDs were with the

Initial Calibrations

The initial calibration was acceptably linear for all compounds on column DB-1701. The initial calibration on the RTX-35 column exhibited one compound with a non-compliant %RSD.

Specific Finding

1. The initial calibration, analyzed on 07/13/94 on column RTX-35 contained a compound with a RPD greater than 20%. For the samples and compounds listed below, qualify all positive results as estimated, J, and all non-detect results as estimated, UJ.

ALL	ENDRIN ALDEHYDE

Continuing Calibrations

All compounds in the calibration standards were within the laboratory reported Retention Time Windows (RTWs) for all columns and instruments. All continuing calibration standards associated with the reported samples exhibited acceptable relative percent differences, RPDs.

Method Blanks

The method blanks did not contain target compound contamination near or above the CRQL. No qualifications were required.

Instrument Blanks

The instrument blanks were free of target compound contamination.

QC Blanks

The field blank sample FRC-FB-1-940712 did not contain target compound contamination. The field blank sample FRC-FB-2-940713 exhibited a positive result above the CRQL for AR1232. Pattern recognition was acceptable. No qualifications were required because AR1232 was not reported in the associated samples.

Florisil/GPC Checks

The Florisil cartridge check exhibited compliant spike recoveries for all spike compounds. The raw data for the check standard was present in the package.

The GPC Calibration check sample was not required.

Surrogate Recoveries

All of the samples exhibited non-compliant surrogate recoveries. The DCB recoveries were below the QC limits in all samples and the TCMX recoveries were below the QC limits in most samples. The low recoveries were also noted in the method blanks associated with the samples. Since the non-compliance extends to the QC blanks as well as the samples, it appears that the low recoveries are likely the result of poor extraction efficiency or a degraded surrogate spiking solution rather than any matrix effect. Two samples required rejection/qualifications because the recovery of DCB on one column was below 10%.

Specific Findings

2. The positive and non-detect results for the following samples are qualified as estimated, J/UJ, due to low TCMX and/or DCB recovery.

   ALL EXCEPT FRC-MW-3S-1 AND FRC-FB-2-940713

3. The positive results are qualified as estimated, J, and the non-detect results are rejected, R, in the following samples due to a DCB recovery $<10\%$.

   FRC-MW-3S-1
   FRC-FB-2-940713

Matrix Spike/Matrix Spike Duplicate

The spike compounds in the MS/MSD of sample FRC-MW-2D-1 exhibited acceptable recoveries and RPDs for all compounds. Several non-spiked compounds were detected in the unspiked sample, MS and MSD. Agreement was poor. However, all concentrations were well below the CRQLs. No qualifications of the reported results was required based on the MS/MSD results.

The reported blank spike recoveries were acceptable.

Field Duplicates

The field duplicate pair of samples FRC-MW-9D-1 and FRC-MW-199-1 exhibited a positive results for one (1) target compound. The compound was detected in the field duplicate sample, but not in the original sample. The result was well below the compound CRQL The field duplicate pair of samples FRC-MW-40D-1 and FRC-MW-99-1 exhibited positive results for three (3) compounds. RPDs were acceptable for two (2) of the three (3) compounds. All results were below the compound CRQLs. Refer to the following table. No qualifications were required.

SAMPLE ID	COMPOUND	CONCENTRATION ug/KG		RPD
		SAMPLE	DUP	
FRC-MW-9D-1	DIELDRIN	0	0.008	200
FRC-MW-40D-1	AR1248	0.73	0.63	15
	AR1254	0.14	0.15	7
	DIELDRIN	0.006	0	200

Analyte Identification/Quantitation

Positive results were reported in several samples. Aroclors were reported in some samples. Identification and quantitation appear to be reasonable. Pattern recognition for the multi-component compounds was good. Some samples exhibited P flags due to column quantitation differences greater than 25%. Quantitation was verified.

Specific Findings

4. The positive results which exhibited column quantitation differences $>25\%$ but $\leq 100\%$ are qualified as estimated, J.

5. The positive results which exhibited column quantitation differences $>100\%$ are qualified as presumptively present at an estimated quantity, NJ.

Overall Assessment

The overall quality of the data package is fair. The reported results are accepted as reported by the laboratory with the noted qualifications.

QUALIFICATION CODES

U	=	Not detected
J	=	Reported result is quantitatively estimated
UJ	=	Reported quantitation limit is qualified as estimated
R	=	Result is rejected and unusable
N	=	Result is negated, do not consider result in sample
NJ	=	Presumptive evidence for the presence of the material at an estimated concentration

Validation specific findings are noted in numerical form on the Form Is in this data validation report. These specific finding footnotes reflect the conclusions found in the data validation process that resulted in the qualifications of the data.

SUMMARY OF PESTICIDE/AROCLOR DATA QUALIFICATIONS

SAMPLE ID	ANALYTE ID	DL	QL	SPECIFIC FINDINGS
ALL	ENDRIN ALDE.	+/U	J/UJ	1
ALL EXCEPT FRC-MW-3S-1 & FRC-FB-2-940713	ALL	+/U	J/UJ	2
FRC-MW-3S-1 FRC-FB-2-940713	ALL	+/U	J/R	3
ALL	ALL P >25%, ≤100%	+	J	4
ALL	ALL P > 100%	+	NJ	5

* DL denotes the Form I qualifier supplied by the laboratory
QL denotes the qualifier(s) used by the data validation firm
\+ in the DL column denotes a positive result
_ in the DL column denotes a non-detect result

DATA ASSESSMENT NARRATIVE
Metals

General

The inorganic findings offered in this screening report assumes that all analytical results are correct as reported and is based upon the examination of the reported holding times, calibration standards, blank analysis results and MS/MSD results. A minimum of ten percent of all laboratory calculations are recalculated by the reviewer. All comments made within this report should be considered when examining the analytical results (Form Is).

This data package consisted of results from **Eder and Associates, SDG# Z0666**, the analysis of seventeen (17) field total water samples and one Matrix Spike and Duplicate pair for TAL Metals and Cyanide. Overall, the inorganic data quality was fair. All protocol requirements were followed with the exception of the following problems.

Specific QA/QC deficiency Findings are listed numerically in the following categories:

Holding Times

The holding times were met as specified in New York State QA protocol.

Calibration

No deficiencies in this section.

Preparation and Field Blank

1. The preparation blanks exhibited contamination for the following elements.

   Magnesium 32.7 ug/l

   The calibration blanks exhibited contamination for the following elements.

   Antimony 24.2 ug/l

   The USEPA requires that all sample values below five times the preparation and calibration blanks contamination be qualified as non-detect, "U".

Interferences

No significant interferences were observed.

Spike Recovery

No deficiencies in this section.

Duplicate

No deficiencies in this section.

Field Duplicate

No deficiencies in this section.

LCS

No deficiencies in this section.

Serial Dilution

No deficiencies in this section.

MSA

2. The following analytes exhibited low recovery during the GFAA spiking procedures. All data is qualified as estimated, "J" or "UJ".

Analyte	Samples
Selenium	T0666016.

3. The following analytes exhibited high recovery during the GFAA spiking procedures. All positive data is qualified as estimated, "J".

Analyte	Samples
Lead	T0666001, 10. 16. 17, 18, 19 and 20.

SUMMARY OF DATA QUALIFICATIONS

SAMPLE ID	ANALYTE	DL	QL	SPECIFIC FINDING
All water samples	Sb and Mg.	+	U	1
T0666016.	Se.	+/U	J/UJ	2
T0666001, 10, 16, 17, 18, 19 and 20.	Pb.	+	J	3

DL - denotes laboratory qualifier/reported value
+ denotes positive values
U denotes non-detect values

QL - denotes data validation qualifier

DATA ASSESSMENT NARRATIVE
Metals

General

The inorganic findings offered in this screening report assumes that all analytical results are correct as reported and is based upon the examination of the reported holding times, calibration standards, blank analysis results and MS/MSD results. A minimum of ten percent of all laboratory calculations are recalculated by the reviewer. All comments made within this report should be considered when examining the analytical results (Form Is).

This data package consisted of results from **Eder and Associates, SDG# Z0666**, the analysis of seventeen (17) field dissolved water samples and one Matrix Spike and Duplicate pair for TAL Metals. Overall, the inorganic data quality was fair. All protocol requirements were followed with the exception of the following problems.

Specific QA/QC deficiency Findings are listed numerically in the following categories:

Holding Times

The holding times were met as specified in New York State QA protocol.

Calibration

No deficiencies in this section.

Preparation and Field Blank

1. The preparation blanks exhibited contamination for the following elements.

   Magnesium 21.2 ug/l

   The calibration blanks exhibited contamination for the following elements.

   Antimony 27.2 ug/l

   The USEPA requires that all sample values below five times the preparation and calibration blanks contamination be qualified as non-detect, "U".

Interferences

No significant interferences were observed.

Spike Recovery

No deficiencies in this section.

Duplicate

No deficiencies in this section.

Field Duplicate

No deficiencies in this section.

LCS

No deficiencies in this section.

Serial Dilution

No deficiencies in this section.

MSA

2. The following analytes exhibited low recovery during the GFAA spiking procedures. All data is qualified as estimated, "J" or "UJ".

Analyte	Samples
Selenium	F0666016, 18 and 19.
Thallium	All samples but 01, 03, 10 and 14.

3. The following analytes exhibited high recovery during the GFAA spiking procedures. All positive data is qualified as estimated, "J".

Analyte	Samples
Lead	F0666014, 15, 02, 01, 03, 04 and 05.

SUMMARY OF DATA QUALIFICATIONS

SAMPLE ID	ANALYTE	DL	QL	SPECIFIC FINDING
All water samples	Sb and Mg.	+	U	1
F0666016, 18 and 19. All samples but 01, 03, 10 and 14.	Se. Tl.	+/U	J/UJ	2
F0666014, 15, 02, 01, 03, 04 and 05.	Pb.	+	J	3

DL - denotes laboratory qualifier/reported value
+ denotes positive values
U denotes non-detect values

QL - denotes data validation qualifier

DATA ASSESSMENT NARRATIVE
Wet Chemistry

General

The inorganic findings offered in this screening report assumes that all analytical results are correct as reported and is based upon the examination of the reported holding times, calibration standards, blank analysis results and MS/MSD results. A minimum of ten percent of all laboratory calculations are recalculated by the reviewer. All comments made within this report should be considered when examining the analytical results (Form Is).

This data package consisted of results from **Eder and Associates, SDG# Z0666,** the analysis of seventeen (17) field water samples and one Matrix Spike and Duplicate pair for Alkalinity, Ammonia, BOD5, Chloride, COD, Hardness, Nitrate, Nitrite, Ortho-Phosphate, Sulfate, Sulfide, TDS and TOCD. Overall, the wet chemistry data quality was good. All protocol requirements were followed with the exception of the following problems.

Specific QA/QC deficiency Findings are listed numerically in the following categories:

Holding Times

The holding times were met as specified in New York State QA protocol.

Calibration

No deficiencies in this section.

Preparation and Field Blank

No deficiencies in this section.

Spike Recovery

No deficiencies in this section.

Duplicate

No deficiencies in this section.

Field Duplicate

No deficiencies in this section.

LCS

No deficiencies in this section.

SUMMARY OF DATA QUALIFICATIONS

SAMPLE ID	ANALYTE	DL	QL	SPECIFIC FINDING

Data stands as reported without qualification.

DL - denotes laboratory qualifier/reported value
+ denotes positive values
U denotes non-detect values

QL - denotes data validation qualifier

ANNOTATED FORM Is

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1D1 071

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666001

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2303.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	0.2	J
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 UJ
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	0.9	J
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

DAH 10-12-94

1E

EPA SAMPLE NO. 072

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW1D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666001

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2303.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
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29.					
30.					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 077

MW2D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666002

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2304.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 051
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	Xylene (total)	10	U

1E

EPA SAMPLE NO. 078

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW2D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666002

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2304.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	556672	~~Unknown alkane~~ OCTAMETHYLTRISILOXANE, OCTAMETHYL-	20.340	8	NJ NJ
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
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28.					
29.					
30.					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 086

MW2S1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666003

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2305.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 J 1
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	Xylene (total)	10	U

10/27

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW2S1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666003

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2305.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: ~~16~~ 10 PSM 08/04/94

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		~~Unknown alkane~~	~~9.790~~	~~6~~	~~J~~
2.		Unknown alkane	12.360	13	NJ
3.		Unknown alkane	12.580	23	J
4.		~~Unknown alkane~~	~~20.340~~	~~7~~	~~J~~
5.		Unknown C3 ALKYLBENZENE	21.900	17	J
6.		~~Unknown~~	~~21.980~~	~~9~~	~~J~~
7.		Unknown C4 ALKYLBENZENE	22.500	22	J
8.		Unknown C4 ALKYLBENZENE	22.580	26	J
9.		Unknown INDENE	22.770	16	J
10.		Unknown C4 ALKYLBENZENE	22.880	19	J
11.		~~Unknown~~	~~23.050~~	~~9~~	~~J~~
12.		Unknown INDENE	23.180	20	J
13.		~~Unknown~~	~~23.270~~	~~6~~	~~J~~
14.		Unknown	23.420	24	J
15.		~~Unknown~~	~~23.820~~	~~9~~	~~J~~
16.		Unknown INDENE	23.900	17	J
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

JD 10/27/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW40D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

103

Matrix: (soil/water) WATER Lab Sample ID: 0666004

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2306.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 2	U J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	12	
100-41-4	Ethylbenzene	3	J
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	40	J

FORM I VOA 3/90

643

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW40D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666 104

Matrix: (soil/water) WATER Lab Sample ID: 0666004

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2306.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: ~~14~~ 10

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	79389	~~Unknown~~ ETHENE, CHLOROTRIFLUORO-	2.010	230	NJ
2.		~~Unknown alkane~~	~~3.740~~	~~19~~	~~J~~
3.	76131	~~Unknown alkane~~ ETHANE, 1,1,2-TRICHLORO-	4.560	490	NJ
4.		Unknown alkane	5.540	250	J
5.		Unknown alkane	6.040	180	J
6.	110543	~~Unknown alkane~~ HEXANE	6.580	130	NJ
7.		~~Unknown alkane~~	~~7.340~~	~~13~~	~~J~~
8.		Unknown ~~alkane~~ CYCLOALKANE	7.710	720	J
9.	110827	~~Unknown alkane~~ CYCLOHEXANE	9.020	670	NJ
10.		Unknown alkane	9.340	37	J
11.		~~Unknown alkane~~	~~9.750~~	~~20~~	~~J~~
12.		Unknown alkane	9.980	36	J
13.		Unknown ~~alkane~~ CYCLOALKANE	11.400	39	J
14.		~~Unknown~~	~~21.630~~	6	J
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW991

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666005 124

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2307.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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~~ U 5 1
127-18-4	Tetrachloroethene	10 ~~2~~	~~J~~ U 6
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	13	
100-41-4	Ethylbenzene	4	J
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	15	J 7

FORM I VOA 3/90

JP 10/25/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW991

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

125

Matrix: (soil/water) WATER Lab Sample ID: 0666005

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2307.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: ~~15~~ 10 RS 08/04/94

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	79389	~~Unknown~~ ETHENE, CHLOROTRIFLUORO-	2.010	200	NJ
2.		~~Unknown alkane~~	~~3.730~~	~~17~~	~~J~~
3.	76131	~~Unknown alkane~~ ETHANE, 1,1,2-TRICHLORO-	4.570	460	NJ
4.	107835	~~Unknown alkane~~ PENTANE, 2-METHYL-	5.540	230	NJ
5.	96140	~~Unknown alkane~~ PENTANE, 3-METHYL-	6.040	170	NJ
6.	110543	~~Unknown alkane~~ HEXANE	6.570	120	NJ
7.		~~Unknown alkane~~	~~7.360~~	~~12~~	~~J~~
8.		Unknown ~~alkane~~ CYCLOALKANE	7.720	670	J
9.	110827	~~Unknown alkane~~ CYCLOHEXANE	9.020	630	NJ
10.		Unknown alkane	9.350	34	J
11.		~~Unknown alkane~~	~~9.760~~	~~20~~	~~J~~
12.		Unknown alkane	9.980	35	J
13.		Unknown ~~alkane~~ CYCLOHEXANE	11.400	37	J
14.		~~Unknown~~	~~20.430~~	~~5~~	~~J~~
15.		~~Unknown~~	~~21.630~~	~~6~~	~~J~~
16.					
17.					
18.					
19.					
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30.					

DF 10/25/94

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 144

FB1940712

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2302.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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~~ UJ
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	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. 145

FB1940712

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2302.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown alkane	21.660	5	NJ
2.	Unknown alkane	22.180	8	J
3.				
4.				
5.				
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7/20/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 155

CFB1940712

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2308.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAC 8/09/94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 VJ
127-18-4	Tetrachloroethene	1	J
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	Xylene (total)	10	U

JH 8/01/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CVB1940712

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2308.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

cac 8/09/94

156

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
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10.					
11.					
12.					
13.					
14.					
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19.					
20.					
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23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

DJP 10/25/94

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB1940712

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

161

Matrix: (soil/water) WATER Lab Sample ID: 0666008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2301.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	UJ
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	Xylene (total)	10	U

7/19/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TB1940712

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666008 162

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2301.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
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9.					
10.					
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27.					
28.					
29.					
30.					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW33D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

165

Matrix: (soil/water) WATER Lab Sample ID: 0666009

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2319.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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~~ UJ3
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	Xylene (total)	10	U

FORM I VOA 3/90

GB 10/25/94

053

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW33D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

166

Matrix: (soil/water) WATER Lab Sample ID: 0666009

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2319.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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6.					
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10.					
11.					
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18.					
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30.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3S1

170

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666010

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2342.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	50	U
74-83-9	Bromomethane	50	U
75-01-4	Vinyl Chloride	13	J
75-00-3	Chloroethane	55	
75-09-2	Methylene Chloride	50	U
67-64-1	Acetone	50	U
75-15-0	Carbon Disulfide	50	U
75-35-4	1,1-Dichloroethene	50	U
75-34-3	1,1-Dichloroethane	18	J
540-59-0	1,2-Dichloroethene (total)	3	J
67-66-3	Chloroform	50	U
107-06-2	1,2-Dichloroethane	50	U
78-93-3	2-Butanone	50	U
71-55-6	1,1,1-Trichloroethane	50	U
56-23-5	Carbon Tetrachloride	50	U
75-27-4	Bromodichloromethane	50	U
78-87-5	1,2-Dichloropropane	50	U
10061-01-5	cis-1,3-Dichloropropene	50	U
79-01-6	Trichloroethene	50	U
124-48-1	Dibromochloromethane	50	U
79-00-5	1,1,2-Trichloroethane	50	U
71-43-2	Benzene	73	
10061-02-6	trans-1,3-Dichloropropene	50	U
75-25-2	Bromoform	50	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U J S
127-18-4	Tetrachloroethene	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
108-88-3	Toluene	210	
108-90-7	Chlorobenzene	37	J
100-41-4	Ethylbenzene	450	
100-42-5	Styrene	50	U
1330-20-7	Xylene (total)	810	

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW3S1 171

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666010

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2342.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 10 PS 08/04/94

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	79389	ETHENE, CHLOROTRIFLUORO-	2.01	810	NJ
2.		UNKNOWN C3 ALKYLCYCLOPENTENE	21.06	590	NJ
3.		UNKNOWN C3 ALKYLBENZENE	20.43	180	NJ
4.		UNKNOWN C3 ALKYLBENZENE	21.63	160	NJ
5.		UNKNOWN C3 ALKYLBENZENE	21.90	160	NJ
6.		UNKNOWN C3 ALKYLBENZENE	20.84	130	NJ
7.	110827	CYCLOHEXANE	9.02	130	NJ
8.	107835	PENTANE, 2-METHYL-	5.54	120	NJ
9.	96377	UNKNOWN CYCLOPENTANE, METHYL-	7.72	110	NJ
10.		UNKNOWN C3 ALKYLBENZENE	20.55	100	NJ
11.					
12.					
13.					
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20.					
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30.					

8/16/1994

056

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666011

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2321.D 192

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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)	6	J
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	15	
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 U53
127-18-4	Tetrachloroethene	10 5	J U6
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	2	J
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

7/19/1994

057

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW3D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

193

Matrix: (soil/water) WATER Lab Sample ID: 0666011

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2321.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 5 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

PS 10 ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	4.120	16	NJ J
2.		Unknown	20.220	5	J
3.	~~193~~ 1973294	~~Unknown~~ BENZENE, 1BROMO-2-ETHYL-	23.130	19	NJ
4.	B7Holle 91203	~~Unknown~~ BENZENE, 1,2,3-TRICHLORO	23.870	11	NJ
5.		~~Unknown~~ NAPHTHALENE	24.110	7	NJ
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
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21.					
22.					
23.					
24.					
25.					
26.					
27.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 208

FB2940713

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666012

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2322.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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~~ UJ 3
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	Xylene (total)	10	U

059

JLP 10/25/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. 209

FB2940713

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666012

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2322.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown alkane	21.160	6	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
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29.					
30.					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB2940713

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666013 217

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2323.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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 UJ 3
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	Xylene (total)	10	U

7/19/1294

061

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TB2940713

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

218

Matrix: (soil/water) WATER Lab Sample ID: 0666013

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2323.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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27.					
28.					
29.					
30.					

DF 8/31/94

062

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7S1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666014

222

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2324.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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~~ UJ 3
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	Xylene (total)	10	U

#P1254

063

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW7S1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666014 223

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2324.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
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18.					
19.					
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23.					
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27.					
28.					
29.					
30.					

10/25/94

064

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666015

227

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2325.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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)	3	J
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	1	J
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	2	J
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	Xylene (total)	10	U

065

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW7D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

228

Matrix: (soil/water) WATER Lab Sample ID: 0666015

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2325.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW8S1 234

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666016

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2326.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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)	1	J
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	11	
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 5 3
127-18-4	Tetrachloroethene	10 4	J U 6
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	Xylene (total)	10	U

7/20/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW8S1

235

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666016

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2326.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
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19.					
20.					
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23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

DH 10/25/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW8D1

241

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666017

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2327.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	Xylene (total)	10	U

U U 3

7/20/94

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW8D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666 242

Matrix: (soil/water) WATER Lab Sample ID: 0666017

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2327.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
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28.					
29.					
30.					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW9S1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

246

Matrix: (soil/water) WATER Lab Sample ID: 0666018

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2337.D

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

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	9	J
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)	35	
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	24	
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 55
127-18-4	Tetrachloroethene	10 ~~2~~	J U 6
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	Xylene (total)	10	U

DH 101294

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW9S1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666018

247

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2337.D

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

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 15

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		~~Unknown alkane~~	~~15.920~~	~~6~~	~~J~~ NJ
2.		Unknown	21.980	16	J
3.		~~Unknown~~	~~22.210~~	~~7~~	~~J~~
4.		~~Unknown alkane~~	~~22.410~~	~~7~~	~~J~~
5.		~~Unknown alkane~~	~~22.500~~	~~5~~	~~J~~
6.		Unknown C4 ALKYLBENZENE	22.620	21	J
7.		Unknown	22.720	18	J
8.		Unknown	22.860	13	J
9.		Unknown C4 ALKYLBENZENE	23.050	14	J
10.		Unknown	23.200	14	J
11.		Unknown	23.360	11	J
12.		Unknown	23.460	10	J
13.		Unknown	23.600	8	J
14.		Unknown	23.800	28	J
15.		~~Unknown~~	~~24.040~~	~~6~~	~~J~~
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

DJH 101294

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 266

MW9D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666019

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2338.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	2	J
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	4	J
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	3	J
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	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. 267

MW9D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666019

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2338.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

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

PSJ 08/04/94

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown SILOXANE	6.120	6	NJ
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
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26.					
27.					
28.					
29.					
30.					

DJB 10/25/94

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 277

MW1991

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666020

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2339.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	2	J
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	4	J
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 2	J
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	Xylene (total)	10	U

355

075

1E

EPA SAMPLE NO. 278

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW1991

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666020

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2339.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

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

By calculation

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown SILOXANE	6.120	6	NJ
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
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JH 101294

3500

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2D1MS

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666002MS

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2310.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	49	
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	51	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	50	
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 051
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	53	
108-90-7	Chlorobenzene	53	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

pf 8/01/94

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2D1MSD

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666002MSD

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2311.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	52	
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	50	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	51	
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~~ UJ
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	52	
108-90-7	Chlorobenzene	52	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

DJH 12/54

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666001

Sample wt/vol: 975 (g/mL) ML Lab File ID: I7453.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

389

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	26	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	26	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	26	U
83-32-9	Acenaphthene	10	U

7/01/94

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666001 390

Sample wt/vol: 975 (g/mL) ML Lab File ID: I7453.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q	
51-28-5	2,4-Dinitrophenol		26	U	
100-02-7	4-Nitrophenol		26	U	
132-64-9	Dibenzofuran		10	U	
121-14-2	2,4-Dinitrotoluene		10	U	
84-66-2	Diethylphthalate	10	~~3~~	~~U~~	C5
7005-72-3	4-Chlorophenyl-phenylether		10	U	
86-73-7	Fluorene		10	U	
100-01-6	4-Nitroaniline		26	U	
534-52-1	4,6-Dinitro-2-methylphenol		26	U	
86-30-6	N-Nitrosodiphenylamine (1)		10	U	
101-55-3	4-Bromophenyl-phenylether		10	U	
118-74-1	Hexachlorobenzene		10	U	
87-86-5	Pentachlorophenol		26	U	
85-01-8	Phenanthrene		10	U	
120-12-7	Anthracene		10	U	
86-74-8	Carbazole		10	U	
84-74-2	Di-n-butylphthalate	10	~~0.5~~	~~JB~~	C3
206-44-0	Fluoranthene		10	U	
129-00-0	Pyrene		10	U	
85-68-7	Butylbenzylphthalate		10	U	
91-94-1	3,3'-Dichlorobenzidine		10	U	
56-55-3	Benzo(a)anthracene		10	U	
218-01-9	Chrysene		10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	10	~~2~~	~~JB~~	C3
117-84-0	Di-n-octylphthalate		10	U	
205-99-2	Benzo(b)fluoranthene		10	U	
207-08-9	Benzo(k)fluoranthene		10	U	
50-32-8	Benzo(a)pyrene		10	U	
193-39-5	Indeno(1,2,3-cd)pyrene		10	U	
53-70-3	Dibenz(a,h)anthracene		10	U	
191-24-2	Benzo(g,h,i)perylene		10	U	

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW1D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

391

Matrix: (soil/water) WATER Lab Sample ID: 0666001

Sample wt/vol: 975 (g/mL) ML Lab File ID: I7453.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: ~~4~~ 3 RS 08/08/94

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	6.010	~~4~~	~~JB~~
2.	Unknown	7.890	2	JB J
3.	~~Unknown~~	~~9.560~~	~~20~~	~~J~~
4.	Unknown	18.050	2	J
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
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19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

JB 08/11/94

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666002

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7458.D

405

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/24/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

7/27/94

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666002 406

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7458.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/24/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	0.5	J
129-00-0	Pyrene	0.5	J
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 ~~3~~	~~JB~~ C3
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW2D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666002 407

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7458.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/24/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 4

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

GHW 08/08/94

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.000	~~4~~	~~JB~~ RY
2.		Unknown	6.880	3	NJ J
3.	930687	~~Unknown~~ 2-CYCLOHEXEN-1-ONE	7.890	3	J
4.		Unknown ALCOHOL	9.470	3	↓ J
5.					
6.					
7.					
8.					
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JB 10/6/94

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2S1 422

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666003

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7457.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/24/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

YP 01164

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 423

MW2S1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666003

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7457.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/24/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q	
51-28-5	2,4-Dinitrophenol		25	U	
100-02-7	4-Nitrophenol		25	U	
132-64-9	Dibenzofuran		10	U	
121-14-2	2,4-Dinitrotoluene		10	U	
84-66-2	Diethylphthalate		10	U	
7005-72-3	4-Chlorophenyl-phenylether		10	U	
86-73-7	Fluorene		10	U	
100-01-6	4-Nitroaniline		25	U	
534-52-1	4,6-Dinitro-2-methylphenol		25	U	
86-30-6	N-Nitrosodiphenylamine (1)		10	U	
101-55-3	4-Bromophenyl-phenylether		10	U	
118-74-1	Hexachlorobenzene		10	U	
87-86-5	Pentachlorophenol		25	U	
85-01-8	Phenanthrene		10	U	
120-12-7	Anthracene		10	U	
86-74-8	Carbazole		10	U	
84-74-2	Di-n-butylphthalate	10	~~0.7~~	~~JB~~	C3
206-44-0	Fluoranthene		10	U	
129-00-0	Pyrene		10	U	
85-68-7	Butylbenzylphthalate		10	U	
91-94-1	3,3'-Dichlorobenzidine		10	U	
56-55-3	Benzo(a)anthracene		10	U	
218-01-9	Chrysene		10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	10	~~4~~	~~JB~~	C3
117-84-0	Di-n-octylphthalate		10	U	
205-99-2	Benzo(b)fluoranthene		10	U	
207-08-9	Benzo(k)fluoranthene		10	U	
50-32-8	Benzo(a)pyrene		10	U	
193-39-5	Indeno(1,2,3-cd)pyrene		10	U	
53-70-3	Dibenz(a,h)anthracene		10	U	
191-24-2	Benzo(g,h,i)perylene		10	U	

7/25/94

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. 424

MW2S1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666003

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7457.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/24/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.010	~~3~~	JB
2.		~~Unknown alkane~~ INDANE	10.070	6	NJ
3.		Unknown C4 ALKYLBENZENE	10.310	6	
4.		Unknown ISOMER OF NAPHTHALENE, DECAHYDRO	10.410	11	
5.		Unknown ALDEHYDE	10.750	4	
6.		Unknown ALKYLBENZENE	10.920	9	
7.		Unknown ~~alkane~~	11.270	5	
8.		Unknown ISOMER OF 1H-INDENE, 2,3-DIHY	11.350	7	
9.		Unknown C4 ALKYLBENZENE	11.550	12	
10.		Unknown C5 ALKYLBENZENE	11.750	8	
11.		Unknown C5 ALKYLBENZENE	11.940	8	
12.		Unknown ~~PAH~~	12.050	6	
13.	767-58-8	~~Unknown~~ INDAN, 1-METHYL-	12.170	12	N
14.		Unknown ALKYLBENZENE	12.440	3	
15.		Unknown ISOMER OF 1H-INDENE, 2,3-DIHYDRO	12.810	5	
16.		Unknown C5 ALKYLBENZENE	12.890	5	
17.		Unknown ISOMER OF 1H-INDENE, 2,3-DIHY	12.960	5	
18.		Unknown	13.700	3	
19.		Unknown alkane	17.770	4	
20.		Unknown	17.900	2	
21.					
22.					
23.					
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LH 08/08/

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW40D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666004

Sample wt/vol: 500 ~~1000~~ (g/mL) ML Lab File ID: I7450.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 500 ~~1000~~ (UL) Date Analyzed: 07/23/94

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: PS 08/08/94

454

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	3	J
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	4	J
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	11	
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	8	J
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	2	J

ID 11154

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW40D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

455

Matrix: (soil/water) WATER Lab Sample ID: 0666004

Sample wt/vol: 500 ~~1000~~ (g/mL) ML Lab File ID: I7450.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 500 ~~1000~~(UL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: PS 08/08/94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	1	J
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10 ~~0.7~~	~~J~~ U5
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10 ~~2~~	~~J~~ U3
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	0.8	J
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 ~~3~~	~~J~~ U3
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

10/10/94

089

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW40D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

456

Matrix: (soil/water) WATER Lab Sample ID: 0666004

Sample wt/vol: 500 (g/mL) ML Lab File ID: I7450.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 16

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown alkane	6.010	14	NJ
2.		Unknown	6.870	4	
3.		Unknown C3 ALKYLBENZENE	7.680	6	
4.	930687	~~Unknown~~ 2-CYCLOHEXEN-1-ONE	7.890	~~6~~ BNJ 14	
5.	103651	~~Unknown~~ BENZENE, PROPYL-	8.340	7	NJ
6.		Unknown C3 ALKYLBENZENE	8.550	12	
7.		Unknown C3 ALKYLBENZENE	8.670	6	
8.		Unknown C3 ALKYLBENZENE	8.910	10	
9.		Unknown C3 ALKYLBENZENE	9.800	20	
10.		Unknown	10.430	4	
11.		Unknown	10.670	4	
12.		Unknown	11.630	8	
13.		Unknown	14.790	12	
14.		Unknown	30.390	5	
15.		Unknown	30.770	7	
16.		Unknown	31.180	4	
17.					
18.					
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1H 10/11/94

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW991

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666005

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7451.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

486

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	3	J
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	9	J
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	6	J
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	1	J

7/28/94

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW991

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

487

Matrix: (soil/water) WATER Lab Sample ID: 0666005

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7451.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	0.9	J
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10 ~~0.7~~	~~JB~~ U 3
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 ~~1~~	~~JB~~ U 3
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

JB 10/16/94

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW991

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666005 488

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7451.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 15

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.010	~~4~~ JB 47	
2.		Unknown C3 ALKYLBENZENE	7.680	2	NJ
3.	103651	~~Unknown~~ BENZENE, PROPYL	8.340	3	
4.		Unknown C3 ALKYLBENZENE	8.550	5	
5.		Unknown C3 ALKYLBENZENE	8.670	3	
6.		Unknown C3 ALKYLBENZENE	8.910	4	
7.		Unknown C3 ALKYLBENZENE	9.800	9	
8.		Unknown	11.630	3	
9.		Unknown	12.190	6	
10.		Unknown ISOMER OF METHYLNAPHTHALENE	14.800	4	
11.		Unknown	15.470	3	
12.	85609	~~Unknown~~ PHENOL, 4,4'-BUTYLIDINEBIS	29.330	8	NJ
13.		Unknown	30.390	4	
14.		Unknown	30.770	6	
15.		Unknown	31.190	3	
16.					
17.					
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10/19/94

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB1940712

516

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666006

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7452.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB1940712

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666 517

Matrix: (soil/water) WATER Lab Sample ID: 0666006

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7452.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	0.4	J
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10 ~~0.7~~	~~JB~~ U 3
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 ~~3~~	~~JB~~ U 3
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FB1940712

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

518

Matrix: (soil/water) WATER Lab Sample ID: 0666006

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7452.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: ~~3~~ 2

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

PJ 08/08/94

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		~~Unknown~~	~~9.560~~	~~20~~	~~J~~
2.	128370	~~Unknown~~ BUTYLATED HYDROXYTOLU	17.490	6	NSJ
3.		UNKNOWN	6.000	~~2~~	~~BJ~~ R4
4.					
5.					
6.					
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10/16/94

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

530

MW33D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666009

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7456.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/14/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/24/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	0.4	J
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW33D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666009

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7456.D 531

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/14/94 LHO 08/08/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/24/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
51-28-5	2,4-Dinitrophenol		25	U
100-02-7	4-Nitrophenol		25	U
132-64-9	Dibenzofuran		10	U
121-14-2	2,4-Dinitrotoluene		10	U
84-66-2	Diethylphthalate	10	~~9~~	~~J~~ U5
7005-72-3	4-Chlorophenyl-phenylether		10	U
86-73-7	Fluorene		10	U
100-01-6	4-Nitroaniline		25	U
534-52-1	4,6-Dinitro-2-methylphenol		25	U
86-30-6	N-Nitrosodiphenylamine (1)		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		25	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
86-74-8	Carbazole		10	U
84-74-2	Di-n-butylphthalate	10	~~0.6~~	~~J~~ U5
206-44-0	Fluoranthene		10	U
129-00-0	Pyrene		10	U
85-68-7	Butylbenzylphthalate		10	U
91-94-1	3,3'-Dichlorobenzidine		10	U
56-55-3	Benzo(a)anthracene		10	U
218-01-9	Chrysene		10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	~~1~~	~~JB~~ U3
117-84-0	Di-n-octylphthalate		10	U
205-99-2	Benzo(b)fluoranthene		10	U
207-08-9	Benzo(k)fluoranthene		10	U
50-32-8	Benzo(a)pyrene		10	U
193-39-5	Indeno(1,2,3-cd)pyrene		10	U
53-70-3	Dibenz(a,h)anthracene		10	U
191-24-2	Benzo(g,h,i)perylene		10	U

JH 10/11/94

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW33D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666009

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7456.D 532

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/14/94 LHD 08/08/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/24/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 2 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.000	~~4~~	~~JB~~ =4
2.		Unknown	7.900	2	NJ
3.					
4.					
5.					
6.					
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DH 10/14/94

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3S1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666010

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7455.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/14/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

545

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	2	J
106-46-7	1,4-Dichlorobenzene	12	
95-50-1	1,2-Dichlorobenzene	8	J
95-48-7	2-Methylphenol	2	J
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	2	J
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	74	
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	24	
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

100

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3S1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666010 546

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7455.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/14/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10 ~~2~~	~~J~~ U 05
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	0.4	J
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10 ~~1~~	~~J~~ U 05
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 ~~7~~	~~JB~~ U 03
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

JB 101194

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW3S1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

547

Matrix: (soil/water) WATER Lab Sample ID: 0666010

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7455.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/14/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 19

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown C3 ALKYLBENZENE	7.690	14	NJ
2.	103651	~~Unknown~~ BENZENE, PROPYL-	8.370	82	NJ
3.		Unknown C3 ALKYLBENZENE	8.580	92	
4.		Unknown C3 ALKYLBENZENE	8.700	58	
5.		Unknown C3 ALKYLBENZENE	8.940	73	
6.		Unknown C3 ALKYLBENZENE	9.840	120	
7.		Unknown	10.320	18	
8.		Unknown	10.440	25	
9.		Unknown C4 ALKYLBENZENE	10.490	15	
10.		Unknown C4 ALKYLBENZENE	10.650	18	
11.		Unknown	10.850	23	
12.		Unknown C4 ALKYLBENZENE	10.880	15	
13.		Unknown	11.000	36	
14.		Unknown C4 ALKYLBENZENE	11.640	6	
15.		Unknown	12.170	9	
16.	611018	~~Unknown~~ BENZOIC ACID, 2,4-DIMETHYL	15.430	16	N
17.		Unknown	16.130	8	
18.	126738	~~Unknown~~ PHOSPHORIC ACID TRIBUTYL	19.190	18	NJ
19.		Unknown	21.890	84	NJ
20.					
21.					
22.					
23.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

584

Matrix: (soil/water) WATER Lab Sample ID: 0666011

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7454.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/14/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	1	J
106-46-7	1,4-Dichlorobenzene	1	J
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	7	J
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666 585

Matrix: (soil/water) WATER Lab Sample ID: 0666011

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7454.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/14/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
51-28-5	2,4-Dinitrophenol		25	U
100-02-7	4-Nitrophenol		25	U
132-64-9	Dibenzofuran		10	U
121-14-2	2,4-Dinitrotoluene		10	U
84-66-2	Diethylphthalate	10	~~2~~	~~J~~ C5
7005-72-3	4-Chlorophenyl-phenylether		10	U
86-73-7	Fluorene		10	U
100-01-6	4-Nitroaniline		25	U
534-52-1	4,6-Dinitro-2-methylphenol		25	U
86-30-6	N-Nitrosodiphenylamine (1)		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		25	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
86-74-8	Carbazole		10	U
84-74-2	Di-n-butylphthalate	10	~~0.7~~	~~J~~ C5
206-44-0	Fluoranthene		10	U
129-00-0	Pyrene		10	U
85-68-7	Butylbenzylphthalate		10	U
91-94-1	3,3'-Dichlorobenzidine		10	U
56-55-3	Benzo(a)anthracene		10	U
218-01-9	Chrysene		10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	~~7~~	~~JB~~ C3
117-84-0	Di-n-octylphthalate		10	U
205-99-2	Benzo(b)fluoranthene		10	U
207-08-9	Benzo(k)fluoranthene		10	U
50-32-8	Benzo(a)pyrene		10	U
193-39-5	Indeno(1,2,3-cd)pyrene		10	U
53-70-3	Dibenz(a,h)anthracene		10	U
191-24-2	Benzo(g,h,i)perylene		10	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW3D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

586

Matrix: (soil/water) WATER Lab Sample ID: 0666011

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7454.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/14/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/23/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 11 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

PS 08/22/94

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.010	~~3~~	~~JB~~
2.	73224	~~Unknown~~ BENZENE, 1-BROMO-2-ETHYL-	11.640	14	NJ
3.		Unknown ACID	12.580	4	
4.		Unknown ACID	15.490	8	
5.		Unknown	15.830	3	
6.		Unknown	15.910	3	
7.		Unknown	18.150	27	
8.		Unknown ISOMER OF 1,1'-BIPHENYL, DICHLORO-	18.980	9	
9.		Unknown ISOMER OF 1,1'-BIPHENYL, DICHLORO-	19.970	2	
10.		Unknown ACID	20.430	4	
11.		Unknown	29.330	2	
12.					
13.					
14.					
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JB 27

LMO 08/31

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB2940713

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666012 609

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7497.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted:07/14/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/28/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

HB 10/19/94

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB2940713

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

610

Matrix: (soil/water) WATER Lab Sample ID: 0666012

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7497.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/14/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/28/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	0.3	J
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	0.5	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3;3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	~~2~~ JB	U 3
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

JB 101154

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FB2940713

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

611

Matrix: (soil/water) WATER Lab Sample ID: 0666012

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7497.D

Level: (low/med) LOW Date Received: 07/14/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/14/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/28/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	5.440	~~2~~	~~BJ~~ K
2.		Unknown	29.220	2	NJD
3.					
4.					
5.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7S1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

624

Matrix: (soil/water) WATER Lab Sample ID: 0666014

Sample wt/vol: 900 (g/mL) ML Lab File ID: I7479.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	11	U
111-44-4	bis(2-Chloroethyl)ether	11	U
95-57-8	2-Chlorophenol	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
95-50-1	1,2-Dichlorobenzene	11	U
95-48-7	2-Methylphenol	11	U
108-60-1	2,2'-oxybis(1-Chloropropane)	11	U
106-44-5	4-Methylphenol	11	U
621-64-7	N-Nitroso-di-n-propylamine	11	U
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	11	U
78-59-1	Isophorone	11	U
88-75-5	2-Nitrophenol	11	U
105-67-9	2,4-Dimethylphenol	11	U
111-91-1	bis(2-Chloroethoxy)methane	11	U
120-83-2	2,4-Dichlorophenol	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
91-20-3	Naphthalene	11	U
106-47-8	4-Chloroaniline	11	U
87-68-3	Hexachlorobutadiene	11	U
59-50-7	4-Chloro-3-methylphenol	11	U
91-57-6	2-Methylnaphthalene	11	U
77-47-4	Hexachlorocyclopentadiene	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	28	U
91-58-7	2-Chloronaphthalene	11	U
88-74-4	2-Nitroaniline	28	U
131-11-3	Dimethylphthalate	11	U
208-96-8	Acenaphthylene	11	U
606-20-2	2,6-Dinitrotoluene	8	J
99-09-2	3-Nitroaniline	28	U
83-32-9	Acenaphthene	11	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7S1

625

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666014

Sample wt/vol: 900 (g/mL) ML Lab File ID: I7479.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	28	U
100-02-7	4-Nitrophenol	28	U
132-64-9	Dibenzofuran	11	U
121-14-2	2,4-Dinitrotoluene	11	U
84-66-2	Diethylphthalate	11	U
7005-72-3	4-Chlorophenyl-phenylether	11	U
86-73-7	Fluorene	11	U
100-01-6	4-Nitroaniline	28	U
534-52-1	4,6-Dinitro-2-methylphenol	28	U
86-30-6	N-Nitrosodiphenylamine (1)	11	U
101-55-3	4-Bromophenyl-phenylether	11	U
118-74-1	Hexachlorobenzene	11	U
87-86-5	Pentachlorophenol	28	U
85-01-8	Phenanthrene	11	U
120-12-7	Anthracene	11	U
86-74-8	Carbazole	11	U
84-74-2	Di-n-butylphthalate	11	U
206-44-0	Fluoranthene	11	U
129-00-0	Pyrene	11	U
85-68-7	Butylbenzylphthalate	11	U
91-94-1	3,3'-Dichlorobenzidine	11	U
56-55-3	Benzo(a)anthracene	11	U
218-01-9	Chrysene	11	U
117-81-7	bis(2-Ethylhexyl)phthalate	11 ~~0.9~~ ~~JB~~	U 3
117-84-0	Di-n-octylphthalate	11	U
205-99-2	Benzo(b)fluoranthene	11	U
207-08-9	Benzo(k)fluoranthene	11	U
50-32-8	Benzo(a)pyrene	11	U
193-39-5	Indeno(1,2,3-cd)pyrene	11	U
53-70-3	Dibenz(a,h)anthracene	11	U
191-24-2	Benzo(g,h,i)perylene	11	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW7S1 626

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666014

Sample wt/vol: 900 (g/mL) ML Lab File ID: I7479.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

LMO 07/08/94

Number TICs found: 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	5.670	~~10~~	~~J B~~ KY
2.		Unknown	6.560	4	NJ U
3.		Unknown alkane	7.300	3	↓ U
4.		Unknown	7.330	2	J B
5.	930687	~~Unknown~~ 2-CYCLOHEXEN-1-ONE	7.590	~~4~~	~~NJ B~~ KY
6.		Unknown	12.840	4	NJ U
7.		Unknown ACID	15.200	3	↓ U
8.					
9.					
10.					
11.					
12.					
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30.					

DJH 10/19/94

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

643

Matrix: (soil/water) WATER Lab Sample ID: 0666015

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7480.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	1	J
95-50-1	1,2-Dichlorobenzene	4	J
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7D1 644

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666015

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7480.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10 ~~1~~	~~JB~~ C3
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 ~~2~~	~~JB~~ C3
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

JH 10/19/94

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. 645

MW7D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666015

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7480.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 12

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	5.670	~~6~~	~~J B~~
2.	Unknown	6.560	2	NJ J
3. LHP 930687	~~Unknown~~ 2-CYCLOHEXEN-1-ONE	7.600	~~2~~	~~NJ B~~
4. 08/03/94	Unknown	11.550	5	NJ
5.	Unknown	11.890	4	
6.	Unknown	12.840	5	
7.	Unknown	14.900	3	
8.	Unknown alkane	17.650	3	
9.	Unknown ACID	17.790	3	
10.	Unknown alkane	23.480	3	
11.	Unknown ALCOHOL	26.140	4	
12.	Unknown	28.490	3	
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW8S1 668

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666016

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7481.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

669

MW8S1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666016

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7481.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	~~0.8~~ JB	~~U~~ 3
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

BJH 101194

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. 670

MW8S1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666016

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7481.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	5.670	~~5~~	~~BJ~~
2.		Unknown	6.560	3	NJ
3.	930687	~~Unknown~~ 2-CYCLOHEXEN-1-ONE	7.590	~~3~~	~~NB~~ J
4.		Unknown	12.850	4	NJ
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12 tics total

10/14/94

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW8D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666017

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7474.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

684

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

8/11/94

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW8D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

685

Matrix: (soil/water) WATER Lab Sample ID: 0666017

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7474.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q	
51-28-5	2,4-Dinitrophenol		25	U	
100-02-7	4-Nitrophenol		25	U	
132-64-9	Dibenzofuran		10	U	
121-14-2	2,4-Dinitrotoluene		10	U	
84-66-2	Diethylphthalate	10	~~0.7~~	~~JB~~	03
7005-72-3	4-Chlorophenyl-phenylether		10	U	
86-73-7	Fluorene		10	U	
100-01-6	4-Nitroaniline		25	U	
534-52-1	4,6-Dinitro-2-methylphenol		25	U	
86-30-6	N-Nitrosodiphenylamine (1)		10	U	
101-55-3	4-Bromophenyl-phenylether		10	U	
118-74-1	Hexachlorobenzene		10	U	
87-86-5	Pentachlorophenol		25	U	
85-01-8	Phenanthrene		10	U	
120-12-7	Anthracene		10	U	
86-74-8	Carbazole		10	U	
84-74-2	Di-n-butylphthalate		10	U	
206-44-0	Fluoranthene		10	U	
129-00-0	Pyrene		10	U	
85-68-7	Butylbenzylphthalate		10	U	
91-94-1	3,3'-Dichlorobenzidine		10	U	
56-55-3	Benzo(a)anthracene		10	U	
218-01-9	Chrysene		10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	10	~~0.7~~	~~JB~~	03
117-84-0	Di-n-octylphthalate		10	U	
205-99-2	Benzo(b)fluoranthene		10	U	
207-08-9	Benzo(k)fluoranthene		10	U	
50-32-8	Benzo(a)pyrene		10	U	
193-39-5	Indeno(1,2,3-cd)pyrene		10	U	
53-70-3	Dibenz(a,h)anthracene		10	U	
191-24-2	Benzo(g,h,i)perylene		10	U	

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW8D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

686

Matrix: (soil/water) WATER Lab Sample ID: 0666017

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7474.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	5.680	~~8~~	~~BJ~~ KJ
2.		Unknown	26.540	8	NJB
3.					
4.					
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JKH 10/19/94

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW9S1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

698

Matrix: (soil/water) WATER Lab Sample ID: 0666018

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7476.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

10/19/94

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW9S1 699

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666018

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7476.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 1	JB U3
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

JH 10/19/94

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. 700

MW9S1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666018

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7476.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 15

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

LHD 08/08/94

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	5.680	~~2~~	
2.		Unknown C4 ALKYLBENZENE	10.030	2	
3.		Unknown ISOMER OF NAPHTHALENE, DECAHYDRO	10.110	5	
4.		Unknown ~~alkane~~	10.670	3	
5.		Unknown ALKYLBENZENE	10.990	5	
6.		Unknown ALKYLBENZENE	11.040	7	
7.		Unknown ALKYLBENZENE	11.140	4	
8.		Unknown C5 ALKYLBENZENE	11.250	11	
9.		Unknown ALKYLBENZENE	11.340	4	
10.		Unknown C4 ALKYLBENZENE	11.600	8	
11.		Unknown C4 ALKYLBENZENE	11.760	6	
12.		Unknown ALKYLBENZENE	11.870	3	
13.		Unknown C4 ALKYLBENZENE	12.020	3	
14.		Unknown ALKYLBENZENE	12.140	5	
15.		Unknown ACID	17.800	3	
16.					
17.					
18.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW9D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

725

Matrix: (soil/water) WATER Lab Sample ID: 0666019

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7477.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted:07/15/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

10/11/94

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW9D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666019

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7477.D 726

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10 ~~1~~	~~JB~~ U3
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 ~~2~~	~~JB~~ U3
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW9D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

727

Matrix: (soil/water) WATER Lab Sample ID: 0666019

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7477.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown ~~alkane~~	5.690	~~J~~ B R4	
2.				
3.				
4.				
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1991

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666020

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7478.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

738

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

10/11/94

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1991

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666 739

Matrix: (soil/water) WATER Lab Sample ID: 0666020

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7478.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10 0.7	JB U 3
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 3	JB U 3
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW1991 740

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666020

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7478.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/15/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

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

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	5.680	~~3~~	~~J~~ B 24
2.					
3.					
4.					
5.					
6.					
7.					
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30.					

DH 10/19/94

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2D1MS

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666002MS

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7483.D

874

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	57	
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	60	
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	33	
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	37	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	35	
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	60	
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	41	

10/11/94

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2D1MS

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666002MS

875

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7483.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	70	
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	46	
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	94	
85-01-8	Phenanthrene	0.2	J
120-12-7	Anthracene	0.3	J
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10 ~~0.8~~	~~JB~~ U 3
206-44-0	Fluoranthene	0.6	J
129-00-0	Pyrene	39	
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 ~~1~~	~~JB~~ U 3
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2D1MSD

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

881

Matrix: (soil/water) WATER Lab Sample ID: 0666002MSD

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7484.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	70	
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	71	
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	40	
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	44	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	42	
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	64	
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	47	

JH 10/19/94

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2D1MSD

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

882

Matrix: (soil/water) WATER Lab Sample ID: 0666002MSD

Sample wt/vol: 1000 (g/mL) ML Lab File ID: I7484.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/13/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 07/27/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	74	
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	48	
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	100	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	43	
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 ~~2~~	~~JB~~ U3
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

JH 10/19/94

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
FRC-MW-1D-1

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666001 900

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP116

% Moisture: _____ decanted: (Y/N)__ Date Received: 07/13/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/13/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/18/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
319-84-6	alpha-BHC	0.05	U UJ	2
319-85-7	beta-BHC	0.05	U	
319-86-8	delta-BHC	0.05	U	
58-89-9	gamma-BHC (Lindane)	0.05	U	
76-44-8	Heptachlor	0.05	U	
309-00-2	Aldrin	0.05	U	
1024-57-3	Heptachlor Epoxide	0.05	U	
959-98-8	Endosulfan I	0.05	U	
60-57-1	Dieldrin	0.10	U	
72-55-9	4,4'-DDE	0.10	U	
72-20-8	Endrin	0.10	U	
33213-65-9	Endosulfan II	0.10	U	
72-54-8	4,4'-DDD	0.10	U	
1031-07-8	Endosulfan Sulfate	0.10	U	
50-29-3	4,4'-DDT	0.10	U	
72-43-5	Methoxychlor	0.50	U	
53494-70-5	Endrin Ketone	0.10	U	
7421-36-3	Endrin Aldehyde	0.10	U	2
5103-71-9	alpha-Chlordane	0.05	U	
5103-74-2	gamma-Chlordane	0.05	U	
8001-35-2	Toxaphene	5.0	U	
12674-11-2	Aroclor-1016	1.0	U	
11104-28-2	Aroclor-1221	2.0	U	
11141-16-5	Aroclor-1232	1.0	U	
53469-21-9	Aroclor-1242	1.0	U	
12672-29-6	Aroclor-1248	1.0	U	
11097-69-1	Aroclor-1254	1.0	U	
11096-82-5	Aroclor-1260	1.0	U	

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1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-MW-2D-1

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666002

905

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP117

% Moisture: _____ decanted: (Y/N) __ Date Received: 07/13/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/13/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/18/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U UJ
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.01	~~JP~~ NJ
72-20-8	Endrin	0.10	U UJ
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.02	~~JP~~ J
72-43-5	Methoxychlor	0.50	U UJ
53494-70-5	Endrin Ketone	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.04	~~J~~ J
8001-35-2	Toxaphene	5.0	U UJ
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	0.21	~~J~~ J
11096-82-5	Aroclor-1260	1.0	U UJ

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FORM 1 PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
FRC-MW-2S-1

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666003

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP118 912

% Moisture: _____ decanted: (Y/N) __ Date Received: 07/13/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/13/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/18/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U UJ
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.008	J
72-55-9	4,4'-DDE	0.008	J
72-20-8	Endrin	0.10	U UJ
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.01	JP NJ
72-43-5	Methoxychlor	0.50	U UJ
53494-70-5	Endrin Ketone	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.008	J
8001-35-2	Toxaphene	5.0	U UJ
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	0.58	JP NJ

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-MW-40D-1

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

919

Matrix: (soil/water): WATER Lab Sample ID: 0666004

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP119

% Moisture: _____ decanted: (Y/N)__ Date Received: 07/13/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/13/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/18/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U UJ
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.006	~~JP~~ J
72-55-9	4,4'-DDE	0.10	U UJ
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U J
12672-29-6	Aroclor-1248	0.73	J J
11097-69-1	Aroclor-1254	0.14	J J
11096-82-5	Aroclor-1260	1.0	U UJ

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FORM 1 PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-MW-99-1

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666005

Sample wt/vol: 950 (g/ml) ML Lab File ID: B1360CLP120 926

% Moisture: _____ decanted: (Y/N)__ Date Received: 07/13/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/13/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/18/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
319-84-6	alpha-BHC	0.05	U	UJ
319-85-7	beta-BHC	0.05	U	
319-86-8	delta-BHC	0.05	U	
58-89-9	gamma-BHC (Lindane)	0.05	U	
76-44-8	Heptachlor	0.05	U	
309-00-2	Aldrin	0.05	U	
1024-57-3	Heptachlor Epoxide	0.05	U	
959-98-8	Endosulfan I	0.05	U	
60-57-1	Dieldrin	0.10	U	
72-55-9	4,4'-DDE	0.10	U	
72-20-8	Endrin	0.10	U	
33213-65-9	Endosulfan II	0.10	U	
72-54-8	4,4'-DDD	0.10	U	
1031-07-8	Endosulfan Sulfate	0.10	U	
50-29-3	4,4'-DDT	0.10	U	
72-43-5	Methoxychlor	0.53	U	
53494-70-5	Endrin Ketone	0.10	U	
7421-36-3	Endrin Aldehyde	0.10	U	
5103-71-9	alpha-Chlordane	0.05	U	
5103-74-2	gamma-Chlordane	0.05	U	
8001-35-2	Toxaphene	5.3	U	
12674-11-2	Aroclor-1016	1.0	U	
11104-28-2	Aroclor-1221	2.1	U	
11141-16-5	Aroclor-1232	1.0	U	
53469-21-9	Aroclor-1242	1.0	U	J
12672-29-6	Aroclor-1248	0.63	J	J
11097-69-1	Aroclor-1254	0.15	J	J
11096-82-5	Aroclor-1260	1.0	U	UJ

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FORM 1 PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-FB-1-94071

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666006

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP121 933

% Moisture: _____ decanted: (Y/N)__ Date Received: 07/13/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/13/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/18/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

gpc 10/11/94

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-MW-33D-1

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666009

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP129 938

% Moisture: _____ decanted: (Y/N)__ Date Received: 07/14/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/15/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/19/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U UJ
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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FORM 1 PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-MW-3S-1

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666010

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP130 943

% Moisture: _____ decanted: (Y/N)__ Date Received: 07/14/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/15/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/19/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U/R
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U J
5103-71-9	alpha-Chlordane	0.02	~~JR~~ J
5103-74-2	gamma-Chlordane	0.05	~~U~~ R
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	0.44	~~J~~ J
11097-69-1	Aroclor-1254	0.23	~~JR~~ J
11096-82-5	Aroclor-1260	~~1.0~~	U R

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-MW-3D-1

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666011

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP131 950

% Moisture: _____ decanted: (Y/N)__ Date Received: 07/14/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/15/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/19/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U UJ
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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JMC 10/11/94

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-FB-2-94071

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666012

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP132 955

% Moisture: _____ decanted: (Y/N)__ Date Received: 07/14/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/15/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/19/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	5.1	
53469-21-9	Aroclor-1242	1.0	J
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

gac 10/11/94

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-MW-7S-1

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666014

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP133

% Moisture: _____ decanted: (Y/N) __ Date Received: 07/15/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/15/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/19/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

962

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U UJ
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-MW-7D-1

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666015 967

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP134

% Moisture: _____ decanted: (Y/N)__ Date Received: 07/15/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/15/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/19/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U NJ
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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FORM 1 PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-MW-8S-1

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666016

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP135 972

% Moisture: _____ decanted: (Y/N)__ Date Received: 07/15/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/15/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/19/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
319-84-6	alpha-BHC	0.05	U	UJ
319-85-7	beta-BHC	0.05	U	
319-86-8	delta-BHC	0.05	U	
58-89-9	gamma-BHC (Lindane)	0.05	U	
76-44-8	Heptachlor	0.05	U	
309-00-2	Aldrin	0.05	U	
1024-57-3	Heptachlor Epoxide	0.05	U	
959-98-8	Endosulfan I	0.05	U	
60-57-1	Dieldrin	0.10	U	
72-55-9	4,4'-DDE	0.10	U	
72-20-8	Endrin	0.10	U	
33213-65-9	Endosulfan II	0.10	U	
72-54-8	4,4'-DDD	0.10	U	
1031-07-8	Endosulfan Sulfate	0.10	U	
50-29-3	4,4'-DDT	0.10	U	
72-43-5	Methoxychlor	0.50	U	
53494-70-5	Endrin Ketone	0.10	U	
7421-36-3	Endrin Aldehyde	0.10	U	
5103-71-9	alpha-Chlordane	0.05	U	
5103-74-2	gamma-Chlordane	0.05	U	
8001-35-2	Toxaphene	5.0	U	
12674-11-2	Aroclor-1016	1.0	U	
11104-28-2	Aroclor-1221	2.0	U	
11141-16-5	Aroclor-1232	1.0	U	
53469-21-9	Aroclor-1242	1.0	U	
12672-29-6	Aroclor-1248	1.0	U	
11097-69-1	Aroclor-1254	1.0	U	
11096-82-5	Aroclor-1260	1.0	U	

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FORM 1 PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-MW-8D-1

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666017

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP136

% Moisture: _____ decanted: (Y/N)__ Date Received: 07/15/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/15/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/19/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

978

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U UJ
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-MW-9S-1

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

983

Matrix: (soil/water): WATER Lab Sample ID: 0666018

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP140

% Moisture: _____ decanted: (Y/N)__ Date Received: 07/15/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/15/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/19/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM 1 PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-MW-9D-1

988

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666019

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP141

% Moisture: _____ decanted: (Y/N)__ Date Received: 07/15/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/15/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/19/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U UJ
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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gpc 10/11/94

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-MW-199-1

993

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666020

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP142

% Moisture: _____ decanted: (Y/N)__ Date Received: 07/15/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/15/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/19/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U UJ
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.008	J
72-55-9	4,4'-DDE	0.10	U UJ
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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FORM 1 PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-MW-2D-1MS

1245

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666002MS

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP122

% Moisture: _____ decanted: (Y/N) __ Date Received: 07/13/94

Extraction: (SepF/Cont/Sonc) ____ Date Extracted: 07/13/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/18/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U UJ
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.40	J
76-44-8	Heptachlor	0.37	
309-00-2	Aldrin	0.38	
1024-57-3	Heptachlor Epoxide	0.05	U UJ
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.88	J
72-55-9	4,4'-DDE	0.10	~~U~~ UJ
72-20-8	Endrin	1.0	J
33213-65-9	Endosulfan II	0.10	~~U~~ UJ
72-54-8	4,4'-DDD	0.03	~~JP~~ J
1031-07-8	Endosulfan Sulfate	0.10	~~U~~ UJ
50-29-3	4,4'-DDT	0.90	J
72-43-5	Methoxychlor	0.50	U UJ
53494-70-5	Endrin Ketone	0.10	U
7421-36-3	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.04	~~J~~ J
5103-74-2	gamma-Chlordane	0.02	~~JP~~ J
8001-35-2	Toxaphene	5.0	U UJ
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM 1 PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FRC-MW-2D-1MSD

1254

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water): WATER Lab Sample ID: 0666002MSD

Sample wt/vol: 1000 (g/ml) ML Lab File ID: B1360CLP123

% Moisture: _____ decanted: (Y/N)__ Date Received: 07/13/94

Extraction: (SepF/Cont/Sonc) ____ Date Extracted: _____

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/18/94

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)__ pH:____ Sulfur Cleanup: (Y/N)__

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U UJ
319-85-7	beta-BHC	0.05	U "
319-86-8	delta-BHC	0.05	U "
58-89-9	gamma-BHC (Lindane)	0.39	J
76-44-8	Heptachlor	0.39	"
309-00-2	Aldrin	0.38	"
1024-57-3	Heptachlor Epoxide	0.05	U UJ
959-98-8	Endosulfan I	0.05	U "
60-57-1	Dieldrin	0.86	J
72-55-9	4,4'-DDE	0.10	U UJ
72-20-8	Endrin	0.97	J
33213-65-9	Endosulfan II	0.10	U UJ
72-54-8	4,4'-DDD	0.04	JP J
1031-07-8	Endosulfan Sulfate	0.10	U UJ
50-29-3	4,4'-DDT	0.82	J
72-43-5	Methoxychlor	0.50	U UJ
53494-70-5	Endrin Ketone	0.10	U "
7421-36-3	Endrin Aldehyde	0.10	U "
5103-71-9	alpha-Chlordane	0.05	U "
5103-74-2	gamma-Chlordane	0.06	U J
8001-35-2	Toxaphene	5.0	U UJ
12674-11-2	Aroclor-1016	1.0	U "
11104-28-2	Aroclor-1221	2.0	U "
11141-16-5	Aroclor-1232	1.0	U "
53469-21-9	Aroclor-1242	1.0	U "
12672-29-6	Aroclor-1248	1.0	U "
11097-69-1	Aroclor-1254	1.0	U "
11096-82-5	Aroclor-1260	1.0	U "

2 4 1 4

FORM 1 PEST

10/11/94 3/90

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
FRC-MW-1D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666001

Level (low/med): LOW Date Received: 07/13/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	221.			P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	8.7	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	24600			P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	25.7			P
7439-89-6	Iron	295.			P
7439-92-1	Lead	3.9		W	F
7439-95-4	Magnesium	3560			P
7439-96-5	Manganese	4450			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	3900			P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8600			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	69.0			P
	Cyanide	15.3			AS

J3

JBH
10/11/94

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
Total Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-2D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666002

Level (low/med): LOW Date Received: 07/13/94

% Solids: 0.0

1268

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1030			P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	2.9	B		F
7440-39-3	Barium	52.2	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	12600			P
7440-47-3	Chromium	12.0			P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	45.4			P
7439-89-6	Iron	2170			P
7439-92-1	Lead	49.1			F
7439-95-4	Magnesium	2370			P
7439-96-5	Manganese	162.			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.8	B		P
7440-09-7	Potassium	4010			P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	7770			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	16.7	B		P
7440-66-6	Zinc	50.8			P
	Cyanide	10.0	U		AS

10/11/94

Color Before: GY Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Total Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-2S-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666003

Level (low/med): LOW Date Received: 07/13/94

% Solids: 0.0

1269

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6590			P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	79.8			F
7440-39-3	Barium	88.6	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	30700			P
7440-47-3	Chromium	12.5			P
7440-48-4	Cobalt	4.1	B		P
7440-50-8	Copper	133.			P
7439-89-6	Iron	45600			P
7439-92-1	Lead	94.0			F
7439-95-4	Magnesium	5920			P
7439-96-5	Manganese	186.			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	14.5	B		P
7440-09-7	Potassium	8310			P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	14400			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	23.3	B		P
7440-66-6	Zinc	95.7			P
	Cyanide	10.0	U		AS

PBH 10/11/94

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Total Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-40D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666004

Level (low/med): LOW Date Received: 07/13/94

% Solids: 0.0

1270

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1150			P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	6.3	B		F
7440-39-3	Barium	28.8	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	5.7			P
7440-70-2	Calcium	14500			P
7440-47-3	Chromium	198.			P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	22.5	B		P
7439-89-6	Iron	13500			P
7439-92-1	Lead	7.7			F
7439-95-4	Magnesium	2230			P
7439-96-5	Manganese	204.			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	2280			P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	6800			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	32.4			P
	Cyanide	11.9			AS

JBH 10/11/94

Color Before: YELLOW Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Total Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-99-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666005

Level (low/med): LOW Date Received: 07/13/94 1271

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	548.			P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	2.9	B		F
7440-39-3	Barium	25.5	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	13800			P
7440-47-3	Chromium	111.			P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	13.2	B		P
7439-89-6	Iron	7880			P
7439-92-1	Lead	4.4			F
7439-95-4	Magnesium	2150			P
7439-96-5	Manganese	178.			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	2450			P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	6670			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	24.8			P
	Cyanide	11.0			AS

PB 10/11/94

Color Before: YELLOW Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Total Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-FB-1-940712

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666006

Level (low/med): LOW Date Received: 07/13/94

% Solids: 0.0

1272

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	5.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	28.0	U		P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	32.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	23.0	~~B~~ U		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	484.	U		P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	219.	U		P
7440-28-0	Thallium	1.4	B		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	13.4	B		P
	Cyanide	10.0	U		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Total Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-33D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666009

Level (low/med): LOW Date Received: 07/14/94 1273

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	228.			P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	35.3	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	4300			P
7440-47-3	Chromium	3.9	B		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	10.	B		P
7439-89-6	Iron	696.			P
7439-92-1	Lead	5.2			F
7439-95-4	Magnesium	2020			P
7439-96-5	Manganese	16.6			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	1630			P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	9130			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	104.			P
	Cyanide	10.0	U		AS

PBH 10/11/94

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Total Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-3S-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666010

Level (low/med): LOW Date Received: 07/14/94

% Solids: 0.0

1274

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	948.			P
7440-36-0	Antimony	34.2	~~B~~		P
7440-38-2	Arsenic	11.3			F
7440-39-3	Barium	94.5	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	83400			P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	8.0	B		P
7439-89-6	Iron	38000			P
7439-92-1	Lead	9.1		~~W~~	F
7439-95-4	Magnesium	9160			P
7439-96-5	Manganese	1290			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	14.3	B		P
7440-09-7	Potassium	6030			P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	15300			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	38.8			P
	Cyanide	10.0	U		AS

U1

J3

PBH 10/11/94

Color Before: YELLOW Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Total Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-3D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666011

Level (low/med): LOW Date Received: 07/14/94 1275

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1280			P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	2.0	B		F
7440-39-3	Barium	103.	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	5.0			P
7440-70-2	Calcium	19700			P
7440-47-3	Chromium	10.6			P
7440-48-4	Cobalt	12.5	B		P
7440-50-8	Copper	93.9			P
7439-89-6	Iron	5210			P
7439-92-1	Lead	64.0			F
7439-95-4	Magnesium	2610			P
7439-96-5	Manganese	1670			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	17.7	B		P
7440-09-7	Potassium	2610			P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8060			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	15.9	B		P
7440-66-6	Zinc	92.0			P
	Cyanide	10.0	U		AS

PBW 10/11/94

Color Before: YELLOW Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Total Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-FB-2-940713

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666012

Level (low/med): LOW Date Received: 07/14/94

% Solids: 0.0

1276

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	5.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	28.0	U		P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	32.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	19.0	U		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	484.	U		P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	219.	U		P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	7.6	B		P
	Cyanide	10.0	U		AS

PBB 10/11/94

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Total Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-7S-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666014

Level (low/med): LOW Date Received: 07/15/94 1277

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	32400			P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	18.4			F
7440-39-3	Barium	187.	B		P
7440-41-7	Beryllium	2.1	B		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	7540			P
7440-47-3	Chromium	35.0			P
7440-48-4	Cobalt	21.6	B		P
7440-50-8	Copper	33.6			P
7439-89-6	Iron	34400			P
7439-92-1	Lead	54.9		S	F
7439-95-4	Magnesium	5750			P
7439-96-5	Manganese	2570			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	37.4	B		P
7440-09-7	Potassium	4090			P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	3140			P
7440-28-0	Thallium	1.3	B		F
7440-62-2	Vanadium	35.5	B		P
7440-66-6	Zinc	98.2			P
	Cyanide	10.0	U		AS

PBS
10/11/94

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Total Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-7D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666015

Level (low/med): LOW Date Received: 07/15/94 1278

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	299.			P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	46.2	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	14000			P
7440-47-3	Chromium	5.8	B		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	12.2	B		P
7439-89-6	Iron	556.			P
7439-92-1	Lead	5.0			F
7439-95-4	Magnesium	2210			P
7439-96-5	Manganese	3330			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	2450			P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	13100			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	45.3			P
	Cyanide	10.0	U		AS

PB4
10/11/94

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
Total Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-8S-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666016

Level (low/med): LOW Date Received: 07/15/94 1279

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	4130			P	
7440-36-0	Antimony	23.0	U		P	
7440-38-2	Arsenic	3.5	B		F	
7440-39-3	Barium	88.0	B		P	
7440-41-7	Beryllium	1.0	U		P	
7440-43-9	Cadmium	3.0	U		P	
7440-70-2	Calcium	25800			P	
7440-47-3	Chromium	30.3			P	
7440-48-4	Cobalt	6.6	B		P	
7440-50-8	Copper	11.6	B		P	
7439-89-6	Iron	6980			P	
7439-92-1	Lead	10.0		~~W~~	F	J 3
7439-95-4	Magnesium	3170			P	
7439-96-5	Manganese	592.			P	
7439-97-6	Mercury	0.20	U		CV	
7440-02-0	Nickel	16.8	B		P	
7440-09-7	Potassium	4850			P	
7782-49-2	Selenium	2.0	U		F	UJ
7440-22-4	Silver	2.0	U		P	
7440-23-5	Sodium	14700			P	
7440-28-0	Thallium	1.0	U		F	
7440-62-2	Vanadium	22.7	B		P	
7440-66-6	Zinc	33.5			P	
	Cyanide	10.0	U		AS	

PB# 10/11/94

Color Before: YELLOW Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Total Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-8D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666017

Level (low/med): LOW Date Received: 07/15/94 1280

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	39.1	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	11200			P
7440-47-3	Chromium	13.2			P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	314.			P
7439-92-1	Lead	1.0	U	W	F
7439-95-4	Magnesium	1920			P
7439-96-5	Manganese	3340			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	57.8			P
7440-09-7	Potassium	2470			P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	20200			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	28.8			P
	Cyanide	10.0	U		AS

PB 10/11/94

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Total Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-9S-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666018

Level (low/med): LOW Date Received: 07/15/94 1281

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	286.			P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.7	B		F
7440-39-3	Barium	52.2	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	28400			P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	10.3	B		P
7439-89-6	Iron	5980			P
7439-92-1	Lead	5.2		~~W~~	F J3
7439-95-4	Magnesium	5050			P
7439-96-5	Manganese	76.7			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	2230			P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8760			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	13.6	B		P
7440-66-6	Zinc	12.3	B		P
	Cyanide	10.0	U		AS

PBH 10/11/94

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Total Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-9D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666019

Level (low/med): LOW Date Received: 07/15/94

% Solids: 0.0

1282

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	617.			P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	81.5	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	15300			P
7440-47-3	Chromium	42.2			P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	1290			P
7439-92-1	Lead	1.0	U	W	F
7439-95-4	Magnesium	2720			P
7439-96-5	Manganese	3340			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	81.1			P
7440-09-7	Potassium	3100			P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	29800			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	11.0	B		P
	Cyanide	10.0	U		AS

PB 11 10/11/94

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Total Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-199-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: T0666020

Level (low/med): LOW Date Received: 07/15/94

% Solids: 0.0

1283

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	73.8	B		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	78.2	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	15400			P
7440-47-3	Chromium	16.2			P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	501.			P
7439-92-1	Lead	1.0	U	W	F
7439-95-4	Magnesium	2670			P
7439-96-5	Manganese	3320			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	75.8			P
7440-09-7	Potassium	3650			P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	29200			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	10.4	B		P
	Cyanide	10.0	U		AS

PB 4
10/11/94

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
Total Metals

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

FRC-MW-2D-1S

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix: WATER Level (low/med): LOW

% Solids for Sample: 0.0

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

Analyte	Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	3074.1000		1027.9000		2000.00	102.3		P
Antimony	75-125	546.8900		23.0000	U	500.00	104.8		P
Arsenic	75-125	46.2000		2.9000	B	40.00	108.2		F
Barium	75-125	2079.4000		52.1600	B	2000.00	101.4		P
Beryllium	75-125	50.5800		1.0000	U	50.00	99.2		P
Cadmium	75-125	54.6400		3.0000	U	50.00	103.3		P
Calcium									NR
Chromium	75-125	218.7700		12.0400		200.00	103.4		P
Cobalt	75-125	511.6500		3.0000	U	500.00	101.7		P
Copper	75-125	303.5600		45.3500		250.00	103.3		P
Iron	75-125	3176.6000		2172.5000		1000.00	100.4		P
Lead	75-125	67.5000		49.1000		20.00	92.0		F
Magnesium									NR
Manganese	75-125	668.7700		162.0100		500.00	101.4		P
Mercury	75-125	1.0400		0.2000	U	5.00	104.0		CV
Nickel	75-125	510.8000		13.8000	B	500.00	99.4		P
Potassium									NR
Selenium	75-125	12.1000		2.0000	U	10.00	121.0		F
Silver	75-125	51.9500		2.0000	U	50.00	99.9		P
Sodium									NR
Thallium	75-125	51.1000		1.0000	U	50.00	102.2		F
Vanadium	75-125	519.7600		16.7200	B	500.00	100.6		P
Zinc	75-125	551.5900		50.7600		500.00	100.2		P
Cyanide	75-125	100.2000		10.0000	U	100.00	100.2		AS

Comments:
Total Metals

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

FRC-MW-2D-1D

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix: WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		1027.9000		1046.0000		1.7		P
Antimony		23.0000	U	23.0000	U			P
Arsenic		2.9000	B	2.9000	B			F
Barium		52.1600	B	52.1600	B			P
Beryllium		1.0000	U	1.0000	U			P
Cadmium		3.0000	U	3.0000	U			P
Calcium		12634.0000		12579.0000		0.4		P
Chromium	.0	12.0400		11.1100		8.0		P
Cobalt		3.0000	U	3.0000	U			P
Copper	.0	45.3500		45.0200		0.7		P
Iron		2172.5000		2162.3000		0.5		P
Lead		49.1000		47.8000		2.7		F
Magnesium	.0	2373.5000		2367.5000		0.2		P
Manganese		162.0100		160.6600		0.8		P
Mercury		0.2000	U	0.2000	U			CV
Nickel		13.8000	B	13.0000	U	200.0		P
Potassium	.0	4007.9000		4049.5000		1.0		P
Selenium		2.0000	U	2.0000	U			F
Silver		2.0000	U	2.0000	U			P
Sodium		7766.0000		7779.5000		0.2		P
Thallium		1.0000	U	1.0000	U			F
Vanadium		16.7200	B	10.7800	B	43.2		P
Zinc	.0	50.7600		49.3800		2.8		P
Cyanide		10.0000	U	10.0000	U			AS

Total Metals

U.S. EPA - CLP

9

ICP SERIAL DILUTIONS

EPA SAMPLE NO. 1298

FRC-MW-2D-1L

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix(soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	1027.90		241.76		17.6		P
Antimony	23.00	U	23.00	U			P
Arsenic	27.00	U	27.00	U			P
Barium	52.16	B	13.58	B	30.2		P
Beryllium	1.00	U	1.00	U			P
Cadmium	3.00	U	3.00	U			P
Calcium	12634.00		2546.00		0.8		P
Chromium	12.04		5.09	B	111.4		P
Cobalt	3.00	U	3.00	U			P
Copper	45.35		59.20		552.7		P
Iron	2172.50		442.74		1.9		P
Lead	59.80	B	34.75	B	190.6		P
Magnesium	2373.50		496.99	B	4.7		P
Manganese	162.01		32.40				P
Mercury							NR
Nickel	13.80	B	13.00	U	100.0		P
Potassium	4007.90		507.24	B	36.7		P
Selenium	34.00	U	34.00	U			P
Silver	2.00	U	2.00	U			P
Sodium	7766.00		1634.10		5.2		P
Thallium							NR
Vanadium	16.72	B	9.00	U	100.0		P
Zinc	50.76		25.91		155.2		P
Cyanide							NR

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-1D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: F0666001

Level (low/med): LOW Date Received: 07/13/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	28.4	~~B~~		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	8.0	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	23600			P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	19.2	B		P
7439-89-6	Iron	32.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	3410			P
7439-96-5	Manganese	4170			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	4410			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8220			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	50.4			P
	Cyanide				NR

U1

PB 10/11/94

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Filtered Metals

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-2D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: F0666002

Level (low/med): LOW Date Received: 07/13/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	48.2	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	12200			P
7440-47-3	Chromium	4.3	B		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	16.2	B		P
7439-89-6	Iron	32.0	U		P
7439-92-1	Lead	1.7	~~B~~		F J3
7439-95-4	Magnesium	2070			P
7439-96-5	Manganese	99.6			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	3960			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	7500			P
7440-28-0	Thallium	1.0	U		F UJ2
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	44.2			P
	Cyanide				NR

PBH 10/11/94

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Filtered Metals

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
FRC-MW-2S-1

Lab Name: IEA Contract: _____
Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666
Matrix (soil/water): WATER Lab Sample ID: F0666003
Level (low/med): LOW Date Received: 07/13/94
% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	4.6	B		F
7440-39-3	Barium	42.2	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	27500			P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	8.4	B		P
7439-89-6	Iron	9140			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	4000			P
7439-96-5	Manganese	127.			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	7990			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	14400			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	24.5			P
	Cyanide				NR

PB 10/11/94

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____
Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
Filtered Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-40D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: F0666004

Level (low/med): LOW Date Received: 07/13/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	22.1	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	14200			P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	8.4	B		P
7439-89-6	Iron	5710			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	2060			P
7439-96-5	Manganese	185.			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	2360			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	6620			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	24.4			P
	Cyanide				NR

PB# 10/11/94

UJ2

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Filtered Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-99-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: F0666005

Level (low/med): LOW Date Received: 07/13/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	22.6	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	14200			P
7440-47-3	Chromium	4.0	B		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	6.0	B		P
7439-89-6	Iron	5900			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	2080			P
7439-96-5	Manganese	185.			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	3200			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	6640			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	19.9	B		P
	Cyanide				NR

PBH 10/11/94

052

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Filtered Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-FB-1-940712

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: F0666006

Level (low/med): LOW Date Received: 07/13/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	5.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	40.2	B		P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	32.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	19.0	U		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	484.	U		P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	219.	U		P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	13.8	B		P
	Cyanide				NR

JB 10/11/94

UJL

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Filtered Metals

U.S. EPA - CLP

1514

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-33D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: F0666009

Level (low/med): LOW Date Received: 07/14/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	31.6	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	4200			P
7440-47-3	Chromium	3.4	B		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	7.5	B		P
7439-89-6	Iron	32.0	U		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	1920			P
7439-96-5	Manganese	12.6	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	1850			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8990			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	85.7			P
	Cyanide				NR

PB 10/11/94

052

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
Filtered Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-3S-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: F0666010

Level (low/med): LOW Date Received: 07/14/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	8.0	B		F
7440-39-3	Barium	80.4	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	79900			P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	29700			P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	8770			P
7439-96-5	Manganese	1240			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	5740			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	14500			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	26.1			P
	Cyanide				NR

JB 10/11/94

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Filtered Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-3D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: F0666011

Level (low/med): LOW Date Received: 07/14/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	75.8	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	18300			P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	6.9	B		P
7440-50-8	Copper	10.8	B		P
7439-89-6	Iron	1300			P
7439-92-1	Lead	2.3	B		F
7439-95-4	Magnesium	2430			P
7439-96-5	Manganese	1160			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	2860			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	7900			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	55.4			P
	Cyanide				NR

PB 1x 10/11/94

VJ 2

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Filtered Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-FB-2-940713

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: F0666012

Level (low/med): LOW Date Received: 07/14/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	5.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	94.4	B		P
7440-47-3	Chromium	3.2	B		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	86.1	B		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	19.0	U		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	484.	U		P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	219.	U		P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	21.0			P
	Cyanide				NR

JB 10/11/94

JSL

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Filtered Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-7S-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: F0666014

Level (low/med): LOW Date Received: 07/15/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	6.5	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	3390			P
7440-47-3	Chromium	3.2	B		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	32.0	U		P
7439-92-1	Lead	2.0	U	W	F
7439-95-4	Magnesium	764.	B		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	746.	B		P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	2590			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	30.2			P
	Cyanide				NR

MB 10/11/94

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Filtered Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-7D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: F0666015

Level (low/med): LOW Date Received: 07/15/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	39.2	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	13300			P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	33.2	B		P
7439-92-1	Lead	2.0	U	~~W~~	F
7439-95-4	Magnesium	2070			P
7439-96-5	Manganese	2720			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	2590			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	12500			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	41.2			P
	Cyanide				NR

PB 10/11/94

USL

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Filtered Metals

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
FRC-MW-8S-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: F0666016

Level (low/med): LOW Date Received: 07/15/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	48.2	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	25100			P
7440-47-3	Chromium	15.8			P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	32.0	U		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	2500			P
7439-96-5	Manganese	176.			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	4580			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	14200			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	24.4			P
	Cyanide				NR

UJ2 PB H 10/11/94

UJ

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
Filtered Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-8D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: F0666017 1521

Level (low/med): LOW Date Received: 07/15/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	39.7	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	11400			P
7440-47-3	Chromium	3.6	B		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	68.7	B		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	1900			P
7439-96-5	Manganese	3440			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	19.2	B		P
7440-09-7	Potassium	2640			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	20400			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	19.4	B		P
	Cyanide				NR

052

10/11/94

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Filtered Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-9S-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

1522

Matrix (soil/water): WATER Lab Sample ID: F0666018

Level (low/med): LOW Date Received: 07/15/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	48.2	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	28800			P
7440-47-3	Chromium	3.4	B		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	285.			P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	5000			P
7439-96-5	Manganese	73.1			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	13.0	U		P
7440-09-7	Potassium	2550			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	8900			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	16.9	B		P
	Cyanide				NR

PBH 10/11/94

UJ2

UJ2

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Filtered Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-9D-1

ab Name: IEA Contract: _____

ab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666 1523

latrix (soil/water): WATER Lab Sample ID: F0666019

evel (low/med): LOW Date Received: 07/15/94

; Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	164.	B		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	77.4	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	15000			P
7440-47-3	Chromium	4.3	B		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	1100			P
7439-89-6	Iron	107.			P
7439-92-1	Lead	2.6	B		F
7439-95-4	Magnesium	2590			P
7439-96-5	Manganese	3330			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	39.6	B		P
7440-09-7	Potassium	3600			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	29300			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	19.6	B		P
	Cyanide				NR

OJ2 PB 10/11/94

OJ2

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Filtered Metals

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FRC-MW-199-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix (soil/water): WATER Lab Sample ID: F0666020

Level (low/med): LOW Date Received: 07/15/94

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.0	U		P
7440-36-0	Antimony	23.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	76.4	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	15000			P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	3.0	U		P
7440-50-8	Copper	5.0	U		P
7439-89-6	Iron	139.			P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	2560			P
7439-96-5	Manganese	3280			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	56.0			P
7440-09-7	Potassium	4020			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	28200			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	9.0	U		P
7440-66-6	Zinc	39.1			P
	Cyanide				NR

PB4 10/11/94 USJ

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

Filtered Metals

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

FRC-MW-2D-1S

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix: WATER Level (low/med): LOW

% Solids for Sample: 0.0

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

Analyte	Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	2128.1000		45.0000	U	2000.00	104.2		P
Antimony	75-125	584.2300		23.0000	U	500.00	112.2		P
Arsenic	75-125	47.0000		1.0000	U	40.00	117.5		F
Barium	75-125	2142.7000		48.2200	B	2000.00	104.7		P
Beryllium	75-125	51.9400		1.0000	U	50.00	101.9		P
Cadmium	75-125	56.3100		3.0000	U	50.00	106.6		P
Calcium									NR
Chromium	75-125	218.4700		4.2600	B	200.00	107.1		P
Cobalt	75-125	531.8700		3.0000	U	500.00	105.8		P
Copper	75-125	280.3800		16.1600	B	250.00	105.7		P
Iron	75-125	1065.1000		32.0000	U	1000.00	103.3		P
Lead	75-125	26.7000		1.7000	B	20.00	125.0		F
Magnesium									NR
Manganese	75-125	633.2600		99.6100		500.00	106.7		P
Mercury	75-125	0.9900		0.2000	U	5.00	99.0		CV
Nickel	75-125	519.3200		13.0000	U	500.00	101.3		P
Potassium									NR
Selenium	75-125	10.5000		1.0000	U	10.00	105.0		F
Silver	75-125	50.9200		2.0000	U	50.00	97.8		P
Sodium									NR
Thallium	75-125	42.3000		1.0000	U	50.00	84.6		F
Vanadium	75-125	514.4400		9.0000	U	500.00	101.1		P
Zinc	75-125	589.3600		44.1800		500.00	109.0		P
Cyanide									NR

Comments:
Filtered Metals

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

FRC-MW-2D-1D

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: Z0666

Matrix: WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		45.0000	U	45.0000	U			P
Antimony		23.0000	U	23.0000	U			P
Arsenic		1.0000	U	1.0000	U			F
Barium		48.2200	B	48.7200	B	1.0		P
Beryllium		1.0000	U	1.0000	U			P
Cadmium		3.0000	U	3.0000	U			P
Calcium		12171.0000		12281.0000		0.9		P
Chromium		4.2600	B	4.2600	B			P
Cobalt		3.0000	U	3.0000	U			P
Copper		16.1600	B	16.7500	B	3.6		P
Iron		32.0000	U	32.0000	U			P
Lead		1.7000	B	1.8000	B	5.7		F
Magnesium	.0	2070.0000		2099.2000		1.4		P
Manganese		99.6100		99.6100				P
Mercury		0.2000	U	0.2000	U			CV
Nickel		13.0000	U	13.0000	U			P
Potassium	.0	3960.3000		4355.5000		9.5		P
Selenium		1.0000	U	1.0000	U			F
Silver		2.0000	U	2.0000	U			P
Sodium		7502.2000		7577.9000		1.0		P
Thallium		1.0000	U	1.0000	U			F
Vanadium		9.0000	U	9.0000	U			P
Zinc	.0	44.1800		42.6600		3.5		P
Cyanide								NR

Filtered Metals

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO. 1742

FRC-MW-1D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0666 SAS No. : _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666001

% Solids: 0.0 Date Received: 07/13/94

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

Analyte	Concentration	C	Q	M
ALKALIN	85.2			T
AMMONIA	1.06			AS
BOD5	5.00			
CHLORIDE	15.5			AS
COD	27.6			C
HARDNESS	93.6			T
NITRATE	0.520			AS
NITRITE	0.005	U		AS
PHOS-D	0.100	U		C
SULFATE	10.000	U		G
SULFIDE	1.000	U		T
TDS	141.			G
TOCD	22.9			
	22.9			

FBH 10/11/94

Comments: _____

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO. 1743

FRC-MW-2D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0666 SAS No. : _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666002

% Solids: 0.0 Date Received: 07/13/94

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

Analyte	Concentration	C	Q	M
ALKALIN	15.2			T
AMMONIA	0.080			AS
BOD5	5.00			
CHLORIDE	13.4			AS
COD	10.00	U		C
HARDNESS	46.2			T
NITRATE	3.92			AS
NITRITE	0.006			AS
PHOS-O	0.100	U		C
SULFATE	28.8			C
SULFIDE	1.000	U		T
TDS	105.			G
TOCD	2.72			
	2.72			

PB-H
10/11/94

Comments: _____

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1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO. 1744

FRC-MW-2S-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0666 SAS No. : _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666003

% Solids: 0.0 Date Received: 07/13/94

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

Analyte	Concentration	C	Q	M
ALKALIN	100.			T
AMMONIA	0.040	U		AS
BOD5	9.00			
CHLORIDE	27.5			AS
COD	10.00	U		C
HARDNESS	98.4			T
NITRATE	0.120			AS
NITRITE	0.005	U		AS
PHOS-O	0.100	U		C
SULFATE	23.5			C
SULFIDE	1.000	U		T
TDS	163.			G
TOCD	8.66			
	8.64			

YB 10/11/94

Comments:

FORM 1 - WC

1745

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

FRO-MW-40D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0666 SAS No. : _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666004

% Solids: 0.0 Date Received: 07/13/94

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

Analyte	Concentration	C	Q	M
ALKALIN	45.0			T
AMMONIA	0.060			AS
BOD5	6.00			
CHLORIDE	13.0			AS
COD	10.00	U		C
HARDNESS	48.8			T
NITRATE	0.290			AS
NITRITE	0.005	U		AS
PHOS-O	0.100	U		C
SULFATE	16.9			C
SULFIDE	1.000	U		T
TDS	82.0			G
TOCD	19.0			
	19.0			

PBH
10/11/94

Comments: _____

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SAMPLE No. 1746

WET CHEM ANALYSIS DATA SHEET

FRC-MW-99-1

Lab Name: [illegible] Contract: _____

Lab Code: [illegible] Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666005

% Solids: 0.0 Date Received: 07/13/94

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

Analyte	Concentration	C	Q	M
ALKALIN	43.2			I
AMMONIA	0.040	U		AS
BOD5	5.00			
CHLORIDE	13.1			AS
COD	10.00	U		C
HARDNESS	51.0			CI
NITRATE	4.43			AS
NITRITE	0.005	U		AS
PHOS-O	0.100	U		C
SULFATE	15.6			SI
SULFIDE	1.000	U		I
TDS	92.0			G
TOCD	18.2			
	18.2			

VB 10/11/94

Comments: _____

FORM 1 - WC

1

SAMPLE NO. 1747

WET CHEM ANALYSIS DATA SHEET

FRC--FB-1-940712

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0666 SAS No. : _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666006

% Solids: 0.0 Date Received: 07/13/94

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

Analyte	Concentration	C	Q	M
ALKALIN	2.20			I
AMMONIA	0.040	U		AS
BOD5	2.00	U		
CHLORIDE	3.00	U		AS
COD	10.00	U		C
HARDNESS	1.00	U		I
NITRATE	0.100	U		AS
NITRITE	0.005	U		AS
PHOS-O	0.100	U		C
SULFATE	10.000	U		G
SULFIDE	1.000	U		I
TDS	5.000	U		G
TOCD	0.50	U		
	0.50	U		

JB 10/11/94

Comments: _____

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1748

SAMPLE NO.

WET CHEM ANALYSIS DATA SHEET

FRC-MW-SSD-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0666 SAS No. : _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0466009

% Solids: 0.0 Date Received: 07/14/94

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

Analyte	Concentration	C	Q	M
ALKALIN	11.0			T
AMMONIA	0.090			AS
BOD5	3.00			
CHLORIDE	10.3			AS
COD	10.00	U		C
HARDNESS	19.4			T
NITRATE	1.42			AS
NITRITE	0.008			AS
PHOS-O	0.300			C
SULFATE	16.9			S
SULFIDE	1.000	U		T
TDS	88.0			S
TOCD	14.8			
	14.4			

JBB
10/11/94

Comments: _____

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO. 1749

FRC-MW-3S-1

Lab Name: CEA Contract: _____

Lab Code: CEA Case No.: 0666 SAS No. : _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666010

% Solids: 0.0 Date Received: 07/14/94

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

Analyte	Concentration	C	Q	M
ALKALIN	291.			T
AMMONIA	2.14			AS
BOD5	16.0			
CHLORIDE	32.2			AS
COD	39.2			C
HARDNESS	280.			T
NITRATE	0.100	U		AS
NITRITE	0.038			AS
PHOS-D	0.100	U		C
SULFATE	12.8			C
SULFIDE	1.000	U		T
TDS	384.			G
TOCD	67.5			
	67.9			

PBA
10/11/94

Comments: _____

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO. 1750

FRC-MW-3D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0666 SAS No. : _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666011

% Solids: 0.0 Date Received: 07/14/94

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

Analyte	Concentration	C	Q	M
ALKALIN	67.4			T
AMMONIA	0.100			AS
BOD5	7.00			
CHLORIDE	13.6			AS
COD	11.3			C
HARDNESS	66.4			T
NITRATE	0.170			AS
NITRITE	0.009			AS
PHOS-O	0.100	U		C
SULFATE	10.3			G
SULFIDE	1.000	U		T
TDS	131.			G
TOCD	17.4			
	17.2			

RB 10/11/94

Comments: _____

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

FRC-FB-C-940713

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0666 SAS No. : _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666012

% Solids: 0.0 Date Received: 07/14/94

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

1751

Analyte	Concentration	C	Q	M
ALKALIN	2.00	U		I
AMMONIA	0.040	U		AS
BOD5	4.00			
CHLORIDE	3.00	U		AS
COD	36.9			C
HARDNESS	1.00	U		I
NITRATE	0.100	U		AS
NITRITE	0.021			AS
PHOS-O	0.100	U		C
SULFATE	10.000	U		G
SULFIDE	1.000	U		I
TDS	18.0			G
TOCD	0.970			
	0.880			

PBH
10/11/94

Comments: _____

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SAMPLE NO.

[illegible] ANALYSIS DATA SHEET

[illegible]

[illegible] Contract: _____

Lab Name: CEA Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666014

% Solids: 0.0 Date Received: 07/15/94 1752

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

Analyte	Concentration	C	Q	M
ALKALIN	5.20			H
AMMONIA	0.040	U		AS
BOD5	2.00			
CHLORIDE	6.00			AS
COD	34.6			C
HARDNESS	13.0			H
NITRATE	0.580			AS
NITRITE	0.043			AS
PHOS-D	0.100	U		C
SULFATE	13.6			G
SULFIDE	1.000	U		H
TDS	54.0			G
TSOD	3.34			
	3.28			

PBH
10/12/94

[illegible]

202

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

FRC-MW-7D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0666 SAS No. : _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666015

% Solids: 0.0 Date Received: 07/15/94

1753

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

Analyte	Concentration	C	Q	M
ALKALIN	34.8			T
AMMONIA	0.710			AS
BOD5	10.00			
CHLORIDE	22.2			AS
COD	32.2			C
HARDNESS	54.4			T
NITRATE	1.55			AS
NITRITE	0.042			AS
PHOS-O	0.100	U		C
SULFATE	22.2			G
SULFIDE	1.000	U		T
TDS	136.			G
TOCD	3.37			
	3.03			

PB 10/11/94

Comments: _____

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203

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

FRC-MW-8S-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0666 SAS No. : _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666016

% Solids: 0.0 Date Received: 07/15/94

1754

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

Analyte	Concentration	C	Q	M
ALKALIN	65.8			T
AMMONIA	0.050			AS
BOD5	4.00			
CHLORIDE	12.7			AS
COD	32.2			C
HARDNESS	84.0			T
NITRATE	4.61			AS
NITRITE	0.005			AS
PHOS-O	0.100	U		C
SULFATE	29.2			G
SULFIDE	1.000	U		T
TDS	181.			G
TOCD	2.59			
	2.62			

JB 10/11/94

Comments: _____

FORM 1 - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

FRC-MW-8D-1

Lab Name: TEA Contract: _____

Lab Code: TEA Case No.: 0666 SAS No. : _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666017

% Solids: 0.0 Date Received: 07/15/94 1755

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

Analyte	Concentration	C	Q	M
ALKALIN	42.4			I
AMMONIA	1.84			As
BOD5	2.00			
CHLORIDE	29.5			As
COD	41.5			C
HARDNESS	47.2			I
NITRATE	0.460			As
NITRITE	0.005	U		As
PHOS-O	0.100	U		C
SULFATE	23.9			C
SULFIDE	1.000	U		I
TDS	141.			C
TOCD	2.78			
	2.75			

PB 10/11/94

Comments: _____

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

FRC-MW-9S-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666018

1756

% Solids: 0.0 Date Received: 07/15/94

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

Analyte	Concentration	C	Q	M
ALKALIN	64.4			I
AMMONIA	0.040			AS
BOD5	2.00			
CHLORIDE	11.4			AS
COD	53.2			C
HARDNESS	104.			I
NITRATE	0.440			AS
NITRITE	0.005	U		AS
PHOS-O	0.100	U		C
SULFATE	50.6			G
SULFIDE	1.000	U		I
TDS	185.			G
TOCD	2.69			
	2.55			

PBS 10/11/94

Comments: _____

FORM I - WC

206

1
WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

FRC-MW-90-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0666 SAS No. : _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666019

% Solids: 0.0 Date Received: 07/15/94

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

Analyte	Concentration	C	Q	M
ALKALIN	41.6			T
AMMONIA	1.76			AS
BOD5	3.00			
CHLORIDE	58.5			AS
COD	48.5			C
HARDNESS	62.2			T
NITRATE	1.74			AS
NITRITE	0.005	U		AS
PHOS-O	0.100	U		C
SULFATE	20.2			C
SULFIDE	1.000	U		T
TDS	202.			C
TOCD	4.85			
	5.35			

PB 10/11/94

Comments: _____

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO. 1758

FRC-MW-199-1

Lab Name: TEA Contract: _____

Lab Code: TEA Case No.: 0666 SAS No. : _____ SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666020

% Solids: 0.0 Date Received: 07/15/94

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

Analyte	Concentration	C	Q	M
ALKALIN	40.4			H
AMMONIA	1.88			AS
BOD5	3.00			
CHLORIDE	57.2			AS
COD	39.2			C
HARDNESS	62.4			H
NITRATE	1.76			AS
NITRITE	0.005	U		AS
PHOS-O	0.100	U		C
SULFATE	26.3			G
SULFIDE	1.000	U		H
TDS	205.			G
TOCD	16.6			
	16.1			

VBH
10/11/94

Comments: _____

FORM I - WC

4A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

FRC-MW-2D-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0666 SAS No. : _____ SDG No.: Z0666

Matrix: WATER

1774

Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
ALKALIN	75-125								
AMMONIA	75-125	2.117		0.077		2.00	102.0		AS
BOD5	75-125	36.0		5.0		33.0	93.9		
CHLORIDE	75-125	73.86		13.45		60.0	99.0		AS
COD	75-125	111		10.0	W	100	111		C
HARDNESS	75-125	66.6		46.2		20.0	102.0		H
NITRATE	75-125	10.63		3.916		8.00	83.9		AS
NITRITE	75-125	0.388		0.006		0.400	95.5		AS
PHOS-O	75-125	0.51		0.10	W	0.50	102.0		C
SULFATE	75-125	83.6		28.8		50.0	109.6		G
SULFIDE	75-125	28.2		1.0	W	28.6	98.6		H
TDS	75-125								
TOCD	75-125	12.30		2.716		10.0	95.8		

Comments: _____

5
DUPLICATES

SAMPLE NO.

FRC-MW-225

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0666 SAS No. : _____ SDG No.: Z0666

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
ALKALIN	20.0	15.2		15.2		0.0		I
AMMONIA	20.0	0.077		0.182		Δ		AS
BOD5	20.0	5.0		4.0		Δ		
CHLORIDE	20.0	13.45		13.43		0.2		AS
COD	20.0	10.0	"	10.0	"			C
HARDNESS	20.0	46.2		45.8		0.9		I
NITRATE	20.0	3.916		4.068		3.8		AS
NITRITE	20.0	0.006		0.009		Δ		AS
PHOS-O	20.0	0.10	"	0.10	"			C
SULFATE	20.0	28.8		30.9		7.0		G
SULFIDE	20.0	1.0	"	1.0	"			I
TDS	20.0	105		110		4.6		G
TOCD	20.0	2.716		2.742		0.9		

Δ Each result is less than five times the PQL; no criteria required.

DATA VALIDATION WORKSHEETS

HEARTLAND ESI VOA 1 OLMO1.8

QA/QC LEVEL

- ☐ NEESA C
- ☐ NEESA D
- ☐ DQO LEVEL III
- ☑ DQO LEVEL IV
- ☐ NYSFCLP

CASE NUMBER: SDG # Z0666
LABORATORY: TEM/CT
PROJECT: EDER - FAIRCHILD
REVIEWER: DAB
DATE: 10-12-94
ANALYSIS MODIFICATIONS: NONE

VOLATILE HOLDING TIMES

1. Was the holding time exceeded on any volatile analysis?

Yes (No)

If yes, complete the following form for all samples that exceeded holding times.

EPA SAMPLE NO.	MATRIX	VSTR OR DATE SAMP	DATE OF ANALYSIS	DA	QUALIFICATION

DAB 10-12-94

Holding Times:

CLP	=	10 days from VSTR
Non CLP	=	14 days from date of sampling
Region I	=	10 days from VSTR (Aqueous and Non Aqueous)

NOTE: DA - The number of days that the holding time was exceeded.

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC ANALYSIS

Associated Samples and Blanks: NONE

A. BFB GC/MS Tuning

Injection Date: 05/24/94 Injection Time: 08:11 Heated: Y (N)

Instrument ID: HP5972D File ID: DB185T

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

---

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No
If no, reject all associated data and list all affected samples:

B. Calibration

1. Date(s) of calibration: 05/24/94

RRF010 File ID: D1654

RRF020 File ID: 55

RRF050 File ID: 53

RRF100 File ID: 56

RRF200 File ID: 59

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum average RRF criteria ~~are~~ within the CLP guidelines? (Yes) No

If no, enter the laboratory average RRF. If a compound has an average RRF less than 0.05, for samples anayzed within the initial calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %RSD criteria are ~~within~~ the CLP guidelines? Yes (No)

If no, enter the laboratory %RSD. For the samples analyzed within the initial calibration tuning period, qualify positive results for that analyte as estimated (J). Non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
chloromethane	0.050		30.0		
bromomethane	0.100		30.0		
vinyl chloride	0.100		30.0		
chloroethane	0.050		30.0		
methylene chloride	0.050		30.0		
acetone	0.050		30.0	67.1	~~NA~~
carbon disulfide	0.050		30.0		
1,1-dichloroethene	0.100		30.0		
1,1-dichloroethane	0.200		30.0		
1,2-dichloroethene (total)	0.050		30.0		
chloroform	0.200		30.0		
1,2-dichloroethane	0.100		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
2-butanone	0.050		30.0		
1,1,1-trichloroethane	0.100		30.0		
carbon tertachloride	0.100		30.0		
bromodichloromethane	0.200		30.0		
1,2-dichloropropane	0.050		30.0		
cis-1,3-dichloropropene	0.200		30.0		
trichloroethene	0.300		30.0		
dibromochloromethane	0.100		30.0		
1,1,2-trichloroethane	0.100		30.0		
benzene	0.500		30.0		
trans-1,3-dichloropropene	0.100		30.0		
bromoform	0.100		30.0		
4-methyl-2-pentanone	0.050		30.0		
2-hexanone	0.050		30.0		
tetrachloroethene	0.200		30.0		
1,1,2,2-tetrachloroethane	0.500		30.0		
toluene	0.400		30.0		
chlorobenzene	0.500		30.0		
ethylbenzene	0.100		30.0		
styrene	0.300		30.0		
xylene (total)	0.300		30.0		
toluene-d_8	0.050		30.0		
bromofluorobenzene	0.200		30.0		
1,2-dichloroethane-d_4	0.050		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calcualtions:

c. Calculate the RRF of one of the standards for one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: benzene

Lab Value: 1.063

$$\frac{35658(50)}{29779(10)} = 1.063$$

d. Calculate the %RSD of one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: 2-butanone

Lab Value: 15.1

SD = 0.101
$\bar{X}$ = 0.668

$$\frac{0.101}{0.668} \times 100 = 15.1$$

=

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

Associated Samples and Blanks: VBIKD7, TB1940712, FB1940712, MW1D1, MW2D1, MW2S1, MW4D1, MW9S1, CB1940712, MSBMW2D1, MW2D1MS, MW2D1MSD

A. BFB GC/MS Tuning

Injection Date: 07/19/94 Injection Time: 01:54 Heated: Y (N)

Instrument ID: HP5972D File ID: DB245T

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No

If no, reject all associated data and list all affected samples:

B. Calibration

1. Date of calibration: 07/15/94

RRF050 File ID: D2258

Date(s) of Initial Calibration: 05/24/94

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum RRF criteria are within the CLP guidelines
(Yes) No

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples anayzed within the continuing calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines:
Yes (No)

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive values as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
chloromethane	0.050		25.0		
bromomethane	0.100		25.0	--	
vinyl chloride	0.100		25.0		
chloroethane	0.050		25.0		
methylene chloride	0.050		25.0		
acetone	0.050		25.0		
carbon disulfide	0.050		25.0		
1,1-dichloroethene	0.100		25.0		
1,1-dichloroethane	0.200		25.0		
1,2-dichloroethene (total)	0.050		25.0		
chloroform	0.200		25.0		
1,2-dichloroethane	0.100		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-butanone	0.050		25.0		
1,1,1-trichloroethane	0.100		25.0		
carbon tetrachloride	0.100		25.0		
bromodichloromethane	0.200		25.0		
1,2-dichloropropane	0.050		25.0		
cis-1,3-dichloropropene	0.200		25.0		
trichloroethene	0.300		25.0		
dibromochloromethane	0.100		25.0		
1,1,2-trichloroethane	0.100		25.0		
benzene	0.500		25.0		
trans-1,3-dichloropropene	0.100		25.0		
bromoform	0.100		25.0		
4-methyl-2-pentanone	0.050		25.0		
2-hexanone	0.050		25.0	59.4	JUJ
tetrachlorethene	0.200		25.0		
1,1,2,2-tetrachloroethane	0.500		25.0	--	
toluene	0.400		25.0		
chlorobenzene	0.500		25.0		
ethylbenzene	0.100		25.0		
styrene	0.300		25.0		
xylenes (total)	0.300		25.0		
toluene-d_8	0.050		25.0		
bromofluorobenzene	0.200		25.0		
1,2-dichloroethane-d_4	0.050		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calculations

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: Chlorobenzene

Lab Value: 0.928

$$\frac{195767\,(50)}{210869\,(50)} = 0.928$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: bromomethane

Lab Value: 10.5

$$\frac{1.289 - 1.154}{1.289} \times 100 = 10.5$$

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

Associated Samples and Blanks: VBLK08, MW33D1, MW3D1, FB2940713, TB2940713, MW7S1, MW7D1, MW8S1, MW8D1

A. BFB GC/MS Tuning

Injection Date: 07/15/94 Injection Time: 20:27 Heated: Y (N)

Instrument ID: HP5972 File ID: DB246T

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No

If no, reject all associated data and list all affected samples:

B. Calibration

1. Date of calibration: 07/15/94

RRF050 File ID: D2315

Date(s) of Initial Calibration: 05/24/94

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum RRF criteria are within the CLP guidelines
(Yes) No

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples anayzed within the continuing calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines:
Yes (No)

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive values as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
chloromethane	0.050		25.0		
bromomethane	0.100		25.0	--	
vinyl chloride	0.100		25.0		
chloroethane	0.050		25.0		
methylene chloride	0.050		25.0		
acetone	0.050		25.0	28.7	J
carbon disulfide	0.050		25.0		
1,1-dichloroethene	0.100		25.0		
1,1-dichloroethane	0.200		25.0		
1,2-dichloroethene (total)	0.050		25.0		
chloroform	0.200		25.0		
1,2-dichloroethane	0.100		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-butanone	0.050		25.0		
1,1,1-trichloroethane	0.100		25.0		
carbon tetrachloride	0.100		25.0		
bromodichloromethane	0.200		25.0		
1,2-dichloropropane	0.050		25.0		
cis-1,3-dichloropropene	0.200		25.0		
trichloroethene	0.300		25.0		
dibromochloromethane	0.100		25.0		
1,1,2-trichloroethane	0.100		25.0		
benzene	0.500		25.0		
trans-1,3-dichloropropene	0.100		25.0		
bromoform	0.100		25.0		
4-methyl-2-pentanone	0.050		25.0		
2-hexanone	0.050		25.0	53.1	J/UJ
tetrachlorethene	0.200		25.0		
1,1,2,2-tetrachloroethane	0.500		25.0	--	
toluene	0.400		25.0		
chlorobenzene	0.500		25.0		
ethylbenzene	0.100		25.0		
styrene	0.300		25.0		
xylenes (total)	0.300		25.0		
toluene-d_8	0.050		25.0		
bromofluorobenzene	0.200		25.0		
1,2-dichloroethane-d_4	0.050		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calculations

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: Chloroform

Lab Value: 3.932

$$\frac{78655(80)}{20003(50)} = 3.932$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: ethylbenzene

Lab Value: 2.3

$$\frac{0.470 - 0.460}{0.470} \times 100 = 2.3$$

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

Associated Samples and Blanks: VBIKD5, MW95I, MW9DI, MW199I, MW 35I

A. BFB GC/MS Tuning

Injection Date: 07/20/94 Injection Time: 08:04 Heated: Y (N)

Instrument ID: HP5972D File ID: DB247T

1. Is the BFB GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the BFB solution? (Yes) No

If no, reject all associated data and list all affected samples:

B. **Calibration**

1. Date of calibration: 07/20/94

RRF050 File ID: D2330

Date(s) of Initial Calibration: 05/24/94

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum RRF criteria are within ~~the~~ CLP guidelines
(Yes) No

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples anayzed within the continuing calibraiton tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines:
Yes (No)

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive values as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
chloromethane	0.050		25.0		
bromomethane	0.100		25.0	--	
vinyl chloride	0.100		25.0		
chloroethane	0.050		25.0		
methylene chloride	0.050		25.0		
acetone	0.050		25.0	43.0	J
carbon disulfide	0.050		25.0		
1,1-dichloroethene	0.100		25.0		
1,1-dichloroethane	0.200		25.0		
1,2-dichloroethene (total)	0.050		25.0		
chloroform	0.200		25.0		
1,2-dichloroethane	0.100		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-butanone	0.050		25.0		
1,1,1-trichloroethane	0.100		25.0		
carbon tetrachloride	0.100		25.0		
bromodichloromethane	0.200		25.0		
1,2-dichloropropane	0.050		25.0		
cis-1,3-dichloropropene	0.200		25.0		
trichloroethene	0.300		25.0		
dibromochloromethane	0.100		25.0		
1,1,2-trichloroethane	0.100		25.0		
benzene	0.500		25.0		
trans-1,3-dichloropropene	0.100		25.0		
bromoform	0.100		25.0		
4-methyl-2-pentanone	0.050		25.0	30.1	J
2-hexanone	0.050		25.0	89.5	J/UJ
tetrachlorethene	0.200		25.0		
1,1,2,2-tetrachloroethane	0.500		25.0	--	
toluene	0.400		25.0		
chlorobenzene	0.500		25.0		
ethylbenzene	0.100		25.0		
styrene	0.300		25.0		
xylenes (total)	0.300		25.0		
toluene-d_8	0.050		25.0		
bromofluorobenzene	0.200		25.0		
1,2-dichloroethane-d_4	0.050		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
VOLATILE ORGANIC FRACTION

3. Calculations

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: trichloroethene

Lab Value: 0.366

$$\frac{56240\ (50)}{153723\ (50)} = 0.366$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: vinyl chloride

Lab Value: -8.1

$$\frac{1.615 - 1.745}{1.615} \times 100 = -8.1$$

INTERNAL STANDARD AREA SUMMARY
VOLATILE ORGANIC FRACTION

1. Is the EICP area for each internal standard in all associated field samples, QC samples, and blanks within - 50% and + 100% of the respective internal standard EICP areas? (Yes) No

If the EICP area of one (1) or more internal standard is less than -50%:
- Positive results for those compounds that are quantified using the particular internal standard are flagged as estimated (J).
- Non detected for that fraction are flagged with the sample quantitation limit classified as estimated (UJ).

If the EICP area of one (1) or more internal standards is greater than +100%:
- Positive results for those compounds that are quantified using the particular internal standard are flagged as estimated (J).

If no, list non-compliant sample IDs and areas below.

Standard ID: All STDS

	BCM	RT	1,4-DFB	RT	CBZ-d_5	RT
12-HOUR STD						
UPPER LIMIT					-	
LOWER LIMIT						
EPA SAMPLE NO.						

MH 10-12-94

METHOD BLANK SUMMARY
VOLATILE ORGANIC FRACTION

1. Blank qualification guidelines:

   a) If a compound is found in the blank but not in the sample, no action is taken.

   b) Any compound (other than the four (4) listed below) detected in the sample, which was also detected in the associated blank, must be qualified by elevating the limit of detection or adjusting the limit of detection to the sample result, when the sample concentration is less than five (5) times the blank concentration. For the following four (4) compounds, the results are qualified by elevating the limit of detection or adjusting the limit of detection to the sample result, when the sample concentration is less than ten (10) times the blank concentration.

      Common laboratory contaminants: methylene chloride
      acetone
      2-butanone

   c) The reviewer should take note that the blank analysis may not involve the same weights, volumes or dilution factors as associated samples. These factors must be taken into consideration when applying the 5X and 10X criteria.

   d) In addition, the reviewer must review the trip blanks, rinseate blanks and field blanks (if they were submitted with the data package) and all associated samples. Apply the same data validation guidelines used in assessing the method blanks.

   e) Qualification/Action codes:

      U - The sample result is greater than the CRQL and less than ten times (10X) the blank value. Cross out the "B" flag and qualify the sample result with a "U".

      CRQL - The sample result is less than the CRQL and less than ten times (10X) the blank value. Reject the sample result, cross out the "B" flag, and report the CRQL.

      No Action - The sample result is greater than the CRQL and greater than ten times (10X) the blank value.

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKD7

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Lab File ID: D2300.D Lab Sample ID: VBLKD7

Date Analyzed: 07/19/94 Time Analyzed: 0958

GC Column:007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5972D

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	TB1940712	0666008	D2301.D	1048
02	RB1940712	0666006	D2302.D	1126
03	MW1D1	0666001	D2303.D	1203
04	MW2D1	0666002	D2304.D	1242
05	MW2S1	0666003	D2305.D	1320
06	MW40D1	0666004	D2306.D	1358
07	MW991	0666005	D2307.D	1436
08	MSBMW1D1	0666002MSB	D2309.D	1552
09	MW2D1MS	0666002MS	D2310.D	1630
10	MW2D1MSD	0666002MSD	D2311.D	1708
11				
12				
13				
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29				
30				

PSV 08/Play

COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: VBLKD7 File ID: D2300

Purge: heated ~~non heated~~ Page ____ of ____

Analysis date/time: 07/19/94 09:58

COMPOUND	CONCENTRATION	CRQL
CH_2Cl_2	25	10

U if 10 12 ug/l

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKD8

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Lab File ID: D2318.D Lab Sample ID: VBLKD8

Date Analyzed: 07/20/94 Time Analyzed: 0017

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

061

Instrument ID: HP5972D

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW33D1	0666009	D2319.D	0112
02	MW3D1	0666011	D2321.D	0228
03	FB2940713	0666012	D2322.D	0306
04	TB2940713	0666013	D2323.D	0345
05	MW7S1	0666014	D2324.D	0422
06	MW7D1	0666015	D2325.D	0500
07	MW8S1	0666016	D2326.D	0538
08	MW8D1	0666017	D2327.D	0616
09				
10				
11				
12				
13				
14				
15				
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17				
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30				

COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: VBLKD8 File ID: D2315

Purge: heated (non heated) Page _____ of _____

Analysis date/time: 07/20/94 00:17

COMPOUND	CONCENTRATION	CRQL
Chloroform	0.9 J	10

AHD 12-94

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKD9

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Lab File ID: D2331.D Lab Sample ID: VBLKD9

Date Analyzed: 07/20/94 Time Analyzed: 0931

062

GC Column:007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5972D

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW9S1	0666018	D2337.D	1359
02	MW9D1	0666019	D2338.D	1437
03	MW1991	0666020	D2339.D	1515
04	MW3S1	0666010	D2342.D	1709
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
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27				
28				
29				
30				

COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: VBLKD9 File ID: D2331

Purge: heated ~~non heated~~ Page _____ of _____

Analysis date/time: 07/20/94 09:31

COMPOUND	CONCENTRATION	CRQL

10-12-94

TRIP BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: TB2940713 File ID: D2323

Purge: heated ~~non heated~~ Page _____ of _____

Analysis date/time: 07/20/94 00:17

COMPOUND	CONCENTRATION	CRQL

MH 10-12-94

TRIP BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: TB1940712 File ID: D2301

Purge: heated (non heated) Page _____ of _____

Analysis date/time: 07/19/94 10:48

COMPOUND	CONCENTRATION	CRQL

DH 10-12-94

RINSEATE BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: CB1940712 File ID: D2308

Purge: heated (non heated) Page ____ of ____

Analysis date/time: 07/19/94 :

COMPOUND	CONCENTRATION	CRQL
tetrachloroethene	1J	10

TCE - CRQL			
MW40D1			
MW99I			
MW3D1			
MW85I			
MW95I			
MW9D1			
MW15SI			

FIELD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: FB1940712 File ID: D2302

Purge: heated (non heated) Page _____ of _____

Analysis date/time: 07/19/94 05:58

COMPOUND	CONCENTRATION	CRQL

N/A 8-12-94

FIELD BLANK SUMMARY - TCL SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: FB2540713 File ID: D2322

Purge: heated ~~non heated~~ Page _____ of _____

Analysis date/time: 07/20/94 ~~0:06~~

COMPOUND	CONCENTRATION	CRQL

10-12-94

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKD7	100	99	96		0
02	TB1940712	97	98	92		0
03	FB1940712	93	99	97		0
04	MW1D1	104	107	102		0
05	MW2D1	99	103	101		0
06	MW2S1	100	98	101		0
07	MW40D1	101	105	109		0
08	MW991	100	109	113		0
09	FB1940712	99	104	105		0
10	MSBMW1D1	102	105	107		0
11	MW2D1MS	100	107	108		0
12	MW2D1MSD	103	108	110		0
13	VBLKD8	104	104	94		0
14	MW33D1	98	101	94		0
15	MW3D1	100	107	94		0
16	FB2940713	100	106	95		0
17	TB2940713	98	102	95		0
18	MW7S1	99	102	97		0
19	MW7D1	104	106	100		0
20	MW8S1	99	102	93		0
21	MW8D1	104	106	102		0
22	VBLKD9	99	97	92		0
23	MW9S1	95	100	85		0
24	MW9D1	95	101	89		0
25	MW1991	98	103	93		0
26	MW3S1	98	97	96		0
27						
28						
29						
30						

	QC LIMITS
SMC1 (TOL) = Toluene-d8	(88-110)
SMC2 (BFB) = Bromofluorobenzene	(86-115)
SMC3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

SURROGATE RECOVERY SUMMARY
VOLATILE ORGANIC FRACTION

1. Did all the surrogate recoveries for the blanks, QC samples, and field samples meet the acceptance criteria? (Yes) No

   If no, list all the samples and their respective surrogate recoveries that do not meet QA/QC criteria.

EPA SAMPLE NO.	TOL-d_8	BFB	DCE-d_4	QUALIFACATION

RECOVERY LIMITS

		WATER	SOIL
toluene-d_8	(TOL-d_8)	88-110	84-138
bromofluorobenzene	(BFB)	86-115	59-113
1,2-dichloroethane-d_4	(DCE-d_4)	76-114	70-121

NOTE: D - denotes that surrogate was diluted out.

Comments: _____

3A
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix Spike - EPA Sample No.: MW2D1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	49	98	61-145
Trichloroethene	50	0	51	102	71-120
Benzene	50	0	50	100	76-127
Toluene	50	0	53	106	76-125
Chlorobenzene	50	0	53	106	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	52	104	6	14	61-145
Trichloroethene	50	50	100	2	14	71-120
Benzene	50	51	102	2	11	76-127
Toluene	50	52	104	2	13	76-125
Chlorobenzene	50	52	104	2	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

MATRIX SPIKE/ MATRIX SPIKE DUPLICATE SUMMARY
VOLATILE ORGANIC FRACTION

Sample ID: MW 201

Purge: heated non heated

Advisory Limits for Spike Recoveries:

	Water	Max RPD	Soil	Max RPD
1,1,-Dichloroethene	61-145	14	59-172	22
Trichloroethene	71-120	14	62-137	24
Benzene	76-127	11	66-142	21
Toluene	76-125	13	59-139	21
Chlorobenzene	75-130	13	60-133	21

1. Were the percent recoveries and the RPDs in compliance with the advisory limits?

(Yes) No

If no, list the non compliant MS/MSD information below as applicable.

COMPOUND	MS %REC.	MSD %REC.	RPD	QUALIFICATION
1,1-dichloroethene				
trichloroethene				
benzene				
toluene				
chlorobenzene				

* - denotes non-compliant % Recoveries or %RPD

Comments: _____

3-ASP

VOLATILE MATRIX SPIKE BLANK RECOVERY SUMMARY

Lab Name: IEA-CT Lab Project No: 000000

Lab Code: IEACT SDG Number: 200000

Client Sample No.: MW2D1 Concentration Units: UG/L

COMPOUND	SPIKE ADDED	SAMPLE CONC.	MSB CONC.	MSB % Rec.	QC Limits % Rec.
1,1-Dichloroethene	50	0	50	100	61-145
Trichloroethene	50		50	100	71-120
Benzene	50		50	100	76-127
Toluene	50		52	104	76-125
Chlorobenzene	50		50	100	75-130

Spike Recovery: 0 out of 5 outside limits.

Comments:

SAMPLE CALUCULATION
VOLATILE ORGANIC FRACTION

EPA SAMPLE ID: MW101

COMPOUND: dibromochloromethane

CONCENTRATION: 0.2 UNITS: µg/L µg/Kg

$$\frac{384\ (250)}{223108\ (0.435)(5)} = 0.2\ \text{ug/L}$$

EPA SAMPLE ID.: MW101		STD. ID.: D2258
COMPOUND	RRT	STD. RRT
dibromochloromethane	1.456	1.524
toluene	0.806	0.903

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
MW9D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666019

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2338.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	2	J
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	4	J
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	3	J
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	Xylene (total)	10	U

JH 101254

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 277

MW1991

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix: (soil/water) WATER Lab Sample ID: 0666020

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2339.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/20/94

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	2	J
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	4	J
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	2	J
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	Xylene (total)	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW40D1

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

103

Matrix: (soil/water) WATER Lab Sample ID: 0666004

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2306.D

Level: (low/med) LOW Date Received: 07/15/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column:007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	2	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	12	
100-41-4	Ethylbenzene	3	J
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	40	

JP 10/25/94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW991

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

124

Matrix: (soil/water) WATER Lab Sample ID: 0666005

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D2307.D

Level: (low/med) LOW Date Received: 07/13/94

% Moisture: not dec. _____ Data Analyzed: 07/19/94

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	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	2	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	13	
100-41-4	Ethylbenzene	4	J
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	15	

7/20/94

SAMPLE RESULT VERIFICATION
VOLATILE ORGANIC FRACTION

1. Were the sample results reported within the calibration range? (Yes) No
2. Were the percent moistures reported? Yes No (NR)
3. Were the data reported on a dry weight basis? Yes No (NR)
4. Did the GC/MS RIC and TIC exhibit interferences, off scale peaks or elevated baseline? Yes (No)
5. Did the data contain elevated detection limits that could not be accounted for? Yes (No)
6. Were any computational or transcription errors found? Yes (No)

Specific Comments: _____

Reviewer: Daniel J. Heil Date: 10/12/94

HEARTLAND ESI SVOA 1 **OLMO1.8**

QA/QC LEVEL

- ☐ NEESA C
- ☐ NEESA D
- ☐ DQO LEVEL III
- ☑ DQO LEVEL IV
- ☑ NYSF-CLP

CASE NUMBER: 20666
LABORATORY: TEA/CT
PROJECT: EDEC - FAIRCHILD
REVIEWER: DH
DATE: 10-10-94
ANALYSIS MODIFICATIONS: NONE

SEMI-VOLATILE HOLDING TIMES

1. Were the holding times met for the semivolatile extractions and/or analysis?

(Yes) No

If no, complete the following form for all samples that exceeded holding times.

EPA SAMPLE NO.	MATRIX	VSTR	DATE OF EXTRACT.	DA	ACTION

DH 10-10-94

EPA SAMPLE NO.	MATRIX	VSTR	DATE OF ANALYSIS	DA	ACTION

	3/90 CLP	Region I
Water:	5 days from VSTR	5 days from VSTR
Soil:	14 days from sampling	7 days from VSTR
Analysis:	40 days from VSTR	40 days from VTSR

NOTE: DA - The number of days that the holding time was exceeded.

GC/MS TUNING AND INITIAL MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

Associated Samples and Blanks: NONE

A. DFTPP GC/MS Tuning

Injection Date: 07/12/94 Injection Time: 12:00

Instrument ID: HP597I File ID: I7289T

1. Is the DFTPP GC/MS Tune acceptable? (Yes) No

   If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the DFTPP solution? (Yes) No

   If no, reject all associated data and list all affected samples:

B. Calibration

1. Date(s) of calibration: 07/12/94

   RRF020 File ID: I7290

   RRF050 File ID: 91

   RRF080 File ID: 92

   RRF120 File ID: 93

   RRF160 File ID: 94

GC/MS TUNING AND INITIAL MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum average RRF criteria ~~are~~ within the CLP guidelines? (Yes) No

If no, enter the laboratory average RRF. If a compound has an average RRF less than 0.05, for the samples analyzed within the initial calibration tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %RSD criteria ~~are~~ within the CLP guidelines? (Yes) No

If no, enter the laboratory %RSD. For the samples analyzed within the initial calibration tuning period, qualify all positive results for the compound as estimated (J). Non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
phenol	0.800		30.0		
bis(2-chloroethyl)ether	0.700		30.0		
2-chlorophenol	0.800		30.0		
1,3-dichlorobenzene	0.600		30.0		
1,4-dichlorobenzene	0.500		30.0		
1,2-dichlorobenzene	0.400		30.0		
2-methylphenol	0.700		30.0		
2,2'-oxybis(1-chloropropane)	0.050		30.0		
4-methylphenol	0.600		30.0		
N-nitrosodi-n-propylamine	0.500		30.0		
hexachloroethane	0.300		30.0		
nitrobenzene	0.200		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
isophorone	0.400		30.0		
2-nitrophenol	0.100		30.0		
2,4-dimethylphenol	0.200		30.0		
bis(2-chloroethoxy)methane	0.300		30.0		
2,4-dichlorophenol	0.200		30.0		
1,2,4-trichlorobenzene	0.200		30.0		
naphthalene	0.700		30.0		
4-chloroaniline	0.050		30.0		
hexachlorobutadiene	0.050		30.0		
4-chloro-3-methylphenol	0.200		30.0		
hexachlorocyclopentadiene	0.050		30.0		
2-methylnaphthalene	0.400		30.0		
2,4,6-trichlorophenol	0.200		30.0		
2,4,5-trichlorophenol	0.200		30.0		
2-chloronaphthalene	0.800		30.0		
2-nitroaniline	0.050		30.0		
dimethylphthalate	0.050		30.0		
acenaphthylene	1.300		30.0		
2,6-dinitrotoluene	0.200		30.0		
3-nitroaniline	0.050		30.0		
acenaphthene	0.800		30.0		
2,4-dinitrophenol	0.050		30.0		
4-nitrophenol	0.050		30.0		
dibenzofuran	0.800		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
2,4-dinitrotoluene	0.200		30		
diethylphthalate	0.050		30.0		
4-chlorophenyl-phenylether	0.400		30.0		
fluorene	0.900		30.0		
4-nitroaniline	0.050		30.0		
4,6-dinitro-2-methylphenol	0.050		30.0		
N-nitrosodiphenylamine	0.050		30.0		
4-bromophenyl-phenylether	0.100		30.0		
hexachlorobenzene	0.100		30.0		
pentachlorophenol	0.050		30.0		
phenanthrene	0.700		30.0		
anthracene	0.700		30.0		
carbazole	0.050		30.0		
di-n-butylphthalate	0.050		30.0		
fluoranthene	0.600		30.0		
pyrene	0.600		30.0		
butylbenzylphthalate	0.050		30.0		
3,3'-dichlorobenzidine	0.050		30.0		
benzo(a)anthracene	0.800		30.0		
chrysene	0.700		30.0		
bis(2-ethylhexyl)phthalate	0.050		30.0		
di-n-octylphthalate	0.050		30.0		
benzo(b)fluoranthene	0.700		30.0		
benzo(k)fluoranthene	0.700		30.0		

GC/MS TUNING AND INITIAL MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %RSD	LAB %RSD	QA
benzo(a)pyrene	0.700		30		
indeno(1,2,3-cd)pyrene	0.500		30.0		
dibenzo(a,h)anthracene	0.400		30.0		
benzo(g,h,i)perylene	0.500		30.0		
nitrobenzene-d_5	0.200		30.0		
2-fluorobiphenyl	0.700		30.0		
terphenyl-d_{14}	0.500		30.0		
phenol-d_6	0.800		30.0		
2-fluorophenol	0.600		30.0		
2-chlorophenol-d_4	0.800		30.0		
1,2-dichlorobenzene-d_4	0.400		30.0		
2,4,6-tribromophenol	0.050		30.0		

3. Calculations:

c. Calculate the RRF of one of the standards for one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: 4-nitrophenol

Lab Value: 0.312 $\frac{283199 (440)}{302303 (420)} = 0.312$

d. Calculate the %RSD of one of the compounds used in the initial calibration. Enter the compound name used in the calculation.

Compound Name: 1,3-dichlorobenzene

Lab Value: 1.7

SD = 0.024 $\frac{0.024}{1.426} \times 100 = 1.7$

$\bar{X} = 1.426$

GC/MS TUNING AND CONTINUING MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

Associated Samples and Blanks: SBIKSI, SBIKWI, MSBMW201, MW401, MW991, FB1940712, MW101, MW301, MW351, MW3301, MW251, MW201

A. DFTPP GC/MS Tuning

Injection Date: 07/23/94 Injection Time: 14:52

Instrument ID: HP5971I File ID: I7445T

1. Is the DFTPP GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the DFTPP solution? (Yes) No

If no, reject all associated data and list all affected samples:

B. Calibration

1. Date of calibration: 07/23/94

RRF50 File ID: I7445

Date(s) of Initial Calibration: 07/12/94

GC/MS TUNING AND CONTINUING MASS CALIBRATION SEMIVOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum RRF criteria are within the CLP guidelines?
(Yes) No

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples analyzed within the continuing calibration tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines?
(Yes) No

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive results as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX. %D	LAB %D	QA
phenol	0.800		25.0		
bis(2-chloroethyl)ether	0.700		25.0		
2-chlorophenol	0.800		25.0		
1,3-dichlorobenzene	0.600		25.0		
1,4-dichlorobenzene	0.500		25.0		
1,2-dichlorobenznene	0.400		25.0		
2-methylphenol	0.700		25.0		
2,2'-oxybis(1-chloropropane)	0.050		25.0		
4-methylphenol	0.600		25.0		
N-nitrosodi-n-propylamine	0.500		25.0		
hexachloroethane	0.300		25.0		
nitrobenzene	0.200		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
isophorone	0.400		25.0		
2-nitrophenol	0.100		25.0		
2,4-dimethylphenol	0.200		25.0		
bis(2-chloroethoxy)methane	0.300		25.0		
2,4-dichlorophenol	0.200		25.0		
1,2,4-trichlorobenzene	0.200		25.0		
naphthalene	0.700		25.0		
4-chloroaniline	0.050		25.0		
hexachlorobutadiene	0.050		25.0		
4-chloro-3-methylphenol	0.200		25.0		
2-methylnaphthalene	0.400		25.0		
hexachlorocyclopentadiene	0.050		25.0		
2,4,6-trichlorophenol	0.200		25.0		
2,4,5-trichlorophenol	0.200		25.0		
2-chloronaphthalene	0.800		25.0		
2-nitroaniline	0.050		25.0		
dimethylphthalate	0.050		25.0		
acenaphthylene	1.300		25.0		
2,6-dinitrotoluene	0.200		25.0		
3-nitroaniline	0.050		25.0		
acenaphthene	0.800		25.0		
2,4-dinitrophenol	0.050		25.0		
4-nitrophenol	0.050		25.0		
dibenzofuran	0.800		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2,4-dinitrotoluene	0.200		25.0		
diethylphthalate	0.050		25.0		
4-chlorophenyl-phenylether	0.400		25.0		
fluorene	0.900		25.0		
4-nitroaniline	0.050		25.0		
4,6-dinitro-2-methylphenol	0.050		25.0		
N-nitrosodiphenylamine	0.050		25.0		
4-bromophenyl-phenylether	0.100		25.0		
hexachlorobenzene	0.100		25.0		
pentachlorophenol	0.050		25.0		
phenanthrene	0.700		25.0		
anthracene	0.700		25.0		
carbazole	0.050		25.0		
di-n-butylphthalate	0.050		25.0		
fluoranthene	0.600		25.0		
pyrene	0.600		25.0		
butylbenzylphthalate	0.050		25.0		
3,3'-dichlorobenzidine	0.050		25.0		
benzo(a)anthracene	0.800		25.0		
chrysene	0.700		25.0		
bis(2-ethylhexyl)phthalate	0.050		25.0		
di-n-octylphthalate	0.050		25.0		
benzo(b)fluoranthene	0.700		25.0		
benzo(k)fluoranthene	0.700		25.0		
benzo(a)pyrene	0.700		25.0		
indeno(1,2,3-cd)pyrene	0.500		25.0		
dibenzo(a,h)anthracene	0.400		25.0		
benzo(g,h,i)perylene	0.500		25.0		
nitrobenzene-d_5	0.200		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-fluorobiphenyl	0.700		25.0		
terphenyl-d_{14}	0.500		25.0		
phenol-d_6	0.800		25.0		
2-fluorophenol	0.600		25.0		
2-chlorophenol-d_4	0.800		25.0		
1,2-dichlorobenzene-d_4	0.400		25.0		
2,4,6-tribromophenol	0.050		25.0		

3. **Calculations:**

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: phenanthrene

Lab Value: 0.969

$$\frac{537449(40)}{443505(50)} = 0.969$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: benzo(a)pyrene

Lab Value: 3.7

$$\frac{1.388 - 1.336}{1.388} \times 100 = 3.7$$

GC/MS TUNING AND CONTINUING MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

Associated Samples and Blanks: MW8D1, MW951, MW9D1, MW1951, MW751, MW7D1, MW851, MW201MS MW201MSD

A. DFTPP GC/MS Tuning

Injection Date: 07/27/94 Injection Time: 09:54

Instrument ID: HP5971I File ID: I7472T

1. Is the DFTPP GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the DFTPP solution? (Yes) No

If no, reject all associated data and list all affected samples:

B. Calibration

1. Date of calibration: 07/27/94

RRF50 File ID: I7472

Date(s) of Initial Calibration: 07/12/94

GC/MS TUNING AND CONTINUING MASS CALIBRATION SEMIVOLATILE ORGANIC FRACTION

2. Performance Check

a. All compounds with minimum RRF criteria are within the CLP guidelines?
(Yes) No

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples analyzed within the continuing calibration tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines?
Yes (No)

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive results as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX. %D	LAB %D	QA
phenol	0.800		25.0		
bis(2-chloroethyl)ether	0.700		25.0		
2-chlorophenol	0.800		25.0		
1,3-dichlorobenzene	0.600		25.0		
1,4-dichlorobenzene	0.500		25.0		
1,2-dichlorobenznene	0.400		25.0		
2-methylphenol	0.700		25.0		
2,2'-oxybis(1-chloropropane)	0.050		25.0		
4-methylphenol	0.600		25.0		
N-nitrosodi-n-propylamine	0.500		25.0		
hexachloroethane	0.300		25.0		
nitrobenzene	0.200		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
isophorone	0.400		25.0		
2-nitrophenol	0.100		25.0		
2,4-dimethylphenol	0.200		25.0		
bis(2-chloroethoxy)methane	0.300		25.0		
2,4-dichlorophenol	0.200		25.0		
1,2,4-trichlorobenzene	0.200		25.0		
naphthalene	0.700		25.0		
4-chloroaniline	0.050		25.0		
hexachlorobutadiene	0.050		25.0		
4-chloro-3-methylphenol	0.200		25.0		
2-methylnaphthalene	0.400		25.0		
hexachlorocyclopentadiene	0.050		25.0		
2,4,6-trichlorophenol	0.200		25.0		
2,4,5-trichlorophenol	0.200		25.0		
2-chloronaphthalene	0.800		25.0		
2-nitroaniline	0.050		25.0		
dimethylphthalate	0.050		25.0		
acenaphthylene	1.300		25.0		
2,6-dinitrotoluene	0.200		25.0		
3-nitroaniline	0.050		25.0	30.3	J
acenaphthene	0.800		25.0		
2,4-dinitrophenol	0.050		25.0		
4-nitrophenol	0.050		25.0		
dibenzofuran	0.800		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2,4-dinitrotoluene	0.200		25.0		
diethylphthalate	0.050		25.0		
4-chlorophenyl-phenylether	0.400		25.0		
fluorene	0.900		25.0		
4-nitroaniline	0.050		25.0	30.0	J
4,6-dinitro-2-methylphenol	0.050		25.0		
N-nitrosodiphenylamine	0.050		25.0		
4-bromophenyl-phenylether	0.100		25.0		
hexachlorobenzene	0.100		25.0		
pentachlorophenol	0.050		25.0		
phenanthrene	0.700		25.0		
anthracene	0.700		25.0		
carbazole	0.050		25.0	28.0	J
di-n-butylphthalate	0.050		25.0		
fluoranthene	0.600		25.0		
pyrene	0.600		25.0		
butylbenzylphthalate	0.050		25.0		
3,3'-dichlorobenzidine	0.050		25.0		
benzo(a)anthracene	0.800		25.0		
chrysene	0.700		25.0		
bis(2-ethylhexyl)phthalate	0.050		25.0		
di-n-octylphthalate	0.050		25.0		
benzo(b)fluoranthene	0.700		25.0		
benzo(k)fluoranthene	0.700		25.0		
benzo(a)pyrene	0.700		25.0		
indeno(1,2,3-cd)pyrene	0.500		25.0		
dibenzo(a,h)anthracene	0.400		25.0		
benzo(g,h,i)perylene	0.500		25.0		
nitrobenzene-d_5	0.200		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-fluorobiphenyl	0.700		25.0		
terphenyl-d_{14}	0.500		25.0		
phenol-d_6	0.800		25.0		
2-fluorophenol	0.600		25.0		
2-chlorophenol-d_4	0.800		25.0		
1,2-dichlorobenzene-d_4	0.400		25.0		
2,4,6-tribromophenol	0.050		25.0		

3. **Calculations:**

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: naphthalene

Lab Value: 0.993

$$\frac{527785(40)}{425290(50)} = 0.993$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: dibenzofuran

Lab Value: 2.0

$$\frac{1.657 - 1.625}{1.657} \times 100 = 2.0$$

GC/MS TUNING AND CONTINUING MASS CALIBRATION SEMIVOLATILE ORGANIC FRACTION

Associated Samples and Blanks: FB2940713, SB1KYI

A. DFTPP GC/MS Tuning

Injection Date: 07/28/94 Injection Time: 10:03

Instrument ID: HP5971I File ID: I7488T

1. Is the DFTPP GC/MS Tune acceptable? (Yes) No

If no, reject all associated data and state why the tune is rejected.

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2. Were all the standards, samples, blanks, and QC samples analyzed within 12 hours of the injection of the DFTPP solution?

(Yes) No

If no, reject all associated data and list all affected samples:

B. Calibration

1. Date of calibration: 07/28/94

RRF50 File ID: I7488

Date(s) of Initial Calibration: 07/12/94

GC/MS TUNING AND CONTINUING MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

2. **Performance Check**

a. All compounds with minimum RRF criteria are within the CLP guidelines?
(Yes) No

If no, enter the laboratory RRF. If a compound has a RRF less than 0.05, for samples analyzed within the continuing calibration tuning period, qualify positive results as estimated (J) and reject (R) non detect results.

b. All compounds with maximum %D criteria are within the CLP guidelines?
Yes (No)

If no, enter the laboratory %D. For the non compliant compounds, qualify all positive results as estimated (J) and non detects may be qualified using professional judgement with an explanation in the case narrative/data assessment.

COMPOUND	MIN RRF	LAB RRF	MAX. %D	LAB %D	QA
phenol	0.800		25.0		
bis(2-chloroethyl)ether	0.700		25.0	-28.7	J
2-chlorophenol	0.800		25.0		
1,3-dichlorobenzene	0.600		25.0		
1,4-dichlorobenzene	0.500		25.0		
1,2-dichlorobenznene	0.400		25.0		
2-methylphenol	0.700		25.0		
2,2'-oxybis(1-chloropropane)	0.050		25.0		
4-methylphenol	0.600		25.0		
N-nitrosodi-n-propylamine	0.500		25.0		
hexachloroethane	0.300		25.0		
nitrobenzene	0.200		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
isophorone	0.400		25.0		
2-nitrophenol	0.100		25.0		
2,4-dimethylphenol	0.200		25.0		
bis(2-chloroethoxy)methane	0.300		25.0		
2,4-dichlorophenol	0.200		25.0		
1,2,4-trichlorobenzene	0.200		25.0		
naphthalene	0.700		25.0		
4-chloroaniline	0.050		25.0		
hexachlorobutadiene	0.050		25.0		
4-chloro-3-methylphenol	0.200		25.0		
2-methylnaphthalene	0.400		25.0		
hexachlorocyclopentadiene	0.050		25.0		
2,4,6-trichlorophenol	0.200		25.0		
2,4,5-trichlorophenol	0.200		25.0		
2-chloronaphthalene	0.800		25.0		
2-nitroaniline	0.050		25.0		
dimethylphthalate	0.050		25.0		
acenaphthylene	1.300		25.0		
2,6-dinitrotoluene	0.200		25.0		
3-nitroaniline	0.050		25.0		
acenaphthene	0.800		25.0		
2,4-dinitrophenol	0.050		25.0		
4-nitrophenol	0.050		25.0		
dibenzofuran	0.800		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2,4-dinitrotoluene	0.200		25.0		
diethylphthalate	0.050		25.0		
4-chlorophenyl-phenylether	0.400		25.0		
fluorene	0.900		25.0		
4-nitroaniline	0.050		25.0		
4,6-dinitro-2-methylphenol	0.050		25.0		
N-nitrosodiphenylamine	0.050		25.0	26.1	J
4-bromophenyl-phenylether	0.100		25.0		
hexachlorobenzene	0.100		25.0		
pentachlorophenol	0.050		25.0		
phenanthrene	0.700		25.0		
anthracene	0.700		25.0		
carbazole	0.050		25.0		
di-n-butylphthalate	0.050		25.0		
fluoranthene	0.600		25.0		
pyrene	0.600		25.0		
butylbenzylphthalate	0.050		25.0		
3,3'-dichlorobenzidine	0.050		25.0		
benzo(a)anthracene	0.800		25.0		
chrysene	0.700		25.0		
bis(2-ethylhexyl)phthalate	0.050		25.0		
di-n-octylphthalate	0.050		25.0		
benzo(b)fluoranthene	0.700		25.0		
benzo(k)fluoranthene	0.700		25.0		
benzo(a)pyrene	0.700		25.0		
indeno(1,2,3-cd)pyrene	0.500		25.0		
dibenzo(a,h)anthracene	0.400		25.0		
benzo(g,h,i)perylene	0.500		25.0		
nitrobenzene-d_5	0.200		25.0		

GC/MS TUNING AND CONTINUING MASS CALIBRATION
SEMIVOLATILE ORGANIC FRACTION

COMPOUND	MIN RRF	LAB RRF	MAX %D	LAB %D	QA
2-fluorobiphenyl	0.700		25.0		
terphenyl-d_{14}	0.500		25.0		
phenol-d_6	0.800		25.0		
2-fluorophenol	0.600		25.0		
2-chlorophenol-d_4	0.800		25.0		
1,2-dichlorobenzene-d_4	0.400		25.0		
2,4,6-tribromophenol	0.050		25.0	-26.2	J

3. **Calculations:**

c. Calculate the RRF for one compound. Enter the compound name used in the calculation.

Compound Name: Chrysene

Lab Value: 1.083

$$\frac{647579\ (40)}{478524\ (50)} = 1.083$$

d. Calculate the %D of one of the compounds used in the continuing calibration. Enter the compound name used in the calculation.

Compound Name: anthracene

Lab Value: -6.9

$$\frac{0.890 - 0.551}{0.890} \times 100 = -6.9$$

INTERNAL STANDARD AREA SUMMARY
SEMIVOLATILE ORGANIC FRACTION - PART 1

1. Is the EICP area for each internal standard in all associated field samples, QC samples, and blanks within - 50% and + 100% of the respective internal standard EICP areas? (Yes) No

If the EICP area of one (1) or more internal standard is less than -50%:
- Positive results for those compounds that are quantified using the particular internal standard are flagged as estimated (J).
- Non detects for that fraction are flagged with the sample quantitation limit classified as estimated (UJ).

If the EICP area of one (1) or more internal standards is greater than +100%:
- Positive results for those compounds that are quantified using the particular internal standard are flagged as estimated (J).

If no, list non-compliant sample IDs and areas below.

Standard ID: All STDS

	1,4-DCB-d_4	RT	NPT-d_8	RT	ACT-d_{10}	RT
12-HOUR STD						
UPPER LIMIT						
LOWER LIMIT						
EPA SAMPLE NO.						

INTERNAL STANDARD AREA SUMMARY
SEMIVOLATILE ORGANIC FRACTION - PART 2

2. Is the EICP area for each internal standard in all associated field samples, QC samples, and blanks within - 50% and + 100% of the respective internal standard EICP areas? (Yes) No

If the EICP area of one (1) or more internal standard is less than -50%:
- Positive results for those compounds that are quantified using the particular internal standard are flagged as estimated (J).
- Non detects for that fraction are flagged with the sample quantitation limit classified as estimated (UJ).

If the EICP area of one (1) or more internal standards is greater than +100%:
- Positive results for those compounds that are quantified using the particular internal standard are flagged as estimated (J).

If no, list non-compliant sample IDs and areas below.

Standard ID: ALL STDS

	PHN-d_{10}	RT	CRY-d_{12}	RT	PRY-d_{12}	RT
12-HOUR STD						
UPPER LIMIT						
LOWER LIMIT						
EPA SAMPLE NO.						

DLH 10-10-94

METHOD BLANK SUMMARY
SEMIVOLATILE ORGANIC FRACTION

1. Blank qualification guidelines:

   a) If a compound is found in the blank but not in the sample, no action is taken.

   b) Any compound (other than listed below) detected in the sample, which was also detected in the associated blank, must be qualified by elevating the limit of detection or adjusting the limit of detection to the sample result, when the sample concentration is less than five (5) times the blank concentration. For the following four (4) compounds, the results are qualified by elevating the limit of detection or adjusting the limit of detection to the sample result, when the sample concentration is less than ten (10) times the blank concentration.

      Common laboratory contaminants: phthalates

   c) The reviewer should take note that the blank analysis may not involve the same weights, volumes or dilution factors as associated samples. These factors must be taken into consideration when applying the 5X and 10X criteria.

   d) In addition, the reviewer must review the trip blanks, rinseate blanks and field blanks (if they were submitted with the data package) and all associated samples. Apply the same data validation guidelines used in assessing the method blanks.

   e) Qualification/Action codes:

      U - The sample result is greater than the CRQL and less than ten times (10X) the blank value. Cross out the "B" flag and qualify the sample result with a "U".

      CRQL - The sample result is less than the CRQL and less than ten times (10X) the blank value. Reject the sample result, cross out the "B" flag, and report the CRQL.

      No Action - The sample result is greater than the CRQL and greater than ten times (10X) the blank value.

METHOD BLANK SUMMARY - TCL SUMMARY
SEMIVOLATILE ORGANIC FRACTION

Sample ID: SBLKSI File ID: I7446

COMPOUND	CONCENTRATION	CRQL
bis(2eh)ph	~~15~~	10
di-n-bph	0.9J	10

di-n-bph-CRQL	bis(2eh)ph-CRQL		
MW101	MW101		
MW251	MW201		
MW401	MW251		
MW991	MW401		
FB1940712	MW991		
MW201MS	FB1940712		
	MW201MS		
	MW201MSD		

METHOD BLANK SUMMARY - TIC SUMMARY
SEMIVOLATILE ORGANIC FRACTION

Sample ID: SB1KSI File ID: I7446

TIC #	RT	CONC.	TIC #	RT	CONC.
1	6.07	3			
~~2~~	~~25.04~~	~~[illegible]~~			

Sample TIC Rejection Summary

All sample TIC results found at the same retention time of the blank TICs are rejected if they are less than 5X the blank TIC value.

EPA SAMPLE NO.	REJECTED TICs	EPA SAMPLE NO.	REJECTED TICs
All samples	"B" flagged		

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKSI 374

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Lab File ID: I7446.D Lab Sample ID: SBLKSI

Instrument ID: HP5971I Date Extracted: 07/13/94

Matrix: (soil/water) WATER Date Analyzed: 07/23/94

Level: (low/med) LOW Time Analyzed: 1554

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	MSBMW2D1	0666002MSB	I7448.D	07/23/94
02	MW40D1	0666004	I7450.D	07/23/94
03	MW991	0666005	I7451.D	07/23/94
04	FB1940712	0666006	I7452.D	07/23/94
05	MW1D1	0666001	I7453.D	07/23/94
06	MW2S1	0666003	I7457.D	07/24/94
07	MW2D1	0666002	I7458.D	07/24/94
08	MW2D1MS	0666002MS	I7483.D	07/27/94
09	MW2D1MSD	0666002MSD	I7484.D	07/27/94
10				
11				
12				
13				
14				
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COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
SEMIVOLATILE ORGANIC FRACTION

Sample ID: SBLKWI File ID: I7447

COMPOUND	CONCENTRATION	CRQL
bis(2eh)ph	2J	10

bis(2eh)ph-CRQL			
MW33D1			
MW35I			
MW3D1			
FB2540713			

METHOD BLANK SUMMARY - TIC SUMMARY
SEMIVOLATILE ORGANIC FRACTION

Sample ID: SB1KWI File ID: I7447

TIC #	RT	CONC.	TIC #	RT	CONC.
1	6.01	3			
2	25.04	2			

Sample TIC Rejection Summary

All sample TIC results found at the same retention time of the blank TICs are rejected if they are less than 5X the blank TIC value.

EPA SAMPLE NO.	REJECTED TICs	EPA SAMPLE NO.	REJECTED TICs
All samples	"B" flagged		

4B
SEMIVOLATILE METHOD BLANK SUMMARY

SBLKWI

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Lab File ID: I7447.D Lab Sample ID: SBLKWI

Instrument ID: HP5971I Date Extracted: 07/14/94

Matrix: (soil/water) WATER Date Analyzed: 07/23/94

Level:(low/med) LOW Time Analyzed: 1644

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	MW3D1	0666011	I7454.D	07/23/94
02	MW3S1	0666010	I7455.D	07/23/94
03	MW33D1	0666009	I7456.D	07/24/94
04	FB2940713	0666012	I7497.D	07/28/94
05				
06				
07				
08				
09				
10				
11				
12				
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COMMENTS:

METHOD BLANK SUMMARY - TCL SUMMARY
SEMIVOLATILE ORGANIC FRACTION

Sample ID: SBIKVI File ID: I7498

COMPOUND	CONCENTRATION	CRQL
diethylphthalate	0.3J	10
di-n-bph	0.4J	10
bis(2eh)ph	0.6J	10

bis(2eh)ph-CRQL	diethylph-CRQL		
MW7S1	MW7D1		
MW7D1	MW8D1		
MW8S1	MW9D1		
MW8D1	MW199I		
MW9S1			
MW9D1			
MW199I			

METHOD BLANK SUMMARY - TIC SUMMARY
SEMIVOLATILE ORGANIC FRACTION

Sample ID: SBLKYI File ID: I7498

TIC #	RT	CONC.	TIC #	RT	CONC.
1	5.44	3			
2	7.36	2			
3	24.41	4			

Sample TIC Rejection Summary

All sample TIC results found at the same retention time of the blank TICs are rejected if they are less than 5X the blank TIC value.

EPA SAMPLE NO.	REJECTED TICs	EPA SAMPLE NO.	REJECTED TICs
All samples	"B" flagged		

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKYI 376

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Lab File ID: I7498.D Lab Sample ID: SBLKYI

Instrument ID: HP5971I Date Extracted: 07/13/94

Matrix: (soil/water) WATER Date Analyzed: 07/28/94

Level: (low/med) LOW Time Analyzed: 1916

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	MW8D1	0666017	I7474.D	07/27/94
02	MW9S1	0666018	I7476.D	07/27/94
03	MW9D1	0666019	I7477.D	07/27/94
04	MW1991	0666020	I7478.D	07/27/94
05	MW7S1	0666014	I7479.D	07/27/94
06	MW7D1	0666015	I7480.D	07/27/94
07	MW8S1	0666016	I7481.D	07/27/94
08				
09				
10				
11				
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COMMENTS:

FIELD BLANK SUMMARY - TCL SUMMARY
SEMIVOLATILE ORGANIC FRACTION

Sample ID: FB1940712 File ID: I7452

COMPOUND	CONCENTRATION	CRQL
diethylphthalate	0.4J	10
di-n-bph	0.7JB	10
bis(2eh)ph	2.0 JB	10

diethylph+CRQL			
MW101			
MW401			

FIELD BLANK SUMMARY - TCL SUMMARY
SEMIVOLATILE ORGANIC FRACTION

Sample ID: FB2940713 File ID: I7497

COMPOUND	CONCENTRATION	CRQL
diethylphthalate	0.35	10
Di-n-bph	0.55	10

diethylph-CRQL	di-n-bph-CRQL		
MW33D1	MW33D1		
MW35I	MW35I		
MW30I	MW30I		

SURROGATE RECOVERY SUMMARY
SEMIVOLATILE ORGANIC FRACTION

1. Did all the surrogate recoveries for the blanks, QC samples, and field samples meet the acceptance criteria? Yes (No)

   If no, list all affected samples and their respective surrogate recoveries that do not meet QA/QC crtieria.

	NBZ-d_5	2-FBP	TPH-d_{14}	DCB-d_4	QUALIFACATION
EPA SAMPLE NO.					
MSBMW201					
MW351					
				D 10-10-94	

	RECOVERY LIMITS WATER	SOIL
Nitrobenzene-d_5 (NBZ-d_5)	35-114	23-120
2-Fluorobiphenyl (2-FBP)	43-116	30-115
Terphenyl-d_{14} (TPH-d_{14})	33-141	18-137
1,2-Dichlorobenzene-d_4 (12DCB)	16-110	20-130*

* - The recoveries for soils are advisory at this time.

NOTE: D - denotes that surrogate was diluted out.

Comments: _____

_____

SURROGATE RECOVERY SUMMARY
SEMIVOLATILE ORGANIC FRACTION

1. Did all the surrogate recoveries for the blanks, QC samples, and field samples meet the acceptance criteria? Yes (No)

   If no, list all the samples and their respective surrogate recoveries that do not meet QA/QC crtieria.

	PHL-d_6	2-FP	TBP	2-CP-d_4	QUALIFCATION
EPA SAMPLE NO.					
MSBMW201	122				NA
MW 351	127				NA

	RECOVERY LIMITS WATER	SOIL
Phenol-d_5 (PHL-d_6)	10-110	24-113
2-Fluorophenol (2-FP)	21-110	25-121
2,4,6-tribromophenol (TBP)	10-123	19-122
2-Chlorophenol-d_4 (2CP-d_4)	16-110	20-130*

* - The recoveries for soils are advisory at this time.

NOTE: D - denotes that surrogate was diluted out.

Comments: _____

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	SBLKSI	83	85	83	89	75	84	85	79	0
02	SBLKWI	85	88	76	90	76	86	87	86	0
03	MSBMW2D1	98	98	86	122*	96	100	105	93	1
04	MW40D1	92	90	94	99	84	100	95	83	0
05	MW991	84	86	77	89	74	94	85	80	0
06	FB1940712	87	87	81	91	75	90	82	80	0
07	MW1D1	84	84	53	82	68	72	81	78	0
08	MW3D1	88	88	75	92	76	92	89	82	0
09	MW3S1	93	93	38	127*	87	101	110	88	1
10	MW33D1	91	95	95	96	81	96	92	89	0
11	MW2S1	84	82	58	90	76	99	87	79	0
12	MW2D1	83	90	96	89	76	97	87	81	0
13	MW8D1	82	85	92	84	76	87	84	79	0
14	MW9S1	88	84	72	85	78	88	85	80	0
15	MW9D1	83	85	97	84	78	89	83	79	0
16	MW1991	88	88	97	86	78	92	86	83	0
17	MW7S1	84	81	62	52	47	55	62	78	0
18	MW7D1	86	88	88	66	60	84	76	82	0
19	MW8S1	85	85	80	59	52	65	66	79	0
20	MW2D1MS	74	78	100	89	69	93	76	70	0
21	MW2D1MSD	87	90	106	102	81	98	88	81	0
22	FB2940713	64	68	64	60	57	64	61	62	0
23	SBLKYI	80	83	70	78	75	75	79	78	0
24										
25										
26										
27										
28										
29										
30										

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(35-114)	
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)	
S3 (TPH)	= Terphenyl-d14	(33-141)	
S4 (PHL)	= Phenol-d5	(10-110)	
S5 (2FP)	= 2-Fluorophenol	(21-110)	
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)	
S7 (2CP)	= 2-Chlorophenol-d4	(33-110)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(16-110)	(advisory)

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

MATRIX SPIKE/ MATRIX SPIKE DUPLICATE SUMMARY
SEMIVOLATILE ORGANIC FRACTION

Sample ID: MW 201

1. Were the percent recoveries and the RPDs in compliance with the advisory limits?

Yes (No)

If no, list the non compliant MS/MSD information below.

COMPOUND	MS %REC.	MSD %REC.	MAX RPD	QA
PHENOL				
2-CHLOROPHENOL				
1,4-DICHLOROBENZENE				
N-NITROSODI-n-PROPYLAMINE				
1,2,4-TRICHLOROBENZENE				
4-CHLORO-3-METHYLPHENOL				
ACENAPHTHENE				
4-NITROPHENOL	93	99		NA
2,4-DINITROTOLUENE				
PENTACHLOROPHENOL	125	133		NA
PYRENE				

Advisory Limits for Spike Recoveries:

	Water	Max RPD	Soil	Max RPD
phenol	12-110	42	26-90	35
2-chlorophenol	27-123	40	25-102	50
1,4-dichlorobenzene	36-97	28	28-104	27
n-nitroso-di-n-propylamine	41-116	38	41-126	38
1,2,4,-trichlorobenzene	39-98	28	38-107	23
4-chloro-3-methylphenol	23-97	42	26-103	33
acenaphthene	46-118	31	31-137	19
4-nitrophenol	10-80	50	11-114	50
2,4-dinitrotoluene	24-96	38	28-89	47
pentachlorophenol	9-103	50	17-109	47
pyrene	26-127	31	35-142	36

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 0666 SAS No.: SDG No.: Z0666

Matrix Spike - EPA Sample No.: MW2D1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Phenol	75	0	57	76	12-110
2-Chlorophenol	75	0	60	80	27-123
1,4-Dichlorobenzene	50	0	33	66	36- 97
N-Nitroso-di-n-prop.(1)	50	0	37	74	41-116
1,2,4-Trichlorobenzene	50	0	35	70	39- 98
4-Chloro-3-methylphenol	75	0	60	80	23- 97
Acenaphthene	50	0	41	82	46-118
4-Nitrophenol	75	0	70	93*	10- 80
2,4-Dinitrotoluene	50	0	46	92	24- 96
Pentachlorophenol	75	0	94	125*	9-103
Pyrene	50	0.5	39	77	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	75	70	93	20	42	12-110
2-Chlorophenol	75	71	95	17	40	27-123
1,4-Dichlorobenzene	50	40	80	19	28	36- 97
N-Nitroso-di-n-prop.(1)	50	44	88	17	38	41-116
1,2,4-Trichlorobenzene	50	42	84	18	28	39- 98
4-Chloro-3-methylphenol	75	64	85	6	42	23- 97
Acenaphthene	50	47	94	14	31	46-118
4-Nitrophenol	75	74	99*	6	50	10- 80
2,4-Dinitrotoluene	50	48	96	4	38	24- 96
Pentachlorophenol	75	100	133*	6	50	9-103
Pyrene	50	43	85	10	31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 4 out of 22 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE BLANK RECOVERY

Lab Name: IEA/CT Contract:

Lab Code: IEACT Case No.: 06666 SAS No.: SDG No.: 20666

Matrix Spike - EPA Sample No.: MW2D1

COMPOUND	SPIKE ADDED (ug/L)	BLANK CONCENTRATION (ug/L)	MSB CONCENTRATION (ug/L)	MSB % REC #	QC. LIMITS REC.
Phenol	75	0	90	120*	12-110
2-Chlorophenol	75		80	107	27-123
1,4-Dichlorobenzene	50		44	89	36- 97
N-Nitroso-di-n-prop.(1)	50		42	84	41-116
1,2,4-Trichlorobenzene	50		46	92	39- 98
4-Chloro-3-methylphenol	75		69	92	23- 97
Acenaphthene	50		50	100	46-118
4-Nitrophenol	75		72	96*	10- 80
2,4-Dinitrotoluene	50		50	100*	24- 96
Pentachlorophenol	75		74	99	9-103
Pyrene	50		41	82	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

Spike Recovery: 3 out of 11 outside limits

COMMENTS: _____

FIELD DUPLICATE SAMPLE SUMMARY
SEMIVOLATILE ORGANIC FRACTION

Sample ID: MW9D1 Dupliacte Sample ID: MW199I

Matrix: aqueous / non aqueous Units: ug/L ug/Kg

Compound Name	Sample Concentration	Duplicate Concentration	RPD	Action
diethylphthalate	1JB	0.7JB	35	NA
bis(2-ethylhexyl)phthalate	2JB	3JB	40	NA

Water RPDs < 20% RPD

Soil RPDs < 35% RPD

Comments:_____

FIELD DUPLICATE SAMPLE SUMMARY
SEMIVOLATILE ORGANIC FRACTION

Sample ID: MW40D-1 Dupliacte Sample ID: MW991

Matrix: aqueous / non aqueous Units: ug/L ug/Kg

Compound Name	Sample Concentration	Duplicate Concentration	RPD	Action
1,2-DCB	3 J	3J	0	NA
2,4-dimethylphenol	4 J	0	200	
naphthalene	11	9J	20	
2-methylnaphthalene	8J	6J	28	
Acenaphthene	2J	1J	66	
dibenzofuran	1J	0.9J	10.5	
diethylphthalate	0.7J	0	200	
di-n-butylphthalate	2JB	0.7JB	96	
butylbenzylphthalate	0.8J	0	200	
bis(2eh)phthalate	5JB	1JB	133	↓

Water RPDs < 20% RPD

Soil RPDs < 35% RPD

Comments: _____

_____

_____

SAMPLE CALUCULATION
SEMIVOLATILE ORGANIC FRACTION

EPA SAMPLE ID: MW101

COMPOUND: diethylphthalate

CONCENTRATION: 3 UNITS: µg/L µg/Kg

$$\frac{61876\ (40)(1000)}{217769\ (1.722)(2)(1000)} = 3.3\ mg/L$$

EPA SAMPLE ID.: MW101		STD. ID.: I7445
COMPOUND	RRT	STD. RRT
diethylphthalate	1.078	1.078

SAMPLE RESULT VERIFICATION
SEMIVOLATILE ORGANIC FRACTION

1. Were the sample results reported within the calibration range? (Yes) No
2. Were the percent moistures reported? Yes No (NR)
3. Were the data reported on a dry weight basis? Yes No (NR)
4. Did the GC/MS RIC and TIC exhibit interferences, off scale peaks or elevated baseline? Yes (No)
5. Did the data contain elevated detection limits that could not be accounted for? Yes (No)
6. Were any computational or transcription errors found? Yes (No)

Specific Comments: _____

Reviewer: Daniel J. Heinl **Date:** 10/10/94

HEARTLAND ESI PAR 1 - 3/90 Rev. 3 Reviewer's Initials JAC

Project: Eder Associates Site: Fairchild Man Plant RF

Type of Review: _____ Case No.: 0666 SDG # Z0666

Laboratory: IEA - CT Method: NYSDEC ASP 91-3 CLP

Number and Type of Samples: 17 1-1-20 1 MS/MSD pair

PESTICIDE/AROCLOR HOLDING TIMES

1. Were all extraction and analysis holding times met? (Yes) No

S- 7/12-14 e - 7/13 7/14 a 7/18-22

2. If No, list affected samples, dates, and decisions.

Sample ID	Matrix	Date Collected	Extract Date	DE	Analysis Date	DA	Reviewer Decision

JAC 10/14/94

Note: DE = The number of days extraction holding time is exceeded;
DA = The number of days analysis holding time is exceeded.

Extraction Hold Times are determined from date of collection using the requirements of 40 CFR 136 (7 days - waters & 14 days - soils), analysis holding time is 40 days from extraction.

Reviewer Decision Guidelines:

DA or DE : 1 to 5 days - qualify positive results, "J"
6 to 15 days - qualify positive and non-detect results, "J" or "UJ"
More than 15 days - qualify positive results, "J",
reject non-detect results,"R"

HEARTLAND ESI PAR 2A - 3/90 Rev. 3

PESTICIDE/AROCLOR INSTRUMENT PERFORMANCE
Part 1 of 2

Instrument ID: HP589058 Dates of Analysis: 7/5-23/94

GC Column ID: DB-1701 Lab: (Column 1) Column 2

Associated Samples and Blanks: QM

---

1. **GC Column Resolution - Resolution Check Mixture (RCM)**

   a. Was the RCM analyzed as the first injection of initial calibration and reported correctly on Form 6G and all ≥ 60% ?
   (Yes) No

   b. Were all peaks in the Performance Evaluation Mixture (PEM) 100% resolved ?
   (Yes) No

   c. Do all peaks in both mid-level Individual Standard Mixtures, (INDs A & B) exhibit Resolution ≥ 90.0% ?
   (Yes) No

If "No", note deviations and any action: _____

2. **Analytical Sequence Verification**

   Is the Analytical Sequence correct? (Yes) No

   i.e. 15-injection initial calibration, followed by Instrument Blank (start of each 12-hr. clock), calibration verification (PEM or INDs) every 12 hr., every sample analysis bracketed by acceptable instrument blanks, PEMs and INDs.

If "No", note deviations and any action: _____

HEARTLAND ESI PAR 2B - 3/90 Rev. 3

PESTICIDE/AROCLOR INSTRUMENT PERFORMANCE
Part 2 of 2

3. Breakdown Evaluation Check

a. Are the Breakdowns for 4,4'-DDT and Endrin each < 20.0% and Combined Breakdown < 30.0% as reported on Form(s) ~~7D~~ ?

(Yes) No

If "No", note deviations:_____

_____

If Endrin and/or 4,4'-DDT (DDT) breakdown is greater than 20%, positive results for Endrin and/or DDT are qualified as estimated, 'J'. If Endrin and/or DDT were not detected, but the associated breakdown products are detected, then the quantitation limit for Endrin and/or DDT are rejected, 'R'.

Positive results for the breakdown products, i.e. Endrin aldehyde and Endrin ketone for Endrin, and DDD and DDE for DDT, are qualified as presumptively present at an estimated concentration, 'NJ'.

4. Surrogate Retention Time Variation

a. Are all TCX and DCB Retention Times within the established Retention Time Windows as presented on Form 8D?

(Yes) No

If "No", reject or qualify all affected samples and blanks, and list:

_____

_____

Additional Comments regarding Instrument Performance:_____

_____

_____

_____

_____

HEARTLAND ESI PAR 3A - 3/90 Rev. 3

PESTICIDE/AROCLOR INITIAL CALIBRATION
Part 1 of 2

Instrument ID: HP5890B Dates of Analysis: 7/6-23/94

GC Column ID: DB-1701 Lab: (Column 1) Column 2

Associated Samples and Blanks: all

1. **Linearity Check**

   a. Calculate a Calibration Factor for one compound reported on Form 6E.

   Compound: δ-BHC Lab Value: 21890300

   low (med) high $\frac{437806}{0.02} = 21890300$

   b. Calculate the %RSD for one compound.

   Compound: α-BHC Lab Value: 15.8

   22404800 $3\sigma = 4227082$
   27066100 $\bar{x} = 26771483$
   30843550 %RSD = 15.8%

   c. Are the Calibration Factors calculated correctly and all %RSDs < 20%? (Yes) No

If no, note compounds and action on the following page.

d. Are the Retention Time Windows from the initial three INDAs, Bs, and multi-component standards calculated and reported correctly on Forms 6D and 6F? (Yes) No

If "No", note deviations: Endo II & DDD overlap

Dr peak RTWs overlap 1232 & 1242 same

HEARTLAND ESI PAR 4A - 3/90 Rev. 3

PESTICIDE/AROCLOR CONTINUING CALIBRATION

Instrument ID: HPS890SB Dates of Analysis: 7/5-23/94

GC Column ID: DB-1701 Lab: (Column 1) Column 2

1. **Performance Evaluation Mixtures (PEMs)/Individual Standard Mixtures (INDs)**

a. Calculate the concentration and RPD for one compound from a continuing calibration standard (IND or PEM) and note its retention time.

Std. ID INDAM06 Analysis Date: 7/23/94 Time: 0110

4,4'-DDT 30.36

$\frac{614174}{18955650} = 0.0324$ ✓

Lab Values

Conc. 0.032

$\frac{0.040-0.032}{0.040}(100\%) = 20\%$ RPD 20%

b. Are all standard peaks within the the RTWs, are the concentrations calculated correctly, and are the RPDs all ≤ 25%? (Form 7D & 7E) (Yes) No

If no, note deviations and qualifications on following page(s).

c. Perform a %Breakdown calculation from a continuing PEM standard.

Std. ID PEMB9 Analysis Date: 7/22/94 Time: 1325

1) 4,4'-DDT Breakdown Lab Value 8.9

DDE $\frac{13315}{22190100} + \frac{164103}{19630025}$ $\frac{}{0.100}(100\%) = 8.94\%$ ✓

2) Endrin Breakdown Lab Value 10.4

EA $\frac{20070}{17838025} + \frac{78360}{19175600}$ $\frac{}{0.050}(100\%) = 10.42\%$ ✓

Note: Qualifications based on %Breakdown are noted on Validation Worksheet 2B. Calculation is for verification purposes.

HEARTLAND ESI PAR 2A - 3/90 Rev. 3

PESTICIDE/AROCLOR INSTRUMENT PERFORMANCE
Part 1 of 2

Instrument ID: HP5890IB Dates of Analysis: 7/13-19/94

GC Column ID: RTX-35 Lab: Column 1 (Column 2)

Associated Samples and Blanks: all

---

1. GC Column Resolution - Resolution Check Mixture (RCM)

a. Was the RCM analyzed as the first injection of initial calibration and reported correctly on Form 6G and all $\geq$ 60% ?
(Yes) No

b. Were all peaks in the Performance Evaluation Mixture (PEM) 100% resolved ?
(Yes) No

c. Do all peaks in both mid-level Individual Standard Mixtures, (INDs A & B) exhibit Resolution $\geq$ 90.0% ?
(Yes) No

If "No", note deviations and any action: _____

2. Analytical Sequence Verification

Is the Analytical Sequence correct? (Yes) No

i.e. 15-injection initial calibration, followed by Instrument Blank (start of each 12-hr. clock), calibration verification (PEM or INDs) every 12 hr., every sample analysis bracketed by acceptable instrument blanks, PEMs and INDs.

If "No", note deviations and any action: _____

PESTICIDE/AROCLOR INSTRUMENT PERFORMANCE
Part 2 of 2

3. Breakdown Evaluation Check

a. Are the Breakdowns for 4,4'-DDT and Endrin each < 20.0% and Combined Breakdown < 30.0% as reported on Form(s) 7D ? (Yes) No

If "No", note deviations:_____

_____

If Endrin and/or 4,4'-DDT (DDT) breakdown is greater than 20%, positive results for Endrin and/or DDT are qualified as estimated, 'J'. If Endrin and/or DDT were not detected, but the associated breakdown products are detected, then the quantitation limit for Endrin and/or DDT are rejected, 'R'.

Positive results for the breakdown products, i.e. Endrin aldehyde and Endrin ketone for Endrin, and DDD and DDE for DDT, are qualified as presumptively present at an estimated concentration, 'NJ'.

4. Surrogate Retention Time Variation

a. Are all TCX and DCB Retention Times within the established Retention Time Windows as presented on Form 8D? (Yes) No

If "No", reject or qualify all affected samples and blanks, and list:

_____

_____

Additional Comments regarding Instrument Performance:_____

_____

_____

_____

_____

PESTICIDE/AROCLOR INITIAL CALIBRATION
Part 1 of 2

Instrument ID: HP5890IB Dates of Analysis: 7/13-19/94

GC Column ID: RTX-35 Lab: Column 1 (Column 2)

Associated Samples and Blanks: All

---

1. Linearity Check

a. Calculate a Calibration Factor for one compound reported on Form 6E.

Compound: 4,4'-DDD Lab Value: 13383300

low (med) high

$\frac{535332}{.04} = 13383300$ ✓

b. Calculate the %RSD for one compound.

Compound: Endrin Aldehyde Lab Value: 22.9

8302100
6399750
5279662

$\sum x = 1527998$

$\bar{x} = 6660504$

%RSD = 22.9%

c. Are the Calibration Factors calculated correctly and all %RSDs < 20%? Yes (No)

If no, note compounds and action on the following page.

d. Are the Retention Time Windows from the initial three INDAs, Bs, and multi-component standards calculated and reported correctly on Forms 6D and 6F? (Yes) No

If "No", note deviations: Endo II & DDD; Endo I & α-chlordane; DDT & EA RTWs overlapped; Air peak selections overlapped

PESTICIDE/AROCLOR INITIAL CALIBRATION
Part 2 of 2

Note: Contractually, up to two non-surrogate targets may be >20% but must be ≤ 30% RSD, Form 6E. However, positive and non-detect results associated with compounds with %RSDs >20% must be qualified, 'J' or 'UJ'.

Circle the non-compliant compounds and enter the RSD value. Positive values are qualified as estimated, J, and non-detect values are qualified as estimated, UJ in the associated samples.

Pesticides	%RSD	
alpha-BHC		
beta-BHC		
delta-BHC		
gamma-BHC (Lindane)		
Heptachlor		
Aldrin		
Heptachor epoxide		
Endosulfan I		
Dieldrin		
4,4'-DDE		
Endrin		
Endosulfan II		
4,4'-DDD		
Endosulfan sulfate		
4,4'-DDT		
Methoxychlor		
Endrin ketone		
Endrin aldehyde	22.9	J/UJ
alpha-Chlordane		
gamma-Chlordane		

HEARTLAND ESI PAR 4A - 3/90 Rev. 3

PESTICIDE/AROCLOR CONTINUING CALIBRATION

Instrument ID: HP5890IB Dates of Analysis: 7/13-19/94

GC Column ID: RTX-35 Lab: Column 1 (Column 2)

1. Performance Evaluation Mixtures (PEMs)/Individual Standard Mixtures (INDs)

a. Calculate the concentration and RPD for one compound from a continuing calibration standard (IND or PEM) and note its retention time.

Std. ID INDBN97 Analysis Date: 7/18/94 Time: 2355

Endrin Ketone 30.23

$\frac{269061}{6858815} = 0.0392$

Lab Values

✓ Conc. 0.039

$\frac{0.040 - 0.039}{0.040}(100\%) = 2.5\%$ RPD 2.5

b. Are all standard peaks within the the RTWs, are the concentrations calculated correctly, and are the RPDs all ≤ 25%? (Form 7D & 7E) (Yes) No

If no, note deviations and qualifications on following page(s).

c. Perform a %Breakdown calculation from a continuing PEM standard.

Std. ID PEM10 Analysis Date: 7/18/94 Time: 1126

1) 4,4'-DDT Breakdown Lab Value 5.2

DDE 11898, DDT 64111, 28116800, 13383300

$\frac{\frac{11898}{28116800} + \frac{64111}{13383300}}{0.100}(100\%) = 5.21\%$

2) Endrin Breakdown Lab Value 0

0 ✓

Note: Qualifications based on %Breakdown are noted on Validation Worksheet 2B. Calculation is for verification purposes.

HEARTLAND ESI PAR 5A - 3/90 Rev. 3

PESTICIDE/AROCLOR INSTRUMENT BLANK SUMMARY

Instrument ID: HP5890SB/HP5890IB

1. Was an instrument blank analyzed as the first injection after the initial and before each continuing calibration of this instrument? (Yes) No

If No, list affected samples and action: _____

_____

2. Were all of the instrument blanks free from carryover or contamination? (Yes) No

If No, list blank, compounds, concentrations, affected samples and actions below:

Blank ID: _____ File ID: _____

Analysis Date/Time: _____

Associated Samples: _____

_____

_____

Compound	Conc. (ng/µL)	CRQL (ng/µL)	Action

Additional comments regarding Instrument Blanks: _____

_____

4C

EPA SAMPLE NO.

PESTICIDE METHOD BLANK SUMMARY

PBLK77

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Lab sample ID: 071394-B07 Lab File ID: B1360CLP114

896

Matrix: (soil/water) WATER Extraction: (SepF/Cont/Sonc) SEPF

Sulfur Cleanup: (Y/N) N Date Extracted: 07/13/94

Date Analyzed (1): 07/18/94 Date Analyzed (2): 07/21/94

Time Analyzed (1): 1219 Time Analyzed (2): 1918

Instrument ID (1): HP58901B Instrument ID (2): HP58905B

GC Column (1): RTX-35 ID: 0.53 (mm) GC Column (2): DB-1701 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	FRC-MW-2S-1	0666003	07/18/94	07/22/94
02	FRC-MW-40D-1	0666004	07/18/94	07/22/94
03	FRC-MW-2D-1MS	0666002MS	07/18/94	07/22/94
04	FRC-MW-2D-1MSD	0666002MSD	07/18/94	07/22/94
05	FRC-MW-99-1	0666005	07/18/94	07/22/94
06	FRC-FB-1-940712	0666006	07/18/94	07/22/94
07	FRC-MW-2D-1MSB	0666002MSB	07/18/94	07/21/94
08	FRC-MW-1D-1	0666001	07/18/94	07/21/94
09	FRC-MW-2D-1	0666002	07/18/94	07/21/94

COMMENTS: _____

HEARTLAND ESI PAR 5B - 3/90 Rev. 3

PESTICIDE/AROCLOR METHOD BLANK SUMMARY

Blank ID: PBW677 File ID: B1360CLP114

Matrix: Water

Analysis Date/Time: 7/18/94 1219 Extraction Date: 7/13/94

Associated Samples and Blanks: See Form 4C

CRQL: Provide the CRQL for the analyte.
Action: QA decision for the analyte, sample results < 5x the Blank concentration are reported as 'U' or replaced with the CRQL. Sample results between 5 and 10x the blank concentration may be qualified as estimated, 'J'.

Concentration units: µg/L µg/kg

Compound	Conc.	CRQL

Sample ID	Compound	Conc.	Action

Was the Method Blank analyzed on all GC columns and instruments used for the analysis of associated samples? (Yes) No

If No, list affected samples and action:

4C

EPA SAMPLE NO.

PESTICIDE METHOD BLANK SUMMARY

PBLK73 897

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Lab sample ID: 071594-B01 Lab File ID: B1360CLP128

Matrix: (soil/water) WATER Extraction: (SepF/Cont/Sonc) SEPF

Sulfur Cleanup: (Y/N) N Date Extracted: 07/15/94

Date Analyzed (1): 07/19/94 Date Analyzed (2): 07/22/94

Time Analyzed (1): 0048 Time Analyzed (2): 0855

Instrument ID (1): HP58901B Instrument ID (2): HP58905B

GC Column (1): RTX-35 ID: 0.53 (mm) GC Column (2): DB-1701 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	FRC-MW-33D-1	0666009	07/19/94	07/22/94
02	FRC-MW-3S-1	0666010	07/19/94	07/22/94
03	FRC-MW-3D-1	0666011	07/19/94	07/22/94
04	FRC-FB-2-9407130	666012	07/19/94	07/22/94
05	FRC-MW-7S-1	0666014	07/19/94	07/22/94
06	FRC-MW-7D-1	0666015	07/19/94	07/22/94
07	FRC-MW-8S-1	0666016	07/19/94	07/22/94
08	FRC-MW-8D-1	0666017	07/19/94	07/22/94
09	FRC-MW-9S-1	0666018	07/19/94	07/22/94
10	FRC-MW-9D-1	0666019	07/19/94	07/22/94
11	FRC-MW-199-1	0666020	07/19/94	07/22/94

COMMENTS: _____

HEARTLAND ESI PAR 5B - 3/90 Rev. 3

PESTICIDE/AROCLOR METHOD BLANK SUMMARY

Blank ID: PBUK73 File ID: B1360CLP128

Matrix: Water

Analysis Date/Time: 7/19/94 0048 Extraction Date: 7/15/94

Associated Samples and Blanks: See Form 4C

CRQL: Provide the CRQL for the analyte.
Action: QA decision for the analyte, sample results < 5x the Blank concentration are reported as 'U' or replaced with the CRQL. Sample results between 5 and 10x the blank concentration may be qualified as estimated, 'J'.

Concentration units: µg/L µg/kg

Compound	Conc.	CRQL

QC 7/21/94

Sample ID	Compound	Conc.	Action

Was the Method Blank analyzed on all GC columns and instruments used for the analysis of associated samples? (Yes) No

If No, list affected samples and action:

HEARTLAND ESI PAR 5D - 3/90 Rev. 3

PESTICIDE/AROCLOR FIELD OR RINSE BLANK SUMMARY

Sample ID: FRC-FB-1-940712 File ID: B1360CLP121

Analysis Date/Time: 7/18/94 1834 Extraction Date: 7/13/94

Associated Samples and Blanks: Samples 7/12/94

CRQL: Provide the CRQL for the analyte
Action: QA decision for the analyte

Concentration units: µg/L ng

Compound	Conc.	CRQL

Sample ID	Compound	Conc.	Action

QAC 10/11/94

Explanation for QA Decisions:

HEARTLAND ESI PAR 5D - 3/90 Rev. 3

PESTICIDE/AROCLOR FIELD OR RINSE BLANK SUMMARY

Sample ID: FRC-FB-2-940713 File ID: B1360CLP132

Analysis Date/Time: 7/19/94 0422 Extraction Date: 7/15/94

Associated Samples and Blanks: samples from 7/13

CRQL: Provide the CRQL for the analyte
Action: QA decision for the analyte

Concentration units: (µg/L) ng

Compound	Conc.	CRQL
AR1232	5.1	1.0

Sample ID	Compound	Conc.	~~Action~~

QAC 10/11/94

Explanation for QA Decisions: NO + results for AR1232 in associated samples.

HEARTLAND ESI PAR 6 - 3/90 Rev. 3

PESTICIDE/AROCLOR FLORISIL CARTRIDGE CHECK

Case #: 0666

1. Was a florisil spike standard analyzed for all florisil catridge lots used for the clean-up of this sample batch (Form 9A)? (Yes) No

   If No, list affected samples and action: _____

   _____

RAW DATA PRESENT

2. Were all compound recoveries within the required QC limits (80 - 120) as noted on Form 9A? (Yes) No
   If No, list compounds, recoveries, and associated samples and actions below:

Sample ID: _____ File ID: _____

Analysis Date/Time: _____ (Column 1)

Analysis Date/Time: _____ (Column 2)

Associated Samples: _____

_____

Compound	Recovery	Action

QC 10/11/94

Qualification Guidelines: If 1 or 2 compounds outside QC limits then qualify compound(s) in samples; If 3 or more compounds outside QC limits then qualify all results; If compound recovery is > 160% then reject positive results; If compound recovery is < 40% - reject non-detects and positives

HEARTLAND ESI PAR 7 - 3/90 Rev. 3

PESTICIDE/AROCLOR GPC CALIBRATION

Case #_____

1. Was a GPC calibration performed and reported for each lot of samples extracted or every 7 days? Yes No

2. Were all compound recoveries within the required QC limits (80 - 110)? Yes No

   If No, list compounds, recoveries, and associated samples and actions below:

Sample ID:_____ File ID:_____

Analysis Date/Time:_____ (Column 1)

Analysis Date/Time:_____ (Column 2)

Associated Samples:_____

_____

Compound	Recovery	Action

Qualification Guidelines:
1 compound outside QC limits - qualify compound in samples
2 or more compounds outside QC limits - qualify all results
If compound recovery is > 150% - reject positive results
If compound recovery is < 40% - reject non-detects and positives

Additional Comments:_____

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

GC Column(1): RTX-35 ID:0.53(mm) GC Column(2): DB-1701 ID:0.53(mm)

893

	EPA SAMPLE NO.	TCX 1 %REC	#	TCX 2 %REC	#	DCB 1 %REC	#	DCB 2 %REC	#	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK77	58*		76		42*		54*				3
02	FRC-MW-2D-1MSB	57*		85		42*		44*				3
03	FRC-MW-1D-1	51*		90		30*		37*				3
04	FRC-MW-2D-1	66		96		42*		34*				2
05	FRC-MW-2S-1	56*		84		29*		21*				3
06	FRC-MW-40D-1	72		70		10*		19*				2
07	FRC-MW-2D-1MS	56*		85		40*		38*				3
08	FRC-MW-2D-1MSD	58*		79		35*		40*				3
09	FRC-MW-99-1	77		73		11*		21*				2
10	FRC-FB-1-940712	←59*		←84		←48*		←50*				3
11	PBLK73	17*		40*		8*		16*				4
12	FRC-MW-33D-1	18*		45*		12*		21*				4
13	FRC-MW-3S-1	14*		34*		9*		11*				4
14	FRC-MW-3D-1	48*		87		39*		34*				3
15	FRC-FB-2-940713	←19*		←38*		←8*		←12*				4
16	FRC-MW-7S-1	32*		55*		17*		16*				4
17	FRC-MW-7D-1	34*		61		12*		12*				3
18	FRC-MW-8S-1	20*		34*		13*		13*				4
19	FRC-MW-8D-1	28*		50*		10*		14*				4
20	FRC-MW-9S-1	38*		57*		33*		25*				4
21	FRC-MW-9D-1	40*		60		14*		20*				3
22	FRC-MW-199-1	102		111		58*		52*				2
23												
24												
25												
26												
27												
28												
29												
30												

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

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

FORM II PEST-1

3/90

HEARTLAND ESI PAR 8 - 3/90 Rev. 3

PESTICIDE/AROCLOR SURROGATE RECOVERY SUMMARY

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl
SS3 = _____ (optional)

Matrix Water

Were all surrogate recoveries within the advisory QC limits, 60 to 150% ? Yes (No)

If No, list samples and recoveries.

	TCX		DCB		SS3	
Sample ID	C1	C2	C1	C2		Action
PBLK77	58		42	54		Note
FRC-MW-2D-1MSD	57		42	44		J/UJ all
FRC-MW-1D-1	51		30	37		
FRC-MW-2D-1			42	34		
FRC-MW-2S-1	56		29	21		
FRC-MW-400-1			10	19		
FRC-MW-2D-1MS	56		40	38		
FRC-MW-2D-1MSD	58		35	40		
FRC-MW-99-1			11	21		
FRC-FB-1-940712	59		48	50		
PBLK73	17	40	8	16		Note
FRC-MW-33D-1	18	45	12	21		J/UJ all

Qualification Guidelines:
Recovery greater than 150, qualify positive results
Recovery between 10 - 60, qualify positive and non-detect results
Recovery below 10, qualify positives and reject non-detect results

Additional comments: _____

HEARTLAND ESI PAR 8 - 3/90 Rev. 3

PESTICIDE/AROCLOR SURROGATE RECOVERY SUMMARY

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl
SS3 = _____ (optional)

Matrix water

Were all surrogate recoveries within the advisory QC limits, 60 to 150% ? Yes (No)

If No, list samples and recoveries.

	TCX		DCB		SS3	
Sample ID	C1	C2	C1	C2		Action
FRC-MW-35-1	14	34	9	11		J/R
FRC-MW-30-1	48	35	59	34		J/UJ
FRC-FB-2-940713	19	38	8	12		J/R
FRC-MW-75-1	32	55	17	16		J/UJ
FRC-MW-70-1	34		12	12		
FRC-MW-85-1	20	34	13	13		
FRC-MW-80-1	28	50	10	14		
FRC-MW-95-1	38	57	33	25		
FRC-MW-90-1	40		14	20		
FRC-MW-199-1			58	52		

Qualification Guidelines:
Recovery greater than 150, qualify positive results
Recovery between 10 - 60, qualify positive and non-detect results
Recovery below 10, qualify positives and reject non-detect results

Additional comments: Because the PBEH surrogates were affected also - appears to be extraction efficiency or standard solution degradation causing ↓ %R.

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: IEA-CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: Z0666

Matrix Spike - EPA Sample No.: FRC-MW-2D-1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
gamma-BHC (Lindane)	0.50	0.0	0.40	80	56-123
Heptachlor	0.50	0.0	0.37	74	40-131
Aldrin	0.50	0.0	0.38	76	40-120
Dieldrin	1.0	0.0	0.88	88	52-126
Endrin	1.0	0.0	1.0	100	56-121
4,4'-DDT	1.0	0.02	0.90	88	38-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	0.50	0.39	78	2	15	56-123
Heptachlor	0.50	0.39	78	5	20	40-131
Aldrin	0.50	0.38	76	0	22	40-120
Dieldrin	1.0	0.86	86	2	18	52-126
Endrin	1.0	0.97	97	3	21	56-121
4,4'-DDT	1.0	0.82	80	10	27	38-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS: _____

HEARTLAND ESI PAR 9A - 3/90 Rev. 3

PESTICIDE/AROCLOR
WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY

Sample ID: FRC-mw-20-1

Were all spike compound recoveries within the advisory limits noted below? (Yes) No

If no, note recovery, RPD, comments and any action below.

Compound	% Recovery Limits	Lab % Recovery		RPD Limits	Lab RPD	Comments
		MS	MSD			
gamma-BHC (Lindane)	56 - 123			15		
Heptachlor	40 - 131			20		
Aldrin	40 - 120			22		
Dieldrin	52 - 126			18		
Endrin	56 - 121			21		
4,4'-DDT	38 - 127			27		

Were any non-spiked target compounds present in the unspiked sample, its MS or MSD? (Yes) No

If Yes, list compound, concentrations, and %RPDs: sample DDE 0.01, DDT 0.02, γ-chlor 0.04, 1254 0.21 all <CRQL; MS DDD 0.03, α-chl 0.04, γ-chlor 0.02 all <CRQL;

Additional comments: MSD - DDD 0.04, γ-chlor 0.06 Poor agreement

PESTICIDE/AROCLOR
FIELD DUPLICATE SAMPLE SUMMARY

Sample ID FRC-MW-400-1 Sample Duplicate ID FRC-MW-99-1

Matrix Water Lab RPD Limits 20%

Were the sample and the sample duplicate sampled, extracted and analyzed appropriately? (Yes) No

Were any target analytes reported in either the original sample or the field duplicate sample? (Yes) No

If yes, provide the compound, concentrations of target analytes and the RPD value. Indicate if the RPD is within the laboratory's limits or reasonable limits and discuss any action or qualifications based on the field duplicate results.

Concentration units: (µg/L) µg/Kg ng

	Concentration				
Compound	Sample	Dup.	RPD	Outlier	Comments
AR1248	0.73	0.63	15	NO	
AR1254	0.14	0.15	7	NO	
Dieldrin	0.006	0	200	yes	< CRQL

Comments

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: IEA/CT Contract: _____

Lab Code: IEACT Case No.: 0666 SAS No.: _____ SDG No.: 20666 894

Matrix Spike - EPA Sample No.: FEC-MW-2D-1MSB

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
gamma-BHC (Lindane)	0.50	0	0.36 ~~0.39~~	72	56-123
Heptachlor	0.50	0	0.39 ~~0.76~~	78	40-131
Aldrin	0.50	0	0.41	82	40-120
Dieldrin	1.0	0	0.99	99.	52-126
Endrin	1.0	0	1.1	110.	56-121
4,4'-DDT	1.0	0	1.1	110	38-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)					15	56-123
Heptachlor					20	40-131
Aldrin					22	40-120
Dieldrin					18	52-126
Endrin					21	56-121
4,4'-DDT					27	38-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

A. 8-5-99

RPD: — out of — outside limits
Spike Recovery: 0 out of 6 outside limits

COMMENTS: _____

HEARTLAND ESI PAR 10 - 3/90 Rev. 3

PESTICIDE/AROCLOR
FIELD DUPLICATE SAMPLE SUMMARY

Sample ID FRC-MW-9D-1 Sample Duplicate ID FRC-MW-199-1

Matrix water Lab RPD Limits 20%

Were the sample and the sample duplicate sampled, extracted and analyzed appropriately? (Yes) No

Were any target analytes reported in either the original sample or the field duplicate sample? (Yes) No

If yes, provide the compound, concentrations of target analytes and the RPD value. Indicate if the RPD is within the laboratory's limits or reasonable limits and discuss any action or qualifications based on the field duplicate results.

Concentration units: (µg/L) µg/Kg ng

	Concentration				
Compound	Sample	Dup.	RPD	Outlier	Comments
Dieldrin	U	0.008	200	yes	< CRQL

Comments _____

_____

_____

HEARTLAND ESI PAR 11A - 3/90 Rev. 3

PESTICIDE/AROCLOR
SAMPLE RESULT VERIFICATION
Part 1 of 2

Case #: 0666 SDG 20666 Matrix: (Aqueous) Non-aqueous

1. Was all sample data reported within the calibration range? (Yes) No

If "No", list samples and action: _____

_____

2. Was percent moisture reported for all non-aqueous samples? Yes No (NR)

If "No", list samples and action: _____

_____

3. Were all percent moistures less than 50%? Yes No (NR)

If "No", list samples and action: _____

4. Was all non-aqueous data reported on a dry weight basis? Yes No (NR)

If "No", list samples and action: _____

5. Did any GC chromatograms exhibit interferences, off-scale peaks or elevated baselines? Yes (No)

If "Yes", list samples and action: _____

_____

6. Were all pesticides identified at concentrations of 10 μg/mL in the extract confirmed by GC/MS? Yes No (NR)

If "No", list samples and action: _____

7. Were any computational or transcription errors found? Yes (No)

If "Yes", list samples and action: _____

HEARTLAND ESI PAR 11B - 3/90 Rev. 3

PESTICIDE/AROCLOR
SAMPLE RESULT VERIFICATION
Part 2 of 2

Specific comments regarding result verification items 1 through 7
(example calculations, details of decisions, problems, observations, etc.):

P flags - >25% ≤ 100% J; >100% NJ

Positive results reported. All single component

Calculation FRC-MW-40D-1 AR1248 LV 0.73J

DB1701

12.80	101220	1716840	0.059ng	0.59 ug/L
15.92	197667	2072530	0.095ng	0.95 ug/L
16.55	104802	1640290	0.0639ng	0.64 ug/L
C= 10/L			$\bar{x}$ = 0.73 ug/L	✓

ID & Quant OK

Reviewer: Jacqueline A Cleveland Date: 10/11/94

HEARTLAND ENVIRONMENTAL
SERVICES, INC.

HEARTLAND ESI Form A

DATA DELIVERABLE REQUIREMENTS

A.	Permanently Bound	Yes	(No)	NR
B.	Paginated	(Yes)	No	NR
C.	Table of Contents	(Yes)	No	NR
D.	Digestion Records(internal C-O-C)	(Yes)	No	NR
E.	Chain-Of-Custody (external)	(Yes)	No	NR
F.	Case Narrative			
1.	Sample list with Client and Lab IDs cross-referenced (copy attached)	(Yes)	No	NR
2.	All Protocol deviations and QC problems noted	(Yes)	No	NR
3.	Comments:_____			
G.	Uninitialed Strikeovers	Yes	(No)	NR
H.	Legible Photocopies	(Yes)	No	NR
I.	Consistent Dates	(Yes)	No	NR
J.	Preparation Logs	(Yes)	No	NR
K.	Instrument Run Logs	(Yes)	No	NR

L. Other Deviations or Comments:_____

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HEARTLAND ESI Form B

HOLDING TIMES FOR METALS

1. Was the holding time exceeded on any of the Metal Fractions

   ICP/GFAA/FAA - Holding time of 6 months VTSR
   Mercury - Holding time of 28 days VTSR
   Cyanide - Holding time of 14 days VTSR

   Yes (No)

2. If yes, complete the following form for all samples that exceeding holding times.

   Fraction:_____

Sample ID	Matrix	VTSR	Date of Analysis	DA	QC Decision
			PBH 10/11/94		

Note: DA = The number of days holding time to analysis is exceeded.

S = Non-aqueous
A = Aqueous
X = Air

QA Decision: Results > IDL - J - estimated

Results < IDL - R - rejected

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SERVICES, INC.

HEARTLAND ESI Form C-1

INSTRUMENT CALIBRATION AND INITIAL CALIBRATION VERIFICATION (ICV)

Associated Samples All total samples

1. a. Was the ICP instrument properly standardized? (Yes) No
If no, explain and list action.

b. Was the furnace instrument properly standardized? If no, were the required standards analyzed immediately after the instrument calibration and results within 95-105% recovery? (Yes) No
Yes No
If no, explain and list action.

c. Were the instruments for the analyses of Cyanide and Mercury properly standardized? (Yes) No
If no, explain and list action.

2. Was the ICV analyzed immediately after the system(s) were calibrated? (Yes) No
If no, explain and list action.

3. Was the ICV analyzed for every analyte? (Yes) No
If no, explain and list action.

4. Do all ICV analytes meet the QC requirements for % recovery? (Yes) No
If no, list affected analytes, their % recovery, and action for which:

a. % recovery is between 75-89% (CN, 70-84% or HG, 65-79%)

HEARTLAND ESI Form C-2

b. % recovery is between 111-125% (CN, 116-130% or HG, 121-135%)_____

c. % recovery is less than 75% or greater than 125%(CN, <70 or >130%, Hg <65 or >135)_____

5. a. Show calculation for the % recovery of one ICV analyte by ICP. Lab value 105.3%

Zinc $\frac{1316}{1250} \times 100 = 105.3\%$

b. Show calculation for the % recovery of one ICV analyte by furnace AA. Lab value 105.2%

Selenium $\frac{52.6}{50.0} \times 100 = 105.2\%$

c. Show calculation for the ICV % recovery of Mercury. Lab Value 99.2%

$\frac{4.96}{5.00} \times 100 = 99.2\%$

d. Show calculation for the ICV % recovery of Cyanide. Lab value 96.3%

$\frac{144}{150} \times 100 = 96.0\%$

6. Specific comments:_____

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HEARTLAND ESI Form D-1

CONTINUING CALIBRATION VERIFICATION (CCV)

Associated Samples All total samples

1. a. Was the CCV performed every two hours or at the 10% frequency? (Yes) No
If no, list action.

b. Was the CCV performed at the beginning and end of the sample analysis? (Yes) No
If no, list action.

2. Were the CCV standards analyzed for all analytes? (Yes) No
If no, list affected analytes, their associated samples and action.

3. Was the same concentration used for CCV throughout the analyses? (Yes) No
If no, list affected analytes, their associated samples and action.

4. Do all CCV analytes meet the QC requirements for % recovery? (Yes) No
If no, list affected analytes, their associated samples and action for which:

a. % recovery is between 75-89%(CN,70-84% or Hg, 65-79%)

b. % recovery is between 111-125%(CN,116-130% or Hg, 121-135%)

c. % recovery is less than 75% or greater than 125%(CN,<70 or >130%, Hg, <65 or <135%)

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HEARTLAND ESI Form D-2

5. a. Show calculation for the % recovery of one CCV analyte analyzed by ICP. Lab value 106.2%

Aluminum $\frac{5308}{5000} \times 100 = 106.2\%$

b. Show calculation for the % recovery of one CCV analyte analyzed by furnace AA. Lab value 104.2%

Selenium $\frac{52.1}{50.0} \times 100 = 104.2\%$

c. Show calculation for the % recovery of one CCV analyte analyzed for Mercury. Lab value 96.6%

$\frac{4.83}{5.00} \times 100 = 96.6\%$

d. Show calculation for the % recovery of one CCV analyte for Cyanide. Lab value 100.9%

$\frac{100.9}{100.0} \times 100 = 100.9\%$

6. Specific comments: _____

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SERVICES, INC.

HEARTLAND ESI Form F

INITIAL & CONTINUING CALIBRATION BLANK

Associated Samples All total samples

1. Were the initial calibration blanks analyzed for all analytes and run after the initial calibration verification? (Yes) No
If no, list affected analytes, and action.

2. Was the absolute value for all analytes in the initial calibration blank below the CRDL? (Yes) No
If no, list affected analytes and reject them.

3. Were the continuing calibration blanks analyzed for all analytes and run after the continuing calibration verification? (Yes) No
If no, list affected analytes, associated samples and action.

4. Was the frequency for the continuing calibration blanks correct? (Yes) No
If no, list affected analytes, associated samples and action.

5. Was the absolute value of all analytes for the continuing calibration blank below the CRDL? (Yes) No
If no, list affected analytes, associated samples and reject them.

HEARTLAND ENVIRONMENTAL SERVICES, INC.

HEARTLAND ESI Form G

PREPARATION BLANK SUMMARY

Sample Matrix: Soil Water Air Preparation Blank ID PBW
Units: mg/kg ug/l ug/m3

1. Did the frequency of the preparation blank analysis meet method requirements? (Yes) No
If no, explain and note action.

Analyte	Conc	<CRDL	Comments/Action
Magnesium	32.7	yes	qualify all data as necessary
			PBH 10/11/94

Associated Samples All total samples

CRDL Codes: Yes < CRDL
No > CRDL

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HEARTLAND ESI Form H

ICP INTERFERENCE CHECK SAMPLE

Associated Samples All total Samples

1. Was an ICP interference check sample performed at the correct frequency? (Yes) No
   If no, note any deviations and action._____

2. a. Were the interferents for solution A reported? (Yes) No
      If no, note deviations_____

   b. Were the analytes and interferents for solution AB reported? (Yes) No
      If no, note deviations_____

3. Were the concentrations of Al, Ca, Fe and Mg in associated samples found to be significantly less than (i.e., <50%) their respective concentrations in solution A? (Yes) No
   If yes, no action is required.

4. Did all required analytes in solution AB meet the QC limit of 80-120%? (Yes) No
   If no,
   a. List any analytes and their % recovery which are greater than or equal to 30% but less than 80% and action._____

   b. List any analytes and their % recovery which are greater than 120% and action._____

   c. List any analytes and their % recovery which are less than 30% and action._____

5. Show the calculation for % recovery for one analyte in solution AB.
   Lab value 82.7%

   Nickel $\frac{87.7}{100.0} \times 100 = 87.7\%$

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HEARTLAND ESI Form I-1

SAMPLE SPIKE ANALYSIS

Sample Spike Analysis performed on sample FRC-MW-2B-15

Matrix: Soil (Water) Air
Units: mg/kg (ug/l) ug/m3
% Solids_____

Associated Samples All total samples

1. Was the sample spike analysis performed at the correct frequency? (Yes) No
If no, note deviations and action._____

2. Was the sample spike analysis performed on a field sample? (Yes) No
If no, reject all associated samples.

3. a. Were two analytical methods used to obtain reported values for one analyte? Yes (No)
If yes, list analytes_____

b. Was sample spike analysis performed using both methods for that analyte? Yes No
If no, reject affected sample(s) which did not have spike analysis performed._____

4. Was sample analysis performed at the proper concentration? (Yes) No
If no, list analytes and qualify._____

5. Did the % recovery for all analytes meet the criteria of 75-125%? (Yes) No
If no, list only those analytes which % recovery are out and whose sample result (SR) is less than 4 times the sample added (SA). List % recovery in parenthesis next to the analyte out and action._____

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HEARTLAND ESI Form I-2

6. Were outliers for % recovery flagged with the "N" qualifier? (Yes) No
If no, list analytes not flagged._____

7. a. Show calculation for % recovery for one analyte analyzed by ICP. Lab value 104.8%

Antimony $\frac{54.7}{50.0} \times 100 = 109.4\%$

b. Show calculation for % recovery for one analyte analyzed by furnace AA. Lab value 102.2%

Thallium $\frac{51.1}{50.0} \times 100 = 102.2\%$

c. Show calculation for % recovery for Mercury. Lab value 104%

$\frac{1.04}{1.00} \times 100 = 104\%$

d. Show calculation for % recovery for Cyanide. Lab value 100.2%

$\frac{100.2}{100.0} \times 100 = 100.2\%$

HEARTLAND ENVIRONMENTAL SERVICES, INC.

HEARTLAND ESI Form K-1

DUPLICATE ANALYSIS

Duplicate Analysis performed on sample FRC-MW-2D-1D

Matrix:	Soil	(Water)	Air
Units:	mg/kg	(ug/l)	ug/m3

% Solids:_____

Associated Samples All total samples

1. Were duplicate analyses performed at the correct frequency? (Yes) No
   If no, note deviations and action._____

2. Was duplicate analysis performed on a field sample? (Yes) No
   If no, reject all associated samples.

3. Were two analytical methods used to obtain reported values for one analyte? Yes (No)
   If yes,
   a. List analytes_____
   b. Were duplicate analysis performed using both methods for that analyte? Yes No
      If no, reject affected samples which did not have duplicate analysis performed._____

4. Is the laboratory using the correct control limit (i.e. +CRDL or 20% for water and 35% for soils criteria) to judge duplicate RPD results? (Yes) No
   If no, note deviations._____

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HEARTLAND ESI Form K-2

5. Do all analytes meet these QC control limits? (Yes) No
If no, list the analytes outside the limits and qualify these analytes._____

6. Were outliers correctly flagged with the "*" qualifier? (Yes) No
If no, list those analytes not correctly flagged._____

7. a. Show calculation for RPD for one analyte analyzed by ICP.
Lab value 2.8%

Zinc $\frac{|50.8 - 49.4|}{(50.8 + 49.4)/2} \times 100 = \frac{1.4}{50.1} \times 100 = 2.8\%$

b. Show calculation for RPD for one analyte analyzed by furnace AA.
Lab value 2.7%

Lead $\frac{|49.1 - 47.8|}{(49.1 + 47.8)/2} \times 100 = \frac{1.3}{48.45} \times 100 = 2.7\%$

c. Show calculation for RPD for Mercury.
Lab value NC

d. Show calculation for RPD for Cyanide.
Lab value NC

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HEARTLAND ESI Form L

LABORATORY CONTROL SAMPLE

Matrix: Soil (Water) Air
Units: mg/kg (ug/l) ugm3
%Solids_____

Associated Samples All total Samples

1. Was the laborartory control sample performed at the correct frequency? (Yes) No
If no, give action._____

2. Do all analytes meet the QC limits of 80-120% (except Silver, Antimony, Mercury and Cyanide for aqueous samples) or within the control limits established by EPA for soils? (Yes) No
If no, list analytes, their recovery and action._____

3. a. Show the calculation for % recovery for at least one analyte by ICP.

Lab value 94.76

Vanadium $\frac{284}{300} \times 100 = 94.79$

b. Show the calculation for % recovery for at least one analyte analyzed by furnace AA.

Lab value 105%

Thallium $\frac{52.5}{50.0} \times 100 = 105$

c. Show the claculation for % recovery of Mercury (soil only).

Lab value NR

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HEARTLAND ESI Form M-1

GRAPHITE FURNACE AA (GFAA)

Circle Analyte: (As) Pb Se Tl Others___

Associated Samples All total samples

1. Were the injections made in duplicate and average value reported? (Yes) No
   If no, explain and state action.___

2. If the average concentration is greater than or equal to the CRDL, was the average value within ± 20% RSD or CV? (Yes) No
   If no, list samples and action.___

3. Were all sample results within the calibration range? (Yes) No
   If no, list samples outside the calibration range and action.___

4. Were all sample results including the laboratory control sample and preparation blank spiked at two times the CRDL to determine if MSA was required? (Yes) No
   If no, list samples and action.___

5. Was the preparation blank spike recovery within the control limits of 85-115%? (Yes) No
   If no, list associated samples and action.___

6. Was the spike recovery for all samples greater than or equal to 40%? (Yes) No
   If no, verify that samples were diluted and reanalyzed and list the samples with interference problems.___

HEARTLAND ENVIRONMENTAL SERVICES, INC.

HEARTLAND ESI Form M-2

Circle Analyte: As Pb Se Tl Others___

7. For any sample(s) with a spike recovery greater than 40% and whose absorbance was less than 50% of the spike absorbance, was the spike recovery within the control limits of 85-115%? (Yes) No
If no, list any affected samples. Verify these samples were flagged "W" by the laboratory._____

8. For any sample(s) with a spike recovery greater than 40% and a sample absorbance greater than or equal to 50% of spike absorbance, was the spike recovery within the control limits of 85-115%? (Yes) No
If no, did the laboratory perform MSA on the affected samples? Yes No
If no, list affected samples where MSA was not performed and reject the samples._____

If yes, was the MSA data within the calibration range? Yes No
If no, list samples affected and reject the samples._____

Was the correlation coefficient "R" greater than.995? Yes No
If no, was the MSA analysis repeated once? Yes No
If no, list samples and action._____

Was the correlation coefficient greater than .995 on the MSA reanalysis? Yes No
If no, list samples and action._____

9. a. Show calculation of the % recovery for the preparation blank spike result. Lab value 105 %

$\frac{21.0}{20.0} \times 100 = 105\%$

b. Show calculation for the % recovery for a sample spike result. Lab value 93 %

T0666 011

$\frac{20.62}{20.0} \times 100 = 93.0\%$

HEARTLAND ENVIRONMENTAL
SERVICES, INC.

HEARTLAND ESI Form M-1

GRAPHITE FURNACE AA (GFAA)

Circle Analyte: As Pb (Se) Tl Others___

Associated Samples All total samples

1. Were the injections made in duplicate and average value reported? (Yes) No
   If no, explain and state action.___

2. If the average concentration is greater than or equal to the CRDL, was the average value within ± 20% RSD or CV? (Yes) No
   If no, list samples and action.___

3. Were all sample results within the calibration range? (Yes) No
   If no, list samples outside the calibration range and action.___

4. Were all sample results including the laboratory control sample and preparation blank spiked at two times the CRDL to determine if MSA was required? (Yes) No
   If no, list samples and action.___

5. Was the preparation blank spike recovery within the control limits of 85-115%? (Yes) No
   If no, list associated samples and action.___

6. Was the spike recovery for all samples greater than or equal to 40%? (Yes) No
   If no, verify that samples were diluted and reanalyzed and list the samples with interference problems.___

HEARTLAND ENVIRONMENTAL SERVICES, INC.

HEARTLAND ESI Form M-2

Circle Analyte: As Pb (Se) Tl Others___

7. For any sample(s) with a spike recovery greater than 40% and whose absorbance was less than 50% of the spike absorbance, was the spike recovery within the control limits of 85-115%? Yes (No)
If no, list any affected samples. Verify these samples were flagged "W" by the laboratory. T0666 016

8. For any sample(s) with a spike recovery greater than 40% and a sample absorbance greater than or equal to 50% of spike absorbance, was the spike recovery within the control limits of 85-115%? (Yes) No
If no, did the laboratory perform MSA on the affected samples? Yes No
If no, list affected samples where MSA was not performed and reject the samples.

If yes, was the MSA data within the calibration range? Yes No
If no, list samples affected and reject the samples.

Was the correlation coefficient "R" greater than.995? Yes No
If no, was the MSA analysis repeated once? Yes No
If no, list samples and action.

Was the correlation coefficient greater than .995 on the MSA reanalysis? Yes No
If no, list samples and action.

9. a. Show calculation of the % recovery for the preparation blank spike result. Lab value 98!

$\frac{9.8}{10.0} \times 100 = 98!$

b. Show calculation for the % recovery for a sample spike result. Lab value 82!

T0666016

$\frac{8.2}{10.0} \times 100 = 82!$

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HEARTLAND ESI Form M-1

GRAPHITE FURNACE AA (GFAA)

Circle Analyte: As Pb Se (Tl) Others___

Associated Samples All total samples

1. Were the injections made in duplicate and average value reported? (Yes) No
   If no, explain and state action.___

2. If the average concentration is greater than or equal to the CRDL, was the average value within ± 20% RSD or CV? (Yes) No
   If no, list samples and action.___

3. Were all sample results within the calibration range? (Yes) No
   If no, list samples outside the calibration range and action.___

4. Were all sample results including the laboratory control sample and preparation blank spiked at two times the CRDL to determine if MSA was required? (Yes) No
   If no, list samples and action.___

5. Was the preparation blank spike recovery within the control limits of 85-115%? (Yes) No
   If no, list associated samples and action.___

6. Was the spike recovery for all samples greater than or equal to 40%? (Yes) No
   If no, verify that samples were diluted and reanalyzed and list the samples with interference problems.___

HEARTLAND ENVIRONMENTAL SERVICES, INC.

HEARTLAND ESI Form M-2

Circle Analyte: As Pb Se (Tl) Others___

7. For any sample(s) with a spike recovery greater than 40% and whose absorbance was less than 50% of the spike absorbance, was the spike recovery within the control limits of 85-115%? (Yes) No
If no, list any affected samples. Verify these samples were flagged "W" by the laboratory._____

8. For any sample(s) with a spike recovery greater than 40% and a sample absorbance greater than or equal to 50% of spike absorbance, was the spike recovery within the control limits of 85-115%? (Yes) No
If no, did the laboratory perform MSA on the affected samples? Yes No
If no, list affected samples where MSA was not performed and reject the samples._____

If yes, was the MSA data within the calibration range? Yes No
If no, list samples affected and reject the samples._____

Was the correlation coefficient "R" greater than.995? Yes No
If no, was the MSA analysis repeated once? Yes No
If no, list samples and action._____

Was the correlation coefficient greater than .995 on the MSA reanalysis? Yes No
If no, list samples and action._____

9. a. Show calculation of the % recovery for the preparation blank spike result. Lab value 109.5

$\frac{21.9}{20.0} \times 100 = 109.5$

b. Show calculation for the % recovery for a sample spike result. Lab value 105

T0666001

$\frac{21.0}{20.0} \times 100 = 105$

HEARTLAND ENVIRONMENTAL SERVICES, INC.

HEARTLAND ESI Form M-1

GRAPHITE FURNACE AA (GFAA)

Circle Analyte: As (Pb) Se Tl Others___

Associated Samples All total samples

1. Were the injections made in duplicate and average value reported? (Yes) No
   If no, explain and state action.___

2. If the average concentration is greater than or equal to the CRDL, was the average value within ± 20% RSD or CV? (Yes) No
   If no, list samples and action.___

3. Were all sample results within the calibration range? (Yes) No
   If no, list samples outside the calibration range and action.___

4. Were all sample results including the laboratory control sample and preparation blank spiked at two times the CRDL to determine if MSA was required? (Yes) No
   If no, list samples and action.___

5. Was the preparation blank spike recovery within the control limits of 85-115%? (Yes) No
   If no, list associated samples and action.___

6. Was the spike recovery for all samples greater than or equal to 40%? (Yes) No
   If no, verify that samples were diluted and reanalyzed and list the samples with interference problems.___

HEARTLAND ENVIRONMENTAL SERVICES, INC.

HEARTLAND ESI Form M-2

Circle Analyte: As (Pb) Se Tl Others___

7. For any sample(s) with a spike recovery greater than 40% and whose absorbance was less than 50% of the spike absorbance, was the spike recovery within the control limits of 85-115%? Yes (No)
If no, list any affected samples. Verify these samples were flagged "W" by the laboratory. T0666001, 010, 016, 017, 018, 019 and 020.

8. For any sample(s) with a spike recovery greater than 40% and a sample absorbance greater than or equal to 50% of spike absorbance, was the spike recovery within the control limits of 85-115%? (Yes) No PBH 10/11/94
If no, did the laboratory perform MSA on the affected samples? (Yes) No
If no, list affected samples where MSA was not performed and reject the samples.___

If yes, was the MSA data within the calibration range? (Yes) No
If no, list samples affected and reject the samples.___

Was the correlation coefficient "R" greater than.995? (Yes) No
If no, was the MSA analysis repeated once? (Yes) No
If no, list samples and action.___

Was the correlation coefficient greater than .995 on the MSA reanalysis? Yes No
If no, list samples and action.___

9. a. Show calculation of the % recovery for the preparation blank spike result. Lab value 103%

$\frac{20.6}{20.0} \times 100 = 103\%$

b. Show calculation for the % recovery for a sample spike result. Lab value 116.5%

T0666001

$\frac{27.2 - 3.9}{20} \times 100 = 116.5\%$

HEARTLAND ENVIRONMENTAL SERVICES, INC.

HEARTLAND ESI Form N

SAMPLE RESULT VERIFICATION

Associated Samples All total Samples

1. Were all samples reported within the calibration range? (Yes) No
   If no, list affected samples and action._____

2. Was the % solids analysis performed for all nonaqueous samples? Yes No
   If no, list affected samples and action. NR

3. Show calculation for % solids for one sample.
   Lab value NR

4. Was the raw data free of any anomalies? (Yes) No
   If no, list affected samples and action._____

5. Was the data package free of any computational or transcriptional errors? (Yes) No
   If no, list affected samples and action._____

6. Verify that nonaqueous samples were reported on a dry weight basis by recalculating the results for one analyte in a sample.
   Lab value NR

HEARTLAND ENVIRONMENTAL
SERVICES, INC.

HEARTLAND ESI Form O

ICP SERIAL DILUTION

Serial Dilution performed on Sample FRC-MW-2D-1L
Dilution Factor 5

Matrix:	Soil	Water	Air
Units:	mg/kg	ug/l	ug/m3

Associated Samples All total Samples

1. Was a serial dilution performed at the correct frequency? (Yes) No
   If no, give action.

2. Was a field sample used for serial dilution? (Yes) No
   If no, give action.

3. For all analytes greater than fifty times the IDL, was a serial dilution performed? (Yes) No
   If no, lest analytes and reject them.

4. a. For all analytes greater than ten times the IDL, did the the serial dilution analysis meet the QC limit of 10% D? (Yes) No
   If no, list those analytes outside the limits and qualify them.

   b. Show a calculation for % D for one analyte analyzed by ICP.

Lab Value 5,280

Sodium $\frac{|| 7766 - 1634 ||}{7766}$ x 100 = 79 %

HEARTLAND ENVIRONMENTAL
SERVICES, INC.

HEARTLAND ESI Form P

QUARTERLY VERFICATION OF INSTRUMENT PARAMETERS

1. Was the IDL analyzed and reported quarterly (every three calender months) for each element on Form X. (Yes) No
If no, explain and list action._____

2. Was the IDL below the CRDL for each element? (Yes) No
If no, explain and list action._____

3. Was the ICP interelement correction factor analyzed and reported for each element on Form 11 and 12. (Yes) No
If no, explain and list action._____

4. Was the linear range analyzed and reported annually and quarterly respectfully for each element on Form 11 and 12. (Yes) No
If no, explain and list action._____

HEARTLAND ENVIRONMENTAL SERVICES, INC.

HEARTLAND ESI Form A

DATA DELIVERABLE REQUIREMENTS

A.	Permanently Bound	Yes	No	NR
B.	Paginated	Yes	No	NR
C.	Table of Contents	Yes	No	NR
D.	Digestion Records(internal C-O-C)	Yes	No	NR
E.	Chain-Of-Custody (external)	Yes	No	NR
F.	Case Narrative			
	1. Sample list with Client and Lab IDs cross-referenced (copy attached)	Yes	No	NR
	2. All Protocol deviations and QC problems noted	Yes	No	NR
	3. Comments:_____			
G.	Uninitialed Strikeovers	Yes	No	NR
H.	Legible Photocopies	Yes	No	NR
I.	Consistent Dates	Yes	No	NR
J.	Preparation Logs	Yes	No	NR
K.	Instrument Run Logs	Yes	No	NR
L.	Other Deviations or Comments:_____			

HEARTLAND ENVIRONMENTAL
SERVICES, INC.

HEARTLAND ESI Form B

HOLDING TIMES FOR METALS

1. Was the holding time exceeded on any of the Metal Fractions

   ICP/GFAA/FAA - Holding time of 6 months VTSR
   Mercury - Holding time of 28 days VTSR
   Cyanide - Holding time of 14 days VTSR

   Yes (No)

2. If yes, complete the following form for all samples that exceeding holding times.

   Fraction:_____

Sample ID	Matrix	VTSR	Date of Analysis	DA	QC Decision
			PB:H	10/11/94	

Note: DA = The number of days holding time to analysis is exceeded.

S = Non-aqueous
A = Aqueous
X = Air

QA Decision: Results > IDL - J - estimated

Results < IDL - R - rejected

HEARTLAND ENVIRONMENTAL SERVICES, INC.

HEARTLAND ESI Form C-1

INSTRUMENT CALIBRATION AND INITIAL CALIBRATION VERIFICATION (ICV)

Associated Samples All dissolved samples

1. a. Was the ICP instrument properly standardized? (Yes) No
   If no, explain and list action._____

   b. Was the furnace instrument properly standardized? If no, were the required standards analyzed immediately after the instrument calibration and results within 95-105% recovery? (Yes) No
   Yes No
   If no, explain and list action._____

   c. Were the instruments for the analyses of Cyanide and Mercury properly standardized? (Yes) No
   If no, explain and list action._____

2. Was the ICV analyzed immediately after the system(s) were calibrated? (Yes) No
   If no, explain and list action._____

3. Was the ICV analyzed for every analyte? (Yes) No
   If no, explain and list action._____

4. Do all ICV analytes meet the QC requirements for % recovery? (Yes) No
   If no, list affected analytes, their % recovery, and action for which:

   a. % recovery is between 75-89% (CN, 70-84% or HG, 65-79%)

HEARTLAND ESI Form C-2

b. % recovery is between 111-125% (CN, 116-130% or HG, 121-135%)_____

c. % recovery is less than 75% or greater than 125%(CN, <70 or >130%, Hg <65 or >135)_____

5. a. Show calculation for the % recovery of one ICV analyte by ICP. Lab value 103.4%

Cadmium $\frac{1292}{1250} \times 100 = 103.4\%$

b. Show calculation for the % recovery of one ICV analyte by furnace AA. Lab value 105%

Selenium $\frac{52.5}{50.0} \times 100 = 105\%$

c. Show calculation for the ICV % recovery of Mercury. Lab Value 99.2%

$\frac{4.96}{5.00} \times 100 = 99.2\%$

d. Show calculation for the ICV % recovery of Cyanide. Lab value NR

6. Specific comments:_____

HEARTLAND ENVIRONMENTAL SERVICES, INC.

HEARTLAND ESI Form D-1

CONTINUING CALIBRATION VERIFICATION (CCV)

Associated Samples All dissolved samples

1. a. Was the CCV performed every two hours or at the 10% frequency? (Yes) No
   If no, list action.

   b. Was the CCV performed at the beginning and end of the sample analysis? (Yes) No
   If no, list action.

2. Were the CCV standards analyzed for all analytes? (Yes) No
   If no, list affected analytes, their associated samples and action.

3. Was the same concentration used for CCV throughout the analyses? (Yes) No
   If no, list affected analytes, their associated samples and action.

4. Do all CCV analytes meet the QC requirements for % recovery? (Yes) No
   If no, list affected analytes, their associated samples and action for which:

   a. % recovery is between 75-89%(CN,70-84% or Hg, 65-79%) ___

   b. % recovery is between 111-125%(CN,116-130% or Hg, 121-135%)

   c. % recovery is less than 75% or greater than 125%(CN,<70 or >130%, Hg, <65 or <135%)

HEARTLAND ESI Form D-2

5. a. Show calculation for the % recovery of one CCV analyte analyzed by ICP. Lab value 109.0 %

Zinc $\frac{1363}{1250} \times 100 =$

b. Show calculation for the % recovery of one CCV analyte analyzed by furnace AA. Lab value 102.4 %

Thallium $\frac{51.2}{50.0} \times 100 = 102.4\%$

c. Show calculation for the % recovery of one CCV analyte analyzed for Mercury. Lab value 96.6 %

$\frac{4.83}{5.00} \times 100 = 96.6\%$

d. Show calculation for the % recovery of one CCV analyte for Cyanide. Lab value ~~101 %~~ NR

PBH 10/16/89

6. Specific comments: _____

SERVICES, INC.

HEARTLAND ESI Form F

INITIAL & CONTINUING CALIBRATION BLANK

Associated Samples All dissolved Samples

1. Were the initial calibration blanks analyzed for all analytes and run after the initial calibration verification? (Yes) No
If no, list affected analytes, and action.

2. Was the absolute value for all analytes in the initial calibration blank below the CRDL? (Yes) No
If no, list affected analytes and reject them.

3. Were the continuing calibration blanks analyzed for all analytes and run after the continuing calibration verification? (Yes) No
If no, list affected analytes, associated samples and action.

4. Was the frequency for the continuing calibration blanks correct? (Yes) No
If no, list affected analytes, associated samples and action.

5. Was the absolute value of all analytes for the continuing calibration blank below the CRDL? (Yes) No
If no, list affected analytes, associated samples and reject them.

HEARTLAND ENVIRONMENTAL SERVICES, INC.

HEARTLAND ESI Form G

PREPARATION BLANK SUMMARY

Sample Matrix: Soil Water Air Preparation Blank ID PBW
Units: mg/kg ug/l ug/m3

1. Did the frequency of the preparation blank analysis meet method requirements? (Yes) No
If no, explain and note action.

Analyte	Conc	<CRDL	Comments/Action
Magnesium	21.2	yes	qualify all data as necessary.
			PBH 10/11/94

Associated Samples All dissolved samples

CRDL Codes: Yes < CRDL
No > CRDL

SERVICES, INC.

HEARTLAND ESI Form H

ICP INTERFERENCE CHECK SAMPLE

Associated Samples All dissolved samples

1. Was an ICP interference check sample performed at the correct frequency? (Yes) No
   If no, note any deviations and action._____

2. a. Were the interferents for solution A reported? (Yes) No
      If no, note deviations_____

   b. Were the analytes and interferents for solution AB reported? (Yes) No
      If no, note deviations_____

3. Were the concentrations of Al, Ca, Fe and Mg in associated samples found to be significantly less than (i.e., <50%) their respective concentrations in solution A? (Yes) No
   If yes, no action is required.

4. Did all required analytes in solution AB meet the QC limit of 80-120%? (Yes) No
   If no,
   a. List any analytes and their % recovery which are greater than or equal to 30% but less than 80% and action._____

   b. List any analytes and their % recovery which are greater than 120% and action._____

   c. List any analytes and their % recovery which are less than 30% and action._____

5. Show the calculation for % recovery for one analyte in solution AB.
   Lab value 90.19

   Chromium $\frac{451}{500} \times 100 = 90.21$

HEARTLAND ESI Form I-1

SAMPLE SPIKE ANALYSIS

Sample Spike Analysis performed on sample FRC - MW-2D-11

Matrix: Soil (Water) Air
Units: mg/kg (ug/l) ug/m3
% Solids_____

Associated Samples All dissolved samples

1. Was the sample spike analysis performed at the correct frequency? (Yes) No
   If no, note deviations and action._____

2. Was the sample spike analysis performed on a field sample? (Yes) No
   If no, reject all associated samples.

3. a. Were two analytical methods used to obtain reported values for one analyte? Yes (No)
      If yes, list analytes_____

   b. Was sample spike analysis performed using both methods for that analyte? Yes No
      If no, reject affected sample(s) which did not have spike analysis performed._____

4. Was sample analysis performed at the proper concentration? (Yes) No
   If no, list analytes and qualify._____

5. Did the % recovery for all analytes meet the criteria of 75-125%? (Yes) No
   If no, list only those analytes which % recovery are out and whose sample result (SR) is less than 4 times the sample added (SA). List % recovery in parenthesis next to the analyte out and action._____

HEARTLAND ESI Form I-2

6. Were outliers for % recovery flagged with the "N" qualifier? (Yes) No
If no, list analytes not flagged._____

7. a. Show calculation for % recovery for one analyte analyzed by ICP. Lab value 109 %

Zinc $\frac{589-44}{500} \times 100 = 109\%$

b. Show calculation for % recovery for one analyte analyzed by furnace AA. Lab value 112.5 %

Arsenic $\frac{47}{40} \times 100 = 112.5\%$

c. Show calculation for % recovery for Mercury. Lab value 99 %

$\frac{.99}{1.00} \times 100 = 99\%$

d. Show calculation for % recovery for Cyanide. Lab value NR

SERVICES, INC.

HEARTLAND ESI Form K-1

DUPLICATE ANALYSIS

Duplicate Analysis performed on sample FRC-MW-2D-1D

Matrix:	Soil	Water	Air
Units:	mg/kg	ug/l	ug/m3

% Solids:_____

Associated Samples All dissolved samples

1. Were duplicate analyses performed at the correct frequency? (Yes) No
   If no, note deviations and action._____

2. Was duplicate analysis performed on a field sample? (Yes) No
   If no, reject all associated samples.

3. Were two analytical methods used to obtain reported values for one analyte? Yes (No)
   If yes,
   a. List analytes_____
   b. Were duplicate analysis performed using both methods for that analyte? Yes No
      If no, reject affected samples which did not have duplicate analysis performed._____

4. Is the laboratory using the correct control limit (i.e. +CRDL or 20% for water and 35% for soils criteria) to judge duplicate RPD results? (Yes) No
   If no, note deviations._____

HEARTLAND ESI Form K-2

5. Do all analytes meet these QC control limits? (Yes) No
If no, list the analytes outside the limits and qualify these analytes._____

6. Were outliers correctly flagged with the "*" qualifier? (Yes) No
If no, list those analytes not correctly flagged._____

7. a. Show calculation for RPD for one analyte analyzed by ICP.
Lab value 3.5%

Zinc $\frac{|44.2 - 42.7|}{(44.2 + 42.7)/2} \times 100 = \frac{1.5}{43.45} \times 100 = 3.5\%$

b. Show calculation for RPD for one analyte analyzed by furnace AA.
Lab value NC

c. Show calculation for RPD for Mercury.
Lab value NC

d. Show calculation for RPD for Cyanide.
Lab value NR

HEARTLAND ESI Form L

LABORATORY CONTROL SAMPLE

Matrix: Soil (Water) Air
Units: mg/kg (ug/l) ugm3
%Solids_____

Associated Samples All water samples

1. Was the laborartory control sample performed at the correct frequency? (Yes) No
   If no, give action._____

2. Do all analytes meet the QC limits of 80-120% (except Silver, Antimony, Mercury and Cyanide for aqueous samples) or within the control limits established by EPA for soils? (Yes) No
   If no, list analytes, their recovery and action._____

3. a. Show the calculation for % recovery for at least one analyte by ICP.

   Zinc $\frac{323}{300} \times 100 = 107.7\%$ Lab value 107.8%

   b. Show the calculation for % recovery for at least one analyte analyzed by furnace AA.

   Selenium $\frac{28.1}{25.0} \times 100 = 112.4\%$ Lab value 112.4%

   c. Show the claculation for % recovery of Mercury (soil only)
   Lab value NR

HEARTLAND ESI Form M-1

GRAPHITE FURNACE AA (GFAA)

Circle Analyte: (As) Pb Se Tl Others___

Associated Samples All dissolved samples

1. Were the injections made in duplicate and average value reported? (Yes) No
   If no, explain and state action.___

2. If the average concentration is greater than or equal to the CRDL, was the average value within ± 20% RSD or CV? (Yes) No
   If no, list samples and action.___

3. Were all sample results within the calibration range? (Yes) No
   If no, list samples outside the calibration range and action.___

4. Were all sample results including the laboratory control sample and preparation blank spiked at two times the CRDL to determine if MSA was required? (Yes) No
   If no, list samples and action.___

5. Was the preparation blank spike recovery within the control limits of 85-115%? (Yes) No
   If no, list associated samples and action.___

6. Was the spike recovery for all samples greater than or equal to 40%? (Yes) No
   If no, verify that samples were diluted and reanalyzed and list the samples with interference problems.___

HEARTLAND ESI Form M-2

Circle Analyte: As Pb Se Tl Others___

7. For any sample(s) with a spike recovery greater than 40% and whose absorbance was less than 50% of the spike absorbance, was the spike recovery within the control limits of 85-115%? (Yes) No
If no, list any affected samples. Verify these samples were flagged "W" by the laboratory._____

8. For any sample(s) with a spike recovery greater than 40% and a sample absorbance greater than or equal to 50% of spike absorbance, was the spike recovery within the control limits of 85-115%? (Yes) No
If no, did the laboratory perform MSA on the affected samples? Yes No
If no, list affected samples where MSA was not performed and reject the samples._____

If yes, was the MSA data within the calibration range? Yes No
If no, list samples affected and reject the samples._____

Was the correlation coefficient "R" greater than.995? Yes No
If no, was the MSA analysis repeated once? Yes No
If no, list samples and action:_____

Was the correlation coefficient greater than .995 on the MSA reanalysis? Yes No
If no, list samples and action._____

9. a. Show calculation of the % recovery for the preparation blank spike result. Lab value 99 %

$\frac{19.8}{20.0} \times 100 = 99\ \%$

b. Show calculation for the % recovery for a sample spike result. Lab value 112 %

F066044 $\frac{22.4}{20.0} \times 100 = 112\ \%$

SERVICES, INC.

HEARTLAND ESI Form M-1

GRAPHITE FURNACE AA (GFAA)

Circle Analyte: As Pb (Se) Tl Others___

Associated Samples All dissolved samples

1. Were the injections made in duplicate and average value reported? (Yes) No
   If no, explain and state action.___

2. If the average concentration is greater than or equal to the CRDL, was the average value within ± 20% RSD or CV? (Yes) No
   If no, list samples and action.___

3. Were all sample results within the calibration range? (Yes) No
   If no, list samples outside the calibration range and action.___

4. Were all sample results including the laboratory control sample and preparation blank spiked at two times the CRDL to determine if MSA was required? (Yes) No
   If no, list samples and action.___

5. Was the preparation blank spike recovery within the control limits of 85-115%? (Yes) No
   If no, list associated samples and action.___

6. Was the spike recovery for all samples greater than or equal to 40%? (Yes) No
   If no, verify that samples were diluted and reanalyzed and list the samples with interference problems.___

SERVICES, INC.

HEARTLAND ESI Form M-2

Circle Analyte: As Pb (Se) Tl Others___ PBH 10/11/94

7. For any sample(s) with a spike recovery greater than 40% and whose absorbance was less than 50% of the spike absorbance, was the spike recovery within the control limits of 85-115%? (Yes) No
If no, list any affected samples. Verify these samples were flagged "W" by the laboratory. F0666016, 18 and 19.

8. For any sample(s) with a spike recovery greater than 40% and a sample absorbance greater than or equal to 50% of spike absorbance, was the spike recovery within the control limits of 85-115%? (Yes) No
If no, did the laboratory perform MSA on the affected samples? Yes No
If no, list affected samples where MSA was not performed and reject the samples.

If yes, was the MSA data within the calibration range? Yes No
If no, list samples affected and reject the samples.

Was the correlation coefficient "R" greater than.995? Yes No
If no, was the MSA analysis repeated once? Yes No
If no, list samples and action.

Was the correlation coefficient greater than .995 on the MSA reanalysis? Yes No
If no, list samples and action.

9. a. Show calculation of the % recovery for the preparation blank spike result. Lab value 108%

$\frac{10.8}{10.0} \times 100 = 108\%$

b. Show calculation for the % recovery for a sample spike result. Lab value 90%

F0666010

$\frac{9.0}{10.0} \times 100 = 90\%$

SERVICES, INC.

HEARTLAND ESI Form M-1

GRAPHITE FURNACE AA (GFAA)

Circle Analyte: As (Pb) Se (Tl) Others___ PBH 10/11/94

Associated Samples All dissolved samples

1. Were the injections made in duplicate and average value reported? (Yes) No
   If no, explain and state action.___

2. If the average concentration is greater than or equal to the CRDL, was the average value within ± 20% RSD or CV? (Yes) No
   If no, list samples and action.___

3. Were all sample results within the calibration range? (Yes) No
   If no, list samples outside the calibration range and action.___

4. Were all sample results including the laboratory control sample and preparation blank spiked at two times the CRDL to determine if MSA was required? (Yes) No
   If no, list samples and action.___

5. Was the preparation blank spike recovery within the control limits of 85-115%? (Yes) No
   If no, list associated samples and action.___

6. Was the spike recovery for all samples greater than or equal to 40%? (Yes) No
   If no, verify that samples were diluted and reanalyzed and list the samples with interference problems.___

SERVICES, INC.

HEARTLAND ESI Form M-2

Circle Analyte: As Pb Se (Tl) Others___

7. For any sample(s) with a spike recovery greater than 40% and whose absorbance was less than 50% of the spike absorbance, was the spike recovery within the control limits of 85-115%? Yes (No)
If no, list any affected samples. Verify these samples were flagged "W" by the laboratory. All samples but 01, 03, 10 and 14.

8. For any sample(s) with a spike recovery greater than 40% and a sample absorbance greater than or equal to 50% of spike absorbance, was the spike recovery within the control limits of 85-115%? (Yes) No
If no, did the laboratory perform MSA on the affected samples? Yes No
If no, list affected samples where MSA was not performed and reject the samples.

If yes, was the MSA data within the calibration range? Yes No
If no, list samples affected and reject the samples.

Was the correlation coefficient "R" greater than.995? Yes No
If no, was the MSA analysis repeated once? Yes No
If no, list samples and action.

Was the correlation coefficient greater than .995 on the MSA reanalysis? Yes No
If no, list samples and action.

9. a. Show calculation of the % recovery for the preparation blank spike result. Lab value 91.5%

$\frac{18.3}{20.0} \times 100 = 91.5\%$

b. Show calculation for the % recovery for a sample spike result. Lab value 81.5%

F0666018

$\frac{16.3}{20.0} \times 100 = 81.5\%$

SERVICES, INC.

HEARTLAND ESI Form M-1

GRAPHITE FURNACE AA (GFAA)

Circle Analyte: As (Pb) Se Tl Others___

Associated Samples All dissolved samples

1. Were the injections made in duplicate and average value reported? (Yes) No
   If no, explain and state action.___

2. If the average concentration is greater than or equal to the CRDL, was the average value within ± 20% RSD or CV? (Yes) No
   If no, list samples and action.___

3. Were all sample results within the calibration range? (Yes) No
   If no, list samples outside the calibration range and action.___

4. Were all sample results including the laboratory control sample and preparation blank spiked at two times the CRDL to determine if MSA was required? (Yes) No
   If no, list samples and action.___

5. Was the preparation blank spike recovery within the control limits of 85-115%? (Yes) No
   If no, list associated samples and action.___

6. Was the spike recovery for all samples greater than or equal to 40%? (Yes) No
   If no, verify that samples were diluted and reanalyzed and list the samples with interference problems.___

SERVICES, INC.

HEARTLAND ESI Form M-2

Circle Analyte: As (Pb) Se Tl Others___

7. For any sample(s) with a spike recovery greater than 40% and whose absorbance was less than 50% of the spike absorbance, was the spike recovery within the control limits of 85-115%? Yes (No)
If no, list any affected samples. Verify these samples were flagged "W" by the laboratory. F0666001,3,4,5, F0666014 and 15.

8. For any sample(s) with a spike recovery greater than 40% and a sample absorbance greater than or equal to 50% of spike absorbance, was the spike recovery within the control limits of 85-115%? (Yes) No
If no, did the laboratory perform MSA on the affected samples? Yes No
If no, list affected samples where MSA was not performed and reject the samples.___

If yes, was the MSA data within the calibration range? Yes No
If no, list samples affected and reject the samples.___

Was the correlation coefficient "R" greater than.995? Yes No
If no, was the MSA analysis repeated once? Yes No
If no, list samples and action.___

Was the correlation coefficient greater than .995 on the MSA reanalysis? Yes No
If no, list samples and action.___

9. a. Show calculation of the % recovery for the preparation blank spike result. Lab value 111.5%

$\frac{22.3}{20.0} \times$ cor = 111.5%

b. Show calculation for the % recovery for a sample spike result. Lab value 152.5%

F0666014

$\frac{30.5}{20.0} \times$ cor = 152.5%

SERVICES, INC.

HEARTLAND ESI Form N

SAMPLE RESULT VERIFICATION

Associated Samples All dissolved samples

1. Were all samples reported within the calibration range? (Yes) No
   If no, list affected samples and action.

2. Was the % solids analysis performed for all nonaqueous samples? Yes No
   If no, list affected samples and action. NR

3. Show calculation for % solids for one sample.
   Lab value NR

4. Was the raw data free of any anomalies? (Yes) No
   If no, list affected samples and action.

5. Was the data package free of any computational or transcriptional errors? (Yes) No
   If no, list affected samples and action.

6. Verify that nonaqueous samples were reported on a dry weight basis by recalculating the results for one analyte in a sample.
   Lab value NR

SERVICES, INC.

HEARTLAND ESI Form O

ICP SERIAL DILUTION

Serial Dilution performed on Sample FRC-MW-20-1L
Dilution Factor 5

Matrix: Soil (Water) Air
Units: mg/kg (ug/l) ug/m3

Associated Samples All dissolved sample

1. Was a serial dilution performed at the correct frequency? (Yes) No
   If no, give action.

2. Was a field sample used for serial dilution? (Yes) No
   If no, give action.

3. For all analytes greater than fifty times the IDL, was a serial dilution performed? (Yes) No
   If no, lest analytes and reject them.

4. a. For all analytes greater than ten times the IDL, did the the serial dilution analysis meet the QC limit of 10% D? (Yes) No
   If no, list those analytes outside the limits and qualify them.

   b. Show a calculation for % D for one analyte analyzed by ICP.

Lab Value 4.74

Sodium $\frac{|11750 - 7853|}{7502} \times 100 = 4.79$

HEARTLAND ESI Form P

QUARTERLY VERFICATION OF INSTRUMENT PARAMETERS

1. Was the IDL analyzed and reported quarterly (every three calender months) for each element on Form X. (Yes) No
If no, explain and list action._____

2. Was the IDL below the CRDL for each element? (Yes) No
If no, explain and list action._____

3. Was the ICP interelement correction factor analyzed and reported for each element on Form 11 and 12. (Yes) No
If no, explain and list action._____

4. Was the linear range analyzed and reported annually and quarterly respectfully for each element on Form 11 and 12. (Yes) No
If no, explain and list action._____

HEARTLAND ENVIRONMENTAL SERVICES, INC.

WET CHEMISTRY DATA DELIVERABLES

Site Name: NY Client: Elder

Location: Fairchild Ind Lab: IEA,

Analytical Fractions: See Data Narration

Reviewer: R. Hunby Date(s): 10/11/94

A.	Control Chart - results of the method blank spikes run with each batch of samples processed	(Yes)	No	NR
B.	Calibration results for each fraction (where applicable)	(Yes)	No	NR
C.	Method blank data for each analytical fraction.	(Yes)	No	NR
D.	Laboratory Control Sample results for each analytical fraction.	(Yes)	No	NR
E.	Matrix Spike results for each analytical fraction.	(Yes)	No	NR
F.	Duplicate results for each analytical fraction.	(Yes)	No	NR

HEARTLAND ENVIRONMENTAL
SERVICES, INC.

HEARTLAND ESI Form W-1

WET CHEMISTRY DATA VALIDATION

Analytical Fraction: See Data Narration

Matrix: Soil Water Air
Units: mg/kg ug/l ugm3
% solids:_____

Associated Samples All water samples

1. Was the calibration curve correlation coefficient acceptable for the Method used. (Yes) No NA
   If no, list action._____

2. Were the correct number of standards analyzed per the Method. (Yes) No NA

3. Was a Method Blank analyzed and reported for the analytical fraction. (Yes) No NA

   Method Blank Contamination_____

   Qualify any results that are less than five times the concentration found in the Method Blank.

4. Was a Laboratory Control Standard analyzed and within the control limits. (Yes) No NA
   If no, list recovery and action._____

   Use the attached worksheet for verification of the LCS.

5. Were samples analyzed within the holding time for the Analytical Method used? (Yes) No NA
   If no, list action._____

HEARTLAND ENVIRONMENTAL
SERVICES, INC.

HEARTLAND ESI Form W-2

WET CHEMISTRY DATA VALIDATION

6. Was a Matrix Spike analyzed and within the control limits. (Yes) No NA
If no, list recovery and action._____

Use the attached worksheet for verification of the Matrix Spike.

7. Was a Duplicate analyzed and within the control limits. (Yes) No NA
If no, list the RPD and action._____

Use the attached worksheet for verification of the Duplicate.

8. Calculate the Sample result for at least one Sample to verify the correct reported value.

Lab Value NR

HEARTLAND ENVIRONMENTAL
SERVICES, INC.

HEARTLAND ESI Form W-3

WET CHEMISTRY DATA VALIDATION WORKSHEET

1. LABORATORY CONTROL SAMPLE CALCULATION VERFICATION.

Alkalinity $\frac{88.4}{92.9} \times 100 = 97.5\%$ COD $\frac{55.5}{57.0} \times 100 = 97.4\%$

Ammonia $\frac{6.5}{7.1} \times 100 = 92\%$ Hardness $\frac{95.6}{97.6} \times 100 = 98.0\%$

BOD_5 $\frac{174}{198} \times 100 = 87.9\%$ Nitrate $\frac{.79}{.74} \times 100 = 106.8\%$

Chloride $\frac{75.6}{75.0} \times 100 = 100.8\%$ Nitrite $\frac{.41}{.40} \times 100 = 102.5\%$

2. MATRIX SPIKE RECOVERY CALCULATION VERIFICATION.

Ammonia $\frac{2.12 - .08}{2.00} \times 100 = 102\%$ COD $\frac{111}{100} \times 100 = 111\%$

BOD_5 $\frac{36 - 5}{33.0} \times 100 = 93.9\%$ Nitrate Hardness $\frac{10.6 - 3.9}{8.0} \times 100 = 83.8\%$

Chloride $\frac{72.9 - 13.5}{60.0} \times 100 = 99\%$ Hardness $\frac{66.6 - 46.2}{20} \times 100 = 102\%$

3. DUPLICATE RESULT CALCULATION VERFICATION.

Chloride $\frac{||13.5 - 13.4||}{(13.5 + 13.4)/2} \times 100 = \frac{.1}{13.45} \times 100 = 0.7\%$

Nitrate $\frac{||3.9 - 4.1||}{(3.9 + 4.1)/2} \times 100 = \frac{.2}{4.0} \times 100 = 5.0\%$

Sulfate $\frac{||28.8 - 30.9||}{(28.8 + 30.9)/2} \times 100 = \frac{2.1}{29.85} \times 100 = 7.0\%$

TDS $\frac{||105 - 110||}{(110 + 105)/2} \times 100 = \frac{5}{107.5} \times 100 = 4.7\%$