TINKHAM
22
14657

APPENDIX C

CLP RAS 3/90 SOW VOA

NET FD CASE NUMBER 1423

NET NATIONAL ENVIRONMENTAL TESTING, INC.®

Cambridge Division
12 Oak Park
Bedford, MA 01730
Tel: (617) 275-3535
Fax: (617) 275-7411

June 21, 1995

Mr. Bob Mullin
GEI Consultants/NH
Suffolk Building
53 Regional Drive
Concord, NH 03301

RE: Tinkham Project
project# 92113

Dear Mr. Bob Mullin:

Enclosed please find the results of the chemical analyses performed by NET Cambridge Division for the Tinkham Project (FD Case 1423 NET job numbers 95.01918, 95.01955, 95.02056).

This narrative addresses all comments for all samples as listed below:

NET JOB NUMBER: 95.01918, 95.01955, 95.02056

SAMPLE ID	NET ID	DATE TAKEN	TIME TAKEN	DATE REC'D	MATRIX
92113-LGAW-0595 +MS/MSD	124047	05/23/1995	13:30	05/25/1995	GROUND WATER
92113-LGSW-0595	124048	05/23/1995	14:05	05/25/1995	GROUND WATER
92113-RD-D-0595	124049	05/23/1995	17:00	05/25/1995	GROUND WATER
92113-OW2D-0595 +MS/MSD	124146	05/24/1995	16:40	05/26/1995	GROUND WATER
92113-FW11D-0595	124147	05/24/1995	16:55	05/26/1995	GROUND WATER
92113-NAI-C1-0595	124277	05/25/1995	10:50	05/26/1995	GROUND WATER
92113-ERT06-0595	124278	05/25/1995	10:30	05/26/1995	GROUND WATER

OCEAN GROUP

NET NATIONAL ENVIRONMENTAL TESTING, INC.®

Cambridge Division
12 Oak Park
Bedford, MA 01730
Tel: (617) 275-3535
Fax: (617) 275-7411

All laboratory comments for the data packages have been summarized in the following tables:

Sample Receipt and Login	TABLE 1
Metals and Cyanide Analyses	NO ANALYSIS REQUESTED
Volatile Organics Analyses	TABLE 3
Semi-Volatile Organics Analyses	NO ANALYSIS REQUESTED
Pesticide/PCB Organics Analyses	NO ANALYSIS REQUESTED
Herbicides Analyses	NO ANALYSIS REQUESTED
General Chemistry Analyses	NO ANALYSIS REQUESTED

These narrative tables are also enclosed with each data package section.

Please find enclosed a diskette of the results for this case.

Thank you for this opportunity to be of service to you. Please do not hesitate to call or write if you have any questions or require further information.

Sincerely,

Kerri M. Cattabriga
Project Manager

enclosures

OCEAN GROUP

ANALYTICAL REPORT

Report To:	Mr. Bob Mullin GEI Consultants/NH Suffolk Building 53 Regional Drive Concord, NH 03301
Project:	Tinkham Project FD Case 1423 Section One

NET Job Number: 95.01918
95.01955
95.02056

National Environmental Testing

NET Atlantic, Inc.
Cambridge Division
12 Oak Park
Bedford, MA 01730

Massachusetts Certification Number
M MA023

TABLE OF CONTENTS

NET® NATIONAL ENVIRONMENTAL TESTING, INC.

Cambridge Division
12 Oak Park
Bedford, MA 01730
Tel: (617) 275-3535
Fax: (617) 275-7411

June 21, 1995

Mr. Bob Mullin
GEI Consultants/NH
Suffolk Building
53 Regional Drive
Concord, NH 03301

RE: Tinkham Project
project# 92113

Dear Mr. Bob Mullin:

Enclosed please find the results of the chemical analyses performed by NET Cambridge Division for the Tinkham Project (FD Case 1423 NET job numbers 95.01918, 95.01955, 95.02056).

This narrative addresses all comments for all samples as listed below:

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92113-RD-D-0595	124049	05/23/1995	17:00	05/25/1995	GROUND WATER
92113-OW2D-0595 +MS/MSD	124146	05/24/1995	16:40	05/26/1995	GROUND WATER
92113-FW11D-0595	124147	05/24/1995	16:55	05/26/1995	GROUND WATER
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92113-ERT06-0595	124278	05/25/1995	10:30	05/26/1995	GROUND WATER

NET NATIONAL ENVIRONMENTAL TESTING, INC.®

Cambridge Division
12 Oak Park
Bedford, MA 01730
Tel: (617) 275-3535
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All laboratory comments for the data packages have been summarized in the following tables:

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General Chemistry Analyses	NO ANALYSIS REQUESTED

These narrative tables are also enclosed with each data package section.

Please find enclosed a diskette of the results for this case.

Thank you for this opportunity to be of service to you. Please do not hesitate to call or write if you have any questions or require further information.

Sincerely,

Kerri M. Cattabriga
Project Manager

enclosures

10003

TABLE 1
SAMPLE RECEIPT & LOGIN

FD 1423

GENERAL COMMENTS: No comments were necessary.

TABLE 3
VOLATILES ORGANICS NARRATIVE SUMMARY
FD 1423

GENERAL COMMENTS: The samples were analyzed using method OLM01.9

Due to software constraints the "0595's" were dropped from the CLIENT ID's.

MANUAL INTEGRATIONS: Manual integrations are performed on standards and samples when the integration is not complete due to peak shape and chromatography. This is confirmed by visual inspection by the analysts. The "M" flag indicates that a manual integration has been performed.

The "Y" flag indicates that the compound was edited on the RTE/MS data system.

#17- Total 1,2-Dichloroethene must be integrated in the initial and continuing calibration standards to include the total area of the cis- and trans- isomers.

SURROGATES: All system monitoring compound recoveries were within the contract required QC limits.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE(s): Two sets of MS/MSD's were analyzed. All results are reported. All spike recoveries were within QC limits for the MS/MSD analysis. All RPDs were within the required limits. No corrective action is required as per the SOW.

BLANKS: A method blank was analyzed for each twelve hour time period on each GC/MS system used for analysis. No blank contained greater than five times the CRQL of Methylene Chloride, Acetone, and 2-Butanone, or greater than or equal to the CRQL of any other volatile target compound.

TUNE: All instrument performance check criteria were met prior to the start of sample analysis.

CALIBRATION: All compounds met the required minimum RF's and maximum RPD's or %D.

INTERNAL STANDARDS: All internal standard areas and retention times were within the QC limits.

HOLDING TIMES: All samples were analyzed within contract required holding times.

DILUTIONS: Two samples required dilutions.

Sample 92113FW11D (NET ID 124147) exceeded standard calibration for Tricloroethene and was reanalyzed with a 1:5 dilution.

Sample 921130W2D (NET ID 124146) exceeded standard calibration for 1,2-Dichloroethene(total) and was reanalyzed with a 1:10 dilution.

pH Values: A pH value of 1 was determined for all of the volatile samples.

NET Cambridge Division

ANALYTICAL REPORT

Report To:	Reported By:
Mr. Bob Mullin	National Environmental Testing
GEI Consultants/NH	NET Atlantic, Incorporated
Suffolk Building	Cambridge Division
53 Regional Drive	12 Oak Park
Concord, NH 03301	Bedford, MA 01730

Report Date: June 21, 1995

NET Job Number: 95.01918, 95.01955, 95.02056

Project: Tinkham Project

NET Client No: 14755

P.O. No: 7341

Collected By: CLIENT

Shipped Via: FEDEX

Job Description: project# 92113

Airbill No: 3763072165

This report has been approved and certified for release by the following staff. Please feel free to call the NET Project Manager at 617-275-3535 with any questions or comments.

Kerri M. Cattabriga
NET Project Manager

Report prepared by
NET Reports Group

Analytical data for the following samples are included in this data report.

SAMPLE ID	NET ID	DATE TAKEN	TIME TAKEN	DATE REC'D	MATRIX
92113-LGAW-0595 +MS/MSD	124047	05/23/1995	13:30	05/25/1995	GROUND WATER
92113-LGSW-0595	124048	05/23/1995	14:05	05/25/1995	GROUND WATER
92113-RD-D-0595	124049	05/23/1995	17:00	05/25/1995	GROUND WATER
92113-OW2D-0595 +MS/MSD	124146	05/24/1995	16:40	05/26/1995	GROUND WATER
92113-FW11D-0595	124147	05/24/1995	16:55	05/26/1995	GROUND WATER
92113-NAI-C1-0595	124277	05/25/1995	10:50	05/26/1995	GROUND WATER
92113-ERT06-0595	124278	05/25/1995	10:30	05/26/1995	GROUND WATER

GS-02050

NET NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

COMPANY GEI CONSULTANTS, INC
ADDRESS 53 REGIONAL DRIVE, CONCORD, NH
PHONE 603 224-7979 FAX 603 224 7990
PROJECT NAME/LOCATION TINKHAM GARAGE/LONDONDERRY
PROJECT NUMBER 92113
PROJECT MANAGER BOB MULLIN

REPORT TO: BOB MULLIN
INVOICE TO: BOB MULLIN
P.O. NO. 7341
NET QUOTE NO.

SAMPLED BY
RICHARD VAN ETTEN (PRINT NAME) — R. Van Ett SIGNATURE
DTK, DAM, JCB (PRINT NAME) — SIGNATURE

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	# and Type of Containers: HCl	NaOH	HNO_3	H_2SO_4	OTHER	ANALYSES: 624 VOCs	MODIFIED 624 VOCs	CLP SOM VOCs
5/25/95	09:10	92113-NAI-M1-0595	AQ	✓		3 VOA					X		
"	09:40	92113-NAI-M2-0595	AQ	✓		3 VOA						X	
"	10:50	92113-NAI-C1-0595	AQ	✓		5 VOA					X		X
"	08:45	92113-NAI-K2-0595	AQ	✓		3 VOA					X		
"	10:30	92113-FW09-0595	AQ	✓		3 VOA					X		
"	10:30	92113-ERT06-0595	AQ	✓		5 VOA					X		X
5/25/95	08:45	92113-WX525-0595	AQ	✓		3 VOA						X	

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes X No ___

Is this work being conducted for regulatory enforcement action? Yes X No ___

Which regulations apply: RCRA ___ NPDES Wastewater ___ UST ___ Drinking Water ___ CERCLA Other X None ___

COMMENTS: MS/MSD IF POSSIBLE

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO FIELD FILTERED? YES / NO
COC SEALS PRESENT AND INTACT? YES / NO VOLATILES FREE OF HEADSPACE? YES / NO
TEMPERATURE UPON RECEIPT: ___ Bottles supplied by NET? YES / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ___ I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS R. Van Ett DATE 5/25/95

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
R. Van Ett	5/25/95	14:00	FED. EX. AIR BILL 37	63072165			

METHOD OF SHIPMENT: FED EX. PRIORITY
REMARKS:

8000

NET NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

95-0195

COMPANY GEI CONSULTANTS, INC.
ADDRESS 53 REGIONAL DR., CONCORD, NH
PHONE 603 224 7979 FAX 603 224 7990
PROJECT NAME/LOCATION TINKHAM GARAGE/ LONDONDERRY
PROJECT NUMBER 92113
PROJECT MANAGER BOB MULLIN

REPORT TO: BOB MULLIN
INVOICE TO: BOB MULLIN
P.O. NO. 7341
NET QUOTE NO.

SAMPLED BY
RICHARD VAN ETTEN (PRINT NAME) R. Van Ett SIGNATURE
DTK; JAB; DAM; PVL (PRINT NAME) SIGNATURE

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	# and Type of Containers: HCl	NaOH	HNO_3	H_2SO_4	OTHER	ANALYSES: 624 VOCs	MODIFIED 624 VOCs	CLP SOW VOCs
5/24/95	09:25	92113 - FW25-0595	AQ	✓		2 VOA					X		
"	09:30	92113 - FW25D-0595	AQ	✓		2 VOA					X		
"	09:30	92113 - NAI-E-0595	AQ	✓		2 VOA					X		
"	09:42	92113 - NAI-A1-0595	AQ	✓		2 VOA					X		
"	10:30	92113 - FW12 - 0595	AQ	✓		3 VOA					X		
"	10:34	92113 - NAI-H-0595	AQ	✓		2 VOA					X		
"	11:20	92113 - FW13 - 0595	AQ	✓		2 VOA					X		
"	11:25	92113 - FW26D-0595	AQ	✓		2 VOA					X		
"	13:10	92113 - FW11 - 0595	AQ	✓		3 VOA						X	
"	14:15	92113 - FW28D-0595	AQ	✓		2 VOA					X		
"	14:35	92113 - FW27 - 0595	AQ	✓		3 VOA						X	
"	14:45	92113 - FW10D-0595	AQ	✓		2 VOA					X		
"	16:50	92113 - FW20 - 0595	AQ	✓		3 VOA					X		
"	16:35	92113 - ERT03-0595	AQ	✓		2 VOA					X		
5/24/95	16:45	92113 OW2D-0595	AQ	✓		5 VOA					X		X

To assist us in selecting the proper method
Is this work being conducted for regulatory compliance monitoring? Yes X No ___
Is this work being conducted for regulatory enforcement action? Yes X No ___
Which regulations apply: RCRA ___ NPDES Wastewater ___ UST ___ Drinking Water ___ CERCLA X Other ___ None ___

COMMENTS
MS/MSD IF POSSIBLE
MS/MSD (CLP) IF POSSIBLE

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO FIELD FILTERED? YES / NO
COC SEALS PRESENT AND INTACT? YES / NO VOLATILES FREE OF HEADSPACE? YES / NO
TEMPERATURE UPON RECEIPT: ___ Bottles supplied by NET? YES / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ___
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS R. Van Ett DATE 5/25/95

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
R. Van Ett	5/25/95	13:00	FED EX - AIR BILL 3763072165		5/26	1000	M McCammon

METHOD OF SHIPMENT: FED EX PRIORITY
REMARKS:

10009

NET NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

COMPANY GET CONSULTANTS, INC
ADDRESS 53 REGIONAL DR., CONCORD, NH
PHONE 603 224 7979 FAX 603-224-7990
PROJECT NAME/LOCATION TINKHAM GARAGE/ LONDONDERRY
PROJECT NUMBER 92113
PROJECT MANAGER BOB MOLLIN

REPORT TO: BOB MOLLIN
INVOICE TO: BOB MOLLIN
P.O. NO. 7341
NET QUOTE NO.

SAMPLED BY (PRINT NAME) R. VAN ETTEN — SIGNATURE R Van Etten
(PRINT NAME) DTK, JCB, DAM, PGL — SIGNATURE

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	# and Type of Containers: HCl	NaOH	HNO_3	H_2SO_4	OTHER	ANALYSES: 624 VOCs	Modified 624 VOCs	CLP SOM VOCs
5/24/95	16:45	92113-ERT04-0595	AQ	✓		2 VOA					X		
"	16:55	92113-FW11D-0595	AQ	✓		6 VOA						X	X
"	14:20	92113-EXGRUN-2-0595	AQ	✓		3 VOA						X	
"	15:10	92113-NAI-F-0595	AQ	✓		3 VOA					X		
"	16:10	92113-NAI-I-0595	AQ	✓		3 VOA					X		
"	17:00	92113-NAI-C3-0595	AQ	✓		2 VOA					X		
"	14:40	92113-EXNHAL-2-0595	AQ	✓		3 VOA						X	
5/24/95	15:20	92113-WX524-0595	AQ	✓		3 VOA						X	

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes X No ___

Is this work being conducted for regulatory enforcement action? Yes X No ___

Which regulations apply: RCRA ___ NPDES Wastewater ___ UST ___ Drinking Water ___ CERCLA Other X None ___

COMMENTS

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO FIELD FILTERED? YES / NO
COC SEALS PRESENT AND INTACT? YES / NO VOLATILES FREE OF HEADSPACE? YES / NO
TEMPERATURE UPON RECEIPT: ___ Bottles supplied by NET? YES / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ___
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS R Van Etten DATE 5/25/95

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
R. Van Etten	5/25/95	13:00	FED EX. AIRBILL 3763072165		5/26	0900	M McCormack

METHOD OF SHIPMENT: FED EX PRIORITY
REMARKS:

PT 1 NAL - V PT 2 - PROJECT GET - V PT ... TOMER - PINK

NET ENVIRONMENTAL TESTING, INC.

95-019/B

COMPANY GEI CONSULTANTS, INC
ADDRESS 53 REGIONAL DRIVE, CONCORD, NH
PHONE 603 224 7979 FAX 603 224 7990
PROJECT NAME/LOCATION TINKHAM GARAGE / LONDONDERRY
PROJECT NUMBER 92113
PROJECT MANAGER BOB MULLIN

REPORT TO: BOB MULLIN
INVOICE TO: BOB MULLIN
P.O. NO. 7341
NET QUOTE NO.

SAMPLED BY
RICHARD VAN ETTEN (PRINT NAME) R. Van Ett SIGNATURE
DAM, PGL, DTK, JAB (PRINT NAME) SIGNATURE

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	# and Type of Containers: HCl	NaOH	HNO_3	H_2SO_4	OTHER	ANALYSES: 624 VOCs	Modified 624 VOCs	CLP SOW VOCs	Total Metals, Zn	COMMENTS
5/23	0850	92113 - FW21D-0595	AQ	✓		2 VOA					X				
" 95	0930	92113 - FW16 -0595	AQ	✓		2 VOA					X				
"	0935	92113 - FW21 -0595	AQ	✓		2 VOA					X				
"	0950	92113 - ERT08 -0595	AQ	✓		2 VOA					X				
"	1035	92113 - MP-L-35-0595	AQ	✓		2 VOA					X				
"	1045	92113 - FW03D -0595	AQ	✓		2 VOA					X				
"	1055	92113 - MP-L-2D-0595	AQ	✓		2 VOA					X				
"	1115	92113 - ERT01-0595	AQ	✓		3 VOA						X			MS/MSD
"	1220	92113 - ERT02 -0595	AQ	✓		3 VOA						X			
"	1245	92113 - FW24D -0595	AQ	✓		2 VOA					X				
"	1730	92113 - WX523 -0595	AQ	✓		2 VOA						X			
"	1310	92113 - MP-L-1S -0595	AQ	✓		2 VOA					X				
"	1330	92113 - LGAW - 0595	AQ	✓		6 VOA		plastic				X	X	X	MS/MSD
"	1340	92113 - MP-I-35-R-0595	AQ	✓		2 VOA					X				
5/23	1405	92113 - LGSW - 0595	AQ	✓		6 VOA		plastic				X	X	X	

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes X No ____

Is this work being conducted for regulatory enforcement action? Yes ____ No X

Which regulations apply: RCRA ____ NPDES Wastewater ____ UST ____ Drinking Water ____ CERCLA Other X None ____

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO FIELD FILTERED? YES / NO
COC SEALS PRESENT AND INTACT? YES / NO VOLATILES FREE OF HEADSPACE? YES / NO
TEMPERATURE UPON RECEIPT: ____ Bottles supplied by NET? YES / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ____
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS ____ DATE ____

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
R. Van Ett	5/24/95	06:30	FEDEX. AIR BILL 222604 2011		5/25	1000	Michael McCormack

METHOD OF SHIPMENT: FED EX.
REMARKS:

10011

PT 1 - ORIGINAL - WHITE PT 2 - NET PROJECT MANAGER - YELLOW PT 3 - CUSTOMER COPY - PINK

NET NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

COMPANY GEI CONSULTANTS INC
ADDRESS 53 REGIONAL DRIVE, CONCORD, NH
PHONE 603 224 7979 FAX 603 224-7990
PROJECT NAME/LOCATION TINKHAM GARAGE / LONDONDERRY
PROJECT NUMBER 92113
PROJECT MANAGER BOB MULLIN

REPORT TO: BOB MULLIN
INVOICE TO: BOB MULLIN
P.O. NO. 7341
NET QUOTE NO.

SAMPLED BY
RICHARD VAN ETTEN (PRINT NAME) — R. Van Etten (SIGNATURE)
DAM; PGL; DTK; JAB (PRINT NAME) — (SIGNATURE)

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	# and Type of Containers: HCl	NaOH	HNO_3	H_2SO_4	OTHER	ANALYSES: 624 VOCs	Modified 624 VOCs	Total Metals Zn	CLP SOW VOCs
5/23	1420	92113 - FW23D - 0595	AQ	✓		2 VOA					X			
"	1430	92113 - FW04 - 0595	AQ	✓		3 VOA						X		
"	1510	92113 - POTWCOMB - 0595	AQ	✓		3 VOA		plastic				X	X	
"	1520	92113 - FW22D - 0595	AQ	✓		2 VOA					X			
"	1650	92113 - FW17 - 0595	AQ	✓		2 VOA					X			
"	1735	92113 - FW08 - 0595	AQ	✓		2 VOA					X			
"	1700	92113 - FW23 - 0595	AQ	✓		2 VOA					X			
"	1800	92113 - NAI-D1 - 0595	AQ	✓		2 VOA					X			
"	1415	92113 - FW05 - 0595	AQ	✓		3 VOA						X		
"	1540	92113 - FW24 - 0595	AQ	✓		2 VOA					X			
"	18:45	92113 - FW08D - 0595	AQ	✓		3 VOA						X		
"	17:00	92113 - RD-D - 0595	AQ	✓	RNS	3 VOA					X			X
"	17:30	92113 - EXGRUD - 1 - 0595	AQ	✓		3 VOA						X		
"	18:35	92113 - EXNHAL - 1 - 0595	AQ	✓		2 VOA						X		
5/23	17:15	92113 - RD-S - 0595	AQ	✓		2 VOA					X			

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes X No ___

Is this work being conducted for regulatory enforcement action? Yes X No ___

Which regulations apply: RCRA ___ NPDES Wastewater ___ UST ___ Drinking Water ___ CERCLA Other X None ___

COMMENTS

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO FIELD FILTERED? YES / NO
COC SEALS PRESENT AND INTACT? YES / NO VOLATILES FREE OF HEADSPACE? YES / NO
TEMPERATURE UPON RECEIPT: ___ Bottles supplied by NET? YES / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ___
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS ___ DATE ___

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
R. Van Etten	5/24/95	06:30	FED EX AIRBILL 222604 2011		5/25	1000	M. McCormack

METHOD OF SHIPMENT: FED EX.
REMARKS:

11112

PT 1 - ORIGINAL - WHITE PT 2 - NET PROJECT MANAGER - YELLOW PT 3 - CUSTOMER COPY - PINK

ORGANIC FLAGS AND SAMPLE SUFFIXES

The following qualifiers have been used for reporting results:

B - The "B" flag indicates that the analyte was found in the associated blank as well as in the sample.

E - The "E" flag indentifies compound concentrations that exceed the calibration range of the GC/MS instrument. For Benzo (b) and Benzo (k) Flouranthene, the calibration range of <u>each peak</u> will be considered separately. Ortho, para, and meta xylene are quantified as two peaks, the calibration range of <u>each peak</u> will be considered separately.

D - If a sample is re-analyzed due to high concentrations and both the original analysis and re-analysis have been reported, the diluted analysis will have the "DL" suffix. All concentration values reported for the diluted analysis will be flagged with a "D".

U - The "U" flag indicates that the compound was analyzed for but not detected. The reported "U" value is the detection limit for the given compound. The value is corrected for dilution and for percent moisture.

J - The "J" flag indicates an estimated value. The flag is used for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral or chromatographic data indicate the presence of a compound that meets the identification criteria but the quantitated value is less than the method quantitation limit.

P - The "P" flag indicates that the quantitated value of a target pesticide/PCB differs by more than 25% on the two GC columns that were reported.

Y - Compound values that are flagged with a "Y" have been edited on our RTE/MS data system.

X - Compound values that are flagged with a "X" have been edited on our Foremaster data reporting system.

The following sample suffixes have been used:

XXXXX = sample number
XXXXXMS = matrix spike sample
XXXXXMSD = matrix spike duplicate sample
XXXXXRE = re-analyzed sample
XXXXXDL = sample analyzed at a secondary dilution

EPA CLP 3/90 Deliverables Inventory

Project Name: GEI Consultants/NH Tinkham Project
NET Job Numbers: 95.01918, 95.01955, 95.02056
FD Number: FD 1423

ANALYTICAL REPORT

Report To: Mr. Bob Mullin
GEI Consultants/NH
Suffolk Building
53 Regional Drive
Concord, NH 03301

Project: Tinkham Project

FD Case 1423

Section Three Volatiles Data Analysis

NET Job Number: 95.01918
95.01955
95.02056

National Environmental Testing

NET Atlantic, Inc.
Cambridge Division
12 Oak Park
Bedford, MA 01730

Massachusetts Certification Number
M MA023

TABLE 3
VOLATILES ORGANICS NARRATIVE SUMMARY
FD 1423

GENERAL COMMENTS: The samples were analyzed using method OLM01.9

Due to software constraints the "0595's" were dropped from the CLIENT ID's.

MANUAL INTEGRATIONS: Manual integrations are performed on standards and samples when the integration is not complete due to peak shape and chromatography. This is confirmed by visual inspection by the analysts. The "M" flag indicates that a manual integration has been performed.

The "Y" flag indicates that the compound was edited on the RTE/MS data system.

#17- Total 1,2-Dichloroethene must be integrated in the initial and continuing calibration standards to include the total area of the cis- and trans- isomers.

SURROGATES: All system monitoring compound recoveries were within the contract required QC limits.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE(s): Two sets of MS/MSD's were analyzed. All results are reported. All spike recoveries were within QC limits for the MS/MSD analysis. All RPDs were within the required limits. No corrective action is required as per the SOW.

BLANKS: A method blank was analyzed for each twelve hour time period on each GC/MS system used for analysis. No blank contained greater than five times the CRQL of Methylene Chloride, Acetone, and 2-Butanone, or greater than or equal to the CRQL of any other volatile target compound.

TUNE: All instrument performance check criteria were met prior to the start of sample analysis.

CALIBRATION: All compounds met the required minimum RF's and maximum RPD's or %D.

INTERNAL STANDARDS: All internal standard areas and retention times were within the QC limits.

HOLDING TIMES: All samples were analyzed within contract required holding times.

DILUTIONS: Two samples required dilutions.

Sample 92113FW11D (NET ID 124147) exceeded standard calibration for Tricloroethene and was reanalyzed with a 1:5 dilution.

Sample 921130W2D (NET ID 124146) exceeded standard calibration for 1,2-Dichloroethene(total) and was reanalyzed with a 1:10 dilution.

pH Values: A pH value of 1 was determined for all of the volatile samples.

EPA CLP 3/90 Deliverables Inventory

Project Name: GEI Consultants/NH Tinkham Project
NET Job Numbers: 95.01918, 95.01955, 95.02056
FD Number: FD 1423

3. VOLATILES DATA

GEI

FD 1423

95.01918
95.01955
95.02056

3A. QC SUMMARY

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CAMBRG Contract: CET

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	92113ERT06	98	90	97	0	0
02	92113FW110	99	96	94	0	0
03	92113FW110DL	98	101	100	0	0
04	92113L0AW	93	95	100	0	0
05	92113L0SW	93	94	100	0	0
06	92113NAICL	101	102	100	0	0
07	92113QW2D	98	93	87	0	0
08	92113QW2DDL	98	98	93	0	0
09	92113RDD	98	97	104	0	0
10	92113L0AWMS	97	97	106	0	0
11	92113L0AWMSD	102	105	108	0	0
12	92113QW2DMS	101	101	96	0	0
13	92113QW2DMSD	99	99	101	0	0
14	VBLK060175K	109	110	112	0	0
15	VBLK060695K	100	100	91	0	0
16	VBLK060495K	99	101	98	0	0

	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

30002

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CANBRO Contract: GEI

Lab Code: CANBRO Case No.: FD1423 SAS No.: SDG No.:

Matrix Spike - EPA Sample No.: 92113LCAW

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	#	QC LIMITS REC.
1,1-Dichloroethene	50.00	0	49.10	98		61-145
Trichloroethene	50.00	0	46.60	93		71-120
Benzene	50.00	4.960	57.10	104		76-127
Toluene	50.00	16.30	61.20	90		76-125
Chlorobenzene	50.00	0	46.00	92		75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.00	50.00	100		2		14	61-145
Trichloroethene	50.00	45.70	91		2		14	71-120
Benzene	50.00	55.20	100		4		11	76-127
Toluene	50.00	62.00	91		1		13	76-125
Chlorobenzene	50.00	46.00	93		1		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: 124047,V,,GEI
CLP,FD1423,,92113-LCAW-0595,L,A,ALS4 5ML JPT .01918

30003

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix Spike - EPA Sample No.: 921130W2D

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	500.0	14.90	555.0	108	61-145
Trichloroethene	500.0	39.00	504.0	93	71-120
Benzene	500.0	9.200	494.0	97	76-127
Toluene	500.0	0	488.0	98	76-125
Chlorobenzene	500.0	7.450	488.0	96	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	500.0	578.0	113	5	14	61-145
Trichloroethene	500.0	526.0	97	4	14	71-120
Benzene	500.0	517.0	102	5	11	76-127
Toluene	500.0	488.0	98	0	13	76-125
Chlorobenzene	500.0	487.0	96	0	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: 124146,V,EPA,GEI
CLP,FD1423,,92113-0W2D--0595,L,W,ALS5 5ML TOM .01

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK060195K

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Lab File ID: K7993 Lab Sample ID: 6305-053095

Date Analyzed: 06/01/95 Time Analyzed: 1244

GC Column: CAP ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: HP5970A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	92113LGAW	124047	K7996	1632
02	92113LGSW	124048	K7999	1908
03	92113RDD	124049	K8000	1908
04	92113LGAWMS	124047MS	K7997	1711
05	92113LGAWMSD	124047MSD	K7998	1750

COMMENTS: 6305-053095, V.I. BLANK
CLP, 10000, VBLK060195K, L/W, AL313 5ML JPT

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK060395K

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: F01423 SAS No.: SDG No.:

Lab File ID: K8048 Lab Sample ID: 6305-053095

Date Analyzed: 06/03/95 Time Analyzed: 1058

GC Column: CAP ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: HP5970K

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	92113FW11D	124147	K8054	1538
02	92113DW2D	124146	K8051	1341

COMMENTS: 6305-053095, VOA BLANK
CLP, 10000, VBLK060395K, L.S. ALS2 5ML TOM

30006

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK060495K

Lab Name: CAMBRG Contract: OEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Lab File ID: K8081 Lab Sample ID: 6305-053095

Date Analyzed: 06/04/95 Time Analyzed: 0928

GC Column: CAP ID: 0.530(mm) Heated Purge: (Y/N) N

Instrument ID: HP5970K

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	92113ER F06	124278	K8088	1438
02	92113FW110DL	124147DL	K8086	1320
03	92113NA10L	124277	K8087	1359
04	92113DW20DL	124146DL	K8083	1118
05	92113DW20MS	124146MS	K8084	1202
06	92113DW20MSD	124146MSD	K8085	1241

COMMENTS: 6305-053095, VBLK060495K, L, W, AL82 5ML TOM

CLP: 10000: VBLK060495K, L, W, AL82 5ML TOM

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: F01423 SAS No.: SDG No.:

Lab File ID: K7965 BFB Injection Date: 05/31/95

Instrument ID: HP5970X BFB Injection Time: 0942

GC Column: CAP ID: 0.530(mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	13.7
75	30.0 - 66.0% of mass 95	38.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	85.4
175	4.0 - 9.0% of mass 174	6.5 (7.6)1
176	93.0 - 101.0% of mass 174	85.0 (99.5)1
177	5.0 - 9.0% of mass 176	5.0 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	6302-052995	K7967	05/31/95	1159
02	VSTD200	6302-052995	K7969	05/31/95	1426
03	VSTD100	6302-052995	K7970	05/31/95	1603
04	VSTD020	6302-052995	K7971	05/31/95	1643
05	VSTD010	6302-052995	K7972	05/31/95	1722

30008

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CAMBRG Contract: CEI

Lab Code: CAMBRG Case No.: FO1423 SAS No.: SDG No.:

Lab File ID: K7988 BFB Injection Date: 06/01/95

Instrument ID: HP5970K BFB Injection Time: 0946

GC Column: CAP ID: 0.530(mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	13.1
75	30.0 - 66.0% of mass 95	35.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	84.7
175	4.0 - 9.0% of mass 174	6.4 (7.5)1
176	93.0 - 101.0% of mass 174	92.2 (97.1)1
177	5.0 - 9.0% of mass 176	5.8 (7.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	5303-052295	K7990	06/01/95	1136
02	VBLK06017SK	5305-053095	K7993	06/01/95	1244
03	92113LGAW	124047	K7996	06/01/95	1632
04	92113LGAWMS	124047MS	K7997	06/01/95	1711
05	92113LGAWMSD	124047MSD	K7998	06/01/95	1750
06	92113LGSW	124048	K7999	06/01/95	1908
07	92113RUN	124049	K8000	06/01/95	1908

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1120 SAS No.: SDG No.:

Lab File ID: K0046 BFB Injection Date: 06/03/95

Instrument ID: HP59970K BFB Injection Time: 0914

GC Column: CAP ID: 0.530(mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	13.6
75	30.0 - 66.0% of mass 95	37.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	78.7
175	4.0 - 9.0% of mass 174	6.1 (7.7)1
176	93.0 - 101.0% of mass 174	77.5 (98.5)1
177	5.0 - 9.0% of mass 176	5.3 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	5305-052295	K0047	06/03/95	0940
02	VBLK06032SK	0600-060395	K0048	06/03/95	1058
03	92115DW2D	124146	K0051	06/03/95	1341
04	92117FW11D	124147	K0054	06/03/95	1538

30010

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CANBRO Contract: GEI

Lab Code: CANBRO Case No.: FD1423 SAS No.: SDG No.:

Lab File ID: K8079 BFB Injection Date: 06/04/95

Instrument ID: HP5970K BFB Injection Time: 0800

GC Column: CAP ID: 0.530(mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	13.7
75	30.0 - 66.0% of mass 95	38.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	50.0 - 120.0% of mass 95	78.4
175	4.0 - 9.0% of mass 174	5.6 (7.2)1
176	93.0 - 101.0% of mass 174	78.4 (100.0)1
177	5.0 - 9.0% of mass 176	5.0 (6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	6505-050695	K8080	06/04/95	0928
02	VBLK06049EK	6505-060695	K8081	06/04/95	0928
03	92113CHCBDL	124146DL	K8083	06/04/95	1118
04	92113FWDBMS	124146MS	K8084	06/04/95	1202
05	92113DUPDMSD	124146MSD	K8085	06/04/95	1241
06	92113FWETDL	124147DL	K8086	06/04/95	1320
07	92113NAICL	124277	K8087	06/04/95	1359
08	92113ERT06	124278	K8088	06/04/95	1438

30011

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Lab File ID (Standard): K7990 Date Analyzed: 06/01/95

Instrument ID: HP5970K Time Analyzed: 1136

GC Column: CAP ID: 0.530 (mm) Heated Purge: (Y/N) N

	IS1(BCM) AREA	#	RT	#	IS2(DFB) AREA	#	RT	#	IS3(CBZ) AREA	#	RT	#
12 HOUR STD	88100		11.09		165000		14.22		129000		22.00	
UPPER LIMIT	176200		11.59		330000		14.72		258000		22.50	
LOWER LIMIT	44050		10.59		82500		13.72		64500		21.50	
EPA SAMPLE NO												
01 9211SLGAW	92000		11.47		164000		14.24		136000		22.04	
02 9211SLGBW	94400		11.49		157000		14.22		125000		22.00	
03 9211SRDD	88400		11.49		163000		14.22		128000		22.00	
04 9211SLGAWMS	97000		11.49		154000		14.22		127000		22.00	
05 9211SLGAWSD	88500		11.44		161000		14.22		129000		22.00	
06 VBLK060194A	99400		11.44		170000		14.22		134000		22.00	

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

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

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

30012

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: F01423 SAS No.: SDG No.:

Lab File ID (Standard): K8047 Date Analyzed: 06/03/95

Instrument ID: HP5970K Time Analyzed: 0940

GC Column: CAP ID: 0.530 (mm) Heated Purge: (Y/N) N

	IS1(DCM) AREA	#	RT	#	IS2(DFB) AREA	#	RT	#	IS3(CBZ) AREA	#	RT	#
12 HOUR STD	28500		11.44		165000		14.22		133000		22.02	
UPPER LIMIT	77000		11.94		330000		14.72		266000		22.52	
LOWER LIMIT	19250		10.94		82500		13.72		66500		21.52	
EPA SAMPLE NO.												
01 92113FW11D	34600		11.44		144000		14.22		120000		22.02	
02 92113DWED	36700		11.42		162000		14.20		129000		22.00	
03 VBLK060395K	27300		11.39		150000		14.17		125000		22.00	

IS1 (DCM) = Dichloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

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

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

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAMBRG Contract: OEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Lab File ID (Standard): K8080 Date Analyzed: 06/04/95

Instrument ID: HP5970A Time Analyzed: 0828

GC Column: CAP ID: 0.530(mm) Heated Purge: (Y/N) N

		IS1(BCM)			IS2(DFB)			IS3(CBZ)		
		AREA	#	RT	AREA	#	RT	AREA	#	RT
	12 HOUR STD	38700		11.42	167000		14.19	132000		21.99
	UPPER LIMIT	77400		11.92	334000		14.69	264000		22.49
	LOWER LIMIT	19350		10.92	83500		13.69	66000		21.49
	EPA SAMPLE NO.									
01	92113ERT0%	34700		11.44	148000		14.22	118000		22.02
02	92113FW1DDL	33800		11.44	140000		14.22	115000		22.00
03	92113NAIDL	34400		11.44	148000		14.22	120000		22.00
04	92113DW2DDL	33500		11.37	170000		14.19	137000		21.99
05	92113DW2DMS	36900		11.42	157000		14.19	125000		21.99
06	92113DW2DMSD	34200		11.44	145000		14.22	120000		22.02
07	VBLK060495K	38100		11.39	161000		14.17	133000		22.00

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

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

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

3B. SAMPLE DATA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

92113ERT06

Lab Name: CAMBRO Contract: GEI

Lab Code: CAMBRO Case No.: F01423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124278

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8088

Level: (low/med) LOW Date Received: 05/26/95

% Moisture: not dec. Date Analyzed: 06/04/95

GC Column: CAP ID: 0.530 (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	54	
540-59-0	1,2-Dichloroethene (total)	3	JY
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	8	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	7	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	6	J
108-90-7	Chlorobenzene	2	J
100-41-4	Ethylbenzene	60	
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	18	Y

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

9211BERT06

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124278

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8088

Level: (low/med) LOW Date Received: 05/26/95

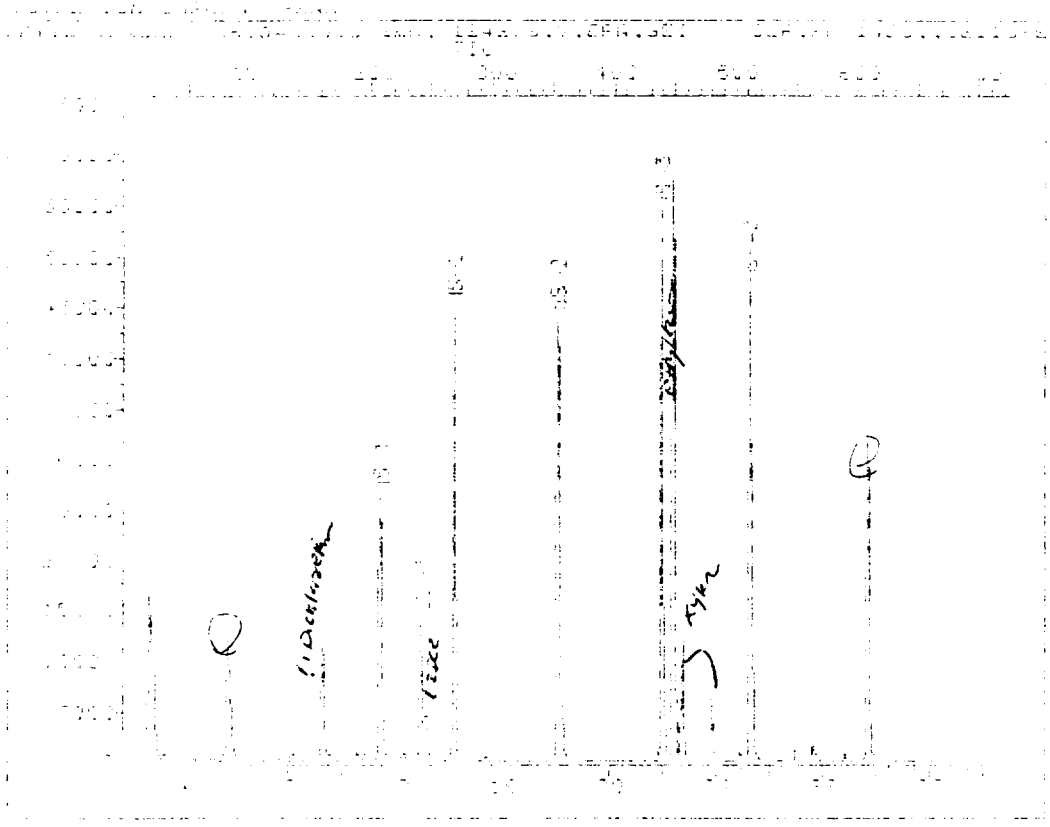
% Moisture: not dec Date Analyzed: 06/04/95

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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.	354234	Ethane, 1,2-dichloro-1,1,2-t	5.73	31	JN
2.	127184	Tetrachloroethene	10.84	80	JN
3.	74953	Bromomethanethiol	11.44	35	JN
4.	95501	Benzene, 1,2-dichloro	29.72	32	JN



QUANT REPORT

Operator ID: DOUG Quant Rev: 6 Quant Time: 950604 15:14
Output File: `K8088::K2 Injected at: 950604 14:38
Data File: >K8088::L2 Dilution Factor: 1.00000
Name: 124278,V,EPA,GEI
Misc: CLP,FD 1423,,,2113-ERT06-05955,L,W,ALS6 5ML TOM .0

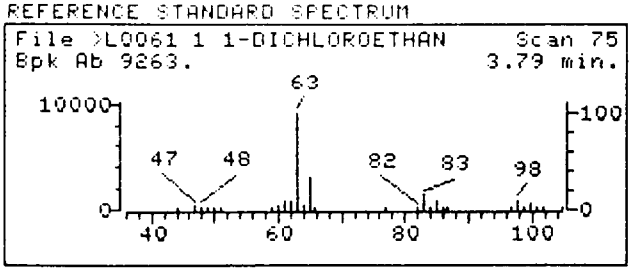
ID File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950604 12:56

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	11.44	207	34745	50.00	UG/L	96
12)	C050 1,1-DICHLOROETHANE	9.30	160	54486	53.46	UG/L	97
17)	C053 TOTAL-1,2-DICHLOROETHENE	8.20	136	1940M	2.61	UG/L	95
19)	C065 1,2-DICHLOROETHANE	13.17	245	6064	8.04	UG/L	92
20)	CS15 D4-1,2-DICHLOROETHANE SS1	12.99	241	34973	48.33	UG/L	92
24)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.22	268	147753	50.00	UG/L	100
35)	C165 BENZENE	13.12	244	12254	7.20	UG/L	100
38)	*CI20 D5-CHLOROBENZENE IS-3	22.01	439	118012	50.00	UG/L	100
43)	CS05 D-8 TOLUENE (SS-2)	18.09	353	119687	49.25	UG/L	89
44)	C230 TOLUENE	18.27	357	13471	5.99	UG/L	99
45)	C235 CHLOROBENZENE	22.10	441	3265	1.59	UG/L	97
46)	C240 ETHYL BENZENE	22.42	448	51864	59.58	UG/L	98
47)	CS10 BROMOFLUOROBENZENE (SS-3)	25.29	511	64972	49.06	UG/L	83
51)	C250 TOTAL XYLENES	22.78	456	20577M	18.52	UG/L	98

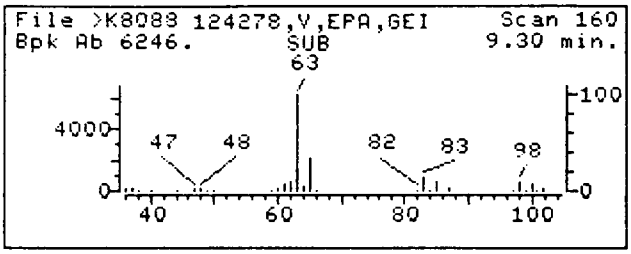
* Compound is ISTD

30019

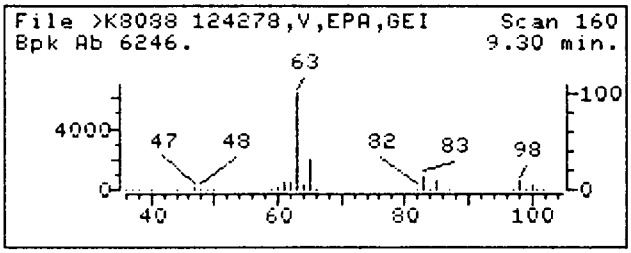
REFERENCE STANDARD SPECTRUM

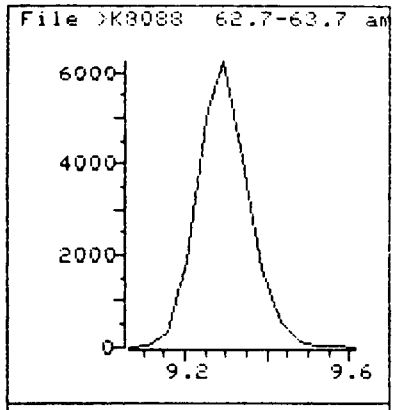


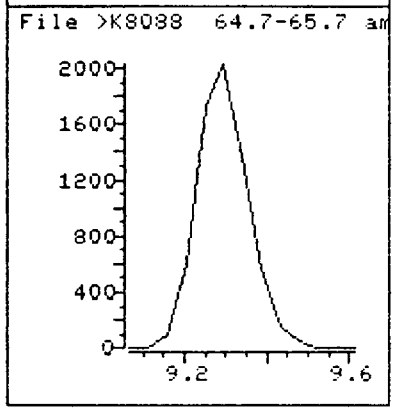
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



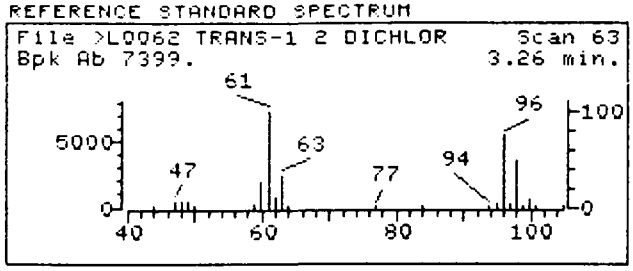




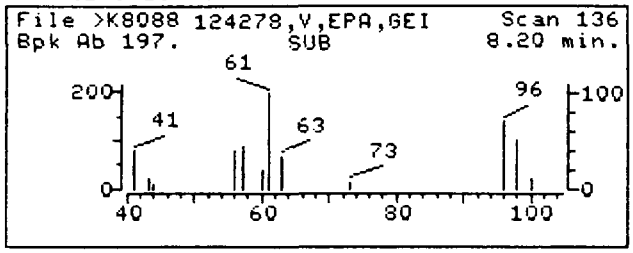
Data File: >K8088::L2 Quant Output File: ^K8088::K2
Name: 124278,V,EPA,GEI
Misc: CLP,FD 1423,,92113-ERT06-05955,L,W,ALS6 5ML TOM .0
Quant Time: 950604 15:14 Quant ID File: KVOAID::DB
Injected at: 950604 14:38 Last Calibration: 950604 12:56

Compound No: 12
Compound Name: C050 1,1-DICHLOROETHANE
Scan Number: 160
Retention Time: 9.30 min.
Quant Ion: 63.0
Area: 54486
Concentration: 53.46 UG/L
q-value: 97

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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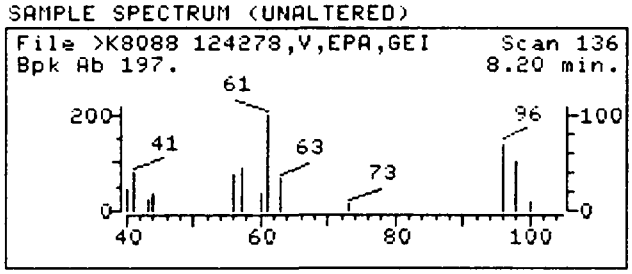
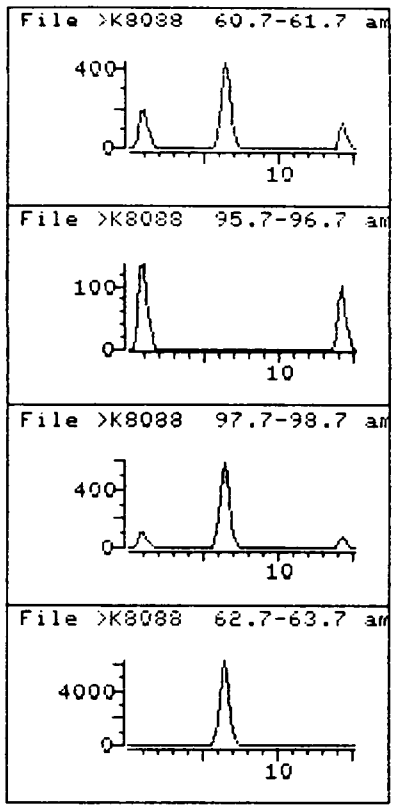


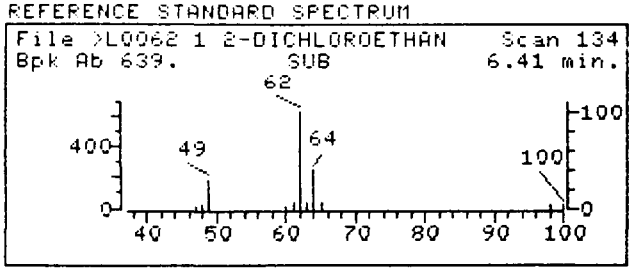


Data File: >K8088::L2 Quant Output File: ^K8088::K2
Name: 124278,V,EPA,GEI
Misc: CLP,FD 1423,,72113-ERT06-05955,L,W,ALS6 5ML TOM .0
Quant Time: 950604 15:14 Quant ID File: KVOATD::DB
Injected at: 950604 14:38 Last Calibration: 950604 12:56

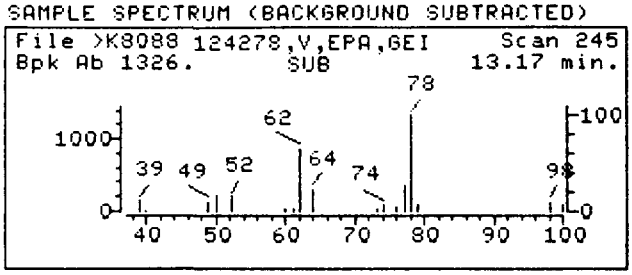
Compound No: 17
Compound Name: C053 TOTAL-1,2-DICHLOROETHENE
Scan Number: 136
Retention Time: 8.20 min.
Quant Ion: 96.0
Area: 1940M
Concentration: 2.61 UG/L
q-value: 95

30021

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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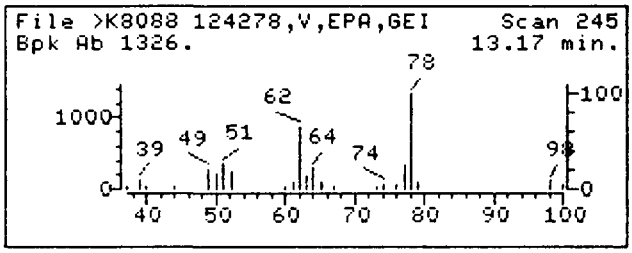
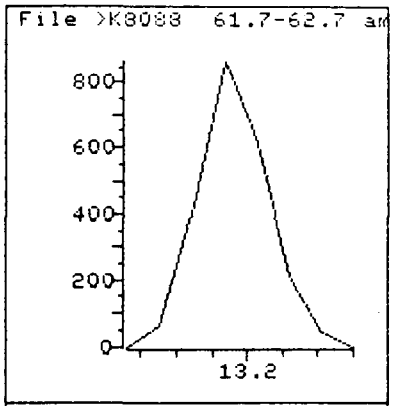
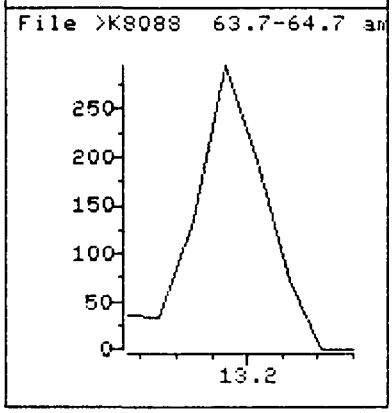
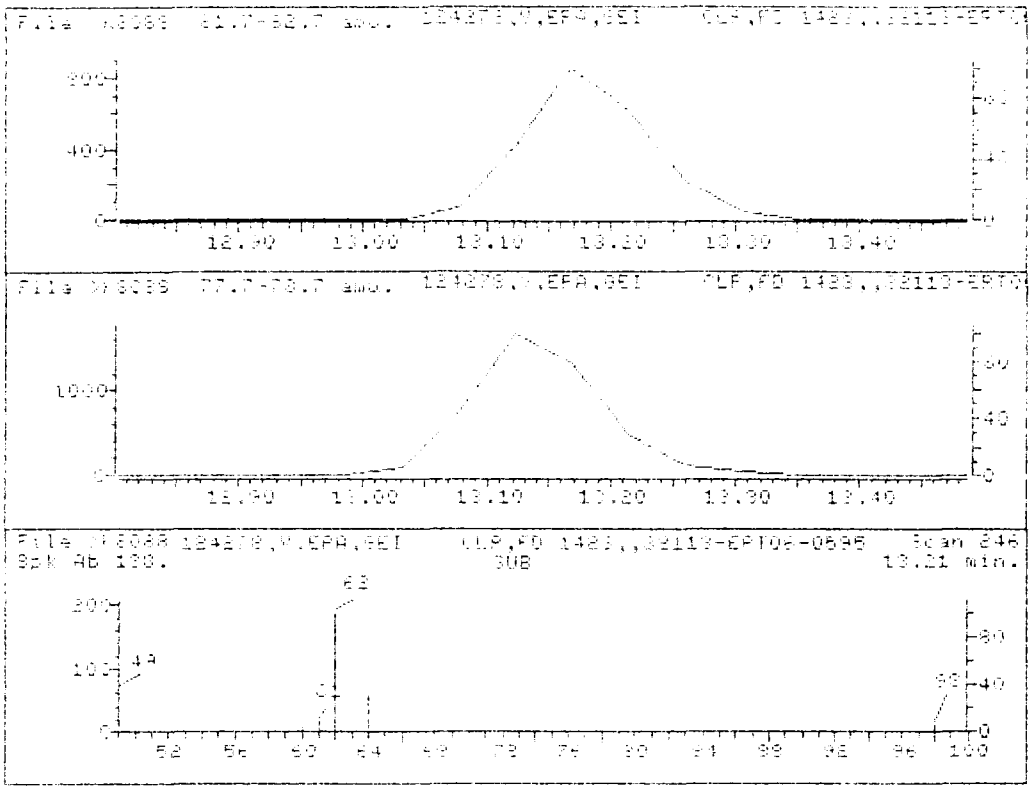






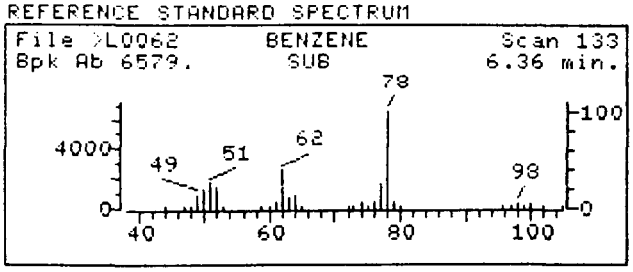
Data File: >K8088::L2 Quant Output File: ^K8088::K2
Name: 124278,V,EPA,GEI
Misc: CLP,FD 1423,,V2113-ERT06-05955,L,W,ALS6 5ML TOM .0
Quant Time: 950604 15:14 Quant ID File: KVOAID::DB
Injected at: 950604 14:38 Last Calibration: 950604 12:56

Compound No: 19
Compound Name: C065 1,2-DICHLOROETHANE
Scan Number: 245
Retention Time: 13.17 min.
Quant Ion: 62.0
Area: 6064
Concentration: 8.04 UG/L
q-value: 92

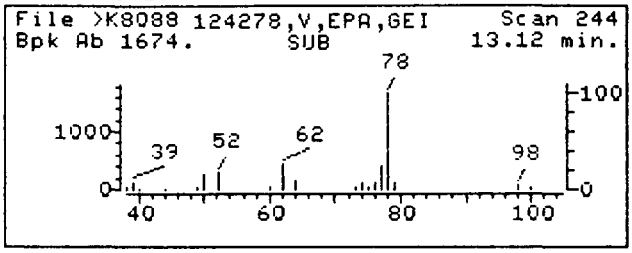

400
0
12.90
13.00
13.10
13.20
13.30
13.40
1000
0
12.90
13.00
13.10
13.20
13.30
13.40
100
0
52
54
60
64
70
74
80
84
90
94
96
100

1,2 DCE

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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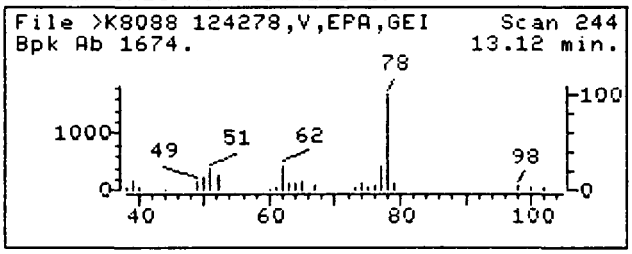
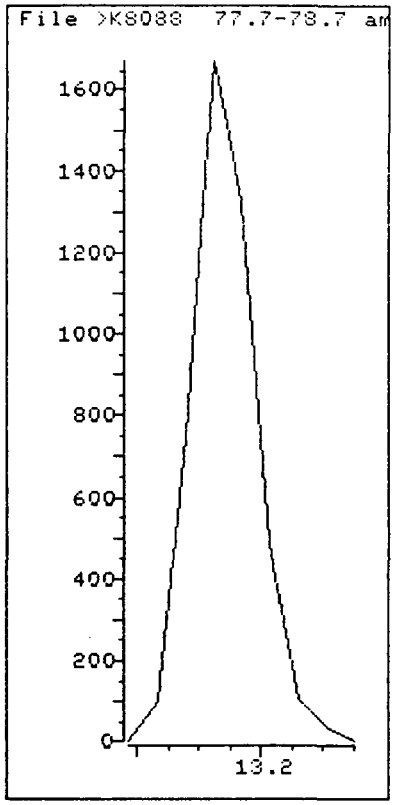


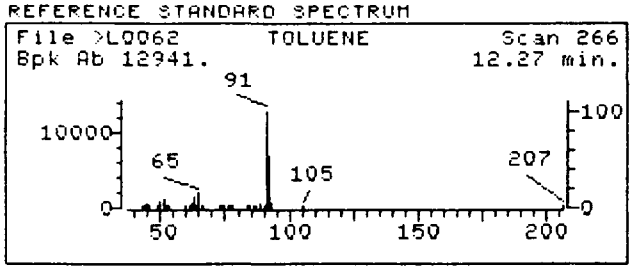


Data File: >K8088::L2 Quant Output File: ^K8088::K2
Name: 124278,V,EPA,GEI
Misc: CLP,FD 1423,,Ø2113-ERT06-05955,L,W,ALS6 5ML TOM .0
Quant Time: 950604 15:14 Quant ID File: KVOAID::DB
Injected at: 950604 14:38 Last Calibration: 950604 12:56

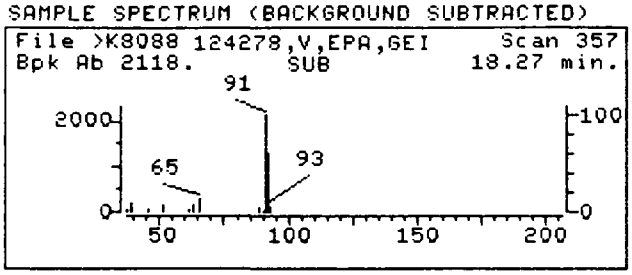
Compound No: 35
Compound Name: C165 BENZENE
Scan Number: 244
Retention Time: 13.12 min.
Quant Ion: 78.0
Area: 12254
Concentration: 7.20 UG/L
q-value: 100

30024

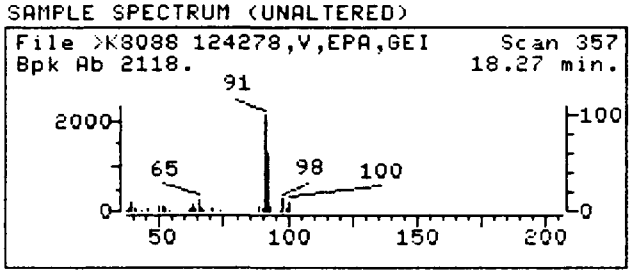
REFERENCE STANDARD SPECTRUM

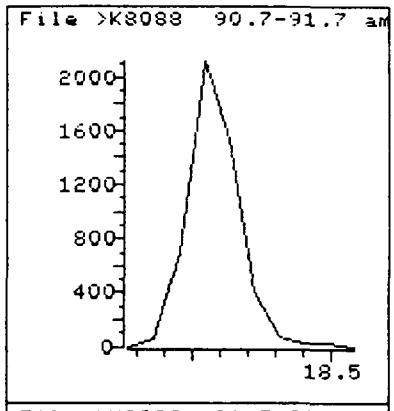


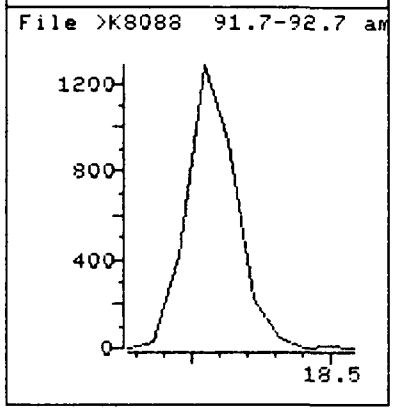
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





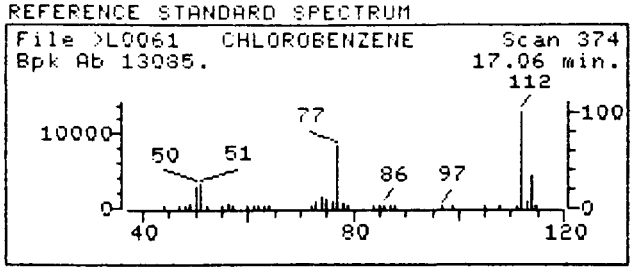


Data File: >K8088::L2 Quant Output File: ^K8088::K2
Name: 124278,V,EPA,GEI
Misc: CLP,FD 1423,,72113-ERT06-05955,L,W,ALS6 5ML TOM .0
Quant Time: 950604 15:14 Quant ID File: KVOAID::DB
Injected at: 950604 14:38 Last Calibration: 950604 12:56

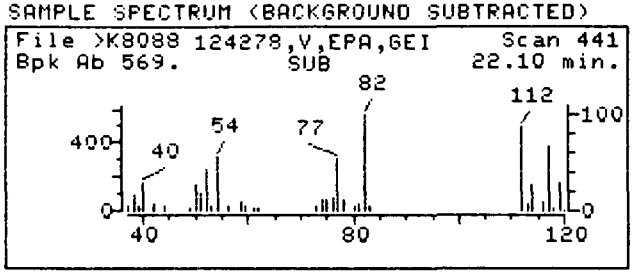
Compound No: 44
Compound Name: C230 TOLUENE
Scan Number: 357
Retention Time: 18.27 min.
Quant Ion: 91.0
Area: 13471
Concentration: 5.99 UG/L
q-value: 99

30025

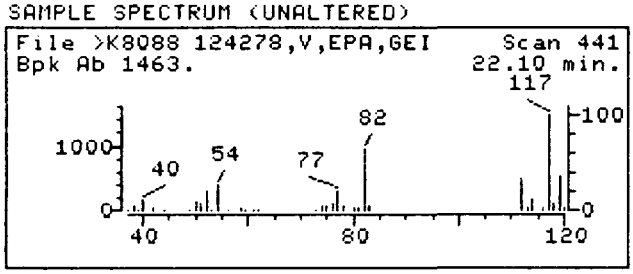
REFERENCE STANDARD SPECTRUM

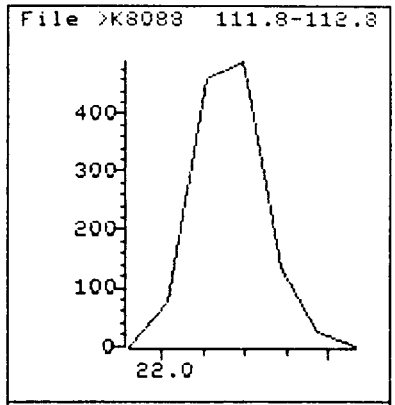


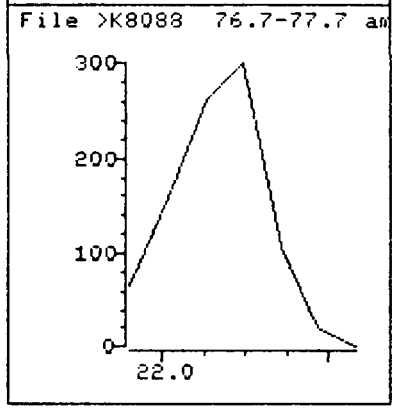
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



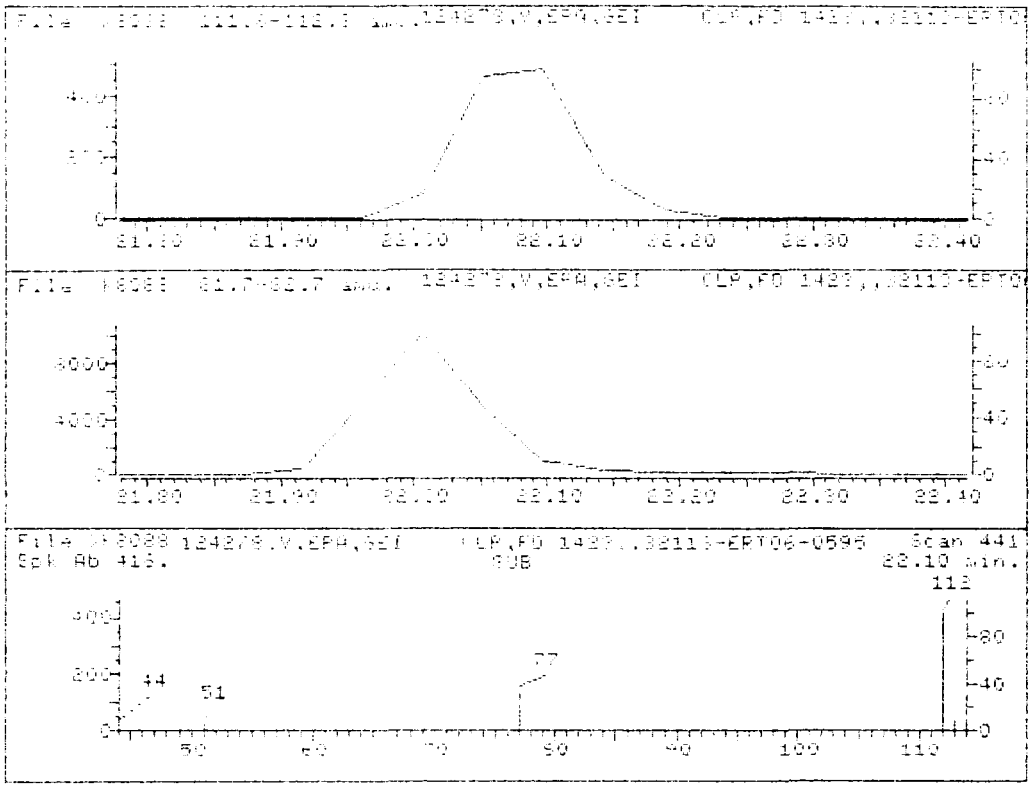




Data File: >K8088::L2 Quant Output File: ^K8088::K2
Name: 124278,V,EPA,GEI
Misc: CLP,FD 1423,02113-ERT06-05955,L,W,ALS6 5ML TOM .0
Quant Time: 950604 15:14 Quant ID File: KVOAID::DB
Injected at: 950604 14:38 Last Calibration: 950604 12:56

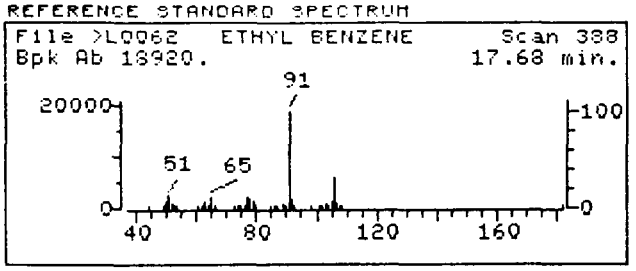
Compound No: 45
Compound Name: C235 CHLOROBENZENE
Scan Number: 441
Retention Time: 22.10 min.
Quant Ion: 112.1
Area: 3265
Concentration: 1.59 UG/L
q-value: 97

30026

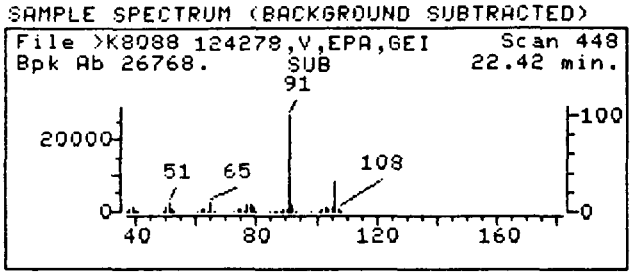


Chrysene

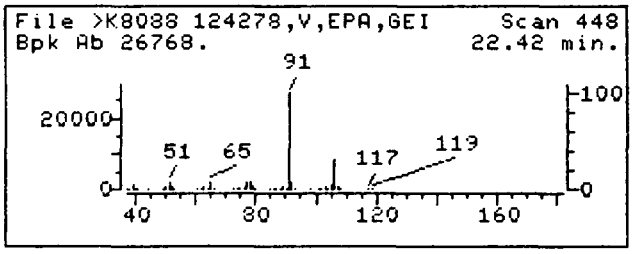
REFERENCE STANDARD SPECTRUM

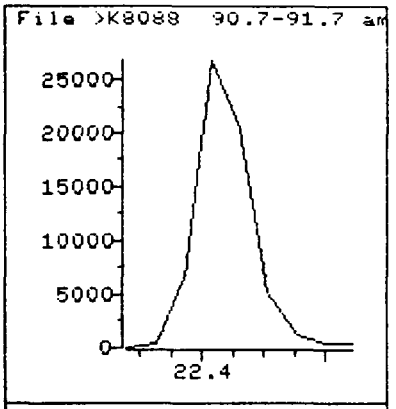


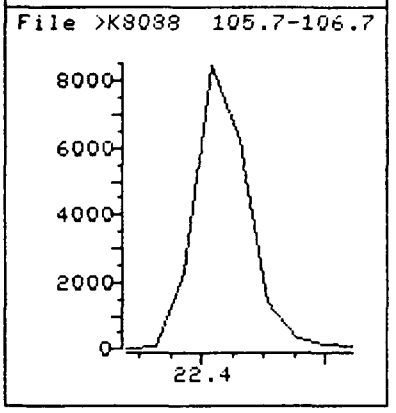
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



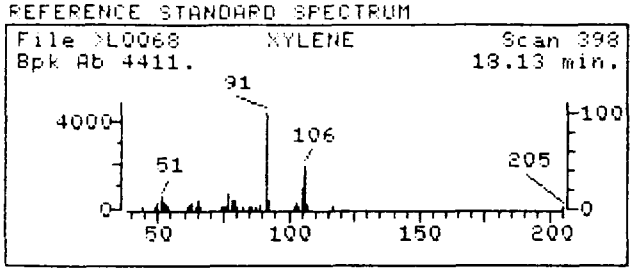




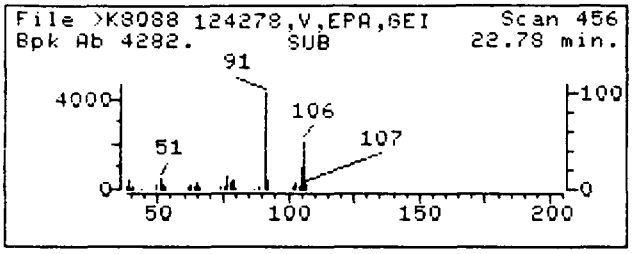
Data File: >K8088::L2 Quant Output File: ^K8088::K2
Name: 124278,V,EPA,GEI
Misc: CLP,FD 1423,,2113-ERT06-05955,L,W,ALS6 5ML TOM .0
Quant Time: 950604 15:14 Quant ID File: KVOAID::DB
Injected at: 950604 14:38 Last Calibration: 950604 12:56

Compound No: 46
Compound Name: C240 ETHYL BENZENE
Scan Number: 448
Retention Time: 22.42 min.
Quant Ion: 106.0
Area: 51864
Concentration: 59.58 UG/L
q-value: 98

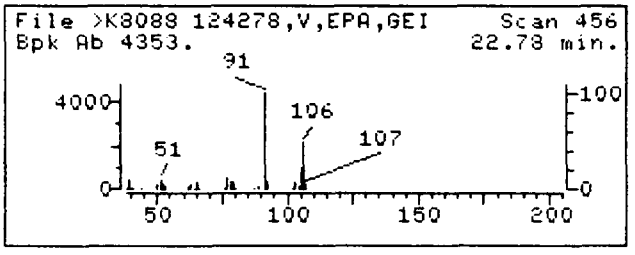
REFERENCE STANDARD SPECTRUM

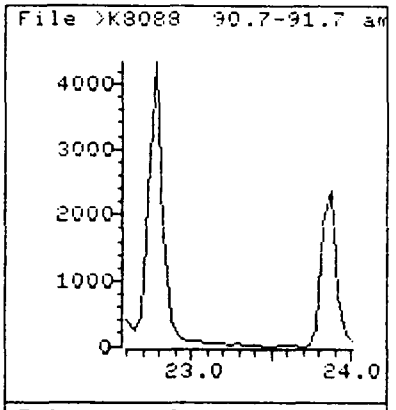


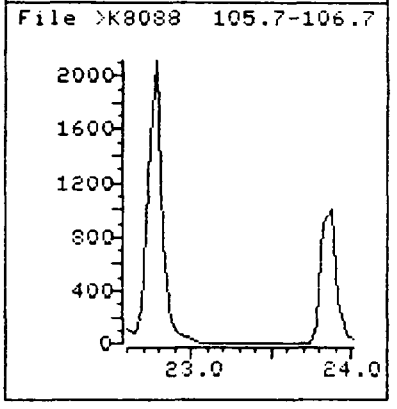
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >K8088::L2 Quant Output File: ^K8088::K2
Name: 124278,V,EPA,GEI
Misc: CLP,FD 1423,32113-ERT06-05955,L,W,ALS6 5ML TOM .0
Quant Time: 950604 15:14 Quant ID File: KVOAID::DB
Injected at: 950604 14:38 Last Calibration: 950604 12:56

Compound No: 51
Compound Name: C250 TOTAL XYLENES
Scan Number: 456
Retention Time: 22.78 min.
Quant Ion: 106.0
Area: 20577M
Concentration: 18.52 UG/L
q-value: 98

MS data file header from : >K8088

Sample: 124278,V,EPA,GEI Operator: DOUG SUPER GRP. 6/04/95 14:38
Misc : CLP,FD 1423,,32113-ERT06-05955,L,W,ALS6 5ML TOM .0
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 0
Method file: KVOA Tuning file: MTUNEK No. of extra records: 2
Source temp.: 0 Analyzer temp.: 220 Transfer line temp. : 0

Chromatographic temperatures :	37.	150.	150.	0.	0.
Chromatographic times, min. :	7.0	4.0	3.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	5.0	0.0	.2	0.0

>K8088 124278,V,EPA,GEI CLP,FD 1423,,32113-ERT06-05955,L,W,ALS6

35.0! 300.0 CLP TIC
Upslope: .20 Area Reject: 21569. Max Peaks: 3 Bunching: 1
Dnslope: 0.00 Results File IK8088 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	2.83	15	18	27	16271	211381	209610	100.00	37.897
2	5.74	78	82	95	12795	139432	135806	64.79	24.553
3	29.71	605	608	620	32233	212612	207691	99.08	37.550

Sum of corrected areas: 553107.

Summary of Unknowns PBM Library Search and Quantitation

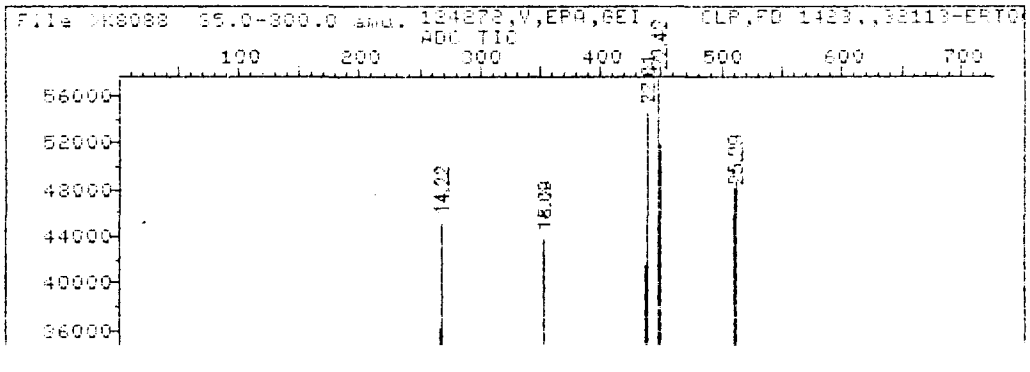
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	215691.	11.44	2.05 - 12.83
2	50.0	304576.	14.22	12.83 - 18.11
3	50.0	322777.	22.01	18.11 - 35.08

'^' Dilution Factor = 1.00 U dilf = 1.00
Method called for 1000.000 g or mL This sample was 1000.000 g or mL

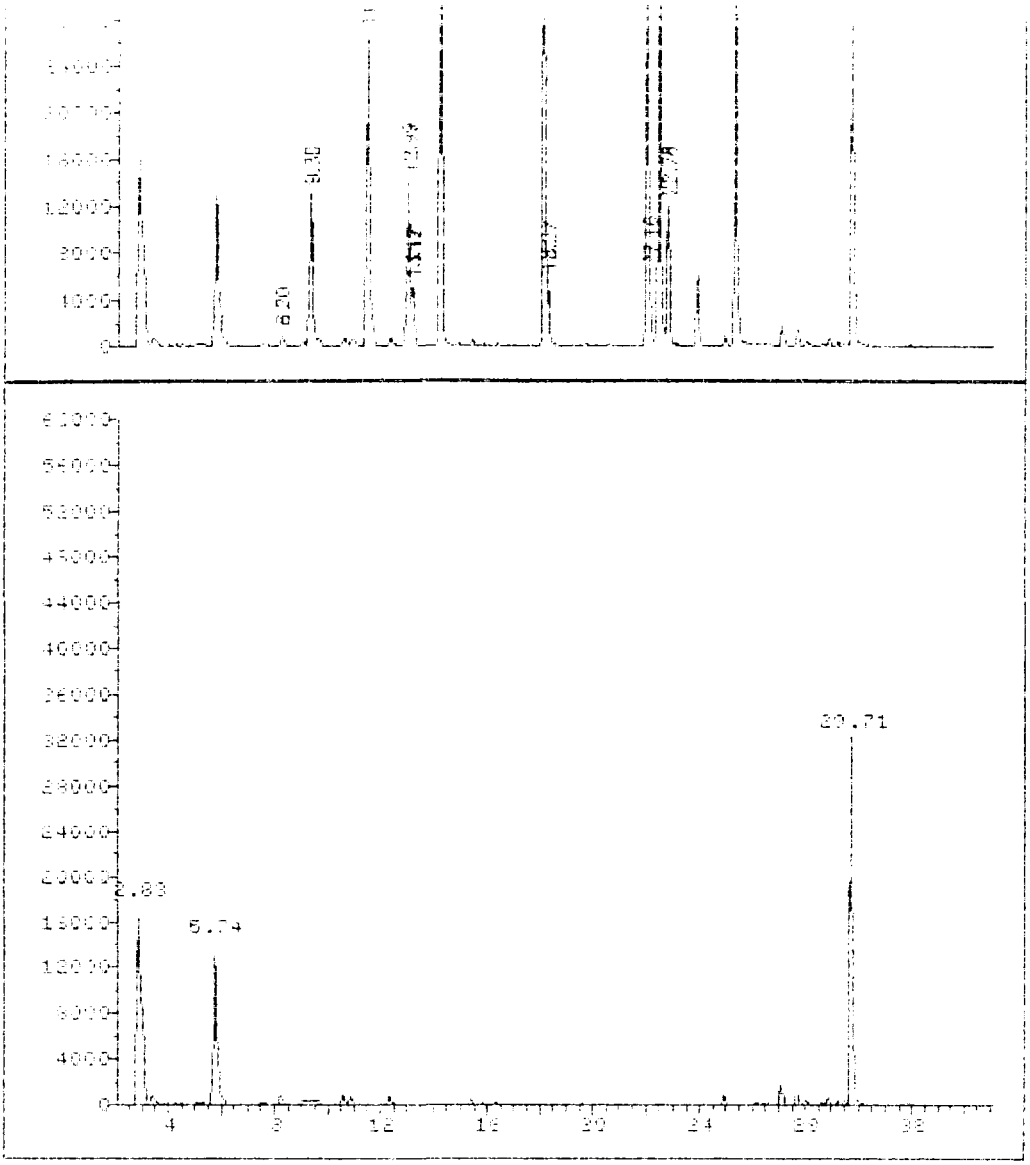
Correction Factor = 1.00

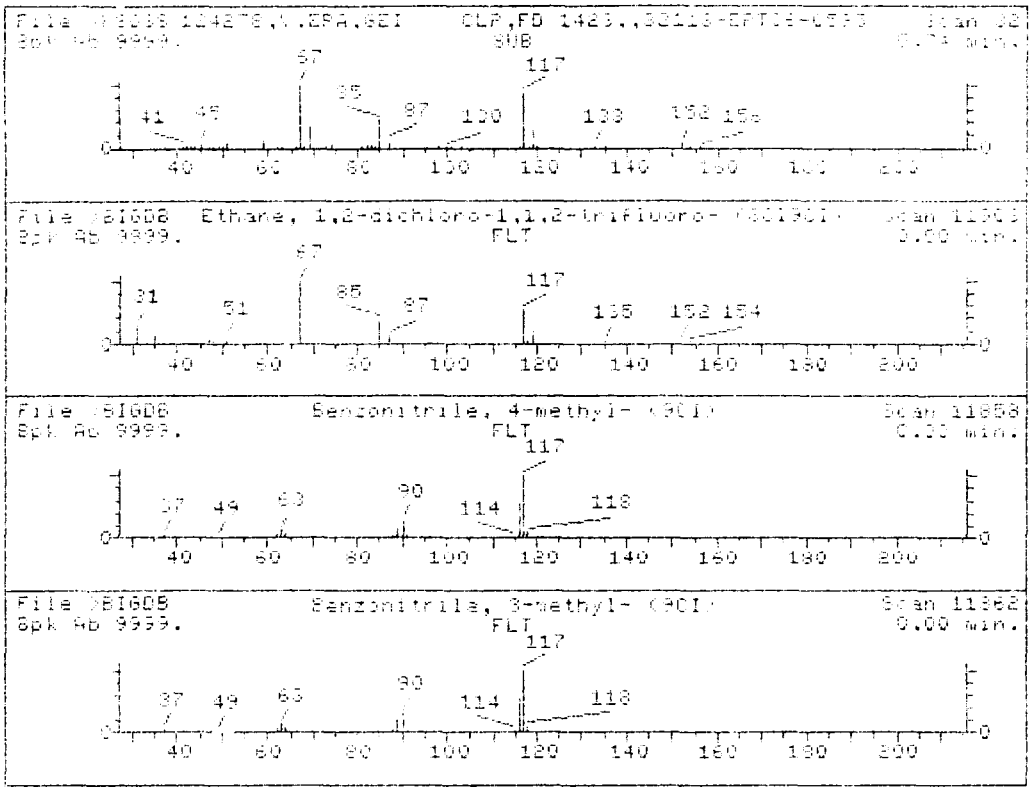
$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unknown} * \text{Correction Factor}$$

3:16 PM THU., 8 JUNE, 1995



30030


2.83
5.74
20.71



. UNKNOWN #,2
AREA = 135806.0 TENTATIVE CONCENTRATION IS 31.00

1.	Ethane, 1,2-dichloro-1,1,2-trifluoro- (8CI9CI)	152 C2HCl2F3
2.	Benzonitrile, 4-methyl- (9CI)	117 C8H7N
3.	Benzonitrile, 3-methyl- (9CI)	117 C8H7N
4.	Benzonitrile, 2-methyl- (9CI)	117 C8H7N

Sample file: >K8088 Spectrum #: 82
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	24*	354234	11903	"BIGDB	31	78	0	0	65	55	7	24
2.	11*	104858	11858	"BIGDB	25	74	3	0	87	65	2	13
3.	11*	620224	11862	"BIGDB	25	74	3	0	87	65	2	13
4.	11*	529191	11861	"BIGDB	25	75	3	0	87	65	2	13

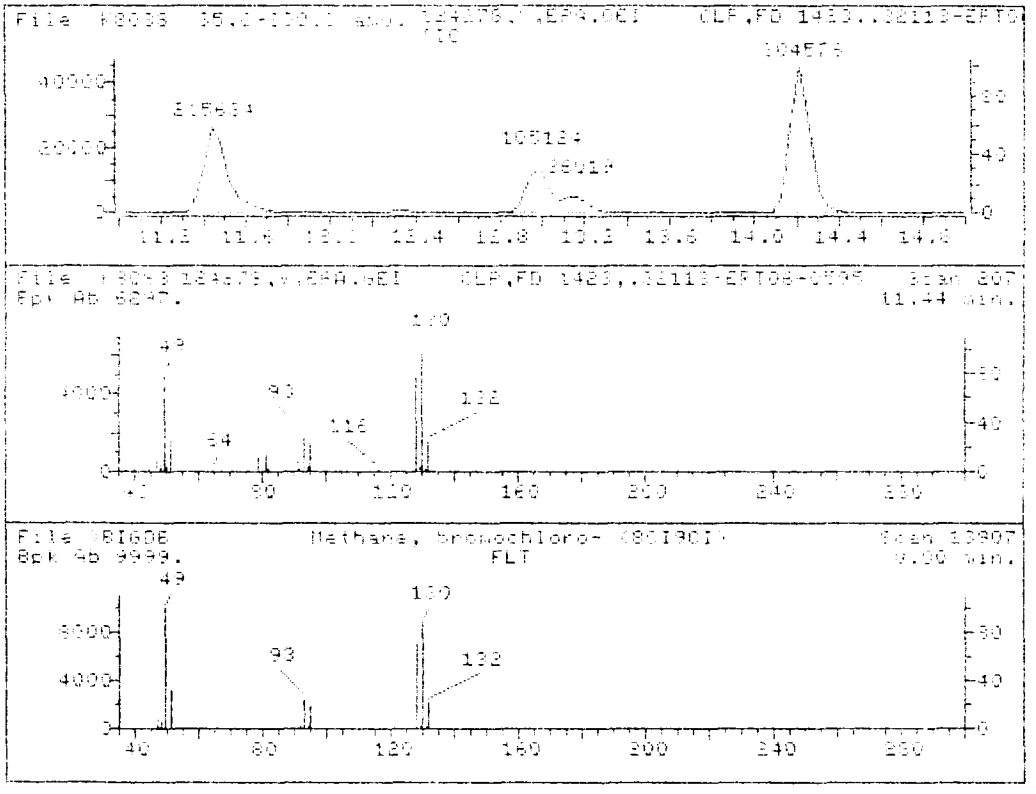
1. Methane, bromochloro- (80I8CI)

Sample file: MS0088 Spectrum #: 207
Search speed: 1 Fitting option: N No. of ion ranges searched: 4

	Prob.	CAS #	ION #	ROOT	K	DK	#PLS	TILT	%	CON	C_I	P_IV
1.	97*	74975	13707	'EICOB	97	15	0	0	78	7	72	97

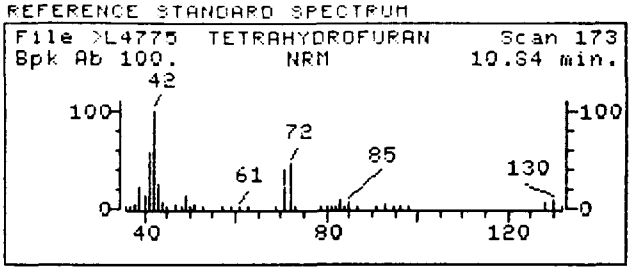
$$Conc = \frac{215634}{304576} \times \frac{50}{1}$$

$$= 35.49 \text{ ug/L}$$

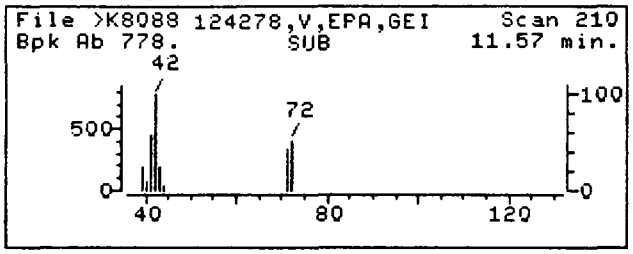


30033

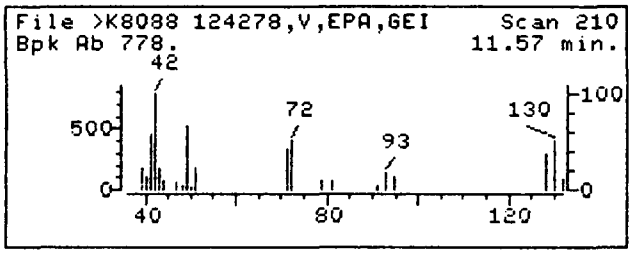
REFERENCE STANDARD SPECTRUM

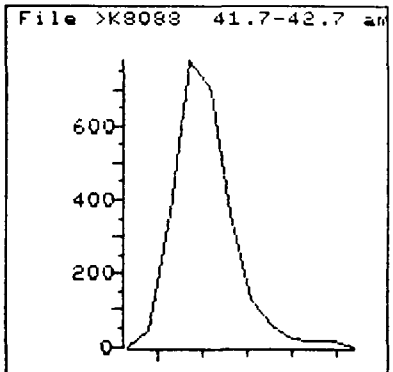


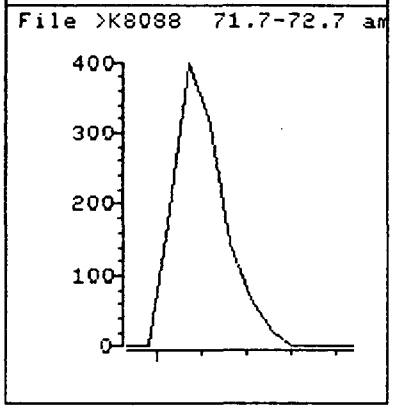
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





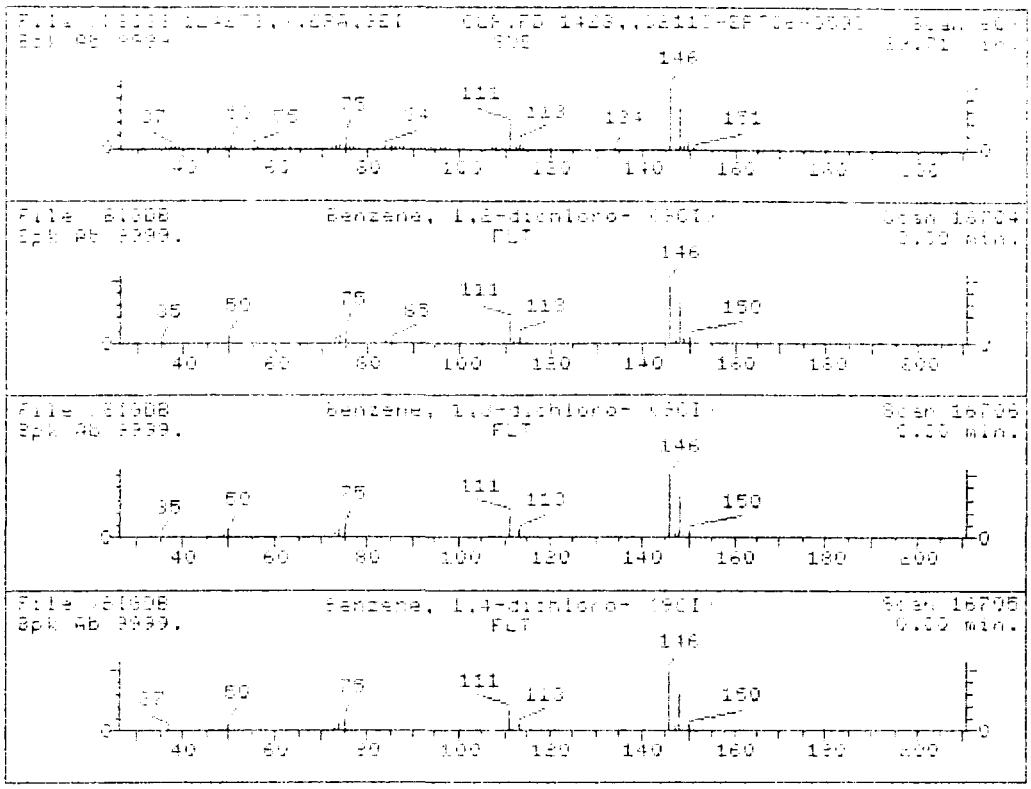


Data File: >K8088::L2 Quant Output File: ^K8088::K2
Name: 124278,V,EPA,GEI
Misc: CLP,FD 1423,,32113-ERT06-05955,L,W,ALS6 5ML TOM .0
Quant Time: 950604 15:14 Quant ID File: KUOAID::DB
Injected at: 950604 14:38 Last Calibration: 950604 12:56

Compound No: 22
Compound Name: C198 TETRAHYDROFURAN
Scan Number: 210
Retention Time: 11.57 min.
Quant Ion: 42.0
Area: 6731
Concentration: 79.64 UG/L
q-value: 90

NKJ

30034



1 2 3.

. UNKNOWN #,3
AREA = 207691.0 TENTATIVE CONCENTRATION IS 32.00

1. Benzene, 1,2-dichloro- (9CI) 146 C6H4Cl2
2. Benzene, 1,3-dichloro- (9CI) 146 C6H4Cl2
3. Benzene, 1,4-dichloro- (9CI) 146 C6H4Cl2
4. 2-Thiophenecarboxaldehyde, 5-chloro- (8CI9CI) 146 C5H3ClOS

Sample file: >K8088 Spectrum #: 608
Search speed: 1 Tilting option: N No. of ion ranges searched: 40

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	97*	95501	16704	"BIGDB	102	9	0	0	84	5	72	97
2.	96*	541731	16706	"BIGDB	89	19	0	0	82	4	72	96
3.	94*	106467	16705	"BIGDB	85	23	0	0	74	11	64	95
4.	20*	7283967	16703	"BIGDB	20	84	2	0	117	51	5	13

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

92113FW11D

Lab Name: CANBRA Contract: GEI

Lab Code: CANBRA Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124147

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8054

Level: (low/med) LOW Date Received: 05/26/95

% Moisture: not dec. Date Analyzed: 06/03/95

GC Column: CAP ID: 0.530 (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	9	J
75-34-3	1,1-Dichloroethane	54	
540-59-0	1,2-Dichloroethene (total)	120	
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	42	
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	250	E
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	26	
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	46	
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	1	J
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

92113FW11D

Lab Name: CAMORC Contract: GEI

Lab Code: CAMORC Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124147

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8054

Level: (low/med) LOW Date Received: 05/26/95

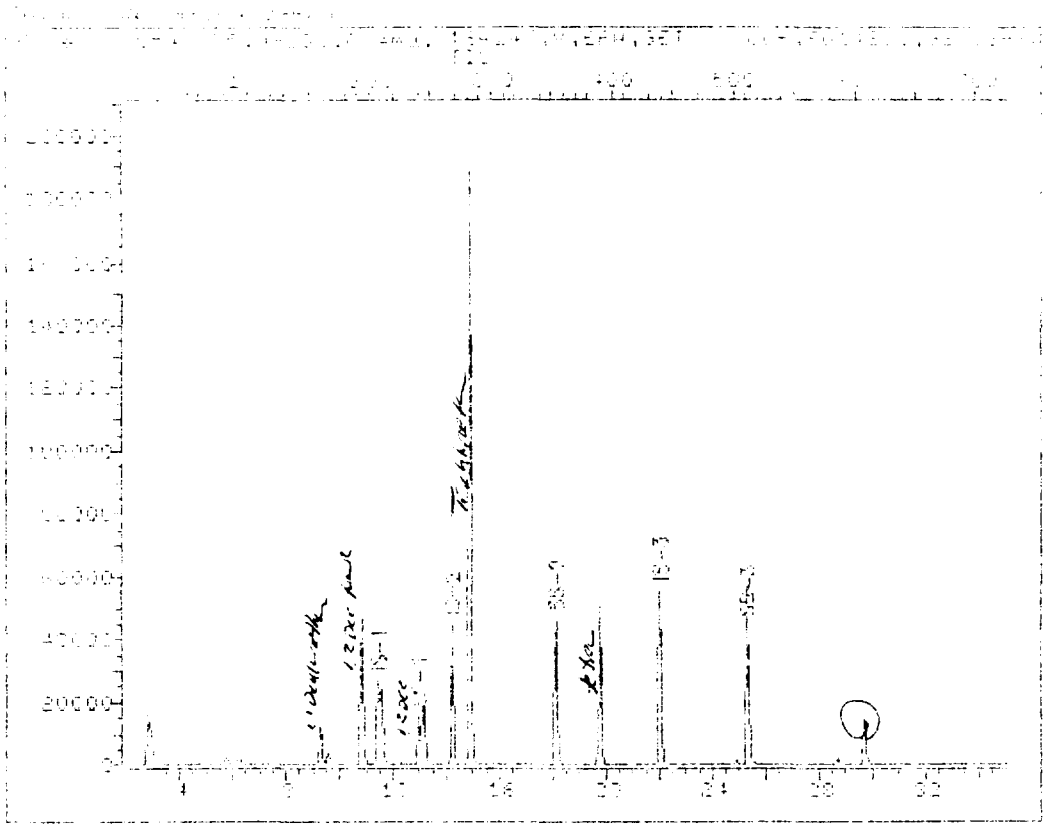
% Moisture: not dec. Date Analyzed: 06/03/95

GC Column: CAP ID: 0.530 (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.	354234	Ethane, 1,2-dichloro-1,1,2-t	5.73	5	JN
2.	95501	Benzene, 1,2-dichloro-	29.72	16	JN



QUANT REPORT

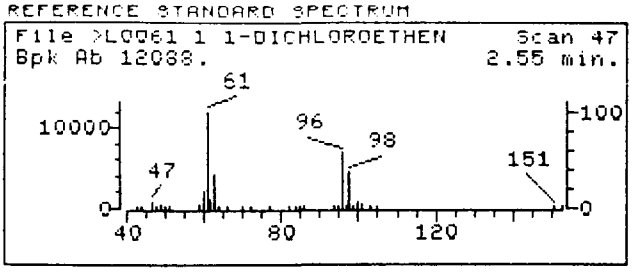
Operator ID: DOUG Quant Rev: 6 Quant Time: 950603 16:14
Output File: ^K8054::K2 Injected at: 950603 15:38
Data File: >K8054::QT Dilution Factor: 1.00000
Name: 124147,U,EPA,GET
Misc: CLP,FD1423.,92113-FW11D-0595,L,W,ALS8 5ML TOM .01

ID File: KUDAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950603 10:31

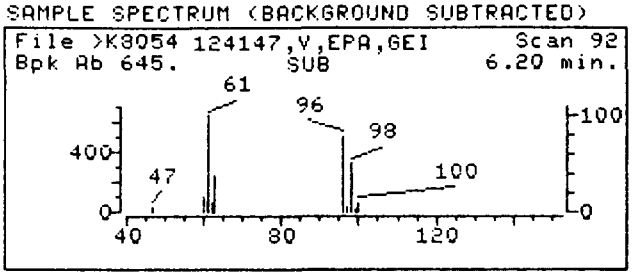
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	11.44	128.0	34568	50.00	UG/L	94
11)	C045 1,1-DICHLOROETHENE	6.20	96.0	4389	8.90	UG/L	70
12)	C050 1,1-DICHLOROETHANE	9.30	63.0	54255	53.80	UG/L	95
17)	C053 TOTAL-1,2-DICHLOROETHENE	10.85	96.0	88441	122.60	UG/L	83
19)	C065 1,2-DICHLOROETHANE	13.17	62.0	31151	41.78	UG/L	94
20)	CS15 D4-1,2-DICHLOROETHANE SS1	12.99	65.0	36630	47.10	UG/L	90
24)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.22	114.0	144495	50.00	UG/L	100
25)	C115 1,1,1-TRICHLOROETHANE	12.17	97.0	2362	2.22	UG/L	76
32)	C150 TRICHLOROETHENE	14.90	130.0	268990	250.31	UG/L	88
35)	C165 BENZENE	13.12	78.0	42434	26.48	UG/L	100
38)	*CI20 D5-CHLOROBENZENE IS-3	22.01	117.0	119586	50.00	UG/L	100
41)	C220 TETRACHLOROETHYLENE	19.78	164.0	45997	45.96	UG/L	98
43)	CS05 D-8 TOLUENE (SS-2)	18.14	98.0	126693	49.65	UG/L	87
45)	C235 CHLOROBENZENE	22.10	112.1	2237	1.11	UG/L	98
47)	CS10 BROMOFLUOROBENZENE (SS-3)	25.29	174.0	69107	48.06	UG/L	72

* Compound is ISTD

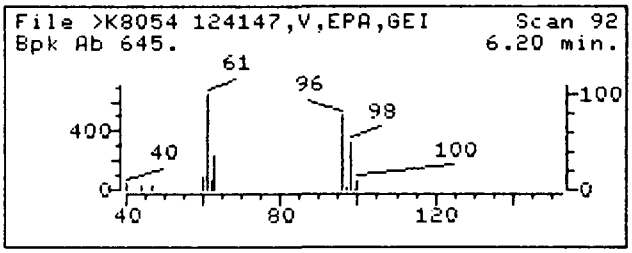
REFERENCE STANDARD SPECTRUM

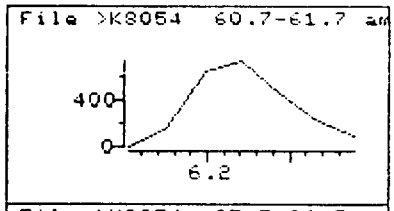


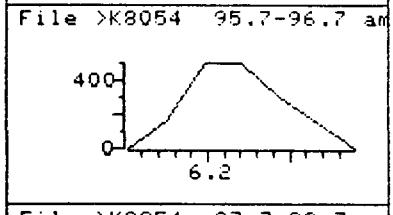
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

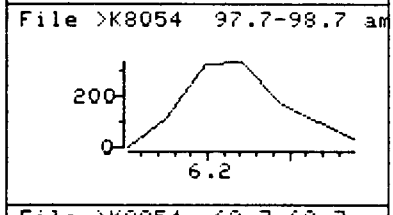


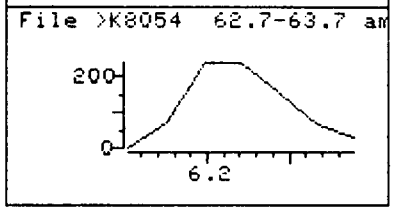
SAMPLE SPECTRUM (UNALTERED)







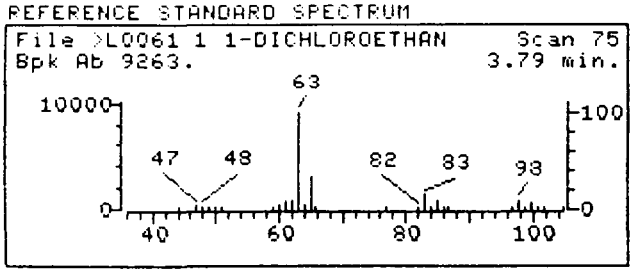




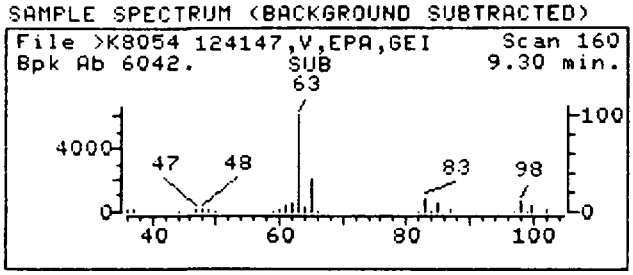
Data File: >K8054::QT Quant Output File: ^K8054::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD1423,,92113-FW11D-0595,L,W,ALS8 5ML TOM .01
Quant Time: 950603 16:14 Quant ID File: KVOAID::DB
Injected at: 950603 15:38 Last Calibration: 950603 10:31

Compound No: 11
Compound Name: C045 1,1-DICHLOROETHENE
Scan Number: 92
Retention Time: 6.20 min.
Quant Ion: 96.0
Area: 4389
Concentration: 8.90 UG/L
q-value: 70

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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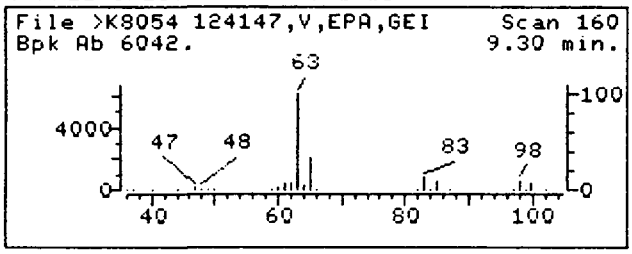
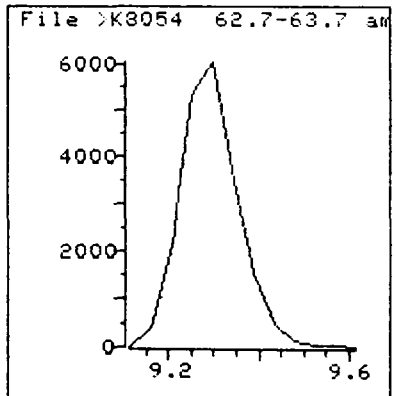
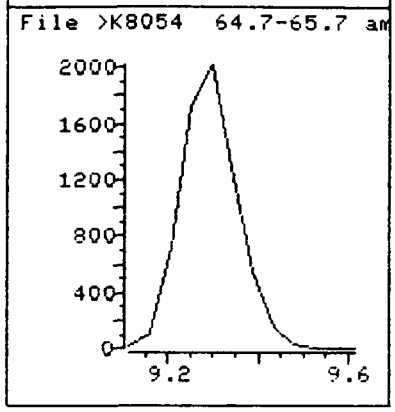




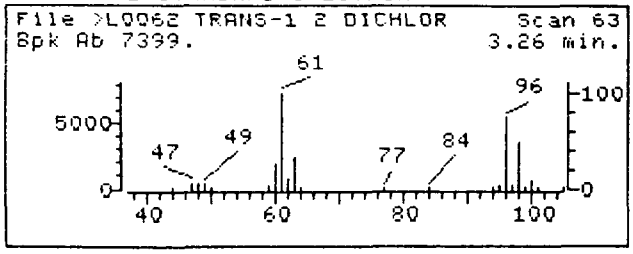


Data File: >K8054::QT Quant Output File: ^K8054::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD1423,,92113-FW11D-0595,L,W,ALS8 5ML TOM .01
Quant Time: 950603 16:14 Quant ID File: KVOAID::DB
Injected at: 950603 15:38 Last Calibration: 950603 10:31

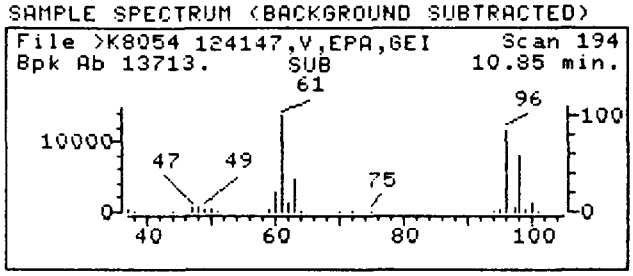
Compound No: 12
Compound Name: C050 1,1-DICHLOROETHANE
Scan Number: 160
Retention Time: 9.30 min.
Quant Ion: 63.0
Area: 54255
Concentration: 53.80 UG/L
q-value: 95

30041

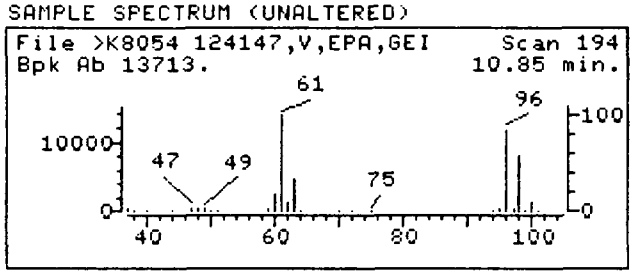
REFERENCE STANDARD SPECTRUM

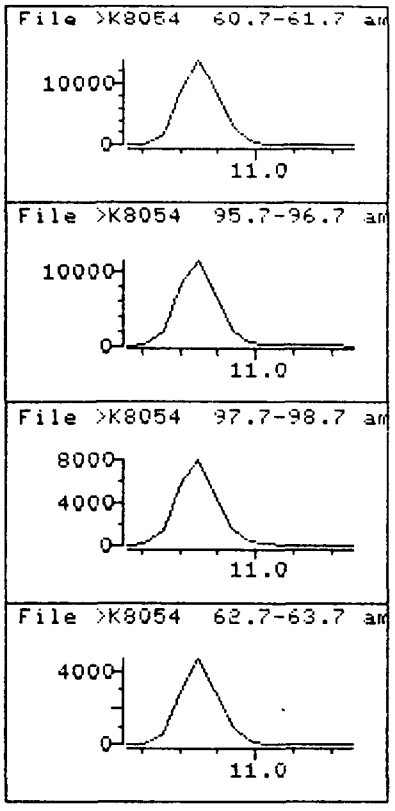


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



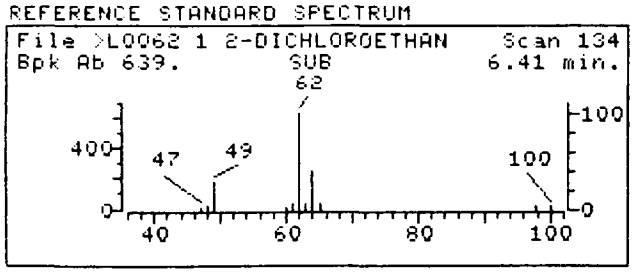


Data File: >K8054::QT Quant Output File: ^K8054::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD1423,,92113-FW11D-0595,L,W,ALS8 5ML TOM .01
Quant Time: 950603 16:14 Quant ID File: KVOAID::DB
Injected at: 950603 15:38 Last Calibration: 950603 10:31

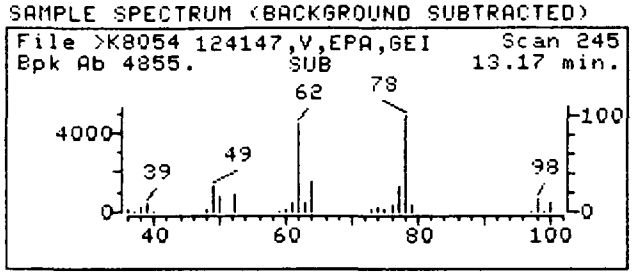
Compound No: 17
Compound Name: C053 TOTAL-1,2-DICHLOROETHENE
Scan Number: 194
Retention Time: 10.85 min.
Quant Ion: 96.0
Area: 88441
Concentration: 122.60 UG/L
q-value: 83

No Trans

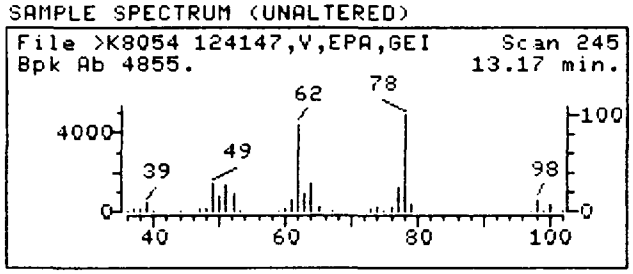
REFERENCE STANDARD SPECTRUM

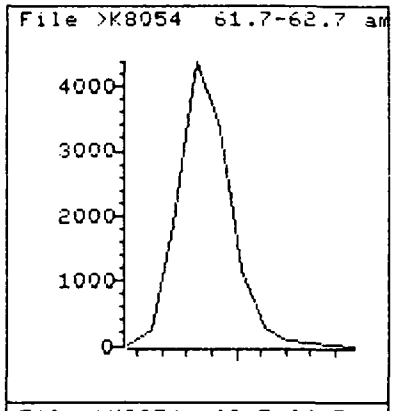


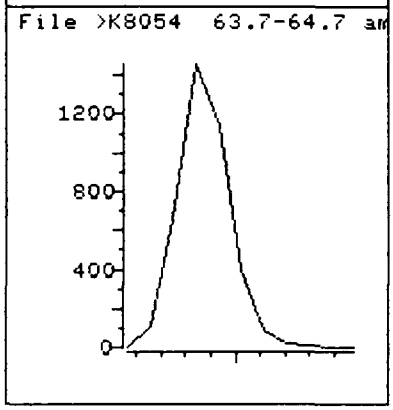
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

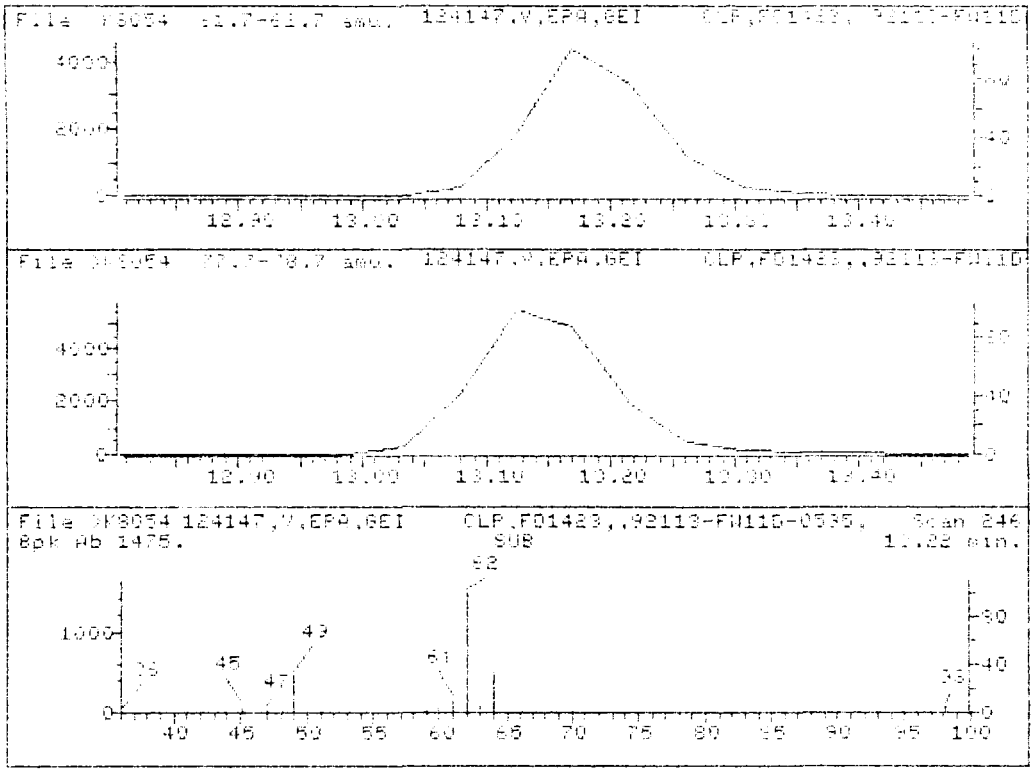






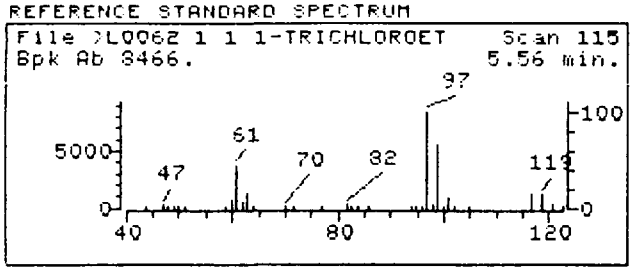
Data File: >K8054::QT Quant Output File: ^K8054::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD1423,,92113-FW11D-0595,L,W,ALS8 5ML TOM .01
Quant Time: 950603 16:14 Quant ID File: KVOAID::DB
Injected at: 950603 15:38 Last Calibration: 950603 10:31

Compound No: 19
Compound Name: C065 1,2-DICHLOROETHANE
Scan Number: 245
Retention Time: 13.17 min.
Quant Ion: 62.0
Area: 31151
Concentration: 41.78 UG/L
q-value: 94

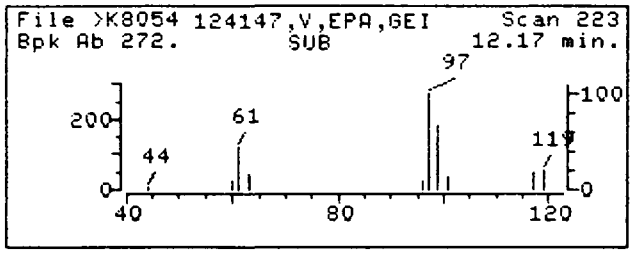


1,2 Dichloroethane

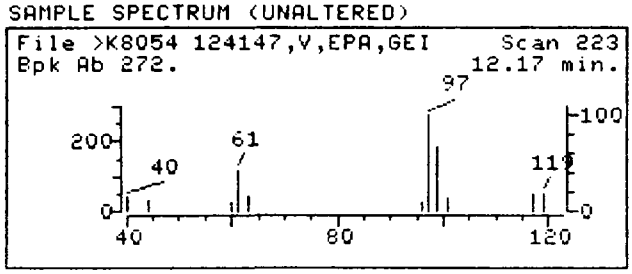
REFERENCE STANDARD SPECTRUM

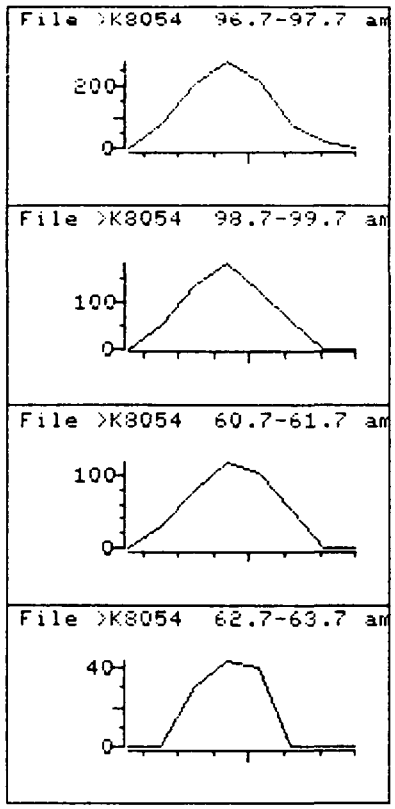


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

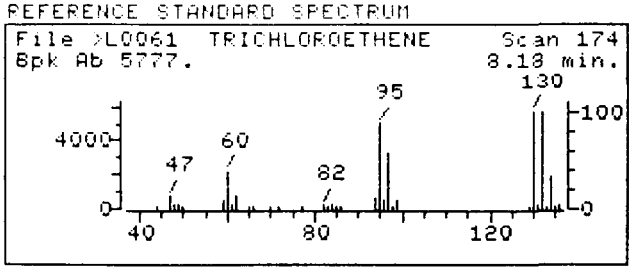




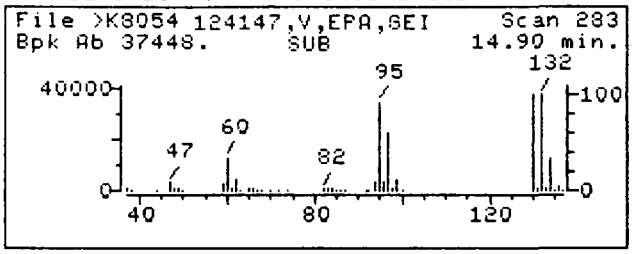
Data File: >K8054::QT Quant Output File: ^K8054::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD1423,,92113-FW11D-0595,L,W,ALS8 5ML TOM .01
Quant Time: 950603 16:14 Quant ID File: KVOAID::DR
Injected at: 950603 15:38 Last Calibration: 950603 10:31

Compound No: 25
Compound Name: C115 1,1,1-TRICHLOROETHANE
Scan Number: 223
Retention Time: 12.17 min.
Quant Ion: 97.0
Area: 2362
Concentration: 2.22 UG/L
q-value: 76

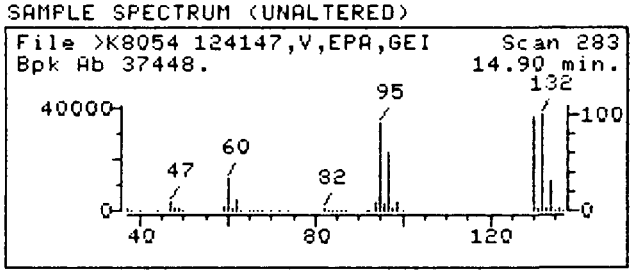
REFERENCE STANDARD SPECTRUM

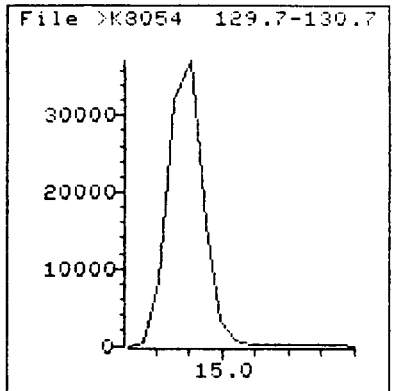


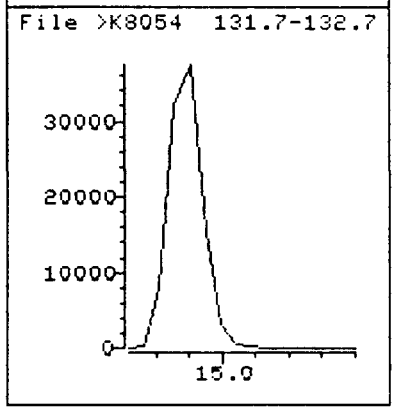
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



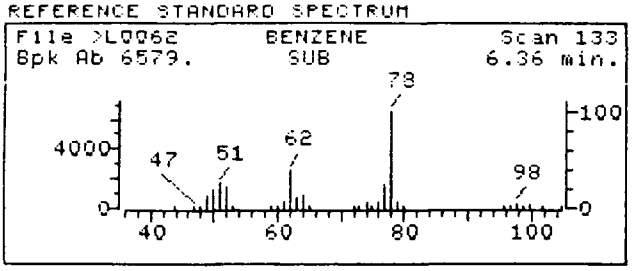




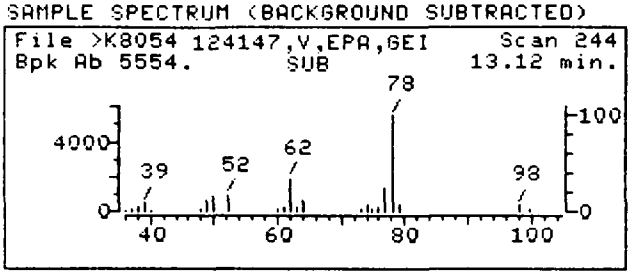
Data File: >K8054::QT Quant Output File: ^K8054::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD1423,,92113-FW11D-0595,L,W,ALS8 5ML TOM .01
Quant Time: 950603 16:14 Quant ID File: KVOAID::DB
Injected at: 950603 15:38 Last Calibration: 950603 10:31

Compound No: 32
Compound Name: C150 TRICHLOROETHENE
Scan Number: 283
Retention Time: 14.90 min.
Quant Ion: 130.0
Area: 268990
Concentration: 250.31 UG/L
q-value: 88

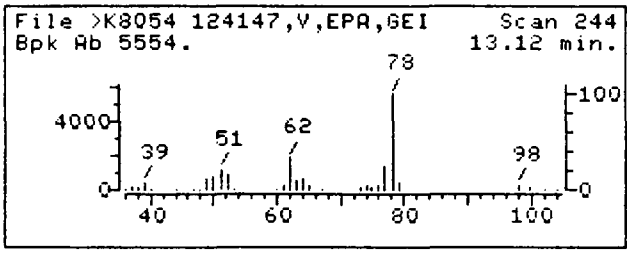
REFERENCE STANDARD SPECTRUM

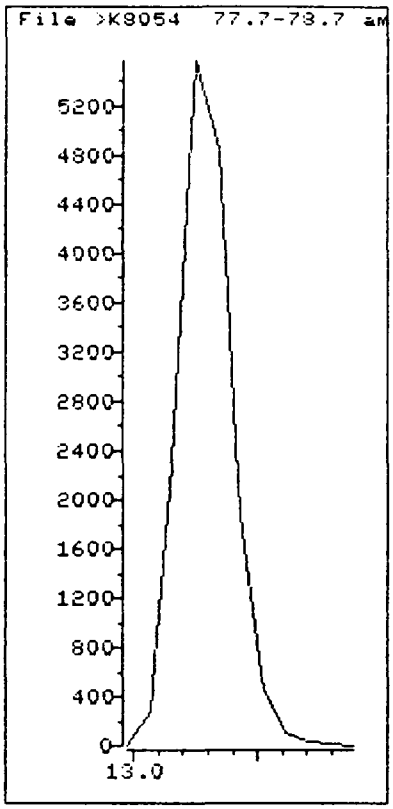


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



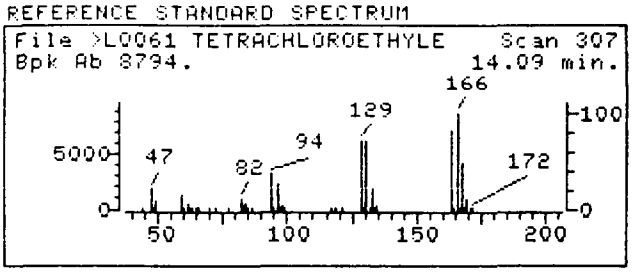


Data File: >K8054::QT Quant Output File: ^K8054::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD1423,,92113-FW11D-0595,L,W,ALS8 5ML TUM .01
Quant Time: 950603 16:14 Quant ID File: KVOAID::DB
Injected at: 950603 15:38 Last Calibration: 950603 10:31

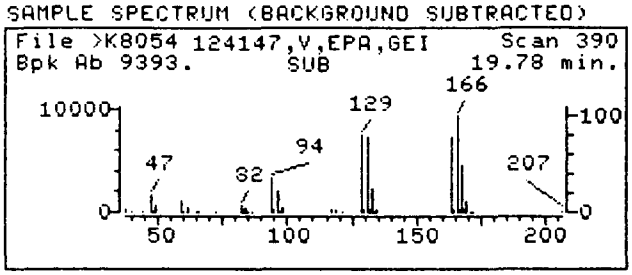
Compound No: 35
Compound Name: C165 BENZENE
Scan Number: 244
Retention Time: 13.12 min.
Quant Ion: 78.0
Area: 42434
Concentration: 26.48 UG/L
q-value: 100

30047

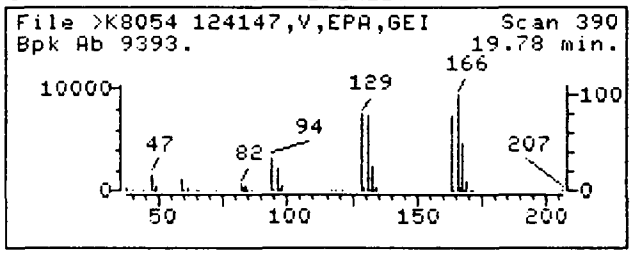
REFERENCE STANDARD SPECTRUM

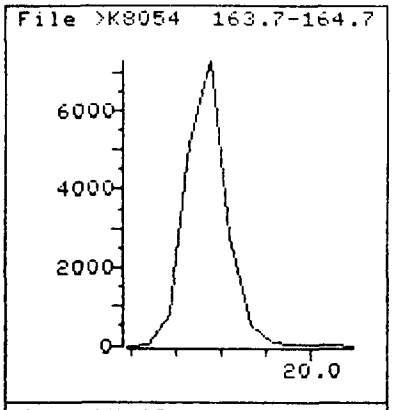


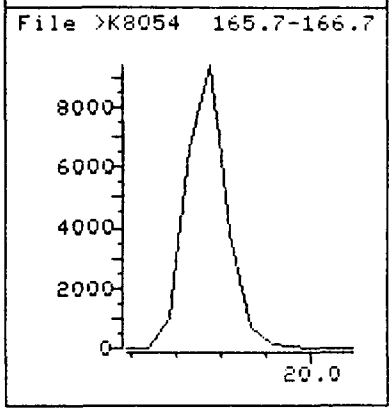
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





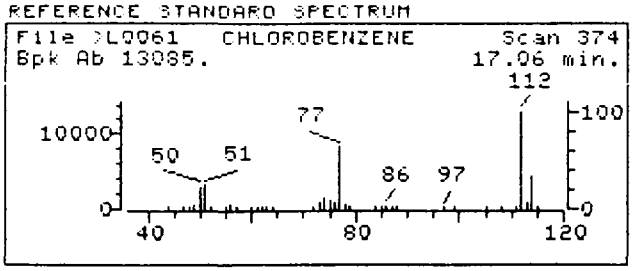


Data File: >K8054::QT Quant Output File: ^K8054::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD1423,,92113-FW11D-0595,L,W,ALS8 5ML TOM .01
Quant Time: 950603 16:14 Quant ID File: KVOAID::DB
Injected at: 950603 15:38 Last Calibration: 950603 10:31

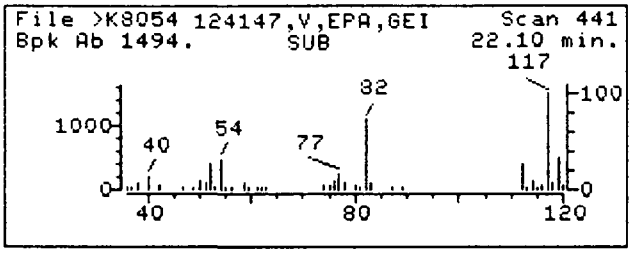
Compound No: 41
Compound Name: C220 TETRACHLOROETHYLENE
Scan Number: 390
Retention Time: 19.78 min.
Quant Ion: 164.0
Area: 45997
Concentration: 45.96 UG/L
q-value: 98

30048

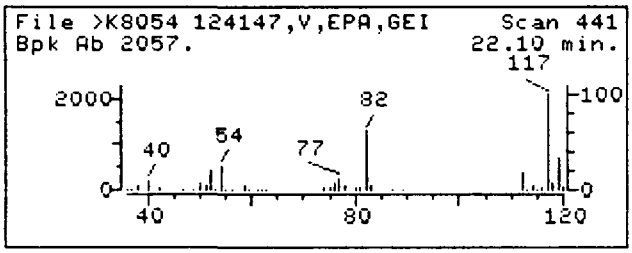
REFERENCE STANDARD SPECTRUM

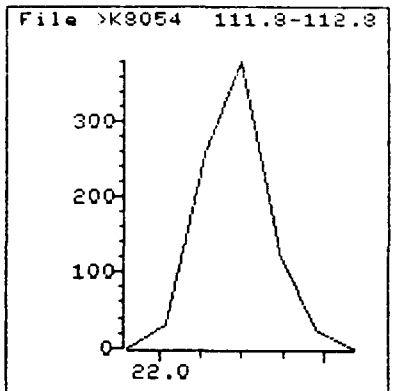


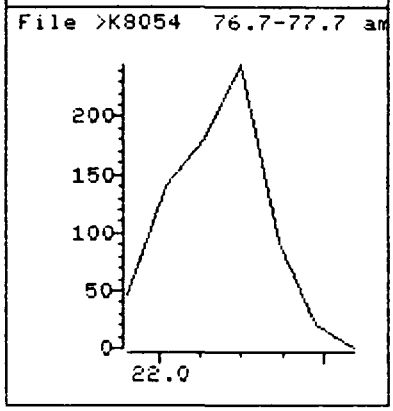
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



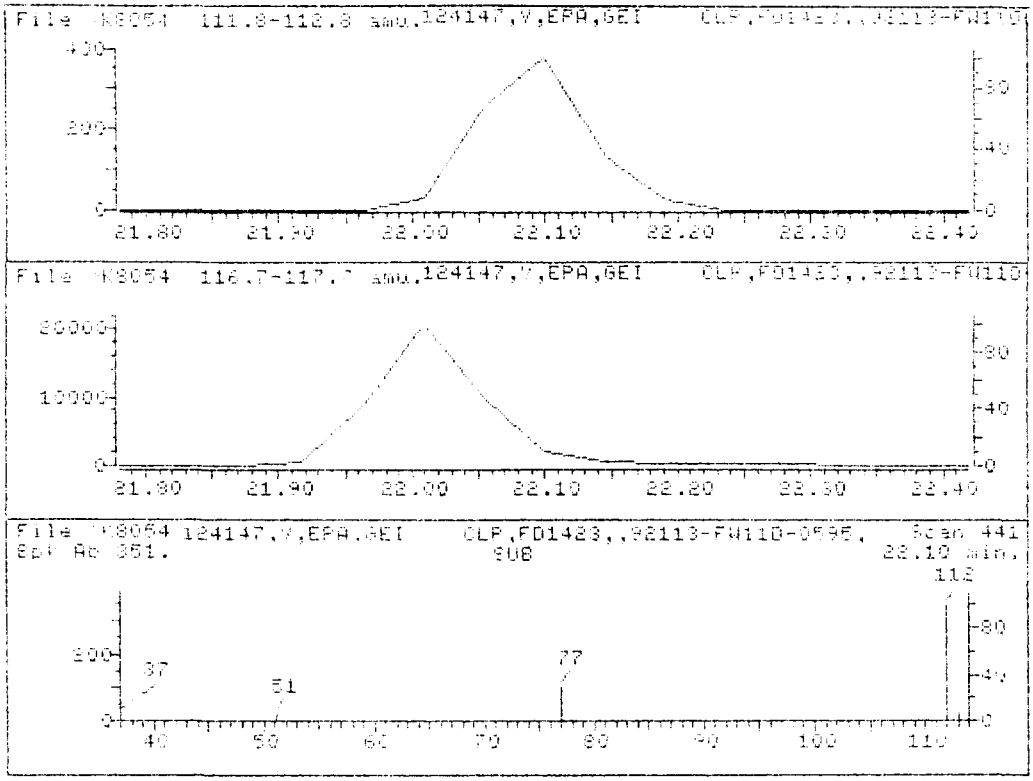




Data File: >K8054::QT Quant Output File: ^K8054::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD1423,,92113-FW11D-0595,L,W,ALS8 5ML TOM .01
Quant Time: 950603 16:14 Quant ID File: KVOAID::DB
Injected at: 950603 15:38 Last Calibration: 950603 10:31

Compound No: 45
Compound Name: C235 CHLOROBENZENE
Scan Number: 441
Retention Time: 22.10 min.
Quant Ion: 112.1
Area: 2237
Concentration: 1.11 UG/L
q-value: 98

Clean spectrum →


111.8-112.8 amu,124147,V,EPA,GEI
21.80
21.90
22.00
22.10
22.20
22.30
22.40
116.7-117.7 amu,124147,V,EPA,GEI
124147,V,EPA,GEI
Scan 441
22.10 min.
112
77
51
37

Chloroform

MS data file header from : IK8054

sample: 124147,V,EPA,GEI Operator: 0006 SUPER GRP. 6/09/95 15:23
Misc : CLP,FD1423,,92113-FW110-0595,L,W,AL58 SML TOM .01
Sys. #: 1 MS model: 70 SW/HW rev.: LP ALS # : 0
Method file: KVOA Tuning file: MTUNEK No. of extra records: 2
Source temp.: 0 Analyzer temp.: 220 Transfer line temp. : 0

Chromatographic temperatures : 37. 150. 150. 0. 0.
Chromatographic times, min. : 7.0 4.0 3.0 0.0 0.0
Chromatographic rate, deg/min: 5.0 5.0 0.0 .1 0.0

IK8054 124147,V,EPA,GEI CLP,FD1423,,92113-FW110-0595,L,W,AL58
35.0' 300.0 CLP TIC
Upslope: .00 Area Reject: 22788. Max Peaks: 3 Bunching: 1
Onslope: 0.00 Results File IK8054 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	2.82	15	18	32	15814	199896	196458	100.00	61.122
2	5.74	78	82	88	2369	24753	23068	11.74	7.179
3	10.71	605	608	616	14248	104259	101842	51.84	31.698

Sum of corrected areas: 321368.

Summary of Unknowns FBM Library Search and Quantitation

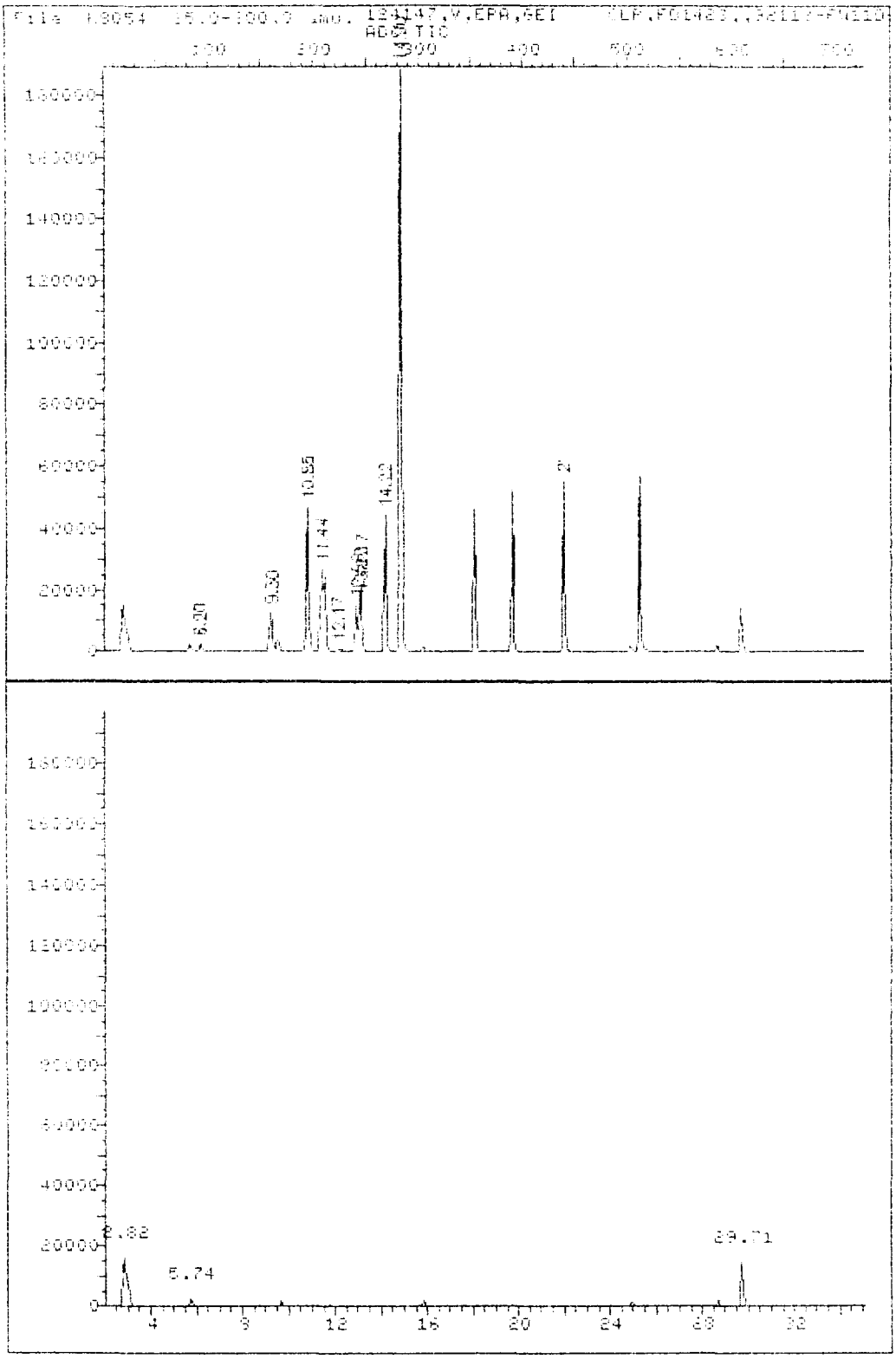
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	227877.	11.44	2.05 - 12.33
2	50.0	199558.	14.22	12.83 - 18.11
3	50.0	222738.	22.01	16.11 - 28.00

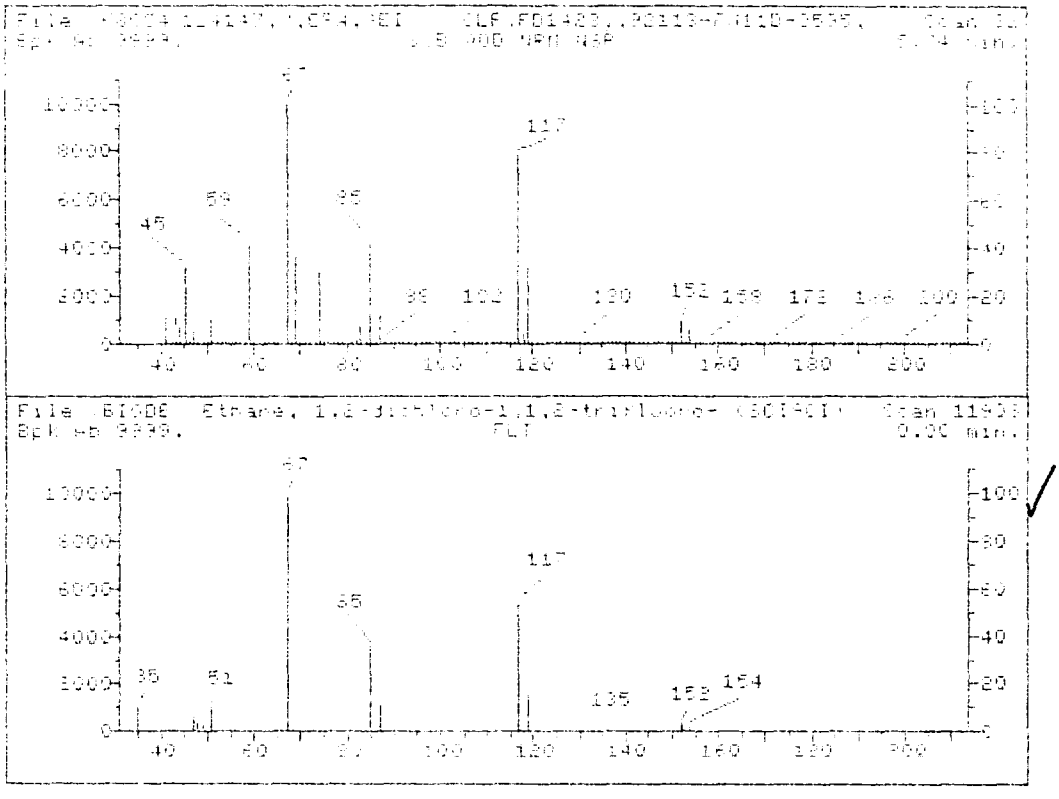
'A' Dilution Factor = 1.00 D dilf = 1.00
Method called for 1000.000 g or mL This sample was 1000.000 g or mL

Correction Factor = 1.00

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unknown} * \text{Correction Factor}$$

2:17 PM FRI., 9 JUNE, 1995


AD54.TIC
160000
140000
120000
100000
80000
60000
40000
20000
6.00
9.50
10.55
11.44
12.17
14.32
2
160000
140000
120000
100000
40000
20000
2.82
5.74
29.71
4
8
12
16
20
24
28
32



UNKNOWN #,I

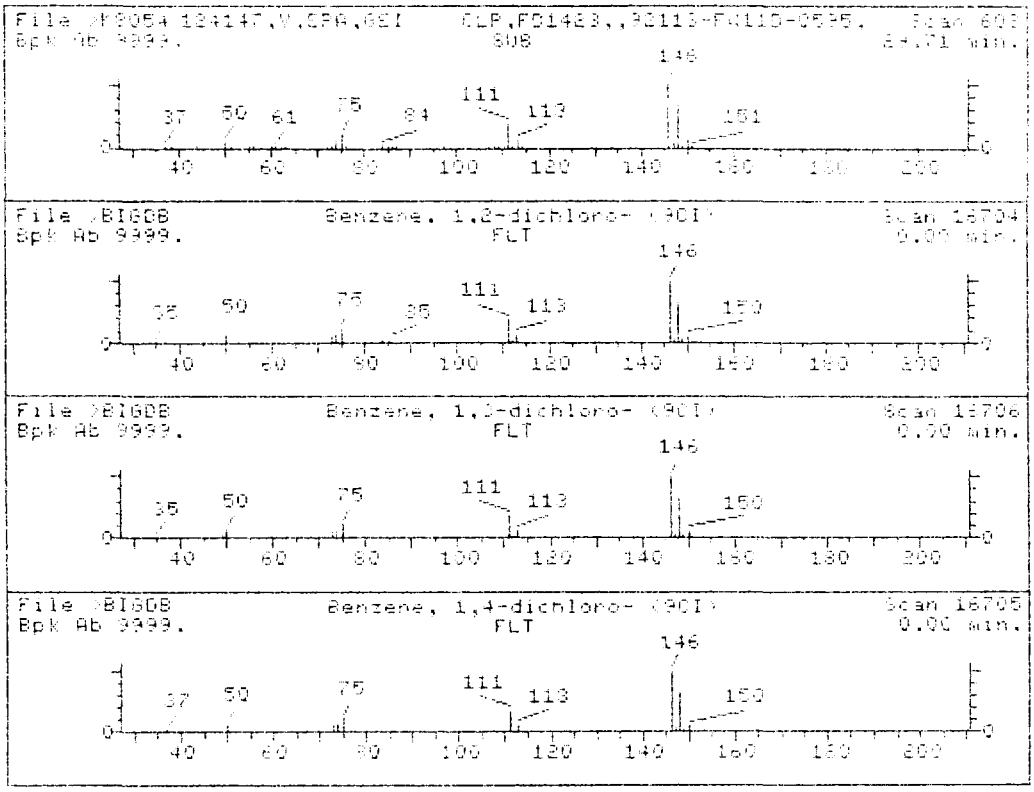
mAEm = 23058.03 TENTATIVE CONCENTRATION IS 5.00

1. Ethane, 1,2-dichloro-1,1,2-trifluoro- (8018CI) 181 C2HCl2F3

Sample file: 'W8054 Spectrum #: 82

Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	M	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	33*	354234	11903	*BIGDB	36	73	1	0	79	39	10	19



1,2-DCB

1,3-DCB

1,4-DCB

. UNKNOWN #,3
AREA = 101942.0 TENTATIVE CONCENTRATION IS 16.00

1.	Benzene, 1,2-dichloro- (9CI)	146 C6H4Cl2
2.	Benzene, 1,3-dichloro- (9CI)	146 C6H4Cl2
3.	Benzene, 1,4-dichloro- (9CI)	146 C6H4Cl2
4.	Furan, 3-bromo- (8CI,9CI)	146 C4H3BrO
5.	2-Thiophenecarboxaldehyde, 5-chloro- (8CI,9CI)	146 C5H3ClOS

Sample file: >K8054 Spectrum #: 608
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	R	DF	#FLG	TILT	%	CON	C_I	R_IV
1.	97*	95501	16704	"BIGDB	100	11	0	0	74	5	72	97
2.	95*	541731	16706	"BIGDB	87	21	0	0	73	4	72	95
3.	93*	106467	16705	"BIGDB	88	20	1	0	81	2	68	86
4.	25*	22037231	16904	"BIGDB	26	73	3	0	57	42	8	13
5.	20*	7283967	16703	"BIGDB	20	84	2	0	117	51	5	13

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

92113FW11DDL

Lab Name: CAMBRO Contract: GEI

Lab Code: CAMBRO Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124147DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8086

Level: (low/med) LOW Date Received: 05/26/95

% Moisture: not dec. Date Analyzed: 06/04/95

GC Column: CAP ID: 0.530 (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	6	BDJ
67-64-1	Acetone	50	U
75-15-0	Carbon Disulfide	50	U
75-35-4	1,1-Dichloroethene	6	DJ
75-34-3	1,1-Dichloroethane	44	DJ
540-59-0	1,2-Dichloroethene (total)	100	DY
67-66-3	Chloroform	50	U
107-06-2	1,2-Dichloroethane	34	DJ
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	210	D
124-48-1	Dibromochloromethane	50	U
79-00-5	1,1,2-Trichloroethane	50	U
71-43-2	Benzene	22	DJ
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	40	DJ
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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

92113FW11DDL

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124147DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8086

Level: (low/med) LOW Date Received: 05/26/95

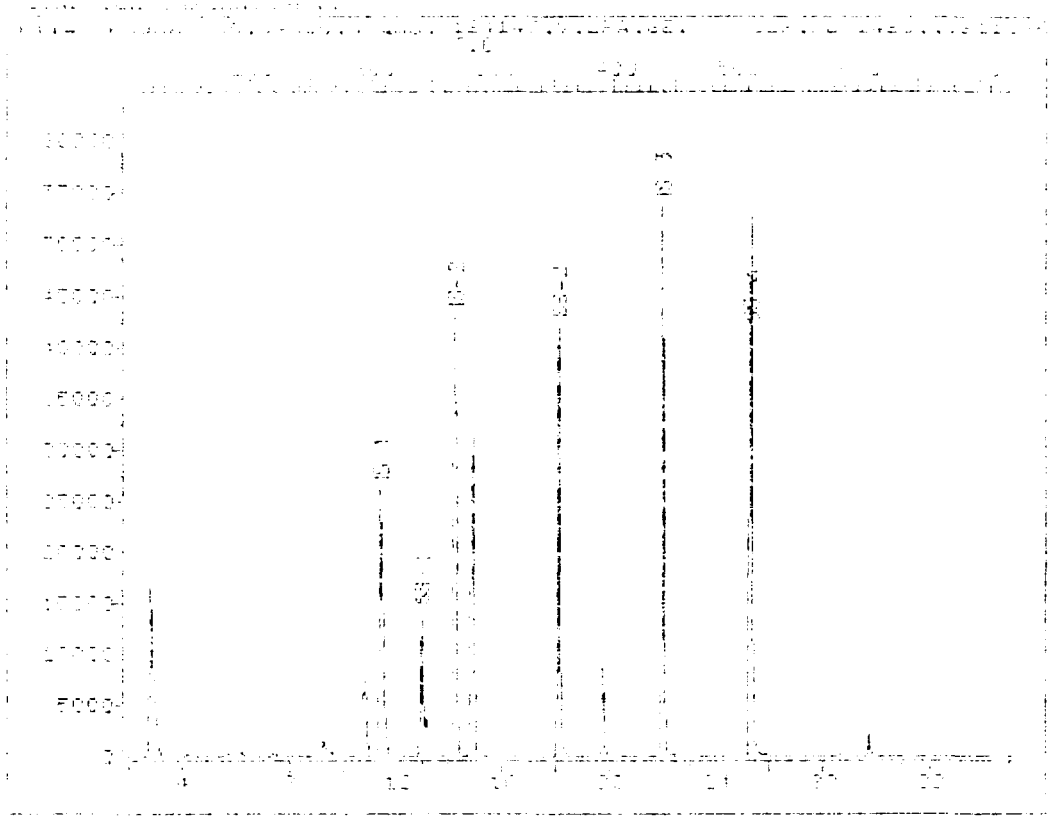
% Moisture: not dec. Date Analyzed: 06/04/95

GC Column: CAP ID: 0.530 (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



QUANT REPORT

Operator ID: DOUG Quant Rev: 6 Quant Time: 950604 13:56
Output File: ^K8086::K2 Injected at: 950604 13:20
Data File: >K8086::L2 Dilution Factor: 1.00000
Name: 124147,V,EPA,GEI
Misc: CLP,FD 1423,,92113-FW11D-0595,L,W,ALS4 1:5 TOM .01

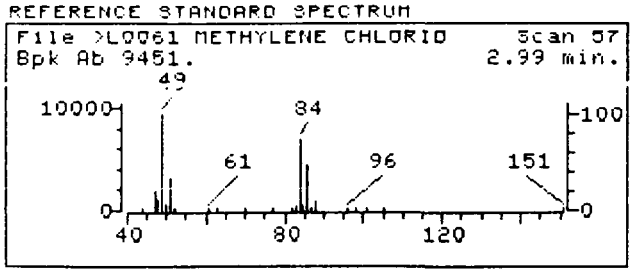
ID File: KV0AID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950604 12:56

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	11.43	208	33178	50.00	UG/L	92
8)	C030 METHYLENE CHLORIDE	7.43	120	757	1.25	UG/L	84
11)	C045 1,1-DICHLOROETHENE	6.20	93	606	1.20	UG/L	68
12)	C050 1,1-DICHLOROETHANE	9.29	161	8501C	8.74	UG/L	96
17)	C053 TOTAL-1,2-DICHLOROETHENE	10.84	195	14306MV	20.12	UG/L	85
19)	C065 1,2-DICHLOROETHANE	13.17	246	4834	6.71	UG/L	93
20)	CS15 D4-1,2-DICHLOROETHANE SS1	12.98	242	34386	49.76	UG/L	91
24)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.21	269	139984	50.00	UG/L	100
32)	C150 TRICHLOROETHENE	14.90	284	45808	42.67	UG/L	87
35)	C165 BENZENE	13.12	245	7254	4.50	UG/L	100
38)	*CI20 D5-CHLOROBENZENE IS-3	22.00	440	115191	50.00	UG/L	100
41)	C220 TETRACHLOROETHYLENE	19.77	391	8068	7.96	UG/L	99
43)	CS05 D-8 TOLUENE (SS-2)	18.13	355	116143	48.96	UG/L	92
47)	CS10 BROMOFLUOROBENZENE (SS-3)	25.28	512	65131	50.39	UG/L	74

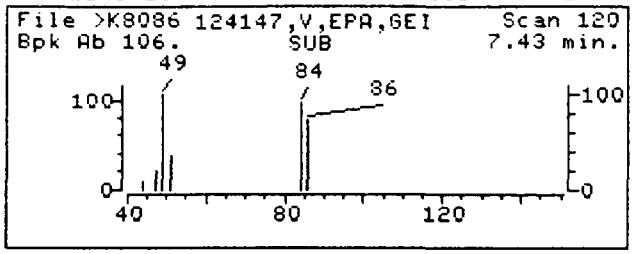
* Compound is ISTD

30058

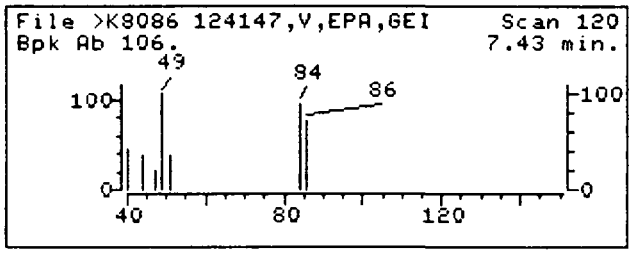
REFERENCE STANDARD SPECTRUM

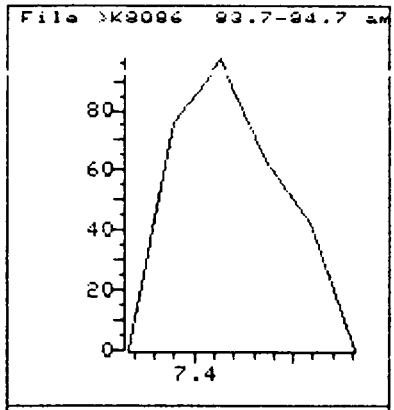


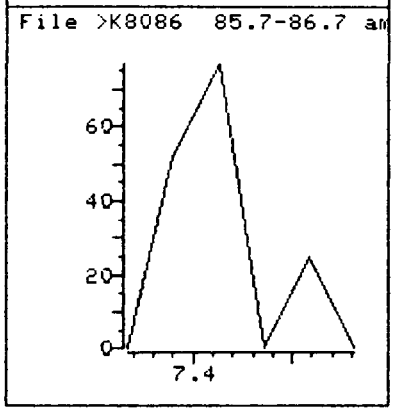
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





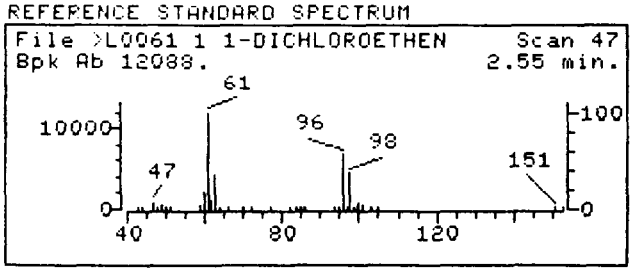


Data File: >K8086::L2 Quant Output File: ^K8086::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD 1423,,92113-FW11D-0595,L,W,ALS4 1:5 TOM .01
Quant Time: 950604 13:56 Quant ID File: KV0AID::DB
Injected at: 950604 13:20 Last Calibration: 950604 12:56

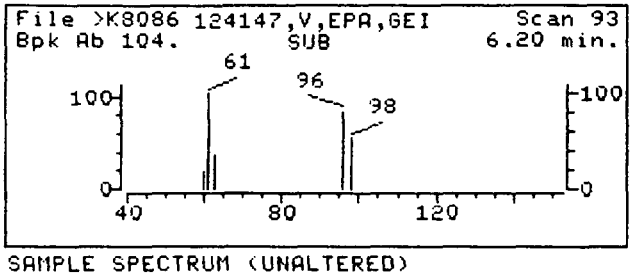
Compound No: 8
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 120
Retention Time: 7.43 min.
Quant Ion: 84.0
Area: 757
Concentration: 1.25 UG/L
q-value: 84

30059

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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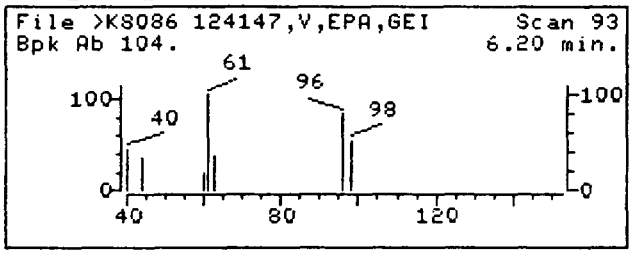
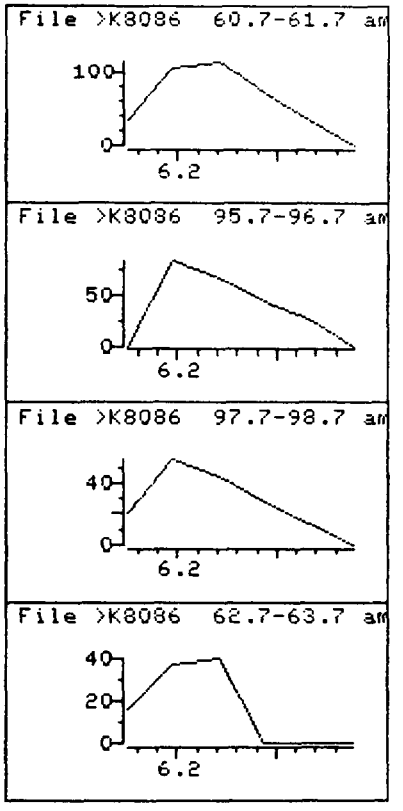
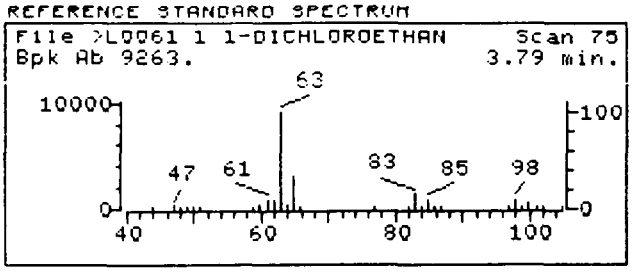




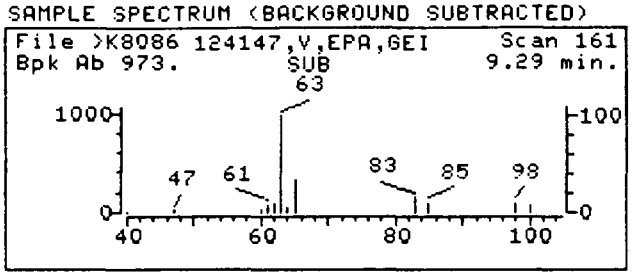
Data File: >K8086::L2 Quant Output File: ^K8086::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD 1423,,92113-FW11D-0595,L,W,ALS4 1:5 TOM .01
Quant Time: 950604 13:56 Quant ID File: KVOAID::DB
Injected at: 950604 13:20 Last Calibration: 950604 12:56

Compound No: 11
Compound Name: C045 1,1-DICHLOROETHENE
Scan Number: 93
Retention Time: 6.20 min.
Quant Ion: 96.0
Area: 606
Concentration: 1.20 UG/L
q-value: 68

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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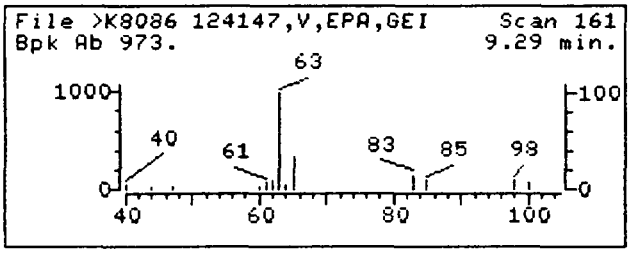
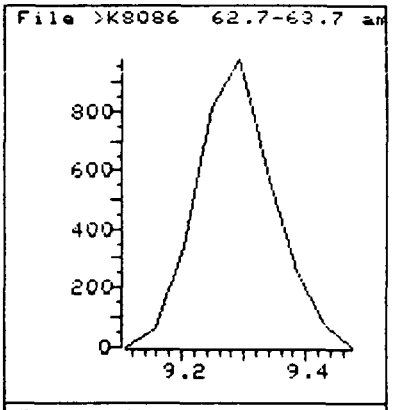
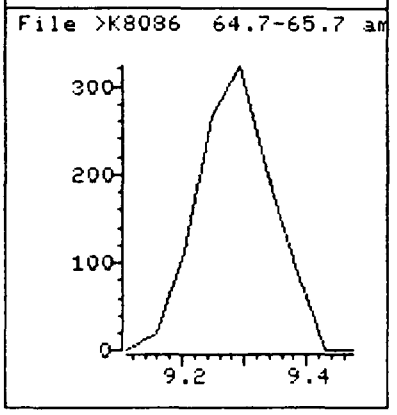




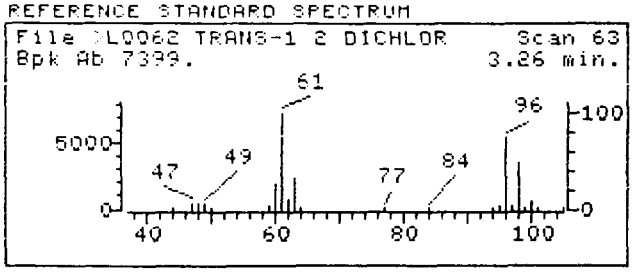


Data File: >K8086::L2 Quant Output File: ^K8086::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD 1423,,92113-FW11D-0595,L,W,ALS4 1:5 TOM .01
Quant Time: 950604 13:56 Quant ID File: KVOAID::DB
Injected at: 950604 13:20 Last Calibration: 950604 12:56

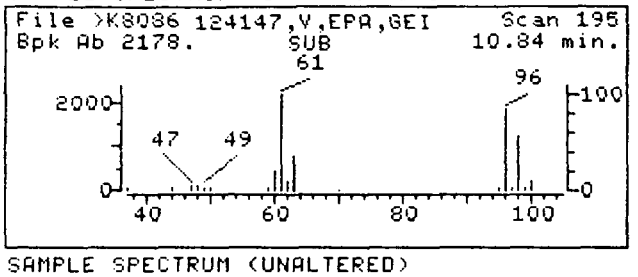
Compound No: 12
Compound Name: C050 1,1-DICHLOROETHANE
Scan Number: 161
Retention Time: 9.29 min.
Quant Ion: 63.0
Area: 8501
Concentration: 8.74 UG/L
q-value: 96

30061

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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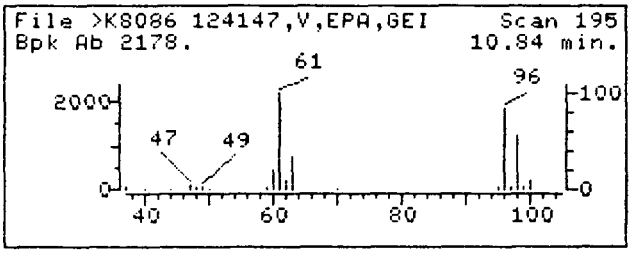
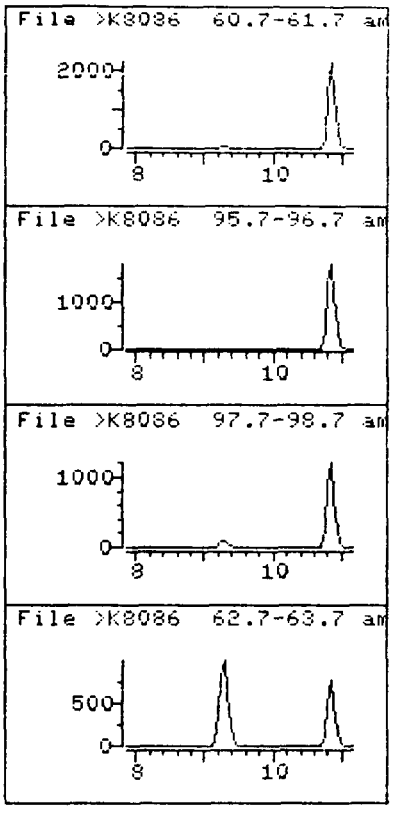
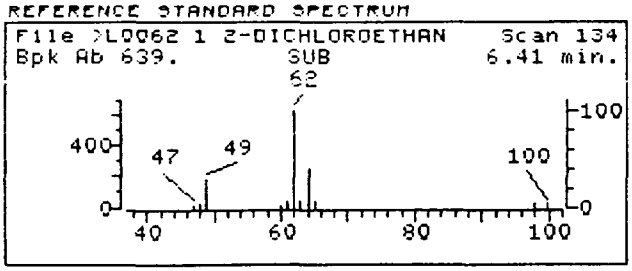




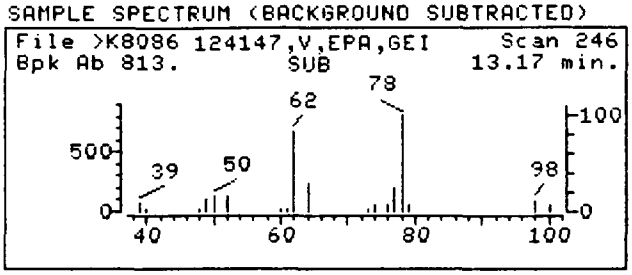
Data File: >K8086::L2 Quant Output File: ^K8086::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD 1423,,92113-FW11D-0595,L,W,ALS4 1:5 TOM .01
Quant Time: 950604 13:56 Quant ID File: KVOAID::DB
Injected at: 950604 13:20 Last Calibration: 950604 12:56

Compound No: 17
Compound Name: C053 TOTAL-1,2-DICHLOROETHENE
Scan Number: 195
Retention Time: 10.84 min.
Quant Ion: 96.0
Area: 14306M
Concentration: 20.12 UG/L
q-value: 85

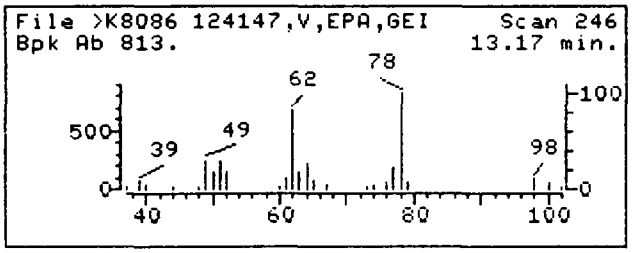
REFERENCE STANDARD SPECTRUM

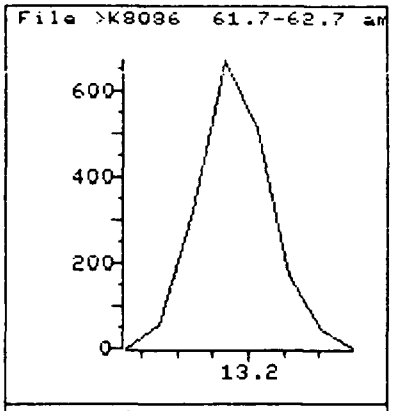


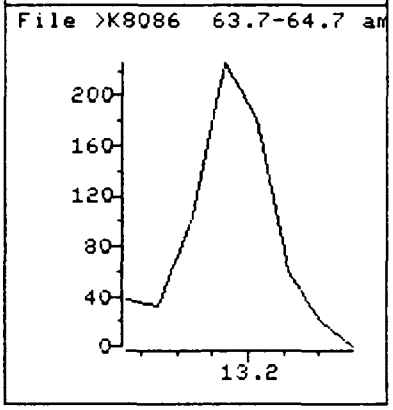
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

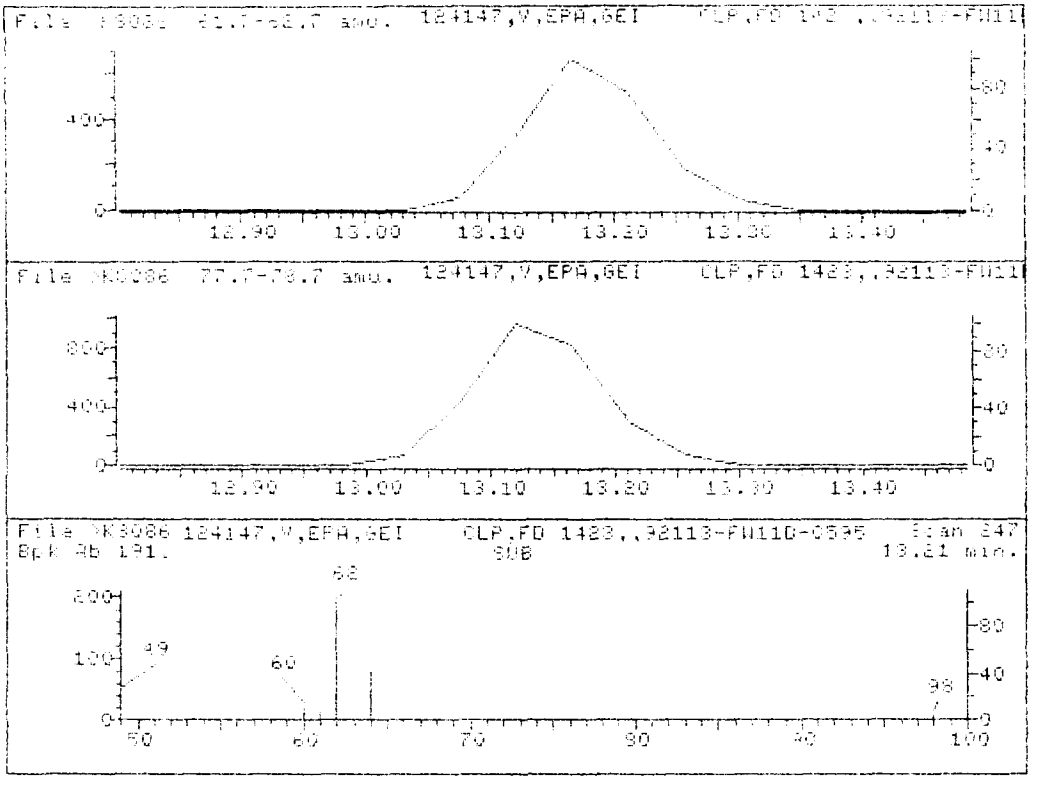






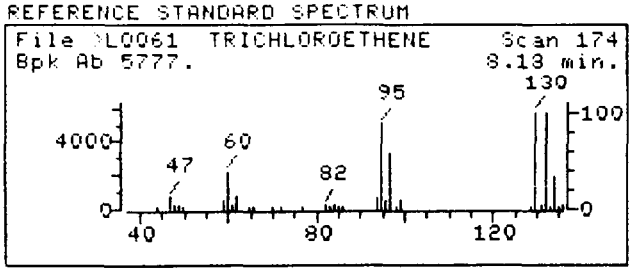
Data File: >K8086::L2 Quant Output File: ^K8086::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD 1423,,92113-FW11D-0595,L,W,ALS4 1:5 TOM .01
Quant Time: 950604 13:56 Quant ID File: KVOAID::DB
Injected at: 950604 13:20 Last Calibration: 950604 12:56

Compound No: 19
Compound Name: C065 1,2-DICHLOROETHANE
Scan Number: 246
Retention Time: 13.17 min.
Quant Ion: 62.0
Area: 4834
Concentration: 6.71 UG/L
q-value: 93

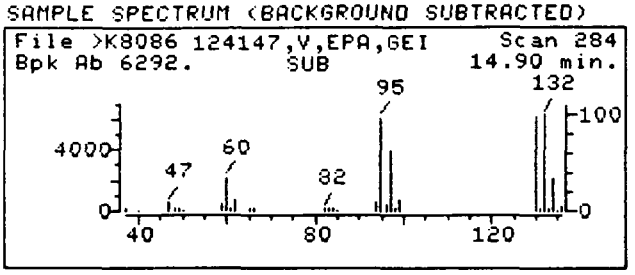

400
0
12.90
13.00
13.10
13.20
13.30
13.40
800
400
0
12.90
13.00
13.10
13.20
13.30
13.40
600
100
0
49
60
68
98
50
60
70
80
90
100

1,2 DCE

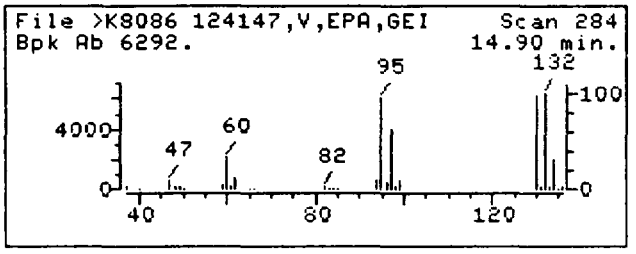
REFERENCE STANDARD SPECTRUM

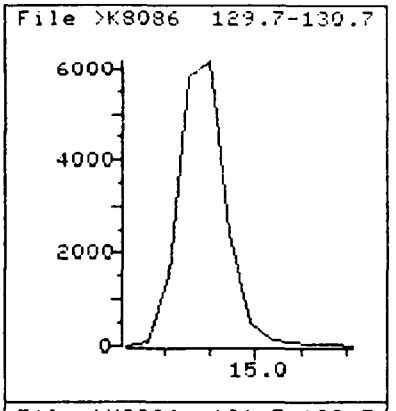


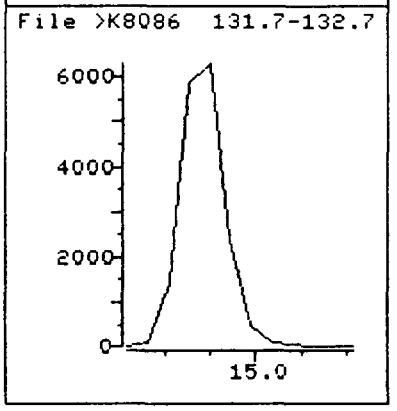
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



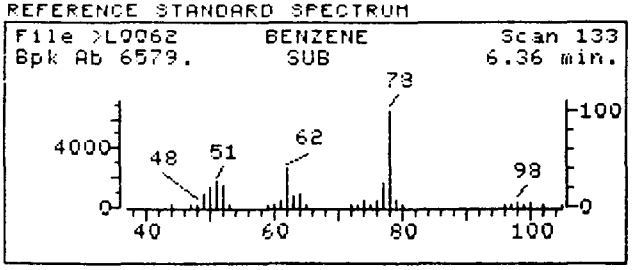




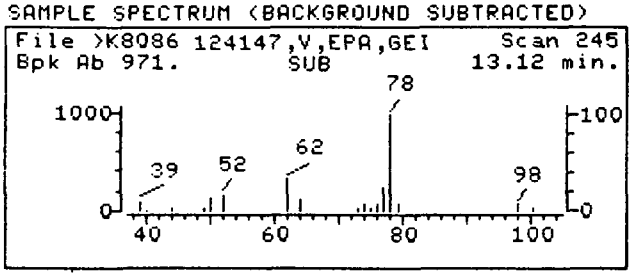
Data File: >K8086::L2 Quant Output File: ^K8086::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD 1423,,92113-FW11D-0595,L,W,ALS4 1:5 TOM .01
Quant Time: 950604 13:56 Quant ID File: KVOAID::DB
Injected at: 950604 13:20 Last Calibration: 950604 12:56

Compound No: 32
Compound Name: C150 TRICHLOROETHENE
Scan Number: 284
Retention Time: 14.90 min.
Quant Ion: 130.0
Area: 45808
Concentration: 42.67 UG/L
q-value: 87

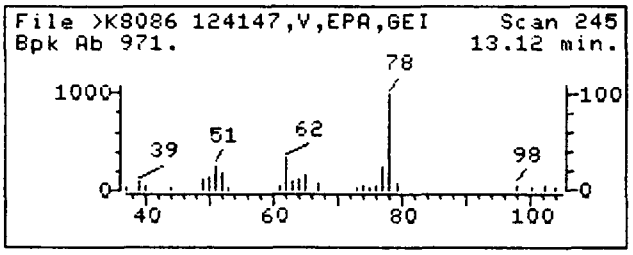
REFERENCE STANDARD SPECTRUM

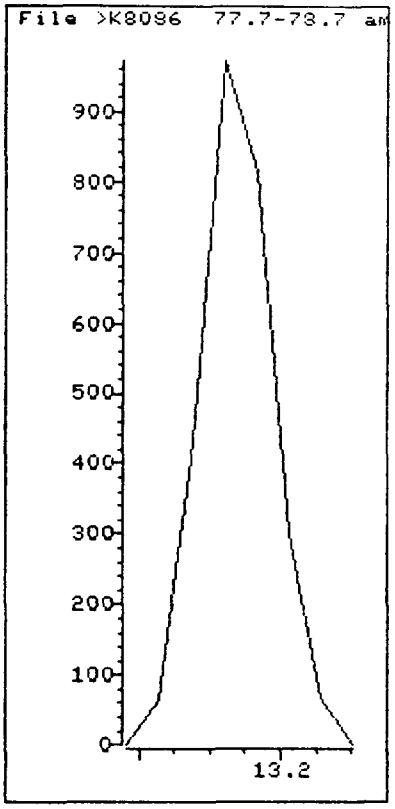


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



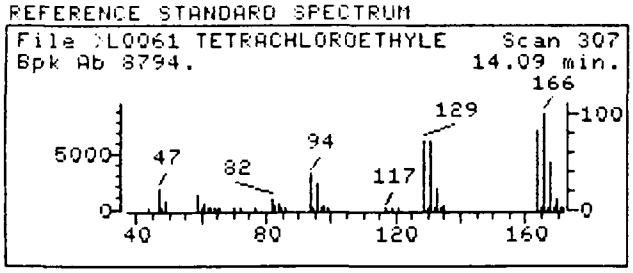


Data File: >K8086::L2 Quant Output File: ^K8086::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD 1423,,92113-FW11D-0595,L,W,ALS4 1:5 TOM .01
Quant Time: 950604 13:56 Quant ID File: KV0AID::DB
Injected at: 950604 13:20 Last Calibration: 950604 12:56

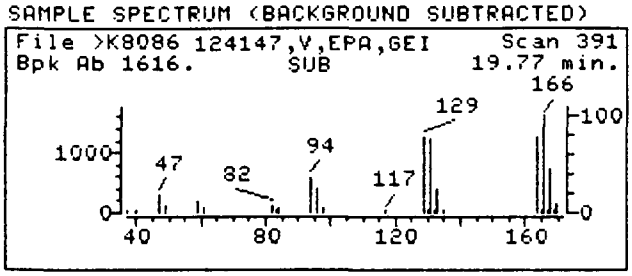
Compound No: 35
Compound Name: C165 BENZENE
Scan Number: 245
Retention Time: 13.12 min.
Quant Ion: 78.0
Area: 7254
Concentration: 4.50 UG/L
q-value: 100

/

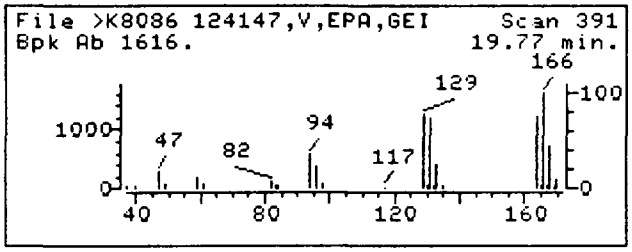
REFERENCE STANDARD SPECTRUM

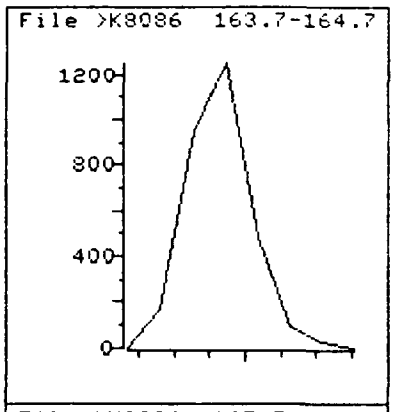


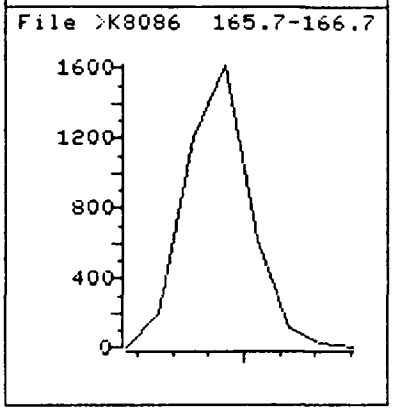
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >K8086::L2 Quant Output File: ^K8086::K2
Name: 124147,V,EPA,GEI
Misc: CLP,FD 1423,,92113-FW11D-0595,L,W,ALS4 1:5 TOM .01
Quant Time: 950604 13:56 Quant ID File: KVOAID::DB
Injected at: 950604 13:20 Last Calibration: 950604 12:56

Compound No: 41
Compound Name: C220 TETRACHLOROETHYLENE
Scan Number: 391
Retention Time: 19.77 min.
Quant Ion: 164.0
Area: 8068
Concentration: 7.96 UG/L
q-value: 99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

92113LGAW

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124047

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K7996

Level: (low/med) LOW Date Received: 05/25/95

% Moisture: not dec. Date Analyzed: 06/01/95

GC Column: CAP ID: 0.530 (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	32	
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	24	
540-59-0	1,2-Dichloroethene (total)	14	Y
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	3	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	5	J
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	8	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	16	B
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	61	
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	30	Y

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

92113LGAW

Lab Name: CANBERRA Contract: GEI

Lab Code: CANBPG Case No.: F01422 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124047

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K7996

Level: (low/med) LOW Date Received: 05/25/95

% Moisture: not dec. Date Analyzed: 06/01/95

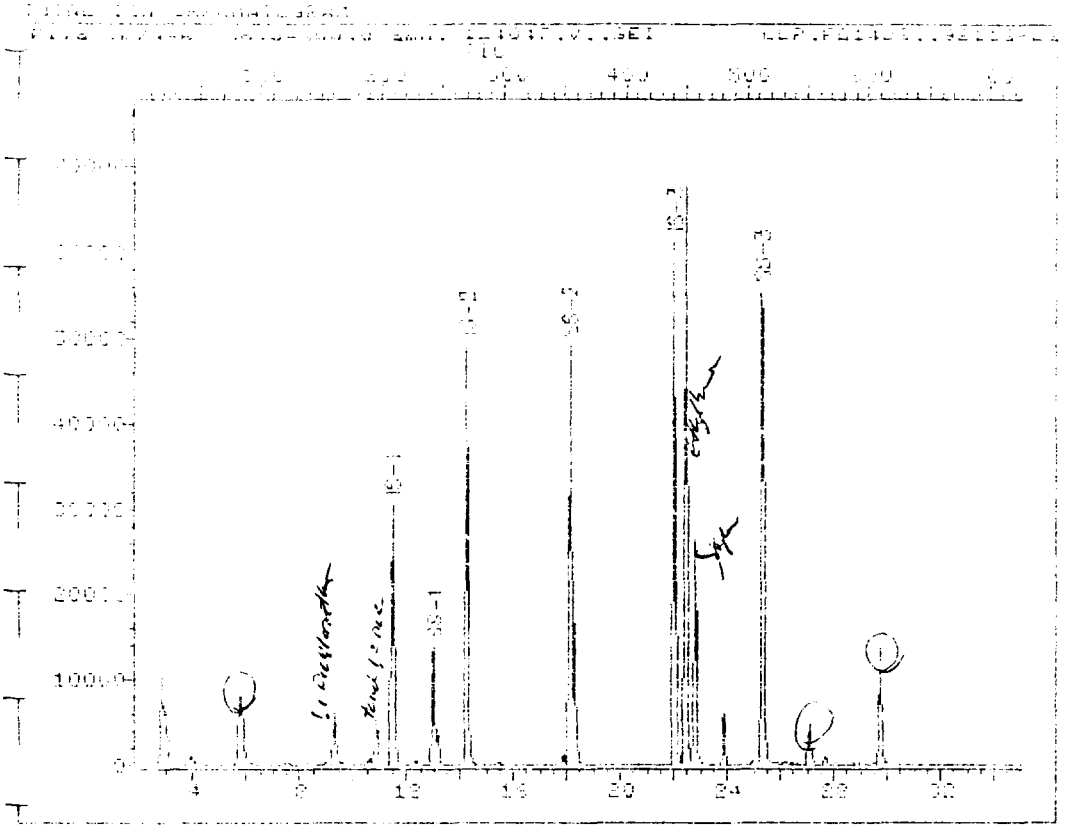
GC Column: CAP ID: 0.520 (mm) Dilution Factor: 1.0

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

Number TICs found: 5 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC	Q
1.	354234	Ethane, 1,2-dichloro-1,1,2-t	5.77	23	JN
2.	74975	Bromochloromethane	11.47	33	JN
3.	109999	Tetrahydrofuran	11.60	26	JN
4.		Unknown isomer	27.09	5	J
5.	95501	Benzene, 1,2-dichloro-	29.72	12	JN

30069



300708

QUANT REPORT

Operator ID: DOUG Quant Rev: 6 Quant Time: 950601 17:07
Output File: ^K7996::K2 Injected at: 950601 16:32
Data File: >K7996::L2 Dilution Factor: 1.00000
Name: 124047,V,,GEI
Misc: CLP,FD1423,,92113-LGAW-0595,L,A,ALS4 5ML JPT .01918

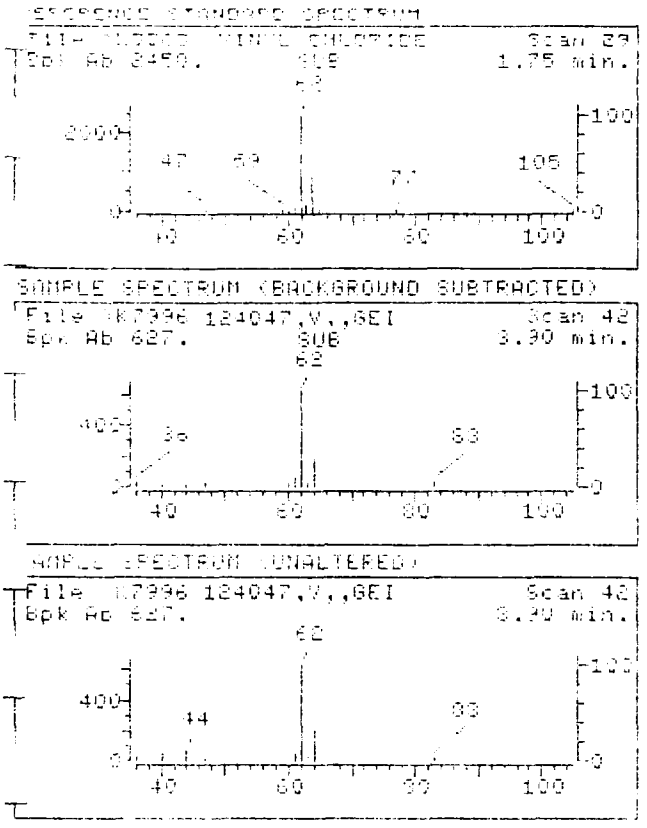
ID File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950601 14:56

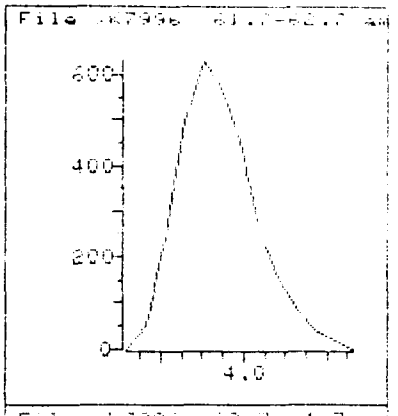
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	11.46	128.0	38260	50.00	UG/L	92
4)	C020 VINYL CHLORIDE	3.90	62.0	8157	31.91	UG/L	93
12)	C050 1,1-DICHLOROETHANE	9.27	63.0	27704	24.25	UG/L	93
17)	C053 TOTAL-1,2-DICHLOROETHENE	10.87	96.0	11080M	13.54	UG/L	82
19)	C065 1,2-DICHLOROETHANE	13.19	62.0	2424	3.31	UG/L	91
20)	CS15 D4-1,2-DICHLOROETHANE SS1	13.01	65.0	34572	50.24	UG/L	87
24)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.24	114.0	164182	50.00	UG/L	100
35)	C165 BENZENE	13.15	78.0	8932	4.96	UG/L	100
38)	*CI20 D5-CHLOROBENZENE IS-3	22.03	117.0	135802	50.00	UG/L	100
39)	C205 4-METHYL-2-PENTANONE	17.88	43.0	3413	7.95	UG/L	91
43)	CS05 D-8 TOLUENE (SS-2)	18.11	98.0	127468	46.33	UG/L	92
44)	C230 TOLUENE	18.29	91.0	42065	16.28	UG/L	99
46)	C240 ETHYL BENZENE	22.44	106.0	62037	61.38	UG/L	97
47)	CS10 BROMOFLUOROBENZENE (SS-3)	25.31	174.0	75644	47.30	UG/L	81
51)	C250 TOTAL XYLENES	22.80	106.0	38752M	30.33	UG/L	92

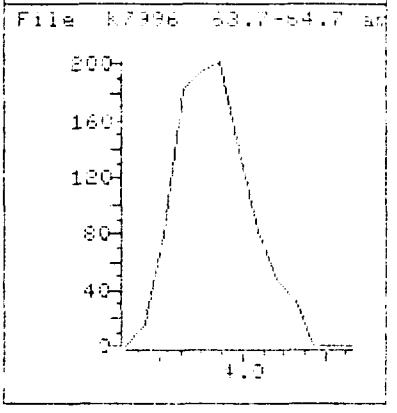
* Compound is ISTD

6-6-95
JPT

30071







Data File: :K7996:1:2 Quant Output File: :K7996:1:K2

Name: 124047,V,,GEI

Mass: FID,5%+OV-225,,0.2mm I.D.-PROM-0.5um,1,6,N2 Sn: SN 3PT 01913

Quant Time: 950601 11:57 Quant ID File: CUMFID:DF

Injected at: 950601 11:57 Last Calibration: 950601 13:5?

Component No: 4

Component Name: C070 VINYL CHLORIDE

Scan Numbers: 42

Retention Time: 3.90 min.

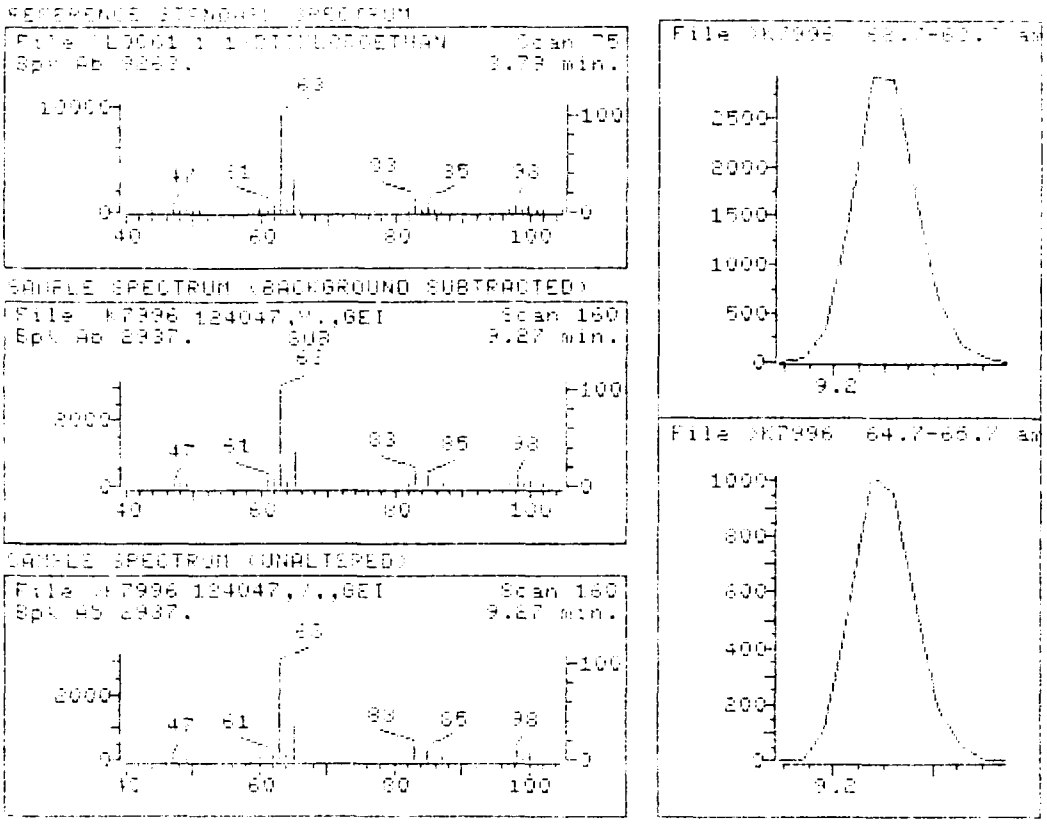
Quant Ion: 62.0

Area: 8152

Concentration: 31.91 ug l

Qualifiers: 93

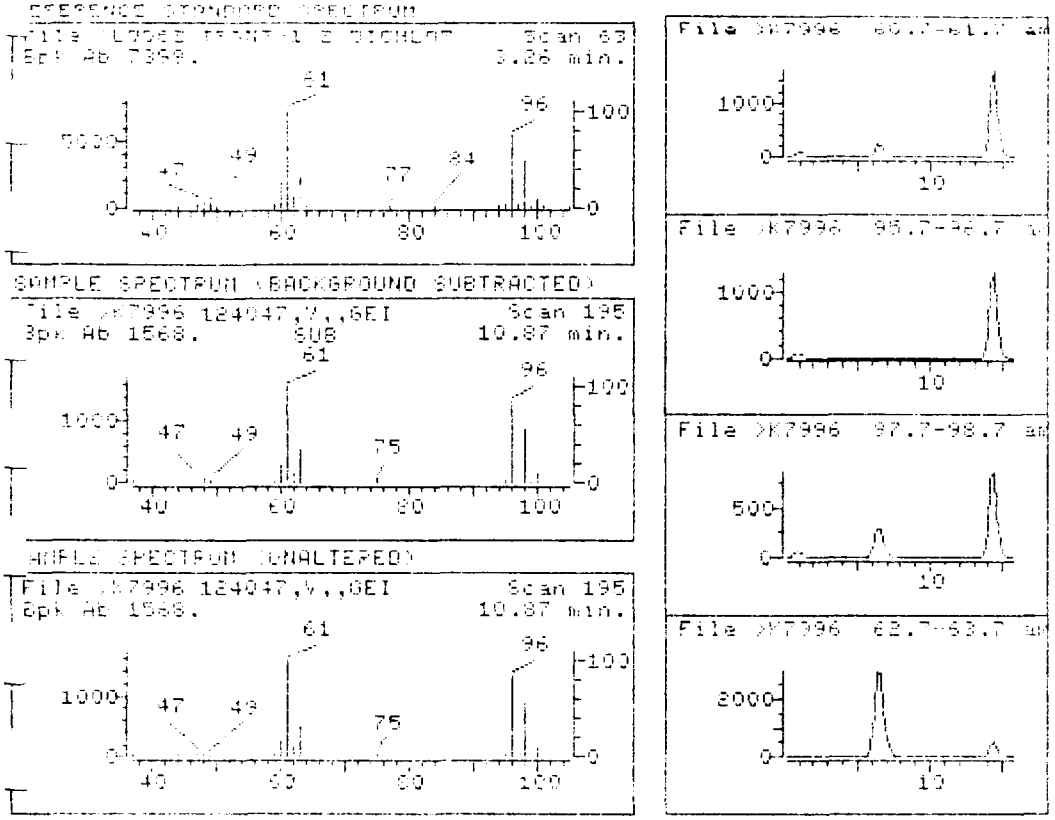
30072



Data File: K7996::L2 Quant Output File: K7996::P2
Name: 1,1-DCA,,VOA,,GEI
Misc: CLP,F01423,,92113-LGnW-0599,L,A,AL54 5ML JPC .01918
Quant Time: 950c01 17:07 Quant ID File: LVOAID::P8
Injected at: 950c01 15:52 Last Calibration: 950c01 14:50

Compound No: 12
Compound Name: 0050 1,1-DICHLOROETHANE
Scan Number: 160
Retention Time: 9.27 min.
Quant Ion: 63.0
Area: 32204
Concentration: 24.25 UG/L
Q value: 96

30073



Data File: D7996:[ ]

Quant Output File: [ ]

Sample Name: 124047,V,,GEI

Operator: [illegible]

Quant Time: 950601 12:02

Quant ID File: RUPTID:DI

Injected at: 950601 16:52

Last Calibration: 950601 [illegible]

Compound No: 17

Compound Name: DB-5 EPA#1,2-DICHLOROPROPANE

Scan Number: 195

Retention Time: 10.87 min.

Quant Ion: 76.0

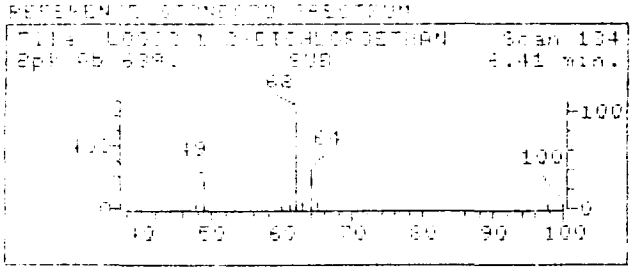
Response: [illegible]

Concentration: 15.5 ug/l

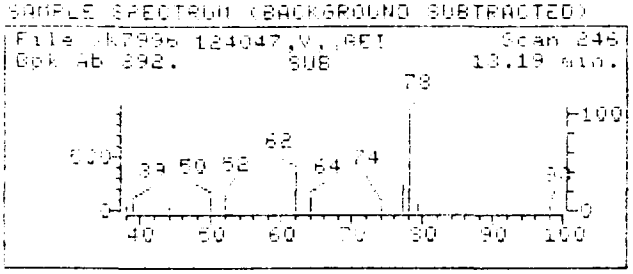
Qualifiers: OK

30074

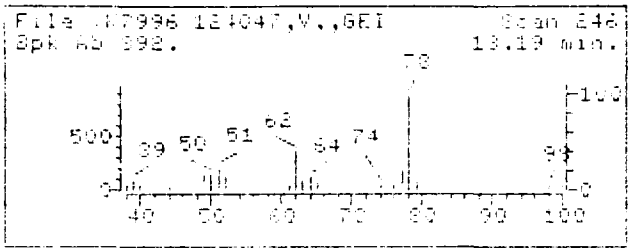
REFERENCE SPECTRUM

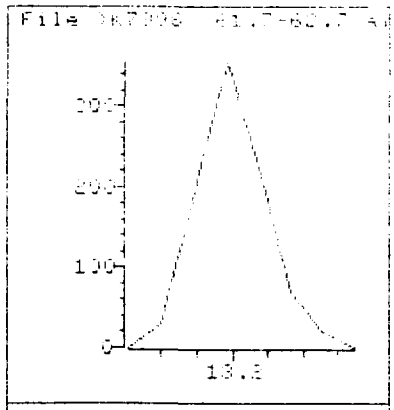


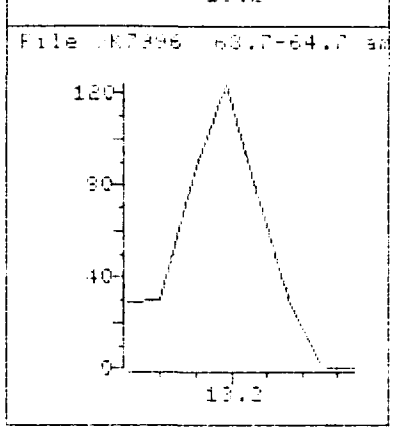
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



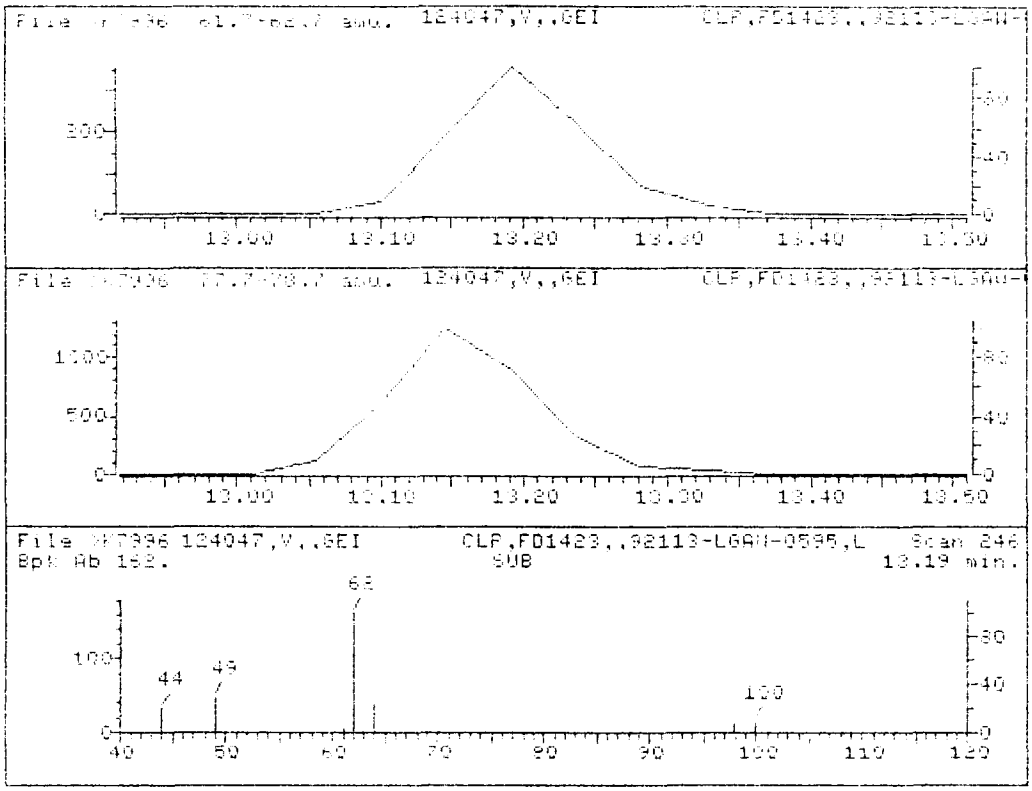




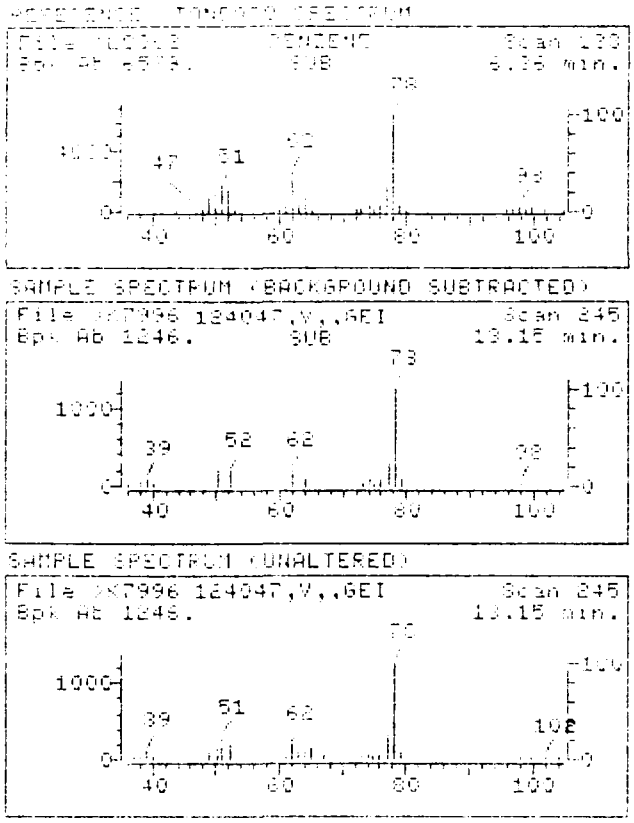
Data File: [illegible] Quant Output File: [illegible]
Name: [illegible]
Misc: CLP,FD1423,,92113-LGAW-0595,L,A,AL54 DHL JFI .01918
Quant Time: 950601 17:07 Quant ID File: RV0AID#.3D
Injected at: 950601 16:52 Last Calibration: 950601 14:56

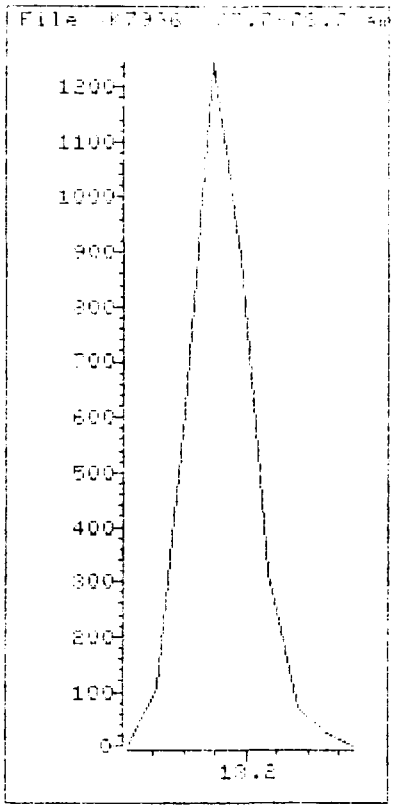
Compound No: 29
Compound Name: CAS# 1,2-DICHLOROETHANE
Scan Number: 246
Retention Time: 13.19 min.
Quant Ion: 62.0
Area: 2424
Concentration: 3.31 UG/L
q-value: 91

Clean spectra →



1,2 Dichloroethane

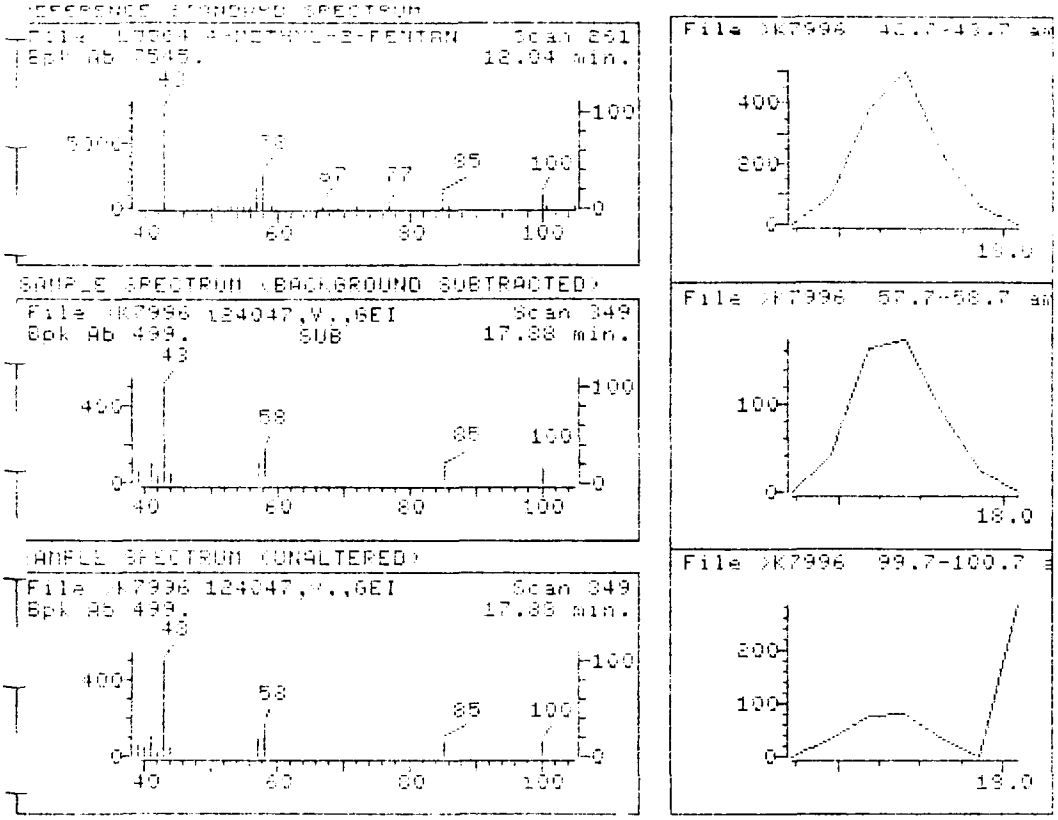




Data File: K7996:[...]
Name: [...]
Misc: CLP,FB1423,,2311S-LCS4-0595,L,A,AL54 5ML 3PT .01218
Quant File: K7996:[...]
Count Time: 950601 17:07
Quant ID File: [...]
Injected at: 950601 16:52
Last Calibration: 950601 14:56

Compound No.: 35
Compound Name: C165 DIHLSHE
Scan Number: 245
Retention Time: 13.15 min.
Quant Ion: 78.0
Area: [illegible]
Concentration: 4.6 UG/L
q value: 100

30077



Data File: :K7996::1^ Quant Output File: ^:K7996::SO

Name: 134047,V,,6EI

Bl: BP,FD1423,,92114-1.5mm-0595,1,,A,AL54 5KI .3PT .01918

Quant Time: 950601 17:07 Quant ID File: KUNAIDS:ID

Injected at: 950601 14:32 Last Calibration: 950601 14:5?

Compound No: 35

Compound Name: C205 4-METHYL-2-PENTANONE

Scan Number: 349

Retention Time: 17.88 min.

Quant Ion: 43.0

Area: 5417

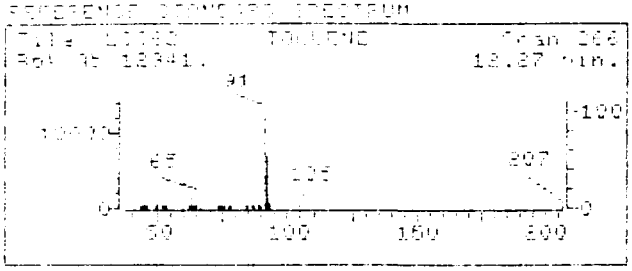
Concentration: 2.95 NG/I

Qual Ion: 91

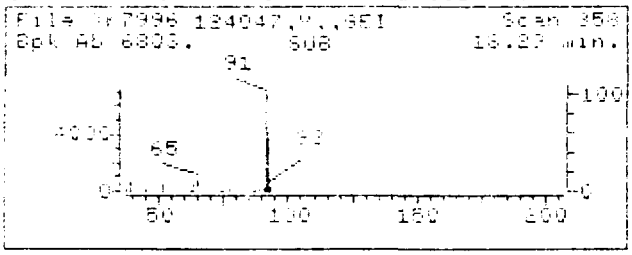
/

30078

REFERENCE SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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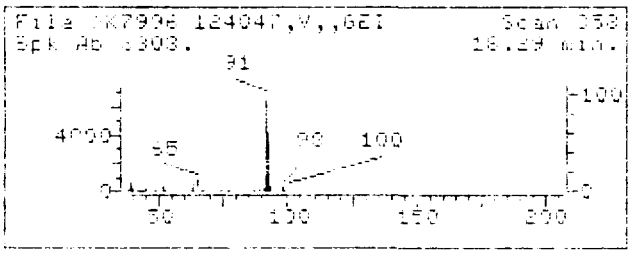
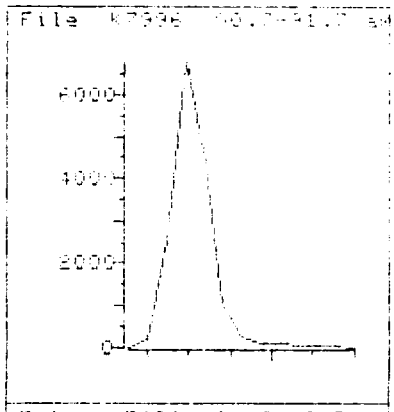
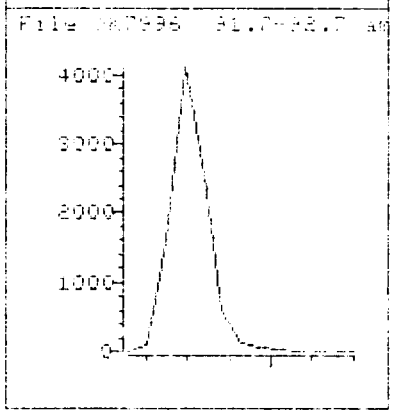


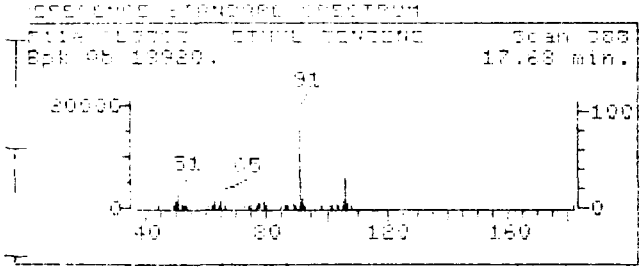




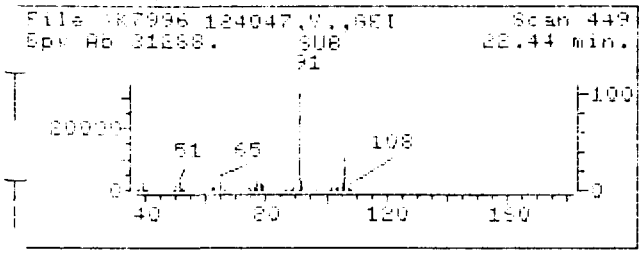
Data File: K7996::L2 Quant Output File: K7996::K2
Name: 124047,V,,6EI
Misc: CLP,FD1+23,,92113-LGIW-0595,L,A,ALS4 5ML JPT .01913
Quant Time: 950601 17:37 Quant IT File: LUOmID::0C
Injected at: 950601 16:52 Last Calibration: 950601 14:56

Compound No: 23
Compound Name: C230 TOLUENE
Scan Number: 350
Retention Time: 18.29 min.
Quant Ion: 91.0
Area: 42035
Concentration: 10.22 UG/L
q-value: 99

✓



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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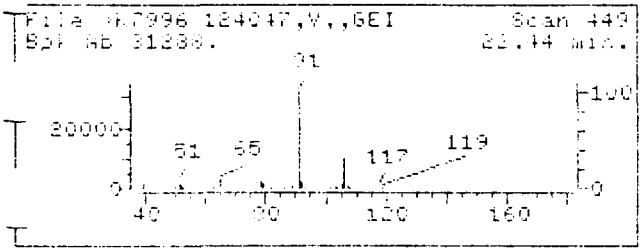
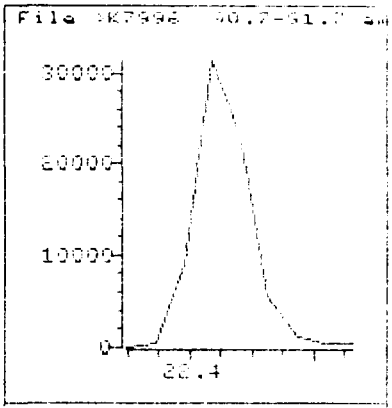
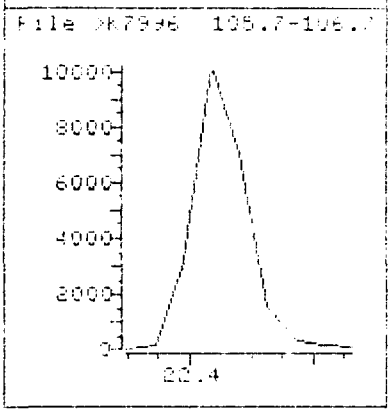






Data File: [illegible] Quant Output File: [illegible]

Name: [illegible]

Misc: [illegible]

Quant Time: [illegible] Quant ID File: [illegible]

Injected at: [illegible] Last Calibration: [illegible]

Compound No: [illegible]

Compound Name: [illegible]

Scan Number: [illegible]

Retention Time: [illegible]

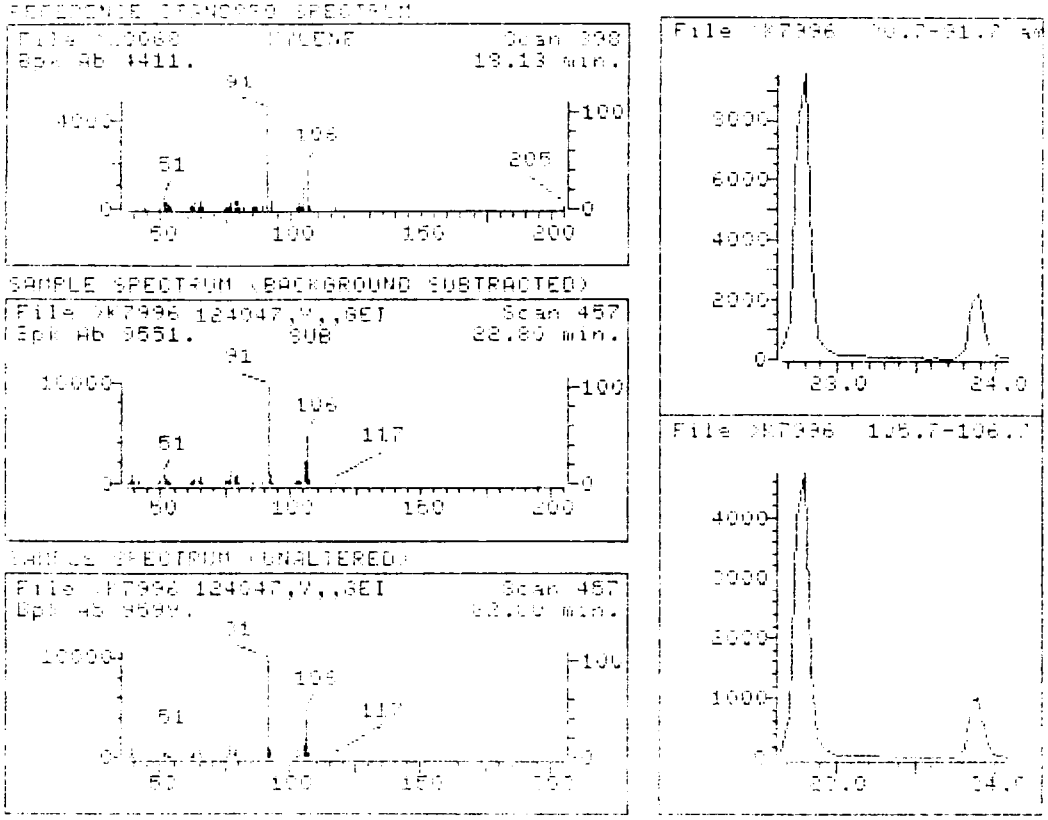
Quant Ion: [illegible]

Area: [illegible]

Concentration: [illegible]

q-value: [illegible]

30080



Data File: [illegible] Quant Output File: [illegible]
Name: [illegible]
Misc: CLP,FC1403,,9113-LOAW-05-5,L,A,PL54 50L JPT .01910
Quant Time: 950601 17:00 Quant ID File: [illegible]
Injection Time: 950611 10:32 Last Calibration: 950601 [illegible]

Compound No.: 51
Compound Name: 0250 TOTAL XYLENES
Scan Number: 487
Retention Time: 22.80 min.
Quant Ion: 106.0
Area: [illegible]
Concentration: 50.53 UG/L
q-value: 72

MS data file header from : >K7996

Sample: 124047,V,,GEI Operator: DOUG SUPER GRP. 6/01/95 16:32
Misc : CLP,FD1423,,92113-LGAW-0595,L,A,ALS4 SML JPT .01918
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 0
Method file: KVOA Tuning file: MTUNEK No. of extra records: 2
Source temp.: 0 Analyzer temp.: 220 Transfer line temp. : 0

Chromatographic temperatures :	37.	150.	150.	0.	0.
Chromatographic times, min. :	7.0	4.0	3.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	5.0	0.0	.2	0.0

>K7996 124047,V,,GEI CLP,FD1423,,92113-LGAW-0595,L,A,ALS4 SML

35.0! 300.0 CLP TIC
Upslope: .20 Area Reject: 22554. Max Peaks: 6 Bunching: 1
Dnslope: 0.00 Results File IK7996 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	2.81	15	18	20	10893	75329	74632	72.38	18.865
2	2.99	20	22	28	6082	56011	52339	50.76	13.230
3	5.77	79	83	96	9374	105246	103108	100.00	26.062
4	10.87	192	195	200	5208	41813	40305	39.09	10.188
5	27.08	548	551	560	4888	36770	35262	34.20	8.913
6	29.72	606	609	621	13674	91612	89973	87.26	22.742

Sum of corrected areas: 395619.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	225536.	11.46	2.03 - 12.85
2	50.0	337839.	14.24	12.85 - 18.13
3	50.0	360236.	22.03	18.13 - 35.05

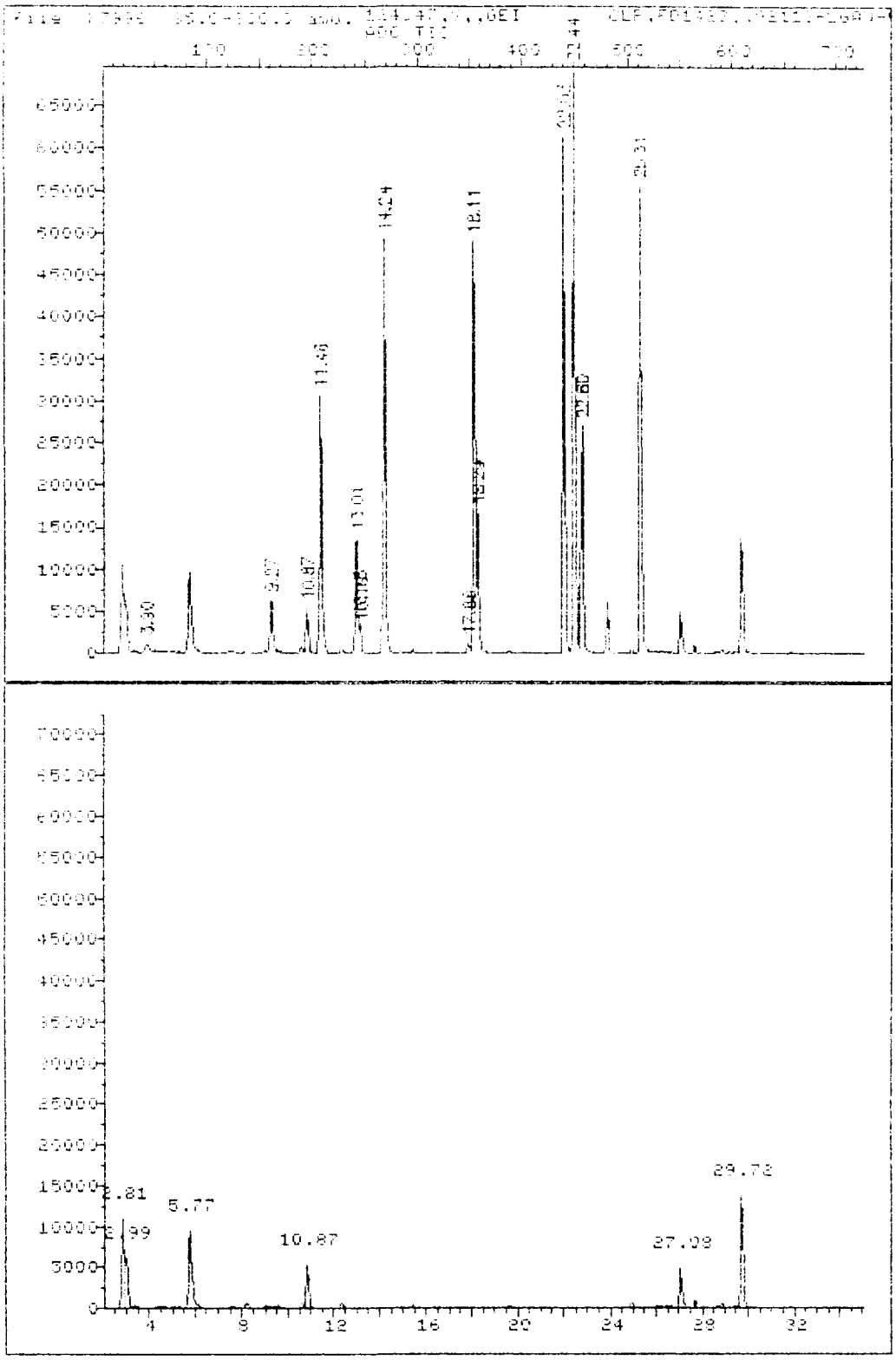
'^' Dilution Factor = 1.00 U dilf = 1.00
Method called for 1000.000 g or mL This sample was 1000.000 g or mL

Correction Factor = 1.00

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unknown} * \text{Correction Factor}$$

11:42 AM TUE., 6 JUNE, 1995

30082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55000
50000
45000
40000
35000
30000
25000
20000
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10000
5000
3.90
9.07
10.87
11.46
13.01
14.24
18.11
22.44
22.60
24.31
70000
65000
60000
55000
50000
45000
40000
35000
30000
25000
20000
15000
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29.72
4
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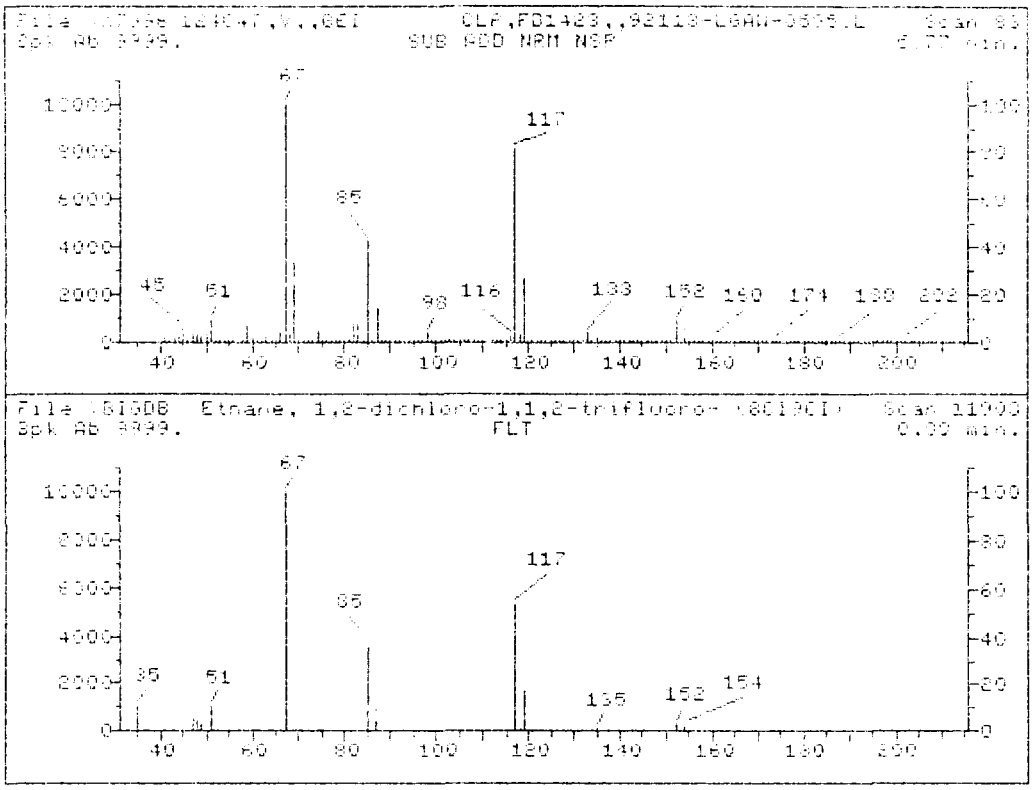
12
16
20
24
28
32



. UNKNOWN #,3
AREA = 103108.0 TENTATIVE CONCENTRATION IS 23.00

1. Ethane, 1,2-dichloro-1,1,2-trifluoro- (8CI9CI) 152 C2HCl2F3

Sample file: >K7996 Spectrum #: 83
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	52*	354234	11903	"BIGDB	41	68	0	0	69	39	19	43

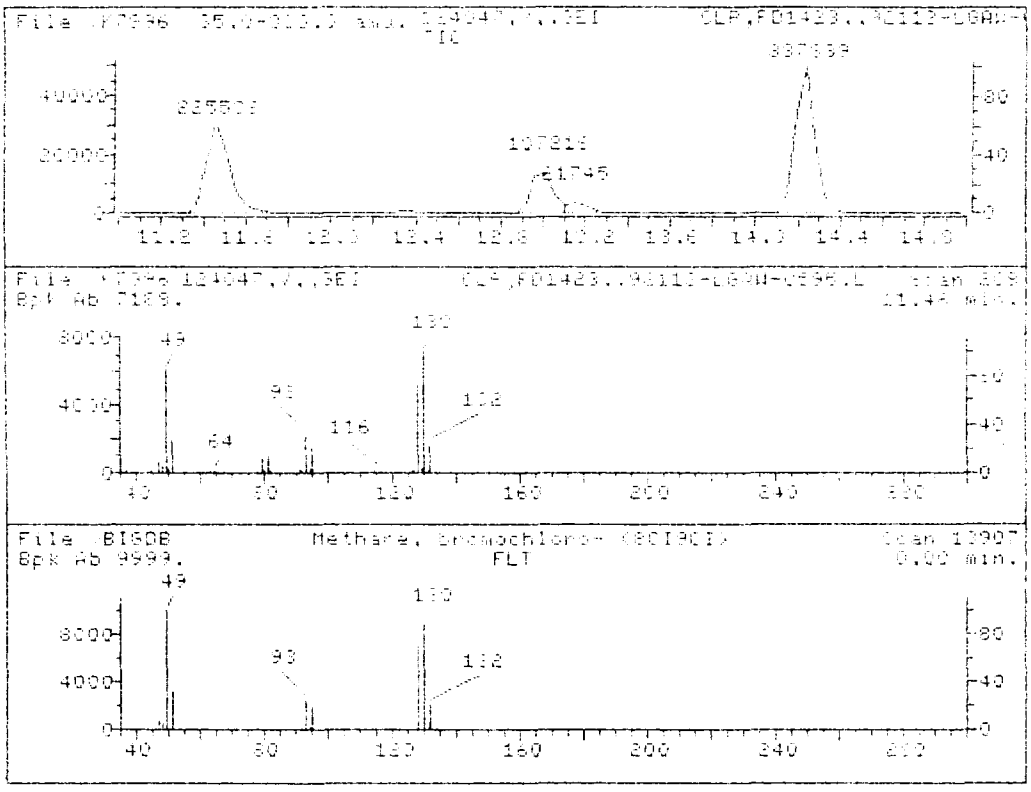
1. Methane, bromochloro- (80I8CI)

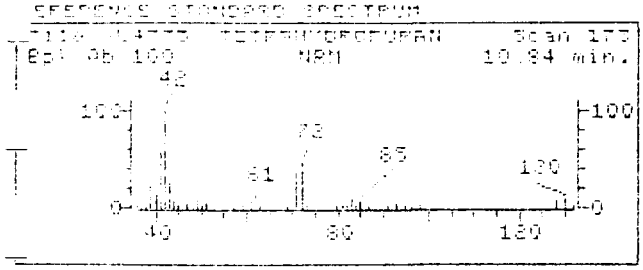
Sample file: :H7886 Spectrum #: 208
Search speed: 1 Tilting option: N No. of ion ranges searched: 4

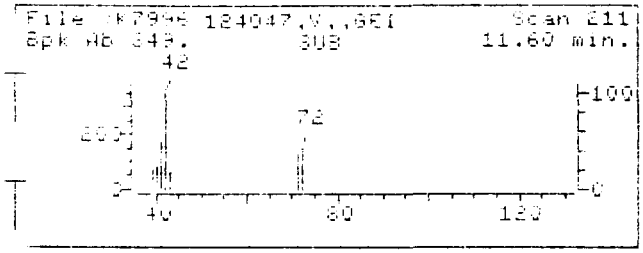
	Prob.	CAS #	CON #	ROOT	M	DM	#FLG	TILT	%	CON	C_I	R_IV
1.	87*	74975	13907	BI60B	105	7	2	0	21	0	72	87

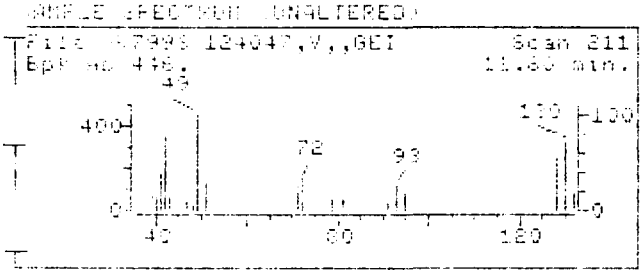
$$Conc = \frac{225536}{337839} \times \frac{50}{1}$$

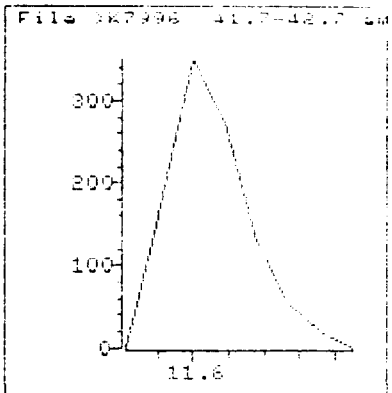
$$= 33.4 \text{ ug/L}$$

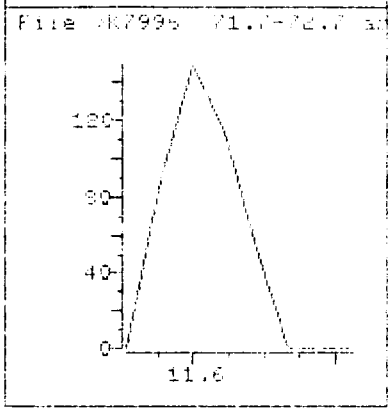












Data File: K799A11.D Quant Output File: K799A11.V

Name: 1,2,3,7,8-PeCDF

ID: CLP,SOP#3,,0111-1SAM-0595,1,9.AI-SA SIM JBF 31218

Scan Time: 9504.1 12:07 Quant ID File: ZUMA1B11.M

Injected at: 9503.01 Ins#3 Last Calibration: 27-AUG-1995

Compound No: 22

Compound Name: 2378 TETRACHLORODIBENZOFURAN

Scan Number: 211

Retention Time: 11.60 min.

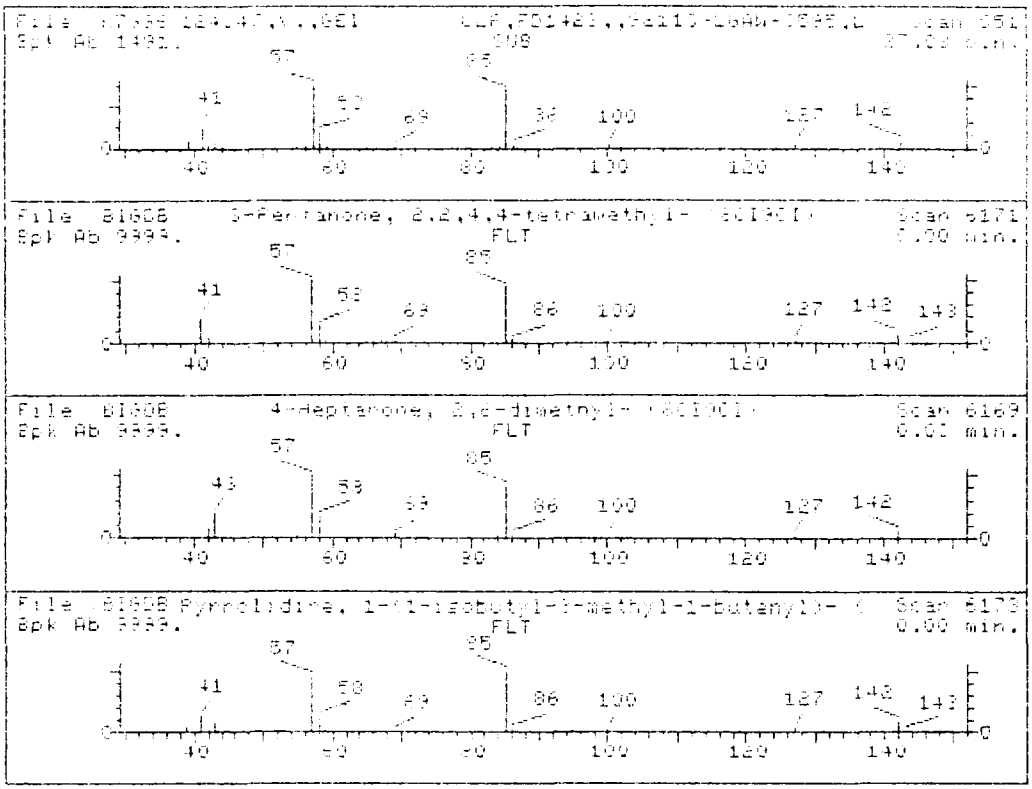
Quant Ion: 42.0

Area: 2208

Concentration: 35.68 NG/L

Qual Flag: QA

30086



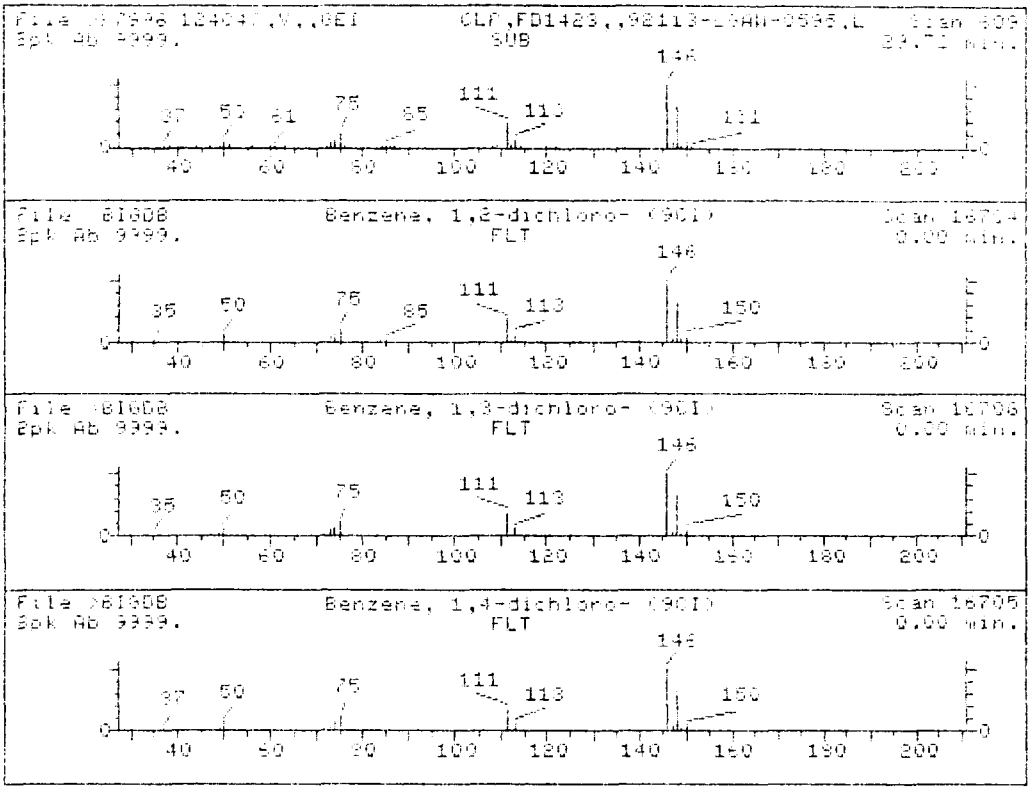
UNKNOWN #,5
AREA = 35262.00 TENTATIVE CONCENTRATION IS 5.00

1.	3-Pentanone, 2,2,4,4-tetramethyl- (8CI9CI)	142	C9H18O
2.	4-Heptanone, 2,6-dimethyl- (8CI9CI)	142	C9H18O
3.	Pyrrolidine, 1-(1-isobutyl-3-methyl-1-butenyl)- (8CI	195	C13H25N
4.	4-Octanone, 2-methyl- (8CI9CI)	142	C9H18O
5.	1H-Tetrazol-5-amine (9CI)	85	CH3N5

ISOMER

Sample file: >K7996 Spectrum #: 551
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	87*	815247	6171	"BIGDB	64	29	2	0	87	2	63	49
2.	83*	108838	6169	"BIGDB	48	51	2	0	74	2	57	22
3.	83	3494040	6173	"BIGDB	75	20	2	0	80	2	57	27
4.	60*	7492388	6174	"BIGDB	40	52	3	0	100	11	30	14
5.	52*	4418615	5	"BIGDB	21	104	2	0	100	19	20	13



b.g.f.

UNKNOWN #,6

AREA = 89973.00 TENTATIVE CONCENTRATION IS 12.00

1.	Benzene, 1,2-dichloro- (9CI)	146 C6H4Cl2
2.	Benzene, 1,3-dichloro- (9CI)	146 C6H4Cl2
3.	Benzene, 1,4-dichloro- (9CI)	146 C6H4Cl2
4.	2-Thiophenecarboxaldehyde, 5-chloro- (8CI9CI)	146 C5H3ClOS
5.	Propane, 2-bromo-1,2-dichloro- (8CI)	190 C3H5BrCl2

Sample file: >K7996 Spectrum #: 609
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	97*	95501	16704	"BIGDB	101	10	0	0	81	2	72	97
2.	96*	541731	16706	"BIGDB	89	19	0	0	79	2	72	96
3.	94*	106467	16705	"BIGDB	84	24	0	0	72	11	64	95
4.	20*	7283967	16703	"BIGDB	26	78	2	0	117	52	5	14
5.	11*	17759885	11200	"BIGDB	25	74	3	0	38	64	2	13

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

92113LGSW

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124048

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K7999

Level: (low/med) LOW Date Received: 05/25/95

% Moisture: not dec. Date Analyzed: 06/01/95

GC Column: CAP ID: 0.530 (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	7	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	2	J
540-59-0	1,2-Dichloroethene (total)	4	J
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	2	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	12	
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	6	J
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

92113LGSW

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124048

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K7999

Level: (low/med) LOW Date Received: 05/25/95

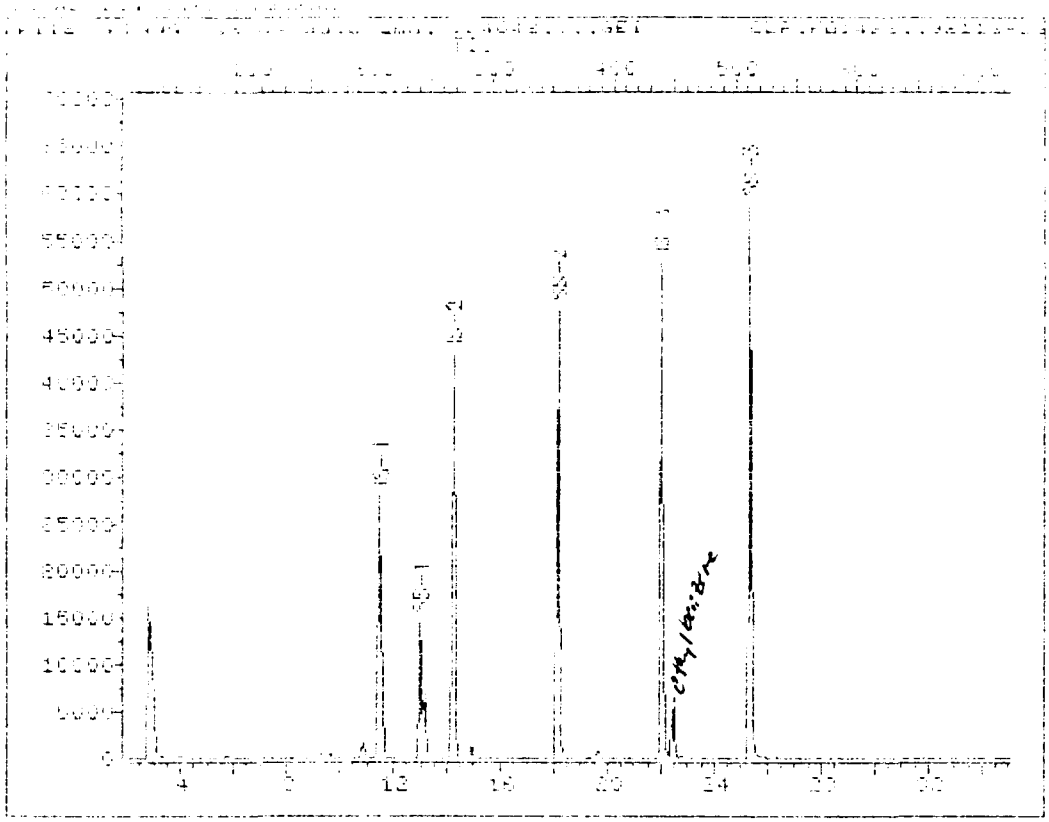
% Moisture: not dec. Date Analyzed: 06/01/95

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

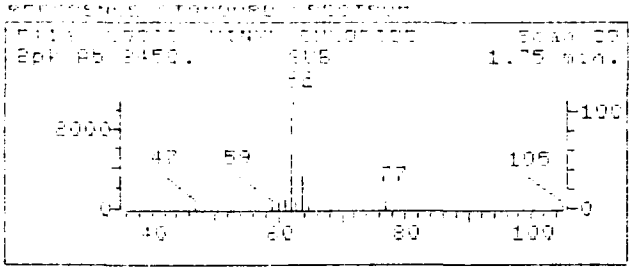

C14/16/18

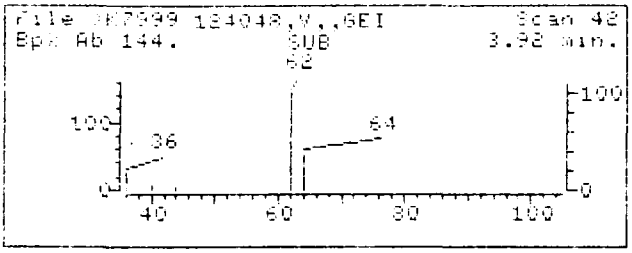
Operator ID: 0000 Quant Rev: 6 Quant Time: 950601 1445
Sample File: 5060502 Injection #: 01
Data File: B0060502 Dilution Factor: 1.0000
Name: 0000048,U,,,,,,,
Misc: CLP,FD1427,,,,,115-1GSW-C=95,1,A,AL57 5ML .2T .2IS1B

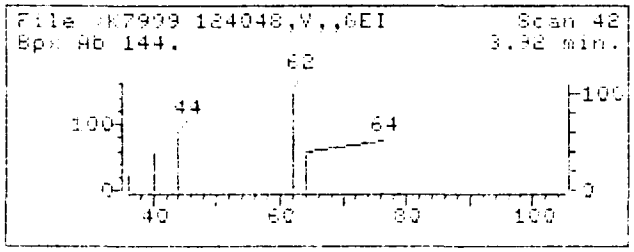
Title: 1,000,b=,uk
Title: VOLATILE ORGANIC ANALYSIS, INST=HP597CK
Last Calibration: 950601 14:56

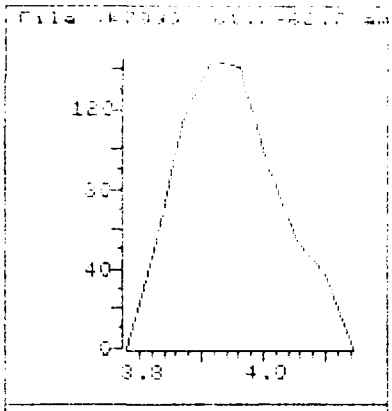
	Compound	R.T.	Q Ion	Area	Conc	Units	q
	*C101 BROMOCHLOROMETHANE IS-1	11.48	128.0	38415	50.00	UG/L	95
41	C070 VINYL CHLORIDE	3.92	62.0	1741	6.78	UG/L	98
2	C050 1,1-DICHLOROETHANE	9.29	63.0	2833	2.42	UG/L	97
	C053 TOTAL-1,2-DICHLOROETHENE	10.84	96.0	3172	3.86	UG/L	71
5	C065 1,2-DICHLOROETHANE	13.21	62.0	1749	2.38	UG/L	98
01	C515 D4-1,2-DICHLOROETHANE SS1	12.98	65.0	34577	50.03	UG/L	91
1	*C110 1,4-DIFLUOROBENZENE IS-2	14.21	114.0	154850	50.00	UG/L	100
	C150 TRICHLOROETHENE	14.89	130.0	1800	1.48	UG/L	33
51	C155 BENZENE	13.16	78.0	21084	12.25	UG/L	100
8	*C120 D5-CHLOROBENZENE IS-3	22.00	117.0	125090	50.00	UG/L	100
	C505 D-8 TOLUENE (SS-2)	18.13	98.0	118336	46.69	UG/L	83
61	C240 ETHYL BENZENE	22.45	106.0	5609	6.03	UG/L	93
71	C510 BROMOFLUOROBENZENE (SS-3)	25.30	174.0	68950	46.81	UG/L	99

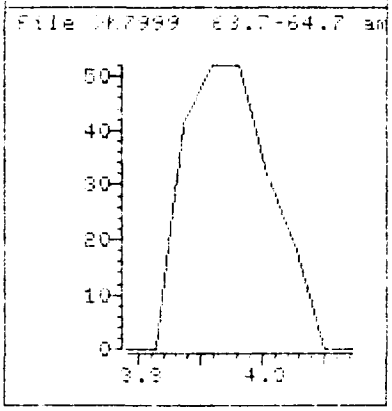
Compound is ISTD











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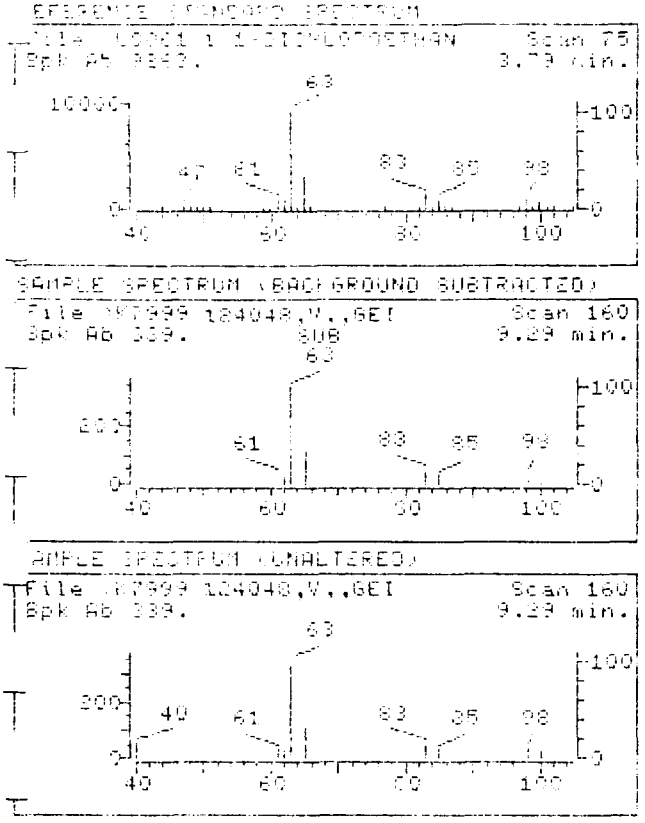
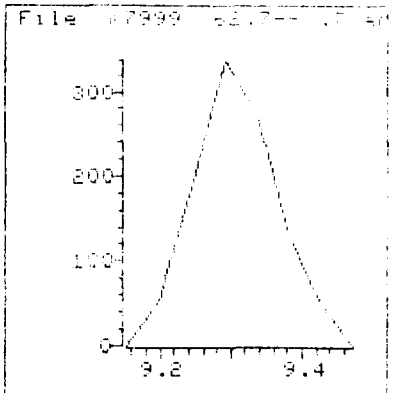
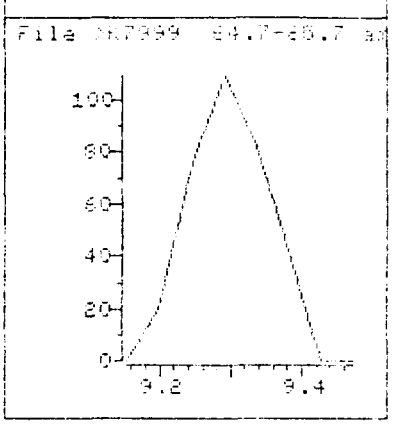
Quant Output File: JK7999:[1.2]
Name: 124048,V,,6EI
Misc: CLP,SD1478,,9211%-1:6%W-0595,1,A,AL52 SME 3PT (1215
Quant Time: 950401 19:05
Quant ID File: KVOA1P:[0]
Injected at: 950401 18:39
Last Calibration: 950401 14:54

Component No: 4
Component Name: 2020 VINYL CHLORIDE
Scan Number: 42
Retention Time: 3.92 min.
Quant Ion: 62.0
Area: 1761
Concentration: 0.28 UG/L
Qualifiers: ---





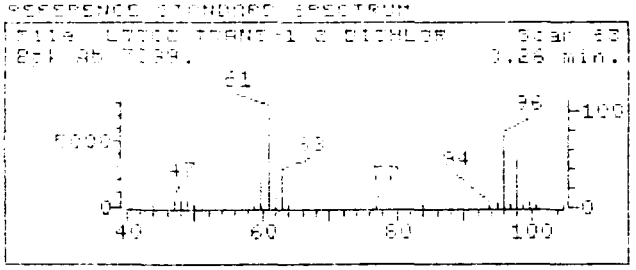


Data File: >K7999::L2 Quant Output File: 'K7999::L2
Name: 124048,V,,6EI
disc: CLP,FD1423,,'0113-LOOW-0595,L,A,ALS' FIL JPT .01213
Quant Time: 950601 19:35 Quant ID File: KUOMID::ED
Injected at: 950601 18:29 Last Calibration: 950601 14:56

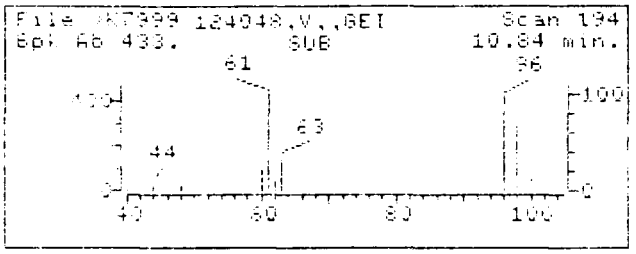
Compound No: 12
Compound Name: CHSC 1,1 DICHLOROETHANE
Scan Number: 160
Retention Time: 9.29 min.
Quant Ion: 63.0
Area: 2838
Concentration: 2.47 UG/L
%-Value: 97

30094

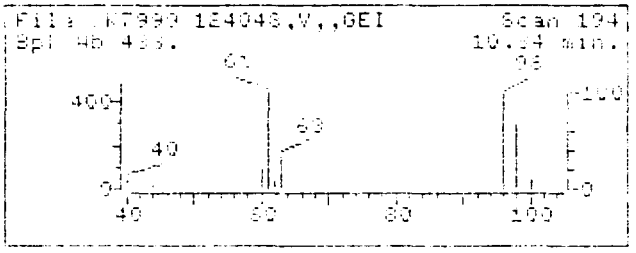
REFERENCE STANDARD SPECTRUM

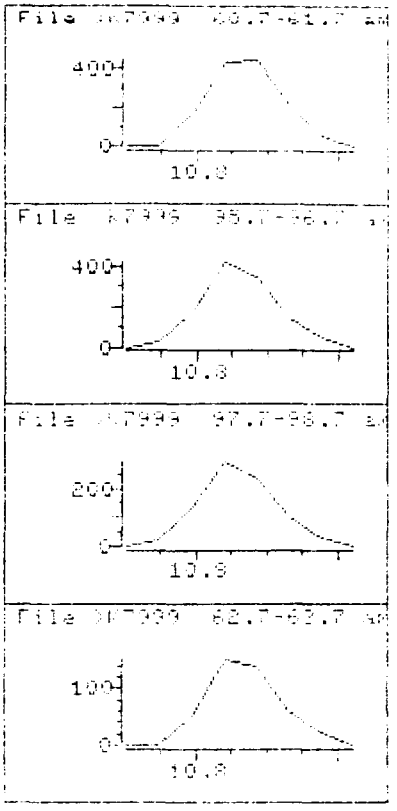


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: [illegible] Sample File: [illegible]

Name: [illegible]

Area: [illegible]

Quant Time: [illegible] Quant Method File: [illegible]

Injected on: [illegible] Last Calibration: [illegible]

Compound No: 17

Compound Name: [illegible]

Scan Number: [illegible]

Retention Time: 10.84 min.

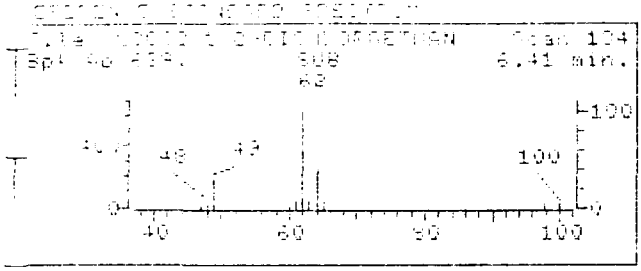
Mass Info: [illegible]

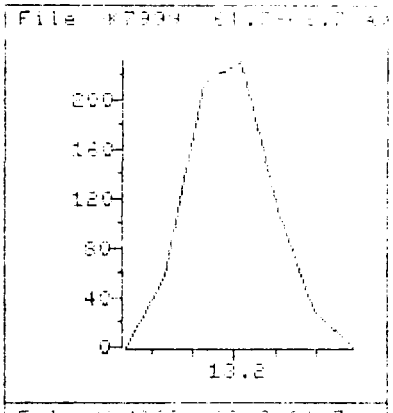
Match: >[illegible]

Concentration: [illegible]

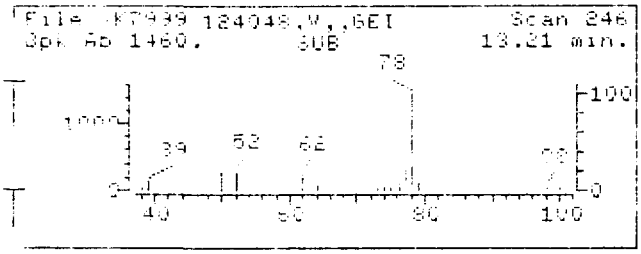
Q Value: [illegible]

30095

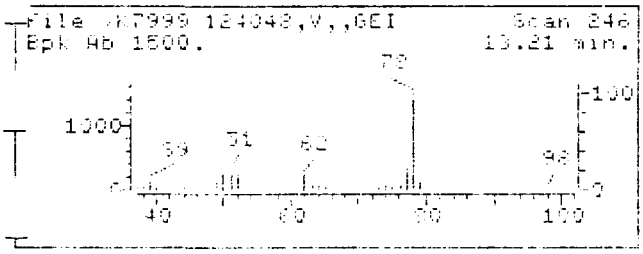


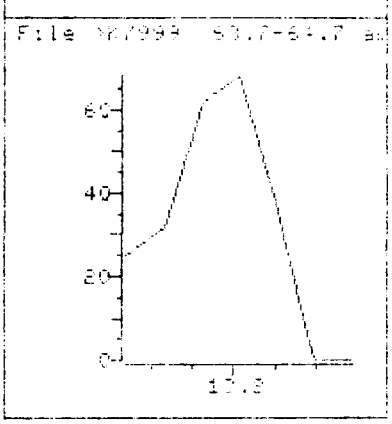


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

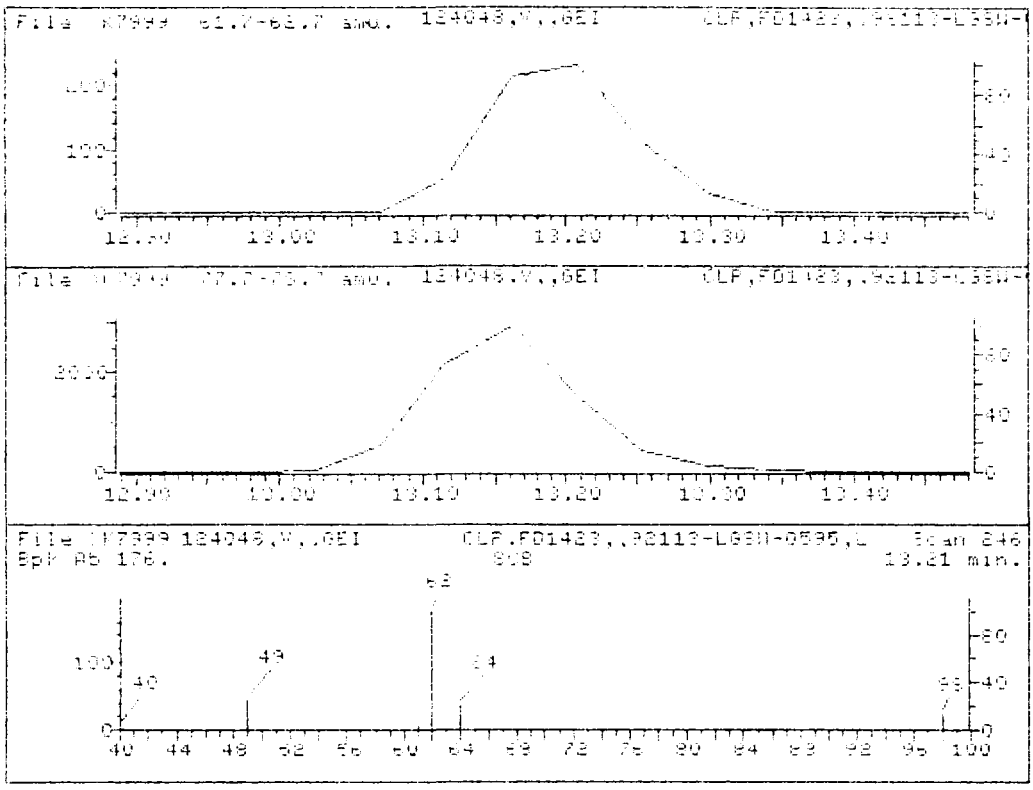




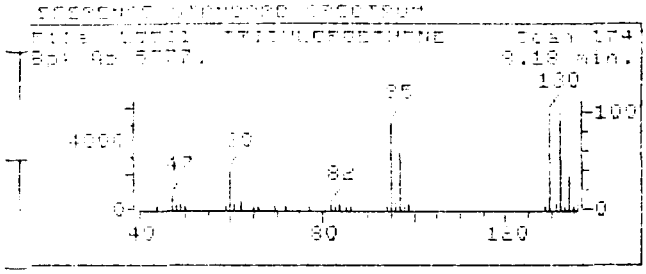
Data File: X7999::LL2 Quant Output File: X7999::K2
Name: 124048,V,,GEI
ID: CLP,FDH23,,92113-L6SW-0595,L,A,ALS7 5ML 3PF .01913
Quant Time: 951201 15:00 Quant ID File: KU?AID::ED
Injected at: 950601 13:29 Last Calibration: 950601 14:56

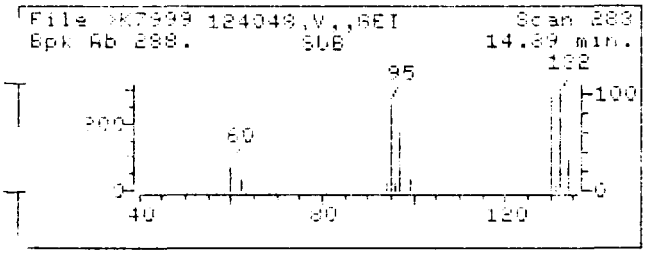
Compound No: 1
Compound Name: CVAS 1,2-DICHLOROETHANE
Scan Number: 246
Retention Time: 13.21 min.
Quant Ion: 62.0
Area: 1762
Concentration: 2.38 UG/L
Q Value: 99

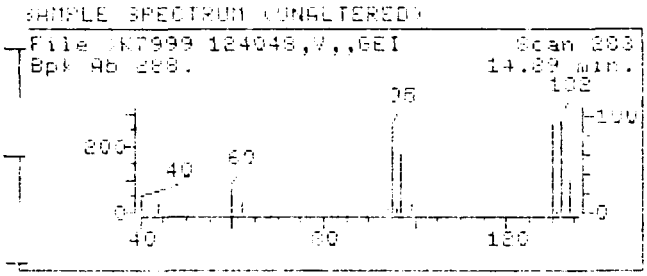
Cleaned spectra

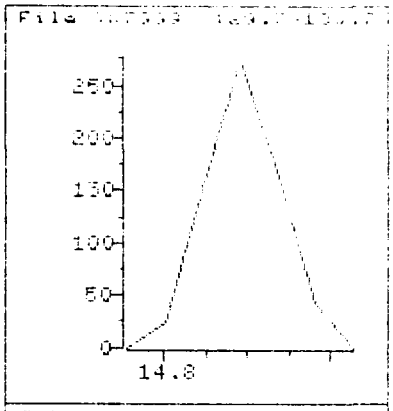

100
0
12.00
13.00
13.10
13.20
13.30
13.40
80
40
0
2000
100
40
49
64
93
40 44 48 52 56 60 64 68 72 76 80 84 88 92 96 100

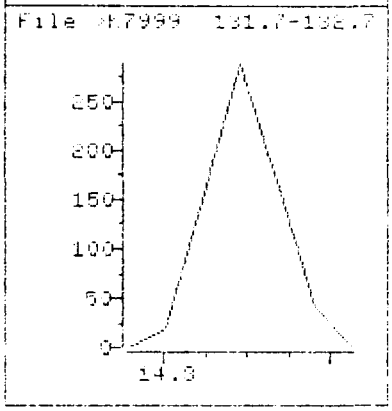
1,2 xe







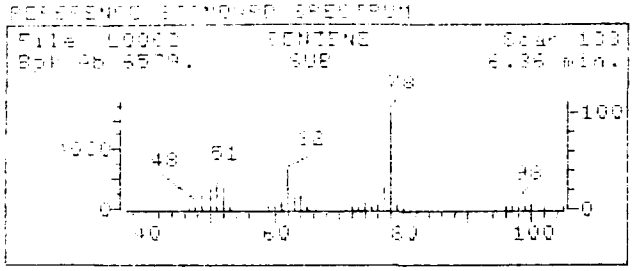


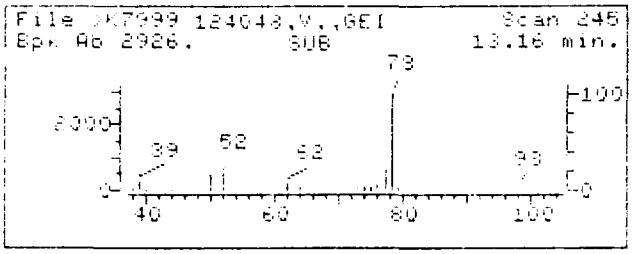


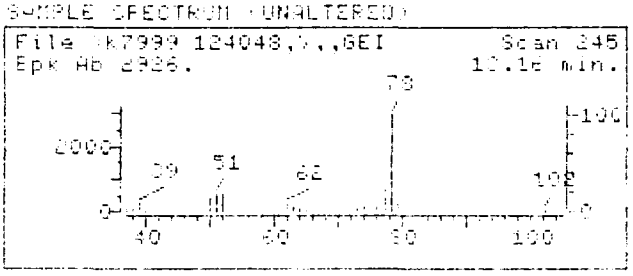
Data File: K7999:[]
Smart Output File: K7999:[]
Mass: 132amu,V,,GEI
Mass: 95,5814096,,2111-1111%-0%%,L,A,0[]" SHE .01" 01910
Smart Time: 2[]:[]1 12:0[]
Smart Ir File: [][][][][][][]
Injected at: 250mil 13:[]9
Last Calibration: 2[]-[]1 1[]:[]

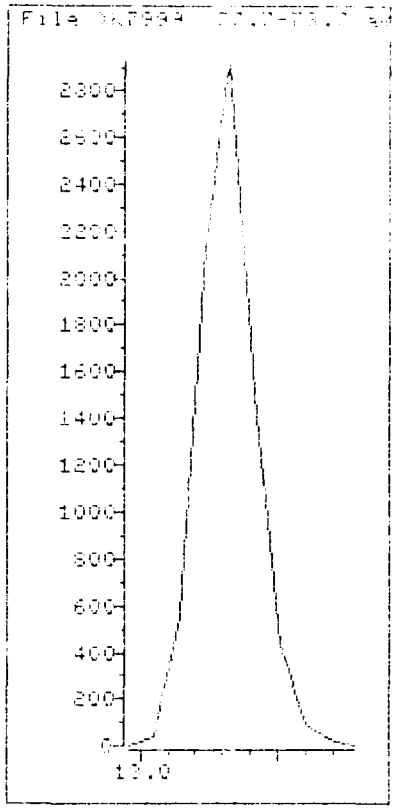
Compound Ave
Compound Name: C1=C TRICHLOROETHYLENE
Scan Number: 283
Retention Time: 14.39 min.
Base Peak: 130.9
Area: 1[][]0
Concentration: 1.28 UG/L
Quality: 99

30098





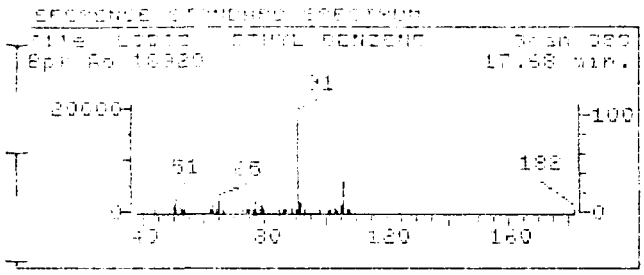


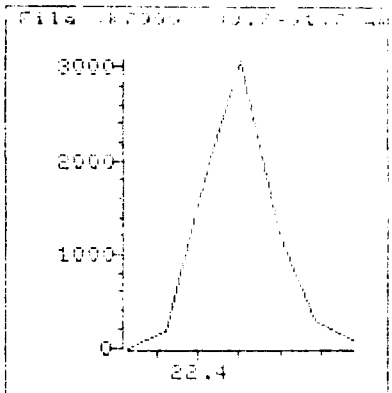


Data File: =K7999::L2 Quant Output File: K7999::L2
Name: 124048,V,,GEI
Misc: CLP,FD1423,,92113-LG5W-3595,L,A,ALS7 5ML JPT ,1918
Quant Time: 950601 1?:05 Quant ID File: FUQA10::SB
Injected at: 950601 18:2? Last Calibration: 950501 14:5?

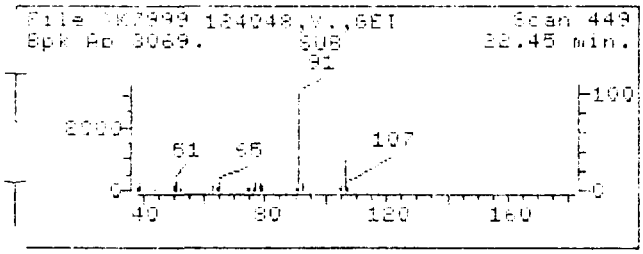
Compound No: 55
Compound Name: C16? BENZENE
Scan Number: 2?5
Retention Time: 13.16 min.
Quant Ion: 78.0
Area: 2.0E4
Concentration: 12.25 UG/L
Q-value: 100

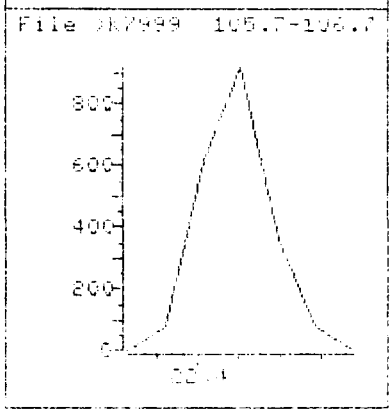
30099



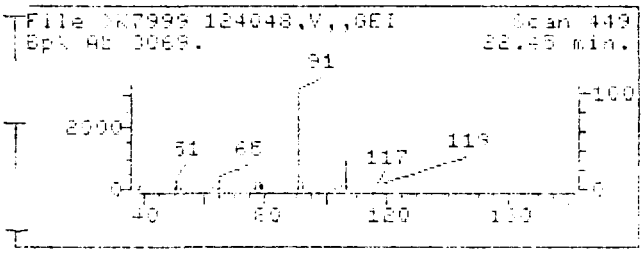


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



Data File: [illegible] Search Subset File: [illegible]

Name: [illegible]

Mass: C15H14,S,2^111-1.5W-0695,L.S,N.S^ SIS JPT 01918

Quant Time: [illegible] Quant ID File: [illegible]

Injected at: [illegible] Last Calibration: [illegible]

Compound No: 44

Compound Name: 0240 ETHYL BENZENE

Scan Number: 449

Retention Time: 22.449 min.

Quant Ion: 106.0

Area: [illegible]

Concentration: [illegible] UG/L

Qualifiers: 00

30100

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

92113NAICL

Lab Name: CANBRO Contract: GEI

Lab Code: CANBRO Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124277

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8087

Level: (low/med) LOW Date Received: 05/26/95

% Moisture: not dec. Date Analyzed: 06/04/95

GC Column: CAP ID: 0.530 (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	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	43	
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.

92110NAICL

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124277

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8087

Level: (low/med) LOW Date Received: 05/26/95

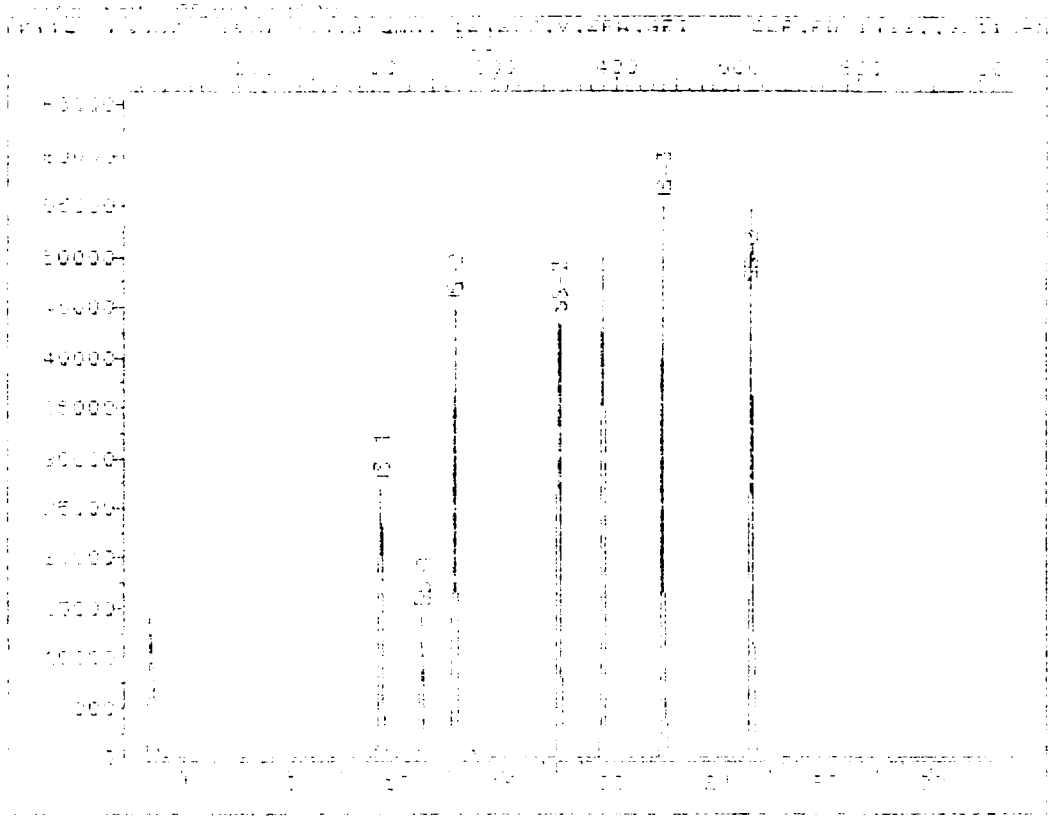
% Moisture: not dec. Date Analyzed: 06/04/95

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q



30103

QUANT REPORT

Operator ID: DOUG Quant Rev: 6 Quant Time: 950604 14:35
Output File: ^K8087::K2 Injected at: 950604 13:59
Data File: >K8087::L2 Dilution Factor: 1.00000
Name: 124277,V,EPA,GEI
Misc: CLP,FD 1423,,92113-NAI-CL-0595,L,W,ALS5 5ML TOM .0

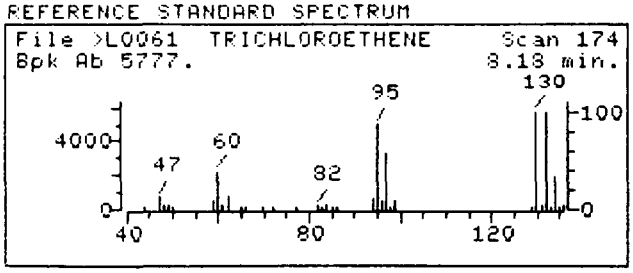
ID File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950604 12:56

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	11.43	128.0	34438	50.00	UG/L	94
20)	CS15 D4-1,2-DICHLOROETHANE SS1	12.98	65.0	35929	50.09	UG/L	91
24)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.21	114.0	147577	50.00	UG/L	100
32)	C150 TRICHLOROETHENE	14.85	130.0	1533	1.35	UG/L	94
38)	*CI20 D5-CHLOROBENZENE IS-3	22.00	117.0	119874	50.00	UG/L	100
41)	C220 TETRACHLOROETHYLENE	19.77	164.0	45645	43.28	UG/L	99
43)	CS05 D-8 TOLUENE (SS-2)	18.09	98.0	124724	50.53	UG/L	93
47)	CS10 BROMOFLUOROBENZENE (SS-3)	25.28	174.0	68794	51.14	UG/L	74

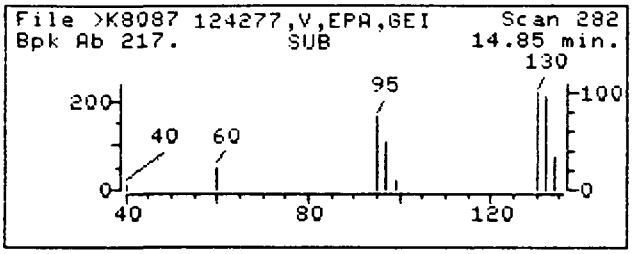
* Compound is ISTD

30104

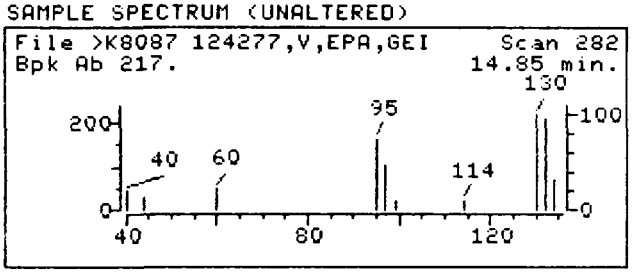
REFERENCE STANDARD SPECTRUM

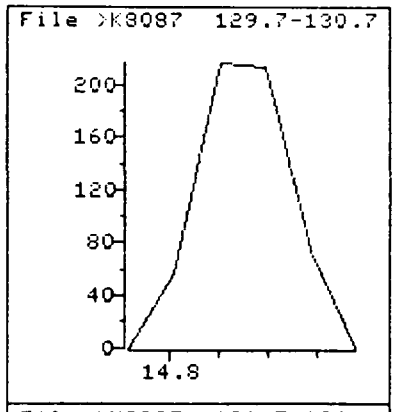


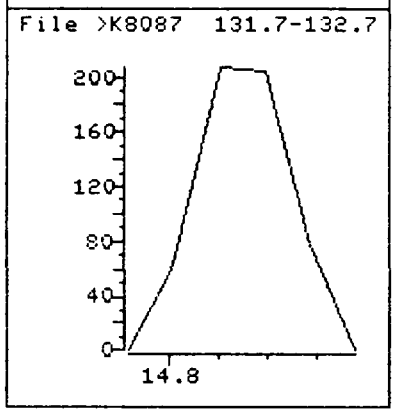
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





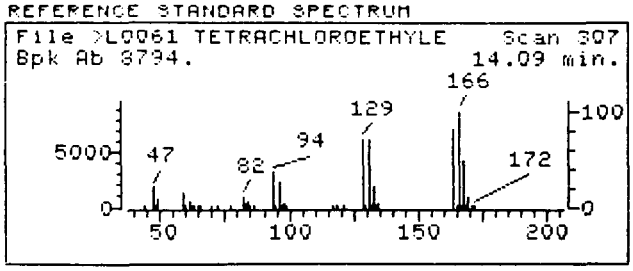


Data File: >K8087::L2 Quant Output File: ^K8087::K2
Name: 124277,V,EPA,GEI
Misc: CLP,FD 1423,,92113-NAI-CL-0595,L,W,ALS5 5ML TOM .0
Quant Time: 950604 14:35 Quant ID File: KVOAID::DB
Injected at: 950604 13:59 Last Calibration: 950604 12:56

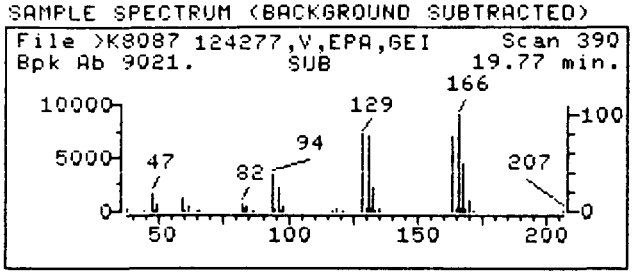
Compound No: 32
Compound Name: C150 TRICHLOROETHENE
Scan Number: 282
Retention Time: 14.85 min.
Quant Ion: 130.0
Area: 1533
Concentration: 1.35 UG/L
q-value: 94

30105

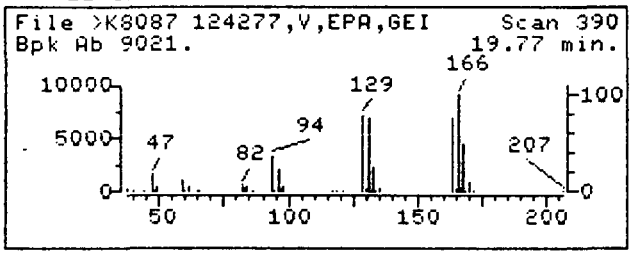
REFERENCE STANDARD SPECTRUM

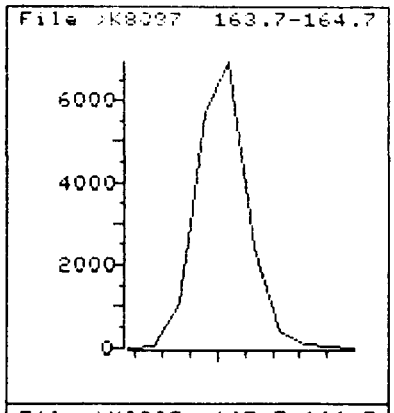


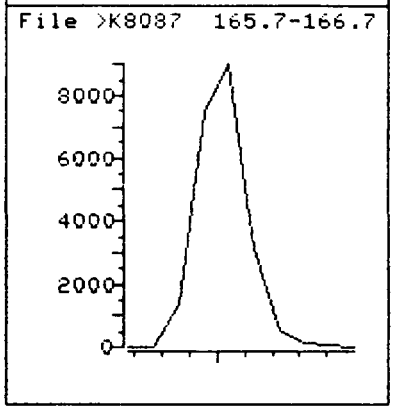
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >K8087::L2 Quant Output File: ^K8087::K2
Name: 124277,V,EPA,GEI
Misc: CLP,FD 1423,,92113-NAI-CL-0595,L,W,ALS5 5ML TOM .0
Quant Time: 950604 14:35 Quant ID File: KVOAID::DB
Injected at: 950604 13:59 Last Calibration: 950604 12:56

Compound No: 41
Compound Name: C220 TETRACHLOROETHYLENE
Scan Number: 390
Retention Time: 19.77 min.
Quant Ion: 164.0
Area: 45645
Concentration: 43.28 UG/L
q-value: 99

✓

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

V211130W2D

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124146

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8051

Level: (low/med) LOW Date Received: 05/26/95

% Moisture: not dec. Date Analyzed: 06/03/95

GC Column: CAP ID: 0.530 (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	7	J
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	15	
75-34-3	1,1-Dichloroethane	160	
540-59-0	1,2-Dichloroethene (total)	1100	EY
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	170	
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	39	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	2	J
71-43-2	Benzene	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	6	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	7	J
100-41-4	Ethylbenzene	1	J
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	1	JY

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

921130W2D

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124146

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8051

Level: (low/med) LOW Date Received: 05/26/95

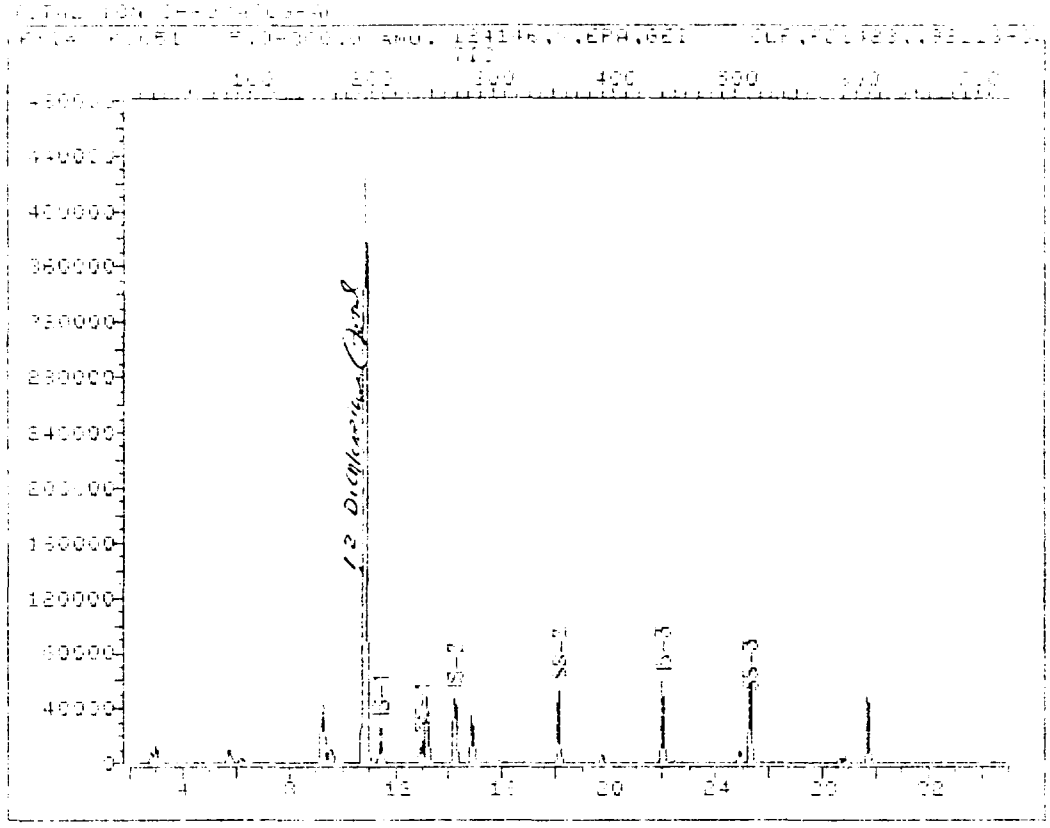
% Moisture: not dec. Date Analyzed: 06/03/95

GC Column: CAP ID: 0.530 (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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	354234	Ethane, 1,2-dichloro-1,1,2-t	5.73	24	JN
2.		C2H2Cl2 isomer	24.92	7	J
3.		C6H4Cl2 isomer	28.66	4	J
4.		C6H12 isomer	28.89	3	J
5.	95501	Benzene, 1,2-dichloro-	29.71	40	JN



Data File: LK805103.07 Quant Output File: LK805103.RO
Name: Calib,V,5ng,1ml
Time: 01-AUG-95,22:13 Sample: 0.5ml Dil: 1.0

Operator ID: DHHA
Quant Time: 950803 14:14
Injected at: 950803 13:41

QUANT REPORT

Operator ID: DOUG Quant Rev: 6 Quant Time: 950603 14:16
Output File: K8051::K2 Injected at: 950603 13:41
Data File: K8051::QT Dilution Factor: 1.00000
Name: 124146,V,EPA,GEI
Misc: CLP,FD1423,,92113-0W2D-0595,L,W,ALS5 5ML TOM .01

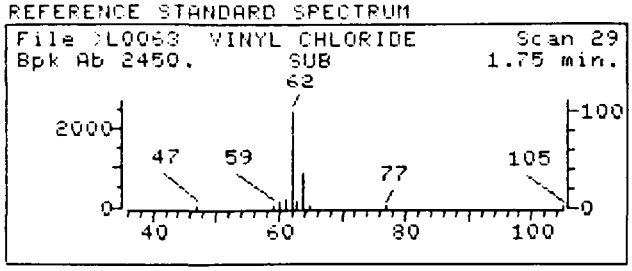
ID File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950603 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	11.42	128.0	36668	50.00	UG/L	98
4)	C020 VINYL CHLORIDE	3.90	62.0	1309	6.81	UG/L	86
8)	C030 METHYLENE CHLORIDE	7.41	84.0	634	.99	UG/L	69
1)	C045 1,1-DICHLOROETHENE	6.23	96.0	7791	14.89	UG/L	81
T2)	C050 1,1-DICHLOROETHANE	9.28	63.0	175420	163.98	UG/L	95
17)	C053 TOTAL-1,2-DICHLOROETHENE	10.83	96.0	839487M	1097.11	UG/L	87
9)	C065 1,2-DICHLOROETHANE	13.15	62.0	136859	173.04	UG/L	94
0)	CS15 D4-1,2-DICHLOROETHANE SS1	12.97	65.0	35977	43.61	UG/L	86
24)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.20	114.0	162156	50.00	UG/L	100
2)	C150 TRICHLOROETHENE	14.89	130.0	47012	38.98	UG/L	88
4)	C160 1,1,2-TRICHLOROETHANE	19.40	97.0	1337	1.60	UG/L	99
35)	C165 BENZENE	13.15	78.0	16538	9.20	UG/L	100
8)	*CI20 D5-CHLOROBENZENE IS-3	22.00	117.0	128650	50.00	UG/L	100
1)	C220 TETRACHLOROETHYLENE	19.76	164.0	6266	5.82	UG/L	96
43)	CS05 D-8 TOLUENE (SS-2)	18.12	98.0	135019	49.19	UG/L	89
45)	C235 CHLOROBENZENE	22.09	112.1	16128	7.45	UG/L	91
6)	C240 ETHYL BENZENE	22.45	106.0	1113	1.21	UG/L	99
7)	CS10 BROMOFLUOROBENZENE (SS-3)	25.28	174.0	71689	46.35	UG/L	73
51)	C250 TOTAL XYLENES	22.77	106.0	1217M	1.05	UG/L	

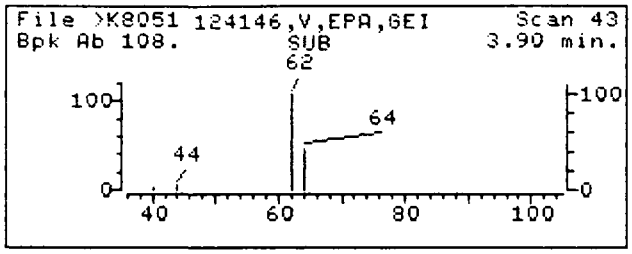
* Compound is ISTD

30110

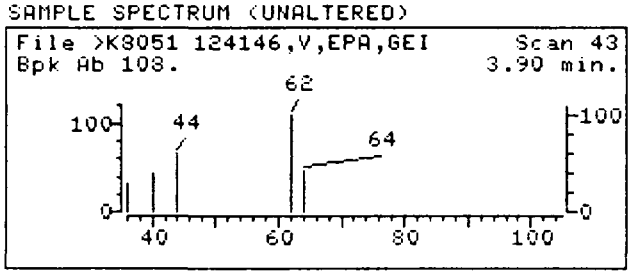
REFERENCE STANDARD SPECTRUM

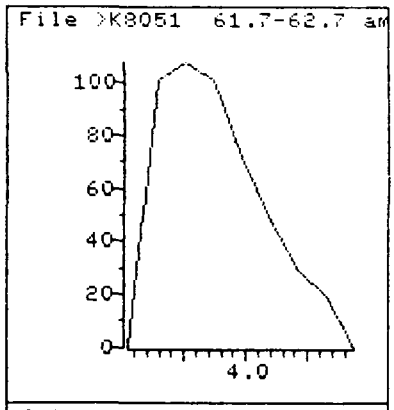


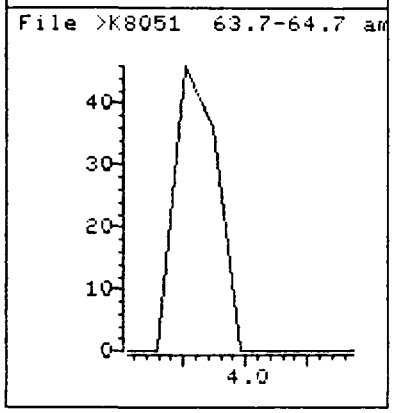
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



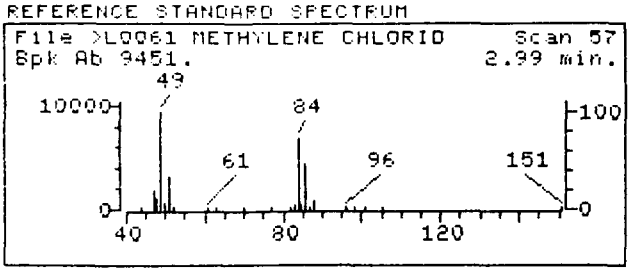




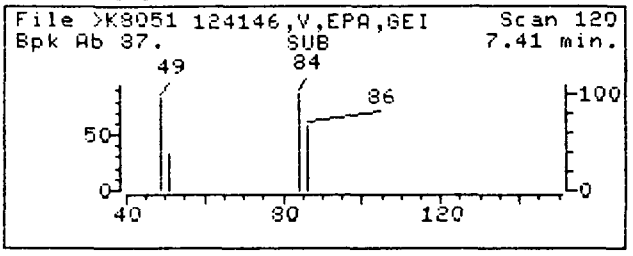
Data File: >K8051::QT Quant Output File: ^K8051::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD1423,,92113-0W2D-0595,L,W,ALS5 5ML TOM .01
Quant Time: 950603 14:16 Quant ID File: KVOAID::DB
Injected at: 950603 13:41 Last Calibration: 950603 10:31

Compound No: 4
Compound Name: C020 VINYL CHLORIDE
Scan Number: 43
Retention Time: 3.90 min.
Quant Ion: 62.0
Area: 1309
Concentration: 6.81 UG/L
q-value: 86

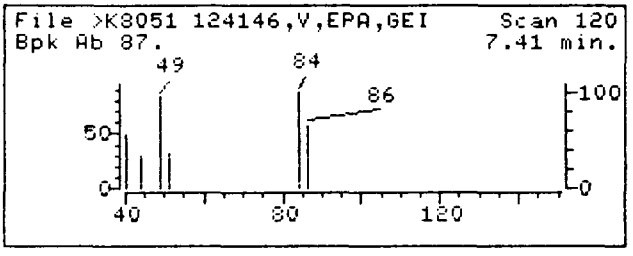
REFERENCE STANDARD SPECTRUM

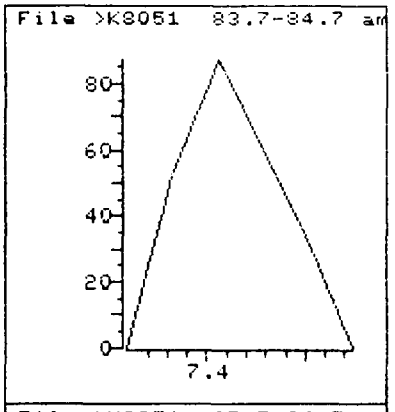


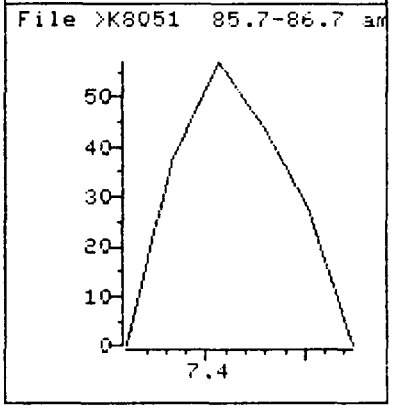
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





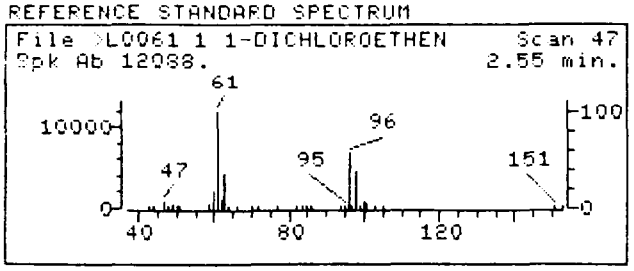


Data File: >K8051::QT Quant Output File: ^K8051::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD1423,,92113-0W2D-0595,L,W,ALS5 5ML TOM .01
Quant Time: 950603 14:16 Quant ID File: KV0AID::DB
Injected at: 950603 13:41 Last Calibration: 950603 10:31

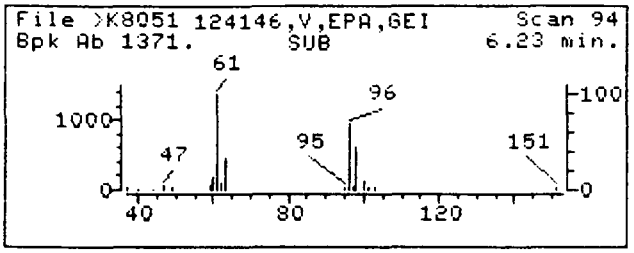
Compound No: 8
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 120
Retention Time: 7.41 min.
Quant Ion: 84.0
Area: 634
Concentration: .99 UG/L
q-value: 69

30112

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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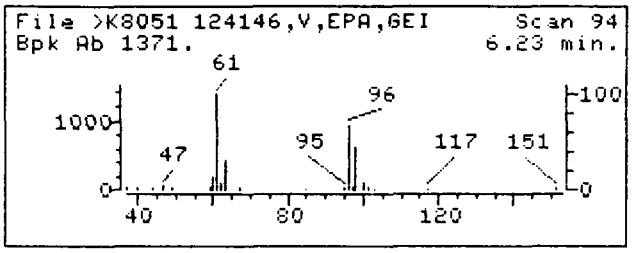
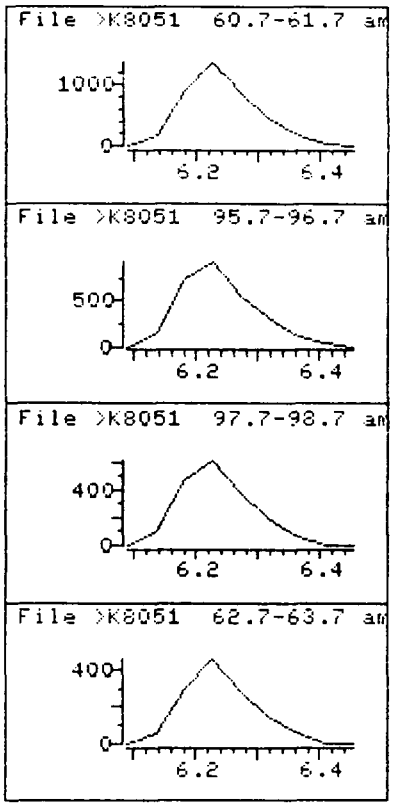


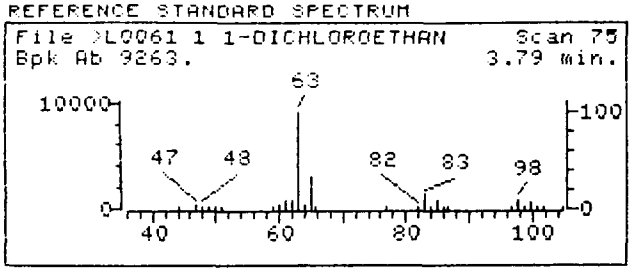


Data File: >K8051::QT Quant Output File: ^K8051::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD1423,,92113-0W2D-0595,L,W,ALS5 5ML TOM .01
Quant Time: 950603 14:16 Quant ID File: KVOAID::DB
Injected at: 950603 13:41 Last Calibration: 950603 10:31

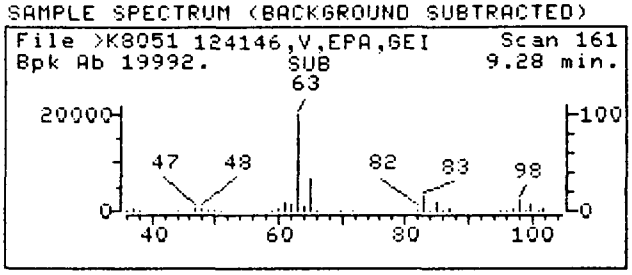
Compound No: 11
Compound Name: C045 1,1-DICHLOROETHENE
Scan Number: 94
Retention Time: 6.23 min.
Quant Ion: 96.0
Area: 7791
Concentration: 14.89 UG/L
q-value: 81

30113

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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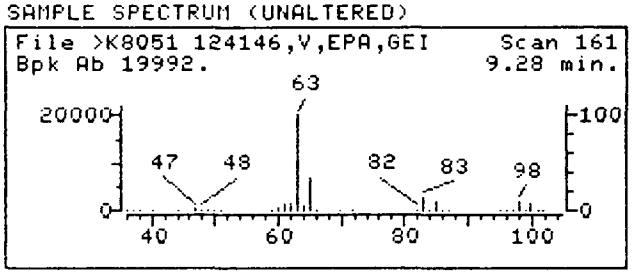
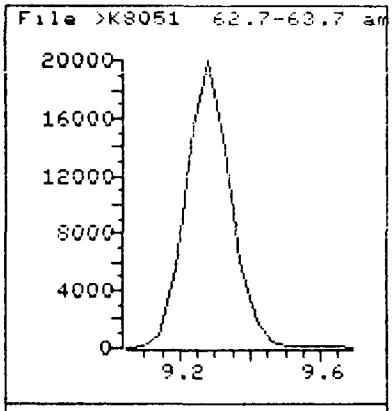
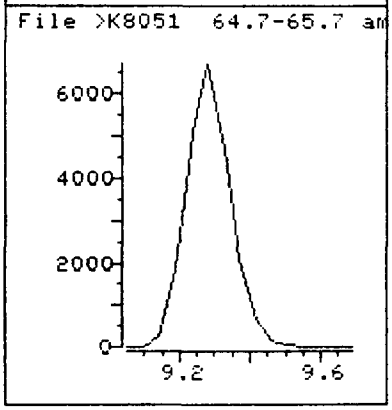


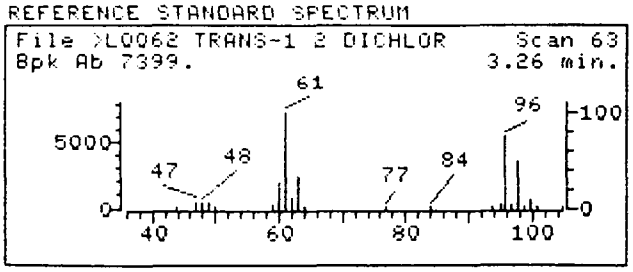




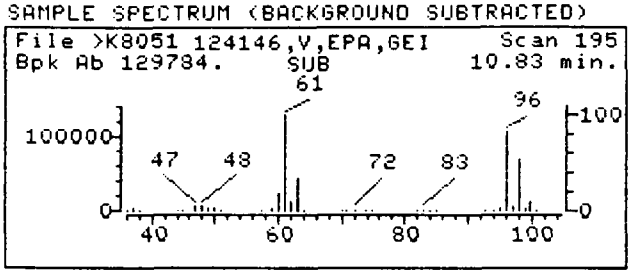
Data File: >K8051::QT Quant Output File: ^K8051::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD1423,,92113-0W2D-0595,L,W,ALS5 5ML TOM .01
Quant Time: 950603 14:16 Quant ID File: KUOAID::DB
Injected at: 950603 13:41 Last Calibration: 950603 10:31

Compound No: 12
Compound Name: C050 1,1-DICHLOROETHANE
Scan Number: 161
Retention Time: 9.28 min.
Quant Ion: 63.0
Area: 175420
Concentration: 163.98 UG/L
q-value: 95

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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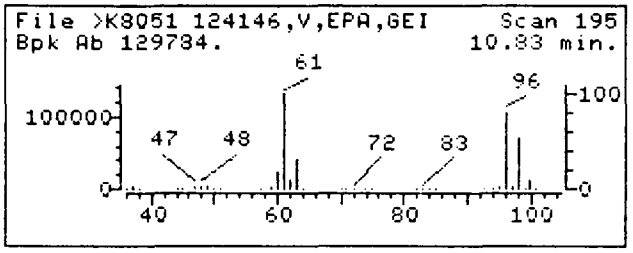
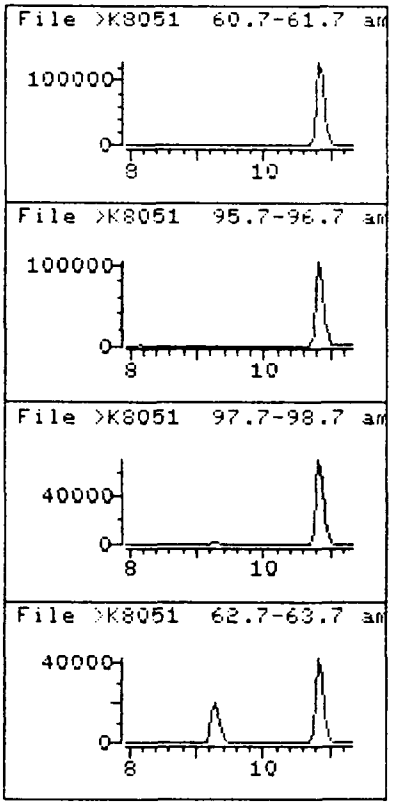


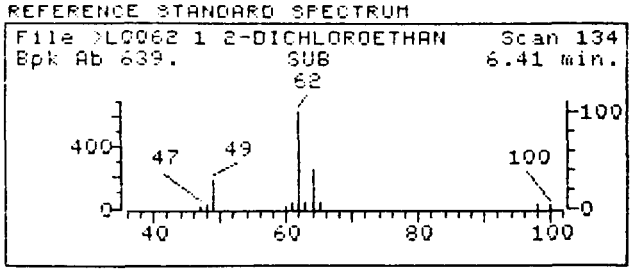


Data File: >K8051::QT Quant Output File: ^K8051::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD1423,,92113-0W2D-0595,L,W,ALS5 5ML TOM .01
Quant Time: 950603 14:16 Quant ID File: KVOAID::DB
Injected at: 950603 13:41 Last Calibration: 950603 10:31

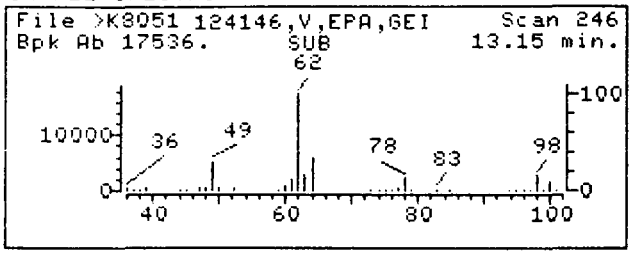
Compound No: 17
Compound Name: C053 TOTAL-1,2-DICHLOROETHENE
Scan Number: 195
Retention Time: 10.83 min.
Quant Ion: 96.0
Area: 839487M
Concentration: 1097.11 UG/L
q-value: 87

30115

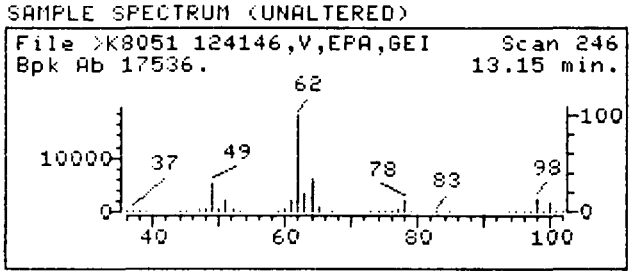
REFERENCE STANDARD SPECTRUM

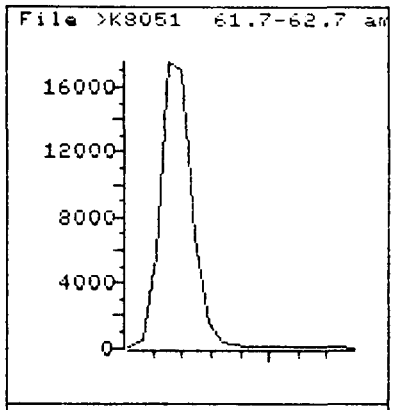


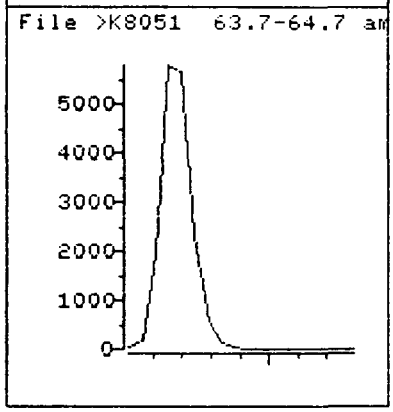
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



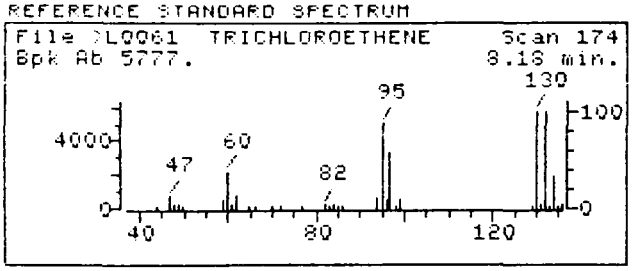




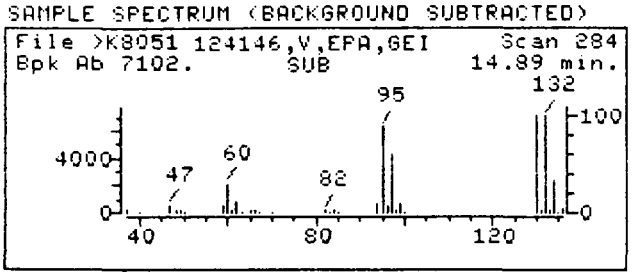
Data File: >K8051::QT Quant Output File: ^K8051::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD1423,,92113-0W2D-0595,L,W,ALS5 5ML TOM .01
Quant Time: 950603 14:16 Quant ID File: KV0AID::DB
Injected at: 950603 13:41 Last Calibration: 950603 10:31

Compound No: 19
Compound Name: C065 1,2-DICHLOROETHANE
Scan Number: 246
Retention Time: 13.15 min.
Quant Ion: 62.0
Area: 136859
Concentration: 173.04 UG/L
q-value: 94

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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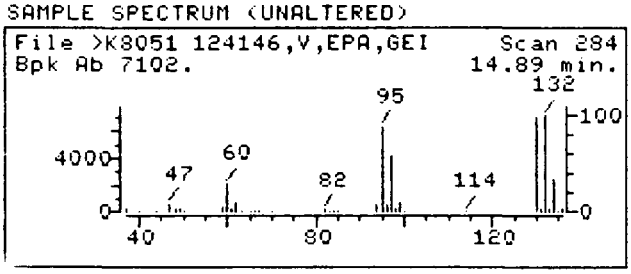
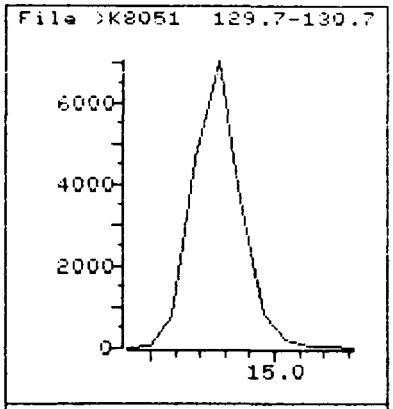
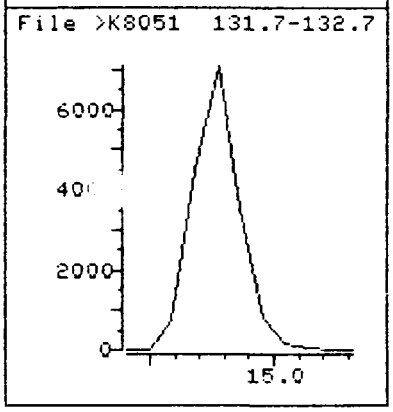




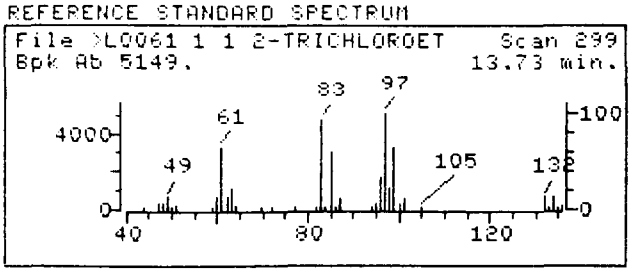


Data File: >K8051::QT Quant Output File: ^K8051::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD1423,,92113-0W2D-0595,L,W,ALS5 5ML TOM .01
Quant Time: 950603 14:16 Quant ID File: KVOAID::DB
Injected at: 950603 13:41 Last Calibration: 950603 10:31

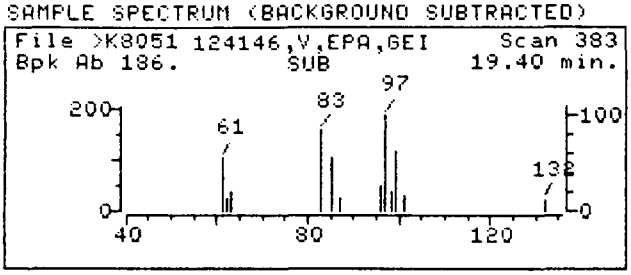
Compound No: 32
Compound Name: C150 TRICHLOROETHENE
Scan Number: 284
Retention Time: 14.89 min.
Quant Ion: 130.0
Area: 47012
Concentration: 38.98 UG/L
q-value: 88

30117

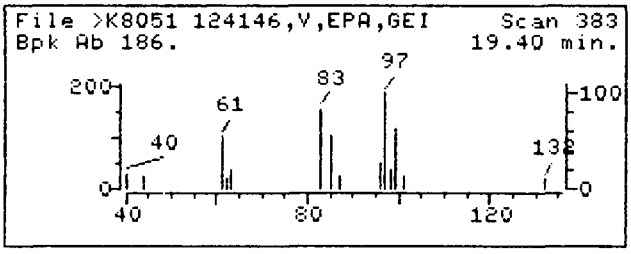
REFERENCE STANDARD SPECTRUM

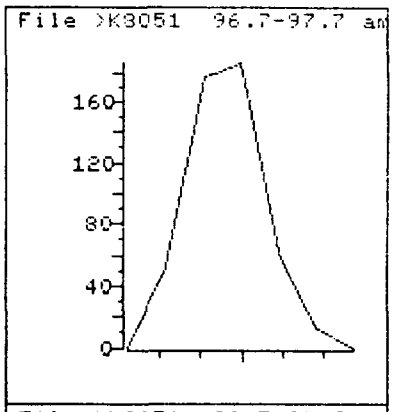


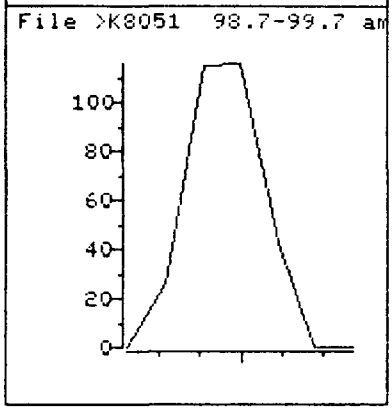
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >K8051::QT Quant Output File: ^K8051::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD1423,,92113-0W2D-0595,L,W,ALS5 5ML TOM .01
Quant Time: 950603 14:16 Quant ID File: KV0AID::DB
Injected at: 950603 13:41 Last Calibration: 950603 10:31

Compound No: 34
Compound Name: C160 1,1,2-TRICHLOROETHANE
Scan Number: 383
Retention Time: 19.40 min.
Quant Ion: 97.0
Area: 1337
Concentration: 1.60 UG/L
q-value: 99

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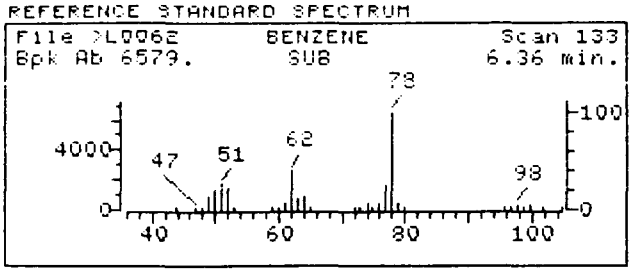
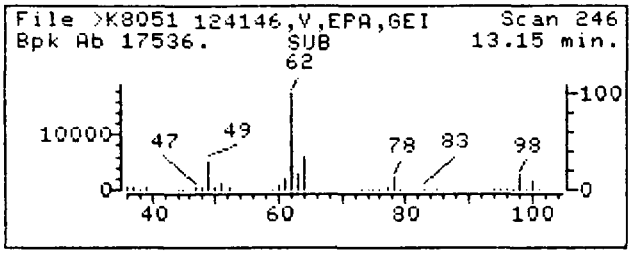
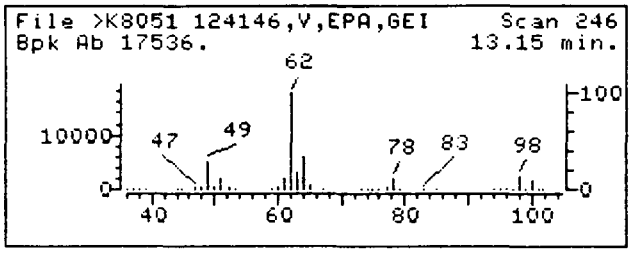
REFERENCE STANDARD SPECTRUM

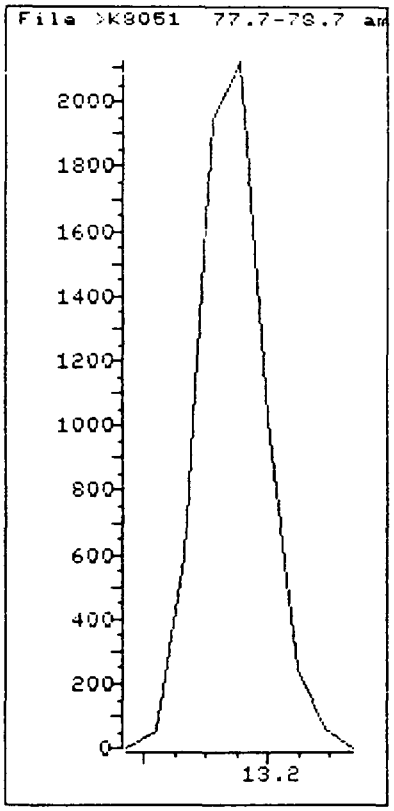


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

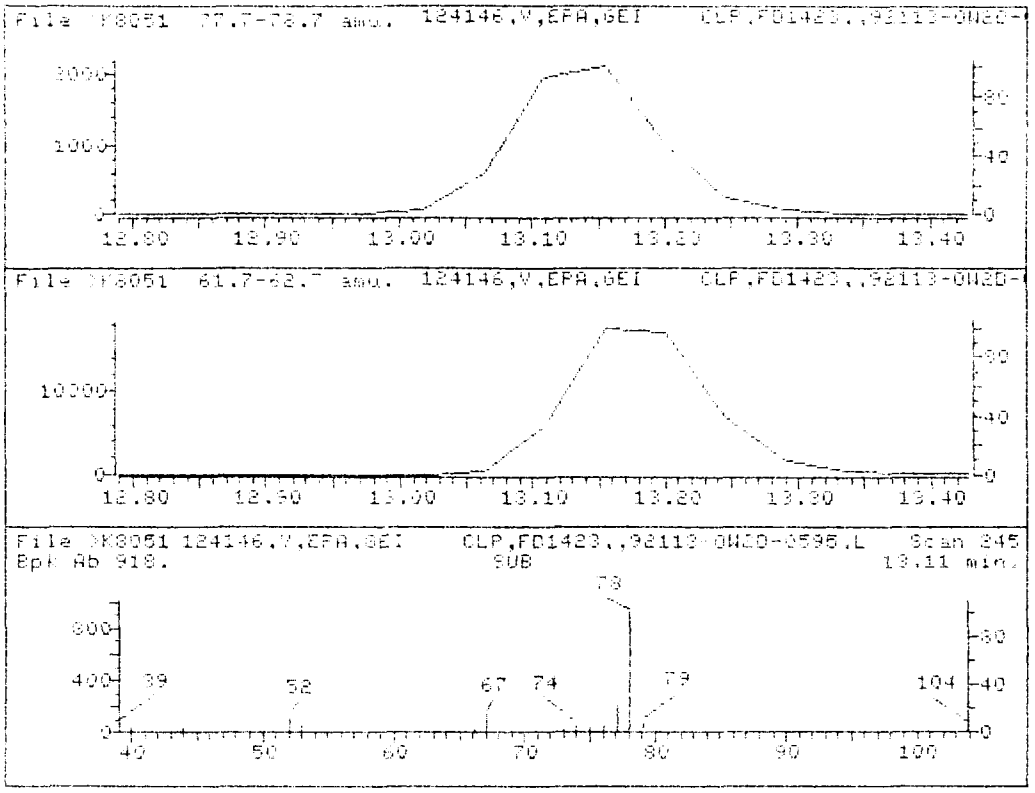




Data File: >K8051::QT Quant Output File: ^K8051::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD1423,,92113-0W2D-0595,L,W,ALS5 5ML TOM .01
Quant Time: 950603 14:16 Quant ID File: KVOAID::DB
Injected at: 950603 13:41 Last Calibration: 950603 10:31

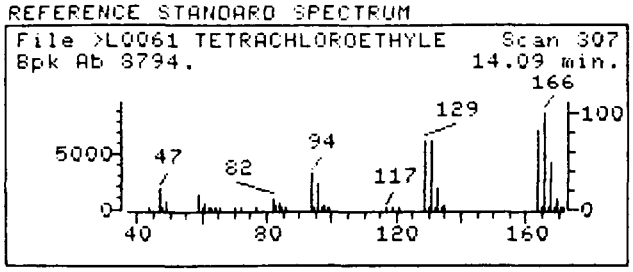
Compound No: 35
Compound Name: C165 BENZENE
Scan Number: 246
Retention Time: 13.15 min.
Quant Ion: 78.0
Area: 16538
Concentration: 9.20 UG/L
q-value: 100

Cleand spectra

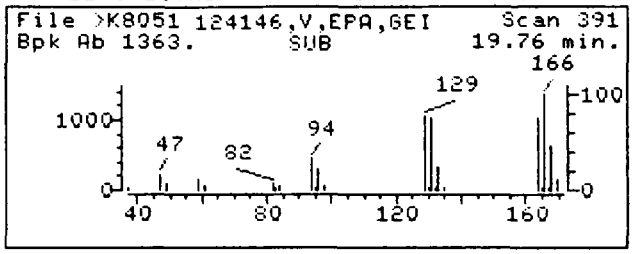

File K8051 77.7-78.7 amu. 124146,V,EPA,GEI CLP,FD1423,,92113-0W2D-
3000
1000
0
80
40
0
12.80
12.90
13.00
13.10
13.20
13.30
13.40
File K8051 61.7-62.7 amu. 124146,V,EPA,GEI CLP,FD1423,,92113-0W2D-
10000
0
80
40
0
12.80
12.90
13.00
13.10
13.20
13.30
13.40
File K8051 124146,V,EPA,GEI CLP,FD1423,,92113-0W2D-0595.L Scan 245
Bpk Ab 918. SUB 13.11 min
800
400
0
39
52
67
74
78
79
104
80
40
0
40
50
60
70
80
90
100

30120

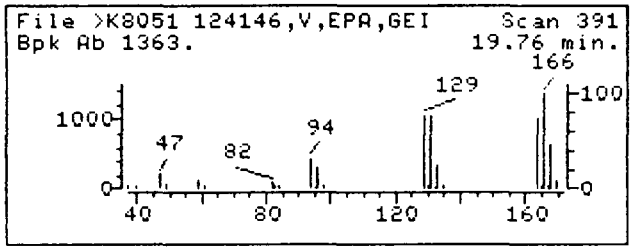
REFERENCE STANDARD SPECTRUM

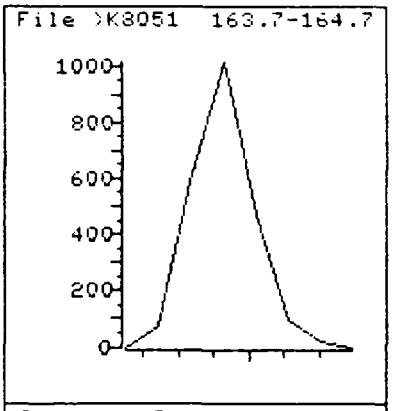


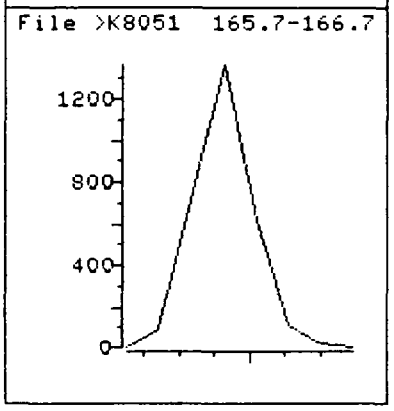
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



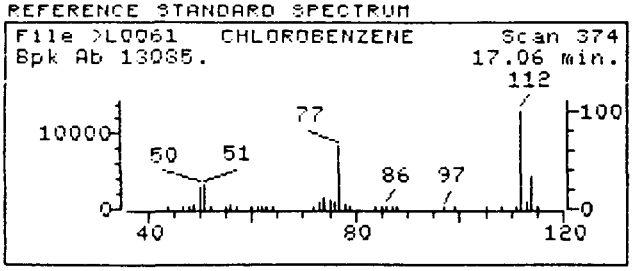




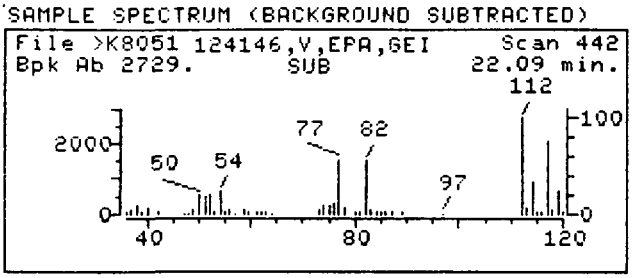
Data File: >K8051::QT Quant Output File: ^K8051::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD1423,,92113-0W2D-0595,L,W,ALS5 5ML TOM .01
Quant Time: 950603 14:16 Quant ID File: KVOAID::DB
Injected at: 950603 13:41 Last Calibration: 950603 10:31

Compound No: 41
Compound Name: C220 TETRACHLOROETHYLENE
Scan Number: 391
Retention Time: 19.76 min.
Quant Ion: 164.0
Area: 6266
Concentration: 5.82 UG/L
q-value: 96

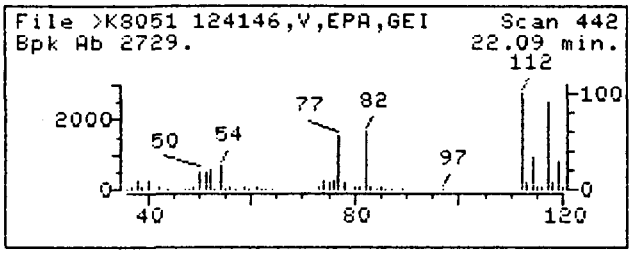
REFERENCE STANDARD SPECTRUM

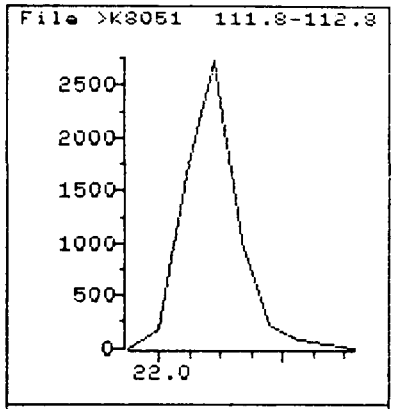


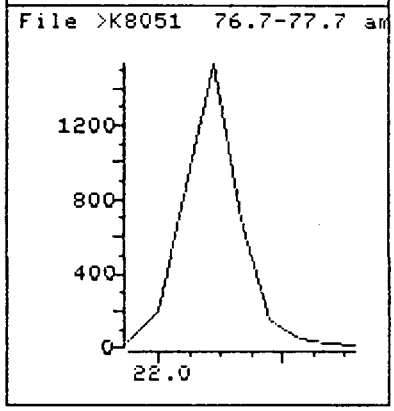
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



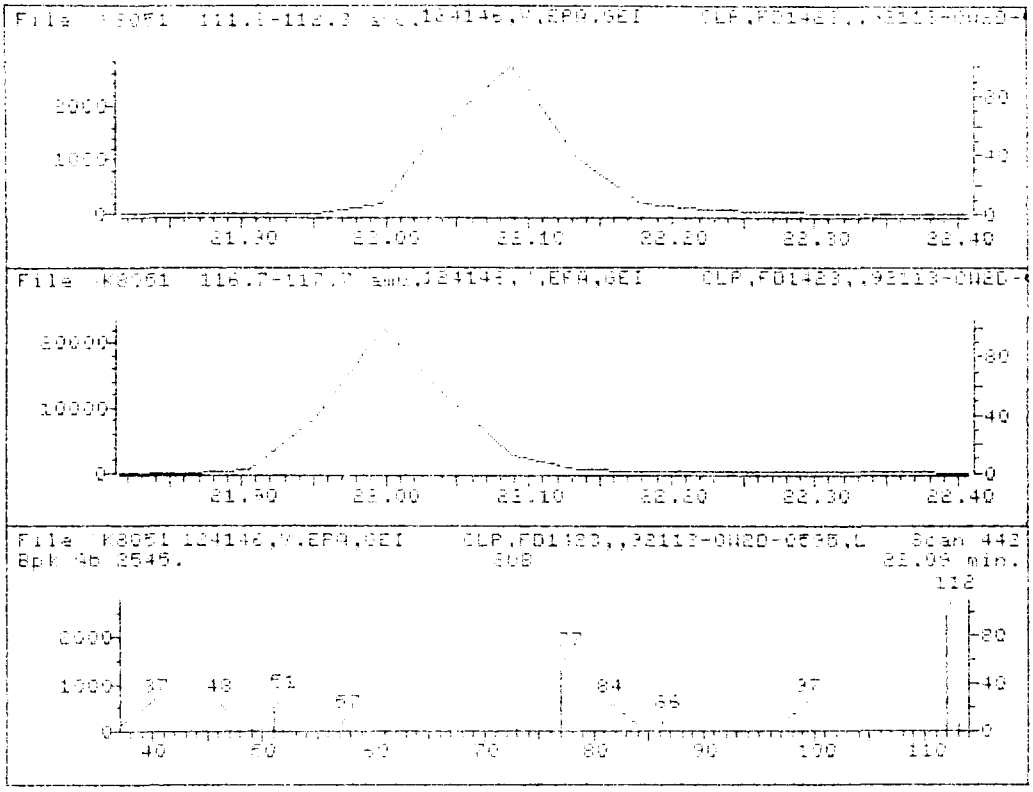




Data File: >K8051::QT Quant Output File: ^K8051::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD1423,,92113-0W2D-0595,L,W,ALS5 5ML TOM .01
Quant Time: 950603 14:16 Quant ID File: KVOATD::DB
Injected at: 950603 13:41 Last Calibration: 950603 10:31

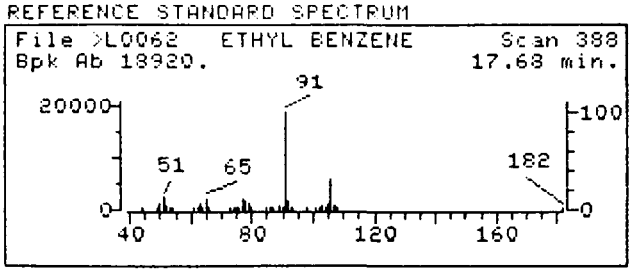
Compound No: 45
Compound Name: C235 CHLOROBENZENE
Scan Number: 442
Retention Time: 22.09 min.
Quant Ion: 112.1
Area: 16128
Concentration: 7.45 UG/L
q-value: 91

Clean spectra

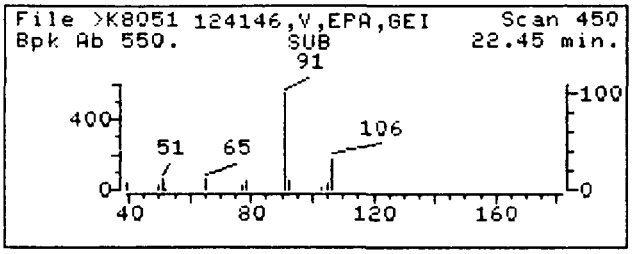


Chrysene

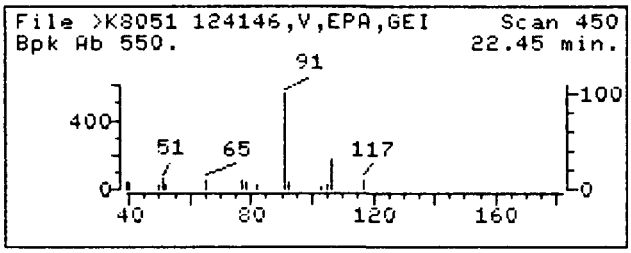
REFERENCE STANDARD SPECTRUM

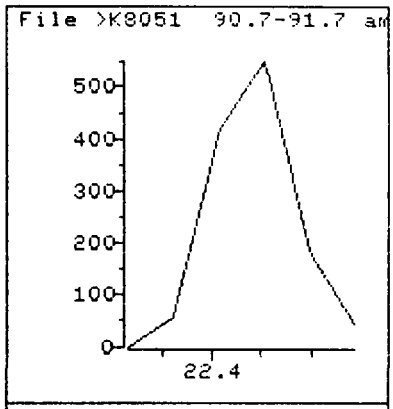


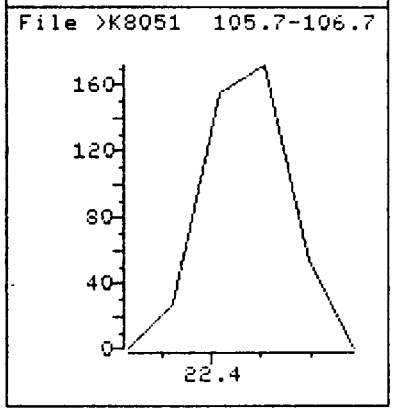
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >K8051::QT Quant Output File: ^K8051::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD1423,,92113-0W2D-0595,L,W,ALS5 5ML TOM .01
Quant Time: 950603 14:16 Quant ID File: KV0AID::DB
Injected at: 950603 13:41 Last Calibration: 950603 10:31

Compound No: 46
Compound Name: C240 ETHYL BENZENE
Scan Number: 450
Retention Time: 22.45 min.
Quant Ion: 106.0
Area: 1113
Concentration: 1.21 UG/L
q-value: 99

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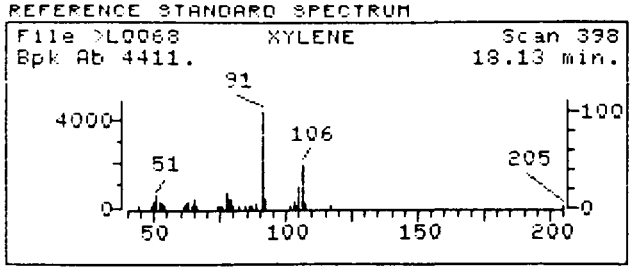
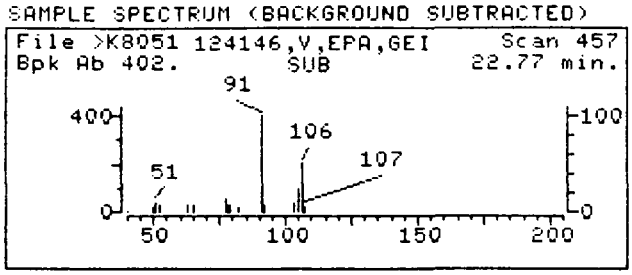
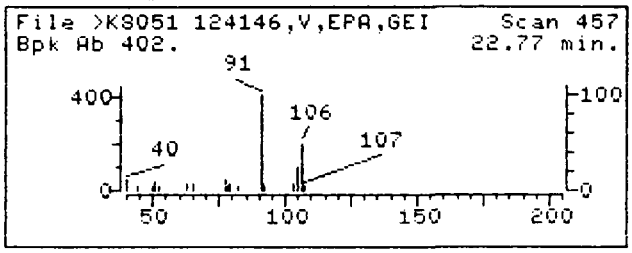
REFERENCE STANDARD SPECTRUM

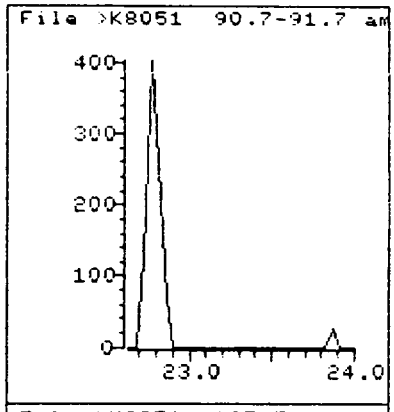


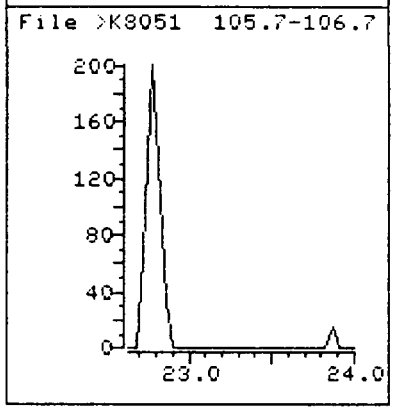
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >K8051::QT Quant Output File: ^K8051::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD1423,,92113-0W20-0595,L,W,ALS5 5ML TOM .01
Quant Time: 950603 14:16 Quant ID File: KV0AID::DB
Injected at: 950603 13:41 Last Calibration: 950603 10:31

Compound No: 51
Compound Name: C250 TOTAL XYLENES
Scan Number: 457
Retention Time: 22.77 min.
Quant Ion: 106.0
Area: 1217M
Concentration: 1.05 UG/L

MS data file header from : IK8051

Sample: 124146,V,EPA,GEI Operator: DOUG SUPER GRP. 6/02/95 10:41
Misc : OLP,FD1423,,92113-0W2D-0595,L,W,ALS5 SML TOM .01
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 3
Method file: KV0A Tuning file: MTUNEK No. of extra records: 2
Source temp.: 0 Analyzer temp.: 220 Transfer line temp. : 0

Chromatographic temperatures : 37. 150. 150. 0. 0.
Chromatographic times, min. : 7.0 4.0 3.0 0.0 0.0
Chromatographic rate, deg/min: 5.0 5.0 0.0 .2 3.0

IK8051 124146,V,EPA,GEI OLP,FD1423,,92113-0W2D-0595,L,W,ALS5 5

35.01 300.0 OLP TIC
Upslope: .20 Area Reject: 21919. Max Peaks: 7 Bunching: 1
Onslope: 0.00 Results File IK8051 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	2.81	17	19	21	7353	56010	55190	17.85	8.100
2	2.93	21	23	34	12163	103934	102512	33.16	15.046
3	5.73	73	85	91	9770	107886	105228	34.04	15.444
4	24.92	501	504	509	9219	57415	56080	18.14	8.231
5	28.65	584	586	589	3938	28398	26298	8.13	4.168
6	28.88	588	591	594	4260	26272	24828	8.03	3.644
7	29.70	606	609	620	47854	311880	309104	100.00	45.367

Sum of corrected areas: 681341.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	219184.	11.42	1.99 - 12.81
2	50.0	335249.	14.20	12.81 - 16.10
3	50.0	388171.	22.00	18.10 - 35.08

'A' Dilution Factor = 1.00 U dilf = 1.00
Method called for 1000.000 g or mL This sample was 1000.000 g or mL

Correction Factor = 1.00

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unknown} * \text{Correction Factor}$$

1:27 PM FRI., 9 JUNE, 1995

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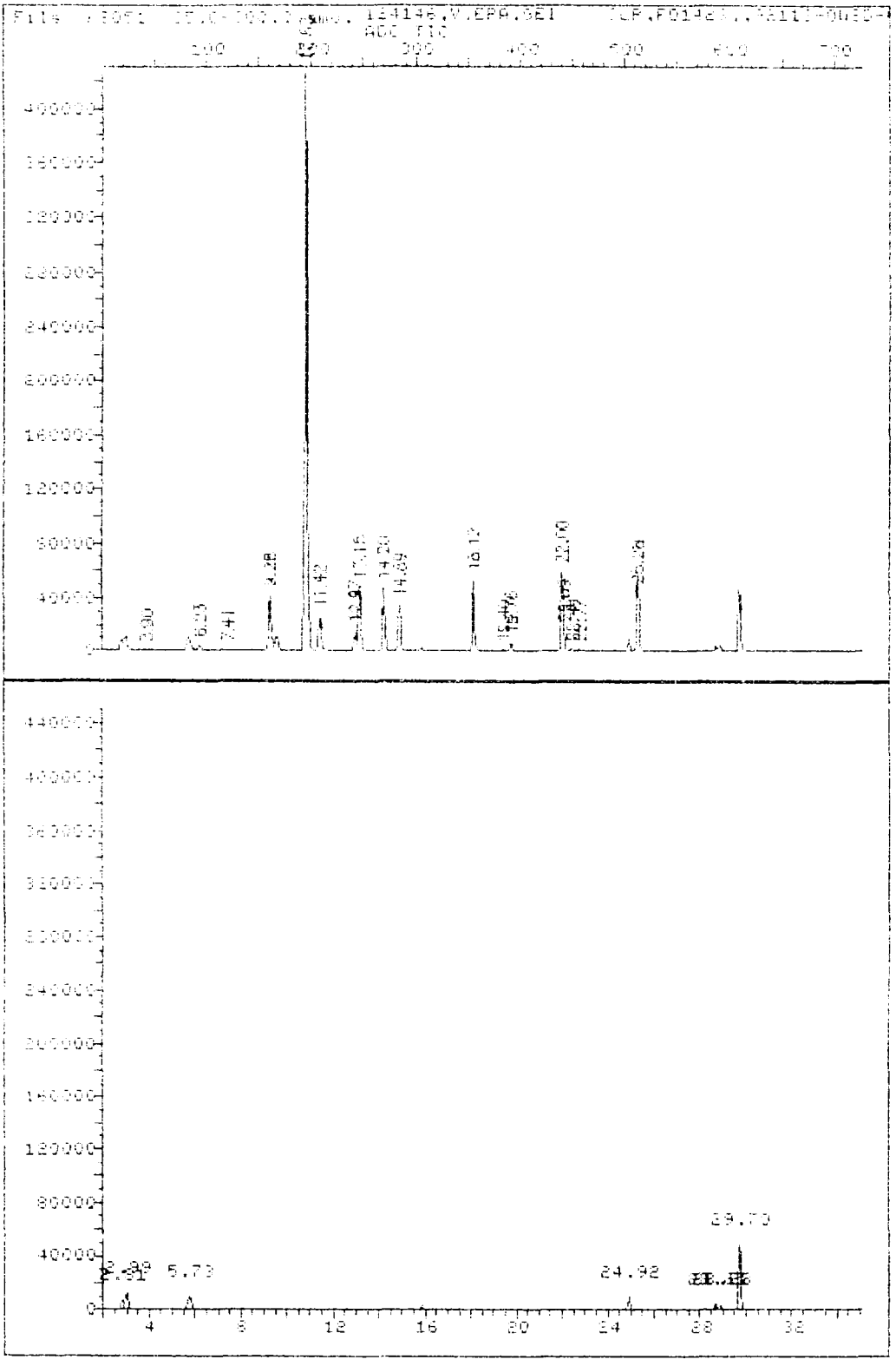
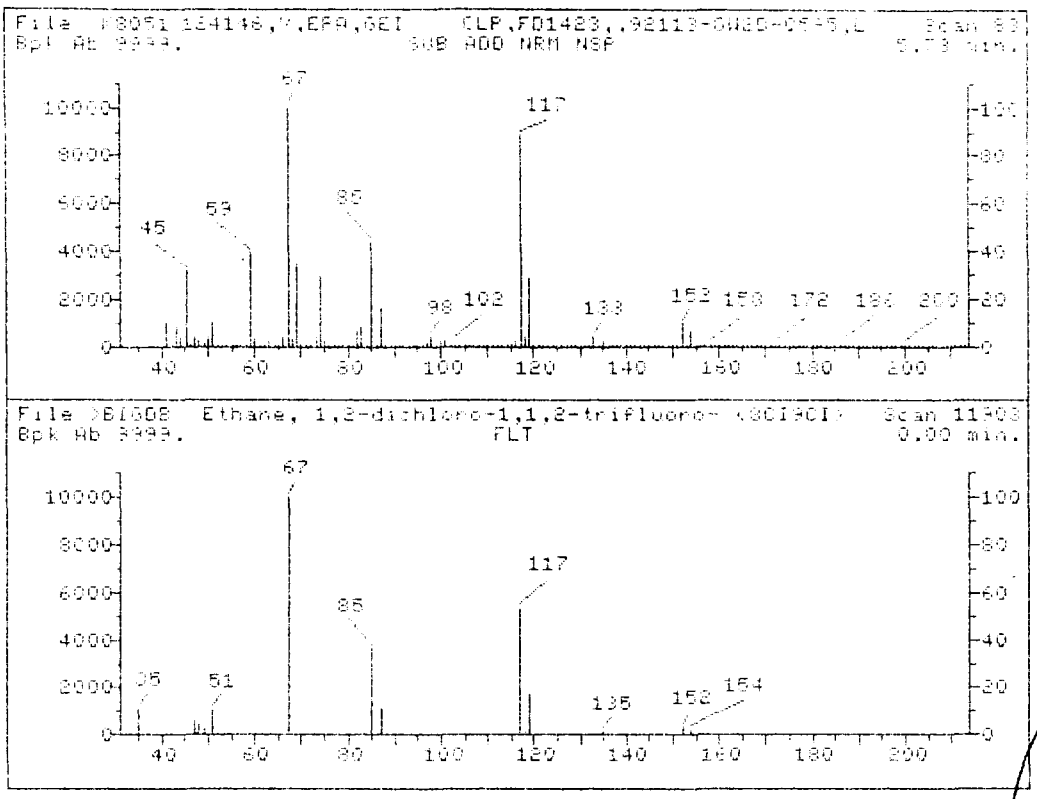

ABC File
11.42
16.12
22.00
24.92
29.70

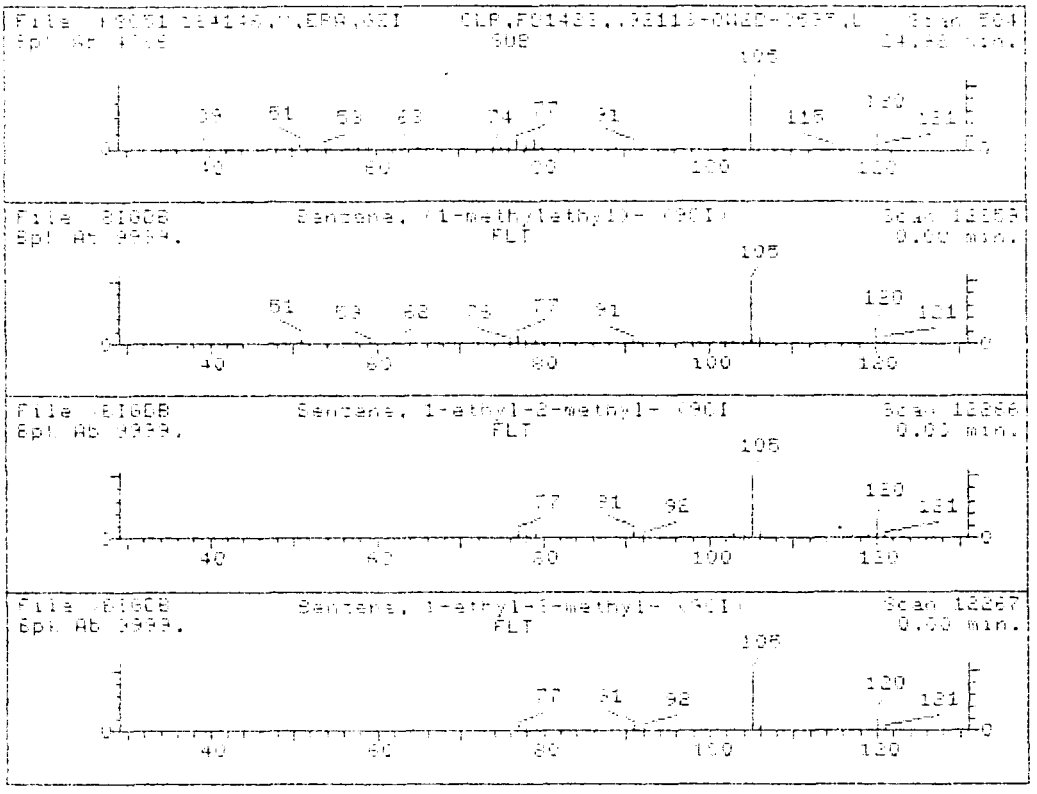


. UNKNOWN #,3
AREA = 105229.0 TENTATIVE CONCENTRATION IS 24.00

1. Ethane, 1,2-dichloro-1,1,2-trifluoro- (8CI,9CI) 152 C2HCl2F3

Sample file: K8051 Spectrum #: 83
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	OK	#FLG	TILT	%	CON	C_I	R_IV
1.	32*	354234	11903	"BIGDB	41	68	0	0	67	51	9	43



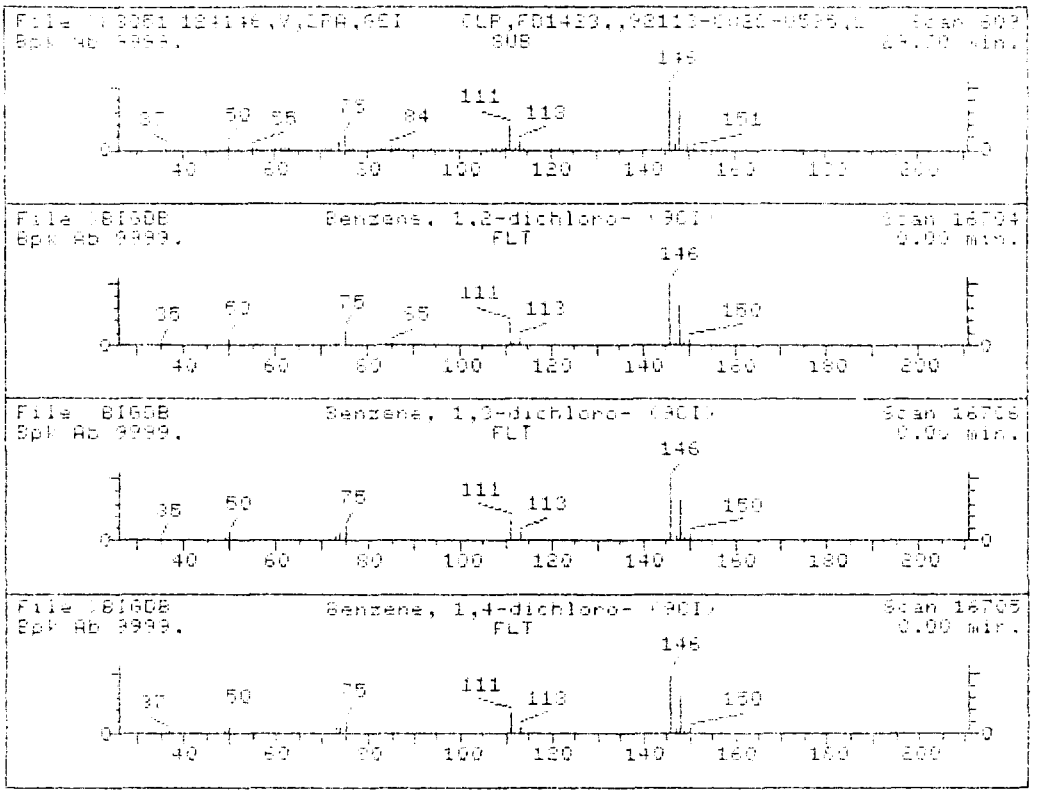
C9H12 isomer

UNKNOWN #,4
AREA = 58080.30 TENTATIVE CONCENTRATION IS 7.00

1.	Benzene, (1-methylethyl)- (9CI)	120 C9H12
2.	Benzene, 1-ethyl-2-methyl- (9CI)	120 C9H12
3.	Benzene, 1-ethyl-3-methyl- (9CI)	120 C9H12
4.	Benzene, 1-ethyl-4-methyl- (9CI)	120 C9H12
5.	Benzene, 1,2,3-trimethyl- (8CI,9CI)	120 C9H12
6.	Benzene, (1-nitroethyl)- (8CI,9CI)	151 C8H9NO2

Sample file: 'K8051' Spectrum #: 504
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	83*	98828	12259	"BIGDB	58	29	1	0	69	10	54	57
2.	79*	611143	12266	"BIGDB	53	32	2	0	91	7	48	36
3.	78*	620144	12267	"BIGDB	46	41	2	0	85	10	45	26
4.	67*	622968	12268	"BIGDB	41	44	2	0	94	14	34	21
5.	49*	526738	12260	"BIGDB	56	44	2	0	57	33	20	33
6.	18	7214611	9812	"BIGDB	47	30	0	0	35	50	4	27



✓ by RT.

Coffeltts
1 of 2

UNKNOWN #,7
AREA = 308104.0 TENTATIVE CONCENTRATION IS 40.00

1. Benzene, 1,2-dichloro- (9CI) 146 C6H4Cl2
2. Benzene, 1,3-dichloro- (9CI) 146 C6H4Cl2
3. Benzene, 1,4-dichloro- (9CI) 146 C6H4Cl2
4. 2-Thiophenecarboxaldehyde, 5-chloro- (9CI)(9CI) 146 C5H3ClOS
5. 1H-Indole-3-ethanol, 5-hydroxy- (9CI) 177 C10H11NO2

Sample file: >K8051 Spectrum #: 609
Search speed: 1 Tilting option: N No. of ion ranges searched: 40

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	87*	95501	16704	"BIGDB	101	10	0	0	78	5	66	87
2.	95*	541731	16706	"BIGDB	87	21	0	0	76	2	72	95
3.	95*	106467	16705	"BIGDB	84	24	0	0	68	9	68	95
4.	25*	7283967	16703	"BIGDB	20	84	2	0	117	50	7	13
5.	11	154029	16736	"BIGDB	37	45	1	0	83	61	2	14

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

921130W2DDL

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRO Case No: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124146DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K2083

Level: (low/med) LOW Date Received: 05/26/95

% Moisture: not dec. Date Analyzed: 06/04/95

GC Column: CAP ID: 0.530 (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	13	BDJ
67-64-1	Acetone	100	U
75-15-0	Carbon Disulfide	100	U
75-35-4	1,1-Dichloroethene	13	DJ
75-34-3	1,1-Dichloroethane	150	D
540-59-0	1,2-Dichloroethene (total)	1200	D
67-66-3	Chloroform	100	U
107-06-2	1,2-Dichloroethane	170	D
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	37	DJ
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	100	U
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

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

N2113OW3DDL

Lab Name: CAMDRO Contract: OEI

Lab Code: CAMDRO Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124146DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: KD083

Level: (low/med) LOW Date Received: 05/26/95

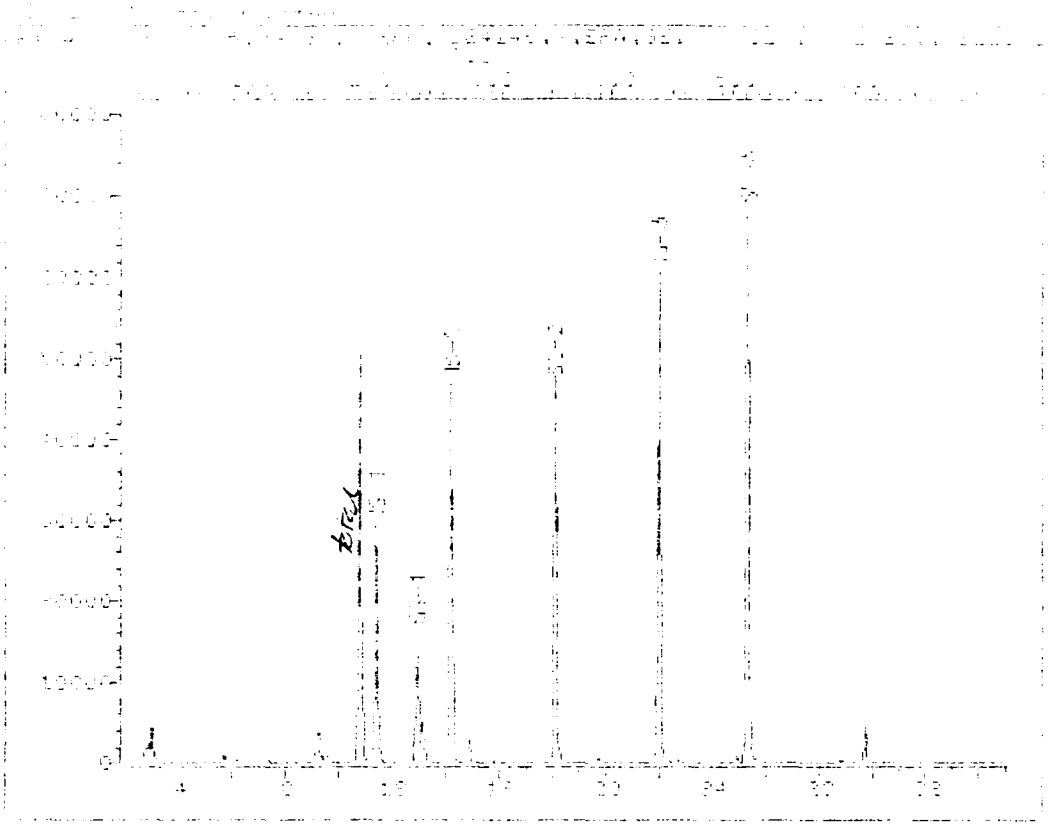
% Moisture: not dec. Date Analyzed: 06/04/95

GC Column: CAP ID: 0.530 (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



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QUANT REPORT

Operator ID: DOUG Quant Rev: 6 Quant Time: 950604 12:57
Output File: ^K8083::K2 Injected at: 950604 11:18
Data File: >K8083::L2 Dilution Factor: 1.00000
Name: 124146,V,EPA,GEI
Misc: CLP,FD 1423,,92113-OW2D-0595,L,W,ALS1 1:10 TOM .019

ID File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950604 12:56

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	11.36	128.0	39468	50.00	UG/L	98
8)	C030 METHYLENE CHLORIDE	7.31	84.0	929	1.29	UG/L	76
11)	C045 1,1-DICHLOROETHENE	6.12	96.0	768	1.28	UG/L	78
12)	C050 1,1-DICHLOROETHANE	9.18	63.0	17654	15.25	UG/L	95
17)	C053 TOTAL-1,2-DICHLOROETHENE	10.77	96.0	101551	120.09	UG/L	85
19)	C065 1,2-DICHLOROETHANE	13.14	62.0	14403	16.82	UG/L	89
20)	CS15 D4-1,2-DICHLOROETHANE SS1	12.91	65.0	38234	46.51	UG/L	90
24)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.19	114.0	170102	50.00	UG/L	100
32)	C150 TRICHLOROETHENE	14.83	130.0	4788	3.67	UG/L	96
38)	*CI20 D5-CHLOROBENZENE IS-3	21.98	117.0	136584	50.00	UG/L	100
43)	CS05 D-8 TOLUENE (SS-2)	18.06	98.0	137535	48.90	UG/L	90
47)	CS10 BROMOFLUOROBENZENE (SS-3)	25.31	174.0	75361	49.17	UG/L	87
54)	CWWW 1,2-DICHLOROBENZENE	29.73	146.0	9070	4.45	UG/L	93

* Compound is ISTD

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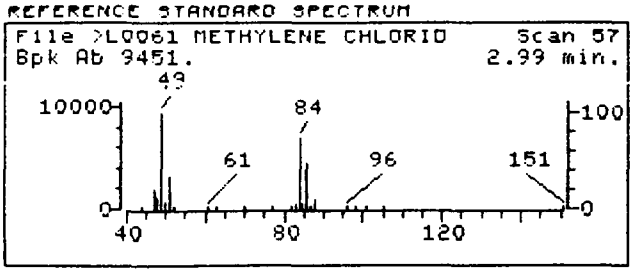
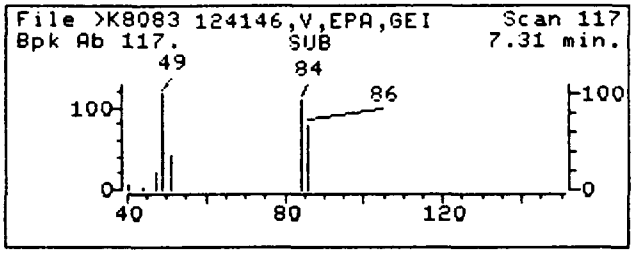
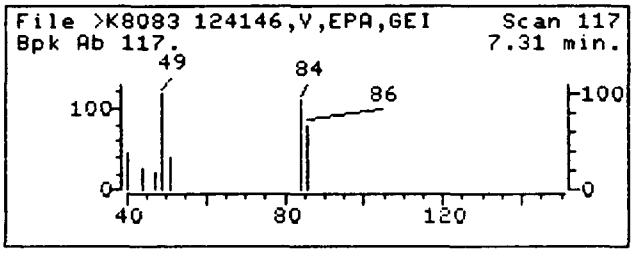
REFERENCE STANDARD SPECTRUM

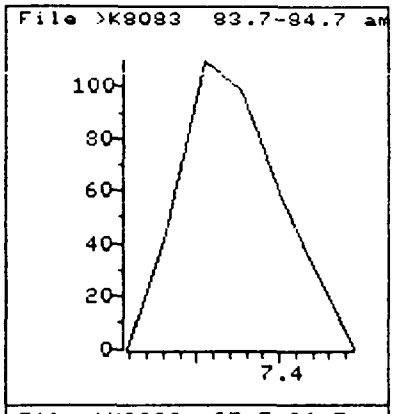


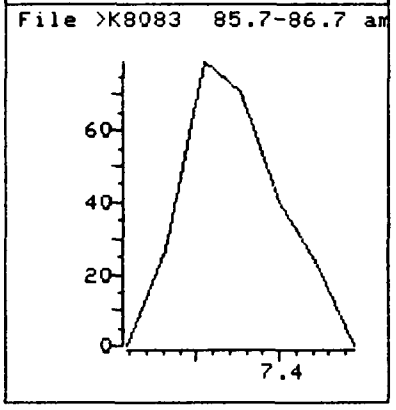
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



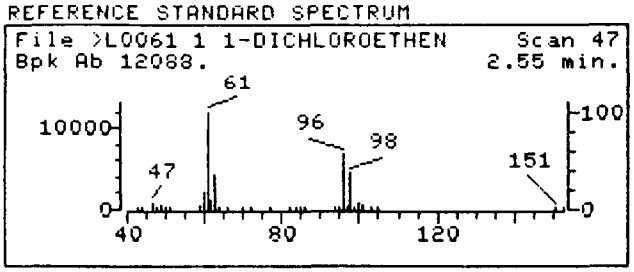




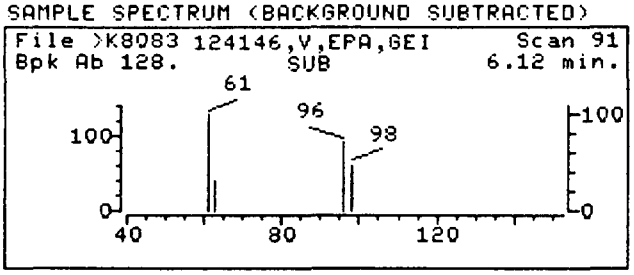
Data File: >K8083::L2 Quant Output File: ^K8083::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD 1423,,92113-0W2D-0595,L,W,ALS1 1:10 TOM .019
Quant Time: 950604 12:57 Quant ID File: KV0AID::DB
Injected at: 950604 11:18 Last Calibration: 950604 12:56

Compound No: 8
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 117
Retention Time: 7.31 min.
Quant Ion: 84.0
Area: 929
Concentration: 1.29 UG/L
q-value: 76

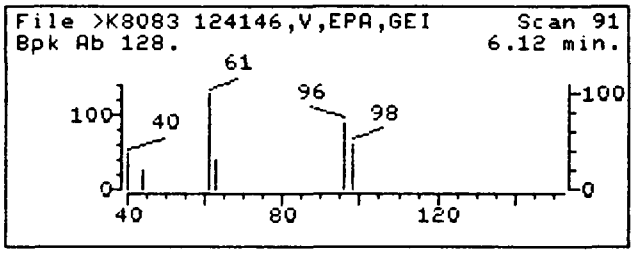
REFERENCE STANDARD SPECTRUM

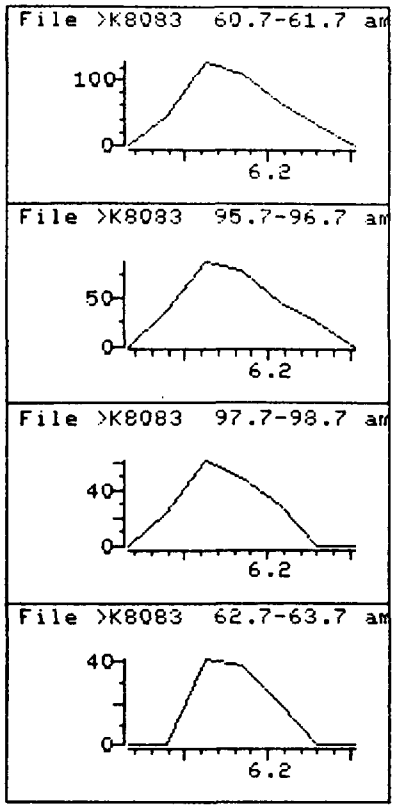


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >K8083::L2 Quant Output File: ^K8083::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD 1423,,92113-0W2D-0595,L,W,ALS1 1:10 TOM .019
Quant Time: 950604 12:57 Quant ID File: KV0AID::DB
Injected at: 950604 11:18 Last Calibration: 950604 12:56

Compound No: 11
Compound Name: C045 1,1-DICHLOROETHENE
Scan Number: 91
Retention Time: 6.12 min.
Quant Ion: 96.0
Area: 768
Concentration: 1.28 UG/L
q-value: 78

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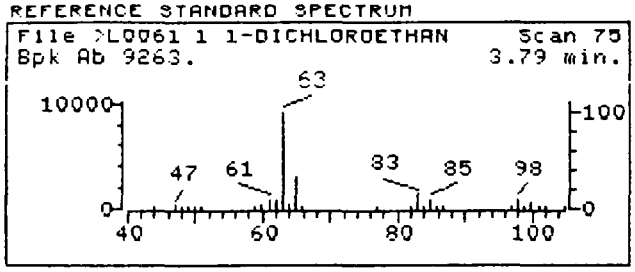
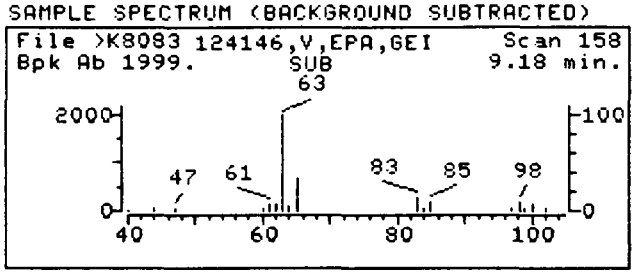
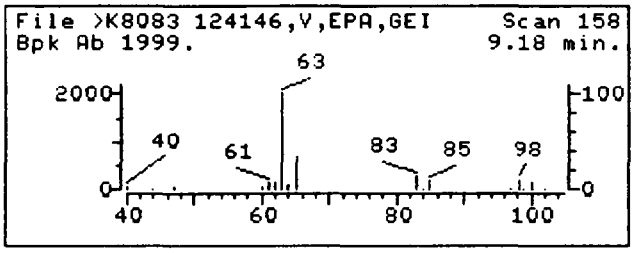
REFERENCE STANDARD SPECTRUM

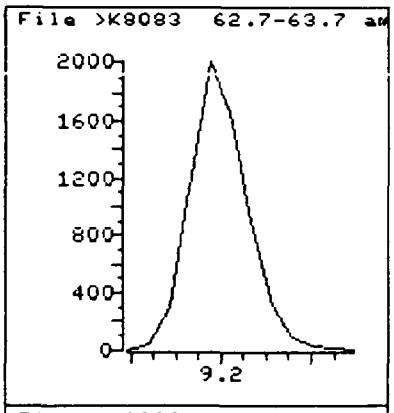


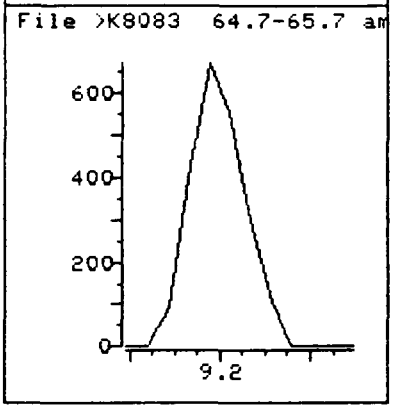
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



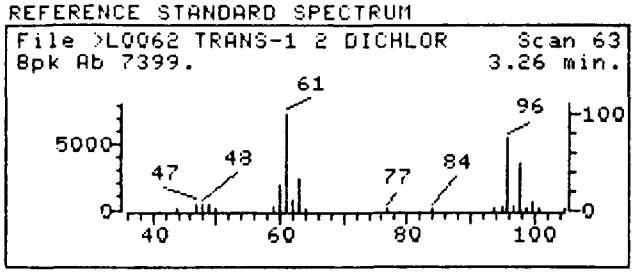




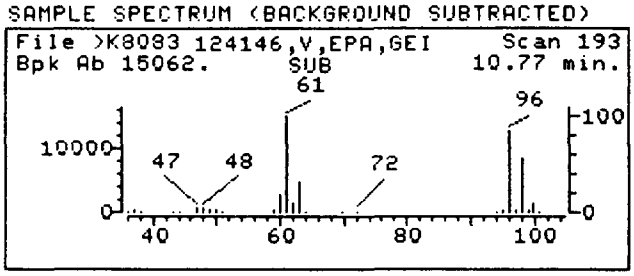
Data File: >K8083::L2 Quant Output File: ^K8083::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD 1423,,92113-0W2D-0595,L,W,ALS1 1:10 TOM .019
Quant Time: 950604 12:57 Quant ID File: KV0AID::DB
Injected at: 950604 11:18 Last Calibration: 950604 12:56

Compound No: 12
Compound Name: C050 1,1-DICHLOROETHANE
Scan Number: 158
Retention Time: 9.18 min.
Quant Ion: 63.0
Area: 17654
Concentration: 15.25 UG/L
q-value: 95

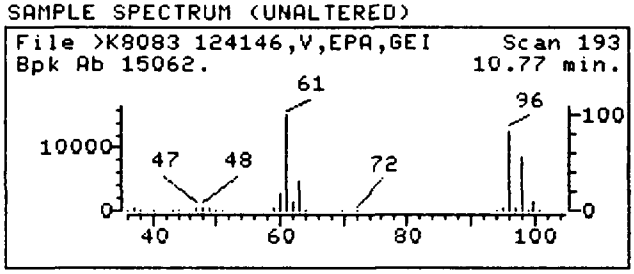
REFERENCE STANDARD SPECTRUM

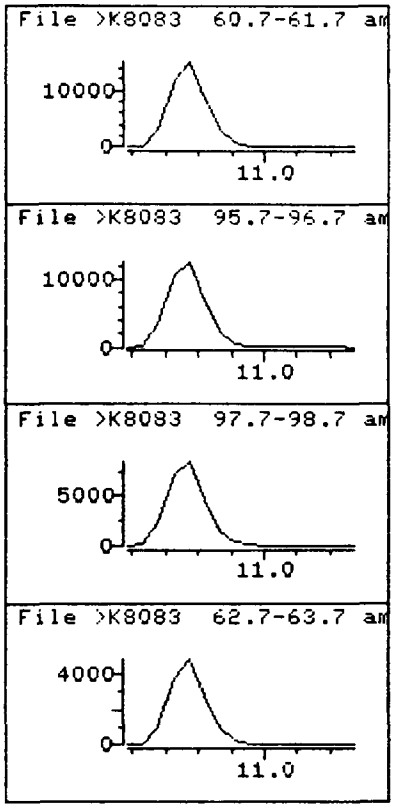


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >K8083::L2 Quant Output File: ^K8083::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD 1423,,92113-0W2D-0595,L,W,ALS1 1:10 TOM .019
Quant Time: 950604 12:57 Quant ID File: KV0AID::DB
Injected at: 950604 11:18 Last Calibration: 950604 12:56

Compound No: 17
Compound Name: C053 TOTAL-1,2-DICHLOROETHENE
Scan Number: 193
Retention Time: 10.77 min.
Quant Ion: 96.0
Area: 101551
Concentration: 120.09 UG/L
q-value: 85

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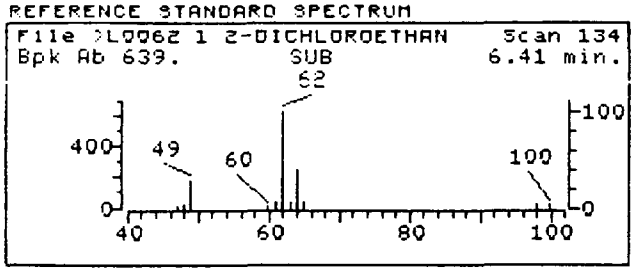
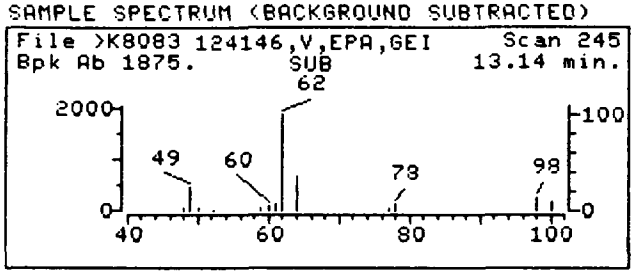
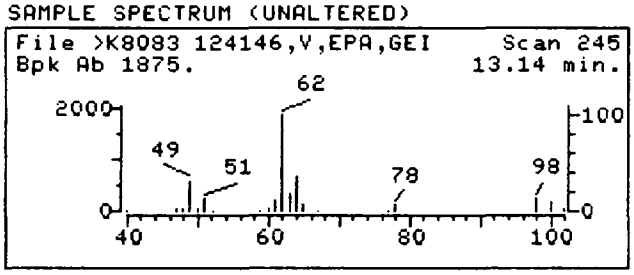
REFERENCE STANDARD SPECTRUM

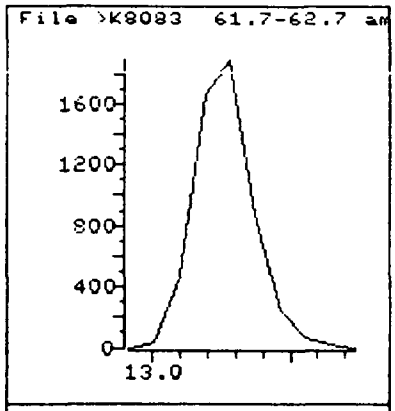


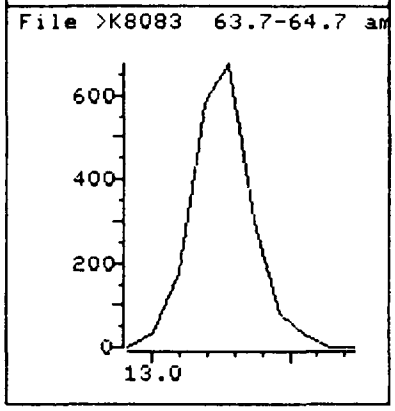
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





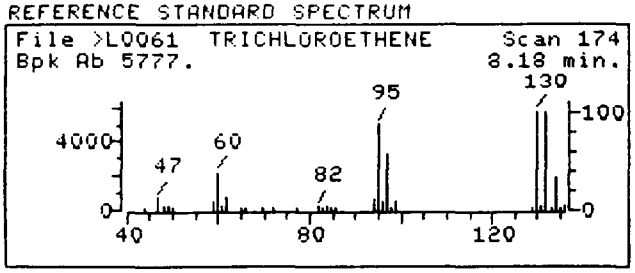


Data File: >K8083::L2 Quant Output File: ^K8083::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD 1423,,92113-0W2D-0595,L,W,ALS1 1:10 TOM .019
Quant Time: 950604 12:57 Quant ID File: KV0AID::DB
Injected at: 950604 11:18 Last Calibration: 950604 12:56

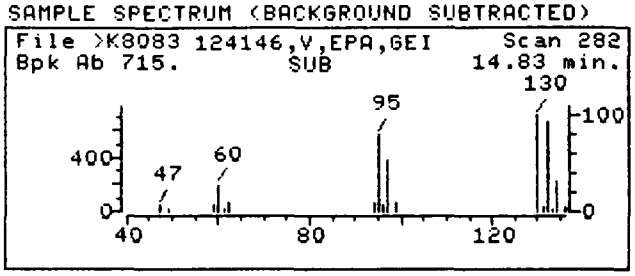
Compound No: 19
Compound Name: C065 1,2-DICHLOROETHANE
Scan Number: 245
Retention Time: 13.14 min.
Quant Ion: 62.0
Area: 14403
Concentration: 16.82 UG/L
q-value: 89

/

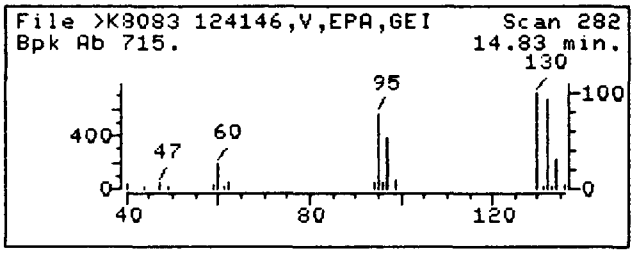
REFERENCE STANDARD SPECTRUM

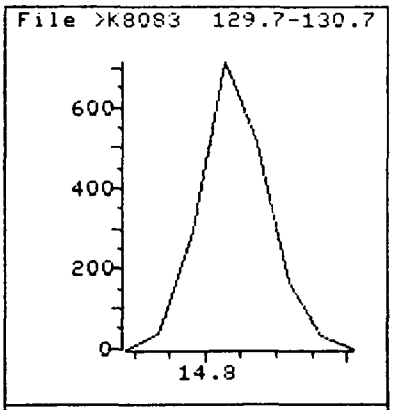


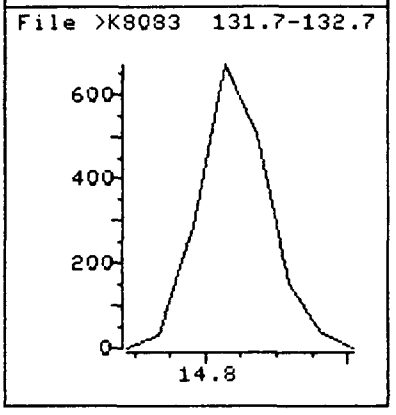
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >K8083::L2 Quant Output File: ^K8083::K2
Name: 124146,V,EPA,GEI
Misc: CLP,FD 1423,,92113-0W2D-0595,L,W,ALS1 1:10 TOM .019
Quant Time: 950604 12:57 Quant ID File: KVOAID::DB
Injected at: 950604 11:18 Last Calibration: 950604 12:56

Compound No: 32
Compound Name: C150 TRICHLOROETHENE
Scan Number: 282
Retention Time: 14.83 min.
Quant Ion: 130.0
Area: 4788
Concentration: 3.67 UG/L
q-value: 96

/

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

92113RDD

Lab Name: CANBRO Contract: GEI

Lab Code: CANBRO Case No: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124049

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K0000

Level: (low/med) LOW Date Received: 05/25/95

% Moisture: not dec Date Analyzed: 06/01/95

GC Column: CAP ID: 0.530 (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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

92113RDD

Lab Name: CAMBRO Contract: OEI

Lab Code: CAMBR Case No.: F01423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124049

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8000

Level (low/med) LOW Date Received: 05/25/95

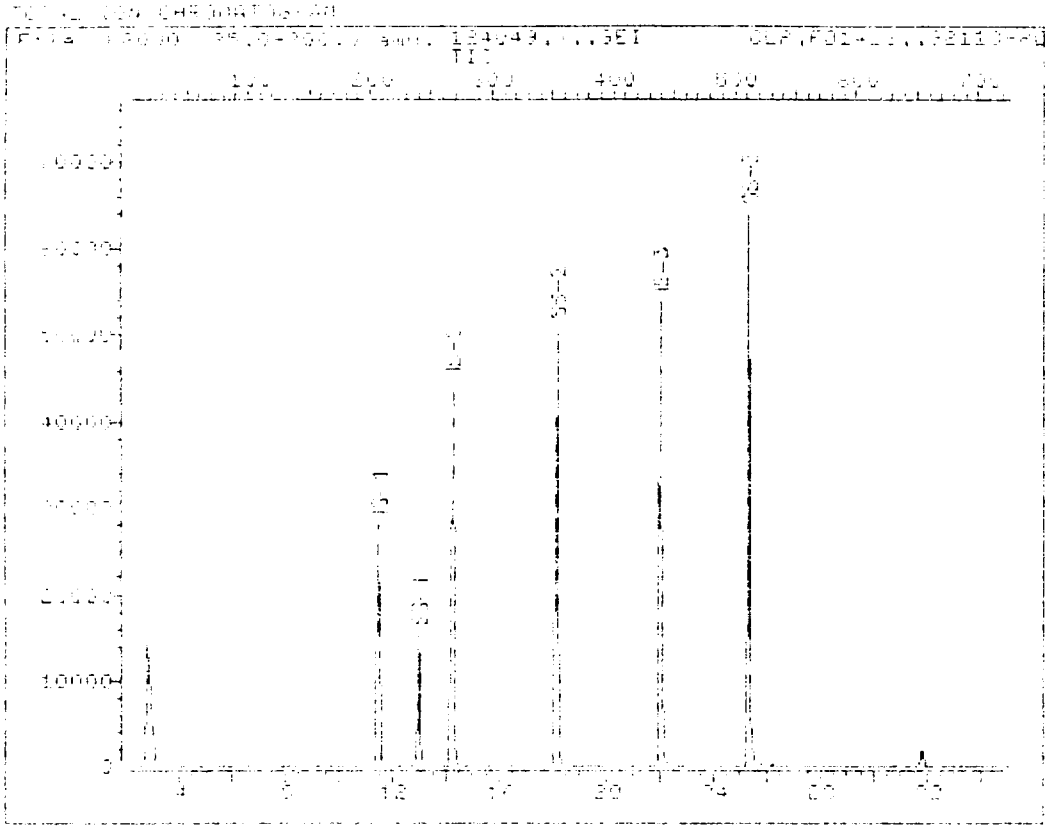
% Moisture: not dec. Date Analyzed: 06/01/95

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q



Data File: [illegible] Quant Output File: [illegible]
Name: [illegible]
Title: GLP,FD1[illegible], [illegible]

Method: [illegible]
Title: [illegible]
Last Calibration: [illegible]

Operator ID: DUUG
Quant Time: [illegible]
Injected at: [illegible]

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Operator : [illegible] Quant Rev: [illegible] Quant Time: [illegible]
Data File: [illegible] Injected at: [illegible]
Sample Info: [illegible] Dilution Factor: [illegible]
Name: [illegible]
Misc: CLP,FB1423,,92113-FD-D-0575,L,A,ALS8 STL 3PT .01/10

Purge File: V0001B.D
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950e01 14:5o

	Compound	R.T.	Q Ion	Area	Conc	Units	q
	*C1=1 BROMOCHLOROMETHANE IS-1	11.48	128.0	3o5e1	50.00	UG/L	9o
E)	C 2=5 1,2-DICHLOROETHANE SS1	12.99	65.0	3e059	51.9o	UG/L	3?
1)	*C1=6 1,4-DIFLUOROBENZENE IS-2	14.21	114.0	1e1630	50.00	UG/L	100
)	*C12o 05-CHLOROBENZENE IS-3	22.00	117.0	128217	50.00	UG/L	100
>)	C=05 D-8 TOLUENE (SS-2)	18.13	98.0	177229	48.97	UG/L	89
71	C810 BROMOFLUOROBENZENE (SS-3)	25.32	174.0	75e8?	48.67	UG/L	?4

_ Compound is ISTD

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3C. STANDARDS DATA

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Instrument ID: HP5972K Calibration Date(s): 05/31/95 05/31/95

Heated Purge: (Y/N): N Calibration Times: 1159 1722

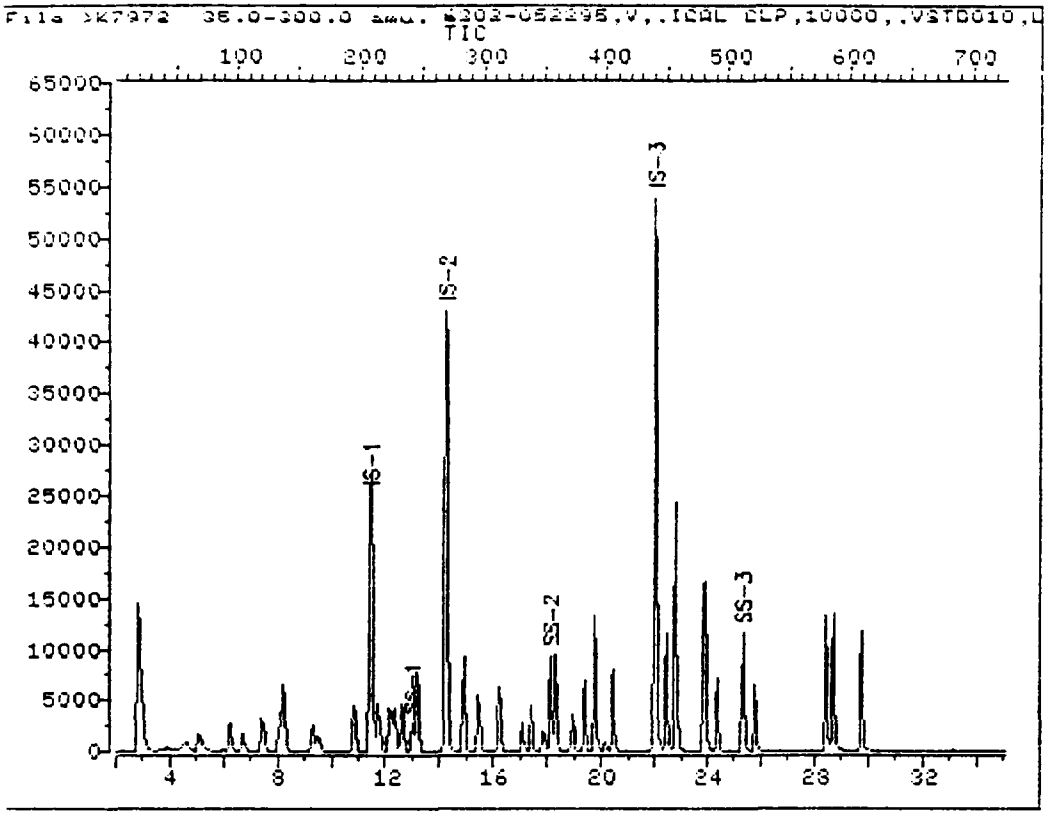
GC Column: CAP ID: 0.530 (mm)

LAB FILE ID: RRF10 = K7972 RRF20 = K7971
RRF50= K7967 RRF100= K7970 RRF200= K7969

COMPOUND	RRF10	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
Chloromethane	0.176	0.154	0.184	0.161	0.193	0.174	9.2
Bromomethane *	0.587	0.579	0.448	0.472	0.352	0.488	20.1*
Vinyl Chloride *	0.296	0.275	0.296	0.298	0.327	0.296	6.5*
Chloroethane	0.267	0.288	0.264	0.288	0.222	0.266	10.1
Methylene Chloride	0.929	0.878	0.875	0.930	0.896	0.902	3.0
Acetone	0.134	0.130	0.121	0.131	0.122	0.128	4.5
Carbon Disulfide	1.524	1.551	1.649	1.853	1.867	1.689	9.7
1,1-Dichloroethene *	0.705	0.678	0.728	0.779	0.796	0.737	6.7*
1,1-Dichloroethane *	1.446	1.386	1.408	1.520	1.512	1.454	4.1*
1,2-Dichloroethene (total)	1.024	0.975	1.025	1.082	1.102	1.042	4.9
Chloroform *	1.950	1.883	1.984	2.074	2.096	1.997	4.4*
1,2-Dichloroethane *	1.067	0.993	1.031	1.088	1.081	1.052	3.8*
2-Butanone	0.258	0.249	0.233	0.266	0.242	0.250	5.2
1,1,1-Trichloroethane *	0.388	0.377	0.399	0.432	0.416	0.402	5.5*
Carbon Tetrachloride *	0.411	0.398	0.430	0.461	0.440	0.428	5.8*
Bromodichloromethane *	0.463	0.448	0.485	0.509	0.485	0.478	4.9*
1,2-Dichloropropane	0.256	0.241	0.240	0.253	0.256	0.249	3.2
cis-1,3-Dichloropropene *	0.307	0.309	0.341	0.364	0.359	0.336	8.0*
Trichloroethene *	0.414	0.389	0.402	0.434	0.422	0.412	4.2*
Dibromochloromethane *	0.548	0.547	0.573	0.637	0.579	0.577	6.3*
1,1,2-Trichloroethane *	0.277	0.260	0.264	0.280	0.262	0.269	3.4*
Benzene *	0.592	0.558	0.565	0.607	0.573	0.579	3.5*
trans-1,3-Dichloropropene *	0.283	0.286	0.317	0.354	0.342	0.316	10.1*
Bromoform *	0.413	0.413	0.434	0.510	0.456	0.445	9.1*
4-Methyl-2-Pentanone	0.212	0.202	0.195	0.218	0.204	0.206	4.3
2-Hexanone	0.120	0.125	0.123	0.142	0.136	0.129	7.3
Tetrachloroethene *	0.481	0.470	0.484	0.505	0.506	0.489	3.2*
1,1,2,2-Tetrachloroethane *	0.492	0.474	0.447	0.511	0.451	0.475	5.7*
Toluene *	1.012	0.939	0.952	0.966	0.975	0.969	2.9*
Chlorobenzene *	0.912	0.870	0.869	0.923	0.901	0.895	2.7*
Ethylbenzene *	0.387	0.374	0.366	0.394	0.396	0.383	3.4*
Styrene *	0.796	0.771	0.792	0.816	0.789	0.793	2.0*
Xylene (total) *	0.481	0.454	0.462	0.490	0.470	0.471	3.1*
Toluene-d8	0.893	0.987	0.995	0.996	1.005	0.975	4.8
Bromofluorobenzene	0.561	0.621	0.604	0.647	0.640	0.615	5.6
1,2-Dichloroethane-d4	0.871	0.970	0.951	0.993	0.968	0.951	4.9

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

TOTAL ION CHROMATOGRAM



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Misc: CLP,10000,,VSTD010,L,A,ALS9 1UL/5ML JPT

Id File: KVOATD::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950530 17:49

Operator ID: DOUG
Quant Time: 950531 17:58
Injected at: 950531 17:22

QUANT REPORT

erator ID: DOUG Quant Rev: 6 Quant Time: 950531 17:58
ut File: ^K7972::K2 Injected at: 950531 17:22
File: >K7972::K1 Dilution Factor: 1.00000
me: 6302-052295,V,,ICAL
: CLP,10000,,VSTD010,L,A,ALS9 1UL/5ML JPT

File: KVOAID::DB
le: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Calibration: 950530 17:49

	Compound	R.T.	Q ion	Area	Conc	Units	q
*CI01	BROMOCHLOROMETHANE IS-1	11.44	128.0	38548	50.00	UG/L	97
C010	CHLOROMETHANE	3.74	50.0	1356	11.25	UG/L	100
C015	BROMOMETHANE	4.60	94.0	4521	10.37	UG/L	90
C020	VINYL CHLORIDE	3.92	62.0	2280	9.71	UG/L	96
C025	CHLOROETHANE	4.74	64.0	2053M*	9.51	UG/L	99
CXXX	TRICHLOROFLUOROMETHANE	5.10	101.0	9510	9.37	UG/L	99
C071	ACROLEIN	5.97	56.0	1169	91.12	UG/L	87
C030	METHYLENE CHLORIDE	7.43	84.0	7153	10.68	UG/L	75
C035	ACETONE	6.33	43.0	1030	10.42	UG/L	99
C040	CARBON DISULFIDE	6.70	76.0	11736	8.52	UG/L	100
C045	1,1-DICHLOROETHENE	6.24	96.0	5432	9.59	UG/L	81
C050	1,1-DICHLOROETHANE	9.29	63.0	11132	10.23	UG/L	96
C176	METHYL-T-BUTYL-ETHER	8.25	73.0	13039	10.29	UG/L	96
C074	ACRYLONITRILE	8.06	53.0	9241 JPT 05/24/95	98.67	UG/L	91
C051	TRANS-1,2,DICHLOROETHENE	8.20	96.0	7224	9.67	UG/L	93
C055	CIS-1,2-DICHLOROETHENE	10.84	96.0	8566	9.96	UG/L	77
C053	TOTAL-1,2-DICHLOROETHENE	10.84	96.0	15786M*	19.63	UG/L	77
C060	CHLOROFORM	11.75	83.0	15016	9.58	UG/L	97
C065	1,2-DICHLOROETHANE	13.21	62.0	8216	10.13	UG/L	93
CS15	D4-1,2-DICHLOROETHANE SS1	12.98	65.0	6707	8.31	UG/L	94
C110	2-BUTANONE (MEK)	10.89	43.0	1985M*	12.03	UG/L	
C198	TETRAHYDROFURAN	11.62	42.0	897	9.73	UG/L	98
C199	CYCLOHEXANE	12.35	56.0	8774	10.53	UG/L	97
*CI10	1,4-DIFLUOROBENZENE IS-2	14.21	114.0	155508	50.00	UG/L	100
C115	1,1,1-TRICHLOROETHANE	12.16	97.0	12109	9.25	UG/L	73
C120	CARBON TETRACHLORIDE	12.62	117.0	12819	9.33	UG/L	91
C125	VINYL ACETATE	9.52	43.0	9993	10.74	UG/L	96
C130	BROMODICHLOROMETHANE	16.22	83.0	14456	9.60	UG/L	98
C140	1,2-DICHLOROPROPANE	15.45	63.0	7995	11.13	UG/L	98
CZZZ	2-CHLOROETHYLVINYLETHER	17.09	63.0	3923	9.91	UG/L	100
C143	CIS-1,3-DICHLOROPROPENE	17.45	75.0	10134	9.76	UG/L	96
C150	TRICHLOROETHENE	14.90	130.0	12918	10.71	UG/L	93
C155	DIBROMOCHLOROMETHANE	20.46	129.0	17088	9.63	UG/L	98
C160	1,1,2-TRICHLOROETHANE	19.41	97.0	8637	10.70	UG/L	93
C165	BENZENE	13.17	78.0	18481	10.99	UG/L	100
C172	TRANS-1,3-DICHLOROPROPENE	18.95	75.0	8273	8.38	UG/L	92
C180	BROMOFORM	24.38	173.0	12871	9.40	UG/L	85
*CI20	D5-CHLOROBENZENE IS-3	22.01	117.0	126153	50.00	UG/L	100
C205	4-METHYL-2-PENTANONE	17.86	43.0	5344	11.50	UG/L	97
C210	2-HEXANONE (MPK)	20.14	43.0	3023	10.10	UG/L	89
C220	TETRACHLOROETHYLENE	19.77	164.0	12128	10.35	UG/L	88
C225	1,1,2,2-TETRACHLOROETHANE	25.79	83.0	12400	10.92	UG/L	86
CS05	D-8 TOLUENE (SS-2)	18.13	98.0	22509	8.75	UG/L	92

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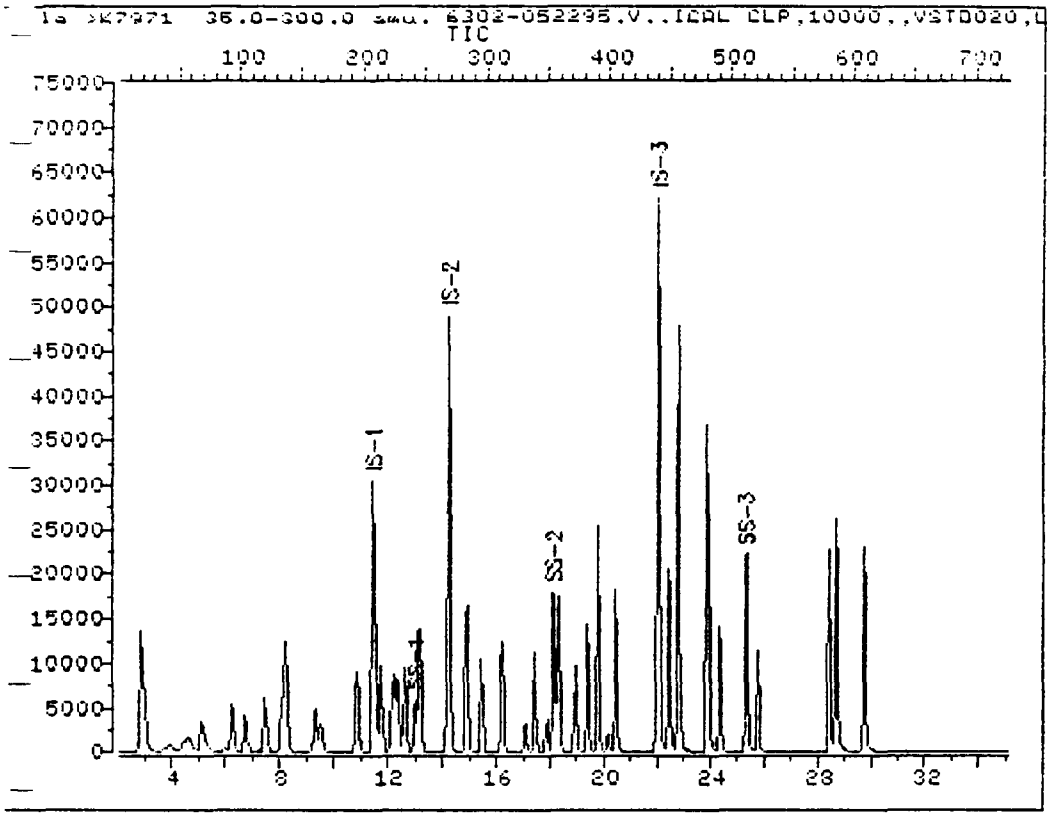
	Compound	R.T.	Q ion	Area	Conc	Units	q
)	C230 TOLUENE	18.32	91.0	25492	11.06	UG/L	94
)	C235 CHLOROBENZENE	22.10	112.1	22989	10.76	UG/L	87
)	C240 ETHYL BENZENE	22.46	106.0	9759	10.77	UG/L	99
)	CS10 BROMOFLUOROBENZENE (SS-3)	25.33	174.0	14125	8.78	UG/L	93
)	C245 STYRENE	23.92	104.1	20050	10.28	UG/L	69
)	M+P XYLENES	22.78	106.2	26616	21.12	UG/L	99
)	O-XYLENE	23.87	106.0	12125	10.59	UG/L	93
)	C250 TOTAL XYLENES	23.87	106.0	12125	10.59	UG/L	93
)	CYYY 1,3-DICHLOROBENZENE	28.43	146.0	23221	10.74	UG/L	84
)	CVVV 1,4-DICHLOROBENZENE	28.70	146.0	25080	10.65	UG/L	86
)	CWWW 1,2-DICHLOROBENZENE	29.75	146.0	22622	11.48	UG/L	91

Compound is ISTD

TAL ION CHROMATOGRAM



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Misc: CLP,10000,,VSTD020,L,A,ALS8 2UL/5ML JPT

Id File: KVOATD::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950530 17:49

Operator ID: DOUG
Quant Time: 950531 17:18
Injected at: 950531 16:43

QUANT REPORT

erator ID: DOUG Quant Rev: 6 Quant Time: 950531 17:18
tput File: ^K7971::K2 Injected at: 950531 16:43
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File: KVOAID::DB
tle: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
st Calibration: 950530 17:49

	Compound	R.T.	Q ion	Area	Conc	Units	q
)	*CI01 BROMOCHLOROMETHANE IS-1	11.46	128.0	39541	50.00	UG/L	96
)	C010 CHLOROMETHANE	3.76	50.0	2430	19.66	UG/L	100
)	C015 BROMOMETHANE	4.62	94.0	9147	20.45	UG/L	99
)	C020 VINYL CHLORIDE	3.94	62.0	4341	18.02	UG/L	99
)	C025 CHLOROETHANE	4.67	64.0	4549	20.54	UG/L	91
)	CXXX TRICHLOROFLUOROMETHANE	5.12	101.0	20259	19.46	UG/L	96
)	C071 ACROLEIN	5.99	56.0	2428	184.51	UG/L	96
)	C030 METHYLENE CHLORIDE	7.45	84.0	13877	20.19	UG/L	72
)	C035 ACETONE	6.35	43.0	2056	20.28	UG/L	97
)	C040 CARBON DISULFIDE	6.72	76.0	24504	17.35	UG/L	100
)	C045 1,1-DICHLOROETHENE	6.22	96.0	10706	18.43	UG/L	74
)	C050 1,1-DICHLOROETHANE	9.32	63.0	21895	19.62	UG/L	94
)	C176 METHYL-T-BUTYL-ETHER	8.22	73.0	25843	19.89	UG/L	95
)	C074 ACRYLONITRILE	8.04	53.0	18817	195.86	UG/L	92
)	C051 TRANS-1,2,DICHLOROETHENE	8.18	96.0	14614	19.07	UG/L	87
)	C055 CIS-1,2-DICHLOROETHENE	10.86	96.0	16244	18.42	UG/L	88
)	C053 TOTAL-1,2-DICHLOROETHENE	10.86	96.0	30848M	37.40	UG/L	88
)	C060 CHLOROFORM	11.73	83.0	29754	18.51	UG/L	92
)	C065 1,2-DICHLOROETHANE	13.19	62.0	15691	18.87	UG/L	91
)	CS15 D4-1,2-DICHLOROETHANE SS1	13.01	65.0	15333	18.52	UG/L	91
)	C110 2-BUTANONE (MEK)	10.91	43.0	3930	23.22	UG/L	86
)	C198 TETRAHYDROFURAN	11.59	42.0	2026	21.42	UG/L	95
)	C199 CYCLOHEXANE	12.37	56.0	17160	20.08	UG/L	99
)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.24	114.0	162605	50.00	UG/L	100
)	C115 1,1,1-TRICHLOROETHANE	12.19	97.0	24580	17.96	UG/L	74
)	C120 CARBON TETRACHLORIDE	12.64	117.0	25949	18.06	UG/L	94
)	C125 VINYL ACETATE	9.50	43.0	20038	20.60	UG/L	93
)	C130 BROMODICHLOROMETHANE	16.24	83.0	29204	18.54	UG/L	94
)	C140 1,2-DICHLOROPROPANE	15.47	63.0	15709	20.91	UG/L	99
)	C2ZZ 2-CHLOROETHYLVINYLETHER	17.11	63.0	5399	13.03	UG/L	100
)	C145 CIS-1,3-DICHLOROPROPENE	17.43	75.0	21318	19.63	UG/L	96
)	C150 TRICHLOROETHENE	14.92	130.0	25335	20.08	UG/L	93
)	C155 DIBROMOCHLOROMETHANE	20.43	129.0	35685	19.22	UG/L	96
)	C160 1,1,2-TRICHLOROETHANE	19.39	97.0	16983	20.12	UG/L	96
)	C165 BENZENE	13.14	78.0	36361	20.69	UG/L	100
)	C172 TRANS-1,3-DICHLOROPROPENE	18.93	75.0	17499	16.95	UG/L	95
)	C180 BROMOFORM	24.35	173.0	26925	18.81	UG/L	86
)	*CI20 D5-CHLOROBENZENE IS-3	22.03	117.0	129741	50.00	UG/L	100
)	C205 4-METHYL-2-PENTANONE	17.88	43.0	10501	21.97	UG/L	96
)	C210 2-HEXANONE (MBK)	20.16	43.0	6507	21.13	UG/L	89
)	C220 TETRACHLOROETHYLENE	19.80	164.0	24437	20.38	UG/L	96
)	C225 1,1,2,2-TETRACHLOROETHANE	25.81	83.0	24367	21.13	UG/L	85
)	C903 D-8 TOLUENE (SS-2)	18.11	98.0	51314	19.40	UG/L	90

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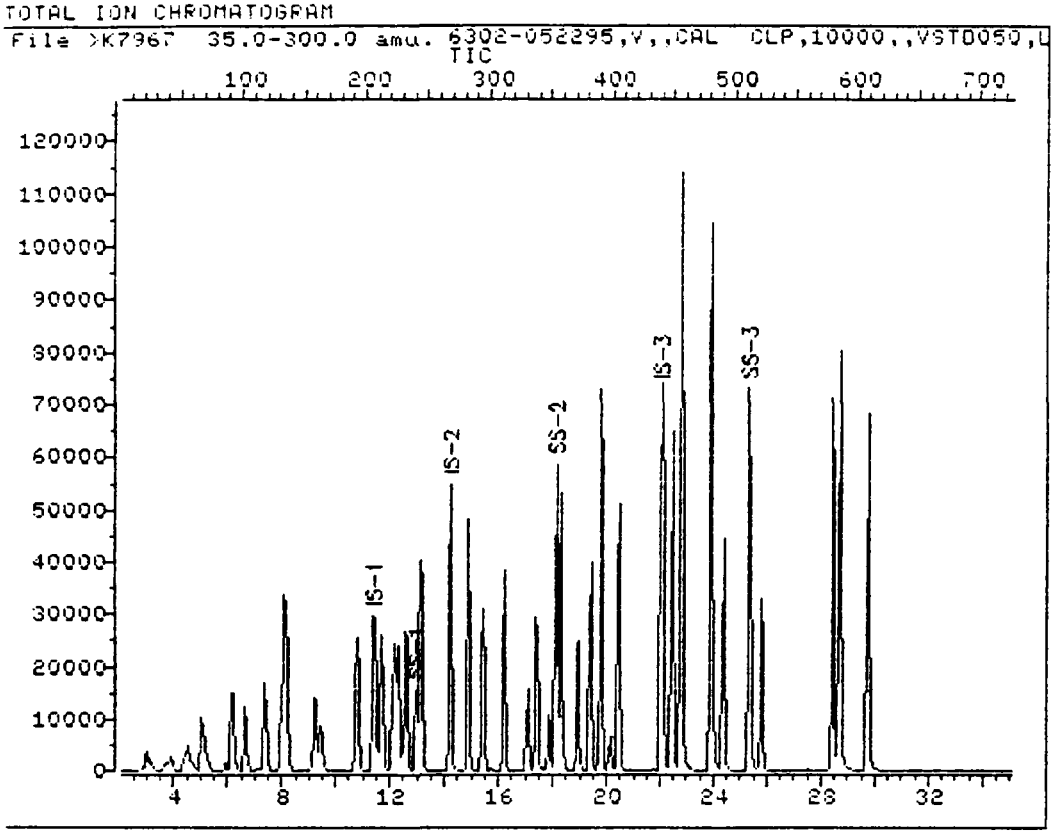
Compound	R.T.	Q ion	Area	Conc	Units	q
C230 TOLUENE	18.29	91.0	48835	20.60	UG/L	98
C235 CHLOROBENZENE	22.12	112.1	45240	20.58	UG/L	90
C240 ETHYL BENZENE	22.44	106.0	19431	20.85	UG/L	95
CS10 BROMOFLUOROBENZENE (SS-3)	25.31	174.0	32305	19.52	UG/L	72
C245 STYRENE	23.94	104.1	40101	20.00	UG/L	66
M+P XYLENES	22.80	106.2	53586	41.34	UG/L	97
O-XYLENE	23.90	106.0	23620	20.06	UG/L	94
C250 TOTAL XYLENES	23.90	106.0	23620	20.06	UG/L	94
CYYY 1,3-DICHLOROBENZENE	28.41	146.0	46312	20.82	UG/L	78
CVVV 1,4-DICHLOROBENZENE	28.68	146.0	48872	20.18	UG/L	84
CWWW 1,2-DICHLOROBENZENE	29.73	146.0	43485	21.45	UG/L	83

ompound is ISTD

TOTAL ION CHROMATOGRAM



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Misc: CLP,10000,,VSTD050,L,W,ALS7 5UL/5ML JPT

Id File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950530 17:49

Operator ID: DOUG
Quant Time: 950531 12:35
Injected at: 950531 11:59

QUANT REPORT

erator ID: DOUG Quant Rev: 6 Quant Time: 950601 09:47
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: CLP,10000,,VSTD050,L,W,ALS7 5UL/5ML JPT

File: KVOAID::DB
le: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Calibration: 950531 18:10

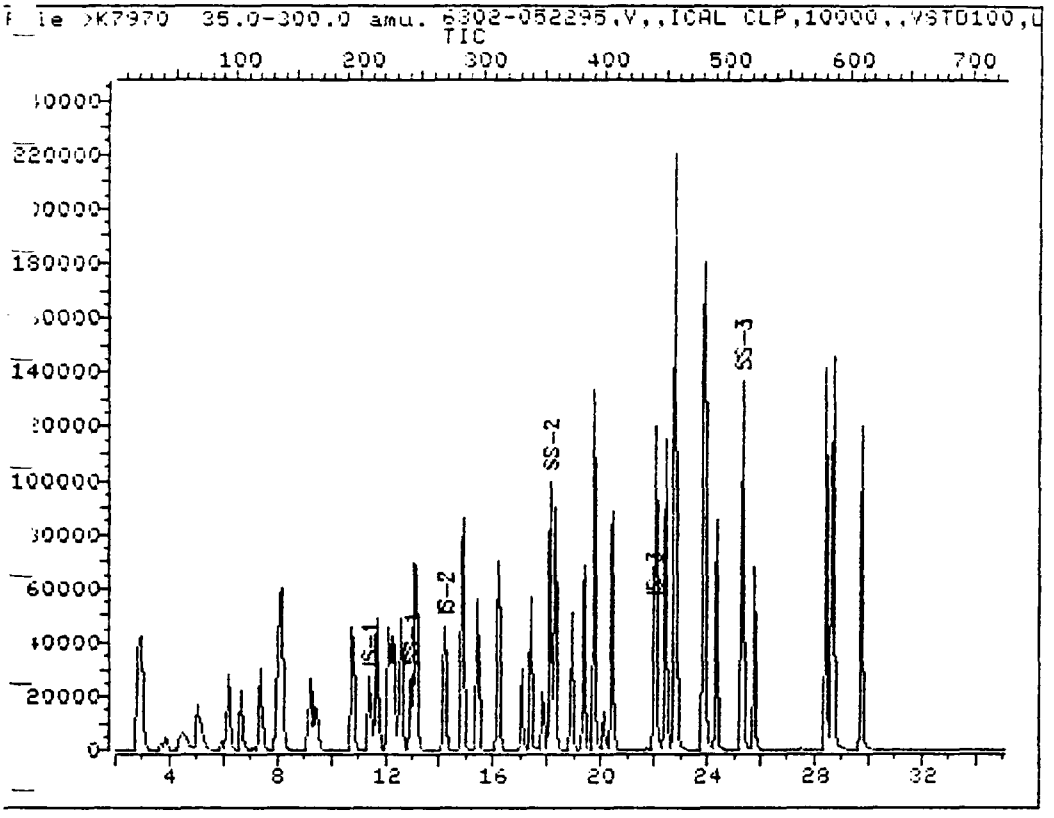
	Compound	R.T.	Q ion	Area	Conc	Units	q
*CI01	BROMOCHLOROMETHANE IS-1	11.38	128.0	43414	50.00	UG/L	97
C010	CHLOROMETHANE	3.72	50.0	7994	50.00	UG/L	100
C015	BROMOMETHANE	4.49	94.0	19453	50.00	UG/L	98
C020	VINYL CHLORIDE	3.90	62.0	12865	50.00	UG/L	99
C025	CHLOROETHANE	4.72	64.0	11447M*	50.00	UG/L	95
CXXX	TRICHLOROFLUOROMETHANE	5.04	101.0	55711	50.00	UG/L	94
C071	ACROLEIN	5.91	56.0	5914	500.00	UG/L	94
C030	METHYLENE CHLORIDE	7.37	84.0	37968	50.00	UG/L	70
C035	ACETONE	6.27	43.0	5236	50.00	UG/L	99
C040	CARBON DISULFIDE	6.64	76.0	71585M	50.00	UG/L	100
C045	1,1-DICHLOROETHENE	6.13	96.0	31617M	50.00	UG/L	73
C050	1,1-DICHLOROETHANE	9.19	63.0	61121	50.00	UG/L	97
C176	METHYL-T-BUTYL-ETHER	8.14	73.0	66521	50.00	UG/L	96
C074	ACRYLONITRILE	7.96	53.0	46070	500.00	UG/L	89
C051	TRANS-1,2,DICHLOROETHENE	8.09	96.0	42496	50.00	UG/L	87
C055	CIS-1,2-DICHLOROETHENE	10.78	96.0	47239	50.00	UG/L	82
C053	TOTAL-1,2-DICHLOROETHENE	10.78	96.0	88967M*	100.00	UG/L	82
C060	CHLOROFORM	11.69	83.0	86109	50.00	UG/L	97
C065	1,2-DICHLOROETHANE	13.15	62.0	44734	50.00	UG/L	94
CS15	D4-1,2-DICHLOROETHANE SS1	12.92	65.0	41263	50.00	UG/L	90
C110	2-BUTANONE (MEK)	10.83	43.0	10123	50.00	UG/L	88
C198	TETRAHYDROFURAN	11.56	42.0	5103	50.00	UG/L	99
C199	CYCLOHEXANE	12.29	56.0	48034	50.00	UG/L	92
*CI10	1,4-DIFLUOROBENZENE IS-2	14.20	114.0	179226	50.00	UG/L	100
C115	1,1,1-TRICHLOROETHANE	12.10	97.0	71444	50.00	UG/L	73
C120	CARBON TETRACHLORIDE	12.56	117.0	76959	50.00	UG/L	89
C125	VINYL ACETATE	9.42	43.0	55012	50.00	UG/L	90
C130	BROMODICHLOROMETHANE	16.21	83.0	86745	50.00	UG/L	97
C140	1,2-DICHLOROPROPANE	15.43	63.0	42972	50.00	UG/L	91
CZZZ	2-CHLOROETHYLVINYLETHER	17.07	63.0	23198	50.00	UG/L	100
C143	CIS-1,3-DICHLOROPROPENE	17.39	75.0	64635	53.00	UG/L	94
C150	TRICHLOROETHENE	14.88	130.0	71947	50.00	UG/L	88
C155	DIBROMOCHLOROMETHANE	20.45	129.0	102527	50.00	UG/L	96
C160	1,1,2-TRICHLOROETHANE	19.40	97.0	47290	50.00	UG/L	99
C165	BENZENE	13.11	78.0	101220	50.00	UG/L	100
C172	TRANS-1,3-DICHLOROPROPENE	18.94	75.0	53279	47.00	UG/L	92
C180	BROMOFORM	24.36	173.0	77602	50.00	UG/L	85
*CI20	D5-CHLOROBENZENE IS-3	22.04	117.0	144574	50.00	UG/L	100
C208	4-METHYL-2-PENTANONE	17.85	43.0	28254	50.00	UG/L	98
C210	2-HEXANONE (MBK)	20.13	43.0	17859	50.00	UG/L	90
C220	TETRACHLOROETHYLENE	19.76	164.0	70126	50.00	UG/L	99
C225	1,1,2,2-TETRACHLOROETHANE	25.78	83.0	64852	50.00	UG/L	95
CS05	D-8 TOLUENE (SS-2)	18.12	98.0	144283	50.00	UG/L	88

30154

	Compound	R.T.	Q ion	Area	Conc	Units	q
)	C230 TOLUENE	18.30	91.0	137982	50.00	UG/L	99
)	C235 CHLOROBENZENE	22.09	112.1	125957	50.00	UG/L	84
)	C240 ETHYL BENZENE	22.45	106.0	53023	50.00	UG/L	99
)	CS10 BROMOFLUOROBENZENE (SS-3)	25.32	174.0	87523	50.00	UG/L	90
)	C245 STYRENE	23.91	104.1	114855	50.00	UG/L	70
)	M+P XYLENES	22.77	106.2	144646	100.00	UG/L	98
)	O-XYLENE	23.86	106.0	67004	50.00	UG/L	90
)	C250 TOTAL XYLENES	23.86	106.0	67004	50.00	UG/L	90
)	CYYY 1,3-DICHLOROBENZENE	28.42	146.0	125113	50.00	UG/L	83
)	CVVV 1,4-DICHLOROBENZENE	28.69	146.0	138556	50.00	UG/L	82
)	CWWW 1,2-DICHLOROBENZENE	29.74	146.0	116514	50.00	UG/L	89

Compound is ISTD

AL ION CHROMATOGRAM



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Misc: CLP,10000,,VSTD100,L,A,ALS7 10UL/5ML JPT

Id File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950530 17:49

Operator ID: DOUG
Quant Time: 950531 16:39
Injected at: 950531 16:03

30156

QUANT REPORT

erator ID: DOUG Quant Rev: 6 Quant Time: 950531 16:39
:put File: ^K7970::K2 Injected at: 950531 16:03
ta File: >K7970::K1 Dilution Factor: 1.00000
me: 6302-052295,V,,ICAL
sc: CLP,10000,,VSTD100,L,A,ALS7 10UL/5ML JPT

File: KVOAID::DB
e: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Calibration: 950530 17:49

	Compound	R.T.	Q ion	Area	Conc	Units	q
	*CI01 BROMOCHLOROMETHANE IS-1	11.43	128.0	37313	50.00	UG/L	94
	C010 CHLOROMETHANE	3.68	50.0	11984	102.74	UG/L	100
	C015 BROMOMETHANE	4.46	94.0	35174	83.35	UG/L	98
	C020 VINYL CHLORIDE	3.86	62.0	21489	94.55	UG/L	96
	C025 CHLOROETHANE	4.68	64.0	21503	102.88	UG/L	94
	CXXX TRICHLOROFLUOROMETHANE	5.05	101.0	99410	101.19	UG/L	94
	C071 ACROLEIN	5.91	56.0	12716	1024.00	UG/L	97
	C030 METHYLENE CHLORIDE	7.37	84.0	69384	106.99	UG/L	68
	C035 ACETONE	6.28	43.0	9763	102.07	UG/L	97
	C040 CARBON DISULFIDE	6.64	76.0	138247	103.74	UG/L	100
	C045 1,1-DICHLOROETHENE	6.19	96.0	58134	106.04	UG/L	79
	C050 1,1-DICHLOROETHANE	9.24	63.0	113415	107.72	UG/L	96
	C176 METHYL-T-BUTYL-ETHER	8.15	73.0	124796	101.76	UG/L	96
	C074 ACRYLONITRILE	8.01	53.0	98843	1090.28	UG/L	91
	C051 TRANS-1,2,DICHLOROETHENE	8.10	96.0	76656	106.00	UG/L	81
	C055 CIS-1,2-DICHLOROETHENE	10.79	96.0	85916 JM	103.23	UG/L	81
	C053 TOTAL-1,2-DICHLOROETHENE	10.79	96.0	161446M	207.44	UG/L	81
	C060 CHLOROFORM	11.70	83.0	154694 05/31/95	102.01	UG/L	95
	C065 1,2-DICHLOROETHANE	13.16	62.0	81135	103.38	UG/L	96
	CS15 D4-1,2-DICHLOROETHANE SS1	12.98	65.0	74071	94.80	UG/L	90
	C110 2-BUTANONE (MEK)	10.84	43.0	19861	124.35	UG/L	89
	C198 TETRAHYDROFURAN	11.56	42.0	10568	118.38	UG/L	96
	C199 CYCLOHEXANE	12.29	56.0	86403	107.13	UG/L	91
	*CI10 1,4-DIFLUOROBENZENE IS-2	14.21	114.0	152820	50.00	UG/L	100
	C115 1,1,1-TRICHLOROETHANE	12.16	97.0	132303	102.87	UG/L	74
	C120 CARBON TETRACHLORIDE	12.61	117.0	140945	104.36	UG/L	92
	C125 VINYL ACETATE	9.42	43.0	108706	118.92	UG/L	89
	C130 BROMODICHLOROMETHANE	16.21	83.0	155790	105.26	UG/L	95
	C140 1,2-DICHLOROPROPANE	15.44	63.0	77430	109.69	UG/L	92
	C2ZZ 2-CHLOROETHYLVINYLETHER	17.08	63.0	43908	112.73	UG/L	100
	C143 CIS-1,3-DICHLOROPROPENE	17.40	75.0	117916	115.56	UG/L	95
	C150 TRICHLOROETHENE	14.89	130.0	132681	111.91	UG/L	93
	C155 DIBROMOCHLOROMETHANE	20.45	129.0	194912	111.72	UG/L	95
	C160 1,1,2-TRICHLOROETHANE	19.40	97.0	85620	107.92	UG/L	95
	C165 BENZENE	13.11	78.0	185635	112.37	UG/L	100
	C172 TRANS-1,3-DICHLOROPROPENE	18.90	75.0	101769	104.37	UG/L	93
	C180 BROMOFORM	24.37	173.0	156114	116.05	UG/L	83
	*CI20 D5-CHLOROBENZENE IS-3	22.00	117.0	124689	50.00	UG/L	100
	C205 4-METHYL-2-PENTANONE	17.85	43.0	54448	118.54	UG/L	98
	C210 2-HEXANONE (MPK)	20.13	43.0	35578	120.22	UG/L	85
	C220 TETRACHLOROETHYLENE	19.77	164.0	126353	109.13	UG/L	97
	C225 1,1,2,2-TETRACHLOROETHANE	25.79	83.0	127695	113.79	UG/L	95
	CS05 D-8 TOLUENE (SS-2)	18.13	98.0	249010	97.97	UG/L	90

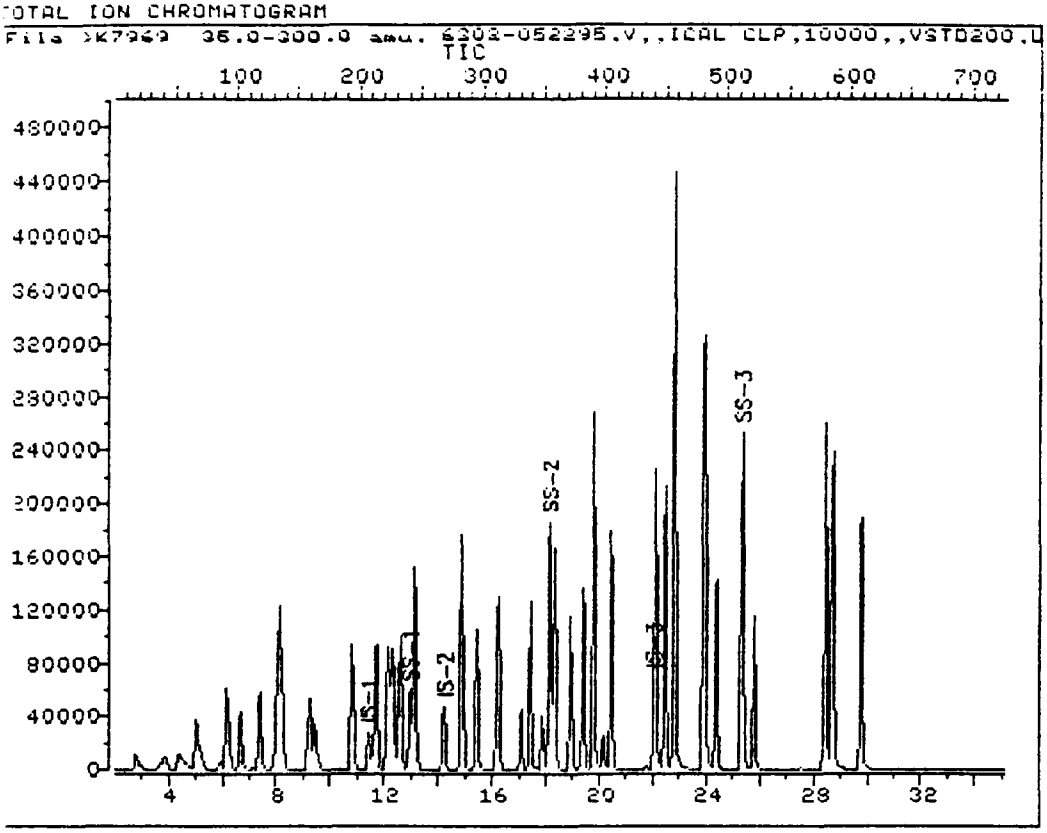
30157

	Compound	R.T.	Q ion	Area	Conc	Units	q
C230	TOLUENE	18.31	91.0	241567	106.00	UG/L	99
C235	CHLOROBENZENE	22.09	112.1	230827	109.28	UG/L	87
C240	ETHYL BENZENE	22.46	106.0	98386	109.85	UG/L	98
CS10	BROMOFLUOROBENZENE (SS-3)	25.33	174.0	161700	101.66	UG/L	98
C245	STYRENE	23.92	104.1	203943	105.84	UG/L	66
	M+P XYLENES	22.78	106.2	261651	210.04	UG/L	97
	O-XYLENE	23.87	106.0	122540	108.30	UG/L	89
C250	TOTAL XYLENES	23.87	106.0	122540	108.30	UG/L	89
CYYY	1,3-DICHLOROBENZENE	28.43	146.0	236944	110.85	UG/L	85
CVVV	1,4-DICHLOROBENZENE	28.70	146.0	253356	108.83	UG/L	87
CWWW	1,2-DICHLOROBENZENE	29.75	146.0	211343	108.47	UG/L	90

ompound is ISTD

30158

TOTAL ION CHROMATOGRAM



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Misc: CLP,10000,,VSTD200,L,A,ALS6 20UL/5ML JPT

Id File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950530 17:49

Operator ID: DOUG
Quant Time: 950531 15:02
Injected at: 950531 14:26

QUANT REPORT

erator ID: DOUG Quant Rev: 6 Quant Time: 950531 15:02
ut File: ^K7969::K2 Injected at: 950531 14:26
File: >K7969::K1 Dilution Factor: 1.00000
me: 6302-052295,V,,ICAL
: CLP,10000,,VSTD200,L,A,ALS6 20UL/5ML JPT

rile: KVOAID::DB
tle: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
. Calibration: 950530 17:49

	Compound	R.T.	Q ion	Area	Conc	Units	q
*CI01	BROMOCHLOROMETHANE IS-1	11.40	128.0	38136	50.00	UG/L	94
C010	CHLOROMETHANE	3.69	50.0	29362	246.30	UG/L	100
C015	BROMOMETHANE	4.38	94.0	53610M*	124.29	UG/L	98
C020	VINYL CHLORIDE	3.88	62.0	49902	214.83	UG/L	96
C025	CHLOROETHANE	4.65	64.0	33891	158.65	UG/L	92
CXXX	TRICHLOROFLUOROMETHANE	5.02	101.0	207553	206.71	UG/L	94
C071	ACROLEIN	5.93	56.0	25086	1976.54	UG/L	99
C030	METHYLENE CHLORIDE	7.39	84.0	136508	205.96	UG/L	73
C035	ACETONE	6.29	43.0	185865	190.13	UG/L	99
C040	CARBON DISULFIDE	6.66	76.0	284471	208.87	UG/L	100
C045	1,1-DICHLOROETHENE	6.16	96.0	121259	216.41	UG/L	74
C050	1,1-DICHLOROETHANE	9.21	63.0	230360	214.07	UG/L	98
C176	METHYL-T-BUTYL-ETHER	8.16	73.0	241283	192.50	UG/L	97
C074	ACRYLONITRILE	7.98	53.0	189608	2046.32	UG/L	89
C051	TRANS-1,2,DICHLOROETHENE	8.12	96.0	158074	213.87	UG/L	86
C055	CIS-1,2-DICHLOROETHENE	10.80	96.0	180840	212.60	UG/L	80
C053	TOTAL-1,2-DICHLOROETHENE	10.80	96.0	336182M*	422.62	UG/L	80
C060	CHLOROFORM	11.72	83.0	319371	206.05	UG/L	97
C065	1,2-DICHLOROETHANE	13.18	62.0	164741	205.37	UG/L	92
CS15	D4-1,2-DICHLOROETHANE SS1	12.95	65.0	147502	184.70	UG/L	93
C110	2-BUTANONE (MEK)	10.85	43.0	36865	225.83	UG/L	89
C198	TETRAHYDROFURAN	11.58	42.0	19943	218.58	UG/L	95
C199	CYCLOHEXANE	12.31	56.0	183137	222.18	UG/L	97
*CI10	1,4-DIFLUOROBENZENE IS-2	14.22	114.0	161270	50.00	UG/L	100
C115	1,1,1-TRICHLOROETHANE	12.13	97.0	268229	197.63	UG/L	73
C120	CARBON TETRACHLORIDE	12.58	117.0	283668	199.03	UG/L	91
C125	VINYL ACETATE	9.44	43.0	214434	222.29	UG/L	91
C130	BROMODICHLOROMETHANE	16.23	83.0	312357	199.98	UG/L	93
C140	1,2-DICHLOROPROPANE	15.45	63.0	164630	220.99	UG/L	97
CZZZ	2-CHLOROETHYLVINYLETHER	17.09	63.0	73956	179.93	UG/L	100
C143	CIS-1,3-DICHLOROPROPENE	17.41	75.0	245232	227.74	UG/L	95
C150	TRICHLOROETHENE	14.86	130.0	271458	216.97	UG/L	91
C155	DIBROMOCHLOROMETHANE	20.42	129.0	372673	202.42	UG/L	96
C160	1,1,2-TRICHLOROETHANE	19.37	97.0	168722	201.53	UG/L	97
C169	BENZENE	13.13	78.0	369126	211.74	UG/L	100
C172	TRANS-1,3-DICHLOROPROPENE	18.92	75.0	207626	202.74	UG/L	96
C180	BROMOFORM	24.34	173.0	293468	206.72	UG/L	87
*CI20	D5-CHLOROBENZENE IS-3	22.02	117.0	126236	50.00	UG/L	100
C205	4-METHYL-2-PENTANONE	17.67	43.0	102867	221.21	UG/L	98
C210	2-HEXANONE (MPK)	20.15	43.0	68321	228.02	UG/L	88
C220	TETRACHLOROETHYLENE	19.78	164.0	255256	217.77	UG/L	94
C225	1,1,2,2-TETRACHLOROETHANE	25.80	83.0	227106	199.90	UG/L	95
CS05	D-8 TOLUENE (SS-2)	18.14	98.0	506323	196.77	UG/L	88

30160

	Compound	R.T.	Q ion	Area	Conc	Units	q
)	C230 TOLUENE	18.28	91.0	491189	212.90	UG/L	97
)	C235 CHLOROBENZENE	22.11	112.1	454078	212.33	UG/L	93
)	C240 ETHYL BENZENE	22.47	106.0	199415	219.93	UG/L	97
)	CS10 BROMOFLUOROBENZENE (SS-3)	25.35	174.0	322399	200.21	UG/L	91
)	C245 STYRENE	23.93	104.1	397679	203.86	UG/L	68
)	M+P XYLENES	22.79	106.2	505854	401.10	UG/L	99
)	O-XYLENE	23.89	106.0	236817	206.74	UG/L	87
)	C250 TOTAL XYLENES	23.89	106.0	236817	206.74	UG/L	87
)	CYYY 1,3-DICHLOROBENZENE	28.45	146.0	453222	209.43	UG/L	85
)	CVVV 1,4-DICHLOROBENZENE	28.67	146.0	475389	201.71	UG/L	76
)	CWWW 1,2-DICHLOROBENZENE	29.72	146.0	382676	194.00	UG/L	82

Compound is ISTD

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Instrument ID: HP5970K Calibration date: 06/01/95 Time: 1136

Lab File ID: K7990 Init. Calib. Date(s): 05/31/95 05/31/95

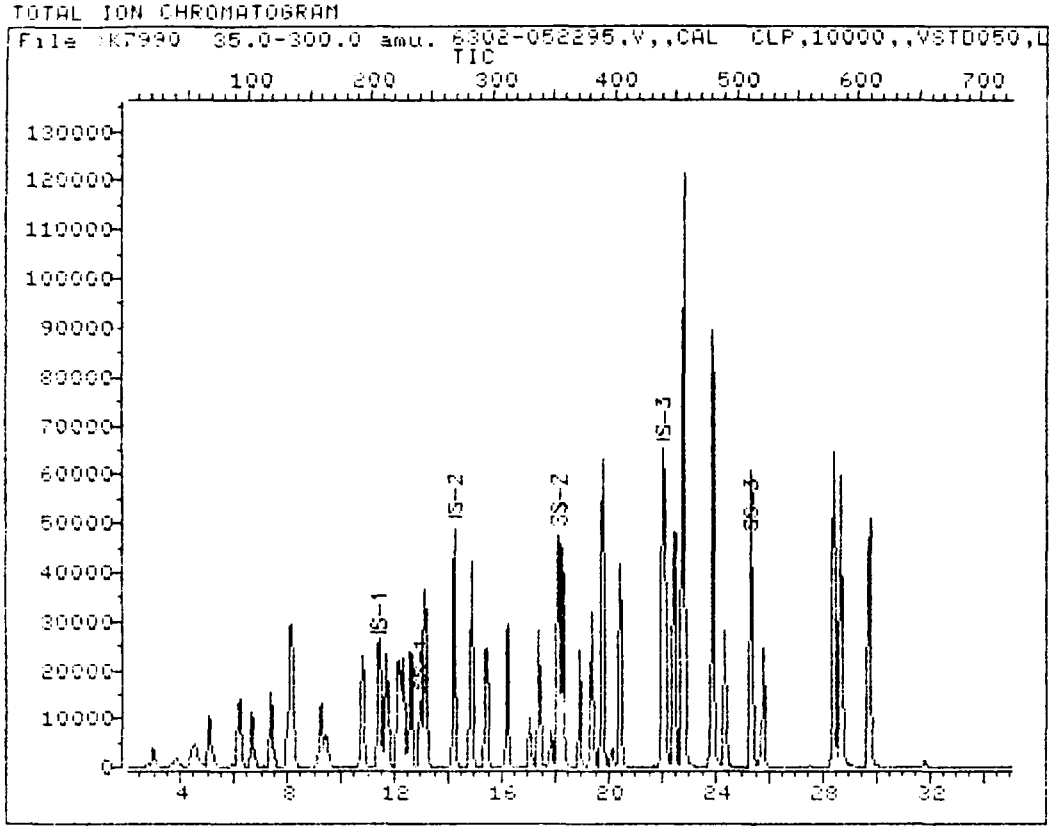
Heated Purge: (Y/N) N Init. Calib. Times: 1159 1722

GC Column: CAP ID: 0.530 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.174	0.211		-21.3	
Bromomethane	0.488	0.612	0.100	-25.4	25.0
Vinyl Chloride	0.296	0.334	0.100	-12.8	25.0
Chloroethane	0.266	0.303		-13.9	
Methylene Chloride	0.902	0.894		0.9	
Acetone	0.126	0.101		21.1	
Carbon Disulfide	1.689	1.807		-7.0	
1,1-Dichloroethene	0.737	0.773	0.100	-4.9	25.0
1,1-Dichloroethane	1.454	1.492	0.200	-2.6	25.0
1,2-Dichloroethene (total)	1.042	1.068		-2.5	
Chloroform	1.997	2.036	0.200	-2.0	25.0
1,2-Dichloroethane	1.032	0.956	0.100	9.1	25.0
2-Butanone	0.250	0.181		27.6	
1,1,1-Trichloroethane	0.402	0.400	0.100	0.5	25.0
Carbon Tetrachloride	0.428	0.419	0.100	2.1	25.0
Bromodichloromethane	0.478	0.451	0.200	5.6	25.0
1,2-Dichloropropane	0.249	0.238		4.4	
cis-1,3-Dichloropropene	0.336	0.314	0.100	6.5	25.0
Trichloroethene	0.412	0.389	0.300	5.6	25.0
Dibromochloromethane	0.577	0.505	0.100	12.5	25.0
1,1,2-Trichloroethane	0.269	0.232	0.100	13.8	25.0
Benzene	0.579	0.550	0.500	5.0	25.0
trans-1,3-Dichloropropene	0.316	0.286	0.100	9.5	25.0
Bromoform	0.445	0.342	0.100	23.2	25.0
4-Methyl-2-Pentanone	0.206	0.159		22.8	
2-Hexanone	0.129	0.095		26.4	
Tetrachloroethene	0.489	0.468	0.200	4.3	25.0
1,1,2,2-Tetrachloroethane	0.475	0.381	0.500	19.8	25.0
Toluene	0.969	0.954	0.400	1.5	25.0
Chlorobenzene	0.895	0.867	0.500	3.1	25.0
Ethylbenzene	0.383	0.373	0.100	2.6	25.0
Styrene	0.793	0.785	0.300	1.0	25.0
Xylene (total)	0.471	0.472	0.300	-0.2	25.0
Toluene-d8	0.975	1.016		-4.2	
Bromofluorobenzene	0.615	0.591	0.200	3.9	25.0
1,2-Dichloroethane-d4	0.951	0.898		5.6	

All other compounds must meet a minimum RRF of 0.010.

TOTAL ION CHROMATOGRAM



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Misc: CLP,10000,,VSTD050,L,W,ALS10 5UL/5ML JPT

Id File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950531 18:10

Operator ID: DOUG
Quant Time: 950601 12:13
Injected at: 950601 11:36

QUANT REPORT

Operator ID: DOUG Quant Rev: 6 Quant Time: 950601 15:32
utput File: ^K7990::K2 Injected at: 950601 11:36
ata File: >K7990::K2 Dilution Factor: 1.00000
Name: 6302-052295,V,,CAL
Misc: CLP,10000,,VSTD050,L,W,ALS10 5UL/5ML JPT

ID File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
ast Calibration: 950601 14:56

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	11.39	128.0	38063	50.00	UG/L	97
2)	C010 CHLOROMETHANE	3.69	50.0	8035	50.00	UG/L	100
3)	C015 BROMOMETHANE	4.47	94.0	23327	50.00	UG/L	99
4)	C020 VINYL CHLORIDE	3.87	62.0	12715	50.00	UG/L	96
5)	C025 CHLOROETHANE	4.56	64.0	11553	50.00	UG/L	91
6)	CXXX TRICHLOROFLUOROMETHANE	5.06	101.0	50712	50.00	UG/L	90
7)	C071 ACROLEIN	5.92	56.0	4304	500.00	UG/L	91
8)	C030 METHYLENE CHLORIDE	7.38	84.0	34048	50.00	UG/L	71
9)	C035 ACETONE	6.29	43.0	3845	50.00	UG/L	97
0)	C040 CARBON DISULFIDE	6.65	76.0	68855	50.00	UG/L	100
1)	C045 1,1-DICHLOROETHENE	6.20	96.0	29454	50.00	UG/L	79
12)	C050 1,1-DICHLOROETHANE	9.25	63.0	56825	50.00	UG/L	96
13)	C176 METHYL-T-BUTYL-ETHER	8.16	73.0	58812	50.00	UG/L	98
4)	C074 ACRYLONITRILE	7.97	53.0	31608	500.00	UG/L	88
15)	C051 TRANS-1,2,DICHLOROETHENE	8.11	96.0	38850	50.00	UG/L	83
16)	C055 CIS-1,2-DICHLOROETHENE	10.80	96.0	43201	50.00	UG/L	83
7)	C053 TOTAL-1,2-DICHLOROETHENE	10.80	96.0	81372M	99.99	UG/L	83
8)	C060 CHLOROFORM	11.71	83.0	77580	50.00	UG/L	99
19)	C065 1,2-DICHLOROETHANE	13.17	62.0	36426	50.00	UG/L	93
0)	CS15 D4-1,2-DICHLOROETHANE SS1	12.94	65.0	34231	50.00	UG/L	91
1)	C110 2-BUTANONE (MEK)	10.84	43.0	6890	50.00	UG/L	87
22)	C198 TETRAHYDROFURAN	11.57	42.0	3775	50.00	UG/L	97
23)	C199 CYCLOHEXANE	12.30	56.0	45607	50.00	UG/L	98
4)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.21	114.0	165354	50.00	UG/L	100
25)	C115 1,1,1-TRICHLOROETHANE	12.16	97.0	66015	50.00	UG/L	74
26)	C120 CARBON TETRACHLORIDE	12.57	117.0	69110	50.00	UG/L	91
7)	C125 VINYL ACETATE	9.43	43.0	43091	50.00	UG/L	92
8)	C130 BROMODICHLOROMETHANE	16.22	83.0	74424	50.00	UG/L	96
29)	C140 1,2-DICHLOROPROPANE	15.40	63.0	39187	50.00	UG/L	98
30)	CZZZ 2-CHLOROETHYLVINYLETHER	17.08	63.0	17360	50.00	UG/L	100
1)	C143 CIS-1,3-DICHLOROPROPENE	17.40	75.0	54876	53.00	UG/L	94
32)	C150 TRICHLOROETHENE	14.85	130.0	64124	50.00	UG/L	91
33)	C155 DIBROMOCHLOROMETHANE	20.41	129.0	83308	50.00	UG/L	93
4)	C160 1,1,2-TRICHLOROETHANE	19.36	97.0	38330	50.00	UG/L	97
5)	C165 BENZENE	13.12	78.0	90697	50.00	UG/L	100
36)	C172 TRANS-1,3-DICHLOROPROPENE	18.91	75.0	44436	47.00	UG/L	96
37)	C180 BROMOFORM	24.33	173.0	56368	50.00	UG/L	86
8)	*CI20 D5-CHLOROBENZENE IS-3	22.00	117.0	129381	50.00	UG/L	100
39)	C205 4-METHYL-2-PENTANONE	17.86	43.0	20461	50.00	UG/L	94
40)	C210 2-HEXANONE (MPK)	20.14	43.0	12226	50.00	UG/L	88
1)	C220 TETRACHLOROETHYLENE	19.77	164.0	60425	50.00	UG/L	98
42)	C225 1,1,2,2-TETRACHLOROETHANE	25.79	83.0	49120	50.00	UG/L	90
43)	CS05 D-8 TOLUENE (SS-2)	18.09	98.0	131073	50.00	UG/L	91

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	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C230 TOLUENE	18.27	91.0	123121	50.00	UG/L	97
45)	C235 CHLOROBENZENE	22.10	112.1	111819	50.00	UG/L	94
46)	C240 ETHYL BENZENE	22.41	106.0	48142	50.00	UG/L	97
47)	CS10 BROMOFLUOROBENZENE (SS-3)	25.28	174.0	76186	50.00	UG/L	65
48)	C245 STYRENE	23.92	104.1	101216	50.00	UG/L	68
49)	M+P XYLENES	22.78	106.2	131020	100.00	UG/L	96
50)	O-XYLENE	23.87	106.0	60870	50.00	UG/L	91
51)	C250 TOTAL XYLENES	23.87	106.0	60870	50.00	UG/L	91
52)	CYYY 1,3-DICHLOROBENZENE	28.43	146.0	110771	50.00	UG/L	88
53)	CVVV 1,4-DICHLOROBENZENE	28.66	146.0	117537	50.00	UG/L	78
54)	CWWW 1,2-DICHLOROBENZENE	29.70	146.0	96965	50.00	UG/L	81

* Compound is ISTD

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Instrument ID: HP5970K Calibration date: 06/03/95 Time: 0940

Lab File ID: KB047 Init. Calib. Date(s): 05/31/95 05/31/95

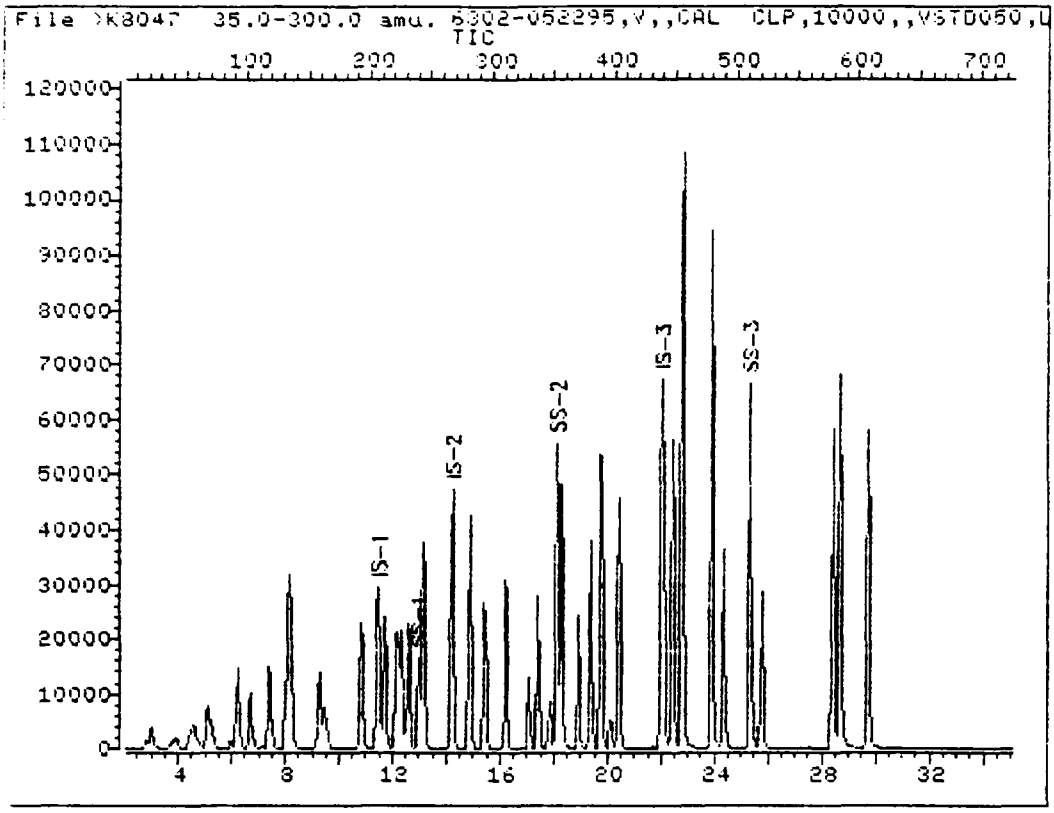
Heated Purge: (Y/N) N Init. Calib. Times: 1159 1722

GC Column: CAP ID: 0.530 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.174	0.125		28.2	
Bromomethane	0.488	0.524	0.100	-7.4	25.0
Vinyl Chloride	0.296	0.262	0.100	11.5	25.0
Chloroethane	0.266	0.293		-10.2	
Methylene Chloride	0.902	0.872		3.3	
Acetone	0.128	0.133		-3.9	
Carbon Disulfide	1.689	1.666		1.4	
1,1-Dichloroethene	0.737	0.714	0.100	3.1	25.0
1,1-Dichloroethane	1.454	1.460	0.200	-0.4	25.0
1,2-Dichloroethene (total)	1.042	1.044		-0.2	
Chloroform	1.997	1.999	0.200	-0.1	25.0
1,2-Dichloroethane	1.052	1.080	0.100	-2.7	25.0
2-Butanone	0.250	0.236		5.6	
1,1,1-Trichloroethane	0.402	0.368	0.100	8.5	25.0
Carbon Tetrachloride	0.428	0.381	0.100	11.0	25.0
Bromodichloromethane	0.478	0.472	0.200	1.3	25.0
1,2-Dichloropropane	0.249	0.240		3.6	
cis-1,3-Dichloropropene	0.336	0.325	0.100	3.3	25.0
Trichloroethene	0.412	0.372	0.300	9.7	25.0
Dibromochloromethane	0.577	0.535	0.100	7.3	25.0
1,1,2-Trichloroethane	0.269	0.258	0.100	4.1	25.0
Benzene	0.579	0.554	0.500	4.3	25.0
trans-1,3-Dichloropropene	0.316	0.300	0.100	5.1	25.0
Bromoform	0.445	0.376	0.100	15.5	25.0
4-Methyl-2-Pentanone	0.206	0.195		5.3	
2-Hexanone	0.129	0.118		8.5	
Tetrachloroethene	0.489	0.418	0.200	14.5	25.0
1,1,2,2-Tetrachloroethane	0.475	0.454	0.500	4.4	25.0
Toluene	0.969	0.937	0.400	3.3	25.0
Chlorobenzene	0.895	0.840	0.500	6.1	25.0
Ethylbenzene	0.383	0.356	0.100	7.0	25.0
Styrene	0.793	0.771	0.300	2.8	25.0
Xylene (total)	0.471	0.450	0.300	4.5	25.0
Toluene-d8	0.975	1.065		-9.2	
Bromofluorobenzene	0.615	0.600	0.200	2.4	25.0
1,2-Dichloroethane-d4	0.951	1.126		-18.4	

All other compounds must meet a minimum RRF of 0.010.

TOTAL ION CHROMATOGRAM



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Misc: CLP,10000,,VSTD050,L,W,ALS1 5UL/5ML TOM

Id File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950602 10:58

Operator ID: DOUG
Quant Time: 950603 10:16
Injected at: 950603 09:40

QUANT REPORT

Operator ID: DOUG Quant Rev: 6 Quant Time: 950606 10:45
Output File: ^K8047::K2 Injected at: 950603 09:40
Data File: >K8047::K1 Dilution Factor: 1.00000
Name: 6302-052295,V,,CAL
Misc: CLP,10000,,VSTD050,L,W,ALS1 5UL/5ML TOM

LD File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950606 10:44

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	11.44	128.0	38537	50.00	UG/L	94
2)	C010 CHLOROMETHANE	3.69	50.0	4814	50.00	UG/L	100
3)	C015 BROMOMETHANE	4.51	94.0	20181	50.00	UG/L	97
4)	C020 VINYL CHLORIDE	3.92	62.0	10099	50.00	UG/L	97
5)	C025 CHLOROETHANE	4.69	64.0	11299	50.00	UG/L	94
6)	CXXX TRICHLOROFLUOROMETHANE	5.10	101.0	46018	50.00	UG/L	98
7)	C071 ACROLEIN	5.97	56.0	5091	500.00	UG/L	93
8)	C030 METHYLENE CHLORIDE	7.38	84.0	33553	50.00	UG/L	70
9)	C035 ACETONE	6.29	43.0	5120	50.00	UG/L	95
10)	C040 CARBON DISULFIDE	6.70	76.0	64132	50.00	UG/L	100
11)	C045 1,1-DICHLOROETHENE	6.20	96.0	27488	50.00	UG/L	78
12)	C050 1,1-DICHLOROETHANE	9.25	63.0	56215	50.00	UG/L	95
13)	C176 METHYL-T-BUTYL-ETHER	8.20	73.0	58809	50.00	UG/L	97
14)	C074 ACRYLONITRILE	8.02	53.0	41753	500.00	UG/L	88
15)	C051 TRANS-1,2,DICHLOROETHENE	8.16	96.0	37062	50.00	UG/L	93
16)	C055 CIS-1,2-DICHLOROETHENE	10.80	96.0	43373	50.00	UG/L	80
17)	C053 TOTAL-1,2-DICHLOROETHENE	10.80	96.0	79768M *	99.19	UG/L	80
18)	C060 CHLOROFORM	11.71	83.0	76973 SPK 060695	50.00	UG/L	96
19)	C065 1,2-DICHLOROETHANE	13.17	62.0	41561	50.00	UG/L	94
20)	CS15 D4-1,2-DICHLOROETHANE SS1	12.94	65.0	43347M *	50.00	UG/L	90
21)	C110 2-BUTANONE (MEK)	10.85	43.0	9076	50.00	UG/L	89
22)	C198 TETRAHYDROFURAN	11.57	42.0	4969	50.00	UG/L	97
23)	C199 CYCLOHEXANE	12.30	56.0	44277	50.00	UG/L	94
24)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.22	114.0	164905	50.00	UG/L	100
25)	C115 1,1,1-TRICHLOROETHANE	12.17	97.0	60670	50.00	UG/L	75
26)	C120 CARBON TETRACHLORIDE	12.58	117.0	62838	50.00	UG/L	88
27)	C125 VINYL ACETATE	9.43	43.0	50588	50.00	UG/L	89
28)	C130 BROMODICHLOROMETHANE	16.18	83.0	77821	50.00	UG/L	98
29)	C140 1,2-DICHLOROPROPANE	15.40	63.0	39621	50.00	UG/L	95
30)	CZZZ 2-CHLOROETHYLVINYLETHER	17.04	63.0	21407	50.00	UG/L	100
31)	C143 CIS-1,3-DICHLOROPROPENE	17.41	75.0	56857	53.00	UG/L	95
32)	C150 TRICHLOROETHENE	14.86	130.0	61321	50.00	UG/L	91
33)	C155 DIBROMOCHLOROMETHANE	20.42	129.0	88270	50.00	UG/L	97
34)	C160 1,1,2-TRICHLOROETHANE	19.37	97.0	42606	50.00	UG/L	95
35)	C165 BENZENE	13.12	78.0	91447	50.00	UG/L	100
36)	C172 TRANS-1,3-DICHLOROPROPENE	18.91	75.0	46555	47.00	UG/L	93
37)	C180 BROMOFORM	24.34	173.0	61983	50.00	UG/L	85
38)	*CI20 D5-CHLOROBENZENE IS-3	22.01	117.0	132790	50.00	UG/L	100
39)	C205 4-METHYL-2-PENTANONE	17.86	43.0	25893	50.00	UG/L	95
40)	C210 2-HEXANONE (MPK)	20.10	43.0	15631	50.00	UG/L	81
41)	C220 TETRACHLOROETHYLENE	19.73	164.0	55566	50.00	UG/L	99
42)	C225 1,1,2,2-TETRACHLOROETHANE	25.75	83.0	60442	50.00	UG/L	94
43)	CS05 D-8 TOLUENE (SS-2)	18.09	98.0	141664	50.00	UG/L	90

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C230 TOLUENE	18.27	91.0	124619	50.00	UG/L	97
45)	C235 CHLOROBENZENE	22.06	112.1	111668	50.00	UG/L	84
46)	C240 ETHYL BENZENE	22.42	106.0	47303	50.00	UG/L	99
47)	CS10 BROMOFLUOROBENZENE (SS-3)	25.29	174.0	79829	50.00	UG/L	92
48)	C245 STYRENE	23.88	104.1	102570	50.00	UG/L	68
49)	M+P XYLENES	22.79	106.2	132855	100.00	UG/L	96
50)	O-XYLENE	23.83	106.0	59908	50.00	UG/L	86
51)	C250 TOTAL XYLENES	23.83	106.0	59908	50.00	UG/L	86
52)	CYYY 1,3-DICHLOROBENZENE	28.39	146.0	107975	50.00	UG/L	85
53)	CVVV 1,4-DICHLOROBENZENE	28.66	146.0	114507	50.00	UG/L	85
54)	CWWW 1,2-DICHLOROBENZENE	29.71	146.0	100291	50.00	UG/L	88

* Compound is ISTD

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Instrument ID: HP5970A Calibration date: 06/04/95 Time: 0823

Lab File ID: KG080 Init. Calib. Date(s): 05/31/95 05/31/95

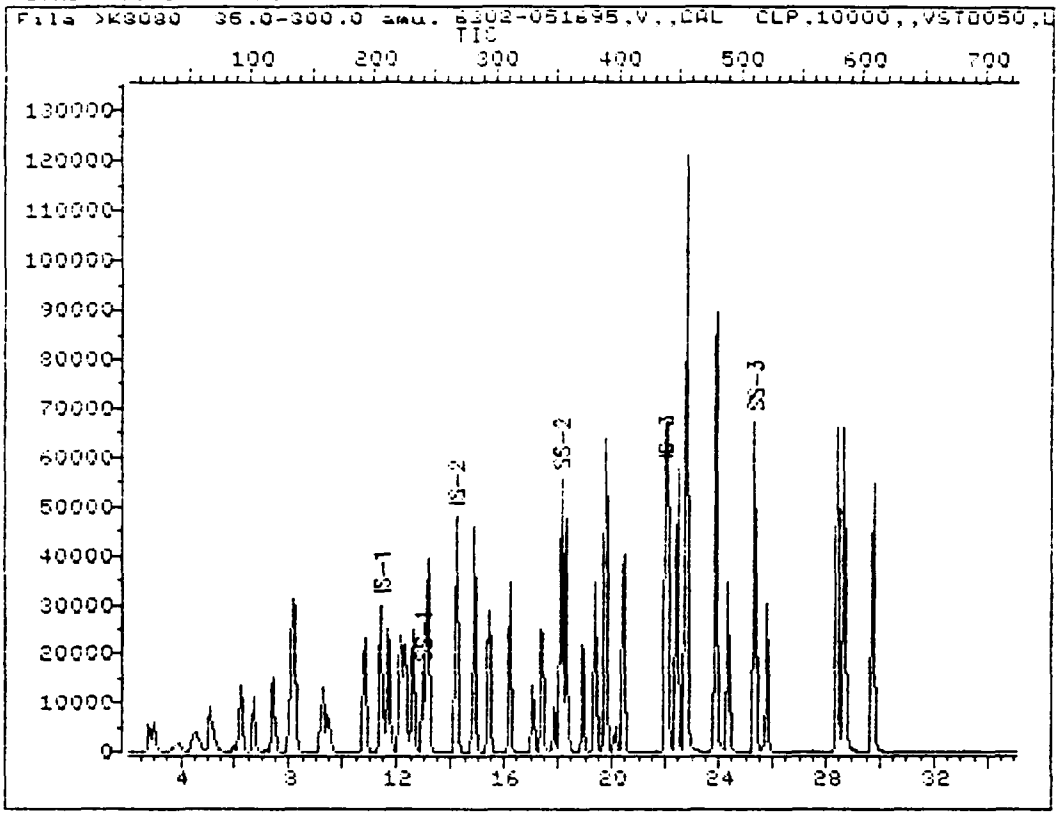
Heated Purge: (Y/N) N Init. Calib. Times: 1159 1722

GC Column: CAP ID: 0.530(mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.174	0.158		9.2	
Bromomethane	0.488	0.560	0.100	-14.8	25.0
Vinyl Chloride	0.296	0.306	0.100	-3.4	25.0
Chloroethane	0.266	0.298		-12.0	
Methylene Chloride	0.902	0.914		-1.3	
Acetone	0.128	0.118		7.8	
Carbon Disulfide	1.609	1.748		-8.5	
1,1-Dichloroethene	0.737	0.761	0.100	-3.3	25.0
1,1-Dichloroethane	1.454	1.466	0.200	-0.8	25.0
1,2-Dichloroethane (total)	1.042	1.071		-2.8	
Chloroform	1.997	2.082	0.200	-4.3	25.0
1,2-Dichloroethane	1.052	1.085	0.100	-3.1	25.0
2-Butanone	0.250	0.222		11.2	
1,1,1-Trichloroethane	0.402	0.386	0.100	4.0	25.0
Carbon Tetrachloride	0.428	0.395	0.100	7.7	25.0
Bromodichloromethane	0.478	0.466	0.200	2.5	25.0
1,2-Dichloropropane	0.249	0.239		4.0	
cis-1,3-Dichloropropene	0.306	0.318	0.100	5.4	25.0
Trichloroethene	0.412	0.383	0.300	7.0	25.0
Dibromochloromethane	0.577	0.526	0.100	8.8	25.0
1,1,2-Trichloroethane	0.269	0.255	0.100	5.2	25.0
Benzene	0.579	0.575	0.500	0.7	25.0
trans-1,3-Dichloropropene	0.316	0.298	0.100	5.7	25.0
Bromoform	0.445	0.361	0.100	18.9	25.0
4-Methyl-2-Pentanone	0.206	0.187		9.2	
2-Hexanone	0.129	0.109		15.5	
Tetrachloroethene	0.489	0.441	0.200	9.8	25.0
1,1,2,2-Tetrachloroethane	0.475	0.429	0.500	9.7	25.0
Toluene	0.969	0.955	0.400	1.4	25.0
Chlorobenzene	0.895	0.870	0.500	2.8	25.0
Ethylbenzene	0.383	0.370	0.100	3.4	25.0
Styrene	0.793	0.791	0.300	0.3	25.0
Xylene (total)	0.471	0.472	0.300	-0.2	25.0
Toluene-d8	0.975	1.032		-5.8	
Bromofluorobenzene	0.615	0.562	0.200	8.6	25.0
1,2-Dichloroethane-d4	0.951	1.041		-9.5	

All other compounds must meet a minimum RRF of 0.010.

TOTAL ION CHROMATOGRAM



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Misc: CLP,10000,,VSTD050,L,W,ALS1 5UL/5ML TOM

Id File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950603 10:31

Operator ID: DOUG
Quant Time: 950604 09:04
Injected at: 950604 08:28

QUANT REPORT

Operator ID: DOUG Quant Rev: 6 Quant Time: 950604 09:28
Output File: ^K8080::K2 Injected at: 950604 08:28
Data File: >K8080::L2 Dilution Factor: 1.00000
Name: 6302-051695,V,,CAL
Misc: CLP,10000,,VSTD050,L,W,ALS1 5UL/5ML TOM

ID File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950604 09:28

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	11.41	128.0	38694	50.00	UG/L	95
2)	C010 CHLOROMETHANE	3.71	50.0	6129	50.00	UG/L	100
3)	C015 BROMOMETHANE	4.53	94.0	21675	50.00	UG/L	94
4)	C020 VINYL CHLORIDE	3.89	62.0	11823	50.00	UG/L	99
5)	C025 CHLOROETHANE	4.66	64.0	11535	50.00	UG/L	92
6)	CXXX TRICHLOROFLUOROMETHANE	5.07	101.0	50239	50.00	UG/L	97
7)	C071 ACROLEIN	5.94	56.0	4710	500.00	UG/L	93
8)	C030 METHYLENE CHLORIDE	7.40	84.0	35372	50.00	UG/L	69
9)	C035 ACETONE	6.30	43.0	4549	50.00	UG/L	96
10)	C040 CARBON DISULFIDE	6.67	76.0	67665	50.00	UG/L	100
11)	C045 1,1-DICHLOROETHENE	6.17	96.0	29463	50.00	UG/L	70
12)	C050 1,1-DICHLOROETHANE	9.22	63.0	56749	50.00	UG/L	95
13)	C176 METHYL-T-BUTYL-ETHER	8.17	73.0	57303	50.00	UG/L	97
14)	C074 ACRYLONITRILE	7.99	53.0	38207	500.00	UG/L	89
15)	C051 TRANS-1,2,DICHLOROETHENE	8.13	96.0	39142	50.00	UG/L	88
16)	C055 CIS-1,2-DICHLOROETHENE	10.81	96.0	44442	50.00	UG/L	87
17)	C053 TOTAL-1,2-DICHLOROETHENE	10.81	96.0	82907M	100.00	UG/L	87
18)	C060 CHLOROFORM	11.68	83.0	80558	50.00	UG/L	99
19)	C065 1,2-DICHLOROETHANE	13.14	62.0	41983	50.00	UG/L	93
20)	CS15 D4-1,2-DICHLOROETHANE SS1	12.96	65.0	40293M	50.00	UG/L	89
21)	C110 2-BUTANONE (MEK)	10.86	43.0	8577	50.00	UG/L	88
22)	C198 TETRAHYDROFURAN	11.54	42.0	4706	50.00	UG/L	96
23)	C199 CYCLOHEXANE	12.32	56.0	45766	50.00	UG/L	96
24)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.19	114.0	166655	50.00	UG/L	100
25)	C115 1,1,1-TRICHLOROETHANE	12.14	97.0	64487	50.00	UG/L	76
26)	C120 CARBON TETRACHLORIDE	12.59	117.0	65538	50.00	UG/L	90
27)	C125 VINYL ACETATE	9.45	43.0	48872	50.00	UG/L	92
28)	C130 BROMODICHLOROMETHANE	16.19	83.0	77800	50.00	UG/L	99
29)	C140 1,2-DICHLOROPROPANE	15.42	63.0	39914	50.00	UG/L	94
30)	CZZZ 2-CHLOROETHYLVINYLETHER	17.06	63.0	20623	50.00	UG/L	100
31)	C145 CIS-1,3-DICHLOROPROPENE	17.38	75.0	56292	53.00	UG/L	91
32)	C150 TRICHLOROETHENE	14.87	130.0	63897	50.00	UG/L	95
33)	C155 DIBROMOCHLOROMETHANE	20.43	129.0	87900	50.00	UG/L	95
34)	C160 1,1,2-TRICHLOROETHANE	13.38	97.0	42530	50.00	UG/L	94
35)	C165 BENZENE	13.09	78.0	95969	50.00	UG/L	100
36)	C172 TRANS-1,3-DICHLOROPROPENE	18.98	75.0	46826	47.00	UG/L	96
37)	C180 BROMOFORM	24.35	173.0	60238	50.00	UG/L	85
38)	*CI20 D5-CHLOROBENZENE IS-3	21.98	117.0	132516	50.00	UG/L	100
39)	C205 4-METHYL-2-PENTANONE	17.85	43.0	24734	50.00	UG/L	98
40)	C210 2-HEXANONE (MPK)	20.11	43.0	14449	50.00	UG/L	84
41)	C220 TETRACHLOROETHYLENE	19.75	164.0	58206	50.00	UG/L	98
42)	C225 1,1,2,2-TETRACHLOROETHANE	25.76	83.0	56691	50.00	UG/L	90
43)	C305 D-8 TOLUENE (SS-2)	13.11	98.0	136239	50.00	UG/L	89

5pt 060596

30172

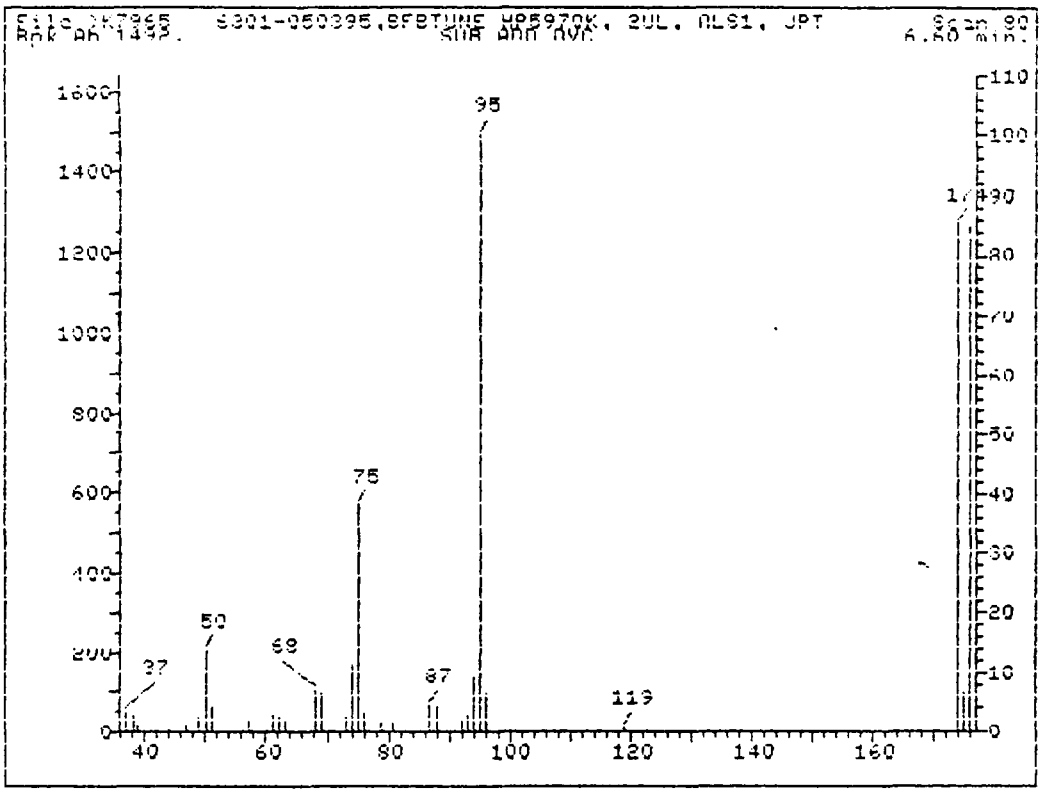
	Compound	R.T.	Q Ion	Area	Conc	Units	q
44)	C230 TOLUENE	18.29	91.0	126069	50.00	UG/L	99
45)	C235 CHLOROBENZENE	22.07	112.1	114835	50.00	UG/L	87
46)	C240 ETHYL BENZENE	22.43	106.0	48803	50.00	UG/L	98
47)	CS10 BROMOFLUOROBENZENE (SS-3)	25.31	174.0	74242	50.00	UG/L	90
48)	C245 STYRENE	23.89	104.1	104409	50.00	UG/L	69
49)	M+P XYLENES	22.75	106.2	138229	100.00	UG/L	97
50)	O-XYLENE	23.85	106.0	62273	50.00	UG/L	90
51)	C250 TOTAL XYLENES	23.85	106.0	62273	50.00	UG/L	90
52)	CYYY 1,3-DICHLOROBENZENE	28.40	146.0	104872	50.00	UG/L	89
53)	CVVV 1,4-DICHLOROBENZENE	28.68	146.0	115075	50.00	UG/L	89
54)	CWWW 1,2-DICHLOROBENZENE	29.73	146.0	98718	50.00	UG/L	94

* Compound is ISTD

30173

3D. RAW QC DATA

3D(1). BFB TUNES



GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

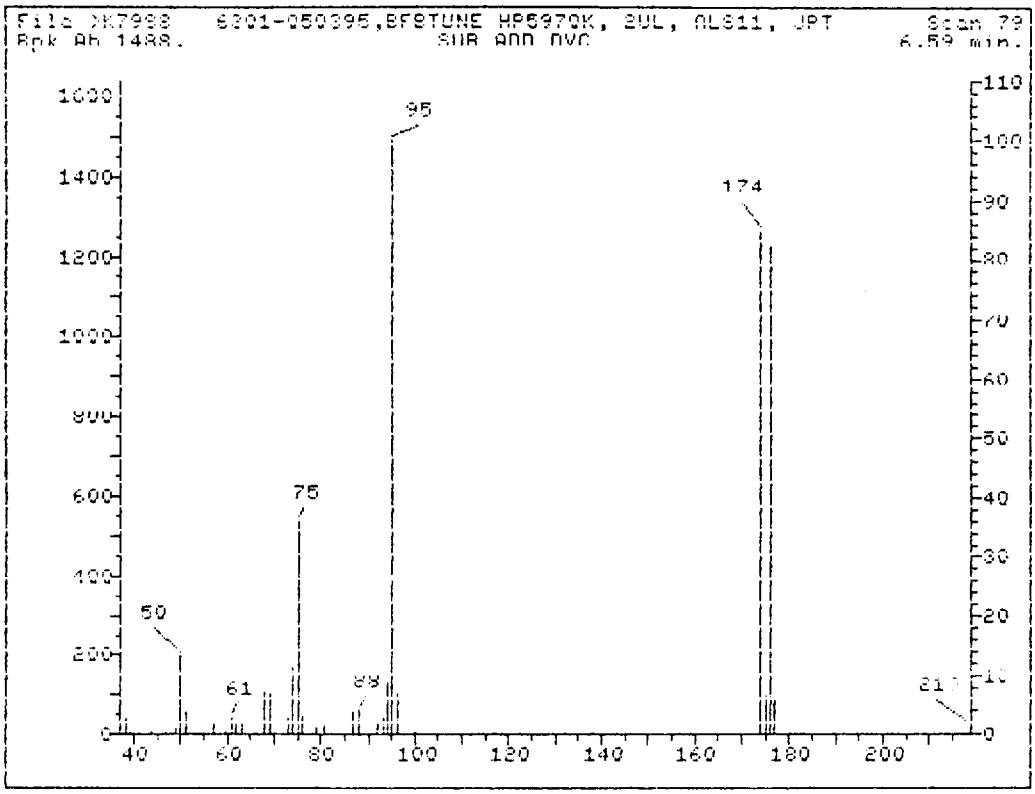
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	8-40% of mass 95	13.72	13.72	Ok
75	30-66% of mass 95	38.10	38.10	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.39	6.39	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	85.41	85.41	Ok
175	4-9% of mass 174	6.50	7.61	Ok
176	93-101% of mass 174	85.01	99.53	Ok
177	5-9% of mass 176	5.52	6.49	Ok

Injection Date: 05/31/95
Injection Time: 09:42
Data File: >K7965
Scan: 80

```
>K7965          6301-050395,BFBTUNE HP5970K, 2UL, ALS1, JPT
    80          SUB ADD NRM DUC


File: >K7965  Scan #:       80  Retn. time:   6.60
```

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	.380	50.05	13.721	63.05	1.743	78.95	1.318	95.05	100.000
37.00	3.218	51.15	4.045	68.05	6.950	80.95	1.341	96.05	6.391
38.10	2.883	56.05	.447	69.05	6.570	86.95	4.469	119.00	.693
39.05	1.006	57.05	1.765	73.05	2.615	88.05	3.978	174.00	85.408
40.05	.045	60.05	.335	74.05	11.106	92.05	1.966	175.00	6.503
44.05	.291	61.05	2.793	75.05	38.101	93.05	2.950	176.00	85.006
47.05	.939	62.05	2.525	76.05	3.106	94.05	9.050	177.00	5.520
49.05	2.458								

```
MS data file header from : >K7965

Sample: 6301-050395,BFBTUNE   Operator: DOUG      SUPER GRP.   5/31/95  9:42
Misc  : HP5970K, 2UL, ALS1, JPT
Sys. #:    1  MS model:  70  SW/HW rev.: LF  ALS # :  0
  Method file: KBFB      Tuning file: MTUNEK   No. of extra records:  2
 Source temp.:    0   Analyzer temp.:  220     Transfer line temp. :   0

      Chromatographic temperatures : 100.   150.     0.     0.     0.
      Chromatographic times, min.  :   .5    5.0    0.0    0.0    0.0
      Chromatographic rate, deg/min: 20.0    0.0    0.0    0.0    0.0
```



GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

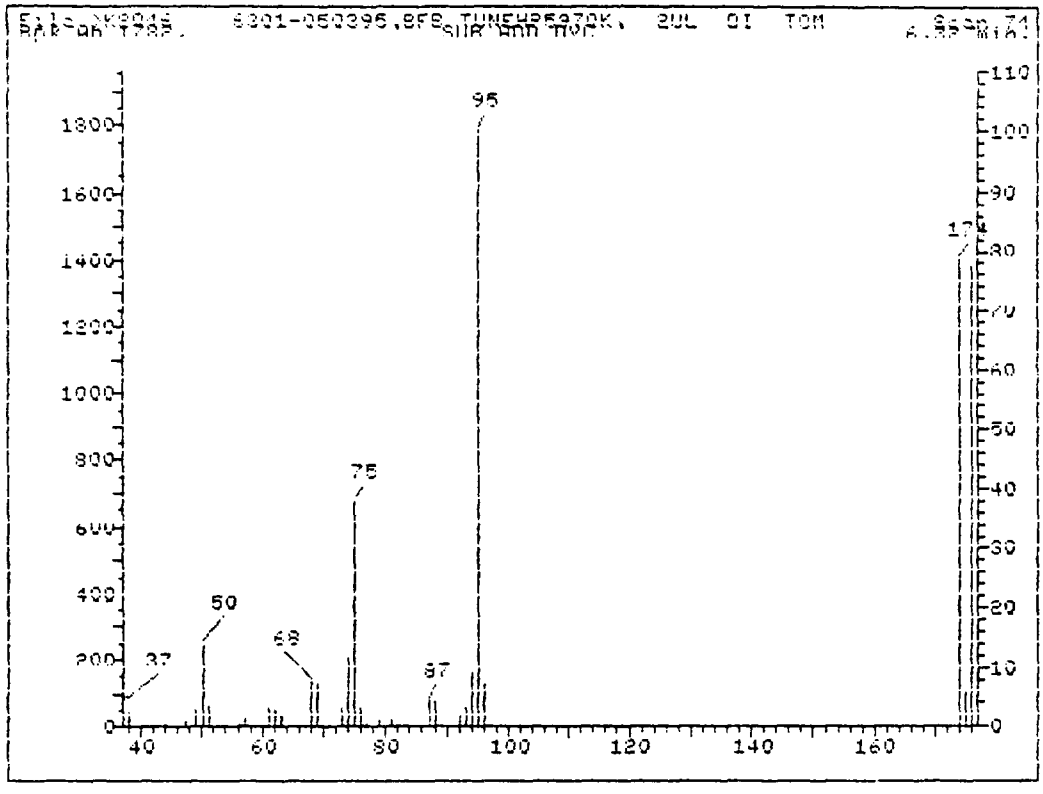
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	8-40% of mass 95	13.13	13.13	Ok
75	30-66% of mass 95	35.94	35.94	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.70	6.70	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	84.67	84.67	Ok
175	4-9% of mass 174	6.39	7.54	Ok
176	93-101% of mass 174	82.25	97.14	Ok
177	5-9% of mass 176	5.74	6.97	Ok

Injection Date: 06/01/95
Injection Time: 09:46
Data File: >K7988
Scan: 79

```
>K7988          6301-050395,BFBTUNE HP5970K, 2UL, ALS11, JPT
    79          SUB ADD NRM DVC


File: >K7988  Scan #:       79  Retn. time:   6.59
```

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.10	3.114	50.00	13.130	68.00	7.036	80.95	1.456	96.05	6.700
38.10	2.689	51.00	3.697	69.00	6.744	86.95	3.742	99.95	.359
39.00	.471	57.00	1.703	73.00	2.801	87.95	4.033	174.00	84.674
40.00	.022	59.90	.314	74.00	11.091	92.05	2.061	175.00	6.386
44.00	.381	61.00	2.823	75.00	35.940	93.05	2.644	176.00	82.254
47.00	.538	62.00	2.129	76.00	3.249	94.05	8.895	176.90	5.736
49.10	1.188	63.00	1.905	78.95	1.188	95.05	100.000	219.05	.807

```
MS data file header from : >K7988

Sample: 6301-050395,BFBTUNE   Operator: DOUG      SUPER GRP    6/01/95  9:46
Misc  : HP5970K, 2UL, ALS11, JPT
Sys. #:    1  MS model:  70  SW/HW rev.: LF  ALS # :  0
  Method file: KBFB      Tuning file: MTUNEK   No. of extra records:  2
 Source temp.:    0   Analyzer temp.:  220     Transfer line temp. :   0

      Chromatographic temperatures : 100.    150.      0.      0.      0.
      Chromatographic times, min.  :   .5     5.0     0.0     0.0     0.0
      Chromatographic rate, deg/min: 20.0     0.0     0.0     0.0     0.0
```



GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	8-10% of mass 95	13.82	13.82	Ok
75	30-66% of mass 95	37.78	37.78	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.31	7.31	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	78.74	78.74	Ok
175	4-9% of mass 174	6.04	7.67	Ok
176	93-101% of mass 174	77.52	98.46	Ok
177	5-9% of mass 176	5.28	6.73	Ok

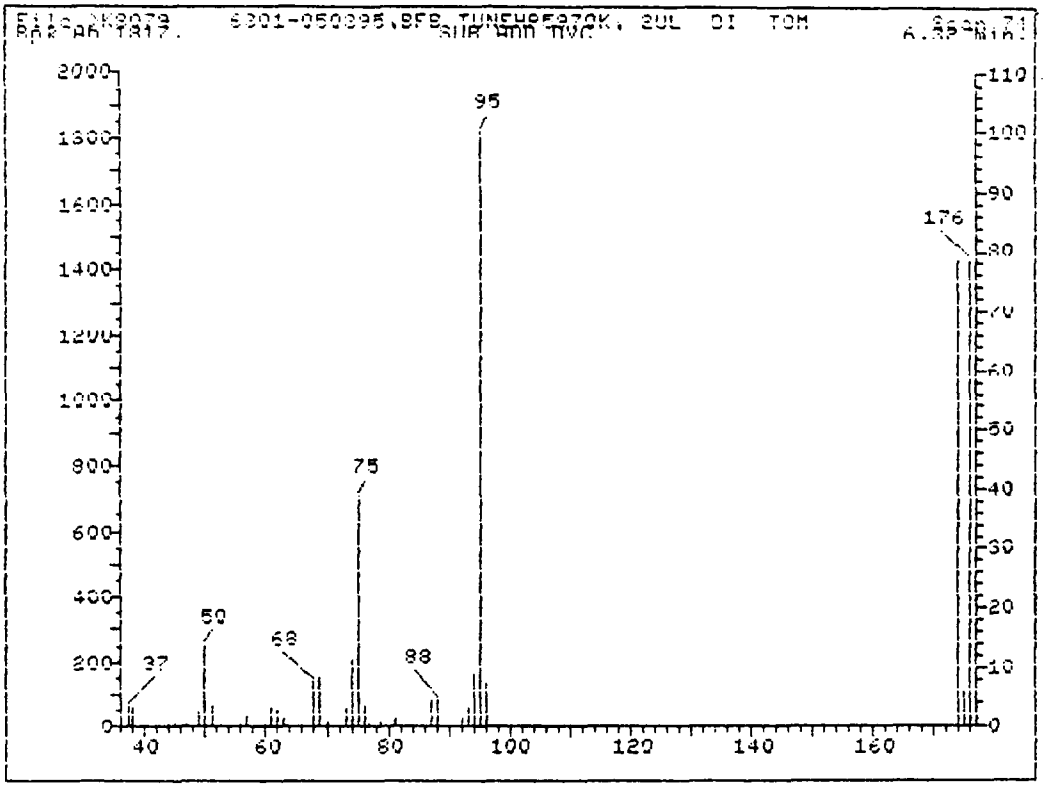
Injection Date: 06/03/95
Injection Time: 09:14
Data File: >K9045
Scan: 71

30180

```
>K8046          6301-050395,BFB TUNEHP5970K,  2UL  DI  TOM
    74          SUB ADD NRM DVC


File: >K8046  Scan #:       74  Retn. time:   6.32
```

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.10	3.740	56.00	.430	73.00	3.067	80.90	1.178	95.00	100.000
38.10	2.487	57.00	1.477	74.00	11.502	87.00	4.451	96.05	7.313
44.00	.430	61.00	2.974	75.00	37.779	88.00	4.114	174.00	78.736
47.10	1.141	62.00	2.805	76.00	3.048	92.00	2.020	175.00	6.041
49.00	2.693	63.00	1.758	77.00	.393	93.00	3.273	176.00	77.520
50.10	13.615	68.00	7.500	78.90	1.178	94.00	9.201	177.00	5.255
51.10	3.460	69.00	7.069						

```
MS data file header from : >K8046

Sample: 6301-050395,BFB TUNE  Operator: DOUG      SUPER GRP.   6/03/95  9:14
Misc  : HP5970K,  2UL  DI  TOM
Sys. #:    1  MS model:  70  SW/HW rev.: LF  ALS # :  0
  Method file: KBFB       Tuning file: MTUNEK   No. of extra records:  2
 Source temp.:    0   Analyzer temp.:  220     Transfer line temp. :   0

      Chromatographic temperatures : 100.   150.     0.     0.     0.
      Chromatographic times, min.  :   .5    5.0    0.0    0.0    0.0
      Chromatographic rate, deg/min: 20.0    0.0    0.0    0.0    0.0
```



GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	8-40% of mass 95	13.74	13.74	Ok
75	30-66% of mass 95	38.87	38.87	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.17	7.17	Ok
173	Less than 2% of mass 174	.20	.26	Ok
174	Greater than 50% of mass 95	78.41	78.41	Ok
175	4-9% of mass 174	5.69	7.25	Ok
176	93-101% of mass 174	78.44	100.05	Ok
177	5-9% of mass 176	5.03	6.41	Ok

Injection Date: 06/04/95
Injection Time: 08:00
Data File: K9079
Scan: 74

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>K8079 6301-050395,BFB TUNEHP5970K, 2UL DI TOM
74 SUB ADD NRM DUC

File: >K8079 Scan #: 74 Retn. time: 6.32

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	.715	51.10	3.596	69.00	8.072	78.90	.917	95.00	100.000
37.10	3.357	56.00	.440	70.00	.660	81.00	1.486	96.05	7.173
38.00	3.284	57.00	1.816	73.00	3.064	87.00	4.385	173.00	.202
44.00	.422	60.00	.404	74.00	11.081	88.00	4.421	174.00	78.408
45.00	.459	61.00	3.210	75.00	38.874	92.00	1.523	175.00	5.687
47.00	.495	62.00	2.715	76.00	3.412	93.00	3.174	176.00	78.444
49.00	2.532	63.00	1.596	76.90	.532	94.00	8.971	177.00	5.027
50.00	13.741	68.00	7.411						

MS data file header from : >K8079

Sample: 6301-050395,BFB TUNE Operator: DOUG SUPER GRP. 6/04/95 8:00
Misc : HP5970K, 2UL DI TOM
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 0
Method file: K8FB Tuning file: MTUNEK No. of extra records: 2
Source temp.: 0 Analyzer temp.: 220 Transfer line temp. : 0

Chromatographic temperatures : 100. 150. 0. 0. 0.
Chromatographic times, min. : .5 5.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 20.0 0.0 0.0 0.0 0.0

3D(2). BLANK DATA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK060195K

Lab Name: CAMBRG Contract: GET

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 6305-053095

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K7993

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 06/01/95

GC Column: CAP ID: 0.530 (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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK060195K

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 6305-053095

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K7993

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 06/01/95

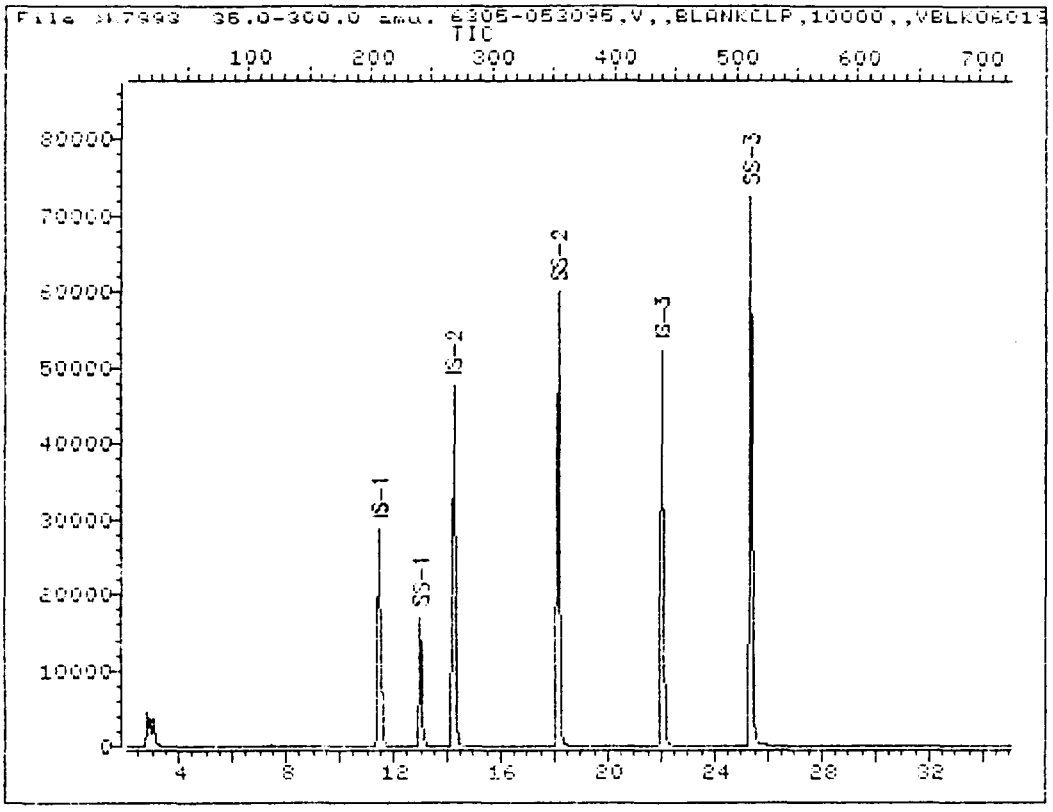
GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

TOTAL ION CHROMATOGRAM



Data File: >K7993::L2 Quant Output File: ^K7993::K2
Name: 6305-053095,V,,BLANK
Misc: CLP,10000,,VBLK0601195K,L,W,ALS1 5ML JPT

Tune File: KVOA1D::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950601 14:56

Operator ID: DOUG
Quant Time: 950601 14:57
Injected at: 950601 14:21

QUANT REPORT

erator ID: DOUG Quant Rev: 6 Quant Time: 950601 14:57
put File: ^K7993::K2 Injected at: 950601 14:21
ta File: >K7993::L2 Dilution Factor: 1.00000
me: 6305-053095,V,,BLANK
c: CLP,10000,,VBLK060195K,L,W,ALS1 5ML OPT

) File: KVOAID::DB
le: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
t Calibration: 950601 14:56

	Compound	R.T.	Q ion	Area	Conc	Units	q
	*CI01 BROMOCHLOROMETHANE IS-1	11.43	128.0	39748	50.00	UG/L	97
)	CS15 D4-1,2-DICHLOROETHANE SS1	12.98	65.0	40192	56.22	UG/L	92
	*CI10 1,4-DIFLUOROBENZENE IS-2	14.21	114.0	169588	50.00	UG/L	100
	*CI20 D5-CHLOROBENZENE IS-3	22.00	117.0	133691	50.00	UG/L	100
)	CS05 D-8 TOLUENE (SS-2)	18.13	98.0	147872	54.59	UG/L	89
)	CS10 BROMOFLUOROBENZENE (SS-3)	25.32	174.0	86305	54.81	UG/L	94

Compound is ISTD

30188

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK060395K

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 6305-053095

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8048

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 06/03/95

GC Column: CAP ID: 0.530 (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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK060395K

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1420 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 6305-053095

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8048

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 06/03/95

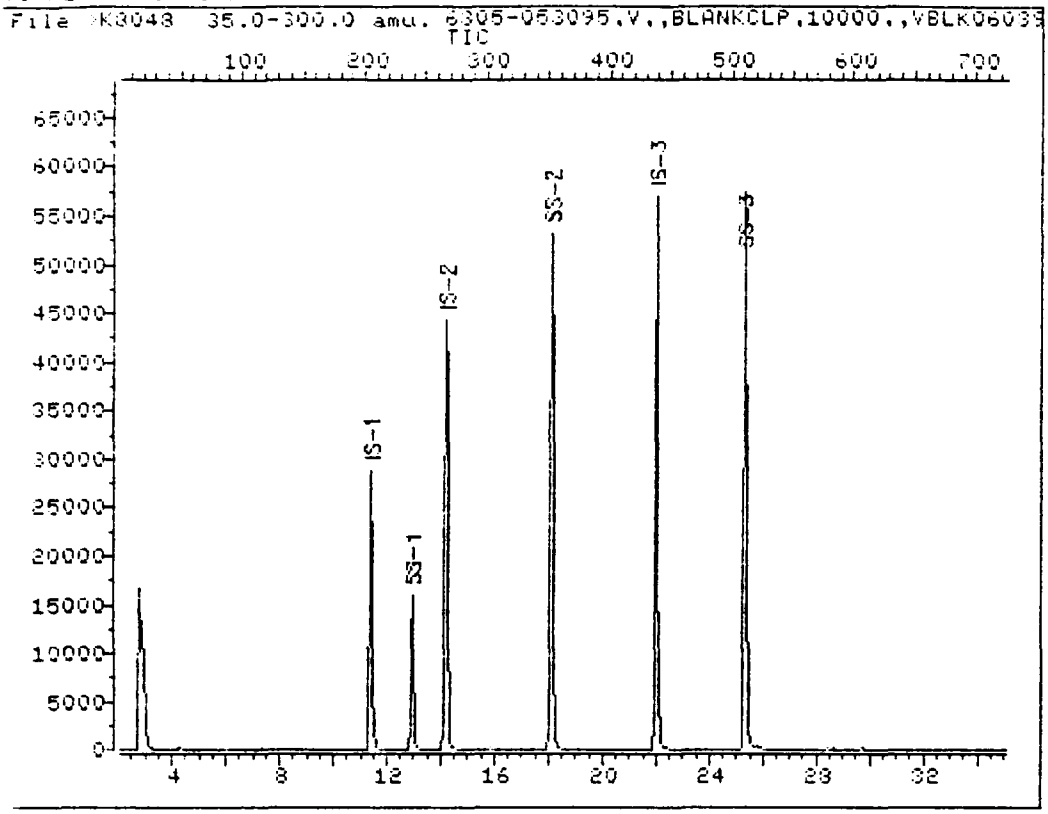
GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

TOTAL ION CHROMATOGRAM



Data File: >K8048::L1 Quant Output File: ^K8048::K2
Name: 6305-053095,V,,BLANK
Misc: CLP,10000,,VBLK060395K,L,W,ALS2 5ML TOM

Id File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950603 10:31

Operator ID: DOUG
Quant Time: 950603 11:34
Injected at: 950603 10:58

QUANT REPORT

Operator ID: DOUG Quant Rev: 6 Quant Time: 950603 11:34
Output File: ^K8048::K2 Injected at: 950603 10:58
Data File: >K8048::L1 Dilution Factor: 1.00000
Name: 6305-053095,V,,BLANK
Misc: CLP,10000,,VBLK060395K,L,W,ALS2 5ML TOM

ID File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950603 10:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	11.39	128.0	37310	50.00	UG/L	95
20)	CS15 D4-1,2-DICHLOROETHANE SS1	12.94	65.0	38371	45.72	UG/L	89
24)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.17	114.0	157876	50.00	UG/L	100
8)	*CI20 D5-CHLOROBENZENE IS-3	22.00	117.0	124887	50.00	UG/L	100
33)	CS05 D-8 TOLUENE (SS-2)	18.09	98.0	132649	49.78	UG/L	94
47)	CS10 BROMOFLUOROBENZENE (SS-3)	25.28	174.0	75137	50.04	UG/L	78

* Compound is ISTD

30192

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK060495K

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 6305-053095

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8081

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 06/04/95

GC Column: CAP ID: 0.530 (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	1	J
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

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK060495K

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 6305-053095

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8081

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 06/04/95

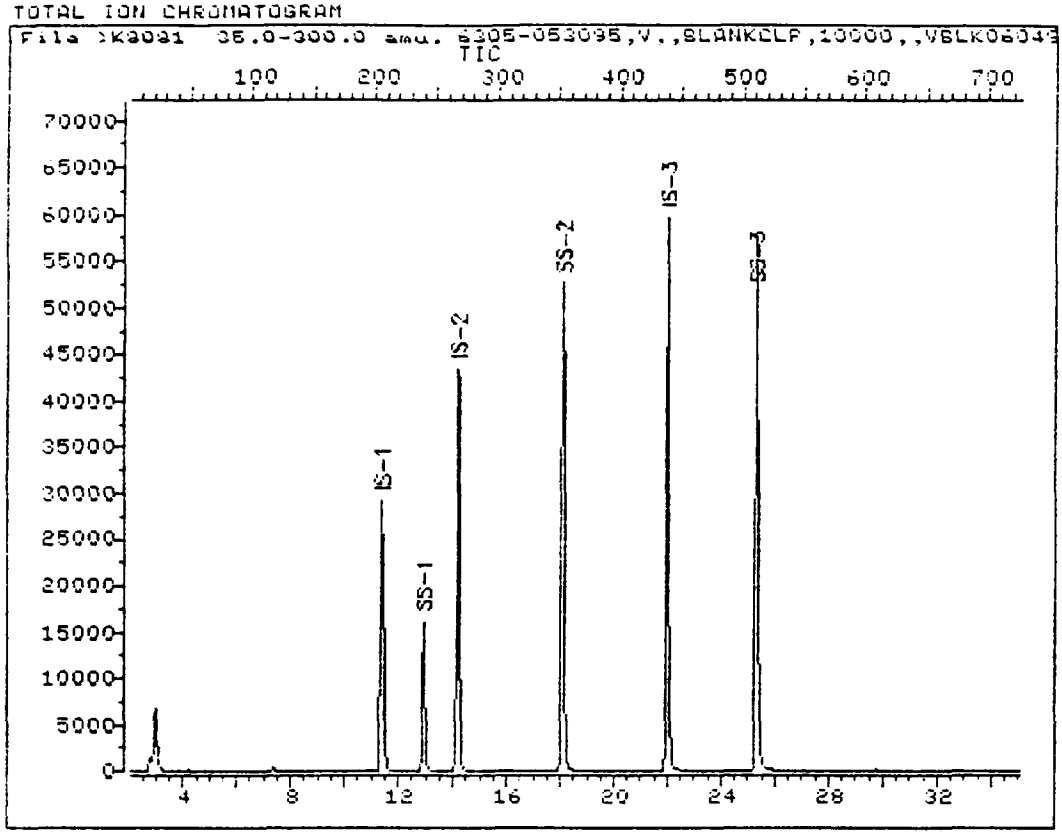
GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

TOTAL ION CHROMATOGRAM



Data File: >K8081::L2 Quant Output File: ^K8081::K2
Name: 6305-053095,V,,BLANK
Misc: CLP,10000,,VBLK060495K,L,W,ALS2 5ML TOM

Id File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950604 09:29

Operator ID: DOUG
Quant Time: 950604 10:03
Injected at: 950604 09:28

QUANT REPORT

Operator ID: DOUG Quant Rev: 6 Quant Time: 950604 10:03
Output File: ^K8081::K2 Injected at: 950604 09:28
Data File: >K8081::L2 Dilution Factor: 1.00000
Name: 6305-053095,V,,BLANK
Misc: CLP,10000,,VBLK060495K,L,W,ALS2 5ML TOM

ID File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950604 09:28

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	11.38	128.0	38093	50.00	UG/L	95
8)	C030 METHYLENE CHLORIDE	7.37	84.0	968	1.39	UG/L	76
0)	CS15 D4-1,2-DICHLOROETHANE SS1	12.93	65.0	38840	48.96	UG/L	90
4)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.16	114.0	160914	50.00	UG/L	100
38)	*CI20 D5-CHLOROBENZENE IS-3	22.00	117.0	132914	50.00	UG/L	100
^3)	CS05 D-8 TOLUENE (SS-2)	18.08	98.0	135301	49.44	UG/L	90
7)	CS10 BROMOFLUOROBENZENE (SS-3)	25.28	174.0	75123	50.37	UG/L	78

* Compound is ISTD

30196

3D(3). MATRIX SPIKE DATA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

721130W2DMS

Lab Name: CAMBRG Contract: CEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124146MS

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8084

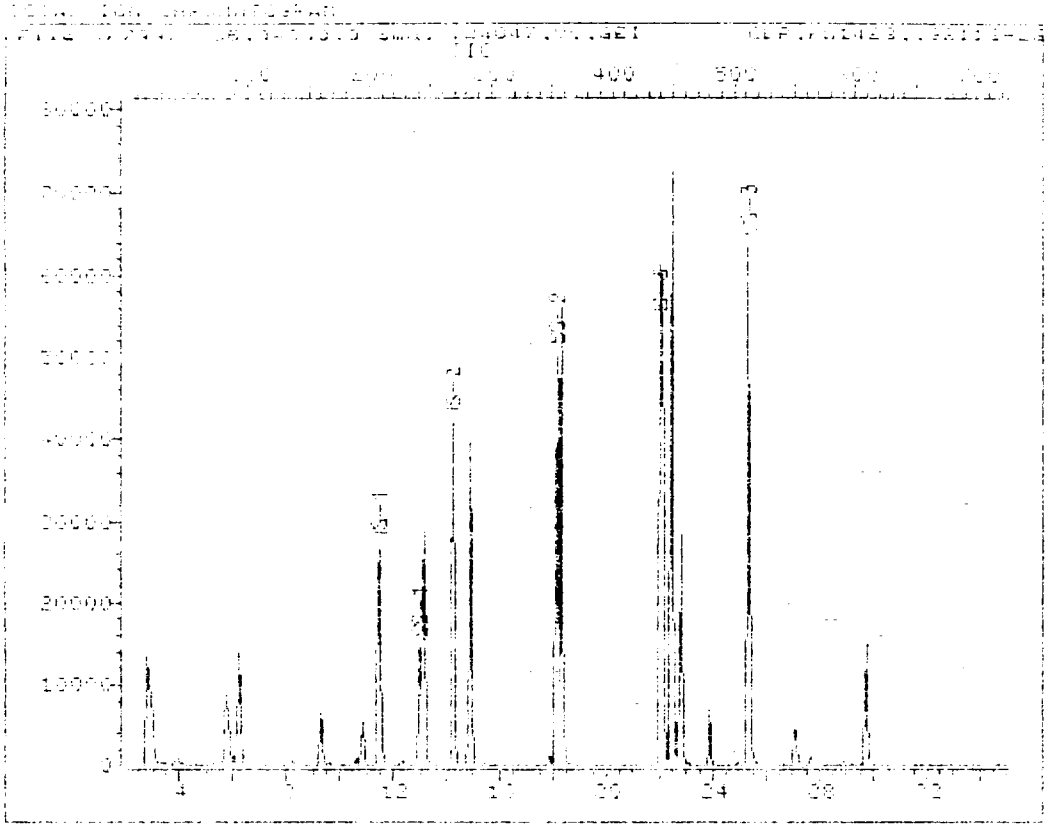
Level: (low/med) LOW Date Received: 05/26/95

% Moisture: not dec. Date Analyzed: 06/04/95

GC Column: CAP ID: 0.530 (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	14	BJ
67-64-1	Acetone	100	U
75-15-0	Carbon Disulfide	100	U
75-35-4	1,1-Dichloroethene	560	
75-34-3	1,1-Dichloroethane	160	
540-59-0	1,2-Dichloroethene (total)	1200	
67-66-3	Chloroform	100	U
107-06-2	1,2-Dichloroethane	180	
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	500	
124-48-1	Dibromochloromethane	100	U
79-00-5	1,1,2-Trichloroethane	100	U
71-43-2	Benzene	490	
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	490	
108-90-7	Chlorobenzene	490	
100-41-4	Ethylbenzene	100	U
100-42-5	Styrene	100	U
1330-20-7	Xylene (total)	100	U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IS-1
IS-2
IS-3
IS-4
IS-5
4
12
20
24
28

30199

QUANT REPORT

Operator ID: DOUG Quant Rev: 6 Quant Time: 950601 17:47
Output File: ^K7997::K2 Injected at: 950601 17:11
Data File: >K7997::L2 Dilution Factor: 1.00000
Name: 124047,V,,GEI
Misc: CLP,FD1423,,92113-LGAW-0595MS,L,A,ALS5 5ML JPT .01918

ID File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950601 14:56

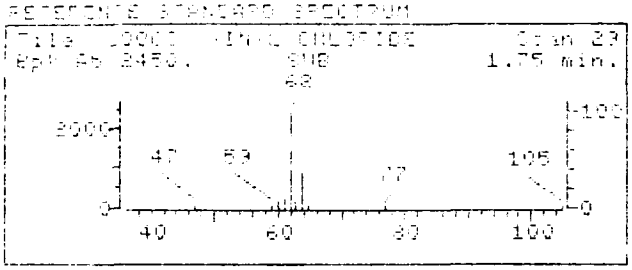
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	11.48	128.0	36980	50.00	UG/L	95
4)	C020 VINYL CHLORIDE	3.92	62.0	7905	32.00	UG/L	95
11)	C045 1,1-DICHLOROETHENE	6.24	96.0	28093	49.09	UG/L	80
12)	C050 1,1-DICHLOROETHANE	9.29	63.0	26767	24.24	UG/L	96
17)	C053 TOTAL-1,2-DICHLOROETHENE	10.84	96.0	10837M	13.71	UG/L	79
19)	C065 1,2-DICHLOROETHANE	13.21	62.0	3105	4.39	UG/L	97
20)	CS15 D4-1,2-DICHLOROETHANE SS1	12.98	65.0	35096	52.76	UG/L	90
24)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.21	114.0	153644	50.00	UG/L	100
32)	C150 TRICHLOROETHENE	14.89	130.0	55473	46.55	UG/L	94
35)	C165 BENZENE	13.16	78.0	96276	57.12	UG/L	100
38)	*CI20 D5-CHLOROBENZENE IS-3	22.00	117.0	126671	50.00	UG/L	100
39)	C205 4-METHYL-2-PENTANONE	17.86	43.0	3653	9.12	UG/L	97
43)	CS05 D-8 TOLUENE (SS-2)	18.13	98.0	124372	48.46	UG/L	90
44)	C230 TOLUENE	18.31	91.0	147661	61.25	UG/L	98
45)	C235 CHLOROBENZENE	22.09	112.1	100643	45.97	UG/L	87
46)	C240 ETHYL BENZENE	22.46	106.0	62826	66.65	UG/L	97
47)	CS10 BROMOFLUOROBENZENE (SS-3)	25.32	174.0	72503	48.60	UG/L	93
51)	C250 TOTAL XYLENES	22.77	106.0	38414M	32.23	UG/L	92

* Compound is ISTD

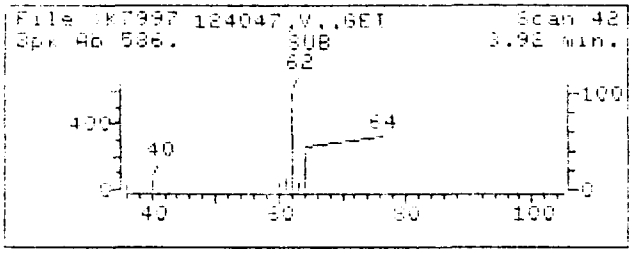
6-6-95

30200

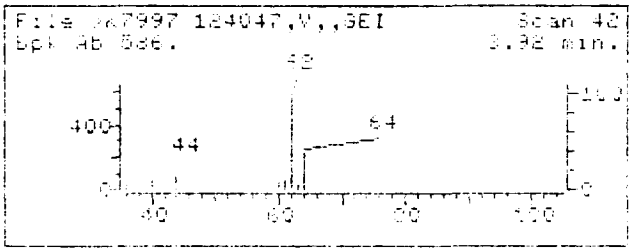
REFERENCE STANDARD SPECTRUM

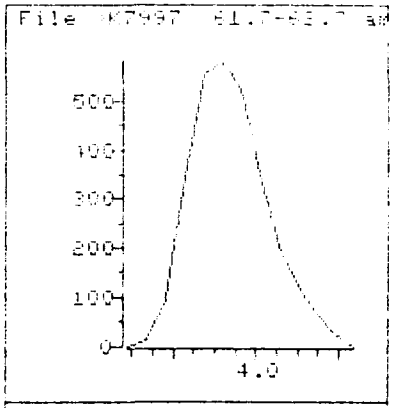


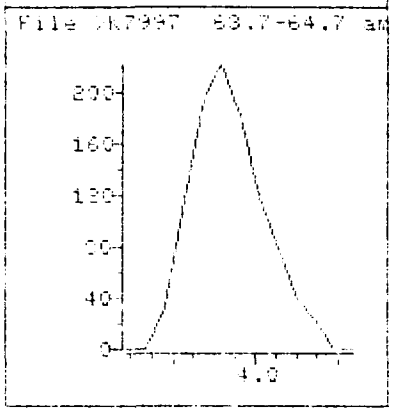
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



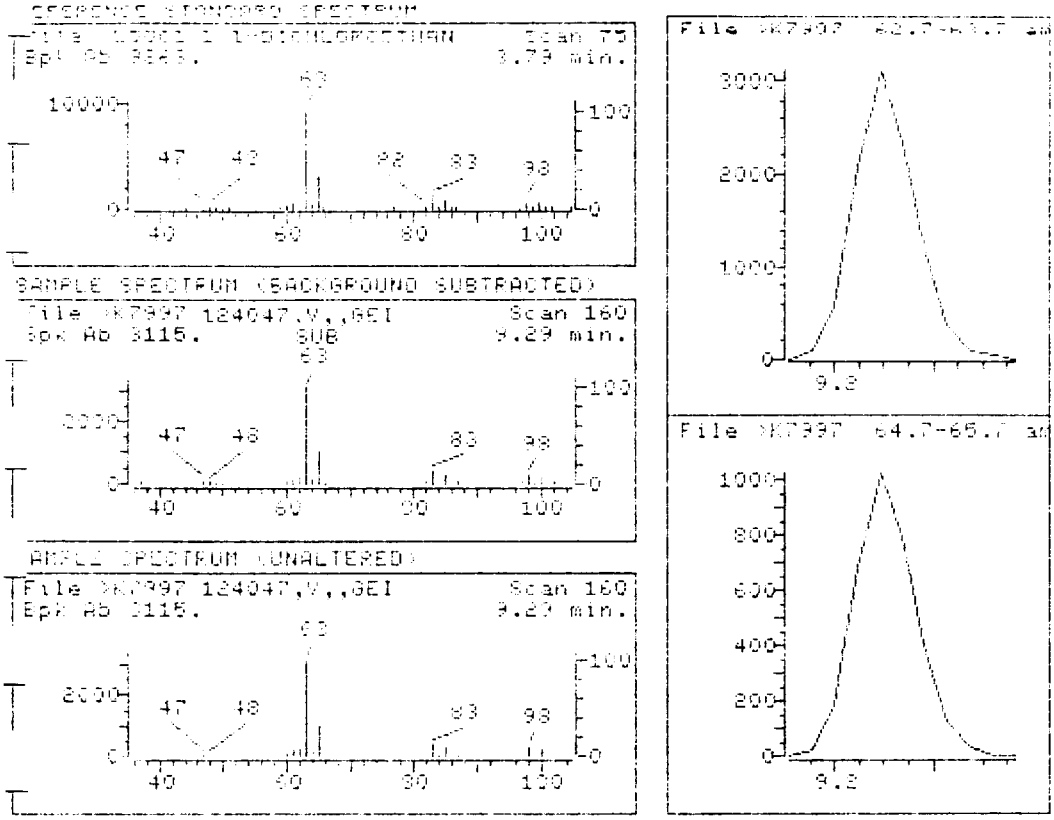




Data File: :K7997::L2 Quant Output File: :K7997::K2
Name: 124047,V,,SEI
Misc: CLP,FDI+25,,92115-LSmW-052SMS,L,A,ALS5 5ML SPT .01918
Quant Time: 950601 17:47 Quant ID File: SYSUID:<DK.
Injected at: 950601 17:11 Last Calibration: 950601 14:56

Compound No.: 4
Compound Name: CO2: VINYL CHLORIDE
Scan Number: 42
Retention Time: 3.92 min.
Quant Ion: 62.0
Area: 7905
Concentration: 52.00 UG/L
q-value: 9%

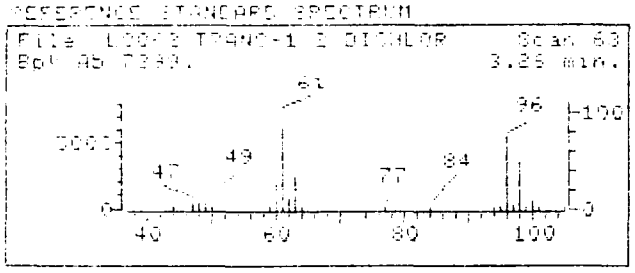
30201



Data File= :K7997:1:2 Quant Output File= :K7997:K2
Name= 124047,V,,GEI
Mass= Cle,F014.3,,92115-1.raW-c595MS,1,A,4.55 SUB .PT .01910
Quant Time= 950601 17:47 Quant ID File= K2P819::ES
Injected at= 950601 17:11 Last Calibration= 950601 14:56

Compound No= 12
Compound Name= 0050 1,1-DICHLOROETHANE
Scan Number= 160
Retention Time= 9.29 min.
Quant Ions= 63,)
Area= 26767
Concentration= 24.24 UG/L
Qualifiers= 96

REFERENCE STANDARD SPECTRUM



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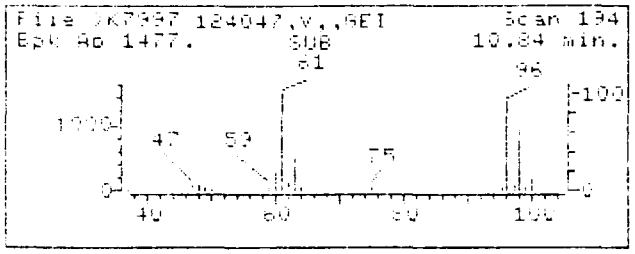

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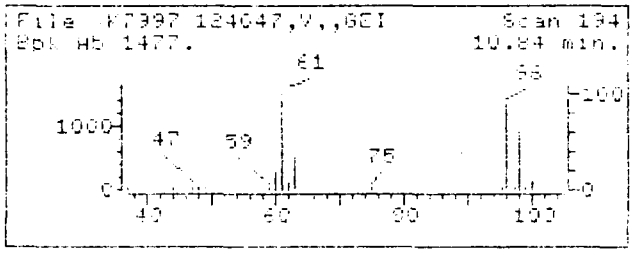
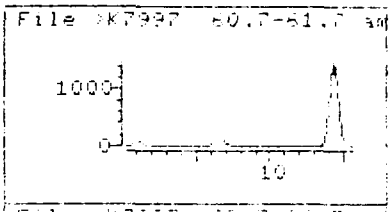
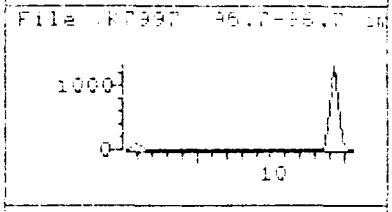
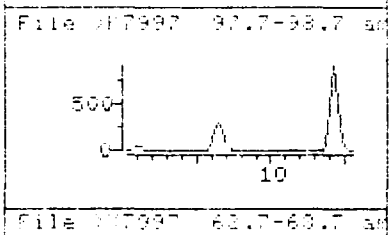
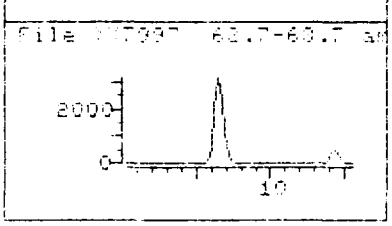




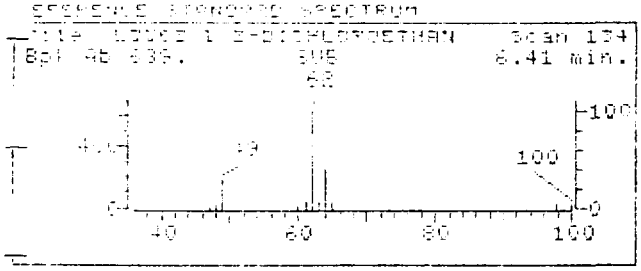


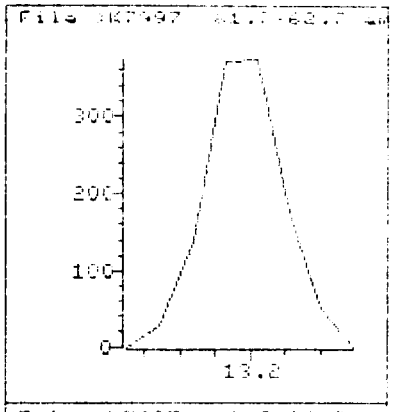




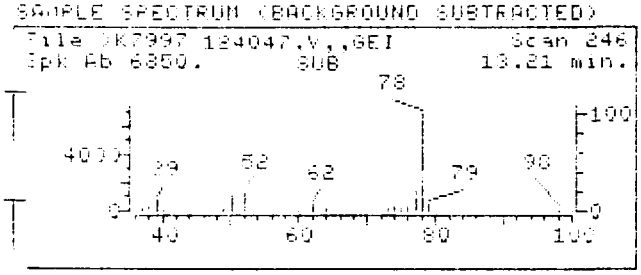
Data File: K7997:[L2 Quant Output File: [K7997::K2
Name: [200407,U,,6EI
Misc: CLP,FD1623,,92113-L3-W-0595MS,L,A,ALS5 5ML JPT .01918
Quant Time: 950601 17:47 Quant ID File: KUOAID::DB
Injected at: 950601 17:11 Last Calibration: 950601 14:56

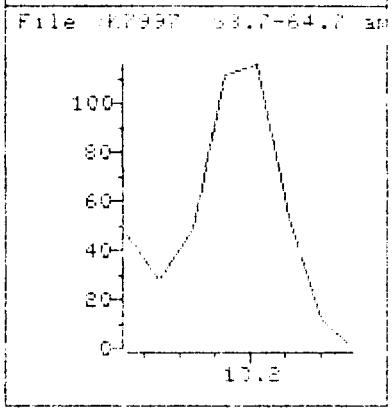
Compound No: 17
Compound Name: 0053 TOTAL-1,2-DICHLOROETHENE
Scan Number: 194
Retention Time: 10.84 min.
Quant Ion: 96.0
Area: 10837M
Concentration: 15.71 UG/L
q-value: 79



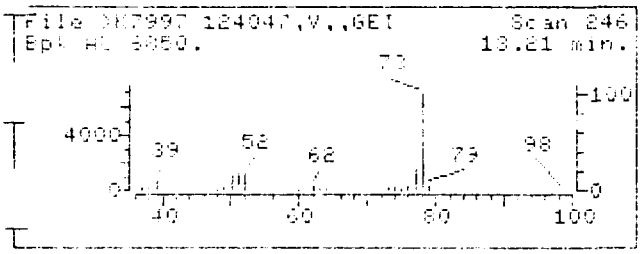


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



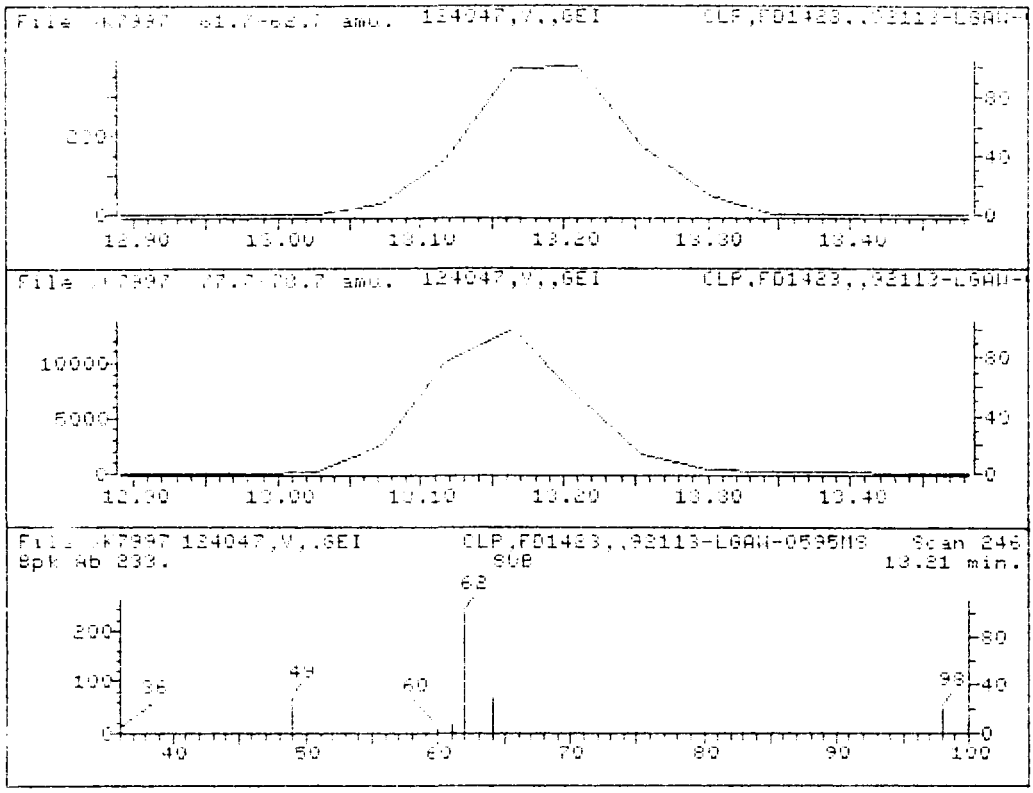
Data File: K7997:[]
Graph Output File: K7997:[]
Method: 124047,V,,6EI
Mixer: CLP.FDI+26,,9211(-1.0AW-0.99SMS.1,A,0.5% VOL SPL .01918
Quant Time: 950601 17:47
Quant ID File: E95A1D:SIR
Injected at: 950601 17:11
Last Calibration: 950601 14:54

Component No: 1*
Compound Name: COA% 1,1-DICHLOROPROPANE
Scan Number: 246
Retention Time: 13.21 min.
Quant Ion: 47.0
Area: 110%
Concentration: 0.59 UG/L
Qualifier: %

✓

Cleaned spectra

→


File 47397 81.7-82.7 amo. 124047,V,,GEI CLP,FD1423,,93113-LGAN-
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Spk Ab 233. SOB 13.81 min.
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62
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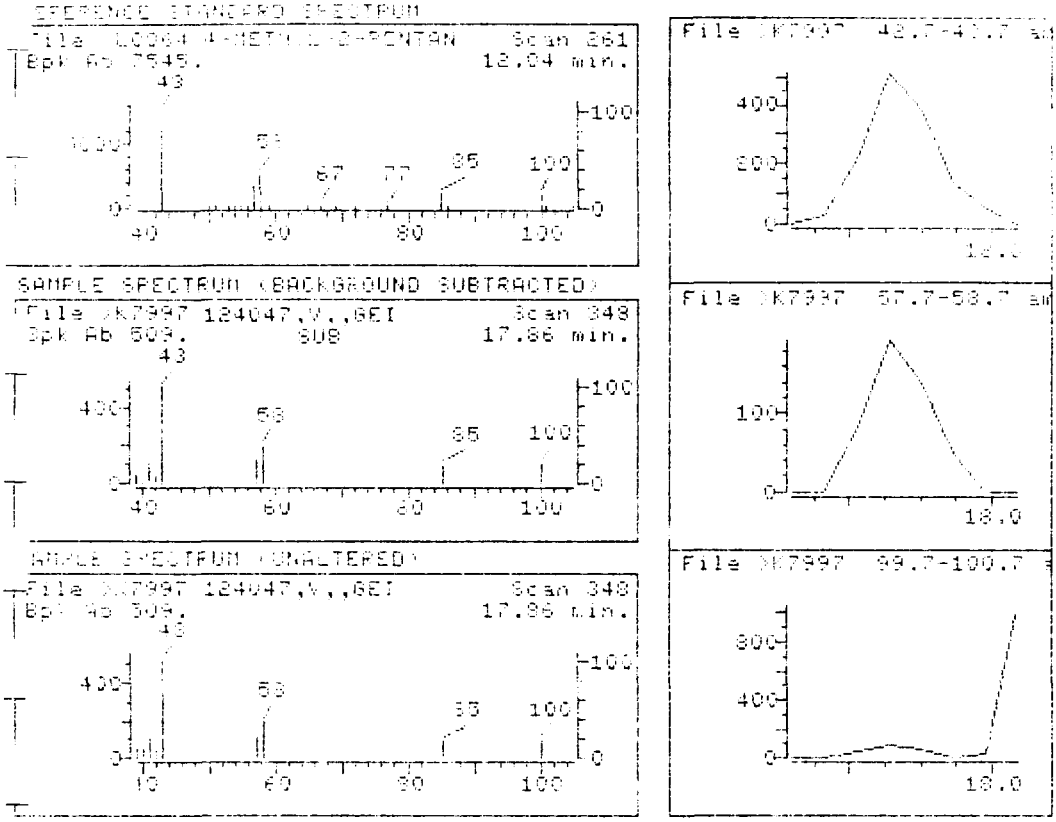

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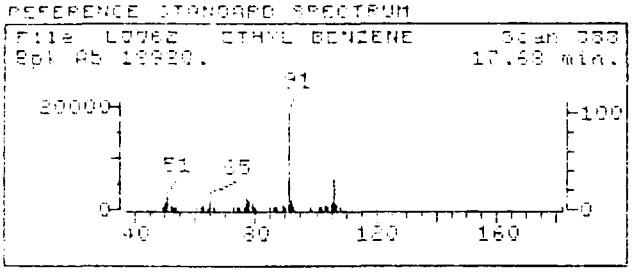
Name: 124047,V,,GEI
Misc: CLP,FD1423,,92113-LGAW-0595/MS,L,A,ALS7 5ML JPT .01918
Quant Time: 950601 17:47 Quant ID File: :VOAID::DB
Injected at: 950601 17:11 Last Calibration: 950601 14:56

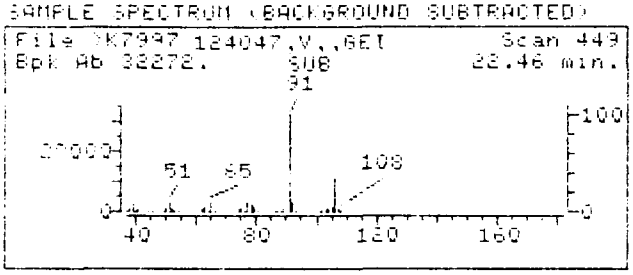
Compound No: 39
Compound Name: 0205 4-METHYL-2-PENTANONE
Scan Number: 348
Retention Time: 17.86 min.
Quant Ion: 43.0
Area: 3653
Concentration: 9.12 UG/L
q-value: 97

30206

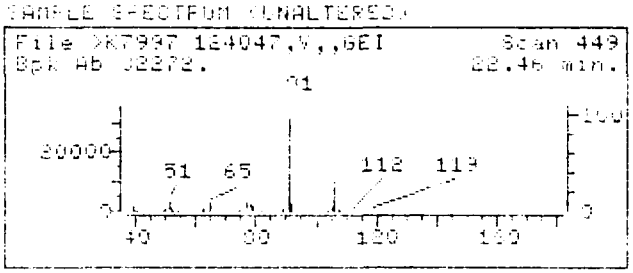
REFERENCE STANDARD SPECTRUM

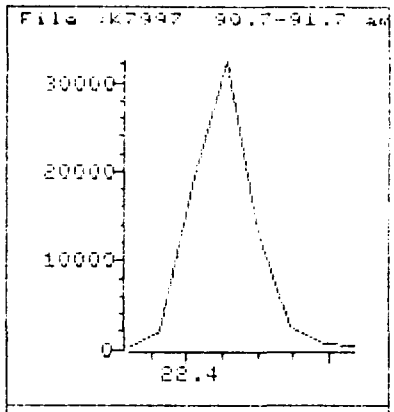


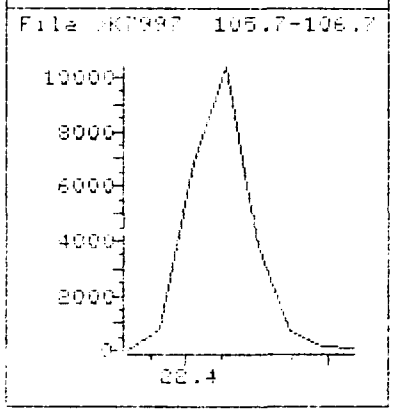
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



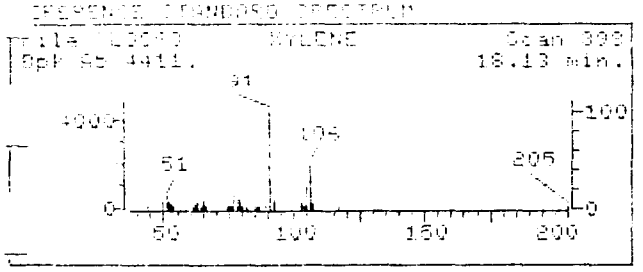


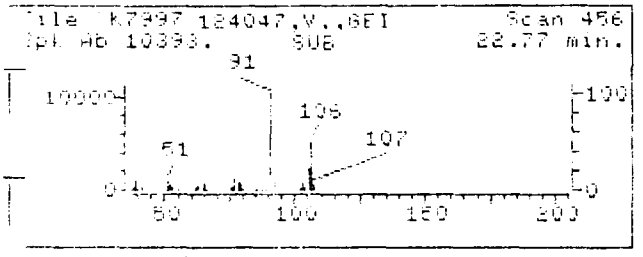


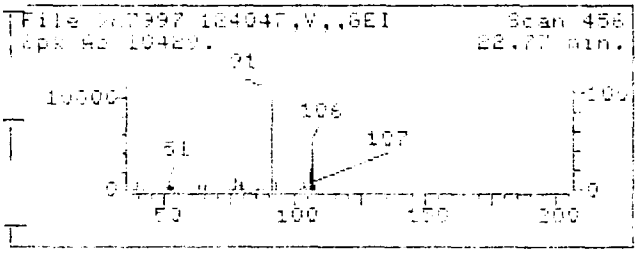
Data File: K7997:[1,7 Quant Output File: [1,7997]K7
Name: 124047,0,,6EI
Misc: CLP,SD1403,,9211%-DB5W-0525MS,I,A,0155 SMI .25T .01918
Quant Time: 950601 17:47 Quant ID File: EVDA10::DB
Injected at: 950601 17:11 Last Calibration: 950601 14:56

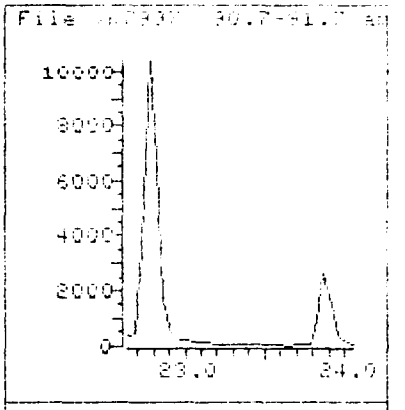
Compound No: 46
Compound Name: C240 ETHYL BENZENE
Scan Number: 449
Retention Time: 22.46 min.
Quant Ion: 106.0
Area: 42826
Concentration: 60.49 UG/L
% Value: 97

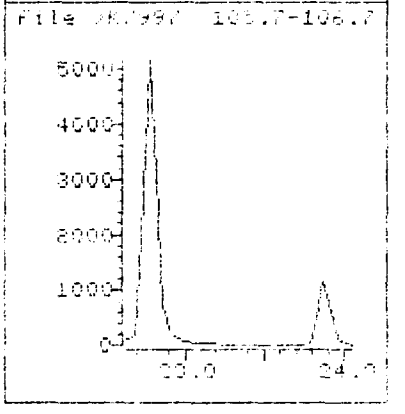
30207











Data File: >K7997:L2 Quant Output File: ^K7997:K2
Name: 124047,V,,6EI
Misc: CLP,SB1423,,^2113-10HW-059SMS,L,8,4L59 SNL JPI .01918
Quant Time: 250601 17:47 Quant ID File: ^JOBID::DR
Injected at: 250601 17:11 Last Calibration: 250601 14:56

Compound No: 51
Compound Name: 0250 TOTAL XYLENES
Scan Number: 456
Retention Time: 22.77 min.
Quant Ion: 106.0
Area: 28414M
Concentration: 32.23 UG/L
q-value: 22

30208

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

921130W2DMS

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124146MS

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K8084

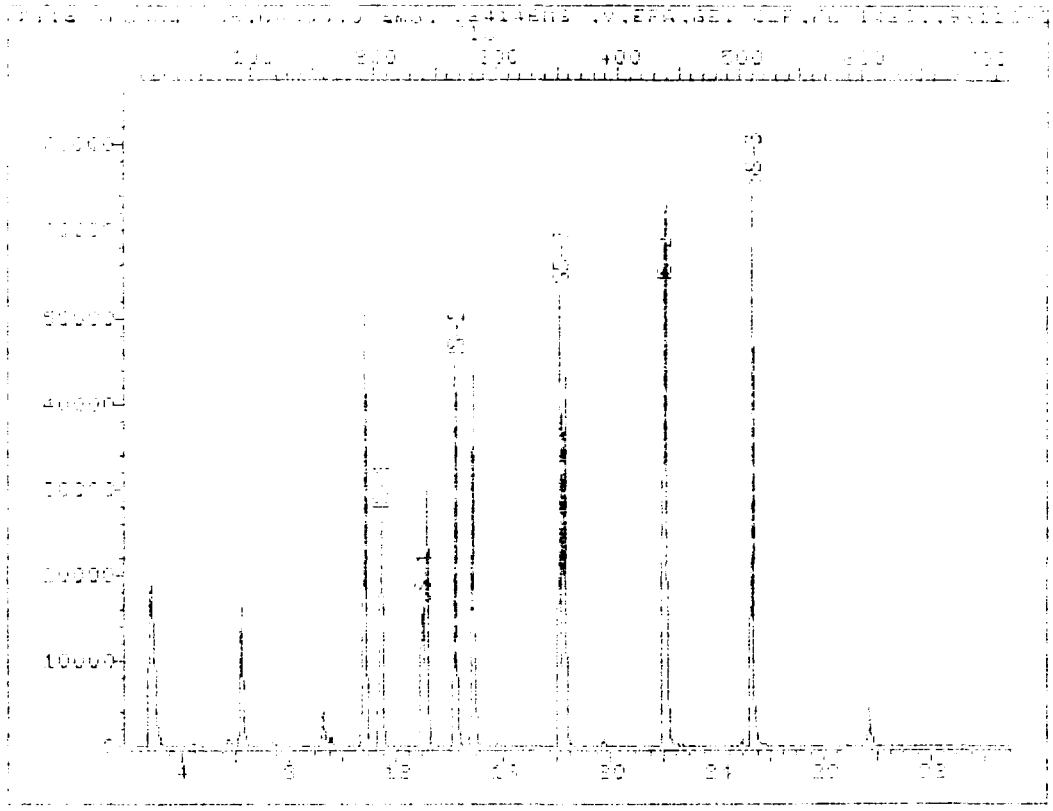
Level: (low/med) LOW Date Received: 05/26/95

% Moisture: not dec. Date Analyzed: 06/04/95

GC Column: CAP ID: 0.530 (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	14	BJ
67-64-1	Acetone	100	U
75-15-0	Carbon Disulfide	100	U
75-35-4	1,1-Dichloroethene	560	
75-34-3	1,1-Dichloroethane	160	
540-59-0	1,2-Dichloroethene (total)	1200	
67-66-3	Chloroform	100	U
107-06-2	1,2-Dichloroethane	180	
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	500	
124-48-1	Dibromochloromethane	100	U
79-00-5	1,1,2-Trichloroethane	100	U
71-43-2	Benzene	490	
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	490	
108-90-7	Chlorobenzene	490	
100-41-4	Ethylbenzene	100	U
100-42-5	Styrene	100	U
1330-20-7	Xylene (total)	100	U



Data File: [illegible] Quant Output File: [illegible]
Name: [illegible]
Misc: [illegible]

[illegible]
[illegible] VOLATILE ORGANIC ANALYSIS, [illegible]
[illegible]

Operator ID: [illegible]
Last Time: [illegible]
Injected at: [illegible]

30210

QUANT REPORT

Operator ID: DOUG Quant Rev: 6 Quant Time: 950604 12:58
Output File: ^K8084::K2 Injected at: 950604 12:02
Data File: >K8084::L2 Dilution Factor: 1.00000
Name: 124146MS ,V,EPA,GEI
Misc: CLP,FD 1423,,92113-0W2D-0595 MS ,L,W,ALS2 1:10 TOM

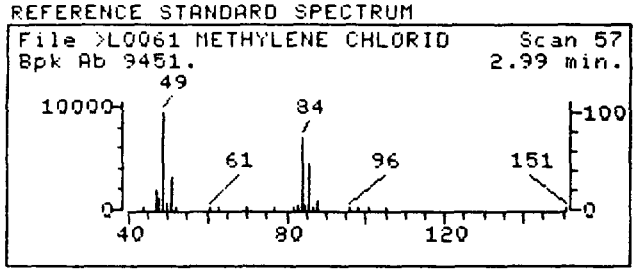
ID File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950604 12:56

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	11.41	128.0	36934	50.00	UG/L	95
8)	C030 METHYLENE CHLORIDE	7.40	84.0	978	1.45	UG/L	82
11)	C045 1,1-DICHLOROETHENE	6.22	96.0	31208	55.49	UG/L	80
12)	C050 1,1-DICHLOROETHANE	9.27	63.0	16833	15.54	UG/L	98
17)	C053 TOTAL-1,2-DICHLOROETHENE	10.82	96.0	94677	119.64	UG/L	85
19)	C065 1,2-DICHLOROETHANE	13.15	62.0	14342	17.89	UG/L	92
20)	CS15 D4-1,2-DICHLOROETHANE SS1	12.96	65.0	37031	48.14	UG/L	91
24)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.19	114.0	157029	50.00	UG/L	100
32)	C150 TRICHLOROETHENE	14.88	130.0	60721	50.43	UG/L	91
35)	C165 BENZENE	13.15	78.0	89295	49.37	UG/L	100
38)	*CI20 D5-CHLOROBENZENE IS-3	21.98	117.0	125232	50.00	UG/L	100
43)	CS05 D-8 TOLUENE (SS-2)	18.11	98.0	130451	50.59	UG/L	90
44)	C230 TOLUENE	18.29	91.0	116552	48.84	UG/L	96
45)	C235 CHLOROBENZENE	22.08	112.1	106111	48.81	UG/L	90
47)	CS10 BROMOFLUOROBENZENE (SS-3)	25.31	174.0	71113	50.60	UG/L	88

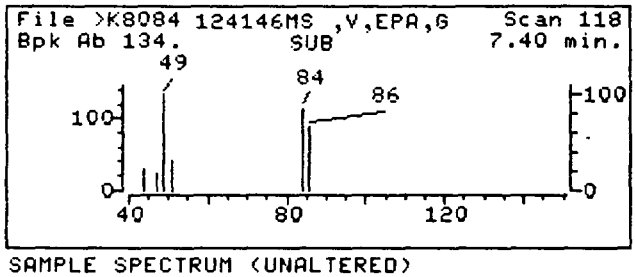
* Compound is ISTD

30211

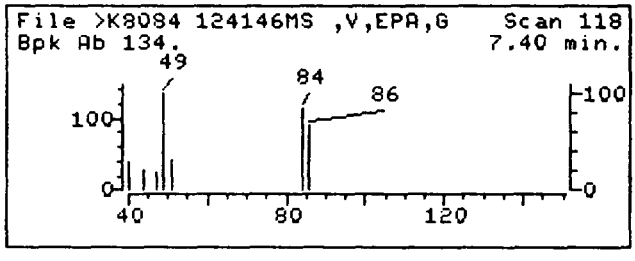
REFERENCE STANDARD SPECTRUM

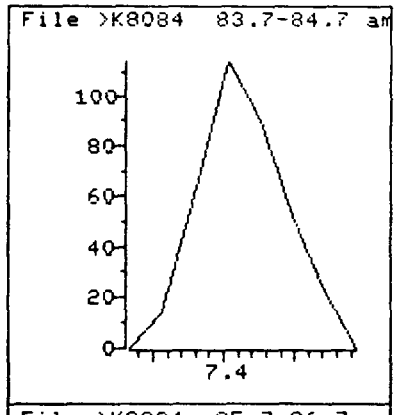


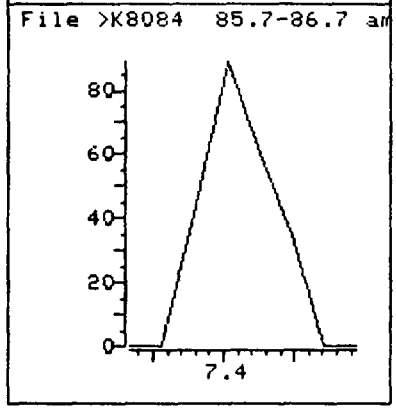
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



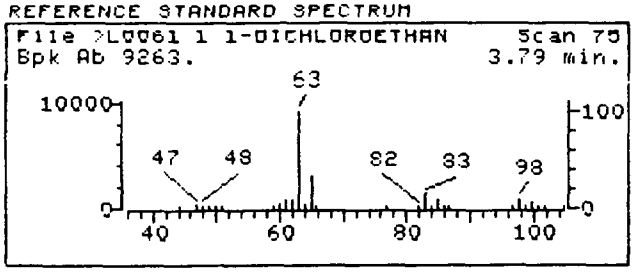




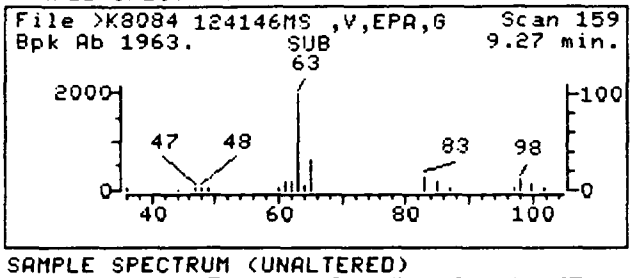
Data File: >K8084::L2 Quant Output File: ^K8084::K2
Name: 124146MS ,V,EPA,GEI
Misc: CLP,FD 1423,,92113-0W2D-0595 MS ,L,W,ALS2 1:10 TOM
Quant Time: 950604 12:58 Quant ID File: KVOAID::DB
Injected at: 950604 12:02 Last Calibration: 950604 12:56

Compound No: 8
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 118
Retention Time: 7.40 min.
Quant Ion: 84.0
Area: 978
Concentration: 1.45 UG/L
q-value: 82

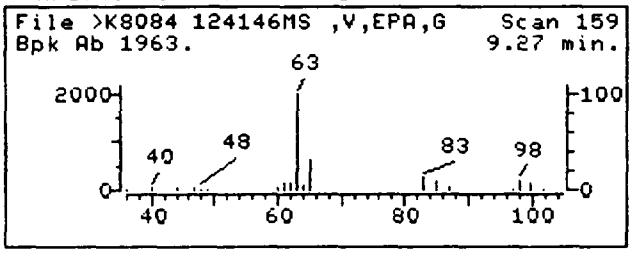
REFERENCE STANDARD SPECTRUM

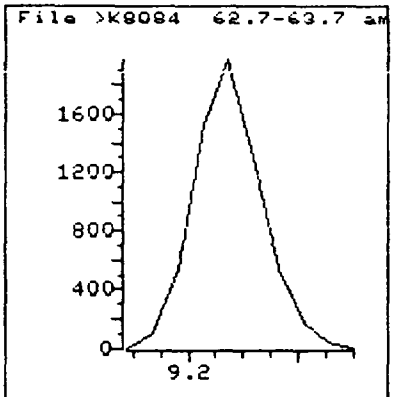


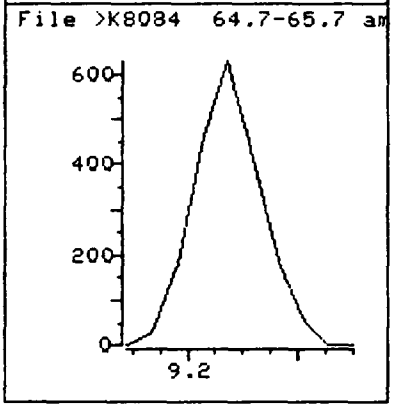
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



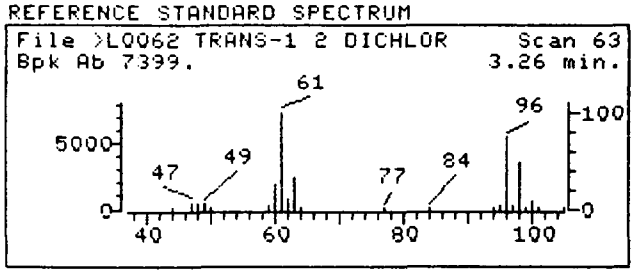




Data File: >K8084::L2 Quant Output File: ^K8084::K2
Name: 124146MS ,V,EPA,GEI
Misc: CLP,FD 1423,,92113-OW2D-0595 MS ,L,W,ALS2 1:10 TOM
Quant Time: 950604 12:58 Quant ID File: KVOAID::DB
Injected at: 950604 12:02 Last Calibration: 950604 12:56

Compound No: 12
Compound Name: C050 1,1-DICHLOROETHANE
Scan Number: 159
Retention Time: 9.27 min.
Quant Ion: 63.0
Area: 16833
Concentration: 15.54 UG/L
q-value: 98

REFERENCE STANDARD SPECTRUM



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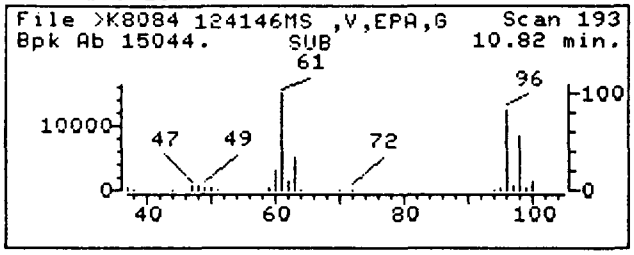

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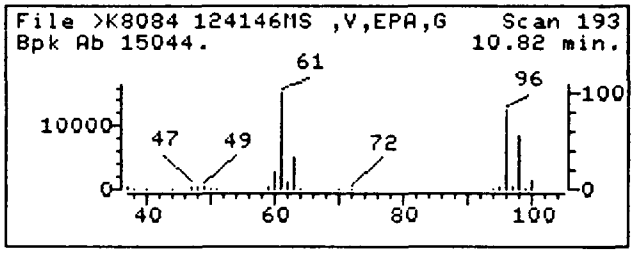
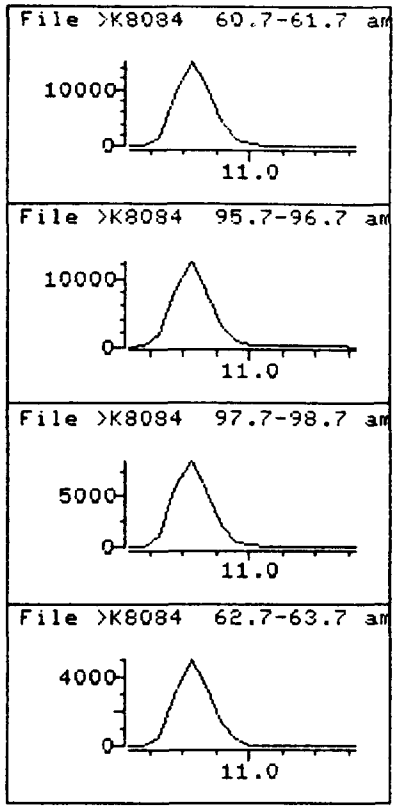
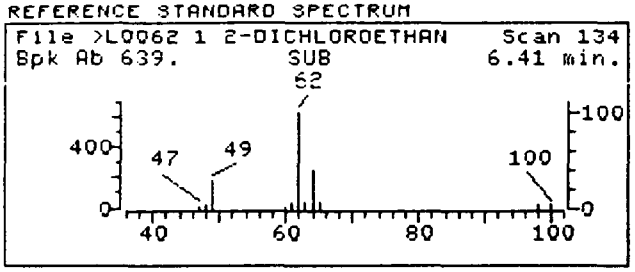




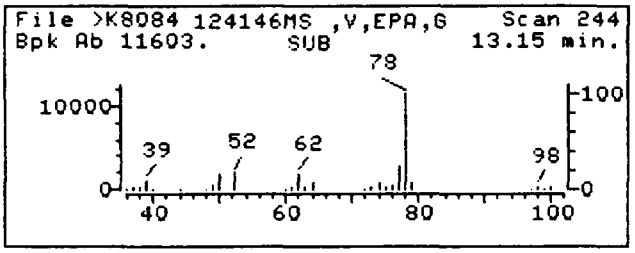
Data File: >K8084::L2 Quant Output File: ^K8084::K2
Name: 124146MS ,V,EPA,GEI
Misc: CLP,FD 1423,,92113-0W2D-0595 MS ,L,W,ALS2 1:10 TOM
Quant Time: 950604 12:58 Quant ID File: KVOAID::DB
Injected at: 950604 12:02 Last Calibration: 950604 12:56

Compound No: 17
Compound Name: C053 TOTAL-1,2-DICHLOROETHENE
Scan Number: 193
Retention Time: 10.82 min.
Quant Ion: 96.0
Area: 94677
Concentration: 119.64 UG/L
q-value: 85

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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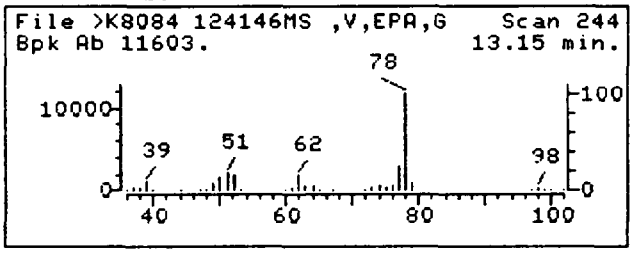
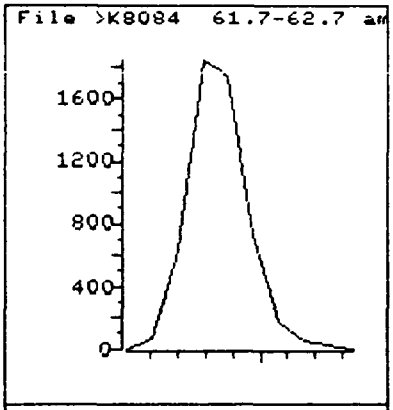
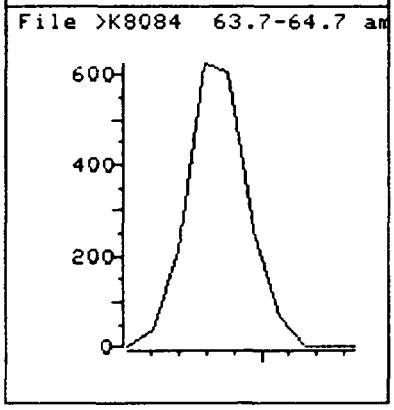
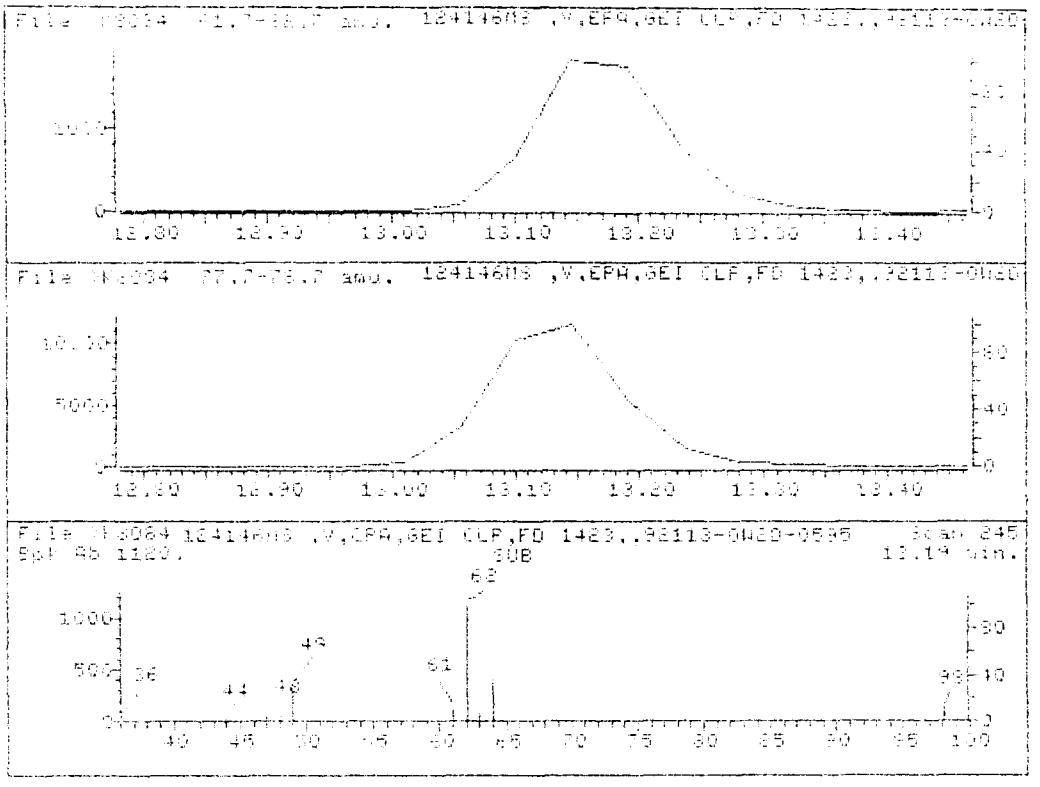






Data File: >K8084::L2 Quant Output File: ^K8084::K2
Name: 124146MS ,V,EPA,GEI
Misc: CLP,FD 1423,,92113-0W2D-0595 MS ,L,W,ALS2 1:10 TOM
Quant Time: 950604 12:58 Quant ID File: KVOAID::DB
Injected at: 950604 12:02 Last Calibration: 950604 12:56

Compound No: 19
Compound Name: C065 1,2-DICHLOROETHANE
Scan Number: 244
Retention Time: 13.15 min.
Quant Ion: 62.0
Area: 14342
Concentration: 17.89 UG/L
q-value: 92


13.30
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13.40
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62
93
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65
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80
85
90
95
100

1,2-DCE

3D(4). MATRIX SPIKE DUPL.DATA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

92113LGAWMSD

Lab Name: CAMBRG Contract: GEI

Lab Code: CAMBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124047MSD

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: K7998

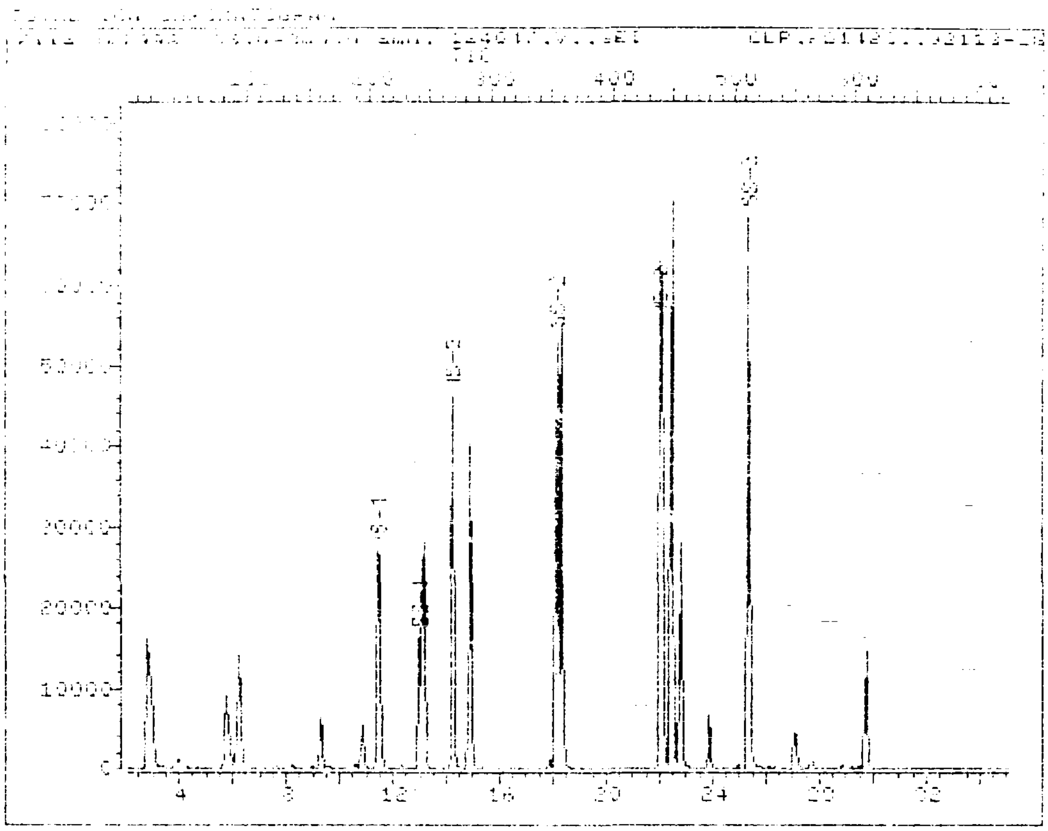
Level: (low/med) LOW Date Received: 05/25/95

% Moisture: not dec Date Analyzed: 06/01/95

GC Column: CAP ID: 0.530 (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	31	
75-00-3	Chloroethane	4	J
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	50	
75-34-3	1,1-Dichloroethane	24	
540-59-0	1,2-Dichloroethene (total)	13	Y
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	4	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	46	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	55	
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	9	J
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	62	B
108-90-7	Chlorobenzene	46	
100-41-4	Ethylbenzene	63	
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	32	Y



Data File: >J2998::D   Quant Output File: ^J2998::QT
Name: 1-4-062719,,CF1
Misc: CLP,501427,,92113-1SOW-0525MSD,1,A,ALSA 5ML JPT ,,1918

Id File: RUNA50::SP
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950601 14:56

Operator ID: DHHG
Quant Time: 950601 18:26
Injected at: 950601 17:50

QUANT REPORT

Operator ID: DOUG Quant Rev: 6 Quant Time: 950601 18:26
Output File: ^K7998::K2 Injected at: 950601 17:50
Data File: >K7998::L2 Dilution Factor: 1.00000
Name: 124047,V,,GEI
Misc: CLP,FD1423,,92113-LGAW-0595MSD,L,A,ALS6 5ML JPT .01918

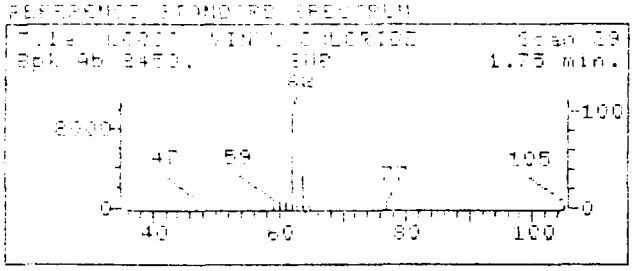
ID File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950601 14:56

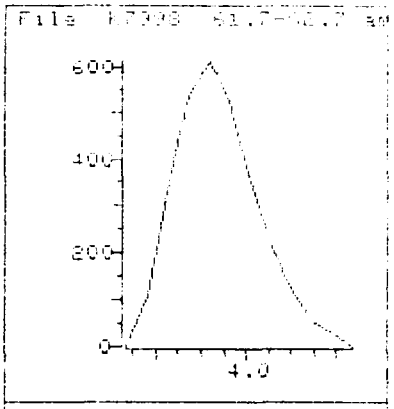
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	11.43	128.0	38474	50.00	UG/L	96
4)	C020 VINYL CHLORIDE	3.92	62.0	7908	30.76	UG/L	97
5)	C025 CHLOROETHANE	4.65	64.0	838	3.59	UG/L	76
11)	C045 1,1-DICHLOROETHENE	6.20	96.0	29755	49.97	UG/L	69
12)	C050 1,1-DICHLOROETHANE	9.29	63.0	27346	23.80	UG/L	98
17)	C053 TOTAL-1,2-DICHLOROETHENE	10.84	96.0	10820M	13.15	UG/L	87
19)	C065 1,2-DICHLOROETHANE	13.16	62.0	2920	3.97	UG/L	98
20)	CS15 D4-1,2-DICHLOROETHANE SS1	12.98	65.0	37290	53.89	UG/L	87
24)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.21	114.0	160804	50.00	UG/L	100
32)	C150 TRICHLOROETHENE	14.89	130.0	57037	45.73	UG/L	91
35)	C165 BENZENE	13.16	78.0	97366	55.20	UG/L	100
38)	*CI20 D5-CHLOROBENZENE IS-3	22.00	117.0	128582	50.00	UG/L	100
39)	C205 4-METHYL-2-PENTANONE	17.85	43.0	3771	9.27	UG/L	96
43)	CS05 D-8 TOLUENE (SS-2)	18.13	98.0	132415	50.83	UG/L	93
44)	C230 TOLUENE	18.31	91.0	151663	61.97	UG/L	99
45)	C235 CHLOROBENZENE	22.09	112.1	102922	46.31	UG/L	90
46)	C240 ETHYL BENZENE	22.45	106.0	60487	63.21	UG/L	99
47)	CS10 BROMOFLUOROBENZENE (SS-3)	25.32	174.0	79151	52.27	UG/L	93
51)	C250 TOTAL XYLENES	22.77	106.0	38572M	31.88	UG/L	97

* Compound is ISTD

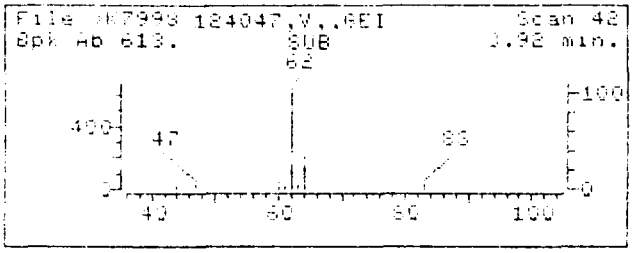
6-6-95

30220

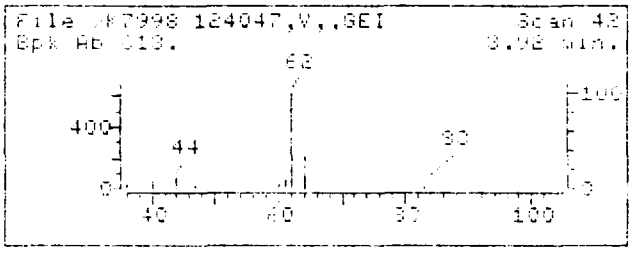


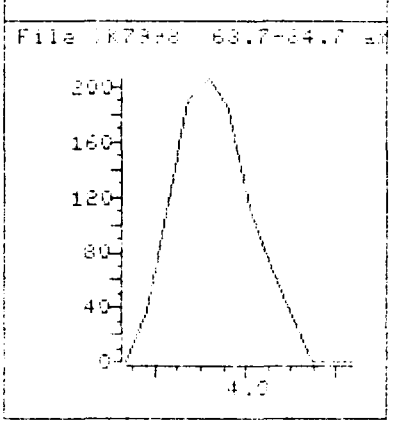


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



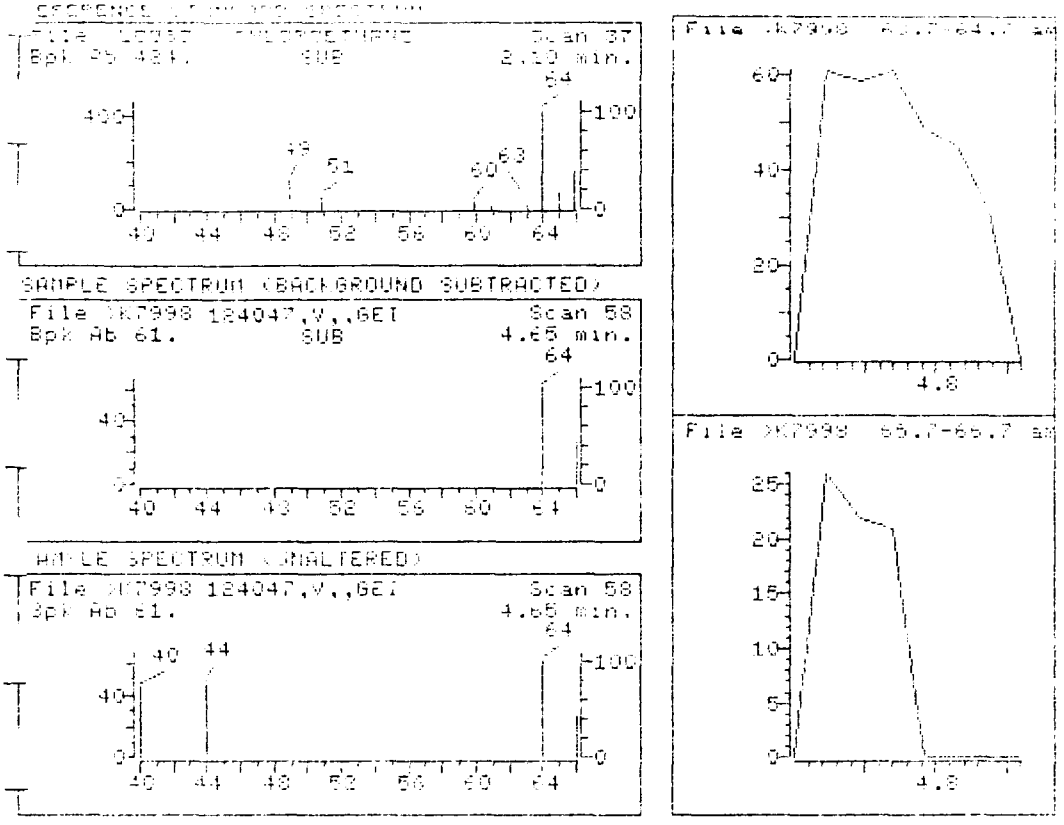
SAMPLE SPECTRUM (UNALTERED)





Data File: R7998::L2 Quant Output File: R7998::R2
Name: 124047,V,,GEI
Misc: GLP,FD1423,,92113-LG(W-C595MSD,L,A,ALS6 5ML 3PT .01918
Quant Time: 950e0: 18:26 Quant ID File: LVOAID::DO
Injected at: 950e0: 17:59 Last Calibration: 950601 1::5

Compound No: 1
Compound Name: C020 VINYL CHLORIDE
Scan Number: 42
Retention Time: 3.92 min.
Quant Ion: 62 0
Area: /200
Concentration: 30.75 UG/L
Qualifier: 97

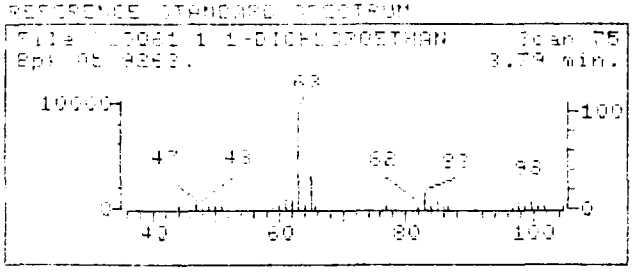


Data File: [illegible] Quant Output File: [illegible]
Name: [illegible]
ID: [illegible]
Quant Time: 950601 10:26 Quant ID File: SW8010.ID
Injected on: 950601 12:50 Last Calibration: 950601 14:56

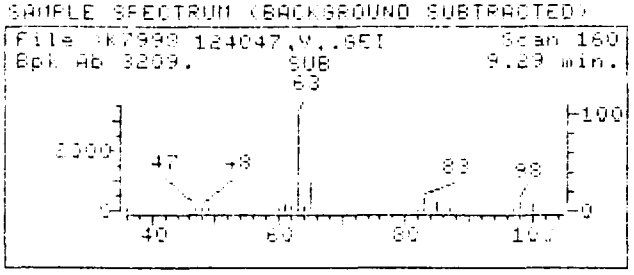
Compound No: 3
Compound Name: 1,2-DICHLOROETHANE
Scan Number: 58
Retention Time: 4.65 min.
Quant Ion: 62.0
Area: 838
Concentration: 5.59 UG/L
Qualifier: OK

30222

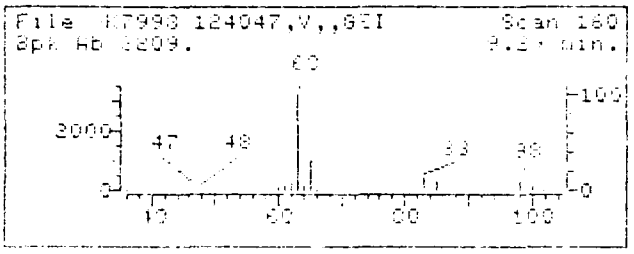
REFERENCE STANDARD SPECTRUM

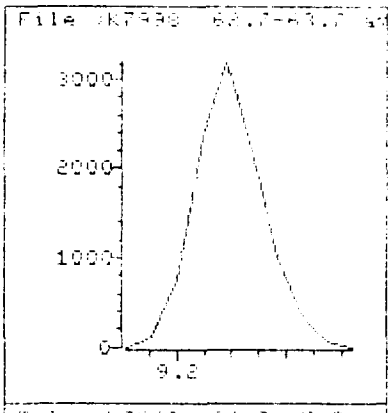


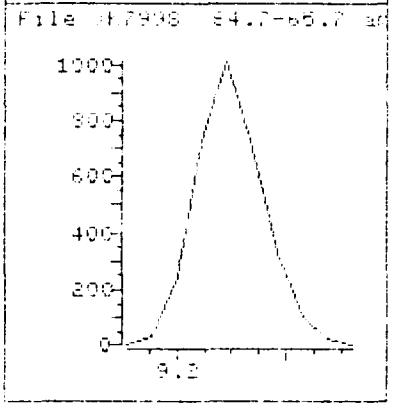
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

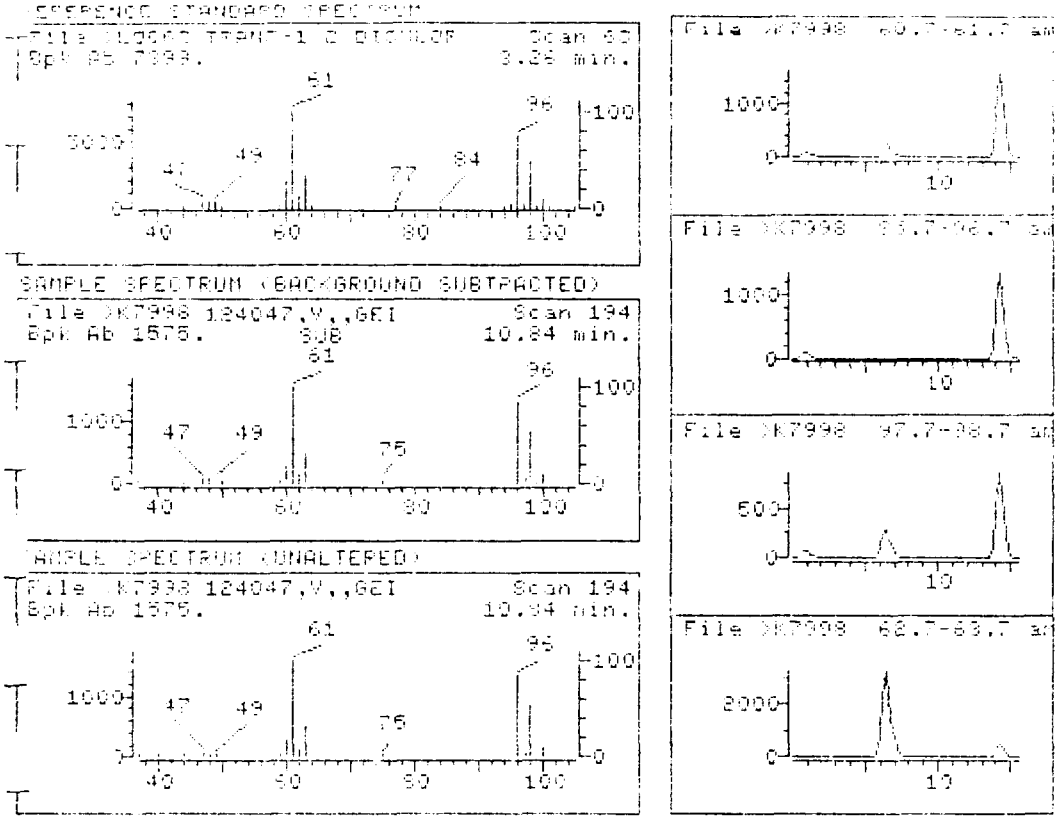






Data File: :K7998::L2 Quant Output File: :K7998::Q2
Name: 124047,V,,GSI
Misc: CL2,,,,1423,,,,9211,3-LG(U-L593MSD,L,A,ALSS SML JPT .01918
Acquired Time: 950601 13:05 Quant ID File: LVOAID::DB
Injected at: 950601 17:30 Last Calibration: 950601 14:56

Compound #: 12
Compound Name: CAS# 1,1-DICHLOROETHANE
Scan Number: 160
Retention Time: 9.29 min.
Quant Ion: 63.0
Area: 27946
Concentration: 24.00 UG/L
Q-value: 98

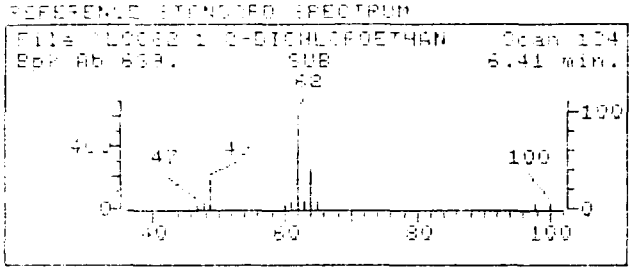


Data File: BK7998::1^ Quant Output File: BK7998::X^
Name: 124047,V,,GEI
Misc: CLP,SP1423,,9^113-LCAW-0595MSD,L,8,AICA 5M: JPT .01^19
Quant Time: 950601 18:2A Quant ID File: DUDATD::DX
Injected at: 950601 17:50 Last Calibration: 950601 14:5A

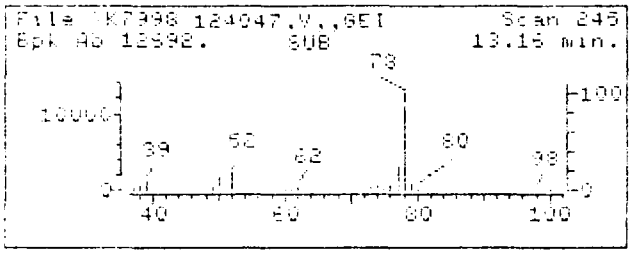
Compound No: 17
Compound Name: 1053 TOTAL-1,2-DICHLOROETHENE
Scan Number: 194
Retention Time: 10.84 min.
Quant Ions: 96.0
Area: 108200
Concentration: 13 15 UG/L
Qualms: 87

30224

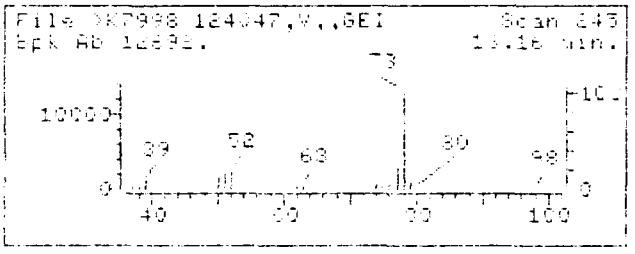
REFERENCE STANDARD SPECTRUM

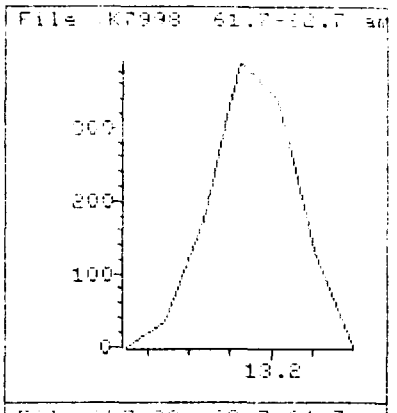


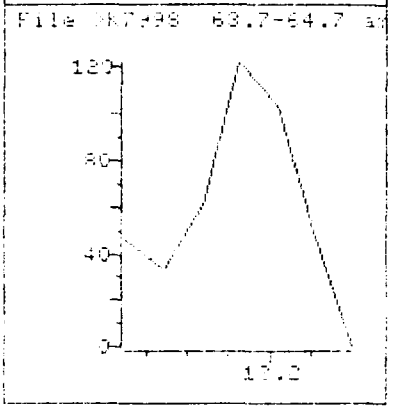
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: K7998:LC Quant Output File: K7998::C

Name: 124047,V,,GEI

Misc: C&P,FD1+23,,,2118-L3,8-0995MSD,L,9,AL06 5ML 2PF .01918

Quant Time: 950601 18:26 Quant ID File: LW091D::DB

Injected at: 950601 17:56 Last Calibration: 950601 14:54

Compound No: 10

Compound Name: C065 1,2-DICHLOROETHANE

Scan Number: 245

Retention Time: 13.16 min.

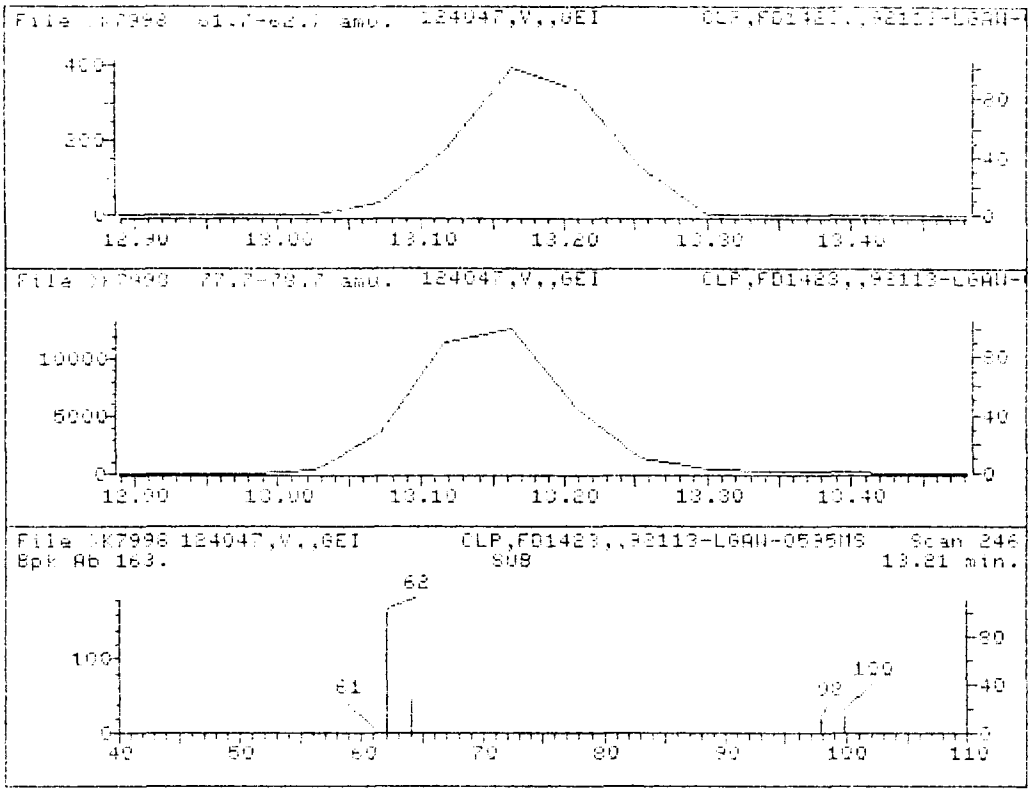
Quant Ion: 62.0

Area: 7929

Concentration: 3.97 UG/L

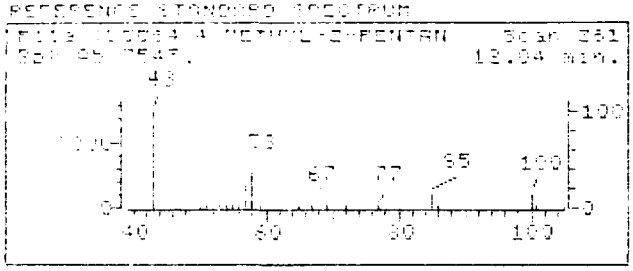
q Value: 98

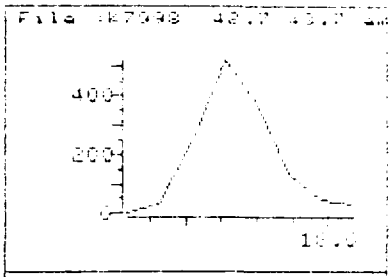
Clean spectra →


400
200
0
20
40
0
12.90
13.00
13.10
13.20
13.30
13.40
10000
5000
0
80
40
0
12.90
13.00
13.10
13.20
13.30
13.40
Bpk Ab 163.
SUB
13.21 min.
62
61
100
99
100
40
50
60
70
80
90
100
110

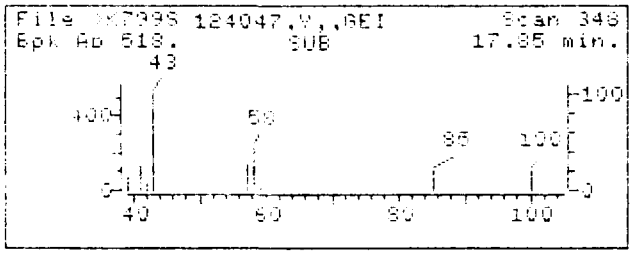
1,2 x l

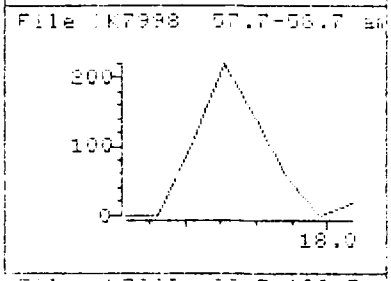
REFERENCE STANDARD SPECTRUM



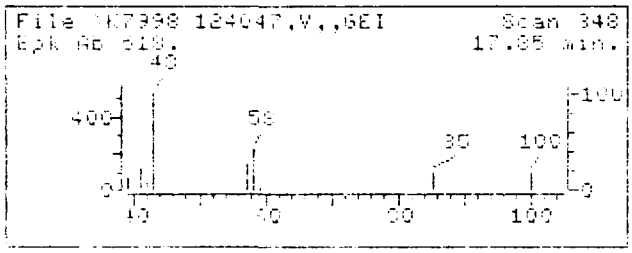


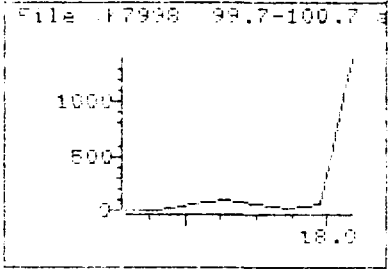
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





Data File: [illegible] Quant Method File: [illegible]

Name: [illegible]

Misc: C:\F\[illegible]\[illegible]\GAU-0[illegible],0,AIR 500 JET .01210

Quant Time: [illegible] Quant ID File: LUBAID[illegible]

Injection: [illegible] Last Calibration: [illegible]

Component No: [illegible]

Component Name: [illegible]

Peak Number: [illegible]

Retention Time: [illegible] min.

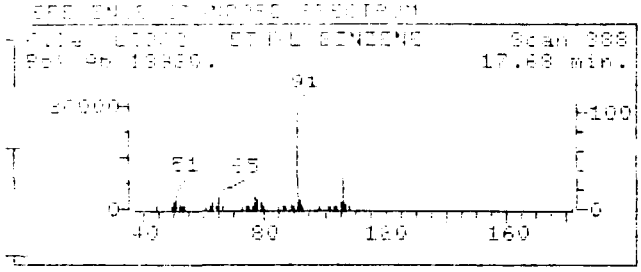
Quant Ion: [illegible]

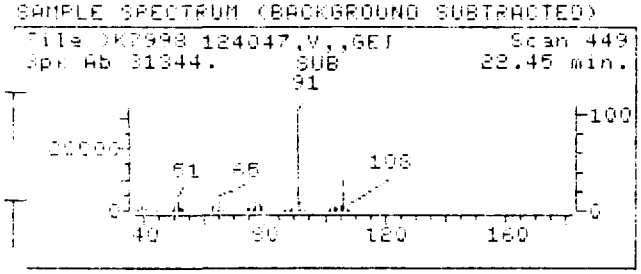
Area: [illegible]

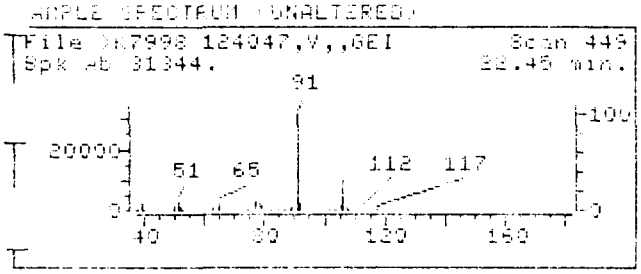
Concentration: [illegible]

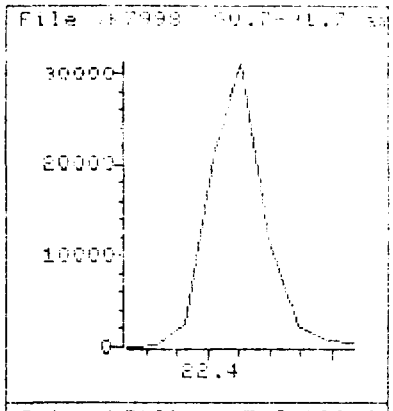
Qualifier: [illegible]

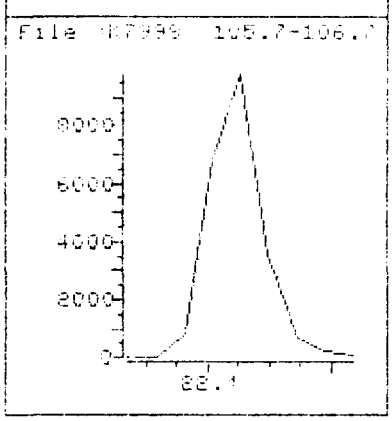
30227







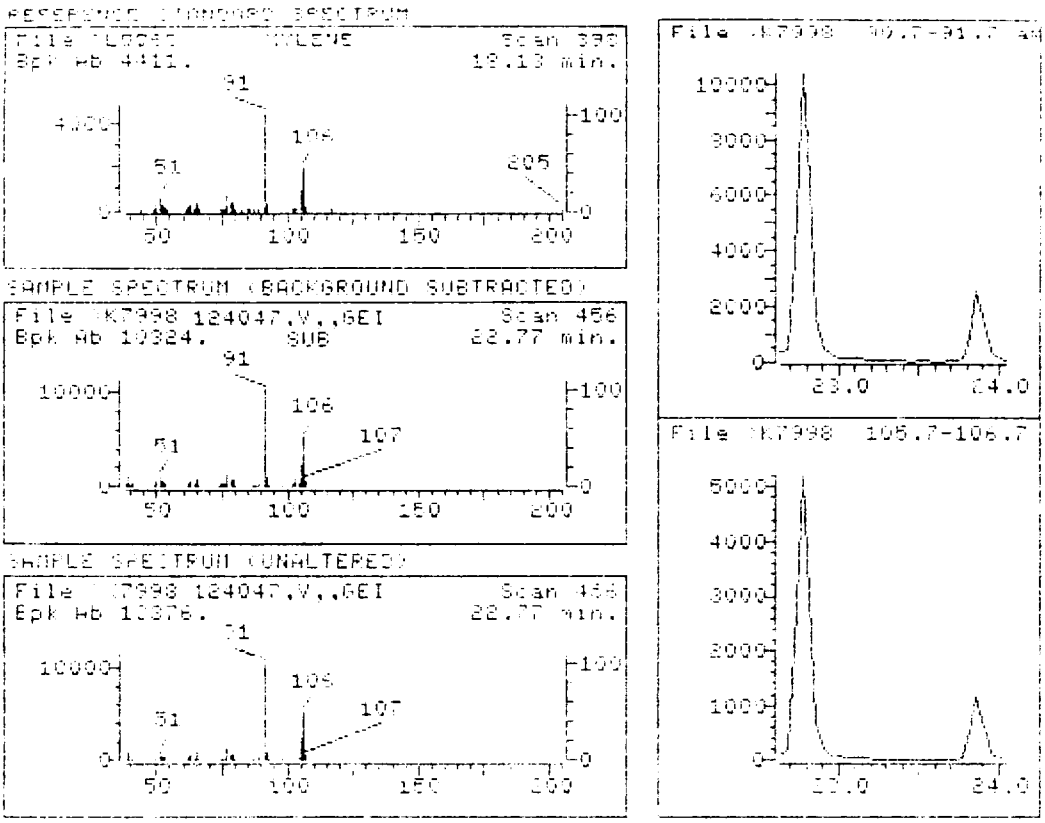




Data File: K7998::L2 Quant Output File: K7998::K2
Name: I24047,V,,GEI
Misc: CLP,FD1423,,72113-LGAW-0595MSD,L,A,ALS6 SML SPT .01915
Quant Time: 950601 18:26 Quant ID File: KUOAID::OB
Injected at: 950601 17:50 Last Calibration: 950601 14:56

Compound No.: 46
Compound Name: C240 ETHYL BENZENE
Scan Number: 449
Retention Time: 22.45 min.
Quant Ion: 106.0
Area: 6387
Concentration: 63.21 UG/L
q-value: 99

30228



Data File: :KT998:6:2 Quant Subject File: :KT998:KT

Method: 1250a (U_1.M)

PI_ca: (1P,231,25,,0)113-1(0.W-05+5MSD,1,,0,,0)SA SCI .2T .01912

Quant Time: 950A01 19:2a Quant ID File: KS0A1D:dB

Injected at: 950A01 1/:50 Last Calibration: 950A01 1a:2A

Compound No.: 91

Compound Name: C250 TOTAL XYLENES

Scan Number: 4?4

Retention Time: 2?.?? min.

Quant Ions: 106.0

Response: 3?.?M

Concentration: 31.3? UG/L

Qualifiers: ?/

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

921130W2DMSD

Lab Name: CANBRG Contract: GEI

Lab Code: CANBRG Case No.: FD1423 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 124146MSD

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: KS085

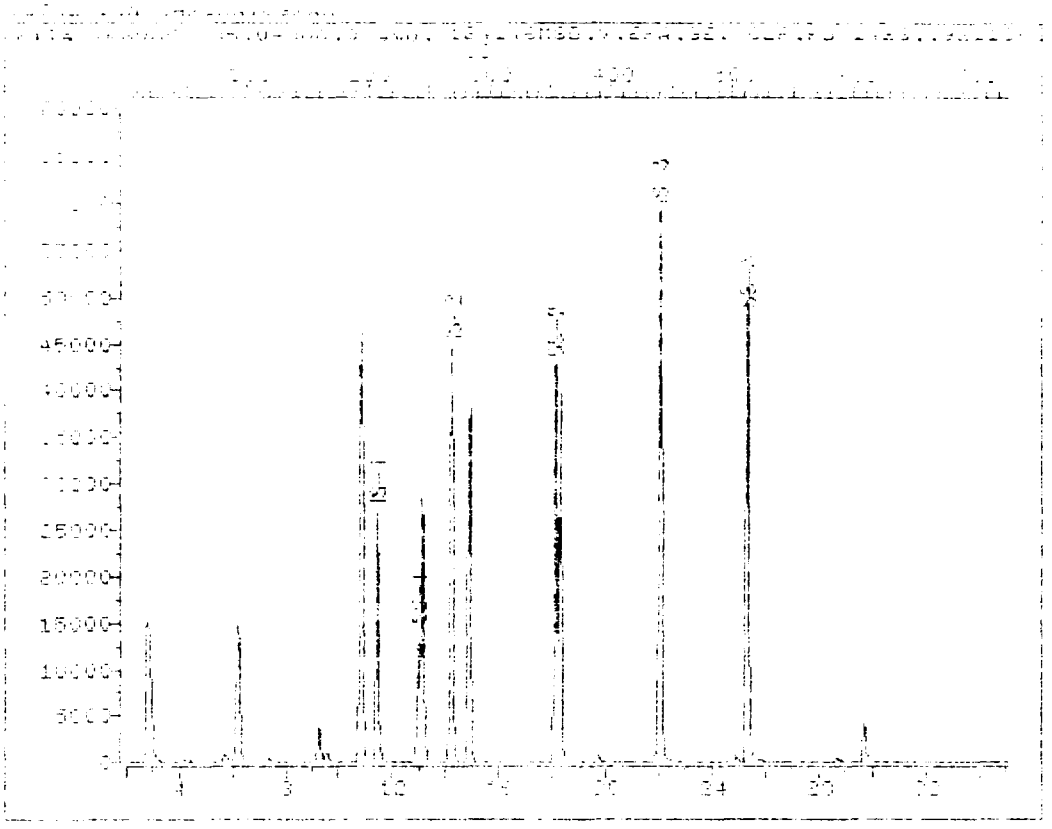
Level: (low/med) LOW Date Received: 05/26/95

% Moisture: not dec. Date Analyzed: 06/04/95

GC Column: CAP ID: 0.530 (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	14	BJ
67-64-1	Acetone	100	U
75-15-0	Carbon Disulfide	100	U
75-35-4	1,1-Dichloroethene	580	
75-34-3	1,1-Dichloroethane	160	
540-59-0	1,2-Dichloroethene (total)	1300	
67-66-3	Chloroform	100	U
107-06-2	1,2-Dichloroethane	190	
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	530	
124-48-1	Dibromochloromethane	100	U
79-00-5	1,1,2-Trichloroethane	100	U
71-43-2	Benzene	520	
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	490	
108-90-7	Chlorobenzene	490	
100-41-4	Ethylbenzene	100	U
100-42-5	Styrene	100	U
1330-20-7	Xylene (total)	100	U



Data File: [illegible] Quant Output File: [illegible]
Title: [illegible]
Misc: [illegible]

[illegible]
Title: VOLATILE ORGANIC COMPOUNDS, EPA-[illegible]
Last Calibration Date: [illegible]

Operator ID: [illegible]
Start Time: [illegible]
Injection Vol: [illegible]

OK
DH

30231

QUANT REPORT

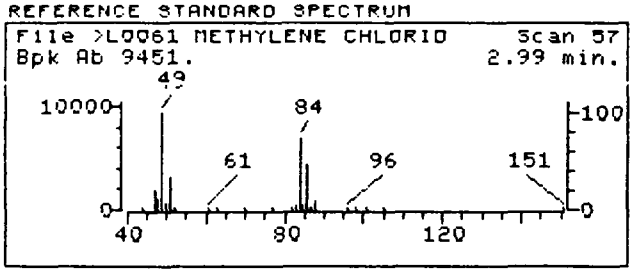
Operator ID: DOUG Quant Rev: 6 Quant Time: 950604 13:17
Output File: ^K8085::K2 Injected at: 950604 12:41
Data File: >K8085::L2 Dilution Factor: 1.00000
Name: 124146MSD,V,EPA,GEI
Misc: CLP,FD 1423,,92113-0W2D-0595 MSD,L,W,ALS3 1:10 TOM

ID File: KVOAID::DB
Title: VOLATILE ORGANIC ANALYSIS, INST=HP5970K
Last Calibration: 950604 12:56

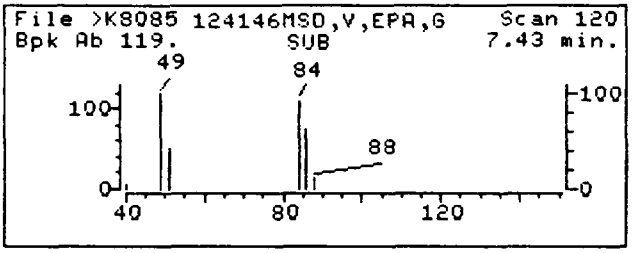
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE IS-1	11.43	128.0	34200	50.00	UG/L	94
8)	C030 METHYLENE CHLORIDE	7.43	84.0	902	1.44	UG/L	71
11)	C045 1,1-DICHLOROETHENE	6.20	96.0	30105	57.80	UG/L	74
12)	C050 1,1-DICHLOROETHANE	9.25	63.0	16106	16.06	UG/L	96
17)	C053 TOTAL-1,2-DICHLOROETHENE	10.84	96.0	94740	129.29	UG/L	85
19)	C065 1,2-DICHLOROETHANE	13.17	62.0	13913	18.75	UG/L	90
20)	CS15 D4-1,2-DICHLOROETHANE SS1	12.98	65.0	36099	50.68	UG/L	91
24)	*CI10 1,4-DIFLUOROBENZENE IS-2	14.21	114.0	146412	50.00	UG/L	100
32)	C150 TRICHLOROETHENE	14.85	130.0	59016	52.57	UG/L	91
35)	C165 BENZENE	13.12	78.0	87120	51.67	UG/L	100
38)	*CI20 D5-CHLOROBENZENE IS-3	22.01	117.0	119878	50.00	UG/L	100
43)	CS05 D-8 TOLUENE (SS-2)	18.09	98.0	121995	49.42	UG/L	94
44)	C230 TOLUENE	18.27	91.0	111568	48.84	UG/L	99
45)	C235 CHLOROBENZENE	22.10	112.1	101321	48.69	UG/L	95
47)	CS10 BROMOFLUOROBENZENE (SS-3)	25.29	174.0	66522	49.45	UG/L	82
54)	CWWW 1,2-DICHLOROBENZENE	29.71	146.0	8589	4.80	UG/L	85

* Compound is ISTD

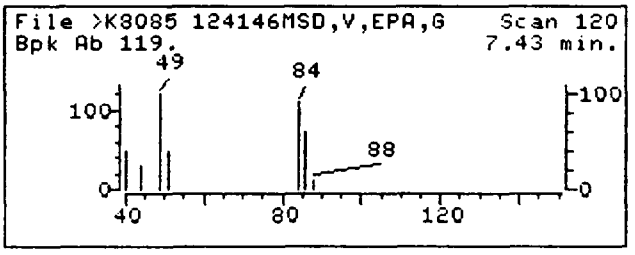
REFERENCE STANDARD SPECTRUM

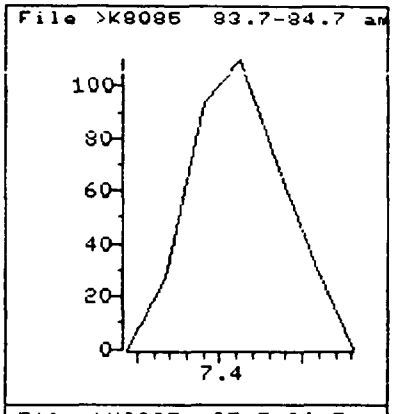


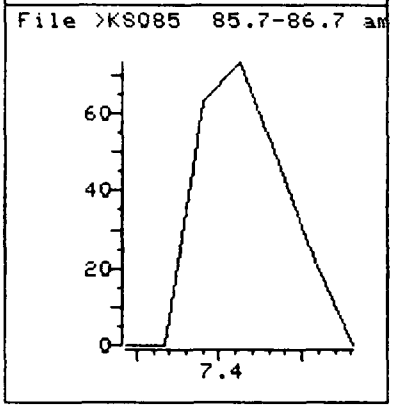
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



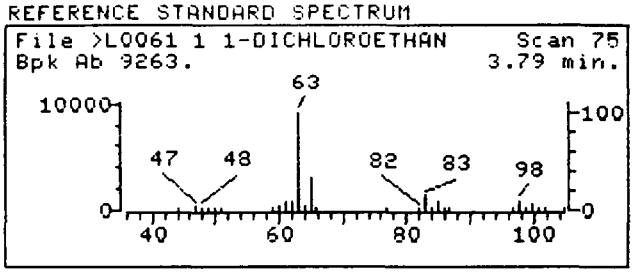




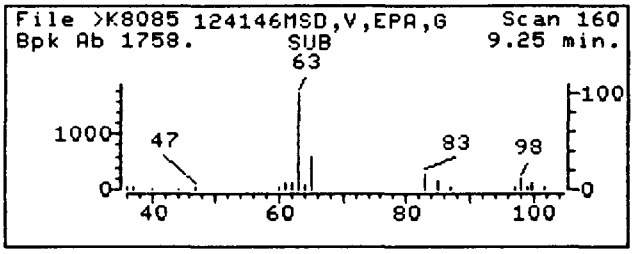
Data File: >K8085::L2 Quant Output File: ^K8085::K2
Name: 124146MSD,V,EPA,GEI
Misc: CLP,FD 1423,,92113-0W2D-0595 MSD,L,W,ALS3 1:10 TOM
Quant Time: 950604 13:17 Quant ID File: KVOAID::DB
Injected at: 950604 12:41 Last Calibration: 950604 12:56

Compound No: 8
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 120
Retention Time: 7.43 min.
Quant Ion: 84.0
Area: 902
Concentration: 1.44 UG/L
q-value: 71

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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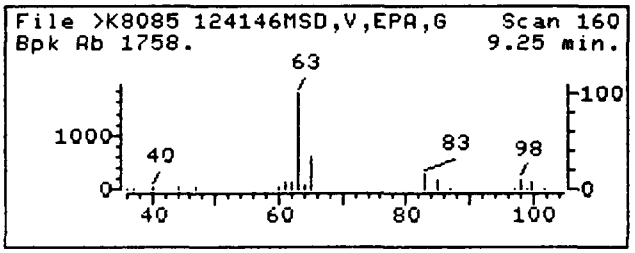
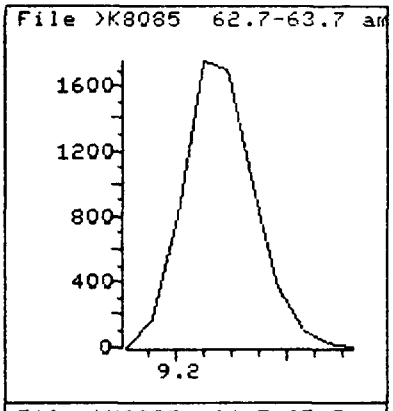
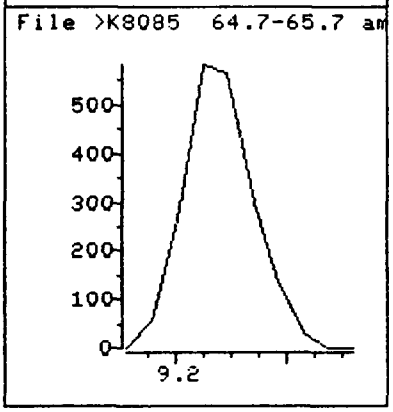


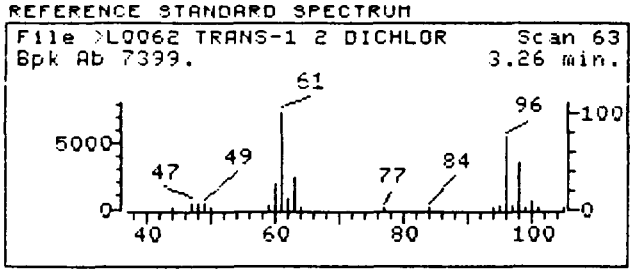




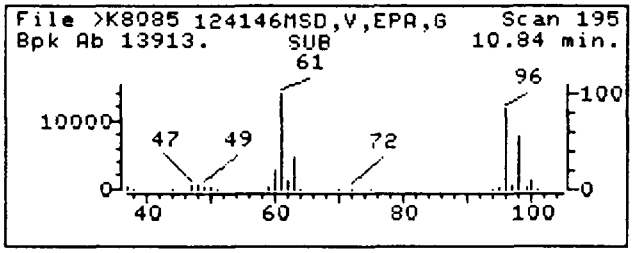
Data File: >K8085::L2 Quant Output File: ^K8085::K2
Name: 124146MSD,V,EPA,GEI
Misc: CLP,FD 1423,,92113-0W2D-0595 MSD,L,W,ALS3 1:10 TOM
Quant Time: 950604 13:17 Quant ID File: KVOAID::DB
Injected at: 950604 12:41 Last Calibration: 950604 12:56

Compound No: 12
Compound Name: C050 1,1-DICHLOROETHANE
Scan Number: 160
Retention Time: 9.25 min.
Quant Ion: 63.0
Area: 16106
Concentration: 16.06 UG/L
q-value: 96

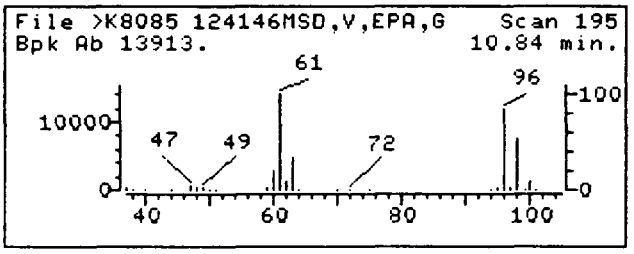
REFERENCE STANDARD SPECTRUM

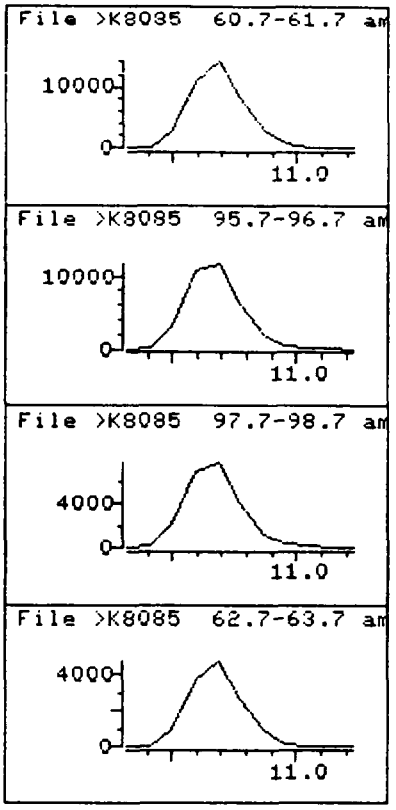


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

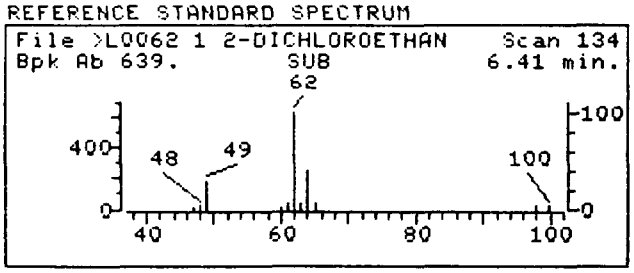




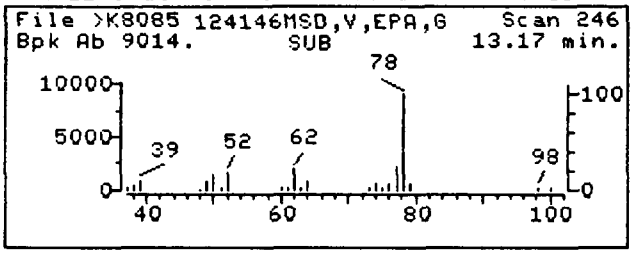
Data File: >K8085::L2 Quant Output File: ^K8085::K2
Name: 124146MSD,V,EPA,GEI
Misc: CLP,FD 1423,,92113-OW2D-0595 MSD,L,W,ALS3 1:10 TOM
Quant Time: 950604 13:17 Quant ID File: KVOAID::DB
Injected at: 950604 12:41 Last Calibration: 950604 12:56

Compound No: 17
Compound Name: C053 TOTAL-1,2-DICHLOROETHENE
Scan Number: 195
Retention Time: 10.84 min.
Quant Ion: 96.0
Area: 94740
Concentration: 129.29 UG/L
q-value: 85

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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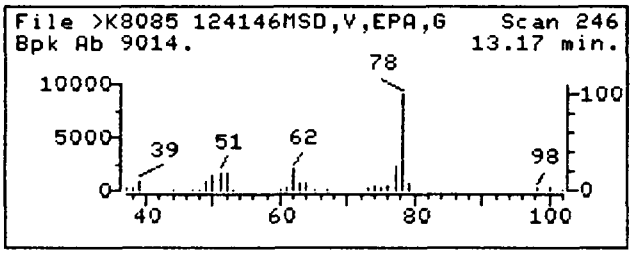
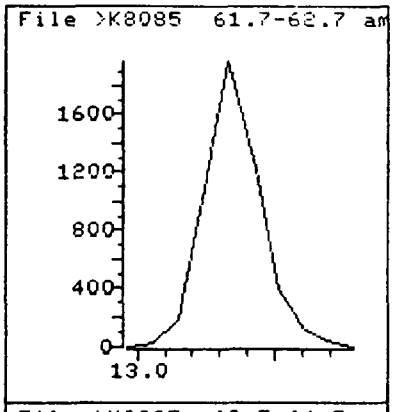
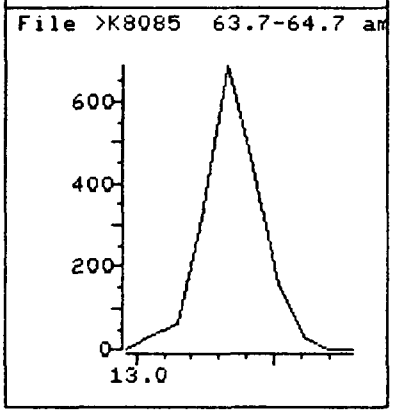


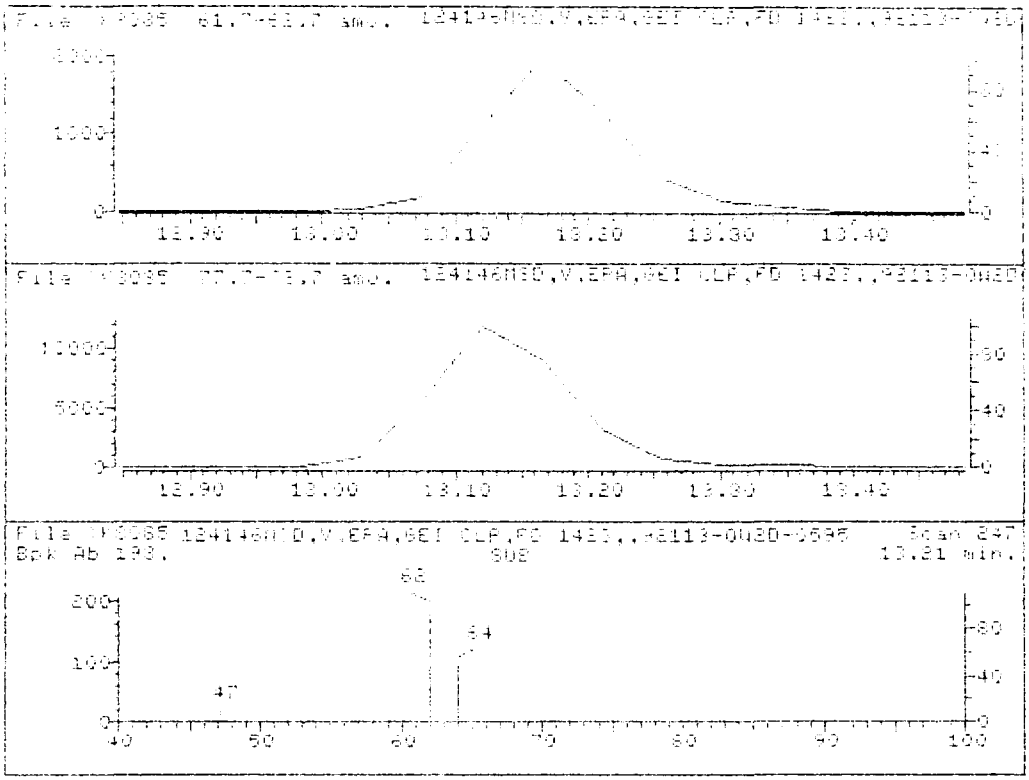




Data File: >K8085::L2 Quant Output File: ^K8085::K2
Name: 124146MSD,V,EPA,GEI
Misc: CLP,FD 1423,,92113-0W2D-0595 MSD,L,W,ALS3 1:10 TOM
Quant Time: 950604 13:17 Quant ID File: KVOAID::DB
Injected at: 950604 12:41 Last Calibration: 950604 12:56

Compound No: 19
Compound Name: C065 1,2-DICHLOROETHANE
Scan Number: 246
Retention Time: 13.17 min.
Quant Ion: 62.0
Area: 13913
Concentration: 18.75 UG/L
q-value: 90

OK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13.40
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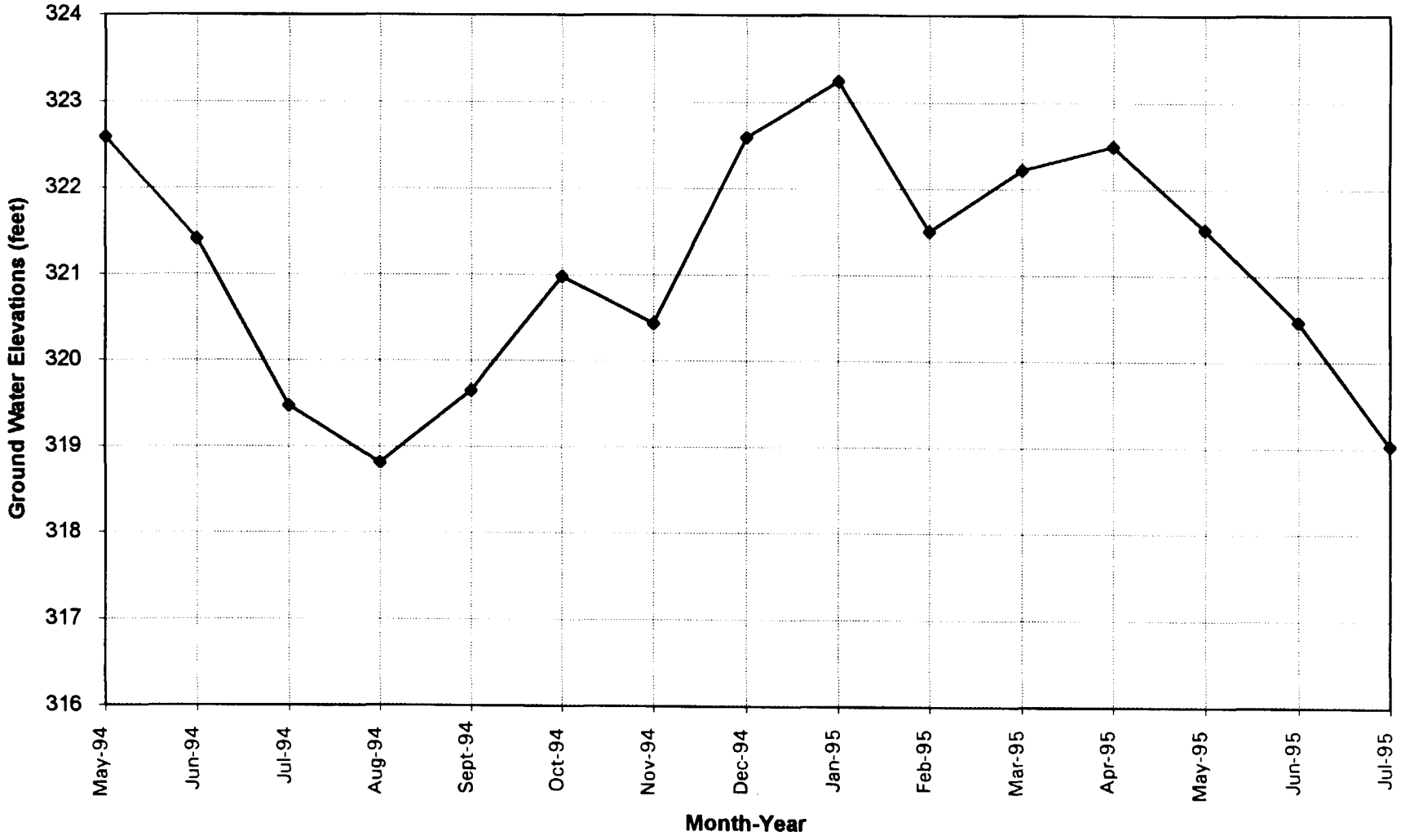
Bpk Ab 193.
308
13.21 min.
200
100
62
64
47
40
50
60
70
80
90
100

1,2-DCE

APPENDIX D

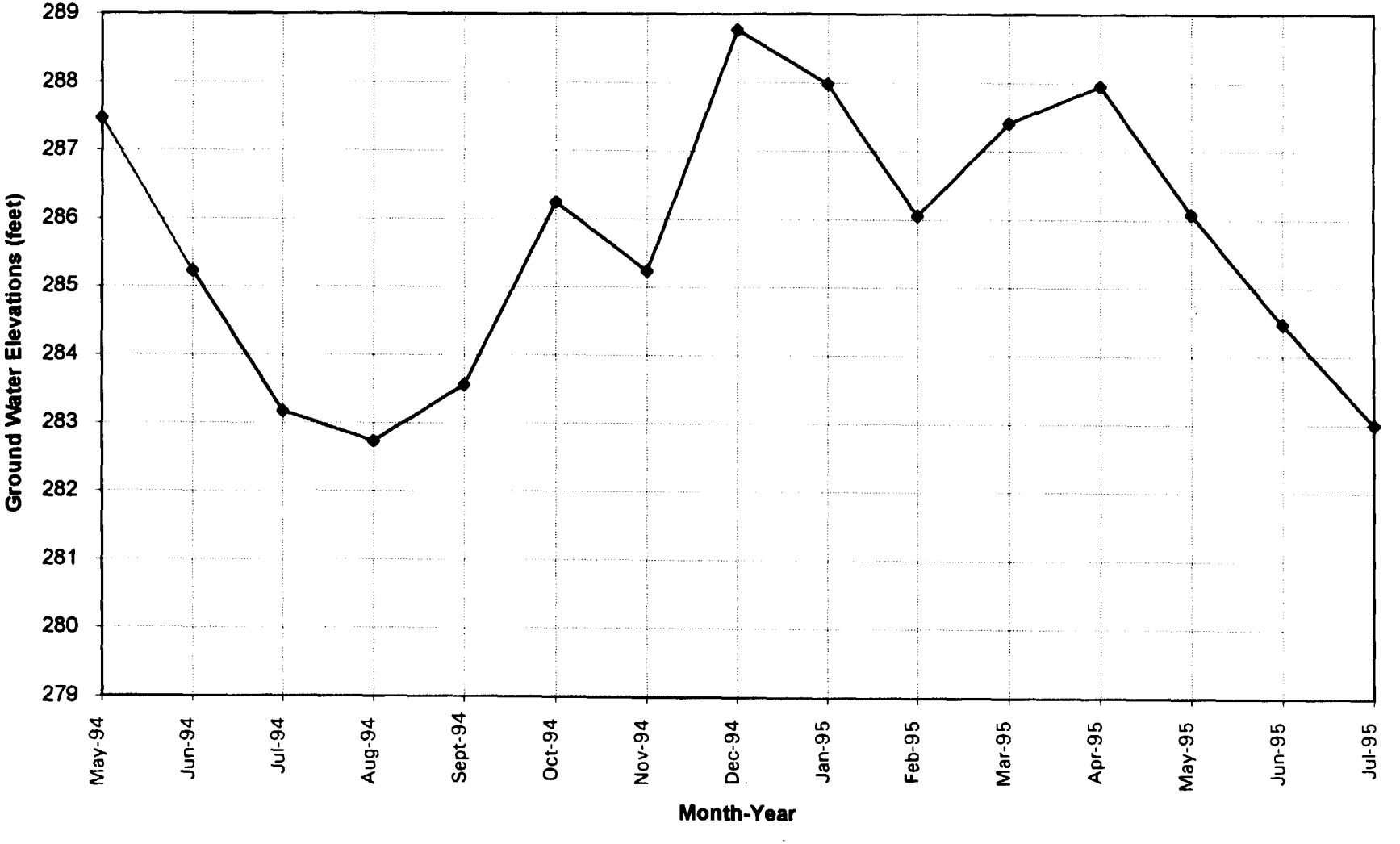
Ground Water Elevation Monitoring Data

COMPARATIVE GROUND WATER LEVEL DATA
FW-01 Overburden / Shallow Bedrock Well



May levels are prior to start of MOM remedy pumping system on May 22, 1995.

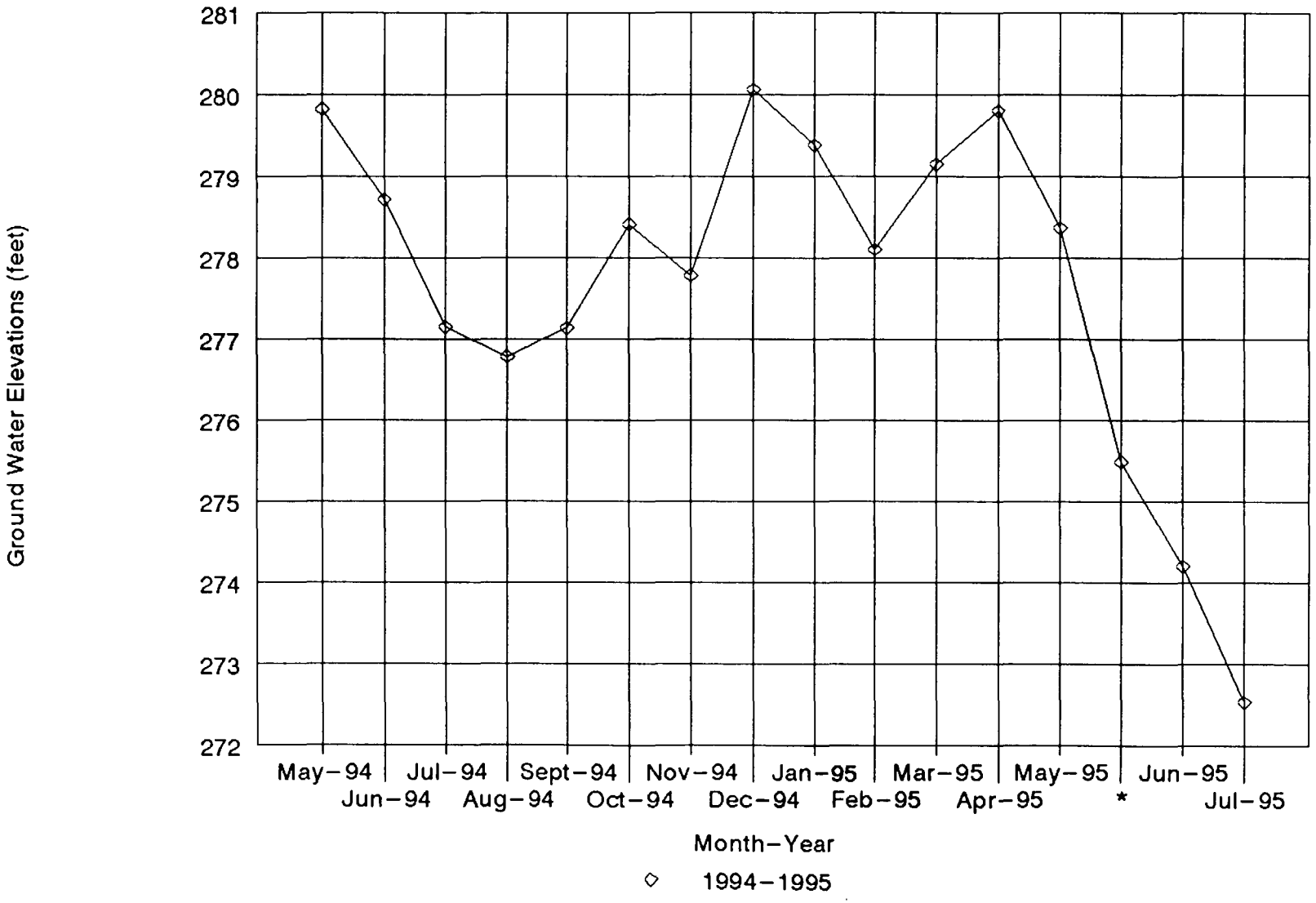
COMPARATIVE GROUND WATER LEVEL DATA
FW-03 Shallow Bedrock Well



May levels are prior to start of MOM remedy pumping system on May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA

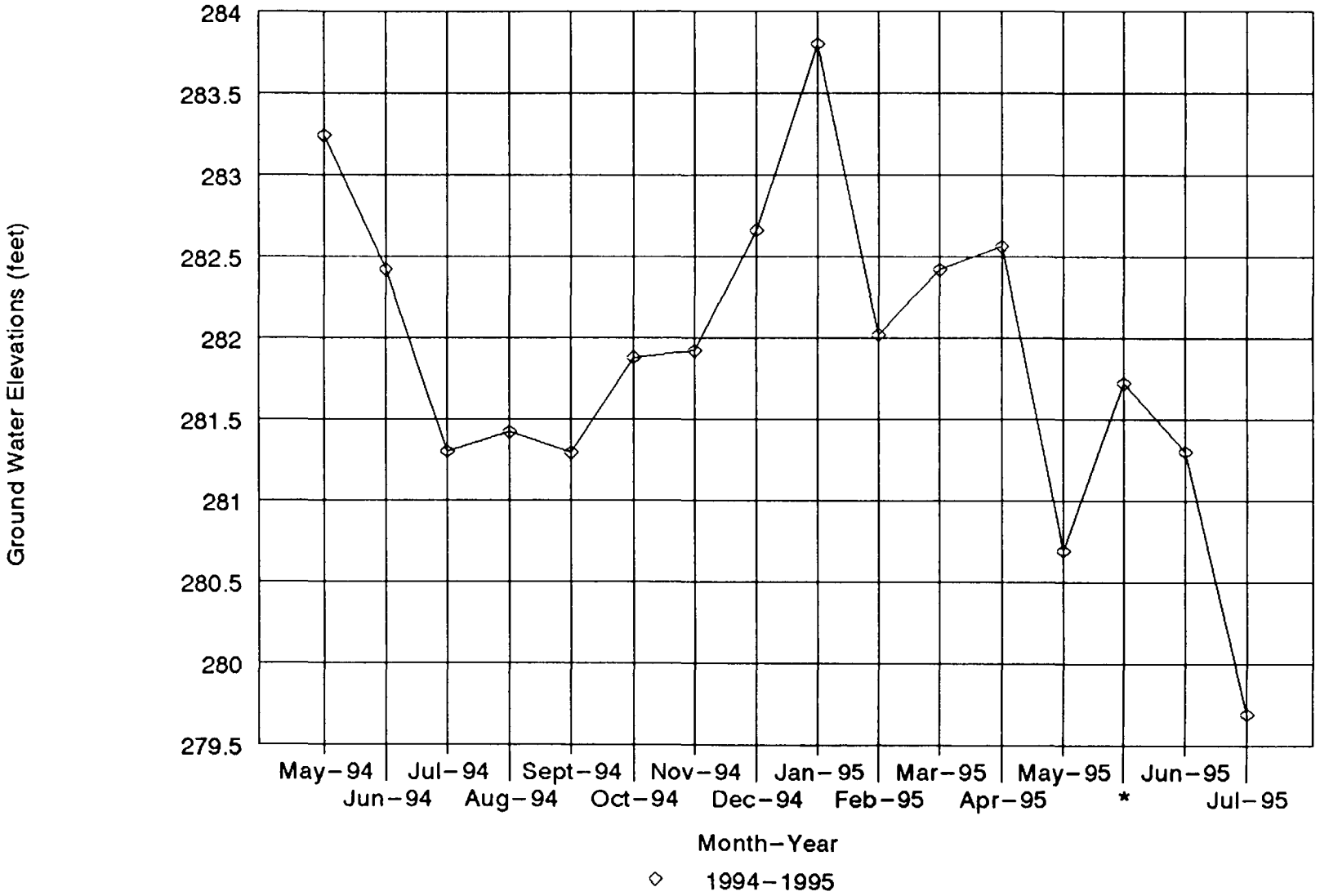
FW-04 Shallow Bedrock Well



* = levels from 1-3 days after system started May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA

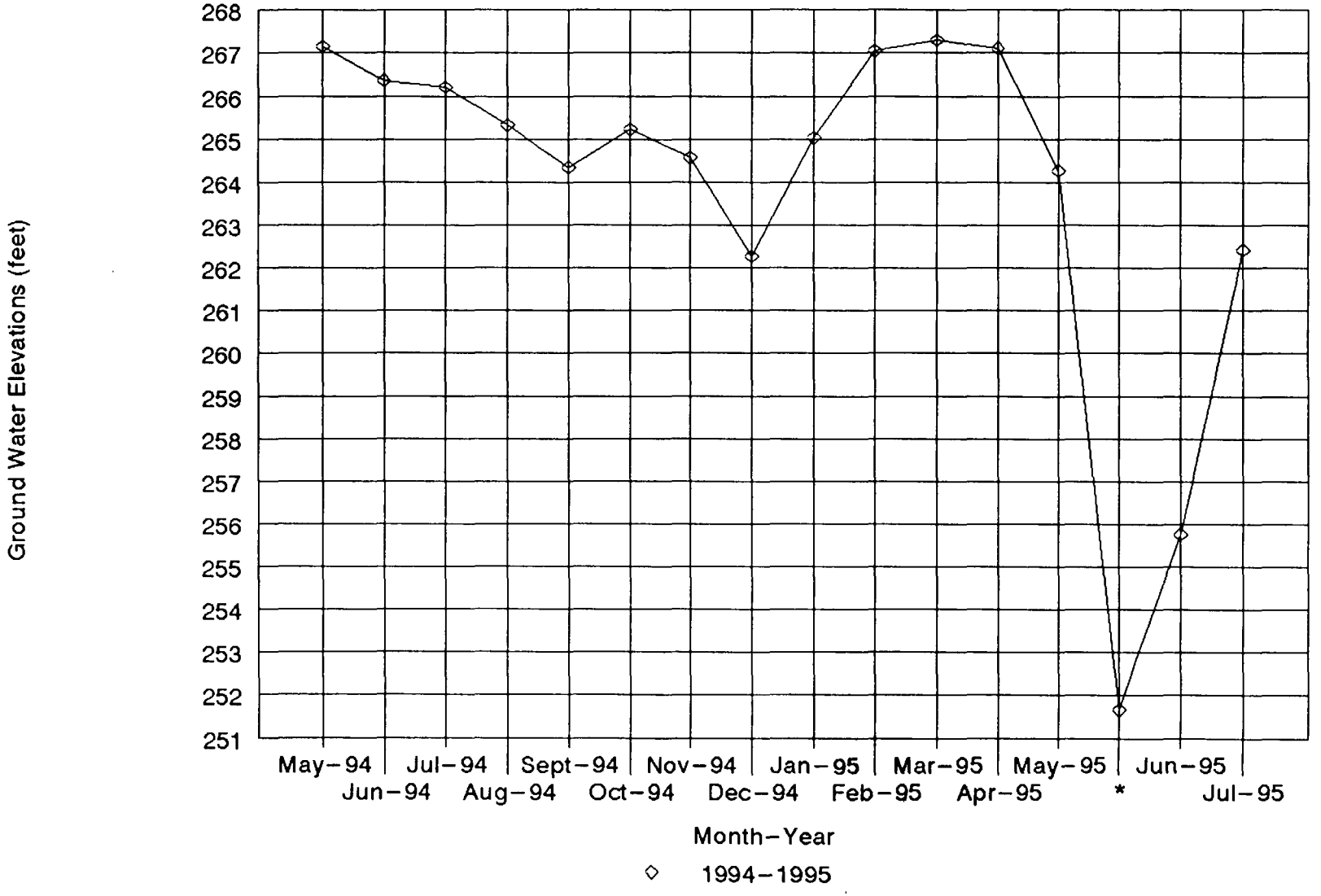
FW-05 Shallow Bedrock Well



* = levels from 1-3 days after system started May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA

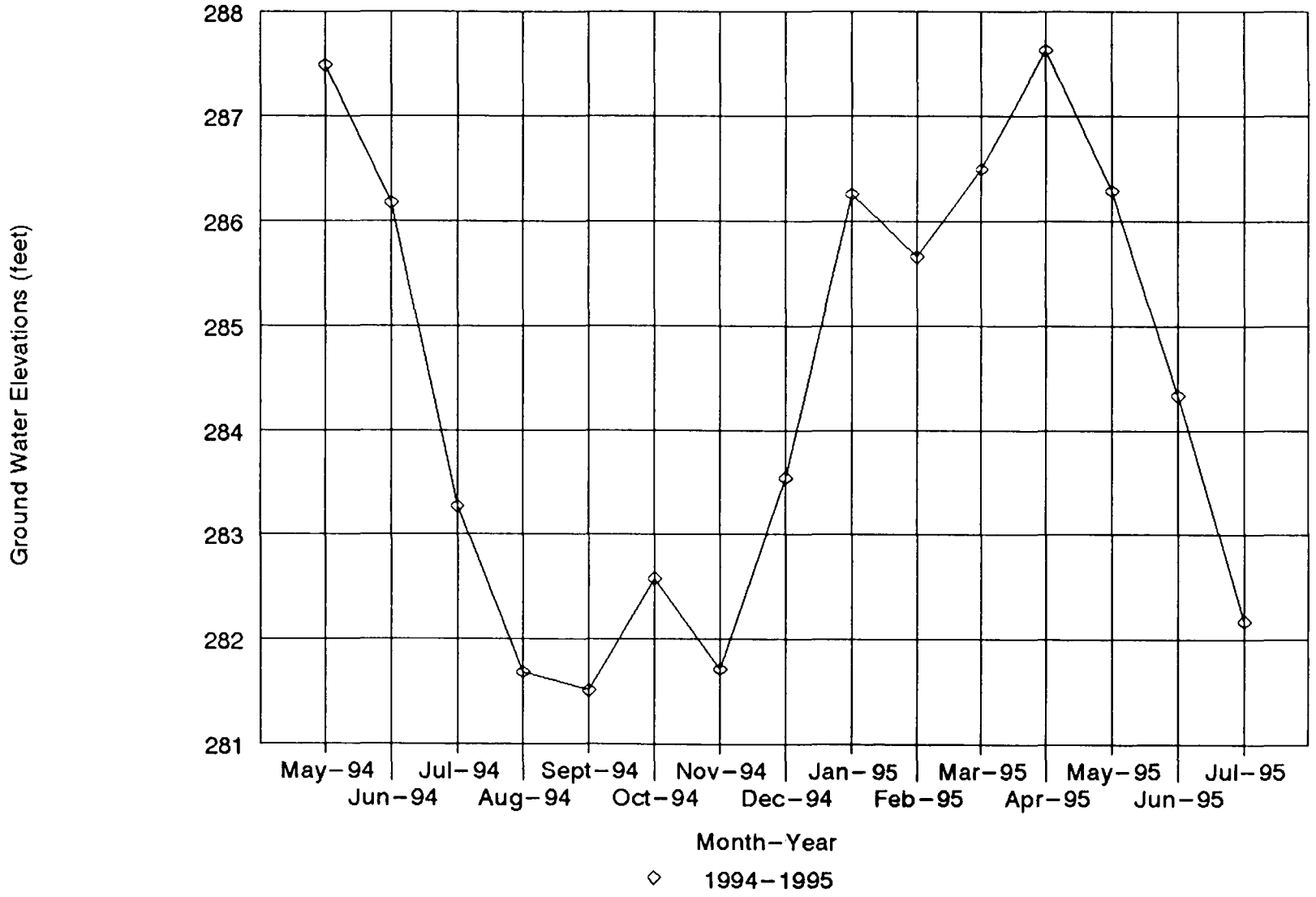
FW-08D Intermediate Bedrock Well



* = levels from 1-3 days after system started May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA

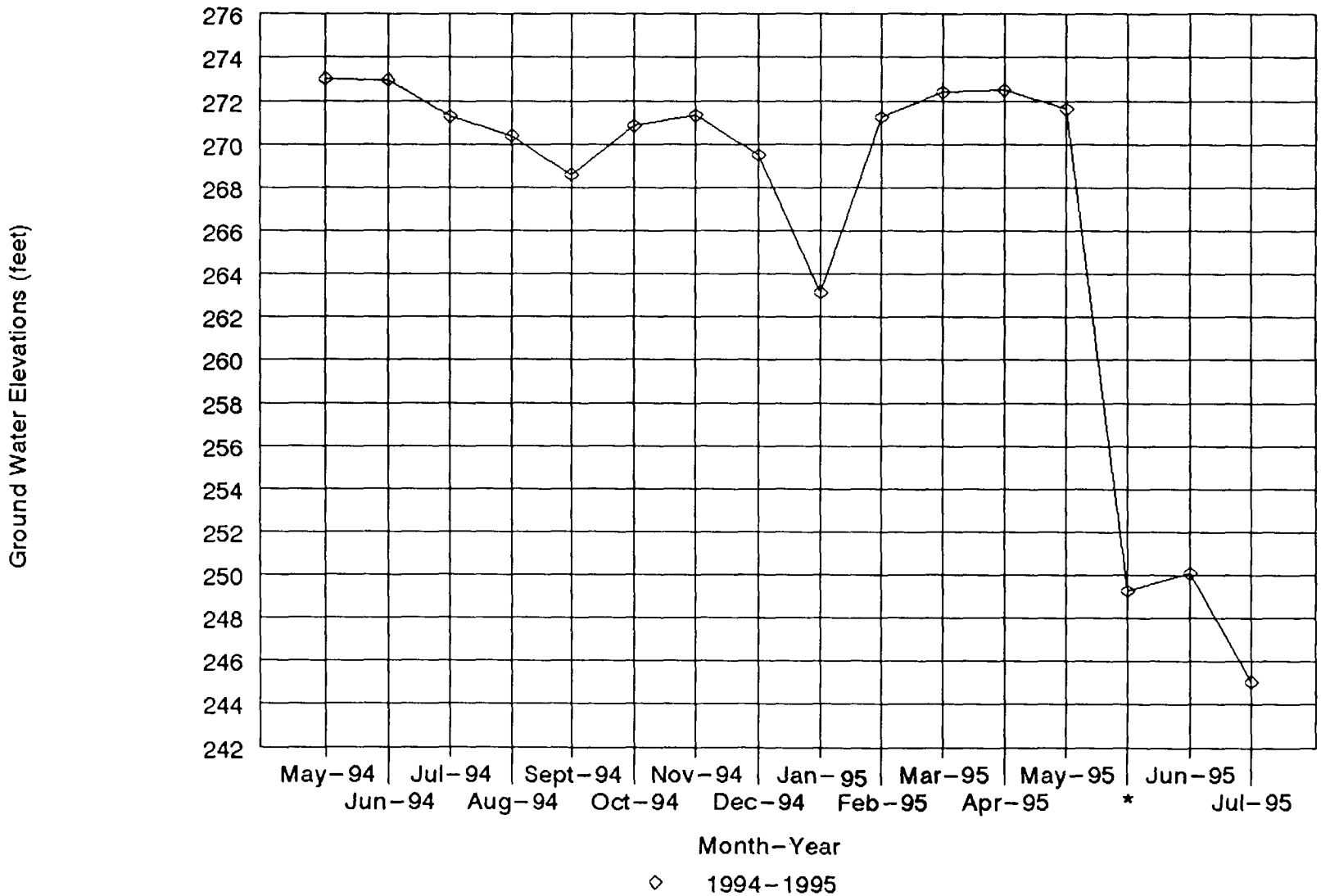
FW-10 Overburden Well



May levels are prior to start of MOM remedy pumping system on May 22, 1995.

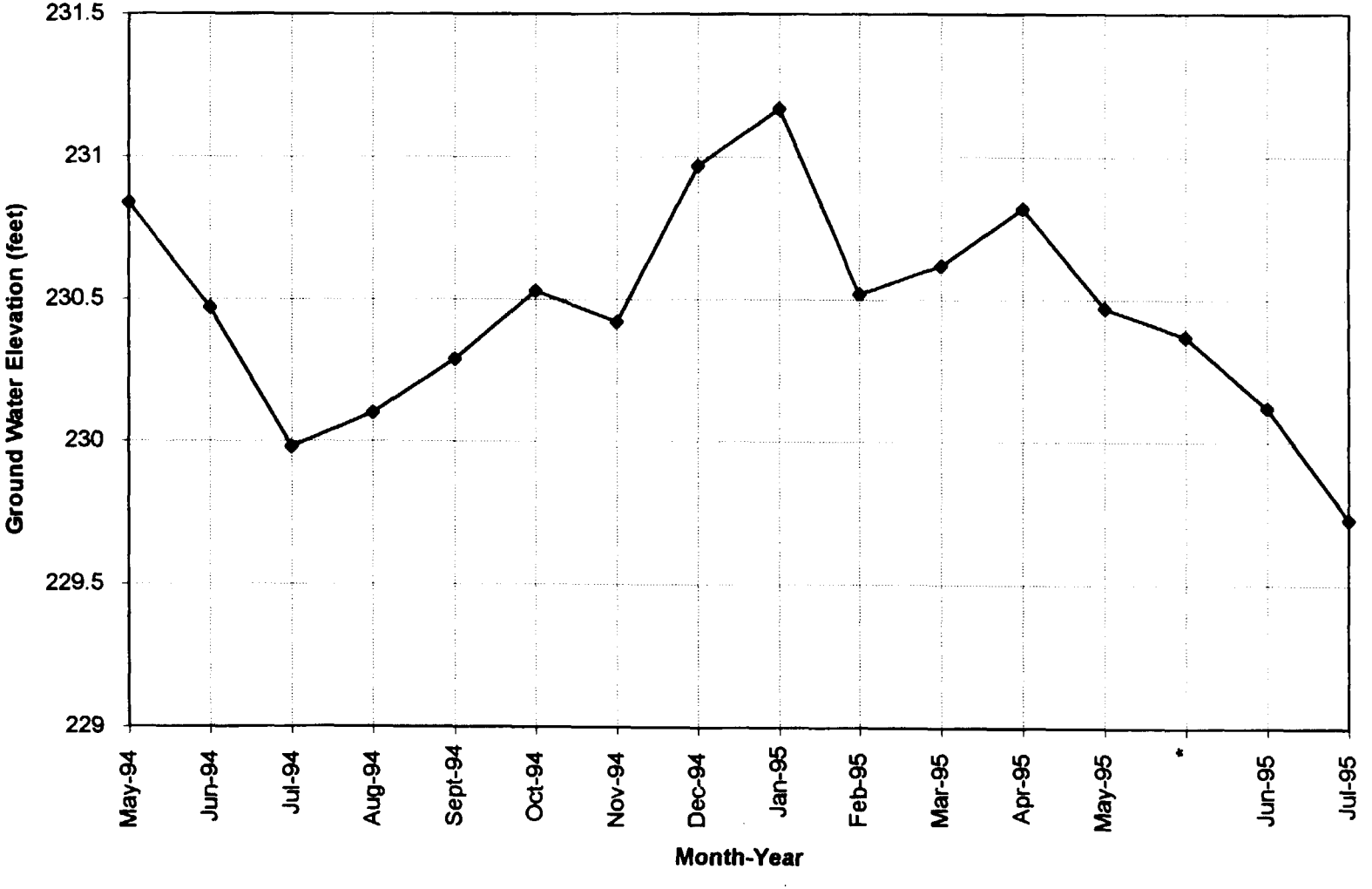
COMPARATIVE GROUND WATER LEVEL DATA

FW-11D Shallow/Interm. Bedrock Well



* = levels from 1-3 days after system started May 22, 1995.

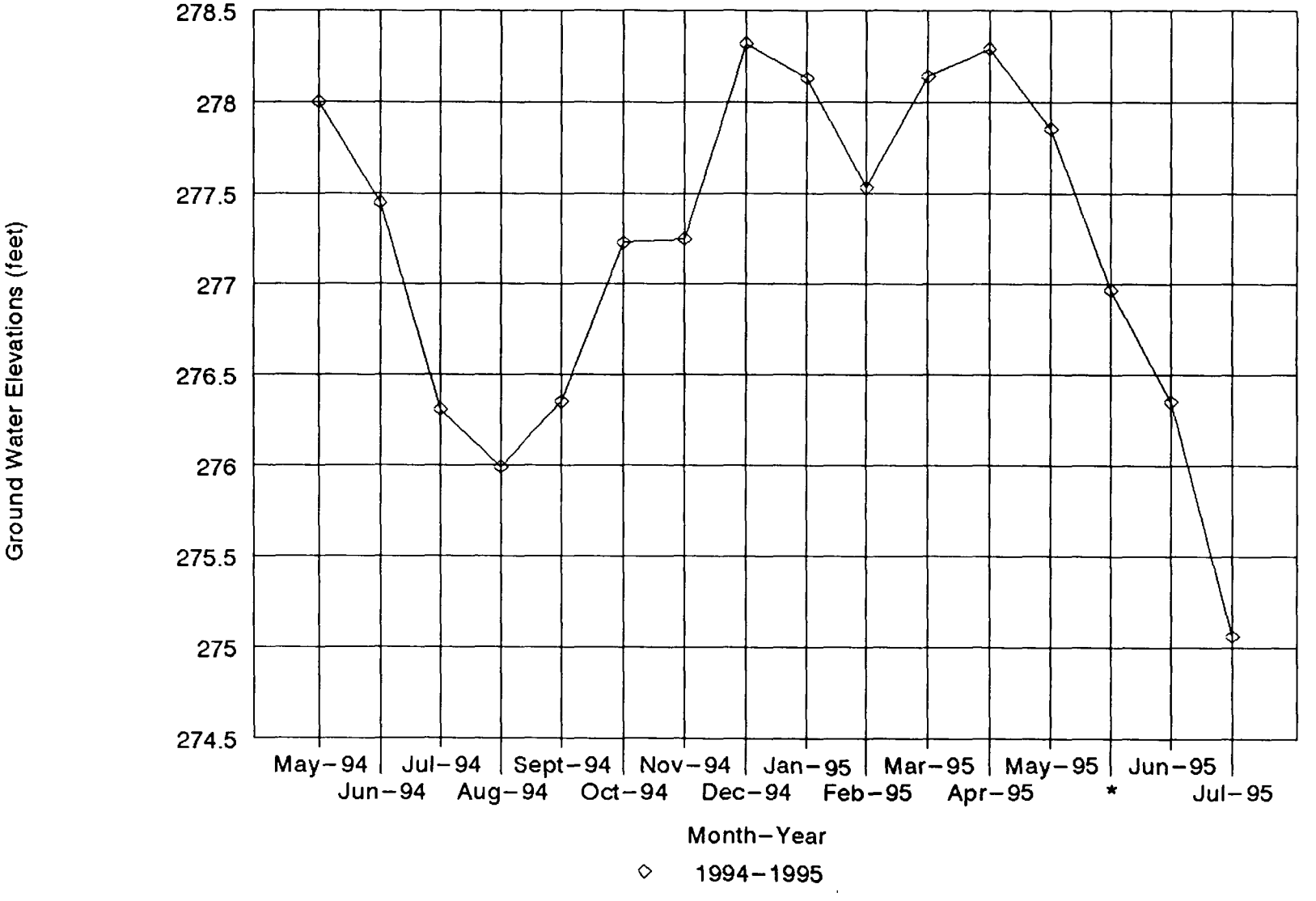
COMPARATIVE GROUND WATER LEVEL DATA
FW-17 Overburden / Shallow Bedrock Well



* = Levels from 1-3 days after system started May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA

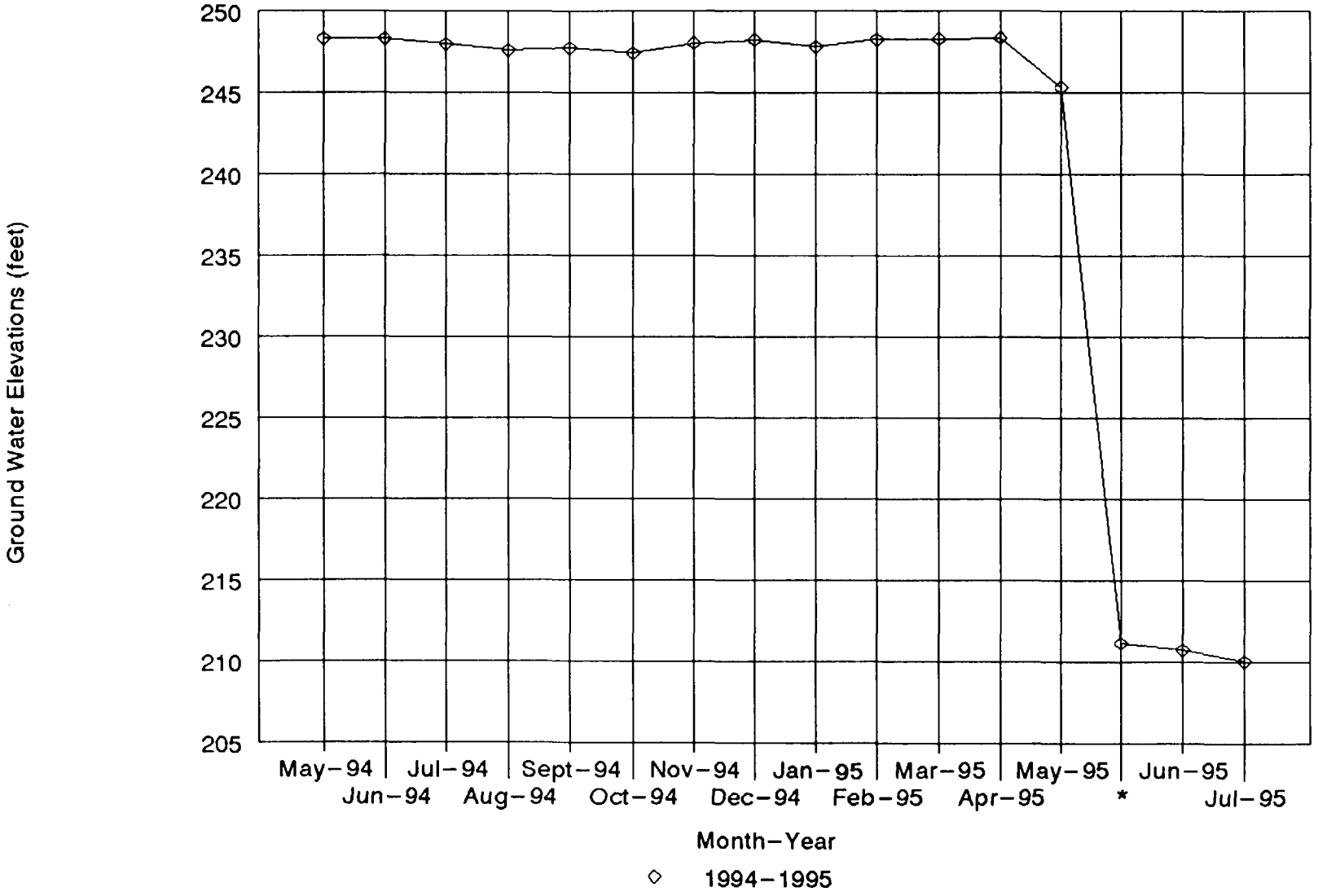
FW-20 Overburden/Shallow Bedrock Well



* = levels from 1-3 days after system started May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA

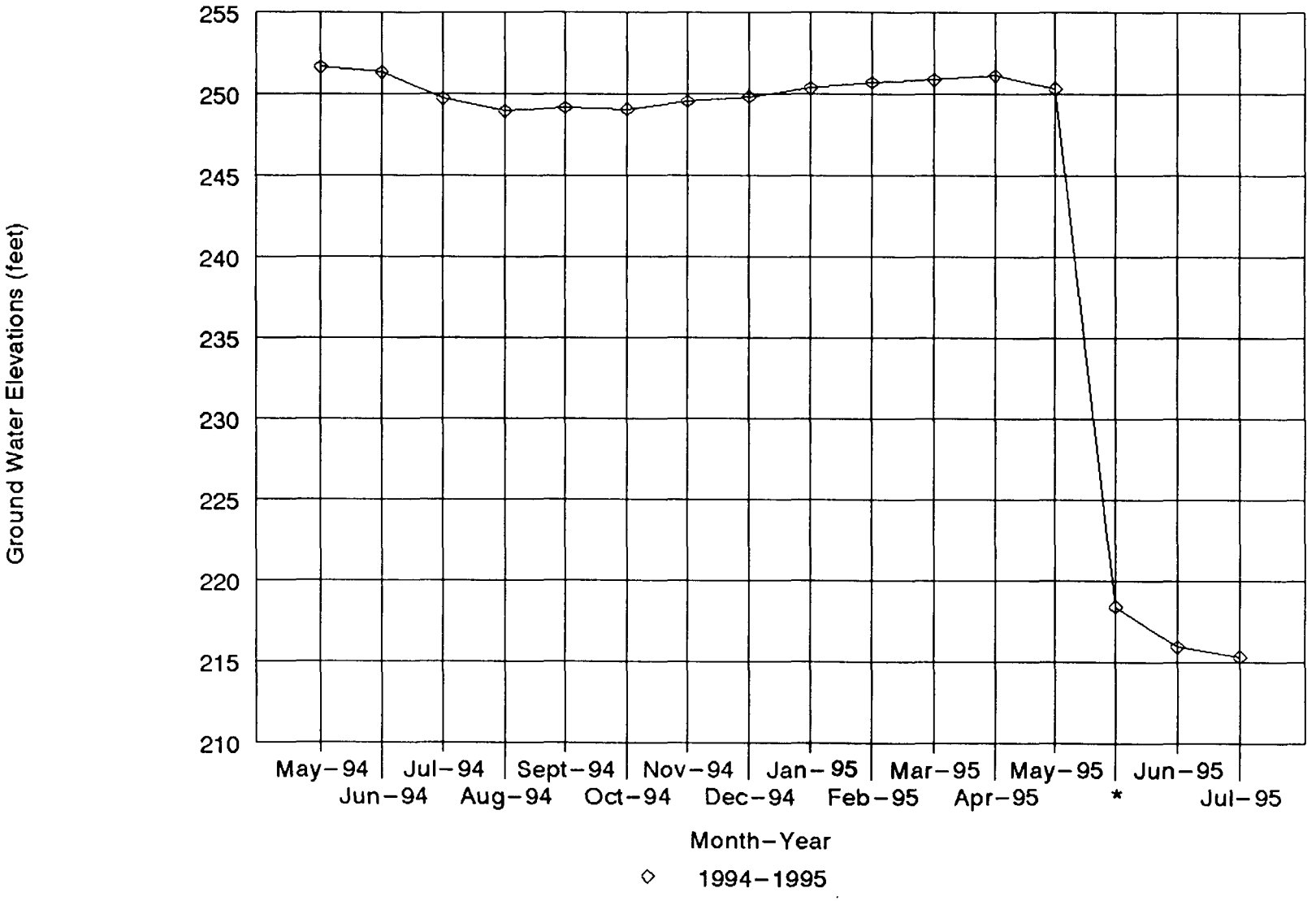
FW-22D Intermediate/Deep Bedrock Well



* = levels from 1-3 days after system started May 22, 1995

COMPARATIVE GROUND WATER LEVEL DATA

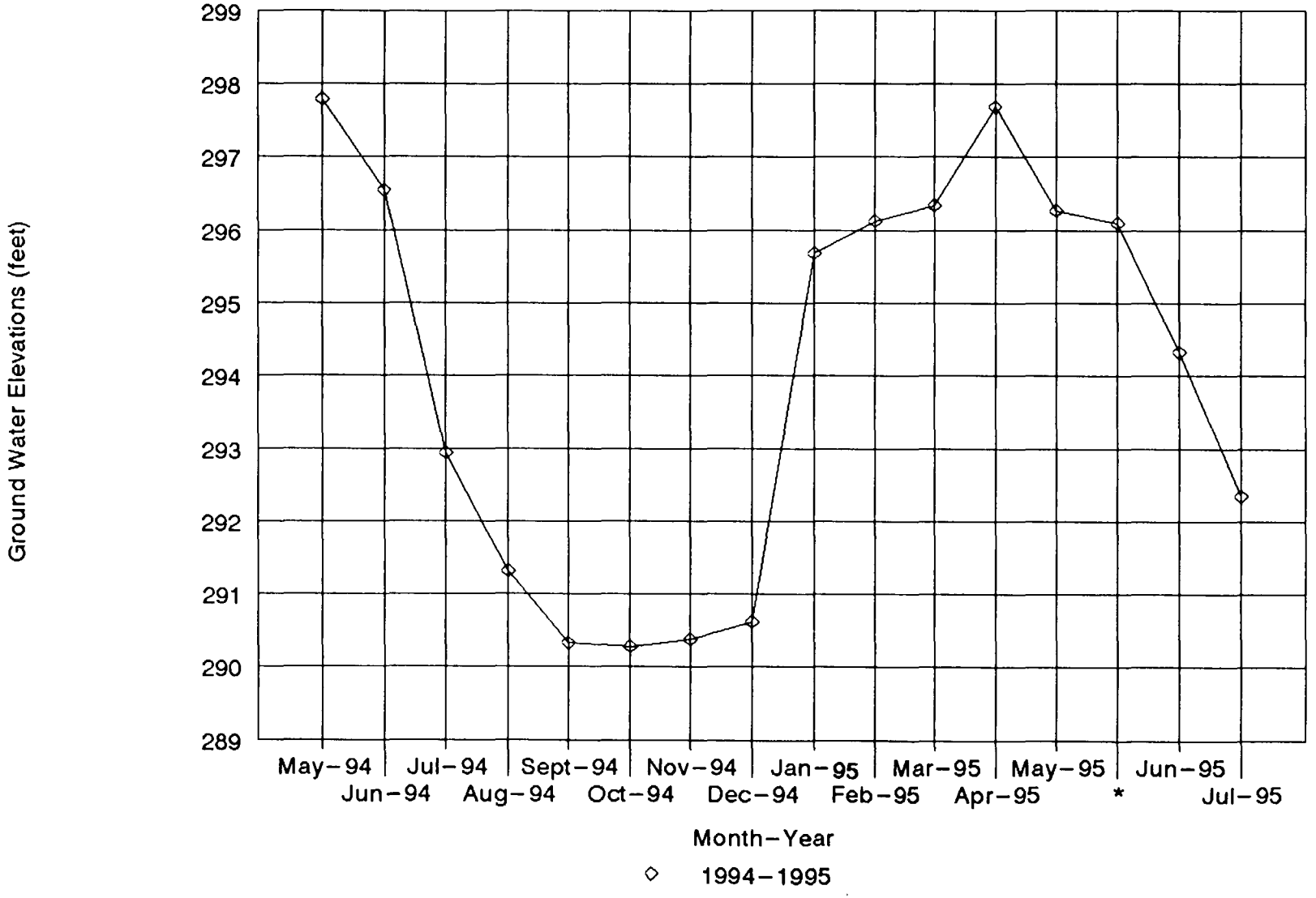
FW-23D Intermediate/Deep Bedrock Well



* = levels from 1-3 days after system started May 22, 1995.

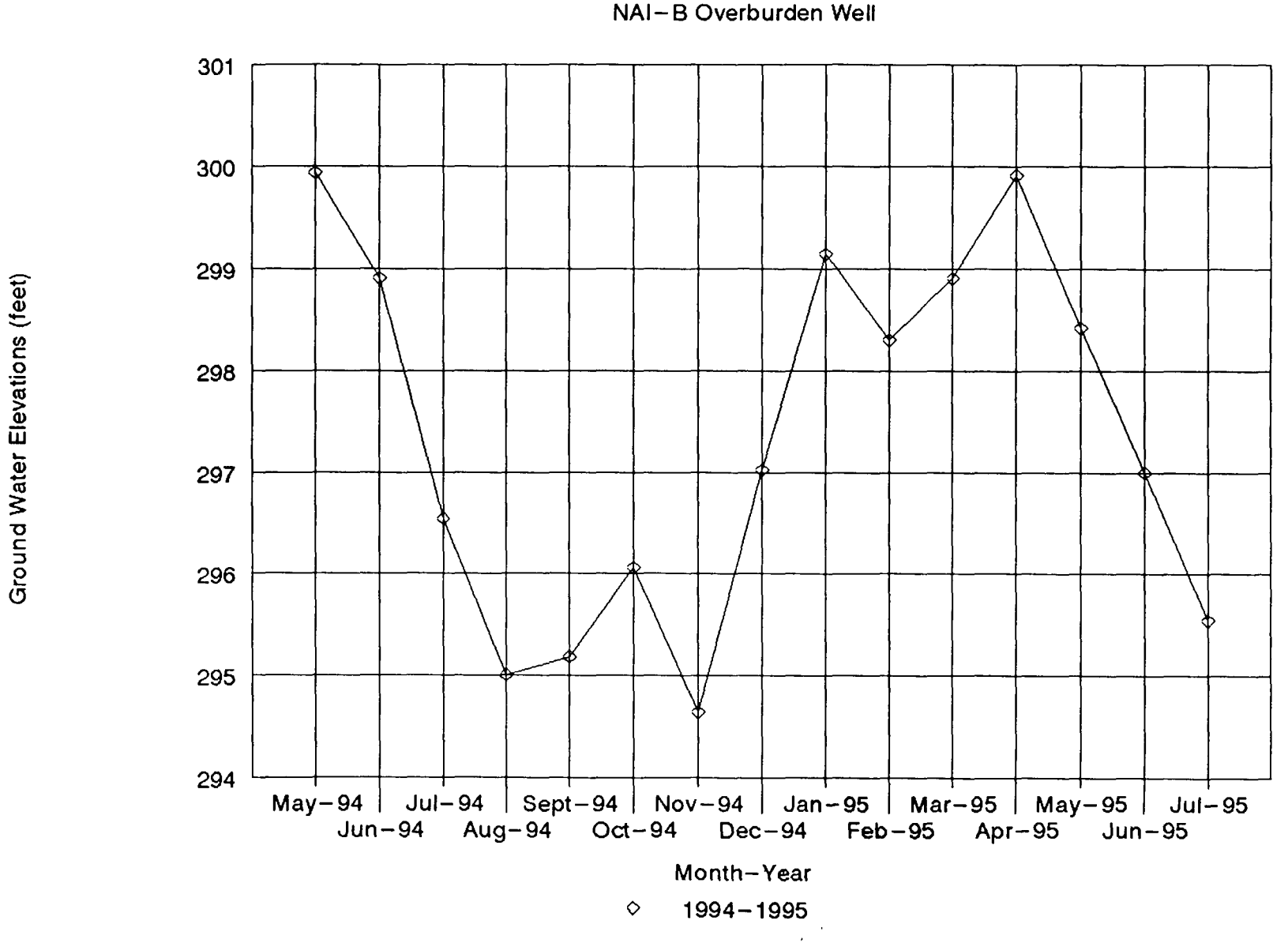
COMPARATIVE GROUND WATER LEVEL DATA

NAI–A1 Overburden Well



* = levels from 1–3 days after system started May 22, 1995

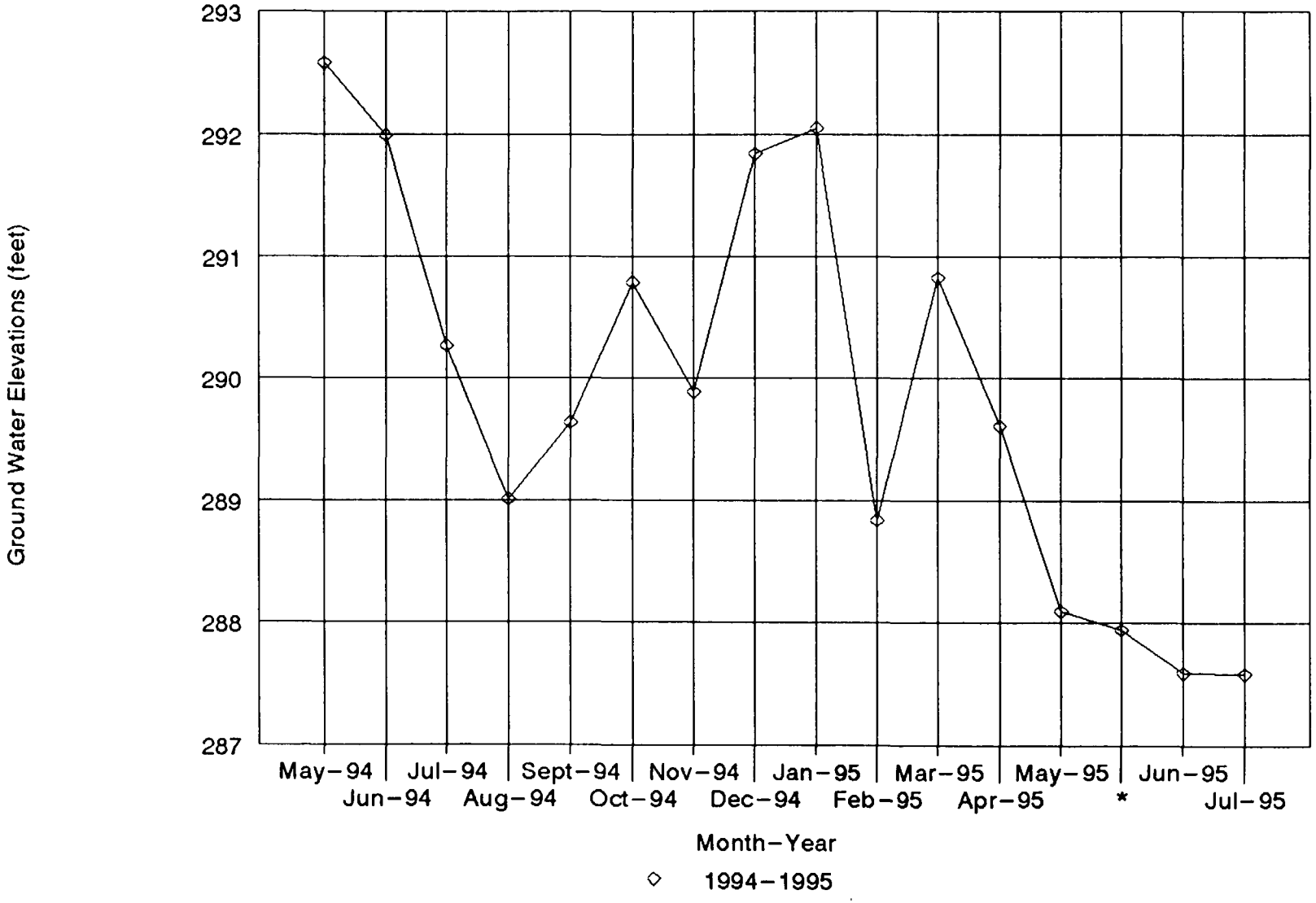
COMPARATIVE GROUND WATER LEVEL DATA



May levels are prior to start of MOM remedy pumping system on May 22, 1995.

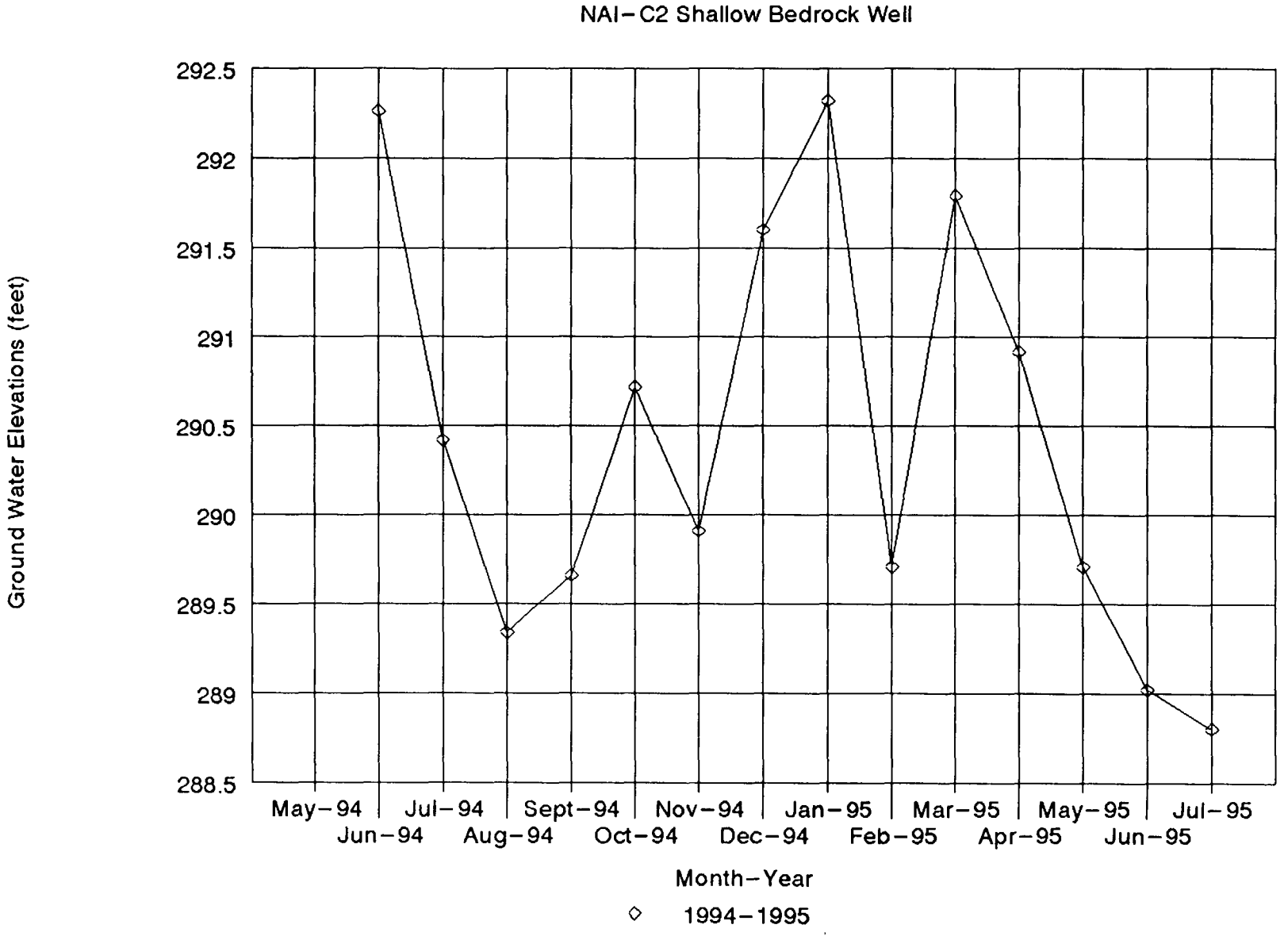
COMPARATIVE GROUND WATER LEVEL DATA

NAI-C1 Overburden Well



* = levels from 1-3 days after system started May 22, 1995

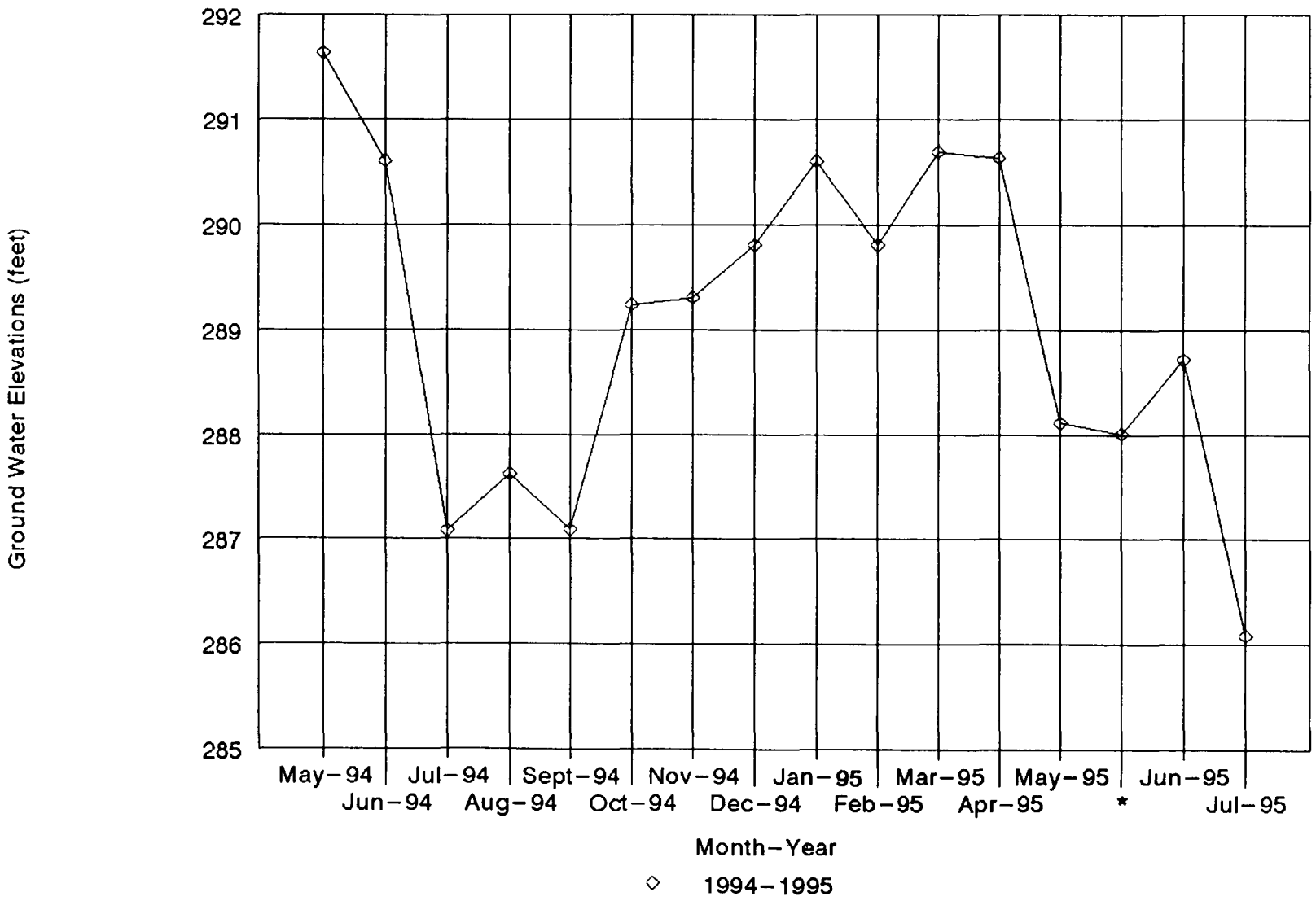
COMPARATIVE GROUND WATER LEVEL DATA



May levels are prior to start of MOM remedy pumping system on May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA

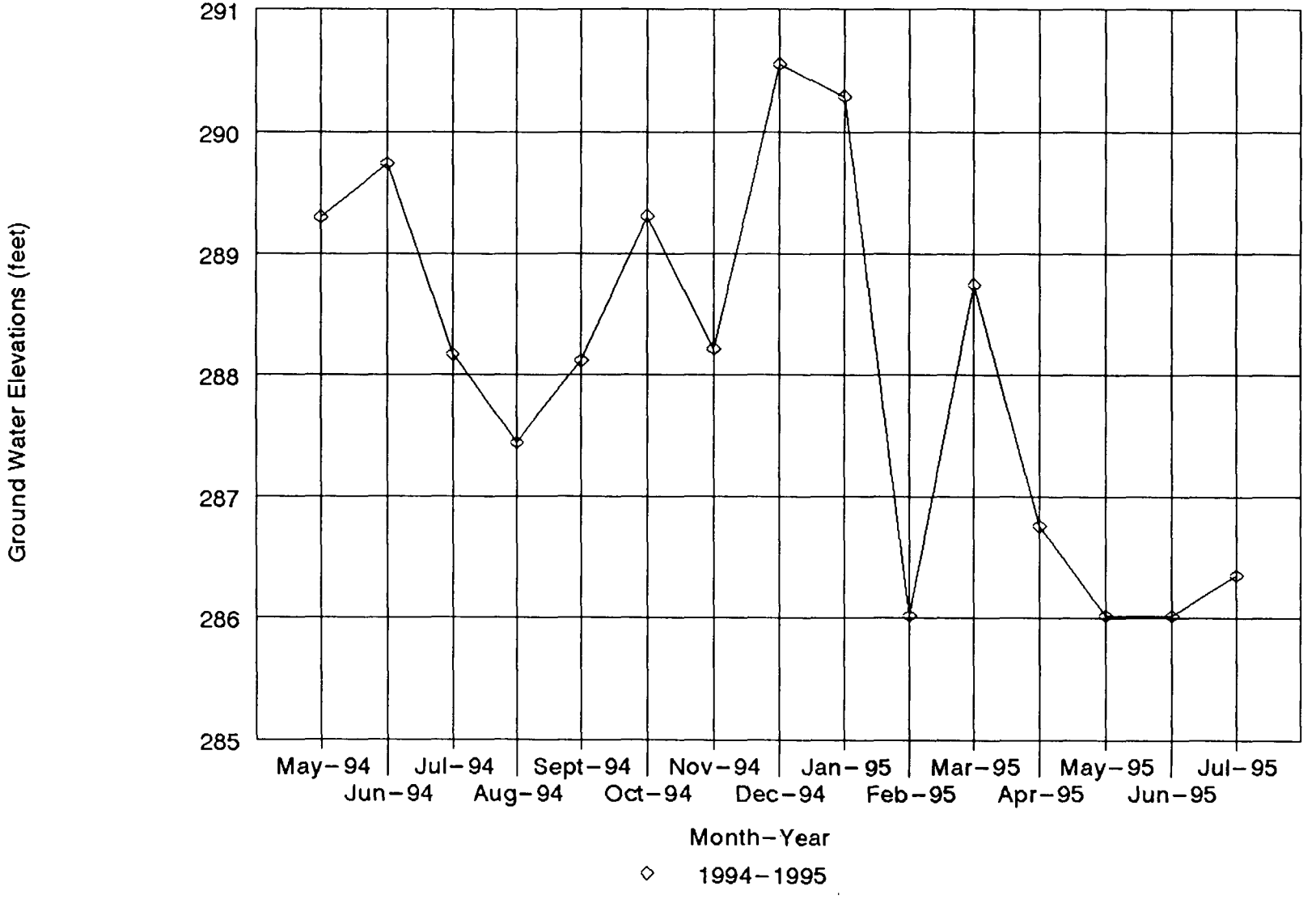
NAI-C3 Overburden Well



* = levels from 1-3 days after system started May 22, 1995

COMPARATIVE GROUND WATER LEVEL DATA

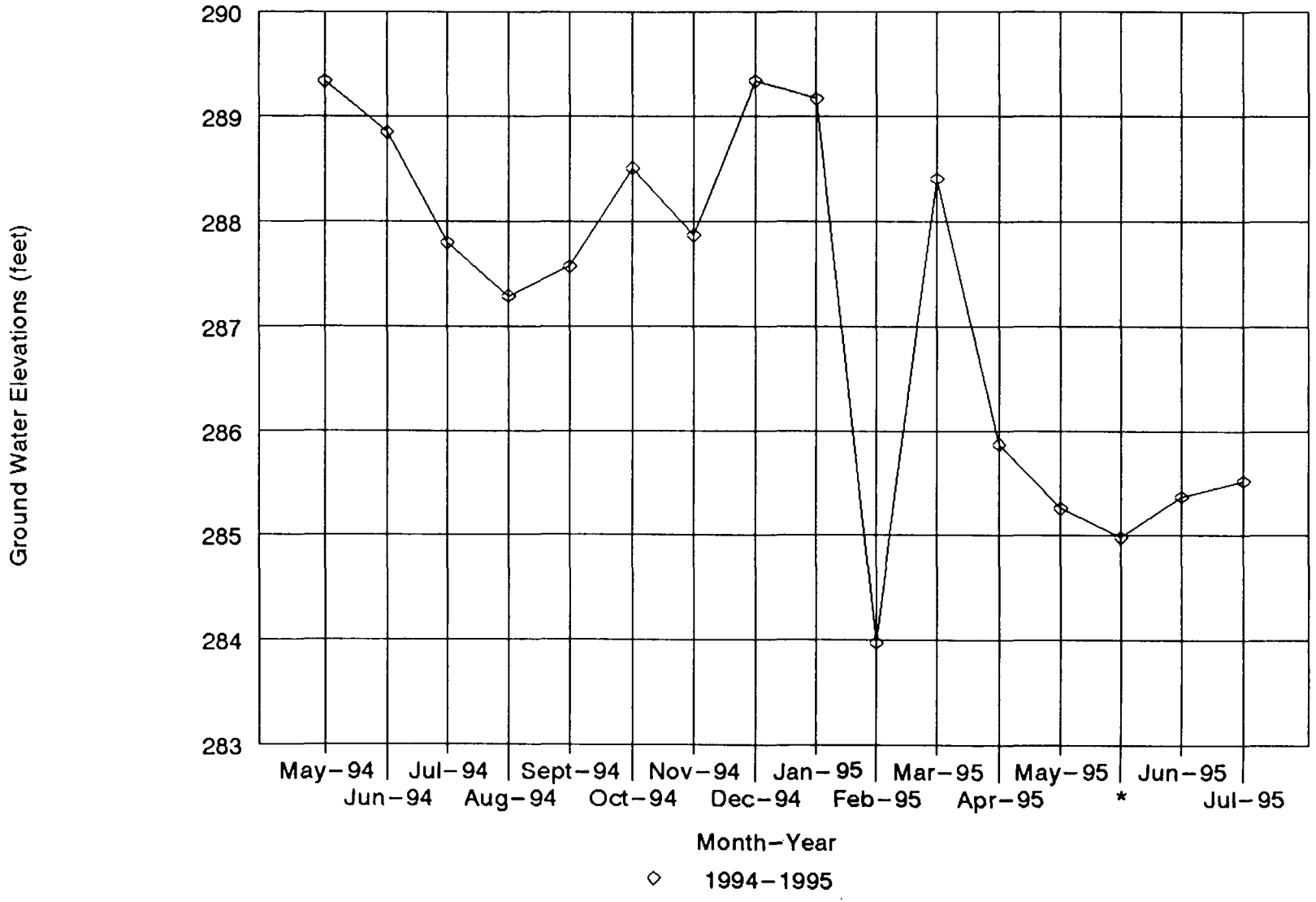
NAI-K1 Overburden Well



May levels are prior to start of MOM remedy pumping system on May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA

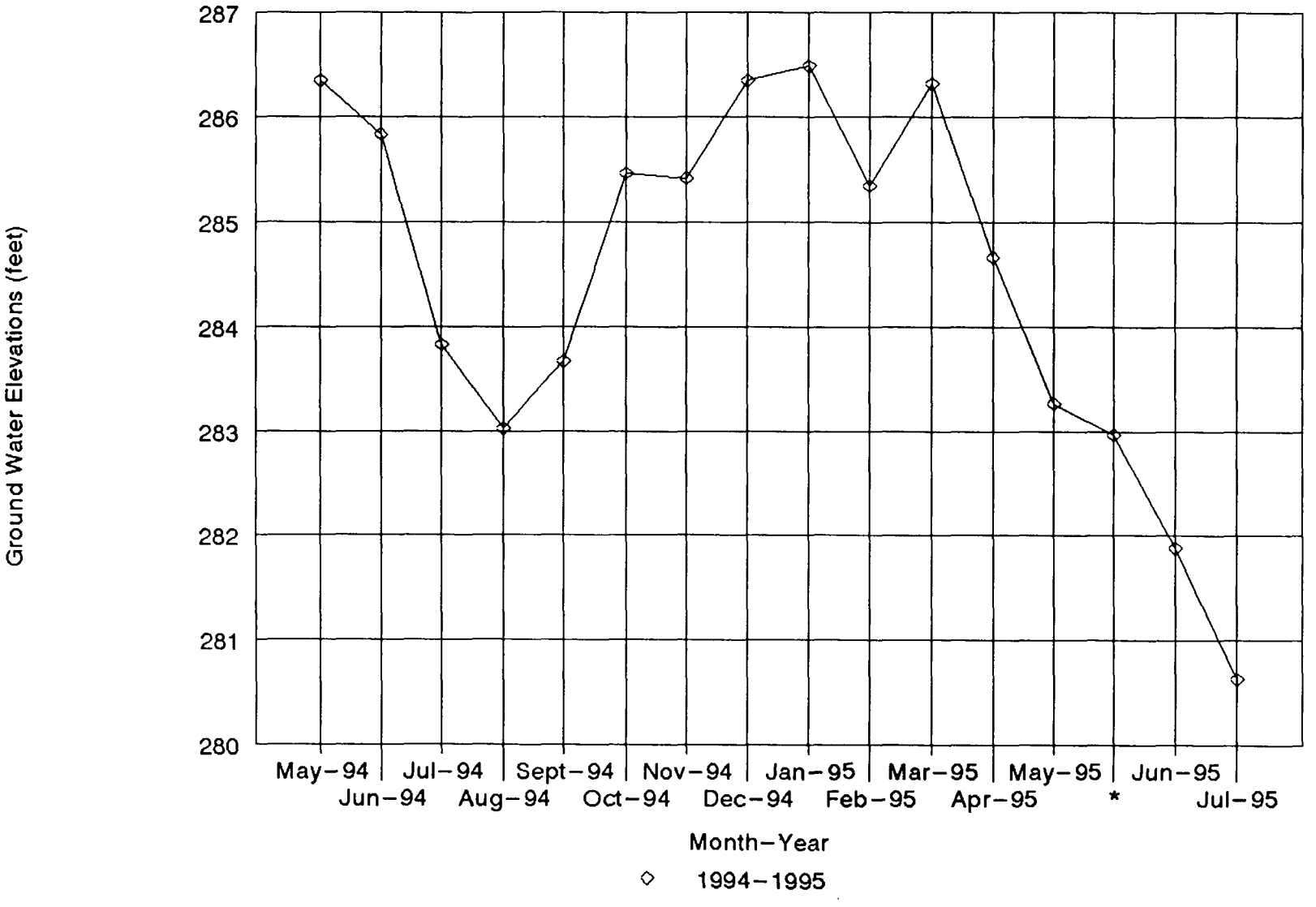
NAI-K2 Shallow Bedrock Well



* = levels from 1-3 days after system started May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA

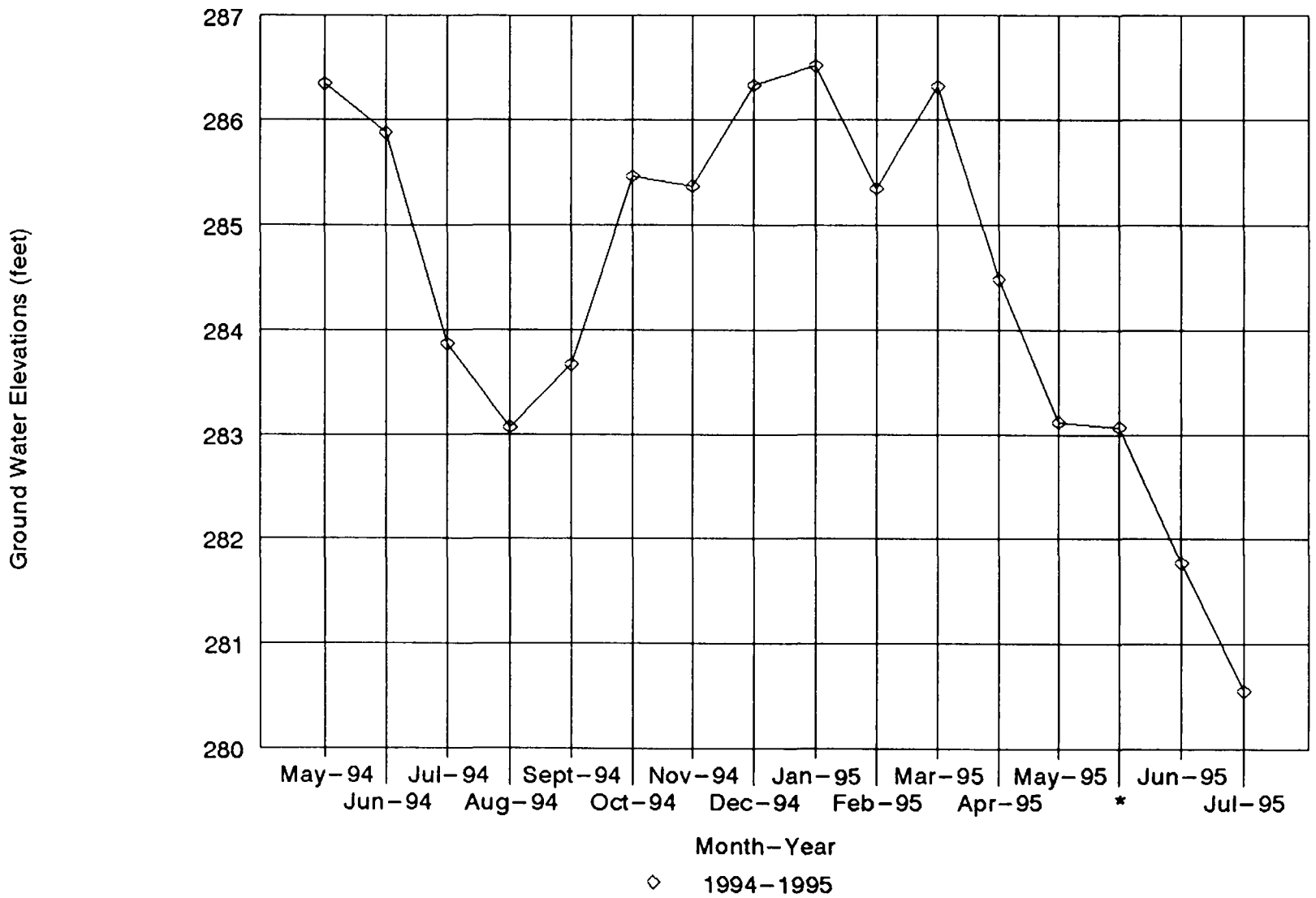
NAI-M1 Overburden Well



* = levels from 1-3 days after system started May 22, 1995.

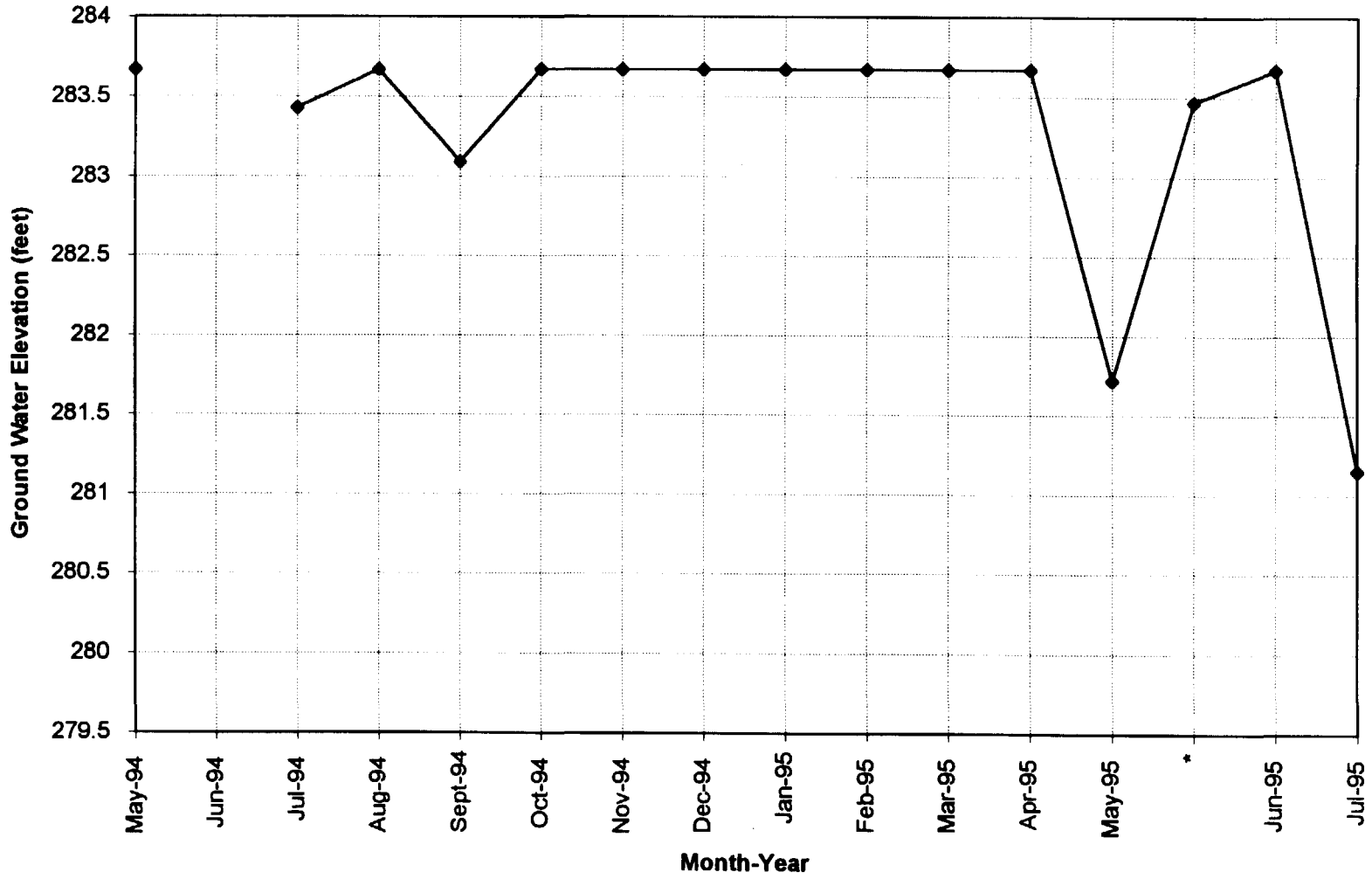
COMPARATIVE GROUND WATER LEVEL DATA

NAI-M2 Shallow Bedrock Well



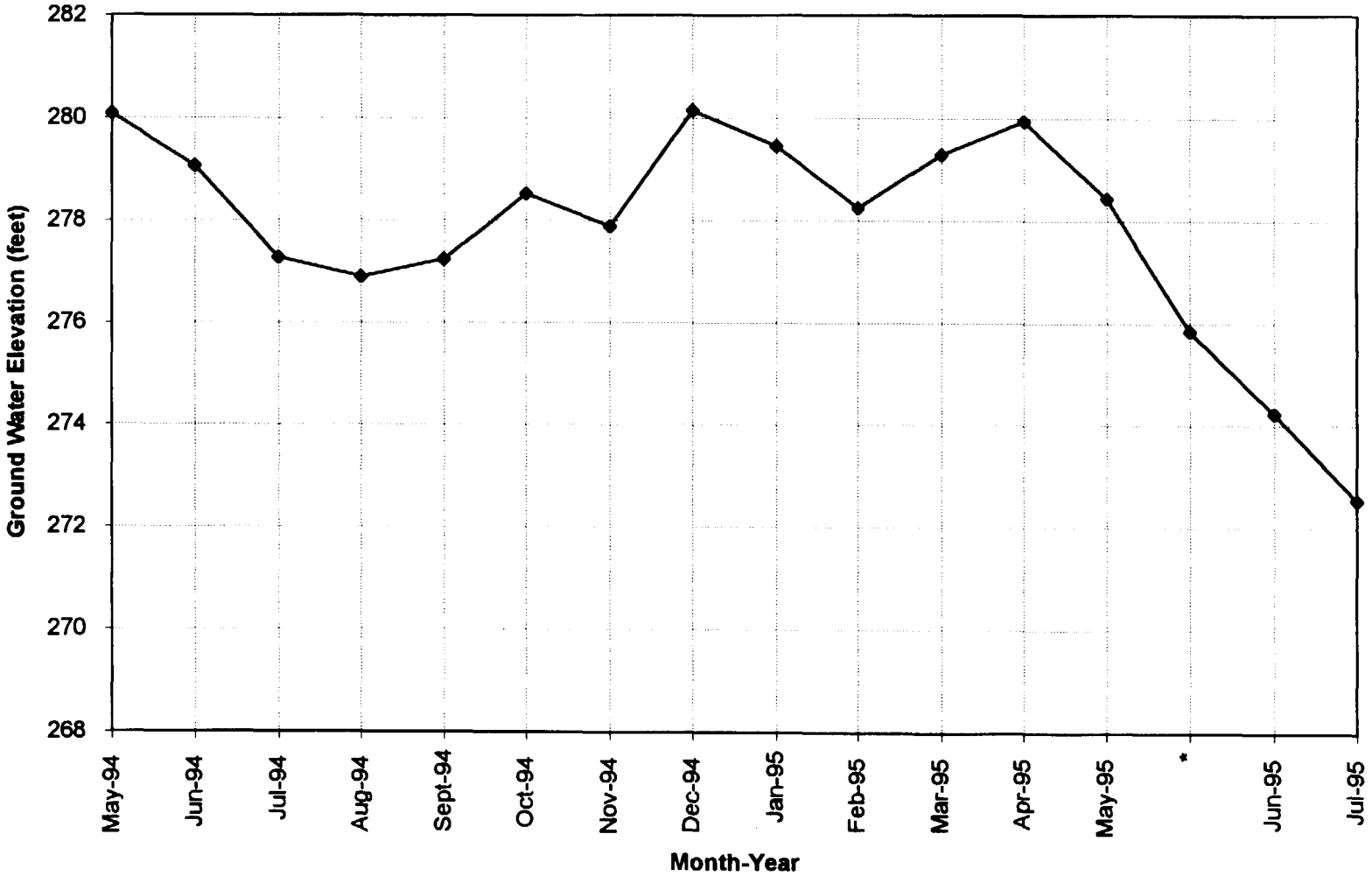
* = levels from 1-3 days after system started May 22, 1995

COMPARATIVE GROUND WATER LEVEL DATA
ERT-01 Intermediate / Deep Bedrock Well



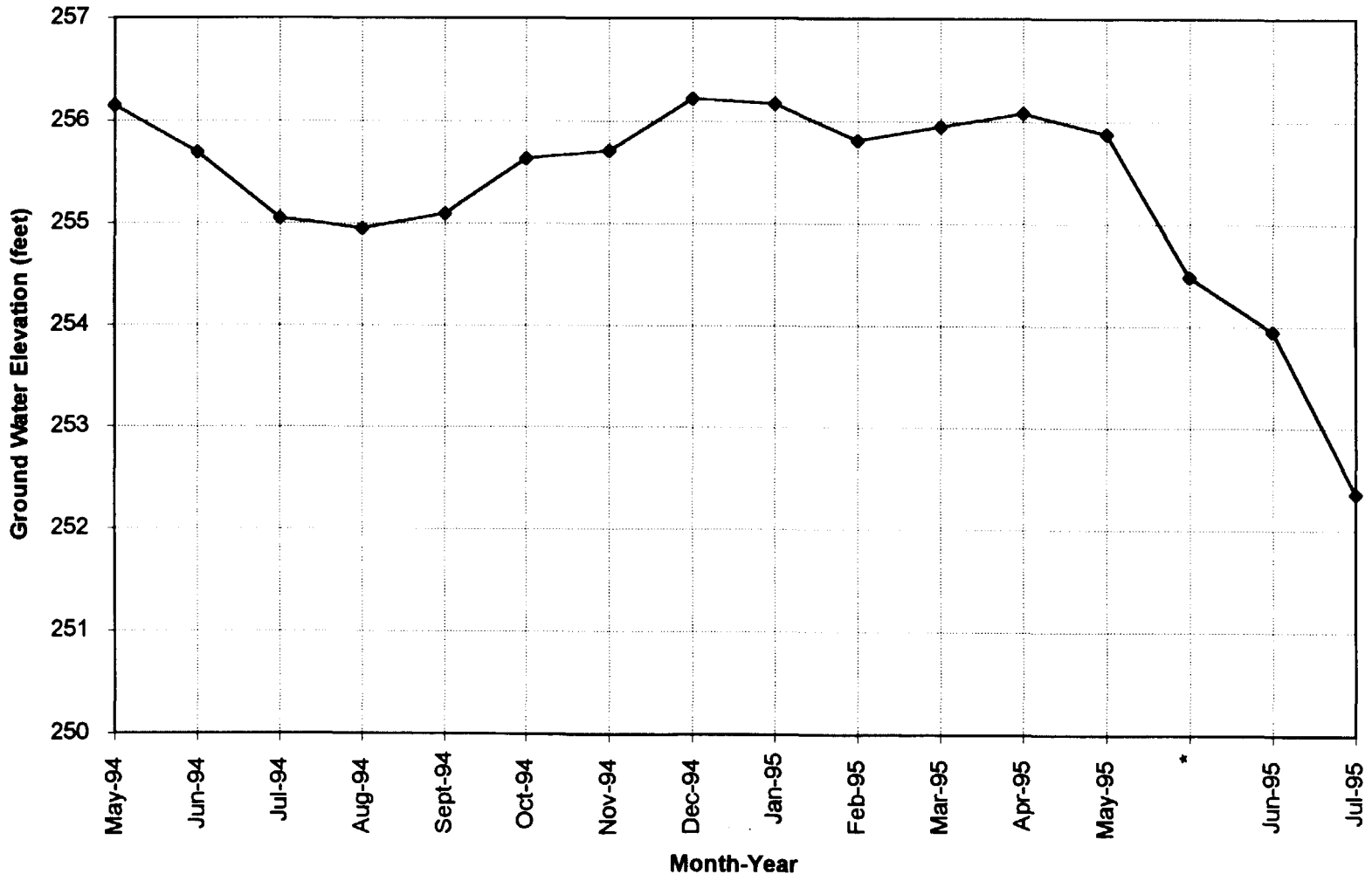
* = Levels from 1-3 days after system started May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA
ERT-02 Intermediate Bedrock Well



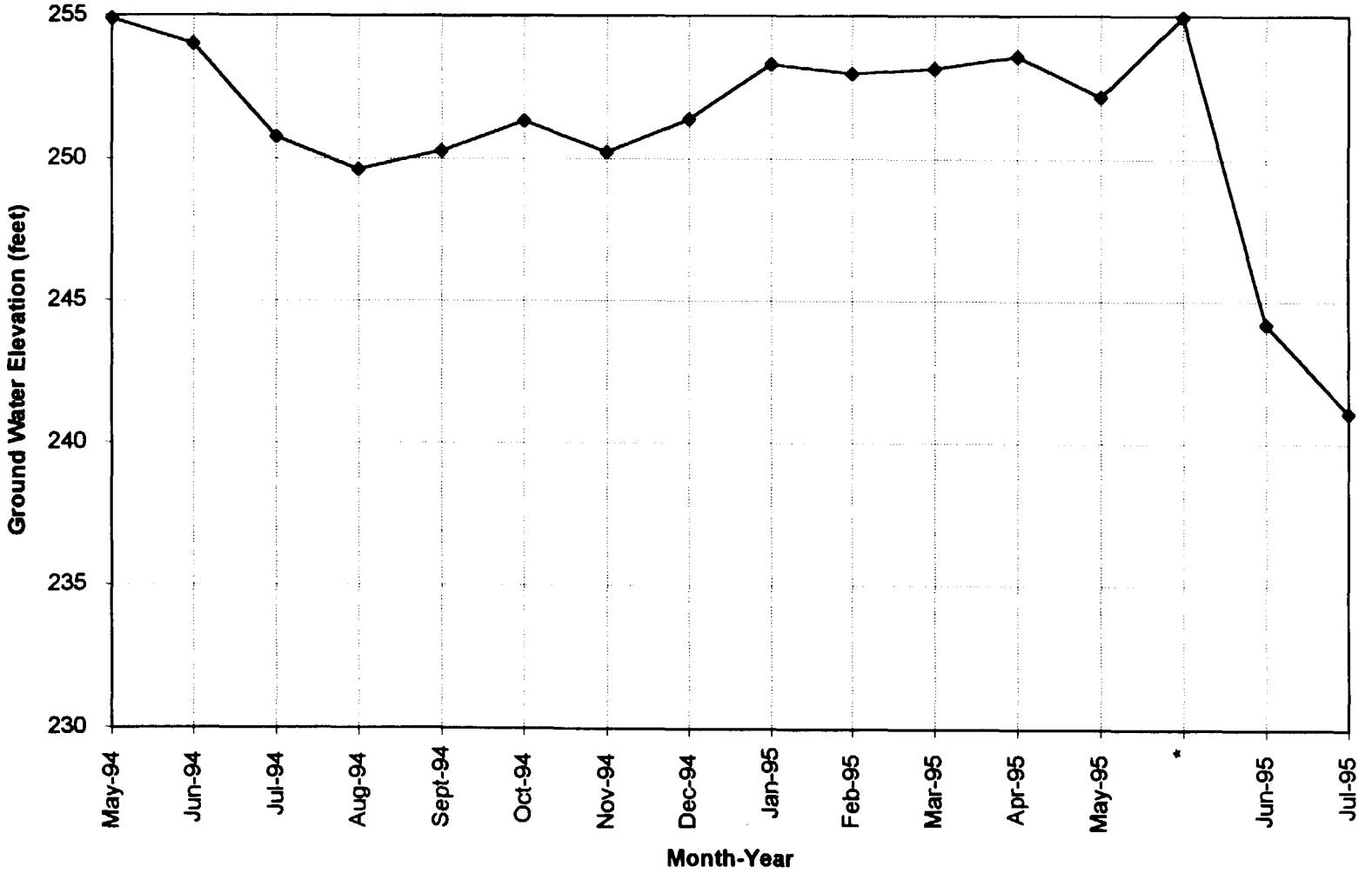
* = Levels from 1-3 days after system started May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA
ERT-03 Intermediate Bedrock Well



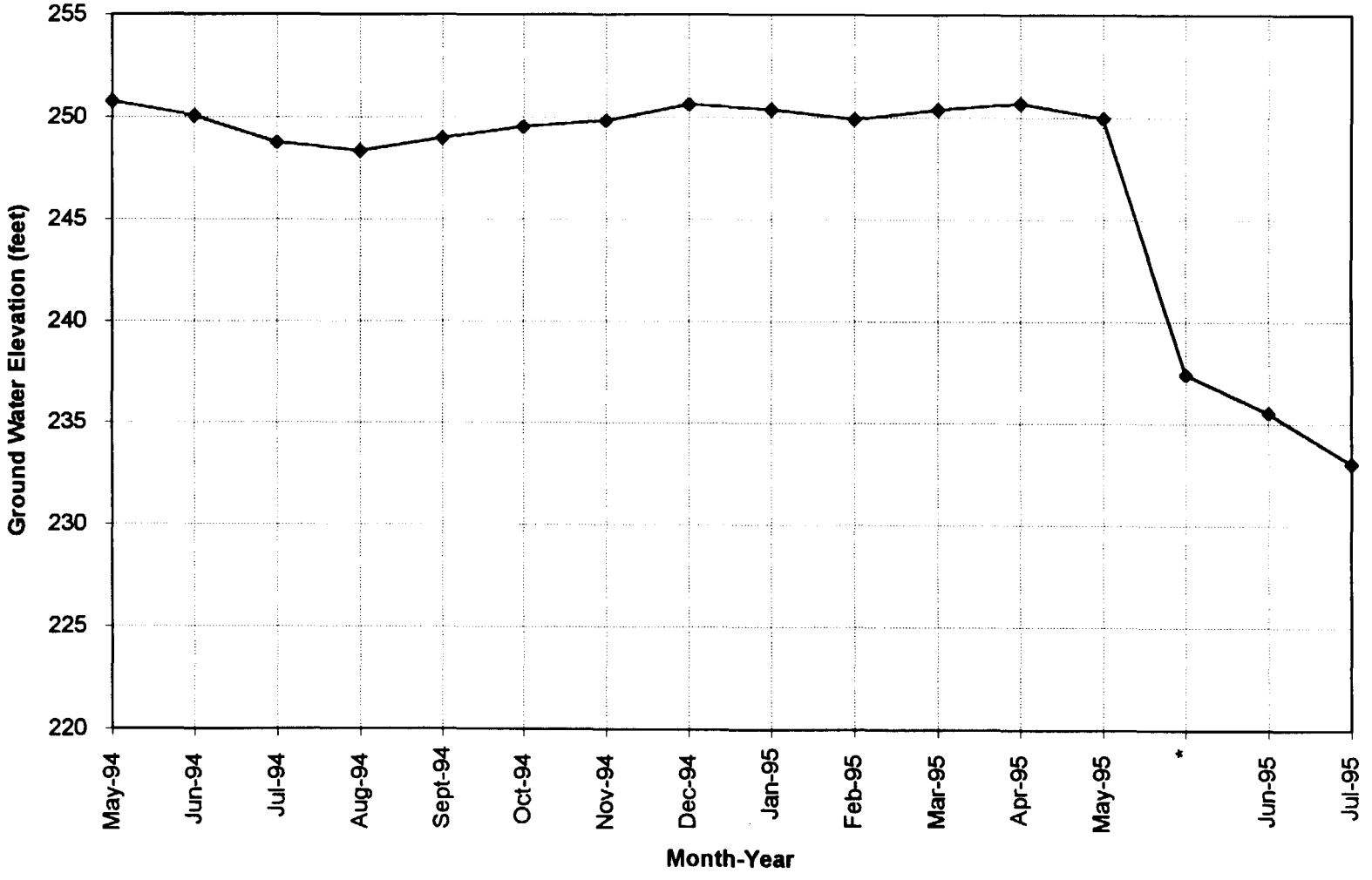
* = Levels from 1-3 days after system started May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA
ERT-04 Intermediate Bedrock Well



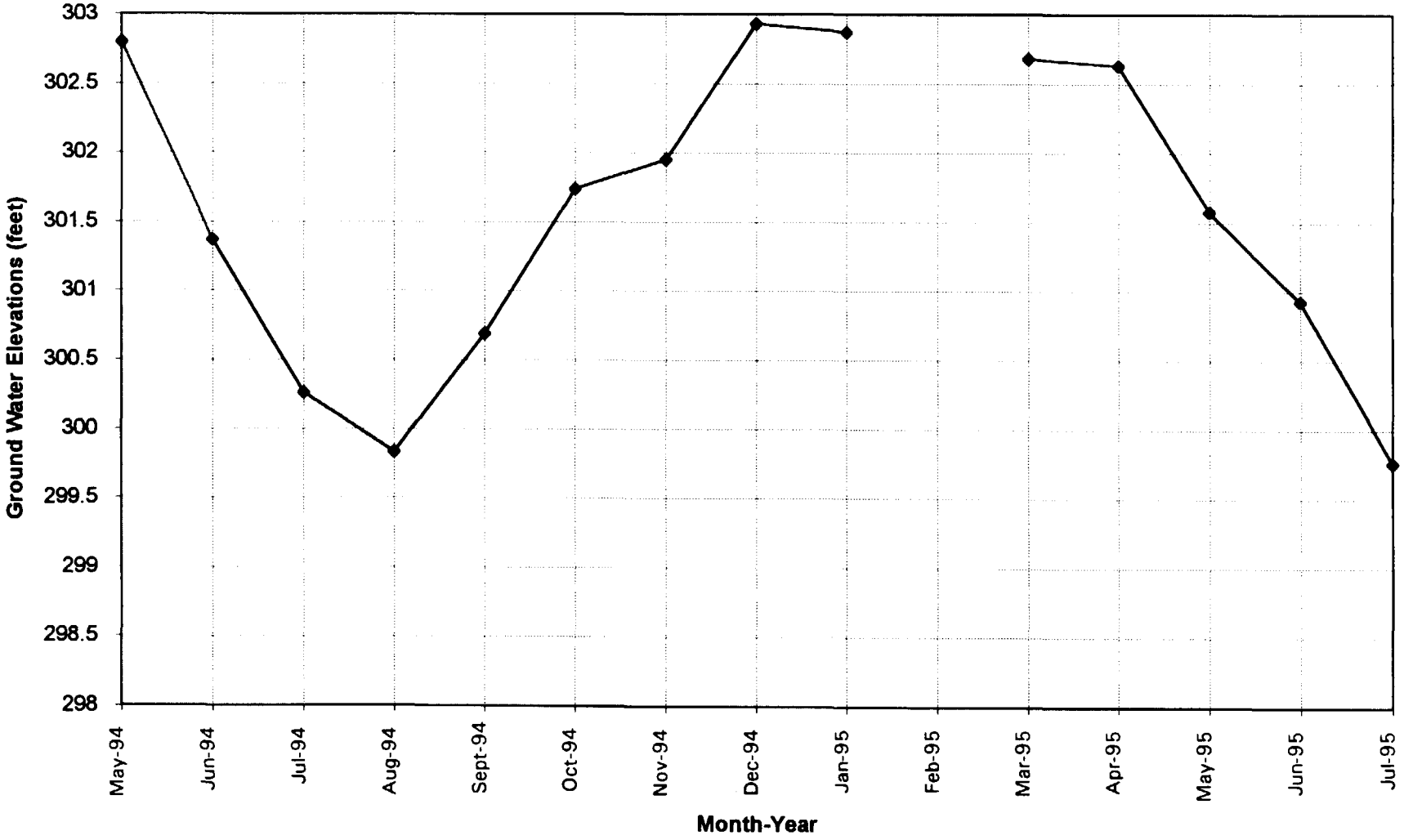
* = Levels from 1-3 days after system started May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA
ERT-06 Intermediate Bedrock Well



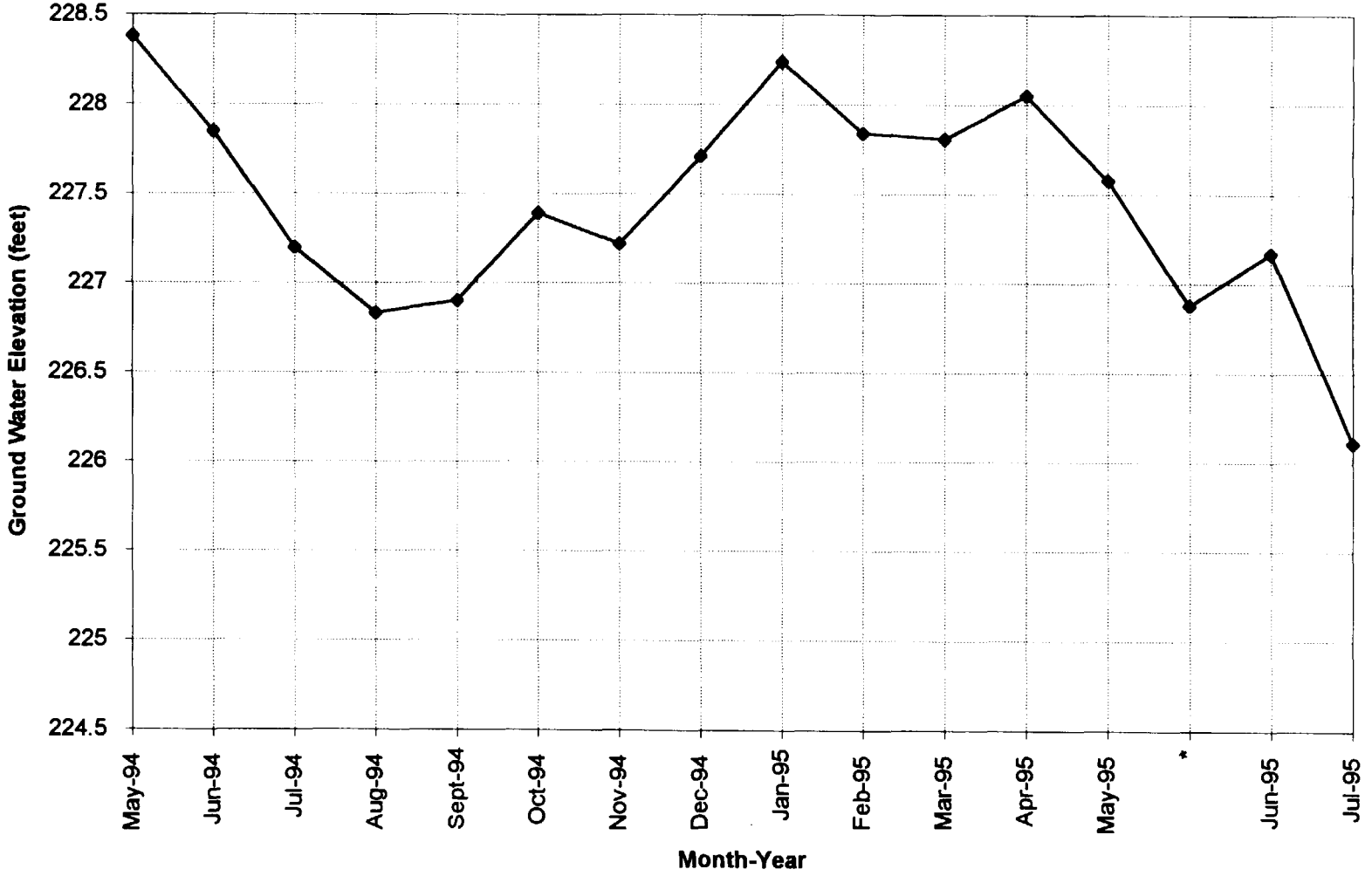
* = Levels from 1-3 days after system started May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA
ERT-08 Intermediate / Deep Bedrock Well



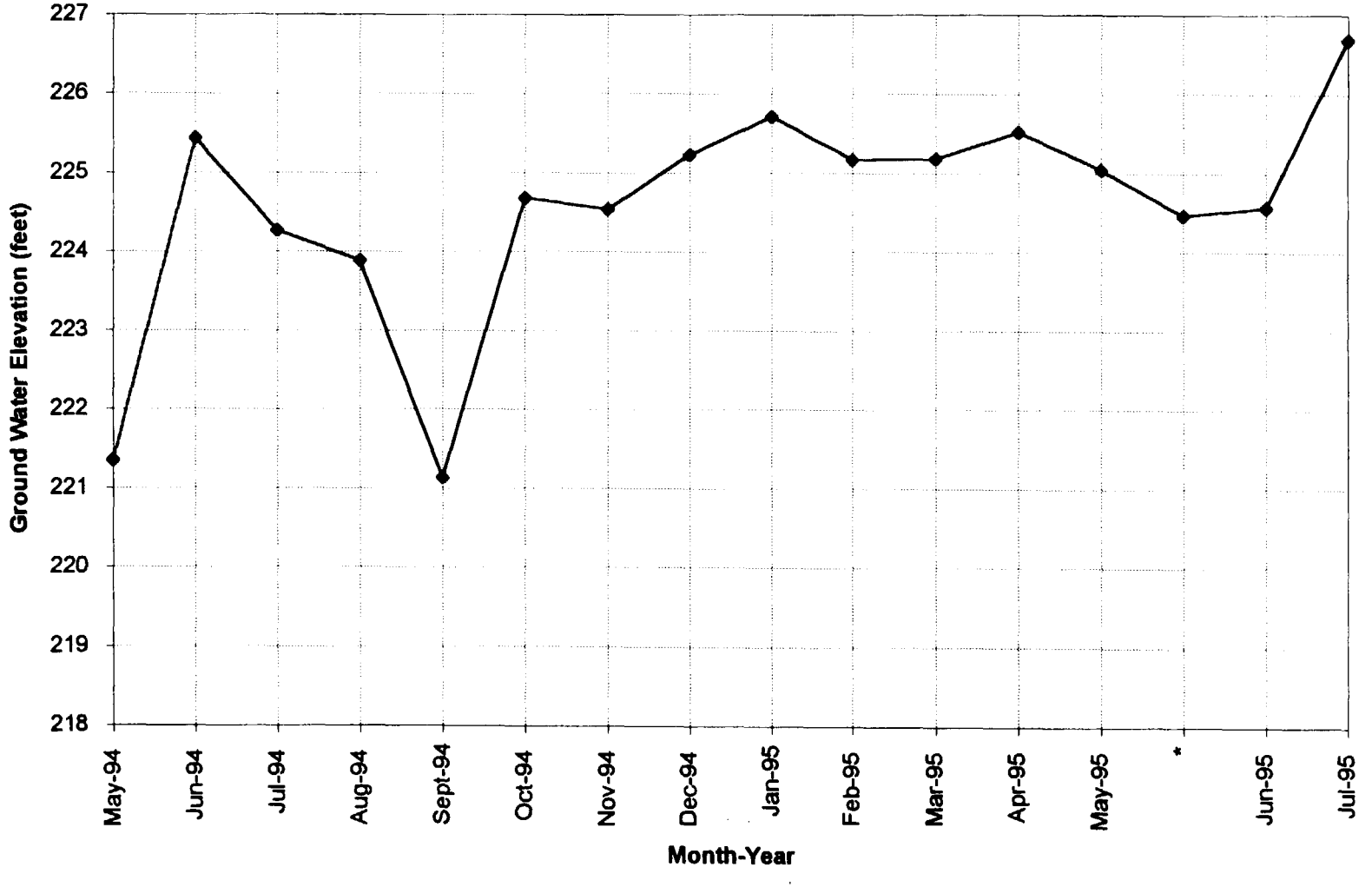
May levels are prior to start of MOM remedy pumping system on May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA
RD-D Intermediate / Deep Bedrock Well



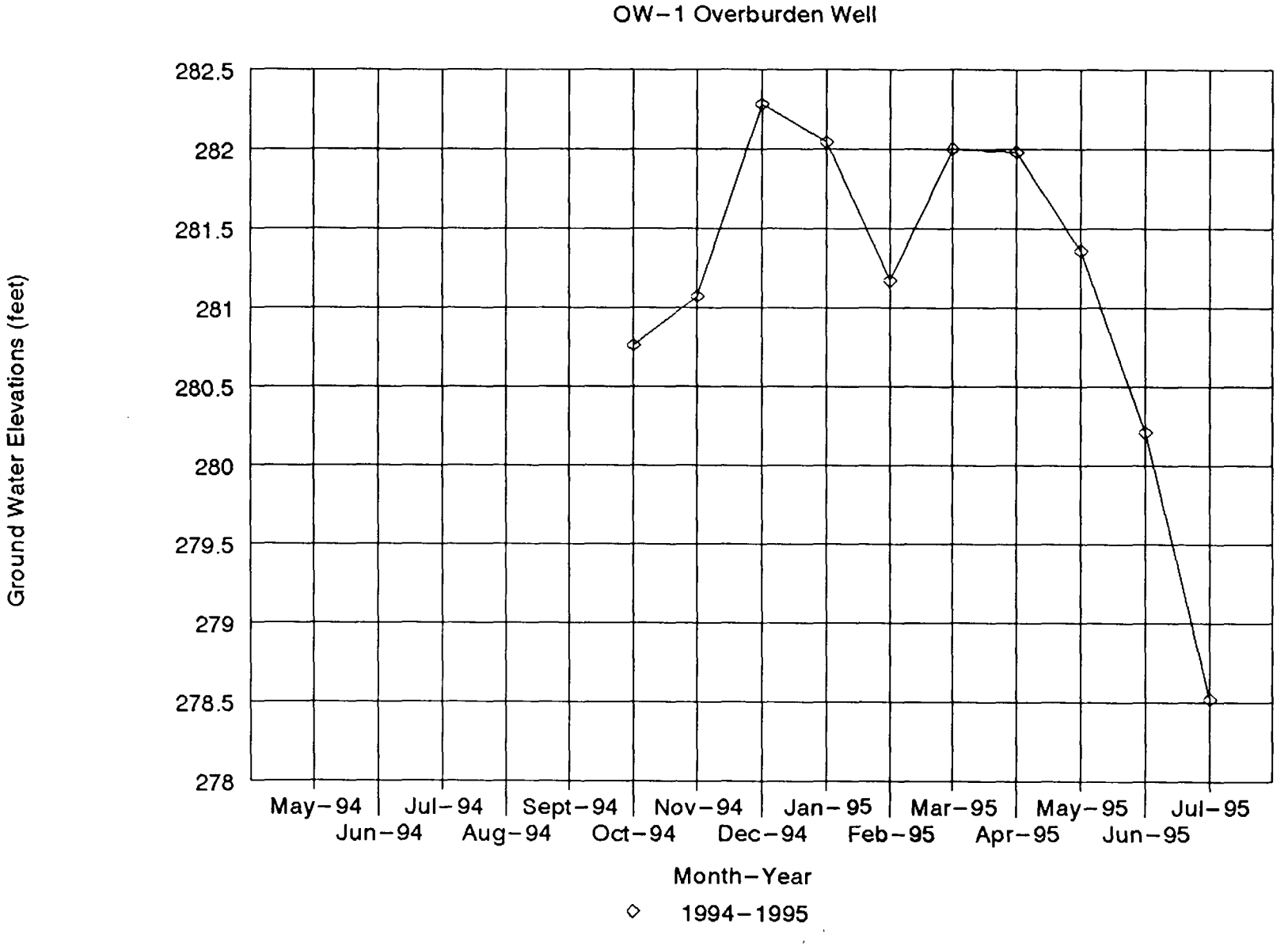
* = Levels from 1-3 days after system started May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA
RD-S Overburden Well



* = Levels from 1-3 days after system started May 22, 1995.

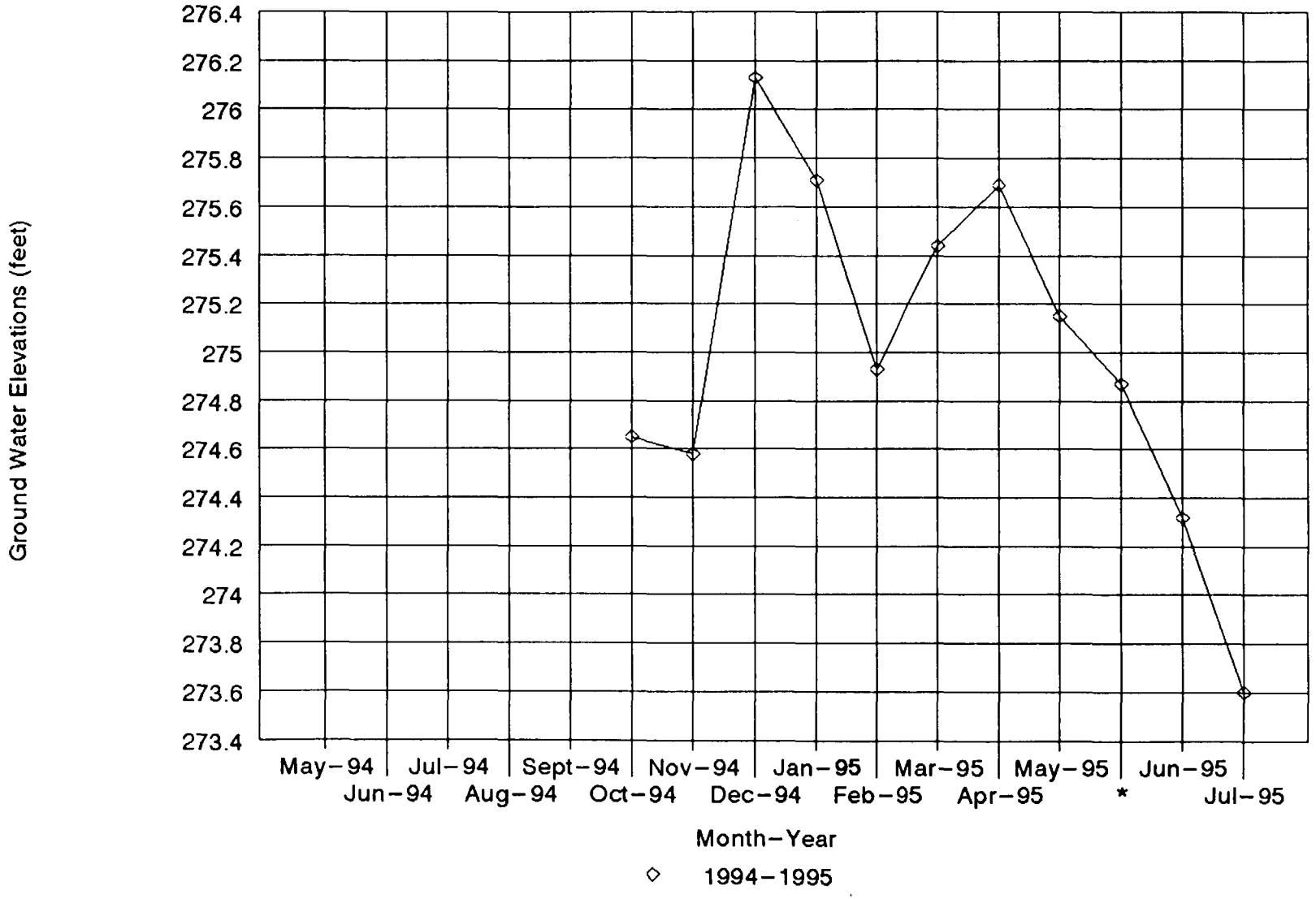
COMPARATIVE GROUND WATER LEVEL DATA



May levels are prior to start of MOM remedy pumping system on May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA

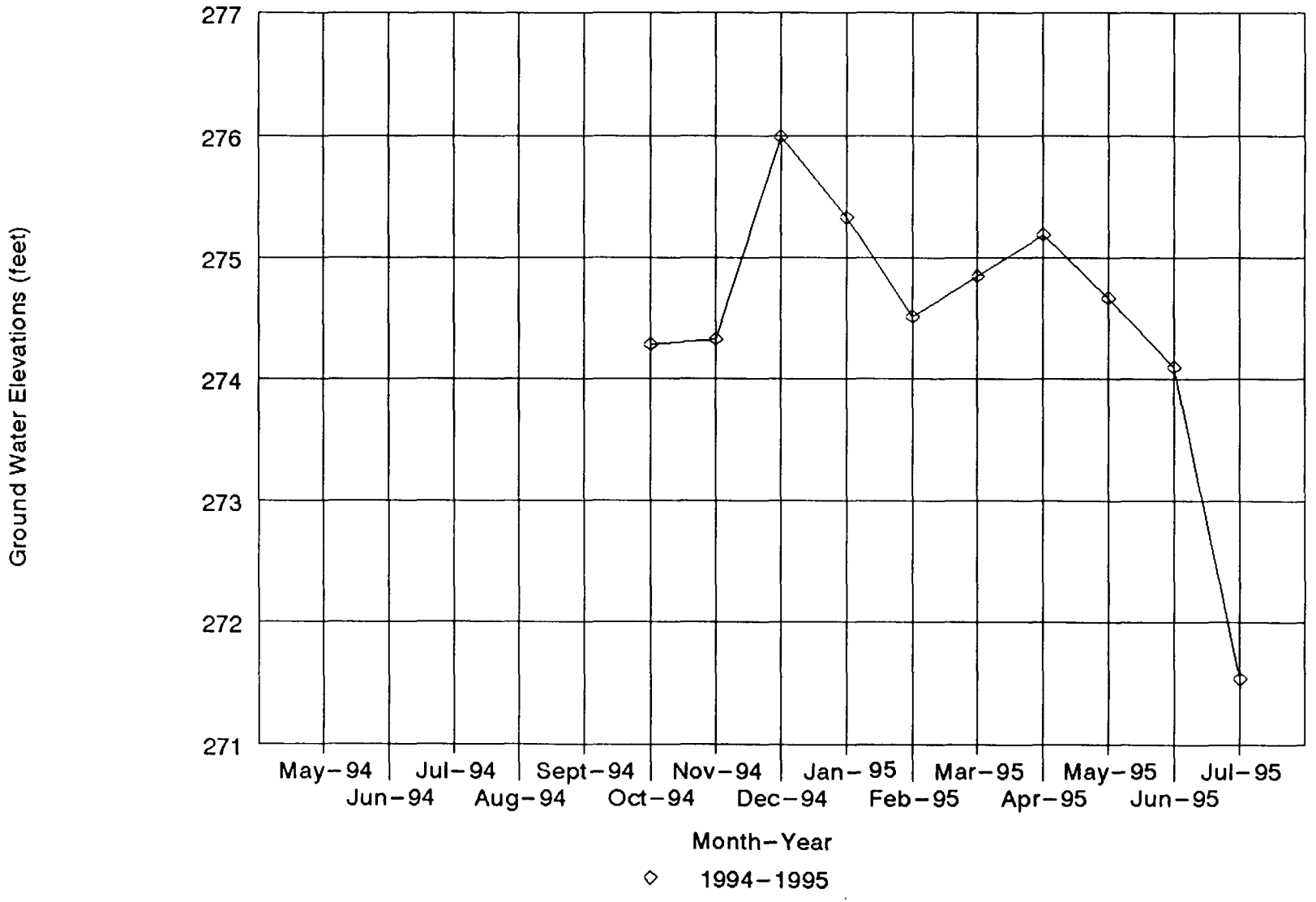
OW-2D Overburden Well



* = levels from 1-3 days after system started May 22, 1995

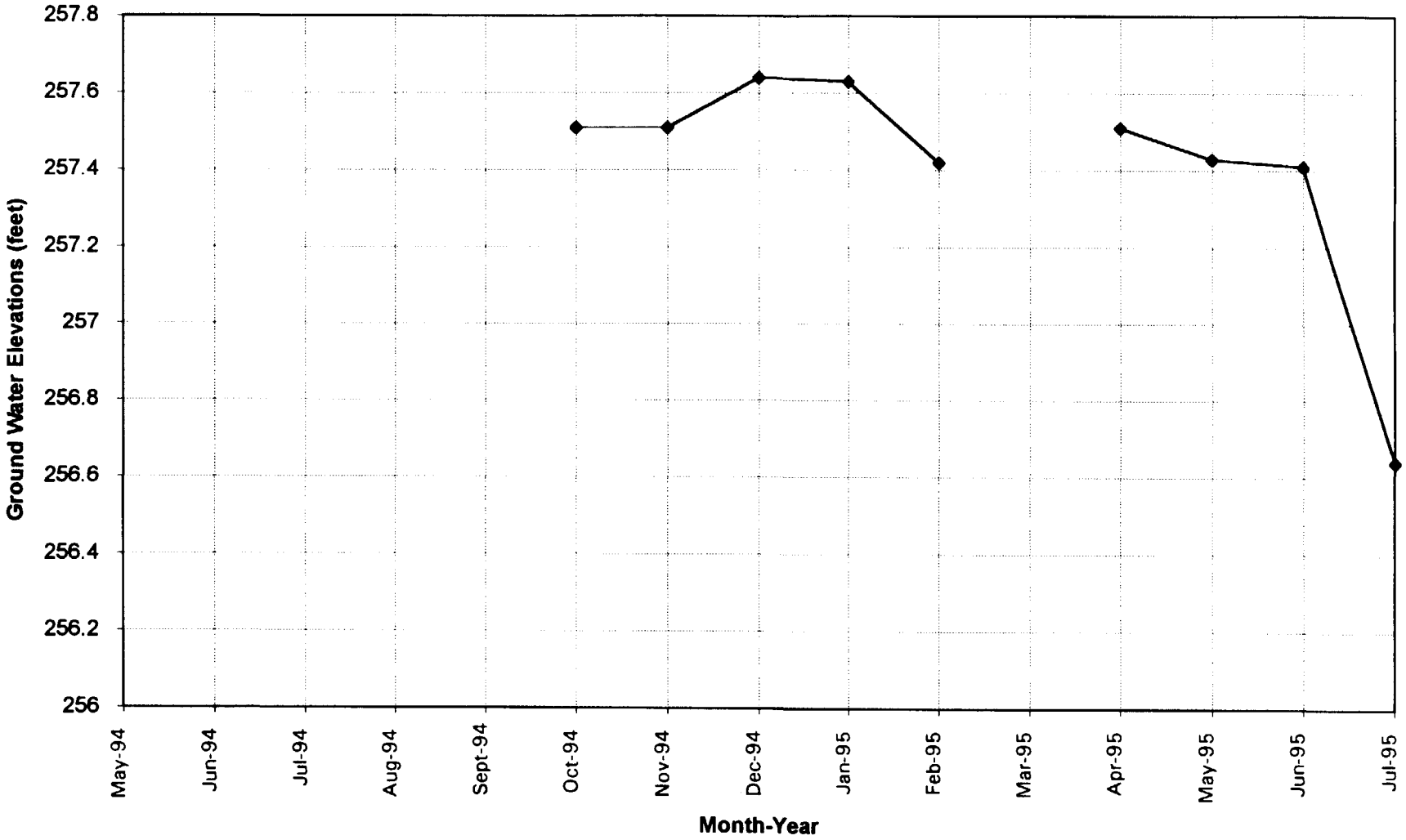
COMPARATIVE GROUND WATER LEVEL DATA

OW-2S Overburden Well



May levels are prior to start of MOM remedy pumping system on May 22, 1995.

COMPARATIVE GROUND WATER LEVEL DATA
OW-3 Overburden Well



May levels are prior to start of MOM remedy pumping system on May 22, 1995.