UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: FEB 07 1994

Subject: Review of Region 5 Data for SF 940043 S.E. ROCKFORD, IL

From: Charles T. Elly, Director Chuck E. Elly
Region 5 Central Regional Laboratory

To:

Attached are the results for SF 940043 S.E. ROCKFORD, IL
CRL request number 940043 for analyses of two (2) water samples for VOA
Results are reported for sample designations: 940043S01 and 940043S02

Results Status:
(X) Acceptable for Use
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use
(X) Sewer Disposal Criteria Met; Exceptions: none

Comments on Data Quality by Reviewer

Both samples were first screened and the results indicated high levels of contamination; therefore, the sample 940043S01 was diluted 100 times and the sample 940043S02 was diluted 50 times for the analysis. Consequently, the requested detection limits were raised accordingly.

Reported values for 1,1-Dichloroethene, Chloroform, Tetrachloroethene were flagged with DJ, indicating the quantitated values before taking the dilution factors were below the CRL method detection limits. However, the GC retention times and mass spectrum confirmed that the identification and quantitation of these compounds are valid.

Review Record for SF940043 S.E. Roccford, IL (TWO WATER SAMPLES FOR VOA)

Comments by Laboratory Director or Quality Control Coordinator

Chi Tang for Nidia Fuentes 2/3/94

Task Monitor and Date (X) Reviewed ( ) Unreviewed

Chi M. Tang Chi Tang 2/4/94

Section Chief and Date (✓) Reviewed ( ) Unreviewed

Recd 2/4/94 JA

James Adams, Jr. James H. Adams, Jr. 2/4/94

QC Coordinator and Date (✓) Reviewed ( ) Unreviewed

Sylvia Griffin FEB 0 7 1994

Data Management Coordinator and Date Received

Date Transmitted FEB 0 7 1994

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

940043S02DL2

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 940043S02DL2

Sample wt/vol: 25 (g/ml) ML Lab File ID: >W0041

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec. ---- Date Analyzed: 01/31/94

Column: (pack/cap) CAP Dilution Factor: 50

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	50	UD
74-87-3	Chloromethane	500	UD
75-01-4	Vinyl chloride	50	UD
74-83-9	Bromomethane	50	UD
75-00-3	Chloroethane	100	UD
75-69-4	Trichlorofluoromethane	50	UD
107-64-1	Acrolein	1200	UD
75-35-4	1,1-Dichloroethene	34	DJ
67-64-1	Acetone	250	UD
75-15-0	Carbon disulfide	50	UD
75-09-2	Methylene chloride	50	UD
75-35-4	trans-1,2-Dichloroethene	50	UD
107-13-1	Acrylonitrile	250	UD
75-34-3	1,1-Dichloroethane	72	D
108-05-4	Vinyl acetate	100	UD
594-20-7	2,2-Dichloropropane	50	UD
540-59-0	cis-1,2-Dichloroethene	130	D
78-93-3	2-Butanone	250	UD
74-97-5	Bromochloromethane	50	UD
67-66-3	Chloroform	50	UD
71-55-6	1,1,1-Trichloroethane	300	D
56-23-5	Carbon tetrachloride	50	UD
563-58-6	1,1-Dichloropropene	50	UD
71-43-2	Benzene	50	UD
107-06-2	1,2-Dichloroethane	50	UD
79-01-6	Trichloroethene	96	D
78-87-5	1,2-Dichloropropane	50	UD
74-95-3	Dibromomethane	50	UD
110-75-8	2-Chloroethyl vinylether	250	UD
75-27-4	Bromodichloromethane	50	UD
10061015	cis-1,3-Dichloropropene	53	UD
108-88-3	Toluene	50	UD
108-10-1	4-Methyl-2-pentanone	100	UD
10061026	trans-1,3-Dichloropropene	47	UD

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

940043S02DL2

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 940043S02DL2

Sample wt/vol: 25 (g/ml) ML Lab File ID: >W0041

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec. ---- Date Analyzed: 01/31/94

Column: (pack/cap) CAP Dilution Factor: 50

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
127-18-4	Tetrachloroethene	31	DJ
79-00-5	1,1,2-Trichloroethane	500	UD
142-28-9	1,3-Dichloropropane	50	UD
591-78-6	2-Hexanone	100	UD
124-48-1	Dibromochloromethane	50	UD
106-93-4	1,2-Dibromoethane	50	UD
108-90-7	Chlorobenzene	50	UD
630-20-6	1,1,1,2-Tetrachloroethane	50	UD
100-41-4	Ethylbenzene	50	UD
108-38-3	m &/or p-Xylene	100	UD
95-47-6	o-Xylene	50	UD
100-42-5	Styrene	50	UD
75-25-2	Bromoform	50	UD
98-82-8	Isopropylbenzene	50	UD
108-86-1	Bromobenzene	50	UD
96-18-4	1,2,3-Trichloropropane	50	UD
79-34-5	1,1,2,2-Tetrachloroethane	50	UD
103-65-1	n-Propylbenzene	50	UD
95-49-8	2-Chlorotoluene	50	UD
106-43-4	4-Chlorotoluene	50	UD
108-67-8	1,3,5-Trimethylbenzene	50	UD
98-06-6	tert-Butylbenzene	50	UD
95-63-6	1,2,4-Trimethylbenzene	50	UD
135-98-8	sec-Butylbenzene	50	UD
541-73-1	1,3-Dichlorobenzene	50	UD
106-46-7	1,4-Dichlorobenzene	50	UD
99-87-6	p-Isopropyltoluene	50	UD
95-50-1	1,2-Dichlorobenzene	50	UD
104-51-8	n-Butylbenzene	50	UD
96-12-8	1,2-Dibromo-3-chloropropane	50	UD
120-82-1	1,2,4-Trichlorobenzene	50	UD
91-20-3	Naphthalene	50	UD
87-68-3	Hexachlorobutadiene	50	UD
87-61-6	1,2,3-Trichlorobenzene	50	UD

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

940043S02DL2

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 940043S02DL2

Sample wt/vol: 25 (g/mL) ML Lab File ID: >W0041

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec.---- Date Analyzed: 1/31/94

Column: CAP Dilution Factor: 50.00000

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	23.11	100.	J
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

940043S01DL2

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 940043S01DL2

Sample wt/vol: 25 (g/ml) ML Lab File ID: >W0040

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec. ---- Date Analyzed: 01/31/94

Column: (pack/cap) CAP Dilution Factor: 100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	100	UD
74-87-3	Chloromethane	1000	UD
75-01-4	Vinyl chloride	100	UD
74-83-9	Bromomethane	100	UD
75-00-3	Chloroethane	200	UD
75-69-4	Trichlorofluoromethane	100	UD
107-64-1	Acrolein	2500	UD
75-35-4	1,1-Dichloroethene	59	DJ
67-64-1	Acetone	500	UD
75-15-0	Carbon disulfide	100	UD
75-09-2	Methylene chloride	100	UD
75-35-4	trans-1,2-Dichloroethene	100	UD
107-13-1	Acrylonitrile	500	UD
75-34-3	1,1-Dichloroethane	140	D
108-05-4	Vinyl acetate	200	UD
594-20-7	2,2-Dichloropropane	100	UD
540-59-0	cis-1,2-Dichloroethene	210	D
78-93-3	2-Butanone	500	UD
74-97-5	Bromochloromethane	100	UD
67-66-3	Chloroform	72	DJ
71-55-6	1,1,1-Trichloroethane	650	D
56-23-5	Carbon tetrachloride	100	UD
563-58-6	1,1-Dichloropropene	100	UD
71-43-2	Benzene	100	UD
107-06-2	1,2-Dichloroethane	100	UD
79-01-6	Trichloroethene	190	D
78-87-5	1,2-Dichloropropane	100	UD
74-95-3	Dibromomethane	100	UD
110-75-8	2-Chloroethyl vinylether	500	UD
75-27-4	Bromodichloromethane	100	UD
10061015	cis-1,3-Dichloropropene	110	UD
108-88-3	Toluene	100	UD
108-10-1	4-Methyl-2-pentanone	200	UD
10061026	trans-1,3-Dichloropropene	94	UD

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

940043S01DL2

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 940043S01DL2

Sample wt/vol: 25 (g/ml) ML Lab File ID: >W0040

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec. ---- Date Analyzed: 01/31/94

Column: (pack/cap) CAP Dilution Factor: 100

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
127-18-4	Tetrachloroethene	72	DJ
79-00-5	1,1,2-Trichloroethane	1000	UD
142-28-9	1,3-Dichloropropane	100	UD
591-78-6	2-Hexanone	200	UD
124-48-1	Dibromochloromethane	100	UD
106-93-4	1,2-Dibromoethane	100	UD
108-90-7	Chlorobenzene	100	UD
630-20-6	1,1,1,2-Tetrachloroethane	100	UD
100-41-4	Ethylbenzene	100	UD
108-38-3	m &/or p-Xylene	200	UD
95-47-6	o-Xylene	100	UD
100-42-5	Styrene	100	UD
75-25-2	Bromoform	100	UD
98-82-8	Isopropylbenzene	100	UD
108-86-1	Bromobenzene	100	UD
96-18-4	1,2,3-Trichloropropane	100	UD
79-34-5	1,1,2,2-Tetrachloroethane	100	UD
103-65-1	n-Propylbenzene	100	UD
95-49-8	2-Chlorotoluene	100	UD
106-43-4	4-Chlorotoluene	100	UD
108-67-8	1,3,5-Trimethylbenzene	100	UD
98-06-6	tert-Butylbenzene	100	UD
95-63-6	1,2,4-Trimethylbenzene	100	UD
135-98-8	sec-Butylbenzene	100	UD
541-73-1	1,3-Dichlorobenzene	100	UD
106-46-7	1,4-Dichlorobenzene	100	UD
99-87-6	p-Isopropyltoluene	100	UD
95-50-1	1,2-Dichlorobenzene	100	UD
104-51-8	n-Butylbenzene	100	UD
96-12-8	1,2-Dibromo-3-chloropropane	100	UD
120-82-1	1,2,4-Trichlorobenzene	100	UD
91-20-3	Naphthalene	100	UD
87-68-3	Hexachlorobutadiene	100	UD
87-61-6	1,2,3-Trichlorobenzene	100	UD

LOCKHEED ESAT CONTRACT

DATA SET CUSTODY TRANSFER FORM

DATA SET # 940043 Charge # 233-51-052

SITE NAME SE Rockford Task # 05-94-01-10

PARAMETER VOA MATRIX Water

SF DU/ACT NO: TFA 05WVDKY ____ /C ____

SAMPLE NUMBERS: 940043501, 940043502

NUMBER OF SAMPLES 2

ESAT APPROVALS: RWWenig 2/2/94

Anthony Guglotta Analyst 2 2/2/94
Analyst 1 Date

Zayed Rich 2/3/94
Task Group Leader Date

Lewis Kramer 2/3/94
QA/QC Coordinator Date

Donna Miller 2-3-94
ESAT Team Manager Date

COMMENTS:

The above identified data set was transferred from ESAT to the custody of the U.S. EPA Region V Central Regional Laboratory in its entirety on the indicated date relinquished.

Anthony Guglotta 2/3/94
Relinquished by Date

Chi Fang 2/3/94
Received by Date

EPA APPROVALS:

[ ] Reviewed
[ ] Unreviewed
[ ] Accepted
[ ] Rejected
[ ] Returned: ____ Date

EPA Task Monitor Date

COMMENTS:

[ ] Reviewed [ ] Unreviewed

Section Chief Date

Sylvia Griffin 2/7/94 / 2/7/94
ESAT DPO Date DATA COORDINATOR/RECD/TRANSMTD

ESAT-5-014.6

ESAT-5-007.0

To: Jay Thakkar, EPA DPO

For: Transmittal to: Babu Parachuri, EPA Task Monitor

Thru: Dennis Miller, ESAT Team Manager

From: Anthony Gugliotta, ESAT Chemist ag
Robert Wenig, ESAT Chemist RW

Copies: Ira Wilson, ESAT Assistant Team Manager
Ziyad Rajabi, ESAT Organic Group Leader

Date: February 2, 1994

SUBJECT: Data Set SF940043 - SE Rockford Site
Volatile Organic Analyses

CASE NARRATIVE

Method Numbers: 624VOC/OLC01 Project Name: SE Rockford

Date Generated: February 2, 1994 Charge Number: 233-51-052

Authors: Anthony Gugliotta
Robert Wenig

TID Number: 05-94-01-10

Case: **SF940043**

1. CASE DESCRIPTION

Two samples from the SE Rockford site were assigned to ESAT on January 28, 1994 as case number 940043. ESAT was informed by the Task Monitor to use the 624VOC QC criteria and the low-level (25-mL purges) calibration described in SAS 8018E. Samples 940043S01 and 940043S02 were analyzed for volatiles (VOA) by GC/MS on HP MSD System #2 using a modified (25-mL purge) EPA Low-Level CRL Method 624VOC. Performance evaluation samples (PES) were not submitted with this case.

These samples were screened by the CRL staff on HP MSD#4 (System #1). The results of the screens indicate high levels of contamination; therefore, these samples were diluted before they were reanalyzed on HP MSD#2. Consequently, due to these dilutions, the requested detection limits of SAS 8018E could not be met.

An initial calibration at 1, 2, 5, 10, 25 µg/L was performed on January 31, 1993, on HP MSD System #2. Samples 940043S01D1 (400X), S02D1 (167X), S01D2 (100X), and S02D2 (50X) were analyzed under this calibration. All analytes were found to be within the calibration range at the lower dilutions, so the results for S01D1 (400X) and S02D1 (167X) are not used. A continuing calibration at 5 µg/L was performed on February 1, 1994. This calibration is associated with samples S01DLMS and S01DLMSD. This MS/MSD analysis was done at a 400X dilution and is associated with sample S01D1 (400X). A 400X dilution was chosen to avoid the potential of having the spiked compound exceed the calibration range.

2. INSTRUMENT TUNING

The tuning criteria for 50 ng of 4-bromofluorobenzene (BFB) was met on January 31 and February 1, 1994. All samples and calibration standards were injected within 12 hours of the BFB

injection time. (FORM V)

3. INITIAL CALIBRATION

A new VOA "C" calibration standard at 25 ng/µL was prepared on January 31, 1994. The "ABD" standard was prepared January 13, 1994 and contains 50 ng/µL of 63 compounds, except for *cis*- and *trans*-1,3-dichloropropene, which are present at 53 and 47 ng/µL, respectively. Also, the coelution of *m*-xylene and *p*-xylene results in a doubling of the calibration range for *m/p*-xylene (i.e., 2 - 50 µg/L). An initial calibration at 1, 2, 5, 10, and 25 µg/L levels was performed on January 31, 1994.

Several of the VOA target compounds could not be calibrated using five low-level points. The following compounds were calibrated using two, three, or four standards: chloromethane (10-25 µg/L), chloroethane (2-25 µg/L), acrolein (5-25 µg/L), 2-chloroethyl vinyl ether (5-25 µg/L), and 1,1,2-trichloroethane (10-25 µg/L). All analytes met the requirements for percent relative standard deviation (%RSD < 35%). (Form V)

4. CONTINUING CALIBRATION

A continuing calibration at 5 µg/L was analyzed on February 1, 1994 (file >W0043), and all analytes met the requirements for percent deviation (%D < 30%). (FORM VII)

5. QUALITY CONTROL

a. Holding Time Summary

Sampling was performed on January 27, 1994. Analysis were performed within holding time on January 31, 1994.

b. Analysis Summary

All standards, samples, method blanks and matrix spike samples were analyzed in a 12-hour period from the injections of BFB.

c. Surrogate Recovery Summary

All surrogate recoveries were within the QC limits specified in the 624VOC SOP. (FORM II)

d. Internal Standard Area and Retention Time Summary

All internal standard areas and retention times were within the QC limits. (FORM VIII)

e. Matrix Spike Recovery Summary

Matrix spike and matrix spike duplicate analyses (MS and MSD) were performed on 940043S01D1 (400X). Matrix spikes were prepared by adding 62.5 µL of sample S01D1 plus 10 µL of the IC CHECK solution to 25.0 mL reagent water.

The recoveries and relative percent differences (RPDs) of the five MS compounds were within the QC limits in the MS and MSD analysis. See Form III.

In addition, a laboratory control sample (LCS) was prepared and analyzed according to the SOW (OLC01.0). The results indicate that the twelve required compounds were within the require range from 3 to 7 µg/L (i.e. 60% to 140% recovery).

f. Instrument Sensitivity Summary

To verify instrument sensitivity and calibration, a volatile standard at 5 µg/L was analyzed (013194VCHK1) immediately after the initial calibration. This standard was made from Ultra Scientific's VOC Mixture which contains 200 ng/µL of each 624VOC analyte except for acrolein, acetone, carbon disulfide, vinyl acetate, 2-butanone, 2-chloroethyl vinyl ether, 4-methyl-2-pentanone and 2-hexanone. The results indicate that the HP MSD #2 GC/MS is capable of accurately detecting the VOA analytes at 5 µg/L.

g. Field Duplicates

No duplicate ampules were submitted.

6. <u>SAMPLE RESULTS</u>

a. Method Blank Results

Method blanks 013194VBLK2 and 020194VBLK2 were analyzed on January 31, 1994 and February 1, 1994, respectively. Both blanks were found to be free of TCL and TIC contamination.

b. Sample Results

Table 1 summarizes the results of the two samples. The number of target analytes (TCL) and the number of tentatively identified compounds are given for each sample.

SAMPLE	FILE	DIL. USED	TCL	TIC
940043S01	>W0040	100X	7	0
940043S02	>W0041	50X	6	1

Table 1. Summary of Sample Results

7. CONCLUSIONS

The samples of SF940043 were analyzed according to the CRL 624VOC SOP with modifications for low-level analysis. All the required QC criteria of 624VOC were met for all analyses.

LOCKHEED ENGINEERING AND SCIENCE COMPANY
REGION 5
ESAT PROJECT
536 SOUTH CLARK STREET
CHICAGO, IL 60605

RAW DATA ARCHIVING AND DATA SET RECONSTRUCTION FORM

DISK OR TAPE NUMBER: Tape VOA HP RTE-A #15

RUN DATE(S): 1/31/94 + 2/01/94
INSTRUMENT NO: HP MSD
ANALYST(S): AGG + RWW

SAMPLE SUMMARY MATRIX

DATA SET NUMBER:	940043				
TASK NUMBER:	1052				
DU/ACTIVITY NUMBER:	TFA05WUDK				
PARAMETER:	VOA				
MATRIX:	WATER				
NUMBER OF SAMPLES:	2				
DATE RECEIVED:	1-27-94				
DATE EXTRACTED:	N/A				
NOTEBOOK/PAGE NO:	N/A				
DATE ASSAYED:	1-31-94 and 2-1-94				

FILE IDENTIFICATION SUMMARY

TUNING FILE:	>W0029	>W0042			
BLANK FILE:	>W0037	>W0046			

PRIMARY COLUMN

INITIAL CALIBRATION FILE: >W0030 — >W0034
CONTINUING CALIBRATION FILES: >W0043
STANDARDS FILES:
SAMPLE FILES: >W0040 , >W0041

ID/METHOD FILES: 10RW01 — 10RW02 , Cal file: CBRW01
VOA#2 , BFB#2

SECONDARY COLUMN

INITIAL CALIBRATION FILE: N/A
CONTINUING CALIBRATION FILES:
STANDARDS FILES:
SAMPLE FILES:

ID/METHOD FILES:

ESAT-5-010.1

LOCKHEED ENGINEERING & SCIENCES COMPANY

VOLATILE ORGANIC DELIVERABLES CHECK-OFF LIST

DATA SET NUMBER: 94/0043 CHARGE NUMBER: 233-51-052

PRESENT	NOT REQD	ITEM
		REPORTING INFORMATION
[✓]	[ ]	SAMPLE REPORT LOG
[✓]	[ ]	DATA SET CUSTODY TRANSFER FORM
[✓]	[ ]	NARRATIVE
[✓]	[ ]	RUN SEQUENCE
[ ]	[✓]	ABN BENCH SHEET
		AOC
[✓]	[ ]	SURROGATE RECOVERY (FORM II)
[✓]	[ ]	MATRIX SPIKE/DUP (FORM III)
[✓]	[ ]	MS/MSD RAW DATA
[✓]	[ ]	METHOD BLANK (FORM VI)
[✓]	[ ]	MASS CAL/TUNING (FORM V)
[✓]	[ ]	MASS CAL RAW DATA
[✓]	[✓]	MDL RESULTS (ICALCHK and LCS)

PRESENT	NOT REQD	ITEM
		CALIBRATION DATA
[✓]	[ ]	INITIAL CAL RRF (FORM VI)
[✓]	[ ]	ICV RAW DATA
[✓]	[ ]	CONT CAL VERIFI (FORM VII)
[✓]	[ ]	CCV RAW DATA
[✓]	[ ]	INT STD AREA & RT (FORM VIII)
		SAMPLE DATA
[ ]	[✓]	ID FILE (SHORT) (HP ONLY)
[✓]	[ ]	TCL RESULTS (FORM I)
[✓]	[ ]	TIC RESULTS (FORM I-TIC)
[✓]	[ ]	SAMPLE RAW DATA
[ ]	[ ]	SAMPLE TAGS
[✓]	[ ]	ARCHIVE REFERENCE
[✓]	[ ]	QC SUMMARY PACKAGE (FORMS 2-8)

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESAT

Lab code: 5SCRL Case No.: 940043 SAS No.: 940043 SDG No.: ---

	EPA SAMPLE NO.	S1 (BEN)#	S2 (BFB)#	S3 (DCB)#	S4 ( )#	TOT OUT
01	ICALCHK	102	97	102		0
02	0131VBLK2	101	98	100		0
03	940043S01D1	99	95	98		0
04	940043S02D1	100	92	93		0
05	940043S01D2	102	92	97		0
06	940043S02D2	98	96	103		0
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		QC LIMITS
S1 (BEN)	= BENZENE-D6	(70-130)
S2 (BFB)	= p-BROMOFLUOROBENZENE	(70-130)
S3 (DCB)	= 1,2-DICHLOROBENZENE-D4	(70-130)

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

FORM II VOA-1

1/87 Rev

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESAT

Lab code: 5SCRL Case No.: 940043 SAS No.: 940043 SDG No.: ---

	EPA SAMPLE NO.	S1 (BEN)#	S2 (BFB)#	S3 (DCB)#	S4 ( )#	TOT OUT
01	0201VBLK2	98	101	106		0
02	0201LCS1	98	104	110		0
03	940043S01MS	98	101	107		0
04	940043S01MD	96	104	106		0
05						
06						
07						
08						
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		QC LIMITS
S1 (BEN)	= BENZENE-D6	(70-130)
S2 (BFB)	= p-BROMOFLUOROBENZENE	(70-130)
S3 (DCB)	= 1,2-DICHLOROBENZENE-D4	(70-130)

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

FORM II VOA-1

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESAT

Lab code: 5SCRL Case No.: 940043 SAS No.: 940043 SDG No.: ---

Matrix Spike - EPA Sample No.: 940043S01D1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	2000	0	1900	93	70-130
Trichloroethene	2000	240	2000	87	70-130
Benzene	2000	0	1700	86	70-130
Toluene	2000	0	1700	84	70-130
Chlorobenzene	2000	0	1800	91	70-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	2000	1700	87	6	25	70-130
Trichloroethene	2000	1900	84	3	25	70-130
Benzene	2000	1600	80	8	25	70-130
Toluene	2000	1600	78	7	25	70-130
Chlorobenzene	2000	1700	85	7	25	70-130

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: Unspiked: >W0038; MS: >W0048; MSD: >W0049.

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESAT

Lab code: 5SCRL Case No.: 940043 SAS No.: 940043 SDG No.: ---

Lab File ID: >W0037 Lab Sample ID: 013194VBLK2

Date Analyzed: 01/31/94 Time Analyzed: 16:53

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: HP MSD#2

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	940043S01D1	940043S01D1	>W0038	17:30
2	940043S02D1	940043S02D1	>W0039	18:08
3	940043S01D2	940043S01D2	>W0040	18:46
4	940043S02D2	940043S02D2	>W0041	19:24
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COMMENTS: _____

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESAT

Lab code: 5SCRL Case No.: 940043 SAS No.: 940043 SDG No.: ---

Lab File ID: >W0046 Lab Sample ID: 020194VBLK2

Date Analyzed: 02/01/94 Time Analyzed: 11:42

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: HP MSD#2

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	0201LCS1	020194LCS1	>W0047	12:20
2	940043S01MS	940043S01MS	>W0048	12:59
3	940043S01MD	940043S01MSD	>W0049	13:45
4				
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COMMENTS: _____

FORM IV VOA 1/87 Rev.

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESAT

Lab code: 5SCRL Case No.: 940043 SAS No.: 940043 SDG No.: ---

Lab File ID: >W0029 BFB Injection Date: 1/31/94

Instrument ID: HP MSD#2 BFB Injection Time: 11:09

Matrix: (soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.6
75	30.0 - 60.0% of mass 95	49.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50% of mass 95	98.5
175	5.0 - 9.0% of mass 174	7.6 (7.7)1
176	95.0 - 101.0% of mass 174	96.5 (98.0)1
177	5.0 - 9.0% of mass 176	6.4 (6.6)2

1-Value is % of mass 174 2-Value is % of 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	VSTD001	VSTD001	>W0030	01/31/94	12:21
02	VSTD002	VSTD002	>W0031	01/31/94	12:59
03	VSTD005	VSTD005	>W0032	01/31/94	13:36
04	VSTD010	VSTD010	>W0033	01/31/94	14:13
05	VSTD025	VSTD025	>W0034	01/31/94	14:51
06	ICALCHK	013194VCHK1	>W0036	01/31/94	16:06
07	0131VBLK2	013194VBLK2	>W0037	01/31/94	16:53
08	940043S01D1	940043S01D1	>W0038	01/31/94	17:30
09	940043S02D1	940043S02D1	>W0039	01/31/94	18:08
10	940043S01D2	940043S01D2	>W0040	01/31/94	18:46
11	940043S02D2	940043S02D2	>W0041	01/31/94	19:24
12					
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FORM V VOA 1/87 Rev.

ESAT-5-018.1

LOCKHEED
ANALYTICAL LABORATORY
TIME TRACKING RECORD

Task Number: 1052
TID Number: 05 94 01 10
SF Number: 940043
Site Name: SE Rockford
Assigned To: AGG + RWW

Date Assigned: 1/28/94
Date Due: 2/01/94
Estimated Hours: 32

VOA ✓ BNA _____ Pest/PCBs _____ Other _____

****

Extraction Record

Person:	Date:	Hours:
Person:	Date:	Hours:
Person:	Date:	Hours:
Person:	Date:	Hours:

****

Analysis Record

Person: R.Wenig	Date: 1/28	Hours: 0
Person: RWenig	Date: 1/31-2/2	Hours: 20
Person: A. Gugliotta	Date: 1/28 to 2/2	Hours: 22.0
Person:	Date:	Hours:
Person:	Date:	Hours:
Person:	Date:	Hours:

****

QA/QC Record

Person: RWenig	Date: 2/2	Hours: 0.5
Person:	Date:	Hours:
Person:	Date:	Hours:

****

LIMS Data Entry

Person:	Date:	Hours:
Person:	Date:	Hours:

****

Comments: _____

****

Total Hours: _____ EMT: _____

ESAT Work Unit Document (WUD)

REQUESTOR:	Babu Paruchuri	DATE:	01/28/94
SITE NAME:	S. E. Rockford		
SUPERFUND ACCOUNT NUMBER:	940043	TFAOSWUDK	
TASK AREA:	1 (Analysis)		

To be completed by Task Monitor

TASK DESCRIPTION:

Analyze 2 water samples (940002S01 & -S02) for volatile organics by the site specific SAS (# 8018E).

DELIVERABLES:

Follow the SAS (# 8018E) and CRL Data Deliverable requirements.

START DATE:	01/28/94	COMPLETION DATE:	02/01/94
ESTIMATED HOURS:	32 Hours		

To be completed by PO/RPO

WORK UNIT NUMBER:	233-51-052	TID NUMBER:	05-94-01-10
PO/RPO APPROVAL:	Patrick J. Clumlh	DATE:	01-28-94

To be completed by ESAT

COI CHECK COMPLETED?:	ESAT CONTACT: (ETM or Group Leader)
ETM ACKNOWLEDGEMENT OF RECEIPT:	
COMPLETION DATE:	HOURS CHARGED:

To be completed by PO/RPO/TM

EVALUATION	RECIEVED BY:		
TECHNICAL:	ACCEPTED		DATE:
TIMELINESS:	RETURN		DATE:
BUDGET:	*Please attach a separate page for comments.*		

REGION SPECIFIC INFORMATION

PROJECT NO: LAN SHARE File:940043VO.wud

SAS 8018E

PRIORITY # I 940043 TFA301

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

DIVISION/BRANCH SUPERFUND SAMPLE DATE 1/27/94 LAB ARRIVAL DATE 1/27/94 DUE DATE 2/1/94

DU NUMBER TFA DATA SET NUMBER 940043 STUDY S.E. ROCKFORD PRIORITY I CONTRACTOR CDM

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17664	WATER ABN ORGANICS SCAN UG/L TOX 17674	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 215662	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
940002S01	5-034926-927-928-929 MW101C-8018E-500	X			
940002S02	5-034930-931-932-933 MW101D-8018E-501	X			

For the analyses, these samples were called 940043 S01 and 940043 S02. There appears to be an error in the CRL Log Number.

Anthony Guglotta 2/2/94

R W Weing 2-2-94

DATE	FILE	DESCRIPTION	COMMENTS
1/31/94	>W0029	BFB, 50 ng	inj time = 1107 2µL inj.
	>W0030	IC0131V01	1 ppb STD ; BARW01, IDRW01, CBRW
	>W0031	IC0131V02	2 ppb STD
	>W0032	IC0131V05	5 ppb STD
	>W0033	IC0131V10	10 ppb STD
	>W0034	IC0131V25	25 ppb STD
	>W0035	013194VBLK1	- not used
	>W0036	013194VCHK1	CAL CK 5 ppb
	>W0037	013194VBLK2	
	>W0038	940043501DL	400X DIL, 62.5µL/25mL MS: >W0048 MSD: >W0049
	>W0039	940043502DL	167X DIL, 150µL/25mL
	>W0040	940043501DL2	100X DIL, 250µL/25mL
	>W0041	940043502DL2	50X DIL, 500µL/25mL
2/1/94	>W0042	BFB, 50 ng	2µL inj.
	>W0043	CC020194A	ID RW02 IS1: 107694 IS2: 105286 IS3: 73743 CB RW01 seq: BAW001
	>W0044	CC020194B	- not used
	>W0045	020194VBLK1	- not used
	>W0046	020194VBLK2	
	>W0047	020194LCS1	10µL ICALCHK/25mL
	>W0048	940043501DLMS	62.5µL sample + 10µL ICALCHK/25mL (400x dil)
	>W0049	940043501DLMSD	62.5µL sample + 10µL ICALCHK/25mL (400X dil)

ɔnmental Protection Agency
Management Office
818, Alexandria, Virginia 22313
IONE: (703)/557-2490 or FTS/557-2490

SAS Number

SPECIAL ANALYTICAL SERVICES
Client Request

☐ Regional Transmittal ☐ Telephone Request

A. EPA Region/Client: V

B. RSCC Representative: Brian Freeman

C. Telephone Number: (312) 353-2720

D. Date of Request: September 2, 1993

E. Site Name: SOUTHEAST ROCKFORD PHASE II REMEDIAL INVESTIGATION

Please provide below a description of your request for Special Analytical Services under the Contract Laboratory Program. In order to most efficiently obtain laboratory capability fo your request, please address the following considerations, if applicable. Incomplete or erroneous information may result in delay in the processing of your request. Please continue response on additional sheets, or attach supplementary information as needed.

1. General description of analytical service requested: Analysis of groundwater for volatiles with low quantitation limits

2. Definition and number of work units involved (specify whether whole samples or fractions; whether organics or inorganics; whether aqueous or soil and sediments; and whether low, medium, or high concentration):
One hundred fifty one
151 samples - 123 investigative samples, 14 field duplicates, 14 field blanks

3. Purpose of analysis (specify whether Superfund (Remedial or Enforcement), RCRA, NPDES, etc.):

Superfund REMEDIAL

Rev. 9.2
initial

4. Estimated date(s) of collection: September 27 - October 22, 1993

5. Estimated date(s) and method of shipment: Daily by overnight carrier

6. Number of days analysis and data required after laboratory receipt of samples: Data package should be received in the Region within 14 days on a Sample Delivery Group basis. Holding times for each fraction are defined in the Method 6/91.

7. Analytical protocol required (attach copy if other than a protocol currently used in this program):

Analysis per the Superfund Analytical Methods for Low Concentration Water For Organic Analysis, 6/91.

Also see Attachment A

8. Special technical instruction (if outside protocol requirements, specify compound names, CAS numbers, detection limits, etc.): Notify the Region if dilutions are re

All 151 samples will be collected from monitoring wells. ~~1. Occasionally~~ monitoring well samples may be sent; in the case where higher levels are suspected, the lab will receive notification when scheduling and the samples will be identifi by field samplers on the Traffic Report form or the Chain of Custody form. The la need to screen these samples to determine the minimum dilution required; the Regio be notified when dilutions are required for further instructions regarding reporti

9. Analytical results required (if known, specify format for data sheets, QA/QC report Chain-of-Custody documentation, etc.). If not completed, format of results will be left to program discretion.

As per 6/91 Method. Also see Attachment B

The lab must notify SMO if any reanalyses or reextractions need to b performed outside of holding times (i.e., due to surrogate recovery etc.) so the Region can determine whether to submit the original ana

10. Other (use additional sheets or attach supplementary information, as needed):

See Attachment C

11. Name of sampling/shipping contact: Ann Capriotti

Phone: 312 474 1313

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I. DATA REQUIREMENTS

Parameter:	Detection Limit	Precision Desired (±% or Conc.)
Volatile Organics Only As per Method 6/91	As per 6/91	As per 6/91

II. QC REQUIREMENTS

Audits Required	Frequency of Audits	Limits* (% or Conc.)
As per 6/91	As per 6/91	As per 6/91
Storage Blank as per 6/91 SOW	As per 6/91 SOW	As per 6/91 SOW

III. ACTION REQUIRED IF LIMITS ARE EXCEEDED:

As per Method 6/91, Call SMO.

Please return this request to the Sample Management Office as soon as possible to expedi processing of your request for special analytical services. Should you have any questi ---- any assistance, please call the Sample Management Office.

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12/91

ATTACHMENT A

The laboratory data rejection and non-payment will be recommended if methods other than those specified in this document are used.

ATTACHMENT B

All original raw data, forms, calculation work sheets, instrument readouts, and preparation forms should be submitted with each data set. If originals were submitted in another data package, photocopies may be submitted with a record of the location of the originals.

ATTACHMENT C

All original tags, COC, SAS packing lists, airbills, and other original forms or copies of receiving log book pages pertaining to this SAS shall be submitted to the Region within the time frame.

(Method 6/91)

OLCO1.0 SUMMARY

The following is a summary of the major differences in the new Organic Low Concentration Statement of Work as compared to the Organic Multimedia Statement of Work. Data turnaround is 14 days, therefore, the Sample Delivery Group (SDG) is on a 7 day basis. A Complete SDG File (CSF) Inventory requirement replaces the file purge requirement. All original sample documentation, including sample tags, custody forms, airbills, etc., will be shipped directly to the Region with a check off sheet and the complete original data package in 14 days. New forms include the Sample Log-in Sheet (DC-1) and the Document Inventory Sheet (DC-2). The diskette deliverable applies. Performance Evaluation Samples (PES) will be sent with each shipment of samples and will be analyzed on an SDG basis; these samples will be supplied by the EPA and action can be taken if the results score is <75%. No matrix spike/matrix spike duplicate analyses are required.

VOLATILE ORGANIC COMPOUND ANALYSIS

This fraction's Target Compound List (TCL) contains 40 compounds plus 10 Tentitively Identified Compounds (TIC).

New BFB tuning criteria and procedures are included.

A 7 day holding time is required. This will be changed to a 10 day holding time in the near future; all VOA vials should be preserved in the field to a pH < 2.

Sample analysis volume is 25 ml.

A Laboratory Control Sample (LCS) composed of 12 compounds is analyzed with each SDG; if LCS recovery limits are not met, re-analysis of all samples in the SDG is required.

One surrogate compound, BFB, is used and has 80-120% recovery limits.

Three internal standards (IS) are used: 1,4-difluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4; ± 40% area differences and RTs of ± 0.33 min (20 sec) are allowed.

Initial calibration is at 1,2,5,10,and 25 ppb with a continuing calibration at 5 ppb.

Response factors, % relative standard deviation (RSD), and % difference (D) for response factors have control limits that are compound specific for 28/40 of the compounds, with an exemption for 2 compounds out of control with a maximum % RSD or % D of 40; a minimum RF of 0.01 is required for the remaining 12 compounds.

Bromochloromethane, formerly an IS, is now a target compound.

Volatiles (continued)

Cis-1,2-dichloroethene and trans-1,2-dichloroethene are reported separately.

Vinyl acetate has been removed from the target compound list.

Added to the target list are: 1,2-dibromoethane, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichlorobenzene, and 1,2-dibromo-3-chloropropane.

Contract required quantitation limits (CRQL) are 1 ppb for all compounds except for methylene chloride at 2 ppb, and acetone, 2-butanone, 4-methyl-2-pentanone and 2-hexanone at 5 ppb.

Subambient temperature GC programming is required.

Blank concentrations of all target compounds must be < CRQL.
Blank TIC concentrations must be < 2.0 ppb.

TABLE 1 (ALL UNITS ARE MICROGRAMS/LITER)

PARAMETER	CAS #	QUANTITATION LIMITS
BENZENE	71-43-2	1.5
BROMODICHLOROMETHANE	75-27-4	1.5
BROMOFORM	75-25-2	1.5
BROMOMETHANE	74-83-9	10
CARBON TETRACHLORIDE	56-23-5	1.5
CHLOROBENZENE	108-90-7	1.5
CHLOROETHANE	75-00-3	1.5
CHLOROFORM	67-66-3	1.5
CHLOROMETHANE	74-87-3	10
DIBROMOCHLOROMETHANE	124-48-1	1.5
1,1-DICHLOROETHANE	75-34-3	1.5
1,2-DICHLOROETHANE	107-06-2	1.5
1,1-DICHLOROETHENE	75-35-4	1.5
TOTAL 1,2-DICHLOROETHENES	156-60-5	1.5
1,2-DICHLOROPROPANE	78-87-5	1.5
cis-1,3-DICHLOPROPROPENE	10061-01-5	2
trans-1,3-DICHLOROPROPENE	10061-02-6	1
ETHYL BENZENE	100-41-4	1.5
METHYLENE CHLORIDE (*)	75-09-2	1
1,1,2,2-TETRACHLOROETHANE	79-34-5	1.5
TETRACHLOROETHENE	127-18-4	1.5
TOLUENE (*)	108-88-3	1.5
1,1,1-TRICHLOROETHANE	71-55-6	1.5
1,1,2-TRICHLOROETHANE	79-00-5	1.5
TRICHLOROETHENE	79-01-6	1.5
VINYL CHLORIDE	75-01-4	10
ACETONE (*)	67-64-1	75
CARBON DISULFIDE	75-15-0	3
2-BUTANONE	78-93-3	(50)
4-METHYL-2-PENTANONE	108-10-1	(3)
2-HEXANONE	519-78-6	(50)
STYRENE	100-42-5	1
o-XYLENE **	95-47-6	
p-XYLENE **	106-42-3	2.5

* COMMON LABORATORY SOLVENT
BLANK LIMIT IS 5x METHOD DETECTION LIMIT

** THE o-XYLENE AND p-XYLENE ARE REPORTED AS A TOTAL OF THE TWO

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4/10/87

SAMPLE MANAGEMENT OFFICE

Operated by Viar & Company
a subsidiary of DynCorp
under contract #68-D9-0135
to the U.S. Environmental Protection Agency

MEMORANDUM

DATE: October 7, 1993

TO: Brian Freeman, Regional Sample Control Coordinator
U.S. EPA Region V

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 2
To Brian Freeman	From Cynthia Grant
Co. Reg V	Co. DynCorp Viar
Dept.	Phone #
Fax #	Fax #

FROM: Cynthia Grant, Team Leader CG
Special Analytical Services Group

THROUGH: Sean Kolb, Manager SL
Special Analytical Services Group

SUBJECT: Analysis of VOA Samples from Southeast Rockford
(SAS 8018-Q, Case 20956)

As we discussed yesterday, the laboratory has screened the samples that were marked as potentially medium level samples. The levels indicated from the screen confirm that the samples contain significantly high levels of volatile compounds and would require a five to six fold dilution according to the Routine Analytical Services (RAS) Statement of Work (SOW). Therefore, DynCorp Viar recommended the following solution.

1. The laboratory will screen all samples. If the screens indicate total VOA levels of 500 ppb or less, the laboratory will analyze the samples under SAS Order 8018-Q. If the levels are greater than 500 ppb, the laboratory will analyze the samples according to the RAS SOW under the laboratory's fast turnaround RAS contract. This will result in separate RAS and SAS data packages being submitted.

2. Since the medium level samples at the laboratory were shipped under the Special Analytical Services (SAS) Order 8018-Q, the SAS will have to be amended to include payment for this RAS analysis.

3. Future shipments of VOA samples will be labelled with RAS sample numbers and shipped with RAS paperwork only. This paperwork must list both the SAS Order Number (8018-Q) and the new RAS Case Number (21019). The sample numbers must be different than the numbers used for the RAS BNAs.

4. Samplers will mark any samples that are characterized as potentially medium level. If possible list all of the expected low concentration samples on one traffic report (TR) and list all of the potentially medium concentration samples on a different TR.

P.O. Box 818, Alexandria, Virginia 22313. Phone: (703) 684-5678

5. The laboratory will photocopy any TR that had samples that were analyzed according to the RAS SOW. The copy will be included in the SAS data package. The laboratory will include the original TR in the RAS data package. Also, the laboratory will line through the samples that were analyzed under the SAS on the original TR.

We are providing written directions to the laboratory concurrent with this memorandum. We believe, this solution will allow the use of the laboratory's RAS contract when appropriate, without requiring any contract modifications or waivers. We will proceed with this solution, per our conversation. If you have any questions, you may call me as 703/519-1163.

cc: Lucinda Taylor, U.S. EPA AOB
Tina DeYoung, DynCorp Viar
Tina Rodgers, DynCorp Viar
Hal Ladehoff, DynCorp Viar
Ruthelen Harrison, DynCorp Viar

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

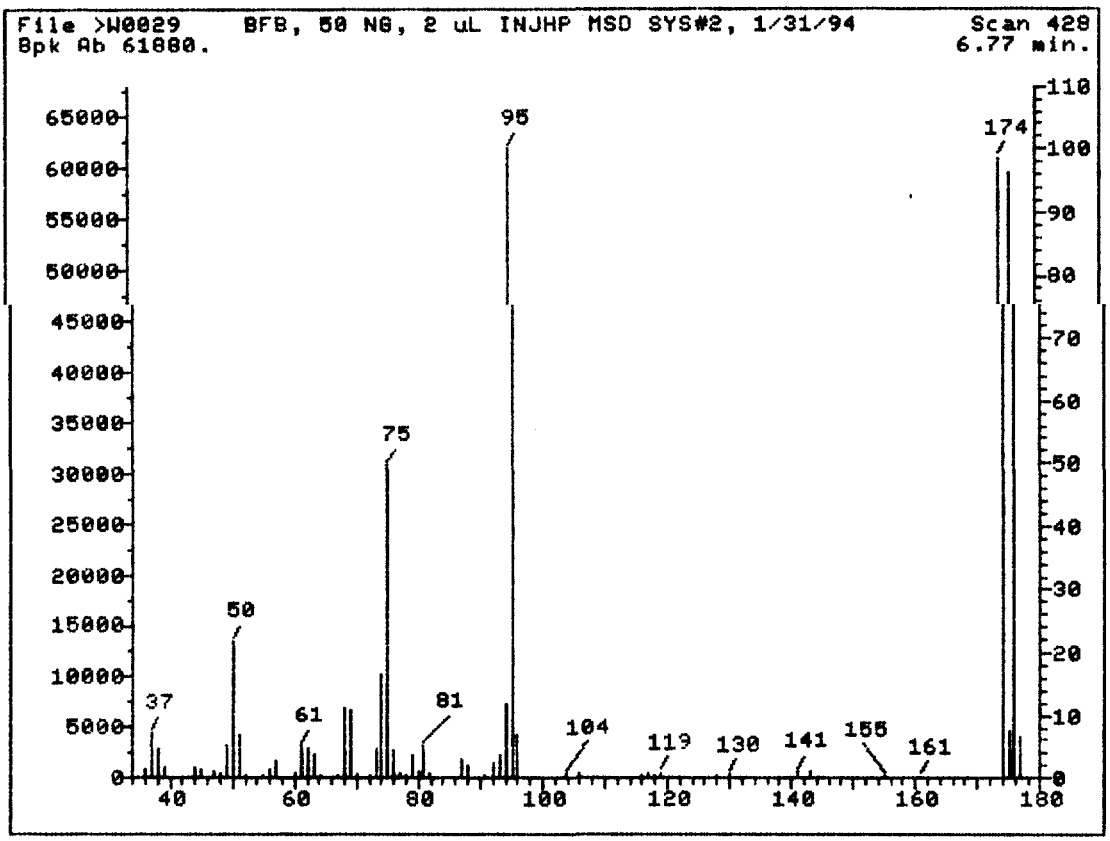
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	21.64	21.64	Ok
75	30-60% of mass 95	49.62	49.62	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.85	6.85	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	98.49	98.49	Ok
175	5-9% of mass 174	7.58	7.70	Ok
176	95-101% of mass 174	96.52	98.00	Ok
177	5-9% of mass 176	6.38	6.61	Ok

Injection Date: 01/31/94
Injection Time: 11:07
Data File: >W0029
Scan: 428

MS data file header from : >W0029::D1

Sample: BFB, 50 NG, 2 uL INJ Operator: BABU REG. GRP. 1/31/94 11:07
Misc : HP MSD SYS#2, 1/31/94
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: HP MS #7
Method file: BFB#2 Tuning file: MTMSD2 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	0.	0.	0.	0.	0.
Chromatographic times, min. :	0.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	0.0	0.0	0.0	0.0	0.0



MS data file header from : >W0029::D1

Sample: BFB, 50 NG, 2 uL INJ Operator: BABU REG. GRP. 1/31/94 11:09
Misc : HP MSD SYS#2, 1/31/94
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: HP MS #7
Method file: BFB#2 Tuning file: MTMSD2 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	150.	200.	0.	0.	0.
Chromatographic times, min. :	0.0	1.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	15.0	0.0	0.0	.1	0.0

>W0029 BFB, 50 NG, 2 uL INJHP MSD SYS#2, 1/31/94
428

File: >W0029 Scan #: 428 Retn. time: 6.77

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.	798.0	72.	364.0	111.	98.0	139.	61.0	177.	3947.0
37.	4353.0	73.	2879.0	112.	65.0	140.	123.0	178.	138.0
38.	2989.0	74.	10317.0	112.	68.0	141.	681.0	183.	25.0
39.	1171.0	75.	30704.1	113.	48.0	142.	77.0	191.	42.0
41.	115.0	76.	2788.0	113.	113.0	142.	85.0	191.	41.0
43.	127.0	77.	402.0	115.	64.0	143.	605.0	196.	24.0
43.	124.0	78.	236.0	115.	89.0	146.	131.0	198.	41.0
44.	1091.0	79.	2450.0	116.	242.0	147.	55.0	204.	50.0
45.	934.0	80.	714.0	117.	413.0	147.	61.0	207.	163.0
47.	661.0	81.	3087.0	118.	271.0	148.	131.0	208.	83.0
48.	501.0	82.	548.0	119.	481.0	149.	47.0	214.	27.0
49.	3094.0	83.	78.0	120.	53.0	150.	127.0	216.	24.0
50.	13388.0	85.	45.0	124.	127.0	151.	32.0	218.	32.0
51.	4190.0	86.	114.0	125.	55.0	151.	83.0	219.	34.0
52.	197.0	86.	114.0	125.	46.0	152.	84.0	220.	24.0
55.	255.0	87.	1870.0	125.	31.0	153.	115.0	221.	62.0
56.	947.0	88.	1401.0	126.	146.0	155.	176.0	224.	28.0
57.	1748.0	90.	46.0	128.	349.0	157.	124.0	228.	37.0
58.	121.0	91.	267.0	129.	122.0	161.	121.0	229.	27.0
58.	122.0	92.	1423.0	129.	121.0	162.	28.0	229.	29.0
59.	121.0	93.	2421.0	130.	372.0	162.	40.0	231.	26.0
60.	566.0	94.	7362.0	131.	77.0	165.	52.0	233.	25.0
61.	3127.0	95.	61880.2	131.	129.0	167.	52.0	239.	21.0
62.	3009.0	96.	4236.0	133.	59.0	167.	51.0	246.	41.0
63.	2371.0	100.	36.0	134.	51.0	169.	38.0	250.	27.0
64.	256.0	102.	80.0	134.	59.0	171.	48.0	251.	28.0
65.	100.0	103.	126.0	135.	134.0	172.	81.0	253.	37.0
67.	215.0	104.	432.0	136.	62.0	174.	60944.2	257.	27.0
68.	6850.0	105.	158.0	137.	120.0	175.	4691.0	259.	27.0
69.	6814.0	106.	388.0	138.	51.0	176.	59728.2	259.	28.0
70.	506.0	107.	139.0						

MS data file header from : >W0029::D1

Sample: BFB, 50 NG, 2 uL INJ Operator: BABU REG. GRP. 1/31/94 11:09
Misc : HP MSD SYS#2, 1/31/94
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: HP MS #7
Method file: BFB#2 Tuning file: MTMSD2 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

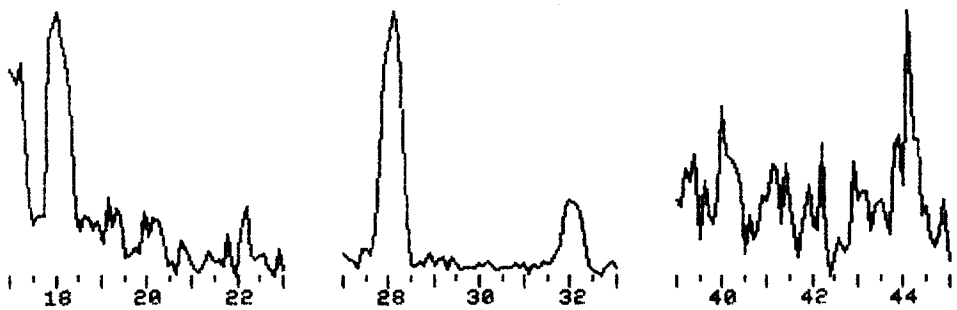
Chromatographic temperatures :	150.	200.	0.	0.	0.
Chromatographic times, min. :	0.0	1.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	15.0	0.0	0.0	.1	0.0

Air / Water Background 1/31/94

PROFILE SCAN ver 830402

INST # 2: HP MS #7 TYPE: 5970 DATE: 1/31/94 10:08

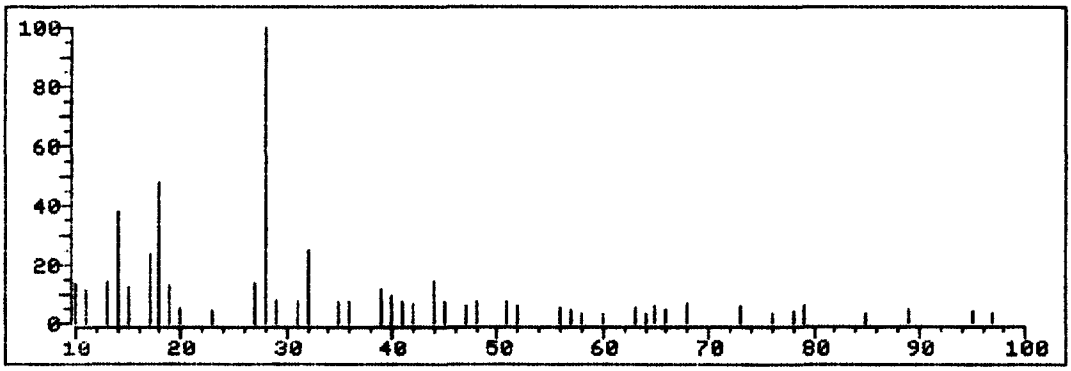
Repeller (V)	10.2	X - Ray (V)	76.0	AMU Offset	54
Ion Focus (V)	20.0	EM Volts (V)	1984	Mass Gain	248
Ent Lens (mV)	40	AMU Gain	140	Mass Offset	16



MASS	ABUND	REL. ABUND	FWHM	ISO FWHM
18.00	195.	40.54	.600	1.980
28.10	481.	100.00	.490	1.970
44.10	69.	14.35	.280	.020

INST # 2: HP MS #7 TYPE: 5970 DATE: 1/31/94 10:10

Mass Range	10- 100			Peaks detected	51
Base Peak	28.05	Abundance	375	Total Ab.	2121
Samples / A.D.	16	Integration	50	Threshold	10



Mass	Abund	Rel. Abund	Iso Mass	Iso Abund	Iso Ratio
19.70	20	5.33	0.00	0	0.00
0.00	0	0.00	31.35	27	0.00
42.00	24	6.40	0.00	0	0.00

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESAT

Lab code: 5SCRL Case No.: 940043 SAS No.: 940043 SDG No.: ---

Lab File ID: >W0042 BFB Injection Date: 2/01/94

Instrument ID: HP MSD#2 BFB Injection Time: 9:17

Matrix: (soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.2
75	30.0 - 60.0% of mass 95	49.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50% of mass 95	94.3
175	5.0 - 9.0% of mass 174	7.4 (7.8)1
176	95.0 - 101.0% of mass 174	94.1 (99.8)1
177	5.0 - 9.0% of mass 176	6.1 (6.5)2

1-Value is % of mass 174 2-Value is % of 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	CC020194A	CC020194A	>W0043	02/01/94	09:49
02	0201VBLK2	020194VBLK2	>W0046	02/01/94	11:42
03	0201LCS1	020194LCS1	>W0047	02/01/94	12:20
04	940043S01MS	940043S01MS	>W0048	02/01/94	12:59
05	940043S01MD	940043S01MSD	>W0049	02/01/94	13:45
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA 1/87 Rev.

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

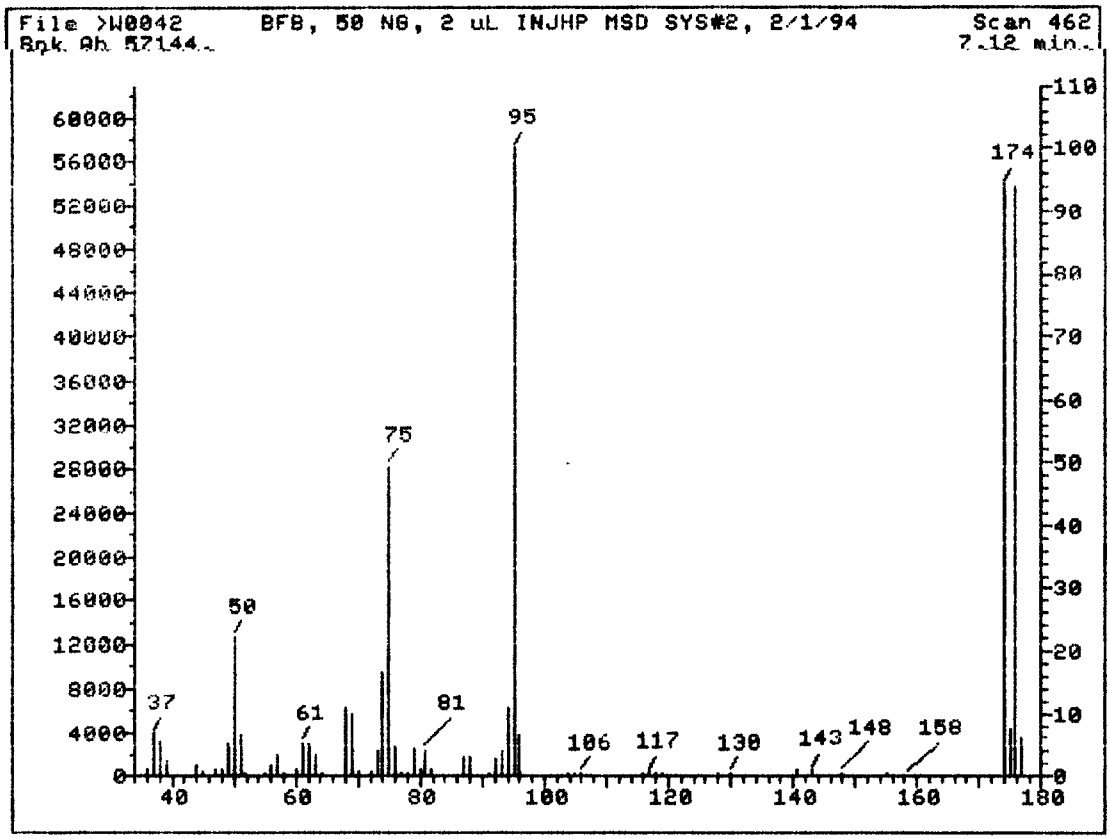
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	22.21	22.21	Ok
75	30-60% of mass 95	49.49	49.49	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.62	6.62	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	94.29	94.29	Ok
175	5-9% of mass 174	7.36	7.81	Ok
176	95-101% of mass 174	94.06	99.76	Ok
177	5-9% of mass 176	6.08	6.46	Ok

Injection Date: 02/01/94
Injection Time: 09:17
Data File: >W0042
Scan: 462

MS data file header from : >W0042::D2

Sample: BFB, 50 NG, 2 uL INJ Operator: TONY REG. GRP. 2/01/94 9:17
Misc : HP MSD SYS#2, 2/1/94
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: HP MS #7
Method file: BFB#2 Tuning file: MTMSD2 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	150.	200.	0.	0.	0.
Chromatographic times, min. :	0.0	1.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	15.0	0.0	0.0	.1	0.0



MS data file header from : >W0042::D2

Sample: BFB, 50 NG, 2 uL INJ Operator: TONY REG. GRP. 2/01/94 9:17
Misc : HP MSD SYS#2, 2/1/94
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: HP MS #7
Method file: BFB#2 Tuning file: MTMSD2 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	150.	200.	0.	0.	0.
Chromatographic times, min. :	0.0	1.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	15.0	0.0	0.0	.1	0.0

>W0042 BFB, 50 NG, 2 uL INJHP MSD SYS#2, 2/1/94
462

File: >W0042 Scan #: 462 Retn. time: 7.12

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.	632.0	69.	5724.0	103.	79.0	135.	103.0	174.	53880.2
37.	3836.0	70.	415.0	104.	219.0	136.	50.0	175.	4207.0
38.	3049.0	71.	68.0	105.	155.0	137.	72.0	176.	53752.2
39.	1339.0	72.	371.0	106.	303.0	137.	90.0	177.	3472.0
41.	99.0	73.	2440.0	107.	95.0	138.	75.0	178.	101.0
42.	53.0	74.	9426.0	109.	36.0	139.	64.0	179.	65.0
42.	63.0	75.	28280.1	110.	128.0	139.	75.0	180.	54.0
43.	71.0	76.	2727.0	111.	118.0	141.	557.0	181.	39.0
43.	109.0	77.	298.0	113.	60.0	142.	124.0	184.	69.0
44.	950.0	78.	255.0	113.	66.0	143.	574.0	186.	34.0
45.	489.0	78.	245.0	114.	60.0	144.	85.0	187.	35.0
46.	137.0	79.	2644.0	114.	67.0	145.	88.0	189.	24.0
47.	608.0	80.	717.0	115.	67.0	146.	85.0	191.	96.0
48.	549.0	81.	2445.0	115.	85.0	147.	103.0	191.	31.0
49.	2891.0	82.	559.0	116.	333.0	148.	244.0	192.	42.0
50.	12693.0	83.	70.0	117.	391.0	150.	67.0	198.	51.0
51.	3691.0	84.	71.0	118.	190.0	150.	72.0	202.	34.0
52.	162.0	85.	67.0	119.	335.0	151.	58.0	206.	37.0
54.	28.0	86.	111.0	120.	53.0	153.	60.0	207.	196.0
55.	224.0	87.	1775.0	120.	56.0	153.	35.0	208.	100.0
56.	930.0	88.	1692.0	123.	70.0	154.	81.0	209.	57.0
57.	2032.0	89.	114.0	124.	71.0	155.	149.0	217.	30.0
58.	154.0	89.	82.0	125.	45.0	157.	115.0	221.	50.0
59.	64.0	91.	311.0	126.	65.0	158.	58.0	224.	27.0
60.	553.0	92.	1687.0	128.	250.0	159.	108.0	225.	62.0
61.	3034.0	93.	2378.0	129.	85.0	161.	90.0	228.	24.0
62.	2943.0	94.	6251.0	129.	87.0	161.	64.0	234.	32.0
63.	1930.0	95.	57144.2	130.	305.0	162.	63.0	240.	42.0
64.	265.0	96.	3781.0	131.	118.0	162.	51.0	244.	26.0
65.	101.0	97.	143.0	133.	55.0	163.	45.0	245.	64.0
66.	52.0	101.	40.0	134.	55.0	166.	57.0	245.	64.0
68.	6256.0	103.	82.0	135.	117.0	170.	38.0	254.	21.0

MS data file header from : >W0042::D2

Sample: BFB, 50 NG, 2 uL INJ Operator: TONY REG. GRP. 2/01/94 9:17
Misc : HP MSD SYS#2, 2/1/94
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: HP MS #7
Method file: BFB#2 Tuning file: MTMSD2 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	150.	200.	0.	0.	0.
Chromatographic times, min. :	0.0	1.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	15.0	0.0	0.0	.1	0.0

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESAT

Lab Code: 5SCRL Case No.: 940043 SAS No.: 940043 SDG No.: ---

Instrument ID: HP MSD#2 Calibration Date(s): 01/31/94

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0

LAB FILE ID: RRF001= >W0030 RRF002= >W0031
RRF005= >W0032 RRF010= >W0033 RRF025= >W0034

COMPOUND	RRF001	RRF002	RRF005	RRF010	RRF025	$\overline{RRF}$	RSD
Dichlorodifluoromethane	.421	.359	.443	.385	.298	.381	14.9
Chloromethane	++++	++++	++++	.348	.275	.311	16.6
Vinyl chloride	.328	.276	.391	.330	.325	.330	12.5
Bromomethane	.306	.276	.345	.282	.275	.297	9.9
Chloroethane	++++	.189	.250	.195	.208	.210	13.1
Trichlorofluoromethane	.453	.544	.734	.652	.597	.596	17.9
Acrolein	++++	++++	.003	.003	.002	.003	25.0
1,1-Dichloroethene	.254	.313	.352	.301	.254	.295	14.2
Acetone	.056	.032	.038	.034	.025	.037	31.2
Carbon disulfide	.725	.950	.974	.889	.765	.861	12.8
Methylene chloride	.249	.259	.271	.261	.218	.252	8.0
trans-1,2-Dichloroethene	.288	.342	.373	.345	.288	.327	11.6
Acrylonitrile	.024	.025	.022	.023	.019	.023	9.9
1,1-Dichloroethane	.537	.601	.675	.609	.520	.588	10.5
Vinyl acetate	.124	.102	.132	.132	.116	.121	10.6
2,2-Dichloropropane	.584	.675	.780	.694	.576	.662	12.8
cis-1,2-Dichloroethene	.294	.310	.336	.317	.269	.305	8.3
2-Butanone	.052	.035	.034	.034	.027	.036	25.7
Bromochloromethane	.121	.137	.141	.130	.108	.127	10.5
Chloroform	.702	.726	.863	.735	.605	.726	12.7
1,1,1-Trichloroethane	.625	.761	.883	.792	.655	.743	14.2
Carbon tetrachloride	.528	.697	.825	.737	.616	.681	16.7
1,1-Dichloropropene	.425	.517	.593	.527	.437	.500	13.9
Benzene	.969	1.027	1.093	1.014	.875	.996	8.1
1,2-Dichloroethane	.358	.417	.399	.392	.325	.378	9.7
Trichloroethene	.381	.424	.486	.419	.352	.412	12.2
1,2-Dichloropropane	.230	.225	.250	.221	.188	.223	10.1
Dibromomethane	.163	.171	.167	.168	.132	.161	10.0
2-Chloroethyl vinylether	++++	++++	.062	.056	.051	.057	9.0
Bromodichloromethane	.370	.427	.457	.425	.361	.408	10.1
cis-1,3-Dichloropropene	.340	.376	.404	.377	.330	.365	8.3
Toluene	.702	.731	.799	.701	.598	.706	10.2
4-Methyl-2-pentanone	.073	.082	.076	.074	.064	.074	9.1
trans-1,3-Dichloropropene	.237	.295	.308	.301	.261	.280	10.8

6A-1
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESAT

Lab Code: 5SCRL Case No.: 940043 SAS No.: 940043 SDG No.: ---

Instrument ID: HP MSD#2 Calibration Date(s): 01/31/94

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0

LAB FILE ID: RRF001= >W0030 RRF002= >W0031
RRF005= >W0032 RRF010= >W0033 RRF025= >W0034

COMPOUND	RRF001	RRF002	RRF005	RRF010	RRF025	$\overline{RRF}$	RSD
Tetrachloroethene	.461	.514	.588	.498	.415	.495	13.0
1,1,2-Trichloroethane	++++	++++	++++	.014	.010	.012	22.1
1,3-Dichloropropane	.213	.218	.239	.212	.187	.214	8.6
2-Hexanone	.056	.047	.054	.054	.046	.051	9.1
Dibromochloromethane	.205	.233	.255	.249	.208	.230	9.9
1,2-Dibromoethane	.138	.168	.158	.153	.128	.149	10.6
Chlorobenzene	.975	1.117	1.253	1.074	.946	1.073	11.4
1,1,1,2-Tetrachloroethane	.415	.437	.490	.460	.375	.435	10.0
Ethylbenzene	1.948	2.181	2.584	2.271	1.956	2.188	12.0
m &/or p-Xylene	.685	.722	.881	.777	.678	.749	11.2
o-Xylene	.639	.693	.794	.687	.608	.684	10.3
Styrene	.916	.514	1.166	1.067	.940	.921	27.0
Bromoform	.176	.183	.199	.197	.170	.185	6.7
Isopropylbenzene	2.029	2.237	2.753	2.342	2.027	2.277	13.1
Bromobenzene	.455	.481	.516	.485	.389	.465	10.3
1,2,3-Trichloropropane	.216	.220	.212	.215	.173	.207	9.5
1,1,2,2-Tetrachloroethane	.173	.184	.165	.165	.136	.164	10.7
n-Propylbenzene	.532	.544	.648	.562	.481	.553	11.0
2-Chlorotoluene	.480	.509	.558	.493	.418	.491	10.3
4-Chlorotoluene	.439	.472	.542	.471	.411	.467	10.4
1,3,5-Trimethylbenzene	1.831	1.566	2.418	2.082	1.775	1.935	16.9
tert-Butylbenzene	1.564	1.913	2.279	1.985	1.653	1.879	15.1
1,2,4-Trimethylbenzene	1.818	1.946	2.356	2.052	1.760	1.986	11.9
sec-Butylbenzene	2.186	2.511	3.105	2.616	2.279	2.539	14.2
1,3-Dichlorobenzene	.967	.993	1.078	.987	.824	.970	9.5
1,4-Dichlorobenzene	.917	.971	1.024	.946	.785	.929	9.6
p-Isopropyltoluene	1.969	2.167	2.658	2.276	1.936	2.201	13.2
1,2-Dichlorobenzene	.731	.822	.854	.753	.636	.759	11.2
n-Butylbenzene	2.005	2.277	2.757	2.286	1.973	2.260	13.9
1,2-Dibromo-3-chloropropane	.048	.053	.044	.041	.035	.044	15.8
1,2,4-Trichlorobenzene	.733	.774	.839	.778	.613	.747	11.3
Naphthalene	.566	.619	.593	.610	.503	.578	8.0
Hexachlorobutadiene	.848	.975	1.193	1.013	.773	.961	16.8
1,2,3-Trichlorobenzene	.551	.604	.623	.568	.457	.560	11.5

6A-2
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESAT

Lab Code: 5SCRL Case No.: 940043 SAS No.: 940043 SDG No.: ---

Instrument ID: HP MSD#2 Calibration Date(s): 01/31/94

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0

LAB FILE ID: RRF001= >W0030 RRF002= >W0031
RRF005= >W0032 RRF010= >W0033 RRF025= >W0034

COMPOUND	RRF001	RRF002	RRF005	RRF010	RRF025	$\overline{RRF}$	%RSD
BENZENE-D6	.891	.924	.921	.917	.934	.917	1.7
p-BROMOFLUOROBENZENE	.535	.527	.516	.532	.520	.526	1.5
1,2-DICHLOROBENZENE-D4	.453	.472	.447	.448	.440	.452	2.6

Calibration Report

Title: CAL FILE FOR OLC01 (LOW-LEVEL)
Calibrated: 940201 08:33

Compound	Files: >W0030 RF 1.00	>W0031 RF 2.00	>W0032 RF 5.00	>W0033 RF 10.00	>W0034 RF 25.00	$\overline{RRT}$	$\overline{RF}$	% RSD	
Dichlorodifluoromethane	.42103	.35867	.44341	.38539	.29808	.469	.38132	14.887	
Chloromethane	-	-	-	.34776	.27480	.501	.31128	16.572	
Vinyl chloride	.32757	.27564	.39143	.33036	.32537	.518	.33008	12.451	
Bromomethane	.30575	.27586	.34460	.28245	.27514	.563	.29676	9.937	
Chloroethane	-	.18852	.24954	.19472	.20784	.568	.21016	13.069	
Trichlorofluoromethane	.45295	.54368	.73440	.65172	.59653	.595	.59586	17.892	
Acrolein	-	-	.00345	.00290	.00206	.646	.00280	25.007	(Conc=5.00,10.0,25.0,50.0,125.0)
1,1-Dichloroethene	.25351	.31332	.35184	.30120	.25359	.662	.29469	14.236	
Acetone	.05588	.03199	.03762	.03362	.02528	.662	.03688	31.237	(Conc=5.00,10.0,25.0,50.0,125.0)
Carbon disulfide	.72519	.94974	.97365	.88891	.76547	.698	.86059	12.849	
Methylene chloride	.24874	.25938	.27103	.26089	.21831	.715	.25167	8.047	
trans-1,2-Dichloroethene	.28791	.34156	.37310	.34527	.28772	.748	.32711	11.583	
Acrylonitrile	.02403	.02542	.02237	.02256	.01939	.741	.02275	9.880	(Conc=5.00,10.0,25.0,50.0,125.0)
1,1-Dichloroethane	.53723	.60079	.67471	.60860	.52020	.796	.58831	10.506	
Vinyl acetate	.12447	.10163	.13193	.13228	.11576	.792	.12122	10.607	(Conc=2.00,4.00,10.0,20.0,50.0)
2,2-Dichloropropane	.58356	.67528	.78028	.69414	.57594	.866	.66184	12.811	
cis-1,2-Dichloroethene	.29436	.30954	.33642	.31702	.26875	.863	.30522	8.320	
2-Butanone	.05220	.03456	.03364	.03411	.02722	.859	.03635	25.745	(Conc=5.00,10.0,25.0,50.0,125.0)
Bromochloromethane	.12140	.13678	.14144	.12956	.10769	.892	.12738	10.492	
Chloroform	.70223	.72613	.86288	.73531	.60519	.896	.72635	12.690	
1,1,1-Trichloroethane	.62474	.76127	.88335	.79235	.65458	.927	.74326	14.154	
Carbon tetrachloride	.52848	.69723	.82468	.73735	.61556	.948	.68066	16.691	
1,1-Dichloropropene	.42543	.51725	.59292	.52663	.43680	.944	.49981	13.860	
BENZENE-D6	.89078	.92432	.92055	.91675	.93351	.966	.91718	1.747	(Conc=5.00,5.00,5.00,5.00,5.00)
Benzene	.96878	1.02713	1.09303	1.01426	.87543	.971	.99573	8.096	
1,2-Dichloroethane	.35841	.41714	.39914	.39187	.32485	.969	.37828	9.695	
Trichloroethene	.38125	.42398	.48562	.41898	.35181	.869	.41233	12.235	
1,2-Dichloropropane	.23016	.22546	.25006	.22104	.18812	.894	.22297	10.054	
Dibromomethane	.16340	.17138	.16741	.16811	.13236	.907	.16053	9.969	
2-Chloroethyl vinylether	-	-	.06169	.05645	.05150	.944	.05654	9.018	
Bromodichloromethane	.37002	.42667	.45721	.42537	.36096	.920	.40804	10.050	
cis-1,3-Dichloropropene	.34004	.37597	.40391	.37710	.32978	.967	.36536	8.261	(Conc=1.06,2.12,5.30,10.6,26.5)
Toluene	.70163	.73087	.79876	.70142	.59793	1.008	.70612	10.247	
4-Methyl-2-pentanone	.07303	.08237	.07591	.07378	.06373	.979	.07376	9.095	(Conc=2.00,4.00,10.0,20.0,50.0)
trans-1,3-Dichloropropene	.23697	.29500	.30768	.30113	.26079	1.026	.28031	10.789	(Conc=.940,1.88,4.70,9.40,23.5)
Tetrachloroethene	.46132	.51362	.58807	.49847	.41517	1.074	.49533	12.977	
1,1,2-Trichloroethane	-	-	-	.01426	.01041	1.050	.01234	22.093	
1,3-Dichloropropane	.21279	.21755	.23851	.21208	.18711	1.072	.21760	8.572	
2-Hexanone	.05629	.04721	.05351	.05425	.04555	1.073	.05136	9.145	(Conc=2.00,4.00,10.0,20.0,50.0)

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

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

Calibration Report

Title: CAL FILE FOR OLC01 (LOW-LEVEL)
Calibrated: 940201 08:33

Compound	Files: >W0030 RF 1.00	>W0031 RF 2.00	>W0032 RF 5.00	>W0033 RF 10.00	>W0034 RF 25.00	$\overline{RRT}$	$\overline{RF}$	% RSD	
Dibromochloromethane	.20510	.23350	.25450	.24910	.20838	1.101	.23012	9.873	
1,2-Dibromoethane	.13799	.16758	.15752	.15309	.12823	1.120	.14888	10.552	
Chlorobenzene	.97478	1.11656	1.25292	1.07375	.94624	1.003	1.07285	11.414	
1,1,1,2-Tetrachloroethane	.41468	.43741	.49020	.45974	.37533	1.009	.43547	10.034	
Ethylbenzene	1.94787	2.18088	2.58428	2.27095	1.95572	1.010	2.18794	11.997	
m &/or p-Xylene	.68511	.72227	.88120	.77733	.67794	1.021	.74877	11.199	(Conc=2.00,4.00,10.0,20.0,50.0)
o-Xylene	.63942	.69321	.79442	.68705	.60799	1.064	.68442	10.345	
Styrene	.91588	.51434	1.16576	1.06697	.94025	1.065	.92064	26.991	
Bromoform	.17633	.18334	.19875	.19661	.17032	1.088	.18507	6.713	
Isopropylbenzene	2.02876	2.23689	2.75294	2.34224	2.02665	1.101	2.27750	13.112	
p-BROMOFLUOROBENZENE	.53498	.52707	.51613	.53153	.52030	1.120	.52600	1.480	(Conc=5.00,5.00,5.00,5.00,5.00)
Bromobenzene	.45516	.48143	.51640	.48505	.38909	1.140	.46543	10.288	
1,2,3-Trichloropropane	.21631	.22019	.21208	.21549	.17262	1.139	.20734	9.463	
1,1,2,2-Tetrachloroethane	.17277	.18403	.16469	.16463	.13624	1.131	.16447	10.741	
n-Propylbenzene	.53180	.54364	.64814	.56165	.48054	1.145	.55315	11.039	
2-Chlorotoluene	.48002	.50859	.55762	.49264	.41803	1.159	.49138	10.274	
4-Chlorotoluene	.43917	.47194	.54150	.47143	.41106	1.170	.46702	10.434	
1,3,5-Trimethylbenzene	1.83132	1.56644	2.41791	2.08223	1.77475	1.163	1.93453	16.892	
tert-Butylbenzene	1.56442	1.91337	2.27869	1.98529	1.65278	1.201	1.87891	15.109	
1,2,4-Trimethylbenzene	1.81826	1.94638	2.35594	2.05165	1.76000	1.206	1.98645	11.858	
sec-Butylbenzene	2.18647	2.51053	3.10452	2.61624	2.27907	1.225	2.53937	14.177	
1,3-Dichlorobenzene	.96710	.99318	1.07770	.98713	.82440	1.243	.96990	9.455	
1,4-Dichlorobenzene	.91713	.97122	1.02377	.94635	.78492	1.252	.92868	9.626	
p-Isopropyltoluene	1.96911	2.16702	2.65798	2.27595	1.93585	1.240	2.20118	13.239	
1,2-DICHLOROBENZENE-D4	.45255	.47151	.44690	.44799	.44018	1.295	.45183	2.625	(Conc=5.00,5.00,5.00,5.00,5.00)
1,2-Dichlorobenzene	.73111	.82168	.85445	.75333	.63591	1.298	.75930	11.214	
n-Butylbenzene	2.00533	2.27693	2.75725	2.28609	1.97344	1.288	2.25981	13.909	
1,2-Dibromo-3-chloropropane	.04847	.05327	.04410	.04111	.03492	1.400	.04438	15.778	
1,2,4-Trichlorobenzene	.73336	.77419	.83938	.77761	.61290	1.531	.74749	11.268	
Naphthalene	.56622	.61860	.59336	.61025	.50333	1.577	.57835	8.035	
Hexachlorobutadiene	.84823	.97516	1.19345	1.01252	.77345	1.556	.96056	16.849	
1,2,3-Trichlorobenzene	.55079	.60357	.62287	.56791	.45710	1.622	.56045	11.489	

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

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

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FMGR : CBCAL,CBRW01,IDRW01,,A

Calib File: CBRW01::SC
     Title: CAL FILE FOR OLC01 (LOW-LEVEL)
     Units:  ug/L
 Last Edit: 940131 14:27
Last Calib: 940201 08:33

   ID File: IDRW01::D5
     Title: ID FILE FOR 624 VOC METHOD INST.#2
     Units:  ug/L
 Last Edit: 940131 13:48
Last Calib: 940111 09:37

Correct Files ? Y

Calibrating...

  1) Dichlorodifluoromethane          Avg RF:  .38132
  2) Chloromethane                    Avg RF:  .31128
  3) Vinyl chloride                   Avg RF:  .33008
  4) Bromomethane                     Avg RF:  .29676
  5) Chloroethane                     Avg RF:  .21016
  6) Trichlorofluoromethane           Avg RF:  .59586
  7) Acrolein                         Avg RF:  .00280
  8) 1,1-Dichloroethene               Avg RF:  .29469
  9) Acetone                          Avg RF:  .03688
 10) Carbon disulfide                 Avg RF:  .86059
 11) Methylene chloride               Avg RF:  .25167
 12) trans-1,2-Dichloroethene         Avg RF:  .32711
 13) Acrylonitrile                    Avg RF:  .02275
 14) 1,1-Dichloroethane               Avg RF:  .58831
 15) Vinyl acetate                    Avg RF:  .12122
 16) 2,2-Dichloropropane              Avg RF:  .66184
 17) cis-1,2-Dichloroethene           Avg RF:  .30522
 18) 2-Butanone                       Avg RF:  .03635
 19) Bromochloromethane               Avg RF:  .12738
 20) Chloroform                       Avg RF:  .72635
 21) 1,1,1-Trichloroethane            Avg RF:  .74326
 22) Carbon tetrachloride             Avg RF:  .68066
 23) 1,1-Dichloropropene              Avg RF:  .49981
 24) BENZENE-D6                       Avg RF:  .91718
 25) Benzene                          Avg RF:  .99573
 26) 1,2-Dichloroethane               Avg RF:  .37828
 27) Trichloroethene                  Avg RF:  .41233
 28) 1,2-Dichloropropane              Avg RF:  .22297
 29) Dibromomethane                   Avg RF:  .16053
 30) 2-Chloroethyl vinylether         Avg RF:  .05654
 31) Bromodichloromethane             Avg RF:  .40804
 32) cis-1,3-Dichloropropene          Avg RF:  .36536
 33) Toluene                          Avg RF:  .70612
 34) 4-Methyl-2-pentanone             Avg RF:  .07376
 35) trans-1,3-Dichloropropene        Avg RF:  .28031
 36) Tetrachloroethene                Avg RF:  .49533
 37) 1,1,2-Trichloroethane            Avg RF:  .01234
 38) 1,3-Dichloropropane              Avg RF:  .21360
 39) 2-Hexanone                       Avg RF:  .05136
 40) Dibromochloromethane             Avg RF:  .23012
 41) 1,2-Dibromoethane                Avg RF:  .14888
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42)	Chlorobenzene	Avg RF: 1.07285
43)	1,1,1,2-Tetrachloroethane	Avg RF: .43547
44)	Ethylbenzene	Avg RF: 2.18794
45)	m &/or p-Xylene	Avg RF: .74877
46)	o-Xylene	Avg RF: .68442
47)	Styrene	Avg RF: .92064
48)	Bromoform	Avg RF: .18507
49)	Isopropylbenzene	Avg RF: 2.27750
50)	p-BROMOFLUOROBENZENE	Avg RF: .52600
51)	Bromobenzene	Avg RF: .46543
52)	1,2,3-Trichloropropane	Avg RF: .20734
53)	1,1,2,2-Tetrachloroethane	Avg RF: .16447
54)	n-Propylbenzene	Avg RF: .55315
55)	2-Chlorotoluene	Avg RF: .49138
56)	4-Chlorotoluene	Avg RF: .46702
57)	1,3,5-Trimethylbenzene	Avg RF: 1.93453
58)	tert-Butylbenzene	Avg RF: 1.87891
59)	1,2,4-Trimethylbenzene	Avg RF: 1.98645
60)	sec-Butylbenzene	Avg RF: 2.53937
61)	1,3-Dichlorobenzene	Avg RF: .96990
62)	1,4-Dichlorobenzene	Avg RF: .92868
63)	p-Isopropyltoluene	Avg RF: 2.20118
64)	1,2-DICHLOROBENZENE-D4	Avg RF: .45183
65)	1,2-Dichlorobenzene	Avg RF: .75930
66)	n-Butylbenzene	Avg RF: 2.25981
67)	1,2-Dibromo-3-chloropropane	Avg RF: .04438
68)	1,2,4-Trichlorobenzene	Avg RF: .74749
69)	Naphthalene	Avg RF: .57835
70)	Hexachlorobutadiene	Avg RF: .96056
71)	1,2,3-Trichlorobenzene	Avg RF: .56045

Calibration Time Stamp Updated: 940201 08:55

Wish to Archive modified ID file IDRW01::D5 ? N
File NOT Archived....

QUANT REPORT

Operator ID: BABU Quant Rev: 7 Quant Time: 940131 13:49
Output File: ^W0030::D6 Injected at: 940131 12:21
Data File: >W0030::D1 Dilution Factor: 1.00000
Name: IC0131V01 Instrument ID: HP MS #7
Misc: HP MSD #2 25 ML PURGE 1 PPB STD

ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940111 09:37 Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*FLUOROBENZENE	11.98	96.0	119362	5.00	ug/L	92
2)	Dichlorodifluoromethane	5.64	85.0	10051M	1.34	ug/L	
4)	Vinyl chloride	6.20	62.0	7820M	1.14	ug/L	77
5)	Bromomethane	6.77	94.0	7299M	1.26	ug/L	
7)	Trichlorofluoromethane	7.11	101.0	10813M	.934	ug/L	99
9)	1,1-Dichloroethene	7.92	96.0	6052	1.30	ug/L	95
10)	Acetone	7.93	43.0	6670	1.92	ug/L	72
11)	Carbon disulfide	8.36	76.0	17312	1.42	ug/L	99
12)	Methylene chloride	8.57	84.0	5938	.852	ug/L	91
13)	trans-1,2-Dichloroethene	8.96	96.0	6873	1.11	ug/L	84
14)	Acrylonitrile	8.87	53.0	2868	1.12	ug/L	72
15)	1,1-Dichloroethane	9.53	63.0	12825	1.00	ug/L	97
16)	Vinyl acetate	9.49	43.0	5943	.537	ug/L	100
17)	2,2-Dichloropropane	10.37	77.0	13931	1.15	ug/L	92
18)	cis-1,2-Dichloroethene	10.33	96.0	7027	.928	ug/L	89
19)	2-Butanone	10.30	43.0	6231	1.45	ug/L	79
20)	Bromochloromethane	10.69	128.0	2898	.556	ug/L	80
21)	Chloroform	10.73	83.0	16764	1.02	ug/L	98
22)	1,1,1-Trichloroethane	11.11	97.0	14914	1.04	ug/L	97
23)	Carbon tetrachloride	11.36	117.0	12616	.963	ug/L	79
24)	1,1-Dichloropropene	11.29	75.0	10156	1.02	ug/L	94
25)	BENZENE-D6	11.57	84.0	106325	4.71	ug/L	99
26)	Benzene	11.64	78.0	23127	1.01	ug/L	89
27)	1,2-Dichloroethane	11.61	62.0	8556	.559	ug/L	97
28)	*TOLUENE-D8	14.41	98.0	115332	5.00	ug/L	97
29)	Trichloroethene	12.53	95.0	8794	1.01	ug/L	87
30)	1,2-Dichloropropane	12.89	63.0	5309	.814	ug/L	87
31)	Dibromomethane	13.07	174.0	3769	.417	ug/L	91
33)	Bromodichloromethane	13.25	83.0	8535	.680	ug/L	93
34)	cis-1,3-Dichloropropene	13.94	75.0	8314	.302	ug/L	95
35)	Toluene	14.52	92.0	16184	1.05	ug/L	97
36)	4-Methyl-2-pentanone	14.11	43.0	3369	.404	ug/L	83
37)	trans-1,3-Dichloropropene	14.78	75.0	5138	.185	ug/L	91
38)	Tetrachloroethene	15.47	166.0	10641	.992	ug/L	97
40)	1,3-Dichloropropane	15.45	76.0	4908	.429	ug/L	76
41)	2-Hexanone	15.47	43.0	2597	.318	ug/L	85
42)	Dibromochloromethane	15.86	129.0	4731	.418	ug/L	89
43)	1,2-Dibromoethane	16.12	107.0	3183	.354	ug/L	87
44)	*CHLOROBENZENE-D5	16.88	117.0	80049	5.00	ug/L	92
45)	Chlorobenzene	16.93	112.0	15606	.958	ug/L	95

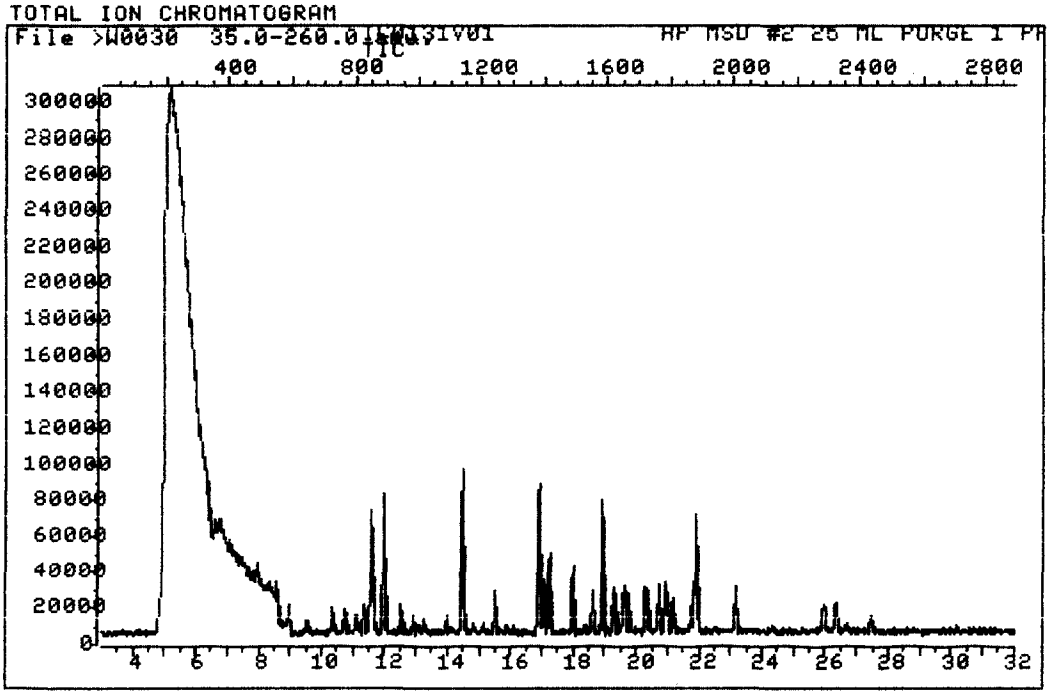
Operator ID: BABU Quant Rev: 7 Quant Time: 940131 13:49
Output File: ^W0030::D6 Injected at: 940131 12:21
Data File: >W0030::D1 Dilution Factor: 1.00000
Name: IC0131V01 Instrument ID: HP MS #7
Misc: HP MSD #2 25 ML PURGE 1 PPB STD

ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940111 09:37 Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
46)	1,1,1,2-Tetrachloroethane	17.04	131.0	6639	.894	ug/L	82
47)	Ethylbenzene	17.05	91.0	31185	1.16	ug/L	95
48)	m &/or p-Xylene	17.24	106.0	21937	2.28	ug/L	98
49)	o-Xylene	17.96	106.0	10237	1.07	ug/L	94
50)	Styrene	17.97	104.0	14663	.884	ug/L	89
51)	Bromoform	18.36	173.0	2823	.344	ug/L	98
52)	Isopropylbenzene	18.58	105.0	32480	1.20	ug/L	98
53)	p-BROMOFLUOROBENZENE	18.91	174.0	42825	4.33	ug/L	96
54)	Bromobenzene	19.25	156.0	7287	.779	ug/L	77
55)	1,2,3-Trichloropropane	19.21	75.0	3463	.440	ug/L	91
56)	1,1,2,2-Tetrachloroethane	19.08	83.0	2766	.376	ug/L	60
57)	n-Propylbenzene	19.33	120.0	8514	1.25	ug/L	97
58)	2-Chlorotoluene	19.57	126.0	7685	1.17	ug/L	93
59)	4-Chlorotoluene	19.76	126.0	7031	1.04	ug/L	98
60)	1,3,5-Trimethylbenzene	19.62	105.0	29319	1.22	ug/L	98
61)	tert-Butylbenzene	20.27	119.0	25046	1.15	ug/L	96
62)	1,2,4-Trimethylbenzene	20.35	105.0	29110	1.15	ug/L	98
63)	sec-Butylbenzene	20.68	105.0	35005	1.23	ug/L	97
64)	1,3-Dichlorobenzene	20.97	146.0	15483	.985	ug/L	93
65)	1,4-Dichlorobenzene	21.14	146.0	14683	.891	ug/L	95
66)	p-Isopropyltoluene	20.93	119.0	31525	1.25	ug/L	96
67)	1,2-DICHLOROBENZENE-D4	21.90	152.0	36226	3.78	ug/L	83
68)	1,2-Dichlorobenzene	21.95	146.0	11705	.753	ug/L	99
69)	n-Butylbenzene	21.77	91.0	32105	1.34	ug/L	96
70)	1,2-Dibromo-3-chloropropane	23.67	157.0	776M	.311	ug/L	
71)	1,2,4-Trichlorobenzene	25.90	180.0	11741	.749	ug/L	91
72)	Naphthalene	26.68	128.0	9065	.326	ug/L	100
73)	Hexachlorobutadiene	26.33	225.0	13580	1.30	ug/L	90
74)	1,2,3-Trichlorobenzene	27.43	180.0	8818	.590	ug/L	91

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >W0030::D1 Quant Output File: ^W0030::D6
Name: IC0131V01 Instrument ID: HP MS #7
Misc: HP MSD #2 25 ML PURGE 1 PPB STD

Id File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940111 09:37 Last Qcal Time: <none>

Operator ID: BABU
Quant Time : 940131 13:49
Injected at: 940131 12:21

QUANT REPORT

Operator ID: BABU Quant Rev: 7 Quant Time: 940131 13:53
Output File: ^W0031::D6 Injected at: 940131 12:59
Data File: >W0031::D1 Dilution Factor: 1.00000
Name: IC0131V02 Instrument ID: HP MS #7
Misc: HP MSD #2 25 ML PURGE 2 PPB STD

ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940111 09:37 Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*FLUOROBENZENE	11.98	96.0	103305	5.00	ug/L	94
2)	Dichlorodifluoromethane	5.59	85.0	14821M	2.29	ug/L	98
4)	Vinyl chloride	6.20	62.0	11390M	1.92	ug/L	80
5)	Bromomethane	6.79	94.0	11399M	2.27	ug/L	
6)	Chloroethane	6.83	64.0	7790M	1.97	ug/L	
7)	Trichlorofluoromethane	7.14	101.0	22466M	2.24	ug/L	78
9)	1,1-Dichloroethene	7.93	96.0	12947	3.20	ug/L	91
10)	Acetone	7.94	43.0	6609	2.19	ug/L	85
11)	Carbon disulfide	8.37	76.0	39245	3.73	ug/L	97
12)	Methylene chloride	8.57	84.0	10718	1.78	ug/L	85
13)	trans-1,2-Dichloroethene	8.96	96.0	14114	2.63	ug/L	94
14)	Acrylonitrile	8.88	53.0	5252	2.36	ug/L	74
15)	1,1-Dichloroethane	9.54	63.0	24826	2.24	ug/L	97
16)	Vinyl acetate	9.49	43.0	8399	.877	ug/L	100
17)	2,2-Dichloropropane	10.37	77.0	27904	2.66	ug/L	93
18)	cis-1,2-Dichloroethene	10.33	96.0	12791	1.95	ug/L	90
19)	2-Butanone	10.29	43.0	7140	1.93	ug/L	68
20)	Bromochloromethane	10.68	128.0	5652	1.25	ug/L	90
21)	Chloroform	10.73	83.0	30005	2.12	ug/L	93
22)	1,1,1-Trichloroethane	11.10	97.0	31457	2.53	ug/L	94
23)	Carbon tetrachloride	11.36	117.0	28811	2.54	ug/L	80
24)	1,1-Dichloropropene	11.31	75.0	21374	2.47	ug/L	94
25)	BENZENE-D6	11.58	84.0	95487	4.89	ug/L	97
26)	Benzene	11.63	78.0	42443	2.15	ug/L	96
27)	1,2-Dichloroethane	11.61	62.0	17237	1.30	ug/L	97
28)	*TOLUENE-D8	14.42	98.0	103920	5.00	ug/L	97
29)	Trichloroethene	12.53	95.0	17624	2.24	ug/L	90
30)	1,2-Dichloropropane	12.89	63.0	9372	1.60	ug/L	83
31)	Dibromomethane	13.08	174.0	7124	.875	ug/L	91
33)	Bromodichloromethane	13.26	83.0	17736	1.57	ug/L	96
34)	cis-1,3-Dichloropropene	13.93	75.0	16566	.668	ug/L	99
35)	Toluene	14.53	92.0	30381	2.18	ug/L	96
36)	4-Methyl-2-pentanone	14.11	43.0	6848	.912	ug/L	89
37)	trans-1,3-Dichloropropene	14.79	75.0	11527	.460	ug/L	99
38)	Tetrachloroethene	15.48	166.0	21350	2.21	ug/L	97
40)	1,3-Dichloropropane	15.46	76.0	9043	.877	ug/L	89
41)	2-Hexanone	15.48	43.0	3925	.534	ug/L	78
42)	Dibromochloromethane	15.87	129.0	9706	.952	ug/L	95
43)	1,2-Dibromoethane	16.14	107.0	6966	.860	ug/L	93
44)	*CHLOROBENZENE-D5	16.88	117.0	72175	5.00	ug/L	96

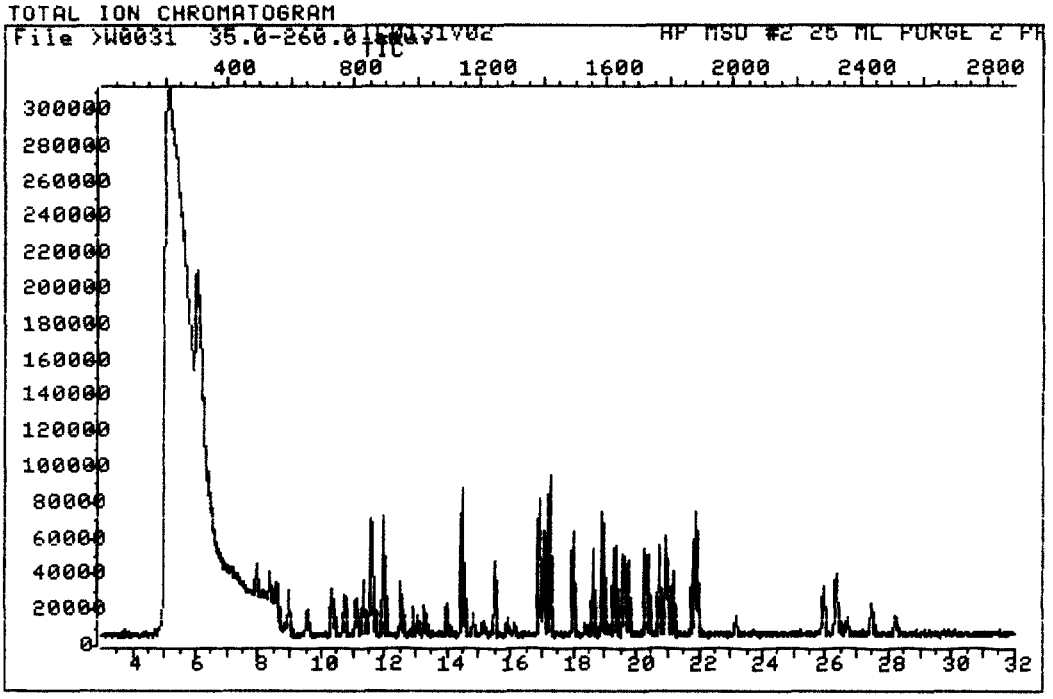
Operator ID: BABU Quant Rev: 7 Quant Time: 940131 13:53
Output File: ^W0031::D6 Injected at: 940131 12:59
Data File: >W0031::D1 Dilution Factor: 1.00000
Name: IC0131V02 Instrument ID: HP MS #7
Misc: HP MSD #2 25 ML PURGE 2 PPB STD

ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940111 09:37 Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
45)	Chlorobenzene	16.93	112.0	32235	2.19	ug/L	92
46)	1,1,1,2-Tetrachloroethane	17.03	131.0	12628	1.89	ug/L	90
47)	Ethylbenzene	17.05	91.0	62962	2.61	ug/L	98
48)	m &/or p-Xylene	17.24	106.0	41704	4.82	ug/L	98
49)	o-Xylene	17.96	106.0	20013	2.33	ug/L	93
50)	Styrene	17.97	104.0	14849	.993	ug/L	93
51)	Bromoform	18.37	173.0	5293	.715	ug/L	80
52)	Isopropylbenzene	18.59	105.0	64579	2.64	ug/L	99
53)	p-BROMOFLUOROBENZENE	18.91	174.0	38041	4.27	ug/L	97
54)	Bromobenzene	19.25	156.0	13899	1.65	ug/L	91
55)	1,2,3-Trichloropropane	19.23	75.0	6357	.896	ug/L	83
56)	1,1,2,2-Tetrachloroethane	19.09	83.0	5313	.802	ug/L	91
57)	n-Propylbenzene	19.33	120.0	15695	2.56	ug/L	94
58)	2-Chlorotoluene	19.57	126.0	14683	2.48	ug/L	98
59)	4-Chlorotoluene	19.75	126.0	13625	2.23	ug/L	97
60)	1,3,5-Trimethylbenzene	19.63	105.0	45223	2.09	ug/L	94
61)	tert-Butylbenzene	20.28	119.0	55239	2.80	ug/L	97
62)	1,2,4-Trimethylbenzene	20.37	105.0	56192	2.47	ug/L	99
63)	sec-Butylbenzene	20.69	105.0	72479	2.82	ug/L	98
64)	1,3-Dichlorobenzene	20.99	146.0	28673	2.02	ug/L	99
65)	1,4-Dichlorobenzene	21.16	146.0	28039	1.89	ug/L	94
66)	p-Isopropyltoluene	20.94	119.0	62562	2.75	ug/L	97
67)	1,2-DICHLOROBENZENE-D4	21.90	152.0	34031	3.94	ug/L	92
68)	1,2-Dichlorobenzene	21.95	146.0	23722	1.69	ug/L	94
69)	n-Butylbenzene	21.77	91.0	65735	3.04	ug/L	94
70)	1,2-Dibromo-3-chloropropane	23.68	157.0	1538	.683	ug/L	87
71)	1,2,4-Trichlorobenzene	25.90	180.0	22351	1.58	ug/L	94
72)	Naphthalene	26.68	128.0	17859	.711	ug/L	100
73)	Hexachlorobutadiene	26.33	225.0	28153	2.98	ug/L	97
74)	1,2,3-Trichlorobenzene	27.42	180.0	17425	1.29	ug/L	84

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >W0031::D1 Quant Output File: ^W0031::D6
Name: IC0131V02 Instrument ID: HP MS #7
Misc: HP MSD #2 25 ML PURGE 2 PPB STD

Id File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940111 09:37 Last Qcal Time: <none>

Operator ID: BABU
Quant Time : 940131 13:53
Injected at: 940131 12:59

QUANT REPORT

Operator ID: BABU Quant Rev: 7 Quant Time: 940131 14:10
Output File: ^W0032::D6 Injected at: 940131 13:36
Data File: >W0032::D1 Dilution Factor: 1.00000
Name: IC0131V05 Instrument ID: HP MS #7
Misc: HP MSD #2 25 ML PURGE 5 PPB STD

ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940111 09:37 Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*FLUOROBENZENE	11.99	96.0	83036	5.00	ug/L	97
2)	Dichlorodifluoromethane	5.62	85.0	36819M	7.07	ug/L	95
4)	Vinyl chloride	6.21	62.0	32503M	6.80	ug/L	
5)	Bromomethane	6.72	94.0	28614M	7.10	ug/L	
6)	Chloroethane	6.79	64.0	20721M	6.51	ug/L	92
7)	Trichlorofluoromethane	7.15	101.0	60982M	7.57	ug/L	97
8)	Acrolein	7.75	56.0	1432M	5.70	ug/L	93
9)	1,1-Dichloroethene	7.93	96.0	29215	8.99	ug/L	93
10)	Acetone	7.93	43.0	15617	6.45	ug/L	85
11)	Carbon disulfide	8.37	76.0	80848	9.55	ug/L	96
12)	Methylene chloride	8.58	84.0	22505	4.64	ug/L	97
13)	trans-1,2-Dichloroethene	8.97	96.0	30981	7.17	ug/L	97
14)	Acrylonitrile	8.88	53.0	9286	5.20	ug/L	95
15)	1,1-Dichloroethane	9.54	63.0	56025	6.30	ug/L	99
16)	Vinyl acetate	9.49	43.0	21910	2.85	ug/L	100
17)	2,2-Dichloropropane	10.38	77.0	64791	7.69	ug/L	96
18)	cis-1,2-Dichloroethene	10.33	96.0	27935	5.30	ug/L	98
19)	2-Butanone	10.29	43.0	13965	4.69	ug/L	79
20)	Bromochloromethane	10.69	128.0	11745	3.24	ug/L	88
21)	Chloroform	10.73	83.0	71650	6.29	ug/L	93
22)	1,1,1-Trichloroethane	11.10	97.0	73350	7.35	ug/L	97
23)	Carbon tetrachloride	11.37	117.0	68478	7.52	ug/L	93
24)	1,1-Dichloropropene	11.32	75.0	49234	7.08	ug/L	96
25)	BENZENE-D6	11.58	84.0	76439	4.87	ug/L	97
26)	Benzene	11.64	78.0	90761	5.72	ug/L	97
27)	1,2-Dichloroethane	11.62	62.0	33143	3.11	ug/L	92
28)	*TOLUENE-D8	14.42	98.0	83024	5.00	ug/L	96
29)	Trichloroethene	12.54	95.0	40318	6.40	ug/L	96
30)	1,2-Dichloropropane	12.89	63.0	20761	4.42	ug/L	92
31)	Dibromomethane	13.08	174.0	13899	2.14	ug/L	88
32)	2-Chloroethyl vinylether	13.61	63.0	5122M	1.04	ug/L	92
33)	Bromodichloromethane	13.26	83.0	37959	4.20	ug/L	98
34)	cis-1,3-Dichloropropene	13.94	75.0	35546	1.80	ug/L	95
35)	Toluene	14.54	92.0	66316	5.96	ug/L	97
36)	4-Methyl-2-pentanone	14.11	43.0	12605	2.10	ug/L	83
37)	trans-1,3-Dichloropropene	14.80	75.0	24012	1.20	ug/L	98
38)	Tetrachloroethene	15.48	166.0	48824	6.33	ug/L	95
40)	1,3-Dichloropropane	15.46	76.0	19802	2.40	ug/L	97
41)	2-Hexanone	15.48	43.0	8885	1.51	ug/L	85
42)	Dibromochloromethane	15.88	129.0	21130	2.59	ug/L	99

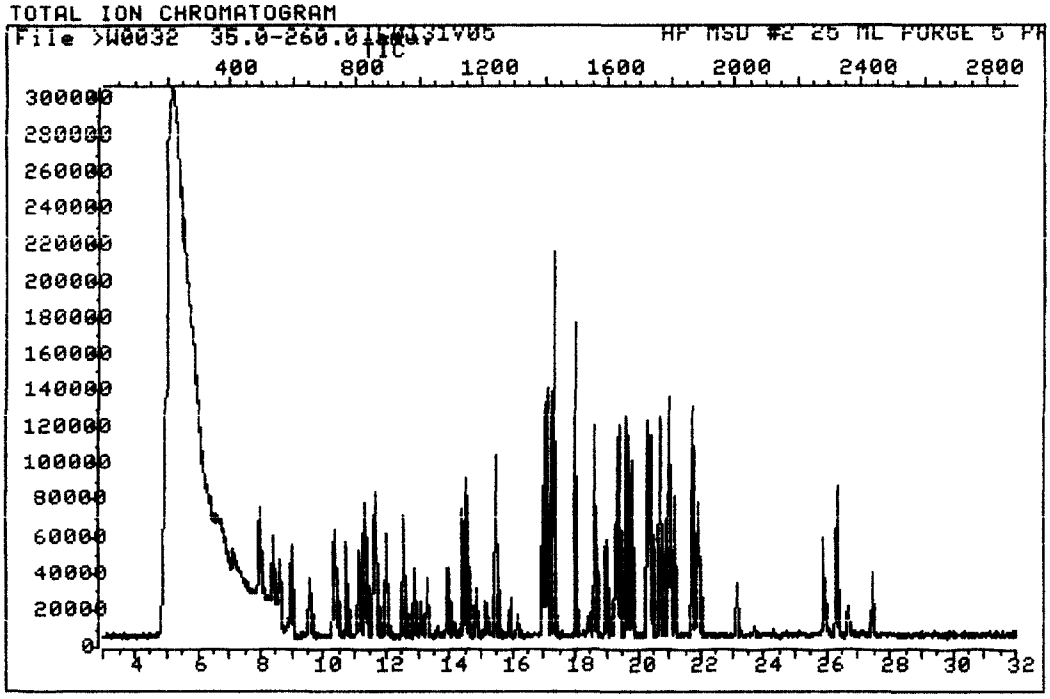
Operator ID: BABU Quant Rev: 7 Quant Time: 940131 14:10
Output File: ^W0032::D6 Injected at: 940131 13:36
Data File: >W0032::D1 Dilution Factor: 1.00000
Name: IC0131V05 Instrument ID: HP MS #7
Misc: HP MSD #2 25 ML PURGE 5 PPB STD

ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940111 09:37 Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
43)	1,2-Dibromoethane	16.14	107.0	13078	2.02	ug/L	93
44)	*CHLOROBENZENE-D5	16.91	117.0	55959	5.00	ug/L	95
45)	Chlorobenzene	16.96	112.0	70112	6.16	ug/L	95
46)	1,1,1,2-Tetrachloroethane	17.06	131.0	27431	5.28	ug/L	91
47)	Ethylbenzene	17.08	91.0	144614	7.73	ug/L	98
48)	m &/or p-Xylene	17.27	106.0	98622	14.69	ug/L	96
49)	o-Xylene	18.00	106.0	44455	6.67	ug/L	94
50)	Styrene	18.00	104.0	65235	5.63	ug/L	97
51)	Bromoform	18.40	173.0	11122	1.94	ug/L	93
52)	Isopropylbenzene	18.62	105.0	154052	8.14	ug/L	96
53)	p-BROMOFLUOROBENZENE	18.94	174.0	28882	4.18	ug/L	98
54)	Bromobenzene	19.27	156.0	28897	4.42	ug/L	89
55)	1,2,3-Trichloropropane	19.26	75.0	11868M	2.16	ug/L	52
56)	1,1,2,2-Tetrachloroethane	19.11	83.0	9216	1.79	ug/L	87
57)	n-Propylbenzene	19.36	120.0	36269	7.64	ug/L	94
58)	2-Chlorotoluene	19.60	126.0	31204	6.80	ug/L	99
59)	4-Chlorotoluene	19.78	126.0	30302	6.41	ug/L	96
60)	1,3,5-Trimethylbenzene	19.65	105.0	135304	8.07	ug/L	96
61)	tert-Butylbenzene	20.29	119.0	127513	8.34	ug/L	97
62)	1,2,4-Trimethylbenzene	20.38	105.0	131836	7.48	ug/L	94
63)	sec-Butylbenzene	20.71	105.0	173726	8.72	ug/L	98
64)	1,3-Dichlorobenzene	21.01	146.0	60307	5.49	ug/L	99
65)	1,4-Dichlorobenzene	21.16	146.0	57289	4.98	ug/L	98
66)	p-Isopropyltoluene	20.94	119.0	148738	8.43	ug/L	96
67)	1,2-DICHLOROBENZENE-D4	21.88	152.0	25008	3.74	ug/L	91
68)	1,2-Dichlorobenzene	21.92	146.0	47814	4.40	ug/L	96
69)	n-Butylbenzene	21.75	91.0	154293	9.21	ug/L	94
70)	1,2-Dibromo-3-chloropropane	23.66	157.0	2468	1.41	ug/L	84
71)	1,2,4-Trichlorobenzene	25.87	180.0	46971	4.28	ug/L	95
72)	Naphthalene	26.65	128.0	33204	1.71	ug/L	100
73)	Hexachlorobutadiene	26.30	225.0	66784	9.13	ug/L	99
74)	1,2,3-Trichlorobenzene	27.41	180.0	34855	3.34	ug/L	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >W0032::D1 Quant Output File: ^W0032::D6
Name: IC0131V05 Instrument ID: HP MS #7
Misc: HP MSD #2 25 ML PURGE 5 PPB STD

Id File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940111 09:37 Last Qcal Time: <none>

Operator ID: BABU
Quant Time : 940131 14:10
Injected at: 940131 13:36

QUANT REPORT

Operator ID: BABU Quant Rev: 7 Quant Time: 940131 14:47
Output File: ^W0033::D6 Injected at: 940131 14:13
Data File: >W0033::D1 Dilution Factor: 1.00000
Name: IC0131V10 Instrument ID: HP MS #7
Misc: HP MSD #2 25 ML PURGE 10 PPB STD

ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940111 09:37 Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*FLUOROBENZENE	11.98	96.0	87563	5.00	ug/L	96
2)	Dichlorodifluoromethane	5.62	85.0	67492M	12.29	ug/L	98
3)	Chloromethane	6.02	50.0	60901M	15.66	ug/L	
4)	Vinyl chloride	6.20	62.0	57855	11.48	ug/L	98
5)	Bromomethane	6.74	94.0	49465	11.64	ug/L	92
6)	Chloroethane	6.83	64.0	34101	10.16	ug/L	98
7)	Trichlorofluoromethane	7.14	101.0	114133M	13.43	ug/L	93
8)	Acrolein	7.74	56.0	2539	9.58	ug/L	95
9)	1,1-Dichloroethene	7.93	96.0	52748	15.39	ug/L	91
10)	Acetone	7.94	43.0	29438	11.53	ug/L	88
11)	Carbon disulfide	8.36	76.0	155671	17.44	ug/L	97
12)	Methylene chloride	8.57	84.0	45688	8.94	ug/L	87
13)	trans-1,2-Dichloroethene	8.97	96.0	60466	13.27	ug/L	98
14)	Acrylonitrile	8.88	53.0	19752	10.48	ug/L	89
15)	1,1-Dichloroethane	9.55	63.0	106581	11.36	ug/L	98
16)	Vinyl acetate	9.50	43.0	46331	5.71	ug/L	100
17)	2,2-Dichloropropane	10.39	77.0	121562	13.69	ug/L	93
18)	cis-1,2-Dichloroethene	10.34	96.0	55519	9.99	ug/L	92
19)	2-Butanone	10.29	43.0	29866	9.50	ug/L	78
20)	Bromochloromethane	10.69	128.0	22690	5.93	ug/L	98
21)	Chloroform	10.74	83.0	128772	10.71	ug/L	94
22)	1,1,1-Trichloroethane	11.11	97.0	138761	13.19	ug/L	97
23)	Carbon tetrachloride	11.36	117.0	129129	13.44	ug/L	92
24)	1,1-Dichloropropene	11.31	75.0	92227	12.58	ug/L	97
25)	BENZENE-D6	11.58	84.0	80273	4.85	ug/L	97
26)	Benzene	11.63	78.0	177623	10.62	ug/L	99
27)	1,2-Dichloroethane	11.61	62.0	68627	6.11	ug/L	96
28)	*TOLUENE-D8	14.42	98.0	88749	5.00	ug/L	96
29)	Trichloroethene	12.53	95.0	74368	11.05	ug/L	91
30)	1,2-Dichloropropane	12.90	63.0	39234	7.82	ug/L	86
31)	Dibromomethane	13.09	174.0	29840	4.29	ug/L	95
32)	2-Chloroethyl vinylether	13.61	63.0	10019M	1.91	ug/L	86
33)	Bromodichloromethane	13.26	83.0	75502	7.81	ug/L	99
34)	cis-1,3-Dichloropropene	13.94	75.0	70950	3.35	ug/L	96
35)	Toluene	14.54	92.0	124501	10.47	ug/L	94
36)	4-Methyl-2-pentanone	14.12	43.0	26191	4.08	ug/L	89
37)	trans-1,3-Dichloropropene	14.80	75.0	50243	2.35	ug/L	97
38)	Tetrachloroethene	15.48	166.0	88477	10.72	ug/L	98
39)	1,1,2-Trichloroethane	15.14	132.0	2532	4.00	ug/L	70
40)	1,3-Dichloropropane	15.44	76.0	37643	4.28	ug/L	96

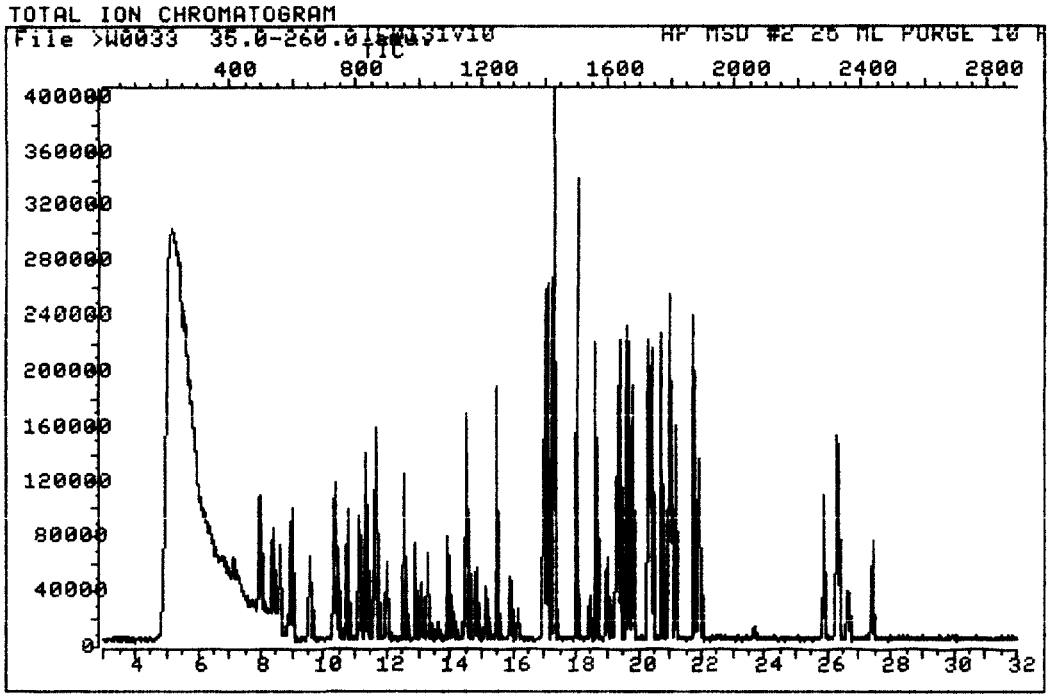
Operator ID: BABU Quant Rev: 7 Quant Time: 940131 14:47
Output File: ^W0033::D6 Injected at: 940131 14:13
Data File: >W0033::D1 Dilution Factor: 1.00000
Name: IC0131V10 Instrument ID: HP MS #7
Misc: HP MSD #2 25 ML PURGE 10 PPB STD

ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940111 09:37 Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
41)	2-Hexanone	15.47	43.0	19257	3.07	ug/L	93
42)	Dibromochloromethane	15.87	129.0	44214	5.08	ug/L	95
43)	1,2-Dibromoethane	16.15	107.0	27173	3.93	ug/L	85
44)	*CHLOROBENZENE-D5	16.91	117.0	60702	5.00	ug/L	94
45)	Chlorobenzene	16.96	112.0	130358	10.55	ug/L	89
46)	1,1,1,2-Tetrachloroethane	17.05	131.0	55814	9.91	ug/L	85
47)	Ethylbenzene	17.08	91.0	275703	13.58	ug/L	97
48)	m &/or p-Xylene	17.27	106.0	188742	25.92	ug/L	98
49)	o-Xylene	18.00	106.0	83411	11.53	ug/L	92
50)	Styrene	18.01	104.0	129534	10.30	ug/L	97
51)	Bromoform	18.41	173.0	23869	3.83	ug/L	99
52)	Isopropylbenzene	18.63	105.0	284357	13.85	ug/L	97
53)	p-BROMOFLUOROBENZENE	18.95	174.0	32265	4.30	ug/L	98
54)	Bromobenzene	19.29	156.0	58887	8.31	ug/L	96
55)	1,2,3-Trichloropropane	19.27	75.0	26161	4.39	ug/L	84
56)	1,1,2,2-Tetrachloroethane	19.12	83.0	19987	3.59	ug/L	94
57)	n-Propylbenzene	19.37	120.0	68186	13.24	ug/L	96
58)	2-Chlorotoluene	19.60	126.0	59808	12.01	ug/L	98
59)	4-Chlorotoluene	19.79	126.0	57234	11.16	ug/L	94
60)	1,3,5-Trimethylbenzene	19.66	105.0	252791	13.91	ug/L	96
61)	tert-Butylbenzene	20.31	119.0	241022	14.54	ug/L	99
62)	1,2,4-Trimethylbenzene	20.39	105.0	249078	13.03	ug/L	98
63)	sec-Butylbenzene	20.72	105.0	317622	14.70	ug/L	97
64)	1,3-Dichlorobenzene	21.01	146.0	119841	10.05	ug/L	97
65)	1,4-Dichlorobenzene	21.17	146.0	114891	9.20	ug/L	99
66)	p-Isopropyltoluene	20.96	119.0	276309	14.43	ug/L	97
67)	1,2-DICHLOROBENZENE-D4	21.88	152.0	27194	3.75	ug/L	92
68)	1,2-Dichlorobenzene	21.92	146.0	91457	7.76	ug/L	99
69)	n-Butylbenzene	21.75	91.0	277540	15.27	ug/L	96
70)	1,2-Dibromo-3-chloropropane	23.63	157.0	4991	2.63	ug/L	95
71)	1,2,4-Trichlorobenzene	25.85	180.0	94405	7.94	ug/L	96
72)	Naphthalene	26.62	128.0	74087	3.51	ug/L	100
73)	Hexachlorobutadiene	26.26	225.0	122924	15.49	ug/L	98
74)	1,2,3-Trichlorobenzene	27.38	180.0	68947	6.09	ug/L	93

* Compound is LSTD

TOTAL ION CHROMATOGRAM



Data File: >W0033::D1 Quant Output File: ^W0033::D6
Name: IC0131V10 Instrument ID: HP MS #7
Misc: HP MSD #2 25 ML PURGE 10 PPB STD

Id File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940111 09:37 Last Qcal Time: <none>

Operator ID: BABU
Quant Time : 940131 14:47
Injected at: 940131 14:13

QUANT REPORT

Operator ID: BABU Quant Rev: 7 Quant Time: 940131 15:25
Output File: ^W0034::D6 Injected at: 940131 14:51
Data File: >W0034::D1 Dilution Factor: 1.00000
Name: IC0131V25 Instrument ID: HP MS #7
Misc: HP MSD #2 25 ML PURGE 25 PPB STD

ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940111 09:37 Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*FLUOROBENZENE	11.99	96.0	90950	5.00	ug/L	93
2)	Dichlorodifluoromethane	5.62	85.0	135554	23.77	ug/L	99
3)	Chloromethane	5.99	50.0	124967	30.94	ug/L	98
4)	Vinyl chloride	6.21	62.0	147961	28.27	ug/L	98
5)	Bromomethane	6.74	94.0	125119	28.35	ug/L	92
6)	Chloroethane	6.81	64.0	94516	27.12	ug/L	99
7)	Trichlorofluoromethane	7.13	101.0	271274M	30.74	ug/L	98
8)	Acrolein	7.73	56.0	4679	16.99	ug/L	64
9)	1,1-Dichloroethene	7.93	96.0	115319	32.40	ug/L	98
10)	Acetone	7.93	43.0	57475	21.67	ug/L	86
11)	Carbon disulfide	8.37	76.0	348097	37.55	ug/L	99
12)	Methylene chloride	8.57	84.0	99277	18.70	ug/L	90
13)	trans-1,2-Dichloroethene	8.97	96.0	130841	27.66	ug/L	98
14)	Acrylonitrile	8.88	53.0	44095	22.53	ug/L	93
15)	1,1-Dichloroethane	9.55	63.0	236563	24.28	ug/L	99
16)	Vinyl acetate	9.50	43.0	105287	12.48	ug/L	100
17)	2,2-Dichloropropane	10.39	77.0	261907	28.40	ug/L	94
18)	cis-1,2-Dichloroethene	10.34	96.0	122216	21.17	ug/L	97
19)	2-Butanone	10.29	43.0	61897	18.96	ug/L	78
20)	Bromochloromethane	10.69	128.0	48973	12.32	ug/L	94
21)	Chloroform	10.75	83.0	275211	22.04	ug/L	94
22)	1,1,1-Trichloroethane	11.11	97.0	297670	27.24	ug/L	96
23)	Carbon tetrachloride	11.37	117.0	279924	28.05	ug/L	96
24)	1,1-Dichloropropene	11.31	75.0	198636	26.09	ug/L	97
25)	BENZENE-D6	11.58	84.0	84903	4.94	ug/L	97
26)	Benzene	11.64	78.0	398104	22.92	ug/L	99
27)	1,2-Dichloroethane	11.62	62.0	147726	12.66	ug/L	95
28)	*TOLUENE-D8	14.43	98.0	90815	5.00	ug/L	97
29)	Trichloroethene	12.54	95.0	159747	23.19	ug/L	87
30)	1,2-Dichloropropane	12.89	63.0	85421	16.64	ug/L	97
31)	Dibromomethane	13.10	174.0	60101	8.45	ug/L	94
32)	2-Chloroethyl vinylether	13.62	63.0	23383M	4.35	ug/L	97
33)	Bromodichloromethane	13.28	83.0	163902	16.57	ug/L	99
34)	cis-1,3-Dichloropropene	13.96	75.0	158729	7.33	ug/L	95
35)	Toluene	14.55	92.0	271507	22.32	ug/L	95
36)	4-Methyl-2-pentanone	14.13	43.0	57872	8.82	ug/L	87
37)	trans-1,3-Dichloropropene	14.82	75.0	111312	5.08	ug/L	97
38)	Tetrachloroethene	15.50	166.0	188518	22.33	ug/L	99
39)	1,1,2-Trichloroethane	15.15	132.0	4727	7.30	ug/L	99
40)	1,3-Dichloropropane	15.47	76.0	84960	9.43	ug/L	98

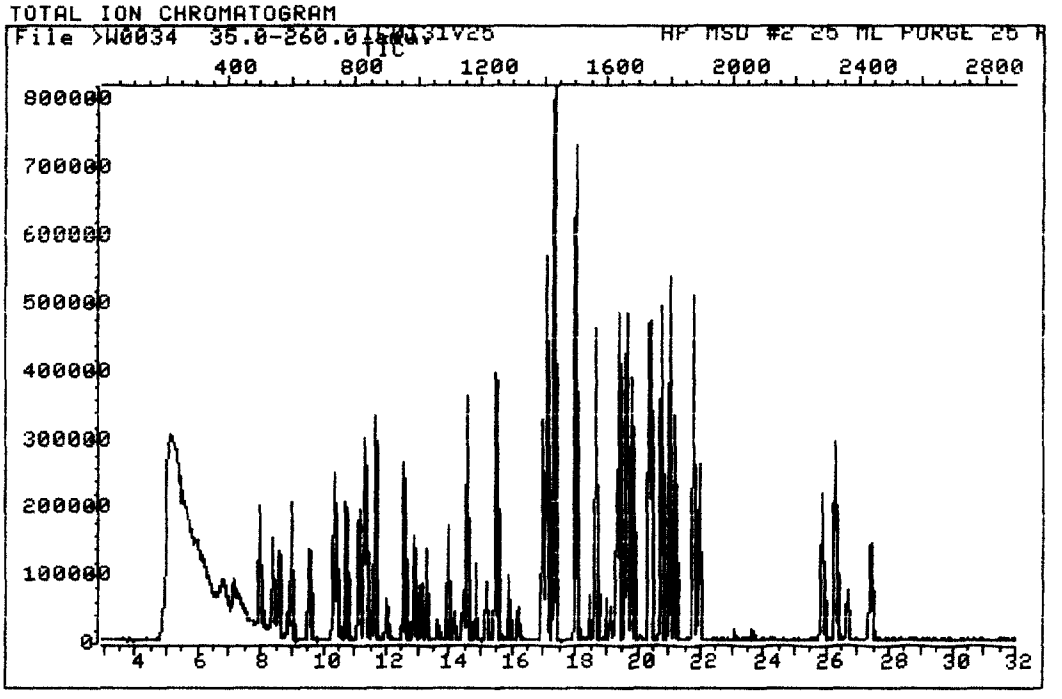
Operator ID: BABJ Quant Rev: 7 Quant Time: 940131 15:25
Output File: ^W0034::D6 Injected at: 940131 14:51
Data File: >W0034::D1 Dilution Factor: 1.00000
Name: IC0131V25 Instrument ID: HP MS #7
Misc: HP MSD #2 25 ML PURGE 25 PPB STD

ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940111 09:37 Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
41)	2-Hexanone	15.49	43.0	41367	6.44	ug/L	88
42)	Dibromochloromethane	15.89	129.0	94619	10.61	ug/L	98
43)	1,2-Dibromoethane	16.16	107.0	58225	8.23	ug/L	95
44)	*CHLOROBENZENE-D5	16.93	117.0	62504	5.00	ug/L	98
45)	Chlorobenzene	16.98	112.0	295720	23.24	ug/L	93
46)	1,1,1,2-Tetrachloroethane	17.08	131.0	117299	20.23	ug/L	92
47)	Ethylbenzene	17.11	91.0	611201	29.24	ug/L	96
48)	m &/or p-Xylene	17.30	106.0	423738	56.52	ug/L	88
49)	o-Xylene	18.02	106.0	190009	25.51	ug/L	96
50)	Styrene	18.03	104.0	293846	22.70	ug/L	95
51)	Bromoform	18.44	173.0	53228	8.30	ug/L	97
52)	Isopropylbenzene	18.65	105.0	633370	29.95	ug/L	98
53)	p-BROMOFLUOROBENZENE	18.97	174.0	32521	4.21	ug/L	97
54)	Bromobenzene	19.31	156.0	121599	16.66	ug/L	98
55)	1,2,3-Trichloropropane	19.29	75.0	53948	8.78	ug/L	94
56)	1,1,2,2-Tetrachloroethane	19.14	83.0	42579	7.42	ug/L	99
57)	n-Propylbenzene	19.40	120.0	150177	28.32	ug/L	95
58)	2-Chlorotoluene	19.63	126.0	130642	25.48	ug/L	97
59)	4-Chlorotoluene	19.82	126.0	128466	24.33	ug/L	96
60)	1,3,5-Trimethylbenzene	19.69	105.0	554644	29.63	ug/L	96
61)	tert-Butylbenzene	20.33	119.0	516527	30.25	ug/L	97
62)	1,2,4-Trimethylbenzene	20.41	105.0	550035	27.94	ug/L	96
63)	sec-Butylbenzene	20.74	105.0	712254	32.01	ug/L	97
64)	1,3-Dichlorobenzene	21.03	146.0	257642	20.99	ug/L	98
65)	1,4-Dichlorobenzene	21.19	146.0	245302	19.07	ug/L	99
66)	p-Isopropyltoluene	20.98	119.0	604992	30.68	ug/L	97
67)	1,2-DICHLOROBENZENE-D4	21.90	152.0	27513	3.68	ug/L	96
68)	1,2-Dichlorobenzene	21.94	146.0	198736	16.37	ug/L	98
69)	n-Butylbenzene	21.78	91.0	616741	32.95	ug/L	94
70)	1,2-Dibromo-3-chloropropane	23.65	157.0	10913	5.59	ug/L	98
71)	1,2,4-Trichlorobenzene	25.86	180.0	191545	15.64	ug/L	95
72)	Naphthalene	26.64	128.0	157301	7.24	ug/L	100
73)	Hexachlorobutadiene	26.28	225.0	241720	29.59	ug/L	98
74)	1,2,3-Trichlorobenzene	27.40	180.0	142854	12.25	ug/L	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >W0034::D1 Quant Output File: ^W0034::D6
Name: IC0131V25 Instrument ID: HP MS #7
Misc: HP MSD #2 25 ML PURGE 25 PPB STD

Id File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940111 09:37 Last Qcal Time: <none>

Operator ID: BABU
Quant Time : 940131 15:25
Injected at: 940131 14:51

QUANT REPORT

Operator ID: BABU Quant Rev: 7 Quant Time: 940201 09:02
Output File: ^W0036::D6 Injected at: 940131 16:06
Data File: >W0036::D1 Dilution Factor: 1.00000
Name: 013194VCHK1 Instrument ID: HP MS #7
Misc: HP MSD #2 10 UL ICHK/25 ML PURGE

ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*FLUOROBENZENE	12.00	96.0	85368	5.00	ug/L	94
2)	Dichlorodifluoromethane	5.59	85.0	2195	.337	ug/L	60
3)	Chloromethane	6.00	50.0	66430	12.50	ug/L	92
4)	Vinyl chloride	6.19	62.0	3575	.634	ug/L	97
5)	Bromomethane	6.73	94.0	6779	1.34	ug/L	87
6)	Chloroethane	6.82	64.0	12873	3.59	ug/L	92
7)	Trichlorofluoromethane	7.15	101.0	17899	1.76	ug/L	96
9)	1,1-Dichloroethene	7.95	96.0	19677	3.91	ug/L	93
12)	Methylene chloride	8.59	84.0	20265	4.72	ug/L	98
13)	trans-1,2-Dichloroethene	8.98	96.0	22396	4.01	ug/L	99
15)	1,1-Dichloroethane	9.56	63.0	41559	4.14	ug/L	98
17)	2,2-Dichloropropane	10.40	77.0	43034	3.81	ug/L	97
18)	cis-1,2-Dichloroethene	10.35	96.0	23274	4.47	ug/L	98
20)	Bromochloromethane	10.71	128.0	9308	4.28	ug/L	97
21)	Chloroform	10.76	83.0	54801	4.42	ug/L	91
22)	1,1,1-Trichloroethane	11.12	97.0	53491	4.22	ug/L	96
23)	Carbon tetrachloride	11.38	117.0	45485	3.91	ug/L	89
24)	1,1-Dichloropropene	11.32	75.0	38719	4.54	ug/L	94
25)	BENZENE-D6	11.58	84.0	80092	5.11	ug/L	99
26)	Benzene	11.65	78.0	67212	3.95	ug/L	98
27)	1,2-Dichloroethane	11.63	62.0	30555	4.73	ug/L	92
28)	*TOLUENE-D8	14.44	98.0	85379	5.00	ug/L	97
29)	Trichloroethene	12.55	95.0	29033	4.12	ug/L	90
30)	1,2-Dichloropropane	12.90	63.0	16722	4.39	ug/L	92
31)	Dibromomethane	13.11	174.0	11261	4.11	ug/L	94
33)	Bromodichloromethane	13.28	83.0	33163	4.76	ug/L	96
34)	cis-1,3-Dichloropropene	13.96	75.0	27459	4.40	ug/L	96
35)	Toluene	14.55	92.0	46072	3.82	ug/L	94
37)	trans-1,3-Dichloropropene	14.82	75.0	20133	4.21	ug/L	96
38)	Tetrachloroethene	15.49	166.0	31981	3.78	ug/L	96
39)	1,1,2-Trichloroethane	15.16	132.0	1128	5.35	ug/L	74
40)	1,3-Dichloropropane	15.47	76.0	18686	5.12	ug/L	97
42)	Dibromochloromethane	15.89	129.0	17518	4.46	ug/L	97
43)	1,2-Dibromoethane	16.16	107.0	11461	4.51	ug/L	92
44)	*CHLOROBENZENE-D5	16.93	117.0	60778	5.00	ug/L	94
45)	Chlorobenzene	16.98	112.0	54208	4.16	ug/L	96
46)	1,1,1,2-Tetrachloroethane	17.08	131.0	21666	4.09	ug/L	89
47)	Ethylbenzene	17.10	91.0	101091	3.80	ug/L	98
48)	m &/or p-Xylene	17.30	106.0	76682	8.42	ug/L	97
49)	o-Xylene	18.02	106.0	31454	3.78	ug/L	91

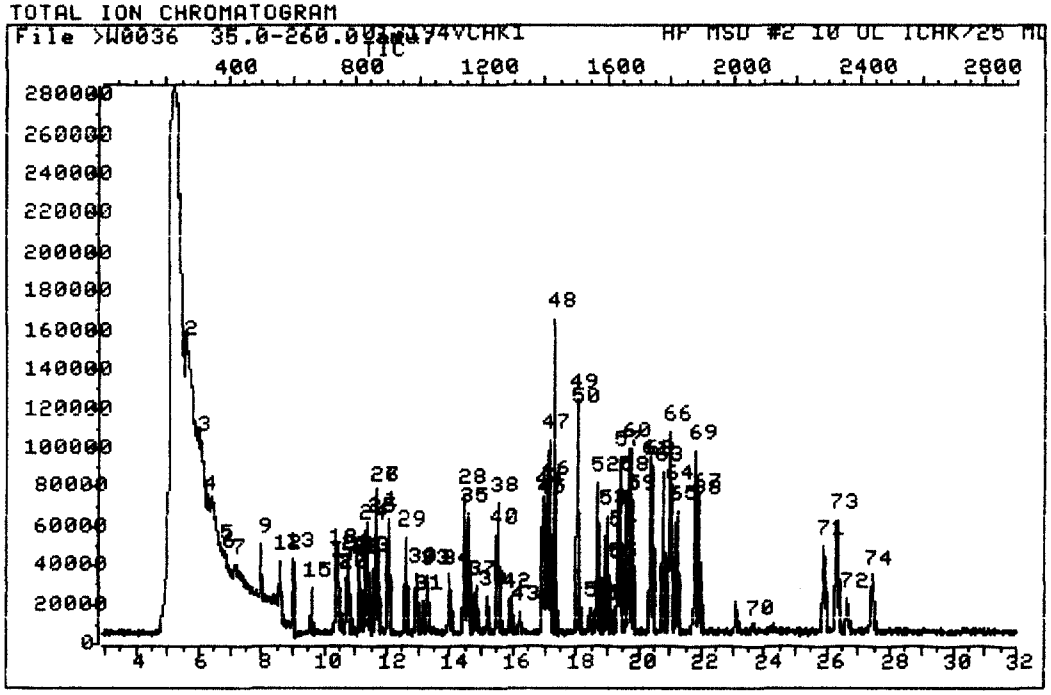
Operator ID: BABU Quant Rev: 7 Quant Time: 940201 09:02
Output File: ^W0036::D6 Injected at: 940131 16:06
Data File: >W0036::D1 Dilution Factor: 1.00000
Name: 013194VCHK1 Instrument ID: HP MS #7
Misc: HP MSD #2 10 UL ICHK/25 ML PURGE

ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
50)	Styrene	18.03	104.0	40871	3.65	ug/L	98
51)	Bromoform	18.43	173.0	9501	4.22	ug/L	95
52)	Isopropylbenzene	18.64	105.0	102561	3.70	ug/L	95
53)	p-BROMOFLUOROBENZENE	18.96	174.0	31077	4.86	ug/L	98
54)	Bromobenzene	19.31	156.0	22081	3.90	ug/L	96
55)	1,2,3-Trichloropropane	19.29	75.0	11495	4.56	ug/L	92
56)	1,1,2,2-Tetrachloroethane	19.14	83.0	9448	4.73	ug/L	85
57)	n-Propylbenzene	19.40	120.0	28729	4.27	ug/L	96
58)	2-Chlorotoluene	19.63	126.0	22940	3.84	ug/L	93
59)	4-Chlorotoluene	19.81	126.0	22904	4.03	ug/L	98
60)	1,3,5-Trimethylbenzene	19.69	105.0	105371	4.48	ug/L	97
61)	tert-Butylbenzene	20.32	119.0	95578	4.18	ug/L	95
62)	1,2,4-Trimethylbenzene	20.41	105.0	100553	4.16	ug/L	96
63)	sec-Butylbenzene	20.74	105.0	112788	3.65	ug/L	97
64)	1,3-Dichlorobenzene	21.03	146.0	48784	4.14	ug/L	93
65)	1,4-Dichlorobenzene	21.19	146.0	43859	3.89	ug/L	99
66)	p-Isopropyltoluene	20.98	119.0	112032	4.19	ug/L	95
67)	1,2-DICHLOROBENZENE-D4	21.91	152.0	28102	5.12	ug/L	94
68)	1,2-Dichlorobenzene	21.94	146.0	36697	3.98	ug/L	94
69)	n-Butylbenzene	21.78	91.0	114479	4.17	ug/L	97
70)	1,2-Dibromo-3-chloropropane	23.63	157.0	2496	4.63	ug/L	69
71)	1,2,4-Trichlorobenzene	25.86	180.0	36973	4.07	ug/L	98
72)	Naphthalene	26.64	128.0	33950	4.83	ug/L	100
73)	Hexachlorobutadiene	26.29	225.0	47343	4.05	ug/L	98
74)	1,2,3-Trichlorobenzene	27.40	180.0	28093	4.12	ug/L	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >W0036::D1 Quant Output File: ^W0036::D6
Name: 013194VCHK1 Instrument ID: HP MS #7
Misc: HP MSD #2 10 UL ICHK/25 ML PURGE

Id File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: <none>

Operator ID: BABU
Quant Time : 940201 09:02
Injected at: 940131 16:06

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: S. E. ROCKFORD **Contract:** LOCKHEED/ESAT

Lab Code: 5SCRL Case No.: 940043 **SAS No.:** 940043 **SDG No.:** ---

Instrument ID: HP MSD#2 Calibration Date: 02/01/94 Time: 09:49

Lab File ID: >W0043 Init. Calib. Date(s): 01/31/94

Matrix:(soil/water) WATER Level:(low/med) LOW **Column:**(pack/cap) CAP

Min RRF005 for SPCC(#) = 0.300 (0.250 **for Bromoform) Max %D for CCC(*) = 30%**

COMPOUND	$\overline{RRF}$	RRF005	%D
Dichlorodifluoromethane	.381	.349	8.4
Chloromethane	.311	.392	26.1
Vinyl chloride	.330	.338	2.3
Bromomethane	.297	.287	3.5
Chloroethane	.210	.219	4.2
Trichlorofluoromethane	.596	.581	2.4
Acrolein	.003	.002	14.9
1,1-Dichloroethene	.295	.260	11.9
Acetone	.037	.032	13.6
Carbon disulfide	.861	.758	11.9
Methylene chloride	.252	.233	7.4
trans-1,2-Dichloroethene	.327	.300	8.4
Acrylonitrile	.023	.021	9.9
1,1-Dichloroethane	.588	.547	7.0
Vinyl acetate	.121	.106	12.4
2,2-Dichloropropane	.662	.585	11.5
cis-1,2-Dichloroethene	.305	.296	3.1
2-Butanone	.036	.030	17.1
Bromochloromethane	.127	.120	5.6
Chloroform	.726	.684	5.9
1,1,1-Trichloroethane	.743	.625	16.0
Carbon tetrachloride	.681	.572	16.0
1,1-Dichloropropene	.500	.468	6.4
Benzene	.996	.991	.4
1,2-Dichloroethane	.378	.312	17.5
Trichloroethene	.412	.384	6.8
1,2-Dichloropropane	.223	.215	3.7
Dibromomethane	.161	.154	3.9
2-Chloroethyl vinylether	.057	.056	.8
Bromodichloromethane	.408	.366	10.4
cis-1,3-Dichloropropene	.365	.329	10.0
Toluene	.706	.705	.2
4-Methyl-2-pentanone	.074	.066	10.0
trans-1,3-Dichloropropene	.280	.246	12.3
Tetrachloroethene	.495	.488	1.5

7A-1
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: S. E. ROCKFORD **Contract:** LOCKHEED/ESAT

Lab Code: 5SCRL Case No.: 940043 SAS No.: 940043 SDG No.: ---

Instrument ID: HP MSD#2 Calibration Date: 02/01/94 Time: 09:49

Lab File ID: >W0043 Init. Calib. Date(s): 01/31/94

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Min RRF005 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 30%

COMPOUND	$\overline{RRF}$	RRF005	%D
1,1,2-Trichloroethane	.012	.015	21.6
1,3-Dichloropropane	.214	.200	6.5
2-Hexanone	.051	.047	8.8
Dibromochloromethane	.230	.199	13.5
1,2-Dibromoethane	.149	.132	11.3
Chlorobenzene	1.073	1.031	3.9
1,1,1,2-Tetrachloroethane	.435	.377	13.4
Ethylbenzene	2.188	2.043	6.6
m &/or p-Xylene	.749	.705	5.8
o-Xylene	.684	.644	5.9
Styrene	.921	.967	5.0
Bromoform	.185	.150	19.1
Isopropylbenzene	2.277	2.094	8.1
Bromobenzene	.465	.432	7.2
1,2,3-Trichloropropane	.207	.177	14.5
1,1,2,2-Tetrachloroethane	.164	.138	15.8
n-Propylbenzene	.553	.522	5.6
2-Chlorotoluene	.491	.455	7.4
4-Chlorotoluene	.467	.457	2.1
1,3,5-Trimethylbenzene	1.935	1.790	7.5
tert-Butylbenzene	1.879	1.742	7.3
1,2,4-Trimethylbenzene	1.986	1.803	9.2
sec-Butylbenzene	2.539	2.324	8.5
1,3-Dichlorobenzene	.970	.904	6.8
1,4-Dichlorobenzene	.929	.848	8.7
p-Isopropyltoluene	2.201	2.001	9.1
1,2-Dichlorobenzene	.759	.678	10.6
n-Butylbenzene	2.260	1.999	11.6
1,2-Dibromo-3-chloropropane	.044	.032	27.2
1,2,4-Trichlorobenzene	.747	.658	11.9
Naphthalene	.578	.503	13.1
Hexachlorobutadiene	.961	.848	11.7
1,2,3-Trichlorobenzene	.560	.482	14.0
BENZENE-D6	.917	.937	2.2
p-BROMOFLUOROBENZENE	.526	.499	5.1
1,2-DICHLOROBENZENE-D4	.452	.412	8.9

Calibration Check Report

Title: CAL FILE FOR OLC01 (LOW-LEVEL)
Calibrated: 940201 08:33

Check Standard Data File: >W0043
Injection Time: 940201 09:49

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
Dichlorodifluoromethane	.38132	.34921	8.42	Average	
Chloromethane	.31128	.39242	26.07	Average	
Vinyl chloride	.33008	.33773	2.32	Average	
Bromomethane	.29676	.28651	3.46	Average	
Chloroethane	.21016	.21894	4.18	Average	
Trichlorofluoromethane	.59586	.58128	2.45	Average	
Acrolein	.00280	.00238	14.90	Average	(Conc=25.00)
1,1-Dichloroethene	.29469	.25962	11.90	Average	
Acetone	.03688	.03184	13.65	Average	(Conc=25.00)
Carbon disulfide	.86059	.75845	11.87	Average	
Methylene chloride	.25167	.23297	7.43	Average	
trans-1,2-Dichloroethene	.32711	.29978	8.35	Average	
Acrylonitrile	.02275	.02050	9.88	Average	(Conc=25.00)
1,1-Dichloroethane	.58831	.54696	7.03	Average	
Vinyl acetate	.12122	.10624	12.36	Average	(Conc=10.00)
2,2-Dichloropropane	.66184	.58546	11.54	Average	
cis-1,2-Dichloroethene	.30522	.29579	3.09	Average	
2-Butanone	.03635	.03013	17.10	Average	(Conc=25.00)
Bromochloromethane	.12738	.12028	5.57	Average	
Chloroform	.72635	.68384	5.85	Average	
1,1,1-Trichloroethane	.74326	.62462	15.96	Average	
Carbon tetrachloride	.68066	.57163	16.02	Average	
1,1-Dichloropropene	.49981	.46800	6.36	Average	
BENZENE-D6	.91718	.93702	2.16	Average	(Conc=5.00)
Benzene	.99573	.99146	.43	Average	
1,2-Dichloroethane	.37828	.31216	17.48	Average	
Trichloroethene	.41233	.38412	6.84	Average	
1,2-Dichloropropane	.22297	.21477	3.68	Average	
Dibromomethane	.16053	.15427	3.90	Average	
2-Chloroethyl vinylether	.05654	.05607	.85	Average	
Bromodichloromethane	.40804	.36579	10.35	Average	
cis-1,3-Dichloropropene	.36536	.32897	9.96	Average	(Conc=5.30)
Toluene	.70612	.70451	.23	Average	
4-Methyl-2-pentanone	.07376	.06636	10.03	Average	(Conc=10.00)
trans-1,3-Dichloropropene	.28031	.24581	12.31	Average	(Conc=4.70)
Tetrachloroethene	.49533	.48766	1.55	Average	
1,1,2-Trichloroethane	.01234	.01501	21.63	Average	
1,3-Dichloropropane	.21360	.19965	6.53	Average	
2-Hexanone	.05136	.04687	8.75	Average	(Conc=10.00)
Dibromochloromethane	.23012	.19900	13.52	Average	

RF - Response Factor from daily standard file at 5.00 ug/L

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

%Diff - % Difference from original average or curve

Calibration Check Report

Title: CAL FILE FOR OLC01 (LOW-LEVEL)
Calibrated: 940201 08:33

Check Standard Data File: >W0043
Injection Time: 940201 09:49

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
1,2-Dibromoethane	.14888	.13208	11.29	Average	
Chlorobenzene	1.07285	1.03139	3.86	Average	
1,1,1,2-Tetrachloroethane	.43547	.37732	13.35	Average	
Ethylbenzene	2.18794	2.04292	6.63	Average	
m &/or p-Xylene	.74877	.70521	5.82	Average	(Conc=10.00)
o-Xylene	.68442	.64433	5.86	Average	
Styrene	.92064	.96657	4.99	Average	
Bromoform	.18507	.14975	19.08	Average	
Isopropylbenzene	2.27750	2.09388	8.06	Average	
p-BROMOFLUOROBENZENE	.52600	.49944	5.05	Average	(Conc=5.00)
Bromobenzene	.46543	.43180	7.23	Average	
1,2,3-Trichloropropane	.20734	.17726	14.50	Average	
1,1,2,2-Tetrachloroethane	.16447	.13849	15.80	Average	
n-Propylbenzene	.55315	.52222	5.59	Average	
2-Chlorotoluene	.49138	.45505	7.39	Average	
4-Chlorotoluene	.46702	.45724	2.10	Average	
1,3,5-Trimethylbenzene	1.93453	1.78999	7.47	Average	
tert-Butylbenzene	1.87891	1.74239	7.27	Average	
1,2,4-Trimethylbenzene	1.98645	1.80343	9.21	Average	
sec-Butylbenzene	2.53937	2.32388	8.49	Average	
1,3-Dichlorobenzene	.96990	.90373	6.82	Average	
1,4-Dichlorobenzene	.92868	.84813	8.67	Average	
p-Isopropyltoluene	2.20118	2.00126	9.08	Average	
1,2-DICHLOROBENZENE-D4	.45183	.41166	8.89	Average	(Conc=5.00)
1,2-Dichlorobenzene	.75930	.67846	10.65	Average	
n-Butylbenzene	2.25981	1.99874	11.55	Average	
1,2-Dibromo-3-chloropropane	.04438	.03231	27.18	Average	
1,2,4-Trichlorobenzene	.74749	.65826	11.94	Average	
Naphthalene	.57835	.50256	13.11	Average	
Hexachlorobutadiene	.96056	.84790	11.73	Average	
1,2,3-Trichlorobenzene	.56045	.48205	13.99	Average	

RF - Response Factor from daily standard file at 5.00 ug/L

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

%Diff - % Difference from original average or curve

FMGR : QCAL,^W0043,IDRW02,C

Quant Output File: ^W0043::D6
From ID File: IDRW02::D5
Quant Time: 940201 10:23

Quant ID File: IDRW02::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2

Clearing previous calibration...
Recalibrating.....

1)	FLUOROBENZENE	RT: 11.99	Scan: 897	(ISTD)	
2)	Dichlorodifluoromethane	RT: 5.63	Scan: 264	(New Rf =	.34921)
3)	Chloromethane	RT: 6.04	Scan: 304	(New Rf =	.39242)
4)	Vinyl chloride	RT: 6.25	Scan: 325	(New Rf =	.33773)
5)	Bromomethane	RT: 6.75	Scan: 375	(New Rf =	.28651)
6)	Chloroethane	RT: 6.83	Scan: 383	(New Rf =	.21894)
7)	Trichlorofluoromethane	RT: 7.17	Scan: 416	(New Rf =	.58128)
8)	Acrolein	RT: 7.75	Scan: 474	(New Rf =	.00238)
9)	1,1-Dichloroethene	RT: 7.96	Scan: 495	(New Rf =	.25962)
10)	Acetone	RT: 7.97	Scan: 496	(New Rf =	.03184)
11)	Carbon disulfide	RT: 8.40	Scan: 538	(New Rf =	.75845)
12)	Methylene chloride	RT: 8.60	Scan: 558	(New Rf =	.23297)
13)	trans-1,2-Dichloroethene	RT: 8.98	Scan: 596	(New Rf =	.29978)
14)	Acrylonitrile	RT: 8.89	Scan: 587	(New Rf =	.02050)
15)	1,1-Dichloroethane	RT: 9.56	Scan: 654	(New Rf =	.54696)
16)	Vinyl acetate	RT: 9.51	Scan: 649	(New Rf =	.10624)
17)	2,2-Dichloropropane	RT: 10.39	Scan: 737	(New Rf =	.58546)
18)	cis-1,2-Dichloroethene	RT: 10.35	Scan: 733	(New Rf =	.29579)
19)	2-Butanone	RT: 10.31	Scan: 729	(New Rf =	.03013)
20)	Bromochloromethane	RT: 10.71	Scan: 769	(New Rf =	.12028)
21)	Chloroform	RT: 10.75	Scan: 773	(New Rf =	.68384)
22)	1,1,1-Trichloroethane	RT: 11.12	Scan: 810	(New Rf =	.62462)
23)	Carbon tetrachloride	RT: 11.37	Scan: 835	(New Rf =	.57163)
24)	1,1-Dichloropropene	RT: 11.32	Scan: 830	(New Rf =	.46800)
25)	BENZENE-D6	RT: 11.59	Scan: 857	(New Rf =	.93702)
26)	Benzene	RT: 11.64	Scan: 862	(New Rf =	.99146)
27)	1,2-Dichloroethane	RT: 11.62	Scan: 860	(New Rf =	.31216)
28)	TOLUENE-D8	RT: 14.43	Scan: 1140	(ISTD)	
29)	Trichloroethene	RT: 12.54	Scan: 952	(New Rf =	.38412)
30)	1,2-Dichloropropane	RT: 12.90	Scan: 987	(New Rf =	.21477)
31)	Dibromomethane	RT: 13.10	Scan: 1007	(New Rf =	.15427)
32)	2-Chloroethyl vinylether	RT: 13.63	Scan: 1060	(New Rf =	.05607)
33)	Bromodichloromethane	RT: 13.27	Scan: 1024	(New Rf =	.36579)
34)	cis-1,3-Dichloropropene	RT: 13.96	Scan: 1093	(New Rf =	.32897)
35)	Toluene	RT: 14.55	Scan: 1152	(New Rf =	.70451)
36)	4-Methyl-2-pentanone	RT: 14.13	Scan: 1110	(New Rf =	.06636)
37)	trans-1,3-Dichloropropene	RT: 14.81	Scan: 1178	(New Rf =	.24581)
38)	Tetrachloroethene	RT: 15.49	Scan: 1246	(New Rf =	.48766)
39)	1,1,2-Trichloroethane	RT: 15.17	Scan: 1214	(New Rf =	.01501)
40)	1,3-Dichloropropane	RT: 15.46	Scan: 1243	(New Rf =	.19965)
41)	2-Hexanone	RT: 15.49	Scan: 1246	(New Rf =	.04687)
42)	Dibromochloromethane	RT: 15.89	Scan: 1286	(New Rf =	.19900)
43)	1,2-Dibromoethane	RT: 16.16	Scan: 1313	(New Rf =	.13208)
44)	CHLOROBENZENE-D5	RT: 16.92	Scan: 1389	(ISTD)	
45)	Chlorobenzene	RT: 16.97	Scan: 1394	(New Rf =	1.03139)
46)	1,1,1,2-Tetrachloroethane	RT: 17.07	Scan: 1404	(New Rf =	.37732)
47)	Ethylbenzene	RT: 17.10	Scan: 1407	(New Rf =	2.04292)
48)	m &/or p-Xylene	RT: 17.29	Scan: 1425	(New Rf =	.70521)

49) o-Xylene RT: 18.02 Scan: 1498 (New Rf = .64433)
50) Styrene RT: 18.03 Scan: 1499 (New Rf = .96657)
51) Bromoform RT: 18.43 Scan: 1539 (New Rf = .14975)
52) Isopropylbenzene RT: 18.65 Scan: 1561 (New Rf =2.09388)
53) p-BROMOFLUOROBENZENE RT: 18.96 Scan: 1592 (New Rf = .49944)
54) Bromobenzene RT: 19.31 Scan: 1627 (New Rf = .43180)
55) 1,2,3-Trichloropropane RT: 19.28 Scan: 1624 (New Rf = .17726)
56) 1,1,2,2-Tetrachloroethane RT: 19.13 Scan: 1609 (New Rf = .13849)
57) n-Propylbenzene RT: 19.39 Scan: 1635 (New Rf = .52222)
58) 2-Chlorotoluene RT: 19.62 Scan: 1658 (New Rf = .45505)
59) 4-Chlorotoluene RT: 19.81 Scan: 1677 (New Rf = .45724)
60) 1,3,5-Trimethylbenzene RT: 19.68 Scan: 1664 (New Rf =1.78999)
61) tert-Butylbenzene RT: 20.32 Scan: 1728 (New Rf =1.74239)
62) 1,2,4-Trimethylbenzene RT: 20.40 Scan: 1736 (New Rf =1.80343)
63) sec-Butylbenzene RT: 20.73 Scan: 1769 (New Rf =2.32388)
64) 1,3-Dichlorobenzene RT: 21.02 Scan: 1798 (New Rf = .90373)
65) 1,4-Dichlorobenzene RT: 21.18 Scan: 1814 (New Rf = .84813)
66) p-Isopropyltoluene RT: 20.97 Scan: 1793 (New Rf =2.00126)
67) 1,2-DICHLOROBENZENE-D4 RT: 21.91 Scan: 1886 (New Rf = .41166)
68) 1,2-Dichlorobenzene RT: 21.95 Scan: 1890 (New Rf = .67846)
69) n-Butylbenzene RT: 21.77 Scan: 1873 (New Rf =1.99874)
70) 1,2-Dibromo-3-chloropropane RT: 23.64 Scan: 2059 (New Rf = .03231)
71) 1,2,4-Trichlorobenzene RT: 25.83 Scan: 2278 (New Rf = .65826)
72) Naphthalene RT: 26.62 Scan: 2356 (New Rf = .50256)
73) Hexachlorobutadiene RT: 26.26 Scan: 2321 (New Rf = .84790)
74) 1,2,3-Trichlorobenzene RT: 27.37 Scan: 2431 (New Rf = .48205)

Done

Operator ID: TONY Quant Rev: 7 Quant Time: 940201 10:23
Output File: ^W0043::D6 Injected at: 940201 09:49
Data File: >W0043::D2 Dilution Factor: 1.00000
Name: CC0201V05A Instrument ID: HP MS #7
Misc: HP MSD SYS#2, 2/1/94 25mL PURGE

ID File: IDRW02::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*FLUOROBENZENE	11.99	96.0	107694	5.00	ug/L	94
2)	Dichlorodifluoromethane	5.63	85.0	37608M	4.58	ug/L	88
3)	Chloromethane	6.04	50.0	42261	6.30	ug/L	95
4)	Vinyl chloride	6.25	62.0	36372	5.12	ug/L	90
5)	Bromomethane	6.75	94.0	30855M	4.83	ug/L	
6)	Chloroethane	6.83	64.0	23578M	5.21	ug/L	82
7)	Trichlorofluoromethane	7.17	101.0	62600M	4.88	ug/L	84
8)	Acrolein	7.75	56.0	1284	21.27	ug/L	68
9)	1,1-Dichloroethene	7.96	96.0	27959	4.40	ug/L	97
10)	Acetone	7.97	43.0	17147	21.59	ug/L	82
11)	Carbon disulfide	8.40	76.0	81681	4.41	ug/L	97
12)	Methylene chloride	8.60	84.0	25089	4.63	ug/L	92
13)	trans-1,2-Dichloroethene	8.98	96.0	32285	4.58	ug/L	96
14)	Acrylonitrile	8.89	53.0	11041	22.53	ug/L	89
15)	1,1-Dichloroethane	9.56	63.0	58904	4.65	ug/L	96
16)	Vinyl acetate	9.51	43.0	22882	8.76	ug/L	100
17)	2,2-Dichloropropane	10.39	77.0	63051	4.42	ug/L	96
18)	cis-1,2-Dichloroethene	10.35	96.0	31855	4.85	ug/L	97
19)	2-Butanone	10.31	43.0	16225	20.73	ug/L	70
20)	Bromochloromethane	10.71	128.0	12953	4.72	ug/L	99
21)	Chloroform	10.75	83.0	73645	4.71	ug/L	96
22)	1,1,1-Trichloroethane	11.12	97.0	67268	4.20	ug/L	98
23)	Carbon tetrachloride	11.37	117.0	61561	4.20	ug/L	94
24)	1,1-Dichloropropene	11.32	75.0	50401	4.68	ug/L	97
25)	BENZENE-D6	11.59	84.0	100911	5.11	ug/L	97
26)	Benzene	11.64	78.0	106774	4.98	ug/L	98
27)	1,2-Dichloroethane	11.62	62.0	33618	4.13	ug/L	98
28)	*TOLUENE-D8	14.43	98.0	105286	5.00	ug/L	93
29)	Trichloroethene	12.54	95.0	40442	4.66	ug/L	95
30)	1,2-Dichloropropane	12.90	63.0	22612	4.82	ug/L	97
31)	Dibromomethane	13.10	174.0	16242	4.80	ug/L	95
32)	2-Chloroethyl vinylether	13.63	63.0	5903	4.96	ug/L	88
33)	Bromodichloromethane	13.27	83.0	38513	4.48	ug/L	98
34)	cis-1,3-Dichloropropene	13.96	75.0	36714	4.77	ug/L	94
35)	Toluene	14.55	92.0	74175	4.99	ug/L	96
36)	4-Methyl-2-pentanone	14.13	43.0	13974	9.00	ug/L	94
37)	trans-1,3-Dichloropropene	14.81	75.0	24328	4.12	ug/L	99
38)	Tetrachloroethene	15.49	166.0	51344	4.92	ug/L	99
39)	1,1,2-Trichloroethane	15.17	132.0	1580	6.08	ug/L	85
40)	1,3-Dichloropropane	15.46	76.0	21020	4.67	ug/L	99

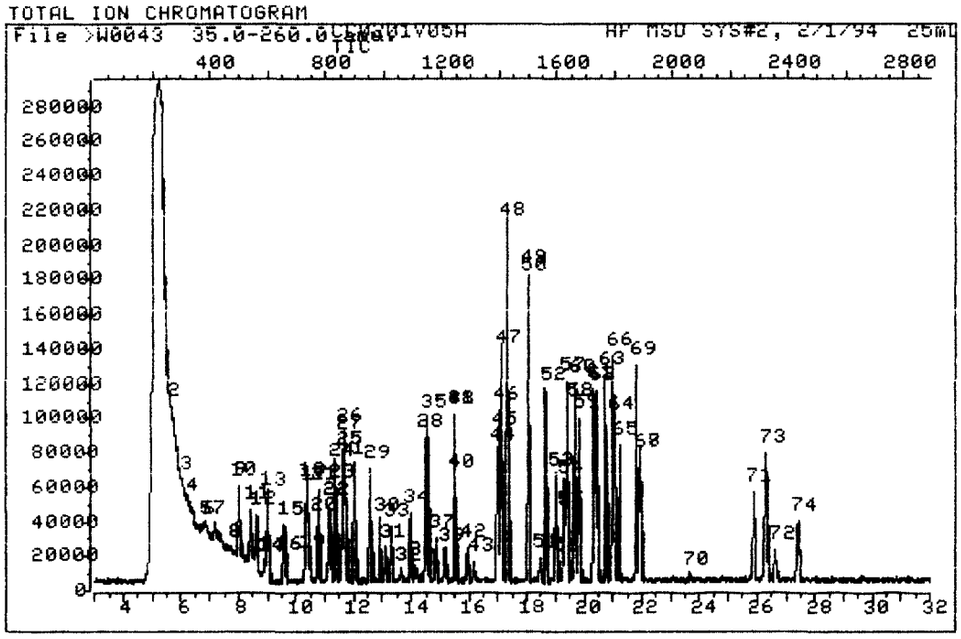
Operator ID: TONY Quant Rev: 7 Quant Time: 940201 10:23
Output File: ^W0043::D6 Injected at: 940201 09:49
Data File: >W0043::D2 Dilution Factor: 1.00000
Name: CC0201V05A Instrument ID: HP MS #7
Misc: HP MSD SYS#2, 2/1/94 25mL PURGE

ID File: IDRW02::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
41)	2-Hexanone	15.49	43.0	9869	9.12	ug/L	95
42)	Dibromochloromethane	15.89	129.0	20952	4.32	ug/L	91
43)	1,2-Dibromoethane	16.16	107.0	13906	4.44	ug/L	95
44)	*CHLOROBENZENE-D5	16.92	117.0	73743	5.00	ug/L	93
45)	Chlorobenzene	16.97	112.0	76058	4.81	ug/L	99
46)	1,1,1,2-Tetrachloroethane	17.07	131.0	27825	4.33	ug/L	97
47)	Ethylbenzene	17.10	91.0	150651	4.67	ug/L	99
48)	m &/or p-Xylene	17.29	106.0	104008	9.42	ug/L	99
49)	o-Xylene	18.02	106.0	47515	4.71	ug/L	92
50)	Styrene	18.03	104.0	71278	5.25	ug/L	95
51)	Bromoform	18.43	173.0	11043	4.05	ug/L	95
52)	Isopropylbenzene	18.65	105.0	154409	4.60	ug/L	98
53)	p-BROMOFLUOROBENZENE	18.96	174.0	36830	4.75	ug/L	87
54)	Bromobenzene	19.31	156.0	31842	4.64	ug/L	93
55)	1,2,3-Trichloropropane	19.28	75.0	13072	4.27	ug/L	90
56)	1,1,2,2-Tetrachloroethane	19.13	83.0	10213	4.21	ug/L	95
57)	n-Propylbenzene	19.39	120.0	38510	4.72	ug/L	96
58)	2-Chlorotoluene	19.62	126.0	33557M	4.63	ug/L	98
59)	4-Chlorotoluene	19.81	126.0	33718	4.90	ug/L	98
60)	1,3,5-Trimethylbenzene	19.68	105.0	131999	4.63	ug/L	96
61)	tert-Butylbenzene	20.32	119.0	128489	4.64	ug/L	96
62)	1,2,4-Trimethylbenzene	20.40	105.0	132990	4.54	ug/L	99
63)	sec-Butylbenzene	20.73	105.0	171370	4.58	ug/L	99
64)	1,3-Dichlorobenzene	21.02	146.0	66644	4.66	ug/L	94
65)	1,4-Dichlorobenzene	21.18	146.0	62544	4.57	ug/L	98
66)	p-Isopropyltoluene	20.97	119.0	147579	4.55	ug/L	99
67)	1,2-DICHLOROBENZENE-D4	21.91	152.0	30357	4.56	ug/L	94
68)	1,2-Dichlorobenzene	21.95	146.0	50032	4.47	ug/L	97
69)	n-Butylbenzene	21.77	91.0	147393	4.42	ug/L	96
70)	1,2-Dibromo-3-chloropropane	23.64	157.0	2383	3.64	ug/L	98
71)	1,2,4-Trichlorobenzene	25.83	180.0	48542	4.40	ug/L	95
72)	Naphthalene	26.62	128.0	37060	4.34	ug/L	100
73)	Hexachlorobutadiene	26.26	225.0	62527	4.41	ug/L	98
74)	1,2,3-Trichlorobenzene	27.37	180.0	35548	4.30	ug/L	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >W0043::D2 Quant Output File: ^W0043::D6
Name: CC0201V05A Instrument ID: HP MS #7
Misc: HP MSD SYS#2, 2/1/94 25mL PURGE

Id File: IDRW02::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: <none>

Operator ID: TONY
Quant Time : 940201 10:23
Injected at: 940201 09:49

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESAT

Lab code: 5SCRL Case No.: 940043 SAS No.: 940043 SDG No.: ---

Lab File ID (Standard): >W0032 Date Analyzed: 01/31/94

Instrument ID: HP MSD#2 Time Analyzed: 13:36

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

		IS1(FBZ) AREA #	RT	IS2(TOL) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	83036	11.99	83024	14.42	55959	16.91
	UPPER LIMIT	166072	12.49	166048	14.92	111918	17.41
	LOWER LIMIT	41518	11.49	41512	13.92	27979	16.41
	EPA SAMPLE NO.						
1	ICALCHK	85368	12.00	85379	14.44	60778	16.93
2	0131VBLK2	78788	12.01	77554	14.44	54333	16.94
3	940043S01D1	72692	12.00	69980	14.44	49385	16.93
4	940043S02D1	79484	12.01	76809	14.45	54135	16.96
5	940043S01D2	72434	12.03	71609	14.47	50146	16.97
6	940043S02D2	75344	12.04	73230	14.48	50441	16.96
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (FBZ) = FLUOROBENZENE
IS2 (TOL) = TOLUENE-D8
IS3 (CBZ) = CHLOROBENZENE-D5

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII VOA 1/87 Rev

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: S. E. ROCKFORD **Contract:** LOCKHEED/ESAT

Lab code: 5SCRL Case No.: 940043 **SAS No.:** 940043 **SDG No.:** ---

Lab File ID (Standard): >W0043 **Date Analyzed:** 02/01/94

Instrument ID: HP MSD **Time Analyzed:** 09:49

Matrix:(soil/water) WATER Level:(low/med) LOW **Column:**(pack/cap) CAP

		IS1(FBZ) AREA #	RT	IS2(TOL) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	107694	11.99	105286	14.43	73743	16.92
	UPPER LIMIT	215388	12.49	210572	14.93	147486	17.42
	LOWER LIMIT	53847	11.49	52643	13.93	36871	16.42
	EPA SAMPLE NO.						
1	0201VBLK2	91022	12.01	88684	14.44	64684	16.94
2	0201LCS1	79486	12.01	78312	14.44	55668	16.94
3	940043S01MS	88658	11.99	87547	14.44	63156	16.93
4	940043S01MD	92903	11.99	92011	14.42	65542	16.92
5							
6							
7							
8							
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10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (FBZ) = FLUOROBENZENE
IS2 (TOL) = TOLUENE-D8
IS3 (CBZ) = CHLOROBENZENE-D5

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII VOA 1/87 Rev

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

PRIORITY #I DUE DATE 2/1/94

CHAIN OF CUSTODY RECORD

REGION 5
230 South Dearborn Stree
Chicago, Illinois 60604

PROJ. NO.	PROJECT NAME
940002	S.E. ROCKFORD

SAMPLERS: *(Signature)*

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA						REMARKS Supergund 940043
S01	1/27/94	11:30		X	MW101C 8018E-500	4	X						CRL TAG# 5-034926-27-28-29
S02	1/27/94	1245		X	MW101D 8018E-501	4	X						CRL TAG# 5-034930-31-32-33

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)* William Sanger	Date / Time 1/27/94 4:00pm	Remarks HAND DELIVERED TO CRL	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5- 06420

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Special Analytical Service

Packing List/Chain of Custody

SAS No. 8018 E

1. Sample Description (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Rinsate
   5. Soil/Sediment
   6. Oil
   7. Waste
   8. Other (Specify)

2. Preservative (Enter in Column C)
   1. HCl
   2. HNO3
   3. $NaHSO_4$
   4. H_2SO_4
   5. NaOH
   6. Other (SAS) (Specify)
   7. Ice only
   N. Not preserved

2. Region No.: V
Sampling Co.: CDM
4. Date Shipped: 1-27-94
Carrier: CDM
7. Date Received -- Received by:

Sampler (Name): C. Almanza
Airbill Number: Hand delivered
Laboratory:

Sampler Signature: Craig A Almanza
5. Ship To: USEPA CRL
536 S. Clark
10th Flr.
Chicago 60605
8. Transfer to:
Date Received:

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF			RIFS [X]	CLEM
PRP		PA	RD	REMA
ST	[X]	SSI	RA	REM
FED		LSI	O&M	OIL
			NPLD	UST

Received by:
Laboratory:

Sample Numbers	A Matrix Enter from Box 1	B Conc Low Med High	C Preservative Used from Box 2	D Analysis	E Sample used for spike and/or duplicate	F Regional Specific Tracking Number or Tag Number	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Sample Condition On Receipt
1 8018E-500	2	Low	1	VOA		5-034926,27,28,29	MW101C	1-27-94/1130	CA	
2 8018E-501	2	Low	1	VOA		5-034930,31,32,33	MW101D	1-27-94/1245	CA	
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										

Shipment for SAS complete? (Y/N) Y

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Scott Hill-Hedge	1-27-94 / 1600	William Smyth			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Received by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form

DISTRIBUTION:
White - Region Copy Yellow - SMO Copy Gold - Lab Copy Pink - Lab Copy for Return to SMO

S 034728

SAS 8018E PRIORITY #I 940043 TFA301

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

DIVISION/BRANCH SUPERFUND SAMPLE DATE 1/27/94 LAB ARRIVAL DATE 1/27/94 DUE DATE 2/1/94

DU NUMBER IFA DATA SET NUMBER 940043 STUDY S.E. ROCKFORD PRIORITY I CONTRACTOR CDM

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17664	WATER ABN ORGANICS SCAN UG/L TOX 17674	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 215622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
940002501	5-034926-927-928-929 MW101C-8018E-500	X			
940002502	5-034930-931-932-933 MW1010-8018E-501	X			

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

013194VBLK2

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 013194VBLK2

Sample wt/vol: 25 (g/ml) ML Lab File ID: >W0037

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec. ---- Date Analyzed: 01/31/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	2	U
75-69-4	Trichlorofluoromethane	1	U
107-64-1	Acrolein	25	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-09-2	Methylene chloride	1	U
75-35-4	trans-1,2-Dichloroethene	1	U
107-13-1	Acrylonitrile	5	U
75-34-3	1,1-Dichloroethane	1	U
108-05-4	Vinyl acetate	2	U
594-20-7	2,2-Dichloropropane	1	U
540-59-0	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
110-75-8	2-Chloroethyl vinylether	5	U
75-27-4	Bromodichloromethane	1	U
10061015	cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-pentanone	2	U
10061026	trans-1,3-Dichloropropene	1	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

013194VBLK2

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 013194VBLK2

Sample wt/vol: 25 (g/ml) ML Lab File ID: >W0037

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec. ---- Date Analyzed: 01/31/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	10	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
108-38-3	m &/or p-Xylene	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

QUANT REPORT

Operator ID: BABU
Output File: ^W0037::D6
Data File: >W0037::D1
Name: 013194VBLK2
Misc: HP MSD #2 25 ML PURGE

Quant Rev: 7
Quant Time: 940201 09:15
Injected at: 940131 16:53
Dilution Factor: 1.00000
Instrument ID: HP MS #7

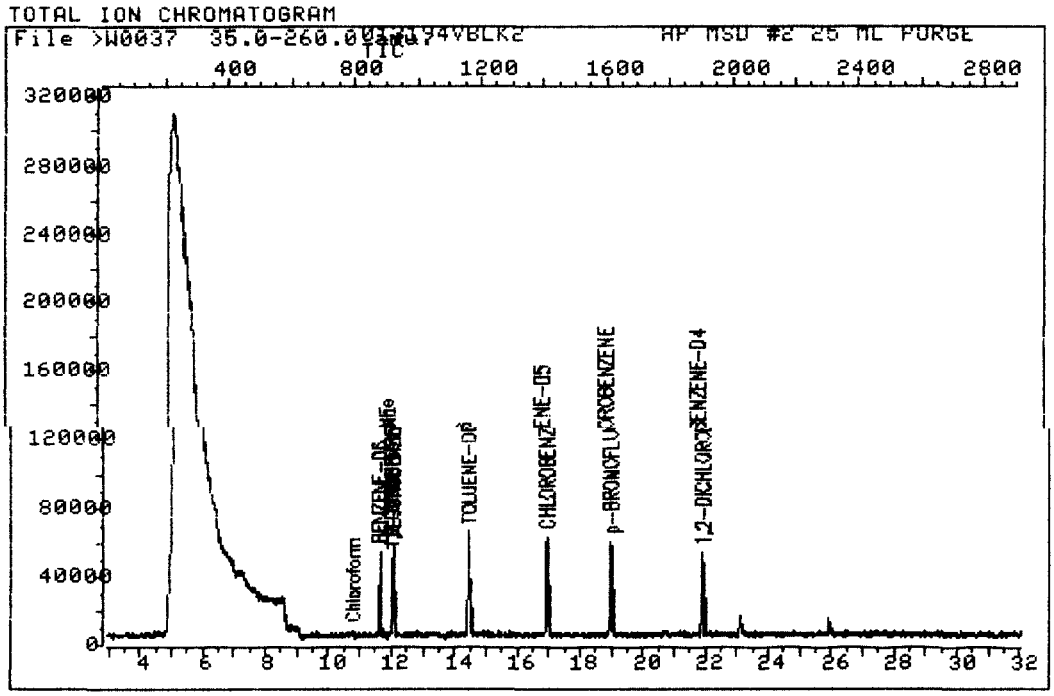
ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55
Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*FLUOROBENZENE	12.01	96.0	78788	5.00	ug/L	97
~~21)~~	~~Chloroform~~	~~10.77~~	~~83.0~~	~~2959~~	~~.259~~	~~ug/L~~	~~95~~
25)	BENZENE-D6	11.60	84.0	72956	5.05	ug/L	97
~~27)~~	~~1,2-Dichloroethane~~	~~12.00~~	~~62.0~~	~~2140~~	~~.359~~	~~ug/L~~	~~68~~
28)	*TOLUENE-D8	14.44	98.0	77554	5.00	ug/L	93
44)	*CHLOROBENZENE-D5	16.94	117.0	54333	5.00	ug/L	94
53)	p-BROMOFLUOROBENZENE	18.97	174.0	28010	4.90	ug/L	96
67)	1,2-DICHLOROBENZENE-D4	21.90	152.0	24453	4.98	ug/L	94

* Compound is ISTD

RWW 2/1/94

TOTAL ION CHROMATOGRAM

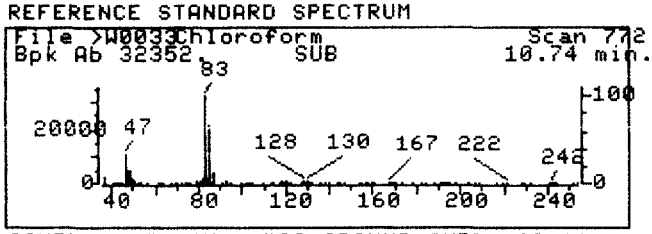


Data File: >W0037::D1 Quant Output File: ^W0037::D6
Name: 013194VBLK2 Instrument ID: HP MS #7
Misc: HP MSD #2 25 ML PURGE

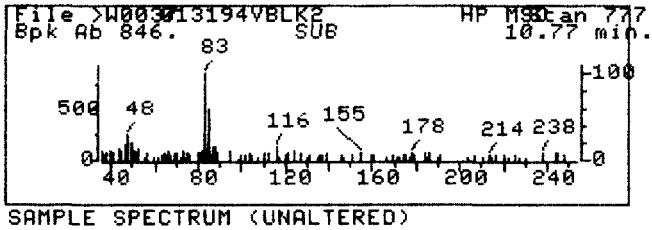
Id File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: <none>

Operator ID: BABU
Quant Time : 940201 09:15
Injected at: 940131 16:53

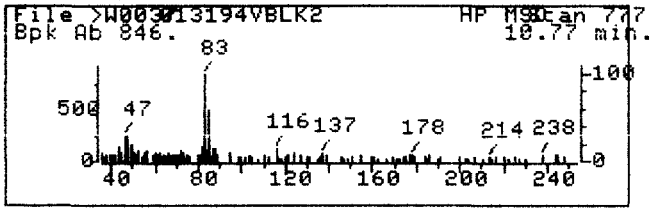
REFERENCE STANDARD SPECTRUM

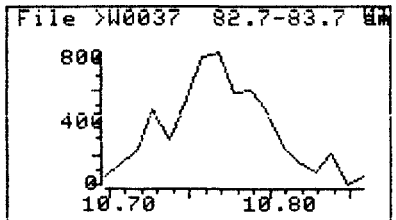


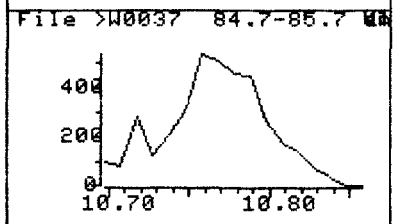
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

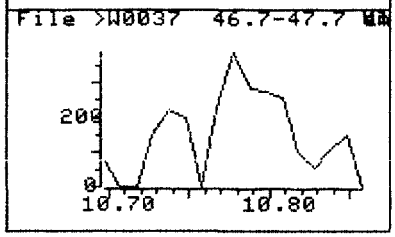


SAMPLE SPECTRUM (UNALTERED)









Data File: >W0037::D1
Name: 013194VBLK2
Misc: HP MSD #2 25 ML PURGE
Quant Time: 940201 09:15
Injected at: 940131 16:53
Last Qcal Time: <none>

Quant Output File: ^W0037::D6
Instrument ID: HP MS #7

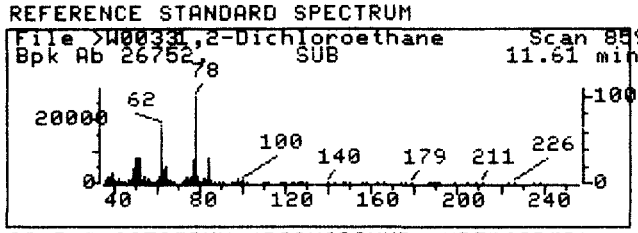
Quant ID File: IDRW01::D5
Last Calibration: 940201 08:55

Compound No : 21
Compound Name : Chloroform
Scan Number : 777
Retention Time: 10.77 min.
Quant Ion : 83.0
Area : 2959
Concentration : .259 ug/L
q-value : 95

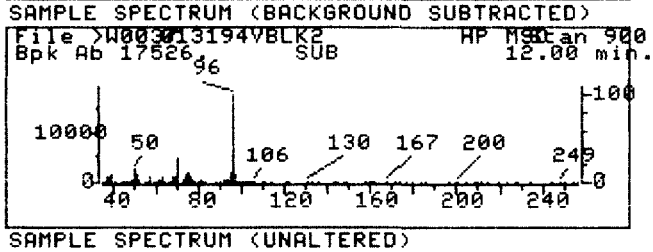
✓

< ½ MDL

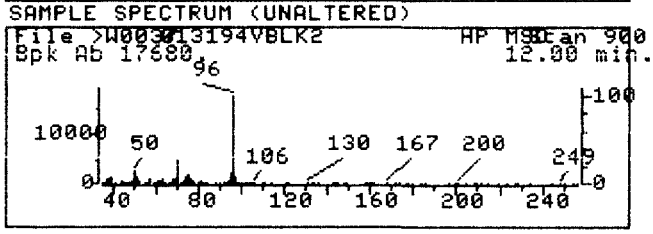
REFERENCE STANDARD SPECTRUM

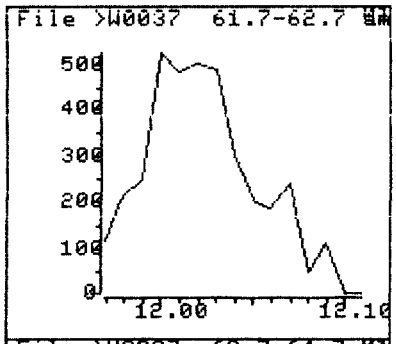


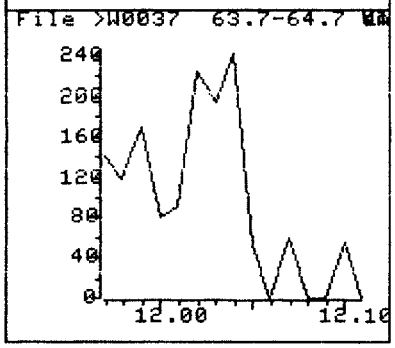
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >W0037::D1
Name: 013194VBLK2
Misc: HP MSD #2 25 ML PURGE
Quant Time: 940201 09:15
Injected at: 940131 16:53
Last Qcal Time: <none>

Quant Output File: ^W0037::D6
Instrument ID: HP MS #7

Quant ID File: IDRW01::D5
Last Calibration: 940201 08:55

Compound No : 27
Compound Name : 1,2-Dichloroethane
Scan Number : 900
Retention Time: 12.00 min.
Quant Ion : 62.0
Area : 2140
Concentration : .359 ug/L
q-value : 68

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

020194VBLK2

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 020194VBLK2

Sample wt/vol: 25 (g/ml) ML Lab File ID: >W0046

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec. ---- Date Analyzed: 02/01/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	2	U
75-69-4	Trichlorofluoromethane	1	U
107-64-1	Acrolein	25	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-09-2	Methylene chloride	1	U
75-35-4	trans-1,2-Dichloroethene	1	U
107-13-1	Acrylonitrile	5	U
75-34-3	1,1-Dichloroethane	1	U
108-05-4	Vinyl acetate	2	U
594-20-7	2,2-Dichloropropane	1	U
540-59-0	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
110-75-8	2-Chloroethyl vinylether	5	U
75-27-4	Bromodichloromethane	1	U
10061015	cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-pentanone	2	U
10061026	trans-1,3-Dichloropropene	1	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

020194VBLK2

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 020194VBLK2

Sample wt/vol: 25 (g/ml) ML Lab File ID: >W0046

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec. ---- Date Analyzed: 02/01/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	10	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
108-38-3	m &/or p-Xylene	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

QUANT REPORT

Operator ID: TONY
Quant Rev: 7
Quant Time: 940201 14:07
Output File: ^W0046::D6
Injected at: 940201 11:42
Data File: >W0046::D3
Dilution Factor: 1.00000
Name: 020194VBLK2
Instrument ID: HP MS #7
Misc: HP MSD SYS#2, 2/1/94 25mL PURGE

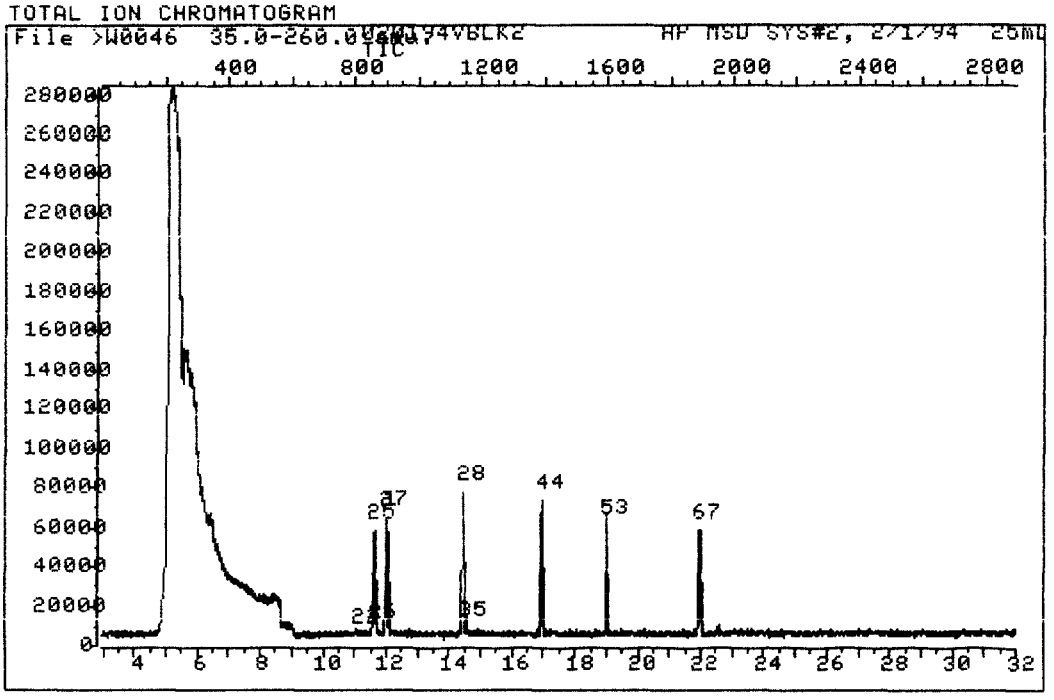
ID File: IDRW02::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55
Last Qcal Time: 940201 09:49

		Compound	R.T.	Q ion	Area	Conc	Units	q
	1)	*FLUOROBENZENE	12.01	96.0	91022	5.00	ug/L	94
BQL	~~22)~~	~~1,1,1-Trichloroethane~~	~~11.13~~	~~97.0~~	~~1308~~	~~.115~~	~~ug/L~~	73
	25)	BENZENE-D6	11.60	84.0	83871	4.92	ug/L	98
	~~26)~~	~~Benzene~~	~~11.68~~	~~78.0~~	~~1298~~	~~.0719~~	~~ug/L~~	~~50~~
BQL	~~27)~~	~~1,2-Dichloroethane~~	~~12.01~~	~~62.0~~	~~2407~~	~~.424~~	~~ug/L~~	~~97~~
	28)	*TOLUENE-D8	14.44	98.0	88684	5.00	ug/L	96
BQL	~~35)~~	~~Toluene~~	~~14.55~~	~~92.0~~	~~2312~~	~~.185~~	~~ug/L~~	~~93~~
	44)	*CHLOROBENZENE-D5	16.94	117.0	64684	5.00	ug/L	97
	53)	p-BROMOFLUOROBENZENE	18.99	174.0	32638	5.05	ug/L	94
	67)	1,2-DICHLOROBENZENE-D4	21.92	152.0	28179	5.29	ug/L	89

* Compound is ISTD

✓ ag 2/1/94

TOTAL ION CHROMATOGRAM



Data File: >W0046::D3 Quant Output File: ^W0046::D6
Name: 020194VBLK2 Instrument ID: HP MS #7
Misc: HP MSD SYS#2, 2/1/94 25mL PURGE

Id File: IDRW02::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: 940201 09:49

Operator ID: TONY
Quant Time : 940201 14:07
Injected at: 940201 11:42

QUANT REPORT

Operator ID: BABU Quant Rev: 7 Quant Time: 940201 09:38
Output File: ^W0040::D6 Injected at: 940131 18:46
Data File: >W0040::D2 Dilution Factor: 1.00000
Name: 940043S01DL2 (100X) Instrument ID: HP MS #7
Misc: HP MSD #2 250 UL/25 ML PURGE

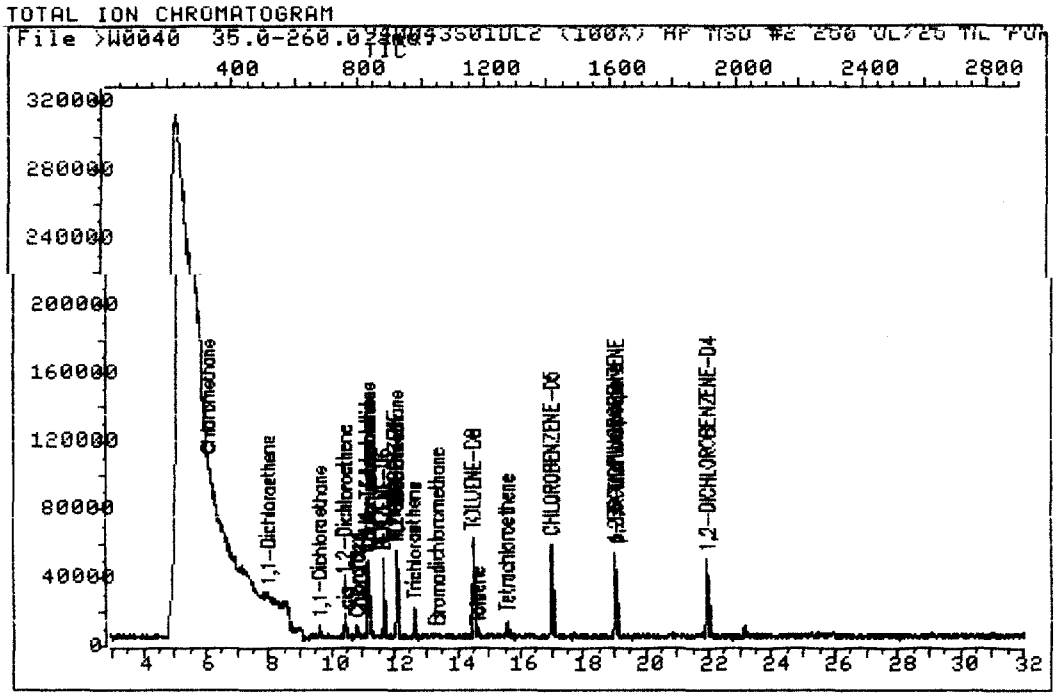
ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*FLUOROBENZENE	12.03	96.0	72434	5.00	ug/L	97
~~3)~~	~~Chloromethane~~	~~6.05~~	~~50.0~~	~~6320~~	~~1.40~~	~~ug/L~~	~~82~~
9)	1,1-Dichloroethene	7.97	96.0	2503	.586	ug/L	95
15)	1,1-Dichloroethane	9.59	63.0	12155	1.43	ug/L	98
18)	cis-1,2-Dichloroethene	10.39	96.0	9123	2.06	ug/L	94
21)	Chloroform	10.78	83.0	7525	.715	ug/L	86
22)	1,1,1-Trichloroethane	11.15	97.0	70328	6.53	ug/L	95
~~23)~~	~~Carbon tetrachloride~~	~~11.15~~	~~117.0~~	~~7769~~	~~.788~~	~~ug/L~~	~~93~~
25)	BENZENE-D6	11.62	84.0	67435	5.08	ug/L	96
~~27)~~	~~1,2-Dichloroethane~~	~~12.03~~	~~62.0~~	~~2192~~	~~.400~~	~~ug/L~~	~~71~~
28)	*TOLUENE-D8	14.47	98.0	71609	5.00	ug/L	96
29)	Trichloroethene	12.58	95.0	10967	1.86	ug/L	84
~~33)~~	~~Bromodichloromethane~~	~~13.31~~	~~83.0~~	~~2713~~	~~.464~~	~~ug/L~~	~~64~~
~~35)~~	~~Toluene~~	~~14.58~~	~~92.0~~	~~1285~~	~~.127~~	~~ug/L~~	~~76~~
38)	Tetrachloroethene	15.54	166.0	5102	.719	ug/L	89
44)	*CHLOROBENZENE-D5	16.97	117.0	50146	5.00	ug/L	93
53)	p-BROMOFLUOROBENZENE	19.01	174.0	24220	4.59	ug/L	85
~~55)~~	~~1,2,3-Trichloropropane~~	~~19.01~~	~~75.0~~	~~18960~~	~~9.12~~	~~ug/L~~	~~53~~
67)	1,2-DICHLOROBENZENE-D4	21.94	152.0	21886	4.83	ug/L	90

* Compound is ISTD

RWW 2-1-94
QDBL

TOTAL ION CHROMATOGRAM

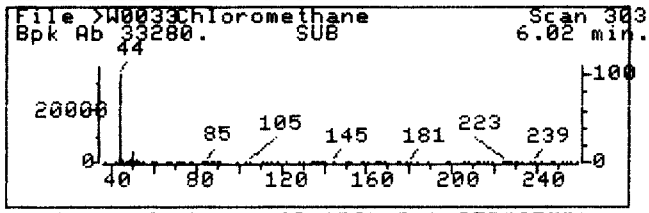


Data File: >W0040::D2 Quant Output File: ^W0040::D6
Name: 940043S01DL2 (100X) Instrument ID: HP MS #7
Misc: HP MSD #2 250 UL/25 ML PURGE

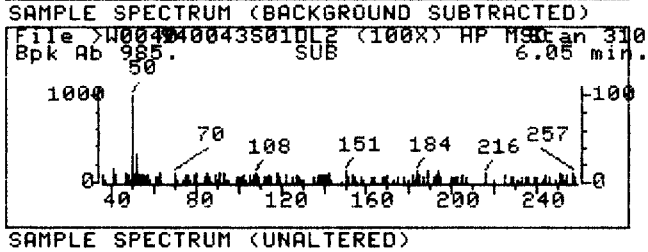
Id File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: <none>

Operator ID: BABU
Quant Time : 940201 09:38
Injected at: 940131 18:46

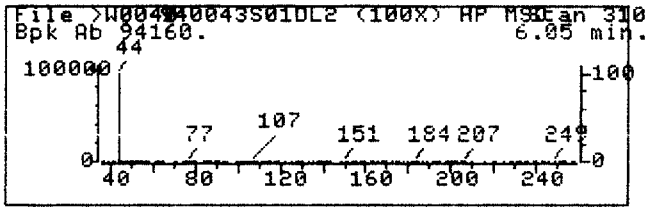
REFERENCE STANDARD SPECTRUM

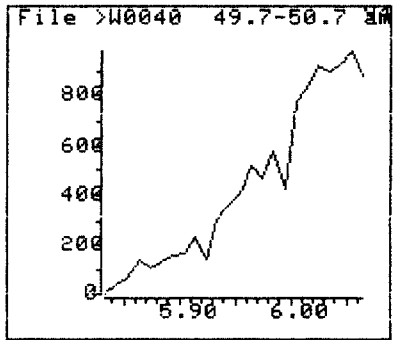


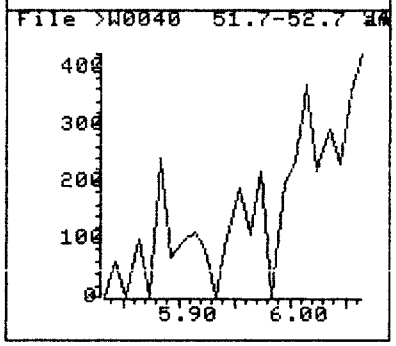
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



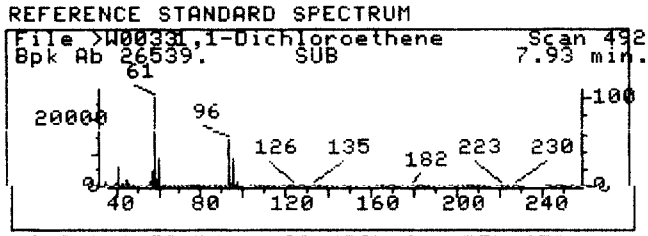




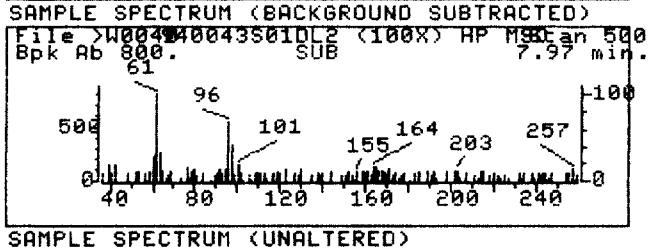
Data File: >W0040::D2 Quant Output File: ^W0040::D6
Name: 940043S01DL2 (100X) Instrument ID: HP MS #7
Misc: HP MSD #2 250 UL/25 ML PURGE
Quant Time: 940201 09:38 Quant ID File: IDRW01::D5
Injected at: 940131 18:46 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 3
Compound Name : Chloromethane
Scan Number : 310
Retention Time: 6.05 min.
Quant Ion : 50.0
Area : 6320
Concentration : 1.40 ug/L
q-value : 82

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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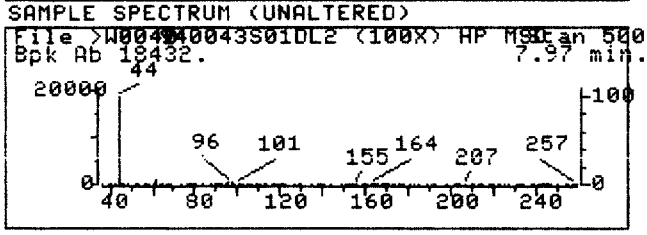
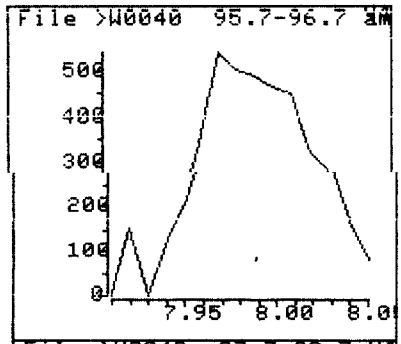
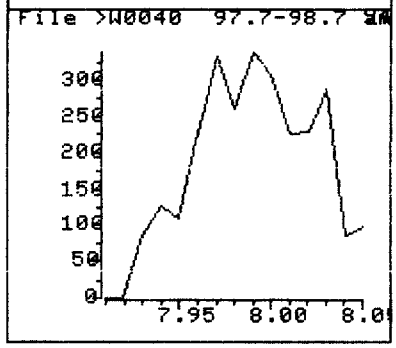


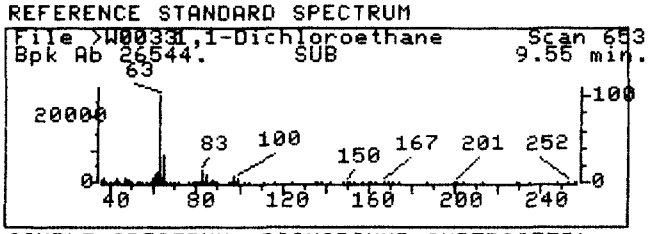




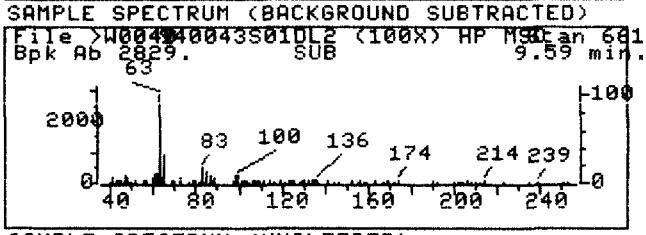
Data File: >W0040::D2 Quant Output File: ^W0040::D6
Name: 940043S01DL2 (100X) Instrument ID: HP MS #7
Misc: HP MSD #2 250 UL/25 ML PURGE
Quant Time: 940201 09:38 Quant ID File: IDRW01::D5
Injected at: 940131 18:46 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 9
Compound Name : 1,1-Dichloroethene
Scan Number : 500
Retention Time: 7.97 min.
Quant Ion : 96.0
Area : 2503
Concentration : .586 ug/L
q-value : 95

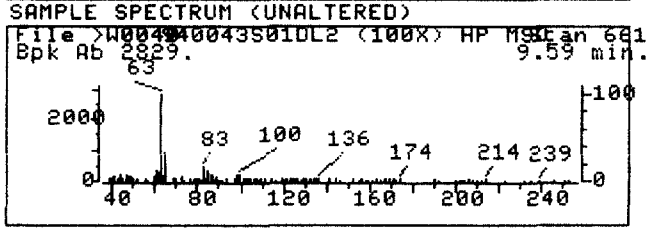
REFERENCE STANDARD SPECTRUM

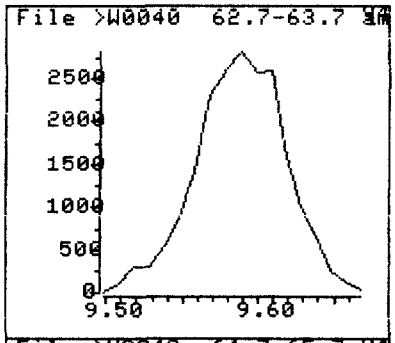


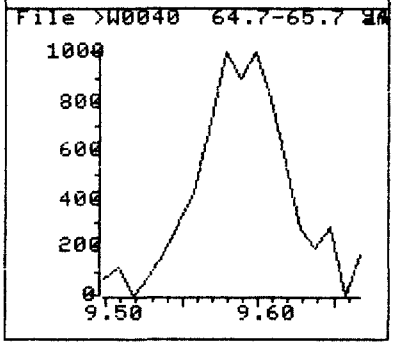
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



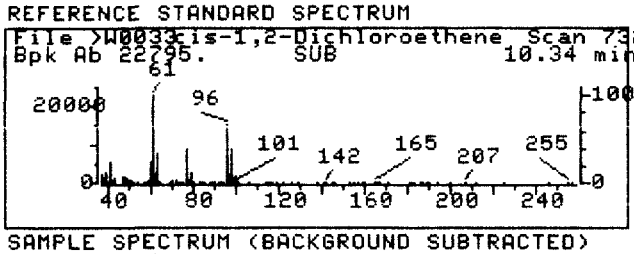




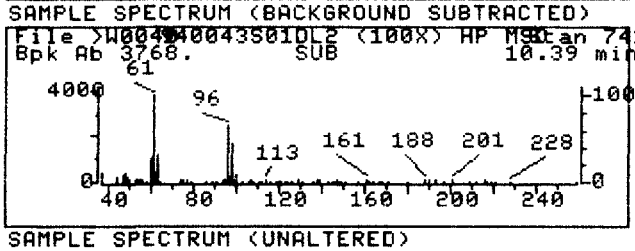
Data File: >W0040::D2 Quant Output File: ^W0040::D6
Name: 940043S01DL2 (100X) Instrument ID: HP MS #7
Misc: HP MSD #2 250 UL/25 ML PURGE
Quant Time: 940201 09:38 Quant ID File: IDRW01::D5
Injected at: 940131 18:46 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 15
Compound Name : 1,1-Dichloroethane
Scan Number : 661
Retention Time: 9.59 min.
Quant Ion : 63.0
Area : 12155
Concentration : 1.43 ug/L
q-value : 98

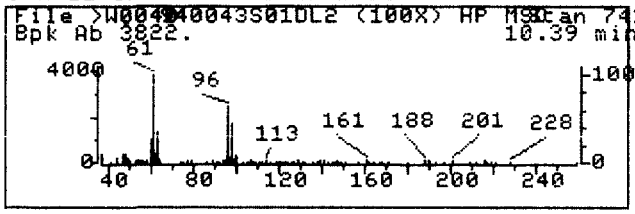
REFERENCE STANDARD SPECTRUM

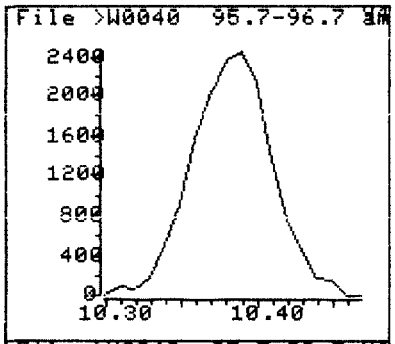


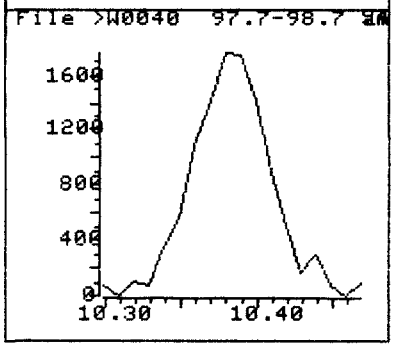
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



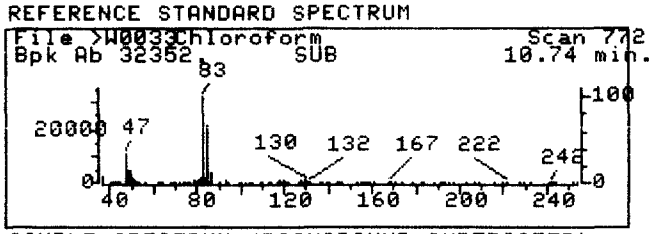




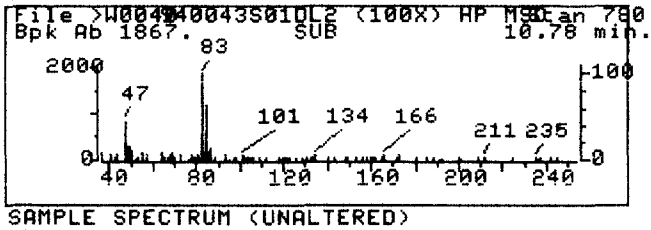
Data File: >W0040::D2 Quant Output File: ^W0040::D6
Name: 940043S01DL2 (100X) Instrument ID: HP MS #7
Misc: HP MSD #2 250 UL/25 ML PURGE
Quant Time: 940201 09:38 Quant ID File: IDRW01::D5
Injected at: 940131 18:46 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 18
Compound Name : cis-1,2-Dichloroethene
Scan Number : 741
Retention Time: 10.39 min.
Quant Ion : 96.0
Area : 9123
Concentration : 2.06 ug/L
q-value : 94

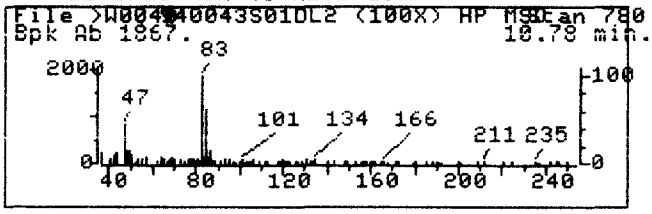
REFERENCE STANDARD SPECTRUM

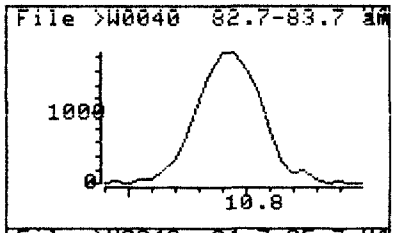


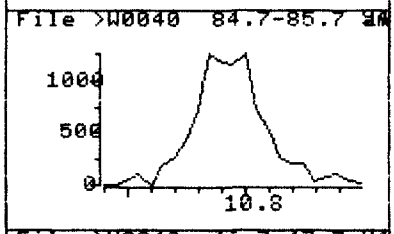
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

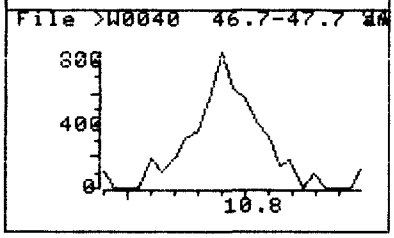


SAMPLE SPECTRUM (UNALTERED)





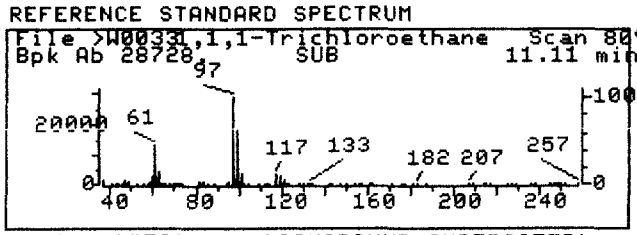




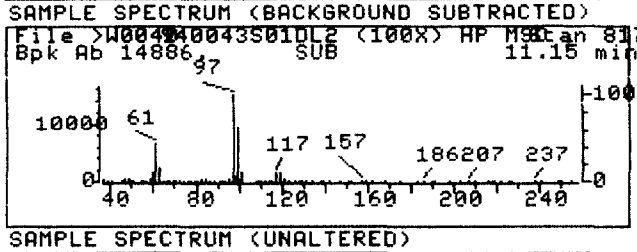
Data File: >W0040::D2 Quant Output File: ^W0040::D6
Name: 940043S01DL2 (100X) Instrument ID: HP MS #7
Misc: HP MSD #2 250 UL/25 ML PURGE
Quant Time: 940201 09:38 Quant ID File: IDRW01::D5
Injected at: 940131 18:46 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 21
Compound Name : Chloroform
Scan Number : 780
Retention Time: 10.78 min.
Quant Ion : 83.0
Area : 7525
Concentration : .715 ug/L
q-value : 86

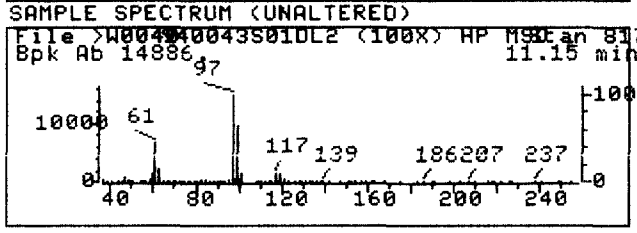
REFERENCE STANDARD SPECTRUM

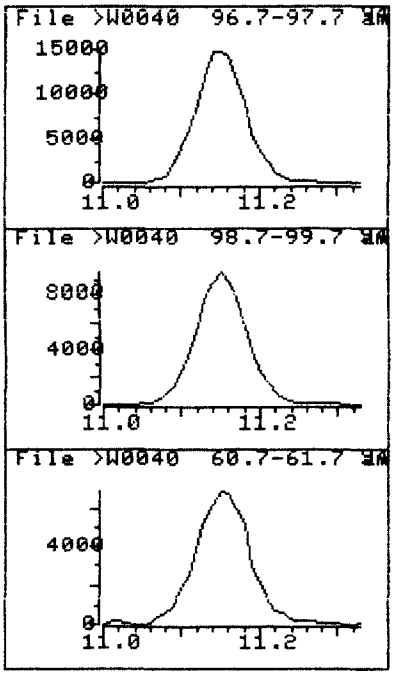


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

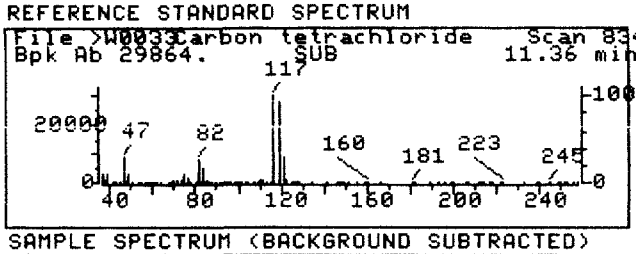


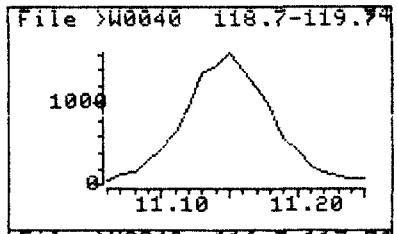


Data File: >W0040::D2 Quant Output File: ^W0040::D6
Name: 940043S01DL2 (100X) Instrument ID: HP MS #7
Misc: HP MSD #2 250 UL/25 ML PURGE
Quant Time: 940201 09:38 Quant ID File: IDRW01::D5
Injected at: 940131 18:46 Last Calibration: 940201 08:55
Last Qcal Time: <none>

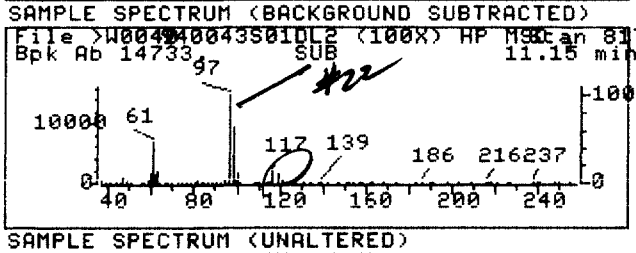
Compound No : 22
Compound Name : 1,1,1-Trichloroethane
Scan Number : 817
Retention Time: 11.15 min.
Quant Ion : 97.0
Area : 70328
Concentration : 6.53 ug/L
q-value : 95

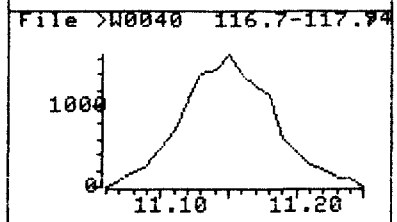
REFERENCE STANDARD SPECTRUM



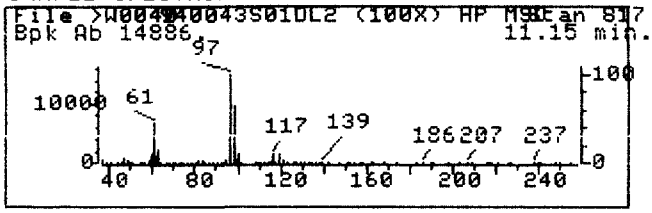


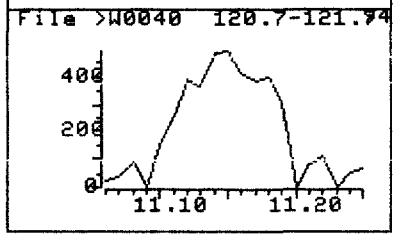
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



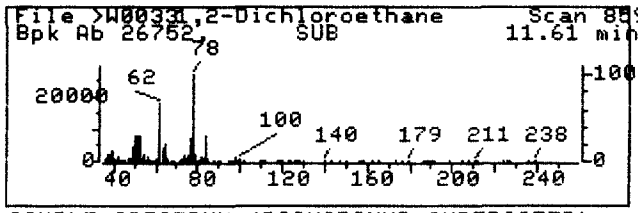


Data File: >W0040::D2 Quant Output File: ^W0040::D6
Name: 940043S01DL2 (100X) Instrument ID: HP MS #7
Misc: HP MSD #2 250 UL/25 ML PURGE
Quant Time: 940201 09:38 Quant ID File: IDRW01::D5
Injected at: 940131 18:46 Last Calibration: 940201 08:55
Last Qcal Time: <none>

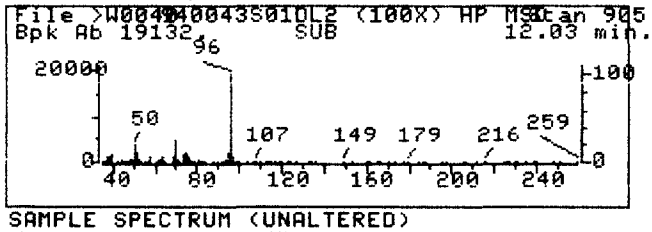
Compound No : 23
Compound Name : Carbon tetrachloride
Scan Number : 817
Retention Time: 11.15 min.
Quant Ion : 117.0
Area : 7769
Concentration : .788 ug/L
q-value : 93

F.P.
Dg 2/1/94

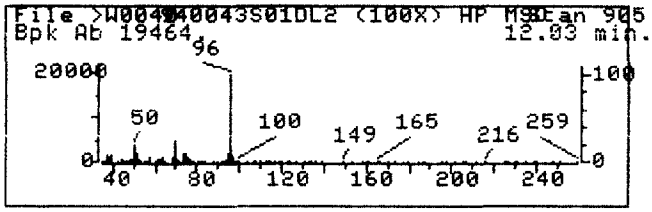
REFERENCE STANDARD SPECTRUM

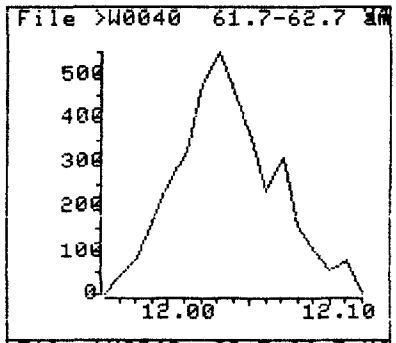


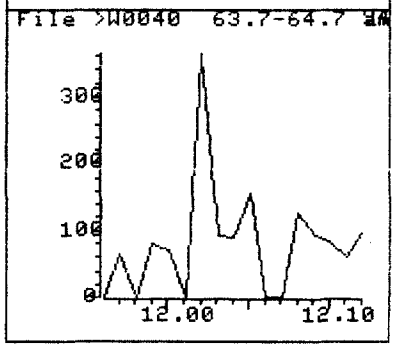
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







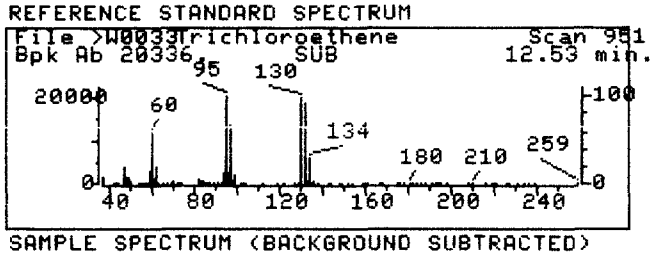
Data File: >W0040::D2 Quant Output File: ^W0040::D6
Name: 940043S01DL2 (100X) Instrument ID: HP MS #7
Misc: HP MSD #2 250 UL/25 ML PURGE
Quant Time: 940201 09:38 Quant ID File: IDRW01::D5
Injected at: 940131 18:46 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 27
Compound Name : 1,2-Dichloroethane
Scan Number : 905
Retention Time: 12.03 min.
Quant Ion : 62.0
Area : 2192
Concentration : .400 ug/L
q-value : 71

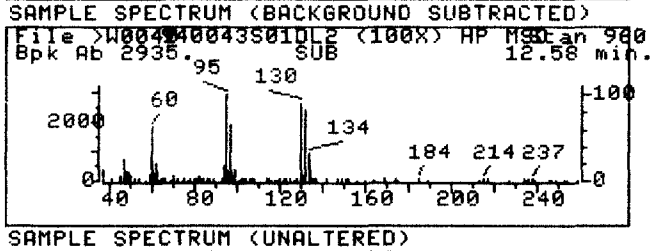
ϕF I.S. #1

ag 2/1/94

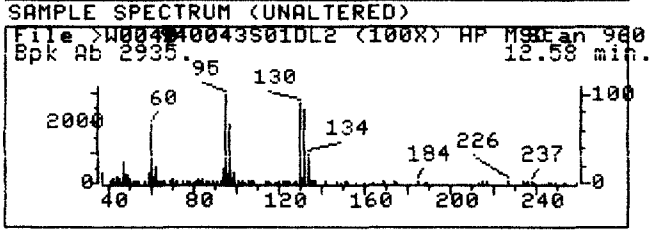
REFERENCE STANDARD SPECTRUM

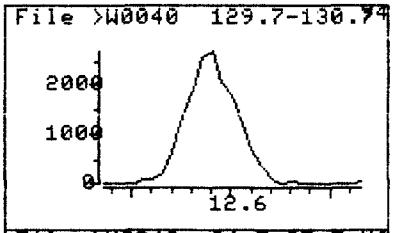


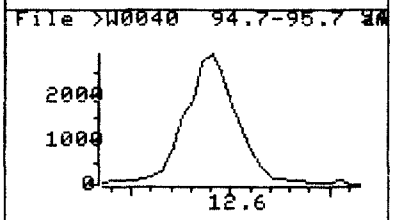
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

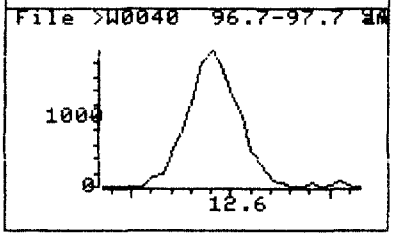


SAMPLE SPECTRUM (UNALTERED)





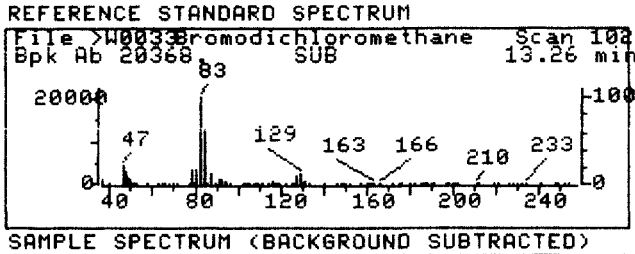




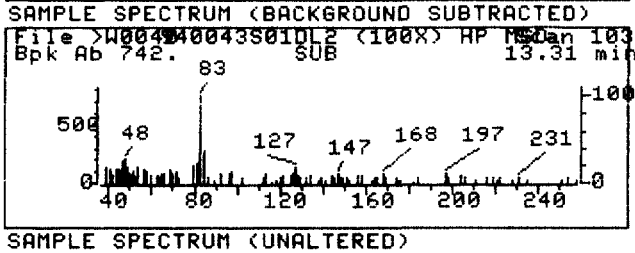
Data File: >W0040::D2 Quant Output File: ^W0040::D6
Name: 940043S01DL2 (100X) Instrument ID: HP MS #7
Misc: HP MSD #2 250 UL/25 ML PURGE
Quant Time: 940201 09:38 Quant ID File: IDRW01::D5
Injected at: 940131 18:46 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 29
Compound Name : Trichloroethene
Scan Number : 960
Retention Time: 12.58 min. ✓
Quant Ion : 95.0
Area : 10967
Concentration : 1.86 ug/L
q-value : 84

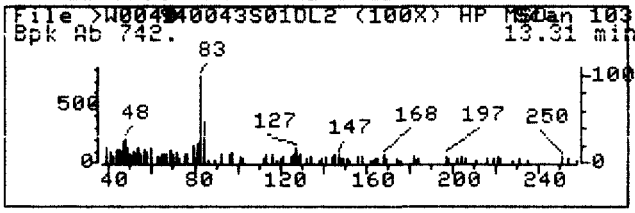
REFERENCE STANDARD SPECTRUM

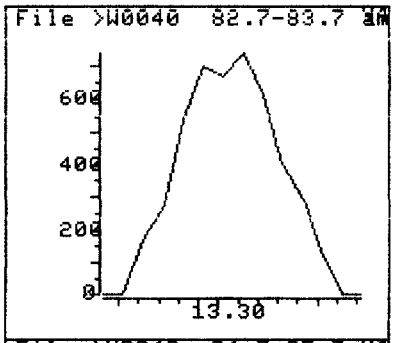


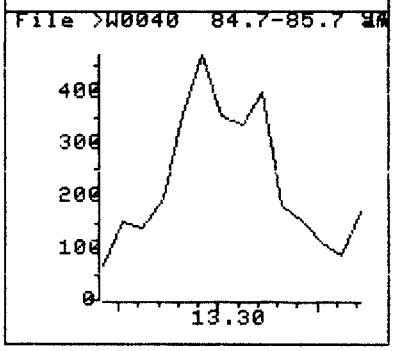
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



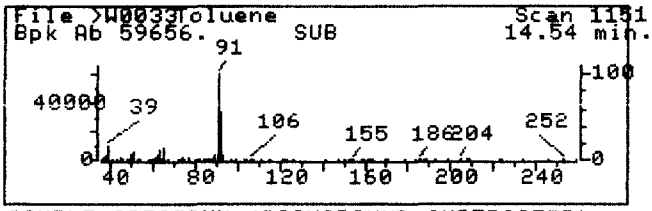




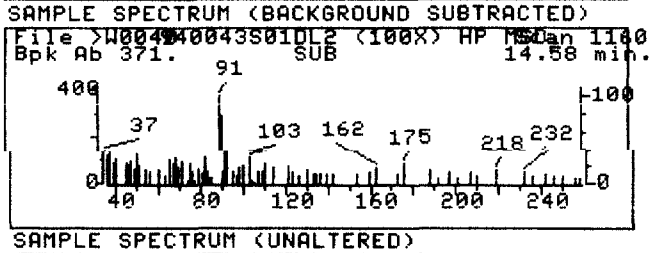
Data File: >W0040::D2 Quant Output File: ^W0040::D6
Name: 940043S01DL2 (100X) Instrument ID: HP MS #7
Misc: HP MSD #2 250 UL/25 ML PURGE
Quant Time: 940201 09:38 Quant ID File: IDRW01::D5
Injected at: 940131 18:46 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 33
Compound Name : Bromodichloromethane
Scan Number : 1033
Retention Time: 13.31 min.
Quant Ion : 83.0
Area : 2713
Concentration : .464 ug/L BQL
q-value : 64

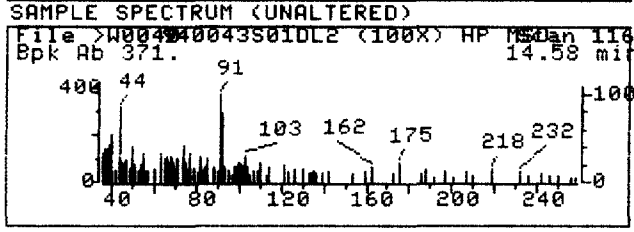
REFERENCE STANDARD SPECTRUM

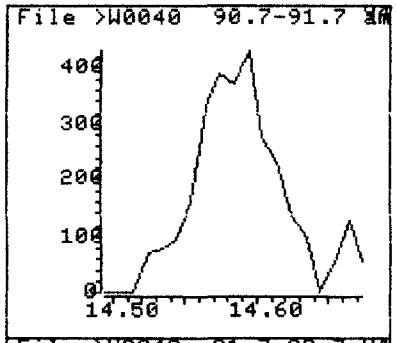


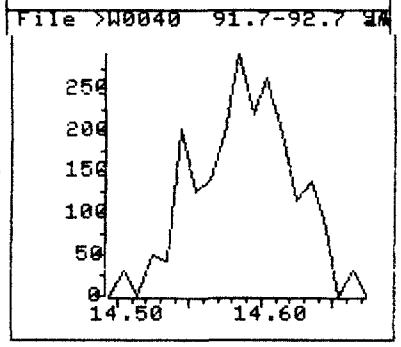
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







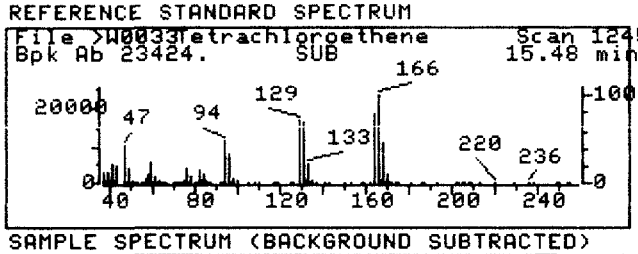
Data File: >W0040::D2
Name: 940043S01DL2 (100X)
Misc: HP MSD #2 250 UL/25 ML PURGE
Quant Time: 940201 09:38
Injected at: 940131 18:46
Last Qcal Time: <none>

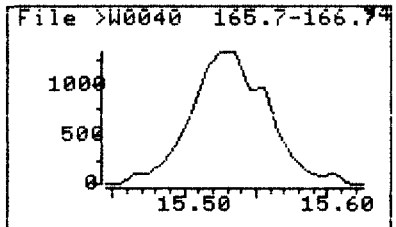
Quant Output File: ^W0040::D6
Instrument ID: HP MS #7
Quant ID File: IDRW01::D5
Last Calibration: 940201 08:55

Compound No : 35
Compound Name : Toluene
Scan Number : 1160
Retention Time: 14.58 min.
Quant Ion : 92.0
Area : 1285
Concentration : .127 ug/L
q-value : 76

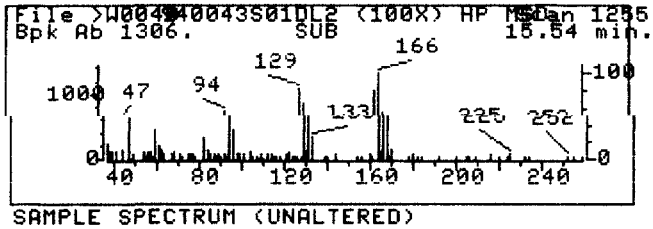
BQL

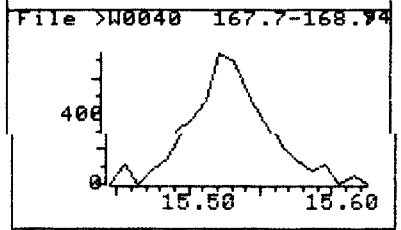
REFERENCE STANDARD SPECTRUM



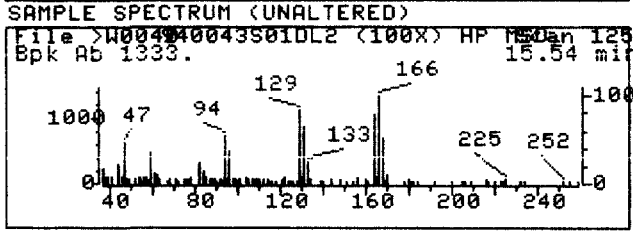


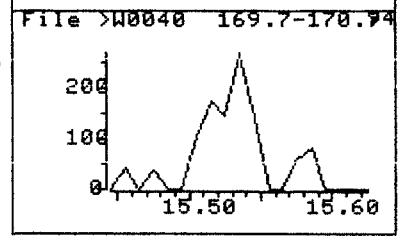
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)

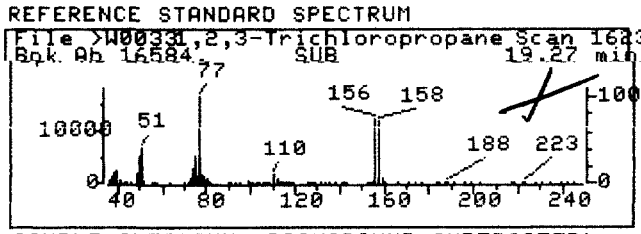


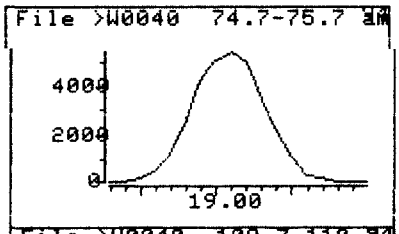


Data File: >W0040::D2 Quant Output File: ^W0040::D6
Name: 940043S01DL2 (100X) Instrument ID: HP MS #7
Misc: HP MSD #2 250 UL/25 ML PURGE
Quant Time: 940201 09:38 Quant ID File: IDRW01::D5
Injected at: 940131 18:46 Last Calibration: 940201 08:55
Last Qcal Time: <none>

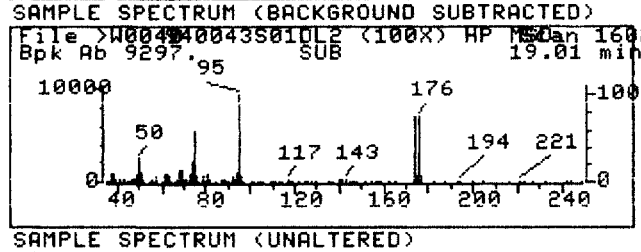
Compound No : 38
Compound Name : Tetrachloroethene ✓
Scan Number : 1255
Retention Time: 15.54 min.
Quant Ion : 166.0
Area : 5102
Concentration : .719 ug/L
q-value : 89

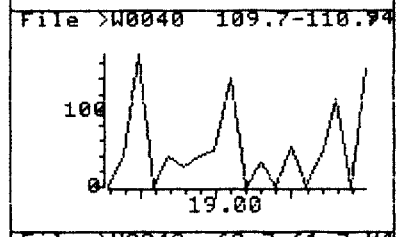
REFERENCE STANDARD SPECTRUM



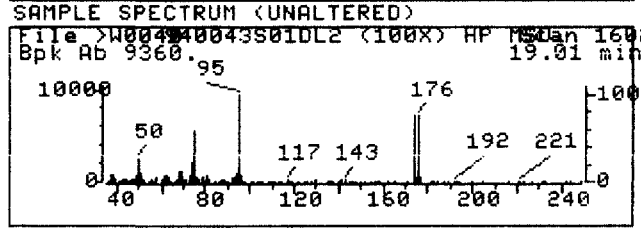


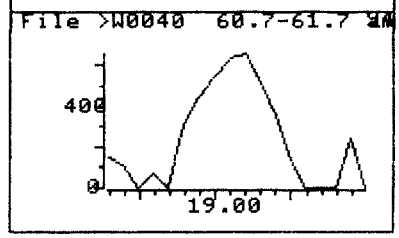
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





Data File: >W0040::D2 Quant Output File: ^W0040::D6
Name: 940043S01DL2 (100X) Instrument ID: HP MS #7
Misc: HP MSD #2 250 UL/25 ML PURGE
Quant Time: 940201 09:38 Quant ID File: IQRW01L::D5
Injected at: 940131 18:46 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 55
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1602
Retention Time: 19.01 min.
Quant Ion : 75.0
Area : 18960
Concentration : 9.12 ug/L
q-value : 57

F.P.
Cpd is BFB
Ag 2/1/94

MS data file header from : >W0040::D2

Sample: 940043S01DL2 (100X) Operator: BABU REG. GRP. 1/31/94 18:46
Misc : HP MSD #2 250 UL/25 ML PURGE
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: HP MS #7
Method file: VOA#2 Tuning file: MTMSD2 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	45.	200.	0.	0.	0.
Chromatographic times, min. :	2.0	11.5	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.1	0.0

>W0040 940043S01DL2 (100X) HP MSD #2 250 UL/25 ML PURGE
35.01 260.0 CLP TIC
Upslope: .2000 Area Reject: 18740. Max Peaks: 1 Bunch: -1 Valley >100 %
Onslope: 0.0000 Results File IW0040 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~~	~~23.11~~	~~2005~~	~~2012~~	~~2020~~	~~6946~~	~~80795~~	~~30564~~	~~100.00~~	100.0~~00~~

BQL ag 2/3/94

Sum of corrected areas: 30564.

Summary of Unknowns PBM Library Search and Quantitation

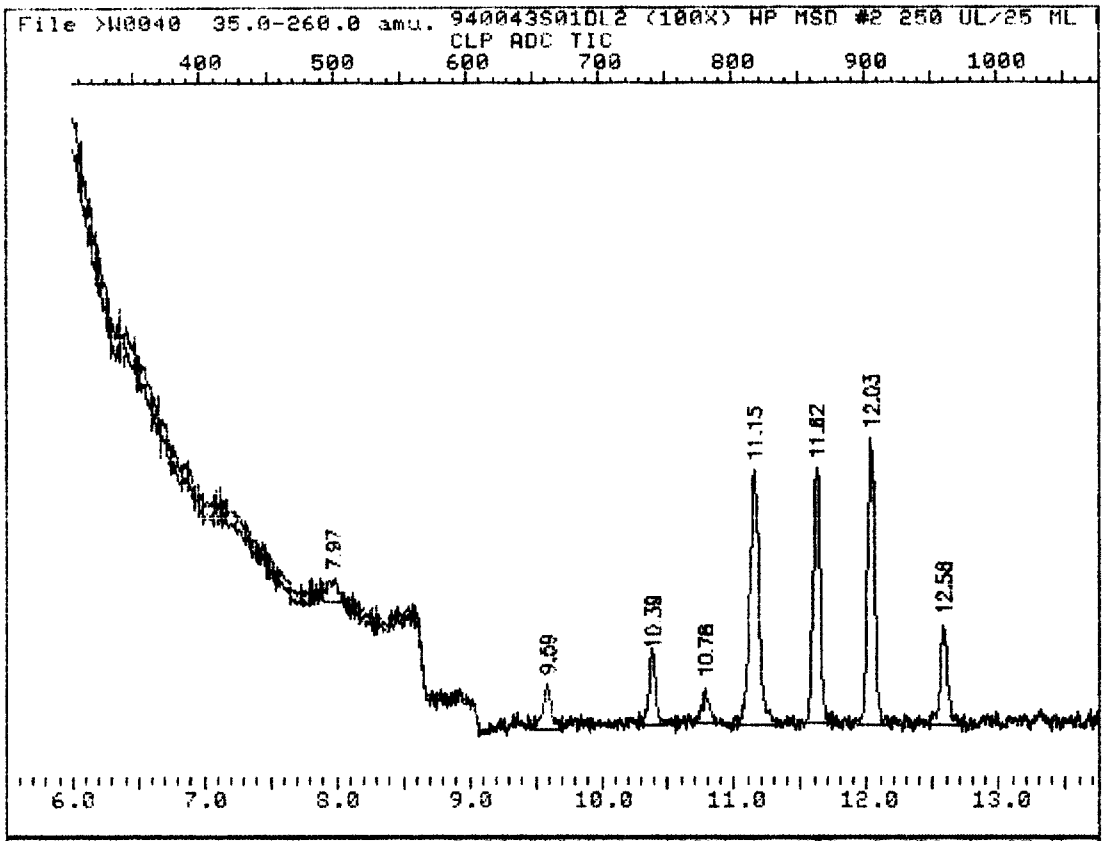
Standard	Concentration	Area	Retention Time	Unknown Window
1	5.0	187398.	12.03	6.00 - 13.25
2	5.0	217273.	14.47	13.25 - 15.72
3	5.0	191746.	16.97	15.72 - 32.02

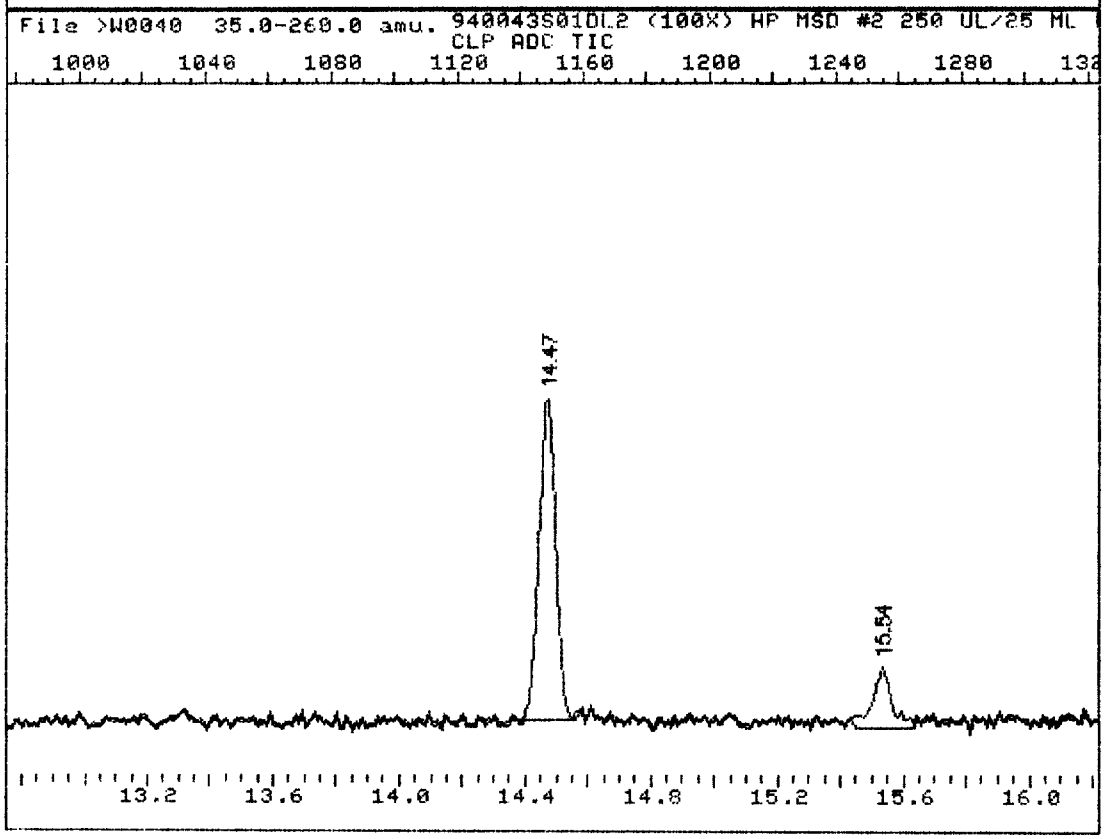
Dilution Factor = 100.00 This sample was 25.0000 g or mL

Correction Factor = .01

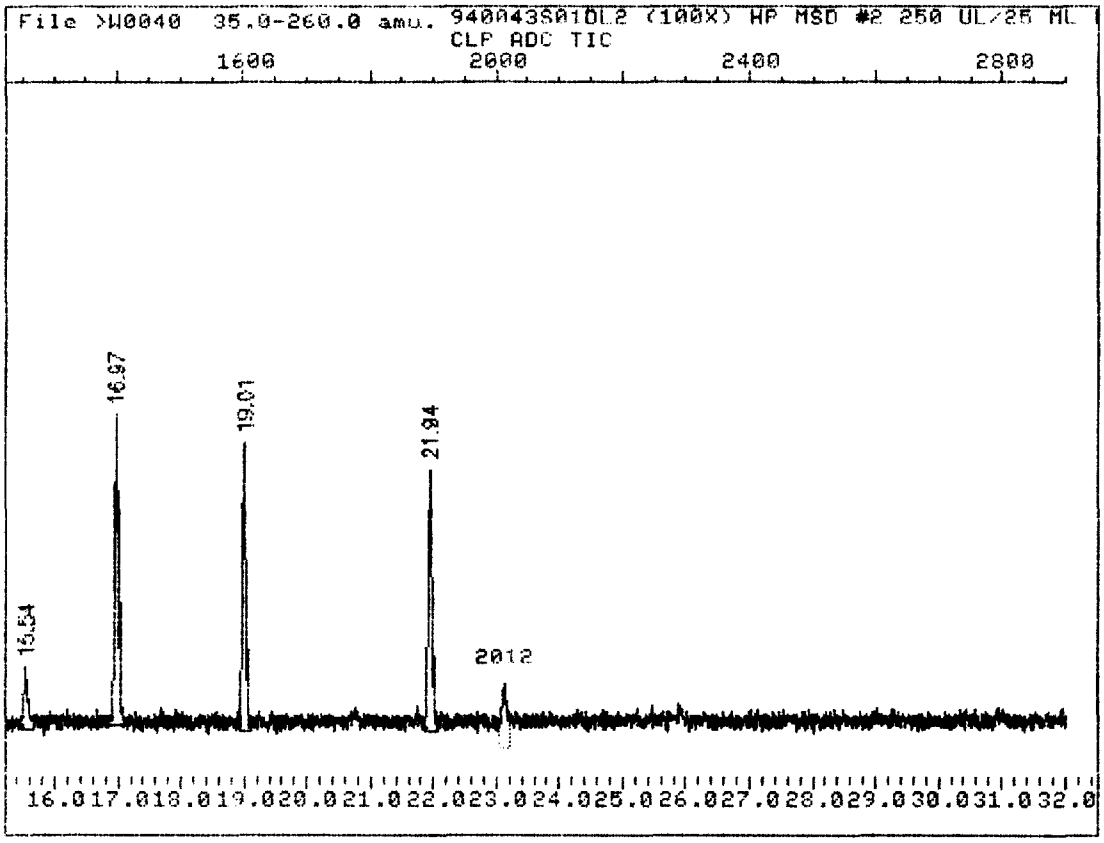
$$\text{Unknown Concentration} = \frac{\text{Conc Int Std} * \text{Area Unknown}}{\text{Area Int Std}} * \text{Correction Factor}$$

3:06 PM TUE., 1 FEB., 1994



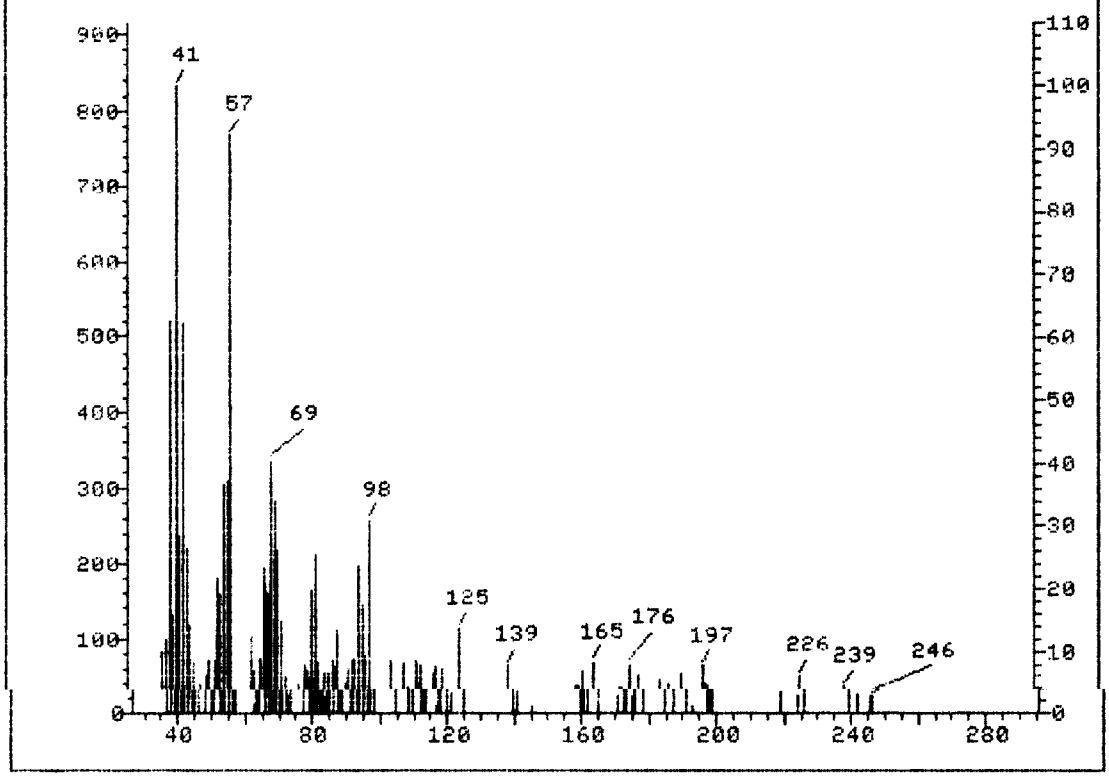


Instrument ID: HP MS Analyzed on: 1/31/94 18:46



Instrument ID: HP MS Analyzed on: 1/31/94 18:46

File >W0040 940043S01DL2 (100%) HP MSD #2 250 UL/25 ML PURGE Scan 2012
Rpk Ab 832. SUB 23.11 min.



Instrument ID: HP MS Analyzed on: 1/31/94 18:46
Result 1 in PBM results file: LW0040
Retention Time: 23.11 Area: 30564 Tentative Conc: .01
The unknown area is 15.94% of the nearest internal standard

Sample file: >W0040 Spectrum #: 2012

No data base entries were retrieved.

BQL

Ag 2/1/94

Area of Unk is < 30% of area of IS

30564 < (.3)(191746)

BQL

Estimated.

$$\text{Unk conc} = \frac{(\text{Conc IS})(\text{Unk Area})}{\text{IS Area}} \times \text{dil. factor}$$

$$= \frac{(5.00)(30564)}{191746} \times 100 = 80\text{ppb}$$

QUANT REPORT

Operator ID: BABU
Output File: ^W0041::D6
Data File: >W0041::D2
Name: 940043S02DL2 (50X)
Misc: HP MSD #2 500 UL/25 ML PURGE

Quant Rev: 7
Quant Time: 940201 09:51
Injected at: 940131 19:24
Dilution Factor: 1.00000
Instrument ID: HP MS #7

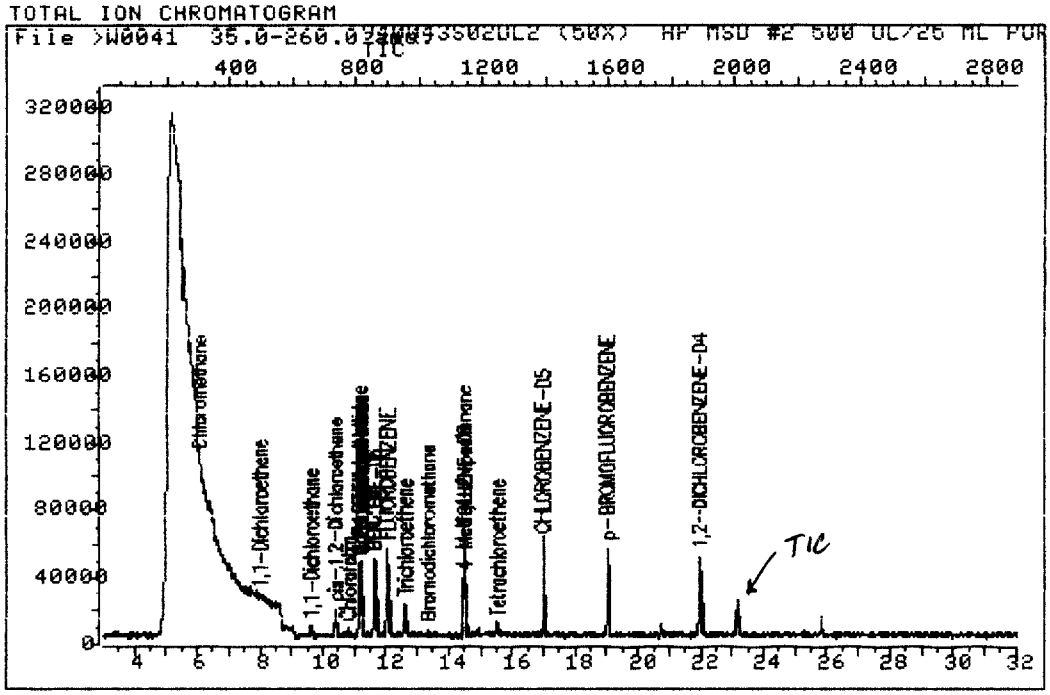
ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55
Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*FLUOROBENZENE	12.04	96.0	75344	5.00	ug/L	97
~~3)~~	~~Chloromethane~~	~~6.05~~	~~50.0~~	~~5727~~	~~1.22~~	~~ug/L~~	~~98~~
9)	1,1-Dichloroethene	7.99	96.0	3024	.681	ug/L	90
15)	1,1-Dichloroethane	9.60	63.0	12753	1.44	ug/L	95
18)	cis-1,2-Dichloroethene	10.39	96.0	11553	2.51	ug/L	87
~~21)~~	~~Chloroform~~	~~10.78~~	~~83.0~~	~~5002~~	~~.457~~	~~ug/L~~	~~91~~
22)	1,1,1-Trichloroethane	11.15	97.0	67641	6.04	ug/L	98
~~23)~~	~~Carbon tetrachloride~~	~~11.15~~	~~117.0~~	~~7583~~	~~.739~~	~~ug/L~~	~~82~~
25)	BENZENE-D6	11.63	84.0	67855	4.91	ug/L	97
~~27)~~	~~1,2-Dichloroethane~~	~~11.16~~	~~62.0~~	~~5057~~	~~.887~~	~~ug/L~~	~~92~~
28)	*TOLUENE-D8	14.48	98.0	73230	5.00	ug/L	92
29)	Trichloroethene	12.59	95.0	11567	1.92	ug/L	84
~~33)~~	~~Bromodichloromethane~~	~~13.31~~	~~83.0~~	~~1688~~	~~.282~~	~~ug/L~~	~~96~~
~~36)~~	~~4-Methyl-2-pentanone~~	~~14.45~~	~~43.0~~	~~1612~~	~~1.49~~	~~ug/L~~	~~23~~
38)	Tetrachloroethene	15.52	166.0	4433	.611	ug/L	95
44)	*CHLOROBENZENE-D5	16.96	117.0	50441	5.00	ug/L	96
53)	p-BROMOFLUOROBENZENE	19.00	174.0	25519	4.81	ug/L	93
67)	1,2-DICHLOROBENZENE-D4	21.95	152.0	23364	5.13	ug/L	86

* Compound is ISTD

RWW 2-1-94
QDEL

TOTAL ION CHROMATOGRAM



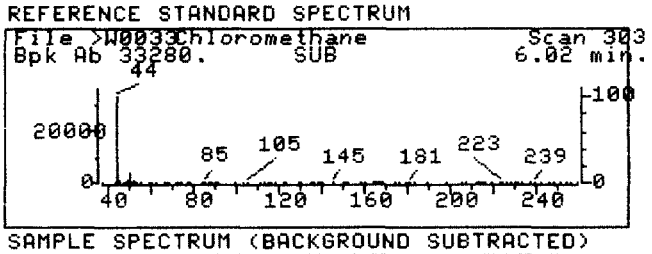
ag 2/3/94

Data File: >W0041::D2 Quant Output File: ^W0041::D6
Name: 940043S02DL2 (50X) Instrument ID: HP MS #7
Misc: HP MSD #2 500 UL/25 ML PURGE

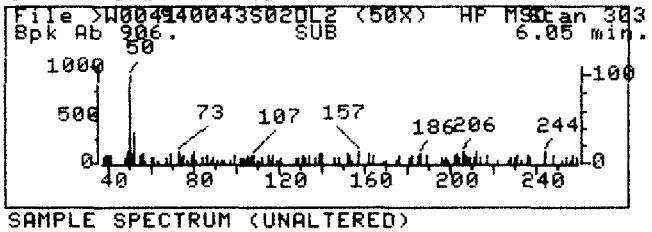
Id File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: <none>

Operator ID: BABU
Quant Time : 940201 09:51
Injected at: 940131 19:24

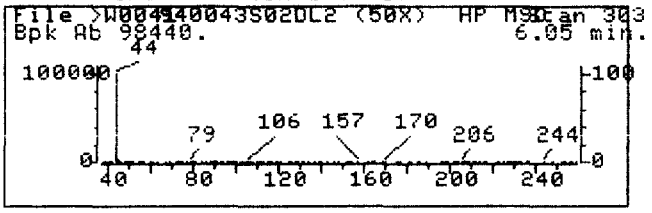
REFERENCE STANDARD SPECTRUM

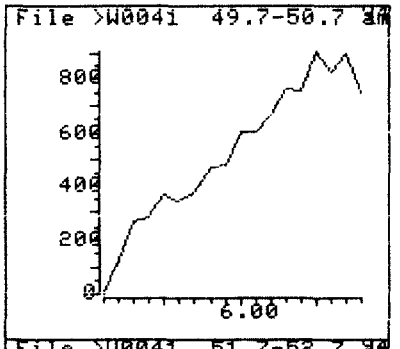


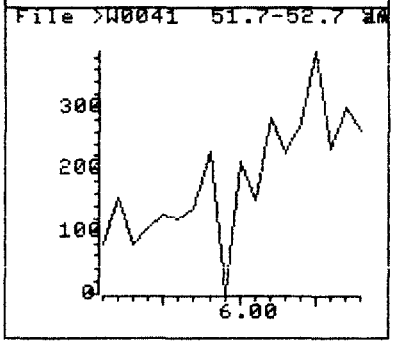
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





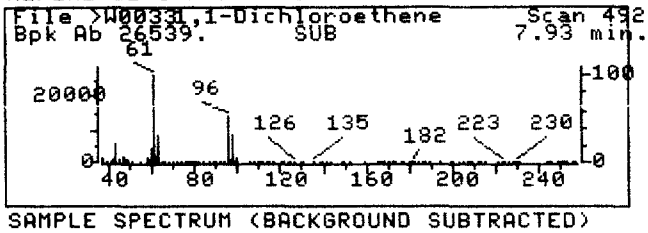


Data File: >W0041::D2
Name: 940043S02DL2 (50X)
Misc: HP MSD #2 500 UL/25 ML PURGE
Quant Time: 940201 09:51
Injected at: 940131 19:24
Last Qcal Time: <none>

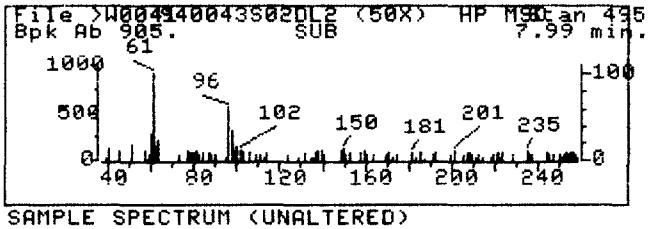
Quant Output File: ^W0041::D6
Instrument ID: HP MS #7
Quant ID File: IDRW01::D5
Last Calibration: 940201 08:55

Compound No : 3
Compound Name : Chloromethane
Scan Number : 303
Retention Time: 6.05 min.
Quant Ion : 50.0
Area : 5727
Concentration : 1.22 ug/L
q-value : 98

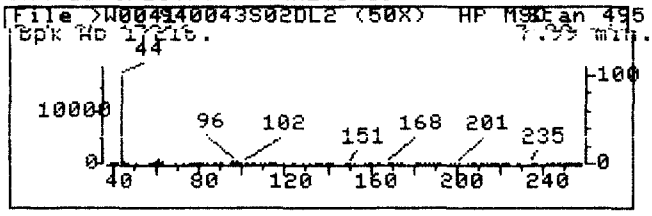
REFERENCE STANDARD SPECTRUM

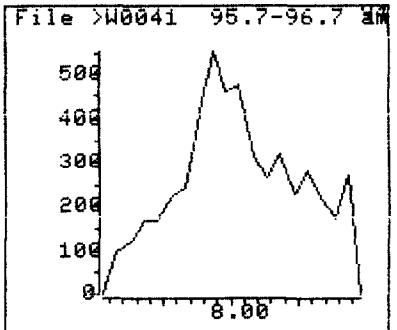


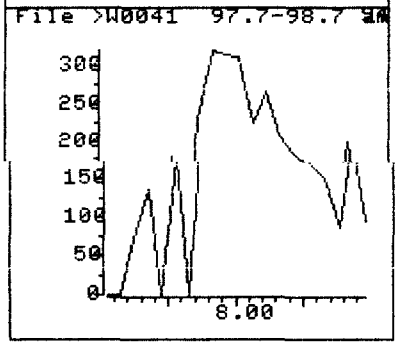
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



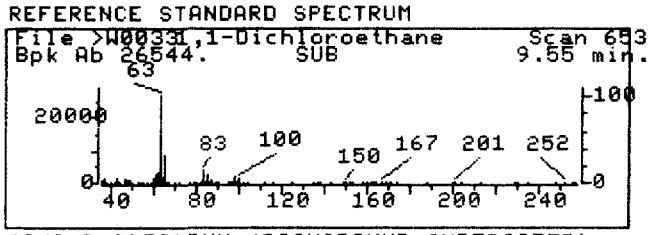




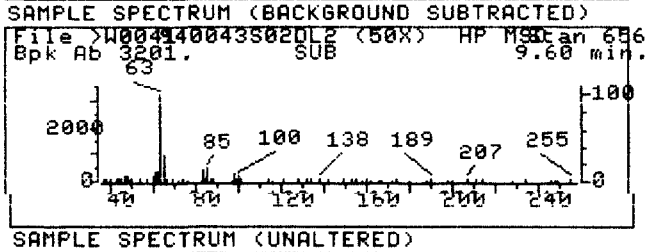
Data File: >W0041::D2 Quant Output File: ^W0041::D6
Name: 940043S02DL2 (50X) Instrument ID: HP MS #7
Misc: HP MSD #2 500 UL/25 ML PURGE
Quant Time: 940201 09:51 Quant ID File: IDRW01::D5
Injected at: 940131 19:24 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 9
Compound Name : 1,1-Dichloroethene
Scan Number : 495
Retention Time: 7.99 min.
Quant Ion : 96.0
Area : 3024
Concentration : .681 ug/L
q-value : 90

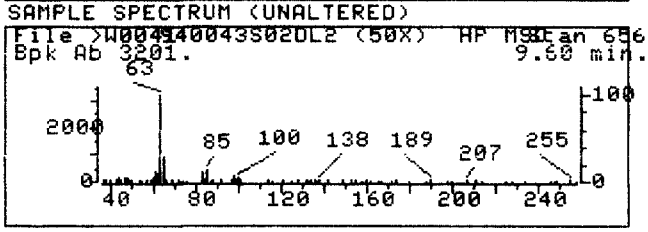
REFERENCE STANDARD SPECTRUM

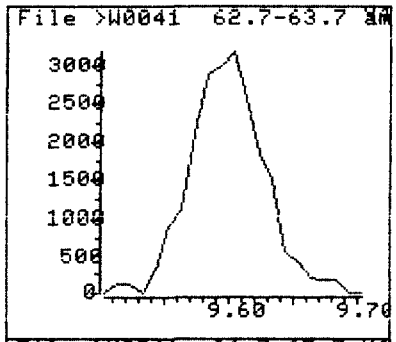


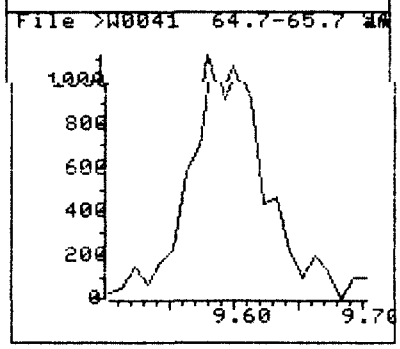
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



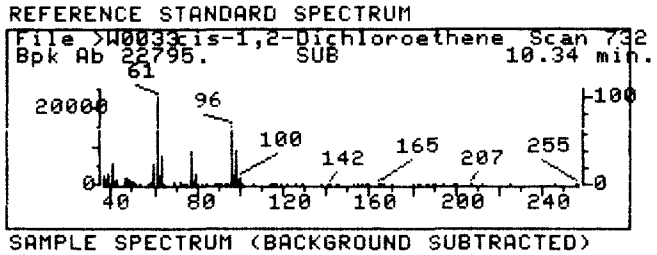




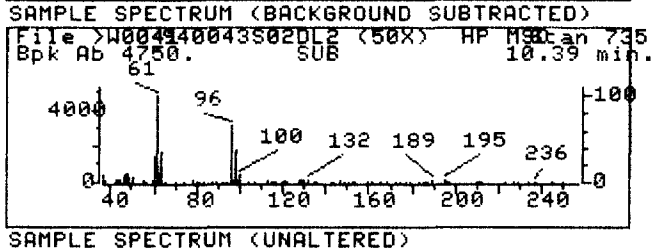
Data File: >W0041::D2 Quant Output File: ^W0041::D6
Name: 940043S02DL2 (50X) Instrument ID: HP MS #7
Misc: HP MSD #2 500 UL/25 ML PURGE
Quant Time: 940201 09:51 Quant ID File: IDRW01::D5
Injected at: 940131 19:24 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 15
Compound Name : 1,1-Dichloroethane
Scan Number : 656
Retention Time: 9.60 min.
Quant Ion : 63.0
Area : 12753
Concentration : 1.44 ug/L
q-value : 95

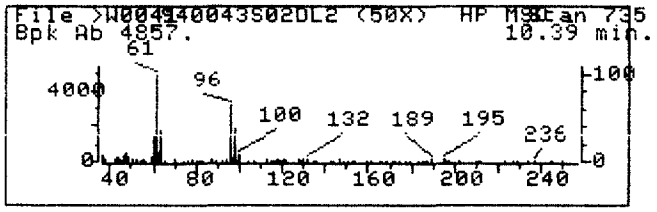
REFERENCE STANDARD SPECTRUM

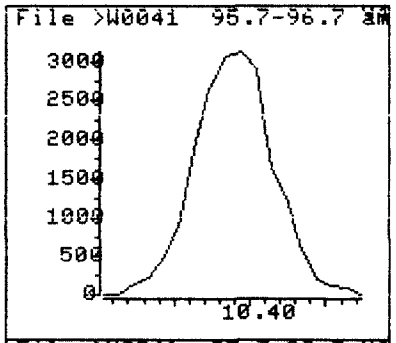


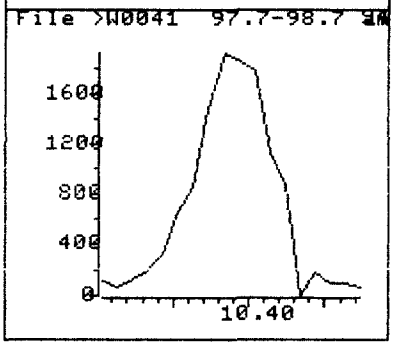
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



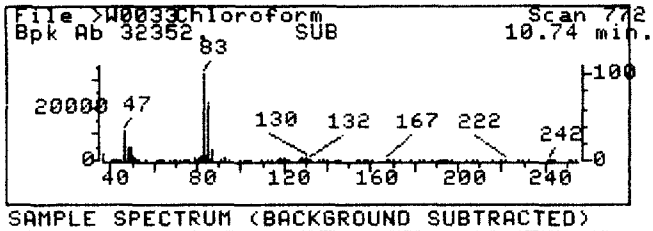




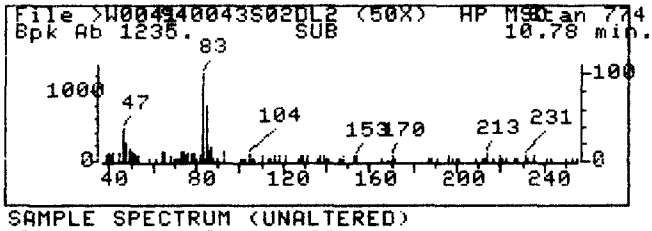
Data File: >W0041::D2 Quant Output File: ^W0041::D6
Name: 940043S02DL2 (50X) Instrument ID: HP MS #7
Misc: HP MSD #2 500 UL/25 ML PURGE
Quant Time: 940201 09:51 Quant ID File: IDRW01::D5
Injected at: 940131 19:24 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 18
Compound Name : cis-1,2-Dichloroethene
Scan Number : 735
Retention Time: 10.39 min.
Quant Ion : 96.0
Area : 11553
Concentration : 2.51 ug/L
q-value : 87

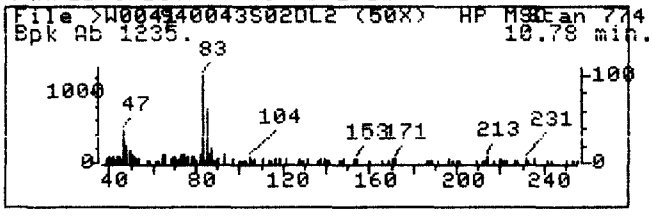
REFERENCE STANDARD SPECTRUM

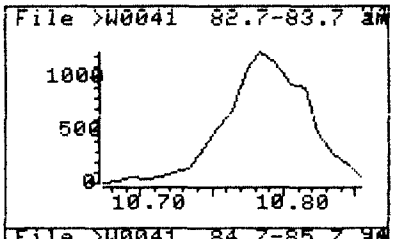


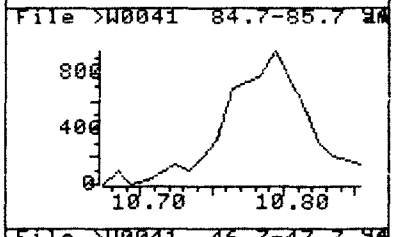
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

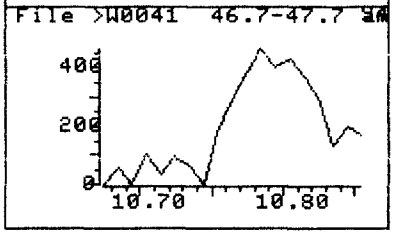


SAMPLE SPECTRUM (UNALTERED)







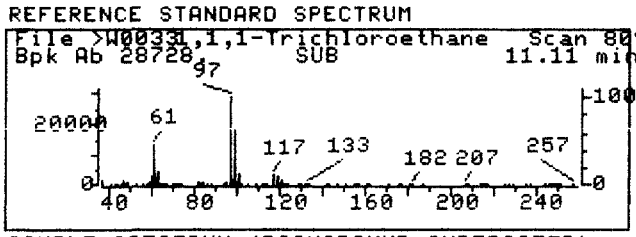


Data File: >W0041::D2 Quant Output File: ^W0041::D6
Name: 940043S02DL2 (50X) Instrument ID: HP MS #7
Misc: HP MSD #2 500 UL/25 ML PURGE
Quant Time: 940201 09:51 Quant ID File: IDRW01::D5
Injected at: 940131 19:24 Last Calibration: 940201 08:55
Last Qcal Time: <none>

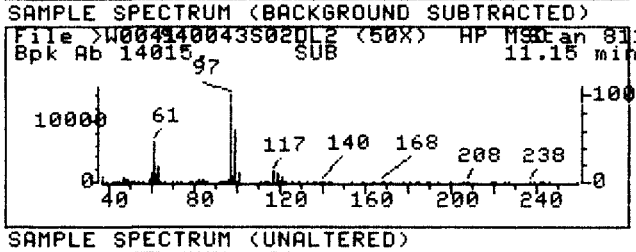
Compound No : 21
Compound Name : Chloroform
Scan Number : 774
Retention Time: 10.78 min.
Quant Ion : 83.0
Area : 5002
Concentration : .457 ug/L
q-value : 91

BQL

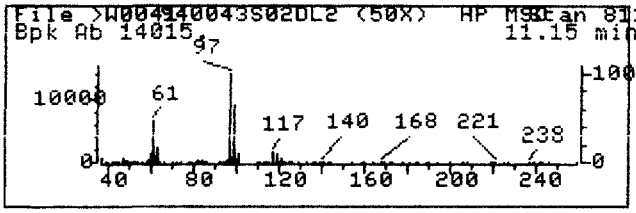
REFERENCE STANDARD SPECTRUM

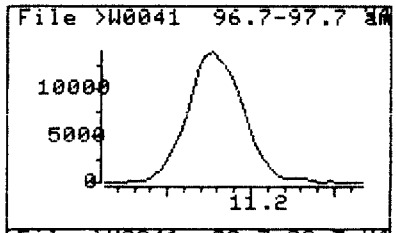


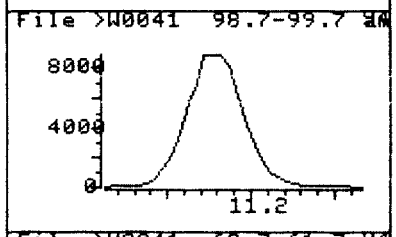
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

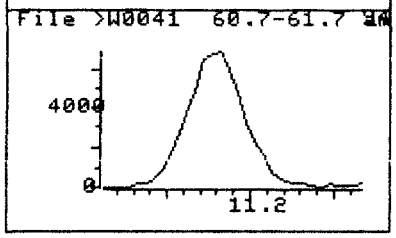


SAMPLE SPECTRUM (UNALTERED)





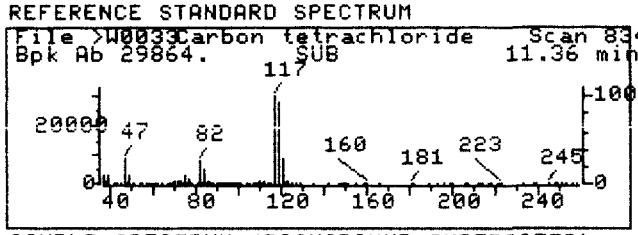




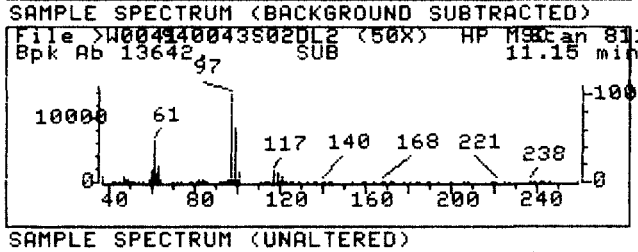
Data File: >W0041::D2 Quant Output File: ^W0041::D6
Name: 940043S02DL2 (50X) Instrument ID: HP MS #7
Misc: HP MSD #2 500 UL/25 ML PURGE
Quant Time: 940201 09:51 Quant ID File: IDRW01::D5
Injected at: 940131 19:24 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 22
Compound Name : 1,1,1-Trichloroethane
Scan Number : 811
Retention Time: 11.15 min.
Quant Ion : 97.0
Area : 67641
Concentration : 6.04 ug/L
q-value : 98

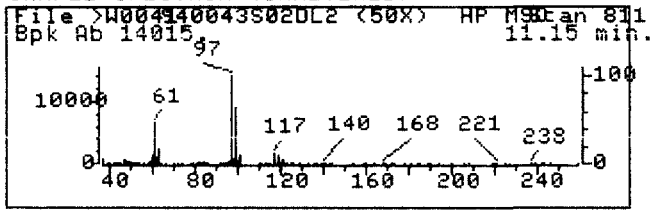
REFERENCE STANDARD SPECTRUM

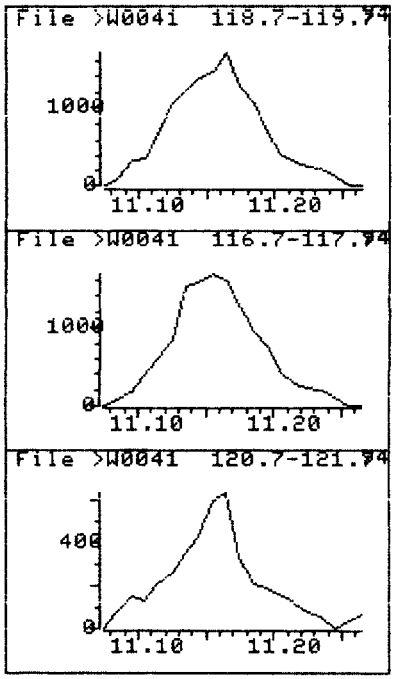


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >W0041::D2 Quant Output File: ^W0041::D6
Name: 940043S02DL2 (50X) Instrument ID: HP MS #7
Misc: HP MSD #2 500 UL/25 ML PURGE
Quant Time: 940201 09:51 Quant ID File: IDRW01::D5
Injected at: 940131 19:24 Last Calibration: 940201 08:55
Last Qcal Time: <none>

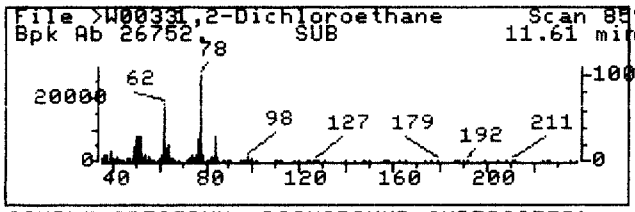
Compound No : 23
Compound Name : Carbon tetrachloride
Scan Number : 811
Retention Time: 11.15 min.
Quant Ion : 117.0
Area : 7583
Concentration : .739 ug/L
q-value : 82

F.P.

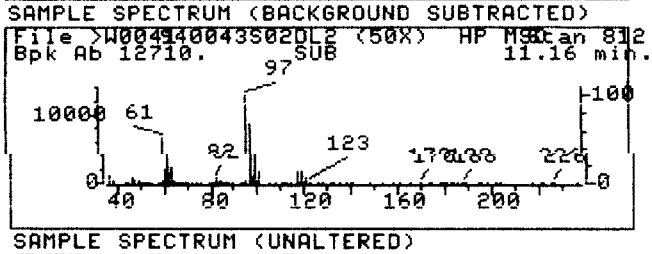
Cpd #22

ag 2/1/94

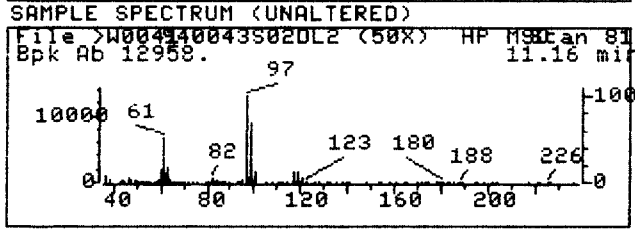
REFERENCE STANDARD SPECTRUM

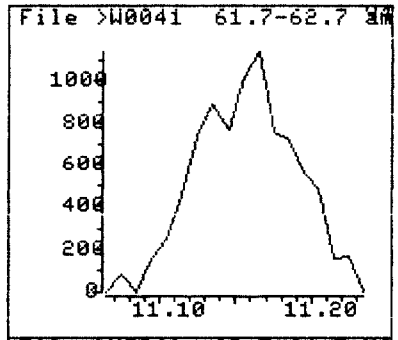


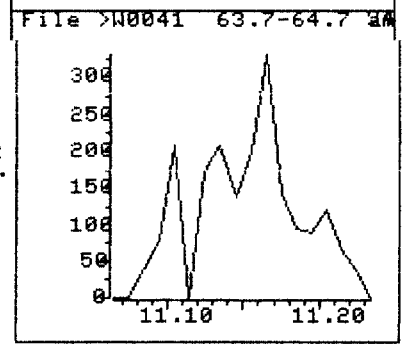
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







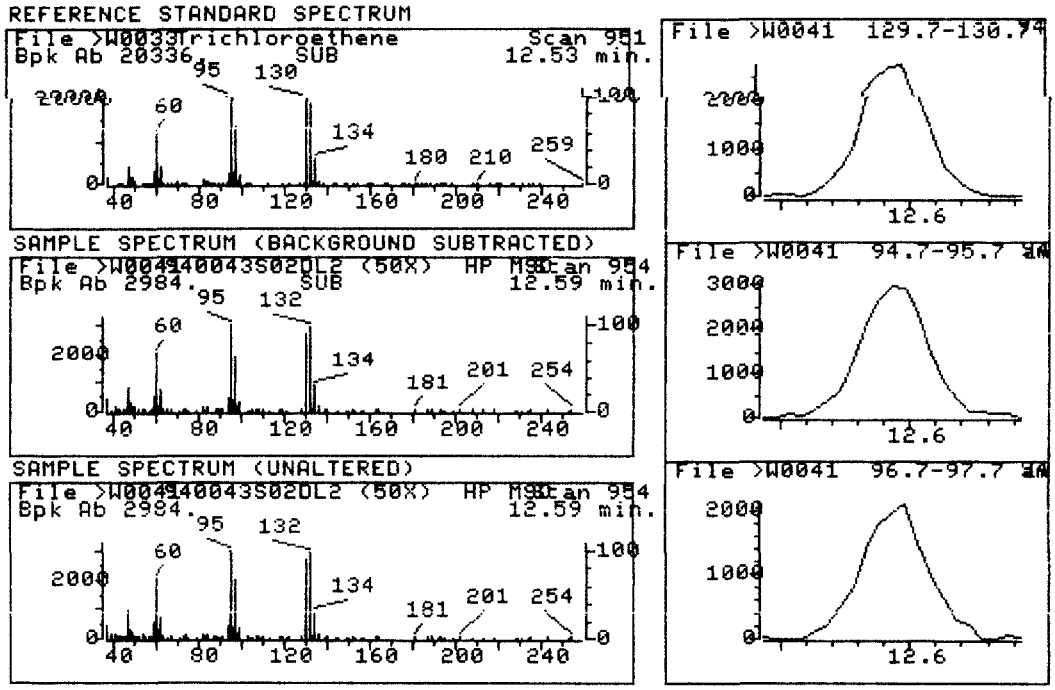
Data File: >W0041::D2
Name: 940043S02DL2 (50X)
Misc: HP MSD #2 500 UL/25 ML PURGE
Quant Time: 940201 09:51
Injected at: 940131 19:24
Last Qcal Time: <none>

Quant Output File: ^W0041::D6
Instrument ID: HP MS #7
Quant ID File: IDRW01::D5
Last Calibration: 940201 08:55

Compound No : 27
Compound Name : 1,2-Dichloroethane
Scan Number : 812
Retention Time: 11.16 min.
Quant Ion : 62.0
Area : 5057
Concentration : .887 ug/L
q-value : 92

F.P.
Cpd is #22

REFERENCE STANDARD SPECTRUM



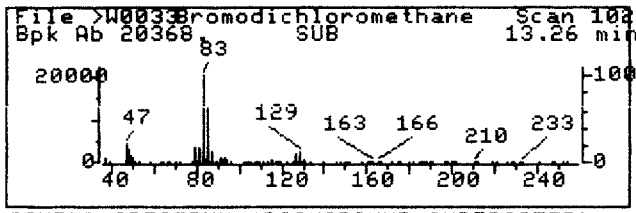
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

SAMPLE SPECTRUM (UNALTERED)

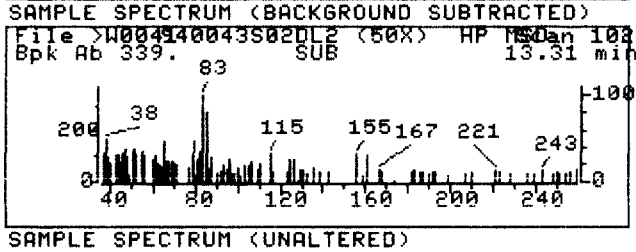
Data File: >W0041::D2 Quant Output File: ^W0041::D6
Name: 940043S02DL2 (50X) Instrument ID: HP MS #7
Misc: HP MSD #2 500 UL/25 ML PURGE
Quant Time: 940201 09:51 Quant ID File: IDRW01::D5
Injected at: 940131 19:24 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 29
Compound Name : Trichloroethene
Scan Number : 954
Retention Time: 12.59 min.
Quant Ion : 95.0
Area : 11567
Concentration : 1.92 ug/L
q-value : 84

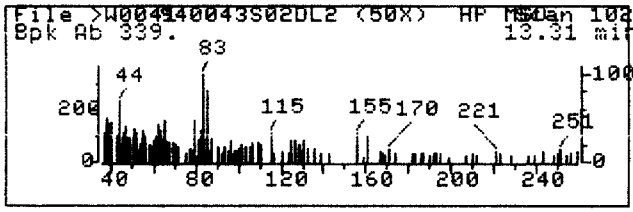
REFERENCE STANDARD SPECTRUM

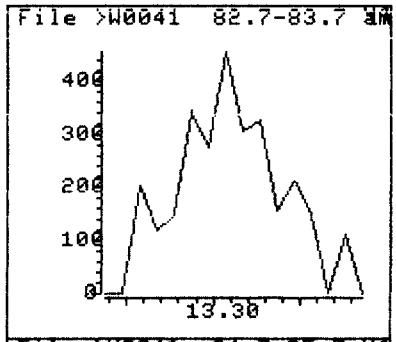


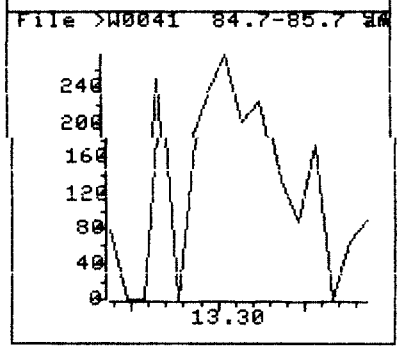
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





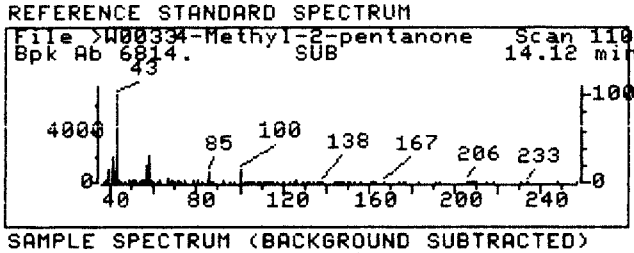


Data File: >W0041::D2 Quant Output File: ^W0041::D6
Name: 940043S02DL2 (50X) Instrument ID: HP MS #7
Misc: HP MSD #2 500 UL/25 ML PURGE
Quant Time: 940201 09:51 Quant ID File: IDRW01::D5
Injected at: 940131 19:24 Last Calibration: 940201 08:55
Last Qcal Time: <none>

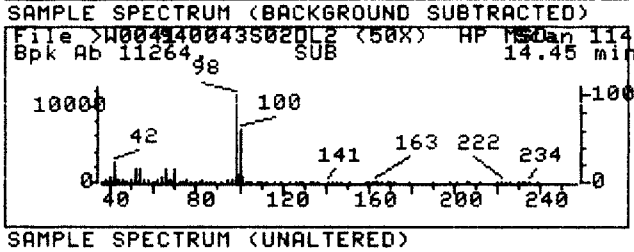
BQ

Compound No : 33
Compound Name : Bromodichloromethane
Scan Number : 1026
Retention Time: 13.31 min.
Quant Ion : 83.0
Area : 1688
Concentration : .282 ug/L
q-value : 96

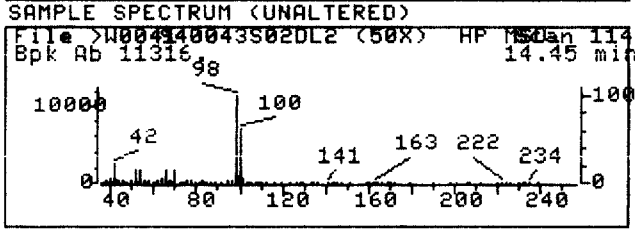
REFERENCE STANDARD SPECTRUM

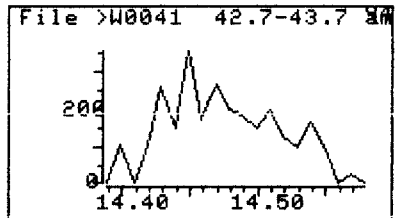


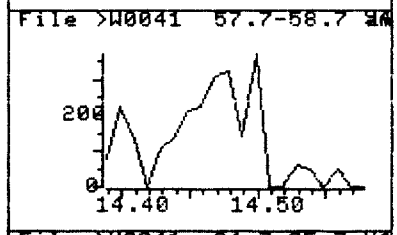
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

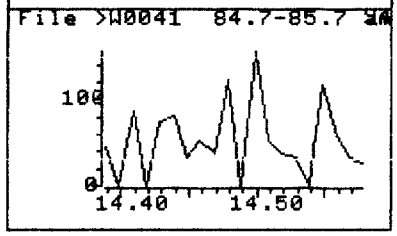


SAMPLE SPECTRUM (UNALTERED)





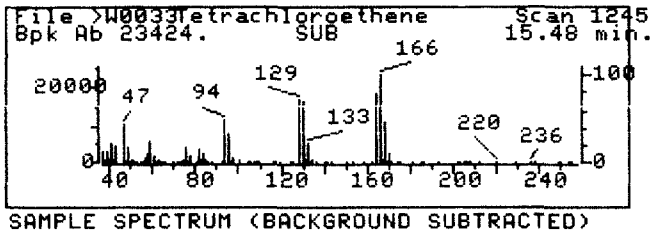


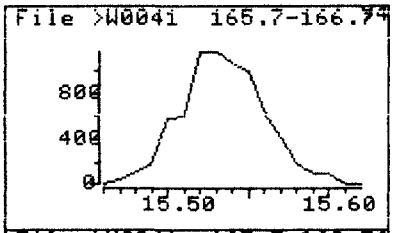


Data File: >W0041::D2 Quant Output File: ^W0041::D6
Name: 940043S02DL2 (50X) Instrument ID: HP MS #7
Misc: HP MSD #2 500 UL/25 ML PURGE
Quant Time: 940201 09:51 Quant ID File: IDRW01::D5
Injected at: 940131 19:24 Last Calibration: 940201 08:55
Last Qcal Time: <none>

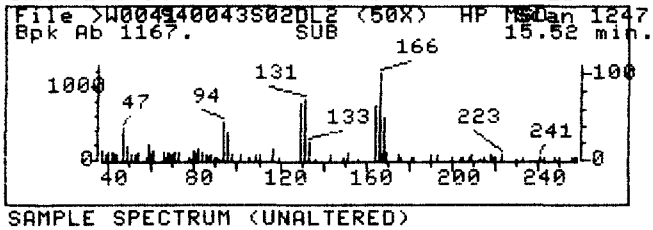
Compound No : 36
Compound Name : 4-Methyl-2-pentanone
Scan Number : 1140
Retention Time: 14.45 min.
Quant Ion : 43.0
Area : 1612
Concentration : 1.49 ug/L
q-value : 73

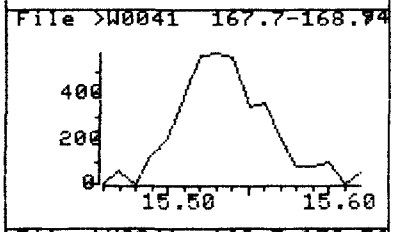
REFERENCE STANDARD SPECTRUM



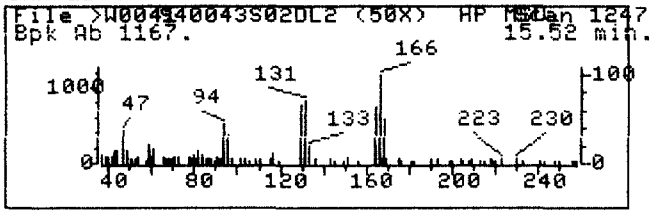


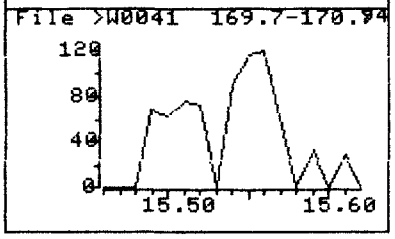
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





Data File: >W0041::D2 Quant Output File: ^W0041::D6
Name: 940043S02DL2 (50X) Instrument ID: HP MS #7
Misc: HP MSD #2 500 UL/25 ML PURGE
Quant Time: 940201 09:51 Quant ID File: IDRW01::D5
Injected at: 940131 19:24 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 38
Compound Name : Tetrachloroethene
Scan Number : 1247
Retention Time: 15.52 min.
Quant Ion : 166.0
Area : 4433
Concentration : .611 ug/L
q-value : 95

MS data file header from : >W0041::D2

Sample: 940043S02DL2 (50X) Operator: BABU REG. GRP. 1/31/94 19:24
Misc : HP MSD #2 500 UL/25 ML PURGE
Sys. #: 2 MS model: 70 SW/HW rev.: LF ALS # : 0 Equip ID: HP MS #7
Method file: VOA#2 Tuning file: MTMSD2 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	45.	200.	0.	0.	0.
Chromatographic times, min. :	2.0	11.5	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.1	0.0

>W0041 940043S02DL2 (50X) HP MSD #2 500 UL/25 ML PURGE
35.01 260.0 CLP TIC
Upslope: .2000 Area Reject: 19915. Max Peaks: 5 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File IW0041 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
BQL	~~1~~	~~9.08~~	~~594~~	~~596~~	~~604~~	~~7441~~	~~45086~~	~~21275~~	~~27.57~~	~~10.388~~
BQL	~~2~~	~~10.79~~	~~768~~	~~775~~	~~783~~	~~5311~~	~~66355~~	~~23886~~	~~30.96~~	~~11.664~~
BQL	~~3~~	~~20.75~~	~~1761~~	~~1769~~	~~1774~~	~~7915~~	~~64841~~	~~29572~~	~~38.33~~	~~14.440~~
	4	23.11	1998	2005	2014	20320	133395	77154	100.00	37.674
BQL	~~5~~	~~25.79~~	~~2266~~	~~2273~~	~~2283~~	~~11139~~	~~106689~~	~~52907~~	~~68.57~~	~~25.835~~

2/1/94

2/1/94 Sum of corrected areas: 204792.

Summary of Unknowns PBM Library Search and Quantitation

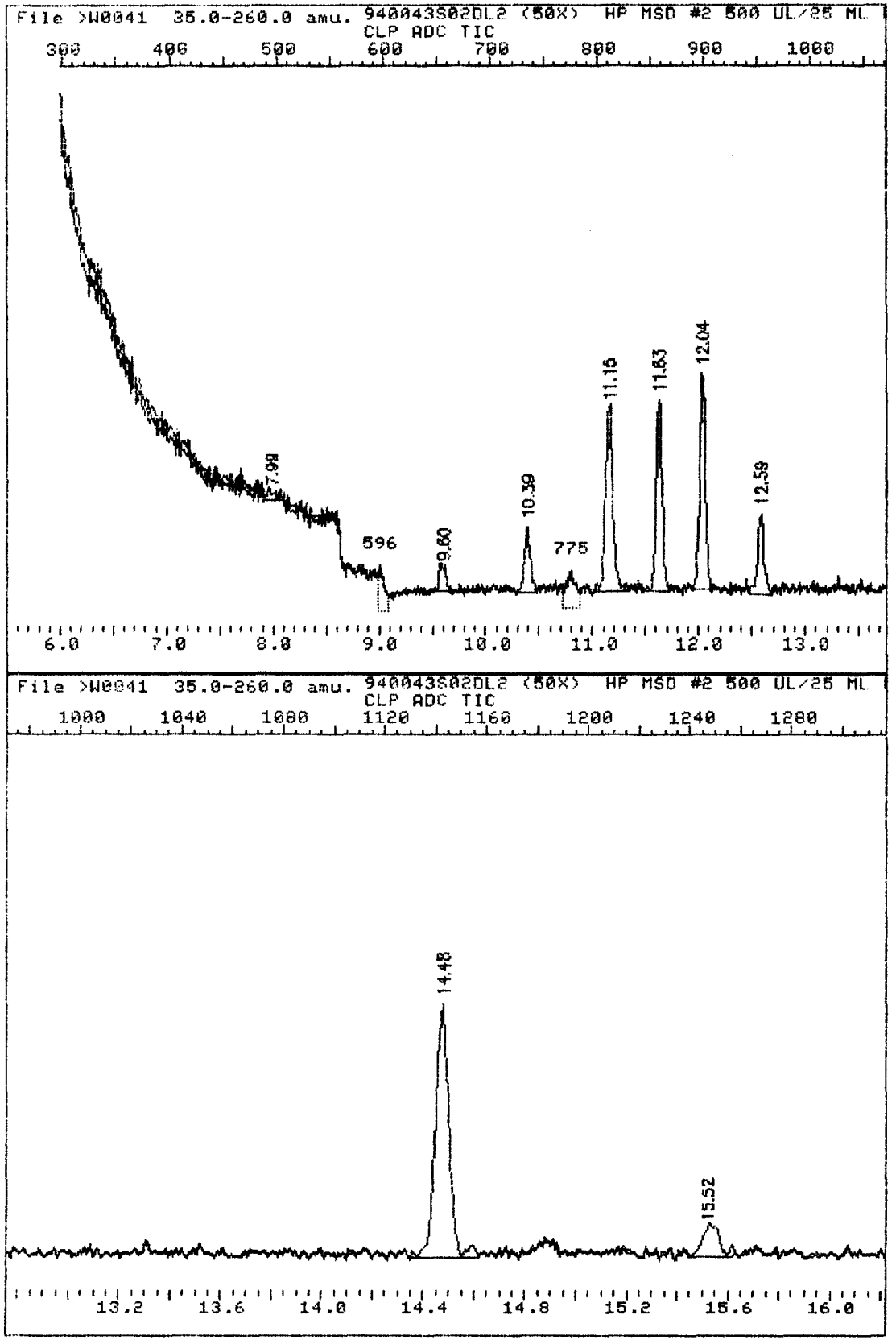
Standard	Concentration	Area	Retention Time	Unknown Window
1	5.0	200336.	12.04	6.00 - 13.26
2	5.0	230778.	14.48	13.26 - 15.72
3	5.0	199149.	16.96	15.72 - 32.04

Dilution Factor = 50.00 This sample was 25.0000 g or mL

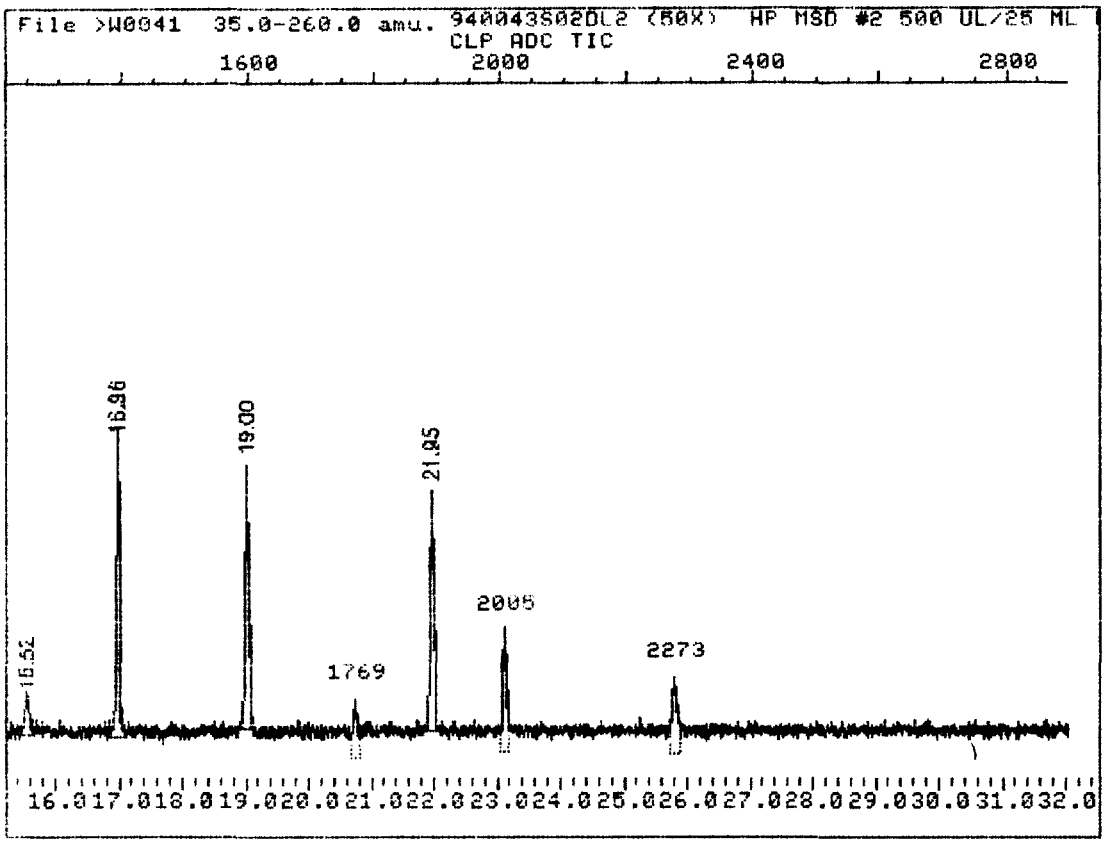
Correction Factor = .02

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

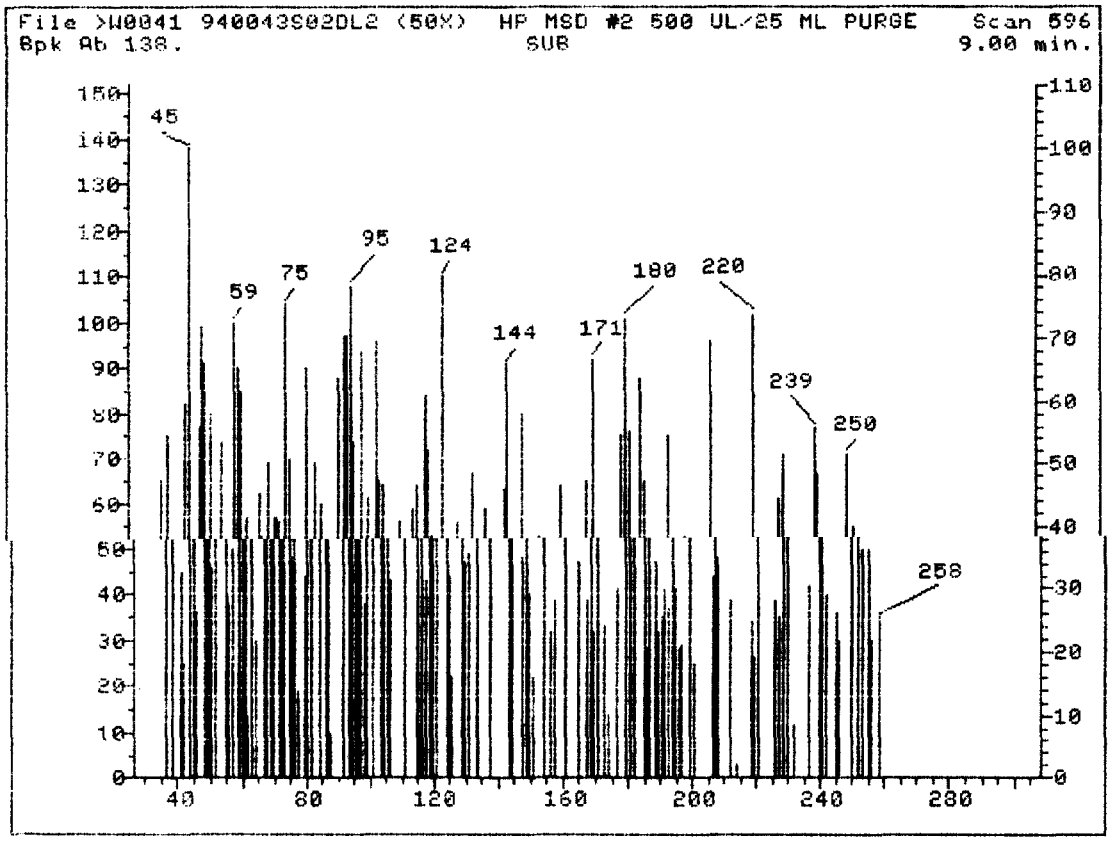
3:15 PM TUE., 1 FEB., 1994



Instrument ID: HP MS Analyzed on: 1/31/94 19:24



Instrument ID: HP MS Analyzed on: 1/31/94 19:24



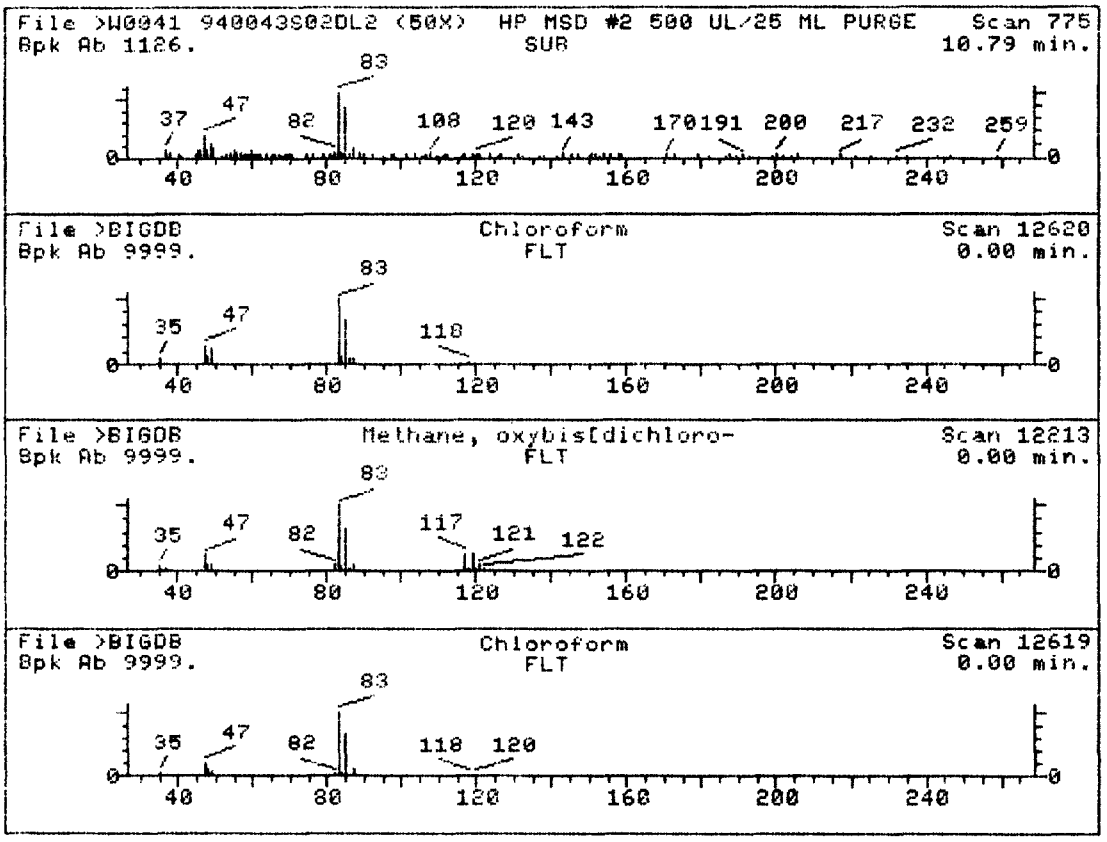
Instrument ID: HP MS Analyzed on: 1/31/94 19:24
Result 1 in PBM results file: LW0041
Retention Time: 9.00 Area: 21273 Tentative Conc: .01
The unknown area is 10.62% of the nearest internal standard

Sample file: >W0041 Spectrum #: 596

BQL

No data base entries were retrieved.

Ag 2/1/94



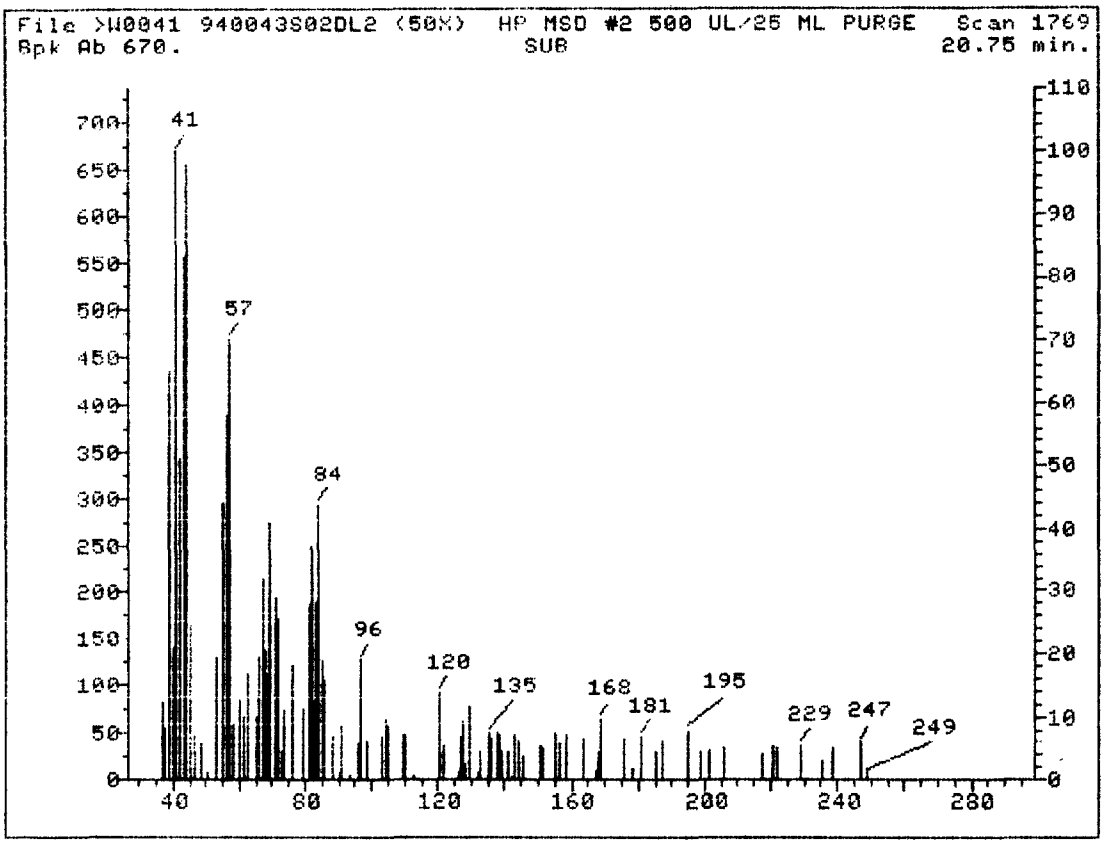
Chloroform
BQL
ag 2/1/94

Instrument ID: HP MS Analyzed on: 1/31/94 19:24
Result 2 in PBM results file: LW0041
Retention Time: 10.79 Area: 23886 Tentative Conc: .01
The unknown area is 11.92% of the nearest internal standard

1. Chloroform	118	CHCl3
2. Methane, oxybis[dichloro-	182	C2H2Cl4O
3. Chloroform	118	CHCl3
4. Chloroform	118	CHCl3
5. Ethane, 1,2,2-trichloro-1,1-difluoro-	168	C2HCl3F2
6. Ethane, 1,2,2-trichloro-1,1-difluoro-	168	C2HCl3F2

Sample file: >W0041 Spectrum #: 775
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.	60	67663	12620	"BIGDB	57	29	2	0	91	11	30	19
2.	52	20524861	12213	"BIGDB	61	61	2	0	100	18	20	12
3.	48*	67663	12619	"BIGDB	35	66	1	0	100	22	17	19
4.	43*	67663	11918	"BIGDB	35	71	2	0	100	21	17	14
5.	37*	354212	12713	"BIGDB	40	62	2	0	96	29	14	14
6.	30*	354212	12139	"BIGDB	25	82	3	0	95	33	12	13



Instrument ID: HP MS Analyzed on: 1/31/94 19:24
Result 3 in PBM results file: LW0041
Retention Time: 20.75 Area: 29572 Tentative Conc: .01
The unknown area is 14.85% of the nearest internal standard

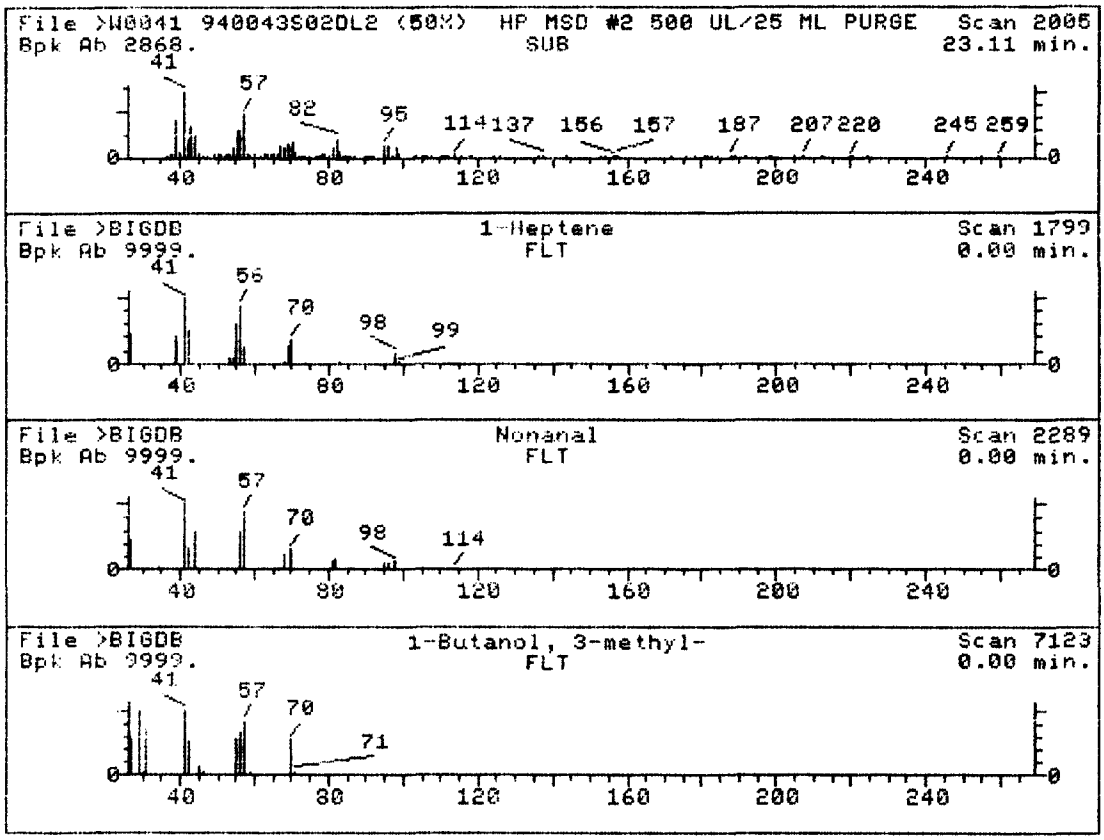
Sample file: >W0041 Spectrum #: 1769

No data base entries were retrieved.

BQL

Ag 2/1/94

Unk Area = 77154
IS Area = 199149
Unk area > 30% IS area



Est. conc of TIC =

$$\frac{(Conc_{IS})(A_{UNK})}{A_{IS}} \times DIL.FACTOR$$

$$= \frac{(5.0)(77154)}{199149} \times 50$$

$$= 96.8 \text{ ppb}$$

Report 100 ag 2/1/94

~~BQL~~ ag 2/1/94

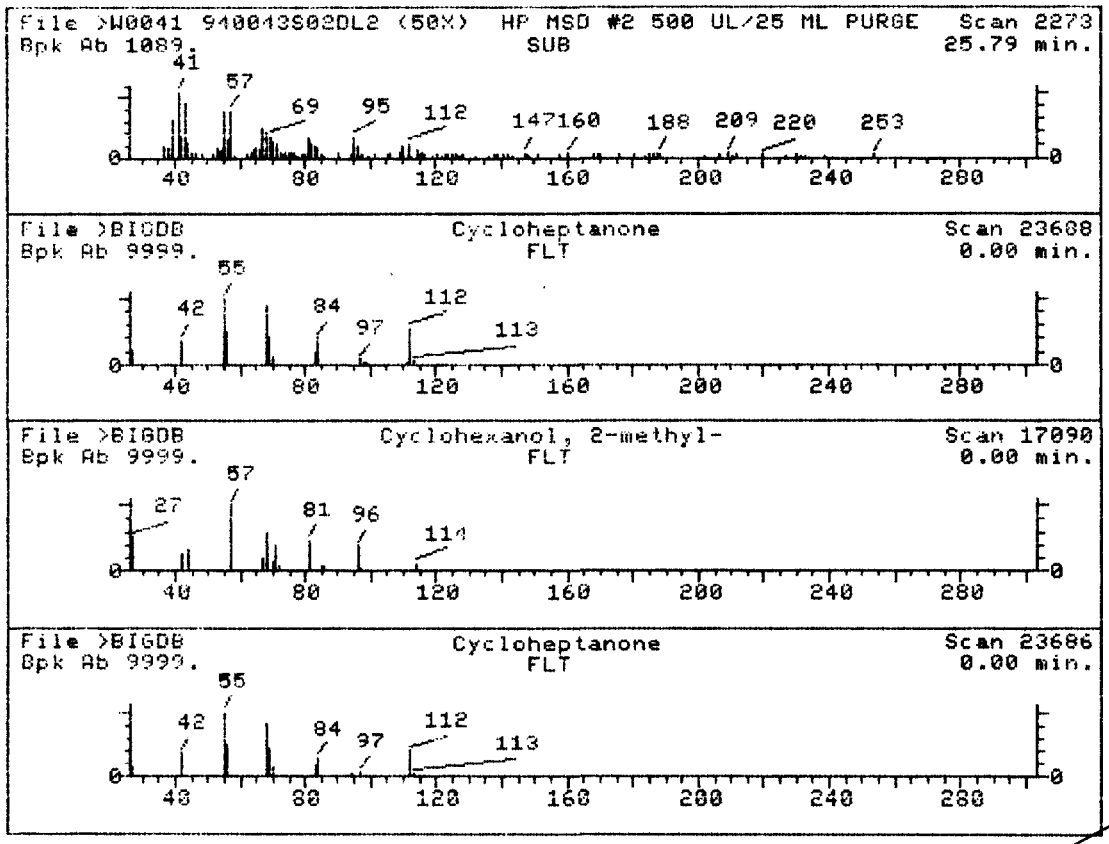
Instrument ID: HP MS Analyzed on: 1/31/94 19:24
Result 4 in PBM results file: LW0041
Retention Time: 23.11 Area: 77154 Tentative Conc: .04 e
The unknown area is 38.74% of the nearest internal standard

Unknown TIC

1. 1-Heptene	98	C7H14
2. Nonanal	142	C9H18O
3. 1-Butanol, 3-methyl-	88	C5H12O
4. Cyanic acid, butyl ester	99	C5H9NO
5. 1-Butanol, 2-methyl-	88	C5H12O
6. 1-Butanol, 2-methyl-	88	C5H12O

Sample file: >W0041 Spectrum #: 2005
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.	47*	592767	1799	"BIGDB	37	48	0	0	46	41	16	42
2.	45	124196	2289	"BIGDB	52	59	0	0	57	29	19	23
3.	32	123513	7123	"BIGDB	42	53	0	0	45	41	12	23
4.	28*	1768247	1806	"BIGDB	36	51	0	0	49	53	8	39
5.	28	137326	2166	"BIGDB	30	61	0	0	49	41	8	16
6.	27	137326	2168	"BIGDB	29	54	0	0	47	41	8	15



BQL ag
2/1/94

Instrument ID: HP MS Analyzed on: 1/31/94 19:24
Result 5 in PBM results file: LW0041
Retention Time: 25.79 Area: 52907 Tentative Conc: .03
The unknown area is 26.57% of the nearest internal standard

1.	Cycloheptanone	112 C7H12O
2.	Cyclohexanol, 2-methyl-	114 C7H14O
3.	Cycloheptanone	112 C7H12O
4.	8-Oxabicyclo[5.1.0]octane	112 C7H12O
5.	Cycloheptanone	112 C7H12O
6.	Cyclohexanol, 2-methyl-	114 C7H14O

Sample file: >W0041 Spectrum #: 2273
Search speed: 1 Tilting option: N No. of ion ranges searched: 57

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	41*	502421	23688	"BIGDB	50	43	1	0	41	41	14	35
2.	37*	583595	17090	"BIGDB	60	52	1	0	51	51	10	56
3.	31*	502421	23686	"BIGDB	35	57	1	0	46	41	8	19
4.	28*	286453	6027	"BIGDB	59	54	2	0	78	51	8	36
5.	24*	502421	23687	"BIGDB	41	66	1	0	56	51	7	21
6.	21*	583595	24630	"BIGDB	51	59	1	0	53	56	5	34

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

940043S01D1

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 940043S01D1

Sample wt/vol: 25 (g/ml) ML Lab File ID: >W0038

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec. ---- Date Analyzed: 01/31/94

Column: (pack/cap) CAP Dilution Factor: 400

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	400	UD
74-87-3	Chloromethane	4000	UD
75-01-4	Vinyl chloride	400	UD
74-83-9	Bromomethane	400	UD
75-00-3	Chloroethane	800	UD
75-69-4	Trichlorofluoromethane	400	UD
107-64-1	Acrolein	10000	UD
75-35-4	1,1-Dichloroethene	400	UD
67-64-1	Acetone	2000	UD
75-15-0	Carbon disulfide	400	UD
75-09-2	Methylene chloride	350	DJ
75-35-4	trans-1,2-Dichloroethene	400	UD
107-13-1	Acrylonitrile	2000	UD
75-34-3	1,1-Dichloroethane	160	DJ
108-05-4	Vinyl acetate	800	UD
594-20-7	2,2-Dichloropropane	400	UD
540-59-0	cis-1,2-Dichloroethene	230	DJ
78-93-3	2-Butanone	2000	UD
74-97-5	Bromochloromethane	400	UD
67-66-3	Chloroform	910	D
71-55-6	1,1,1-Trichloroethane	660	D
56-23-5	Carbon tetrachloride	400	UD
563-58-6	1,1-Dichloropropene	400	UD
71-43-2	Benzene	400	UD
107-06-2	1,2-Dichloroethane	130	DJ
79-01-6	Trichloroethene	240	DJ
78-87-5	1,2-Dichloropropane	400	UD
74-95-3	Dibromomethane	400	UD
110-75-8	2-Chloroethyl vinylether	2000	UD
75-27-4	Bromodichloromethane	370	DJ
10061015	cis-1,3-Dichloropropene	420	UD
108-88-3	Toluene	400	UD
108-10-1	4-Methyl-2-pentanone	800	UD
10061026	trans-1,3-Dichloropropene	380	UD

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

940043S01D1

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 940043S01D1

Sample wt/vol: 25 (g/ml) ML Lab File ID: >W0038

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec. ---- Date Analyzed: 01/31/94

Column: (pack/cap) CAP Dilution Factor: 400

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
127-18-4	Tetrachloroethene	400	UD
79-00-5	1,1,2-Trichloroethane	4000	UD
142-28-9	1,3-Dichloropropane	400	UD
591-78-6	2-Hexanone	800	UD
124-48-1	Dibromochloromethane	400	UD
106-93-4	1,2-Dibromoethane	400	UD
108-90-7	Chlorobenzene	400	UD
630-20-6	1,1,1,2-Tetrachloroethane	400	UD
100-41-4	Ethylbenzene	400	UD
108-38-3	m &/or p-Xylene	800	UD
95-47-6	o-Xylene	400	UD
100-42-5	Styrene	400	UD
75-25-2	Bromoform	400	UD
98-82-8	Isopropylbenzene	400	UD
108-86-1	Bromobenzene	400	UD
96-18-4	1,2,3-Trichloropropane	400	UD
79-34-5	1,1,2,2-Tetrachloroethane	400	UD
103-65-1	n-Propylbenzene	400	UD
95-49-8	2-Chlorotoluene	400	UD
106-43-4	4-Chlorotoluene	400	UD
108-67-8	1,3,5-Trimethylbenzene	400	UD
98-06-6	tert-Butylbenzene	400	UD
95-63-6	1,2,4-Trimethylbenzene	400	UD
135-98-8	sec-Butylbenzene	400	UD
541-73-1	1,3-Dichlorobenzene	400	UD
106-46-7	1,4-Dichlorobenzene	400	UD
99-87-6	p-Isopropyltoluene	400	UD
95-50-1	1,2-Dichlorobenzene	400	UD
104-51-8	n-Butylbenzene	400	UD
96-12-8	1,2-Dibromo-3-chloropropane	400	UD
120-82-1	1,2,4-Trichlorobenzene	400	UD
91-20-3	Naphthalene	400	UD
87-68-3	Hexachlorobutadiene	400	UD
87-61-6	1,2,3-Trichlorobenzene	400	UD

QUANT REPORT

Operator ID: BABU
Output File: ^W0038::D6
Data File: >W0038::D2
Name: 940043S01DL (400X)
Misc: HP MSD #2 62.5 UL/25 ML PURGE

Quant Rev: 7
Quant Time: 940201 09:24
Injected at: 940131 17:30
Dilution Factor: 1.00000
Instrument ID: HP MS #7

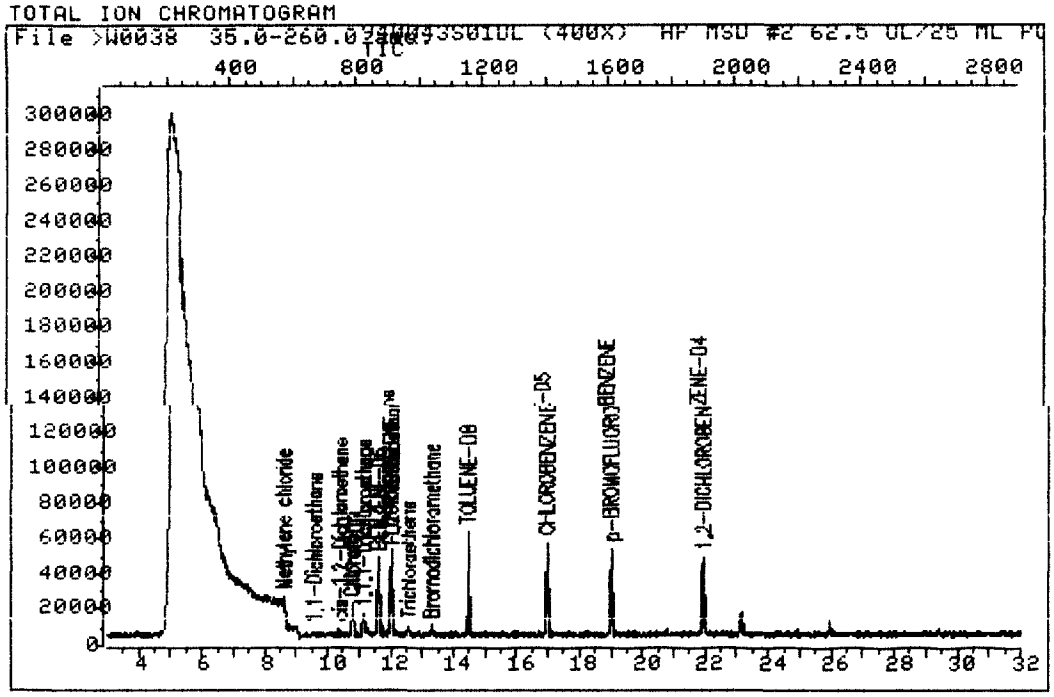
ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55
Last Qcal Time: <none>

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*FLUOROBENZENE	12.00	96.0	72692	5.00	ug/L	92
12)	Methylene chloride ✓	8.58	84.0	3232	.883	ug/L	76
~~15)~~	~~1,1-Dichloroethane~~	~~9.56~~	~~63.0~~	~~3476~~	~~.406~~	~~ug/L~~	~~92~~ ✓
18)	cis-1,2-Dichloroethene ✓	10.37	96.0	2593	.584	ug/L	97
21)	Chloroform ✓	10.75	83.0	23950	2.27	ug/L	95
22)	1,1,1-Trichloroethane ✓	11.13	97.0	17713	1.64	ug/L	91
25)	BENZENE-D6	11.60	84.0	66174	4.96	ug/L	97
~~27)~~	~~1,2-Dichloroethane~~	~~12.01~~	~~62.0~~	~~1830~~	~~.333~~	~~ug/L~~	~~75~~ X
28)	*TOLUENE-D8	14.44	98.0	69980	5.00	ug/L	93
29)	Trichloroethene ✓	12.56	95.0	3401	.589	ug/L	68
33)	Bromodichloromethane ✓	13.28	83.0	5327	.933	ug/L	92
44)	*CHLOROBENZENE-D5	16.93	117.0	49385	5.00	ug/L	95
53)	p-BROMOFLUOROBENZENE	18.98	174.0	24784	4.77	ug/L	94
67)	1,2-DICHLOROBENZENE-D4	21.91	152.0	21766	4.88	ug/L	95

* Compound is ISTD

RWW 2-1-94
Analyzed within calib. at lower dilution

TOTAL ION CHROMATOGRAM

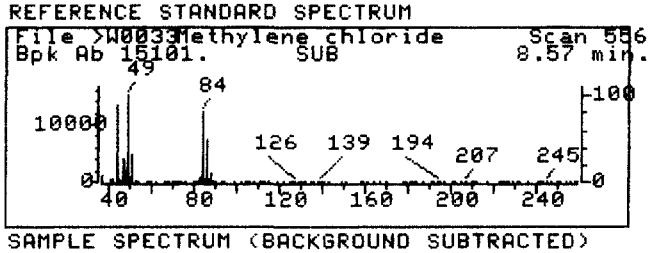


Data File: >W0038::D2 Quant Output File: ^W0038::D6
Name: 940043S01DL (400X) Instrument ID: HP MS #7
Misc: HP MSD #2 62.5 UL/25 ML PURGE

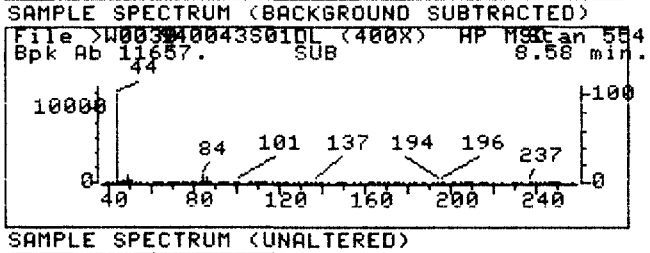
Id File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: <none>

Operator ID: BABU
Quant Time : 940201 09:24
Injected at: 940131 17:30

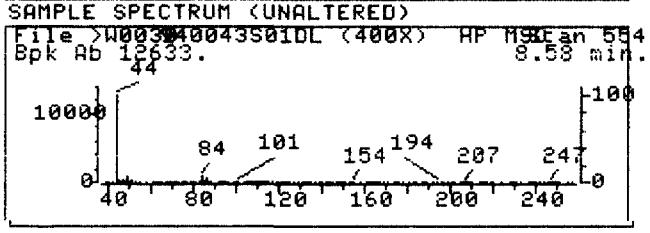
REFERENCE STANDARD SPECTRUM

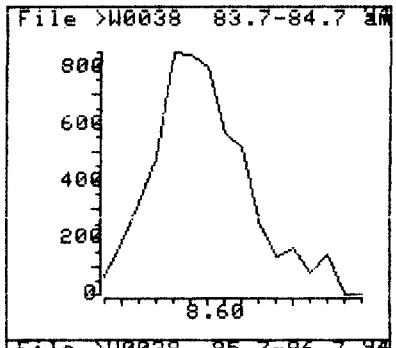


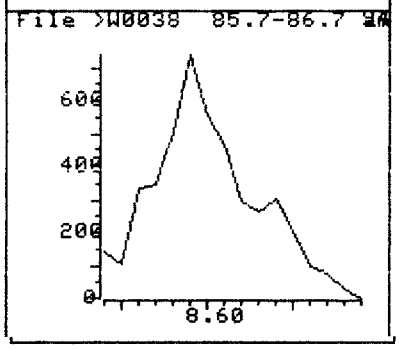
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





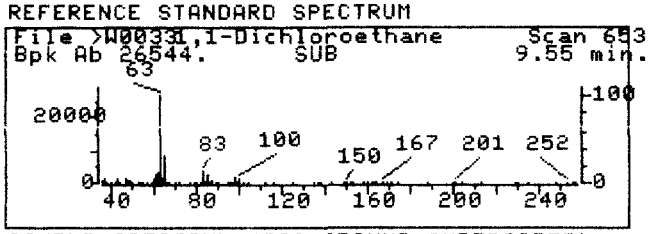


Data File: >W0038::D2 Quant Output File: ^W0038::D6
Name: 940043S01DL (400X) Instrument ID: HP MS #7
Misc: HP MSD #2 62.5 UL/25 ML PURGE
Quant Time: 940201 09:24 Quant ID File: IDRW01::D5
Injected at: 940131 17:30 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 12
Compound Name : Methylene chloride
Scan Number : 554
Retention Time: 8.58 min.
Quant Ion : 84.0
Area : 3232
Concentration : .883 ug/L
q-value : 76

MDL = 1

REFERENCE STANDARD SPECTRUM



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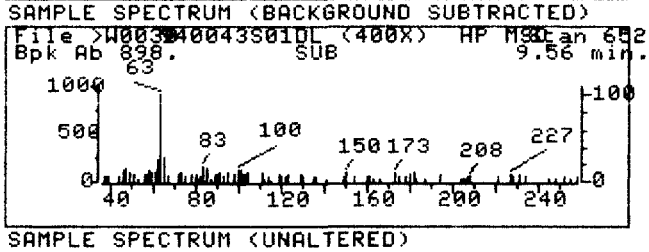

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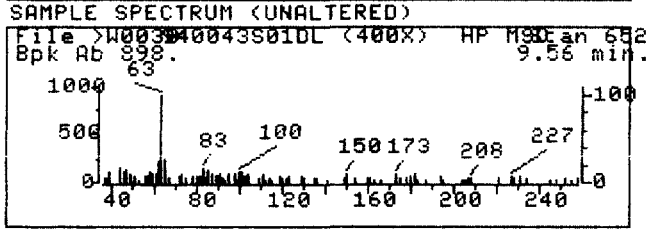
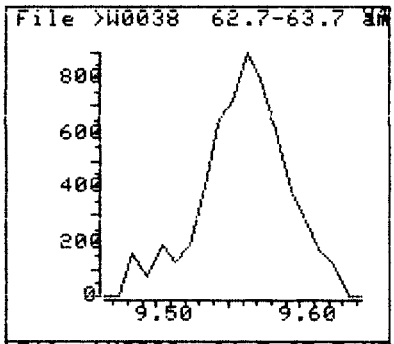
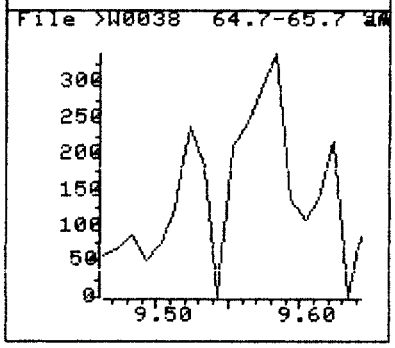




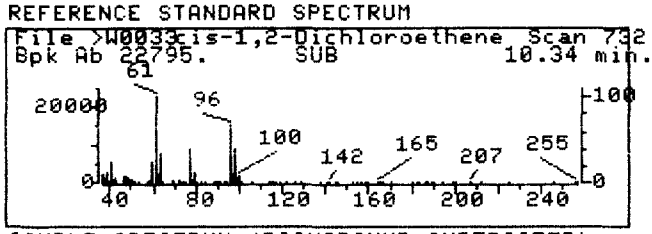


Data File: >W0038::D2 Quant Output File: ^W0038::D6
Name: 940043S01DL (400X) Instrument ID: HP MS #7
Misc: HP MSD #2 62.5 UL/25 ML PURGE
Quant Time: 940201 09:24 Quant ID File: IDRW01::D5
Injected at: 940131 17:30 Last Calibration: 940201 08:55
Last Qcal Time: <none>

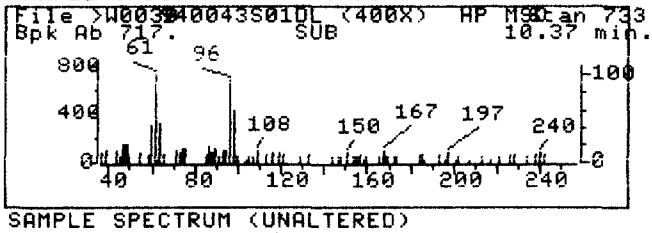
Compound No : 15
Compound Name : 1,1-Dichloroethane
Scan Number : 652 ✓
Retention Time: 9.56 min.
Quant Ion : 63.0
Area : 3476
Concentration : .406 ug/L
q-value : 92

MDL = 1
< 1/2 MDL

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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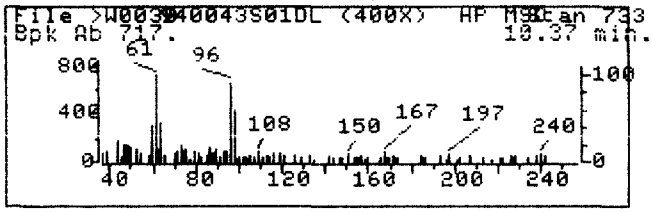
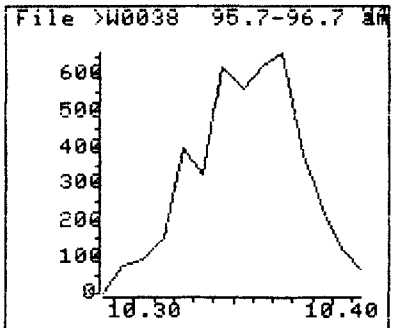
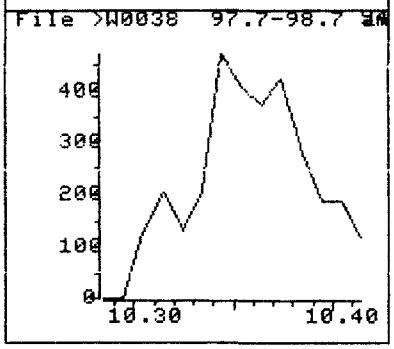






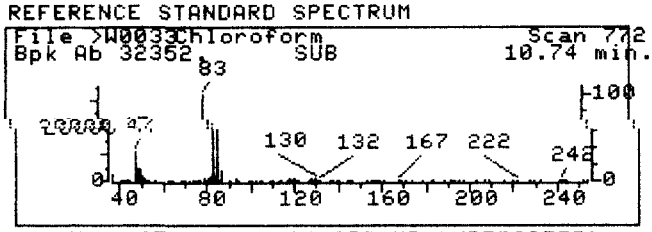
Data File: >W0038::D2 Quant Output File: ^W0038::D6
Name: 940043S01DL (400X) Instrument ID: HP MS #7
Misc: HP MSD #2 62.5 UL/25 ML PURGE
Quant Time: 940201 09:24 Quant ID File: IDRW01::D5
Injected at: 940131 17:30 Last Calibration: 940201 08:55
Last Qcal Time: <none>

✓

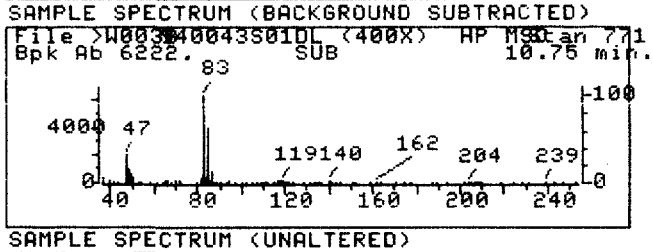
Compound No : 18
Compound Name : cis-1,2-Dichloroethene
Scan Number : 733
Retention Time: 10.37 min.
Quant Ion : 96.0
Area : 2593
Concentration : .584 ug/L
q-value : 97

MDL = 1.

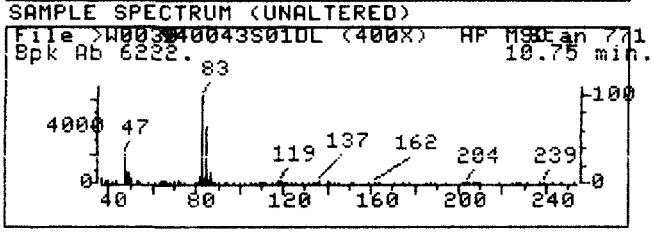
REFERENCE STANDARD SPECTRUM

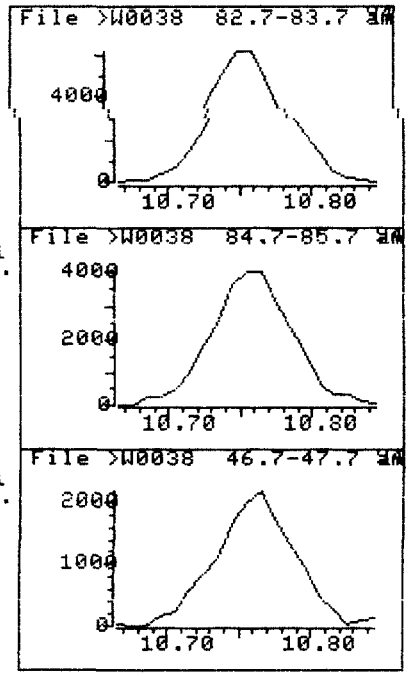


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

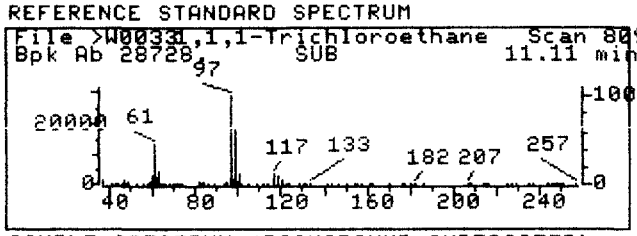




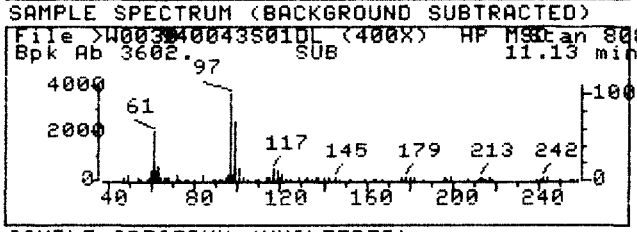
Data File: >W0038::D2 Quant Output File: ^W0038::D6
Name: 940043S01DL (400X) Instrument ID: HP MS #7
Misc: HP MSD #2 62.5 UL/25 ML PURGE
Quant Time: 940201 09:24 Quant ID File: IDRW01::D5
Injected at: 940131 17:30 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 21 ✓
Compound Name : Chloroform
Scan Number : 771
Retention Time: 10.75 min.
Quant Ion : 83.0
Area : 23950
Concentration : 2.27 ug/L
q-value : 95

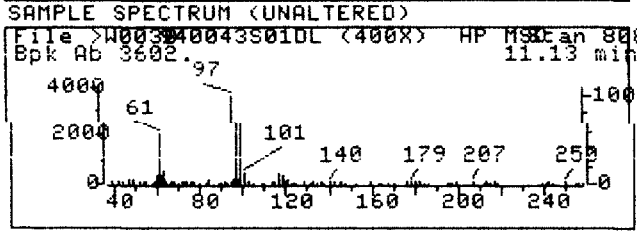
REFERENCE STANDARD SPECTRUM

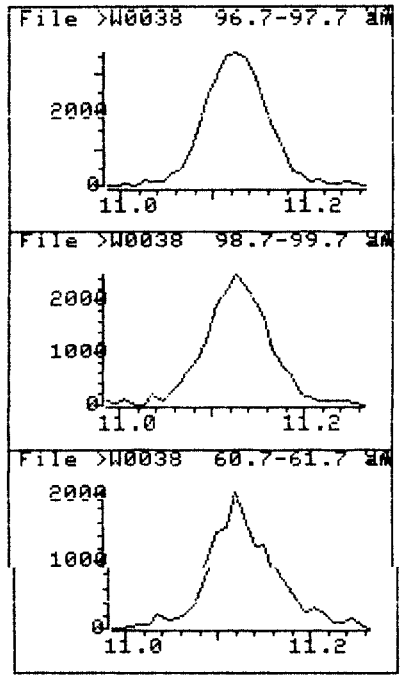


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

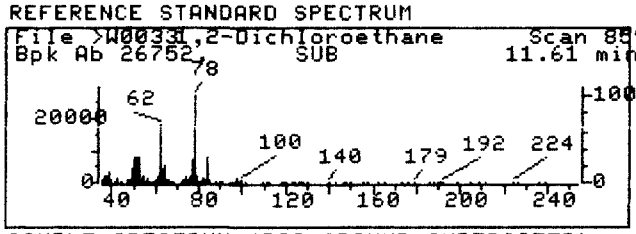




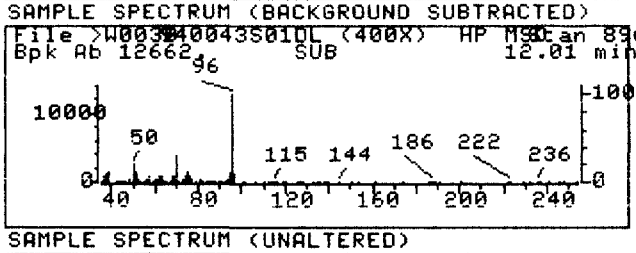
Data File: >W0038::D2 Quant Output File: ^W0038::D6
Name: 940043S01DL (400X) Instrument ID: HP MS #7
Misc: HP MSD #2 62.5 UL/25 ML PURGE
Quant Time: 940201 09:24 Quant ID File: IDRW01::D5
Injected at: 940131 17:30 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 22
Compound Name : 1,1,1-Trichloroethane ✓
Scan Number : 808
Retention Time: 11.13 min.
Quant Ion : 97.0
Area : 17713
Concentration : 1.64 ug/L
q-value : 91

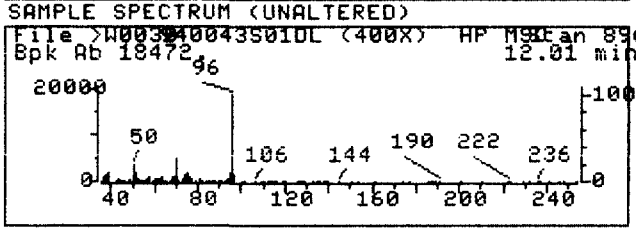
REFERENCE STANDARD SPECTRUM

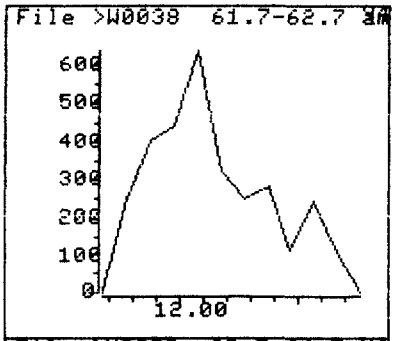


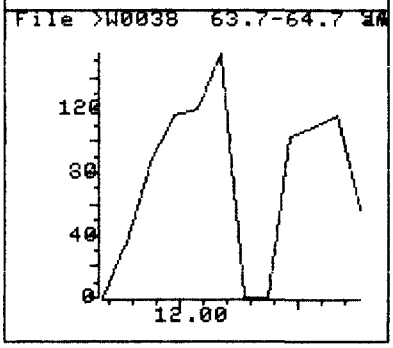
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





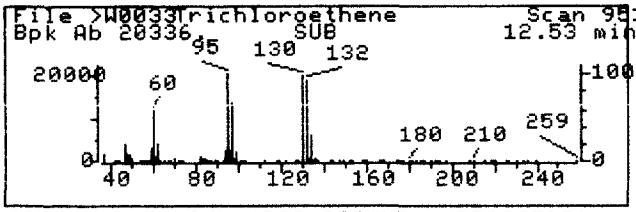


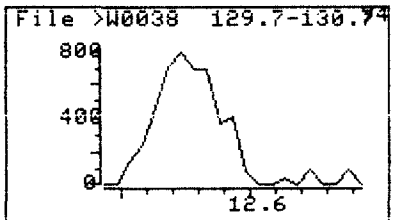
Data File: >W0038::D2 Quant Output File: ^W0038::D6
Name: 940043S01DL (400X) Instrument ID: HP MS #7
Misc: HP MSD #2 62.5 UL/25 ML PURGE
Quant Time: 940201 09:24 Quant ID File: IDRW01::D5
Injected at: 940131 17:30 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 27
Compound Name : 1,2-Dichloroethane
Scan Number : 896
Retention Time: 12.01 min.
Quant Ion : 62.0
Area : 1830
Concentration : .333 ug/L
q-value : 75

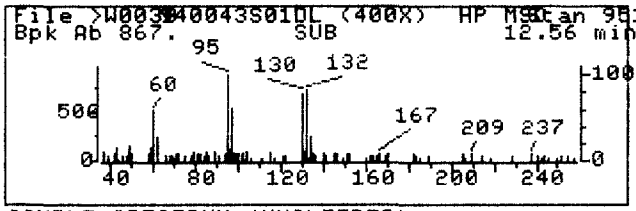
X

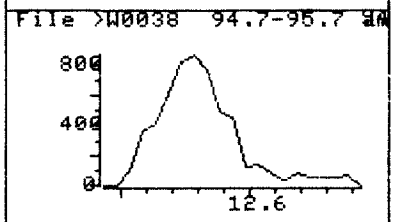
REFERENCE STANDARD SPECTRUM



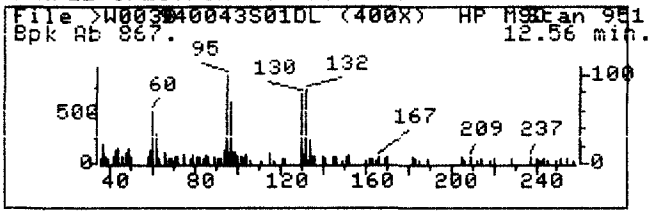


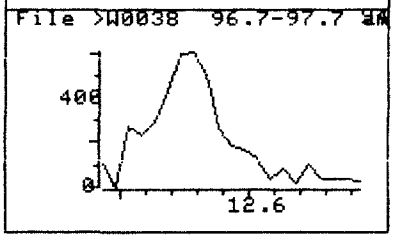
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





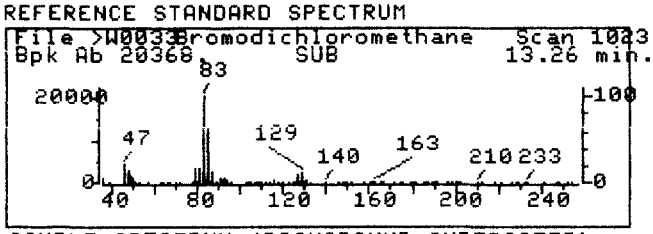
Data File: >W0038::D2 Quant Output File: ^W0038::D6
Name: 940043S01DL (400X) Instrument ID: HP MS #7
Misc: HP MSD #2 62.5 UL/25 ML PURGE
Quant Time: 940201 09:24 Quant ID File: IDRW01::D5
Injected at: 940131 17:30 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 29
Compound Name : Trichloroethene
Scan Number : 951
Retention Time: 12.56 min.
Quant Ion : 95.0
Area : 3401
Concentration : .589 ug/L
q-value : 68

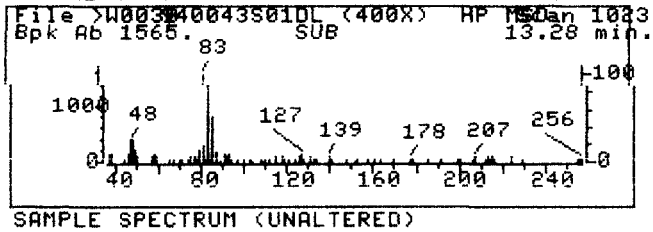
✓

MDL = 1.

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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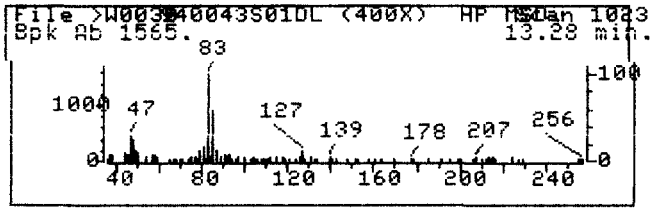
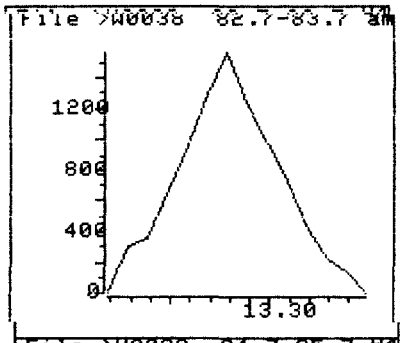
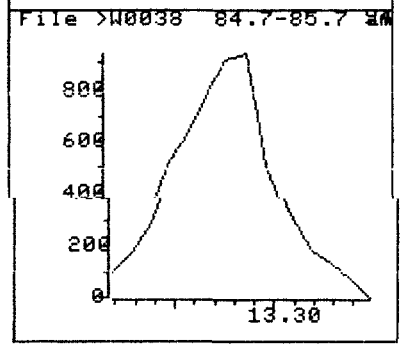






Data File: >W0038::D2 Quant Output File: ^W0038::D6
Name: 940043S01DL (400X) Instrument ID: HP MS #7
Misc: HP MSD #2 62.5 UL/25 ML PURGE
Quant Time: 940201 09:24 Quant ID File: IDRW01::D5
Injected at: 940131 17:30 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 33
Compound Name : Bromodichloromethane ✓
Scan Number : 1023
Retention Time: 13.28 min.
Quant Ion : 83.0
Area : 5327
Concentration : .933 ug/L
q-value : 92

MDL = 1

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

940043S01DLMS

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 940043S01DLMS

Sample wt/vol: 25 (g/ml) ML Lab File ID: >W0048

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec. ---- Date Analyzed: 02/01/94

Column: (pack/cap) CAP Dilution Factor: 400

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	130	DJ
74-87-3	Chloromethane	330	DJ
75-01-4	Vinyl chloride	350	DJ
74-83-9	Bromomethane	270	DJ
75-00-3	Chloroethane	1300	D
75-69-4	Trichlorofluoromethane	650	D
107-64-1	Acrolein	10000	UD
75-35-4	1,1-Dichloroethene	1900	D
67-64-1	Acetone	6200	D
75-15-0	Carbon disulfide	400	UD
75-09-2	Methylene chloride	2100	D
75-35-4	trans-1,2-Dichloroethene	1800	D
107-13-1	Acrylonitrile	2000	UD
75-34-3	1,1-Dichloroethane	1900	D
108-05-4	Vinyl acetate	800	UD
594-20-7	2,2-Dichloropropane	1800	D
540-59-0	cis-1,2-Dichloroethene	2100	D
78-93-3	2-Butanone	1200	DJ
74-97-5	Bromochloromethane	1700	D
67-66-3	Chloroform	1800	D
71-55-6	1,1,1-Trichloroethane	2500	D
56-23-5	Carbon tetrachloride	1900	D
563-58-6	1,1-Dichloropropene	2000	D
71-43-2	Benzene	1700	D
107-06-2	1,2-Dichloroethane	2200	D
79-01-6	Trichloroethene	2000	D
78-87-5	1,2-Dichloropropane	1900	D
74-95-3	Dibromomethane	1700	D
110-75-8	2-Chloroethyl vinylether	2000	UD
75-27-4	Bromodichloromethane	2200	D
10061015	cis-1,3-Dichloropropene	2100	D
108-88-3	Toluene	1700	D
108-10-1	4-Methyl-2-pentanone	800	UD
10061026	trans-1,3-Dichloropropene	1900	D

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

940043S01DLMS

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 940043S01DLMS

Sample wt/vol: 25 (g/ml) ML Lab File ID: >W0048

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec. ---- Date Analyzed: 02/01/94

Column: (pack/cap) CAP Dilution Factor: 400

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
127-18-4	Tetrachloroethene	1700	D
79-00-5	1,1,2-Trichloroethane	4000	UD
142-28-9	1,3-Dichloropropane	2300	D
591-78-6	2-Hexanone	800	UD
124-48-1	Dibromochloromethane	2000	D
106-93-4	1,2-Dibromoethane	2000	D
108-90-7	Chlorobenzene	1800	D
630-20-6	1,1,1,2-Tetrachloroethane	2000	D
100-41-4	Ethylbenzene	1700	D
108-38-3	m &/or p-Xylene	3800	D
95-47-6	o-Xylene	1800	D
100-42-5	Styrene	1500	D
75-25-2	Bromoform	1900	D
98-82-8	Isopropylbenzene	1700	D
108-86-1	Bromobenzene	1800	D
96-18-4	1,2,3-Trichloropropane	2100	D
79-34-5	1,1,2,2-Tetrachloroethane	2200	D
103-65-1	n-Propylbenzene	1900	D
95-49-8	2-Chlorotoluene	1800	D
106-43-4	4-Chlorotoluene	1700	D
108-67-8	1,3,5-Trimethylbenzene	2100	D
98-06-6	tert-Butylbenzene	1900	D
95-63-6	1,2,4-Trimethylbenzene	1900	D
135-98-8	sec-Butylbenzene	1700	D
541-73-1	1,3-Dichlorobenzene	1800	D
106-46-7	1,4-Dichlorobenzene	1900	D
99-87-6	p-Isopropyltoluene	2000	D
95-50-1	1,2-Dichlorobenzene	1800	D
104-51-8	n-Butylbenzene	1900	D
96-12-8	1,2-Dibromo-3-chloropropane	1100	D
120-82-1	1,2,4-Trichlorobenzene	1800	D
91-20-3	Naphthalene	2200	D
87-68-3	Hexachlorobutadiene	1800	D
87-61-6	1,2,3-Trichlorobenzene	1900	D

QUANT REPORT

Operator ID: TONY Quant Rev: 7 Quant Time: 940201 14:18
Output File: ^W0048::D6 Injected at: 940201 12:59
Data File: >W0048::D3 Dilution Factor: 1.00000
Name: 940043S01DLMS 400X Instrument ID: HP MS #7
Misc: 62.5uL SAMPLE+10uL ICHK/25mL PURGE

ID File: IDRW02::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: 940201 09:49

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*FLUOROBENZENE	11.99	96.0	88658	5.00	ug/L	93
2)	Dichlorodifluoromethane	5.56	85.0	2042	.330	ug/L	88
3)	Chloromethane	6.05	50.0	5827	.837	ug/L	65
4)	Vinyl chloride	6.24	62.0	5179	.865	ug/L	96
5)	Bromomethane	6.74	94.0	3407	.671	ug/L	85
6)	Chloroethane	6.84	64.0	12679	3.27	ug/L	77
7)	Trichlorofluoromethane	7.17	101.0	16649	1.62	ug/L	97
9)	1,1-Dichloroethene	7.96	96.0	21331	4.63	ug/L	90
10)	Acetone	7.97	43.0	8736	15.47	ug/L	95
12)	Methylene chloride	8.60	84.0	21241	5.14	ug/L	97
13)	trans-1,2-Dichloroethene	8.99	96.0	24473	4.60	ug/L	98
15)	1,1-Dichloroethane	9.57	63.0	45921	4.73	ug/L	98
17)	2,2-Dichloropropane	10.40	77.0	46075	4.44	ug/L	95
18)	cis-1,2-Dichloroethene	10.35	96.0	27650	5.27	ug/L	93
19)	2-Butanone	10.31	43.0	1619	3.03	ug/L	81
20)	Bromochloromethane	10.70	128.0	9025	4.23	ug/L	97
21)	Chloroform	10.75	83.0	55505	4.58	ug/L	94
22)	1,1,1-Trichloroethane	11.12	97.0	69330	6.26	ug/L	94
23)	Carbon tetrachloride	11.38	117.0	48399	4.78	ug/L	87
24)	1,1-Dichloropropene	11.32	75.0	41032	4.94	ug/L	98
25)	BENZENE-D6	11.59	84.0	81151	4.88	ug/L	96
26)	Benzene	11.65	78.0	75985	4.32	ug/L	99
27)	1,2-Dichloroethane	11.63	62.0	30619	5.53	ug/L	98
28)	*TOLUENE-D8	14.44	98.0	87547	5.00	ug/L	96
29)	Trichloroethene	12.55	95.0	33204	4.94	ug/L	87
30)	1,2-Dichloropropane	12.90	63.0	18155	4.83	ug/L	95
31)	Dibromomethane	13.09	174.0	11576	4.29	ug/L	90
33)	Bromodichloromethane	13.27	83.0	34498	5.39	ug/L	97
34)	cis-1,3-Dichloropropene	13.95	75.0	29787	5.17	ug/L	97
35)	Toluene	14.55	92.0	51695	4.19	ug/L	92
37)	trans-1,3-Dichloropropene	14.81	75.0	20303	4.72	ug/L	97
38)	Tetrachloroethene	15.49	166.0	36154	4.23	ug/L	98
40)	1,3-Dichloropropane	15.47	76.0	19822	5.67	ug/L	99
42)	Dibromochloromethane	15.89	129.0	17599	5.05	ug/L	96
43)	1,2-Dibromoethane	16.17	107.0	11551	4.99	ug/L	95
44)	*CHLOROBENZENE-D5	16.93	117.0	63156	5.00	ug/L	92
45)	Chlorobenzene	16.99	112.0	59029	4.53	ug/L	95
46)	1,1,1,2-Tetrachloroethane	17.09	131.0	23270	4.88	ug/L	89
47)	Ethylbenzene	17.11	91.0	111154	4.31	ug/L	99
48)	m &/or p-Xylene	17.31	106.0	84968	9.54	ug/L	99

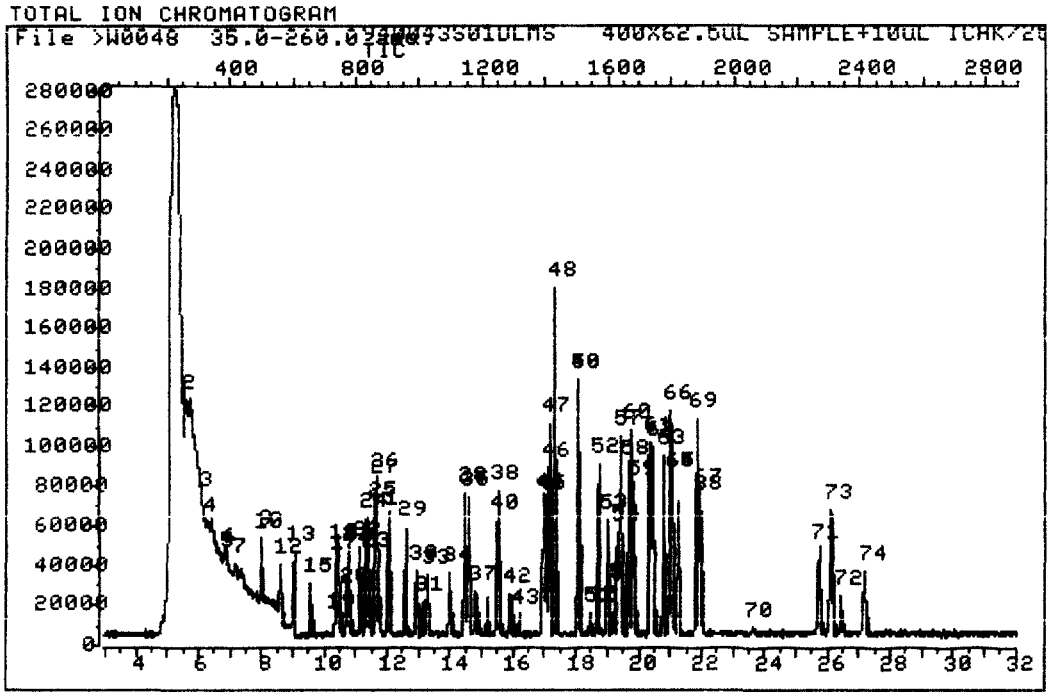
Operator ID: TONY Quant Rev: 7 Quant Time: 940201 14:18
Output File: ^W0048::D6 Injected at: 940201 12:59
Data File: >W0048::D3 Dilution Factor: 1.00000
Name: 940043S01DLMS 400X Instrument ID: HP MS #7
Misc: 62.5uL SAMPLE+10uL ICHK/25mL PURGE

ID File: IDRW02::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: 940201 09:49

	Compound	R.T.	Q ion	Area	Conc	Units	q
49)	o-Xylene	18.04	106.0	35680	4.38	ug/L	93
50)	Styrene	18.04	104.0	44793	3.67	ug/L	94
51)	Bromoform	18.45	173.0	9138	4.83	ug/L	96
52)	Isopropylbenzene	18.66	105.0	112454	4.25	ug/L	99
53)	p-BROMOFLUOROBENZENE	18.98	174.0	31765	5.04	ug/L	96
54)	Bromobenzene	19.33	156.0	24023	4.40	ug/L	95
55)	1,2,3-Trichloropropane	19.29	75.0	11622	5.19	ug/L	96
56)	1,1,2,2-Tetrachloroethane	19.15	83.0	9436	5.39	ug/L	98
57)	n-Propylbenzene	19.41	120.0	31504	4.78	ug/L	98
58)	2-Chlorotoluene	19.64	126.0	25312	4.40	ug/L	98
59)	4-Chlorotoluene	19.82	126.0	24321	4.21	ug/L	98
60)	1,3,5-Trimethylbenzene	19.70	105.0	116576	5.16	ug/L	97
61)	tert-Butylbenzene	20.34	119.0	106235	4.83	ug/L	94
62)	1,2,4-Trimethylbenzene	20.42	105.0	109909	4.82	ug/L	93
63)	sec-Butylbenzene	20.76	105.0	124813	4.25	ug/L	98
64)	1,3-Dichlorobenzene	21.05	146.0	51176	4.48	ug/L	95
65)	1,4-Dichlorobenzene	21.05	146.0	51176	4.78	ug/L	96
66)	p-Isopropyltoluene	21.00	119.0	124511	4.93	ug/L	97
67)	1,2-DICHLOROBENZENE-D4	21.93	152.0	27908	5.37	ug/L	93
68)	1,2-Dichlorobenzene	21.96	146.0	39473	4.61	ug/L	97
69)	n-Butylbenzene	21.80	91.0	121764	4.82	ug/L	97
70)	1,2-Dibromo-3-chloropropane	23.60	157.0	1155	2.83	ug/L	95
71)	1,2,4-Trichlorobenzene	25.69	180.0	36979	4.45	ug/L	94
72)	Naphthalene	26.45	128.0	35451	5.58	ug/L	100
73)	Hexachlorobutadiene	26.10	225.0	47729	4.46	ug/L	96
74)	1,2,3-Trichlorobenzene	27.16	180.0	28661	4.71	ug/L	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >W0048::D3 Quant Output File: ^W0048::D6
Name: 940043S01DLMS 400X Instrument ID: HP MS #7
Misc: 62.5uL SAMPLE+10uL ICHK/25mL PURGE

Id File: IDRW02::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: 940201 09:49

Operator ID: TONY
Quant Time : 940201 14:18
Injected at: 940201 12:59

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

940043S01DLMSD

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 940043S01DLMSD

Sample wt/vol: 25 (g/ml) ML Lab File ID: >W0049

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec. ---- Date Analyzed: 02/01/94

Column: (pack/cap) CAP Dilution Factor: 400

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	360	DJ
74-87-3	Chloromethane	240	DJ
75-01-4	Vinyl chloride	850	D
74-83-9	Bromomethane	330	DJ
75-00-3	Chloroethane	440	DJ
75-69-4	Trichlorofluoromethane	810	D
107-64-1	Acrolein	10000	UD
75-35-4	1,1-Dichloroethene	1700	D
67-64-1	Acetone	2000	UD
75-15-0	Carbon disulfide	400	UD
75-09-2	Methylene chloride	1900	D
75-35-4	trans-1,2-Dichloroethene	1800	D
107-13-1	Acrylonitrile	2000	UD
75-34-3	1,1-Dichloroethane	1800	D
108-05-4	Vinyl acetate	800	UD
594-20-7	2,2-Dichloropropane	1700	D
540-59-0	cis-1,2-Dichloroethene	1900	D
78-93-3	2-Butanone	2000	UD
74-97-5	Bromochloromethane	1700	D
67-66-3	Chloroform	1700	D
71-55-6	1,1,1-Trichloroethane	2300	D
56-23-5	Carbon tetrachloride	1800	D
563-58-6	1,1-Dichloropropene	1900	D
71-43-2	Benzene	1600	D
107-06-2	1,2-Dichloroethane	2100	D
79-01-6	Trichloroethene	1900	D
78-87-5	1,2-Dichloropropane	1700	D
74-95-3	Dibromomethane	1600	D
110-75-8	2-Chloroethyl vinylether	2000	UD
75-27-4	Bromodichloromethane	1900	D
10061015	cis-1,3-Dichloropropene	1800	D
108-88-3	Toluene	1600	D
108-10-1	4-Methyl-2-pentanone	800	UD
10061026	trans-1,3-Dichloropropene	1700	D

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

940043S01DLMSD

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 940043S01DLMSD

Sample wt/vol: 25 (g/ml) ML Lab File ID: >W0049

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec. ---- Date Analyzed: 02/01/94

Column: (pack/cap) CAP Dilution Factor: 400

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
127-18-4	Tetrachloroethene	1600	D
79-00-5	1,1,2-Trichloroethane	4000	UD
142-28-9	1,3-Dichloropropane	2000	D
591-78-6	2-Hexanone	800	UD
124-48-1	Dibromochloromethane	1900	D
106-93-4	1,2-Dibromoethane	1800	D
108-90-7	Chlorobenzene	1700	D
630-20-6	1,1,1,2-Tetrachloroethane	1800	D
100-41-4	Ethylbenzene	1600	D
108-38-3	m &/or p-Xylene	3600	D
95-47-6	o-Xylene	1600	D
100-42-5	Styrene	1300	D
75-25-2	Bromoform	1800	D
98-82-8	Isopropylbenzene	1600	D
108-86-1	Bromobenzene	1600	D
96-18-4	1,2,3-Trichloropropane	1900	D
79-34-5	1,1,2,2-Tetrachloroethane	2000	D
103-65-1	n-Propylbenzene	1700	D
95-49-8	2-Chlorotoluene	1700	D
106-43-4	4-Chlorotoluene	1500	D
108-67-8	1,3,5-Trimethylbenzene	1900	D
98-06-6	tert-Butylbenzene	1800	D
95-63-6	1,2,4-Trimethylbenzene	1700	D
135-98-8	sec-Butylbenzene	1600	D
541-73-1	1,3-Dichlorobenzene	1700	D
106-46-7	1,4-Dichlorobenzene	1800	D
99-87-6	p-Isopropyltoluene	1800	D
95-50-1	1,2-Dichlorobenzene	1700	D
104-51-8	n-Butylbenzene	1800	D
96-12-8	1,2-Dibromo-3-chloropropane	2200	D
120-82-1	1,2,4-Trichlorobenzene	1700	D
91-20-3	Naphthalene	1900	D
87-68-3	Hexachlorobutadiene	1700	D
87-61-6	1,2,3-Trichlorobenzene	1800	D

QUANT REPORT

Operator ID: TONY
Quant Rev: 7
Quant Time: 940201 14:26
Output File: ^W0049::D6
Injected at: 940201 13:45
Data File: >W0049::D3
Dilution Factor: 1.00000
Name: 940043S01DLMSD
Instrument ID: HP MS #7
Misc: HP MSD SYS#2, 62.5uL SMPL+10uL ICHK/25mL PURGE

ID File: IDRW02::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55
Last Qcal Time: 940201 09:49

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*FLUOROBENZENE	11.99	96.0	92903	5.00	ug/L	92
2)	Dichlorodifluoromethane	5.61	85.0	5794	.893	ug/L	82
3)	Chloromethane	5.98	50.0	4416	.606	ug/L	77
4)	Vinyl chloride	6.20	62.0	13267	2.11	ug/L	77
5)	Bromomethane	6.73	94.0	4402	.827	ug/L	82
6)	Chloroethane	6.79	64.0	4515	1.11	ug/L	81
7)	Trichlorofluoromethane	7.15	101.0	21780	2.02	ug/L	96
9)	1,1-Dichloroethene	7.95	96.0	21061	4.37	ug/L	92
12)	Methylene chloride	8.58	84.0	20374	4.71	ug/L	90
13)	trans-1,2-Dichloroethene	8.97	96.0	25073	4.50	ug/L	93
15)	1,1-Dichloroethane	9.55	63.0	45794	4.51	ug/L	97
17)	2,2-Dichloropropane	10.39	77.0	45501	4.18	ug/L	99
18)	cis-1,2-Dichloroethene	10.35	96.0	25896	4.71	ug/L	99
20)	Bromochloromethane	10.70	128.0	9397	4.20	ug/L	99
21)	Chloroform	10.75	83.0	54981	4.33	ug/L	95
22)	1,1,1-Trichloroethane	11.12	97.0	68151	5.87	ug/L	96
23)	Carbon tetrachloride	11.38	117.0	48830	4.60	ug/L	90
24)	1,1-Dichloropropene	11.32	75.0	40908	4.70	ug/L	94
25)	BENZENE-D6	11.58	84.0	83822	4.81	ug/L	95
26)	Benzene	11.65	78.0	73327	3.98	ug/L	99
27)	1,2-Dichloroethane	11.62	62.0	30363	5.23	ug/L	96
28)	*TOLUENE-D8	14.42	98.0	92011	5.00	ug/L	99
29)	Trichloroethene	12.54	95.0	33957	4.80	ug/L	87
30)	1,2-Dichloropropane	12.90	63.0	16815	4.25	ug/L	99
31)	Dibromomethane	13.09	174.0	11488	4.05	ug/L	95
33)	Bromodichloromethane	13.27	83.0	32352	4.81	ug/L	96
34)	cis-1,3-Dichloropropene	13.94	75.0	27971	4.62	ug/L	96
35)	Toluene	14.54	92.0	50738	3.91	ug/L	99
37)	trans-1,3-Dichloropropene	14.80	75.0	19126	4.23	ug/L	95
38)	Tetrachloroethene	15.48	166.0	36175	4.03	ug/L	97
40)	1,3-Dichloropropane	15.46	76.0	18663	5.08	ug/L	98
42)	Dibromochloromethane	15.88	129.0	17148	4.68	ug/L	96
43)	1,2-Dibromoethane	16.16	107.0	11037	4.54	ug/L	99
44)	*CHLOROBENZENE-D5	16.92	117.0	65542	5.00	ug/L	91
45)	Chlorobenzene	16.98	112.0	57137	4.23	ug/L	93
46)	1,1,1,2-Tetrachloroethane	17.07	131.0	22626	4.57	ug/L	89
47)	Ethylbenzene	17.10	91.0	106752	3.99	ug/L	99
48)	m &/or p-Xylene	17.29	106.0	83350	9.02	ug/L	98
49)	o-Xylene	18.02	106.0	34071	4.03	ug/L	97
50)	Styrene	18.03	104.0	42078	3.32	ug/L	95

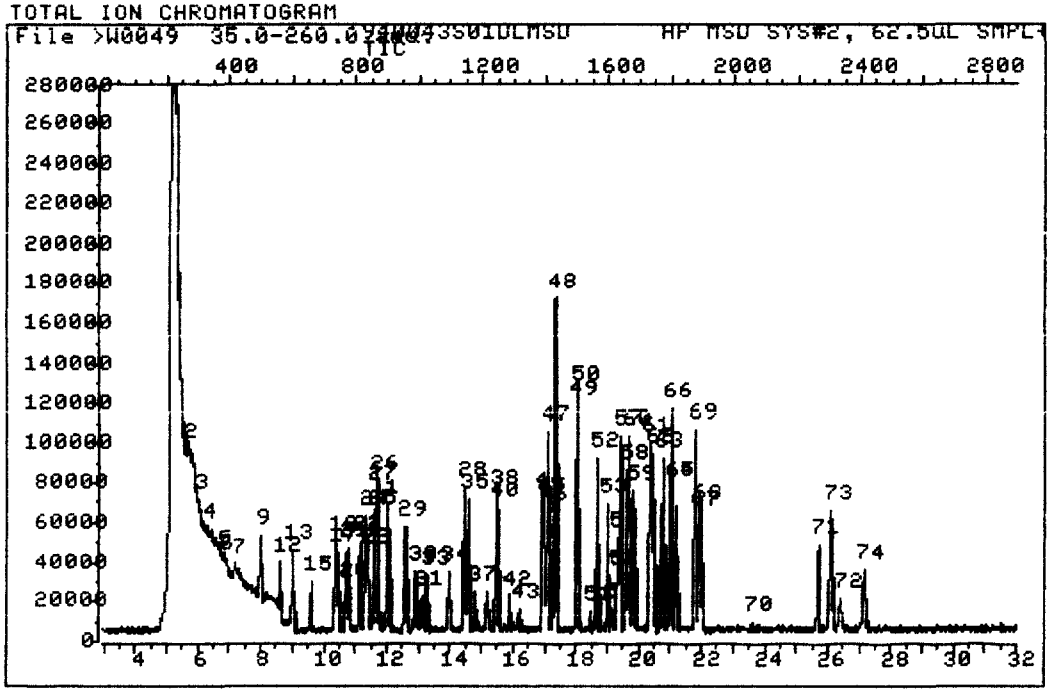
Operator ID: TONY Quant Rev: 7 Quant Time: 940201 14:26
Output File: ^W0049::D6 Injected at: 940201 13:45
Data File: >W0049::D3 Dilution Factor: 1.00000
Name: 940043S01DLMSD Instrument ID: HP MS #7
Misc: HP MSD SYS#2, 62.5uL SMPL+10uL ICHK/25mL PURGE

ID File: IDRW02::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: 940201 09:49

	Compound	R.T.	Q ion	Area	Conc	Units	q
51)	Bromoform	18.44	173.0	8910	4.54	ug/L	92
52)	Isopropylbenzene	18.65	105.0	109475	3.99	ug/L	93
53)	p-BROMOFLUOROBENZENE	18.97	174.0	34076	5.20	ug/L	98
54)	Bromobenzene	19.31	156.0	23218	4.10	ug/L	96
55)	1,2,3-Trichloropropane	19.28	75.0	11037	4.75	ug/L	98
56)	1,1,2,2-Tetrachloroethane	19.14	83.0	8919	4.91	ug/L	96
57)	n-Propylbenzene	19.39	120.0	29460	4.30	ug/L	95
58)	2-Chlorotoluene	19.62	126.0	24775	4.15	ug/L	98
59)	4-Chlorotoluene	19.80	126.0	23029	3.84	ug/L	97
60)	1,3,5-Trimethylbenzene	19.68	105.0	112957	4.81	ug/L	95
61)	tert-Butylbenzene	20.32	119.0	102711	4.50	ug/L	99
62)	1,2,4-Trimethylbenzene	20.40	105.0	103163	4.36	ug/L	96
63)	sec-Butylbenzene	20.73	105.0	119635	3.93	ug/L	99
64)	1,3-Dichlorobenzene	21.02	146.0	49105	4.15	ug/L	96
65)	1,4-Dichlorobenzene	21.02	146.0	49105	4.42	ug/L	96
66)	p-Isopropyltoluene	20.97	119.0	119296	4.55	ug/L	95
67)	1,2-DICHLOROBENZENE-D4	21.89	152.0	28576	5.30	ug/L	91
68)	1,2-Dichlorobenzene	21.94	146.0	37525	4.22	ug/L	96
69)	n-Butylbenzene	21.77	91.0	117150	4.47	ug/L	95
70)	1,2-Dibromo-3-chloropropane	23.57	157.0	2322	5.48	ug/L	98
71)	1,2,4-Trichlorobenzene	25.65	180.0	36705	4.25	ug/L	95
72)	Naphthalene	26.38	128.0	31377	4.76	ug/L	100
73)	Hexachlorobutadiene	26.05	225.0	48161	4.33	ug/L	96
74)	1,2,3-Trichlorobenzene	27.11	180.0	29032	4.59	ug/L	98

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >W0049::D3 Quant Output File: ^W0049::D6
Name: 940043S01DLMSD Instrument ID: HP MS #7
Misc: HP MSD SYS#2, 62.5uL SMPL+10uL ICHK/25mL PURGE

Id File: IDRW02::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: 940201 09:49

Operator ID: TONY
Quant Time : 940201 14:26
Injected at: 940201 13:45

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

020194LCS1

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 020194LCS1

Sample wt/vol: 25 (g/ml) ML Lab File ID: >W0047

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec. ---- Date Analyzed: 02/01/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1	J
74-87-3	Chloromethane	1	J
75-01-4	Vinyl chloride	3	
74-83-9	Bromomethane	2	
75-00-3	Chloroethane	2	
75-69-4	Trichlorofluoromethane	2	
107-64-1	Acrolein	25	U
75-35-4	1,1-Dichloroethene	5	
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	1	U
75-09-2	Methylene chloride	6	
75-35-4	trans-1,2-Dichloroethene	5	
107-13-1	Acrylonitrile	5	U
75-34-3	1,1-Dichloroethane	5	
108-05-4	Vinyl acetate	2	U
594-20-7	2,2-Dichloropropane	5	
540-59-0	cis-1,2-Dichloroethene	5	
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	5	
67-66-3	Chloroform	5	
71-55-6	1,1,1-Trichloroethane	5	
56-23-5	Carbon tetrachloride	5	
563-58-6	1,1-Dichloropropene	5	
71-43-2	Benzene	5	
107-06-2	1,2-Dichloroethane	6	
79-01-6	Trichloroethene	5	
78-87-5	1,2-Dichloropropane	5	
74-95-3	Dibromomethane	5	
110-75-8	2-Chloroethyl vinylether	5	U
75-27-4	Bromodichloromethane	6	
10061015	cis-1,3-Dichloropropene	6	
108-88-3	Toluene	4	
108-10-1	4-Methyl-2-pentanone	2	U
10061026	trans-1,3-Dichloropropene	5	

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

020194LCS1

Lab Name: S. E. ROCKFORD Contract: LOCKHEED/ESA

Lab Code: 5SCRL Case No.: 940043 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 020194LCS1

Sample wt/vol: 25 (g/ml) ML Lab File ID: >W0047

Level: (low/med) LOW Date Received: 01/27/94

% Moisture: not dec. ---- Date Analyzed: 02/01/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
127-18-4	Tetrachloroethene	4	
79-00-5	1,1,2-Trichloroethane	6	J
142-28-9	1,3-Dichloropropane	6	
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	6	
106-93-4	1,2-Dibromoethane	6	
108-90-7	Chlorobenzene	5	
630-20-6	1,1,1,2-Tetrachloroethane	6	
100-41-4	Ethylbenzene	5	
108-38-3	m &/or p-Xylene	10	
95-47-6	o-Xylene	5	
100-42-5	Styrene	4	
75-25-2	Bromoform	6	
98-82-8	Isopropylbenzene	5	
108-86-1	Bromobenzene	5	
96-18-4	1,2,3-Trichloropropane	6	
79-34-5	1,1,2,2-Tetrachloroethane	6	
103-65-1	n-Propylbenzene	5	
95-49-8	2-Chlorotoluene	5	
106-43-4	4-Chlorotoluene	4	
108-67-8	1,3,5-Trimethylbenzene	6	
98-06-6	tert-Butylbenzene	5	
95-63-6	1,2,4-Trimethylbenzene	5	
135-98-8	sec-Butylbenzene	5	
541-73-1	1,3-Dichlorobenzene	5	
106-46-7	1,4-Dichlorobenzene	5	
99-87-6	p-Isopropyltoluene	5	
95-50-1	1,2-Dichlorobenzene	5	
104-51-8	n-Butylbenzene	5	
96-12-8	1,2-Dibromo-3-chloropropane	7	
120-82-1	1,2,4-Trichlorobenzene	5	
91-20-3	Naphthalene	6	
87-68-3	Hexachlorobutadiene	5	
87-61-6	1,2,3-Trichlorobenzene	5	

FMGR : QREP,^W0047

QUANT REPORT

Operator ID: TONY
Output File: ^W0047::D6
Data File: >W0047::D3
Name: 020194LCS1
Misc: 10uL ICHK/25mL PURGE

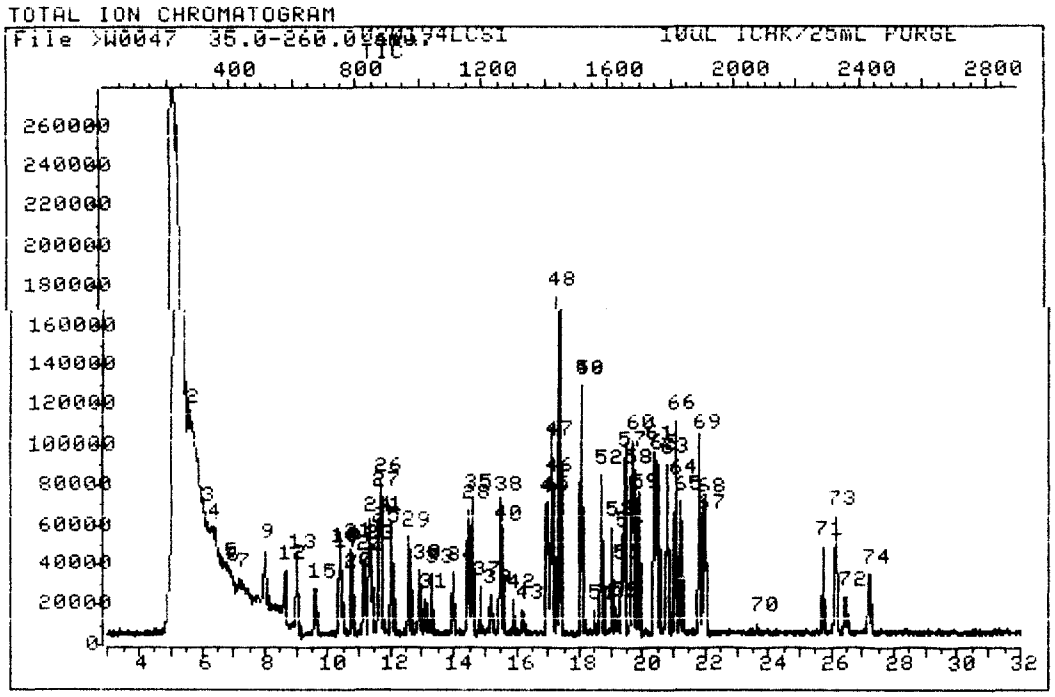
Quant Rev: 7
Quant Time: 940201 14:14
Injected at: 940201 12:20
Dilution Factor: 1.00000
Instrument ID: HP MS #7

ID File: IDRW02::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55
Last Qcal Date: 940201 09:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*FLUOROBENZENE	12.01	899	79486	5.00	ug/L	95
2)	Dichlorodifluoromethane	5.59	260	3557	.641	ug/L	92
3)	Chloromethane	6.04	305	8239	1.32	ug/L	85
4)	Vinyl chloride	6.26	327	17185M	3.20	ug/L	84
5)	Bromomethane	6.77	377	10765	2.36	ug/L	77
6)	Chloroethane	6.85	385	7425	2.13	ug/L	80
7)	Trichlorofluoromethane	7.17	417	16325	1.77	ug/L	86
9)	1,1-Dichloroethene	7.96	495	19481	4.72	ug/L	93
12)	Methylene chloride	8.60	559	21036	5.68	ug/L	86
13)	trans-1,2-Dichloroethene	8.99	598	23197	4.87	ug/L	97
15)	1,1-Dichloroethane	9.56	655	43153	4.96	ug/L	98
17)	2,2-Dichloropropane	10.39	738	43316	4.65	ug/L	95
18)	cis-1,2-Dichloroethene	10.35	734	24258	5.16	ug/L	90
20)	Bromochloromethane	10.71	770	9195	4.81	ug/L	99
21)	Chloroform	10.76	774	56177	5.17	ug/L	94
22)	1,1,1-Trichloroethane	11.13	811	53292	5.37	ug/L	96
23)	Carbon tetrachloride	11.38	836	44259	4.87	ug/L	98
24)	1,1-Dichloropropene	11.33	831	40195	5.40	ug/L	95
25)	BENZENE-D6	11.59	857	73338	4.92	ug/L	98
26)	Benzene	11.66	864	72094	4.57	ug/L	95
27)	1,2-Dichloroethane	11.63	861	30988	6.24	ug/L	97
28)	*TOLUENE-D8	14.44	1142	78312	5.00	ug/L	94
29)	Trichloroethene	12.55	953	31072	5.16	ug/L	81
30)	1,2-Dichloropropane	12.91	989	17343	5.16	ug/L	97
31)	Dibromomethane	13.10	1008	12064	4.99	ug/L	98
33)	Bromodichloromethane	13.28	1026	34844	6.08	ug/L	96
34)	cis-1,3-Dichloropropene	13.96	1094	28554	5.54	ug/L	92
35)	Toluene	14.55	1153	49169	4.46	ug/L	95
37)	trans-1,3-Dichloropropene	14.82	1180	20474	5.32	ug/L	94
38)	Tetrachloroethene	15.50	1248	33736	4.42	ug/L	93
39)	1,1,2-Trichloroethane	15.16	1214	1449	6.16	ug/L	87
40)	1,3-Dichloropropane	15.47	1245	19658	6.29	ug/L	97
42)	Dibromochloromethane	15.89	1287	17783	5.71	ug/L	92
43)	1,2-Dibromoethane	16.16	1314	12092	5.85	ug/L	90
44)	*CHLOROBENZENE-D5	16.94	1392	55668	5.00	ug/L	98
45)	Chlorobenzene	16.99	1397	56234	4.90	ug/L	90
46)	1,1,1,2-Tetrachloroethane	17.09	1407	23288	5.54	ug/L	88
47)	Ethylbenzene	17.12	1410	106647	4.69	ug/L	96
48)	m &/or p-Xylene	17.31	1429	81992	10.44	ug/L	97
49)	o-Xylene	18.05	1502	33717	4.70	ug/L	96
50)	Styrene	18.05	1502	43539	4.05	ug/L	97
51)	Bromoform	18.46	1543	9579	5.75	ug/L	93
52)	Isopropylbenzene	18.67	1564	107836	4.63	ug/L	98
53)	p-BROMOFLUOROBENZENE	19.00	1597	28932	5.20	ug/L	98
54)	Bromobenzene	19.34	1631	23297	4.85	ug/L	97
55)	1,2,3-Trichloropropane	19.31	1628	12651	6.41	ug/L	87
56)	1,1,2,2-Tetrachloroethane	19.17	1614	9836	6.38	ug/L	99
57)	n-Propylbenzene	19.41	1638	30640	5.27	ug/L	99
58)	2-Chlorotoluene	19.65	1662	24311	4.80	ug/L	98
59)	4-Chlorotoluene	19.83	1680	22346	4.39	ug/L	95
60)	1,3,5-Trimethylbenzene	19.71	1668	111264	5.58	ug/L	94
61)	tert-Butylbenzene	20.35	1732	100542	5.18	ug/L	98
62)	1,2,4-Trimethylbenzene	20.43	1740	103361	5.15	ug/L	96
63)	sec-Butylbenzene	20.76	1773	117855	4.56	ug/L	98
64)	1,3-Dichlorobenzene	21.05	1802	50444	5.01	ug/L	98
65)	1,4-Dichlorobenzene	21.21	1818	47361	5.02	ug/L	98
66)	p-Isopropyltoluene	21.00	1797	116260	5.22	ug/L	96
67)	1,2-DICHLOROBENZENE-D4	21.92	1889	25188	5.50	ug/L	95
68)	1,2-Dichlorobenzene	21.96	1893	39349	5.21	ug/L	99
69)	n-Butylbenzene	21.79	1876	116483	5.23	ug/L	93
70)	1,2-Dibromo-3-chloropropane	23.62	2059	2388	6.64	ug/L	89
71)	1,2,4-Trichlorobenzene	25.70	2266	36614	5.00	ug/L	92
72)	Naphthalene	26.44	2340	35624	6.37	ug/L	100
73)	Hexachlorobutadiene	26.11	2307	42858	4.54	ug/L	96
74)	1,2,3-Trichlorobenzene	27.17	2413	28162	5.25	ug/L	93

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >W0047::D3 Quant Output File: ^W0047::D6
Name: 020194LCS1 Instrument ID: HP MS #7
Misc: 10uL ICHK/25mL PURGE

Id File: IDRW02::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: 940201 09:49

Operator ID: TONY
Quant Time : 940201 14:14
Injected at: 940201 12:20

Sequence File: BMW001.SC

Tune File: MTMSD2

CR List: D1,D2,D3,D4,D5
CR Cut-off: 5000 blocks.

Number of samples: 8

```
                                                    Report Data Archive
                                                   Quant | | ID Archive
                                        Sample Size | | | | Output Archive
                                       Bottle       | | | | | |
Samp Data File     Sample Name                |     | | | | | |     Quant ID
 No. Method File   Misc Data                  |     | | | | | |     Quant Output
---- ------------ ------------------------ ------------------- ------------
001) >W0043       CC0201V05A                 0     3 Y M N N N     IDRW02::D5
     VOA#2        HP MSD SYS#2, 2/1/94  25        Dil=1.00000     ^W0043::D6
     REPRT OPTIONS: Label Meth:4, B option, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#
002) >W0044       CC0201V05B                 0     3 Y M N N N     IDRW02::D5
     VOA#2        HP MSD SYS#2, 2/1/94  25        Dil=1.00000     ^W0044::D6
     REPRT OPTIONS: Label Meth:4, B option, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#
003) >W0045       020194VBLK1                0     3 Y M N N N     IDRW02::D5
     VOA#2        HP MSD SYS#2, 2/1/94  25        Dil=1.00000     ^W0045::D6
     REPRT OPTIONS: Label Meth:4, B option, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#
004) >W0046       020194VBLK2                0     3 Y M N N N     IDRW02::D5
     VOA#2        HP MSD SYS#2, 2/1/94  25        Dil=1.00000     ^W0046::D6
     REPRT OPTIONS: Label Meth:4, B option, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#
005) >W0047       020194LCS1                 0     3 Y M N N N     IDRW02::D5
     VOA#2        10uL ICHK/25mL PURGE            Dil=1.00000     ^W0047::D6
     REPRT OPTIONS: Label Meth:4, B option, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#
006) >W0048       940043S01DLMS   400X       0     3 Y M N N N     IDRW02::D5
     VOA#2        62.5uL SAMPLE+10uL ICHK/        Dil=1.00000     ^W0048::QT
     REPRT OPTIONS: Label Meth:4, B option, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#
007) >W0049       9400043S01DLMSD            0     3 N N N N N     IDRW02::D5
     VOA#2        62.5uL SMPL+10uL ICHK/25        Dil=1.00000
     REPRT OPTIONS: Label Meth:4, B option, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#
008) >XX049       BAKEOUT                    0     3 N N N N N     IDRW02::D5
     BO#2                                          Dil=1.00000
     REPRT OPTIONS: Label Meth:4, B option, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#
```

End of sequence file.

```
FMGR : RLIST,BARW01::D6

 Sequence File: BARW01::D6
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 Tune File: MTMSD2

 CR List: D1,D2,D3,D4,D5,D6
 CR Cut-off:  6000 blocks.
                                                   Report Data Archive
                                                  Quant | | ID Archive
 Number of samples:  15                     Sample Size | | | | Output Archive
                                           Bottle      | | | | | |
 Samp Data File     Sample Name                |      | | | | | |     Quant ID
  No. Method File   Misc Data                   |      | | | | | |     Quant Output
 ---- ------------ ------------------------ -------------------  ------------
 001) >W0030        IC0131V01                  0      1 Y M N N N     IDRW01::D5
      VOA#2         HP MSD #2 25 ML PURGE 1          Dil=1.00000     ^W0030::D6
      REPRT OPTIONS: Label Meth:4, B option, Scale time: 4.000
      REPRT OPTIONS: Qion replaces Scan#
 002) >W0031        IC0131V02                  0      1 Y M N N N     IDRW01::D5
      VOA#2         HP MSD #2 25 ML PURGE 2          Dil=1.00000     ^W0031::D6
      REPRT OPTIONS: Label Meth:4, B option, Scale time: 4.000
      REPRT OPTIONS: Qion replaces Scan#
 003) >W0032        IC0131V05                  0      1 Y M N N N     IDRW01::D5
      VOA#2         HP MSD #2 25 ML PURGE 5          Dil=1.00000     ^W0032::D6
      REPRT OPTIONS: Label Meth:4, B option, Scale time: 4.000
      REPRT OPTIONS: Qion replaces Scan#
 004) >W0033        IC0131V10                  0      1 Y M N N N     IDRW01::D5
      VOA#2         HP MSD #2 25 ML PURGE 10         Dil=1.00000     ^W0033::D6
      REPRT OPTIONS: Label Meth:4, B option, Scale time: 4.000
      REPRT OPTIONS: Qion replaces Scan#
 005) >W0034        IC0131V25                  0      1 Y M N N N     IDRW01::D5
      VOA#2         HP MSD #2 25 ML PURGE 25         Dil=1.00000     ^W0034::D6
      REPRT OPTIONS: Label Meth:4, B option, Scale time: 4.000
      REPRT OPTIONS: Qion replaces Scan#
 006) >W0035        013194VBLK1                0      1 Y M N N N     IDRW01::D5
      VOA#2         HP MSD #2 25 ML PURGE            Dil=1.00000     ^W0035::D6
      REPRT OPTIONS: Label Meth:4, B option, Scale time: 4.000
      REPRT OPTIONS: Qion replaces Scan#
 007) >W0036        013194VCHK1                0      1 Y M N N N     IDRW01::D5
      VOA#2         HP MSD #2 10 UL ICHK/25          Dil=1.00000     ^W0036::D6
      REPRT OPTIONS: Label Meth:4, B option, Scale time: 4.000
      REPRT OPTIONS: Qion replaces Scan#
 008) >W0037        013194VBLK2                0      1 Y M N N N     IDRW01::D5
      VOA#2         HP MSD #2 25 ML PURGE            Dil=1.00000     ^W0037::D6
      REPRT OPTIONS: Label Meth:4, B option, Scale time: 4.000
      REPRT OPTIONS: Qion replaces Scan#
 009) >W0038        940043S01DL (400X)         0      1 Y M N N N     IDRW01::D5
      VOA#2         HP MSD #2 62.5 UL/25 ML          Dil=1.00000     ^W0038::D6
      REPRT OPTIONS: Label Meth:4, B option, Scale time: 4.000
      REPRT OPTIONS: Qion replaces Scan#
 010) >W0039        940043S02DL (167X)         0      1 Y M N N N     IDRW01::D5
      VOA#2         HP MSD #2 150 UL/25 ML P         Dil=1.00000     ^W0039::D6
      REPRT OPTIONS: Label Meth:4, B option, Scale time: 4.000
      REPRT OPTIONS: Qion replaces Scan#
 011) >W0040        940043S01DL2 (100X)        0      1 Y M N N N     IDRW01::D5
      VOA#2         HP MSD #2 250 UL/25 ML P         Dil=1.00000     ^W0040::D6
      REPRT OPTIONS: Label Meth:4, B option, Scale time: 4.000
      REPRT OPTIONS: Qion replaces Scan#
 012) >W0041        940043S02DL2 (50X)         0      1 Y M N N N     IDRW01::D5
      VOA#2         HP MSD #2 500 UL/25 ML P         Dil=1.00000     ^W0041::D6
      REPRT OPTIONS: Label Meth:4, B option, Scale time: 4.000
      REPRT OPTIONS: Qion replaces Scan#
 013) >W0042        94004S01DLMS (400X)        0      1 Y N N N N     IDRW01::D5
      VOA#2         HP MSD #2 25 ML PURGE  1         Dil=1.00000     ^W0042::D6
      REPRT OPTIONS: Label Meth:4, B option, Scale time: 4.000
      REPRT OPTIONS: Qion replaces Scan#
 014) >W0043        940043S01DLMSD(400x)       0      1 Y N N N N     IDRW01::D5
      VOA#2         HP MSD #2  25 ML PURGE 1         Dil=1.00000     ^W0043::D6
      REPRT OPTIONS: Label Meth:4, B option, Scale time: 4.000
      REPRT OPTIONS: Qion replaces Scan#
 015) >XX001        BAKEOUT                    0      1 N N N N N     IDRW01::D5
      VOA#2                                           Dil=1.00000
      REPRT OPTIONS: Label Meth:4, B option, Scale time: 4.000
      REPRT OPTIONS: Qion replaces Scan#

 End of sequence file.
```

QUANT REPORT

Operator ID: BABU
Output File: ^W0039::D6
Data File: >W0039::D2
Name: 940043S02DL (167X)
Misc: HP MSD #2 150 UL/25 ML PURGE

Quant Rev: 7
Quant Time: 940201 09:29
Injected at: 940131 18:08
Dilution Factor: 1.00000
Instrument ID: HP MS #7

ID File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55
Last Qcal Time: <none>

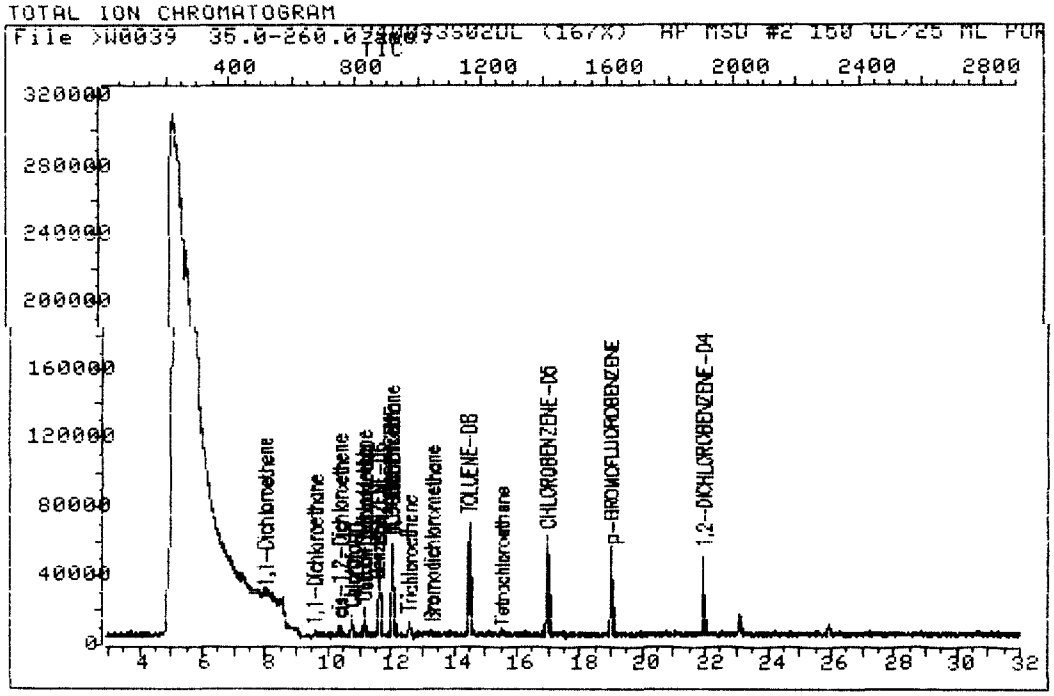
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*FLUOROBENZENE	12.01	96.0	79484	5.00	ug/L	97
~~9)~~	~~1,1-Dichloroethene~~	~~7.97~~	~~96.0~~	~~1253~~	~~.267~~	~~ug/L~~	~~94~~
~~15)~~	~~1,1-Dichloroethane~~	~~9.56~~	~~63.0~~	~~4592~~	~~.491~~	~~ug/L~~	~~98~~
18)	cis-1,2-Dichloroethene ✓	10.36	96.0	3535	.729	ug/L	97
21)	Chloroform ✓	10.76	83.0	14464	1.25	ug/L	92
22)	1,1,1-Trichloroethane ✓	11.12	97.0	23884	2.02	ug/L	90
~~23)~~	~~Carbon tetrachloride~~	~~11.13~~	~~117.0~~	~~2768~~	~~.256~~	~~ug/L~~	~~87~~
25)	BENZENE-D6	11.60	84.0	73136	5.02	ug/L	98
~~26)~~	~~Benzene~~	~~11.57~~	~~78.0~~	~~1016~~	~~.0642~~	~~ug/L~~	~~85~~
~~27)~~	~~1,2-Dichloroethane~~	~~12.01~~	~~62.0~~	~~2311~~	~~.384~~	~~ug/L~~	~~81~~
28)	*TOLUENE-D8	14.45	98.0	76809	5.00	ug/L	94
29)	Trichloroethene ✓	12.56	95.0	4960	.783	ug/L	86
~~33)~~	~~Bromodichloromethane~~	~~13.29~~	~~83.0~~	~~2536~~	~~.405~~	~~ug/L~~	~~83~~
~~38)~~	~~Tetrachloroethene~~	~~15.50~~	~~166.0~~	~~1955~~	~~.257~~	~~ug/L~~	~~93~~
44)	*CHLOROBENZENE-D5	16.96	117.0	54135	5.00	ug/L	95
53)	p-BROMOFLUOROBENZENE	18.99	174.0	26247	4.61	ug/L	97
67)	1,2-DICHLOROBENZENE-D4	21.93	152.0	22745	4.65	ug/L	90

* Compound is ISTD

RWW 2-1-94
Analyzed within calibration at lower dilution

DATA
NOT
USED

TOTAL ION CHROMATOGRAM

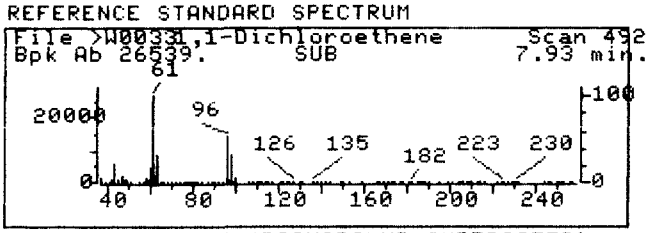


Data File: >W0039::D2 Quant Output File: ^W0039::D6
Name: 940043S02DL (167X) Instrument ID: HP MS #7
Misc: HP MSD #2 150 UL/25 ML PURGE

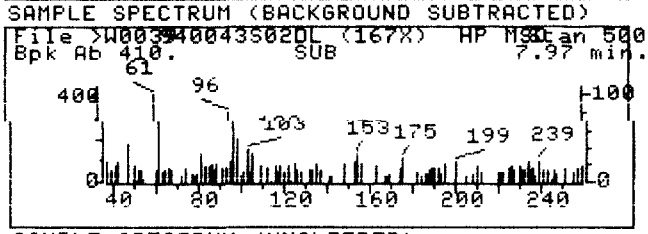
Id File: IDRW01::D5
Title: ID FILE FOR 624 VOC METHOD INST.#2
Last Calibration: 940201 08:55 Last Qcal Time: <none>

Operator ID: BABU
Quant Time : 940201 09:29
Injected at: 940131 18:08

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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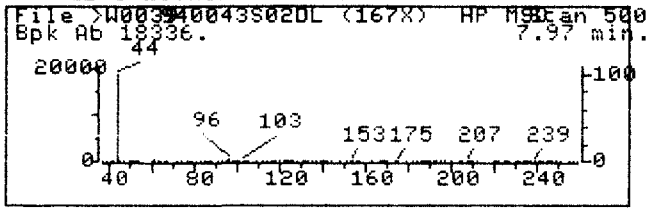
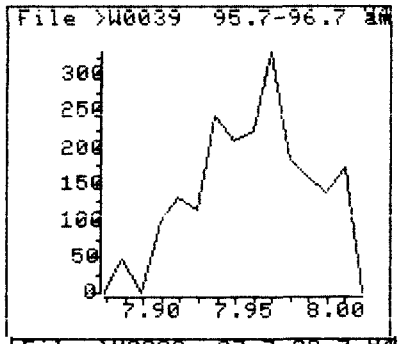
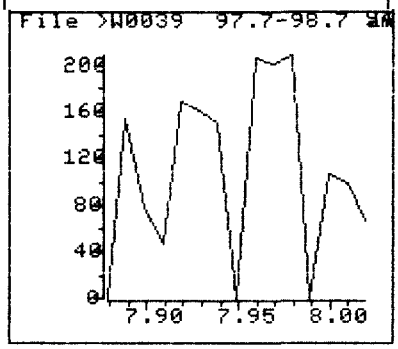


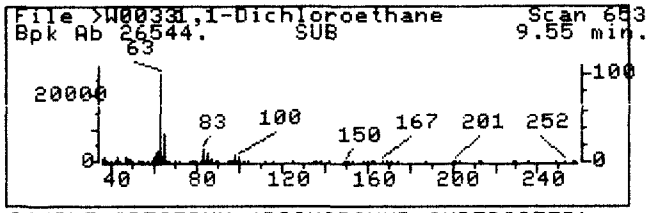




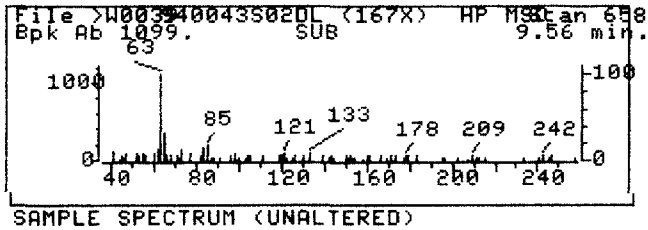
Data File: >W0039::D2 Quant Output File: ^W0039::D6
Name: 940043S02DL (167X) Instrument ID: HP MS #7
Misc: HP MSD #2 150 UL/25 ML PURGE
Quant Time: 940201 09:29 Quant ID File: IDRW01::D5
Injected at: 940131 18:08 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 9
Compound Name : 1,1-Dichloroethene
Scan Number : 500
Retention Time: 7.97 min.
Quant Ion : 96.0
Area : 1253
Concentration : .267 ug/L
q-value : 94

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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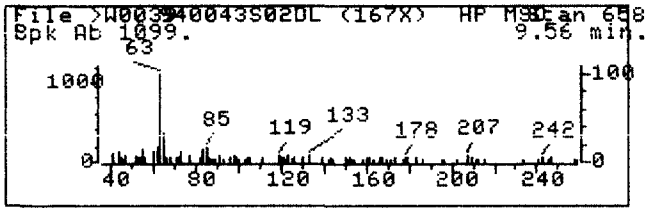
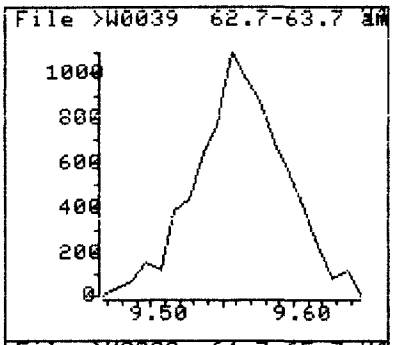
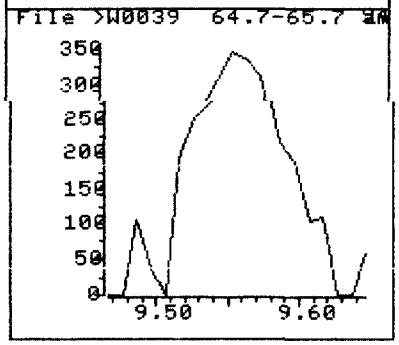


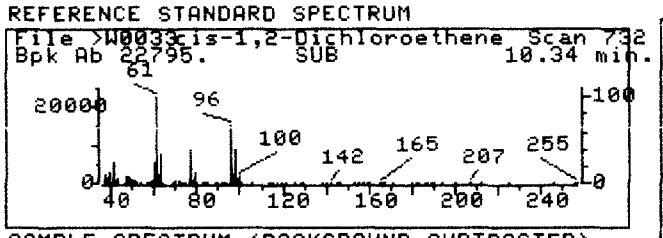




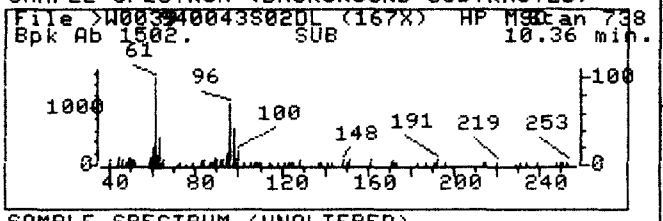
Data File: >W0039::D2 Quant Output File: ^W0039::D6
Name: 940043S02DL (167X) Instrument ID: HP MS #7
Misc: HP MSD #2 150 UL/25 ML PURGE
Quant Time: 940201 09:29 Quant ID File: IDRW01::D5
Injected at: 940131 18:08 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 15
Compound Name : 1,1-Dichloroethane
Scan Number : 658
Retention Time: 9.56 min.
Quant Ion : 63.0
Area : 4592
Concentration : .491 ug/L
q-value : 98

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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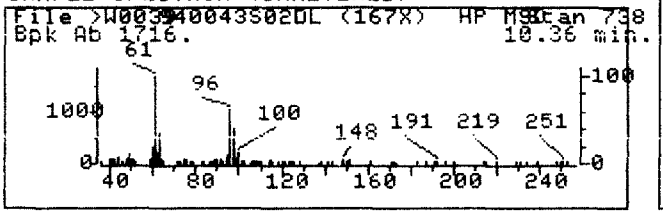
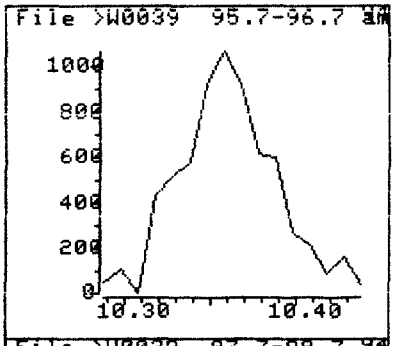
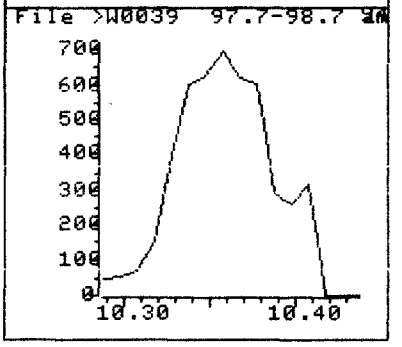


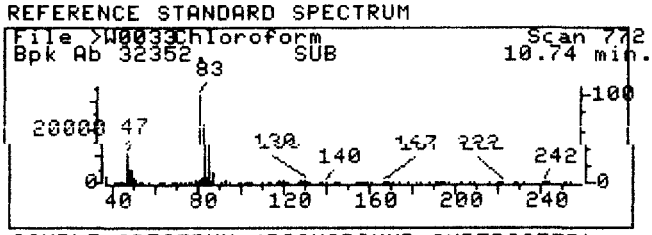




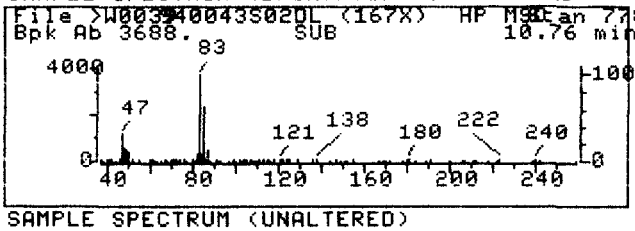
Data File: >W0039::D2 Quant Output File: ^W0039::D6
Name: 940043S02DL (167X) Instrument ID: HP MS #7
Misc: HP MSD #2 150 UL/25 ML PURGE
Quant Time: 940201 09:29 Quant ID File: IDRW01::D5
Injected at: 940131 18:08 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 18
Compound Name : cis-1,2-Dichloroethene
Scan Number : 738
Retention Time: 10.36 min.
Quant Ion : 96.0
Area : 3535
Concentration : .729 ug/L
q-value : 97

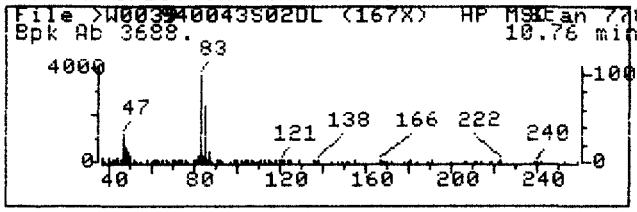
REFERENCE STANDARD SPECTRUM

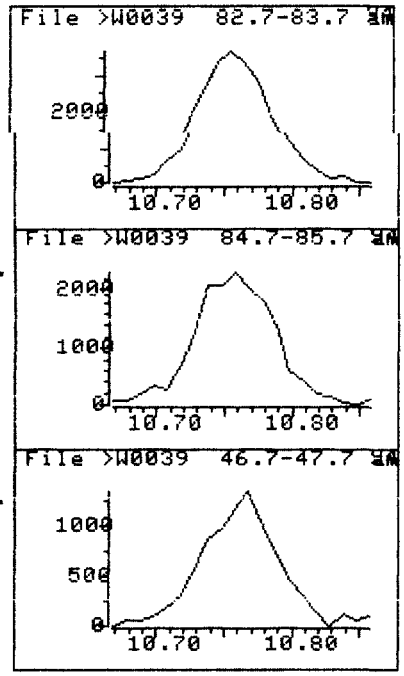


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

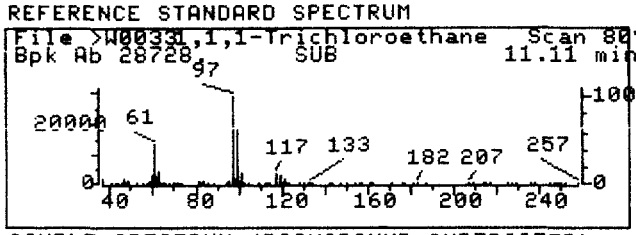


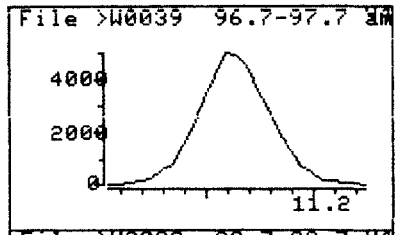


Data File: >W0039::D2 Quant Output File: ^W0039::D6
Name: 940043S02DL (167X) Instrument ID: HP MS #7
Misc: HP MSD #2 150 UL/25 ML PURGE
Quant Time: 940201 09:29 Quant ID File: IDRW01::D5
Injected at: 940131 18:08 Last Calibration: 940201 08:55
Last Qcal Time: <none>

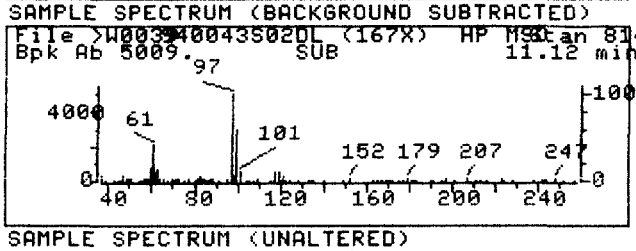
Compound No : 21
Compound Name : Chloroform
Scan Number : 778
Retention Time: 10.76 min.
Quant Ion : 83.0
Area : 14464
Concentration : 1.25 ug/L
q-value : 92

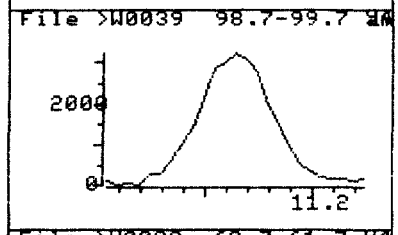
REFERENCE STANDARD SPECTRUM



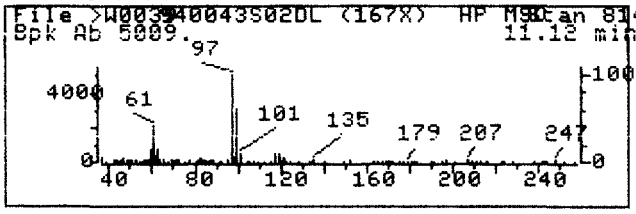


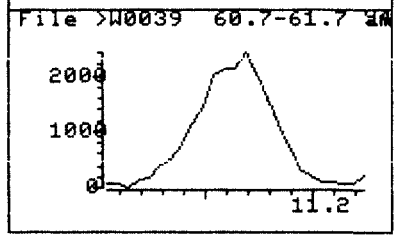
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)

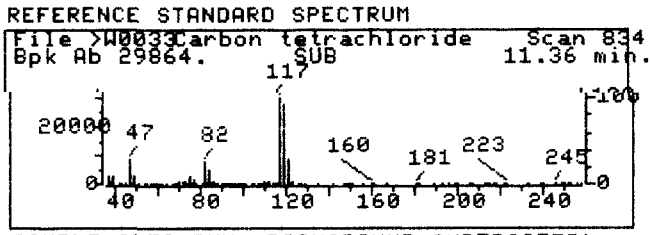




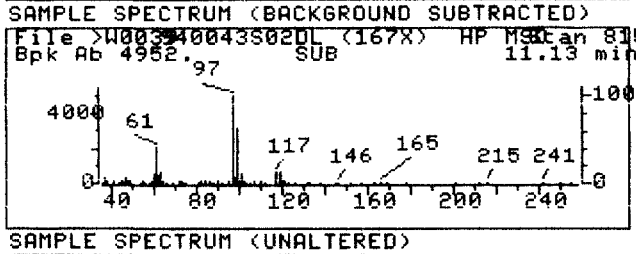
Data File: >W0039::D2 Quant Output File: ^W0039::D6
Name: 940043S02DL (167X) Instrument ID: HP MS #7
Misc: HP MSD #2 150 UL/25 ML PURGE
Quant Time: 940201 09:29 Quant ID File: IDRW01::D5
Injected at: 940131 18:08 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 22
Compound Name : 1,1,1-Trichloroethane
Scan Number : 814
Retention Time: 11.12 min.
Quant Ion : 97.0
Area : 23884
Concentration : 2.02 ug/L
q-value : 90

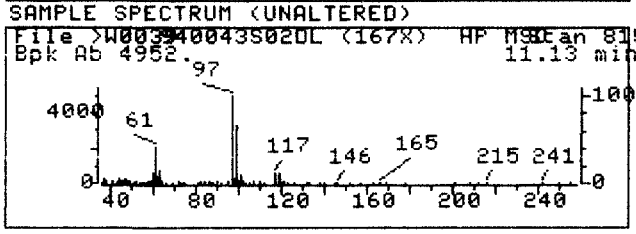
REFERENCE STANDARD SPECTRUM

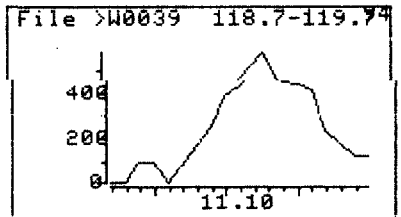


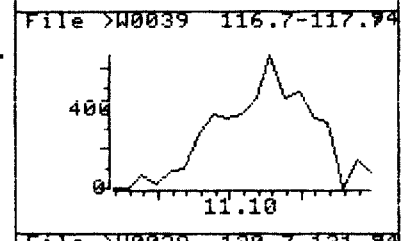
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

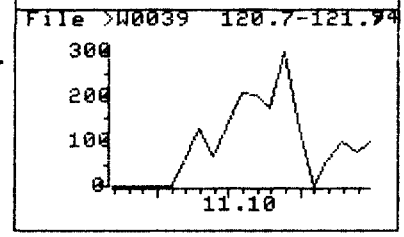


SAMPLE SPECTRUM (UNALTERED)





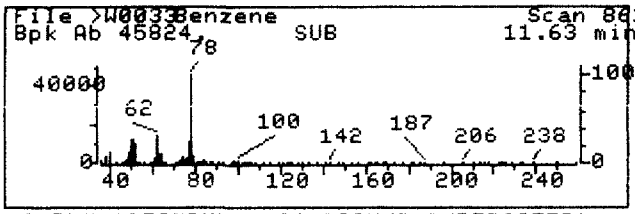




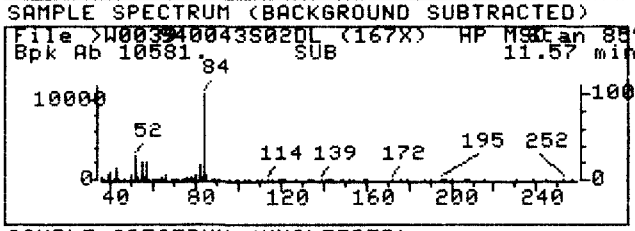
Data File: >W0039::D2 Quant Output File: ^W0039::D6
Name: 940043S02DL (167X) Instrument ID: HP MS #7
Misc: HP MSD #2 150 UL/25 ML PURGE
Quant Time: 940201 09:29 Quant ID File: IDRW01::D5
Injected at: 940131 18:08 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 23
Compound Name : Carbon tetrachloride
Scan Number : 815
Retention Time: 11.13 min.
Quant Ion : 117.0
Area : 2768
Concentration : .256 ug/L
q-value : 87

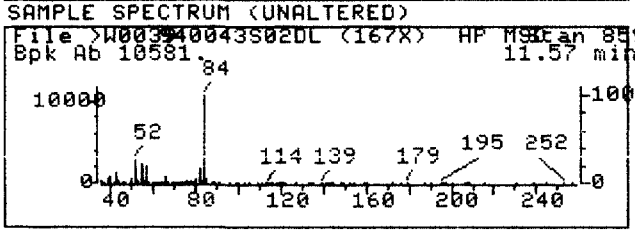
REFERENCE STANDARD SPECTRUM

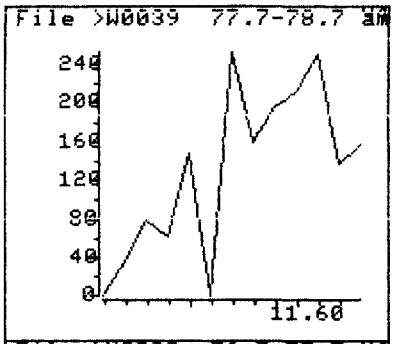


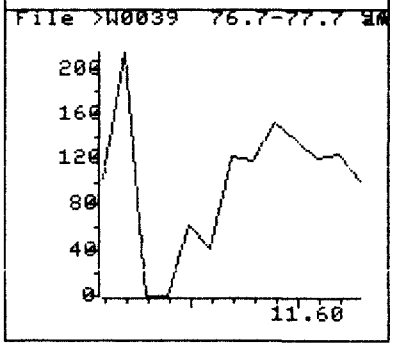
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



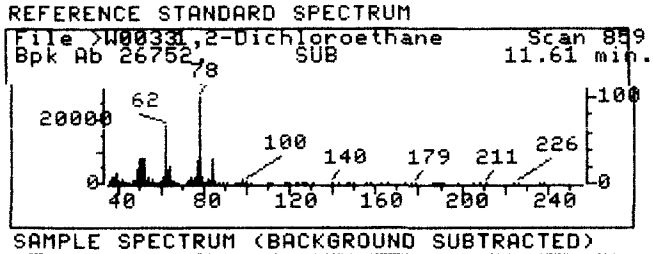




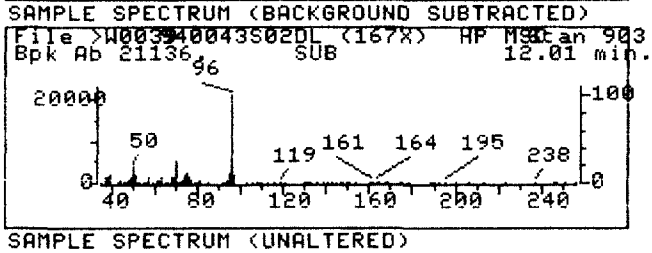
Data File: >W0039::D2 Quant Output File: ^W0039::D6
Name: 940043S02DL (167X) Instrument ID: HP MS #7
Misc: HP MSD #2 150 UL/25 ML PURGE
Quant Time: 940201 09:29 Quant ID File: IDRW01::D5
Injected at: 940131 18:08 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 26
Compound Name : Benzene
Scan Number : 859
Retention Time: 11.57 min.
Quant Ion : 78.0
Area : 1016
Concentration : .0642 ug/L
q-value : 85

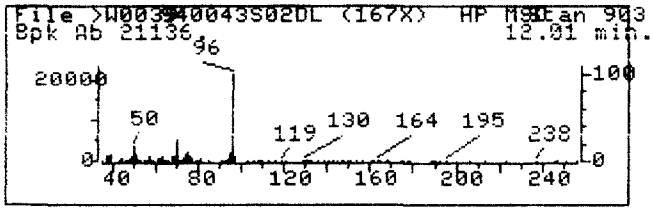
REFERENCE STANDARD SPECTRUM

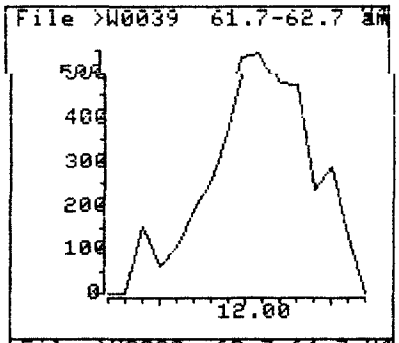


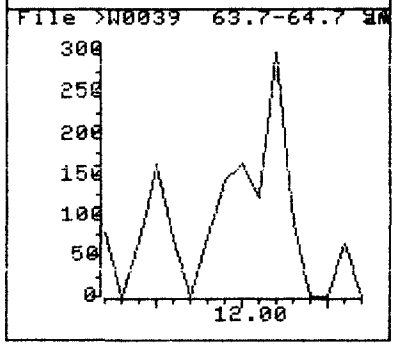
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



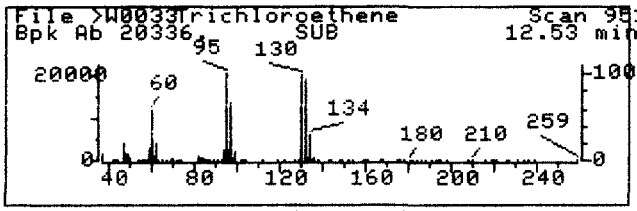


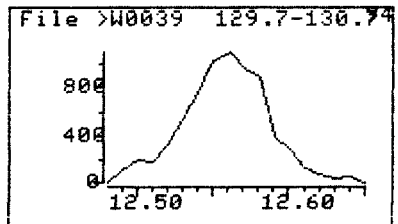


Data File: >W0039::D2 Quant Output File: ^W0039::D6
Name: 940043S02DL (167X) Instrument ID: HP MS #7
Misc: HP MSD #2 150 UL/25 ML PURGE
Quant Time: 940201 09:29 Quant ID File: IDRW01::D5
Injected at: 940131 18:08 Last Calibration: 940201 08:55
Last Qcal Time: <none>

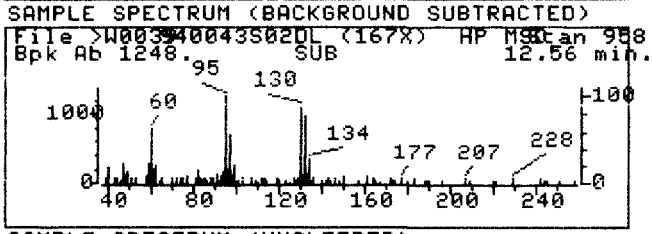
Compound No : 27
Compound Name : 1,2-Dichloroethane
Scan Number : 903
Retention Time: 12.01 min.
Quant Ion : 62.0
Area : 2311
Concentration : .384 ug/L
q-value : 81

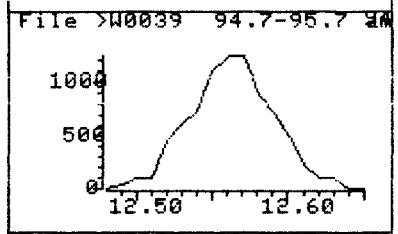
REFERENCE STANDARD SPECTRUM



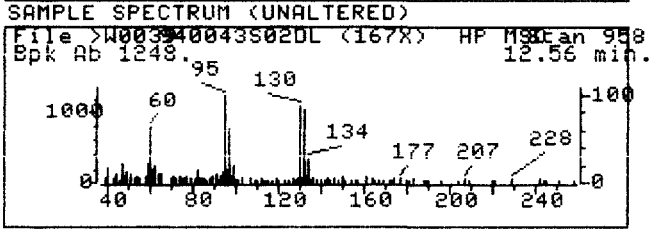


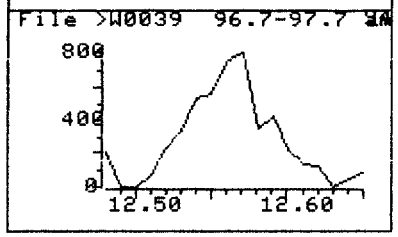
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





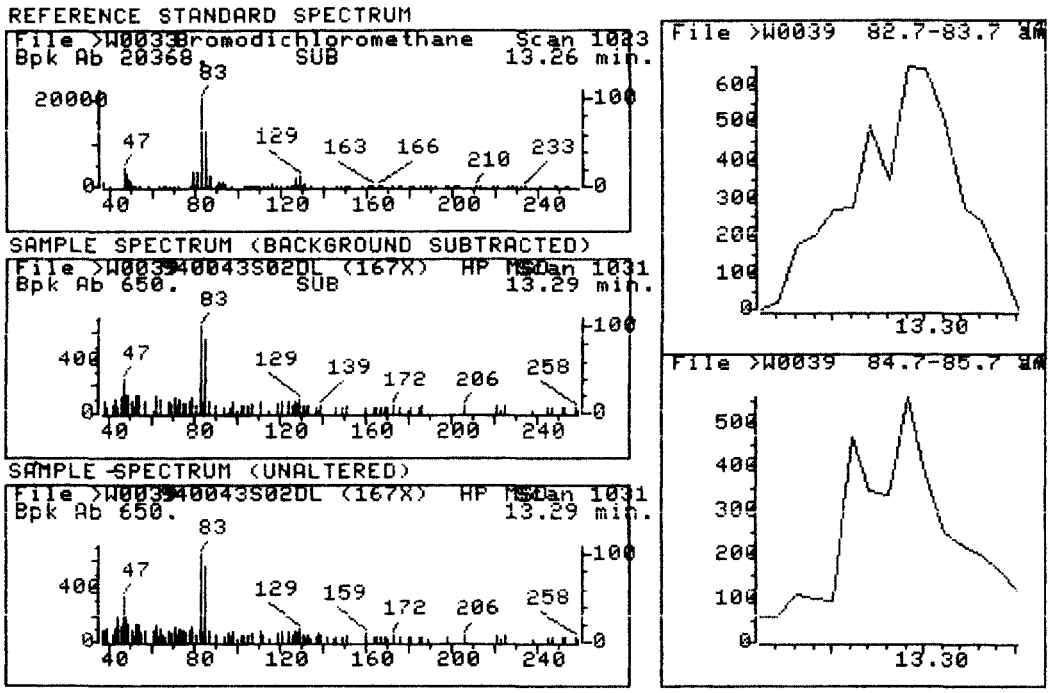
SAMPLE SPECTRUM (UNALTERED)





Data File: >W0039::D2 Quant Output File: ^W0039::D6
Name: 940043S02DL (167X) Instrument ID: HP MS #7
Misc: HP MSD #2 150 UL/25 ML PURGE
Quant Time: 940201 09:29 Quant ID File: IDRW01::D5
Injected at: 940131 18:08 Last Calibration: 940201 08:55
Last Qcal Time: <none>

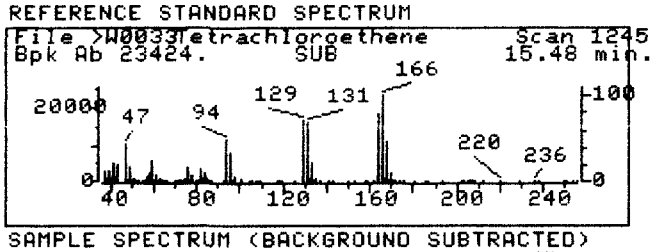
Compound No : 29
Compound Name : Trichloroethene
Scan Number : 958
Retention Time: 12.56 min.
Quant Ion : 95.0
Area : 4960
Concentration : .783 ug/L
q-value : 86

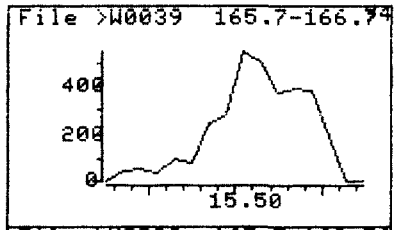


Data File: >W0039::D2 Quant Output File: ^W0039::D6
Name: 940043S02DL (167X) Instrument ID: HP MS #7
Misc: HP MSD #2 150 UL/25 ML PURGE
Quant Time: 940201 09:29 Quant ID File: IDRW01::D5
Injected at: 940131 18:08 Last Calibration: 940201 08:55
Last Qcal Time: <none>

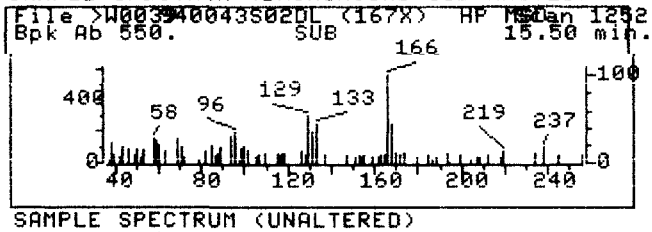
Compound No : 33
Compound Name : Bromodichloromethane
Scan Number : 1031
Retention Time: 13.29 min.
Quant Ion : 83.0
Area : 2536
Concentration : .405 ug/L
q-value : 83

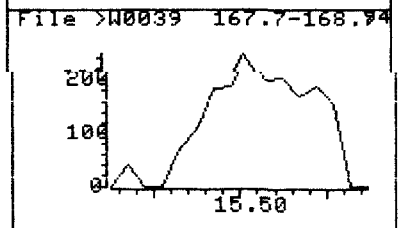
REFERENCE STANDARD SPECTRUM



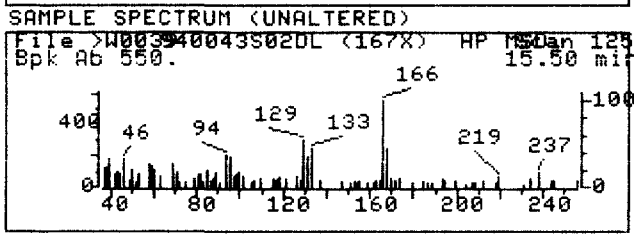


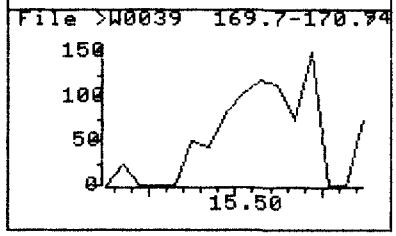
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





Data File: >W0039::D2 Quant Output File: ^W0039::D6
Name: 940043S02DL (167X) Instrument ID: HP MS #7
Misc: HP MSD #2 150 UL/25 ML PURGE
Quant Time: 940201 09:29 Quant ID File: IDRW01::D5
Injected at: 940131 18:08 Last Calibration: 940201 08:55
Last Qcal Time: <none>

Compound No : 38
Compound Name : Tetrachloroethene
Scan Number : 1252
Retention Time: 15.50 min.
Quant Ion : 166.0
Area : 1955
Concentration : .257 ug/L
q-value : 93