UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

0000002

DATE: MAR 17 1989

SUBJECT: Review of Region 5 data for Export Packaging

FROM: Curtis Ross, Director CR
Region 5 Central Regional Laboratory

To: Data User:

Attached are the results for:

CRL Data Set Numbers: 5F 5883
Sample Numbers: 89F509575 - 89F509808(5)
Parameter(s): VOA - WATER
Laboratory: CRL (WESTON/ESAT)

Results Status:

(✓) DATA ACCEPTABLE FOR USE*
( ) DATA QUALIFIED AS TO USE
( ) DATA UNACCEPTABLE FOR USE

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

If there are any questions regarding the data, refer them to Steve Parker, the Quality Control Coordinator, at 353-3805.

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

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

SUBMITTED BY
S. Griffin
MAR 17 1989

RECEIVED BY/DATE:
Comments:

U.S. EPA CENTRAL
REGIONAL LAB

DATA SET	SITE	DU/ACT.
SF5883	Export Packaging	TFA 302

SAMPLES	PARAMETER(S)
89FS09575-89FS09608(5)	VOA - WATER

SAMPLED	RECEIVED	DUE	LAB
2/21/89	2/22/89	3/15/89	CRL (WESTON/EAT)

SHIPPED	DATA RECEIVED	CONTRACT

TEAM LEADER	SECTION CHIEF	QC COORD.	DATA COORD.
A. Alwan		R. Johnson	

Comments By Reviewer:

The data is acceptable for use.

A. Alwan
3/16/89

DATA MANAGEMENT COORDINATOR

RECEIVED	TRANSMITTED		CLERICAL SUPPORT RECEIVED	COMPLETED
(X) REVIEWED	( ) UNREVIEWED	TEAM LEADER/DATE A. Alwan		
( ) REVIEWED	( ) UNREVIEWED	SECTION CHIEF/DATE		
(X) REVIEWED	( ) UNREVIEWED	QC COORDINATOR/DATE Richard Johnson 3/2/89		

REVIEWED BY CONTRACT COORDINATOR/DATE

RECEIVED	TRANSMITTED	DATA MANAGEMENT COORDINATOR
3/17/89	3/17/89	S. Griffin

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

000093 EPA SAMPLE NO.

| METH BLANK1 |

Study Name: EXPORT PACKAGE
Data Set: SF-5883
Lab File ID: >DM924
Dilution Factor: 1.00000

Matrix: WATER
Date Received: 02/23/89
Date Analyzed: 2/23/89

CONCENTRATION UNITS:

CAS NO.	COMPOUND	ug/L	Q
74-87-3	Chloromethane	1.	U
74-83-9	Bromomethane	1.	U
75-01-4	Vinyl Chloride	2.	U
75-00-3	Chloroethane	1.	U
75-09-2	Methylene Chloride	1.	U
107-02-8	Acrolein	80.	U
67-64-1	Acetone	25.	U
107-13-1	Acrylonitrile	25.	U
75-15-0	Carbon Disulfide	1.	U
75-35-4	1,1-Dichloroethene	1.	U
75-34-3	1,1-Dichloroethane	1.	U
156-60-5	1,2-Dichloroethene (total)	1.	U
67-66-3	Chloroform	1.	U
107-02-2	1,2-Dichloroethane	1.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	1.	U
56-23-5	Carbon Tetrachloride	1.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	1.	U
78-87-5	1,2-Dichloropropane	1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U
79-01-6	Trichloroethene	1.	U
71-43-2	Benzene	1.	U
124-48-1	Dibromochloromethane	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U
110-75-8	2-Chloroethyl Vinylether	1.	U
75-25-2	Bromoform	1.	U
108-10-1	4-Methyl-2-pentanone	2.	U
591-78-6	2-Hexanone	2.	U
127-18-4	Tetrachloroethene	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U
108-88-3	Toluene	1.	U
108-90-7	Chlorobenzene	1.	U
100-41-4	Ethylbenzene	1.	U
100-42-5	Styrene	1.	U
108-38-3	Meta Xylene	1.	U
95-47-6	O-&/or P-Xylene	1.	U

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water.
J = Estimated. D = DILUTED OUT
X = Result rejected for failing mass spectral confirmation.
E = Concentration exceeded calibration range.
B = Contaminant found in blank.

000004

U.S. EPA - REGION V

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

METH BLANK1

Study Name: EXPORT PACKAGE

Data Set: SF-5883

Matrix: WATER

Lab File ID: >DM924

Date Received: 02/23/89

Dilution Factor: 1.00000

Date Analyzed: 2/23/89

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

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	80626	2-Propenoic acid, 2-methyl-,	20.05	2.	J
2.					
3.					
4.					
5.					
6.					
7.					
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27.					
28.					

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
89FS09S75

Study Name: EXPORT PACKAGE
Data Set: SF-5883
Lab File ID: >DM927
Dilution Factor: 1.00000

Matrix: WATER
Date Received: 02/22/89
Date Analyzed: 2/23/89

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
74-87-3	Chloromethane	1.	U
74-83-9	Bromomethane	1.	U
75-01-4	Vinyl Chloride	2.	U
75-00-3	Chloroethane	1.	U
75-09-2	Methylene Chloride	1.	U
107-02-8	Acrolein	80.	U
67-64-1	Acetone	25.	U
107-13-1	Acrylonitrile	25.	U
75-15-0	Carbon Disulfide	1.	U
75-35-4	1,1-Dichloroethene	1.	U
75-34-3	1,1-Dichloroethane	1.	U
156-60-5	1,2-Dichloroethene (total)	1.	U
67-66-3	Chloroform	1.	U
107-02-2	1,2-Dichloroethane	1.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	1.	U
56-23-5	Carbon Tetrachloride	1.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	1.	U
78-87-5	1,2-Dichloropropane	1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U
79-01-6	Trichloroethene	1.	U
71-43-2	Benzene	1.	U
124-48-1	Dibromochloromethane	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U
110-75-8	2-Chloroethyl Vinylether	1.	U
75-25-2	Bromoform	1.	U
108-10-1	4-Methyl-2-pentanone	2.	U
591-78-6	2-Hexanone	2.	U
127-18-4	Tetrachloroethene	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U
108-88-3	Toluene	1.	U
108-90-7	Chlorobenzene	1.	U
100-41-4	Ethylbenzene	1.	U
100-42-5	Styrene	1.	U
108-38-3	Meta Xylene	1.	U
95-47-6	O-&/or P-Xylene	1.	U

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water.
J = Estimated. D = DILUTED OUT
X = Result rejected for failing mass spectral confirmation.
E = Concentration exceeded calibration range.
B = Contaminant found in blank.

U.S. EPA - REGION V

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

89FS09S75

Study Name: EXPORT PACKAGE

Data Set: SF-5883

Matrix: WATER

Lab File ID: >DM927

Date Received: 02/22/89

Dilution Factor: 1.00000

Date Analyzed: 2/23/89

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

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	80626	2-Propenoic acid, 2-methyl-,	20.06	1.	J B
2.					
3.					
4.					
5.					
6.					
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U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

000067 SAMPLE NO.

89FS09B75

Study Name: EXPORT PACKAGE
Data Set: SF-5883
Lab File ID: >DM928
Dilution Factor: 1.00000

Matrix: WATER
Date Received: 02/22/89
Date Analyzed: 2/23/89

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
74-87-3	Chloromethane	1.	U
74-83-9	Bromomethane	1.	U
75-01-4	Vinyl Chloride	2.	U
75-00-3	Chloroethane	1.	U
75-09-2	Methylene Chloride	1.	U
107-02-8	Acrolein	80.	U
67-64-1	Acetone	25.	U
107-13-1	Acrylonitrile	25.	U
75-15-0	Carbon Disulfide	1.	U
75-35-4	1,1-Dichloroethene	1.	U
75-34-3	1,1-Dichloroethane	1.	U
156-60-5	1,2-Dichloroethene (total)	1.	U
67-66-3	Chloroform	1.	U
107-02-2	1,2-Dichloroethane	1.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	1.	U
56-23-5	Carbon Tetrachloride	1.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	1.	U
78-87-5	1,2-Dichloropropane	1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U
79-01-6	Trichloroethene	1.	U
71-43-2	Benzene	1.	U
124-48-1	Dibromochloromethane	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U
110-75-8	2-Chloroethyl Vinylether	1.	U
75-25-2	Bromoform	1.	U
108-10-1	4-Methyl-2-pentanone	2.	U
591-78-6	2-Hexanone	2.	U
127-18-4	Tetrachloroethene	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U
108-88-3	Toluene	1.	U
108-90-7	Chlorobenzene	1.	U
100-41-4	Ethylbenzene	1.	U
100-42-5	Styrene	1.	U
108-38-3	Meta Xylene	1.	U
95-47-6	O-&/or P-Xylene	1.	U

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water.
J = Estimated. D = DILUTED OUT
X = Result rejected for failing mass spectral confirmation.
E = Concentration exceeded calibration range.
B = Contaminant found in blank.

U.S. EPA - REGION V

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

89FS09B75

Study Name: EXPORT PACKAGE

Data Set: SF-5883

Matrix: WATER

Lab File ID: >DM928

Date Received: 02/22/89

Dilution Factor: 1.00000

Date Analyzed: 2/23/89

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

89FS09S76

Study Name: EXPORT PACKAGE
Data Set: SF-5883
Lab File ID: >DM929
Dilution Factor: 1.00000

Matrix: WATER
Date Received: 02/22/89
Date Analyzed: 2/23/89

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
74-87-3	Chloromethane	1.	U
74-83-9	Bromomethane	1.	U
75-01-4	Vinyl Chloride	2.	U
75-00-3	Chloroethane	1.	U
75-09-2	Methylene Chloride	1.	U
107-02-8	Acrolein	80.	U
67-64-1	Acetone	32.	2u slight leg RF
107-13-1	Acrylonitrile	25.	U
75-15-0	Carbon Disulfide	1.	U
75-35-4	1,1-Dichloroethene	1.	U
75-34-3	1,1-Dichloroethane	1.	U
156-60-5	1,2-Dichloroethene (total)	1.	U
67-66-3	Chloroform	1.	U
107-02-2	1,2-Dichloroethane	1.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	1.	U
56-23-5	Carbon Tetrachloride	1.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	1.	U
78-87-5	1,2-Dichloropropane	1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U
79-01-6	Trichloroethene	1.	U
71-43-2	Benzene	1.	U
124-48-1	Dibromochloromethane	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U
110-75-8	2-Chloroethyl Vinylether	1.	U
75-25-2	Bromoform	1.	U
108-10-1	4-Methyl-2-pentanone	2.	U
591-78-6	2-Hexanone	2.	U
127-18-4	Tetrachloroethene	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U
108-88-3	Toluene	1.	U
108-90-7	Chlorobenzene	1.	U
100-41-4	Ethylbenzene	1.	U
100-42-5	Styrene	1.	U
108-38-3	Meta Xylene	1.	U
95-47-6	O-&/or P-Xylene	1.	U

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water.
J = Estimated. D = DILUTED OUT
X = Result rejected for failing mass spectral confirmation.
E = Concentration exceeded calibration range.
B = Contaminant found in blank.

U.S. EPA - REGION V

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

89FS09S76

Study Name: EXPORT PACKAGE

Data Set: SF-5883

Matrix: WATER

Lab File ID: >DM929

Date Received: 02/22/89

Dilution Factor: 1.00000

Date Analyzed: 2/23/89

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

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	60297	Ethyl ether (8CI)	12.21	1.	J
2.					
3.					
4.					
5.					
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U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
89FS09576M

Study Name: EXPORT PACKAGE
Data Set: SF-5883
Lab File ID: >DM930
Dilution Factor: 1.00000

Matrix: WATER
Date Received: 02/22/89
Date Analyzed: 2/23/89

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
74-87-3	Chloromethane	1.	U
74-83-9	Bromomethane	1.	U
75-01-4	Vinyl Chloride	2.	U
75-00-3	Chloroethane	1.	U
75-09-2	Methylene Chloride	1.	U
107-02-8	Acrolein	80.	U
67-64-1	Acetone	25.	U
107-13-1	Acrylonitrile	25.	U
75-15-0	Carbon Disulfide	1.	U
75-35-4	1,1-Dichloroethene	7.	
75-34-3	1,1-Dichloroethane	1.	U
156-60-5	1,2-Dichloroethene (total)	1.	U
67-66-3	Chloroform	1.	U
107-02-2	1,2-Dichloroethane	1.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	1.	U
56-23-5	Carbon Tetrachloride	1.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	1.	U
78-87-5	1,2-Dichloropropane	1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U
79-01-6	Trichloroethene	9.	
71-43-2	Benzene	9.	
124-48-1	Dibromochloromethane	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U
110-75-8	2-Chloroethyl Vinylether	1.	U
75-25-2	Bromoform	1.	U
108-10-1	4-Methyl-2-pentanone	2.	U
591-78-6	2-Hexanone	2.	U
127-18-4	Tetrachloroethene	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U
108-88-3	Toluene	9.	
108-90-7	Chlorobenzene	10.	
100-41-4	Ethylbenzene	1.	U
100-42-5	Styrene	1.	U
108-38-3	Meta Xylene	1.	U
95-47-6	O-&/or P-Xylene	1.	U

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water.
J = Estimated. D = DILUTED OUT
X = Result rejected for failing mass spectral confirmation.
E = Concentration exceeded calibration range.
B = Contaminant found in blank.

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
89FS09S76D

Study Name: EXPORT PACKAGE
Data Set: SF-5883
Lab File ID: >DM931
Dilution Factor: 1.00000

Matrix: WATER
Date Received: 02/22/89
Date Analyzed: 2/23/89

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
74-87-3	Chloromethane	1.	U
74-83-9	Bromomethane	1.	U
75-01-4	Vinyl Chloride	2.	U
75-00-3	Chloroethane	1.	U
75-09-2	Methylene Chloride	1.	U
107-02-8	Acrolein	80.	U
67-64-1	Acetone	25.	U
107-13-1	Acrylonitrile	25.	U
75-15-0	Carbon Disulfide	1.	U
75-35-4	1,1-Dichloroethene	6.	
75-34-3	1,1-Dichloroethane	1.	U
156-60-5	1,2-Dichloroethene (total)	1.	U
67-66-3	Chloroform	1.	U
107-02-2	1,2-Dichloroethane	1.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	1.	U
56-23-5	Carbon Tetrachloride	1.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	1.	U
78-87-5	1,2-Dichloropropane	1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U
79-01-6	Trichloroethene	9.	
71-43-2	Benzene	8.	
124-48-1	Dibromochloromethane	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U
110-75-8	2-Chloroethyl Vinylether	1.	U
75-25-2	Bromoform	1.	U
108-10-1	4-Methyl-2-pentanone	2.	U
591-78-6	2-Hexanone	2.	U
127-18-4	Tetrachloroethene	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U
108-88-3	Toluene	9.	
108-90-7	Chlorobenzene	10.	
100-41-4	Ethylbenzene	1.	U
100-42-5	Styrene	1.	U
108-38-3	Meta Xylene	1.	U
95-47-6	O-&/or P-Xylene	1.	U

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water.
J = Estimated. D = DILUTED OUT
X = Result rejected for failing mass spectral confirmation.
E = Concentration exceeded calibration range.
B = Contaminant found in blank.

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
89FS09S77

Study Name: EXPORT PACKAGE
Data Set: SF-5883
Lab File ID: >DM932
Dilution Factor: 1.00000

Matrix: WATER
Date Received: 02/22/89
Date Analyzed: 2/23/89

CONCENTRATION UNITS:

CAS NO.	COMPOUND	ug/L	Q
74-87-3	Chloromethane	1.	U
74-83-9	Bromomethane	1.	U
75-01-4	Vinyl Chloride	2.	U
75-00-3	Chloroethane	1.	U
75-09-2	Methylene Chloride	1.	U
107-02-8	Acrolein	80.	U
67-64-1	Acetone	25.	U
107-13-1	Acrylonitrile	25.	U
75-15-0	Carbon Disulfide	1.	U
75-35-4	1,1-Dichloroethene	1.	U
75-34-3	1,1-Dichloroethane	1.	U
156-60-5	1,2-Dichloroethene (total)	1.	U
67-66-3	Chloroform	1.	U
107-02-2	1,2-Dichloroethane	1.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	1.	U
56-23-5	Carbon Tetrachloride	1.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	1.	U
78-87-5	1,2-Dichloropropane	1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U
79-01-6	Trichloroethene	1.	U
71-43-2	Benzene	1.	U
124-48-1	Dibromochloromethane	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U
110-75-8	2-Chloroethyl Vinylether	1.	U
75-25-2	Bromoform	1.	U
108-10-1	4-Methyl-2-pentanone	2.	U
591-78-6	2-Hexanone	2.	U
127-18-4	Tetrachloroethene	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U
108-88-3	Toluene	1.	U
108-90-7	Chlorobenzene	1.	U
100-41-4	Ethylbenzene	1.	U
100-42-5	Styrene	1.	U
108-38-3	Meta Xylene	1.	U
95-47-6	O-&/or P-Xylene	1.	U

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water.
J = Estimated. D = DILUTED OUT
X = Result rejected for failing mass spectral confirmation.
E = Concentration exceeded calibration range.
B = Contaminant found in blank.

U.S. EPA - REGION V

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

89FS09S77

Study Name: EXPORT PACKAGE

Data Set: SF-5883

Matrix: WATER

Lab File ID: >DM932

Date Received: 02/22/89

Dilution Factor: 1.00000

Date Analyzed: 2/23/89

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

Number TICs found: 0

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

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
89FS09R08

Study Name: EXPORT PACKAGE
Data Set: SF-5883
Lab File ID: >DM933
Dilution Factor: 1.00000

Matrix: WATER
Date Received: 02/22/89
Date Analyzed: 2/23/89

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
74-87-3	Chloromethane	1.	U
74-83-9	Bromomethane	1.	U
75-01-4	Vinyl Chloride	2.	U
75-00-3	Chloroethane	1.	U
75-09-2	Methylene Chloride	1.	U
107-02-8	Acrolein	~~8015.~~	~~J~~ U
67-64-1	Acetone	25.	U
107-13-1	Acrylonitrile	25.	U
75-15-0	Carbon Disulfide	1.	U
75-35-4	1,1-Dichloroethene	1.	U
75-34-3	1,1-Dichloroethane	1.	U
156-60-5	1,2-Dichloroethene (total)	1.	U
67-66-3	Chloroform	1.	U
107-02-2	1,2-Dichloroethane	1.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	1.	U
56-23-5	Carbon Tetrachloride	1.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	1.	U
78-87-5	1,2-Dichloropropane	1.	U
10061-01-5	cis-1,3-Dichloropropene	1.	U
79-01-6	Trichloroethene	1.	U
71-43-2	Benzene	1.	U
124-48-1	Dibromochloromethane	1.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U
79-00-5	1,1,2-Trichloroethane	1.	U
110-75-8	2-Chloroethyl Vinylether	1.	U
75-25-2	Bromoform	1.	U
108-10-1	4-Methyl-2-pentanone	2.	U
591-78-6	2-Hexanone	2.	U
127-18-4	Tetrachloroethene	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U
108-88-3	Toluene	1.	U
108-90-7	Chlorobenzene	1.	U
100-41-4	Ethylbenzene	1.	U
100-42-5	Styrene	1.	U
108-38-3	Meta Xylene	1.	U
95-47-6	O-&/or P-Xylene	1.	U

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water.
J = Estimated. D = DILUTED OUT
X = Result rejected for failing mass spectral confirmation.
E = Concentration exceeded calibration range.
B = Contaminant found in blank.

000016

U.S. EPA - REGION V

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

89FS09R08

Study Name: EXPORT PACKAGE

Data Set: SF-5883

Matrix: WATER

Lab File ID: >DM933

Date Received: 02/22/89

Dilution Factor: 1.00000

Date Analyzed: 2/23/89

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

Number TICs found: 2

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	106978	Butane	6.57	4.	J
2.	78784	Butane, 2-methyl- (8CI9CI)	12.41	1.	J
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
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27.					
28.					

DATE: March 1, 1989

TO: Alwan Alwan

FROM: David Morton C Schulberg for D. Morton

RE: Dataset SF 5883

Dataset SF 5883 consists of five (5) low level water samples submitted for volatile organic analysis (VOA) by GC/MS utilizing EPA method 624NS (Sample numbers 89FS90S75 - 89FS09R08).

All samples were analyzed within seven (7) days of receipt.

All tunings were acceptable with BFB meeting all QC requirements.

The initial and continuing calibrations (as noted on Forms 6A and 7A) were acceptable with all compounds having %RSDs and %Ds less than 35%.

All internal standard areas and retention times were within QC limits.

All surrogates were within QC limits for all samples.

Sample 89FS09S76 was used for the matrix spike and matrix spike duplicate analyses. All %RSDs and %D recoveries conform to their respective QC limits.

There was one method blank associated with the samples. It contained ~2 ppb 2-propenoic acid, 2-methyl-, methyl ester and no TCLs.

There was one field blank (89FS09R08) associated with the samples. The blank contained butane at ca.4 ppb and 2-methylbutane at ca.1 ppb.

Sample 89FS09S75 and its duplicate 89FS09~~S~~B75 correlated very well except for the presence of 2-propenoic acid, 2-methyl-, methyl ester in 89FS09S75 at ca.1 ppb which were present in the method blank.

Sample 89FS09S76 contained acetone at ca.32 ppb (near the MDL) and ethyl ether at ca.1 ppb. Acetone was not found in the corresponding matrix spike and matrix spike duplicate. The lowest calculation standard for acetone had a concentration of 225 ppb. The quantitation of acetone at 32 ppb is not considered significant.

Sample 89FS09B75 was labeled as such on the sample vial tag, however it was labeled 89FS09D75 on the sample log sheet. All references to that sample listed on the data in this set contains the number 89FS09B75.

TFA302

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

DIVISION/BRANCH SUPERFUND (FIT) SAMPLE DATE 2/21/89 LAB ARRIVAL DATE 2/22/89 DUE DATE 3/15/89

DU NUMBER TFA DATA SET NUMBER 5883 STUDY EXPORT PACKAGING PRIORITY N CONTRACTOR CRL

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
89FS09S75	RW1 5-020067-68	X 11			
89FS09D75	DUPLICATE 5-020093-94	X 11 -tag labeled 89FS09B75		2/23/89 CAF	
89FS09S76	RW2/MS 5-020074-75/5-020105-106	X 11			
89FS09S77	RW3 5-020086-87	X 11			
89FS09R08	BLANK 5-020100-101	X 11			
		David Morton			
89FS09S75	RW1 5-020064	2/23/89	X		
89FS09D75	DUPLICATE 5-020090		X		
89FS09S76	RW2/MS 5-020076/5-020091 5-020102		X		
89FS09S77	RW3 5-020083		X		
89FS09R08	BLANK 5-020097		X		

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

Lab Name: CRL USEPA Contract: TFA # 302

Lab Code: CHICAGOIL Case No.: SF-5883 SAS No.: N.A. SDG No.: N.A.

Lab File ID: >DM916 BFB Injection Date: 2/22/89

Instrument ID: 87 3 BFB Injection Time: 10:03

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

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% OF MASS 95	18.1
75	30.0 - 60.0% OF MASS 95	36.6
95	Base peak, 100% relative abundance	100.
96	5.0 - 9.0% of mass 95	5.8
173	Less than 2.0% of mass 174	0.0(0.0)1
174	Greater than 50.0% of mass 95	87.4
175	5.0 - 9.0% of mass 174	5.4(6.2)1
176	Greater than 95.0%, but less than 101.0% of mass 174	87.7(100.2)1
177	5.0 - 9.0% of mass 176	7.5(8.5)2

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

THIS TUNE APPLIES TO THE FOLLOWING:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VOASTD05PPB	VOASTD05PPB	>DM917	2/22/89	10:59
02	VOASTD10PPB	VOASTD10PPB	>DM918	2/22/89	11:54
03	VOASTD15PPB	VOASTD15PPB	>DM919	2/22/89	12:49
04	VOASTD20PPB	VOASTD20PPB	>DM920	2/22/89	13:40
05	VOASTD25PPB	VOASTD25PPB	>DM921	2/22/89	14:30
06					
07					
08					
09					
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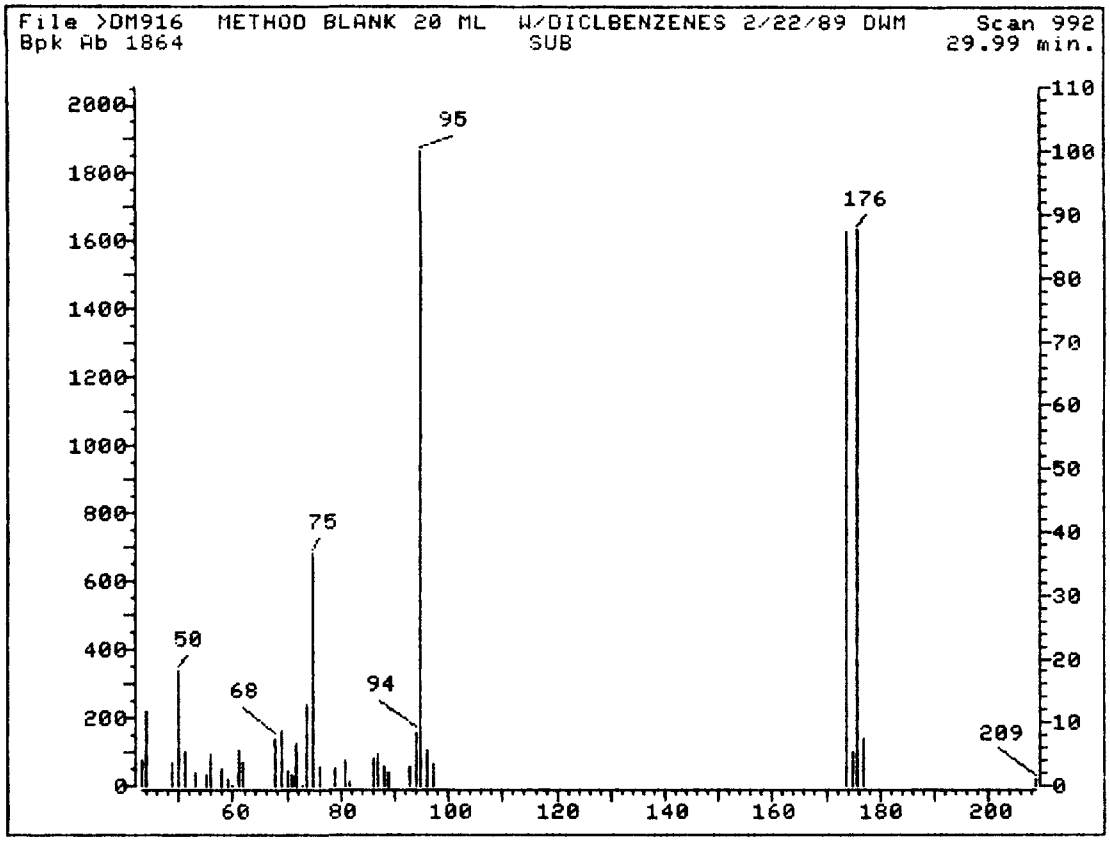
22					

FORM V VOA 1/87 Rev.

SF5883

000020



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	18.13	18.13	Ok
75	30-60% of mass 95	36.59	36.59	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	5.85	5.85	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	87.45	87.45	Ok
175	5-9% of mass 174	5.42	6.20	Ok
176	95-101% of mass 174	87.66	100.25	Ok
177	5-9% of mass 176	7.46	8.51	Ok

Injection Date: 02/22/89
Injection Time: 10:03
Data File: >DM916
Scan: 992

SF5883

000021

>DM916 METHOD BLANK 20 ML W/DICLBENZENES 2/22/89 DWM
992 SUB NRM

File: >DM916 Scan #: 992 Retn. time: 29.99

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
42.95	3.916	57.95	2.843	71.00	1.878	81.80	.751	95.95	5.848
43.95	11.749	58.90	1.073	71.90	6.867	85.95	4.345	96.95	3.326
48.80	3.648	59.90	.107	73.00	.161	86.95	5.204	173.80	87.446
49.95	18.133	60.90	5.740	73.90	12.715	87.95	2.951	174.80	5.418
50.95	5.258	61.90	3.594	74.90	36.588	88.95	2.039	175.80	87.661
52.95	1.931	67.90	7.457	75.90	2.897	92.95	3.219	176.80	7.457
54.95	1.717	68.90	8.852	78.90	2.682	93.95	8.530	208.75	1.019
55.95	5.043	70.00	2.253	80.95	3.970	94.95	100.000		

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

Lab Name: CRL USEPA Contract: TFA # 302

Lab Code: CHICAGOIL Case No.: SF-5883 SAS No.: N.A. SDG No.: N.A.

Lab File ID: >DM924 BFB Injection Date: 2/23/89

Instrument ID: 87 3 BFB Injection Time: 10:03

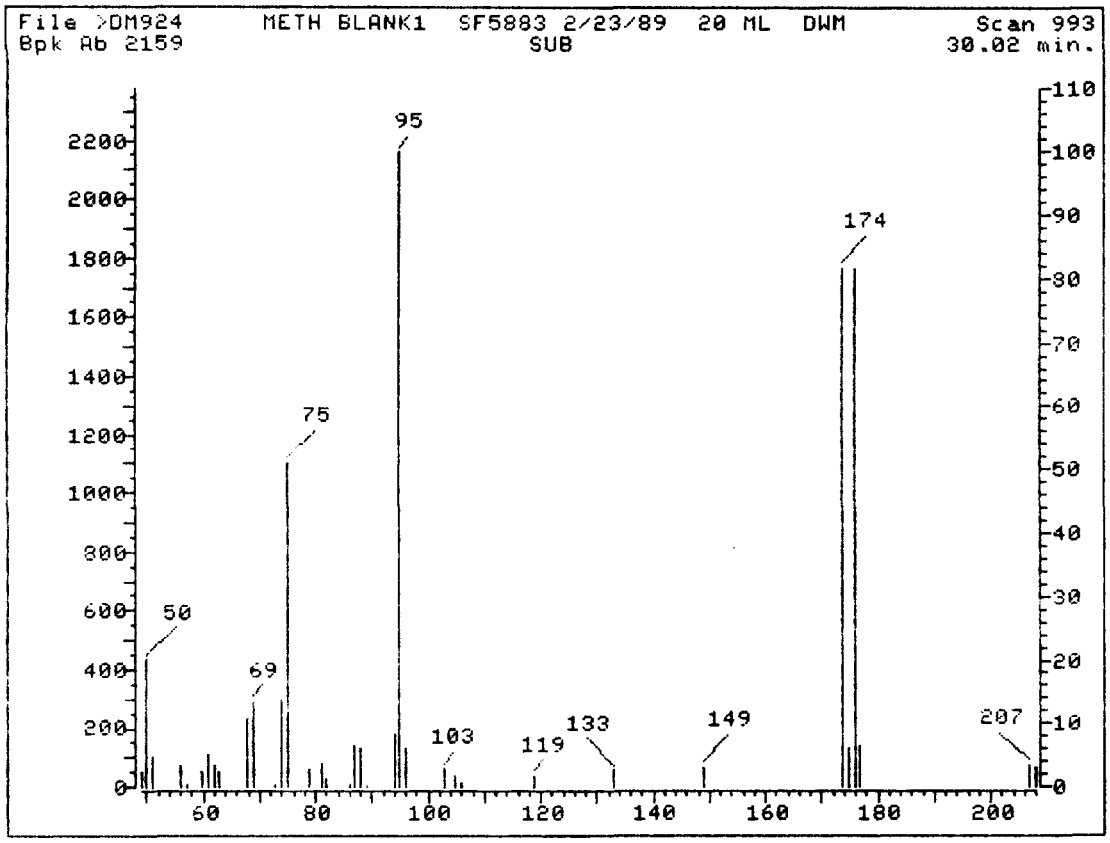
Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) PACK

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% OF MASS 95	20.1
75	30.0 - 60.0% OF MASS 95	51.1
95	Base peak, 100% relative abundance	100.
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	0.0(0.0)1
174	Greater than 50.0% of mass 95	81.7
175	5.0 - 9.0% of mass 174	6.0(7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	81.7(100.0)1
177	5.0 - 9.0% of mass 176	6.5(7.9)2

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

THIS TUNE APPLIES TO THE FOLLOWING:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	METH BLANK1	METH BLANK1	>DM924	2/23/89	10:03
02	VOASTD15PPB	VOASTD15PPB	>DM925	2/23/89	10:53
03	89FS09S75	89FS09S75	>DM927	2/23/89	13:16
04	89FS09B75	89FS09B75	>DM928	2/23/89	14:06
05	89FS09S76	89FS09S76	>DM929	2/23/89	14:56
06	89FS09S76M	89FS09S76M	>DM930	2/23/89	15:46
07	89FS09S76D	89FS09S76D	>DM931	2/23/89	16:36
08	89FS09S77	89FS09S77	>DM932	2/23/89	17:26
09	89FS09R08	89FS09R08	>DM933	2/23/89	18:16
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					



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	20.06	20.06	Ok
75	30-60% of mass 95	51.09	51.09	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.07	6.07	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	81.66	81.66	Ok
175	5-9% of mass 174	5.97	7.32	Ok
176	95-101% of mass 174	81.66	100.00	Ok
177	5-9% of mass 176	6.48	7.94	Ok

Injection Date: 02/23/89
Injection Time: 10:03
Data File: >DM924
Scan: 993

>DM924 METH BLANK1 SF5883 2/23/89 20 ML DWM
993 SUB NRM

File: >DM924 Scan #: 993 Retn. time: 30.02

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
48.95	2.547	62.90	2.501	80.95	3.891	94.95	100.000	148.95	3.196
49.95	20.056	67.90	10.931	81.80	1.297	95.95	6.068	173.80	81.658
50.95	4.817	69.00	13.571	85.95	.741	102.95	2.964	174.80	5.975
55.95	3.474	72.90	.463	86.95	6.346	104.90	1.760	175.80	81.658
56.95	.278	73.90	13.803	87.95	6.021	105.75	.648	176.80	6.484
59.90	2.547	75.00	51.088	88.95	.324	118.90	1.853	207.00	3.428
60.90	4.956	78.90	2.686	93.95	8.522	132.95	2.640	208.00	3.057
61.90	3.242								

Sequence File: VSEQ15::A1

Tune File: MTBFD3

CR List: L2,E1,A9,A4,A8
CR Cut-off: 500 blocks.

Number of samples: 10

```
                                                  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) >DM924       METH BLANK1  SF5883       00 1 Y F Y N Y    IDVOA1::A1
     #3VOA1       2/23/89  20 ML  DWM          Dil=1.00000    ^DM924::E1
     REPRT OPTIONS: Label Meth:5, BG Sub, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
002) >DM925       3 STD 15 PPB SF5883       00 1 Y M Y N Y    IDVOA1::A1
     #3VOA1       CONT CAL 2/23/89 DWM  20     Dil=1.00000    ^DM925::E1
     REPRT OPTIONS: Label Meth:5, BG Sub, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
003) >DM926       89FS09R08  SF5883         00 1 Y F Y N Y    IDVOA1::A1
     #3VOA1       2/23/89  DWM  20 ML          Dil=1.00000    ^DM926::E1
     REPRT OPTIONS: Label Meth:5, BG Sub, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
004) >DM927       89FS09S75  SF5883         00 1 Y F Y N Y    IDVOA1::A1
     #3VOA1       2/23/89  DWM  20 ML          Dil=1.00000    ^DM927::E1
     REPRT OPTIONS: Label Meth:5, BG Sub, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
005) >DM928       89FS09B75  SF5883         00 1 Y F Y N Y    IDVOA1::A1
     #3VOA1       2/23/89  DWM  20 ML          Dil=1.00000    ^DM928::E1
     REPRT OPTIONS: Label Meth:5, BG Sub, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
006) >DM929       89FS09S76  SF5883         00 1 Y F Y N Y    IDVOA1::A1
     #3VOA1       2/23/89  DWM  20 ML          Dil=1.00000    ^DM929::E1
     REPRT OPTIONS: Label Meth:5, BG Sub, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
007) >DM930       89FS09S76M  SF5883        00 1 Y F Y N Y    IDVOA1::A1
     #3VOA1       2/23/89  DWM  20 ML          Dil=1.00000    ^DM930::E1
     REPRT OPTIONS: Label Meth:5, BG Sub, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
008) >DM931       89FS09S76D  SF5883        00 1 Y F Y N Y    IDVOA1::A1
     #3VOA1       2/23/89  DWM  20 ML          Dil=1.00000    ^DM931::E1
     REPRT OPTIONS: Label Meth:5, BG Sub, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
009) >DM932       89FS09S77  SF5883         00 1 Y F Y N Y    IDVOA1::A1
     #3VOA1       2/23/89  DWM  20 ML          Dil=1.00000    ^DM932::E1
     REPRT OPTIONS: Label Meth:5, BG Sub, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
010) >DM933       89FS09R08  SF5883         00 1 Y F Y N Y    IDVOA1::A1
     #3VOA1       2/23/89  DWM  20 ML          Dil=1.00000    ^DM933::E1
     REPRT OPTIONS: Label Meth:5, BG Sub, Scale time: 5.000
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
```

End of sequence file.

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: CRL USEPA Contract: TFA # 302

Lab Code: CHICAGOIL Case No.: SF-5883 SAS No.: N.A. SDG No.: N.A.

Lab File ID (Standard): >DM925 Date Analyzed: 2/23/89

Instrument ID: 87 3 Time Analyzed: 10:53

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

		IS1(BCM) AREA #	RT	IS2(BCP) AREA #	RT	IS3(DCB) AREA #	RT
	12 HOUR STD	51705.	10.36	215449.	19.09	108469.	22.90
	UPPER LIMIT	103410.	10.86	430898.	19.59	216938.	23.40
	LOWER LIMIT	25853.	9.86	107724.	18.59	54235.	22.40
	EPA SAMPLE NO.						
01	METH BLANK1	54074.	10.37	251435.	19.10	110372.	22.90
02	89FS09S75	54498.	10.36	228319.	19.11	109352.	22.92
03	89FS09B75	58692.	10.37	243457.	19.13	119707.	22.93
04	89FS09S76	56083.	10.37	232509.	19.12	113916.	22.92
05	89FS09S76M	57854.	10.36	239644.	19.12	110529.	22.92
06	89FS09S76D	56425.	10.36	230935.	19.12	112347.	22.92
07	89FS09S77	57684.	10.36	236368.	19.11	114838.	22.91
08	89FS09R08	57577.	10.37	238414.	19.10	114946.	22.90
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (BCP) = 2-Bromo-1-chloropropane
IS3 (DCB) = 1,4-Dichlorobutane

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

* Value outside QC limit.
\# Column used to flag internal standard area values with an asterisk

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name:CRL USEPA Contract:TFA # 302

Lab Code: CHICAGOILCase No.: SF-5883 SAS No.: N.A. SDG No.: N.A.

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BEN)#	S3 (DCE)#	OTHER	TOT OUT
01	METH BLANK1	112	96	90		0
02	89FS09S75	107	101	87		0
03	89FS09B75	99	97	89		0
04	89FS09S76	102	100	88		0
05	89FS09S76M	102	97	91		0
06	89FS09S76D	101	98	88		0
07	89FS09S77	100	98	88		0
08	89FS09R08	102	97	87		0
09						
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	QC LIMITS
S1 (TOL) = Toluene-d8	(80-120)
S2 (BEN) = Benzene-d6	(80-120)
S3 (DCE) = 1,2-Dichloroethane-d4	(80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

7A

VOLATILE CONTINUING CALIBRATION CHECK

000028

Lab Name:CRL USEPA Contract:TFA # 302
Lab Code: CHICAGOIL Case No.: SF-5883 SAS No.: N.A. SDG No.: N.A.

Instrument ID: 87 3 Calibration Date: 2/23/89 Time: 10:53

Lab File ID: >DM925 Init. Calib. Date(s):02/22/89 | second

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

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF15	%D
Chloromethane #	2.188	2.939	34.3 #
Bromomethane	3.468	3.750	8.1
Vinyl Chloride *	3.549	3.964	11.7 *
Chloroethane	2.184	2.399	9.9
Methylene_Chloride	2.520	2.590	2.8
Acrolein	.038	.039	3.2
Acetone	.116	.119	2.5
Acrylonitrile	.183	.189	3.0
Carbon_Disulfide	3.277	3.470	5.9
1,1-Dichloroethene *	3.189	3.323	4.2 *
1,1-Dichloroethane #	6.278	6.607	5.3 #
1,2-Dichloroethene_(total)	3.609	3.778	4.7
Chloroform *	5.134	5.299	3.2 *
1,2-Dichloroethane	1.403	1.443	2.8
2-Butanone	.014	.015	4.5
1,1,1-Trichloroethane	.942	1.006	6.9
Carbon_Tetrachloride	.790	.849	7.4
Vinyl Acetate	.229	.209	8.9
Bromodichloromethane	.837	.894	6.8
1,2-Dichloropropane *	.898	.951	6.0 *
cis-1,3-Dichloropropene	.837	.877	4.8
Trichloroethene	.986	1.052	6.7
Dibromochloromethane	.484	.518	7.0
1,1,2-Trichloroethane	.337	.356	5.5
Benzene	2.623	2.774	5.8
trans-1,3-Dichloropropene	.632	.745	17.9
2-Chloroethyl_vinylether	.228	.238	4.4
Bromoform #	.263	.289	9.9 #
4-Methyl-2-pentanone	.437	.436	.3
2-Hexanone	.345	.298	13.8
Tetrachloroethene	1.789	1.797	.4
1,1,2,2-Tetrachloroethane	.912	.931	2.2
Toluene *	3.552	3.620	1.9 *
Chlorobenzene #	3.579	3.656	2.2 #
Ethylbenzene *	2.032	2.095	3.1 *
Styrene	4.351	4.497	3.4
Meta Xylene	2.863	3.006	5.0
O-&/or_P-Xylene	2.758	2.905	5.3
1,2-Dichloroethane-d4	.939	.925	1.5
Benzene-d6	2.305	2.352	2.0
Toluene-d8	2.735	2.650	3.1

Calibration Check Report

000029

Title: CB FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Calibrated: 890222 15:16

SF5883

Check Standard Data File: >DM925
Injection Time: 890223 10:53

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
CHLOROMETHANE	2.18847	2.93950	34.32	Average	(Conc=20.00)
BROMOMETHANE	3.46779	3.75019	8.14	Average	(Conc=20.00)
VINYL CHLORIDE	3.54892	3.96367	11.69	Average	(Conc=20.00)
CHLOROETHANE	2.18369	2.39910	9.86	Average	(Conc=20.00)
METHYLENE CHLORIDE	2.51972	2.59007	2.79	Average	(Conc=15.00)
ACROLEIN	.03799	.03923	3.26	Average	(Conc=375.00)
ACETONE	.11580	.11868	2.49	Average	(Conc=375.00)
ACRYLONITRILE	.18349	.18896	2.98	Average	(Conc=375.00)
CARBON DISULFIDE	3.27668	3.46982	5.89	Average	(Conc=12.50)
1,1-DICHLOROETHENE	3.18933	3.32302	4.19	Average	(Conc=15.00)
1,1-DICHLOROETHANE	6.27747	6.60720	5.25	Average	(Conc=15.00)
1,2-DICHLOROETHENE (TOTAL)	3.60884	3.77764	4.68	Average	(Conc=15.00)
CHLOROFORM	5.13388	5.29928	3.22	Average	(Conc=15.00)
1,2-DICHLOROETHANE-D4	.93911	.92502	1.50	Average	(Conc=10.00)
1,2-DICHLOROETHANE	1.40336	1.44316	2.84	Average	(Conc=15.00)
2-BUTANONE	.01453	.01515	4.25	Average	(Conc=125.00)
1,1,1-TRICHLOROETHANE	.94164	1.00615	6.85	Average	(Conc=15.00)
CARBON TETRACHLORIDE	.79038	.84918	7.44	Average	(Conc=15.00)
VINYL ACETATE	.22896	.20870	8.85	Average	(Conc=37.50)
BROMODICHLOROMETHANE	.83724	.89429	6.81	Average	(Conc=15.00)
1,2-DICHLOROPROPANE	.89789	.95140	5.96	Average	(Conc=15.00)
CIS-1,3-DICHLOROPROPENE	.83693	.87669	4.75	Average	(Conc=21.00)
TRICHLOROETHENE	.98623	1.05235	6.70	Average	(Conc=15.00)
BENZENE-D6	2.30519	2.35210	2.04	Average	(Conc=10.00)
BENZENE	2.62314	2.77447	5.77	Average	(Conc=15.00)
DIBROMOCHLOROMETHANE	.48385	.51783	7.02	Average	(Conc=15.00)
TRANS-1,3-DICHLOROPROPENE	.63175	.74471	17.88	Average	(Conc=9.00)
1,1,2-TRICHLOROETHANE	.33738	.35598	5.51	Average	(Conc=15.00)
2-CHLOROETHYL VINYLETHER	.22785	.23786	4.39	Average	(Conc=15.00)
BROMOFORM	.26340	.28943	9.88	Average	(Conc=15.00)
4-METHYL-2-PENTANONE	.43671	.43555	.27	Average	(Conc=25.00)
2-HEXANONE	.34505	.29756	13.76	Average	(Conc=25.00)
TETRACHLOROETHENE	1.78911	1.79687	.43	Average	(Conc=15.00)
1,1,2,2-TETRACHLOROETHANE	.91164	.93144	2.17	Average	(Conc=15.00)
TOLUENE-D8	2.73516	2.64970	3.12	Average	(Conc=10.00)
TOLUENE	3.55189	3.62009	1.92	Average	(Conc=15.00)
CHLOROBENZENE	3.57884	3.65620	2.16	Average	(Conc=15.00)
ETHYLBENZENE	2.03157	2.09471	3.11	Average	(Conc=15.00)
STYRENE	4.35116	4.49723	3.36	Average	(Conc=12.50)
META XYLENE	2.86310	3.00643	5.01	Average	(Conc=30.00)

RF - Response Factor from daily standard file at 15.00 UG/L

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

%Diff - % Difference from original average or curve

Calibration Check Report

000000

SF5883

Title: CB FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Calibrated: 890222 15:16

Check Standard Data File: >DM925
Injection Time: 890223 10:53

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
O-&/OR P-XYLENE	2.75793	2.90452	5.32	Average	(Conc=37.60)

RF - Response Factor from daily standard file at 15.00 UG/L

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

%Diff - % Difference from original average or curve

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:CRL USEPA Contract:TFA # 302
Lab Code: CHICAGOIL Case No.: SF-5883 SAS No.: N.A. SDG No.: N.A.
Instrument ID: 87 3 Calibration Date(s):02/22/89
Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) PACK

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

LAB FILE ID: RRF5.0=>DM917 RRF10.0=>DM918
RRF15.0=>DM919 RRF20.0=>DM920 RRF25.0=>DM921

COMPOUND	RRF5	RRF10	RRF15	RRF20	RRF25	$\overline{RRF}$	% RSD
Chloromethane #	2.291	2.447	1.900	2.113	2.193	2.188	9.3#
Bromomethane	3.762	3.841	3.203	3.402	3.130	3.468	9.3
Vinyl_Chloride *	3.881	3.880	3.241	3.446	3.296	3.549	8.6*
Chloroethane	2.377	2.401	1.985	2.162	1.993	2.184	7.2
Methylene_Chloride	2.604	2.568	2.481	2.497	2.449	2.520	2.6
Acrolein	.036	.038	.042	.038	.036	.038	6.6
Acetone	.109	.118	.126	.117	.110	.116	5.9
Acrylonitrile	.171	.183	.198	.188	.178	.183	5.5
Carbon_Disulfide	3.455	3.408	3.167	3.197	3.155	3.277	4.4
1,1-Dichloroethene *	3.323	3.319	3.087	3.120	3.098	3.189	3.8*
1,1-Dichloroethane #	6.397	6.574	6.134	6.160	6.121	6.278	3.2#
1,2-Dichloroethene_(total)	3.671	3.780	3.551	3.535	3.506	3.609	3.2
Chloroform *	5.135	5.403	5.137	5.040	4.955	5.134	3.3*
1,2-Dichloroethane	1.320	1.423	1.425	1.454	1.395	1.403	3.6
2-Butanone	.013	.014	.016	.015	.014	.014	8.4
1,1,1-Trichloroethane	.947	.979	.904	.932	.946	.942	2.9
Carbon_Tetrachloride	.792	.824	.768	.771	.796	.790	2.8
Vinyl_Acetate	.223	.232	.242	.228	.219	.229	3.9
Bromodichloromethane	.781	.852	.849	.859	.845	.837	3.8
1,2-Dichloropropane *	.856	.921	.902	.908	.903	.898	2.7*
cis-1,3-Dichloropropene	.770	.841	.860	.865	.849	.837	4.6
Trichloroethene	.986	1.026	.965	.970	.984	.986	2.5
Dibromochloromethane	.438	.491	.493	.511	.486	.484	5.6
1,1,2-Trichloroethane	.299	.335	.352	.359	.343	.337	7.0
Benzene	2.601	2.728	2.567	2.602	2.618	2.623	2.7
trans-1,3-Dichloropropene	.578	.630	.658	.662	.630	.672	7.3
2-Chloroethyl_vinylether	.209	.225	.240	.237	.223	.228	5.3
Bromoform #	.232	.265	.274	.281	.265	.263	7.0#
4-Methyl-2-pentanone	.429	.435	.453	.442	.426	.437	2.5
2-Hexanone	.379	.360	.355	.321	.311	.345	8.2
Tetrachloroethene	1.968	1.909	1.650	1.696	1.723	1.789	7.8
1,1,2,2-Tetrachloroethane	.846	.917	.938	.959	.899	.912	4.7
Toluene *	3.808	3.714	3.325	3.451	3.461	3.552	5.7*
Chlorobenzene #	3.747	3.745	3.438	3.485	3.480	3.579	4.3#
Ethylbenzene *	2.179	2.181	1.928	1.918	1.952	2.032	6.7*
Styrene	4.632	4.570	4.312	4.098	4.143	4.351	5.6
Meta Xylene	3.032	3.047	2.762	2.752	2.722	2.863	5.7
O-&/or_P-Xylene	2.930	2.944	2.686	2.644	2.584	2.758	6.1
1,2-Dichloroethane-d4	.853	.892	.932	.991	1.028	.939	7.6
Benzene-d6	2.447	2.376	2.226	2.232	2.245	2.305	4.4
Toluene-d8	3.067	2.822	2.503	2.656	2.628	2.735	8.0

Calibration Report

000032
SF5883

Title: CB FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Calibrated: 890222 15:16

Compound	Files: >DM917 RF 5.00	>DM918 RF 10.00	>DM919 RF 15.00	>DM920 RF 20.00	>DM921 RF 25.00	$\overline{RF}$	% RSD	
CHLOROMETHANE	2.29054	2.44686	1.89955	2.11257	2.19283	2.18847	9.321	(Conc=10.0,15.0,20.0,25.0,30.0)
BROMOMETHANE	3.76231	3.84155	3.20308	3.40207	3.12995	3.46779	9.288	(Conc=10.0,15.0,20.0,25.0,30.0)
VINYL CHLORIDE	3.88106	3.88050	3.24056	3.44612	3.29635	3.54892	8.795	(Conc=10.0,15.0,20.0,25.0,30.0)
CHLOROETHANE	2.37677	2.40132	1.98501	2.16188	1.99346	2.18369	9.181	(Conc=10.0,15.0,20.0,25.0,30.0)
METHYLENE CHLORIDE	2.60429	2.56828	2.48069	2.49681	2.44854	2.51972	2.559	(Conc=5.0,10.0,15.0,20.0,25.0)
ACROLEIN	.03605	.03780	.04216	.03789	.03607	.03799	6.560	(Conc=225.5,300.0,375.0,450.0,525.0)
ACETONE	.10875	.11789	.12574	.11672	.10992	.11580	5.924	(Conc=225.0,300.0,375.0,450.0,525.0)
ACRYLONITRILE	.17104	.18254	.19757	.18794	.17835	.18349	5.454	(Conc=225.0,300.0,375.0,450.0,525.0)
CARBON DISULFIDE	3.45530	3.40811	3.16736	3.19722	3.15543	3.27668	4.374	(Conc=7.5,10.0,12.5,15.0,17.5)
1,1-DICHLOROETHENE	3.32255	3.31920	3.08699	3.11960	3.09832	3.18933	3.783	(Conc=5.0,10.0,15.0,20.0,25.0)
1,1-DICHLOROETHANE	6.39741	6.57435	6.13445	6.15995	6.12118	6.27747	3.198	(Conc=5.0,10.0,15.0,20.0,25.0)
1,2-DICHLOROETHENE (TOTAL)	3.67130	3.78034	3.55130	3.53525	3.50603	3.60884	3.178	(Conc=5.0,10.0,15.0,20.0,25.0)
CHLOROFORM	5.13512	5.40320	5.13664	5.03992	4.95453	5.13388	3.282	(Conc=5.0,10.0,15.0,20.0,25.0)
1,2-DICHLOROETHANE-D4	.85280	.89170	.93218	.99079	1.02809	.93911	7.592	(Conc=10.0,10.0,10.0,10.0,10.0)
1,2-DICHLOROETHANE	1.32001	1.42273	1.42464	1.45404	1.39540	1.40336	3.635	(Conc=5.0,10.0,15.0,20.0,25.0)
2-BUTANONE	.01278	.01410	.01595	.01536	.01449	.01453	8.380	(Conc=75.0,100.0,125.0,150.0,175.0)
1,1,1-TRICHLOROETHANE	.94700	.97900	.90372	.93221	.94625	.94164	2.895	(Conc=5.0,10.0,15.0,20.0,25.0)
CARBON TETRACHLORIDE	.79177	.82368	.76841	.77154	.79652	.79038	2.819	(Conc=5.0,10.0,15.0,20.0,25.0)
VINYL ACETATE	.22283	.23225	.24213	.22830	.21929	.22896	3.880	(Conc=22.5,30.0,37.5,45.0,52.5)
BROMODICHLOROMETHANE	.78143	.85164	.84902	.85887	.84524	.83724	3.774	(Conc=5.0,10.0,15.0,20.0,25.0)
1,2-DICHLOROPROPANE	.85621	.92049	.90195	.90816	.90263	.89789	2.724	(Conc=5.0,10.0,15.0,20.0,25.0)
CIS-1,3-DICHLOROPROPENE	.77001	.84099	.85947	.86531	.84885	.83693	4.608	(Conc=7.0,14.0,21.0,28.0,35.0)
TRICHLOROETHENE	.98607	1.02622	.96468	.96976	.98441	.98623	2.452	(Conc=5.0,10.0,15.0,20.0,25.0)
BENZENE-D6	2.44695	2.37549	2.22613	2.23203	2.24535	2.30519	4.350	(Conc=10.0,10.0,10.0,10.0,10.0)
BENZENE	2.60071	2.72795	2.56708	2.60188	2.61808	2.62314	2.343	(Conc=5.0,10.0,15.0,20.0,25.0)
DIBROMOCHLOROMETHANE	.43848	.49075	.49289	.51104	.48610	.48385	5.595	(Conc=5.0,10.0,15.0,20.0,25.0)
TRANS-1,3-DICHLOROPROPENE	.57798	.63053	.65757	.66233	.63036	.63175	5.307	(Conc=3.0,6.0,9.0,12.0,15.0)
1,1,2-TRICHLOROETHANE	.29855	.33447	.35181	.35875	.34332	.33738	6.976	(Conc=5.0,10.0,15.0,20.0,25.0)
2-CHLOROETHYL VINYLETHER	.20883	.22527	.23959	.23718	.22840	.22785	5.348	(Conc=5.0,10.0,15.0,20.0,25.0)
BROMOFORM	.23236	.26542	.27402	.28059	.26460	.26340	7.045	(Conc=5.0,10.0,15.0,20.0,25.0)
4-METHYL-2-PENTANONE	.42882	.43466	.45265	.44153	.42591	.43671	2.457	(Conc=15.0,20.0,25.0,30.0,35.0)
2-HEXANONE	.37900	.35968	.35458	.32104	.31094	.34505	8.194	(Conc=15.0,20.0,25.0,30.0,35.0)
TETRACHLOROETHENE	1.96781	1.90915	1.64984	1.69602	1.72271	1.78911	7.846	(Conc=5.0,10.0,15.0,20.0,25.0)
1,1,2,2-TETRACHLOROETHANE	.84622	.91661	.93749	.95862	.89928	.91164	4.696	(Conc=5.0,10.0,15.0,20.0,25.0)
TOLUENE-D8	3.06722	2.82239	2.50277	2.65574	2.62767	2.73516	7.963	(Conc=10.0,10.0,10.0,10.0,10.0)
TOLUENE	3.80807	3.71420	3.32510	3.45108	3.46098	3.55189	5.663	(Conc=5.0,10.0,15.0,20.0,25.0)
CHLOROBENZENE	3.74646	3.74469	3.43787	3.48551	3.47968	3.57884	4.284	(Conc=5.0,10.0,15.0,20.0,25.0)
ETHYLBENZENE	2.17910	2.18090	1.92797	1.91790	1.95198	2.03157	6.697	(Conc=5.0,10.0,15.0,20.0,25.0)
STYRENE	4.63206	4.57044	4.31240	4.09813	4.14276	4.35116	5.582	(Conc=7.5,10.0,12.5,15.0,17.5)
META XYLENE	3.03255	3.04671	2.76250	2.75167	2.72206	2.86310	5.655	(Conc=10.0,20.0,30.0,40.0,50.0)
O-&/OR P-XYLENE	2.93019	2.94440	2.68632	2.64450	2.58422	2.75793	6.084	(Conc=12.5,25.1,37.6,50.1,62.7)

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

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CRL USEPA Contract: TFA # 302

Lab Code: CHICAGOIL Case No.: SF-5883 SAS No.: N.A. SDG No.: N.A.

Matrix Spike - EPA Sample No.: 89FS09S76

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	10.00	0.00	6.60	66	61-145
Trichloroethene	10.00	0.00	8.70	87	71-120
Benzene	10.00	0.00	8.50	85	76-127
Toluene	10.00	0.00	9.20	92	76-125
Chlorobenzene	10.00	0.00	9.60	96	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	10.00	6.40	64	3	14	61-145
Trichloroethene	10.00	8.60	86	1	14	71-120
Benzene	10.00	8.40	84	1	11	76-127
Toluene	10.00	9.00	90	2	13	76-125
Chlorobenzene	10.00	9.60	96	0	13	75-130

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

* Values outside of qc limits

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

COMMENTS: _____

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: CRL USEPA Contract: TFA # 302

Lab Code: CHICAGOIL Case No.: SF-5883 SAS No.: N.A. SDG No.: N.A.

Lab File ID: >DM924 Lab Sample ID: METH BLANK1

Date Analyzed: 2/23/89 Time Analyzed: 10:03

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

Instrument ID: 87 3

THIS METHOD BLANK APPLIES TO THE FOLLOWING:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	89FS09S75	89FS09S75	>DM927	13:16
02	89FS09B75	89FS09B75	>DM928	14:06
03	89FS09S76	89FS09S76	>DM929	14:56
04	89FS09S76M	89FS09S76M	>DM930	15:46
05	89FS09S76D	89FS09S76D	>DM931	16:36
06	89FS09S77	89FS09S77	>DM932	17:26
07	89FS09R08	89FS09R08	>DM933	18:16
08				
09				
10				
11				
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30				

COMMENTS: _____

000035
SF5883

QUANT REPORT

Operator ID: DWMORTON Quant Rev: 6 Quant Time: 890222 11:47
Output File: ^DM917::E1 Injected at: 890222 10:59
Data File: >DM917::L2 Dilution Factor: 1.00000
Name: 1 STD 5 PPB 20 ML
Misc: INIT CAL 2/22/89 DWM

ID File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B CC 6/3/88 (20 ML PURGE)
Last Calibration: 890217 12:34

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.38	128.0	50386	10.00	UG/L	92
2)	CHLOROMETHANE	2.00	50.0	115411	11.43	UG/L	100
3)	BROMOMETHANE	3.06	94.0	189568	12.29	UG/L	97
4)	VINYL CHLORIDE	3.93	62.0	195551	12.09	UG/L	98
5)	CHLOROETHANE	4.96	64.0	119756	12.05	UG/L	98
6)	METHYLENE CHLORIDE	7.12	84.0	65610	5.53	UG/L	95
7)	ACROLEIN	7.87	56.0	40960	160.50	UG/L	95
8)	ACETONE	7.87	43.0	123292	215.71	UG/L	90
9)	ACRYLONITRILE	8.54	53.0	193906	223.44	UG/L	97
10)	CARBON DISULFIDE	8.65	76.0	130574	8.92	UG/L	100
11)	1,1-DICHLOROETHENE	9.92	96.0	83705	5.54	UG/L	94
12)	1,1-DICHLOROETHANE	11.16	63.0	161170	5.32	UG/L	97
13)	1,2-DICHLOROETHENE (TOTAL)	11.85	96.0	92491	5.40	UG/L	93
14)	CHLOROFORM	12.42	83.0	129369	5.15	UG/L	98
15)	1,2-DICHLOROETHANE-D4	13.03	65.0	42969	9.31	UG/L	86
16)	1,2-DICHLOROETHANE	13.12	62.0	33255	4.63	UG/L	95
17)	*2-Bromo-1-chloropropane	19.11	77.0	220596	10.00	UG/L	99
18)	2-BUTANONE	13.03	72.0	21144	65.97	UG/L	97
19)	1,1,1-TRICHLOROETHANE	14.33	97.0	104452	5.18	UG/L	98
20)	CARBON TETRACHLORIDE	14.70	117.0	87331	5.19	UG/L	96
21)	VINYL ACETATE	14.84	43.0	110599	12.16	UG/L	98
22)	BROMODICHLOROMETHANE	15.22	83.0	86190	4.87	UG/L	94
23)	1,2-DICHLOROPROPANE	16.49	63.0	94438	4.94	UG/L	99
24)	CIS-1,3-DICHLOROPROPENE	16.75	75.0	118903	6.68	UG/L	99
25)	TRICHLOROETHENE	17.26	130.0	108761	5.24	UG/L	98
26)	BENZENE-D6	17.58	84.0	539788	12.04	UG/L	98
27)	BENZENE	17.73	78.0	286853	5.00	UG/L	95
28)	DIBROMOCHLOROMETHANE	17.87	129.0	48364	4.40	UG/L	96
29)	TRANS-1,3-DICHLOROPROPENE	17.96	75.0	38250	2.50	UG/L	96
30)	1,1,2-TRICHLOROETHANE	17.99	97.0	32930	4.47	UG/L	98
31)	2-CHLOROETHYL VINYLETHER	18.94	63.0	23033	4.75	UG/L	99
32)	BROMOFORM	20.43	173.0	25629	4.30	UG/L	96
33)	*1,4-Dichlorobutane	22.91	55.0	99109	10.00	UG/L	96
34)	4-METHYL-2-PENTANONE	20.84	43.0	63750	15.28	UG/L	98
35)	2-HEXANONE	22.34	43.0	56344	18.22	UG/L	98
36)	TETRACHLOROETHENE	22.65	164.0	97514	5.90	UG/L	98
37)	1,1,2,2-TETRACHLOROETHANE	22.65	83.0	41934	4.77	UG/L	98
38)	TOLUENE-D8	23.69	98.0	303989	12.05	UG/L	96
39)	TOLUENE	23.89	92.0	188707	5.65	UG/L	95
40)	CHLOROBENZENE	25.05	112.0	185654	5.40	UG/L	95
41)	ETHYLBENZENE	27.18	106.0	107984	5.30	UG/L	99
42)	STYRENE	31.68	104.0	344309	8.23	UG/L	85
43)	META XYLENE	32.05	106.0	300553	11.17	UG/L	97

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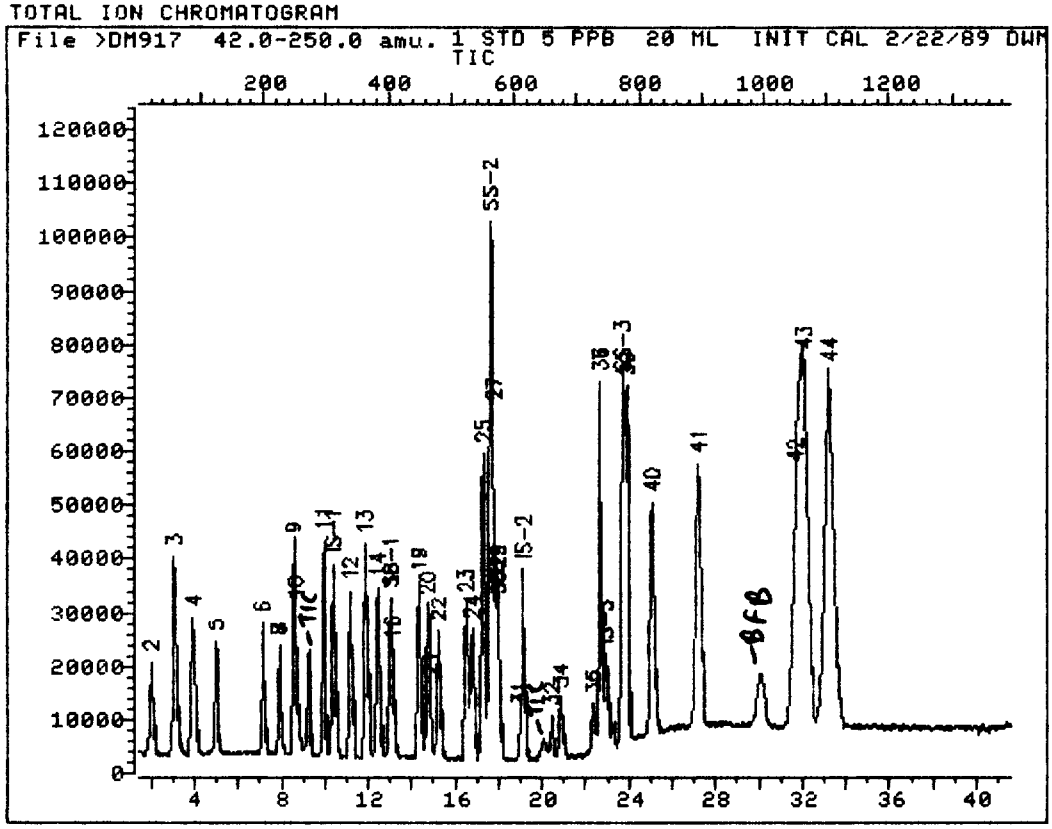
	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	O-&/OR P-XYLENE	33.23	106.0	363010	13.99	UG/L	95

* Compound is ISTD

SF5883

C00037

TOTAL ION CHROMATOGRAM



Data File: >DM917::L2 Quant Output File: ^DM917::E1
Name: 1 STD 5 PPB 20 ML
Misc: INIT CAL 2/22/89 DWM

Id File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B CC 6/3/88 (20 ML PURGE)
Last Calibration: 890217 12:34

Operator ID: DWMORTON
Quant Time: 890222 11:47
Injected at: 890222 10:59

SP5883 000038

QUANT REPORT

Operator ID: DWMORTON
Output File: ^DM918::E1
Data File: >DM918::E1
Name: 2 STD 10 PPB 20 ML
Misc: INIT CAL 2/22/89 DWM

Quant Rev: 6
Quant Time: 890222 12:42
Injected at: 890222 11:54
Dilution Factor: 1.00000

ID File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890217 12:34

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.38	128.0	51716	10.00	UG/L	92
2)	CHLOROMETHANE	1.99	50.0	189813	18.31	UG/L	100
3)	BROMOMETHANE	3.06	94.0	298004	18.82	UG/L	97
4)	VINYL CHLORIDE	3.93	62.0	301026	18.13	UG/L	97
5)	CHLOROETHANE	4.97	64.0	186280	18.27	UG/L	97
6)	METHYLENE CHLORIDE	7.13	84.0	132821	10.91	UG/L	95
7)	ACROLEIN	7.85	56.0	58652	223.92	UG/L	92
8)	ACETONE	7.87	43.0	182900	311.76	UG/L	91
9)	ACRYLONITRILE	8.54	53.0	283201	317.95	UG/L	99
10)	CARBON DISULFIDE	8.65	76.0	176254	11.73	UG/L	100
11)	1,1-DICHLOROETHENE	9.92	96.0	171656	11.07	UG/L	92
12)	1,1-DICHLOROETHANE	11.16	63.0	339999	10.92	UG/L	96
13)	1,2-DICHLOROETHENE (TOTAL)	11.85	96.0	195504	11.12	UG/L	91
14)	CHLOROFORM	12.43	83.0	279432	10.83	UG/L	98
15)	1,2-DICHLOROETHANE-D4	13.03	65.0	46115	9.73	UG/L	90
16)	1,2-DICHLOROETHANE	13.12	62.0	73578	9.99	UG/L	97
17)	*2-Bromo-1-chloropropane	19.11	77.0	222068	10.00	UG/L	99
18)	2-BUTANONE	13.03	72.0	31306	97.02	UG/L	96
19)	1,1,1-TRICHLOROETHANE	14.33	97.0	217404	10.70	UG/L	99
20)	CARBON TETRACHLORIDE	14.70	117.0	182913	10.80	UG/L	98
21)	VINYL ACETATE	14.82	43.0	154723	16.90	UG/L	98
22)	BROMODICHLOROMETHANE	15.22	83.0	189121	10.61	UG/L	94
23)	1,2-DICHLOROPROPANE	16.49	63.0	204412	10.61	UG/L	98
24)	CIS-1,3-DICHLOROPROPENE	16.72	75.0	261461	14.59	UG/L	96
25)	TRICHLOROETHENE	17.27	130.0	227891	10.91	UG/L	99
26)	BENZENE-D6	17.58	84.0	527520	11.69	UG/L	96
27)	BENZENE	17.70	78.0	605790	10.48	UG/L	97
28)	DIBROMOCHLOROMETHANE	17.87	129.0	108980	9.85	UG/L	96
29)	TRANS-1,3-DICHLOROPROPENE	17.96	75.0	84012M	5.45	UG/L	99
30)	1,1,2-TRICHLOROETHANE	17.96	97.0	74275	10.01	UG/L	99
31)	2-CHLOROETHYL VINYLETHER	18.97	63.0	50025	10.25	UG/L	95
32)	BROMOFORM	20.44	173.0	58941	9.82	UG/L	97
33)	*1,4-Dichlorobutane	22.94	55.0	106089	10.00	UG/L	98
34)	4-METHYL-2-PENTANONE	20.84	43.0	92225	20.65	UG/L	99
35)	2-HEXANONE	22.34	43.0	76316	23.05	UG/L	95
36)	TETRACHLOROETHENE	22.65	164.0	202540	11.45	UG/L	98
37)	1,1,2,2-TETRACHLOROETHANE	22.62	83.0	97242	10.34	UG/L	99
38)	TOLUENE-D8	23.69	98.0	299425	11.09	UG/L	99
39)	TOLUENE	23.89	92.0	394036	11.01	UG/L	97
40)	CHLOROBENZENE	25.05	112.0	397270	10.80	UG/L	97
41)	ETHYLBENZENE	27.15	106.0	231369	10.61	UG/L	99
42)	STYRENE	31.74	104.0	484873	10.82	UG/L	85
43)	META XYLENE	32.05	106.0	646445	22.45	UG/L	98

SF5883

000039

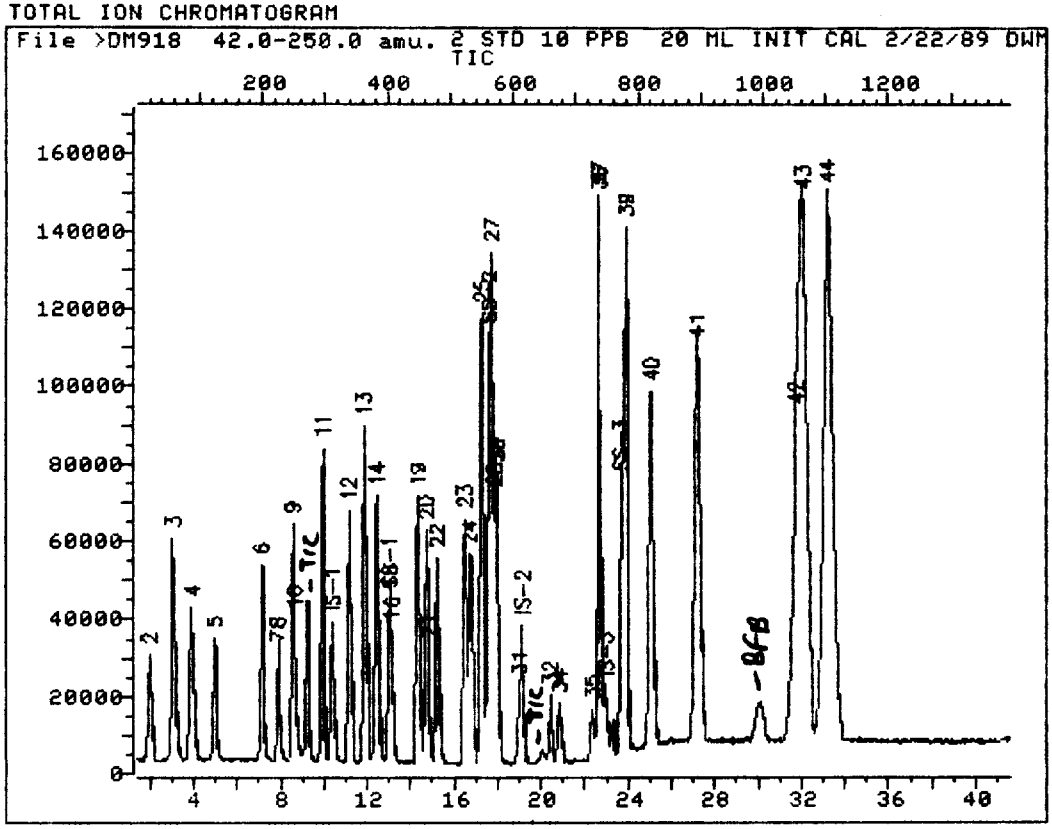
	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	O-&/OR P-XYLENE	33.18	106.0	784045	28.23	UG/L	96

* Compound is ISTD

SF5883

000040

TOTAL ION CHROMATOGRAM



Data File: >DM918::E1 Quant Output File: ^DM918::E1
Name: 2 STD 10 PPB 20 ML
Misc: INIT CAL 2/22/89 DWM

Id File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890217 12:34

Operator ID: DWMORTON
Quant Time: 890222 12:42
Injected at: 890222 11:54

SF5883

QUANT REPORT

000041

Operator ID: DWMORTON Quant Rev: 6 Quant Time: 890222 13:33
Output File: ^DM919::E1 Injected at: 890222 12:49
Data File: >DM919::E1 Dilution Factor: 1.00000
Name: 3 STD 15 PPB 20 ML
Misc: INIT CAL 2/22/89 DWM

ID File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890217 12:34

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.37	128.0	57419	10.00	UG/L	93
2)	CHLOROMETHANE	1.99	50.0	218141	18.95	UG/L	100
3)	BROMOMETHANE	3.06	94.0	367835	20.93	UG/L	98
4)	VINYL CHLORIDE	3.92	62.0	372139	20.18	UG/L	95
5)	CHLOROETHANE	4.99	64.0	227955	20.13	UG/L	96
6)	METHYLENE CHLORIDE	7.15	84.0	213658	15.81	UG/L	98
7)	ACROLEIN	7.84	56.0	90774	312.14	UG/L	98
8)	ACETONE	7.90	43.0	270744	415.66	UG/L	94
9)	ACRYLONITRILE	8.53	53.0	425418	430.18	UG/L	99
10)	CARBON DISULFIDE	8.64	76.0	227333	13.62	UG/L	100
11)	1,1-DICHLOROETHENE	9.91	96.0	265878	15.44	UG/L	92
12)	1,1-DICHLOROETHANE	11.15	63.0	528351	15.29	UG/L	95
13)	1,2-DICHLOROETHENE (TOTAL)	11.84	96.0	305868	15.66	UG/L	91
14)	CHLOROFORM	12.42	83.0	442411	15.45	UG/L	99
15)	1,2-DICHLOROETHANE-D4	13.02	65.0	53525	10.17	UG/L	88
16)	1,2-DICHLOROETHANE	13.11	62.0	122702	15.01	UG/L	98
17)	*2-Bromo-1-chloropropane	19.10	77.0	243741	10.00	UG/L	99
18)	2-BUTANONE	13.02	72.0	48581	137.18	UG/L	96
19)	1,1,1-TRICHLOROETHANE	14.32	97.0	330412	14.82	UG/L	99
20)	CARBON TETRACHLORIDE	14.69	117.0	280938	15.12	UG/L	97
21)	VINYL ACETATE	14.84	43.0	221315	22.02	UG/L	98
22)	BROMODICHLOROMETHANE	15.21	83.0	310411	15.87	UG/L	96
23)	1,2-DICHLOROPROPANE	16.48	63.0	329763	15.60	UG/L	97
24)	CIS-1,3-DICHLOROPROPENE	16.74	75.0	439924	22.37	UG/L	97
25)	TRICHLOROETHENE	17.23	130.0	352697	15.38	UG/L	96
26)	BENZENE-D6	17.58	84.0	542599	10.95	UG/L	98
27)	BENZENE	17.72	78.0	938555	14.80	UG/L	97
28)	DIBROMOCHLOROMETHANE	17.86	129.0	180205	14.84	UG/L	99
29)	TRANS-1,3-DICHLOROPROPENE	17.95	75.0	144248M	8.52	UG/L	98
30)	1,1,2-TRICHLOROETHANE	17.95	97.0	128626	15.79	UG/L	99
31)	2-CHLOROETHYL VINYLETHER	18.96	63.0	87598	16.36	UG/L	97
32)	BROMOFORM	20.43	173.0	100186	15.21	UG/L	96
33)	*1,4-Dichlorobutane	22.91	55.0	124290	10.00	UG/L	95
34)	4-METHYL-2-PENTANONE	20.83	43.0	140650	26.88	UG/L	98
35)	2-HEXANONE	22.30	43.0	110177	28.40	UG/L	95
36)	TETRACHLOROETHENE	22.65	164.0	307588	14.84	UG/L	99
37)	1,1,2,2-TETRACHLOROETHANE	22.65	83.0	174781	15.87	UG/L	99
38)	TOLUENE-D8	23.71	98.0	311069	9.84	UG/L	99
39)	TOLUENE	23.89	92.0	619916	14.79	UG/L	96
40)	CHLOROBENZENE	25.04	112.0	640939	14.87	UG/L	99
41)	ETHYLBENZENE	27.17	106.0	359441	14.07	UG/L	98
42)	STYRENE	31.67	104.0	669985	12.76	UG/L	83
43)	META XYLENE	32.02	106.0	1030055	30.53	UG/L	98

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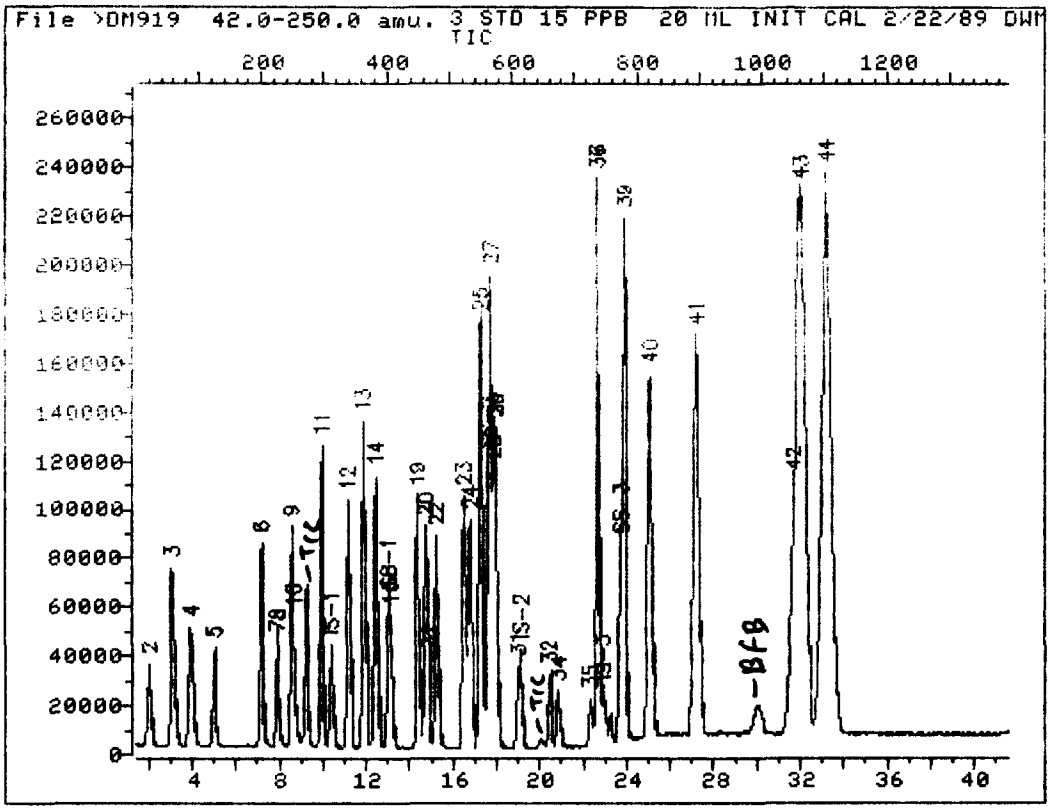
	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	O-&/OR P-XYLENE	33.20	106.0	1255401	38.58	UG/L	97

* Compound is ISTD

SF5883

000043

TOTAL ION CHROMATOGRAM



Data File: >DM919::E1 Quant Output File: ^DM919::E1
Name: 3 STD 15 PPB 20 ML
Misc: INIT CAL 2/22/89 DWM

Id File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890217 12:34

Operator ID: DWMORTON
Quant Time: 890222 13:33
Injected at: 890222 12:49

SFS 880044

QUANT REPORT

Operator ID: DWMORTON
Output File: ^DM920::E1
Data File: >DM920::E1
Name: 4 STD 20 PPB 20 ML
Misc: INIT CAL 2/22/89 DWM

Quant Rev: 6
Quant Time: 890222 14:23
Injected at: 890222 13:40
Dilution Factor: 1.00000

ID File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890217 12:34

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.35	128.0	56432	10.00	UG/L	99
2)	CHLOROMETHANE	1.99	50.0	298042	26.35	UG/L	100
3)	BROMOMETHANE	3.06	94.0	479964	27.78	UG/L	96
4)	VINYL CHLORIDE	3.89	62.0	486178	26.83	UG/L	97
5)	CHLOROETHANE	4.96	64.0	304998	27.41	UG/L	98
6)	METHYLENE CHLORIDE	7.12	84.0	281800	21.22	UG/L	96
7)	ACROLEIN	7.84	56.0	96215	336.63	UG/L	99
8)	ACETONE	7.87	43.0	296412	463.03	UG/L	91
9)	ACRYLONITRILE	8.53	53.0	477262	491.04	UG/L	98
10)	CARBON DISULFIDE	8.65	76.0	270638	16.50	UG/L	100
11)	1,1-DICHLOROETHENE	9.89	96.0	352090	20.81	UG/L	93
12)	1,1-DICHLOROETHANE	11.15	63.0	695237	20.47	UG/L	97
13)	1,2-DICHLOROETHENE (TOTAL)	11.84	96.0	399002	20.79	UG/L	94
14)	CHLOROFORM	12.42	83.0	568826	20.21	UG/L	97
15)	1,2-DICHLOROETHANE-D4	13.03	65.0	55912	10.81	UG/L	94
16)	1,2-DICHLOROETHANE	13.11	62.0	164109	20.42	UG/L	96
17)	*2-Bromo-1-chloropropane	19.11	77.0	235881	10.00	UG/L	99
18)	2-BUTANONE	13.03	72.0	54330	158.52	UG/L	96
19)	1,1,1-TRICHLOROETHANE	14.32	97.0	439780	20.38	UG/L	99
20)	CARBON TETRACHLORIDE	14.70	117.0	363983	20.24	UG/L	98
21)	VINYL ACETATE	14.81	43.0	242337	24.92	UG/L	96
22)	BROMODICHLOROMETHANE	15.22	83.0	405180	21.41	UG/L	92
23)	1,2-DICHLOROPROPANE	16.48	63.0	428435	20.94	UG/L	99
24)	CIS-1,3-DICHLOROPROPENE	16.74	75.0	571511	30.03	UG/L	98
25)	TRICHLOROETHENE	17.23	130.0	457497	20.61	UG/L	98
26)	BENZENE-D6	17.55	84.0	526494	10.98	UG/L	96
27)	BENZENE	17.72	78.0	1227466	20.00	UG/L	95
28)	DIBROMOCHLOROMETHANE	17.87	129.0	241088	20.52	UG/L	97
29)	TRANS-1,3-DICHLOROPROPENE	17.95	75.0	187477M	11.44	UG/L	98
30)	1,1,2-TRICHLOROETHANE	17.95	97.0	169243	21.46	UG/L	97
31)	2-CHLOROETHYL VINYLETHER	18.93	63.0	111893	21.59	UG/L	99
32)	BROMOFORM	20.43	173.0	132374	20.77	UG/L	99
33)	*1,4-Dichlorobutane	22.91	55.0	114074	10.00	UG/L	96
34)	4-METHYL-2-PENTANONE	20.83	43.0	151101	31.46	UG/L	97
35)	2-HEXANONE	22.33	43.0	109867	30.86	UG/L	87
36)	TETRACHLOROETHENE	22.62	164.0	386944	20.34	UG/L	99
37)	1,1,2,2-TETRACHLOROETHANE	22.62	83.0	218707	21.63	UG/L	97
38)	TOLUENE-D8	23.69	98.0	302951	10.44	UG/L	98
39)	TOLUENE	23.86	92.0	787356	20.47	UG/L	93
40)	CHLOROBENZENE	25.01	112.0	795211	20.10	UG/L	97
41)	ETHYLBENZENE	27.15	106.0	437565	18.66	UG/L	99
42)	STYRENE	31.64	104.0	701236	14.55	UG/L	85
43)	META XYLENE	32.02	106.0	1255574	40.55	UG/L	99

000030 SF5883

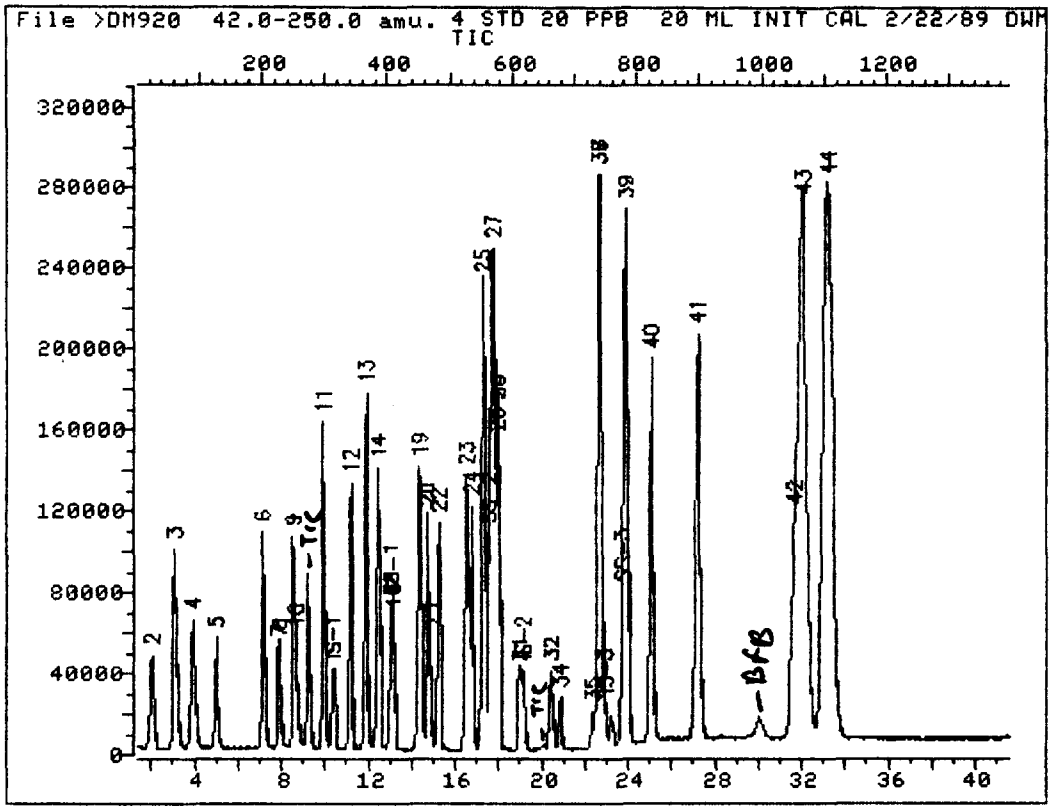
	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	O-&/OR P-XYLENE	33.17	106.0	1511359	50.60	UG/L	95

* Compound is ISTD

5f5883

000046

TOTAL ION CHROMATOGRAM



Data File: >DM920::E1 Quant Output File: ^DM920::E1
Name: 4 STD 20 PPB 20 ML
Misc: INIT CAL 2/22/89 DWM

Id File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890217 12:34

Operator ID: DWMORTON
Quant Time: 890222 14:23
Injected at: 890222 13:40

5F5883

000047

QUANT REPORT

Operator ID: DWMORTON Quant Rev: 6 Quant Time: 890222 15:13
Output File: ^DM921::E1 Injected at: 890222 14:30
Data File: >DM921::E1 Dilution Factor: 1.00000
Name: 5 STD 25 PPB 20 ML
Misc: INIT CAL 2/22/89 DWM

ID File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890217 12:34

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.35	128.0	58915	10.00	UG/L	95
2)	CHLOROMETHANE	2.00	50.0	387572	32.82	UG/L	100
3)	BROMOMETHANE	3.04	94.0	553203	30.67	UG/L	97
4)	VINYL CHLORIDE	3.90	62.0	582613	30.80	UG/L	95
5)	CHLOROETHANE	4.94	64.0	352335	30.33	UG/L	97
6)	METHYLENE CHLORIDE	7.13	84.0	360639	26.01	UG/L	95
7)	ACROLEIN	7.85	56.0	111578	373.93	UG/L	97
8)	ACETONE	7.88	43.0	339976	508.70	UG/L	93
9)	ACRYLONITRILE	8.51	53.0	551628	543.64	UG/L	98
10)	CARBON DISULFIDE	8.63	76.0	325329	19.00	UG/L	100
11)	1,1-DICHLOROETHENE	9.89	96.0	456344	25.84	UG/L	91
12)	1,1-DICHLOROETHANE	11.13	63.0	901573	25.43	UG/L	97
13)	1,2-DICHLOROETHENE (TOTAL)	11.82	96.0	516395	25.77	UG/L	93
14)	CHLOROFORM	12.40	83.0	729740	24.84	UG/L	99
15)	1,2-DICHLOROETHANE-D4	13.01	65.0	60570	11.22	UG/L	92
16)	1,2-DICHLOROETHANE	13.09	62.0	205525	24.50	UG/L	96
17)	*2-Bromo-1-chloropropane	19.09	77.0	241282	10.00	UG/L	98
18)	2-BUTANONE	13.03	72.0	61203	174.58	UG/L	99
19)	1,1,1-TRICHLOROETHANE	14.33	97.0	570784	25.86	UG/L	98
20)	CARBON TETRACHLORIDE	14.70	117.0	480467	26.11	UG/L	98
21)	VINYL ACETATE	14.82	43.0	277785	27.93	UG/L	99
22)	BROMODICHLOROMETHANE	15.22	83.0	509855	26.33	UG/L	94
23)	1,2-DICHLOROPROPANE	16.49	63.0	544472	26.01	UG/L	99
24)	CIS-1,3-DICHLOROPROPENE	16.72	75.0	716840	36.82	UG/L	97
25)	TRICHLOROETHENE	17.24	130.0	593804	26.15	UG/L	97
26)	BENZENE-D6	17.56	84.0	541763	11.05	UG/L	97
27)	BENZENE	17.70	78.0	1579238	25.15	UG/L	95
28)	DIBROMOCHLOROMETHANE	17.88	129.0	293215	24.40	UG/L	97
29)	TRANS-1,3-DICHLOROPROPENE	17.96	75.0	228143M	13.61	UG/L	97
30)	1,1,2-TRICHLOROETHANE	17.96	97.0	207092	25.68	UG/L	99
31)	2-CHLOROETHYL VINYLETHER	18.94	63.0	137771	25.99	UG/L	98
32)	BROMOFORM	20.41	173.0	159611	24.48	UG/L	97
33)	*1,4-Dichlorobutane	22.92	55.0	116316	10.00	UG/L	97
34)	4-METHYL-2-PENTANONE	20.84	43.0	173391	35.40	UG/L	98
35)	2-HEXANONE	22.31	43.0	126586	34.87	UG/L	90
36)	TETRACHLOROETHENE	22.63	164.0	500948	25.82	UG/L	99
37)	1,1,2,2-TETRACHLOROETHANE	22.63	83.0	261503	25.37	UG/L	99
38)	TOLUENE-D8	23.70	98.0	305640	10.33	UG/L	99
39)	TOLUENE	23.87	92.0	1006418	25.66	UG/L	97
40)	CHLOROBENZENE	25.02	112.0	1011855	25.09	UG/L	98
41)	ETHYLBENZENE	27.16	106.0	567616	23.74	UG/L	99
42)	STYRENE	31.65	104.0	843272	17.17	UG/L	83
43)	META XYLENE	32.00	106.0	1583093	50.14	UG/L	97

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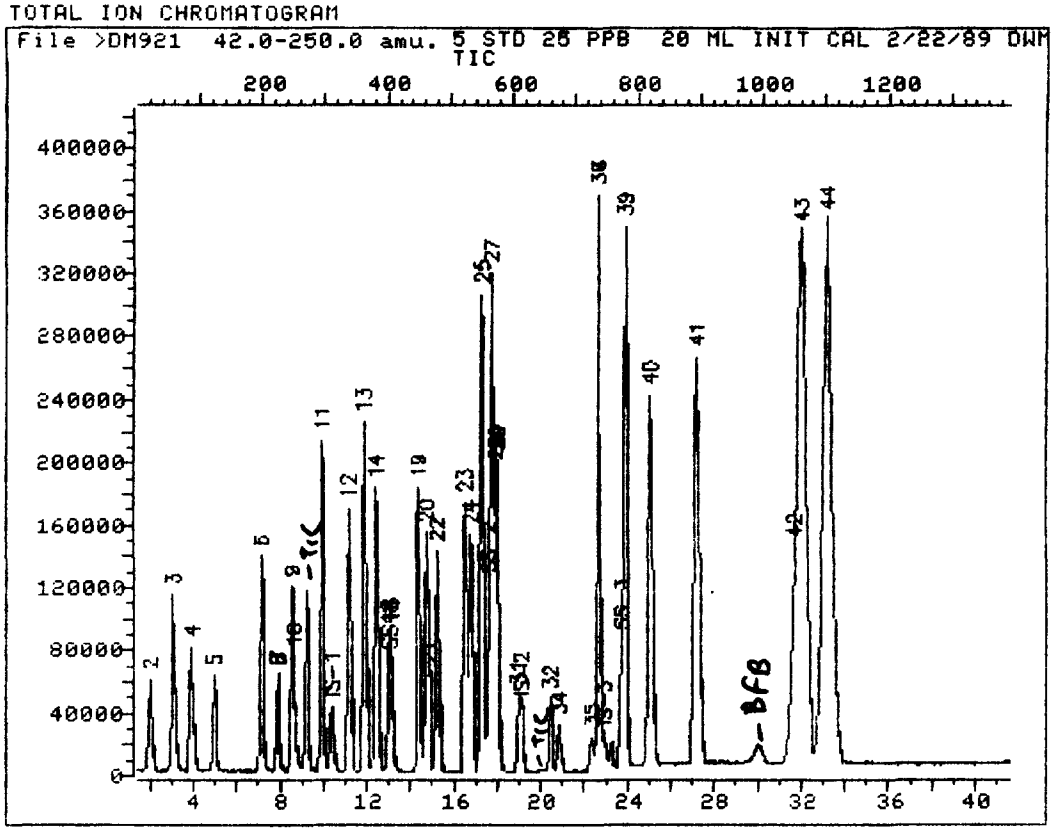
	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	O-&/OR P-XYLENE	33.18	106.0	1884674	61.88	UG/L	98

* Compound is ISTD

SF5883

TOTAL ION CHROMATOGRAM



C000019

Data File: >DM921::E1 Quant Output File: ^DM921::E1
Name: 5 STD 25 PPB 20 ML
Misc: INIT CAL 2/22/89 DWM

Id File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890217 12:34

Operator ID: DWMORTON
Quant Time: 890222 15:13
Injected at: 890222 14:30

QUANT REPORT

Operator ID: DWMORTON
Output File: ^DM924::E1
Data File: >DM924::E1
Name: METH BLANK1 SF5883
Misc: 2/23/89 20 ML DWM

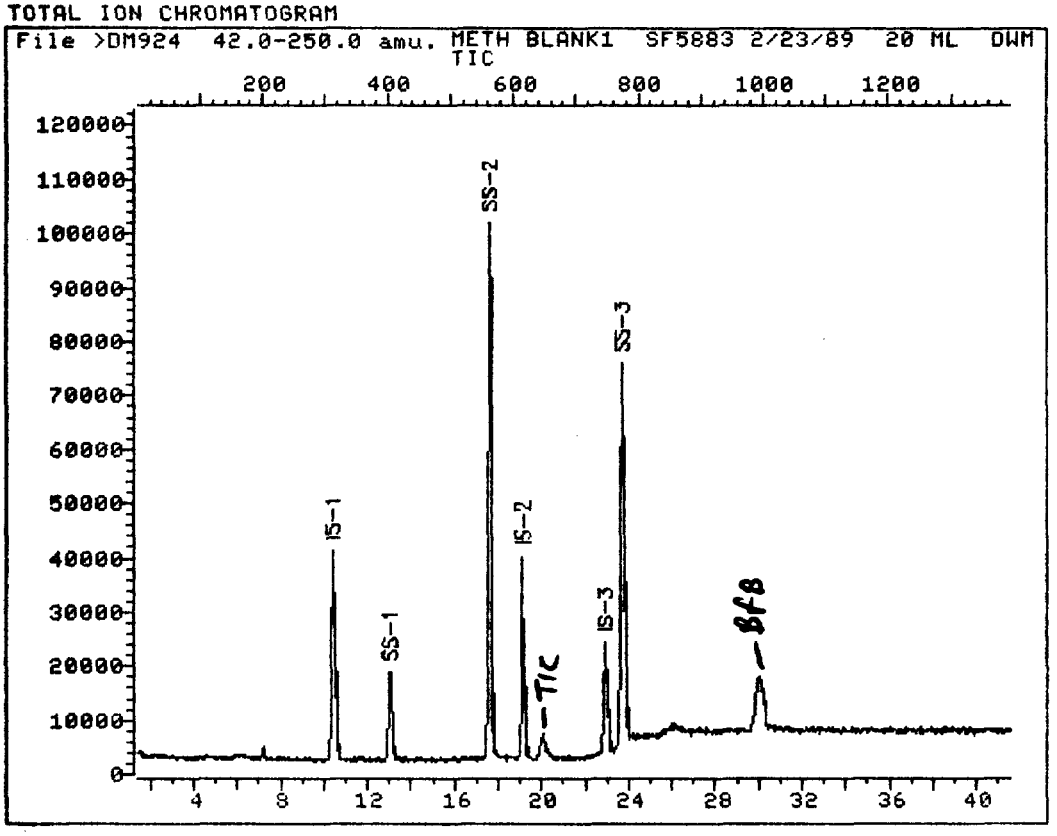
Quant Rev: 6
Quant Time: 890223 12:30
Injected at: 890223 10:03
Dilution Factor: 1.00000

ID File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890223 11:41

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.37	128.0	54074	10.00	UG/L	96
15)	1,2-DICHLOROETHANE-D4	13.02	65.0	44916	8.98	UG/L	87
17)	*2-Bromo-1-chloropropane	19.10	77.0	251435	10.00	UG/L	98
26)	BENZENE-D6	17.57	84.0	566557	9.58	UG/L	98
33)	*1,4-Dichlorobutane	22.90	55.0	110372	10.00	UG/L	99
38)	TOLUENE-D8	23.68	98.0	328888	11.25	UG/L	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >DM924::E1 Quant Output File: ^DM924::E1
Name: METH BLANK1 SF5883
Misc: 2/23/89 20 ML DWM

Id File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890223 11:41

Operator ID: DWMORTON
Quant Time: 890223 12:30
Injected at: 890223 10:03

MS data file header from : >DM924

Sample: METH BLANK1 SF5883 Operator: DWMORTON MS 2/23/89 10:03
Misc : 2/23/89 20 ML DWM
Sys. #: 3 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: #3VOA1 Tuning file: MTBFD3 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 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

>DM924 METH BLANK1 SF5883 2/23/89 20 ML DWM
42.01 250.0 CLP ADC TIC
Upslope: .20 Area Reject: 22514. Max Peaks: 3 Bunching: 1
Dnslope: 0.00 Results File IDM924 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	7.15	191	199	206	2501	37094	26569	11.23	8.076
2	20.05	638	647	658	4328	90012	65780	27.80	19.994
3	29.96	981	991	1007	10101	503100	236655	100.00	71.931

Sum of corrected areas: 329004.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	10.0	384246.	10.37	1.44 - 14.73
2	10.0	389206.	19.10	14.73 - 21.00
3	10.0	225143.	22.90	21.00 - 41.55

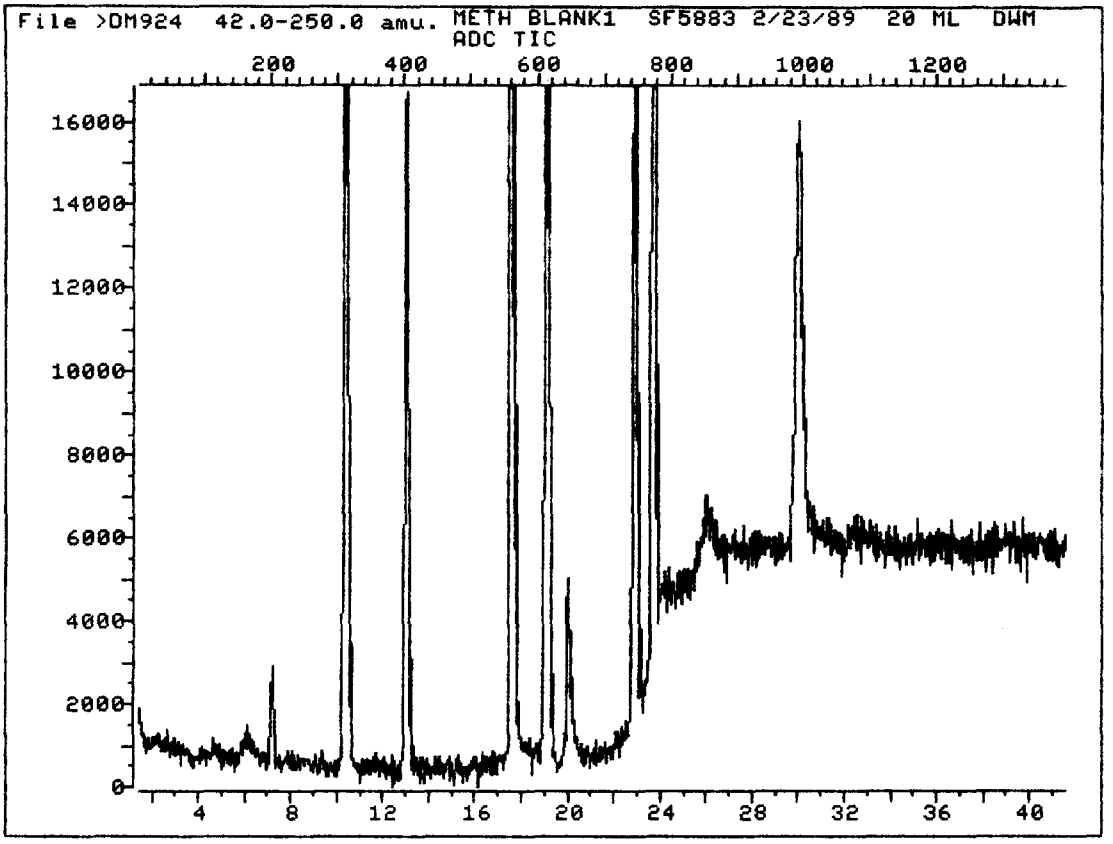
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 20.00 Amount Used (AU) = 20.00

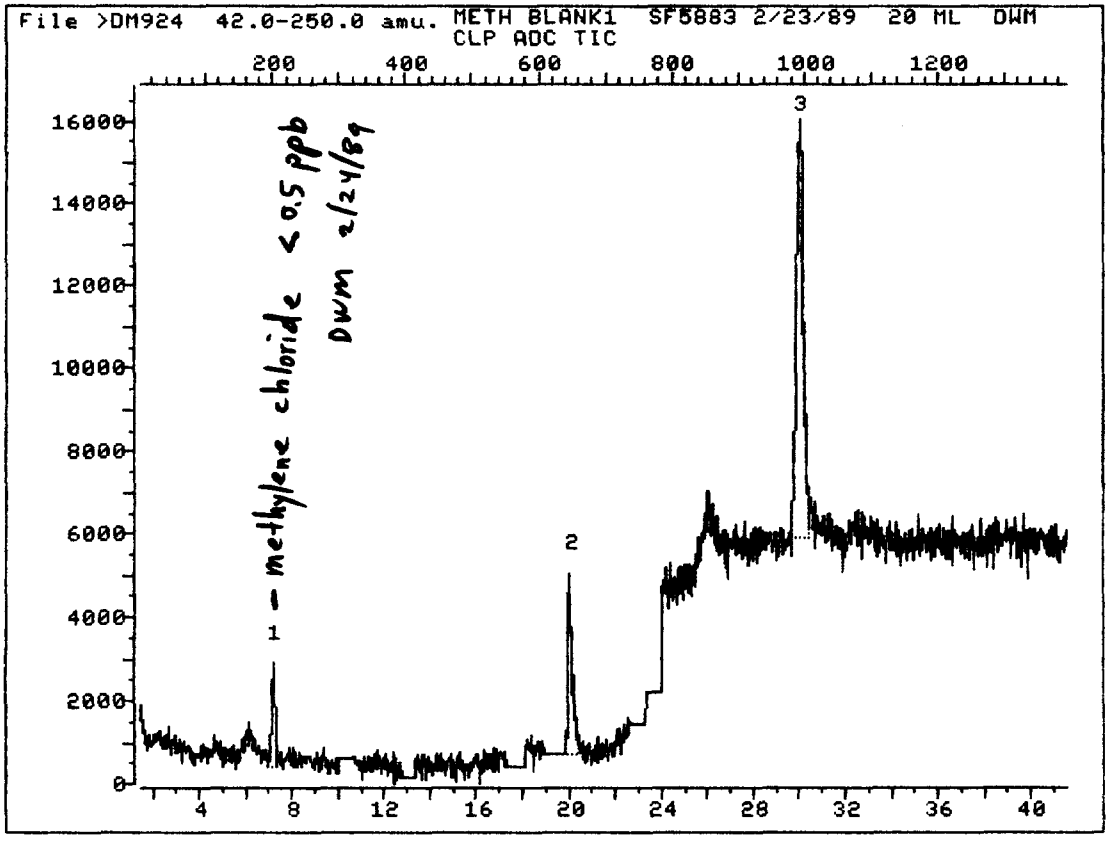
Correction Factor = 1.00 = (AM / AU) / (DF * FS)

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

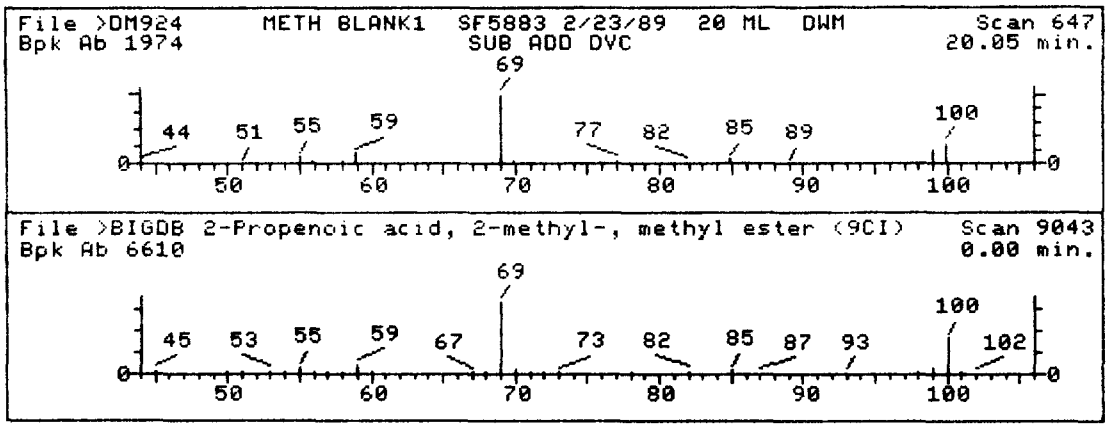
12:43 PM THU., 23 FEB., 1989

000053


File >DM924 42.0-250.0 amu. METH BLANK1 SF5883 2/23/89 20 ML DWM
ADC TIC
200 400 600 800 1000 1200
16000 14000 12000 10000 8000 6000 4000 2000 0
4 8 12 16 20 24 28 32 36 40


File >DM924 42.0-250.0 amu. METH BLANK1 SF5883 2/23/89 20 ML DWM
CLP ADC TIC
200 400 600 800 1000 1200
16000 14000 12000 10000 8000 6000 4000 2000 0
4 8 12 16 20 24 28 32 36 40
1
2
3
1 - methylene chloride < 0.5 ppb
DWM 2/24/89

000064



. Unknown #,2
Area = 65780.00 Tentative Concentration is 2.00

1. 2-Propenoic acid, 2-methyl-, methyl ester (9CI) 100 C5H8O2

Sample file: >DM924 Spectrum #: 647
Search speed: 2 Tilting option: F No. of ion ranges searched: 58

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	80626	9043	"BIGDB	21	68	2	0	89	47	7	13

QUANT REPORT

Operator ID: DWMORTON Quant Rev: 6 Quant Time: 890223 11:36
Output File: ^DM925::E1 Injected at: 890223 10:53
Data File: >DM925::E1 Dilution Factor: 1.00000
Name: 3 STD 15 PPB SF5883
Misc: CONT CAL 2/23/89 DWM 20 ML

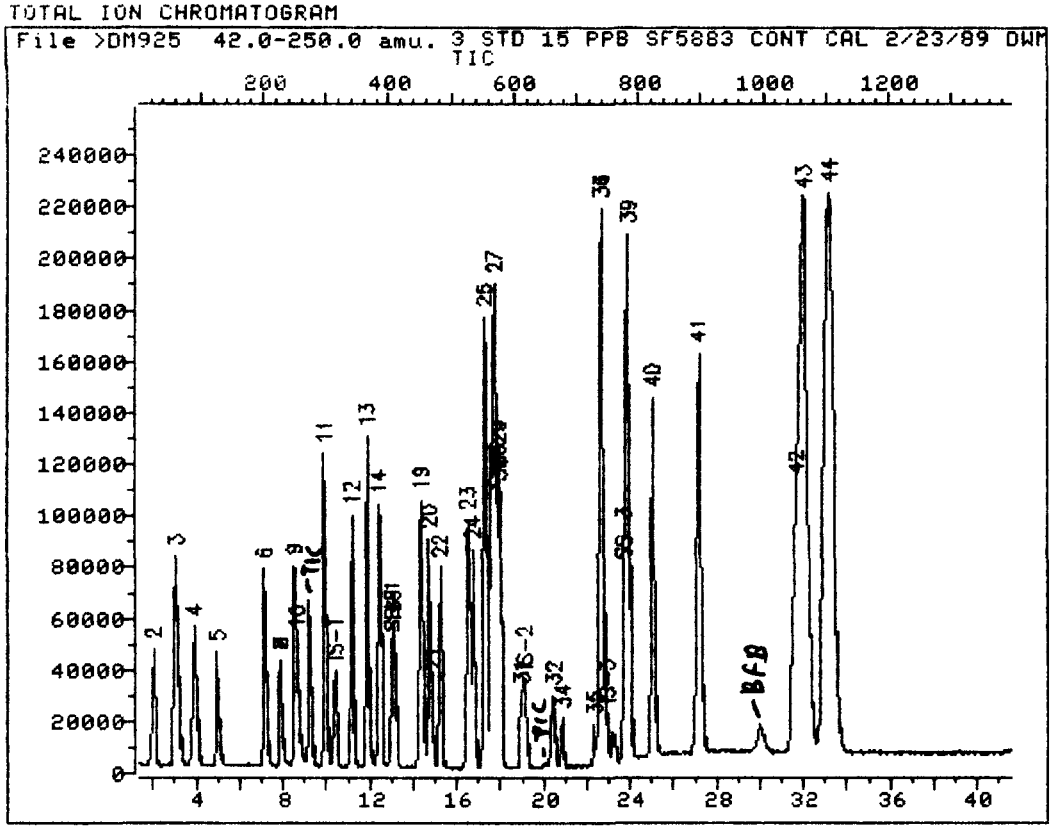
ID File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890217 12:34

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.36	128.0	51705	10.00	UG/L	96
2)	CHLOROMETHANE	1.98	50.0	303974M	29.33	UG/L	100
3)	BROMOMETHANE	3.05	94.0	387807	24.50	UG/L	98
4)	VINYL CHLORIDE	3.88	62.0	409883	24.69	UG/L	96
5)	CHLOROETHANE	4.95	64.0	248091	24.33	UG/L	97
6)	METHYLENE CHLORIDE	7.14	84.0	200879	16.51	UG/L	99
7)	ACROLEIN	7.86	56.0	76069	290.48	UG/L	95
8)	ACETONE	7.86	43.0	230121	392.34	UG/L	91
9)	ACRYLONITRILE	8.52	53.0	366375	411.42	UG/L	99
10)	CARBON DISULFIDE	8.63	76.0	224259	14.92	UG/L	100
11)	1,1-DICHLOROETHENE	9.90	96.0	257725	16.63	UG/L	92
12)	1,1-DICHLOROETHANE	11.14	63.0	512438	16.47	UG/L	97
13)	1,2-DICHLOROETHENE (TOTAL)	11.86	96.0	292984	16.66	UG/L	89
14)	CHLOROFORM	12.41	83.0	410999	15.94	UG/L	99
15)	1,2-DICHLOROETHANE-D4	13.01	65.0	47828	10.10	UG/L	88
16)	1,2-DICHLOROETHANE	13.10	62.0	111928	15.20	UG/L	97
17)	*2-Bromo-1-chloropropane	19.09	77.0	215449	10.00	UG/L	96
18)	2-BUTANONE	13.04	72.0	40805	130.35	UG/L	96
19)	1,1,1-TRICHLOROETHANE	14.34	97.0	325161	16.50	UG/L	99
20)	CARBON TETRACHLORIDE	14.71	117.0	274432	16.70	UG/L	96
21)	VINYL ACETATE	14.83	43.0	168615	18.98	UG/L	97
22)	BROMODICHLOROMETHANE	15.23	83.0	289012	16.72	UG/L	96
23)	1,2-DICHLOROPROPANE	16.50	63.0	307468	16.45	UG/L	98
24)	CIS-1,3-DICHLOROPROPENE	16.73	75.0	396654	22.82	UG/L	97
25)	TRICHLOROETHENE	17.25	130.0	340093	16.78	UG/L	98
26)	BENZENE-D6	17.57	84.0	506758	11.57	UG/L	98
27)	BENZENE	17.71	78.0	896635	15.99	UG/L	96
28)	DIBROMOCHLOROMETHANE	17.88	129.0	167348	15.59	UG/L	97
29)	TRANS-1,3-DICHLOROPROPENE	17.94	75.0	144403	9.65	UG/L	98
30)	1,1,2-TRICHLOROETHANE	17.97	97.0	115043	15.97	UG/L	99
31)	2-CHLOROETHYL VINYLETHER	18.95	63.0	76871	16.24	UG/L	97
32)	BROMOFORM	20.45	173.0	93537	16.07	UG/L	98
33)	*1,4-Dichlorobutane	22.90	55.0	108469	10.00	UG/L	99
34)	4-METHYL-2-PENTANONE	20.85	43.0	118108	25.86	UG/L	97
35)	2-HEXANONE	22.32	43.0	80690	23.84	UG/L	94
36)	TETRACHLOROETHENE	22.64	164.0	292357	16.16	UG/L	99
37)	1,1,2,2-TETRACHLOROETHANE	22.64	83.0	151548	15.76	UG/L	98
38)	TOLUENE-D8	23.70	98.0	287410	10.41	UG/L	98
39)	TOLUENE	23.88	92.0	589002	16.10	UG/L	98
40)	CHLOROBENZENE	25.03	112.0	594877	15.82	UG/L	97
41)	ETHYLBENZENE	27.13	106.0	340817	15.29	UG/L	98
42)	STYRENE	31.66	104.0	609763	13.31	UG/L	87
43)	META XYLENE	31.98	106.0	978312	33.23	UG/L	97

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	O-&/OR P-XYLENE	33.16	106.0	1184590	41.71	UG/L	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >DM925::E1 Quant Output File: ^DM925::E1
Name: 3 STD 15 PPB SF5883
Misc: CONT CAL 2/23/89 DWM 20 ML

Id File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890217 12:34

Operator ID: DWMORTON
Quant Time: 890223 11:36
Injected at: 890223 10:53

QUANT REPORT

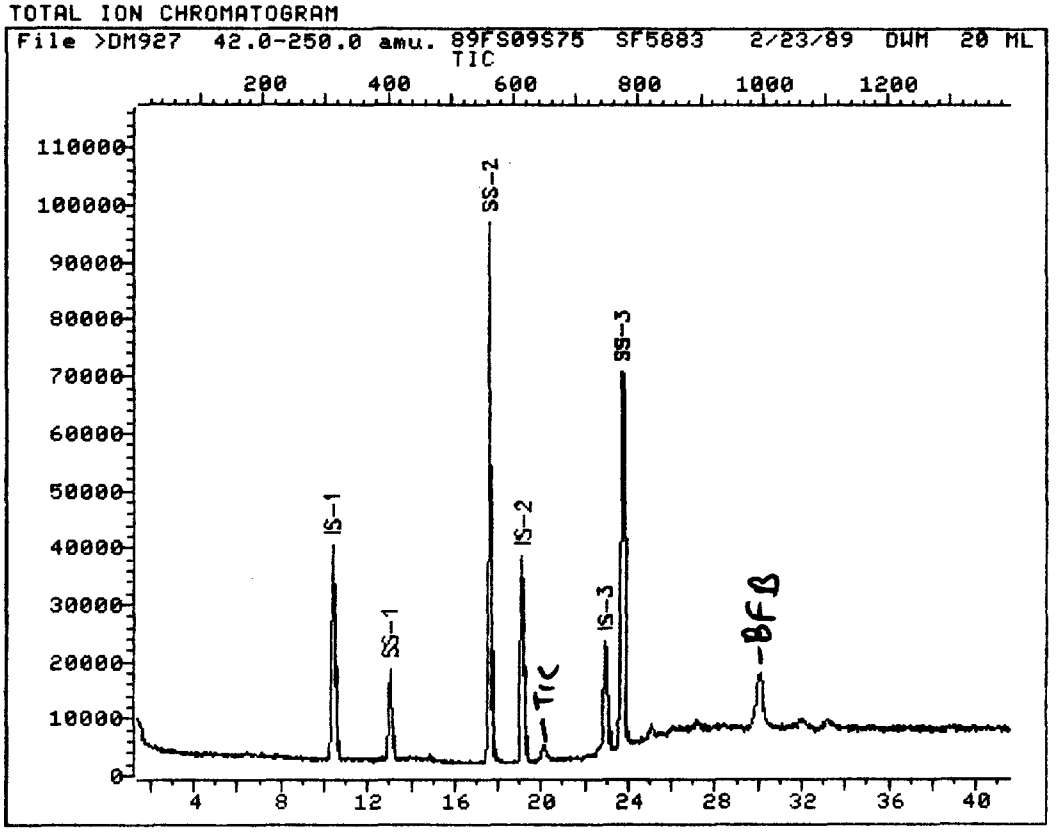
Operator ID: DWMORTON Quant Rev: 6 Quant Time: 890223 13:59
Output File: ^DM927::E1 Injected at: 890223 13:16
Data File: >DM927::E1 Dilution Factor: 1.00000
Name: 89FS09S75 SF5883
Misc: 2/23/89 DWM 20 ML

ID File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890223 11:41

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	10.36	311	54498	10.00	UG/L	97
15)	1,2-DICHLOROETHANE-D4	13.01	403	43711	8.67	UG/L	88
17)	*2-Bromo-1-chloropropane	19.11	615	228319	10.00	UG/L	98
26)	BENZENE-D6	17.59	562	544602	10.14	UG/L	98
33)	*1,4-Dichlorobutane	22.92	747	109352	10.00	UG/L	97
38)	TOLUENE-D8	23.69	774	309412	10.68	UG/L	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >DM927::E1 Quant Output File: ^DM927::E1
Name: 89FS09S75 SF5883
Misc: 2/23/89 DWM 20 ML

Id File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890223 11:41

Operator ID: DWMORTON
Quant Time: 890223 13:59
Injected at: 890223 13:16

000030

MS data file header from : >DM927

Sample: 89FS09S75 SF5883 Operator: DWMORTON MS 2/23/89 13:16
Misc : 2/23/89 DWM 20 ML
Sys. #: 3 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: #3VOA1 Tuning file: MTBFD3 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 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

>DM927 89FS09S75 SF5883 2/23/89 DWM 20 ML
42.01 250.0 CLP ADC TIC
Upslope: .20 Area Reject: 20596. Max Peaks: 3 Bunching: 1
Dnslope: 0.00 Results File IDM927 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	20.06	638	648	660	2875	59166	45822	22.80	16.357
2	25.02	814	820	826	2715	120972	33315	16.57	11.892
3	30.03	985	994	1010	9584	477412	201007	100.00	71.751

Sum of corrected areas: 280144.

Summary of Unknowns PBM Library Search and Quantitation

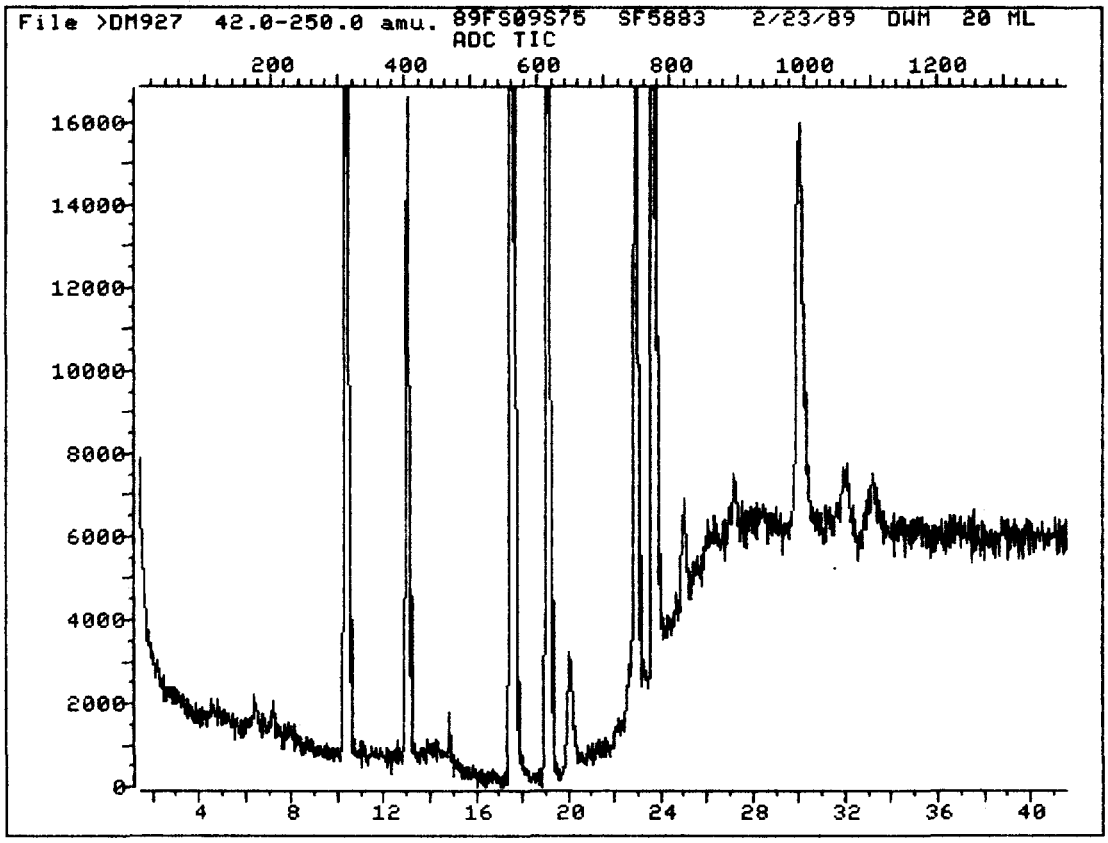
Standard	Concentration	Area	Retention Time	Unknown Window
1	10.0	380968.	10.36	1.43 - 14.74
2	10.0	378930.	19.11	14.74 - 21.01
3	10.0	205959.	22.92	21.01 - 41.56

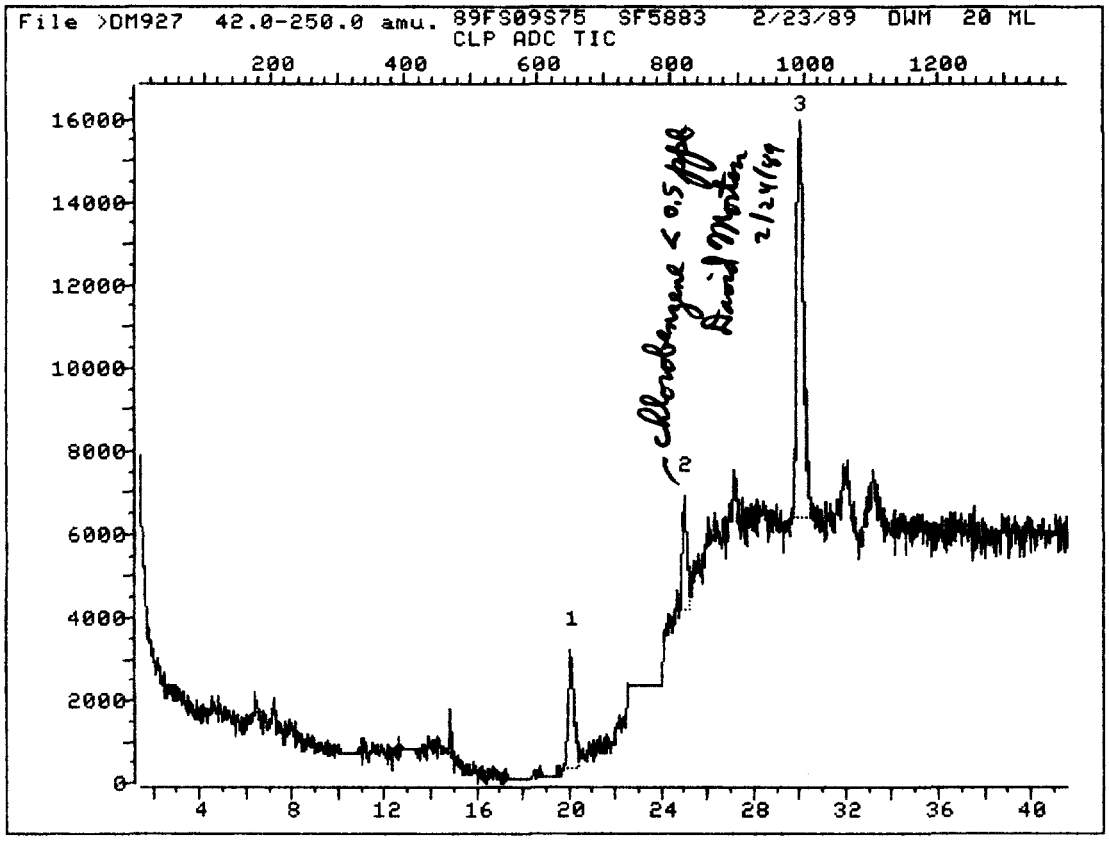
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 20.00 Amount Used (AU) = 20.00

Correction Factor = 1.00 = (AM / AU) / (DF * FS)

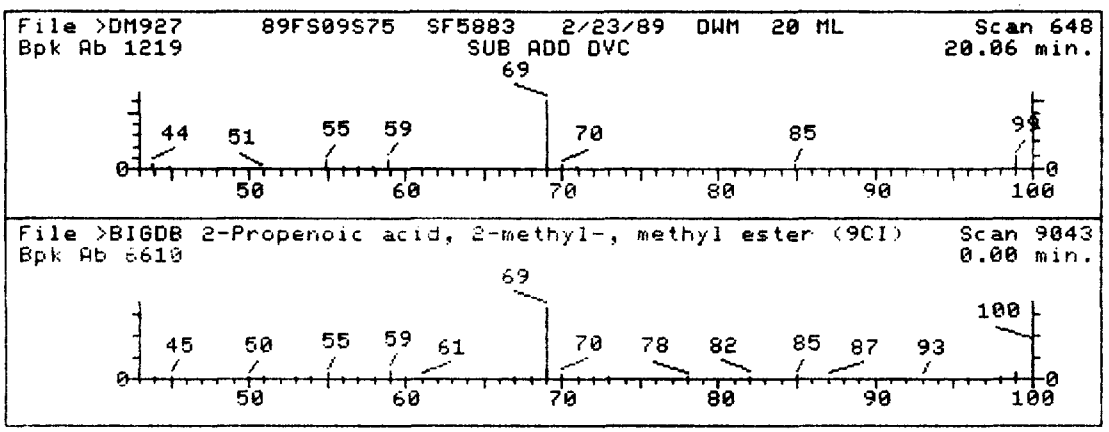
$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

2:10 PM THU., 23 FEB., 1989


File >DM927 42.0-250.0 amu. 89FS09S75 SF5883 2/23/89 DWM 20 ML
ADC TIC
200 400 600 800 1000 1200
16000 14000 12000 10000 8000 6000 4000 2000 0
4 8 12 16 20 24 28 32 36 40


File >DM927 42.0-250.0 amu. 89FS09S75 SF5883 2/23/89 DWM 20 ML
CLP ADC TIC
200 400 600 800 1000 1200
16000 14000 12000 10000 8000 6000 4000 2000 0
4 8 12 16 20 24 28 32 36 40
1
2
3
Chlorobenzene < 0.5 ppb
David Morton
2/24/89

000062



. Unknown #,1
Area = 45822.00 Tentative Concentration is 1.000

1. 2-Propenoic acid, 2-methyl-, methyl ester (9CI) 100 C5H8O2

Sample file: >DM927 Spectrum #: 648
Search speed: 2 Tilting option: F No. of ion ranges searched: 57

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	42*	80626	9043	"BIGDB	23	66	2	0	112	23	17	13

QUANT REPORT

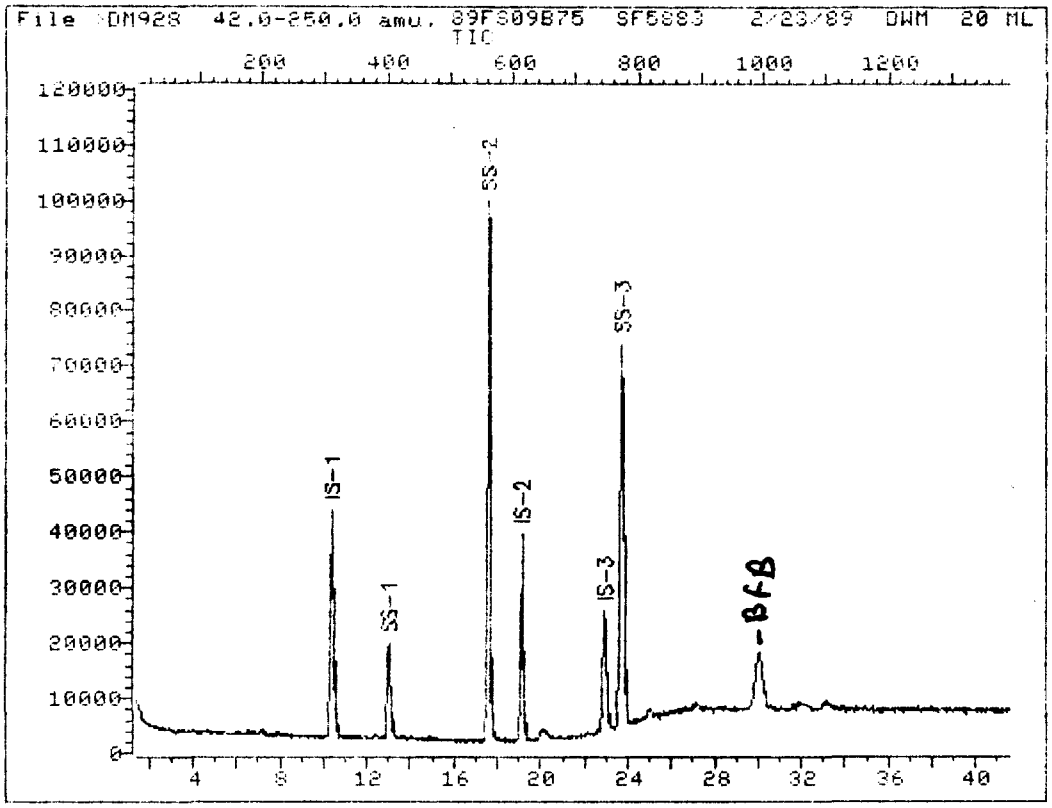
Operator ID: DWMORTON Quant Rev: 6 Quant Time: 890223 14:49
Output File: ^DM928::E1 Injected at: 890223 14:06
Data File: >DM928::E1 Dilution Factor: 1.00000
Name: 89FS09B75 SF5883
Misc: 2/23/89 DWM 20 ML

ID File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890223 11:41

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.37	128.0	58692	10.00	UG/L	94
15)	1,2-DICHLOROETHANE-D4	13.02	65.0	48308	8.90	UG/L	88
17)	*2-Bromo-1-chloropropane	19.13	77.0	243457	10.00	UG/L	99
26)	BENZENE-D6	17.57	84.0	557104	9.73	UG/L	98
33)	*1,4-Dichlorobutane	22.93	55.0	119707	10.00	UG/L	96
38)	TOLUENE-D8	23.71	98.0	313772	9.89	UG/L	98

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >DM928::E1 Quant Output File: ^DM928::E1
Name: 89FS09B75 SF5883
Misc: 2/23/89 DWM 20 ML

Id File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890223 11:41

Operator ID: DWMORTON
Quant Time: 890223 14:49
Injected at: 890223 14:06

QUANT REPORT

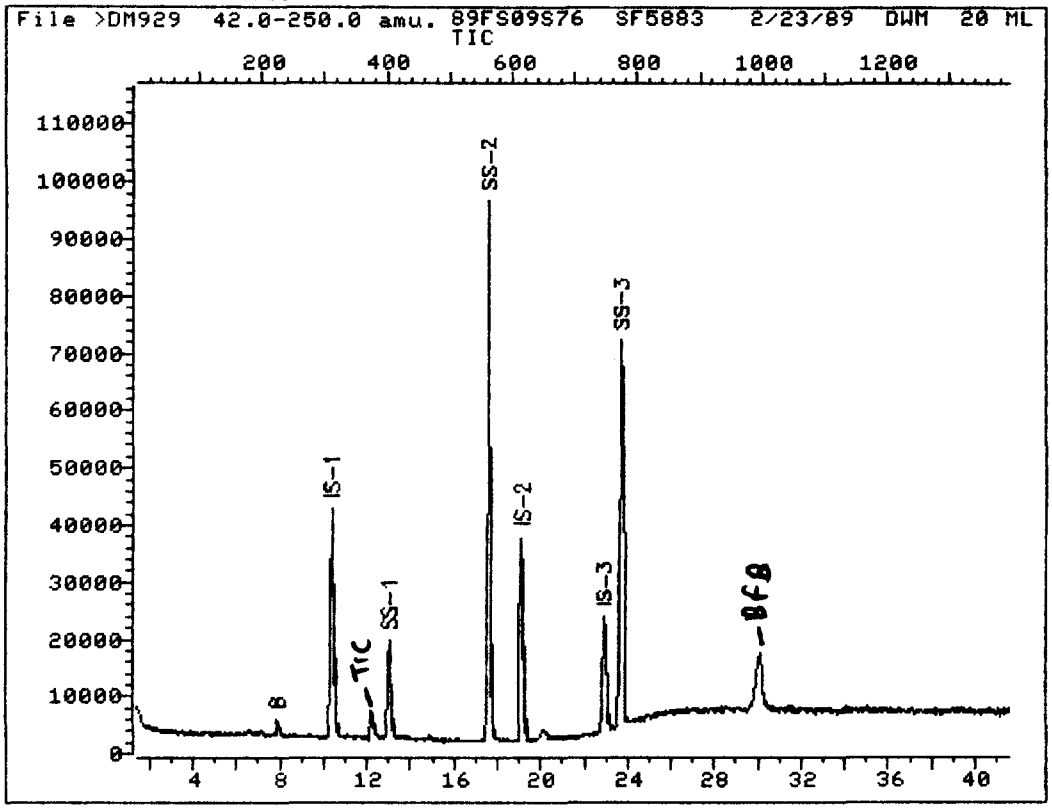
Operator ID: DWMORTON Quant Rev: 6 Quant Time: 890223 15:39
Output File: ^DM929::E1 Injected at: 890223 14:56
Data File: >DM929::E1 Dilution Factor: 1.00000
Name: 89FS09S76 SF5883
Misc: 2/23/89 DWM 20 ML

ID File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890223 11:41

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.37	128.0	56083	10.00	UG/L	94
8)	ACETONE	7.89	43.0	21620	32.48	UG/L	99
15)	1,2-DICHLOROETHANE-D4	13.02	65.0	45772	8.82	UG/L	82
17)	*2-Bromo-1-chloropropane	19.12	77.0	232509	10.00	UG/L	99
26)	BENZENE-D6	17.59	84.0	545961	9.98	UG/L	98
33)	*1,4-Dichlorobutane	22.92	55.0	113916	10.00	UG/L	95
38)	TOLUENE-D8	23.70	98.0	308980	10.24	UG/L	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM

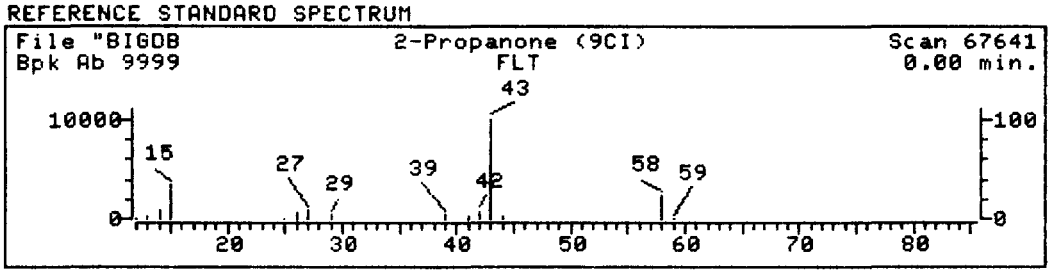


Data File: >DM929::E1 Quant Output File: ^DM929::E1
Name: 89FS09S76 SF5883
Misc: 2/23/89 DWM 20 ML

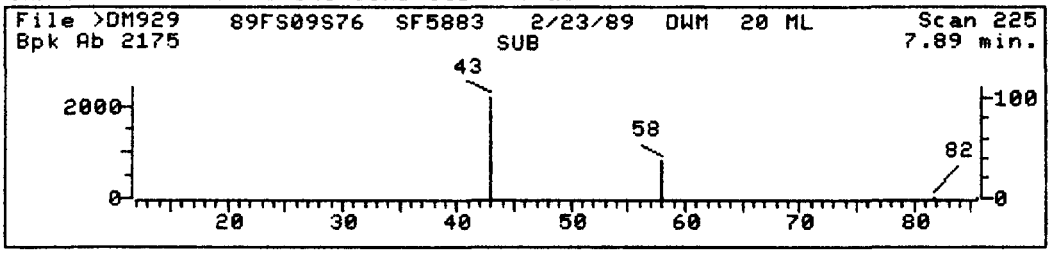
Id File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890223 11:41

Operator ID: DWMORTON
Quant Time: 890223 15:39
Injected at: 890223 14:56

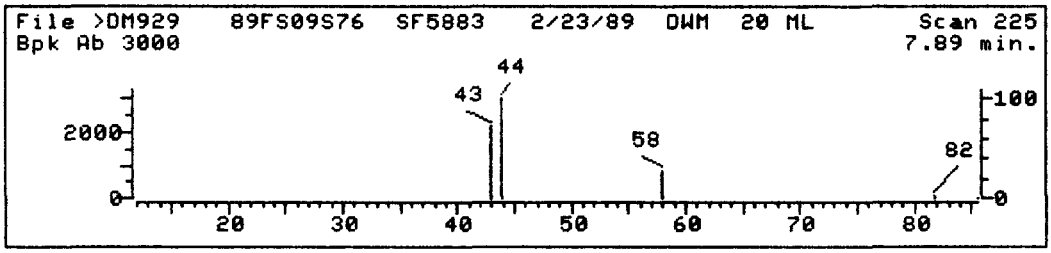
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >DM929::E1
Name: 89FS09S76 SF5883
Misc: 2/23/89 DWM 20 ML
Quant Time: 890223 15:39
Injected at: 890223 14:56

Quant Output File: ^DM929::E1

Quant ID File: IDVOA1::A1
Last Calibration: 890223 11:41

Compound No: 8
Compound Name: ACETONE
Scan Number: 225
Retention Time: 7.89 min.
Quant Ion: 43.0
Area: 21620
Concentration: 32.48 UG/L
q-value: 99

MS data file header from : >DM929

Sample: 89FS09S76 SF5883 Operator: DWMORTON MS 2/23/89 14:56
Misc : 2/23/89 DWM 20 ML
Sys. #: 3 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: #3VOA1 Tuning file: MTBFD3 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 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

>DM929 89FS09S76 SF5883 2/23/89 DWM 20 ML
42.01 250.0 CLP ADC TIC
Upslope: .20 Area Reject: 21748. Max Peaks: 2 Bunching: 1
Dnslope: 0.00 Results File IDM929 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	12.21	368	375	382	5157	60176	53814	35.27	26.074
2	30.04	986	994	1005	8827	372299	152577	100.00	73.926

Sum of corrected areas: 206391.

Summary of Unknowns PBM Library Search and Quantitation

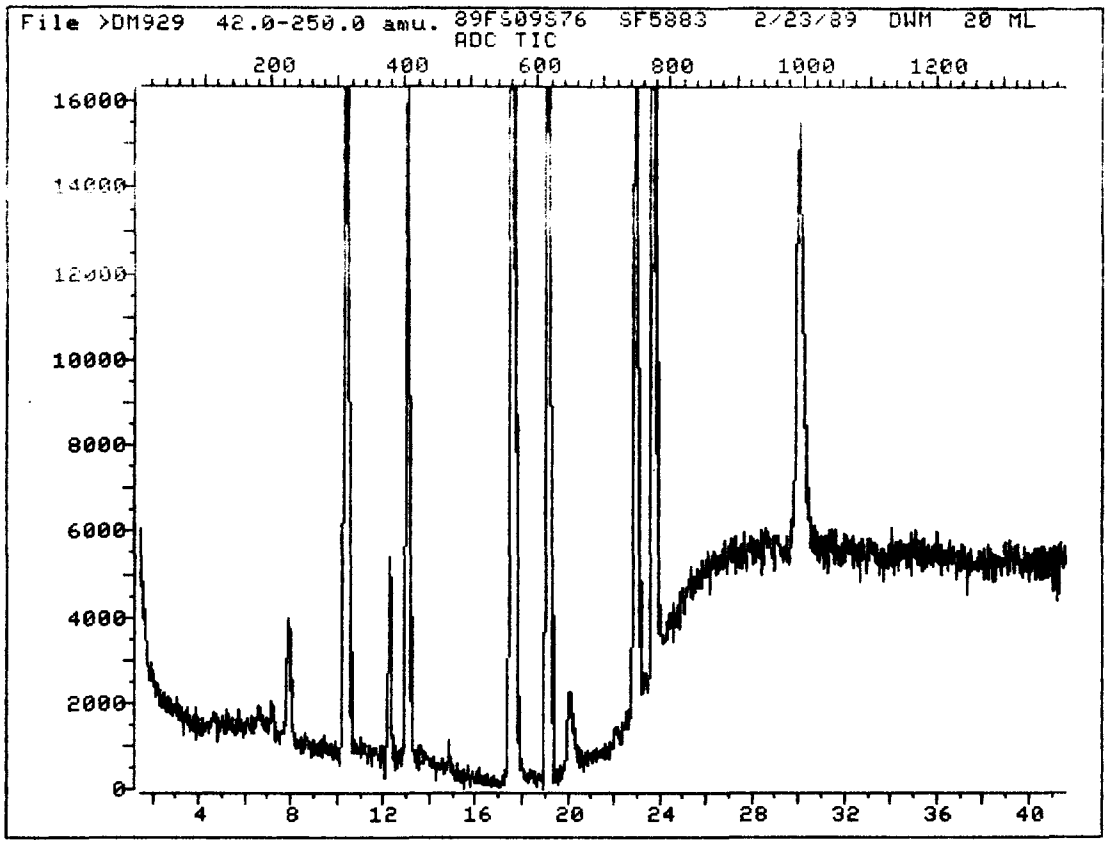
Standard	Concentration	Area	Retention Time	Unknown Window
1	10.0	402857.	10.37	1.44 - 14.74
2	10.0	382093.	19.12	14.74 - 21.02
3	10.0	217476.	22.92	21.02 - 41.57

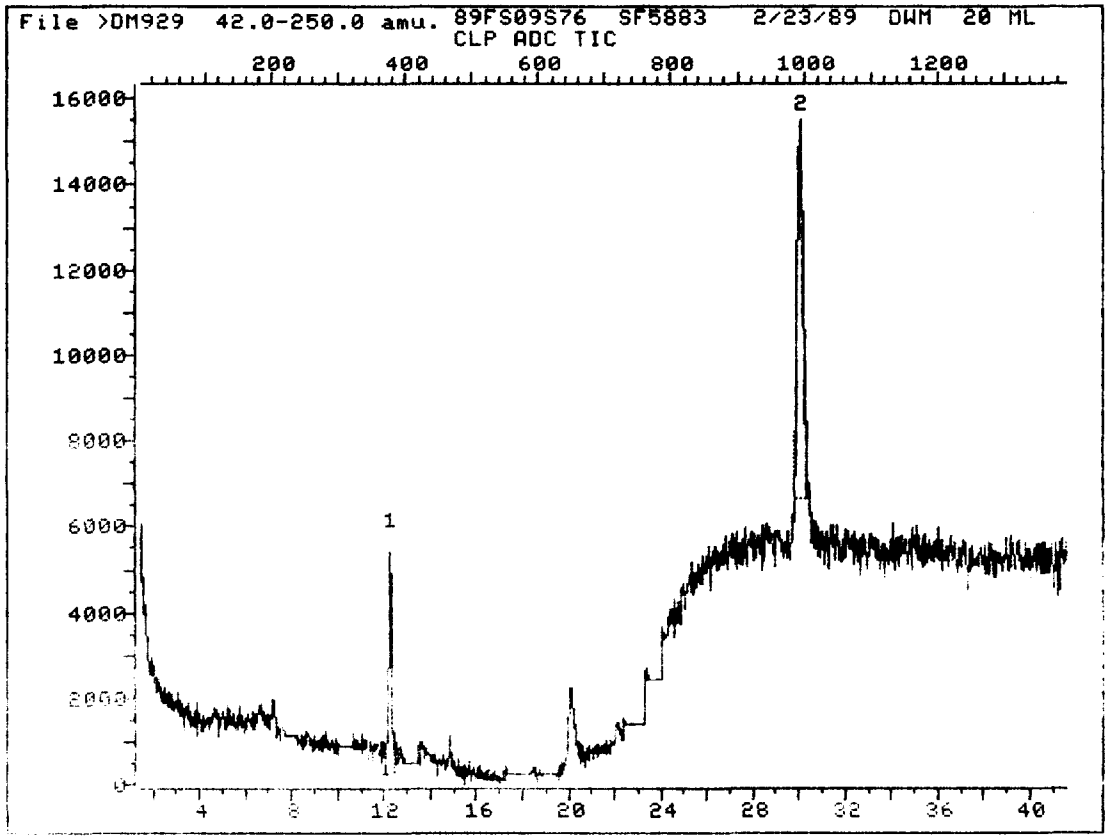
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 20.00 Amount Used (AU) = 20.00

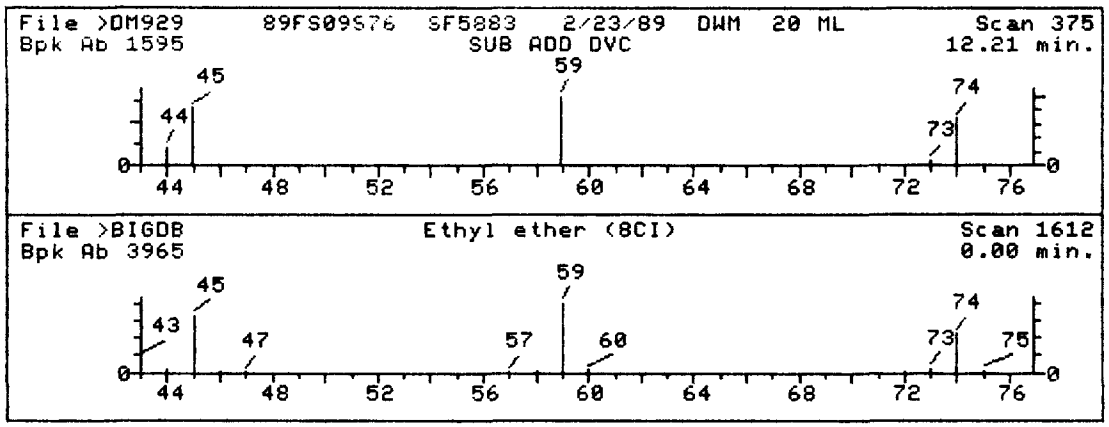
Correction Factor = 1.00 = (AM / AU) / (DF * FS)

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

3:52 PM THU., 23 FEB., 1989


File >DM929 42.0-250.0 amu. 89FS09S76 SF5883 2/23/89 DWM 20 ML
ADC TIC
200 400 600 800 1000 1200
16000 14000 12000 10000 8000 6000 4000 2000 0
4 8 12 16 20 24 28 32 36 40


File >DM929 42.0-250.0 amu. 89FS09S76 SF5883 2/23/89 DWM 20 ML
CLP ADC TIC
200 400 600 800 1000 1200
16000 14000 12000 10000 8000 6000 4000 2000 0
1
2
4 8 12 16 20 24 28 32 36 40



. Unknown #,1
Area = 53814.00 Tentative Concentration is 1.000

1. Ethyl ether (8CI) 74 C4H10O

Sample file: >DM929 Spectrum #: 375
Search speed: 2 Tilting option: F No. of ion ranges searched: 49

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	60*	60297	1612	"BIGDB	28	65	2	0	252	12	30	14

QUANT REPORT

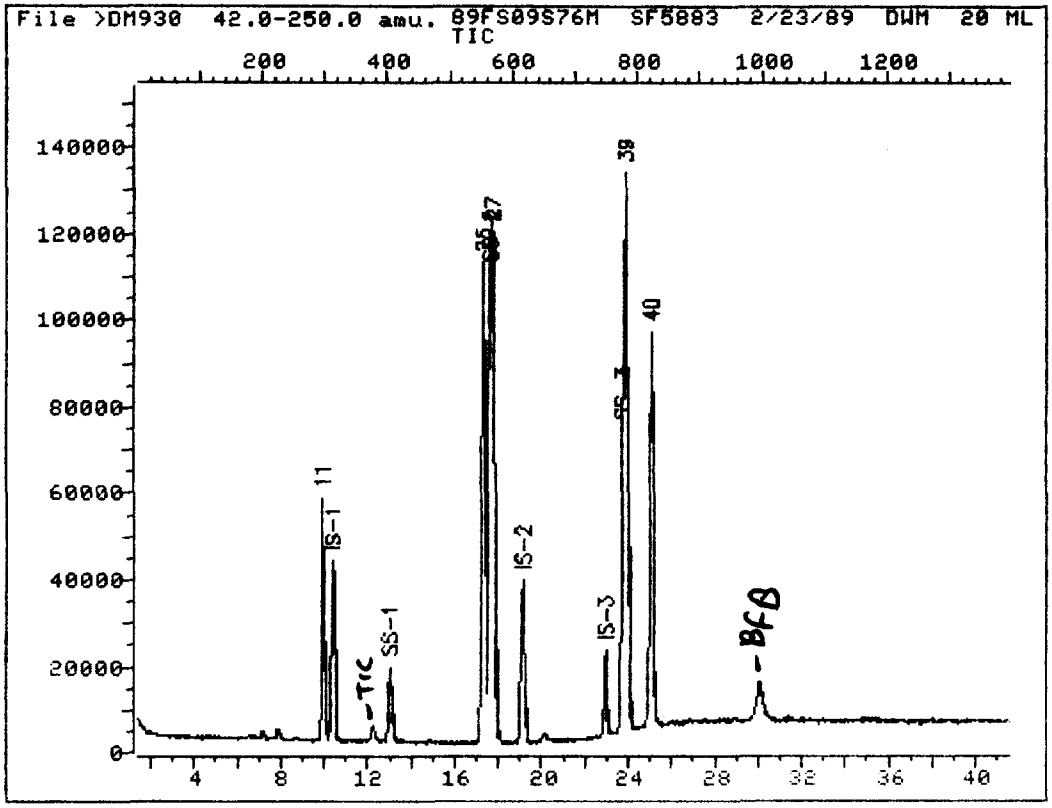
Operator ID: DWMORTON Quant Rev: 6 Quant Time: 890223 16:29
Output File: ^DM930::E1 Injected at: 890223 15:46
Data File: >DM930::E1 Dilution Factor: 1.00000
Name: 89FS09S76M SF5883
Misc: 2/23/89 DWM 20 ML

ID File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890223 11:41

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.36	128.0	57854	10.00	UG/L	96
11)	1,1-DICHLOROETHENE	9.90	96.0	127193	6.62	UG/L	93
15)	1,2-DICHLOROETHANE-D4	13.01	65.0	48666	9.09	UG/L	86
17)	*2-Bromo-1-chloropropane	19.12	77.0	239644	10.00	UG/L	99
25)	TRICHLOROETHENE	17.27	130.0	218402	8.66	UG/L	98
26)	BENZENE-D6	17.59	84.0	544509	9.66	UG/L	99
27)	BENZENE	17.73	78.0	565729	8.51	UG/L	98
33)	*1,4-Dichlorobutane	22.92	55.0	110529	10.00	UG/L	97
38)	TOLUENE-D8	23.70	98.0	300104	10.25	UG/L	99
39)	TOLUENE	23.87	92.0	368839	9.22	UG/L	95
40)	CHLOROBENZENE	25.02	112.0	388963	9.63	UG/L	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >DM930::E1 Quant Output File: ^DM930::E1
Name: 89FS09S76M SF5883
Misc: 2/23/89 DWM 20 ML

Id File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890223 11:41

Operator ID: DWMORTON
Quant Time: 890223 16:29
Injected at: 890223 15:46

QUANT REPORT

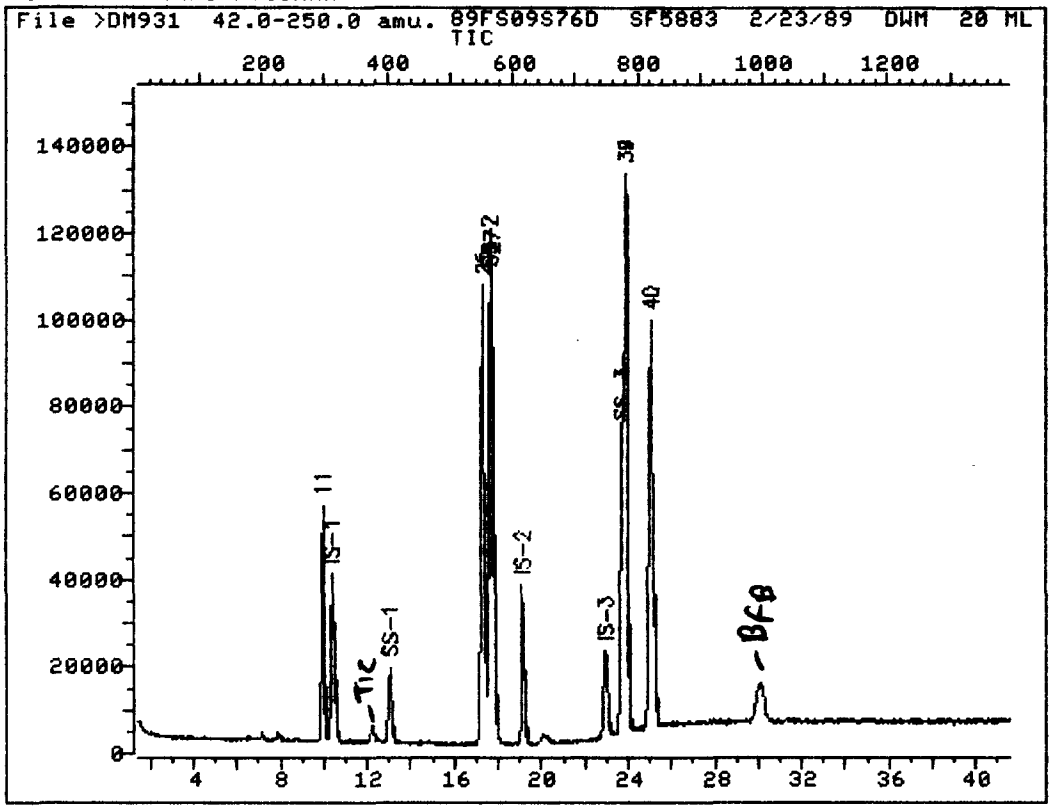
Operator ID: DWMORTON Quant Rev: 6 Quant Time: 890223 17:19
Output File: ^DM931::E1 Injected at: 890223 16:36
Data File: >DM931::E1 Dilution Factor: 1.00000
Name: 89FS09S76D SF5883
Misc: 2/23/89 DWM 20 ML

ID File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890223 11:41

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.36	128.0	56425	10.00	UG/L	92
11)	1,1-DICHLOROETHENE	9.90	96.0	120198	6.41	UG/L	91
15)	1,2-DICHLOROETHANE-D4	13.01	65.0	45824	8.78	UG/L	82
17)	*2-Bromo-1-chloropropane	19.12	77.0	230935	10.00	UG/L	99
25)	TRICHLOROETHENE	17.28	130.0	209941	8.64	UG/L	97
26)	BENZENE-D6	17.59	84.0	532094	9.80	UG/L	98
27)	BENZENE	17.74	78.0	539454	8.42	UG/L	95
33)	*1,4-Dichlorobutane	22.92	55.0	112347	10.00	UG/L	97
38)	TOLUENE-D8	23.70	98.0	300771	10.10	UG/L	99
39)	TOLUENE	23.87	92.0	365597	8.99	UG/L	94
40)	CHLOROBENZENE	25.02	112.0	392958	9.57	UG/L	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >DM931::E1 Quant Output File: ^DM931::E1
Name: 89FS09S76D SF5883
Misc: 2/23/89 DWM 20 ML

Id File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890223 11:41

Operator ID: DWMORTON
Quant Time: 890223 17:19
Injected at: 890223 16:36

QUANT REPORT

Operator ID: DWMORTON
Output File: ^DM932::E1
Data File: >DM932::E1
Name: 89FS09S77 SF5883
Misc: 2/23/89 DWM 20 ML

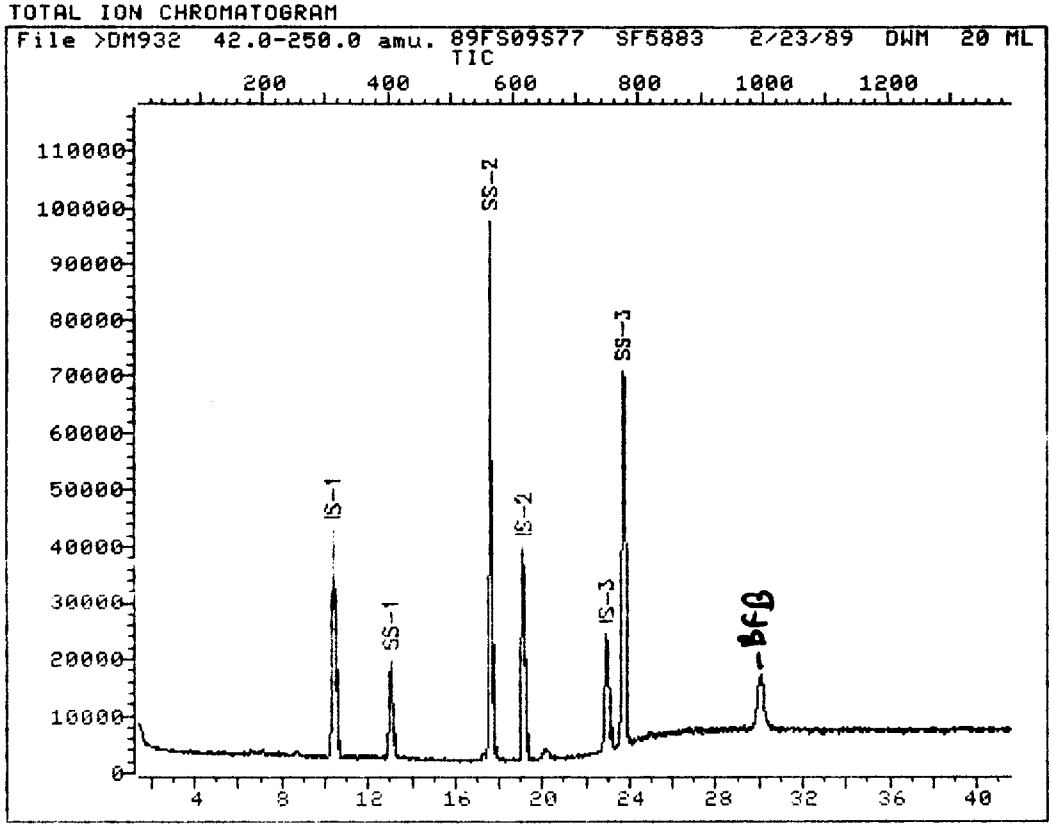
Quant Rev: 6
Quant Time: 890223 18:09
Injected at: 890223 17:26
Dilution Factor: 1.00000

ID File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890223 11:41

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*Bromochloromethane	10.36	128.0	57684	10.00	UG/L	94
15)	1,2-DICHLOROETHANE-D4	13.01	65.0	46947	8.80	UG/L	83
17)	*2-Bromo-1-chloropropane	19.11	77.0	236368	10.00	UG/L	98
26)	BENZENE-D6	17.59	84.0	543062	9.77	UG/L	97
33)	*1,4-Dichlorobutane	22.91	55.0	114838	10.00	UG/L	97
38)	TOLUENE-D8	23.69	98.0	305402	10.04	UG/L	99

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >DM932::E1 Quant Output File: ^DM932::E1
Name: 89FS09S77 SF5883
Misc: 2/23/89 DWM 20 ML

Id File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890223 11:41

Operator ID: DWMORTON
Quant Time: 890223 18:09
Injected at: 890223 17:26

QUANT REPORT

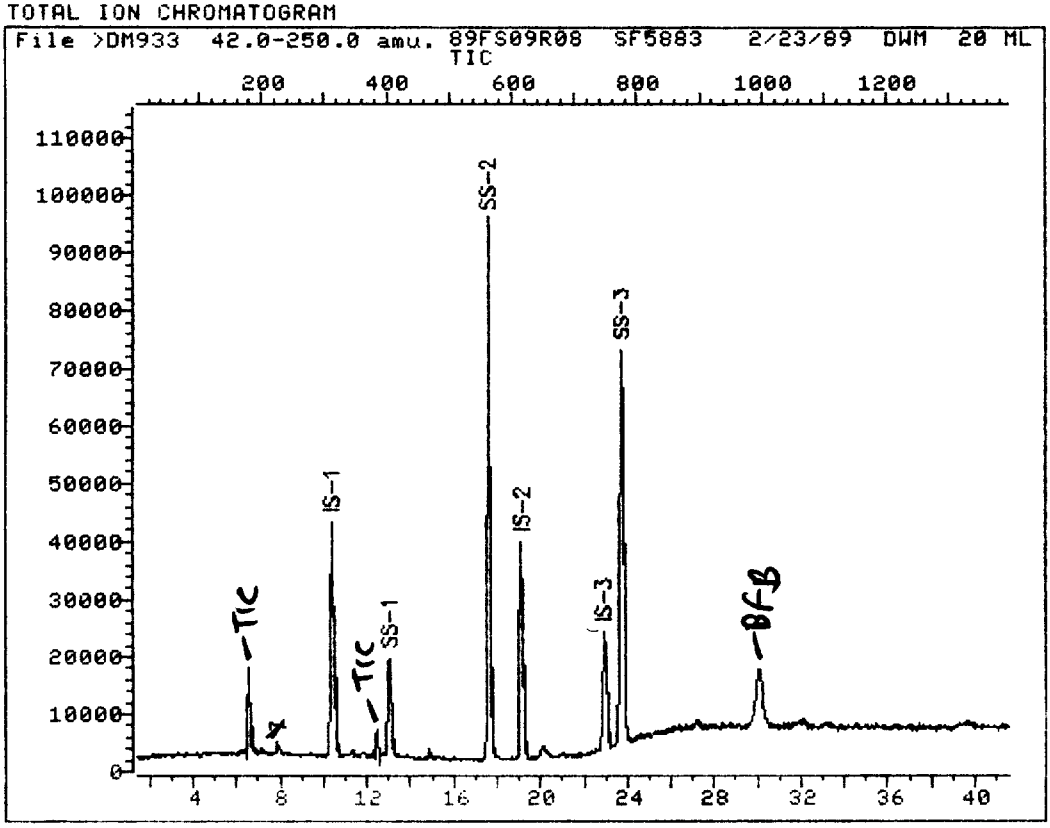
Operator ID: DWMORTON Quant Rev: 6 Quant Time: 890223 18:59
Output File: ^DM933::E1 Injected at: 890223 18:16
Data File: >DM933::E1 Dilution Factor: 1.00000
Name: 89FS09R08 SF5883
Misc: 2/23/89 DWM 20 ML

ID File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890223 11:41

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	10.37	311	57577	10.00	UG/L	94
15)	1,2-DICHLOROETHANE-D4	13.02	403	46376	8.71	UG/L	85
17)	*2-Bromo-1-chloropropane	19.09	614	238414	10.00	UG/L	99
26)	BENZENE-D6	17.57	561	544486	9.71	UG/L	99
33)	*1,4-Dichlorobutane	22.90	746	114946	10.00	UG/L	95
38)	TOLUENE-D8	23.70	774	310118	10.18	UG/L	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >DM933::E1 Quant Output File: ^DM933::E1
Name: 89FS09R08 SF5883
Misc: 2/23/89 DWM 20 ML

Id File: IDVOA1::A1
Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)
Last Calibration: 890223 11:41

Operator ID: DWMORTON
Quant Time: 890223 18:59
Injected at: 890223 18:16

MS data file header from : >DM933

Sample: 89FS09R08 SF5883 Operator: DWMORTON MS 2/23/89 18:16
Misc : 2/23/89 DWM 20 ML
Sys. #: 3 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: #3VOA1 Tuning file: MTBFD3 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 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

>DM933 89FS09R08 SF5883 2/23/89 DWM 20 ML
42.01 250.0 CLP ADC TIC
Upslope: .20 Area Reject: 23512. Max Peaks: 3 Bunching: 1
Dnslope: 0.00 Results File IDM933 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	6.57	173	179	183	15753	166591	145181	70.14	36.206
2	12.41	379	382	386	6525	48820	48820	23.59	12.175
3	29.99	984	992	1009	9782	507380	206987	100.00	51.619

Sum of corrected areas: 400988.

Summary of Unknowns PBM Library Search and Quantitation

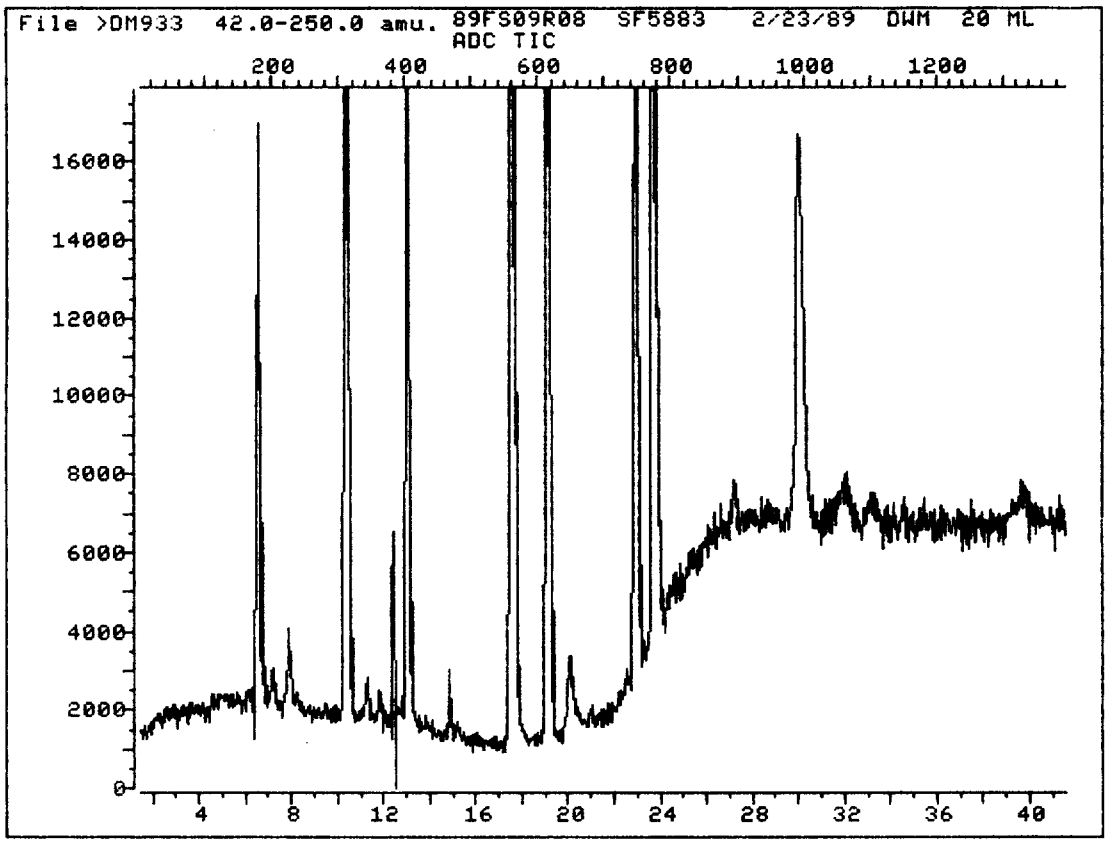
Standard	Concentration	Area	Retention Time	Unknown Window
1	10.0	399541.	10.37	1.44 - 14.73
2	10.0	390509.	19.10	14.73 - 21.00
3	10.0	235124.	22.90	21.00 - 41.57

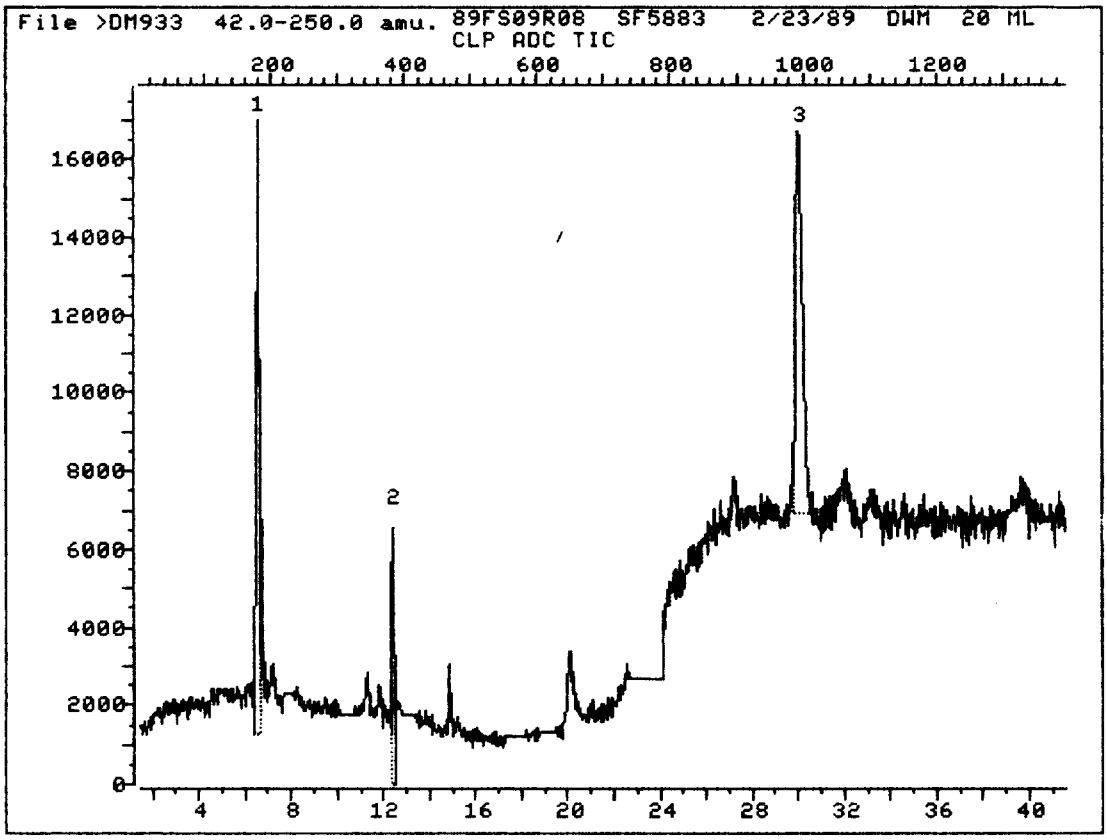
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 20.00 Amount Used (AU) = 20.00

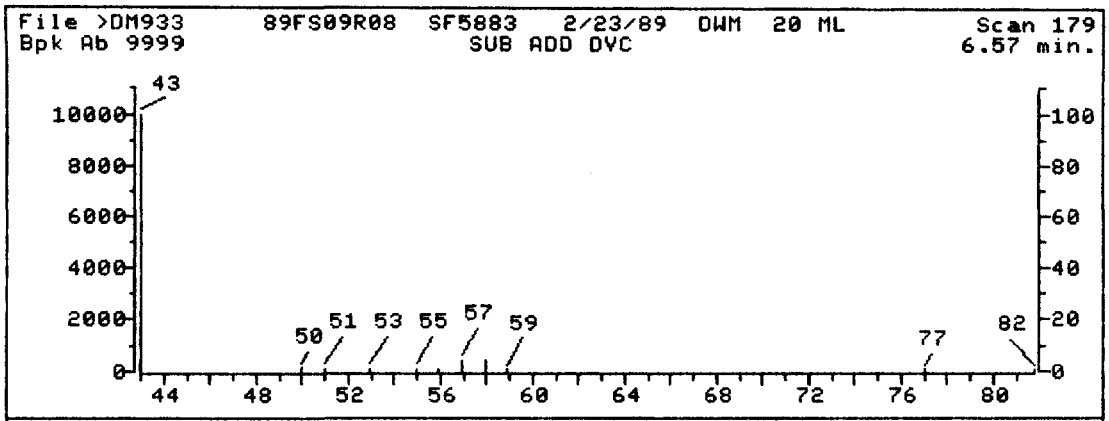
Correction Factor = 1.00 = (AM / AU) / (DF * FS)

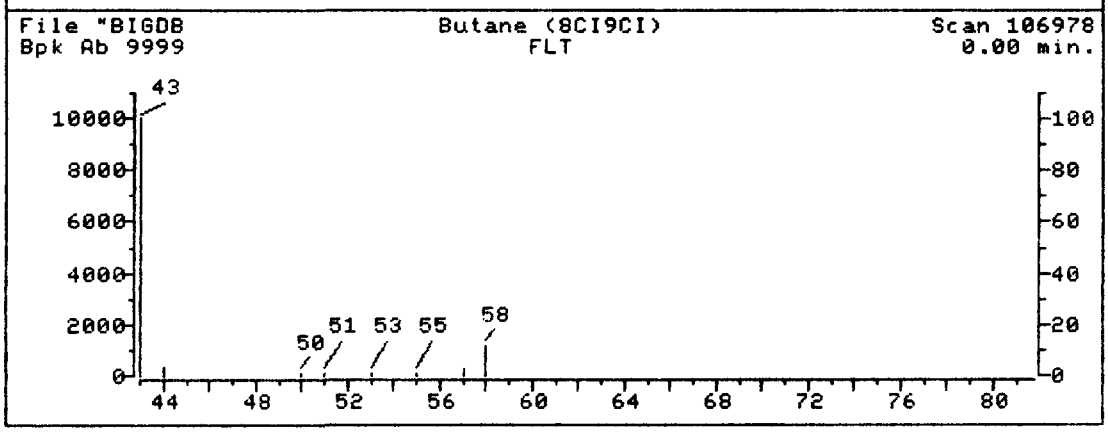
$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

7:12 PM THU., 23 FEB., 1989


File >DM933 42.0-250.0 amu. 89FS09R08 SF5883 2/23/89 DWM 20 ML
ADC TIC
200 400 600 800 1000 1200
16000
14000
12000
10000
8000
6000
4000
2000
0
4 8 12 16 20 24 28 32 36 40


File >DM933 42.0-250.0 amu. 89FS09R08 SF5883 2/23/89 DWM 20 ML
CLP ADC TIC
200 400 600 800 1000 1200
1
2
3
16000
14000
12000
10000
8000
6000
4000
2000
0
4 8 12 16 20 24 28 32 36 40





Unknown # 1

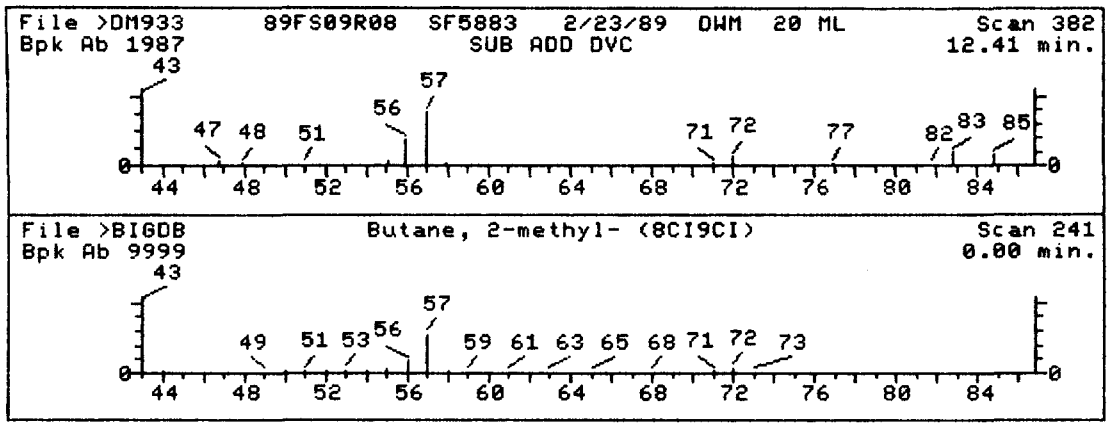
Area = 145181.0 Tentative Concentration is 4.00

Sample file: > DM933 Spectrum #: 179

1. Butane 58 C_4H_{10}

CAS # 106978

David Morton
2/24/89



. Unknown #,2
Area = 48820.00 Tentative Concentration is 1.000

1. Butane, 2-methyl- (8CI9CI) 72 C5H12

Sample file: >DM933 Spectrum #: 382
Search speed: 2 Tilting option: F No. of ion ranges searched: 57

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	39*	78784	241	"BIGDB	30	56	1	0	100	28	14	16

SF5883

000033

Quant ID File: IDVOA1::A1

Title: ID FILE FOR VOLATILES--HP5985B DM 2/22/89 (20 ML PURGE)

Last EDIT Date: 890222 12:08 Last Calib Date: 890223 11:41

RT Window (+/- min): .75
Max Hits/Compound: 1
Minimum Area: 1000
Peak/Base Peak Ratio: 35.00 %
Slope Sensitivity: -.200
Subtraction Method: 2
Ignore max check: NO
Auto Qdel Method: 5
Units of Conc: UG/L

Number of Compounds: 44

Comp No.	Compound Name	(Type)	Retention Time Min.	(Rel)	R.F.	Conc.	
1)	*Bromochloromethane	(I)	10.36	(1.000)	1.00000	10.00	**
2)	CHLOROMETHANE	(T)	1.98	(.191)	2.93950	20.00	**
3)	BROMOMETHANE	(T)	3.05	(.294)	3.75019	20.00	**
4)	VINYL CHLORIDE	(T)	3.88	(.375)	3.96367	20.00	**
5)	CHLOROETHANE	(T)	4.95	(.477)	2.39910	20.00	**
6)	METHYLENE CHLORIDE	(T)	7.14	(.689)	2.59007	15.00	**
7)	ACROLEIN	(T)	7.86	(.758)	.03923	375.00	
8)	ACETONE	(T)	7.86	(.758)	.11868	375.00	**
9)	ACRYLONITRILE	(T)	8.52	(.822)	.18896	375.00	**
10)	CARBON DISULFIDE	(T)	8.63	(.833)	3.46982	12.50	**
11)	1,1-DICHLOROETHENE	(M)	9.90	(.956)	3.32302	15.00	**
12)	1,1-DICHLOROETHANE	(T)	11.14	(1.075)	6.60720	15.00	**
13)	1,2-DICHLOROETHENE (TOTAL)	(T)	11.86	(1.145)	3.77764	15.00	
14)	CHLOROFORM	(T)	12.41	(1.197)	5.29928	15.00	**
15)	1,2-DICHLOROETHANE-D4	(S)	13.01	(1.256)	.92502	10.00	
16)	1,2-DICHLOROETHANE	(T)	13.10	(1.264)	1.44316	15.00	**
17)	*2-Bromo-1-chloropropane	(I)	19.09	(1.000)	1.00000	10.00	**
18)	2-BUTANONE	(T)	13.04	(.683)	.01515	125.00	**
19)	1,1,1-TRICHLOROETHANE	(T)	14.34	(.751)	1.00615	15.00	**
20)	CARBON TETRACHLORIDE	(T)	14.71	(.771)	.84918	15.00	**
21)	VINYL ACETATE	(T)	14.83	(.777)	.20870	37.50	**
22)	BROMODICHLOROMETHANE	(T)	15.23	(.798)	.89429	15.00	**
23)	1,2-DICHLOROPROPANE	(T)	16.50	(.864)	.95140	15.00	**
24)	CIS-1,3-DICHLOROPROPENE	(T)	16.73	(.876)	.87669	21.00	**
25)	TRICHLOROETHENE	(M)	17.25	(.903)	1.05235	15.00	**
26)	BENZENE-D6	(S)	17.57	(.920)	2.35210	10.00	
27)	BENZENE	(M)	17.71	(.928)	2.77447	15.00	**
28)	DIBROMOCHLOROMETHANE	(T)	17.88	(.937)	.51783	15.00	
29)	TRANS-1,3-DICHLOROPROPENE	(T)	17.94	(.940)	.74471	9.00	
30)	1,1,2-TRICHLOROETHANE	(T)	17.97	(.941)	.35598	15.00	**
31)	2-CHLOROETHYL VINYLETHER	(T)	18.95	(.992)	.23786	15.00	**
32)	BROMOFORM	(T)	20.45	(1.071)	.28943	15.00	**
33)	*1,4-Dichlorobutane	(I)	22.90	(1.000)	1.00000	10.00	**
34)	4-METHYL-2-PENTANONE	(T)	20.85	(.911)	.43555	25.00	**
35)	2-HEXANONE	(T)	22.32	(.975)	.29756	25.00	**
36)	TETRACHLOROETHENE	(T)	22.64	(.989)	1.79687	15.00	**

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37)	1,1,2,2-TETRACHLOROETHANE	(T)	22.64(.989)	.93144	15.00	**
38)	TOLUENE-D8	(S)	23.70(1.035)	2.64970	10.00	
39)	TOLUENE	(M)	23.88(1.043)	3.62009	15.00	**
40)	CHLOROBENZENE	(M)	25.03(1.093)	3.65620	15.00	**
41)	ETHYLBENZENE	(T)	27.13(1.185)	2.09471	15.00	**
42)	STYRENE	(T)	31.66(1.383)	4.49723	12.50	**
43)	META XYLENE	(T)	31.98(1.397)	3.00643	30.00	**
44)	O-&/OR P-XYLENE	(T)	33.16(1.448)	2.90452	37.60	**

* Compound is ISTD
** Compound uses different Quant parameters

U.S. Environmental Protection Agency Region V

Superfund Document Management System (SDMS)

Lab Data Reference Sheet

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