

**United States Army**  
Fort Monmouth, New Jersey

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**Underground Storage Tank  
Closure and Site Investigation  
Report**

***Building 2567***

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**NJDEP Case #s 89-12-12-1442  
and 91-08-27-1414**

**May 2000**

**VOLUME 3 OF 4**

# EMSL ANALYTICAL, INC.

Asbestos - Lead - Environmental - Materials



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## ANALYTICAL DATA REPORT FOR E-SYSTEMS, INC. P.O. Box 360 Fort Monmouth, NJ 07703

PROJECT : U.S. Army, Fort Monmouth  
#918271414

EMSL Project: # 95085657

Field Sample No. & Location	Laboratory Sample ID	Matrix	Date & Time of Collection	Date Received
<b>Bldg.2567:</b>				
MW2 2926926	95-36412	Aqueous	8/15/95 @ 0921	8/15/95
MW4 - 2926946	95-36413	Aqueous	8/15/95 @ 0950	8/15/95
MW1 - 2926925	95-36414	Aqueous	8/15/95 @ 1030	8/15/95
MW3 - 2926947	95-36415	Aqueous	8/15/95 @ 1123	8/15/95
MW5 - 2931788	95-36416	Aqueous	8/15/95 @ 1221	8/15/95
Trip Blank	95-36417	Aqueous	8/15/95 @ 0622	8/15/95
Field Blank	95-36418	Aqueous	8/15/95 @ 1336	8/15/95

Laboratory Name

EMSL ANALYTICAL, INC.

Certification No.

NJDEP No. 04653  
PADER No. 68-367  
NY-ELAP No. 10896

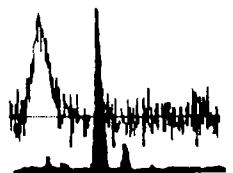
Supervisor/Manager Signature

Printed Name

Paul V. Laraia

Date

09-11-95



## TABLE OF CONTENTS

	<u>Page</u>
Sample Data Summary Package -----	3-36
Laboratory Deliverables -----	37
QA/QC Checklist -----	38
Chain of Custody Documentation -----	39-43
Methodology Summary -----	44-45
Laboratory Chronicle -----	46
Analysis Conformance/Non-Conformance Summary Format -----	47-49
GC/MS Volatile Organic Data Package -----	50-257
. Initial Calibration BFB Tune	
. Initial Calibration Data	
. Continuing Calibration BFB Tune	
. Continuing Calibration Data	
. Internal Standards Area Summary	
. Sample Results	
. Surrogate Recovery Form	
. Method Blank Data	
. Matrix Spike/Matrix Spike Duplicate Data	
Metals Analysis Data Package -----	258-265
. Sample Results	
. Calibrations	
. Blanks	
. Spike Recovery	
. Duplicates	
. Laboratory Control Sample	
Statement of Authentication -----	266



SAMPLE DATA SUMMARY PACKAGE





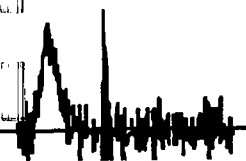
Attention: Brian McKee  
E-Systems  
P.O. Box 360  
Fort Monmouth NJ 07703

Date of Report: 09/07/95  
Project Number: 95085657  
Lab ID: 95-0036412  
Date Collected: 08/15/95 09:21  
Collected By: Client  
Date Received: 08/15/95 17:30

Client Project: #918271414

Client Designation: Bldg.2567,MW2-2926926

	Conc.	Unit
	-----	-----
METALS		
Lead	0.0056	mg/l
ORGANIC		
Volatiles		
Methyl tertiary-butyl ether	see attached	ug/l
tert-Butyl alcohol	see attached	ug/l
Volatiles by 524.2 w/ Library Search	see attached	ug/l



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

005

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910.1

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 2

Matrix: (soil/water) WATER

Lab Sample ID: 9536412V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: 9222.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	.50		U
74-87-3	Chloromethane	.50		U
75-01-4	Vinyl chloride	.50		U
74-83-9	Bromomethane	.50		U
75-00-3	Chloroethane	.50		U
75-69-4	Trichlorofluoromethane	.50		U
75-35-4	1,1-Dichloroethene	.50		U
75-09-2	Methylene chloride	1.3		B
156-60-65	trans-1,2-Dichloroethene	.50		U
75-34-3	1,1-Dichloroethane	.50		U
594-20-7	2,2-Dichloropropane	.50		U
156-59-2	cis-1,2-Dichloroethene	.50		U
74-97-1	Bromochloromethane	.50		U
67-66-3	Chloroform	.50		U
71-55-6	1,1,1-Trichloroethane	.50		U
56-23-1	Carbon tetrachloride	.50		U
563-58-6	1,1-Dichloropropene	.50		U
71-43-2	Benzene	.50		U
107-06-2	1,2-Dichloroethane	.50		U
79-01-6	Trichloroethene	.50		U
78-87-1	1,2-Dichloropropane	.50		U
74-95-3	Dibromomethane	.50		U
75-27-4	Bromodichloromethane	.50		U
10061-01-1	cis-1,3-Dichloropropene	.50		U
108-88-3	Toluene	.50		U
10061-02-6	trans-1,3-Dichloropropene	.50		U
79-00-1	1,1,2-Trichloroethane	.50		U
127-18-4	Tetrachloroethene	.50		U
142-28-9	1,3-Dichloropropane	.50		U
124-48-1	Dibromochloromethane	.50		U
106-93-4	1,2-Dibromomethane	.50		U
108-90-7	Chlorobenzene	.50		U
630-20-6	1,1,1,2-Tetrachloroethane	.50		U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

006

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910.1

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 2

Matrix: (soil/water) WATER

Lab Sample ID: 9536412V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9222.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
100-41-4	Ethylbenzene	.60		
1330-29-7	Xylene (total)	5.3		
100-42-1	Styrene	.50		U
75-25-2	Bromoform	.50		U
98-82-8	Isopropylbenzene	1.1		
108-86-1	Bromobenzene	.50		U
79-34-1	1,1,2,2-Tetrachloroethane	.50		U
96-18-4	1,2,3-Trichloropropane	.50		U
103-65-1	n-Propylbenzene	1.3		
95-49-8	2-Chlorotoluene	.50		U
106-43-4	4-Chlorotoluene	.50		U
108-67-8	1,3,5-Trimethylbenzene	1.0		
98-06-6	tert-Butylbenzene	.50		U
95-63-6	1,2,4-Trimethylbenzene	8.2		
135-98-8	sec-Butylbenzene	.50		U
541-73-1	1,3-Dichlorobenzene	.50		U
99-87-6	4-Isopropyltoluene	.50		U
106-46-7	1,4-Dichlorobenzene	.50		U
95-50-1	1,2-Dichlorobenzene	.50		U
104-51-8	n-Butylbenzene	.50		U
96-12-8	1,2-Dibromo-3-chloropropane	.50		U
120-82-1	1,2,4-Trichlorobenzene	.50		U
87-68-3	Hexachlorobutadiene	.50		U
91-20-3	Naphthalene	11		
87-61-6	1,2,3-Trichlorobenzene	.50		U
1634-04-4	Methy-tertiary butyl ether	2.5		
75-65-0	tertiary-Butyl alcohol	2.0		U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

1910.1

007

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: 2567 NJDEP MW#: 2

Matrix: (soil/water) WATER Lab Sample ID: 9536412V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9222.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 15 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 622-96-8	Benzene, 1-ethyl-4-methyl-	19.78	3	J
2. 135-98-8	Benzene, (1-methylpropyl)-	20.87	1	J
3. 95-36-3	1,2,4-Trimethylbenzene	21.34	3	J
4.	Unknown	21.70	13	J
5. 1758-88-9	Benzene, 2-ethyl-1,4-dimethy	22.36	1	J
6. 934-80-5	Benzene, 4-ethyl-1,2-dimethy	22.55	1	J
7.	Unknown	22.63	1	J
8.	Unknown Hydrocarbon	22.76	4	J
9. 527-53-7	Benzene, 1,2,3,5-tetramethyl	23.27	1	J
10. 934-74-7	Benzene, 1-ethyl-3,5-dimethy	23.38	1	J
11. 824-22-6	1H-Indene, 2,3-dihydro-4-met	23.87	2	J
12.	Unknown	24.15	1	J
13.	Unknown	24.17	4	J
14.	Unknown	24.48	4	J
15. 17059-48-2	1H-Indene, 2,3-dihydro-1,6-d	25.04	1	J
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				



BLDG.#: 2567 MW#: 2 NJDEPE WELL ID # 2926926 008  
U.S. ARMY FORT MONMOUTH  
MONITORING WELL SAMPLING DATASHEET  
DATE: 8-15-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #: 04653

SAMPLERS NAMES: Susan Palilonis, Tom Baxter

WEATHER CONDITIONS: overcast, warm

ELEVATION OF CASING SURVEY MARK: \_\_\_\_\_

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 17.22 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: \_\_\_\_\_ FT

LENGTH OF SCREENED SECTION: \_\_\_\_\_ FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 4.68 FT

ELEVATION OF GW PRIOR TO PURGING: \_\_\_\_\_ FT

THICKNESS OF LNAPL PRIOR TO PURGING : 0 FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS

REMOVED: ~~36 PPM~~ ~~None detected~~

D.O. 1.7 ppm

① pH: 6.46 TEMP: 24.0 °C, SPECIFIC CONDUCTIVITY: 10.30  $\mu\text{S/cm}$

DEPTH OF WELL: \_\_\_\_\_ FT

HEIGHT OF WATER: \_\_\_\_\_ FT

EVACUATED GAL. H2O: 15.0 GAL (7.54 X .65 X 3 = 14.7)

PURGING START TIME: 09:02 END TIME: 09:13

PURGE METHOD: (FLOW RATE OF <0.5 GPM TO >5.0

GPM) Pump

PURGE RATE (<0.5 GPM): 2 GPM

TOTAL VOLUME PURGED: 15 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 6.55 FT

② DISSOLVED OXYGEN: 1.8 ppm pH: 6.45 TEMP: 23.8 °C

SPECIFIC CONDUCTIVITY: 1000  $\mu\text{S/cm}$

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP

FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 09:18 END TIME: 09:21

③ DISSOLVED OXYGEN: 997  $\mu\text{S/cm}$  pH: 6.40 TEMP: 23.8 °C

SPECIFIC CONDUCTIVITY: 1.6 ppm

Color \_\_\_\_\_ odor \_\_\_\_\_

COMMENTS: 0841 AM Inside casing full of water. No

Inside gasket. Installed new bolts.



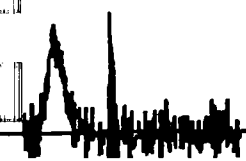
Attention: Brian McKee  
E-Systems  
P.O. Box 360  
Fort Monmouth NJ 07703

Date of Report: 09/07/95  
Project Number: 95085657  
Lab ID: 95-0036413  
Date Collected: 08/15/95 09:50  
Collected By: Client  
Date Received: 08/15/95 17:30

Client Project: #918271414

Client Designation: Bldg.2567,MW4-2926946

	Conc.	Unit
	-----	-----
<b>METALS</b>		
Lead	0.0026	mg/l
<b>ORGANIC</b>		
Volatiles		
Methyl tertiary-butyl ether	see attached	ug/l
tert-Butyl alcohol	see attached	ug/l
Volatiles by 524.2 w/ Library Search	see attached	ug/l



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

010

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910.2

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 4

Matrix: (soil/water) WATER

Lab Sample ID: 9536413V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9223.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	<u>ug/L</u>	
75-71-8	Dichlorodifluoromethane		.50	U
74-87-3	Chloromethane		.50	U
75-01-4	Vinyl chloride		.50	U
74-83-9	Bromomethane		.50	U
75-00-3	Chloroethane		.50	U
75-69-4	Trichlorofluoromethane		.50	U
75-35-4	1,1-Dichloroethene		.50	U
75-09-2	Methylene chloride		1.3	B
156-60-65	trans-1,2-Dichloroethene		.50	U
75-34-3	1,1-Dichloroethane		.50	U
594-20-7	2,2-Dichloropropane		.50	U
156-59-2	cis-1,2-Dichloroethene		.50	U
74-97-1	Bromochloromethane		.50	U
67-66-3	Chloroform		.50	U
71-55-6	1,1,1-Trichloroethane		.50	U
56-23-1	Carbon tetrachloride		.50	U
563-58-6	1,1-Dichloropropene		.50	U
71-43-2	Benzene		.50	U
107-06-2	1,2-Dichloroethane		.50	U
79-01-6	Trichloroethene		.50	U
78-87-1	1,2-Dichloropropane		.50	U
74-95-3	Dibromomethane		.50	U
75-27-4	Bromodichloromethane		.50	U
10061-01-1	cis-1,3-Dichloropropene		.50	U
108-88-3	Toluene		.50	U
10061-02-6	trans-1,3-Dichloropropene		.50	U
79-00-1	1,1,2-Trichloroethane		.50	U
127-18-4	Tetrachloroethene		.50	U
142-28-9	1,3-Dichloropropane		.50	U
124-48-1	Dibromochloromethane		.50	U
106-93-4	1,2-Dibromomethane		.50	U
108-90-7	Chlorobenzene		.50	U
630-20-6	1,1,1,2-Tetrachloroethane		.50	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

011

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910.2

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 4

Matrix: (soil/water) WATER

Lab Sample ID: 9536413V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9223.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

1910.2

012

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: 2567 NJDEP MW#: 4

Matrix: (soil/water) WATER Lab Sample ID: 9536413V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9223.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
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30.				

BLDG.#: 2507 MW#: 4 NJDEPE WELL ID # 2926948

013

U.S. ARMY FORT MONMOUTH  
MONITORING WELL SAMPLING DATASHEET

DATE: 8-15-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #: 04653

SAMPLERS NAMES: Susan Palilonis, Tom Baxter

WEATHER CONDITIONS: Sunny, Hot

ELEVATION OF CASING SURVEY MARK: \_\_\_\_\_

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 11 61 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: \_\_\_\_\_ FT

LENGTH OF SCREENED SECTION: \_\_\_\_\_ FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 3 77 FT

ELEVATION OF GW PRIOR TO PURGING: \_\_\_\_\_ FT

THICKNESS OF LNAPL PRIOR TO PURGING : 0 FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS

REMOVED: <1 PPM None Detected D.O. 1.1 ppm

① PH: 6.48 TEMP: 23.3 °C, SPECIFIC CONDUCTIVITY: 258  $\mu$ s/cm

DEPTH OF WELL: \_\_\_\_\_ FT

HEIGHT OF WATER: \_\_\_\_\_ FT

EVACUATED GAL. H2O: 16 GAL (7.84 X .65 X 3 = 15.288)

PURGING START TIME: 09:37 END TIME: 09:46

PURGE METHOD: (FLOW RATE OF <0.5 GPM TO >5.0

GPM) Pump

PURGE RATE (<0.5 GPM): 2 GPM

TOTAL VOLUME PURGED: 16 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 5.54 FT

② DISSOLVED OXYGEN: 1.1 ppm PH: 6.02 TEMP: 23.6 °C

SPECIFIC CONDUCTIVITY: 321  $\mu$ s/cm

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP

FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 09:48 END TIME: 09:50

③ DISSOLVED OXYGEN: 0.8 ppm PH: 5.93 TEMP: 23.7 °C

SPECIFIC CONDUCTIVITY: 281  $\mu$ s/cm

Color \_\_\_\_\_ odor \_\_\_\_\_

COMMENTS: 09:30 AM



Attention: Brian McKee  
E-Systems  
P.O. Box 360  
Fort Monmouth NJ 07703

Date of Report: 09/07/95  
Project Number: 95085657  
Lab ID: 95-0036414  
Date Collected: 08/15/95 10:30  
Collected By: Client  
Date Received: 08/15/95 17:30

Client Project: #918271414

Client Designation: Bldg.2567,MW1-2926925

	Conc.	Unit
	-----	-----
METALS		
Lead	0.0033	mg/l
ORGANIC		
Volatiles		
Methyl tertiary-butyl ether	see attached	ug/l
tert-Butyl alcohol	see attached	ug/l
Volatiles by 524.2 w/ Library Search	see attached	ug/l



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

015

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910.3

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 1

Matrix: (soil/water) WATER

Lab Sample ID: 9536414V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9224.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane		.50	U
74-87-3	Chloromethane		.50	U
75-01-4	Vinyl chloride		.50	U
74-83-9	Bromomethane		.50	U
75-00-3	Chloroethane		.50	U
75-69-4	Trichlorofluoromethane		.50	U
75-35-4	1,1-Dichloroethene		.50	U
75-09-2	Methylene chloride		1.3	B
156-60-65	trans-1,2-Dichloroethene		.50	U
75-34-3	1,1-Dichloroethane		.50	U
594-20-7	2,2-Dichloropropane		.50	U
156-59-2	cis-1,2-Dichloroethene		.50	U
74-97-1	Bromochloromethane		.50	U
67-66-3	Chloroform		.50	U
71-55-6	1,1,1-Trichloroethane		.50	U
56-23-1	Carbon tetrachloride		.50	U
563-58-6	1,1-Dichloropropene		.50	U
71-43-2	Benzene		.50	U
107-06-2	1,2-Dichloroethane		.50	U
79-01-6	Trichloroethene		.50	U
78-87-1	1,2-Dichloropropane		.50	U
74-95-3	Dibromomethane		.50	U
75-27-4	Bromodichloromethane		.50	U
10061-01-1	cis-1,3-Dichloropropene		.50	U
108-88-3	Toluene		.50	U
10061-02-6	trans-1,3-Dichloropropene		.50	U
79-00-1	1,1,2-Trichloroethane		.50	U
127-18-4	Tetrachloroethene		.50	U
142-28-9	1,3-Dichloropropane		.50	U
124-48-1	Dibromochloromethane		.50	U
106-93-4	1,2-Dibromomethane		.50	U
108-90-7	Chlorobenzene		.50	U
630-20-6	1,1,1,2-Tetrachloroethane		.50	U



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

016

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910.3

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 1

Matrix: (soil/water) WATER

Lab Sample ID: 9536414V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9224.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
100-41-4	Ethylbenzene		.50	U
1330-29-7	Xylene (total)		.50	U
100-42-1	Styrene		.50	U
75-25-2	Bromoform		.50	U
98-82-8	Isopropylbenzene		.50	U
108-86-1	Bromobenzene		.50	U
79-34-1	1,1,2,2-Tetrachloroethane		.50	U
96-18-4	1,2,3-Trichloropropane		.50	U
103-65-1	n-Propylbenzene		.50	U
95-49-8	2-Chlorotoluene		.50	U
106-43-4	4-Chlorotoluene		.50	U
108-67-8	1,3,5-Trimethylbenzene		.50	U
98-06-6	tert-Butylbenzene		.50	U
95-63-6	1,2,4-Trimethylbenzene		.50	U
135-98-8	sec-Butylbenzene		.50	U
541-73-1	1,3-Dichlorobenzene		.50	U
99-87-6	4-Isopropyltoluene		.50	U
106-46-7	1,4-Dichlorobenzene		.50	U
95-50-1	1,2-Dichlorobenzene		.50	U
104-51-8	n-Butylbenzene		.50	U
96-12-8	1,2-Dibromo-3-chloropropane		.50	U
120-82-1	1,2,4-Trichlorobenzene		.50	U
87-68-3	Hexachlorobutadiene		.50	U
91-20-3	Naphthalene		.50	U
87-61-6	1,2,3-Trichlorobenzene		.50	U
1634-04-4	Methy-tertiary butyl ether		29	
75-65-0	tertiary-Butyl alcohol		930	

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

1910.3 017

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: 2567 NJDEP MW#: 1

Matrix: (soil/water) WATER Lab Sample ID: 9536414V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9224.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 2 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown Hydrocarbon	21.70	1	J
2.	Unknown Hydrocarbon	23.10	1	J
3.				
4.				
5.				
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BLDG.#: 2567 MW#: 1 NJDEPE WELL ID # 2926925 018

U.S. ARMY FORT MONMOUTH

MONITORING WELL SAMPLING DATASHEET

DATE: 8-15-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #: 04653

SAMPLERS NAMES: Susan Palilonis, Tom Baxter

WEATHER CONDITIONS: Hot, humid, Sunny

ELEVATION OF CASING SURVEY MARK: \_\_\_\_\_

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 13.11 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: \_\_\_\_\_ FT

LENGTH OF SCREENED SECTION: \_\_\_\_\_ FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 5.11 FT

ELEVATION OF GW PRIOR TO PURGING: \_\_\_\_\_ FT

THICKNESS OF LNAPL PRIOR TO PURGING : 0 FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS

REMOVED: 41 PPM NONE detected.

D.O. 1.4 ppm

① PH: 6.89 TEMP: 24.1 °C, SPECIFIC CONDUCTIVITY: 467 us/cm

DEPTH OF WELL: \_\_\_\_\_ FT

HEIGHT OF WATER: \_\_\_\_\_ FT

EVACUATED GAL. H2O: 16 GAL ( 8.0 X .65 X 3 = 15.6 )

PURGING START TIME: 10:01 END TIME: 10:19

PURGE METHOD: (FLOW RATE OF <0.5 GPM TO >5.0

GPM) pump

PURGE RATE (<0.5 GPM): 2 GPM

TOTAL VOLUME PURGED: 16 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 7.23 FT

② DISSOLVED OXYGEN: 2.3 ppm PH: 7.09 TEMP: 24.7 °C

SPECIFIC CONDUCTIVITY: 877 us/cm

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP

FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 10:26 END TIME: 10:30

③ DISSOLVED OXYGEN: 1.7 ppm PH: 7.93 TEMP: 24.8 °C

SPECIFIC CONDUCTIVITY: 281 us/cm

Color \_\_\_\_\_ odor foul!

COMMENTS: 0952 Am well lid does not close

properly.



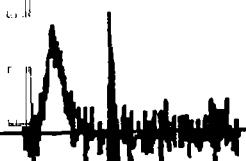
Attention: Brian McKee  
E-Systems  
P.O. Box 360  
Fort Monmouth NJ 07703

Date of Report: 09/07/95  
Project Number: 95085657  
Lab ID: 95-0036415  
Date Collected: 08/15/95 11:23  
Collected By: Client  
Date Received: 08/15/95 17:30

Client Project: #918271414

Client Designation: Bldg.2567,MW3-2926947

	Conc.	Unit
	-----	-----
<b>METALS</b>		
Lead	<0.0025	mg/l
<b>ORGANIC</b>		
Volatiles		
Methyl tertiary-butyl ether	see attached	ug/l
tert-Butyl alcohol	see attached	ug/l
Volatiles by 524.2 w/ Library Search	see attached	ug/l



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

020

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910-4

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 3

Matrix: (soil/water) WATER

Lab Sample ID: 9536415V

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: C9240.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/23/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 5.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	2.5		U
74-87-3	Chloromethane	2.5		U
75-01-4	Vinyl chloride	2.5		U
74-83-9	Bromomethane	2.5		U
75-00-3	Chloroethane	2.5		U
75-69-4	Trichlorofluoromethane	2.5		U
75-35-4	1,1-Dichloroethene	2.5		U
75-09-2	Methylene chloride	25		B
156-60-65	trans-1,2-Dichloroethene	2.5		U
75-34-3	1,1-Dichloroethane	2.5		U
594-20-7	2,2-Dichloropropane	2.5		U
156-59-2	cis-1,2-Dichloroethene	2.5		U
74-97-1	Bromochloromethane	2.5		U
67-66-3	Chloroform	2.5		U
71-55-6	1,1,1-Trichloroethane	2.5		U
56-23-1	Carbon tetrachloride	2.5		U
563-58-6	1,1-Dichloropropene	2.5		U
71-43-2	Benzene	89		
107-06-2	1,2-Dichloroethane	2.5		U
79-01-6	Trichloroethene	2.5		U
78-87-1	1,2-Dichloropropane	2.5		U
74-95-3	Dibromomethane	2.5		U
75-27-4	Bromodichloromethane	2.5		U
10061-01-1	cis-1,3-Dichloropropene	2.5		U
108-88-3	Toluene	2.5		U
10061-02-6	trans-1,3-Dichloropropene	2.5		U
79-00-1	1,1,2-Trichloroethane	2.5		U
127-18-4	Tetrachloroethene	2.5		U
142-28-9	1,3-Dichloropropane	2.5		U
124-48-1	Dibromochloromethane	2.5		U
106-93-4	1,2-Dibromomethane	2.5		U
108-90-7	Chlorobenzene	2.5		U
630-20-6	1,1,1,2-Tetrachloroethane	2.5		U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

1910.4

021

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: 2567 NJDEP MW#: 3

Matrix: (soil/water) WATER Lab Sample ID: 9536415V

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C9240.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/23/95

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 5.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
100-41-4	Ethylbenzene		8.4	
1330-29-7	Xylene (total)		360	
100-42-1	Styrene		2.5	U
75-25-2	Bromoform		2.5	U
98-82-8	Isopropylbenzene		30	
108-86-1	Bromobenzene		2.5	U
79-34-1	1,1,2,2-Tetrachloroethane		2.5	U
96-18-4	1,2,3-Trichloropropane		2.5	U
103-65-1	n-Propylbenzene		25	
95-49-8	2-Chlorotoluene		2.5	U
106-43-4	4-Chlorotoluene		2.5	U
108-67-8	1,3,5-Trimethylbenzene		38	
98-06-6	tert-Butylbenzene		2.5	U
95-63-6	1,2,4-Trimethylbenzene		33	
135-98-8	sec-Butylbenzene		2.5	U
541-73-1	1,3-Dichlorobenzene		2.5	U
99-87-6	4-Isopropyltoluene		2.5	U
106-46-7	1,4-Dichlorobenzene		2.5	U
95-50-1	1,2-Dichlorobenzene		2.5	U
104-51-8	n-Butylbenzene		2.5	U
96-12-8	1,2-Dibromo-3-chloropropane		2.5	U
120-82-1	1,2,4-Trichlorobenzene		2.5	U
87-68-3	Hexachlorobutadiene		2.5	U
91-20-3	Naphthalene		21	
87-61-6	1,2,3-Trichlorobenzene		2.5	U
1634-04-4	Methy-tertiary butyl ether		670	
75-65-0	tertiary-Butyl alcohol		10	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

1910-4

022

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: 2567 NJDEP MW#: 3

Matrix: (soil/water) WATER Lab Sample ID: 9536415V

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C9240.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/23/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 5.0

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

Concentration Units:

Number TICs found: 15 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	4.96	21	J
2. 109-66-0	Pentane	5.54	5	J
3.	Unknown	7.48	7	J
4.	Unknown Hydrocarbon	9.66	43	J
5. 110-82-7	Cyclohexane	10.84	11	J
6.	Unknown Hydrocarbon	10.85	4	J
7.	Unknown	11.57	7	J
8.	Unknown Hydrocarbon	13.75	5	J
9. 611-14-3	Benzene, 1-ethyl-2-methyl-	19.73	28	J
10. 98-82-8	Benzene, (1-methylethyl)-	20.24	10	J
11. 95-36-3	1,2,4-Trimethylbenzene	21.32	54	J
12.	Unknown	21.69	82	J
13. 933-98-2	Benzene, 1-ethyl-2,3-dimethy	22.54	5	J
14.	Unknown	22.76	9	J
15.	Unknown	24.17	7	J
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BLDG.#: 2567 MW#: 3 NJDEPE WELL ID # 2926947 023  
U.S. ARMY FORT MONMOUTH  
MONITORING WELL SAMPLING DATASHEET  
DATE: 8-15-95

IJC#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #: 04653

SAMPLERS NAMES: Susan Palilonis, Tom Baxter

WEATHER CONDITIONS: overcast, breezy

ELEVATION OF CASING SURVEY MARK: \_\_\_\_\_

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 12.51 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: \_\_\_\_\_ FT

LENGTH OF SCREENED SECTION: \_\_\_\_\_ FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 4.45 FT

ELEVATION OF GW PRIOR TO PURGING: \_\_\_\_\_ FT

THICKNESS OF LNAPL PRIOR TO PURGING: 0 FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS

REMOVED: Cl PPM none detected.

D.O. 1.0 ppm

① pH: 6.87 TEMP: 24.7 °C, SPECIFIC CONDUCTIVITY: 265  $\mu\text{m/cm}$

DEPTH OF WELL: \_\_\_\_\_ FT

HEIGHT OF WATER: \_\_\_\_\_ FT

EVACUATED GAL. H2O: 16 GAL ( $8.06 \times .65 \times 3 = 15.717$ )

PURGING START TIME: 10:43 END TIME: 11:15

PURGE METHOD: (FLOW RATE OF <0.5 GPM TO >5.0

GPM) Pump

PURGE RATE (<0.5 GPM): 2 GPM

TOTAL VOLUME PURGED: 16 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 7.95 FT

② DISSOLVED OXYGEN: 1.9 ppm pH: 6.66 TEMP: 25.7 °C

SPECIFIC CONDUCTIVITY: 519  $\mu\text{m/cm}$

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP

FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 11:20 END TIME: 11:23

③ DISSOLVED OXYGEN: \_\_\_\_\_ ppm pH: 6.47 TEMP: 25.4 °C

SPECIFIC CONDUCTIVITY: 6.61

Color \_\_\_\_\_ ODOR fresh

COMMENTS: 10:37 Am no Bolts in well lid. water  
in inside well casing.



Attention: Brian McKee  
E-Systems  
P.O. Box 360  
Fort Monmouth NJ 07703

Date of Report: 09/07/95  
Project Number: 95085657  
Lab ID: 95-0036416  
Date Collected: 08/15/95 12:21  
Collected By: Client  
Date Received: 08/15/95 17:30

Client Project: #918271414

Client Designation: Bldg.2567,MW5-2931788

	Conc.	Unit
	-----	-----
METALS		
Lead	0.0050	mg/l
ORGANIC		
Volatiles		
Methyl tertiary-butyl ether	see attached	ug/l
tert-Butyl alcohol	see attached	ug/l
Volatiles by 524.2 w/ Library Search	see attached	ug/l



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

025

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910-5

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 5

Matrix: (soil/water) WATER

Lab Sample ID: 9536416V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9225.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane		.50	U
74-87-3	Chloromethane		.50	U
75-01-4	Vinyl chloride		.50	U
74-83-9	Bromomethane		.50	U
75-00-3	Chloroethane		.50	U
75-69-4	Trichlorofluoromethane		.50	U
75-35-4	1,1-Dichloroethene		.50	U
75-09-2	Methylene chloride		1.2	B
156-60-65	trans-1,2-Dichloroethene		.50	U
75-34-3	1,1-Dichloroethane		.50	U
594-20-7	2,2-Dichloropropane		.50	U
156-59-2	cis-1,2-Dichloroethene		.50	U
74-97-1	Bromochloromethane		.50	U
67-66-3	Chloroform		.50	U
71-55-6	1,1,1-Trichloroethane		.50	U
56-23-1	Carbon tetrachloride		.50	U
563-58-6	1,1-Dichloropropene		.50	U
71-43-2	Benzene		.50	U
107-06-2	1,2-Dichloroethane		.50	U
79-01-6	Trichloroethene		.50	U
78-87-1	1,2-Dichloropropane		.50	U
74-95-3	Dibromomethane		.50	U
75-27-4	Bromodichloromethane		.50	U
10061-01-1	cis-1,3-Dichloropropene		.50	U
108-88-3	Toluene		.50	U
10061-02-6	trans-1,3-Dichloropropene		.50	U
79-00-1	1,1,2-Trichloroethane		.50	U
127-18-4	Tetrachloroethene		.50	U
142-28-9	1,3-Dichloropropane		.50	U
124-48-1	Dibromochloromethane		.50	U
106-93-4	1,2-Dibromomethane		.50	U
108-90-7	Chlorobenzene		.50	U
630-20-6	1,1,1,2-Tetrachloroethane		.50	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

026

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910-5

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 5

Matrix: (soil/water) WATER

Lab Sample ID: 9536416V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9225.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
100-41-4	Ethylbenzene		.50	U
1330-29-7	Xylene (total)		.50	U
100-42-1	Styrene		.50	U
75-25-2	Bromoform		.50	U
98-82-8	Isopropylbenzene		.50	U
108-86-1	Bromobenzene		.50	U
79-34-1	1,1,2,2-Tetrachloroethane		.50	U
96-18-4	1,2,3-Trichloropropane		.50	U
103-65-1	n-Propylbenzene		.50	U
95-49-8	2-Chlorotoluene		.50	U
106-43-4	4-Chlorotoluene		.50	U
108-67-8	1,3,5-Trimethylbenzene		.50	U
98-06-6	tert-Butylbenzene		.50	U
95-63-6	1,2,4-Trimethylbenzene		.50	U
135-98-8	sec-Butylbenzene		.50	U
541-73-1	1,3-Dichlorobenzene		.50	U
99-87-6	4-Isopropyltoluene		.50	U
106-46-7	1,4-Dichlorobenzene		.50	U
95-50-1	1,2-Dichlorobenzene		.50	U
104-51-8	n-Butylbenzene		.50	U
96-12-8	1,2-Dibromo-3-chloropropane		.50	U
120-82-1	1,2,4-Trichlorobenzene		.50	U
87-68-3	Hexachlorobutadiene		.50	U
91-20-3	Naphthalene		.50	U
87-61-6	1,2,3-Trichlorobenzene		.50	U
1634-04-4	Methy-tertiary butyl ether		.50	U
75-65-0	tertiary-Butyl alcohol		2.0	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

1910.5

027

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: 2567 NJDEP MW#: 5

Matrix: (soil/water) WATER Lab Sample ID: 9536416V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9225.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
5.				
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28.				
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30.				

BLDG.#: 2564 MW#: 5 NJDEPE WELL ID # 2931783 028

U.S. ARMY FORT MONMOUTH  
MONITORING WELL SAMPLING DATASHEET

DATE: 8-15-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #: 04653

SAMPLERS NAMES: Susan Palilonis, Tam Baxter

WEATHER CONDITIONS: overcast, Breezy

ELEVATION OF CASING SURVEY MARK: \_\_\_\_\_

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 14.93 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: \_\_\_\_\_ FT

LENGTH OF SCREENED SECTION: \_\_\_\_\_ FT

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 7.84 FT

ELEVATION OF GW PRIOR TO PURGING: \_\_\_\_\_ FT

THICKNESS OF LNAPL PRIOR TO PURGING: X FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS

REMOVED: 41 PPM None Detected. D.O. 1.5 ppm

① pH: 6.15 TEMP: 21.9 °C, SPECIFIC CONDUCTIVITY: 219  $\mu\text{S/cm}$

DEPTH OF WELL: \_\_\_\_\_ FT

HEIGHT OF WATER: \_\_\_\_\_ FT

EVACUATED GAL. H2O: 14 GAL (7.09 X .65 X 3 = 13.825)

PURGING START TIME: 12:05 END TIME: 12:14

PURGE METHOD: (FLOW RATE OF <0.5 GPM TO >5.0

GPM) pump

PURGE RATE (<0.5 GPM): 2 GPM

TOTAL VOLUME PURGED: 14 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 8.02 FT

② DISSOLVED OXYGEN: 0.8 DO pH: 5.94 TEMP: 20.6 °C

SPECIFIC CONDUCTIVITY: 224  $\mu\text{S/cm}$

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP

FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 12:18 END TIME: 12:21

③ DISSOLVED OXYGEN: 0.8 ppm pH: 5.80 TEMP: 20.9 °C

SPECIFIC CONDUCTIVITY: 226  $\mu\text{S/cm}$

Color \_\_\_\_\_ odor \_\_\_\_\_

COMMENTS: 1200



Attention: Brian McKee  
E-Systems  
P.O. Box 360  
Fort Monmouth NJ 07703

Date of Report: 09/07/95  
Project Number: 95085657  
Lab ID: 95-0036417  
Date Collected: 08/15/95 06:22  
Collected By: Client  
Date Received: 08/15/95 17:30

Client Project: #918271414

Client Designation: Trip Blank

Conc.                    Unit  
-----

ORGANIC

Volatiles

Methyl tertiary-butyl ether	see attached	ug/l
tert-Butyl alcohol	see attached	ug/l
Volatiles by 524.2 w/ Library Search	see attached	ug/l



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

1910-6

030

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: TB NJDEP MW#: TB

Matrix: (soil/water) WATER Lab Sample ID: 9536417V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9220.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	.50		U
74-87-3	Chloromethane	.50		U
75-01-4	Vinyl chloride	.50		U
74-83-9	Bromomethane	.50		U
75-00-3	Chloroethane	.50		U
75-69-4	Trichlorofluoromethane	.50		U
75-35-4	1,1-Dichloroethene	.50		U
75-09-2	Methylene chloride	2.0		B
156-60-65	trans-1,2-Dichloroethene	.50		U
75-34-3	1,1-Dichloroethane	.50		U
594-20-7	2,2-Dichloropropane	.50		U
156-59-2	cis-1,2-Dichloroethene	.50		U
74-97-1	Bromochloromethane	.50		U
67-66-3	Chloroform	.50		U
71-55-6	1,1,1-Trichloroethane	.50		U
56-23-1	Carbon tetrachloride	.50		U
563-58-6	1,1-Dichloropropene	.50		U
71-43-2	Benzene	.50		U
107-06-2	1,2-Dichloroethane	.50		U
79-01-6	Trichloroethene	.50		U
78-87-1	1,2-Dichloropropane	.50		U
74-95-3	Dibromomethane	.50		U
75-27-4	Bromodichloromethane	.50		U
10061-01-1	cis-1,3-Dichloropropene	.50		U
108-88-3	Toluene	.50		U
10061-02-6	trans-1,3-Dichloropropene	.50		U
79-00-1	1,1,2-Trichloroethane	.50		U
127-18-4	Tetrachloroethene	.50		U
142-28-9	1,3-Dichloropropane	.50		U
124-48-1	Dibromochloromethane	.50		U
106-93-4	1,2-Dibromomethane	.50		U
108-90-7	Chlorobenzene	.50		U
630-20-6	1,1,1,2-Tetrachloroethane	.50		U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

031

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY  
 Project No.: FT. MONMOUTH NJ Bldg#: TB NJDEP MW#: TB  
 Matrix: (soil/water) WATER Lab Sample ID: 9536417V  
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9220.D  
 Level: (low/med) LOW Date Received: 8/15/95  
 % Moisture: not dec. NA Date Analyzed: 8/22/95  
 GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

1940.6

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
100-41-4	Ethylbenzene	.50		U
1330-29-7	Xylene (total)	.50		U
100-42-1	Styrene	.50		U
75-25-2	Bromoform	.50		U
98-82-8	Isopropylbenzene	.50		U
108-86-1	Bromobenzene	.50		U
79-34-1	1,1,2,2-Tetrachloroethane	.50		U
96-18-4	1,2,3-Trichloropropane	.50		U
103-65-1	n-Propylbenzene	.50		U
95-49-8	2-Chlorotoluene	.50		U
106-43-4	4-Chlorotoluene	.50		U
108-67-8	1,3,5-Trimethylbenzene	.50		U
98-06-6	tert-Butylbenzene	.50		U
95-63-6	1,2,4-Trimethylbenzene	.50		U
135-98-8	sec-Butylbenzene	.50		U
541-73-1	1,3-Dichlorobenzene	.50		U
99-87-6	4-Isopropyltoluene	.50		U
106-46-7	1,4-Dichlorobenzene	.50		U
95-50-1	1,2-Dichlorobenzene	.50		U
104-51-8	n-Butylbenzene	.50		U
96-12-8	1,2-Dibromo-3-chloropropane	.50		U
120-82-1	1,2,4-Trichlorobenzene	.50		U
87-68-3	Hexachlorobutadiene	.50		U
91-20-3	Naphthalene	.50		U
87-61-6	1,2,3-Trichlorobenzene	.50		U
1634-04-4	Methy-tertiary butyl ether	.50		U
75-65-0	tertiary-Butyl alcohol	2.0		U



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

19/10.6

032

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: TB NJDEP MW#: TB

Matrix: (soil/water) WATER Lab Sample ID: 9536417V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9220.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Column Bleed	22.87	1	J
2.				
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29.				
30.				

Attention: Brian McKee  
E-Systems  
P.O. Box 360  
Fort Monmouth NJ 07703

Date of Report: 09/07/95  
Project Number: 95085657  
Lab ID: 95-0036418  
Date Collected: 08/15/95 13:36  
Collected By: Client  
Date Received: 08/15/95 17:30

Client Project: #918271414

Client Designation: Field Blank

	Conc.	Unit
	-----	-----
METALS		
Lead	<0.0025	mg/l
ORGANIC		
Volatiles		
Methyl tertiary-butyl ether	see attached	ug/l
tert-Butyl alcohol	see attached	ug/l
Volatiles by 524.2 w/ Library Search	see attached	ug/l



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

034

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910.7

Project No.: FT. MONMOUTH NJ Bldg#: FB

NJDEP MW#: FB

Matrix: (soil/water) WATER

Lab Sample ID: 9536418V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9221.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	.50		U
74-87-3	Chloromethane	.50		U
75-01-4	Vinyl chloride	.50		U
74-83-9	Bromomethane	.50		U
75-00-3	Chloroethane	.50		U
75-69-4	Trichlorofluoromethane	.50		U
75-35-4	1,1-Dichloroethene	.50		U
75-09-2	Methylene chloride	1.7		B
156-60-65	trans-1,2-Dichloroethene	.50		U
75-34-3	1,1-Dichloroethane	.50		U
594-20-7	2,2-Dichloropropane	.50		U
156-59-2	cis-1,2-Dichloroethene	.50		U
74-97-1	Bromochloromethane	.50		U
67-66-3	Chloroform	.50		U
71-55-6	1,1,1-Trichloroethane	.50		U
56-23-1	Carbon tetrachloride	.50		U
563-58-6	1,1-Dichloropropene	.50		U
71-43-2	Benzene	.50		U
107-06-2	1,2-Dichloroethane	.50		U
79-01-6	Trichloroethene	.50		U
78-87-1	1,2-Dichloropropane	.50		U
74-95-3	Dibromomethane	.50		U
75-27-4	Bromodichloromethane	.50		U
10061-01-1	cis-1,3-Dichloropropene	.50		U
108-88-3	Toluene	.50		U
10061-02-6	trans-1,3-Dichloropropene	.50		U
79-00-1	1,1,2-Trichloroethane	.50		U
127-18-4	Tetrachloroethene	.50		U
142-28-9	1,3-Dichloropropane	.50		U
124-48-1	Dibromochloromethane	.50		U
106-93-4	1,2-Dibromomethane	.50		U
108-90-7	Chlorobenzene	.50		U
630-20-6	1,1,1,2-Tetrachloroethane	.50		U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

035

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

19107

Project No.: FT. MONMOUTH NJ Bldg#: FB

NJDEP MW#: FB

Matrix: (soil/water) WATER

Lab Sample ID: 9536418V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9221.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
100-41-4	Ethylbenzene		.50	U
1330-29-7	Xylene (total)		.50	U
100-42-1	Styrene		.50	U
75-25-2	Bromoform		.50	U
98-82-8	Isopropylbenzene		.50	U
108-86-1	Bromobenzene		.50	U
79-34-1	1,1,2,2-Tetrachloroethane		.50	U
96-18-4	1,2,3-Trichloropropane		.50	U
103-65-1	n-Propylbenzene		.50	U
95-49-8	2-Chlorotoluene		.50	U
106-43-4	4-Chlorotoluene		.50	U
108-67-8	1,3,5-Trimethylbenzene		.50	U
98-06-6	tert-Butylbenzene		.50	U
95-63-6	1,2,4-Trimethylbenzene		.50	U
135-98-8	sec-Butylbenzene		.50	U
541-73-1	1,3-Dichlorobenzene		.50	U
99-87-6	4-Isopropyltoluene		.50	U
106-46-7	1,4-Dichlorobenzene		.50	U
95-50-1	1,2-Dichlorobenzene		.50	U
104-51-8	n-Butylbenzene		.50	U
96-12-8	1,2-Dibromo-3-chloropropane		.50	U
120-82-1	1,2,4-Trichlorobenzene		.50	U
87-68-3	Hexachlorobutadiene		.50	U
91-20-3	Naphthalene		.50	U
87-61-6	1,2,3-Trichlorobenzene		.50	U
1634-04-4	Methy-tertiary butyl ether		.50	U
75-65-0	tertiary-Butyl alcohol		2.0	U

IE  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

1910.7

0.36

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: FB NJDEP MW#: FB

Matrix: (soil/water) WATER Lab Sample ID: 9536418V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9221.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units:

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

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
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## LABORATORY DELIVERABLES

THIS FORM MUST BE COMPLETED BY THE LABORATORY OR ENVIRONMENTAL CONSULTANT AND ACCOMPANY ALL DATA SUBMISSIONS

The following laboratory deliverables shall be included in the data submission. All deviations from the accepted methodology and procedures, or performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The proposed "Technical Requirements for Site Remediation" rules, which appeared in the May 4, 1992 New Jersey Register, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

It is recommended that the analytical results summary sheets listing all targeted and non-targeted compounds with the method detection limits be included in one section of the data package and in the main body of the report.

	Check If Complete
1. Cover Page, Title Page listing Lab Certification #, facility name, address & date of report.	<u>X</u>
2. Table of Contents	<u>X</u>
3. Summary Sheets listing analytical results for all targeted and non-targeted compounds.	<u>X</u>
4. Summary Table cross-referencing field ID #'s vs. Lab ID #'s.	<u>X</u>
5. Document bound, paginated and legible.	<u>X</u>
6. Chain of Custody	<u>X</u>
7. Methodology Summary	<u>X</u>
8. Laboratory Chronicle and Holding Time Check.	<u>X</u>
9. Results submitted on a dry weight basis (if applicable).	<u>X</u>
10. Method Detection Limits.	<u>X</u>
11. Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	<u>X</u>
12. Non-Conformance Summary	<u>X</u>

*Paul Karara*

Laboratory Manager or Environmental Consultant's Signature

*09-11-95*

Date

## QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

## A. Checklist which must be attached to the Summary

The following information must be reported in the Closure Plan Implementation Summary for all laboratory analyses performed in the compliance with the site assessment requirements:

Page #	
<u>1</u>	1. Name and address of the facility.
<u>1</u>	2. Name of the laboratory performing the sample analysis.
<u>1</u>	3. NJDEP certification number assigned to the laboratory pursuant to N.J.A.C. 7:18.
<u>1</u>	4. Laboratory sample identification number.
<u>1</u>	5. Customer sample identification number corresponding to the laboratory sample identification.
<u>1</u>	6. Sample Location (also on the site diagram).
<u>1</u>	7. Matrix of the sample analyzed (i.e., water or sediments; including soil, sediment, and sludges). All sediment results must be reported on a dry weight basis.
<u>44-45</u>	8. The reference for the method used (e.g., EPA Method 625, 40 CFR Part 136).
<u>1</u>	9. The signature of the person completing the report form.
<u>1</u>	10. The dates the laboratory report form was prepared, as well as the dates the sample were collected, submitted and analyzed.
<u>46</u>	11. A list of all parameters (constituents and conditions) for which the analyses were performed.
<u>3-36</u>	12. Sample results and corresponding units for each parameter.



CHAIN OF CUSTODY AND PRESERVATION CHECKLIST





# U.S. ARMY FORT MONMOUTH

95085657

P.O. #: IJO # 95-0091 / SAI

Chain of Custody

Project #: 918271414	Sampler: EMSL / Baxter	Date / Time: 8-15-95	Analysis Parameters: Pb Cd Cr Cu Ni Zn TOA	Start:
Customer: Charles Appleby SECFM-PL-8V	Site Name: Bldg. 2567			Finish:
Phone: 908-532-4624				Preservation Method:

Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	Analysis Parameters										Remarks			
1910.1	8/15 0921	MW 2 - 2926926	Ag	4	X	X												36412
.2	0950	4 - 2926946		4	X	X												13
.3	1030	1 - 2926925		4	X	X												14
.4	1123	3 - 2926947		4	X	X												15
.5	1221	5 - 2931788		4	X	X												16
.6	0622	Trip Blank		3	X													17
.7	1336	Field Blank		4	X	X												18

Relinquished By (signature): Sarah J. Hubbard	Date / Time: 8:1545 8/15	Received By (signature): TWB	Shipped By:
Relinquished By (signature): TWB	Date / Time: 8:1545	Received for Lab by (signature): Sarah J. Hubbard	Date / Time: 8/15

Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody.

J. James EMSL 8/15 17:30

# EMSL PRESERVATIVE CHECKLIST

To be completed upon sample receipt

**Instructions:**

1. Place an X in box if okay.
2. Record actual pH if outside acceptable range
3. Record temperature of cool blank or note Y/N if samples are cooled.
4. Record corrective action in remarks.

pH ≤ 2													> 9	≥ 12	deg C	SAMPLES	RE-MARKS
COD	NH3 H2SO4	TKN H2SO4	TOX H2SO4	VOA* HCl	PHENOL H2SO4	TOX* H2SO4	PHC H2SO4	O&G H2SO4	METALS HNO3	HARD HNO3	TPO4 H2SO4	NO2&3 H2SO4	SO2 NaOH ZNAC	TCN NaOH	TEMP	EMSL #	
				X					X						4	36412	
				X					X							13	
				X					X							14	
				X					X							15	
				X					X							16	
				X					X							17	
				X					X							18	

\*ALL VOA VIALS RECEIVED WITH NO HEADSPACE AND SEPTUM WAS TEFLON SIDE DOWN, EXCEPT WHERE NOTED.

SPECIAL INSTRUCTIONS/NON-COMPLIANCE NOTATIONS



**INTERNAL CUSTODY**

043

Project #: 95085657

**EMSL**

Lab ID #'s: 95-36412 & 36418

Analyst

	Name (please print)	Signature	Date
1. Base/Neutrals			
2. Acids			
3. Pesticides			
4. Herbicides			
5. PCB's			
6. Metals:			
Flame			
Furnace	<u>KEVIN IRELAND</u>	<u>Kevin Ireland</u>	<u>8-19-95 10AM</u>
ICP			
7. Volatiles:			
GC			
GC/MS	<u>Scott Kessler</u>	<u>Scott Kessler</u>	<u>8/22, 23/95</u>
8. TOC			
9. TOX			
10. Phenols (Total)			
11. Cyanide (Total)			
12. TPH -IR			
13. Mercury			
14. Other			
15. Other			
16. Other			



METHODOLOGY SUMMARY



## METHODOLOGY SUMMARY

### EPA Method 524.2 - Aqueous

This is a purge and trap gas chromatograph/mass spectrometer (GC/MS) method. The organic compounds are separated by the gas chromatograph and detected using the mass spectrometer.

An HP5890/5970 GC/MS was used with a capillary column (DB-624 0.53 mm ID).

Method detection limits are as stated.

### Metals - Aqueous (Total)

This is a procedure used to determine metals concentrations in aqueous matrices. It involves an acidic digestion under oxidizing conditions of approximately 100 milliliters of sample. Nitric and hydrochloric acids as well as hydrogen peroxide are employed in the digestion. The digested sample is filtered and diluted to 100 milliliters. The analysis is performed by ICP, furnace atomic absorption or flame atomic absorption. Reference methods are SW-846 3rd Edition, September 1986, Revised July 1992, EPA Methods for the Chemical Analysis of Water and Wastes, Revised, March 1983 and Methods for the Determination of Metals in Environmental Samples EPA/600/4-91/010 June 1991.



LABORATORY CHRONICLE

Lab ID: 95-36412 to 95-36418

Client: E-Systems, Inc.

	I	DATE	II	<u>Hold Time</u>
Date Sampled		8/15/95		
Receipt/Refrigeration		8/15/95		
Extractions				
<b>1. Metals</b>		8/17/95		<b>6 months</b>
Analyses				
<b>1. Volatile Organics</b>		8/22, 23/95		<b>14 days</b>
<b>2. Metals</b>		8/18/95		<b>6 months</b>

QC Supervisor  
Review & Approval

(Signature) Peter B. Pantan  
(Printed Name) Peter B. Pantan

(Date) 08/11/95

NOTE: If fractions are re-extracted and re-analyzed because the initial endeavors failed to meet the required Quality Control Criteria, the dates of re-extraction and/or re-analysis will be entered in Column II Additionally.





GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

	No	Yes
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks)	_____	_____X_____
2. GC/MS Tune Specifications		
a. BFB Meet Criteria	_____	_____X_____
b. DFTPP Meet Criteria	_____NA_____	_____
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series.	_____	_____X_____
4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series.	_____	_____X_____
5. GC/MS Calibration - Initial Requirements		
a. Calibration Check Compounds	_____	_____X_____
b. System Performance Check Compounds	_____	_____X_____
6. Blank Contamination - If yes, list compounds and concentrations in each blank:	_____	_____X_____
a. VOA Fraction <u>Methylene Chloride 0.40 to 1.8 ug/l</u>	_____	
b. B/N Fraction _____	_____	
c. Acid Fraction _____	_____	
7. Surrogate Recoveries Meet Criteria	_____	_____X_____
If not met, list those compounds and their recoveries which fall outside the acceptable range:		
a. VOA Fraction _____	_____	
b. B/N Fraction _____	_____	
c. Acid Fraction _____	_____	
If not met, were the calculations checked and the results qualified as "estimated"?		
	_____NA_____	_____
8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)	_____	_____X_____
a. VOA Fraction _____	_____	
b. B/N Fraction _____	_____	
c. Acid Fraction _____	_____	
9. Internal Standard Area/Retention Time Shift Meet Criteria	_____	_____X_____







GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT, cont.

		<u>No</u>	<u>Yes</u>
10.	Extraction Holding Time Met	<u>NA</u>	<u>        </u>

If not met, list number of days exceeded for each sample:

\_\_\_\_\_

\_\_\_\_\_

11.	Analysis Holding Time Met	<u>        </u>	<u>X</u>
-----	---------------------------	-----------------	----------

If not met, list number of days exceeded for each sample:

\_\_\_\_\_

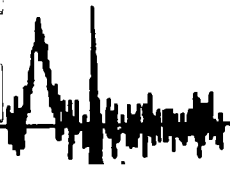
\_\_\_\_\_

12. Definitions:  
 U=Not Detected. J=Detected, but below report detection limit.  
 B=Compound found in blank. E=Estimated concentration. NA=Not  
 Applicable

Additional Comments:  
 \_\_\_\_\_  
 \_\_\_\_\_

Laboratory Manager Paul Torain

Date: 09-11-95





**METALS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORM**

	No	Yes
1. Calibration Summary Meet Criteria	_____	_____ <b>X</b> _____
2. ICP Interference Check Sample Results Summary Submitted (if applicable) Meet Criteria	_____ <b>NA</b> _____	_____
3. Serial Dilution Summary Submitted (if applicable) / Meet Criteria	_____ <b>NA</b> _____	_____
4. Laboratory Control Sample Summary Submitted (if applicable) / Meet Criteria	_____	_____ <b>X</b> _____
5. Blank Contamination - If yes, list compounds and concentrations in each blank.	_____ <b>X</b> _____	_____
_____		
_____		
6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (if not met, list those compounds and their recoveries which fall outside the acceptable range)	_____	_____ <b>X</b> _____
_____		
_____		
7. Extraction Holding Time Met	_____	_____ <b>X</b> _____
If not met, list number of days exceeded for each sample:		
_____		
_____		
8. Analysis Holding Time Met	_____	_____ <b>X</b> _____
If not met, list number of days exceeded for each sample:		
_____		
_____		
9. Definitions: U=Not Detected. J=Detected, but below report detection limit. B=Compound found in blank, E=Estimated concentration. NA=Not Applicable		

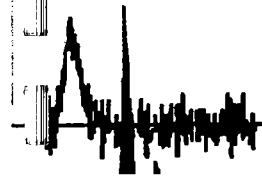
Additional Comments: \_\_\_\_\_  
\_\_\_\_\_

Laboratory Manager: Paul Brown Date: 09-11-98





GC/MS VOLATILE ORGANIC DATA PACKAGE



5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 Lab File ID: C8921.D BFB Injection Date: 07/31/95  
 Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1124  
 GC Column DB-62 ID: 0.53 (mm) Heated Purge: ( Y / N ) \_\_\_\_\_

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.6
75	30.0 - 60.0% of mass 95	52.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 ( 0.0 ) 1
174	Greater than 50.0% of mass 95	69.0
175	5.0 - 9.0% of mass 174	5.1 ( 7.4 ) 1
176	95.0 - 101.0% of mass 174	66.8 ( 96.8 ) 1
177	5.0 - 9.0% of mass 176	4.1 ( 6.1 ) 2

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

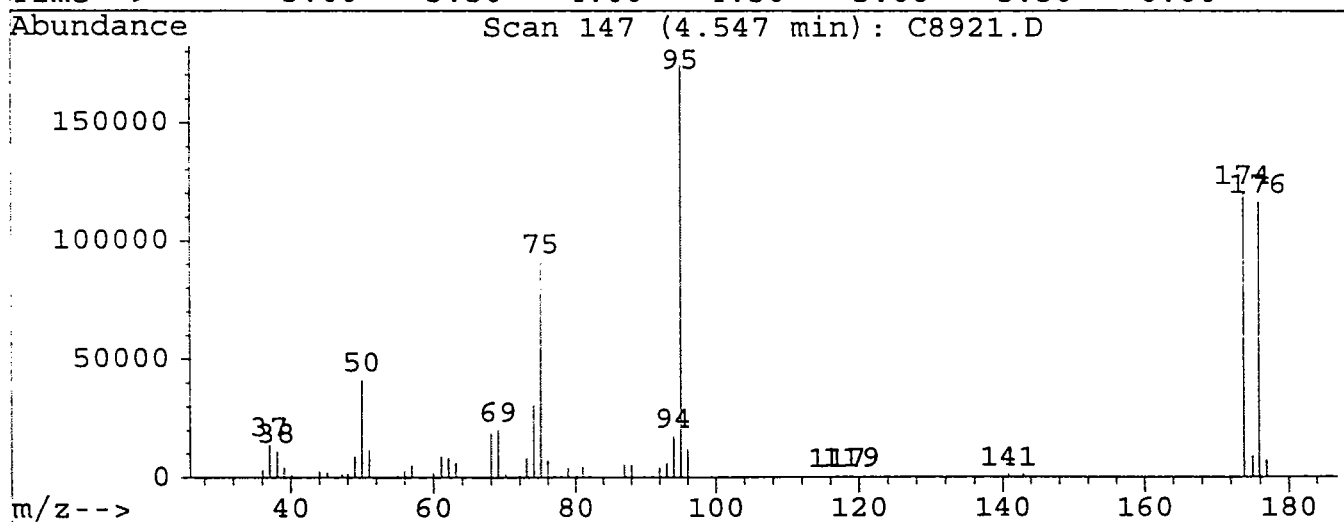
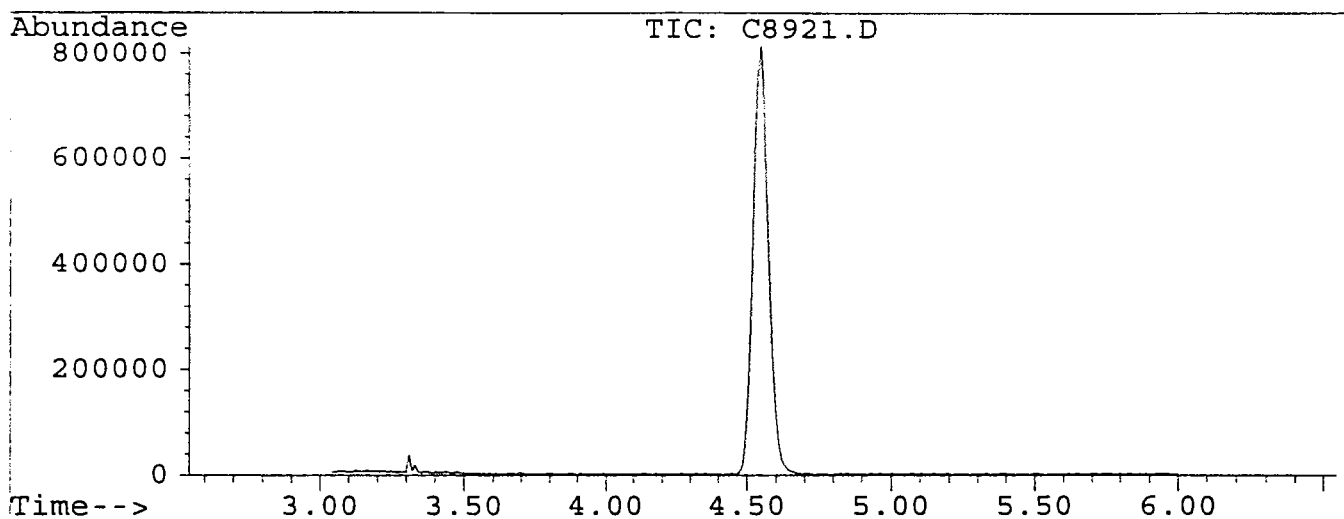
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

CLIENT	LAB	LAB	DATE	TIME
SAMPLE ID	SAMPLE ID	FILE ID	ANALYZED	ANALYZED
01	4 PPB STANDARD	C8922.D	07/31/95	1139
02	10 PPB STANDARD	C8924.D	07/31/95	1256
03	20 PPB STANDARD	C8925.D	07/31/95	1335
04	30 PPB STANDARD	C8926.D	07/31/95	1413
05	40 PPB STANDARD	C8927.D	07/31/95	1452
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

Data File : D:\HPCHEM\1\DATA\C8921.D  
 Acq On : 31 Jul 95 11:24 am  
 Sample : BFB TUNE  
 Misc : 25 NG INJECTION

Vial: 1  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics



Peak Apex is scan: 147

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.6	41128	PASS
75	95	30	80	52.2	90912	PASS
95	95	100	100	100.0	174144	PASS
96	95	5	9	7.0	12122	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	69.0	120144	PASS
175	174	5	9	7.4	8903	PASS
176	174	95	101	96.8	116328	PASS
177	176	5	9	6.1	7129	PASS

can 147 (4.547 min): C8921.D

BFB TUNE

053

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	3239	51.00	11743	70.00	1329	81.95	1237
37.05	13986	52.10	553	72.00	1081	86.95	5390
38.05	11291	55.00	890	73.00	8449	87.95	5338
39.05	4468	56.00	3061	74.00	30664	90.90	743
40.05	975	57.00	5441	75.00	90912	92.00	3982
43.95	2849	59.95	1963	76.00	7403	93.00	6080
45.05	2053	61.05	8969	76.90	1017	94.00	17528
47.10	1511	62.05	8351	77.90	540	95.00	174144
48.00	1690	63.05	6161	78.90	4118	96.00	12122
49.00	8904	67.95	18784	80.05	1069	103.95	519
50.00	41128	69.00	20224	80.95	4717	116.90	816

can 147 (4.547 min): C8921.D

BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
117.90	574						
118.90	908						
127.85	724						
140.80	1330						
142.90	1325						
173.85	120144						
174.95	8903						
175.90	116328						
176.90	7129						

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Initial Calibration

## Calibration Files

4 =C8922.D 10 =C8924.D 20 =C8925.D  
 30 =C8926.D 40 =C8927.D

Compound	4	10	20	30	40	Avg	%RSD
----------	---	----	----	----	----	-----	------

Compound	4	10	20	30	40	Avg	%RSD
1) Fluorobenzene	-----ISTD-----						
2) M Dichlorodifluorometha	0.530	0.493	0.486	0.482	0.478	0.494	4.26
3) M Chloromethane	0.191	0.184	0.189	0.189	0.192	0.189	1.55
4) M Vinyl chloride	0.248	0.242	0.240	0.237	0.236	0.241	2.00
5) M Bromomethane	0.167	0.176	0.165	0.167	0.166	0.168	2.67
6) M Chloroethane	0.151	0.150	0.142	0.136	0.125	0.141	7.49
7) M Trichlorofluoromethan	0.694	0.657	0.649	0.647	0.633	0.656	3.50
8) M 1,1-Dichloroethene	0.267	0.262	0.258	0.256	0.252	0.259	2.19
9) M Methylene chloride		0.318	0.248	0.231	0.224	0.256	16.87
10) M trans-1,2-Dichloroeth	0.279	0.278	0.273	0.274	0.270	0.275	1.34
11) Hexane						0.000#	-1.00
12) M 1,1-Dichloroethane	0.551	0.563	0.556	0.557	0.556	0.557	0.80
13) M 2,2-Dichloropropane	0.631	0.635	0.607	0.598	0.575	0.609	4.08
14) M cis-1,2-Dichloroethen	0.253	0.266	0.267	0.268	0.268	0.264	2.47
15) 2-Butanone						0.000#	-1.00
16) M Bromochloromethane	0.107	0.112	0.116	0.118	0.119	0.114	4.43
17) M Chloroform	0.578	0.577	0.575	0.579	0.579	0.578	0.28
18) M 1,1,1-Trichloroethane	0.652	0.654		0.644	0.637	0.646	1.21
19) M Carbon tetrachloride	0.626	0.617	0.609	0.611	0.606	0.614	1.33
20) M 1,1-Dichloropropene	0.542	0.539	0.530	0.530	0.517	0.532	1.89
21) M Benzene	0.849	0.847	0.834	0.843	0.834	0.841	0.82
22) M 1,2-Dichloroethane	0.260	0.272	0.278	0.283	0.287	0.276	3.86
23) M Trichloroethene	0.412	0.410	0.406	0.411	0.402	0.408	1.02
24) M 1,2-Dichloropropane	0.271	0.278	0.280	0.282	0.284	0.279	1.77
25) M Dibromomethane	0.121	0.131	0.135	0.138	0.142	0.133	5.83
26) M Bromodichloromethane	0.453	0.471	0.476	0.484	0.492	0.475	3.14
27) M cis-1,3-Dichloroprope	0.366	0.378	0.384	0.390	0.391	0.382	2.66
28) M Toluene	0.650	0.640	0.641	0.641	0.642	0.643	0.66
29) M trans-1,3-Dichloropro	0.273	0.285	0.287	0.298	0.302	0.289	3.98
30) M 1,1,2-Trichloroethane	0.115	0.120	0.125	0.127	0.131	0.123	4.88
31) M Tetrachloroethene	0.535	0.524	0.513	0.513	0.503	0.518	2.37
32) M 1,3-Dichloropropane	0.239	0.247	0.255	0.260	0.264	0.253	4.01
33) M Dibromochloromethane	0.274	0.291	0.301	0.308	0.314	0.298	5.26
34) M 1,2-Dibromomethane	0.177	0.186	0.193	0.195	0.201	0.190	4.96
35) M Chlorobenzene	0.743	0.750	0.754	0.762	0.761	0.754	1.01
36) M 1,1,1,2-Tetrachloroet	0.332	0.346	0.348	0.352	0.354	0.346	2.50
37) M Ethylbenzene	1.426	1.438	1.449	1.438	1.432	1.437	0.60
38) M Xylene (para & meta)	0.524	0.534	0.525	0.519	0.512	0.523	1.52
39) M Xylene (Ortho)	0.470	0.475	0.473	0.473	0.468	0.472	0.56
40) M Styrene	0.704	0.731	0.734	0.739	0.734	0.728	1.90
M Bromoform	0.147	0.161	0.167	0.172	0.176	0.165	7.02
M Isopropylbenzene	1.519	1.535	1.510	1.507	1.490	1.512	1.09
43) S 4-Bromofluorobenzene	0.560	0.552	0.554	0.570	0.570	0.561	1.55

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Initial Calibration

## Calibration Files

4 =C8922.D 10 =C8924.D 20 =C8925.D  
 30 =C8926.D 40 =C8927.D

Compound		4	10	20	30	40	Avg	%RSD
44)	M Bromobenzene	0.335	0.344	0.353	0.357	0.358	0.349	2.85
45)	M 1,1,2,2-Tetrachloroet	0.143	0.154	0.162	0.165	0.167	0.158	6.33
46)	M 1,2,3-Trichloropropan	0.161	0.173	0.178	0.178	0.179	0.174	4.33
47)	M n-Propylbenzene	1.890	1.943	1.947	1.925	1.907	1.922	1.25
48)	M 2-Chlorotoluene	1.142	1.090	1.170	1.065	1.144	1.122	3.84
49)	M 4-Chlorotoluene	1.235	1.296	1.276	1.276	1.260	1.269	1.77
50)	M 1,3,5-Trimethylbenzen	1.170	1.223	1.182	1.166	1.139	1.176	2.59
51)	M tert-Butylbenzene	1.425	1.456	1.439	1.420	1.388	1.426	1.75
52)	M 1,2,4-Trimethylbenzen	1.072	1.142	1.104	1.091	1.050	1.092	3.20
53)	M sec-Butylbenzene	1.952	1.946	1.942	1.914	1.875	1.926	1.66
54)	M 1,3-Dichlorobenzene	0.693	0.699	0.704	0.697	0.690	0.697	0.76
55)	M 4-Isopropyltoluene	1.540	1.585	1.573	1.532	1.491	1.544	2.42
56)	M 1,4-Dichlorobenzene	0.671	0.699	0.684	0.688	0.678	0.684	1.56
57)	S 1,2-Dichlorobenzene-d	0.330	0.336	0.337	0.348	0.341	0.338	1.96
58)	M 1,2-Dichlorobenzene	0.521	0.536	0.535	0.533	0.531	0.531	1.17
59)	M n-Butylbenzene	1.441	1.505	1.470	1.423	1.380	1.444	3.28
60)	M 1,2-Dibromo-3-chlorop	0.037	0.043	0.044	0.044	0.046	0.043	8.37
61)	M 1,2,4-Trichlorobenzen	0.360	0.394	0.380	0.381	0.380	0.379	3.18
62)	M Hexachlorobutadiene	0.450	0.460	0.456	0.450	0.441	0.451	1.61
63)	M Naphthalene	0.274	0.322	0.311	0.318	0.320	0.309	6.56
64)	M 1,2,3-Trichlorobenzen	0.253	0.292	0.272	0.279	0.282	0.276	5.24
65)	Methyl-tert butyl eth	0.346	0.351	0.355	0.363	0.367	0.356	2.43
66)	M tert-Butyl Alcohol	0.006	0.006	0.006	0.006	0.006	0.006	2.95



Quantitation Report

056

Data File : d:\hpchem\1\data\c8922.d  
 Acq On : 31 Jul 95 11:39 am  
 Sample : 4 PPB STANDARD  
 Misc :  
 Quant Time: Jul 31 12:25 1995

Vial: 2  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:39:04 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.78	96	748279	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.05	95	167591	2.40	ug/L	47.96%
57) 1,2-Dichlorobenzene-d4	21.83	152	98649	2.40	ug/L	47.97%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.27	85	317250	5.70	ug/L	99
3) Chloromethane	3.63	50	114593	4.61	ug/L	94
4) Vinyl chloride	3.85	62	148291	4.67	ug/L	98
5) Bromomethane	4.51	94	99745	3.92	ug/L	96
6) Chloroethane	4.76	64	90180	5.06	ug/L	95
7) Trichlorofluoromethane	5.31	101	415458	4.68	ug/L	98
8) 1,1-Dichloroethene	6.38	96	159851	4.20	ug/L #	64
9) Methylene chloride	7.35	84	321532	7.89	ug/L	97
10) trans-1,2-Dichloroethene	7.90	96	166883	4.11	ug/L #	79
12) 1,1-Dichloroethane	8.70	63	329887	4.64	ug/L	93
13) 2,2-Dichloropropane	9.77	77	377595	5.11	ug/L	95
14) cis-1,2-Dichloroethene	9.78	96	151334	3.81	ug/L #	85
16) Bromochloromethane	10.20	128	63966	4.05	ug/L	90
17) Chloroform	10.34	83	346229	4.52	ug/L	95
18) 1,1,1-Trichloroethane	10.65	97	390300	4.57	ug/L	93
19) Carbon tetrachloride	10.96	117	375008	4.64	ug/L	97
20) 1,1-Dichloropropene	10.95	75	324752	4.81	ug/L	98
21) Benzene	11.30	78	508047	4.19	ug/L	97
22) 1,2-Dichloroethane	11.30	62	155530	5.06	ug/L	96
23) Trichloroethene	12.43	95	246853	4.23	ug/L	96
24) 1,2-Dichloropropane	12.78	63	162238	4.21	ug/L	100
25) Dibromomethane	12.97	93	72592	3.67	ug/L m	7
26) Bromodichloromethane	13.24	83	271128	4.34	ug/L	98
27) cis-1,3-Dichloropropene	14.00	75	219125	4.33	ug/L	100
28) Toluene	14.58	92	389246	4.32	ug/L	95
29) trans-1,3-Dichloropropene	14.93	75	163284	4.47	ug/L	98
30) 1,1,2-Trichloroethane	15.24	83	68929	3.91	ug/L	96
31) Tetrachloroethene	15.55	166	320197	5.14	ug/L	98
32) 1,3-Dichloropropane	15.53	76	143217	4.32	ug/L	100
33) Dibromochloromethane	15.94	129	163964	4.25	ug/L	99
34) 1,2-Dibromomethane	16.14	107	105739	4.00	ug/L	93
35) Chlorobenzene	17.01	112	445047	4.35	ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.15	131	198814	4.44	ug/L	97
37) Ethylbenzene	17.21	91	853689	4.40	ug/L	96
38) Xylene (para & meta)	17.42	106	626836	8.89	ug/L	98
39) Xylene (Ortho)	18.12	106	281481	4.37	ug/L	99
40) Styrene	18.14	104	421595	4.22	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

057

Data File : d:\hpchem\1\data\c8922.d  
 Acq On : 31 Jul 95 11:39 am  
 Sample : 4 PPB STANDARD  
 Misc :  
 Quant Time: Jul 31 12:25 1995

Vial: 2  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:39:04 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.46	173	87863	4.29	ug/L	95
42) Isopropylbenzene	18.78	105	909074	4.50	ug/L	99
44) Bromobenzene	19.32	156	200326	4.69	ug/L	94
45) 1,1,2,2-Tetrachloroethane	19.26	83	85370	3.87	ug/L	95
46) 1,2,3-Trichloropropane	19.33	75	96255	4.28	ug/L m	1
47) n-Propylbenzene	19.52	91	1131311	4.31	ug/L	98
48) 2-Chlorotoluene	19.68	91	683677	4.37	ug/L m	94
49) 4-Chlorotoluene	19.86	91	739480	4.21	ug/L	100
50) 1,3,5-Trimethylbenzene	19.84	105	700578	4.11	ug/L m	76
51) tert-Butylbenzene	20.43	119	852832	4.58	ug/L	98
52) 1,2,4-Trimethylbenzene	20.51	105	641725	3.92	ug/L	93
53) sec-Butylbenzene	20.83	105	1168588	4.51	ug/L m	58
54) 1,3-Dichlorobenzene	21.03	146	415033	4.83	ug/L m	92
55) 4-Isopropyltoluene	21.09	119	921906	4.47	ug/L	98
56) 1,4-Dichlorobenzene	21.18	146	401556	4.68	ug/L	96
58) 1,2-Dichlorobenzene	21.86	146	311623	4.72	ug/L	96
59) n-Butylbenzene	21.84	91	862555	4.14	ug/L	94
60) 1,2-Dibromo-3-chloropropan	23.26	75	22063	4.29	ug/L	95
61) 1,2,4-Trichlorobenzene	24.83	180	215599	4.12	ug/L	94
62) Hexachlorobutadiene	25.17	225	269297	4.79	ug/L	94
63) Naphthalene	25.27	128	163853	3.41	ug/L	100
64) 1,2,3-Trichlorobenzene	25.75	180	151493	3.92	ug/L	97
65) Methyl-tert butyl ether	7.94	73	207185	4.38	ug/L	96
66) tert-Butyl Alcohol	7.64	59	6800	10.29	ug/L m	100

(#) = qualifier out of range (m) = manual integration

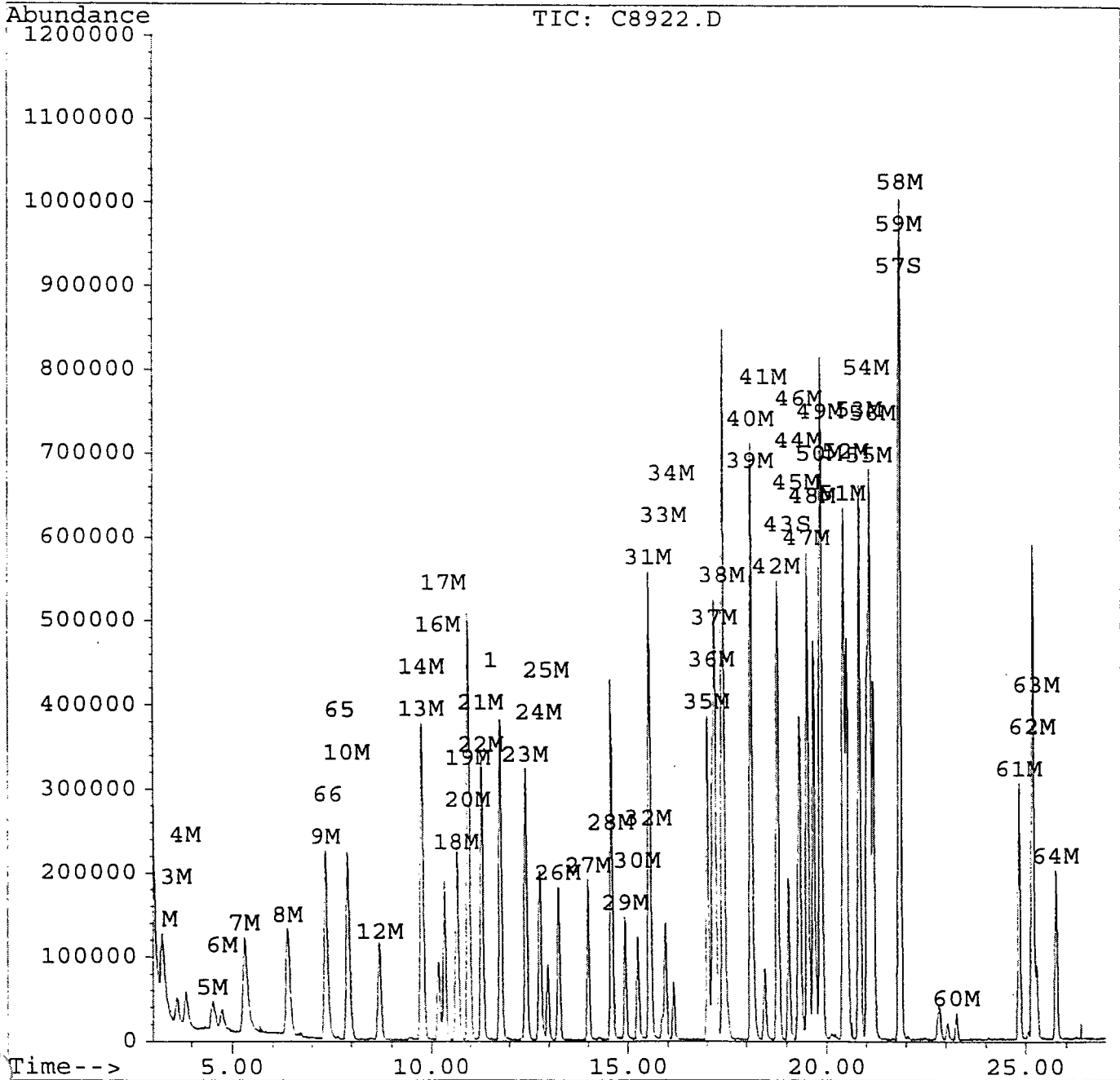
Quantitation Report

058

Data File : d:\hpchem\1\data\c8922.d  
Acq On : 31 Jul 95 11:39 am  
Sample : 4 PPB STANDARD  
Misc :  
Quant Time: Jul 31 12:25 1995

Vial: 2  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:39:04 1995  
Response via : Multiple Level Calibration



Quantitation Report

059

Data File : d:\hpchem\1\data\c8924.d  
 Acq On : 31 Jul 95 12:56 pm  
 Sample : 10 PPB STANDARD  
 Misc :  
 Quant Time: Jul 31 13:24 1995

Vial: 4  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:39:04 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	Q Ion	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.78	96	701357	5.00	ug/L	0.00
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.04	95	386983	5.91	ug/L	118.15%
57) 1,2-Dichlorobenzene-d4	21.83	152	235489	6.11	ug/L	122.17%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.28	85	691451	13.25	ug/L	98
3) Chloromethane	3.64	50	258597	11.09	ug/L	99
4) Vinyl chloride	3.87	62	340070	11.42	ug/L	95
5) Bromomethane	4.51	94	246897	10.36	ug/L	99
6) Chloroethane	4.74	64	210125	12.59	ug/L	92
7) Trichlorofluoromethane	5.31	101	921168	11.06	ug/L	99
8) 1,1-Dichloroethene	6.36	96	367223	10.28	ug/L	# 72
9) Methylene chloride	7.35	84	446582	11.69	ug/L	96
10) trans-1,2-Dichloroethene	7.90	96	390440	10.27	ug/L	# 79
12) 1,1-Dichloroethane	8.68	63	790409	11.87	ug/L	96
13) 2,2-Dichloropropane	9.76	77	890948	12.86	ug/L	96
14) cis-1,2-Dichloroethene	9.76	96	372541	10.02	ug/L	# 85
16) Bromochloromethane	10.18	128	157163	10.63	ug/L	93
17) Chloroform	10.33	83	809000	11.28	ug/L	99
18) 1,1,1-Trichloroethane	10.66	97	916722	11.45	ug/L	95
19) Carbon tetrachloride	10.96	117	864950	11.41	ug/L	100
20) 1,1-Dichloropropene	10.95	75	756488	11.95	ug/L	99
21) Benzene	11.30	78	1188134	10.45	ug/L	100
22) 1,2-Dichloroethane	11.30	62	381303	13.23	ug/L	97
23) Trichloroethene	12.41	95	575016	10.51	ug/L	93
24) 1,2-Dichloropropane	12.76	63	389527	10.78	ug/L	99
25) Dibromomethane	12.96	93	183417	9.90	ug/L	94
26) Bromodichloromethane	13.24	83	660375	11.27	ug/L	96
27) cis-1,3-Dichloropropene	14.00	75	530752	11.18	ug/L	98
28) Toluene	14.59	92	897866	10.63	ug/L	95
29) trans-1,3-Dichloropropene	14.93	75	399325	11.67	ug/L	96
30) 1,1,2-Trichloroethane	15.25	83	168293	10.18	ug/L	97
31) Tetrachloroethene	15.55	166	735351	12.59	ug/L	95
32) 1,3-Dichloropropane	15.53	76	345994	11.13	ug/L	99
33) Dibromochloromethane	15.94	129	408829	11.31	ug/L	98
34) 1,2-Dibromomethane	16.13	107	260406	10.51	ug/L	95
35) Chlorobenzene	17.01	112	1052315	10.98	ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.15	131	484829	11.56	ug/L	97
37) Ethylbenzene	17.21	91	2016721	11.09	ug/L	98
38) Xylene (para & meta)	17.40	106	1498330	22.68	ug/L	92
39) Xylene (Ortho)	18.12	106	665729	11.03	ug/L	97
40) Styrene	18.14	104	1024725	10.94	ug/L	97

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

060

Data File : d:\hpchem\1\data\c8924.d  
 Acq On : 31 Jul 95 12:56 pm  
 Sample : 10 PPB STANDARD  
 Misc :  
 Quant Time: Jul 31 13:24 1995

Vial: 4  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:39:04 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.45	173	225160	11.73	ug/L	97
42) Isopropylbenzene	18.78	105	2153131	11.37	ug/L	98
44) Bromobenzene	19.31	156	482010	12.03	ug/L	94
45) 1,1,2,2-Tetrachloroethane	19.27	83	216072	10.44	ug/L	96
46) 1,2,3-Trichloropropane	19.34	75	242802	11.51	ug/L #	39
47) n-Propylbenzene	19.52	91	2725119	11.07	ug/L	96
48) 2-Chlorotoluene	19.67	91	1529515	10.43	ug/L	98
49) 4-Chlorotoluene	19.86	91	1817219	11.04	ug/L	97
50) 1,3,5-Trimethylbenzene	19.83	105	1715326	10.73	ug/L	95
51) tert-Butylbenzene	20.43	119	2041782	11.71	ug/L	97
52) 1,2,4-Trimethylbenzene	20.51	105	1602355	10.44	ug/L	94
53) sec-Butylbenzene	20.83	105	2729998	11.23	ug/L	95
54) 1,3-Dichlorobenzene	21.02	146	981093	12.18	ug/L	94
55) 4-Isopropyltoluene	21.09	119	2223928	11.50	ug/L	97
56) 1,4-Dichlorobenzene	21.18	146	980924	12.18	ug/L	97
58) 1,2-Dichlorobenzene	21.86	146	751865	12.15	ug/L	97
59) n-Butylbenzene	21.84	91	2111668	10.81	ug/L	96
60) 1,2-Dibromo-3-chloropropan	23.26	75	59637	12.37	ug/L	95
61) 1,2,4-Trichlorobenzene	24.83	180	552359	11.26	ug/L	99
62) Hexachlorobutadiene	25.17	225	645135	12.23	ug/L	95
63) Naphthalene	25.27	128	452138	10.05	ug/L	100
64) 1,2,3-Trichlorobenzene	25.75	180	409362	11.30	ug/L	98
65) Methyl-tert butyl ether	7.94	73	491907	11.09	ug/L	98
66) tert-Butyl Alcohol	7.66	59	15967	25.79	ug/L	100

(#) = qualifier out of range (m) = manual integration

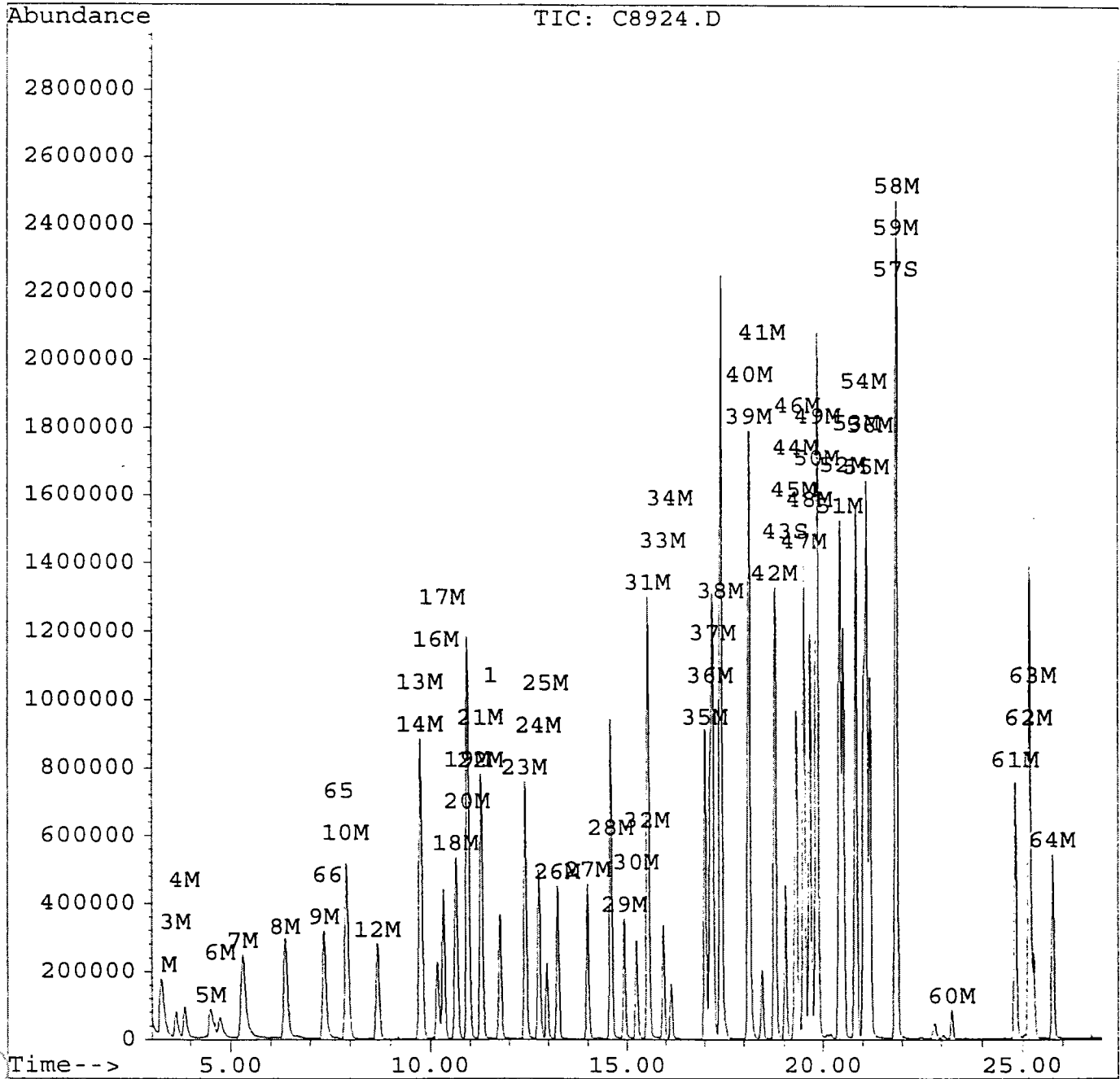
Quantitation Report

Data File : d:\hpchem\1\data\c8924.d  
Acq On : 31 Jul 95 12:56 pm  
Sample : 10 PPB STANDARD  
Misc :  
Quant Time: Jul 31 13:24 1995

Vial: 4  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

061

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:39:04 1995  
Response via : Multiple Level Calibration



Quantitation Report

062

Data File : d:\hpchem\1\data\c8925.d  
 Acq On : 31 Jul 95 1:35 pm  
 Sample : 20 PPB STANDARD  
 Misc :  
 Quant Time: Jul 31 14:30 1995

Vial: 5  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:39:04 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.76	96	694694	5.00	ug/L	-0.01
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.04	95	770218	11.87	ug/L	237.41%
57) 1,2-Dichlorobenzene-d4	21.83	152	467791	12.25	ug/L	245.02%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.27	85	1350606	26.13	ug/L	99
3) Chloromethane	3.62	50	524263	22.70	ug/L	97
4) Vinyl chloride	3.85	62	666032	22.59	ug/L	97
5) Bromomethane	4.46	94	458485	19.43	ug/L	95
6) Chloroethane	4.70	64	395741	23.93	ug/L	97
7) Trichlorofluoromethane	5.29	101	1804807	21.88	ug/L	100
8) 1,1-Dichloroethene	6.36	96	716881	20.27	ug/L	# 72
9) Methylene chloride	7.34	84	690419	18.24	ug/L	93
10) trans-1,2-Dichloroethene	7.90	96	758217	20.13	ug/L	# 82
12) 1,1-Dichloroethane	8.68	63	1543951	23.41	ug/L	99
13) 2,2-Dichloropropane	9.75	77	1686692	24.58	ug/L	99
14) cis-1,2-Dichloroethene	9.75	96	741496	20.13	ug/L	# 80
16) Bromochloromethane	10.18	128	321593	21.95	ug/L	88
17) Chloroform	10.33	83	1598418	22.50	ug/L	99
19) Carbon tetrachloride	10.96	117	1692136	22.53	ug/L	99
20) 1,1-Dichloropropene	10.94	75	1472386	23.47	ug/L	97
21) Benzene	11.29	78	2317560	20.58	ug/L	99
22) 1,2-Dichloroethane	11.30	62	772290	27.06	ug/L	95
23) Trichloroethene	12.41	95	1127935	20.82	ug/L	93
24) 1,2-Dichloropropane	12.76	63	778100	21.74	ug/L	99
25) Dibromomethane	12.96	93	374924	20.44	ug/L	92
26) Bromodichloromethane	13.24	83	1322076	22.78	ug/L	94
27) cis-1,3-Dichloropropene	13.99	75	1067386	22.69	ug/L	96
28) Toluene	14.59	92	1780921	21.28	ug/L	94
29) trans-1,3-Dichloropropene	14.93	75	798711	23.57	ug/L	m 52
30) 1,1,2-Trichloroethane	15.24	83	346070	21.14	ug/L	96
31) Tetrachloroethene	15.55	166	1425735	24.65	ug/L	97
32) 1,3-Dichloropropane	15.53	76	709548	23.04	ug/L	99
33) Dibromochloromethane	15.94	129	836161	23.35	ug/L	100
34) 1,2-Dibromomethane	16.14	107	535641	21.83	ug/L	97
35) Chlorobenzene	17.01	112	2094100	22.06	ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.15	131	966615	23.26	ug/L	99
37) Ethylbenzene	17.21	91	4027556	22.35	ug/L	100
38) Xylene (para & meta)	17.41	106	2918369	44.59	ug/L	99
39) Xylene (Ortho)	18.12	106	1315141	21.99	ug/L	97
40) Styrene	18.14	104	2040142	21.99	ug/L	96
41) Bromoform	18.46	173	464387	24.42	ug/L	94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8925.d  
 Acq On : 31 Jul 95 1:35 pm  
 Sample : 20 PPB STANDARD  
 Misc :  
 Quant Time: Jul 31 14:30 1995

Vial: 5 **063**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:39:04 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
42) Isopropylbenzene	18.78	105	4195341	22.36	ug/L m	0
44) Bromobenzene	19.31	156	980849	24.72	ug/L	97
45) 1,1,2,2-Tetrachloroethane	19.27	83	450659	21.98	ug/L	94
46) 1,2,3-Trichloropropane	19.34	75	493527	23.62	ug/L #	49
47) n-Propylbenzene	19.52	91	5409775	22.19	ug/L	97
48) 2-Chlorotoluene	19.67	91	3249877	22.38	ug/L m	97
49) 4-Chlorotoluene	19.86	91	3544778	21.73	ug/L	98
50) 1,3,5-Trimethylbenzene	19.84	105	3285177	20.75	ug/L	94
51) tert-Butylbenzene	20.43	119	3998623	23.15	ug/L	99
52) 1,2,4-Trimethylbenzene	20.52	105	3067914	20.19	ug/L	96
53) sec-Butylbenzene	20.83	105	5396286	22.41	ug/L	96
54) 1,3-Dichlorobenzene	21.02	146	1954895	24.50	ug/L	96
55) 4-Isopropyltoluene	21.10	119	4371577	22.82	ug/L	96
56) 1,4-Dichlorobenzene	21.19	146	1900660	23.84	ug/L	96
58) 1,2-Dichlorobenzene	21.86	146	1487201	24.27	ug/L	99
59) n-Butylbenzene	21.84	91	4085461	21.12	ug/L	96
60) 1,2-Dibromo-3-chloropropan	23.26	75	122489	25.65	ug/L	97
61) 1,2,4-Trichlorobenzene	24.83	180	1056548	21.75	ug/L	97
62) Hexachlorobutadiene	25.18	225	1266030	24.24	ug/L	95
63) Naphthalene	25.27	128	864171	19.39	ug/L	100
64) 1,2,3-Trichlorobenzene	25.75	180	756322	21.09	ug/L	92
65) Methyl-tert butyl ether	7.93	73	986601	22.46	ug/L	100
66) tert-Butyl Alcohol	7.67	59	32569	53.11	ug/L	100

(#) = qualifier out of range (m) = manual integration



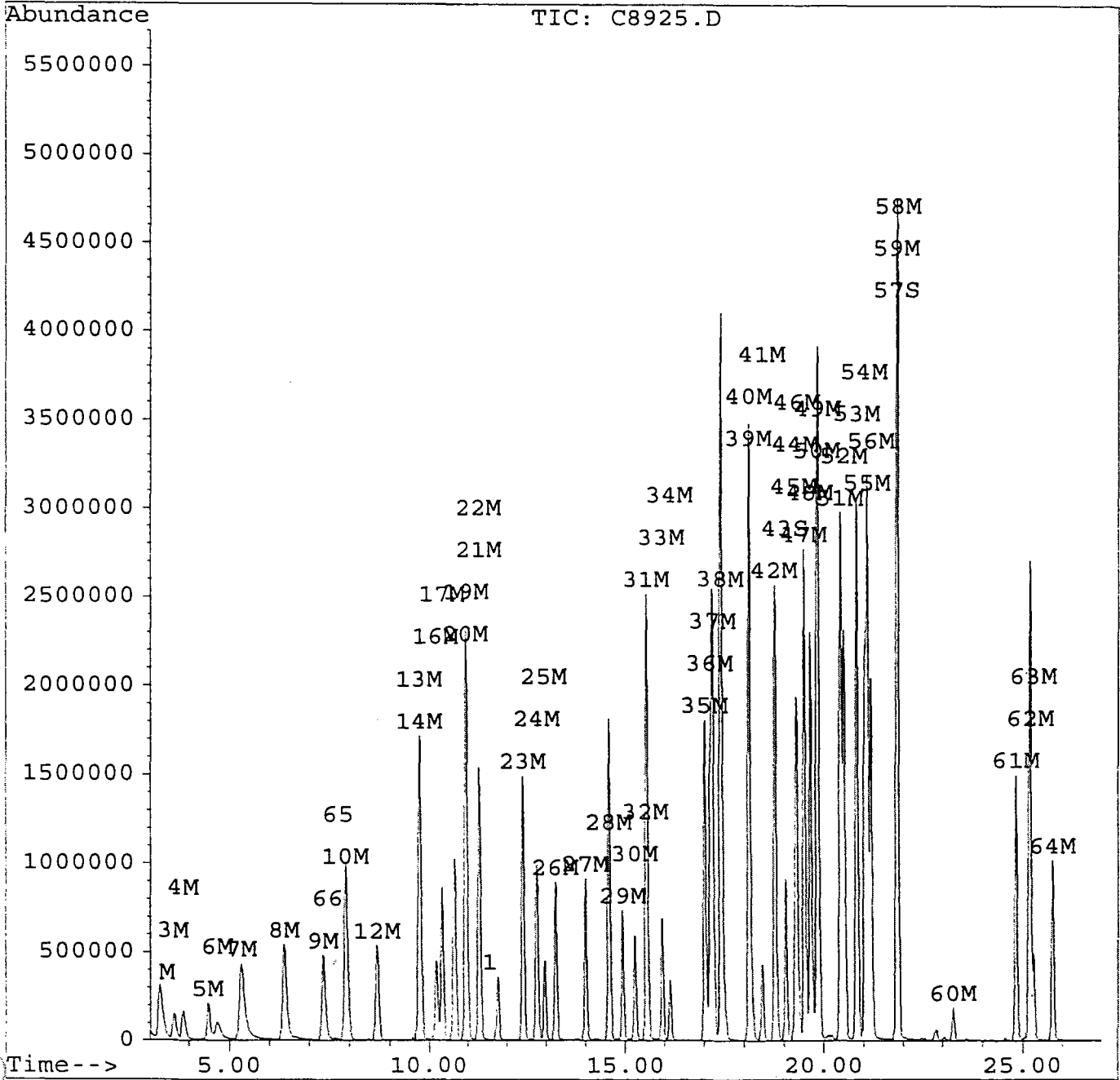
Quantitation Report

064

Data File : d:\hpchem\1\data\c8925.d  
Acq On : 31 Jul 95 1:35 pm  
Sample : 20 PPB STANDARD  
Misc :  
Quant Time: Jul 31 14:30 1995

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:39:04 1995  
Response via : Multiple Level Calibration



Quantitation Report

065

Data File : d:\hpchem\1\data\c8926.d  
 Acq On : 31 Jul 95 2:13 pm  
 Sample : 30 PPB STANDARD  
 Misc :  
 Quant Time: Jul 31 15:00 1995

Vial: 6  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.78	96	676340	5.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
43) 4-Bromofluorobenzene	19.04	95	1157243	18.32	ug/L	366.39%
57) 1,2-Dichlorobenzene-d4	21.83	152	705175	18.97	ug/L	379.38%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.28	85	1954970	38.85	ug/L	97
3) Chloromethane	3.63	50	766470	34.09	ug/L	96
4) Vinyl chloride	3.86	62	962279	33.52	ug/L	97
5) Bromomethane	4.48	94	679397	29.57	ug/L	94
6) Chloroethane	4.67	64	553321	34.37	ug/L	99
7) Trichlorofluoromethane	5.28	101	2626278	32.70	ug/L	99
8) 1,1-Dichloroethene	6.36	96	1038022	30.14	ug/L #	66
9) Methylene chloride	7.34	84	937757	25.45	ug/L	95
10) trans-1,2-Dichloroethene	7.90	96	1110205	30.28	ug/L #	82
12) 1,1-Dichloroethane	8.68	63	2262078	35.23	ug/L	99
13) 2,2-Dichloropropane	9.76	77	2424755	36.29	ug/L m	0
14) cis-1,2-Dichloroethene	9.75	96	1088308	30.34	ug/L #	84
16) Bromochloromethane	10.19	128	478581	33.56	ug/L	95
17) Chloroform	10.33	83	2348463	33.95	ug/L	96
18) 1,1,1-Trichloroethane	10.66	97	2611611	33.83	ug/L m	0
19) Carbon tetrachloride	10.96	117	2480436	33.92	ug/L	98
20) 1,1-Dichloropropene	10.95	75	2149543	35.20	ug/L	97
21) Benzene	11.30	78	3421736	31.21	ug/L	100
22) 1,2-Dichloroethane	11.30	62	1148765	41.34	ug/L	95
23) Trichloroethene	12.41	95	1667752	31.62	ug/L	97
24) 1,2-Dichloropropane	12.78	63	1145035	32.86	ug/L	100
25) Dibromomethane	12.97	93	558619	31.28	ug/L	87
26) Bromodichloromethane	13.24	83	1964461	34.77	ug/L	97
27) cis-1,3-Dichloropropene	14.00	75	1581930	34.55	ug/L	97
28) Toluene	14.59	92	2599458	31.90	ug/L	96
29) trans-1,3-Dichloropropene	14.93	75	1208092	36.62	ug/L m	52
30) 1,1,2-Trichloroethane	15.25	83	514786	32.30	ug/L	98
31) Tetrachloroethene	15.55	166	2080364	36.94	ug/L	98
32) 1,3-Dichloropropane	15.54	76	1054452	35.18	ug/L	98
33) Dibromochloromethane	15.94	129	1249030	35.82	ug/L	99
34) 1,2-Dibromomethane	16.14	107	791764	33.14	ug/L	99
35) Chlorobenzene	17.01	112	3090441	33.44	ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.15	131	1430434	35.36	ug/L	99
37) Ethylbenzene	17.21	91	5836141	33.27	ug/L	99
38) Xylene (para & meta)	17.41	106	4215673	66.17	ug/L	98
39) Xylene (Ortho)	18.12	106	1917652	32.94	ug/L	99
40) Styrene	18.14	104	3000234	33.22	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8926.d  
 Acq On : 31 Jul 95 2:13 pm  
 Sample : 30 PPB STANDARD  
 Misc :  
 Quant Time: Jul 31 15:00 1995

Vial: 6 **066**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.45	173	697775	37.69	ug/L	91
42) Isopropylbenzene	18.78	105	6113998	33.47	ug/L m	49
44) Bromobenzene	19.32	156	1447926	37.48	ug/L	93
45) 1,1,2,2-Tetrachloroethane	19.27	83	668586	33.50	ug/L	93
46) 1,2,3-Trichloropropane	19.34	75	722028	35.50	ug/L #	60
47) n-Propylbenzene	19.52	91	7812224	32.91	ug/L m	97
48) 2-Chlorotoluene	19.67	91	4319859	30.56	ug/L	99
49) 4-Chlorotoluene	19.87	91	5179093	32.62	ug/L	96
50) 1,3,5-Trimethylbenzene	19.84	105	4731722	30.69	ug/L	96
51) tert-Butylbenzene	20.43	119	5762797	34.27	ug/L	98
52) 1,2,4-Trimethylbenzene	20.52	105	4427366	29.92	ug/L	96
53) sec-Butylbenzene	20.83	105	7766139	33.13	ug/L	96
54) 1,3-Dichlorobenzene	21.03	146	2826805	36.39	ug/L	96
55) 4-Isopropyltoluene	21.10	119	6215201	33.32	ug/L	96
56) 1,4-Dichlorobenzene	21.19	146	2790896	35.95	ug/L	97
58) 1,2-Dichlorobenzene	21.86	146	2161208	36.23	ug/L	97
59) n-Butylbenzene	21.84	91	5773795	30.66	ug/L	97
60) 1,2-Dibromo-3-chloropropan	23.26	75	180128	38.74	ug/L	96
61) 1,2,4-Trichlorobenzene	24.83	180	1547652	32.73	ug/L	97
62) Hexachlorobutadiene	25.18	225	1825201	35.89	ug/L m	84
63) Naphthalene	25.27	128	1292091	29.78	ug/L m	0
64) 1,2,3-Trichlorobenzene	25.75	180	1132886	32.44	ug/L	93
65) Methyl-tert butyl ether	7.94	73	1471616	34.41	ug/L	99
66) tert-Butyl Alcohol	7.68	59	49354	82.66	ug/L	100

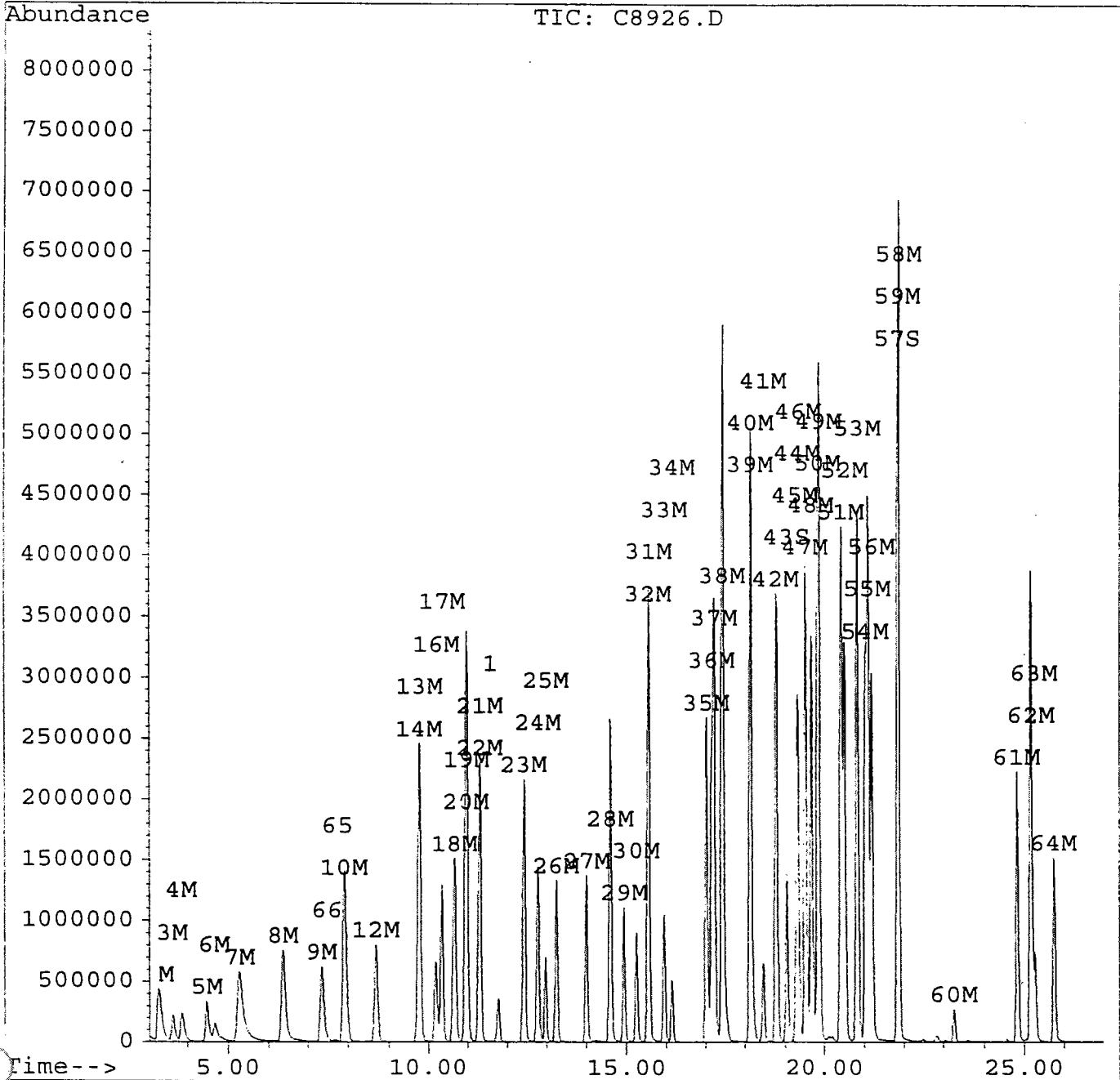
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c8926.d  
Acq On : 31 Jul 95 2:13 pm  
Sample : 30 PPB STANDARD  
Misc :  
Quant Time: Jul 31 15:00 1995

Vial: 6 067  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c8927.d  
 Acq On : 31 Jul 95 2:52 pm  
 Sample : 40 PPB STANDARD  
 Misc :  
 Quant Time: Jul 31 15:28 1995

Vial: 7 **068**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.78	96	650452	5.00	ug/L	0.00
System Monitoring Compounds						
43) 4-Bromofluorobenzene	19.04	95	1483905	24.43	ug/L	488.51%
57) 1,2-Dichlorobenzene-d4	21.83	152	886497	24.80	ug/L	495.91%
Target Compounds						
2) Dichlorodifluoromethane	3.28	85	2485982	51.36	ug/L	Qvalue 98
3) Chloromethane	3.63	50	996905	46.11	ug/L	95
4) Vinyl chloride	3.86	62	1225673	44.40	ug/L m	0
5) Bromomethane	4.47	94	862129	39.02	ug/L	97
6) Chloroethane	4.66	64	651160	42.06	ug/L	97
7) Trichlorofluoromethane	5.27	101	3292782	42.63	ug/L m	0
8) 1,1-Dichloroethene	6.35	96	1312667	39.64	ug/L #	67
9) Methylene chloride	7.34	84	1166949	32.93	ug/L	96
10) trans-1,2-Dichloroethene	7.89	96	1406412	39.89	ug/L #	79
12) 1,1-Dichloroethane	8.68	63	2892612	46.84	ug/L	98
13) 2,2-Dichloropropane	9.75	77	2990889	46.55	ug/L m	0
14) cis-1,2-Dichloroethene	9.75	96	1395488	40.46	ug/L #	86
16) Bromochloromethane	10.18	128	621755	45.33	ug/L	91
17) Chloroform	10.33	83	3012914	45.29	ug/L	98
18) 1,1,1-Trichloroethane	10.65	97	3313596	44.64	ug/L m	0
19) Carbon tetrachloride	10.96	117	3150886	44.81	ug/L	99
20) 1,1-Dichloropropene	10.95	75	2689161	45.79	ug/L	98
21) Benzene	11.29	78	4342316	41.18	ug/L	99
22) 1,2-Dichloroethane	11.30	62	1493503	55.89	ug/L	96
23) Trichloroethene	12.41	95	2093141	41.26	ug/L	95
24) 1,2-Dichloropropane	12.77	63	1475843	44.04	ug/L	100
25) Dibromomethane	12.97	93	736590	42.89	ug/L	90
26) Bromodichloromethane	13.24	83	2562192	47.16	ug/L	97
27) cis-1,3-Dichloropropene	14.00	75	2034088	46.19	ug/L	96
28) Toluene	14.59	92	3342668	42.66	ug/L	97
29) trans-1,3-Dichloropropene	14.93	75	1571645	49.53	ug/L m	52
30) 1,1,2-Trichloroethane	15.25	83	679735	44.35	ug/L	96
31) Tetrachloroethene	15.56	166	2617226	48.32	ug/L	97
32) 1,3-Dichloropropane	15.54	76	1376037	47.73	ug/L	97
33) Dibromochloromethane	15.94	129	1633396	48.71	ug/L	97
34) 1,2-Dibromomethane	16.14	107	1046961	45.57	ug/L	99
35) Chlorobenzene	17.01	112	3960140	44.56	ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.15	131	1841570	47.34	ug/L	98
37) Ethylbenzene	17.21	91	7451327	44.16	ug/L	100
38) Xylene (para & meta)	17.43	106	5333395	87.04	ug/L	100
39) Xylene (Ortho)	18.13	106	2434880	43.48	ug/L	98
40) Styrene	18.14	104	3818010	43.96	ug/L	94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

069

Data File : d:\hpchem\1\data\c8927.d  
 Acq On : 31 Jul 95 2:52 pm  
 Sample : 40 PPB STANDARD  
 Misc :  
 Quant Time: Jul 31 15:28 1995

Vial: 7  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.46	173	917961	51.55	ug/L	95
42) Isopropylbenzene	18.79	105	7753147	44.14	ug/L m	49
44) Bromobenzene	19.32	156	1863611	50.16	ug/L	93
45) 1,1,2,2-Tetrachloroethane	19.27	83	870403	45.35	ug/L	96
46) 1,2,3-Trichloropropane	19.34	75	930655	47.57	ug/L #	70
47) n-Propylbenzene	19.52	91	9921616	43.46	ug/L	99
48) 2-Chlorotoluene	19.68	91	5952459	43.78	ug/L m	99
49) 4-Chlorotoluene	19.87	91	6555656	42.93	ug/L	97
50) 1,3,5-Trimethylbenzene	19.84	105	5928394	39.99	ug/L	94
51) tert-Butylbenzene	20.44	119	7224823	44.68	ug/L	100
52) 1,2,4-Trimethylbenzene	20.52	105	5461860	38.38	ug/L	95
53) sec-Butylbenzene	20.84	105	9757837	43.28	ug/L	97
54) 1,3-Dichlorobenzene	21.03	146	3590149	48.06	ug/L	95
55) 4-Isopropyltoluene	21.10	119	7757043	43.24	ug/L	98
56) 1,4-Dichlorobenzene	21.19	146	3530340	47.28	ug/L	97
58) 1,2-Dichlorobenzene	21.87	146	2761760	48.13	ug/L	97
59) n-Butylbenzene	21.85	91	7182686	39.66	ug/L	96
60) 1,2-Dibromo-3-chloropropan	23.26	75	240607	53.81	ug/L	95
61) 1,2,4-Trichlorobenzene	24.84	180	1977712	43.48	ug/L	98
62) Hexachlorobutadiene	25.18	225	2292561	46.88	ug/L m	73
63) Naphthalene	25.28	128	1666921	39.94	ug/L	100
64) 1,2,3-Trichlorobenzene	25.76	180	1465833	43.65	ug/L	96
65) Methyl-tert butyl ether	7.93	73	1911713	46.49	ug/L m	0
66) tert-Butyl Alcohol	7.69	59	61995	107.97	ug/L	100

(#) = qualifier out of range (m) = manual integration

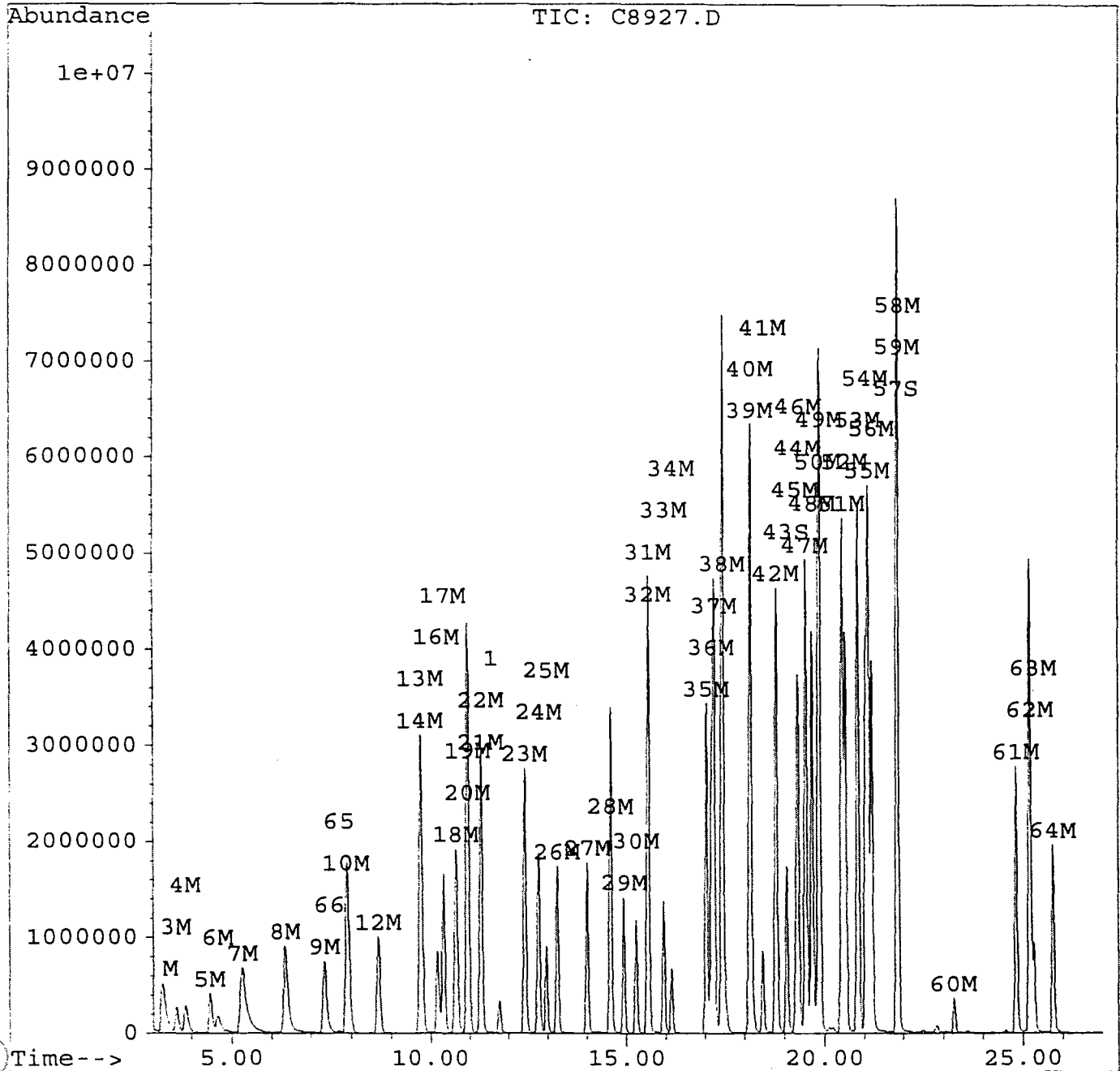
Quantitation Report

070

Data File : d:\hpchem\1\data\c8927.d  
Acq On : 31 Jul 95 2:52 pm  
Sample : 40 PPB STANDARD  
Misc :  
Quant Time: Jul 31 15:28 1995

Vial: 7  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

071

Lab Name : EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
 Lab File ID: C9214.D BFB Injection Date: 8/22/95  
 Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1030  
 GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) \_\_\_\_\_

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	26.4
75	30.0 - 66.0% of mass 95	55.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.8
173	Less than 2.0% of mass 174	0.7 ( 1.1 )1
174	50.0 - 120.0% of mass 95	61.3
175	4.0 - 9.0% of mass 174	4.2 ( 6.9 )1
176	93.0 - 101.0% of mass 174	60.5 ( 98.8 )1
177	5.0 - 9.0% of mass 176	3.9 ( 6.4 )2

1-Value is % mass 174

2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

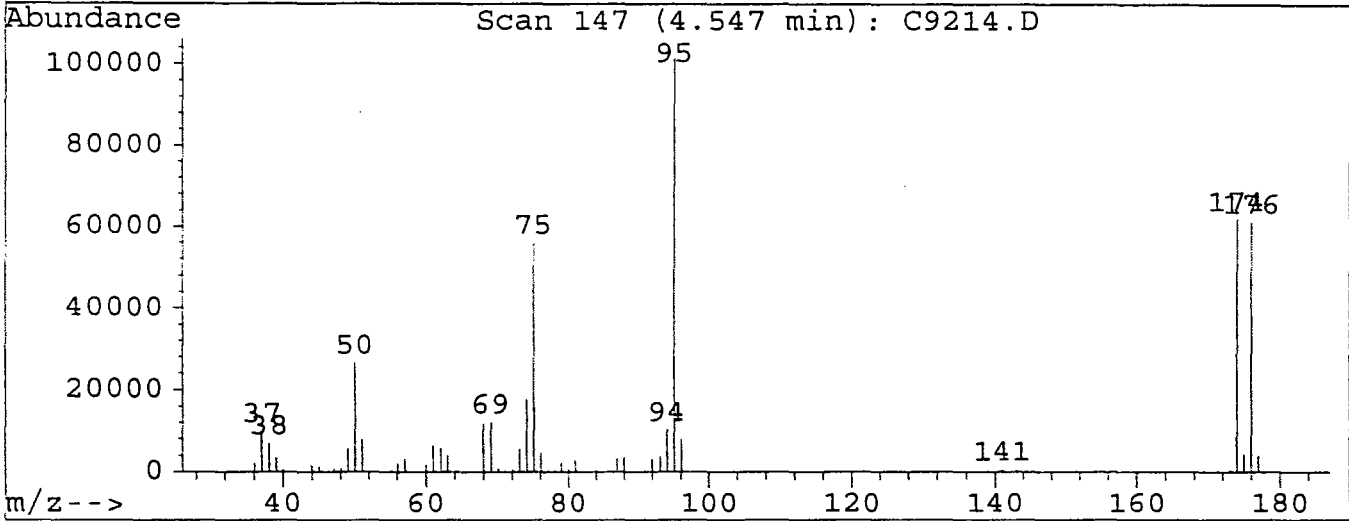
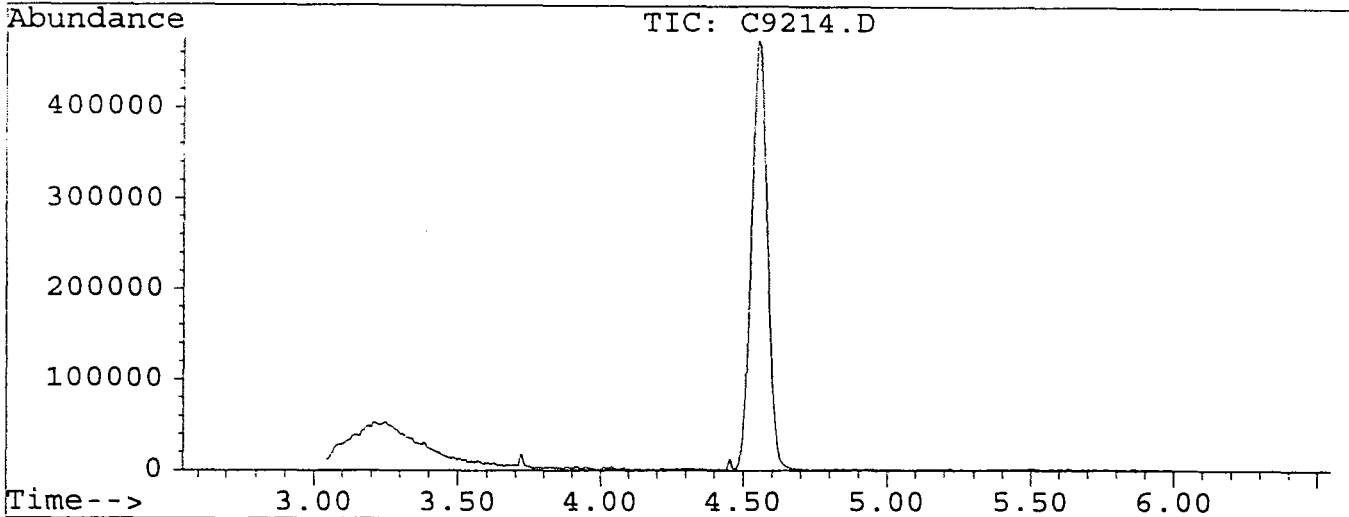
	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	10 STND	C9215.D	8/22/95	1045
02	1 STND	1 STND	C9217.D	8/22/95	1215
03	VBLK01	M. BLANK	C9218.D	8/22/95	1304
04	9535439V	9535439V	C9219.D	8/22/95	1346
05	9536417V	9536417V	C9220.D	8/22/95	1425
06	9536418V	9536418V	C9221.D	8/22/95	1514
07	9536412V	9536412V	C9222.D	8/22/95	1555
08	9536413V	9536413V	C9223.D	8/22/95	1638
09	9536414V	9536414V	C9224.D	8/22/95	1716
10	9536416V	9536416V	C9225.D	8/22/95	1753
11	9536416MS	36416MS	C9226.D	8/22/95	1830
12	9536416MSD	36416MSD	C9227.D	8/22/95	1906
13	10 QCS	10 QCS	C9229.D	8/22/95	2018
14					
15					
16					
17					
18					
19					
20					
21					
22					



Data File : D:\HPCHEM\1\DATA\C9214.D  
 Acq On : 22 Aug 95 10:30 am  
 Sample : BFB TUNE  
 Misc : 25 NG INJECTION

Vial: 1  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics



Peak Apex is scan: 147

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.4	26744	PASS
75	95	30	80	55.4	56120	PASS
95	95	100	100	100.0	101320	PASS
96	95	5	9	7.8	7887	PASS
173	174	0	2	1.1	666	PASS
174	95	50	100	61.3	62064	PASS
175	174	5	9	6.9	4262	PASS
176	174	95	101	98.8	61328	PASS
177	176	5	9	6.4	3907	PASS

Jan 147 (4.547 min): C9214.D  
BFB TUNE

073

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.15	2136	51.10	7931	72.10	739	88.05	3458
37.15	10002	55.20	706	73.10	5529	92.00	2994
38.15	7116	56.10	2075	74.10	17920	93.10	3725
39.15	3525	57.10	3357	75.10	56120	94.10	10424
40.05	614	60.05	1808	76.10	4588	95.10	101320
44.05	1560	61.05	6467	77.10	604	96.10	7887
45.05	1330	62.15	5868	78.10	539	141.00	711
47.10	992	63.05	3911	79.05	2438	143.00	642
48.10	909	68.05	11846	80.05	823	173.05	666
49.10	5791	69.10	12201	81.05	2903	173.95	62064
50.10	26744	70.10	928	87.05	3239	174.95	4262

Jan 147 (4.547 min): C9214.D  
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
176.00	61328						
177.00	3907						

Evaluate Continuing Calibration Report

074

Data File : D:\HPCHEM\1\DATA\C9215.D  
 Acq On : 22 Aug 95 10:45 am  
 Sample : 10 PPB CHK STANDARD  
 Misc :

Vial: 2  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
1 Fluorobenzene	1.000	1.000	0.0	86	0.05
2 M Dichlorodifluoromethane	0.494	0.496	-0.4	87	0.03
3 M Chloromethane	0.189	0.201	-6.2	94	0.03
4 M Vinyl chloride	0.241	0.241	-0.3	86	0.04
5 M Bromomethane	0.168	0.141	16.3	69	0.03
6 M Chloroethane	0.141	0.144	-1.9	82	0.04
7 M Trichlorofluoromethane	0.656	0.659	-0.4	86	0.05
8 M 1,1-Dichloroethene	0.259	0.257	0.9	84	0.08
9 M Methylene chloride	0.256	0.249	2.5	67	0.06
10 M trans-1,2-Dichloroethene	0.275	0.276	-0.3	85	0.06
11 Hexane	0.000	0.000#	0.0	0#	-9.46#
12 M 1,1-Dichloroethane	0.557	0.593	-6.6	91	0.08
13 M 2,2-Dichloropropane	0.609	0.637	-4.7	86	0.05
14 M cis-1,2-Dichloroethene	0.264	0.273	-3.3	88	0.06
15 2-Butanone	0.000	0.000#	0.0	0#	-11.21#
16 M Bromochloromethane	0.114	0.110	4.3	84	0.06
17 M Chloroform	0.578	0.575	0.4	86	0.06
18 M 1,1,1-Trichloroethane	0.646	0.663	-2.5	87	0.05
19 M Carbon tetrachloride	0.614	0.617	-0.5	86	0.08
20 M 1,1-Dichloropropene	0.532	0.539	-1.3	86	0.06
21 M Benzene	0.841	0.845	-0.4	86	0.05
22 M 1,2-Dichloroethane	0.276	0.276	0.1	87	0.06
23 M Trichloroethene	0.408	0.411	-0.6	86	0.06
24 M 1,2-Dichloropropane	0.279	0.283	-1.4	88	0.06
25 M Dibromomethane	0.133	0.132	0.8	87	0.06
26 M Bromodichloromethane	0.475	0.469	1.2	86	0.06
27 M cis-1,3-Dichloropropene	0.382	0.371	2.8	84	0.05
28 M Toluene	0.643	0.644	-0.2	87	0.05
29 M trans-1,3-Dichloropropene	0.289	0.283	2.0	86	0.05
30 M 1,1,2-Trichloroethane	0.123	0.118	4.4	85	0.05
31 M Tetrachloroethene	0.518	0.499	3.7	82	0.05
32 M 1,3-Dichloropropane	0.253	0.240	5.1	84	0.05
33 M Dibromochloromethane	0.298	0.279	6.3	82	0.04
34 M 1,2-Dibromomethane	0.190	0.180	5.2	84	0.06
35 M Chlorobenzene	0.754	0.745	1.1	85	0.05
36 M 1,1,1,2-Tetrachloroethane	0.346	0.338	2.5	84	0.05
37 M Ethylbenzene	1.437	1.427	0.7	85	0.04
38 M Xylene (para & meta)	0.523	0.525	-0.3	85	0.05
39 M Xylene (Ortho)	0.472	0.474	-0.4	86	0.04
40 M Styrene	0.728	0.708	2.7	83	0.04
41 M Bromoform	0.165	0.147	10.9	79	0.05
42 M Isopropylbenzene	1.512	1.479	2.2	83	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C9215.D  
 Acq On : 22 Aug 95 10:45 am  
 Sample : 10 PPB CHK STANDARD  
 Misc :

Vial: 2 **075**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
43 S	4-Bromofluorobenzene	0.561	0.548	2.4	85	0.04
44 M	Bromobenzene	0.349	0.330	5.6	83	0.05
45 M	1,1,2,2-Tetrachloroethane	0.158	0.153	3.1	86	0.04
46 M	1,2,3-Trichloropropane	0.174	0.166	4.3	83	0.04
47 M	n-Propylbenzene	1.922	1.930	-0.4	86	0.04
48 M	2-Chlorotoluene	1.122	1.157	-3.1	91	0.04
49 M	4-Chlorotoluene	1.269	1.295	-2.1	86	0.05
50 M	1,3,5-Trimethylbenzene	1.176	1.245	-5.8	88	0.05
51 M	tert-Butylbenzene	1.426	1.417	0.6	84	0.04
52 M	1,2,4-Trimethylbenzene	1.092	1.175	-7.7	89	0.05
53 M	sec-Butylbenzene	1.926	1.900	1.4	84	0.04
54 M	1,3-Dichlorobenzene	0.697	0.658	5.5	81	0.04
55 M	4-Isopropyltoluene	1.544	1.568	-1.6	85	0.05
56 M	1,4-Dichlorobenzene	0.684	0.653	4.6	80	0.05
57 S	1,2-Dichlorobenzene-d4	0.338	0.319	5.6	82	0.04
58 M	1,2-Dichlorobenzene	0.531	0.509	4.1	82	0.04
59 M	n-Butylbenzene	1.444	1.543	-6.8	88	0.04
60 M	1,2-Dibromo-3-chloropropane	0.043	0.039	8.5	79	0.05
61 M	1,2,4-Trichlorobenzene	0.379	0.407	-7.4	89	0.04
62 M	Hexachlorobutadiene	0.451	0.397	12.0	74	0.04
63 M	Naphthalene	0.309	0.372	-20.3	99	0.05
64 M	1,2,3-Trichlorobenzene	0.276	0.302	-9.6	89	0.05
65	Methyl-tert butyl ether	0.356	0.334	6.4	82	0.05
66	tert-Butyl Alcohol	0.006	0.005	12.0	78	0.03

7A  
VOLATILE CONTINUING CALIBRATION CHECK

076

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_

Group: \_\_\_\_\_

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 8/22/95

Time: 1045

Lab File ID: C9215.D Init. Calib. Date(s): 7/31/95

Heated Purge: (Y/N) N Init. Calib. Times: \_\_\_\_\_

GC Column: DB-624 X 7 ID: 0.53 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.494	0.496		-0.4	30.0
Chloromethane	0.189	0.201		-6.3	30.0
Vinyl chloride	0.241	0.241		0.0	30.0
Bromomethane	0.168	0.141		16.1	30.0
Chloroethane	0.141	0.144		-2.1	30.0
Trichlorofluoromethane	0.656	0.659		-0.5	30.0
1,1-Dichloroethene	0.259	0.257		0.8	30.0
Methylene chloride	0.256	0.249		2.7	30.0
trans-1,2-Dichloroethene	0.275	0.276		-0.4	30.0
1,1-Dichloroethane	0.557	0.593		-6.5	30.0
2,2-Dichloropropane	0.609	0.637		-4.6	30.0
cis-1,2-Dichloroethene	0.264	0.273		-3.4	30.0
Bromochloromethane	0.114	0.110		3.5	30.0
Chloroform	0.578	0.575		0.5	30.0
1,1,1-Trichloroethane	0.646	0.663		-2.6	30.0
Carbon tetrachloride	0.614	0.617		-0.5	30.0
1,1-Dichloropropene	0.532	0.539		-1.3	30.0
Benzene	0.841	0.845		-0.5	30.0
1,2-Dichloroethane	0.276	0.276		0.0	30.0
Trichloroethene	0.408	0.411		-0.7	30.0
1,2-Dichloropropane	0.279	0.283		-1.4	30.0
Dibromomethane	0.133	0.132		0.8	30.0
Bromodichloromethane	0.475	0.469		1.3	30.0
cis-1,3-Dichloropropene	0.382	0.371		2.9	30.0
Toluene	0.643	0.644		-0.2	30.0
trans-1,3-Dichloropropene	0.289	0.283		2.1	30.0
1,1,2-Trichloroethane	0.123	0.118		4.1	30.0
Tetrachloroethene	0.518	0.499		3.7	30.0
1,3-Dichloropropane	0.253	0.240		5.1	30.0
Dibromochloromethane	0.298	0.279		6.4	30.0
1,2-Dibromomethane	0.190	0.180		5.3	30.0
Chlorobenzene	0.754	0.745		1.2	30.0
1,1,1,2-Tetrachloroethane	0.346	0.338		2.3	30.0
Ethylbenzene	1.437	1.427		0.7	30.0
Xylene (para & meta)	0.523	0.525		-0.4	30.0
Xylene (Ortho)	0.472	0.474		-0.4	30.0

## VOLATILE CONTINUING CALIBRATION CHECK

077

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 8/22/95 Time: 1045

Lab File ID: C9215.D Init. Calib. Date(s): 7/31/95

Heated Purge: (Y/N) N Init. Calib. Times: \_\_\_\_\_

GC Column: DB-624 X 7 ID: 0.53 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Styrene	0.728	0.708		2.7	30.0
Bromoform	0.165	0.147		10.9	30.0
Isopropylbenzene	1.512	1.479		2.2	30.0
Bromobenzene	0.349	0.330		5.4	30.0
1,1,2,2-Tetrachloroethane	0.158	0.153		3.2	30.0
1,2,3-Trichloropropane	0.174	0.166		4.6	30.0
n-Propylbenzene	1.922	1.930		-0.4	30.0
2-Chlorotoluene	1.122	1.157		-3.1	30.0
4-Chlorotoluene	1.269	1.295		-2.0	30.0
1,3,5-Trimethylbenzene	1.176	1.245		-5.9	30.0
tert-Butylbenzene	1.426	1.417		0.6	30.0
1,2,4-Trimethylbenzene	1.092	1.175		-7.6	30.0
sec-Butylbenzene	1.926	1.900		1.3	30.0
1,3-Dichlorobenzene	0.697	0.658		5.6	30.0
4-Isopropyltoluene	1.544	1.568		-1.6	30.0
1,4-Dichlorobenzene	0.684	0.653		4.5	30.0
1,2-Dichlorobenzene	0.531	0.509		4.1	30.0
n-Butylbenzene	1.444	1.543		-6.9	30.0
1,2-Dibromo-3-chloropropane	0.043	0.039		9.3	30.0
1,2,4-Trichlorobenzene	0.379	0.407		-7.4	30.0
Hexachlorobutadiene	0.451	0.397		12.0	30.0
Naphthalene	0.309	0.372		-20.4	30.0
1,2,3-Trichlorobenzene	0.276	0.302		-9.4	30.0
4-Bromofluorobenzene	0.561	0.548		2.3	30.0
1,2-Dichlorobenzene-d4	0.338	0.319		5.6	30.0

Quantitation Report

Data File : d:\hpchem\1\data\c9215.d  
 Acq On : 22 Aug 95 10:45 am  
 Sample : 10 PPB CHK STANDARD  
 Misc :  
 Quant Time: Aug 22 14:31 1995

Vial: 2 078  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.83	96	603489	5.00	ug/L	0.05
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.09	95	330554	4.88	ug/L	97.58%
57) 1,2-Dichlorobenzene-d4	21.87	152	192663	4.72	ug/L	94.44%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.31	85	598344	10.04	ug/L	97
3) Chloromethane	3.67	50	242313	10.62	ug/L	97
4) Vinyl chloride	3.91	62	291201	10.03	ug/L	91
5) Bromomethane	4.54	94	169900	8.37	ug/L	92
6) Chloroethane	4.79	64	173277	10.19	ug/L	100
7) Trichlorofluoromethane	5.36	101	795086	10.04	ug/L	96
8) 1,1-Dichloroethene	6.44	96	309904	9.91	ug/L	96
9) Methylene chloride	7.42	84	300717	9.75	ug/L	96
10) trans-1,2-Dichloroethene	7.96	96	332623	10.03	ug/L	99
12) 1,1-Dichloroethane	8.76	63	716117	10.66	ug/L	100
13) 2,2-Dichloropropane	9.82	77	769310	10.47	ug/L	100
14) cis-1,2-Dichloroethene	9.83	96	329466	10.33	ug/L	94
16) Bromochloromethane	10.24	128	132176	9.57	ug/L #	90
17) Chloroform	10.40	83	694296	9.96	ug/L	97
18) 1,1,1-Trichloroethane	10.72	97	800013	10.25	ug/L	95
19) Carbon tetrachloride	11.04	117	744521	10.05	ug/L	99
20) 1,1-Dichloropropene	11.02	75	650150	10.13	ug/L	99
21) Benzene	11.36	78	1020064	10.04	ug/L	98
22) 1,2-Dichloroethane	11.37	62	332622	9.99	ug/L	96
23) Trichloroethene	12.48	95	495754	10.06	ug/L	97
24) 1,2-Dichloropropane	12.83	63	341208	10.14	ug/L	99
25) Dibromomethane	13.03	93	159594	9.92	ug/L	96
26) Bromodichloromethane	13.30	83	566442	9.88	ug/L	100
27) cis-1,3-Dichloropropene	14.06	75	448166	9.72	ug/L	98
28) Toluene	14.64	92	777486	10.02	ug/L	100
29) trans-1,3-Dichloropropene	14.98	75	341715	9.80	ug/L	98
30) 1,1,2-Trichloroethane	15.30	83	142457	9.56	ug/L	99
31) Tetrachloroethene	15.60	166	601883	9.63	ug/L	97
32) 1,3-Dichloropropane	15.58	76	289847	9.49	ug/L	99
33) Dibromochloromethane	15.98	129	336552	9.37	ug/L	100
34) 1,2-Dibromomethane	16.19	107	217672	9.48	ug/L	97
35) Chlorobenzene	17.07	112	899601	9.89	ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.20	131	407612	9.75	ug/L	95
37) Ethylbenzene	17.25	91	1722332	9.93	ug/L	97
38) Xylene (para & meta)	17.46	106	1266748	20.07	ug/L	93
39) Xylene (Ortho)	18.16	106	571594	10.04	ug/L	98
40) Styrene	18.18	104	855082	9.73	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c9215.d  
 Acq On : 22 Aug 95 10:45 am  
 Sample : 10 PPB CHK STANDARD  
 Misc :  
 Quant Time: Aug 22 14:31 1995

Vial: 2 **073**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.50	173	176922	8.91	ug/L	98
42) Isopropylbenzene	18.82	105	1785007	9.78	ug/L	99
44) Bromobenzene	19.37	156	397795	9.44	ug/L	97
45) 1,1,2,2-Tetrachloroethane	19.31	83	184947	9.69	ug/L	99
46) 1,2,3-Trichloropropane	19.39	75	200605	9.57	ug/L #	55
47) n-Propylbenzene	19.56	91	2330019	10.04	ug/L	98
48) 2-Chlorotoluene	19.72	91	1395977	10.31	ug/L	99
49) 4-Chlorotoluene	19.91	91	1562681	10.21	ug/L m	95
50) 1,3,5-Trimethylbenzene	19.88	105	1502142	10.58	ug/L	99
51) tert-Butylbenzene	20.47	119	1710096	9.94	ug/L	96
52) 1,2,4-Trimethylbenzene	20.56	105	1418674	10.77	ug/L	100
53) sec-Butylbenzene	20.87	105	2292840	9.86	ug/L	98
54) 1,3-Dichlorobenzene	21.07	146	794073	9.45	ug/L	98
55) 4-Isopropyltoluene	21.14	119	1892773	10.16	ug/L	100
56) 1,4-Dichlorobenzene	21.23	146	787985	9.54	ug/L	96
58) 1,2-Dichlorobenzene	21.90	146	614893	9.59	ug/L	98
59) n-Butylbenzene	21.88	91	1861854	10.68	ug/L	98
60) 1,2-Dibromo-3-chloropropan	23.32	75	47289	9.15	ug/L	90
61) 1,2,4-Trichlorobenzene	24.87	180	491461	10.74	ug/L	98
62) Hexachlorobutadiene	25.21	225	478939	8.80	ug/L	99
63) Naphthalene	25.33	128	448914	12.03	ug/L	100
64) 1,2,3-Trichlorobenzene	25.80	180	364656	10.96	ug/L	98
65) Methyl-tert butyl ether	7.99	73	402800	9.36	ug/L	94
66) tert-Butyl Alcohol	7.70	59	12433	17.60	ug/L	100

(#) = qualifier out of range (m) = manual integration

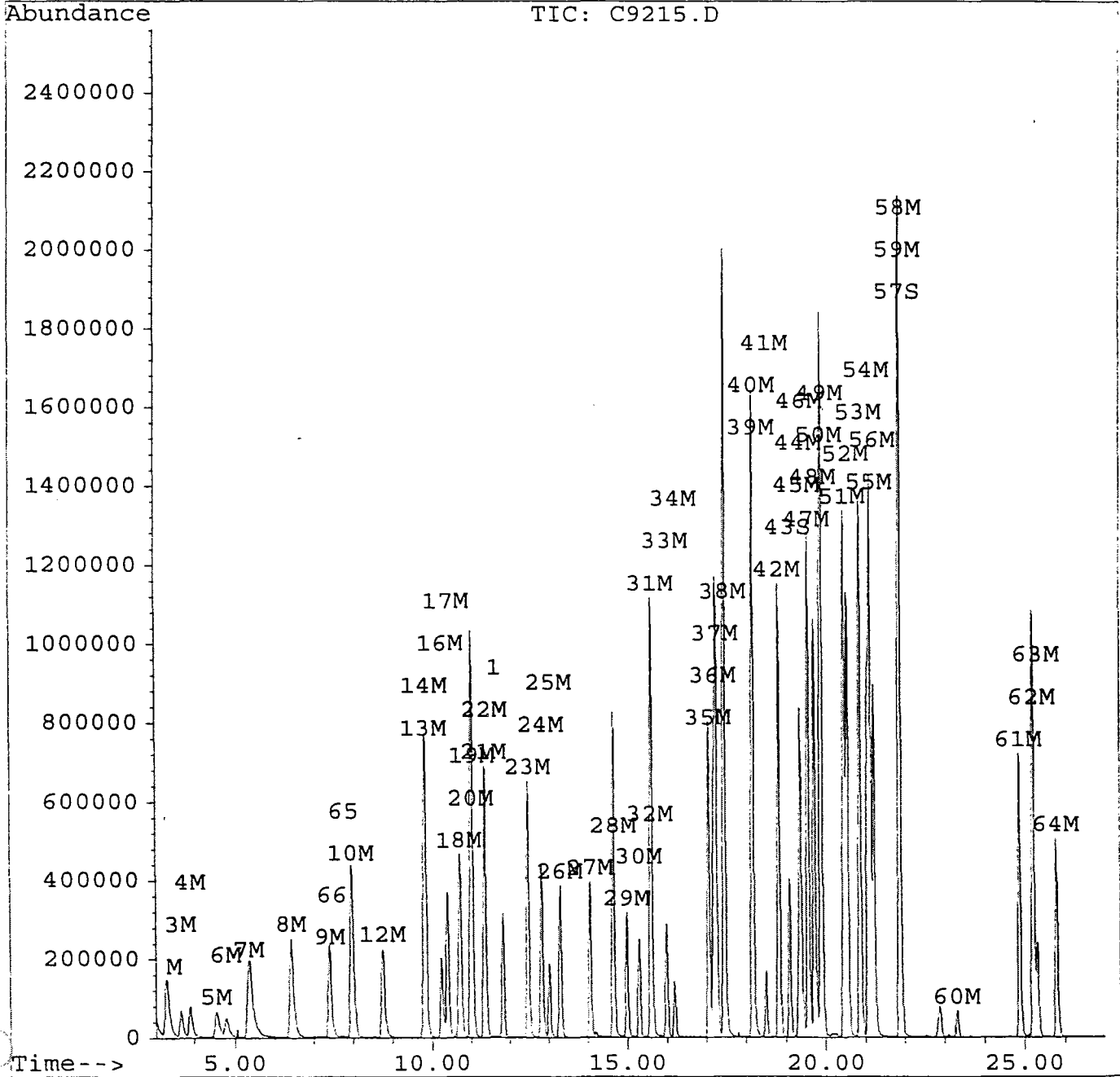


Quantitation Report

Data File : d:\hpchem\1\data\c9215.d  
Acq On : 22 Aug 95 10:45 am  
Sample : 10 PPB CHK STANDARD  
Misc :  
Quant Time: Aug 22 14:31 1995

Vial: 2 080  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



Quantitation Report

081

Data File : d:\hpchem\1\data\c9229.d  
 Acq On : 22 Aug 95 8:18 pm  
 Sample : 10 PPB QCS  
 Misc : 25 ML  
 Quant Time: Aug 23 10:14 1995

Vial: 16  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.86	96	549683	5.00	ug/L	0.08

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
43) 4-Bromofluorobenzene	19.12	95	310477	5.03	ug/L	100.62%
57) 1,2-Dichlorobenzene-d4	21.90	152	190671	5.13	ug/L	102.61%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.32	85	579807	10.68	ug/L	100
3) Chloromethane	3.67	50	206402	9.93	ug/L	98
4) Vinyl chloride	3.91	62	273505	10.34	ug/L	95
5) Bromomethane	4.57	94	190776	10.32	ug/L	93
6) Chloroethane	4.80	64	164580	10.63	ug/L	97
7) Trichlorofluoromethane	5.38	101	802128	11.12	ug/L	100
8) 1,1-Dichloroethene	6.45	96	296226	10.40	ug/L	91
9) Methylene chloride	7.43	84	405826	14.45	ug/L	94
10) trans-1,2-Dichloroethene	7.99	96	314969	10.43	ug/L	99
12) 1,1-Dichloroethane	8.78	63	665821	10.88	ug/L	98
13) 2,2-Dichloropropane	9.85	77	679600	10.15	ug/L	98
14) cis-1,2-Dichloroethene	9.86	96	302661	10.42	ug/L	95
16) Bromochloromethane	10.26	128	129679	10.31	ug/L	96
17) Chloroform	10.41	83	677378	10.67	ug/L	99
18) 1,1,1-Trichloroethane	10.73	97	798949	11.24	ug/L	99
19) Carbon tetrachloride	11.05	117	758159	11.24	ug/L	100
20) 1,1-Dichloropropene	11.03	75	618795	10.59	ug/L	97
21) Benzene	11.38	78	945730	10.22	ug/L	100
22) 1,2-Dichloroethane	11.38	62	327042	10.78	ug/L m	0
23) Trichloroethene	12.50	95	467371	10.41	ug/L	97
24) 1,2-Dichloropropane	12.84	63	315565	10.29	ug/L	99
25) Dibromomethane	13.04	93	150543	10.28	ug/L	95
26) Bromodichloromethane	13.31	83	550013	10.53	ug/L	96
27) cis-1,3-Dichloropropene	14.07	75	416454	9.92	ug/L	100
28) Toluene	14.66	92	710645	10.06	ug/L	100
29) trans-1,3-Dichloropropene	15.00	75	315395	9.93	ug/L	97
30) 1,1,2-Trichloroethane	15.31	83	132756	9.78	ug/L	95
31) Tetrachloroethene	15.62	166	584047	10.26	ug/L	99
32) 1,3-Dichloropropane	15.60	76	273901	9.84	ug/L	100
33) Dibromochloromethane	16.01	129	331036	10.12	ug/L	99
34) 1,2-Dibromomethane	16.21	107	210450	10.06	ug/L	96
35) Chlorobenzene	17.08	112	848543	10.24	ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.22	131	390032	10.24	ug/L	98
37) Ethylbenzene	17.28	91	1597423	10.11	ug/L	99
38) Xylene (para & meta)	17.49	106	1186775	20.64	ug/L	99
39) Xylene (Ortho)	18.19	106	529607	10.21	ug/L	94
40) Styrene	18.21	104	802317	10.02	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c9229.d  
 Acq On : 22 Aug 95 8:18 pm  
 Sample : 10 PPB QCS  
 Misc : 25 ML  
 Quant Time: Aug 23 10:14 1995

Vial: 16  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

082

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.52	173	175699	9.71	ug/L	97
42) Isopropylbenzene	18.85	105	1693365	10.19	ug/L	98
44) Bromobenzene	19.38	156	376583	9.81	ug/L	100
45) 1,1,2,2-Tetrachloroethane	19.34	83	168463	9.69	ug/L	98
46) 1,2,3-Trichloropropane	19.41	75	180471	9.45	ug/L #	78
47) n-Propylbenzene	19.59	91	2118384	10.02	ug/L	99
48) 2-Chlorotoluene	19.74	91	1268207	10.28	ug/L	99
49) 4-Chlorotoluene	19.93	91	1451074	10.41	ug/L m	94
50) 1,3,5-Trimethylbenzene	19.91	105	1350672	10.45	ug/L	99
51) tert-Butylbenzene	20.50	119	1606868	10.25	ug/L	100
52) 1,2,4-Trimethylbenzene	20.58	105	1258261	10.48	ug/L	99
53) sec-Butylbenzene	20.90	105	2154611	10.18	ug/L	98
54) 1,3-Dichlorobenzene	21.10	146	769763	10.05	ug/L	97
55) 4-Isopropyltoluene	21.16	119	1755767	10.34	ug/L	99
56) 1,4-Dichlorobenzene	21.25	146	758560	10.09	ug/L	100
58) 1,2-Dichlorobenzene	21.93	146	586566	10.05	ug/L	99
59) n-Butylbenzene	21.91	91	1669503	10.52	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.33	75	46688	9.92	ug/L	92
61) 1,2,4-Trichlorobenzene	24.90	180	407887	9.79	ug/L	94
62) Hexachlorobutadiene	25.24	225	482530	9.73	ug/L	96
63) Naphthalene	25.34	128	322132	9.48	ug/L	100
64) 1,2,3-Trichlorobenzene	25.83	180	289942	9.57	ug/L	100

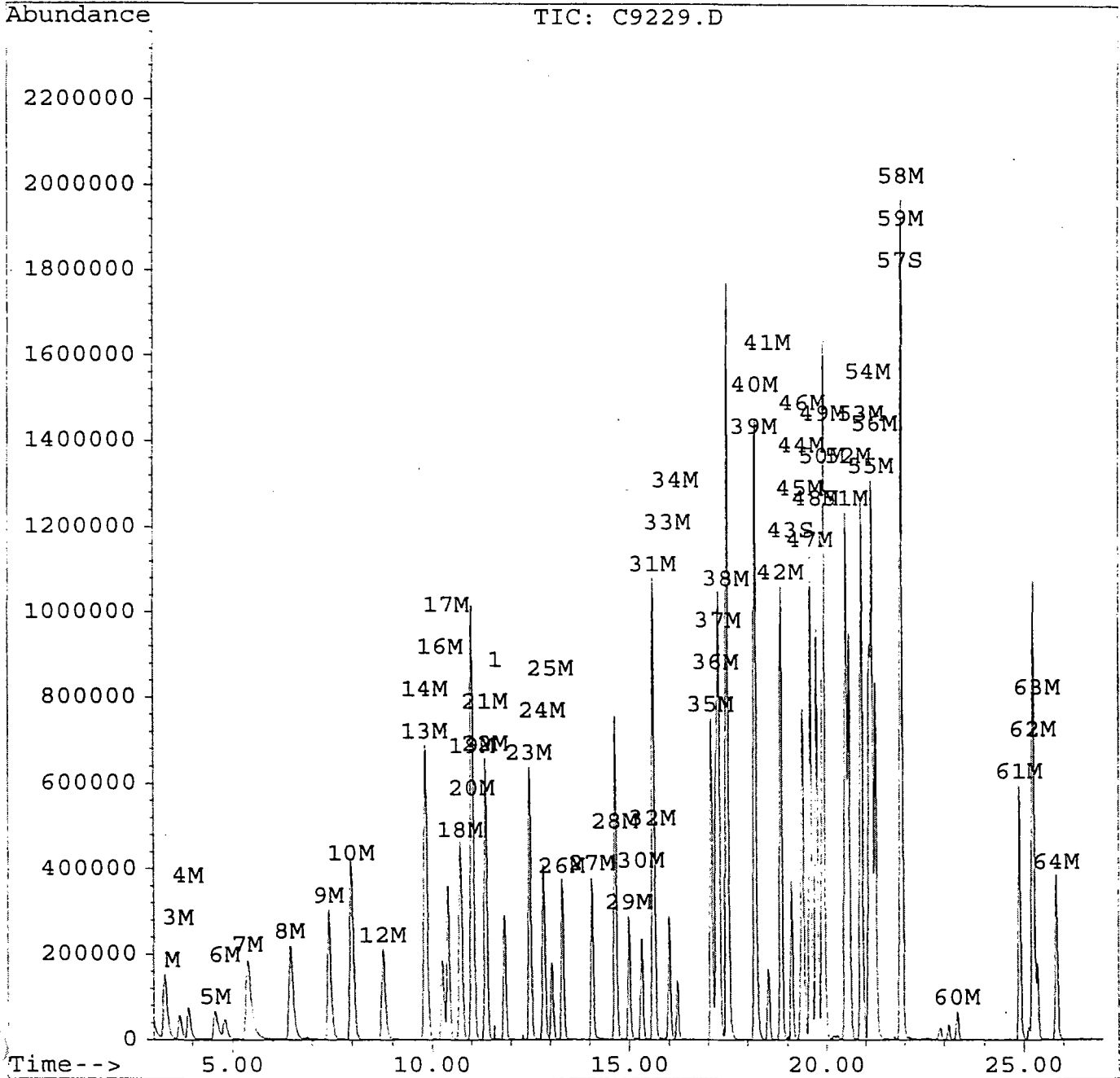
Quantitation Report

083

Data File : d:\hpchem\1\data\c9229.d  
Acq On : 22 Aug 95 8:18 pm  
Sample : 10 PPB QCS  
Misc : 25 ML  
Quant Time: Aug 23 10:14 1995

Vial: 16  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



Quantitation Report

084

Data File : d:\hpchem\1\data\c9217.d  
 Acq On : 22 Aug 95 12:15 pm  
 Sample : 1 PPB STANDARD  
 Misc :  
 Quant Time: Aug 22 12:42 1995

Vial: 4  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.80	96	587708	5.00	ug/L	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
43) 4-Bromofluorobenzene	19.08	95	326181	4.94	ug/L	98.87%
57) 1,2-Dichlorobenzene-d4	21.87	152	194815	4.90	ug/L	98.05%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.29	85	61153	1.05	ug/L	100
3) Chloromethane	3.64	50	24247	1.09	ug/L	83
4) Vinyl chloride	3.86	62	29053	1.03	ug/L	98
5) Bromomethane	4.53	94	17958	0.91	ug/L	93
6) Chloroethane	4.73	64	15555	0.94	ug/L	86
7) Trichlorofluoromethane	5.30	101	77075	1.00	ug/L	87
8) 1,1-Dichloroethene	6.38	96	29426	0.97	ug/L	98
9) Methylene chloride	7.35	84	104254	3.47	ug/L	98
10) trans-1,2-Dichloroethene	7.92	96	32234	1.00	ug/L	91
12) 1,1-Dichloroethane	8.71	63	68527	1.05	ug/L	94
13) 2,2-Dichloropropane	9.78	77	73815	1.03	ug/L	95
14) cis-1,2-Dichloroethene	9.79	96	33291	1.07	ug/L	98
16) Bromochloromethane	10.20	128	13007	0.97	ug/L	94
17) Chloroform	10.34	83	71606	1.05	ug/L	94
18) 1,1,1-Trichloroethane	10.67	97	79684	1.05	ug/L	92
19) Carbon tetrachloride	10.98	117	72950	1.01	ug/L	91
20) 1,1-Dichloropropene	10.97	75	63732	1.02	ug/L	94
21) Benzene	11.31	78	105087	1.06	ug/L	94
22) 1,2-Dichloroethane	11.31	62	37513	1.16	ug/L	98
23) Trichloroethene	12.44	95	50662	1.06	ug/L	97
24) 1,2-Dichloropropane	12.79	63	35649	1.09	ug/L	87
25) Dibromomethane	12.99	93	18293	1.17	ug/L	91
26) Bromodichloromethane	13.27	83	61724	1.11	ug/L	91
27) cis-1,3-Dichloropropene	14.02	75	48639	1.08	ug/L	94
28) Toluene	14.62	92	78498	1.04	ug/L	93
29) trans-1,3-Dichloropropene	14.96	75	37060	1.09	ug/L	98
30) 1,1,2-Trichloroethane	15.27	83	16251	1.12	ug/L	94
31) Tetrachloroethene	15.59	166	59987	0.99	ug/L	96
32) 1,3-Dichloropropane	15.56	76	33066	1.11	ug/L	98
33) Dibromochloromethane	15.97	129	37997	1.09	ug/L	93
34) 1,2-Dibromomethane	16.17	107	25279	1.13	ug/L	99
35) Chlorobenzene	17.05	112	94627	1.07	ug/L	96
36) 1,1,1,2-Tetrachloroethane	17.19	131	44751	1.10	ug/L	96
37) Ethylbenzene	17.24	91	175266	1.04	ug/L	99
38) Xylene (para & meta)	17.45	106	128216	2.09	ug/L	92
39) Xylene (Ortho)	18.15	106	59877	1.08	ug/L	91
40) Styrene	18.17	104	89503	1.05	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c9217.d  
 Acq On : 22 Aug 95 12:15 pm  
 Sample : 1 PPB STANDARD  
 Misc :  
 Quant Time: Aug 22 12:42 1995

Vial: 4 085  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.50	173	20759	1.07	ug/L	92
42) Isopropylbenzene	18.82	105	182678	1.03	ug/L	99
44) Bromobenzene	19.35	156	44650	1.09	ug/L	93
45) 1,1,2,2-Tetrachloroethane	19.31	83	21733	1.17	ug/L	92
46) 1,2,3-Trichloropropane	19.39	75	25832	1.27	ug/L #	84
47) n-Propylbenzene	19.55	91	236444	1.05	ug/L	100
48) 2-Chlorotoluene	19.71	91	151041	1.15	ug/L	96
49) 4-Chlorotoluene	19.90	91	175231	1.18	ug/L	95
50) 1,3,5-Trimethylbenzene	19.87	105	152708	1.10	ug/L	98
51) tert-Butylbenzene	20.47	119	176682	1.05	ug/L	92
52) 1,2,4-Trimethylbenzene	20.55	105	143709	1.12	ug/L	100
53) sec-Butylbenzene	20.86	105	232213	1.03	ug/L	99
54) 1,3-Dichlorobenzene	21.07	146	91479	1.12	ug/L	92
55) 4-Isopropyltoluene	21.13	119	189906	1.05	ug/L	97
56) 1,4-Dichlorobenzene	21.22	146	89806	1.12	ug/L	99
58) 1,2-Dichlorobenzene	21.90	146	73128	1.17	ug/L	95
59) n-Butylbenzene	21.88	91	182053	1.07	ug/L	98
60) 1,2-Dibromo-3-chloropropan	23.30	75	6510	1.29	ug/L	94
61) 1,2,4-Trichlorobenzene	24.88	180	52956	1.19	ug/L	99
62) Hexachlorobutadiene	25.21	225	51375	0.97	ug/L	84
63) Naphthalene	25.31	128	52940	1.46	ug/L	100
64) 1,2,3-Trichlorobenzene	25.79	180	40436	1.25	ug/L	93
65) Methyl-tert butyl ether	7.94	73	48029	1.15	ug/L	90

(#) = qualifier out of range (m) = manual integration

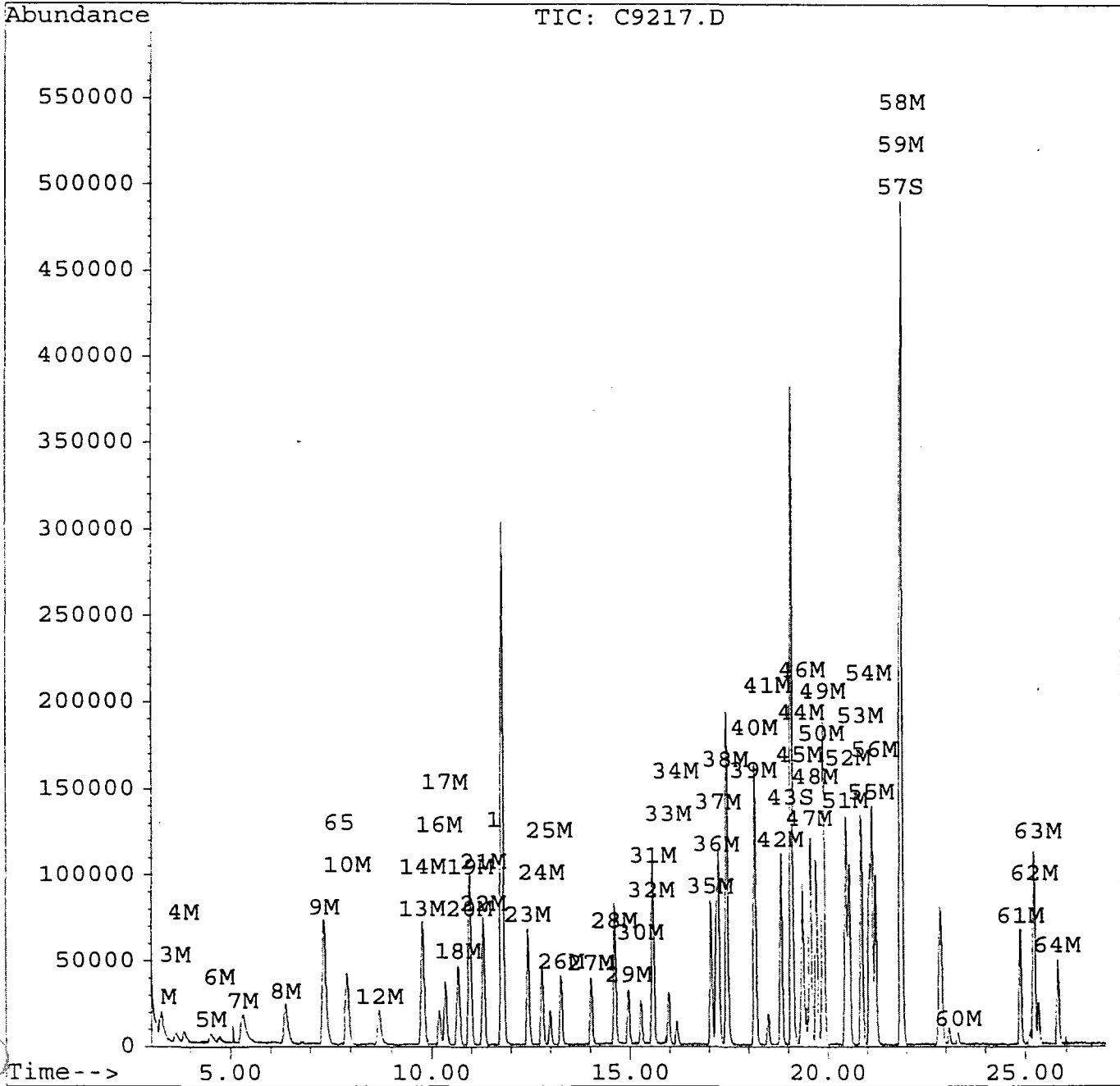
Quantitation Report

086

Data File : d:\hpchem\1\data\c9217.d  
Acq On : 22 Aug 95 12:15 pm  
Sample : 1 PPB STANDARD  
Misc :  
Quant Time: Aug 22 12:42 1995

Vial: 4  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

087

Lab Name : EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
 Lab File ID: C9233.D BFB Injection Date: 8/23/95  
 Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1228  
 GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) \_\_\_\_\_

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	26.1
75	30.0 - 66.0% of mass 95	54.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.5 ( 0.8 )1
174	50.0 - 120.0% of mass 95	71.4
175	4.0 - 9.0% of mass 174	5.1 ( 7.2 )1
176	93.0 - 101.0% of mass 174	71.9 ( 100.8 )1
177	5.0 - 9.0% of mass 176	4.5 ( 6.2 )2

1-Value is % mass 174

2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

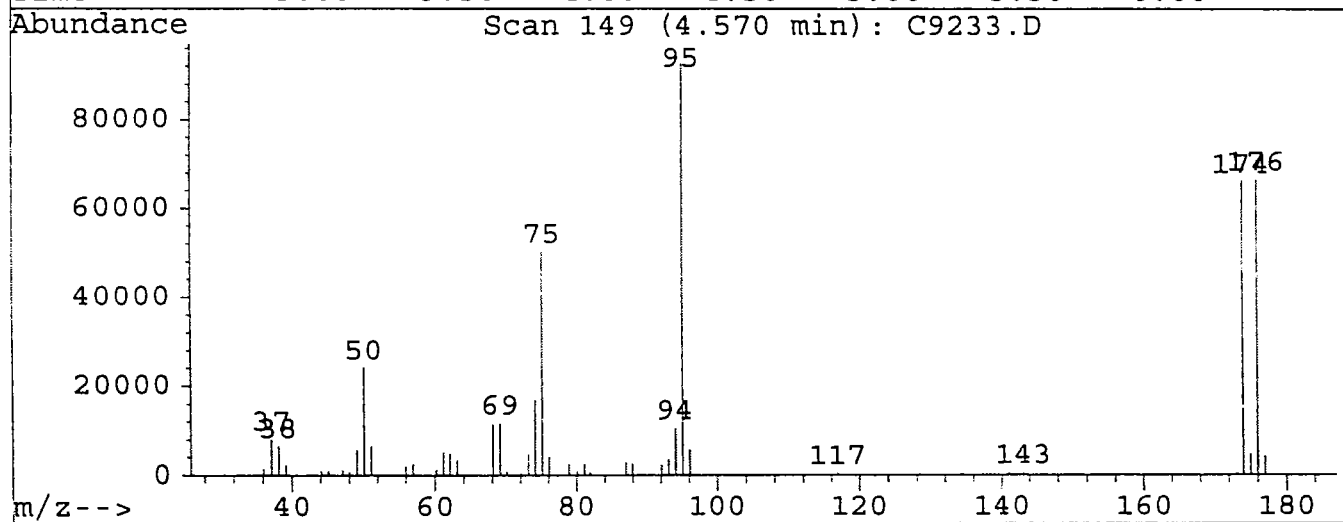
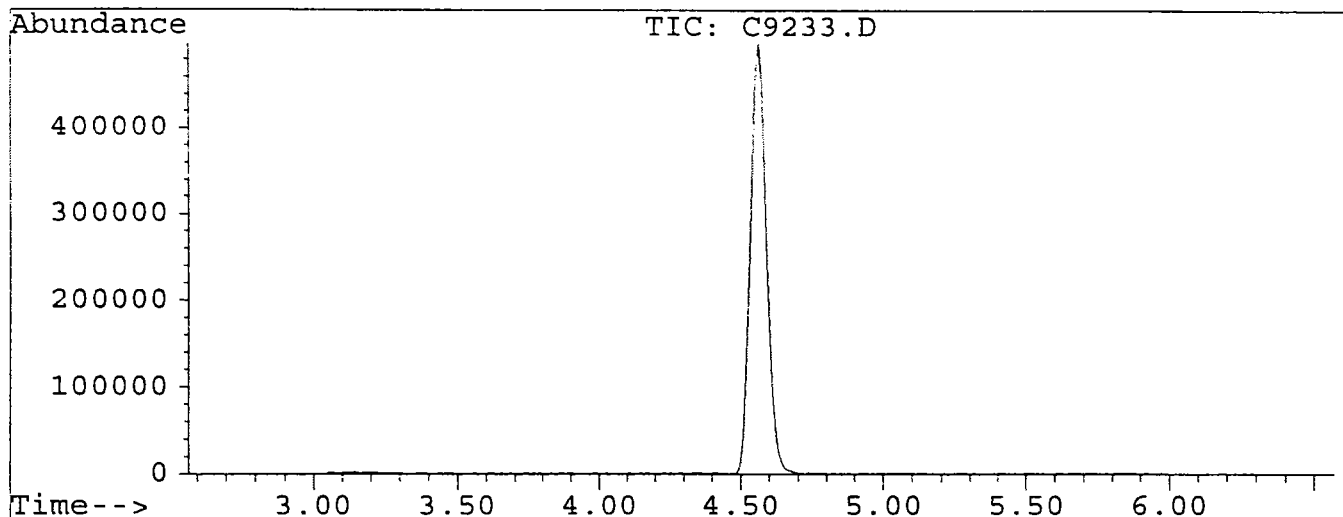
	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	10 STND	C9234.D	8/23/95	1244
02	10 QCS	10 QCS	C9235.D	8/23/95	1321
03	1 STND	1 STND	C9236.D	8/23/95	1358
04	VBLK01	M. BLANK	C9237.D	8/23/95	1436
05	9535439D	9535439D	C9238.D	8/23/95	1513
06	9536415V	9536415V	C9240.D	8/23/95	1631
07	9536415D	9536415D	C9241.D	8/23/95	1708
08	9536608V	9536608V	C9242.D	8/23/95	1745
09	9536609V	9536609V	C9243.D	8/23/95	1822
10	9536611V	9536611V	C9244.D	8/23/95	1858
11	9536420V	9536420V	C9245.D	8/23/95	1934
12	9536419V	9536419V	C9246.D	8/23/95	2009
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					



Data File : D:\HPCHEM\1\DATA\C9233.D  
 Acq On : 23 Aug 95 12:28 pm  
 Sample : BFB TUNE  
 Misc : 25 NG INJECTION

Vial: 1  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics



Peak Apex is scan: 149

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.1	24160	PASS
75	95	30	80	54.3	50320	PASS
95	95	100	100	100.0	92728	PASS
96	95	5	9	6.2	5738	PASS
173	174	0	2	0.8	508	PASS
174	95	50	100	71.4	66192	PASS
175	174	5	9	7.2	4739	PASS
176	174	95	101	100.8	66696	PASS
177	176	5	9	6.2	4168	PASS

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
6.05	1532	56.00	2012	74.10	16832	94.10	10649
37.15	8171	57.00	2640	75.10	50320	95.10	92728
38.15	6686	60.15	1265	76.10	4028	96.10	5738
39.15	2328	61.15	5297	78.90	2491	116.90	568
44.05	1035	62.05	4955	80.05	924	141.00	623
45.05	1052	63.05	3370	81.05	2465	143.10	666
47.10	1153	68.05	11463	81.95	514	173.05	508
48.00	797	69.10	11790	87.05	2939	173.95	66192
49.10	5822	70.00	848	87.95	2619	174.95	4739
50.10	24160	72.00	619	92.10	2396	176.00	66696
51.10	6577	73.10	4835	93.10	3511	177.00	4168

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C9234.D  
 Acq On : 23 Aug 95 12:44 pm  
 Sample : 10 PPB CHK STANDARD  
 Misc :

Vial: 2  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

090

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
1 Fluorobenzene	1.000	1.000	0.0	85	0.05
2 M Dichlorodifluoromethane	0.494	0.496	-0.5	85	0.00
3 M Chloromethane	0.189	0.174	8.1	80	0.02
4 M Vinyl chloride	0.241	0.242	-0.6	84	0.01
5 M Bromomethane	0.168	0.172	-2.2	83	0.03
6 M Chloroethane	0.141	0.145	-3.2	82	0.02
7 M Trichlorofluoromethane	0.656	0.681	-3.8	88	0.04
8 M 1,1-Dichloroethene	0.259	0.259	0.2	84	0.06
9 M Methylene chloride	0.256	0.286	-11.8	76	0.04
10 M trans-1,2-Dichloroethene	0.275	0.283	-3.0	86	0.06
11 Hexane	0.000	0.000#	0.0	0#	-9.46#
12 M 1,1-Dichloroethane	0.557	0.598	-7.4	90	0.07
13 M 2,2-Dichloropropane	0.609	0.651	-6.8	87	0.04
14 M cis-1,2-Dichloroethene	0.264	0.275	-3.9	87	0.05
15 2-Butanone	0.000	0.000#	0.0	0#	-11.21#
16 M Bromochloromethane	0.114	0.115	-0.2	87	0.05
17 M Chloroform	0.578	0.599	-3.8	88	0.06
18 M 1,1,1-Trichloroethane	0.646	0.690	-6.7	89	0.05
19 M Carbon tetrachloride	0.614	0.649	-5.8	89	0.05
20 M 1,1-Dichloropropene	0.532	0.545	-2.6	86	0.05
21 M Benzene	0.841	0.859	-2.1	86	0.04
22 M 1,2-Dichloroethane	0.276	0.290	-5.0	90	0.05
23 M Trichloroethene	0.408	0.422	-3.3	87	0.05
24 M 1,2-Dichloropropane	0.279	0.286	-2.7	87	0.05
25 M Dibromomethane	0.133	0.136	-1.8	88	0.06
26 M Bromodichloromethane	0.475	0.486	-2.4	87	0.05
27 M cis-1,3-Dichloropropene	0.382	0.377	1.2	84	0.04
28 M Toluene	0.643	0.647	-0.6	85	0.05
29 M trans-1,3-Dichloropropene	0.289	0.285	1.5	85	0.05
30 M 1,1,2-Trichloroethane	0.123	0.118	4.7	83	0.04
31 M Tetrachloroethene	0.518	0.513	0.8	83	0.05
32 M 1,3-Dichloropropane	0.253	0.244	3.6	84	0.05
33 M Dibromochloromethane	0.298	0.296	0.5	86	0.04
34 M 1,2-Dibromomethane	0.190	0.190	0.4	86	0.05
35 M Chlorobenzene	0.754	0.758	-0.6	85	0.04
36 M 1,1,1,2-Tetrachloroethane	0.346	0.347	-0.2	85	0.04
37 M Ethylbenzene	1.437	1.435	0.1	84	0.04
38 M Xylene (para & meta)	0.523	0.533	-2.0	84	0.06
39 M Xylene (Ortho)	0.472	0.483	-2.3	86	0.04
40 M Styrene	0.728	0.719	1.4	83	0.04
41 M Bromoform	0.165	0.154	6.4	81	0.05
42 M Isopropylbenzene	1.512	1.514	-0.1	83	0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C9234.D  
 Acq On : 23 Aug 95 12:44 pm  
 Sample : 10 PPB CHK STANDARD  
 Misc :

Vial: 2 **091**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
43 S	4-Bromofluorobenzene	0.561	0.550	2.0	84	0.04
44 M	Bromobenzene	0.349	0.341	2.5	84	0.05
45 M	1,1,2,2-Tetrachloroethane	0.158	0.150	5.4	82	0.04
46 M	1,2,3-Trichloropropane	0.174	0.172	0.9	84	0.04
47 M	n-Propylbenzene	1.922	1.938	-0.8	84	0.04
48 M	2-Chlorotoluene	1.122	1.141	-1.7	89	0.04
49 M	4-Chlorotoluene	1.269	1.303	-2.7	85	0.05
50 M	1,3,5-Trimethylbenzene	1.176	1.207	-2.6	83	0.05
51 M	tert-Butylbenzene	1.426	1.446	-1.4	84	0.04
52 M	1,2,4-Trimethylbenzene	1.092	1.127	-3.2	83	0.05
53 M	sec-Butylbenzene	1.926	1.933	-0.4	84	0.04
54 M	1,3-Dichlorobenzene	0.697	0.678	2.6	82	0.05
55 M	4-Isopropyltoluene	1.544	1.579	-2.2	84	0.05
56 M	1,4-Dichlorobenzene	0.684	0.676	1.2	82	0.05
57 S	1,2-Dichlorobenzene-d4	0.338	0.341	-0.9	86	0.04
58 M	1,2-Dichlorobenzene	0.531	0.523	1.6	83	0.05
59 M	n-Butylbenzene	1.444	1.508	-4.4	85	0.04
60 M	1,2-Dibromo-3-chloropropane	0.043	0.041	5.0	81	0.05
61 M	1,2,4-Trichlorobenzene	0.379	0.354	6.6	76	0.05
62 M	Hexachlorobutadiene	0.451	0.427	5.3	79	0.05
63 M	Naphthalene	0.309	0.273	11.6	72	0.05
64 M	1,2,3-Trichlorobenzene	0.276	0.250	9.4	72	0.05
65	Methyl-tert butyl ether	0.356	0.340	4.6	82	0.04
66	tert-Butyl Alcohol	0.006	0.004	24.7	65	0.03

7A  
VOLATILE CONTINUING CALIBRATION CHECK

092

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
 Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 8/23/95 Time: 1244  
 Lab File ID: C9234.D Init. Calib. Date(s): 7/31/95  
 Heated Purge: (Y/N) N Init. Calib. Times: \_\_\_\_\_  
 GC Column: DB-624 X 7 ID: 0.53 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.494	0.496		-0.4	30.0
Chloromethane	0.189	0.174		7.9	30.0
Vinyl chloride	0.241	0.242		-0.4	30.0
Bromomethane	0.168	0.172		-2.4	30.0
Chloroethane	0.141	0.145		-2.8	30.0
Trichlorofluoromethane	0.656	0.681		-3.8	30.0
1,1-Dichloroethene	0.259	0.259		0.0	30.0
Methylene chloride	0.256	0.286		-11.7	30.0
trans-1,2-Dichloroethene	0.275	0.283		-2.9	30.0
1,1-Dichloroethane	0.557	0.598		-7.4	30.0
2,2-Dichloropropane	0.609	0.651		-6.9	30.0
cis-1,2-Dichloroethene	0.264	0.275		-4.2	30.0
Bromochloromethane	0.114	0.115		-0.9	30.0
Chloroform	0.578	0.599		-3.6	30.0
1,1,1-Trichloroethane	0.646	0.690		-6.8	30.0
Carbon tetrachloride	0.614	0.649		-5.7	30.0
1,1-Dichloropropene	0.532	0.545		-2.4	30.0
Benzene	0.841	0.859		-2.1	30.0
1,2-Dichloroethane	0.276	0.290		-5.1	30.0
Trichloroethene	0.408	0.422		-3.4	30.0
1,2-Dichloropropane	0.279	0.286		-2.5	30.0
Dibromomethane	0.133	0.136		-2.3	30.0
Bromodichloromethane	0.475	0.486		-2.3	30.0
cis-1,3-Dichloropropene	0.382	0.377		1.3	30.0
Toluene	0.643	0.647		-0.6	30.0
trans-1,3-Dichloropropene	0.289	0.285		1.4	30.0
1,1,2-Trichloroethane	0.123	0.118		4.1	30.0
Tetrachloroethene	0.518	0.513		1.0	30.0
1,3-Dichloropropane	0.253	0.244		3.6	30.0
Dibromochloromethane	0.298	0.296		0.7	30.0
1,2-Dibromomethane	0.190	0.190		0.0	30.0
Chlorobenzene	0.754	0.758		-0.5	30.0
1,1,1,2-Tetrachloroethane	0.346	0.347		-0.3	30.0
Ethylbenzene	1.437	1.435		0.1	30.0
Xylene (para & meta)	0.523	0.533		-1.9	30.0
Xylene (Ortho)	0.472	0.483		-2.3	30.0

7A  
VOLATILE CONTINUING CALIBRATION CHECK

093

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_  
 Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 8/23/95  
 Lab File ID: C9234.D Init. Calib. Date(s): 7/31/95  
 Heated Purge: (Y/N) N Init. Calib. Times: \_\_\_\_\_  
 GC Column: DB-624 X 7 ID: 0.53 (mm)

Group: \_\_\_\_\_  
 Time: 1244

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Styrene	0.728	0.719		1.2	30.0
Bromoform	0.165	0.154		6.7	30.0
Isopropylbenzene	1.512	1.514		-0.1	30.0
Bromobenzene	0.349	0.341		2.3	30.0
1,1,2,2-Tetrachloroethane	0.158	0.150		5.1	30.0
1,2,3-Trichloropropane	0.174	0.172		1.1	30.0
n-Propylbenzene	1.922	1.938		-0.8	30.0
2-Chlorotoluene	1.122	1.141		-1.7	30.0
4-Chlorotoluene	1.269	1.303		-2.7	30.0
1,3,5-Trimethylbenzene	1.176	1.207		-2.6	30.0
tert-Butylbenzene	1.426	1.446		-1.4	30.0
1,2,4-Trimethylbenzene	1.092	1.127		-3.2	30.0
sec-Butylbenzene	1.926	1.933		-0.4	30.0
1,3-Dichlorobenzene	0.697	0.678		2.7	30.0
4-Isopropyltoluene	1.544	1.579		-2.3	30.0
1,4-Dichlorobenzene	0.684	0.676		1.2	30.0
1,2-Dichlorobenzene	0.531	0.523		1.5	30.0
n-Butylbenzene	1.444	1.508		-4.4	30.0
1,2-Dibromo-3-chloropropane	0.043	0.041		4.7	30.0
1,2,4-Trichlorobenzene	0.379	0.354		6.6	30.0
Hexachlorobutadiene	0.451	0.427		5.3	30.0
Naphthalene	0.309	0.273		11.7	30.0
1,2,3-Trichlorobenzene	0.276	0.250		9.4	30.0
4-Bromofluorobenzene	0.561	0.550		2.0	30.0
1,2-Dichlorobenzene-d4	0.338	0.341		-0.9	30.0

Quantitation Report

Data File : d:\hpcchem\1\data\c9234.d  
 Acq On : 23 Aug 95 12:44 pm  
 Sample : 10 PPB CHK STANDARD  
 Misc :  
 Quant Time: Aug 24 8:38 1995

Vial: 2 **094**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.83	96	593356	5.00	ug/L	0.05
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.09	95	326407	4.90	ug/L	98.00%
57) 1,2-Dichlorobenzene-d4	21.87	152	202452	5.05	ug/L	100.93%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.28	85	588553	10.05	ug/L	100
3) Chloromethane	3.66	50	206061	9.19	ug/L	99
4) Vinyl chloride	3.88	62	286987	10.06	ug/L	98
5) Bromomethane	4.54	94	203898	10.22	ug/L	93
6) Chloroethane	4.76	64	172584	10.32	ug/L	100
7) Trichlorofluoromethane	5.35	101	808501	10.38	ug/L	97
8) 1,1-Dichloroethene	6.42	96	306781	9.98	ug/L	92
9) Methylene chloride	7.39	84	339034	11.18	ug/L	92
10) trans-1,2-Dichloroethene	7.96	96	335798	10.30	ug/L	97
12) 1,1-Dichloroethane	8.75	63	709555	10.74	ug/L	100
13) 2,2-Dichloropropane	9.81	77	772018	10.68	ug/L	98
14) cis-1,2-Dichloroethene	9.82	96	325933	10.39	ug/L	90
16) Bromochloromethane	10.23	128	136004	10.02	ug/L	94
17) Chloroform	10.39	83	711423	10.38	ug/L	98
18) 1,1,1-Trichloroethane	10.71	97	818867	10.67	ug/L	95
19) Carbon tetrachloride	11.01	117	770283	10.58	ug/L	97
20) 1,1-Dichloropropene	11.00	75	647147	10.26	ug/L	100
21) Benzene	11.34	78	1019482	10.21	ug/L	97
22) 1,2-Dichloroethane	11.35	62	343923	10.50	ug/L	95
23) Trichloroethene	12.47	95	500317	10.33	ug/L	97
24) 1,2-Dichloropropane	12.82	63	339988	10.27	ug/L	98
25) Dibromomethane	13.02	93	160974	10.18	ug/L	99
26) Bromodichloromethane	13.29	83	577278	10.24	ug/L	99
27) cis-1,3-Dichloropropene	14.04	75	447662	9.88	ug/L	100
28) Toluene	14.64	92	767642	10.06	ug/L	100
29) trans-1,3-Dichloropropene	14.98	75	337885	9.85	ug/L	100
30) 1,1,2-Trichloroethane	15.29	83	139579	9.53	ug/L	99
31) Tetrachloroethene	15.60	166	609282	9.92	ug/L	97
32) 1,3-Dichloropropane	15.58	76	289601	9.64	ug/L	97
33) Dibromochloromethane	15.98	129	351415	9.95	ug/L	98
34) 1,2-Dibromomethane	16.18	107	225002	9.96	ug/L	96
35) Chlorobenzene	17.05	112	899723	10.06	ug/L	96
36) 1,1,1,2-Tetrachloroethane	17.19	131	412085	10.02	ug/L	99
37) Ethylbenzene	17.25	91	1703244	9.99	ug/L	99
38) Xylene (para & meta)	17.47	106	1265604	20.39	ug/L	94
39) Xylene (Ortho)	18.16	106	572824	10.23	ug/L	95
40) Styrene	18.18	104	852654	9.86	ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c9234.d  
 Acq On : 23 Aug 95 12:44 pm  
 Sample : 10 PPB CHK STANDARD  
 Misc :  
 Quant Time: Aug 24 8:38 1995

Vial: 2 **095**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.50	173	182701	9.36	ug/L	97
42) Isopropylbenzene	18.82	105	1796353	10.01	ug/L	100
44) Bromobenzene	19.36	156	404184	9.75	ug/L	99
45) 1,1,2,2-Tetrachloroethane	19.31	83	177598	9.46	ug/L	96
46) 1,2,3-Trichloropropane	19.38	75	204191	9.91	ug/L #	64
47) n-Propylbenzene	19.56	91	2300248	10.08	ug/L	99
48) 2-Chlorotoluene	19.71	91	1354168	10.17	ug/L	100
49) 4-Chlorotoluene	19.91	91	1546277	10.27	ug/L m	93
50) 1,3,5-Trimethylbenzene	19.88	105	1432099	10.26	ug/L	98
51) tert-Butylbenzene	20.47	119	1715565	10.14	ug/L	98
52) 1,2,4-Trimethylbenzene	20.56	105	1337272	10.32	ug/L	100
53) sec-Butylbenzene	20.87	105	2294424	10.04	ug/L	98
54) 1,3-Dichlorobenzene	21.08	146	804726	9.74	ug/L	98
55) 4-Isopropyltoluene	21.14	119	1873728	10.22	ug/L	100
56) 1,4-Dichlorobenzene	21.23	146	802014	9.88	ug/L	98
58) 1,2-Dichlorobenzene	21.91	146	620337	9.84	ug/L m	0
59) n-Butylbenzene	21.88	91	1789554	10.44	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.31	75	48294	9.50	ug/L	96
61) 1,2,4-Trichlorobenzene	24.88	180	420147	9.34	ug/L	96
62) Hexachlorobutadiene	25.22	225	507258	9.47	ug/L	99
63) Naphthalene	25.32	128	324385	8.84	ug/L	100
64) 1,2,3-Trichlorobenzene	25.80	180	296342	9.06	ug/L	94
65) Methyl-tert butyl ether	7.98	73	403545	9.54	ug/L	97
66) tert-Butyl Alcohol	7.69	59	10457	15.05	ug/L	100

(#) = qualifier out of range (m) = manual integration

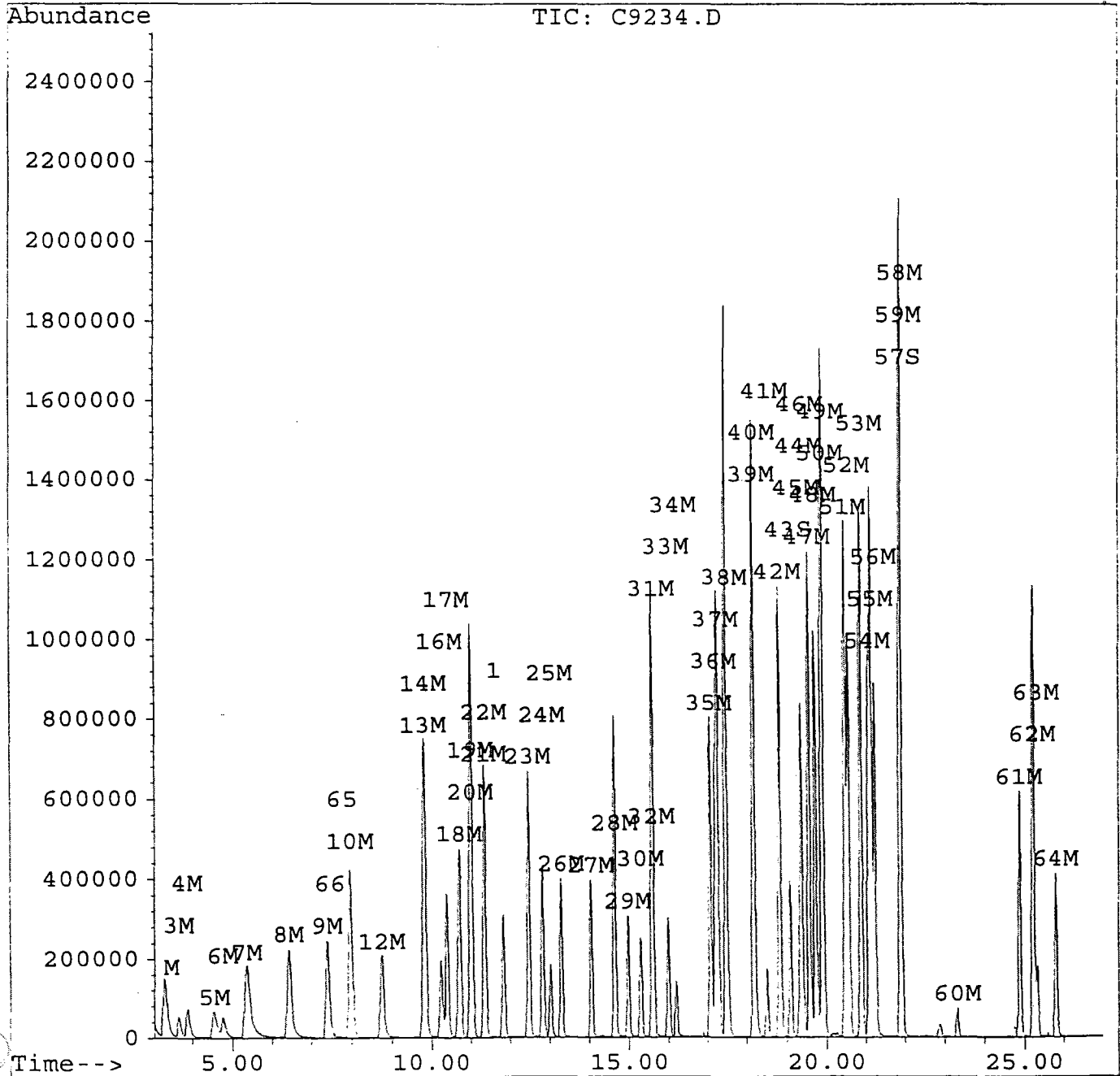


Quantitation Report

Data File : d:\hpchem\1\data\c9234.d  
Acq On : 23 Aug 95 12:44 pm  
Sample : 10 PPB CHK STANDARD  
Misc :  
Quant Time: Aug 24 8:38 1995

Vial: 2 096  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c9235.d  
 Acq On : 23 Aug 95 1:21 pm  
 Sample : 10 PPB QCS  
 Misc :  
 Quant Time: Aug 24 8:40 1995

Vial: 3 097  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.84	96	600882	5.00	ug/L	0.06
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.09	95	328895	4.88	ug/L	97.51%
57) 1,2-Dichlorobenzene-d4	21.88	152	209633	5.16	ug/L	103.20%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.31	85	599618	10.11	ug/L	99
3) Chloromethane	3.67	50	216617	9.54	ug/L	99
4) Vinyl chloride	3.89	62	288337	9.98	ug/L	94
5) Bromomethane	4.56	94	217801	10.78	ug/L	98
6) Chloroethane	4.78	64	173912	10.27	ug/L	95
7) Trichlorofluoromethane	5.37	101	834064	10.58	ug/L	99
8) 1,1-Dichloroethene	6.43	96	317776	10.21	ug/L	91
9) Methylene chloride	7.40	84	352117	11.47	ug/L	96
10) trans-1,2-Dichloroethene	7.97	96	344109	10.42	ug/L	98
12) 1,1-Dichloroethane	8.76	63	715957	10.70	ug/L	98
13) 2,2-Dichloropropane	9.83	77	763276	10.43	ug/L	98
14) cis-1,2-Dichloroethene	9.83	96	335762	10.57	ug/L	94
16) Bromochloromethane	10.25	128	143021	10.40	ug/L	97
17) Chloroform	10.40	83	729305	10.51	ug/L	96
18) 1,1,1-Trichloroethane	10.71	97	828485	10.66	ug/L	97
19) Carbon tetrachloride	11.03	117	790394	10.72	ug/L	99
20) 1,1-Dichloropropene	11.01	75	655659	10.26	ug/L	99
21) Benzene	11.36	78	1026915	10.15	ug/L	99
22) 1,2-Dichloroethane	11.37	62	352878	10.64	ug/L	96
23) Trichloroethene	12.48	95	514431	10.48	ug/L	97
24) 1,2-Dichloropropane	12.83	63	352095	10.50	ug/L	100
25) Dibromomethane	13.02	93	171492	10.71	ug/L	95
26) Bromodichloromethane	13.30	83	604280	10.58	ug/L	100
27) cis-1,3-Dichloropropene	14.05	75	466885	10.17	ug/L	97
28) Toluene	14.65	92	782470	10.13	ug/L	97
29) trans-1,3-Dichloropropene	14.99	75	358483	10.32	ug/L	99
30) 1,1,2-Trichloroethane	15.30	83	148301	10.00	ug/L	99
31) Tetrachloroethene	15.61	166	626817	10.08	ug/L	100
32) 1,3-Dichloropropane	15.59	76	308950	10.16	ug/L	97
33) Dibromochloromethane	15.99	129	371342	10.38	ug/L	99
34) 1,2-Dibromomethane	16.20	107	240511	10.52	ug/L	96
35) Chlorobenzene	17.06	112	923896	10.20	ug/L	96
36) 1,1,1,2-Tetrachloroethane	17.20	131	434357	10.43	ug/L	97
37) Ethylbenzene	17.26	91	1751501	10.14	ug/L	99
38) Xylene (para & meta)	17.47	106	1293290	20.58	ug/L	92
39) Xylene (Ortho)	18.17	106	587655	10.37	ug/L	98
40) Styrene	18.19	104	892502	10.20	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c9235.d  
 Acq On : 23 Aug 95 1:21 pm  
 Sample : 10 PPB QCS  
 Misc :  
 Quant Time: Aug 24 8:40 1995

Vial: 3 098  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.51	173	199190	10.07	ug/L	96
42) Isopropylbenzene	18.83	105	1847706	10.17	ug/L	99
44) Bromobenzene	19.37	156	428670	10.21	ug/L	99
45) 1,1,2,2-Tetrachloroethane	19.32	83	191600	10.08	ug/L	98
46) 1,2,3-Trichloropropane	19.39	75	218916	10.49	ug/L #	72
47) n-Propylbenzene	19.57	91	2373019	10.27	ug/L	99
48) 2-Chlorotoluene	19.72	91	1451824	10.77	ug/L	100
49) 4-Chlorotoluene	19.92	91	1601346	10.50	ug/L	100
50) 1,3,5-Trimethylbenzene	19.89	105	1486708	10.52	ug/L	98
51) tert-Butylbenzene	20.48	119	1762245	10.29	ug/L	98
52) 1,2,4-Trimethylbenzene	20.57	105	1389392	10.59	ug/L	98
53) sec-Butylbenzene	20.88	105	2342167	10.12	ug/L	98
54) 1,3-Dichlorobenzene	21.08	146	842333	10.06	ug/L	98
55) 4-Isopropyltoluene	21.15	119	1922821	10.36	ug/L	99
56) 1,4-Dichlorobenzene	21.24	146	850905	10.35	ug/L	99
58) 1,2-Dichlorobenzene	21.92	146	655708	10.28	ug/L m	0
59) n-Butylbenzene	21.89	91	1864052	10.74	ug/L	97
60) 1,2-Dibromo-3-chloropropan	23.31	75	51820	10.07	ug/L	92
61) 1,2,4-Trichlorobenzene	24.88	180	462997	10.16	ug/L	100
62) Hexachlorobutadiene	25.23	225	523378	9.65	ug/L	98
63) Naphthalene	25.33	128	386737	10.41	ug/L	100
64) 1,2,3-Trichlorobenzene	25.81	180	337833	10.20	ug/L	99
65) Methyl-tert butyl ether	8.00	73	429612	10.03	ug/L	99
66) tert-Butyl Alcohol	7.72	59	13413	19.07	ug/L	100

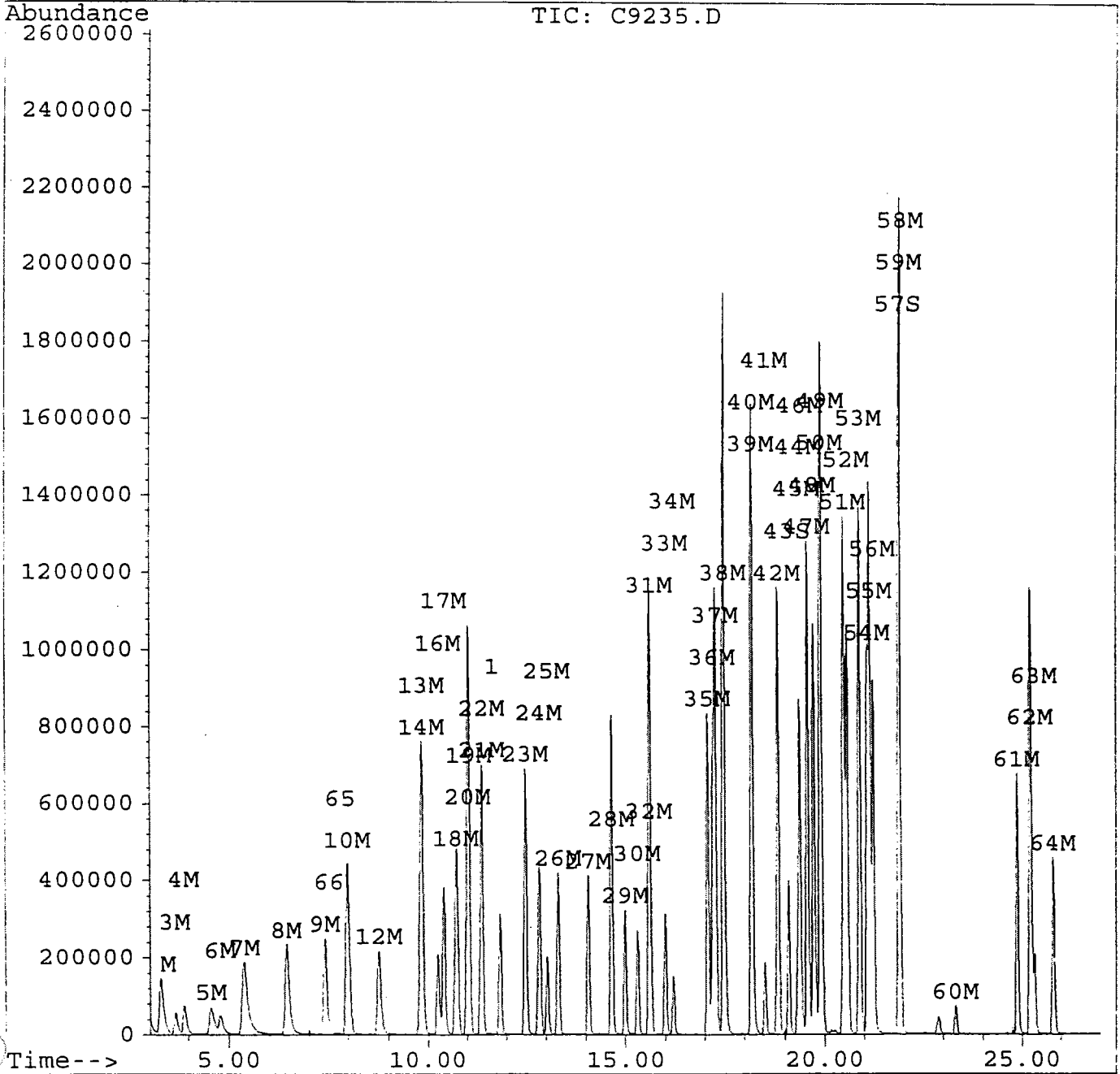
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c9235.d  
Acq On : 23 Aug 95 1:21 pm  
Sample : 10 PPB QCS  
Misc :  
Quant Time: Aug 24 8:40 1995

Vial: 3 099  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c9236.d  
 Acq On : 23 Aug 95 1:58 pm  
 Sample : 1 PPB STANDARD  
 Misc :  
 Quant Time: Aug 24 8:42 1995

Vial: 4 100  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.85	96	588902	5.00	ug/L	0.07
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.10	95	316818	4.79	ug/L	95.84%
57) 1,2-Dichlorobenzene-d4	21.88	152	204384	5.13	ug/L	102.66%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.32	85	63713	1.10	ug/L	91
3) Chloromethane	3.66	50	21865	0.98	ug/L	95
4) Vinyl chloride	3.89	62	30446	1.07	ug/L	96
5) Bromomethane	4.56	94	24499	1.24	ug/L	90
6) Chloroethane	4.80	64	17365	1.05	ug/L	94
7) Trichlorofluoromethane	5.38	101	87134	1.13	ug/L	99
8) 1,1-Dichloroethene	6.44	96	34095	1.12	ug/L	96
9) Methylene chloride	7.41	84	151119	5.02	ug/L	92
10) trans-1,2-Dichloroethene	7.98	96	36312	1.12	ug/L	92
12) 1,1-Dichloroethane	8.76	63	75122	1.15	ug/L	98
13) 2,2-Dichloropropane	9.84	77	79224	1.10	ug/L	96
14) cis-1,2-Dichloroethene	9.85	96	34316	1.10	ug/L	98
16) Bromochloromethane	10.27	128	14533	1.08	ug/L	93
17) Chloroform	10.40	83	77986	1.15	ug/L	98
18) 1,1,1-Trichloroethane	10.72	97	90343	1.19	ug/L	95
19) Carbon tetrachloride	11.03	117	83597	1.16	ug/L	94
20) 1,1-Dichloropropene	11.01	75	68909	1.10	ug/L	96
21) Benzene	11.36	78	113157	1.14	ug/L	98
22) 1,2-Dichloroethane	11.37	62	40123	1.23	ug/L	77
23) Trichloroethene	12.48	95	54188	1.13	ug/L	94
24) 1,2-Dichloropropane	12.84	63	36844	1.12	ug/L	87
25) Dibromomethane	13.03	93	17957	1.14	ug/L	87
26) Bromodichloromethane	13.31	83	61625	1.10	ug/L	90
27) cis-1,3-Dichloropropene	14.05	75	46510	1.03	ug/L	93
28) Toluene	14.66	92	83037	1.10	ug/L	87
29) trans-1,3-Dichloropropene	14.98	75	36745	1.08	ug/L	96
30) 1,1,2-Trichloroethane	15.30	83	15246	1.05	ug/L	85
31) Tetrachloroethene	15.61	166	66948	1.10	ug/L	95
32) 1,3-Dichloropropane	15.59	76	31190	1.05	ug/L	92
33) Dibromochloromethane	16.00	129	37066	1.06	ug/L	93
34) 1,2-Dibromomethane	16.20	107	23878	1.07	ug/L	98
35) Chlorobenzene	17.07	112	99391	1.12	ug/L	97
36) 1,1,1,2-Tetrachloroethane	17.21	131	45323	1.11	ug/L	95
37) Ethylbenzene	17.26	91	182055	1.08	ug/L	96
38) Xylene (para & meta)	17.48	106	133859	2.17	ug/L	100
39) Xylene (Ortho)	18.17	106	61133	1.10	ug/L	98
40) Styrene	18.19	104	90863	1.06	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c9236.d  
 Acq On : 23 Aug 95 1:58 pm  
 Sample : 1 PPB STANDARD  
 Misc :  
 Quant Time: Aug 24 8:42 1995

Vial: 4 **101**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.51	173	20327	1.05	ug/L	92
42) Isopropylbenzene	18.84	105	192615	1.08	ug/L	99
44) Bromobenzene	19.37	156	44264	1.08	ug/L	96
45) 1,1,2,2-Tetrachloroethane	19.31	83	19248	1.03	ug/L	85
46) 1,2,3-Trichloropropane	19.40	75	25768	1.26	ug/L #	72
47) n-Propylbenzene	19.57	91	246908	1.09	ug/L	98
48) 2-Chlorotoluene	19.72	91	147544	1.12	ug/L	100
49) 4-Chlorotoluene	19.92	91	174862	1.17	ug/L	97
50) 1,3,5-Trimethylbenzene	19.89	105	156318	1.13	ug/L	99
51) tert-Butylbenzene	20.49	119	186127	1.11	ug/L	100
52) 1,2,4-Trimethylbenzene	20.56	105	145491	1.13	ug/L	98
53) sec-Butylbenzene	20.88	105	249251	1.10	ug/L	97
54) 1,3-Dichlorobenzene	21.09	146	91690	1.12	ug/L	97
55) 4-Isopropyltoluene	21.15	119	198696	1.09	ug/L	98
56) 1,4-Dichlorobenzene	21.24	146	91948	1.14	ug/L	95
58) 1,2-Dichlorobenzene	21.92	146	71094	1.14	ug/L	99
59) n-Butylbenzene	21.90	91	191820	1.13	ug/L	100
60) 1,2-Dibromo-3-chloropropan	23.32	75	4972	0.99	ug/L	89
61) 1,2,4-Trichlorobenzene	24.89	180	52829	1.18	ug/L	93
62) Hexachlorobutadiene	25.22	225	56069	1.06	ug/L	92
63) Naphthalene	25.34	128	46955	1.29	ug/L	100
64) 1,2,3-Trichlorobenzene	25.83	180	40191	1.24	ug/L	97

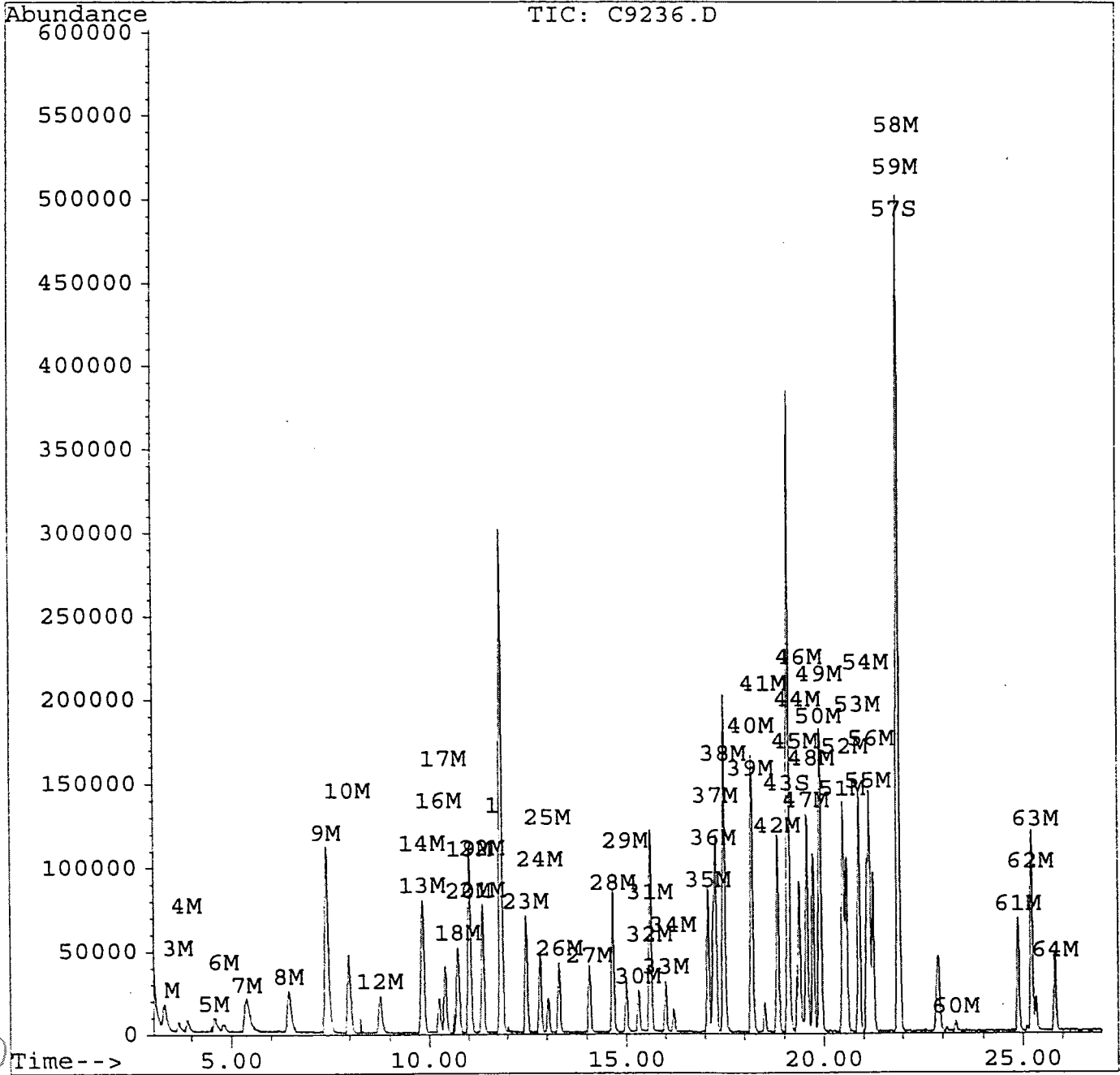
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c9236.d  
Acq On : 23 Aug 95 1:58 pm  
Sample : 1 PPB STANDARD  
Misc :  
Quant Time: Aug 24 8:42 1995

Vial: 4 102  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



5A  
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

103

Lab Name : EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
 Lab File ID: C9253.D BFB Injection Date: 8/24/95  
 Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1005  
 GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) \_\_\_\_\_

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	26.6
75	30.0 - 66.0% of mass 95	55.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.5 ( 0.7 )1
174	50.0 - 120.0% of mass 95	71.4
175	4.0 - 9.0% of mass 174	5.1 ( 7.2 )1
176	93.0 - 101.0% of mass 174	69.2 ( 97.0 )1
177	5.0 - 9.0% of mass 176	4.6 ( 6.6 )2

1-Value is % mass 174

2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

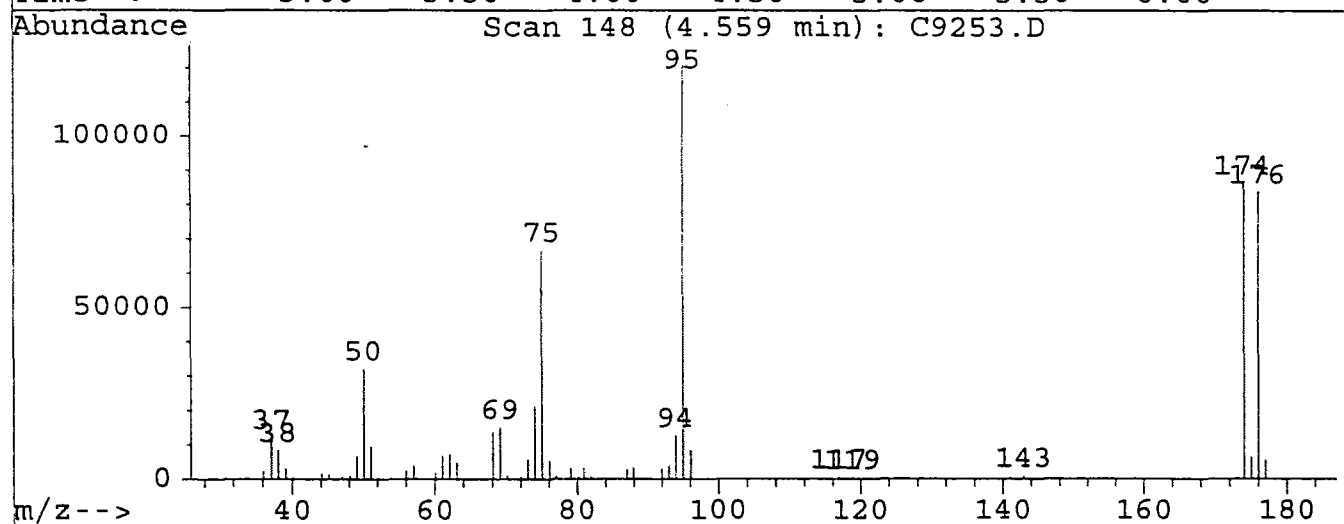
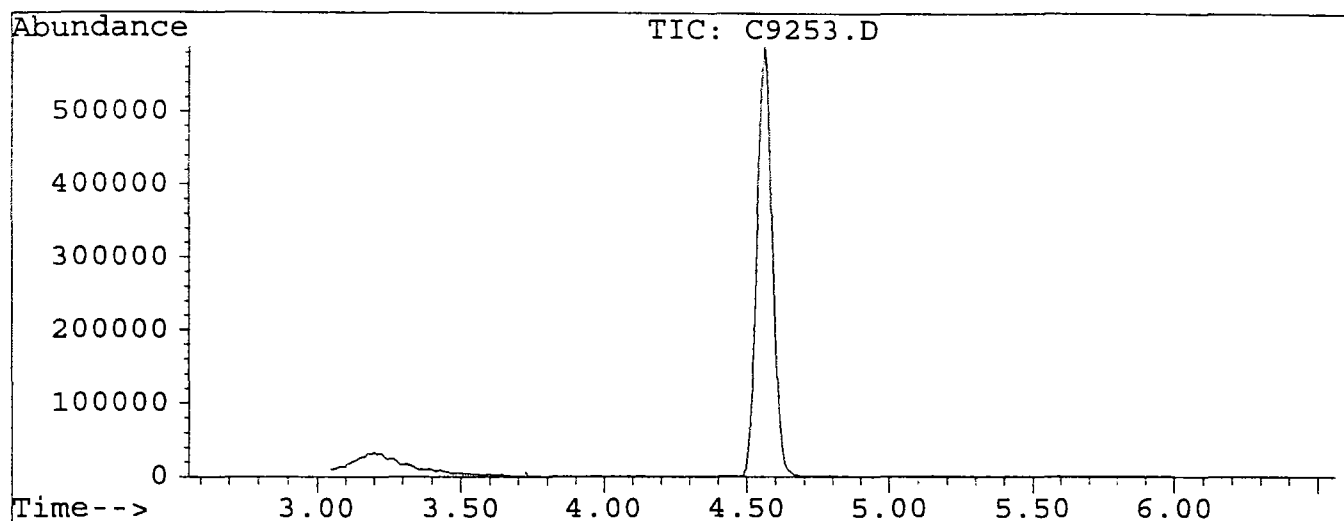
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02	10 QCS	10 QCS	C9255.D	8/24/95	1104
03	1 STND	1 STND	C9256.D	8/24/95	1142
04	VBLK01	M, BLANK	C9257.D	8/24/95	1225
05	9536414D	9536414D	C9258.D	8/24/95	1305
06	9536610V	9536610V	C9259.D	8/24/95	1350
07	9536614V	9536614V	C9260.D	8/24/95	1434
08	9536615V	9536615V	C9261.D	8/24/95	1517
09	9536615MS	36615MS	C9262.D	8/24/95	1557
10	9536615MSD	36615MSD	C9263.D	8/24/95	1637
11	9536613V	9536613V	C9264.D	8/24/95	1716
12	9536612V	9536612V	C9265.D	8/24/95	1754
13	9536616V	9536616V	C9266.D	8/24/95	1831
14					
15					
16					
17					
18					
19					
20					
21					
22					



Data File : D:\HPCHEM\1\DATA\C9253.D  
 Acq On : 24 Aug 95 10:05 am  
 Sample : BFB TUNE  
 Misc : 25 NG INJECTION

Vial: 1  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics



Peak Apex is scan: 148

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.6	32248	PASS
75	95	30	80	55.1	66648	PASS
95	95	100	100	100.0	121008	PASS
96	95	5	9	7.1	8583	PASS
173	174	0	2	0.7	563	PASS
174	95	50	100	71.4	86368	PASS
175	174	5	9	7.2	6204	PASS
176	174	95	101	97.0	83744	PASS
177	176	5	9	6.6	5522	PASS

can 148 (4.559 min): C9253.D

BFB TUNE

105

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	2550	51.10	9700	70.10	1061	87.05	2848
37.15	12220	52.10	524	72.00	763	87.95	3501
38.05	8420	56.00	2710	73.00	5682	92.00	2982
39.05	3431	57.10	4026	74.00	21400	93.00	4088
40.05	578	60.05	1894	75.00	66648	94.00	12859
44.05	1777	61.05	6860	76.10	5359	95.00	121008
45.05	1496	62.05	7140	77.00	937	96.10	8583
47.00	1031	63.05	4941	79.05	3199	116.90	626
48.10	1085	67.05	548	80.05	647	118.90	544
49.10	6783	68.05	13881	80.95	3151	141.00	783
50.10	32248	69.10	15188	81.95	746	142.90	996

can 148 (4.559 min): C9253.D

BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
172.95	563						
173.95	86368						
174.95	6204						
176.00	83744						
177.00	5522						

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C9254.D  
 Acq On : 24 Aug 95 10:24 am  
 Sample : 10 PPB CHK STANDARD  
 Misc :

Vial: 2  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

106

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 Fluorobenzene	1.000	1.000	0.0	85	0.06
2 M Dichlorodifluoromethane	0.494	0.517	-4.6	90	0.02
3 M Chloromethane	0.189	0.190	-0.7	88	0.02
4 M Vinyl chloride	0.241	0.251	-4.4	89	0.02
5 M Bromomethane	0.168	0.172	-2.1	83	0.03
6 M Chloroethane	0.141	0.153	-8.6	87	0.03
7 M Trichlorofluoromethane	0.656	0.742	-13.2	97	0.05
8 M 1,1-Dichloroethene	0.259	0.267	-2.9	87	0.08
9 M Methylene chloride	0.256	0.327	-27.8	88	0.06
10 M trans-1,2-Dichloroethene	0.275	0.291	-5.9	89	0.07
11 Hexane	0.000	0.000#	0.0	0#	-9.46#
12 M 1,1-Dichloroethane	0.557	0.604	-8.5	92	0.08
13 M 2,2-Dichloropropane	0.609	0.687	-12.7	92	0.06
14 M cis-1,2-Dichloroethene	0.264	0.278	-5.1	89	0.07
15 2-Butanone	0.000	0.000#	0.0	0#	-11.21#
16 M Bromochloromethane	0.114	0.114	0.1	87	0.07
17 M Chloroform	0.578	0.612	-5.9	91	0.07
18 M 1,1,1-Trichloroethane	0.646	0.726	-12.3	95	0.06
19 M Carbon tetrachloride	0.614	0.693	-13.0	96	0.06
20 M 1,1-Dichloropropene	0.532	0.564	-6.2	89	0.06
21 M Benzene	0.841	0.856	-1.8	86	0.06
22 M 1,2-Dichloroethane	0.276	0.295	-7.0	93	0.07
23 M Trichloroethene	0.408	0.432	-5.7	90	0.06
24 M 1,2-Dichloropropane	0.279	0.285	-2.0	88	0.06
25 M Dibromomethane	0.133	0.133	0.0	87	0.07
26 M Bromodichloromethane	0.475	0.498	-4.8	90	0.06
27 M cis-1,3-Dichloropropene	0.382	0.376	1.7	85	0.06
28 M Toluene	0.643	0.648	-0.7	86	0.06
29 M trans-1,3-Dichloropropene	0.289	0.287	0.6	86	0.06
30 M 1,1,2-Trichloroethane	0.123	0.116	6.3	82	0.05
31 M Tetrachloroethene	0.518	0.532	-2.8	87	0.06
32 M 1,3-Dichloropropane	0.253	0.244	3.4	85	0.06
33 M Dibromochloromethane	0.298	0.293	1.4	86	0.05
34 M 1,2-Dibromomethane	0.190	0.185	2.8	85	0.07
35 M Chlorobenzene	0.754	0.771	-2.3	88	0.06
36 M 1,1,1,2-Tetrachloroethane	0.346	0.354	-2.2	88	0.06
37 M Ethylbenzene	1.437	1.444	-0.5	86	0.05
38 M Xylene (para & meta)	0.523	0.541	-3.5	87	0.07
39 M Xylene (Ortho)	0.472	0.486	-3.0	88	0.05
40 M Styrene	0.728	0.721	1.0	84	0.05
41 M Bromoform	0.165	0.154	6.4	82	0.06
42 M Isopropylbenzene	1.512	1.546	-2.2	86	0.05

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C9254.D  
 Acq On : 24 Aug 95 10:24 am  
 Sample : 10 PPB CHK STANDARD  
 Disc :

Vial: 2 **107**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.30min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (Min)
3 S	4-Bromofluorobenzene	0.561	0.543	3.2	84	0.05
44 M	Bromobenzene	0.349	0.340	2.6	85	0.06
45 M	1,1,2,2-Tetrachloroethane	0.158	0.139	12.0	77	0.05
45 M	1,2,3-Trichloropropane	0.174	0.170	2.1	84	0.05
47 M	n-Propylbenzene	1.922	1.948	-1.3	86	0.05
48 M	2-Chlorotoluene	1.122	1.169	-4.2	92	0.05
49 M	4-Chlorotoluene	1.269	1.293	-2.0	85	0.06
50 M	1,3,5-Trimethylbenzene	1.176	1.242	-5.6	87	0.06
51 M	tert-Butylbenzene	1.426	1.454	-2.0	85	0.06
52 M	1,2,4-Trimethylbenzene	1.092	1.146	-5.0	86	0.06
53 M	sec-Butylbenzene	1.926	1.969	-2.2	86	0.05
54 M	1,3-Dichlorobenzene	0.697	0.689	1.0	84	0.06
55 M	4-Isopropyltoluene	1.544	1.597	-3.4	86	0.06
55 M	1,4-Dichlorobenzene	0.684	0.673	1.6	82	0.06
57 S	1,2-Dichlorobenzene-d4	0.338	0.342	-1.2	87	0.05
58 M	1,2-Dichlorobenzene	0.531	0.523	1.6	83	0.06
59 M	n-Butylbenzene	1.444	1.514	-4.8	86	0.05
60 M	1,2-Dibromo-3-chloropropane	0.043	0.041	5.2	82	0.05
61 M	1,2,4-Trichlorobenzene	0.379	0.361	4.8	78	0.05
62 M	Hexachlorobutadiene	0.451	0.434	3.8	81	0.06
63 M	Naphthalene	0.309	0.282	8.7	75	0.06
64 M	1,2,3-Trichlorobenzene	0.276	0.259	6.0	76	0.06
65 M	Methyl-tert butyl ether	0.356	0.339	5.0	83	0.05
65 M	tert-Butyl Alcohol	0.006	0.005	15.5	74	0.03

## VOLATILE CONTINUING CALIBRATION CHECK

103

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 8/24/95 Time: 1024

Lab File ID: C9254.D Init. Calib. Date(s): 7/31/95

Heated Purge: (Y/N) N Init. Calib. Times: \_\_\_\_\_

GC Column: DB-624 X 7 ID: 0.53 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.494	0.517		-4.7	30.0
Chloromethane	0.189	0.190		-0.5	30.0
Vinyl chloride	0.241	0.251		-4.1	30.0
Bromomethane	0.168	0.172		-2.4	30.0
Chloroethane	0.141	0.153		-8.5	30.0
Trichlorofluoromethane	0.656	0.742		-13.1	30.0
1,1-Dichloroethene	0.259	0.267		-3.1	30.0
Methylene chloride	0.256	0.327		-27.7	30.0
trans-1,2-Dichloroethene	0.275	0.291		-5.8	30.0
1,1-Dichloroethane	0.557	0.604		-8.4	30.0
2,2-Dichloropropane	0.609	0.687		-12.8	30.0
cis-1,2-Dichloroethene	0.264	0.278		-5.3	30.0
Bromochloromethane	0.114	0.114		0.0	30.0
Chloroform	0.578	0.612		-5.9	30.0
1,1,1-Trichloroethane	0.646	0.726		-12.4	30.0
Carbon tetrachloride	0.614	0.693		-12.9	30.0
1,1-Dichloropropene	0.532	0.564		-6.0	30.0
Benzene	0.841	0.856		-1.8	30.0
1,2-Dichloroethane	0.276	0.295		-6.9	30.0
Trichloroethene	0.408	0.432		-5.9	30.0
1,2-Dichloropropane	0.279	0.285		-2.2	30.0
Dibromomethane	0.133	0.133		0.0	30.0
Bromodichloromethane	0.475	0.498		-4.8	30.0
cis-1,3-Dichloropropene	0.382	0.376		1.6	30.0
Toluene	0.643	0.648		-0.8	30.0
trans-1,3-Dichloropropene	0.289	0.287		0.7	30.0
1,1,2-Trichloroethane	0.123	0.116		5.7	30.0
Tetrachloroethene	0.518	0.532		-2.7	30.0
1,3-Dichloropropane	0.253	0.244		3.6	30.0
Dibromochloromethane	0.298	0.293		1.7	30.0
1,2-Dibromomethane	0.190	0.185		2.6	30.0
Chlorobenzene	0.754	0.771		-2.3	30.0
1,1,1,2-Tetrachloroethane	0.346	0.354		-2.3	30.0
Ethylbenzene	1.437	1.444		-0.5	30.0
Xylene (para & meta)	0.523	0.541		-3.4	30.0
Xylene (Ortho)	0.472	0.486		-3.0	30.0

7A  
VOLATILE CONTINUING CALIBRATION CHECK

109

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
 Instrument ID: 5972-INSTRUMENT 1 Calibration Date: 8/24/95 Time: 1024  
 Lab File ID: C9254.D Init. Calib. Date(s): 7/31/95  
 Heated Purge: (Y/N) N Init. Calib. Times: \_\_\_\_\_  
 GC Column: DB-624 X 7 ID: 0.53 (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
Styrene	0.728	0.721		1.0	30.0
Bromoform	0.165	0.154		6.7	30.0
Isopropylbenzene	1.512	1.546		-2.2	30.0
Bromobenzene	0.349	0.340		2.6	30.0
1,1,2,2-Tetrachloroethane	0.158	0.139		12.0	30.0
1,2,3-Trichloropropane	0.174	0.170		2.3	30.0
n-Propylbenzene	1.922	1.948		-1.4	30.0
2-Chlorotoluene	1.122	1.169		-4.2	30.0
4-Chlorotoluene	1.269	1.293		-1.9	30.0
1,3,5-Trimethylbenzene	1.176	1.242		-5.6	30.0
tert-Butylbenzene	1.426	1.454		-2.0	30.0
1,2,4-Trimethylbenzene	1.092	1.146		-4.9	30.0
sec-Butylbenzene	1.926	1.969		-2.2	30.0
1,3-Dichlorobenzene	0.697	0.689		1.1	30.0
4-Isopropyltoluene	1.544	1.597		-3.4	30.0
1,4-Dichlorobenzene	0.684	0.673		1.6	30.0
1,2-Dichlorobenzene	0.531	0.523		1.5	30.0
n-Butylbenzene	1.444	1.514		-4.8	30.0
1,2-Dibromo-3-chloropropane	0.043	0.041		4.7	30.0
1,2,4-Trichlorobenzene	0.379	0.361		4.7	30.0
Hexachlorobutadiene	0.451	0.434		3.8	30.0
Naphthalene	0.309	0.282		8.7	30.0
1,2,3-Trichlorobenzene	0.276	0.259		6.2	30.0
4-Bromofluorobenzene	0.561	0.543		3.2	30.0
1,2-Dichlorobenzene-d4	0.338	0.342		-1.2	30.0

## Quantitation Report

110

Data File : d:\hpchem\1\data\c9254.d  
 Acq On : 24 Aug 95 10:24 am  
 Sample : 10 PPB CHK STANDARD  
 Misc :  
 Quant Time: Aug 25 9:07 1995

Vial: 2  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.84	96	599623	5.00	ug/L	0.06
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.10	95	325663	4.84	ug/L	96.75%
57) 1,2-Dichlorobenzene-d4	21.88	152	205189	5.06	ug/L	101.22%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.30	85	619488	10.46	ug/L	98
3) Chloromethane	3.66	50	228156	10.07	ug/L	96
4) Vinyl chloride	3.89	62	300974	10.44	ug/L	93
5) Bromomethane	4.54	94	205833	10.21	ug/L	100
6) Chloroethane	4.78	64	183471	10.86	ug/L	95
7) Trichlorofluoromethane	5.36	101	890220	11.32	ug/L	98
8) 1,1-Dichloroethene	6.45	96	319710	10.29	ug/L	90
9) Methylene chloride	7.42	84	391608	12.78	ug/L	95
10) trans-1,2-Dichloroethene	7.97	96	349092	10.59	ug/L	99
12) 1,1-Dichloroethane	8.77	63	724305	10.85	ug/L	97
13) 2,2-Dichloropropane	9.83	77	823513	11.27	ug/L	99
14) cis-1,2-Dichloroethene	9.84	96	333040	10.51	ug/L	94
16) Bromochloromethane	10.25	128	137104	9.99	ug/L	92
17) Chloroform	10.41	83	733873	10.59	ug/L	96
18) 1,1,1-Trichloroethane	10.73	97	870325	11.23	ug/L	98
19) Carbon tetrachloride	11.02	117	831514	11.30	ug/L	100
20) 1,1-Dichloropropene	11.01	75	676897	10.62	ug/L	99
21) Benzene	11.36	78	1027076	10.18	ug/L	99
22) 1,2-Dichloroethane	11.38	62	354057	10.70	ug/L	m 0
23) Trichloroethene	12.48	95	517591	10.57	ug/L	97
24) 1,2-Dichloropropane	12.83	63	341250	10.20	ug/L	99
25) Dibromomethane	13.04	93	159773	10.00	ug/L	94
26) Bromodichloromethane	13.30	83	597364	10.48	ug/L	98
27) cis-1,3-Dichloropropene	14.07	75	450335	9.83	ug/L	99
28) Toluene	14.65	92	776639	10.07	ug/L	100
29) trans-1,3-Dichloropropene	14.99	75	344555	9.94	ug/L	98
30) 1,1,2-Trichloroethane	15.30	83	138696	9.37	ug/L	98
31) Tetrachloroethene	15.61	166	638154	10.28	ug/L	94
32) 1,3-Dichloropropane	15.59	76	293065	9.66	ug/L	100
33) Dibromochloromethane	15.99	129	351954	9.86	ug/L	99
34) 1,2-Dibromomethane	16.20	107	221697	9.72	ug/L	92
35) Chlorobenzene	17.08	112	925122	10.23	ug/L	97
36) 1,1,1,2-Tetrachloroethane	17.21	131	424648	10.22	ug/L	99
37) Ethylbenzene	17.26	91	1731495	10.05	ug/L	99
38) Xylene (para & meta)	17.48	106	1298483	20.71	ug/L	95
39) Xylene (Ortho)	18.17	106	582905	10.30	ug/L	95
40) Styrene	18.19	104	864993	9.90	ug/L	97

(#) = qualifier out of range (m) = manual integration

## Quantitation Report

111

Data File : d:\hpchem\1\data\c9254.d  
 Acq On : 24 Aug 95 10:24 am  
 Sample : 10 PPB CHK STANDARD  
 Misc :  
 Quant Time: Aug 25 9:07 1995

Vial: 2  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.51	173	184782	9.36	ug/L	94
42) Isopropylbenzene	18.83	105	1853844	10.22	ug/L	99
44) Bromobenzene	19.38	156	408122	9.74	ug/L	98
45) 1,1,2,2-Tetrachloroethane	19.32	83	167013	8.80	ug/L	99
46) 1,2,3-Trichloropropane	19.40	75	203957	9.79	ug/L #	45
47) n-Propylbenzene	19.57	91	2336097	10.13	ug/L	99
48) 2-Chlorotoluene	19.73	91	1402449	10.42	ug/L	99
49) 4-Chlorotoluene	19.92	91	1551077	10.20	ug/L	99
50) 1,3,5-Trimethylbenzene	19.89	105	1489182	10.56	ug/L	100
51) tert-Butylbenzene	20.49	119	1744248	10.20	ug/L	96
52) 1,2,4-Trimethylbenzene	20.57	105	1374423	10.50	ug/L	99
53) sec-Butylbenzene	20.88	105	2361188	10.22	ug/L	98
54) 1,3-Dichlorobenzene	21.09	146	826608	9.90	ug/L	99
55) 4-Isopropyltoluene	21.15	119	1915449	10.34	ug/L	100
56) 1,4-Dichlorobenzene	21.24	146	807458	9.84	ug/L	98
58) 1,2-Dichlorobenzene	21.92	146	626875	9.84	ug/L m	0
59) n-Butylbenzene	21.89	91	1815319	10.48	ug/L	100
60) 1,2-Dibromo-3-chloropropan	23.31	75	48687	9.48	ug/L	92
61) 1,2,4-Trichlorobenzene	24.88	180	432811	9.52	ug/L	99
62) Hexachlorobutadiene	25.23	225	520446	9.62	ug/L	99
63) Naphthalene	25.34	128	338663	9.13	ug/L	100
64) 1,2,3-Trichlorobenzene	25.81	180	310771	9.40	ug/L	98
65) Methyl-tert butyl ether	7.99	73	406024	9.50	ug/L	92
66) tert-Butyl Alcohol	7.69	59	11863	16.90	ug/L	100

(#) = qualifier out of range (m) = manual integration



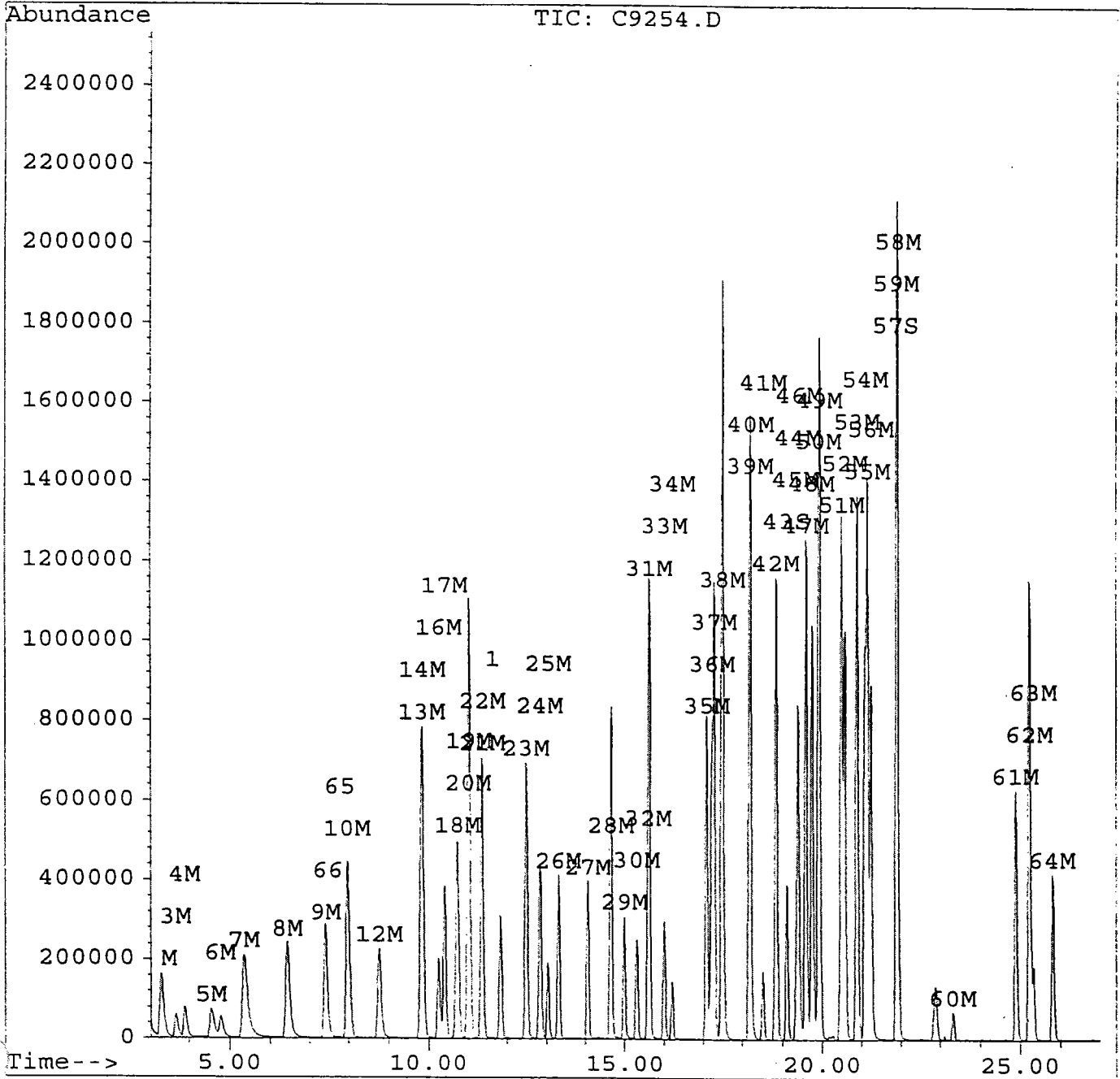
Quantitation Report

112

Data File : d:\hpchem\1\data\c9254.d  
Acq On : 24 Aug 95 10:24 am  
Sample : 10 PPB CHK STANDARD  
Misc :  
Quant Time: Aug 25 9:07 1995

Vial: 2  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c9255.d  
 Acq On : 24 Aug 95 11:04 am  
 Sample : 10 PPB QCS  
 Misc :  
 Quant Time: Aug 25 9:08 1995

Vial: 3 **113**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.84	96	588273	5.00	ug/L	0.06

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
43) 4-Bromofluorobenzene	19.10	95	328926	4.98	ug/L	99.61%
57) 1,2-Dichlorobenzene-d4	21.88	152	209615	5.27	ug/L	105.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.30	85	591568	10.18	ug/L	97
3) Chloromethane	3.66	50	215790	9.71	ug/L	94
4) Vinyl chloride	3.88	62	286163	10.11	ug/L	97
5) Bromomethane	4.55	94	195062	9.86	ug/L	96
6) Chloroethane	4.78	64	171421	10.34	ug/L	94
7) Trichlorofluoromethane	5.36	101	840701	10.89	ug/L	94
8) 1,1-Dichloroethene	6.43	96	308260	10.12	ug/L	96
9) Methylene chloride	7.39	84	383423	12.75	ug/L	92
10) trans-1,2-Dichloroethene	7.96	96	340747	10.54	ug/L	96
12) 1,1-Dichloroethane	8.75	63	712979	10.89	ug/L	99
13) 2,2-Dichloropropane	9.82	77	766164	10.69	ug/L	99
14) cis-1,2-Dichloroethene	9.83	96	322986	10.39	ug/L	92
16) Bromochloromethane	10.24	128	139347	10.35	ug/L	91
17) Chloroform	10.39	83	720879	10.61	ug/L	99
18) 1,1,1-Trichloroethane	10.71	97	835820	10.99	ug/L	96
19) Carbon tetrachloride	11.02	117	788677	10.92	ug/L	99
20) 1,1-Dichloropropene	11.00	75	657933	10.52	ug/L	99
21) Benzene	11.36	78	999846	10.10	ug/L	98
22) 1,2-Dichloroethane	11.36	62	351651	10.83	ug/L m	0
23) Trichloroethene	12.48	95	511949	10.66	ug/L	99
24) 1,2-Dichloropropane	12.83	63	337162	10.27	ug/L	99
25) Dibromomethane	13.02	93	165795	10.58	ug/L	98
26) Bromodichloromethane	13.30	83	597143	10.68	ug/L	99
27) cis-1,3-Dichloropropene	14.05	75	452670	10.08	ug/L	99
28) Toluene	14.65	92	763222	10.09	ug/L	99
29) trans-1,3-Dichloropropene	14.99	75	342779	10.08	ug/L	100
30) 1,1,2-Trichloroethane	15.30	83	143536	9.88	ug/L	97
31) Tetrachloroethene	15.61	166	624974	10.26	ug/L	97
32) 1,3-Dichloropropane	15.59	76	299132	10.05	ug/L	100
33) Dibromochloromethane	15.99	129	358551	10.24	ug/L	96
34) 1,2-Dibromomethane	16.20	107	229281	10.24	ug/L	95
35) Chlorobenzene	17.06	112	906430	10.22	ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.20	131	422241	10.36	ug/L	98
37) Ethylbenzene	17.26	91	1714107	10.14	ug/L	99
38) Xylene (para & meta)	17.47	106	1279252	20.79	ug/L	95
39) Xylene (Ortho)	18.18	106	567793	10.23	ug/L	96
40) Styrene	18.19	104	864816	10.09	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c9255.d  
 Acq On : 24 Aug 95 11:04 am  
 Sample : 10 PPB QCS  
 Misc :  
 Quant Time: Aug 25 9:08 1995

Vial: 3 **114**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.51	173	188853	9.75	ug/L	100
42) Isopropylbenzene	18.83	105	1818654	10.22	ug/L	100
44) Bromobenzene	19.37	156	411994	10.03	ug/L	98
45) 1,1,2,2-Tetrachloroethane	19.33	83	176950	9.51	ug/L	95
46) 1,2,3-Trichloropropane	19.39	75	208889	10.22	ug/L #	63
47) n-Propylbenzene	19.57	91	2322458	10.27	ug/L	99
48) 2-Chlorotoluene	19.72	91	1304415	9.88	ug/L	100
49) 4-Chlorotoluene	19.92	91	1549600	10.38	ug/L	99
50) 1,3,5-Trimethylbenzene	19.89	105	1463845	10.58	ug/L	99
51) tert-Butylbenzene	20.48	119	1739315	10.37	ug/L	99
52) 1,2,4-Trimethylbenzene	20.57	105	1378789	10.73	ug/L	99
53) sec-Butylbenzene	20.88	105	2326684	10.27	ug/L	99
54) 1,3-Dichlorobenzene	21.09	146	820686	10.01	ug/L	98
55) 4-Isopropyltoluene	21.15	119	1898088	10.45	ug/L	98
56) 1,4-Dichlorobenzene	21.24	146	821523	10.21	ug/L	99
58) 1,2-Dichlorobenzene	21.92	146	636811	10.19	ug/L m	0
59) n-Butylbenzene	21.90	91	1840399	10.83	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.32	75	50917	10.11	ug/L	94
61) 1,2,4-Trichlorobenzene	24.89	180	455680	10.22	ug/L	99
62) Hexachlorobutadiene	25.23	225	530211	9.99	ug/L	100
63) Naphthalene	25.33	128	369735	10.16	ug/L	100
64) 1,2,3-Trichlorobenzene	25.81	180	330983	10.21	ug/L	91
65) Methyl-tert butyl ether	7.98	73	424501	10.12	ug/L	91
66) tert-Butyl Alcohol	7.70	59	11876	17.24	ug/L	100

(#) = qualifier out of range (m) = manual integration

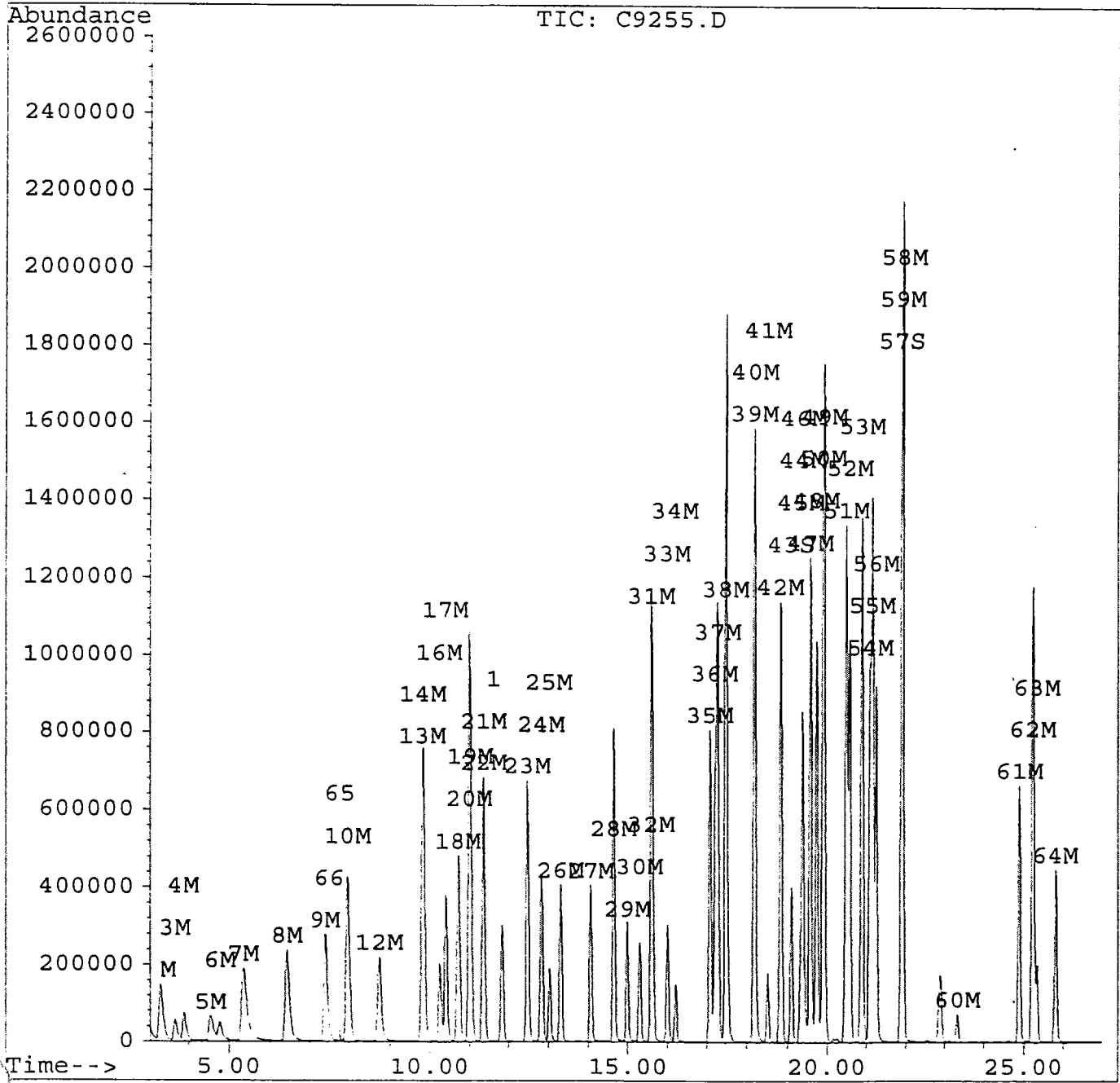
Quantitation Report

115

Data File : d:\hpchem\1\data\c9255.d  
Acq On : 24 Aug 95 11:04 am  
Sample : 10 PPB QCS  
Misc :  
Quant Time: Aug 25 9:08 1995

Vial: 3  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c9256.d  
 Acq On : 24 Aug 95 11:42 am  
 Sample : 1 PPB STANDARD  
 Misc :  
 Quant Time: Aug 24 12:10 1995

Vial: 4 **116**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.84	96	568490	5.00	ug/L	0.06
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.11	95	320489	5.02	ug/L	100.43%
57) 1,2-Dichlorobenzene-d4	21.88	152	208264	5.42	ug/L	108.37%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.30	85	63369	1.13	ug/L	97
3) Chloromethane	3.67	50	22667	1.05	ug/L	87
4) Vinyl chloride	3.89	62	29334	1.07	ug/L	94
5) Bromomethane	4.57	94	21556	1.13	ug/L	95
6) Chloroethane	4.80	64	17047	1.06	ug/L	100
7) Trichlorofluoromethane	5.37	101	88572	1.19	ug/L	93
8) 1,1-Dichloroethene	6.45	96	33030	1.12	ug/L	# 86
9) Methylene chloride	7.42	84	187763	6.46	ug/L	93
10) trans-1,2-Dichloroethene	7.97	96	34447	1.10	ug/L	96
12) 1,1-Dichloroethane	8.77	63	73178	1.16	ug/L	98
13) 2,2-Dichloropropane	9.84	77	82591	1.19	ug/L	97
14) cis-1,2-Dichloroethene	9.84	96	35213	1.17	ug/L	96
16) Bromochloromethane	10.26	128	14216	1.09	ug/L	# 87
17) Chloroform	10.41	83	77585	1.18	ug/L	99
18) 1,1,1-Trichloroethane	10.74	97	90182	1.23	ug/L	98
19) Carbon tetrachloride	11.02	117	83004	1.19	ug/L	98
20) 1,1-Dichloropropene	11.02	75	70158	1.16	ug/L	100
21) Benzene	11.37	78	113324	1.18	ug/L	98
22) 1,2-Dichloroethane	11.37	62	40386	1.29	ug/L	97
23) Trichloroethene	12.49	95	54471	1.17	ug/L	91
24) 1,2-Dichloropropane	12.85	63	35604	1.12	ug/L	87
25) Dibromomethane	13.03	93	17696	1.17	ug/L	89
26) Bromodichloromethane	13.32	83	65473	1.21	ug/L	95
27) cis-1,3-Dichloropropene	14.07	75	50758	1.17	ug/L	94
28) Toluene	14.65	92	84984	1.16	ug/L	100
29) trans-1,3-Dichloropropene	14.99	75	37818	1.15	ug/L	96
30) 1,1,2-Trichloroethane	15.31	83	16226	1.16	ug/L	95
31) Tetrachloroethene	15.62	166	70380	1.20	ug/L	97
32) 1,3-Dichloropropane	15.60	76	33300	1.16	ug/L	99
33) Dibromochloromethane	16.00	129	39882	1.18	ug/L	93
34) 1,2-Dibromomethane	16.21	107	24157	1.12	ug/L	95
35) Chlorobenzene	17.08	112	104136	1.21	ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.21	131	47963	1.22	ug/L	94
37) Ethylbenzene	17.27	91	192249	1.18	ug/L	97
38) Xylene (para & meta)	17.48	106	142248	2.39	ug/L	93
39) Xylene (Ortho)	18.17	106	63881	1.19	ug/L	90
40) Styrene	18.20	104	95102	1.15	ug/L	97

(#) = qualifier out of range (m) = manual integration

# Quantitation Report

Data File : d:\hpchem\1\data\c9256.d  
 Acq On : 24 Aug 95 11:42 am  
 Sample : 1 PPB STANDARD  
 Misc :  
 Quant Time: Aug 24 12:10 1995

Vial: 4  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

117

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.51	173	22056	1.18	ug/L	94
42) Isopropylbenzene	18.83	105	201439	1.17	ug/L	97
44) Bromobenzene	19.38	156	47568	1.20	ug/L	93
45) 1,1,2,2-Tetrachloroethane	19.32	83	21001	1.17	ug/L	96
46) 1,2,3-Trichloropropane	19.40	75	28113	1.42	ug/L #	61
47) n-Propylbenzene	19.57	91	265756	1.22	ug/L	99
48) 2-Chlorotoluene	19.74	91	164531	1.29	ug/L	98
49) 4-Chlorotoluene	19.92	91	184808	1.28	ug/L	100
50) 1,3,5-Trimethylbenzene	19.89	105	168454	1.26	ug/L	93
51) tert-Butylbenzene	20.49	119	200955	1.24	ug/L	98
52) 1,2,4-Trimethylbenzene	20.57	105	161738	1.30	ug/L	93
53) sec-Butylbenzene	20.89	105	267211	1.22	ug/L	94
54) 1,3-Dichlorobenzene	21.09	146	101215	1.28	ug/L	98
55) 4-Isopropyltoluene	21.15	119	219038	1.25	ug/L	97
56) 1,4-Dichlorobenzene	21.25	146	98752	1.27	ug/L	98
58) 1,2-Dichlorobenzene	21.92	146	79580	1.32	ug/L	99
59) n-Butylbenzene	21.90	91	209712	1.28	ug/L	97
60) 1,2-Dibromo-3-chloropropan	23.31	75	5652	1.16	ug/L #	76
61) 1,2,4-Trichlorobenzene	24.89	180	58765	1.36	ug/L	100
62) Hexachlorobutadiene	25.23	225	63446	1.24	ug/L	96
63) Naphthalene	25.33	128	54409	1.55	ug/L	100
64) 1,2,3-Trichlorobenzene	25.81	180	44219	1.41	ug/L	98
65) Methyl-tert butyl ether	8.00	73	50899	1.26	ug/L	96

(#) = qualifier out of range (m) = manual integration

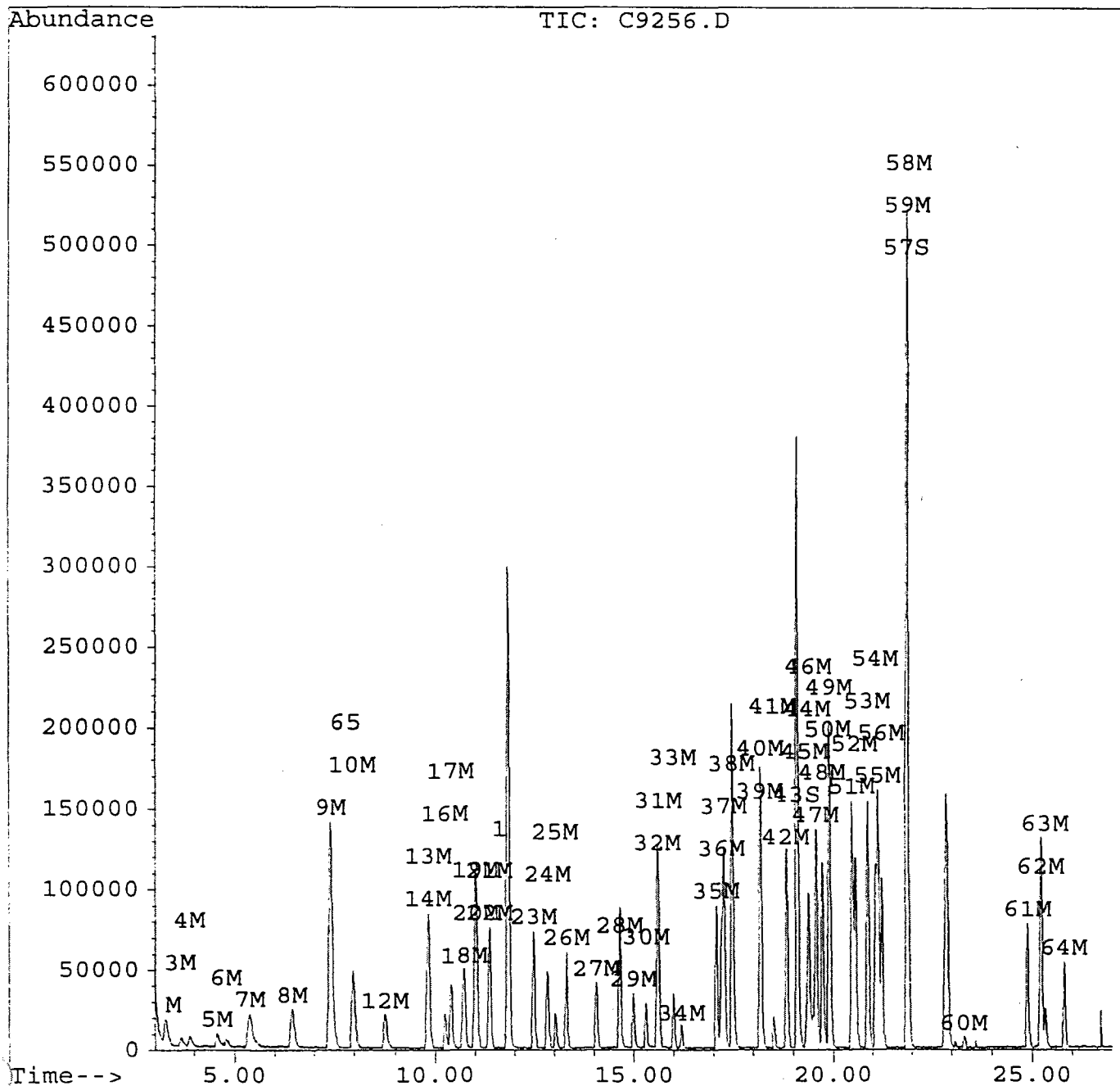
Quantitation Report

118

Data File : d:\hpchem\1\data\c9256.d  
Acq On : 24 Aug 95 11:42 am  
Sample : 1 PPB STANDARD  
Misc :  
Quant Time: Aug 24 12:10 1995

Vial: 4  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

119

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
 Lab File ID (Standard): C9215.D Date Analyzed: 8/22/95  
 Instrument ID: 5972-INSTRUMENT 1 Time Analyzed: 1045  
 GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge (Y/N) N

	IS1 (FBZ)					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
8 HOUR STD	603489	11.83				
UPPER LIMIT	784536	12.33				
LOWER LIMIT	422442	11.33				
SAMPLE NO.						
01 1 STND	587708	11.80				
02 VBLK01	557232	11.80				
03 9535439V	568490	11.82				
04 9536417V	439631	11.83				
05 9536418V	584466	11.83				
06 9536412V	562126	11.83				
07 9536413V	562847	11.81				
08 9536414V	558250	11.85				
09 9536416V	575997	11.85				
10 9536416MS	573971	11.86				
11 9536416MSD	555902	11.86				
12 10 QCS	549683	11.86				
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (FBZ) = Fluorobenzene

AREA UPPER LIMIT = +30% of internal standard area  
 AREA LOWER LIMIT = -30% of internal standard area  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT  
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

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



## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

120

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
 Lab File ID (Standard): C9234.D Date Analyzed: 8/23/95  
 Instrument ID: 5972-INSTRUMENT 1 Time Analyzed: 1244  
 GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge (Y/N) N

	IS1 (FBZ)	AREA #	RT #	AREA #	RT #	AREA #	RT #
8 HOUR STD	593356	11.83					
UPPER LIMIT	771363	12.33					
LOWER LIMIT	415349	11.33					
SAMPLE NO.							
01 10 QCS	600882	11.84					
02 1 STND	588902	11.85					
03 VBLK01	574574	11.84					
04 9535439D	512172	11.84					
05 9536415V	490334	11.83					
06 9536415D	571077	11.84					
07 9536608V	576742	11.85					
08 9536609V	570313	11.86					
09 9536611V	575079	11.86					
10 9536420V	581905	11.86					
11 9536419V	554173	11.86					
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (FBZ) = Fluorobenzene

AREA UPPER LIMIT = +30% of internal standard area

AREA LOWER LIMIT = -30% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Values outside of QC limits.

## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

121

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

Lab File ID (Standard): C9254.DDate Analyzed: 8/24/95Instrument ID: 5972-INSTRUMENT 1Time Analyzed: 1024GC Column: DB-624 X 75MID: 0.53 (mm)Heated Purge (Y/N) N

	ISI (FBZ)					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
8 HOUR STD	599623	11.84				
UPPER LIMIT	779510	12.34				
LOWER LIMIT	419736	11.34				
SAMPLE NO.						
01 10 QCS	588273	11.84				
02 1 STND	568490	11.84				
03 VBLK01	557097	11.83				
04 9536414D	548619	11.84				
05 9536610V	535534	11.83				
06 9536614V	537975	11.82				
07 9536615V	557905	11.83				
08 9536615MS	570642	11.85				
09 9536615MSD	561048	11.84				
10 9536613V	543400	11.86				
11 9536612V	582893	11.87				
12 9536616V	564683	11.89				
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

ISI (FBZ) = Fluorobenzene

AREA UPPER LIMIT = +30% of internal standard area

AREA LOWER LIMIT = -30% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk

\* Values outside of QC limits.

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910.1

122

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 2

Matrix: (soil/water) WATER

Lab Sample ID: 9536412V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: 9222.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane		.50	U
74-87-3	Chloromethane		.50	U
75-01-4	Vinyl chloride		.50	U
74-83-9	Bromomethane		.50	U
75-00-3	Chloroethane		.50	U
75-69-4	Trichlorofluoromethane		.50	U
75-35-4	1,1-Dichloroethene		.50	U
75-09-2	Methylene chloride		1.3	B
156-60-65	trans-1,2-Dichloroethene		.50	U
75-34-3	1,1-Dichloroethane		.50	U
594-20-7	2,2-Dichloropropane		.50	U
156-59-2	cis-1,2-Dichloroethene		.50	U
74-97-1	Bromochloromethane		.50	U
67-66-3	Chloroform		.50	U
71-55-6	1,1,1-Trichloroethane		.50	U
56-23-1	Carbon tetrachloride		.50	U
563-58-6	1,1-Dichloropropene		.50	U
71-43-2	Benzene		.50	U
107-06-2	1,2-Dichloroethane		.50	U
79-01-6	Trichloroethene		.50	U
78-87-1	1,2-Dichloropropane		.50	U
74-95-3	Dibromomethane		.50	U
75-27-4	Bromodichloromethane		.50	U
10061-01-1	cis-1,3-Dichloropropene		.50	U
108-88-3	Toluene		.50	U
10061-02-6	trans-1,3-Dichloropropene		.50	U
79-00-1	1,1,2-Trichloroethane		.50	U
127-18-4	Tetrachloroethene		.50	U
142-28-9	1,3-Dichloropropane		.50	U
124-48-1	Dibromochloromethane		.50	U
106-93-4	1,2-Dibromomethane		.50	U
108-90-7	Chlorobenzene		.50	U
630-20-6	1,1,1,2-Tetrachloroethane		.50	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

123

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910-1

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 2

Matrix: (soil/water) WATER

Lab Sample ID: 9536412V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9222.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
100-41-4	Ethylbenzene		.60	
1330-29-7	Xylene (total)		5.3	
100-42-1	Styrene		.50	U
75-25-2	Bromoform		.50	U
98-82-8	Isopropylbenzene		1.1	
108-86-1	Bromobenzene		.50	U
79-34-1	1,1,2,2-Tetrachloroethane		.50	U
96-18-4	1,2,3-Trichloropropane		.50	U
103-65-1	n-Propylbenzene		1.3	
95-49-8	2-Chlorotoluene		.50	U
106-43-4	4-Chlorotoluene		.50	U
108-67-8	1,3,5-Trimethylbenzene		1.0	
98-06-6	tert-Butylbenzene		.50	U
95-63-6	1,2,4-Trimethylbenzene		8.2	
135-98-8	sec-Butylbenzene		.50	U
541-73-1	1,3-Dichlorobenzene		.50	U
99-87-6	4-Isopropyltoluene		.50	U
106-46-7	1,4-Dichlorobenzene		.50	U
95-50-1	1,2-Dichlorobenzene		.50	U
104-51-8	n-Butylbenzene		.50	U
96-12-8	1,2-Dibromo-3-chloropropane		.50	U
120-82-1	1,2,4-Trichlorobenzene		.50	U
87-68-3	Hexachlorobutadiene		.50	U
91-20-3	Naphthalene		11	
87-61-6	1,2,3-Trichlorobenzene		.50	U
1634-04-4	Methy-tertiary butyl ether		2.5	
75-65-0	tertiary-Butyl alcohol		2.0	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

1910.1

123A

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: 2567 NJDEP MW#: 2

Matrix: (soil/water) WATER Lab Sample ID: 9536412V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9222.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 15 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 622-96-8	Benzene, 1-ethyl-4-methyl-	19.78	3	J
2. 135-98-8	Benzene, (1-methylpropyl)-	20.87	1	J
3. 95-36-3	1,2,4-Trimethylbenzene	21.34	3	J
4.	Unknown	21.70	13	J
5. 1758-88-9	Benzene, 2-ethyl-1,4-dimethy	22.36	1	J
6. 934-80-5	Benzene, 4-ethyl-1,2-dimethy	22.55	1	J
7.	Unknown	22.63	1	J
8.	Unknown Hydrocarbon	22.76	4	J
9. 527-53-7	Benzene, 1,2,3,5-tetramethyl	23.27	1	J
10. 934-74-7	Benzene, 1-ethyl-3,5-dimethy	23.38	1	J
11. 824-22-6	1H-Indene, 2,3-dihydro-4-met	23.87	2	J
12.	Unknown	24.15	1	J
13.	Unknown	24.17	4	J
14.	Unknown	24.48	4	J
15. 17059-48-2	1H-Indene, 2,3-dihydro-1,6-d	25.04	1	J
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

124

Data File : d:\hpchem\1\data\c9222.d  
 Acq On : 22 Aug 95 3:55 pm  
 Sample : 9536412  
 Misc : 25 ML  
 Quant Time: Aug 22 16:39 1995

Vial: 9  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.83	96	562126	5.00	ug/L	0.05
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.10	95	323893	5.13	ug/L	102.65%
57) 1,2-Dichlorobenzene-d4	21.88	152	206374	5.43	ug/L	108.60%
Target Compounds						Qvalue
9) Methylene chloride	7.40	84	36940	1.29	ug/L	96
37) Ethylbenzene	17.26	91	97197	0.60	ug/L	98
38) Xylene (para & meta)	17.47	106	312607	5.32	ug/L	91
42) Isopropylbenzene	18.83	105	190373	1.12	ug/L	100
47) n-Propylbenzene	19.57	91	289787	1.34	ug/L	99
50) 1,3,5-Trimethylbenzene	19.88	105	125585	0.95	ug/L	99
52) 1,2,4-Trimethylbenzene	20.56	105	1004419	8.18	ug/L	100
63) Naphthalene	25.33	128	384671	11.07	ug/L	100
65) Methyl-tert butyl ether	7.99	73	100347	2.50	ug/L	87

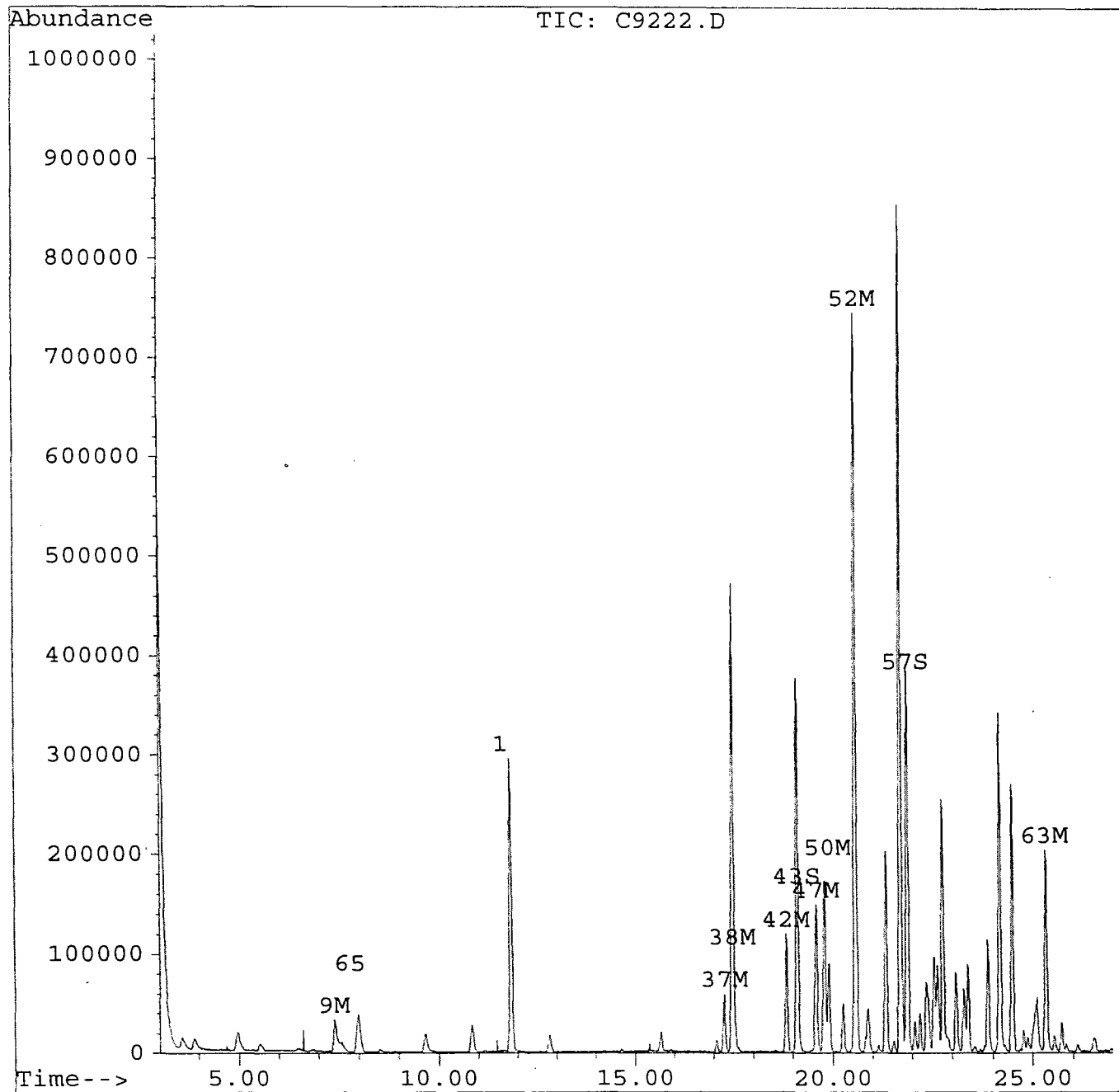
(#) = qualifier out of range (m) = manual integration

Quantitation Report

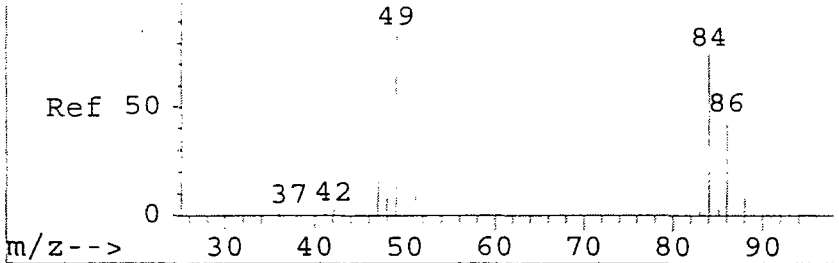
Data File : d:\hpchem\1\data\c9222.d  
Acq On : 22 Aug 95 3:55 pm  
Sample : 9536412  
Misc : 25 ML  
Quant Time: Aug 22 16:39 1995

Vial: 9 **125**  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



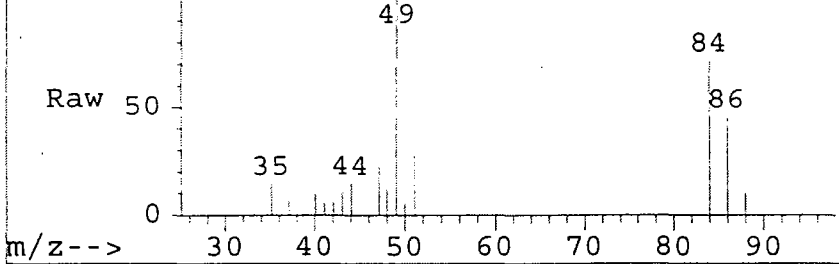
AbundanceScan 418 (7.345 min): C5082.D (-,\*



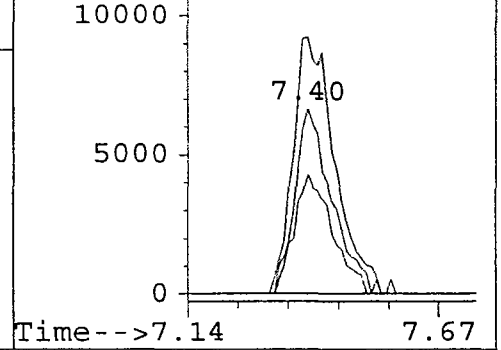
#9  
 Methylene chloride  
 Concen: 1.29 ug/L  
 RT: 7.40 min Scan# 423  
 Delta R.T. 0.04 min  
 Lab File: c9222.d  
 Acq: 22 Aug 95 3:55 pm

Tgt Ion	Resp	Lower	Upper
84	36940		
84	100		
86	64.4	45.5	85.5
49	138.7	124.4	164.4
0	0.0	0.0	0.0

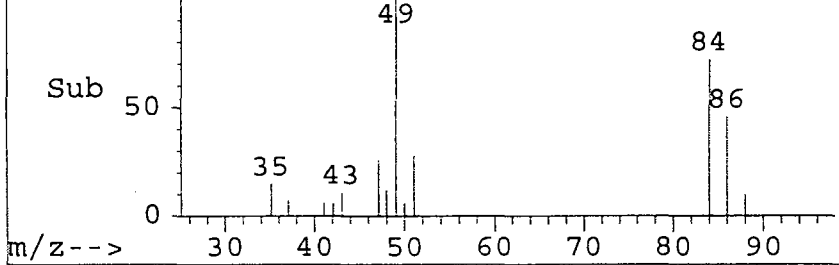
AbundanceScan 423 (7.395 min): C9222.D (\*)



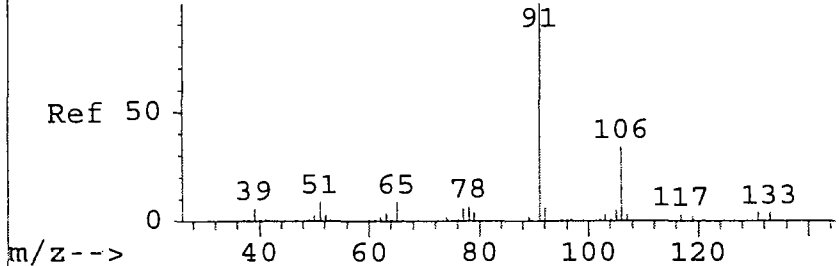
Abundance	Ion	Retention
84.00	84.00	(83.
86.00	86.00	(85.
49.00	49.00	(48.



AbundanceScan 423 (7.395 min): C9222.D (-,\*



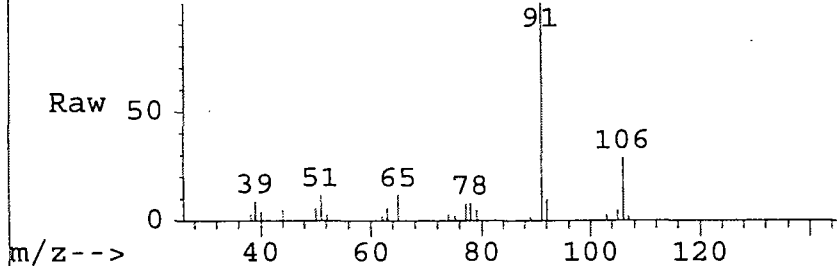
AbundanceScan 1369 (17.154 min): C5082.D (-



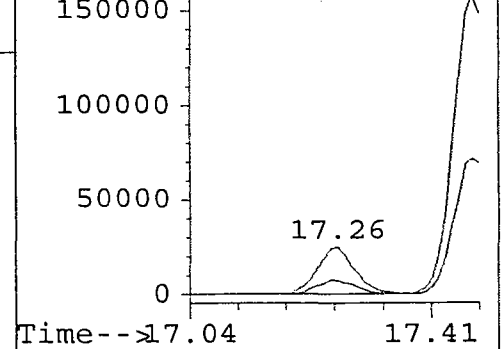
#37  
 Ethylbenzene  
 Concen: 0.60 ug/L  
 RT: 17.26 min Scan# 1380  
 Delta R.T. 0.05 min  
 Lab File: c9222.d  
 Acq: 22 Aug 95 3:55 pm

Tgt Ion	Resp	Lower	Upper
91	97197		
91	100		
106	29.1	10.0	50.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

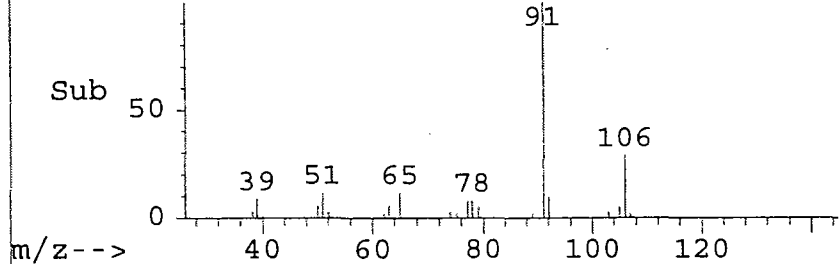
AbundanceScan 1380 (17.263 min): C9222.D (\*)



Abundance	Ion	Retention
91.00	91.00	(90.
106.00	106.00	(105

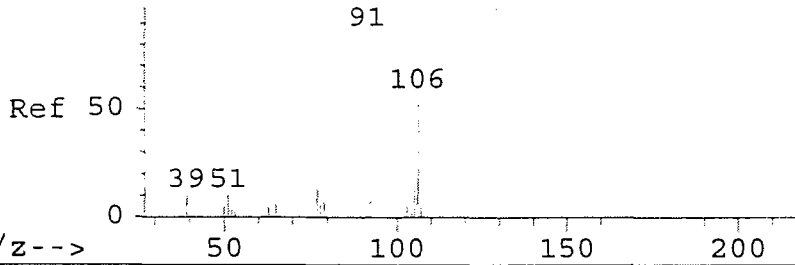


AbundanceScan 1380 (17.263 min): C9222.D (-





Abundance Scan 1389 (17.360 min): C5082.D (-91)

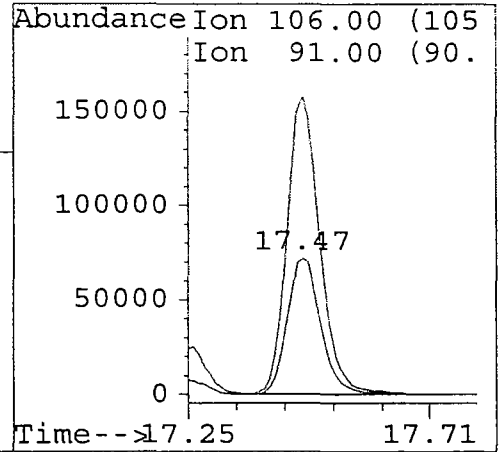
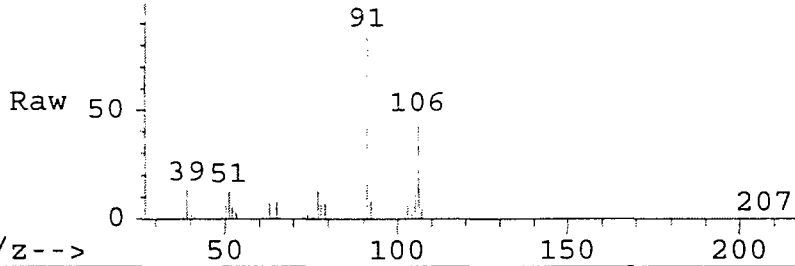


#38  
Xylene (para & meta)  
Concen: 5.32 ug/L  
RT: 17.47 min Scan# 1400  
Delta R.T. 0.06 min  
Lab File: c9222.d  
Acq: 22 Aug 95 3:55 pm

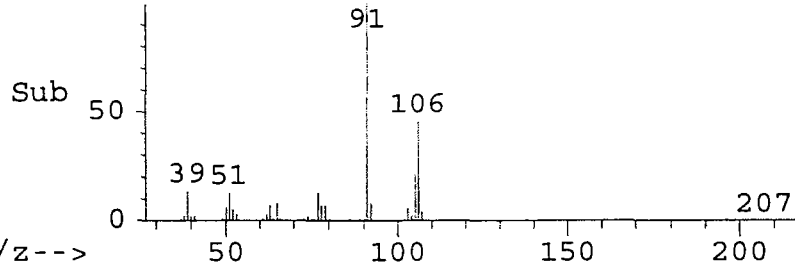
127

Tgt Ion	Ratio	Lower	Upper
106	100		
91	219.2	185.3	225.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0

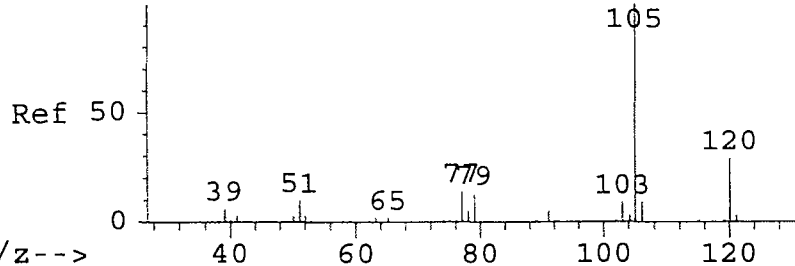
Abundance Scan 1400 (17.469 min): C9222.D (\*91)



Abundance Scan 1400 (17.469 min): C9222.D (-91)



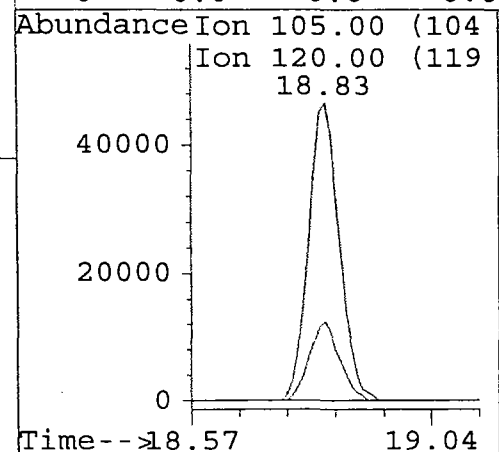
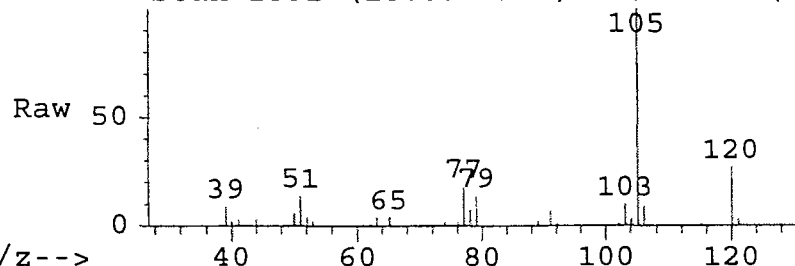
Abundance Scan 1521 (18.721 min): C5082.D (-105)



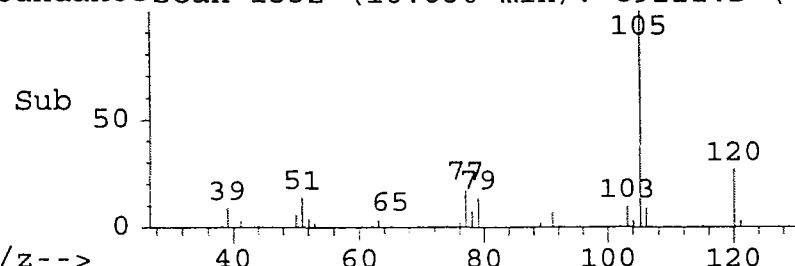
#42  
Isopropylbenzene  
Concen: 1.12 ug/L  
RT: 18.83 min Scan# 1532  
Delta R.T. 0.05 min  
Lab File: c9222.d  
Acq: 22 Aug 95 3:55 pm

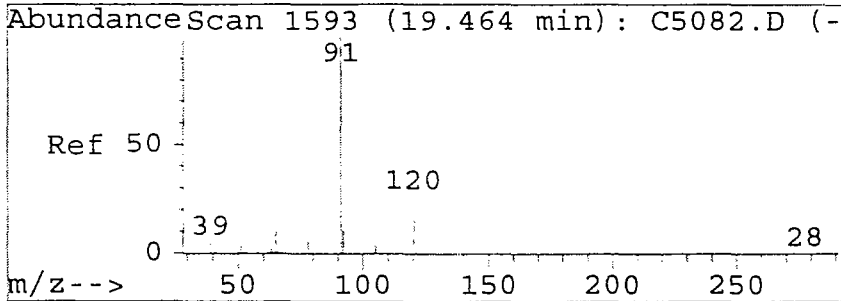
Tgt Ion	Ratio	Lower	Upper
105	100		
120	26.8	6.9	46.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

Abundance Scan 1532 (18.830 min): C9222.D (\*105)



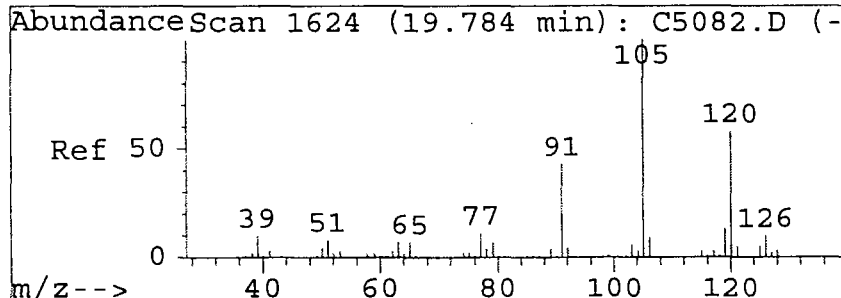
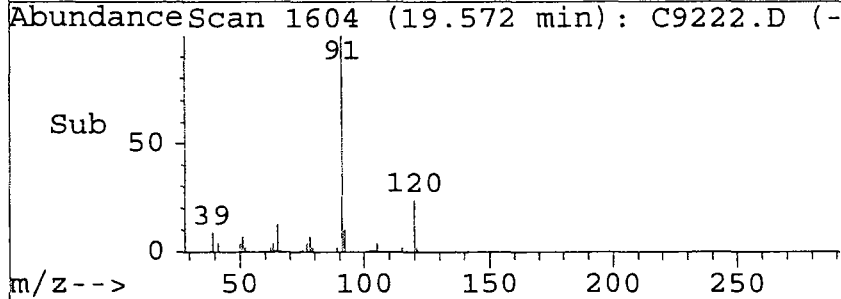
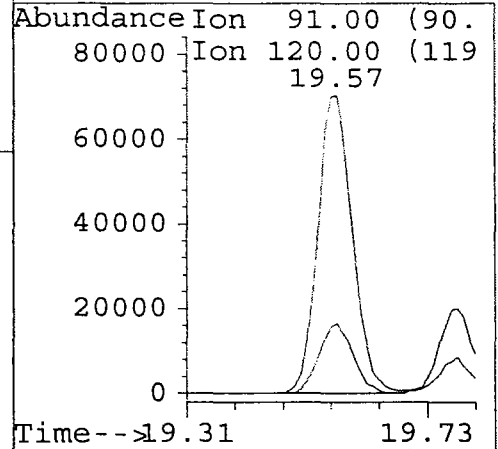
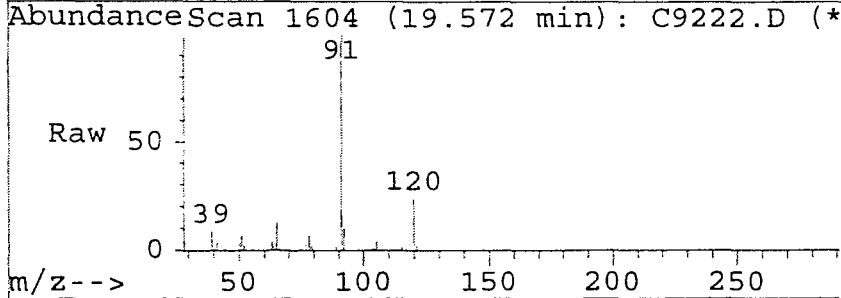
Abundance Scan 1532 (18.830 min): C9222.D (-105)





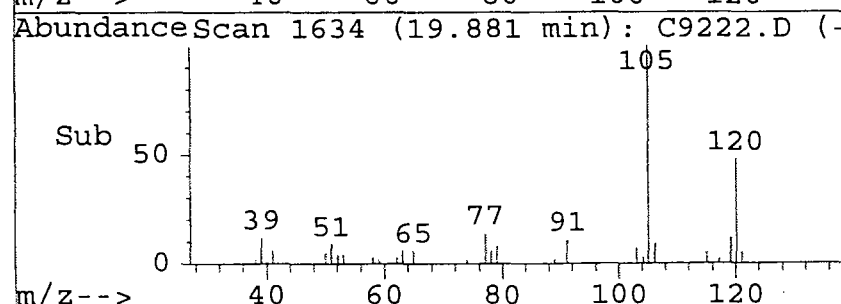
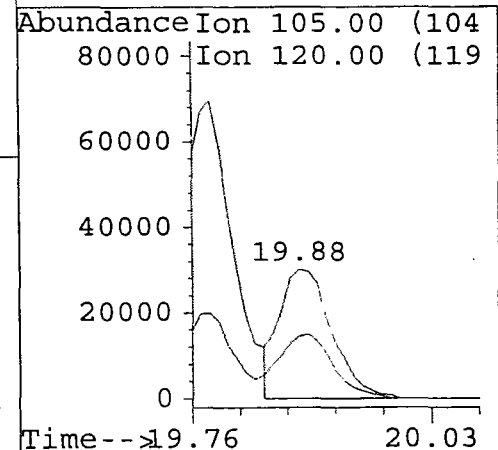
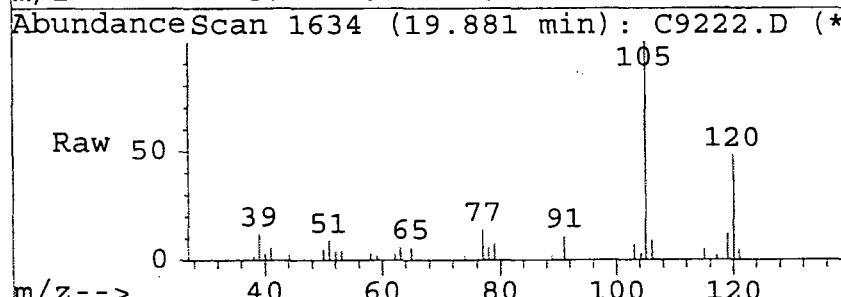
#47  
 n-Propylbenzene  
 Concen: 1.34 ug/L  
 RT: 19.57 min Scan# 1604  
 Delta R.T. 0.05 min  
 Lab File: c9222.d  
 Acq: 22 Aug 95 3:55 pm

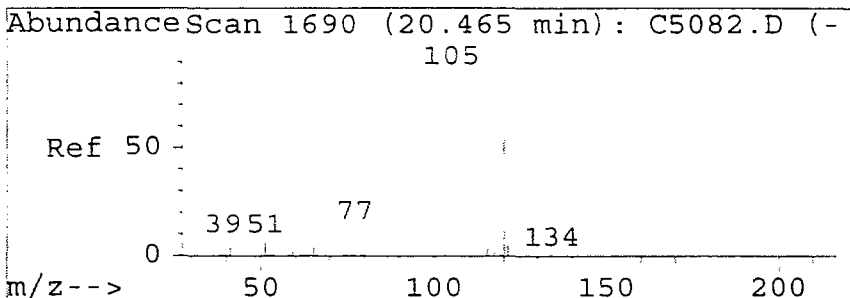
Tgt Ion	Resp	Lower	Upper
91	289787		
120	23.6	2.9	42.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0



#50  
 1,3,5-Trimethylbenzene  
 Concen: 0.95 ug/L  
 RT: 19.88 min Scan# 1634  
 Delta R.T. 0.05 min  
 Lab File: c9222.d  
 Acq: 22 Aug 95 3:55 pm

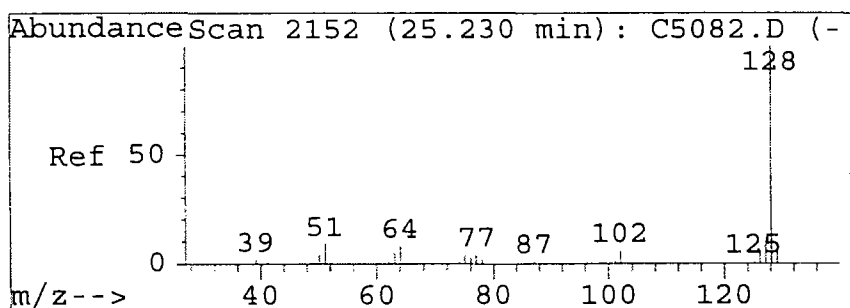
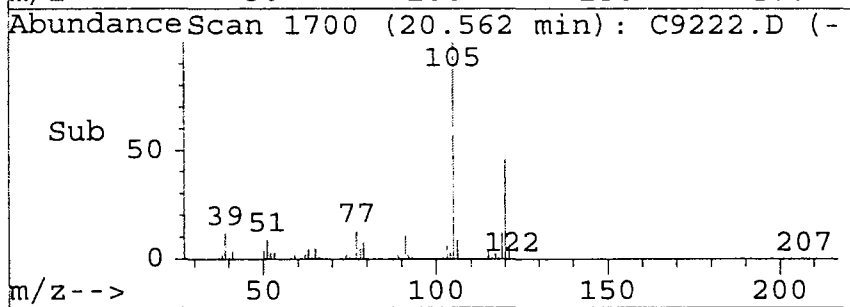
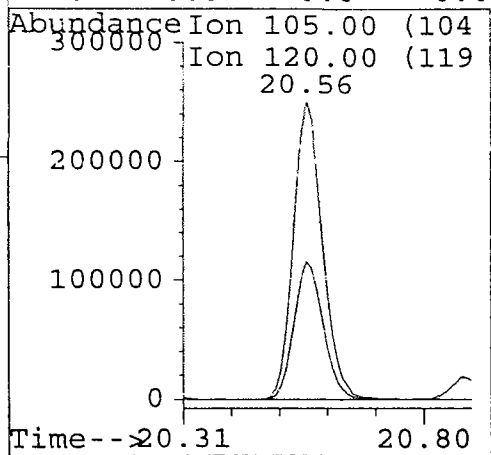
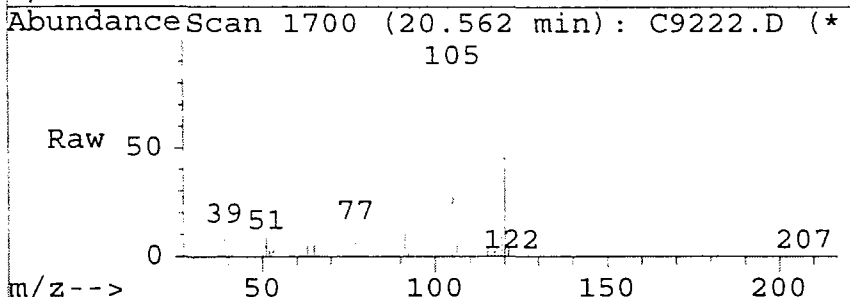
Tgt Ion	Resp	Lower	Upper
105	125585		
120	48.5	29.2	69.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0





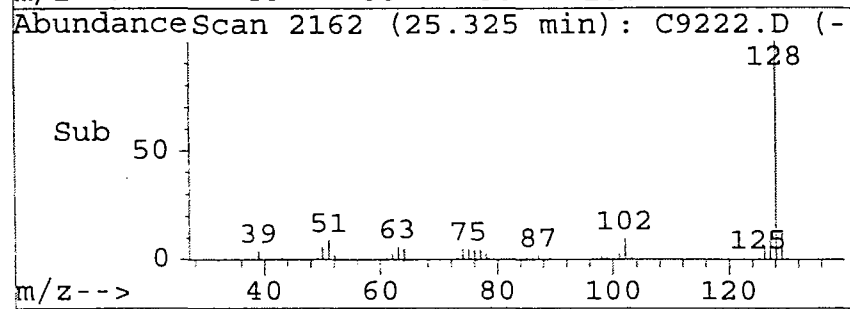
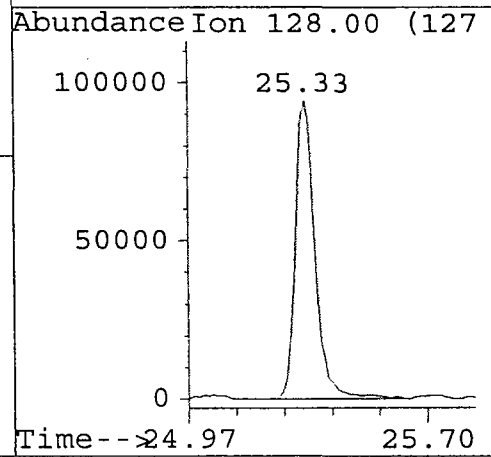
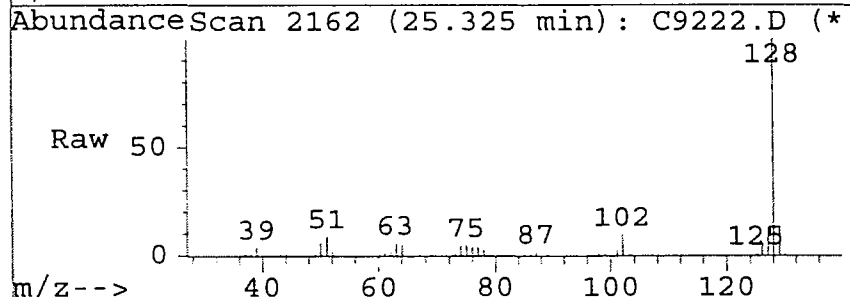
#52  
 1,2,4-Trimethylbenzene **129**  
 Concen: 8.18 ug/L  
 RT: 20.56 min Scan# 1700  
 Delta R.T. 0.05 min  
 Lab File: c9222.d  
 Acq: 22 Aug 95 3:55 pm

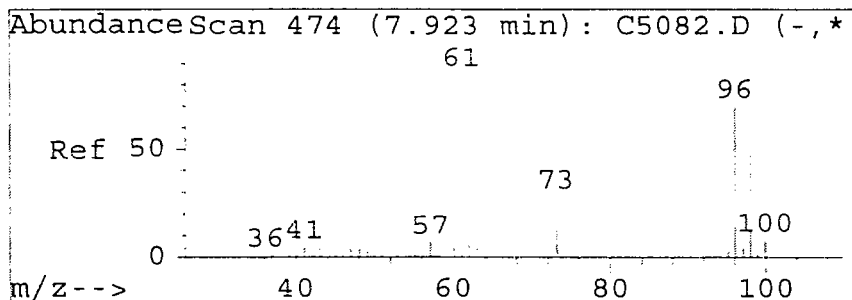
Tgt Ion	105	Resp	1004419
Ion Ratio	Lower	Upper	
105	100		
120	46.1	26.3	66.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0



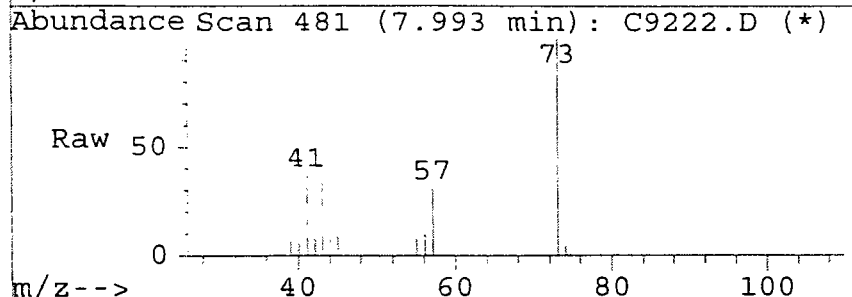
#63  
 Naphthalene  
 Concen: 11.07 ug/L  
 RT: 25.33 min Scan# 2162  
 Delta R.T. 0.05 min  
 Lab File: c9222.d  
 Acq: 22 Aug 95 3:55 pm

Tgt Ion	128	Resp	384671
Ion Ratio	Lower	Upper	
128	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



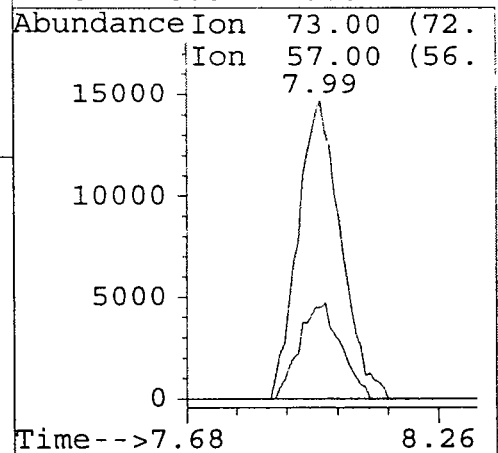
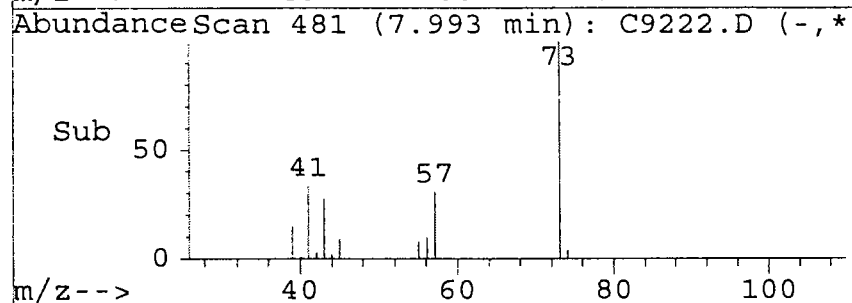


#65  
 Methyl-tert butyl ether  
 Concen: 2.50 ug/L  
 RT: 7.99 min Scan# 481  
 Delta R.T. 0.05 min  
 Lab File: c9222.d  
 Acq: 22 Aug 95 3:55 pm



Tgt Ion:73 Resp: 100347

Ion	Ratio	Lower	Upper
73	100		
57	30.5	4.2	44.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0



## Library Search Compound Report

131

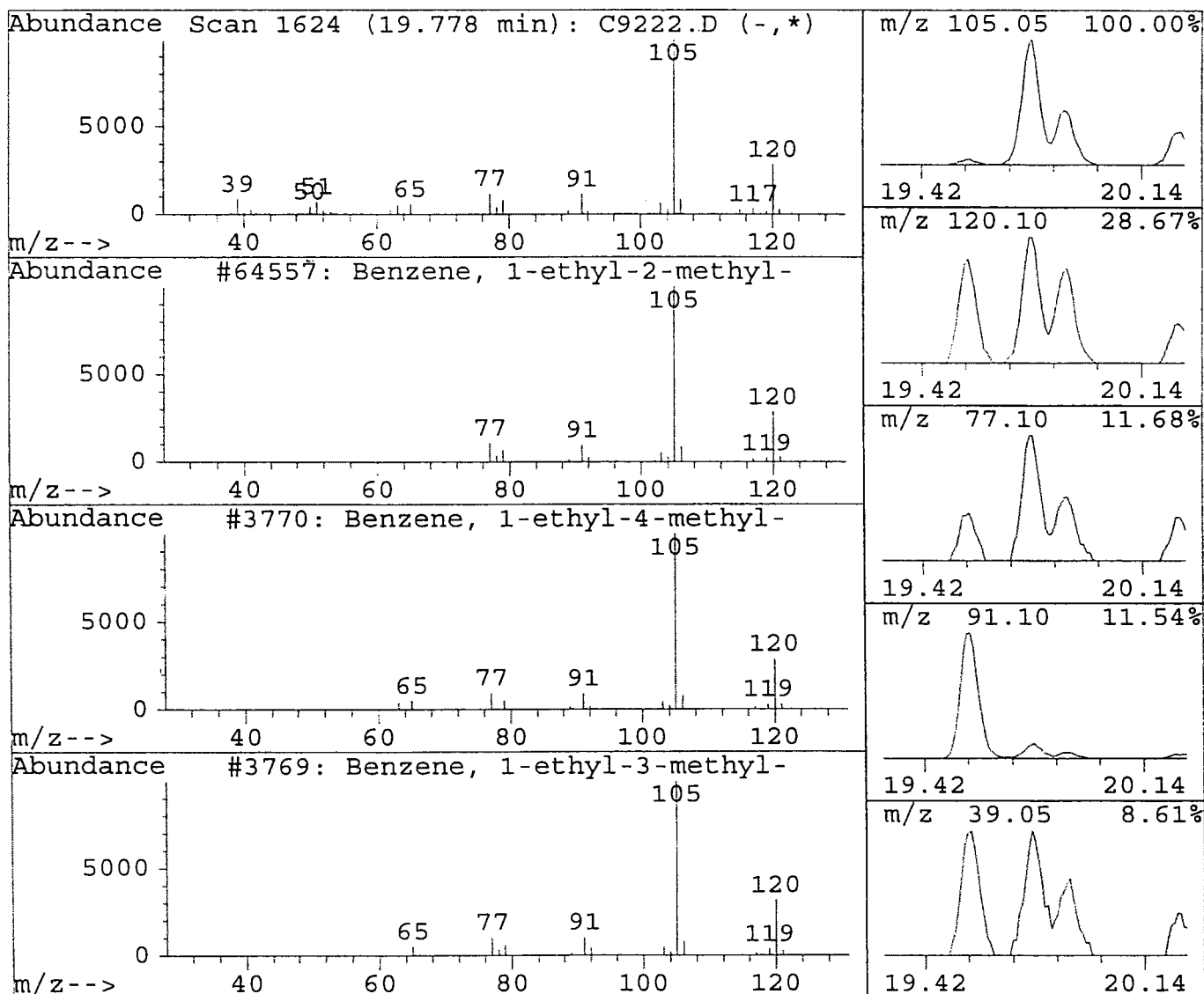
Data File : d:\hpchem\1\data\c9222.d  
 Acq On : 22 Aug 95 3:55 pm  
 Sample : 9536412  
 Misc : 25 ML

Vial: 9  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
19.78	2.64 ug/L	691102	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	64557	000611-14-3	94
2	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	94
3	Benzene, 1-ethyl-3-methyl-	3769	000620-14-4	91
4	Benzene, (1-methylethyl)-	64552	000098-82-8	90
5	Benzene, 1,2,3-trimethyl-	64575	000526-73-8	72



Library Search Compound Report

132

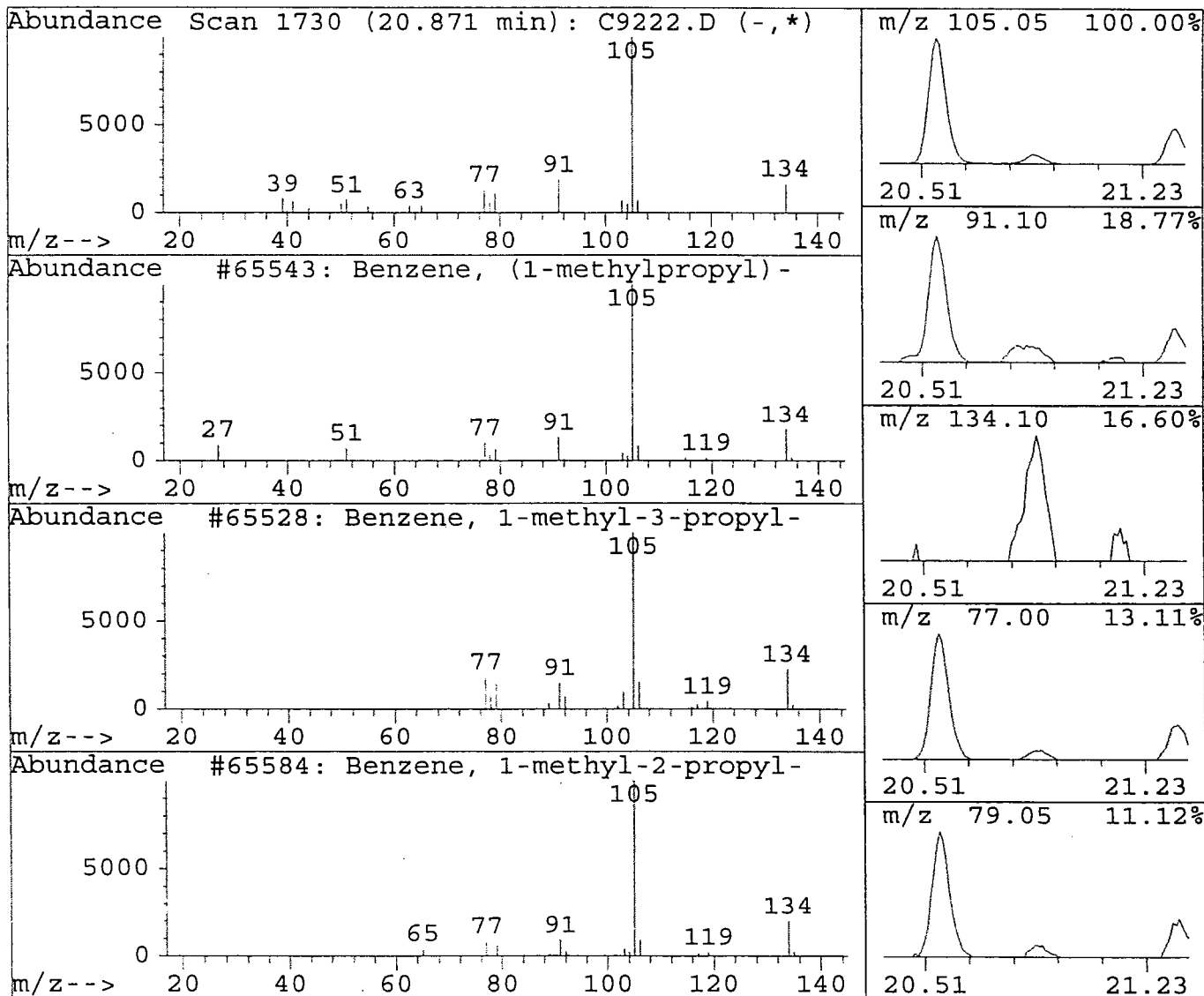
Data File : d:\hpchem\1\data\c9222.d  
 Acq On : 22 Aug 95 3:55 pm  
 Sample : 9536412  
 Misc : 25 ML

Vial: 9  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
20.87	0.60 ug/L	155806	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, (1-methylpropyl)-	65543	000135-98-8	86
2	Benzene, 1-methyl-3-propyl-	65528	001074-43-7	45
3	Benzene, 1-methyl-2-propyl-	65584	001074-17-5	64
4	Benzeneacetaldehyde, .alpha.-methyl	65510	000093-53-8	72
5	Benzene, 1-methyl-4-propyl-	6216	001074-55-1	59



Library Search Compound Report

133

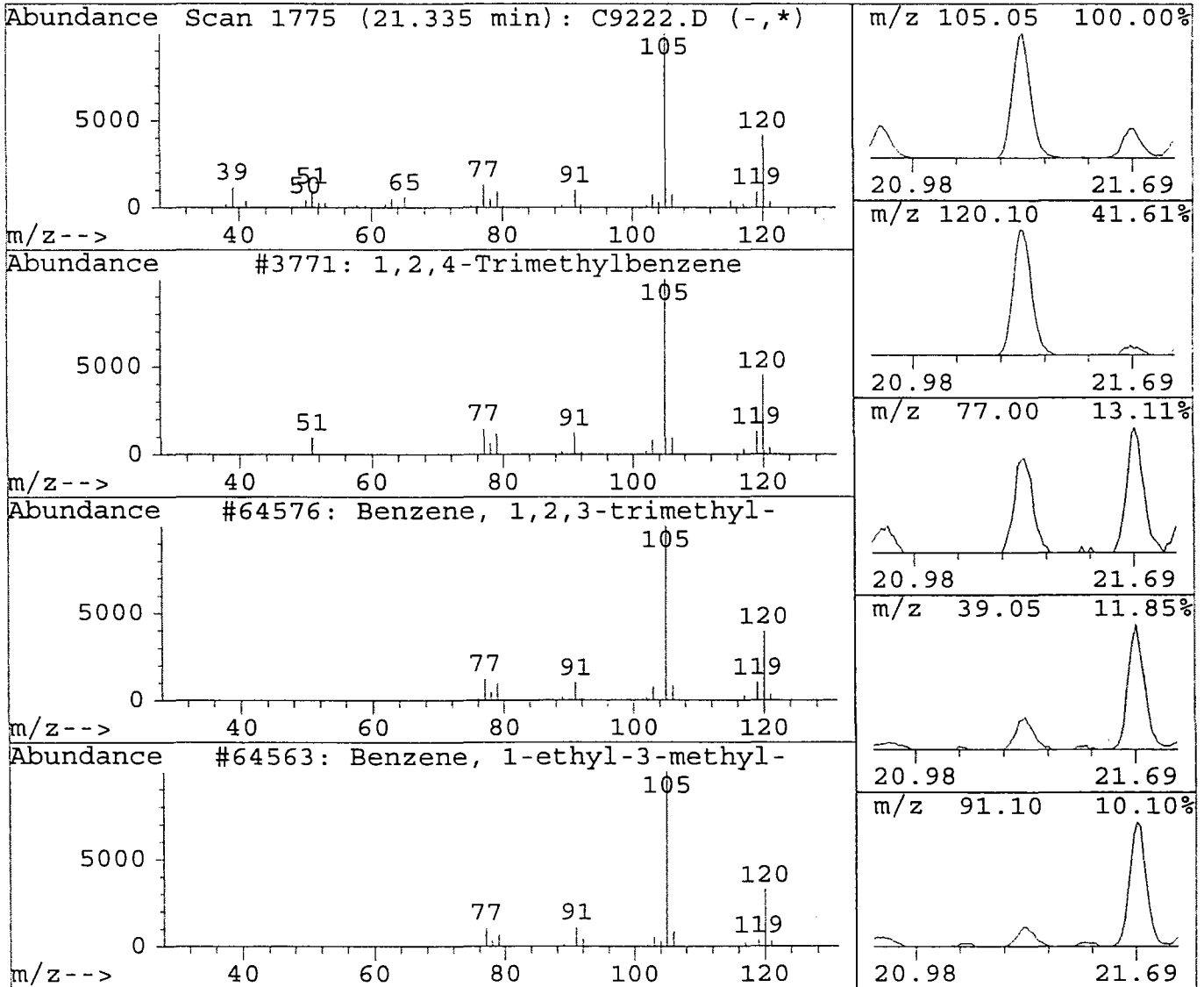
Data File : d:\hpchem\1\data\c9222.d  
 Acq On : 22 Aug 95 3:55 pm  
 Sample : 9536412  
 Misc : 25 ML

Vial: 9  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
21.34	3.04 ug/L	794887	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,2,4-Trimethylbenzene	3771	000095-36-3	97
2	Benzene, 1,2,3-trimethyl-	64576	000526-73-8	93
3	Benzene, 1-ethyl-3-methyl-	64563	000620-14-4	87
4	Benzene, 1-ethyl-2-methyl-	64558	000611-14-3	87
5	Benzene, 1-ethyl-4-methyl-	64566	000622-96-8	74



Library Search Compound Report

134

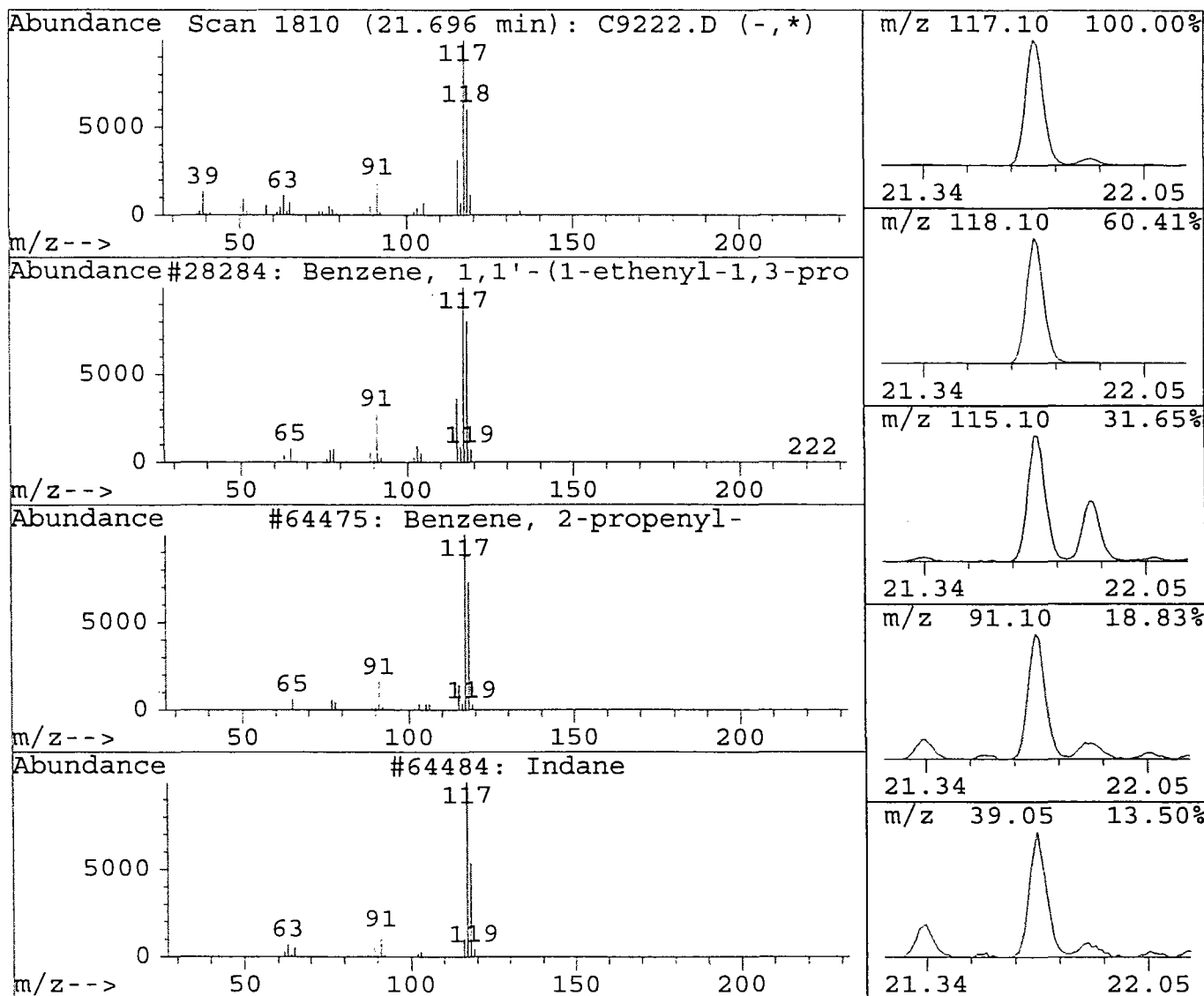
Data File : d:\hpchem\1\data\c9222.d  
 Acq On : 22 Aug 95 3:55 pm  
 Sample : 9536412  
 Misc : 25 ML

Vial: 9  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
21.70	12.62 ug/L	3297177	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,1'-(1-ethenyl-1,3-propan	28284	061141-97-7	50
2	Benzene, 2-propenyl-	64475	000300-57-2	72
3	Indane	64484	000496-11-7	87
4	Benzene, 1-propenyl-	3595	000637-50-3	37
5	Benzene, 1-ethenyl-4-methyl-	64480	000622-97-9	38





Library Search Compound Report

135

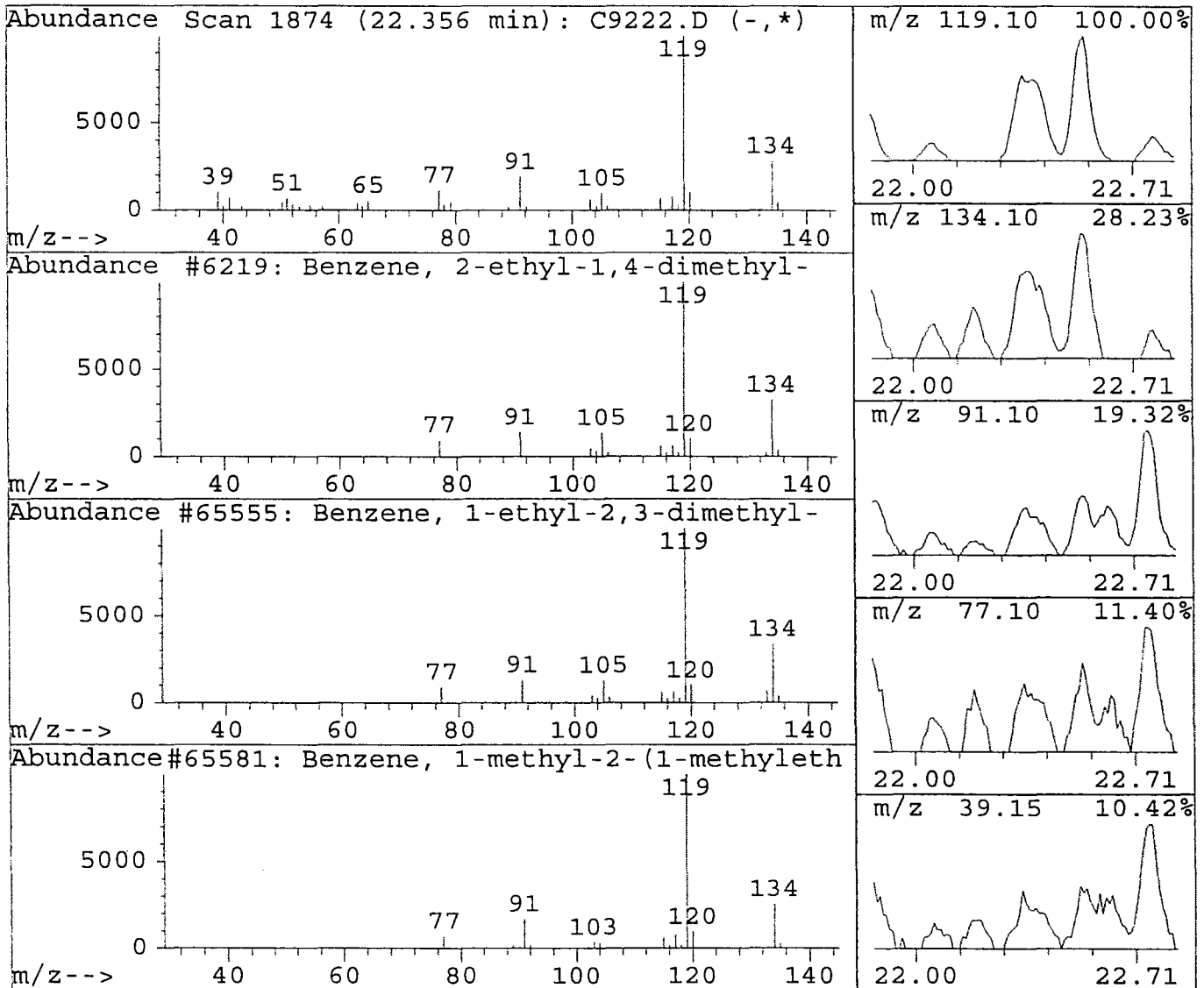
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 Acq On : 22 Aug 95 3:55 pm  
 Sample : 9536412  
 Misc : 25 ML

Vial: 9  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.36	1.22 ug/L	319207	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 2-ethyl-1,4-dimethyl-	6219	001758-88-9	91
2	Benzene, 1-ethyl-2,3-dimethyl-	65555	000933-98-2	91
3	Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	93
4	Benzene, 4-ethyl-1,2-dimethyl-	6218	000934-80-5	90
5	Benzene, 1-methyl-3-(1-methylethyl)	6225	000535-77-3	90



Library Search Compound Report

136

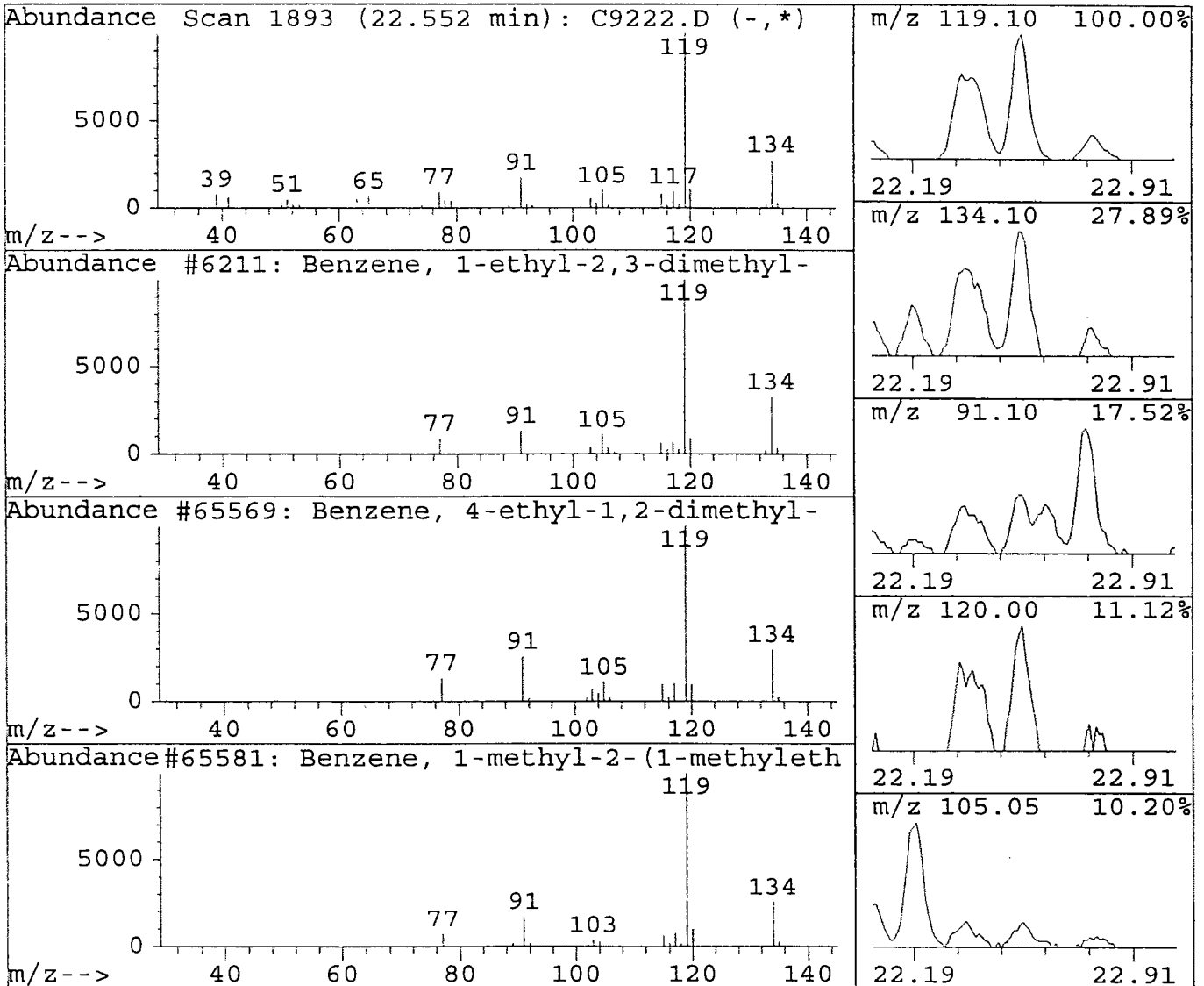
Data File : d:\hpchem\1\data\c9222.d  
 Acq On : 22 Aug 95 3:55 pm  
 Sample : 9536412  
 Misc : 25 ML

Vial: 9  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.55	1.38 ug/L	361204	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2,3-dimethyl-	6211	000933-98-2	91
2	Benzene, 4-ethyl-1,2-dimethyl-	65569	000934-80-5	97
3	Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	94
4	Benzene, 1-ethyl-3,5-dimethyl-	65554	000934-74-7	91
5	Benzene, 1-methyl-3-(1-methylethyl)	65579	000535-77-3	95



## Library Search Compound Report

137

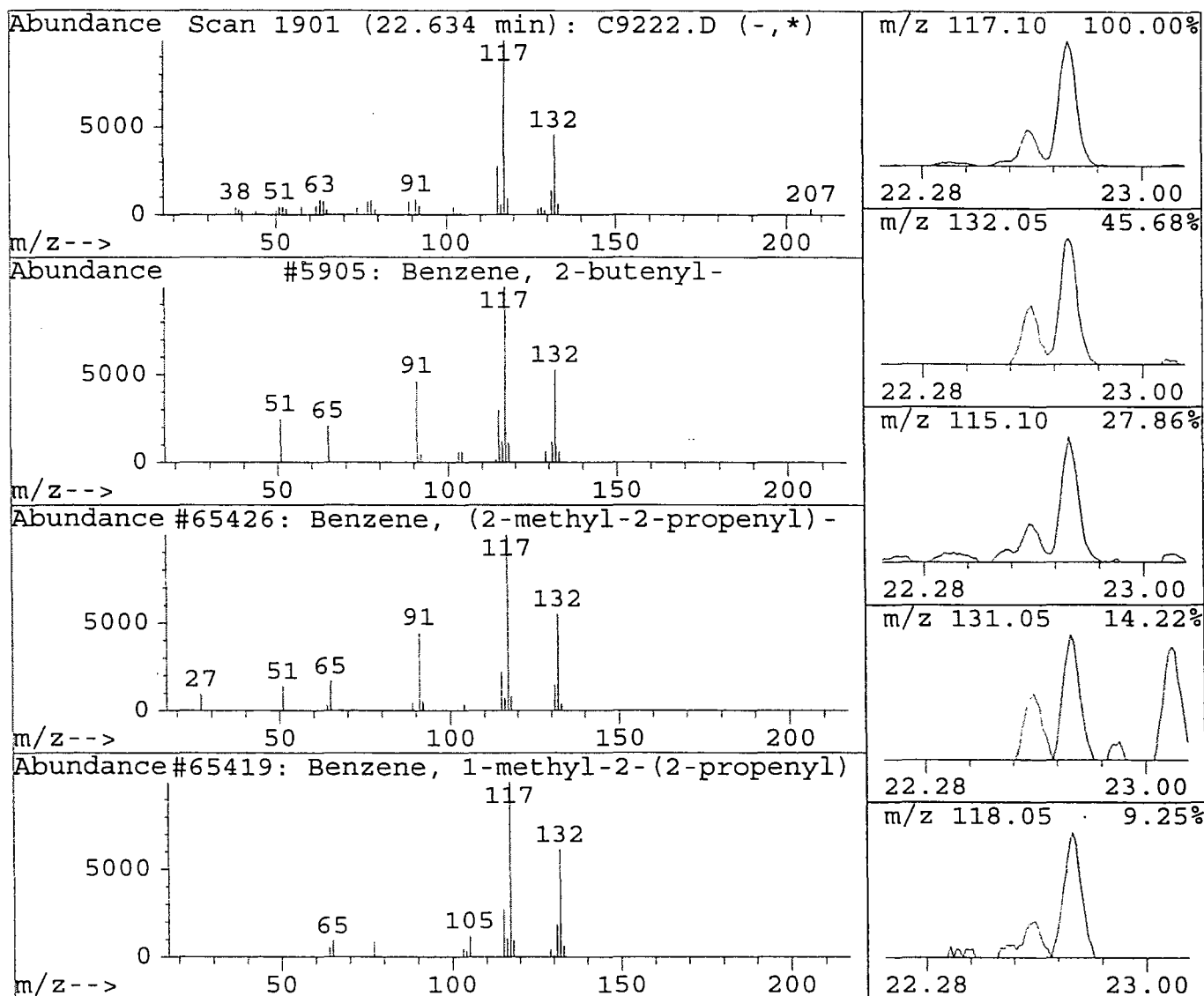
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 Sample : 9536412  
 Misc : 25 ML

Vial: 9  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.63	0.93 ug/L	241937	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 2-butenyl-	5905	001560-06-1	86
2	Benzene, (2-methyl-2-propenyl)-	65426	003290-53-7	80
3	Benzene, 1-methyl-2-(2-propenyl)-	65419	001587-04-8	40
4	Benzene, 1-ethenyl-4-ethyl-	5889	003454-07-7	64
5	1H-Indene, 2,3-dihydro-2-methyl-	5876	000824-63-5	87



Library Search Compound Report

138

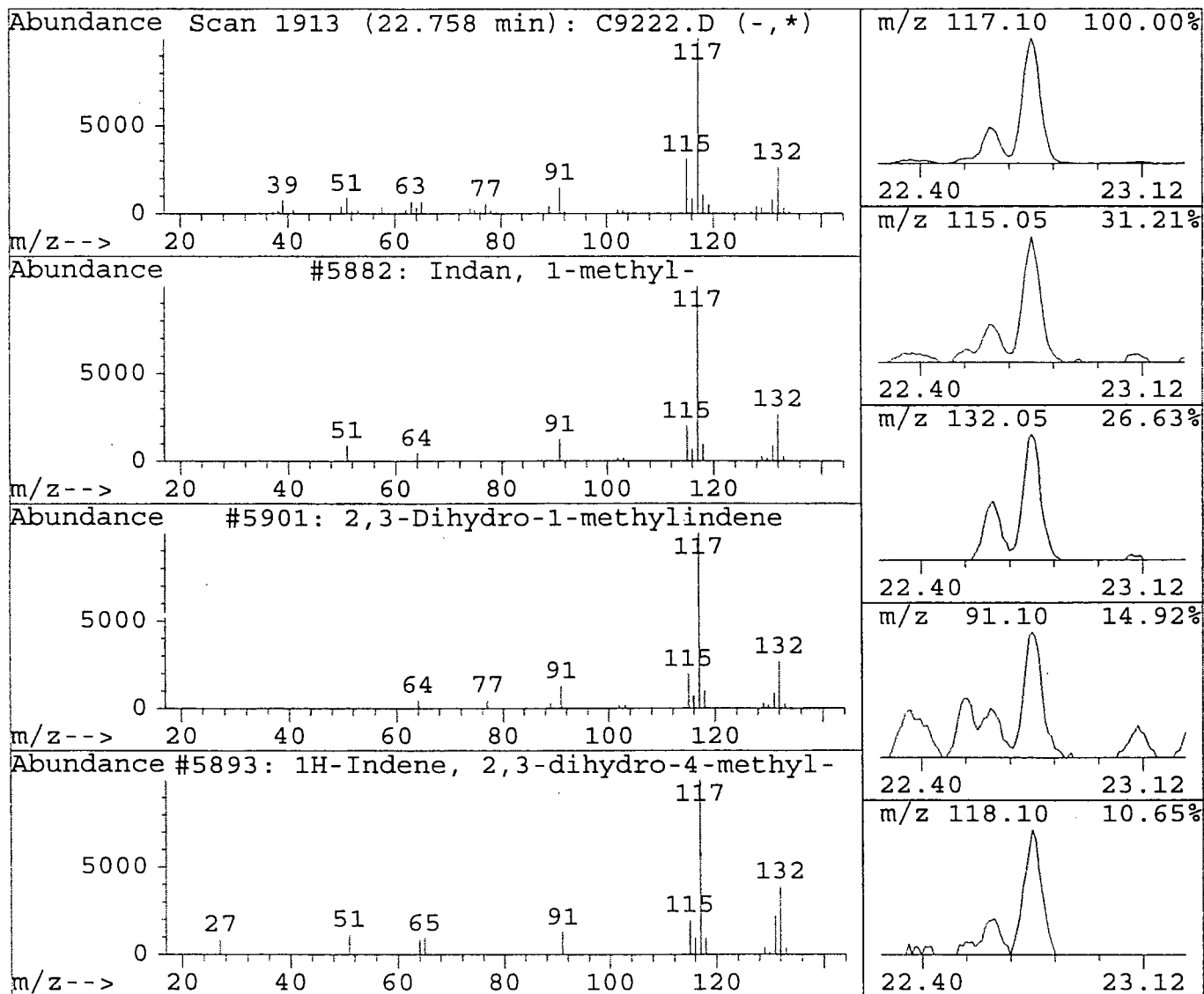
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 Sample : 9536412  
 Misc : 25 ML

Vial: 9  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.76	3.59 ug/L	937089	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Indan, 1-methyl-	5882	000767-58-8	87
2	2,3-Dihydro-1-methylindene	5901	027133-93-3	87
3	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	49
4	Benzene, 1-ethenyl-3-ethyl-, mixt.	36689	055319-72-7	47
5	Benzene, 1-ethenyl-4-ethyl-	5889	003454-07-7	47



Library Search Compound Report

139

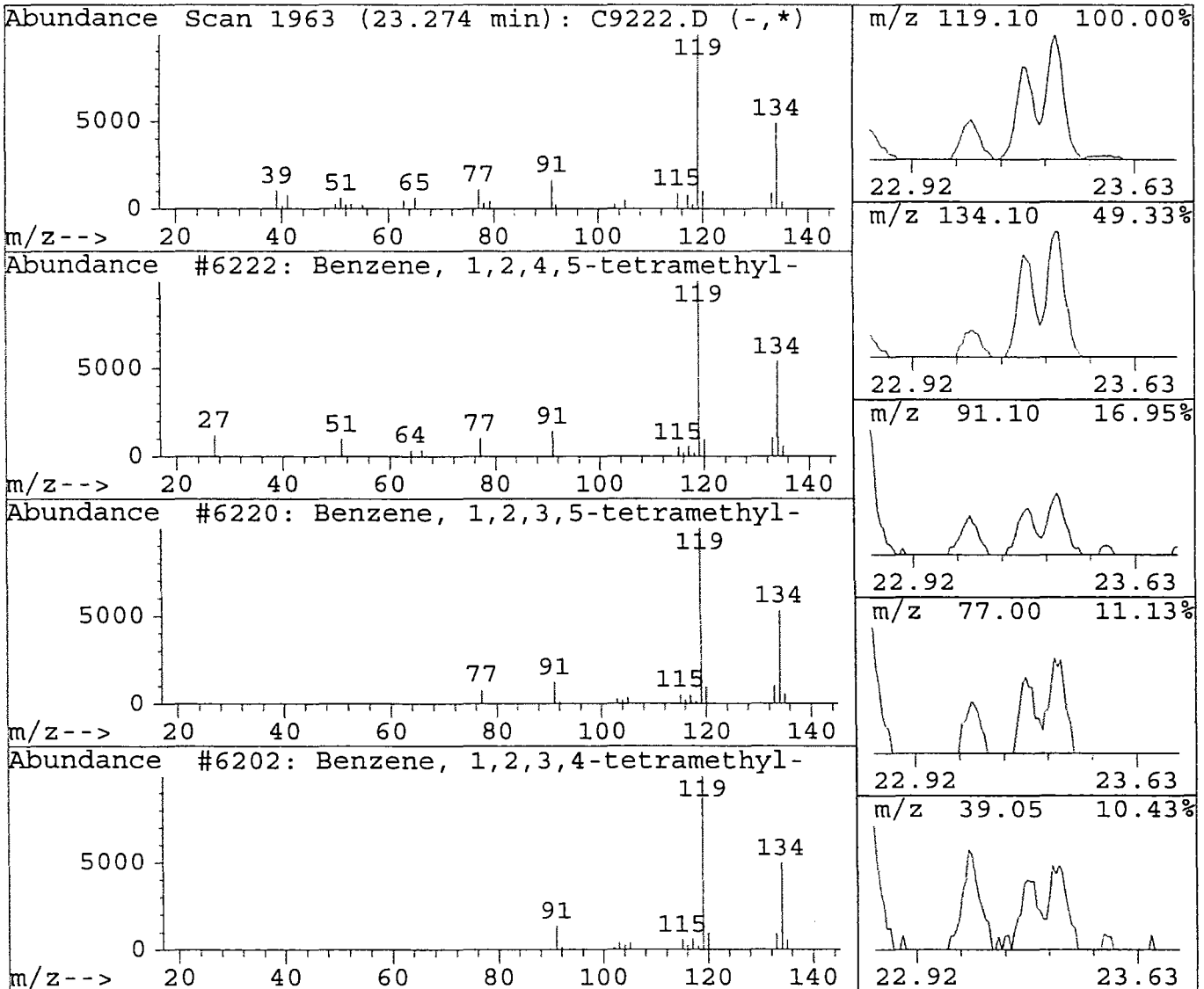
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 Acq On : 22 Aug 95 3:55 pm  
 Sample : 9536412  
 Misc : 25 ML

Vial: 9  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.27	0.91 ug/L	238189	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,4,5-tetramethyl-	6222	000095-93-2	64
2	Benzene, 1,2,3,5-tetramethyl-	6220	000527-53-7	90
3	Benzene, 1,2,3,4-tetramethyl-	6202	000488-23-3	91
4	Benzene, 1-ethyl-3,5-dimethyl-	65554	000934-74-7	91
5	Benzene, 2-ethyl-1,4-dimethyl-	65570	001758-88-9	91



Library Search Compound Report

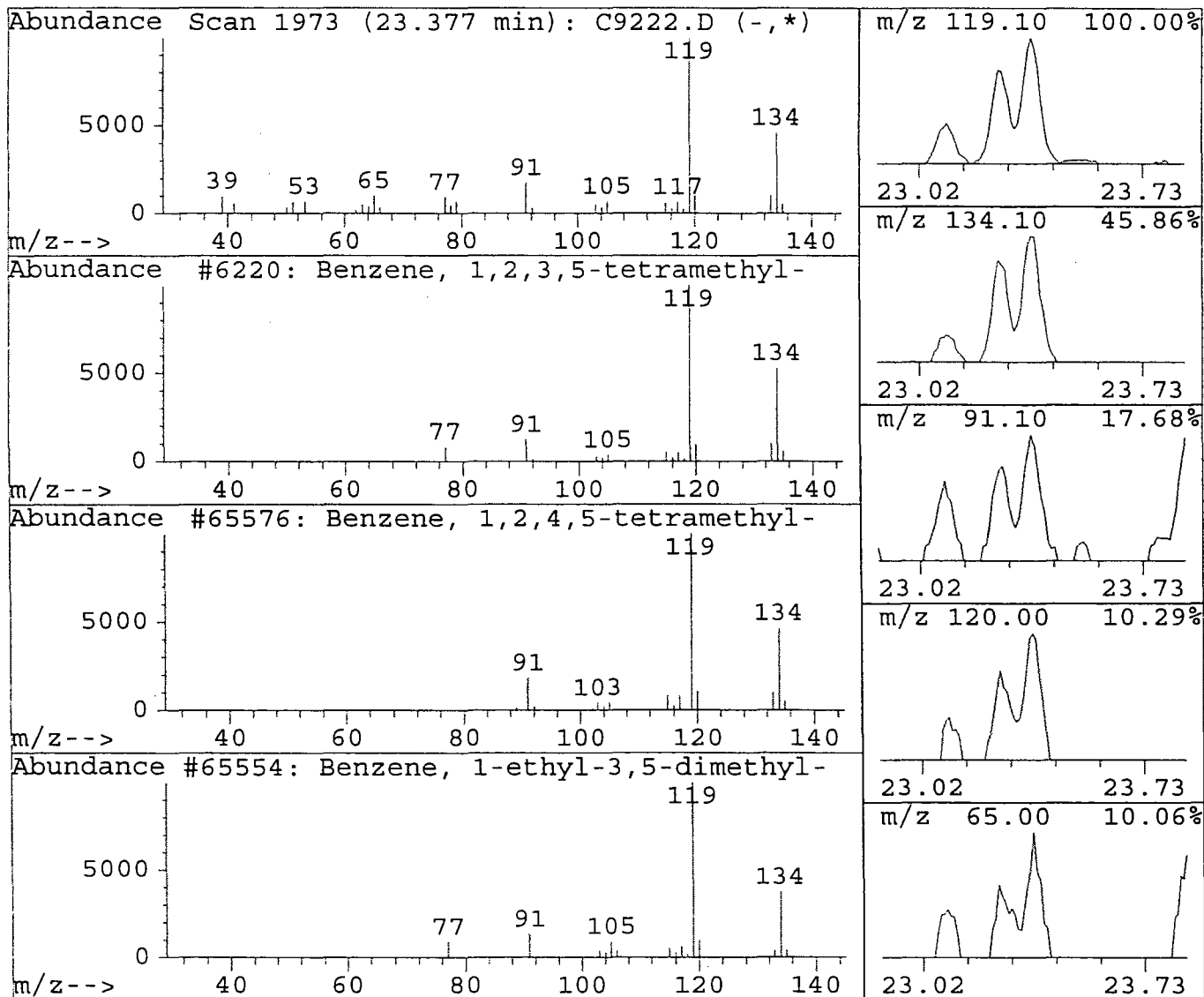
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 Acq On : 22 Aug 95 3:55 pm  
 Sample : 9536412  
 Misc : 25 ML

Vial: 9 **140**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.38	1.27 ug/L	330856	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,2,3,5-tetramethyl-	6220	000527-53-7	91
2	Benzene, 1,2,4,5-tetramethyl-	65576	000095-93-2	87
3	Benzene, 1-ethyl-3,5-dimethyl-	65554	000934-74-7	90
4	Benzene, 1,2,3,4-tetramethyl-	6202	000488-23-3	94
5	Benzene, 2-ethyl-1,4-dimethyl-	65570	001758-88-9	90



Library Search Compound Report

141

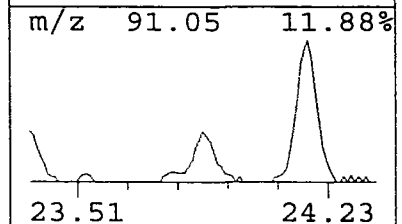
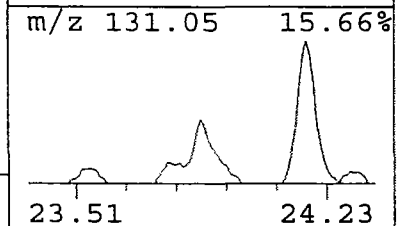
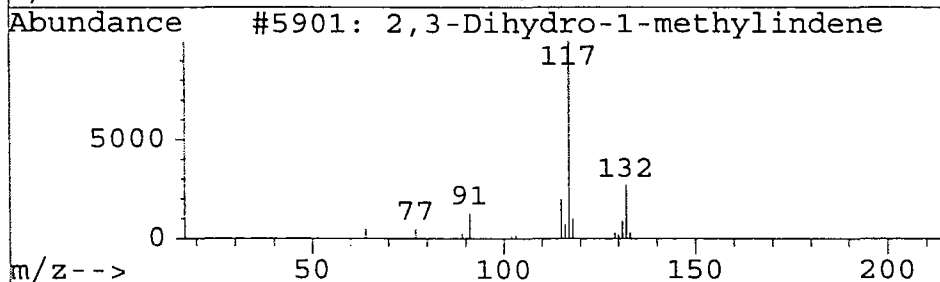
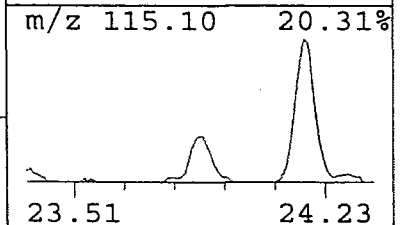
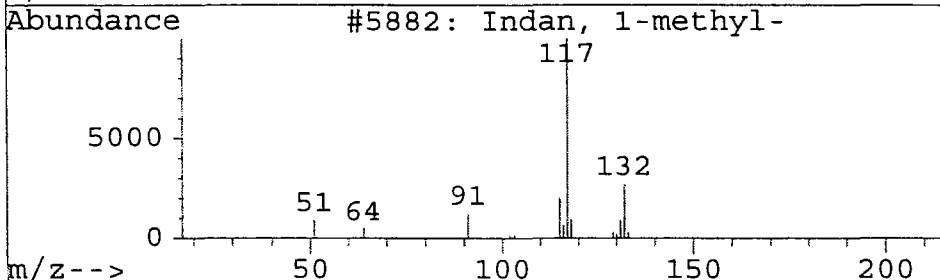
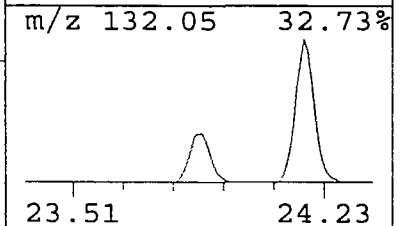
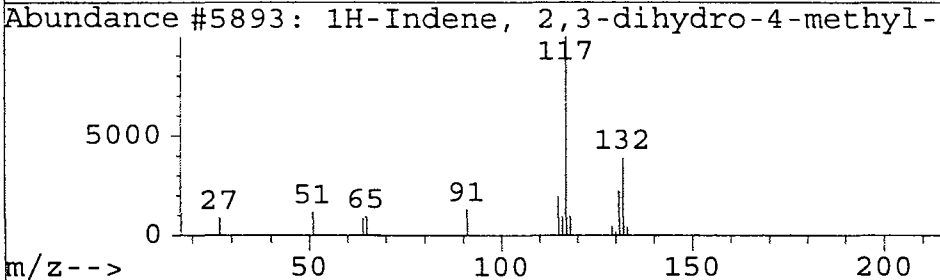
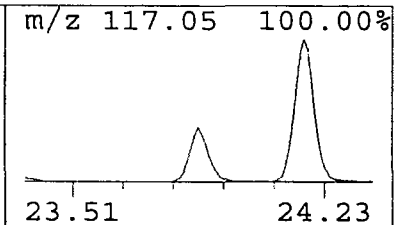
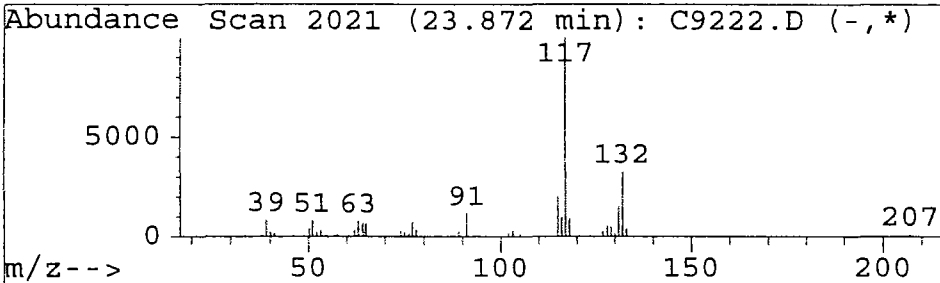
Data File : d:\hpchem\1\data\c9222.d  
 Acq On : 22 Aug 95 3:55 pm  
 Sample : 9536412  
 Misc : 25 ML

Vial: 9  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.87	1.63 ug/L	425404	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	97
2	Indan, 1-methyl-	5882	000767-58-8	95
3	2,3-Dihydro-1-methylindene	5901	027133-93-3	97
4	1H-Indene, 2,3-dihydro-5-methyl-	5885	000874-35-1	64
5	Benzene, (2-methyl-2-propenyl)-	5895	003290-53-7	47



Library Search Compound Report

142

Data File : d:\hpchem\1\data\c9222.d  
 Acq On : 22 Aug 95 3:55 pm  
 Sample : 9536412  
 Misc : 25 ML

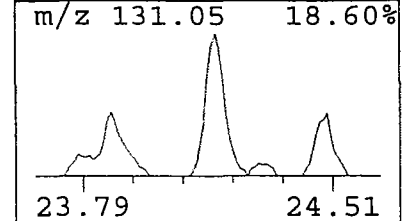
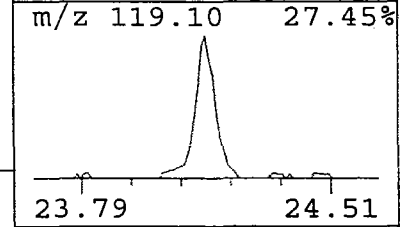
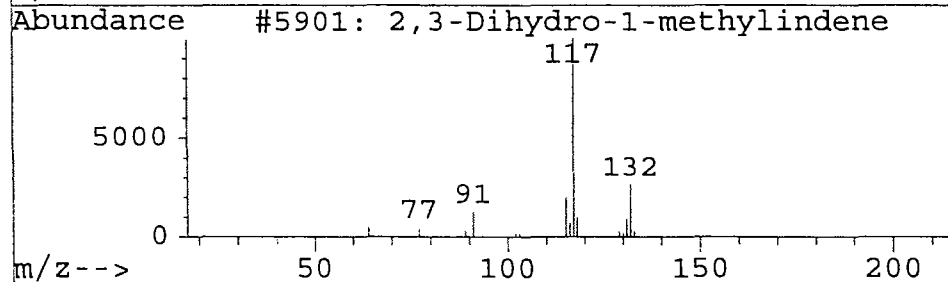
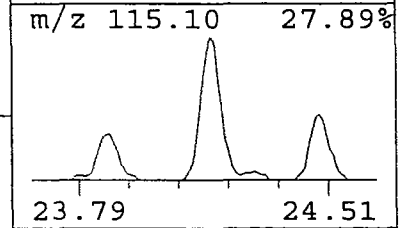
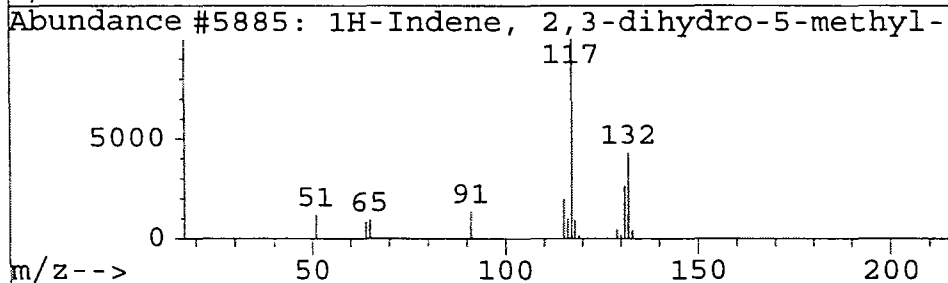
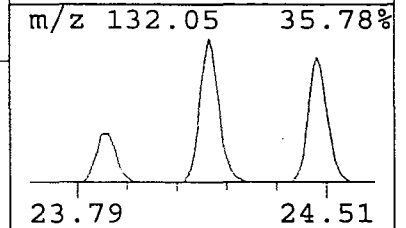
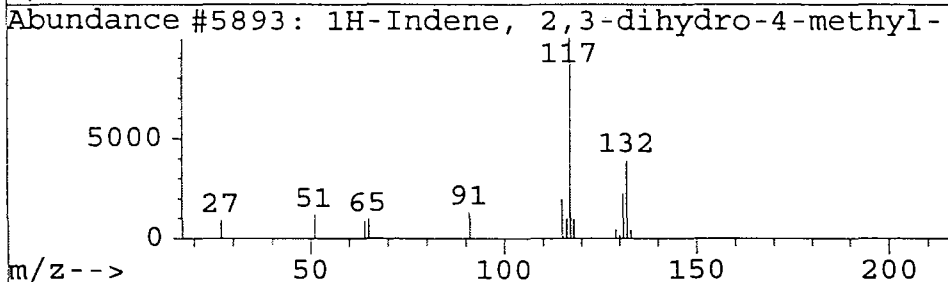
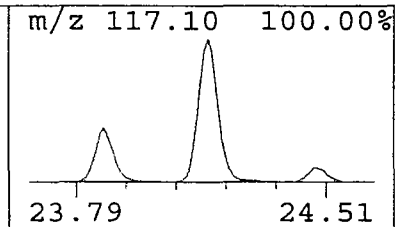
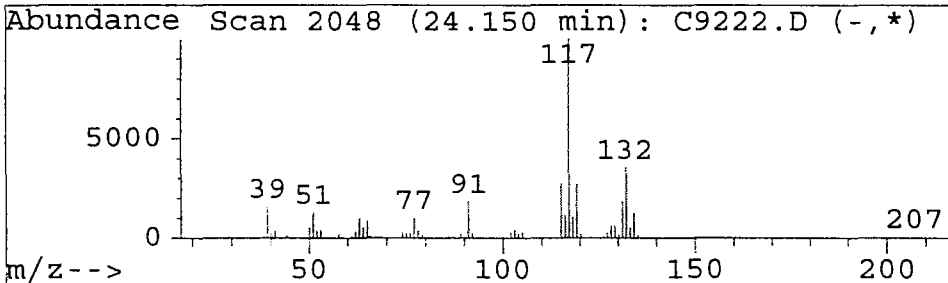
Vial: 9  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.15	0.85 ug/L	223258	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	55
2	1H-Indene, 2,3-dihydro-5-methyl-	5885	000874-35-1	55
3	2,3-Dihydro-1-methylindene	5901	027133-93-3	81
4	Benzene, 2-butenyl-	5905	001560-06-1	64
5	Indan, 1-methyl-	65418	000767-58-8	76





Library Search Compound Report

143

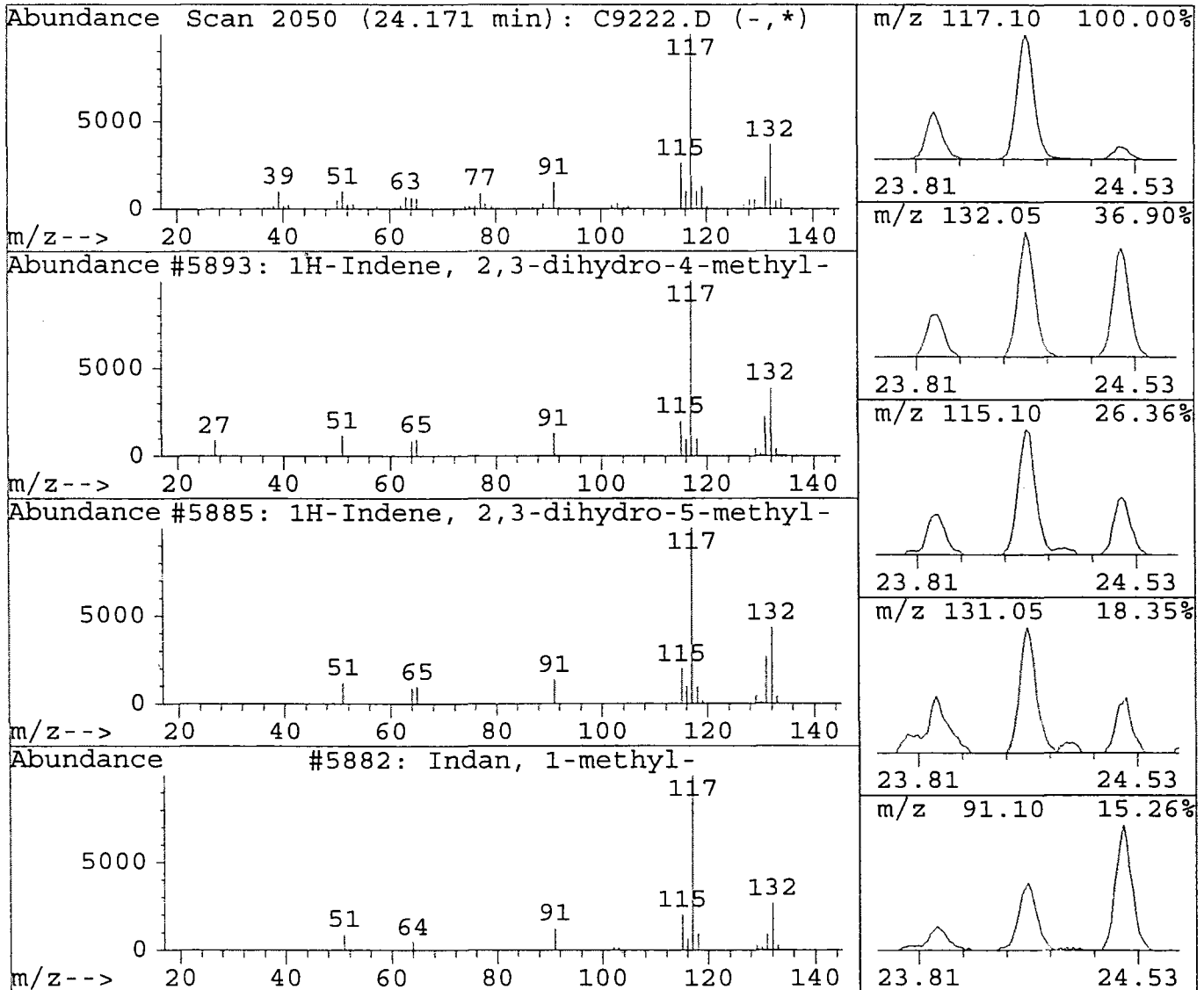
Data File : d:\hpchem\1\data\c9222.d  
 Acq On : 22 Aug 95 3:55 pm  
 Sample : 9536412  
 Misc : 25 ML

Vial: 9  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.17	4.40 ug/L	1149784	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	60
2	1H-Indene, 2,3-dihydro-5-methyl-	5885	000874-35-1	60
3	Indan, 1-methyl-	5882	000767-58-8	94
4	2,3-Dihydro-1-methylindene	5901	027133-93-3	80
5	Benzene, 1-ethenyl-3-ethyl-, mixt.	36689	055319-72-7	72



Library Search Compound Report

144

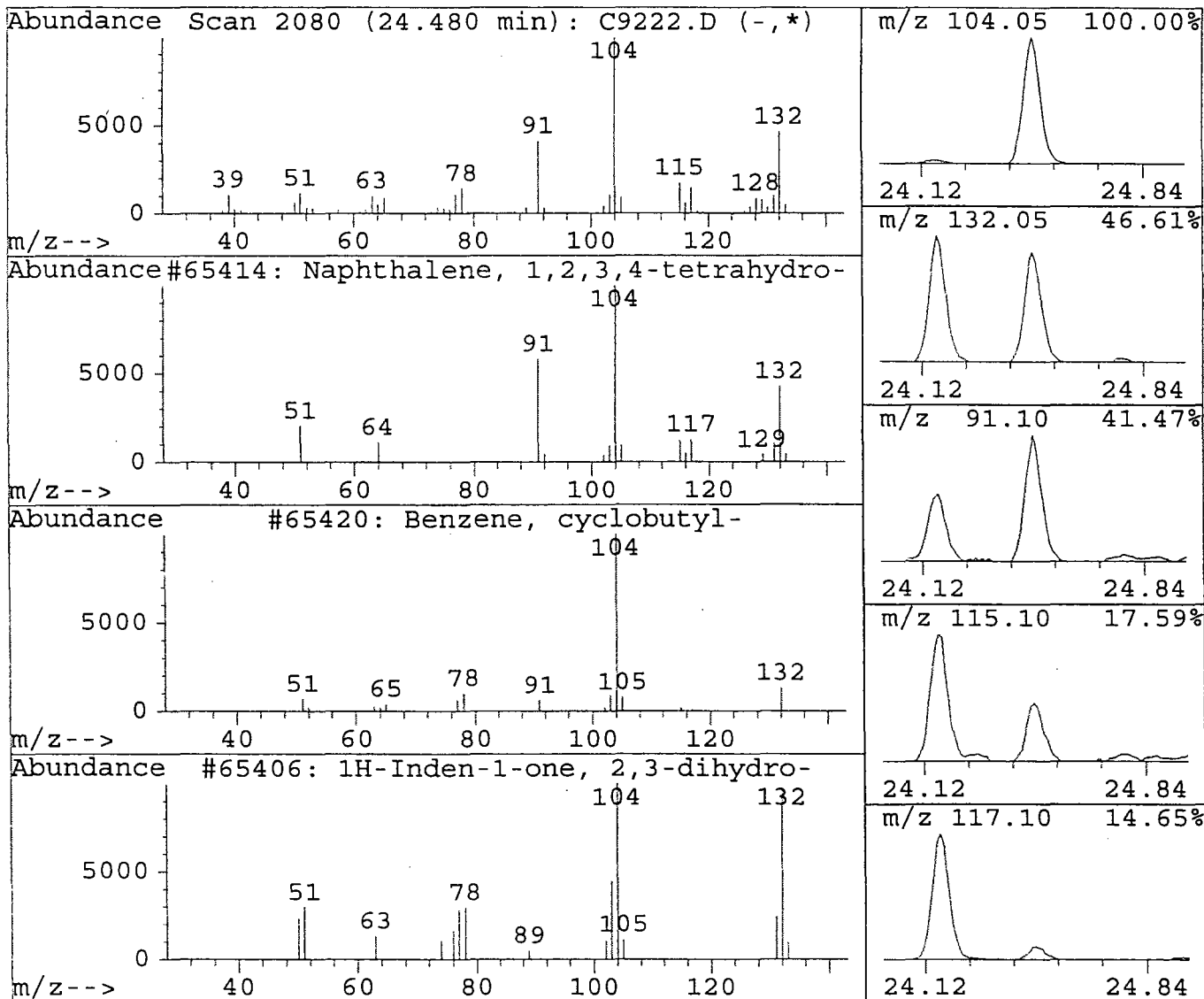
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 Acq On : 22 Aug 95 3:55 pm  
 Sample : 9536412  
 Misc : 25 ML

Vial: 9  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.48	3.88 ug/L	1012924	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Naphthalene, 1,2,3,4-tetrahydro-	65414	000119-64-2	90
2	Benzene, cyclobutyl-	65420	004392-30-7	43
3	1H-Inden-1-one, 2,3-dihydro-	65406	000083-33-0	43
4	Propanoic acid, 2-phenylethyl ester	68603	000122-70-3	23
5	Acetic acid, 2-phenylethyl ester	67813	000103-45-7	32



Library Search Compound Report

145

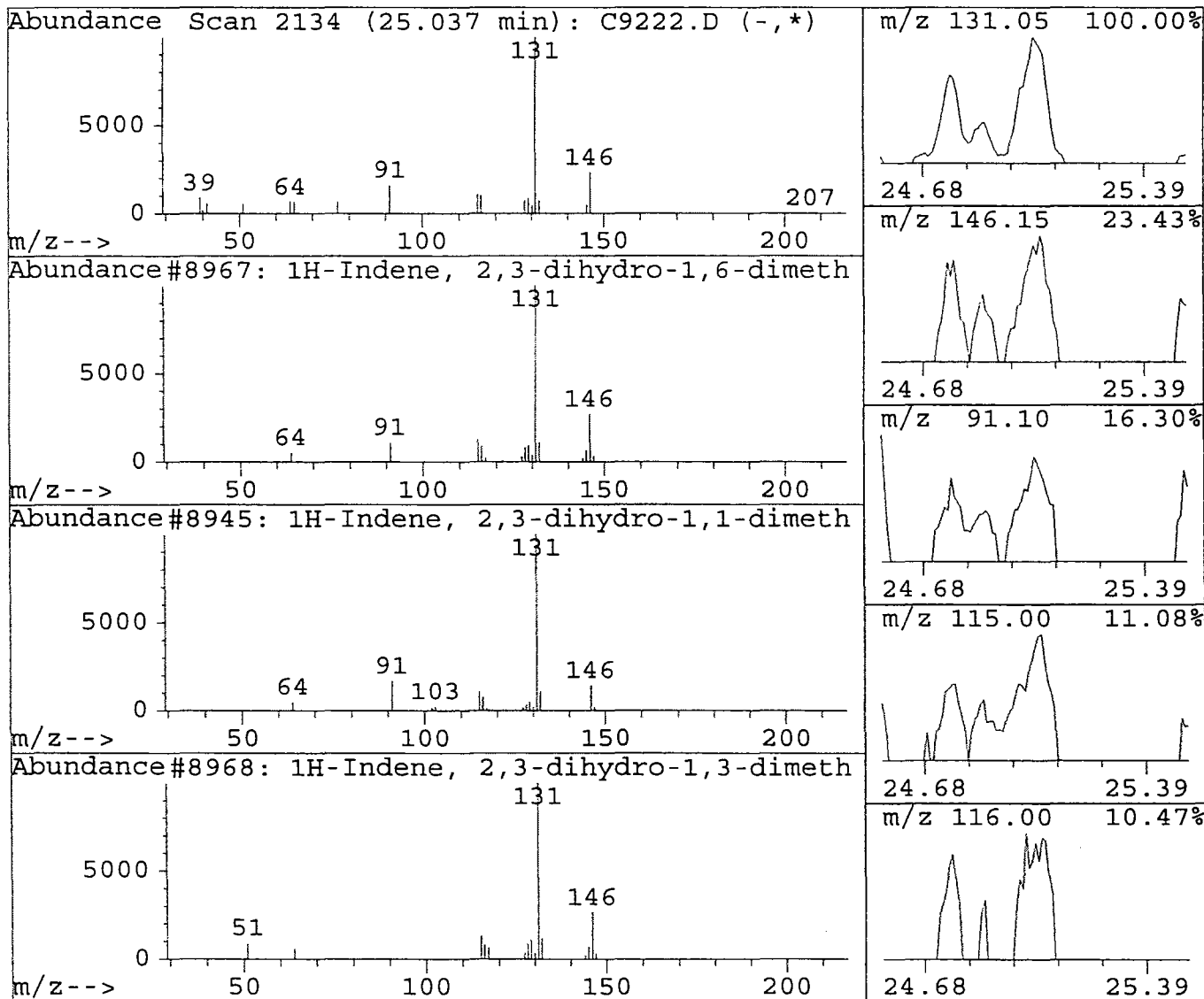
Data File : d:\hpchem\1\data\c9222.d  
 Acq On : 22 Aug 95 3:55 pm  
 Sample : 9536412  
 Misc : 25 ML

Vial: 9  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
25.04	0.69 ug/L	180240	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-1,6-dimethyl	8967	017059-48-2	58
2	1H-Indene, 2,3-dihydro-1,1-dimethyl	8945	004912-92-9	56
3	1H-Indene, 2,3-dihydro-1,3-dimethyl	8968	004175-53-5	58
4	1H-Indene, 2,3-dihydro-4,6-dimethyl	8950	001685-82-1	72
5	2-Oxazolidinethione, 4,4-dimethyl-	5592	054013-55-7	4



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

146

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910.2

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 4

Matrix: (soil/water) WATER

Lab Sample ID: 9536413V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9223.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	.50		U
74-87-3	Chloromethane	.50		U
75-01-4	Vinyl chloride	.50		U
74-83-9	Bromomethane	.50		U
75-00-3	Chloroethane	.50		U
75-69-4	Trichlorofluoromethane	.50		U
75-35-4	1,1-Dichloroethene	.50		U
75-09-2	Methylene chloride	1.3		B
156-60-65	trans-1,2-Dichloroethene	.50		U
75-34-3	1,1-Dichloroethane	.50		U
594-20-7	2,2-Dichloropropane	.50		U
156-59-2	cis-1,2-Dichloroethene	.50		U
74-97-1	Bromochloromethane	.50		U
67-66-3	Chloroform	.50		U
71-55-6	1,1,1-Trichloroethane	.50		U
56-23-1	Carbon tetrachloride	.50		U
563-58-6	1,1-Dichloropropene	.50		U
71-43-2	Benzene	.50		U
107-06-2	1,2-Dichloroethane	.50		U
79-01-6	Trichloroethene	.50		U
78-87-1	1,2-Dichloropropane	.50		U
74-95-3	Dibromomethane	.50		U
75-27-4	Bromodichloromethane	.50		U
10061-01-1	cis-1,3-Dichloropropene	.50		U
108-88-3	Toluene	.50		U
10061-02-6	trans-1,3-Dichloropropene	.50		U
79-00-1	1,1,2-Trichloroethane	.50		U
127-18-4	Tetrachloroethene	.50		U
142-28-9	1,3-Dichloropropane	.50		U
124-48-1	Dibromochloromethane	.50		U
106-93-4	1,2-Dibromomethane	.50		U
108-90-7	Chlorobenzene	.50		U
630-20-6	1,1,1,2-Tetrachloroethane	.50		U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

147

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910-2

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 4

Matrix: (soil/water) WATER

Lab Sample ID: 9536413V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9223.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
100-41-4	Ethylbenzene		.50	U
1330-29-7	Xylene (total)		.50	U
100-42-1	Styrene		.50	U
75-25-2	Bromoform		.50	U
98-82-8	Isopropylbenzene		.50	U
108-86-1	Bromobenzene		.50	U
79-34-1	1,1,2,2-Tetrachloroethane		.50	U
96-18-4	1,2,3-Trichloropropane		.50	U
103-65-1	n-Propylbenzene		.50	U
95-49-8	2-Chlorotoluene		.50	U
106-43-4	4-Chlorotoluene		.50	U
108-67-8	1,3,5-Trimethylbenzene		.50	U
98-06-6	tert-Butylbenzene		.50	U
95-63-6	1,2,4-Trimethylbenzene		.50	U
135-98-8	sec-Butylbenzene		.50	U
541-73-1	1,3-Dichlorobenzene		.50	U
99-87-6	4-Isopropyltoluene		.50	U
106-46-7	1,4-Dichlorobenzene		.50	U
95-50-1	1,2-Dichlorobenzene		.50	U
104-51-8	n-Butylbenzene		.50	U
96-12-8	1,2-Dibromo-3-chloropropane		.50	U
120-82-1	1,2,4-Trichlorobenzene		.50	U
87-68-3	Hexachlorobutadiene		.50	U
91-20-3	Naphthalene		.50	U
87-61-6	1,2,3-Trichlorobenzene		.50	U
1634-04-4	Methy-tertiary butyl ether		.50	U
75-65-0	tertiary-Butyl alcohol		2.0	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

1910-2

148

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: 2567 NJDEP MW#: 4

Matrix: (soil/water) WATER Lab Sample ID: 9536413V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9223.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units:

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

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c9223.d  
 Acq On : 22 Aug 95 4:38 pm  
 Sample : 9536413  
 Misc : 25 ML  
 Quant Time: Aug 23 9:30 1995

Vial: 10 **149**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.81	96	562847	5.00	ug/L	0.03
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.09	95	316063	5.00	ug/L	100.04%
57) 1,2-Dichlorobenzene-d4	21.87	152	201658	5.30	ug/L	105.98%
Target Compounds						Qvalue
9) Methylene chloride	7.35	84	36267	1.26	ug/L	95

(#) = qualifier out of range (m) = manual integration

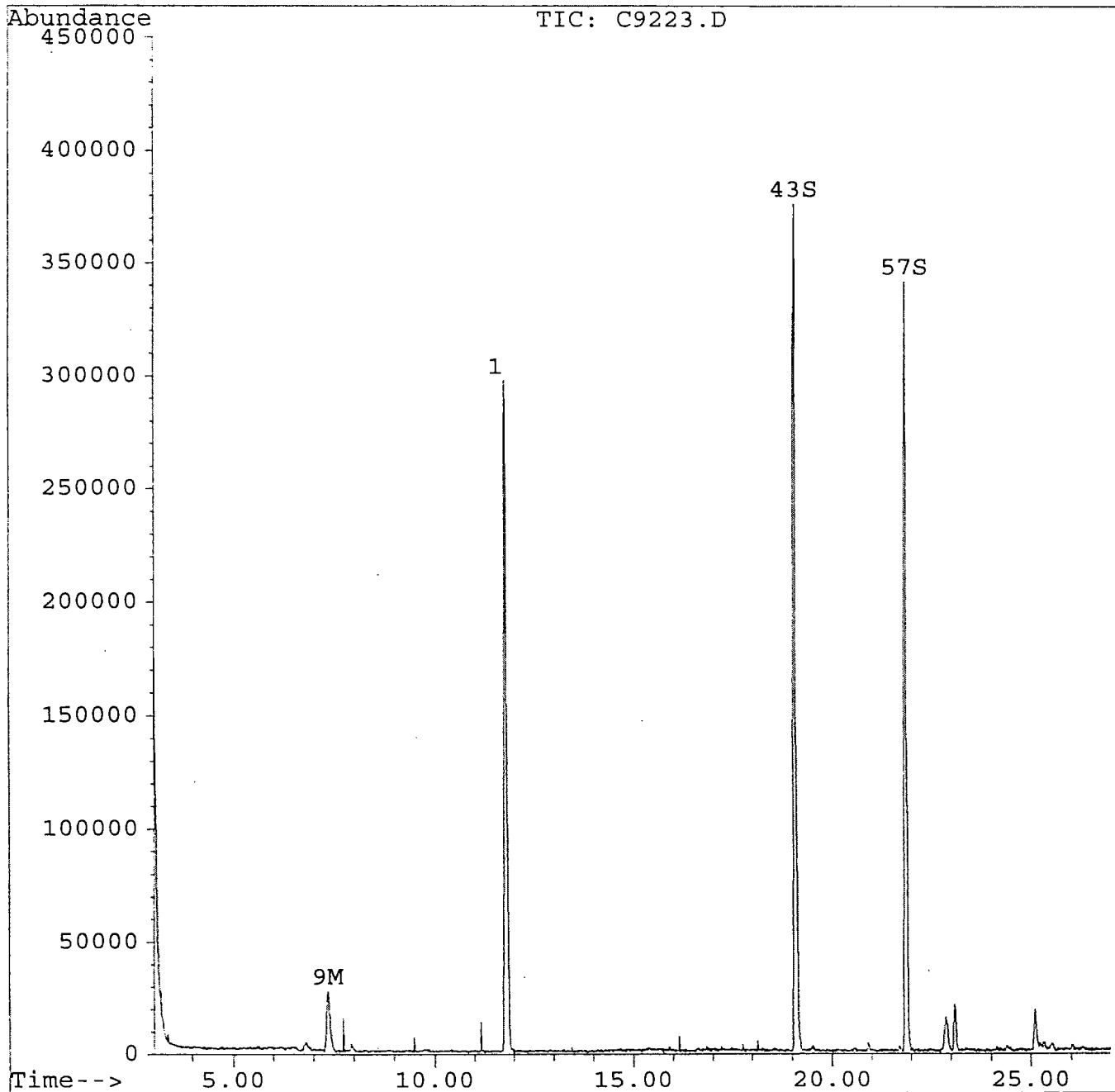
Quantitation Report

150

Data File : d:\hpchem\1\data\c9223.d  
Acq On : 22 Aug 95 4:38 pm  
Sample : 9536413  
Misc : 25 ML  
Quant Time: Aug 23 9:30 1995

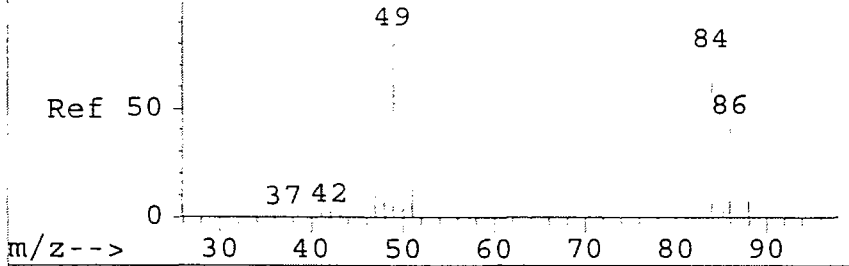
Vial: 10  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration





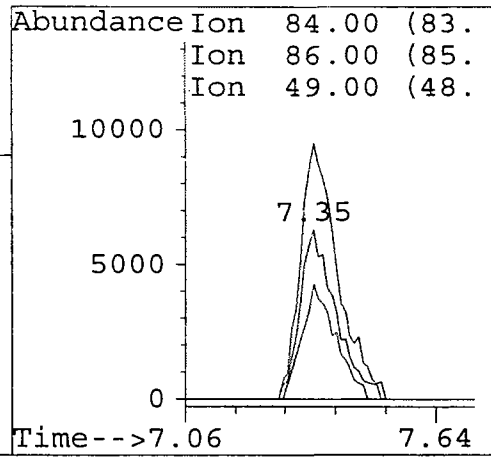
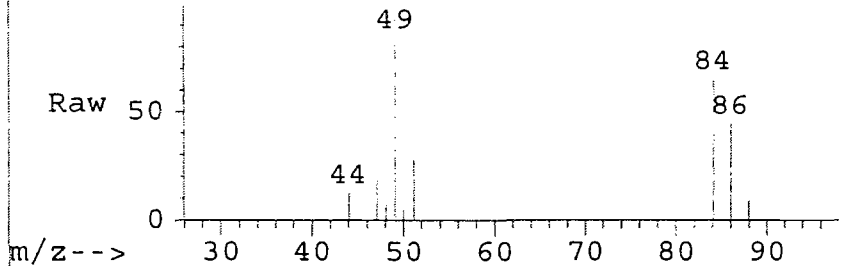
Abundance Scan 418 (7.345 min): C5082.D (-, \*



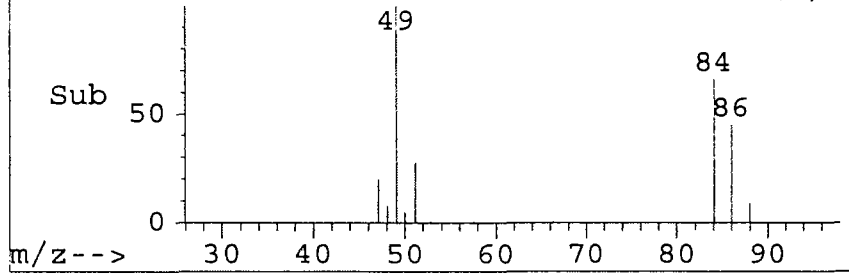
#9  
 Methylene chloride **151**  
 Concen: 1.26 ug/L  
 RT: 7.35 min Scan# 419  
 Delta R.T. 0.00 min  
 Lab File: c9223.d  
 Acq: 22 Aug 95 4:38 pm

Tgt Ion	Ratio	Lower	Upper
84	100		
86	67.9	45.5	85.5
49	150.8	124.4	164.4
0	0.0	0.0	0.0

Abundance Scan 419 (7.355 min): C9223.D (\*)



Abundance Scan 419 (7.355 min): C9223.D (-, \*



Library Search Compound Report

152

Data File : d:\hpchem\1\data\c9223.d  
Acq On : 22 Aug 95 4:38 pm  
Sample : 9536413  
Misc : 25 ML

Vial: 10  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : NBS75K.L

No Library Search Compounds Detected

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

153

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910.3

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 1

Matrix: (soil/water) WATER

Lab Sample ID: 9536414V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9224.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane		.50	U
74-87-3	Chloromethane		.50	U
75-01-4	Vinyl chloride		.50	U
74-83-9	Bromomethane		.50	U
75-00-3	Chloroethane		.50	U
75-69-4	Trichlorofluoromethane		.50	U
75-35-4	1,1-Dichloroethene		.50	U
75-09-2	Methylene chloride		1.3	B
156-60-65	trans-1,2-Dichloroethene		.50	U
75-34-3	1,1-Dichloroethane		.50	U
594-20-7	2,2-Dichloropropane		.50	U
156-59-2	cis-1,2-Dichloroethene		.50	U
74-97-1	Bromochloromethane		.50	U
67-66-3	Chloroform		.50	U
71-55-6	1,1,1-Trichloroethane		.50	U
56-23-1	Carbon tetrachloride		.50	U
563-58-6	1,1-Dichloropropene		.50	U
71-43-2	Benzene		.50	U
107-06-2	1,2-Dichloroethane		.50	U
79-01-6	Trichloroethene		.50	U
78-87-1	1,2-Dichloropropane		.50	U
74-95-3	Dibromomethane		.50	U
75-27-4	Bromodichloromethane		.50	U
10061-01-1	cis-1,3-Dichloropropene		.50	U
108-88-3	Toluene		.50	U
10061-02-6	trans-1,3-Dichloropropene		.50	U
79-00-1	1,1,2-Trichloroethane		.50	U
127-18-4	Tetrachloroethene		.50	U
142-28-9	1,3-Dichloropropane		.50	U
124-48-1	Dibromochloromethane		.50	U
106-93-4	1,2-Dibromomethane		.50	U
108-90-7	Chlorobenzene		.50	U
630-20-6	1,1,1,2-Tetrachloroethane		.50	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

154

1910.3

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 1

Matrix: (soil/water) WATER

Lab Sample ID: 9536414V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9224.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	<u>ug/L</u>
			Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U
1634-04-4	Methy-tertiary butyl ether	29	
75-65-0	tertiary-Butyl alcohol	930	

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

1910.3

155

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: 2567 NJDEP MW#: 1

Matrix: (soil/water) WATER Lab Sample ID: 9536414V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9224.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units:

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

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown Hydrocarbon	21.70	1	J
2.	Unknown Hydrocarbon	23.10	1	J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c9224.d  
 Acq On : 22 Aug 95 5:16 pm  
 Sample : 9536414  
 Misc : 25 ML  
 Quant Time: Aug 23 9:31 1995

Vial: 11 **156**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.85	96	558250	5.00	ug/L	0.07
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.10	95	307590	4.91	ug/L	98.16%
57) 1,2-Dichlorobenzene-d4	21.88	152	201723	5.34	ug/L	106.89%
Target Compounds						Qvalue
9) Methylene chloride	7.40	84	37281	1.31	ug/L	94
65) Methyl-tert butyl ether	8.00	73	1159146	29.13	ug/L	97
66) tert-Butyl Alcohol	7.71	59	683199	1045.31	ug/L	100

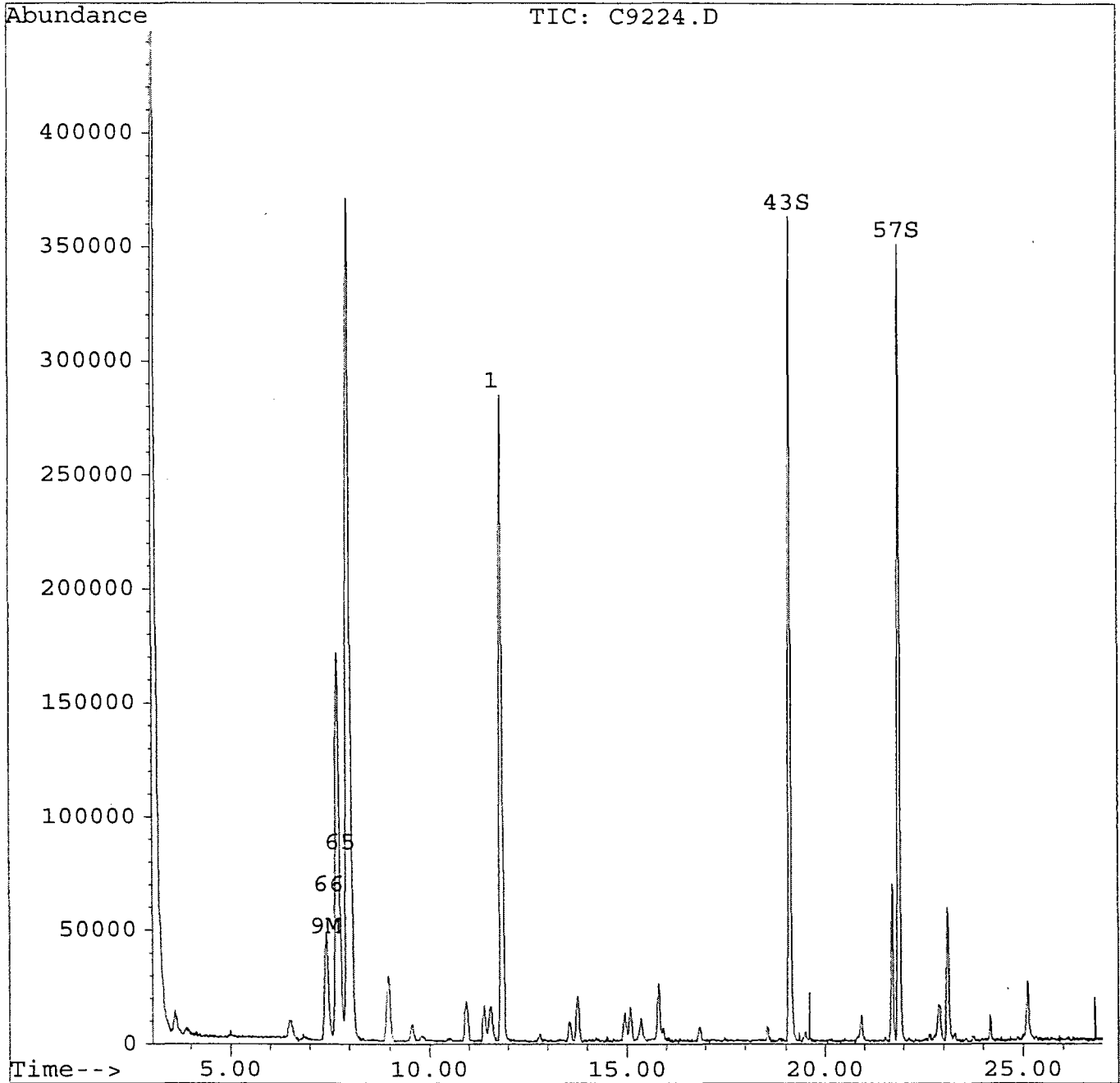
(#) = qualifier out of range (m) = manual integration

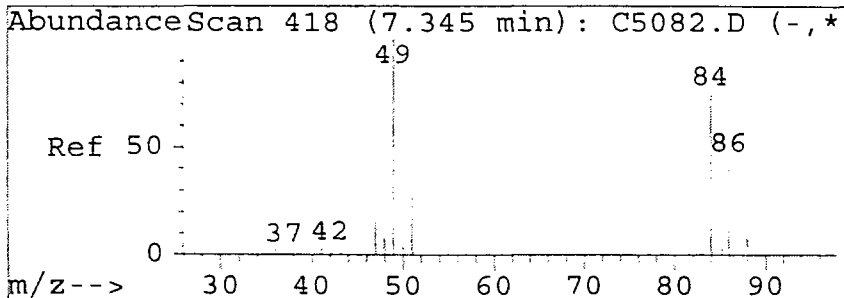
Quantitation Report

Data File : d:\hpchem\1\data\c9224.d  
Acq On : 22 Aug 95 5:16 pm  
Sample : 9536414  
Misc : 25 ML  
Quant Time: Aug 23 9:31 1995

Vial: 11 **157**  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

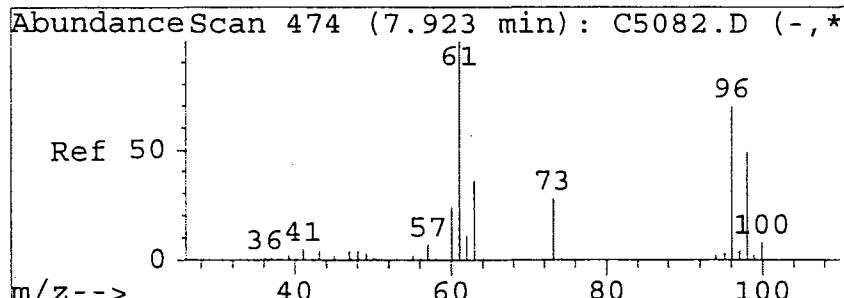
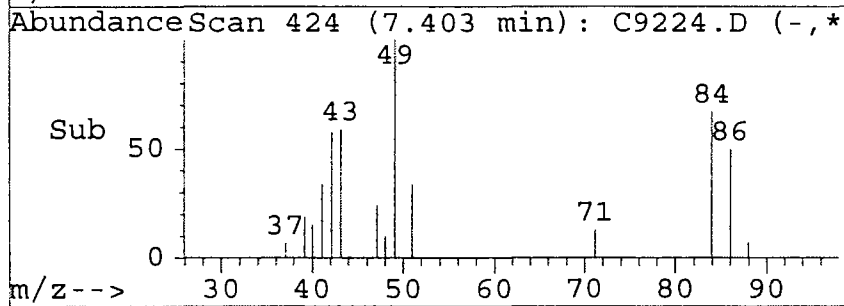
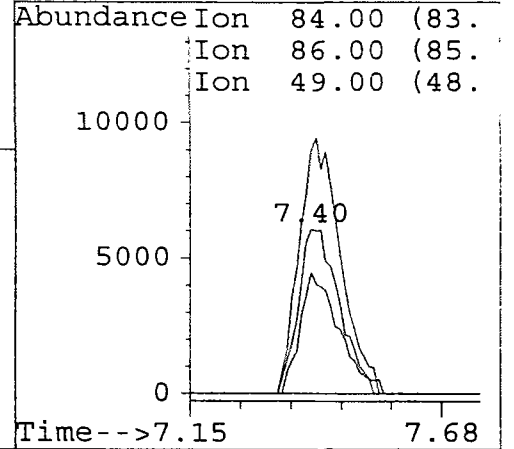
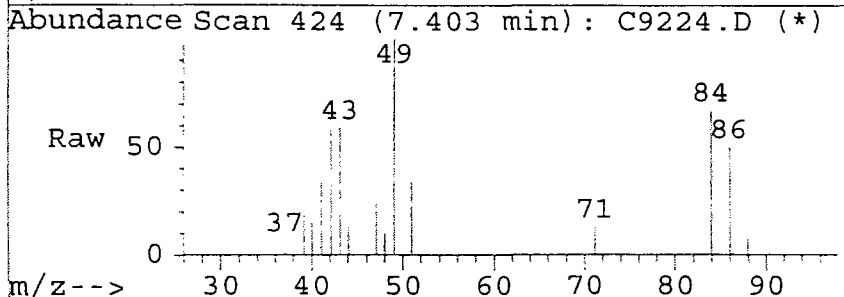
Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration





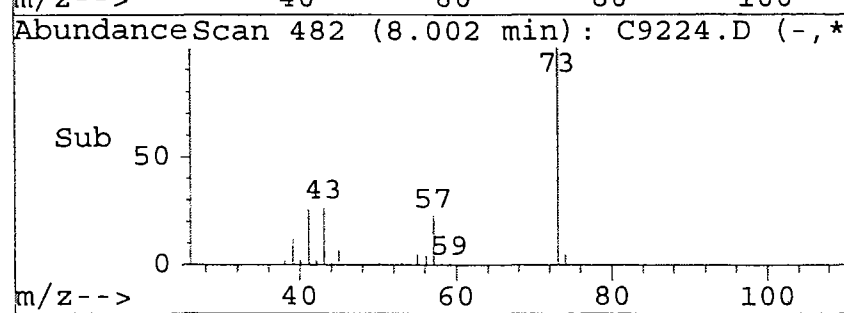
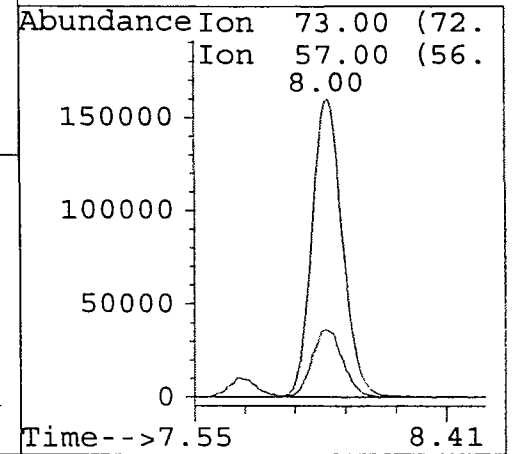
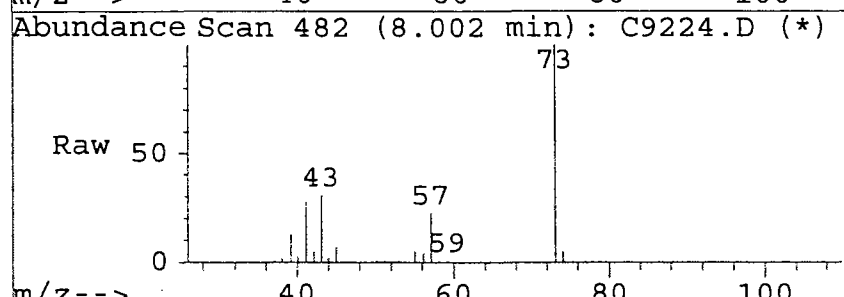
#9  
 Methylene chloride **158**  
 Concen: 1.31 ug/L  
 RT: 7.40 min Scan# 424  
 Delta R.T. 0.05 min  
 Lab File: c9224.d  
 Acq: 22 Aug 95 5:16 pm

Tgt Ion	Resp	Lower	Upper
84	37281		
84	100		
86	73.7	45.5	85.5
49	148.6	124.4	164.4
0	0.0	0.0	0.0

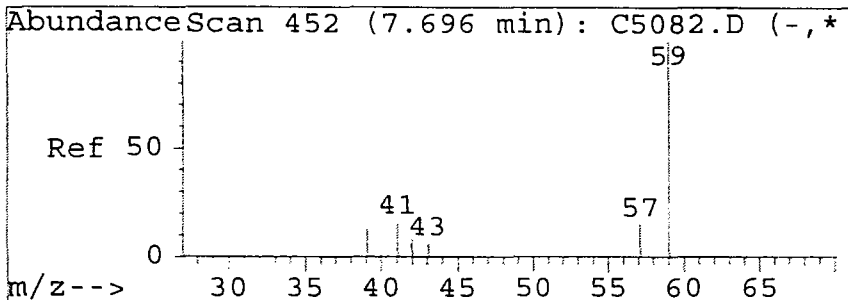


#65  
 Methyl-tert butyl ether  
 Concen: 29.13 ug/L  
 RT: 8.00 min Scan# 482  
 Delta R.T. 0.06 min  
 Lab File: c9224.d  
 Acq: 22 Aug 95 5:16 pm

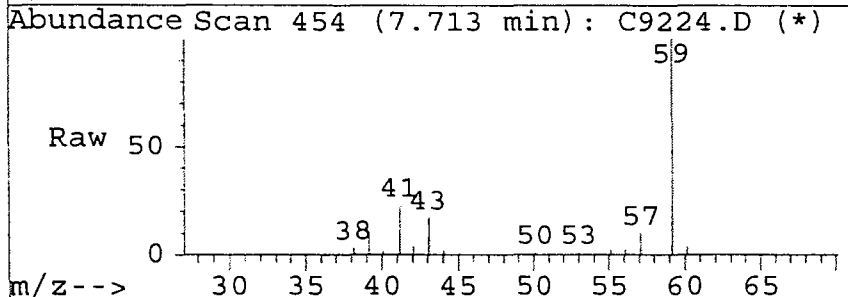
Tgt Ion	Resp	Lower	Upper
73	1159146		
73	100		
57	22.7	4.2	44.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0





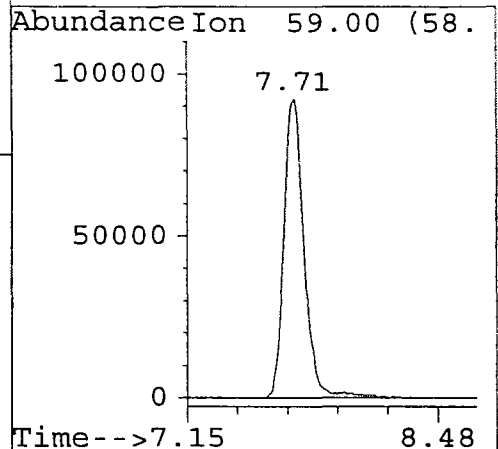
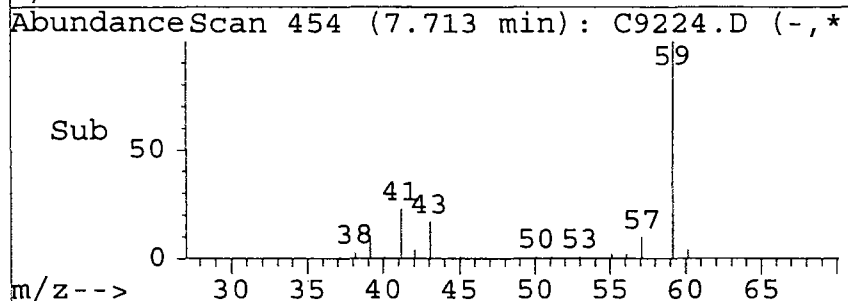


#66  
 tert-Butyl Alcohol  
 Concen: 1045.31 ug/L  
 RT: 7.71 min Scan# 454  
 Delta R.T. 0.05 min  
 Lab File: c9224.d  
 Acq: 22 Aug 95 5:16 pm



Tgt Ion: 59 Resp: 683199

Ion	Ratio	Lower	Upper
59	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Quantitation Report

Data File : d:\hpchem\1\data\c9258.d  
 Acq On : 24 Aug 95 1:05 pm  
 Sample : 9536414 DILUTION  
 Misc : 1.25 ML 1:20  
 Quant Time: Aug 25 9:12 1995

Vial: 7 **160**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.84	96	548619	5.00	ug/L	0.06
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.10	95	310418	5.04	ug/L	100.80%
57) 1,2-Dichlorobenzene-d4	21.89	152	196387	5.29	ug/L	105.89%
Target Compounds						Qvalue
66) tert-Butyl Alcohol	7.71	59	29855	46.48	ug/L	100

(#) = qualifier out of range (m) = manual integration

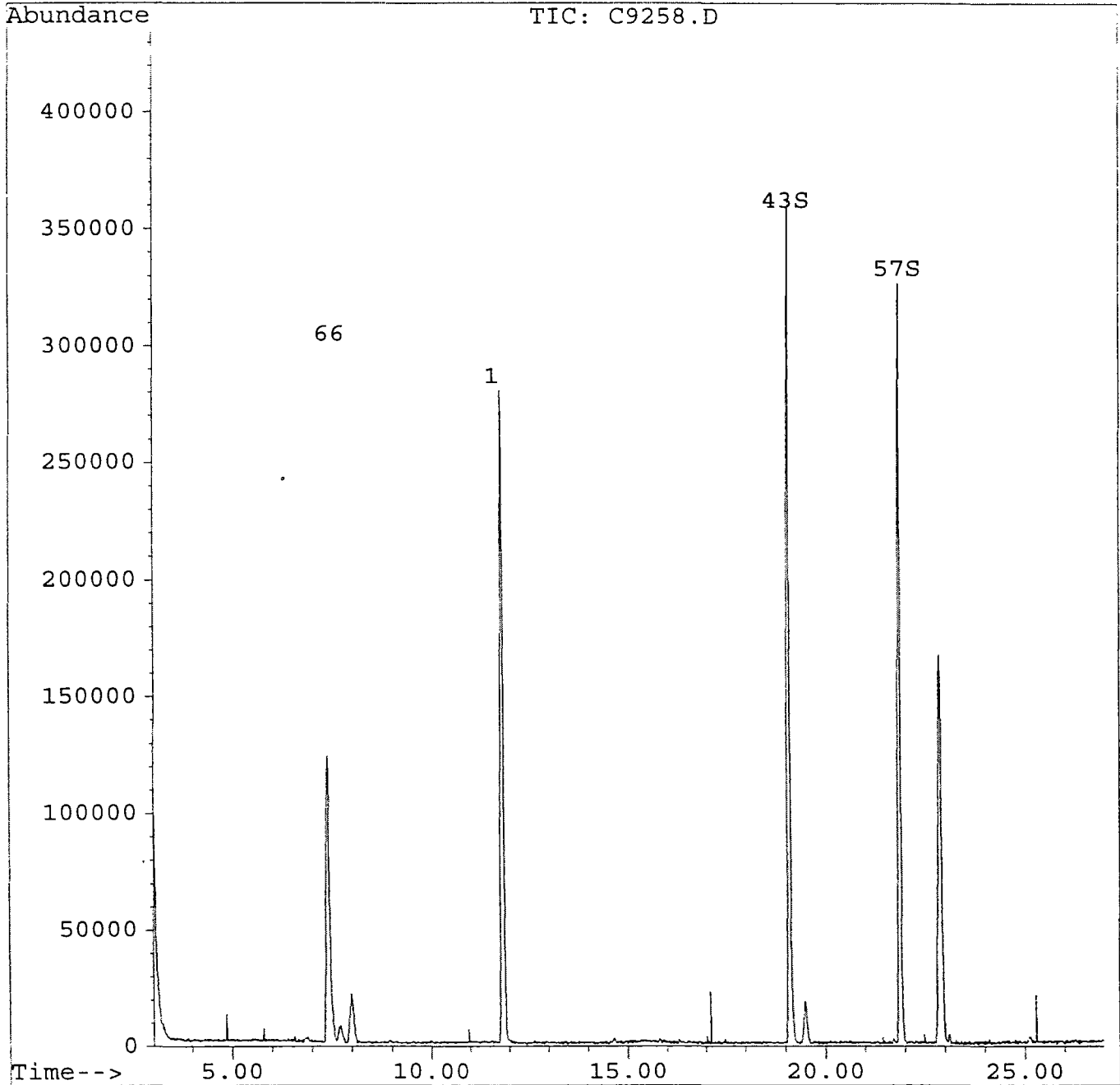
Quantitation Report

161

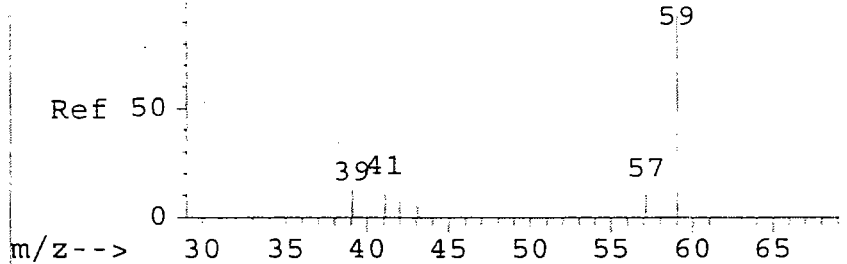
Data File : d:\hpchem\1\data\c9258.d  
Acq On : 24 Aug 95 1:05 pm  
Sample : 9536414 DILUTION  
Misc : 1.25 ML 1:20  
Quant Time: Aug 25 9:12 1995

Vial: 7  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



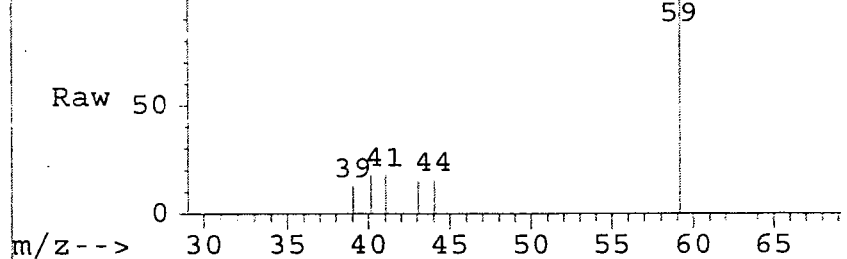
Abundance Scan 452 (7.696 min): C5082.D (-, \*



#66  
 tert-Butyl Alcohol  
 Concen: 46.48 ug/L  
 RT: 7.71 min Scan# 454  
 Delta R.T. 0.05 min  
 Lab File: c9258.d  
 Acq: 24 Aug 95 1:05 pm

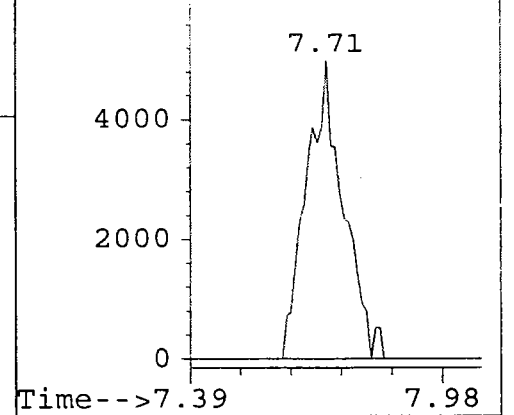
162

Abundance Scan 454 (7.714 min): C9258.D (\*)

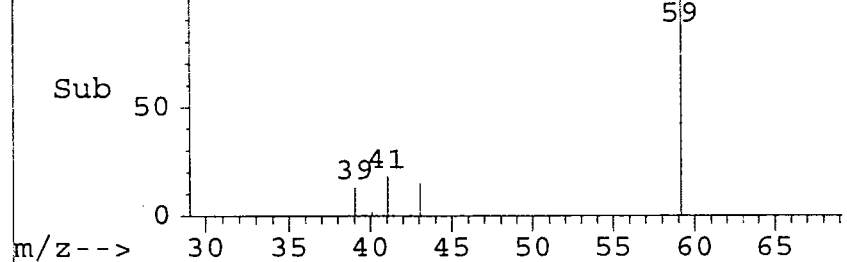


Tgt Ion	Resp	Lower	Upper
59	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

Abundance Ion 59.00 (58.



Abundance Scan 454 (7.714 min): C9258.D (-, \*



Library Search Compound Report

163

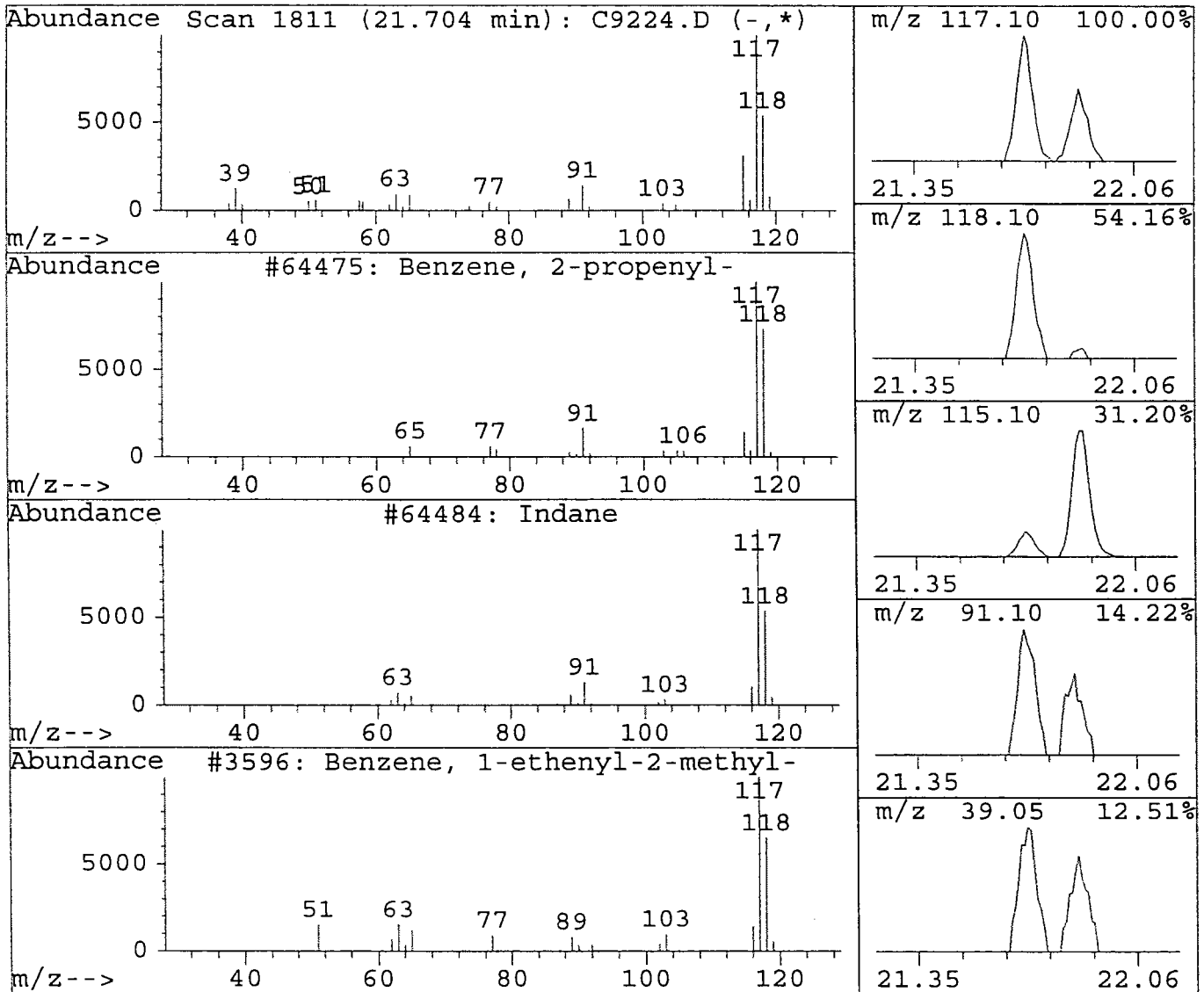
Data File : d:\hpchem\1\data\c9224.d  
 Acq On : 22 Aug 95 5:16 pm  
 Sample : 9536414  
 Misc : 25 ML

Vial: 11  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
21.70	0.83 ug/L	216631	Fluorobenzene	11.85

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 2-propenyl-	64475	000300-57-2	43
2	Indane	64484	000496-11-7	87
3	Benzene, 1-ethenyl-2-methyl-	3596	000611-15-4	32
4	Benzene, 1-ethenyl-4-methyl-	64480	000622-97-9	43
5	Benzene, cyclopropyl-	3592	000873-49-4	49



Library Search Compound Report

164

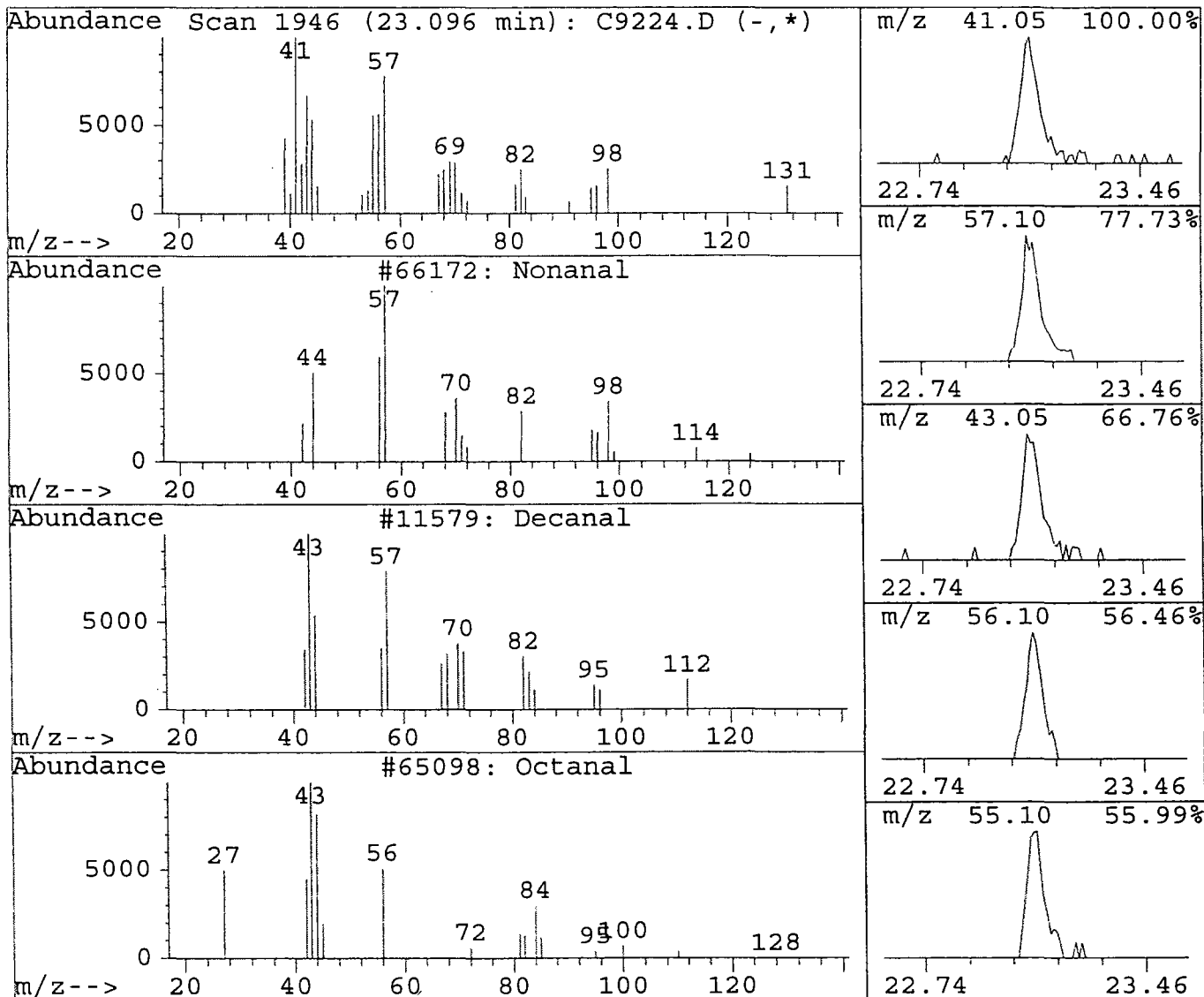
Data File : d:\hpchem\1\data\c9224.d  
 Acq On : 22 Aug 95 5:16 pm  
 Sample : 9536414  
 Misc : 25 ML

Vial: 11  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.10	0.56 ug/L	145021	Fluorobenzene	11.85

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonanal	66172	000124-19-6	80
2	Decanal	11579	000112-31-2	45
3	Octanal	65098	000124-13-0	14
4	1H-Pyrrole, 2,5-dihydro-1-nitroso-	1199	010552-94-0	22
5	Heptane, 2-chloro-	65491	001001-89-4	22



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

1910.4

165

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: 2567 NJDEP MW#: 3

Matrix: (soil/water) WATER Lab Sample ID: 9536415V

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C9240.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/23/95

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 5.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
75-71-8	Dichlorodifluoromethane	2.5	U
74-87-3	Chloromethane	2.5	U
75-01-4	Vinyl chloride	2.5	U
74-83-9	Bromomethane	2.5	U
75-00-3	Chloroethane	2.5	U
75-69-4	Trichlorofluoromethane	2.5	U
75-35-4	1,1-Dichloroethene	2.5	U
75-09-2	Methylene chloride	25	B
156-60-65	trans-1,2-Dichloroethene	2.5	U
75-34-3	1,1-Dichloroethane	2.5	U
594-20-7	2,2-Dichloropropane	2.5	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
74-97-1	Bromochloromethane	2.5	U
67-66-3	Chloroform	2.5	U
71-55-6	1,1,1-Trichloroethane	2.5	U
56-23-1	Carbon tetrachloride	2.5	U
563-58-6	1,1-Dichloropropene	2.5	U
71-43-2	Benzene	89	
107-06-2	1,2-Dichloroethane	2.5	U
79-01-6	Trichloroethene	2.5	U
78-87-1	1,2-Dichloropropane	2.5	U
74-95-3	Dibromomethane	2.5	U
75-27-4	Bromodichloromethane	2.5	U
10061-01-1	cis-1,3-Dichloropropene	2.5	U
108-88-3	Toluene	2.5	U
10061-02-6	trans-1,3-Dichloropropene	2.5	U
79-00-1	1,1,2-Trichloroethane	2.5	U
127-18-4	Tetrachloroethene	2.5	U
142-28-9	1,3-Dichloropropane	2.5	U
124-48-1	Dibromochloromethane	2.5	U
106-93-4	1,2-Dibromomethane	2.5	U
108-90-7	Chlorobenzene	2.5	U
630-20-6	1,1,1,2-Tetrachloroethane	2.5	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

166

Lab Name: <u>EMSL ANALYTICAL</u>	Contract: <u>U.S. ARMY</u>	<i>1910.4</i>
Project No.: <u>FT. MONMOUTH NJ Bldg#: 2567</u>	NJDEP MW#: <u>3</u>	
Matrix: (soil/water) <u>WATER</u>	Lab Sample ID: <u>9536415V</u>	
Sample wt/vol: <u>5.0</u> (g/mL) <u>ML</u>	Lab File ID: <u>C9240.D</u>	
Level: (low/med) <u>LOW</u>	Date Received: <u>8/15/95</u>	
% Moisture: not dec. <u>NA</u>	Date Analyzed: <u>8/23/95</u>	
GC Column: <u>DB-624 x 75m</u>	ID: <u>0.53</u> (mm)	Dilution Factor: <u>5.0</u>

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg)	<u>ug/L</u>	Q
100-41-4	Ethylbenzene		8.4	
1330-29-7	Xylene (total)		360	
100-42-1	Styrene		2.5	U
75-25-2	Bromoform		2.5	U
98-82-8	Isopropylbenzene		30	
108-86-1	Bromobenzene		2.5	U
79-34-1	1,1,2,2-Tetrachloroethane		2.5	U
96-18-4	1,2,3-Trichloropropane		2.5	U
103-65-1	n-Propylbenzene		25	
95-49-8	2-Chlorotoluene		2.5	U
106-43-4	4-Chlorotoluene		2.5	U
108-67-8	1,3,5-Trimethylbenzene		38	
98-06-6	tert-Butylbenzene		2.5	U
95-63-6	1,2,4-Trimethylbenzene		33	
135-98-8	sec-Butylbenzene		2.5	U
541-73-1	1,3-Dichlorobenzene		2.5	U
99-87-6	4-Isopropyltoluene		2.5	U
106-46-7	1,4-Dichlorobenzene		2.5	U
95-50-1	1,2-Dichlorobenzene		2.5	U
104-51-8	n-Butylbenzene		2.5	U
96-12-8	1,2-Dibromo-3-chloropropane		2.5	U
120-82-1	1,2,4-Trichlorobenzene		2.5	U
87-68-3	Hexachlorobutadiene		2.5	U
91-20-3	Naphthalene		21	
87-61-6	1,2,3-Trichlorobenzene		2.5	U
1634-04-4	Methy-tertiary butyl ether		670	
75-65-0	tertiary-Butyl alcohol		10	U



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

1910.4

167

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: 2567 NJDEP MW#: 3

Matrix: (soil/water) WATER Lab Sample ID: 9536415V

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C9240.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/23/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 5.0

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

Number TICs found: 15 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown	4.96	21	J
2. 109-66-0	Pentane	5.54	5	J
3.	Unknown	7.48	7	J
4.	Unknown Hydrocarbon	9.66	43	J
5. 110-82-7	Cyclohexane	10.84	11	J
6.	Unknown Hydrocarbon	10.85	4	J
7.	Unknown	11.57	7	J
8.	Unknown Hydrocarbon	13.75	5	J
9. 611-14-3	Benzene, 1-ethyl-2-methyl-	19.73	28	J
10. 98-82-8	Benzene, (1-methylethyl)-	20.24	10	J
11. 95-36-3	1,2,4-Trimethylbenzene	21.32	54	J
12.	Unknown	21.69	82	J
13. 933-98-2	Benzene, 1-ethyl-2,3-dimethy	22.54	5	J
14.	Unknown	22.76	9	J
15.	Unknown	24.17	7	J
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c9240.d  
 Acq On : 23 Aug 95 4:31 pm  
 Sample : 9536415  
 Misc : 5 ML 1:5  
 Quant Time: Aug 24 8:54 1995

Vial: 8 **168**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.83	96	490334	5.00	ug/L	0.05
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.08	95	284587	5.17	ug/L	103.39%
57) 1,2-Dichlorobenzene-d4	21.87	152	182898	5.52	ug/L	110.34%
Target Compounds						Qvalue
9) Methylene chloride	7.40	84	125762	5.02	ug/L	95
21) Benzene	11.35	78	1468267	17.79	ug/L	100
37) Ethylbenzene	17.25	91	238376	1.69	ug/L	99
38) Xylene (para & meta)	17.47	106	3675315	71.67	ug/L	96
39) Xylene (Ortho)	18.17	106	62182	1.34	ug/L #	87
42) Isopropylbenzene	18.83	105	882449	5.95	ug/L	98
47) n-Propylbenzene	19.56	91	932372	4.95	ug/L	100
50) 1,3,5-Trimethylbenzene	19.88	105	870455	7.55	ug/L	99
52) 1,2,4-Trimethylbenzene	20.56	105	710864	6.64	ug/L	99
63) Naphthalene	25.32	128	127839	4.22	ug/L	100
65) Methyl-tert butyl ether	7.98	73	5152874	147.44	ug/L m	0

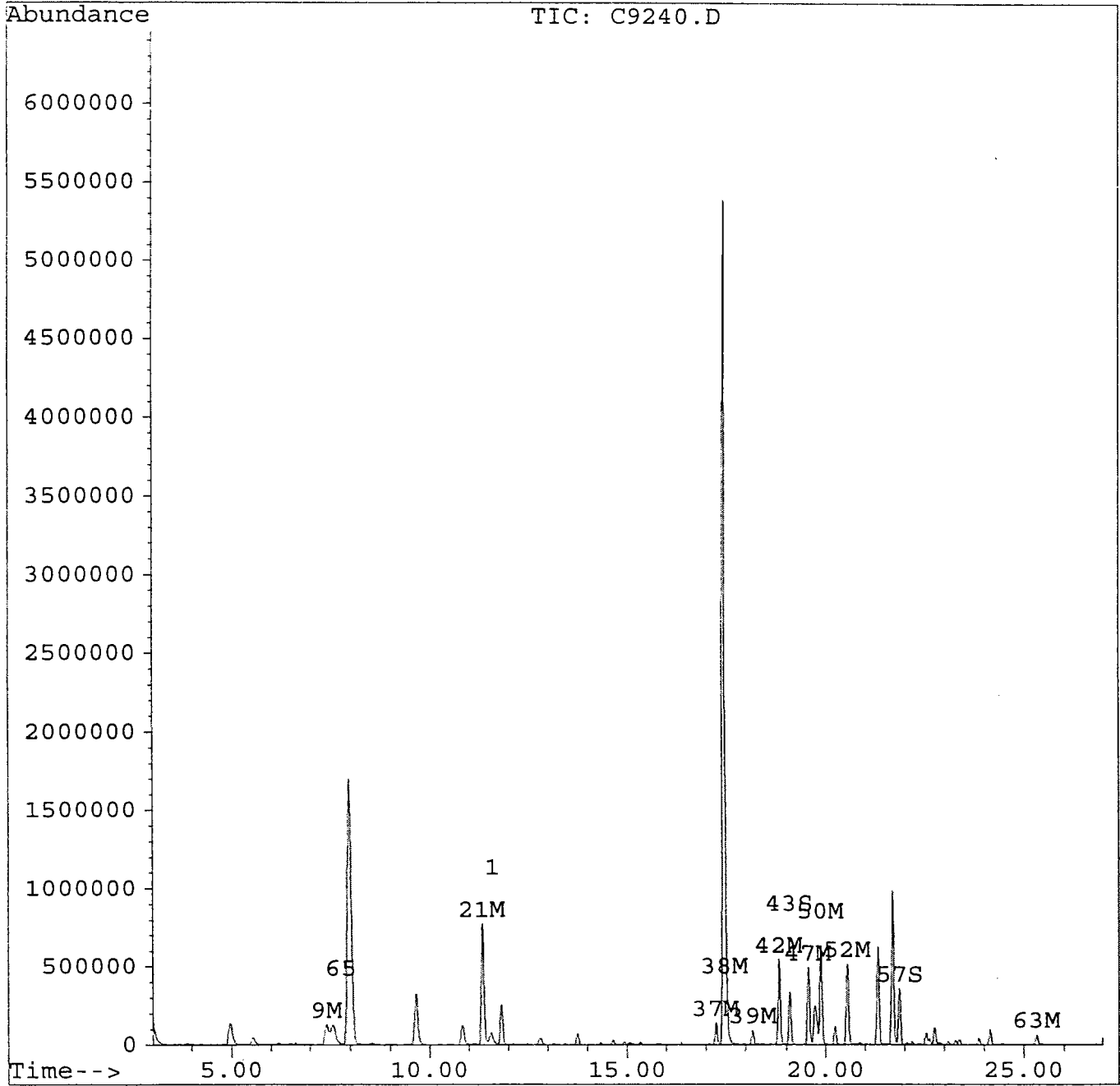
(#) = qualifier out of range (m) = manual integration

Quantitation Report

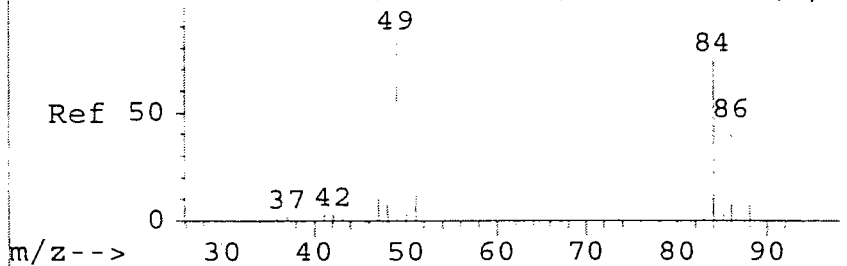
Data File : d:\hpchem\1\data\c9240.d  
Acq On : 23 Aug 95 4:31 pm  
Sample : 9536415  
Misc : 5 ML 1:5  
Quant Time: Aug 24 8:54 1995

Vial: 8 **169**  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



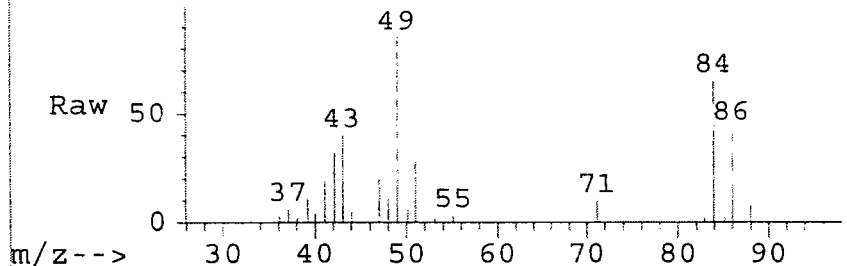
Abundance Scan 418 (7.345 min): C5082.D (-, \*



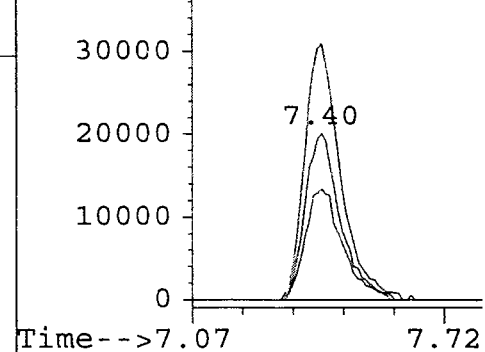
#9  
Methylene chloride 170  
Concen: 5.02 ug/L  
RT: 7.40 min Scan# 424  
Delta R.T. 0.05 min  
Lab File: c9240.d  
Acq: 23 Aug 95 4:31 pm

Tgt Ion	Resp	Lower	Upper
84	125762		
84	100		
86	66.3	45.5	85.5
49	153.6	124.4	164.4
0	0.0	0.0	0.0

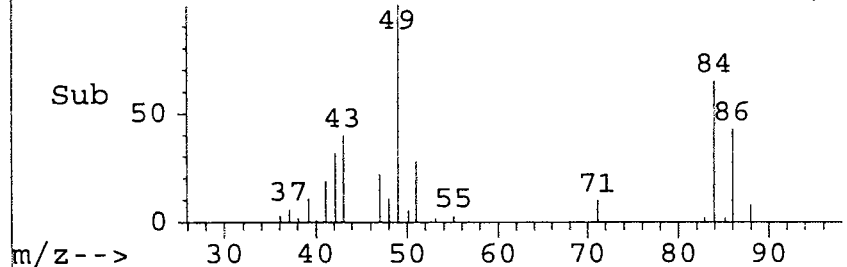
Abundance Scan 424 (7.403 min): C9240.D (\*)



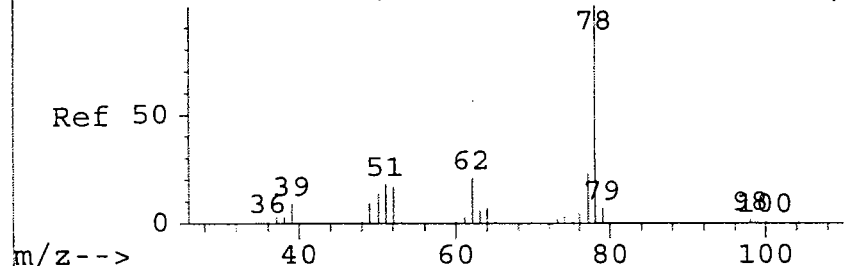
Abundance Ion	84.00 (83.
40000 Ion	86.00 (85.
Ion	49.00 (48.



Abundance Scan 424 (7.403 min): C9240.D (-, \*



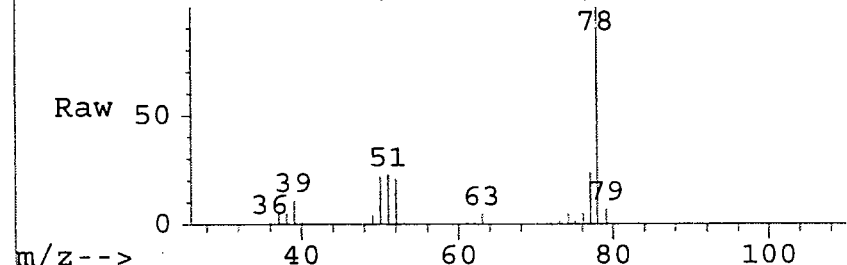
Abundance Scan 798 (11.265 min): C5082.D (-, \*



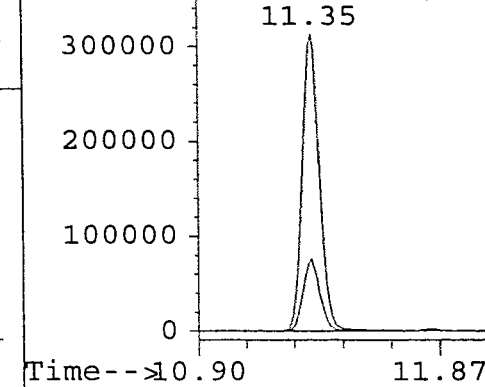
#21  
Benzene  
Concen: 17.79 ug/L  
RT: 11.35 min Scan# 807  
Delta R.T. 0.05 min  
Lab File: c9240.d  
Acq: 23 Aug 95 4:31 pm

Tgt Ion	Resp	Lower	Upper
78	1468267		
78	100		
77	24.5	4.3	44.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0

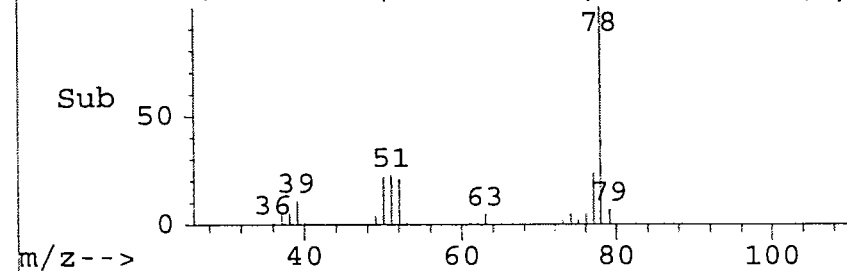
Abundance Scan 807 (11.352 min): C9240.D (\*)

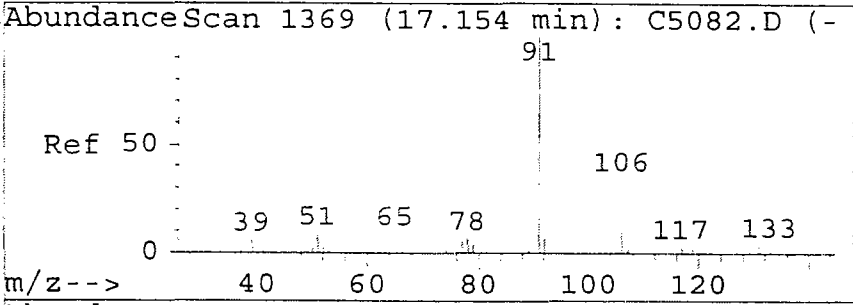


Abundance Ion	78.00 (77.
300000 Ion <td>77.00 (76.</td>	77.00 (76.



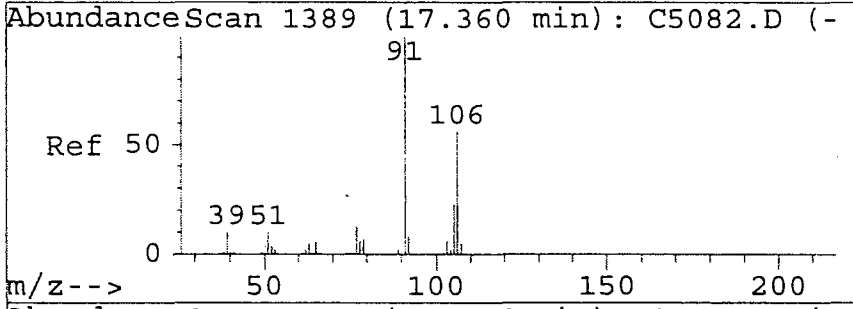
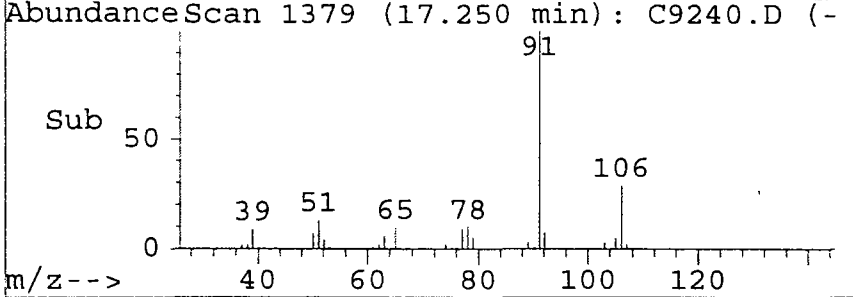
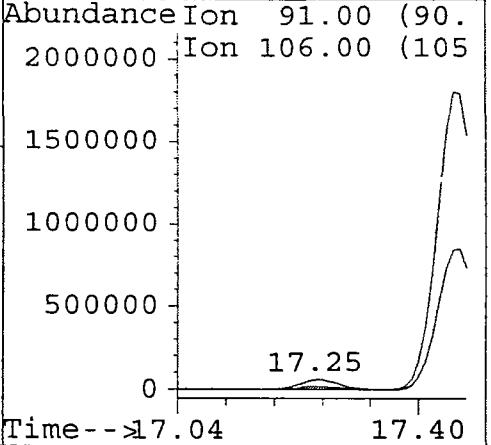
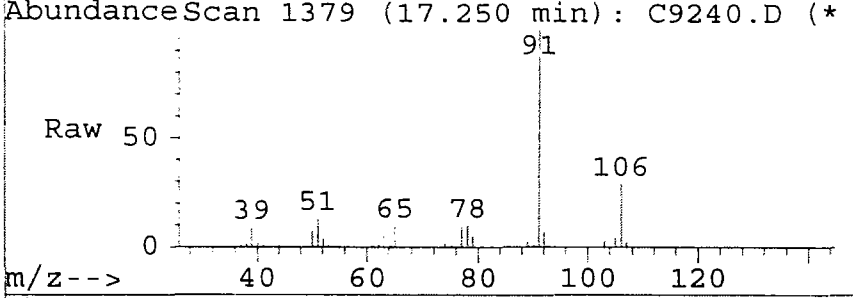
Abundance Scan 807 (11.352 min): C9240.D (-, \*





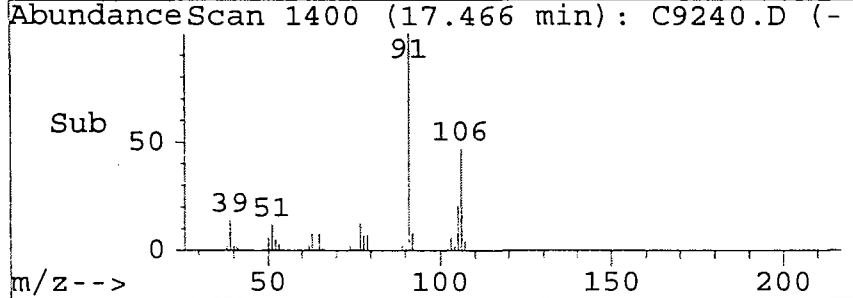
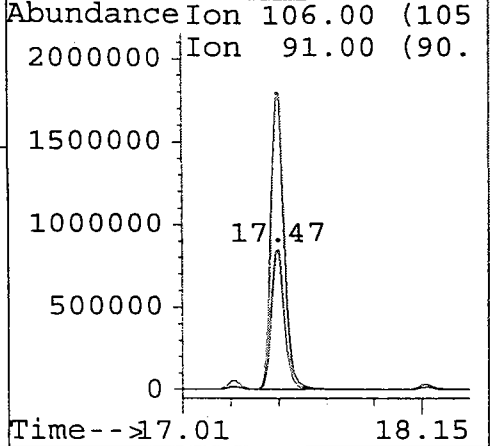
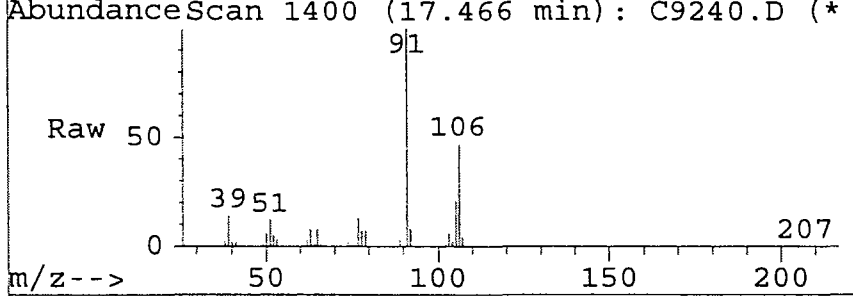
#37  
 Ethylbenzene 171  
 Concen: 1.69 ug/L  
 RT: 17.25 min Scan# 1379  
 Delta R.T. 0.04 min  
 Lab File: c9240.d  
 Acq: 23 Aug 95 4:31 pm

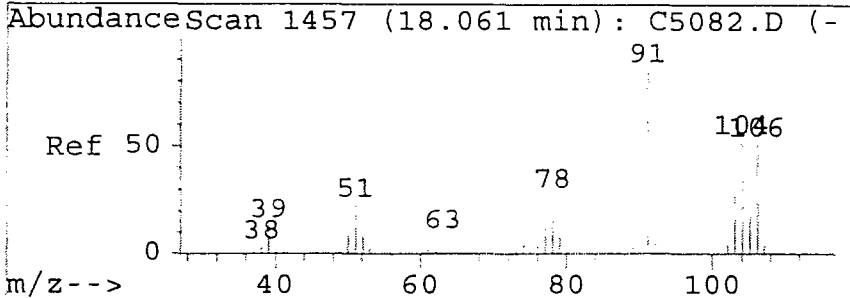
Tgt Ion	Resp	Lower	Upper
91	238376		
106	29.3	10.0	50.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0



#38  
 Xylene (para & meta)  
 Concen: 71.67 ug/L  
 RT: 17.47 min Scan# 1400  
 Delta R.T. 0.06 min  
 Lab File: c9240.d  
 Acq: 23 Aug 95 4:31 pm

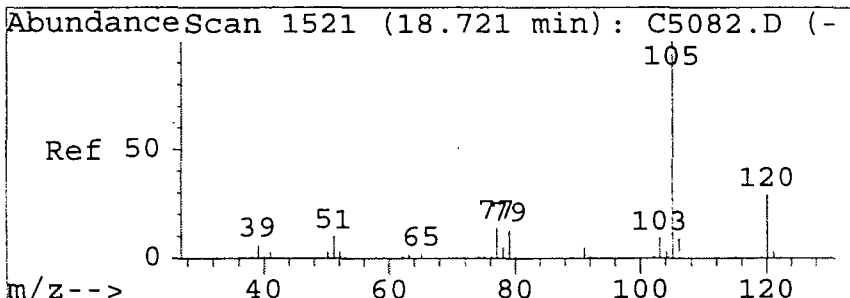
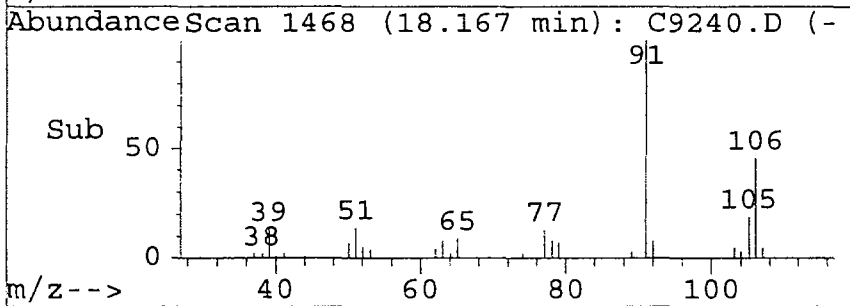
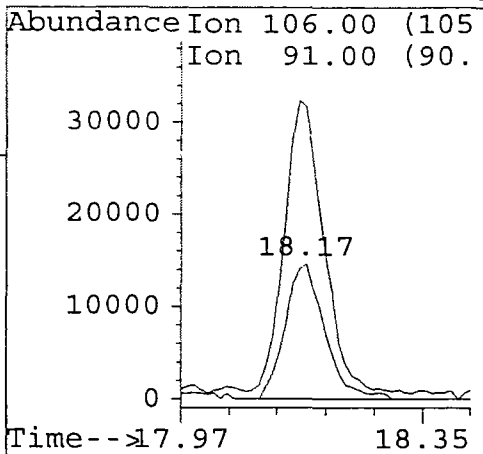
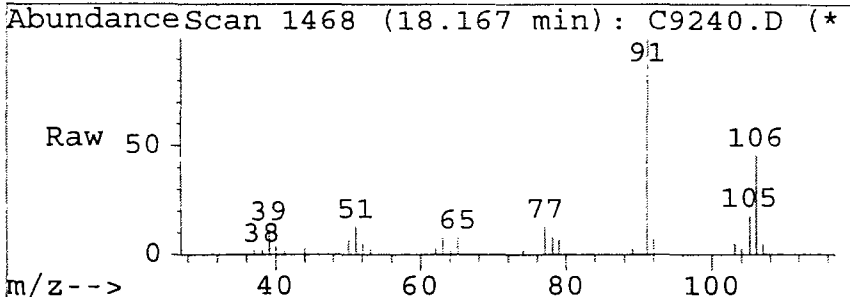
Tgt Ion	Resp	Lower	Upper
106	3675315		
91	210.9	185.3	225.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0





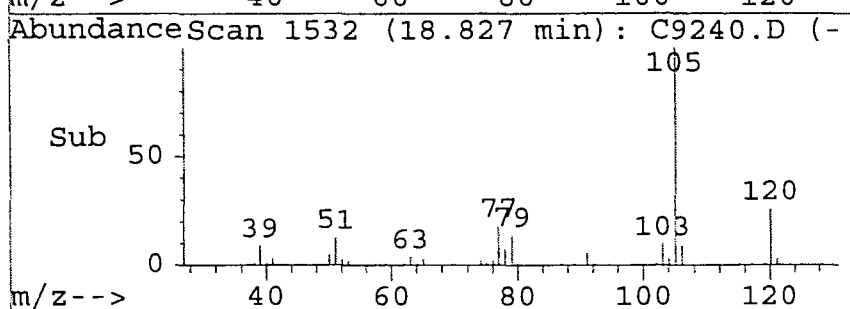
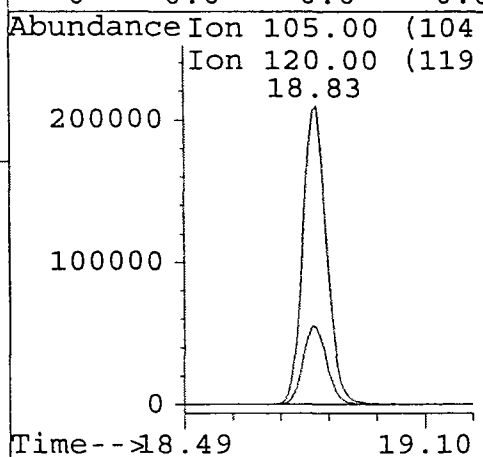
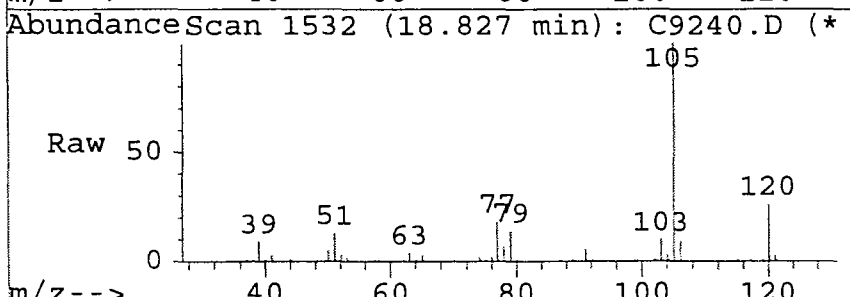
#39  
 Xylene (Ortho)  
 Concen: 1.34 ug/L  
 RT: 18.17 min Scan# 1468  
 Delta R.T. 0.05 min  
 Lab File: c9240.d  
 Acq: 23 Aug 95 4:31 pm

Tgt Ion	Ratio	Lower	Upper	Resp
106	100			62182
91	210.9	212.6	252.6#	
0	0.0	0.0	0.0	
0	0.0	0.0	0.0	

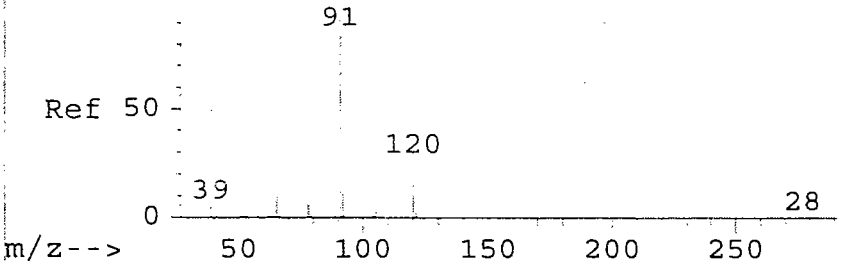


#42  
 Isopropylbenzene  
 Concen: 5.95 ug/L  
 RT: 18.83 min Scan# 1532  
 Delta R.T. 0.05 min  
 Lab File: c9240.d  
 Acq: 23 Aug 95 4:31 pm

Tgt Ion	Ratio	Lower	Upper	Resp
105	100			882449
120	25.8	6.9	46.9	
0	0.0	0.0	0.0	
0	0.0	0.0	0.0	



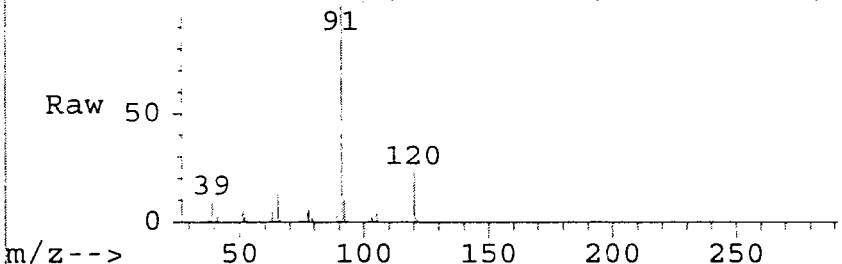
Abundance Scan 1593 (19.464 min): C5082.D (-



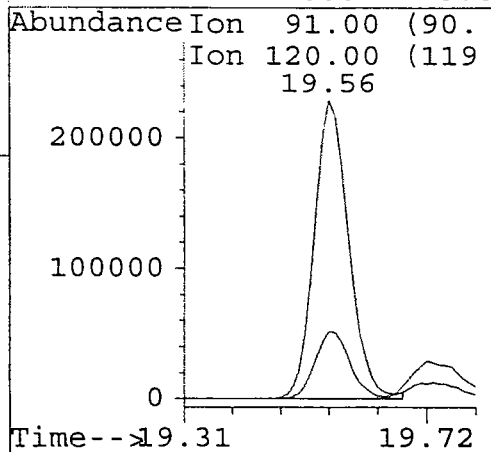
#47  
n-Propylbenzene  
Concen: 4.95 ug/L  
RT: 19.56 min Scan# 1603  
Delta R.T. 0.04 min  
Lab File: c9240.d  
Acq: 23 Aug 95 4:31 pm

173

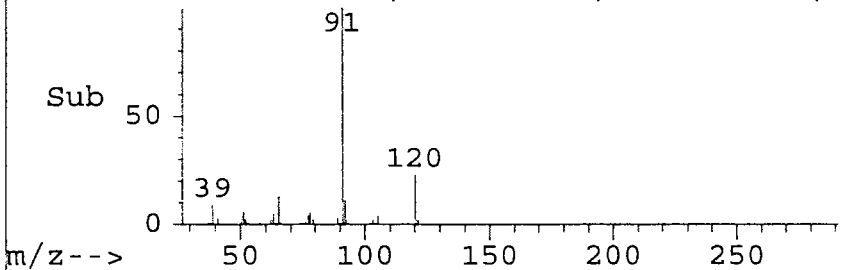
Abundance Scan 1603 (19.559 min): C9240.D (\*)



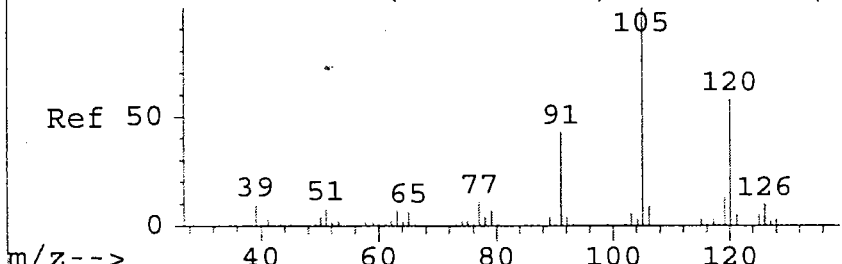
Tgt Ion	Resp	Lower	Upper
91	932372		
120	22.7	2.9	42.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0



Abundance Scan 1603 (19.559 min): C9240.D (-

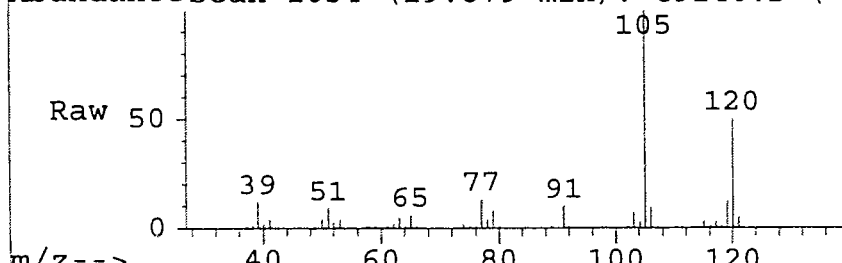


Abundance Scan 1624 (19.784 min): C5082.D (-

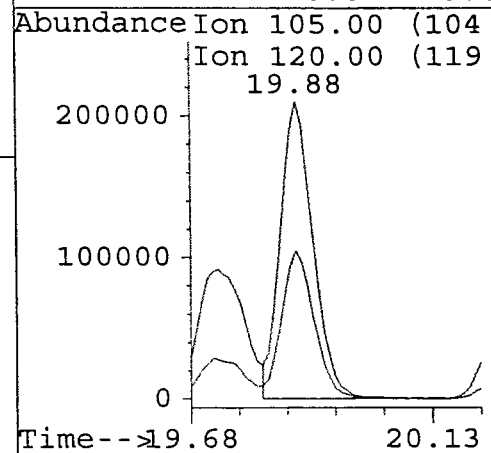


#50  
1,3,5-Trimethylbenzene  
Concen: 7.55 ug/L  
RT: 19.88 min Scan# 1634  
Delta R.T. 0.05 min  
Lab File: c9240.d  
Acq: 23 Aug 95 4:31 pm

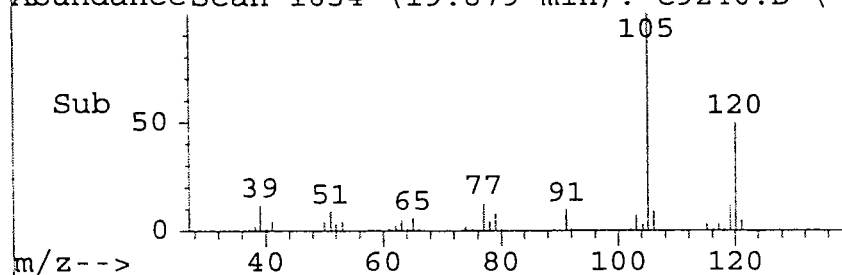
Abundance Scan 1634 (19.879 min): C9240.D (\*)

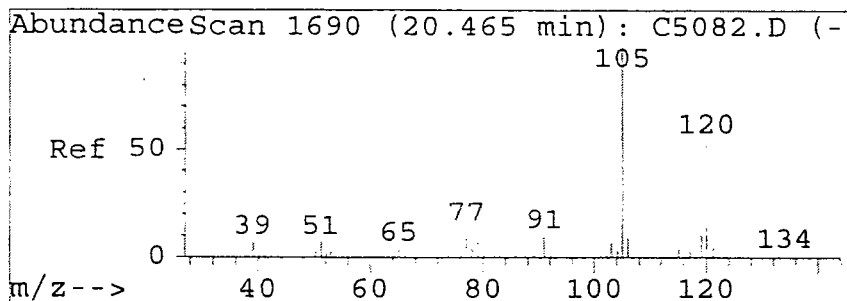


Tgt Ion	Resp	Lower	Upper
105	870455		
120	49.6	29.2	69.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0



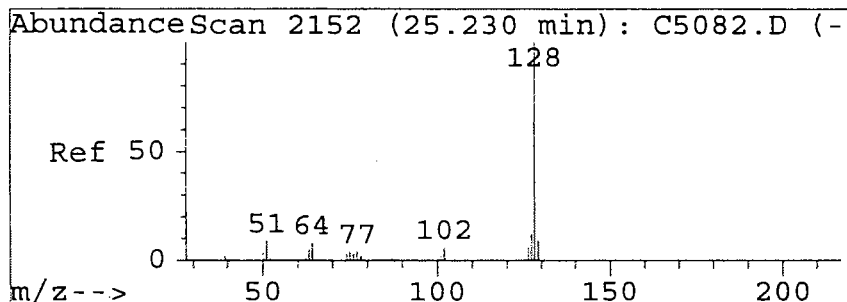
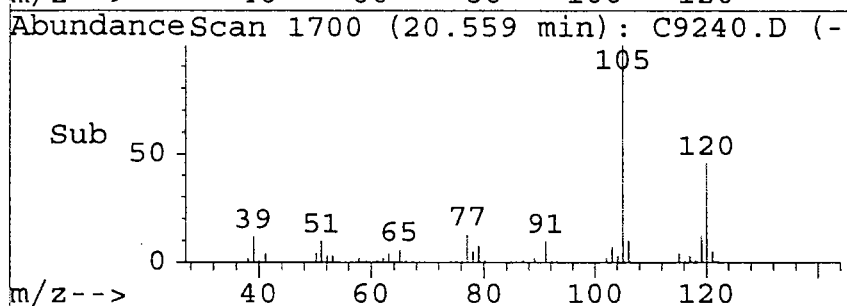
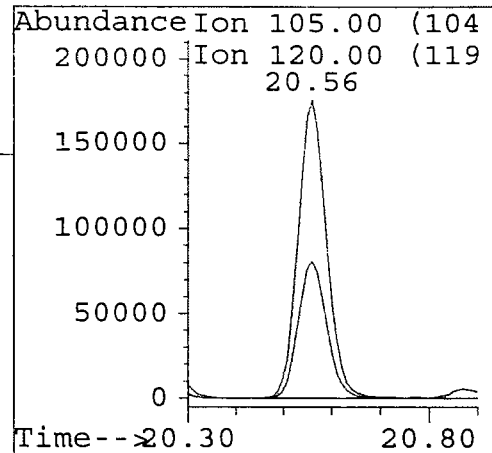
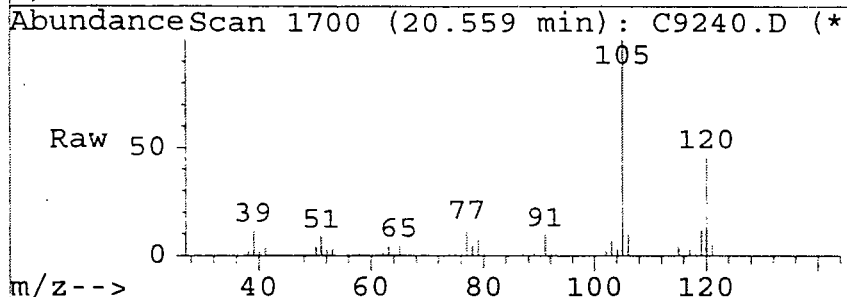
Abundance Scan 1634 (19.879 min): C9240.D (-





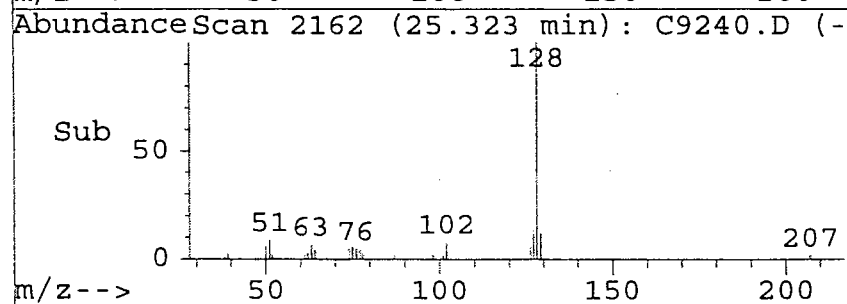
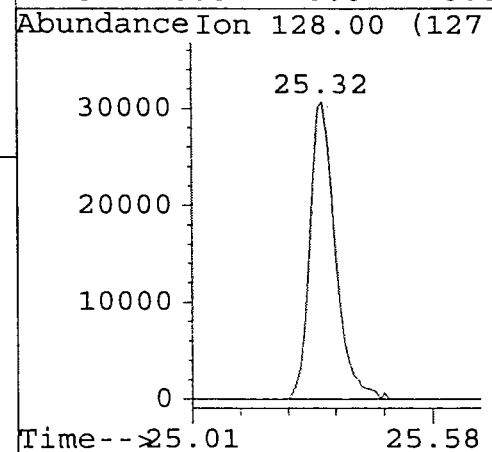
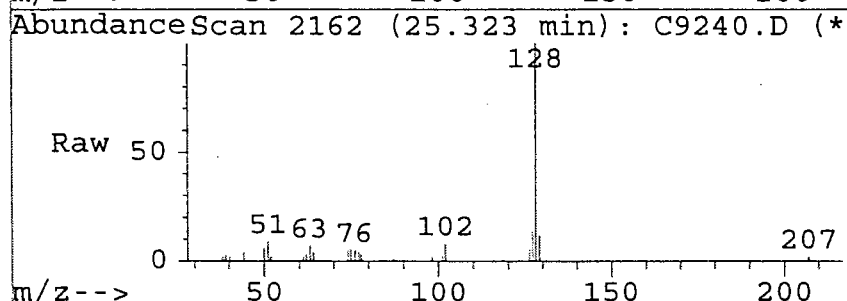
#52  
 1,2,4-Trimethylbenzene  
 Concen: 6.64 ug/L  
 RT: 20.56 min Scan# 1700  
 Delta R.T. 0.05 min  
 Lab File: c9240.d  
 Acq: 23 Aug 95 4:31 pm

Tgt Ion	Ratio	Lower	Upper
105	100		
120	45.8	26.3	66.3
0	0.0	0.0	0.0
0	0.0	0.0	0.0



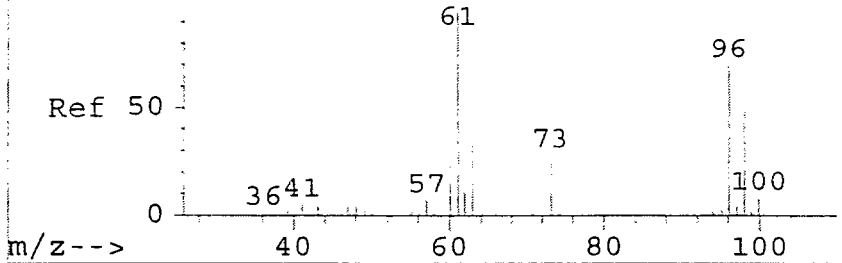
#63  
 Naphthalene  
 Concen: 4.22 ug/L  
 RT: 25.32 min Scan# 2162  
 Delta R.T. 0.05 min  
 Lab File: c9240.d  
 Acq: 23 Aug 95 4:31 pm

Tgt Ion	Ratio	Lower	Upper
128	100		
0	0.0	0.0	0.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0





Abundance Scan 474 (7.923 min): C5082.D (-, \*



#65

Methyl-tert butyl ether

Concen: 147.44 ug/L m

RT: 7.98 min Scan# 480

Delta R.T. 0.04 min

Lab File: c9240.d

Acq: 23 Aug 95 4:31 pm

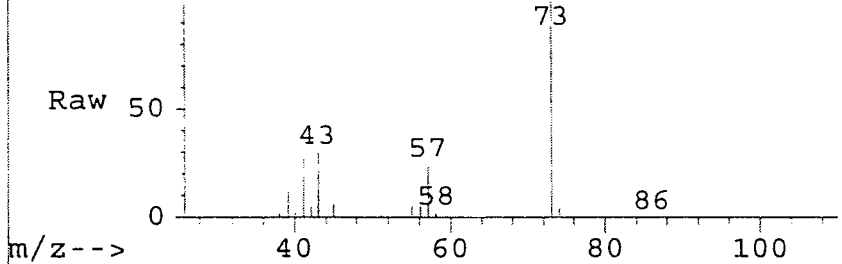
175

Tgt Ion: 73 Resp: 5152874

Ion Ratio Lower Upper

Ion	Ratio	Lower	Upper
73	100		
57	25.4	4.2	44.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

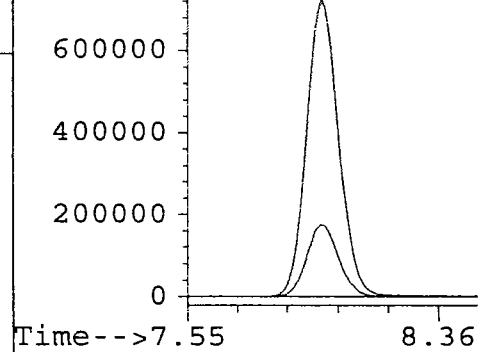
Abundance Scan 480 (7.980 min): C9240.D (\*)



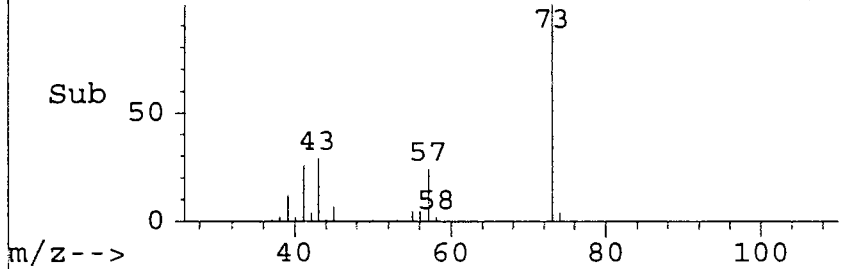
Abundance Ion 73.00 (72.

Ion 57.00 (56.

7.98



Abundance Scan 480 (7.980 min): C9240.D (-, \*



Quantitation Report

176

Data File : d:\hpchem\1\data\c9241.d  
 Acq On : 23 Aug 95 5:08 pm  
 Sample : 9536415 DILUTION  
 Misc : 1.25 ML 1:20  
 Quant Time: Aug 24 8:57 1995

Vial: 9  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.84	96	571077	5.00	ug/L	0.06
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.11	95	316139	4.93	ug/L	98.62%
57) 1,2-Dichlorobenzene-d4	21.88	152	201372	5.22	ug/L	104.31%
Target Compounds						Qvalue
65) Methyl-tert butyl ether	8.00	73	1397137	34.33	ug/L m	0

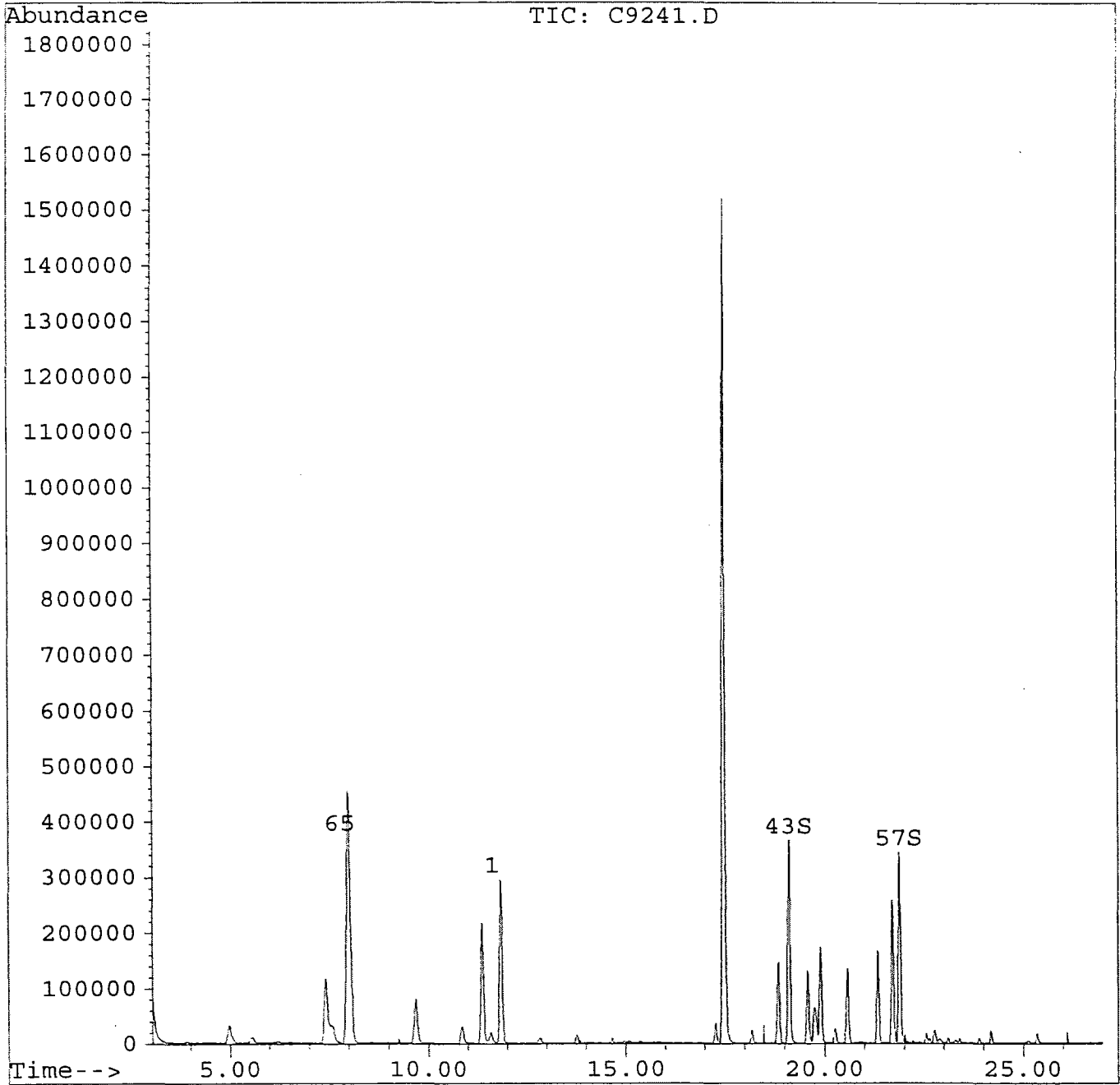
(#) = qualifier out of range (m) = manual integration

Quantitation Report

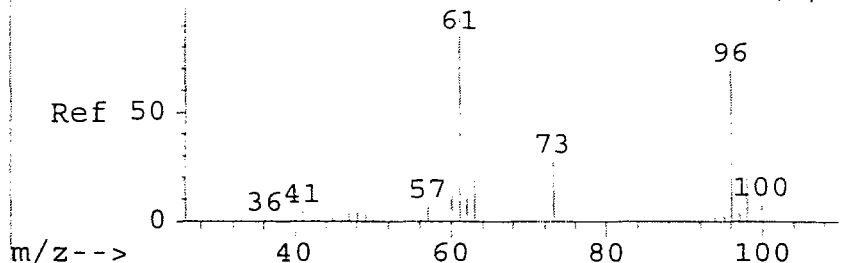
Data File : d:\hpchem\1\data\c9241.d  
Acq On : 23 Aug 95 5:08 pm  
Sample : 9536415 DILUTION  
Misc : 1.25 ML 1:20  
Quant Time: Aug 24 8:57 1995

Vial: 9 **177**  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration

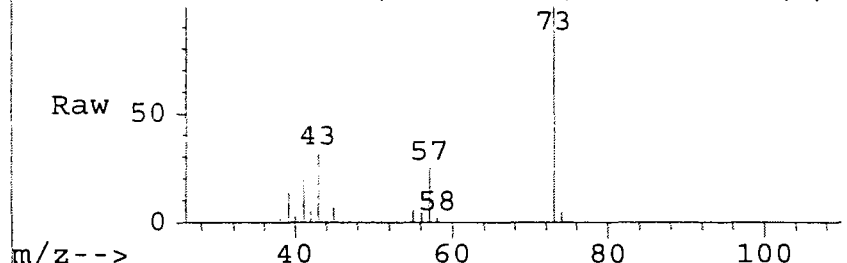


Abundance Scan 474 (7.923 min): C5082.D (-, \*



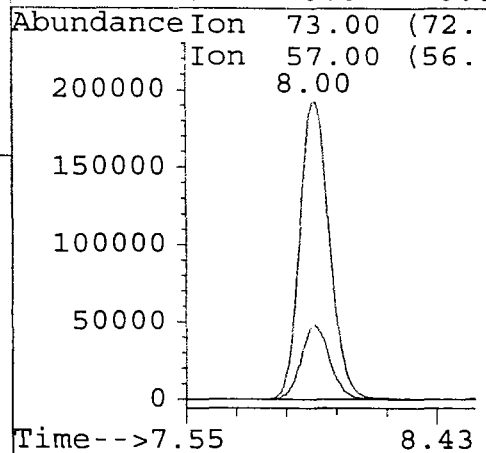
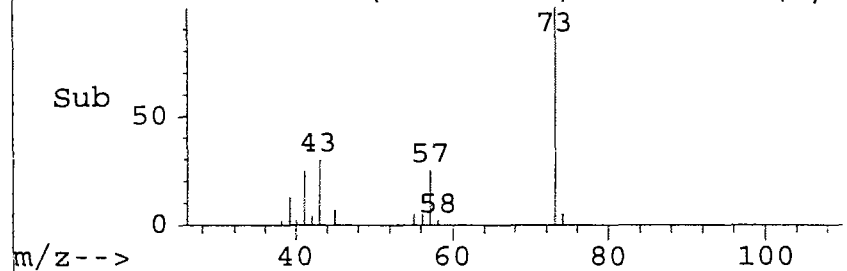
#65  
 Methyl-tert butyl ether **178**  
 Concen: 34.33 ug/L m  
 RT: 8.00 min Scan# 482  
 Delta R.T. 0.06 min  
 Lab File: c9241.d  
 Acq: 23 Aug 95 5:08 pm

Abundance Scan 482 (8.003 min): C9241.D (\*)



Tgt Ion	73	Resp	1397137
Ion	Ratio	Lower	Upper
73	100		
57	25.4	4.2	44.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

Abundance Scan 482 (8.003 min): C9241.D (-, \*



Library Search Compound Report

179

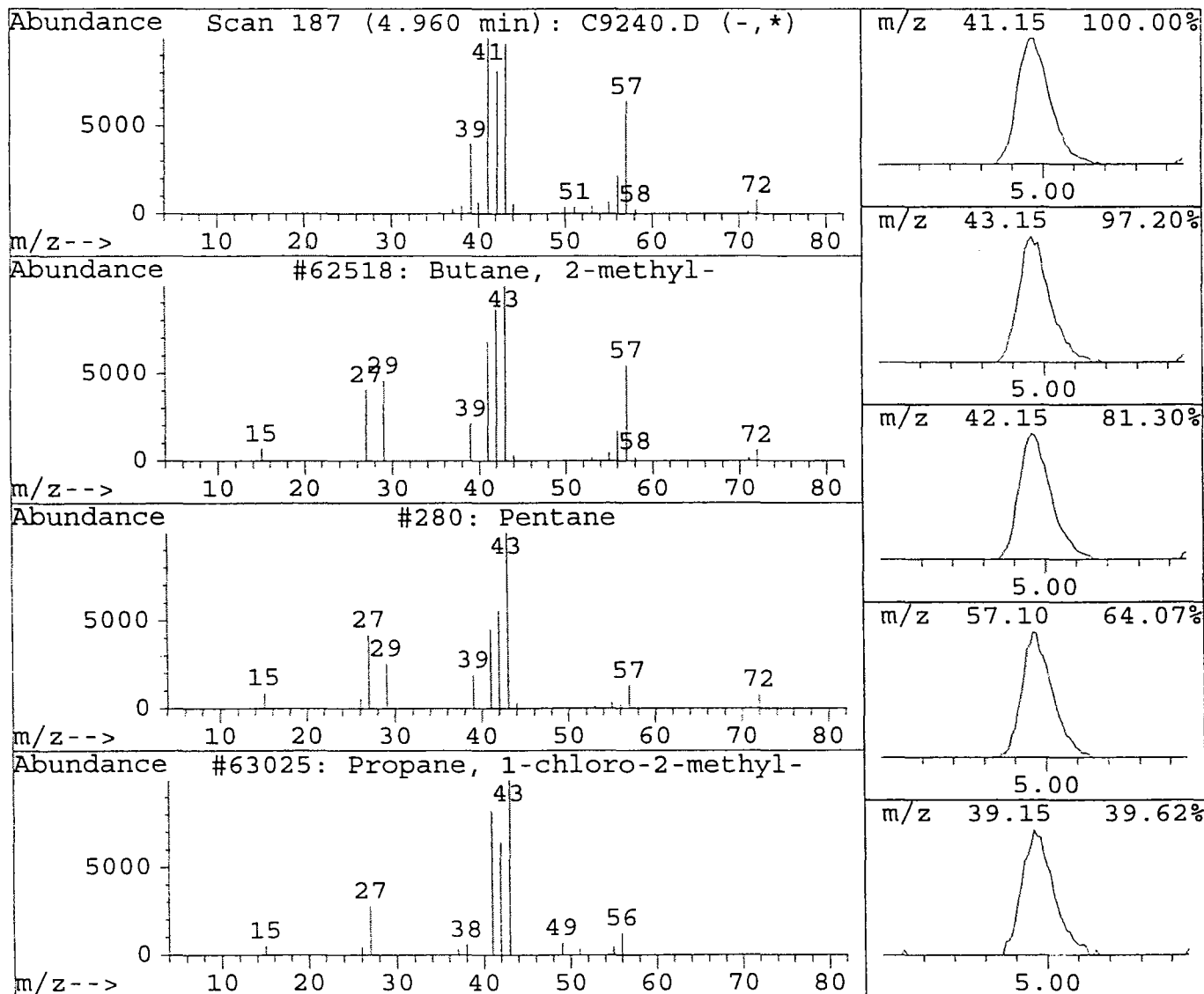
Data File : d:\hpchem\1\data\c9240.d  
 Acq On : 23 Aug 95 4:31 pm  
 Sample : 9536415  
 Misc : 5 ML 1:5

Vial: 8  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
4.96	4.19 ug/L	973731	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane, 2-methyl-	62518	000078-78-4	64
2	Pentane	280	000109-66-0	5
3	Propane, 1-chloro-2-methyl-	63025	000513-36-0	33
4	Propane, 1-nitro-	864	000108-03-2	9
5	Oxirane, 2,2-dimethyl-	62511	000558-30-5	9



Library Search Compound Report

180

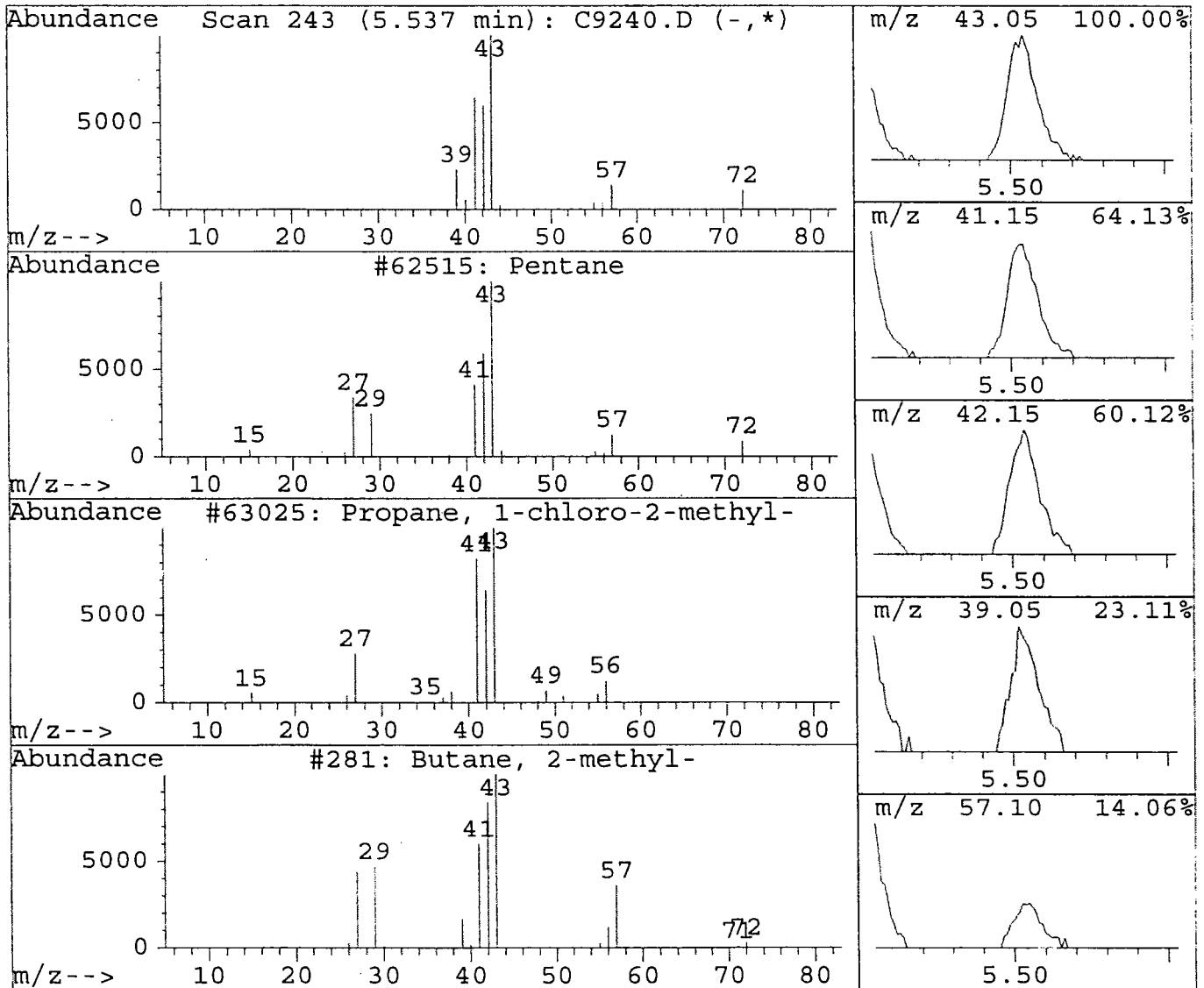
Data File : d:\hpchem\1\data\c9240.d  
 Acq On : 23 Aug 95 4:31 pm  
 Sample : 9536415  
 Misc : 5 ML 1:5

Vial: 8  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
5.54	0.93 ug/L	216074	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane	62515	000109-66-0	83
2	Propane, 1-chloro-2-methyl-	63025	000513-36-0	4
3	Butane, 2-methyl-	281	000078-78-4	4
4	Oxirane, 2,2-dimethyl-	62511	000558-30-5	4
5	3-Buten-1-ol	264	000627-27-0	4



# Library Search Compound Report

181

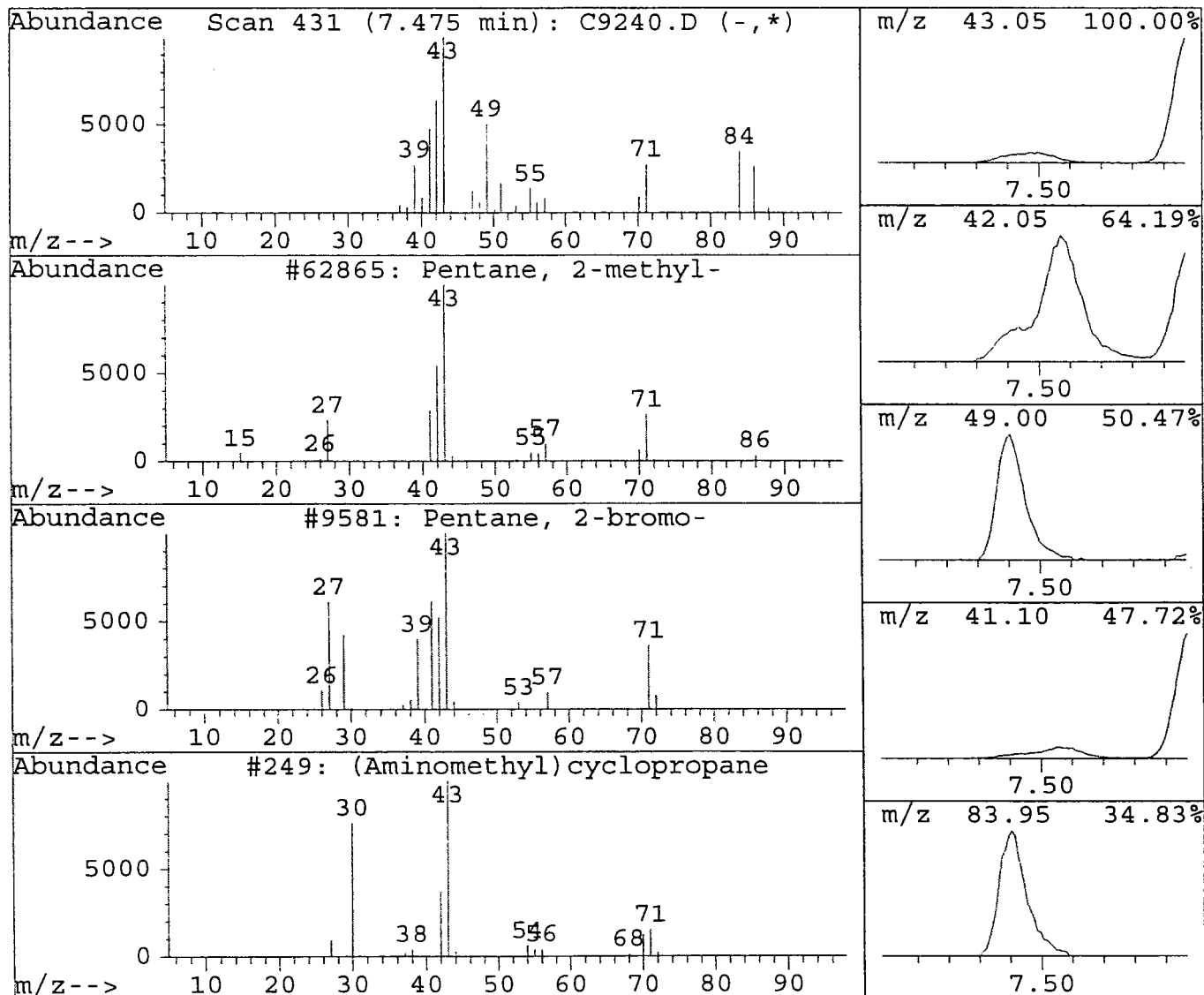
Data File : d:\hpchem\1\data\c9240.d  
 Acq On : 23 Aug 95 4:31 pm  
 Sample : 9536415  
 Misc : 5 ML 1:5

Vial: 8  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
7.48	1.40 ug/L	325296	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Pentane, 2-methyl-	62865	000107-83-5	9
2	Pentane, 2-bromo-	9581	000107-81-3	4
3	(Aminomethyl)cyclopropane	249	002516-47-4	7
4	Pentane	280	000109-66-0	4
5	Hydroxylamine, O-pentyl-	1838	005963-74-6	9



Library Search Compound Report

182

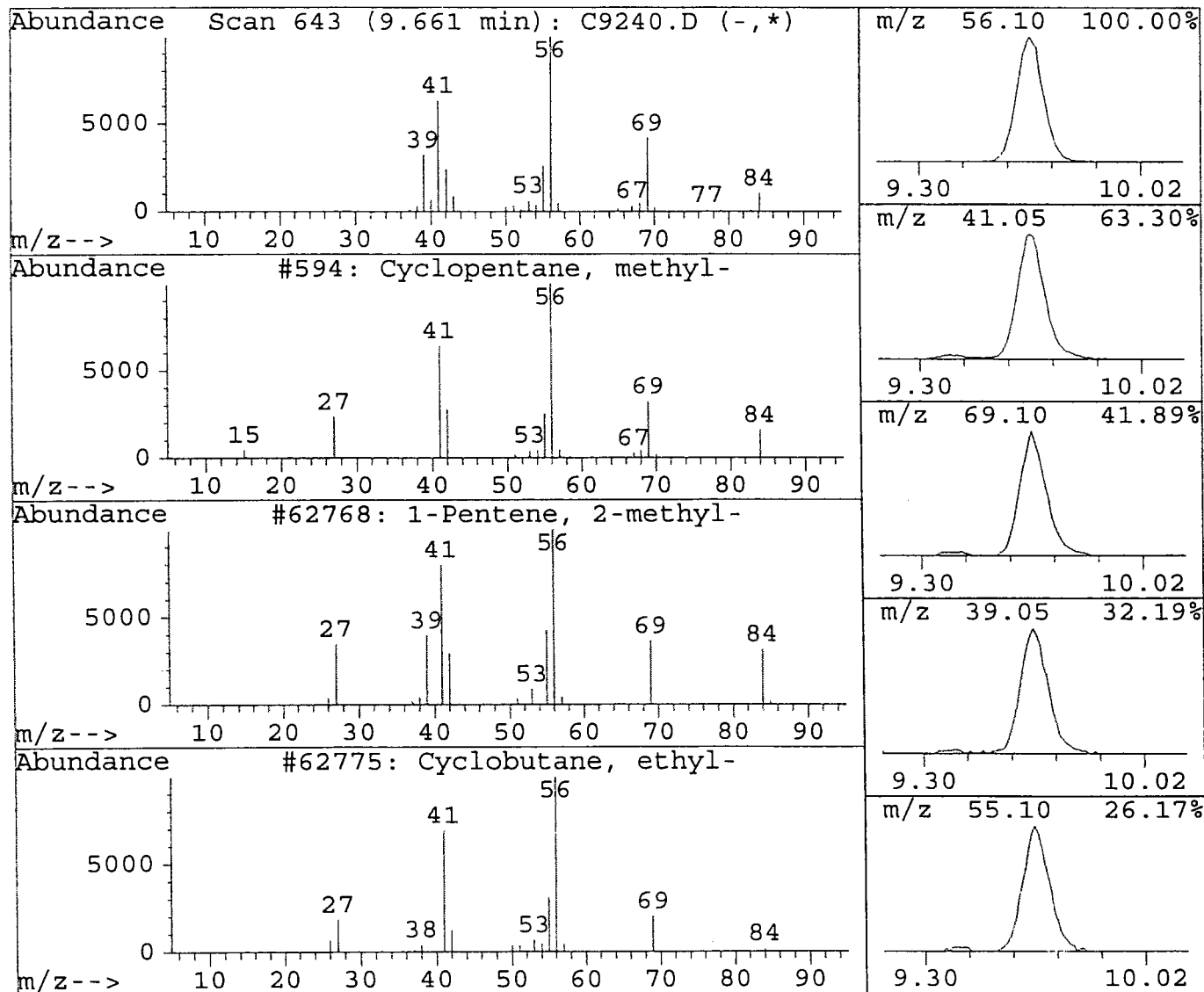
Data File : d:\hpchem\1\data\c9240.d  
 Acq On : 23 Aug 95 4:31 pm  
 Sample : 9536415  
 Misc : 5 ML 1:5

Vial: 8  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
9.66	8.51 ug/L	1978526	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclopentane, methyl-	594	000096-37-7	50
2	1-Pentene, 2-methyl-	62768	000763-29-1	37
3	Cyclobutane, ethyl-	62775	004806-61-5	64
4	Cyclopropane, (1-methylethyl)-	592	003638-35-5	50
5	Cyclopentane, 1,1-dimethyl-	1333	001638-26-2	50





Library Search Compound Report

183

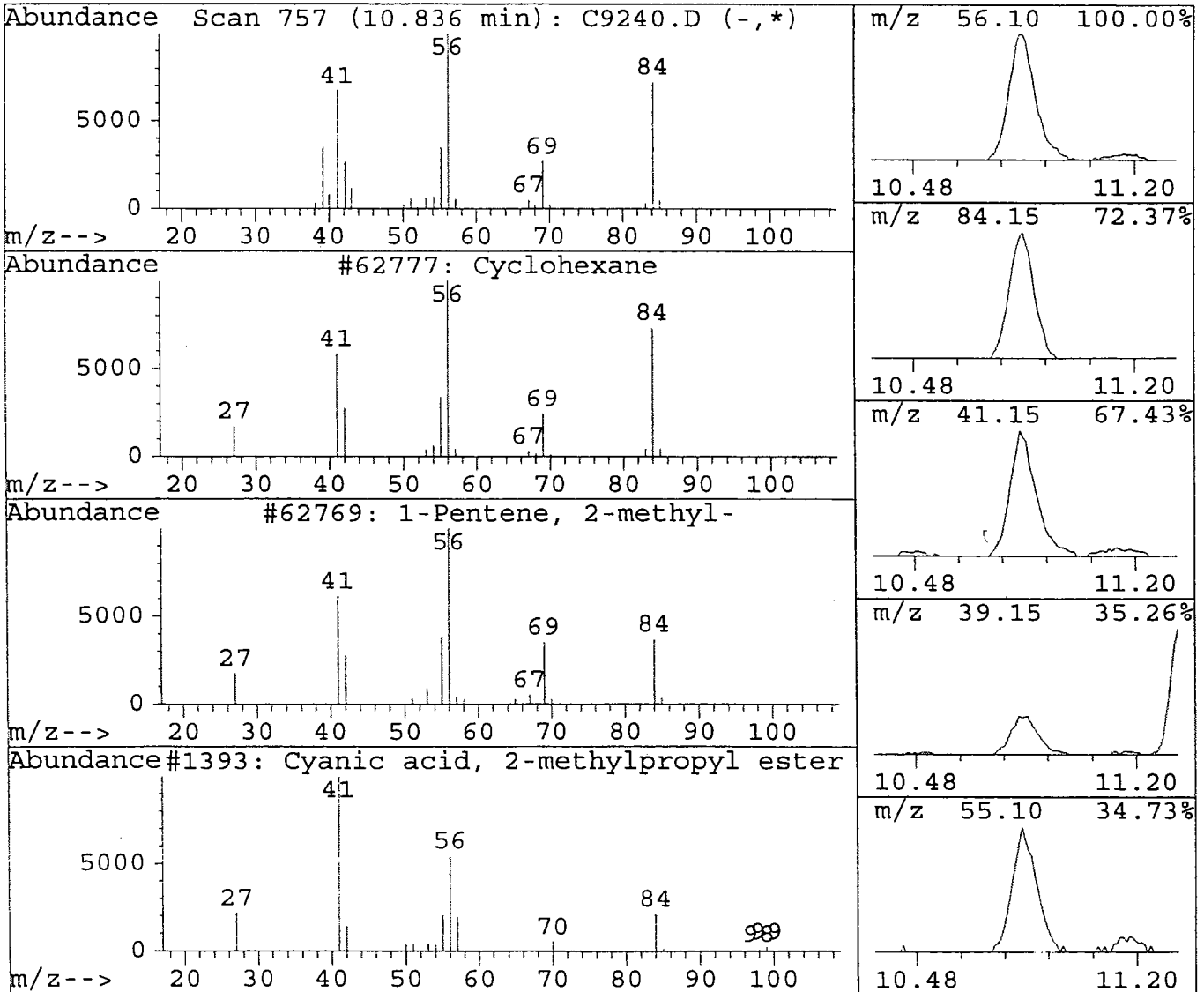
Data File : d:\hpchem\1\data\c9240.d  
 Acq On : 23 Aug 95 4:31 pm  
 Sample : 9536415  
 Misc : 5 ML 1:5

Vial: 8  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
10.84	2.28 ug/L	529241	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclohexane	62777	000110-82-7	91
2	1-Pentene, 2-methyl-	62769	000763-29-1	72
3	Cyanic acid, 2-methylpropyl ester	1393	001768-25-8	39
4	Cyclopentane, methyl-	62763	000096-37-7	59
5	Pyridine-d5-	550	007291-22-7	50



Library Search Compound Report

184

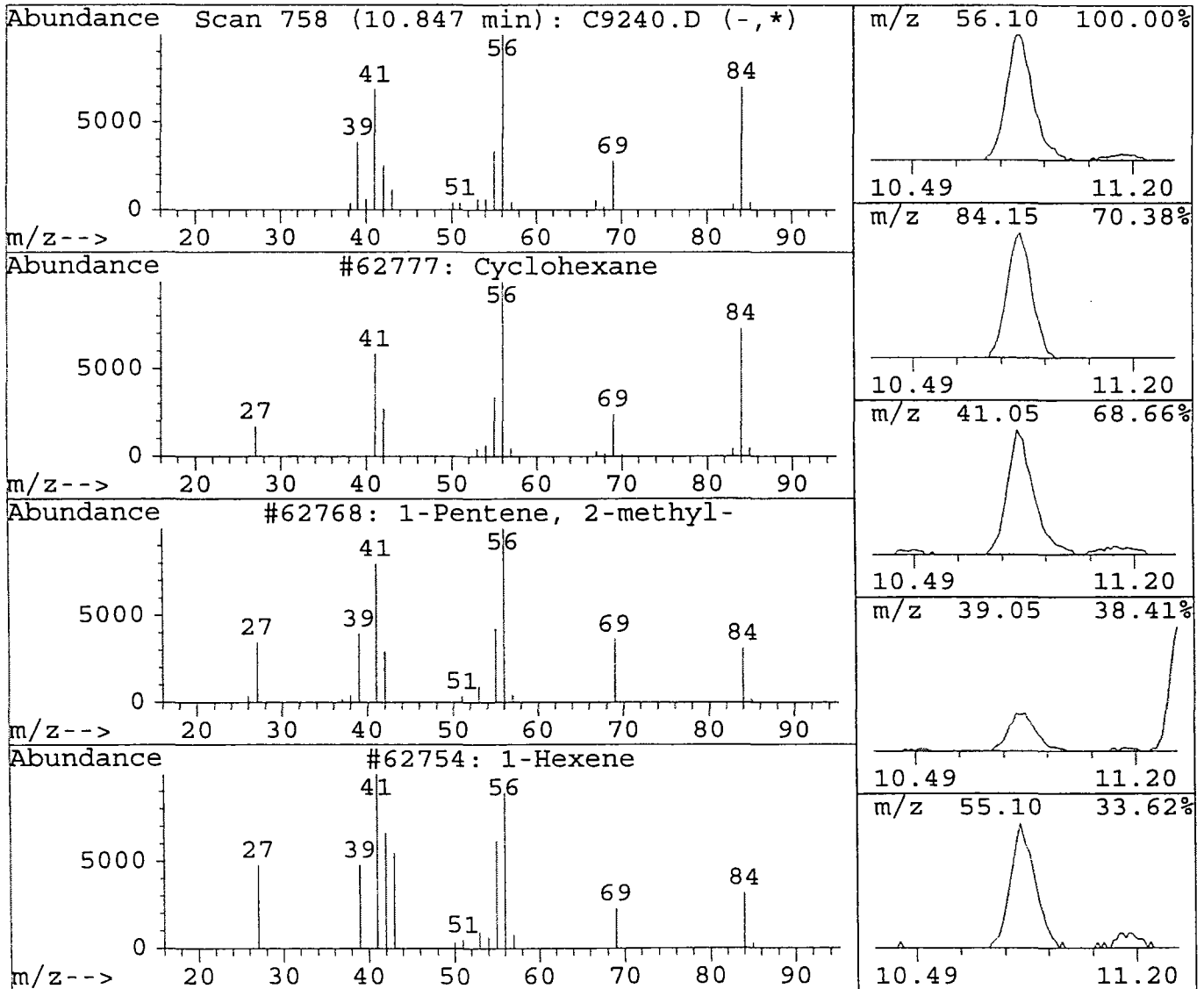
Data File : d:\hpchem\1\data\c9240.d  
 Acq On : 23 Aug 95 4:31 pm  
 Sample : 9536415  
 Misc : 5 ML 1:5

Vial: 8  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
10.85	0.83 ug/L	192420	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclohexane	62777	000110-82-7	81
2	1-Pentene, 2-methyl-	62768	000763-29-1	72
3	1-Hexene	62754	000592-41-6	25
4	Cyanic acid, 2-methylpropyl ester	1393	001768-25-8	28
5	Cyclopentane, methyl-	62763	000096-37-7	38



# Library Search Compound Report

185

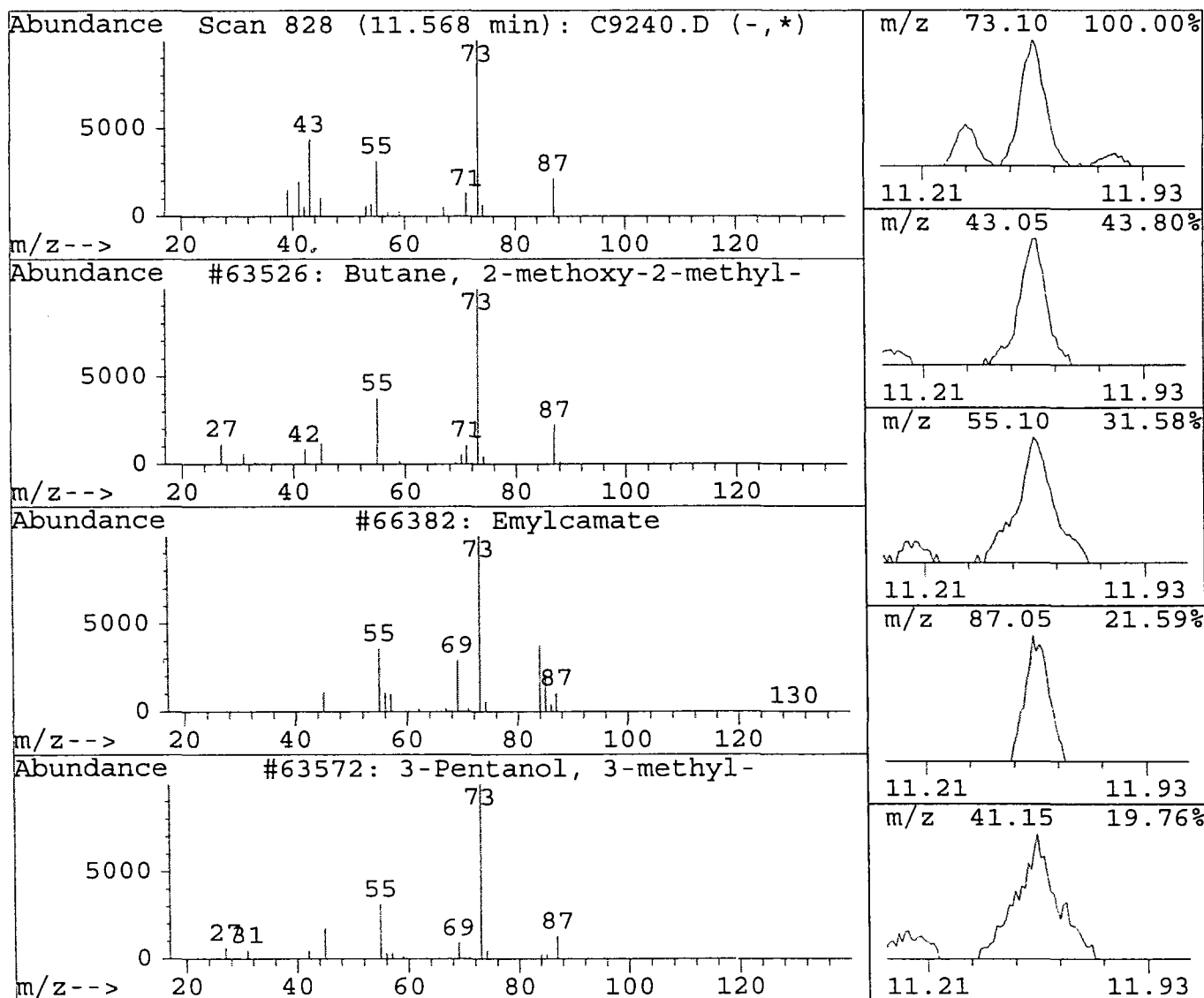
Data File : d:\hpchem\1\data\c9240.d  
 Acq On : 23 Aug 95 4:31 pm  
 Sample : 9536415  
 Misc : 5 ML 1:5

Vial: 8  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
11.57	1.47 ug/L	341816	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Butane, 2-methoxy-2-methyl-	63526	000994-05-8	33
2	Emylcamate	66382	000078-28-4	4
3	3-Pentanol, 3-methyl-	63572	000077-74-7	4
4	1,2-Pentadiene, 4-methoxy-4-methyl-	2616	049833-91-2	4
5	Silane, tetramethyl-	62932	000075-76-3	9



Library Search Compound Report

186

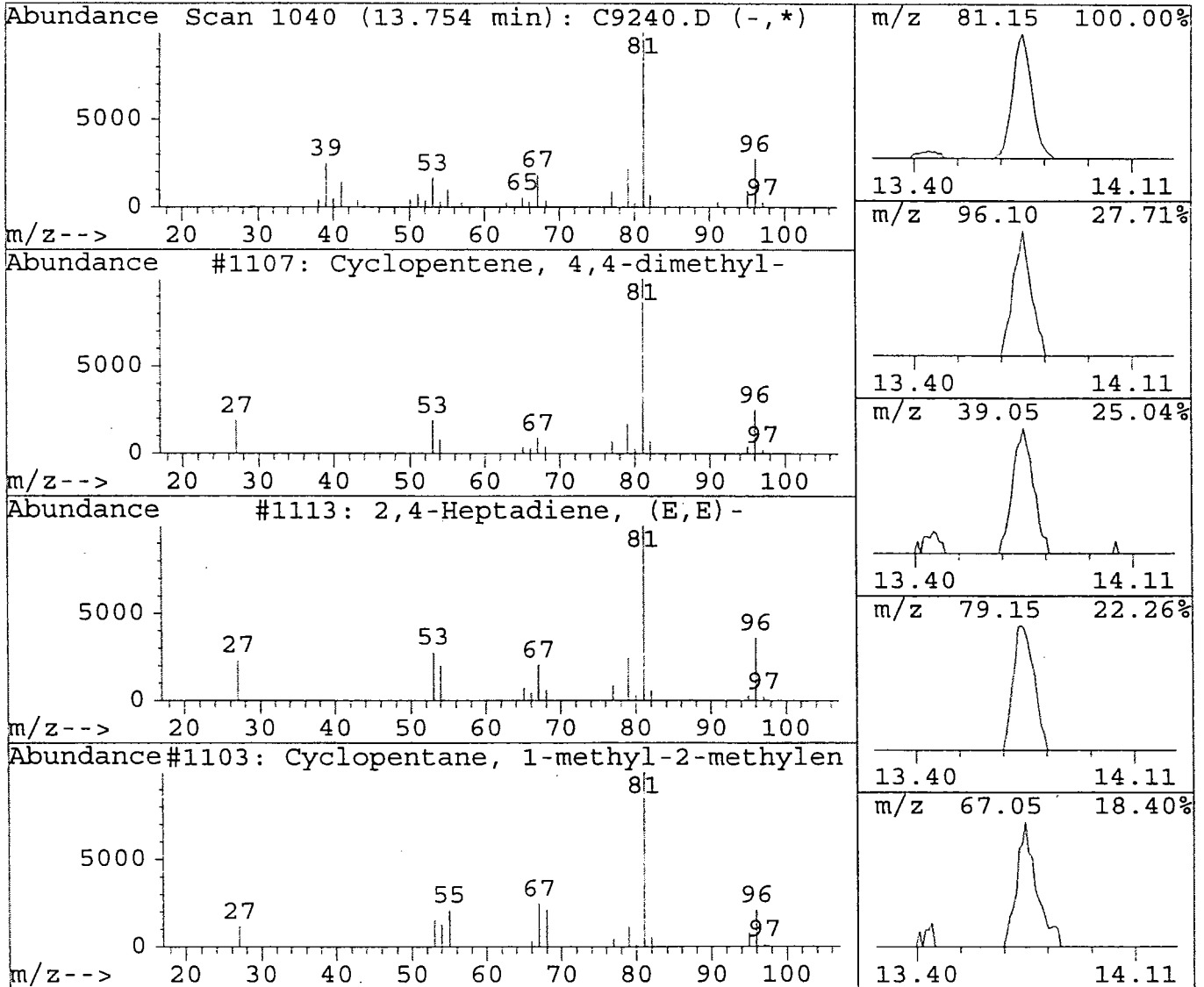
Data File : d:\hpchem\1\data\c9240.d  
 Acq On : 23 Aug 95 4:31 pm  
 Sample : 9536415  
 Misc : 5 ML 1:5

Vial: 8  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
13.75	1.06 ug/L	247177	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclopentene, 4,4-dimethyl-	1107	019037-72-0	83
2	2,4-Heptadiene, (E,E)-	1113	002384-94-3	38
3	Cyclopentane, 1-methyl-2-methylene-	1103	041158-41-2	72
4	2,4-Hexadiene, 3-methyl-	1130	028823-42-9	43
5	Cyclopentene, 1,5-dimethyl-	1136	016491-15-9	90



Library Search Compound Report

187

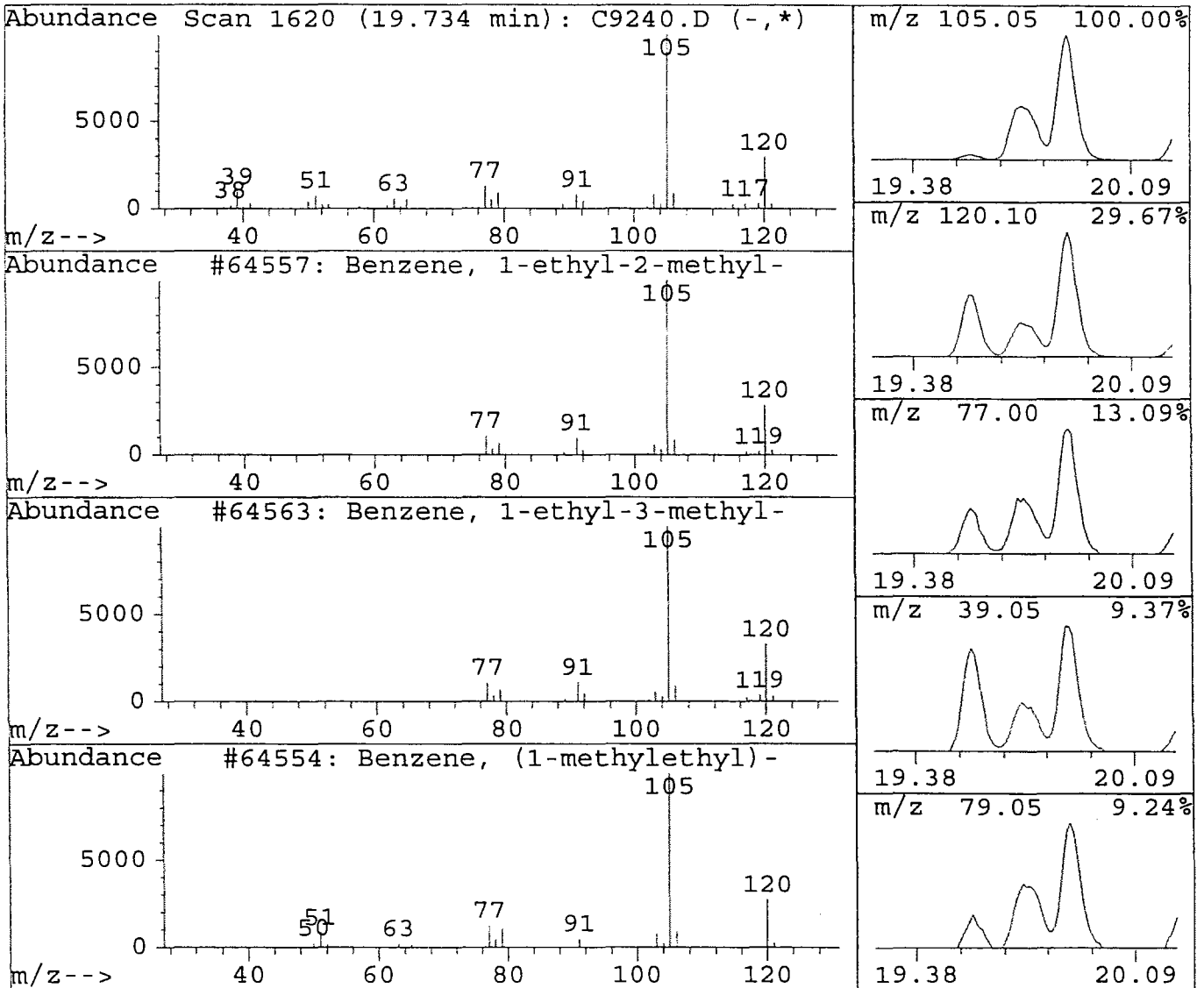
Data File : d:\hpchem\1\data\c9240.d  
 Acq On : 23 Aug 95 4:31 pm  
 Sample : 9536415  
 Misc : 5 ML 1:5

Vial: 8  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
19.73	5.54 ug/L	1288092	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	64557	000611-14-3	95
2	Benzene, 1-ethyl-3-methyl-	64563	000620-14-4	94
3	Benzene, (1-methylethyl)-	64554	000098-82-8	87
4	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	94
5	Benzene, 1,2,3-trimethyl-	64576	000526-73-8	76



Library Search Compound Report

188

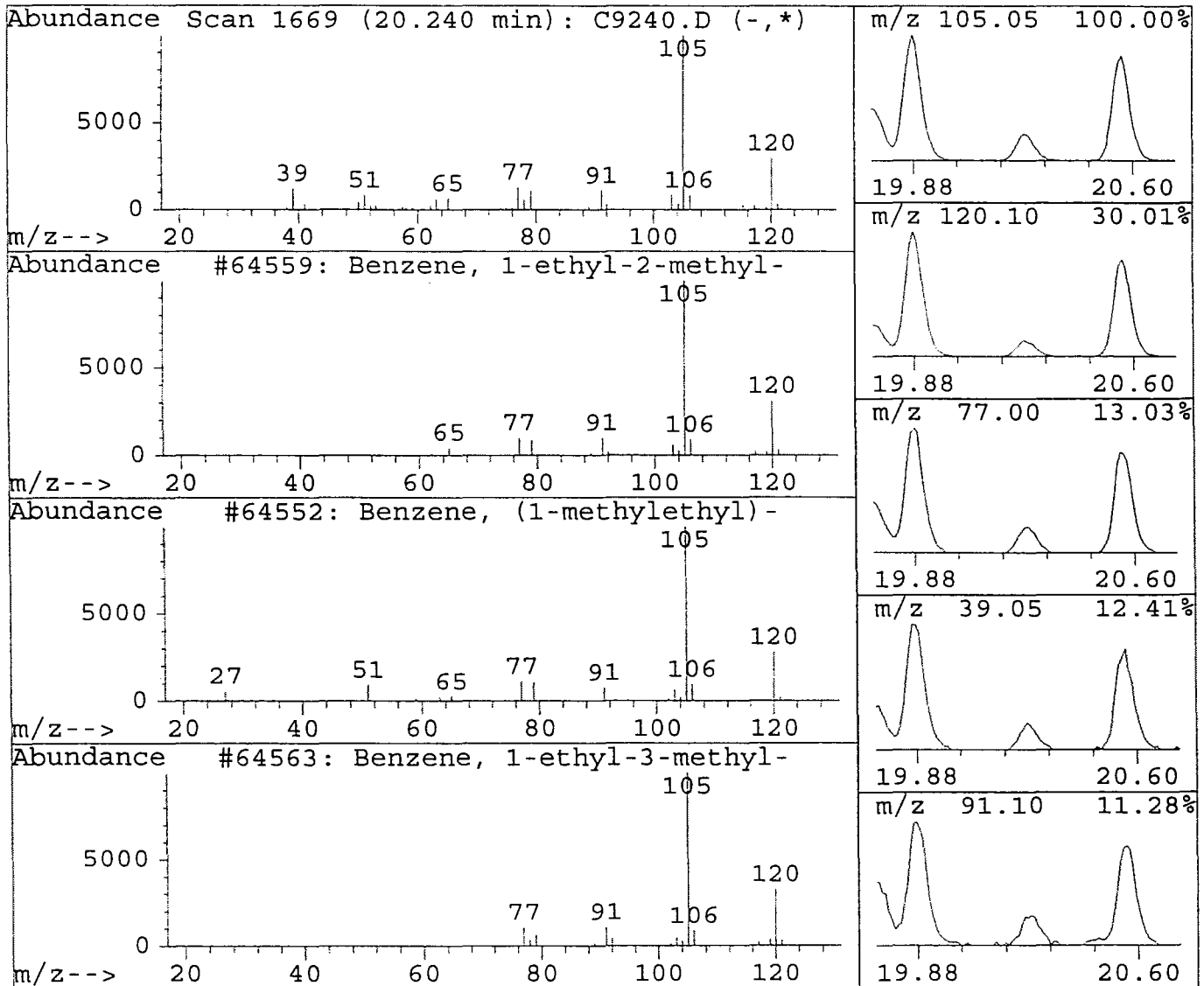
Data File : d:\hpchem\1\data\c9240.d  
 Acq On : 23 Aug 95 4:31 pm  
 Sample : 9536415  
 Misc : 5 ML 1:5

Vial: 8  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
20.24	2.02 ug/L	470452	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2-methyl-	64559	000611-14-3	94
2	Benzene, (1-methylethyl)-	64552	000098-82-8	91
3	Benzene, 1-ethyl-3-methyl-	64563	000620-14-4	91
4	Benzene, 1-ethyl-4-methyl-	3770	000622-96-8	94
5	Benzene, 1,2,3-trimethyl-	64576	000526-73-8	90



Library Search Compound Report

189

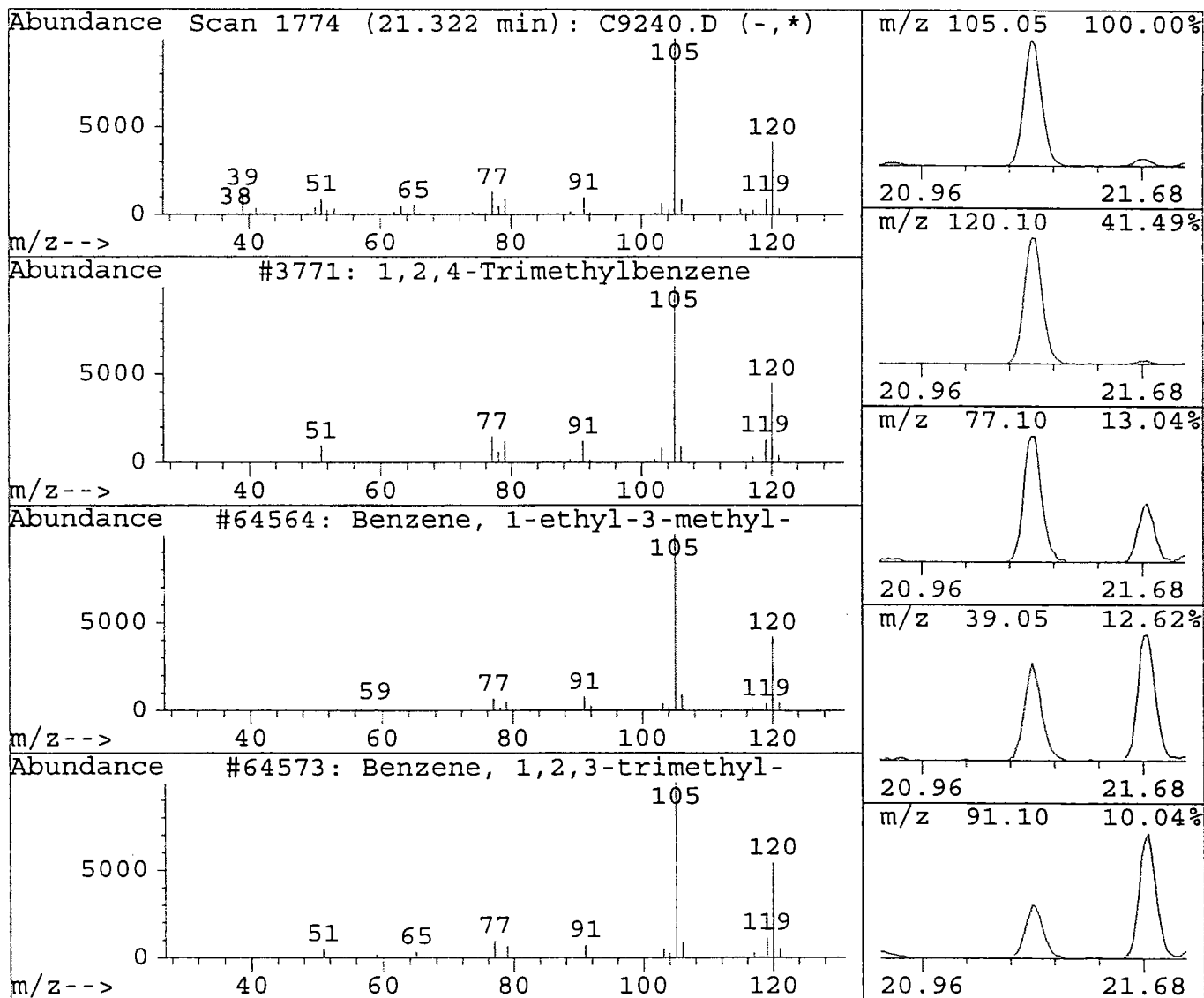
Data File : d:\hpchem\1\data\c9240.d  
 Acq On : 23 Aug 95 4:31 pm  
 Sample : 9536415  
 Misc : 5 ML 1:5

Vial: 8  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
21.32	10.82 ug/L	2516305	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,2,4-Trimethylbenzene	3771	000095-36-3	97
2	Benzene, 1-ethyl-3-methyl-	64564	000620-14-4	87
3	Benzene, 1,2,3-trimethyl-	64573	000526-73-8	91
4	Benzene, 1-ethyl-2-methyl-	64558	000611-14-3	90
5	Benzene, 1-ethyl-4-methyl-	64566	000622-96-8	87



Library Search Compound Report

190

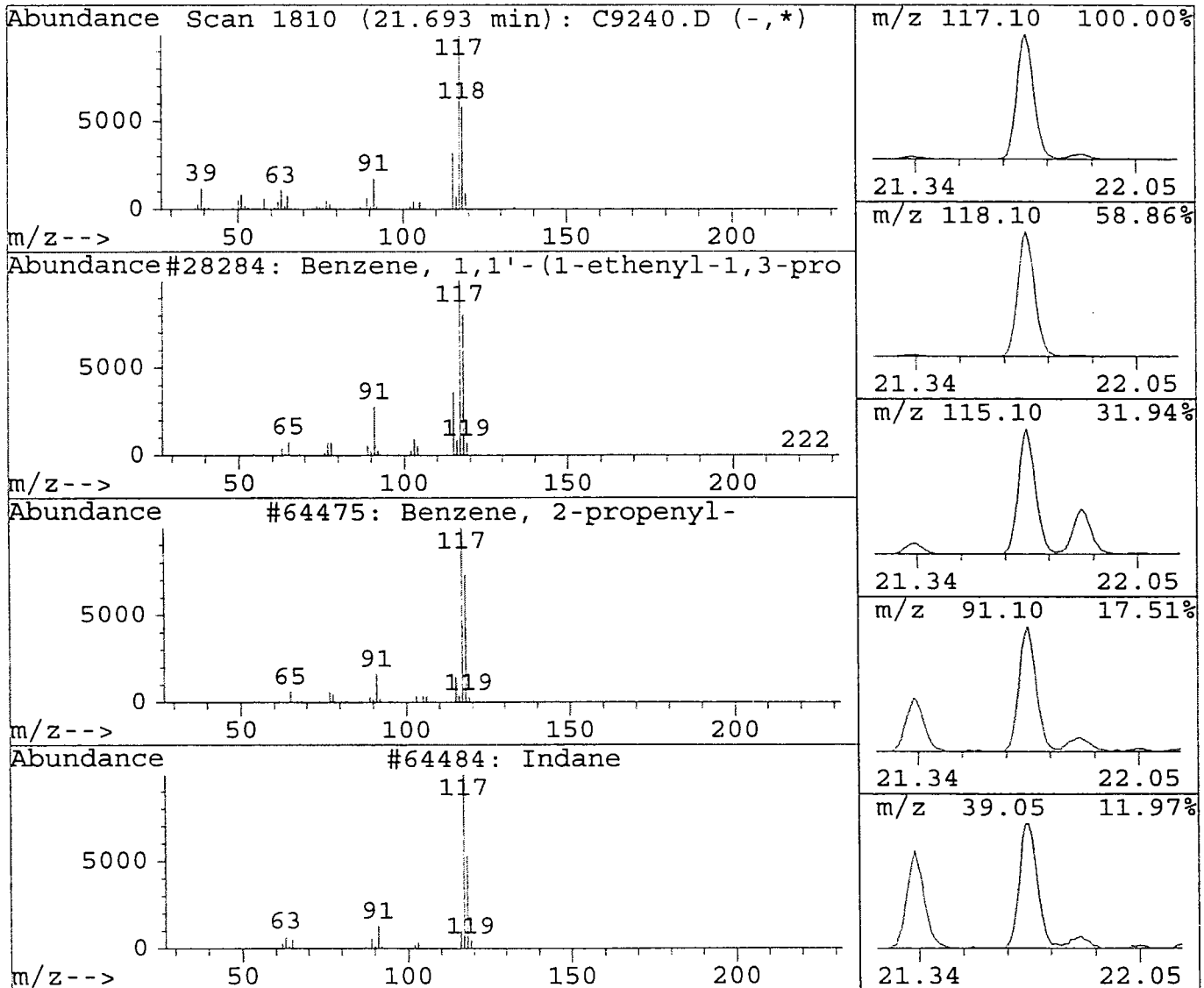
Data File : d:\hpchem\1\data\c9240.d  
 Acq On : 23 Aug 95 4:31 pm  
 Sample : 9536415  
 Misc : 5 ML 1:5

Vial: 8  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
21.69	16.39 ug/L	3810387	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1,1'-(1-ethenyl-1,3-propan	28284	061141-97-7	40
2	Benzene, 2-propenyl-	64475	000300-57-2	43
3	Indane	64484	000496-11-7	87
4	Benzene, 1-propenyl-	64476	000637-50-3	55
5	Benzene, 1-ethenyl-2-methyl-	64478	000611-15-4	49





Library Search Compound Report

191

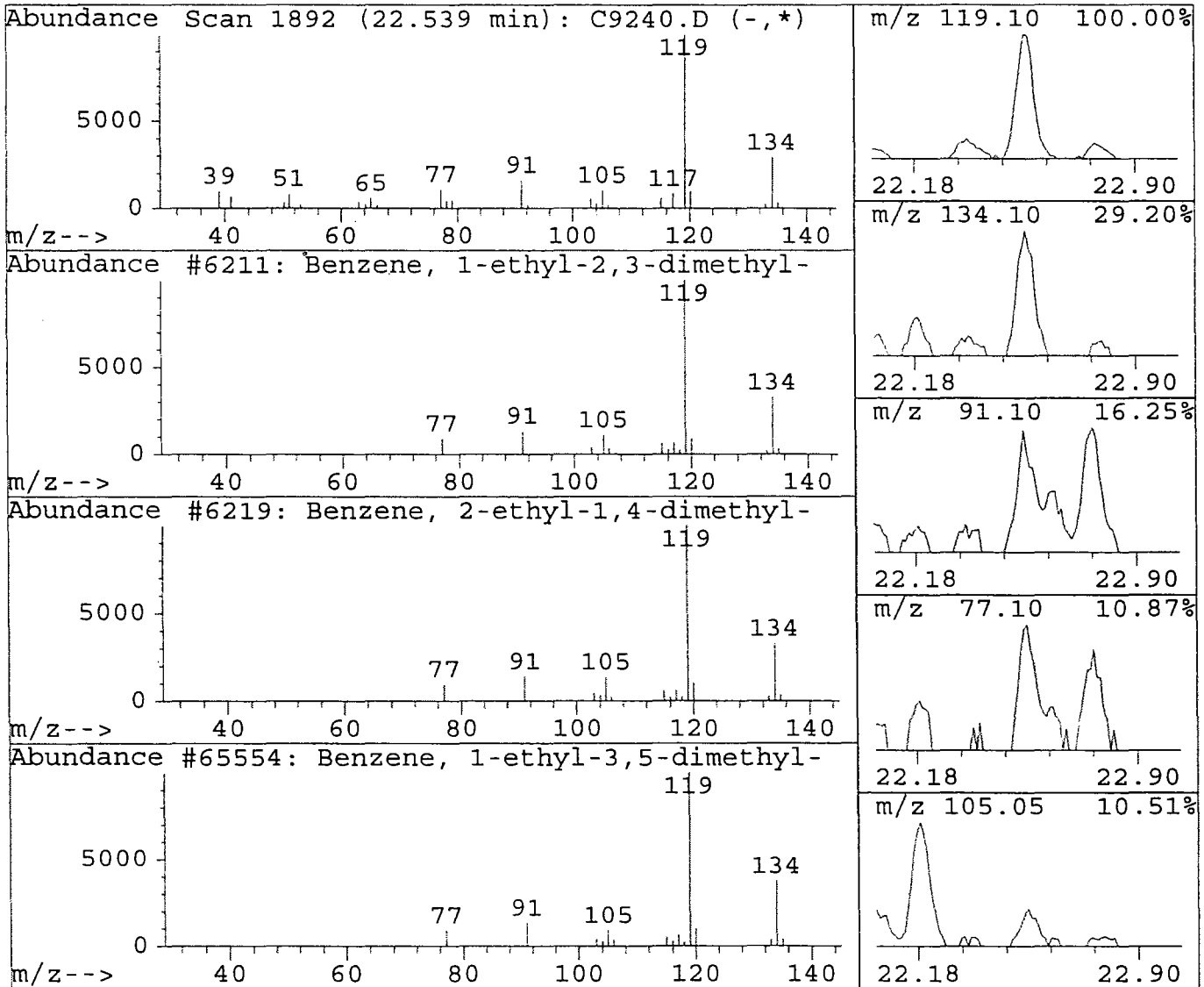
Data File : d:\hpchem\1\data\c9240.d  
 Acq On : 23 Aug 95 4:31 pm  
 Sample : 9536415  
 Misc : 5 ML 1:5

Vial: 8  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.54	1.06 ug/L	245670	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzene, 1-ethyl-2,3-dimethyl-	6211	000933-98-2	91
2	Benzene, 2-ethyl-1,4-dimethyl-	6219	001758-88-9	91
3	Benzene, 1-ethyl-3,5-dimethyl-	65554	000934-74-7	91
4	Benzene, 4-ethyl-1,2-dimethyl-	6218	000934-80-5	90
5	Benzene, 1-methyl-2-(1-methylethyl)	65581	000527-84-4	90



Library Search Compound Report

192

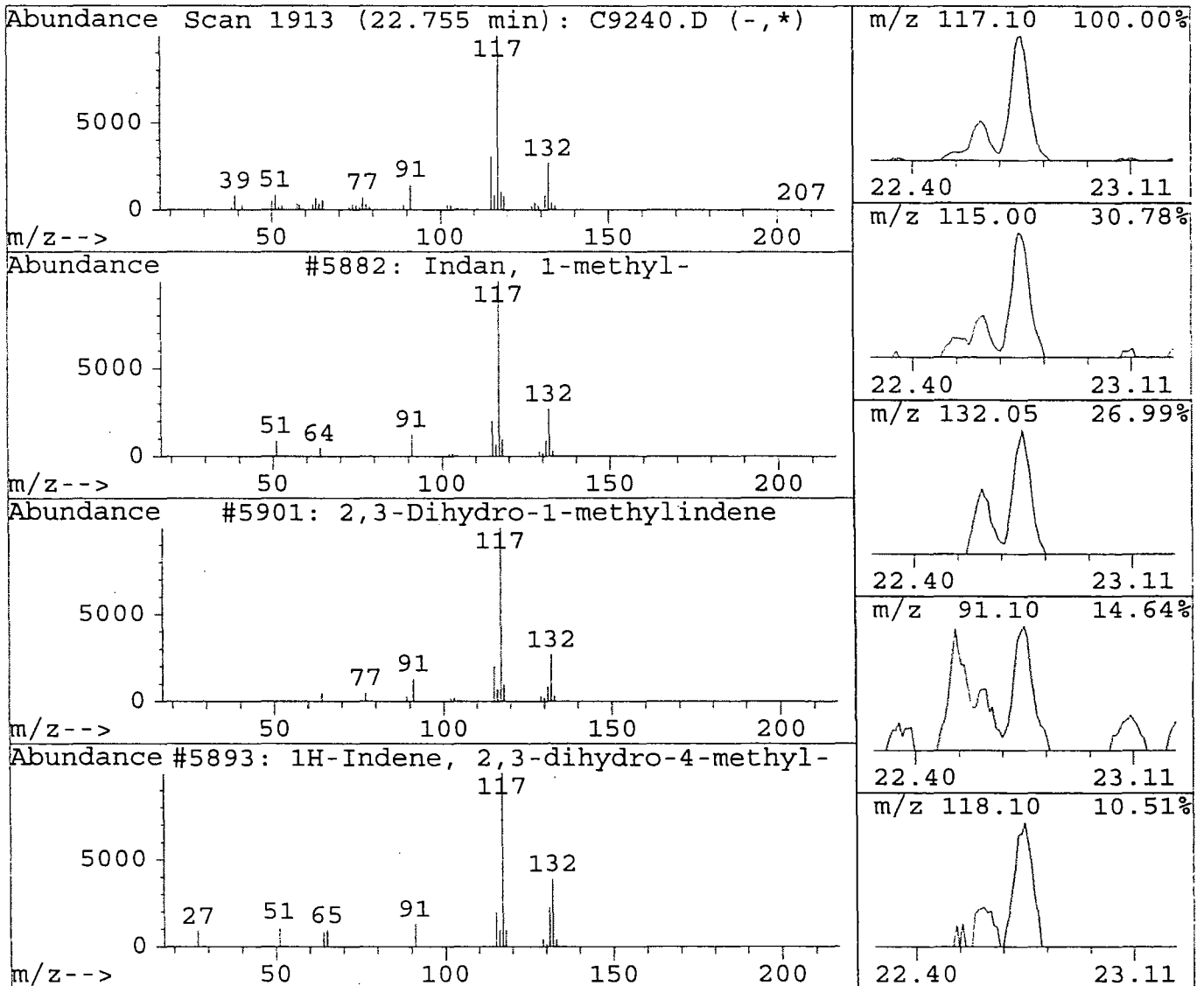
Data File : d:\hpchem\1\data\c9240.d  
 Acq On : 23 Aug 95 4:31 pm  
 Sample : 9536415  
 Misc : 5 ML 1:5

Vial: 8  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.76	1.74 ug/L	403619	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Indan, 1-methyl-	5882	000767-58-8	87
2	2,3-Dihydro-1-methylindene	5901	027133-93-3	87
3	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	49
4	Benzene, 1-ethenyl-3-ethyl-, mixt.	36689	055319-72-7	47
5	(E)-1-Phenyl-1-butene	5878	001005-64-7	49



Library Search Compound Report

193

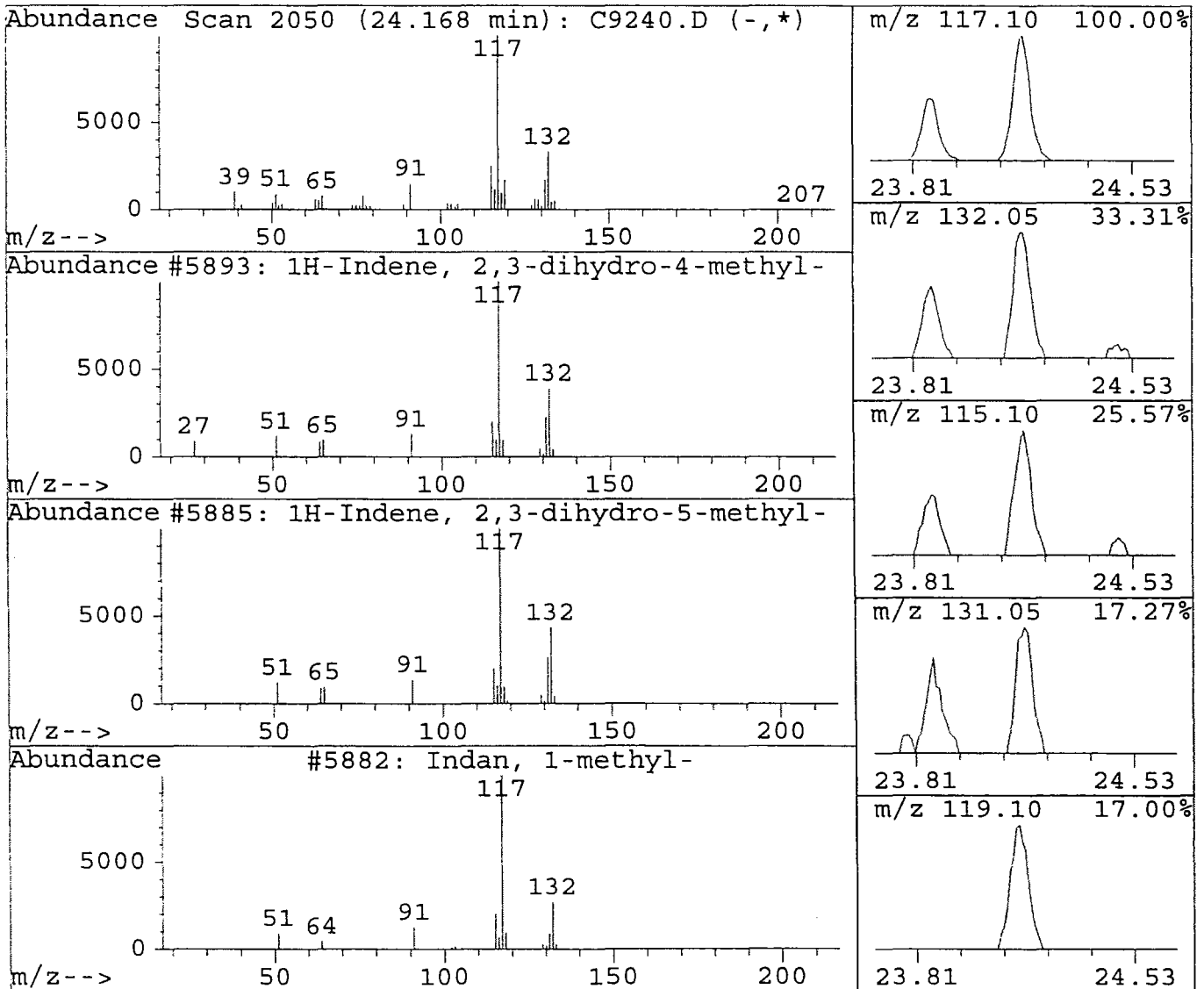
Data File : d:\hpchem\1\data\c9240.d  
 Acq On : 23 Aug 95 4:31 pm  
 Sample : 9536415  
 Misc : 5 ML 1:5

Vial: 8  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.17	1.37 ug/L	318012	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1H-Indene, 2,3-dihydro-4-methyl-	5893	000824-22-6	60
2	1H-Indene, 2,3-dihydro-5-methyl-	5885	000874-35-1	60
3	Indan, 1-methyl-	5882	000767-58-8	94
4	2,3-Dihydro-1-methylindene	5901	027133-93-3	96
5	Benzene, 1-ethenyl-3-ethyl-, mixt.	36689	055319-72-7	59



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910.5

194

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 5

Matrix: (soil/water) WATER

Lab Sample ID: 9536416V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9225.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	.50		U
74-87-3	Chloromethane	.50		U
75-01-4	Vinyl chloride	.50		U
74-83-9	Bromomethane	.50		U
75-00-3	Chloroethane	.50		U
75-69-4	Trichlorofluoromethane	.50		U
75-35-4	1,1-Dichloroethene	.50		U
75-09-2	Methylene chloride	1.2		B
156-60-65	trans-1,2-Dichloroethene	.50		U
75-34-3	1,1-Dichloroethane	.50		U
594-20-7	2,2-Dichloropropane	.50		U
156-59-2	cis-1,2-Dichloroethene	.50		U
74-97-1	Bromochloromethane	.50		U
67-66-3	Chloroform	.50		U
71-55-6	1,1,1-Trichloroethane	.50		U
56-23-1	Carbon tetrachloride	.50		U
563-58-6	1,1-Dichloropropene	.50		U
71-43-2	Benzene	.50		U
107-06-2	1,2-Dichloroethane	.50		U
79-01-6	Trichloroethene	.50		U
78-87-1	1,2-Dichloropropane	.50		U
74-95-3	Dibromomethane	.50		U
75-27-4	Bromodichloromethane	.50		U
10061-01-1	cis-1,3-Dichloropropene	.50		U
108-88-3	Toluene	.50		U
10061-02-6	trans-1,3-Dichloropropene	.50		U
79-00-1	1,1,2-Trichloroethane	.50		U
127-18-4	Tetrachloroethene	.50		U
142-28-9	1,3-Dichloropropane	.50		U
124-48-1	Dibromochloromethane	.50		U
106-93-4	1,2-Dibromomethane	.50		U
108-90-7	Chlorobenzene	.50		U
630-20-6	1,1,1,2-Tetrachloroethane	.50		U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

1910.5

195

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: 2567

NJDEP MW#: 5

Matrix: (soil/water) WATER

Lab Sample ID: 9536416V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9225.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	<u>ug/L</u>	
100-41-4	Ethylbenzene		.50	U
1330-29-7	Xylene (total)		.50	U
100-42-1	Styrene		.50	U
75-25-2	Bromoform		.50	U
98-82-8	Isopropylbenzene		.50	U
108-86-1	Bromobenzene		.50	U
79-34-1	1,1,2,2-Tetrachloroethane		.50	U
96-18-4	1,2,3-Trichloropropane		.50	U
103-65-1	n-Propylbenzene		.50	U
95-49-8	2-Chlorotoluene		.50	U
106-43-4	4-Chlorotoluene		.50	U
108-67-8	1,3,5-Trimethylbenzene		.50	U
98-06-6	tert-Butylbenzene		.50	U
95-63-6	1,2,4-Trimethylbenzene		.50	U
135-98-8	sec-Butylbenzene		.50	U
541-73-1	1,3-Dichlorobenzene		.50	U
99-87-6	4-Isopropyltoluene		.50	U
106-46-7	1,4-Dichlorobenzene		.50	U
95-50-1	1,2-Dichlorobenzene		.50	U
104-51-8	n-Butylbenzene		.50	U
96-12-8	1,2-Dibromo-3-chloropropane		.50	U
120-82-1	1,2,4-Trichlorobenzene		.50	U
87-68-3	Hexachlorobutadiene		.50	U
91-20-3	Naphthalene		.50	U
87-61-6	1,2,3-Trichlorobenzene		.50	U
1634-04-4	Methy-tertiary butyl ether		.50	U
75-65-0	tertiary-Butyl alcohol		2.0	U

1E  
**VOLATILE ORGANICS ANALYSIS DATA SHEET**  
**TENTATIVELY IDENTIFIED COMPOUNDS**

FMETL#

1910-5

196

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: 2567 NJDEP MW#: 5

Matrix: (soil/water) WATER Lab Sample ID: 9536416V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9225.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
5.				
6.				
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27.				
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29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c9225.d  
 Acq On : 22 Aug 95 5:53 pm  
 Sample : 9536416  
 Misc : 25 ML  
 Quant Time: Aug 23 9:44 1995

Vial: 12 **197**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.85	96	575997	5.00	ug/L	0.07
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.11	95	319115	4.93	ug/L	98.70%
57) 1,2-Dichlorobenzene-d4	21.89	152	208171	5.35	ug/L	106.91%
Target Compounds						Qvalue
9) Methylene chloride	7.43	84	34644	1.18	ug/L	98

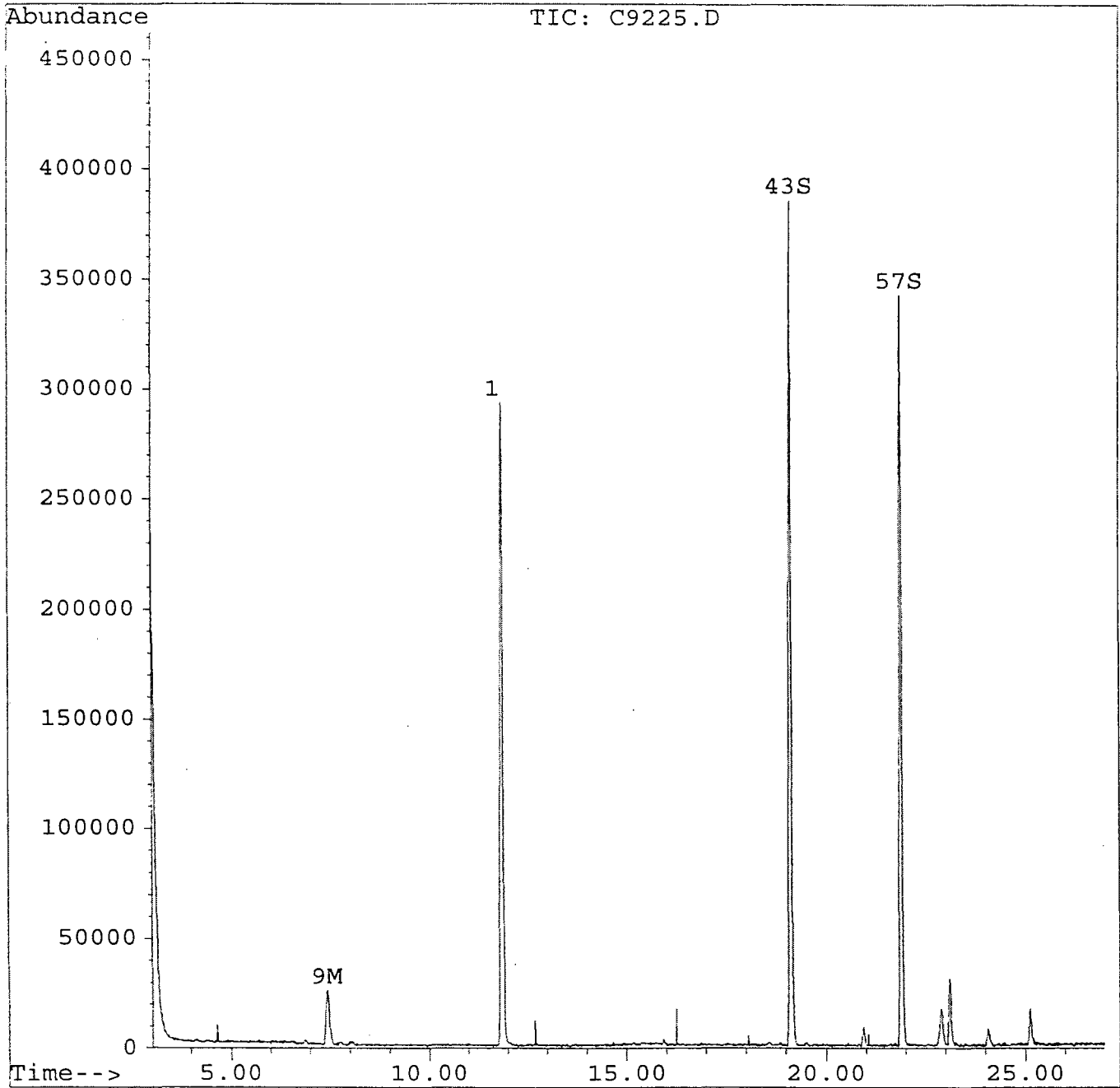
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c9225.d  
Acq On : 22 Aug 95 5:53 pm  
Sample : 9536416  
Misc : 25 ML  
Quant Time: Aug 23 9:44 1995

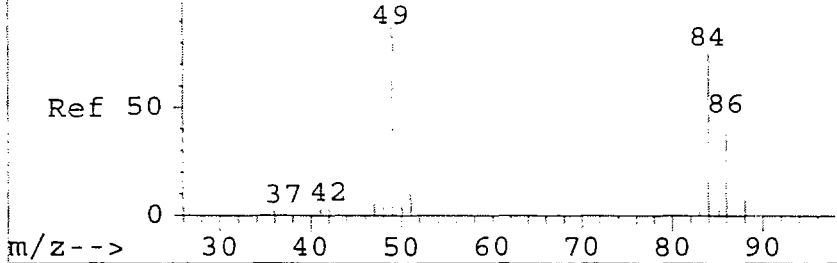
Vial: 12  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration

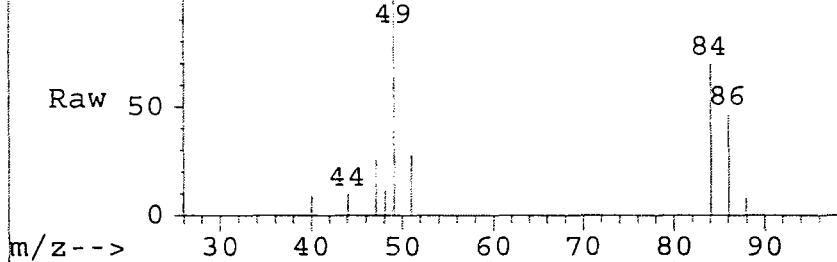




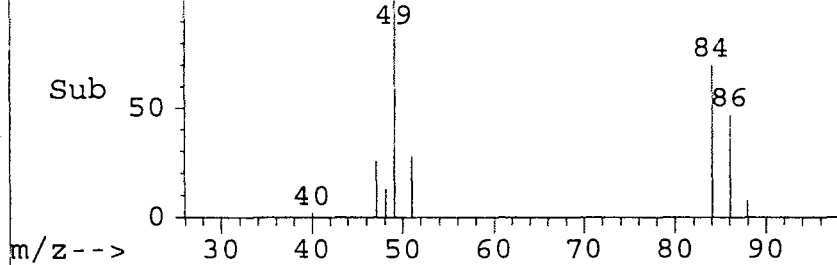
Abundance Scan 418 (7.345 min): C5082.D (-, \*



Abundance Scan 426 (7.425 min): C9225.D (\*)



Abundance Scan 426 (7.425 min): C9225.D (-, \*



#9

Methylene chloride

Concen: 1.18 ug/L

RT: 7.43 min Scan# 426

Delta R.T. 0.07 min

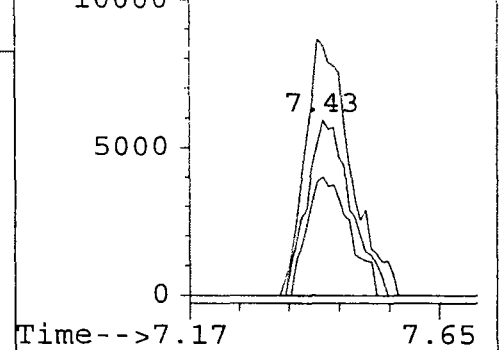
Lab File: c9225.d

Acq: 22 Aug 95 5:53 pm

199

Tgt Ion	Resp	Lower	Upper
84	100		
86	67.2	45.5	85.5
49	142.7	124.4	164.4
0	0.0	0.0	0.0

Abundance	Ion	Retention
84.00	(83.	
86.00	(85.	
49.00	(48.	



Library Search Compound Report

200

Data File : d:\hpchem\1\data\c9225.d  
Acq On : 22 Aug 95 5:53 pm  
Sample : 9536416  
Misc : 25 ML

Vial: 12  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : NBS75K.L

No Library Search Compounds Detected

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

201

1910-6

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: TB NJDEP MW#: TB

Matrix: (soil/water) WATER Lab Sample ID: 9536417V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9220.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
75-71-8	Dichlorodifluoromethane		.50	U
74-87-3	Chloromethane		.50	U
75-01-4	Vinyl chloride		.50	U
74-83-9	Bromomethane		.50	U
75-00-3	Chloroethane		.50	U
75-69-4	Trichlorofluoromethane		.50	U
75-35-4	1,1-Dichloroethene		.50	U
75-09-2	Methylene chloride		2.0	B
156-60-65	trans-1,2-Dichloroethene		.50	U
75-34-3	1,1-Dichloroethane		.50	U
594-20-7	2,2-Dichloropropane		.50	U
156-59-2	cis-1,2-Dichloroethene		.50	U
74-97-1	Bromochloromethane		.50	U
67-66-3	Chloroform		.50	U
71-55-6	1,1,1-Trichloroethane		.50	U
56-23-1	Carbon tetrachloride		.50	U
563-58-6	1,1-Dichloropropene		.50	U
71-43-2	Benzene		.50	U
107-06-2	1,2-Dichloroethane		.50	U
79-01-6	Trichloroethene		.50	U
78-87-1	1,2-Dichloropropane		.50	U
74-95-3	Dibromomethane		.50	U
75-27-4	Bromodichloromethane		.50	U
10061-01-1	cis-1,3-Dichloropropene		.50	U
108-88-3	Toluene		.50	U
10061-02-6	trans-1,3-Dichloropropene		.50	U
79-00-1	1,1,2-Trichloroethane		.50	U
127-18-4	Tetrachloroethene		.50	U
142-28-9	1,3-Dichloropropane		.50	U
124-48-1	Dibromochloromethane		.50	U
106-93-4	1,2-Dibromomethane		.50	U
108-90-7	Chlorobenzene		.50	U
630-20-6	1,1,1,2-Tetrachloroethane		.50	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

202

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY 1910-6

Project No.: FT. MONMOUTH NJ Bldg#: TB NJDEP MW#: TB

Matrix: (soil/water) WATER Lab Sample ID: 9536417V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9220.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
100-41-4	Ethylbenzene		.50	U
1330-29-7	Xylene (total)		.50	U
100-42-1	Styrene		.50	U
75-25-2	Bromoform		.50	U
98-82-8	Isopropylbenzene		.50	U
108-86-1	Bromobenzene		.50	U
79-34-1	1,1,2,2-Tetrachloroethane		.50	U
96-18-4	1,2,3-Trichloropropane		.50	U
103-65-1	n-Propylbenzene		.50	U
95-49-8	2-Chlorotoluene		.50	U
106-43-4	4-Chlorotoluene		.50	U
108-67-8	1,3,5-Trimethylbenzene		.50	U
98-06-6	tert-Butylbenzene		.50	U
95-63-6	1,2,4-Trimethylbenzene		.50	U
135-98-8	sec-Butylbenzene		.50	U
541-73-1	1,3-Dichlorobenzene		.50	U
99-87-6	4-Isopropyltoluene		.50	U
106-46-7	1,4-Dichlorobenzene		.50	U
95-50-1	1,2-Dichlorobenzene		.50	U
104-51-8	n-Butylbenzene		.50	U
96-12-8	1,2-Dibromo-3-chloropropane		.50	U
120-82-1	1,2,4-Trichlorobenzene		.50	U
87-68-3	Hexachlorobutadiene		.50	U
91-20-3	Naphthalene		.50	U
87-61-6	1,2,3-Trichlorobenzene		.50	U
1634-04-4	Methy-tertiary butyl ether		.50	U
75-65-0	tertiary-Butyl alcohol		2.0	U

1E  
**VOLATILE ORGANICS ANALYSIS DATA SHEET**  
**TENTATIVELY IDENTIFIED COMPOUNDS**

FMETL#

1910.6

203

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: TB NJDEP MW#: TB

Matrix: (soil/water) WATER Lab Sample ID: 9536417V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9220.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Column Bleed	22.87	1	J
2.				
3.				
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26.				
27.				
28.				
29.				
30.				

Quantitation Report

Data File : d:\hpchem\1\data\c9220.d  
 Acq On : 22 Aug 95 2:25 pm  
 Sample : 9536417  
 Misc : 25 ML  
 Quant Time: Aug 22 16:34 1995

Vial: 7 **204**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.83	96	439631	5.00	ug/L	0.05
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.10	95	231072	4.68	ug/L	93.63%
57) 1,2-Dichlorobenzene-d4	21.88	152	140451	4.73	ug/L	94.50%
Target Compounds						Qvalue
9) Methylene chloride	7.38	84	45788	2.04	ug/L	94

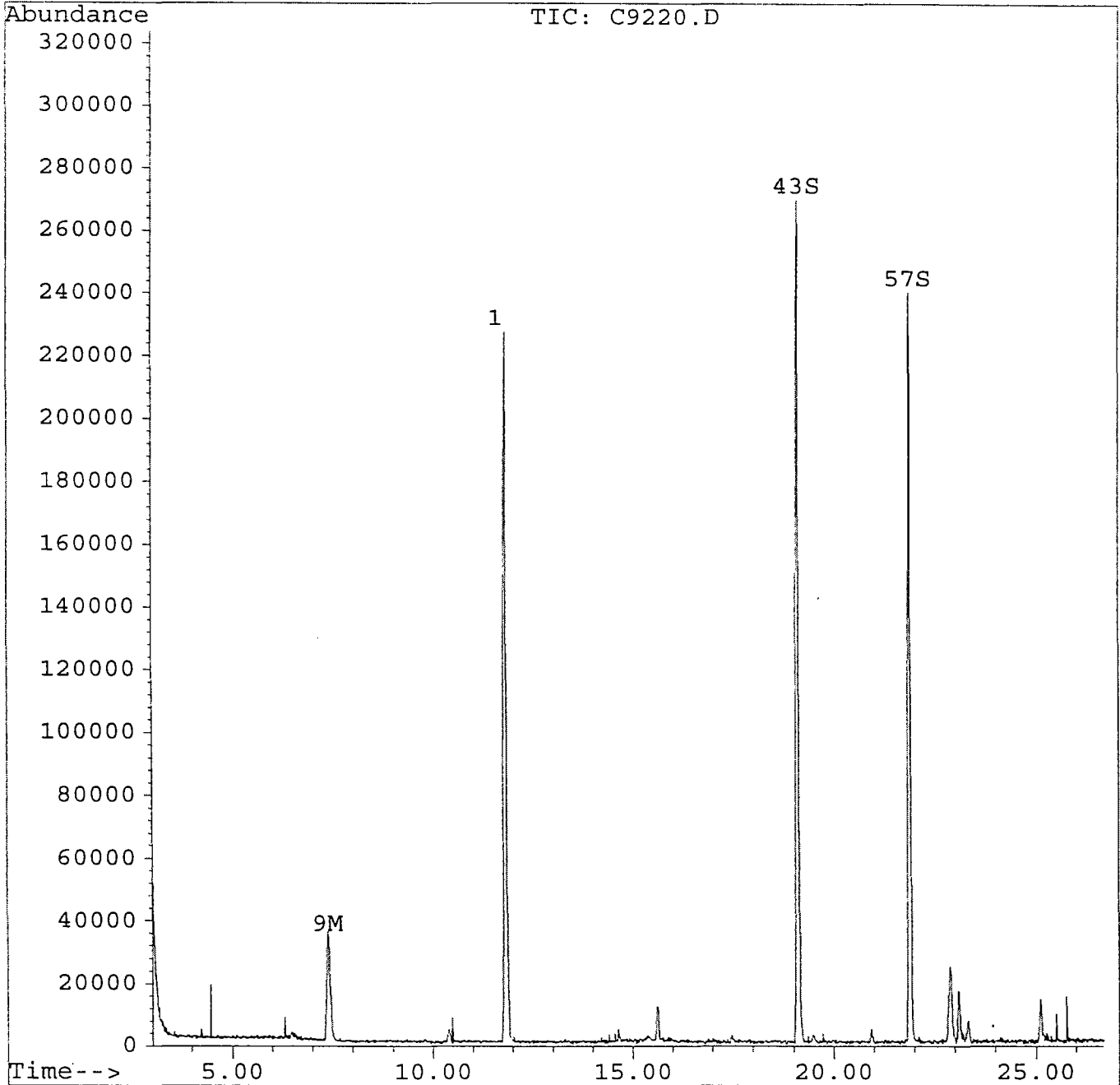
(#) = qualifier out of range (m) = manual integration

Quantitation Report

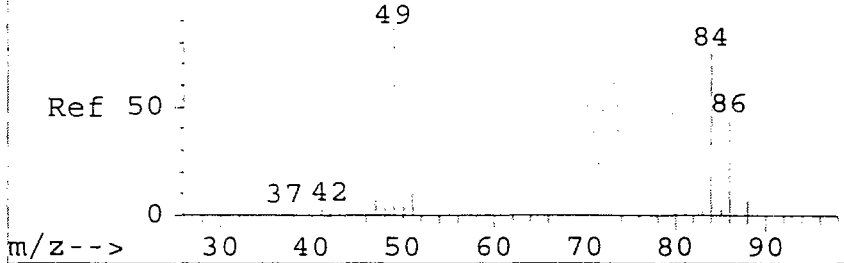
Data File : d:\hpchem\1\data\c9220.d  
Acq On : 22 Aug 95 2:25 pm  
Sample : 9536417  
Misc : 25 ML  
Quant Time: Aug 22 16:34 1995

Vial: 7 **205**  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



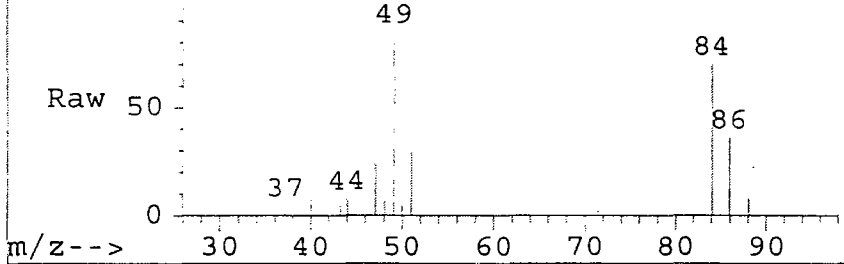
Abundance Scan 418 (7.345 min): C5082.D (-, \*



#9  
 Methylene chloride **206**  
 Concen: 2.04 ug/L  
 RT: 7.38 min Scan# 422  
 Delta R.T. 0.03 min  
 Lab File: c9220.d  
 Acq: 22 Aug 95 2:25 pm

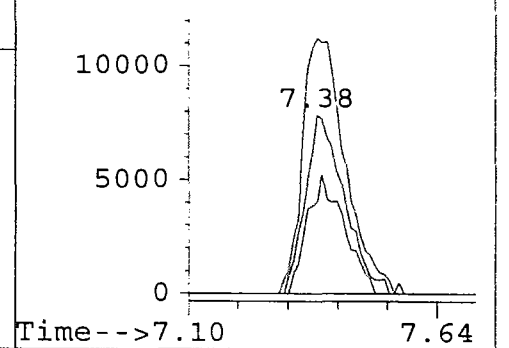
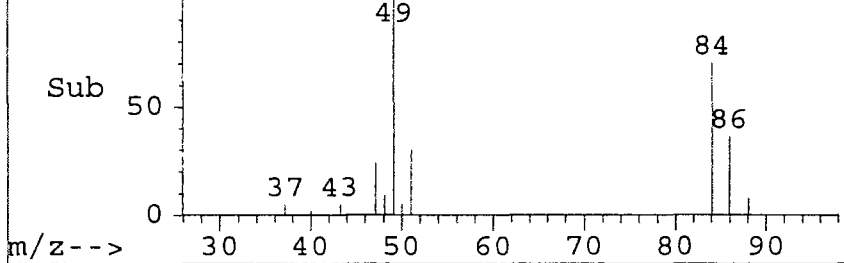
Tgt Ion	Resp	Lower	Upper
84	45788		
84	100		
86	52.2	45.5	85.5
49	143.6	124.4	164.4
0	0.0	0.0	0.0

Abundance Scan 422 (7.383 min): C9220.D (\*



Abundance	Ion	84.00 (83.
15000	-Ion	86.00 (85.
	Ion	49.00 (48.

Abundance Scan 422 (7.383 min): C9220.D (-, \*





Library Search Compound Report

207

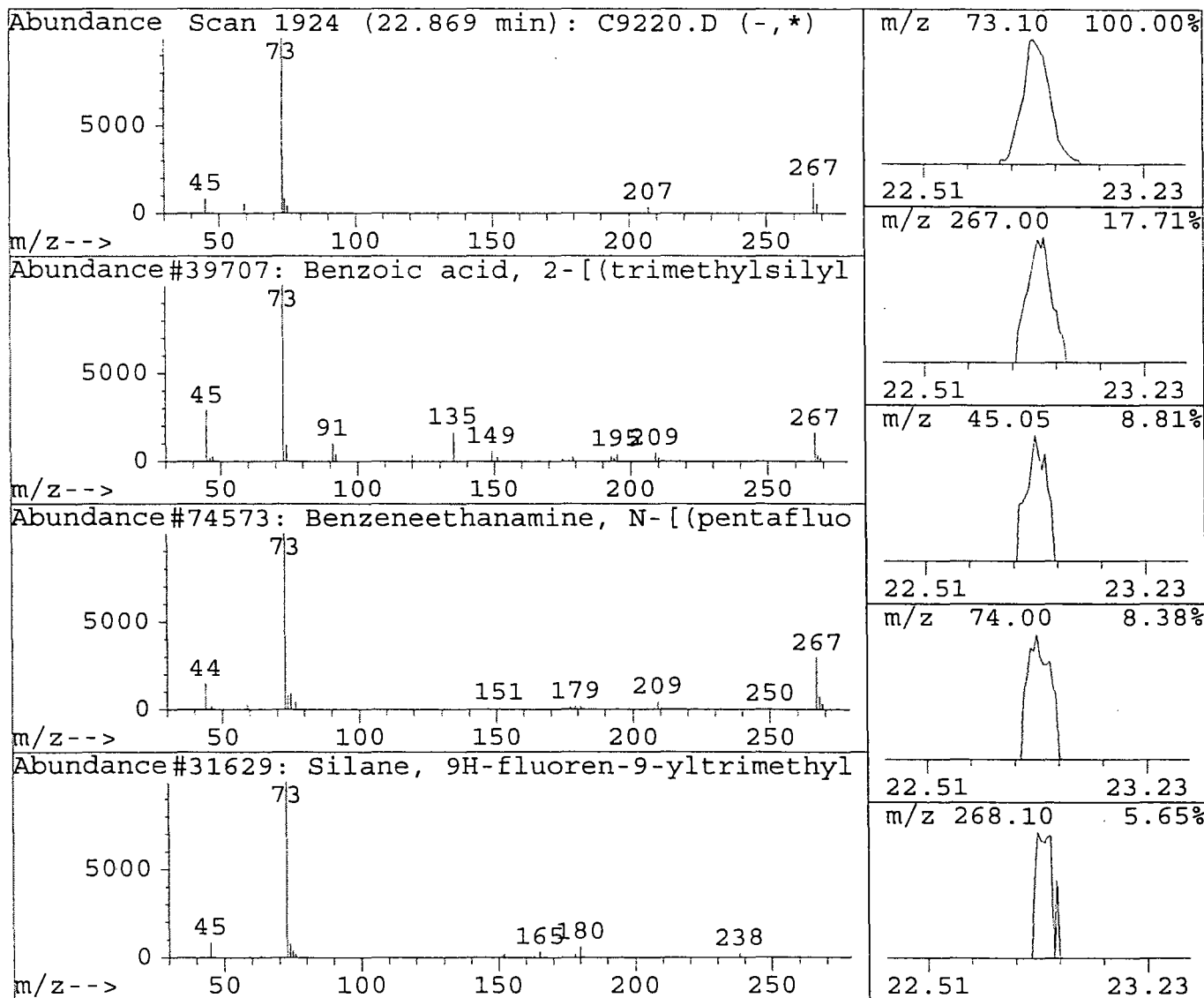
Data File : d:\hpchem\1\data\c9220.d  
 Acq On : 22 Aug 95 2:25 pm  
 Sample : 9536417  
 Misc : 25 ML

Vial: 7  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.87	0.57 ug/L	114585	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl)ox	39707	003789-85-3	4
2	Benzeneethanamine, N-[(pentafluorop	74573	055429-85-1	2
3	Silane, 9H-fluoren-9-yltrimethyl-	31629	007385-10-6	2
4	d,l-trans-4-Methyl-5-methoxy-1-(1-m	22381	000000-00-0	2
5	Octanal, 7-methoxy-3,7-dimethyl-	19455	003613-30-7	2



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

208

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1910.7

Project No.: FT. MONMOUTH NJ Bldg#: FB

NJDEP MW#: FB

Matrix: (soil/water) WATER

Lab Sample ID: 9536418V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C9221.D

Level: (low/med) LOW

Date Received: 8/15/95

% Moisture: not dec. NA

Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm)

Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	.50		U
74-87-3	Chloromethane	.50		U
75-01-4	Vinyl chloride	.50		U
74-83-9	Bromomethane	.50		U
75-00-3	Chloroethane	.50		U
75-69-4	Trichlorofluoromethane	.50		U
75-35-4	1,1-Dichloroethene	.50		U
75-09-2	Methylene chloride	1.7		B
156-60-65	trans-1,2-Dichloroethene	.50		U
75-34-3	1,1-Dichloroethane	.50		U
594-20-7	2,2-Dichloropropane	.50		U
156-59-2	cis-1,2-Dichloroethene	.50		U
74-97-1	Bromochloromethane	.50		U
67-66-3	Chloroform	.50		U
71-55-6	1,1,1-Trichloroethane	.50		U
56-23-1	Carbon tetrachloride	.50		U
563-58-6	1,1-Dichloropropene	.50		U
71-43-2	Benzene	.50		U
107-06-2	1,2-Dichloroethane	.50		U
79-01-6	Trichloroethene	.50		U
78-87-1	1,2-Dichloropropane	.50		U
74-95-3	Dibromomethane	.50		U
75-27-4	Bromodichloromethane	.50		U
10061-01-1	cis-1,3-Dichloropropene	.50		U
108-88-3	Toluene	.50		U
10061-02-6	trans-1,3-Dichloropropene	.50		U
79-00-1	1,1,2-Trichloroethane	.50		U
127-18-4	Tetrachloroethene	.50		U
142-28-9	1,3-Dichloropropane	.50		U
124-48-1	Dibromochloromethane	.50		U
106-93-4	1,2-Dibromomethane	.50		U
108-90-7	Chlorobenzene	.50		U
630-20-6	1,1,1,2-Tetrachloroethane	.50		U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

1910.7

209

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: FB NJDEP MW#: FB

Matrix: (soil/water) WATER Lab Sample ID: 9536418V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9221.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
100-41-4	Ethylbenzene	.50		U
1330-29-7	Xylene (total)	.50		U
100-42-1	Styrene	.50		U
75-25-2	Bromoform	.50		U
98-82-8	Isopropylbenzene	.50		U
108-86-1	Bromobenzene	.50		U
79-34-1	1,1,2,2-Tetrachloroethane	.50		U
96-18-4	1,2,3-Trichloropropane	.50		U
103-65-1	n-Propylbenzene	.50		U
95-49-8	2-Chlorotoluene	.50		U
106-43-4	4-Chlorotoluene	.50		U
108-67-8	1,3,5-Trimethylbenzene	.50		U
98-06-6	tert-Butylbenzene	.50		U
95-63-6	1,2,4-Trimethylbenzene	.50		U
135-98-8	sec-Butylbenzene	.50		U
541-73-1	1,3-Dichlorobenzene	.50		U
99-87-6	4-Isopropyltoluene	.50		U
106-46-7	1,4-Dichlorobenzene	.50		U
95-50-1	1,2-Dichlorobenzene	.50		U
104-51-8	n-Butylbenzene	.50		U
96-12-8	1,2-Dibromo-3-chloropropane	.50		U
120-82-1	1,2,4-Trichlorobenzene	.50		U
87-68-3	Hexachlorobutadiene	.50		U
91-20-3	Naphthalene	.50		U
87-61-6	1,2,3-Trichlorobenzene	.50		U
1634-04-4	Methy-tertiary butyl ether	.50		U
75-65-0	tertiary-Butyl alcohol	2.0		U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

1910.1

210

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: FB NJDEP MW#: FB

Matrix: (soil/water) WATER Lab Sample ID: 9536418V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9221.D

Level: (low/med) LOW Date Received: 8/15/95

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
5.				
6.				
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Quantitation Report

Data File : d:\hpchem\1\data\c9221.d  
 Acq On : 22 Aug 95 3:14 pm  
 Sample : 9536418  
 Misc : 25 ML  
 Quant Time: Aug 22 16:35 1995

Vial: 8 **211**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.83	96	584466	5.00	ug/L	0.05
						%Recovery
System Monitoring Compounds						
43) 4-Bromofluorobenzene	19.10	95	334624	5.10	ug/L	101.99%
57) 1,2-Dichlorobenzene-d4	21.88	152	216227	5.47	ug/L	109.43%
						Qvalue
Target Compounds						
9) Methylene chloride	7.38	84	49558	1.66	ug/L	97

(#) = qualifier out of range (m) = manual integration

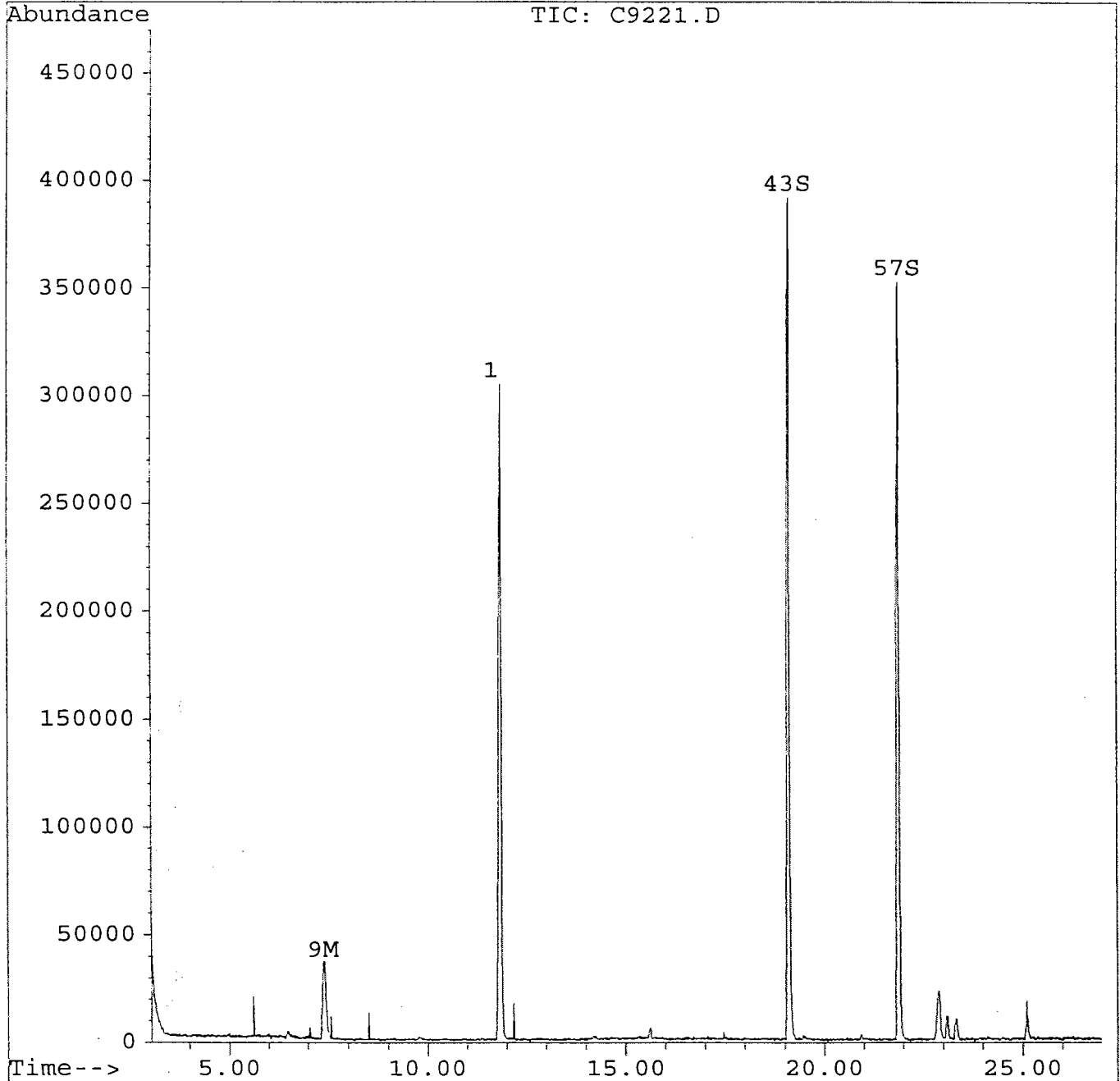
Quantitation Report

212

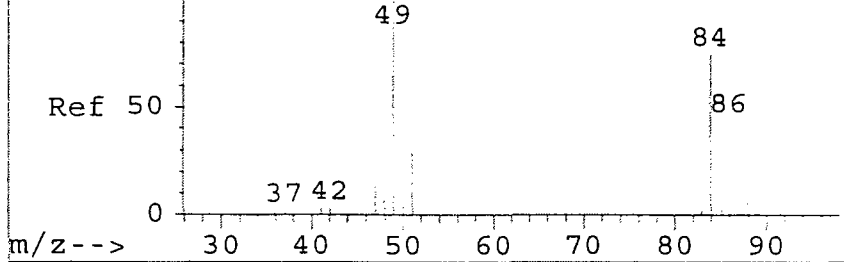
Data File : d:\hpchem\1\data\c9221.d  
Acq On : 22 Aug 95 3:14 pm  
Sample : 9536418  
Misc : 25 ML  
Quant Time: Aug 22 16:35 1995

Vial: 8  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



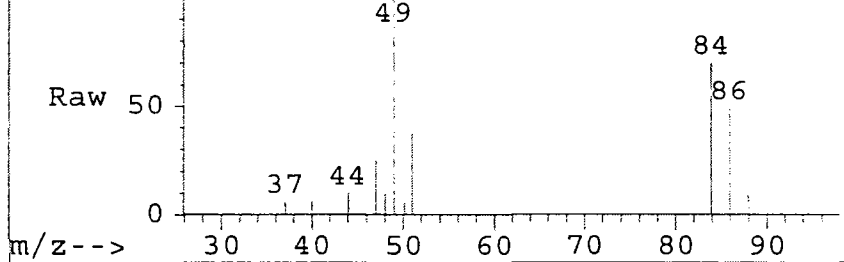
Abundance Scan 418 (7.345 min): C5082.D (-, \*



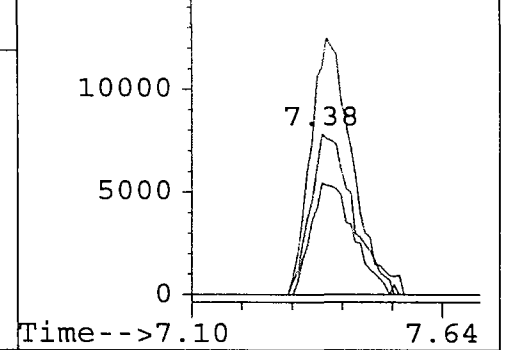
#9  
 Methylene chloride  
 Concen: 1.66 ug/L  
 RT: 7.38 min Scan# 422  
 Delta R.T. 0.03 min  
 Lab File: c9221.d  
 Acq: 22 Aug 95 3:14 pm

Tgt Ion	Resp	Lower	Upper
84	49558		
84	100		
86	69.9	45.5	85.5
49	142.2	124.4	164.4
0	0.0	0.0	0.0

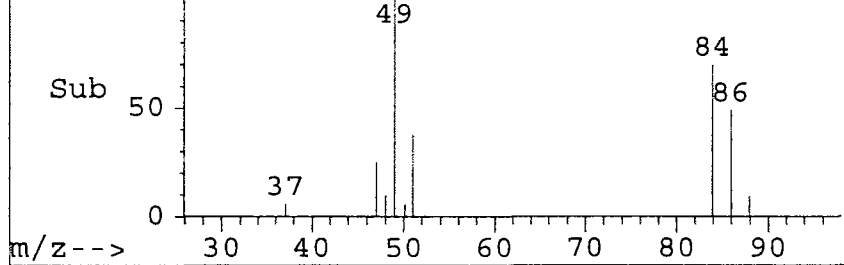
Abundance Scan 422 (7.383 min): C9221.D (\*)



Abundance Ion	84.00 (83.
Ion	86.00 (85.
15000	Ion 49.00 (48.



Abundance Scan 422 (7.383 min): C9221.D (-, \*



Library Search Compound Report

214

Data File : d:\hpchem\1\data\c9221.d  
Acq On : 22 Aug 95 3:14 pm  
Sample : 9536418  
Misc : 25 ML

Vial: 8  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : NBS75K.L

No Library Search Compounds Detected



WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

	SAMPLE NO.	SMC1 (BFB) #	SMC2 (DCB) #	#	OTHER #	TOT OUT
01	1 STND	99	98			
02	VBLK01	102	106			
03	9535439V	101	107			
04	9536417V	94	95			
05	9536418V	102	109			
06	9536412V	103	109			
07	9536413V	100	106			
08	9536414V	98	107			
09	9536416V	99	107			
10	9536416MS	100	103			
11	9536416MSD	99	103			
12	10 QCS	101	103			
13						
14						
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QC LIMITS

SMC1 (BFB) = 4-Bromofluorobenzene

(80-120)

SMC2 (DCB) = 1,2-Dichlorobenzene-d4

(80-120)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

	SAMPLE NO.	SMC1 (BFB) #	SMC2 (DCB) #	#	OTHER #	TOT OUT
01	10 QCS	98	103			
02	1 STND	96	103			
03	VBLK01	99	104			
04	9535439D	98	102			
05	9536415V	103	110			
06	9536415D	99	104			
07	9536608V	99	105			
08	9536609V	97	105			
09	9536611V	98	99			
10	9536420V	99	106			
11	9536419V	99	105			
12						
13						
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QC LIMITS

SMC1 (BFB) = 4-Bromofluorobenzene

(80-120)

SMC2 (DCB) = 1,2-Dichlorobenzene-d4

(80-120)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: EMSL ANALYTICAL

Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_

Site: \_\_\_\_\_

Location: \_\_\_\_\_

Group: \_\_\_\_\_

	SAMPLE NO.	SMC1 (BFB) #	SMC2 (DCB) #	#	OTHER #	TOT OUT
01	10 QCS	100	105			
02	1 STND	100	108			
03	VBLK01	103	110			
04	9536414D	101	106			
05	9536610V	105	113			
06	9536614V	104	110			
07	9536615V	101	110			
08	9536615MS	100	107			
09	9536615MSD	101	107			
10	9536613V	103	109			
11	9536612V	98	103			
12	9536616V	99	106			
13						
14						
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QC LIMITS

SMC1 (BFB) = 4-Bromofluorobenzene

(80-120)

SMC2 (DCB) = 1,2-Dichlorobenzene-d4

(80-120)

# Column to be used to flag recovery values

\* Values outside of contract required QC limits

D System Monitoring Compound diluted out

4A  
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO. **218**  
**VBLK01**

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
 Lab File ID: C9218.D Lab Sample ID: M. BLANK  
 Date Analyzed: 8/22/95 Time Analyzed: 1304  
 GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) N  
 Instrument ID: 5972-INSTRU

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	1 STND	1 STND	C9217.D	1215
02	9535439V	9535439V	C9219.D	1346
03	9536417V	9536417V	C9220.D	1425
04	9536418V	9536418V	C9221.D	1514
05	9536412V	9536412V	C9222.D	1555
06	9536413V	9536413V	C9223.D	1638
07	9536414V	9536414V	C9224.D	1716
08	9536416V	9536416V	C9225.D	1753
09	9536416MS	36416MS	C9226.D	1830
10	9536416MSD	36416MSD	C9227.D	1906
11	10 QCS	10 QCS	C9229.D	2018
12				
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COMMENTS:

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4A  
VOLATILE METHOD BLANK SUMMARY

SAMPLE NO. 219

VBLK01

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Lab File ID: C9237.D Lab Sample ID: M. BLANK

Date Analyzed: 8/23/95 Time Analyzed: 1436

GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972-INSTRU

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	10 QCS	10 QCS	C9235.D	1321
02	1 STND	1 STND	C9236.D	1358
03	9535439D	9535439D	C9238.D	1513
04	9536415V	9536415V	C9240.D	1631
05	9536415D	9536415D	C9241.D	1708
06	9536608V	9536608V	C9242.D	1745
07	9536609V	9536609V	C9243.D	1822
08	9536611V	9536611V	C9244.D	1858
09	9536420V	9536420V	C9245.D	1934
10	9536419V	9536419V	C9246.D	2009
11				
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COMMENTS:

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## VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

220

VBLK01

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Lab File ID: C9257.D Lab Sample ID: M, BLANK

Date Analyzed: 8/24/95 Time Analyzed: 1225

GC Column: DB-624 X 75M ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: 5972-INSTRU

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	10 QCS	10 QCS	C9255.D	1104
02	1 STND	1 STND	C9256.D	1142
03	9536414D	9536414D	C9258.D	1305
04	9536610V	9536610V	C9259.D	1350
05	9536614V	9536614V	C9260.D	1434
06	9536615V	9536615V	C9261.D	1517
07	9536615MS	36615MS	C9262.D	1557
08	9536615MSD	36615MSD	C9263.D	1637
09	9536613V	9536613V	C9264.D	1716
10	9536612V	9536612V	C9265.D	1754
11	9536616V	9536616V	C9266.D	1831
12				
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COMMENTS:

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLK01

221

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ \* Group: \_\_\_\_\_

Matrix: (soil/water) WATER Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9218.D

Level: (low/med) LOW Date Received: NA

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
75-01-4	Vinyl chloride	.50	U
74-83-9	Bromomethane	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-09-2	Methylene chloride	.40	
156-60-65	trans-1,2-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
74-97-1	Bromochloromethane	.50	U
67-66-3	Chloroform	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
56-23-1	Carbon tetrachloride	.50	U
563-58-6	1,1-Dichloropropene	.50	U
71-43-2	Benzene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
79-01-6	Trichloroethene	.50	U
78-87-1	1,2-Dichloropropane	.50	U
74-95-3	Dibromomethane	.50	U
75-27-4	Bromodichloromethane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
108-88-3	Toluene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
124-48-1	Dibromochloromethane	.50	U
106-93-4	1,2-Dibromomethane	.50	U
108-90-7	Chlorobenzene	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLK01

222

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Project No.: \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_

Matrix: (soil/water) WATER Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9218.D

Level: (low/med) LOW Date Received: NA

% Moisture: not dec. NA Date Analyzed: 8/22/95

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
100-41-4	Ethylbenzene		.50	U
1330-29-7	Xylene (total)		.50	U
100-42-1	Styrene		.50	U
75-25-2	Bromoform		.50	U
98-82-8	Isopropylbenzene		.50	U
108-86-1	Bromobenzene		.50	U
79-34-1	1,1,2,2-Tetrachloroethane		.50	U
96-18-4	1,2,3-Trichloropropane		.50	U
103-65-1	n-Propylbenzene		.50	U
95-49-8	2-Chlorotoluene		.50	U
106-43-4	4-Chlorotoluene		.50	U
108-67-8	1,3,5-Trimethylbenzene		.50	U
98-06-6	tert-Butylbenzene		.50	U
95-63-6	1,2,4-Trimethylbenzene		.50	U
135-98-8	sec-Butylbenzene		.50	U
541-73-1	1,3-Dichlorobenzene		.50	U
99-87-6	4-Isopropyltoluene		.50	U
106-46-7	1,4-Dichlorobenzene		.50	U
95-50-1	1,2-Dichlorobenzene		.50	U
104-51-8	n-Butylbenzene		.50	U
96-12-8	1,2-Dibromo-3-chloropropane		.50	U
120-82-1	1,2,4-Trichlorobenzene		.50	U
87-68-3	Hexachlorobutadiene		.50	U
91-20-3	Naphthalene		.50	U
87-61-6	1,2,3-Trichlorobenzene		.50	U
1634-04-4	Methy-tertiary butyl ether		.50	U
75-65-0	tertiary-Butyl alcohol		2.0	U



IE  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK01

223

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
 Matrix: (soil/water) WATER Lab Sample ID: M. BLANK  
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9218.D  
 Level: (low/med) LOW Date Received: NA  
 % Moisture: not dec. NA Date Analyzed: 8/22/95  
 GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0 Concentration Units: \_\_\_\_\_  
 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
3.				
4.				
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6.				
7.				
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Quantitation Report

224

Data File : D:\HPCHEM\1\DATA\C9218.D  
 Acq On : 22 Aug 95 1:04 pm  
 Sample : METHOD BLANK  
 Misc : 25 ML  
 Quant Time: Aug 23 13:47 1995

Vial: 5  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.80	96	557232	5.00	ug/L	0.02
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.10	95	317874	5.08	ug/L	101.62%
57) 1,2-Dichlorobenzene-d4	21.88	152	200335	5.32	ug/L	106.35%
Target Compounds						Qvalue
9) Methylene chloride	7.34	84	10841	0.38	ug/L	90

(#) = qualifier out of range (m) = manual integration

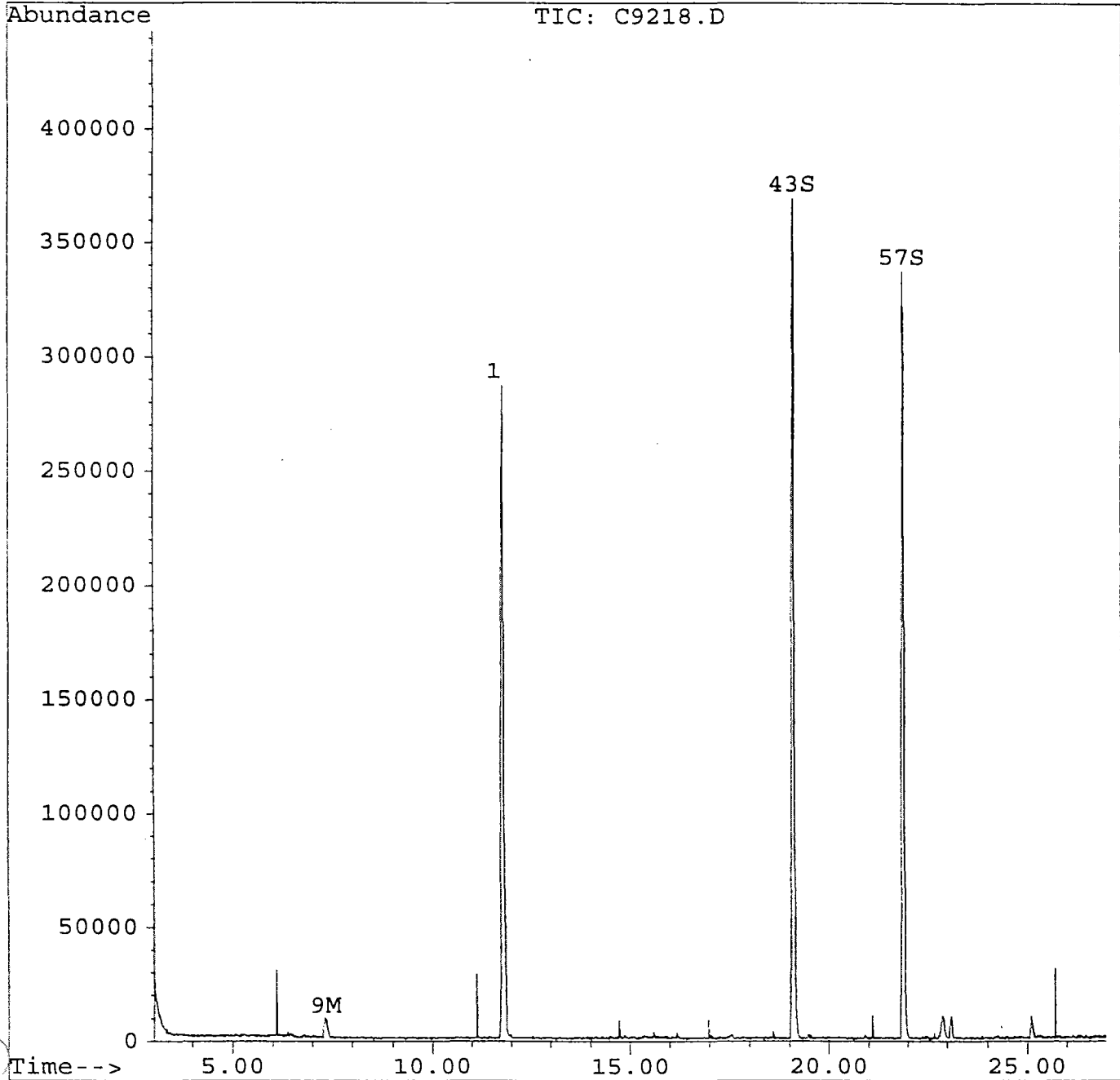
Quantitation Report

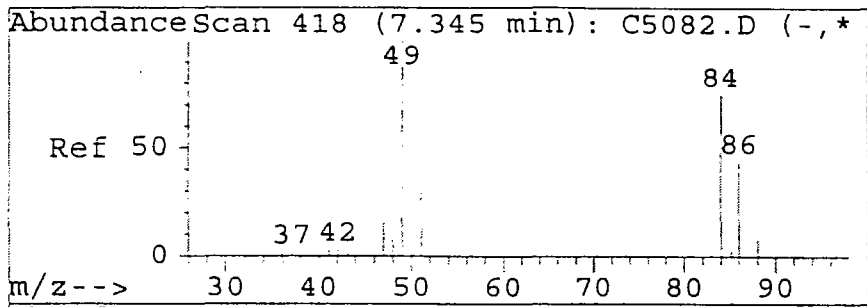
225

Data File : D:\HPCHEM\1\DATA\C9218.D  
Acq On : 22 Aug 95 1:04 pm  
Sample : METHOD BLANK  
Misc : 25 ML  
Quant Time: Aug 23 13:47 1995

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration

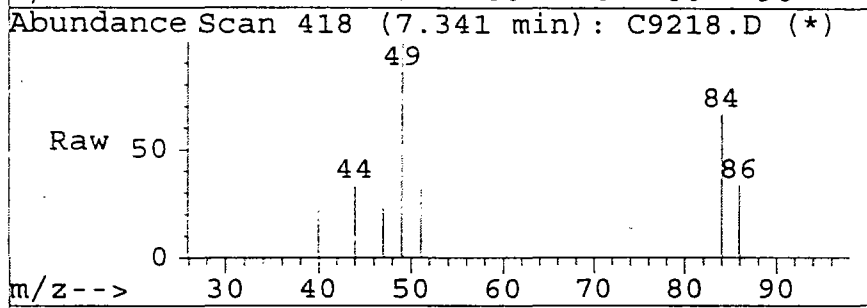




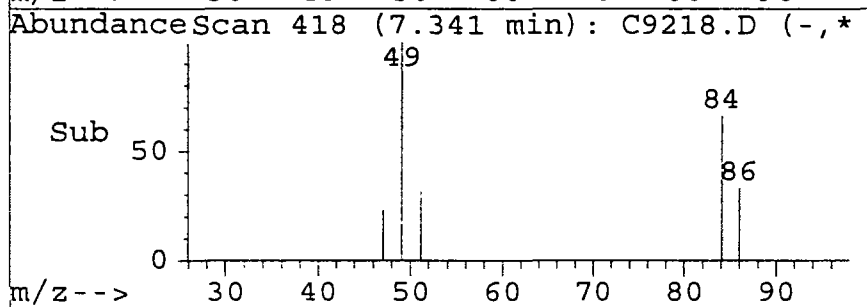
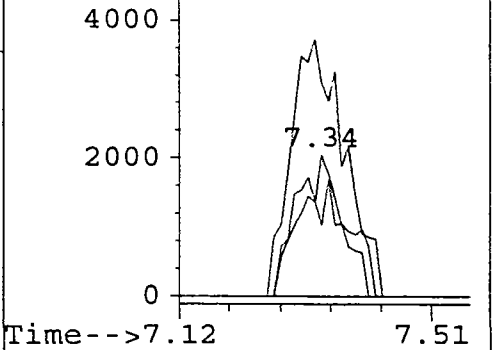
#9  
 Methylene chloride  
 Concen: 0.38 ug/L  
 RT: 7.34 min Scan# 418  
 Delta R.T. -0.01 min  
 Lab File: C9218.D  
 Acq: 22 Aug 95 1:04 pm

226

Tgt Ion	84	Resp	10841
Ion Ratio	Lower	Upper	
84	100		
86	50.6	45.5	85.5
49	151.8	124.4	164.4
0	0.0	0.0	0.0



Abundance	Ion	84.00	(83.
	Ion	86.00	(85.
	Ion	49.00	(48.



Library Search Compound Report

227

Data File : D:\HPCHEM\1\DATA\C9218.D  
Acq On : 22 Aug 95 1:04 pm  
Sample : METHOD BLANK  
Misc : 25 ML

Vial: 5  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Library : NBS75K.L

No Library Search Compounds Detected

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#



228

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: \_\_\_\_\_ NJDEP MW#: \_\_\_\_\_

Matrix: (soil/water) WATER Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9237.D

Level: (low/med) LOW Date Received: NA

% Moisture: not dec. NA Date Analyzed: 8/23/95

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	.50		U
74-87-3	Chloromethane	.50		U
75-01-4	Vinyl chloride	.50		U
74-83-9	Bromomethane	.50		U
75-00-3	Chloroethane	.50		U
75-69-4	Trichlorofluoromethane	.50		U
75-35-4	1,1-Dichloroethene	.50		U
75-09-2	Methylene chloride	1.8		
156-60-65	trans-1,2-Dichloroethene	.50		U
75-34-3	1,1-Dichloroethane	.50		U
594-20-7	2,2-Dichloropropane	.50		U
156-59-2	cis-1,2-Dichloroethene	.50		U
74-97-1	Bromochloromethane	.50		U
67-66-3	Chloroform	.50		U
71-55-6	1,1,1-Trichloroethane	.50		U
56-23-1	Carbon tetrachloride	.50		U
563-58-6	1,1-Dichloropropene	.50		U
71-43-2	Benzene	.50		U
107-06-2	1,2-Dichloroethane	.50		U
79-01-6	Trichloroethene	.50		U
78-87-1	1,2-Dichloropropane	.50		U
74-95-3	Dibromomethane	.50		U
75-27-4	Bromodichloromethane	.50		U
10061-01-1	cis-1,3-Dichloropropene	.50		U
108-88-3	Toluene	.50		U
10061-02-6	trans-1,3-Dichloropropene	.50		U
79-00-1	1,1,2-Trichloroethane	.50		U
127-18-4	Tetrachloroethene	.50		U
142-28-9	1,3-Dichloropropane	.50		U
124-48-1	Dibromochloromethane	.50		U
106-93-4	1,2-Dibromomethane	.50		U
108-90-7	Chlorobenzene	.50		U
630-20-6	1,1,1,2-Tetrachloroethane	.50		U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

229

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: \_\_\_\_\_ NJDEP MW#: \_\_\_\_\_

Matrix: (soil/water) WATER Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9237.D

Level: (low/med) LOW Date Received: NA

% Moisture: not dec. NA Date Analyzed: 8/23/95

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	ug/L
			Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U
1634-04-4	Methy-tertiary butyl ether	.50	U
75-65-0	tertiary-Butyl alcohol	2.0	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK01

230

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
 Matrix: (soil/water) WATER Lab Sample ID: M. BLANK  
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9237.D  
 Level: (low/med) LOW Date Received: NA  
 % Moisture: not dec. NA Date Analyzed: 8/23/95  
 GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Column Bleed	22.88	1	J
2.				
3.				
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30.				



Quantitation Report

Data File : d:\hpchem\1\data\c9237.d  
 Acq On : 23 Aug 95 2:36 pm  
 Sample : METHOD BLANK  
 Misc : 25 ML  
 Quant Time: Aug 24 8:43 1995

Vial: 5 **231**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.84	96	574574	5.00	ug/L	0.06
						%Recovery
System Monitoring Compounds						
43) 4-Bromofluorobenzene	19.10	95	317892	4.93	ug/L	98.56%
57) 1,2-Dichlorobenzene-d4	21.87	152	201734	5.19	ug/L	103.86%
						Qvalue
Target Compounds						
9) Methylene chloride	7.41	84	50079	1.71	ug/L	91

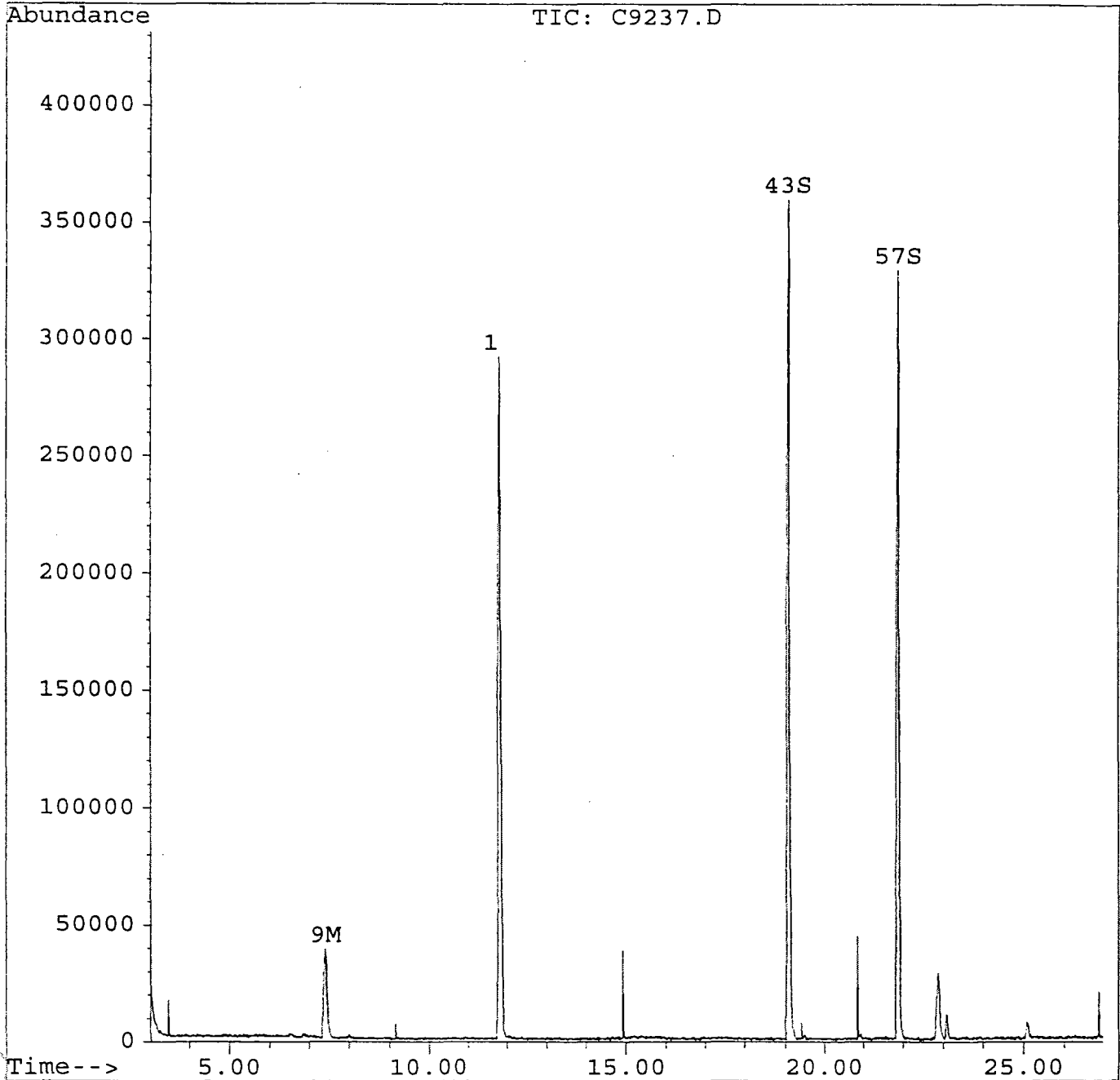
(#) = qualifier out of range (m) = manual integration

Quantitation Report

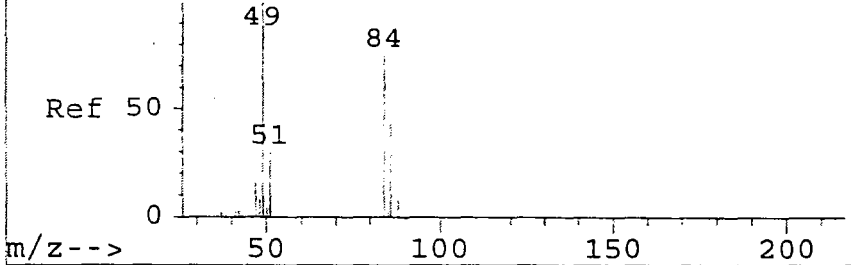
Data File : d:\hpchem\1\data\c9237.d  
Acq On : 23 Aug 95 2:36 pm  
Sample : METHOD BLANK  
Misc : 25 ML  
Quant Time: Aug 24 8:43 1995

Vial: 5 232  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

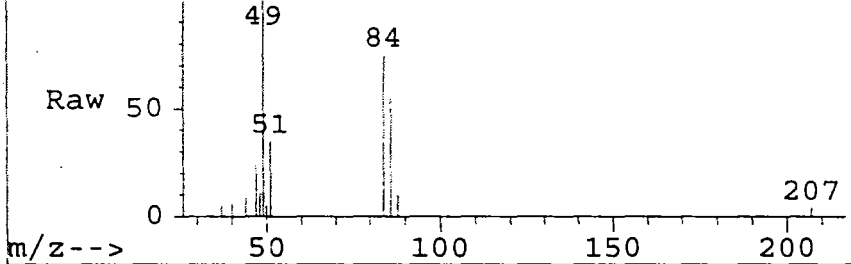
Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



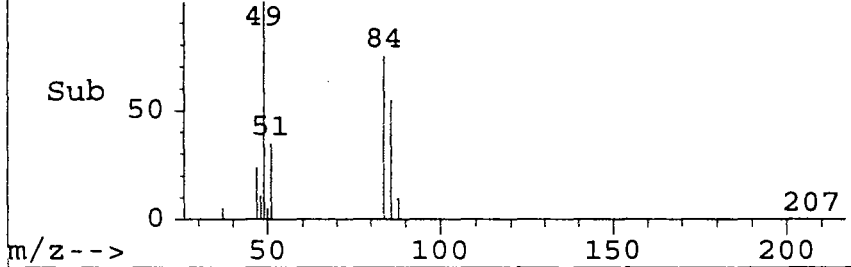
Abundance Scan 418 (7.345 min): C5082.D (-, \*



Abundance Scan 425 (7.414 min): C9237.D (\*)

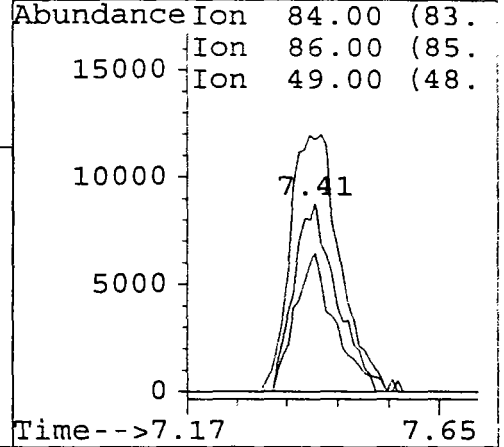


Abundance Scan 425 (7.414 min): C9237.D (-, \*



#9  
 Methylene chloride  
 Concen: 1.71 ug/L  
 RT: 7.41 min Scan# 425  
 Delta R.T. 0.06 min  
 Lab File: c9237.d  
 Acq: 23 Aug 95 2:36 pm

Tgt Ion	84	Resp	50079
Ion	Ratio	Lower	Upper
84	100		
86	73.8	45.5	85.5
49	133.7	124.4	164.4
0	0.0	0.0	0.0



Library Search Compound Report

234

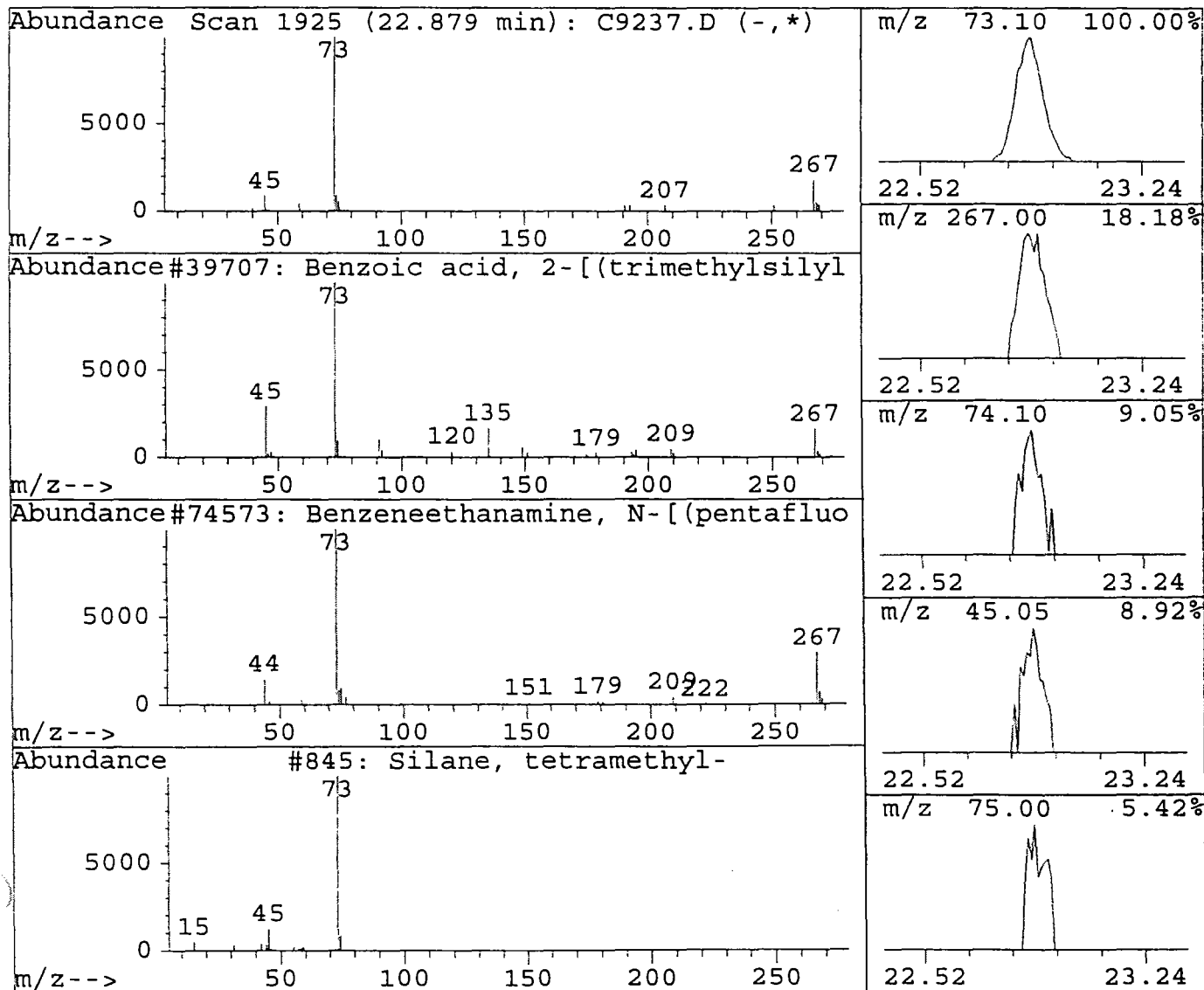
Data File : d:\hpchem\1\data\c9237.d  
 Acq On : 23 Aug 95 2:36 pm  
 Sample : METHOD BLANK  
 Misc : 25 ML

Vial: 5  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.88	0.57 ug/L	149877	Fluorobenzene	11.84

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl)ox	39707	003789-85-3	39
2	Benzeneethanamine, N-[(pentafluorop	74573	055429-85-1	9
3	Silane, tetramethyl-	845	000075-76-3	2
4	Silane, 9H-fluoren-9-yltrimethyl-	31629	007385-10-6	2
5	Trimethyl(3,3-difluoro-2-propenyl)s	9615	000000-00-0	2



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

235

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: \_\_\_\_\_ NJDEP MW#: \_\_\_\_\_

Matrix: (soil/water) WATER Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9257.D

Level: (low/med) LOW Date Received: NA

% Moisture: not dec. NA Date Analyzed: 8/24/95

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	<u>ug/L</u>	
75-71-8	Dichlorodifluoromethane		.50	U
74-87-3	Chloromethane		.50	U
75-01-4	Vinyl chloride		.50	U
74-83-9	Bromomethane		.50	U
75-00-3	Chloroethane		.50	U
75-69-4	Trichlorofluoromethane		.50	U
75-35-4	1,1-Dichloroethene		.50	U
75-09-2	Methylene chloride		1.0	
156-60-65	trans-1,2-Dichloroethene		.50	U
75-34-3	1,1-Dichloroethane		.50	U
594-20-7	2,2-Dichloropropane		.50	U
156-59-2	cis-1,2-Dichloroethene		.50	U
74-97-1	Bromochloromethane		.50	U
67-66-3	Chloroform		.50	U
71-55-6	1,1,1-Trichloroethane		.50	U
56-23-1	Carbon tetrachloride		.50	U
563-58-6	1,1-Dichloropropene		.50	U
71-43-2	Benzene		.50	U
107-06-2	1,2-Dichloroethane		.50	U
79-01-6	Trichloroethene		.50	U
78-87-1	1,2-Dichloropropane		.50	U
74-95-3	Dibromomethane		.50	U
75-27-4	Bromodichloromethane		.50	U
10061-01-1	cis-1,3-Dichloropropene		.50	U
108-88-3	Toluene		.50	U
10061-02-6	trans-1,3-Dichloropropene		.50	U
79-00-1	1,1,2-Trichloroethane		.50	U
127-18-4	Tetrachloroethene		.50	U
142-28-9	1,3-Dichloropropane		.50	U
124-48-1	Dibromochloromethane		.50	U
106-93-4	1,2-Dibromomethane		.50	U
108-90-7	Chlorobenzene		.50	U
630-20-6	1,1,1,2-Tetrachloroethane		.50	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

236

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: \_\_\_\_\_ NJDEP MW#: \_\_\_\_\_

Matrix: (soil/water) WATER Lab Sample ID: M. BLANK

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9257.D

Level: (low/med) LOW Date Received: NA

% Moisture: not dec. NA Date Analyzed: 8/24/95

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	<u>ug/L</u>	Q
100-41-4	Ethylbenzene		.50	U
1330-29-7	Xylene (total)		.50	U
100-42-1	Styrene		.50	U
75-25-2	Bromoform		.50	U
98-82-8	Isopropylbenzene		.50	U
108-86-1	Bromobenzene		.50	U
79-34-1	1,1,2,2-Tetrachloroethane		.50	U
96-18-4	1,2,3-Trichloropropane		.50	U
103-65-1	n-Propylbenzene		.50	U
95-49-8	2-Chlorotoluene		.50	U
106-43-4	4-Chlorotoluene		.50	U
108-67-8	1,3,5-Trimethylbenzene		.50	U
98-06-6	tert-Butylbenzene		.50	U
95-63-6	1,2,4-Trimethylbenzene		.50	U
135-98-8	sec-Butylbenzene		.50	U
541-73-1	1,3-Dichlorobenzene		.50	U
99-87-6	4-Isopropyltoluene		.50	U
106-46-7	1,4-Dichlorobenzene		.50	U
95-50-1	1,2-Dichlorobenzene		.50	U
104-51-8	n-Butylbenzene		.50	U
96-12-8	1,2-Dibromo-3-chloropropane		.50	U
120-82-1	1,2,4-Trichlorobenzene		.50	U
87-68-3	Hexachlorobutadiene		.50	U
91-20-3	Naphthalene		.50	U
87-61-6	1,2,3-Trichlorobenzene		.50	U
1634-04-4	Methy-tertiary butyl ether		.50	U
75-65-0	tertiary-Butyl alcohol		2.0	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK01

237

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_  
 Project No. \_\_\_\_\_ Site: \_\_\_\_\_ Location: \_\_\_\_\_ Group: \_\_\_\_\_  
 Matrix: (soil/water) WATER Lab Sample ID: M. BLANK  
 Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C9257.D  
 Level: (low/med) LOW Date Received: NA  
 % Moisture: not dec. NA Date Analyzed: 8/24/95  
 GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0  
 Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Column Bleed	22.88	1	J
2.				
3.				
4.				
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Quantitation Report

Data File : d:\hpchem\1\data\c9257.d  
Acq On : 24 Aug 95 12:25 pm  
Sample : METHOD BLANK  
Misc : 25 ML  
Quant Time: Aug 25 9:11 1995

Vial: 5  
Operator: SRK 230  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.83	96	557097	5.00	ug/L	0.05
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.10	95	321655	5.14	ug/L	102.86%
57) 1,2-Dichlorobenzene-d4	21.88	152	206812	5.49	ug/L	109.81%
Target Compounds						Qvalue
9) Methylene chloride	7.39	84	29335	1.03	ug/L	92

(#) = qualifier out of range (m) = manual integration

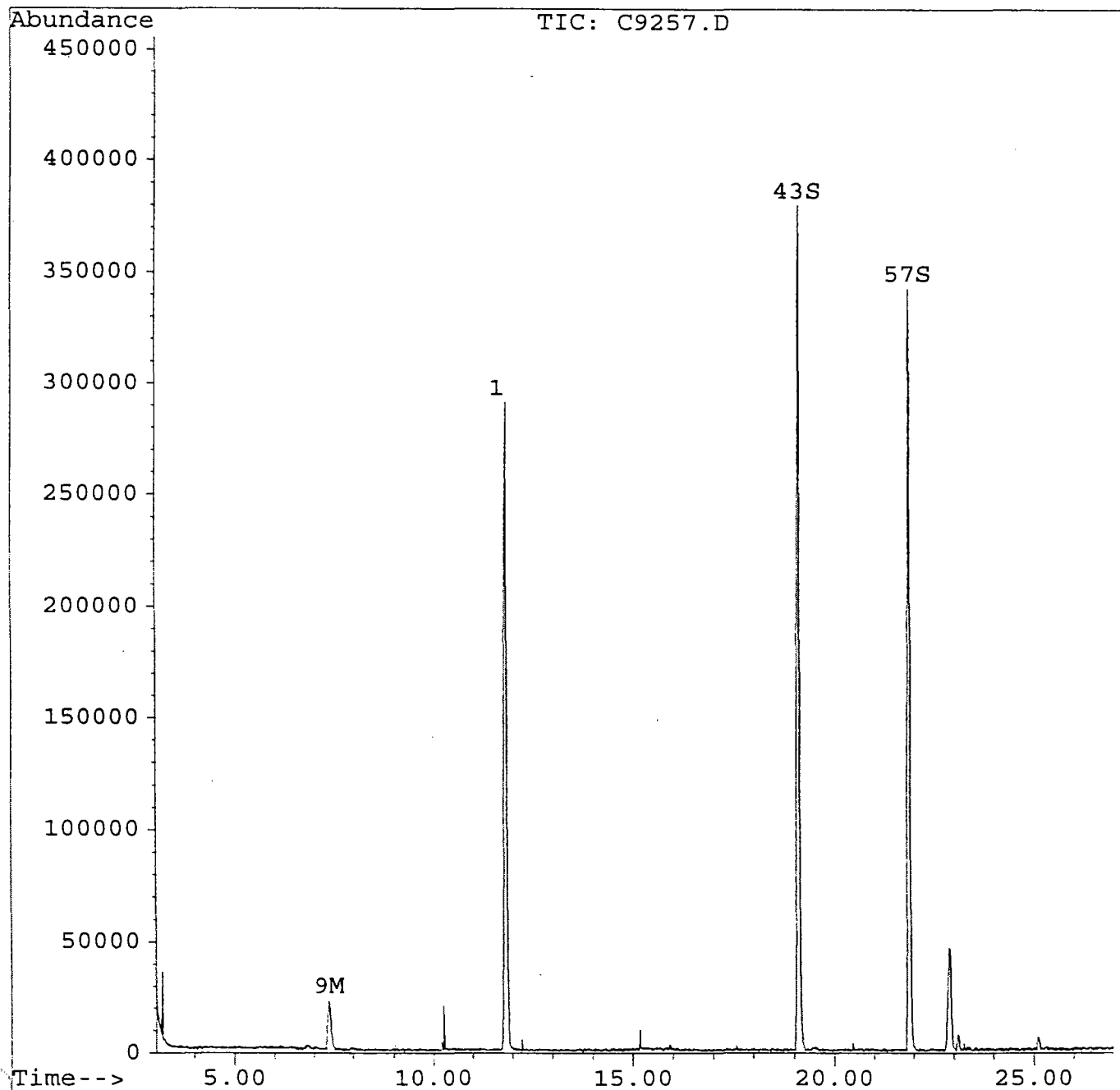


Quantitation Report

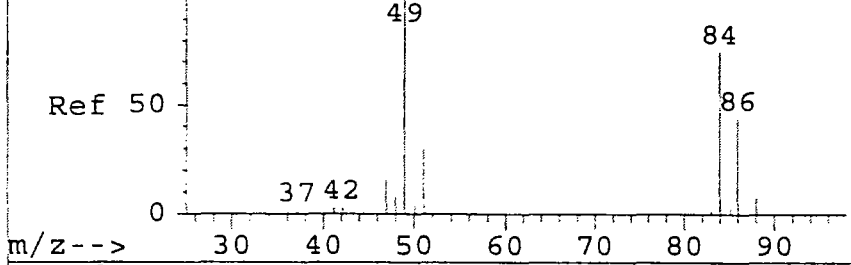
Data File : d:\hpchem\1\data\c9257.d  
Acq On. : 24 Aug 95 12:25 pm  
Sample : METHOD BLANK  
Misc : 25 ML  
Quant Time: Aug 25 9:11 1995

Vial: 5 239  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



Abundance Scan 418 (7.345 min): C5082.D (-,\*



#9

Methylene chloride

Concen: 1.03 ug/L

RT: 7.39 min Scan# 423

Delta R.T. 0.04 min

Lab File: c9257.d

Acq: 24 Aug 95 12:25 pm

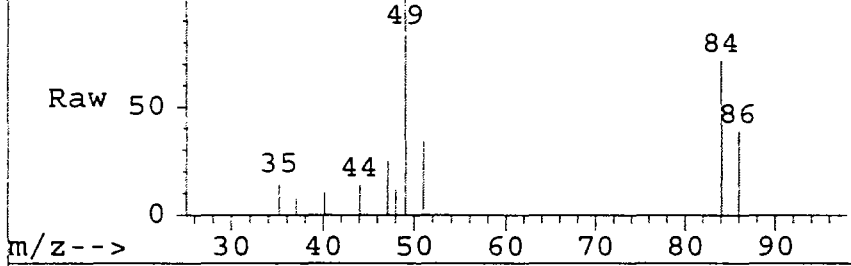
240

Tgt Ion:84 Resp: 29335

Ion Ratio Lower Upper

84	100		
86	54.3	45.5	85.5
49	138.3	124.4	164.4
0	0.0	0.0	0.0

Abundance Scan 423 (7.393 min): C9257.D (\*)

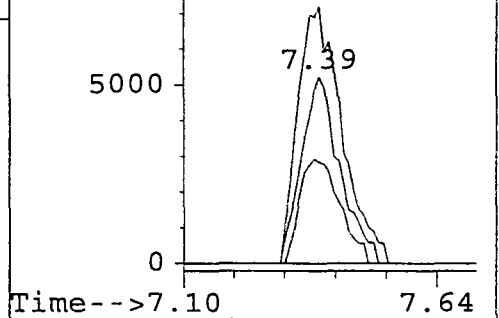
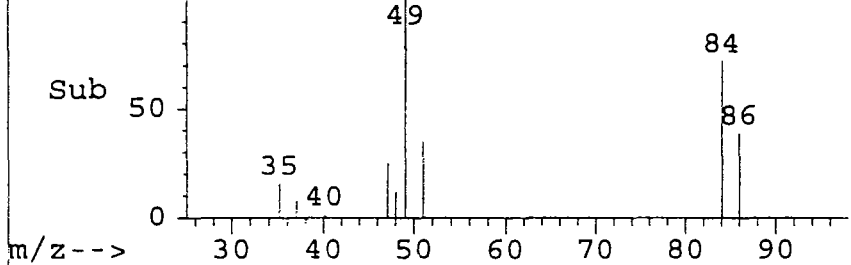


Abundance Ion 84.00 (83.

10000 Ion 86.00 (85.

Ion 49.00 (48.

Abundance Scan 423 (7.393 min): C9257.D (-,\*



Library Search Compound Report

241

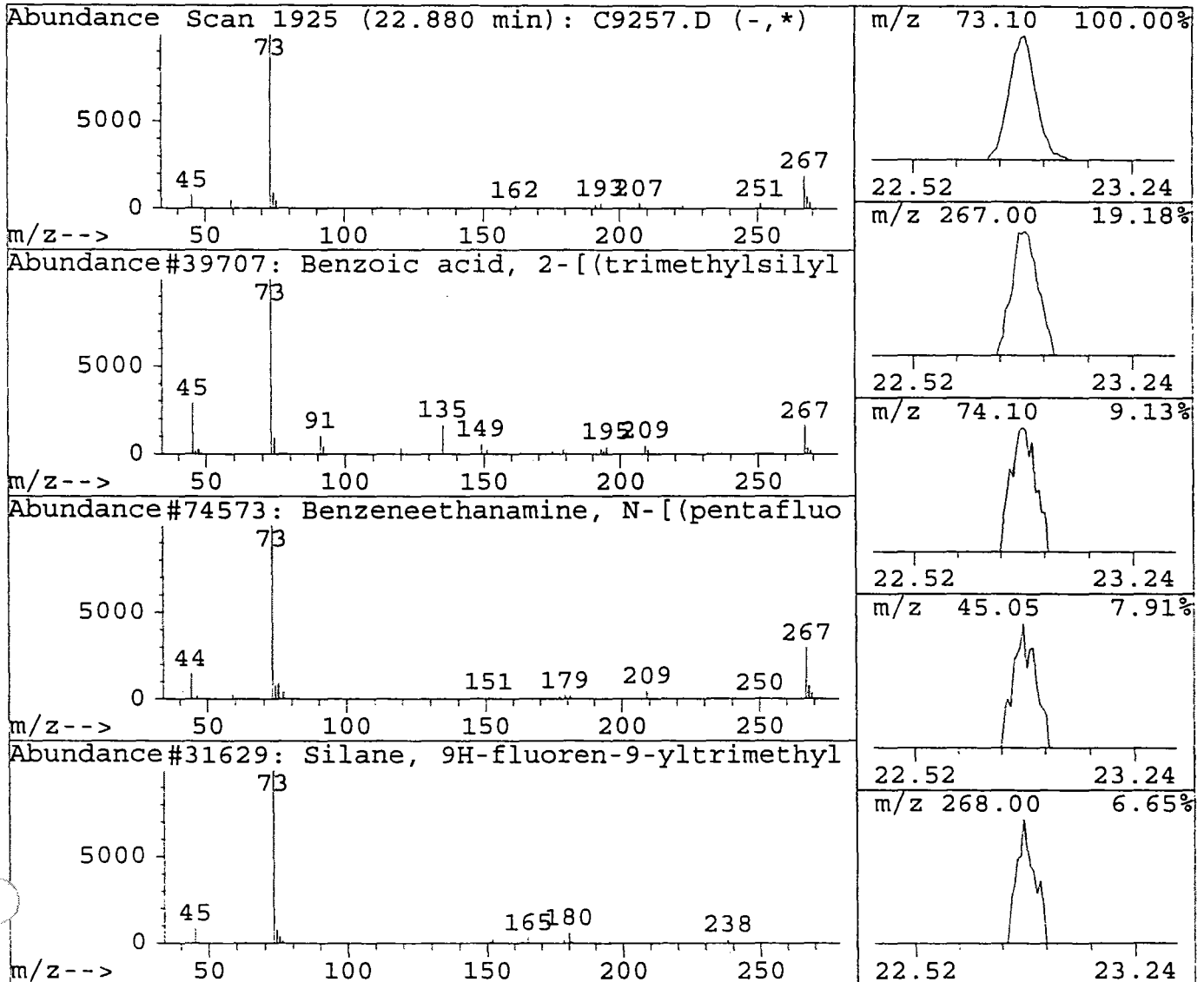
Data File : d:\hpchem\1\data\c9257.d  
 Acq On : 24 Aug 95 12:25 pm  
 Sample : METHOD BLANK  
 Misc : 25 ML

Vial: 5  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
22.88	1.05 ug/L	271484	Fluorobenzene	11.83

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl)ox	39707	003789-85-3	39
2	Benzeneethanamine, N-[(pentafluorop	74573	055429-85-1	9
3	Silane, 9H-fluoren-9-yltrimethyl-	31629	007385-10-6	4
4	Acetaldehyde, O-methyloxime	289	033581-43-0	4
5	1,3-Dioxolane	62555	000646-06-0	3



Spike Recovery and RPD Summary Report - WATER

242

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Initial Calibration

Non-Spiked Sample: C9225.D

Spike  
Sample

Spike  
Duplicate Sample

File ID : C9226.D	C9227.D
Sample : 9536416 MS	9536416 MSD
Acq Time: 22 Aug 95 6:30 pm	22 Aug 95 7:06 pm

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Dichlorodifluorometh	0.0	10	11	11	109	108	1	25	80-120
Chloromethane	0.0	10	11	11	108	105	3	25	80-120
Vinyl chloride	0.0	10	10	10	104	103	1	25	80-120
Bromomethane	0.0	10	9	10	94	100	6	25	80-120
Chloroethane	0.0	10	11	11	107	106	1	25	80-120
Trichlorofluorometha	0.0	10	11	11	108	109	1	25	80-120
1,1-Dichloroethene	0.0	10	10	10	100	103	2	25	80-120
Methylene chloride	1.2	10	9	9	77#	74#	3	25	80-120
trans-1,2-Dichloroet	0.0	10	10	10	104	104	0	25	80-120
1,1-Dichloroethane	0.0	10	11	11	110	109	1	25	80-120
2,2-Dichloropropane	0.0	10	10	9	95	94	1	25	80-120
cis-1,2-Dichloroethe	0.0	10	10	11	105	106	1	25	80-120
Bromochloromethane	0.0	10	10	10	100	104	4	25	80-120
Chloroform	0.0	10	11	11	107	108	0	25	80-120
1,1,1-Trichloroethan	0.0	10	11	11	111	111	0	25	80-120
Carbon tetrachloride	0.0	10	11	11	110	111	1	25	80-120
1,1-Dichloropropene	0.0	10	10	11	101	105	4	25	80-120
Benzene	0.0	10	10	10	101	102	0	25	80-120
1,2-Dichloroethane	0.0	10	11	11	109	110	1	25	80-120
Trichloroethene	0.0	10	10	10	104	104	0	25	80-120
1,2-Dichloropropane	0.0	10	10	10	104	103	1	25	80-120
Dibromomethane	0.0	10	10	10	103	105	2	25	80-120
Bromodichloromethane	0.0	10	11	11	105	107	2	25	80-120
cis-1,3-Dichloroprop	0.0	10	10	10	97	98	1	25	80-120
Toluene	0.0	10	10	10	100	101	1	25	80-120
trans-1,3-Dichloropr	0.0	10	10	10	98	100	2	25	80-120
1,1,2-Trichloroethan	0.0	10	10	10	99	101	2	25	80-120
Tetrachloroethene	0.0	10	10	10	102	102	0	25	80-120
1,3-Dichloropropane	0.0	10	10	10	99	101	2	25	80-120
Dibromochloromethane	0.0	10	10	10	101	102	1	25	80-120
1,2-Dibromomethane	0.0	10	10	10	101	102	1	25	80-120
Chlorobenzene	0.0	10	10	10	103	103	0	25	80-120
1,1,1,2-Tetrachloroe	0.0	10	10	11	104	105	1	25	80-120
Ethylbenzene	0.0	10	10	10	99	101	2	25	80-120
ylene (para & meta)	0.0	20	19	20	95	102	7	25	80-120
ylene (Ortho)	0.0	10	10	10	97	104	6	25	80-120
Styrene	0.0	10	8	10	77#	97	23	25	80-120
Bromoform	0.0	10	10	10	96	98	3	25	80-120
Isopropylbenzene	0.0	10	10	10	99	102	2	25	80-120
Bromobenzene	0.0	10	10	10	101	101	1	25	80-120
1,1,2,2-Tetrachloroe	0.0	10	10	10	98	101	3	25	80-120
1,2,3-Trichloropropa	0.0	10	10	10	97	98	1	25	80-120

2-Chlorotoluene	0.0	10	10	10	104	104	0	25	80-120
4-Chlorotoluene	0.0	10	10	10	102	104	1	25	80-120
1,3,5-Trimethylbenze	0.0	10	9	10	88	104	16	25	80-120
tert-Butylbenzene	0.0	10	10	10	101	103	1	25	80-120
2,4-Trimethylbenze	0.0	10	9	11	91	105	15	25	80-120
n-Butylbenzene	0.0	10	10	10	99	101	2	25	80-120
1,3-Dichlorobenzene	0.0	10	10	10	100	102	3	25	80-120
4-Isopropyltoluene	0.0	10	10	10	97	103	6	25	80-120
1,4-Dichlorobenzene	0.0	10	10	10	102	103	1	25	80-120
1,2-Dichlorobenzene	0.0	10	10	10	102	103	1	25	80-120
n-Butylbenzene	0.0	10	10	11	101	106	5	25	80-120
1,2-Dibromo-3-chloro	0.0	10	10	10	100	103	4	25	80-120
1,2,4-Trichlorobenze	0.0	10	10	10	97	102	4	25	80-120
Hexachlorobutadiene	0.0	10	9	10	94	97	3	25	80-120
Naphthalene	0.0	10	10	10	98	101	3	25	80-120
1,2,3-Trichlorobenze	0.0	10	10	10	97	101	3	25	80-120

VOA524.M

Wed Aug 23 15:42:10 1995

VOA

Quantitation Report

Data File : d:\hpchem\1\data\c9226.d  
 Acq On : 22 Aug 95 6:30 pm  
 Sample : 9536416 MS  
 Misc : 25 ML  
 Quant Time: Aug 23 9:47 1995

Vial: 13 244  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.86	96	573971	5.00	ug/L	0.08
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.12	95	321280	4.99	ug/L	99.72%
57) 1,2-Dichlorobenzene-d4	21.90	152	200025	5.15	ug/L	103.09%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.32	85	618061	10.91	ug/L	97
3) Chloromethane	3.68	50	235190	10.84	ug/L	94
4) Vinyl chloride	3.91	62	285957	10.36	ug/L	98
5) Bromomethane	4.56	94	180806	9.37	ug/L	98
6) Chloroethane	4.79	64	173268	10.71	ug/L	99
7) Trichlorofluoromethane	5.39	101	817087	10.85	ug/L	100
8) 1,1-Dichloroethene	6.45	96	298521	10.04	ug/L	94
9) Methylene chloride	7.42	84	259856	8.86	ug/L	95
10) trans-1,2-Dichloroethene	7.99	96	329392	10.44	ug/L	96
12) 1,1-Dichloroethane	8.79	63	701468	10.98	ug/L	97
13) 2,2-Dichloropropane	9.85	77	665967	9.53	ug/L	98
14) cis-1,2-Dichloroethene	9.85	96	317957	10.48	ug/L	94
16) Bromochloromethane	10.27	128	131795	10.03	ug/L	91
17) Chloroform	10.42	83	712407	10.74	ug/L	99
18) 1,1,1-Trichloroethane	10.74	97	824362	11.11	ug/L	96
19) Carbon tetrachloride	11.04	117	771879	10.96	ug/L	99
20) 1,1-Dichloropropene	11.03	75	618771	10.14	ug/L	98
21) Benzene	11.38	78	978503	10.13	ug/L	97
22) 1,2-Dichloroethane	11.38	62	346217	10.93	ug/L	94
23) Trichloroethene	12.50	95	487342	10.40	ug/L	99
24) 1,2-Dichloropropane	12.85	63	332964	10.40	ug/L	99
25) Dibromomethane	13.05	93	156920	10.26	ug/L	94
26) Bromodichloromethane	13.32	83	573763	10.52	ug/L	98
27) cis-1,3-Dichloropropene	14.07	75	425358	9.70	ug/L	96
28) Toluene	14.66	92	734689	9.96	ug/L	98
29) trans-1,3-Dichloropropene	15.00	75	323384	9.75	ug/L	99
30) 1,1,2-Trichloroethane	15.32	83	139915	9.87	ug/L	97
31) Tetrachloroethene	15.62	166	605048	10.18	ug/L	99
32) 1,3-Dichloropropane	15.61	76	286923	9.88	ug/L	96
33) Dibromochloromethane	16.01	129	343919	10.07	ug/L	100
34) 1,2-Dibromomethane	16.21	107	220917	10.11	ug/L	95
35) Chlorobenzene	17.08	112	889193	10.27	ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.22	131	413541	10.40	ug/L	95
37) Ethylbenzene	17.28	91	1628416	9.87	ug/L	97
38) Xylene (para & meta)	17.49	106	1142487	19.03	ug/L	97
39) Xylene (Ortho)	18.19	106	525704	9.71	ug/L	93
40) Styrene	18.21	104	646284	7.73	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

245

Data File : d:\hpchem\1\data\c9226.d  
 Acq On : 22 Aug 95 6:30 pm  
 Sample : 9536416 MS  
 Misc : 25 ML  
 Quant Time: Aug 23 9:47 1995

Vial: 13  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.53	173	180667	9.56	ug/L	95
42) Isopropylbenzene	18.85	105	1726015	9.94	ug/L	99
44) Bromobenzene	19.38	156	404471	10.09	ug/L	98
45) 1,1,2,2-Tetrachloroethane	19.33	83	178119	9.81	ug/L	98
46) 1,2,3-Trichloropropane	19.40	75	193507	9.71	ug/L #	32
47) n-Propylbenzene	19.59	91	2162805	9.80	ug/L	99
48) 2-Chlorotoluene	19.74	91	1339672	10.40	ug/L	100
49) 4-Chlorotoluene	19.93	91	1491343	10.24	ug/L m	94
50) 1,3,5-Trimethylbenzene	19.90	105	1191740	8.83	ug/L	99
51) tert-Butylbenzene	20.50	119	1656727	10.12	ug/L	99
52) 1,2,4-Trimethylbenzene	20.58	105	1138223	9.08	ug/L	100
53) sec-Butylbenzene	20.90	105	2188589	9.90	ug/L	99
54) 1,3-Dichlorobenzene	21.10	146	796720	9.96	ug/L	98
55) 4-Isopropyltoluene	21.16	119	1714216	9.67	ug/L	99
56) 1,4-Dichlorobenzene	21.25	146	801357	10.21	ug/L	99
58) 1,2-Dichlorobenzene	21.93	146	621229	10.19	ug/L	99
59) n-Butylbenzene	21.91	91	1668068	10.06	ug/L	100
60) 1,2-Dibromo-3-chloropropan	23.32	75	49024	9.97	ug/L	85
61) 1,2,4-Trichlorobenzene	24.90	180	424127	9.75	ug/L	99
62) Hexachlorobutadiene	25.24	225	488228	9.43	ug/L	99
63) Naphthalene	25.34	128	349499	9.85	ug/L	100
64) 1,2,3-Trichlorobenzene	25.82	180	307516	9.72	ug/L	96
65) Methyl-tert butyl ether	8.02	73	400394	9.79	ug/L	95
66) tert-Butyl Alcohol	7.73	59	15425	22.95	ug/L	100

(#) = qualifier out of range (m) = manual integration

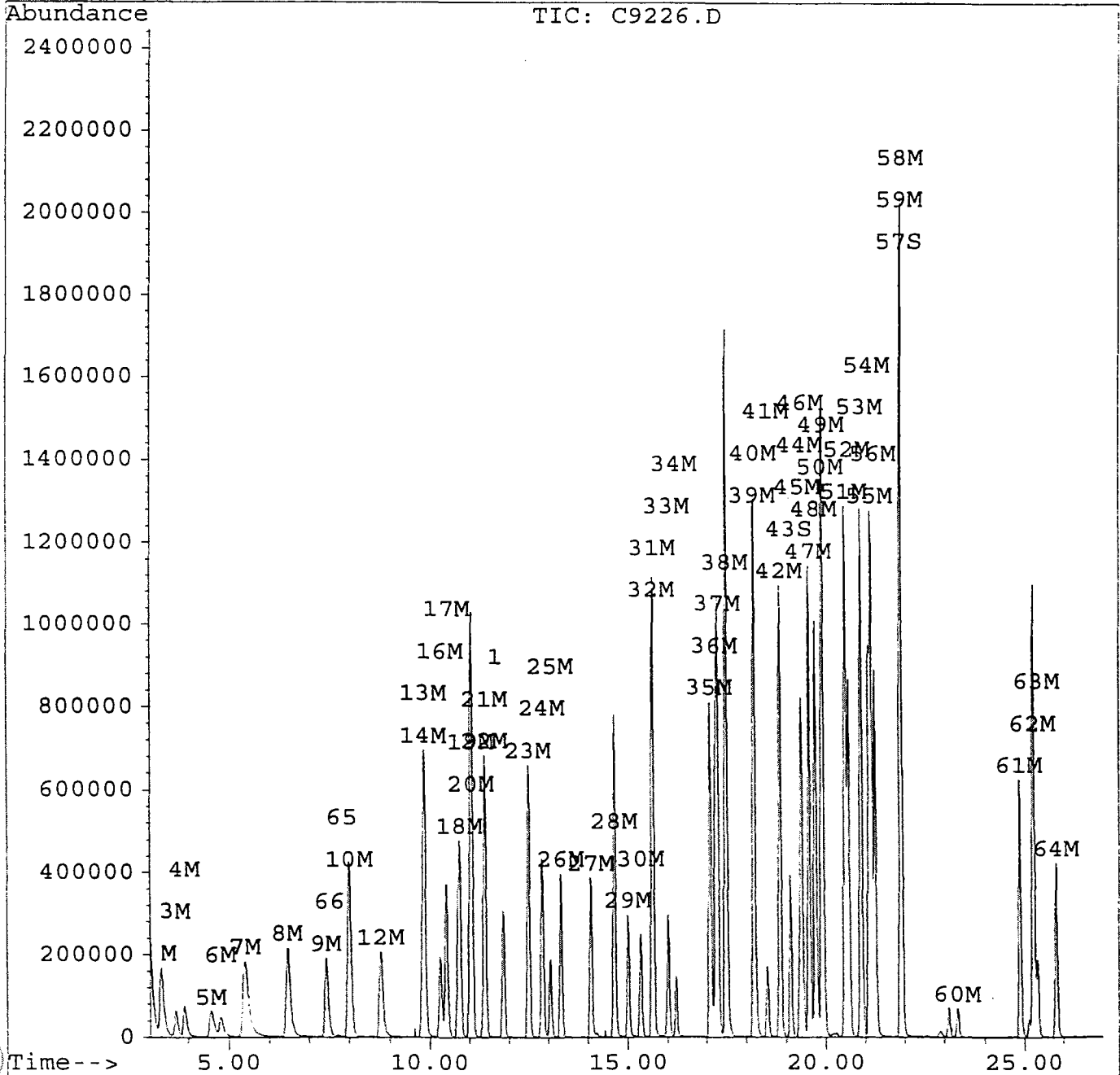
Quantitation Report

246

Data File : d:\hpchem\1\data\c9226.d  
Acq On : 22 Aug 95 6:30 pm  
Sample : 9536416 MS  
Misc : 25 ML  
Quant Time: Aug 23 9:47 1995

Vial: 13  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration





Quantitation Report

247

Data File : d:\hpchem\1\data\c9227.d  
 Acq On : 22 Aug 95 7:06 pm  
 Sample : 9536416 MSD  
 Misc : 25 ML  
 Quant Time: Aug 22 19:34 1995

Vial: 14  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	Q Ion	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.86	96	555902	5.00	ug/L	0.08

System Monitoring Compounds	R.T.	Q Ion	Response	Conc	Units	%Recovery
43) 4-Bromofluorobenzene	19.12	95	309860	4.96	ug/L	99.30%
57) 1,2-Dichlorobenzene-d4	21.90	152	193624	5.15	ug/L	103.03%

Target Compounds	R.T.	Q Ion	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.31	85	593417	10.81	ug/L	96
3) Chloromethane	3.68	50	221226	10.53	ug/L	91
4) Vinyl chloride	3.91	62	274844	10.28	ug/L	99
5) Bromomethane	4.58	94	186745	9.99	ug/L	98
6) Chloroethane	4.80	64	165781	10.58	ug/L	98
7) Trichlorofluoromethane	5.38	101	796792	10.92	ug/L	98
8) 1,1-Dichloroethene	6.46	96	296135	10.29	ug/L	94
9) Methylene chloride	7.43	84	244904	8.62	ug/L	95
10) trans-1,2-Dichloroethene	7.99	96	317975	10.41	ug/L	96
12) 1,1-Dichloroethane	8.79	63	675682	10.92	ug/L	99
13) 2,2-Dichloropropane	9.85	77	637463	9.41	ug/L	99
14) cis-1,2-Dichloroethene	9.85	96	310559	10.57	ug/L	94
16) Bromochloromethane	10.27	128	132415	10.41	ug/L #	91
17) Chloroform	10.43	83	692473	10.78	ug/L	99
18) 1,1,1-Trichloroethane	10.74	97	798538	11.11	ug/L	98
19) Carbon tetrachloride	11.05	117	757049	11.09	ug/L	98
20) 1,1-Dichloropropene	11.03	75	622019	10.52	ug/L	98
21) Benzene	11.38	78	950833	10.16	ug/L	99
22) 1,2-Dichloroethane	11.39	62	337388	11.00	ug/L	96
23) Trichloroethene	12.50	95	473415	10.43	ug/L	98
24) 1,2-Dichloropropane	12.85	63	320821	10.35	ug/L	100
25) Dibromomethane	13.04	93	155084	10.47	ug/L	98
26) Bromodichloromethane	13.32	83	565499	10.70	ug/L	99
27) cis-1,3-Dichloropropene	14.07	75	417555	9.84	ug/L	97
28) Toluene	14.67	92	721092	10.09	ug/L	99
29) trans-1,3-Dichloropropene	15.01	75	320887	9.99	ug/L	96
30) 1,1,2-Trichloroethane	15.32	83	137953	10.05	ug/L	95
31) Tetrachloroethene	15.63	166	587063	10.20	ug/L	95
32) 1,3-Dichloropropane	15.61	76	283631	10.08	ug/L	99
33) Dibromochloromethane	16.01	129	338052	10.22	ug/L	98
34) 1,2-Dibromomethane	16.21	107	216479	10.23	ug/L	96
35) Chlorobenzene	17.09	112	864955	10.32	ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.22	131	405485	10.53	ug/L	98
37) Ethylbenzene	17.28	91	1613199	10.10	ug/L	100
38) Xylene (para & meta)	17.49	106	1189755	20.46	ug/L	95
39) Xylene (Ortho)	18.19	106	543174	10.36	ug/L	97
40) Styrene	18.21	104	784975	9.69	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

248

Data File : d:\hpchem\1\data\c9227.d  
 Acq On : 22 Aug 95 7:06 pm  
 Sample : 9536416 MSD  
 Misc : 25 ML  
 Quant Time: Aug 22 19:34 1995

Vial: 14  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.52	173	179516	9.81	ug/L	96
42) Isopropylbenzene	18.85	105	1710105	10.17	ug/L	99
44) Bromobenzene	19.38	156	393787	10.14	ug/L	99
45) 1,1,2,2-Tetrachloroethane	19.33	83	176903	10.06	ug/L	98
46) 1,2,3-Trichloropropane	19.42	75	188931	9.79	ug/L	89
47) n-Propylbenzene	19.59	91	2151019	10.06	ug/L	99
48) 2-Chlorotoluene	19.75	91	1302997	10.44	ug/L	98
49) 4-Chlorotoluene	19.93	91	1462221	10.37	ug/L	100
50) 1,3,5-Trimethylbenzene	19.90	105	1357945	10.38	ug/L	99
51) tert-Butylbenzene	20.50	119	1626172	10.26	ug/L	97
52) 1,2,4-Trimethylbenzene	20.58	105	1278894	10.54	ug/L	98
53) sec-Butylbenzene	20.90	105	2161759	10.10	ug/L	98
54) 1,3-Dichlorobenzene	21.10	146	793231	10.24	ug/L	98
55) 4-Isopropyltoluene	21.16	119	1771449	10.32	ug/L	99
56) 1,4-Dichlorobenzene	21.25	146	783808	10.31	ug/L	96
58) 1,2-Dichlorobenzene	21.93	146	605791	10.26	ug/L	97
59) n-Butylbenzene	21.91	91	1700823	10.59	ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.33	75	49204	10.34	ug/L	84
61) 1,2,4-Trichlorobenzene	24.90	180	427855	10.15	ug/L	99
62) Hexachlorobutadiene	25.24	225	488791	9.74	ug/L	99
63) Naphthalene	25.34	128	348315	10.13	ug/L	100
64) 1,2,3-Trichlorobenzene	25.82	180	308351	10.06	ug/L	97
65) Methyl-tert butyl ether	8.02	73	392006	9.89	ug/L	98
66) tert-Butyl Alcohol	7.75	59	15621	24.00	ug/L	100

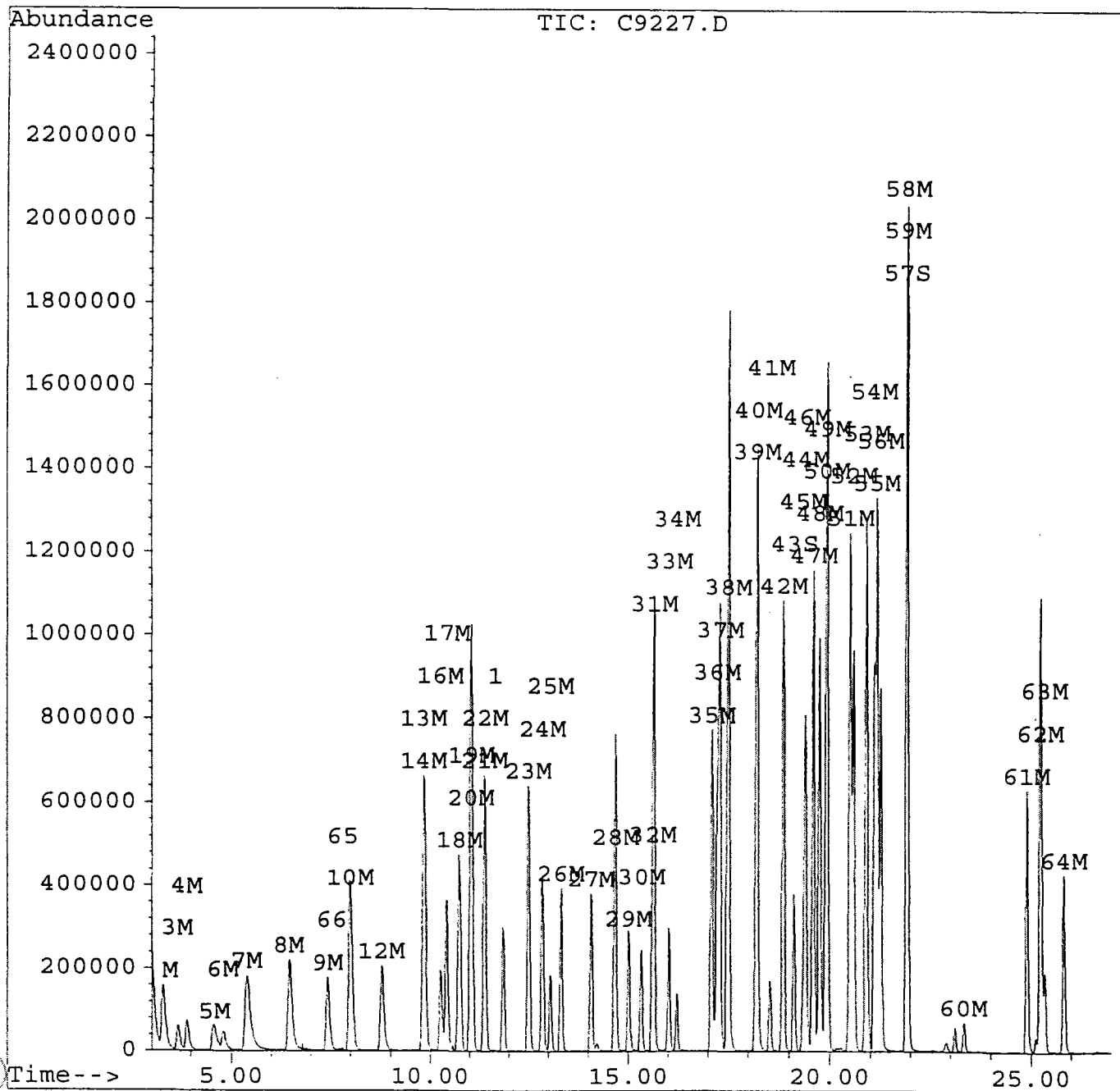
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c9227.d  
Acq On : 22 Aug 95 7:06 pm  
Sample : 9536416 MSD  
Misc : 25 ML  
Quant Time: Aug 22 19:34 1995

Vial: 14 249  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration



## Spike Recovery and RPD Summary Report - WATER

Method : C:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Initial Calibration

250

Non-Spiked Sample: C9261.D

Spike  
SampleSpike  
Duplicate Sample

File ID : C9262.D

C9263.D

Sample : 9536615 MS

9536615 MSD

Acq Time: 24 Aug 95 3:57 pm

24 Aug 95 4:37 pm

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC RPD	Limits % Rec
Dichlorodifluorometh	0.0	10	10	10	101	98	3	25	80-120
Chloromethane	0.0	10	10	10	97	95	2	25	80-120
Vinyl chloride	0.0	10	10	10	102	97	5	25	80-120
Bromomethane	0.0	10	10	10	98	101	3	25	80-120
Chloroethane	0.0	10	10	10	104	101	3	25	80-120
Trichlorofluorometha	0.0	10	11	11	110	106	4	25	80-120
1,1-Dichloroethene	0.0	10	10	9	101	95	6	25	80-120
Methylene chloride	1.5	10	9	9	77#	73#	6	25	80-120
trans-1,2-Dichloroet	0.0	10	10	10	104	102	3	25	80-120
1,1-Dichloroethane	0.0	10	11	11	110	107	3	25	80-120
2,2-Dichloropropane	0.0	10	10	10	101	95	6	25	80-120
cis-1,2-Dichloroethe	0.0	10	11	11	107	106	1	25	80-120
Bromochloromethane	0.0	10	10	10	103	103	0	25	80-120
Chloroform	0.0	10	11	10	108	104	3	25	80-120
1,1,1-Trichloroethan	0.0	10	11	11	111	108	3	25	80-120
Carbon tetrachloride	0.0	10	11	11	111	106	5	25	80-120
1,1-Dichloropropene	0.0	10	10	10	102	99	3	25	80-120
Benzene	3.2	10	13	14	97	107	10	25	80-120
1,2-Dichloroethane	0.0	10	11	11	113	110	3	25	80-120
Trichloroethene	0.0	10	11	11	106	105	1	25	80-120
1,2-Dichloropropane	0.0	10	11	11	107	105	2	25	80-120
Dibromomethane	0.0	10	11	11	110	107	3	25	80-120
Bromodichloromethane	0.0	10	11	10	109	104	5	25	80-120
cis-1,3-Dichloroprop	0.0	10	10	10	101	99	2	25	80-120
Toluene	11.7	10	19	23	78#	116	39#	25	80-120
trans-1,3-Dichloropr	0.0	10	10	10	101	96	5	25	80-120
1,1,2-Trichloroethan	0.0	10	10	10	103	100	3	25	80-120
Tetrachloroethene	0.0	10	10	10	102	101	1	25	80-120
1,3-Dichloropropane	0.0	10	10	10	102	102	1	25	80-120
Dibromochloromethane	0.0	10	11	10	105	102	3	25	80-120
1,2-Dibromomethane	0.0	10	10	10	105	103	2	25	80-120
Chlorobenzene	0.0	10	10	10	105	102	3	25	80-120
1,1,1,2-Tetrachloroe	0.0	10	11	10	107	105	3	25	80-120
Ethylbenzene	1.8	10	12	12	99	102	2	25	80-120
Xylene (para & meta)	9.7	20	28	30	94	99	6	25	80-120
Xylene (Ortho)	4.6	10	14	15	96	104	8	25	80-120
Benzene	0.0	10	10	6	97	58#	50#	25	80-120
Bromoform	0.0	10	10	10	102	100	2	25	80-120
Isopropylbenzene	0.0	10	11	10	104	100	3	25	80-120
Bromobenzene	0.0	10	11	10	105	102	3	25	80-120
1,1,2,2-Tetrachloroe	0.0	10	11	10	105	101	4	25	80-120
1,2,3-Trichloropropa	0.0	10	11	10	105	102	3	25	80-120
n-Propylbenzene	0.0	10	11	10	102	100	2	25	80-120

2-Chlorotoluene	0.0	10	11	11	108	104	3	25	80-120
4-Chlorotoluene	0.0	10	11	10	109	102	6	25	80-120
1,3,5-Trimethylbenze	1.3	10	12	10	105	90	16	25	80-120
tert-Butylbenzene	0.0	10	11	10	106	100	6	25	80-120
1,2,4-Trimethylbenze	3.3	10	13	10	100	67#	40#	25	80-120
o-Butylbenzene	0.0	10	10	10	104	100	3	25	80-120
1,3-Dichlorobenzene	0.0	10	10	10	105	101	3	25	80-120
4-Isopropyltoluene	0.0	10	11	10	108	98	10	25	80-120
1,4-Dichlorobenzene	0.0	10	10	10	104	102	2	25	80-120
1,2-Dichlorobenzene	0.0	10	11	10	106	104	2	25	80-120
n-Butylbenzene	0.0	10	11	10	110	103	6	25	80-120
1,2-Dibromo-3-chloro	0.0	10	11	11	110	105	4	25	80-120
1,2,4-Trichlorobenze	0.0	10	11	10	107	99	8	25	80-120
Hexachlorobutadiene	0.0	10	10	10	102	97	5	25	80-120
Naphthalene	0.0	10	11	10	108	95	12	25	80-120
1,2,3-Trichlorobenze	0.0	10	11	10	105	98	7	25	80-120

251

VOA524.M

Fri Aug 25 16:02:41 1995

VOA

Quantitation Report

Data File : d:\hpchem\1\data\c9262.d  
 Acq On : 24 Aug 95 3:57 pm  
 Sample : 9536615 MS  
 Misc : 25 ML BLDG 699 MW-12  
 Quant Time: Aug 25 9:21 1995

Vial: 11 **252**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.85	96	570642	5.00	ug/L	0.07

System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.11	95	321747	5.02	ug/L	100.44%
57) 1,2-Dichlorobenzene-d4	21.89	152	206398	5.35	ug/L	106.99%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.31	85	567645	10.07	ug/L	97
3) Chloromethane	3.67	50	209899	9.73	ug/L	96
4) Vinyl chloride	3.90	62	279476	10.18	ug/L	97
5) Bromomethane	4.55	94	188057	9.80	ug/L	98
6) Chloroethane	4.79	64	167022	10.39	ug/L	98
7) Trichlorofluoromethane	5.37	101	827168	11.05	ug/L	100
8) 1,1-Dichloroethene	6.44	96	299114	10.12	ug/L	90
9) Methylene chloride	7.41	84	268406	9.20	ug/L	91
10) trans-1,2-Dichloroethene	7.97	96	327435	10.44	ug/L	97
12) 1,1-Dichloroethane	8.76	63	698503	10.99	ug/L	97
13) 2,2-Dichloropropane	9.84	77	700089	10.07	ug/L	99
14) cis-1,2-Dichloroethene	9.85	96	322427	10.69	ug/L	96
16) Bromochloromethane	10.26	128	134688	10.32	ug/L	91
17) Chloroform	10.40	83	710108	10.77	ug/L	96
18) 1,1,1-Trichloroethane	10.73	97	822205	11.14	ug/L	96
19) Carbon tetrachloride	11.03	117	776707	11.09	ug/L	97
20) 1,1-Dichloropropene	11.02	75	625097	10.30	ug/L	99
21) Benzene	11.37	78	1236380	12.87	ug/L	98
22) 1,2-Dichloroethane	11.38	62	360422	11.44	ug/L	96
23) Trichloroethene	12.49	95	494377	10.61	ug/L	97
24) 1,2-Dichloropropane	12.84	63	341227	10.72	ug/L	100
25) Dibromomethane	13.04	93	166864	10.97	ug/L	97
26) Bromodichloromethane	13.31	83	590266	10.88	ug/L	99
27) cis-1,3-Dichloropropene	14.07	75	441578	10.13	ug/L	99
28) Toluene	14.66	92	1429424	19.48	ug/L	99
29) trans-1,3-Dichloropropene	15.00	75	344454	10.45	ug/L	100
30) 1,1,2-Trichloroethane	15.31	83	145345	10.32	ug/L	95
31) Tetrachloroethene	15.62	166	603120	10.21	ug/L	95
32) 1,3-Dichloropropane	15.60	76	294883	10.21	ug/L	99
33) Dibromochloromethane	16.00	129	357640	10.53	ug/L	98
34) 1,2-Dibromomethane	16.21	107	227113	10.46	ug/L	97
35) Chlorobenzene	17.07	112	903502	10.50	ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.21	131	424842	10.75	ug/L	97
37) Ethylbenzene	17.27	91	1929097	11.77	ug/L	99
38) Xylene (para & meta)	17.48	106	1700097	28.49	ug/L	93
39) Xylene (Ortho)	18.18	106	767338	14.25	ug/L	93
40) Styrene	18.20	104	813978	9.79	ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c9262.d  
 Acq On : 24 Aug 95 3:57 pm  
 Sample : 9536615 MS  
 Misc : 25 ML BLDG 699 MW-12  
 Quant Time: Aug 25 9:21 1995

Vial: 11 253  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.52	173	192025	10.22	ug/L	94
42) Isopropylbenzene	18.84	105	1812657	10.50	ug/L	100
44) Bromobenzene	19.38	156	419206	10.52	ug/L	98
45) 1,1,2,2-Tetrachloroethane	19.33	83	190164	10.53	ug/L	100
46) 1,2,3-Trichloropropane	19.40	75	212609	10.73	ug/L #	74
47) n-Propylbenzene	19.58	91	2314869	10.55	ug/L	100
48) 2-Chlorotoluene	19.73	91	1437123	11.22	ug/L	97
49) 4-Chlorotoluene	19.93	91	1572013	10.86	ug/L	100
50) 1,3,5-Trimethylbenzene	19.90	105	1579222	11.76	ug/L	99
51) tert-Butylbenzene	20.49	119	1774838	10.91	ug/L	99
52) 1,2,4-Trimethylbenzene	20.58	105	1664566	13.36	ug/L	100
53) sec-Butylbenzene	20.89	105	2286264	10.40	ug/L	99
54) 1,3-Dichlorobenzene	21.09	146	831853	10.46	ug/L	98
55) 4-Isopropyltoluene	21.16	119	1918552	10.89	ug/L	99
56) 1,4-Dichlorobenzene	21.25	146	812178	10.40	ug/L	95
58) 1,2-Dichlorobenzene	21.92	146	639423	10.55	ug/L m	0
59) n-Butylbenzene	21.90	91	1823932	11.07	ug/L	100
60) 1,2-Dibromo-3-chloropropan	23.32	75	53547	10.96	ug/L	90
61) 1,2,4-Trichlorobenzene	24.89	180	463752	10.72	ug/L	99
62) Hexachlorobutadiene	25.23	225	522728	10.15	ug/L	98
63) Naphthalene	25.33	128	386083	10.94	ug/L	100
64) 1,2,3-Trichlorobenzene	25.82	180	331241	10.53	ug/L	94
65) Methyl-tert butyl ether	8.00	73	426156	10.48	ug/L	98
66) tert-Butyl Alcohol	7.71	59	14493	21.69	ug/L	100

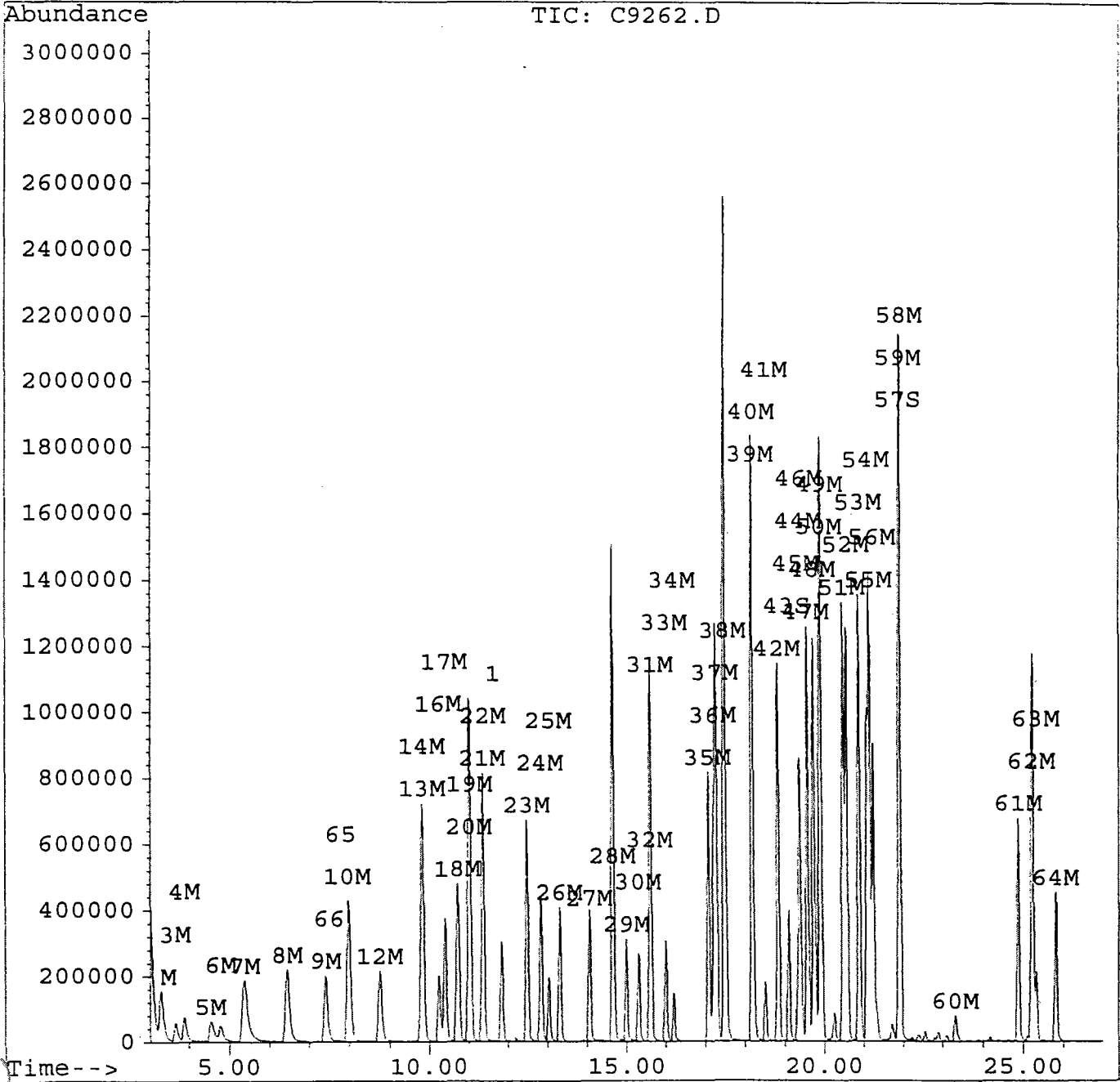
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c9262.d  
Acq On : 24 Aug 95 3:57 pm  
Sample : 9536615 MS  
Misc : 25 ML BLDG 699 MW-12  
Quant Time: Aug 25 9:21 1995

Vial: 11 254  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration





Quantitation Report

Data File : d:\hpchem\1\data\c9263.d  
 Acq On : 24 Aug 95 4:37 pm  
 Sample : 9536615 MSD  
 Misc : 25 ML BLDG 699 MW-12  
 Quant Time: Aug 24 17:04 1995

Vial: 12 **255**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene	11.84	96	561048	5.00	ug/L	0.06
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.11	95	319630	5.07	ug/L	101.49%
57) 1,2-Dichlorobenzene-d4	21.89	152	202806	5.35	ug/L	106.93%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.31	85	541772	9.78	ug/L	99
3) Chloromethane	3.67	50	201624	9.51	ug/L	95
4) Vinyl chloride	3.89	62	260911	9.67	ug/L	92
5) Bromomethane	4.54	94	190997	10.12	ug/L	90
6) Chloroethane	4.76	64	159953	10.12	ug/L	92
7) Trichlorofluoromethane	5.37	101	778651	10.58	ug/L	98
8) 1,1-Dichloroethene	6.43	96	275960	9.50	ug/L	91
9) Methylene chloride	7.41	84	250788	8.75	ug/L	92
10) trans-1,2-Dichloroethene	7.96	96	312961	10.15	ug/L	98
12) 1,1-Dichloroethane	8.75	63	667799	10.69	ug/L	100
13) 2,2-Dichloropropane	9.83	77	649605	9.51	ug/L	99
14) cis-1,2-Dichloroethene	9.83	96	314231	10.59	ug/L	94
16) Bromochloromethane	10.24	128	132451	10.32	ug/L	94
17) Chloroform	10.40	83	676042	10.43	ug/L	100
18) 1,1,1-Trichloroethane	10.72	97	783211	10.80	ug/L	98
19) Carbon tetrachloride	11.03	117	727222	10.56	ug/L	99
20) 1,1-Dichloropropene	11.01	75	597895	10.02	ug/L	98
21) Benzene	11.36	78	1309148	13.86	ug/L	97
22) 1,2-Dichloroethane	11.36	62	345500	11.16	ug/L	94
23) Trichloroethene	12.48	95	483142	10.55	ug/L	95
24) 1,2-Dichloropropane	12.83	63	329595	10.53	ug/L	99
25) Dibromomethane	13.03	93	159401	10.66	ug/L	95
26) Bromodichloromethane	13.30	83	552645	10.36	ug/L	100
27) cis-1,3-Dichloropropene	14.06	75	424451	9.91	ug/L	98
28) Toluene	14.65	92	1675453	23.23	ug/L	98
29) trans-1,3-Dichloropropene	14.99	75	321825	9.93	ug/L	98
30) 1,1,2-Trichloroethane	15.31	83	138799	10.02	ug/L	97
31) Tetrachloroethene	15.61	166	585509	10.08	ug/L	97
32) 1,3-Dichloropropane	15.60	76	288355	10.15	ug/L	99
33) Dibromochloromethane	16.00	129	342124	10.25	ug/L	98
34) 1,2-Dibromomethane	16.20	107	218896	10.25	ug/L	90
35) Chlorobenzene	17.07	112	864615	10.22	ug/L	97
36) 1,1,1,2-Tetrachloroethane	17.21	131	407083	10.47	ug/L	98
37) Ethylbenzene	17.27	91	1934393	12.00	ug/L	99
38) Xylene (para & meta)	17.48	106	1734970	29.57	ug/L	95
39) Xylene (Ortho)	18.18	106	797175	15.06	ug/L	98
40) Styrene	18.20	104	484067	5.92	ug/L	88

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c9263.d  
 Acq On : 24 Aug 95 4:37 pm  
 Sample : 9536615 MSD  
 Misc : 25 ML BLDG 699 MW-12  
 Quant Time: Aug 24 17:04 1995

Vial: 12 **256**  
 Operator: SRK  
 Inst : 5972 - In  
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
 Title : 524.2 Purgable Organics  
 Last Update : Mon Jul 31 15:41:52 1995  
 Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
41) Bromoform	18.51	173	185389	10.04	ug/L	98
42) Isopropylbenzene	18.84	105	1725539	10.17	ug/L	98
44) Bromobenzene	19.38	156	401020	10.23	ug/L	99
45) 1,1,2,2-Tetrachloroethane	19.33	83	179761	10.13	ug/L	94
46) 1,2,3-Trichloropropane	19.40	75	202647	10.40	ug/L #	84
47) n-Propylbenzene	19.58	91	2227139	10.33	ug/L	99
48) 2-Chlorotoluene	19.73	91	1366699	10.85	ug/L	99
49) 4-Chlorotoluene	19.92	91	1452608	10.21	ug/L	99
50) 1,3,5-Trimethylbenzene	19.89	105	1352121	10.25	ug/L	99
51) tert-Butylbenzene	20.49	119	1648708	10.31	ug/L	99
52) 1,2,4-Trimethylbenzene	20.57	105	1222729	9.98	ug/L	100
53) sec-Butylbenzene	20.89	105	2171110	10.05	ug/L	99
54) 1,3-Dichlorobenzene	21.09	146	790028	10.11	ug/L	98
55) 4-Isopropyltoluene	21.15	119	1713532	9.89	ug/L	99
56) 1,4-Dichlorobenzene	21.24	146	783517	10.21	ug/L	98
58) 1,2-Dichlorobenzene	21.92	146	617193	10.36	ug/L	99
59) n-Butylbenzene	21.90	91	1687598	10.42	ug/L	100
60) 1,2-Dibromo-3-chloropropan	23.32	75	50636	10.54	ug/L	91
61) 1,2,4-Trichlorobenzene	24.89	180	420305	9.88	ug/L	99
62) Hexachlorobutadiene	25.23	225	491203	9.70	ug/L	97
63) Naphthalene	25.33	128	336787	9.71	ug/L	100
64) 1,2,3-Trichlorobenzene	25.82	180	302853	9.79	ug/L	95
65) Methyl-tert butyl ether	7.99	73	407241	10.18	ug/L	95
66) tert-Butyl Alcohol	7.72	59	13972	21.27	ug/L	100

(#) = qualifier out of range (m) = manual integration

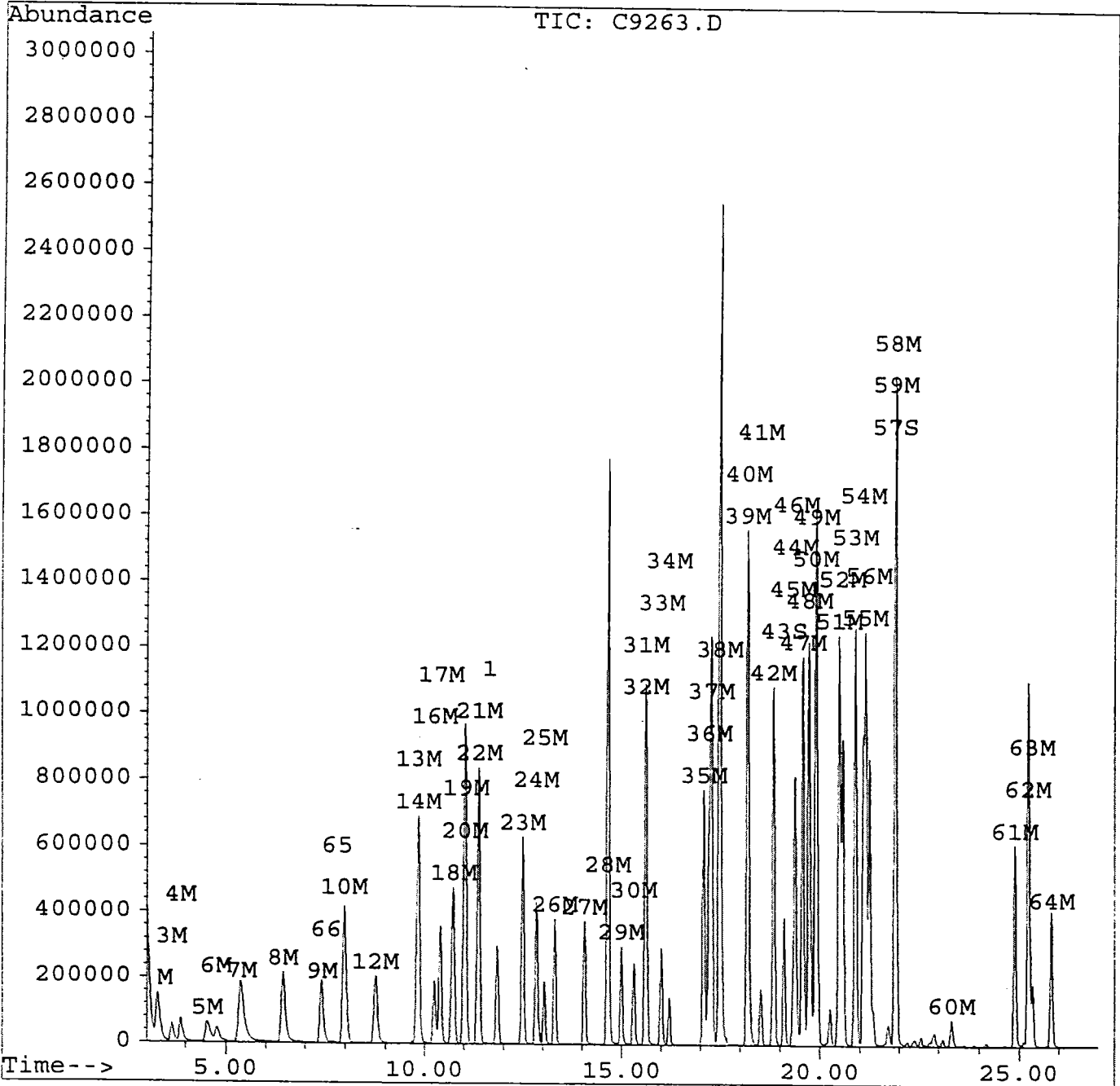
Quantitation Report

257

Data File : d:\hpchem\1\data\c9263.d  
Acq On : 24 Aug 95 4:37 pm  
Sample : 9536615 MSD  
Misc : 25 ML BLDG 699 MW-12  
Quant Time: Aug 24 17:04 1995

Vial: 12  
Operator: SRK  
Inst : 5972 - In  
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M  
Title : 524.2 Purgable Organics  
Last Update : Mon Jul 31 15:41:52 1995  
Response via : Multiple Level Calibration





METALS DATA PACKAGE



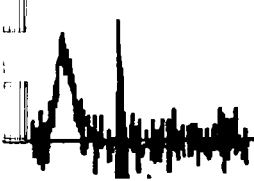


Attention: Brian McKee  
E-Systems  
P.O. Box 360  
Fort Monmouth, NJ 07703

Project #: 95085657  
Date Received: 08/15/95 17:30

The following results are for Lead

Lab #	Conc.	Unit	Client Designation
95 0036412	0.0056	mg/l	Bldg.2567,MW2-2926926
95 0036413	0.0026	mg/l	Bldg.2567,MW4-2926946
95 0036414	0.0033	mg/l	Bldg.2567,MW1-2926925
95 0036415	<0.0025	mg/l	Bldg.2567,MW3-2926947
95 0036416	0.0050	mg/l	Bldg.2567,MW5-2931788
95 0036418	<0.0025	mg/l	Field Blank





COVER PAGE - METALS ANALYSES DATA PACKAGE

Lab Name: EMSL ANALYTICAL, INC. Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

SOW No.: \_\_\_\_\_

Client Sample ID	Lab Sample ID
<u>Bldg. 2567, MW2-2926926</u>	<u>95-36412</u>
<u>Bldg. 2567, MW4-2926946</u>	<u>95-36413</u>
<u>Bldg. 2567, MW1-2926925</u>	<u>95-36414</u>
<u>Bldg. 2567, MW3-2926947</u>	<u>95-36415</u>
<u>Bldg. 2567, MW5-2931788</u>	<u>95-36416</u>
<u>Field Blank</u>	<u>95-36418</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Were ICP interelement corrections applied? Yes/No NO

Were ICP background corrections applied? Yes/No NO

If yes - were raw data generated before application of background correction? Yes/No NO

Comments: ICP was not used

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

Signature: *Paul V. Laraia*

Name: Paul V. Laraia

Date: 09-11-98

Title: Laboratory Manager



## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: EMSL Analytical Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Initial Calibration Source: Inorganic VenturesContinuing Calibration Source: SPEXConcentration Units: **mg/l**

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R (1)	True	Found	%R (1)	Found	%R (1)	
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	0.025	0.02655	106	0.025	0.02720	109			F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110



BLANKS

Lab Name: EMSL ANALYTICAL Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ AS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

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

Preparation Blank Concentration Units (mg/l or mg/kg): \_\_\_\_\_ **mg/l** \_\_\_\_\_

Analyte	Initial Calibration		Continuing Calibration						Preparation Blank	
	Blank		Blank (ug/l)						Blank	
	(ug/l)	C	1	C	2	C	3	C	C	M
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
<b>Lead</b>	<b>0.05</b>		<b>0.38</b>						<b>&lt;0.0025</b>	<b>F</b>
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Cyanide										







SPIKE SAMPLE RECOVERY

Lab Name: **EMSL Analytical** Contract: \_\_\_\_\_ Lab Sample No.: **95-36616**

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix (soil/water): **Water** Level (low/med): **Low**

% Solids for Sample: \_\_\_\_\_

Concentration Units (mg/l or mg/kg dry weight): **mg/l**

Analyte	Control	Spiked		Sample		Spike	%R	Q	M
	Limit	Sample	C	Result	C	Added			
	%R	Result (SSR)	C	(SR)	C	(SA)			
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
<b>Lead</b>	<b>75-125</b>	<b>1.13</b>		<b>0.0</b>		<b>1.0</b>	<b>113</b>		<b>F</b>
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

Comments: \_\_\_\_\_





DUPLICATES

Lab Name: **EMSL ANALYTICAL** Contract: \_\_\_\_\_ Lab Sample No.: **95-36616**

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix (soil/water): **Water** :Level (low/med.): **Low**

% Solids for Sample: \_\_\_\_\_ % Solids for Duplicate: \_\_\_\_\_

Concentration units (mg/l or mg/kg dry weight): **mg/l**

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
<b>Lead</b>	<b>+/-20%</b>	<b>0.0028</b>		<b>0.0028</b>		<b>0.0</b>		<b>F</b>
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Thallium								
Vanadium								
Zinc								
Cyanide								





LABORATORY CONTROL SAMPLE

Lab Name: **EMSL Analytical** Contract: \_\_\_\_\_

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No: \_\_\_\_\_ SDG No: \_\_\_\_\_

Solid LCS Source: \_\_\_\_\_

Aqueous LCS Source: Inorganic Ventures

Analyte	Aqueous (mg/l)			Solid (mg/kg)				
	True	Found	% R	True	Found	C	Limits	% R
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
<b>Lead</b>	<b>1.00</b>	<b>1.01</b>	<b>101</b>				<b>80-120%</b>	
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Thallium								
Vanadium								
Zinc								
Cyanide								



New Jersey Department of Environmental Protection  
Division of Water Resources  
Bureau of Underground Storage Tanks  
CN-029, Trenton, New Jersey 08625

### LABORATORY AUTHENTICATION STATEMENT

I certify under penalty of law, where applicable, this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18, 40 CFR Part 136 for Water and Wastewater Analyses and SW 846 for Solid Waste Analyses. I have personally examined and am familiar with the information contained in this report, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, complete, and meets the standards specified in N.J.A.C. 7:18, 40 CFR Part 136, and/or SW 846. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.



\_\_\_\_\_  
Laboratory Manager (as defined in N.J.A.C. 7:18 )