United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

Building 616
Main Post

NJDEP UST Registration No. 081533-90
NJDEP Closure Approval Letter Dated October 7, 1994
Spill Case No. 94-12-8-1040-10

VOLUME 2 OF 3
APPENDIX G

February 1997

SMITH
TECHNOLOGY CORPORATION

SMITH

APPENDIX G

GROUNDWATER ANALYTICAL DATA PACKAGE

Bldg. 616 MW Anal. 001

EMSL ANALYTICAL, INC.

Asbestos - Lead - Environmental | 11/27/95 | Materials

New Jersey

Corporate Office & Main Laboratory
108 Haddon Avenue
Westmont NJ 08108
(609) 858-4800

1 Cooper Street
Westmont NJ 08108
(609) 858-4800

1056 Stelton Road
Piscataway NJ 08854
(908) 981-0550

New York

150 Fifth Avenue
Empire State Bldg
Suite 1524
New York NY 10118
(212) 290-0051

208 Stonehenge Lane
Carle Place NY 11514
(516) 997-7251

California

1720 S Amphlett Blvd
Suite 130
San Mateo CA 94402
(415) 570-5401

Florida

1878 Adams Avenue
Melbourne FL 32935
(407) 253-4224

Georgia

1600 Rosewell Street SE
Suite One
Smyrna GA 30080
(404) 933-6066

Michigan

212 S Wagner Road
Ann Arbor MI 48103
(313) 668-6810

North Carolina

620-G Guilford College Rd
Greensboro NC 27409
(910) 297-1487

Texas

2501 Central Parkway
Suite C 13
Houston TX 77092
(713) 686-3635

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

PROJECT **Bldg. 616, MW Sampling**

EMSL Project· # 95118845

Field Sample No & Location	Laboratory Sample ID	Matrix	Date & Time of Collection	Date Received
1980.1, MW 1-2933760	**95-54556**	**Aqueous**	**11/27/95 @ 0959**	**11/27/95**
1980.2, Trip Blank	**95-54553**	**Aqueous**	**11/27/95 @ 0645**	**11/27/95**
1980.3, Field Blank	**95-54554**	**Aqueous**	**11/27/95 @ 1415**	**11/27/95**

Laboratory Name: EMSL ANALYTICAL, INC

Certification No: NJDEP No 04653
PADER No 68-367
NY-ELAP No 10896

Supervisor/Manager Signature: Paul Laraia

Printed Name: Paul V Laraia

Date: 1-16-96

EMSL

TABLE OF CONTENTS

SAMPLE DATA SUMMARY PACKAGE

EMSL

Date of Report	12/18/95
Project Number	95118845
Lab ID	95-0054556
Date Collected	11/27/95 09 59
Collected By	Client
Date Received	11/27/95 17 30

ttention Barbara O'Toole
E-Systems
P O Box 360
Fort Monmouth NJ 07703

Client Project MW Sampling Bldg 616

Client Designation MW1-2933760

	Conc	Unit
RGANIC		
Semi-Volatiles		
BN by 625 with Library Search	see attached	ug/l
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
Xylenes	see attached	ug/l

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO

9554556B

MW1-293760

EMETL # 19801

005

Lab Name EMSL ANALYTICAL Contract

Project No Site Location

Group

Matrix (soil/water) WATER Lab Sample ID 9554556B

Sample wt/vol 1000 0 (g/mL ML Lab File ID B9314 D

Level (low/med) Date Received 11/27/95

% Moisture 0 decanted (Y/N) N Date Extracted 12/4/95

Concentrated Extract Volume 1000 (uL) Date Analyzed 12/8/95

Injection Volume 1 0 (uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

CAS No	Compound	Concentration Units (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO

9554556B

MW1-2933760

006

FMGTI # 19801

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Matrix (soil/water) WATER Lab Sample ID 9554556B

Sample wt/vol 1000 0 (g/mL ML Lab File ID B9314 D

Level (low/med) Date Received 11/27/95

% Moisture 0 decanted (Y/N) N Date Extracted 12/4/95

Concentrated Extract Volume 1000 (uL) Date Analyzed 12/8/95

Injection Volume 1 0 (uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

CAS No	Compound	Concentration Units (ug/L or ug/Kg) ug/L	Q
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO
9554556B
MWI-2933760

007

FMETL # 1980.1

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Matrix (soil/water) WATER Lab Sample ID 9554556B

Sample wt/vol 1000 0 (g/mL) ML Lab File ID B9314 D

Level (low/med) Date Received 11/27/95

% Moisture 0 decanted (Y/N) N Date Extracted 12/4/95

Concentrated Extract Volume 1000 (uL) Date Analyzed 12/8/95

Injection Volume 1 0 (uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

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

CAS Number	Compound Name	RT	Est Conc	Q
1	Unknown Hydrocarbon	23 54	6	J
2				
3				
4				
5				
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 1980 1 008

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ Bldg# 616 NJDEP MW# 1 - 2933760

Matrix (soil/water) WATER Lab Sample ID 9554556V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0545 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/11/95

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
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	3 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#

1980 1

009

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ Bldg# 616 NJDEP MW# 1 - 2933760

Matrix (soil/water) WATER Lab Sample ID 9554556V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0545 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/11/95

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

FMETL# 19801

010

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ BLDG# 616 NJDEP MW# 1 - 2933760 Group

Matrix (soil/water) WATER Lab Sample ID 9554556V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0545 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/11/95

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		Column Bleed	10 06	1	J
2		Column Bleed	23 00	2	J
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
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EMSL

Date of Report 12/21/95
Project Number 95118844
Lab ID 95-0054553
Date Collected 11/27/95 06 45
Collected By. Client
Date Received: 11/27/95 17 30

Attention Barbara O'Toole
E-Systems
P O Box 360
Fort Monmouth NJ 07703

Client Project MW Sampling,Bldg 482

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
Xylenes	see attached	ug/l

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 19802 Trip Blank 012

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ Bldg# 482 NJDEP MW# TB

Matrix (soil/water) WATER Lab Sample ID 9554553V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0475 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/5/95

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
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	70	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# 19860.2 Trip Blank 013

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ Bldg# 482 NJDEP MW# TB

Matrix (soil/water) WATER Lab Sample ID 9554553V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0475 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/5/95

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

FMETL# 1980.2 Trip Blank 014

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ Bldg 482 NJDEP MW# TB Group

Matrix (soil/water) WATER Lab Sample ID 9554553V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0475 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/5/95

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	109-99-9	Furan, tetrahydro-	10 74	3	J
2		Column Bleed	23 11	1	J
3					
4					
5					
6					
7					
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11					
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EMSL

Date of Report: 12/21/95
Project Number. 95118844
Lab ID 95-0054554
Date Collected: 11/27/95 14 15
Collected By· Client
Date Received· 11/27/95 17·30

ttention Barbara O'Toole
E-Systems
P.O Box 360
Fort Monmouth NJ 07703

Client Project MW Sampling,Bldg.482

Client Designation Field Blank

	Conc.	Unit
RGANIC		
Semi-Volatiles		
BN by 625 with Library Search	see attached	ug/l
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
Xylenes	see attached	ug/l

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO: 19803 9554554B Field Blank 01

Lab Name: EMSL ANALYTICAL Contract:

Project No: Site: Bldg 682 Location: FB Group:

Matrix (soil/water): WATER Lab Sample ID: 9554554B

Sample wt/vol: 1000 0 (g/mL ML Lab File ID: B9312 D

Level (low/med): Date Received: 11/27/95

% Moisture: 0 decanted (Y/N): N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1 0 (uL) Dilution Factor: 1 0

GPC Cleanup (Y/N): N pH:

CAS No	Compound	Concentration Units (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO: 19603 9554554B Field Blank 017

Lab Name: EMSL ANALYTICAL | Contract: | Project No: | Site: BHC482 | Location: FB | Group:

Matrix (soil/water): WATER | Lab Sample ID: 9554554B

Sample wt/vol: 1000.0 (g/mL ML | Lab File ID: B9312.D

Level (low/med): | Date Received: 11/27/95

% Moisture: 0 | decanted (Y/N): N | Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) | Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) | Dilution Factor: 1.0

GPC Cleanup (Y/N): N | pH:

CAS No	Compound	Concentration Units (ug/L or ug/Kg) ug/L	Q
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO
1980.3
9554554B
Field Blank
018

Lab Name EMSL ANALYTICAL Contract

Project No Site Bldg 482 Location FB Group

Matrix (soil/water) WATER Lab Sample ID 9554554B

Sample wt/vol 1000 0 (g/mL) ML Lab File ID B9312 D

Level (low/med) Date Received 11/27/95

% Moisture 0 decanted (Y/N) N Date Extracted 12/4/95

Concentrated Extract Volume 1000 (uL) Date Analyzed 12/8/95

Injection Volume 1 0 (uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

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

CAS Number	Compound Name	RT	Est Conc	Q
1	Unknown Hydrocarbon	8 14	5	J
2 57-10-3	Hexadecanoic acid	23 52	2	J
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 1980.3 Field Blank 013

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ Bldg# 482 NJDEP MW# FB

Matrix (soil/water) WATER Lab Sample ID 9554554V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0476 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/5/95

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
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	60	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# 19803 Field Blank 020

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ Bldg# 482 NJDEP MW# FB

Matrix (soil/water) WATER Lab Sample ID 9554554V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0476 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/5/95

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

FMETL# 19803 Field Blank 021

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ Bldg 482 NJDEP MW# FB Group

Matrix (soil/water) WATER Lab Sample ID 9554554V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0476 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/5/95

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 4 Concentration Units (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est Conc	Q
1	Column Bleed	10 19	1	J
2 109-99-9	Furan, tetrahydro-	10 75	3	J
3	Column Bleed	19 71	1	J
4	Unknown Hydrocarbon	23 10	2	J
5				
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EMSL

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

Paul Tarara

Laboratory Manager or Environmental Consultant's Signature

1-16-96

Date

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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 #		
1	1	Name and address of the facility
1	2	Name of the laboratory performing the sample analysis
1	3	NJDEP certification number assigned to the laboratory pursuant to N J A C 7 18
1	4	Laboratory sample identification number
1	5	Customer sample identification number corresponding to the laboratory sample identification
1	6	Sample Location (also on the site diagram)
1	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
29-30	8	The reference for the method used (e g , EPA Method 625, 40 CFR Part 136)
1	9	The signature of the person completing the report form
1	10	The dates the laboratory report form was prepared, as well as the dates the sample were collected, submitted and analyzed
31	11	A list of all parameters (constituents and conditions) for which the analyses were performed
3-21	12	Sample results and corresponding units for each parameter

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CHAIN OF CUSTODY

EMSL
3 Cooper Street
Westmont New Jersey 08108
609-858-9573
609 858 4571 (Fax)

Chain of Custody / Analysis Request Form

EMSL Project # 951188845
PO # IJO#95-0091/SAI

Custody and Sample Information - Print ALL information Put N/A in blanks not applicable Press firmly

1 Report to	2 Bill to	Project	Number of Containers	Indicate Analysis Requested
US ARMY FT MONMOUTH Charles Appleby SELFM-PW-EV Env.Lab.Cert#13461		Bldg. 616 MW SAMPLING Tel # 908-532-6224 FAX #		VOA 524 + Library Include Xylene, TBA, BTEX BN 625 +15

3 Sampled by (Signature)	4 # of Samples in Shipment	5 Date of Sample Shipment	6 Date Results Needed
Baxter/Palilonis	one	11-27-95	

Item No	Sample Number	Station Location / Sample ID	COMP	GRAB	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: Date	Time	Number of Containers	Laboratory Number
1	19801	MW1-2933760		Y	X					X			Y	X		11/27	0959	7	54556
2	↓ -2	TRIP Blank		X	X					X			X			11/27	0845	3	54553
3	↓ -3	Field Blank		X	X					X			X	X		11/27	1415	6	54554
4																			
5																			
6																			
7																			
8																			
9																			

Released by (Signature)	Date/Time Released	Delivery Method	Received by (Signature)	Company/Agency Affiliation	Date/Time Received	Condition Noted
S Hubbard	11/27/95 1515	Courier	[illegible] Palilonis	EMSL	11/27/95	1515
	/		[illegible]	EMSL	11/27 /	1730
	/				/	

Please indicate turnaround time standard 10D 5D 72HR 48HR 24HR (Must call for quick turn)

Comments Page 1 of 1
* A drawing depicting sample location on reverse side

Please indicate reporting requirements
1) Results only 2) Results & QC 3) Reduced Deliverables

025

Bldg 699

Gas Station

MW-1

Bldg 616

020

INTERNAL CHAIN OF CUSTODY(ORGANICS)

SAMPLE No(S)	ANALYSIS	DATE ANALYZED	NAME (PRINT)	NAME (SIGNATURE)
55592	TCLP BNA	12/10/95	S. VanEtten	
9555533-5	BNA SOIL	12/8/95	S. VanEtten	
9554749	VOA TCL	12/04/95	M. CIAMPI	
9554731	VOA + QC	12/01/95	M CIAMPI	
9554732	TCL VOA + LS + QC + SPECIAL	12/02/95	M. CIAMPI	
95 55592	GASOLINE	12/11/95	M. CIAMPI	
95 54733	BN +	12/1/95	S. VanEtten	
4551-8	BN +	12/8/95	S. VanEtten	
54779	BNA	12/8/95	S. VanEtten	
54985	BN +	12/8/95	S. VanEtten	
5478, 245	TCL BNA +	12/11/95	S. VanEtten	
9554989 92	VOA + LS	12/05/95	M. CIAMPI	
9556167	VOA	12/13/95	M. CIAMPI	
54992	BNA	12/12/95	S. VanEtten	
9556244	524.2	12/11/95	S. K	
9554974-79	624	12/7/95	S K	
9555614	624	12/7/95	S. Kossler	
9554985	624	12/7/95	S Kossler	
9554779	624	12/6/95	S. Kossler	
9555117-23	624	12/7/95	S Kossler	
9554891-98	624	12/6-12/7/95	S Kossler	
9555089-90	GASOLINE	12/13/95	M CIAMPI	
54551-11	524.2	12/5 & 11/95	S K	

EMSL ANALYTICAL, INC

INTERNAL CHAIN OF CUSTODY

EMSL LAB ID NO. 54556

PROJECT NO 95118845

SAMPLE/CONTAINERS

PARAMETERS
TPH, VOA

DATE	TIME	ANALYSIS	NAME (PRINT)	SIGNATURE
12/4/95		B/N extraction	Charles Bartolone	Charles Bartolone

U.S. ARMY FORT MONMOUTH
MONITORING WELL SAMPLING DATASHEET

IJO#95-0091
BLDG # 616 MW# 1 NJDEPE WELL ID # 29337601
LABORATORY. EMSL Analytical Services, NJDEP CERT # 04653
SAMPLING CONTRACTOR. EMSL Analytical Services Inc.
SAMPLERS NAMES Tom Baxter, Susan Palilonis 0850

DATE 11-27-95
WEATHER CONDITIONS overcast, Cool

ELEVATION OF CASING SURVEY MARK _____ FT
TOTAL DEPTH FROM TOP OF SURVEYORS MARK: 16.18 FT
DEPTH FROM SURVEYORS MARK TO SCREEN. _____ FT
LENGTH OF SCREENED SECTION _____ FT
DEPTH TO H2O PRIOR TO PURGING AND SAMPLING: 4.82 FT
ELEVATION OF GW PRIOR TO PURGING. _____ FT
THICKNESS OF LNAPL PRIOR TO PURGING 0.0 FT

PID/Hnu READING IMMEDIATELY AFTER CAP REMOVAL <1 PPM none Det.
DEPTH OF WELL _____ FT HEIGHT OF WATER: _____ FT
GAL OF H2O TO BE EVACUATED (EST) 22 GAL
(11.36 X 0.65 X 3 = 22.15)
PURGE METHOD (FLOW OF <0.5 GPM TO >5.0 GPM) Pump
PURGE RATE (0.5 GPM) 2 GPM

PURGE START TIME 0909
pH 4.44 s u TEMP 14.2 Deg C
Dissolved Oxygen 2.0 PPM Specific Conductivity 121 us/cm

PURGE END TIME 0930
pH 4.32 s u. TEMP 14.1 Deg C
Dissolved Oxygen 3.0 PPM Specific Conductivity: 113 us/cm

DEPTH TO H2O AFTER PURGING AND BEFORE SAMPLING 8.71 FT
SAMPLING METHOD DEDICATED, DECONTAMINATED (IAW NJDEP FSPM 1992) TEFLON (R) BAILER
TOTAL VOLUME PURGED 22 GAL
pH 4.30 s u TEMP. 14.2 Deg C 0959
Dissolved Oxygen 3.0 PPM Specific Conductivity 105 us/cm

COMMENTS _____

EMSL

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 capiullary column (DB-624 0 53 mn ID)

Method detection limits are as stated

Semivolatiles by GC/MS - Aqueous

EPA Method 625 - This is a gas chromatograph/mass spectrometer (GC/MS) method applicable to the determination of a number of organic compounds that are partitioned in an organic solvent and amenable to gas chromatography Reference is Federal Register, Vol 40, No 136, July, 1988

An HP5890/5970B GC/MS is used with a DB-5 fused silica capillary column

If tentatively identified compounds are requested, a computer program analyzes the non-priority pollutant/HSL/TCL compounds with standard mass spectra found in the latest version of the NIH/NBS/EPA mass spectral library

Method detection limits are as stated

EMSL

LABORATORY CHRONICLE

Lab ID **95-54556, 95-54553, 95-54554** Client **E-Systems**

	I DATE	II Hold Time
Date Sampled	**11/27/95**	
Receipt/Refrigeration	**11/27/95**	
Extractions		
1. Semivolatile Organics	**12/4/95**	**7 days**
Analyses		
1. Volatile Organics	**12/5 & 11/95**	**14 days**
2. Semivolatile Organics	**12/8/95**	**40 days**

QC Supervisor
Review & Approval

(Signature) Peter B. Panton
(Printed Name) Peter B Panton
(Date) 11/27/96

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

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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		X
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 **Methylene Chloride 0.5 - 1.6 ppb.**		
	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"?		
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

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

		No	Yes
10	Extraction Holding Time Met		X
	If not met, list number of days exceeded for each sample		
11	Analysis Holding Time Met		X
	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 Lavaq Date 1-16-96

EMSL

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 C0274 D BFB Injection Date 11/21/95

Instrument ID 5972-INSTRUMENT 1 BFB Injection Time 0930

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	18 1
75	30 0 - 60 0% of mass 95	42 0
95	Base peak, 100% relative abundance	100 0
96	5 0 - 9 0% of mass 95	6 9
173	Less than 2 0% of mass 174	0 0 (0 0)1
174	Greater than 50 0% of mass 95	70 3
175	5 0 - 9 0% of mass 174	4 9 (6 9)1
176	95 0 - 101 0% of mass 174	69 0 (98 1)1
177	5 0 - 9 0% of mass 176	4 8 (7 0)2

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

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

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		0 5 PPB STANDARD	C0275 D	11/21/95	0943
02		10 PPB STANDARD	C0279 D	11/21/95	1202
03		20 PPB STANDARD	C0278 D	11/21/95	1128
04		30 PPB STANDARD	C0277.D	11/21/95	1052
05		40 PPB STANDARD	C0276 D	11/21/95	1018
06					
07					
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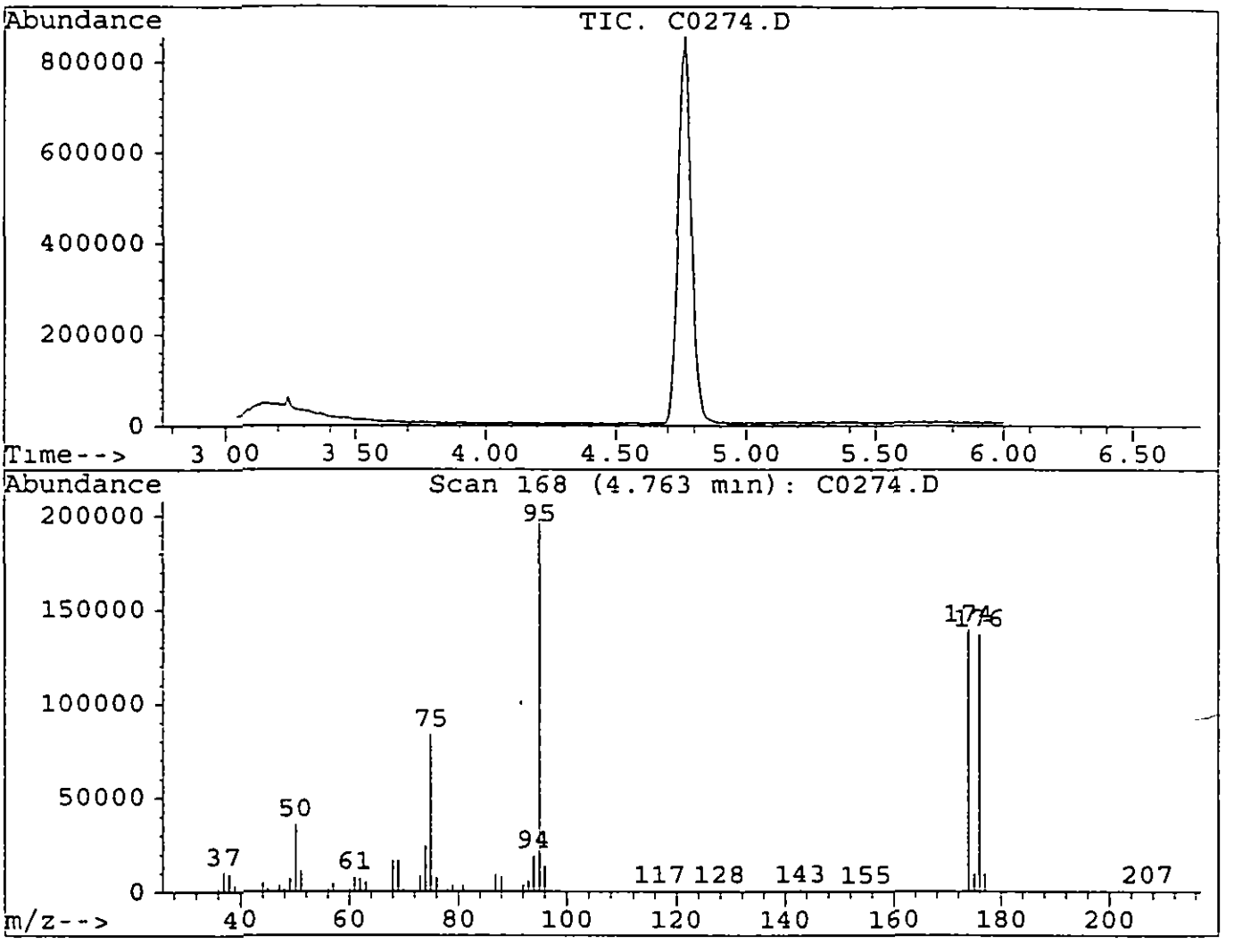
CLPBFB

038

Data File : D.\HPCHEM\1\DATA\C0274.D
Acq On : 21 Nov 95 9.30 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: 168

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.1	35864	PASS
75	95	30	80	42.0	83456	PASS
95	95	100	100	100.0	198528	PASS
96	95	5	9	6.9	13614	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	70.3	139520	PASS
175	174	5	9	6 9	9663	PASS
176	174	95	101	98.1	136832	PASS
177	176	5	9	7 0	9524	PASS

S an 168 (4.763 mın): C0274.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund	m/z	abund.
36.00	2277	50.05	35864	68.95	16840	80.90	3318
37.00	10480	51.05	11301	69.95	1438	81.90	791
38.00	9596	54.95	647	71.95	1154	86.90	8982
39.00	3619	56.00	2228	72.95	8548	87.95	8221
40.00	1027	57.00	4456	73.95	24384	90.95	535
42 90	511	60.00	1764	74.95	83456	91.95	3828
44.00	4623	61.00	7920	75 95	7334	92.95	5832
44.90	1739	62.00	7223	77.00	1369	93.95	18976
47.05	3487	63.00	5277	78.00	1252	94.95	198528
47.95	1465	67.05	583	78.90	3315	95.95	13614
48.95	7258	67.95	16648	79.90	878	96 95	630

Scan 168 (4 763 min): C0274.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund	m/z	abund.
105.90	570	175.95	136832				
116.85	739	176.95	9524				
118.90	643	207.00	701				
127.90	866						
129.95	560						
134 85	621						
141 00	967						
142.90	1142						
154.85	600						
173.95	139520						
174 95	9663						

Response Factor Report 5972 - In

033

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title 524.2 Purgable Organics
Last Update . Tue Nov 21 13:46:36 1995
Response via : Initial Calibration

Calibration Files
0 5 =C0275 D 10 =C0279.D 20 =C0278.D
30 =C0277.D 40 =C0276.D

		Compound	0.5	10	20	30	40	Avg	%RSD
1)		Fluorobenzene	----------ISTD----------						
2)	M	Dichlorodifluorometha	0.287	0.266	0.261	0.265	0.273	0.271	3.80
3)	M	Chloromethane	0.232	0.207	0.195	0.196	0.198	0.206	7.64
4)	M	Vinyl chloride	0 231	0.229	0 223	0.226	0.235	0.229	1.94
5)	M	Bromomethane	0.205	0.165	0.144	0.144	0.136	0.159	17.51
6)	M	Chloroethane	0.143	0.138	0.128	0.117	0.109	0.127	11.04
7)	M	Trichlorofluoromethan	0.426	0.390	0.383	0 392	0 384	0.395	4.52
8)	M	1,1-Dichloroethene	0.255	0.233	0.231	0.230	0.234	0.237	4.48
9)	M	Methylene chloride		0.279	0.233	0.219	0.215	0.237	12.46
10)	M	trans-1,2-Dichloroeth	0 282	0.270	0.266	0.264	0.270	0.270	2.62
11)		Hexane						0.000#	-1.00
12)	M	1,1-Dichloroethane	0 532	0.513	0.498	0 494	0.503	0 508	2.94
13)	M	2,2-Dichloropropane	0 466	0.408	0.407	0.415	0 426	0.424	5 77
14)	M	cis-1,2-Dichloroethen	0 273	0 275	0.262	0.258	0 260	0.266	2 85
15)		2-Butanone						0.000#	-1.00
16)	M	Bromochloromethane	0 115	0.124	0.113	0.111	0.113	0 115	4.52
17)	M	Chloroform	0 487	0.479	0.459	0.457	0.464	0.469	2 85
18)	M	1,1,1-Trichloroethane	0 469	0.457	0.449	0.444	0.453	0.454	2.09
19)	M	Carbon tetrachloride	0.428	0.432	0.426	0.426	0.435	0.429	0 90
20)	M	1,1-Dichloropropene	0.445	0.423	0 418	0.413	0.419	0 424	2.93
21)	M	Benzene	0 992	0 878	0 833	0.817	0.829	0.870	8 27
22)	M	1,2-Dichloroethane	0 199	0.209	0 190	0.185	0 191	0 195	4 85
23)	M	Trichloroethene	0 377	0 365	0 354	0.350	0.358	0.361	2.90
24)	M	1,2-Dichloropropane	0.306	0.319	0.296	0.290	0 298	0 302	3.69
25)	M	Dibromomethane	0 128	0.145	0.131	0.127	0.131	0 132	5 52
26)	M	Bromodichloromethane	0 386	0.413	0.387	0.379	0.389	0.391	3 37
27)	M	cis-1,3-Dichloroprope	0 351	0.372	0.347	0 340	0.352	0.352	3.45
28)	M	Toluene		0.639	0.609	0.597	0.610	0.614	2.89
29)	M	trans-1,3-Dichloropro	0.237	0.263	0.239	0.234	0.243	0.243	4.73
30)	M	1,1,2-Trichloroethane	0.127	0 144	0 128	0.124	0.129	0 131	5 87
31)	M	Tetrachloroethene	0.458	0 436	0 429	0.425	0 429	0 435	3 03
32)	M	1,3-Dichloropropane	0.248	0.273	0 243	0.233	0 240	0 247	6.16
33)	M	Dibromochloromethane	0.241	0.284	0.260	0.253	0.262	0.260	6.03
34)	M	1,2-Dibromoethane	0 180	0.212	0.189	0.182	0.189	0.190	6 83
35)	M	Chlorobenzene	0 746	0.734	0.693	0 676	0.688	0.707	4.33
36)	M	1,1,1,2-Tetrachloroet	0 287	0.316	0.290	0.285	0 290	0.294	4.34
37)	M	Ethylbenzene	1.356	1 287	1 236	1.205	1.219	1.261	4.87
38)	M	Xylene (para & meta)	0.530	0 488	0.464	0.451	0.453	0.477	6.89
39)	M	Xylene (Ortho)	0 469	0.454	0.427	0 416	0 422	0.438	5 22
40)	M	Styrene	0 676	0 715	0.668	0.646	0 655	0.672	3.95
41)	M	Bromoform	0.121	0.161	0 145	0.141	0.144	0.142	10.19
42)	M	Isopropylbenzene	1.274	1 248	1 201	1.179	1 192	1 219	3 31
43)	S	4-Bromofluorobenzene	0.533	0 559	0.538	0.528	0.541	0.540	2.22

#) = Out of Range

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Tue Nov 21 13:46:36 1995
Response via : Initial Calibration

039

Calibration Files
0.5 =C0275.D 10 =C0279.D 20 =C0278.D
30 =C0277.D 40 =C0276.D

		Compound	0.5	10	20	30	40	Avg	%RSD
44)	M	Bromobenzene	0.310	0.343	0.314	0.304	0.307	0.316	4.90
45)	M	1,1,2,2-Tetrachloroet	0.145	0.183	0.161	0.153	0.158	0.160	8.85
46)	M	1,2,3-Trichloropropan	0.165	0.182	0.161	0.154	0.159	0.164	6.55
47)	M	n-Propylbenzene	1.751	1.699	1.650	1.605	1.613	1.664	3.68
48)	M	2-Chlorotoluene	1.051	0.971	0.921	0.960	0.960	0.973	4.91
49)	M	4-Chlorotoluene	1.145	1.127	1.065	1.036	1.045	1.084	4.57
50)	M	1,3,5-Trimethylbenzen	1.107	1.095	1.045	1.018	1.021	1.057	3.93
51)	M	tert-Butylbenzene	1.227	1.237	1.176	1.146	1.151	1.187	3.56
52)	M	1,2,4-Trimethylbenzen	1.151	1.093	1.030	1.001	1.006	1.056	6.08
53)	M	sec-Butylbenzene	1.690	1.667	1.602	1.555	1.547	1.612	3.99
54)	M	1,3-Dichlorobenzene	0.660	0.666	0.617	0.592	0.589	0.625	5.84
55)	M	4-Isopropyltoluene	1.355	1.354	1.290	1.245	1.236	1.296	4.41
56)	M	1,4-Dichlorobenzene	0.648	0.660	0.600	0.574	0.581	0.612	6.40
57)	S	1,2-Dichlorobenzene-d	0.336	0.368	0.338	0.325	0.324	0.338	5.29
58)	M	1,2-Dichlorobenzene	0.519	0.543	0.485	0.462	0.462	0.494	7.28
59)	M	n-Butylbenzene	1.377	1.370	1.307	1.265	1.257	1.315	4.31
60)	M	1,2-Dibromo-3-chlorop	0.035	0.037	0.033	0.031	0.032	0.034	7.58
61)	M	1,2,4-Trichlorobenzen	0.384	0.446	0.404	0.384	0.383	0.400	6.73
62)	M	Hexachlorobutadiene	0.355	0.365	0.350	0.339	0.329	0.348	4.00
63)	M	Naphthalene	0.407	0.444	0.383	0.353	0.347	0.387	10.34
64)	M	1,2,3-Trichlorobenzen	0.279	0.337	0.297	0.274	0.271	0.292	9.42
65)		Methyl-tert butyl eth		0.339	0.297	0.289	0.299	0.306	7.29
66)		tert-Butyl Alcohol		0.005	0.004	0.004	0.004	0.005	9.33

#) = Out of Range

Quantitation Report

040

Data File : D:\HPCHEM\1\DATA\C0275.D
Acq On : 21 Nov 95 9:43 am
Sample : 0.5 PPB STANDARD
Misc 25 ML
Quant Time Nov 21 13:45 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 : Tue Nov 21 13:46.36 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	12.21	96	1820408	5.00	ug/L		0.42
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.44	95	969768	4.67	ug/L		93.41%
57) 1,2-Dichlorobenzene-d4	22.24	152	612531	4.91	ug/L		98 22%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.53	85	52316	0.39	ug/L		97
3) Chloromethane	3.98	50	42319	0 61	ug/L		98
4) Vinyl chloride	4.16	62	42117	0 51	ug/L		92
5) Bromomethane	4.90	94	37297	0.62	ug/L		97
6) Chloroethane	5.12	64	25997	0 54	ug/L		90
7) Trichlorofluoromethane	5.71	101	77594	0.41	ug/L		100
8) 1,1-Dichloroethene	6.81	96	46511	0.54	ug/L	#	71
9) Methylene chloride	7.81	84	319424	3.67	ug/L		97
10) trans-1,2-Dichloroethene	8.35	96	51408	0.53	ug/L		95
12) 1,1-Dichloroethane	9.14	63	96756	0.50	ug/L		100
13) 2,2-Dichloropropane	10.19	77	84847	0 44	ug/L		94
14) cis-1,2-Dichloroethene	10.21	96	49660	0.52	ug/L		97
16) Bromochloromethane	10.63	128	20891	0.50	ug/L		99
17) Chloroform	10.77	83	88666	0 45	ug/L		96
18) 1,1,1-Trichloroethane	11.09	97	85372	0.42	ug/L		93
19) Carbon tetrachloride	11.37	117	77995	0 41	ug/L		90
20) 1,1-Dichloropropene	11.37	75	81023	0 48	ug/L		94
21) Benzene	11.73	78	180526	0 59	ug/L		92
22) 1,2-Dichloroethane	11 76	62	36177	0 38	ug/L		83
23) Trichloroethene	12.83	95	68547	0.50	ug/L		97
24) 1,2-Dichloropropane	13.20	63	55699	0.54	ug/L		98
25) Dibromomethane	13.41	93	23381	0.45	ug/L		95
26) Bromodichloromethane	13.67	83	70253	0.42	ug/L		98
27) cis-1,3-Dichloropropene	14.41	75	63879	0.48	ug/L		92
28) Toluene	14.99	92	153622	0.69	ug/L	m	98
29) trans-1,3-Dichloropropene	15.35	75	43191	0.44	ug/L		89
30) 1,1,2-Trichloroethane	15.67	83	23162	0 49	ug/L		95
31) Tetrachloroethene	15.94	166	83338	0 52	ug/L		97
32) 1,3-Dichloropropane	15.96	76	45174	0.49	ug/L		95
33) Dibromochloromethane	16.36	129	43861	0 43	ug/L		99
34) 1,2-Dibromoethane	16.57	107	32720	0.46	ug/L	m	95
35) Chlorobenzene	17 41	112	135723	0 53	ug/L		97
36) 1,1,1,2-Tetrachloroethane	17.56	131	52286	0.47	ug/L		98
37) Ethylbenzene	17.60	91	246785	0.52	ug/L	m	67
38) Xylene (para & meta)	17.80	106	192842	1 13	ug/L		90
39) Xylene (Ortho)	18.51	106	85435	0.54	ug/L	m	93
40) Styrene	18.53	104	123015	0.51	ug/L		90

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

Quantitation Report

Data File : D:\HPCHEM\1\DATA\C0275.D
Acq On : 21 Nov 95 9.43 am
Sample : 0 5 PPB STANDARD
Misc 25 ML
Quant Time Nov 21 13 45 1995

Vial: 2 041
Operator: SRK
Inst : 5972 - In
Multiplr: 1 00

Method . C \HPCHEM\1\METHODS\VOA524 M
Title · 524.2 Purgable Organics
Last Update : Tue Nov 21 13 46:36 1995
Response via : Multiple Level Calibration

	Compound	R.T	QIon	Response	Conc Unit		Qvalue
41)	Bromoform	18.88	173	21972	0 40 ug/L		93
42)	Isopropylbenzene	19 16	105	231861	0.50 ug/L		96
44)	Bromobenzene	19 72	156	56512	0 49 ug/L		97
45)	1,1,2,2-Tetrachloroethane	19.69	83	26461	0.46 ug/L		96
46)	1,2,3-Trichloropropane	19.75	75	29999	0 47 ug/L	m	1
47)	n-Propylbenzene	19.90	91	318712	0.50 ug/L	m	58
48)	2-Chlorotoluene	20.07	91	191301	0.52 ug/L	m	98
49)	4-Chlorotoluene	20.26	91	208453	0.49 ug/L		96
50)	1,3,5-Trimethylbenzene	20 21	105	201508	0.49 ug/L		97
51)	tert-Butylbenzene	20 81	119	223381	0.50 ug/L		96
52)	1,2,4-Trimethylbenzene	20.90	105	209498	0.50 ug/L		97
53)	sec-Butylbenzene	21.21	105	307562	0 49 ug/L	m	57
54)	1,3-Dichlorobenzene	21.43	146	120084	0 52 ug/L	m	95
55)	4-Isopropyltoluene	21.47	119	246629	0 50 ug/L		98
56)	1,4-Dichlorobenzene	21.59	146	117975	0.52 ug/L	m	96
58)	1,2-Dichlorobenzene	22 28	146	94399	0 52 ug/L	m	0
59)	n-Butylbenzene	22.22	91	250733	0.49 ug/L		97
60)	1,2-Dibromo-3-chloropropan	23.70	75	6427	0.45 ug/L	m	0
61)	1,2,4-Trichlorobenzene	25.25	180	69932	0.47 ug/L		93
62)	Hexachlorobutadiene	25 57	225	64588	0.48 ug/L		99
63)	Naphthalene	25.71	128	74092	0.53 ug/L	m	0
64)	1,2,3-Trichlorobenzene	26.22	180	50786	0.47 ug/L	m	0
65)	Methyl-tert butyl ether	8.40	73	84870	0.70 ug/L	m	0

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

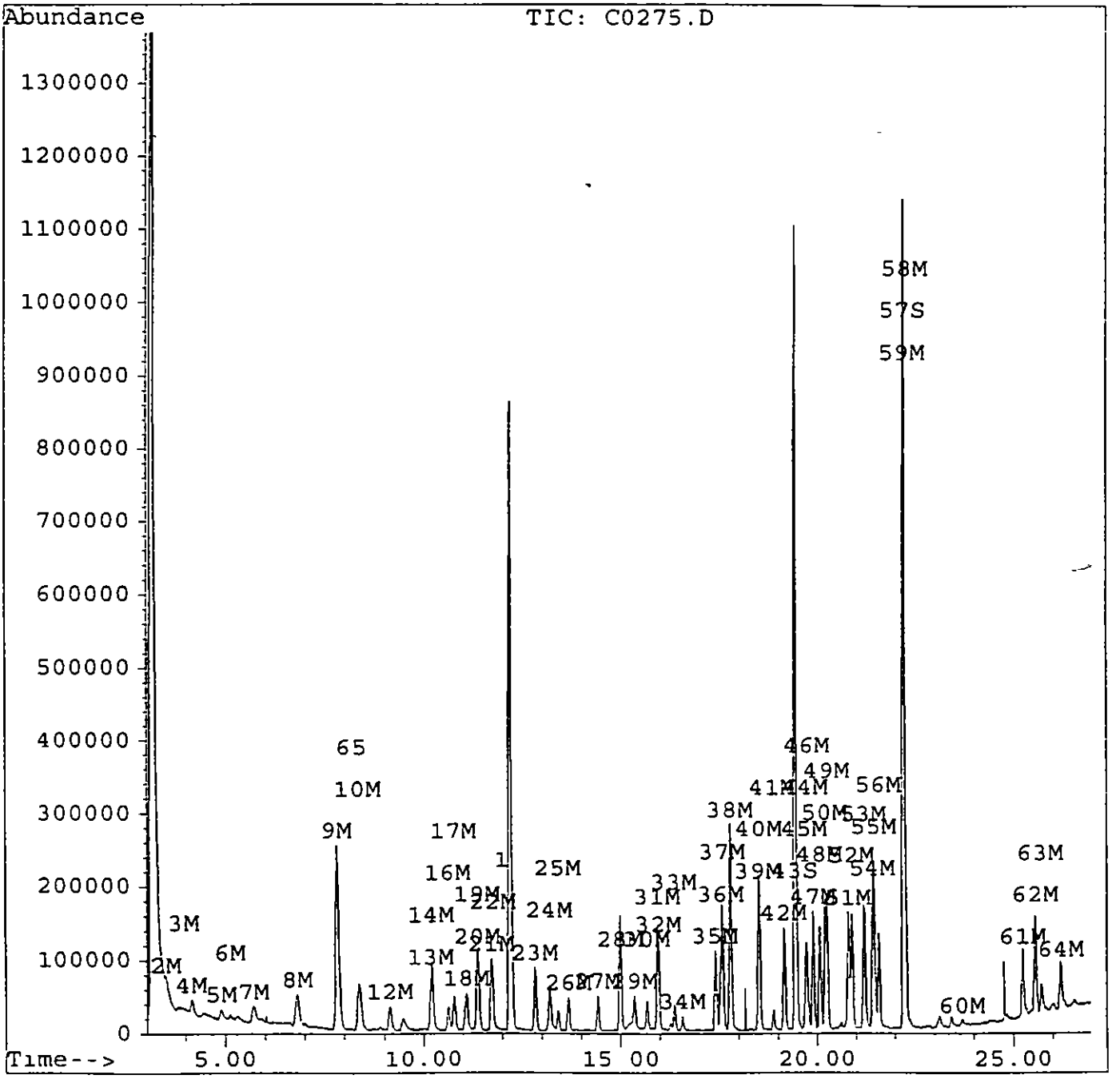
Quantitation Report

042

Data File : D.\HPCHEM\1\DATA\C0275.D
Acq On : 21 Nov 95 9:43 am
Sample : 0.5 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 13:45 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 : Tue Nov 21 13:46:36 1995
Response via : Multiple Level Calibration



Quantitation Report

043

Data File : d \hpchem\1\data\c0279 d
Acq On : 21 Nov 95 12:02 pm
Sample : 10 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 13:10 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 : Tue Nov 21 13.46:36 1995
Response via · Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12.21	96	1609009	5.00 ug/L	0 00
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.46	95	899980	4.90 ug/L	98 08%
57) 1,2-Dichlorobenzene-d4	22.25	152	592880	5.38 ug/L	107 56%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.54	85	856472	7.28 ug/L	99
3) Chloromethane	3.99	50	666017	10 89 ug/L	99
4) Vinyl chloride	4 18	62	735860	10.01 ug/L	98
5) Bromomethane	4.88	94	531114	9.97 ug/L	94
6) Chloroethane	5.12	64	444951	10 52 ug/L	99
7) Trichlorofluoromethane	5.71	101	1256624	7.50 ug/L	96
8) 1,1-Dichloroethene	6.83	96	750318	9 77 ug/L #	78
9) Methylene chloride	7.83	84	899322	11.70 ug/L	99
10) trans-1,2-Dichloroethene	8.36	96	867754	10.09 ug/L	92
12) 1,1-Dichloroethane	9.16	63	1649567	9.64 ug/L	98
13) 2,2-Dichloropropane	10.21	77	1314116	7.70 ug/L	87
14) cis-1,2-Dichloroethene	10.22	96	884860	10.51 ug/L #	89
16) Bromochloromethane	10.64	128	399435	10.81 ug/L	97
17) Chloroform	10.79	83	1542720	8.81 ug/L	99
18) 1,1,1-Trichloroethane	11.10	97	1469392	8.16 ug/L	97
19) Carbon tetrachloride	11.38	117	1389681	8.31 ug/L	99
20) 1,1-Dichloropropene	11.38	75	1360544	9.04 ug/L	97
21) Benzene	11.73	78	2826008	10.49 ug/L	98
22) 1,2-Dichloroethane	11.77	62	673923	8.03 ug/L	90
23) Trichloroethene	12.84	95	1175434	9.62 ug/L	99
24) 1,2-Dichloropropane	13.21	63	1027243	11.25 ug/L	100
25) Dibromomethane	13.42	93	467301	10.25 ug/L	96
26) Bromodichloromethane	13 67	83	1330545	9 02 ug/L	100
27) cis-1,3-Dichloropropene	14.43	75	1198677	10 14 ug/L	96
28) Toluene	15.00	92	2055048	10.48 ug/L	97
29) trans-1,3-Dichloropropene	15.36	75	846524	9.69 ug/L	92
30) 1,1,2-Trichloroethane	15.67	83	463270	11.00 ug/L	97
31) Tetrachloroethene	15.95	166	1403167	9.97 ug/L	99
32) 1,3-Dichloropropane	15.97	76	877213	10 66 ug/L	99
33) Dibromochloromethane	16.37	129	913271	10.23 ug/L	98
34) 1,2-Dibromoethane	16.58	107	683447	10.96 ug/L	98
35) Chlorobenzene	17.43	112	2362576	10.50 ug/L	97
36) 1,1,1,2-Tetrachloroethane	17.57	131	1018157	10.30 ug/L	97
37) Ethylbenzene	17.61	91	4142973	9 94 ug/L	96
38) Xylene (para & meta)	17.82	106	3139022	20 79 ug/L	93
39) Xylene (Ortho)	18.52	106	1462030	10.52 ug/L	93
40) Styrene	18.54	104	2300383	10.69 ug/L	89

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

Quantitation Report

044

Data File : d:\hpchem\1\data\c0279.d
Acq On : 21 Nov 95 12:02 pm
Sample : 10 PPB STANDARD
Misc : 25 ML
Quant Time. Nov 21 13:10 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 : Tue Nov 21 13:46.36 1995
Response via : Multiple Level Calibration

	Compound	R T.	QIon	Response	Conc Unit		Qvalue
41)	Bromoform	18.89	173	519312	10 60 ug/L		98
42)	Isopropylbenzene	19.17	105	4015738	9.78 ug/L	m	0
44)	Bromobenzene	19.74	156	1102438	10.77 ug/L		99
45)	1,1,2,2-Tetrachloroethane	19.69	83	588802	11.59 ug/L		98
46)	1,2,3-Trichloropropane	19.78	75	586144	10.31 ug/L	#	28
47)	n-Propylbenzene	19.91	91	5467496	9.79 ug/L		98
48)	2-Chlorotoluene	20.08	91	3124523	9.65 ug/L		97
49)	4-Chlorotoluene	20.27	91	3628061	9.64 ug/L		96
50)	1,3,5-Trimethylbenzene	20.22	105	3523555	9.67 ug/L		95
51)	tert-Butylbenzene	20.82	119	3979719	10.01 ug/L		96
52)	1,2,4-Trimethylbenzene	20.91	105	3517466	9.42 ug/L		95
53)	sec-Butylbenzene	21.22	105	5364130	9.72 ug/L		99
54)	1,3-Dichlorobenzene	21.44	146	2143707	10.49 ug/L		98
55)	4-Isopropyltoluene	21.48	119	4355898	9.92 ug/L		97
56)	1,4-Dichlorobenzene	21.60	146	2122376	10.55 ug/L		99
58)	1,2-Dichlorobenzene	22.28	146	1748295	10.98 ug/L	m	0
59)	n-Butylbenzene	22.23	91	4410108	9.74 ug/L		97
60)	1,2-Dibromo-3-chloropropan	23.71	75	120610	9.58 ug/L	#	80
61)	1,2,4-Trichlorobenzene	25.25	180	1434366	10.89 ug/L		97
62)	Hexachlorobutadiene	25.58	225	1174339	9.84 ug/L		95
63)	Naphthalene	25.73	128	1427329	11.66 ug/L	m	0
64)	1,2,3-Trichlorobenzene	26 23	180	1085916	11.35 ug/L		99
65)	Methyl-tert butyl ether	8.40	73	1090548	10.21 ug/L		97
66)	tert-Butyl Alcohol	8.19	59	33044	21.67 ug/L		100

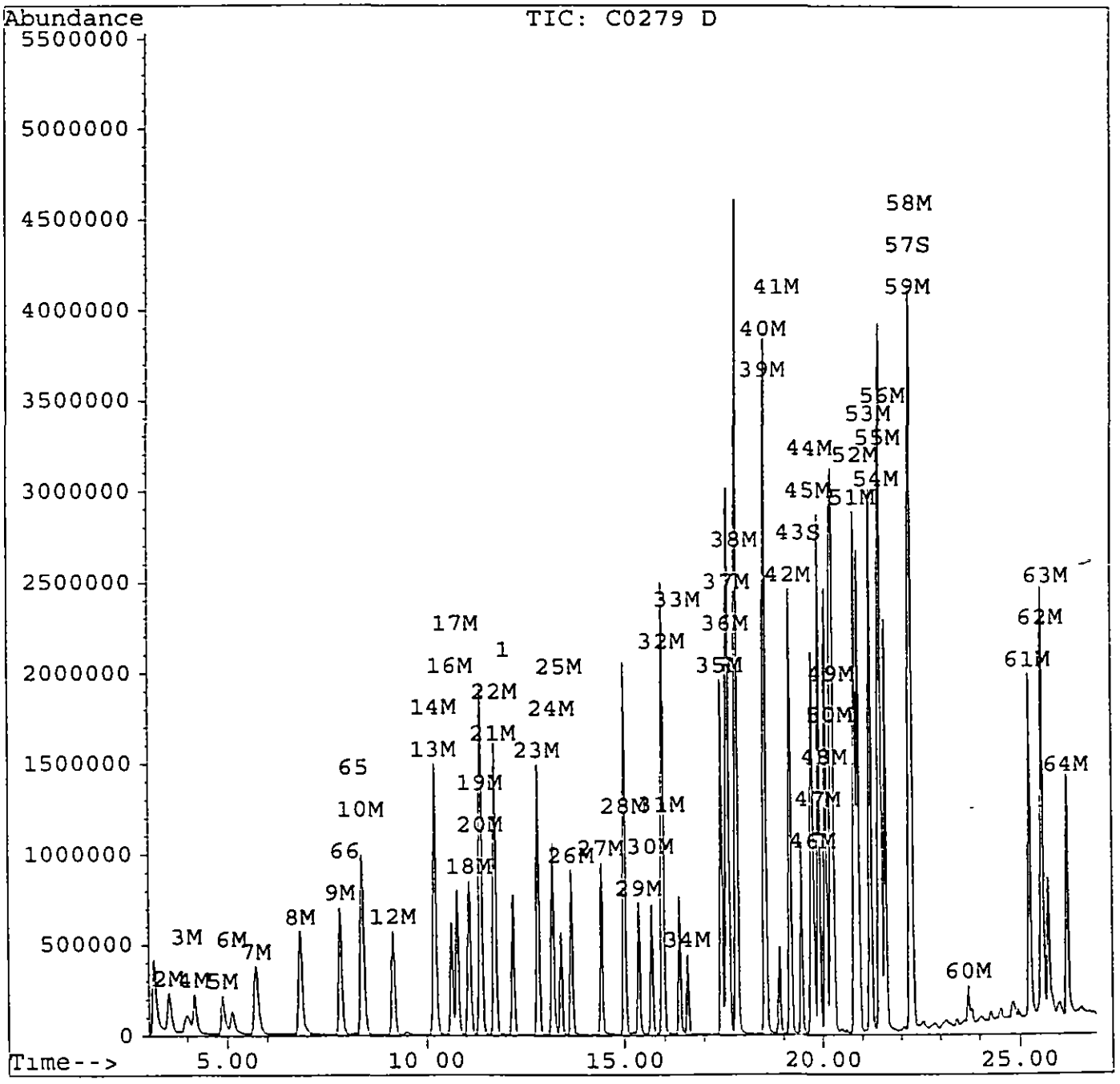
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c0279.d
Acq On : 21 Nov 95 12:02 pm
Sample : 10 PPB STANDARD
Misc : 25 ML
Quant Time. Nov 21 13:10 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 : Tue Nov 21 13:46:36 1995
Response via . Multiple Level Calibration



Quantitation Report

Data File : d.\hpchem\1\data\c0278.d
Acq On : 21 Nov 95 11:28 am
Sample : 20 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 13·07 1995

Vial: 5 046
Operator: SRK
Inst . 5972 - In
Multiplr: 1.00

Method : c·\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update Tue Nov 21 13:42:15 1995
Response via . Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12.21	96	1722488	5 00 ug/L	0.00
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.46	95	927311	4.72 ug/L	94.40%
57) 1,2-Dichlorobenzene-d4	22.25	152	582262	4.93 ug/L	98.68%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.54	85	1801450	14.31 ug/L	97
3) Chloromethane	3 97	50	1343518	20 52 ug/L	100
4) Vinyl chloride	4.17	62	1539511	19.56 ug/L	99
5) Bromomethane	4.86	94	994458	17.44 ug/L	94
6) Chloroethane	5.08	64	881354	19.47 ug/L	100
7) Trichlorofluoromethane	5 68	101	2638002	14.71 ug/L	98
8) 1,1-Dichloroethene	6 81	96	1593355	19 38 ug/L #	79
9) Methylene chloride	7 82	84	1603537	19 49 ug/L	98
10) trans-1,2-Dichloroethene	8 36	96	1831930	19 90 ug/L m	0
12) 1,1-Dichloroethane	9.16	63	3432597	18 74 ug/L	99
13) 2,2-Dichloropropane	10.20	77	2802037	15 33 ug/L	89
14) cis-1,2-Dichloroethene	10.22	96	1806300	20.03 ug/L m	0
16) Bromochloromethane	10.64	128	780203	19.72 ug/L	98
17) Chloroform	10.79	83	3159991	16.85 ug/L	98
18) 1,1,1-Trichloroethane	11 10	97	3092727	16.05 ug/L	97
19) Carbon tetrachloride	11 39	117	2932708	16.38 ug/L	100
20) 1,1-Dichloropropene	11.38	75	2880851	17.89 ug/L	96
21) Benzene	11.73	78	5738442	19.90 ug/L	98
22) 1,2-Dichloroethane	11.77	62	1311439	14.60 ug/L	86
23) Trichloroethene	12.84	95	2437464	18.64 ug/L	98
24) 1,2-Dichloropropane	13.21	63	2041662	20.88 ug/L	100
25) Dibromomethane	13 42	93	900094	18 45 ug/L	96
26) Bromodichloromethane	13 67	83	2668736	16.90 ug/L	99
27) cis-1,3-Dichloropropene	14 43	75	2391296	18 90 ug/L	98
28) Toluene	15.00	92	4196821	19 99 ug/L	97
29) trans-1,3-Dichloropropene	15 36	75	1647489	17.62 ug/L	92
30) 1,1,2-Trichloroethane	15 68	83	884119	19 60 ug/L	98
31) Tetrachloroethene	15.95	166	2952465	19 59 ug/L	99
32) 1,3-Dichloropropane	15.97	76	1676229	19 03 ug/L	99
33) Dibromochloromethane	16.37	129	1793224	18.76 ug/L	99
34) 1,2-Dibromoethane	16.58	107	1299437	19.47 ug/L	98
35) Chlorobenzene	17.43	112	4775180	19.82 ug/L	97
36) 1,1,1,2-Tetrachloroethane	17.57	131	1998640	18 89 ug/L	97
37) Ethylbenzene	17.61	91	8519170	19.10 ug/L	97
38) Xylene (para & meta)	17.82	106	6392350	39.55 ug/L	92
39) Xylene (Ortho)	18.52	106	2944771	19.80 ug/L	90
40) Styrene	18.54	104	4602890	19 99 ug/L	89

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

Quantitation Report

047

Data File : d \hpchem\1\data\c0278 d
Acq On : 21 Nov 95 11:28 am
Sample : 20 PPB STANDARD
Misc : 25 ML
Quant Time. Nov 21 13.07 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 : Tue Nov 21 13:42.15 1995
Response via : Multiple Level Calibration

	Compound	R T.	QIon	Response	Conc Unit		Qvalue
41)	Bromoform	18.89	173	1001404	19.09 ug/L		97
42)	Isopropylbenzene	19 17	105	8277271	18.83 ug/L	m	0
44)	Bromobenzene	19.74	156	2166384	19.76 ug/L		97
45)	1,1,2,2-Tetrachloroethane	19.69	83	1106145	20.34 ug/L		98
46)	1,2,3-Trichloropropane	19.78	75	1110952	18.25 ug/L	#	28
47)	n-Propylbenzene	19.91	91	11371671	19.02 ug/L		98
48)	2-Chlorotoluene	20.08	91	6343572	18.29 ug/L		96
49)	4-Chlorotoluene	20.27	91	7335851	18 21 ug/L		96
50)	1,3,5-Trimethylbenzene	20 22	105	7200036	18 46 ug/L		94
51)	tert-Butylbenzene	20.82	119	8099224	19.04 ug/L		95
52)	1,2,4-Trimethylbenzene	20.91	105	7100072	17.77 ug/L		95
53)	sec-Butylbenzene	21.22	105	11034278	18 68 ug/L		98
54)	1,3-Dichlorobenzene	21.44	146	4253419	19 44 ug/L		98
55)	4-Isopropyltoluene	21.48	119	8886497	18 90 ug/L		97
56)	1,4-Dichlorobenzene	21.60	146	4135214	19.21 ug/L		99
58)	1,2-Dichlorobenzene	22.28	146	3344031	19.61 ug/L		99
59)	n-Butylbenzene	22.23	91	9001935	18.57 ug/L		97
60)	1,2-Dibromo-3-chloropropan	23.71	75	224773	16.68 ug/L	#	76
61)	1,2,4-Trichlorobenzene	25.25	180	2785545	19.75 ug/L		98
62)	Hexachlorobutadiene	25.58	225	2413438	18.89 ug/L		96
63)	Naphthalene	25.73	128	2640403	20.14 ug/L	m	0
64)	1,2,3-Trichlorobenzene	26.22	180	2045433	19.96 ug/L		99
65)	Methyl-tert butyl ether	8.40	73	2048272	17.91 ug/L		97
66)	tert-Butyl Alcohol	8.22	59	60041	36.77 ug/L		100

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

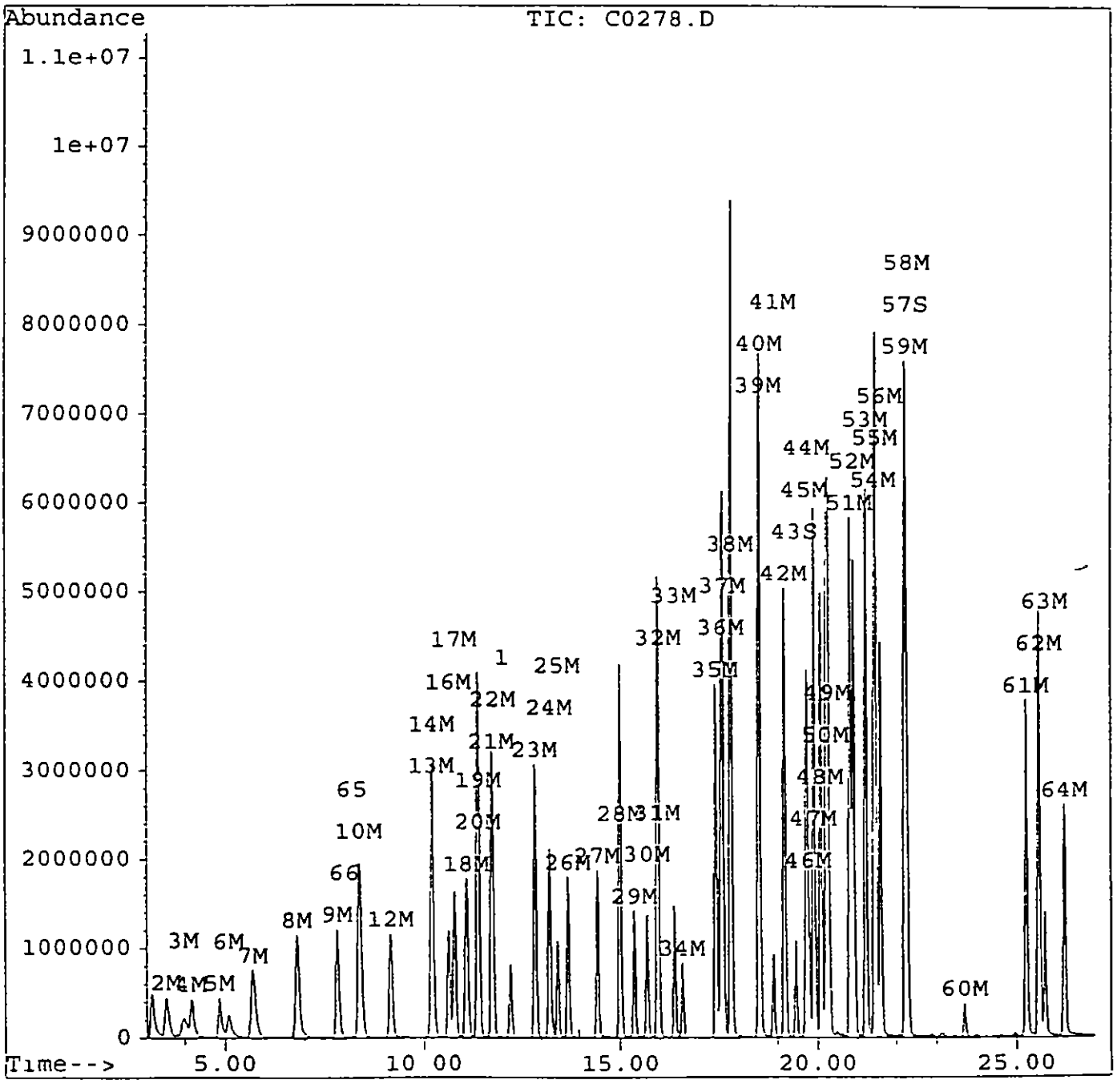
Quantitation Report

048

Data File : d·\hpchem\1\data\c0278.d
Acq On : 21 Nov 95 11:28 am
Sample : 20 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 13:07 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 : Tue Nov 21 13:42:15 1995
Response via : Multiple Level Calibration



Quantitation Report

049

Data File : d \hpchem\1\data\c0277.d
Acq On : 21 Nov 95 10·52 am
Sample : 30 PPB STANDARD
Misc : 25 ML
Quant Time. Nov 21 13 04 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 . Tue Nov 21 13 42:15 1995
Response via · Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	12.22	96	1784794	5.00	ug/L		0.01
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.46	95	942277	4.63	ug/L		92.57%
57) 1,2-Dichlorobenzene-d4	22.25	152	579998	4.74	ug/L		94.86%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.54	85	2836497	21.75	ug/L		98
3) Chloromethane	3.99	50	2098923	30.94	ug/L		99
4) Vinyl chloride	4.18	62	2415650	29.63	ug/L		98
5) Bromomethane	4.86	94	1539157	26.06	ug/L	m	0
6) Chloroethane	5.06	64	1257519	26.81	ug/L		98
7) Trichlorofluoromethane	5.68	101	4199498	22 60	ug/L		97
8) 1,1-Dichloroethene	6.82	96	2462267	28 90	ug/L	#	79
9) Methylene chloride	7.83	84	2344560	27 50	ug/L		98
10) trans-1,2-Dichloroethene	8.36	96	2831636	29 69	ug/L		91
12) 1,1-Dichloroethane	9.16	63	5287314	27 85	ug/L		99
13) 2,2-Dichloropropane	10.21	77	4444886	23 47	ug/L		89
14) cis-1,2-Dichloroethene	10.22	96	2767927	29.62	ug/L	#	89
16) Bromochloromethane	10.64	128	1185004	28 91	ug/L		99
17) Chloroform	10.79	83	4893833	25.18	ug/L		97
18) 1,1,1-Trichloroethane	11 10	97	4753944	23.81	ug/L		97
19) Carbon tetrachloride	11.39	117	4564218	24.60	ug/L		100
20) 1,1-Dichloropropene	11.38	75	4427341	26.53	ug/L		97
21) Benzene	11.75	78	8752088	29.30	ug/L		98
22) 1,2-Dichloroethane	11 77	62	1984347	21.32	ug/L		88
23) Trichloroethene	12 84	95	3749920	27.68	ug/L		98
24) 1,2-Dichloropropane	13.21	63	3110146	30.70	ug/L		99
25) Dibromomethane	13 42	93	1360516	26.91	ug/L		97
26) Bromodichloromethane	13.67	83	4057411	24.80	ug/L		99
27) cis-1,3-Dichloropropene	14.43	75	3639910	27.76	ug/L		97
28) Toluene	15.00	92	6391124	29 38	ug/L		98
29) trans-1,3-Dichloropropene	15 36	75	2506952	25 87	ug/L		92
30) 1,1,2-Trichloroethane	15.68	83	1332952	28.52	ug/L		97
31) Tetrachloroethene	15.95	166	4549744	29.13	ug/L		99
32) 1,3-Dichloropropane	15.97	76	2491473	27.30	ug/L		100
33) Dibromochloromethane	16.37	129	2708999	27.35	ug/L		99
34) 1,2-Dibromoethane	16.58	107	1946729	28 14	ug/L		100
35) Chlorobenzene	17.43	112	7236418	28.98	ug/L	m	0
36) 1,1,1,2-Tetrachloroethane	17 57	131	3057070	27.88	ug/L		97
37) Ethylbenzene	17 61	91	12907921	27.92	ug/L		97
38) Xylene (para & meta)	17 82	106	9651078	57.62	ug/L		91
39) Xylene (Ortho)	18.52	106	4457409	28 92	ug/L		92
40) Styrene	18.54	104	6923206	29 02	ug/L		89

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

Quantitation Report

050

Data File : d:\hpchem\1\data\c0277.d
Acq On : 21 Nov 95 10.52 am
Sample : 30 PPB STANDARD
Misc : 25 ML
Quant Time : Nov 21 13:04 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 : Tue Nov 21 13:42 15 1995
Response via : Multiple Level Calibration

	Compound	R.T	QIon	Response	Conc Unit		Qvalue
41)	Bromoform	18.89	173	1511160	27 81 ug/L		96
42)	Isopropylbenzene	19.17	105	12622410	27.71 ug/L	m	0
44)	Bromobenzene	19.74	156	3255768	28 66 ug/L		97
45)	1,1,2,2-Tetrachloroethane	19.69	83	1633104	28.98 ug/L		98
46)	1,2,3-Trichloropropane	19.78	75	1648511	26 13 ug/L	#	25
47)	n-Propylbenzene	19.91	91	17183034	27.74 ug/L		97
48)	2-Chlorotoluene	20.08	91	10285555	28.63 ug/L		96
49)	4-Chlorotoluene	20.27	91	11091027	26 58 ug/L		96
50)	1,3,5-Trimethylbenzene	20.22	105	10903523	26.98 ug/L		95
51)	tert-Butylbenzene	20.82	119	12273662	27 84 ug/L		95
52)	1,2,4-Trimethylbenzene	20.91	105	10722862	25 90 ug/L		95
53)	sec-Butylbenzene	21.22	105	16654167	27.21 ug/L		98
54)	1,3-Dichlorobenzene	21.44	146	6339763	27.97 ug/L		99
55)	4-Isopropyltoluene	21.48	119	13330894	27.36 ug/L		98
56)	1,4-Dichlorobenzene	21.60	146	6141628	27.53 ug/L		99
58)	1,2-Dichlorobenzene	22.28	146	4942796	27.97 ug/L		98
59)	n-Butylbenzene	22 23	91	13546684	26.97 ug/L		96
60)	1,2-Dibromo-3-chloropropan	23.71	75	334490	23.96 ug/L		79
61)	1,2,4-Trichlorobenzene	25.25	180	4113150	28.14 ug/L		98
62)	Hexachlorobutadiene	25.58	225	3635507	27.46 ug/L	m	82
63)	Naphthalene	25.73	128	3782351	27.85 ug/L	m	0
64)	1,2,3-Trichlorobenzene	26.22	180	2931888	27 61 ug/L	m	0
65)	Methyl-tert butyl ether	8 41	73	3097117	26 13 ug/L	m	0
66)	tert-Butyl Alcohol	8.22	59	91328	53.98 ug/L	m	100

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

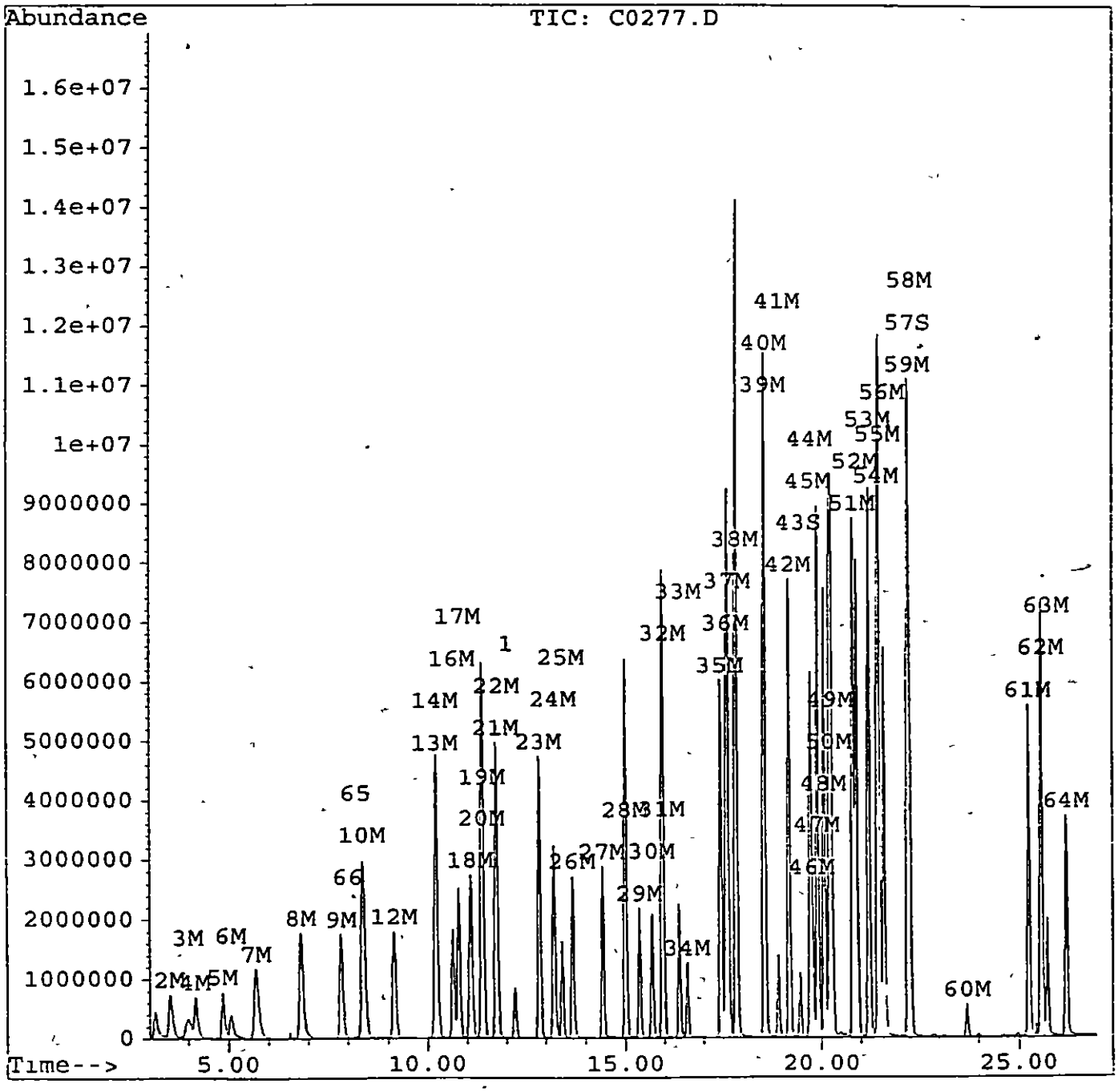
Quantitation Report

051

Data File : d:\hpchem\1\data\c0277.d
Acq On : 21 Nov 95 10:52 am
Sample : 30 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 13:04 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 : Tue Nov 21 13:42:15 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d.\hpchem\1\data\c0276.d
Acq On : 21 Nov 95 10:18 am
Sample : 40 PPB STANDARD
Misc : 25 ML
Quant Time Nov 21 11 18 1995

Vial: 3 052
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method . c:\HPCHEM\1\METHODS\VOA524.M
Title · 524.2 Purgable Organics
Last Update : Tue Nov 21 13:42·15 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12.20	96	1759102	5.00 ug/L	0.00
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.45	95	951185	4.74 ug/L	94.81%
57) 1,2-Dichlorobenzene-d4	22.25	152	570741	4 74 ug/L	94.71%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.54	85	3842951	29.89 ug/L	98
3) Chloromethane	3.99	50	2785093	41 66 ug/L m	0
4) Vinyl chloride	4 18	62	3300688	41 07 ug/L	98
5) Bromomethane	4.84	94	1920657	32 99 ug/L	95
6) Chloroethane	5 04	64	1536210	33.23 ug/L	99
7) Trichlorofluoromethane	5.65	101	5402420	29.50 ug/L	97
8) 1,1-Dichloroethene	6.80	96	3288045	39.15 ug/L #	79
9) Methylene chloride	7.81	84	3032483	36.08 ug/L	100
10) trans-1,2-Dichloroethene	8.34	96	3794962	40 37 ug/L	91
12) 1,1-Dichloroethane	9.15	63	7085234	37.87 ug/L	98
13) 2,2-Dichloropropane	10.20	77	5990137	32 10 ug/L m	0
14) cis-1,2-Dichloroethene	10.21	96	3663460	39.78 ug/L m	0
16) Bromochloromethane	10.62	128	1592491	39.42 ug/L	97
17) Chloroform	10.78	83	6527086	34 08 ug/L	98
18) 1,1,1-Trichloroethane	11.09	97	6371834	32 38 ug/L	97
19) Carbon tetrachloride	11.37	117	6118402	33 46 ug/L	99
20) 1,1-Dichloropropene	11.37	75	5894994	35 84 ug/L	97
21) Benzene	11.73	78	11670569	39 63 ug/L	98
22) 1,2-Dichloroethane	11.76	62	2682220	29.24 ug/L	88
23) Trichloroethene	12.83	95	5035850	37.71 ug/L	99
24) 1,2-Dichloropropane	13.20	63	4191796	41.98 ug/L	99
25) Dibromomethane	13.41	93	1841134	36.94 ug/L	97
26) Bromodichloromethane	13 66	83	5475563	33.96 ug/L	99
27) cis-1,3-Dichloropropene	14.42	75	4948085	38 29 ug/L	97
28) Toluene	14.99	92	8579596	40 01 ug/L	97
29) trans-1,3-Dichloropropene	15 35	75	3412681	35 73 ug/L	93
30) 1,1,2-Trichloroethane	15.67	83	1814691	39 39 ug/L	98
31) Tetrachloroethene	15.94	166	6041995	39.25 ug/L	99
32) 1,3-Dichloropropane	15.96	76	3372769	37.49 ug/L	100
33) Dibromochloromethane	16.36	129	3681997	37.72 ug/L	100
34) 1,2-Dibromoethane	16.57	107	2661298	39.04 ug/L	100
35) Chlorobenzene	17 43	112	9681263	39 34 ug/L m	0
36) 1,1,1,2-Tetrachloroethane	17.56	131	4081175	37 76 ug/L	97
37) Ethylbenzene	17 60	91	17160562	37.67 ug/L	97
38) Xylene (para & meta)	17.81	106	12756573	77.27 ug/L m	99
39) Xylene (Ortho)	18.52	106	5937952	39.09 ug/L	91
40) Styrene	18.54	104	9213631	39.18 ug/L	88

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

Quantitation Report

053

Data File : d:\hpchem\1\data\c0276.d
Acq On : 21 Nov 95 10.18 am
Sample : 40 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 11:18 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 : Tue Nov 21 13:42:15 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	Bromoform	18.88	173	2023918	37.79 ug/L	96
42)	Isopropylbenzene	19.17	105	16768168	37 34 ug/L m	0
44)	Bromobenzene	19.74	156	4325694	38 64 ug/L m	0
45)	1,1,2,2-Tetrachloroethane	19.70	83	2225957	40 08 ug/L	98
46)	1,2,3-Trichloropropane	19.78	75	2238025	35.99 ug/L #	12
47)	n-Propylbenzene	19.91	91	22705937	37.19 ug/L	97
48)	2-Chlorotoluene	20.08	91	13504805	38.14 ug/L	95
49)	4-Chlorotoluene	20.27	91	14709970	35 76 ug/L	95
50)	1,3,5-Trimethylbenzene	20.22	105	14363384	36 06 ug/L	94
51)	tert-Butylbenzene	20.82	119	16201797	37 29 ug/L	95
52)	1,2,4-Trimethylbenzene	20.90	105	14158340	34 70 ug/L	95
53)	sec-Butylbenzene	21.22	105	21775294	36 10 ug/L	98
54)	1,3-Dichlorobenzene	21.44	146	8291350	37 11 ug/L	99
55)	4-Isopropyltoluene	21.48	119	17391875	36 21 ug/L	97
56)	1,4-Dichlorobenzene	21.60	146	8176260	37 19 ug/L	99
58)	1,2-Dichlorobenzene	22.28	146	6501610	37 33 ug/L	99
59)	n-Butylbenzene	22.23	91	17695059	35.75 ug/L	95
60)	1,2-Dibromo-3-chloropropan	23.71	75	453725	32.98 ug/L #	78
61)	1,2,4-Trichlorobenzene	25.25	180	5391357	37.43 ug/L	98
62)	Hexachlorobutadiene	25.57	225	4629499	35 48 ug/L m	82
63)	Naphthalene	25.73	128	4877034	36 43 ug/L m	0
64)	1,2,3-Trichlorobenzene	26.22	180	3818605	36 49 ug/L	98
65)	Methyl-tert butyl ether	8.41	73	4202915	35 98 ug/L m	0
66)	tert-Butyl Alcohol	8.22	59	120228	72 11 ug/L m	100

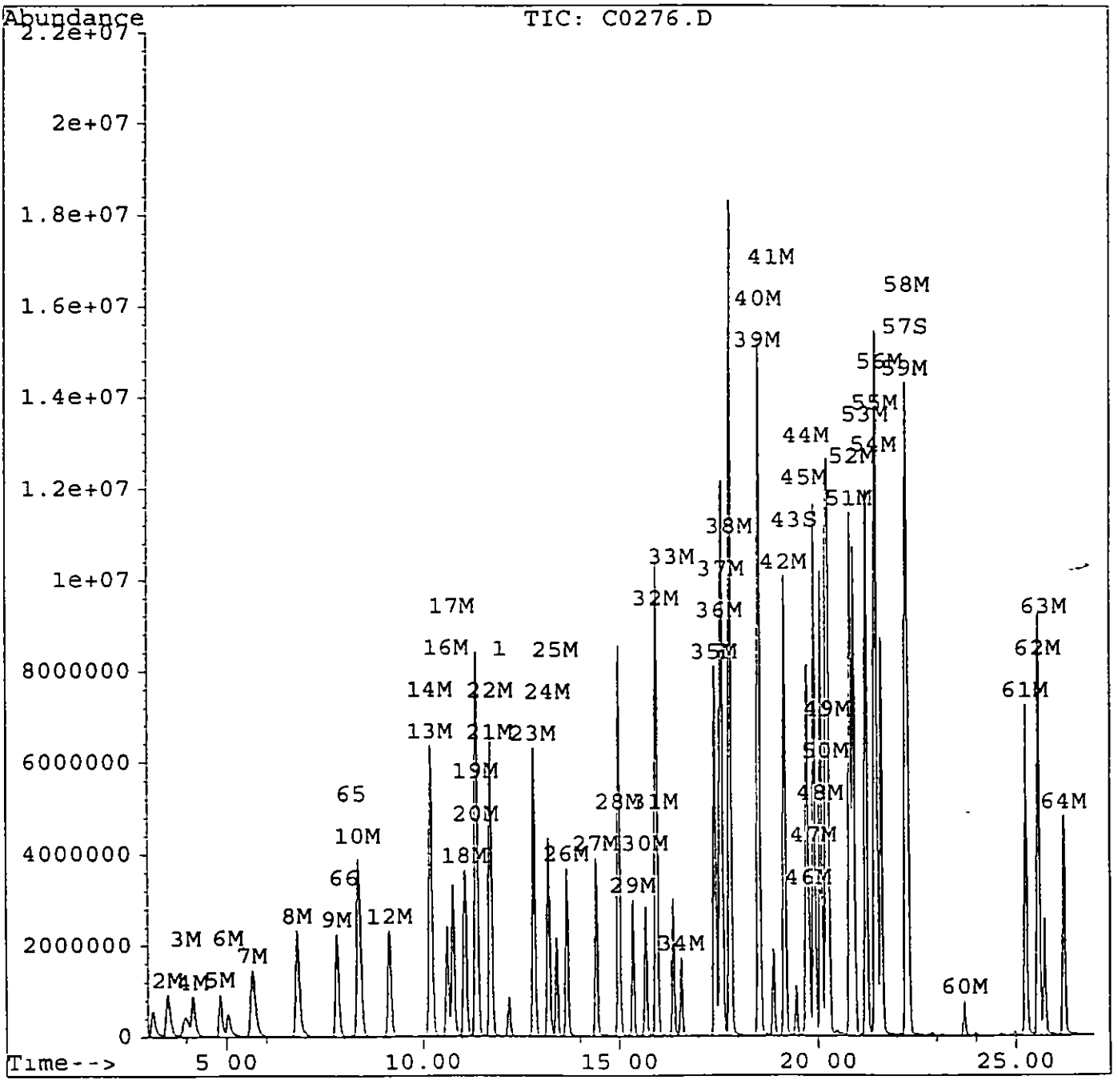
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c0276.d
Acq On : 21 Nov 95 10:18 am
Sample : 40 PPB STANDARD
Misc : 25 ML
Quant Time: Nov 21 11:18 1995

Vial: 3 054
Operator. SRK
Inst · 5972 - In
Multiplr: 1.00

Method : c \HPCHEM\1\METHODS\VOA524 M
Title : 524.2 Purgable Organics
Last Update : Tue Nov 21 13:42 15 1995
Response via : Multiple Level Calibration



5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

055

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Lab File ID C0425 D BFB Injection Date 12/2/95

Instrument ID 5972-INSTRUMENT 1 BFB Injection Time 1457

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	18 5
75	30 0 - 66 0% of mass 95	43 1
95	Base peak, 100% relative abundance	100 0
96	5 0 - 9 0% of mass 95	6 7
173	Less than 2 0% of mass 174	0 0 (0 0)1
174	50 0 - 120 0% of mass 95	66 3
175	4 0 - 9 0% of mass 174	4 4 (6 7)1
176	93 0 - 101 0% of mass 174	65 0 (97 9)1
177	5 0 - 9 0% of mass 176	4 4 (6 8)2

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

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

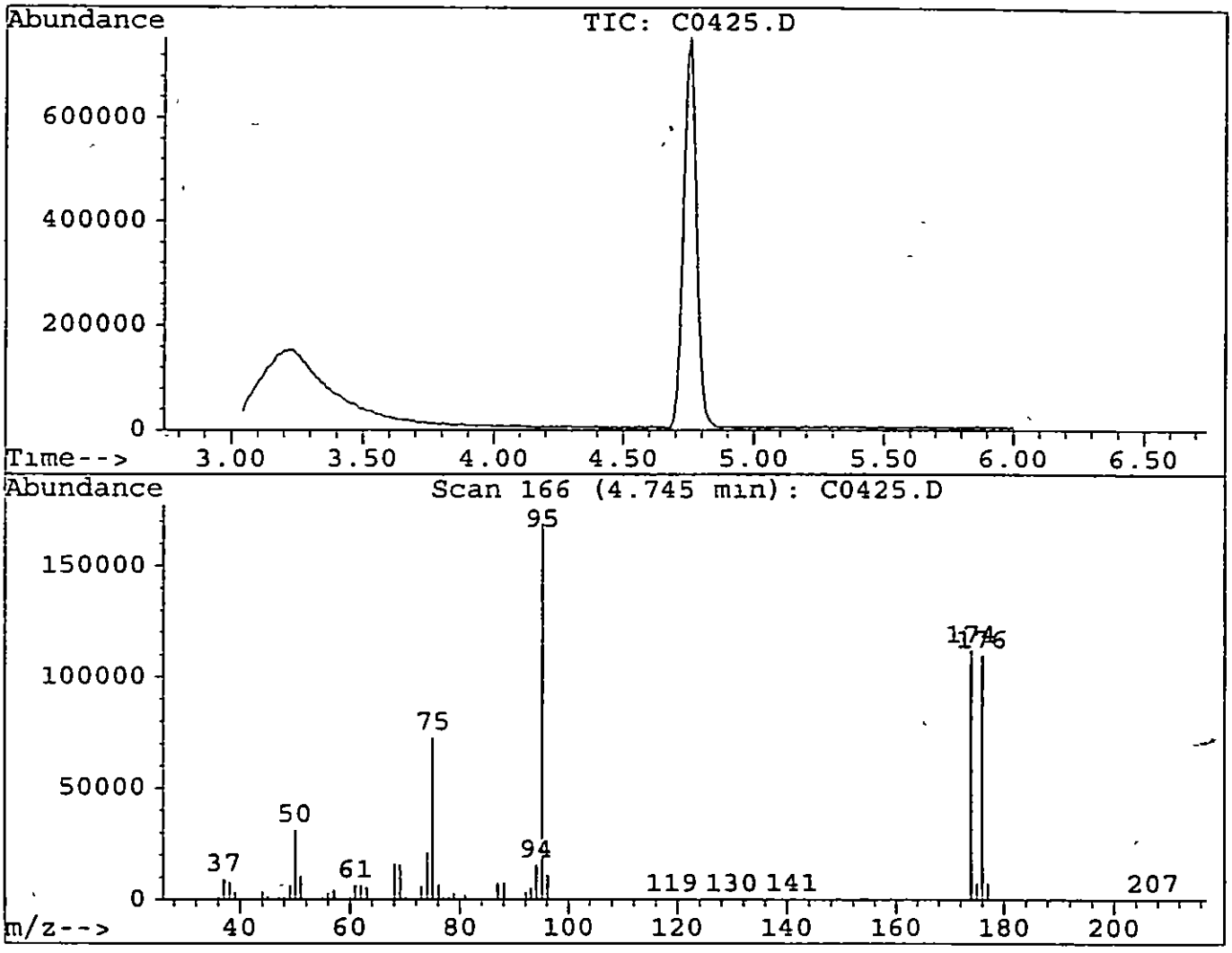
	SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	10 STND	C0426 D	12/2/95	1510
02	10 QCS	10 QCS	C0427 D	12/2/95	1544
03	1 STND	1 STND	C0428 D	12/2/95	1618
04	VBLK01	M BLANK	C0429 D	12/2/95	1652
05	9554060V	9554060V	C0430 D	12/2/95	1726
06	9554061V	9554061V	C0431 D	12/2/95	1800
07	9554062V	9554062V	C0432 D	12/2/95	1835
08	9554101V	9554101V	C0433 D	12/2/95	1909
09	9554102V	9554102V	C0434 D	12/2/95	1944
10	9554063V	9554063V	C0435 D	12/2/95	2017
11	9554060MS	54060MS	C0438 D	12/2/95	2159
12	9554060MSD	54060MSD	C0439 D	12/2/95	2233
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

CLPBFB

Data File : D:\HPCHEM\1\DATA\C0425.D
Acq On : 2 Dec 95 2:57 pm
Sample : BFB TUNE
Misc : 25 NG INJECTION

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

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



Peak Apex is scan: 166

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	31280	PASS
75	95	30	80	43.1	72880	PASS
95	95	100	100	100.0	168960	PASS
96	95	5	9	6.7	11258	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	66.3	112080	PASS
175	174	5	9	6.7	7513	PASS
176	174	95	101	97.9	109744	PASS
177	176	5	9	6.8	7409	PASS

'an 166 (4.745 min): C0425.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1840	49.05	6223	68.05	16024	79.90	854
37.10	9334	50.05	31280	69.05	15535	81.00	2231
38.10	7583	51.05	10694	70.05	1159	82.00	554
39.10	3430	52.05	578	71.95	855	86.90	7424
40.00	784	54.95	929	72.95	6164	88.05	7573
41.10	512	56.00	2572	74.05	21272	91.05	699
43.00	593	57.10	4191	75.05	72880	92.05	3103
44.00	3356	60.00	1394	76.05	6616	93.05	5212
45.00	1518	61.00	6520	77.00	1207	94.05	15580
47.05	2903	62.00	6442	78.00	1346	95.05	168960
48.05	1147	63.00	5300	78.90	2768	96.05	11258

Scan 166 (4.745 min): C0425.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.95	503						
116.95	531						
119.00	566						
129.95	557						
140.90	787						
143.00	653						
173.95	112080						
174.95	7513						
175.95	109744						
176.95	7409						
207.10	543						

7A

VOLATILE CONTINUING CALIBRATION CHECK

058

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Instrument ID 5972-INSTRUMENT 1 Calibration Date 12/2/95 Time 1510

Lab File ID C0426 D Init Calib Date(s) 11/21/95

Heated Purge (Y/N) N Init Calib Times

GC Column DB-624 X 7 ID 0 53 (mm)

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0 271	0 251		7 4	30 0
Chloromethane	0 206	0 204		1 0	30 0
Vinyl chloride	0 229	0 234		-2 2	30 0
Bromomethane	0 159	0 161		-1 3	30 0
Chloroethane	0 127	0 104		18 1	30 0
Trichlorofluoromethane	0 395	0 306		22 5	30 0
1,1-Dichloroethene	0 237	0 227		4 2	30 0
Methylene chloride	0 237	0 231		2 5	30 0
trans-1,2-Dichloroethene	0 270	0 267		1 1	30 0
1,1-Dichloroethane	0 508	0 499		1 8	30 0
2,2-Dichloropropane	0 424	0 432		-1 9	30 0
cis-1,2-Dichloroethene	0 266	0 265		0 4	30 0
Bromochloromethane	0 115	0 107		7 0	30 0
Chloroform	0 469	0 459		2 1	30 0
1,1,1-Trichloroethane	0 454	0 455		-0 2	30 0
Carbon tetrachloride	0 429	0 431		-0 5	30 0
1,1-Dichloropropene	0 424	0 430		-1 4	30 0
Benzene	0 870	0 854		1 8	30 0
1,2-Dichloroethane	0 195	0 183		6 2	30 0
Trichloroethene	0 361	0 361		0 0	30 0
1,2-Dichloropropane	0 302	0 297		1 7	30 0
Dibromomethane	0 132	0 126		4 5	30 0
Bromodichloromethane	0 391	0 380		2 8	30 0
cis-1,3-Dichloropropene	0 352	0 343		2 6	30 0
Toluene	0 614	0 617		-0 5	30 0
trans-1,3-Dichloropropene	0 243	0 230		5 3	30 0
1,1,2-Trichloroethane	0 131	0 124		5 3	30 0
Tetrachloroethene	0 435	0 431		0 9	30 0
1,3-Dichloropropane	0 247	0 238		3 6	30 0
Dibromochloromethane	0 260	0 245		5 8	30 0
1,2-Dibromoethane	0 000	0 000			30 0
Chlorobenzene	0 707	0 699		1 1	30 0
1,1,1,2-Tetrachloroethane	0 294	0 291		1 0	30 0
Ethylbenzene	1 261	1 258		0 2	30 0
Xylene (para & meta)	0 477	0 480		-0 6	30 0
Xylene (Ortho)	0 438	0 434		0 9	30 0

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Instrument ID 5972-INSTRUMENT 1 Calibration Date 12/2/95 Time 1510

Lab File ID C0426 D Init Calib Date(s) 11/21/95

Heated Purge (Y/N) N Init Calib Times

GC Column DB-624 X 7 ID 0 53 (mm)

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Styrene	0 672	0 670		0 3	30 0
Bromoform	0 142	0 133		6 3	30 0
Isopropylbenzene	1 219	1 223		-0 3	30 0
Bromobenzene	0 316	0 310		1 9	30 0
1,1,2,2-Tetrachloroethane	0 160	0 150		6 3	30 0
1,2,3-Trichloropropane	0 164	0 155		5 5	30 0
n-Propylbenzene	1 664	1 701		-2 2	30 0
2-Chlorotoluene	0 973	0 936		3 8	30 0
4-Chlorotoluene	1 084	1 099		-1 4	30 0
1,3,5-Trimethylbenzene	1 057	1 056		0 1	30 0
tert-Butylbenzene	1 187	1 208		-1 8	30 0
1,2,4-Trimethylbenzene	1 056	1 036		1 9	30 0
sec-Butylbenzene	1 612	1 667		-3 4	30 0
1,3-Dichlorobenzene	0 625	0 613		1 9	30 0
4-Isopropyltoluene	1 296	1 344		-3 7	30 0
1,4-Dichlorobenzene	0 612	0 594		2 9	30 0
1 2-Dichlorobenzene	0 494	0 469		5 1	30 0
n-Butylbenzene	1 315	1 352		-2 8	30 0
1,2-Dibromo-3-chloropropane	0 034	0 029		14 7	30 0
1,2,4-Trichlorobenzene	0 400	0 363		9 3	30 0
Hexachlorobutadiene	0 348	0 330		5 2	30 0
Naphthalene	0 387	0 331		14 5	30 0
1,2,3-Trichlorobenzene	0 292	0 258		11 6	30 0
4-Bromofluorobenzene	0 540	0 533		1 3	30 0
1,2-Dichlorobenzene-d4	0 338	0 331		2 1	30 0

Evaluate Continuing Calibration Report

060

Data File D:\HPCHEM\1\DATA\C0426.D
Acq On : 2 Dec 95 3:10 pm
Sample : 10 PPB CHK STANDARD
Misc

Vial. 2
Operator MDC
Inst . 5972 - In
Multiplr. 1.00

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 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	106	-0.05
2	M	Dichlorodifluoromethane	0.271	0.251	7.2	100	-0.02
3	M	Chloromethane	0.206	0 204	0.8	104	0.00
4	M	Vinyl chloride	0.229	0.234	-2.4	109	-0.04
5	M	Bromomethane	0.159	0.161	-1.6	104	-0.07
6	M	Chloroethane	0.127	0.104	18.5	79	-0.11
7	M	Trichlorofluoromethane	0.395	0.306	22.5	83	-0.20
8	M	1,1-Dichloroethene	0.237	0 227	4.0	103	-0 13
9	M	Methylene chloride	0 237	0 231	2 3	88	-0.08
10	M	trans-1,2-Dichloroethene	0.270	0 267	1 1	105	-0.07
11		Hexane	0.000	0.000#	0.0	0#	-0.50#
12	M	1,1-Dichloroethane	0 508	0 499	1 8	103	-0.06
13	M	2,2-Dichloropropane	0.424	0.432	-1 7	112	-0.06
14	M	cis-1,2-Dichloroethene	0 266	0.265	0.2	102	-0 05
15		2-Butanone	0.000	0 000#	0.0	0#	0.00
16	M	Bromochloromethane	0.115	0.107	6 7	92	-0.05
17	M	Chloroform	0.469	0.459	2 2	102	-0.05
18	M	1,1,1-Trichloroethane	0.454	0.455	-0.1	106	-0 05
19	M	Carbon tetrachloride	0.429	0 431	-0.3	106	-0 05
20	M	1,1-Dichloropropene	0.424	0 430	-1.6	108	-0.06
21	M	Benzene	0.870	0 854	1 9	103	-0.05
22	M	1,2-Dichloroethane	0 195	0.183	6.3	92	-0.05
23	M	Trichloroethene	0.361	0.361	0.0	105	-0.05
24	M	1,2-Dichloropropane	0.302	0 297	1.8	99	-0.04
25	M	Dibromomethane	0.132	0.126	4.8	92	-0.04
26	M	Bromodichloromethane	0.391	0.380	2.7	98	-0.04
27	M	cis-1,3-Dichloropropene	0.352	0.343	2.7	98	-0.04
28	M	Toluene	0.614	0.617	-0 6	102	-0.05
29	M	trans-1,3-Dichloropropene	0.243	0.230	5 6	93	-0.05
30	M	1,1,2-Trichloroethane	0.131	0.124	5 2	91	-0.04
31	M	Tetrachloroethene	0.435	0.431	1.0	105	-0.05
32	M	1,3-Dichloropropane	0 247	0 238	3.8	93	-0.05
33	M	Dibromochloromethane	0.260	0.245	5.6	92	-0.05
34	M	1,2-Dibromoethane	0 190	0 180	5.4	90	-0.05
35	M	Chlorobenzene	0.707	0.699	1.2	101	-0.04
36	M	1,1,1,2-Tetrachloroethane	0.294	0 291	0.9	98	-0.05
37	M	Ethylbenzene	1.261	1.258	0.3	104	-0.05
38	M	Xylene (para & meta)	0.477	0.480	-0 7	104	-0.05
39	M	Xylene (Ortho)	0.438	0.434	0.9	101	-0 05
40	M	Styrene	0.672	0.670	0 3	99	-0 05
41	M	Bromoform	0.142	0.133	6 9	87	-0.05
42	M	Isopropylbenzene	1.219	1.223	-0.4	104	-0.05

(#) = Out of Range

Evaluate Continuing Calibration Report

061

Data File D:\HPCHEM\1\DATA\C0426.D
Acq On : 2 Dec 95 3:10 pm
Sample : 10 PPB CHK STANDARD
Misc :

Vial: 2
Operator: MDC
Inst : 5972 - In
Multiplr. 1 00

Method C:\HPCHEM\1\METHODS\VOA524 M
Title · 524.2 Purgable Organics
Last Update · Wed Nov 22 09:25:47 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	0.540	0.533	1.3	101	-0.04
4	M	Bromobenzene	0.316	0.310	1.9	96	-0.05
45	M	1,1,2,2-Tetrachloroethane	0.160	0 150	5.9	87	-0.05
6	M	1,2,3-Trichloropropane	0.164	0.155	5.5	90	-0.05
7	M	n-Propylbenzene	1.664	1.701	-2.3	106	-0.05
48	M	2-Chlorotoluene	0.973	0.936	3.8	102	-0.05
9	M	4-Chlorotoluene	1 084	1.099	-1.4	103	-0.05
0	M	1,3,5-Trimethylbenzene	1.057	1 056	0.1	102	-0 05
51	M	tert-Butylbenzene	1.187	1.208	-1 7	104	-0.05
2	M	1,2,4-Trimethylbenzene	1 056	1 036	2.0	100	-0.06
3	M	sec-Butylbenzene	1.612	1 667	-3.4	106	-0 05
4	M	1,3-Dichlorobenzene	0 625	0.613	2 0	97	-0 05
55	M	4-Isopropyltoluene	1.296	1 344	-3.7	105	-0.05
6	M	1,4-Dichlorobenzene	0.612	0.594	3.1	95	-0 06
7	S	1,2-Dichlorobenzene-d4	0.338	0.331	2.1	95	-0.06
58	M	1,2-Dichlorobenzene	0.494	0 469	5.1	92	-0 05
9	M	n-Butylbenzene	1.315	1.352	-2.8	105	-0.05
0	M	1,2-Dibromo-3-chloropropane	0 034	0 029	14 5	82	-0.05
61	M	1,2,4-Trichlorobenzene	0.400	0 363	9.2	86	-0 06
62	M	Hexachlorobutadiene	0.348	0.330	5 1	96	-0 07
3	M	Naphthalene	0.387	0.331	14.4	79	-0.06
4	M	1,2,3-Trichlorobenzene	0.292	0 258	11.6	81	-0.08
65		Methyl-tert butyl ether	0 306	0 271	11.4	85	-0 02
6		tert-Butyl Alcohol	0.005	0.005	-19 0	111	0 10

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

062

Data File : d.\hpchem\1\data\c0426.d
Acq On : 2 Dec 95 3:10 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Dec 5 11 48 1995

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

Method . c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12 16	96	1705729	5.00 ug/L	-0 05
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.41	95	908868	4.94 ug/L	98.71%
57) 1,2-Dichlorobenzene-d4	22.19	152	565010	4.89 ug/L	97.86%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.52	85	856970	9.28 ug/L	98
3) Chloromethane	3.99	50	695700	9.92 ug/L m	0
4) Vinyl chloride	4.14	62	798674	10.24 ug/L	95
5) Bromomethane	4.81	94	550920	10 16 ug/L	95
6) Chloroethane	5.00	64	353364	8.15 ug/L	98
7) Trichlorofluoromethane	5 52	101	1044896	7 75 ug/L	99
8) 1,1-Dichloroethene	6 69	96	775304	9.60 ug/L	95
9) Methylene chloride	7 75	84	789018	9.77 ug/L	99
10) trans-1,2-Dichloroethene	8.29	96	912127	9.89 ug/L	98
12) 1,1-Dichloroethane	9.10	63	1700914	9.82 ug/L	98
13) 2,2-Dichloropropane	10.15	77	1472718	10.17 ug/L	97
14) cis-1,2-Dichloroethene	10 17	96	904597	9.98 ug/L	99
16) Bromochloromethane	10 59	128	366668	9 33 ug/L	98
17) Chloroform	10 74	83	1566049	9 78 ug/L	100
18) 1,1,1-Trichloroethane	11 04	97	1551232	10 01 ug/L	100
19) Carbon tetrachloride	11 33	117	1469879	10.03 ug/L	98
20) 1,1-Dichloropropene	11.32	75	1468216	10.16 ug/L	99
21) Benzene	11 68	78	2912377	9.81 ug/L	99
22) 1,2-Dichloroethane	11.71	62	623027	9.37 ug/L	97
23) Trichloroethene	12.79	95	1230366	10.00 ug/L	99
24) 1,2-Dichloropropane	13.17	63	1012080	9.82 ug/L	100
25) Dibromomethane	13.37	93	430260	9 52 ug/L	99
26) Bromodichloromethane	13.63	83	1297306	9.73 ug/L	97
27) cis-1,3-Dichloropropene	14 39	75	1170291	9.73 ug/L	98
28) Toluene	14 95	92	2105743	10.06 ug/L	99
29) trans-1,3-Dichloropropene	15.31	75	783292	9 44 ug/L	99
30) 1,1,2-Trichloroethane	15.63	83	422366	9 48 ug/L	97
31) Tetrachloroethene	15.90	166	1470134	9 90 ug/L	98
32) 1,3-Dichloropropane	15.92	76	811574	9.62 ug/L	99
33) Dibromochloromethane	16.32	129	837111	9.44 ug/L	99
34) 1,2-Dibromoethane	16.53	107	613992	9 46 ug/L	98
35) Chlorobenzene	17.39	112	2384763	9 88 ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.52	131	992957	9.91 ug/L	100
37) Ethylbenzene	17.56	91	4290456	9.97 ug/L	100
38) Xylene (para & meta)	17.77	106	3276875	20.14 ug/L	98
39) Xylene (Ortho)	18.47	106	1479577	9 91 ug/L	99
40) Styrene	18.49	104	2286170	9.97 ug/L	100

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

Quantitation Report

003

Data File : d:\hpchem\1\data\c0426.d
Acq On : 2 Dec 95 3:10 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Dec 5 11:48 1995

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

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	Bromoform	18.84	173	452299	9.31 ug/L	100
42)	Isopropylbenzene	19.12	105	4173599	10.04 ug/L m	0
44)	Bromobenzene	19.68	156	1057253	9.81 ug/L	99
45)	1,1,2,2-Tetrachloroethane	19.64	83	513094	9.41 ug/L	99
46)	1,2,3-Trichloropropane	19.73	75	529285	9.45 ug/L	100
47)	n-Propylbenzene	19.86	91	5803596	10.23 ug/L	100
48)	2-Chlorotoluene	20.03	91	3191951	9.62 ug/L	100
49)	4-Chlorotoluene	20.22	91	3748606	10.14 ug/L	100
50)	1,3,5-Trimethylbenzene	20.17	105	3604101	9.99 ug/L	98
51)	tert-Butylbenzene	20.77	119	4120085	10.17 ug/L	98
52)	1,2,4-Trimethylbenzene	20.85	105	3533025	9.80 ug/L	100
53)	sec-Butylbenzene	21.17	105	5687670	10.34 ug/L	100
54)	1,3-Dichlorobenzene	21.39	146	2089699	9.80 ug/L	99
55)	4-Isopropyltoluene	21.43	119	4584134	10.37 ug/L	100
56)	1,4-Dichlorobenzene	21.54	146	2025135	9.69 ug/L	99
58)	1,2-Dichlorobenzene	22.23	146	1600104	9.49 ug/L	97
59)	n-Butylbenzene	22.18	91	4613919	10.28 ug/L	100
60)	1,2-Dibromo-3-chloropropan	23.65	75	98502	8.55 ug/L	98
61)	1,2,4-Trichlorobenzene	25.19	180	1239963	9.08 ug/L	100
62)	Hexachlorobutadiene	25.51	225	1125882	9.49 ug/L	99
63)	Naphthalene	25.66	128	1129436	8.56 ug/L m	0
64)	1,2,3-Trichlorobenzene	26.15	180	879695	8.84 ug/L m	0
65)	Methyl-tert butyl ether	8.38	73	924483	8.86 ug/L	99
66)	tert-Butyl Alcohol	8.29	59	36590	23.80 ug/L m	100

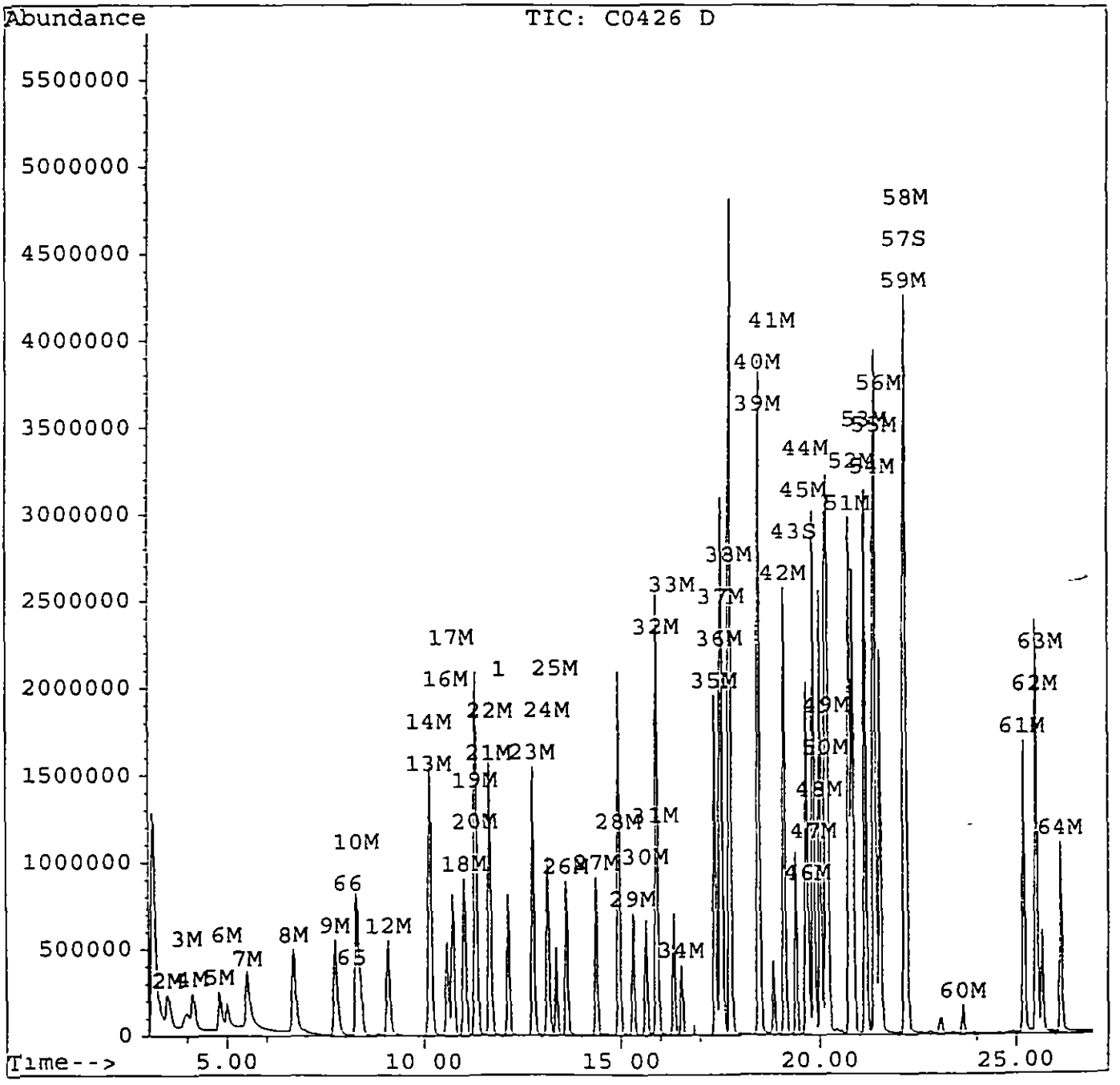
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c0426.d
Acq On : 2 Dec 95 3:10 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time. Dec 5 11 48 1995

Vial: 2 064
Operator: MDC
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration



Quantitation Report

065

Data File : d:\hpchem\1\data\c0427.d
Acq On : 2 Dec 95 3:44 pm
Sample : 10 PPB QCS
Misc :
Quant Time: Dec 5 11:50 1995

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

Method : c:\HPCHEM\1\METHODS\VOA524 M
Title : 524 2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12.17	96	1696795	5.00 ug/L	-0.04
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.40	95	908806	4 96 ug/L	99.22%
57) 1,2-Dichlorobenzene-d4	22.20	152	567828	4 94 ug/L	98.87%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.52	85	931653	10.15 ug/L	99
3) Chloromethane	3.96	50	592833	8.49 ug/L	100
4) Vinyl chloride	4.16	62	766960	9.88 ug/L	100
5) Bromomethane	4.81	94	541440	10.04 ug/L	97
6) Chloroethane	5 02	64	331696	7 69 ug/L	98
7) Trichlorofluoromethane	5 62	101	1372203	10.23 ug/L	99
8) 1,1-Dichloroethene	6 76	96	875213	10 90 ug/L	99
9) Methylene chloride	7 77	84	821134	10.22 ug/L	99
10) trans-1,2-Dichloroethene	8.31	96	960433	10.47 ug/L	99
12) 1,1-Dichloroethane	9.11	63	1769981	10.27 ug/L	99
13) 2,2-Dichloropropane	10.17	77	1477588	10.26 ug/L	99
14) cis-1,2-Dichloroethene	10.18	96	933834	10 35 ug/L	99
16) Bromochloromethane	10.60	128	390056	9 98 ug/L	99
17) Chloroform	10.74	83	1605081	10 08 ug/L	100
18) 1,1,1-Trichloroethane	11 05	97	1569689	10.18 ug/L	100
19) Carbon tetrachloride	11 35	117	1504710	10 33 ug/L	98
20) 1,1-Dichloropropene	11 34	75	1562320	10.87 ug/L	99
21) Benzene	11.69	78	2829954	9.59 ug/L	100
22) 1,2-Dichloroethane	11 72	62	651192	9.85 ug/L	98
23) Trichloroethene	12.80	95	1268068	10.36 ug/L	99
24) 1,2-Dichloropropane	13.17	63	1044460	10 19 ug/L	100
25) Dibromomethane	13.37	93	454491	10 11 ug/L	94
26) Bromodichloromethane	13.63	83	1369980	10.33 ug/L	100
27) cis-1,3-Dichloropropene	14.38	75	1319370	11 03 ug/L	98
28) Toluene	14.96	92	2023813	9 72 ug/L	98
29) trans-1,3-Dichloropropene	15 31	75	861707	10 44 ug/L m	50
30) 1,1,2-Trichloroethane	15.63	83	447902	10.11 ug/L	97
31) Tetrachloroethene	15 91	166	1482773	10.04 ug/L	99
32) 1,3-Dichloropropane	15.93	76	854527	10.18 ug/L	99
33) Dibromochloromethane	16.33	129	888175	10.07 ug/L	99
34) 1,2-Dibromoethane	16.53	107	648644	10.04 ug/L	99
35) Chlorobenzene	17 38	112	2385736	9.94 ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.52	131	1022348	10.25 ug/L	99
37) Ethylbenzene	17.56	91	4178772	9.77 ug/L	99
38) Xylene (para & meta)	17 76	106	3211221	19.84 ug/L	99
39) Xylene (Ortho)	18.47	106	1489801	10.03 ug/L	96
40) Styrene	18 49	104	2305249	10.11 ug/L	99

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

Quantitation Report

Data File : d:\hpchem\1\data\c0427.d
Acq On : 2 Dec 95 3:44 pm
Sample : 10 PPB QCS
Misc :
Quant Time. Dec 5 11:50 1995

Vial: 3 066
Operator: MDC
Inst : 5972 - In
Multiplr: 1.00

Method : c.\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09 25.47 1995
Response via : Multiple Level Calibration

	Compound	R.T	QIon	Response	Conc Unit	Qvalue
41)	Bromoform	18 84	173	482962	9 99 ug/L	100
42)	Isopropylbenzene	19.12	105	4455553	10.77 ug/L m	0
44)	Bromobenzene	19.68	156	1039887	9 70 ug/L	98
45)	1,1,2,2-Tetrachloroethane	19.64	83	568803	10.48 ug/L	98
46)	1,2,3-Trichloropropane	19.72	75	558178	10.02 ug/L	93
47)	n-Propylbenzene	19.86	91	5738104	10.16 ug/L	100
48)	2-Chlorotoluene	20.03	91	3207929	9.72 ug/L	97
49)	4-Chlorotoluene	20.22	91	3708360	10.08 ug/L	99
50)	1,3,5-Trimethylbenzene	20.18	105	3458711	9.64 ug/L	98
51)	tert-Butylbenzene	20.77	119	4064034	10.09 ug/L	99
52)	1,2,4-Trimethylbenzene	20.86	105	3344978	9.33 ug/L	99
53)	sec-Butylbenzene	21 17	105	5625860	10.28 ug/L	100
54)	1,3-Dichlorobenzene	21.38	146	2111505	9.96 ug/L	99
55)	4-Isopropyltoluene	21.43	119	4447893	10 11 ug/L	100
56)	1,4-Dichlorobenzene	21.55	146	2081863	10 02 ug/L	99
58)	1,2-Dichlorobenzene	22 23	146	1641813	9.79 ug/L	98
59)	n-Butylbenzene	22.18	91	4450184	9 97 ug/L	100
60)	1,2-Dibromo-3-chloropropan	23.64	75	110917	9.68 ug/L	92
61)	1,2,4-Trichlorobenzene	25.20	180	1259570	9.27 ug/L	97
62)	Hexachlorobutadiene	25.52	225	1195848	10 13 ug/L	100
63)	Naphthalene	25.66	128	1156997	8 82 ug/L m	0
64)	1,2,3-Trichlorobenzene	26 16	180	914790	9.24 ug/L	99

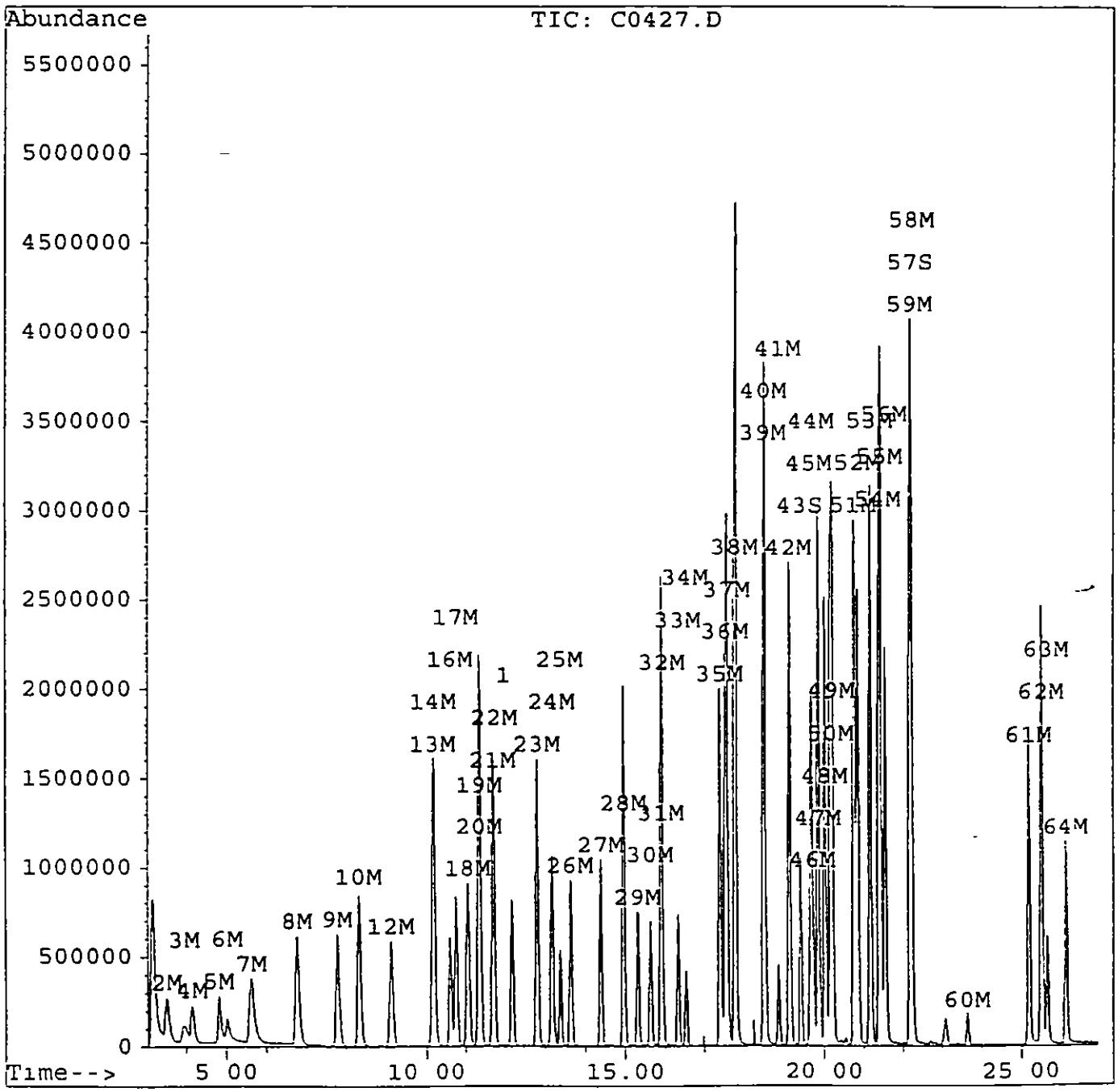
(#) = qualifier out of range (m) = manual integration

Library Quantitation Reportort

Data File : d:\hpchem\1\data\c0427.d
Acq On : 2 Dec 95 3:44 pm
Sample : 10 PPB QCS
Misc :
Quant Time: Dec 5 11:50 1995

Vial. 3 007
Operator: MDC
Inst 5972 - In
Multiplr. 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title . 524.2 Purgable Organics
Last Update : Wed Nov 22 09.25:47 1995
Response via Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c0428.d
Acq On : 2 Dec 95 4:18 pm
Sample : 1 PPB STANDARD
Misc :
Quant Time: Dec 2 16:46 1995

Vial: 4 068
Operator: MDC
Inst . 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12.18	96	1696953	5 00 ug/L	-0 03
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.40	95	899221	4.91 ug/L	98.16%
57) 1,2-Dichlorobenzene-d4	22.20	152	568907	4 95 ug/L	99 05%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.50	85	92435	1 01 ug/L	96
3) Chloromethane	3.96	50	80228	1.15 ug/L	98
4) Vinyl chloride	4.14	62	84536	1.09 ug/L	91
5) Bromomethane	4 82	94	86699	1.61 ug/L	92
6) Chloroethane	5.03	64	40842	0 95 ug/L	99
7) Trichlorofluoromethane	5.64	101	144066	1.07 ug/L	99
8) 1,1-Dichloroethene	6 76	96	90895	1.13 ug/L	99
9) Methylene chloride	7.79	84	208192	2 59 ug/L	96
10) trans-1,2-Dichloroethene	8.32	96	102057	1 11 ug/L	97
12) 1,1-Dichloroethane	9 11	63	187306	1.09 ug/L	99
13) 2,2-Dichloropropane	10 18	77	157362	1.09 ug/L	99
14) cis-1,2-Dichloroethene	10.19	96	99799	1 11 ug/L	98
16) Bromochloromethane	10.60	128	42395	1 08 ug/L	94
17) Chloroform	10.75	83	176794	1 11 ug/L	98
18) 1,1,1-Trichloroethane	11.06	97	167711	1 09 ug/L	100
19) Carbon tetrachloride	11 35	117	154353	1 06 ug/L	96
20) 1,1-Dichloropropene	11.34	75	160448	1.12 ug/L	98
21) Benzene	11 70	78	323363	1.10 ug/L	99
22) 1,2-Dichloroethane	11.72	62	70227	1.06 ug/L	98
23) Trichloroethene	12.79	95	132952	1.09 ug/L	95
24) 1,2-Dichloropropane	13.17	63	113651	1.11 ug/L	100
25) Dibromomethane	13.38	93	49937	1 11 ug/L	93
26) Bromodichloromethane	13.64	83	142251	1 07 ug/L	100
27) cis-1,3-Dichloropropene	14.38	75	128330	1.07 ug/L	97
28) Toluene	14.96	92	233796	1 12 ug/L	97
29) trans-1,3-Dichloropropene	15.32	75	89375	1 08 ug/L	96
30) 1,1,2-Trichloroethane	15.64	83	50139	1.13 ug/L	99
31) Tetrachloroethene	15.91	166	159032	1 08 ug/L	99
32) 1,3-Dichloropropane	15 93	76	95374	1 14 ug/L	97
33) Dibromochloromethane	16.32	129	93789	1 06 ug/L	92
34) 1,2-Dibromoethane	16.54	107	68958	1.07 ug/L	93
35) Chlorobenzene	17 38	112	271747	1.13 ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.52	131	112753	1.13 ug/L	97
37) Ethylbenzene	17.56	91	480994	1.12 ug/L	99
38) Xylene (para & meta)	17 76	106	363580	2.25 ug/L	100
39) Xylene (Ortho)	18 46	106	166681	1.12 ug/L	98
40) Styrene	18 50	104	252084	1 11 ug/L	100

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

Quantitation Report

Data File : d:\hpchem\1\data\c0428.d
Acq On : 2 Dec 95 4:18 pm
Sample : 1 PPB STANDARD
Misc :
Quant Time: Dec 2 16:46 1995

Vial: 4 063
Operator: MDC
Inst : 5972 - In
Multiplr: 1 00

Method : c·\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25·47 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
41)	Bromoform	18.84	173	52408	1 08 ug/L		95
42)	Isopropylbenzene	19.12	105	464873	1 12 ug/L		94
44)	Bromobenzene	19.69	156	124444	1.16 ug/L		98
45)	1,1,2,2-Tetrachloroethane	19.64	83	66700	1 23 ug/L		99
46)	1,2,3-Trichloropropane	19.73	75	70802	1.27 ug/L	#	61
47)	n-Propylbenzene	19.86	91	643192	1 14 ug/L		99
48)	2-Chlorotoluene	20.03	91	369204	1.12 ug/L		100
49)	4-Chlorotoluene	20.22	91	430438	1 17 ug/L		98
50)	1,3,5-Trimethylbenzene	20.18	105	406396	1.13 ug/L		95
51)	tert-Butylbenzene	20.76	119	464587	1.15 ug/L		97
52)	1,2,4-Trimethylbenzene	20.86	105	403432	1.13 ug/L		99
53)	sec-Butylbenzene	21.17	105	637458	1.17 ug/L		99
54)	1,3-Dichlorobenzene	21.38	146	246447	1.16 ug/L		99
55)	4-Isopropyltoluene	21.42	119	502971	1.14 ug/L		99
56)	1,4-Dichlorobenzene	21.55	146	243225	1.17 ug/L		99
58)	1,2-Dichlorobenzene	22 24	146	199971	1 19 ug/L		98
59)	n-Butylbenzene	22 18	91	523940	1.17 ug/L		98
60)	1,2-Dibromo-3-chloropropan	23 65	75	13979	1 22 ug/L		92
61)	1,2,4-Trichlorobenzene	25 20	180	160211	1.18 ug/L		98
62)	Hexachlorobutadiene	25 52	225	131685	1 12 ug/L		99
63)	Naphthalene	25 67	128	164967	1 26 ug/L		100
64)	1,2,3-Trichlorobenzene	26.16	180	120276	1 21 ug/L		97
65)	Methyl-tert butyl ether	8.36	73	111745	1 08 ug/L		100
66)	tert-Butyl Alcohol	8.20	59	1723	1 13 ug/L		100

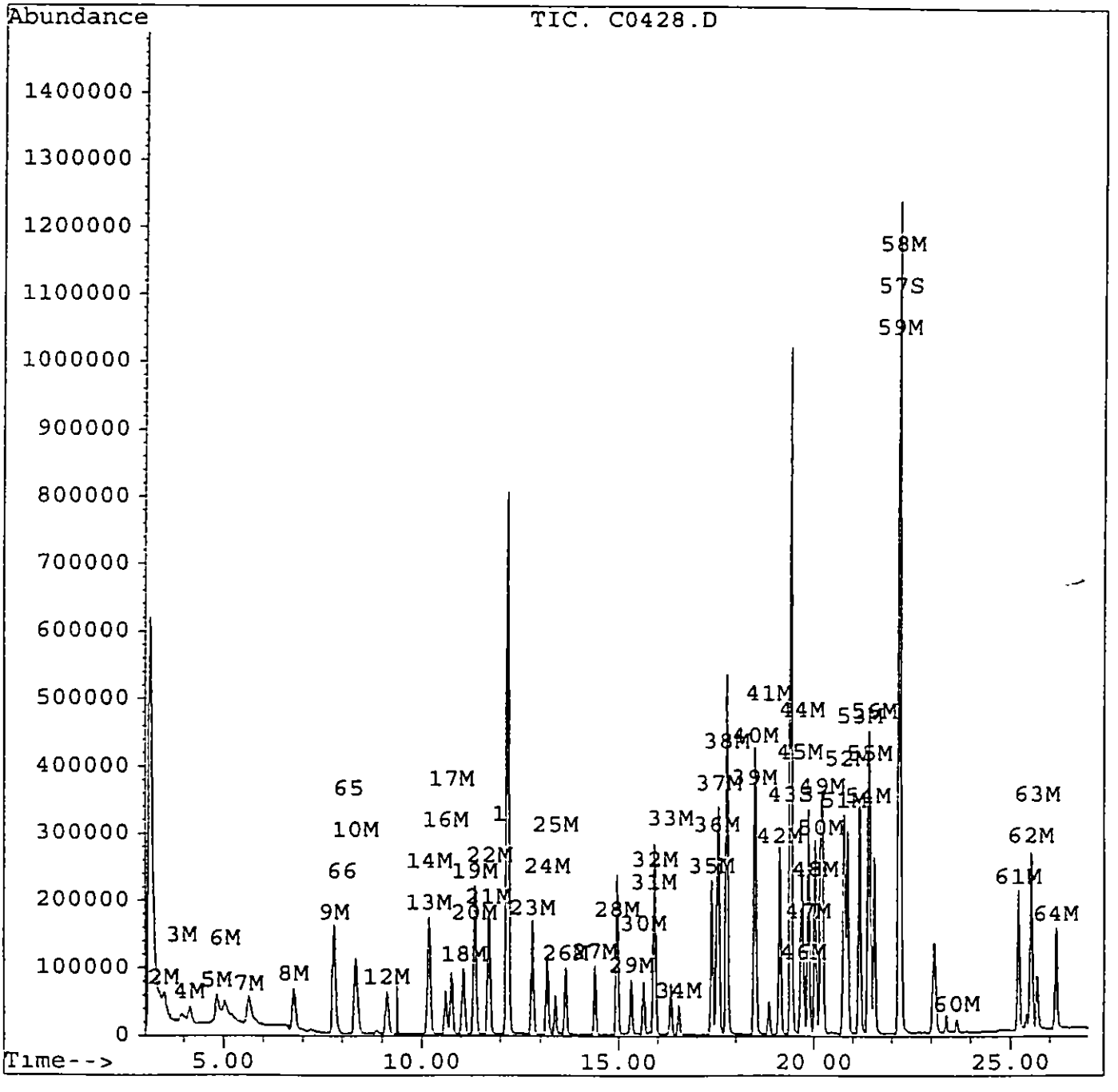
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c0428.d
Acq On : 2 Dec 95 4:18 pm
Sample : 1 PPB STANDARD
Misc :
Quant Time: Dec 2 16:46 1995

Vial: 4 070
Operator: MDC
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 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: C0472 D BFB Injection Date: 12/5/95

Instrument ID: 5972-INSTRUMENT 1 BFB Injection Time: 1712

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	19 4
75	30 0 - 66 0% of mass 95	41 8
95	Base peak, 100% relative abundance	100 0
96	5 0 - 9 0% of mass 95	6 8
173	Less than 2 0% of mass 174	0 0 (0 0)1
174	50 0 - 120 0% of mass 95	67 5
175	4 0 - 9 0% of mass 174	5 2 (7 7)1
176	93 0 - 101 0% of mass 174	66 0 (97 8)1
177	5 0 - 9 0% of mass 176	4 2 (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	C0473 D	12/5/95	1724
02	VBLK01	M BLANK	C0474 D	12/5/95	1800
03	9554553V	9554553V	C0475 D	12/5/95	1833
04	9554554V	9554554V	C0476 D	12/5/95	1907
05	9554109V	9554109V	C0477 D	12/5/95	1942
06	9554110V	9554110V	C0478 D	12/5/95	2016
07	9554551V	9554551V	C0479 D	12/5/95	2051
08	9554552V	9554552V	C0480 D	12/5/95	2125
09	9554555V	9554555V	C0481 D	12/5/95	2200
10	9554557V	9554557V	C0483 D	12/5/95	2310
11	9554558V	9554558V	C0484 D	12/5/95	2344
12	9554552MS	54552MS	C0485 D	12/6/95	0019
13	9554552MSD	54552MSD	C0486 D	12/6/95	0054
14	10 QCS	10 QCS	C0487 D	12/6/95	0129
15	1 STND	1 STND	C0488 D	12/6/95	0204
16					
17					
18					
19					
20					
21					
22					

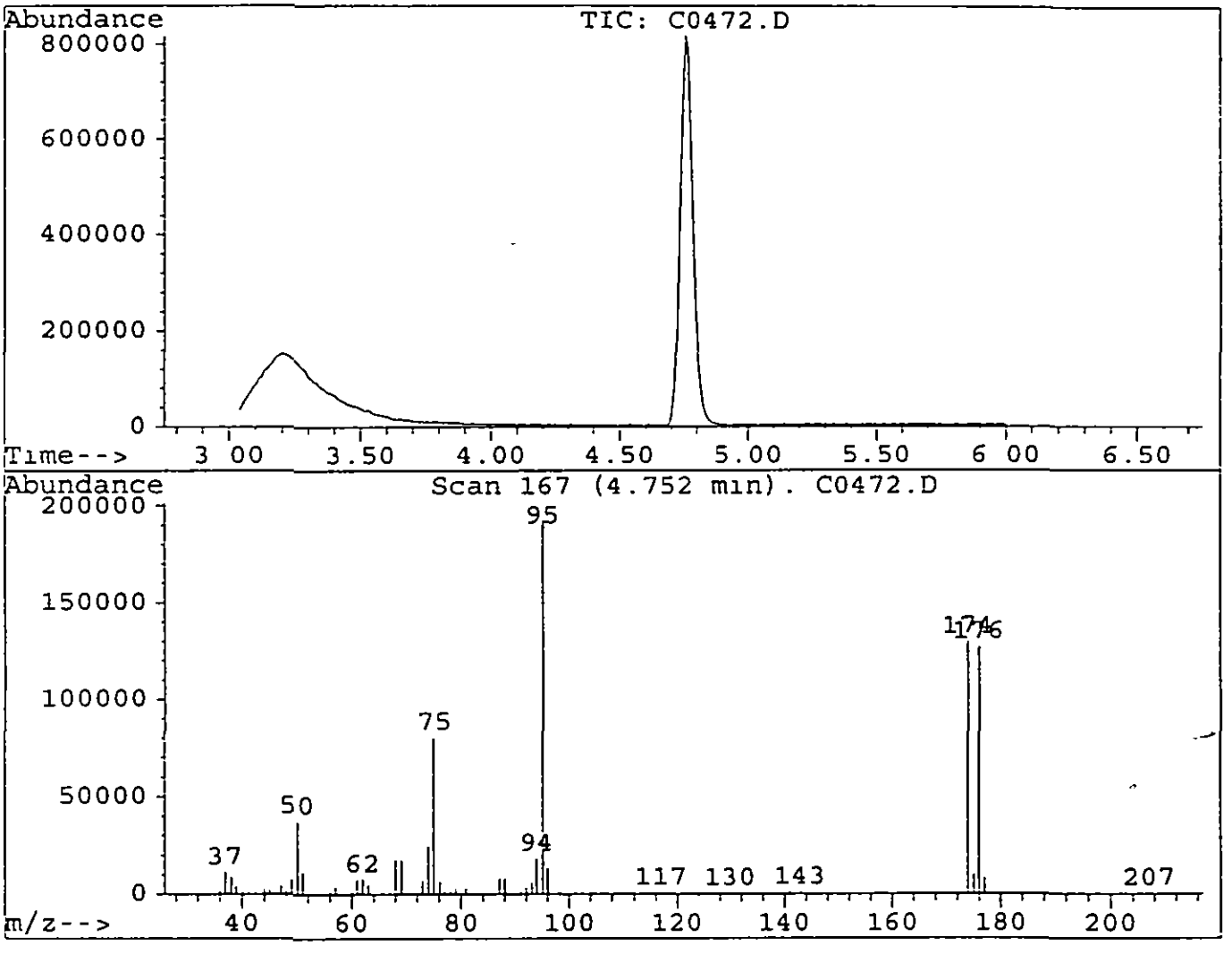
CLPBFB

072

Data File : D:\HPCHEM\1\DATA\C0472.D
Acq On : 5 Dec 95 5:12 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. 167

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.4	37352	PASS
75	95	30	80	41.8	80504	PASS
95	95	100	100	100.0	192576	PASS
96	95	5	9	6.8	13138	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	67.5	129976	PASS
175	174	5	9	7.7	9946	PASS
176	174	95	101	97.8	127072	PASS
177	176	5	9	6.4	8097	PASS

C0472.D VOA524.M Wed Dec 06 10 32:08 1995 VOA

Scan 167 (4.752 min): C0472.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1700	51.05	11046	69.05	17472	80.90	2963
37.00	11369	52.05	627	70.05	1284	81.90	837
38.10	8611	54.95	741	72.05	1101	87.00	7792
39.00	3671	56.00	2630	72.95	6979	87.95	7828
40.00	853	57.00	4042	74.05	24616	90.95	743
44.00	2448	60.00	1890	75.05	80504	91.95	3451
45.00	2140	61.00	7271	76.05	6506	93.05	5882
47.05	3924	62.00	7706	77.00	1213	93.95	18328
47.95	1174	63.00	4861	78.00	1177	95.05	192576
49.05	7326	66.95	584	79.00	2853	95.95	13138
50.05	37352	68.05	17672	80.00	813	103.90	602

Scan 167 (4.752 min): C0472.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
116.95	824						
119.00	794						
129.95	565						
140.90	920						
142.90	1113						
173.95	129976						
174.95	9946						
175.95	127072						
176.95	8097						
207.00	517						

7A

VOLATILE CONTINUING CALIBRATION CHECK

074

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Instrument ID 5972-INSTRUMENT 1 Calibration Date 12/5/95 Time 1724

Lab File ID C0473 D Init Calib Date(s) 11/21/95

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	0 271	0 264		2 6	30 0
Chloromethane	0 206	0 192		6 8	30 0
Vinyl chloride	0 229	0 221		3 5	30 0
Bromomethane	0 159	0 146		8 2	30 0
Chloroethane	0 127	0 135		-6 3	30 0
Trichlorofluoromethane	0 395	0 370		6 3	30 0
1,1-Dichloroethene	0 237	0 223		5 9	30 0
Methylene chloride	0 237	0 256		-8 0	30 0
trans-1,2-Dichloroethene	0 270	0 252		6 7	30 0
1,1-Dichloroethane	0 508	0 468		7 9	30 0
2,2-Dichloropropane	0 424	0 379		10 6	30 0
cis-1,2-Dichloroethene	0 266	0 249		6 4	30 0
Bromochloromethane	0 115	0 110		4 3	30 0
Chloroform	0 469	0 430		8 3	30 0
1,1,1-Trichloroethane	0 454	0 408		10 1	30 0
Carbon tetrachloride	0 429	0 390		9 1	30 0
1,1-Dichloropropene	0 424	0 391		7 8	30 0
Benzene	0 870	0 784		9 9	30 0
1,2-Dichloroethane	0 195	0 183		6 2	30 0
Trichloroethene	0 361	0 328		9 1	30 0
1,2-Dichloropropane	0 302	0 282		6 6	30 0
Dibromomethane	0 132	0 131		0 8	30 0
Bromodichloromethane	0 391	0 371		5 1	30 0
cis-1,3-Dichloropropene	0 352	0 336		4 5	30 0
Toluene	0 614	0 564		8 1	30 0
trans-1,3-Dichloropropene	0 243	0 233		4 1	30 0
1,1,2-Trichloroethane	0 131	0 129		1 5	30 0
Tetrachloroethene	0 435	0 385		11 5	30 0
1,3-Dichloropropane	0 247	0 244		1 2	30 0
Dibromochloromethane	0 260	0 252		3 1	30 0
1,2-Dibromoethane	0 000	0 000			30 0
Chlorobenzene	0 707	0 653		7 6	30 0
1,1,1,2-Tetrachloroethane	0 294	0 277		5 8	30 0
Ethylbenzene	1 261	1 140		9 6	30 0
Xylene (para & meta)	0 477	0 435		8 8	30 0
Xylene (Ortho)	0 438	0 402		8 2	30 0

VOLATILE CONTINUING CALIBRATION CHECK

075

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Instrument ID 5972-INSTRUMENT 1 Calibration Date 12/5/95 Time 1724

Lab File ID C0473 D Init Calib Date(s) 11/21/95

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	0 672	0 630		6 3	30 0
Bromoform	0 142	0 142		0 0	30 0
Isopropylbenzene	1 219	1 099		9 8	30 0
Bromobenzene	0 316	0 297		6 0	30 0
1,1,2,2-Tetrachloroethane	0 160	0 167		-4 4	30 0
1,2,3-Trichloropropane	0 164	0 160		2 4	30 0
n-Propylbenzene	1 664	1 513		9 1	30 0
2-Chlorotoluene	0 973	0 854		12 2	30 0
4-Chlorotoluene	1 084	1 000		7 7	30 0
1,3,5-Trimethylbenzene	1 057	0 946		10 5	30 0
tert-Butylbenzene	1 187	1 080		9 0	30 0
1,2,4-Trimethylbenzene	1 056	0 943		10 7	30 0
sec-Butylbenzene	1 612	1 478		8 3	30 0
1,3-Dichlorobenzene	0 625	0 573		8 3	30 0
4-Isopropyltoluene	1 296	1 195		7 8	30 0
1,4-Dichlorobenzene	0 612	0 571		6 7	30 0
1,2-Dichlorobenzene	0 494	0 461		6 7	30 0
n-Butylbenzene	1 315	1 211		7 9	30 0
1,2-Dibromo-3-chloropropane	0 034	0 032		5 9	30 0
1,2,4-Trichlorobenzene	0 400	0 372		7 0	30 0
Hexachlorobutadiene	0 348	0 302		13 2	30 0
Naphthalene	0 387	0 370		4 4	30 0
1,2,3-Trichlorobenzene	0 292	0 272		6 8	30 0
4-Bromofluorobenzene	0 540	0 542		-0 4	30 0
1 2-Dichlorobenzene-d4	0 338	0 351		-3 8	30 0

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C0473 D
Acq On : 5 Dec 95 5:24 pm
Sample : 10 PPB CHK STANDARD
Misc :

Vial: 2 076
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : C.\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 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)
		Fluorobenzene	1 000	1.000	0 0	113	-0.02
2	M	Dichlorodifluoromethane	0.271	0.264	2.5	112	-0.02
?	M	Chloromethane	0.206	0.192	6.6	105	-0.04
	M	Vinyl chloride	0 229	0.221	3.2	110	-0.02
-	M	Bromomethane	0.159	0.146	8.0	100	-0 03
6	M	Chloroethane	0.127	0.135	-6.1	111	-0 03
'	M	Trichlorofluoromethane	0.395	0.370	6.2	108	0 00
!	M	1,1-Dichloroethene	0.237	0.223	5.6	109	0.00
9	M	Methylene chloride	0.237	0.256	-8.0	104	-0.02
(	M	trans-1,2-Dichloroethene	0 270	0.252	6 8	106	-0.02
		Hexane	0.000	0.000#	0 0	0#	-0.49#
12	M	1,1-Dichloroethane	0.508	0.468	7 9	103	0.00
1?	M	2,2-Dichloropropane	0.424	0.379	10.7	105	-0 02
	M	cis-1,2-Dichloroethene	0.266	0 249	6.4	103	-0 02
--		2-Butanone	0.000	0.000#	0.0	0#	-0 44#
16	M	Bromochloromethane	0.115	0.110	4.7	100	-0.02
'	M	Chloroform	0 469	0.430	8.3	102	-0.02
!	M	1,1,1-Trichloroethane	0 454	0.408	10 2	101	-0.02
19	M	Carbon tetrachloride	0 429	0.390	9.1	102	0.00
??	M	1,1-Dichloropropene	0 424	0.391	7.7	105	-0.02
	M	Benzene	0 870	0.784	9.8	101	0.00
22	M	1,2-Dichloroethane	0.195	0.183	6.0	99	-0.02
23	M	Trichloroethene	0.361	0.328	9 1	102	-0.02
!	M	1,2-Dichloropropane	0.302	0.282	6.5	100	-0.02
--	M	Dibromomethane	0.132	0.131	0 9	103	-0.02
26	M	Bromodichloromethane	0.391	0.371	5.0	102	-0.02
'	M	cis-1,3-Dichloropropene	0.352	0.336	4.6	102	-0.02
!	M	Toluene	0 614	0.564	8.1	100	-0.03
29	M	trans-1,3-Dichloropropene	0 243	0.233	4 2	100	-0 03
??	M	1,1,2-Trichloroethane	0 131	0.129	1 4	101	-0 02
	M	Tetrachloroethene	0.435	0 385	11.5	100	-0.03
32	M	1,3-Dichloropropane	0.247	0.244	1.4	101	-0 03
33	M	Dibromochloromethane	0.260	0.252	2 9	101	-0 03
	M	1,2-Dibromoethane	0.190	0.189	0 5	101	-0 03
)	M	Chlorobenzene	0.707	0.653	7.6	101	-0 03
36	M	1,1,1,2-Tetrachloroethane	0.294	0.277	5.8	99	-0 04
'	M	Ethylbenzene	1.261	1.140	9 6	100	-0.04
!	M	Xylene (para & meta)	0.477	0.435	8 7	101	-0.04
39	M	Xylene (Ortho)	0.438	0.402	8 1	100	-0 04
40	M	Styrene	0.672	0.630	6 3	100	-0.03
:	M	Bromoform	0.142	0 142	0.1	100	-0 04
42	M	Isopropylbenzene	1.219	1.099	9.8	100	-0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C0473.D
Acq On : 5 Dec 95 5:24 pm
Sample : 10 PPB CHK STANDARD
Misc :

Vial: 2 077
Operator: SRK
Inst : 5972 - In
Multiplr: 1 00

Method : C.\HPCHEM\1\METHODS\VOA524 M
Title : 524 2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 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	0.540	0.542	-0.4	110	-0.03
44	M	Bromobenzene	0.316	0.297	5.8	98	-0.04
45	M	1,1,2,2-Tetrachloroethane	0 160	0.167	-4.6	104	-0.04
6	M	1,2,3-Trichloropropane	0.164	0.160	2.3	100	-0.04
7	M	n-Propylbenzene	1.664	1.513	9.1	101	-0.04
48	M	2-Chlorotoluene	0.973	0.854	12.2	100	-0.03
9	M	4-Chlorotoluene	1.084	1.000	7.7	101	-0.04
0	M	1,3,5-Trimethylbenzene	1.057	0.946	10.5	98	-0.04
51	M	tert-Butylbenzene	1.187	1.080	9.0	99	-0.04
2	M	1,2,4-Trimethylbenzene	1.056	0.943	10 8	98	-0.04
3	M	sec-Butylbenzene	1.612	1.478	8.3	101	-0.04
54	M	1,3-Dichlorobenzene	0 625	0 573	8.4	97	-0.04
55	M	4-Isopropyltoluene	1.296	1.195	7.8	100	-0.04
6	M	1,4-Dichlorobenzene	0.612	0.571	6.8	98	-0.04
7	S	1,2-Dichlorobenzene-d4	0.338	0.351	-3.6	108	-0 05
58	M	1,2-Dichlorobenzene	0.494	0.461	6.7	96	-0.04
9	M	n-Butylbenzene	1.315	1.211	7.9	100	-0.04
0	M	1,2-Dibromo-3-chloropropane	0 034	0 032	5.4	97	-0.04
61	M	1,2,4-Trichlorobenzene	0.400	0.372	7.2	95	-0.05
2	M	Hexachlorobutadiene	0 348	0.302	13.1	94	-0.05
3	M	Naphthalene	0.387	0.370	4.3	95	-0.05
64	M	1,2,3-Trichlorobenzene	0.292	0.272	6.7	91	-0.06
65		Methyl-tert butyl ether	0.306	0.295	3 7	99	-0.02
1		tert-Butyl Alcohol	0.005	0.005	-6.5	106	-0.03

Quantitation Report

Data File : d.\hpchem\1\data\c0473 d
Acq On : 5 Dec 95 5:24 pm
Sample : 10 PPB CHK STANDARD
Misc
Quant Time: Dec 6 10:33 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 : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12.19	96	1824708	5.00 ug/L	-0.02
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.42	95	989206	5.02 ug/L	100.43%
57) 1,2-Dichlorobenzene-d4	22.20	152	640170	5.18 ug/L	103.65%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.52	85	963149	9.75 ug/L	99
3) Chloromethane	3.95	50	701156	9.34 ug/L	99
4) Vinyl chloride	4.16	62	807910	9.68 ug/L	98
5) Bromomethane	4.85	94	533519	9.20 ug/L	98
6) Chloroethane	5 09	64	492313	10.61 ug/L	98
7) Trichlorofluoromethane	5.70	101	1351922	9.38 ug/L	99
8) 1,1-Dichloroethene	6.82	96	815162	9.44 ug/L	99
9) Methylene chloride	7.81	84	932937	10.80 ug/L	99
10) trans-1,2-Dichloroethene	8.34	96	919623	9.32 ug/L	97
12) 1,1-Dichloroethane	9.15	63	1707293	9.21 ug/L	100
13) 2,2-Dichloropropane	10.19	77	1382701	8 93 ug/L	98
14) cis-1,2-Dichloroethene	10 20	96	907385	9 36 ug/L	99
16) Bromochloromethane	10 62	128	400814	9 53 ug/L	94
17) Chloroform	10 77	83	1570839	9 17 ug/L	99
18) 1,1,1-Trichloroethane	11 08	97	1488349	8 98 ug/L	97
19) Carbon tetrachloride	11 37	117	1423796	9 09 ug/L	99
20) 1,1-Dichloropropene	11 36	75	1427388	9 23 ug/L	100
21) Benzene	11.73	78	2862182	9.02 ug/L	99
22) 1,2-Dichloroethane	11 75	62	668834	9.40 ug/L	96
23) Trichloroethene	12.82	95	1196162	9.09 ug/L	99
24) 1,2-Dichloropropane	13.19	63	1030528	9.35 ug/L	100
25) Dibromomethane	13.40	93	478997	9.91 ug/L	96
26) Bromodichloromethane	13.65	83	1354654	9.50 ug/L	98
27) cis-1,3-Dichloropropene	14 41	75	1226779	9.54 ug/L	98
28) Toluene	14.97	92	2058509	9.19 ug/L	100
29) trans-1,3-Dichloropropene	15.33	75	850643	9.58 ug/L	100
30) 1,1,2-Trichloroethane	15.65	83	470003	9 86 ug/L	94
31) Tetrachloroethene	15.92	166	1406253	8.85 ug/L	98
32) 1,3-Dichloropropane	15.94	76	889546	9.86 ug/L	100
33) Dibromochloromethane	16.34	129	921120	9.71 ug/L	99
34) 1,2-Dibromoethane	16.55	107	690914	9.95 ug/L	99
35) Chlorobenzene	17.40	112	2384893	9 24 ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.53	131	1009655	9 42 ug/L	98
37) Ethylbenzene	17 57	91	4159500	9 04 ug/L	99
38) Xylene (para & meta)	17 78	106	3178531	18.26 ug/L	98
39) Xylene (Ortho)	18.48	106	1467827	9.19 ug/L	98
40) Styrene	18.51	104	2297795	9.37 ug/L	97

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

079

Data File : d:\hpchem\1\data\c0473.d
Acq On : 5 Dec 95 5:24 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time. Dec 6 10:33 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 : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41)	Bromoform	18.85	173	519591	9 99 ug/L	97
42)	Isopropylbenzene	19 13	105	4011236	9.02 ug/L m	0
44)	Bromobenzene	19.69	156	1085281	9.42 ug/L	98
45)	1,1,2,2-Tetrachloroethane	19.65	83	610316	10.46 ug/L	97
46)	1,2,3-Trichloropropane	19.74	75	585670	9.77 ug/L	98
47)	n-Propylbenzene	19.87	91	5519869	9.09 ug/L	99
48)	2-Chlorotoluene	20.05	91	3115955	8.78 ug/L	98
49)	4-Chlorotoluene	20.23	91	3649523	9.23 ug/L	100
50)	1,3,5-Trimethylbenzene	20 18	105	3451696	8.95 ug/L	98
51)	tert-Butylbenzene	20.78	119	3942690	9.10 ug/L	98
52)	1,2,4-Trimethylbenzene	20.87	105	3440435	8.92 ug/L	98
53)	sec-Butylbenzene	21.18	105	5395306	9.17 ug/L	99
54)	1,3-Dichlorobenzene	21 40	146	2089321	9 16 ug/L	100
55)	4-Isopropyltoluene	21 44	119	4361514	9 22 ug/L	100
56)	1,4-Dichlorobenzene	21 56	146	2082256	9.32 ug/L	100
58)	1,2-Dichlorobenzene	22 24	146	1683212	9.33 ug/L	98
59)	n-Butylbenzene	22.19	91	4420683	9.21 ug/L	99
60)	1,2-Dibromo-3-chloropropan	23.66	75	116567	9.46 ug/L	97
61)	1,2,4-Trichlorobenzene	25.20	180	1356227	9.28 ug/L	99
62)	Hexachlorobutadiene	25.53	225	1102647	8.69 ug/L	99
63)	Naphthalene	25.68	128	1351269	9 57 ug/L	100
64)	1,2,3-Trichlorobenzene	26 17	180	992846	9 33 ug/L	98
65)	Methyl-tert butyl ether	8 38	73	1075392	9.63 ug/L	99
66)	tert-Butyl Alcohol	8.16	59	35046	21 31 ug/L	100

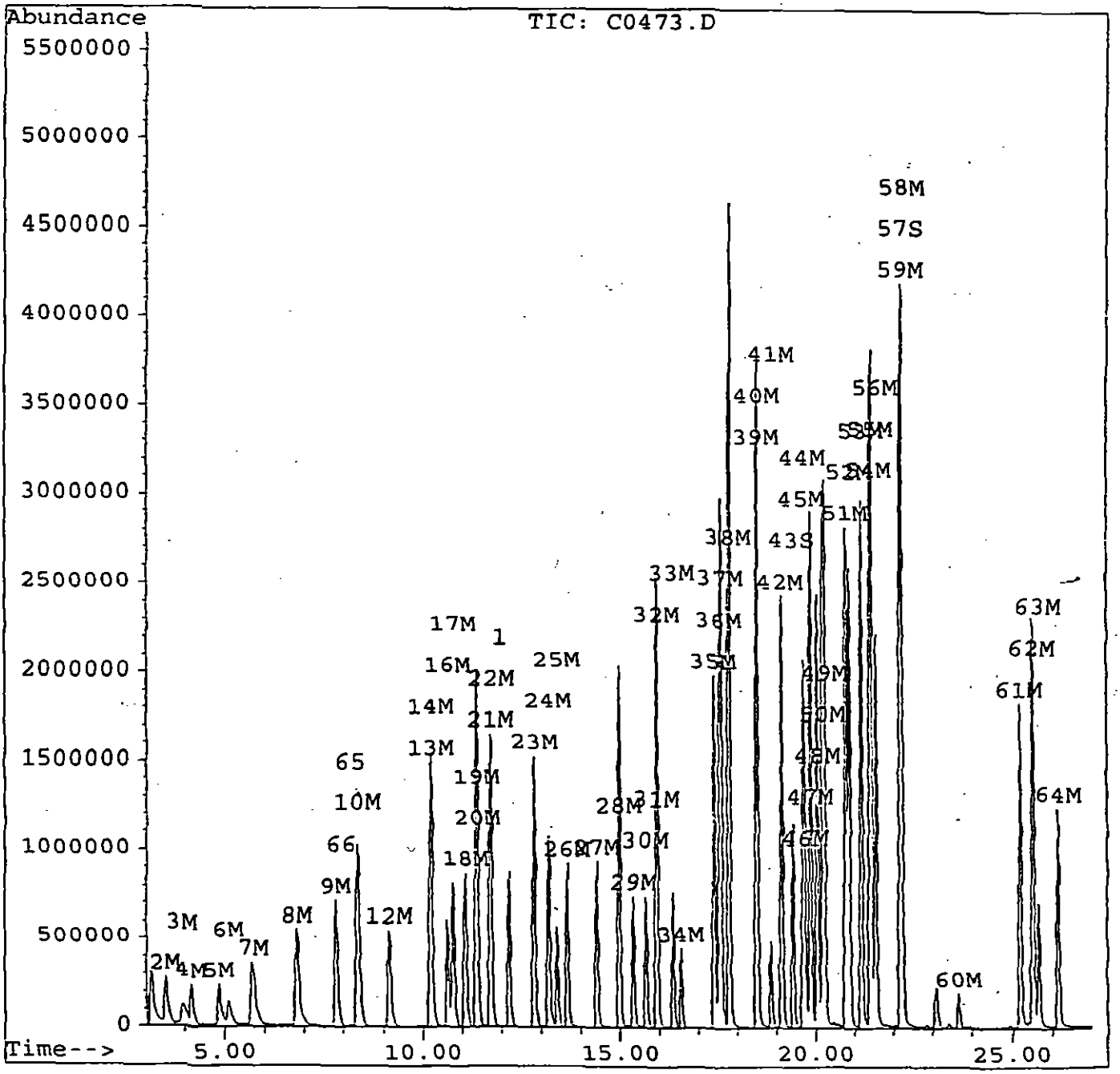
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c0473.d
Acq On : 5 Dec 95 5:24 pm
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Dec 6 10:33 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 : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration



Quantitation Report

081

Data File : d:\hpchem\1\data\c0487.d
Acq On : 6 Dec 95 1:29 am
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time. Dec 6 10·53 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 . Wed Nov 22 09:25:47 1995
Response via Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12.21	96	1516340	5.00 ug/L	0 00
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.43	95	804351	4.91 ug/L	98.27%
57) 1,2-Dichlorobenzene-d4	22.22	152	512829	5.00 ug/L	99.92%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.52	85	867610	10.57 ug/L	98
3) Chloromethane	3.95	50	531868	8.53 ug/L	100
4) Vinyl chloride	4.17	62	677967	9.77 ug/L	100
5) Bromomethane	4.86	94	450743	9.35 ug/L	99
6) Chloroethane	5 10	64	395672	10.26 ug/L	100
7) Trichlorofluoromethane	5 69	101	1259591	10.51 ug/L	98
8) 1,1-Dichloroethene	6.82	96	783143	10.91 ug/L	98
9) Methylene chloride	7.82	84	827251	11.53 ug/L	98
10) trans-1,2-Dichloroethene	8.36	96	848409	10.35 ug/L	97
12) 1,1-Dichloroethane	9.16	63	1554549	10 09 ug/L	99
13) 2,2-Dichloropropane	10.20	77	1080819	8 40 ug/L	100
14) cis-1,2-Dichloroethene	10.22	96	829501	10.29 ug/L	95
16) Bromochloromethane	10.64	128	350117	10.02 ug/L	96
17) Chloroform	10.79	83	1419360	9.98 ug/L	99
18) 1,1,1-Trichloroethane	11.10	97	1387083	10.07 ug/L	97
19) Carbon tetrachloride	11.38	117	1306108	10.03 ug/L	98
20) 1,1-Dichloropropene	11.38	75	1357386	10 56 ug/L	99
21) Benzene	11.73	78	2485237	9.42 ug/L	99
22) 1,2-Dichloroethane	11.76	62	578805	9.79 ug/L	96
23) Trichloroethene	12.83	95	1110688	10.15 ug/L	99
24) 1,2-Dichloropropane	13.20	63	921138	10.06 ug/L	99
25) Dibromomethane	13.41	93	405939	10.11 ug/L	94
26) Bromodichloromethane	13.66	83	1204032	10.16 ug/L	98
27) cis-1,3-Dichloropropene	14 42	75	1121941	10 50 ug/L	100
28) Toluene	14.99	92	1769051	9 51 ug/L	100
29) trans-1,3-Dichloropropene	15.34	75	726415	9.85 ug/L	99
30) 1,1,2-Trichloroethane	15.66	83	398112	10.05 ug/L	97
31) Tetrachloroethene	15.94	166	1300976	9.85 ug/L	98
32) 1,3-Dichloropropane	15.95	76	753799	10.05 ug/L	100
33) Dibromochloromethane	16.35	129	793302	10.06 ug/L	100
34) 1,2-Dibromoethane	16.56	107	582895	10.10 ug/L	97
35) Chlorobenzene	17.41	112	2091393	9 75 ug/L	100
37) Ethylbenzene	17 58	91	3603145	9.42 ug/L	99
38) Xylene (para & meta)	17.79	106	2791038	19.29 ug/L	98
39) Xylene (Ortho)	18.50	106	1300469	9 79 ug/L	98
40) Styrene	18.52	104	2001856	9 82 ug/L	98
41) Bromoform	18.86	173	431887	10.00 ug/L	98

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

Quantitation Report

Data File : d:\hpchem\1\data\c0487.d
Acq On : 6 Dec 95 1:29 am
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Dec 6 10:53 1995

Vial: 16 082
Operator: SRK
Inst : 5972 - In
Multiplr 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title 524 2 Purgable Organics
Last Update . Wed Nov 22 09.25:47 1995
Response via : Multiple Level Calibration

	Compound	R T.	QIon	Response	Conc Unit	Qvalue
42)	Isopropylbenzene	19.14	105	3867892	10.47 ug/L m	0
44)	Bromobenzene	19.70	156	911419	9.52 ug/L	99
45)	1,1,2,2-Tetrachloroethane	19.66	83	520620	10.74 ug/L	100
46)	1,2,3-Trichloropropane	19.75	75	472673	9 49 ug/L	90
47)	n-Propylbenzene	19.88	91	4934911	9.78 ug/L	99
48)	2-Chlorotoluene	20.06	91	2804675	9.51 ug/L	99
49)	4-Chlorotoluene	20.24	91	3210805	9 77 ug/L	100
50)	1,3,5-Trimethylbenzene	20.19	105	2971318	9.27 ug/L	100
51)	tert-Butylbenzene	20.79	119	3518602	9 77 ug/L	98
52)	1,2,4-Trimethylbenzene	20.88	105	2892431	9.03 ug/L	99
53)	sec-Butylbenzene	21.19	105	4865255	9.95 ug/L	99
54)	1,3-Dichlorobenzene	21.41	146	1840570	9 71 ug/L	100
55)	4-Isopropyltoluene	21.45	119	3822454	9 73 ug/L	100
56)	1,4-Dichlorobenzene	21.57	146	1796116	9.67 ug/L	100
58)	1,2-Dichlorobenzene	22.25	146	1450528	9.68 ug/L	96
59)	n-Butylbenzene	22.20	91	3817746	9 57 ug/L	100
60)	1,2-Dibromo-3-chloropropan	23.66	75	100186	9.78 ug/L	96
61)	1,2,4-Trichlorobenzene	25.21	180	1134439	9.35 ug/L	97
62)	Hexachlorobutadiene	25.54	225	1034757	9.81 ug/L	100
63)	Naphthalene	25.68	128	1120702	9 56 ug/L	100
64)	1,2,3-Trichlorobenzene	26.18	180	854149	9.66 ug/L	97
66)	tert-Butyl Alcohol	8 35	59	31661	23.16 ug/L	100

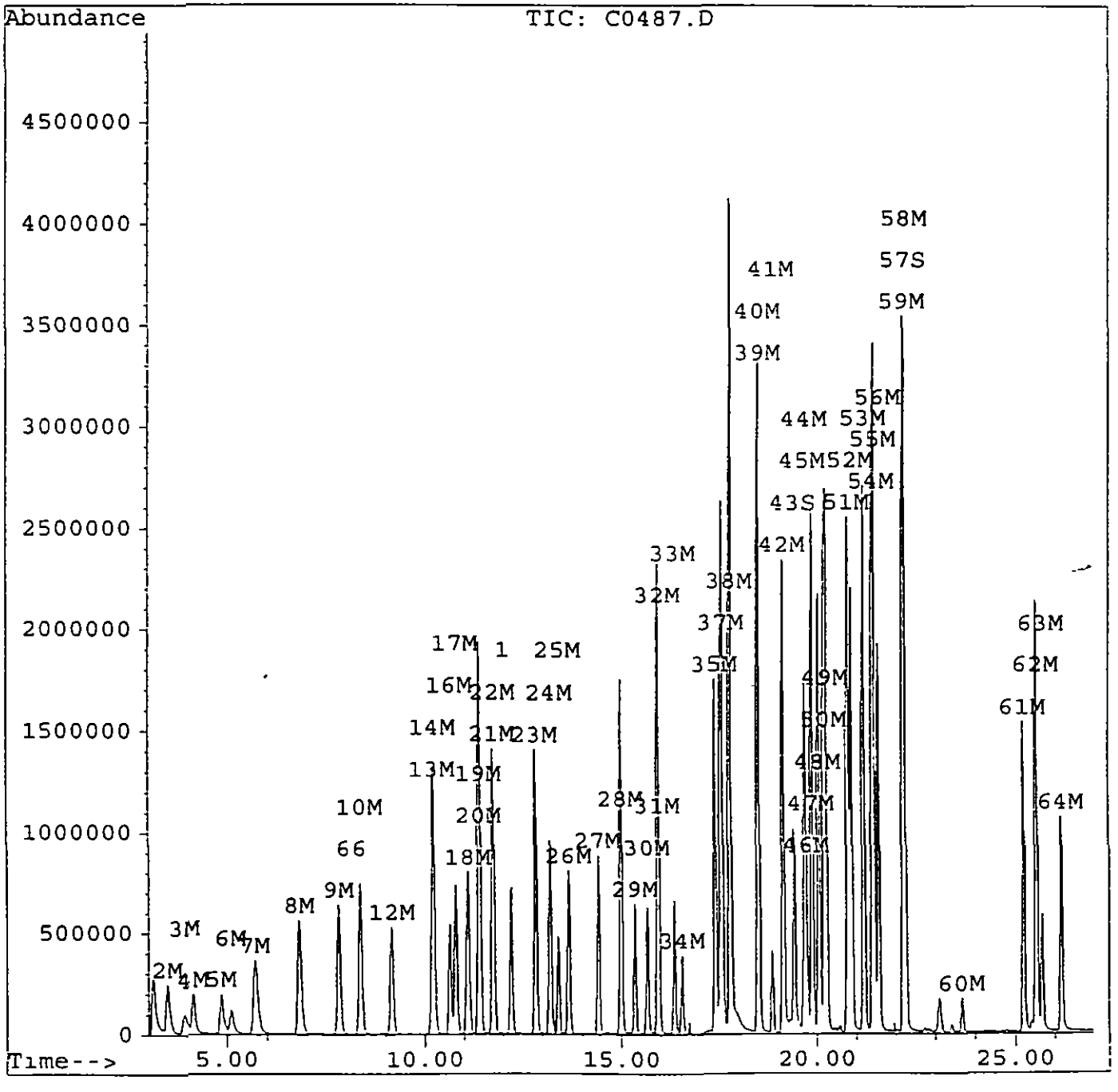
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c0487.d
Acq On : 6 Dec 95 1:29 am
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Dec 6 10:53 1995

Vial: 16 083
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524 M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09.25:47 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c0488.d
Acq On : 6 Dec 95 2:04 am
Sample : 1 STANDARD
Misc : 25 ML
Quant Time: Dec 6 2:31 1995

Vial: 17 084
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12.21	96	1495748	5.00 ug/L	0 00
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.43	95	795125	4.92 ug/L	98 48%
57) 1,2-Dichlorobenzene-d4	22.22	152	509830	5.04 ug/L	100.70%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.52	85	93640	1.16 ug/L	96
3) Chloromethane	3.95	50	66428	1 08 ug/L	92
4) Vinyl chloride	4.16	62	74051	1.08 ug/L	99
5) Bromomethane	4.88	94	54917	1.16 ug/L	100
6) Chloroethane	5 11	64	46540	1.22 ug/L	95
7) Trichlorofluoromethane	5.69	101	128110	1 08 ug/L	96
8) 1,1-Dichloroethene	6.80	96	79925	1 13 ug/L	90
9) Methylene chloride	7.82	84	287691	4.06 ug/L	100
10) trans-1,2-Dichloroethene	8.36	96	88565	1.09 ug/L	96
12) 1,1-Dichloroethane	9.15	63	166419	1.10 ug/L	99
13) 2,2-Dichloropropane	10.21	77	111099	0 88 ug/L	94
14) cis-1,2-Dichloroethene	10.21	96	88678	1 12 ug/L	89
16) Bromochloromethane	10.64	128	38675	1 12 ug/L	95
17) Chloroform	10.79	83	153394	1 09 ug/L	98
18) 1,1,1-Trichloroethane	11 10	97	143033	1 05 ug/L	97
19) Carbon tetrachloride	11.38	117	133995	1.04 ug/L	97
20) 1,1-Dichloropropene	11.37	75	137827	1.09 ug/L	98
21) Benzene	11.74	78	287877	1.11 ug/L	100
22) 1,2-Dichloroethane	11.76	62	67024	1.15 ug/L	99
23) Trichloroethene	12.83	95	118292	1.10 ug/L	98
24) 1,2-Dichloropropane	13.20	63	103547	1 15 ug/L	99
25) Dibromomethane	13.41	93	46440	1 17 ug/L	96
26) Bromodichloromethane	13 67	83	127858	1 09 ug/L	98
27) cis-1,3-Dichloropropene	14 42	75	113825	1 08 ug/L	99
28) Toluene	14 99	92	232344	1 27 ug/L	98
29) trans-1,3-Dichloropropene	15 34	75	80559	1.11 ug/L	98
30) 1,1,2-Trichloroethane	15.66	83	50406	1 29 ug/L	97
31) Tetrachloroethene	15 93	166	137365	1 05 ug/L	95
32) 1,3-Dichloropropane	15.95	76	94663	1.28 ug/L	99
33) Dibromochloromethane	16.35	129	88779	1.14 ug/L	99
34) 1,2-Dibromoethane	16.56	107	70338	1.24 ug/L	100
35) Chlorobenzene	17.42	112	248085	1 17 ug/L	98
36) 1,1,1,2-Tetrachloroethane	17.54	131	106148	1 21 ug/L	95
37) Ethylbenzene	17.59	91	438748	1 16 ug/L	99
38) Xylene (para & meta)	17.80	106	344561	2 41 ug/L	96
39) Xylene (Ortho)	18.50	106	157828	1.20 ug/L	97
40) Styrene	18.52	104	236316	1.18 ug/L	97

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

Quantitation Report

Data File : d \hpchem\1\data\c0488.d
Acq On : 6 Dec 95 2:04 am
Sample . 1 STANDARD
Misc 25 ML
Quant Time: Dec 6 2:31 1995

Vial· 17 085
Operator. SRK
Inst · 5972 - In
Multiplr: 1.00

Method c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09.25 47 1995
Response via . Multiple Level Calibration

	Compound	R.T	QIon	Response	Conc Unit		Qvalue
41)	Bromoform	18.86	173	50988	1.20 ug/L		98
42)	Isopropylbenzene	19.15	105	421833	1.16 ug/L		98
44)	Bromobenzene	19.72	156	116845	1 24 ug/L		98
45)	1,1,2,2-Tetrachloroethane	19.66	83	70506	1.47 ug/L		99
46)	1,2,3-Trichloropropane	19.76	75	67970	1.38 ug/L	#	62
47)	n-Propylbenzene	19.88	91	584059	1.17 ug/L		100
48)	2-Chlorotoluene	20.06	91	337440	1.16 ug/L		96
49)	4-Chlorotoluene	20.24	91	391805	1.21 ug/L		97
50)	1,3,5-Trimethylbenzene	20.19	105	369323	1.17 ug/L		98
51)	tert-Butylbenzene	20.79	119	424051	1 19 ug/L		97
52)	1,2,4-Trimethylbenzene	20.88	105	379103	1.20 ug/L		99
53)	sec-Butylbenzene	21.19	105	578424	1.20 ug/L		99
54)	1,3-Dichlorobenzene	21.41	146	238600	1.28 ug/L		99
55)	4-Isopropyltoluene	21.45	119	461139	1 19 ug/L		99
56)	1,4-Dichlorobenzene	21.57	146	230016	1.26 ug/L		99
58)	1,2-Dichlorobenzene	22.25	146	192291	1.30 ug/L		96
59)	n-Butylbenzene	22.20	91	472645	1.20 ug/L		99
60)	1,2-Dibromo-3-chloropropan	23.66	75	13842	1 37 ug/L	#	84
61)	1,2,4-Trichlorobenzene	25.21	180	150331	1 26 ug/L		99
62)	Hexachlorobutadiene	25 53	225	111169	1.07 ug/L		95
63)	Naphthalene	25 69	128	178792	1.55 ug/L		100
64)	1,2,3-Trichlorobenzene	26.18	180	118995	1.36 ug/L		95
65)	Methyl-tert butyl ether	8.39	73	97934	1 07 ug/L		98
66)	tert-Butyl Alcohol	8.36	59	1896	1 41 ug/L		100

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

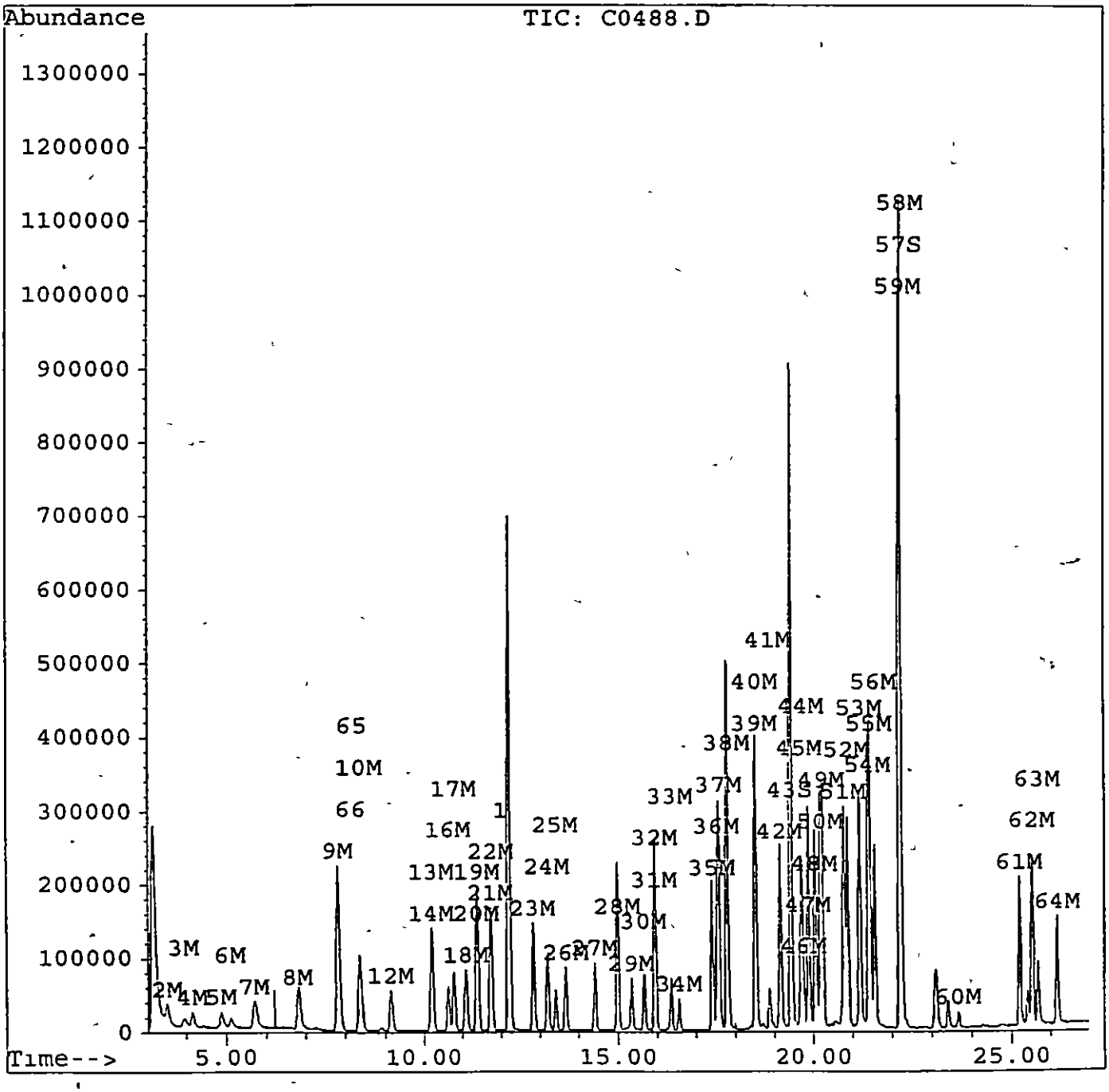
Quantitation Report

086

Data File : d:\hpchem\1\data\c0488.d
Acq On : 6 Dec 95 2:04 am
Sample : 1 STANDARD
Misc : 25 ML
Quant Time: Dec 6 2:31 1995

Vial: 17
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration



5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

087

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Lab File ID C0541 D BFB Injection Date 12/11/95

Instrument ID 5972-INSTRUMENT BFB Injection Time 1034

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	19 5
75	30 0 - 66 0% of mass 95	45 9
95	Base peak, 100% relative abundance	100 0
96	5 0 - 9 0% of mass 95	6 4
173	Less than 2 0% of mass 174	0 3 (0 6)1
174	50 0 - 120 0% of mass 95	61 8
175	4 0 - 9 0% of mass 174	4 3 (6 9)1
176	93 0 - 101 0% of mass 174	59 5 (96 3)1
177	5 0 - 9 0% of mass 176	4 1 (6 9)2

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

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

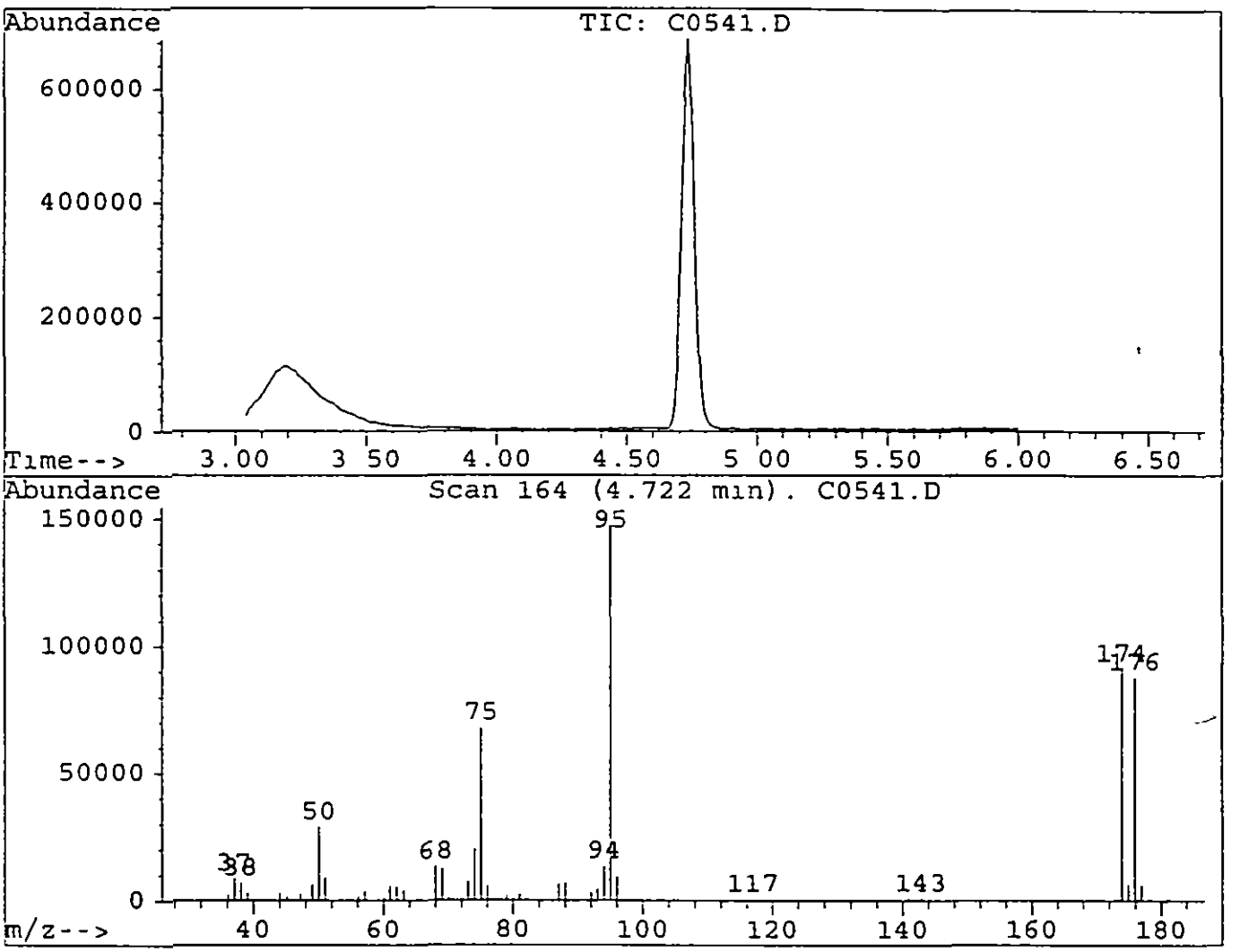
	SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	10 STND	C0542 D	12/11/95	1047
02	VBLK01	M BLANK	C0543 D	12/11/95	1122
03	9556244V	9556244V	C0544 D	12/11/95	1157
04	9554556V	9554556V	C0545 D	12/11/95	1232
05	9554783V	9554783V	C0546 D	12/11/95	1307
06	9554784V	9554784V	C0547 D	12/11/95	1342
07	9554782V	9554782V	C0548 D	12/11/95	1417
08	9554781V	9554781V	C0549 D	12/11/95	1452
09	9554785V	9554785V	C0550 D	12/11/95	1527
10	9554786V	9554786V	C0551 D	12/11/95	1601
11	9556244R	9556244R	C0552 D	12/11/95	1636
12	9557565V	9557565V	C0553 D	12/11/95	1710
13	9557565R	9557565R	C0554 D	12/11/95	1744
14	9557078V	9557078V	C0555 D	12/11/95	1818
15	10 QCS	10 QCS	C0556 D	12/11/95	1853
16	1 STND	1 STND	C0557 D	12/11/95	1927
17					
18					
19					
20					
21					
22					

CLPBFB

Data File : D:\HPCHEM\1\DATA\C0541.D
Acq On : 11 Dec 95 10·34 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: 164

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	28784	PASS
75	95	30	80	45 9	67712	PASS
95	95	100	100	100 0	147392	PASS
96	95	5	9	6 4	9428	PASS
173	174	0	2	0 6	509	PASS
174	95	50	100	61.8	91056	PASS
175	174	5	9	6 9	6274	PASS
176	174	95	101	96.3	87720	PASS
177	176	5	9	6.9	6050	PASS

C0541.D VOA524.M Mon Dec 11 11:19·14 1995 VOA

Scan 164 (4.722 min): C0541.D
BFB TUNE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	2041	50.05	28784	70.05	1257	82.00	669
37.10	8663	51.05	9039	72.05	856	87.00	6564
38 10	6886	55.05	753	73.05	7562	88.05	6907
39.10	3015	56.10	1982	74.05	20200	92.05	3143
40.00	720	57.10	3829	75.05	67712	93.05	4451
43 00	508	60.10	1391	76.05	5544	94.05	13481
44.00	2701	61.00	5860	77.10	973	95.05	147392
45.10	1603	62.00	5621	78.10	1049	96.05	9428
47.15	2509	63.10	3979	79.00	1830	116.95	640
48.05	1021	68.05	13274	80.00	593	140.90	836
49 05	6354	69.05	12568	81.00	2358	142.90	902

Scan 164 (4.722 min): C0541.D
BFB TUNE

m/z	abund	m/z	abund.	m/z	abund.	m/z	abund.
172.85	509						
173.95	91056						
174.95	6274						
175.95	87720						
176.95	6050						

7A

VOLATILE CONTINUING CALIBRATION CHECK

090

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Instrument ID 5972-INSTRUMENT Calibration Date 12/11/95 Time 1047

Lab File ID C0542 D Init Calib Date(s) 11/21/95

Heated Purge (Y/N) N Init Calib Times

GC Column DB-624 X 7 ID 0 53 (mm)

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0 271	0 283		-4 4	30 0
Chloromethane	0 206	0 221		-7 3	30 0
Vinyl chloride	0 229	0 237		-3 5	30 0
Bromomethane	0 159	0 159		0 0	30 0
Chloroethane	0 127	0 152		-19 7	30 0
Trichlorofluoromethane	0 395	0 411		-4 1	30 0
1,1-Dichloroethene	0 237	0 243		-2 5	30 0
Methylene chloride	0 237	0 301		-27 0	30 0
trans-1,2-Dichloroethene	0 270	0 273		-1 1	30 0
1,1-Dichloroethane	0 508	0 511		-0 6	30 0
2,2-Dichloropropane	0 424	0 434		-2 4	30 0
cis-1,2-Dichloroethene	0 266	0 258		3 0	30 0
Bromochloromethane	0 115	0 098		14 8	30 0
Chloroform	0 469	0 444		5 3	30 0
1,1,1-Trichloroethane	0 454	0 455		-0 2	30 0
Carbon tetrachloride	0 429	0 423		1 4	30 0
1,1-Dichloropropene	0 424	0 431		-1 7	30 0
Benzene	0 870	0 874		-0 5	30 0
1,2-Dichloroethane	0 195	0 175		10 3	30 0
Trichloroethene	0 361	0 381		-5 5	30 0
1,2-Dichloropropane	0 302	0 295		2 3	30 0
Dibromomethane	0 132	0 115		12 9	30 0
Bromodichloromethane	0 391	0 350		10 5	30 0
cis-1,3-Dichloropropene	0 352	0 320		9 1	30 0
Toluene	0 614	0 618		-0 7	30 0
trans-1,3-Dichloropropene	0 243	0 215		11 5	30 0
1,1,2-Trichloroethane	0 131	0 112		14 5	30 0
Tetrachloroethene	0 435	0 413		5 1	30 0
1,3-Dichloropropane	0 247	0 220		10 9	30 0
Dibromochloromethane	0 260	0 217		16 5	30 0
1,2-Dibromoethane	0 000	0 000			30 0
Chlorobenzene	0 707	0 676		4 4	30 0
1,1,1,2-Tetrachloroethane	0 294	0 269		8 5	30 0
Ethylbenzene	1 261	1 266		-0 4	30 0
Xylene (para & meta)	0 477	0 485		-1 7	30 0
Xylene (Ortho)	0 438	0 435		0 7	30 0

7A

VOLATILE CONTINUING CALIBRATION CHECK

091

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Instrument ID 5972-INSTRUMENT Calibration Date 12/11/95 Time 1047

Lab File ID C0542 D Init Calib Date(s) 11/21/95

Heated Purge (Y/N) N Init Calib Times

GC Column DB-624 X 7 ID 0 53 (mm)

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Styrene	0 672	0 651		3 1	30 0
Bromoform	0 142	0 115		19 0	30 0
Isopropylbenzene	1 219	1 240		-1 7	30 0
Bromobenzene	0 316	0 285		9 8	30 0
1,1,2,2-Tetrachloroethane	0 160	0 102		36 3	30 0
1,2,3-Trichloropropane	0 164	0 146		11 0	30 0
n-Propylbenzene	1 664	1 714		-3 0	30 0
2-Chlorotoluene	0 973	0 918		5 7	30 0
4-Chlorotoluene	1 084	1 097		-1 2	30 0
1,3,5-Trimethylbenzene	1 057	1 052		0 5	30 0
tert-Butylbenzene	1 187	1 193		-0 5	30 0
1,2,4-Trimethylbenzene	1 056	1 007		4 6	30 0
sec-Butylbenzene	1 612	1 675		-3 9	30 0
1,3-Dichlorobenzene	0 625	0 578		7 5	30 0
4-Isopropyltoluene	1 296	1 340		-3 4	30 0
1,4-Dichlorobenzene	0 612	0 580		5 2	30 0
1,2-Dichlorobenzene	0 494	0 448		9 3	30 0
n-Butylbenzene	1 315	1 386		-5 4	30 0
1,2-Dibromo-3-chloropropane	0 034	0 033		2 9	30 0
1,2,4-Trichlorobenzene	0 400	0 357		10 8	30 0
Hexachlorobutadiene	0 348	0 324		6 9	30 0
Naphthalene	0 387	0 346		10 6	30 0
1,2,3-Trichlorobenzene	0 292	0 265		9 2	30 0
4-Bromofluorobenzene	0 540	0 505		6 5	30 0
1,2-Dichlorobenzene-d4	0 338	0 307		9 2	30 0

Evaluate Continuing Calibration Report

092

Data File D:\HPCHEM\1\DATA\C0542.D
Acq On 11 Dec 95 10:47 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 : Wed Nov 22 09:25:47 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	93	-0 14
2	M	Dichlorodifluoromethane	0 271	0.283	-4.5	99	-0.10
3	M	Chloromethane	0.206	0 221	-7.4	100	-0.16
4	M	Vinyl chloride	0.229	0.237	-3.7	97	-0.12
5	M	Bromomethane	0.159	0.159	-0.3	90	-0.13
6	M	Chloroethane	0.127	0.152	-19.4	102	-0.12
7	M	Trichlorofluoromethane	0 395	0.411	-3.9	98	-0.14
8	M	1,1-Dichloroethene	0 237	0.243	-2.6	97	-0.15
9	M	Methylene chloride	0 237	0 301	-27 1	100	-0.15
0	M	trans-1,2-Dichloroethene	0.270	0 273	-1.1	95	-0.14
1		Hexane	0.000	0 000#	0 0	0#	-0.63#
2	M	1,1-Dichloroethane	0.508	0 511	-0.5	93	-0.14
3	M	2,2-Dichloropropane	0.424	0 434	-2.3	99	-0.14
4	M	cis-1,2-Dichloroethene	0.266	0 258	3 1	87	-0.14
15		2-Butanone	0 000	0.000#	0.0	0#	-11.21#
6	M	Bromochloromethane	0 115	0.098	15.3	73	-0.14
7	M	Chloroform	0 469	0.444	5.4	86	-0.14
18	M	1,1,1-Trichloroethane	0.454	0.455	-0.3	93	-0.14
9	M	Carbon tetrachloride	0.429	0 423	1 6	91	-0.13
0	M	1,1-Dichloropropene	0 424	0 431	-1 7	95	-0.14
1	M	Benzene	0.870	0 874	-0.5	93	-0.14
22	M	1,2-Dichloroethane	0.195	0.175	10.1	78	-0.14
3	M	Trichloroethene	0.361	0.381	-5.5	97	-0.14
4	M	1,2-Dichloropropane	0.302	0.295	2.3	86	-0.14
25	M	Dibromomethane	0.132	0.115	13.4	74	-0.14
6	M	Bromodichloromethane	0.391	0.350	10.4	79	-0.14
7	M	cis-1,3-Dichloropropene	0.352	0 320	9.2	80	-0.14
28	M	Toluene	0.614	0 618	-0.8	90	-0.14
9	M	trans-1,3-Dichloropropene	0.243	0.215	11.5	76	-0 14
0	M	1,1,2-Trichloroethane	0.131	0.112	14.0	73	-0.13
1	M	Tetrachloroethene	0.435	0.413	5 0	88	-0 14
32	M	1,3-Dichloropropane	0.247	0 220	10.9	75	-0.14
3	M	Dibromochloromethane	0.260	0.217	16.5	71	-0.14
4	M	1,2-Dibromoethane	0.190	0 160	16.1	70	-0.14
35	M	Chlorobenzene	0.707	0.676	4.4	86	-0.14
6	M	1,1,1,2-Tetrachloroethane	0.294	0.269	8.3	79	-0.15
7	M	Ethylbenzene	1.261	1.266	-0.4	92	-0.14
38	M	Xylene (para & meta)	0.477	0.485	-1 7	93	-0.14
9	M	Xylene (Ortho)	0 438	0.435	0.6	89	-0.14
0	M	Styrene	0.672	0 651	3 2	85	-0 14
1	M	Bromoform	0.142	0.115	19 0	67	-0.14
42	M	Isopropylbenzene	1.219	1.240	-1.8	93	-0.14

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\HPCHEM\1\DATA\C0542.D
Acq On : 11 Dec 95 10:47 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 Wed Nov 22 09.25·47 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	0.540	0.505	6.4	84	-0.13
44	M	Bromobenzene	0.316	0.285	9.7	78	-0.14
5	M	1,1,2,2-Tetrachloroethane	0.160	0.102	36.2#	52	-0.14
6	M	1,2,3-Trichloropropane	0.164	0.146	11.4	75	-0.14
47	M	n-Propylbenzene	1.664	1.714	-3.0	94	-0.14
8	M	2-Chlorotoluene	0.973	0.918	5.6	88	-0.14
9	M	4-Chlorotoluene	1.084	1.097	-1.3	91	-0.14
50	M	1,3,5-Trimethylbenzene	1.057	1.052	0.5	90	-0.13
51	M	tert-Butylbenzene	1.187	1.193	-0.5	90	-0.14
2	M	1,2,4-Trimethylbenzene	1.056	1.007	4.7	86	-0.14
3	M	sec-Butylbenzene	1.612	1.675	-3.9	94	-0.14
54	M	1,3-Dichlorobenzene	0.625	0.578	7 5	81	-0.14
5	M	4-Isopropyltoluene	1.296	1.340	-3.4	92	-0.14
6	M	1,4-Dichlorobenzene	0.612	0.580	5 3	82	-0.31#
57	S	1,2-Dichlorobenzene-d4	0.338	0.307	9.2	78	-0.14
58	M	1,2-Dichlorobenzene	0.494	0.448	9.3	77	-0.14
9	M	n-Butylbenzene	1.315	1.386	-5.4	94	-0.14
60	M	1,2-Dibromo-3-chloropropane	0.034	0.033	2.4	82	-0 14
61	M	1,2,4-Trichlorobenzene	0.400	0.357	10.8	75	-0.14
2	M	Hexachlorobutadiene	0.348	0.324	6.7	83	-0.15
3	M	Naphthalene	0.387	0.346	10 5	73	-0.15
64	M	1,2,3-Trichlorobenzene	0.292	0.265	9.2	73	-0.17
5		Methyl-tert butyl ether	0.306	0.270	11.9	74	-0.14
6		tert-Butyl Alcohol	0.005	0.004	10.1	74	-0.16

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : d.\hpchem\1\data\c0542.d
Acq On : 11 Dec 95 10:47 am
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Dec 13 18 27 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 : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	12.07	96	1500645	5 00	ug/L		-0.14
System Monitoring Compounds							%Recovery
43) 4-Bromofluorobenzene	19.31	95	757846	4.68	ug/L		93.55%
57) 1,2-Dichlorobenzene-d4	22.11	152	461323	4.54	ug/L		90.82%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.44	85	848531	10.45	ug/L		100
3) Chloromethane	3.83	50	662914	10 74	ug/L		99
4) Vinyl chloride	4 05	62	712165	10 37	ug/L		98
5) Bromomethane	4.75	94	478323	10.03	ug/L		98
6) Chloroethane	4 99	64	455387	11.94	ug/L		98
7) Trichlorofluoromethane	5.57	101	1232697	10.39	ug/L		98
8) 1,1-Dichloroethene	6.67	96	728689	10.26	ug/L		94
9) Methylene chloride	7.67	84	902833	12.71	ug/L		94
10) trans-1,2-Dichloroethene	8.22	96	820182	10.11	ug/L		98
12) 1,1-Dichloroethane	9.01	63	1532269	10.05	ug/L		100
13) 2,2-Dichloropropane	10.07	77	1302742	10 23	ug/L		98
14) cis-1,2-Dichloroethene	10.08	96	773192	9.69	ug/L		98
16) Bromochloromethane	10.50	128	292961	8 47	ug/L	#	90
17) Chloroform	10.64	83	1332024	9.46	ug/L		99
18) 1,1,1-Trichloroethane	10.95	97	1366907	10 03	ug/L		99
19) Carbon tetrachloride	11.25	117	1268298	9.84	ug/L		100
20) 1,1-Dichloropropene	11.24	75	1293409	10.17	ug/L		99
21) Benzene	11.59	78	2624430	10.05	ug/L		100
22) 1,2-Dichloroethane	11.62	62	525558	8 99	ug/L		100
23) Trichloroethene	12.69	95	1142353	10 55	ug/L		97
24) 1,2-Dichloropropane	13.07	63	885017	9.77	ug/L		100
25) Dibromomethane	13 27	93	344084	8 66	ug/L		95
26) Bromodichloromethane	13.53	83	1051714	8 96	ug/L		98
27) cis-1,3-Dichloropropene	14.28	75	960107	9 08	ug/L		99
28) Toluene	14.86	92	1856142	10 08	ug/L		99
29) trans-1,3-Dichloropropene	15.22	75	645837	8 85	ug/L		99
30) 1,1,2-Trichloroethane	15.54	83	337019	8.60	ug/L		96
31) Tetrachloroethene	15.81	166	1240910	9.50	ug/L		96
32) 1,3-Dichloropropane	15.83	76	660977	8 91	ug/L		100
33) Dibromochloromethane	16 23	129	651116	8.35	ug/L		100
34) 1,2-Dibromoethane	16.44	107	479009	8.39	ug/L		98
35) Chlorobenzene	17.28	112	2029343	9 56	ug/L		99
36) 1,1,1,2-Tetrachloroethane	17 42	131	808315	9 17	ug/L		98
37) Ethylbenzene	17.47	91	3799756	10.04	ug/L		99
38) Xylene (para & meta)	17.67	106	2912789	20.35	ug/L		95
39) Xylene (Ortho)	18.38	106	1306799	9.94	ug/L		97
40) Styrene	18.40	104	1952469	9.68	ug/L		99

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

Quantitation Report

Data File : d:\hpchem\1\data\c0542.d
Acq On : 11 Dec 95 10.47 am
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Dec 13 18.27 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 : Wed Nov 22 09 25·47 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
41)	Bromoform	18.75	173	346518	8.10 ug/L		100
42)	Isopropylbenzene	19.03	105	3722756	10.18 ug/L		96
44)	Bromobenzene	19.59	156	855852	9.03 ug/L		96
45)	1,1,2,2-Tetrachloroethane	19.55	83	306303	6.38 ug/L	m	99
46)	1,2,3-Trichloropropane	19.63	75	436924	8.86 ug/L		97
47)	n-Propylbenzene	19.77	91	5143593	10.30 ug/L		100
48)	2-Chlorotoluene	19.93	91	2755777	9.44 ug/L		100
49)	4-Chlorotoluene	20.13	91	3293376	10.13 ug/L	m	99
50)	1,3,5-Trimethylbenzene	20.09	105	3156710	9.95 ug/L		99
51)	tert-Butylbenzene	20.68	119	3581196	10.05 ug/L		99
52)	1,2,4-Trimethylbenzene	20.77	105	3021987	9.53 ug/L		99
53)	sec-Butylbenzene	21 08	105	5028157	10.39 ug/L		99
54)	1,3-Dichlorobenzene	21 29	146	1733878	9.25 ug/L		98
55)	4-Isopropyltoluene	21 34	119	4021968	10.34 ug/L		100
56)	1,4-Dichlorobenzene	21 29	146	1740089	9.47 ug/L		98
58)	1,2-Dichlorobenzene	22 14	146	1345600	9 07 ug/L	m	0
59)	n-Butylbenzene	22.09	91	4159887	10.54 ug/L		99
60)	1,2-Dibromo-3-chloropropan	23.56	75	98978	9.76 ug/L	m	98
61)	1,2,4-Trichlorobenzene	25 11	180	1071800	8 92 ug/L		99
62)	Hexachlorobutadiene	25 43	225	973435	9 33 ug/L		98
63)	Naphthalene	25.57	128	1038934	8 95 ug/L	m	0
64)	1,2,3-Trichlorobenzene	26 06	180	795156	9 08 ug/L	m	0
65)	Methyl-tert butyl ether	8 26	73	809287	8.81 ug/L		99
66)	tert-Butyl Alcohol	8.02	59	24307	17.97 ug/L		100

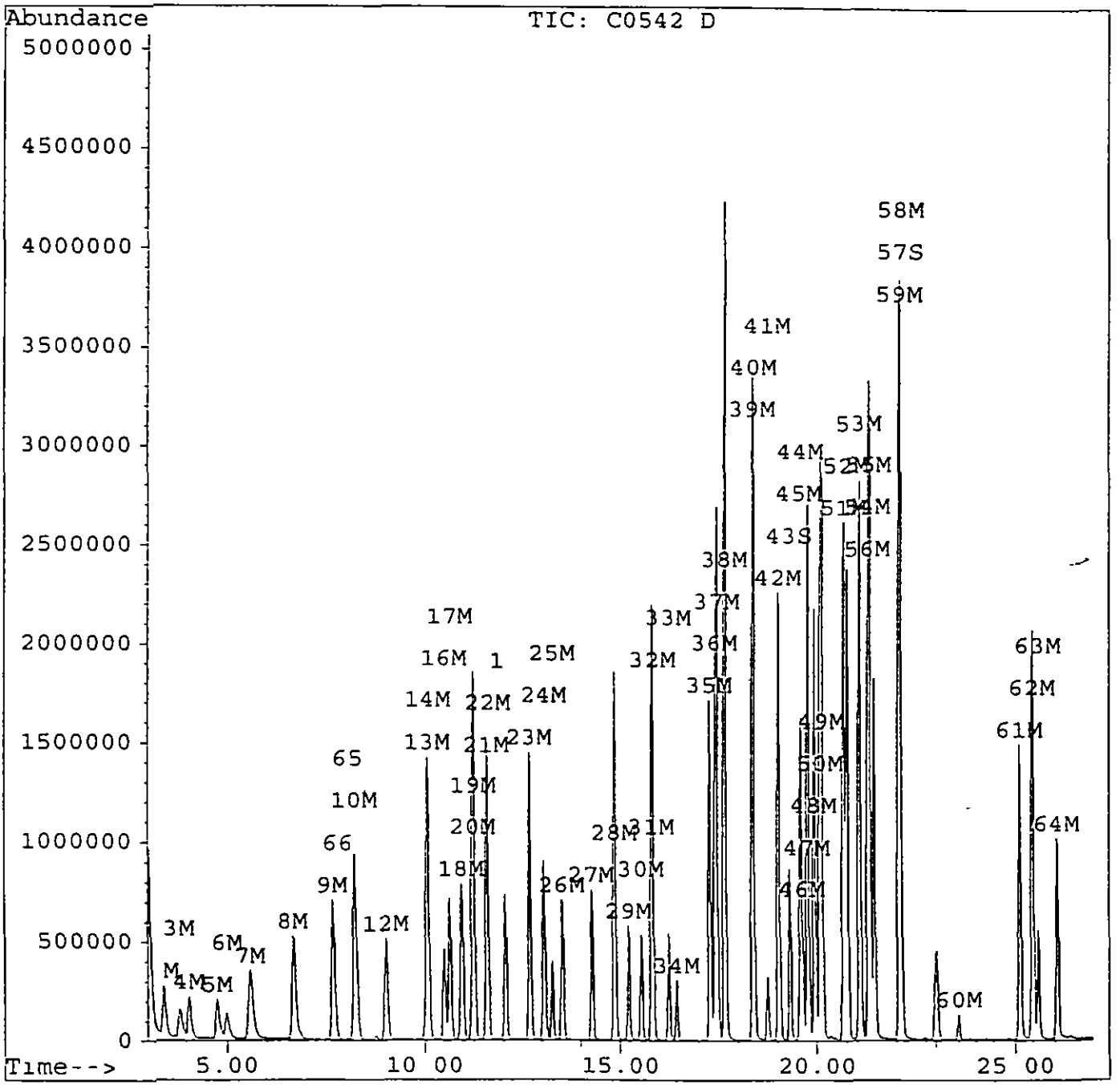
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c0542.d
Acq On : 11 Dec 95 10:47 am
Sample : 10 PPB CHK STANDARD
Misc :
Quant Time: Dec 13 18.27 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 : Wed Nov 22 09 25:47 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c0556.d
Acq On : 11 Dec 95 6:53 pm
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Dec 13 18:46 1995

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

097

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.09	96	1443797	5.00	ug/L	-0.12
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.33	95	701567	4.50	ug/L	90.02%
57) 1,2-Dichlorobenzene-d4	22.13	152	429220	4.39	ug/L	87.83%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.44	85	771440	9.87	ug/L	99
3) Chloromethane	3.86	50	543138	9.15	ug/L	96
4) Vinyl chloride	4.07	62	693210	10.50	ug/L	99
5) Bromomethane	4.76	94	476849	10.39	ug/L	96
6) Chloroethane	5.00	64	405836	11.06	ug/L	98
7) Trichlorofluoromethane	5.59	101	1266001	11.10	ug/L	98
8) 1,1-Dichloroethene	6.70	96	764263	11.18	ug/L	95
9) Methylene chloride	7.70	84	881840	12.90	ug/L	96
10) trans-1,2-Dichloroethene	8.25	96	822098	10.53	ug/L	97
12) 1,1-Dichloroethane	9.04	63	1540651	10.50	ug/L	100
13) 2,2-Dichloropropane	10.09	77	1223637	9.99	ug/L	99
14) cis-1,2-Dichloroethene	10.10	96	763593	9.95	ug/L	99
16) Bromochloromethane	10.53	128	290508	8.73	ug/L	94
17) Chloroform	10.67	83	1318906	9.74	ug/L	99
18) 1,1,1-Trichloroethane	10.98	97	1360705	10.37	ug/L	100
19) Carbon tetrachloride	11.28	117	1284894	10.36	ug/L	98
20) 1,1-Dichloropropene	11.27	75	1350597	11.04	ug/L	100
21) Benzene	11.62	78	2461352	9.80	ug/L	99
22) 1,2-Dichloroethane	11.65	62	519639	9.23	ug/L	99
23) Trichloroethene	12.72	95	1124070	10.79	ug/L	99
24) 1,2-Dichloropropane	13.09	63	861046	9.88	ug/L	99
25) Dibromomethane	13.30	93	330601	8.65	ug/L	95
26) Bromodichloromethane	13.56	83	1054422	9.34	ug/L	100
27) cis-1,3-Dichloropropene	14.31	75	1006917	9.90	ug/L	98
28) Toluene	14.89	92	1723936	9.73	ug/L	99
29) trans-1,3-Dichloropropene	15.24	75	639925	9.11	ug/L	99
30) 1,1,2-Trichloroethane	15.56	83	330800	8.77	ug/L	98
31) Tetrachloroethene	15.84	166	1214516	9.66	ug/L	97
32) 1,3-Dichloropropane	15.85	76	642029	8.99	ug/L	99
33) Dibromochloromethane	16.26	129	622839	8.30	ug/L	99
34) 1,2-Dibromoethane	16.45	107	462246	8.41	ug/L	97
35) Chlorobenzene	17.31	112	1908639	9.35	ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.44	131	779961	9.19	ug/L	100
37) Ethylbenzene	17.49	91	3527082	9.69	ug/L	100
38) Xylene (para & meta)	17.69	106	2744145	19.92	ug/L	97
39) Xylene (Ortho)	18.39	106	1239813	9.81	ug/L	97
40) Styrene	18.41	104	1826666	9.41	ug/L	99

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

Quantitation Report

Data File . d:\hpchem\1\data\c0556.d
Acq On 11 Dec 95 6:53 pm
Sample . 10 PPB QCS
Misc 25 ML
Quant Time Dec 13 18·46 1995

Vial: 16 098
Operator: SRK
Inst : 5972 - In
Multiplr. 1.00

Method c.\HPCHEM\1\METHODS\VOA524.M
Title 524 2 Purgable Organics
Last Update Wed Nov 22 09·25.47 1995
Response via Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
41) Bromoform	18.76	173	330898	8 04 ug/L m	99
42) Isopropylbenzene	19.05	105	3777734	10 74 ug/L m	0
44) Bromobenzene	19.61	156	782530	8.58 ug/L	96
45) 1,1,2,2-Tetrachloroethane	19 58	83	280776	6.08 ug/L m	99
46) 1,2,3-Trichloropropane	19.65	75	408492	8.61 ug/L #	81
47) n-Propylbenzene	19.78	91	4874012	10.15 ug/L	100
48) 2-Chlorotoluene	19.96	91	2638456	9.40 ug/L	99
49) 4-Chlorotoluene	20.15	91	3083182	9.85 ug/L m	98
50) 1,3,5-Trimethylbenzene	20.10	105	2865962	9.39 ug/L	98
51) tert-Butylbenzene	20.70	119	3398155	9.91 ug/L	98
52) 1,2,4-Trimethylbenzene	20.78	105	2731037	8.95 ug/L	99
53) sec-Butylbenzene	21 09	105	4789365	10.29 ug/L	99
54) 1,3-Dichlorobenzene	21 32	146	1622710	8.99 ug/L	99
55) 4-Isopropyltoluene	21.35	119	3748601	10.02 ug/L	99
56) 1,4-Dichlorobenzene	21.32	146	1627048	9.20 ug/L	99
58) 1,2-Dichlorobenzene	22 16	146	1227028	8.60 ug/L	97
59) n-Butylbenzene	22 10	91	3801263	10.01 ug/L	99
60) 1,2-Dibromo-3-chloropropan	23.58	75	102342	10.49 ug/L m	97
61) 1,2,4-Trichlorobenzene	25.13	180	959046	8.30 ug/L	98
62) Hexachlorobutadiene	25.45	225	967987	9.64 ug/L	99
63) Naphthalene	25.59	128	914895	8 19 ug/L	100

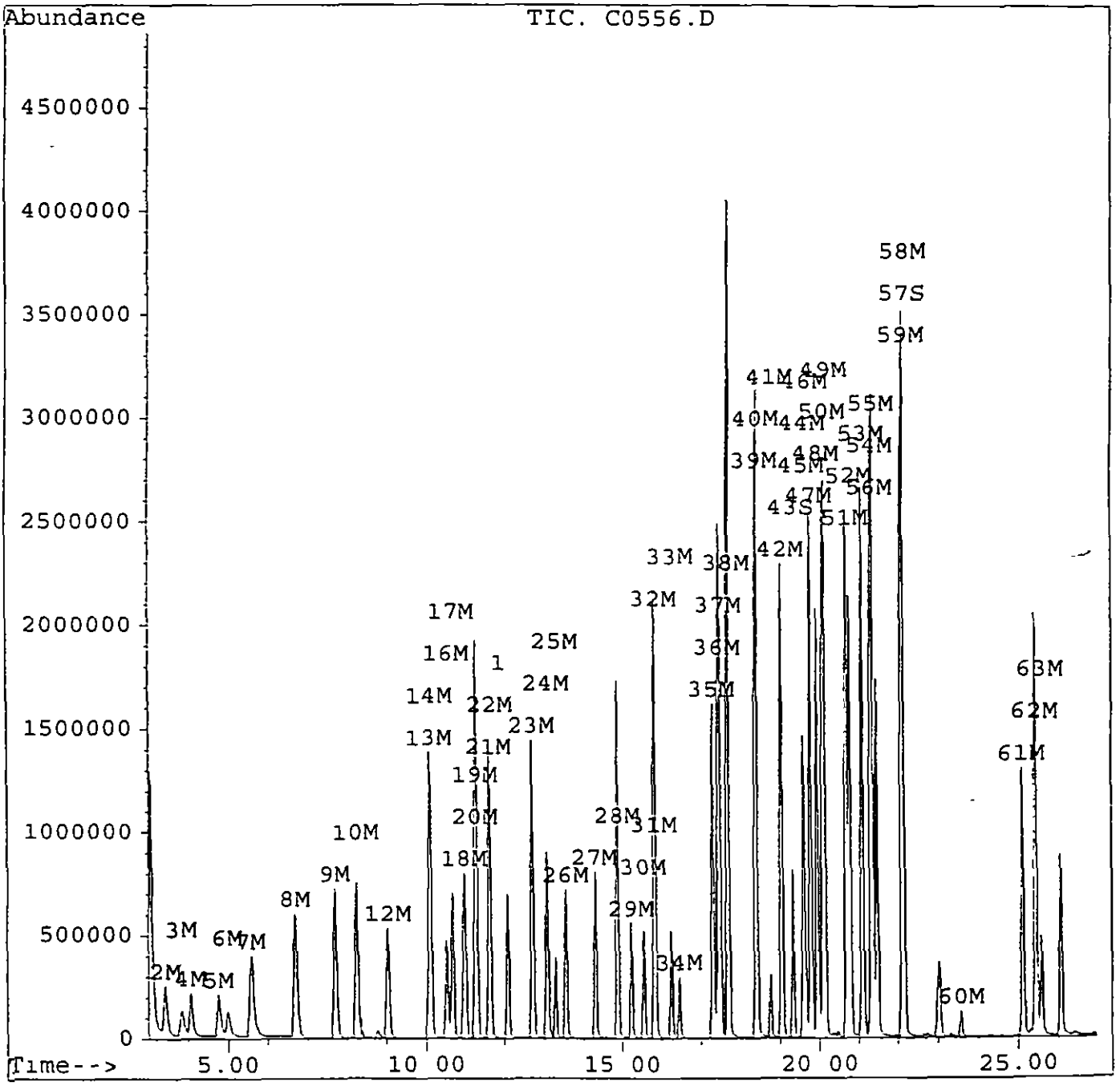
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c0556.d
Acq On : 11 Dec 95 6·53 pm
Sample : 10 PPB QCS
Misc : 25 ML
Quant Time: Dec 13 18.46 1995

Vial: 16 099
Operator: SRK
Inst · 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524 2 Purgable Organics
Last Update : Wed Nov 22 09 25:47 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c0557.d
Acq On : 11 Dec 95 7.27 pm
Sample : 1 PPB STANDARD
Misc : 25 ML
Quant Time. Dec 13 18 47 1995

Vial: 17 100
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c.\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09 25:47 1995
Response via . Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12.10	96	1401659	5 00 ug/L	-0.11
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19 33	95	706719	4 67 ug/L	93.40%
57) 1,2-Dichlorobenzene-d4	22 13	152	426352	4 49 ug/L	89.87%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.44	85	66683	0.88 ug/L	91
3) Chloromethane	3.86	50	61839	1.07 ug/L	94
4) Vinyl chloride	4 07	62	68301	1 07 ug/L	99
5) Bromomethane	4.78	94	52054	1 17 ug/L	93
6) Chloroethane	5.01	64	45582	1 28 ug/L	96
7) Trichlorofluoromethane	5.60	101	120716	1.09 ug/L	98
8) 1,1-Dichloroethene	6.69	96	72878	1.10 ug/L	99
9) Methylene chloride	7 70	84	404904	6.10 ug/L	97
10) trans-1,2-Dichloroethene	8.24	96	82056	1 08 ug/L	93
12) 1,1-Dichloroethane	9.03	63	157856	1 11 ug/L	93
13) 2,2-Dichloropropane	10.09	77	126062	1 06 ug/L	97
14) cis-1,2-Dichloroethene	10.11	96	81032	1 09 ug/L	89
16) Bromochloromethane	10 53	128	30652	0 95 ug/L #	86
17) Chloroform	10 67	83	142537	1.08 ug/L	100
18) 1,1,1-Trichloroethane	10.98	97	140153	1.10 ug/L	97
19) Carbon tetrachloride	11.27	117	126719	1 05 ug/L	99
20) 1,1-Dichloropropene	11.27	75	128512	1 08 ug/L	96
21) Benzene	11 62	78	274194	1.12 ug/L	99
22) 1,2-Dichloroethane	11.64	62	53831	0 99 ug/L	98
23) Trichloroethene	12.72	95	119393	1 18 ug/L	95
24) 1,2-Dichloropropane	13 10	63	91801	1 08 ug/L	99
25) Dibromomethane	13 30	93	36853	0 99 ug/L	87
26) Bromodichloromethane	13 56	83	110196	1 01 ug/L	100
27) cis-1,3-Dichloropropene	14.31	75	99413	1 01 ug/L	99
28) Toluene	14 89	92	211984	1.23 ug/L	98
29) trans-1,3-Dichloropropene	15.25	75	67294	0.99 ug/L	100
30) 1,1,2-Trichloroethane	15.56	83	38062	1 04 ug/L	93
31) Tetrachloroethene	15.84	166	127295	1.04 ug/L	97
32) 1,3-Dichloropropane	15.85	76	72660	1.05 ug/L	100
33) Dibromochloromethane	16.26	129	67869	0.93 ug/L	99
34) 1,2-Dibromoethane	16 46	107	50881	0.95 ug/L	95
35) Chlorobenzene	17 31	112	218997	1 10 ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.45	131	85954	1 04 ug/L	97
37) Ethylbenzene	17 49	91	408972	1.16 ug/L	99
38) Xylene (para & meta)	17.69	106	320064	2.39 ug/L	98
39) Xylene (Ortho)	18.41	106	144215	1.17 ug/L	92
40) Styrene	18 42	104	206260	1.09 ug/L	99

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

Quantitation Report

Data File . d:\hpchem\1\data\c0557.d
Acq On · 11 Dec 95 7 27 pm
Sample 1 PPB STANDARD
Misc · 25 ML
Quant Time. Dec 13 18 47 1995

Vial: 17
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method c \HPCHEM\1\METHODS\VOA524.M
Title : 524 2 Purgable Organics
Last Update · Wed Nov 22 09.25:47 1995
Response via . Multiple Level Calibration

	Compound	R.T	QIon	Response	Conc Unit	Qvalue
41)	Bromoform	18.77	173	34768	0.87 ug/L	92
42)	Isopropylbenzene	19.05	105	398965	1 17 ug/L	96
44)	Bromobenzene	19.62	156	93824	1 06 ug/L	96
45)	1,1,2,2-Tetrachloroethane	19.58	83	30728	0.69 ug/L m	93
46)	1,2,3-Trichloropropane	19.65	75	48819	1.06 ug/L	88
47)	n-Propylbenzene	19 79	91	547133	1.17 ug/L	99
48)	2-Chlorotoluene	19.96	91	305058	1.12 ug/L	98
49)	4-Chlorotoluene	20.15	91	369093	1.22 ug/L m	97
50)	1,3,5-Trimethylbenzene	20.11	105	343641	1.16 ug/L	97
51)	tert-Butylbenzene	20.69	119	399565	1.20 ug/L	99
52)	1,2,4-Trimethylbenzene	20.79	105	351087	1.19 ug/L	98
53)	sec-Butylbenzene	21.10	105	535678	1.19 ug/L	99
54)	1,3-Dichlorobenzene	21.31	146	196275	1.12 ug/L	98
55)	4-Isopropyltoluene	21.35	119	421045	1.16 ug/L	99
56)	1,4-Dichlorobenzene	21.48	146	188138	1.10 ug/L	98
58)	1,2-Dichlorobenzene	22.16	146	147526	1 06 ug/L	93
59)	n-Butylbenzene	22.11	91	444223	1 20 ug/L	96
60)	1,2-Dibromo-3-chloropropan	23.58	75	9294	0 98 ug/L	90
61)	1,2,4-Trichlorobenzene	25.13	180	117973	1 05 ug/L	98
62)	Hexachlorobutadiene	25.45	225	98554	1 01 ug/L	98
63)	Naphtnalene	25.59	128	125062	1 15 ug/L	100
64)	1,2,3-Trichlorobenzene	26.08	180	87320	1 07 ug/L	92
65)	Methyl-tert butyl ether	8.28	73	91024	1.06 ug/L	96
66)	tert-Butyl Alcohol	8.23	59	1467	1.16 ug/L	100

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

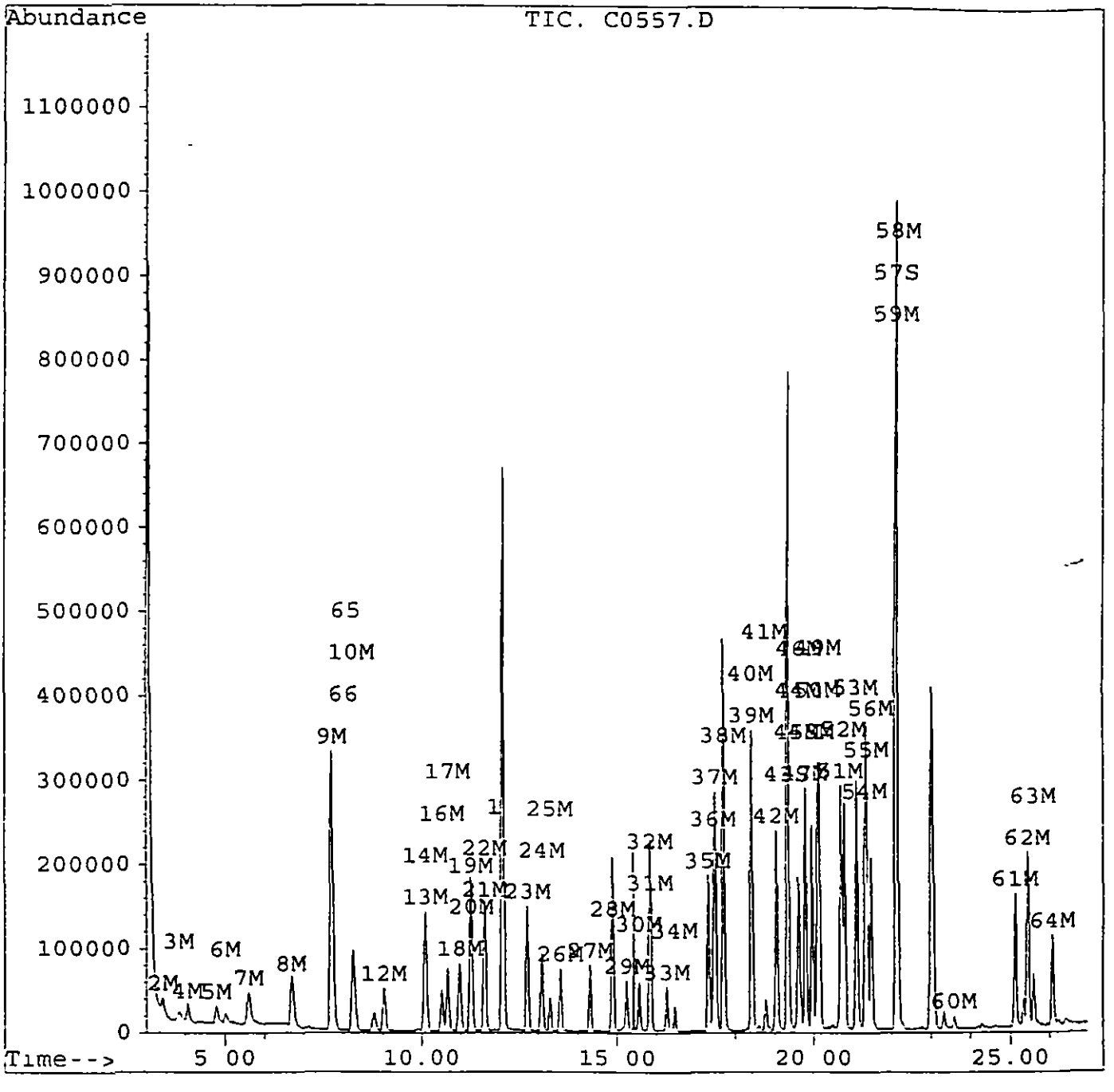
Quantitation Report

102

Data File : d:\hpchem\1\data\c0557.d
Acq On : 11 Dec 95 7.27 pm
Sample : 1 PPB STANDARD
Misc : 25 ML
Quant Time: Dec 13 18 47 1995

Vial: 17
Operator: SRK
Inst : 5972 - In
Multiplr: 1 00

Method c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09 25:47 1995
Response via : Multiple Level Calibration



8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID (Standard): C0426.D Date Analyzed: 12/2/95

Instrument ID: 5972-INSTRUMENT 1 Time Analyzed: 1510

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	1705729	12.16				
	UPPER LIMIT	3411458	12.66				
	LOWER LIMIT	852865	11.66				
	SAMPLE NO.						
01	10 QCS	1696795	12.17				
02	1 STND	1696953	12.18				
03	VBLK01	1681347	12.18				
04	9554060V	1653394	12.18				
05	9554061V	1699146	12.18				
06	9554062V	1709216	12.18				
07	9554101V	1741817	12.18				
08	9554102V	1664338	12.18				
09	9554063V	1656749	12.18				
10	9554060MS	1703293	12.18				
11	9554060MSD	1698292	12.18				
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.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

104

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Lab File ID (Standard) C0473 D Date Analyzed 12/5/95

Instrument ID 5972-INSTRUMENT 1 Time Analyzed 1724

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	1824708	12 19				
	UPPER LIMIT	2372120	12 69				
	LOWER LIMIT	1277296	11 69				
	SAMPLE NO						
01	VBLK01	1696123	12 03				
02	9554553V	1687824	12 20				
03	9554554V	1699615	12 21				
04	9554109V	1657783	12 20				
05	9554110V	1623919	12 21				
06	9554551V	1650134	12 20				
07	9554552V	1594528	12 21				
08	9554555V	1562330	12 21				
09	9554557V	1493739	12 20				
10	9554558V	1563969	12 21				
11	9554552MS	1549748	12 21				
12	9554552MSD	1512739	12 21				
13	10 QCS	1516340	12 21				
14	1 STND	1495748	12 21				
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

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Lab File ID (Standard) C0542 D Date Analyzed 12/11/95

Instrument ID 5972-INSTRUMENT Time Analyzed 1047

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	1500645	12 07				
	UPPER LIMIT	1950838	12 57				
	LOWER LIMIT	1050451	11 57				
	SAMPLE NO						
01	VBLK01	1511323	12 07				
02	9556244V	1484179	12 07				
03	9554556V	1444161	12 07				
04	9554783V	1453845	12 09				
05	9554784V	1440704	12 08				
06	9554782V	1335577	12 08				
07	9554781V	1422858	12 08				
08	9554785V	1403219	12 10				
09	9554786V	1385810	12 10				
10	9556244R	1421535	12 10				
11	9557565V	1452647	12 09				
12	9557565R	1339506	12 09				
13	9557078V	1252908	12 08				
14	10 QCS	1443797	12 09				
15	1 STND	1401659	12 10				
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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

Trip Blank

100

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ Bldg# 482 NJDEP MW# TB

Matrix (soil/water) WATER Lab Sample ID 9554553V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0475 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/5/95

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
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	70	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# Trip Blank 107

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ Bldg# 482 NJDEP MW# TB

Matrix (soil/water) WATER Lab Sample ID 9554553V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0475 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/5/95

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

FMETL# Trip Blank 108

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ Bldg 482 NJDEP MW# TB Group

Matrix (soil/water) WATER Lab Sample ID 9554553V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0475 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/5/95

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	109-99-9	Furan, tetrahydro-	10 74	3	J
2		Column Bleed	23 11	1	J
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
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28					
29					
30					

Quantitation Report

Data File : d:\hpchem\1\data\c0475.d
Acq On : 5 Dec 95 6:33 pm
Sample : 9554553 BLDG 482 TB
Misc : 25 ML
Quant Time: Dec 6 10:35 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 : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	12.20	96	1687824	5.00	ug/L	-0.01
System Monitoring Compounds						%Recovery
43) 4-Bromofluorobenzene	19.43	95	900563	4.94	ug/L	98.84%
57) 1,2-Dichlorobenzene-d4	22.22	152	575548	5.04	ug/L	100.74%
Target Compounds						Qvalue
9) Methylene chloride	7.81	84	54437	0.68	ug/L	92

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

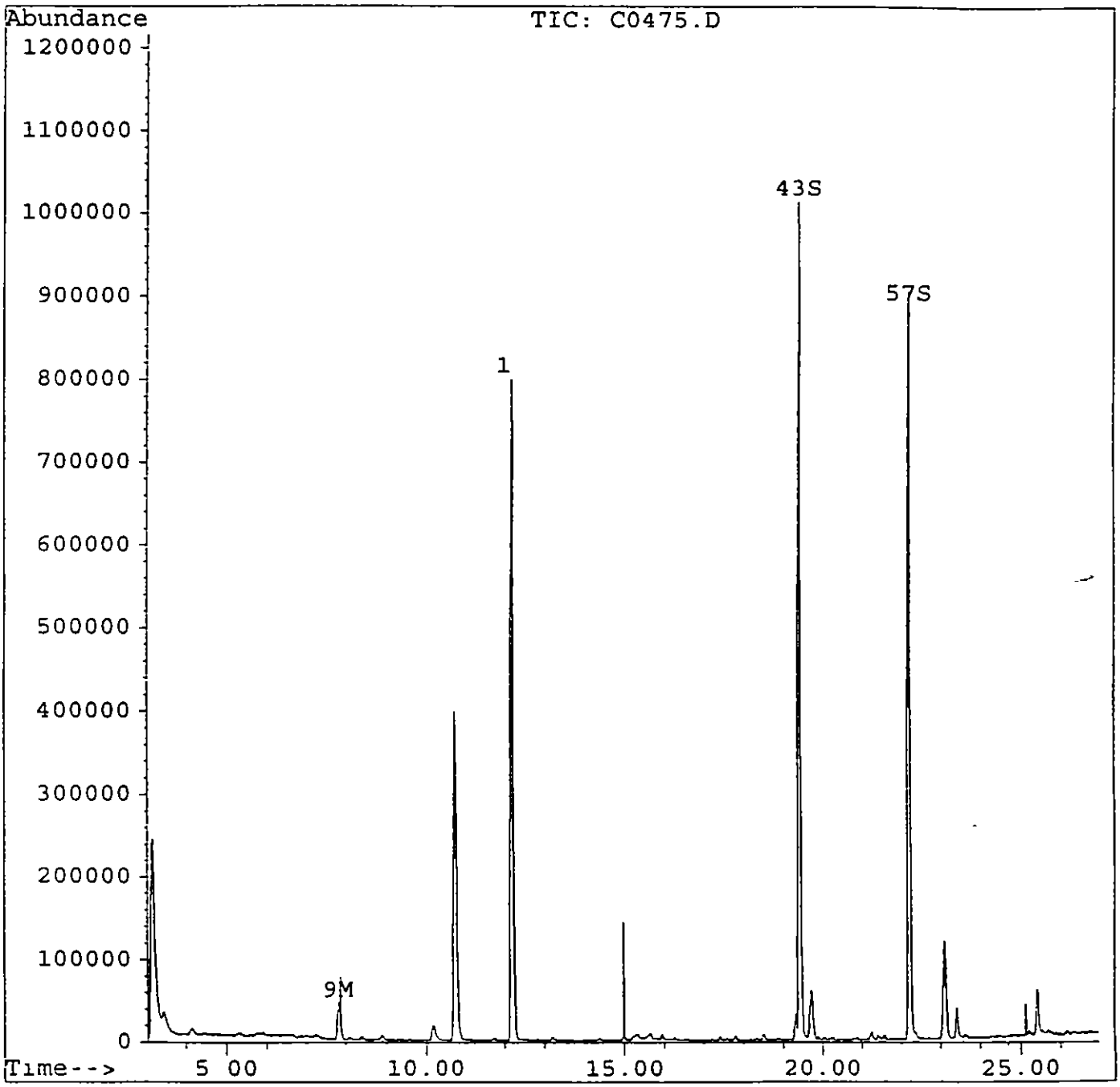
Quantitation Report

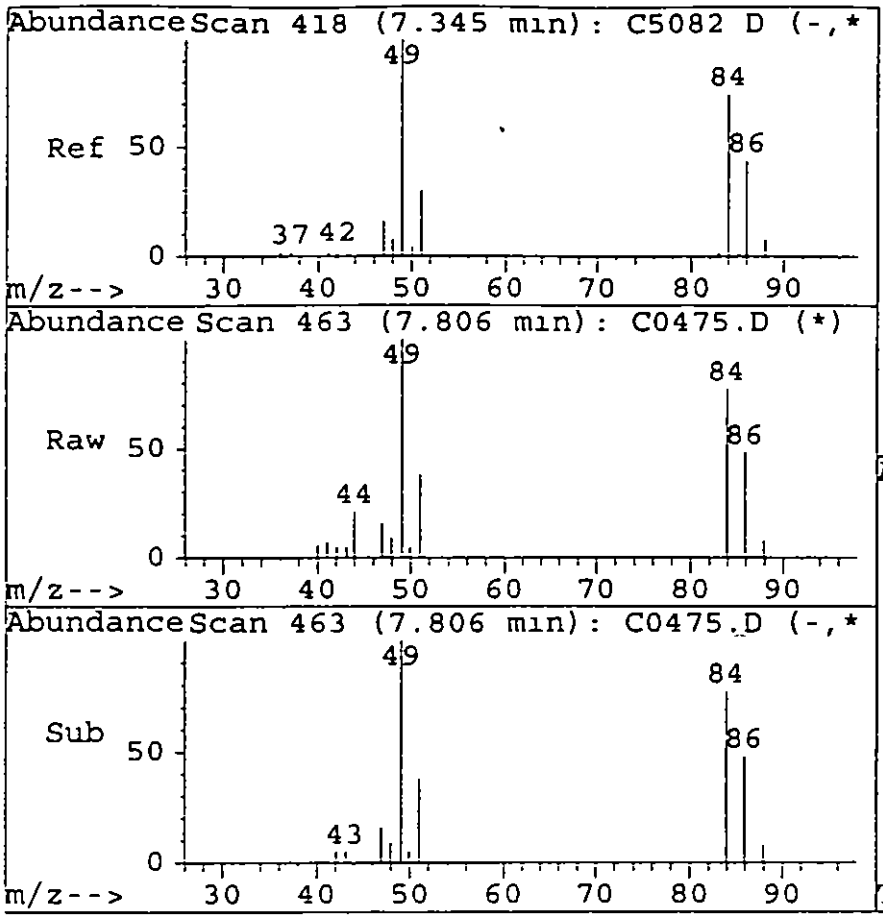
Data File : d:\hpchem\1\data\c0475.d
Acq On : 5 Dec 95 6:33 pm
Sample : 9554553 BLDG 482 TB
Misc : 25 ML
Quant Time: Dec 6 10 35 1995

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

110

Method : c·\HPCHEM\1\METHODS\VOA524 M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

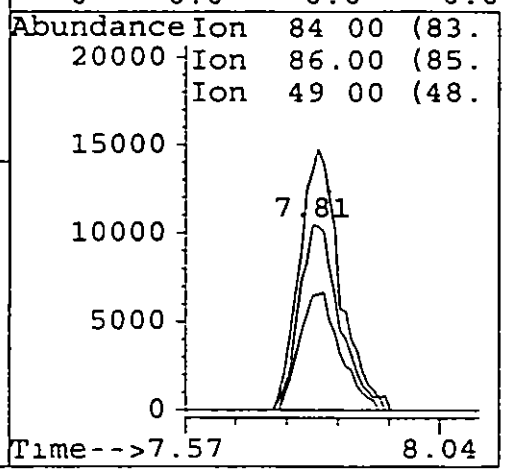




#9
Methylene chloride
Concen: 0 68 ug/L
RT. 7.81 min Scan# 463
Delta R T -0.02 min
Lab File· c0475.d
Acq· 5 Dec 95 6:33 pm

Tgt Ion:84 Resp: 54437

Ion	Ratio	Lower	Upper
84	100		
86	62.1	45.2	85.2
49	129.6	121.1	161.1
0	0.0	0.0	0.0



111

Library Search Compound Report

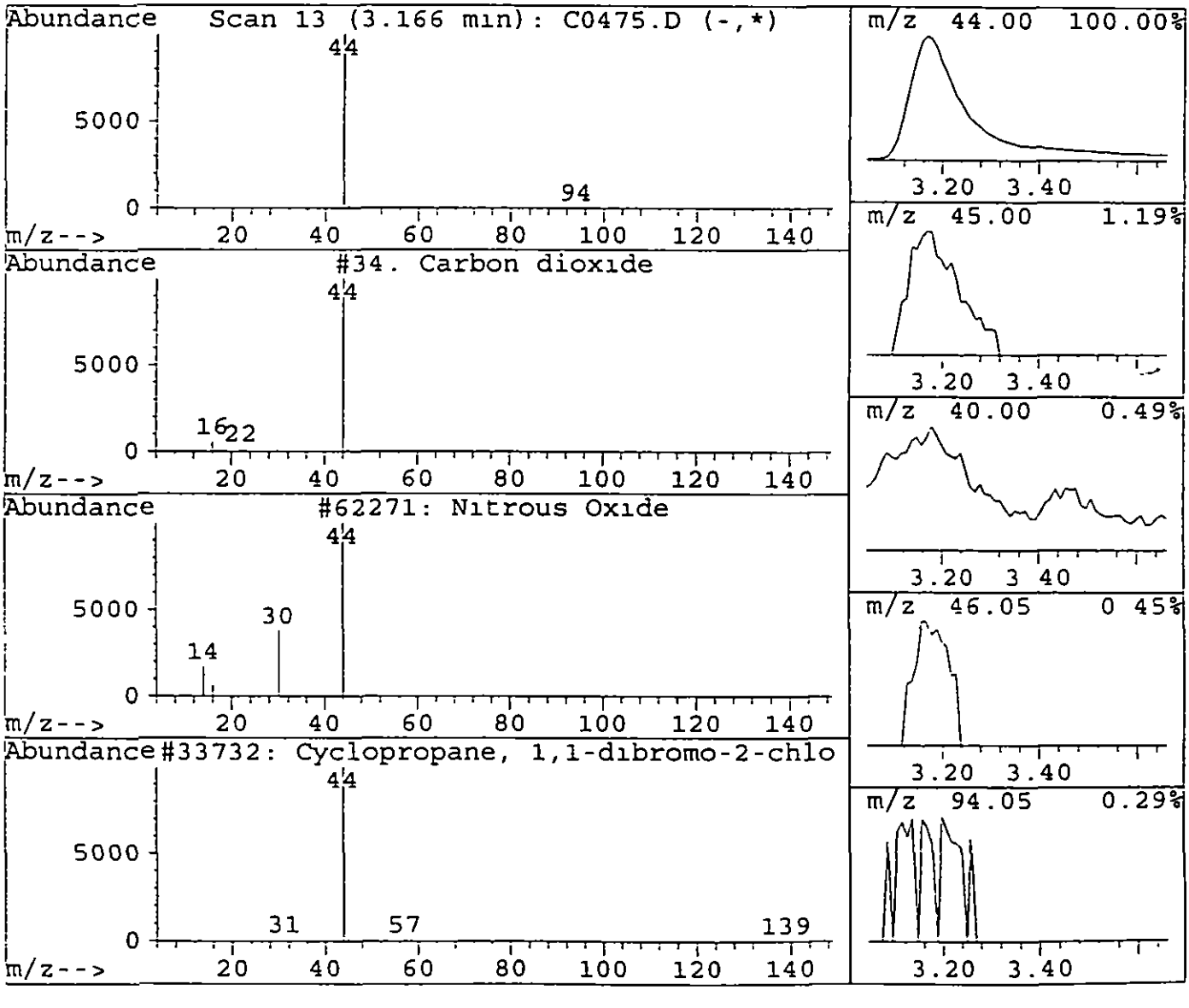
Data File : d:\hpchem\1\data\c0475.d
Acq On : 5 Dec 95 6:33 pm
Sample : 9554553 BLDG 482 TB
Misc : 25 ML

Vial: 4
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.
3.17	2.55 ug/L	1800959	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	34	000124-38-9	4
2	Nitrous Oxide	62271	010024-97-2	3
3	Cyclopropane, 1,1-dibromo-2-chloro-	33732	024071-57-6	2
4	Carbamic acid, monoammonium salt	391	001111-78-0	2
5	Acetaldehyde	62264	000075-07-0	2



Library Search Compound Report

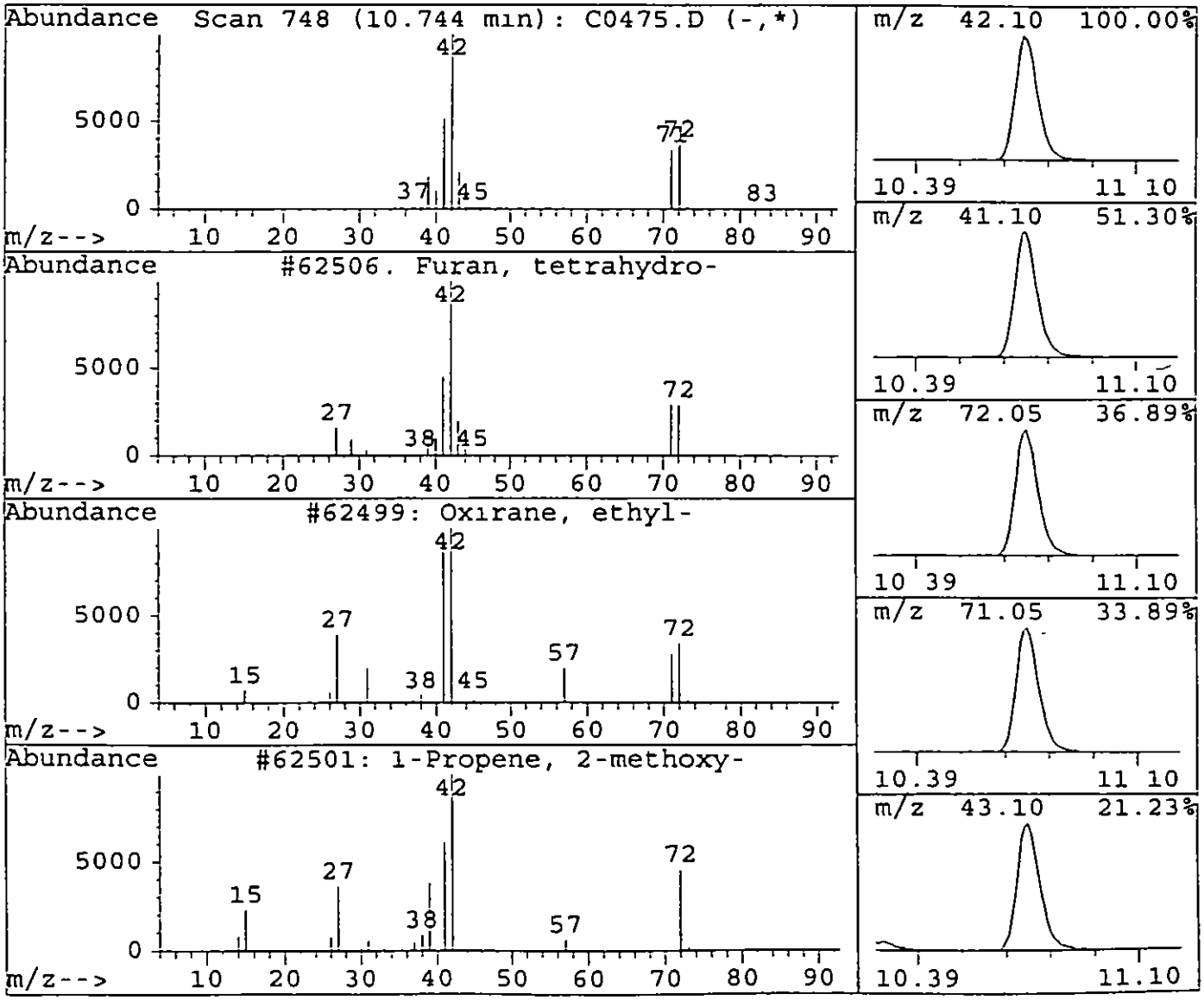
Data File : d:\hpchem\1\data\c0475.d
Acq On : 5 Dec 95 6:33 pm
Sample : 9554553 BLDG 482 TB
Misc : 25 ML

Vial: 4
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.
10.74	2.84 ug/L	2005011	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Furan, tetrahydro-	62506	000109-99-9	90
2	Oxirane, ethyl-	62499	000106-88-7	39
3	1-Propene, 2-methoxy-	62501	000116-11-0	38
4	3-Buten-1-ol	264	000627-27-0	4
5	Oxirane, 2,2-dimethyl-	62511	000558-30-5	46



114

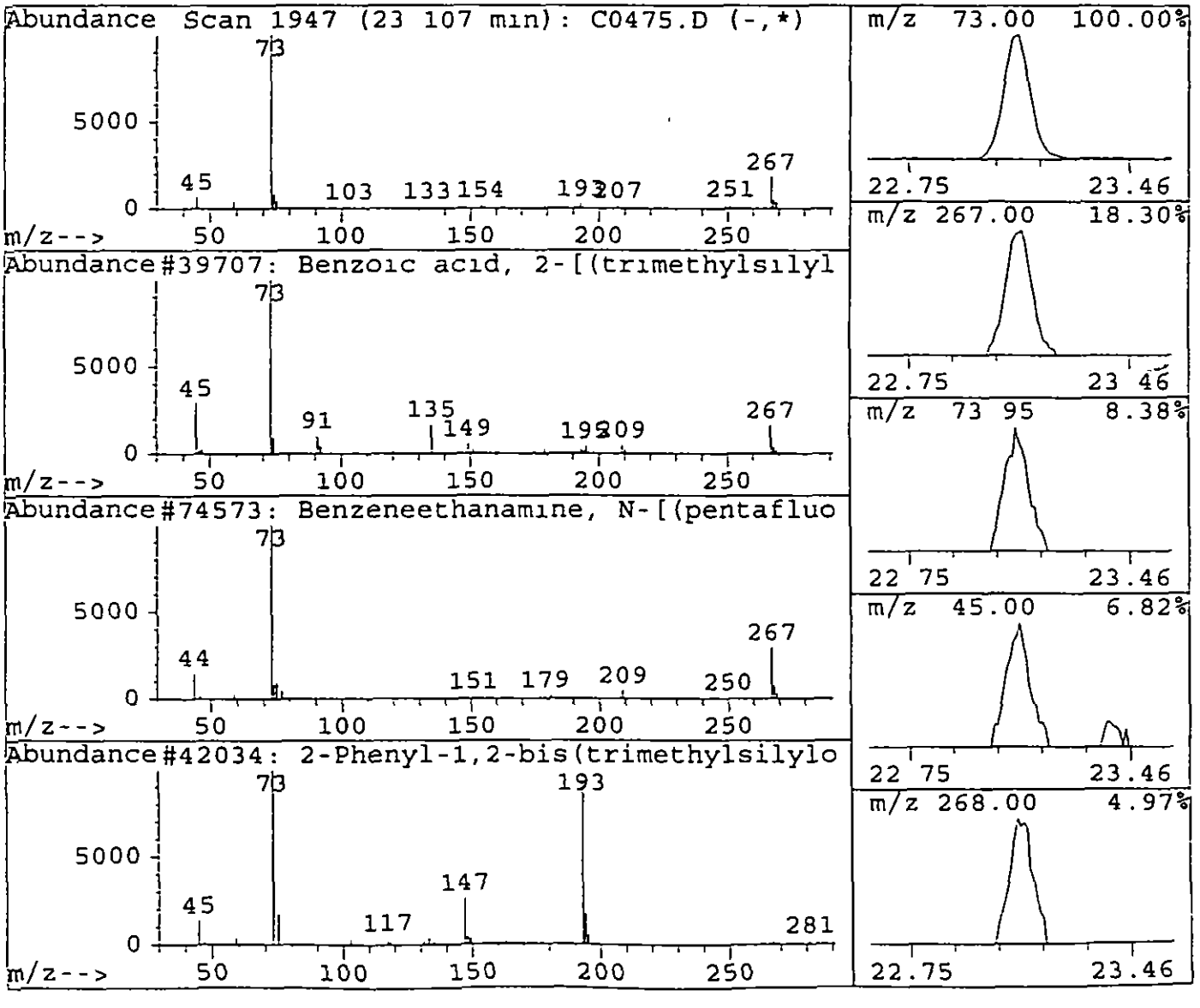
Data File : d:\hpchem\1\data\c0475.d
Acq On : 5 Dec 95 6:33 pm
Sample : 9554553 BLDG 482 TB
Misc : 25 ML

Vial: 4
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
23.11	0.81 ug/L	573643	Fluorobenzene	12.20

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl)ox	39707	003789-85-3	9
2	Benzeneethanamine, N-[(pentafluorop	74573	055429-85-1	9
3	2-Phenyl-1,2-bis(trimethylsilyloxy)	42034	000000-00-0	2
4	N-Ethylformamide	292	000627-45-2	3
5	Silane, 9H-fluoren-9-yltrimethyl-	31629	007385-10-6	4



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 115

Field Blank

Lab Name EMSL ANALYTICAL Contract: U S ARMY

Project No FT MONMOUTH NJ Bldg# 482 NJDEP MW# FB

Matrix (soil/water) WATER Lab Sample ID 9554554V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0476 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/5/95

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
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	60	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

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

Field Blank

11

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ Bldg# 482 NJDEP MW# FB

Matrix (soil/water) WATER Lab Sample ID 9554554V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0476 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/5/95

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

FMETL# Field Blank 117

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ Bldg 482 NJDEP MW# FB Group

Matrix (soil/water) WATER Lab Sample ID 9554554V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0476 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/5/95

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 4 Concentration Units (ug/L or ug/Kg) ug/L

	CAS Number	Compound Name	RT	Est Conc	Q
1		Column Bleed	10 19	1	J
2	109-99-9	Furan, tetrahydro-	10 75	3	J
3		Column Bleed	19 71	1	J
4		Unknown Hydrocarbon	23 10	2	J
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
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30					

Quantitation Report

Data File : d:\hpchem\1\data\c0476.d
Acq On : 5 Dec 95 7:07 pm
Sample : 9554554 BLDG 482 FB
Misc : 25 ML
Quant Time: Dec 6 10:36 1995

Vial: 5 118
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524 M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12.21	96	1699615	5.00 ug/L	0.00
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.42	95	898069	4.89 ug/L	97.88%
57) 1,2-Dichlorobenzene-d4	22.22	152	575033	5.00 ug/L	99.96%
Target Compounds					Qvalue
9) Methylene chloride	7.83	84	44990	0.56 ug/L	91

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

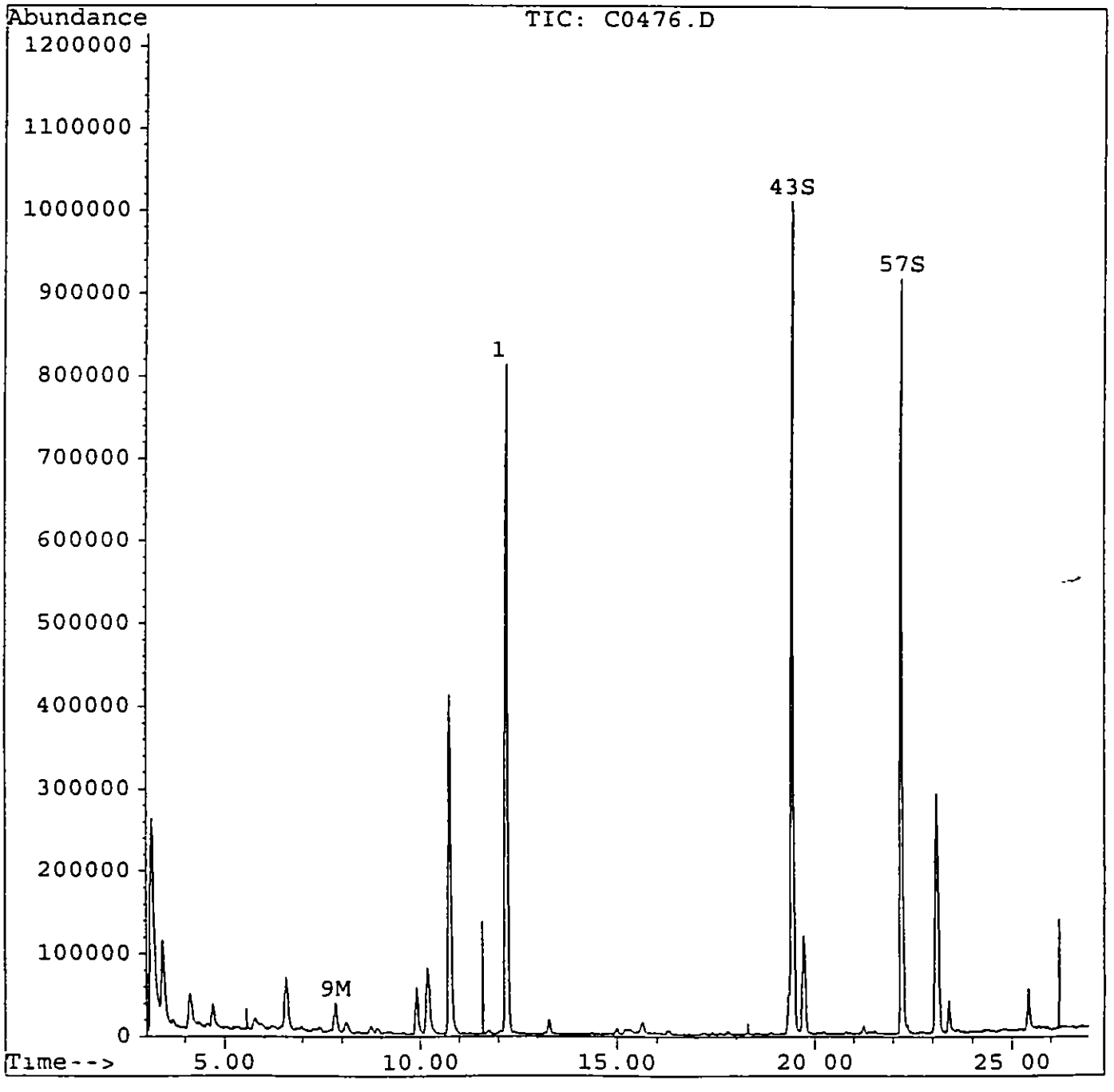
Quantitation Report

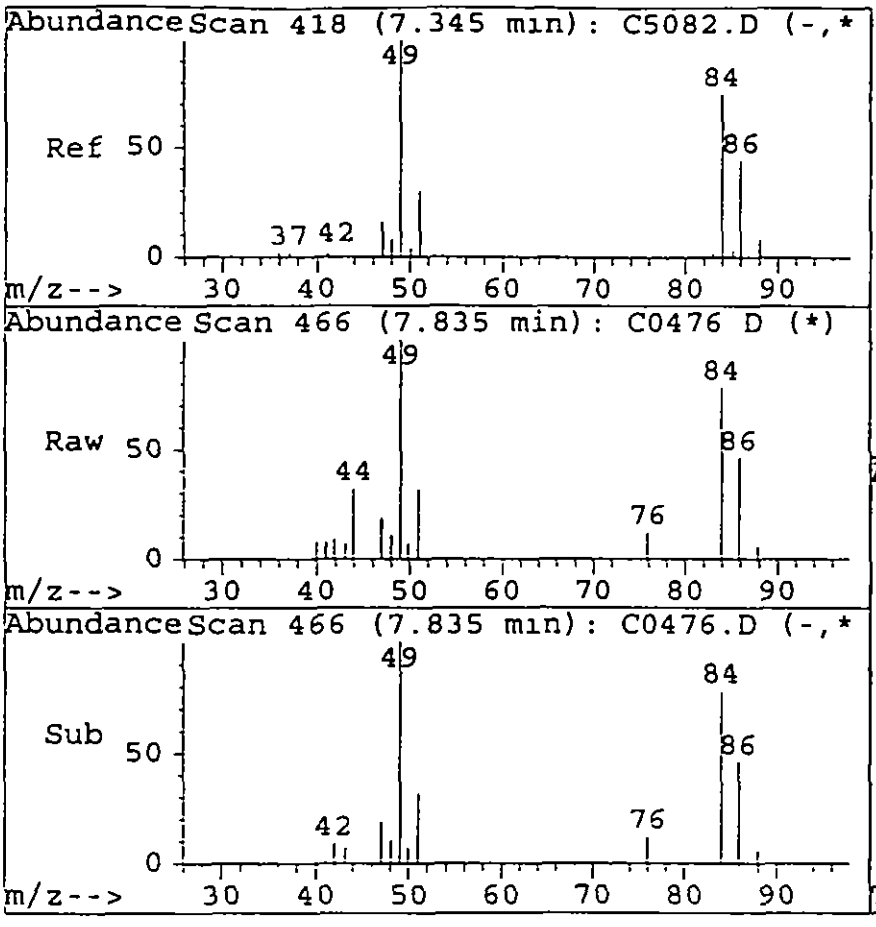
119

Data File : d:\hpchem\1\data\c0476.d
Acq On : 5 Dec 95 7:07 pm
Sample : 9554554 BLDG 482 FB
Misc : 25 ML
Quant Time: Dec 6 10:36 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 : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

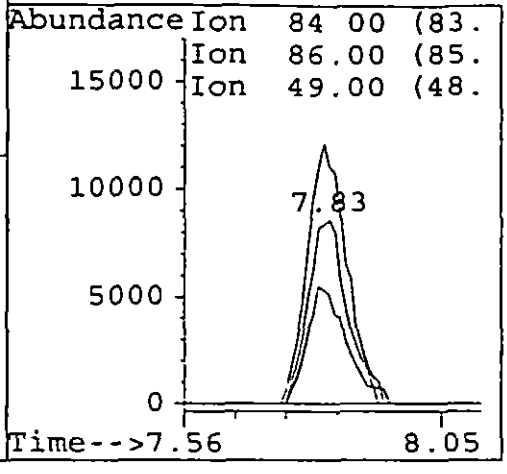




#9
Methylene chloride
Concen: 0.56 ug/L
RT: 7.83 min Scan# 466
Delta R.T 0.01 min
Lab File: c0476.d
Acq 5 Dec 95 7:07 pm

Tgt Ion 84 Resp: 44990

Ion	Ratio	Lower	Upper
84	100		
86	59.6	45.2	85.2
49	128.5	121.1	161.1
0	0.0	0.0	0.0



Library Search Compound Report

121

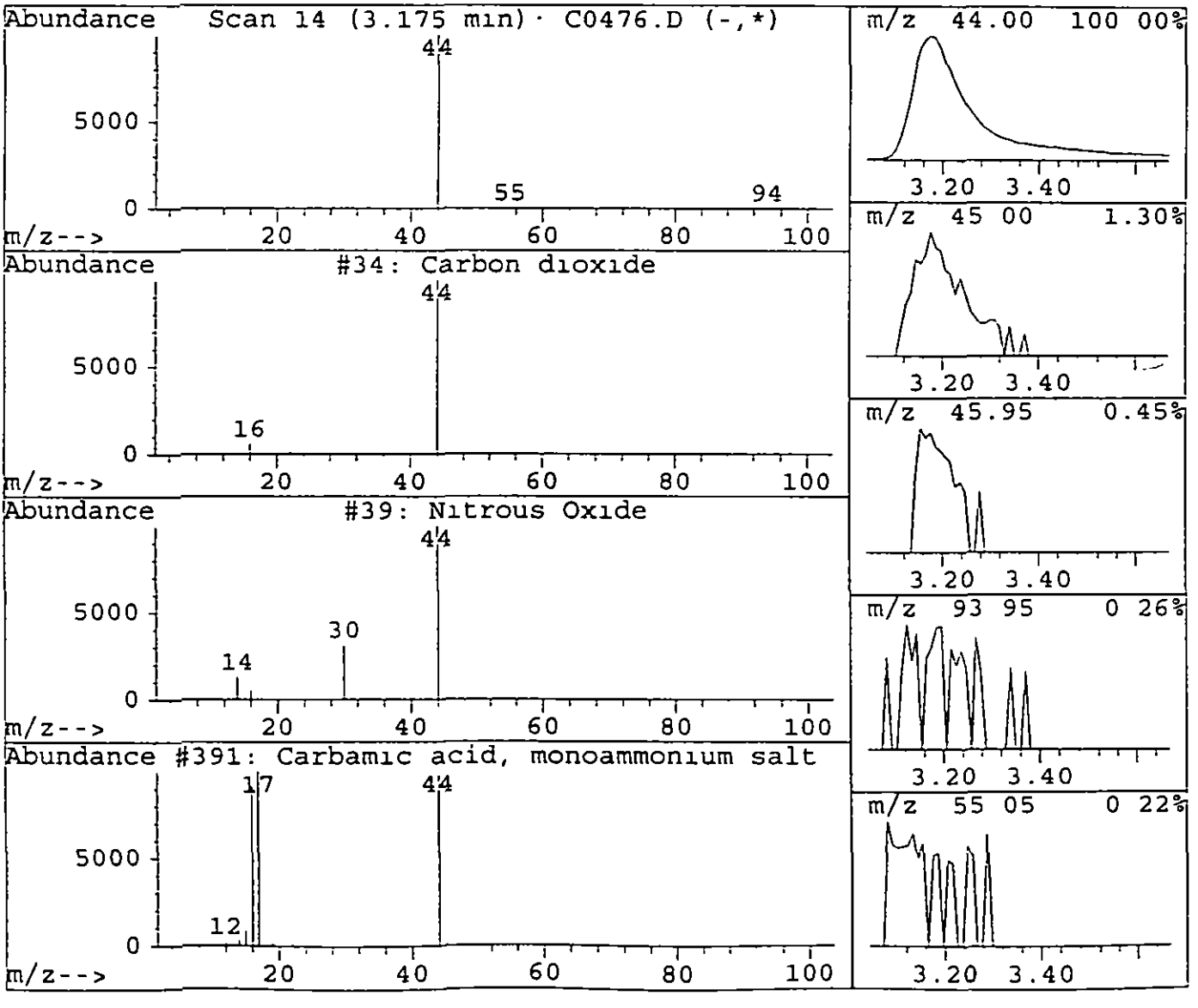
Data File : d:\hpchem\1\data\c0476.d
Acq On : 5 Dec 95 7:07 pm
Sample : 9554554 BLDG 482 FB
Misc : 25 ML

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
3.17	2.70 ug/L	1923726	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	34	000124-38-9	4
2	Nitrous Oxide	39	010024-97-2	3
3	Carbamic acid, monoammonium salt	391	001111-78-0	2
4	Cyclopropane, 1,1-dibromo-2-chloro-	33732	024071-57-6	2
5	Acetaldehyde	62264	000075-07-0	2



Library Search Compound Report

122

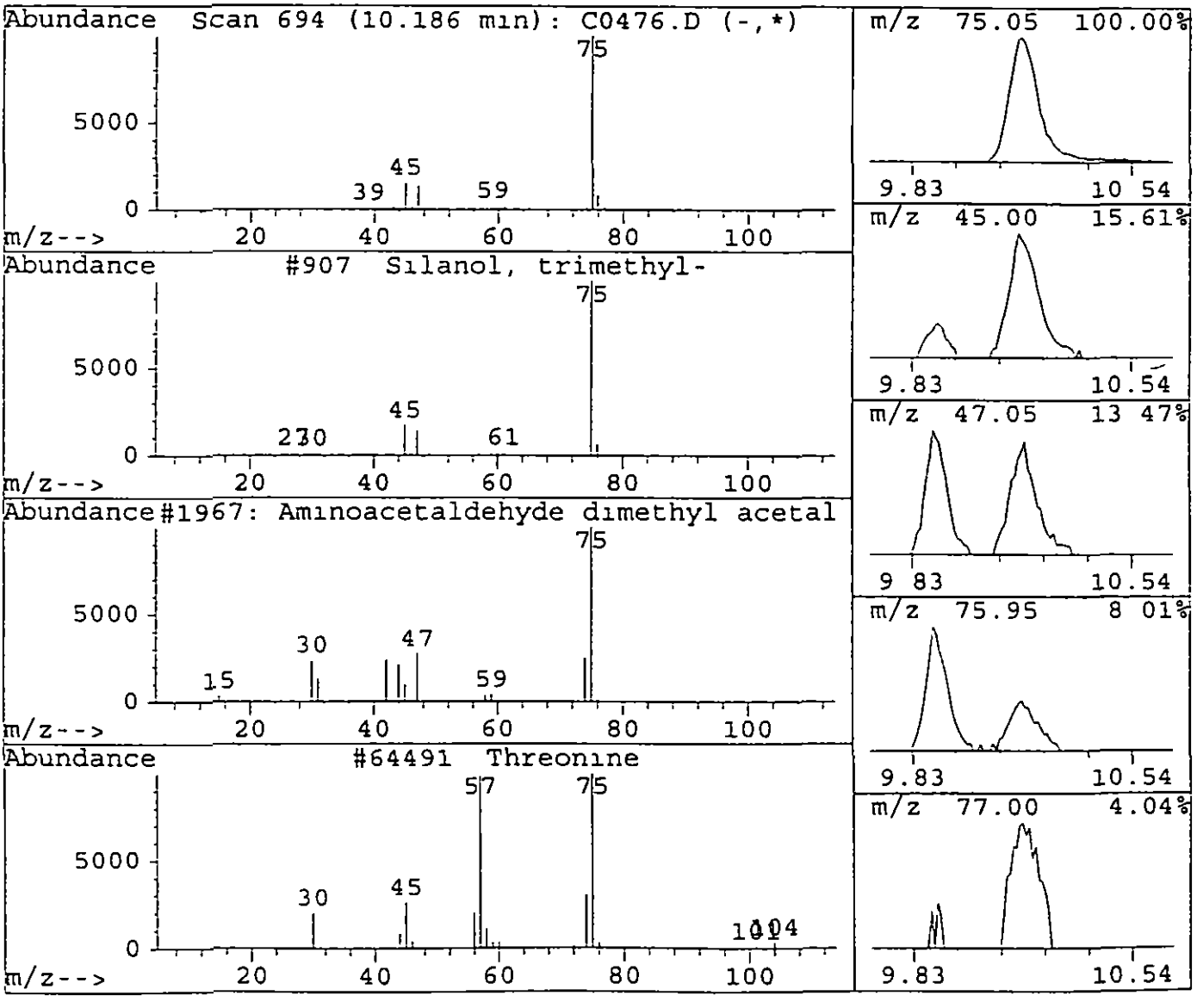
Data File : d:\hpchem\1\data\c0476.d
Acq On : 5 Dec 95 7:07 pm
Sample : 9554554 BLDG 482 FB
Misc : 25 ML

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.
10.19	0.65 ug/L	462371	Fluorobenzene	12 21

Hit# of 19	Tentative ID	Ref#	CAS#	Qual
1	Silanol, trimethyl-	907	001066-40-6	64
2	Aminoacetaldehyde dimethyl acetal	1967	022483-09-6	1
3	Threonine	64491	000072-19-5	1
4	Penicillamine	9413	000052-67-5	1
5	Propanoic acid, heptyl ester	68350	002216-81-1	1



Library Search Compound Report

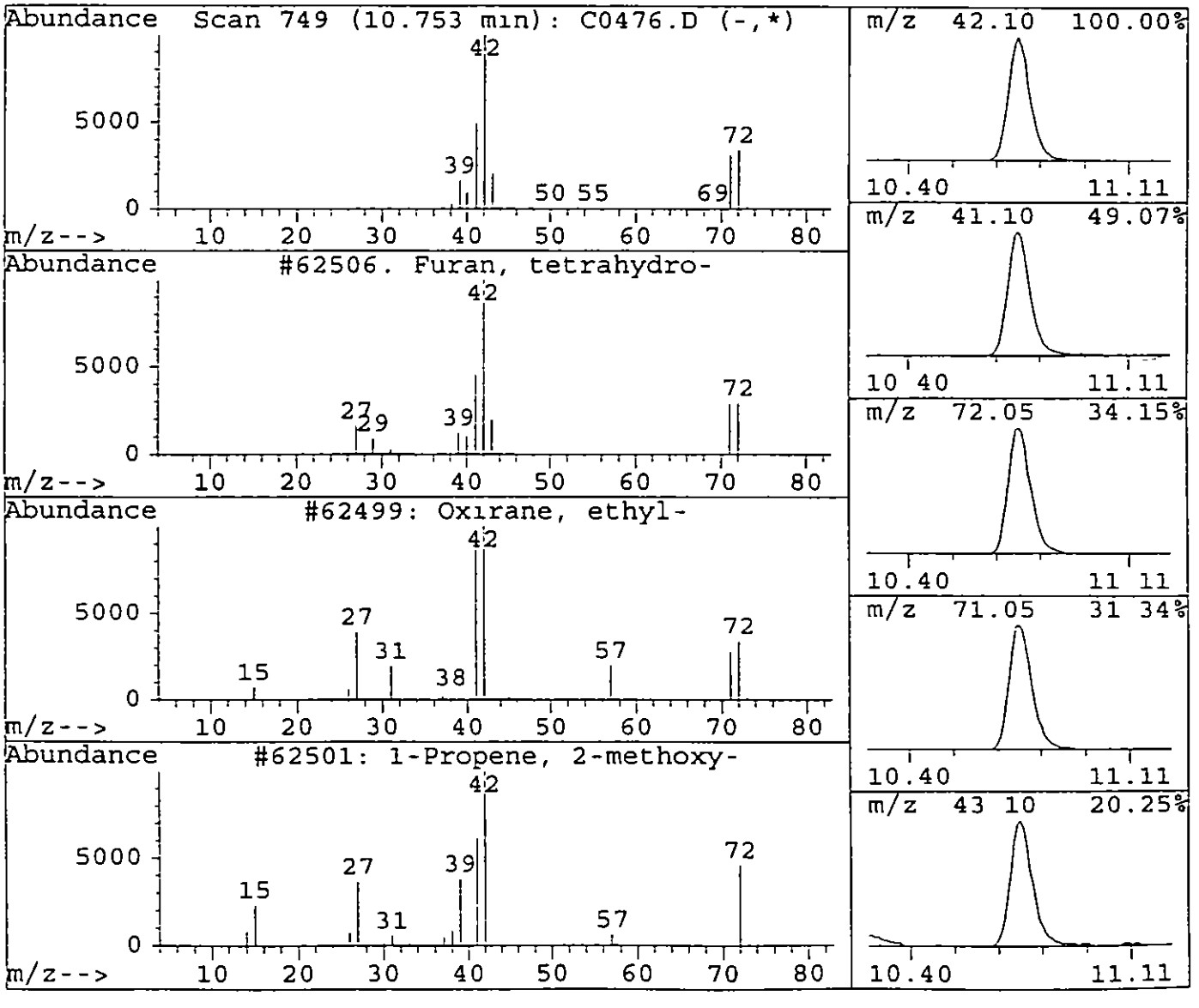
Data File : d:\hpchem\1\data\c0476.d
Acq On : 5 Dec 95 7:07 pm
Sample : 9554554 BLDG 482 FB
Misc : 25 ML

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.
10 75	2.92 ug/L	2080661	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Furan, tetrahydro-	62506	000109-99-9	91
2	Oxirane, ethyl-	62499	000106-88-7	39
3	1-Propene, 2-methoxy-	62501	000116-11-0	38
4	3-Buten-1-ol	264	000627-27-0	4
5	Ethenone	29	000463-51-4	3



Library Search Compound Report

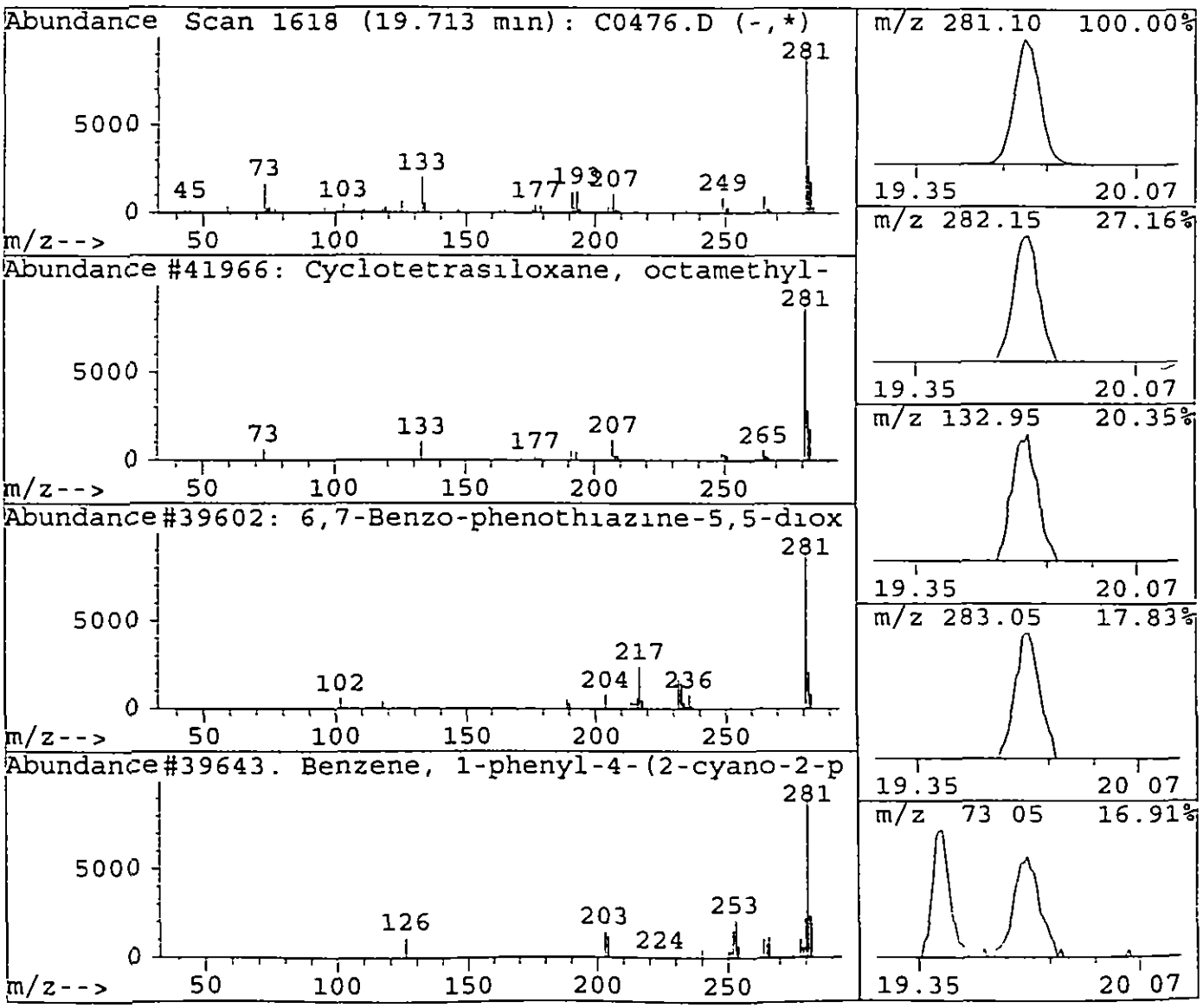
Data File : d:\hpchem\1\data\c0476.d
Acq On : 5 Dec 95 7.07 pm
Sample : 9554554 BLDG 482 FB
Misc : 25 ML

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.
19.71	0.71 ug/L	504520	Fluorobenzene	12.21

Hit# of 17	Tentative ID	Ref#	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	41966	000556-67-2	43
2	6,7-Benzo-phenothiazine-5,5-dioxide	39602	000000-00-0	9
3	Benzene, 1-phenyl-4-(2-cyano-2-phen	39643	027869-56-3	50
4	4-(1-Benzimidazyl)-7-nitro-2,1,3-ox	39560	091485-32-4	5
5	3,6-Bis(N-dimethylamino)-9-ethylcar	39624	057103-04-5	7



Library Search Compound Report

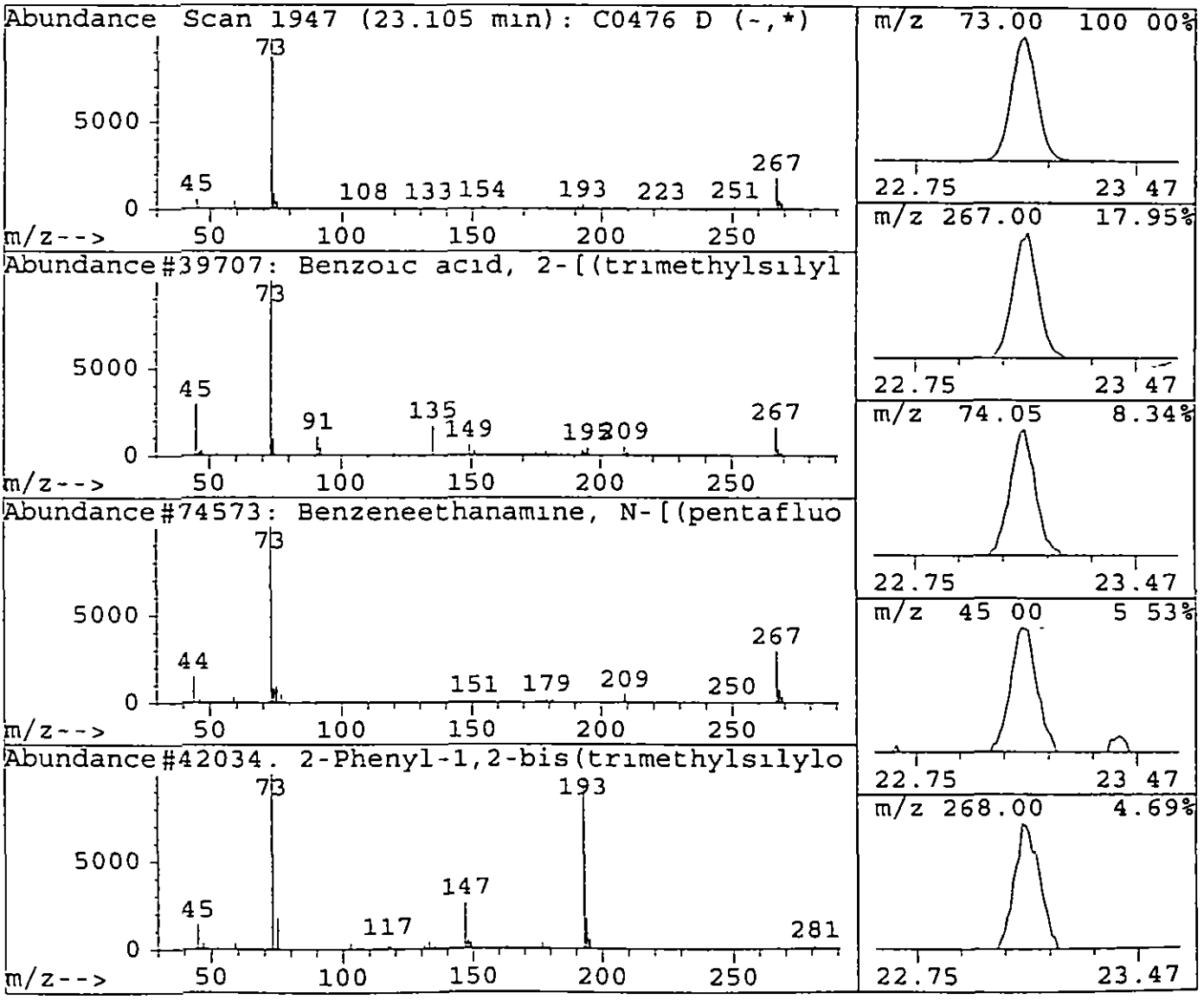
Data File : d \hpchem\1\data\c0476.d
Acq On : 5 Dec 95 7:07 pm
Sample : 9554554 BLDG 482 FB
Misc : 25 ML

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.
23.10	1.92 ug/L	1369048	Fluorobenzene	12.21

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl)ox	39707	003789-85-3	33
2	Benzeneethanamine, N-[(pentafluorop	74573	055429-85-1	38
3	2-Phenyl-1,2-bis(trimethylsilyloxy)	42034	000000-00-0	2
4	N-Ethylformamide	292	000627-45-2	3
5	Benzeneacetic acid, trimethylsilyl	70090	002078-18-4	3



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

1980-1
MW-1-293760

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ Bldg# 616 NJDEP MW# 1

Matrix (soil/water) WATER Lab Sample ID 9554556V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0545 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/11/95

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
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	3 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# 1980.1 7410-1-243760

127

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ Bldg# 616 NJDEP MW# 1

Matrix (soil/water) WATER Lab Sample ID 9554556V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0545 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/11/95

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

FMETL# 195C.1 MLL-1-293760

12

Lab Name EMSL ANALYTICAL Contract U S ARMY

Project No FT MONMOUTH NJ BLDG# 616 NJDEP MW# 1 Group

Matrix (soil/water) WATER Lab Sample ID 9554556V

Sample wt/vol 25 0 (g/mL) ML Lab File ID C0545 D

Level (low/med) LOW Date Received 11/27/95

% Moisture not dec NA Date Analyzed 12/11/95

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	Column Bleed	10 06	1	J
2	Column Bleed	23 00	2	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\c0545.d
Acq On : 11 Dec 95 12 32 pm
Sample : 9554556 BLDG 616 MW-1
Misc : 25 ML
Quant Time. Dec 13 18 29 1995

Vial: 5
Operator: SRK
Inst : 5972 - In
Multiplr: 1 00

129

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update . Wed Nov 22 09.25 47 1995
Response via : Multiple Level Calibration

Internal Standards	R T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12 07	96	1444161	5.00 ug/L	-0 14
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.32	95	737827	4 73 ug/L	94.64%
57) 1,2-Dichlorobenzene-d4	22.12	152	450756	4.61 ug/L	92.21%
Target Compounds					Qvalue
9) Methylene chloride	7 68	84	220741	3.23 ug/L	89

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

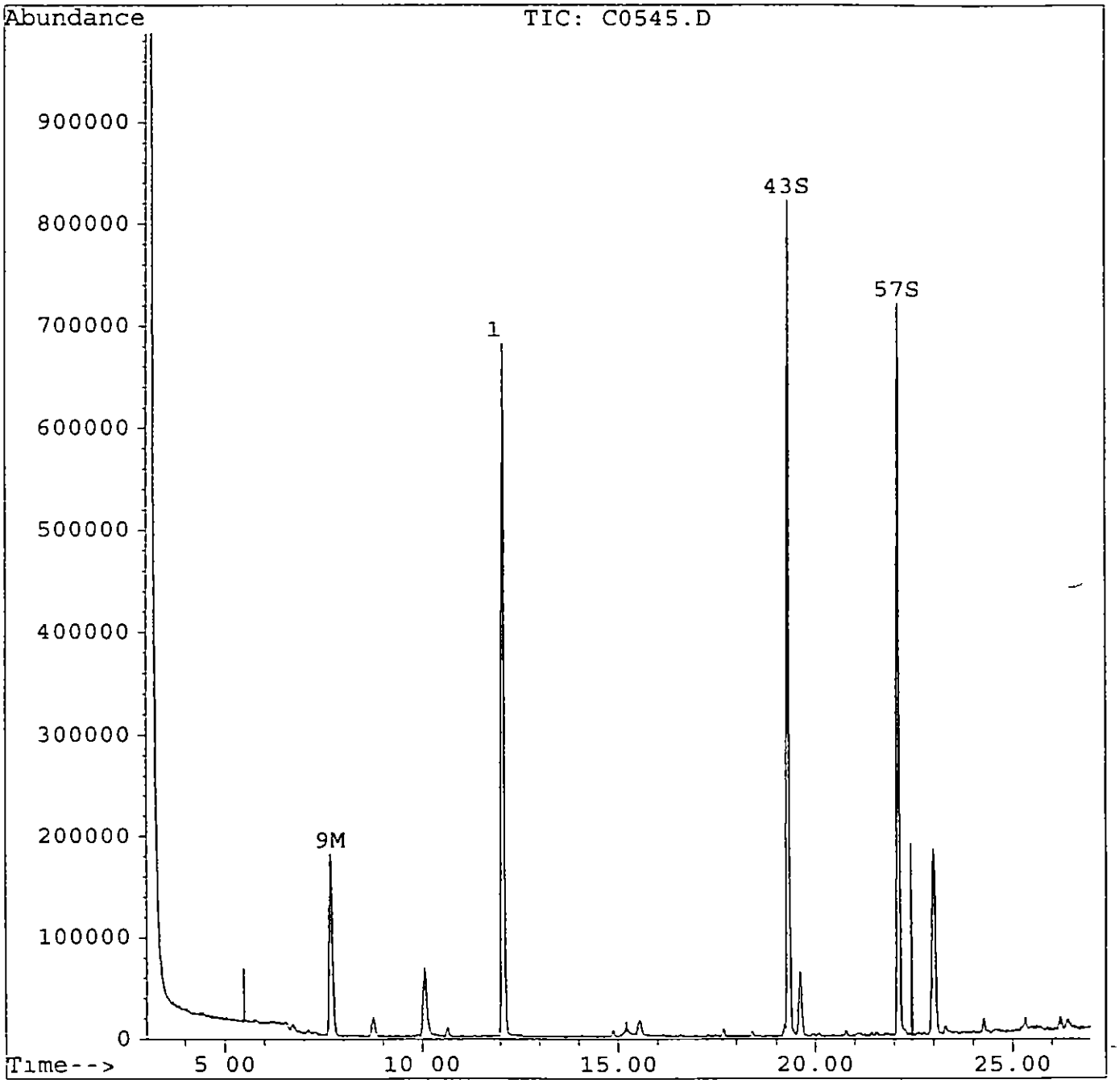
Quantitation Report

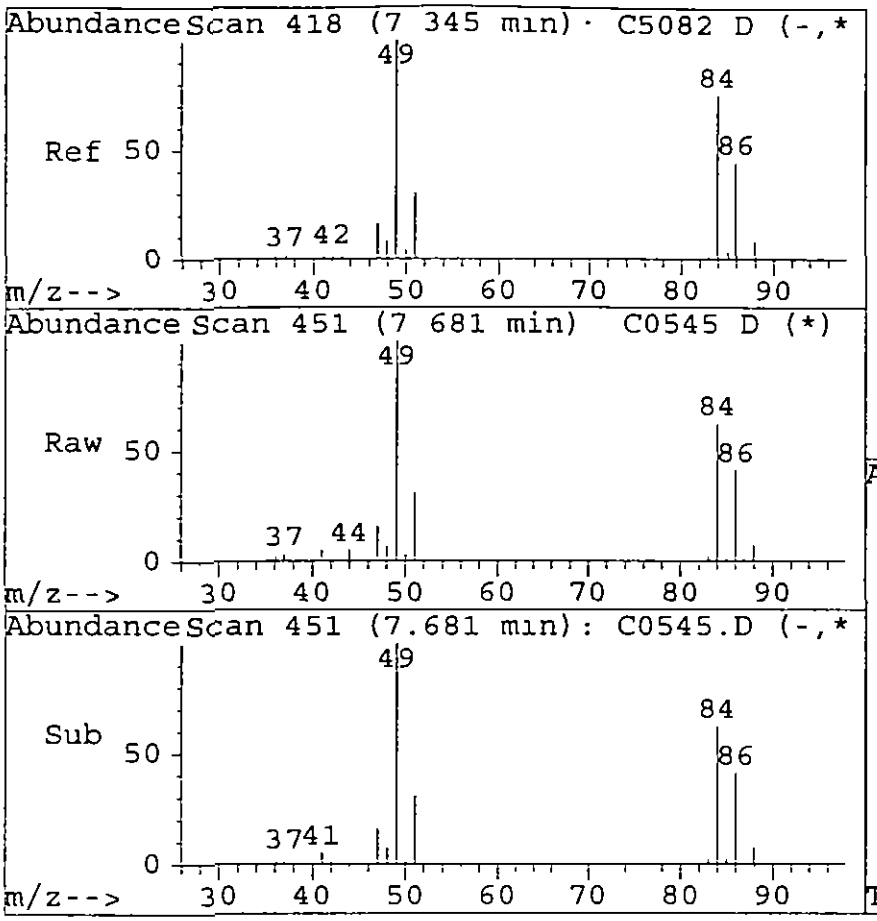
130

Data File d:\hpchem\1\data\c0545.d
Acq On 11 Dec 95 12:32 pm
Sample : 9554556 BLDG 616 MW-1
Misc : 25 ML
Quant Time: Dec 13 18 29 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 Wed Nov 22 09:25 47 1995
Response via : Multiple Level Calibration

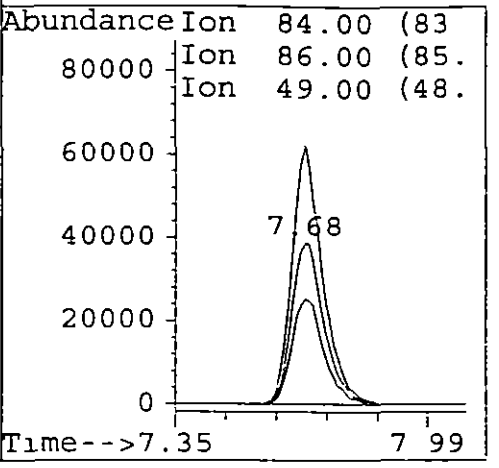




#9
Methylene chloride
Concen 3 23 ug/L
RT. 7 68 min Scan# 451
Delta R.T -0 15 min
Lab File c0545.d
Acq 11 Dec 95 12 32 pm

Tgt Ion:84 Resp: 220741

Ion	Ratio	Lower	Upper
84	100		
86	65 6	45 2	85.2
49	160 7	121.1	161.1
0	0.0	0.0	0.0



Library Search Compound Report

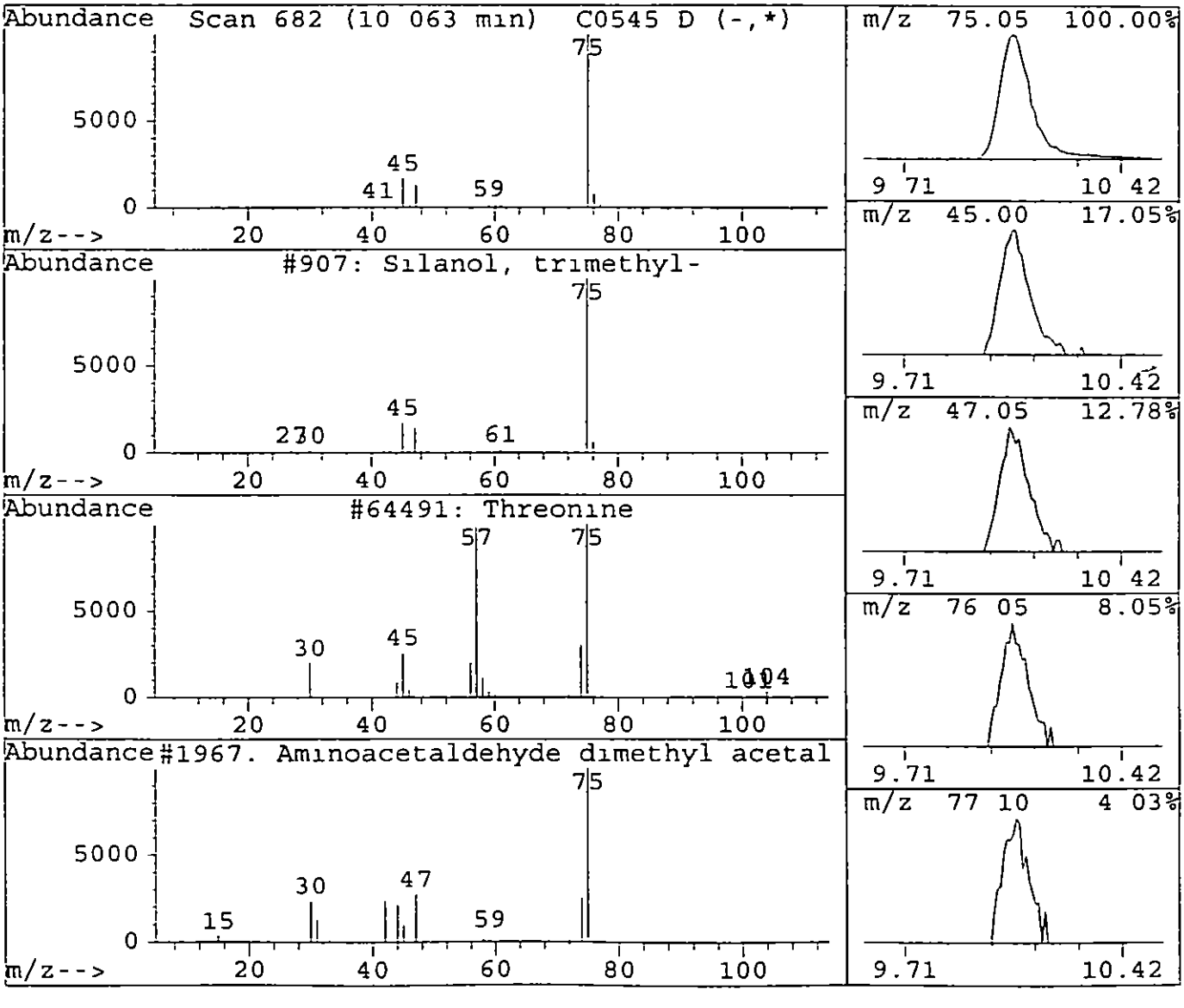
Data File : d \hpchem\1\data\c0545.d
Acq On : 11 Dec 95 12:32 pm
Sample : 9554556 BLDG 616 MW-1
Misc : 25 ML

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.
10.06	0.67 ug/L	410033	Fluorobenzene	12.07

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Silanol, trimethyl-	907	001066-40-6	74
2	Threonine	64491	000072-19-5	2
3	Aminoacetaldehyde dimethyl acetal	1967	022483-09-6	1
4	Penicillamine	9413	000052-67-5	1
5	Propane, 1,1-dimethoxy-	1919	004744-10-9	1



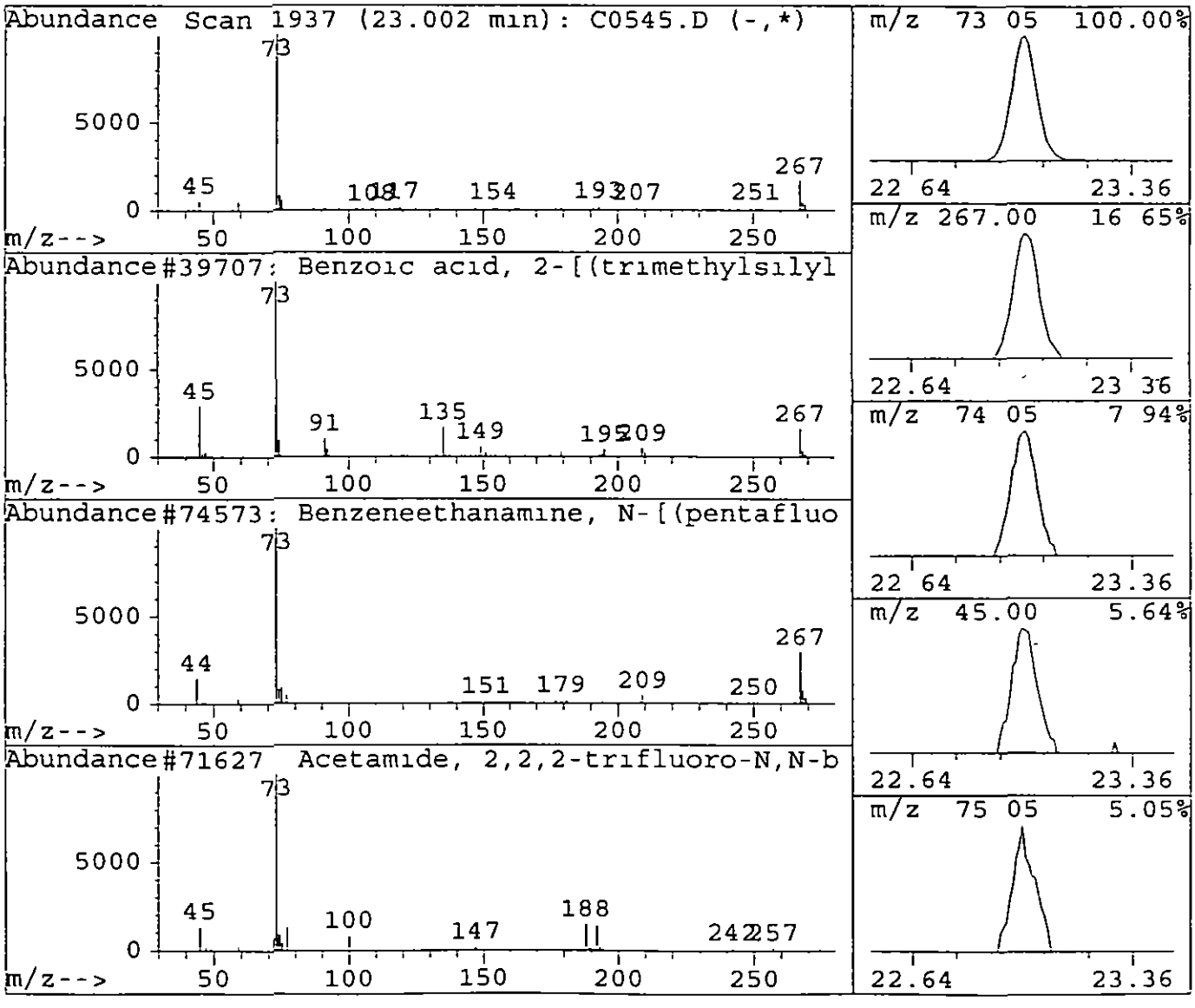
Data File : d·\hpchem\1\data\c0545 d
Acq On : 11 Dec 95 12:32 pm
Sample : 9554556 BLDG 616 MW-1
Misc 25 ML

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.
23.00	1.73 ug/L	1060911	Fluorobenzene	12.07

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl)ox	39707	003789-85-3	33
2	Benzeneethanamine, N-[(pentafluorop	74573	055429-85-1	38
3	Acetamide, 2,2,2-trifluoro-N,N-bis(	71627	021149-38-2	4
4	Propanoic acid, 2-methyl-2-[(trimet	33346	055133-92-1	4
5	Trimethylsilyl ether of glycerol	43898	006787-10-6	2



2A

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	99	99			
02	1 STND	98	99			
03	VBLK01	99	101			
04	9554060V	101	103			
05	9554061V	99	102			
06	9554062V	97	101			
07	9554101V	104	101			
08	9554102V	99	101			
09	9554063V	98	99			
10	9554060MS	98	96			
11	9554060MSD	96	97			
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

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

2A

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	VBLK01	89	89			
02	9554553V	99	101			
03	9554554V	98	100			
04	9554109V	103	103			
05	9554110V	100	101			
06	9554551V	110	101			
07	9554552V	111	103			
08	9554555V	109	103			
09	9554557V	103	104			
10	9554558V	104	102			
11	9554552MS	106	103			
12	9554552MSD	105	103			
13	10 QCS	98	100			
14	1 STND	98	101			
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

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

2A

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	VBLK01	93	93			
02	9556244V	93	92			
03	9554556V	95	92			
04	9554783V	95	93			
05	9554784V	95	95			
06	9554782V	98	95			
07	9554781V	93	92			
08	9554785V	94	91			
09	9554786V	92	91			
10	9556244R	92	92			
11	9557565V	91	90			
12	9557565R	94	93			
13	9557078V	92	91			
14	10 QCS	90	88			
15	1 STND	93	90			
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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. VBLK01

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Lab File ID: C0429.D Lab Sample ID: M. BLANK

Date Analyzed: 12/2/95 Time Analyzed: 1652

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	C0427.D	1544
02	1 STND	1 STND	C0428.D	1618
03	9554060V	9554060V	C0430.D	1726
04	9554061V	9554061V	C0431.D	1800
05	9554062V	9554062V	C0432.D	1835
06	9554101V	9554101V	C0433.D	1909
07	9554102V	9554102V	C0434.D	1944
08	9554063V	9554063V	C0435.D	2017
09	9554060MS	54060MS	C0438.D	2159
10	9554060MSD	54060MSD	C0439.D	2233
11				
12				
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COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

136

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 C0429 D

Level (low/med) LOW Date Received NA

% Moisture not dec NA Date Analyzed 12/2/95

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
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	50	
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

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 139

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 C0429 D

Level (low/med) LOW Date Received NA

% Moisture not dec NA Date Analyzed 12/2/95

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

140

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 C0429 D

Level (low/med) LOW Date Received NA

% Moisture not dec NA Date Analyzed 12/2/95

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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Quantitation Report

Data File : D:\HPCHEM\1\DATA\C0429.D
Acq On : 2 Dec 95 4:52 pm
Sample : METHOD BLANK
Misc :
Quant Time: Dec 5 11·51 1995

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

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R.T	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12.18	96	1681347	5.00 ug/L	-0.03
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.40	95	900410	4.96 ug/L	99.21%
57) 1,2-Dichlorobenzene-d4	22.20	152	577627	5.07 ug/L	101.50%
Target Compounds					Qvalue
9) Methylene chloride	7.79	84	36677	0.46 ug/L	98

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

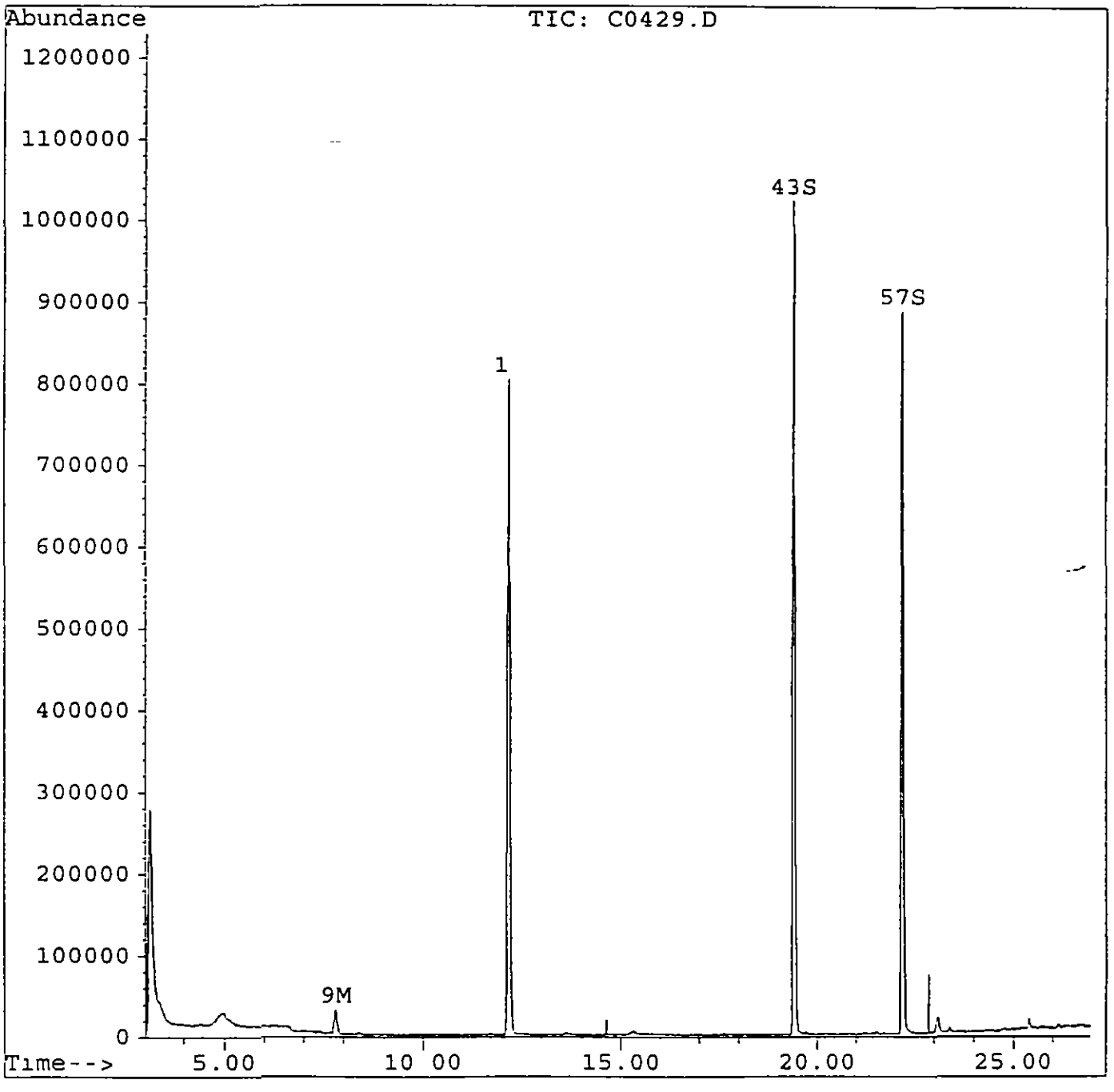
Quantitation Report

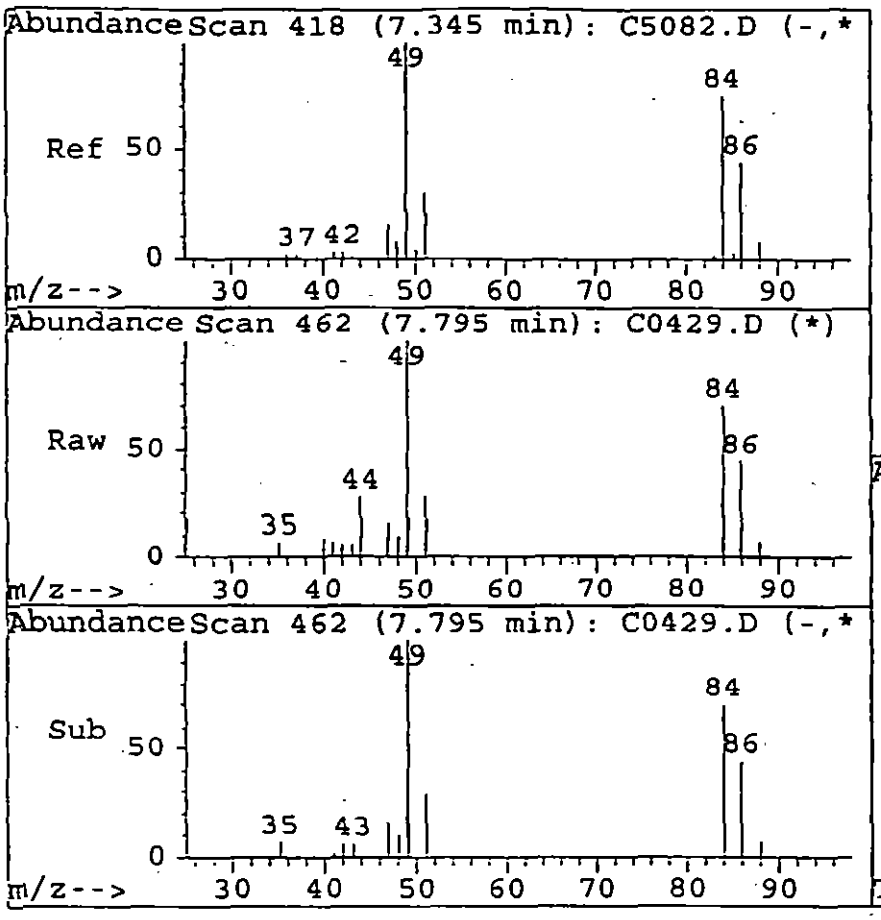
Data File : D:\HPCHEM\1\DATA\C0429.D
Acq On : 2 Dec 95 4:52 pm
Sample : METHOD BLANK
Misc :
Quant Time: Dec 5 11.51 1995

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

142

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

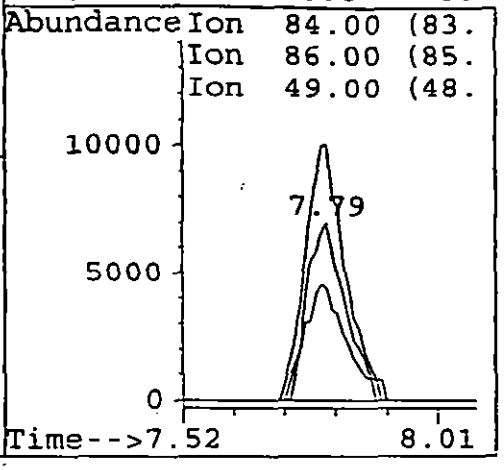




#9
Methylene chloride
Concen: 0.46 ug/L
RT: 7.79 min Scan# 462
Delta R.T. -0.03 min
Lab File: C0429.D
Acq: 2 Dec 95 4:52 pm

Tgt Ion:84 Resp: 36677

Ion	Ratio	Lower	Upper
84	100		
86	62.9	45.2	85.2
49	143.5	121.1	161.1
0	0.0	0.0	0.0



Library Search Compound Report

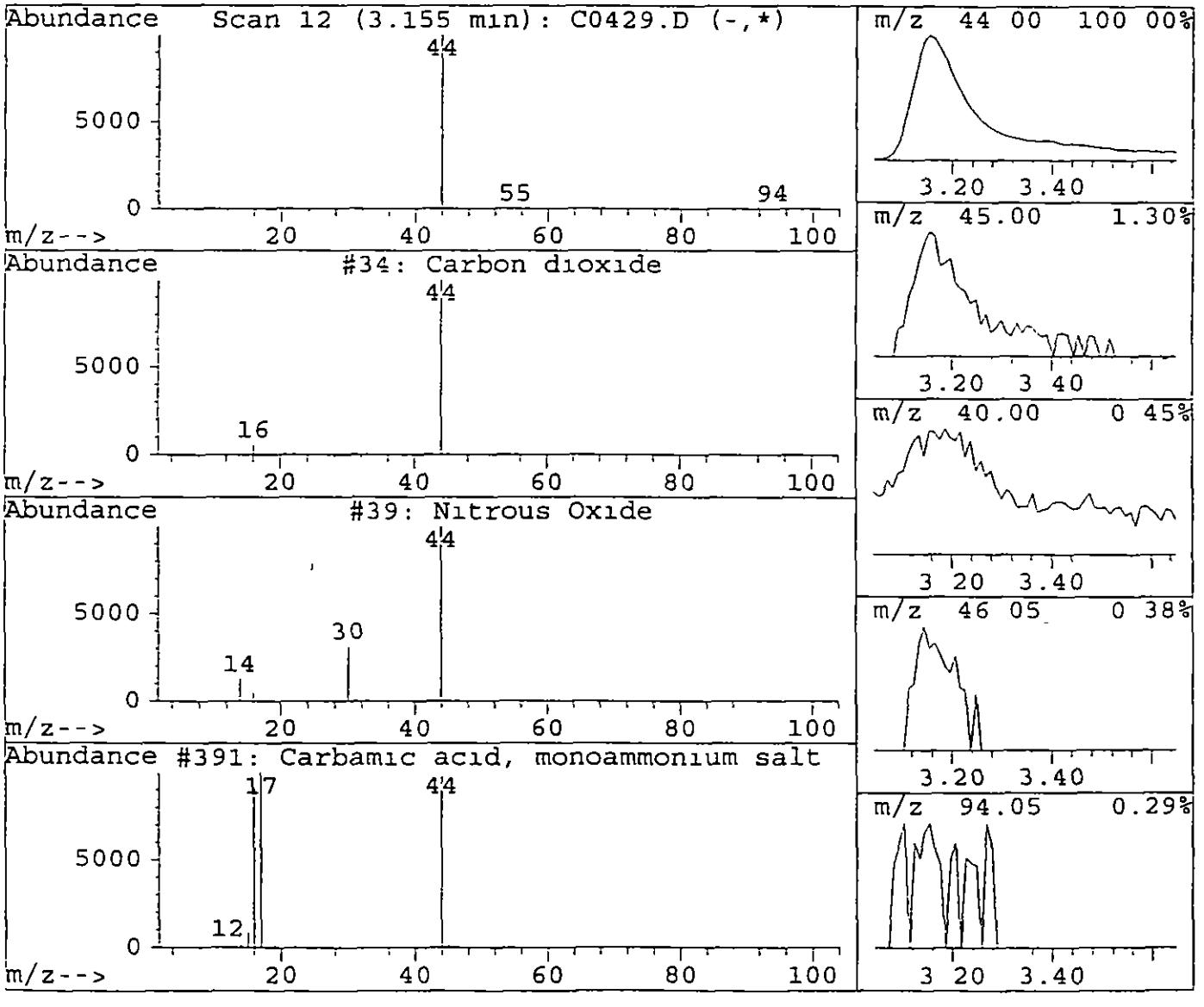
Data File : D \HPCHEM\1\DATA\C0429.D
Acq On : 2 Dec 95 4:52 pm
Sample : METHOD BLANK
Misc :

Vial: 5
Operator: MDC
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.
3.15	3.00 ug/L	2109797	Fluorobenzene	12.18

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Carbon dioxide	34	000124-38-9	4
2	Nitrous Oxide	39	010024-97-2	3
3	Carbamic acid, monoammonium salt	391	001111-78-0	2
4	Cyclopropane, 1,1-dibromo-2-chloro-	33732	024071-57-6	2
5	Acetaldehyde	62264	000075-07-0	2



4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO: VBLK01

Lab Name: EMSL ANALYTICAL Contract:

Project No: Site: Location: Group:

Lab File ID: C0474 D Lab Sample ID: M BLANK

Date Analyzed: 12/5/95 Time Analyzed: 1800

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	9554553V	9554553V	C0475 D	1833
02	9554554V	9554554V	C0476 D	1907
03	9554109V	9554109V	C0477 D	1942
04	9554110V	9554110V	C0478 D	2016
05	9554551V	9554551V	C0479 D	2051
06	9554552V	9554552V	C0480 D	2125
07	9554555V	9554555V	C0481 D	2200
08	9554557V	9554557V	C0483 D	2310
09	9554558V	9554558V	C0484 D	2344
10	9554552MS	54552MS	C0485 D	0019
11	9554552MSD	54552MSD	C0486 D	0054
12	10 QCS	10 QCS	C0487 D	0129
13	1 STND	1 STND	C0488 D	0204
14				
15				
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COMMENTS

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO

146

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 C0474 D

Level (low/med) LOW Date Received NA

% Moisture not dec NA Date Analyzed 12/5/95

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
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	
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-Dibromoethane	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

147

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 C0474 D

Level (low/med) LOW Date Received NA

% Moisture not dec NA Date Analyzed 12/5/95

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

IE

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO
VBLK01

148

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 C0474 D

Level (low/med) LOW Date Received NA

% Moisture not dec NA Date Analyzed 12/5/95

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					
10					
11					
12					
13					
14					
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30					

Quantitation Report

Data File : d:\hpchem\1\data\c0474 d
Acq On : 5 Dec 95 6:00 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Dec 5 18:43 1995

Vial: 1 143
Operator: SRK
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R.T	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12.03	96	1696123	5 00 ug/L	-0.17
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.28	95	817441	4.46 ug/L	89 28%
57) 1,2-Dichlorobenzene-d4	22.09	152	508158	4.43 ug/L	88.51%
Target Compounds					Qvalue
9) Methylene chloride	7.63	84	98742	1.23 ug/L	96

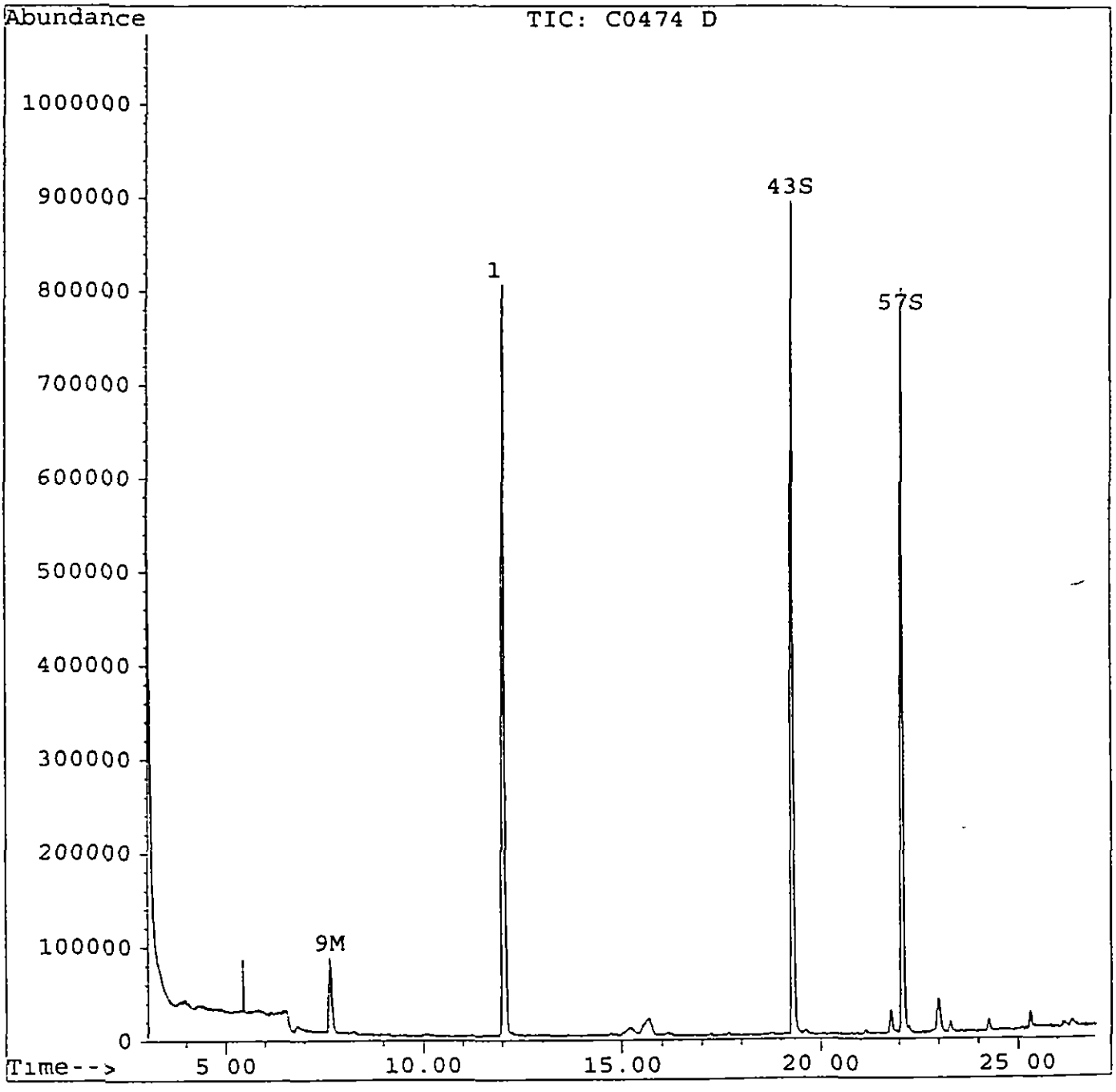
(#) = qualifier out of range (m) = manual integration

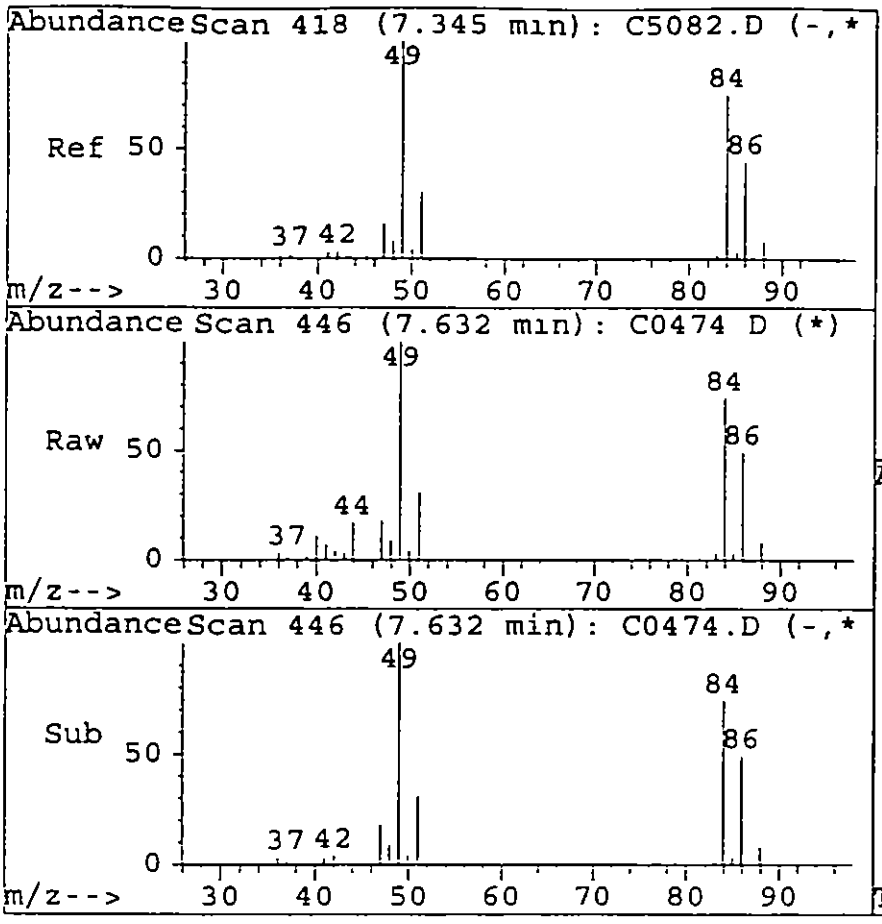
Quantitation Report

Data File : d:\hpchem\1\data\c0474.d
Acq On : 5 Dec 95 6:00 pm
Sample : METHOD BLANK
Misc : 25 ML
Quant Time. Dec 5 18:43 1995

Vial: 1 150
Operator. SRK
Inst : 5972 - In
Multiplr· 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title · 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25·47 1995
Response via : Multiple Level Calibration





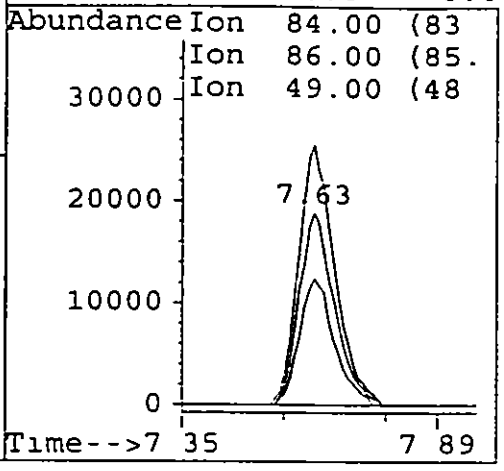
#9
Methylene chloride

151

Concen: 1.23 ug/L
RT: 7.63 min Scan# 446
Delta R T. -0.19 min
Lab File: c0474.d
Acq: 5 Dec 95 6:00 pm

Tgt Ion 84 Resp· 98742

Ion	Ratio	Lower	Upper
84	100		
86	65.9	45 2	85.2
49	134.9	121.1	161.1
0	0.0	0.0	0.0



Library Search Compound Report

152

Data File : d.\hpchem\1\data\c0474.d
Acq On : 5 Dec 95 6:00 pm
Sample : METHOD BLANK
Misc : 25 ML

Vial: 1
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

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO

VBLK01

153

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Lab File ID C0543 D Lab Sample ID M BLANK

Date Analyzed 12/11/95 Time Analyzed 1122

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	9556244V	9556244V	C0544 D	1157
02	9554556V	9554556V	C0545 D	1232
03	9554783V	9554783V	C0546 D	1307
04	9554784V	9554784V	C0547 D	1342
05	9554782V	9554782V	C0548 D	1417
06	9554781V	9554781V	C0549 D	1452
07	9554785V	9554785V	C0550 D	1527
08	9554786V	9554786V	C0551 D	1601
09	9556244R	9556244R	C0552 D	1636
10	9557565V	9557565V	C0553 D	1710
11	9557565R	9557565R	C0554 D	1744
12	9557078V	9557078V	C0555 D	1818
13	10 QCS	10 QCS	C0556 D	1853
14	1 STND	1 STND	C0557 D	1927
15				
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COMMENTS

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO 154

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 C0543 D

Level (low/med) LOW Date Received NA

% Moisture not dec NA Date Analyzed 12/11/95

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
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 6	
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-Dibromoethane	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

155

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 C0543 D

Level (low/med) LOW Date Received NA

% Moisture not dec NA Date Analyzed 12/11/95

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

15(

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 C0543 D

Level (low/med) LOW Date Received NA

% Moisture not dec NA Date Analyzed 12/11/95

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					
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\c0543.d
Acq On : 11 Dec 95 11:22 am
Sample : METHOD BLANK
Misc : 25 ML
Quant Time Dec 11 11.49 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 : Wed Nov 22 09.25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12.07	96	1511323	5.00 ug/L	-0 14
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.31	95	757444	4.64 ug/L	92 84%
57) 1,2-Dichlorobenzene-d4	22.11	152	473335	4.63 ug/L	92 53%
Target Compounds					Qvalue
9) Methylene chloride	7.67	84	116814	1.63 ug/L	99

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

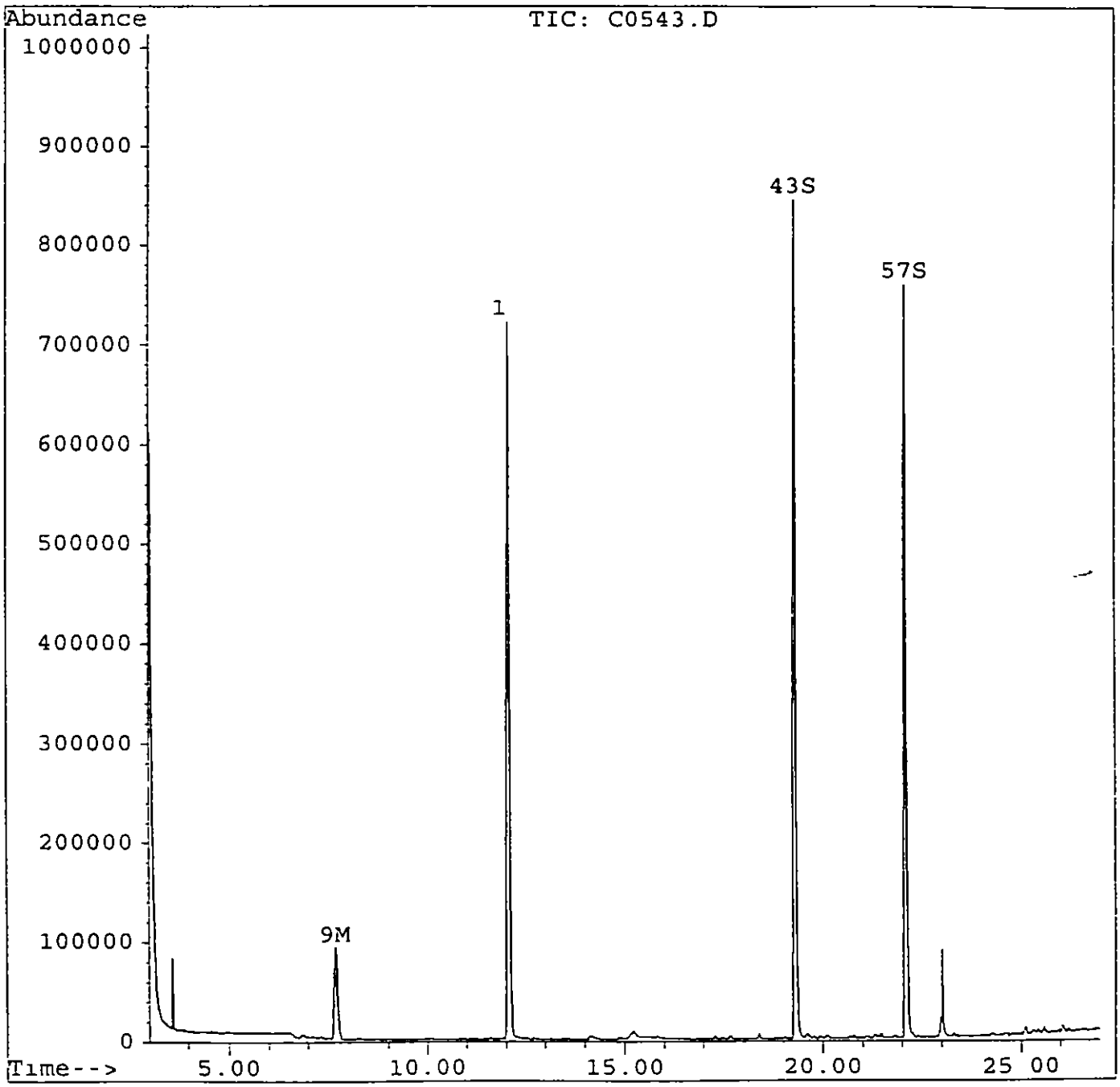
Quantitation Report

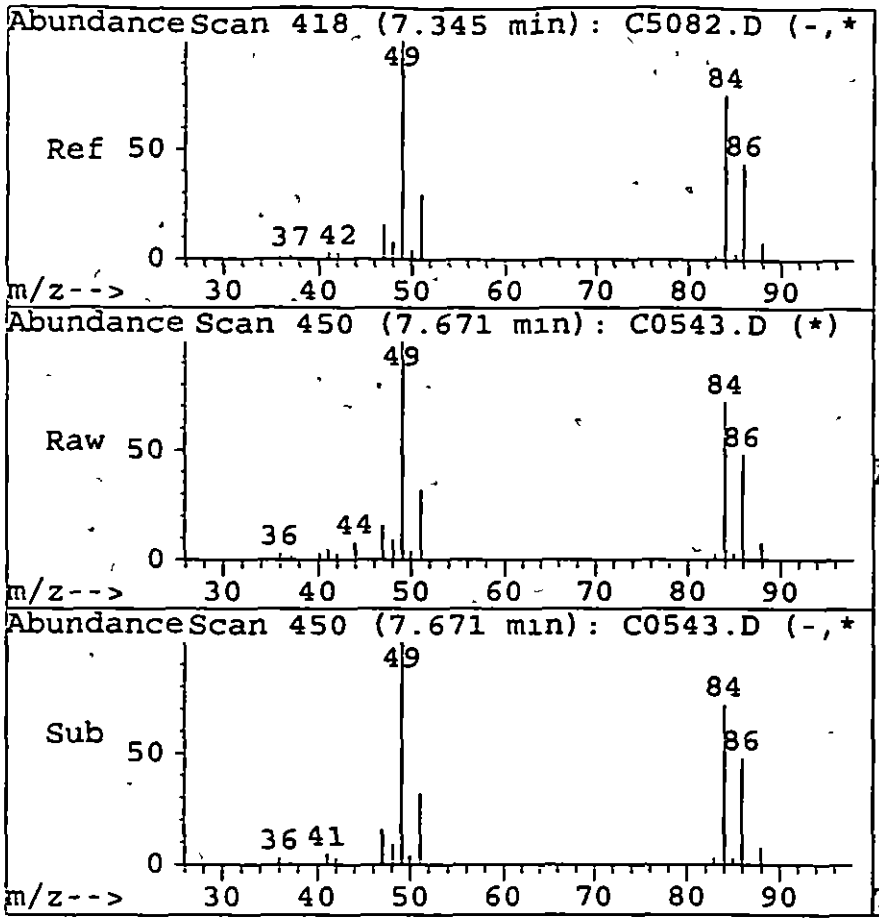
Data File : d:\hpchem\1\data\c0543.d
Acq On : 11 Dec 95 11·22 am
Sample : METHOD BLANK
Misc : 25 ML
Quant Time: Dec 11 11·49 1995

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

156

Method . c \HPCHEM\1\METHODS\VOA524 M
Title · 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25.47 1995
Response via : Multiple Level Calibration

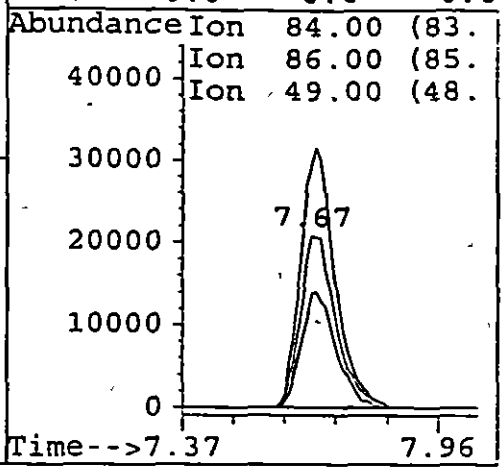




#9
Methylene chloride
Concen: 1.63 ug/L
RT: 7.67 min Scan# 450
Delta R.T. -0.16 min
Lab File: c0543.d
Acq: 11 Dec 95 11:22 am

Tgt Ion:84 Resp: 116814

Ion	Ratio	Lower	Upper
84	100		
86	66.6	45.2	85.2
49	139.5	121.1	161.1
0	0.0	0.0	0.0



Library Search Compound Report

100

Data File : d:\hpchem\1\data\c0543 d
Acq On : 11 Dec 95 11:22 am
Sample : METHOD BLANK
Misc : 25 ML

Vial: 3
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

Spike Recovery and RPD Summary Report - WATER

Method : C:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09.25:47 1995
Response via : Initial Calibration

Non-Spiked Sample. C0430 D

	Spike Sample	Spike Duplicate Sample
File ID	C0438.D	C0439.D
Sample	9554060 MS BLDG 108 MW-3	9554060 MSD BLDG 108 MW-3
Acq Time.	2 Dec 95 9:59 pm	2 Dec 95 10:33 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	9	9	89	89	1	25	80-120
Chloromethane	0.0	10	10	10	100	97	2	25	80-120
Vinyl chloride	0.0	10	10	10	102	99	4	25	80-120
Bromomethane	0.0	10	10	10	96	97	1	25	80-120
Chloroethane	0.0	10	12	12	117	116	1	25	80-120
Trichlorofluorometha	0 0	10	10	10	102	100	2	25	80-120
1,1-Dichloroethene	0 0	10	10	10	102	101	1	25	80-120
Methylene chloride	0 7	10	9	9	86	86	0	25	80-120
trans-1,2-Dichloroet	0 0	10	10	10	101	101	0	25	80-120
1,1-Dichloroethane	0 0	10	10	10	102	102	0	25	80-120
2,2-Dichloropropane	0 1	10	9	9	88	87	1	25	80-120
cis-1,2-Dichloroethe	0 0	10	10	10	101	101	0	25	80-120
Bromochloromethane	0 0	10	10	10	96	97	0	25	80-120
Chloroform	0.0	10	10	10	99	99	0	25	80-120
1,1,1-Trichloroethan	0 0	10	10	10	100	100	0	25	80-120
Carbon tetrachloride	0 0	10	10	10	99	99	0	25	80-120
1,1-Dichloropropene	0 0	10	10	10	101	100	1	25	80-120
Benzene	0 0	10	10	10	99	98	0	25	80-120
1,2-Dichloroethane	0.0	10	10	9	96	95	1	25	80-120
Trichloroethene	0.0	10	10	10	100	98	1	25	80-120
1,2-Dichloropropane	0.0	10	10	10	102	103	1	25	80-120
Dibromomethane	0.0	10	10	10	98	98	1	25	80-120
Bromodichloromethane	0.0	10	10	10	97	96	1	25	80-120
cis-1,3-Dichloroprop	0 0	10	10	9	96	94	2	25	80-120
Toluene	0 0	10	10	10	100	99	1	25	80-120
trans-1,3-Dichloropr	0.0	10	9	9	94	91	3	25	80-120
1,1,2-Trichloroethan	0.0	10	10	10	97	97	0	25	80-120
Tetrachloroethene	0.0	10	10	10	97	97	1	25	80-120
1,3-Dichloropropane	0.0	10	10	10	98	97	1	25	80-120
Dibromochloromethane	0.0	10	10	9	95	93	3	25	80-120
1,2-Dibromoethane	0 0	10	10	10	96	96	0	25	80-120
Chlorobenzene	0.0	10	10	10	98	98	1	25	80-120
1,1,1,2-Tetrachloroe	0.0	10	10	10	98	97	1	25	80-120
Ethylbenzene	0.0	10	10	10	98	97	1	25	80-120
Xylene (para & meta)	0.0	20	19	19	97	96	1	25	80-120
Xylene (Ortho)	0.0	10	10	10	97	96	1	25	80-120
Styrene	0 0	10	9	9	90	90	0	25	80-120
Bromoform	0.0	10	9	9	93	91	2	25	80-120
Isopropylbenzene	0.0	10	10	10	99	97	1	25	80-120
Bromobenzene	0 0	10	10	10	98	96	1	25	80-120
1,1,2,2-Tetrachloroe	0 0	10	10	10	103	101	1	25	80-120
1,2,3-Trichloropropa	0.0	10	10	9	95	94	1	25	80-120
n-Propylbenzene	0 0	10	10	10	99	98	1	25	80-120

2-Chlorotoluene	0.0	10	9	9	95	94	0	25	80-120
4-Chlorotoluene	0.0	10	10	10	99	98	1	25	80-120
1,3,5-Trimethylbenze	0.0	10	9	9	92	90	2	25	80-120
tert-Butylbenzene	0.0	10	10	10	99	98	1	25	80-120
1,2,4-Trimethylbenze	0.0	10	9	9	92	91	2	25	80-120
sec-Butylbenzene	0.0	10	10	10	100	99	1	25	80-120
1,3-Dichlorobenzene	0.0	10	10	10	96	95	2	25	80-120
4-Isopropyltoluene	0.0	10	10	10	98	97	1	25	80-120
1,4-Dichlorobenzene	0.0	10	10	10	97	95	3	25	80-120
1,2-Dichlorobenzene	0 0	10	10	9	96	94	2	25	80-120
n-Butylbenzene	0.0	10	10	10	99	99	1	25	80-120
1,2-Dibromo-3-chloro	0.0	10	9	9	90	88	2	25	80-120
1,2,4-Trichlorobenze	0.0	10	9	9	91	92	2	25	80-120
Hexachlorobutadiene	0.0	10	9	9	93	95	3	25	80-120
Naphthalene	0 0	10	9	9	93	92	1	25	80-120
1,2,3-Trichlorobenze	0 0	10	9	9	89	91	3	25	80-120

Quantitation Report

Data File : d:\hpchem\1\data\c0438.d
Acq On : 2 Dec 95 9:59 pm
Sample : 9554060 MS BLDG 108 MW-3
Misc : 25 ML
Quant Time: Dec 5 12:10 1995

Vial: 14 103
Operator: MDC
Inst 5972 - In
Multiplr: 1.00

Method : c.\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12.18	96	1703293	5.00 ug/L	-0.03
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.40	95	897430	4.88 ug/L	97.60%
57) 1,2-Dichlorobenzene-d4	22.20	152	553194	4 80 ug/L	95.95%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.51	85	820685	8.90 ug/L	99
3) Chloromethane	3.94	50	698309	9.97 ug/L	96
4) Vinyl chloride	4 15	62	797767	10 24 ug/L	99
5) Bromomethane	4.85	94	526929	9 73 ug/L	99
6) Chloroethane	5.08	64	506891	11.71 ug/L	99
7) Trichlorofluoromethane	5.68	101	1376902	10.23 ug/L	98
8) 1,1-Dichloroethene	6.80	96	823573	10.21 ug/L	99
9) Methylene chloride	7.79	84	753291	9.34 ug/L	97
10) trans-1,2-Dichloroethene	8.33	96	927299	10 07 ug/L	98
12) 1,1-Dichloroethane	9.13	63	1767798	10 22 ug/L	99
13) 2,2-Dichloropropane	10.17	77	1278341	8.84 ug/L	99
14) cis-1,2-Dichloroethene	10.18	96	911322	10.07 ug/L	98
16) Bromochloromethane	10.60	128	377895	9 63 ug/L #	91
17) Chloroform	10.75	83	1582880	9.90 ug/L	98
18) 1,1,1-Trichloroethane	11 05	97	1542519	9 97 ug/L	98
19) Carbon tetrachloride	11 35	117	1450672	9.92 ug/L	99
20) 1,1-Dichloropropene	11.34	75	1459229	10.11 ug/L	99
21) Benzene	11 70	78	2943226	9.93 ug/L	99
22) 1,2-Dichloroethane	11 72	62	634752	9.56 ug/L	97
23) Trichloroethene	12.80	95	1223246	9.95 ug/L	98
24) 1,2-Dichloropropane	13.17	63	1047852	10.19 ug/L	99
25) Dibromomethane	13.37	93	443065	9.82 ug/L	94
26) Bromodichloromethane	13.63	83	1298055	9.75 ug/L	100
27) cis-1,3-Dichloropropene	14.38	75	1152102	9.60 ug/L	99
28) Toluene	14 96	92	2090210	10.00 ug/L	99
29) trans-1,3-Dichloropropene	15 31	75	776000	9.37 ug/L	99
30) 1,1,2-Trichloroethane	15 63	83	430739	9 68 ug/L	99
31) Tetrachloroethene	15.91	166	1443936	9.74 ug/L	98
32) 1,3-Dichloropropane	15 92	76	824220	9.78 ug/L	99
33) Dibromochloromethane	16.32	129	845187	9 55 ug/L	98
34) 1,2-Dibromoethane	16 53	107	624674	9 63 ug/L	98
35) Chlorobenzene	17.38	112	2371559	9 84 ug/L	99
36) 1,1,1,2-Tetrachloroethane	17.52	131	980852	9 80 ug/L	98
37) Ethylbenzene	17.56	91	4220466	9.83 ug/L	99
38) Xylene (para & meta)	17.77	106	3161312	19.45 ug/L	97
39) Xylene (Ortho)	18.47	106	1446932	9.70 ug/L	98
40) Styrene	18.49	104	2056886	8.99 ug/L	100

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

Quantitation Report

Data File : d:\hpchem\1\data\c0438.d
Acq On : 2 Dec 95 9:59 pm
Sample : 9554060 MS BLDG 108 MW-3
Misc : 25 ML
Quant Time: Dec 5 12 10 1995

Vial: 14
Operator: MDC
Inst : 5972 - In
Multiplr: 1.00

104

Method : c:\HPCHEM\1\METHODS\VOA524 M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
41)	Bromoform	18.84	173	451295	9 30 ug/L		99
42)	Isopropylbenzene	19.12	105	4095957	9.87 ug/L	m	0
44)	Bromobenzene	19.68	156	1052449	9 78 ug/L		98
45)	1,1,2,2-Tetrachloroethane	19.64	83	558844	10.26 ug/L		100
46)	1,2,3-Trichloropropane	19.72	75	538462	9.62 ug/L		94
47)	n-Propylbenzene	19.86	91	5613614	9.91 ug/L		100
48)	2-Chlorotoluene	20.02	91	3138751	9.47 ug/L		100
49)	4-Chlorotoluene	20.22	91	3658824	9.91 ug/L		99
50)	1,3,5-Trimethylbenzene	20.17	105	3331590	9.25 ug/L		98
51)	tert-Butylbenzene	20 77	119	4019878	9.94 ug/L		98
52)	1,2,4-Trimethylbenzene	20.85	105	3330253	9.25 ug/L		99
53)	sec-Butylbenzene	21.17	105	5518689	10 05 ug/L		100
54)	1,3-Dichlorobenzene	21.38	146	2069849	9.72 ug/L		99
55)	4-Isopropyltoluene	21.43	119	4337269	9 83 ug/L		100
56)	1,4-Dichlorobenzene	21.54	146	2046903	9.81 ug/L		99
58)	1,2-Dichlorobenzene	22.23	146	1620495	9 63 ug/L		98
59)	n-Butylbenzene	22.17	91	4466334	9.97 ug/L		98
60)	1,2-Dibromo-3-chloropropan	23 64	75	103985	9 04 ug/L		93
61)	1,2,4-Trichlorobenzene	25 19	180	1236512	9 07 ug/L		100
62)	Hexachlorobutadiene	25.51	225	1096197	9 25 ug/L		99
63)	Naphthalene	25.66	128	1229866	9 34 ug/L	m	0
64)	1,2,3-Trichlorobenzene	26.15	180	884388	8 90 ug/L		99
65)	Methyl-tert butyl ether	8.37	73	1022390	9 81 ug/L		99
66)	tert-Butyl Alcohol	8.15	59	34747	22 63 ug/L		100

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

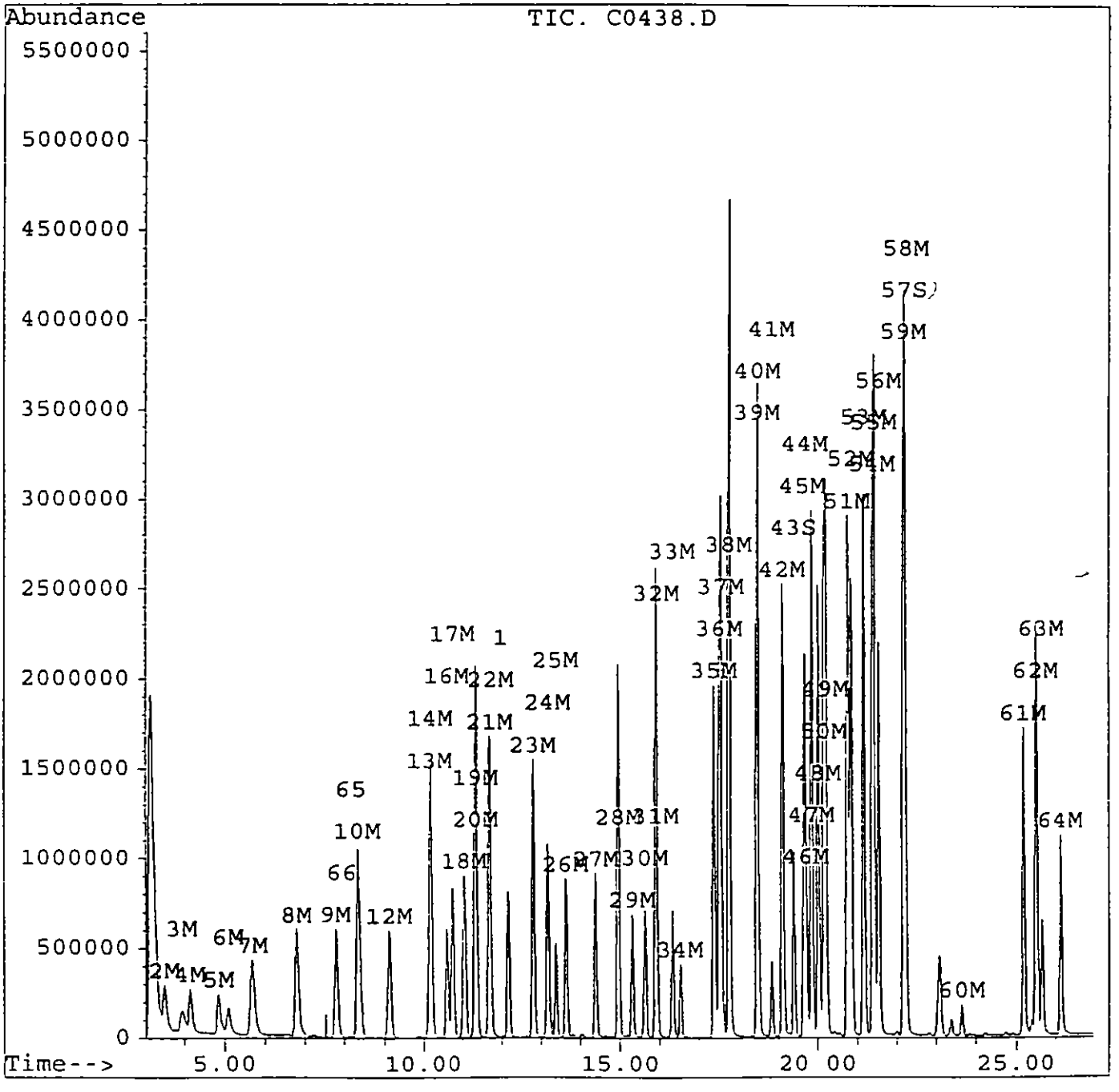
Quantitation Report

Data File : d:\hpchem\1\data\c0438.d
Acq On : 2 Dec 95 9:59 pm
Sample : 9554060 MS BLDG 108 MW-3
Misc : 25 ML
Quant Time: Dec 5 12:10 1995

Vial: 14
Operator: MDC
Inst : 5972 - In
Multiplr: 1.00

105

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : d:\hpchem\1\data\c0439.d
Acq On : 2 Dec 95 10.33 pm
Sample : 9554060 MSD BLDG 108 MW-3
Misc : 25 ML
Quant Time. Dec 5 12:11 1995

Vial: 15 100
Operator: MDC
Inst : 5972 - In
Multiplr: 1 00

Method c·\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09 25:47 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	12.18	96	1698292	5.00 ug/L	-0.03
System Monitoring Compounds					%Recovery
43) 4-Bromofluorobenzene	19.40	95	883203	4.82 ug/L	96.34%
57) 1,2-Dichlorobenzene-d4	22.20	152	555400	4.83 ug/L	96 62%
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.50	85	813406	8.85 ug/L	97
3) Chloromethane	3.94	50	679127	9.72 ug/L	100
4) Vinyl chloride	4.14	62	766232	9 86 ug/L	98
5) Bromomethane	4 83	94	531136	9.84 ug/L	97
6) Chloroethane	5.09	64	499315	11.56 ug/L	97
7) Trichlorofluoromethane	5.68	101	1352386	10.08 ug/L	99
8) 1,1-Dichloroethene	6.79	96	814526	10.13 ug/L	99
9) Methylene chloride	7 79	84	748911	9.32 ug/L	99
10) trans-1,2-Dichloroethene	8 33	96	927475	10 10 ug/L	99
12) 1,1-Dichloroethane	9.12	63	1756085	10 18 ug/L	99
13) 2,2-Dichloropropane	10.16	77	1263265	8.76 ug/L	100
14) cis-1,2-Dichloroethene	10 18	96	911494	10.10 ug/L	98
16) Bromochloromethane	10.60	128	378121	9.66 ug/L	93
17) Chloroform	10.75	83	1578477	9.91 ug/L	99
18) 1,1,1-Trichloroethane	11 06	97	1542978	10 00 ug/L	100
19) Carbon tetrachloride	11.35	117	1441710	9.89 ug/L	98
20) 1,1-Dichloropropene	11.35	75	1440937	10.01 ug/L	99
21) Benzene	11.70	78	2920025	9.88 ug/L	100
22) 1,2-Dichloroethane	11.72	62	627677	9.48 ug/L	98
23) Trichloroethene	12.80	95	1204168	9.83 ug/L	98
24) 1,2-Dichloropropane	13.17	63	1053165	10 27 ug/L	99
25) Dibromomethane	13 37	93	439241	9 76 ug/L	96
26) Bromodichloromethane	13.64	83	1282014	9.65 ug/L	97
27) cis-1,3-Dichloropropene	14 38	75	1126773	9.41 ug/L	98
28) Toluene	14.96	92	2067420	9.92 ug/L	99
29) trans-1,3-Dichloropropene	15.32	75	749502	9.07 ug/L	99
30) 1,1,2-Trichloroethane	15.64	83	430766	9.71 ug/L	98
31) Tetrachloroethene	15.91	166	1430996	9.68 ug/L	99
32) 1,3-Dichloropropane	15.93	76	813068	9.68 ug/L	99
33) Dibromochloromethane	16.33	129	820032	9.29 ug/L	100
34) 1,2-Dibromoethane	16.54	107	620011	9.59 ug/L	98
35) Chlorobenzene	17.38	112	2351583	9.79 ug/L	100
36) 1,1,1,2-Tetrachloroethane	17.52	131	966332	9.68 ug/L	99
37) Ethylbenzene	17.56	91	4161259	9.72 ug/L	100
38) Xylene (para & meta)	17 76	106	3116953	19 24 ug/L	99
39) Xylene (Ortho)	18.48	106	1433164	9.64 ug/L	97
40) Styrene	18.50	104	2048262	8 97 ug/L	97

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

Quantitation Report

Data File : d:\hpchem\1\data\c0439.d
Acq On : 2 Dec 95 10:33 pm
Sample : 9554060 MSD BLDG 108 MW-3
Misc : 25 ML
Quant Time Dec 5 12:11 1995

Vial: 15 107
Operator: MDC
Inst : 5972 - In
Multiplr: 1.00

Method c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
41)	Bromoform	18.84	173	440898	9.11 ug/L		98
42)	Isopropylbenzene	19.12	105	4039408	9.76 ug/L	m	0
44)	Bromobenzene	19.69	156	1034795	9.65 ug/L		99
45)	1,1,2,2-Tetrachloroethane	19.65	83	550664	10.14 ug/L		96
46)	1,2,3-Trichloropropane	19.72	75	529868	9.50 ug/L	#	74
47)	n-Propylbenzene	19.86	91	5528055	9.78 ug/L		100
48)	2-Chlorotoluene	20.03	91	3115655	9.43 ug/L		99
49)	4-Chlorotoluene	20.22	91	3597275	9.77 ug/L		98
50)	1,3,5-Trimethylbenzene	20.18	105	3256240	9.07 ug/L		98
51)	tert-Butylbenzene	20.76	119	3975738	9.86 ug/L		97
52)	1,2,4-Trimethylbenzene	20.86	105	3267491	9.11 ug/L		99
53)	sec-Butylbenzene	21.17	105	5446678	9.95 ug/L		99
54)	1,3-Dichlorobenzene	21.38	146	2031549	9.57 ug/L		99
55)	4-Isopropyltoluene	21.42	119	4299083	9.77 ug/L		99
56)	1,4-Dichlorobenzene	21.55	146	1988592	9.56 ug/L		100
58)	1,2-Dichlorobenzene	22.23	146	1588483	9.46 ug/L		97
59)	n-Butylbenzene	22.18	91	4430414	9.92 ug/L		99
60)	1,2-Dibromo-3-chloropropan	23.65	75	101512	8.85 ug/L		98
61)	1,2,4-Trichlorobenzene	25.20	180	1253282	9.22 ug/L		100
62)	Hexachlorobutadiene	25.52	225	1120719	9.49 ug/L		99
63)	Naphthalene	25.66	128	1212182	9 23 ug/L	m	0
64)	1,2,3-Trichlorobenzene	26.16	180	905706	9 14 ug/L		96
65)	Methyl-tert butyl ether	8.37	73	1003755	9 66 ug/L		99
66)	tert-Butyl Alcohol	8.11	59	74140	48 43 ug/L		100

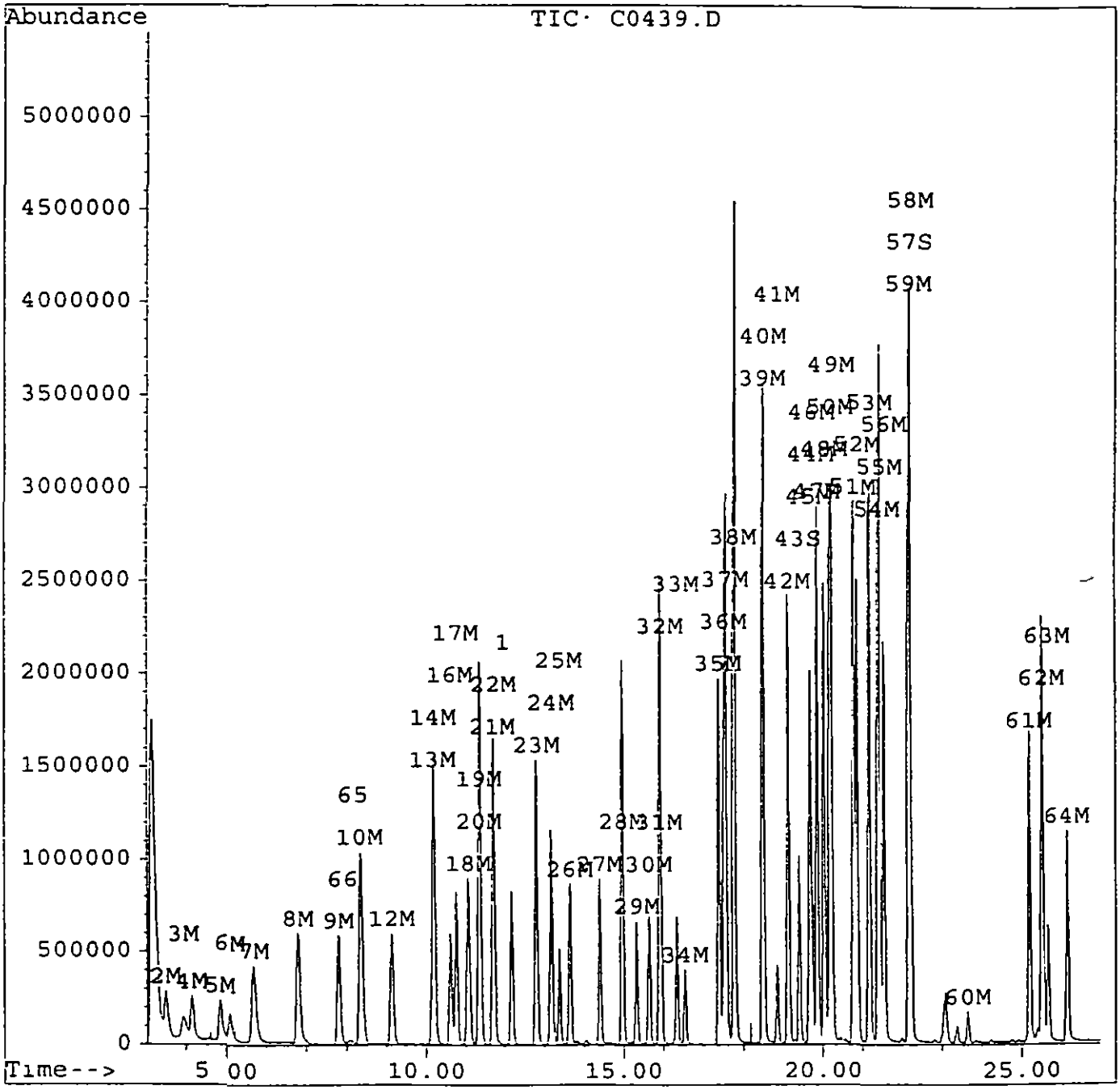
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : d:\hpchem\1\data\c0439.d
Acq On : 2 Dec 95 10:33 pm
Sample : 9554060 MSD BLDG 108 MW-3
Misc : 25 ML
Quant Time: Dec 5 12:11 1995

Vial: 15
Operator: MDC
Inst : 5972 - In
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\VOA524.M
Title : 524.2 Purgable Organics
Last Update : Wed Nov 22 09:25:47 1995
Response via : Multiple Level Calibration



EMSL

GC/MS SEMIVOLATILE DATA PACKAGE

59

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Nam EMSL Analytical Contract

Lab Code Case No SAS No SDG No

Lab File ID B8951 D DFTPP Injection Date 10/22/95

Instrument ID ABNA DFTPP Injection Time 1620

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 80.0% of mass 198	58.1	
68	Less than 2.0% of mass 69	0.0	0 0)1
69	Mass 69 relative abundance	82.8	
70	Less than 2.0% of mass 69	0.2	0.3)1
127	25.0 - 75.0% of mass 198	44 6	
197	Less than 1 0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5 0 to 9 0% of mass 198	6 7	
275	10 0 - 30 0% of mass 198	20.2	
365	Greater than 0 75% of mass 198	2.5	
441	Present, but less than mass 443	10.3	
442	40.0 - 110 0% of mass 198	72.0	
443	15.0 - 24.0% of mass 442	13.9	19.2)2

1-Value is % mass 69 2-Value is % mass 442

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

	EPA SAMPLE N	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
#		20 STANDARD	B8952.D	10/22/95	1658
#		50 STANDARD	B8953.D	10/22/95	1749
#		80 STANDARD	B8954.D	10/22/95	1842
#		120 STANDARD	B8955.D	10/22/95	1933
#		160 STANDARD	B8956.D	10/22/95	2024
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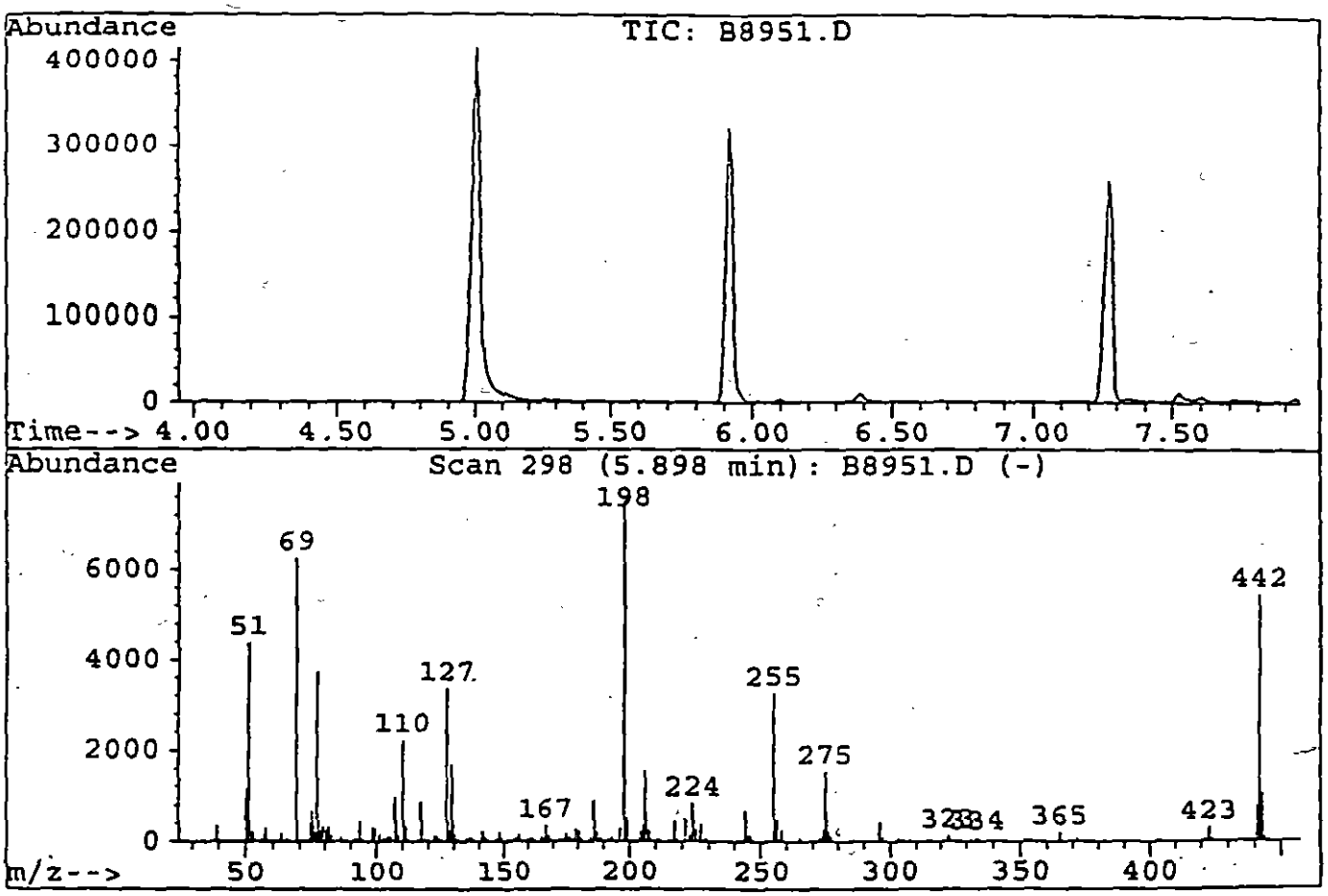
DFTPP

Data File : C:\HPCHEM\1\DATA2\B8951.D
Acq On : 22 Oct 95 4:20 pm
Sample : DFTPP ..... Converted from RTE d
Misc :

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration



Peak Apex is scan: 303

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	58.1	4393	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	82.8	6258	PASS
70	69	0	2	0.3	17	PASS
127	198	40	60	44.6	3367	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	7557	PASS
199	198	5	9	6.7	509	PASS
275	198	10	30	20.2	1529	PASS
365	198	1	100	2.5	192	PASS
441	443	0	100	74.6	781	PASS
442	198	40	100	72.0	5439	PASS
443	442	17	23	19.2	1047	PASS

B8951.D BNACLP.M Mon Oct 23 14:07:34 1995 BNA

an 298 (5.898 min): B8951.D

dified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.10	48	53.20	32	66.25	16	81.05	330
39.10	377	55.15	21	69.05	6258	82.05	125
40.05	27	56.05	141	70.00	17	83.10	43
41.10	10	57.15	307	73.05	24	85.15	33
44.05	7	58.05	32	74.10	427	86.05	107
46.60	11	59.95	22	75.05	682	87.05	21
47.80	16	61.05	55	76.05	197	91.15	87
49.10	37	61.95	44	77.05	3745	92.00	60
50.10	1180	63.05	185	78.10	240	93.00	454
51.10	4393	64.15	16	79.05	321	94.00	50
52.15	214	65.10	64	80.15	246	97.10	3

an 298 (5.898 min): B8951.D

dified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
98.00	325	110.00	2222	122.95	109	137.05	74
99.00	281	111.00	317	124.10	52	140.95	229
100.10	5	112.00	46	125.05	31	141.95	94
100.95	139	113.10	20	127.00	3367	142.95	55
102.10	18	115.90	71	128.00	243	145.95	27
102.90	73	117.00	896	129.00	1693	147.00	82
104.00	105	117.90	36	129.90	141	148.00	203
105.00	92	118.10	58	130.95	51	148.95	66
105.90	39	119.00	20	134.00	53	151.05	39
107.00	988	120.00	31	134.95	101	151.85	31
108.00	125	122.00	109	136.05	69	152.05	32

an 298 (5.898 min): B8951.D

dified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
152.95	60	165.05	106	176.90	82	187.90	28
154.05	51	166.05	68	177.80	28	188.85	72
154.95	105	166.90	354	178.10	24	191.10	44
156.05	158	167.95	121	178.90	282	192.00	61
156.85	36	169.10	30	180.00	203	193.00	102
157.95	40	170.10	16	181.00	77	194.00	21
158.95	24	171.90	35	183.10	15	195.10	31
159.25	25	173.00	24	183.90	27	195.95	283
159.95	67	173.95	67	184.90	108	197.90	7557
160.95	104	175.00	148	186.00	914	198.90	509
161.75	45	175.90	65	186.95	185	200.00	46

an 298 (5.898 min): B8951.D

ified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
201.60	61	215.95	46	231.05	30	246.80	43
202.90	37	216.80	458	233.85	24	248.80	25
203.95	217	217.95	63	234.85	34	254.85	3269
204.95	357	220.95	493	236.95	39	255.90	462
205.95	1535	222.90	129	238.85	14	256.90	41
206.95	222	223.90	845	240.80	39	257.90	257
207.85	61	224.95	251	242.00	53	258.90	35
210.00	28	226.05	23	243.00	42	264.80	100
210.65	74	226.90	375	243.90	676	265.60	2
211.15	58	227.85	48	244.90	125	271.10	17
214.95	32	228.85	86	245.90	118	272.90	118

an 293 (5.898 min): B8951.D

dified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
273.95	258	303.05	54	340.80	21	382.75	22
274.90	1529	314.00	18	351.85	43	389.90	20
275.90	208	314.80	56	352.85	33	401.90	34
276.80	117	315.80	36	353.85	41	402.80	36
277.65	28	321.00	19	354.65	19	420.80	38
284.25	14	322.85	124	364.75	192	421.80	40
284.55	12	323.80	30	365.65	20	422.75	303
285.05	41	326.80	31	370.75	21	423.85	52
292.75	37	332.00	18	371.85	86	440.80	781
295.80	403	333.80	79	372.75	20	441.85	5439
296.85	79	334.90	23	372.95	20	442.85	1047

an 298 (5.898 min): B8951.D

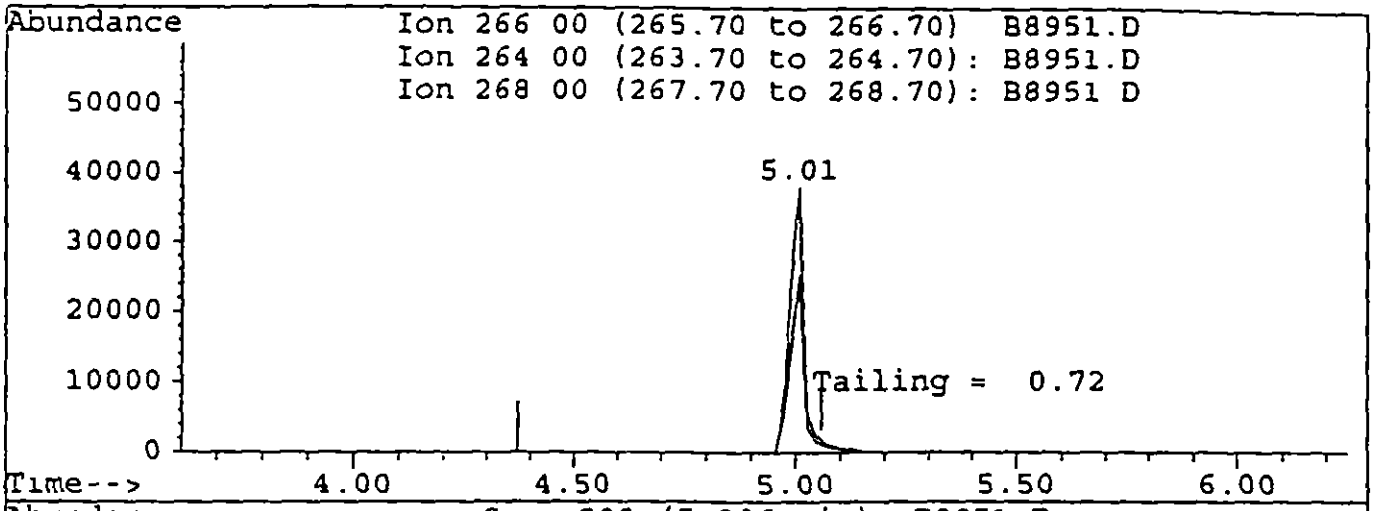
dified:subtracted

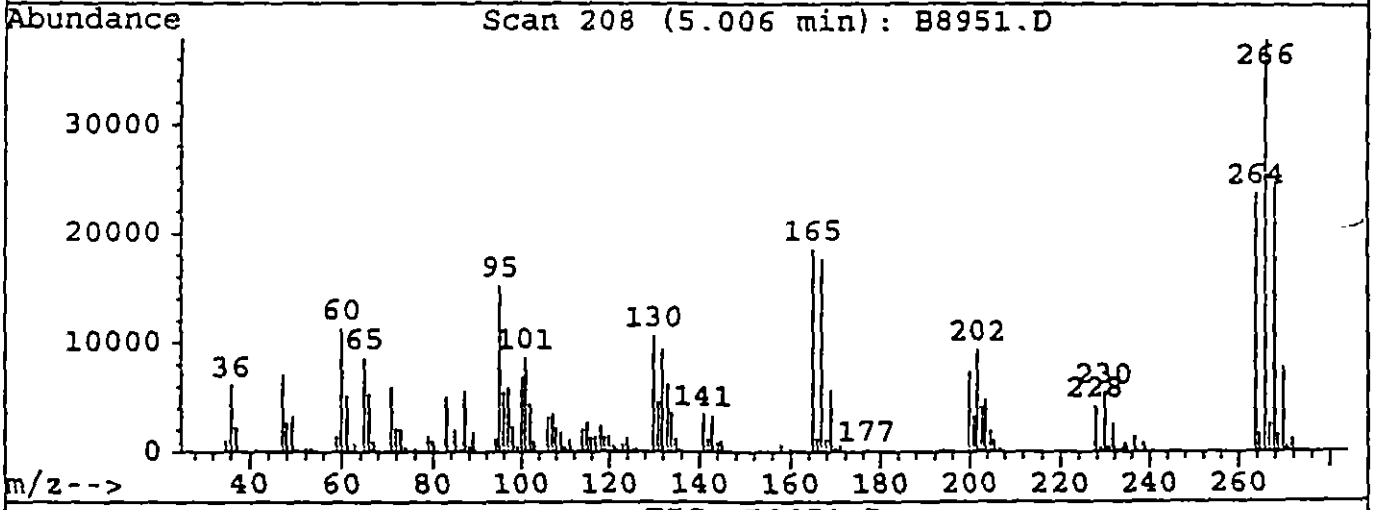
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
443.85	86						

Quantitation Report

Data File C \HPCHEM\1\DATA2\B8951 D Vial. 1
Acq On 22 Oct 95 4 20 pm Operator SCOTTV
Sample DFTPP .. Converted from RTE d Inst ABNA
Misc BT Multiplr 1 00
Quant Time Oct 23 14 06 1995

Method C \HPCHEM\1\METHODS\BNACLP M
Title . CLP BNA Calibration
Last Update . Thu Sep 21 12 47:27 1995
Response via : Multiple Level Calibration





TIC: B8951.D

(1) Pentachlorophenol (CM)

5.01min 266.46ug/mL
response 88011

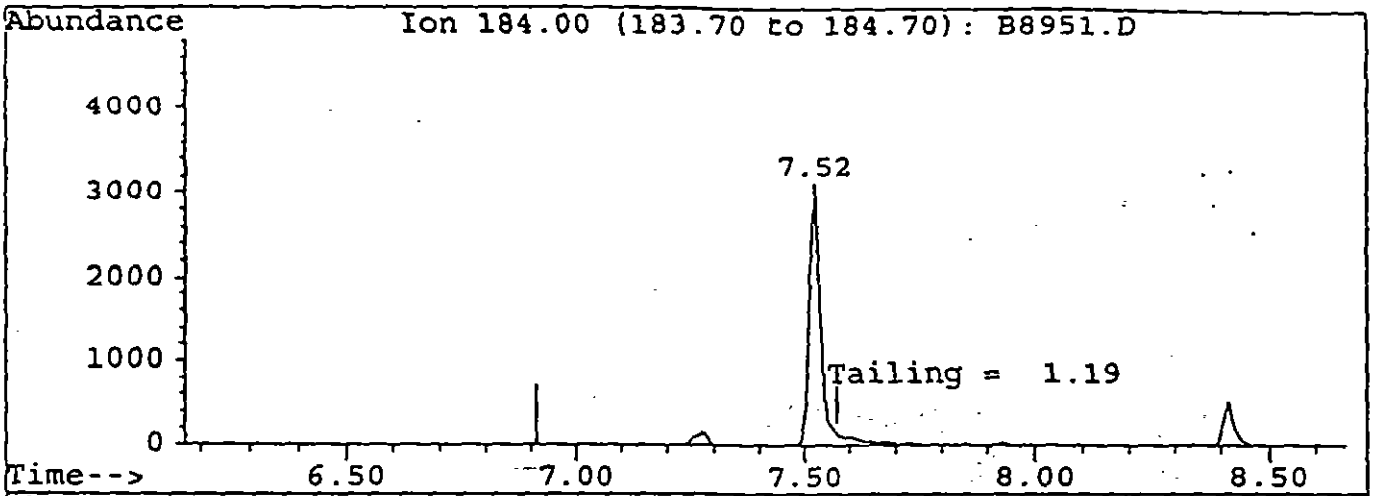
Ion	Exp%	Act%
266.00	100	100
264.00	64.30	67.02
268.00	64.70	64.58
0.00	0.00	0.00

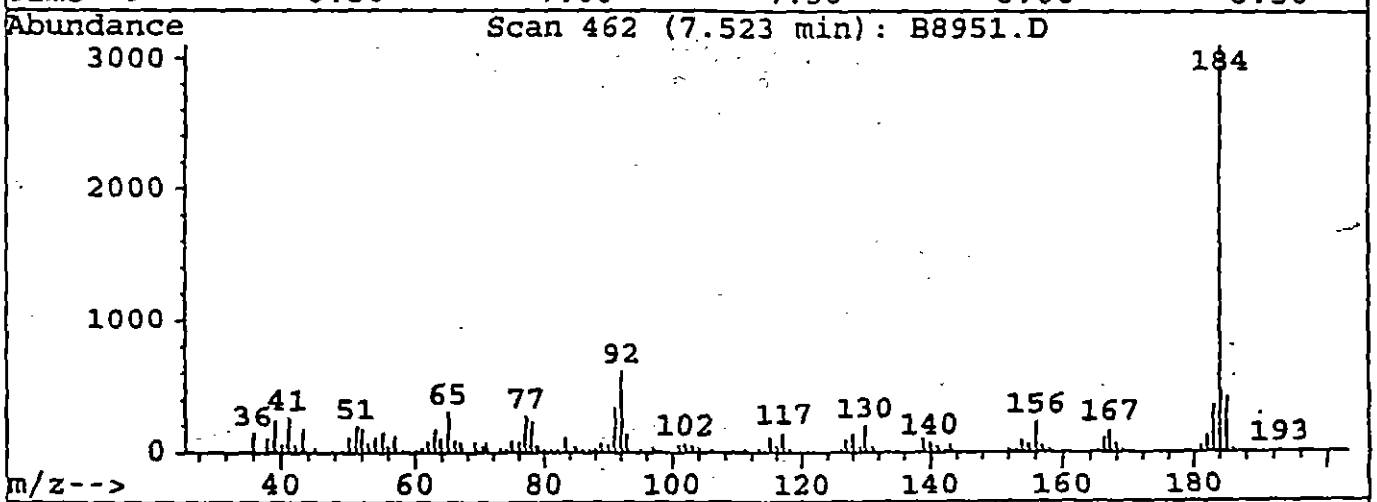
Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B8951.D
Acq On : 22 Oct 95 4:20 pm
Sample : DFTPP ..... Converted from RTE d
Misc :
Quant Time: Oct 23 14:06 1995

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Sep 21 12:47:27 1995
Response via : Multiple Level Calibration





TIC: B8951.D

(2) Benzidine
7.52min 18.09ug/ml
response 5556

Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Response Factor Report ABNA

Method C:\HPCHEM\1\METHODS\BNACLP.M
Title CLP BNA Calibration
Last Update Wed Oct 25 10:15:01 1995
Response Via Initial Calibration

Calibration Files
160 =B8956.D 120 =B8955.D 80 =B8954.D
50 =B8953.D 20 =B8952.D

		Compound	160	120	80	50	20	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------						
2)	S	2-Fluorophenol	1.298	1.281	1.315	1.267	1.215	1.275	2.98
3)	S	Phenol-d5	2.193	2.110	2.121	2.008	1.912	2.069	5.30
4)	M	N-nitrosodimethylamin	0.949	0.938	0.778	0.886		0.887	8.80
5)		Pyridine	0.977	0.898	0.594	0.908	0.596	0.795	23.24
6)	CM	Phenol	2.058	1.866	1.941	1.876	1.963	1.941	4.00
7)	MT	bis(2-Chloroethyl)eth	2.339	2.271	2.478	2.298	2.478	2.373	4.17
8)	M	2-Chlorophenol	1.340	1.326	1.370	1.335	1.293	1.333	2.08
9)	MT	1,3-Dichlorobenzene	1.333	1.349	1.417	1.396	1.341	1.367	2.72
10)	CM	1,4-Dichlorobenzene	1.341	1.339	1.435	1.444	1.359	1.383	3.74
11)	M	1,2-Dichlorobenzene	1.327	1.309	1.391	1.387	1.322	1.347	2.88
12)	T	2-Methylphenol	1.282	1.266	1.246	1.281	1.320	1.279	2.15
13)	M	bis(2-chloroisopropyl	3.117	2.080	2.102	1.860	2.012	2.234	22.50
14)	T	4-Methylphenol	1.346	1.396	1.393	1.481	1.395	1.402	3.48
15)	PM	N-Nitroso-Di-n-propyl	1.635	1.504	1.491	1.495	1.515	1.528	3.97
16)	M	Hexachloroethane	0.866	0.842	0.908	0.877	0.847	0.868	3.04
17)	I	Naphthalene-d8	----------ISTD----------						
18)	S	Nitrobenzene-d5	0.536	0.548	0.540	0.529	0.557	0.542	2.00
19)	M	Nitrobenzene	0.665	0.462	0.486	0.489	0.494	0.519	15.90
20)	M	Isophorone	1.023	1.026	1.061	1.021	1.376	1.101	13.99
21)	MC	2-Nitrophenol	0.233	0.242	0.253	0.246	0.223	0.239	4.94
22)	M	2,4-Dimethylphenol	0.406	0.400	0.396	0.376	0.355	0.387	5.48
23)	M	bis(2-Chloroethoxy)me	0.594	0.586	0.623	0.583	0.629	0.603	3.57
24)	MC	2,4-Dichlorophenol	0.301	0.295	0.305	0.294	0.281	0.295	3.20
25)	M	1,2,4-Trichlorobenzen	0.299	0.303	0.314	0.309	0.297	0.304	2.24
26)	M	Naphthalene	0.999	1.022	0.994	1.016	0.985	1.003	1.53
27)	T	4-Chloroaniline	0.476	0.462	0.491	0.449	0.476	0.470	3.41
28)	MC	Hexachlorobutadiene	0.155	0.162	0.164	0.161	0.155	0.160	2.53
29)	MC	4-Chloro-3-methylphen	0.402	0.386	0.385	0.392	0.376	0.388	2.50
30)	M	2-Chloronaphthalene	0.643	0.619	0.649	0.634	0.627	0.634	1.88
31)	T	2-Methylnaphthalene	0.823	0.860	0.870	0.905	0.890	0.870	3.60
32)	I	Acenaphthene-d10	----------ISTD----------						
33)	P	Hexachlorocyclopentad	0.305	0.321	0.324	0.243	0.254	0.289	13.21
34)	MC	2,4,6-Trichlorophenol	0.491	0.481	0.415	0.404	0.339	0.426	14.61
35)	T	2,4,5-Trichlorophenol	0.271	0.293	0.373	0.403	0.396	0.347	17.62
36)	S	2-Fluorobiphenyl	1.238	1.248	1.189	1.241	1.184	1.220	2.53
37)	T	2-Nitroaniline	0.841	0.736	0.817	0.751	0.769	0.783	5.72
38)	M	Dimethylphthalate	1.333	1.293	1.362	1.377	1.474	1.368	4.92
39)	M	Acenaphthylene	1.777	1.826	1.858	1.846	1.697	1.801	3.66
40)	M	2,6-Dinitrotoluene	0.243	0.258	0.320	0.377	0.339	0.308	18.23
41)	T	3-Nitroaniline	0.298	0.316	0.358	0.366	0.372	0.342	9.62

(#) = Out of Range

Response Factor Report ABNA

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Oct 25 10:15:01 1995
Response via : Initial Calibration

Calibration Files
160 =B8956.D 120 =B8955.D 80 =B8954.D
50 =B8953.D 20 =B8952.D

		Compound	160	120	80	50	20	Avg	%RSD
42)	CM	Acenaphthene	0.987	1.017	1.050	1.041	1.005	1.020	2.52
43)	MP	2,4-Dinitrophenol	0.242	0.217	0.207	0.173		0.210	13.59
44)	PM	4-Nitrophenol	0.243	0.224	0.225	0.220		0.228	4.42
45)	T	Dibenzofuran	1.535	1.581	1.527	1.568	1.461	1.534	3.05
46)	M	2,4-Dinitrotoluene	0.350	0.503	0.509	0.467	0.434	0.452	14.36
47)	M	Diethylphthalate	1.464	1.545	1.538	1.580	1.653	1.556	4.40
48)	M	Fluorene	1.177	1.197	1.128	1.203	1.132	1.167	3.03
49)	M	4-Chlorophenyl-phenyl	0.476	0.512	0.504	0.514	0.538	0.509	4.32
50)		Phenanthrene-d10	----------ISTD----------						
51)	T	4-Nitroaniline	0.201	0.219	0.237	0.246	0.248	0.230	8.80
52)	MC	4,6-Dinitro-2-methylp	0.143	0.147	0.146	0.157		0.148	4.25
53)	T	n-Nitrosodiphenylamin	0.502	0.521	0.559	0.565	0.566	0.543	5.37
54)	S	2,4,6-Tribromophenol	0.137	0.130	0.130	0.122	0.114	0.127	6.88
55)		1,2-Diphenylhydrazine	1.727	1.765	1.839	1.876	1.714	1.784	3.97
56)	M	4-Bromophenyl-phenyle	0.170	0.189	0.192	0.186	0.198	0.187	5.57
57)	M	Hexachlorobenzene	0.234	0.240	0.250	0.239	0.223	0.237	4.16
58)	CM	Pentachlorophenol	0.176	0.169	0.159	0.146		0.163	7.89
59)	M	Phenanthrene	1.052	1.101	1.091	1.128	1.062	1.087	2.81
60)	M	Anthracene	1.028	1.059	1.084	1.099	1.067	1.068	2.50
61)		Carbazole	1.073	1.102	1.155	1.045	0.948	1.065	7.19
62)	M	Di-n-butylphthalate	1.934	2.050	1.972	2.064	2.036	2.011	2.76
63)	MC	Fluoranthene	1.064	1.116	1.124	1.122	1.034	1.092	3.74
64)	I	Chrysene-d12	----------ISTD----------						
65)		Benzidine	0.292	0.287	0.271	0.235	0.282	0.274	8.41
66)	M	Pyrene	1.738	1.691	1.628	1.557	1.388	1.600	8.56
67)	S	Terphenyl-d14	1.136	1.078	0.983	0.913	0.857	0.994	11.56
68)	M	Butylbenzylphthalate	1.325	1.272	1.223	1.223	1.183	1.245	4.39
69)	M	Benzo[a]anthracene	1.452	1.523	1.454	1.486	1.231	1.429	8.01
70)	M	3,3'-Dichlorobenzidin	0.363	0.382	0.412	0.399	0.375	0.386	5.04
71)	M	Chrysene	0.772	0.885	0.894	0.868	0.865	0.857	5.70
72)	M	bis(2-Ethylhexyl)phth	1.753	1.891	1.767	1.774	1.738	1.785	3.42
73)	I	Perylene-d12	----------ISTD----------						
74)	MC	Di-n-octylphthalate	5.446	5.792	5.574	5.955		5.692	3.97
75)	M	Benzo[b]fluoranthene	1.854	2.099	1.614	2.424	1.772	1.952	16.21
76)	m	Benzo[k]fluoranthene	1.092	1.112	1.104	1.200	1.303	1.162	7.73
77)	mc	Benzo[a]pyrene	1.053	1.059	1.082	1.079	1.132	1.081	2.85
78)	m	Indeno[1,2,3-cd]pyren	0.593	0.636	0.621	0.586	0.371	0.561	19.33
79)	m	Dibenz[a,h]anthracene	0.600	0.602	0.587	0.572	0.382	0.549	17.12
80)	M	Benzo[g,h,i]perylene	0.552	0.576	0.573	0.534	0.312	0.510	21.93
81)		1-Methyl naphthalene						0.000#	-1.00
82)		7,12-Dimethylbenz(a)a						0.000#	-1.00

(#) = Out of Range

Response Factor Report ABNA

Method C:\HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Wed Oct 25 10:15:01 1995
Response via : Initial Calibration

Calibration Files
160 =B8956.D 120 =B8955.D 80 =B8954.D
50 =B8953.D 20 =B8952.D

	Compound	160	120	80	50	20	Avg	%RSD
83)	Quinoline						0.000#	-1.00
84)	Thiophenol						0.000#	-1.00
85)	4-Methyl chrysene						0.000#	-1.00
86)	Dibenz(a,j)acridine						0.000#	-1.00
87)	Indene						0.000#	-1.00
88)	Benzyl alcohol						0.000#	-1.00
89)	Benzoic acid						0.000#	-1.00

(#) = Out of Range

Quantitation Report

179

Data File : c:\hpchem\1\data2\b8952.d
Acq On : 22 Oct 95 4:58 pm
Sample : 20 STD..... Converted from RTE d
Misc :
Quant Time: Oct 25 9:45 1995

Vial: 2
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Sep 21 12:47:27 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.69	152	29442	40.00	ug/mL	-0.33
17) Naphthalene-d8	12.41	136	115955	40.00	ug/mL	-0.35
32) Acenaphthene-d10	17.73	164	69183	40.00	ug/mL	-0.35
50) Phenanthrene-d10	22.20	188	103757	40.00	ug/ml	-0.38
64) Chrysene-d12	30.29	240	75851	40.00	ug/mL	-0.40
73) Perylene-d12	34.27	264	29259	40.00	ug/mL	-0.43
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.11	112	44724	46.49	ug/mL	46.49%
3) Phenol-d5	8.08	99	70383	45.87	ug/mL	45.87%
18) Nitrobenzene-d5	10.37	82	80764	52.70	ug/mL	52.70%
36) 2-Fluorobiphenyl	15.88	172	102384	48.24	ug/mL	48.24%
54) 2,4,6-Tribromophenol	20.14	330	14825	53.50	ug/mL	53.50%
67) Terphenyl-d14	27.36	244	81257	33.34	ug/mL	33.34%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.14	74	15448	25.20	ug/ml	100
6) Phenol	8.11	94	28900	20.59	ug/mL	100
7) bis(2-Chloroethyl)ether	12.10	93	36472	22.04	ug/mL	94
8) 2-Chlorophenol	8.09	128	19030	19.10	ug/mL#	81
9) 1,3-Dichlorobenzene	8.48	146	19737	19.33	ug/mL	96
10) 1,4-Dichlorobenzene	8.73	146	20003	19.12	ug/mL	96
11) 1,2-Dichlorobenzene	9.12	146	19457	19.34	ug/mL	97
12) 2-Methylphenol	9.81	108	19438	21.22	ug/mLm	100
13) bis(2-chloroisopropyl)ethe	9.79	45	29616	23.05	ug/mL#	40
14) 4-Methylphenol	10.31	108	20537	20.05	ug/mL	100
15) N-Nitroso-Di-n-propylamine	10.18	70	22300	21.23	ug/mL	94
16) Hexachloroethane	10.08	117	12474	20.33	ug/mL#	63
19) Nitrobenzene	10.43	77	28618	20.36	ug/mL	93
20) Isophorone	10.37	82	79753	25.72	ug/mL#	67
21) 2-Nitrophenol	11.37	139	12913	20.42	ug/mL#	86
22) 2,4-Dimethylphenol	11.83	107	20567	18.72	ug/mL#	100
23) bis(2-Chloroethoxy)methane	12.10	93	36472	21.56	ug/mL#	100
24) 2,4-Dichlorophenol	12.16	162	16269	19.83	ug/mL#	93
25) 1,2,4-Trichlorobenzene	12.32	180	17221	20.08	ug/mL	95
26) Naphthalene	12.47	128	57119	19.89	ug/mL	100
27) 4-Chloroaniline	12.84	127	27603	20.47	ug/mL	99
28) Hexachlorobutadiene	12.99	225	9013	20.60	ug/mL	95
29) 4-Chloro-3-methylphenol	14.57	107	21812	20.86	ug/mL	96
30) 2-Chloronaphthalene	16.05	162	36338	21.53	ug/ml#	100
31) 2-Methylnaphthalene	14.61	142	51624	30.41	ug/mL	95
33) Hexachlorocyclopentadiene	15.13	237	8772	19.27	ug/mL#	90
34) 2,4,6-Trichlorophenol	15.59	196	11710	15.31	ug/mL	96
35) 2,4,5-Trichlorophenol	15.69	196	13699	21.15	ug/mL	97

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

Quantitation Report

Data File: c \hpchem\1\data2\b8952 d Vial: 2
Acq On: 22 Oct 95 4:58 pm Operator: SCOTTV
Sample: 20 STD Converted from RTE d Inst: ABNA
Misc: BT Multiplr: 1 00
Quant Time: Oct 25 9 45 1995

Method: c \HPCHEM\1\METHODS\BNACLP M
Title: CLP BNA Calibration
Last Update: Thu Sep 21 12 47 27 1995
Response via: Multiple Level Calibration

	Compound	R T.	QIon	Response	Conc Unit	Qvalue
37)	2-Nitroaniline	17.83	65	26617	23.54 ug/mL	72
38)	Dimethylphthalate	17.31	163	50983	22.95 ug/mL#	13
39)	Acenaphthylene	17.25	152	58691	19.03 ug/mL	98
40)	2,6-Dinitrotoluene	17.40	165	11726	19.95 ug/mL#	87
41)	3-Nitroaniline	19.68	138	12871	24.57 ug/mL#	87
42)	Acenaphthene	17.81	153	34778	18.65 ug/mL	99
43)	2,4-Dinitrophenol	18.15	184	4144	18.76 ug/mL#	66
44)	4-Nitrophenol	18.65	109	6336	21.77 ug/mL#	57
45)	Dibenzofuran	18.37	168	50539	19.77 ug/mL#	88
46)	2,4-Dinitrotoluene	18.56	165	15019	23.85 ug/mL#	1
47)	Diethylphthalate	19.54	149	57169	23 32 ug/mL	95
48)	Fluorene	19.39	166	39160	19 64 ug/mL	99
49)	4-Chlorophenyl-phenylether	19.60	204	18593	20.88 ug/mL	90
51)	4-Nitroaniline	19.68	138	12871	21.96 ug/mL	87
52)	4,6-Dinitro-2-methylphenol	19.77	198	6716	20.84 ug/mL	100
53)	n-Nitrosodiphenylamine	20.02	169	29360	21.36 ug/mL	95
55)	1,2-Diphenylhydrazine (as	20.08	77	88943	17.28 ug/ml	100
56)	4-Bromophenyl-phenylether	21.06	248	10252	18.11 ug/mL#	76
57)	Hexachlorobenzene	21.01	284	11578	18.19 ug/mL#	52
58)	Pentachlorophenol	21.74	266	5478	14.77 ug/mL	99
59)	Phenanthrene	22.28	178	55118	18.45 ug/mL	100
60)	Anthracene	22.41	178	55350	19.28 ug/mLm	100
61)	Carbazole	23.07	167	49203	17.84 ug/ml	97
62)	Di-n-butylphthalate	24.61	149	105600	19.26 ug/mL	99
63)	Fluoranthene	25.88	202	53632	19.37 ug/mL#	58
65)	Benzidine	26.57	184	10709	16.44 ug/ml	100
66)	Pyrene	26.50	202	52626	12.69 ug/mL#	75
68)	Butylbenzylphthalate	29.14	149	44863	17.91 ug/mL#	9
69)	Benzo[a]anthracene	30.26	228	46690	19.16 ug/mL	100
70)	3,3'-Dichlorobenzidine	30.43	252	14204	27 28 ug/mL#	88
71)	Chrysene	30.35	228	32814	17.31 ug/mLm	100
72)	bis(2-Ethylhexyl)phthalate	31.12	149	65904	18.81 ug/mL#	35
74)	Di-n-octylphthalate	33.03	149	94455	16.40 ug/mL#	100
75)	Benzo[b]fluoranthene	33.30	252	25924	16.54 ug/mL#	85
76)	Benzo[k]fluoranthene	33.38	252	19069	16.16 ug/mLm	85
77)	Benzo[a]pyrene	34.11	252	16555	19.26 ug/mLm	85
78)	Indeno[1,2,3-cd]pyrene	36.79	276	5424	14.32 ug/mL#	23
79)	Dibenz[a,h]anthracene	36.91	278	5588	18.32 ug/mL#	74
80)	Benzo[g,h,i]perylene	37.31	276	4565	14.10 ug/mLm	59

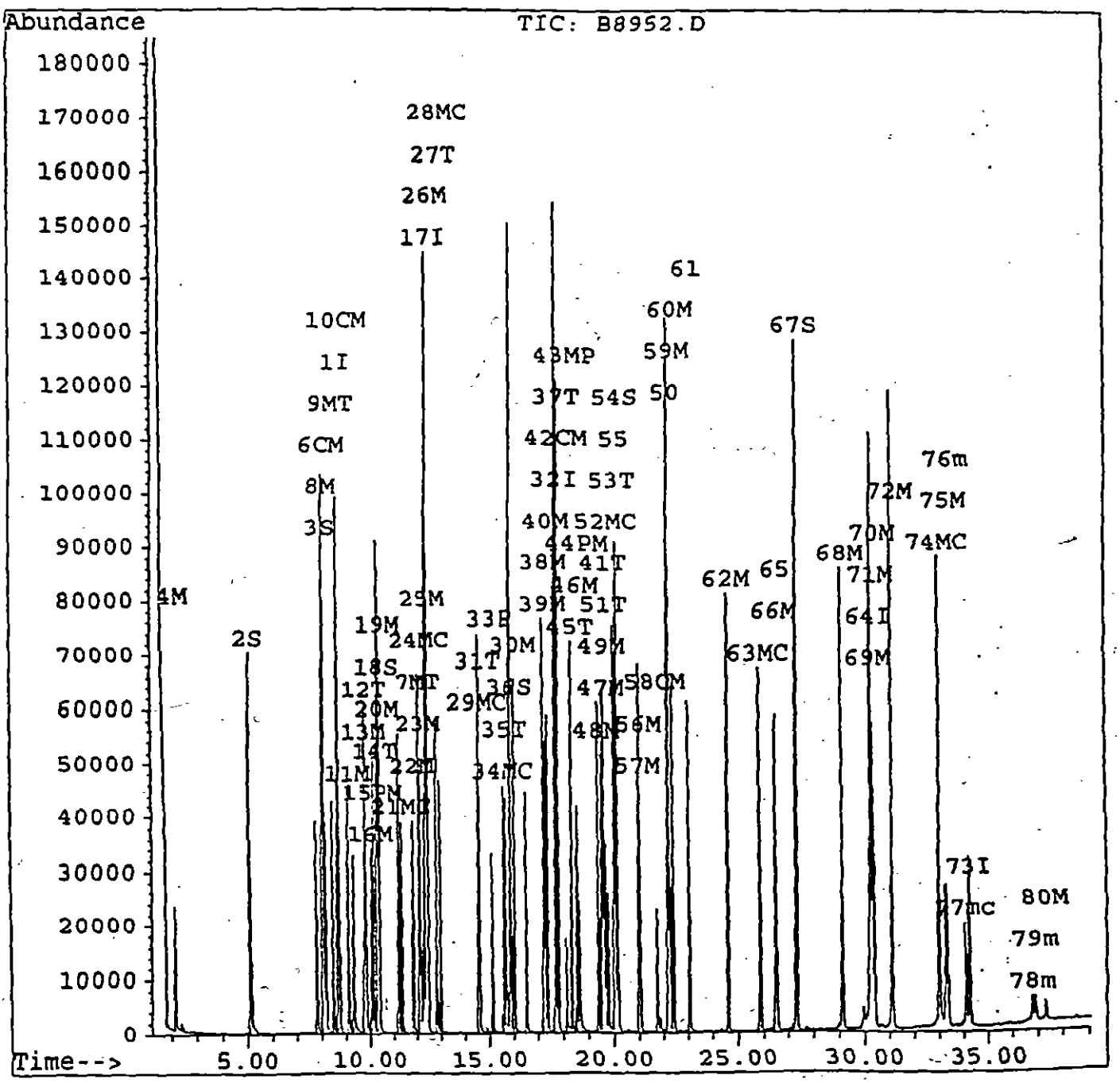
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b8952.d
Acq On : 22 Oct 95 4:58 pm
Sample : 20 STD..... Converted from RTE d
Misc :
Quant Time: Oct 25 9:45 1995

Vial: 2
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Sep 21 12:47:27 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File: c:\hpchem\1\data2\b8953.d
Acq On: 22 Oct 95 5:49 pm
Sample: 50 STD
Misc: Converted from RTE.d
Quant Time: Oct 25 9:46 1995

Vial: 3
Operator: SCOTTV
Inst: ABNA
BT Multipl: 1.00

Method: c:\HPCHEM\1\METHODS\BNACLP.M
Title: CLP BNA Calibration
Last Update: Thu Sep 21 12:47:27 1995
Response via: Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.69	152	30029	40.00	ug/mL	-0.33
17) Naphthalene-d8	12.43	136	118447	40.00	ug/mL	-0.33
32) Acenaphthene-d10	17.73	164	66652	40.00	ug/mL	-0.35
50) Phenanthrene-d10	22.23	188	99018	40.00	ug/ml	-0.35
64) Chrysene-d12	30.29	240	71387	40.00	ug/mL	-0.41
73) Perylene-d12	34.24	264	29156	40.00	ug/mL	-0.45
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.11	112	47542	48.46	ug/mL	48.46%
3) Phenol-d5	8.09	99	75366	48.16	ug/mL	48.16%
18) Nitrobenzene-d5	10.39	82	78309	50.02	ug/mL	50.02%
36) 2-Fluorobiphenyl	15.90	172	103420	50.58	ug/mL	50.58%
54) 2,4,6-Tribromophenol	20.17	330	15101	57.11	ug/mL	57.11%
67) Terphenyl-d14	27.36	244	81512	35.53	ug/mL	35.53%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.14	74	33256	53.18	ug/ml	100
6) Phenol	8.13	94	70425	49.19	ug/mL	100
7) bis(2-Chloroethyl)ether	12.12	93	86266	51.11	ug/mL	97
8) 2-Chlorophenol	8.11	128	50107	49.31	ug/mL#	79
9) 1,3-Dichlorobenzene	8.48	146	52404	50.32	ug/mL	98
10) 1,4-Dichlorobenzene	8.75	146	54194	50.78	ug/mL	97
11) 1,2-Dichlorobenzene	9.14	146	52073	50.76	ug/mL	96
12) 2-Methylphenol	9.83	108	48095	51.48	ug/mLm	99
13) bis(2-chloroisopropyl)ethe	9.77	45	69800	53.26	ug/mL	98
14) 4-Methylphenol	10.35	108	55590	53.22	ug/mL	99
15) N-Nitroso-Di-n-propylamine	10.22	70	56128	52.39	ug/mL#	95
16) Hexachloroethane	10.08	117	32913	52.60	ug/mL#	72
19) Nitrobenzene	10.45	77	72432	50.46	ug/mL	88
20) Isophorone	11.28	82	151156	47.73	ug/mL	94
21) 2-Nitrophenol	11.39	139	36365	56.30	ug/mL#	87
22) 2,4-Dimethylphenol	11.87	107	55686	49.62	ug/mL#	100
23) bis(2-Chloroethoxy)methane	12.12	93	86266	49.92	ug/mL#	100
24) 2,4-Dichlorophenol	12.18	162	43494	51.90	ug/mL	93
25) 1,2,4-Trichlorobenzene	12.32	180	45688	52.14	ug/mL	95
26) Naphthalene	12.49	128	150500	51.30	ug/mL	98
27) 4-Chloroaniline	12.86	127	66405	48.20	ug/mL	99
28) Hexachlorobutadiene	12.99	225	23776	53.19	ug/mL	97
29) 4-Chloro-3-methylphenol	14.57	107	58006	54.32	ug/mL	87
30) 2-Chloronaphthalene	16.06	162	93821	54.43	ug/ml#	100
31) 2-Methylnaphthalene	14.63	142	133962	77.26	ug/mL	96
33) Hexachlorocyclopentadiene	15.13	237	20265	46.21	ug/mL	98
34) 2,4,6-Trichlorophenol	15.61	196	33685	45.73	ug/mL	96
35) 2,4,5-Trichlorophenol	15.69	196	33610	53.87	ug/mL	96

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

Quantitation Report

Data File c \hpchem\1\data2\b8953 d Vial 3
Acq On 22 Oct 95 5 49 pm Operator SCOTTV
Sample 50 STD Converted from RTE d Inst ABNA
Misc BT Multiplr 1 00
Quant Time Oct 25 9 46 1995

Method c \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Thu Sep 21 12:47.27 1995
Response via : Multiple Level Calibration

	Compound	R T	QIon	Response	Conc Unit	Qvalue
37)	2-Nitroaniline	17.85	65	62561	57.42 ug/mL	88
38)	Dimethylphthalate	17.35	163	114727	53.61 ug/mL#	12
39)	Acenaphthylene	17.27	152	153827	51.77 ug/mL	98
40)	2,6-Dinitrotoluene	17.43	165	31425	55.50 ug/mL#	99
41)	3-Nitroaniline	19.74	138	30489	60.41 ug/mL#	88
42)	Acenaphthene	17.83	153	86706	48.26 ug/mL	98
43)	2,4-Dinitrophenol	18.18	184	14425	67.78 ug/mL#	82
44)	4-Nitrophenol	18.66	109	18330	65.38 ug/mL#	60
45)	Dibenzofuran	18.39	168	130635	53.03 ug/mL#	88
46)	2,4-Dinitrotoluene	18.60	165	38874	64.08 ug/mL#	1
47)	Diethylphthalate	19.57	149	131625	55.73 ug/mL	94
48)	Fluorene	19.41	166	100228	52.18 ug/mL	98
49)	4-Chlorophenyl-phenylether	19.62	204	42840	49 93 ug/mL#	83
51)	4-Nitroaniline	19.74	138	30489	54.51 ug/mL	88
52)	4,6-Dinitro-2-methylphenol	19.82	198	19462	63.27 ug/mL	100
53)	n-Nitrosodiphenylamine	20.05	169	69895	53.29 ug/mL	94
55)	1,2-Diphenylhydrazine (as	20.09	77	232246	47.27 ug/ml	100
56)	4-Bromophenyl-phenylether	21.07	248	23079	42.71 ug/mL#	91
57)	Hexachlorobenzene	21.03	284	29529	48.61 ug/mL#	45
58)	Pentachlorophenol	21.77	266	18120	51.19 ug/mL	99
59)	Phenanthrene	22.29	178	139586	48.95 ug/mL	99
60)	Anthracene	22.44	178	136009	49.65 ug/mLm	99
61)	Carbazole	23.10	167	129337	49.15 ug/ml	97
62)	Di-n-butylphthalate	24.64	149	255450	48.81 ug/mL#	97
63)	Fluoranthene	26.53	202	138921	52.58 ug/mL#	56
65)	Benzidine	22.23	184	20957	34.19 ug/mlm	100
66)	Pyrene	26.53	202	138921	35.60 ug/mL#	69
68)	Butylbenzylphthalate	29.15	149	109116	46.28 ug/mL#	9
69)	Benzo[a]anthracene	30.27	228	132632	57.82 ug/mL	99
70)	3,3'-Dichlorobenzidine	30.42	252	35599	72.64 ug/mL#	92
71)	Chrysene	30.36	228	77428	43 39 ug/mLm	99
72)	bis(2-Ethylhexyl)phthalate	31.14	149	158269	47.99 ug/mL#	37
74)	Di-n-octylphthalate	33.04	149	217022	37.81 ug/mL#	100
75)	Benzo[b]fluoranthene	33.31	252	88341	56.55 ug/mLm	86
76)	Benzo[k]fluoranthene	33.39	252	43746	37.21 ug/mLm	86
77)	Benzo[a]pyrene	34.09	252	39340	45.93 ug/mLm	86
78)	Indeno[1,2,3-cd]pyrene	36.76	276	21346	56.57 ug/mL#	25
79)	Dibenz[a,h]anthracene	36.88	278	20854	68.60 ug/mL#	76
80)	Benzo[g,h,i]perylene	37.30	276	19464	60 33 ug/mLm	60

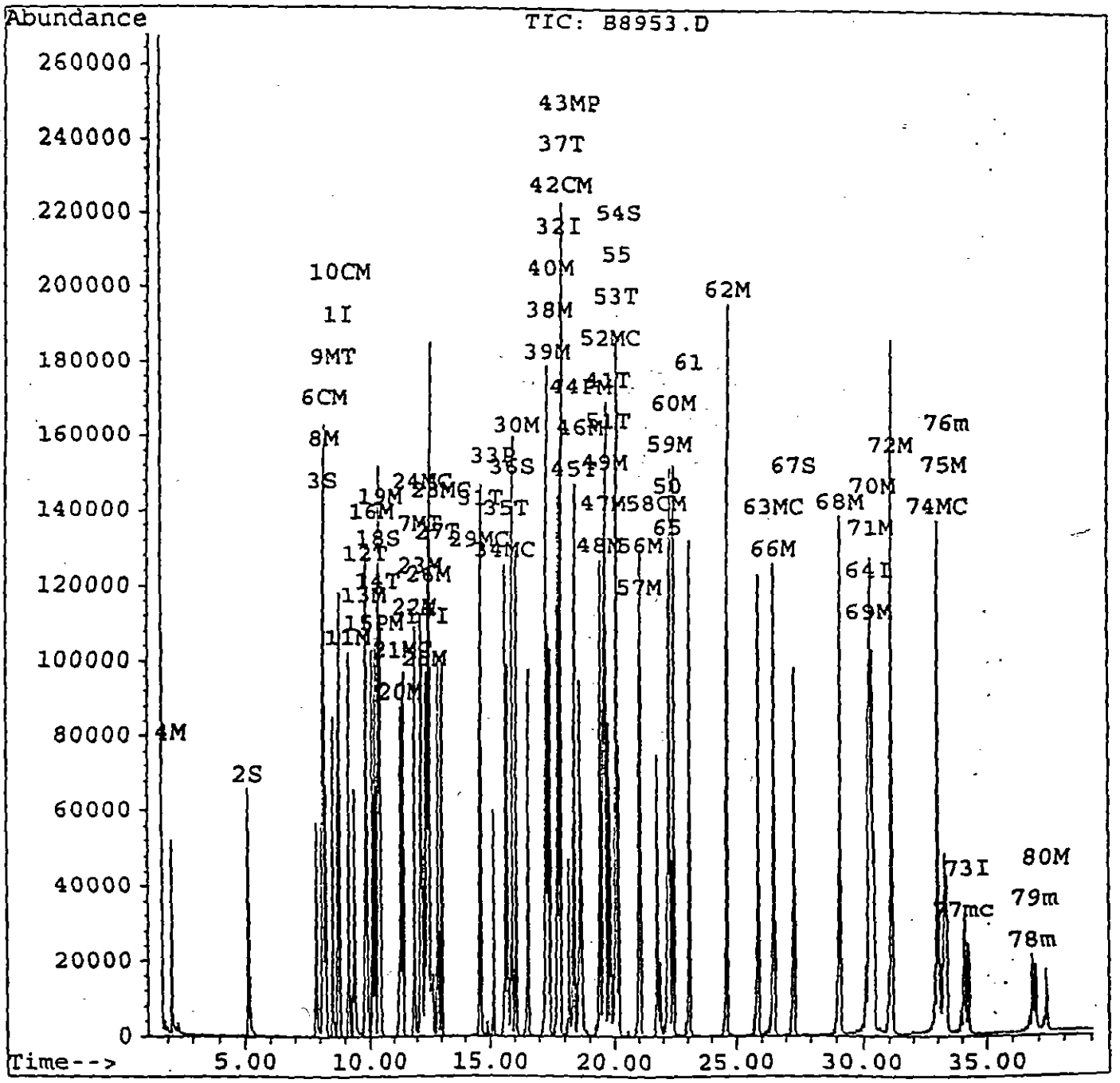
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b8953.d
Acq On : 22 Oct 95 5:49 pm
Sample : 50 STD..... Converted from RTE d
Misc :
Quant Time: Oct 25 9:46 1995

Vial: 3
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Sep 21 12:47:27 1995
Response via : Multiple Level Calibration



b8953.d BNACLP.M

Quantitation Report

Data File : c:\hpchem\1\data2\b8954.d
Acq On : 22 Oct 95 6:42 pm
Sample : 80 STD..... Converted from RTE d
Misc :
Quant Time: Oct 25 9:48 1995

Vial: 4
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Sep 21 12:47:27 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.69	152	27758	40.00	ug/mL	-0.33
17) Naphthalene-d8	12.43	136	110409	40.00	ug/mL	-0.33
32) Acenaphthene-d10	17.74	164	64239	40.00	ug/mL	-0.34
50) Phenanthrene-d10	22.23	188	96790	40.00	ug/ml	-0.34
64) Chrysene-d12	30.31	240	65927	40.00	ug/mL	-0.38
73) Perylene-d12	34.25	264	27421	40.00	ug/mL	-0.45
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.11	112	45615	50.30	ug/mL	50.30%
3) Phenol-d5	8.11	99	73604	50.88	ug/mL	50.88%
18) Nitrobenzene-d5	10.41	82	74558	51.09	ug/mL	51.09%
36) 2-Fluorobiphenyl	15.90	172	95476	48.45	ug/mL	48.45%
54) 2,4,6-Tribromophenol	20.19	330	15745	60.91	ug/mL	60.91%
67) Terphenyl-d14	27.36	244	80989	38.23	ug/mL	38.23%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.14	74	43170	74.69	ug/ml	100
6) Phenol	8.15	94	107752	81.42	ug/mL	100
7) bis(2-Chloroethyl)ether	12.14	93	137545	88.16	ug/mL	93
8) 2-Chlorophenol	8.11	128	76031	80.94	ug/mL#	84
9) 1,3-Dichlorobenzene	8.50	146	78669	81.71	ug/mL	97
10) 1,4-Dichlorobenzene	8.75	146	79665	80.76	ug/mL	97
11) 1,2-Dichlorobenzene	9.14	146	77232	81.44	ug/mL	97
12) 2-Methylphenol	9.85	108	69148	80.08	ug/mLm	99
13) bis(2-chloroisopropyl)ethe	9.81	45	116703	96.34	ug/mL#	59
14) 4-Methylphenol	10.37	108	77308	80.07	ug/mL	99
15) N-Nitroso-Di-n-propylamine	10.24	70	82768	83.57	ug/mL	93
16) Hexachloroethane	10.08	117	50425	87.18	ug/mL#	78
19) Nitrobenzene	10.47	77	107228	80.13	ug/mL	91
20) Isophorone	11.31	82	234237	79.35	ug/mL	95
21) 2-Nitrophenol	11.39	139	55945	92.92	ug/mL#	92
22) 2,4-Dimethylphenol	11.89	107	87491	83.64	ug/mL#	100
23) bis(2-Chloroethoxy)methane	12.14	93	137545	85.38	ug/mL#	100
24) 2,4-Dichlorophenol	12.20	162	67435	86.32	ug/mL	93
25) 1,2,4-Trichlorobenzene	12.34	180	69245	84.78	ug/mL	94
26) Naphthalene	12.49	128	219568	80.29	ug/mL	100
27) 4-Chloroaniline	12.88	127	108351	84.37	ug/mL	100
28) Hexachlorobutadiene	13.01	225	36309	87.14	ug/mL	100
29) 4-Chloro-3-methylphenol	14.59	107	85056	85.45	ug/mL#	77
30) 2-Chloronaphthalene	16.08	162	143223	89.13	ug/ml#	100
31) 2-Methylnaphthalene	14.63	142	192207	118.92	ug/mL	96
33) Hexachlorocyclopentadiene	15.15	237	41659	98.56	ug/mL	98
34) 2,4,6-Trichlorophenol	15.63	196	53315	75.09	ug/mL	96
35) 2,4,5-Trichlorophenol	15.71	196	47946	79.73	ug/mL	97

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

Quantitation Report

Data File c \hpchem\1\data2\b8954 d Vial 4
Acq On 22 Oct 95 6 42 pm Operator SCOTTV
Sample 80 STD Converted from RTE d Inst ABNA
Misc BT Multipl 1 00
Quant Time Oct 25 9.48 1995

Method c \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Thu Sep 21 12.47 27 1995
Response via Multiple Level Calibration

	Compound	R T	QIon	Response	Conc Unit	Qvalue
37)	2-Nitroaniline	17.87	65	104963	99 96 ug/mL	87
38)	Dimethylphthalate	17.37	163	175032	84 87 ug/mL#	12
39)	Acenaphthylene	17.29	152	238659	83 33 ug/mL	97
40)	2,6-Dinitrotoluene	17.47	165	41143	75.39 ug/mL#	91
41)	3-Nitroaniline	19.76	138	45967	94.49 ug/mL	87
42)	Acenaphthene	17.85	153	134868	77.88 ug/mL	99
43)	2,4-Dinitrophenol	18.20	184	26551	129.44 ug/mL#	84
44)	4-Nitrophenol	18.70	109	28923	107.04 ug/mL#	53
45)	Dibenzofuran	18.39	168	196167	82.63 ug/mL	93
46)	2,4-Dinitrotoluene	18.62	165	65450	111.94 ug/mL#	1
47)	Diethylphthalate	19.59	149	197611	86.81 ug/mL	95
48)	Fluorene	19.43	166	144915	78 28 ug/mL	100
49)	4-Chlorophenyl-phenylether	19.63	204	64693	78.23 ug/mL#	85
51)	4-Nitroaniline	19.76	138	45967	84 07 ug/mL	87
52)	4,6-Dinitro-2-methylphenol	19.86	198	28218	93.85 ug/mL	100
53)	n-Nitrosodiphenylamine	20.07	169	108144	84.35 ug/mL	95
55)	1,2-Diphenylhydrazine (as	20.11	77	356011	74.13 ug/ml	100
56)	4-Bromophenyl-phenylether	21.08	248	37114	70.27 ug/mL	95
57)	Hexachlorobenzene	21.06	284	48488	81.66 ug/mL#	37
58)	Pentachlorophenol	21.77	266	30727	88.81 ug/mL	99
59)	Phenanthrene	22.31	178	211278	75.80 ug/mL	99
60)	Anthracene	22.47	178	209890	78.38 ug/mLm	99
61)	Carbazole	23.12	167	223505	86.89 ug/ml	97
62)	Di-n-butylphthalate	24.64	149	381823	74.63 ug/mL	98
63)	Fluoranthene	25.91	202	217602	84.25 ug/mL#	58
65)	Benzidine	26.59	184	35718	63.11 ug/ml	100
66)	Pyrene	26.53	202	214611	59.55 ug/mL#	71
68)	Butylbenzylphthalate	29.15	149	161233	74.04 ug/mL#	11
69)	Benzo[a]anthracene	30.27	228	191680	90.48 ug/mL	98
70)	3,3'-Dichlorobenzidine	30.41	252	54288	119.95 ug/mL#	91
71)	Chrysene	30.37	228	117879	71.53 ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.12	149	232983	76.50 ug/mL#	36
74)	Di-n-octylphthalate	33.03	149	305687	56.63 ug/mL#	100
75)	Benzo[b]fluoranthene	33.32	252	88515	60.24 ug/mL#	85
76)	Benzo[k]fluoranthene	33.38	252	60541	54.76 ug/mLm	85
77)	Benzo[a]pyrene	34.09	252	59358	73.68 ug/mLm	85
78)	Indeno[1,2,3-cd]pyrene	36.77	276	34042	95.92 ug/mL#	27
79)	Dibenz[a,h]anthracene	36.89	278	32174	112.54 ug/mL#	73
80)	Benzo[g,h,i]perylene	37.31	276	31449	103.65 ug/mLm	61

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

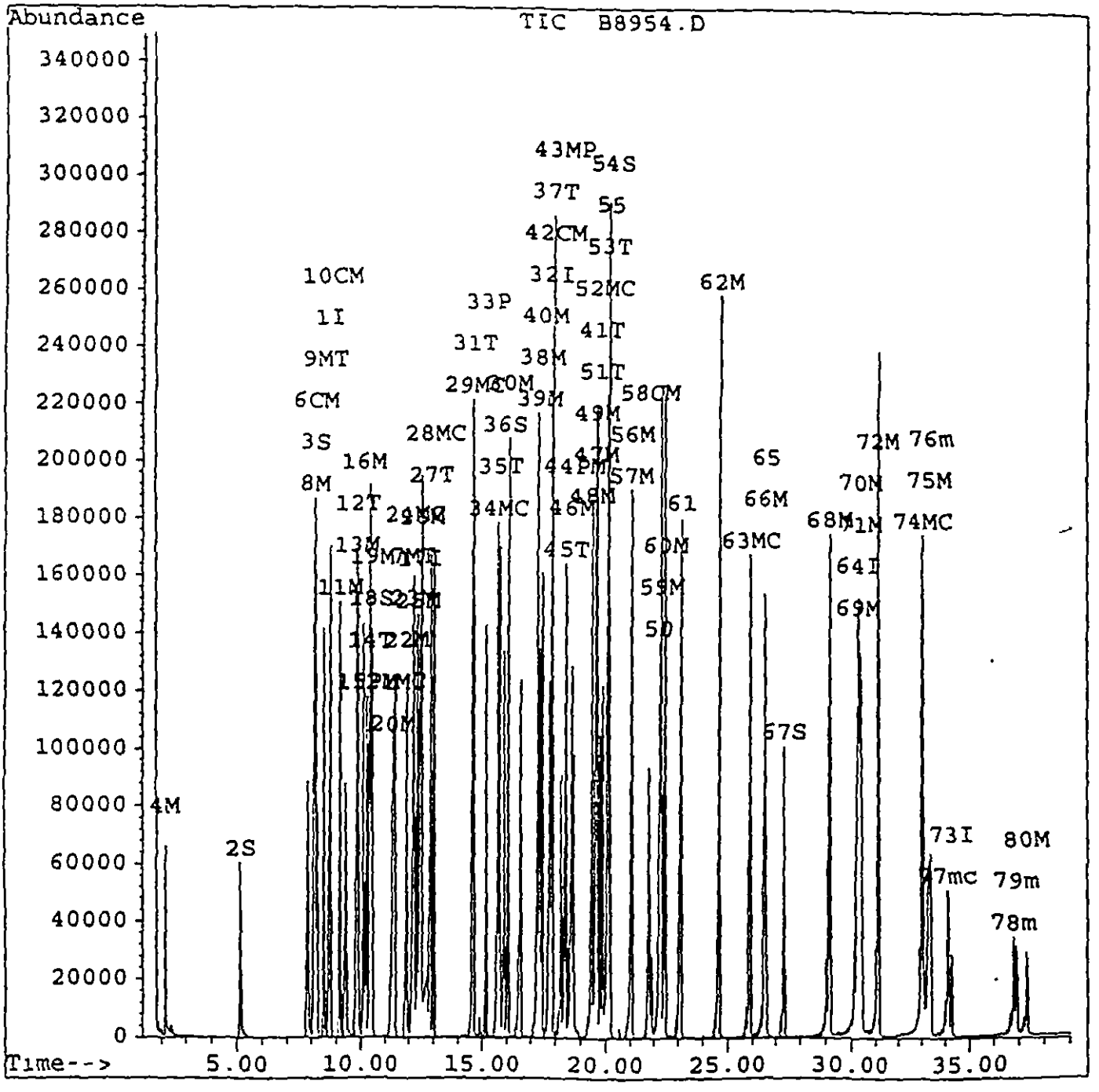
Quantitation Report

Data File : c \hpchem\1\data2\b8954 d
Acq On : 22 Oct 95 6 42 pm
Sample : 80 STD
Misc
Quant Time : Oct 25 9 49 1995

Converted from RTE d

Vial: 4
Operator: SCOTTV
Inst : ABNA
BT Multiplr. 1.00

Method : c \HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Sep 21 12 47 27 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File : c:\hpchem\1\data2\b8955.d
Acq On : 22 Oct 95 7:33 pm
Sample : 120 STD..... Converted from RTE d
Misc :
Quant Time: Oct 25 10:18 1995

Vial: 5
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Sep 21 12:47:27 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.70	152	27461	40.00	ug/mL	-0.32
17) Naphthalene-d8	12.44	136	106422	40.00	ug/mL	-0.32
32) Acenaphthene-d10	17.75	164	62579	40.00	ug/mL	-0.33
50) Phenanthrene-d10	22.23	188	90364	40.00	ug/ml	-0.35
64) Chrysene-d12	30.31	240	57405	40.00	ug/mL	-0.39
73) Perylene-d12	34.25	264	23394	40.00	ug/mL	-0.45
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.12	112	43975	49.01	ug/mL	49.01%
3) Phenol-d5	8.14	99	72439	50.61	ug/mL	50.61%
18) Nitrobenzene-d5	10.42	82	72866	51.80	ug/mL	51.80%
36) 2-Fluorobiphenyl	15.91	172	97613	50.85	ug/mL	50.85%
54) 2,4,6-Tribromophenol	20.20	330	14666	60.77	ug/mL	60.77%
67) Terphenyl-d14	27.36	244	77377	41.94	ug/mL	41.94%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.15	74	77244	135.08	ug/ml	100
6) Phenol	8.18	94	153731	117.41	ug/mL	100
7) bis(2-Chloroethyl)ether	12.17	93	187081	121.20	ug/mL	88
8) 2-Chlorophenol	8.14	128	109258	117.57	ug/mL#	81
9) 1,3-Dichlorobenzene	8.51	146	111126	116.67	ug/mL	98
10) 1,4-Dichlorobenzene	8.76	146	110282	113.00	ug/mL	96
11) 1,2-Dichlorobenzene	9.14	146	107878	114.99	ug/mL	96
12) 2-Methylphenol	9.88	108	104312	122.10	ug/mLm	98
13) bis(2-chloroisopropyl)ethe	9.80	45	171386	143.01	ug/mL#	85
14) 4-Methylphenol	10.40	108	115007	120.40	ug/mL	98
15) N-Nitroso-Di-n-propylamine	10.28	70	123864	126.42	ug/mL	94
16) Hexachloroethane	10.09	117	69400	121.28	ug/mL#	76
19) Nitrobenzene	10.49	77	147477	114.34	ug/mL	99
20) Isophorone	11.36	82	327700	115.17	ug/mLm	95
21) 2-Nitrophenol	11.42	139	77152	132.95	ug/mL#	94
22) 2,4-Dimethylphenol	11.92	107	127738	126.70	ug/mL#	100
23) bis(2-Chloroethoxy)methane	12.17	93	187081	120.48	ug/mL#	100
24) 2,4-Dichlorophenol	12.23	162	94341	125.29	ug/mL#	92
25) 1,2,4-Trichlorobenzene	12.35	180	96836	123.00	ug/mL	94
26) Naphthalene	12.52	128	326255	123.77	ug/mL	98
27) 4-Chloroaniline	12.89	127	147346	119.03	ug/mL	100
28) Hexachlorobutadiene	13.02	225	51692	128.71	ug/mL	99
29) 4-Chloro-3-methylphenol	14.60	107	123083	128.28	ug/mL#	60
30) 2-Chloronaphthalene	16.09	162	197694	127.64	ug/ml#	100
31) 2-Methylnaphthalene	14.64	142	274545	176.23	ug/mL	96
33) Hexachlorocyclopentadiene	15.16	237	60194	146.19	ug/mL#	96
34) 2,4,6-Trichlorophenol	15.64	196	90332	130.60	ug/mL	97
35) 2,4,5-Trichlorophenol	15.72	196	54995	93.88	ug/mL	97

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

Quantitation Report

Data File : c:\hpchem\1\data2\b8955.d
Acq On : 22 Oct 95 7:33 pm
Sample : 120 STD..... Converted from RTE d
Misc :
Quant Time: Oct 25 10:18 1995

Vial: 5
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Sep 21 12:47:27 1995
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
37)	2-Nitroaniline	17.90	65	138140	135.05	ug/mL	88
38)	Dimethylphthalate	17.40	163	242759	120.83	ug/mL#	12
39)	Acenaphthylene	17.30	152	342901	122.91	ug/mL	97
40)	2,6-Dinitrotoluene	17.48	165	48493	91.22	ug/mL#	96
41)	3-Nitroaniline	19.78	138	59286	125.11	ug/mL	88
42)	Acenaphthene	17.86	153	190884	113.15	ug/mL	98
43)	2,4-Dinitrophenol	18.23	184	40770	204.04	ug/mL#	89
44)	4-Nitrophenol	18.71	109	42019	159.64	ug/mL#	54
45)	Dibenzofuran	18.42	168	296801	128.34	ug/mL	89
46)	2,4-Dinitrotoluene	18.66	165	94345	165.64	ug/mL#	1
47)	Diethylphthalate	19.62	149	290137	130.83	ug/mL#	92
48)	Fluorene	19.45	166	224635	124.55	ug/mL	98
49)	4-Chlorophenyl-phenylether	19.64	204	96095	119.28	ug/mL#	87
51)	4-Nitroaniline	19.78	138	59286	116.15	ug/mL	88
52)	4,6-Dinitro-2-methylphenol	19.89	198	39986	142.45	ug/mL	100
53)	n-Nitrosodiphenylamine	20.09	169	141300	118.05	ug/mL	94
55)	1,2-Diphenylhydrazine (as	20.12	77	478381	106.69	ug/ml	100
56)	4-Bromophenyl-phenylether	21.09	248	51369	104.17	ug/mL#	91
57)	Hexachlorobenzene	21.07	284	65026	117.30	ug/mL#	42
58)	Pentachlorophenol	21.78	266	45899	142.10	ug/mL	100
59)	Phenanthrene	22.33	178	298581	114.74	ug/mL	99
60)	Anthracene	22.48	178	287179	114.86	ug/mLm	99
61)	Carbazole	23.12	167	298791	124.42	ug/ml	96
62)	Di-n-butylphthalate	24.66	149	555739	116.35	ug/mL#	97
63)	Fluoranthene	25.91	202	302618	125.50	ug/mL#	71
65)	Benzidine	26.59	184	49499	100.44	ug/ml	100
66)	Pyrene	26.55	202	291218	92.80	ug/mL#	69
68)	Butylbenzylphthalate	29.15	149	219105	115.56	ug/mL#	13
69)	Benzo[a]anthracene	30.29	228	262300	142.20	ug/mL	99
70)	3,3'-Dichlorobenzidine	30.43	252	65850	167.10	ug/mL#	92
71)	Chrysene	30.35	228	152357	106.18	ug/mLm	99
72)	bis(2-Ethylhexyl)phthalate	31.14	149	325654	122.80	ug/mL#	38
74)	Di-n-octylphthalate	33.03	149	406461	88.26	ug/mL#	100
75)	Benzo[b]fluoranthene	33.30	252	147288	117.50	ug/mL#	84
76)	Benzo[k]fluoranthene	33.38	252	78044	82.74	ug/mLm	84
77)	Benzo[a]pyrene	34.11	252	74349	108.18	ug/mLm	83
78)	Indeno[1,2,3-cd]pyrene	36.77	276	44660	147.50	ug/mL#	47
79)	Dibenz[a,h]anthracene	36.89	278	42251	173.22	ug/mL#	78
80)	Benzo[g,h,i]perylene	37.31	276	40459	156.30	ug/mLm	71

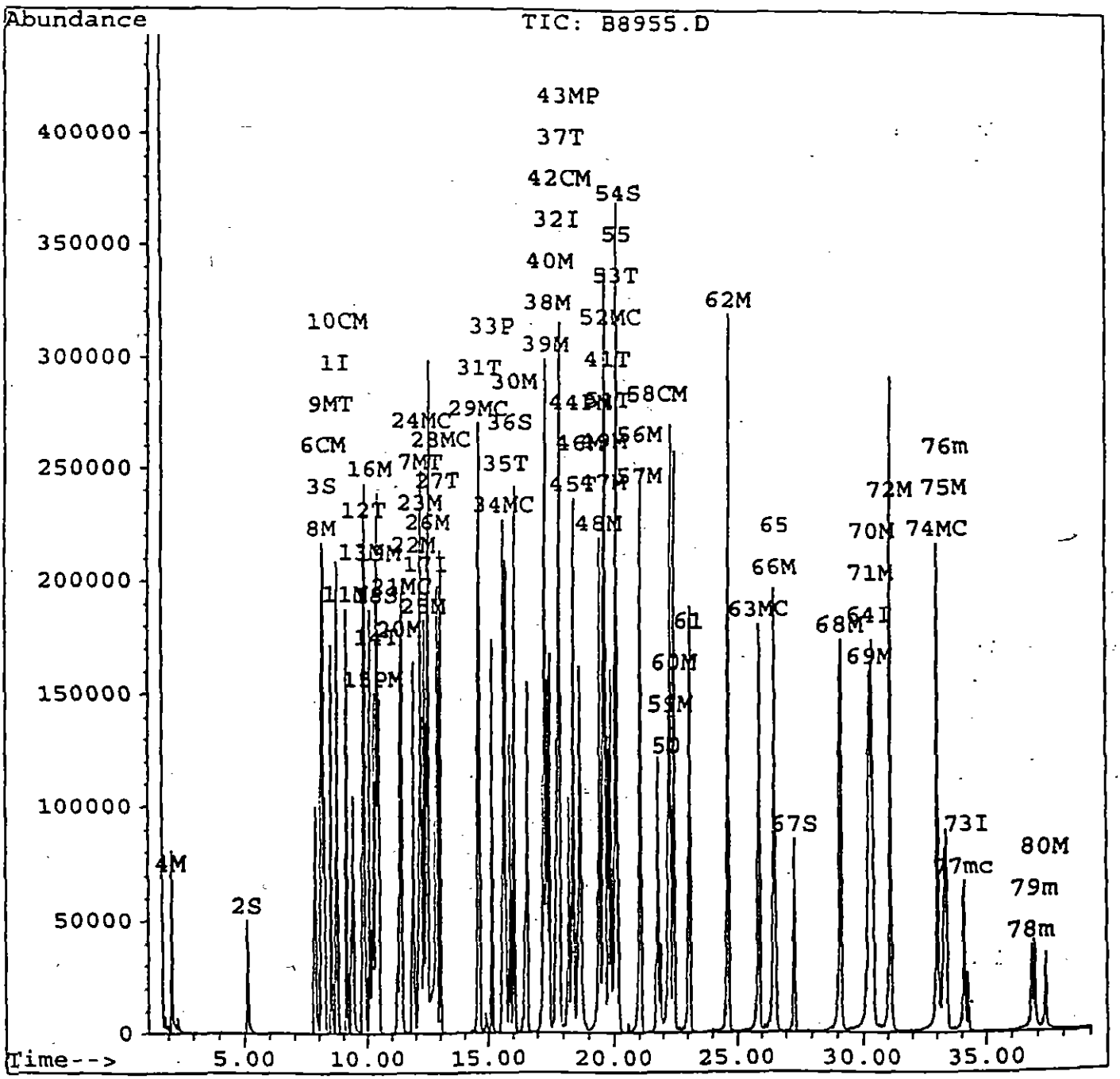
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b8955.d
Acq On : 22 Oct 95 7:33 pm
Sample : 120 STD..... Converted from RTE d
Misc :
Quant Time: Oct 25 10:18 1995

Vial: 5
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Thu Sep 21 12:47:27 1995
Response via : Multiple Level Calibration



b8955.d BNACLP.M

Quantitation Report

Data File: c:\hpchem\1\data2\b8956.d Vial: 6
Acq On: 22 Oct 95 8:24 pm Operator: SCOTTV
Sample: 150 STD Converted from RTE.d Inst: ABNA
Misc: BT Multiplr: 1.00
Quant Time: Oct 25 10:17 1995

Method: c:\HPCHEM\1\METHODS\BNACLP.M
Title: CLP BNA Calibration
Last Update: Thu Sep 21 12:47:27 1995
Response via: Multiple Level Calibration

Internal Standards	R.T	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.72	152	27386	40.00	ug/mL	-0.31
17) Naphthalene-d8	12.46	136	107758	40.00	ug/mL	-0.30
32) Acenaphthene-d10	17.76	164	64001	40.00	ug/mL	-0.32
50) Phenanthrene-d10	22.24	188	95140	40.00	ug/ml	-0.33
64) Chrysene-d12	30.32	240	58225	40.00	ug/mL	-0.37
73) Perylene-d12	34.24	264	21063	40.00	ug/mL	-0.45
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.13	112	44445	49.67	ug/mL	49.67%
3) Phenol-d5	8.16	99	75083	52.60	ug/mL	52.60%
18) Nitrobenzene-d5	10.43	82	72264	50.74	ug/mL	50.74%
36) 2-Fluorobiphenyl	15.91	172	99060	50.46	ug/mL	50.46%
54) 2,4,6-Tribromophenol	20.22	330	16295	64.13	ug/mL	64.13%
67) Terphenyl-d14	27.35	244	82703	44.20	ug/mL	44.20%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.17	74	103908	182.21	ug/ml	100
6) Phenol	8.21	94	225479	172.68	ug/mL	100
7) bis(2-Chloroethyl)ether	12.19	93	256181	166.42	ug/mL#	85
8) 2-Chlorophenol	8.16	128	146818	158.42	ug/mL#	83
9) 1,3-Dichlorobenzene	8.52	146	146004	153.71	ug/mL	97
10) 1,4-Dichlorobenzene	8.77	146	146889	150.93	ug/mL	96
11) 1,2-Dichlorobenzene	9.16	146	145353	155.36	ug/mL	97
12) 2-Methylphenol	9.89	108	140431	164.83	ug/mLm	98
13) bis(2-chloroisopropyl)ethe	9.91	45	341496	285.74	ug/mL#	1
14) 4-Methylphenol	10.43	108	147459	154.79	ug/mL	98
15) N-Nitroso-Di-n-propylamine	10.34	70	179120	183.32	ug/mL#	95
16) Hexachloroethane	10.10	117	94889	166.27	ug/mL#	68
19) Nitrobenzene	10.51	77	286692	219.52	ug/mL	90
20) Isophorone	11.42	82	441137	153.12	ug/mLm	92
21) 2-Nitrophenol	11.44	139	100411	170.88	ug/mL#	93
22) 2,4-Dimethylphenol	11.96	107	175209	171.62	ug/mL#	100
23) bis(2-Chloroethoxy)methane	12.19	93	256181	162.94	ug/mL#	100
24) 2,4-Dichlorophenol	12.27	162	129942	170.43	ug/mL#	91
25) 1,2,4-Trichlorobenzene	12.36	180	128880	161.68	ug/mL	94
26) Naphthalene	12.54	128	430569	161.32	ug/mL	98
27) 4-Chloroaniline	12.90	127	204994	163.55	ug/mL	100
28) Hexachlorobutadiene	13.02	225	66955	164.65	ug/mL	98
29) 4-Chloro-3-methylphenol	14.64	107	173471	178.55	ug/mL#	24
30) 2-Chloronaphthalene	16.10	162	277170	176.73	ug/ml#	100
31) 2-Methylnaphthalene	14.64	142	354781	224.91	ug/mL#	68
33) Hexachlorocyclopentadiene	15.16	237	78011	185.25	ug/mL	98
34) 2,4,6-Trichlorophenol	15.66	196	125669	177.65	ug/mL	96
35) 2,4,5-Trichlorophenol	15.74	196	69360	115.77	ug/mL	95

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

Quantitation Report

Data File c \hpchem\1\data2\b8956 d Vial 6
Acq On 22 Oct 95 8 24 pm Operator SCOTTV
Sample 160 STD Converted from RTE d Inst ABNA
Misc BT Multiplr 1 00
Quant Time Oct 25 10 17 1995

Method c \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Thu Sep 21 12 47 27 1995
Response via Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
37)	2-Nitroaniline	17 94	65	215417	205 92 ug/mL	88
38)	Dimethylphthalate	17 44	163	341294	166.10 ug/mL#	12
39)	Acenaphthylene	17.32	152	455035	159 47 ug/mL	97
40)	2,6-Dinitrotoluene	17.51	165	62227	114.45 ug/mL#	92
41)	3-Nitroaniline	19.87	138	76342	157.52 ug/mL	90
42)	Acenaphthene	17.88	153	252605	146.41 ug/mL	98
43)	2,4-Dinitrophenol	18.29	184	61925	303.03 ug/mL#	73
44)	4-Nitrophenol	18.77	109	62124	230.78 ug/mL#	58
45)	Dibenzofuran	18.44	168	392936	166.13 ug/mL#	88
46)	2,4-Dinitrotoluene	18.71	165	89489	153 63 ug/mL#	1
47)	Diethylphthalate	19.66	149	374865	165 28 ug/mL	94
48)	Fluorene	19.46	166	301296	163 35 ug/mL	99
49)	4-Chlorophenyl-phenylether	19.68	204	121982	148.05 ug/mL#	70
51)	4-Nitroaniline	19.87	138	76342	142.05 ug/mL	90
52)	4,6-Dinitro-2-methylphenol	19.93	198	54285	183.68 ug/mL	100
53)	n-Nitrosodiphenylamine	20.10	169	191063	151.61 ug/mL	95
55)	1,2-Diphenylhydrazine (as	20.14	77	657253	139.22 ug/ml	100
56)	4-Bromophenyl-phenylether	21.10	248	64647	124.52 ug/mL#	84
57)	Hexachlorobenzene	21.09	284	89180	152.80 ug/mL#	34
58)	Pentachlorophenol	21.82	266	66850	196.57 ug/mL	98
59)	Phenanthrene	22.34	178	400329	146.12 ug/mL	99
60)	Anthracene	22.50	178	391392	148.69 ug/mLm	99
61)	Carbazole	23.13	167	408325	161.50 ug/ml	95
62)	Di-n-butylphthalate	24.65	149	736070	146.37 ug/mL#	98
63)	Fluoranthene	26.52	202	405072	159.56 ug/mL#	56
65)	Benzidine	26.60	184	67999	136.03 ug/ml	100
66)	Pyrene	26.52	202	404840	127.19 ug/mL#	69
68)	Butylbenzylphthalate	29.15	149	308513	160.42 ug/mL#	9
69)	Benzo[a]anthracene	30.30	228	338083	180.70 ug/mL	99
70)	3,3'-Dichlorobenzidine	30.44	252	84475	211.34 ug/mL#	93
71)	Chrysene	30.38	228	179795	123.54 ug/mLm	99
72)	bis(2-Ethylhexyl)phthalate	31.13	149	408318	151.80 ug/mL#	37
74)	Di-n-octylphthalate	33.02	149	458843	110.66 ug/mL#	100
75)	Benzo[b]fluoranthene	33.31	252	156175	138.38 ug/mL#	83
76)	Benzo[k]fluoranthene	33.39	252	91964	108.29 ug/mLm	83
77)	Benzo[a]pyrene	34.10	252	88750	143.42 ug/mLm	83
78)	Indeno[1,2,3-cd]pyrene	36.78	276	49957	183.25 ug/mL#	44
79)	Dibenz[a,h]anthracene	36.90	278	50575	230.29 ug/mL#	79
80)	Benzo[g,h,i]perylene	37.32	276	46503	199.53 ug/mLm	69

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

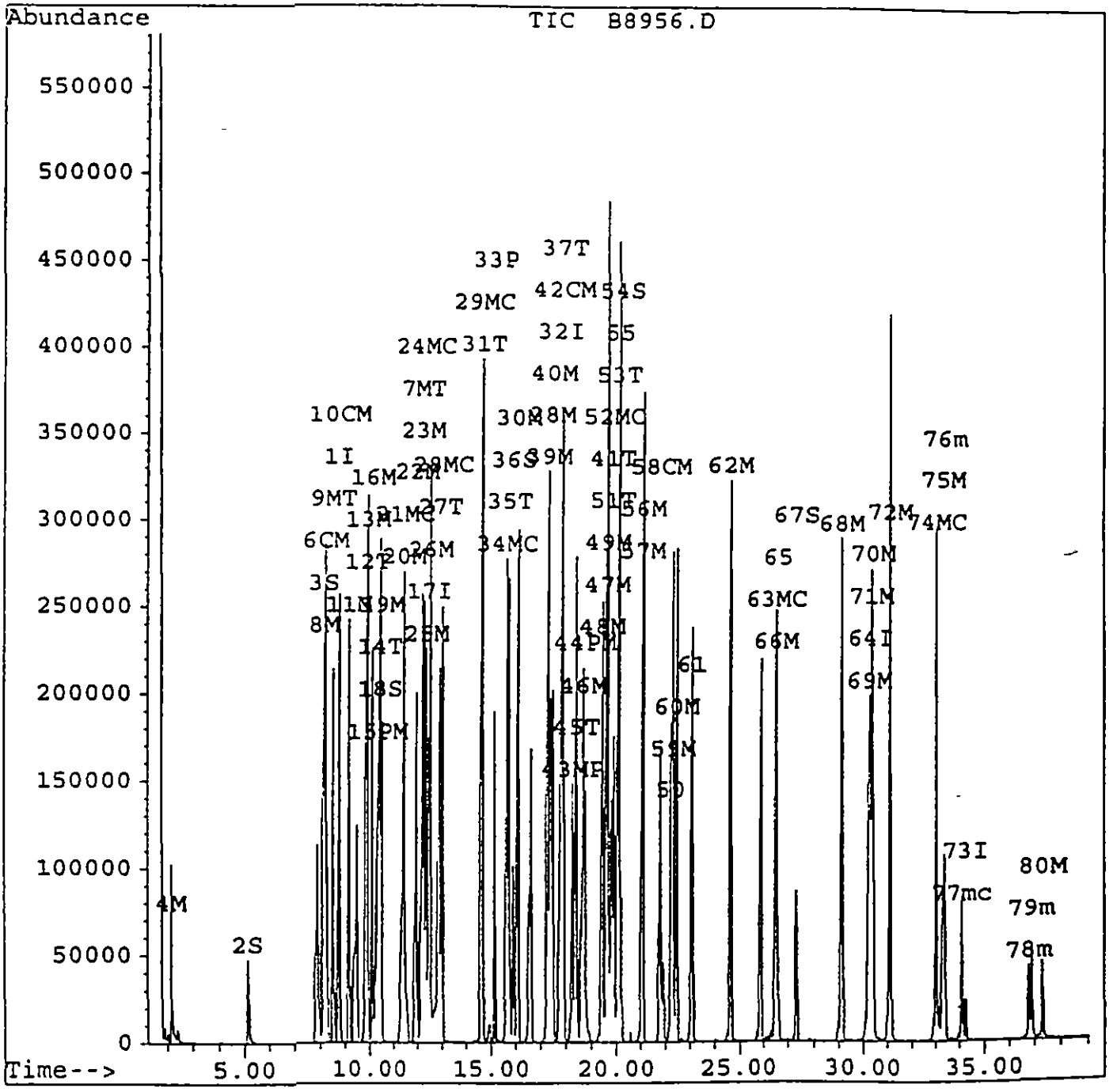
Quantitation Report

Data File : c \hpchem\1\data2\b8956 d
Acq On : 22 Oct 95 8 24 pm
Sample : 160 STD
Misc
Quant Time : Oct 25 10 17 1995

Converted from RTE d

Vial: 6
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c \HPCHEM\1\METHODS\BNACLP M
Title : CLP BNA Calibration
Last Update : Thu Sep 21 12 47 27 1995
Response via : Multiple Level Calibration



5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

194

Lab Name: EMSL ANALYTICAL Contract:

Project No: Site: Location: Group:

Lab File ID: B9151 D DFTPP Injection Date: 11/20/95

Instrument ID: ABNA DFTPP Injection Time: 1031

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30 0 - 80 0% of mass 198	49 9
68	Less than 2 0% of mass 69	0 4 (0 6)1
69	Mass 69 relative abundance	69 6
70	Less than 2 0% of mass 69	0 4 (0 5)1
127	25 0 - 75 0% of mass 198	40 6
197	Less than 1 0% of mass 198	0 3
198	Base Peak, 100 % relative abundance	100 0
199	5 0 - 9 0% of mass 198	6 9
275	10 0 - 30 0% of mass 198	17 7
365	Greater than 0 75% of mass 198	1 7
441	Present, but less than mass 443	5 9
442	40 0 - 110 0% of mass 198	40 0
443	15 0 - 24 0% of mass 442	7 5 (18 9)2

1-Value is % mass 69 2-Value is % mass 442

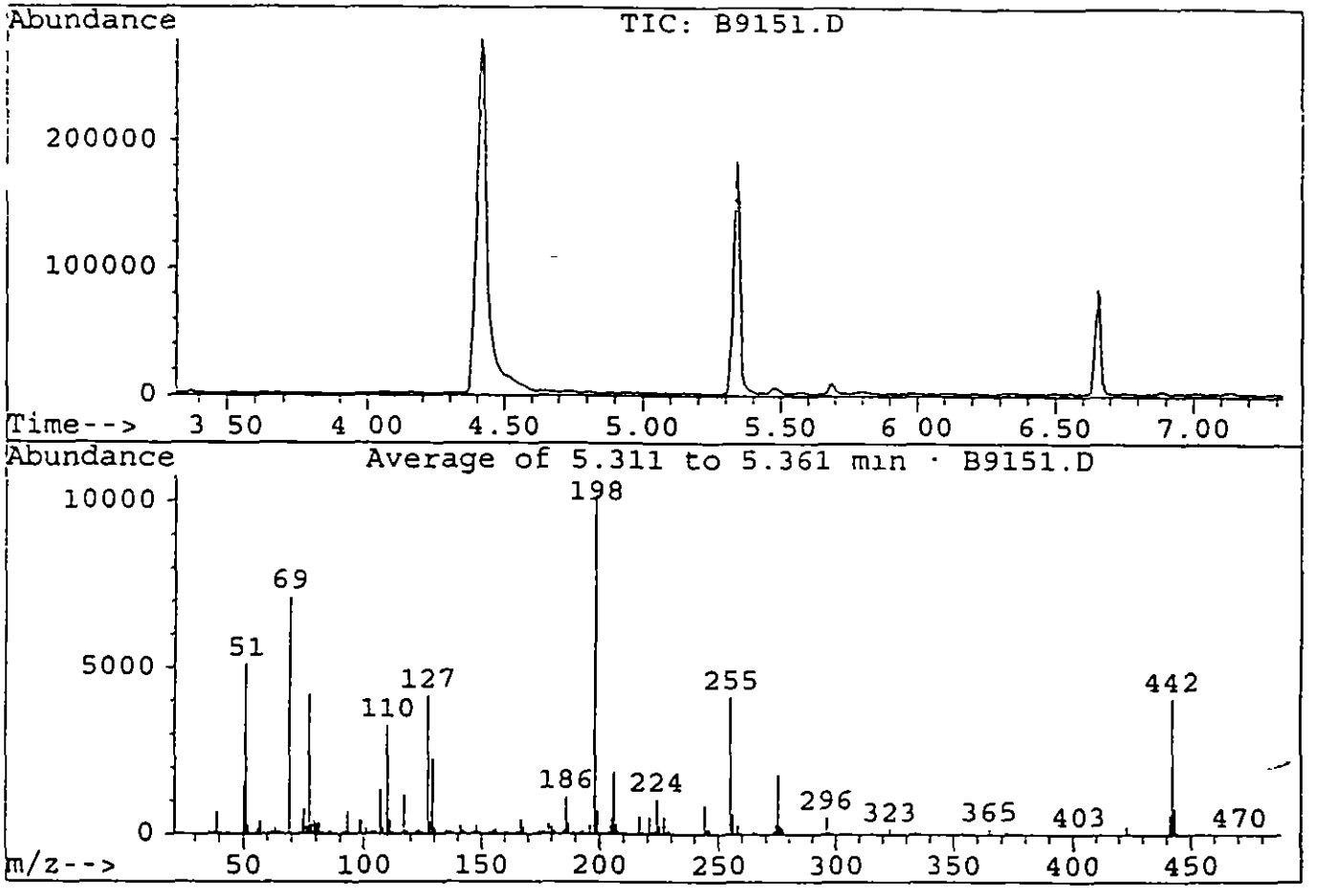
This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS

	SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD020	20 STD	B9152 D	11/20/95	1229
02	SSTD050	50 STD	B9153 D	11/20/95	1322
03	SSTD080	80 STD	B9154 D	11/20/95	1414
04	SSTD120	120 STD	B9155 D	11/20/95	1511
05	SSTD160	160 STD	B9156 D	11/20/95	1604
06	SBLK01	BLANK1	B9159 D	11/20/95	1906
07	9552294B	9552294B	B9160 D	11/20/95	1959
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Data File . C \HPCHEM\1\DATA2\B9151 D
Acq On 20 Nov 95 10.31 am
Sample DFTPP . Converted from RTE d
Misc

Vial 1
Operator SCOTTV
Inst ABNA
BT Multiplr 1 00

Method C.\HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration



Peak Apex is scan 232

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	49.9	5113	PASS
68	69	0	2	0.6	43	PASS
69	198	0	100	69.6	7132	PASS
70	69	0	2	0.5	36	PASS
127	198	40	60	40.6	4156	PASS
197	198	0	1	0.3	34	PASS
198	198	100	100	100.0	10248	PASS
199	198	5	9	6.9	707	PASS
275	198	10	30	17 7	1811	PASS
365	198	1	100	1.7	178	PASS
441	443	0	100	78.4	606	PASS
442	198	40	100	40.0	4100	PASS
443	442	17	23	18.9	773	PASS

verage of 5 311 to 5 361 min B9151 D

m/z	abund	m/z	abund	m/z	abund.	m/z	abund.
36 00	120	43 05	78	50 00	1553	56.85	6
36 90	32	44 00	61	51 05	5113	57 05	408
37 25	8	44 80	5	52 00	268	57 95	19
37 85	37	45 05	3	52 25	3	58 45	3
38 10	117	47 05	5	52 65	3	58 95	9
39 05	668	47.60	9	53 05	19	59 55	6
40 00	7	47.85	3	53 45	6	59.80	19
40 30	15	48 15	8	53.95	4	60.05	3
40 75	20	48.45	7	55 00	82	60 85	7
41.05	63	49 05	67	55.35	8	61.05	55
41.95	6	49 85	15	55.95	186	61.65	17

Average of 5 311 to 5 361 min. B9151.D

m/z	abund	m/z	abund	m/z	abund.	m/z	abund.
61.95	91	68.05	43	75.05	781	82 65	4
62.35	9	68.95	7132	76.00	232	82.95	83
63.05	195	70.05	36	77.05	4211	83.55	6
63.25	2	70.85	7	78.00	302	83.85	8
64.10	28	71.00	23	79 00	410	84.10	10
64 45	5	71.55	12	79.85	5	85.05	91
65.05	99	72 05	2	80.05	305	85 20	27
65.75	6	73.00	49	80.45	3	86.00	124
66.30	15	73.45	3	80.65	3	87.05	37
67 10	27	73 85	7	81.00	365	87.90	22
67.65	4	74.00	456	82.10	83	88.85	3

verage of 5.311 to 5 361 min.: B9151.D

m/z	abund	m/z	abund	m/z	abund.	m/z	abund.
91 05	106	97.10	18	104.00	123	112.00	64
92 00	101	98 00	455	105.00	102	112.85	8
93.05	696	98.45	8	105 20	9	113.00	14
94.00	43	99.00	388	105.95	18	113.35	4
94.65	3	99.55	6	106.15	5	113.55	5
95.05	38	99.85	6	107.05	1331	114.75	3
95.55	7	100.10	30	108.05	189	115.15	14
95.85	21	101.00	167	108.45	7	115.35	2
95.95	5	102.00	13	108.75	3	116.05	80
96.10	19	103.00	68	110.05	3266	117.05	1191
96.85	18	103.65	5	111.05	423	117.65	4

Average of 5.311 to 5.361 min.: B9151 D

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
118.00	90	125.00	57	133.50	5	139.60	3
119.00	18	125.30	11	133.90	75	139.90	8
120.00	20	127.05	4156	135.00	150	140.10	23
120.95	12	128.05	357	136.05	65	140.30	10
121.30	13	129.05	2268	136.60	5	141.00	266
122.00	118	129.75	6	137.00	76	142.00	105
122.65	5	130.00	167	137.60	8	142.80	16
123.05	135	131.00	32	137.90	5	143.00	30
123.35	5	131 90	26	138.00	7	143.60	3
123.75	3	132.85	18	138.15	12	143.80	6
124.00	87	133 30	4	138 95	19	143.90	14

verage of 5 311 to 5 361 min · B9151 D

m/z	abund	m/z	abund.	m/z	abund	m/z	abund
144 10	7	150 20	5	156 70	6	164 00	13
144 85	6	151 00	10	157 05	40	164 20	4
145 15	10	151 25	30	157 95	38	164 80	6
146 05	50	151 70	5	159 00	35	165 00	91
146 95	113	151 90	12	160 00	80	166 00	68
147.70	6	152 50	7	161 00	105	166 90	9
148.00	265	153 00	51	161 65	11	167 05	425
148.80	16	154 00	78	162.05	39	167 40	5
149 05	70	154.80	5	162.90	2	167.60	4
149.70	5	155.05	124	163 20	8	168.00	208
150 00	19	156.10	186	163.60	4	169 05	31

Average of 5.311 to 5 361 min.. B9151.D

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund
169.30	3	173.05	39	182.05	18	191 10	15
169.70	7	174.00	102	184.00	4	192 00	92
169.95	21	174.80	7	184.15	20	192.30	4
170.10	2	175.10	145	184.80	2	192.85	15
170.30	7	176.05	74	185.05	149	193.05	105
170.70	4	177.00	98	186.10	1117	194.10	7
171.00	11	177.95	26	187.10	307	194.50	3
171 20	3	178.95	317	188 15	30	194.80	3
171.60	3	179.70	3	189 05	98	195.10	13
171.90	11	180.05	218	190 05	13	196.05	282
172.80	9	181.05	102	190.40	3	196.75	34

verage of 5.311 to 5.361 min.: B9151 D

m/z	abund	m/z	abund.	m/z	abund	m/z	abund
198.00	10248	204.05	270	210 70	2	217.75	7
199.00	707	204.30	4	211 15	82	218 00	73
200.00	49	205.10	475	211.60	17	218.75	6
200.60	4	206.10	1870	212 15	13	218.95	3
200.80	5	207.10	276	212 95	20	219.55	2
201.15	16	207.50	2	214 50	3	220.25	4
201.55	45	208.10	80	215.05	23	221.05	517
202 10	5	209.05	32	215.90	9	221.80	51
202.30	5	209.80	13	216.10	46	223.05	108
203.05	55	210.15	21	216.85	13	224.05	1053
203.80	4	210.50	28	216.95	548	225.05	252

Average of 5.311 to 5.361 min . B9151.D

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
226.05	18	233.05	2	240.25	3	252.55	8
226.75	7	234.00	29	241.00	25	253.10	10
227.05	507	234.85	13	242.05	35	253.45	5
228.00	79	235 05	19	243.05	60	253.65	5
229.00	104	235.35	5	244.05	857	254.00	23
229.95	10	235.95	44	245 10	112	255 05	4135
230.25	7	236.65	4	246.05	167	256.05	597
231.05	42	237.00	30	247.00	22	256.85	5
232.05	5	237.85	4	247.75	3	257.10	49
232.55	4	239.05	26	249.00	24	258.05	259
232 80	10	239 95	5	252 25	6	259.00	50

verage of 5 311 to 5 361 min B9151 D

m/z	abund	m/z	abund	m/z	abund	m/z	abund.
259 90	8	265 90	24	275 05	1811	285.55	3
260 95	5	266 90	11	276 00	239	289.15	4
261 15	4	267 65	2	277 10	168	290 15	4
261 65	2	268 45	2	277 65	3	291.15	4
262 75	3	270 15	4	277 95	22	291 45	2
263 85	13	270 85	3	279.35	5	292.05	2
264 15	4	271.20	9	283.05	19	293 00	32
264 65	4	271 55	2	283.35	3	294 95	7
265.05	95	272.05	6	283.65	3	295.25	4
265 45	6	273 05	121	284.10	11	296.05	513
265.65	6	274.05	328	285.15	26	297.00	69

Average of 5.311 to 5 361 min . B9151.D

m/z	abund.	m/z	abund	m/z	abund	m/z	abund
297.65	5	303.50	3	314.05	27	323.10	165
297.95	4	304.10	6	315.05	48	323.80	2
298.25	4	304.40	7	315.30	5	324.10	19
298.75	2	304.70	3	316.05	32	324.90	3
299.75	3	305.60	2	316.70	2	325.10	3
300.65	3	307.85	6	317.00	2	326.30	3
301.60	7	308.10	4	318.10	2	327.10	30
301 85	3	310.10	6	320.60	3	328.00	6
302.05	3	311.90	3	321.00	3	331.40	3
302.55	7	312.20	2	321.70	3	332.00	18
303.10	54	312.95	6	322.10	6	333.05	13

verage of 5 311 to 5.361 min : B9151.D

m/z	abund.	m/z	abund	m/z	abund	m/z	abund
333.30	3	346.10	40	355.90	2	370.90	3
334 05	93	346.60	2	356.55	7	371.30	6
334.50	3	347.90	3	356.80	3	372.15	82
335.05	22	349 40	3	360.50	3	373 10	30
335 90	6	350.70	4	362.80	4	373.65	6
336.90	3	351.10	3	365.05	178	375.20	2
337.50	3	352.00	13	366.10	16	376.20	4
340.30	2	352.15	36	367.70	3	376.80	3
341 20	5	353.10	35	369.60	2	379.10	3
341.50	3	353.60	4	370.10	3	380.40	2
342.30	4	354.05	51	370.50	2	381.30	2

Average of 5.311 to 5.361 min.: B9151.D

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
382.50	2	390.95	9	404.15	4	419.05	4
383.20	10	391.25	3	404.50	5	420.45	3
383.50	3	391.95	3	407.35	2	421.10	37
384.00	10	395.65	2	408.45	2	421.45	3
384.80	6	396 95	2	412.85	5	421.75	4
385.10	3	399.15	4	413.25	2	422 00	30
386.00	2	401.05	2	414.35	2	423.10	239
389.25	3	401.95	26	415.05	3	424.10	50
389.75	5	402.80	14	416.05	2	430.05	2
390.10	9	403 10	38	417.55	3	434.15	4
390.35	3	403.75	3	417.85	3	436.55	2

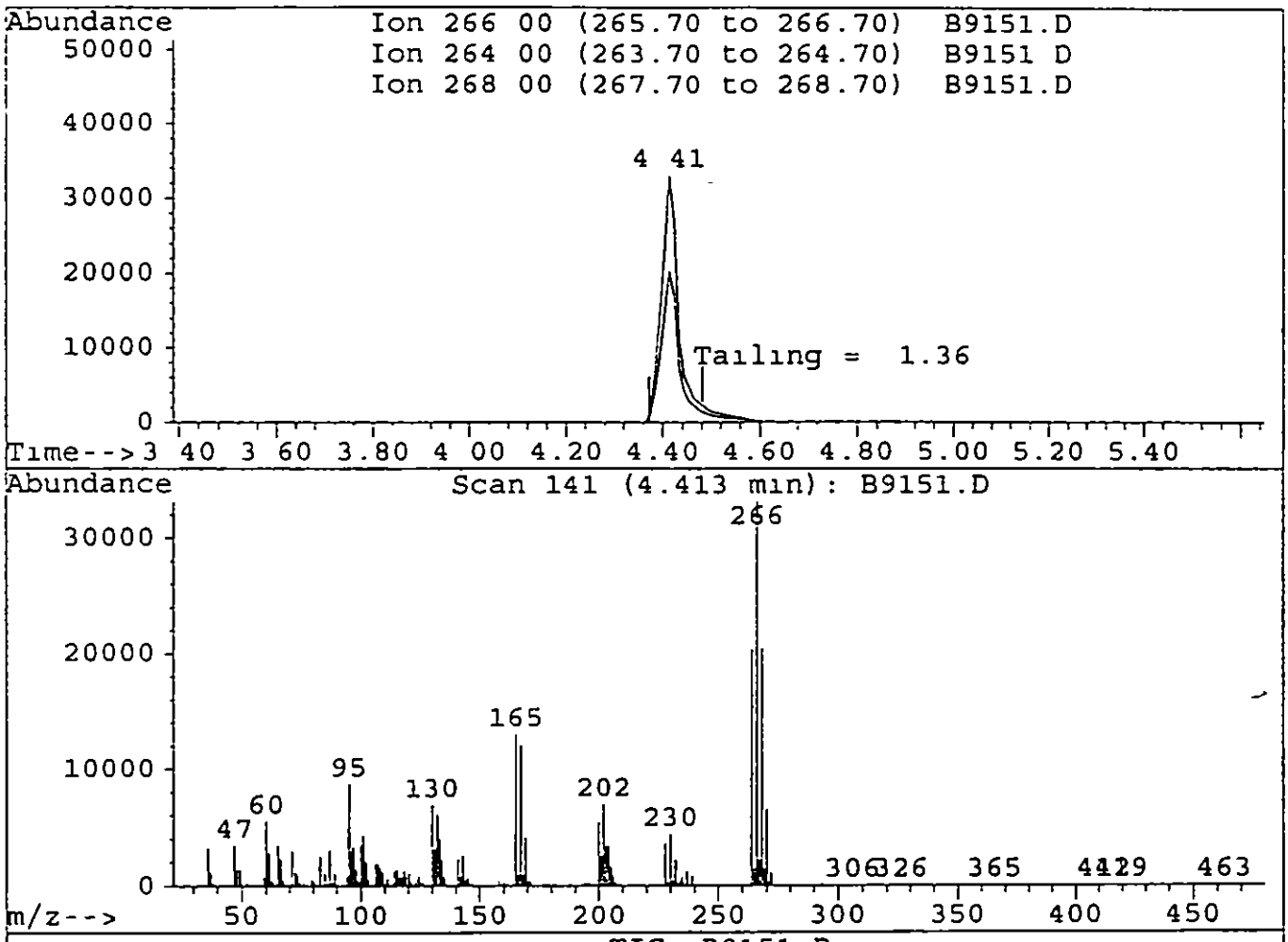
Average of 5.311 to 5.361 min.: B9151.D

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
437.75	2	452.55	3	472.55	4		
440.15	5	457.85	3	473.05	4		
441.05	606	459.95	3				
442.05	4100	460.15	3				
443.10	773	461.15	2				
444.10	85	463.15	3				
444.95	4	465.05	2				
447.35	3	468.85	2				
450.75	9	470.15	3				
451.55	5	470.55	5				
452.05	2	471.35	2				

Quantitation Report

Data File C \HPCHEM\1\DATA2\B9151 D Vial. 1
Acq On 20 Nov 95 10 31 am Operator· SCOTTV
Sample DFTPP Converted from RTE d Inst ABNA
Misc BT Multiplr 1.00
Quant Time Nov 20 10 49 1995

Method C \HPCHEM\1\METHODS\BNACLP.M
Title CLP BNA Calibration
Last Update . Wed Oct 25 10 20:51 1995
Response via Multiple Level Calibration



(1) Pentachlorophenol (CM)

4.41min 222.79ug/mL

response 73587

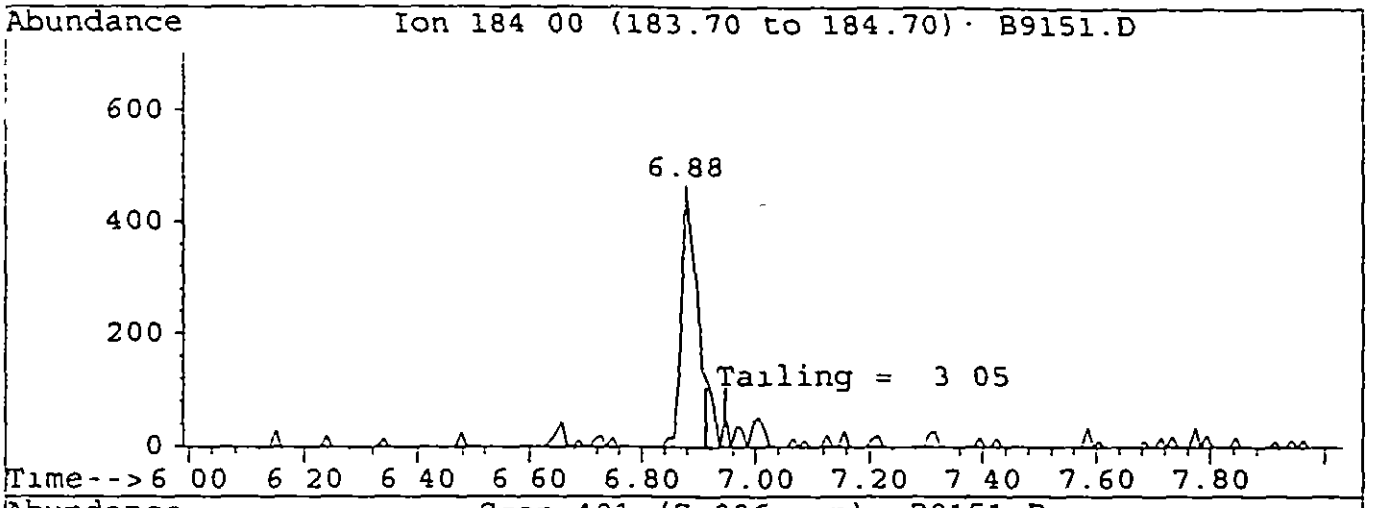
Ion	Exp%	Act%
266.00	100	100
264.00	64 30	61.17
268.00	64 70	61 60
0.00	0.00	0 00

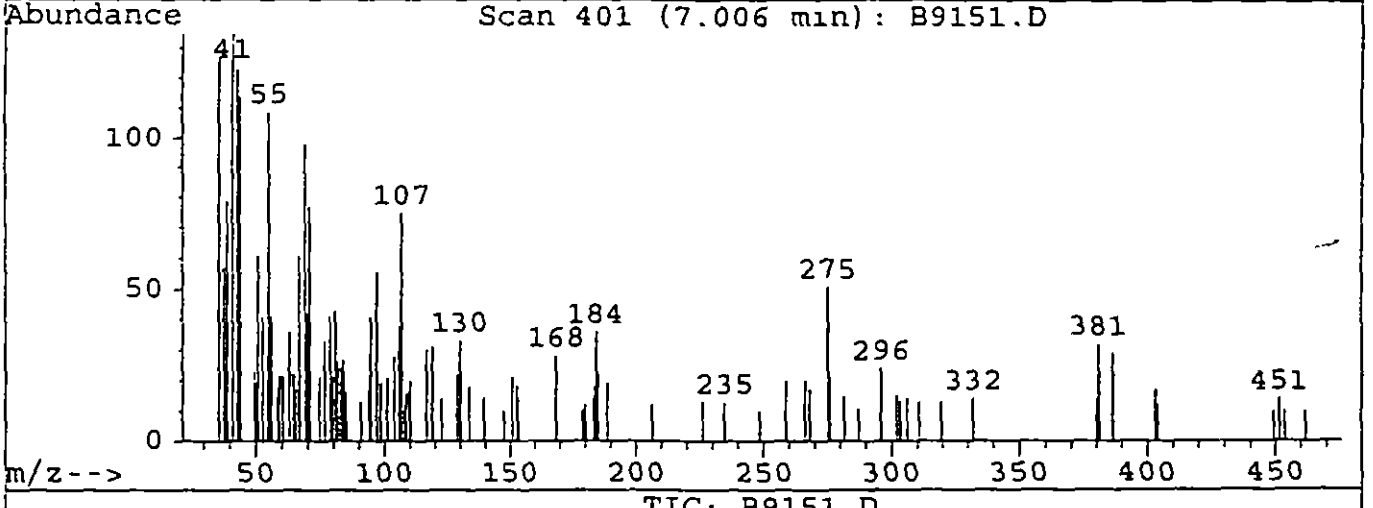
Quantitation Report

201

Data File C \HPCHEM\1\DATA2\B9151 D Vial. 1
Acq On 20 Nov 95 10 31 am Operator: SCOTTV
Sample DFTPP . Converted from RTE d Inst ABNA
Misc BT Multiplr: 1.00
Quant Time Nov 20 10 49 1995

Method C.\HPCHEM\1\METHODS\BNACLP.M
Title CLP BNA Calibration
Last Update . Wed Oct 25 10·20·51 1995
Response via . Multiple Level Calibration





TIC: B9151.D

(2) Benzidine
7.01min 0.25ug/ml
response 76

Ion	Exp%	Act%
184.00	100	100
0.00	0 00	0.00
0.00	0 00	0.00
0.00	0 00	0.00

Response Factor Report A3NA

202

Method C \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Wed Nov 22 12 12 16 1995
Response via Initial Calibration

Calibration Files
160 =B9156 D 120 =B9155 D 80 =B9154.D
50 =B9153 D 20 =B9152 D

		Compound	160	120	80	50	20	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------						
2)	S	2-Fluorophenol	1 149	1 168	1.181	1 140	1.056	1.139	4 30
3)	S	Phenol-d5	1 977	1 978	1.952	1.867	1 707	1 896	6 06
4)	M	N-nitrosodimethylamin	0 809	0.955	0.814	0.835		0.853	8.06
5)		Pyridine		1.153		1 244	0.907	1.101	15.86
6)	CM	Phenol	1 570	1.774	1.746	1.573	1 582	1.649	6.18
7)	MT	bis(2-Chloroethyl)eth	2 083	2.141	2.231	2.154	2 174	2 157	2 48
8)	M	2-Chlorophenol	1.311	1.315	1.366	1 270	1.248	1.302	3.52
9)	MT	1,3-Dichlorobenzene	1 279	1.317	1.423	1.382	1.364	1.353	4.15
10)	CM	1,4-Dichlorobenzene	1 299	1.335	1.437	1.417	1 358	1 369	4 17
11)	M	1,2-Dichlorobenzene	1.265	1.367	1 444	1.392	1.326	1 359	4 98
12)	T	2-Methylphenol	1.228	1.263	1.204	1.186	1.210	1.218	2.39
13)	M	bis(2-chloroisopropyl	3 004	2 147	2.112	2.072	1 892	2.246	19.38
14)	T	4-Methylphenol	1 293	1.364	1 273	1 273	1 330	1.307	3 03
15)	PM	N-Nitroso-Di-n-propyl	1.485	1.449	1.447	1 345	1.312	1.408	5.32
16)	M	Hexachloroethane	0.799	0 838	0.878	0.841	0.785	0.828	4.46
17)	I	Naphthalene-d8	----------ISTD----------						
18)	S	Nitrobenzene-d5	0.492	0.503	0.501	0.450	0.444	0.478	6.05
19)	M	Nitrobenzene	0.579	0 567	0.603	0.547	0.500	0.559	6.90
20)	M	Isophorone	0 672	0 656	0.913	0.854	0.757	0.770	14 58
21)	MC	2-Nitrophenol	0 218	0.224	0.231	0.208	0.196	0.215	6.44
22)	M	2,4-Dimethylphenol	0.401	0.402	0 405	0 360	0 332	0.380	8.62
23)	M	bis(2-Chloroethoxy)me	0.500	0 509	0.542	0.511	0.521	0.517	3.05
24)	MC	2,4-Dichlorophenol	0.265	0 270	0.290	0.274	0.286	0.277	3.84
25)	M	1,2,4-Trichlorobenzen	0 288	0.303	0.328	0.316	0.329	0.313	5 53
26)	M	Naphthalene	0.932	0.984	0 960	0.959	0 955	0.958	1.93
27)	T	4-Chloroaniline	0.440	0.452	0.466	0 434	0.438	0.446	2.93
28)	MC	Hexachlorobutadiene	0.168	0 175	0.201	0.191	0.202	0.188	8.12
29)	MC	4-Chloro-3-methylphen	0 392	0.421	0.416	0 373	0.384	0.397	5.19
30)	M	2-Chloronaphthalene	0 634	0.707	0.749	0.665	0.708	0.693	6.38
31)	T	2-Methylnaphthalene	0 832	0.905	0.922	0.853	0.683	0.839	11.29
32)	I	Acenaphthene-d10	----------ISTD----------						
33)	P	Hexachlorocyclopentad	0.293	0 272	0.288	0 247	0.241	0 268	8.83
34)	MC	2,4,6-Trichlorophenol	0.372	0 346	0.344	0.311	0.384	0.351	8.12
35)	T	2,4,5-Trichlorophenol	0.346	0.341	0.355	0.357	0.384	0.357	4 76
36)	S	2-Fluorobiphenyl	1 141	1 089	1.028	0.966	1 093	1.063	6.37
37)	T	2-Nitroaniline	0 720	0.709	0.649	0 596	0 578	0.650	9 85
38)	M	Dimethylphthalate	1 336	1 336	1.348	1.314	1 496	1.366	5 39
39)	M	Acenaphthylene	1 516	1.563	1.571	1 641	1.743	1.607	5 49
40)	M	2,6-Dinitrotoluene	0 340	0.324	0.346	0.332	0 338	0.336	2 53
41)	T	3-Nitroaniline	0.332	0.307	0.297	0.331	0.361	0.326	7 66

(#) = Out of Range

Response Factor Report ABNA

Method C \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Wed Nov 22 12 12 16 1995
Response via Initial Calibration

Calibration Files
160 =B9156 D 120 =B9155.D 80 =B9154 D
50 =B9153 D 20 =B9152 D

		Compound	160	120	80	50	20	Avg	%RSD
42)	CM	Acenaphthene	0 969	1 011	0.999	1 038	1 086	1.020	4 32
43)	MP	2,4-Dinitrophenol	0.213	0 201	0 181	0 135		0.183	18 75
44)	PM	4-Nitrophenol	0 265	0 244	0.231	0 197		0.234	12 20
45)	T	Dibenzofuran	1.278	1 362	1.485	1 435	1.602	1 433	8 57
46)	M	2,4-Dinitrotoluene	0.494	0.468	0.490	0 442	0.414	0.462	7.26
47)	M	Diethylphthalate	1.370	1.342	1.434	1 547	1.798	1.498	12.36
48)	M	Fluorene	1.013	1.072	1.131	1.160	1.246	1.125	7 87
49)	M	4-Chlorophenyl-phenyl	0.444	0.487	0.523	0.536	0.668	0.532	15 83
50)		Phenanthrene-d10	----------	ISTD	----------				
51)	T	4-Nitroaniline	0 182	0.169	0 165	0.180	0.200	0 179	7 62
52)	MC	4,6-Dinitro-2-methylp	0 148	0.133	0 116	0.126		0.131	10.01
53)	T	n-Nitrosodiphenylamin	0 369	0.401	0 411	0 406	0.532	0.424	14.81
54)	S	2,4,6-Tribromophenol	0 172	0.180	0.173	0.166	0 191	0 176	5 40
55)		1,2-Diphenylhydrazine	1 113	1.118	1.290	1.195	1.250	1.193	6.58
56)	M	4-Bromophenyl-phenyle	0 168	0 191	0.213	0 212	0 262	0 209	16.64
57)	M	Hexachlorobenzene	0 255	0.282	0.296	0 297	0 338	0 294	10.17
58)	CM	Pentachlorophenol	0.195	0.190	0.189	0.155		0.182	10 07
59)	M	Phenanthrene	0.962	0 968	1.041	0.933	1.040	0.989	4 93
60)	M	Anthracene	0 973	0 985	1.021	0 945	1 068	0.998	4.77
61)		Carbazole	0.958	0.971	0 988	0 903	0 939	0.952	3 41
62)	M	Di-n-butylphthalate	1.841	1 773	1.864	1 743	1 930	1 830	4 07
63)	MC	Fluoranthene	1 199	1 070	1.098	1.020	1 074	1.092	6.04
64)	I	Chrysene-d12	----------	ISTD	----------				
65)		Benzidine	0.088	0.104	0.113	0 160		0.116	26.55
66)	M	Pyrene	1.549	1.656	1.565	1 353	1.284	1.481	10 53
67)	S	Terphenyl-d14	1.237	1.223	1.200	0 953	0.903	1.103	14.62
68)	M	Butylbenzylphthalate	1.100	1.195	1.185	0.947	1.002	1.086	10.12
69)	M	Benzo[a]anthracene	1.326	1 388	1.275	1.166	1.112	1.253	9 06
70)	M	3,3'-Dichlorobenzidin	0.396	0 417	0.388	0.338	0.398	0.387	7.67
71)	M	Chrysene	0 801	0 884	0 963	0.846	1 030	0 905	10 16
72)	M	bis(2-Ethylhexyl)phth	1 402	1.581	1.620	1 371	1.469	1 489	7 30
73)	I	Perylene-d12	----------	ISTD	----------				
74)	MC	Di-n-octylphthalate	3.439	3.618	5.097	4.812		4.241	19 68
75)	M	Benzo[b]fluoranthene	1.486	1.439	1.979	1.620	1.591	1.623	13 09
76)	m	Benzo[k]fluoranthene	1.061	1.050	1 412	1.195	1.379	1.220	14.02
77)	mc	Benzo[a]pyrene	1.005	0 979	1 197	0.992	0 989	1 032	8.94
78)	m	Indeno[1,2,3-cd]pyren	0.635	0.748	0 839	0 688		0 728	12 03
79)	m	Dibenz[a,h]anthracene	0 632	0.716	0.921	0 583		0.713	20 97
80)	M	Benzo[g,h,i]perylene	0.641	0.793	0.905	0 561		0.725	21 22

#) = Out of Range

Quantitation Report

Data File c \hpchem\1\data2\b9152 d Vial 2
Acq On 20 Nov 95 12 29 pm Operator SCOTTV
Sample 20 STD. . . Converted from RTE d Inst ABNA
Misc BT Multiplr 1 00
Quant Time Nov 22 12 04 1995

Method C \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update · Wed Nov 22 12 21 54 1995
Response via Multiple Level Calibration

Internal Standards	R.T	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7 82	152	19366	40.00 ug/mL	-0 87
17) Naphtnalene-d8	11 55	136	80785	40 00 ug/mL	-0 88
32) Acenaphthene-d10	16.81	164	60680	40.00 ug/mL	-0 92
50) Phenanthrene-d10	21 24	188	109687	40.00 ug/ml	-0 99
64) Chrysene-d12	29.21	240	94436	40 00 ug/mL	-1 07
73) Perylene-d12	33.16	264	40655	40 00 ug/mL	-1.08
System Monitoring Compounds					%Recovery
2) 2-Fluorophenol	4.14	112	25564	41 41 ug/mL	41.41%
3) Phenol-d5	7.32	99	41332	41.26 ug/mL	41.26%
18) Nitrobenzene-d5	9.53	82	44810	40.93 ug/mL	40.93%
36) 2-Fluorobiphenyl	15.02	172	82935	44 81 ug/mL	44 81%
54) 2,4,6-Tribromophenol	19 22	330	26134	75.24 ug/mL	75 24%
67) Terphenyl-d14	26.36	244	106635	45 46 ug/mL	45.46%
Target Compounds					Qvalue
4) N-nitrosodimethylamine	1.68	74	8144	18.95 ug/mlm	100
6) Phenol	7.34	94	15318	16.30 ug/mL	100
7) bis(2-Chloroethyl)ether	11.30	93	21053	18.33 ug/mL	95
8) 2-Chlorophenol	7.24	128	12080	18.72 ug/mL	98
9) 1,3-Dichlorobenzene	7 61	146	13209	19 96 ug/mL	100
10) 1,4-Dichlorobenzene	7.86	146	13150	19.63 ug/mL	99
11) 1,2-Dichlorobenzene	8 24	146	12839	19.68 ug/mL	96
12) 2-Methylphenol	9.05	108	11721	18.93 ug/mLm	96
13) bis(2-chloroisopropyl)ethe	8.97	45	18321	16.94 ug/mL	99
14) 4-Methylphenol	9.55	108	12878	18.97 ug/mL	96
15) N-Nitroso-Di-n-propylamine	9.36	70	12705	17.17 ug/mL	92
16) Hexachloroethane	9.21	117	7598	18.08 ug/mL#	79
19) Nitrobenzene	9.57	77	20210	19.28 ug/mL	93
20) Isophorone	10.40	82	30563	13.74 ug/mL	95
21) 2-Nitrophenol	10.51	139	7899	16 35 ug/mL	89
22) 2,4-Dimethylphenol	11 07	107	13413	17 17 ug/mL#	100
23) bis(2-Chloroethoxy)methane	11.30	93	21053	17.29 ug/mL#	100
24) 2,4-Dichlorophenol	11.34	162	11549	19.36 ug/mL	99
25) 1,2,4-Trichlorobenzene	11.46	180	13274	21 60 ug/mL	94
26) Naphthalene	11.59	128	38588	19.04 ug/mL	100
27) 4-Chloroaniline	12.00	127	17680	18.61 ug/mL	99
28) Hexachlorobutadiene	12.13	225	8178	25.38 ug/mL	97
29) 4-Chloro-3-methylphenol	13.79	107	15510	19 78 ug/mL	93
30) 2-Chloronaphthalene	15.16	162	28609	22.33 ug/ml#	100
31) 2-Methylnaphthalene	13.73	142	27588	15 71 ug/mL	97
33) Hexachlorocyclopentadiene	14.25	237	7301	16.64 ug/mL	97
34) 2,4,6-Trichlorophenol	14.85	196	11665	18.05 ug/mL	97
35) 2,4,5-Trichlorophenol	14.85	196	11665	22 14 ug/mL	97

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

Quantitation Report

Data File c \hpchem\1\data2\b9152 d Vial 2
Acq On 20 Nov 95 12 29 pm Operator SCOTTV
Sample 20 STD . Converted from RTE d Inst ABNA
Misc BT Multiplr 1 00
Quant Time Nov 22 12 04 1995

Method C \HPCHEM\1\METHODS\BNACLP.M
Title CLP BNA Calibration
Last Update Wed Nov 22 12 21 54 1995
Response via Multiple Level Calibration

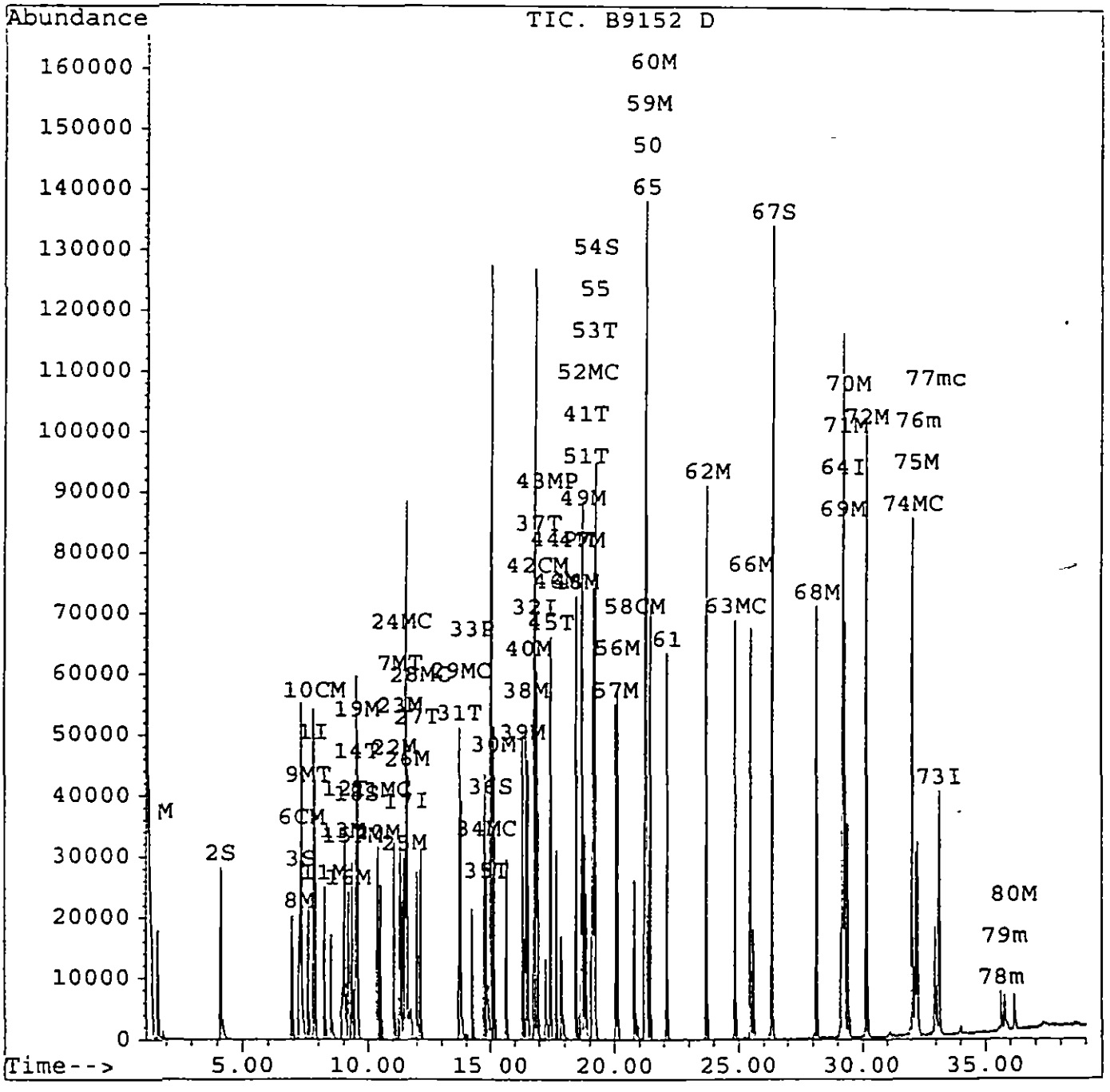
	Compound	R T.	QIon	Response	Conc Unit	Qvalue
37)	2-Nitroaniline	16.95	65	17542	14 77 ug/mL	89
38)	Dimethylphthalate	16 46	163	45385	21 87 ug/mL#	11
39)	Acenaphthylene	16 33	152	52878	19 36 ug/mL	97
40)	2,6-Dinitrotoluene	16.54	165	10244	21 96 ug/mL#	96
41)	3-Nitroaniline	18 80	138	10963	21 13 ug/mL	96
42)	Acenaphthene	16.89	153	32947	21.30 ug/mL	99
43)	2,4-Dinitrophenol	17.27	184	3292	10.35 ug/mL	89
44)	4-Nitrophenol	17.87	109	5992	17.33 ug/mL	89
45)	Dibenzofuran	17.45	168	48601	20.88 ug/mL#	87
46)	2,4-Dinitrotoluene	17.68	165	12573	18.32 ug/mL#	1
47)	Diethylphthalate	18.68	149	54555	23.11 ug/mL	96
48)	Fluorene	18.47	166	37810	21.35 ug/mL	98
49)	4-Chlorophenyl-phenylether	18.70	204	20266	26 26 ug/mL#	82
51)	4-Nitroaniline	18.80	138	10963	17 36 ug/mL	96
52)	4,6-Dinitro-2-methylphenol	18 87	198	6263	15.40 ug/mL	100
53)	n-Nitrosodiphenylamine	19.12	169	29203	19 63 ug/mL	94
55)	1,2-Diphenylhydrazine (as	19.16	77	68532	14 01 ug/ml	100
56)	4-Bromophenyl-phenylether	20.13	248	14362	28.00 ug/mL	97
57)	Hexachlorobenzene	20 05	284	18525	28.47 ug/mL	94
58)	Pentachlorophenol	20 80	266	8983	20.16 ug/mL	95
59)	Phenanthrene	21 30	178	57020	19 13 ug/mLm	99
60)	Anthracene	21.45	178	58588	20.01 ug/mL	99
61)	Carbazole	22.13	167	51513	17.65 ug/ml	98
62)	Di-n-butylphthalate	23 71	149	105848	19.19 ug/mL	99
63)	Fluoranthene	24.86	202	58902	19.67 ug/mLm	71
65)	Benzidine	21 24	184	15975	24 74 ug/ml	100
66)	Pyrene	25 48	202	60645	16.05 ug/mL#	81
68)	Butylbenzylphthalate	28.15	149	47305	16.09 ug/mL#	26
69)	Benzo[a]anthracene	29 19	228	52514	15.56 ug/mL	98
70)	3,3'-Dichlorobenzidine	29 41	252	18775	20.60 ug/mL#	94
71)	Chrysene	29.29	228	48650	24.05 ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	30.16	149	69386	16 47 ug/mL#	23
74)	Di-n-octylphthalate	32.06	149	102182	17 66 ug/mL#	100
75)	Benzo[b]fluoranthene	32.20	252	32331	16 29 ug/mL#	96
76)	Benzo[k]fluoranthene	32.28	252	28031	23.73 ug/mLm	96
77)	Benzo[a]pyrene	32.99	252	20100	18.29 ug/mLm	96
78)	Indeno[1,2,3-cd]pyrene	35.65	276	8011	14.04 ug/mL#	78
79)	Dibenz[a,h]anthracene	35.78	278	7814	14 01 ug/mL	94
80)	Benzo[g,h,i]perylene	36 17	276	7059	13 63 ug/mLm	87

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

Data File . c \hpchem\1\data2\b9152 d
Acq On 20 Nov 95 12 29 pm
Sample 20 STD Converted from RTE d
Misc .
Quant Time Nov 22 12 04 1995

Vial: 206
Operator SCOTTV
Inst : ABNA
BT Multiplr: 1 00

Method . C \HPCHEM\1\METHODS\BNACLP M
Title : CLP BNA Calibration
Last Update Wed Nov 22 12 21 54 1995
Response via : Multiple Level Calibration



Quantitation Report

207

Data File : c:\hpchem\1\data2\b9153.d
Acq On : 20 Nov 95 1:22 pm
Sample : 50 STD..... Converted from RTE d
Misc :
Quant Time: Nov 22 12:06 1995

Vial: 3
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.84	152	21909	40.00	ug/mL	-0.85
17) Naphthalene-d8	11.58	136	92328	40.00	ug/mL	-0.86
32) Acenaphthene-d10	16.83	164	67130	40.00	ug/mL	-0.90
50) Phenanthrene-d10	21.25	188	123423	40.00	ug/ml	-0.98
64) Chrysene-d12	29.24	240	92844	40.00	ug/mL	-1.04
73) Perylene-d12	33.15	264	30755	40.00	ug/mL	-1.09
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	4.16	112	31216	44.69	ug/mL	44.69%
3) Phenol-d5	7.34	99	51130	45.12	ug/mL	45.12%
18) Nitrobenzene-d5	9.55	82	51901	41.48	ug/mL	41.48%
36) 2-Fluorobiphenyl	15.04	172	81039	39.58	ug/mL	39.58%
54) 2,4,6-Tribromophenol	19.24	330	25579	65.45	ug/mL	65.45%
67) Terphenyl-d14	26.37	244	110564	47.94	ug/mL	47.94%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	1.68	74	22873	47.06	ug/mlm	100
6) Phenol	7.38	94	43087	40.53	ug/mL	100
7) bis(2-Chloroethyl)ether	11.34	93	58997	45.40	ug/mL	90
8) 2-Chlorophenol	7.26	128	34772	47.64	ug/mL	96
9) 1,3-Dichlorobenzene	7.63	146	37839	50.53	ug/mL	96
10) 1,4-Dichlorobenzene	7.88	146	38816	51.23	ug/mL	95
11) 1,2-Dichlorobenzene	8.26	146	38125	51.66	ug/mL	99
12) 2-Methylphenol	9.07	108	32481	46.36	ug/mLm	97
13) bis(2-chloroisopropyl)ethe	8.99	45	56748	46.37	ug/mL	98
14) 4-Methylphenol	9.59	108	34858	45.39	ug/mL	97
15) N-Nitroso-Di-n-propylamine	9.40	70	36828	44.01	ug/mL	97
16) Hexachloroethane	9.23	117	23023	48.41	ug/mL#	74
19) Nitrobenzene	9.61	77	63152	52.71	ug/mL	98
20) Isophorone	10.44	82	98532	38.76	ug/mL	94
21) 2-Nitrophenol	10.55	139	24042	43.53	ug/mL	97
22) 2,4-Dimethylphenol	11.11	107	41512	46.50	ug/mL#	100
23) bis(2-Chloroethoxy)methane	11.34	93	58997	42.39	ug/mL#	100
24) 2,4-Dichlorophenol	11.38	162	31594	46.35	ug/mL	96
25) 1,2,4-Trichlorobenzene	11.48	180	36479	51.94	ug/mL	96
26) Naphthalene	11.63	128	110640	47.77	ug/mL	98
27) 4-Chloroaniline	12.04	127	50119	46.15	ug/mL	97
28) Hexachlorobutadiene	12.15	225	22043	59.86	ug/mL	98
29) 4-Chloro-3-methylphenol	13.81	107	43074	48.07	ug/mL#	83
30) 2-Chloronaphthalene	15.18	162	76788	52.45	ug/ml#	100
31) 2-Methylnaphthalene	13.75	142	98486	49.06	ug/mL	97
33) Hexachlorocyclopentadiene	14.27	237	20721	42.68	ug/mL	97
34) 2,4,6-Trichlorophenol	14.77	196	26093	36.50	ug/mL	97
35) 2,4,5-Trichlorophenol	14.87	196	29970	51.42	ug/mL	97

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

Quantitation Report

Data File c \hpchem\1\data2\b9153 d Vial. 3
Acq On 20 Nov 95 1 22 pm Operator SCOTTV
Sample 50 STD . Converted from RTE d Inst . ABNA
Misc BT Multiplr 1 00
Quant Time Nov 22 12 06 1995

Method c·\HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Wed Nov 22 12 21 54 1995
Response via : Multiple Level Calibration

	Compound	R.T	QIon	Response	Conc Unit	Qvalue
37)	2-Nitroaniline	16.99	65	50018	38 07 ug/mL	93
38)	Dimethylphthalate	16.51	163	110296	48 05 ug/mL#	12
39)	Acenaphthylene	16 37	152	137726	45.57 ug/mL	99
40)	2,6-Dinitrotoluene	16 58	165	27838	53 93 ug/mL#	95
41)	3-Nitroaniline	18 86	138	27743	48.34 ug/mL	95
42)	Acenaphthene	16.93	153	87062	50.87 ug/mL	95
43)	2,4-Dinitrophenol	17.30	184	11345	32.23 ug/mL	96
44)	4-Nitrophenol	17.89	109	16525	43 20 ug/mL#	85
45)	Dibenzofuran	17.47	168	120453	46.78 ug/mL	92
46)	2,4-Dinitrotoluene	17.72	165	37128	48.90 ug/mL#	1
47)	Diethylphthalate	18 70	149	129774	49.69 ug/mL	95
48)	Fluorene	18.49	166	97369	49.70 ug/mL	98
49)	4-Chlorophenyl-phenylether	18.72	204	44994	52.70 ug/mL#	80
51)	4-Nitroaniline	18 86	138	27743	39.05 ug/mL	95
52)	4,6-Dinitro-2-methylphenol	18.94	198	19466	42 54 ug/mL	100
53)	n-Nitrosodiphenylamine	19.15	169	62685	37.45 ug/mL	98
55)	1,2-Diphenylhydrazine (as	19.19	77	184330	33.48 ug/ml	100
56)	4-Bromophenyl-phenylether	20.15	248	32649	56.57 ug/mL	92
57)	Hexachlorobenzene	20.07	284	45836	62.60 ug/mL#	89
58)	Pentachlorophenol	20 82	266	23919	47.70 ug/mL	95
59)	Phenanthrene	21.33	178	143981	42 93 ug/mL	99
60)	Anthracene	21.48	178	145750	44.25 ug/mL	100
61)	Carbazole	22.15	167	139335	42.42 ug/ml	95
62)	Di-n-butylphthalate	23.73	149	268835	43.32 ug/mL#	97
63)	Fluoranthene	24.89	202	157414	46.71 ug/mLm	78
65)	Benzidine	21.27	184	18516	29.17 ug/ml	100
66)	Pyrene	25.51	202	157017	42.27 ug/mL#	87
68)	Butylbenzylphthalate	28.18	149	109897	38.03 ug/mL#	19
69)	Benzo[a]anthracene	29.20	228	135286	40 78 ug/mL	99
70)	3,3'-Dichlorobenzidine	29.42	252	39213	43 76 ug/mL#	98
71)	Chrysene	29.30	228	98159	49 36 ug/mLm	99
72)	bis(2-Ethylhexyl)phthalate	30.19	149	159156	38.42 ug/mL#	30
74)	Di-n-octylphthalate	32.07	149	184983	42.27 ug/mL#	100
75)	Benzo[b]fluoranthene	32.21	252	62291	41.49 ug/mL#	94
76)	Benzo[k]fluoranthene	32.29	252	45934	51.40 ug/mLm	94
77)	Benzo[a]pyrene	33.00	252	38144	45.88 ug/mLm	94
78)	Indeno[1,2,3-cd]pyrene	35.66	276	26456	61.30 ug/mLm	80
79)	Dibenz[a,h]anthracene	35.79	278	22396	53.09 ug/mL#	93
80)	Benzo[g,h,i]perylene	36.18	276	21568	55 05 ug/mL#	89

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

Quantitation Report

Data File c \hpchem\1\data2\b9154 d Vial 4
Acq On 20 Nov 95 2.14 pm Operator SCOTTV
Sample 80 STD Converted from RTE d Inst ABNA
Misc BT Multiplr 1 00
Quant Time Nov 22 12 07 1995

Method c \HPCHEM\1\METHODS\BNACLP.M
Title CLP BNA Calibration
Last Update Wed Nov 22 12·21.54 1995
Response via Multiple Level Calibration

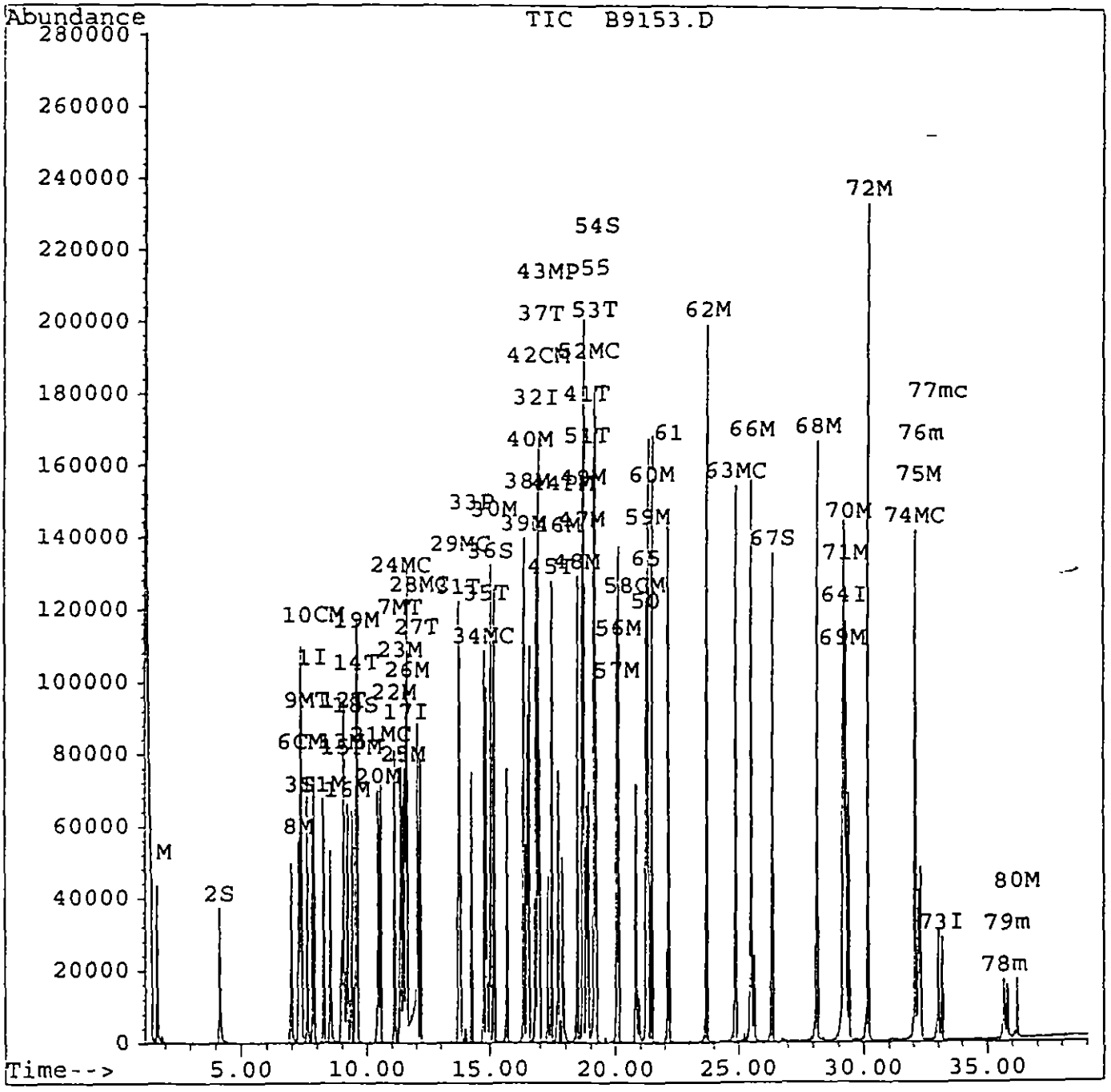
Internal Standards	R T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7 85	152	21149	40 00 ug/mL	-0 85
17) Naphthalene-d8	11 58	136	87105	40 00 ug/mL	-0 85
32) Acenaphthene-d10	16.85	164	65230	40.00 ug/mL	-0.89
50) Phenanthrene-d10	21.26	188	117422	40 00 ug/ml	-0 97
64) Chrysene-d12	29.26	240	78246	40.00 ug/mL	-1 03
73) Perylene-d12	33.15	264	29586	40.00 ug/mL	-1.09
System Monitoring Compounds					%Recovery
2) 2-Fluorophenol	4.17	112	31217	46.30 ug/mL	46.30%
3) Phenol-d5	7.36	99	51615	47.18 ug/mL	47.18%
18) Nitrobenzene-d5	9.56	82	54570	46.23 ug/mL	46.23%
36) 2-Fluorobiphenyl	15.05	172	83814	42.13 ug/mL	42.13%
54) 2,4,6-Tribromophenol	19.26	330	25349	68 18 ug/mL	68 18%
67) Terphenyl-d14	26.37	244	117341	60.37 ug/mL	60 37%
Target Compounds					Qvalue
4) N-nitrosodimethylamine	1.69	74	34411	73.34 ug/mlm	100
6) Phenol	7.40	94	73852	71.96 ug/mL	100
7) bis(2-Chloroethyl)ether	11.35	93	94368	75.23 ug/mL	96
8) 2-Chlorophenol	7.29	128	57794	82.02 ug/mL	91
9) 1,3-Dichlorobenzene	7.63	146	60192	83.27 ug/mL	100
10) 1,4-Dichlorobenzene	7.90	146	60774	83 09 ug/mL	97
11) 1,2-Dichlorobenzene	8.29	146	61063	85.72 ug/mL	95
12) 2-Methylphenol	9.10	108	50920	75.29 ug/mLm	100
13) bis(2-chloroisopropyl)ethe	9.00	45	89347	75.63 ug/mL	96
14) 4-Methylphenol	9.62	108	53851	72.64 ug/mL	100
15) N-Nitroso-Di-n-propylamine	9.45	70	61188	75.74 ug/mL#	94
16) Hexachloroethane	9.23	117	37125	80.87 ug/mL#	75
19) Nitrobenzene	9.64	77	105018	92.90 ug/mL	97
20) Isophorone	10 49	82	159088	66 33 ug/mL	97
21) 2-Nitrophenol	10.56	139	40246	77.24 ug/mL	91
22) 2,4-Dimethylphenol	11.14	107	70519	83.74 ug/mL#	100
23) bis(2-Chloroethoxy)methane	11.35	93	94368	71.87 ug/mL#	100
24) 2,4-Dichlorophenol	11.41	162	50454	78.45 ug/mL	95
25) 1,2,4-Trichlorobenzene	11.49	180	57084	86.14 ug/mL	96
26) Naphthalene	11.64	128	167173	76.51 ug/mL	100
27) 4-Chloroaniline	12.07	127	81200	79.26 ug/mL	98
28) Hexachlorobutadiene	12.18	225	34993	100.72 ug/mL	98
29) 4-Chloro-3-methylphenol	13.82	107	72479	85.73 ug/mL	89
30) 2-Chloronaphthalene	15.19	162	130435	94.44 ug/ml#	100
31) 2-Methylnaphthalene	13 76	142	160669	84.83 ug/mL	99
33) Hexachlorocyclopentadiene	14.28	237	37611	79 73 ug/mL#	97
34) 2,4,6-Trichlorophenol	14.78	196	44855	64 57 ug/mL	98
35) 2,4,5-Trichlorophenol	14.88	196	46266	81 69 ug/mL	96

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

Quantitation Report

Data File	c \hpchem\1\data2\b9153 d	Vial	3
Acq On	20 Nov 95 1 22 pm	Operator	SCOTTV
Sample	50 STD . Converted from RTE d	Inst .	ABNA
Misc		BT Multiplr	1 00
Quant Time	Nov 22 12 06 1995		

Method	c.\HPCHEM\1\METHODS\BNACLP M
Title	CLP BNA Calibration
Last Update	Wed Nov 22 12 21·54 1995
Response via	Multiple Level Calibration



Quantitation Report

Data File c \hpchem\1\data2\b9154 d Vial 4
Acq On 20 Nov 95 2 14 pm Operator SCOTTV
Sample 80 STD Converted from RTE d Inst ABNA
Misc BT Multiplr 1 00
Quant Time Nov 22 12:07 1995

Method c \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Wed Nov 22 12 21.54 1995
Response via Multiple Level Calibration

	Compound	R T	QIon	Response	Conc Unit	Qvalue
37)	2-Nitroaniline	17 02	65	84624	66 28 ug/mL	89
38)	Dimethylphthalate	16 54	163	175842	78 83 ug/mL#	12
39)	Acenaphthylene	16 38	152	205000	69 80 ug/mL	99
40)	2,6-Dinitrotoluene	16.61	165	45185	90.09 ug/mL#	99
41)	3-Nitroaniline	18.91	138	38767	69 52 ug/mL	98
42)	Acenaphthene	16.94	153	130279	78.33 ug/mL	99
43)	2,4-Dinitrophenol	17.35	184	23597	69.00 ug/mL#	81
44)	4-Nitrophenol	17.91	109	30181	81.21 ug/mL	84
45)	Dibenzofuran	17.50	168	193762	77.44 ug/mL	88
46)	2,4-Dinitrotoluene	17.75	165	63886	86.58 ug/mL#	1
47)	Diethylphthalate	18.74	149	187094	73.73 ug/mL	95
48)	Fluorene	18.52	166	147613	77.55 ug/mL	96
49)	4-Chlorophenyl-phenylether	18 74	204	68166	82.17 ug/mL#	83
51)	4-Nitroaniline	18 91	138	38767	57.36 ug/mL	98
52)	4,6-Dinitro-2-methylphenol	18 97	198	27346	62.82 ug/mL	100
53)	n-Nitrosodiphenylamine	19.18	169	96556	60.63 ug/mL	97
55)	1,2-Diphenylhydrazine (as	19.20	77	303006	57.85 ug/ml	100
56)	4-Bromophenyl-phenylether	20 16	248	49920	90.92 ug/mL	93
57)	Hexachlorobenzene	20.11	284	69411	99.65 ug/mL#	80
58)	Pentachlorophenol	20 86	266	44474	93.22 ug/mL	100
59)	Phenanthrene	21 34	178	244369	76 58 ug/mLm	98
60)	Anthracene	21 49	178	239679	76.48 ug/mL	98
61)	Carbazole	22.17	167	231960	74 22 ug/ml	95
62)	Di-n-butylphthalate	23 75	149	437710	74.14 ug/mL#	97
63)	Fluoranthene	24.90	202	257785	80.40 ug/mLm	79
65)	Benzidine	21.26	184	17684	33 05 ug/ml	100
66)	Pyrene	25.52	202	244857	78.22 ug/mL#	89
68)	Butylbenzylphthalate	28.20	149	185366	76.11 ug/mL#	18
69)	Benzo[a]anthracene	29 22	228	199585	71.39 ug/mL	100
70)	3,3'-Dichlorobenzidine	29.42	252	60675	80.35 ug/mL#	94
71)	Chrysene	29 32	228	150741	89.95 ug/mLm	100
72)	bis(2-Ethylhexyl)phthalate	30.19	149	253443	72 60 ug/mL#	24
74)	Di-n-octylphthalate	32.07	149	301609	71 64 ug/mL#	100
75)	Benzo[b]fluoranthene	32.21	252	117097	81.08 ug/mL#	94
76)	Benzo[k]fluoranthene	32.31	252	83571	97.21 ug/mLm	94
77)	Benzo[a]pyrene	33.00	252	70806	88.54 ug/mLm	93
78)	Indeno[1,2,3-cd]pyrene	35.66	276	49674	119.65 ug/mLm	71
79)	Dibenz[a,h]anthracene	35 79	278	54514	134 34 ug/mL	93
80)	Benzo[g,h,i]perylene	36.20	276	53556	142 09 ug/mL#	83

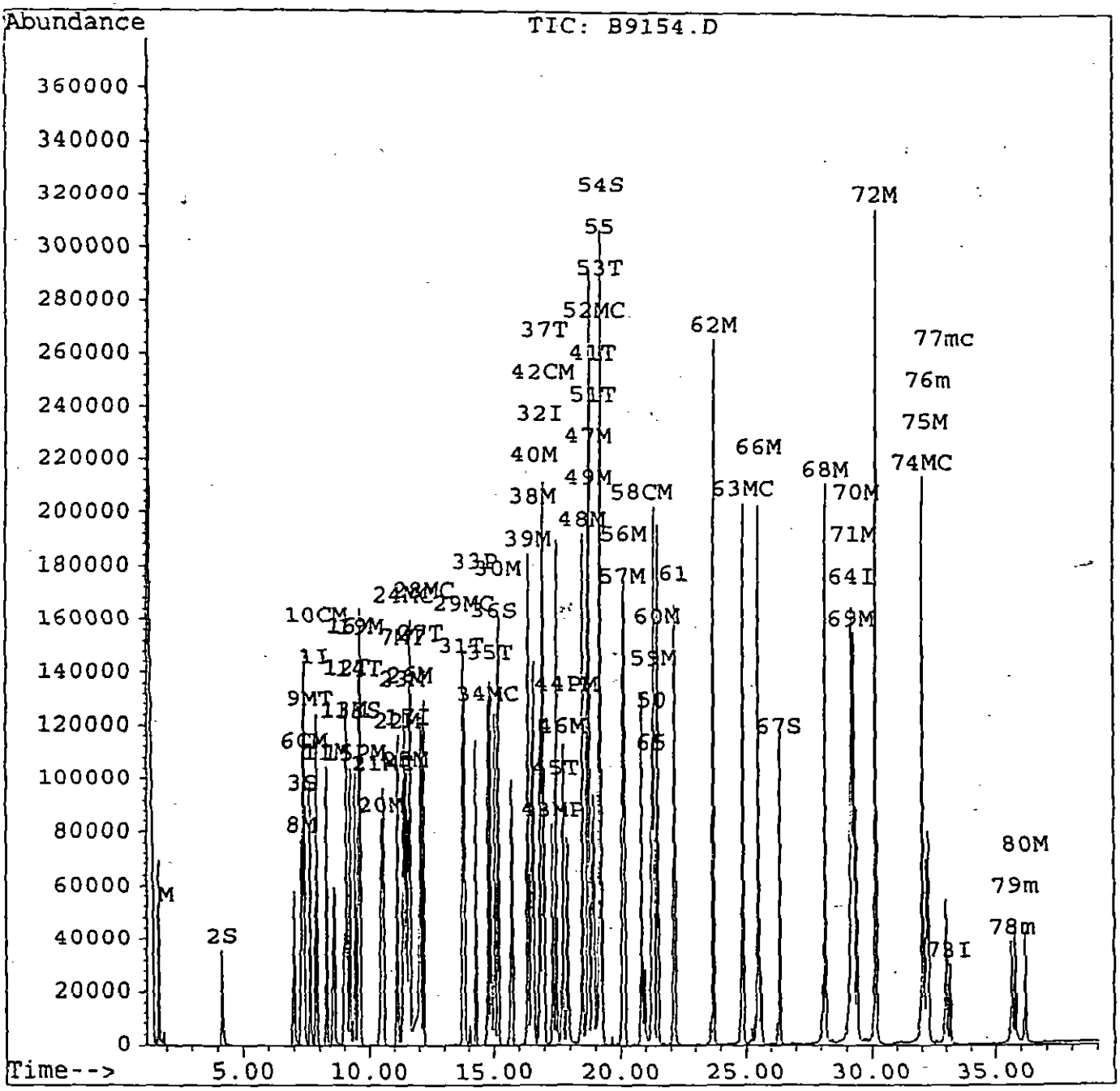
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b9154.d
Acq On : 20 Nov 95 2:14 pm
Sample : 80 STD..... Converted from RTE d
Misc :
Quant Time: Nov 22 12:07 1995

Vial: 4
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration



Quantitation Report

Data File c \hpchem\1\data2\b9155 d
Acq On 20 Nov 95 3 11 pm
Sample 120 STD . Converted from RTE d
Misc
Quant Time Nov 22 12 18 1995

Vial 5
Operator SCOTTV
Inst ABNA
BT Multiplr: 1 00

Method c \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Wed Nov 22 12:21 54 1995
Response via Multiple Level Calibration

Internal Standards	R T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7 86	152	21393	40 00 ug/mL	-0 83
17) Naphthalene-d8	11 60	136	89884	40 00 ug/mL	-0 83
32) Acenaphthene-d10	16.86	164	68594	40 00 ug/mL	-0 87
50) Phenanthrene-d10	21 28	188	124831	40 00 ug/ml	-0 95
64) Chrysene-d12	29.28	240	80803	40 00 ug/mL	-1.01
73) Perylene-d12	33 17	264	40378	40 00 ug/mL	-1.07
System Monitoring Compounds					%Recovery
2) 2-Fluorophenol	4 18	112	31242	45.81 ug/mL	45.81%
3) Phenol-d5	7.38	99	52903	47.81 ug/mL	47 81%
18) Nitrobenzene-d5	9.60	82	56558	46 43 ug/mL	46 43%
36) 2-Fluorobiphenyl	15.07	172	93337	44.61 ug/mL	44.61%
54) 2,4,6-Tribromophenol	19 30	330	28016	70 88 ug/mL	70 88%
67) Terphenyl-d14	26 37	244	123504	61 53 ug/mL	61 53%
Target Compounds					Qvalue
4) N-nitrosodimethylamine	1.70	74	61263	129.08 ug/mlm	100
6) Phenol	7.44	94	113845	109.67 ug/mL	100
7) bis(2-Chloroethyl)ether	11 39	93	137382	108.27 ug/mL	90
8) 2-Chlorophenol	7.30	128	84421	118.44 ug/mL	94
9) 1,3-Dichlorobenzene	7 65	146	84510	115.58 ug/mL	96
10) 1,4-Dichlorobenzene	7.92	146	85696	115.82 ug/mL	99
11) 1,2-Dichlorobenzene	8.29	146	87755	121 79 ug/mL	99
12) 2-Methylphenol	9 13	108	81052	118.48 ug/mLm	100
13) bis(2-chloroisopropyl)ethe	9 02	45	137800	115.32 ug/mL	97
14) 4-Methylphenol	9.67	108	87534	116.73 ug/mL	100
15) N-Nitroso-Di-n-propylamine	9.48	70	93023	113 83 ug/mL	98
16) Hexachloroethane	9.23	117	53808	115.88 ug/mL	85
19) Nitrobenzene	9.65	77	153016	131 18 ug/mL	95
20) Isophorone	10.56	82	176763	71.42 ug/mL#	93
21) 2-Nitrophenol	10 60	139	60412	112 37 ug/mL	96
22) 2,4-Dimethylphenol	11 18	107	108531	124.89 ug/mL#	100
23) bis(2-Chloroethoxy)methane	11.39	93	137382	101.39 ug/mL#	100
24) 2,4-Dichlorophenol	11.45	162	72744	109.61 ug/mL	95
25) 1,2,4-Trichlorobenzene	11.50	180	81586	119.31 ug/mL	93
26) Naphthalene	11.68	128	265432	117 73 ug/mL	99
27) 4-Chloroaniline	12.08	127	121913	115 32 ug/mL	96
28) Hexachlorobutadiene	12.18	225	47234	131 75 ug/mL	99
29) 4-Chloro-3-methylphenol	13 86	107	113540	130.15 ug/mL#	83
30) 2-Chloronaphthalene	15.21	162	190634	133 76 ug/ml#	100
31) 2-Methylnaphthalene	13.78	142	244141	124.92 ug/mL	97
33) Hexachlorocyclopentadiene	14.30	237	55971	112.83 ug/mL	98
34) 2,4,6-Trichlorophenol	14 80	196	71133	97.38 ug/mL	95
35) 2,4,5-Trichlorophenol	14.90	196	70146	117 78 ug/mL	96

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

Quantitation Report

Data File c \hpchem\1\data2\b9155 d Vial 5
Acq On 20 Nov 95 3 11 pm Operator SCOTTV
Sample 120 STD Converted from RTE d Inst ABNA
Misc BT Multiplr 1.00
Quant Time Nov 22 12 18 1995

Method c \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Wed Nov 22 12:21 54 1995
Response via Multiple Level Calibration

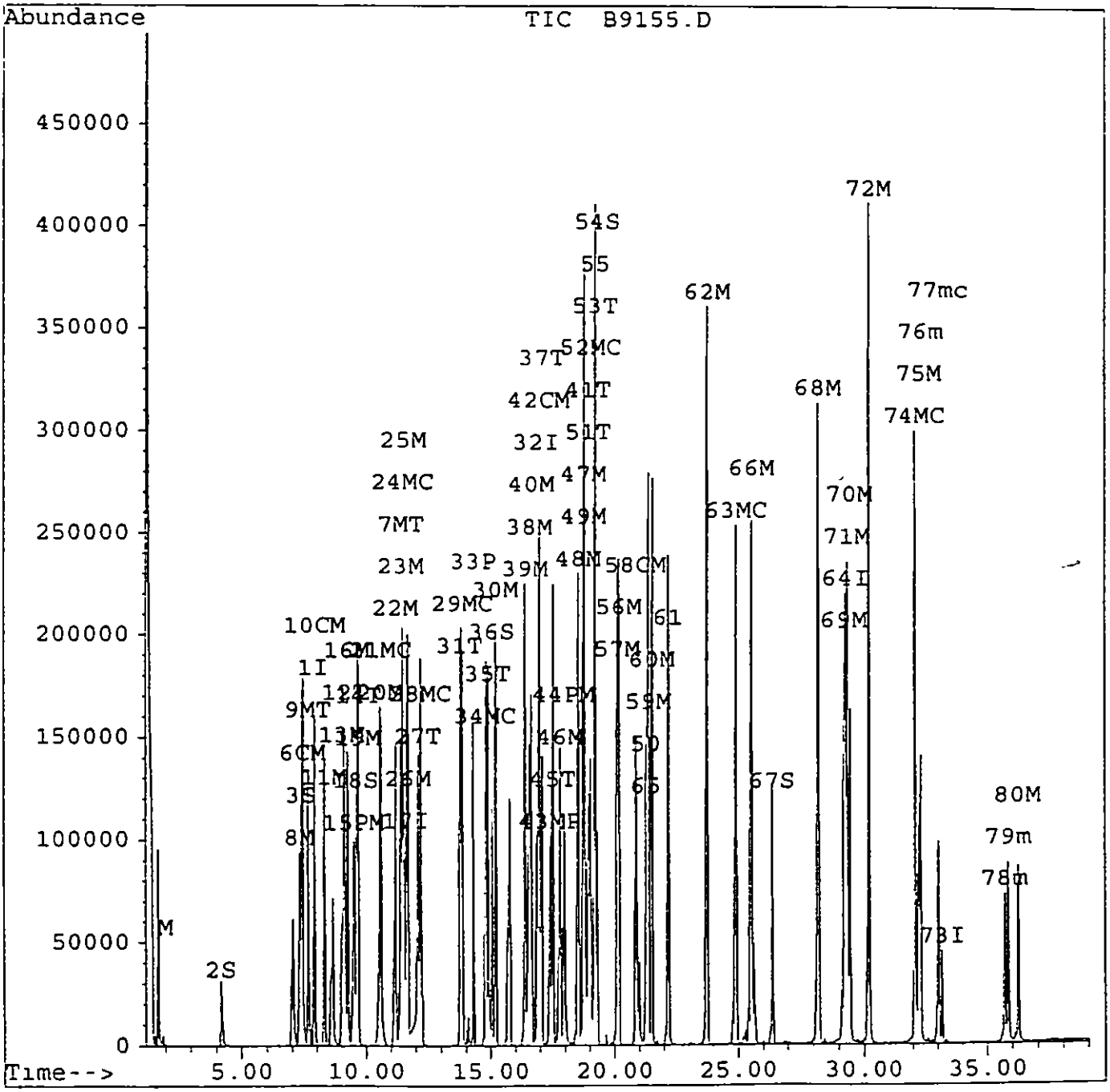
	Compound	R T	QIon	Response	Conc Unit	Qvalue
37)	2-Nitroaniline	17 08	65	145818	108.61 ug/mL	85
38)	Dimethylphthalate	16 57	163	274872	117.18 ug/mL#	12
39)	Acenaphthylene	16.40	152	321563	104.12 ug/mL	99
40)	2,6-Dinitrotoluene	16.65	165	66698	126 46 ug/mL#	96
41)	3-Nitroaniline	18 97	138	63194	107 76 ug/mL	97
42)	Acenaphthene	16.96	153	208073	118.97 ug/mL	99
43)	2,4-Dinitrophenol	17.40	184	41392	115.10 ug/mL#	70
44)	4-Nitrophenol	17.96	109	50217	128.49 ug/mL#	88
45)	Dibenzofuran	17.52	168	280201	106.49 ug/mL#	87
46)	2,4-Dinitrotoluene	17.81	165	96403	124.25 ug/mL#	1
47)	Diethylphthalate	18.77	149	276218	103.51 ug/mL#	93
48)	Fluorene	18.54	166	220505	110 16 ug/mL	95
49)	4-Chlorophenyl-phenylether	18 75	204	100302	114.98 ug/mL#	80
51)	4-Nitroaniline	18.97	138	63194	87.95 ug/mL	97
52)	4,6-Dinitro-2-methylphenol	19.03	198	49923	107 88 ug/mL	100
53)	n-Nitrosodiphenylamine	19 22	169	150343	88.80 ug/mL	99
55)	1,2-Diphenylhydrazine (as	19.24	77	418716	75 19 ug/ml	100
56)	4-Bromophenyl-phenylether	20 18	248	71656	122.76 ug/mL	93
57)	Hexachlorobenzene	20 12	284	105667	142.69 ug/mL#	76
58)	Pentachlorophenol	20.88	266	71152	140 28 ug/mL	99
59)	Phenanthrene	21 38	178	362651	106 91 ug/mL	99
60)	Anthracene	21.53	178	368967	110.75 ug/mL	99
61)	Carbazole	22.19	167	363617	109 44 ug/ml	94
62)	Di-n-butylphthalate	23 75	149	663866	105 77 ug/mL	98
63)	Fluoranthene	24.92	202	400665	117.55 ug/mLm	72
65)	Benzidine	21.28	184	25272	45.74 ug/mlm	100
66)	Pyrene	25.54	202	401509	124.20 ug/mL#	83
68)	Butylbenzylphthalate	28.20	149	289743	115.20 ug/mL#	18
69)	Benzo[a]anthracene	29.24	228	336557	116.57 ug/mL	98
70)	3,3'-Dichlorobenzidine	29.43	252	101174	129.73 ug/mL#	96
71)	Chrysene	29.34	228	214314	123.84 ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	30.19	149	383155	106.29 ug/mL#	22
74)	Di-n-octylphthalate	32.07	149	438231	76 28 ug/mL#	100
75)	Benzo[b]fluoranthene	32.25	252	174291	88.43 ug/mL#	92
76)	Benzo[k]fluoranthene	32.33	252	127243	108.45 ug/mLm	92
77)	Benzo[a]pyrene	33.02	252	118613	108.67 ug/mLm	92
78)	Indeno[1,2,3-cd]pyrene	35.68	276	90641	159.97 ug/mLm	70
79)	Dibenz[a,h]anthracene	35.81	278	86714	156 58 ug/mL	93
80)	Benzo[g,h,i]perylene	36.22	276	96038	186 69 ug/mL#	83

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

Quantitation Report

Data File c \hpchem\1\data2\b9155 d Vial 5
Acq On 20 Nov 95 3·11 pm Operator· SCOTTV
Sample 120 STD Converted from RTE d Inst . ABNA
Misc BT Multiplr: 1 00
Quant Time: Nov 22 12 18 1995

Method c \HPCHEM\1\METHODS\BNACLP.M
Title CLP BNA Calibration
Last Update · Wed Nov 22 12 21:54 1995
Response via · Multiple Level Calibration



Quantitation Report

Data File c \hpchem\1\data2\b9156 d Vial 6
Acq On 20 Nov 95 4·04 pm Operator SCOTTV
Sample 160 STD Converted from RTE d Inst . ABNA
Misc BT Multiplr. 1 00
Quant Time Nov 22 12 21 1995

Method c \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update . Wed Nov 22 12 21 54 1995
Response via . Multiple Level Calibration

Internal Standards	R T	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7 86	152	22101	40 00 ug/mL	-0 83
17) Naphthalene-d8	11 62	136	92020	40 00 ug/mL	-0 81
32) Acenaphthene-d10	16 87	164	64329	40.00 ug/mL	-0 87
50) Phenanthrene-d10	21 30	188	117328	40.00 ug/ml	-0 93
64) Chrysene-d12	29 28	240	89266	40.00 ug/mL	-1.00
73) Perylene-d12	33.18	264	45167	40.00 ug/mL	-1.06
System Monitoring Compounds					%Recovery
2) 2-Fluorophenol	4.20	112	31739	45 05 ug/mL	45.05%
3) Phenol-d5	7 42	99	54612	47.77 ug/mL	47.77%
18) Nitrobenzene-d5	9.62	82	56583	45 37 ug/mL	45.37%
36) 2-Fluorobiphenyl	15.07	172	91744	46 76 ug/mL	46.76%
54) 2,4,6-Tribromophenol	19 32	330	25154	67.71 ug/mL	67.71%
67) Terphenyl-d14	26.37	244	137972	62 22 ug/mL	62 22%
Target Compounds					Qvalue
4) N-nitrosodimethylamine	1 70	74	71477	145.77 ug/mlm	100
6) Phenol	7.46	94	138751	129 38 ug/mL	100
7) bis(2-Chloroethyl)ether	11 41	93	184172	140 49 ug/mL	89
8) 2-Chlorophenol	7 32	128	115858	157.34 ug/mL	94
9) 1,3-Dichlorobenzene	7 67	146	113094	149.72 ug/mL	97
10) 1,4-Dichlorobenzene	7.92	146	114850	150 25 ug/mL	98
11) 1,2-Dichlorobenzene	8 30	146	111815	150.20 ug/mL	97
12) 2-Methylphenol	9 15	108	108583	153.64 ug/mL	68
13) bis(2-chloroisopropyl)ethe	9.02	45	265566	215.12 ug/mL#	95
14) 4-Methylphenol	9.71	108	114296	147.53 ug/mL	98
15) N-Nitroso-Di-n-propylamine	9.54	70	131314	155 54 ug/mL#	98
16) Hexachloroethane	9.25	117	70643	147.26 ug/mL#	80
19) Nitrobenzene	9 69	77	212977	178.35 ug/mL	90
20) Isophorone	10.62	82	247293	97.60 ug/mL#	93
21) 2-Nitrophenol	10 62	139	80291	145.87 ug/mL	99
22) 2,4-Dimethylphenol	11.22	107	147781	166 11 ug/mL#	100
23) bis(2-Chloroethoxy)methane	11.41	93	184172	132 77 ug/mL#	100
24) 2,4-Dichlorophenol	11.47	162	97425	143 39 ug/mL	94
25) 1,2,4-Trichlorobenzene	11.52	180	106068	151.52 ug/mL	93
26) Naphthalene	11 68	128	343139	148.66 ug/mL	100
27) 4-Chloroaniline	12.10	127	161976	149.65 ug/mL	99
28) Hexachlorobutadiene	12.20	225	62019	168.98 ug/mL	98
29) 4-Chloro-3-methylphenol	13.88	107	144226	161 48 ug/mL	86
30) 2-Chloronaphthalene	15.23	162	233262	159 87 ug/ml#	100
31) 2-Methylnaphthalene	13 80	142	306392	153 13 ug/mL	92
33) Hexachlorocyclopentadiene	14.30	237	75372	162 01 ug/mL	99
34) 2,4,6-Trichlorophenol	14 84	196	95784	139.82 ug/mL	100
35) 2,4,5-Trichlorophenol	14.92	196	88905	159.18 ug/mL	98

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

Quantitation Report

Data File c \hpchem\1\data2\b9156 d Vial 6
Acq On 20 Nov 95 4 04 pm Operator. SCOTTV
Sample 160 STD Converted from RTE d Inst ABNA
Misc BT Multiplr: 1 00
Quant Time Nov 22 12 21 1995

Method c \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Wed Nov 22 12 21 54 1995
Response via Multiple Level Calibration

	Compound	R.T	QIon	Response	Conc Unit	Qvalue
37)	2-Nitroaniline	17 12	65	185263	147 14 ug/mL	89
38)	Dimethylphthalate	16.59	163	343745	156 26 ug/mL#	12
39)	Acenaphthylene	16.42	152	390100	134 69 ug/mL	99
40)	2,6-Dinitrotoluene	16 69	165	87603	177.11 ug/mL#	94
41)	3-Nitroaniline	19.01	138	85342	155 18 ug/mL	94
42)	Acenaphthene	16.98	153	249378	152.04 ug/mL	97
43)	2,4-Dinitrophenol	17 44	184	54798	162.48 ug/mL#	85
44)	4-Nitrophenol	18.02	109	68223	186 14 ug/mL#	77
45)	Dibenzofuran	17 54	168	328941	133.31 ug/mL#	83
46)	2,4-Dinitrotoluene	17 85	165	127167	174 76 ug/mL#	1
47)	Diethylphthalate	18.81	149	352507	140.86 ug/mL#	92
48)	Fluorene	18.56	166	260696	138.87 ug/mL	98
49)	4-Chlorophenyl-phenylether	18 78	204	114266	139 67 ug/mL#	75
51)	4-Nitroaniline	19.01	138	85342	126.37 ug/mL	94
52)	4,6-Dinitro-2-methylphenol	19 08	198	69259	159.23 ug/mL	100
53)	n-Nitrosodiphenylamine	19.24	169	173217	108.85 ug/mL	96
55)	1,2-Diphenylhydrazine (as	19.26	77	522383	99.81 ug/ml	100
56)	4-Bromophenyl-phenylether	20 20	248	78677	143 41 ug/mL#	87
57)	Hexachlorobenzene	20.15	284	119797	172.12 ug/mL#	66
58)	Pentachlorophenol	20 90	266	91464	191.86 ug/mL	98
59)	Phenanthrene	21 40	178	451397	141.58 ug/mLm	99
60)	Anthracene	21.56	178	456755	145.86 ug/mL	99
61)	Carbazole	22 21	167	449707	144.01 ug/ml	95
62)	Di-n-butylphthalate	23 77	149	863992	146.46 ug/mL#	98
63)	Fluoranthene	24.95	202	562658	175 63 ug/mLm	77
65)	Benzidine	21 30	184	31272	51.24 ug/mlm	100
66)	Pyrene	25.54	202	552982	154 84 ug/mL#	87
68)	Butylbenzylphthalate	28.22	149	392647	141.31 ug/mL#	17
69)	Benzo[a]anthracene	29.26	228	473299	148.40 ug/mL	99
70)	3,3'-Dichlorobenzidine	29.44	252	141407	164.13 ug/mL#	95
71)	Chrysene	29.36	228	286102	149 64 ug/mLm	100
72)	bis(2-Ethylhexyl)phthalate	30.19	149	500621	125.71 ug/mL#	29
74)	Di-n-octylphthalate	32.10	149	621312	96.68 ug/mL#	100
75)	Benzo[b]fluoranthene	32.27	252	268405	121.74 ug/mL#	93
76)	Benzo[k]fluoranthene	32.35	252	191711	146.08 ug/mLm	93
77)	Benzo[a]pyrene	33 04	252	181522	148.68 ug/mLm	93
78)	Indeno[1,2,3-cd]pyrene	35.70	276	114792	181.12 ug/mL#	78
79)	Dibenz[a,h]anthracene	35 84	278	114109	184 20 ug/mL#	86
80)	Benzo[g,h,i]perylene	36.22	276	115784	201.21 ug/mL#	86

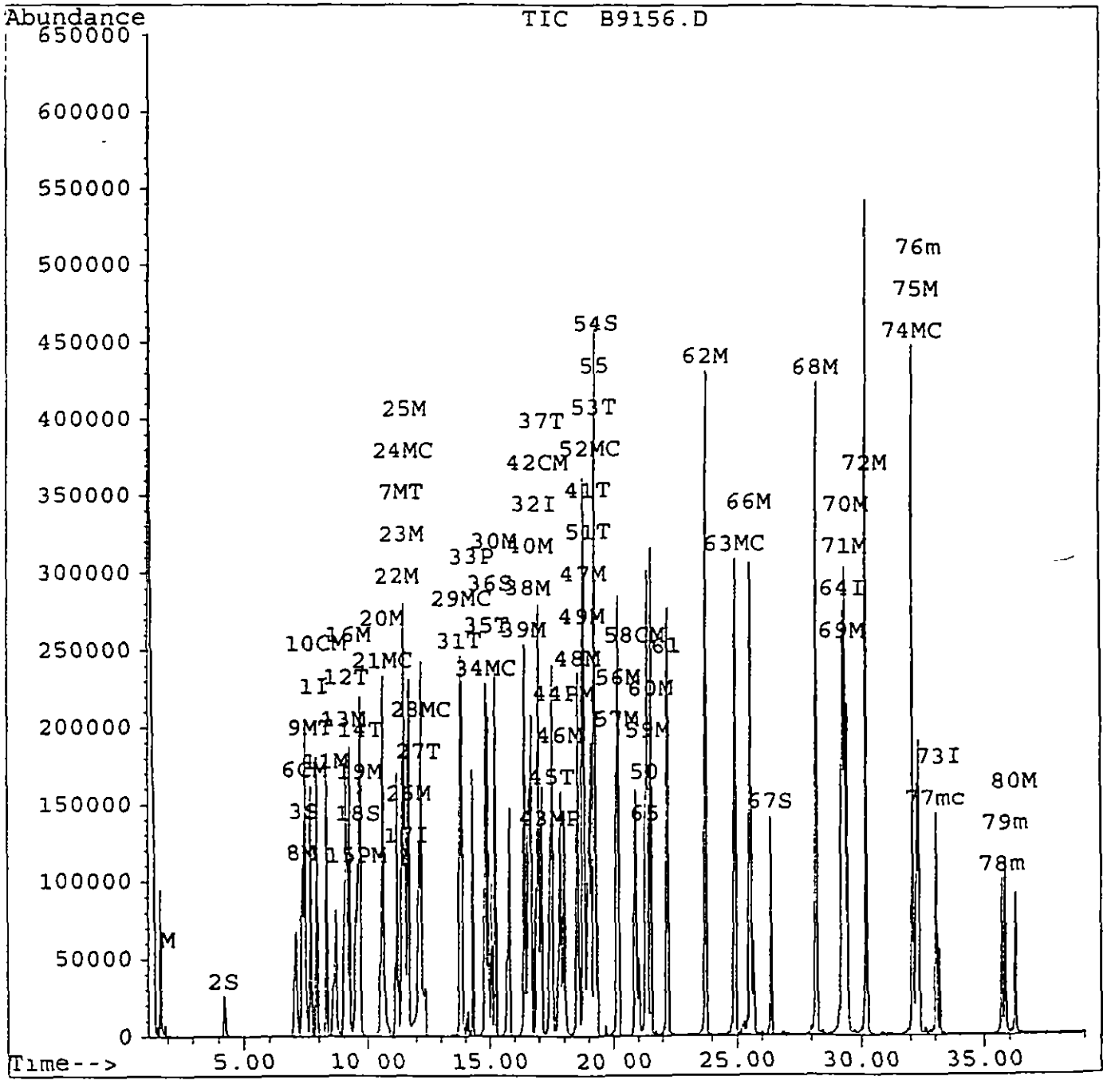
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File c \hpchem\1\data2\b9156 d
Acq On 20 Nov 95 4 04 pm
Sample 160 STD
Misc
Quant Time. Nov 22 12 21 1995

Vial 6
Operator SCOTTV
Converted from RTE d Inst ABNA
BT Multiplr 1.00

Method c \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Wed Nov 22 12 21 54 1995
Response via Multiple Level Calibration



5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

219

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Lab File ID B9005 D DFTPP Injection Date 10/27/95

Instrument ID ABNA DFTPP Injection Time 1121

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30 0 - 80 0% of mass 198	58 5
68	Less than 2 0% of mass 69	0 0 (0 0)1
69	Mass 69 relative abundance	76 5
70	Less than 2 0% of mass 69	0 0 (0 0)1
127	25 0 - 75 0% of mass 198	46 5
197	Less than 1 0% of mass 198	0 0
198	Base Peak, 100 % relative abundance	100 0
199	5 0 - 9 0% of mass 198	7 5
275	10 0 - 30 0% of mass 198	19 3
365	Greater than 0 75% of mass 198	2 3
441	Present, but less than mass 443	10 1
442	40 0 - 110 0% of mass 198	62 3
443	15 0 - 24 0% of mass 442	11 8 (19 0)2

1-Value is % mass 69 2-Value is % mass 442

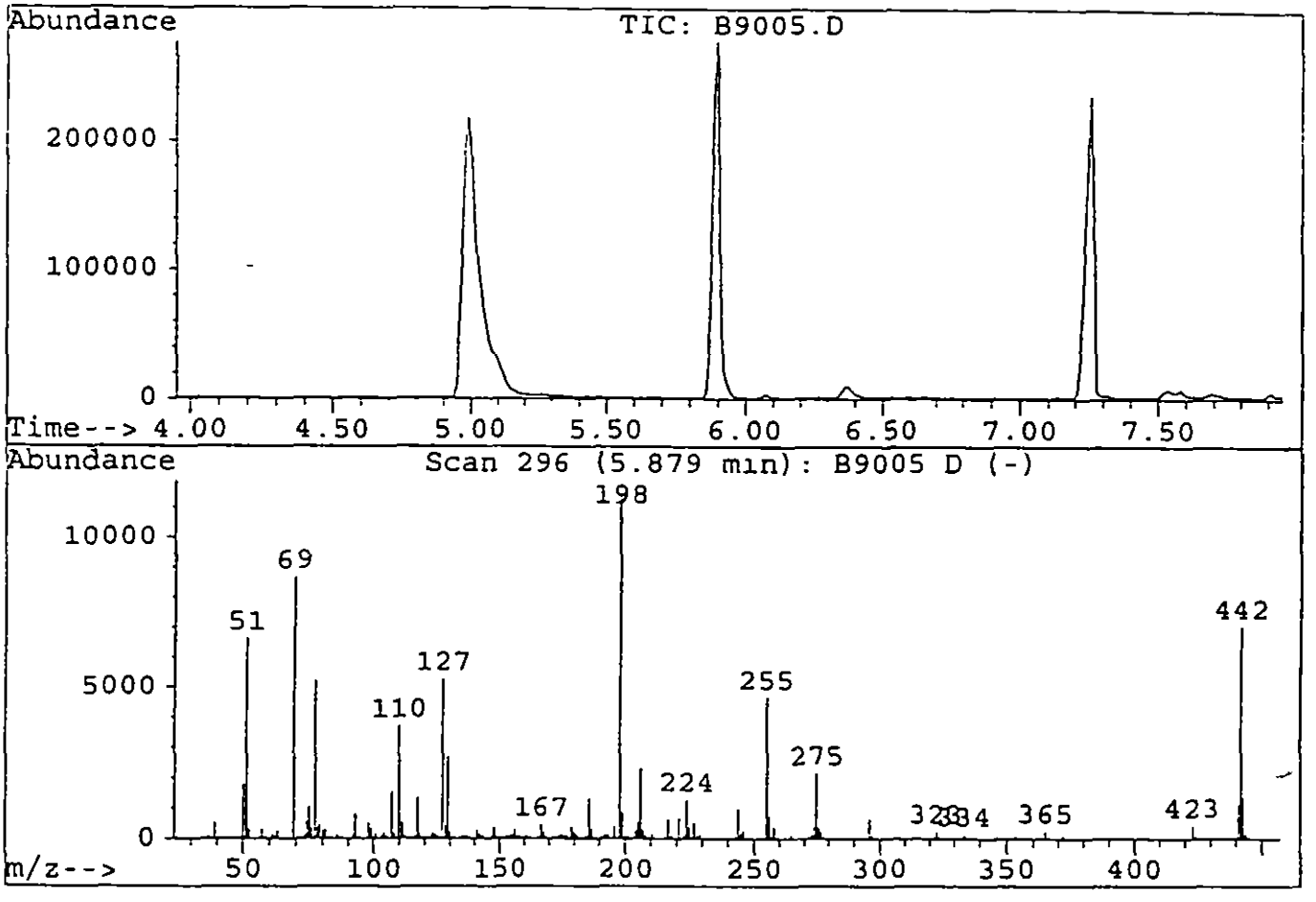
This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS

	SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	50 STD	B9008 D	10/27/95	1329
02	SBLK01	BLANK1	B9009 D	10/27/95	1421
03	9547000B	9547000B	B9010 D	10/27/95	1512
04	46360MS	46360MS	B9011 D	10/27/95	1604
05	46360MSD	46360MSD	B9012 D	10/27/95	1656
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

DFTPP

Data File C \HPCHEM\1\DATA2\B9005 D Vial 1
Acq On 27 Oct 95 11 21 am Operator SCOTTV
Sample DFTPP Converted from RTE d Inst : ABNA
Misc BT Multiplr 1.00

Method C.\HPCHEM\1\METHODS\BNACLP.M
Title CLP BNA Calibration



Peak Apex is scan: 303

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	58 5	6640	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	76.5	8681	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	46.5	5278	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	11354	PASS
199	198	5	9	7.5	851	PASS
275	198	10	30	19 3	2186	PASS
365	198	1	100	2.3	262	PASS
441	443	0	100	85.7	1150	PASS
442	198	40	100	62.3	7070	PASS
443	442	17	23	19.0	1342	PASS

can 296 (5 879 min) B9005 D

odified subtracted

m/z	abund	m/z	abund.	m/z	abund	m/z	abund
37 00	76	61 05	162	78.05	357	92.95	836
39 10	538	62 05	105	78 95	456	94 05	60
40 10	11	63.05	251	80 05	272	96.00	4
49 15	60	64 05	21	81 05	337	98.00	514
50 10	1802	65.05	39	82 05	22	99 00	334
51 10	6640	69 05	8681	83.95	27	100.00	61
52.10	309	73.25	96	84.15	30	100 90	173
56 05	84	74.05	568	85 95	152	102.10	23
57.05	325	74.95	1043	87.05	60	103.00	131
57.95	40	75 95	325	88.15	24	104.00	213
58.95	33	77.05	5224	92.15	139	105.00	77

Scan 296 (5 879 min): B9005.D

odified:subtracted

m/z	abund.	m/z	abund	m/z	abund.	m/z	abund.
106.10	45	119.20	28	131.95	21	145.95	60
107.00	1558	120.10	23	133.85	94	147.05	123
108.00	176	122.10	159	135.05	173	147.95	389
109.10	71	123.10	219	135.95	85	148.85	58
109.95	3714	124.00	134	136.95	116	150.05	34
111.00	519	125.00	94	137.75	36	151.25	56
112.00	87	127.00	5278	140.05	29	151.95	43
113.10	31	128.00	424	140.95	285	152.95	140
116 00	131	128.95	2715	141.95	153	153.95	69
117.00	1370	129.85	217	143.05	97	154.95	138
117.90	140	131.10	50	145.05	19	156.05	290

an 296 (5.879 min): B9005.D

odified:subtracted

m/z	abund.	m/z	abund	m/z	abund.	m/z	abund.
157 15	71	169.10	53	178.80	398	189.90	28
157 95	86	170.20	25	179.85	215	190.90	62
158.95	48	170.90	34	180.90	122	191.90	140
159 95	73	171.90	78	181.90	29	193.00	137
160.85	143	173.00	95	182.80	17	195.00	27
161.95	53	174.00	147	184.00	47	195.90	402
164.05	17	175.00	154	184.80	122	197.90	11354
164.90	13	176.00	98	185.85	1327	198.80	851
165.95	79	177.10	135	186.90	319	200.00	72
166.90	470	177.80	31	187.90	49	201.40	85
167.90	186	178.10	37	188.80	46	203.00	60

Scan 296 (5.879 min): B9005.D

dified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
203.80	274	220.95	681	234.95	47	246.90	54
204.95	542	222.85	148	235.95	43	247.60	10
205.95	2320	223.85	1298	236.95	67	248.90	64
206.85	289	224.95	385	239.05	37	253.40	16
207 95	112	225.95	47	239.90	19	254.90	4690
208.95	41	226.95	533	240.90	49	255.80	735
210.75	167	227.95	107	241.80	74	256.90	64
214.85	42	228.85	163	242.90	80	257.90	400
215 95	68	229.95	32	243.90	1011	258.90	49
216.75	644	230.85	57	244.80	168	264.90	163
217.95	101	233.85	55	245.90	273	271.80	20

Scan 296 (5 879 min) B9005 D

Modified subtracted

m/z	abund	m/z	abund	m/z	abund	m/z	abund
272 90	141	302.85	75	331.70	25	365 85	41
273.80	394	303 95	33	332.90	24	370.85	31
274 90	2186	313 80	44	333 90	159	371 85	130
275 90	356	314 90	72	334 90	33	382 55	16
276 85	235	315 90	45	340.70	20	382.95	24
277 75	37	320.70	24	345 80	64	389.70	22
282.95	18	321.80	17	351 95	54	401.90	58
284.95	37	322 90	232	352.95	51	402.80	67
293.05	43	323.90	53	353 85	74	403.70	21
295.85	649	326.70	36	354 85	17	420.90	47
296 85	108	327.90	29	364.85	262	422.90	447

Scan 296 (5 879 min) B9005 D

Modified subtracted

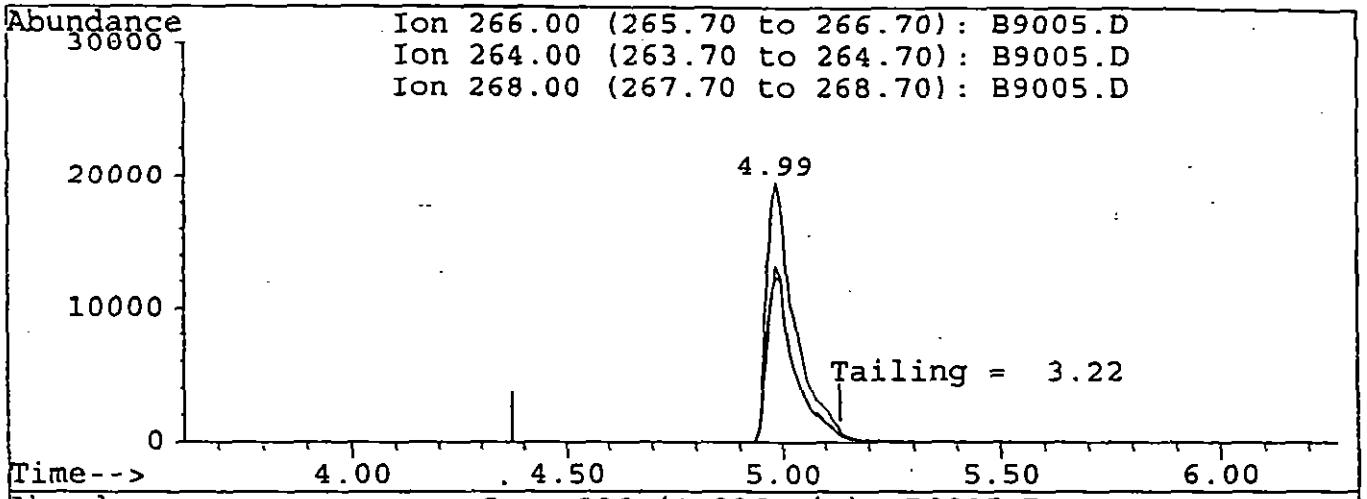
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
423.85	81						
440 85	1150						
441.85	7070						
442.75	1342						
443.75	155						

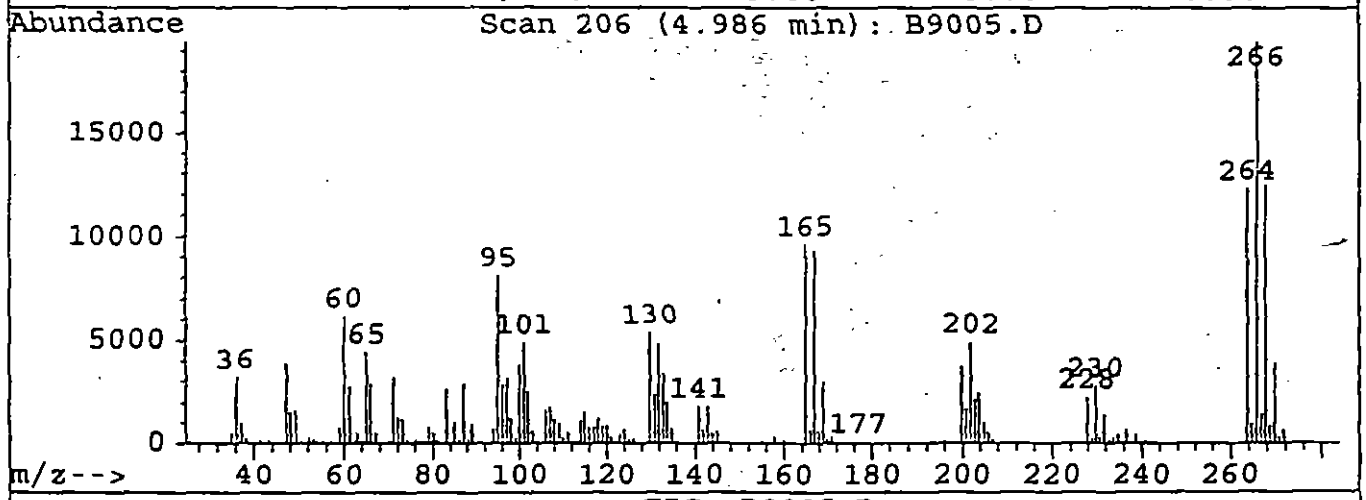
Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B9005.D
Acq On : 27 Oct 95 11:21 am
Sample : DFTPP.....
Misc :
Quant Time: Oct 27 12:32 1995

Vial: 1
Operator: SCOTTV
Converted from RTE d Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Oct 25 10:20:51 1995
Response via : Multiple Level Calibration





TIC: B9005.D

(1) Pentachlorophenol (CM)

4.99min 272.64ug/mL

response 90052

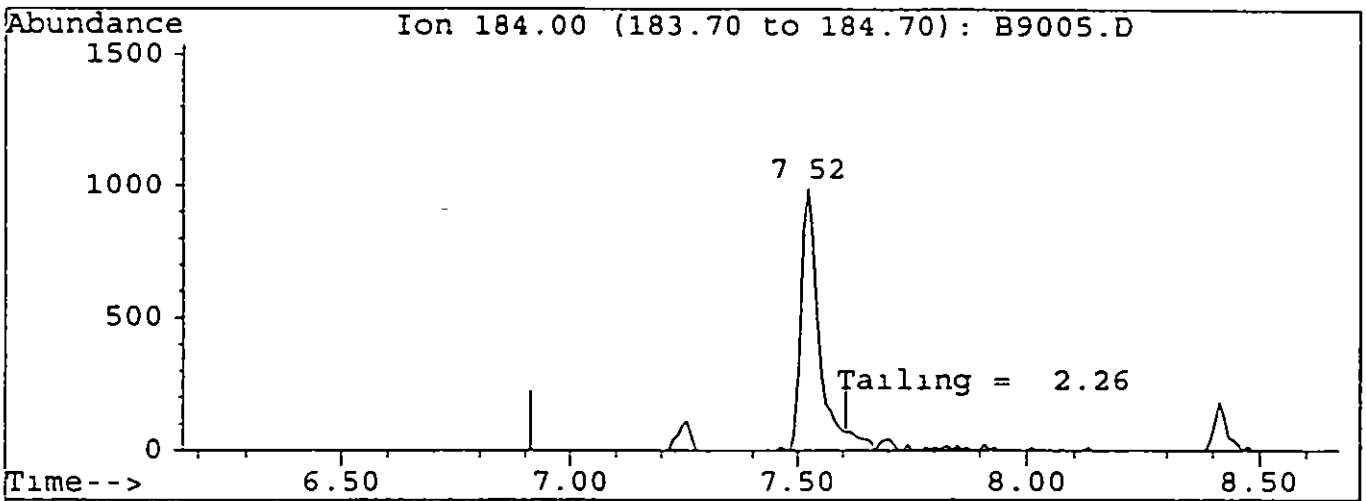
Ion	Exp%	Act%
266.00	100	100
264.00	64.30	63.35
268.00	64.70	68.27
0.00	0.00	0.00

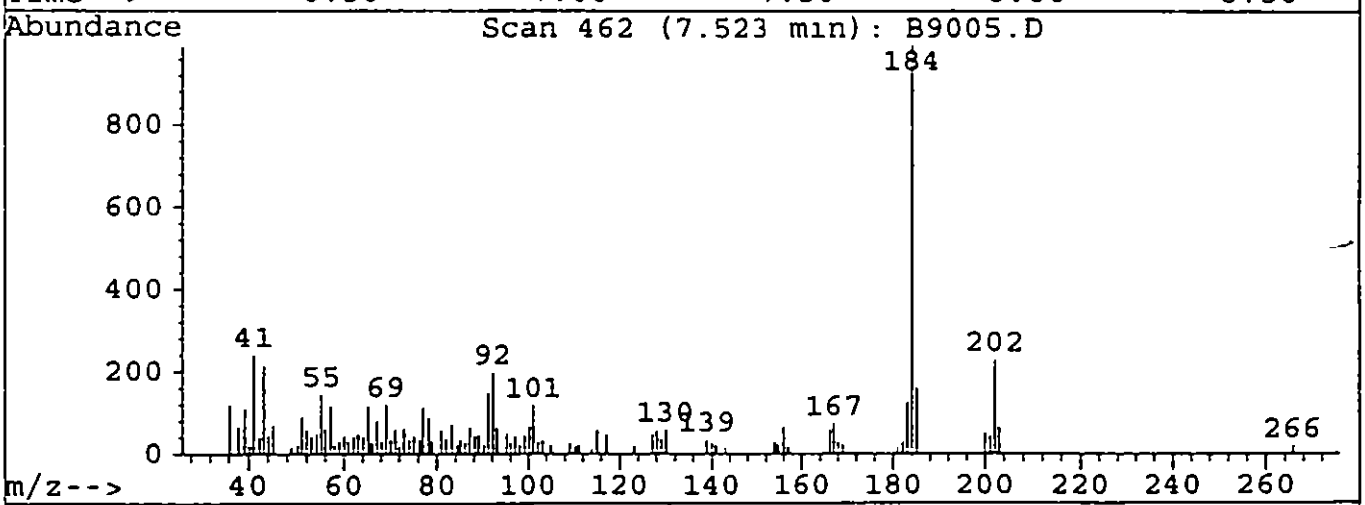
B9005.D BNACLP.M Fri Oct 27 12:34:23 1995 BNA

Quantitation Report

Data File C \HPCHEM\1\DATA2\B9005 D Vial: 1
Acq On 27 Oct 95 11 21 am Operator: SCOTTV
Sample DFTPP . . Converted from RTE d Inst ABNA
Misc BT Multiplr. 1.00
Quant Time Oct 27 12 32 1995

Method C·\HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Wed Oct 25 10·20:51 1995
Response via : Multiple Level Calibration





TIC: B9005.D

(2) Benzidine
7.52min 9.14ug/ml
response 2809

Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0 00

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Instrument ID: ABNA Calibration Date: #### Time: 1329

Lab File ID: B9008.D Init. Calib. Date(s): #### 1/0/00

Init. Calib. Times: 1329 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
N-nitrosodimethylamine	0.887	0.841		5.2	
bis(2-Chloroethyl)ether	2.373	2.336		1.6	
1,3-Dichlorobenzene	1.367	1.410		-3.1	
1,4-Dichlorobenzene	1.383	1.419		-2.6	30.0
1,2-Dichlorobenzene	1.347	1.385		-2.8	
bis(2-chloroisopropyl)ether	2.234	1.940		13.2	
N-Nitroso-Di-n-propylamine	1.528	1.444	0.050	5.5	
Hexachloroethane	0.868	0.883		-1.7	
Nitrobenzene	0.519	0.516		0.6	
Isophorone	1.101	1.024		7.0	
bis(2-Chloroethoxy)methane	0.603	0.598		0.8	
1,2,4-Trichlorobenzene	0.304	0.309		-1.6	
Naphthalene	1.003	0.942		6.1	
Hexachlorobutadiene	0.160	0.160		0.0	30.0
Hexachlorocyclopentadiene	0.289	0.246	0.050	14.9	
2-Chloronaphthalene	0.634	0.647		-2.1	
Dimethylphthalate	1.368	1.400		-2.3	
Acenaphthylene	1.801	1.833		-1.8	
2,6-Dinitrotoluene	0.308	0.351		-14.0	
Acenaphthene	1.020	1.150		-12.7	30.0
2,4-Dinitrotoluene	0.452	0.459		-1.5	
Diethylphthalate	1.556	1.602		-3.0	
Fluorene	1.167	1.206		-3.3	
4-Chlorophenyl-phenylether	0.509	0.505		0.8	
n-Nitrosodiphenylamine	0.543	0.578		-6.4	
1,2-Diphenylhydrazine(as azo)	0.000	0.000			
4-Bromophenyl-phenylether	0.187	0.199		-6.4	
Hexachlorobenzene	0.237	0.247		-4.2	
Phenanthrene	1.087	1.152		-6.0	
Anthracene	1.068	1.135		-6.3	
Di-n-butylphthalate	2.011	1.728		14.1	
Fluoranthene	1.092	0.939		14.0	30.0
Benzidine	0.274	0.276		-0.7	
Pyrene	1.600	1.832		-14.5	
Butylbenzylphthalate	1.245	1.293		-3.9	
Benzo[a]anthracene	1.429	1.239		13.3	
3,3'-Dichlorobenzidine	0.386	0.330		14.5	

All other compounds must meet a minimum RRF of 0.010.

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Instrument ID: ABNA Calibration Date: #### Time: 1329

Lab File ID: B9008.D Init. Calib. Date(s): #### 1/0/00

Init. Calib. Times: 1329 0000

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chrysene	0.857	1.008		-17.6	
bis(2-Ethylhexyl)phthalate	1.785	1.714		4.0	
Di-n-octylphthalate	5.692	5.727		-0.6	30.0
Benzo[b]fluoranthene	1.952	1.846		5.4	
Benzo[k]fluoranthene	1.162	1.246		-7.2	
Benzo[a]pyrene	1.081	1.178		-9.0	30.0
Indeno[1,2,3-cd]pyrene	0.561	0.585		-4.3	
Dibenz[a,h]anthracene	0.549	0.494		10.0	
Benzo[g,h,i]perylene	0.510	0.437		14.3	
Nitrobenzene-d5	0.542	0.524		3.3	
2-Fluorobiphenyl	1.220	1.209		0.9	
Terphenyl-d14	0.994	1.151		-15.8	

All other compounds must meet a minimum RRF of 0.010.

Evaluate Continuing Calibration Report

Data File C \HPCHEM\1\DATA2\B9008 D Vial 2
Acq On 27 Oct 95 1 29 pm Operator SCOTTV SUP
Sample 50 STD . . Converted from RTE d Inst . ABNA
Misc BT Multiplr 1.00

Method C \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Wed Oct 25 10·20.51 1995
Response via . Multiple Level Calibration

Min RRF : 0 050 Min Rel. Area . 50% Max. R.T Dev 0.50min
Max. RRF Dev · 30% Max Rel Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	89	-0.10
2	S	2-Fluorophenol	1 275	1 248	2.1	88	-0.08
3	S	Phenol-d5	2.069	2 002	3.2	89	-0.04
4	M	N-nitrosodimethylamine	0.887	0.841	5.2	84	-0.06
5		Pyridine	0.795	0.000#	100.0#	0#	-1.55#
6	CM	Phenol	1 941	2.100	-8.2	100	-0.04
7	MT	bis(2-Chloroethyl)ether	2.373	2.336	1.6	90	-0.08
8	M	2-Chlorophenol	1.333	1.349	-1.2	90	-0.08
9	MT	1,3-Dichlorobenzene	1.367	1.410	-3.1	90	-0.08
0	CM	1,4-Dichlorobenzene	1.383	1.419	-2 6	87	-0.10
1	M	1,2-Dichlorobenzene	1.347	1.385	-2.8	89	-0.10
12	T	2-Methylphenol	1.279	1.273	0.5	88	-0.06
3	M	bis(2-chloroisopropyl)ether	2.234	1 940	13.2	93	-0.06
4	T	4-Methylphenol	1 402	1.302	7.1	78	-0.06
15	PM	N-Nitroso-Di-n-propylamine	1.528	1.444	5.5	86	-0.08
16	M	Hexachloroethane	0 868	0.883	-1.7	90	-0.10
17	I	Naphthalene-d8	1.000	1 000	0.0	88	-0.10
18	S	Nitrobenzene-d5	0.542	0.524	3.4	87	-0.08
9	M	Nitrobenzene	0.519	0.516	0.6	93	-0.08
0	M	Isophorone	1.101	1.024	7.0	88	-0.10
21	MC	2-Nitrophenol	0.239	0.227	5.2	81	-0.10
22	M	2,4-Dimethylphenol	0.387	0.378	2.2	89	-0.06
3	M	bis(2-Chloroethoxy)methane	0.603	0.598	0.8	90	-0.08
24	MC	2,4-Dichlorophenol	0.295	0.282	4.4	85	-0.06
25	M	1,2,4-Trichlorobenzene	0.304	0.309	-1.6	88	-0.10
6	M	Naphthalene	1.003	0.942	6.1	82	-0.10
27	T	4-Chloroaniline	0.470	0.439	6.7	86	-0.08
28	MC	Hexachlorobutadiene	0 160	0.160	-0.5	88	-0.08
9	MC	4-Chloro-3-methylphenol	0.388	0.356	8.4	80	-0.04
0	M	2-Chloronaphthalene	0.634	0.647	-2.0	90	-0.08
31	T	2-Methylnaphthalene	0.870	0.829	4.7	81	-0.10
2	I	Acenaphthene-d10	1.000	1.000	0.0	87	-0.10
33	P	Hexachlorocyclopentadiene	0.289	0.246	15.1	88	-0.08
34	MC	2,4,6-Trichlorophenol	0.426	0.387	9.2	83	-0.08
5	T	2,4,5-Trichlorophenol	0.347	0.413	-18.9	89	-0.06
36	S	2-Fluorobiphenyl	1.220	1.209	0.9	84	-0.10
37	T	2-Nitroaniline	0.783	0.773	1.3	89	-0.06
8	M	Dimethylphthalate	1.368	1.400	-2.3	88	-0.08
9	M	Acenaphthylene	1.801	1.833	-1.8	86	-0.10
40	M	2,6-Dinitrotoluene	0.308	0.351	-14.1	81	-0.08

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File C \HPCHEM\1\DATA2\B9008 D Vial 2
Acq On 27 Oct 95 1 29 pm Operator. SCOTTV SUP
Sample 50 STD . Converted from RTE d Inst ABNA
Misc BT Multiplr 1 00

Method C \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Wed Oct 25 10 20 51 1995
Response via Multiple Level Calibration

Min RRF 0.050 Min. Rel. Area : 50% Max. R.T Dev 0.50min
Max RRF Dev 30% Max. Rel Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
41	T	3-Nitroaniline	0.342	0 354	-3.5	84	-0.06
42	CM	Acenaphthene	1 020	1 150	-12.8	96	-0.10
43	MP	2,4-Dinitrophenol	0.210	0 227	-8.3	114	-0.08
44	PM	4-Nitrophenol	0.228	0 222	2.4	88	0.00
45	T	Dibenzofuran	1.534	1.481	3.5	82	-0.10
46	M	2,4-Dinitrotoluene	0 452	0.459	-1.4	85	-0.08
47	M	Diethylphthalate	1.556	1.602	-2.9	88	-0.08
48	M	Fluorene	1.167	1.206	-3.3	87	-0.08
49	M	4-Chlorophenyl-phenylether	0.509	0.505	0.8	85	-0.10
50		Phenanthrene-d10	1.000	1.000	0.0	80	-0.10
51	T	4-Nitroaniline	0.230	0.259	-12.3	84	-0.06
52	MC	4,6-Dinitro-2-methylphenol	0 148	0 147	1.1	74	-0.08
53	T	n-Nitrosodiphenylamine	0 543	0.578	-6.6	82	-0.08
54	S	2,4,6-Tribromophenol	0.127	0.123	2.6	81	-0.08
55		1,2-Diphenylhydrazine (as a	1 784	1.999	-12.0	85	-0.08
56	M	4-Bromophenyl-phenylether	0 187	0.199	-6.3	85	-0.10
57	M	Hexachlorobenzene	0 237	0.247	-4.3	83	-0.10
58	CM	Pentachlorophenol	0 163	0.130	19.7	71	-0.10
59	M	Phenanthrene	1.087	1 152	-6.0	82	-0.09
60	M	Anthracene	1.068	1.135	-6.3	82	-0.09
61		Carbazole	1.065	0.890	16.4	68	-0.09
62	M	Di-n-butylphthalate	2.011	1.728	14.1	67	-0.11
63	MC	Fluoranthene	1.092	0.939	14.1	67	-0.74#
64	I	Chrysene-d12	1.000	1.000	0.0	36#	-0.11
65		Benzidine	0.274	0.276	-0.9	42#	-0.10
66	M	Pyrene	1.600	1.832	-14.5	42#	-0.11
67	S	Terphenyl-d14	0.994	1.151	-15 8	45#	-0.11
68	M	Butylbenzylphthalate	1.245	1.293	-3.9	38#	-0.11
69	M	Benzo[a]anthracene	1.429	1.239	13.3	30#	-0.13
70	M	3,3'-Dichlorobenzidine	0.386	0.330	14.4	30#	-0.09
71	M	Chrysene	0.857	1.008	-17.6	42#	-0.11
72	M	bis(2-Ethylhexyl)phthalate	1.785	1.714	3.9	35#	-0.11
73	I	Perylene-d12	1.000	1.000	0.0	34#	-0.09
74	MC	Di-n-octylphthalate	5.692	5 727	-0.6	33#	-0.11
75	M	Benzo[b]fluoranthene	1.952	1.846	5 5	26#	-0.11
76	m	Benzo[k]fluoranthene	1.162	1.246	-7.2	36#	-0.11
77	mc	Benzo[a]pyrene	1.081	1.178	-8.9	37#	-0.09
78	m	Indeno[1,2,3-cd]pyrene	0.561	0.585	-4.3	34#	-0.09
79	m	Dibenz[a,h]anthracene	0.549	0.494	9.9	30#	-0.09

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File C \HPCHEM\1\DATA2\B9008.D Vial 2
Acq On 27 Oct 95 1 29 pm Operator SCOTTV SUF
Sample 50 STD. . . Converted from RTE d Inst ABNA
Misc . BT Multiplr 1 00

Method C \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update : Wed Oct 25 10:20 51 1995
Response via · Multiple Level Calibration

Min RRF : 0 050 Min Rel Area : 50% Max R T. Dev 0.50min
Max RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
80	M	Benzo[g,h,i]perylene	0 510	0.437	14 3	28#	-0 09
81		1-Methyl naphthalene	0.000	0 000#	0 0	0#	-14.07#
82		7,12-Dimethylbenz(a)anthrac	0.000	0 000#	0 0	0#	-36.48#
83		Quinoline	0.000	0.000#	0 0	85	-0.08
84		Thiophenol	0.000	0.000#	0.0	0#	-5.86#
85		4-Methyl chrysene	0.000	0 000#	0 0	0#	-31.87#
86		Dibenz(a,j)acridine	0.000	0.000#	0 0	29#	-0.09
87		Indene	0.000	0 000#	0.0	0#	-9.67#
88		Benzyl alcohol	0.000	0.000#	0 0	91	-0.10
89		Benzoic acid	0.000	0.000#	0.0	90	-0.06

Quantitation Report

230

Data File c \npchem\1\data2\b9008 d Vial. 2
Acq On 27 Oct 95 1 29 pm Operator. SCOTTV
Sample 50 STD Converted from RTE d Inst ABNA
Misc BT Multiplr 1 00
Quant Time Oct 30 14 27 1995

Method c \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Wed Oct 25 10 20.51 1995
Response via Multiple Level Calibration

Internal Standards	R.T	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8 59	152	26722	40 00	ug/mL	-0.10
17) Naphthalene-d8	12 33	136	104351	40 00	ug/mL	-0 10
32) Acenaphthene-d10	17.63	164	57774	40 00	ug/mL	-0 10
50) Phenanthrene-d10	22.12	188	79042	40 00	ug/ml	-0.10
64) Chrysene-d12	30.18	240	25699	40.00	ug/mL	-0.11
73) Perylene-d12	34.15	264	9983	40.00	ug/mL	-0 09
System Monitoring Compounds						**%Recovery**
2) 2-Fluorophenol	5.03	112	41696	48 95	ug/mL	48.95%
3) Phenol-d5	8.05	99	66887	48.39	ug/mL	48.39%
18) Nitrobenzene-d5	10.31	82	68307	48 30	ug/mL	48.30%
36) 2-Fluorobiphenyl	15.80	172	87328	49 56	ug/mL	49.56%
54) 2,4,6-Tribromophenol	20.08	330	12186	48.69	ug/mL	48.69%
67) Terphenyl-d14	27 25	244	36967	57 91	ug/mL	57.91%
Target Compounds						**Qvalue**
4) N-nitrosodimethylamine	2 08	74	28093	47.39	ug/ml	100
6) Phenol	8.09	94	70156	54.11	ug/mL	100
7) bis(2-Chloroethyl)ether	12.04	93	78019	49.22	ug/mL	99
8) 2-Chlorophenol	8 03	128	45049	50.60	ug/mL#	80
9) 1,3-Dichlorobenzene	8.40	146	47089	51 56	ug/mL	96
10) 1,4-Dichlorobenzene	8.65	146	47410	51 30	ug/mL	97
11) 1,2-Dichlorobenzene	9.04	146	46258	51 39	ug/mL	96
12) 2-Methylphenol	9.77	108	42525	49.77	ug/mLm	100
13) bis(2-chloroisopropyl)ethe	9.71	45	64814	43.42	ug/mL	99
14) 4-Methylphenol	10.29	108	43505	46.44	ug/mL	100
15) N-Nitroso-Di-n-propylamine	10.13	70	48217	47.24	ug/mL	93
16) Hexachloroethane	9.98	117	29491	50.85	ug/mL#	74
19) Nitrobenzene	10.37	77	67275	49 68	ug/mLm	91
20) Isophorone	11.17	82	133559	46.48	ug/mL	94
21) 2-Nitrophenol	11 29	139	29599	47.42	ug/mL#	90
22) 2,4-Dimethylphenol	11.81	107	49328	48 89	ug/mL#	100
23) bis(2-Chloroethoxy)methane	12.04	93	78019	49.60	ug/mL#	100
24) 2,4-Dichlorophenol	12.12	162	36829	47.80	ug/mL	96
25) 1,2,4-Trichlorobenzene	12.22	180	40319	50.79	ug/mL	94
26) Naphthalene	12.39	128	122894	46.95	ug/mL	100
27) 4-Chloroaniline	12.78	127	57235	46 63	ug/mL	99
28) Hexachlorobutadiene	12.91	225	20908	50.23	ug/mL	99
29) 4-Chloro-3-methylphenol	14.53	107	46386	45.80	ug/mL#	1
30) 2-Chloronaphthalene	15.97	162	84381	51.00	ug/ml#	100
31) 2-Methylnaphthalene	14.53	142	108166	47 67	ug/mL#	71
33) Hexachlorocyclopentadiene	15.05	237	17734	42 44	ug/mL#	96
34) 2,4,6-Trichlorophenol	15.53	196	27935	45.40	ug/mL	96
35) 2,4,5-Trichlorophenol	15.63	196	29810	59.43	ug/mL	95

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

Data File c \hpchem\1\data2\b9008 d Vial 2
Acq On 27 Oct 95 1·29 pm Operator SCOTTV
Sample 50 STD Converted from RTE d Inst ABNA
Misc BT Multiplr 1 00
Quant Time Oct 30 14 27 1995

Method c \HPCHEM\1\METHODS\BNACLP.M
Title CLP BNA Calibration
Last Update Wed Oct 25 10:20:51 1995
Response via : Multiple Level Calibration

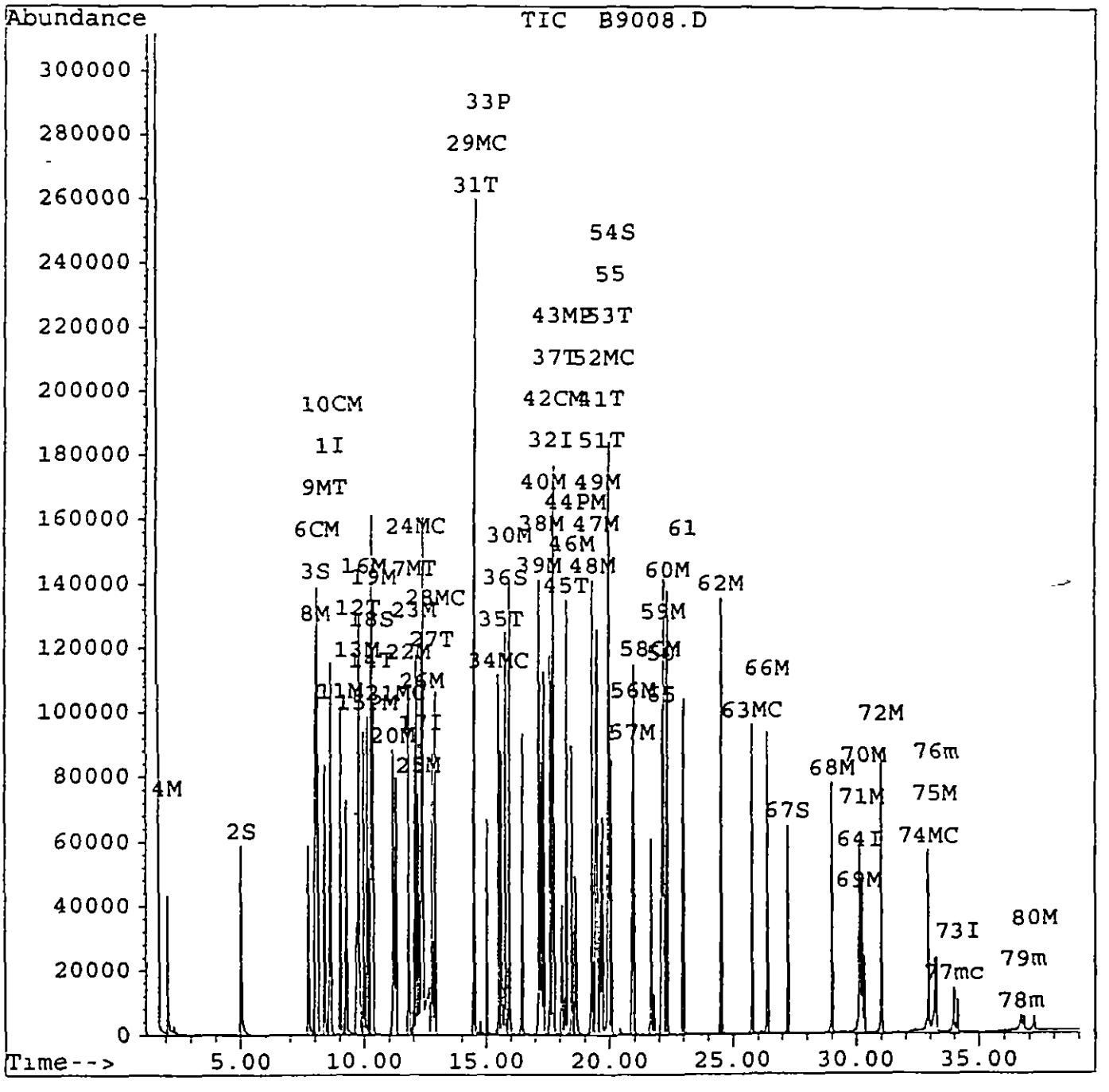
	Compound	R T	QIon	Response	Conc Unit	Qvalue
37)	2-Nitroaniline	17.79	65	55820	49 36 ug/mL	86
38)	Dimethylphthalate	17.27	163	101087	51.16 ug/mL#	12
39)	Acenaphthylene	17 17	152	132357	50.88 ug/mL	98
40)	2,6-Dinitrotoluene	17.34	165	25335	57.03 ug/mLm	99
41)	3-Nitroaniline	19.68	138	25550	51.73 ug/mL	89
42)	Acenaphthene	17.73	153	83055	56 38 ug/mL	98
43)	2,4-Dinitrophenol	18.10	184	16396	54.13 ug/mLm	83
44)	4-Nitrophenol	18.65	109	16063	48.80 ug/mLm	55
45)	Dibenzofuran	18.29	168	106926	48.25 ug/mL	94
46)	2,4-Dinitrotoluene	18.52	165	33124	50 69 ug/mL#	1
47)	Diethylphthalate	19.48	149	115678	51.47 ug/mL#	93
48)	Fluorene	19.33	166	87065	51.64 ug/mL	98
49)	4-Chlorophenyl-phenylether	19.52	204	36435	49.59 ug/mL#	85
51)	4-Nitroaniline	19.68	138	25550	56.16 ug/mL	89
52)	4,6-Dinitro-2-methylphenol	19.73	198	14484	49.43 ug/mL	100
53)	n-Nitrosodiphenylamine	19.97	169	57135	53.30 ug/mL	95
55)	1,2-Diphenylhydrazine (as	20.00	77	197478	56.01 ug/ml	100
56)	4-Bromophenyl-phenylether	20.97	248	19642	53.15 ug/mL	91
57)	Hexachlorobenzene	20.93	284	24441	52.13 ug/mL#	50
58)	Pentachlorophenol	21.66	266	12892	40.14 ug/mLm	97
59)	Phenanthrene	22.20	178	113864	53.01 ug/mL	99
60)	Anthracene	22.36	178	112150	53.16 ug/mLm	99
61)	Carbazole	23.01	167	87921	41.79 ug/ml	96
62)	Di-n-butylphthalate	24.53	149	170725	42.96 ug/mL	99
63)	Fluoranthene	25 78	202	92729	42.97 ug/mLm	70
65)	Benzidine	22.12	184	8865	50.45 ug/mlm	100
66)	Pyrene	26.42	202	58853	57.24 ug/mLm	60
68)	Butylbenzylphthalate	29.04	149	41544	51.93 ug/mL#	12
69)	Benzo[a]anthracene	30.14	228	39805	43 35 ug/mL	99
70)	3,3'-Dichlorobenzidine	30.33	252	10615	42.80 ug/mL#	90
71)	Chrysene	30.25	228	32370	58 81 ug/mLm	99
72)	bis(2-Ethylhexyl)phthalate	31.03	149	55067	48.03 ug/mL#	34
74)	Di-n-octylphthalate	32.93	149	71466	50 31 ug/mL#	100
75)	Benzo[b]fluoranthene	33.20	252	23032	47.27 ug/mL#	80
76)	Benzo[k]fluoranthene	33.28	252	15551	53.61 ug/mLm	80
77)	Benzo[a]pyrene	34.00	252	14699	54.47 ug/mLm	80
78)	Indeno[1,2,3-cd]pyrene	36.67	276	7304	52.14 ug/mLm	32
79)	Dibenz[a,h]anthracene	36.79	278	6166	45.03 ug/mL#	83
80)	Benzo[g,h,i]perylene	37.21	276	5449	42.84 ug/mL#	63

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

Quantitation Report

Data File c \hpchem\1\data2\b9008.d Vial. 2
Acq On 27 Oct 95 1 29 pm Operator· SCOTTV
Sample 50 STD Converted from RTE d Inst . ABNA
Misc BT Multiplr. 1.00
Quant Time· Oct 30 14:27 1995

Method . c \HPCHEM\1\METHODS\BNACLP M
Title . CLP BNA Calibration
Last Update : Wed Oct 25 10.20 51 1995
Response via Multiple Level Calibration



5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name : EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID: B9300.D DFTPP Injection Date: 12/7/95

Instrument ID: ABNA DFTPP Injection Time: 1749

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	55.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	67.4
70	Less than 2.0% of mass 69	1.2 (1.8)1
127	25.0 - 75.0% of mass 198	40.5
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0 - 9.0% of mass 198	5.5
275	10.0 - 30.0% of mass 198	13.6
365	Greater than 0.75% of mass 198	2.2
441	Present, but less than mass 443	5.4
442	40.0 - 110.0% of mass 198	42.4
443	15.0 - 24.0% of mass 442	7.9 (18.7)2

1-Value is % mass 69 2-Value is % mass 442

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

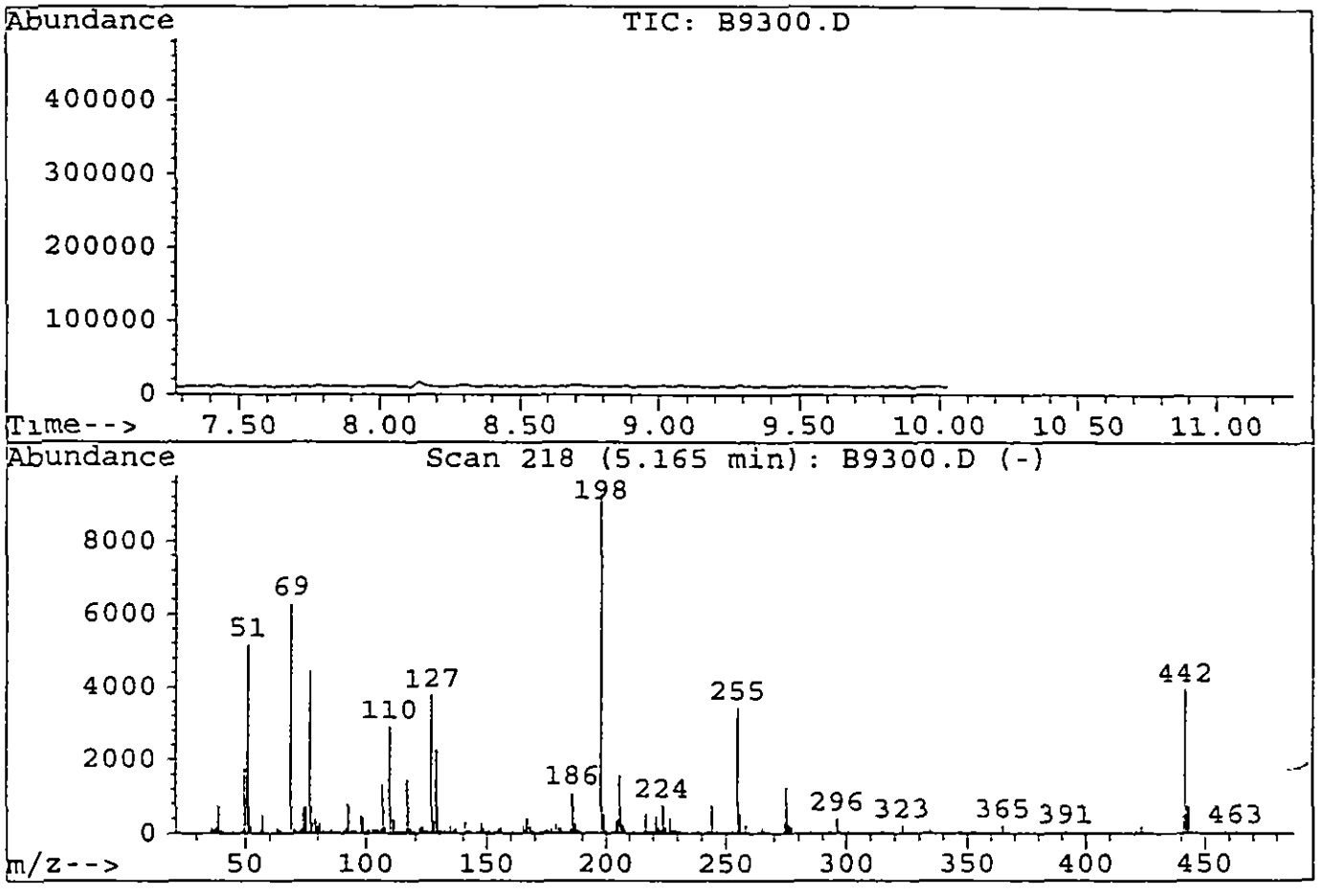
	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	50 STD	B9301.D	12/7/95	1832
02	SBLK01	BLANK1	B9302.D	12/7/95	1923
03	9554748B	9554748B	B9303.D	12/7/95	2014
04	SBLK02	BLANK2	B9304.D	12/7/95	2105
05	9554739B	9554739B	B9305.D	12/7/95	2156
06	9554740B	9554740B	B9306.D	12/7/95	2247
07	9554741B	9554741B	B9307.D	12/7/95	2338
08	9554738B	9554738B	B9308.D	12/8/95	0029
09	SBLK03	BLANK3	B9309.D	12/8/95	0120
10	9554551B	9554551B	B9310.D	12/8/95	0210
11	9554552B	9554552B	B9311.D	12/8/95	0301
12	9554554B	9554554B	B9312.D	12/8/95	0352
13	9554555B	9554555B	B9313.D	12/8/95	0443
14	9554556B	9554556B	B9314.D	12/8/95	0534
15	9554557B	9554557B	B9315.D	12/8/95	0625
16	9554558B	9554558B	B9316.D	12/8/95	0716
17					
18					
19					
20					
21					
22					

DFTPP

Data File : C:\HPCHEM\1\DATA2\B9300.D
Acq On : 7 Dec 95 5:49 pm
Sample : DFTPP.... ..... Converted from RTE d
Misc :

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration



Peak Apex is scan: 623

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	55.5	5181	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	67.4	6289	PASS
70	69	0	2	1.8	112	PASS
127	198	40	60	40.5	3780	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	9335	PASS
199	198	5	9	5 5	513	PASS
275	198	10	30	13 6	1265	PASS
365	198	1	100	2 2	209	PASS
441	443	0	100	67.7	501	PASS
442	198	40	100	42.4	3954	PASS
443	442	17	23	18.7	740	PASS

S in 218 (5.165 min): B9300.D

M lified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.20	171	51.05	5181	64.05	82	77.80	281
36.80	101	52.05	189	65.05	35	79.00	395
37.80	156	52.95	18	66.05	21	79.85	167
39.10	753	56.05	96	68.95	6289	80.05	180
40 00	61	56.95	513	70 00	112	80.95	274
41.05	35	57.85	31	70.75	34	82.20	62
44.95	46	60.95	22	72.45	83	83.95	70
47.65	22	61.85	20	72.95	144	84.85	78
48.35	69	62.15	46	73.95	725	85.95	176
49.05	140	62.45	2	74.95	744	87.10	14
49.95	1765	63.05	175	77.05	4458	87.95	55

Scan 218 (5.165 min): B9300.D

M lified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
89.05	65	100.65	85	111.65	5	119.65	60
89.85	11	101.05	132	112.55	41	121.40	28
90.95	197	102.75	117	112.85	39	121.65	98
92.05	143	103.15	69	113.05	52	122.05	153
92.90	801	104.00	124	114.55	70	122.25	143
94.55	82	104.95	135	115.35	32	123.05	249
95.75	66	106.05	131	116.15	136	123.85	35
95.95	63	107.05	1344	117.05	1481	124.45	63
98.05	500	107.95	148	118.15	129	125.15	67
98.90	417	109.95	2921	118.75	28	127.00	3780
100.15	66	111.05	384	119.15	20	127.95	309

S n 218 (5.165 min): B9300.D

odified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
129.00	2243	137.50	22	150 10	53	163.20	28
130.00	31	139.10	27	151 00	83	165.00	203
130.30	77	140.90	309	153.00	69	166 00	118
130.60	69	142 05	68	154 20	60	166.90	405
132.20	75	142.80	73	154.80	149	168.00	193
132.70	26	143.05	35	155.95	155	169.05	68
133.40	64	145.90	82	158.00	53	169.70	65
134 90	198	147.00	78	158.90	27	172.00	76
136.20	72	147.90	291	159.95	39	172.60	68
136.40	61	148.50	139	160.70	47	173 10	71
137 00	133	149.50	22	161.10	70	174.10	81

can 218 (5 165 min). B9300.D

(ified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.00	123	187.00	265	199.00	513	210 20	52
175.95	36	188.00	95	199.70	11	210.95	25
177.10	141	189.00	57	200.20	76	211.40	55
178.90	233	189.80	21	201 60	38	211.80	45
180.05	152	191.60	49	202 80	120	212.40	23
181 00	143	191.90	44	204 10	350	216 10	73
183.00	45	192.10	43	204.95	398	216 95	539
183.40	26	193.00	87	206.10	1587	218.05	76
184.80	104	194.30	46	207.00	232	219.35	59
185 10	124	196.10	203	207.80	99	220 05	46
186.00	1107	198.00	9335	209.60	31	220.95	489

Scan 218 (5.165 min): B9300.D

M lified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
221.65	148	230.75	92	246.05	65	259.00	45
222 85	98	232.65	34	247.45	39	261.75	11
223.95	769	236.25	75	248.85	53	263.65	72
225.05	166	237.65	43	249.85	37	264.95	150
226.05	9	237.95	46	251.25	32	265.65	50
226.95	430	238.15	47	252.65	92	267.15	33
227.75	81	238.75	77	253.95	42	267.35	32
228.05	74	241.85	53	254.95	3451	267.75	54
228.25	60	242.15	58	255.95	517	270.45	30
228.55	58	242.95	84	256.85	38	272.95	65
229.05	109	244.05	764	258.05	245	274.05	310

Scan 218 (5.165 min): B9300.D

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
274.95	1265	296.00	405	311.80	16	334.20	129
275.95	216	296.65	44	314.00	54	334.90	37
276.90	167	296.95	52	314.90	92	339.90	14
279.65	15	298.75	23	317.60	52	340.80	15
282.35	14	300.10	13	322.40	35	346.20	73
284.90	41	300.85	60	323.00	215	347.50	41
285.15	45	302.75	11	324.60	21	351.70	64
287.65	26	304.10	28	325.50	32	352.70	43
291.25	54	304.90	23	328.80	41	353.10	55
292.95	49	306.10	31	331.80	52	356.00	7
293.55	51	308.50	30	333.30	43	356.40	15

Scan 218 (5.165 min): B9300.D

M lified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund
357 30	34	391.95	41	407.85	28	439 65	39
364.90	209	395.45	33	410 15	21	440.95	501
365 85	28	396.25	11	413 55	6	441 95	3954
371.60	39	396.55	29	418 55	29	442.95	740
372.10	99	400.85	20	420 95	93	444.75	44
375.10	37	402.05	45	421.75	23	446.55	61
378.20	45	402.55	25	423.05	187	449.45	36
386.40	47	403.85	30	423.85	56	453.35	39
388.50	38	404.05	28	427.35	28	457 95	66
390.90	2	405.75	21	429 65	38	458.85	40
391.45	66	406.55	41	435 35	36	459.75	11

Scan 218 (5.165 min): B9300.D

Modified:subtracted

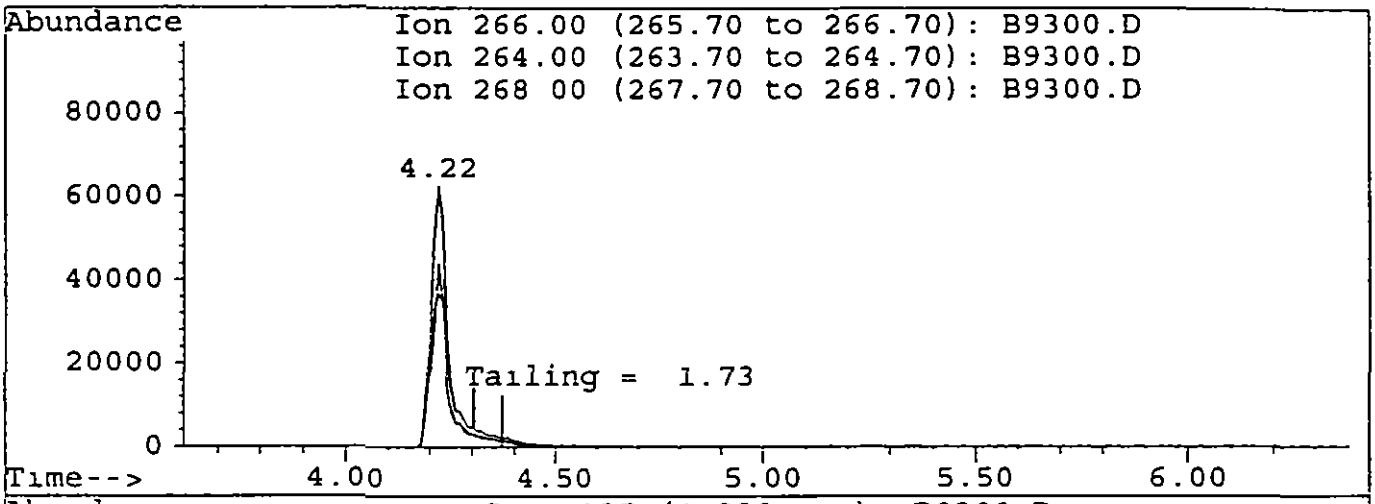
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund
462.95	66						
467.35	32						
467.85	16						
472.95	54						

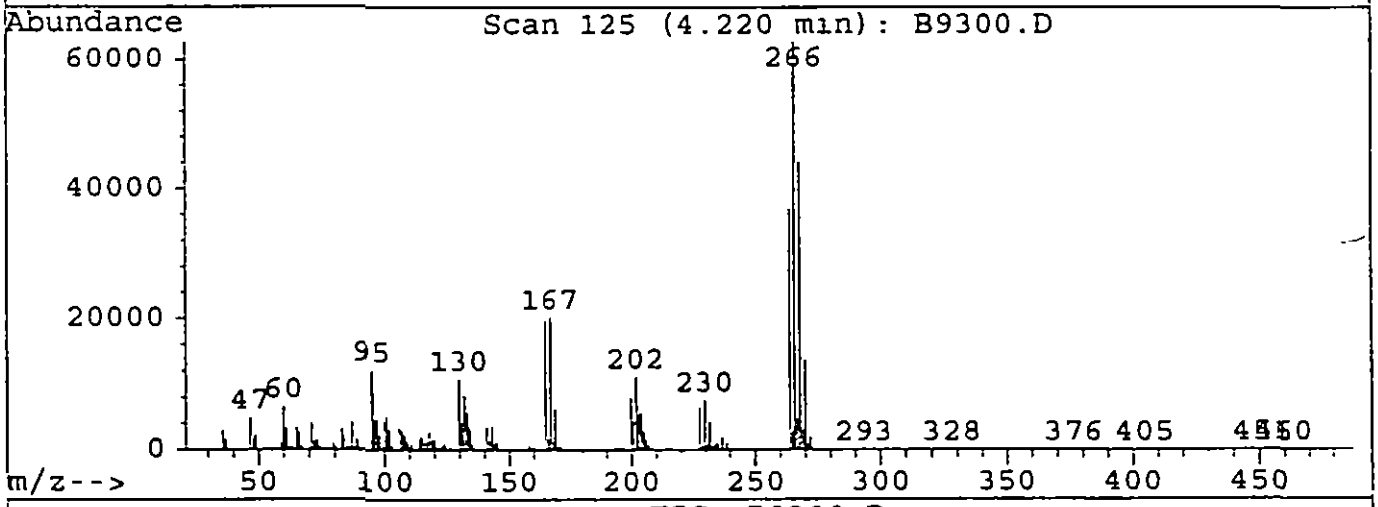
Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B9300.D
Acq On : 7 Dec 95 5:49 pm
Sample : DFTPP..... Converted from RTE d
Misc :
Quant Time: Dec 7 18:19 1995

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration





TIC: B9300.D

(1) Pentachlorophenol (CM)

5.34min 1.21ug/mL

response 399

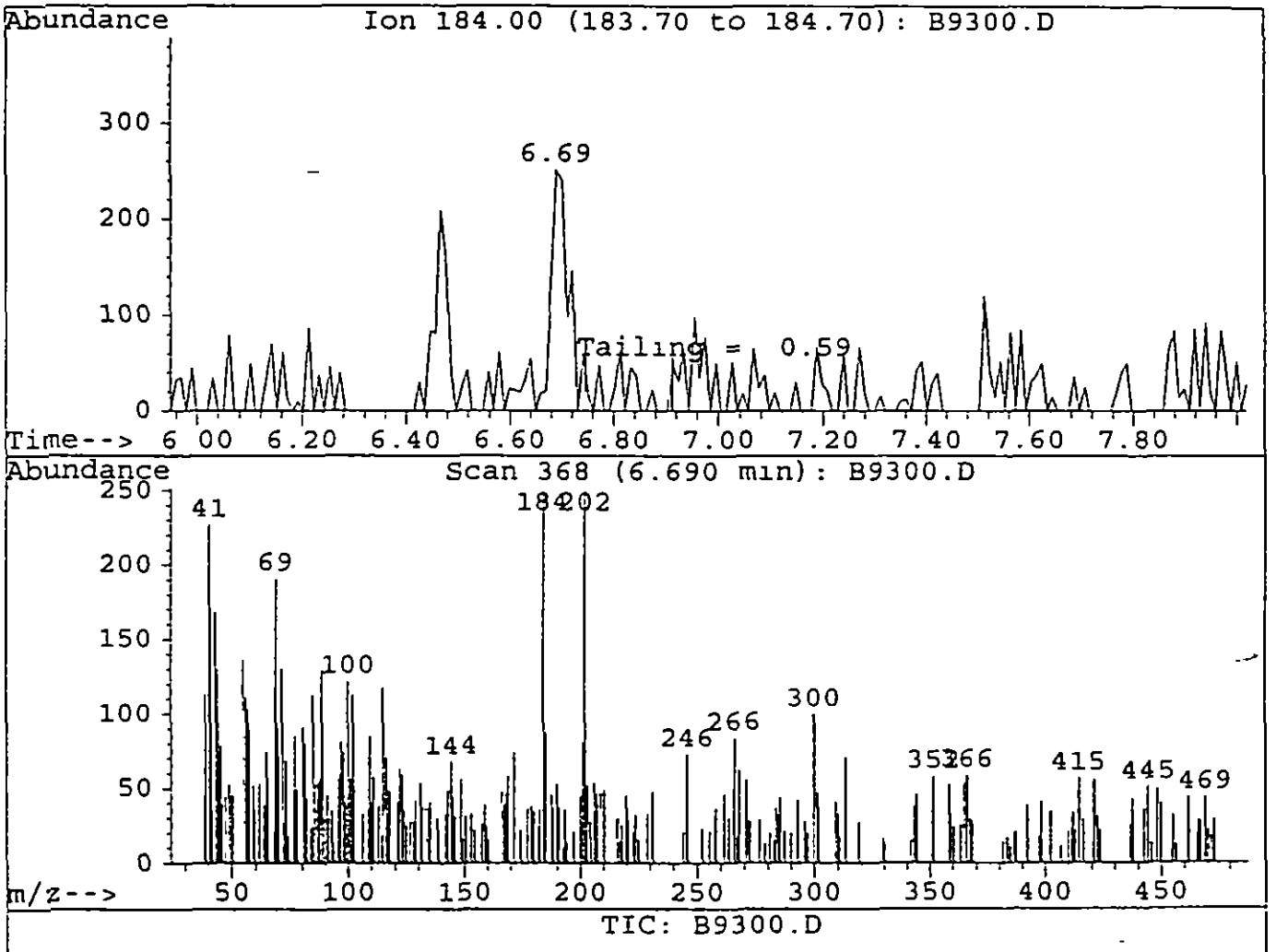
Ion	Exp%	Act%
266.00	100	100
264.00	64.30	47 66#
268.00	64.70	39.84#
0.00	0.00	0 00

Quantitation Report

Data File : C:\HPCHEM\1\DATA2\B9300.D
Acq On : 7 Dec 95 5:49 pm
Sample : DFTPP..... ... Converted from RTE d
Misc .
Quant Time: Dec 7 18:19 1995

Vial: 1
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method . C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration



TIC: B9300.D

(2) Benzidine
6.95min 0.52ug/ml
response 160

Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Instrument ID ABNA Calibration Date 12/7/95 Time 1832

Lab File ID B9301 D Init Calib Date(s) 12/7/95 1/0/00

Init Calib Times 1832 0000

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
N-nitrosodimethylamine	0 853	0 693		18 8	
bis(2-Chloroethyl)ether	2 157	1 828		15 3	
1,3-Dichlorobenzene	1 353	1 349		0 3	
1,4-Dichlorobenzene	1 369	1 375		-0 4	30 0
1,2-Dichlorobenzene	1 359	1 338		1 5	
bis(2-chloroisopropyl)ether	2 246	1 880		16 3	
N-Nitroso-Di-n-propylamine	1 408	1 263	0 050	10 3	
Hexachloroethane	0 828	0 847		-2 3	
Nitrobenzene	0 559	0 455		18 6	
Isophorone	0 770	0 662		14 0	
bis(2-Chloroethoxy)methane	0 517	0 423		18 2	
1,2,4-Trichlorobenzene	0 313	0 325		-3 8	
Naphthalene	0 958	0 885		7 6	
Hexachlorobutadiene	0 188	0 217		-15 4	30 0
Hexachlorocyclopentadiene	0 268	0 216	0 050	19 4	
2-Chloronaphthalene	0 693	0 716		-3 3	
Dimethylphthalate	1 366	1 334		2 3	
Acenaphthylene	1 607	1 596		0 7	
2,6-Dinitrotoluene	0 336	0 352		-4 8	
Acenaphthene	1 020	0 971		4 8	30 0
2,4-Dinitrotoluene	0 462	0 423		8 4	
Diethylphthalate	1 498	1 418		5 3	
Fluorene	1 125	1 175		-4 4	
4-Chlorophenyl-phenylether	0 532	0 559		-5 1	
n-Nitrosodiphenylamine	0 424	0 410		3 3	
1,2-Diphenylhydrazine(as azo)	0 000	0 000			
4-Bromophenyl-phenylether	0 209	0 229		-9 6	
Hexachlorobenzene	0 294	0 322		-9 5	
Phenanthrene	0 989	0 952		3 7	
Anthracene	0 998	0 935		6 3	
Di-n-butylphthalate	1 830	1 738		5 0	
Fluoranthene	1 092	1 110		-1 6	30 0
Benzidine	0 116	0 124		-6 9	
Pyrene	1 481	1 336		9 8	
Butylbenzylphthalate	1 086	0 940		13 4	
Benzo[a]anthracene	1 253	1 107		11 7	
3,3'-Dichlorobenzidine	0 387	0 365		5 7	

All other compounds must meet a minimum RRF of 0 010

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name EMSL ANALYTICAL Contract ____

Project No ____ Site ____ Location ____ Group ____

Instrument ID ABNA Calibration Date 12/7/95 Time 1832

Lab File ID B9301 D Init Calib Date(s) 12/7/95 1/0/00

Init Calib Times 1832 0000

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chrysene	0 905	0 858		5 2	
bis(2-Ethylhexyl)phthalate	1 489	1 262		15 2	
Di-n-octylphthalate	4 241	4 181		1 4	30 0
Benzo[b]fluoranthene	1 623	1 574		3 0	
Benzo[k]fluoranthene	1 220	1 407		-15 3	
Benzo[a]pyrene	1 032	0 972		5 8	30 0
Indeno[1,2,3-cd]pyrene	0 728	0 630		13 5	
Dibenz[a,h]anthracene	0 713	0 559		21 6	
Benzo[g,h,i]perylene	0 725	0 676		6 8	
Nitrobenzene-d5	0 478	0 417		12 8	
2-Fluorobiphenyl	1 063	1 061		0 2	
Terphenyl-d14	1 103	1 054		4 4	

All other compounds must meet a minimum RRF of 0 010

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B9301.D Vial: 2
Acq On : 7 Dec 95 6:32 pm Operator: SCOTTV SUP
Sample : 50 STD .. .. Converted from RTE d Inst : ABNA
Misc BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	57	-0.32
2	S	2-Fluorophenol	1.139	1.009	11.4	51	-0.36
3	S	Phenol-d5	1.896	1.587	16.3	49#	-0.29
4	M	N-nitrosodimethylamine	0.853	0.693	18.8	48#	-0.15
5		Pyridine	1.101	0.000#	100.0#	0#	-1.55#
6	CM	Phenol	1.649	1.487	9.8	54	-0.29
7	MT	bis(2-Chloroethyl)ether	2.157	1.828	15.2	49#	-0.31
8	M	2-Chlorophenol	1.302	1.185	9.0	53	-0.32
9	MT	1,3-Dichlorobenzene	1.353	1.349	0.3	56	-0.32
10	CM	1,4-Dichlorobenzene	1.369	1 375	-0.4	56	-0.32
11	M	1,2-Dichlorobenzene	1.359	1 338	1.5	55	-0.32
12	T	2-Methylphenol	1.218	1.170	4.0	57	-0.29
13	M	bis(2-chloroisopropyl)ether	2.246	1.880	16.3	52	-0.25
14	T	4-Methylphenol	1.307	1.278	2.2	58	-0.27
15	PM	N-Nitroso-Di-n-propylamine	1.408	1.263	10.3	54	-0.29
16	M	Hexachloroethane	0.828	0 847	-2.2	58	-0.34
17	I	Naphthalene-d8	1.000	1.000	0.0	61	-0.32
18	S	Nitrobenzene-d5	0.478	0.417	12.7	56	-0.30
19	M	Nitrobenzene	0.559	0.455	18.7	50	-0.30
20	M	Isophorone	0.770	0.662	14.0	47#	-0 29
21	MC	2-Nitrophenol	0.215	0.201	6.5	58	-0.32
22	M	2,4-Dimethylphenol	0.380	0.325	14.5	55	-0.29
23	M	bis(2-Chloroethoxy)methane	0.517	0.423	18.2	50	-0.31
24	MC	2,4-Dichlorophenol	0.277	0.283	-2.4	63	-0.29
25	M	1,2,4-Trichlorobenzene	0.313	0.325	-3.8	62	-0.32
26	M	Naphthalene	0.958	0.885	7.6	56	-0.32
27	T	4-Chloroaniline	0 446	0 413	7 4	58	-0.31
28	MC	Hexachlorobutadiene	0.188	0.217	-15.6	69	-0.31
29	MC	4-Chloro-3-methylphenol	0.397	0.333	16.1	54	-0.29
30	M	2-Chloronaphthalene	0.693	0 716	-3.4	65	-0 32
31	T	2-Methylnaphthalene	0.839	0.908	-8.2	64	-0 32
32	I	Acenaphthene-d10	1.000	1.000	0.0	61	-0.34
33	P	Hexachlorocyclopentadiene	0.268	0.216	19.5	54	-0.32
34	MC	2,4,6-Trichlorophenol	0.351	0.352	-0.2	70	-0.32
35	T	2,4,5-Trichlorophenol	0.357	0.405	-13.5	70	-0.31
36	S	2-Fluorobiphenyl	1 063	1 061	0.3	67	-0.32
37	T	2-Nitroaniline	0.650	0 529	18.7	55	-0.31
	M	Dimethylphthalate	1 366	1 334	2.3	62	-0.31
39	M	Acenaphthylene	1 607	1.596	0.7	60	-0 34
40	M	2,6-Dinitrotoluene	0.336	0.352	-4.7	65	-0 31

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B9301.D Vial: 2
Acq On : 7 Dec 95 6:32 pm Operator: SCOTTV SUP
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
41	T	3-Nitroaniline	0.326	0.306	6.1	57	-0.33
42	CM	Acenaphthene	1.020	0.971	4.8	58	-0.34
	MP	2,4-Dinitrophenol	0.183	0.179	2.1	81	-0.31
	PM	4-Nitrophenol	0.234	0.231	1.6	72	-0.29
45	T	Dibenzofuran	1.433	1.509	-5 4	65	-0.34
	M	2,4-Dinitrotoluene	0.462	0.423	8.4	59	-0.31
	M	Diethylphthalate	1.498	1.418	5 3	56	-0.33
48	M	Fluorene	1.125	1.175	-4.5	62	-0 34
	M	4-Chlorophenyl-phenylether	0.532	0.559	-5.1	64	-0.34
		Phenanthrene-d10	1.000	1.000	0.0	60	-0.35
51	T	4-Nitroaniline	0.179	0.170	4.8	57	-0.33
	MC	4,6-Dinitro-2-methylphenol	0.131	0.108	17.6	51	-0.33
	T	n-Nitrosodiphenylamine	0.424	0.410	3.4	60	-0.33
54	S	2,4,6-Tribromophenol	0.176	0.178	-1.4	65	-0.34
		1,2-Diphenylhydrazine (as a	1.193	0.966	19.0	48#	-0.34
	M	4-Bromophenyl-phenylether	0.209	0.229	-9.3	65	-0 34
57	M	Hexachlorobenzene	0.294	0.322	-9.8	65	-0.34
	CM	Pentachlorophenol	0.182	0.177	3.2	68	-0.33
	M	Phenanthrene	0.989	0.952	3.8	61	-0.35
60	M	Anthracene	0.998	0.935	6.4	59	-0.36
61		Carbazole	0.952	0.859	9.8	57	-0.35
	M	Di-n-butylphthalate	1.830	1.738	5.0	60	-0.35
	MC	Fluoranthene	1.092	1.110	-1.6	65	-0.37
	I	Chrysene-d12	1.000	1.000	0.0	69	-0 37
		Benzidine	0.116	0.124	-6.8	54	-0 36
66	M	Pyrene	1 481	1.336	9 8	68	-0 37
67	S	Terphenyl-d14	1.103	1.054	4.4	76	-0 35
	M	Butylbenzylphthalate	1.086	0.940	13 5	68	-0.35
69	M	Benzo[a]anthracene	1.253	1 107	11.7	65	-0.37
70	M	3,3'-Dichlorobenzidine	0.387	0.365	5.7	75	-0.37
	M	Chrysene	0.905	0.858	5.2	70	-0.37
	M	bis(2-Ethylhexyl)phthalate	1.489	1.262	15.2	63	-0.35
	I	Perylene-d12	1.000	1.000	0.0	62	-0.35
	MC	Di-n-octylphthalate	4 241	4.181	1.4	54	-0.35
75	M	Benzo[b]fluoranthene	1.623	1.574	3.0	60	-0.37
76	m	Benzo[k]fluoranthene	1.220	1.407	-15.4	73	-0 37
	mc	Benzo[a]pyrene	1.032	0 972	5.8	61	-0.35
78	m	Indeno[1,2,3-cd]pyrene	0.728	0.630	13.5	57	-0.35
79	m	Dibenz[a,h]anthracene	0.713	0.559	21.5	59	-0 35

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA2\B9301.D Vial: 2
Acq On : 7 Dec 95 6:32 pm Operator: SCOTTV SUP
Sample : 50 STD..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
80	M	Benzo[g,h,i]perylene	0.725	0.676	6.8	75	-0.35

(#) = Out of Range SPCC's out = 0 CCC's out = 0

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Lab File ID (Standard) B9008 D Date Analyzed 10/27/95

Instrument ID ABNA Time Analyzed 1329

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	26722	8 59	104351	12 33	57774	17 63
	UPPER LIMIT	53444	9 09	208702	12 83	115548	18 13
	LOWER LIMIT	13361	8 09	52176	11 83	28887	17 13
	SAMPLE NO						
01	SBLK01	22496	8 59	83610	12 31	47426	17 62
02	9547000B	24097	8 60	94497	12 32	54817	17 61
03	46360MS	24328	8 60	97435	12 32	56181	17 64
04	46360MSD	25002	8 60	97241	12 34	55587	17 64
05							
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21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0 50 minutes of internal standard RT
RT LOWER LIMIT = -0 50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract:

Project No: Site: Location: Group:

Lab File ID (Standard): B9008 D Date Analyzed: 10/27/95

Instrument ID: ABNA Time Analyzed: 1329

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	79042	22 12	25699	30 18	9983	34 15
	UPPER LIMIT	158084	22 62	51398	30 68	19966	34 65
	LOWER LIMIT	39521	21 62	12850	29 68	4992	33 65
	SAMPLE NO						
01	SBLK01	61940	22 09	43279	30 18	19502	34 16
02	9547000B	77921	22 11	44563	30 17	16352	34 16
03	46360MS	74786	22 13	35528	30 18	16536	34 14
04	46360MSD	77102	22 13	28509	30 19	10719	34 15
05							
06							
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19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0 50 minutes of internal standard RT
RT LOWER LIMIT = -0 50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Lab File ID (Standard) B9301 D Date Analyzed 12/7/95

Instrument ID ABNA Time Analyzed 1832

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	12552	7 51	55859	11 25	41239	16 49
	UPPER LIMIT	25104	8 01	111718	11 75	82478	16 99
	LOWER LIMIT	6276	7 01	27930	10 75	20620	15 99
	SAMPLE NO						
01	SBLK01	10248	7 49	47523	11 23	30909	16 46
02	9554748B	10448	7 49	46119	11 21	32492	16 46
03	SBLK02	10754	7 50	45450	11 21	30398	16 47
04	9554739B	11429	7 49	48207	11 22	33956	16 46
05	9554740B	12152	7 49	54261	11 21	34229	16 46
06	9554741B	11926	7 49	51863	11 21	37751	16 46
07	9554738B	12481	7 48	51577	11 21	36232	16 47
08	SBLK03	13214	7 49	57506	11 23	38030	16 46
09	9554551B	12591	7 49	55162	11 23	39445	16 47
10	9554552B	11760	7 49	49833	11 21	35216	16 47
11	9554554B	10086	7 49	45945	11 21	31194	16 46
12	9554555B	11834	7 49	48191	11 21	34931	16 47
13	9554556B	10233	7 49	41813	11 21	31976	16 46
14	9554557B	13122	7 49	55278	11 21	37148	16 46
15	9554558B	10925	7 47	45621	11 21	32808	16 46
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0 50 minutes of internal standard RT
RT LOWER LIMIT = -0 50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Lab File ID (Standard): B9301.D Date Analyzed: 12/7/95

Instrument ID: ABNA Time Analyzed: 1832

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	73998	20.90	64001	28.88	19039	32.81
	UPPER LIMIT	147996	21.40	128002	29.38	38078	33.31
	LOWER LIMIT	36999	20.40	32001	28.38	9520	32.31
	SAMPLE NO.						
01	SBLK01	51342	20.87	48010	28.84	15946	32.81
02	9554748B	52081	20.87	42633	28.84	15392	32.79
03	SBLK02	54361	20.87	43820	28.84	14326	32.81
04	9554739B	58099	20.86	54163	28.84	20120	32.79
05	9554740B	56159	20.87	54498	28.84	18350	32.79
06	9554741B	63262	20.87	54199	28.84	22178	32.79
07	9554738B	63510	20.87	51164	28.83	21186	32.79
08	SBLK03	61176	20.87	55171	28.84	17234	32.79
09	9554551B	65698	20.88	50081	28.84	18361	32.79
10	9554552B	64514	20.88	47488	28.84	14577	32.78
11	9554554B	50056	20.87	37914	28.84	12115	32.78
12	9554555B	60678	20.86	44912	28.84	14123	32.79
13	9554556B	51660	20.87	38952	28.84	11771	32.78
14	9554557B	61548	20.87	50354	28.82	13578	32.79
15	9554558B	56480	20.87	40684	28.84	11235	32.79
16							
17							
18							
19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 9554554B Field Blank

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Matrix (soil/water) WATER Lab Sample ID 9554554B

Sample wt/vol 1000 0 (g/mL ML Lab File ID B9312 D

Level (low/med) Date Received 11/27/95

% Moisture 0 decanted (Y/N) N Date Extracted 12/4/95

Concentrated Extract Volume 1000 (uL) Date Analyzed 12/8/95

Injection Volume 1 0 (uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

CAS No	Compound	Concentration Units (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO 9554554B Feed Blank

Lab Name EMSL ANALYTICAL Contract

Project No Site. Location Group

Matrix (soil/water) WATER Lab Sample ID 9554554B

Sample wt/vol 1000 0 (g/mL ML Lab File ID B9312 D

Level (low/med) Date Received 11/27/95

% Moisture 0 decanted (Y/N). N Date Extracted 12/4/95

Concentrated Extract Volume 1000 (uL) Date Analyzed 12/8/95

Injection Volume 1 0 (uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

CAS No	Compound	Concentration Units (ug/L or ug/Kg) ug/L	Q
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO 250

9554554B
Field Blank

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Matrix (soil/water) WATER Lab Sample ID 9554554B

Sample wt/vol 1000 0 (g/mL) ML Lab File ID B9312 D

Level (low/med) Date Received 11/27/95

% Moisture 0 decanted (Y/N) N Date Extracted 12/4/95

Concentrated Extract Volume 1000 (uL) Date Analyzed 12/8/95

Injection Volume 1 0 (uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

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

CAS Number	Compound Name	RT	Est Conc	Q
1	Unknown Hydrocarbon	8 14	5	J
2 57-10-3	Hexadecanoic acid	23 52	2	J
3				
4				
5				
6				
7				
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Quantitation Report

Data File : c:\hpchem\1\data2\b9312.d
Acq On : 8 Dec 95 3:52 am
Sample : 54554.....
Misc :
Quant Time: Dec 11 13:31 1995

Converted from RTE d

Vial: 13
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.49	152	10086	40.00	ug/mL	-0.35
17) Naphthalene-d8	11.21	136	45945	40.00	ug/mL	-0.37
32) Acenaphthene-d10	16.46	164	31194	40.00	ug/mL	-0.37
50) Phenanthrene-d10	20.87	188	50056	40.00	ug/ml	-0.38
64) Chrysene-d12	28.84	240	37914	40.00	ug/mL	-0.41
73) Perylene-d12	32.78	264	12115	40.00	ug/mL	-0.37
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	7.49	99	233	0.49	ug/mL	0.49%
18) Nitrobenzene-d5	9.20	82	34693	63.19	ug/mL	63.19%
36) 2-Fluorobiphenyl	14.69	172	63804	76.94	ug/mL	76.94%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	26.03	244	97434	93.20	ug/mL	93.20%
Target Compounds						Qvalue

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

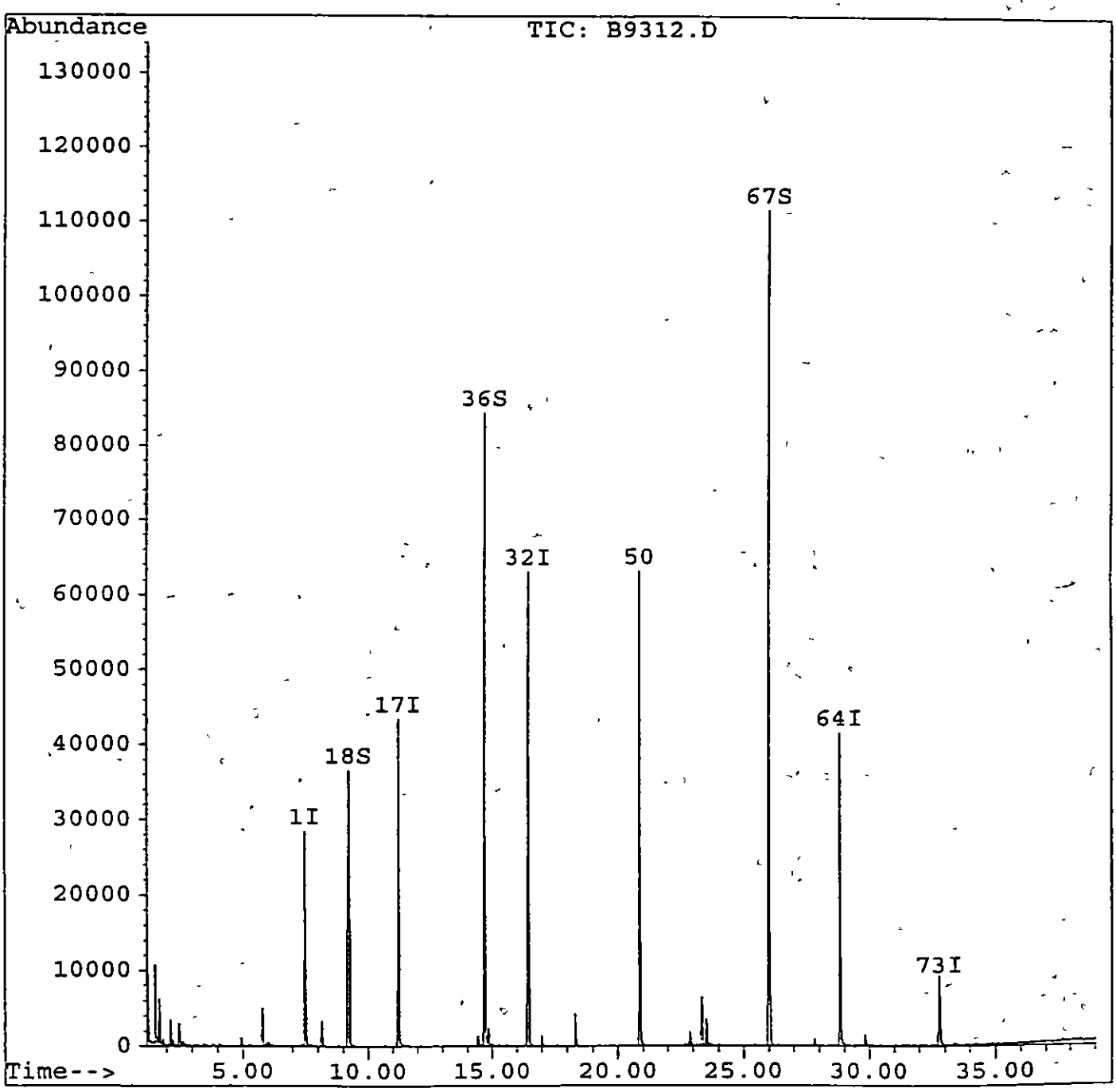
Quantitation Report

Data File : c:\hpchem\1\data2\b9312.d
Acq On : 8 Dec 95 3:52 am
Sample : 54554.....
Misc :
Quant Time: Dec 11 13:31 1995

Converted from RTE d

Vial: 13
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration



Library Search Compound Report

Data File : c:\hpchem\1\data2\b9312.d
Acq On : 8 Dec 95 3:52 am
Sample : 54554.....
Misc :

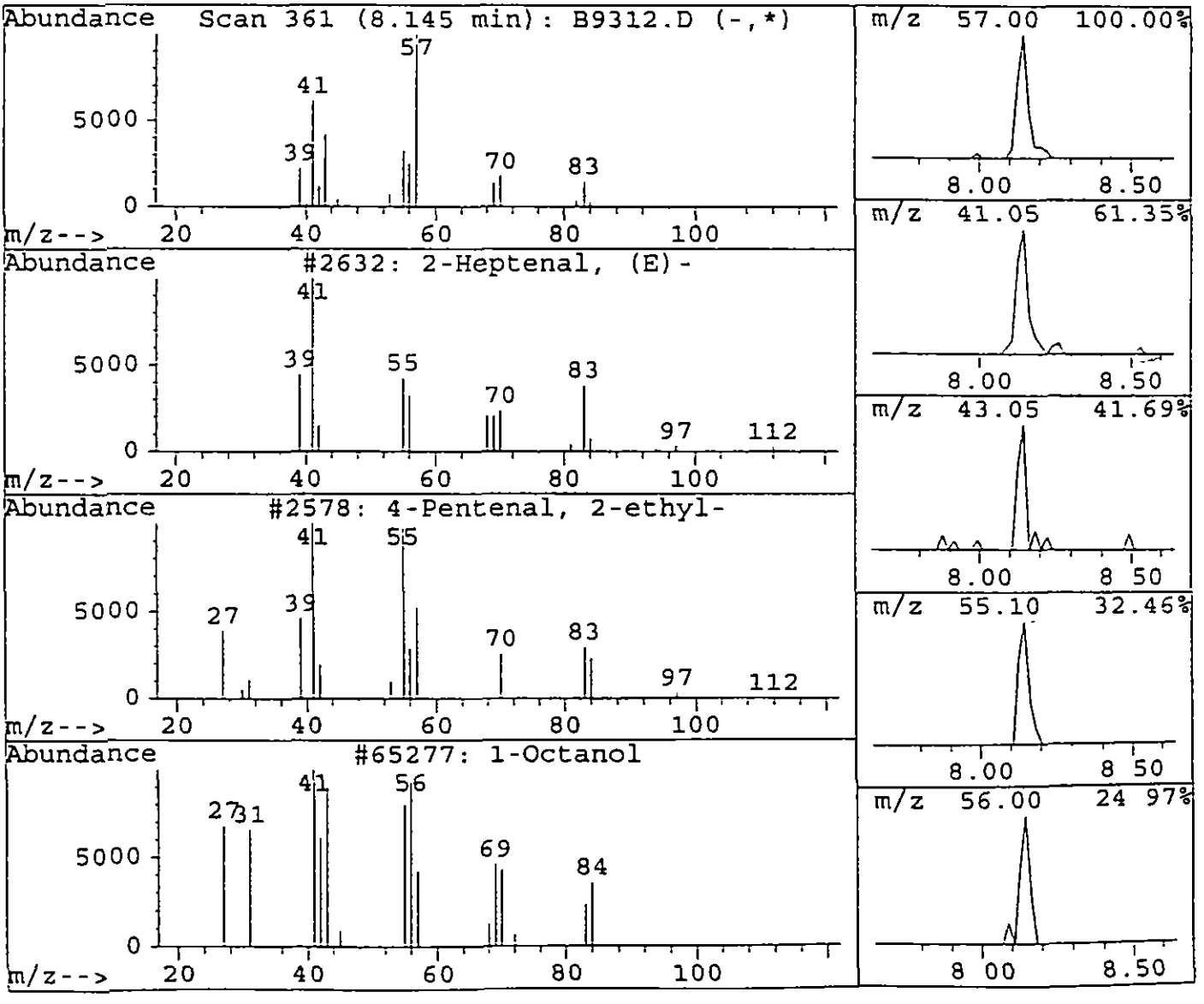
Converted from RTE d

Vial: 13
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Library : C.\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
8.14	4.63 ug/mL	8300	1,4-Dichlorobenzene-d4	7.49

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	2-Heptenal, (E)-	2632	018829-55-5	42
2	4-Pentenal, 2-ethyl-	2578	005204-80-8	40
3	1-Octanol	65277	000111-87-5	38
4	Propanoic acid, heptyl ester	68350	002216-81-1	17
5	1-Butene	62308	000106-98-9	9



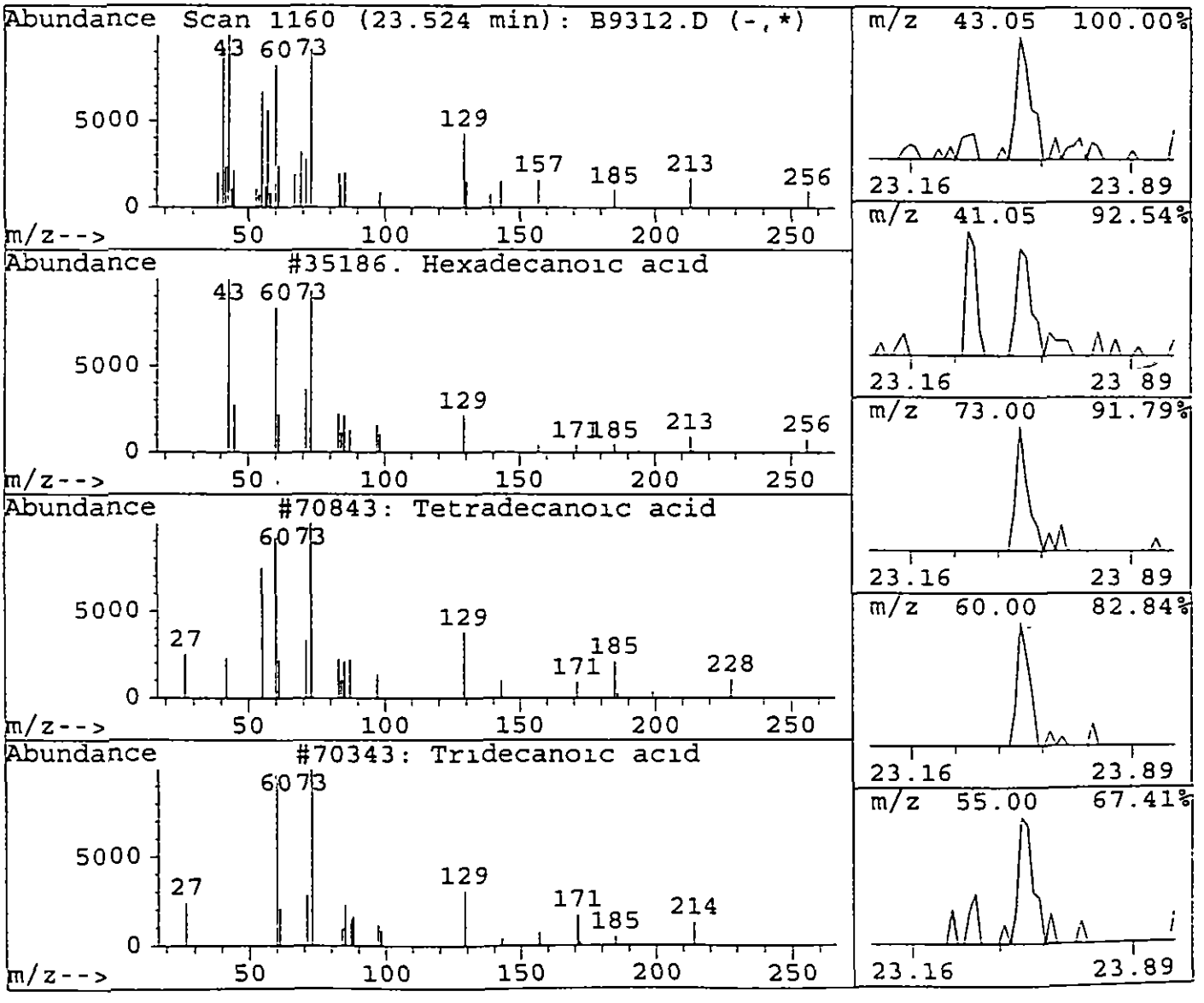
Data File : c:\hpchem\1\data2\b9312.d
Acq On : 8 Dec 95 3:52 am
Sample : 54554.....
Misc :
Converted from RTE d

Vial: 13
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Library : C:\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T
23.52	2.45 ug/mL	9490	Phenanthrene-d10	20.87

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexadecanoic acid	35186	000057-10-3	93
2	Tetradecanoic acid	70843	000544-63-8	72
3	Tridecanoic acid	70343	000638-53-9	59
4	Pentadecanoic acid	32396	001002-84-2	59
5	Undecanoic acid	69096	000112-37-8	53



1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO 9554556B

nul-293760

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Matrix (soil/water) WATER Lab Sample ID 9554556B

Sample wt/vol 1000 0 (g/mL ML Lab File ID B9314 D

Level (low/med) Date Received 11/27/95

% Moisture 0 decanted (Y/N) N Date Extracted 12/4/95

Concentrated Extract Volume 1000 (uL) Date Analyzed 12/8/95

Injection Volume 1 0 (uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

CAS No	Compound	Concentration Units (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO 256

9554556B
7/1101-293376.0

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Matrix (soil/water) WATER Lab Sample ID 9554556B

Sample wt/vol 1000.0 (g/mL ML Lab File ID B9314.D

Level (low/med) Date Received 11/27/95

% Moisture 0 decanted (Y/N) N Date Extracted 12/4/95

Concentrated Extract Volume 1000 (uL) Date Analyzed 12/8/95

Injection Volume 1.0 (uL) Dilution Factor 1.0

GPC Cleanup (Y/N) N pH

CAS No	Compound	Concentration Units (ug/L or ug/Kg) ug/L	Q
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

1F

SAMPLE NO 257

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

9554556B
7111W1-2933760

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Matrix (soil/water) WATER Lab Sample ID 9554556B

Sample wt/vol 1000 0 (g/mL) ML Lab File ID B9314 D

Level (low/med) Date Received 11/27/95

% Moisture 0 decanted (Y/N) N Date Extracted 12/4/95

Concentrated Extract Volume 1000 (uL) Date Analyzed 12/8/95

Injection Volume 1 0 (uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

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

CAS Number	Compound Name	RT	Est Conc	Q
1	Unknown Hydrocarbon	23 54	6	J
2				
3				
4				
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Quantitation Report

Data File : c:\hpchem\1\data2\b9314.d Vial: 15
Acq On : 8 Dec 95 5:34 am Operator: SCOTTV
Sample : 54556..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Dec 11 13:33 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.49	152	10233	40.00	ug/mL	-0.35
17) Naphthalene-d8	11.21	136	41813	40.00	ug/mL	-0.37
32) Acenaphthene-d10	16.46	164	31976	40.00	ug/mL	-0.37
50) Phenanthrene-d10	20.87	188	51660	40.00	ug/ml	-0.38
64) Chrysene-d12	28.84	240	38952	40.00	ug/mL	-0.41
73) Perylene-d12	32.78	264	11771	40.00	ug/mL	-0.37

System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	3.89	112	32	0.11	ug/mL	0.11%
3) Phenol-d5	7.49	99	206	0.42	ug/mL	0.42%
18) Nitrobenzene-d5	9.20	82	30530	61.10	ug/mL	61.10%
36) 2-Fluorobiphenyl	14.69	172	61308	72.13	ug/mL	72.13%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	26.01	244	104615	97.40	ug/mL	97.40%

Target Compounds	Qvalue

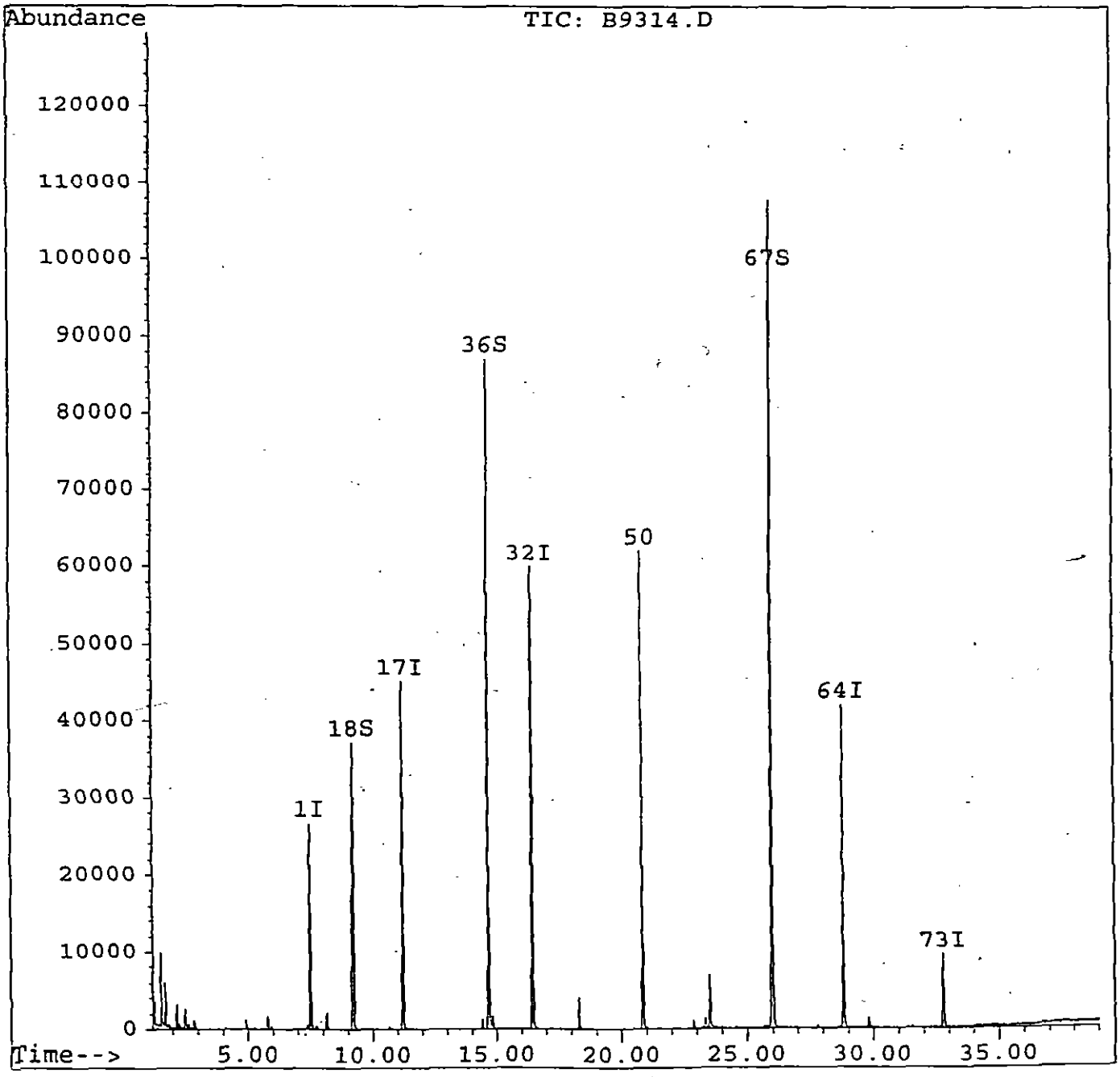
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b9314.d
Acq On : 8 Dec 95 5:34 am
Sample : 54556.....
Misc :
Quant Time: Dec 11 13:33 1995

Vial: 15
Operator: SCOTTV
Converted from RTE d Inst : ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration



Library Search Compound Report

260

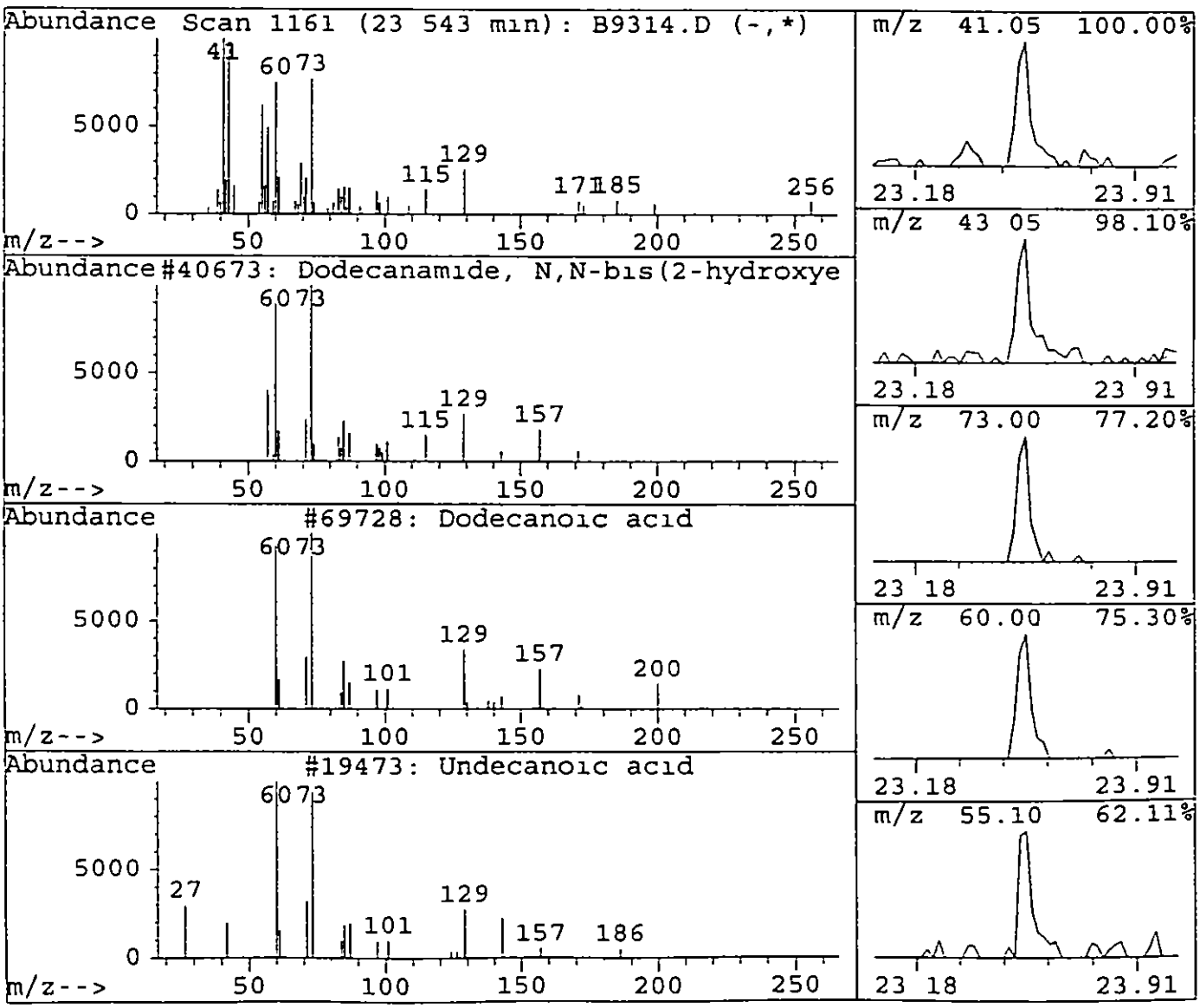
Data File : c:\hpchem\1\data2\b9314.d
Acq On : 8 Dec 95 5:34 am
Sample : 54556.. . .... . Converted from RTE d
Misc :

Vial: 15
Operator. SCOTTV
Inst · ABNA
BT Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Library : C·\DATABASE\NBS75K.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.54	5.87 ug/mL	23200	Phenanthrene-d10	20.87

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Dodecanamide, N,N-bis(2-hydroxyethy	40673	000120-40-1	91
2	Dodecanoic acid	69728	000143-07-7	90
3	Undecanoic acid	19473	000112-37-8	90
4	Tetradecanoic acid	70843	000544-63-8	87
5	Pentadecanoic acid	71237	001002-84-2	86



WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name EMSL ANALYTICAL Contract _____

Project No _____ Site _____ Location _____ Group _____

	SAMPLE NO	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	#	#	#	#	#	TOT OUT
01	SBLK01	41	37	65						
02	9547000B	56	49	91						
03	46360MS	54	58	110						
04	46360MSD	51	56	121						
05										
06										
07										
08										
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	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(22-101)
S2 (FBP) = 2-Fluorobiphenyl	(20-94)
S3 (TPH) = Terphenyl-d14	(35-127)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

	SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	#	#	#	#	#	TOT OUT
01	SBLK01	62	80	78						
02	9554748B	66	78	90						
03	SBLK03	57	66	84						
04	9554551B	43	57	76						
05	9554552B	58	65	93						
06	9554554B	63	77	93						
07	9554555B	54	65	94						
08	9554556B	61	72	97						
09	9554557B	64	73	80						
10	9554558B	54	55	88						
11										
12										
13										
14										
15										
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22										
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24										
25										
26										
27										
28										
29										
30										

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(22-101)
S2 (FBP) = 2-Fluorobiphenyl	(20-94)
S3 (TPH) = Terphenyl-d14	(35-127)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

4B

SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

SBLK01

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Lab File ID: B9009.D Lab Sample ID: BLANK1

Instrument ID: ABNA Date Extracted: 10/18/95

Matrix: (soil/water) WATER Date Analyzed: 10/27/95

Level: (low/med) Time Analyzed: 1421

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	9547000B	9547000B	B9010.D	10/27/95
02	46360MS	46360MS	B9011.D	10/27/95
03	46360MSD	46360MSD	B9012.D	10/27/95
04				
05				
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COMMENTS:

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLK01

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: BLANK1

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9009.D

Level: (low/med) Date Received: 10/13/95

% Moisture: decanted: (Y/N): N Date Extracted: 10/18/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/27/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	5	
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Matrix (soil/water) WATER Lab Sample ID BLANK1

Sample wt/vol 1000 0 (g/mL ML Lab File ID B9009 D

Level (low/med) Date Received 10/13/95

% Moisture decanted (Y/N) N Date Extracted 10/18/95

Concentrated Extract Volume 1000 (uL) Date Analyzed 10/27/95

Injection Volume 1 0 (uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

CAS No	Compound	Concentration Units (ug/L or ug/Kg) ug/L	Q
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO 266

SBLK01

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Matrix (soil/water) WATER Lab Sample ID BLANK1

Sample wt/vol 1000 0 (g/mL) ML Lab File ID B9009 D

Level (low/med) Date Received 10/13/95

% Moisture decanted (Y/N) N Date Extracted 10/18/95

Concentrated Extract Volume 1000 (uL) Date Analyzed 10/27/95

Injection Volume 1 0 (uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

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

CAS Number	Compound Name	RT	Est Conc	Q
1	Unknown	6 94	2	J
2				
3				
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Quantitation Report

Data File : c \hpchem\1\data2\b9009 d Vial 3
Acq On : 27 Oct 95 2 21 pm Operator. SCOTTV
Sample : BLANK . Converted from RTE d Inst : ABNA
Misc BT Multiplr: 1.00
Quant Time Oct 31 15:20 1995

Method : c \HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update . Wed Oct 25 10 20:51 1995
Response via : Multiple Level Calibration

Internal Standards	R T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8 59	152	22496	40.00 ug/mL	-0.10
17) Naphthalene-d8	12.31	136	83610	40 00 ug/mL	-0.12
32) Acenaphthene-d10	17 62	164	47426	40.00 ug/mL	-0.11
50) Phenanthrene-d10	22.09	188	61940	40.00 ug/ml	-0.14
64) Chrysene-d12	30.18	240	43279	40.00 ug/mL	-0.11
73) Perylene-d12	34.16	264	19502	40.00 ug/mL	-0.08
System Monitoring Compounds					%Recovery
2) 2-Fluorophenol	5.01	112	31567	44.02 ug/mL	44.02%
3) Phenol-d5	8.01	99	53072	45.61 ug/mL	45.61%
18) Nitrobenzene-d5	10.27	82	46833	41.33 ug/mL	41.33%
36) 2-Fluorobiphenyl	15.77	172	53376	36.90 ug/mL	36.90%
54) 2,4,6-Tribromophenol	20.03	330	7869	40.12 ug/mL	40.12%
67) Terphenyl-d14	27.27	244	69697	64.83 ug/mL	64.83%
Target Compounds					Qvalue
62) Di-n-butylphthalate	24.52	149	16902	5.43 ug/mL#	98

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

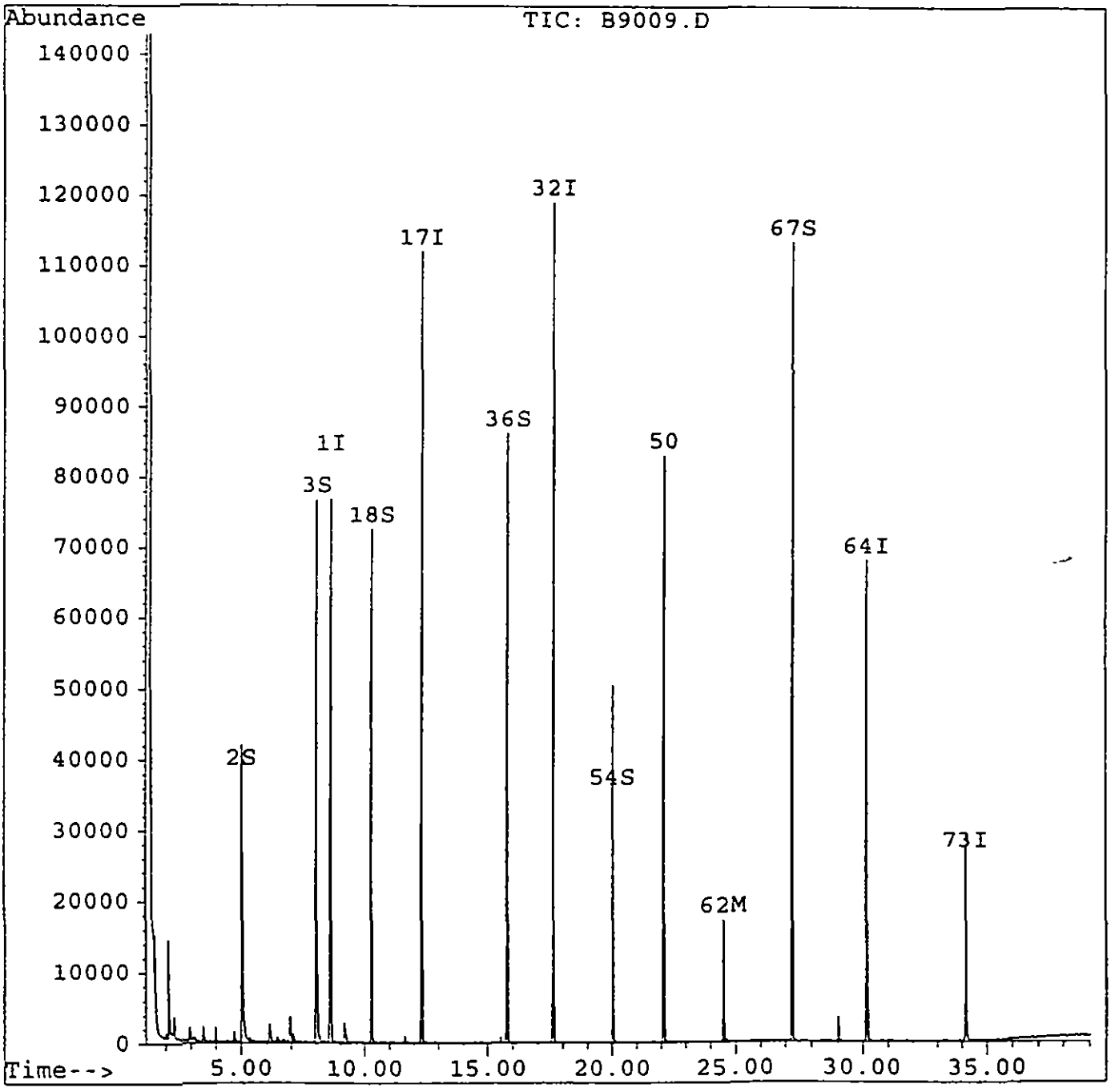
Quantitation Report

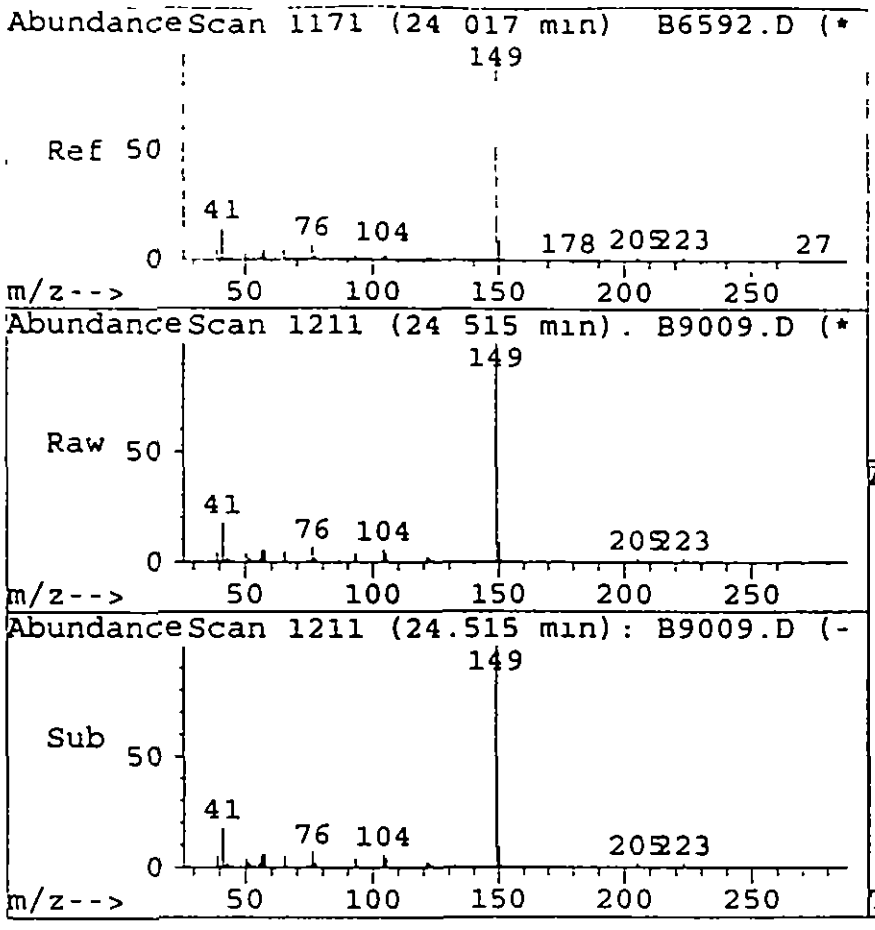
Data File : c \hpchem\1\data2\b9009 d
Acq On : 27 Oct 95 2 21 pm
Sample : BLANK ..
Misc
Quant Time Oct 31 15 20 1995

Converted from RTE d

Vial 3
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method : c \HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Oct 25 10 20:51 1995
Response via : Multiple Level Calibration

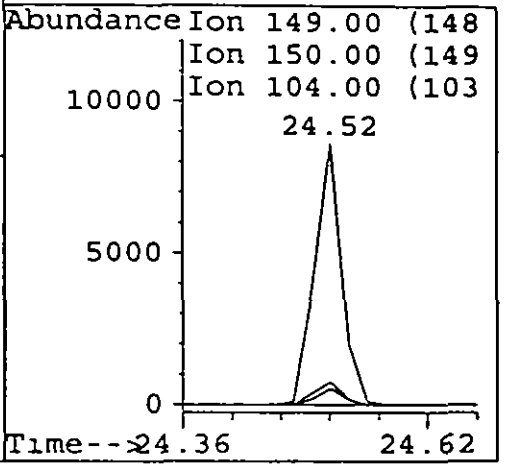




#62
Di-n-butylphthalate
Concen: 5 43 ug/mL
RT: 24.52 min Scan# 1211
Delta R T -0.12 min
Lab File· b9009 d
Acq: 27 Oct 95 2:21 pm

Tgt Ion 149 Resp: 16902

Ion	Ratio	Lower	Upper
149	100		
150	8.9	7.3	10.9
104	6 4	3.7	5.5#
0	0.0	0.0	0.0



Library Search Compound Report

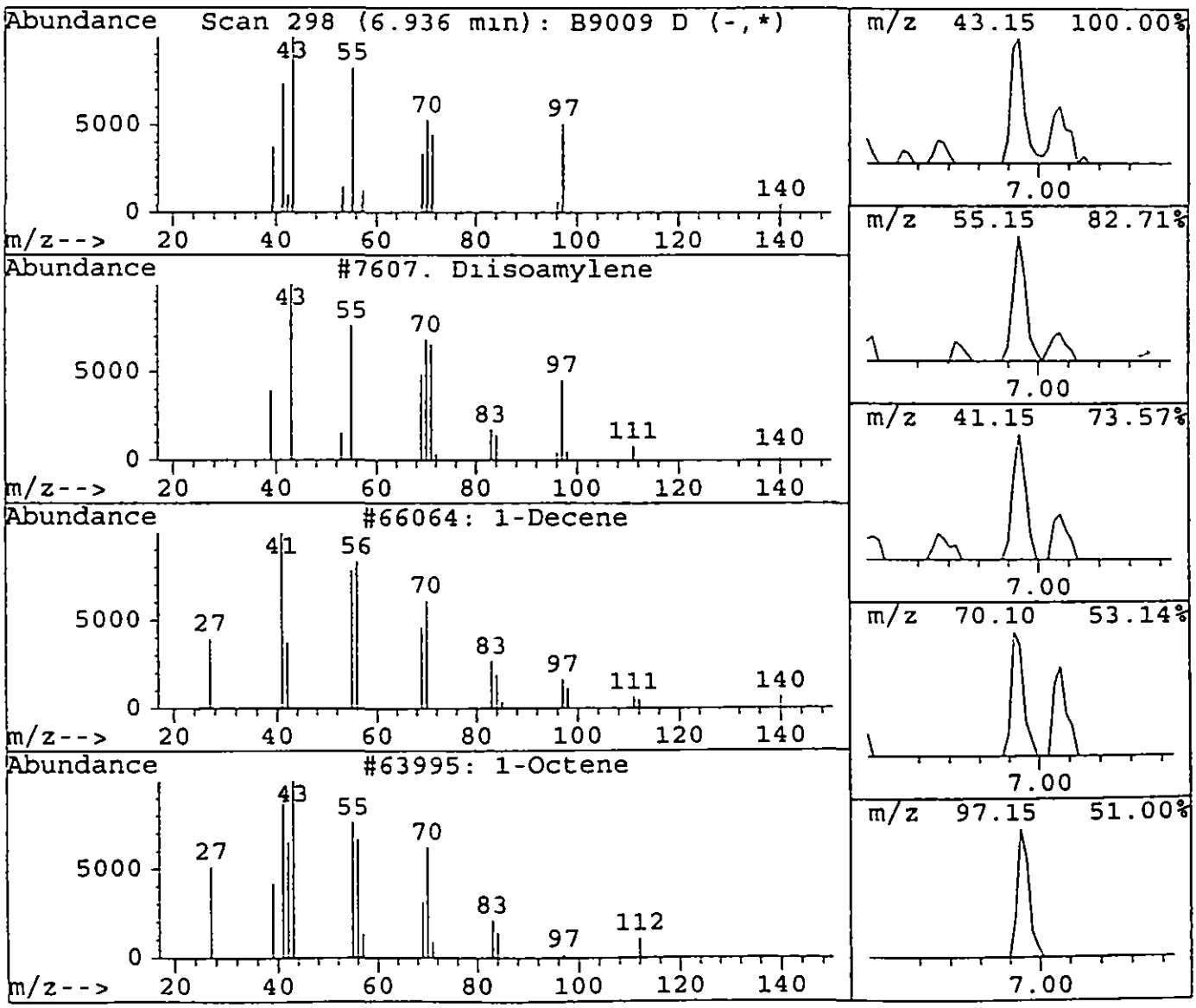
270

Data File c \hpchem\1\data2\b9009 d Vial 3
Acq On 27 Oct 95 2 21 pm Operator: SCOTTV
Sample BLANK Converted from RTE d Inst : ABNA
Misc BT Multiplr. 1.00

Method : c \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Library : C:\DATABASE\NBS75K L

R T.	Conc	Area	Relative to ISTD	R T.
6 94	2 46 ug/ml	10825	1,4-Dichlorobenzene-d4	8 59

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Diisoamylene	7607	054063-09-1	64
2	1-Decene	66064	000872-05-9	35
3	1-Octene	63995	000111-66-0	35
4	Heptane, 4-methyl-	3096	000589-53-7	25
5	Cyclopentane, 1,2-dimethyl-, cis-	1367	001192-18-3	25



4B

SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

SBLK03

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Lab File ID: B9309.D Lab Sample ID: BLANK3

Instrument ID: ABNA Date Extracted: 12/4/95

Matrix: (soil/water) WATER Date Analyzed: 12/8/95

Level: (low/med) Time Analyzed: 0120

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	9554551B	9554551B	B9310.D	12/08/95
02	9554552B	9554552B	B9311.D	12/08/95
03	9554554B	9554554B	B9312.D	12/08/95
04	9554555B	9554555B	B9313.D	12/08/95
05	9554556B	9554556B	B9314.D	12/08/95
06	9554557B	9554557B	B9315.D	12/08/95
07	9554558B	9554558B	B9316.D	12/08/95
08				
09				
10				
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COMMENTS:

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 272

SBLK03

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: BLANK3

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9309.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 273

SBLK03

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: BLANK3

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B9309.D

Level: (low/med) _____ Date Received: 11/27/95

% Moisture: 0 decanted: (Y/N): N Date Extracted: 12/4/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO 274

SBLK03

Lab Name EMSL ANALYTICAL Contract

Project No Site Location Group

Matrix (soil/water) WATER Lab Sample ID BLANK3

Sample wt/vol 1000 0 (g/mL) ML Lab File ID B9309 D

Level (low/med) Date Received: 11/27/95

% Moisture 0 decanted (Y/N) N Date Extracted 12/4/95

Concentrated Extract Volume 1000 (uL) Date Analyzed 12/8/95

Injection Volume 1 0 (uL) Dilution Factor 1 0

GPC Cleanup (Y/N) N pH

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				
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9				
10				
11				
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Quantitation Report

Data File : c:\hpchem\1\data2\b9309.d Vial: 10
Acq On : 8 Dec 95 1:20 am Operator: SCOTTV
Sample : BLANK..... Converted from RTE d Inst : ABNA
Misc : BT Multiplr: 1.00
Quant Time: Dec 11 12:49 1995

Method : c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.49	152	13214	40.00	ug/mL	-0.34
17) Naphthalene-d8	11.23	136	57506	40.00	ug/mL	-0.35
32) Acenaphthene-d10	16.46	164	38030	40.00	ug/mL	-0.37
50) Phenanthrene-d10	20.87	188	61176	40.00	ug/ml	-0 38
64) Chrysene-d12	28.84	240	55171	40.00	ug/mL	-0.40
73) Perylene-d12	32.79	264	17234	40.00	ug/mL	-0.37
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	0.00	112	0	0.00	ug/mL	0.00%
3) Phenol-d5	7.49	99	359	0.57	ug/mL	0.57%
18) Nitrobenzene-d5	9.23	82	39268	57.14	ug/mL	57.14%
36) 2-Fluorobiphenyl	14.69	172	66686	65.96	ug/mL	65.96%
54) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/mL	0.00%
67) Terphenyl-d14	26.03	244	127672	83.92	ug/mL	83.92%
Target Compounds						Qvalue

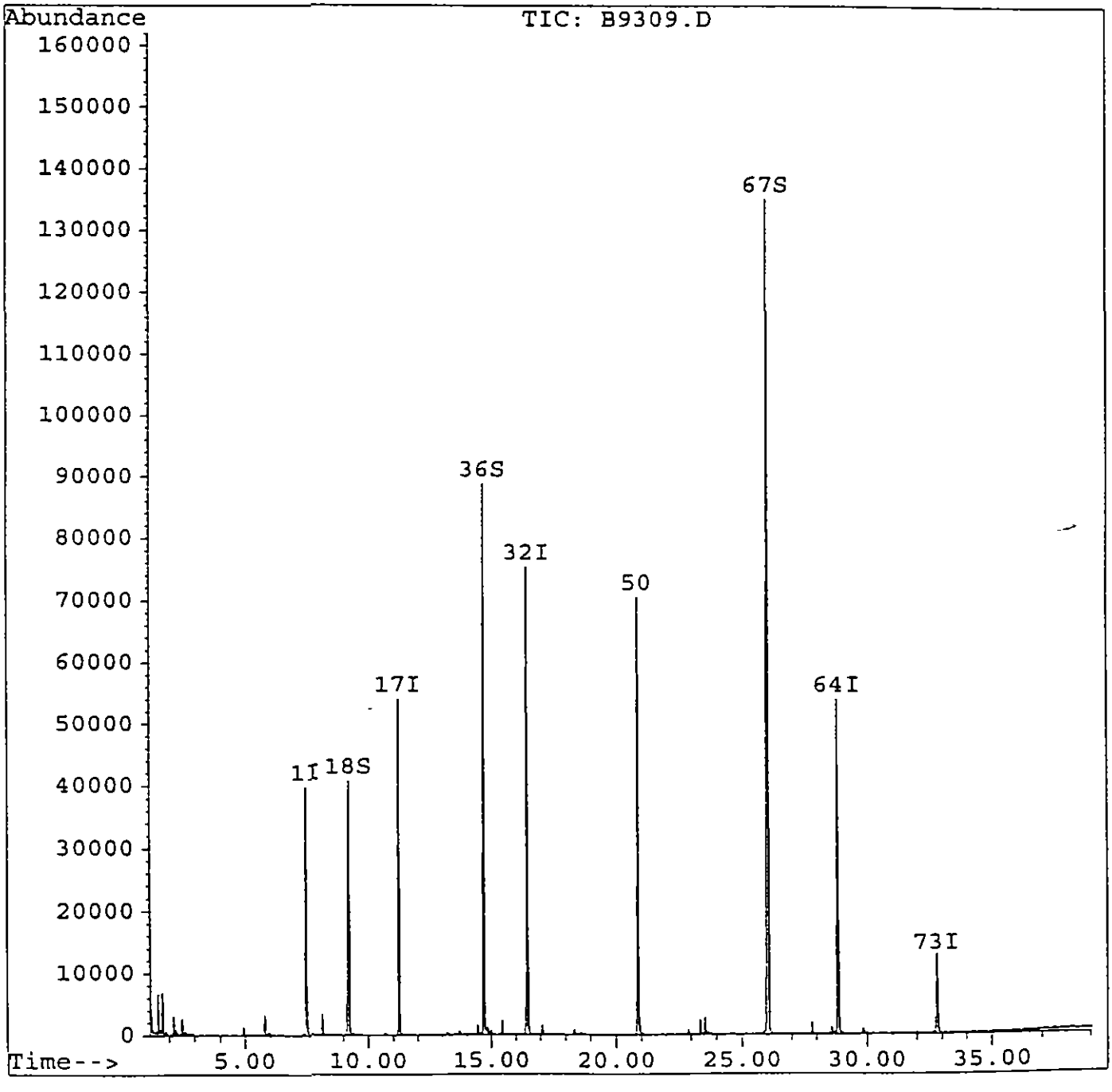
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : c:\hpchem\1\data2\b9309.d
Acq On : 8 Dec 95 1:20 am
Sample : BLANK..... Converted from RTE d
Misc :
Quant Time: Dec 11 12:49 1995

Vial: 10
Operator: SCOTTV
Inst : ABNA
BT Multiplr: 1.00

Method . c:\HPCHEM\1\METHODS\BNACLP.M
Title : CLP BNA Calibration
Last Update : Wed Nov 22 12:21:54 1995
Response via : Multiple Level Calibration



Spike Recovery and RPD Summary Report - WATER

Method . C \HPCHEM\1\METHODS\BNACLP.M
Title . CLP BNA Calibration
Last Update . Wed Nov 22 12 21 54 1995
Response via Initial Calibration

277

Non-Spiked Sample B8997 D

	Spike Sample	Spike Duplicate Sample
File ID	B9011.D	B9012 D
Sample	46360MS.. .. .	Converted from RTE data file >B9011:·D5

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
N-nitrosodimethylami	0.3	100	42	50	41	49	18	100	1-300
Phenol	0.6	100	59	59	59	59	0	23	5-112
bis(2-Chloroethyl)et	0.0	100	57	51	57	51	11	55	12-158
2-Chlorophenol	0.0	100	57	53	57	53	8	29	23-134
1,3-Dichlorobenzene	0.0	100	45	43	45	43	3	42	1-172
1,4-Dichlorobenzene	0 0	100	47	45	47	45	5	32	20-124
1,2-Dichlorobenzene	0.0	100	47	45	47	45	5	31	32-129
bis(2-chloroisopropy	0 0	100	77	72	77	72	7	46	36-166
N-Nitroso-Di-n-propy	0 0	100	51	47	51	47	9	55	1-230
Hexachloroethane	0.0	100	44	41	44	41	7	25	40-113
Nitrobenzene	0.2	100	50	48	50	47	5	39	35-180
Isophorone	0.0	100	48	45	48	45	7	63	21-196
2-Nitrophenol	0.0	100	54	50	54	50	8	35	29-182
2,4-Dimethylphenol	0.0	100	75	84	75	84	11	26	32-119
bis(2-Chloroethoxy)m	0.0	100	56	51	56	51	8	35	33-184
2,4-Dichlorophenol	0.0	100	72	77	72	77	7	26	39-135
1,2,4-Trichlorobenze	0.0	100	49	46	49	46	7	28	44-142
Naphthalene	0.3	100	52	48	51	48	7	30	21-133
Hexachlorobutadiene	0 0	100	52	48	52	48	6	26	24-116
4-Chloro-3-methylphe	0 0	100	74	83	74	83	11	37	22-147
2-Chloronaphthalene	0 0	100	63	61	63	61	3	13	60-118
2,4,6-Trichloropheno	0.0	100	65	73	65	73	12	32	37-144
Dimethylphthalate	0.0	100	11	11	11	11	3	23	1-112
Acenaphthylene	0.0	100	62	63	62	63	2	40	33-145
2,6-Dinitrotoluene	0.0	100	96	99	96	99	3	30	50-158
Acenaphthene	0.0	100	73	74	73	74	1	28	47-145
2,4-Dinitrophenol	0 0	100	54	60	54	60	10	50	1-191
4-Nitrophenol	0.0	100	50	52	50	52	3	47	1-132
2,4-Dinitrotoluene	0.0	100	83	83	83	83	0	22	39-139
Diethylphthalate	0 0	100	20	20	20	20	1	27	1-114
Fluorene	0.0	100	80	83	80	83	4	21	59-121
4-Chlorophenyl-pheny	0 0	100	78	81	78	81	3	33	25-158
4,6-Dinitro-2-methyl	0.1	100	85	87	85	87	2	93	1-181
4-Bromophenyl-phenyl	0.0	100	93	89	93	89	4	23	53-127
Hexachlorobenzene	0.0	100	88	88	88	88	0	25	1-152
Pentachlorophenol	0.0	100	77	81	77	81	5	49	14-176
Phenanthrene	0.1	100	86	94	86	94	9	21	54-120
Anthracene	0.1	100	74	79	74	79	7	32	52-115
Di-n-butylphthalate	20.6	100	53	59	33	38	14	17	1-118
Fluoranthene	0.1	100	75	75	75	75	0	33	26-137
Pyrene	0 2	100	102	101	102	100	2	25	52-115
Butylbenzylphthalate	0 0	100	62	65	62	65	5	23	1-152
Benzo[a]anthracene	0 2	100	84	88	83	88	5	28	33-143

Chrysene	0.3	100	86	92	85	92	8	48	17-168
bis(2-Ethylhexyl)pht	0.0	100	89	101	89	101	12	41	8-158
Di-n-octylphthalate	0.2	100	74	87	74	86	16	31	4-146
Benzo[b]fluoranthene	0.0	100	71	89	71	89	23	39	24-159
Benzo[k]fluoranthene	0.0	100	71	77	71	77	7	32	11-162
Benzo[a]pyrene	0.0	100	83	88	83	88	7	39	17-163
Indeno[1,2,3-cd]pyre	0.0	100	81	94	81	94	15	45	1-171
Dibenz[a,h]anthracen	0.0	100	70	86	70	86	20	70	1-227
Benzo[g,h,i]perylene	0.0	100	72	86	72	86	17	59	1-219

Quantitation Report

Data File c \hpchem\1\data2\b9011 d Vial: 5
Acq On 27 Oct 95 4 04 pm Operator: SCOTTV
Sample 46360MS. . Converted from RTE d Inst : ABNA
Misc BT Multiplr: 1.00
Quant Time Oct 31 15 39 1995

Method : c \HPCHEM\1\METHODS\BNACLP M
Title : CLP BNA Calibration
Last Update . Wed Oct 25 10:20:51 1995
Response via Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8 60	152	24328	40 00	ug/mL	-0.09
17) Naphthalene-d8	12 32	136	97435	40 00	ug/mL	-0.11
32) Acenaphthene-d10	17.64	164	56181	40.00	ug/mL	-0.09
50) Phenanthrene-d10	22.13	188	74786	40.00	ug/ml	-0.10
64) Chrysene-d12	30.18	240	35528	40.00	ug/mL	-0.10
73) Perylene-d12	34.14	264	16536	40.00	ug/mL	-0.10
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.07	112	40915	52.76	ug/mL	52.76%
3) Phenol-d5	8.10	99	81492	64.76	ug/mL	64.76%
18) Nitrobenzene-d5	10.29	82	71765	54 35	ug/mL	54.35%
36) 2-Fluorobiphenyl	15.81	172	99873	58 28	ug/mL	58.28%
54) 2,4,6-Tribromophenol	20.10	330	20403	86 16	ug/mL	86.16%
67) Terphenyl-d14	27.26	244	97283	110.24	ug/mL	110.24%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.10	74	22456	41.61	ug/ml	100
6) Phenol	8.12	94	70099	59.38	ug/mL	100
7) bis(2-Chloroethyl)ether	12.03	93	82048	56 86	ug/mL	100
8) 2-Chlorophenol	8 06	128	46342	57.17	ug/mL#	83
9) 1,3-Dichlorobenzene	8.39	146	37275	44 83	ug/mL	99
10) 1,4-Dichlorobenzene	8 66	146	39314	46 72	ug/mL	97
11) 1,2-Dichlorobenzene	9.04	146	38547	47.04	ug/mL#	96
12) 2-Methylphenol	9.29	108	5196	6.68	ug/mL	53
13) bis(2-chloroisopropyl)ethe	9.72	45	104911	77.20	ug/mL	98
15) N-Nitroso-Di-n-propylamine	10.12	70	47254	50.85	ug/mL	98
16) Hexachloroethane	9.99	117	23206	43.95	ug/mL#	67
19) Nitrobenzene	10.35	77	62972	49.80	ug/mL#	86
20) Isophorone	11.18	82	128772	48.00	ug/mL#	93
21) 2-Nitrophenol	11.30	139	31651	54.31	ug/mL#	92
22) 2,4-Dimethylphenol	14.60	107	70299	74.63	ug/mLm	100
23) bis(2-Chloroethoxy)methane	12.03	93	82048	55.86	ug/mL#	100
24) 2,4-Dichlorophenol	12.18	162	51706	71 87	ug/mL#	90
25) 1,2,4-Trichlorobenzene	12.22	180	36372	49.07	ug/mL	95
26) Naphthalene	12 40	128	126554	51.78	ug/mL	98
27) 4-Chloroaniline	12.40	127	15664	13.67	ug/mL#	13
28) Hexachlorobutadiene	12.90	225	20087	51.69	ug/mL	98
29) 4-Chloro-3-methylphenol	14.60	107	70394	74.44	ug/mL	90
30) 2-Chloronaphthalene	15.97	162	96889	62.71	ug/mlm	100
31) 2-Methylnaphthalene	14.60	142	50713	23 94	ug/mL#	16
34) 2,4,6-Trichlorophenol	15.56	196	38970	65.14	ug/mL	97
35) 2,4,5-Trichlorophenol	15.56	196	38970	79.89	ug/mL	97
37) 2-Nitroaniline	18.53	65	4756	4.33	ug/mL#	38
38) Dimethylphthalate	17.26	163	21170	11.02	ug/mL#	13

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

Quantitation Report

Data File c \hpchem\1\data2\b9011 d Vial 5
Acq On 27 Oct 95 4 04 pm Operator: SCOTTV
Sample 46360MS Converted from RTE d Inst . ABNA
Misc BT Multiplr: 1.00
Quant Time Oct 31 15 39 1995

Method c \HPCHEM\1\METHODS\BNACLP.M
Title CLP BNA Calibration
Last Update : Wed Oct 25 10:20.51 1995
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39) Acenaphthylene	17 18	152	156148	61.73 ug/mL	97
40) 2,6-Dinitrotoluene	17 35	165	41277	95.56 ug/mL#	79
41) 3-Nitroaniline	19.34	138	1557	3 24 ug/mL#	19
42) Acenaphthene	17.74	153	105172	73.42 ug/mL	98
43) 2,4-Dinitrophenol	18 11	184	15991	54.29 ug/mL#	85
44) 4-Nitrophenol	18.86	109	16078	50.23 ug/mL#	61
46) 2,4-Dinitrotoluene	18.53	165	52578	82.74 ug/mL#	1
47) Diethylphthalate	19.46	149	43228	19.78 ug/mL	97
48) Fluorene	19.34	166	131556	80.24 ug/mL	98
49) 4-Chlorophenyl-phenylether	19.54	204	55916	78 26 ug/mL#	84
51) 4-Nitroaniline	19.34	138	1557	3.62 ug/mL#	19
52) 4,6-Dinitro-2-methylphenol	19.73	198	23619	85.19 ug/mL	100
53) n-Nitrosodiphenylamine	19.94	169	71016	70.01 ug/mL	96
55) 1,2-Diphenylhydrazine (as	19.54	77	69196	20.74 ug/ml	100
56) 4-Bromophenyl-phenylether	20.99	248	32480	92.88 ug/mL#	88
57) Hexachlorobenzene	20.95	284	38892	87.66 ug/mL#	39
58) Pentachlorophenol	21.70	266	23340	76.81 ug/mL	99
59) Phenanthrene	22.20	178	174965	86.09 ug/mL	99
60) Anthracene	22.36	178	148000	74.15 ug/mLm	99
62) Di-n-butylphthalate	24.54	149	201030	53.46 ug/mL	99
63) Fluoranthene	25.81	202	152814	74 83 ug/mL#	53
65) Benzidine	22.13	184	11493	47 31 ug/ml	100
66) Pyrene	26.43	202	145327	102 25 ug/mL#	70
68) Butylbenzylphthalate	29.04	149	68443	61 89 ug/mL#	15
69) Benzo[a]anthracene	30.17	228	106111	83.59 ug/mL	99
70) 3,3'-Dichlorobenzidine	30.32	252	3672	10.71 ug/mL#	93
71) Chrysene	30.26	228	65164	85.64 ug/mLm	99
72) bis(2-Ethylhexyl)phthalate	31.04	149	141688	89.39 ug/mL#	37
74) Di-n-octylphthalate	32.95	149	174136	74.01 ug/mL#	100
75) Benzo[b]fluoranthene	33.20	252	56999	70.62 ug/mL#	89
76) Benzo[k]fluoranthene	33.28	252	34292	71.37 ug/mLm	89
77) Benzo[a]pyrene	34.01	252	36949	82.66 ug/mLm	89
78) Indeno[1,2,3-cd]pyrene	36 69	276	18775	80.91 ug/mL#	25
79) Dibenz[a,h]anthracene	36.81	278	15952	70.33 ug/mL#	75
80) Benzo[g,h,i]perylene	37.21	276	15258	72.43 ug/mLm	60

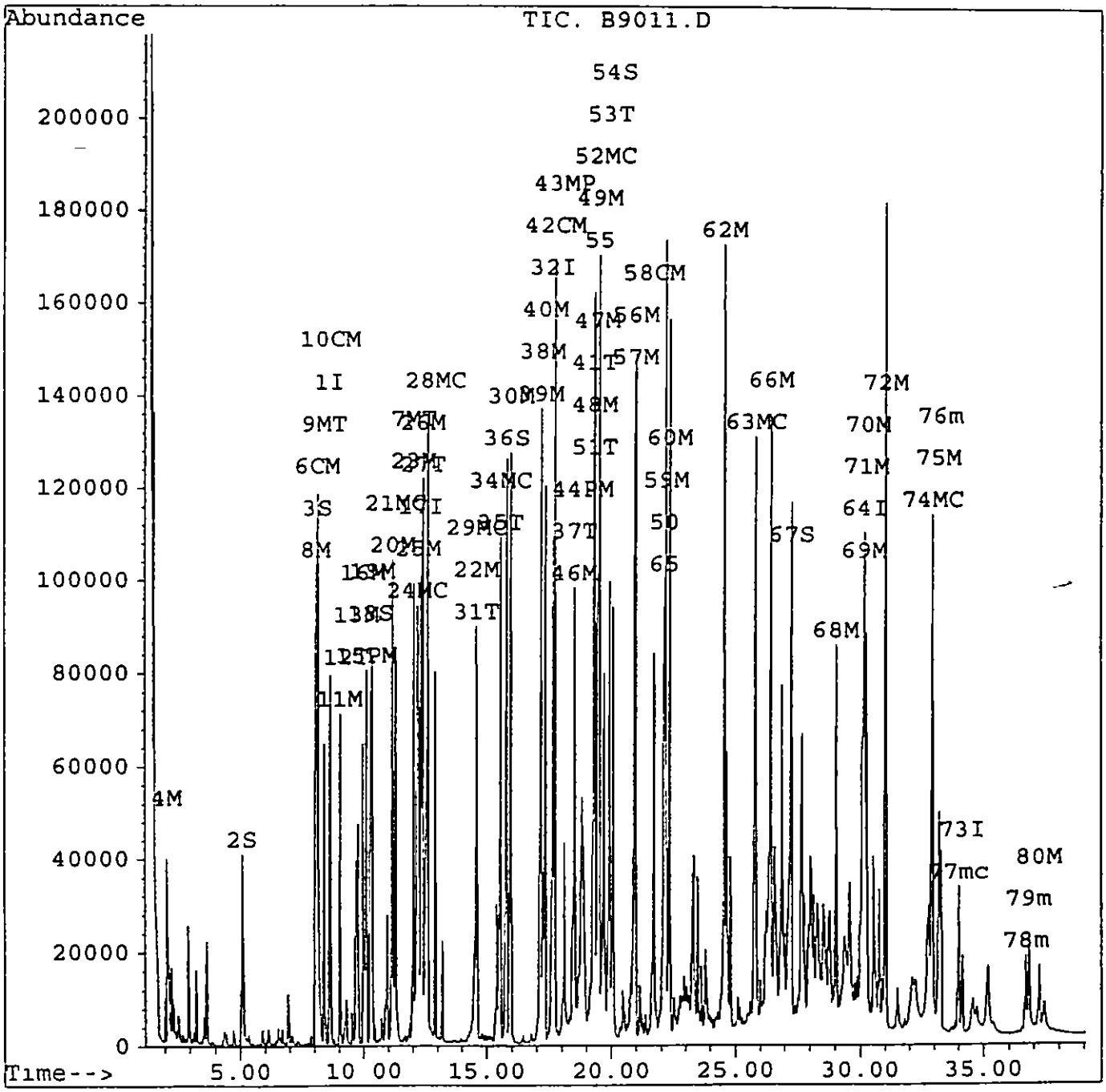
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File · c \hpchem\1\data2\b9011.d
Acq On 27 Oct 95 4 04 pm
Sample 46360MS .
Misc .
Quant Time· Oct 31 15 39 1995

Vial· 5
Operator: SCOTTV
Converted from RTE d Inst ABNA
BT Multiplr: 1.00

Method · c \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update · Wed Oct 25 10.20 51 1995
Response via · Multiple Level Calibration



Quantitation Report

282

Data File c \hpchem\1\data2\b9012 d Vial: 6
Acq On 27 Oct 95 4 56 pm Operator. SCOTTV
Sample . 46360MSD ... Converted from RTE d Inst ABNA
Misc BT Multiplr 1.00
Quant Time Oct 31 15 38 1995

Method c·\HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Wed Oct 25 10:20:51 1995
Response via . Multiple Level Calibration

Internal Standards	R T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.60	152	25002	40.00	ug/mL	-0.09
17) Naphthalene-d8	12 34	136	97241	40.00	ug/mL	-0.09
32) Acenaphthene-d10	17.64	164	55587	40.00	ug/mL	-0.09
50) Phenanthrene-d10	22.13	188	77102	40 00	ug/ml	-0.10
64) Chrysene-d12	30.19	240	28509	40.00	ug/mL	-0.10
73) Perylene-d12	34.15	264	10719	40.00	ug/mL	-0.09
System Monitoring Compounds						%Recovery
2) 2-Fluorophenol	5.07	112	41071	51.53	ug/mL	51.53%
3) Phenol-d5	8.10	99	86409	66.82	ug/mL	66.82%
18) Nitrobenzene-d5	10.29	82	67083	50.90	ug/mL	50.90%
36) 2-Fluorobiphenyl	15.81	172	95217	56.16	ug/mL	56.16%
54) 2,4,6-Tribromophenol	20.10	330	21999	90.11	ug/mL	90.11%
67) Terphenyl-d14	27.29	244	85795	121.15	ug/mL	121.15%
Target Compounds						Qvalue
4) N-nitrosodimethylamine	2.10	74	27505	49.59	ug/ml	100
6) Phenol	8.13	94	71763	59.15	ug/mL	100
7) bis(2-Chloroethyl)ether	12.03	93	75257	50.75	ug/mL	97
8) 2-Chlorophenol	8.06	128	44078	52.91	ug/mL#	84
9) 1,3-Dichlorobenzene	8.39	146	37044	43.35	ug/mL	96
10) 1,4-Dichlorobenzene	8.66	146	38620	44.66	ug/mL	97
11) 1,2-Dichlorobenzene	9.04	146	37641	44.70	ug/mL	97
12) 2-Methylphenol	9.29	108	5280	6.60	ug/mL	56
13) bis(2-chloroisopropyl)ethe	9.72	45	100159	71.72	ug/mL	100
15) N-Nitroso-Di-n-propylamine	10.12	70	44456	46.55	ug/mL#	97
16) Hexachloroethane	9.99	117	22213	40.93	ug/mL#	69
19) Nitrobenzene	10.35	77	59971	47.52	ug/mL	88
20) Isophorone	11.18	82	119927	44.79	ug/mL#	92
21) 2-Nitrophenol	11.30	139	29087	50.01	ug/mL#	93
22) 2,4-Dimethylphenol	14.61	107	78542	83.54	ug/mLm	100
23) bis(2-Chloroethoxy)methane	12.03	93	75257	51.34	ug/mL#	100
24) 2,4-Dichlorophenol	12.18	162	55427	77.20	ug/mL#	92
25) 1,2,4-Trichlorobenzene	12.22	180	33976	45.93	ug/mL	94
26) Naphthalene	12.40	128	117900	48 34	ug/mL	99
27) 4-Chloroaniline	12.40	127	14859	12.99	ug/mL#	9
28) Hexachlorobutadiene	12.90	225	18787	48.44	ug/mL	98
29) 4-Chloro-3-methylphenol	14.61	107	78226	82.88	ug/mL	88
30) 2-Chloronaphthalene	15.96	162	94046	60.99	ug/mlm	100
31) 2-Methylnaphthalene	14.61	142	56412	26.68	ug/mL#	16
34) 2,4,6-Trichlorophenol	15.58	196	43455	73.41	ug/mL	96
35) 2,4,5-Trichlorophenol	15.58	196	43455	90.04	ug/mL	96
37) 2-Nitroaniline	18.53	65	5027	4.62	ug/mL#	36
38) Dimethylphthalate	17.26	163	21488	11 30	ug/mL#	14

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

Quantitation Report

Data File c \hpchem\1\data2\b9012.d Vial· 6
Acq On 27 Oct 95 4.56 pm Operator· SCOTTV
Sample 46360MSD Converted from RTE d Inst ABNA
Misc BT Multiplr 1 00
Quant Time Oct 31 15:38 1995

Method c \HPCHEM\1\METHODS\BNACLP M
Title CLP BNA Calibration
Last Update Wed Oct 25 10.20 51 1995
Response via Multiple Level Calibration

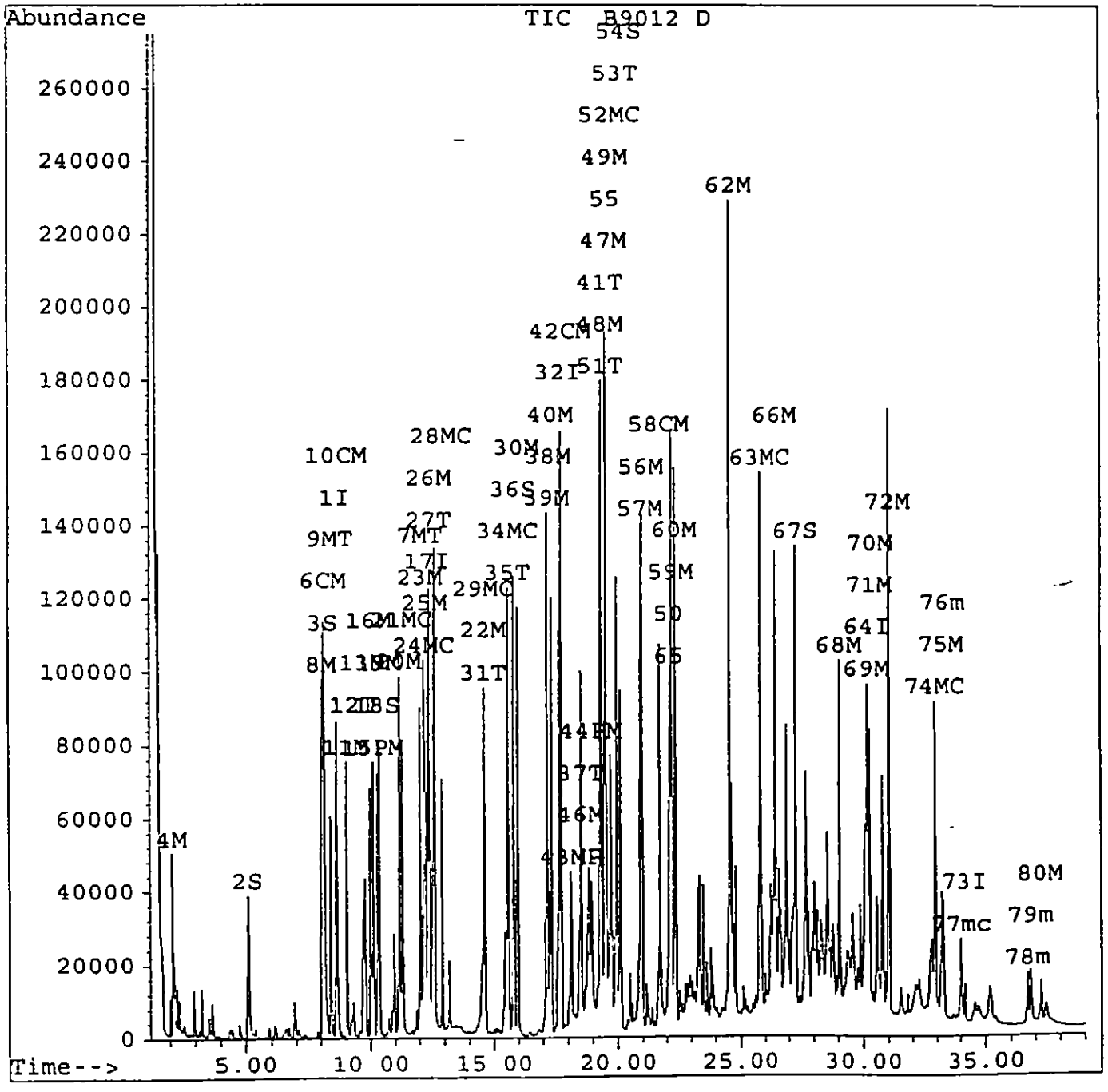
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Acenaphthylene	17.18	152	157682	63.01 ug/mL	98
40)	2,6-Dinitrotoluene	17.35	165	42117	98.54 ug/mL#	93
41)	3-Nitroaniline	19.34	138	1555	3.27 ug/mL#	19
42)	Acenaphthene	17.74	153	104941	74 04 ug/mL	98
43)	2,4-Dinitrophenol	18.13	184	17570	60.29 ug/mL#	82
44)	4-Nitrophenol	18.96	109	16471	52.01 ug/mL#	60
46)	2,4-Dinitrotoluene	18.53	165	52140	82.92 ug/mL#	1
47)	Diethylphthalate	19.48	149	43087	19.93 ug/mL#	93
48)	Fluorene	19.34	166	134877	83.15 ug/mL	99
49)	4-Chlorophenyl-phenylether	19.54	204	56911	80.50 ug/mL#	86
51)	4-Nitroaniline	19.34	138	1555	3.50 ug/mL#	19
52)	4,6-Dinitro-2-methylphenol	19.73	198	24840	86.90 ug/mL	100
53)	n-Nitrosodiphenylamine	19.96	169	73730	70.51 ug/mL	94
55)	1,2-Diphenylhydrazine (as	19.54	77	71856	20.89 ug/ml	100
56)	4-Bromophenyl-phenylether	20.99	248	32240	89.43 ug/mL#	90
57)	Hexachlorobenzene	20.95	284	40163	87.81 ug/mL#	46
58)	Pentachlorophenol	21.72	266	25232	80.54 ug/mL	99
59)	Phenanthrene	22.20	178	196854	93.95 ug/mL	99
60)	Anthracene	22.36	178	162894	79 16 ug/mLm	99
62)	Di-n-butylphthalate	24.56	149	227050	58.57 ug/mLm	98
63)	Fluoranthene	25.82	202	157448	74.79 ug/mL#	68
65)	Benzidine	22.13	184	12053	61.83 ug/ml	100
66)	Pyrene	26.44	202	114720	100.58 ug/mLm	73
68)	Butylbenzylphthalate	29.07	149	57991	65.35 ug/mLm	1
69)	Benzo[a]anthracene	30.17	228	89943	88.30 ug/mL	98
70)	3,3'-Dichlorobenzidine	30.33	252	3072	11.16 ug/mL#	89
71)	Chrysene	30.27	228	56444	92.44 ug/mLm	98
72)	bis(2-Ethylhexyl)phthalate	31.04	149	127927	100.58 ug/mL#	36
74)	Di-n-octylphthalate	32.93	149	132028	86.56 ug/mL#	100
75)	Benzo[b]fluoranthene	33.20	252	46610	89.08 ug/mL#	86
76)	Benzo[k]fluoranthene	33.28	252	23877	76.66 ug/mLm	86
77)	Benzo[a]pyrene	34.02	252	25611	88.39 ug/mLm	86
78)	Indeno[1,2,3-cd]pyrene	36.70	276	14190	94.34 ug/mL#	28
79)	Dibenz[a,h]anthracene	36.81	278	12632	85.92 ug/mL#	72
80)	Benzo[g,h,i]perylene	37.22	276	11729	85.89 ug/mLm	61

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

Quantitation Report

Data File c \hpchem\1\data2\b9012 d Vial. 6
Acq On 27 Oct 95 4 56 pm Operator: SCOTTV
Sample 46360MSD Converted from RTE d Inst · ABNA
Misc BT Multiplr 1 00
Quant Time Oct 31 15 38 1995

Method c:\HPCHEM\1\METHODS\BNACLP.M
Title CLP BNA Calibration
Last Update Wed Oct 25 10 20:51 1995
Response via Multiple Level Calibration



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.

Paul Jarara

Laboratory Manager (as defined in N.J.A.C. 7:18)