COMPUCHEM
a division of Liberty Analytical Corp.

January 24, 2002

JOHN JOHNSON
ESC
11911 FREEDOM DRIVE
SUITE 900
RESTON, VA 20190

Subject:
Report of Data – Project: EMERSON AVA, MO Quote #: Q1877 SDG #: QR1877

Attn.: JOHN JOHNSON

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers sample(s) appearing on the attached listing.

Thank you for selecting CompuChem for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097.

Sincerely,

Cathy Dorey

CompuChem
A Division of Liberty Analytical

Attachment

SAMPLENUM	CLIENTID	QUOTENUMREF	LOGINNUM	MATNUM	ACCTNUM	PROJECTNUM	RECEIVEDATE
QR1877-1	INF-01	Q1877	QR1877	WA	ESC	EMERSON AVA, MO	1/16/02
QR1877-3	SS-1	Q1877	QR1877	WA	ESC	EMERSON AVA, MO	1/17/02
QR1877-4	SS-2	Q1877	QR1877	WA	ESC	EMERSON AVA, MO	1/17/02
QR1877-5	SS-3	Q1877	QR1877	WA	ESC	EMERSON AVA, MO	1/17/02
QR1877-6	SS-5	Q1877	QR1877	WA	ESC	EMERSON AVA, MO	1/17/02
QR1877-2	TB011502	Q1877	QR1877	WA	ESC	EMERSON AVA, MO	1/16/02
QR1877-7	TRIPBLANK	Q1877	QR1877	WA	ESC	EMERSON AVA, MO	1/17/02

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA SUMMARY PACKAGE

GC/MS by SW-846

The sample data summary package shall contain data for all samples in one Sample Delivery Group (SDG) of the Case, as follows:

A. SDG Narrative

B. Tabulated target compound results (Form I)
Tentatively identified compounds (Form I, TIC)
In order by sample

C. Surrogate spike analysis results (Form II)
By matrix (Water or Soil), and
by concentration (Low, Medium, or High)

D. Spike results MS / MSD / LCS (Form III)

E. Blank data (Form IV)
Tabulated blank results (Form I)
Tentatively identified compounds (Form I, TIC)

F. Internal standard area response and retention time data (Form VIII)

LAB CODE: LIBRTY

METHOD: 8270C

SDG #: QR1877

A. SDG Narrative

COMPUCHEM
A division of Liberty Analytical Corporation
501 MADISON AVE.
CARY, NC 27513
(919) 379-4100

SDG NARRATIVE

SDG #QR1877
PROTOCOL : SW-846
METHOD : 8270C

SAMPLE IDENTIFICATIONS:

INF-01 **SS-1** **SS-2** **SS-3** **SS-5**

The five (5) water samples listed above were received intact, properly refrigerated, with proper documentation, in sealed shipping containers, on January 16 and 17, 2002. The samples were scheduled for the requested analyses of the semivolatile fractions. SW-846, 3rd Edition, Update 3, Separatory Funnel Extraction (Method 3510C) and Method 8270C were used to prepare and analyze these samples, with the exceptions and/or additions requested by the client.

All pertinent Quality Assurance Notices are included in the narrative section, and all pertinent Laboratory Notices are included in the sample data sections.

SEMIVOLATILE
Extraction and analysis holding time requirements were met for all of these samples. 500 mL of raw sample were used to extract SS-1, rather than the method-specified amount of 1000 mL. The extract was concentrated to a final volume half that of the method-specified volume, and therefore no effective dilution was performed during the extraction procedure. More than the method-specified amount of raw sample was used for the extractions of the four remaining samples. The higher sample volume yielded slightly lower detection limits for the samples.

One semivolatile target analyte, pentachlorophenol was identified above the Quantitation Limits (QL) in three of these samples.

Manual quantitations were performed on one or more of the process files associated with the samples in this SDG. The reasons have been coded with explanations provided in the notice included in the narrative section of the SDG.

QC SUMMARY
All decafluorotriphenylphosphine (DFTPP) abundance criteria were met for tunes associated to this SDG. Tailing factor criteria were met for pentachlorophenol and benzidine. The breakdown criterion was met for DDT. These three compounds have been added to the DFTPP solution and analyzed together. Overall QC criteria were met for all initial and continuing calibration standards associated to this SDG.

The surrogates met recovery criteria in the analyses of these samples. The internal standards met response and retention time criteria in the analyses of these samples.

SS-3 was used as the original to prepare the duplicate matrix spikes. The duplicate matrix spikes met accuracy and precision criteria. The associated Laboratory Control Sample (LCS) met all accuracy criteria.

The associated method blank met all quality control criteria.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted electronically has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Patricia B Hopkins

Patricia B. Hopkins
Data Analyst II
24 January 2002

Laboratory Notice

Initial Calibration Date(s): January 17, 2002

Instrument Identifier: 5972hp66.i

An initial calibration was analyzed by Method 8270C. Per the methodology, all compounds are to meet a Percent Relative Standard Deviation (%RSD) limit of no more than 15%. Additional calibration options are provided in the method when the RSD exceeds 15%. CompuChem has chosen to apply the option of determining the mean RSD values for all analytes in the calibration.

When there are analytes with %RSDs greater than the limit, proof of calibration linearity can be shown if the average of all compounds in the initial calibration meet the same 15% limit. Based on Method 8000B, Revision 2 requirements described in Sections 7.5.1.2 and 7.5.1.2.3, we are providing a list of the compounds which failed to meet the limit, and their associated %RSDs. Finally the average of all %RSDs from all compounds in the initial calibration is shown, confirming the usability of the initial calibration and any data that follows it.

Benzaldehyde	24.8	hexachlorocyclopentadiene	28.3	atrazine	65.2
Benzidine	17.9				

Average %RSD for all compounds in the Initial Calibration: 8.68 %

Data Reviewer/ID# [signature] /624

Date January 18, 2002

GC and GC/MS Column and Trap Specifications Table

COLUMNS

Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
GC Laboratory				
Restek	RTX-1701	0.53	0.5	30
J & W	DB-608	0.53	0.83	30
Restek	CLPesticides	0.53	0.5	30
Restek	CLPesticides II	0.53	0.42	30
GC Volatiles Laboratory				
Restek	RTX-1	0.53	0.5	105
Restek	RTX-502.2	0.53	0.5	105
GC/MS Volatiles Laboratory				
J & W	DB-624	0.53	3.0	30/75
J & W	DB-624	0.25	1.4	60
J & W	DB-624	0.32	1.8	60
Restek	RTX-624	0.32	1.8	60
Supelco	SPB-624	0.32	1.4	60
Supelco	Equity™-624	0.53	3.00	75.00
Zebron	ZB-624	0.32	1.8	60
GC/MS Semivolatiles Laboratory				
Zebron	ZB-5MS	0.25	0.3	30
J & W	DB-5.625	0.32	1.0	30
J & W	DB5-MS	0.25	0.25	30
Hewlett Packard	HP5-MS	0.25	0.25	30
Optima	5-MS	0.25	0.25	30
Restek	RTX-5	0.32	1.00	30
Restek	RTX-5MS	0.25	0.25	30

TRAPS

GC and GC/MS Volatiles Laboratory	
Tekmar 3	* 8 cm of 2,6-diphenylene oxide polymer (Tenax) * 8 cm of silica gel * 7 cm of coconut charcoal * 0.5 cm of silanized glass wool at each end
Tekmar 5	* 1 cm of methyl silicone packing (OV-1 coating) * 8 cm of 2,6-diphenylene oxide polymer (Tenax) * 8 cm of silica gel * 7 cm of coconut charcoal * 0.5 cm of silanized glass wool at each end
Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons) * 6 cm of Carboxen 1000 (Carbon molecular sieves) * 1 cm of Carboxen 1001 (Carbon molecular sieves)

CompuChem

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CompuChem's Pagination Convention

As required by the current EPA CLP Statement of Work (SOW) (Document Number OLM04.0, plus revisions), data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add in an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These adjustments are performed by the data reviewer, GC/MS operator, or GC chemist. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration of each compound to demonstrate the accuracy of that process. Adjustments are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count as possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that the data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW requires additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC data packages.

Robert E. Meierer
Vice President

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue.

DATA REPORTING QUALIFIERS (continued)

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Form Is are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form I.

A : This flag indicates that a TIC is a suspected aldol-condensation product.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

B. Form I and Form I - TIC

Organic Analysis Data Sheet (OADS) and
Tentatively Identified Compounds (TICs)
- All samples in alphanumeric order
- Matrix Spike/Matrix Spike Duplicate
- Laboratory Control Sample(s)

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
INF-01

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-1

Sample wt/vol: 1100 (g/mL) ML Lab File ID: QR1877-1A66

Level: (low/med) LOW Date Received: 01/16/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	9	U
111-44-4	Bis(2-chloroethyl)ether	9	U
95-57-8	2-Chlorophenol	9	U
541-73-1	1,3-Dichlorobenzene	9	U
106-46-7	1,4-Dichlorobenzene	9	U
95-50-1	1,2-Dichlorobenzene	9	U
95-48-7	2-Methylphenol	9	U
108-60-1	2,2'-oxybis(1-Chloropropane)	9	U
106-44-5	4-Methylphenol	9	U
621-64-7	N-Nitroso-di-N-propylamine	9	U
67-72-1	Hexachloroethane	9	U
98-95-3	Nitrobenzene	9	U
78-59-1	Isophorone	9	U
88-75-5	2-Nitrophenol	9	U
105-67-9	2,4-Dimethylphenol	8	J
111-91-1	Bis(2-chloroethoxy)methane	9	U
120-83-2	2,4-Dichlorophenol	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
91-20-3	Naphthalene	9	U
106-47-8	4-Chloroaniline	9	U
87-68-3	Hexachlorobutadiene	9	U
59-50-7	4-Chloro-3-methylphenol	9	U
91-57-6	2-Methylnaphthalene	9	U
77-47-4	Hexachlorocyclopentadiene	9	U
88-06-2	2,4,6-Trichlorophenol	9	U
95-95-4	2,4,5-Trichlorophenol	9	U
91-58-7	2-Chloronaphthalene	9	U
88-74-4	2-Nitroaniline	18	U
131-11-3	Dimethylphthalate	9	U
606-20-2	2,6-Dinitrotoluene	9	U
208-96-8	Acenaphthylene	9	U
99-09-2	3-Nitroaniline	18	U
83-32-9	Acenaphthene	9	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

INF-01

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-1

Sample wt/vol: 1100 (g/mL) ML Lab File ID: QR1877-1A66

Level: (low/med) LOW Date Received: 01/16/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
51-28-5	2,4-Dinitrophenol	45	U
100-02-7	4-Nitrophenol	18	U
121-14-2	2,4-Dinitrotoluene	9	U
132-64-9	Dibenzofuran	9	U
84-66-2	Diethylphthalate	9	U
7005-72-3	4-Chlorophenyl-phenylether	9	U
86-73-7	Fluorene	9	U
100-01-6	4-Nitroaniline	18	U
534-52-1	4,6-Dinitro-2-methylphenol	18	U
86-30-6	N-Nitrosodiphenylamine (1)	9	U
101-55-3	4-Bromophenyl-phenylether	9	U
118-74-1	Hexachlorobenzene	9	U
87-86-5	Pentachlorophenol	18	U
85-01-8	Phenanthrene	9	U
120-12-7	Anthracene	9	U
86-74-8	Carbazole	9	U
84-74-2	Di-n-butylphthalate	9	U
206-44-0	Fluoranthene	9	U
129-00-0	Pyrene	9	U
85-68-7	Butylbenzylphthalate	9	U
91-94-1	3,3'-Dichlorobenzidine	18	U
117-81-7	bis(2-ethylhexyl)Phthalate	9	U
56-55-3	Benzo(a)anthracene	9	U
218-01-9	Chrysene	9	U
117-84-0	Di-n-octylphthalate	9	U
205-99-2	Benzo(b)fluoranthene	9	U
207-08-9	Benzo(k)fluoranthene	9	U
50-32-8	Benzo(a)pyrene	9	U
193-39-5	Indeno(1,2,3-cd)pyrene	9	U
53-70-3	Dibenzo(a,h)anthracene	9	U
191-24-2	Benzo(g,h,i)perylene	9	U

(1) - Cannot be separated from Diphenylamine

FORM 1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-1

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-3

Sample wt/vol: 500 (g/mL) ML Lab File ID: QR1877-3A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 500(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	10	U
111-44-4	Bis(2-chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	10	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-1

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-3

Sample wt/vol: 500 (g/mL) ML Lab File ID: QR1877-3A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 500(uL) Date Analyzed: 01/20/02

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
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	20	U
121-14-2	2,4-Dinitrotoluene	10	U
132-64-9	Dibenzofuran	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	55	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
117-81-7	bis(2-ethylhexyl)Phthalate	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-2

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-4

Sample wt/vol: 1100 (g/mL) ML Lab File ID: QR1877-4A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	9	U
111-44-4	Bis(2-chloroethyl)ether	9	U
95-57-8	2-Chlorophenol	9	U
541-73-1	1,3-Dichlorobenzene	9	U
106-46-7	1,4-Dichlorobenzene	9	U
95-50-1	1,2-Dichlorobenzene	9	U
95-48-7	2-Methylphenol	9	U
108-60-1	2,2'-oxybis(1-Chloropropane)	9	U
106-44-5	4-Methylphenol	9	U
621-64-7	N-Nitroso-di-N-propylamine	9	U
67-72-1	Hexachloroethane	9	U
98-95-3	Nitrobenzene	9	U
78-59-1	Isophorone	9	U
88-75-5	2-Nitrophenol	9	U
105-67-9	2,4-Dimethylphenol	2	J
111-91-1	Bis(2-chloroethoxy)methane	9	U
120-83-2	2,4-Dichlorophenol	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
91-20-3	Naphthalene	9	U
106-47-8	4-Chloroaniline	9	U
87-68-3	Hexachlorobutadiene	9	U
59-50-7	4-Chloro-3-methylphenol	9	U
91-57-6	2-Methylnaphthalene	9	U
77-47-4	Hexachlorocyclopentadiene	9	U
88-06-2	2,4,6-Trichlorophenol	9	U
95-95-4	2,4,5-Trichlorophenol	9	U
91-58-7	2-Chloronaphthalene	9	U
88-74-4	2-Nitroaniline	18	U
131-11-3	Dimethylphthalate	9	U
606-20-2	2,6-Dinitrotoluene	9	U
208-96-8	Acenaphthylene	9	U
99-09-2	3-Nitroaniline	18	U
83-32-9	Acenaphthene	9	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-2

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-4

Sample wt/vol: 1100 (g/mL) ML Lab File ID: QR1877-4A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
51-28-5	2,4-Dinitrophenol	45	U
100-02-7	4-Nitrophenol	18	U
121-14-2	2,4-Dinitrotoluene	9	U
132-64-9	Dibenzofuran	9	U
84-66-2	Diethylphthalate	9	U
7005-72-3	4-Chlorophenyl-phenylether	9	U
86-73-7	Fluorene	9	U
100-01-6	4-Nitroaniline	18	U
534-52-1	4,6-Dinitro-2-methylphenol	18	U
86-30-6	N-Nitrosodiphenylamine (1)	9	U
101-55-3	4-Bromophenyl-phenylether	9	U
118-74-1	Hexachlorobenzene	9	U
87-86-5	Pentachlorophenol	38	
85-01-8	Phenanthrene	9	U
120-12-7	Anthracene	9	U
86-74-8	Carbazole	9	U
84-74-2	Di-n-butylphthalate	9	U
206-44-0	Fluoranthene	9	U
129-00-0	Pyrene	9	U
85-68-7	Butylbenzylphthalate	9	U
91-94-1	3,3'-Dichlorobenzidine	18	U
117-81-7	bis(2-ethylhexyl)Phthalate	9	U
56-55-3	Benzo(a)anthracene	9	U
218-01-9	Chrysene	9	U
117-84-0	Di-n-octylphthalate	9	U
205-99-2	Benzo(b)fluoranthene	9	U
207-08-9	Benzo(k)fluoranthene	9	U
50-32-8	Benzo(a)pyrene	9	U
193-39-5	Indeno(1,2,3-cd)pyrene	9	U
53-70-3	Dibenzo(a,h)anthracene	9	U
191-24-2	Benzo(g,h,i)perylene	9	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-3

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-5

Sample wt/vol: 1100 (g/mL) ML Lab File ID: QR1877-5A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	9	U
111-44-4	Bis(2-chloroethyl)ether	9	U
95-57-8	2-Chlorophenol	9	U
541-73-1	1,3-Dichlorobenzene	9	U
106-46-7	1,4-Dichlorobenzene	9	U
95-50-1	1,2-Dichlorobenzene	9	U
95-48-7	2-Methylphenol	9	U
108-60-1	2,2'-oxybis(1-Chloropropane)	9	U
106-44-5	4-Methylphenol	9	U
621-64-7	N-Nitroso-di-N-propylamine	9	U
67-72-1	Hexachloroethane	9	U
98-95-3	Nitrobenzene	9	U
78-59-1	Isophorone	9	U
88-75-5	2-Nitrophenol	9	U
105-67-9	2,4-Dimethylphenol	2	J
111-91-1	Bis(2-chloroethoxy)methane	9	U
120-83-2	2,4-Dichlorophenol	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
91-20-3	Naphthalene	9	U
106-47-8	4-Chloroaniline	9	U
87-68-3	Hexachlorobutadiene	9	U
59-50-7	4-Chloro-3-methylphenol	9	U
91-57-6	2-Methylnaphthalene	9	U
77-47-4	Hexachlorocyclopentadiene	9	U
88-06-2	2,4,6-Trichlorophenol	9	U
95-95-4	2,4,5-Trichlorophenol	9	U
91-58-7	2-Chloronaphthalene	9	U
88-74-4	2-Nitroaniline	18	U
131-11-3	Dimethylphthalate	9	U
606-20-2	2,6-Dinitrotoluene	9	U
208-96-8	Acenaphthylene	9	U
99-09-2	3-Nitroaniline	18	U
83-32-9	Acenaphthene	9	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-3

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-5

Sample wt/vol: 1100 (g/mL) ML Lab File ID: QR1877-5A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
51-28-5	2,4-Dinitrophenol	45	U
100-02-7	4-Nitrophenol	18	U
121-14-2	2,4-Dinitrotoluene	9	U
132-64-9	Dibenzofuran	9	U
84-66-2	Diethylphthalate	9	U
7005-72-3	4-Chlorophenyl-phenylether	9	U
86-73-7	Fluorene	9	U
100-01-6	4-Nitroaniline	18	U
534-52-1	4,6-Dinitro-2-methylphenol	18	U
86-30-6	N-Nitrosodiphenylamine (1)	9	U
101-55-3	4-Bromophenyl-phenylether	9	U
118-74-1	Hexachlorobenzene	9	U
87-86-5	Pentachlorophenol	8	J
85-01-8	Phenanthrene	9	U
120-12-7	Anthracene	9	U
86-74-8	Carbazole	9	U
84-74-2	Di-n-butylphthalate	9	U
206-44-0	Fluoranthene	9	U
129-00-0	Pyrene	9	U
85-68-7	Butylbenzylphthalate	9	U
91-94-1	3,3'-Dichlorobenzidine	18	U
117-81-7	bis(2-ethylhexyl)Phthalate	9	U
56-55-3	Benzo(a)anthracene	9	U
218-01-9	Chrysene	9	U
117-84-0	Di-n-octylphthalate	9	U
205-99-2	Benzo(b)fluoranthene	9	U
207-08-9	Benzo(k)fluoranthene	9	U
50-32-8	Benzo(a)pyrene	9	U
193-39-5	Indeno(1,2,3-cd)pyrene	9	U
53-70-3	Dibenzo(a,h)anthracene	9	U
191-24-2	Benzo(g,h,i)perylene	9	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-5

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-6

Sample wt/vol: 1100 (g/mL) ML Lab File ID: QR1877-6A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	9	U
111-44-4	Bis(2-chloroethyl)ether	9	U
95-57-8	2-Chlorophenol	9	U
541-73-1	1,3-Dichlorobenzene	9	U
106-46-7	1,4-Dichlorobenzene	9	U
95-50-1	1,2-Dichlorobenzene	9	U
95-48-7	2-Methylphenol	9	U
108-60-1	2,2'-oxybis(1-Chloropropane)	9	U
106-44-5	4-Methylphenol	9	U
621-64-7	N-Nitroso-di-N-propylamine	9	U
67-72-1	Hexachloroethane	9	U
98-95-3	Nitrobenzene	9	U
78-59-1	Isophorone	9	U
88-75-5	2-Nitrophenol	9	U
105-67-9	2,4-Dimethylphenol	9	U
111-91-1	Bis(2-chloroethoxy)methane	9	U
120-83-2	2,4-Dichlorophenol	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
91-20-3	Naphthalene	9	U
106-47-8	4-Chloroaniline	9	U
87-68-3	Hexachlorobutadiene	9	U
59-50-7	4-Chloro-3-methylphenol	9	U
91-57-6	2-Methylnaphthalene	9	U
77-47-4	Hexachlorocyclopentadiene	9	U
88-06-2	2,4,6-Trichlorophenol	9	U
95-95-4	2,4,5-Trichlorophenol	9	U
91-58-7	2-Chloronaphthalene	9	U
88-74-4	2-Nitroaniline	18	U
131-11-3	Dimethylphthalate	9	U
606-20-2	2,6-Dinitrotoluene	9	U
208-96-8	Acenaphthylene	9	U
99-09-2	3-Nitroaniline	18	U
83-32-9	Acenaphthene	9	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-5

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-6

Sample wt/vol: 1100 (g/mL) ML Lab File ID: QR1877-6A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
51-28-5	2,4-Dinitrophenol	45	U
100-02-7	4-Nitrophenol	18	U
121-14-2	2,4-Dinitrotoluene	9	U
132-64-9	Dibenzofuran	9	U
84-66-2	Diethylphthalate	9	U
7005-72-3	4-Chlorophenyl-phenylether	9	U
86-73-7	Fluorene	9	U
100-01-6	4-Nitroaniline	18	U
534-52-1	4,6-Dinitro-2-methylphenol	18	U
86-30-6	N-Nitrosodiphenylamine (1)	9	U
101-55-3	4-Bromophenyl-phenylether	9	U
118-74-1	Hexachlorobenzene	9	U
87-86-5	Pentachlorophenol	67	
85-01-8	Phenanthrene	9	U
120-12-7	Anthracene	9	U
86-74-8	Carbazole	9	U
84-74-2	Di-n-butylphthalate	9	U
206-44-0	Fluoranthene	9	U
129-00-0	Pyrene	9	U
85-68-7	Butylbenzylphthalate	9	U
91-94-1	3,3'-Dichlorobenzidine	18	U
117-81-7	bis(2-ethylhexyl)Phthalate	9	U
56-55-3	Benzo(a)anthracene	9	U
218-01-9	Chrysene	9	U
117-84-0	Di-n-octylphthalate	9	U
205-99-2	Benzo(b)fluoranthene	9	U
207-08-9	Benzo(k)fluoranthene	9	U
50-32-8	Benzo(a)pyrene	9	U
193-39-5	Indeno(1,2,3-cd)pyrene	9	U
53-70-3	Dibenzo(a,h)anthracene	9	U
191-24-2	Benzo(g,h,i)perylene	9	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-3MS

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: WG15377-3

Sample wt/vol: 1100 (g/mL) ML Lab File ID: WG15377-3A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	28	
111-44-4	Bis(2-chloroethyl)ether	43	
95-57-8	2-Chlorophenol	60	
541-73-1	1,3-Dichlorobenzene	45	
106-46-7	1,4-Dichlorobenzene	47	
95-50-1	1,2-Dichlorobenzene	49	
95-48-7	2-Methylphenol	50	
108-60-1	2,2'-oxybis(1-Chloropropane)	47	
106-44-5	4-Methylphenol	80	
621-64-7	N-Nitroso-di-N-propylamine	50	
67-72-1	Hexachloroethane	49	
98-95-3	Nitrobenzene	52	
78-59-1	Isophorone	50	
88-75-5	2-Nitrophenol	68	
105-67-9	2,4-Dimethylphenol	63	
111-91-1	Bis(2-chloroethoxy)methane	59	
120-83-2	2,4-Dichlorophenol	74	
120-82-1	1,2,4-Trichlorobenzene	55	
91-20-3	Naphthalene	55	
106-47-8	4-Chloroaniline	51	
87-68-3	Hexachlorobutadiene	52	
59-50-7	4-Chloro-3-methylphenol	72	
91-57-6	2-Methylnaphthalene	54	
77-47-4	Hexachlorocyclopentadiene	59	
88-06-2	2,4,6-Trichlorophenol	77	
95-95-4	2,4,5-Trichlorophenol	77	
91-58-7	2-Chloronaphthalene	55	
88-74-4	2-Nitroaniline	55	
131-11-3	Dimethylphthalate	59	
606-20-2	2,6-Dinitrotoluene	56	
208-96-8	Acenaphthylene	55	
99-09-2	3-Nitroaniline	55	
83-32-9	Acenaphthene	62	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-3MS

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: WG15377-3

Sample wt/vol: 1100 (g/mL) ML Lab File ID: WG15377-3A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
51-28-5	2,4-Dinitrophenol	71	
100-02-7	4-Nitrophenol	25	
121-14-2	2,4-Dinitrotoluene	58	
132-64-9	Dibenzofuran	58	
84-66-2	Diethylphthalate	59	
7005-72-3	4-Chlorophenyl-phenylether	58	
86-73-7	Fluorene	59	
100-01-6	4-Nitroaniline	50	
534-52-1	4,6-Dinitro-2-methylphenol	68	
86-30-6	N-Nitrosodiphenylamine (1)	58	
101-55-3	4-Bromophenyl-phenylether	60	
118-74-1	Hexachlorobenzene	65	
87-86-5	Pentachlorophenol	89	
85-01-8	Phenanthrene	62	
120-12-7	Anthracene	62	
86-74-8	Carbazole	62	
84-74-2	Di-n-butylphthalate	60	
206-44-0	Fluoranthene	63	
129-00-0	Pyrene	54	
85-68-7	Butylbenzylphthalate	63	
91-94-1	3,3'-Dichlorobenzidine	39	
117-81-7	bis(2-ethylhexyl)Phthalate	55	
56-55-3	Benzo(a)anthracene	57	
218-01-9	Chrysene	54	
117-84-0	Di-n-octylphthalate	56	
205-99-2	Benzo(b)fluoranthene	59	
207-08-9	Benzo(k)fluoranthene	58	
50-32-8	Benzo(a)pyrene	57	
193-39-5	Indeno(1,2,3-cd)pyrene	54	
53-70-3	Dibenzo(a,h)anthracene	59	
191-24-2	Benzo(g,h,i)perylene	58	

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-3MSD

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: WG15377-4

Sample wt/vol: 1100 (g/mL) ML Lab File ID: WG15377-4A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	36	
111-44-4	Bis(2-chloroethyl)ether	57	
95-57-8	2-Chlorophenol	66	
541-73-1	1,3-Dichlorobenzene	54	
106-46-7	1,4-Dichlorobenzene	59	
95-50-1	1,2-Dichlorobenzene	55	
95-48-7	2-Methylphenol	62	
108-60-1	2,2'-oxybis(1-Chloropropane)	61	
106-44-5	4-Methylphenol	99	
621-64-7	N-Nitroso-di-N-propylamine	56	
67-72-1	Hexachloroethane	55	
98-95-3	Nitrobenzene	60	
78-59-1	Isophorone	61	
88-75-5	2-Nitrophenol	80	
105-67-9	2,4-Dimethylphenol	72	
111-91-1	Bis(2-chloroethoxy)methane	65	
120-83-2	2,4-Dichlorophenol	83	
120-82-1	1,2,4-Trichlorobenzene	63	
91-20-3	Naphthalene	60	
106-47-8	4-Chloroaniline	58	
87-68-3	Hexachlorobutadiene	62	
59-50-7	4-Chloro-3-methylphenol	83	
91-57-6	2-Methylnaphthalene	61	
77-47-4	Hexachlorocyclopentadiene	67	
88-06-2	2,4,6-Trichlorophenol	89	
95-95-4	2,4,5-Trichlorophenol	91	
91-58-7	2-Chloronaphthalene	64	
88-74-4	2-Nitroaniline	63	
131-11-3	Dimethylphthalate	69	
606-20-2	2,6-Dinitrotoluene	64	
208-96-8	Acenaphthylene	64	
99-09-2	3-Nitroaniline	64	
83-32-9	Acenaphthene	71	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-3MSD

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: WG15377-4

Sample wt/vol: 1100 (g/mL) ML Lab File ID: WG15377-4A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
51-28-5	2,4-Dinitrophenol	89	
100-02-7	4-Nitrophenol	34	
121-14-2	2,4-Dinitrotoluene	70	
132-64-9	Dibenzofuran	66	
84-66-2	Diethylphthalate	67	
7005-72-3	4-Chlorophenyl-phenylether	69	
86-73-7	Fluorene	67	
100-01-6	4-Nitroaniline	63	
534-52-1	4,6-Dinitro-2-methylphenol	84	
86-30-6	N-Nitrosodiphenylamine (1)	70	
101-55-3	4-Bromophenyl-phenylether	73	
118-74-1	Hexachlorobenzene	78	
87-86-5	Pentachlorophenol	110	
85-01-8	Phenanthrene	72	
120-12-7	Anthracene	74	
86-74-8	Carbazole	74	
84-74-2	Di-n-butylphthalate	74	
206-44-0	Fluoranthene	78	
129-00-0	Pyrene	66	
85-68-7	Butylbenzylphthalate	78	
91-94-1	3,3'-Dichlorobenzidine	47	
117-81-7	bis(2-ethylhexyl)Phthalate	66	
56-55-3	Benzo(a)anthracene	68	
218-01-9	Chrysene	66	
117-84-0	Di-n-octylphthalate	68	
205-99-2	Benzo(b)fluoranthene	70	
207-08-9	Benzo(k)fluoranthene	72	
50-32-8	Benzo(a)pyrene	69	
193-39-5	Indeno(1,2,3-cd)pyrene	68	
53-70-3	Dibenzo(a,h)anthracene	72	
191-24-2	Benzo(g,h,i)perylene	73	

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SSZLCS

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: WG15377-2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: WG15377-2A66

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	33	
111-44-4	Bis(2-chloroethyl)ether	55	
95-57-8	2-Chlorophenol	62	
541-73-1	1,3-Dichlorobenzene	50	
106-46-7	1,4-Dichlorobenzene	53	
95-50-1	1,2-Dichlorobenzene	50	
95-48-7	2-Methylphenol	64	
108-60-1	2,2'-oxybis(1-Chloropropane)	58	
106-44-5	4-Methylphenol	100	
621-64-7	N-Nitroso-di-N-propylamine	54	
67-72-1	Hexachloroethane	50	
98-95-3	Nitrobenzene	51	
78-59-1	Isophorone	56	
88-75-5	2-Nitrophenol	74	
105-67-9	2,4-Dimethylphenol	60	
111-91-1	Bis(2-chloroethoxy)methane	54	
120-83-2	2,4-Dichlorophenol	71	
120-82-1	1,2,4-Trichlorobenzene	57	
91-20-3	Naphthalene	56	
106-47-8	4-Chloroaniline	53	
87-68-3	Hexachlorobutadiene	54	
59-50-7	4-Chloro-3-methylphenol	66	
91-57-6	2-Methylnaphthalene	58	
77-47-4	Hexachlorocyclopentadiene	41	
88-06-2	2,4,6-Trichlorophenol	77	
95-95-4	2,4,5-Trichlorophenol	65	
91-58-7	2-Chloronaphthalene	52	
88-74-4	2-Nitroaniline	52	
131-11-3	Dimethylphthalate	56	
606-20-2	2,6-Dinitrotoluene	54	
208-96-8	Acenaphthylene	52	
99-09-2	3-Nitroaniline	52	
83-32-9	Acenaphthene	58	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SSZLCS

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: WG15377-2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: WG15377-2A66

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
51-28-5	2,4-Dinitrophenol	61	
100-02-7	4-Nitrophenol	26	
121-14-2	2,4-Dinitrotoluene	55	
132-64-9	Dibenzofuran	55	
84-66-2	Diethylphthalate	57	
7005-72-3	4-Chlorophenyl-phenylether	58	
86-73-7	Fluorene	55	
100-01-6	4-Nitroaniline	48	
534-52-1	4,6-Dinitro-2-methylphenol	64	
86-30-6	N-Nitrosodiphenylamine (1)	60	
101-55-3	4-Bromophenyl-phenylether	60	
118-74-1	Hexachlorobenzene	61	
87-86-5	Pentachlorophenol	73	
85-01-8	Phenanthrene	61	
120-12-7	Anthracene	60	
86-74-8	Carbazole	63	
84-74-2	Di-n-butylphthalate	63	
206-44-0	Fluoranthene	56	
129-00-0	Pyrene	53	
85-68-7	Butylbenzylphthalate	58	
91-94-1	3,3'-Dichlorobenzidine	38	
117-81-7	bis(2-ethylhexyl)Phthalate	53	
56-55-3	Benzo(a)anthracene	55	
218-01-9	Chrysene	56	
117-84-0	Di-n-octylphthalate	54	
205-99-2	Benzo(b)fluoranthene	52	
207-08-9	Benzo(k)fluoranthene	62	
50-32-8	Benzo(a)pyrene	56	
193-39-5	Indeno(1,2,3-cd)pyrene	51	
53-70-3	Dibenzo(a,h)anthracene	57	
191-24-2	Benzo(g,h,i)perylene	58	

(1) - Cannot be separated from Diphenylamine

C. Form II

Surrogate spike analysis

- By level (low, medium, high) -

FORM 2
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

	CLIENT SAMPLE NO.	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (FBP) #	S5 (TBP) #	S6 (TPH) #	S7 #	S8 #	TOT OUT
01	SBLKSZ	28	25	56	62	72	70			0
02	SSZLCS	36	25	58	56	69	54			0
03	INF-01	27	24	75	75	85	72			0
04	SS-1	34	27	49	55	59	56			0
05	SS-2	37	24	67	71	78	66			0
06	SS-3	27	23	58	64	73	82			0
07	SS-3MS	26	21	61	64	71	64			0
08	SS-3MSD	43	30	72	77	88	82			0
09	SS-5	37	24	62	68	76	66			0
10										
11										
12										
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28										

		QC LIMITS
S1 (2FP)	= 2-Fluorophenol	(16-110)
S2 (PHL)	= Phenol-d5	(10-110)
S3 (NBZ)	= Nitrobenzene-d5	(35-110)
S4 (FBP)	= 2-Fluorobiphenyl	(41-110)
S5 (TBP)	= 2,4,6-Tribromophenol	(27-125)
S6 (TPH)	= Terphenyl-d14	(48-133)

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

D. Form III

Matrix Spike/Matrix Spike Duplicate results
- By level (low, medium, high) -
Laboratory Control Sample(s)

FORM 3
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix Spike - Sample No.: SS-3

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Phenol	72.73	0.00	27.79	38	10-116
2-Chlorophenol	72.73	0.00	60.06	82	10-150
N-Nitroso-di-N-prop.(1)	72.73	0.00	50.34	69	10-150
4-Chloro-3-methylphenol	72.73	0.00	72.14	99	10-150
Acenaphthene	72.73	0.00	61.51	84	11-149
4-Nitrophenol	72.73	0.00	25.07	34	10-150
2,4-Dinitrotoluene	72.73	0.00	58.41	80	19-150
Pentachlorophenol	72.73	7.65	88.56	111	10-150
Pyrene	72.73	0.00	54.44	75	18-150

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	72.73	35.86	49	25	50	10-116
2-Chlorophenol	72.73	66.49	91	10	50	10-150
N-Nitroso-di-N-prop.(1)	72.73	55.58	76	10	35	10-150
4-Chloro-3-methylphenol	72.73	83.28	114	14	50	10-150
Acenaphthene	72.73	71.40	98	15	40	11-149
4-Nitrophenol	72.73	33.83	46	30	50	10-150
2,4-Dinitrotoluene	72.73	69.86	96	18	34	19-150
Pentachlorophenol	72.73	108.7	139	20	50	10-150
Pyrene	72.73	65.73	90	19	35	18-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 9 outside limits
Spike Recovery: 0 out of 18 outside limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SSZLCS

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Phenol	80.00	32.76	41	15-100
2-Chlorophenol	80.00	61.59	77	39-102
N-Nitroso-di-N-prop.(1)	80.00	54.07	68	23-121
4-Chloro-3-methylphenol	80.00	66.40	83	45-110
Acenaphthene	80.00	58.30	73	33-100
4-Nitrophenol	80.00	26.47	33	10-100
2,4-Dinitrotoluene	80.00	54.91	69	36-116
Pentachlorophenol	80.00	72.74	91	12-150
Pyrene	80.00	52.83	66	29-114

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

Spike Recovery: 0 out of 9 outside limits

COMMENTS: _____

E. Form IV

Method Blank Results
Form IV, Form I, and Form I - TIC

Method blank summary, OADS, and TICs
- In chronological order of analysis

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

SBLKSZ

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Lab File ID: WG15377-1A66 Lab Sample ID: WG15377-1

Instrument ID: 5972HP66 Date Extracted: 01/18/02

Matrix: (soil/water) WATER Date Analyzed: 01/20/02

Level: (low/med) LOW Time Analyzed: 1103

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SSZLCS	WG15377-2	WG15377-2A66	01/20/02
02	INF-01	QR1877-1	QR1877-1A66	01/20/02
03	SS-1	QR1877-3	QR1877-3A66	01/20/02
04	SS-2	QR1877-4	QR1877-4A66	01/20/02
05	SS-3	QR1877-5	QR1877-5A66	01/20/02
06	SS-3MS	WG15377-3	WG15377-3A66	01/20/02
07	SS-3MSD	WG15377-4	WG15377-4A66	01/20/02
08	SS-5	QR1877-6	QR1877-6A66	01/20/02
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COMMENTS:

FORM 1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKSZ

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: WG15377-1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: WG15377-1A66

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	10	U
111-44-4	Bis(2-chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	10	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKSZ

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: WG15377-1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: WG15377-1A66

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	20	U
121-14-2	2,4-Dinitrotoluene	10	U
132-64-9	Dibenzofuran	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
117-81-7	bis(2-ethylhexyl)Phthalate	1	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

F. Form VIII

Internal standard area and retention time data
(VOA and SV only)

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Lab File ID (Standard): HG020120A66 Date Analyzed: 01/20/02

Instrument ID: 5972HP66 Time Analyzed: 1027

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	12 HOUR STD	118463		6.07		430224		7.84		281835		10.29	
	UPPER LIMIT	236926		6.57		860448		8.34		563670		10.79	
	LOWER LIMIT	59232		5.57		215112		7.34		140918		9.79	
	CLIENT SAMPLE NO.												
01	SBLKSZ	125692		6.06		445326		7.84		288679		10.29	
02	SSZLCS	118473		6.07		440657		7.84		308711		10.29	
03	INF-01	129031		6.05		448509		7.83		302040		10.29	
04	SS-1	123893		6.05		456028		7.83		303872		10.29	
05	SS-2	121159		6.05		449219		7.83		308324		10.29	
06	SS-3	131978		6.03		491749		7.80		336437		10.29	
07	SS-3MS	141780		6.03		487009		7.81		320406		10.29	
08	SS-3MSD	132873		6.04		477330		7.81		315343		10.29	
09	SS-5	126727		6.04		474681		7.81		325657		10.27	
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

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.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Lab File ID (Standard): HG020120A66 Date Analyzed: 01/20/02

Instrument ID: 5972HP66 Time Analyzed: 1027

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	511432		12.70		561940		16.23		535165		19.02	
	UPPER LIMIT	1022864		13.20		1123880		16.73		1070330		19.52	
	LOWER LIMIT	255716		12.20		280970		15.73		267582		18.52	
	CLIENT SAMPLE NO.												
01	SBLKSZ	503502		12.68		528192		16.21		521926		19.00	
02	SSZLCS	557961		12.70		613489		16.23		573524		19.00	
03	INF-01	533404		12.69		590142		16.22		560052		19.01	
04	SS-1	530659		12.69		587572		16.22		568919		19.01	
05	SS-2	545414		12.69		588520		16.22		577996		19.01	
06	SS-3	600295		12.70		615136		16.22		615086		19.00	
07	SS-3MS	588098		12.70		642958		16.23		616556		19.02	
08	SS-3MSD	570110		12.71		626246		16.24		604411		19.02	
09	SS-5	579060		12.69		615498		16.22		617846		19.01	
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

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.

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA PACKAGE

GC/MS by SW-846

The sample data package shall include data for all analyses of all samples in one Sample Delivery Group (SDG), including field samples, dilutions, reanalyses, blanks, matrix spikes, matrix spike duplicates, and laboratory control samples. The sample data package consists of the following:

A. SDG Narrative

B. Chain-of-Custody Documentation

C. SDG Data

LAB CODE: LIBRTY

METHOD: 8270C

SDG #: QR1877

A. SDG Narrative

COMPUCHEM
A division of Liberty Analytical Corporation
501 MADISON AVE.
CARY, NC 27513
(919) 379-4100

SDG NARRATIVE

SDG #QR1877
PROTOCOL : SW-846
METHOD : 8270C

SAMPLE IDENTIFICATIONS:

INF-01 SS-1 SS-2 SS-3 SS-5

The five (5) water samples listed above were received intact, properly refrigerated, with proper documentation, in sealed shipping containers, on January 16 and 17, 2002. The samples were scheduled for the requested analyses of the semivolatile fractions. SW-846, 3rd Edition, Update 3, Separatory Funnel Extraction (Method 3510C) and Method 8270C were used to prepare and analyze these samples, with the exceptions and/or additions requested by the client.

All pertinent Quality Assurance Notices are included in the narrative section, and all pertinent Laboratory Notices are included in the sample data sections.

SEMIVOLATILE
Extraction and analysis holding time requirements were met for all of these samples. 500 mL of raw sample were used to extract SS-1, rather than the method-specified amount of 1000 mL. The extract was concentrated to a final volume half that of the method-specified volume, and therefore no effective dilution was performed during the extraction procedure. More than the method-specified amount of raw sample was used for the extractions of the four remaining samples. The higher sample volume yielded slightly lower detection limits for the samples.

One semivolatile target analyte, pentachlorophenol was identified above the Quantitation Limits (QL) in three of these samples.

Manual quantitations were performed on one or more of the process files associated with the samples in this SDG. The reasons have been coded with explanations provided in the notice included in the narrative section of the SDG.

QC SUMMARY
All decafluorotriphenylphosphine (DFTPP) abundance criteria were met for tunes associated to this SDG. Tailing factor criteria were met for pentachlorophenol and benzidine. The breakdown criterion was met for DDT. These three compounds have been added to the DFTPP solution and analyzed together. Overall QC criteria were met for all initial and continuing calibration standards associated to this SDG.

The surrogates met recovery criteria in the analyses of these samples. The internal standards met response and retention time criteria in the analyses of these samples.

SS-3 was used as the original to prepare the duplicate matrix spikes. The duplicate matrix spikes met accuracy and precision criteria. The associated Laboratory Control Sample (LCS) met all accuracy criteria.

The associated method blank met all quality control criteria.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted electronically has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Patricia B. Hopkins

Patricia B. Hopkins
Data Analyst II
24 January 2002

Laboratory Notice

Initial Calibration Date(s): January 17, 2002

Instrument Identifier: 5972hp66.i

An initial calibration was analyzed by Method 8270C. Per the methodology, all compounds are to meet a Percent Relative Standard Deviation (%RSD) limit of no more than 15%. Additional calibration options are provided in the method when the RSD exceeds 15%. CompuChem has chosen to apply the option of determining the mean RSD values for all analytes in the calibration.

When there are analytes with %RSDs greater than the limit, proof of calibration linearity can be shown if the average of all compounds in the initial calibration meet the same 15% limit. Based on Method 8000B, Revision 2 requirements described in Sections 7.5.1.2 and 7.5.1.2.3, we are providing a list of the compounds which failed to meet the limit, and their associated %RSDs. Finally the average of all %RSDs from all compounds in the initial calibration is shown, confirming the usability of the initial calibration and any data that follows it.

Benzaldehyde	24.8	hexachlorocyclopentadiene	28.3	atrazine	65.2
Benzidine	17.9				

Average %RSD for all compounds in the Initial Calibration: 8.68 %

Data Reviewer/ID# [signature] 624

Date January 18, 2002

GC and GC/MS Column and Trap Specifications Table

COLUMNS

Brand Name	Coating Material	ID (mm)	Film Thickness (um)	Length (m)
GC Laboratory				
Restek	RTX-1701	0.53	0.5	30
J & W	DB-608	0.53	0.83	30
Restek	CLPesticides	0.53	0.5	30
Restek	CLPesticides II	0.53	0.42	30
GC Volatiles Laboratory				
Restek	RTX-1	0.53	0.5	105
Restek	RTX-502.2	0.53	0.5	105
GC/MS Volatiles Laboratory				
J & W	DB-624	0.53	3.0	30/75
J & W	DB-624	0.25	1.4	60
J & W	DB-624	0.32	1.8	60
Restek	RTX-624	0.32	1.8	60
Supelco	SPB-624	0.32	1.4	60
Supelco	Equity™-624	0.53	3.00	75.00
Zebron	ZB-624	0.32	1.8	60
GC/MS Semivolatiles Laboratory				
Zebron	ZB-5MS	0.25	0.3	30
J & W	DB-5.625	0.32	1.0	30
J & W	DB5-MS	0.25	0.25	30
Hewlett Packard	HP5-MS	0.25	0.25	30
Optima	5-MS	0.25	0.25	30
Restek	RTX-5	0.32	1.00	30
Restek	RTX-5MS	0.25	0.25	30

TRAPS

GC and GC/MS Volatiles Laboratory	
Tekmar 3	* 8 cm of 2,6-diphenylene oxide polymer (Tenax) * 8 cm of silica gel * 7 cm of coconut charcoal * 0.5 cm of silanized glass wool at each end
Tekmar 5	* 1 cm of methyl silicone packing (OV-1 coating) * 8 cm of 2,6-diphenylene oxide polymer (Tenax) * 8 cm of silica gel * 7 cm of coconut charcoal * 0.5 cm of silanized glass wool at each end
Supelco K (Vocarb3000)	* 10 cm of Carbopack B (Graphitized Carbons) * 6 cm of Carboxen 1000 (Carbon molecular sieves) * 1 cm of Carboxen 1001 (Carbon molecular sieves)

CompuChem

a division of Liberty Analytical Corporation

CompuChem's Pagination Convention

As required by the current EPA CLP Statement of Work (SOW) (Document Number OLM04.0, plus revisions), data to be delivered must be paginated (by machine or hand). In the event that the initial numbering is incorrect (a page numbered twice or a page skipped, for example), it is CompuChem's policy to add in an alphabetic suffix to a page number when necessary (e.g., 100A, 100B, etc.).

Notification Regarding Manual Editing/Integration Flags

In some instances, manual adjustments to the software output are necessary to provide accurate data. These adjustments are performed by the data reviewer, GC/MS operator, or GC chemist. An Extracted Ion Current Profile (EICP) or a GC chromatographic peak has been provided for the manual integration of each compound to demonstrate the accuracy of that process. Adjustments are flagged on the quantitation report in the far right column beyond the FINAL concentration for GC/MS analysis, and in the "Flags" column for GC analysis. The manual editing/integration flags are:

M - Denotes that a manual integration has been performed for this compound. The manual integration was performed in order to provide the most accurate area count as possible for the peak.

H - Denotes that the data reviewer, GC/MS operator, or GC Chemist has chosen an alternate peak within the retention time window from that chosen by the software for that compound. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

MH - Denotes that an alternate peak has been chosen within the retention time window from that chosen by the software for that compound and also a manual integration of the chosen peak has been performed. The manual integration was performed in order to provide the most accurate area count possible for the peak.

L - Denotes that the data reviewer or GC/MS operator has selected an alternate library search. This is typically done when an additional tentatively identified compound (TIC) has been added to the number of peaks searched. No manual integration is performed in choosing an alternate peak. The software still performs the integration.

ML - Denotes that an alternate library search has been selected and a manual integration has also been performed. This is typically done when an additional TIC has been added and the TIC peak also required a manual integration.

The EPA CLP SOW requires additional explanations for manual editing/integration. In the accompanying raw data packages, additional codes have been applied to the "M" flag and carry the following meanings;

M1 - The compound was not found by the automatic integration routine.

M2 - The compound was incorrectly integrated by the automatic integration routine.

M3 - The co-eluting compounds were incorrectly integrated by the automatic integration routine.

These codes will appear in the GC/MS and GC data packages.

Robert E. Meierer
Vice President

DATA REPORTING QUALIFIERS

On the Form I, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each compound. The qualifiers used are:

U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL), or reporting limit, will be adjusted to reflect any dilution and, for soils, the percent moisture.

J : This flag indicates an estimated value. The flag is used as detailed below:

1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte,

2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero, and

3. When the retention time data indicate the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria, and the result is less than the CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 µg/L, but a concentration of 3 µg/L is calculated, it is reported as 3J.

N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.

P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form I and flagged with a P.
For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue.

DATA REPORTING QUALIFIERS (continued)

C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier.)

B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.

E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form I for the original analysis.

D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form I for the more diluted sample, and **all** reported concentrations on that Form I are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Form Is are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form I.

A : This flag indicates that a TIC is a suspected aldol-condensation product.

X/Y/Z : Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

B. Chains-of-Custody

The laboratory shall include a copy of the Chain-of-Custody (CoC) documentation for all of the samples in the SDG. The CoC documents shall be arranged in increasing Client Sample ID number order, considering both letters and numbers.

COMPUCHEM a Divison of Liberty Analytical

COMMERCIAL RECEIVING LOG

Client: ESC	Rec'd Date: 1-16-02	(PPS)/RFA 985	
Project: COPELAND CORP.	Courier: UPS	Lab Instructions	
Quote: Q1877	Airbill No. 1Z696 169 01 1002 2134	VOC 8260B TCL/CT. SUB	
Login No. QQ1877, QR1877		SVOC 8270 TCL	
Subcontract? Y / (N)		DISS. TAL MTLS	
TAT Verbal 24hr * Report 12 day			

Cooler Rec'd By:	E. Gibbler
Sample Login By:	Cathy Davis
Temperature:	5 °C
Cyanide Samples checked for sulfide & chlorine?	Y / (NA)
Phenol Samples checked for chlorine?	Y / (NA)
Received in Good Condition?	(Y) / N
If no, explain:	

CompuChem ID	Client ID	QC	Matrix	Date 20 02	Military Time	Parameters: VOC No. & Type	pH	5VOC No. & Type	pH	TAL Diss Metals No. & Type	pH	No. & Type	pH	No. & Type	pH	No. & Type	pH	No. & Type	pH	No. & Type	pH
QR1877-1	INF-01		WA	01/15	12:15	3-40ml		2-AL		1-PL	<2										
QQ1877-1 *	EFF-01		↓	↓	12:30	↓		↓		↓	<2										
QR1877-2	TB011502		↓	↓	—	2-40ml		—		—	—										

1/16/02

No. 020613

CHAIN OF CUSTODY RECORD

Page 1 of 1

PROJECT NO.	PROJECT NAME AND LOCATION:
139122.02	Copeland Corporation - Ava, Missouri

SAMPLERS: *(Signature)* — PRINT NAME: David P. Boucsaren

SAMPLE I.D.	SAMPLE LOCATION	DATE	TIME	MATRIX	NO. OF CONTAINERS	VOCs - EPA 8260B	SVOCs EPA 8270	Dissolved Metals EPA 6010/7000 Series (already filtered)				REMARKS
INF-01	Ava, MO	1/13/02	1215	Water	6	X	X	X				Standard [redacted] TAT
EFF-01	Ava, MO	1/13/02	1230	Water	6	X	X	X			**	24-Hr TAT **
TB011502 (TRIP)	Ava, MO	1/13/02	—	Water	2	X						
												metal pHs < 2

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
	1/15/02 1330	
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Received for Laboratory by: *(Signature)*	PRINT NAME: ED SCHILLER	Date/Time 1/16/02 0910

LAB NAME: Compuchem
CITY: Cary, NC
COURIER: UPS
AIRBILL NO.:
CUSTODY SEAL NOS:
COOLER NO: 1

Environmental Strategies Corporation
11911 Freedom Drive
Reston, Virginia 20190
(703) 709-6500 • Fax (703) 318-3995
Fax (412) 787-8065

ESC

ATTENTION LAB: SEND ANALYTICAL RESULTS TO THE FOLLOWING ESC STAFF MEMBER: Scott Haitz @ 703-709-6500

CA ● MA ____ PA ____ MN ____ DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT: COPY TO ESC FILES ●

COMPUCHEM a Division of Liberty Analytical

COMMERCIAL RECEIVING LOG

Client: ESC
Project: Cleveland
Quote: Q1877
Login No. QR1877
Subcontract? Y / (N)
TAT Verbal _____ Report 12 days

Rec'd Date: 1-17-02
Courier: UPS
Airbill No. 126616990100224125

PPS/RFA 985

Lab Instructions
VOC 8260B TCL3CT, SVB
SVOC 8270C TCL3
DISS. TAL MTLS

Cooler Rec'd By: [signature]
Sample Login By: [signature]
Temperature: 3 °C
Cyanide Samples checked for sulfide & chlorine? Y / (NA)
Phenol Samples checked for chlorine? Y / (NA)
Received in Good Condition? (Y) / N
If no, explain:

CompuChem ID	Client ID	QC	Matrix	Date 2002	Military Time	Parameters: VOC No. & Type	pH	SVOC No. & Type	pH	Diss Metals No. & Type	pH	No. & Type	pH	No. & Type	pH	No. & Type	pH	No. & Type	pH	No. & Type	pH
QR1877-3	SS-1		WATER	01/15	15:15	3-40ml		1-AL		1-PL	<2										
-4	SS-2				15:45	↓		2-AL			<2										
-5	SS-3	X			17:00	9-40ml		6-AL		1-PL	<2										
-6	SS-5				15:00	3-40ml		2-AL		1-PL	<2										
-7	TRIP BLANK			01/15	—	2-40ml		—		—	—										

1/17/02

No. 024363

CHAIN OF CUSTODY RECORD

Page 1 of 2

PROJECT NO.: 139122/6

PROJECT NAME AND LOCATION: Copeland (Emerson) - Ava, MO

SAMPLERS: (Signature) [signature]

PRINT NAME: David Brandon Cochrane

SAMPLE I.D.	SAMPLE LOCATION	DATE	TIME	MATRIX	NO. OF CONTAINERS	VOCs - 8260B	SVOCs 8270B	Total dissolved Metals 6010/7000				REMARKS
SS-1	Stream	1/15/2	1515	AQ	3		X	X				Standard TAT
SS-2	Stream	1/15/2	1545	AQ	3		X	X				Standard TAT
SS-3	Stream	1/15/2	1700	AQ	3		X	X				Standard TAT
SS-3 MS	Stream	1/15/2	1655	AQ	3		X	X				Standard TAT
SS-3 MSD	Stream	1/15/2	1650	AQ	3		X	X →	1 MSD plastic liter not preserved have enough volume w/o using the volume			Standard TAT
SS-5	Stream	1/15/2	1500	AQ	3		X	X				Standard TAT
SS-1	Stream	1/16/2	1030	AQ	3	X						Standard TAT
SS-2	Stream	1/16/2	1040	AQ	3	X						Standard TAT
SS-3	Stream	1/16/2	1130	AQ	3	X						Standard TAT
SS-3 MS	Stream	1/16/2	1100	AQ	3	X						Standard TAT
SS-3 MSD	Stream	1/16/2	1110	AQ	3	X						Standard TAT
SS-5	Stream	1/16/2	1020	AQ	3	X						Standard TAT
Trip Blanks	DI Water (Lab)	—	—	AQ	2	X	X	X	← trip blanks marked for all parameters			Standard TAT

Remarks annotation: SS-1 1L AL (SVOC) Broke in shipment ED 1/17/02; 53

[initials] 1/17/02

Relinquished by: (Signature) [signature] — Date/Time: 1/16/2 1200

Received by: (Signature)

Relinquished by: (Signature) — Date/Time

Received by: (Signature)

Received for Laboratory by: (Signature) E. Schiller — PRINT NAME: ED SCHILLER — Date/Time: 1/17/02 0915

LAB NAME: Compuchem

CITY: Cary, NC

COURIER: UPS

AIRBILL NO.

CUSTODY SEAL NOS: 15602 + 15604

COOLER NO:

ENVIRONMENTAL STRATEGIES CORPORATION
11911 Freedom Drive
Reston, Virginia 20190
(703) 709-6500 • Fax (703) 318-3995
Fax (412) 787-8065

all metals pH<2 (except one MSD cont. as noted) [initials] 1/17/02

ESC

ATTENTION LAB: SEND ANALYTICAL RESULTS TO THE FOLLOWING ESC STAFF MEMBER: John Johnson

CA MA PA MN DISTRIBUTION ...

C. SDG Data

1. QC Summary
2. Sample Data
3. Standards Data
4. Raw QC Data

LAB CODE: LIBRTY

METHOD: 8270C

SDG #: QR1877

1. QC Summary

a. Surrogate Percent Recovery Summary (Form II SV)

b. Spike Summary - MS / MSD / LCS
(Form III SV)

c. Method Blank Summary (Form IV SV)

d. GC/MS Instrument Performance Check
(Form V SV)

e. Internal Standard Area and RT Summary
(Form VIII SV)

a. Surrogate Percent Recovery Summary
(Form II SV)

FORM 2
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

	CLIENT SAMPLE NO.	S1 (2FP)#	S2 (PHL)#	S3 (NBZ)#	S4 (FBP)#	S5 (TBP)#	S6 (TPH)#	S7 #	S8 #	TOT OUT
01	SBLKSZ	28	25	56	62	72	70			0
02	SSZLCS	36	25	58	56	69	54			0
03	INF-01	27	24	75	75	85	72			0
04	SS-1	34	27	49	55	59	56			0
05	SS-2	37	24	67	71	78	66			0
06	SS-3	27	23	58	64	73	82			0
07	SS-3MS	26	21	61	64	71	64			0
08	SS-3MSD	43	30	72	77	88	82			0
09	SS-5	37	24	62	68	76	66			0
10										
11										
12										
13										
14										
15										
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17										
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21										
22										
23										
24										
25										
26										
27										
28										

	QC LIMITS
S1 (2FP) = 2-Fluorophenol	(16-110)
S2 (PHL) = Phenol-d5	(10-110)
S3 (NBZ) = Nitrobenzene-d5	(35-110)
S4 (FBP) = 2-Fluorobiphenyl	(41-110)
S5 (TBP) = 2,4,6-Tribromophenol	(27-125)
S6 (TPH) = Terphenyl-d14	(48-133)

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

b. Spike Summary - MS / MSD / LCS
(Form III SV)

FORM 3

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix Spike - Sample No.: SS-3

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Phenol	72.73	0.00	27.79	38	10-116
2-Chlorophenol	72.73	0.00	60.06	82	10-150
N-Nitroso-di-N-prop.(1)	72.73	0.00	50.34	69	10-150
4-Chloro-3-methylphenol	72.73	0.00	72.14	99	10-150
Acenaphthene	72.73	0.00	61.51	84	11-149
4-Nitrophenol	72.73	0.00	25.07	34	10-150
2,4-Dinitrotoluene	72.73	0.00	58.41	80	19-150
Pentachlorophenol	72.73	7.65	88.56	111	10-150
Pyrene	72.73	0.00	54.44	75	18-150

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	72.73	35.86	49	25	50	10-116
2-Chlorophenol	72.73	66.49	91	10	50	10-150
N-Nitroso-di-N-prop.(1)	72.73	55.58	76	10	35	10-150
4-Chloro-3-methylphenol	72.73	83.28	114	14	50	10-150
Acenaphthene	72.73	71.40	98	15	40	11-149
4-Nitrophenol	72.73	33.83	46	30	50	10-150
2,4-Dinitrotoluene	72.73	69.86	96	18	34	19-150
Pentachlorophenol	72.73	108.7	139	20	50	10-150
Pyrene	72.73	65.73	90	19	35	18-150

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 9 outside limits
Spike Recovery: 0 out of 18 outside limits

COMMENTS: _____

3C
WATER SEMIVOLATILE LAB CONTROL SAMPLE

SSZLCS

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Phenol	80.00	32.76	41	15-100
2-Chlorophenol	80.00	61.59	77	39-102
N-Nitroso-di-N-prop.(1)	80.00	54.07	68	23-121
4-Chloro-3-methylphenol	80.00	66.40	83	45-110
Acenaphthene	80.00	58.30	73	33-100
4-Nitrophenol	80.00	26.47	33	10-100
2,4-Dinitrotoluene	80.00	54.91	69	36-116
Pentachlorophenol	80.00	72.74	91	12-150
Pyrene	80.00	52.83	66	29-114

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

Spike Recovery: 0 out of 9 outside limits

COMMENTS: _____

c. Method Blank Summary (Form IV SV)

If more than a single form is necessary, forms shall be arranged in chronological order by date of analysis of the blanks and by instrument.

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO

SBLKSZ

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Lab File ID: WG15377-1A66 Lab Sample ID: WG15377-1

Instrument ID: 5972HP66 Date Extracted: 01/18/02

Matrix: (soil/water) WATER Date Analyzed: 01/20/02

Level: (low/med) LOW Time Analyzed: 1103

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SSZLCS	WG15377-2	WG15377-2A66	01/20/02
02	INF-01	QR1877-1	QR1877-1A66	01/20/02
03	SS-1	QR1877-3	QR1877-3A66	01/20/02
04	SS-2	QR1877-4	QR1877-4A66	01/20/02
05	SS-3	QR1877-5	QR1877-5A66	01/20/02
06	SS-3MS	WG15377-3	WG15377-3A66	01/20/02
07	SS-3MSD	WG15377-4	WG15377-4A66	01/20/02
08	SS-5	QR1877-6	QR1877-6A66	01/20/02
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
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27				
28				
29				
30				

COMMENTS:

d. GC/MS Instrument Performance Check (Form V SV)

If more than a single form is necessary, forms shall be arranged in chronological order, by instrument.

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Lab File ID: DF020117A66 DFTPP Injection Date: 01/17/02

Instrument ID: 5972HP66 DFTPP Injection Time: 0842

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	53.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	66.3
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	45.0
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	6.0
275	10.0 - 30.0% of mass 198	19.4
365	Greater than 0.75% of mass 198	2.41
441	Present, but less than mass 443	9.1
442	40.0 - 110.0% of mass 198	57.9
443	15.0 - 24.0% of mass 442	11.1 (19.2)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD080	SSTD080	HH020117A66	01/17/02	0957
02	SSTD160	SSTD160	HI020117A66	01/17/02	1109
03	SSTD010	SSTD010	HJ020117A66	01/17/02	1146
04	SSTD120	SSTD120	HK020117A66	01/17/02	1223
05	SSTD020	SSTD020	HL020117A66	01/17/02	1301
06	SSTD050	SSTD050	HM020117A66	01/17/02	1338
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Lab File ID: DF020120A66 DFTPP Injection Date: 01/20/02

Instrument ID: 5972HP66 DFTPP Injection Time: 1007

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	51.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	62.5
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	44.0
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	6.4
275	10.0 - 30.0% of mass 198	21.7
365	Greater than 0.75% of mass 198	2.85
441	Present, but less than mass 443	13.0
442	40.0 - 110.0% of mass 198	85.1
443	15.0 - 24.0% of mass 442	16.3 (19.2)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD080	SSTD080	HG020120A66	01/20/02	1027
02	SBLKSZ	WG15377-1	WG15377-1A66	01/20/02	1103
03	SSZLCS	WG15377-2	WG15377-2A66	01/20/02	1140
04	INF-01	QR1877-1	QR1877-1A66	01/20/02	1332
05	SS-1	QR1877-3	QR1877-3A66	01/20/02	1409
06	SS-2	QR1877-4	QR1877-4A66	01/20/02	1446
07	SS-3	QR1877-5	QR1877-5A66	01/20/02	1523
08	SS-3MS	WG15377-3	WG15377-3A66	01/20/02	1601
09	SS-3MSD	WG15377-4	WG15377-4A66	01/20/02	1638
10	SS-5	QR1877-6	QR1877-6A66	01/20/02	1714
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

e. Internal Standard Area and RT Summary (Form VIII SV)

If more than a single form is necessary, forms shall be arranged in chronological order, by instrument.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Lab File ID (Standard): HG020120A66 Date Analyzed: 01/20/02

Instrument ID: 5972HP66 Time Analyzed: 1027

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	118463	6.07	430224	7.84	281835	10.29
	UPPER LIMIT	236926	6.57	860448	8.34	563670	10.79
	LOWER LIMIT	59232	5.57	215112	7.34	140918	9.79
	CLIENT SAMPLE NO.						
01	SBLKSZ	125692	6.06	445326	7.84	288679	10.29
02	SSZLCS	118473	6.07	440657	7.84	308711	10.29
03	INF-01	129031	6.05	448509	7.83	302040	10.29
04	SS-1	123893	6.05	456028	7.83	303872	10.29
05	SS-2	121159	6.05	449219	7.83	308324	10.29
06	SS-3	131978	6.03	491749	7.80	336437	10.29
07	SS-3MS	141780	6.03	487009	7.81	320406	10.29
08	SS-3MSD	132873	6.04	477330	7.81	315343	10.29
09	SS-5	126727	6.04	474681	7.81	325657	10.27
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

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.

2. Sample Data

Sample data shall be arranged in packets with the Organic Analysis Data Sheet (Form I SV and Form I SV-TIC), followed by the raw data for semivolatile samples. These sample packets shall be placed in increasing Client Sample ID number order, considering both letters and numbers.

a. Target Analyte Results (Form I SV)
   Tabulated results (identification and quantitation) shall be included.

b. Tentatively Identified Compounds (Form I SV-TIC)
   Lists the client specified number of organic compounds that are non-surrogate/non-internal standard compounds and are not listed on the target compound list. This form shall be included even if no compounds are found.

c. Reconstructed Ion Chromatograms
   Include for each sample or sample extract, including dilutions and reanalyses. The RIC shall contain the following header information: Client Sample ID number, date and time of analysis, GC/MS instrument identifier, lab file identifier, and analyst ID.

d. Quantitation Report showing calculations for target analytes
   - Include a printout of the Enhanced Ion Current Profile (EICP) for all manual changes to all compounds, internal standards, and surrogate compounds.

e. Copies of raw spectra and copies of background-subtracted mass spectra of target analytes identified in the sample.
   - The spectra shall include the following information: Client Sample ID number, Lab file ID, date and time of analysis, and instrument ID.
   - The compound name must be clearly marked.

f. Quantitation Report showing calculations for TICs

g. Copies of mass spectra of organic compounds not listed on the target compound list (TICs) with associated best-match spectra.
   - The spectra shall be labeled as follows: Client Sample ID number, lab file ID, date and time of analysis, and instrument ID.
   - The compound name must be clearly marked.

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

INF-01

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-1

Sample wt/vol: 1100 (g/mL) ML Lab File ID: QR1877-1A66

Level: (low/med) LOW Date Received: 01/16/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	9	U
111-44-4	Bis(2-chloroethyl)ether	9	U
95-57-8	2-Chlorophenol	9	U
541-73-1	1,3-Dichlorobenzene	9	U
106-46-7	1,4-Dichlorobenzene	9	U
95-50-1	1,2-Dichlorobenzene	9	U
95-48-7	2-Methylphenol	9	U
108-60-1	2,2'-oxybis(1-Chloropropane)	9	U
106-44-5	4-Methylphenol	9	U
621-64-7	N-Nitroso-di-N-propylamine	9	U
67-72-1	Hexachloroethane	9	U
98-95-3	Nitrobenzene	9	U
78-59-1	Isophorone	9	U
88-75-5	2-Nitrophenol	9	U
105-67-9	2,4-Dimethylphenol	8	J
111-91-1	Bis(2-chloroethoxy)methane	9	U
120-83-2	2,4-Dichlorophenol	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
91-20-3	Naphthalene	9	U
106-47-8	4-Chloroaniline	9	U
87-68-3	Hexachlorobutadiene	9	U
59-50-7	4-Chloro-3-methylphenol	9	U
91-57-6	2-Methylnaphthalene	9	U
77-47-4	Hexachlorocyclopentadiene	9	U
88-06-2	2,4,6-Trichlorophenol	9	U
95-95-4	2,4,5-Trichlorophenol	9	U
91-58-7	2-Chloronaphthalene	9	U
88-74-4	2-Nitroaniline	18	U
131-11-3	Dimethylphthalate	9	U
606-20-2	2,6-Dinitrotoluene	9	U
208-96-8	Acenaphthylene	9	U
99-09-2	3-Nitroaniline	18	U
83-32-9	Acenaphthene	9	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

INF-01

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-1

Sample wt/vol: 1100 (g/mL) ML Lab File ID: QR1877-1A66

Level: (low/med) LOW Date Received: 01/16/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

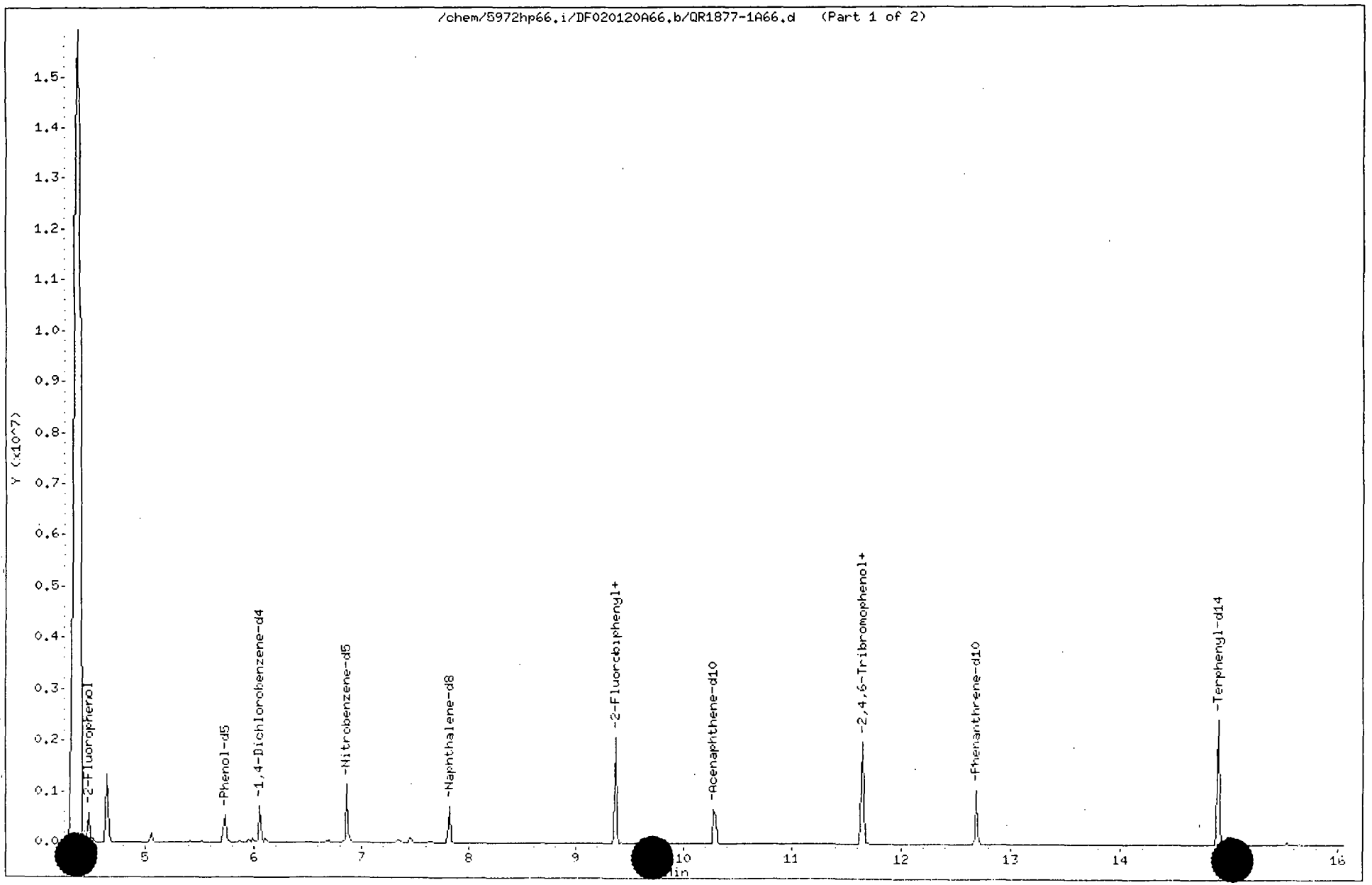
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	45	U
100-02-7	4-Nitrophenol	18	U
121-14-2	2,4-Dinitrotoluene	9	U
132-64-9	Dibenzofuran	9	U
84-66-2	Diethylphthalate	9	U
7005-72-3	4-Chlorophenyl-phenylether	9	U
86-73-7	Fluorene	9	U
100-01-6	4-Nitroaniline	18	U
534-52-1	4,6-Dinitro-2-methylphenol	18	U
86-30-6	N-Nitrosodiphenylamine (1)	9	U
101-55-3	4-Bromophenyl-phenylether	9	U
118-74-1	Hexachlorobenzene	9	U
87-86-5	Pentachlorophenol	18	U
85-01-8	Phenanthrene	9	U
120-12-7	Anthracene	9	U
86-74-8	Carbazole	9	U
84-74-2	Di-n-butylphthalate	9	U
206-44-0	Fluoranthene	9	U
129-00-0	Pyrene	9	U
85-68-7	Butylbenzylphthalate	9	U
91-94-1	3,3'-Dichlorobenzidine	18	U
117-81-7	bis(2-ethylhexyl)Phthalate	9	U
56-55-3	Benzo(a)anthracene	9	U
218-01-9	Chrysene	9	U
117-84-0	Di-n-octylphthalate	9	U
205-99-2	Benzo(b)fluoranthene	9	U
207-08-9	Benzo(k)fluoranthene	9	U
50-32-8	Benzo(a)pyrene	9	U
193-39-5	Indeno(1,2,3-cd)pyrene	9	U
53-70-3	Dibenzo(a,h)anthracene	9	U
191-24-2	Benzo(g,h,i)perylene	9	U

(1) - Cannot be separated from Diphenylamine

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-1A66.d
Date : 20-JAN-2002 13:32
Client ID: INF-01
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2319
Column diameter: 0.25



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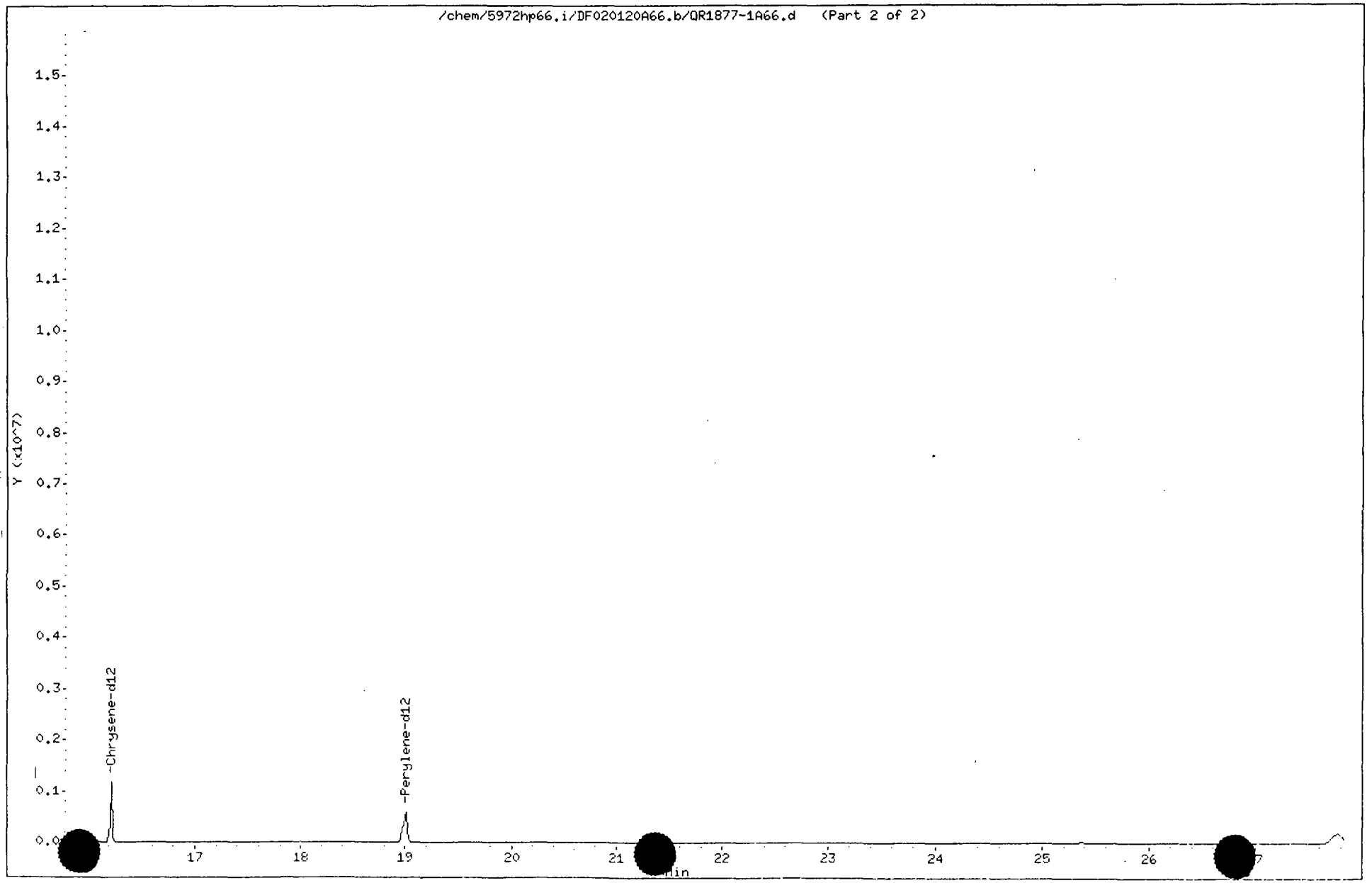
Date : 20-JAN-2002 13:32
Client ID: INF-01
Instrument: 5972hp66.i
Sample Info:
Volume Injected (uL): 1.0
Operator: 2319
Column phase: RTX-5MS
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-1A66.d
Report Date: 23-Jan-2002 11:39

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020120A66.b/QR1877-1A66.d
Lab Smp Id: QR1877-1 Client Smp ID: INF-01
Inj Date : 20-JAN-2002 13:32
Operator : 2319 Inst ID: 5972hp66.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020120A66.b/8270Cv6.m
Meth Date : 23-Jan-2002 11:31 byrd Quant Type: ISTD
Cal Date : 17-JAN-2002 13:38 Cal File: HM020117A66.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLM03.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1100.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152	6.054	6.067	(1.000)	129031	40.0000		
* 2 Naphthalene-d8	136	7.827	7.840	(1.000)	448509	40.0000		
* 3 Acenaphthene-d10	164	10.293	10.289	(1.000)	302040	40.0000		
* 4 Phenanthrene-d10	188	12.691	12.705	(1.000)	533404	40.0000		
* 5 Chrysene-d12	240	16.221	16.235	(1.000)	590142	40.0000		
* 6 Perylene-d12	264	19.008	19.021	(1.000)	560052	40.0000		
S 7 2-Fluorophenol	112	4.483	4.496	(0.741)	228713	53.6494	48.77	
S 8 Phenol-d5	99	5.733	5.746	(0.947)	271238	47.1534	42.87	
S 9 Nitrobenzene-d5	82	6.864	6.895	(0.877)	453687	74.7247	67.93	
S 10 2-Fluorobiphenyl	172	9.364	9.377	(0.910)	739978	75.3993	68.54	(M)
S 11 2,4,6-Tribromophenol	330	11.644	11.657	(1.131)	447633	169.545	154.1	(AM)
S 12 Terphenyl-d14	244	14.904	14.900	(0.919)	1031768	72.1578	65.60	
16 Phenol	94	Compound Not Detected.						
17 Bis(2-chloroethyl)ether	93	Compound Not Detected.						
18 2-Chlorophenol	128	Compound Not Detected.						

1/23/02

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-1A66.d
Report Date: 23-Jan-2002 11:39

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY
19 1,3-Dichlorobenzene	146	Compound Not Detected.						
20 1,4-Dichlorobenzene	146	Compound Not Detected.						
22 1,2-Dichlorobenzene	146	Compound Not Detected.						
23 2-Methylphenol	108	Compound Not Detected.						
24 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.						
27 4-Methylphenol	108	Compound Not Detected.						
28 N-Nitroso-di-N-propylamine	70	Compound Not Detected.						
29 Hexachloroethane	117	Compound Not Detected.						
30 Nitrobenzene	77	Compound Not Detected.						
31 Isophorone	82	Compound Not Detected.						
32 2-Nitrophenol	139	Compound Not Detected.						
33 2,4-Dimethylphenol	122	7.456	7.469	(0.953)	32104	8.92303	8.11	8839(a)
34 Bis(2-chloroethoxy)methane	93	Compound Not Detected.						
35 2,4-Dichlorophenol	162	Compound Not Detected.						
36 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
37 Naphthalene	128	Compound Not Detected.						
38 4-Chloroaniline	127	Compound Not Detected.						
39 Hexachlorobutadiene	225	Compound Not Detected.						
41 4-Chloro-3-methylphenol	107	Compound Not Detected.						
42 2-Methylnaphthalene	142	Compound Not Detected.						
44 Hexachlorocyclopentadiene	237	Compound Not Detected						
45 2,4,6-Trichlorophenol	196	Compound Not Detected.						
46 2,4,5-Trichlorophenol	196	Compound Not Detected.						
47 2-Chloronaphthalene	162	Compound Not Detected.						
48 2-Nitroaniline	65	Compound Not Detected.						
50 Dimethylphthalate	163	Compound Not Detected.						
51 2,6-Dinitrotoluene	165	Compound Not Detected.						
52 Acenaphthylene	152	Compound Not Detected.						
53 3-Nitroaniline	138	Compound Not Detected.						
54 Acenaphthene	154	Compound Not Detected.						
55 2,4-Dinitrophenol	184	Compound Not Detected.						
56 4-Nitrophenol	109	Compound Not Detected.						
57 2,4-Dinitrotoluene	165	Compound Not Detected.						
58 Dibenzofuran	168	Compound Not Detected.						
59 Diethylphthalate	149	Compound Not Detected.						
60 4-Chlorophenyl-phenylether	204	Compound Not Detected.						
61 Fluorene	166	Compound Not Detected.						
62 4-Nitroaniline	138	Compound Not Detected.						
63 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						
64 N-Nitrosodiphenylamine	169	Compound Not Detected.						
66 4-Bromophenyl-phenylether	248	Compound Not Detected.						
67 Hexachlorobenzene	284	Compound Not Detected.						
69 Pentachlorophenol	266	Compound Not Detected.						
70 Phenanthrene	178	Compound Not Detected.						
71 Anthracene	178	Compound Not Detected.						
72 Carbazole	167	Compound Not Detected.						
73 Di-n-butylphthalate	149	Compound Not Detected.						

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-1A66.d
Report Date: 23-Jan-2002 11:39

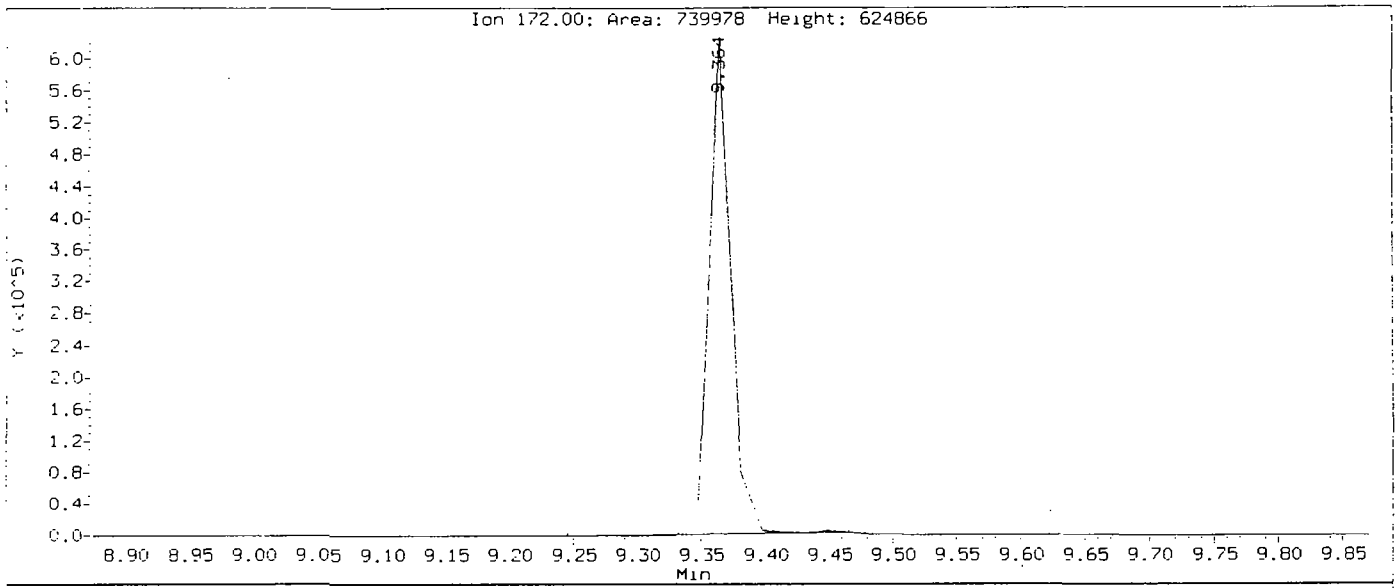
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
74 Fluoranthene	202	Compound Not Detected.						
76 Pyrene	202	Compound Not Detected.						
77 Butylbenzylphthalate	149	Compound Not Detected.						
78 3,3'-Dichlorobenzidine	252	Compound Not Detected.						
79 bis(2-ethylhexyl)Phthalate	149	Compound Not Detected.						
80 Benzo(a)anthracene	228	Compound Not Detected.						
81 Chrysene	228	Compound Not Detected.						
82 Di-n-octylphthalate	149	Compound Not Detected.						
83 Benzo(b)fluoranthene	252	Compound Not Detected.						
84 Benzo(k)fluoranthene	252	Compound Not Detected.						
85 Benzo(a)pyrene	252	Compound Not Detected.						
86 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
87 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
88 Benzo(g,h,i)perylene	276	Compound Not Detected.						

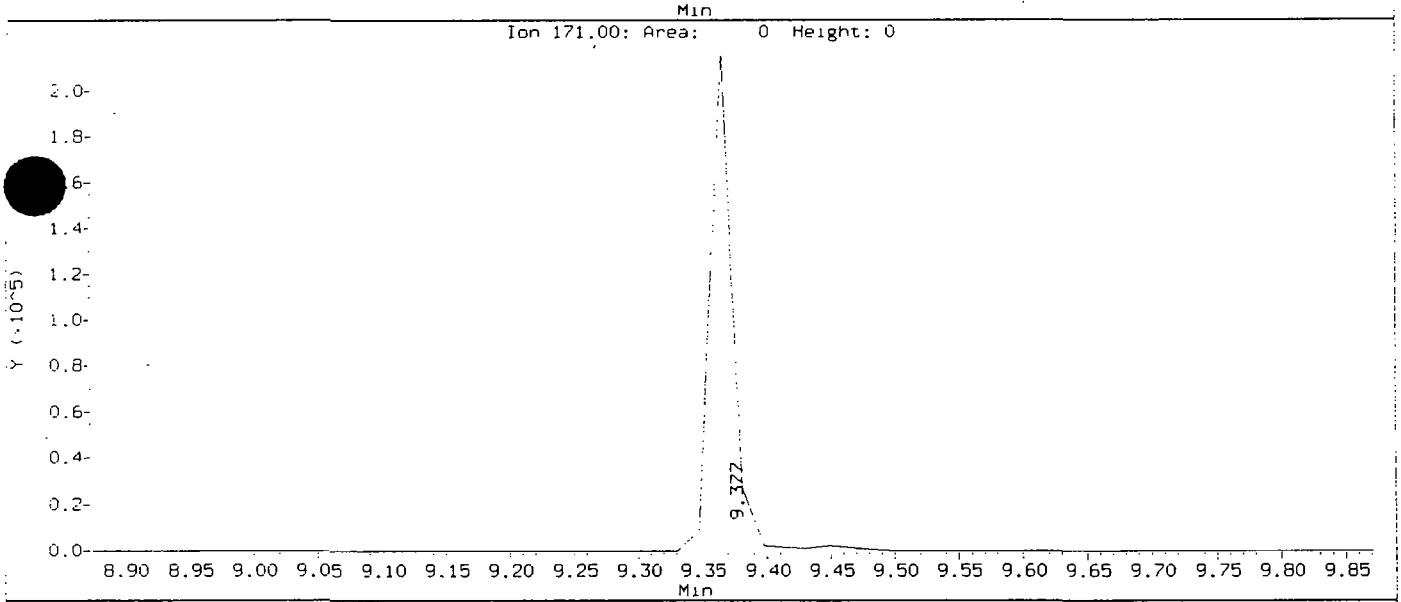
QC Flag Legend

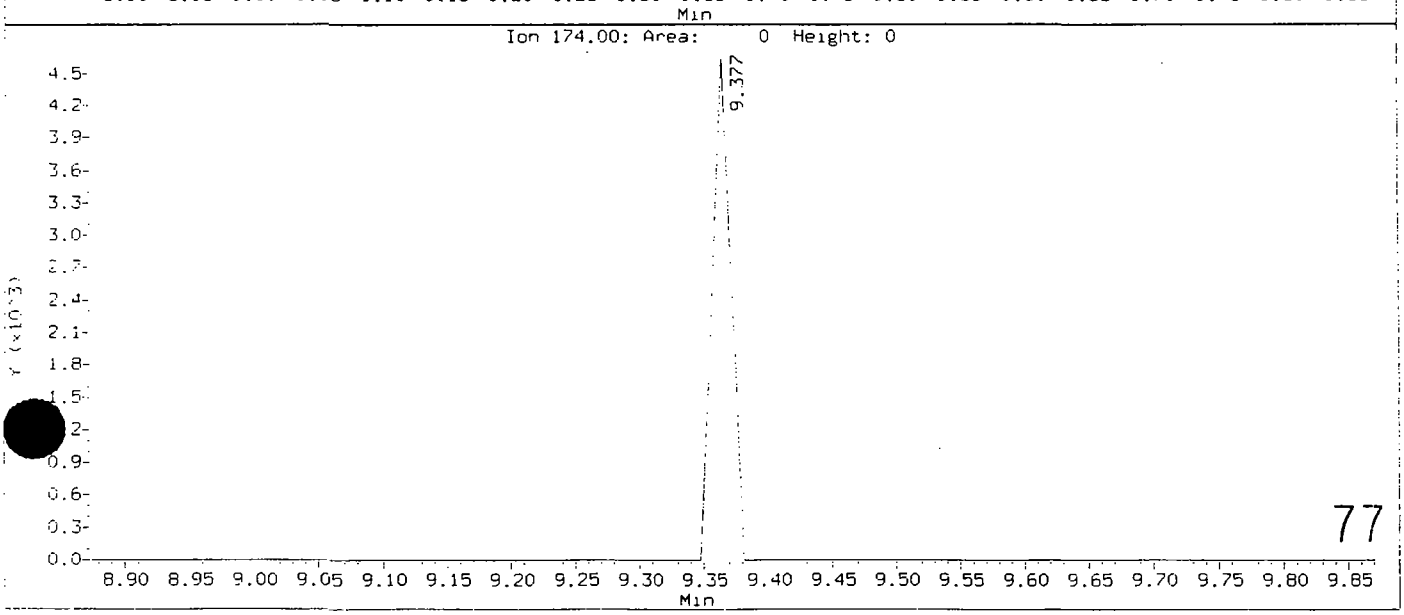
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-1A66.d
Injection Date: 20-JAN-2002 13:32
Instrument: 5972hp66.i
[redacted]t Sample ID: INF-01

[redacted]ound: 2-Fluorobiphenyl
CAS Number: 321-60-8

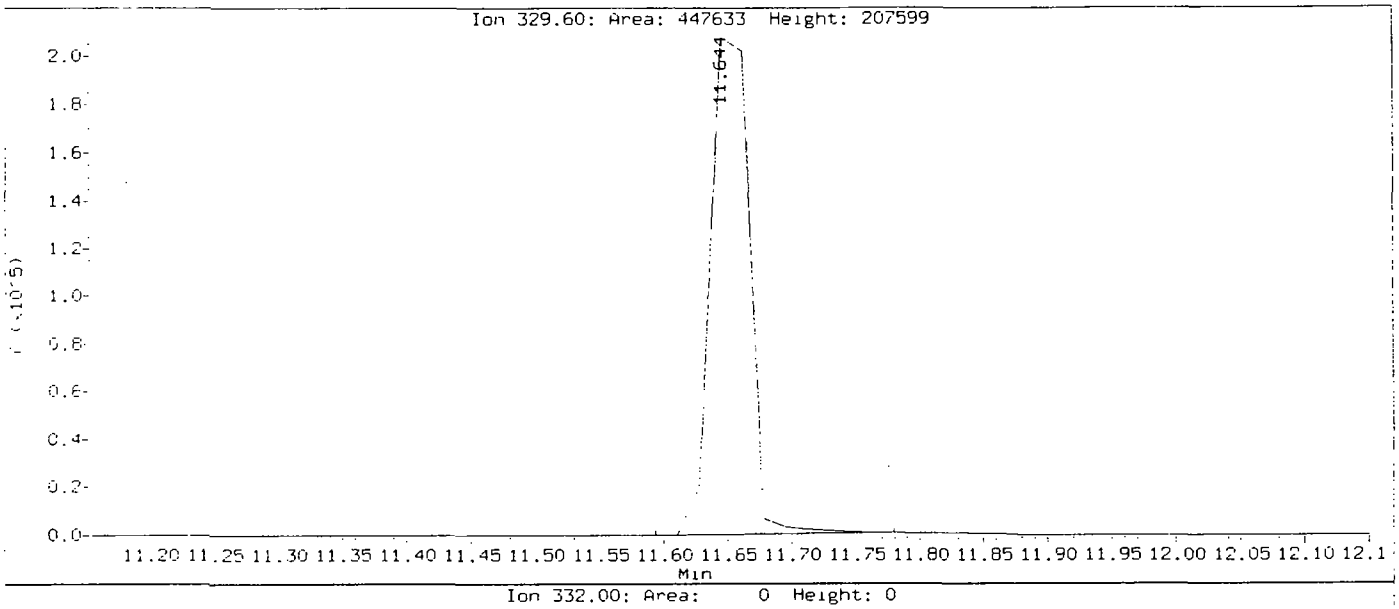


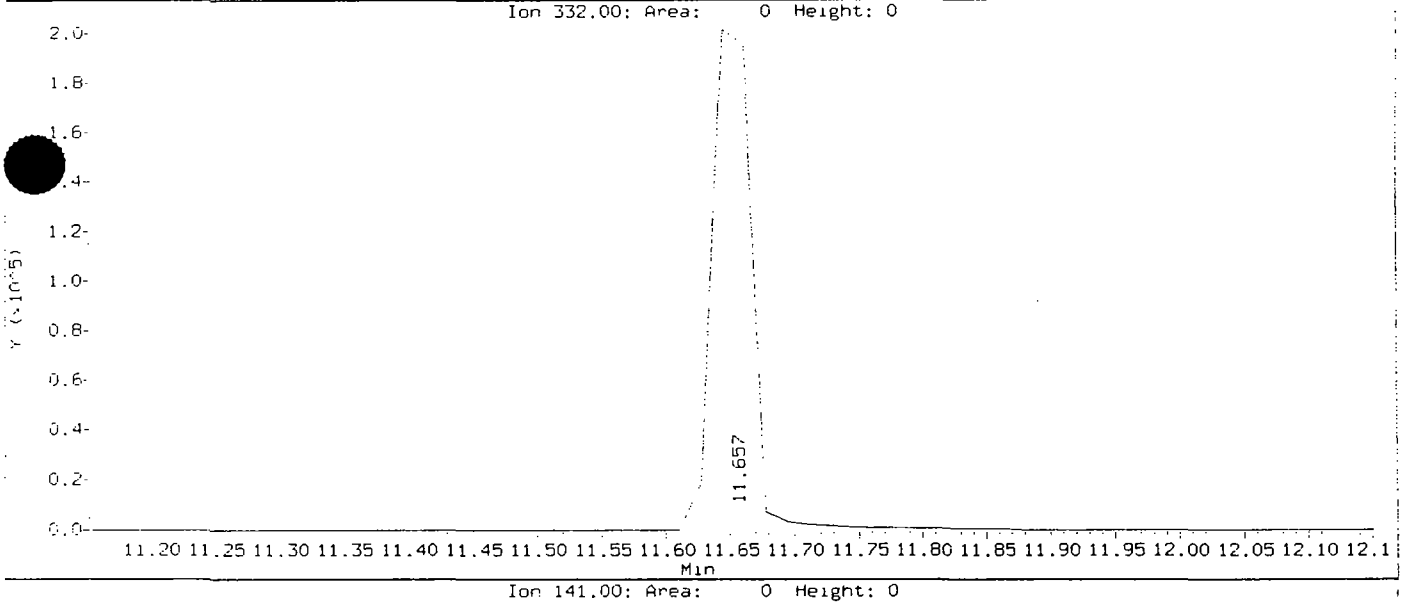


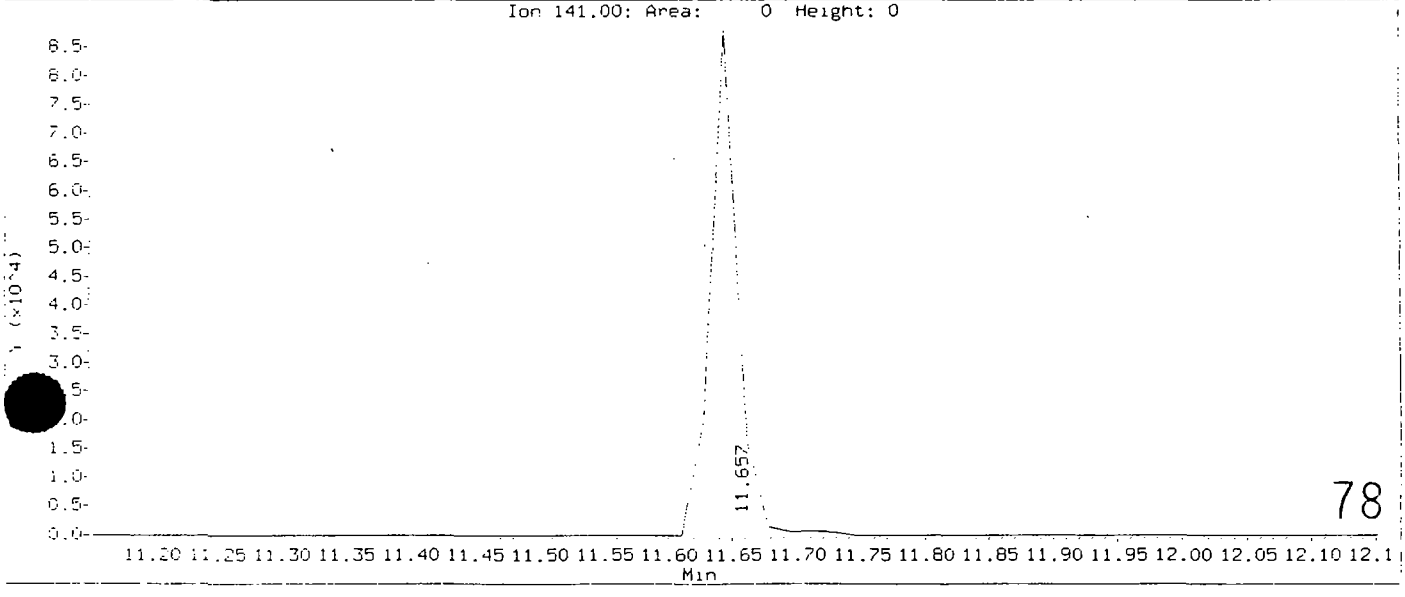


Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-1A66.d
Injection Date: 20-JAN-2002 13:32
Instrument: 5972hp66.i
[redacted]t Sample ID: INF-01

[redacted]ound: 2,4,6-Tribromophenol
CAS Number: 118-79-6







Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-1A66.d

Date : 20-JAN-2002 13:32

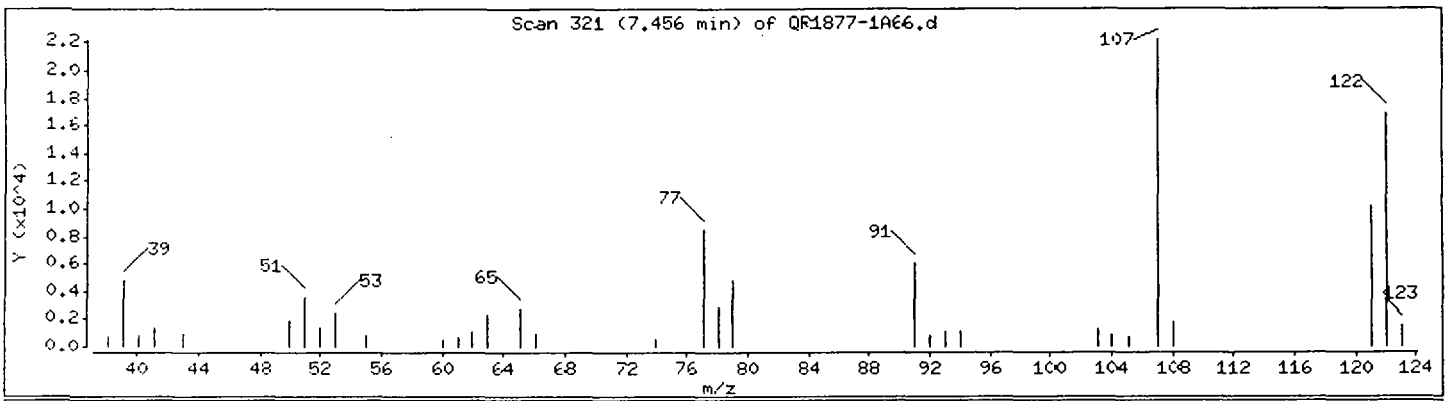
Client ID: INF-01 Instrument: 5972hp66.i

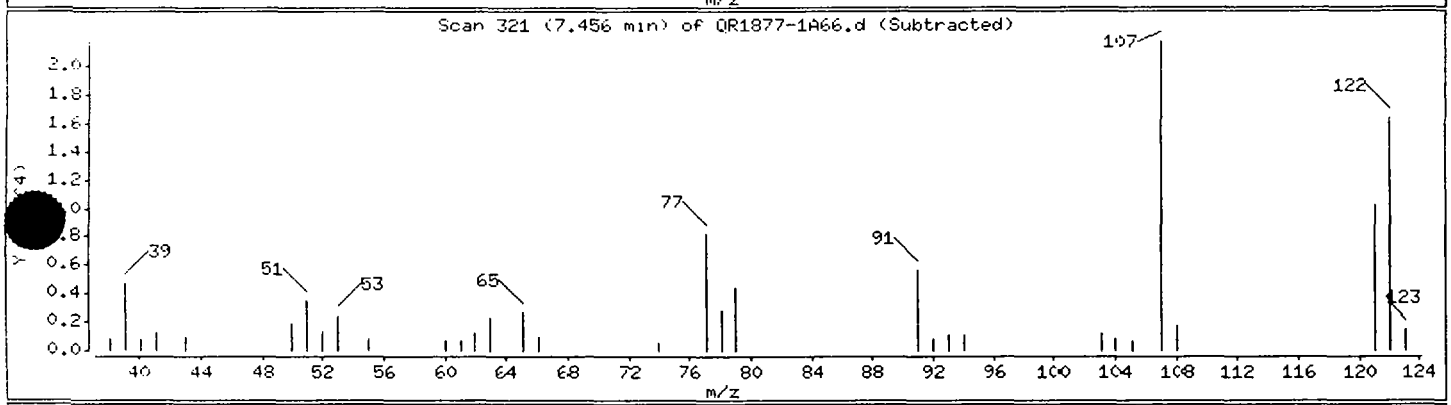
Sample Info:

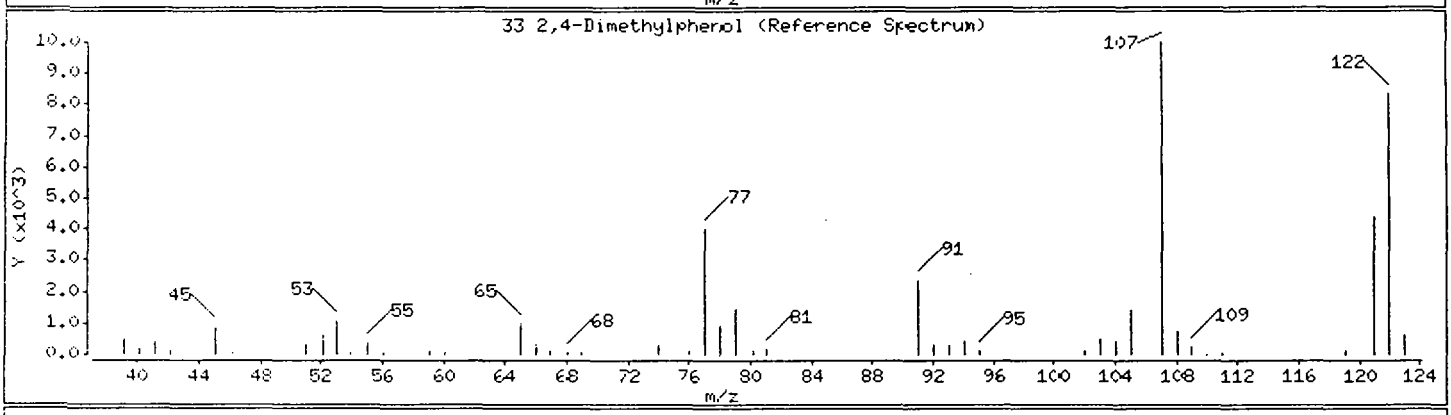
Volume Injected (uL): 1.0 Operator: 2319

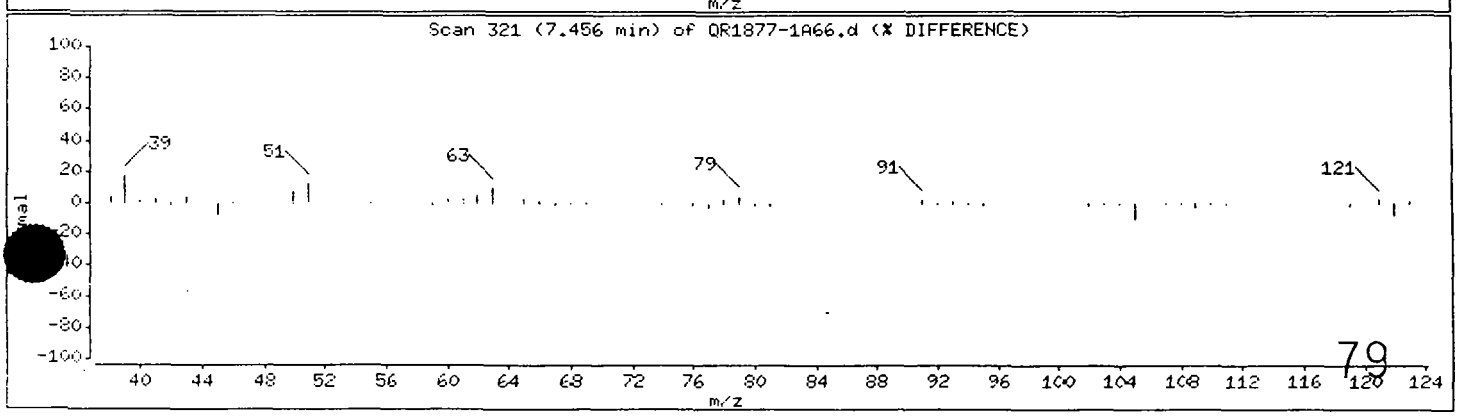
Column phase: RTX-5MS Column diameter: 0.25

33 2,4-Dimethylphenol Concentration: 8.11 ug/L









CompuChem
a Division of Liberty Analytical Corp.

GC/MS SEMI-VOA WORKSHEET

LAB INSTRUCTIONS: PPS 985**VOC 8260B TCL3CT.SUB**SVOC 8270 TCL3**DISS. TAL METALS**QC SAMPLE WILL BE DESIGNATED FOR THIS SDG

RECEIPT DATE: 1/16/02 0:00 SAMPLE DATE: 1/15/02 12:30 DUE DATE: 1/28/02 0:00

CASE#: Q1877 SDG: QR1877 **COMPUCHEM #: QR1877-1**

CLIENT ID: INF-01

ANALYSIS DESCRIPTION: SVOA-8270C

Injection Volume : 1 µL Dilution Prep (if needed)_____

Extraction Date 1/18/02

DFTPP Filename DF020120A66

Sample File Name **QR1877-1** A66

ANALYST (S): Injection 2319 Work-up 917

GC/MS DATE REVIEW

CONDITION CODE

[CC]

Disposition: [X] Complete

Extraneous Peak Search Results:

Number of peaks found: N/A

[ ] Reinjection Required

Number of Hits found: 1

[ ] Re-extraction Required

Number of Surrogate Outliers: 9

[ ] Reinject Neat

[ ] Dilute (X)

Quality Assurance Notice (s)
Number of Notices Required 0

Comments:

#GC/MS Review [signature] Date 1/23/2 Auditor_____ Date___/___/___

Final Reportable Package(s):

QR1877-1A66

ASSIGNED TO: Matt / David / [illegible]

EMP ID NUMBER: 2466, 2503/ ~~2357~~ 2378 [illegible]

CompuChem
EXTRACTION WORKSHEET
SEMI-VOLATILE WATER, Method 3510C for 8270C

-079

1-18-02

DATE EXTRACTED/POSTED: 1/18/02

81

	SAMPLE NUMBER	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	FINAL VOLUME (ml)	Adjusted pH A/N	Adjusted pH BASE	COMMENTS
1	QR1877-1		1100	1.0	1.6	13.0	
2	3		500	0.5	1.6	13.0	
3	4		1100	1.0	1.6	13.0	
4	5	QC	1100	1.0	1.6	13.0	use Q-5 for 3/4 SS
5	6		1100	1.0	1.6	13.0	
6	WG15377-3	SS	1100	1.0	1.6	13.0	
7	-4	SS	1100	1.0	1.6	13.0	
8	R2418-1		1075	1.0	1.6	13.0	
9	U2416-1		1140	1.0	1.6	13.0	
10	2		1050	1.0	1.6	13.0	
11	3		1050	1.0	1.6	13.0	
12	4	QC	500	~~1.0~~ 0.5	1.6	13.0	use U-4 for 5/6 SS
13	5		1100	1.0	1.6	13.0	
14	WG15377-5	SS	500	0.5	1.6	13.0	
15	-6	SS	500	0.5	1.6	13.0	
16	V2403-1		1000	1.0	1.6	13.0	use reduced volume for V-1 — WYASP
17	Y182222		1010	1.0	1.6	13.0	
18							
19							[illegible]
20							
21							
22							
23	WG15377-1	BLK	1000	1.0	1.6	13.0	
24	-2	LCS	1000	1.0	1.6	13.0	*Add 1.0 ml validation spike to LCS and SSs unless otherwise noted

		S-VOL	Acid	B/N	8270
SURROGATE	NO.	393			
	AMT.	1.0 ml			
	LOT	52623			
SPIKE	NO.		3012	2021	VALID.
	AMT.		1.0 ml	1.0ml	1.0 ml
	LOT				52452

FINAL VOLUME VERIFIED: [illegible signature]

SUPERVISOR REVIEWED: [illegible signature]

SURROGATE & SPIKE ADDED BY: GFB 1-18-02
Initials Date

Analyst initials. Extracted MC [illegible] KD JS/GFB N2 MB/GFB/JS Bottle up GFB/MB/JS

Witness [illegible] 1/18/02
Initials Date

[illegible]nufacturer and lot number of reagents/solvents used MeCl: CC95[illegible] [illegible]: T0150 H2SO4: V03029 Na2SO4: [illegible]3137

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-1

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-3

Sample wt/vol: 500 (g/mL) ML Lab File ID: QR1877-3A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 500(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	10	U
111-44-4	Bis(2-chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	10	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-1

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-3

Sample wt/vol: 500 (g/mL) ML Lab File ID: QR1877-3A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 500(uL) Date Analyzed: 01/20/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

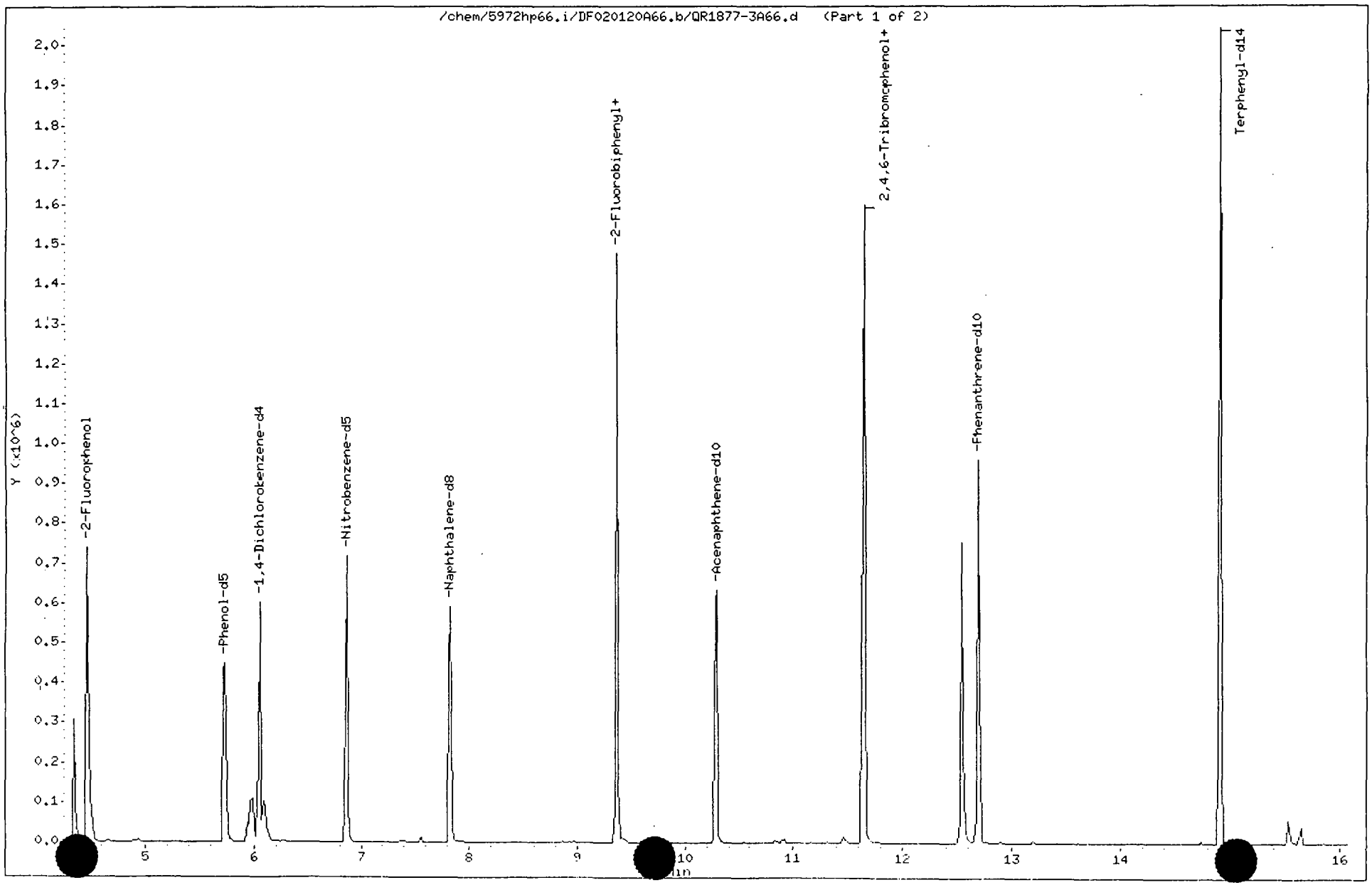
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	20	U
121-14-2	2,4-Dinitrotoluene	10	U
132-64-9	Dibenzofuran	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	55	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
117-81-7	bis(2-ethylhexyl)Phthalate	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-3A66.d
Date : 20-JAN-2002 14:09
Client ID: SS-1
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2319
Column diameter: 0.25



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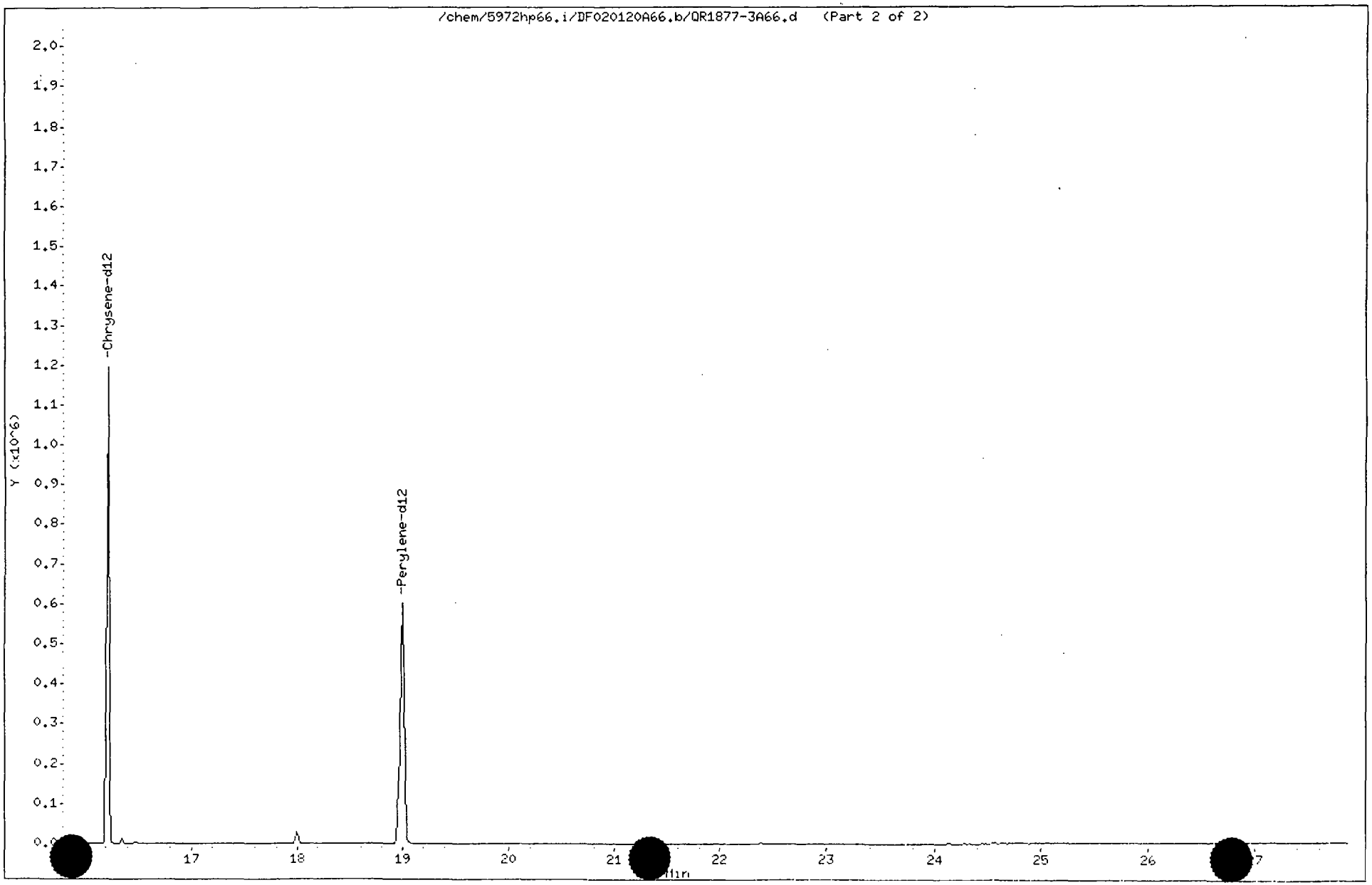
Date : 20-JAN-2002 14:09
Client ID: SS-1
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2319
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-3A66.d
Report Date: 23-Jan-2002 11:40

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020120A66.b/QR1877-3A66.d
Lab Smp Id: QR1877-3 Client Smp ID: SS-1
Inj Date : 20-JAN-2002 14:09
Operator : 2319 Inst ID: 5972hp66.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020120A66.b/8270Cv6.m
Meth Date : 23-Jan-2002 11:31 byrd Quant Type: ISTD
Cal Date : 17-JAN-2002 13:38 Cal File: HM020117A66.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLM03.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY	
* 1	1,4-Dichlorobenzene-d4	152	6.053	6.067	(1.000)	123893	40.0000			
* 2	Napnthalene-d8	136	7.826	7.840	(1.000)	456028	40.0000			
* 3	Acenaphthene-d10	164	10.292	10.289	(1.000)	303872	40.0000			
* 4	Phenanthrene-d10	188	12.690	12.705	(1.000)	530659	40.0000			
* 5	Chrysene-d12	240	16.220	16.235	(1.000)	587572	40.0000			
* 6	Perylene-d12	264	19.007	19.021	(1.000)	568919	40.0000			
S 7	2-Fluorophenol	112	4.465	4.496	(0.738)	279792	68.3529	68.35		
S 8	Phenol-d5	99	5.732	5.746	(0.947)	302019	54.6819	54.68		
S 9	Nitrobenzene-d5	82	6.864	6.895	(0.877)	303285	49.1291	49.13		
S 10	2-Fluorobiphenyl	172	9.363	9.377	(0.910)	541681	54.8613	54.86	(M)	1
S 11	2,4,6-Tribromophenol	330	11.643	11.657	(1.131)	315333	118.715	118.7	(M)	1
S 12	Terphenyl-d14	244	14.903	14.900	(0.919)	804501	56.5097	56.51		
16	Phenol	94	Compound Not Detected.							
17	Bis(2-chloroethyl)ether	93	Compound Not Detected.							
18	2-Chlorophenol	128	Compound Not Detected.							

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-3A66.d
Report Date: 23-Jan-2002 11:40

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
19	1,3-Dichlorobenzene	146	Compound Not Detected.						
20	1,4-Dichlorobenzene	146	Compound Not Detected.						
22	1,2-Dichlorobenzene	146	Compound Not Detected.						
23	2-Methylphenol	108	Compound Not Detected.						
24	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.						
27	4-Methylphenol	108	Compound Not Detected.						
28	N-Nitroso-di-N-propylamine	70	Compound Not Detected.						
29	Hexachloroethane	117	Compound Not Detected.						
30	Nitrobenzene	77	Compound Not Detected.						
31	Isophorone	82	Compound Not Detected.						
32	2-Nitrophenol	139	Compound Not Detected.						
33	2,4-Dimethylphenol	122	Compound Not Detected.						
34	Bis(2-chloroethoxy)methane	93	Compound Not Detected.						
35	2,4-Dichlorophenol	162	Compound Not Detected.						
36	1,2,4-Trichlorobenzene	180	Compound Not Detected.						
37	Naphthalene	128	Compound Not Detected.						
38	4-Chloroaniline	127	Compound Not Detected.						
39	Hexachlorobutadiene	225	Compound Not Detected.						
41	4-Chloro-3-methylphenol	107	Compound Not Detected.						
42	2-Methylnaphthalene	142	Compound Not Detected.						
44	Hexachlorocyclopentadiene	237	Compound Not Detected.						
45	2,4,6-Trichlorophenol	196	Compound Not Detected.						
46	2,4,5-Trichlorophenol	196	Compound Not Detected.						
47	2-Chloronaphthalene	162	Compound Not Detected.						
49	2-Nitroaniline	65	Compound Not Detected.						
50	Dimethylphthalate	163	Compound Not Detected.						
51	2,6-Dinitrotoluene	165	Compound Not Detected.						
52	Acenaphthylene	152	Compound Not Detected.						
53	3-Nitroaniline	138	Compound Not Detected.						
54	Acenaphthene	154	Compound Not Detected.						
55	2,4-Dinitrophenol	184	Compound Not Detected.						
56	4-Nitrophenol	109	Compound Not Detected.						
57	2,4-Dinitrotoluene	165	Compound Not Detected.						
58	Dibenzofuran	168	Compound Not Detected.						
59	Diethylphthalate	149	Compound Not Detected.						
60	4-Chlorophenyl-phenylether	204	Compound Not Detected.						
61	Fluorene	166	Compound Not Detected.						
62	4-Nitroaniline	138	Compound Not Detected.						
63	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						
64	N-Nitrosodiphenylamine	169	Compound Not Detected.						
66	4-Bromophenyl-phenylether	248	Compound Not Detected.						
67	Hexachlorobenzene	284	Compound Not Detected.						
69	Pentachlorophenol	266	12.538	12.553	(0.988)	132701	54.7626	54.76	8944
70	Phenanthrene	178	Compound Not Detected.						
71	Anthracene	178	Compound Not Detected.						
72	Carbazole	167	Compound Not Detected.						
73	Di-n-butylphthalate	149	Compound Not Detected.						

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-3A66.d
Report Date: 23-Jan-2002 11:40

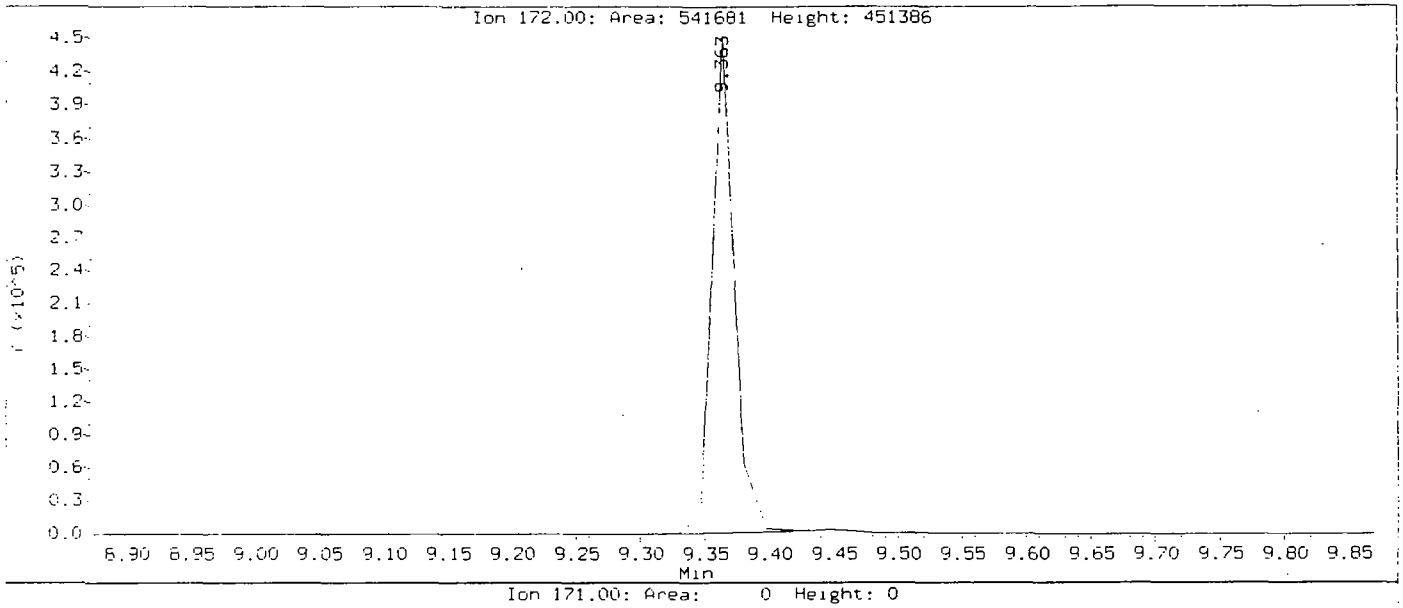
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
74 Fluoranthene	202	Compound Not Detected.						
76 Pyrene	202	Compound Not Detected.						
77 Butylbenzylphthalate	149	Compound Not Detected.						
78 3,3'-Dichlorobenzidine	252	Compound Not Detected.						
79 bis(2-ethylhexyl)Phthalate	149	Compound Not Detected.						
80 Benzo(a)anthracene	228	Compound Not Detected.						
81 Chrysene	228	Compound Not Detected.						
82 Di-n-octylphthalate	149	Compound Not Detected.						
83 Benzo(b)fluoranthene	252	Compound Not Detected.						
84 Benzo(k)fluoranthene	252	Compound Not Detected.						
85 Benzo(a)pyrene	252	Compound Not Detected.						
86 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
87 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
88 Benzo(g,h,i)perylene	276	Compound Not Detected.						

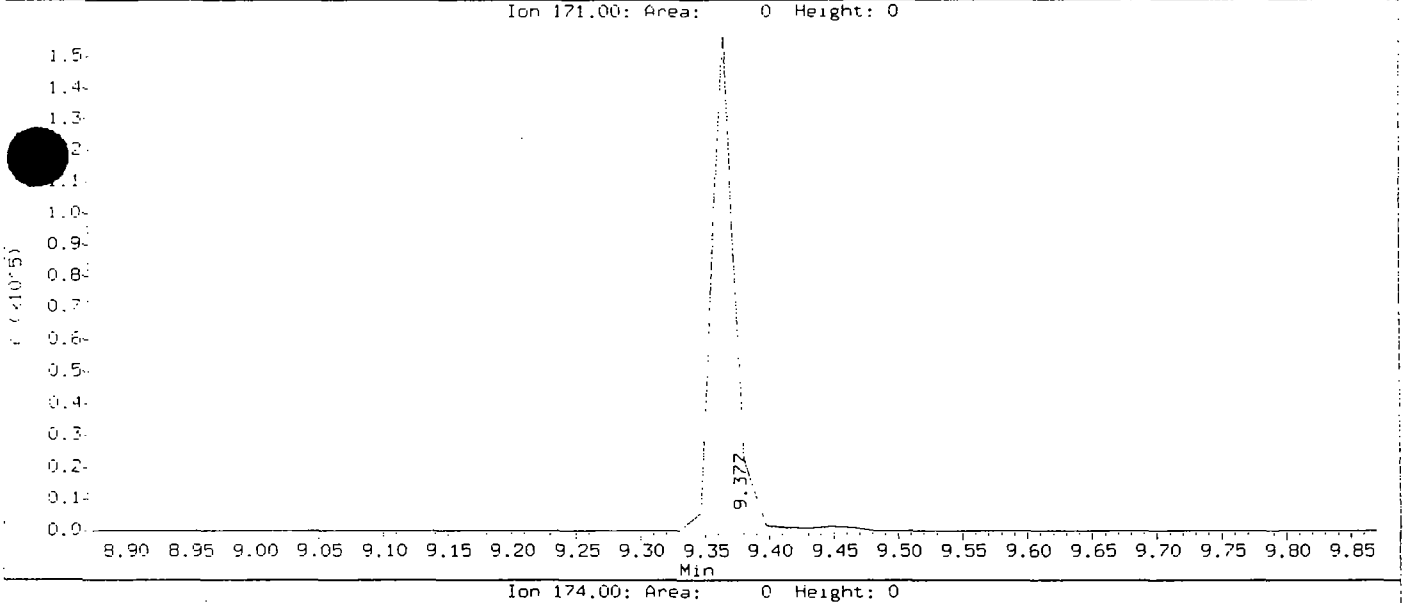
QC Flag Legend

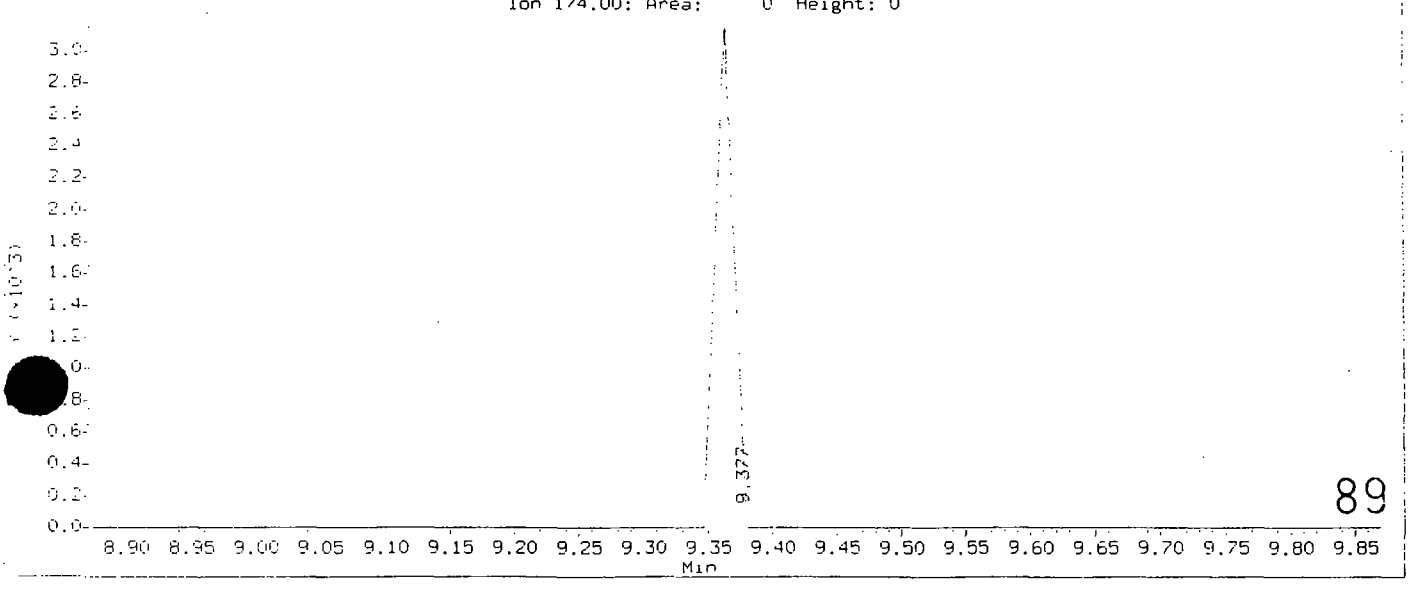
M - Compound response manually integrated.

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-3A66.d
Injection Date: 20-JAN-2002 14:09
Instrument: 5972hp66.i
[redacted] Sample ID: SS-1

Compound: 2-Fluorobiphenyl
CAS Number: 321-60-8

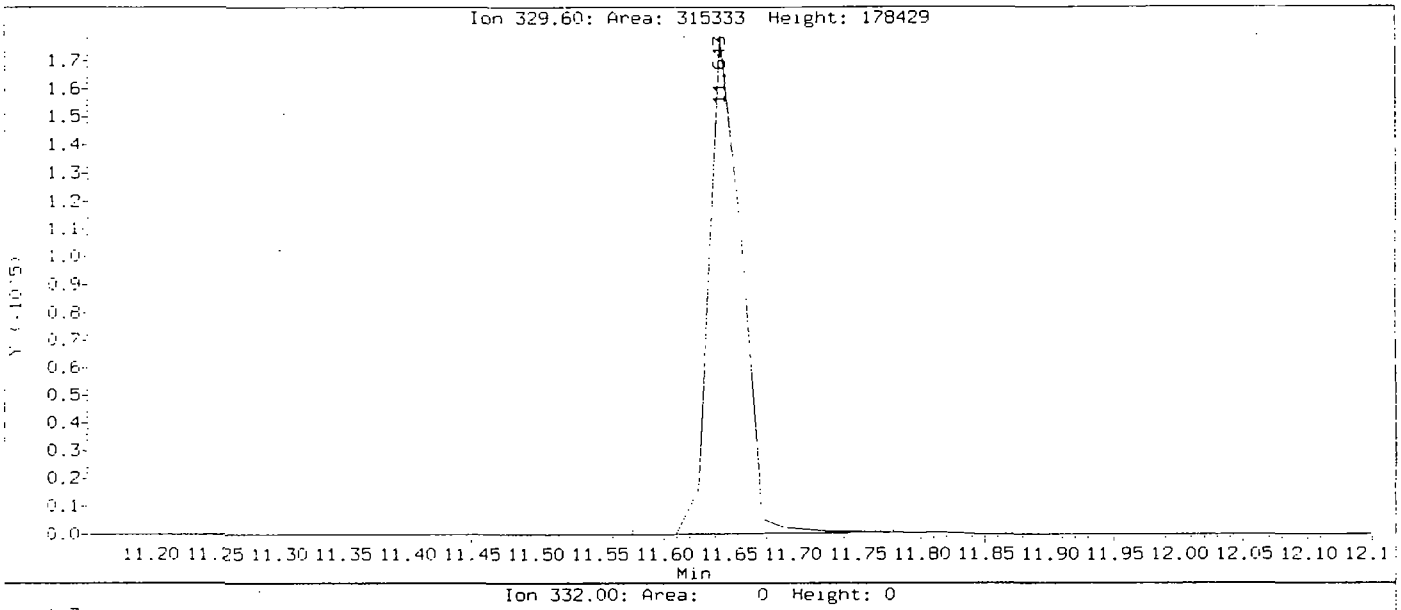


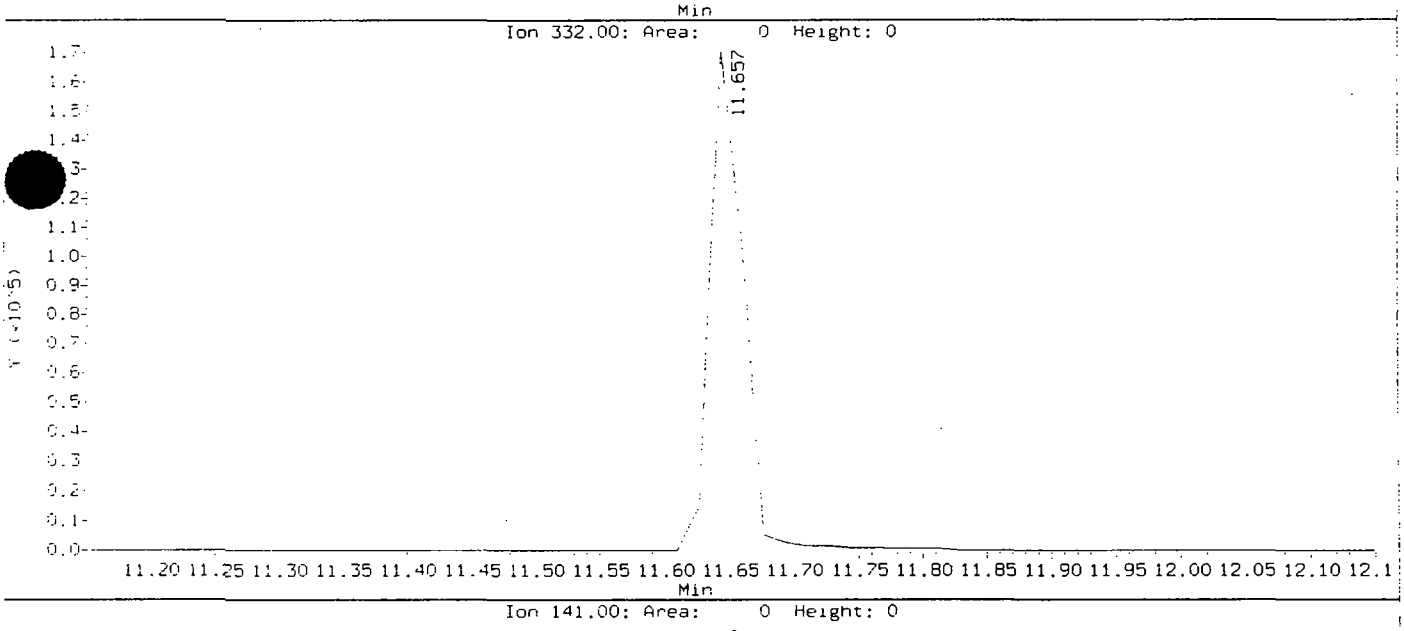


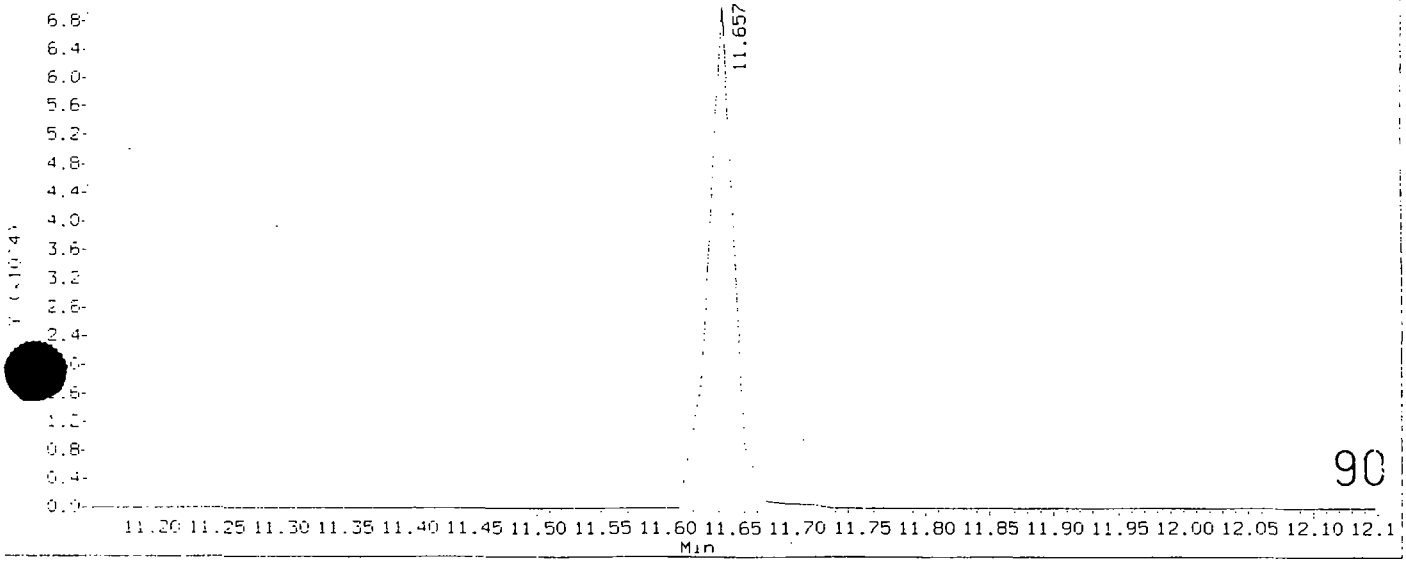


Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-3A66.d
Injection Date: 20-JAN-2002 14:09
Instrument: 5972hp66.i
[redacted] Sample ID: SS-1

Compound: 2,4,6-Tribromophenol
CAS Number: 118-79-6







Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-3A66.d

Date : 20-JAN-2002 14:09

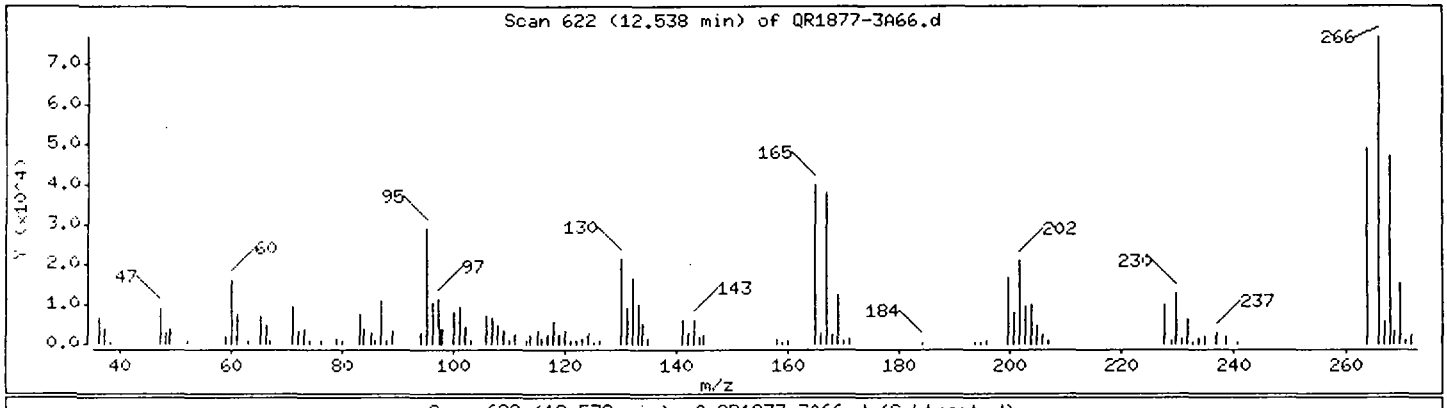
Client ID: SS-1 Instrument: 5972hp66.i

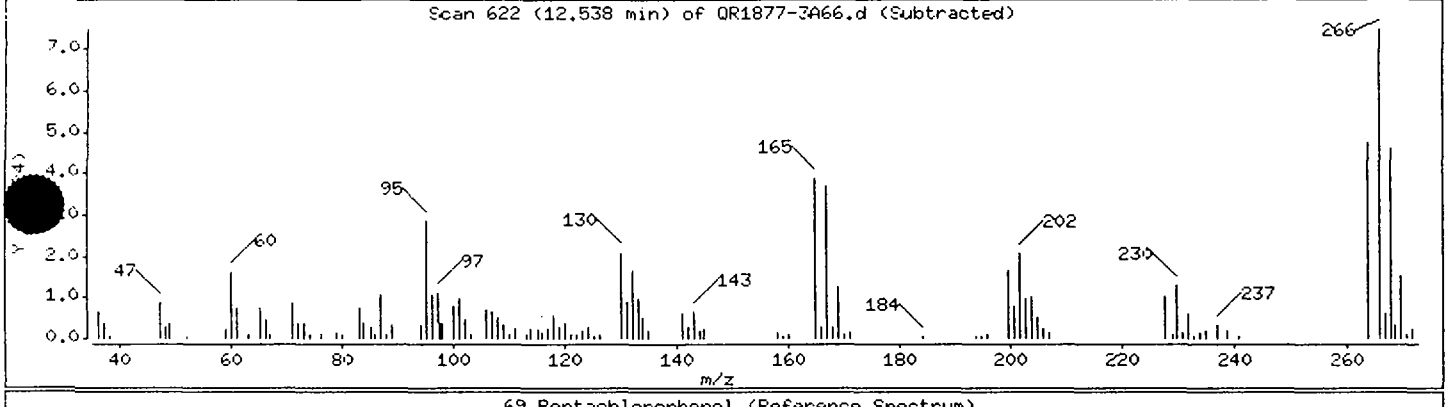
Sample Info:

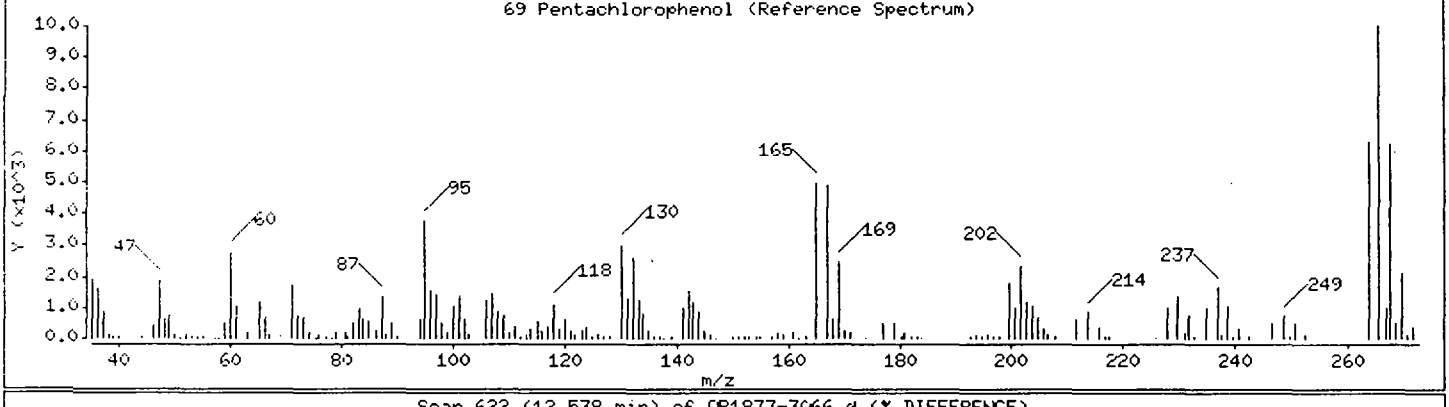
Volume Injected (uL): 1.0 Operator: 2319

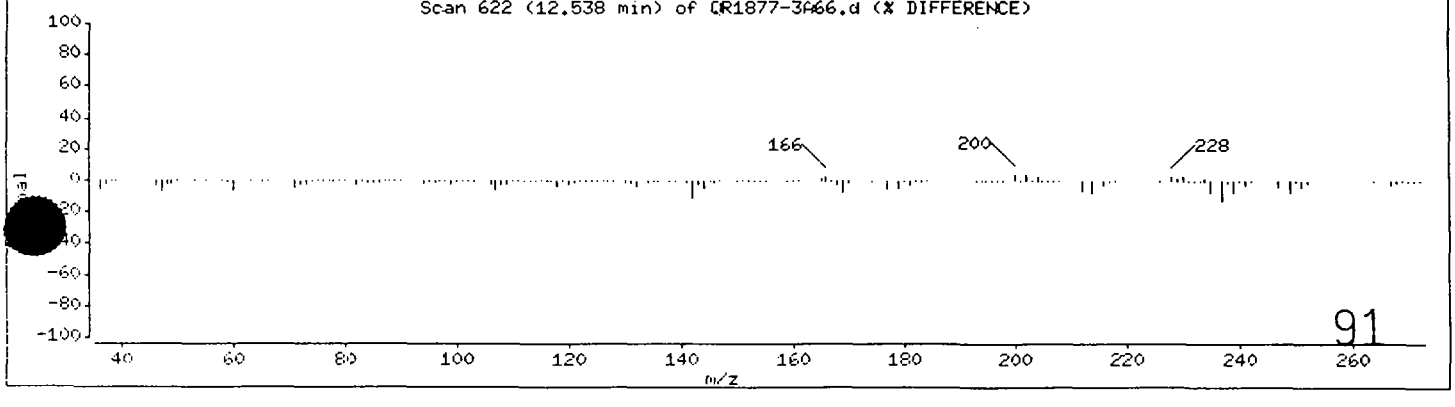
Column phase: RTX-5MS Column diameter: 0.25

69 Pentachlorophenol Concentration: 54.76 ug/L









CompuChem
a Division of Liberty Analytical Corp.

GC/MS SEMI-VOA WORKSHEET

LAB INSTRUCTIONS: PPS 985**VOC 8260B TCL3CT.SUB**SVOC 8270C TCL3**DISS. TAL METALS

RECEIPT DATE: 1/17/02 0:00 SAMPLE DATE: 1/15/02 15:15 DUE DATE: 1/29/02 0:00

CASE#: Q1877 SDG: QR1877 **COMPUCHEM #: QR1877-3**

CLIENT ID: SS-1

ANALYSIS DESCRIPTION: SVOA-8270C

Injection Volume :_____1_____µL Dilution Prep (if needed)_____

Extraction Date ___1___/___18___/___02____

DFTPP Filename _____DF020120A66_____

Sample File Name_____**QR1877-3**__A66_____

ANALYST (S): Injection_____2319_____ Work-up _____917_____

GC/MS DATE REVIEW

CONDITION CODE

OK

Disposition: [✓] Complete

Extraneous Peak Search Results:

[ ] Reinjection Required

Number of peaks found: ____N/A

[ ] Re-extraction Required

Number of Hits found: ____1

[ ] Reinject Neat

Number of Surrogate Outliers: ____0

[ ] Dilute (X)

Quality Assurance Notice (s)
Number of Notices Required ____0

Comments:

#GC/MS Review_____ Date 1/23/2 Auditor_____Date___/___/___

Final Reportable Package(s):

_____/ QR1877-3A66 /_____

ASSIGNED TO: Matt / David / Vanessa

EMP ID NUMBER: 2066 / 2503 / 7378 ~~7357~~

CompuChem
EXTRACTION WORKSHEET
SEMI-VOLATILE WATER, Method 3510C for 8270C
-079

DATE EXTRACTED/POSTED: 1-18-2 / 1/18/02

	SAMPLE NUMBER	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	FINAL VOLUME (ml)	Adjusted pH A/N	Adjusted pH BASE	COMMENTS
1	QC1877-1		1100	1.0	1.6	13.0	
2	3		500	1.0	1.6	13.0	
3	4		1100	1.0	1.6	13.0	
4	5	QC	1100	1.0	1.6	13.0	use Q-5 for 3/4 SS
5	6		1100	1.0	1.6	13.0	
6	MB-15377-3	SS	1100	1.0	1.6	13.0	
7	4	SS	1100	1.0	1.6	13.0	
8	IC2418-1		1075	1.0	1.6	13.0	
9	UC2410-1		1140	1.0	1.6	13.0	
10	2		1050	1.0	1.6	13.0	
11	3		1050	1.0	1.6	13.0	
12	4	QC	500	0.5	1.6	13.0	use U-4 for 5/6 SS
13	5		1100	1.0	1.6	13.0	
14	MB-15377-5	SS	500	0.5	1.6	13.0	
15	6	SS	500	0.5	1.6	13.0	
16	VZY03-1		1000	1.0	1.6	13.0	use reduced volume for V-1 - WYASP
17	Y18222		1000	1.0	1.6	13.0	
18							
19							
20							
21							
22							
23	MB-15377-1	BLK	1000	1.0	1.6	13.0	
24	2	LCS	1000	1.0	1.6	13.0	

*Add 1.0 mL validation spike to LCS and SSs unless otherwise noted

		S-VOL	Acid	B/N	8270
SURROGATE	NO.	393			
	AMT.	1.0 ml			
	LOT	52623			
SPIKE	NO.		3012	2021	VALID.
	AMT.		1.0 ml	1.0ml	1.0 ml
	LOT				52452

FINAL VOLUME VERIFIED: M. Bell

SUPERVISOR REVIEWED: M. Bell

SURROGATE & SPIKE ADDED BY: HB, 1-18-02 (Initials, Date)

Analyst initials. Extracted MC JS KD JS/GFB N2 BS/GFB Bottle up GFB/MS/JS

Witness DL 1/18/02 (Initials, Date)

Manufacturer and lot number of reagents/solvents used Mecl: CC995 [illegible] T09501 H2SO4: V03029 Na2SO4: [illegible]

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-2

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-4

Sample wt/vol: 1100 (g/mL) ML Lab File ID: QR1877-4A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	9	U
111-44-4	Bis(2-chloroethyl)ether	9	U
95-57-8	2-Chlorophenol	9	U
541-73-1	1,3-Dichlorobenzene	9	U
106-46-7	1,4-Dichlorobenzene	9	U
95-50-1	1,2-Dichlorobenzene	9	U
95-48-7	2-Methylphenol	9	U
108-60-1	2,2'-oxybis(1-Chloropropane)	9	U
106-44-5	4-Methylphenol	9	U
621-64-7	N-Nitroso-di-N-propylamine	9	U
67-72-1	Hexachloroethane	9	U
98-95-3	Nitrobenzene	9	U
78-59-1	Isophorone	9	U
88-75-5	2-Nitrophenol	9	U
105-67-9	2,4-Dimethylphenol	2	J
111-91-1	Bis(2-chloroethoxy)methane	9	U
120-83-2	2,4-Dichlorophenol	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
91-20-3	Naphthalene	9	U
106-47-8	4-Chloroaniline	9	U
87-68-3	Hexachlorobutadiene	9	U
59-50-7	4-Chloro-3-methylphenol	9	U
91-57-6	2-Methylnaphthalene	9	U
77-47-4	Hexachlorocyclopentadiene	9	U
88-06-2	2,4,6-Trichlorophenol	9	U
95-95-4	2,4,5-Trichlorophenol	9	U
91-58-7	2-Chloronaphthalene	9	U
88-74-4	2-Nitroaniline	18	U
131-11-3	Dimethylphthalate	9	U
606-20-2	2,6-Dinitrotoluene	9	U
208-96-8	Acenaphthylene	9	U
99-09-2	3-Nitroaniline	18	U
83-32-9	Acenaphthene	9	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-2

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-4

Sample wt/vol: 1100 (g/mL) ML Lab File ID: QR1877-4A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

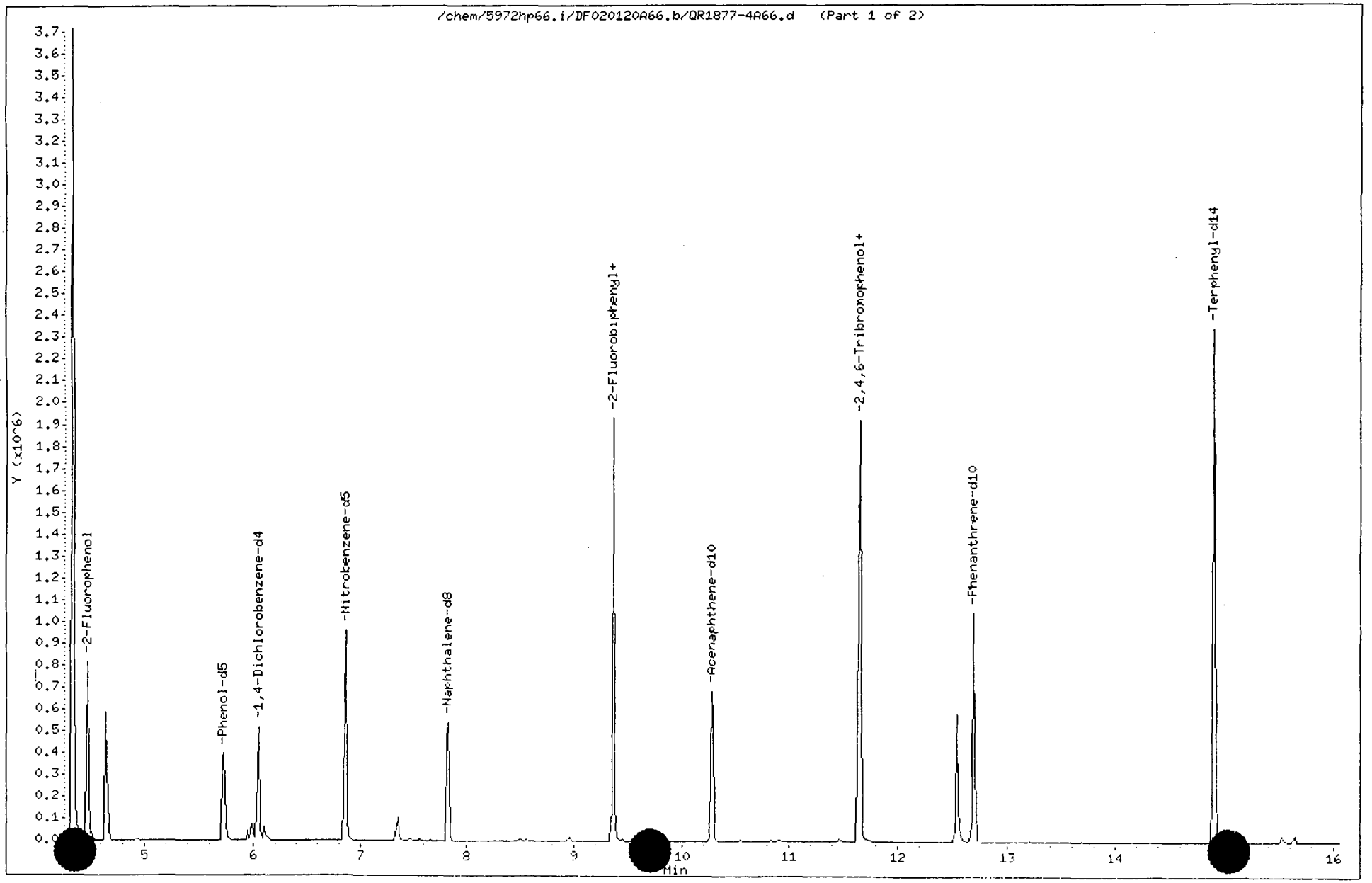
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	45	U
100-02-7	4-Nitrophenol	18	U
121-14-2	2,4-Dinitrotoluene	9	U
132-64-9	Dibenzofuran	9	U
84-66-2	Diethylphthalate	9	U
7005-72-3	4-Chlorophenyl-phenylether	9	U
86-73-7	Fluorene	9	U
100-01-6	4-Nitroaniline	18	U
534-52-1	4,6-Dinitro-2-methylphenol	18	U
86-30-6	N-Nitrosodiphenylamine (1)	9	U
101-55-3	4-Bromophenyl-phenylether	9	U
118-74-1	Hexachlorobenzene	9	U
87-86-5	Pentachlorophenol	38	
85-01-8	Phenanthrene	9	U
120-12-7	Anthracene	9	U
86-74-8	Carbazole	9	U
84-74-2	Di-n-butylphthalate	9	U
206-44-0	Fluoranthene	9	U
129-00-0	Pyrene	9	U
85-68-7	Butylbenzylphthalate	9	U
91-94-1	3,3'-Dichlorobenzidine	18	U
117-81-7	bis(2-ethylhexyl)Phthalate	9	U
56-55-3	Benzo(a)anthracene	9	U
218-01-9	Chrysene	9	U
117-84-0	Di-n-octylphthalate	9	U
205-99-2	Benzo(b)fluoranthene	9	U
207-08-9	Benzo(k)fluoranthene	9	U
50-32-8	Benzo(a)pyrene	9	U
193-39-5	Indeno(1,2,3-cd)pyrene	9	U
53-70-3	Dibenzo(a,h)anthracene	9	U
191-24-2	Benzo(g,h,i)perylene	9	U

(1) - Cannot be separated from Diphenylamine

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-4A66.d
Date : 20-JAN-2002 14:46
Client ID: SS-2
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2319.
Column diameter: 0.25



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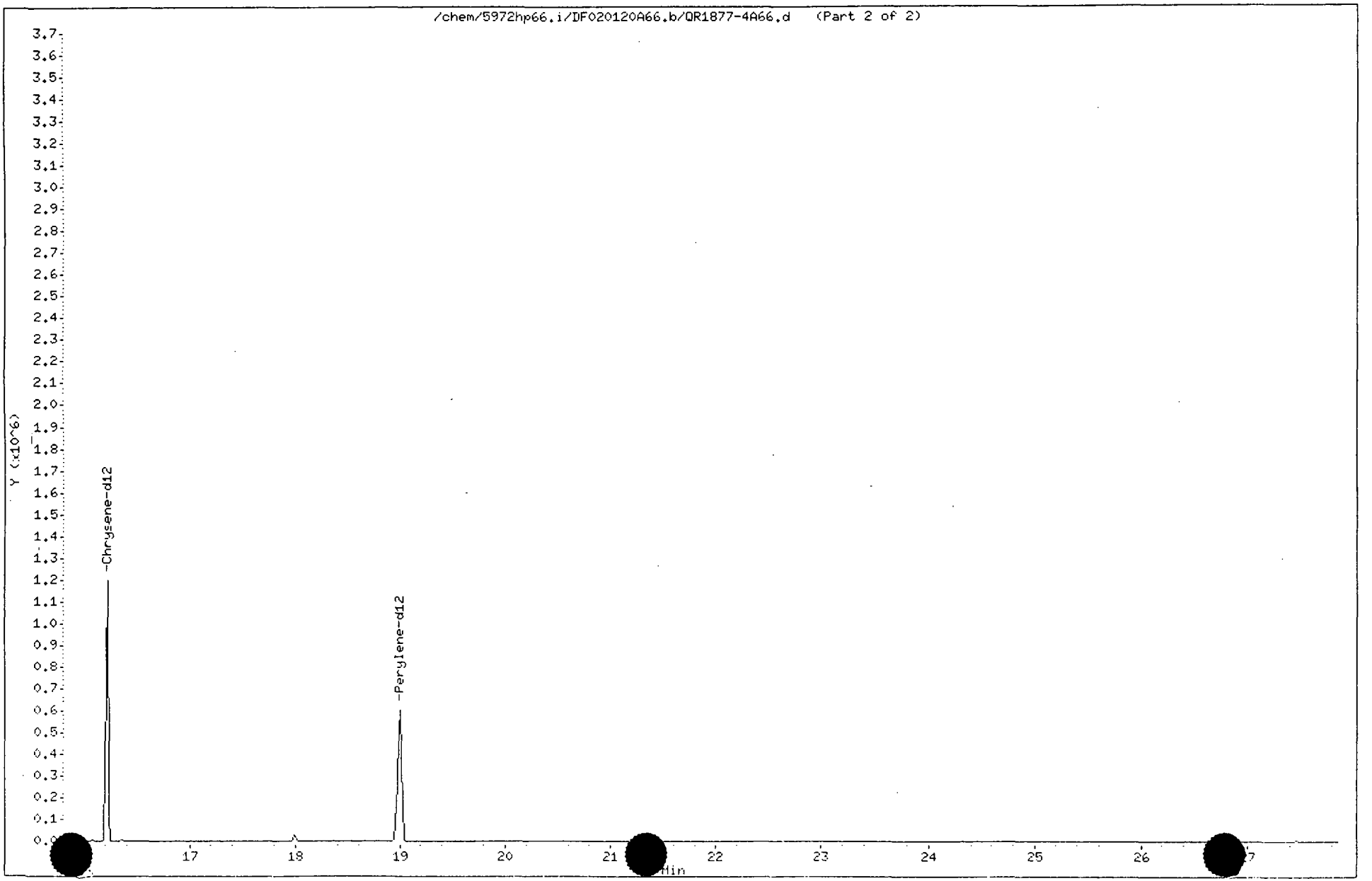
Date : 20-JAN-2002 14:46
Client ID: SS-2
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2319
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-4A66.d
Report Date: 23-Jan-2002 11:41

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020120A66.b/QR1877-4A66.d
Lab Smp Id: QR1877-4 Client Smp ID: SS-2
Inj Date : 20-JAN-2002 14:46
Operator : 2319 Inst ID: 5972hp66.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020120A66.b/8270Cv6.m
Meth Date : 23-Jan-2002 11:31 byrd Quant Type: ISTD
Cal Date : 17-JAN-2002 13:38 Cal File: HM020117A66.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLM03.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1100.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 1	1,4-Dichlorobenzene-d4	152	6.053	6.067	(1.000)	121159	40.0000		
* 2	Naphthalene-d8	136	7.827	7.840	(1.000)	449219	40.0000		
* 3	Acenaphthene-d10	164	10.293	10.289	(1.000)	308324	40.0000		
* 4	Phenanthrene-d10	188	12.691	12.705	(1.000)	545414	40.0000		
* 5	Chrysene-d12	240	16.221	16.235	(1.000)	588520	40.0000		
* 6	Perylene-d12	264	19.008	19.021	(1.000)	577996	40.0000		
S 7	2-Fluorophenol	112	4.466	4.496	(0.738)	293441	73.3050	66.64	
S 8	Phenol-d5	99	5.733	5.746	(0.947)	263311	48.7494	44.32	
S 9	Nitrobenzene-d5	82	6.864	6.895	(0.877)	407428	66.9996	60.91	
S 10	2-Fluorobiphenyl	172	9.364	9.377	(0.910)	709712	70.8415	64.40	(M)
S 11	2,4,6-Tribromophenol	330	11.644	11.657	(1.131)	419177	155.531	141.4	(M)
S 12	Terphenyl-d14	244	14.904	14.900	(0.919)	941883	66.0531	60.05	
16	Phenol	94	Compound Not Detected.						
17	Bis(2-chloroethyl)ether	93	Compound Not Detected.						
18	2-Chlorophenol	128	Compound Not Detected.						

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-4A66.d
Report Date: 23-Jan-2002 11:41

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
19	1,3-Dichlorobenzene	146	Compound Not Detected.						
20	1,4-Dichlorobenzene	146	Compound Not Detected.						
22	1,2-Dichlorobenzene	146	Compound Not Detected.						
23	2-Methylphenol	108	Compound Not Detected.						
24	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.						
27	4-Methylphenol	108	Compound Not Detected.						
28	N-Nitroso-di-N-propylamine	70	Compound Not Detected.						
29	Hexachloroethane	117	Compound Not Detected.						
30	Nitrobenzene	77	Compound Not Detected.						
31	Isophorone	82	Compound Not Detected.						
32	2-Nitrophenol	139	Compound Not Detected.						
33	2,4-Dimethylphenol	122	7.472	7.469	(0.955)	6532	1.81264	1.65	7589(a)
34	Bis(2-chloroethoxy)methane	93	Compound Not Detected.						
35	2,4-Dichlorophenol	162	Compound Not Detected.						
36	1,2,4-Trichlorobenzene	180	Compound Not Detected.						
37	Naphthalene	128	Compound Not Detected						
38	4-Chloroaniline	127	Compound Not Detected.						
39	Hexachlorobutadiene	225	Compound Not Detected.						
41	4-Chloro-3-methylphenol	107	Compound Not Detected.						
42	2-Methylnaphthalene	142	Compound Not Detected.						
44	Hexachlorocyclopentadiene	237	Compound Not Detected.						
45	2,4,6-Trichlorophenol	196	Compound Not Detected.						
46	2,4,5-Trichlorophenol	196	Compound Not Detected.						
47	2-Chloronaphthalene	162	Compound Not Detected.						
49	2-Nitroaniline	65	Compound Not Detected.						
50	Dimethylphthalate	163	Compound Not Detected.						
51	2,6-Dinitrotoluene	165	Compound Not Detected.						
52	Acenaphthylene	152	Compound Not Detected.						
53	3-Nitroaniline	138	Compound Not Detected.						
54	Acenaphthene	154	Compound Not Detected.						
55	2,4-Dinitrophenol	184	Compound Not Detected.						
56	4-Nitrophenol	109	Compound Not Detected.						
57	2,4-Dinitrotoluene	165	Compound Not Detected.						
58	Dibenzofuran	168	Compound Not Detected.						
59	Diethylphtnalate	149	Compound Not Detected.						
60	4-Chlorophenyl-phenylether	204	Compound Not Detected.						
61	Fluorene	166	Compound Not Detected.						
62	4-Nitroaniline	138	Compound Not Detected.						
63	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						
64	N-Nitrosodiphenylamine	169	Compound Not Detected.						
66	4-Bromophenyl-phenylether	248	Compound Not Detected.						
67	Hexachlorobenzene	284	Compound Not Detected.						
69	Pentachlorophenol	266	12.539	12.553	(0.988)	103422	41.5252	37.75	8937
70	Phenanthrene	178	Compound Not Detected.						
71	Anthracene	178	Compound Not Detected.						
72	Carbazole	167	Compound Not Detected.						
73	Di-n-butylphthalate	149	Compound Not Detected.						

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-4A66.d
Report Date: 23-Jan-2002 11:41

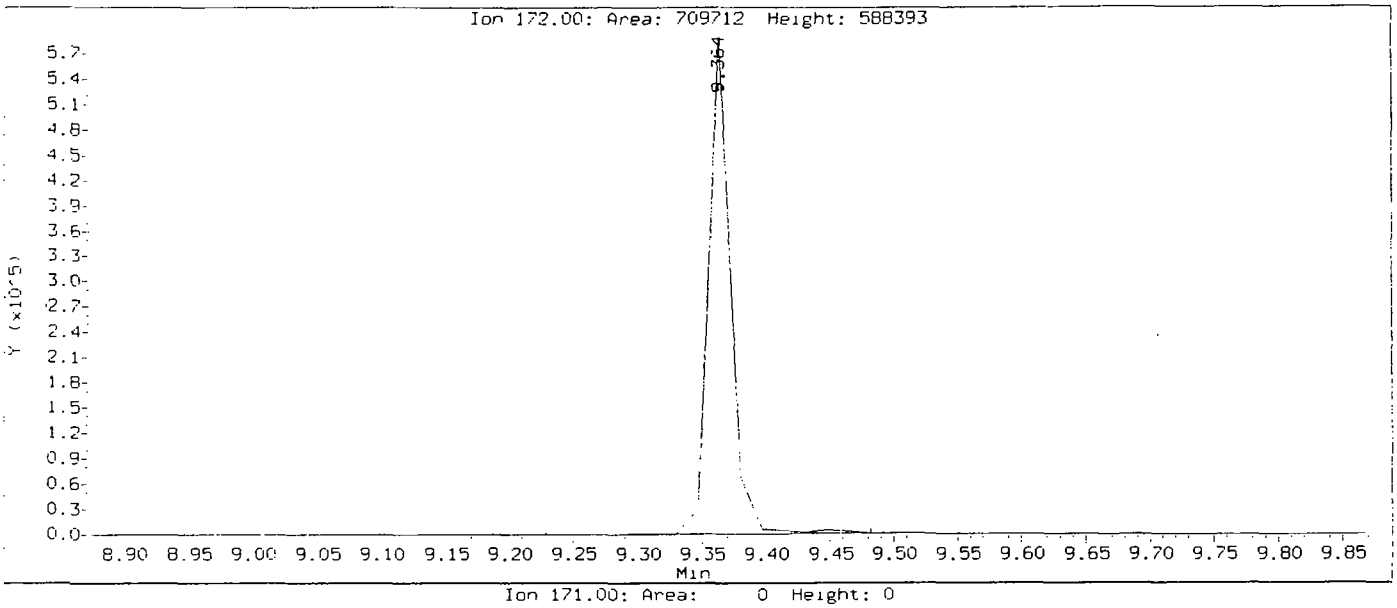
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
74 Fluoranthene	202	Compound Not Detected.						
76 Pyrene	202	Compound Not Detected.						
77 Butylbenzylphthalate	149	Compound Not Detected.						
78 3,3'-Dichlorobenzidine	252	Compound Not Detected.						
79 bis(2-ethylhexyl)Phthalate	149	Compound Not Detected.						
80 Benzo(a)anthracene	228	Compound Not Detected.						
81 Chrysene	228	Compound Not Detected.						
82 Di-n-octylphthalate	149	Compound Not Detected.						
83 Benzo(b.fluoranthene	252	Compound Not Detected.						
84 Benzo(k)fluoranthene	252	Compound Not Detected.						
85 Benzo(a)pyrene	252	Compound Not Detected.						
86 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
87 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
88 Benzo(g,h,i)perylene	276	Compound Not Detected.						

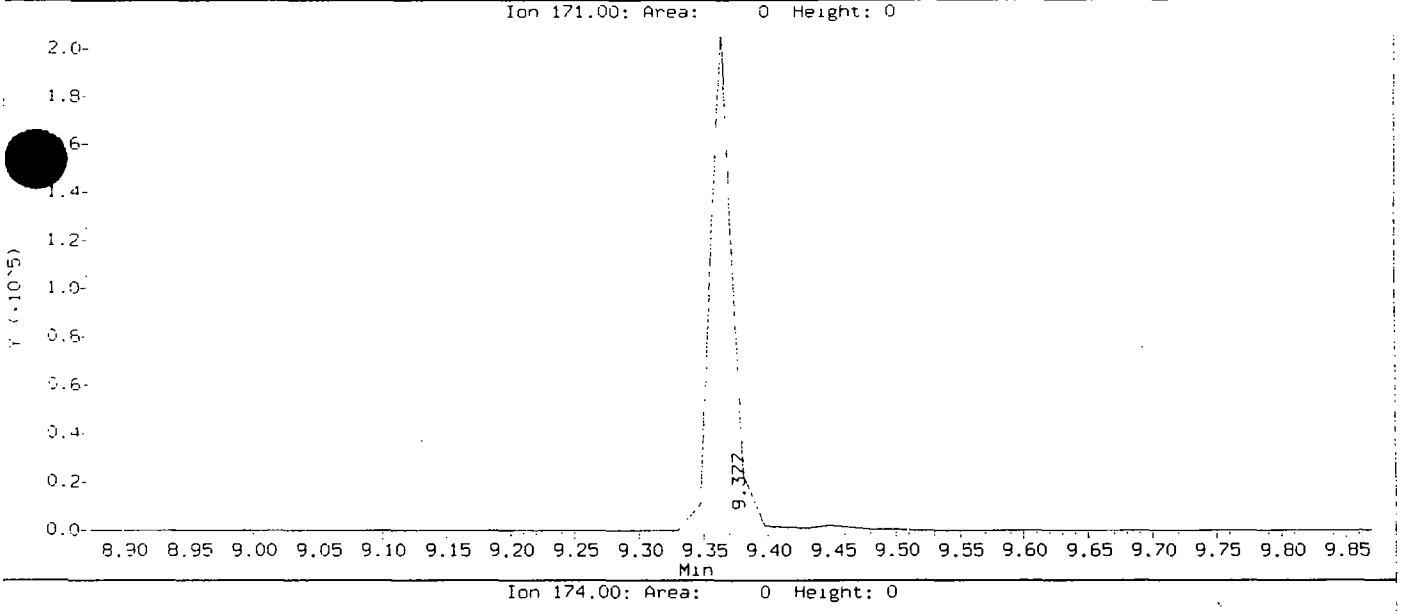
QC Flag Legend

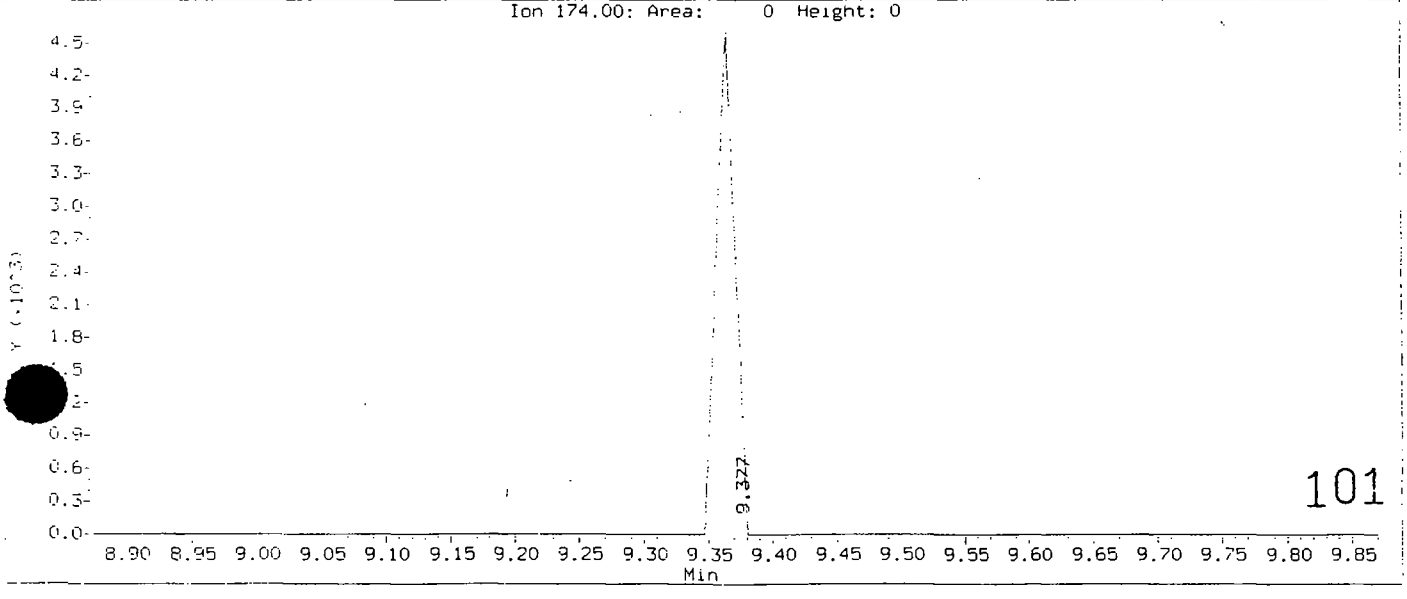
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-4A66.d
Injection Date: 20-JAN-2002 14:46
Instrument: 5972hp66.i
[redacted] Sample ID: SS-2

Compound: 2-Fluorobiphenyl
CAS Number: 321-60-8

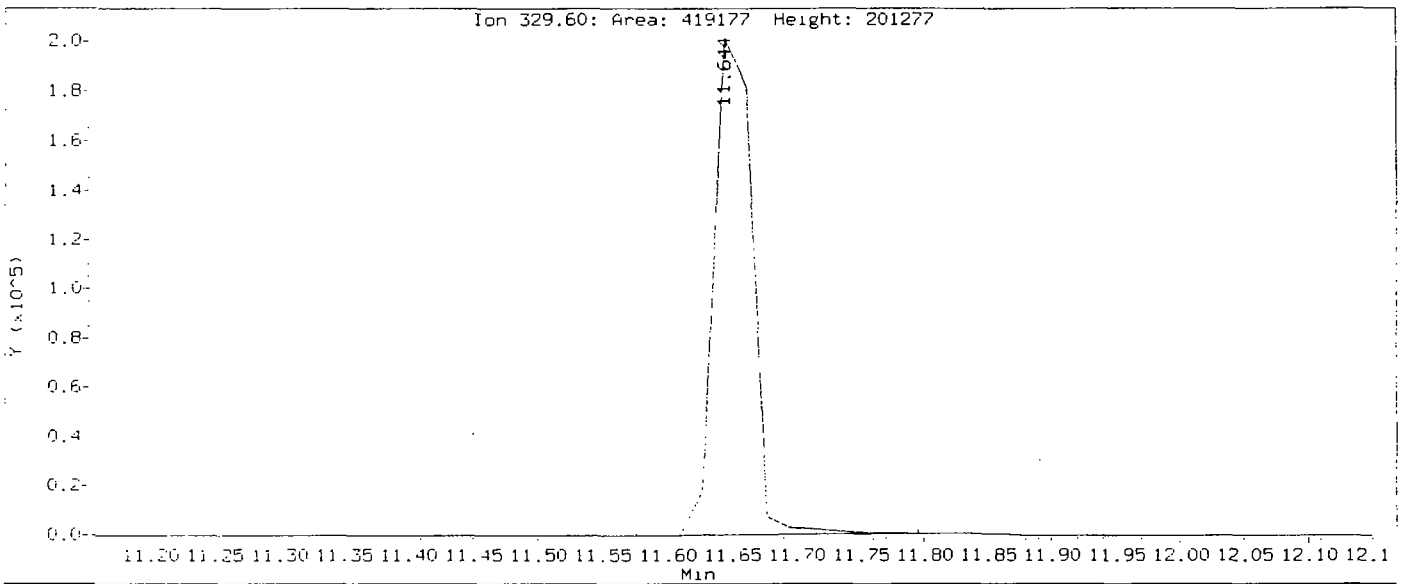


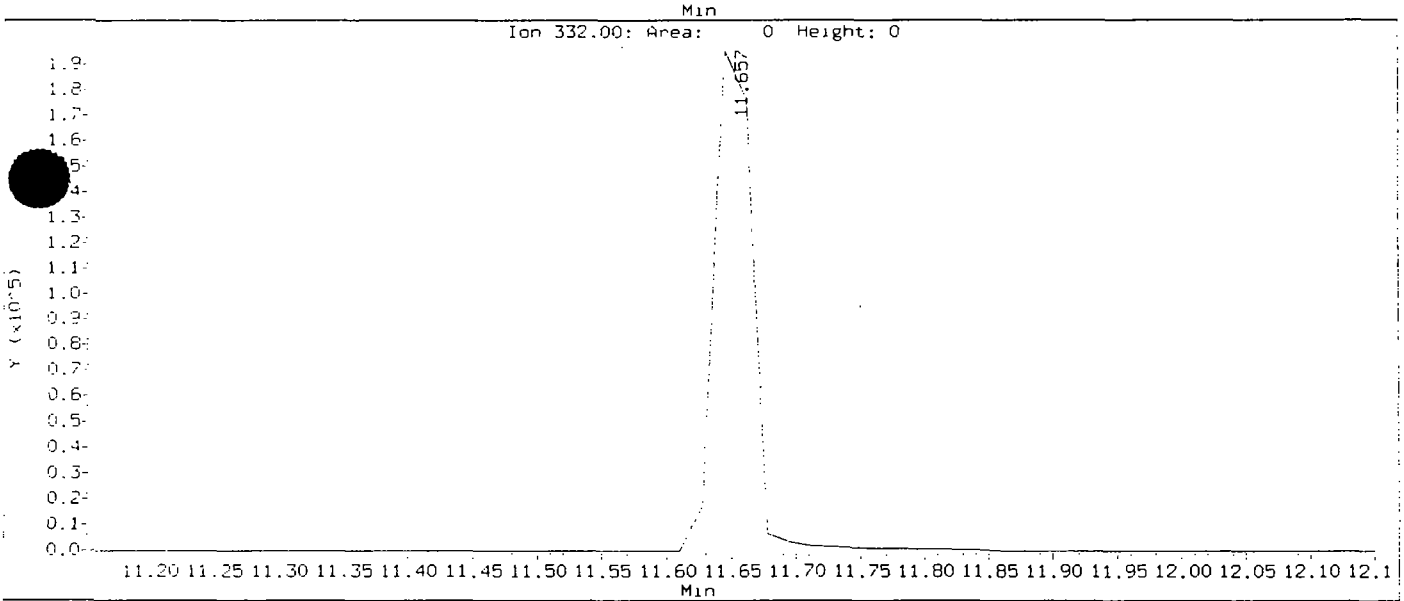


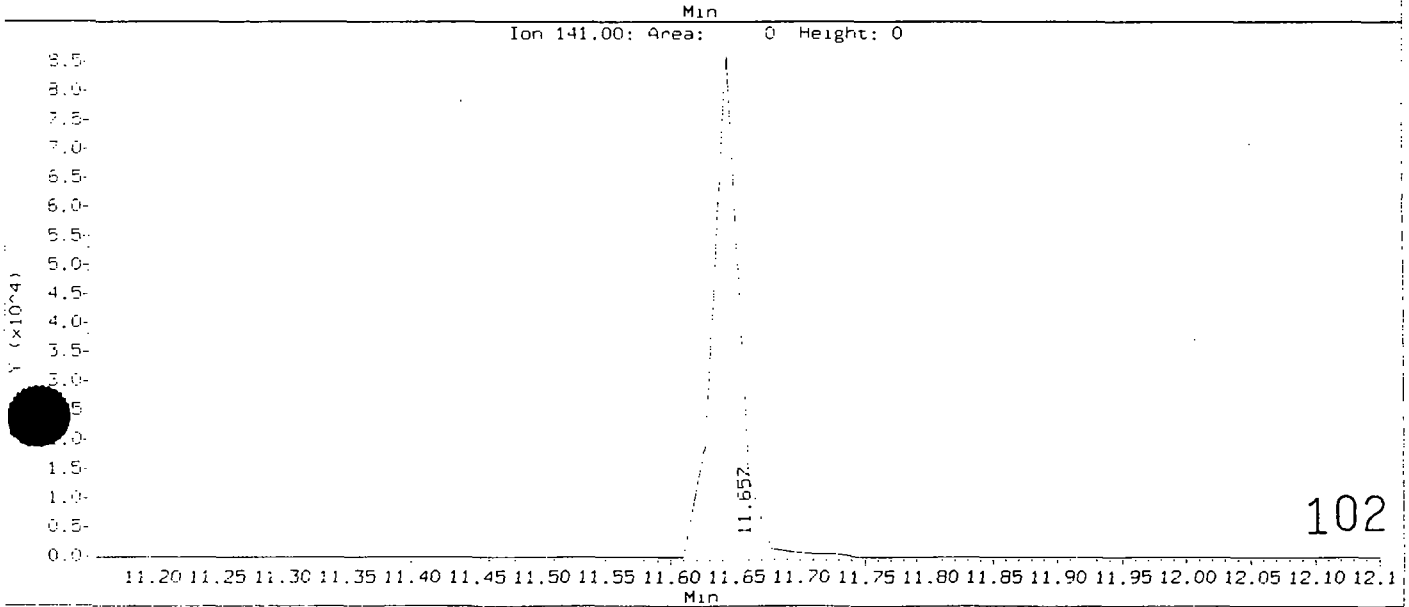


Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-4A66.d
Injection Date: 20-JAN-2002 14:46
Instrument: 5972hp66.i
[redacted] Sample ID: SS-2

Compound: 2,4,6-Tribromophenol
CAS Number: 118-79-6







Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-4A66.d

Date : 20-JAN-2002 14:46

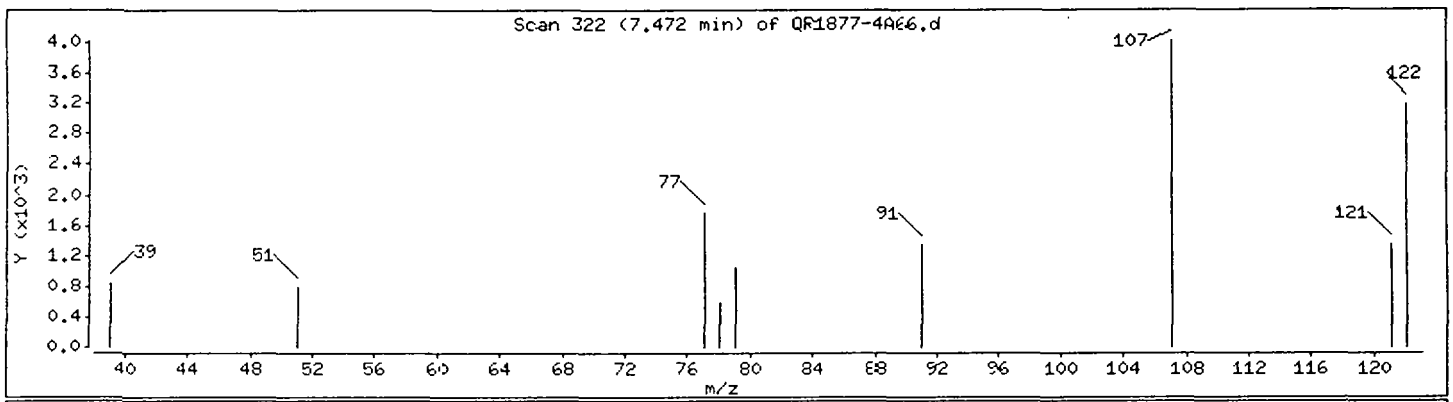
Client ID: SS-2 Instrument: 5972hp66.i

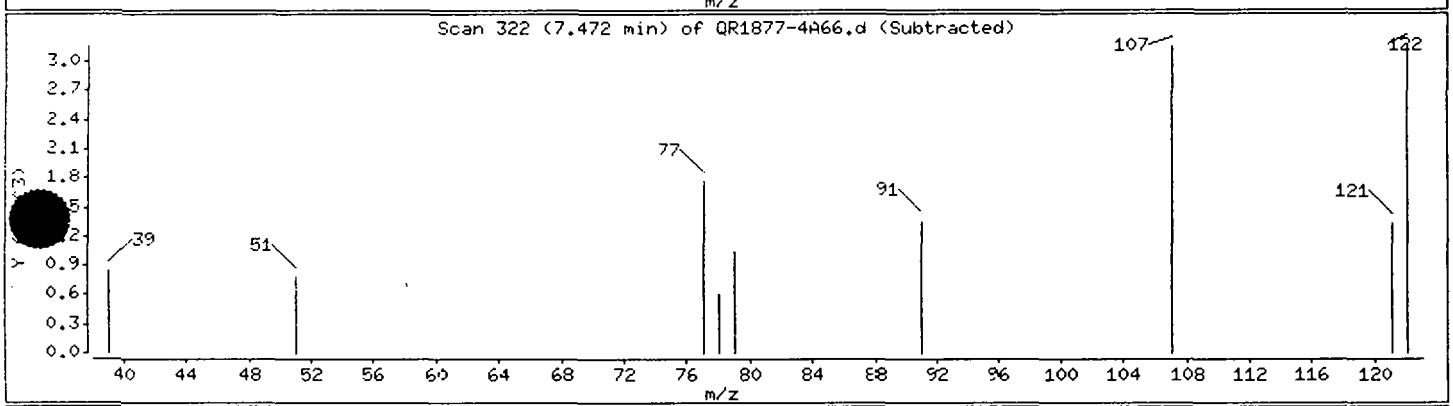
Sample Info:

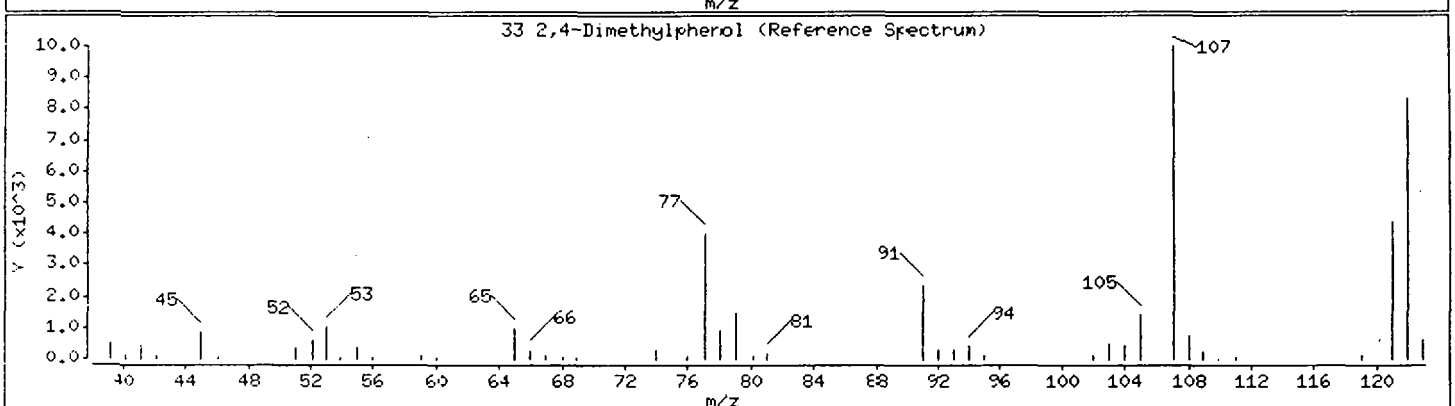
Volume Injected (uL): 1.0 Operator: 2319

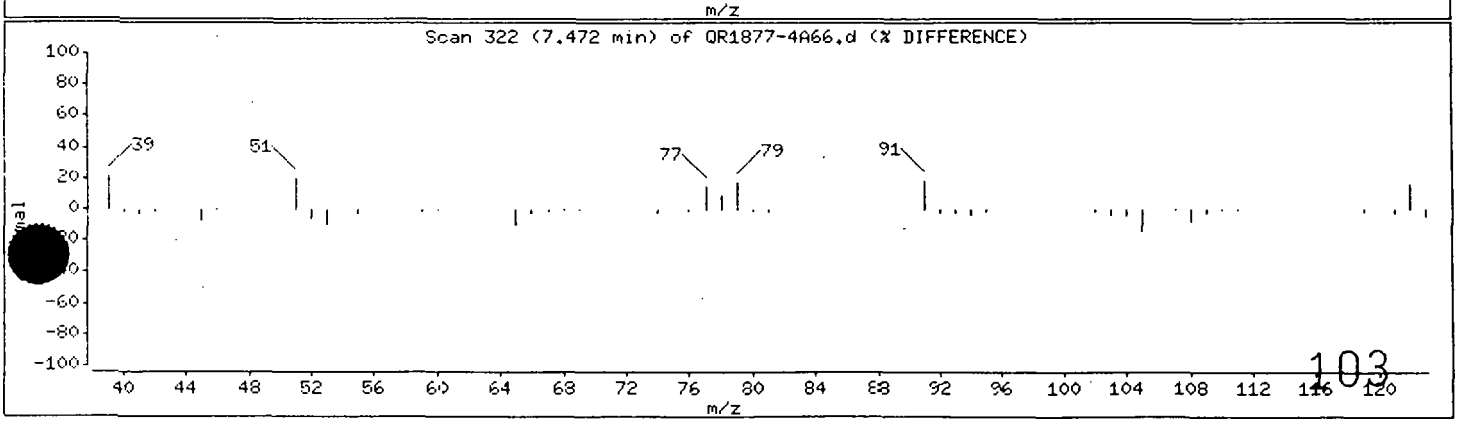
Column phase: RTX-5MS Column diameter: 0.25

33 2,4-Dimethylphenol Concentration: 1.65 ug/L









Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-4A66.d

Date : 20-JAN-2002 14:46

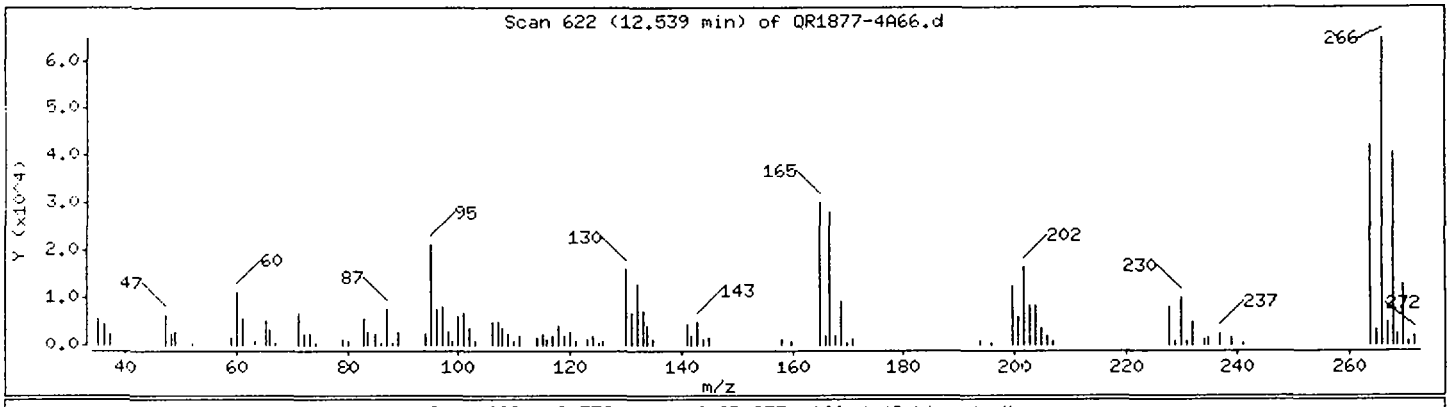
Client ID: SS-2 Instrument: 5972hp66.i

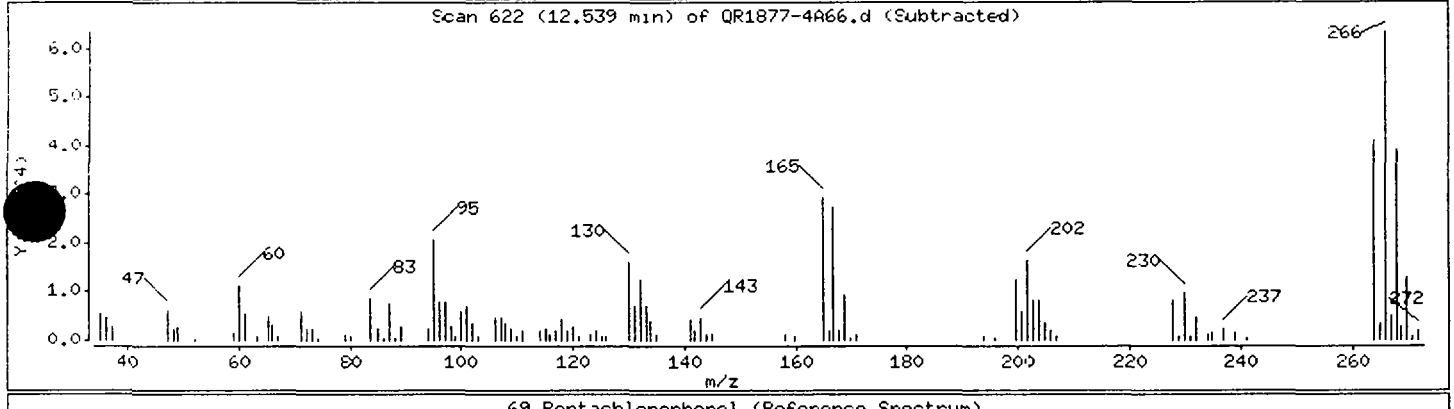
Sample Info:

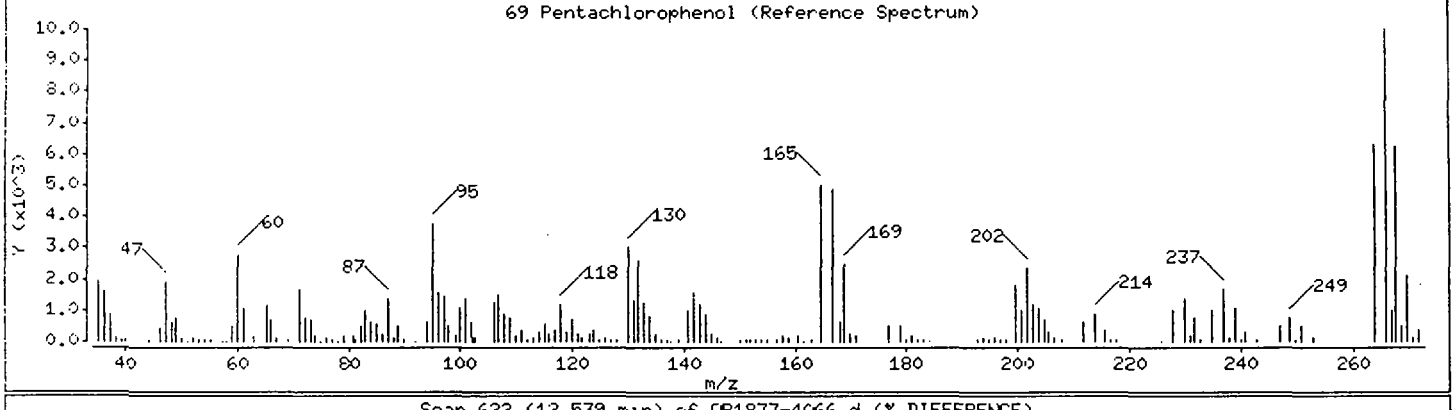
Volume Injected (uL): 1.0 Operator: 2319

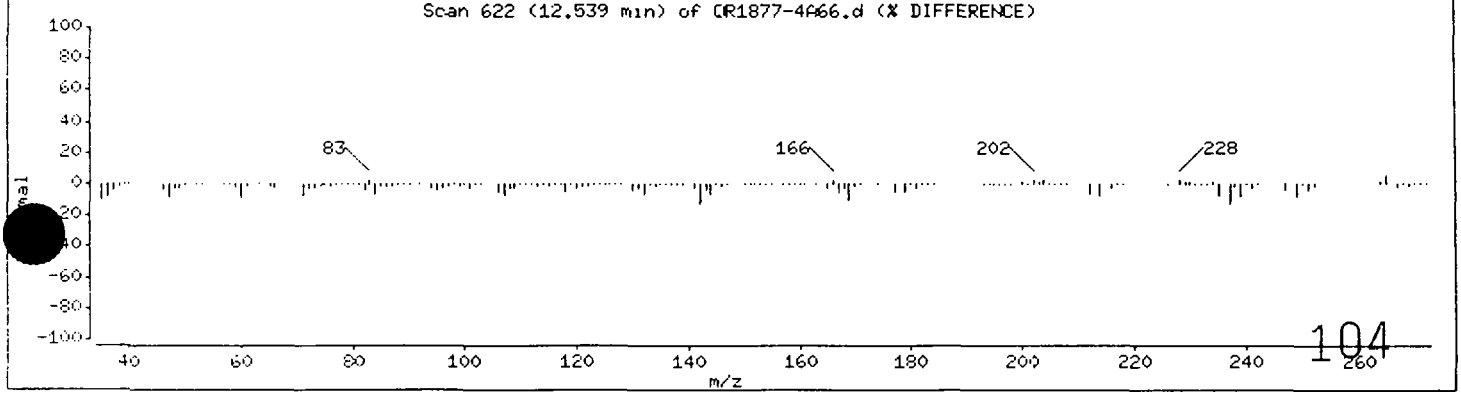
Column phase: RTX-5MS Column diameter: 0.25

69 Pentachlorophenol Concentration: 37.75 ug/L









CompuChem
a Division of Liberty Analytical Corp.

GC/MS SEMI-VOA WORKSHEET

LAB INSTRUCTIONS: PPS 985**VOC 8260B TCL3CT.SUB**SVOC 8270C TCL3**DISS. TAL METALS

RECEIPT DATE: 1/17/02 0:00 SAMPLE DATE: 1/15/02 15:15 DUE DATE: 1/29/02 0:00

CASE#: Q1877 SDG: QR1877 **COMPUCHEM #: QR1877-4**

CLIENT ID: SS-2

ANALYSIS DESCRIPTION: SVOA-8270C

Injection Volume : 1 µL Dilution Prep (if needed)_____

Extraction Date 1/18/02

DFTPP Filename DF020120A66

Sample File Name **QR1877-4** A66

ANALYST (S): Injection 2319 Work-up 9 / 7

GC/MS DATE REVIEW

CONDITION CODE

[CL]

Disposition: [X] Complete

Extraneous Peak Search Results:

[ ] Reinjection Required

Number of peaks found: N/A

[ ] Re-extraction Required

Number of Hits found: 2

[ ] Reinject Neat

Number of Surrogate Outliers: 0

[ ] Dilute (X)

Quality Assurance Notice (s)
Number of Notices Required 0

Comments:

#GC/MS Review [signature] Date 1/23/2 Auditor_____ Date___/___/___

Final Reportable Package(s):

_____ / QR1877-4A6C / _____

ASSIGNED TO: Matt / David / [illegible]

EMP ID NUMBER: 2466 / 2503 / ~~2357~~ 2378 [illegible]

CompuChem
EXTRACTION WORKSHEET
SEMI-VOLATILE WATER, Method 3510C for 8270C

-079

1-18-2

DATE EXTRACTED/POSTED: 1/18/02

	SAMPLE NUMBER	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	FINAL VOLUME (ml)	Adjusted pH A/N	Adjusted pH BASE	COMMENTS
1	QR1877-1		1100	[illegible]	1.6	13.0	
2	3		500	[illegible]	1.6	13.0	
3	4		1100	[illegible]	1.6	13.0	
4	5	QC	1100	1.0	1.6	13.0	use Q-5 for 3/4 SS
5	6		1100	1.0	1.6	13.0	
6	WG15377-3	SS	1100	1.0	1.6	13.0	
7	4	SS	1100	1.0	1.6	13.0	
8	R2418-1		1075	1.0	1.6	13.0	
9	U2416-1		1040	1.0	1.6	13.0	
10	2		1050	1.0	1.6	13.0	
11	3		1050	1.0	1.6	13.0	
12	4	QC	500	~~1.0~~ 0.5	1.6	13.0	use U-4 for 5/6 SS
13	5		1100	1.0	1.6	13.0	
14	WG15377-5	SS	500	0.5	1.6	13.0	
15	6	SS	500	0.5	1.6	13.0	
16	V2463-1		1000	1.0	1.6	13.0	use reduced volume for V-1 — WYASP
17	Y1822 22		1010	1.0	1.6	13.0	
18							
19							[illegible] 1/18/2
20							
21							
22							
23	WG15377-1	BLK	1000	1.0	1.6	13.0	
24	2	LCS	1000	1.0	1.6	13.0	*Add 1.0 mL validation spike to LCS and SSs unless otherwise noted

		S-VOL	Acid	B/N	8270
SURROGATE	NO.	393			
	AMT.	1.0 ml			
	LOT	52623			
SPIKE	NO.		~~3012~~	2021	VALID.
	AMT.		~~1.0 ml~~	1.0ml	1.0 ml
	LOT				52452

FINAL VOLUME VERIFIED: [signature]

SUPERVISOR REVIEWED: [signature]

SURROGATE & SPIKE ADDED BY: GB 1-18-02
Initials Date

Analyst initials. Extracted MC / DB KD JS / GFB N2 MB / GFB / JS Bottle up GFB / MB / JS

Witness [initials] 1/18/02
Initials Date

nufacturer and lot number of reagents/solvents used MeCl: CC99 NaOH: T0750 H2SO4: V03029 Na2SO4: 313 7

Rev. 2/15/01

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-3

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-5

Sample wt/vol: 1100 (g/mL) ML Lab File ID: QR1877-5A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	9	U
111-44-4	Bis(2-chloroethyl)ether	9	U
95-57-8	2-Chlorophenol	9	U
541-73-1	1,3-Dichlorobenzene	9	U
106-46-7	1,4-Dichlorobenzene	9	U
95-50-1	1,2-Dichlorobenzene	9	U
95-48-7	2-Methylphenol	9	U
108-60-1	2,2'-oxybis(1-Chloropropane)	9	U
106-44-5	4-Methylphenol	9	U
621-64-7	N-Nitroso-di-N-propylamine	9	U
67-72-1	Hexachloroethane	9	U
98-95-3	Nitrobenzene	9	U
78-59-1	Isophorone	9	U
88-75-5	2-Nitrophenol	9	U
105-67-9	2,4-Dimethylphenol	2	J
111-91-1	Bis(2-chloroethoxy)methane	9	U
120-83-2	2,4-Dichlorophenol	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
91-20-3	Naphthalene	9	U
106-47-8	4-Chloroaniline	9	U
87-68-3	Hexachlorobutadiene	9	U
59-50-7	4-Chloro-3-methylphenol	9	U
91-57-6	2-Methylnaphthalene	9	U
77-47-4	Hexachlorocyclopentadiene	9	U
88-06-2	2,4,6-Trichlorophenol	9	U
95-95-4	2,4,5-Trichlorophenol	9	U
91-58-7	2-Chloronaphthalene	9	U
88-74-4	2-Nitroaniline	18	U
131-11-3	Dimethylphthalate	9	U
606-20-2	2,6-Dinitrotoluene	9	U
208-96-8	Acenaphthylene	9	U
99-09-2	3-Nitroaniline	18	U
83-32-9	Acenaphthene	9	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-3

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-5

Sample wt/vol: 1100 (g/mL) ML Lab File ID: QR1877-5A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

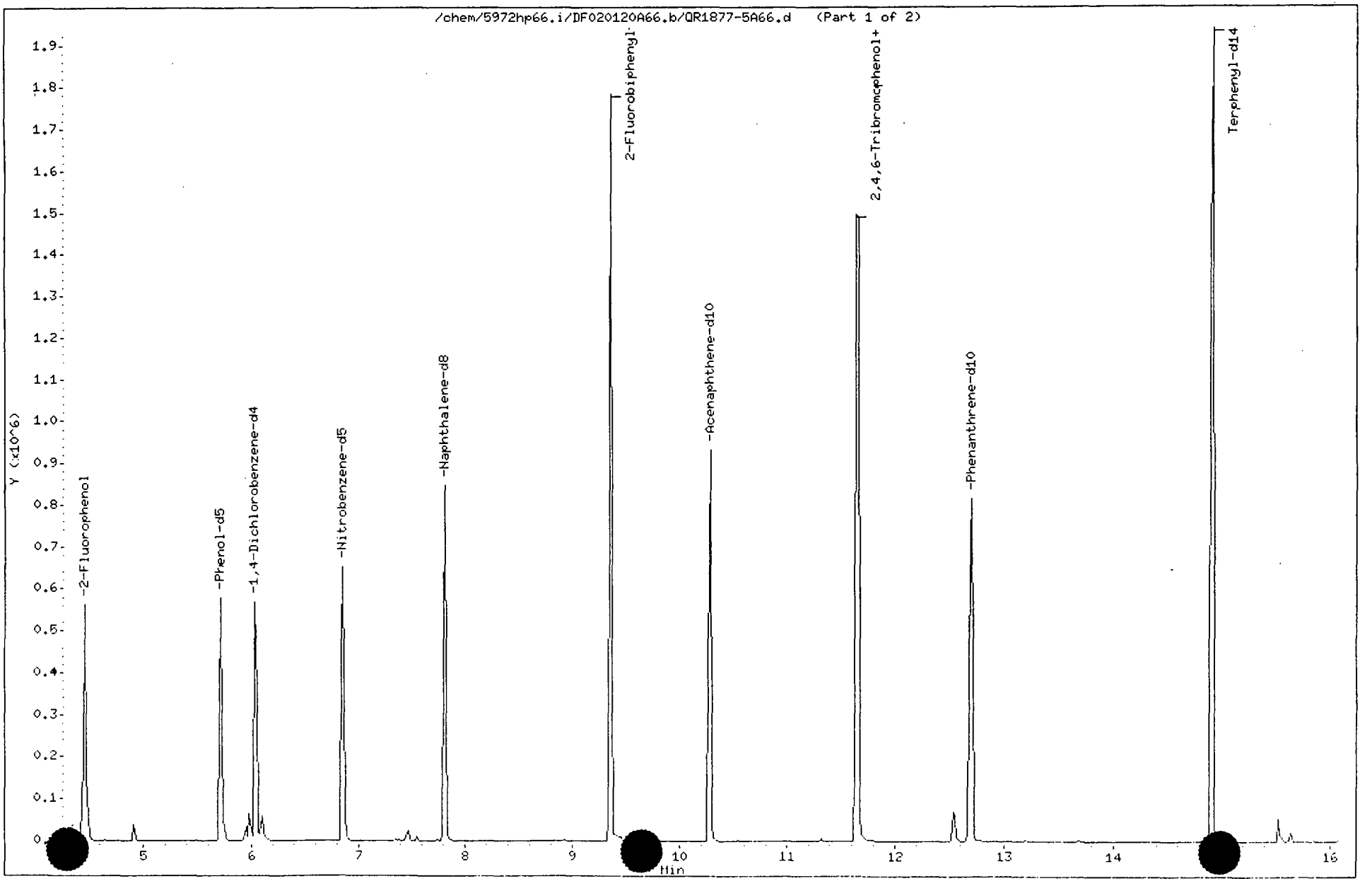
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	45	U
100-02-7	4-Nitrophenol	18	U
121-14-2	2,4-Dinitrotoluene	9	U
132-64-9	Dibenzofuran	9	U
84-66-2	Diethylphthalate	9	U
7005-72-3	4-Chlorophenyl-phenylether	9	U
86-73-7	Fluorene	9	U
100-01-6	4-Nitroaniline	18	U
534-52-1	4,6-Dinitro-2-methylphenol	18	U
86-30-6	N-Nitrosodiphenylamine (1)	9	U
101-55-3	4-Bromophenyl-phenylether	9	U
118-74-1	Hexachlorobenzene	9	U
87-86-5	Pentachlorophenol	8	J
85-01-8	Phenanthrene	9	U
120-12-7	Anthracene	9	U
86-74-8	Carbazole	9	U
84-74-2	Di-n-butylphthalate	9	U
206-44-0	Fluoranthene	9	U
129-00-0	Pyrene	9	U
85-68-7	Butylbenzylphthalate	9	U
91-94-1	3,3'-Dichlorobenzidine	18	U
117-81-7	bis(2-ethylhexyl)Phthalate	9	U
56-55-3	Benzo(a)anthracene	9	U
218-01-9	Chrysene	9	U
117-84-0	Di-n-octylphthalate	9	U
205-99-2	Benzo(b)fluoranthene	9	U
207-08-9	Benzo(k)fluoranthene	9	U
50-32-8	Benzo(a)pyrene	9	U
193-39-5	Indeno(1,2,3-cd)pyrene	9	U
53-70-3	Dibenzo(a,h)anthracene	9	U
191-24-2	Benzo(g,h,i)perylene	9	U

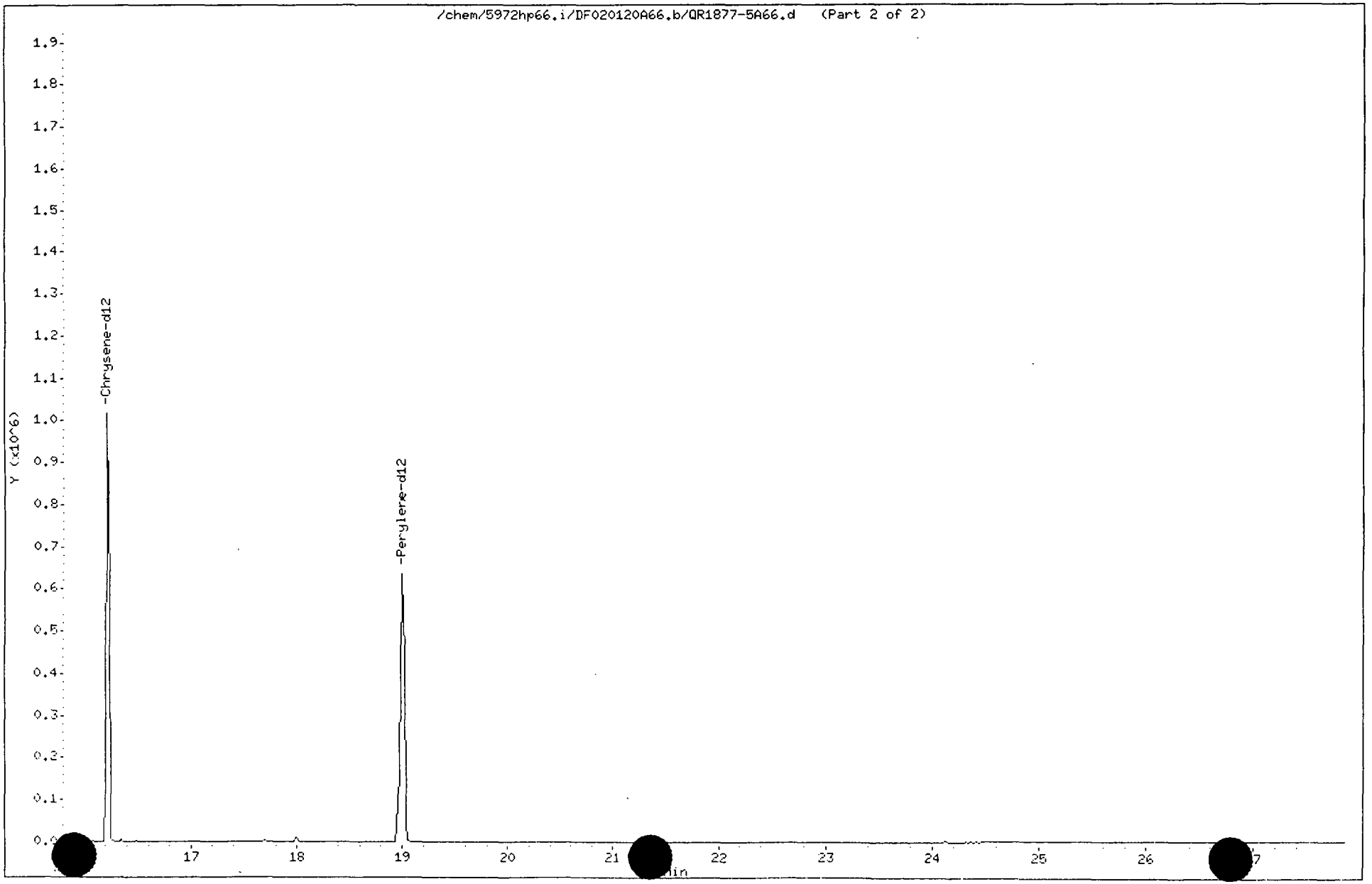
(1) - Cannot be separated from Diphenylamine

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-5A66.d
Date : 20-JAN-2002 15:23
Client ID: SS-3
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2319
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-5A66.d
Date : 20-JAN-2002 15:23
Client ID: SS-3
Instrument: 5972hp66.i
Sample Info:
Volume Injected (uL): 1.0
Operator: 2319
Column phase: RTX-5MS
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-5A66.d
Report Date: 23-Jan-2002 11:42

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020120A66.b/QR1877-5A66.d
Lab Smp Id: QR1877-5 Client Smp ID: SS-3
Inj Date : 20-JAN-2002 15:23
Operator : 2319 Inst ID: 5972hp66.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020120A66.b/8270Cv6.m
Meth Date : 23-Jan-2002 11:31 byrd Quant Type: ISTD
Cal Date : 17-JAN-2002 13:38 Cal File: HM020117A66.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLM03.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1100.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(NG)	(ug/L)	SIMILARITY
*	1	1,4-Dichlorobenzene-d4	152	6.031	6.067	(1.000)	131978	40.0000		
*	2	Naphthalene-d8	136	7.804	7.840	(1.000)	491749	40.0000		
*	3	Acenaphthene-d10	164	10.287	10.289	(1.000)	336437	40.0000		
*	4	Phenanthrene-d10	188	12.702	12.705	(1.000)	600295	40.0000		
*	5	Chrysene-d12	240	16.215	16.235	(1.000)	615136	40.0000		
*	6	Perylene-d12	264	19.002	19.021	(1.000)	615086	40.0000		
S	7	2-Fluorophenol	112	4.460	4.496	(0.740)	234047	53.6747	48.80	
S	8	Phenol-d5	99	5.710	5.746	(0.947)	272879	46.3794	42.16	
S	9	Nitrobenzene-d5	82	6.858	6.895	(0.879)	386900	58.1212	52.84	
S	10	2-Fluorobiphenyl	172	9.358	9.377	(0.910)	701494	64.1702	58.34	
S	11	2,4,6-Tribromophenol	330	11.655	11.657	(1.133)	430582	146.413	133.1	(M)
S	12	Terphenyl-d14	244	14.915	14.900	(0.920)	1220525	81.8904	74.45	
	16	Phenol	94	Compound Not Detected.						
	17	Bis(2-chloroethyl)ether	93	Compound Not Detected.						
	18	2-Chlorophenol	128	Compound Not Detected.						

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-5A66.d
Report Date: 23-Jan-2002 11:42

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
19 1,3-Dichlorobenzene	146	Compound Not Detected.						
20 1,4-Dichlorobenzene	146	Compound Not Detected.						
22 1,2-Dichlorobenzene	146	Compound Not Detected.						
23 2-Methylphenol	108	Compound Not Detected.						
24 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.						
27 4-Methylphenol	108	Compound Not Detected.						
28 N-Nitroso-di-N-propylamine	70	Compound Not Detected.						
29 Hexachloroethane	117	Compound Not Detected.						
30 Nitrobenzene	77	Compound Not Detected.						
31 Isophorone	82	Compound Not Detected.						
32 2-Nitrophenol	139	Compound Not Detected.						
33 2,4-Dimethylphenol	122	7.466	7.469	(0.957)	9497	2.40751	2.19	8406(a)
34 Bis(2-chloroethoxy)methane	93	Compound Not Detected.						
35 2,4-Dichlorophenol	162	Compound Not Detected.						
36 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
37 Naphthalene	128	Compound Not Detected.						
38 4-Chloroaniline	127	Compound Not Detected.						
39 Hexachlorobutadiene	225	Compound Not Detected.						
41 4-Chloro-3-methylphenol	107	Compound Not Detected.						
42 2-Methylnaphthalene	142	Compound Not Detected.						
44 Hexachlorocyclopentadiene	237	Compound Not Detected.						
45 2,4,6-Trichlorophenol	196	Compound Not Detected.						
46 2,4,5-Trichlorophenol	196	Compound Not Detected.						
47 2-Chloronaphthalene	162	Compound Not Detected.						
49 2-Nitroaniline	65	Compound Not Detected.						
50 Dimethylphthalate	163	Compound Not Detected.						
51 2,6-Dinitrotoluene	165	Compound Not Detected.						
52 Acenaphthylene	152	Compound Not Detected.						
53 3-Nitroaniline	138	Compound Not Detected.						
54 Acenaphthene	154	Compound Not Detected.						
55 2,4-Dinitrophenol	184	Compound Not Detected.						
56 4-Nitrophenol	109	Compound Not Detected.						
57 2,4-Dinitrotoluene	165	Compound Not Detected.						
58 Dibenzofuran	168	Compound Not Detected.						
59 Diethylphthalate	149	Compound Not Detected.						
60 4-Chlorophenyl-phenylether	204	Compound Not Detected.						
61 Fluorene	166	Compound Not Detected.						
62 4-Nitroaniline	138	Compound Not Detected.						
63 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						
64 N-Nitrosodiphenylamine	169	Compound Not Detected.						
66 4-Bromophenyl-phenylether	248	Compound Not Detected.						
67 Hexachlorobenzene	284	Compound Not Detected.						
69 Pentachlorophenol	266	12.550	12.553	(0.988)	23055	8.41058	7.65	7418(a)
70 Phenanthrene	178	Compound Not Detected.						
71 Anthracene	178	Compound Not Detected.						
72 Carbazole	167	Compound Not Detected.						
73 Di-n-butylphthalate	149	Compound Not Detected.						

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-5A66.d
Report Date: 23-Jan-2002 11:42

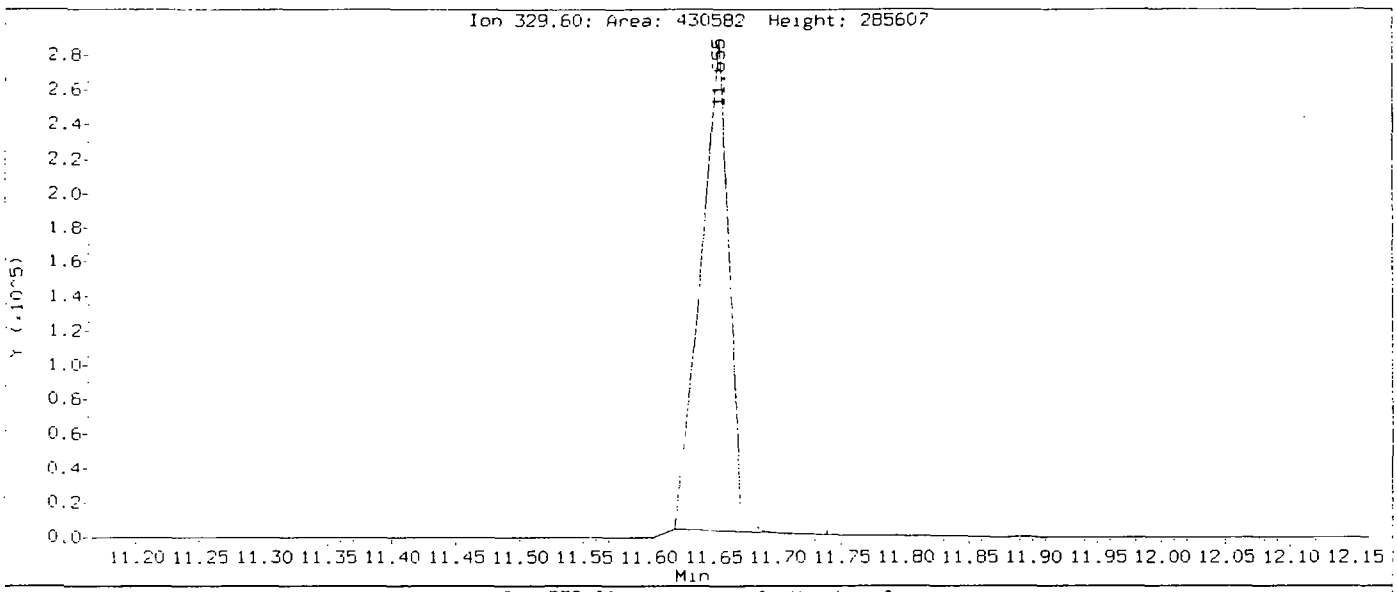
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
74 Fluoranthene	202	Compound Not Detected.						
76 Pyrene	202	Compound Not Detected.						
77 Butylbenzylphthalate	149	Compound Not Detected.						
78 3,3'-Dichlorobenzidine	252	Compound Not Detected.						
79 bis(2-ethylhexyl)Phthalate	149	Compound Not Detected.						
80 Benzo(a)anthracene	228	Compound Not Detected.						
81 Chrysene	228	Compound Not Detected.						
82 Di-n-octylphthalate	149	Compound Not Detected.						
83 Benzo(b)fluoranthene	252	Compound Not Detected.						
84 Benzo(k)fluoranthene	252	Compound Not Detected.						
85 Benzo(a)pyrene	252	Compound Not Detected.						
86 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
87 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
88 Benzo(g,h,i)perylene	276	Compound Not Detected.						

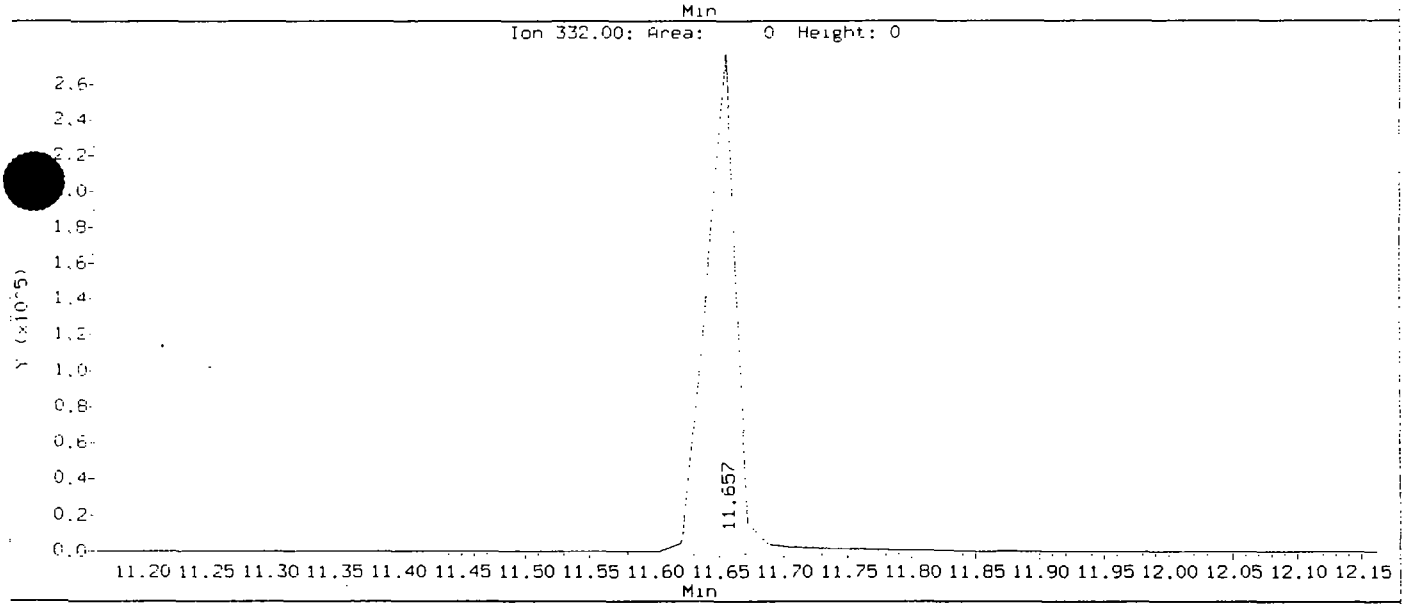
QC Flag Legend

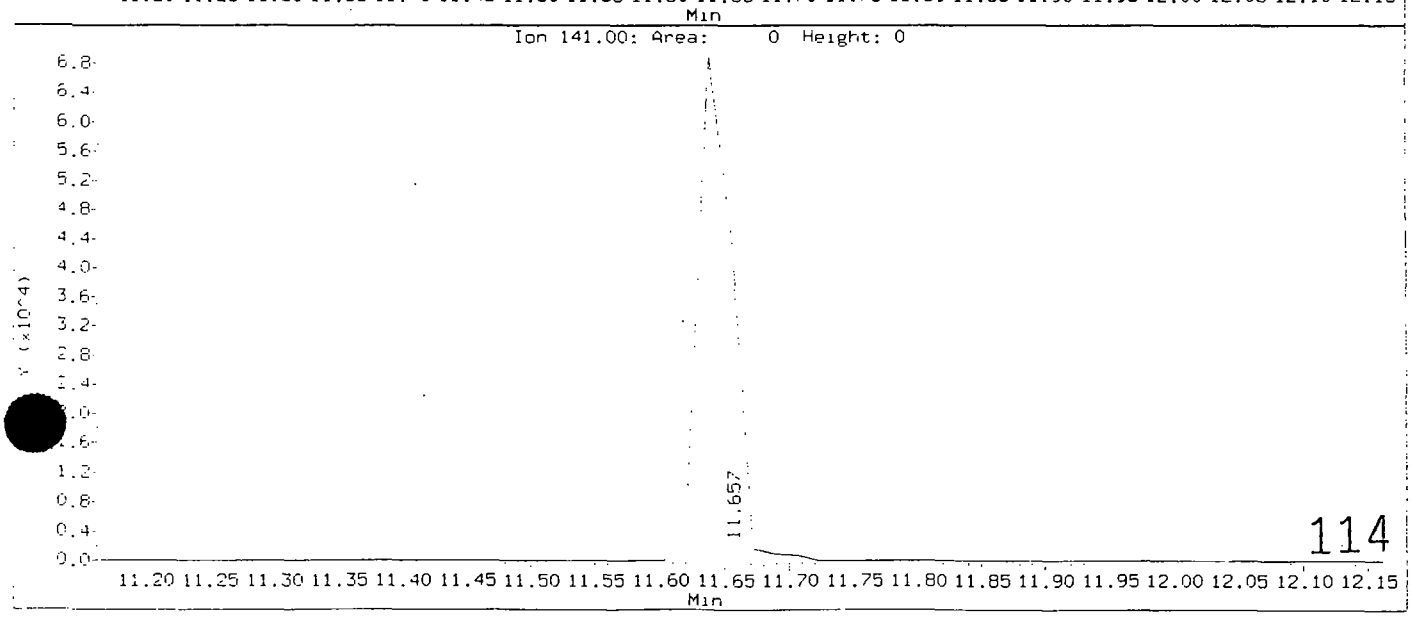
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-5A66.d
Injection Date: 20-JAN-2002 15:23
Instrument: 5972hp66.i
[redacted]t Sample ID: SS-3

[redacted]ound: 2,4,6-Tribromophenol
CAS Number: 118-79-6







Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-5A66.d

Date : 20-JAN-2002 15:23

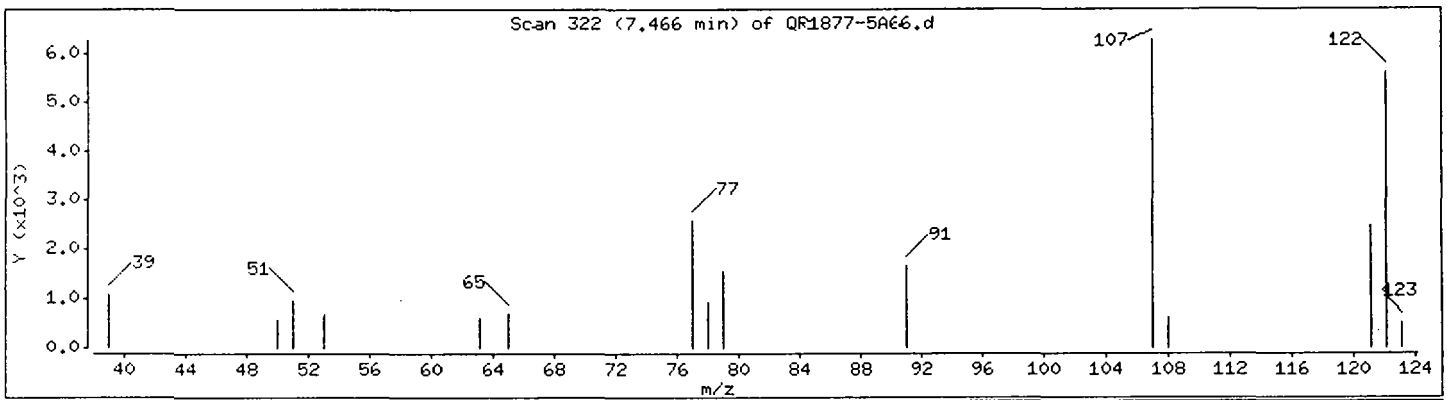
Client ID: SS-3 Instrument: 5972hp66.i

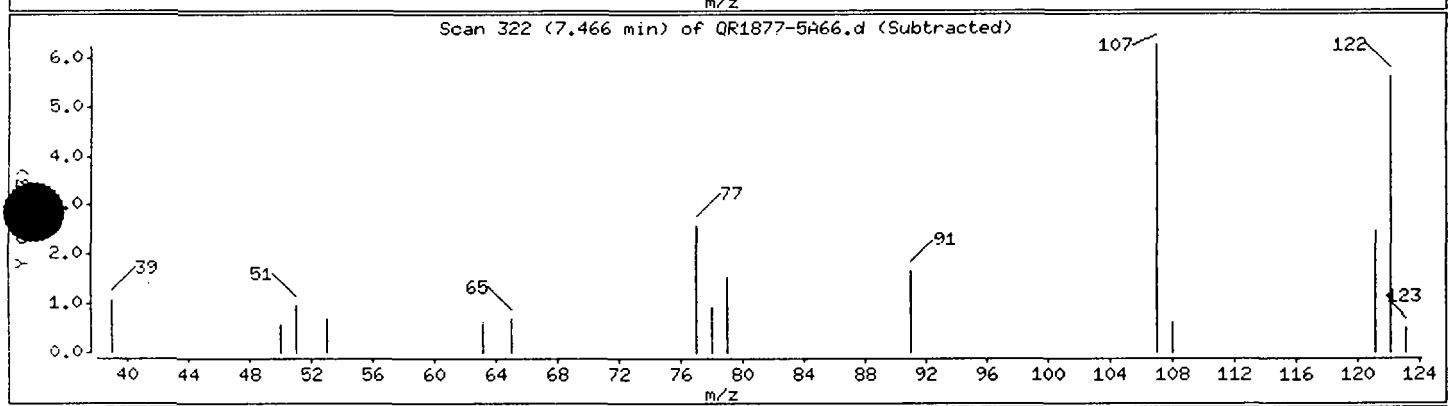
Sample Info:

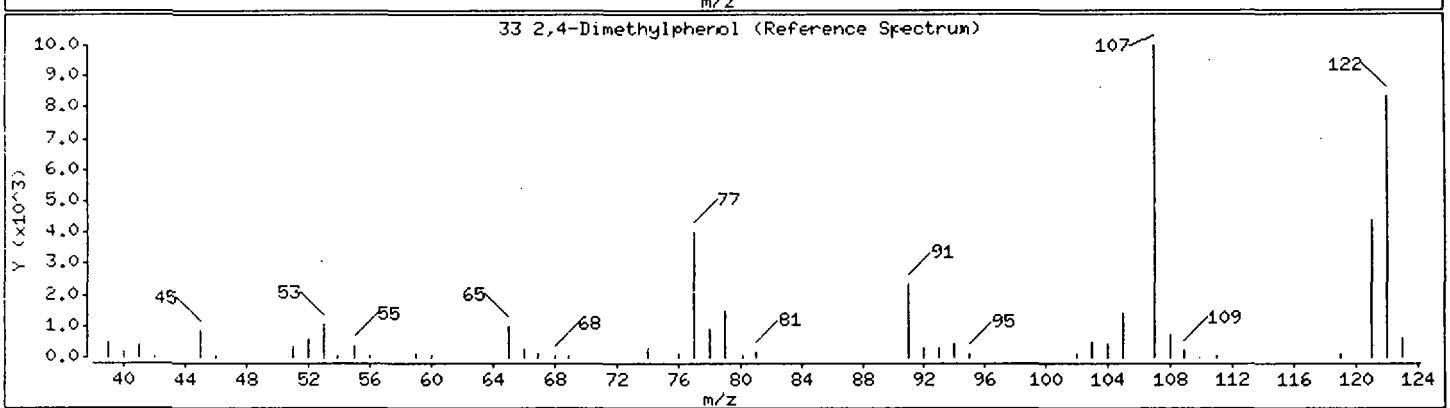
Volume Injected (uL): 1.0 Operator: 2319

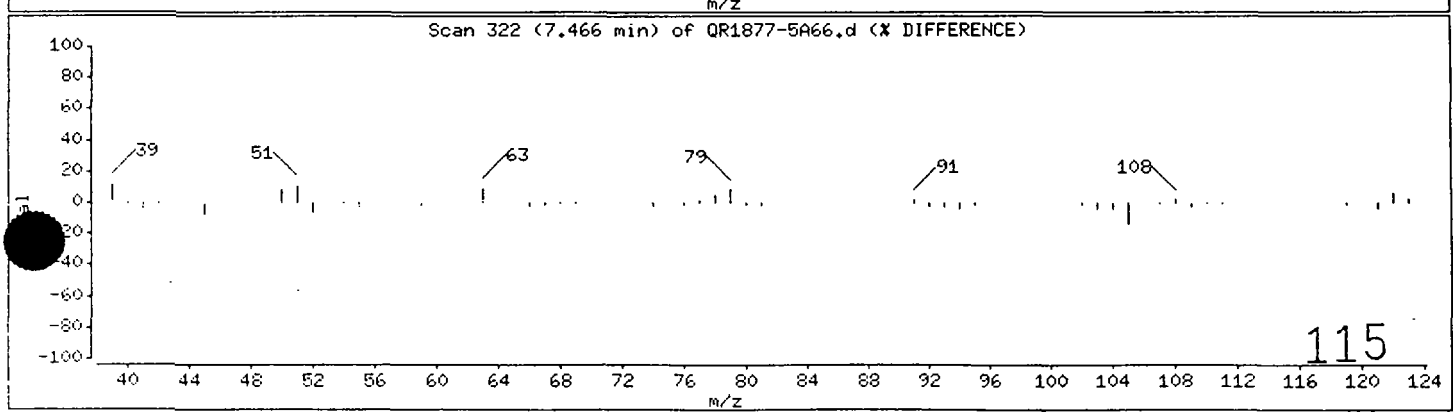
Column phase: RTX-5MS Column diameter: 0.25

33 2,4-Dimethylphenol Concentration: 2.19 ug/L









Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-5A66.d

Date : 20-JAN-2002 15:23

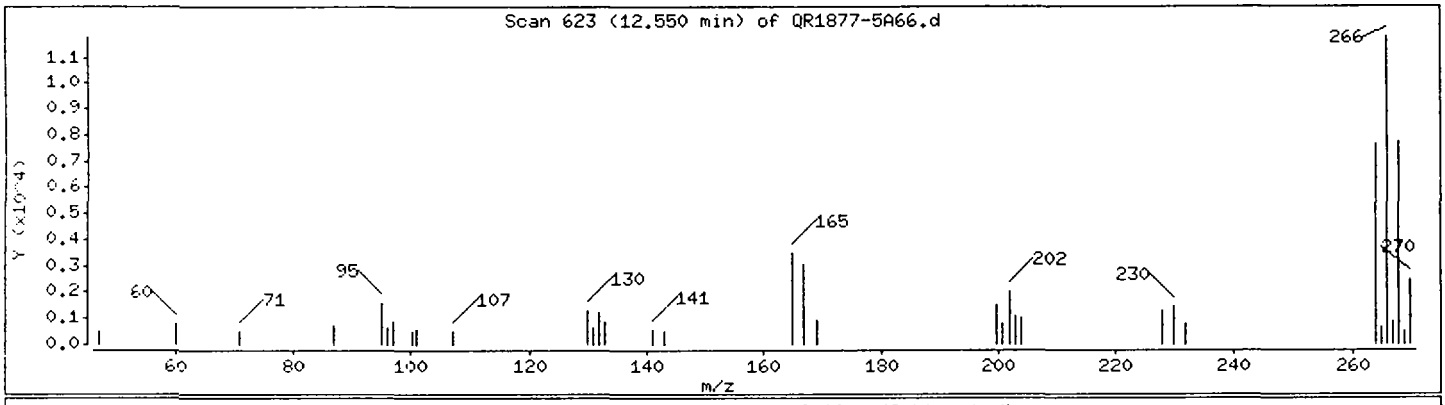
Client ID: SS-3 Instrument: 5972hp66.i

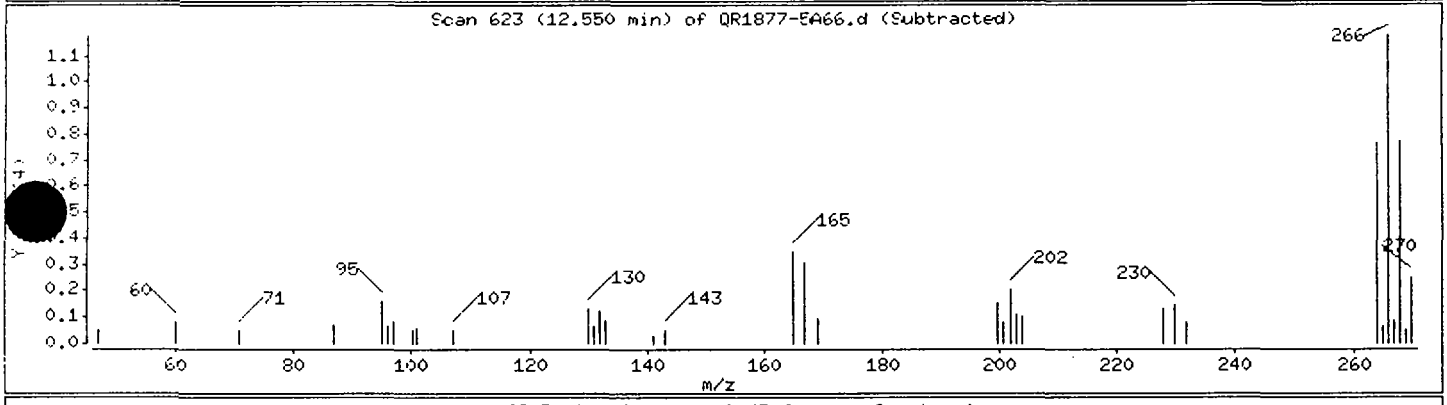
Sample Info:

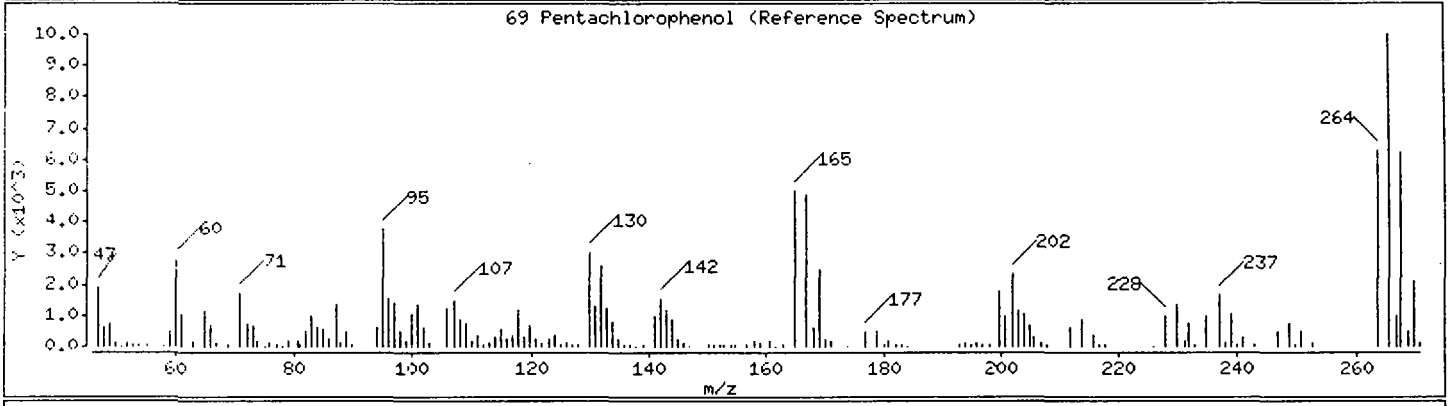
Volume Injected (uL): 1.0 Operator: 2319

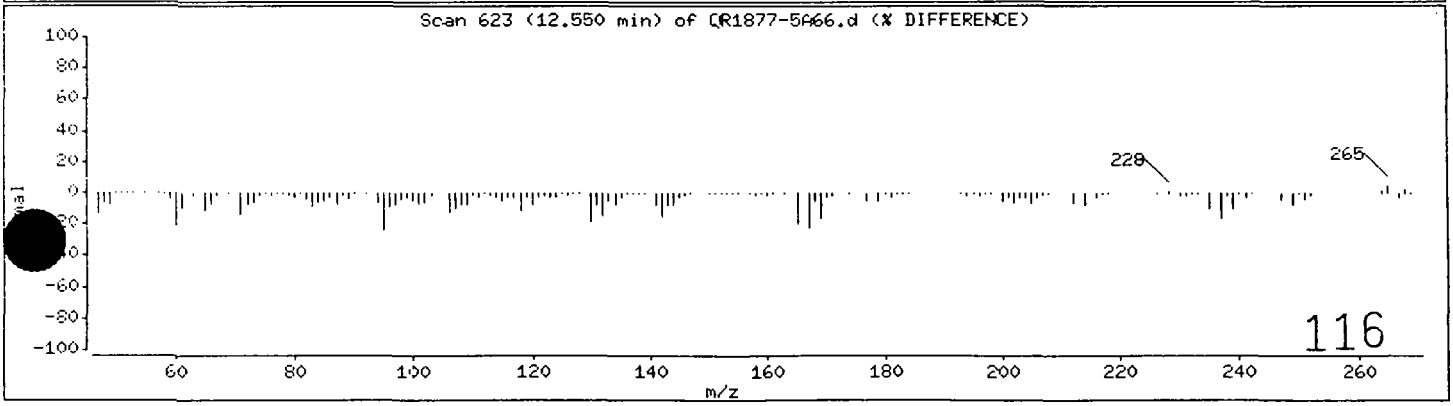
Column phase: RTX-5MS Column diameter: 0.25

69 Pentachlorophenol Concentration: 7.65 ug/L









CompuChem
a Division of Liberty Analytical Corp.

GC/MS SEMI-VOA WORKSHEET

LAB INSTRUCTIONS: PPS 985**USE FOR MS/MSD**VOC 8260B TCL3CT.SUB**SVOC 8270C TCL3**DISS. TAL METALS

RECEIPT DATE: 1/17/02 0:00 SAMPLE DATE: 1/15/02 15:15 DUE DATE: 1/29/02 0:00

CASE#: Q1877 SDG: QR1877 **COMPUCHEM #: QR1877-5**

CLIENT ID: SS-3

ANALYSIS DESCRIPTION: SVOA-8270C

Injection Volume :____1____µL Dilution Prep (if needed)_____

Extraction Date __1__/__18__/__02__

DFTPP Filename ____DF020120A66_____

Sample File Name____**QR1877-5**__A66_____

ANALYST (S): Injection____2319_____ Work-up _____ 9/7

GC/MS DATE REVIEW

CONDITION CODE

[CC]

Disposition: [✓] Complete

Extraneous Peak Search Results:

[ ] Reinjection Required

Number of peaks found: N/A

[ ] Re-extraction Required

Number of Hits found: 2

[ ] Reinject Neat

Number of Surrogate Outliers: 0

[ ] Dilute (X)

Quality Assurance Notice (s)
Number of Notices Required 0

Comments:

#GC/MS Review_____ Date 1/23/2 Auditor_____ Date__/__/__

Final Reportable Package(s):

_____ / QR1877-5A66 / _____

CompuChem
EXTRACTION WORKSHEET
SEMI-VOLATILE WATER, Method 3510C for 8270C

-079

ASSIGNED TO: Matt / David / Giovanni 1-18-2

EMP ID NUMBER: 2466, 2503/ ~~2357~~ 2378 / Nilsson

DATE EXTRACTED/POSTED: 1/18/02

118

	SAMPLE NUMBER	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	FINAL VOLUME (ml)	Adjusted pH A/N	Adjusted pH BASE	COMMENTS
1	QR1877-1		1100	1.0	1.6	13.0	
2	3		500	1.0	1.6	13.0	
3	4		1100	1.0	1.6	13.0	
4	5	QC	1100	1.0	1.6	13.0	use Q-5 for 3/4 SS
5	6		1100	1.0	1.6	13.0	
6	WG15377-3	SS	1100	1.0	1.6	13.0	
7	4	SS	1100	1.0	1.6	13.0	
8	R2418-1		1075	1.0	1.6	13.0	
9	U2416-1		1140	1.0	1.6	13.0	
10	2		1050	1.0	1.6	13.0	
11	3		1050	1.0	1.6	13.0	
12	4	QC	500	~~1.0~~ 0.5	1.6	13.0	use U-4 for 5/6 SS
13	5		1100	1.0	1.6	13.0	
14	WG15377-5	SS	500	0.5	1.6	13.0	
15	6	SS	500	0.5	1.6	13.0	
16	V2403-1		1000	1.0	1.6	13.0	use reduced volume for V-1 — WYASP
17	Y1822 22		1060	1.0	1.6	13.0	
18							
19							DJ 1/18/02
20							
21							
22							
23	WG15377-1	BLK	1000	1.0	1.6	13.0	
24	2	LCS	1000	1.0	1.6	13.0	

*Add 1.0 mL validation spike to LCS and SSs unless otherwise noted

		S-VOL	Acid	B/N	8270
SURROGATE	NO.	393			
	AMT.	1.0 ml	MJ 1/18		
	LOT	52623			
SPIKE	NO.		3012	2021	VALID.
	AMT.		~~1.0 ml~~	1.0ml	1.0 ml
	LOT				52452

FINAL VOLUME VERIFIED: M. Bellin

SUPERVISOR REVIEWED: M. Bellin

SURROGATE & SPIKE ADDED BY: GJB 1-18-02
Initials Date

Analyst initials. Extracted MC DJ KD JS/GFB N2 NB/GFB/JB Bottle up GFB/NB/JS

Witness DJ 1/18/02
Initials Date

nufacturer and lot number of reagents/solvents used MeCl: CC995 NaOH: T01501 H2SO4: V03029 Na2SO4: 313 7

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-5

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-6

Sample wt/vol: 1100 (g/mL) ML Lab File ID: QR1877-6A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	9	U
111-44-4	Bis(2-chloroethyl)ether	9	U
95-57-8	2-Chlorophenol	9	U
541-73-1	1,3-Dichlorobenzene	9	U
106-46-7	1,4-Dichlorobenzene	9	U
95-50-1	1,2-Dichlorobenzene	9	U
95-48-7	2-Methylphenol	9	U
108-60-1	2,2'-oxybis(1-Chloropropane)	9	U
106-44-5	4-Methylphenol	9	U
621-64-7	N-Nitroso-di-N-propylamine	9	U
67-72-1	Hexachloroethane	9	U
98-95-3	Nitrobenzene	9	U
78-59-1	Isophorone	9	U
88-75-5	2-Nitrophenol	9	U
105-67-9	2,4-Dimethylphenol	9	U
111-91-1	Bis(2-chloroethoxy)methane	9	U
120-83-2	2,4-Dichlorophenol	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
91-20-3	Naphthalene	9	U
106-47-8	4-Chloroaniline	9	U
87-68-3	Hexachlorobutadiene	9	U
59-50-7	4-Chloro-3-methylphenol	9	U
91-57-6	2-Methylnaphthalene	9	U
77-47-4	Hexachlorocyclopentadiene	9	U
88-06-2	2,4,6-Trichlorophenol	9	U
95-95-4	2,4,5-Trichlorophenol	9	U
91-58-7	2-Chloronaphthalene	9	U
88-74-4	2-Nitroaniline	18	U
131-11-3	Dimethylphthalate	9	U
606-20-2	2,6-Dinitrotoluene	9	U
208-96-8	Acenaphthylene	9	U
99-09-2	3-Nitroaniline	18	U
83-32-9	Acenaphthene	9	U

FORM 1 - CLIENT SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SS-5

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: QR1877-6

Sample wt/vol: 1100 (g/mL) ML Lab File ID: QR1877-6A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

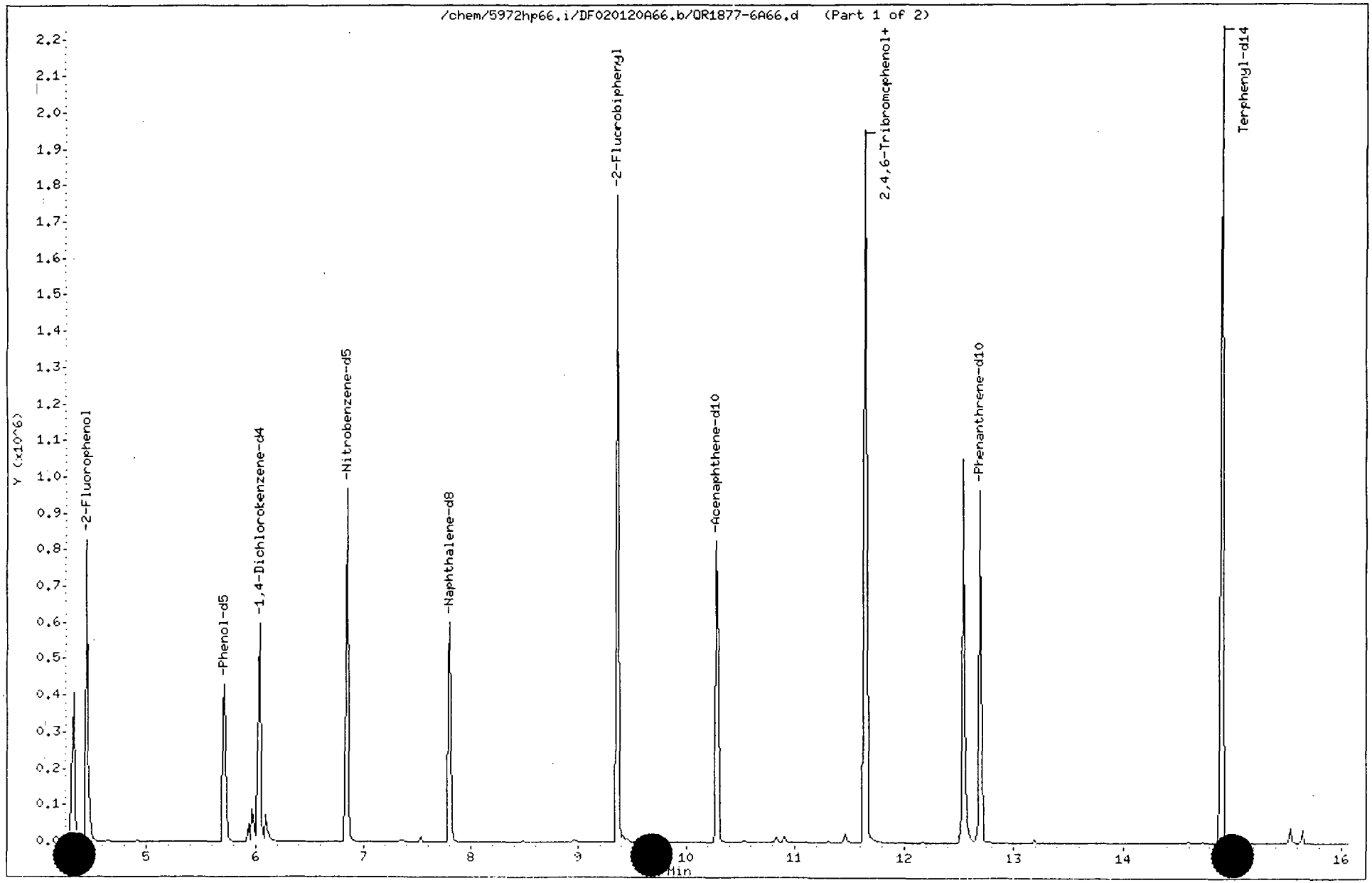
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	45	U
100-02-7	4-Nitrophenol	18	U
121-14-2	2,4-Dinitrotoluene	9	U
132-64-9	Dibenzofuran	9	U
84-66-2	Diethylphthalate	9	U
7005-72-3	4-Chlorophenyl-phenylether	9	U
86-73-7	Fluorene	9	U
100-01-6	4-Nitroaniline	18	U
534-52-1	4,6-Dinitro-2-methylphenol	18	U
86-30-6	N-Nitrosodiphenylamine (1)	9	U
101-55-3	4-Bromophenyl-phenylether	9	U
118-74-1	Hexachlorobenzene	9	U
87-86-5	Pentachlorophenol	67	
85-01-8	Phenanthrene	9	U
120-12-7	Anthracene	9	U
86-74-8	Carbazole	9	U
84-74-2	Di-n-butylphthalate	9	U
206-44-0	Fluoranthene	9	U
129-00-0	Pyrene	9	U
85-68-7	Butylbenzylphthalate	9	U
91-94-1	3,3'-Dichlorobenzidine	18	U
117-81-7	bis(2-ethylhexyl)Phthalate	9	U
56-55-3	Benzo(a)anthracene	9	U
218-01-9	Chrysene	9	U
117-84-0	Di-n-octylphthalate	9	U
205-99-2	Benzo(b)fluoranthene	9	U
207-08-9	Benzo(k)fluoranthene	9	U
50-32-8	Benzo(a)pyrene	9	U
193-39-5	Indeno(1,2,3-cd)pyrene	9	U
53-70-3	Dibenzo(a,h)anthracene	9	U
191-24-2	Benzo(g,h,i)perylene	9	U

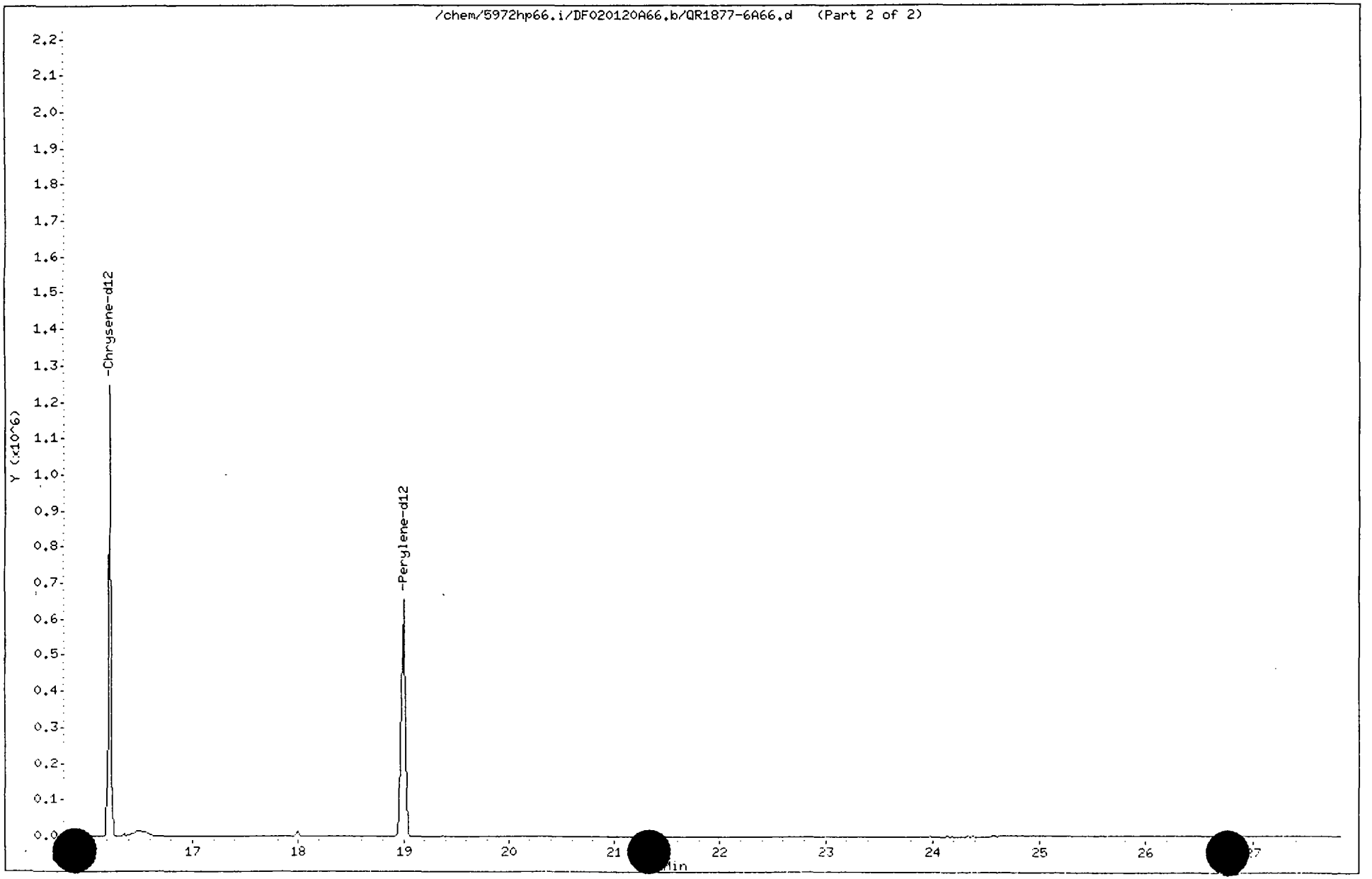
(1) - Cannot be separated from Diphenylamine

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-6A66.d
Date : 20-JAN-2002 17:14
Client ID: SS-5
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2319
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-6A66.d
Date : 20-JAN-2002 17:14
Client ID: SS-5
Instrument: 5972hp66.i
Sample Info:
Volume Injected (uL): 1.0
Operator: 2319
Column phase: RTX-5MS
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-6A66.d
Report Date: 23-Jan-2002 11:43

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020120A66.b/QR1877-6A66.d
Lab Smp Id: QR1877-6 Client Smp ID: SS-5
Inj Date : 20-JAN-2002 17:14
Operator : 2319 Inst ID: 5972hp66.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020120A66.b/8270Cv6.m
Meth Date : 23-Jan-2002 11:31 byrd Quant Type: ISTD
Cal Date : 17-JAN-2002 13:38 Cal File: HM020117A66.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLM03.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1100.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 1	1,4-Dichlorobenzene-d4	152	6.035	6.067	(1.000)	126727	40.0000		
* 2	Naphthalene-d8	136	7.809	7.840	(1.000)	474681	40.0000		
* 3	Acenaphthene-d10	164	10.274	10.289	(1.000)	325657	40.0000		
* 4	Phenanthrene-d10	188	12.690	12.705	(1.000)	579060	40.0000		
* 5	Chrysene-d12	240	16.220	16.235	(1.000)	615498	40.0000		
* 6	Perylene-d12	264	19.006	19.021	(1.000)	617846	40.0000		
S 7	2-Fluorophenol	112	4.448	4.496	(0.737)	307084	73.3426	66.68	
S 8	Phenol-d5	99	5.714	5.746	(0.947)	268559	47.5365	43.21	
S 9	Nitrobenzene-d5	82	6.846	6.895	(0.877)	399203	62.1257	56.48	
S 10	2-Fluorobiphenyl	172	9.362	9.377	(0.911)	725878	68.5987	62.36	
S 11	2,4,6-Tribromophenol	330	11.643	11.657	(1.133)	434377	152.593	138.7	(M)
S 12	Terphenyl-d14	244	14.902	14.900	(0.919)	991281	66.4703	60.43	
16	Phenol	94	Compound Not Detected.						
17	Bis(2-chloroethyl)ether	93	Compound Not Detected.						
18	2-Chlorophenol	128	Compound Not Detected.						

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-6A66.d
Report Date: 23-Jan-2002 11:43

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
19 1,3-Dichlorobenzene	146	Compound Not Detected.						
20 1,4-Dichlorobenzene	146	Compound Not Detected.						
22 1,2-Dichlorobenzene	146	Compound Not Detected.						
23 2-Methylphenol	108	Compound Not Detected.						
24 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.						
27 4-Methylphenol	108	Compound Not Detected.						
28 N-Nitroso-di-N-propylamine	70	Compound Not Detected.						
29 Hexachloroethane	117	Compound Not Detected.						
30 Nitrobenzene	77	Compound Not Detected.						
31 Isophorone	82	Compound Not Detected.						
32 2-Nitrophenol	139	Compound Not Detected.						
33 2,4-Dimethylphenol	122	Compound Not Detected.						
34 Bis(2-chloroethoxy)methane	93	Compound Not Detected.						
35 2,4-Dichlorophenol	162	Compound Not Detected.						
36 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
37 Naphthalene	128	Compound Not Detected.						
38 4-Chloroaniline	127	Compound Not Detected.						
39 Hexachlorobutadiene	225	Compound Not Detected.						
41 4-Chloro-3-methylphenol	107	Compound Not Detected.						
42 2-Methylnaphthalene	142	Compound Not Detected.						
44 Hexachlorocyclopentadiene	237	Compound Not Detected.						
45 2,4,6-Trichlorophenol	196	Compound Not Detected.						
46 2,4,5-Trichlorophenol	196	Compound Not Detected.						
48 2-Chloronaphthalene	162	Compound Not Detected.						
49 2-Nitroaniline	65	Compound Not Detected.						
50 Dimethylphthalate	163	Compound Not Detected.						
51 2,6-Dinitrotoluene	165	Compound Not Detected.						
52 Acenaphthylene	152	Compound Not Detected.						
53 3-Nitroaniline	138	Compound Not Detected.						
54 Acenaphthene	154	Compound Not Detected.						
55 2,4-Dinitrophenol	184	Compound Not Detected.						
56 4-Nitrophenol	109	Compound Not Detected.						
57 2,4-Dinitrotoluene	165	Compound Not Detected.						
58 Dibenzofuran	168	Compound Not Detected.						
59 Diethylphthalate	149	Compound Not Detected.						
60 4-Chlorophenyl-phenylether	204	Compound Not Detected.						
61 Fluorene	166	Compound Not Detected.						
62 4-Nitroaniline	138	Compound Not Detected.						
63 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						
64 N-Nitrosodiphenylamine	169	Compound Not Detected.						
65 4-Bromophenyl-phenylether	248	Compound Not Detected.						
67 Hexachlorobenzene	284	Compound Not Detected.						
69 Pentachlorophenol	266	12.538	12.553	(0.988)	195452	73.9166	67.20	8959
70 Phenanthrene	178	Compound Not Detected.						
71 Anthracene	178	Compound Not Detected.						
72 Carbazole	167	Compound Not Detected.						
73 Di-n-butylphthalate	149	Compound Not Detected.						

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-6A66.d
Report Date: 23-Jan-2002 11:43

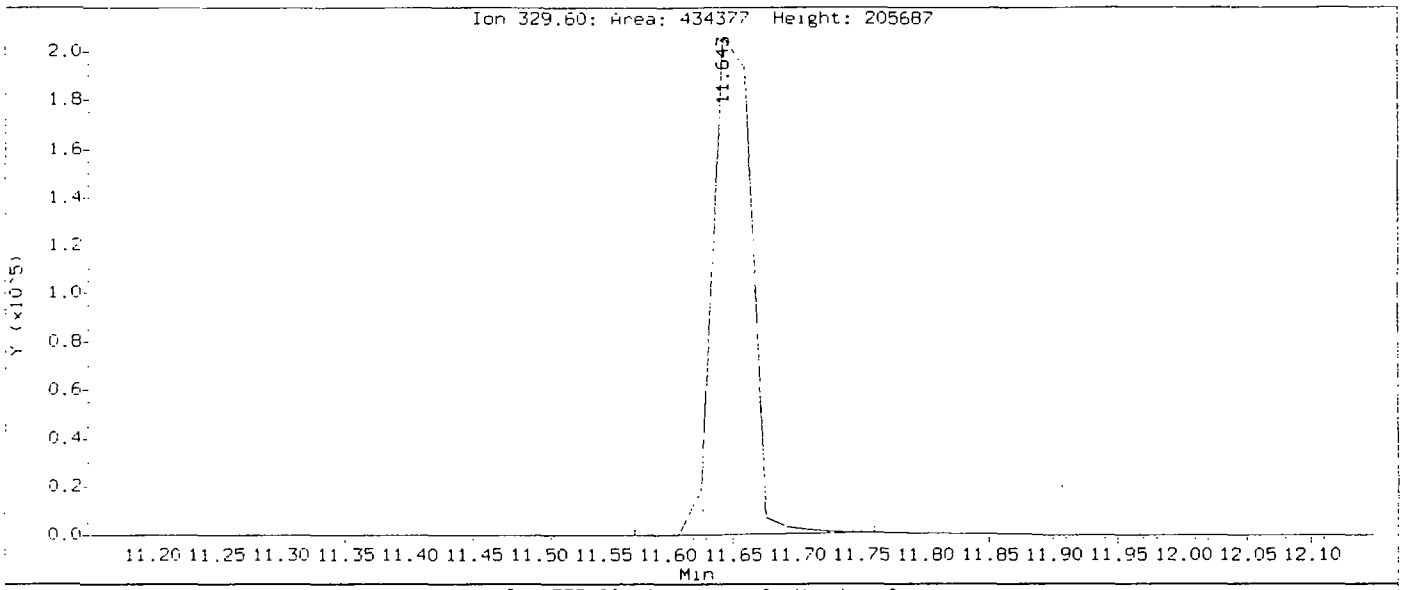
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
74 Fluoranthene	202	Compound Not Detected.						
76 Pyrene	202	Compound Not Detected.						
77 Butylbenzylphthalate	149	Compound Not Detected.						
78 3,3'-Dichlorobenzidine	252	Compound Not Detected.						
79 bis(2-ethylhexyl)Phthalate	149	Compound Not Detected.						
80 Benzo(a)anthracene	228	Compound Not Detected.						
81 Chrysene	228	Compound Not Detected.						
82 Di-n-octylphthalate	149	Compound Not Detected.						
83 Benzo(b)fluoranthene	252	Compound Not Detected.						
84 Benzo(k)fluoranthene	252	Compound Not Detected.						
85 Benzo(a)pyrene	252	Compound Not Detected.						
86 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
87 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
88 Benzo(g,h,i)perylene	276	Compound Not Detected.						

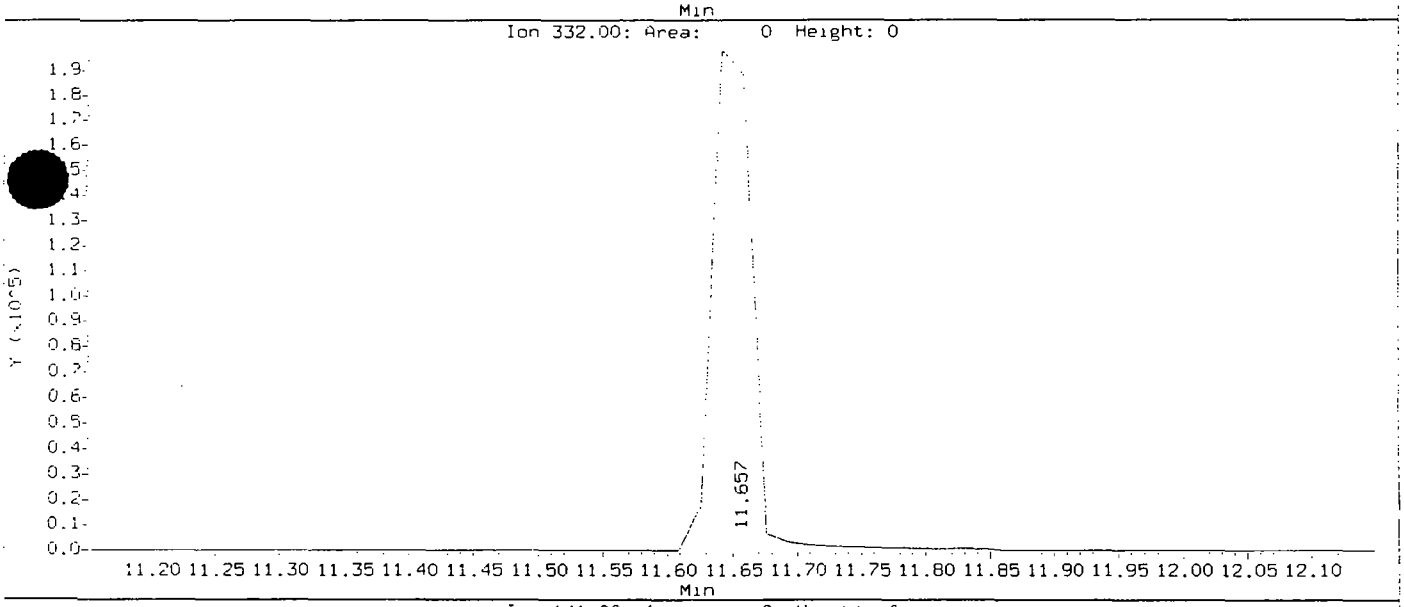
QC Flag Legend

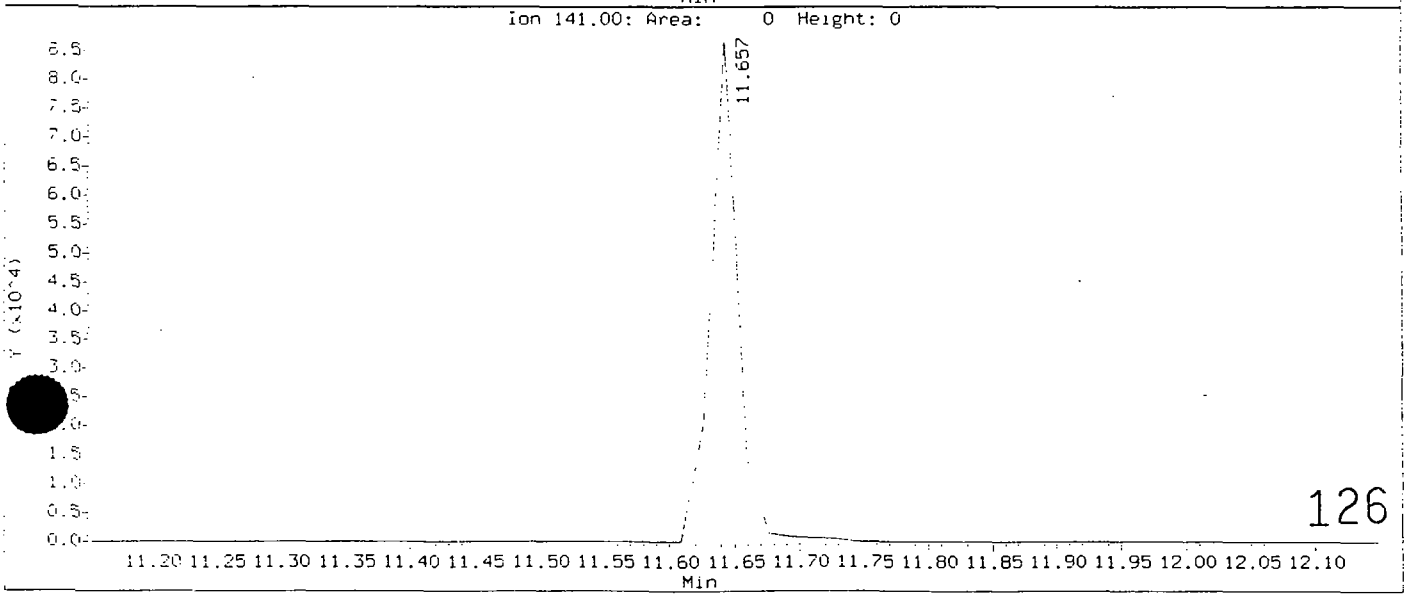
M - Compound response manually integrated.

Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-6A66.d
Injection Date: 20-JAN-2002 17:14
Instrument: 5972hp66.i
[redacted] Sample ID: SS-5

Compound: 2,4,6-Tribromophenol
CAS Number: 118-79-6







Data File: /chem/5972hp66.i/DF020120A66.b/QR1877-6A66.d

Date : 20-JAN-2002 17:14

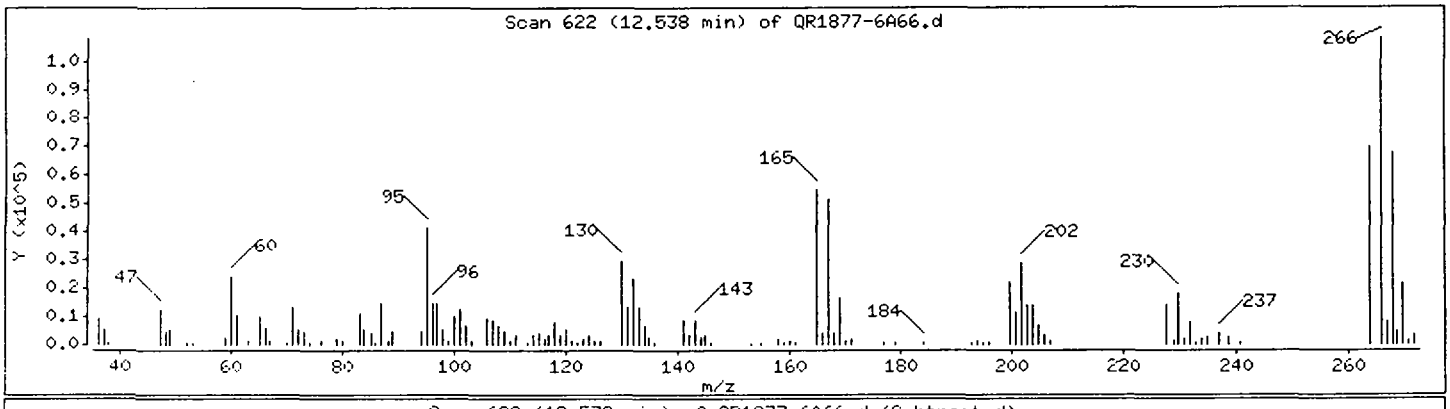
Client ID: SS-5 Instrument: 5972hp66.i

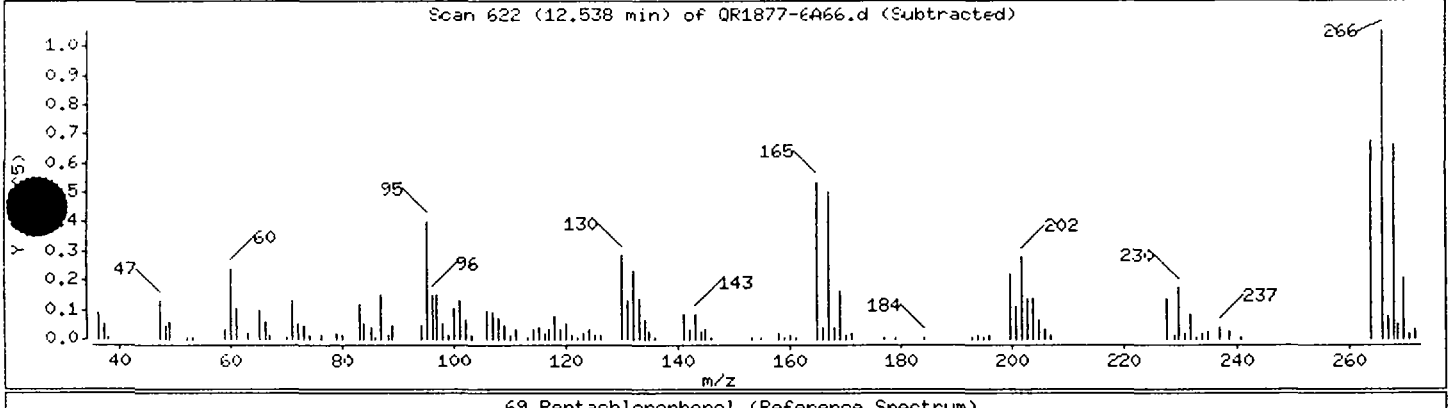
Sample Info:

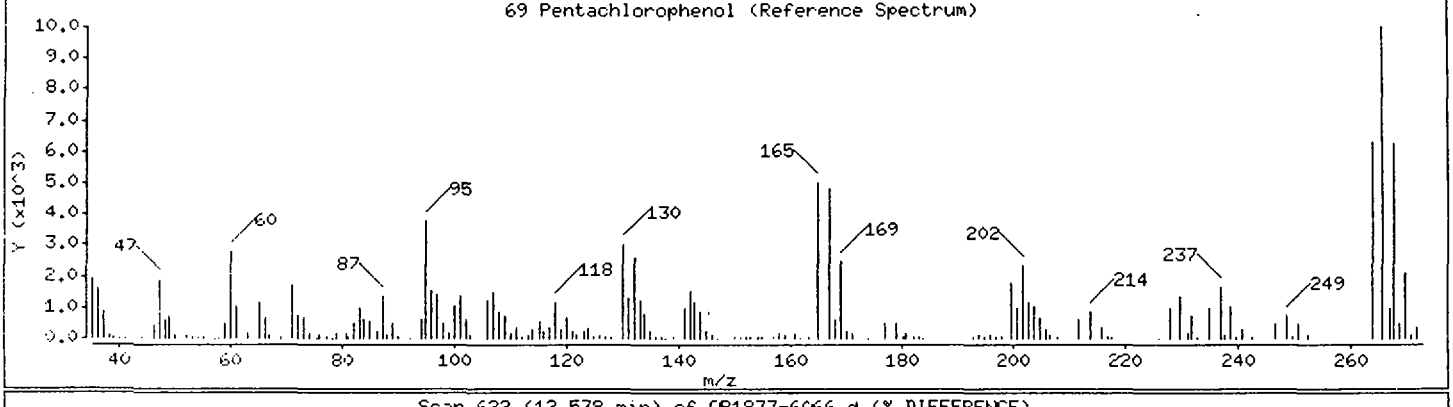
Volume Injected (uL): 1.0 Operator: 2319

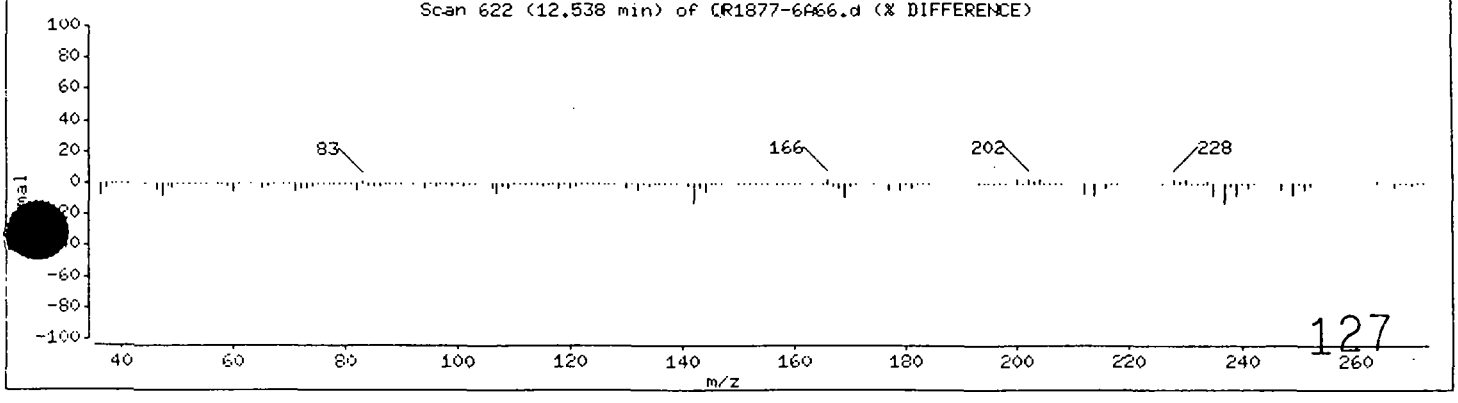
Column phase: RTX-5MS Column diameter: 0.25

69 Pentachlorophenol Concentration: 67.20 ug/L









CompuChem
a Division of Liberty Analytical Corp.

GC/MS SEMI-VOA WORKSHEET

LAB INSTRUCTIONS: PPS 985**VOC 8260B TCL3CT.SUB**SVOC 8270C TCL3**DISS. TAL METALS

RECEIPT DATE: 1/17/02 0:00 SAMPLE DATE: 1/15/02 15:15 DUE DATE: 1/29/02 0:00

CASE#: Q1877 SDG: QR1877 **COMPUCHEM #: QR1877-6**

CLIENT ID: SS-5

ANALYSIS DESCRIPTION: SVOA-8270C

Injection Volume :_____1_____µL Dilution Prep (if needed)_____

Extraction Date ___1___/___18___/___02____

DFTPP Filename _____DF020120A66_____

Sample File Name_____**QR1877-6**__A66_____

ANALYST (S): Injection_____2319_____ Work-up _____GJ_____

GC/MS DATE REVIEW

CONDITION CODE

[OK]

Disposition: [✓] Complete

Extraneous Peak Search Results:

[ ] Reinjection Required

Number of peaks found: ____N/A____

[ ] Re-extraction Required

Number of Hits found: _____1____

[ ] Reinject Neat

Number of Surrogate Outliers: ____0____

[ ] Dilute (X)

Quality Assurance Notice (s)
Number of Notices Required ____0____

Comments:

#GC/MS Review_____MSD Date 1/23/2 Auditor_____Date___/___/___

Final Reportable Package(s):

_____, QR1877-6 A66, _____

ASSIGNED TO: Matt / David / [illegible]

CompuChem
EXTRACTION WORKSHEET
SEMI-VOLATILE WATER, Method 3510C for 8270C

-079

1-18-2

LMP ID NUMBER: 2466, 2503/ ~~2357~~ 2378 [illegible]

DATE EXTRACTED/POSTED: 1/18/02

129

	SAMPLE NUMBER	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	FINAL VOLUME (ml)	Adjusted pH A/N	Adjusted pH BASE	COMMENTS
1	QR1877-1		1100	1.0	1.6	13.0	
2	3		500	[illegible]	1.6	13.0	
3	4		1100	1.0	1.6	13.0	
4	5	QC	1100	1.0	1.6	13.0	use Q-5 for 3/4 SS
5	6		1100	1.0	1.6	13.0	
6	WG15377-3	SS	1100	1.0	1.6	13.0	
7	4	SS	1100	1.0	1.6	13.0	
8	R2418-1		1075	1.0	1.6	13.0	
9	U2410-1		1040	1.0	1.6	13.0	
10	2		1050	1.0	1.6	13.0	
11	3		1050	1.0	1.6	13.0	
12	4	QC	500	~~1.0~~ 0.5	1.6	13.0	use U-4 for 5/6 SS
13	5		1100	1.0	1.6	13.0	
14	WG15377-5	SS	500	0.5	1.6	13.0	
15	6	SS	500	0.5	1.6	13.0	
16	V2463-1		1000	1.0	1.6	13.0	use reduced volume for V-1 - WYASP
17	Y1822 22		1060	1.0	1.6	13.0	
18							
19							1/18/02
20							
21							
22							
23	WG15377-1	BLK	1000	1.0	1.6	13.0	
24	2	LCS	1000	1.0	1.6	13.0	*Add 1.0 mL validation spike to LCS and SSs unless otherwise noted

		S-VOL	Acid	B/N	8270
SURROGATE	NO.	393			
	AMT.	1.0 ml			
	LOT	52623			
SPIKE	NO.		3012	2021	VALID.
	AMT.		1.0 ml	1.0ml	1.0 ml
	LOT				52452

FINAL VOLUME VERIFIED: [signature]

SUPERVISOR REVIEWED: [signature]

SURROGATE & SPIKE ADDED BY: GB 1-18-02
Initials Date

Analyst initials. Extracted MC / [illegible] KD JS/GFB N2 NB/GFB/JS Bottle up GFB/NB/JS

Witness [initials] 1/18/02
Initials Date

[redacted] nufacturer and lot number of reagents/solvents used MeCl: CC99[redacted] NaOH: TD950[illegible] H2SO4: V03029 Na2SO4: [redacted] 313 7

3. Standards Data

a. Initial Calibration Data (Form VI SV)

b. Continuing Calibration Data (Form VII SV)

a. Initial Calibration Data (Form VI SV)

If more than one instrument is used, forms shall be arranged in order by instrument. Multiple initial calibrations from the same instrument shall be in chronological order. Within each initial calibration, the standards are in order by level, from lowest to highest.

(1) Reconstructed Ion Chromatograms and quantitation reports for the initial (five-point) calibration; Spectra not required

(2) EICPs displaying each manual integration

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Instrument ID: 5972HP66 Calibration Date(s): 01/17/02 01/17/02

Column: RTX-5MS ID: 0.25 (mm) Calibration Time(s): 0957 1338

LAB FILE ID: RF10: HJ020117A66 RF20: HL020117A66 RF50: HM020117A66
RF80: HH020117A66 RF120: HK020117A66RF160: HI020117A66

COMPOUND	RF10	RF20	RF50	RF80	RF120	RF160
Phenol	1.785	1.645	1.616	1.694	1.397	1.412
Bis(2-chloroethyl)ether	1.716	1.539	1.468	1.646	1.374	1.442
2-Chlorophenol	1.470	1.244	1.337	1.396	1.224	1.219
1,3-Dichlorobenzene	1.492	1.514	1.430	1.553	1.312	1.392
1,4-Dichlorobenzene	1.568	1.483	1.526	1.540	1.393	1.387
1,2-Dichlorobenzene	1.538	1.527	1.343	1.433	1.221	1.282
2-Methylphenol	1.266	1.103	1.022	1.120	0.962	1.033
2,2'-oxybis(1-Chloropropane)	2.205	1.946	1.889	1.904	1.510	1.628
4-Methylphenol	1.508	1.406	1.287	1.244	1.086	1.180
N-Nitroso-di-N-propylamine	0.817	0.755	0.638	0.784	0.614	0.605
Hexachloroethane	0.811	0.734	0.670	0.668	0.603	0.613
Nitrobenzene	0.547	0.520	0.476	0.510	0.453	0.474
Isophorone	0.896	0.983	0.958	0.924	0.854	0.903
[redacted]Nitrophenol	0.214	0.226	0.225	0.220	0.212	0.212
[redacted]4-Dimethylphenol	0.351	0.353	0.315	0.327	0.290	0.289
Bis(2-chloroethoxy)methane	0.596	0.606	0.602	0.591	0.522	0.490
2,4-Dichlorophenol	0.336	0.347	0.348	0.327	0.304	0.306
1,2,4-Trichlorobenzene	0.388	0.396	0.385	0.410	0.379	0.376
Naphthalene	1.269	1.296	1.140	1.211	1.110	1.014
4-Chloroaniline	0.596	0.606	0.541	0.552	0.492	0.506
Hexachlorobutadiene	0.312	0.312	0.278	0.292	0.272	0.293
4-Chloro-3-methylphenol	0.401	0.402	0.373	0.408	0.354	0.370
2-Methylnaphthalene	0.910	0.863	0.812	0.769	0.706	0.715
Hexachlorocyclopentadiene	0.199	0.260	0.413	0.412	0.446	0.403
2,4,6-Trichlorophenol	0.402	0.410	0.404	0.410	0.418	0.376
2,4,5-Trichlorophenol	0.485	0.496	0.496	0.403	0.400	0.373
2-Chloronaphthalene	1.107	1.167	1.070	0.957	0.957	0.946
2-Nitroaniline	0.512	0.545	0.508	0.496	0.470	0.461
Dimethylphthalate	1.446	1.407	1.418	1.365	1.254	1.263
2,6-Dinitrotoluene	0.357	0.369	0.340	0.359	0.350	0.344
Acenaphthylene	2.016	1.978	1.885	1.723	1.654	1.672
3-Nitroaniline	0.401	0.385	0.382	0.368	0.355	0.327
Acenaphthene	1.228	1.151	1.076	1.041	0.980	0.886
2,4-Dinitrophenol	0.149	0.177	0.209	0.201	0.219	0.199
4-Nitrophenol	0.266	0.268	0.285	0.275	0.280	0.289
2,4-Dinitrotoluene	0.485	0.486	0.494	0.489	0.443	0.423
Dibenzofuran	1.891	1.887	1.857	1.672	1.733	1.610
Diethylphthalate	1.565	1.563	1.518	1.427	1.410	1.386
4-Chlorophenyl-phenylether	0.757	0.749	0.724	0.740	0.711	0.692
Fluorene	1.488	1.460	1.391	1.292	1.271	1.171
4-Nitroaniline	0.421	0.428	0.429	0.370	0.364	0.354
[redacted]6-Dinitro-2-methylphenol	0.156	0.168	0.190	0.189	0.196	0.166
[redacted]Nitrosodiphenylamine	0.533	0.494	0.467	0.412	0.399	0.371
4-Bromophenyl-phenylether	0.286	0.262	0.266	0.262	0.258	0.240

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Instrument ID: 5972HP66 Calibration Date(s): 01/17/02 01/17/02

Column: RTX-5MS ID: 0.25 (mm) Calibration Time(s): 0957 1338

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2	MAX %RSD OR R^2
Phenol	AVRG	1.59137087	9.788	30.000
Bis(2-chloroethyl)ether	AVRG	1.53099145	8.468	50.000
2-Chlorophenol	AVRG	1.31505986	7.873	50.000
1,3-Dichlorobenzene	AVRG	1.44882650	6.102	50.000
1,4-Dichlorobenzene	AVRG	1.48264656	5.192	30.000
1,2-Dichlorobenzene	AVRG	1.39057926	9.380	50.000
2-Methylphenol	AVRG	1.08438381	9.770	50.000
2,2'-oxybis(1-Chloropropane)	AVRG	1.84701447	13.352	50.000
4-Methylphenol	AVRG	1.28542671	11.891	50.000
N-Nitroso-di-N-propylamine	AVRG	0.70226031	13.360	50.000
Hexachloroethane	AVRG	0.68317665	11.457	50.000
Nitrobenzene	AVRG	0.49661967	6.989	50.000
Isophorone	AVRG	0.91977096	5.004	50.000
2-Nitrophenol	AVRG	0.21827677	3.002	30.000
2,4-Dimethylphenol	AVRG	0.32087475	8.786	50.000
s(2-chloroethoxy)methane	AVRG	0.56784033	8.640	50.000
2,4-Dichlorophenol	AVRG	0.32785070	5.900	30.000
1,2,4-Trichlorobenzene	AVRG	0.38884220	3.224	50.000
Naphthalene	AVRG	1.17337783	9.034	50.000
4-Chloroaniline	AVRG	0.54880092	8.403	50.000
Hexachlorobutadiene	AVRG	0.29326600	5.628	30.000
4-Chloro-3-methylphenol	AVRG	0.38482167	5.667	30.000
2-Methylnaphthalene	AVRG	0.79569703	10.219	50.000
Hexachlorocyclopentadiene	AVRG	0.35547287	28.259	50.000
2,4,6-Trichlorophenol	AVRG	0.40335165	3.679	30.000
2,4,5-Trichlorophenol	AVRG	0.44194712	12.712	50.000
2-Chloronaphthalene	AVRG	1.03400681	9.054	50.000
2-Nitroaniline	AVRG	0.49848562	6.116	50.000
Dimethylphthalate	AVRG	1.35889641	6.029	50.000
2,6-Dinitrotoluene	AVRG	0.35311487	2.967	50.000
Acenaphthylene	AVRG	1.82123994	8.734	50.000
3-Nitroaniline	AVRG	0.36977220	7.040	50.000
Acenaphthene	AVRG	1.06033236	11.468	30.000
2,4-Dinitrophenol	AVRG	0.19227472	13.073	50.000
4-Nitrophenol	AVRG	0.27729140	3.336	50.000
2,4-Dinitrotoluene	AVRG	0.47001160	6.241	50.000
Dibenzofuran	AVRG	1.77495079	6.777	50.000
Diethylphthalate	AVRG	1.47818049	5.424	50.000
4-Chlorophenyl-phenylether	AVRG	0.72878570	3.398	50.000
Fluorene	AVRG	1.34570575	9.064	50.000
4-Nitroaniline	AVRG	0.39430140	8.870	50.000
4,6-Dinitro-2-methylphenol	AVRG	0.17752576	9.151	50.000
N-Nitrosodiphenylamine	AVRG	0.44598142	13.929	30.000
Bromophenyl-phenylether	AVRG	0.26253246	5.650	50.000

FORM 6

SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Instrument ID: 5972HP66 Calibration Date(s): 01/17/02 01/17/02

Column: RTX-5MS ID: 0.25 (mm) Calibration Time(s): 0957 1338

LAB FILE ID: RF10: HJ020117A66 RF20: HL020117A66 RF50: HM020117A66
RF80: HH020117A66 RF120: HK020117A66RF160: HI020117A66

COMPOUND	RF10	RF20	RF50	RF80	RF120	RF160
Hexachlorobenzene	0.335	0.324	0.338	0.311	0.296	0.318
Pentachlorophenol	0.161	0.172	0.193	0.183	0.196	0.191
Phenanthrene	1.230	1.192	1.242	1.055	1.106	1.013
Anthracene	1.282	1.168	1.216	1.077	1.072	0.973
Carbazole	0.985	0.959	0.992	0.817	0.807	0.755
Di-n-butylphthalate	1.456	1.387	1.335	1.578	1.522	1.158
Fluoranthene	1.516	1.344	1.264	1.442	1.415	1.245
Pyrene	1.367	1.372	1.376	1.244	1.261	1.100
Butylbenzylphthalate	0.716	0.629	0.599	0.662	0.622	0.538
3,3'-Dichlorobenzidine	0.533	0.546	0.529	0.508	0.533	0.456
bis(2-ethylhexyl)Phthalate	0.963	0.924	0.866	0.940	0.891	0.784
Benzo(a)anthracene	1.319	1.267	1.222	1.313	1.316	1.220
Chrysene	1.249	1.243	1.123	1.378	1.161	1.184
[illegible]-n-octylphthalate	1.781	1.773	1.747	1.736	1.673	1.667
[illegible]nzo(b)fluoranthene	1.633	1.416	1.514	1.540	1.672	1.623
Benzo(k)fluoranthene	1.363	1.449	1.405	1.355	1.262	1.375
Benzo(a)pyrene	1.314	1.288	1.328	1.321	1.314	1.277
Indeno(1,2,3-cd)pyrene	1.291	1.303	1.306	1.327	1.357	1.449
Dibenzo(a,h)anthracene	1.294	1.333	1.335	1.363	1.338	1.377
Benzo(g,h,i)perylene	1.422	1.398	1.400	1.468	1.445	1.451
2-Fluorophenol	1.303	1.355	1.232	1.352	1.317	1.370
Phenol-d5	2.003	1.803	1.765	1.901	1.587	1.640
Nitrobenzene-d5	0.543	0.558	0.542	0.575	0.526	0.505
2-Fluorobiphenyl	1.434	1.431	1.362	1.210	1.166	1.197
2,4,6-Tribromophenol	0.337	0.351	0.351	0.338	0.372	0.348
Terphenyl-d14	1.001	1.034	1.015	0.907	0.861	0.997

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Instrument ID: 5972HP66 Calibration Date(s): 01/17/02 01/17/02

Column: RTX-5MS ID: 0.25 (mm) Calibration Time(s): 0957 1338

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2	MAX %RSD OR R^2
Hexachlorobenzene	AVRG	0.32037289	4.923	50.000
Pentachlorophenol	AVRG	0.18265629	7.531	30.000
Phenanthrene	AVRG	1.13960829	8.381	50.000
Anthracene	AVRG	1.13134182	9.887	50.000
Carbazole	AVRG	0.88604569	11.774	50.000
Di-n-butylphthalate	AVRG	1.40615158	10.695	50.000
Fluoranthene	AVRG	1.37089241	7.730	30.000
Pyrene	AVRG	1.28664351	8.428	50.000
Butylbenzylphthalate	AVRG	0.62778460	9.536	50.000
3,3'-Dichlorobenzidine	AVRG	0.51779405	6.256	50.000
bis(2-ethylhexyl)Phthalate	AVRG	0.89481410	7.183	50.000
Benzo(a)anthracene	AVRG	1.27630703	3.664	50.000
Chrysene	AVRG	1.22304290	7.368	50.000
Di-n-octylphthalate	AVRG	1.72976382	2.833	30.000
Benzo(b)fluoranthene	AVRG	1.56641281	6.054	50.000
Benzo(k)fluoranthene	AVRG	1.36828883	4.558	50.000
Benzo(a)pyrene	AVRG	1.30698874	1.513	30.000
Indeno(1,2,3-cd)pyrene	AVRG	1.33889435	4.399	50.000
Dibenzo(a,h)anthracene	AVRG	1.34000758	2.131	50.000
Benzo(g,h,i)perylene	AVRG	1.43066704	1.993	50.000
2-Fluorophenol	AVRG	1.32157446	3.816	50.000
Phenol-d5	AVRG	1.78321531	8.762	50.000
Nitrobenzene-d5	AVRG	0.54147800	4.521	50.000
2-Fluorobiphenyl	AVRG	1.29971200	9.458	50.000
2,4,6-Tribromophenol	AVRG	0.34964973	3.567	50.000
Terphenyl-d14	AVRG	0.96917567	7.105	50.000

Average %RSD test result.

Calculate Average %RSD: 8.675727844
Maximum Average %RSD: 15.00000000

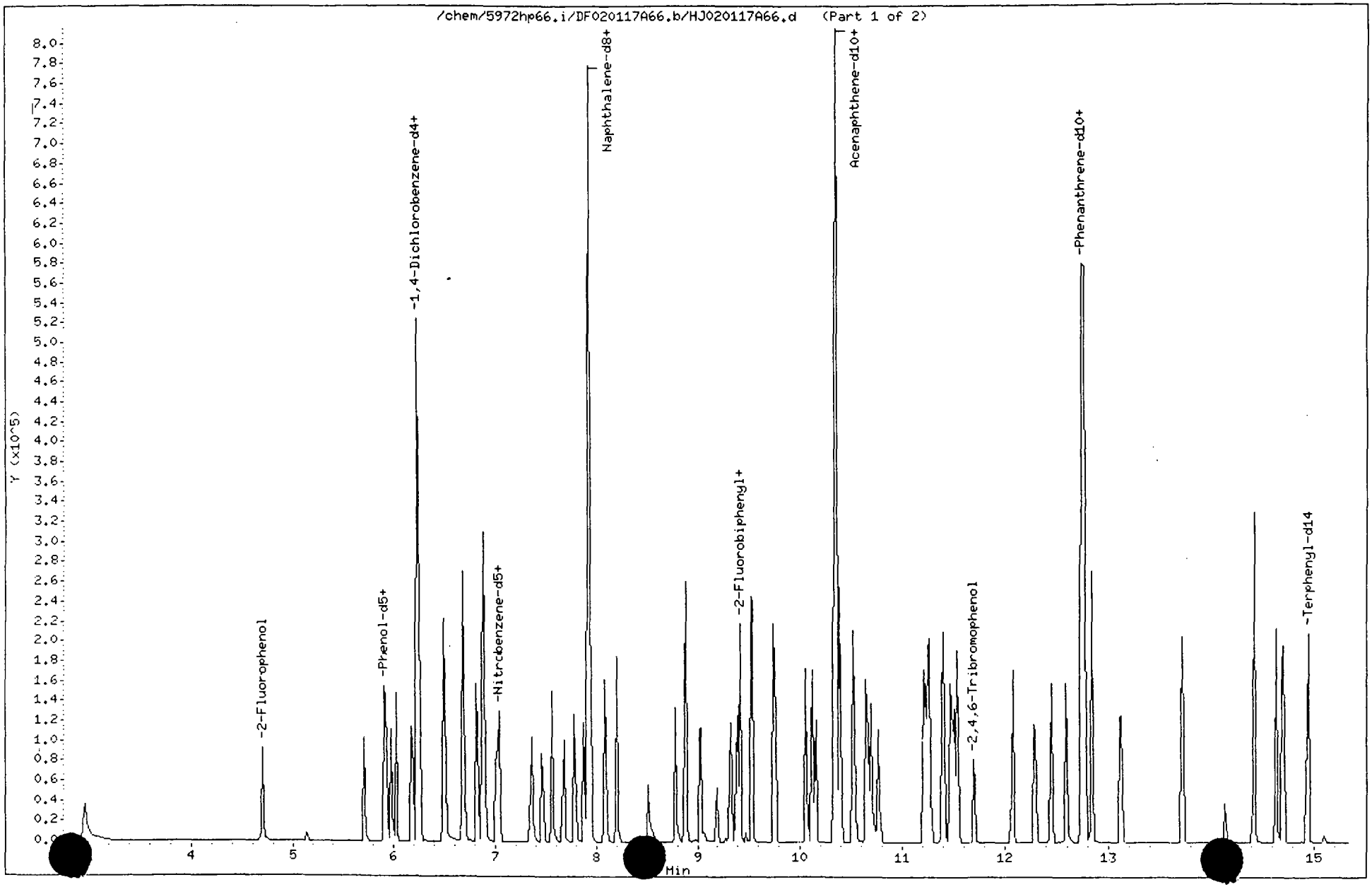
Note: Passes Average %RSD Test.

FORM VI SV

Data File: /chem/5972hp66.i/DF020117A66.b/HJ020117A66.d
Date : 17-JAN-2002 11:46
Client ID: SSTD010
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i

Operator: 2391
Column diameter: 0.25

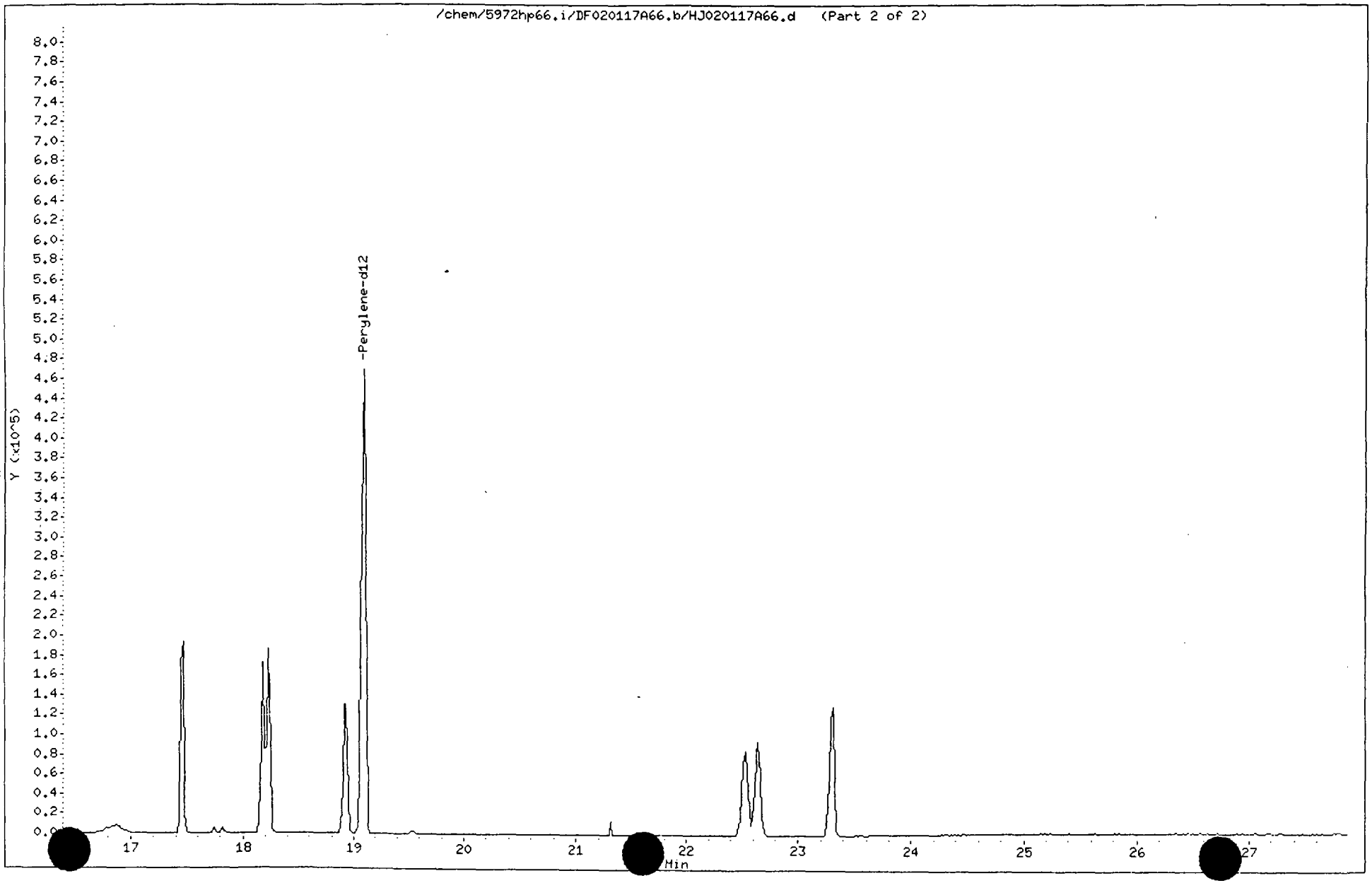


Data File: /chem/5972hp66.i/DF020117A66.b/HJ020117A66.d
Date : 17-JAN-2002 11:46
Client ID: SSTD010
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i

Operator: 2391
Column diameter: 0.25

137



Data File: /chem/5972hp66.i/DF020117A66.b/HJ020117A66.d
Report Date: 17-Jan-2002 14:35

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020117A66.b/HJ020117A66.d
Lab Smp Id: SSTD010 Client Smp ID: SSTD010
Inj Date : 17-JAN-2002 11:46
Operator : 2391 Inst ID: 5972hp66.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020117A66.b/8270Cv6.m
Meth Date : 17-Jan-2002 14:33 respass Quant Type: ISTD
Cal Date : 17-JAN-2002 11:46 Cal File: HJ020117A66.d
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152	6.231	6.231	(1.000)	114829	40.0000		
* 2 Naphthalene-d8	136	7.920	7.920	(1.000)	390566	40.0000		
* 3 Acenaphthene-d10	164	10.336	10.336	(1.000)	248140	40.0000		
* 4 Phenanthrene-d10	188	12.751	12.751	(1.000)	450130	40.0000		
* 5 Chrysene-d12	240	16.281	16.281	(1.000)	483718	40.0000		
* 6 Perylene-d12	264	19.101	19.101	(1.000)	457544	40.0000		
S 7 2-Fluorophenol	112	4.694	4.694	(0.753)	37412	10.0000	9.86	(a)
S 8 Phenol-d5	99	5.911	5.911	(0.948)	57500	10.0000	11.23	
S 9 Nitrobenzene-d5	82	7.008	7.008	(0.885)	53027	10.0000	10.03	
S 10 2-Fluorobiphenyl	172	9.424	9.424	(0.912)	88932	10.0000	11.03	(M)
S 11 2,4,6-Tribromophenol	330	11.704	11.704	(1.132)	20932	10.0000	9.65	(aM)
S 12 Terphenyl-d14	244	14.946	14.946	(0.918)	121088	10.0000	10.33	
13 N-Nitrosodimethylamine	42	2.955	2.955	(0.474)	19724	10.0000	9.92	8935 (a)
14 Pyridine	79	2.972	2.972	(0.477)	35108	10.0000	11.06	9292
15 Benzaldehyde	77	5.708	5.708	(0.916)	34286	10.0000	13.93	9540

 1/17/02

Data File: /chem/5972hp66.i/DF020117A66.b/HJ020117A66.d
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Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
16 Phenol	94	5.927	5.927	(0.951)	51237	10.0000	11.22	
17 Bis(2-chloroethyl)ether	93	5.978	5.978	(0.959)	49277	10.0000	11.21	
18 2-Chlorophenol	128	6.029	6.029	(0.967)	42198	10.0000	11.18	7932
19 1,3-Dichlorobenzene	146	6.181	6.181	(0.992)	42831	10.0000	10.30	
20 1,4-Dichlorobenzene	146	6.265	6.265	(1.005)	45000	10.0000	10.57	
21 Benzyl alcohol	108	6.502	6.502	(1.043)	22846	10.0000	9.22	(a)
22 1,2-Dichlorobenzene	146	6.502	6.502	(1.043)	44144	10.0000	11.06	
23 2-Methylphenol	108	6.687	6.687	(1.073)	36355	10.0000	11.68	
24 2,2'-oxybis(1-Chloropropane)	45	6.687	6.687	(1.073)	63302	10.0000	11.94	8955
25 Acetophenone	105	6.823	6.823	(1.095)	61155	10.0000	10.75	8379
26 3-Methylphenol	108	6.890	6.890	(1.106)	43303	10.0000	11.73	
27 4-Methylphenol	108	6.890	6.890	(1.106)	43303	10.0000	11.73	
28 N-Nitroso-di-N-propylamine	70	6.873	6.873	(1.103)	23455	10.0000	11.63	8655
29 Hexachloroethane	117	6.890	6.890	(1.106)	23275	10.0000	11.87	9653
30 Nitrobenzene	77	7.042	7.042	(0.889)	53383	10.0000	11.01	9166
31 Isophorone	82	7.363	7.363	(0.930)	87514	10.0000	9.74	8959 (a)
32 2-Nitrophenol	139	7.464	7.464	(0.942)	20851	10.0000	9.78	8502 (a)
33 2,4-Dimethylphenol	122	7.566	7.566	(0.955)	34318	10.0000	10.95	8904
34 Bis(2-chloroethoxy)methane	93	7.684	7.684	(0.970)	58216	10.0000	10.50	8966
35 2,4-Dichlorophenol	162	7.785	7.785	(0.983)	32789	10.0000	10.24	
36 1,2,4-Trichlorobenzene	180	7.887	7.887	(0.996)	37861	10.0000	9.97	(a)
37 Naphthalene	128	7.954	7.954	(1.004)	123931	10.0000	10.82	9493
38 4-Chloroaniline	127	8.089	8.089	(1.021)	58181	10.0000	10.86	8164
39 Hexachlorobutadiene	225	8.208	8.208	(1.036)	30498	10.0000	10.65	9190
40 Caprolactam	113	8.512	8.512	(1.075)	12857	10.0000	10.03	9486
41 4-Chloro-3-methylphenol	107	8.782	8.782	(1.109)	39118	10.0000	10.41	0 (M)
42 2-Methylnaphthalene	142	8.883	8.883	(1.122)	88838	10.0000	11.43	
43 1-Methylnaphthalene	142	9.035	9.035	(1.141)	65412	10.0000	10.38	
44 Hexachlorocyclopentadiene	237	9.187	9.187	(0.889)	12336	10.0000	5.59	8383 (a)
45 2,4,6-Trichlorophenol	196	9.339	9.339	(0.904)	24910	10.0000	9.96	(a)
46 2,4,5-Trichlorophenol	196	9.390	9.390	(0.908)	30064	10.0000	10.97	
47 1,1'-Biphenyl	154	9.542	9.542	(0.923)	82958	10.0000	10.87	7510
48 2-Chloronaphthalene	162	9.542	9.542	(0.923)	68698	10.0000	10.71	
49 2-Nitroaniline	65	9.744	9.744	(0.943)	63503	20.0000	20.54	9301
50 Dimethylphthalate	163	10.048	10.048	(0.972)	89719	10.0000	10.64	8682
51 2,6-Dinitrotoluene	165	10.150	10.150	(0.982)	22143	10.0000	10.11	8888
52 Acenaphthylene	152	10.116	10.116	(0.979)	125049	10.0000	11.07	9565
53 3-Nitroaniline	138	10.352	10.352	(1.002)	49798	20.0000	21.71	9092
54 Acenaphthene	154	10.386	10.386	(1.005)	76196	10.0000	11.58	9057
55 2,4-Dinitrophenol	184	10.521	10.521	(1.018)	46276	50.0000	38.80	(a)
56 4-Nitrophenol	109	10.690	10.690	(1.034)	33038	20.0000	19.21	8511 (a)
57 2,4-Dinitrotoluene	165	10.758	10.758	(1.041)	30080	10.0000	10.32	8316
58 Dibenzofuran	168	10.640	10.640	(1.029)	117298	10.0000	10.65	9355
59 Diethylphthalate	149	11.214	11.214	(1.085)	97076	10.0000	10.59	8519
60 4-Chlorophenyl-phenylether	204	11.265	11.265	(1.090)	46981	10.0000	10.39	7192
61 Fluorene	166	11.248	11.248	(1.088)	92298	10.0000	11.06	7924
62 4-Nitroaniline	138	11.400	11.400	(1.103)	52209	20.0000	21.34	9281

1/17/02

Data File: /chem/5972hp66.i/DF020117A66.b/HJ020117A66.d
Report Date: 17-Jan-2002 14:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
63 4,6-Dinitro-2-methylphenol	198	11.467	11.467	(0.899)	35089	20.0000	17.56	0(aM)
64 N-Nitrosodiphenylamine	169	11.501	11.501	(0.902)	59978	10.0000	11.95	9279
65 1,2-Diphenylhydrazine	77	11.535	11.535	(1.116)	123676	10.0000	10.60	8464
66 4-Bromophenyl-phenylether	248	12.075	12.075	(0.947)	32242	10.0000	10.91	9102
67 Hexachlorobenzene	284	12.295	12.295	(0.964)	37684	10.0000	10.45	8409
68 Atrazine	200	12.447	12.447	(0.976)	23422	10.0000	17.92	8131
69 Pentachlorophenol	266	12.599	12.599	(0.988)	36156	20.0000	17.59	7256(a)
70 Phenanthrene	178	12.768	12.768	(1.001)	138363	10.0000	10.79	
71 Anthracene	178	12.835	12.835	(1.007)	144213	10.0000	11.33	
72 Carbazole	167	13.122	13.122	(1.029)	110861	10.0000	11.12	9515
73 Di-n-butylphthalate	149	13.714	13.714	(1.075)	163907	10.0000	10.36	8977
74 Fluoranthene	202	14.423	14.423	(1.131)	170581	10.0000	11.06	
75 Benzidine	184	14.642	14.642	(0.899)	111424	20.0000	25.87	8482
76 Pyrene	202	14.710	14.710	(0.904)	165275	10.0000	10.62	
77 Butylbenzylphthalate	149	15.588	15.588	(0.957)	86556	10.0000	11.40	9473
78 3,3'-Dichlorobenzidine	252	16.264	16.264	(0.999)	64452	10.0000	10.29	4106(a)
79 bis(2-ethylhexyl)Phthalate	149	16.399	16.399	(1.007)	116504	10.0000	10.77	9201
80 Benzo(a)anthracene	228	16.247	16.247	(0.998)	159503	10.0000	10.33	
81 Chrysene	228	16.314	16.314	(1.002)	151005	10.0000	10.21	
82 Di-n-octylphthalate	149	17.463	17.463	(0.914)	203750	10.0000	10.30	
83 Benzo(b)fluoranthene	252	18.172	18.172	(0.951)	186783	10.0000	10.42	(H)
84 Benzo(k)fluoranthene	252	18.223	18.223	(0.954)	155914	10.0000	9.96	(a)
85 Benzo(a)pyrene	252	18.932	18.932	(0.991)	150292	10.0000	10.05	
86 Indeno(1,2,3-cd)pyrene	276	22.530	22.530	(1.179)	147685	10.0000	9.64	0(aM)
87 Dibenzo(a,h)anthracene	278	22.648	22.648	(1.186)	148013	10.0000	9.66	0(aM)
88 Benzo(g,h,i)perylene	276	23.307	23.307	(1.220)	162633	10.0000	9.94	8821(a)

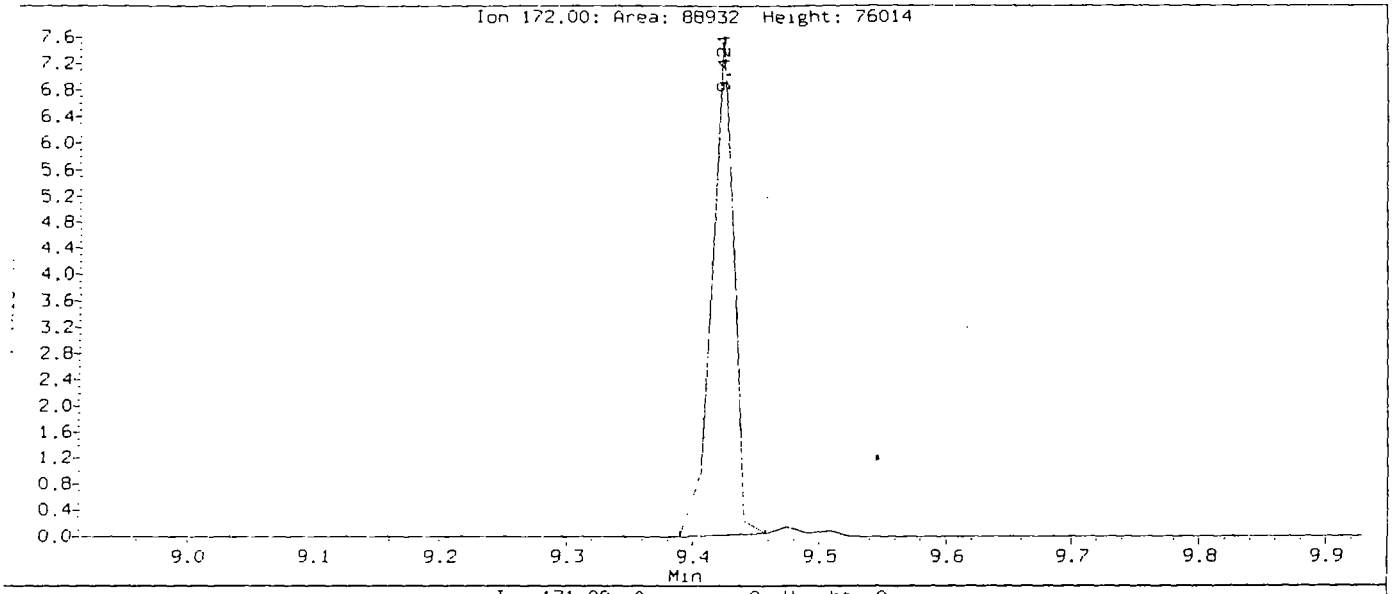
JH1/17/02

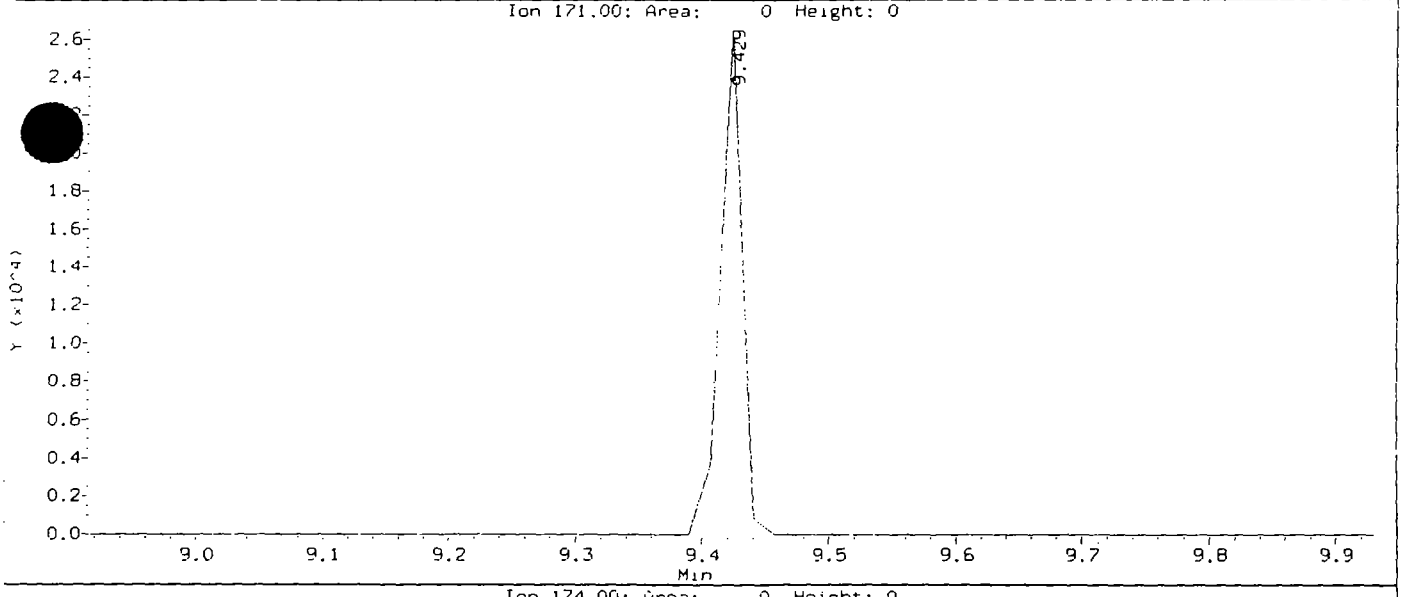
QC Flag Legend

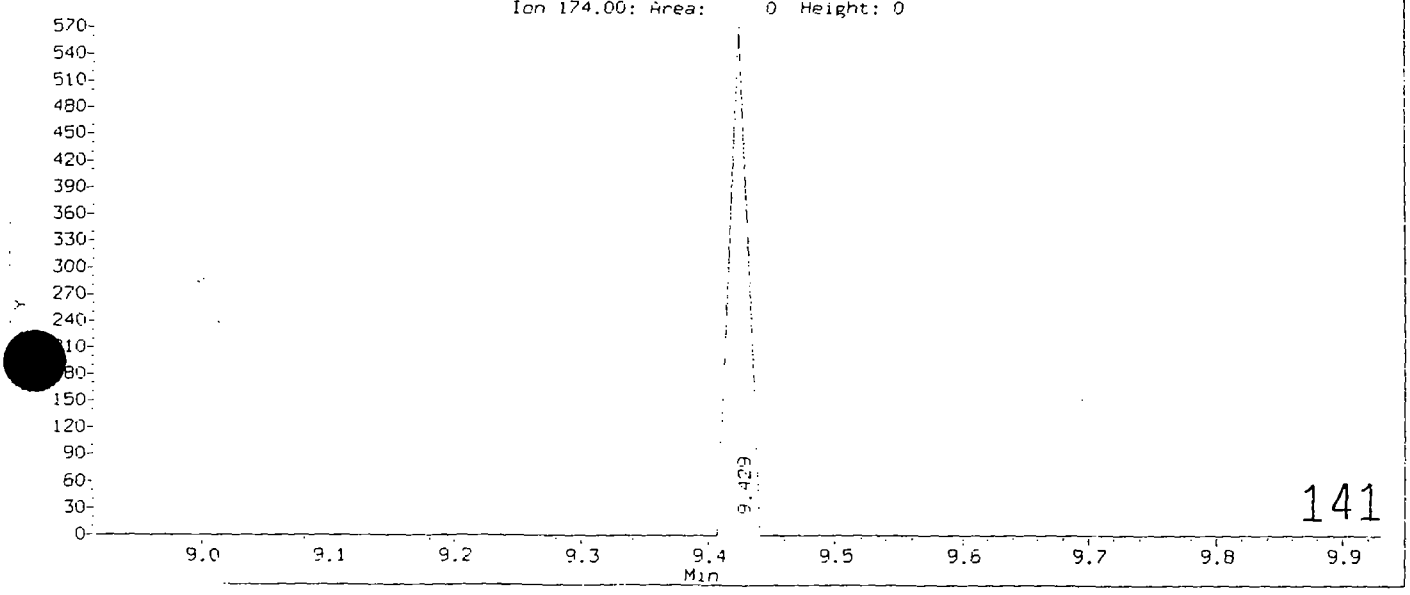
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ta File: /chem/5972hp66.i/DF020117A66.b/HJ020117A66.d
je[redacted]on Date: 17-JAN-2002 11:46
s[redacted]nt: 5972hp66.i
i[redacted]ample ID: SSTD010

mpound: 2-Fluorobiphenyl
S Number: 321-60-8







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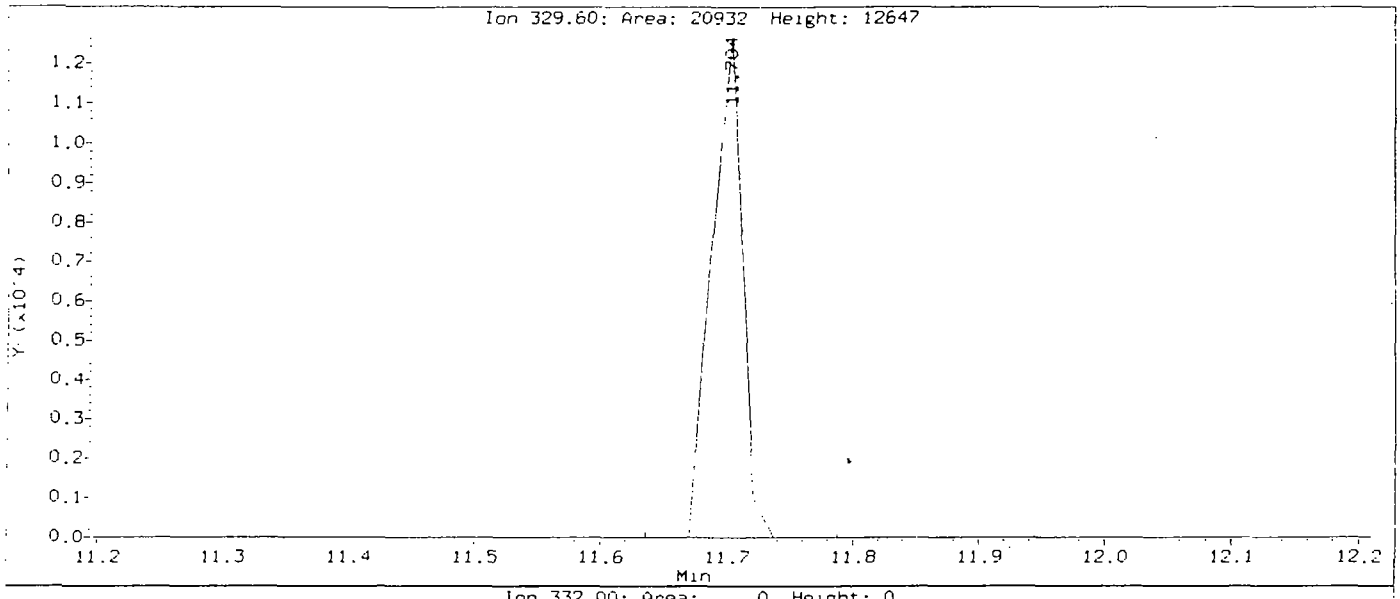
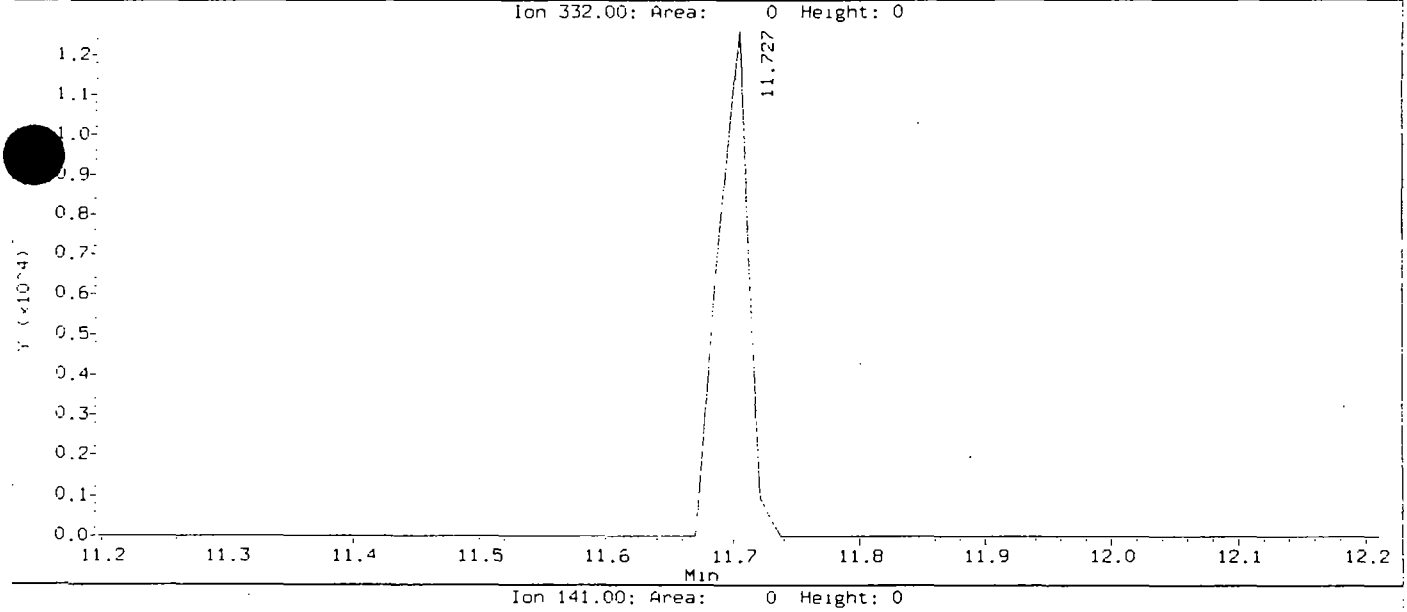
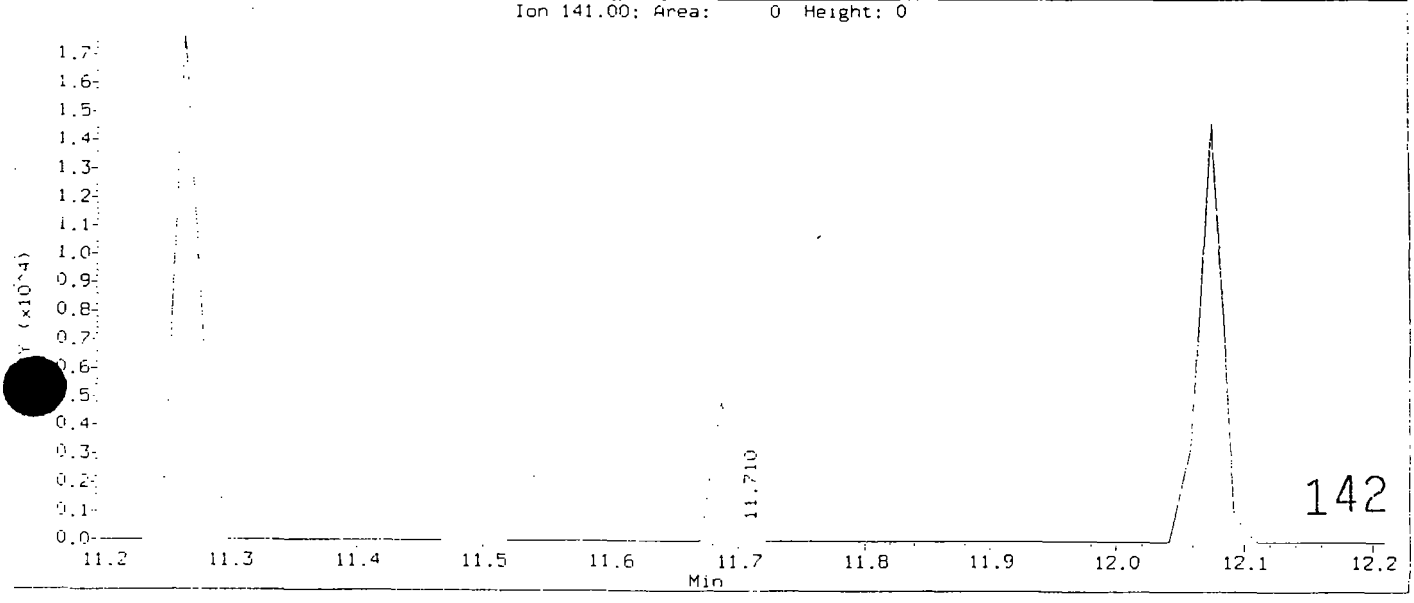
Instrument: 5972hp66.i
Client Sample ID: SSTD010

Compound: 2.4.6-Tribromophenol
CAS Number: 118-79-6







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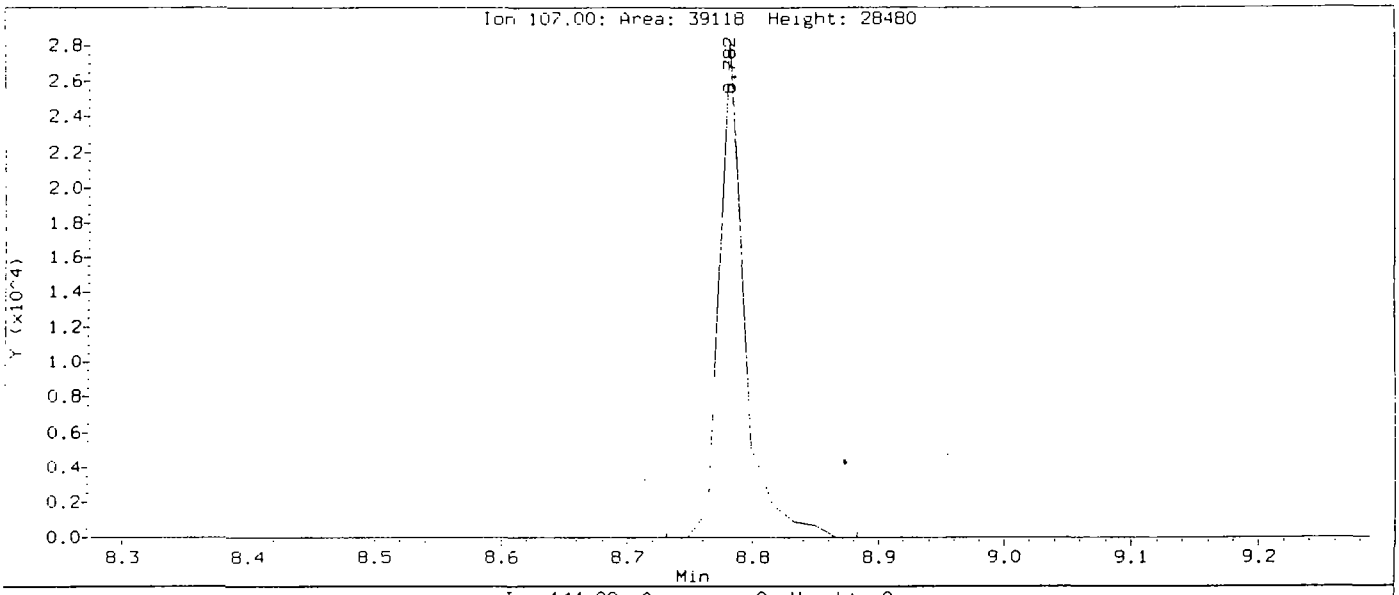
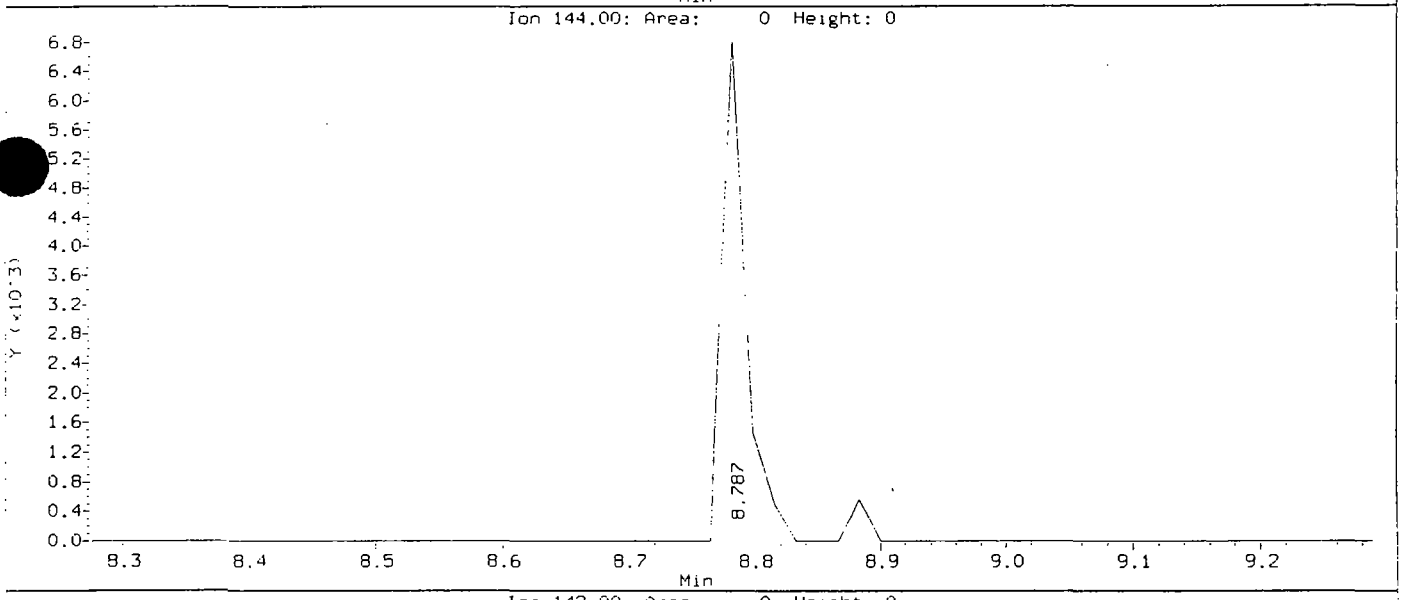
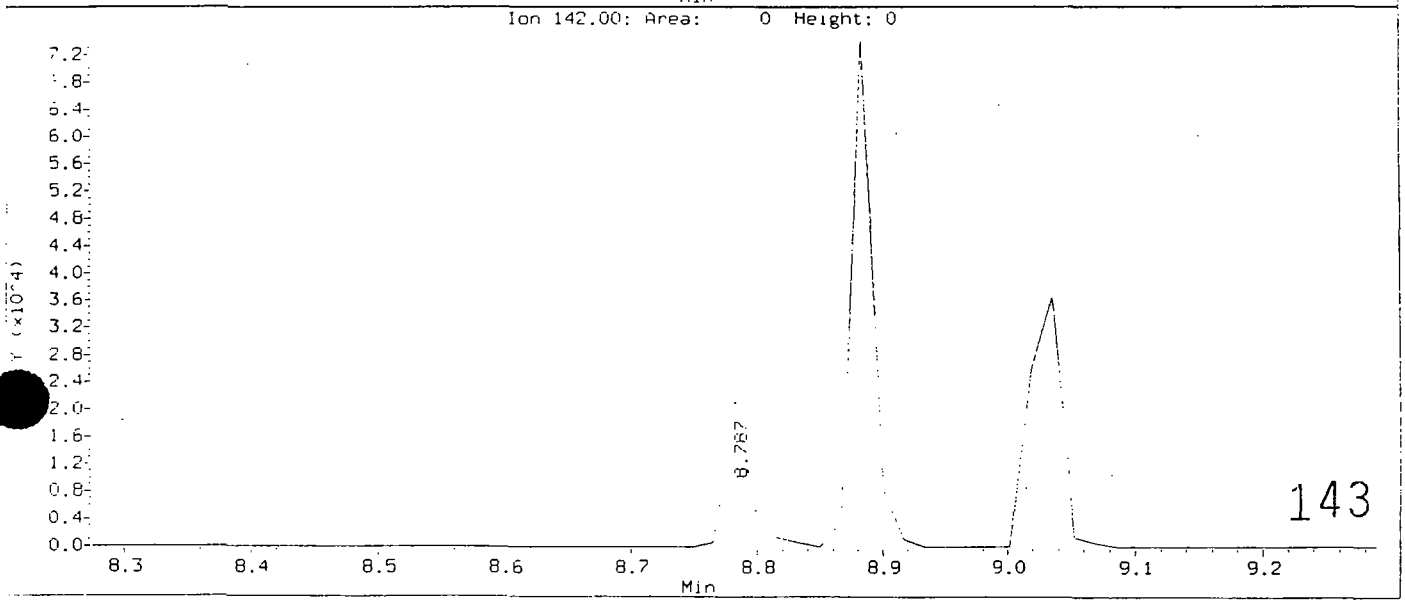
Injection Date: 17-JAN-2002 11:46
Instrument: 5972hp66.i
[redacted]ent Sample ID: SSTD010

[redacted]mpound: 4-Chloro-3-methylphenol
CAS Number: 59-50-7







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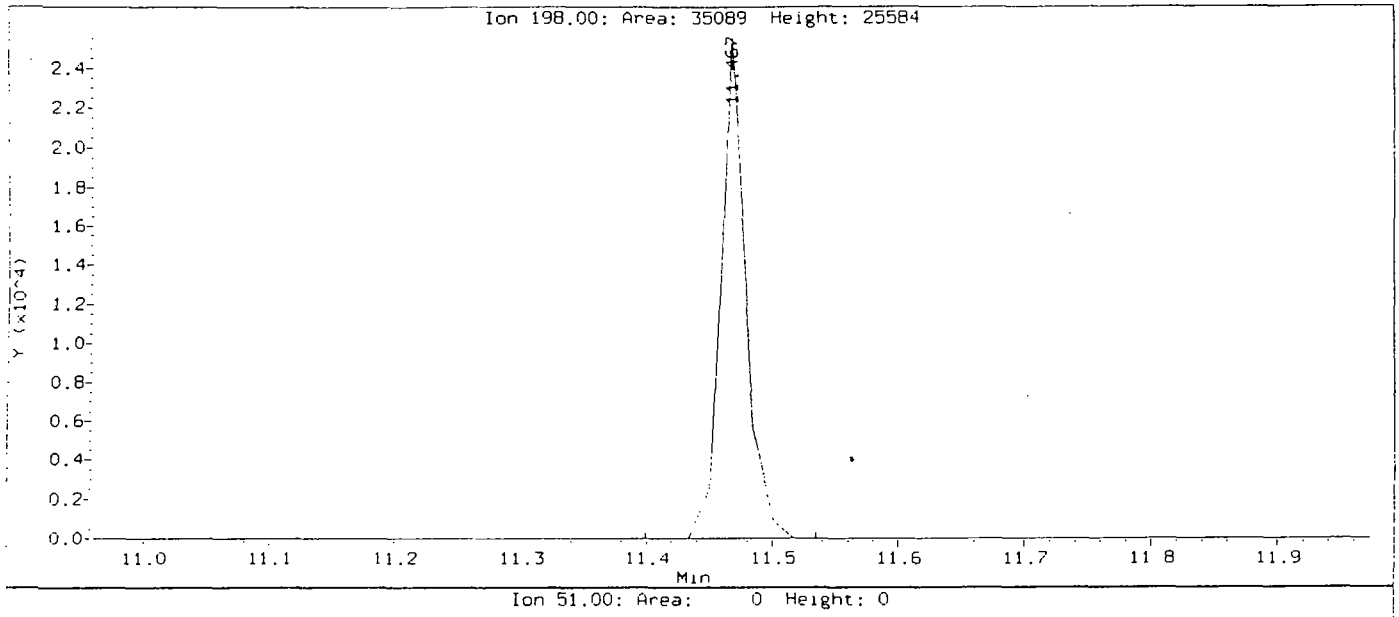
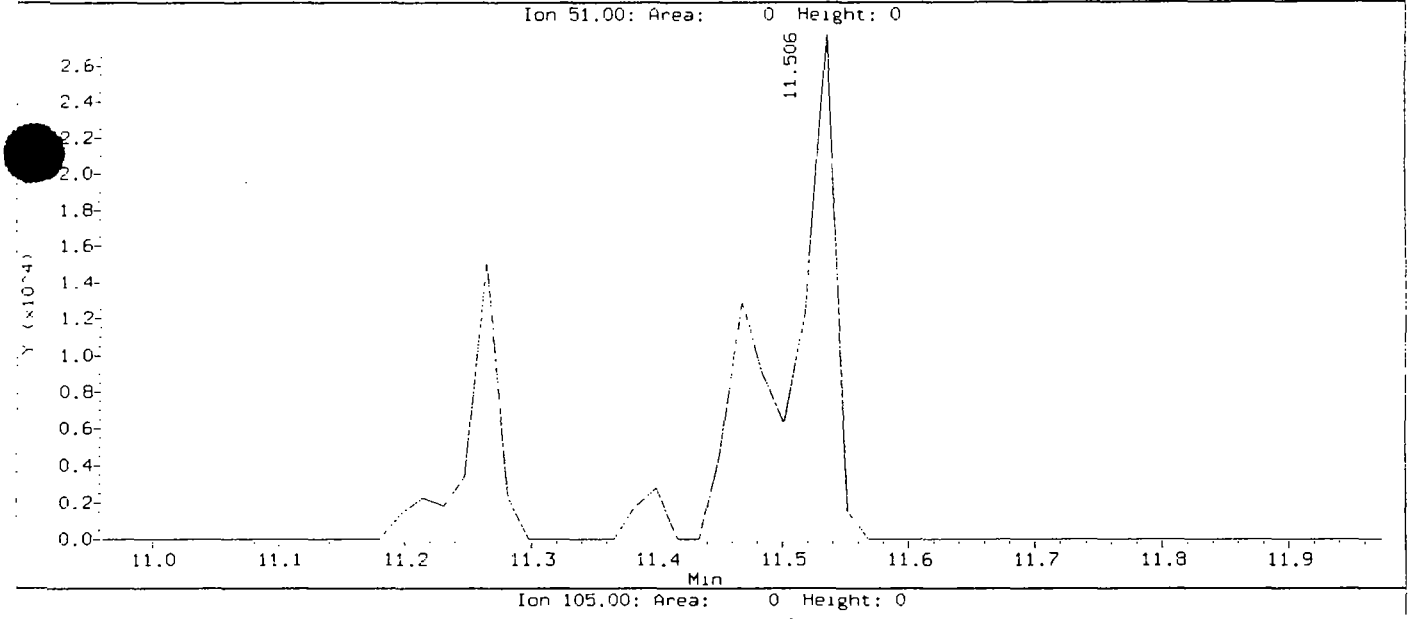
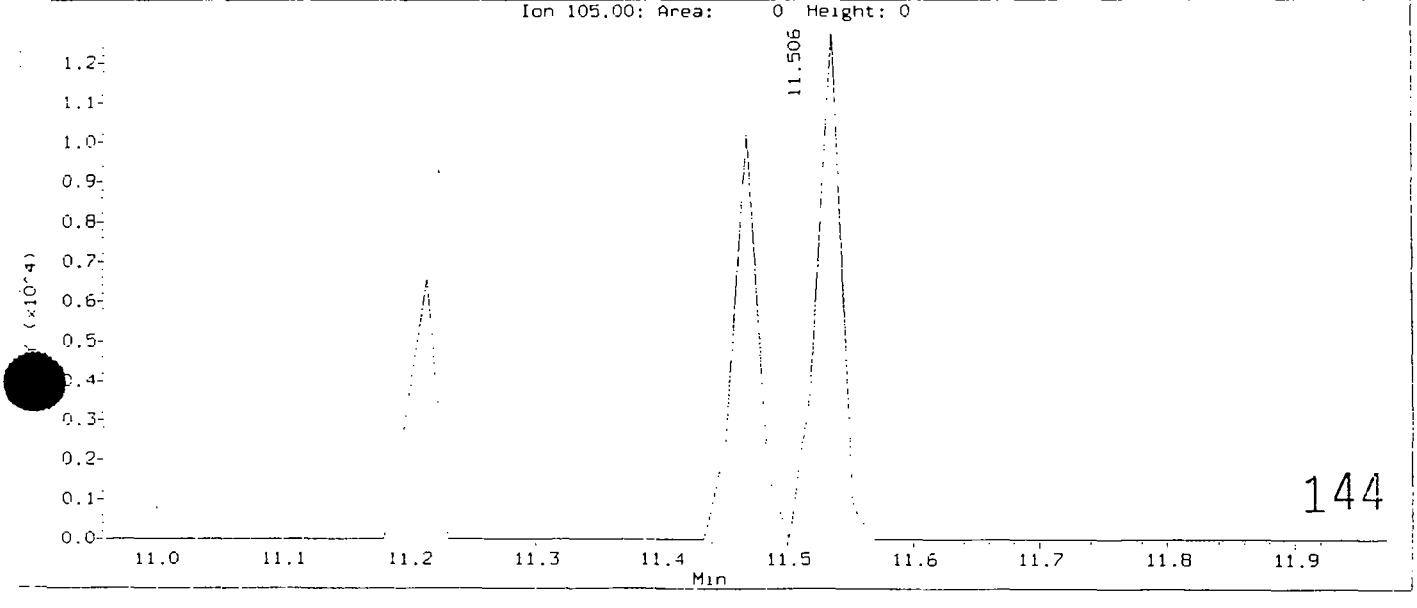
Injection Date: 17-JAN-2002 11:46
Instrument: 5972hp66.i
Client Sample ID: SSTD010

Compound: 4,6-Dinitro-2-methylphenol
CAS Number: 534-52-1







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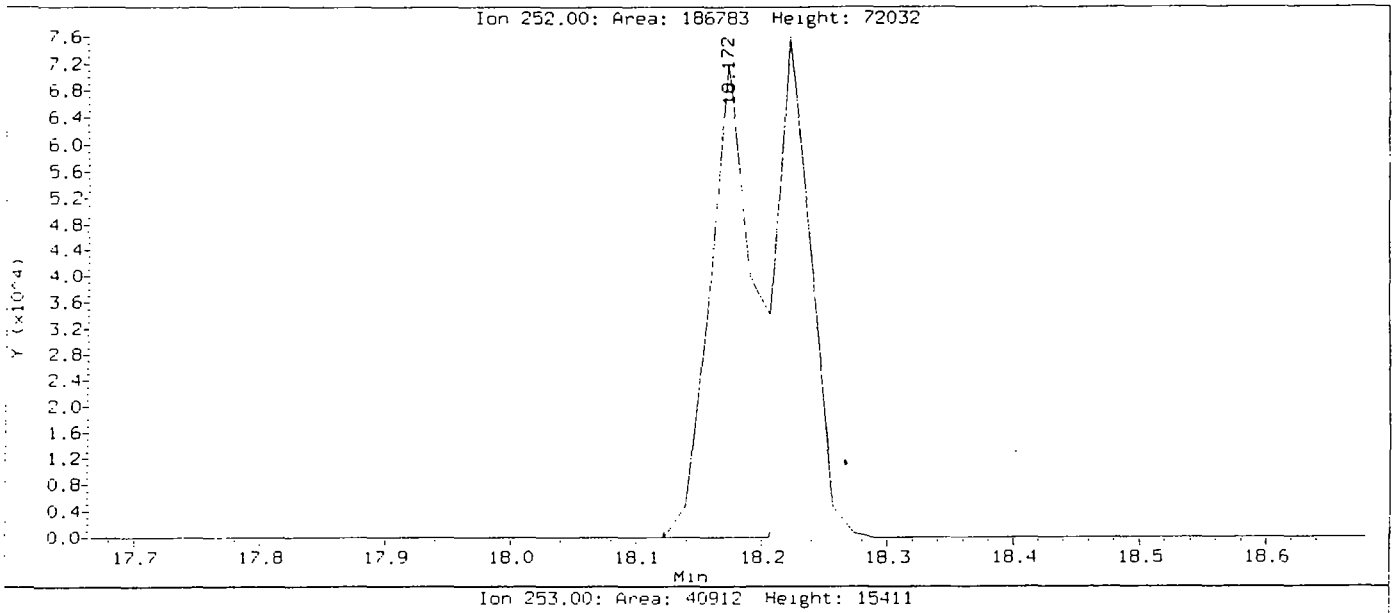
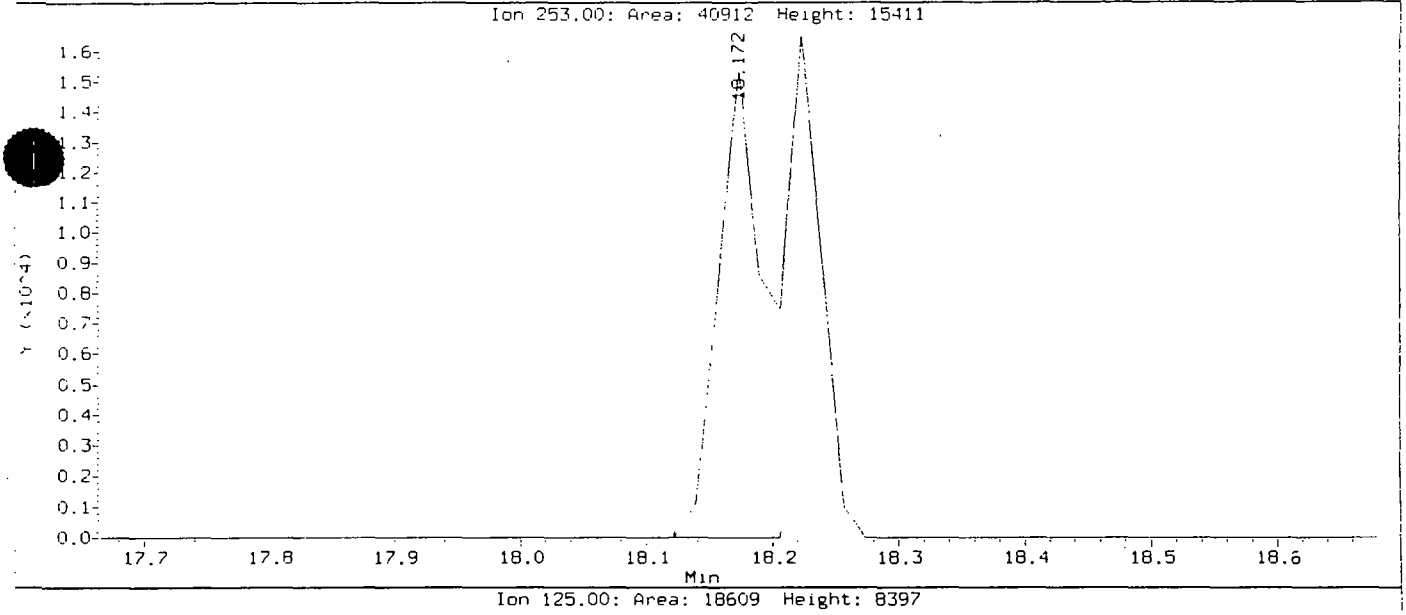
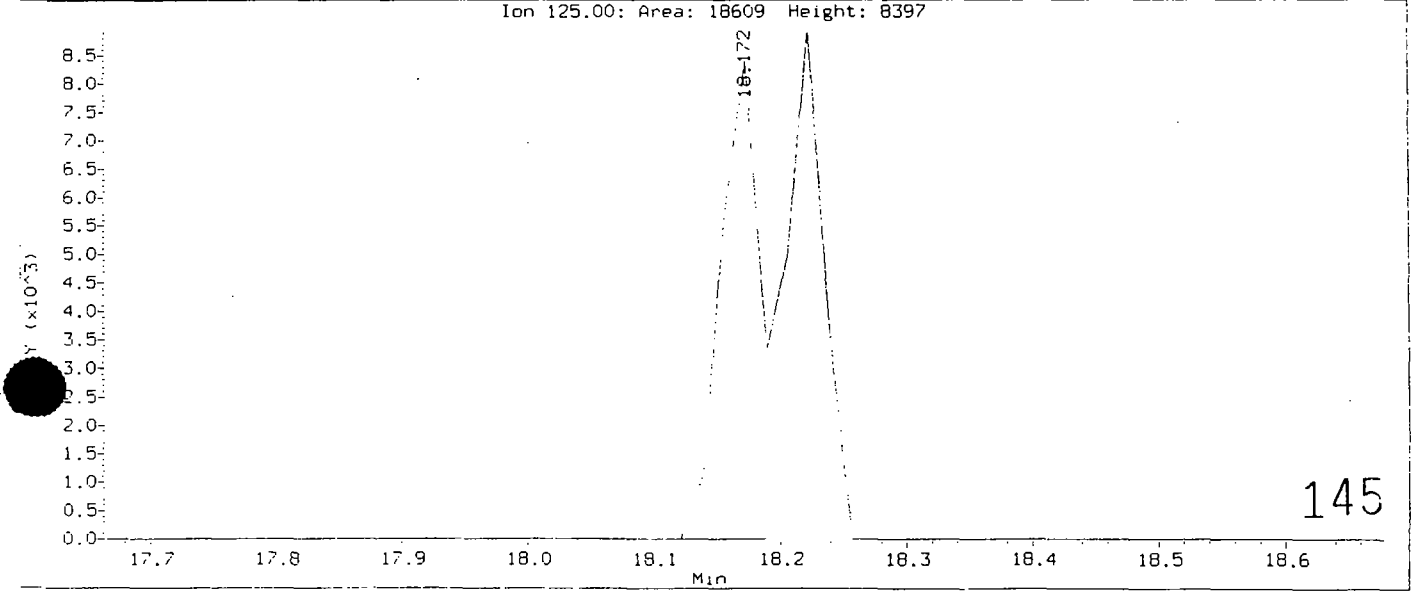
Injection Date: 17-JAN-2002 11:46
Instrument: 5972hp66.i
[redacted]nt Sample ID: SSTD010

Compound: Benzo(b)fluoranthene
CAS Number: 205-99-2







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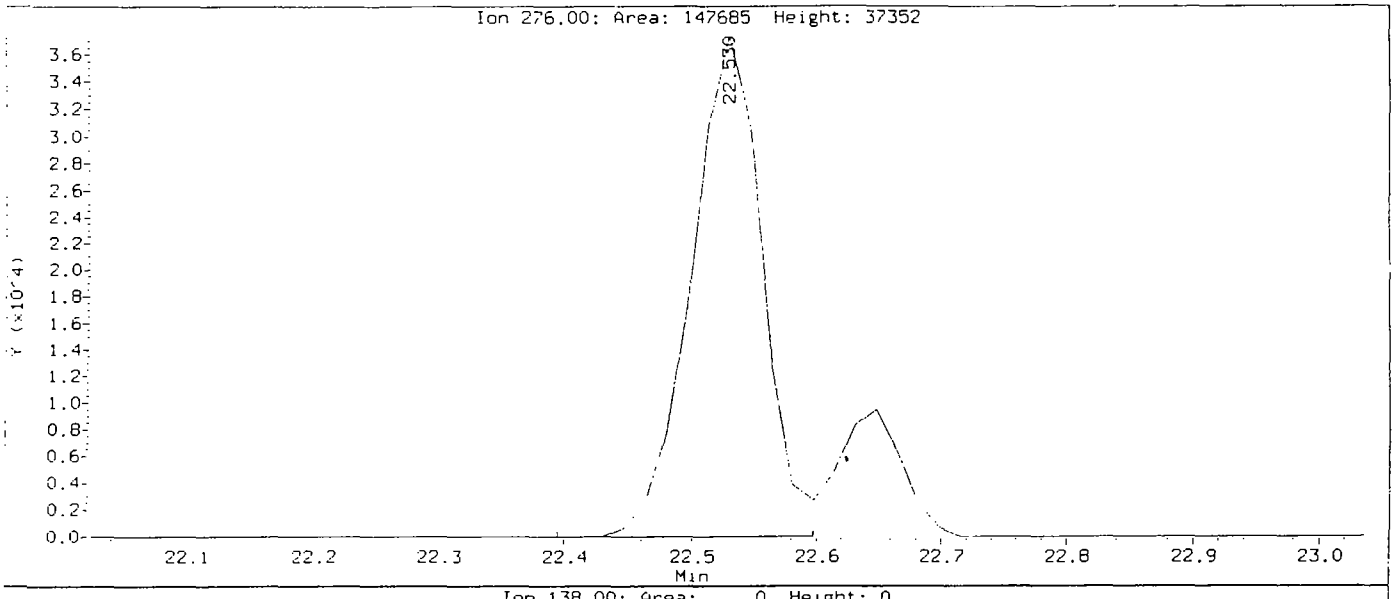
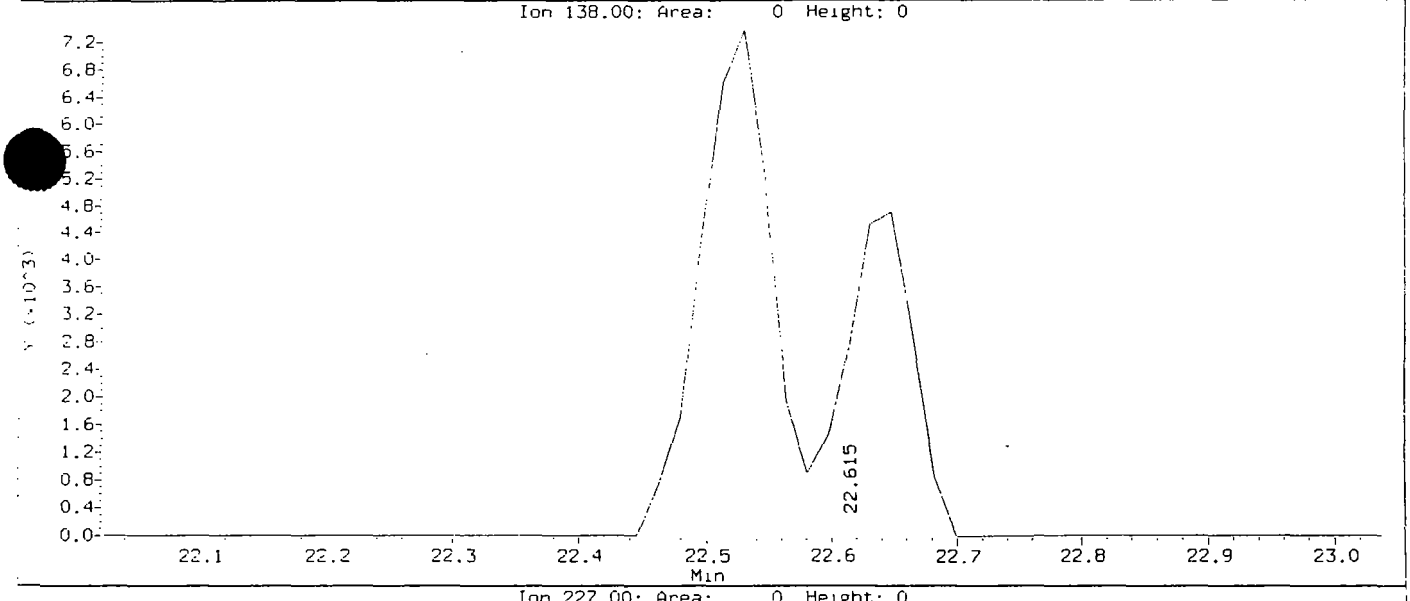
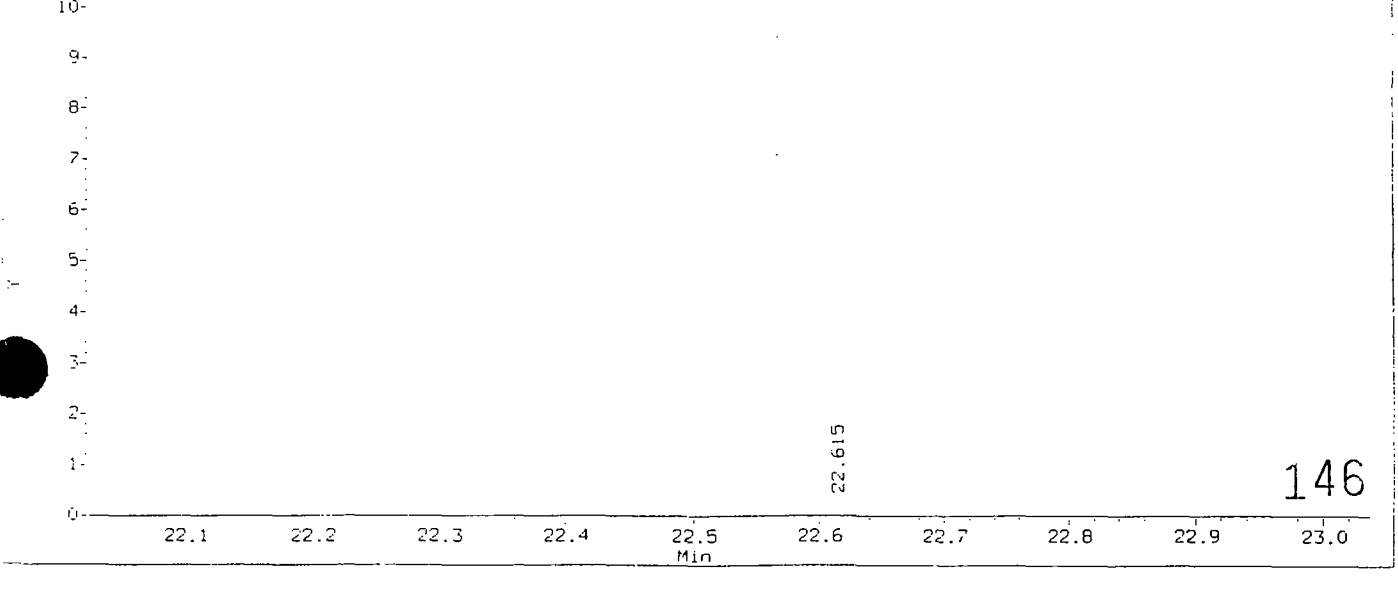
Injection Date: 17-JAN-2002 11:46
Instrument: 5972hp66.i
[redacted]nt Sample ID: SSTD010

[redacted]pound: Indeno(1,2,3-cd)pyrene
CAS Number: 193-39-5







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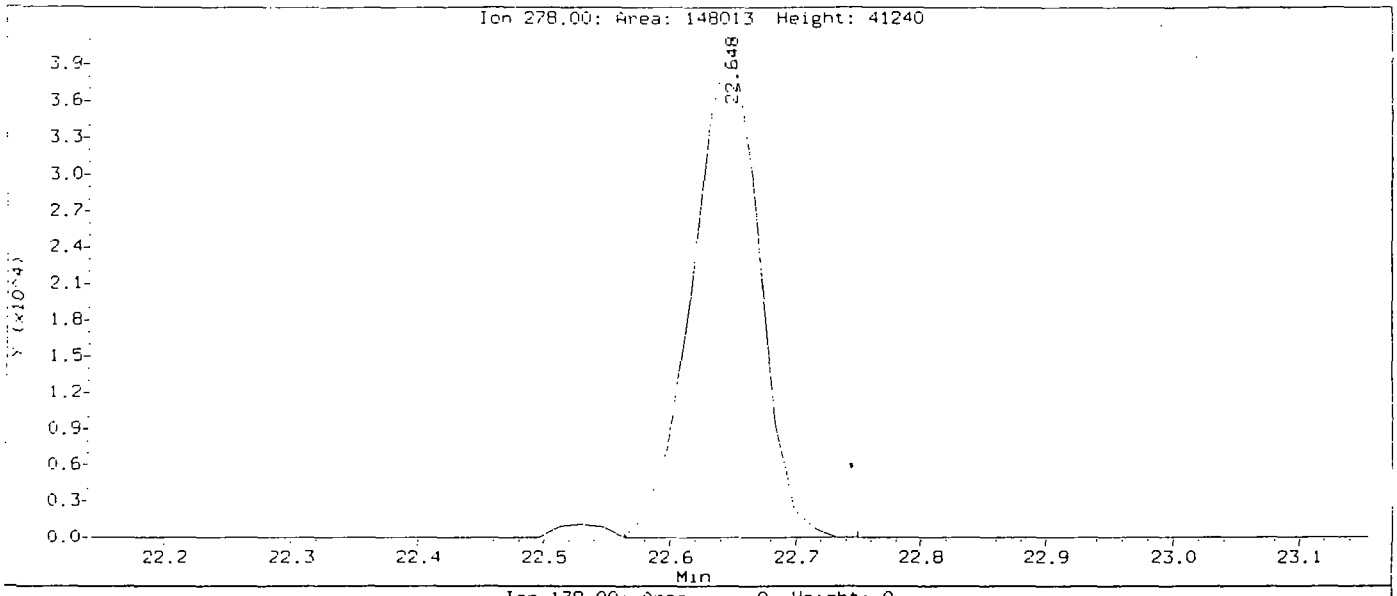
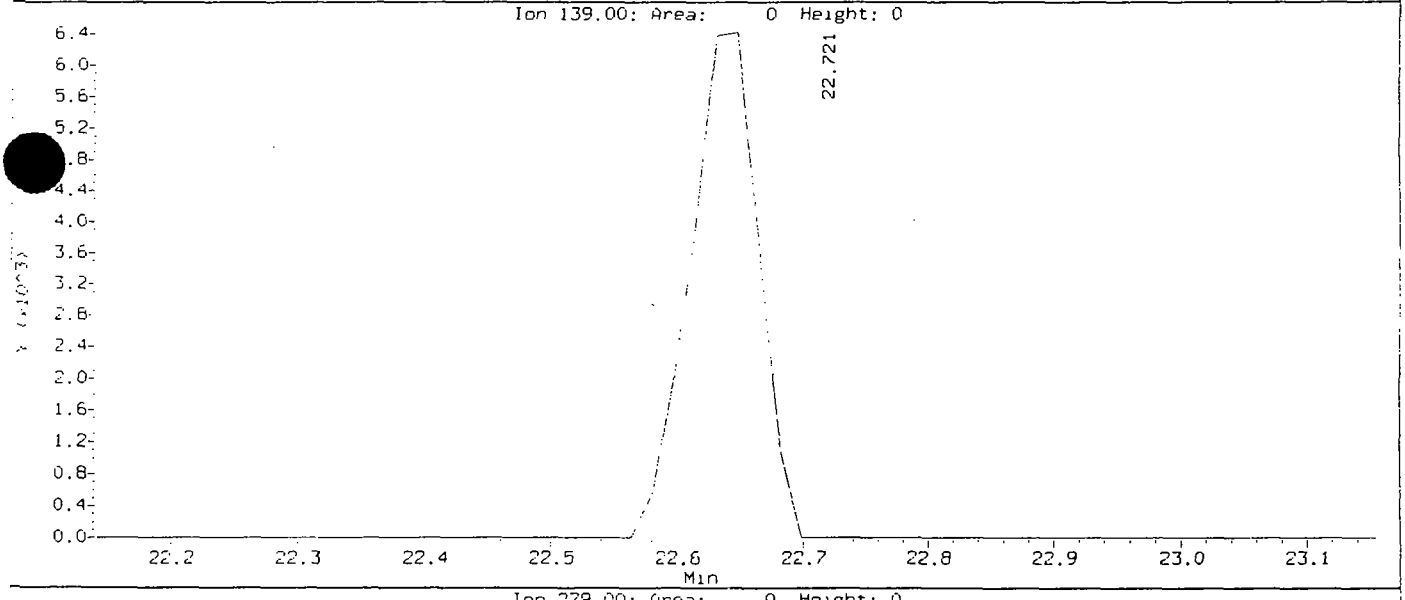
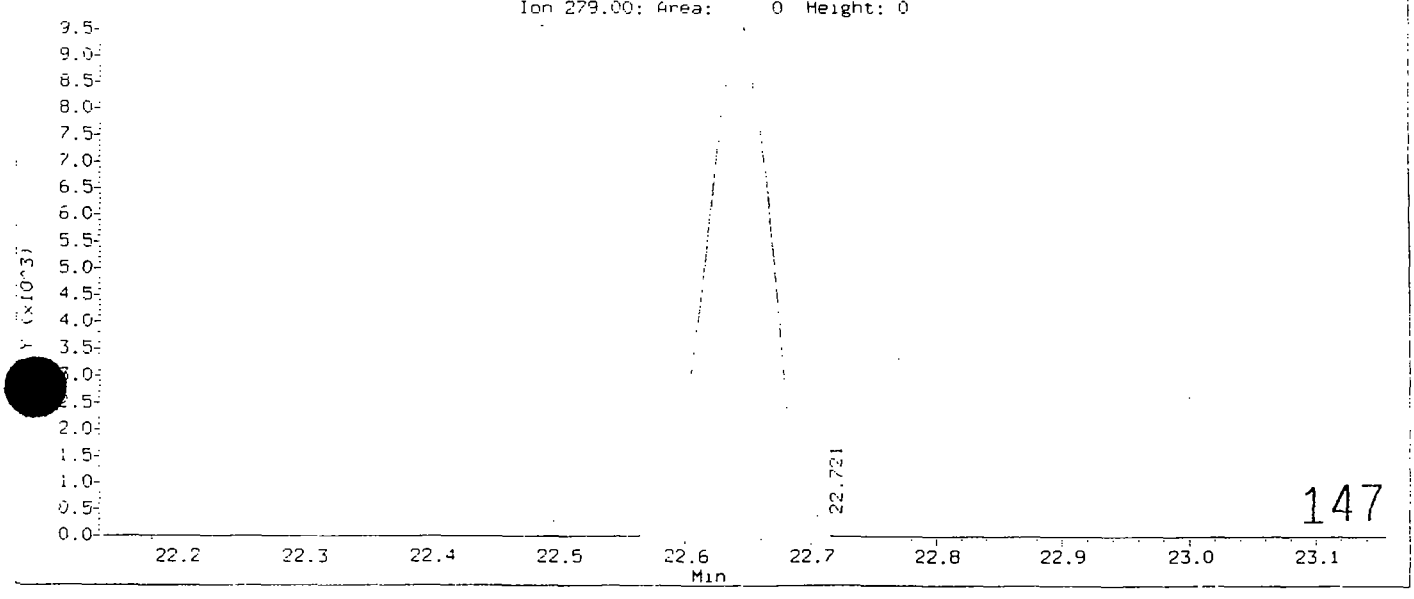
Injection Date: 17-JAN-2002 11:46
Instrument: 5972hp66.i
[redacted]t Sample ID: SSTD010

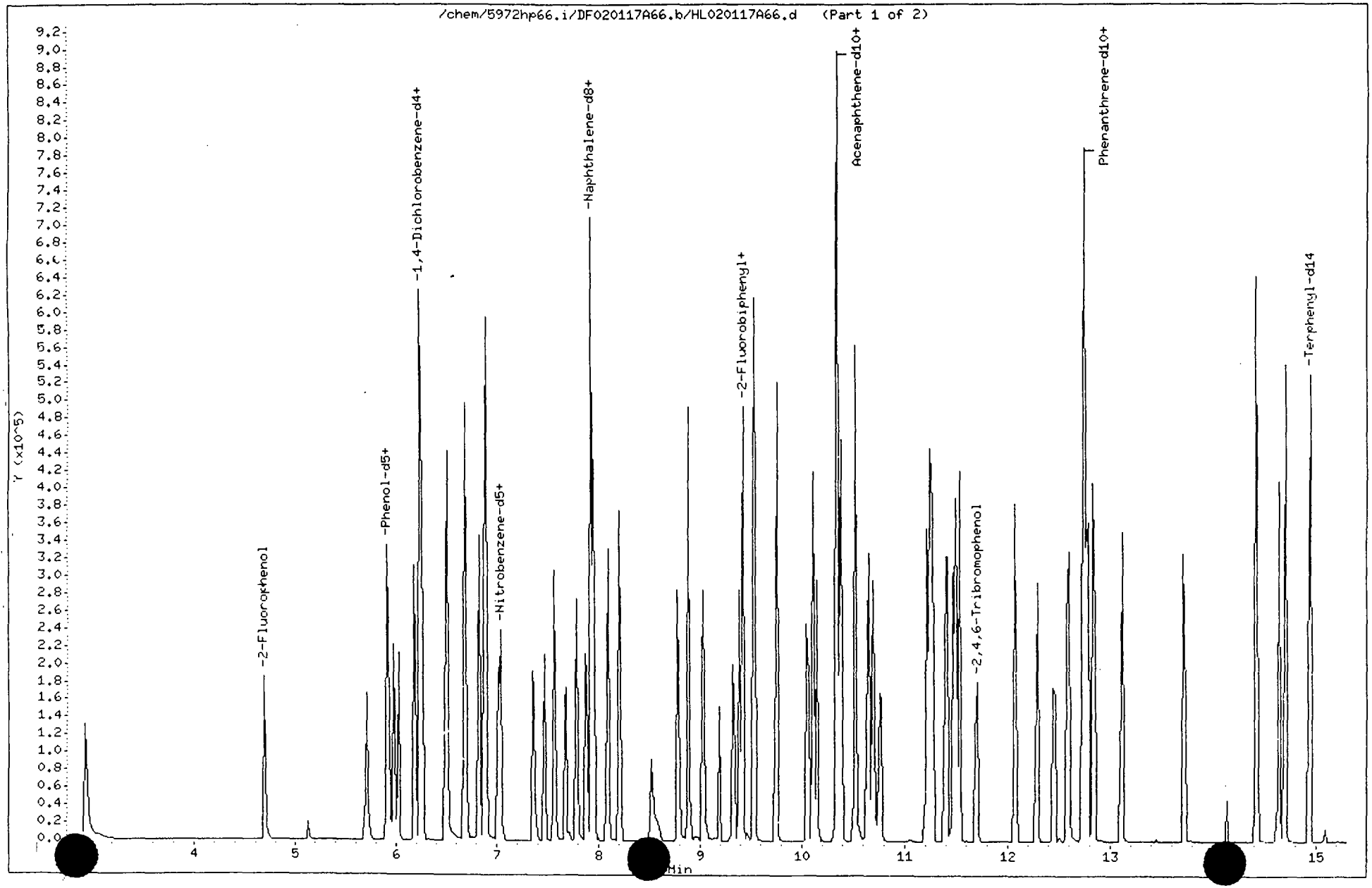
[redacted]ound: Dibenzo(a,h)anthracene
CAS Number: 53-70-3







Data File: /chem/5972hp66.i/DF020117A66.b/HL020117A66.d
Date : 17-JAN-2002 13:01
Client ID: SSTD020
Instrument: 5972hp66.i
Sample Info:
Volume Injected (uL): 1.0
Operator: 2391
Column phase: RTX-5MS
Column diameter: 0.25



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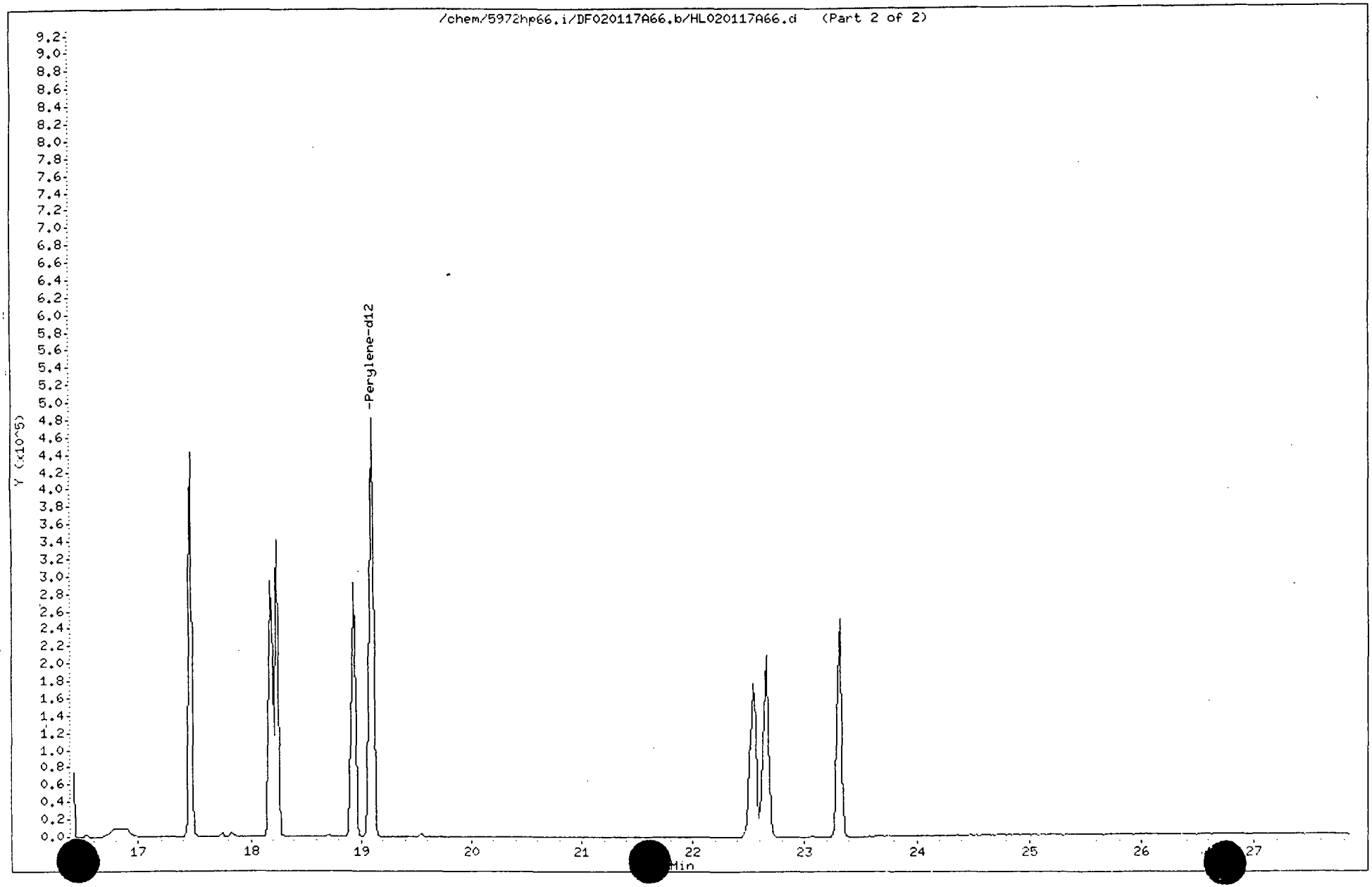
Date : 17-JAN-2002 13:01
Client ID: SSTD020
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2391
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020117A66.b/HL020117A66.d
Report Date: 17-Jan-2002 14:35

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020117A66.b/HL020117A66.d
Lab Smp Id: SSTD020 Client Smp ID: SSTD020
Inj Date : 17-JAN-2002 13:01
Operator : 2391 Inst ID: 5972hp66.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020117A66.b/8270Cv6.m
Meth Date : 17-Jan-2002 14:33 respass Quant Type: ISTD
Cal Date : 17-JAN-2002 13:01 Cal File: HL020117A66.d
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY	
*	1 1,4-Dichlorobenzene-d4	152	6.232	6.231	(1.000)	119849	40.0000			
*	2 Naphthalene-d8	136	7.921	7.920	(1.000)	384024	40.0000			
*	3 Acenaphthene-d10	164	10.336	10.336	(1.000)	249862	40.0000			
*	4 Phenanthrene-d10	188	12.751	12.751	(1.000)	471064	40.0000			
*	5 Chrysene-d12	240	16.281	16.281	(1.000)	495152	40.0000			
*	6 Perylene-d12	264	19.102	19.101	(1.000)	456257	40.0000			
$	7 2-Fluorophenol	112	4.678	4.694	(0.751)	81225	20.0000	20.51		
$	8 Phenol-d5	99	5.911	5.911	(0.948)	108033	20.0000	20.22		
$	9 Nitrobenzene-d5	82	7.009	7.008	(0.885)	107145	20.0000	20.61		
$	10 2-Fluorobiphenyl	172	9.424	9.424	(0.912)	178749	20.0000	22.02		(M)
$	11 2,4,6-Tribromophenol	330	11.704	11.704	(1.132)	43875	20.0000	20.09		(M)
$	12 Terphenyl-d14	244	14.947	14.946	(0.918)	255916	20.0000	21.33		
	13 N-Nitrosodimethylamine	42	2.938	2.955	(0.472)	38947	20.0000	18.77	9006	
	14 Pyridine	79	2.938	2.972	(0.472)	70545	20.0000	21.29	9425	
	15 Benzaldehyde	77	5.708	5.708	(0.916)	57296	20.0000	22.30	9328	

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Data File: /chem/5972hp66.i/DF020117A66.b/HL020117A66.d
Report Date: 17-Jan-2002 14:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
16 Phenol	94	5.928	5.927	(0.951)	98557	20.0000	20.67	
17 Bis(2-chloroethyl)ether	93	5.978	5.978	(0.959)	92220	20.0000	20.10	
18 2-Chlorophenol	128	6.029	6.029	(0.967)	74523	20.0000	18.91	7423
19 1,3-Dichlorobenzene	146	6.181	6.181	(0.992)	90723	20.0000	20.90	
20 1,4-Dichlorobenzene	146	6.266	6.265	(1.005)	88886	20.0000	20.01	
21 Benzyl alcohol	108	6.502	6.502	(1.043)	49739	20.0000	19.22	
22 1,2-Dichlorobenzene	146	6.502	6.502	(1.043)	91512	20.0000	21.96	
23 2-Methylphenol	108	6.688	6.687	(1.073)	66081	20.0000	20.34	
24 2,2'-oxybis(1-Chloropropane)	45	6.688	6.687	(1.073)	116586	20.0000	21.07	8963
25 Acetophenone	105	6.823	6.823	(1.095)	126209	20.0000	21.26	9024
26 3-Methylphenol	108	6.890	6.890	(1.106)	84278	20.0000	21.88	
27 4-Methylphenol	108	6.890	6.890	(1.106)	84278	20.0000	21.88	
28 N-Nitroso-di-N-propylamine	70	6.874	6.873	(1.103)	45261	20.0000	21.51	8816
29 Hexachloroethane	117	6.890	6.890	(1.106)	43995	20.0000	21.49	9688
30 Nitrobenzene	77	7.042	7.042	(0.889)	99771	20.0000	20.93	9067
31 Isophorone	82	7.346	7.363	(0.928)	188733	20.0000	21.37	7484
32 2-Nitrophenol	139	7.465	7.464	(0.942)	43486	20.0000	20.75	8663
33 2,4-Dimethylphenol	122	7.566	7.566	(0.955)	67743	20.0000	21.99	8938
34 Bis(2-chloroethoxy)methane	93	7.684	7.684	(0.970)	116364	20.0000	21.34	9002
35 2,4-Dichlorophenol	162	7.786	7.785	(0.983)	66555	20.0000	21.14	
36 1,2,4-Trichlorobenzene	180	7.887	7.887	(0.996)	76010	20.0000	20.36	
37 Naphthalene	128	7.955	7.954	(1.004)	248922	20.0000	22.10	9569
38 4-Chloroaniline	127	8.090	8.089	(1.021)	116444	20.0000	22.10	8157
39 Hexachlorobutadiene	225	8.208	8.208	(1.036)	59824	20.0000	21.25	9150
40 Caprolactam	113	8.529	8.512	(1.077)	23804	20.0000	18.88	9451
41 4-Chloro-3-methylphenol	107	8.782	8.782	(1.109)	77201	20.0000	20.90	8911
42 2-Methylnaphthalene	142	8.883	8.883	(1.122)	165634	20.0000	21.68	
43 1-Methylnaphthalene	142	9.035	9.035	(1.141)	133777	20.0000	21.59	
44 Hexachlorocyclopentadiene	237	9.187	9.187	(0.889)	32543	20.0000	14.66	8528
45 2,4,6-Trichlorophenol	196	9.339	9.339	(0.904)	51240	20.0000	20.34	
46 2,4,5-Trichlorophenol	196	9.390	9.390	(0.908)	61912	20.0000	22.43	
47 1,1'-Biphenyl	154	9.542	9.542	(0.923)	168825	20.0000	21.96	7411
48 2-Chloronaphthalene	162	9.542	9.542	(0.923)	145758	20.0000	22.57	
49 2-Nitroaniline	65	9.762	9.744	(0.944)	136075	40.0000	43.70	9280
50 Dimethylphthalate	163	10.066	10.048	(0.974)	175786	20.0000	20.71	7453
51 2,6-Dinitrotoluene	165	10.150	10.150	(0.982)	46065	20.0000	20.88	9478
52 Acenaphthylene	152	10.116	10.116	(0.979)	247135	20.0000	21.72	9571
53 3-Nitroaniline	138	10.353	10.352	(1.002)	96129	40.0000	41.62	9144
54 Acenaphthene	154	10.387	10.386	(1.005)	143793	20.0000	21.71	9639
55 2,4-Dinitrophenol	184	10.522	10.521	(1.018)	110795	100.000	92.25	
56 4-Nitrophenol	109	10.691	10.690	(1.034)	66912	40.0000	38.63	8842
57 2,4-Dinitrotoluene	165	10.775	10.758	(1.042)	60767	20.0000	20.70	0(M)
58 Dibenzofuran	168	10.657	10.640	(1.031)	235703	20.0000	21.26	8617
59 Diethylphthalate	149	11.214	11.214	(1.085)	195322	20.0000	21.15	9239
60 4-Chlorophenyl-phenylether	204	11.265	11.265	(1.090)	93540	20.0000	20.55	7030
61 Fluorene	166	11.248	11.248	(1.088)	182457	20.0000	21.71	7929
62 4-Nitroaniline	138	11.417	11.400	(1.105)	106936	40.0000	43.42	8761

1/17/02

Data File: /chem/5972hp66.i/DF020117A66.b/HL020117A66.d
Report Date: 17-Jan-2002 14:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
63 4,6-Dinitro-2-methylphenol	198	11.484	11.467	(0.901)	79270	40.0000	37.92	0(M)
64 N-Nitrosodiphenylamine	169	11.501	11.501	(0.902)	116422	20.0000	22.17	9471
65 1,2-Diphenylhydrazine	77	11.535	11.535	(1.116)	245216	20.0000	20.86	9213
66 4-Bromophenyl-phenylether	248	12.076	12.075	(0.947)	61596	20.0000	19.92	9532
67 HexachloroLenzene	284	12.295	12.295	(0.964)	76325	20.0000	20.23	8659
68 Atrazine	200	12.464	12.447	(0.977)	46143	20.0000	33.74	9258
69 Pentachlorophenol	266	12.599	12.599	(0.988)	81256	40.0000	37.77	7608
70 Phenanthrene	178	12.785	12.768	(1.003)	280839	20.0000	20.93	
71 Anthracene	178	12.836	12.835	(1.007)	275087	20.0000	20.65	
72 Carbazole	167	13.123	13.122	(1.029)	225984	20.0000	21.66	9653
73 Di-n-butylphthalate	149	13.731	13.714	(1.077)	326623	20.0000	19.72	8956
74 Fluoranthene	202	14.423	14.423	(1.131)	316546	20.0000	19.61	
75 Benzidine	184	14.643	14.642	(0.899)	195682	40.0000	44.38	8639
76 Pyrene	202	14.710	14.710	(0.904)	339762	20.0000	21.33	
77 Butylbenzylphthalate	149	15.589	15.588	(0.957)	155816	20.0000	20.05	9438
78 3,3'-Dichlorobenzidine	252	16.264	16.264	(0.999)	135260	20.0000	21.10	6777
79 bis(2-ethylhexyl)Phthalate	149	16.399	16.399	(1.007)	228899	20.0000	20.66	9211
80 Benzo(a)anthracene	228	16.247	16.247	(0.998)	313617	20.0000	19.85	
81 Chrysene	228	16.315	16.314	(1.002)	307798	20.0000	20.33	
82 Di-n-octylphthalate	149	17.463	17.463	(0.914)	404513	20.0000	20.50	
83 Benzo(b)fluoranthene	252	18.173	18.172	(0.951)	323004	20.0000	18.08	(H)
84 Benzo(k)fluoranthene	252	18.240	18.223	(0.955)	330606	20.0000	21.18	
85 Benzo(a)pyrene	252	18.933	18.932	(0.991)	293929	20.0000	19.72	
86 Indeno(1,2,3-cd)pyrene	276	22.547	22.530	(1.180)	297278	20.0000	19.47	0(M)
87 Dibenzo(a,h)anthracene	278	22.665	22.648	(1.187)	304089	20.0000	19.89	7981
88 Benzo(g,h,i)perylene	276	23.324	23.307	(1.221)	319003	20.0000	19.55	8824

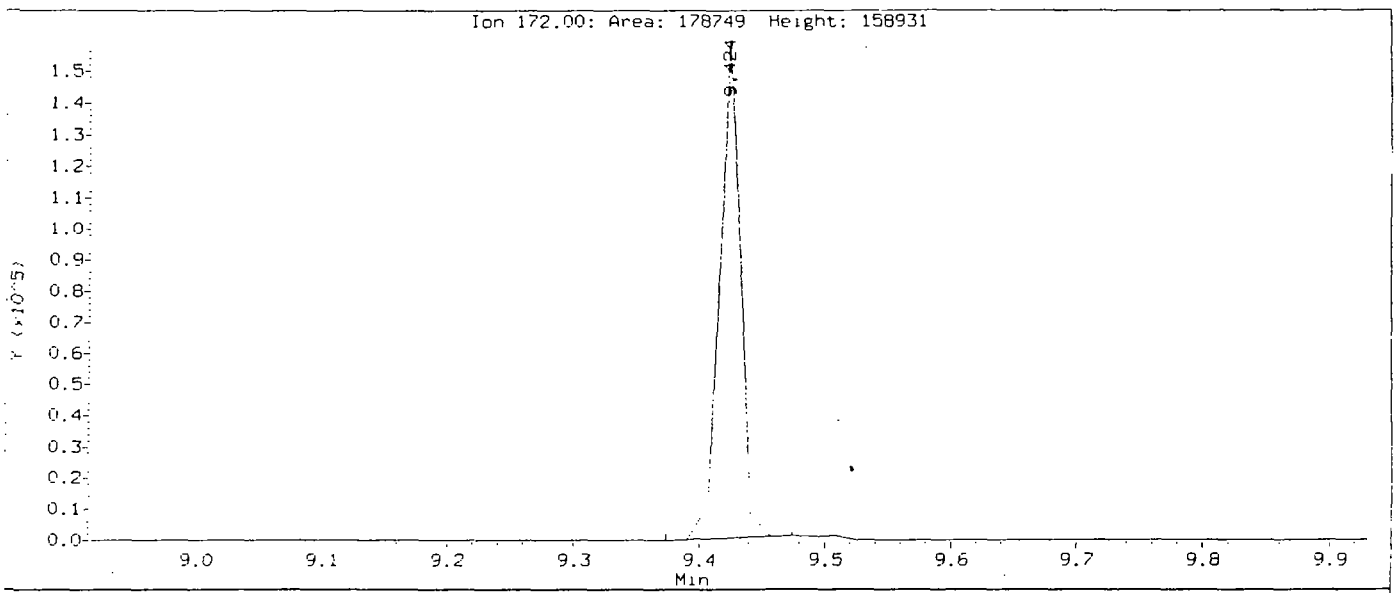
QC Flag Legend

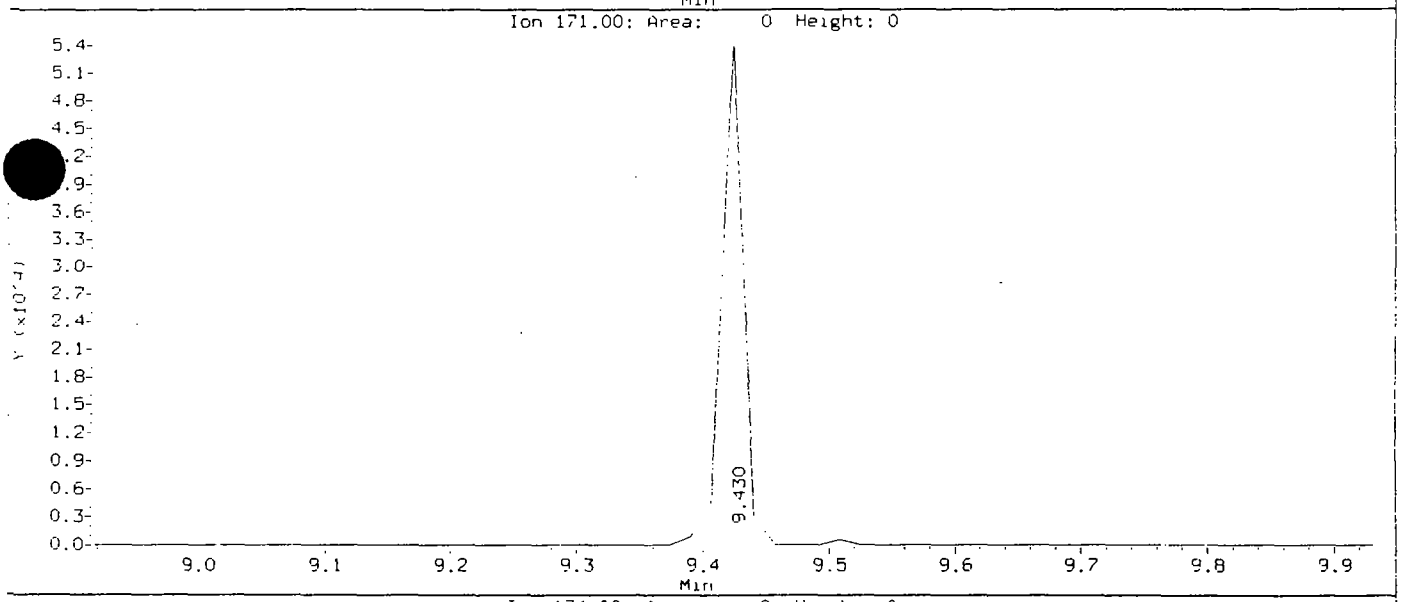
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

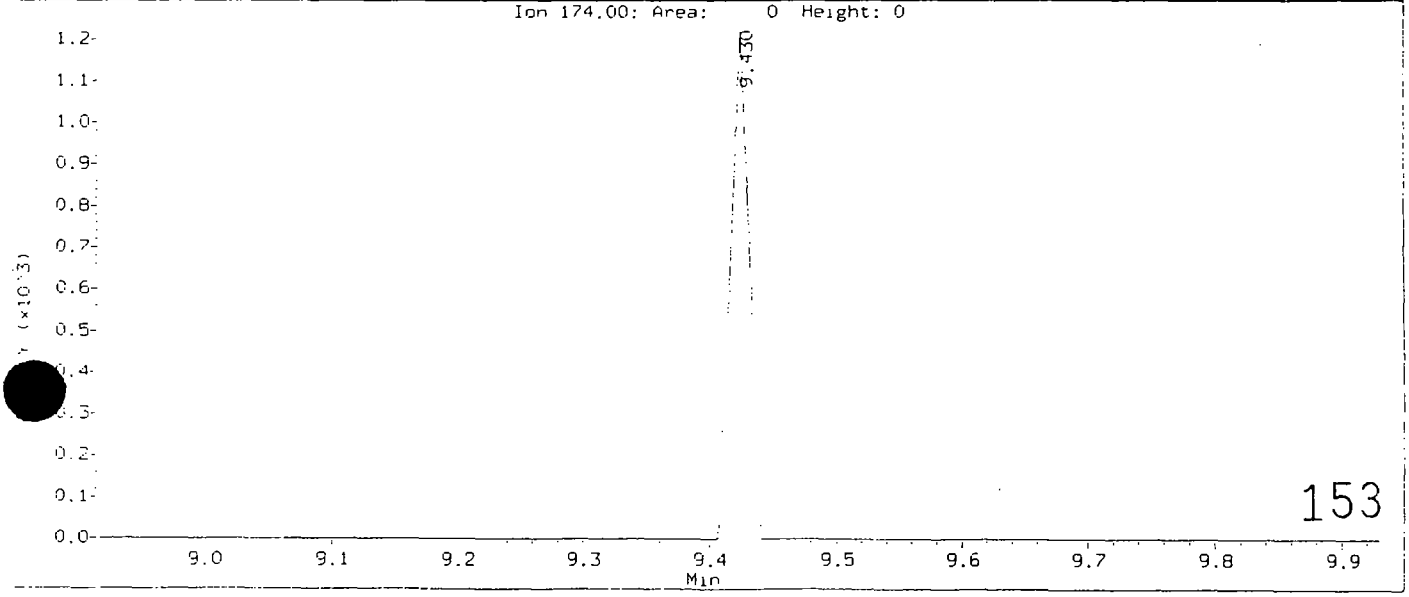
1/17/02

Data File: /chem/5972hp66.i/DF020117A66.b/HL020117A66.d
Injection Date: 17-JAN-2002 13:01
Instrument: 5972hp66.i
[redacted]t Sample ID: SSTD020

[redacted]ound: 2-Fluorobiphenyl
CAS Number: 321-60-8







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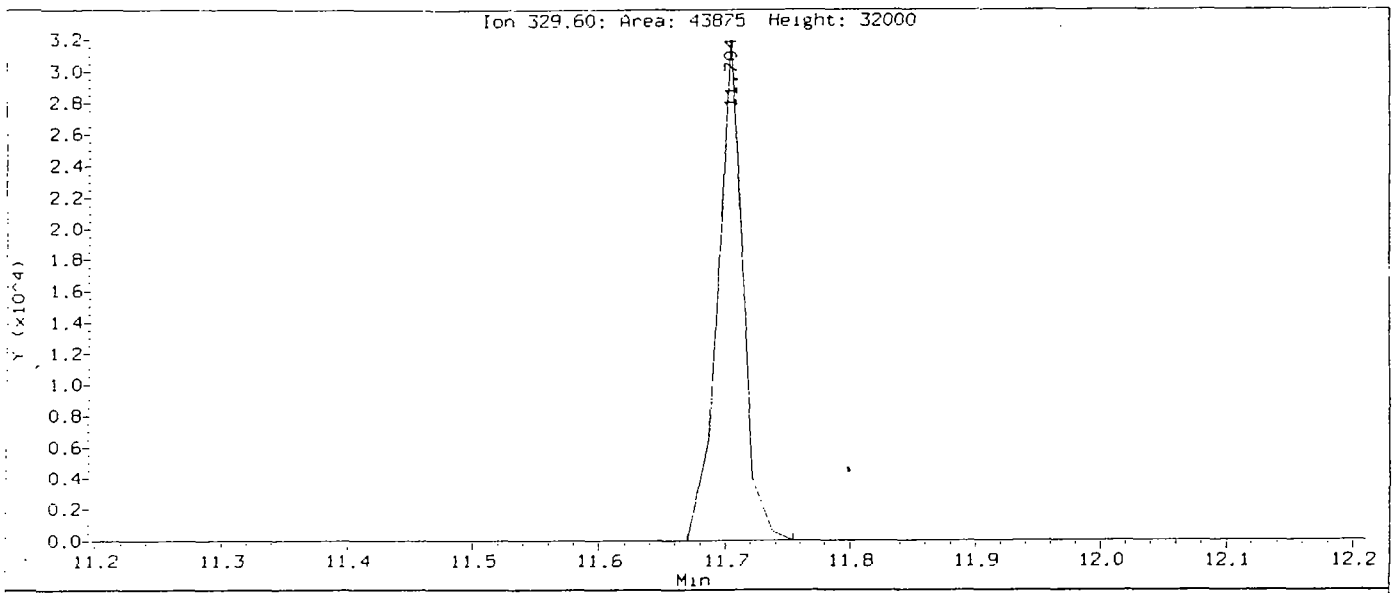
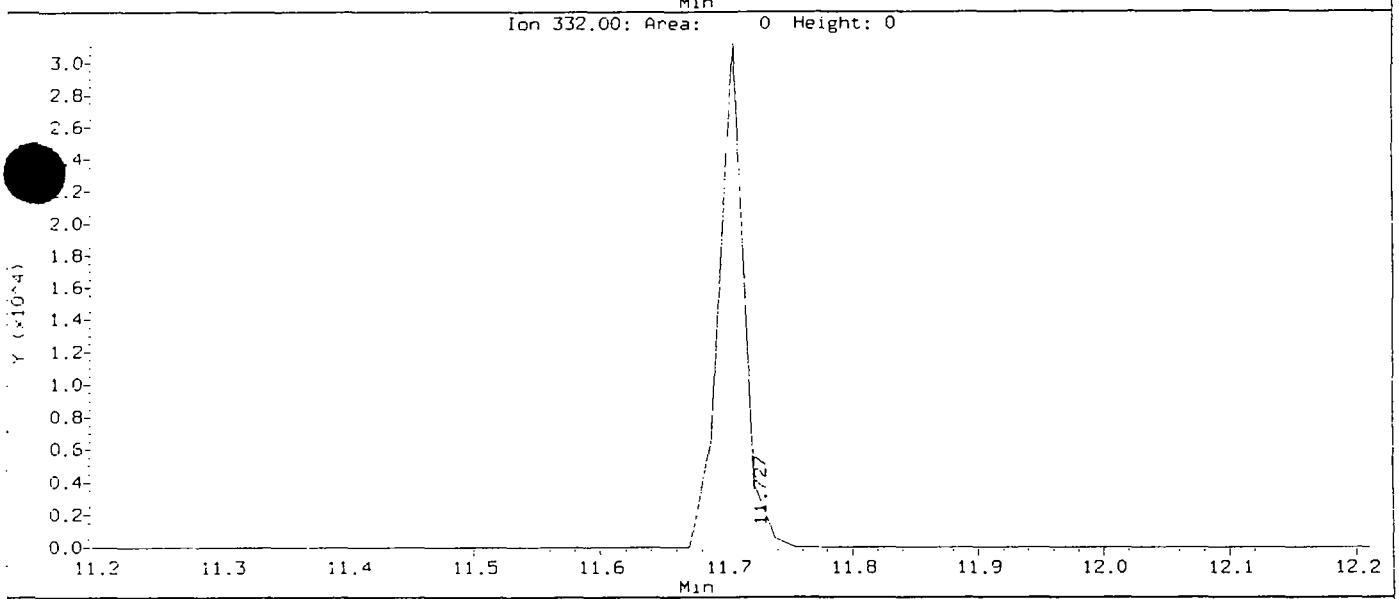
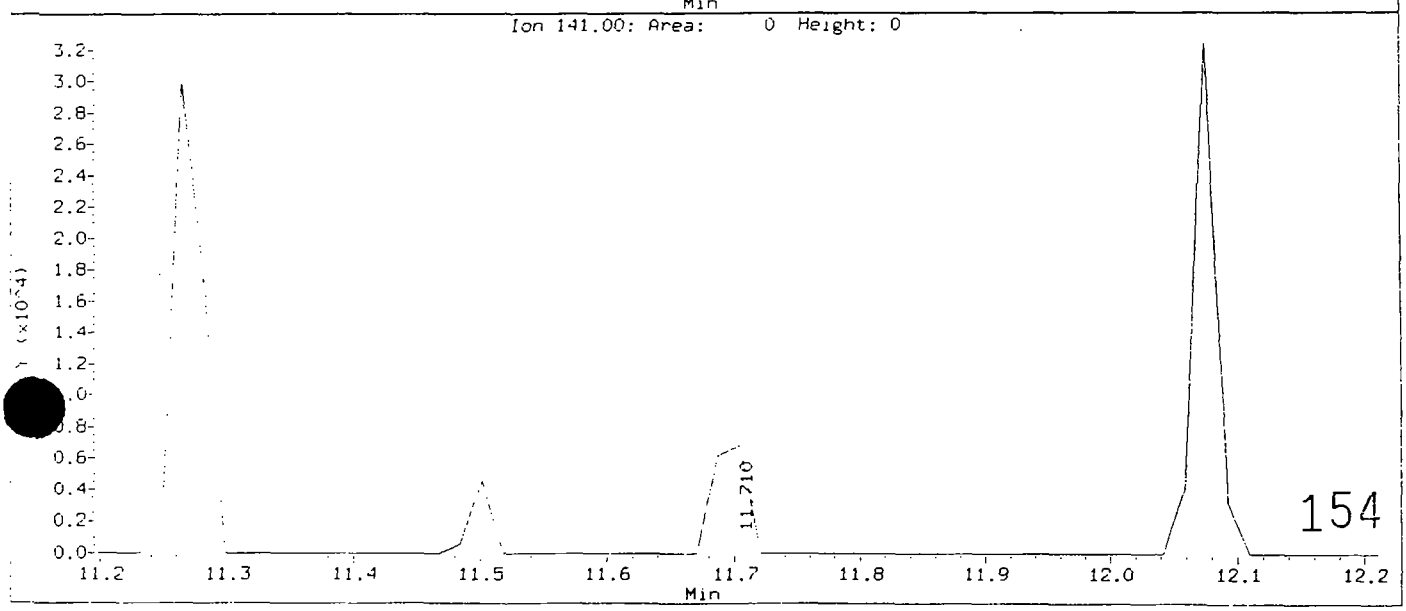
Injection Date: 17-JAN-2002 13:01
Instrument: 5972hp66.i
[redacted]t Sample ID: SSTD020

[redacted]ound: 2,4,6-Tribromophenol
CAS Number: 118-79-6







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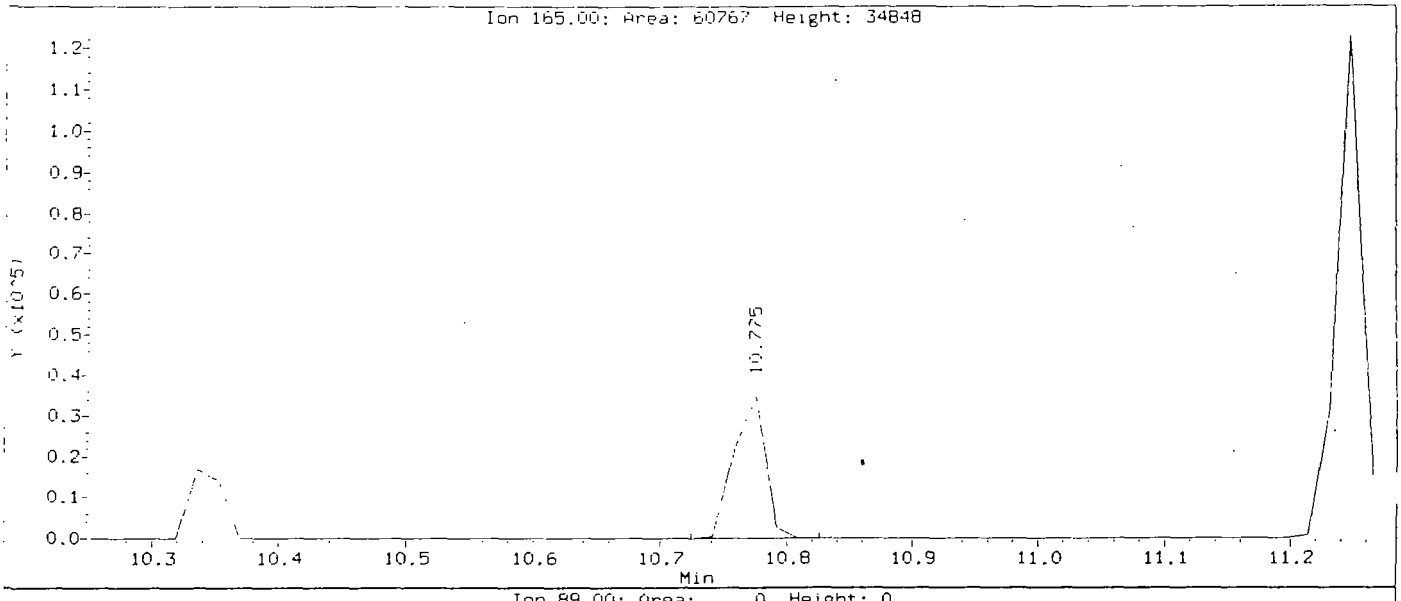
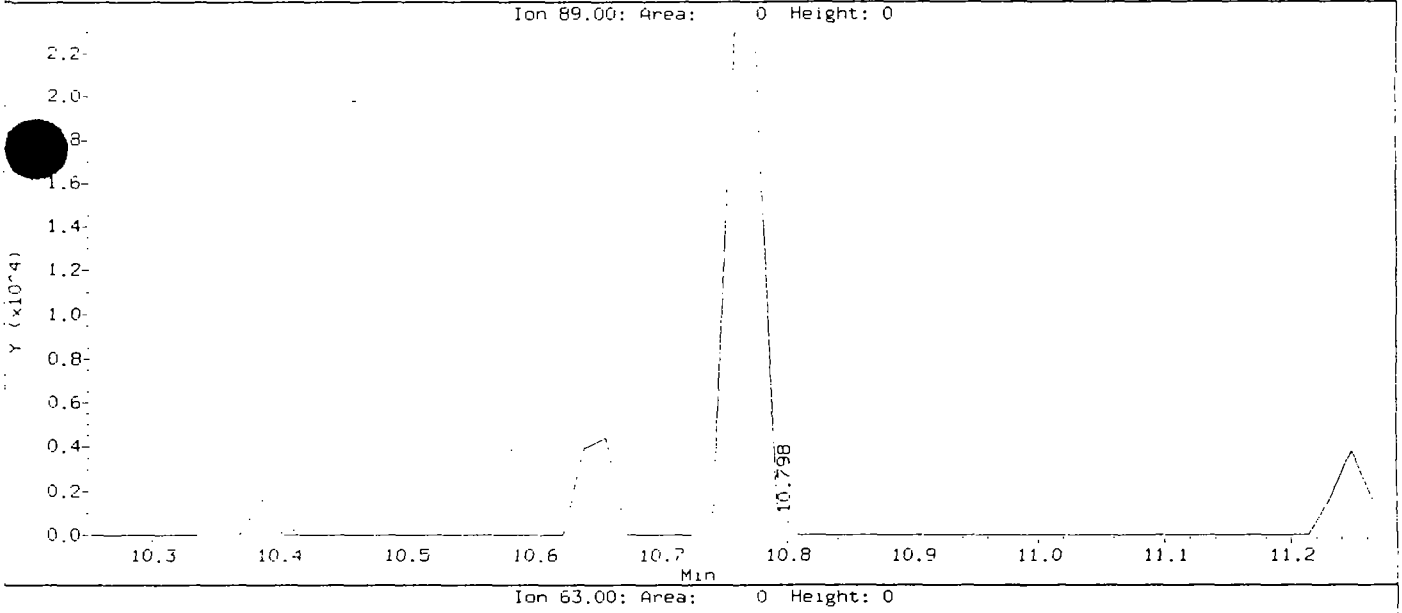
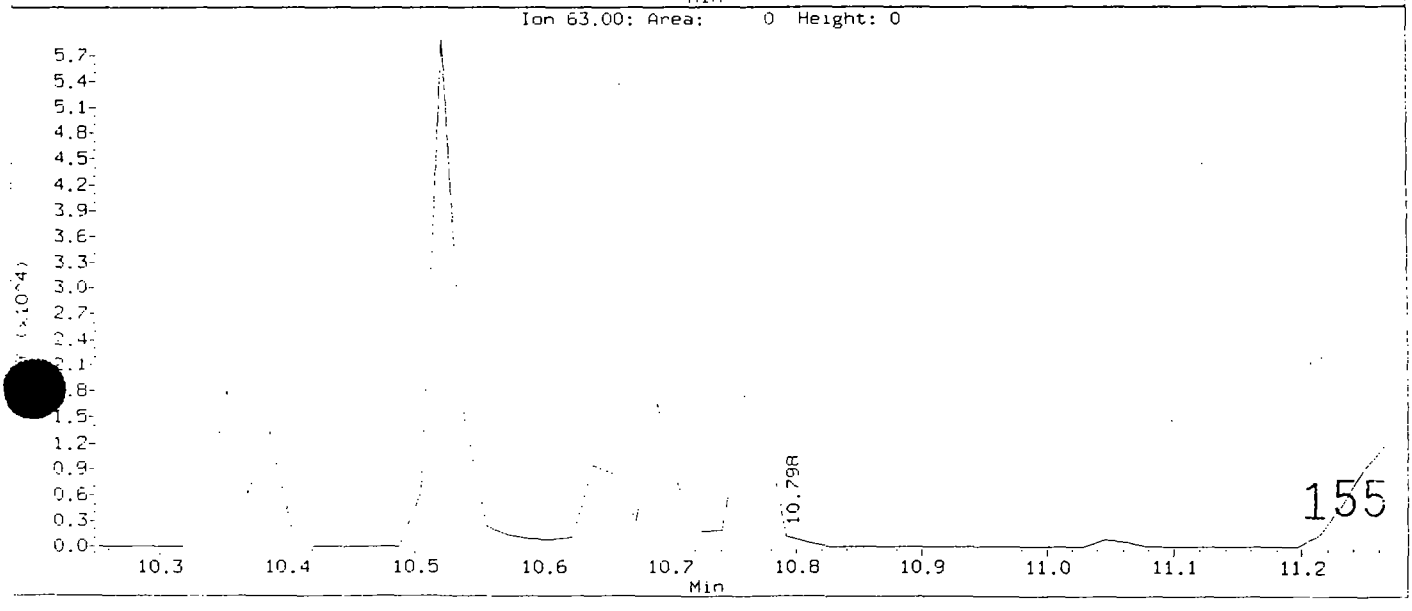
Injection Date: 17-JAN-2002 13:01
Instrument: 5972hp66.i
[redacted] Sample ID: SSTD020

Compound: 2,4-Dinitrotoluene
CAS Number: 121-14-2







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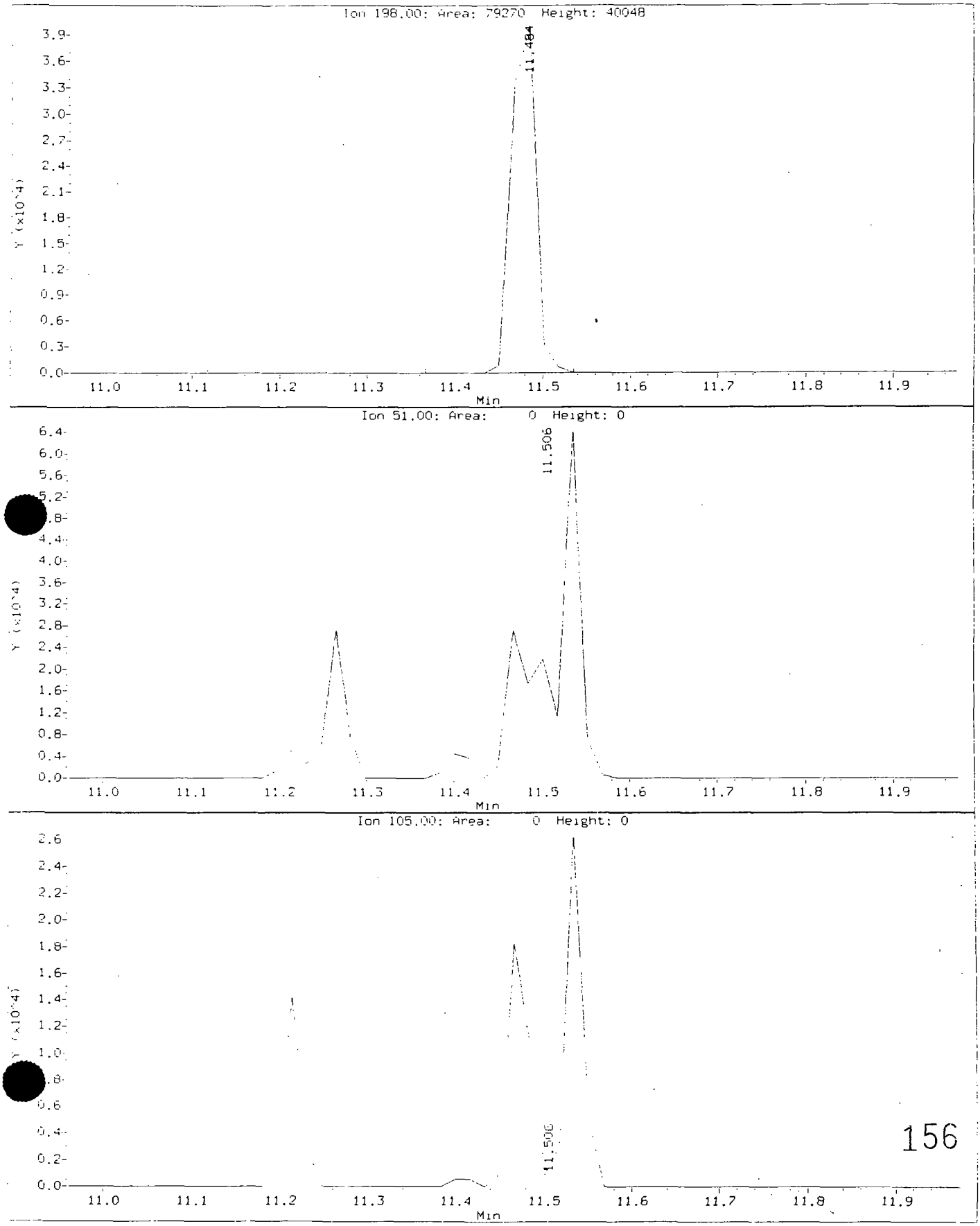
Injection Date: 17-JAN-2002 13:01
Instrument: 5972hp66.i
[redacted]t Sample ID: SSTD020

Compound: 4,6-Dinitro-2-methylphenol
CAS Number: 534-52-1



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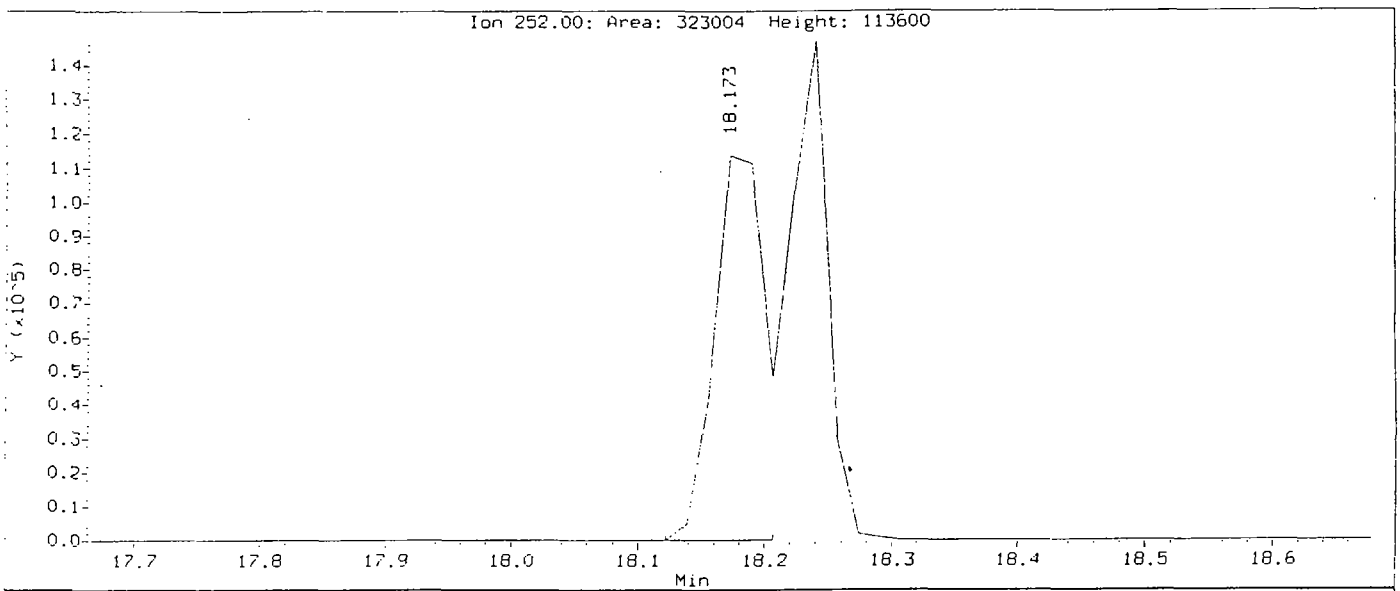
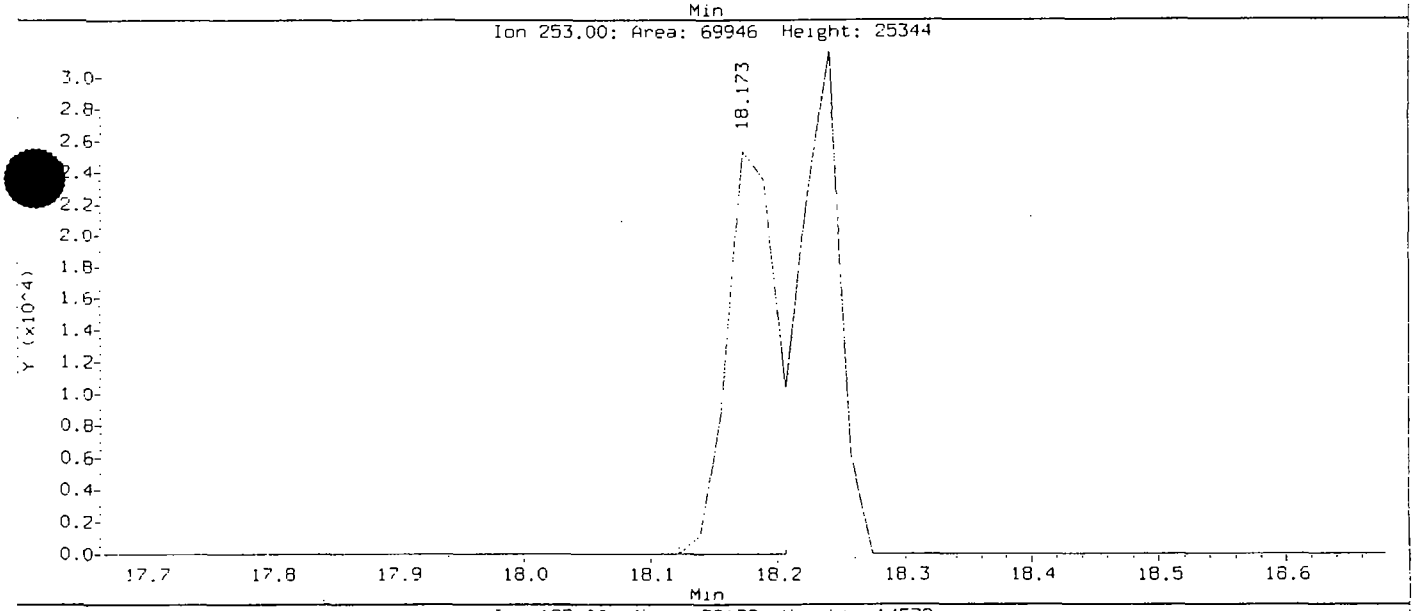
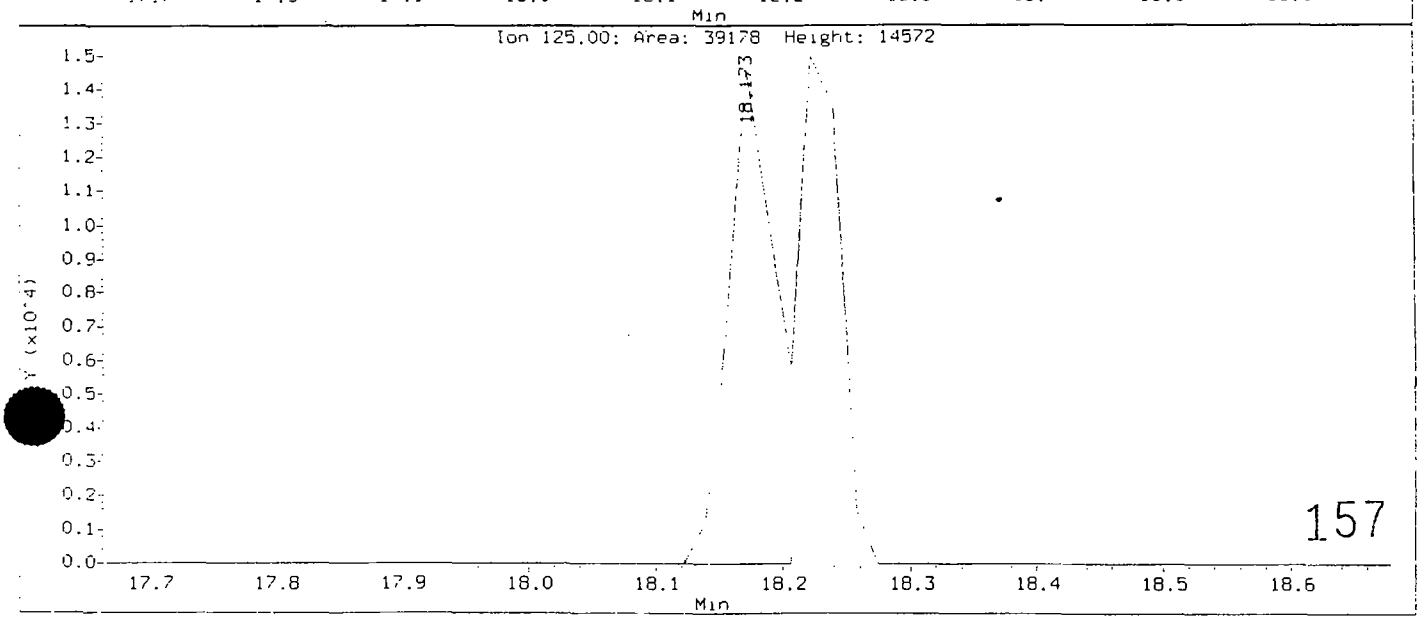
Injection Date: 17-JAN-2002 13:01
Instrument: 5972hp66.i
[redacted]nt Sample ID: SSTD020

Compound: Benzo(b)fluoranthene
CAS Number: 205-99-2

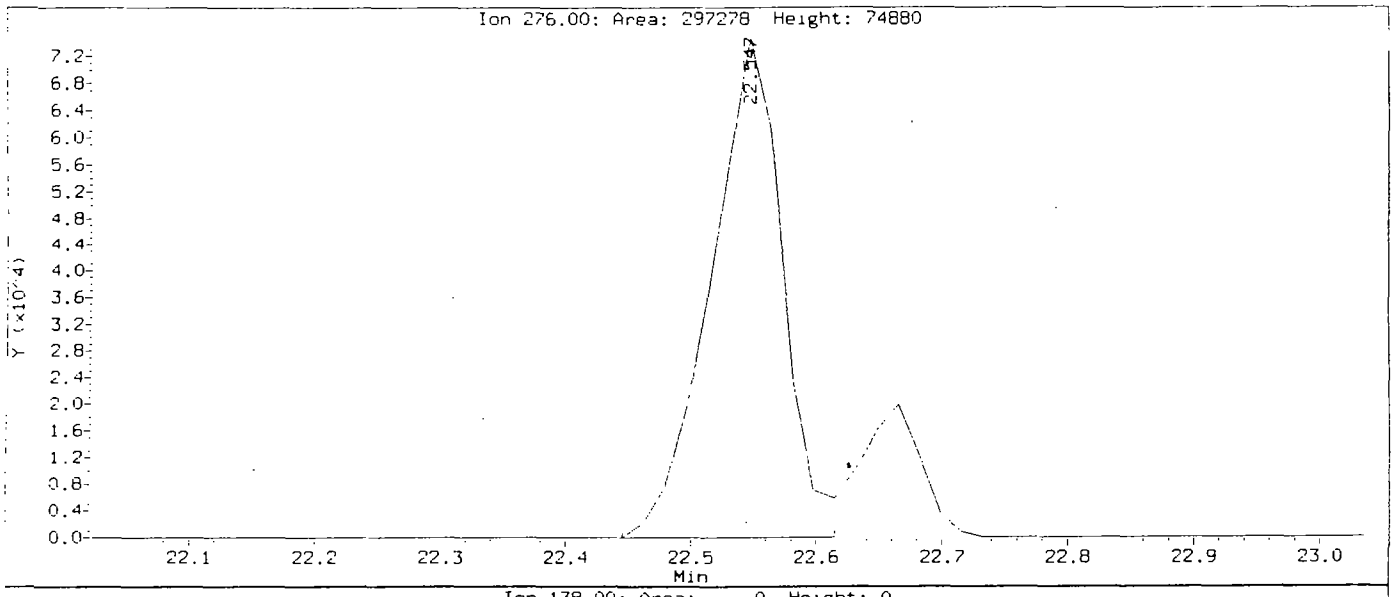


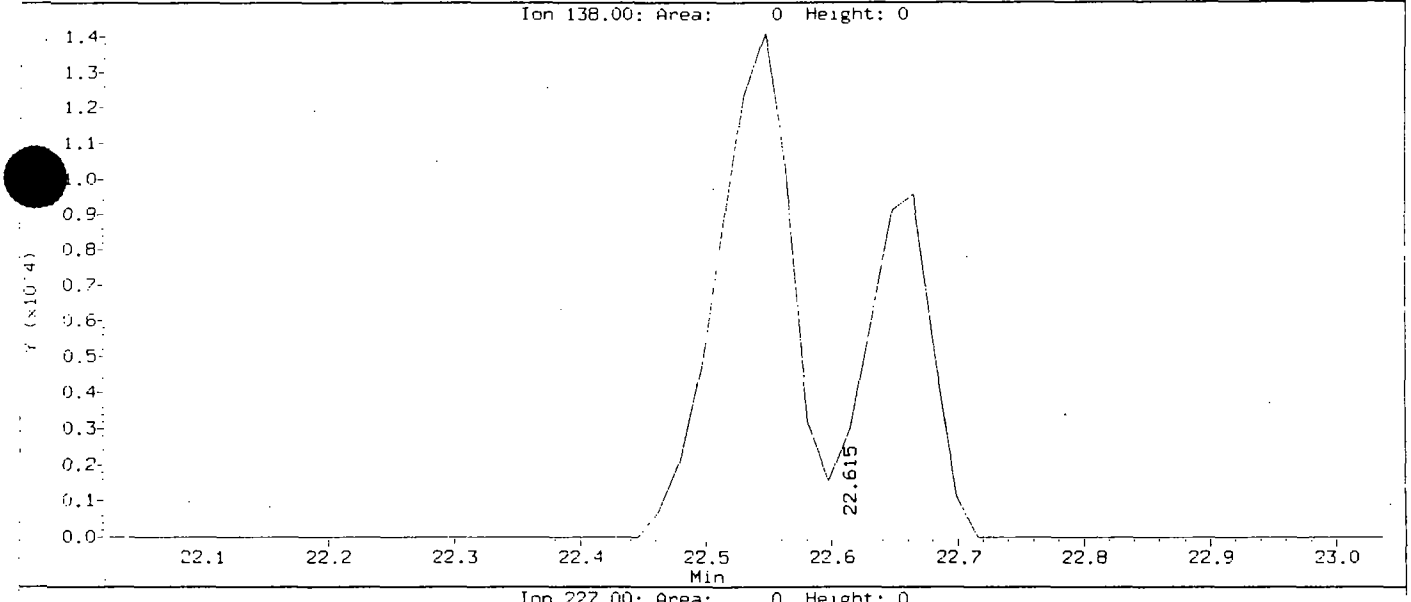


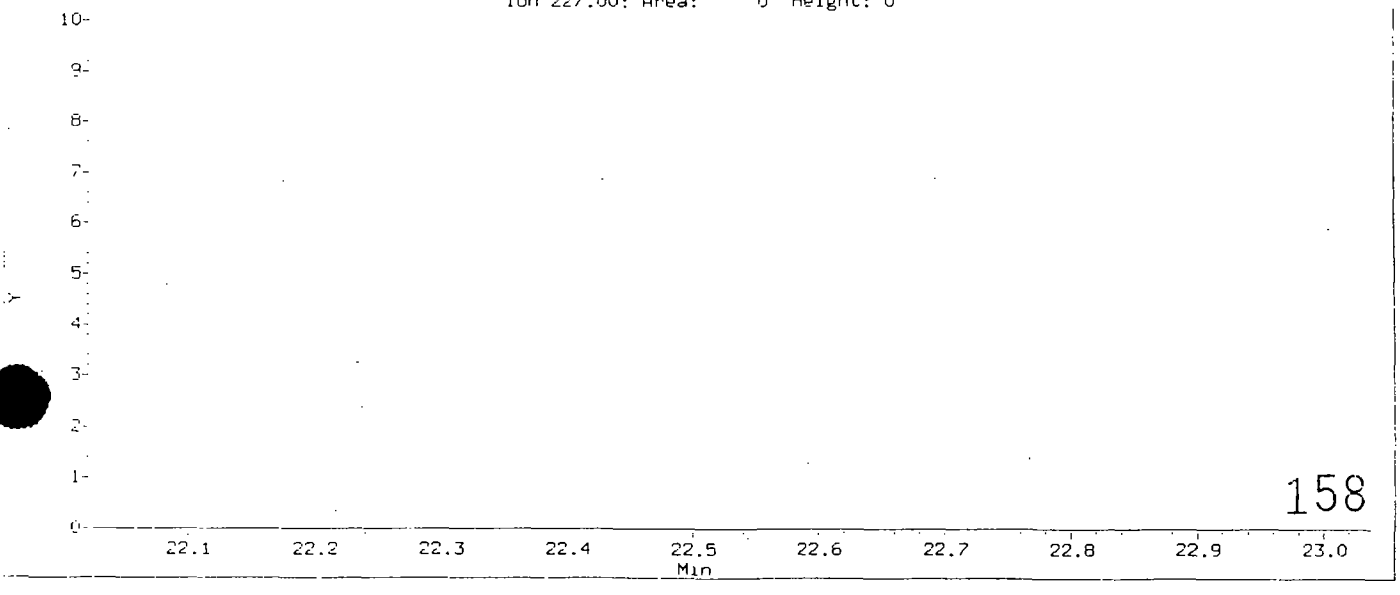


Data File: /chem/5972hp66.i/DF020117A66.b/HL020117A66.d
Injection Date: 17-JAN-2002 13:01
Instrument: 5972hp66.i
Client Sample ID: SSTD020

[redacted]ound: Indeno(1,2,3-cd)pyrene
[redacted] Number: 193-39-5



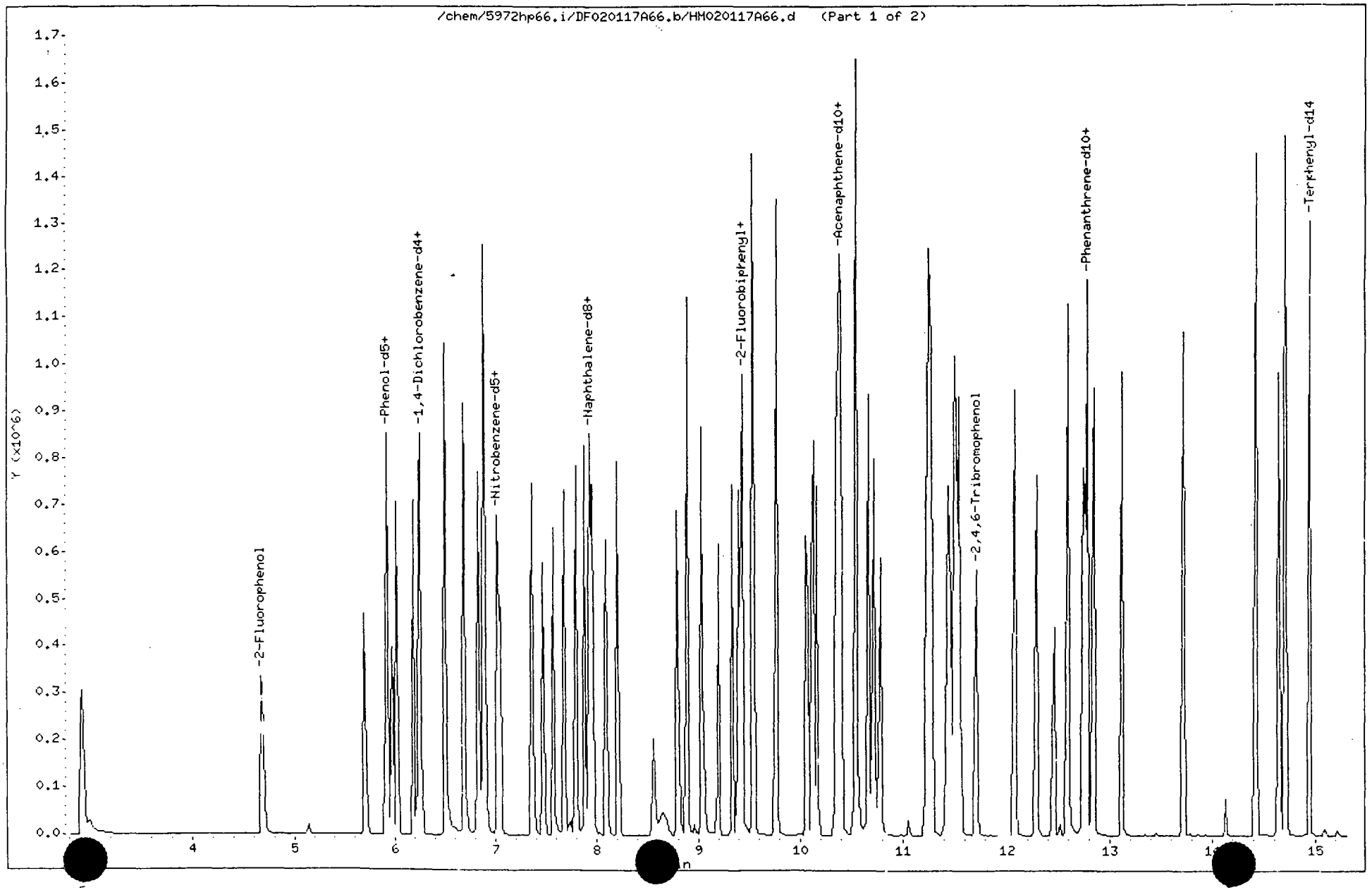




Data File: /chem/5972hp66.i/DF020117A66.b/HM020117A66.d
Date : 17-JAN-2002 13:38
Client ID: SSTD050
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i

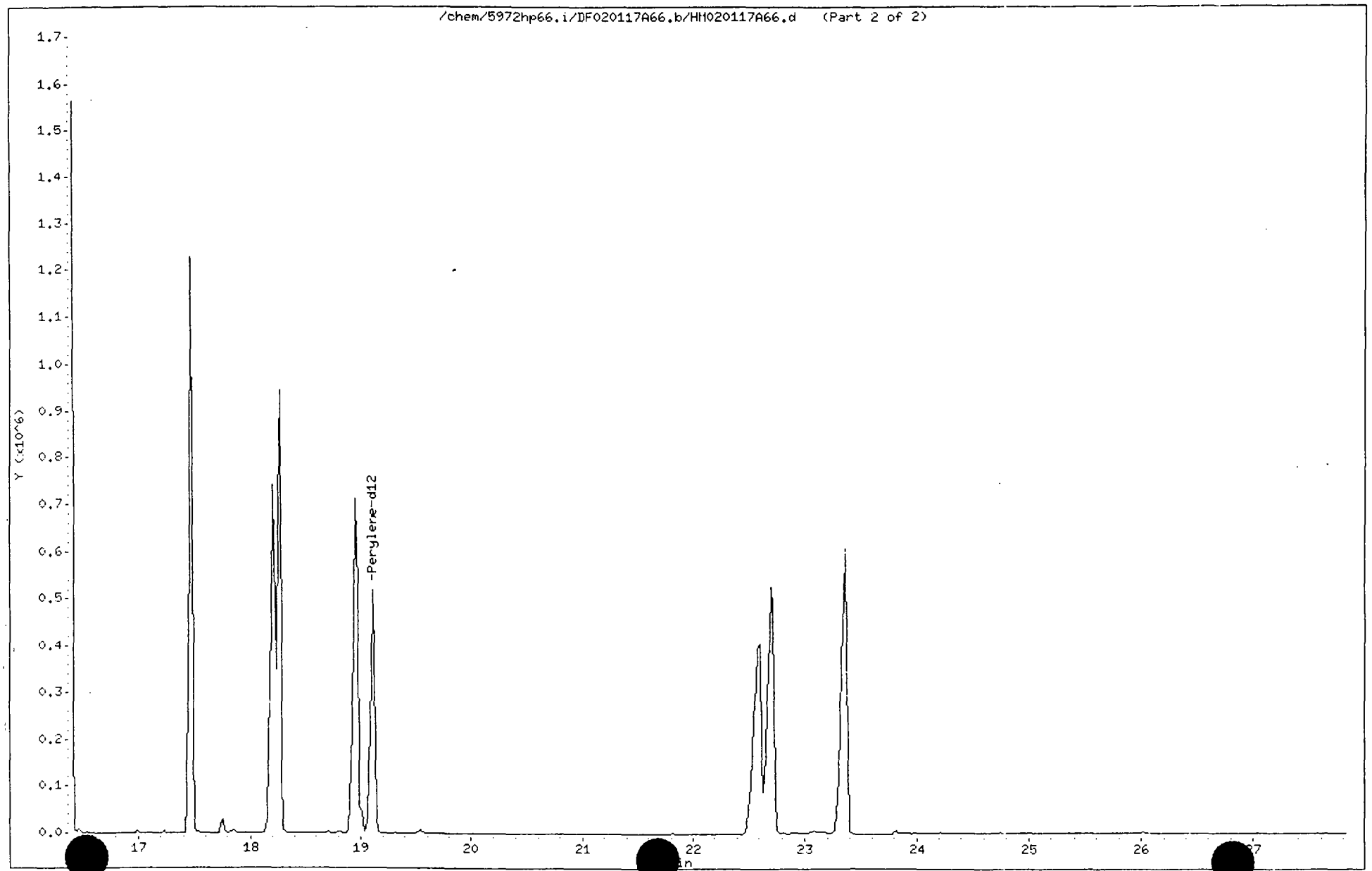
Operator: 2391
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020117A66.b/HM020117A66.d
Date : 17-JAN-2002 13:38
Client ID: SSTD050
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2391
Column diameter: 0.25

160



Data File: /chem/5972hp66.i/DF020117A66.b/HM020117A66.d
Report Date: 17-Jan-2002 14:35

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020117A66.b/HM020117A66.d
Lab Smp Id: SSTD050 Client Smp ID: SSTD050
Inj Date : 17-JAN-2002 13:38
Operator : 2391 Inst ID: 5972hp66.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020117A66.b/8270Cv6.m
Meth Date : 17-Jan-2002 14:33 respass Quant Type: ISTD
Cal Date : 17-JAN-2002 13:38 Cal File: HM020117A66.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY	
* 1	1,4-Dichlorobenzene-d4	152	6.237	6.231	(1.000)	122637	40.0000			
* 2	Naphthalene-d8	136	7.926	7.920	(1.000)	411994	40.0000			
* 3	Acenaphthene-d10	164	10.341	10.336	(1.000)	263039	40.0000			
* 4	Phenanthrene-d10	188	12.756	12.751	(1.000)	486761	40.0000			
* 5	Chrysene-d12	240	16.286	16.281	(1.000)	533611	40.0000			
* 6	Perylene-d12	264	19.107	19.101	(1.000)	492710	40.0000			
S 7	2-Fluorophenol	112	4.683	4.694	(0.751)	188877	50.0000	46.62		
S 8	Phenol-d5	99	5.916	5.911	(0.949)	270637	50.0000	49.50		
S 9	Nitrobenzene-d5	82	7.014	7.008	(0.885)	279095	50.0000	50.04		
S 10	2-Fluorobiphenyl	172	9.429	9.424	(0.912)	447684	50.0000	52.38		
S 11	2,4,6-Tribromophenol	330	11.709	11.704	(1.132)	115434	50.0000	50.20		(M)
S 12	Terphenyl-d14	244	14.952	14.946	(0.918)	677162	50.0000	52.38		
13	N-Nitrosodimethylamine	42	2.926	2.955	(0.469)	108464	50.0000	51.09	9140	
14	Pyridine	79	2.909	2.972	(0.466)	170818	50.0000	50.37	9524	
15	Benzaldehyde	77	5.696	5.708	(0.913)	137948	50.0000	52.46	9513	

Data File: /chem/5972hp66.i/DF020117A66.b/HM020117A66.d
Report Date: 17-Jan-2002 14:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
16 Phenol	94	5.933	5.927	(0.951)	247685	50.0000	50.77	
17 Bis(2-chloroethyl)ether	93	5.966	5.978	(0.957)	225083	50.0000	47.95	
18 2-Chlorophenol	128	6.017	6.029	(0.965)	204979	50.0000	50.84	8239
19 1,3-Dichlorobenzene	146	6.186	6.181	(0.992)	219261	50.0000	49.36	
20 1,4-Dichlorobenzene	146	6.254	6.265	(1.003)	233938	50.0000	51.46	
21 Benzyl alcohol	108	6.490	6.502	(1.041)	136441	50.0000	51.53	
22 1,2-Dichlorobenzene	146	6.507	6.502	(1.043)	205953	50.0000	48.31	
23 2-Methylphenol	108	6.693	6.687	(1.073)	156665	50.0000	47.12	
24 2,2'-oxybis(1-Chloropropane)	45	6.676	6.687	(1.070)	289557	50.0000	51.13	9100
25 Acetophenone	105	6.828	6.823	(1.095)	288487	50.0000	47.50	8964
26 3-Methylphenol	108	6.895	6.890	(1.106)	197291	50.0000	50.06	
27 4-Methylphenol	108	6.895	6.890	(1.106)	197291	50.0000	50.06	
28 N-Nitroso-di-N-propylamine	70	6.878	6.873	(1.103)	97849	50.0000	45.45	8286
29 Hexachloroethane	117	6.878	6.890	(1.103)	102686	50.0000	49.02	8942
30 Nitrobenzene	77	7.047	7.042	(0.889)	244916	50.0000	47.88	8905
31 Isophorone	82	7.351	7.363	(0.928)	493540	50.0000	52.10	7737
32 2-Nitrophenol	139	7.470	7.464	(0.942)	115940	50.0000	51.57	9035
33 2,4-Dimethylphenol	122	7.571	7.566	(0.955)	162249	50.0000	49.09	8896
34 Bis(2-chloroethoxy)methane	93	7.672	7.684	(0.968)	309833	50.0000	52.97	9448
35 2,4-Dichlorophenol	162	7.791	7.785	(0.983)	179091	50.0000	53.04	
36 1,2,4-Trichlorobenzene	180	7.875	7.887	(0.994)	198410	50.0000	49.54	
37 Naphthalene	128	7.959	7.954	(1.004)	587015	50.0000	48.57	9265
38 4-Chloroaniline	127	8.095	8.089	(1.021)	278452	50.0000	49.26	7867
39 Hexachlorobutadiene	225	8.196	8.208	(1.034)	143464	50.0000	47.50	8985
40 Caprolactam	113	8.551	8.512	(1.079)	64683	50.0000	47.82	9602(M)
41 4-Chloro-3-methylphenol	107	8.787	8.782	(1.109)	192317	50.0000	48.52	9560
42 2-Methylnaphthalene	142	8.888	8.883	(1.121)	417992	50.0000	51.00	
43 1-Methylnaphthalene	142	9.023	9.035	(1.139)	328559	50.0000	49.43	
44 Hexachlorocyclopentadiene	237	9.192	9.187	(0.889)	135846	50.0000	58.11	9587
45 2,4,6-Trichlorophenol	196	9.327	9.339	(0.902)	132869	50.0000	50.09	
46 2,4,5-Trichlorophenol	196	9.395	9.390	(0.909)	163217	50.0000	56.16	
47 1,1'-Biphenyl	154	9.530	9.542	(0.922)	406900	50.0000	50.28	8926
48 2-Chloronaphthalene	162	9.547	9.542	(0.923)	351699	50.0000	51.72	
49 2-Nitroaniline	65	9.767	9.744	(0.944)	334207	100.000	102.0	9481
50 Dimethylphthalate	163	10.071	10.048	(0.974)	466150	50.0000	52.16	7790
51 2,6-Dinitrotoluene	165	10.155	10.150	(0.982)	111906	50.0000	48.19	9398
52 Acenaphthylene	152	10.121	10.116	(0.979)	619737	50.0000	51.75	8817
53 3-Nitroaniline	138	10.375	10.352	(1.003)	251027	100.000	103.2	9438
54 Acenaphthene	154	10.392	10.386	(1.005)	353764	50.0000	50.74	9688
55 2,4-Dinitrophenol	184	10.544	10.531	(1.020)	342984	250.000	271.3	
56 4-Nitrophenol	109	10.712	10.690	(1.036)	187506	100.000	102.8	9114
57 2,4-Dinitrotoluene	165	10.780	10.758	(1.042)	162294	50.0000	52.51	7113
58 Dibenzofuran	168	10.662	10.640	(1.031)	610727	50.0000	52.32	8222
59 Diethylphthalate	149	11.219	11.214	(1.085)	499139	50.0000	51.35	9304
60 4-Chlorophenyl-phenylether	204	11.270	11.265	(1.090)	237916	50.0000	49.64	7398
61 Fluorene	166	11.253	11.248	(1.088)	457497	50.0000	51.70	8220
62 4-Nitroaniline	138	11.439	11.400	(1.106)	281868	100.000	108.7	9328

HM117A66

Data File: /chem/5972hp66.i/DF020117A66.b/HM020117A66.d
Report Date: 17-Jan-2002 14:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
63 4,6-Dinitro-2-methylphenol	198	11.506	11.467	(0.902)	231343	100.000	107.1	7495
64 N-Nitrosodiphenylamine	169	11.523	11.501	(0.903)	283955	50.0000	52.32	8330
65 1,2-Diphenylhydrazine	77	11.540	11.535	(1.116)	607763	50.0000	49.12	9009
66 4-Bromophenyl-phenylether	248	12.080	12.075	(0.947)	162079	50.0000	50.73	9252
67 Hexachlorobenzene	284	12.300	12.295	(0.964)	205949	50.0000	52.83	8592
68 Atrazine	200	12.469	12.447	(0.977)	85313	50.0000	60.38	9635
69 Pentachlorophenol	266	12.604	12.599	(0.988)	234918	100.000	105.7	8077
70 Phenanthrene	178	12.790	12.768	(1.003)	755451	50.0000	54.47	
71 Anthracene	178	12.857	12.835	(1.008)	739988	50.0000	53.75	
72 Carbazole	167	13.128	13.122	(1.029)	603490	50.0000	55.97	9643
73 Di-n-butylphthalate	149	13.719	13.714	(1.075)	812266	50.0000	47.47	9185
74 Fluoranthene	202	14.428	14.423	(1.131)	768862	50.0000	46.09	
75 Benzidine	184	14.648	14.642	(0.899)	469138	100.000	98.73	8707
76 Pyrene	202	14.715	14.710	(0.904)	917542	50.0000	53.46	
77 Butylbenzylphthalate	149	15.594	15.588	(0.957)	399526	50.0000	47.71	9524
78 3,3'-Dichlorobenzidine	252	16.269	16.264	(0.999)	352780	50.0000	51.07	8377
79 bis(2-ethylhexyl)Phthalate	149	16.404	16.399	(1.007)	577579	50.0000	48.39	9357
80 Benzo(a)anthracene	228	16.252	16.247	(0.998)	815337	50.0000	47.89	
81 Chrysene	228	16.320	16.314	(1.002)	749357	50.0000	45.93	
82 Di-n-octylphthalate	149	17.468	17.463	(0.914)	1076208	50.0000	50.51	
83 Benzo(b)fluoranthene	252	18.195	18.172	(0.952)	932479	50.0000	48.33	(H)
84 Benzo(k)fluoranthene	252	18.262	18.223	(0.956)	865349	50.0000	51.34	
85 Benzo(a)pyrene	252	18.955	18.932	(0.992)	817599	50.0000	50.79	
86 Indeno(1,2,3-cd)pyrene	276	22.603	22.530	(1.183)	804095	50.0000	48.76	0(M)
87 Dibenzo(a,h)anthracene	278	22.721	22.648	(1.189)	822251	50.0000	49.82	7629
88 Benzo(g,h,i)perylene	276	23.363	23.307	(1.223)	862202	50.0000	48.93	8827

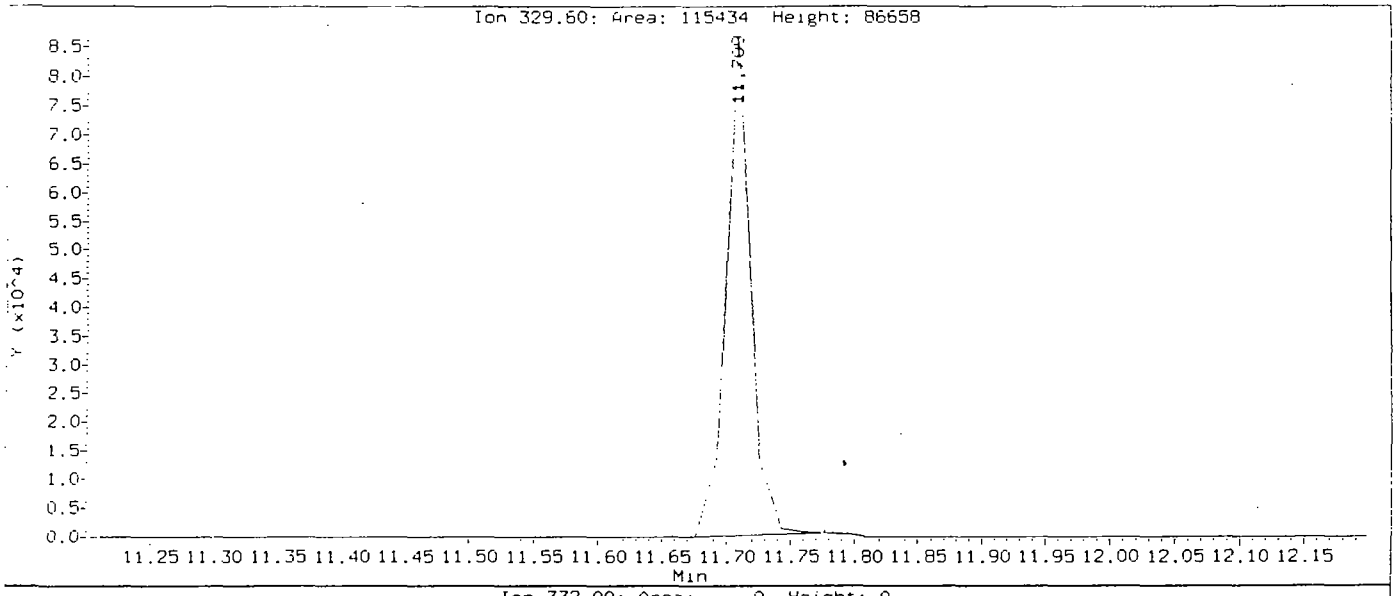
m1/21/02

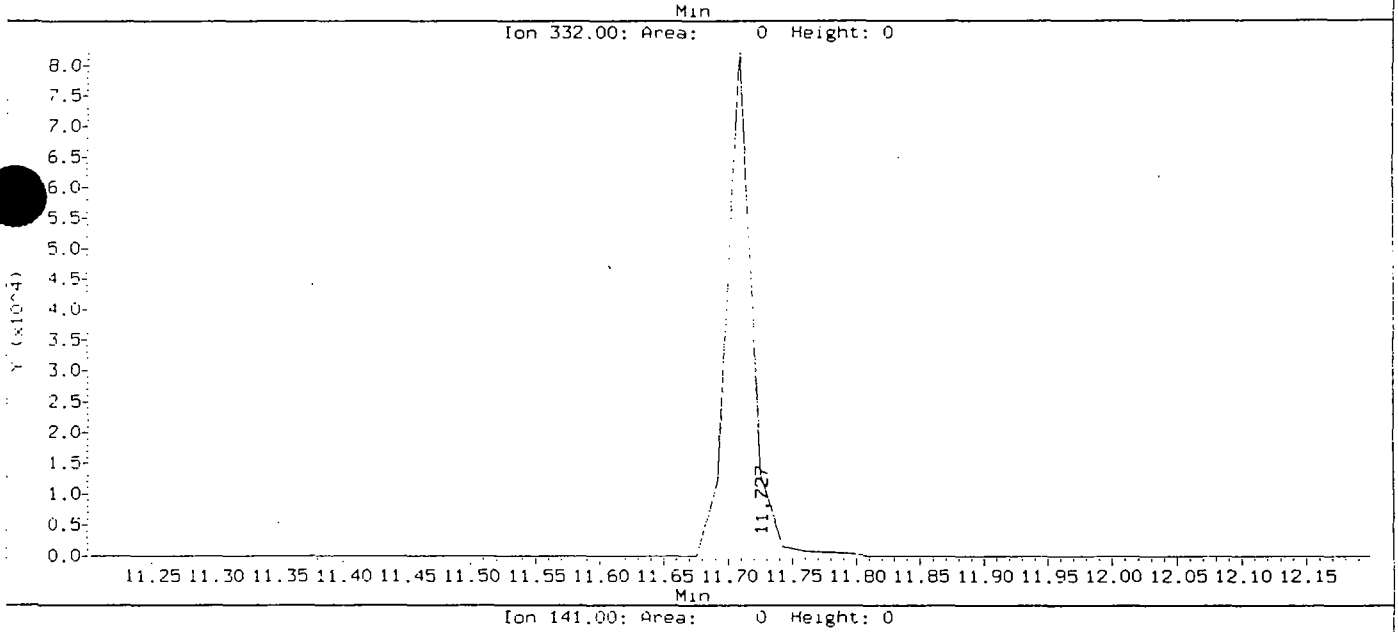
QC Flag Legend

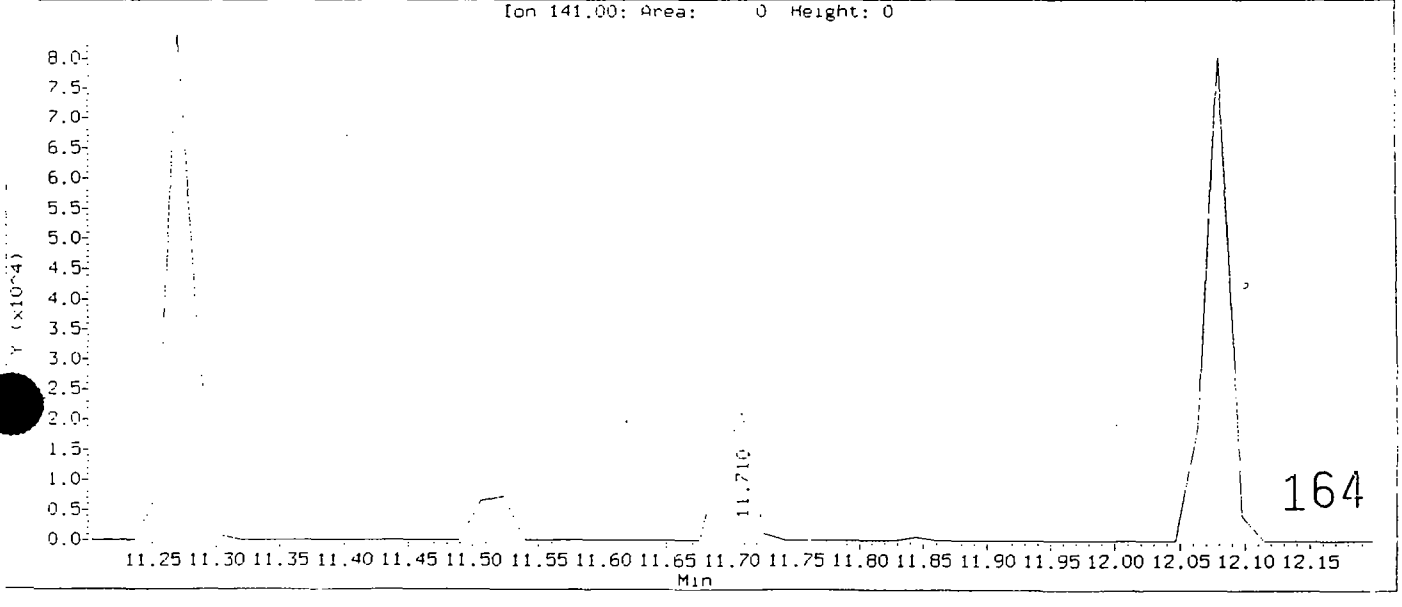
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /chem/5972hp66.i/DF020117A66.b/HM020117A66.d
Injection Date: 17-JAN-2002 13:38
Instrument: 5972hp66.i
Client Sample ID: SSTD050

[redacted]ound: 2,4,6-Tribromophenol
[redacted] Number: 118-79-6







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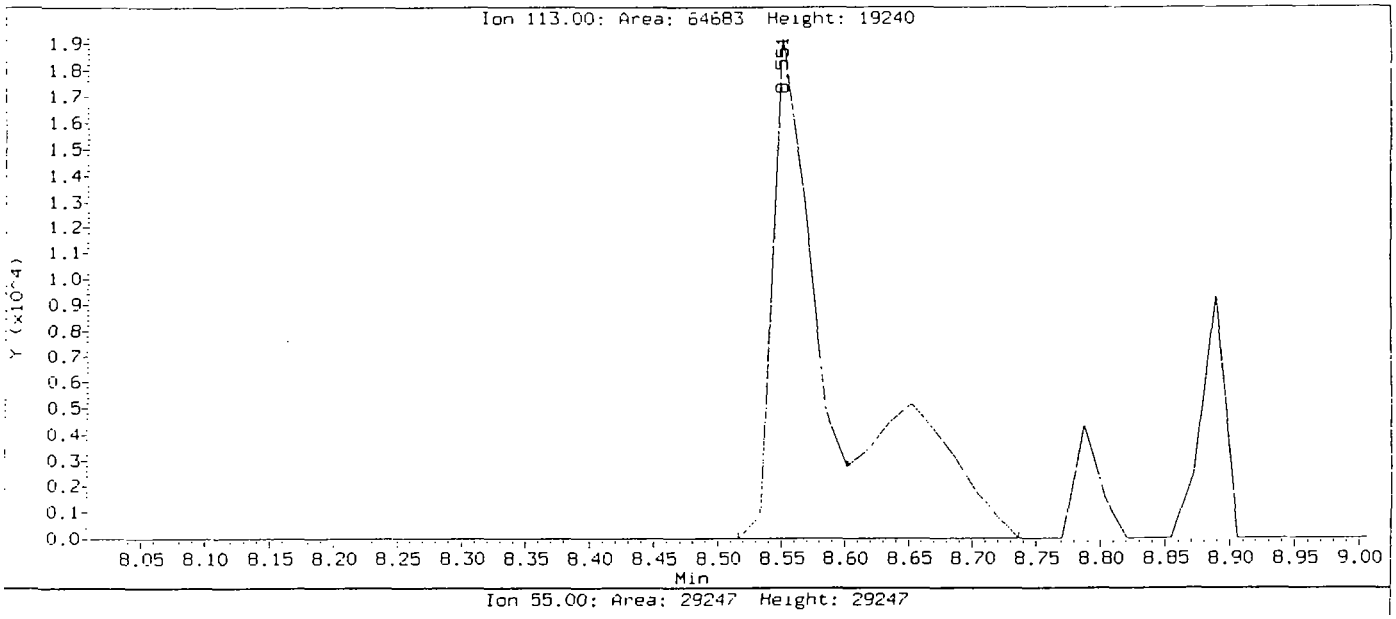
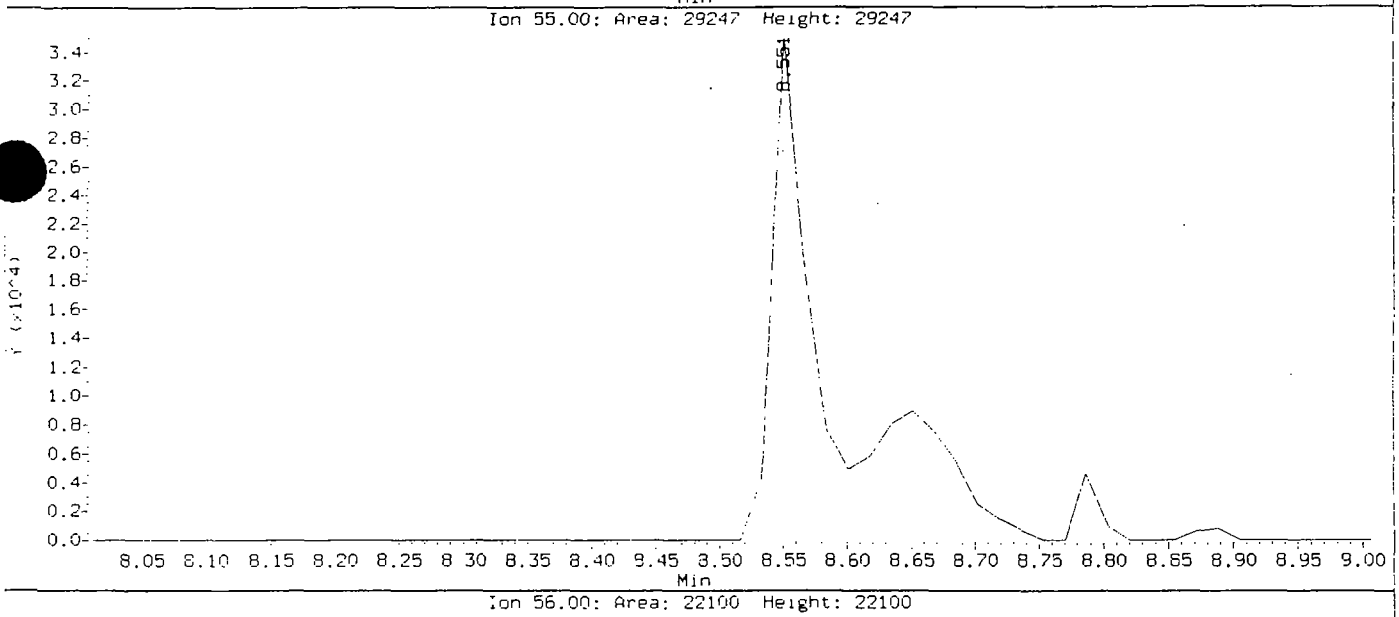
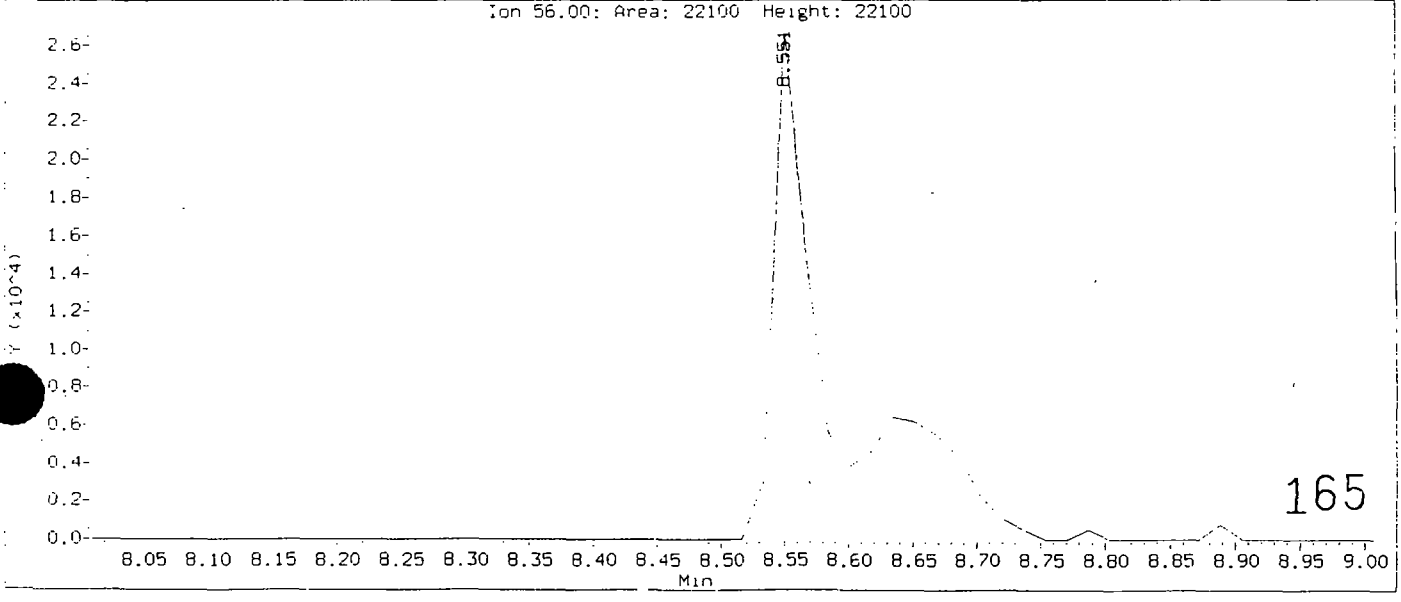
Injection Date: 17-JAN-2002 13:38
Instrument: 5972hp66.i
[redacted]ent Sample ID: SSTD050

[redacted]pound: Caprolactam
CAS Number: 105-60-2







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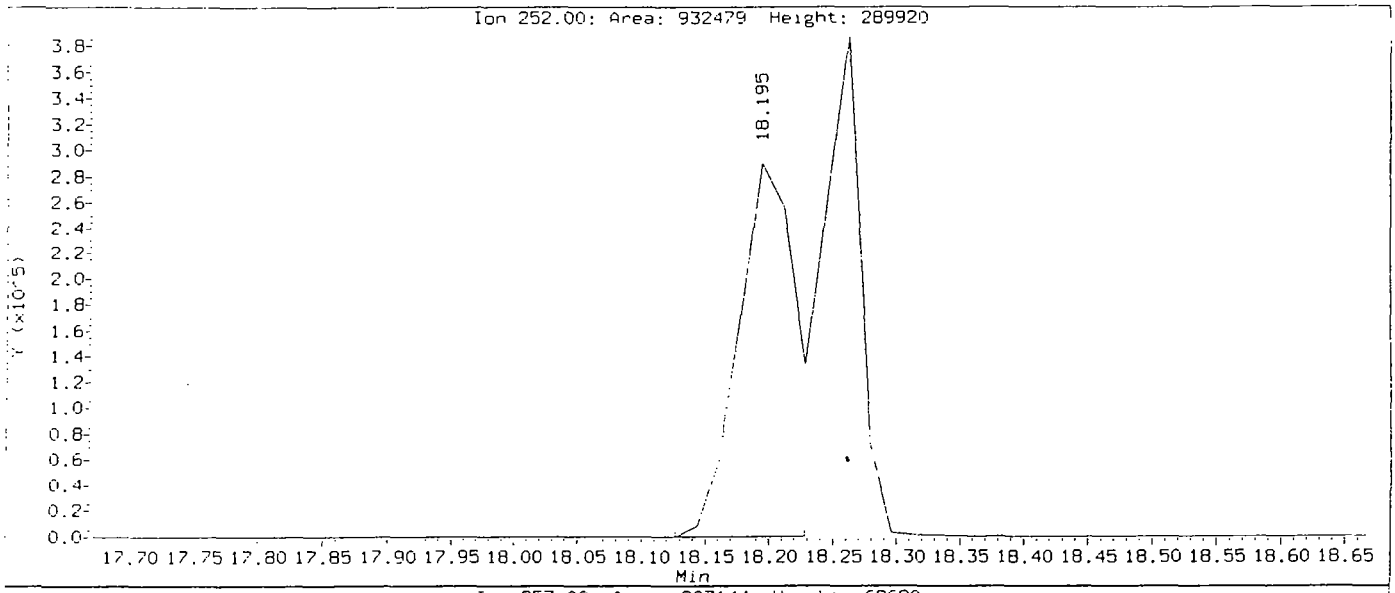
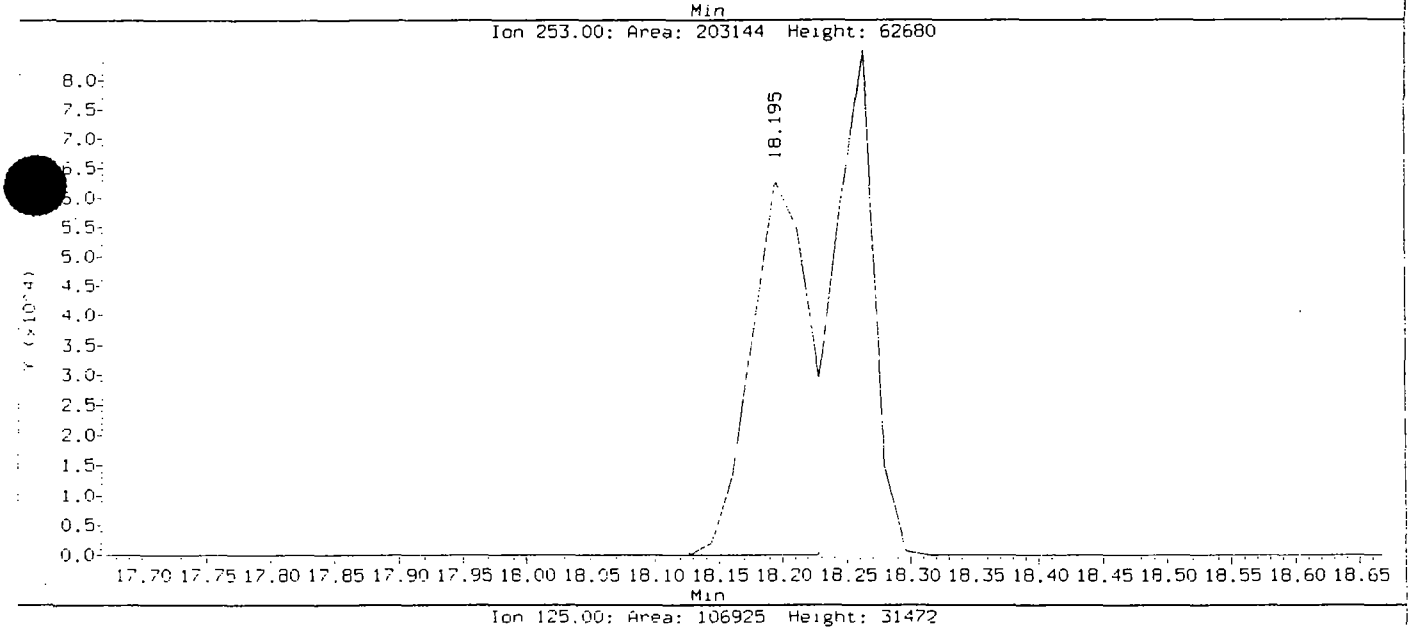
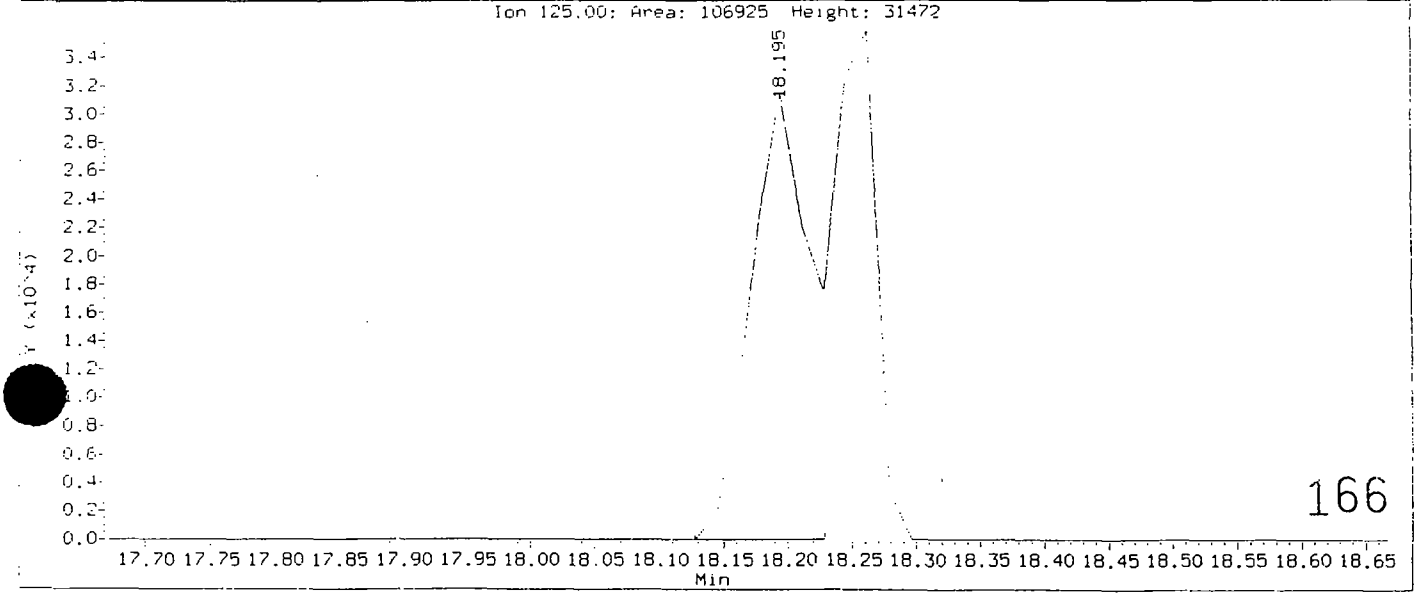
Injection Date: 17-JAN-2002 13:38
Instrument: 5972hp66.i
[redacted]nt Sample ID: SSTD050

[redacted]ound: Benzo(b)fluoranthene
CAS Number: 205-99-2

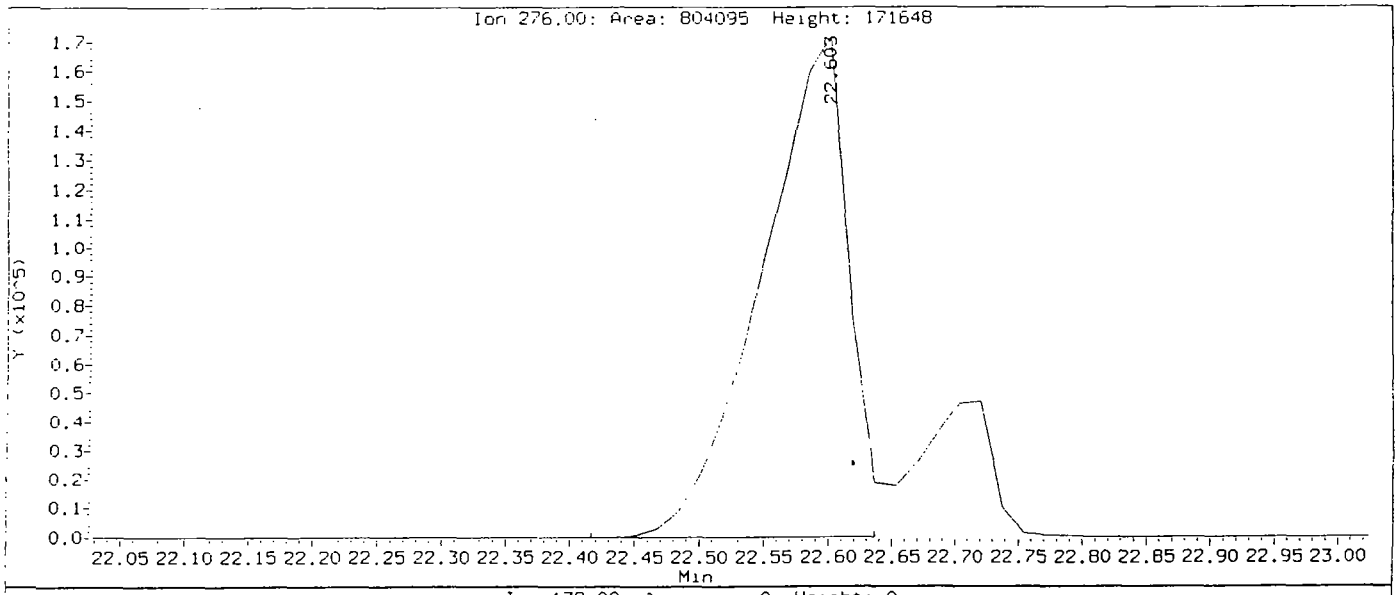


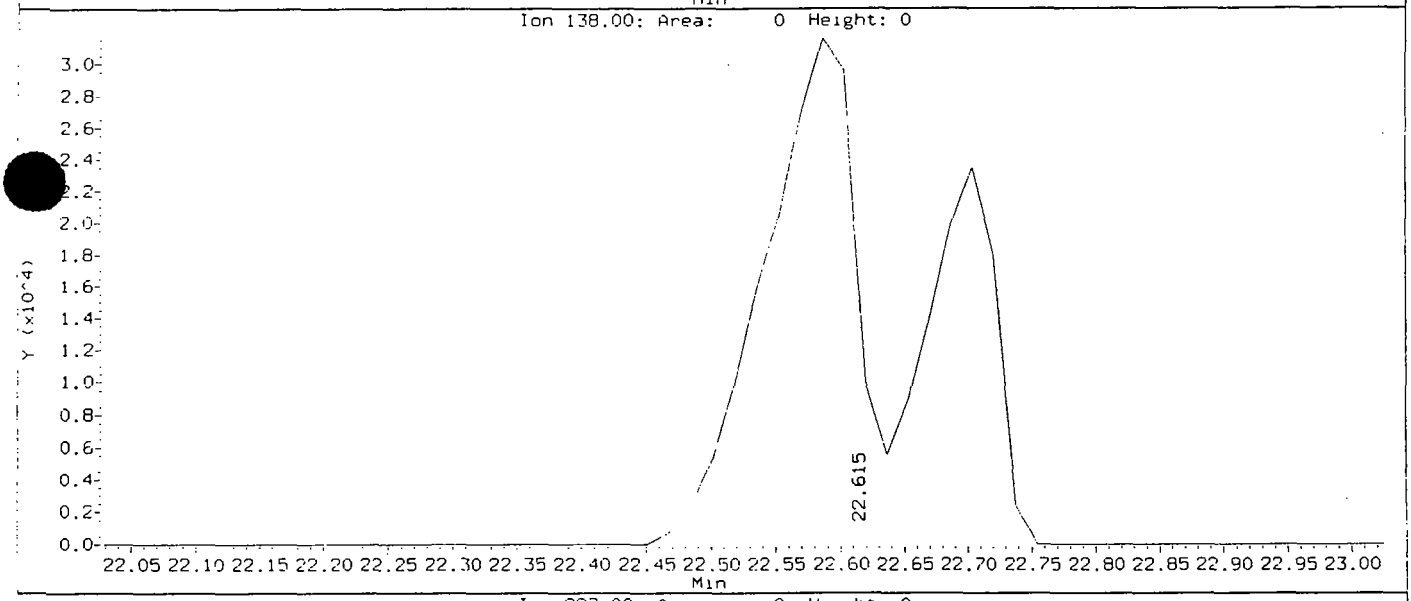


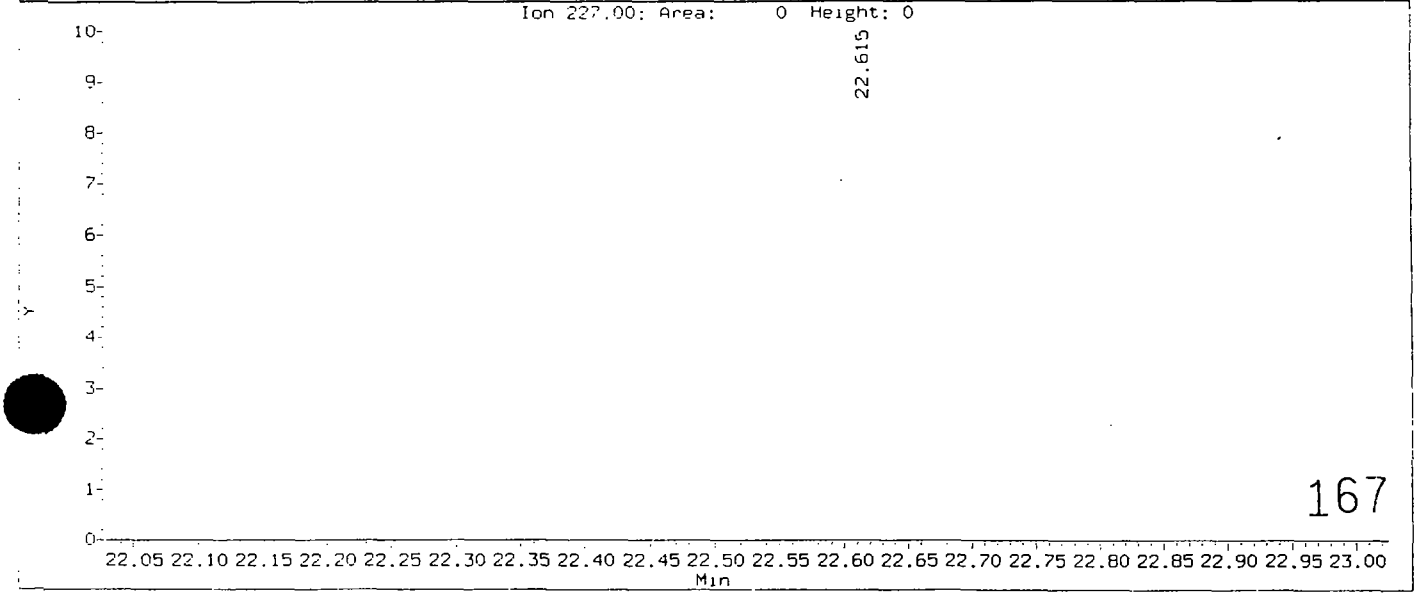


Data File: /chem/5972hp66.i/DF020117A66.b/HM020117A66.d
Injection Date: 17-JAN-2002 13:38
Instrument: 5972hp66.i
Client Sample ID: SSTD050

[redacted]ound: Indeno(1,2,3-cd)pyrene
[redacted] Number: 193-39-5



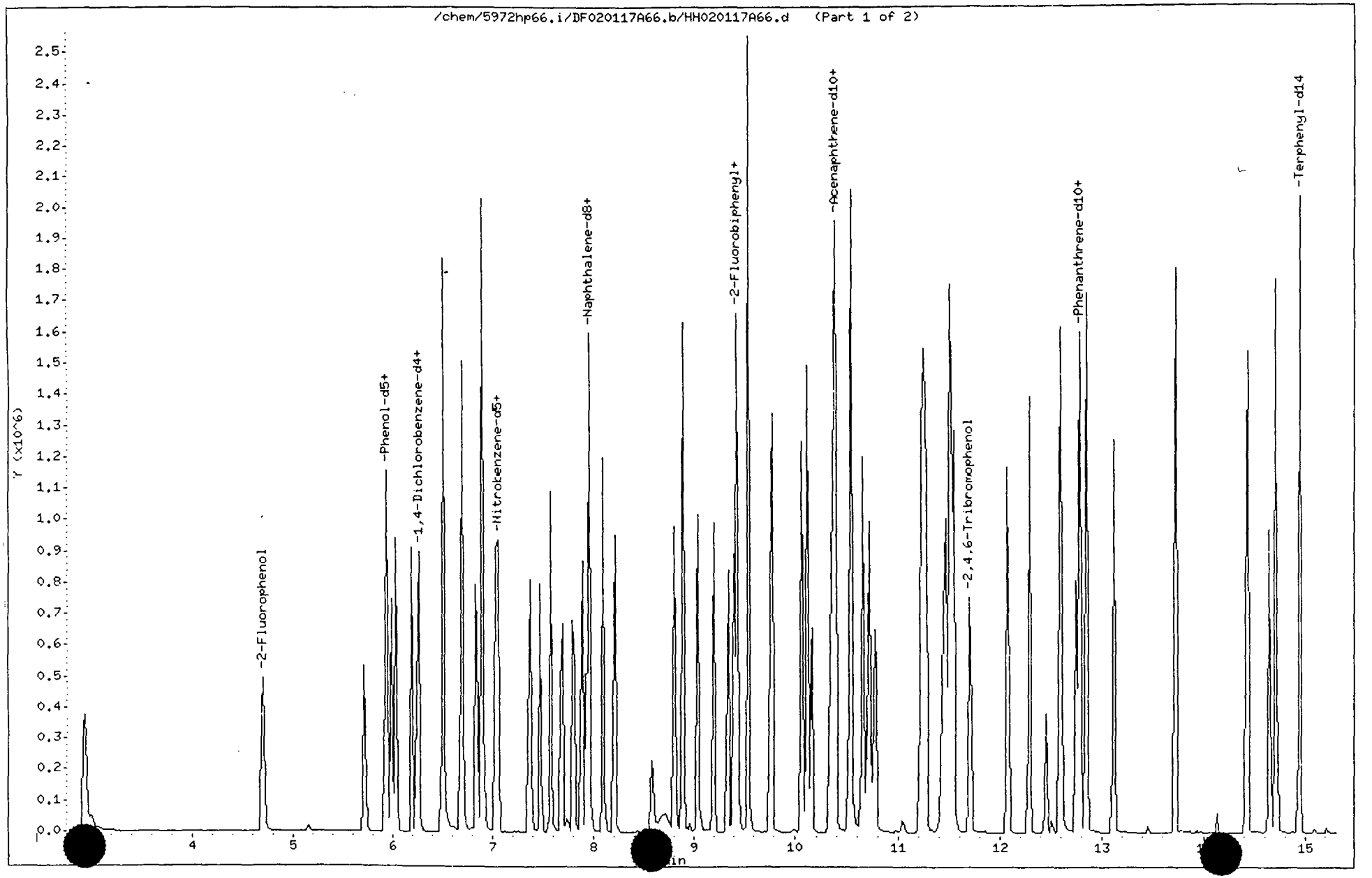




Data File: /chem/5972hp66.i/DF020117A66.b/HH020117A66.d
Date : 17-JAN-2002 09:57
Client ID: SSTD080
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

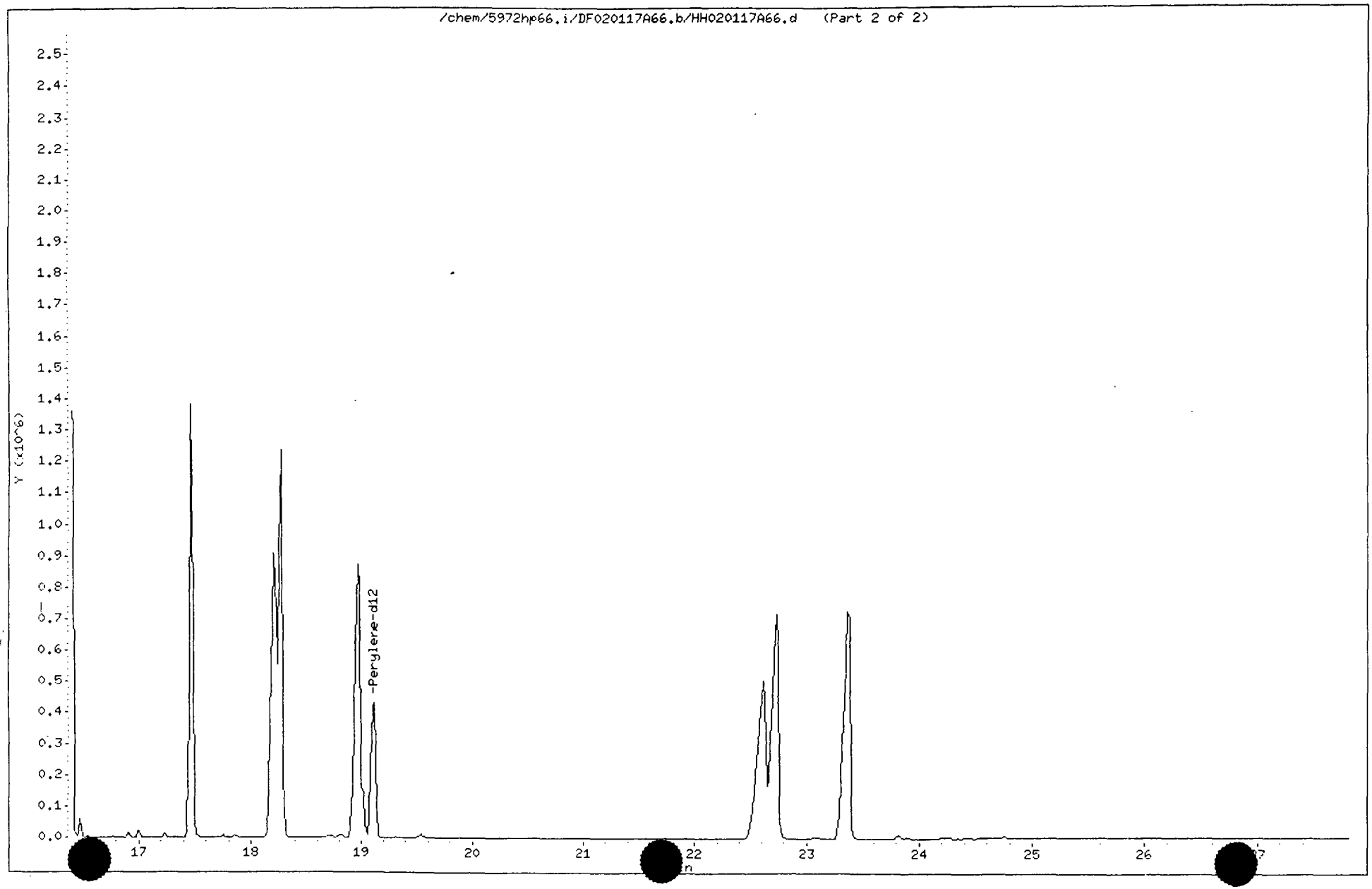
Instrument: 5972hp66.i

Operator: 2391
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020117A66.b/HH020117A66.d
Date : 17-JAN-2002 09:57
Client ID: SSTD080
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2391
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020117A66.b/HH020117A66.d
Report Date: 17-Jan-2002 14:35

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020117A66.b/HH020117A66.d
Lab Smp Id: SSTD080 Client Smp ID: SSTD080
Inj Date : 17-JAN-2002 09:57
Operator : 2391 Inst ID: 5972hp66.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020117A66.b/8270Cv6.m
Meth Date : 17-Jan-2002 14:33 respass Quant Type: ISTD
Cal Date : 17-JAN-2002 09:57 Cal File: HH020117A66.d
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY	
*	1 1,4-Dichlorobenzene-d4	152	6.249	6.231	(1.000)	98447	40.0000			
*	2 Naphthalene-d8	136	7.921	7.920	(1.000)	338809	40.0000			
*	3 Acenaphthene-d10	164	10.353	10.336	(1.000)	235207	40.0000			
*	4 Phenanthrene-d10	188	12.752	12.751	(1.000)	427024	40.0000			
*	5 Chrysene-d12	240	16.281	16.281	(1.000)	436876	40.0000			
*	6 Perylene-d12	264	19.119	19.101	(1.000)	433165	40.0000			
$	7 2-Fluorophenol	112	4.695	4.694	(0.751)	266157	80.0000	79.48		
$	8 Phenol-d5	99	5.928	5.911	(0.949)	374356	80.0000	85.90		
$	9 Nitrobenzene-d5	82	7.026	7.008	(0.887)	389770	80.0000	85.20		
$	10 2-Fluorobiphenyl	172	9.424	9.424	(0.910)	569173	80.0000	80.44		(M)
$	11 2,4,6-Tribromophenol	330	11.721	11.704	(1.132)	159261	80.0000	78.93		(M)
$	12 Terphenyl-d14	244	14.947	14.946	(0.918)	792475	80.0000	76.21		
	13 N-Nitrosodimethylamine	42	2.939	2.955	(0.470)	148315	80.0000	83.08	9156	
	14 Pyridine	79	2.922	2.972	(0.468)	202519	80.0000	78.37	9594	
	15 Benzaldehyde	77	5.709	5.708	(0.914)	162543	80.0000	92.31	9404	

17 1/17/02

Data File: /chem/5972hp66.i/DF020117A66.b/HH020117A66.d
Report Date: 17-Jan-2002 14:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
16 Phenol	94	5.945	5.927	(0.951)	333525	80.0000	87.25	
17 Bis(2-chloroethyl)ether	93	5.979	5.978	(0.957)	324051	80.0000	85.28	
18 2-Chlorophenol	128	6.029	6.029	(0.965)	274902	80.0000	85.42	8266
19 1,3-Dichlorobenzene	146	6.182	6.181	(0.989)	305698	80.0000	84.37	
20 1,4-Dichlorobenzene	146	6.266	6.265	(1.003)	303132	80.0000	84.18	
21 Benzyl alcohol	108	6.502	6.502	(1.041)	182844	80.0000	81.33	
22 1,2-Dichlorobenzene	146	6.502	6.502	(1.041)	282132	80.0000	84.46	
23 2-Methylphenol	108	6.688	6.687	(1.070)	220478	80.0000	83.23	
24 2,2'-oxybis(1-Chloropropane)	45	6.671	6.687	(1.068)	374889	80.0000	86.25	9139
25 Acetophenone	105	6.823	6.823	(1.092)	411483	80.0000	83.78	8848
26 3-Methylphenol	108	6.891	6.890	(1.103)	244996	80.0000	82.11	
27 4-Methylphenol	108	6.891	6.890	(1.103)	244996	80.0000	82.11	
28 N-Nitroso-di-N-propylamine	70	6.874	6.873	(1.100)	154361	80.0000	90.29	8871
29 Hexachloroethane	117	6.891	6.890	(1.103)	131582	80.0000	83.46	9356
30 Nitrobenzene	77	7.043	7.042	(0.889)	345640	80.0000	82.91	9472
31 Isophorone	82	7.364	7.363	(0.930)	625802	80.0000	80.89	7314
32 2-Nitrophenol	139	7.465	7.464	(0.942)	149187	80.0000	81.48	8667
33 2,4-Dimethylphenol	122	7.566	7.566	(0.955)	221338	80.0000	84.85	8850
34 Bis(2-chloroethoxy)methane	93	7.685	7.684	(0.970)	400290	80.0000	87.44	8940
35 2,4-Dichlorophenol	162	7.803	7.785	(0.985)	221710	80.0000	82.70	
36 1,2,4-Trichlorobenzene	180	7.887	7.887	(0.996)	277758	80.0000	83.50	
37 Naphthalene	128	7.955	7.954	(1.004)	820423	80.0000	87.06	9748
38 4-Chloroaniline	127	8.090	8.089	(1.021)	373736	80.0000	83.46	8439
39 Hexachlorobutadiene	225	8.208	8.208	(1.036)	197946	80.0000	79.90	8566
40 Caprolactam	113	8.580	8.512	(1.083)	93371	80.0000	83.42	9179(M)
41 4-Chloro-3-methylphenol	107	8.799	8.782	(1.111)	276682	80.0000	83.91	9473
42 2-Methylnaphthalene	142	8.884	8.883	(1.122)	521303	80.0000	82.92	
43 1-Methylnaphthalene	142	9.036	9.035	(1.141)	465315	80.0000	87.32	
44 Hexachlorocyclopentadiene	237	9.188	9.187	(0.887)	193592	80.0000	80.86	9285
45 2,4,6-Trichlorophenol	196	9.340	9.339	(0.902)	192949	80.0000	83.52	
46 2,4,5-Trichlorophenol	196	9.391	9.390	(0.907)	189393	80.0000	83.08	
47 1,1'-Biphenyl	154	9.543	9.542	(0.922)	587133	80.0000	91.16	8009
48 2-Chloronaphthalene	162	9.543	9.542	(0.922)	450131	80.0000	80.45	
49 2-Nitroaniline	65	9.779	9.744	(0.945)	466295	160.000	165.8	9266
50 Dimethylphthalate	163	10.066	10.048	(0.972)	642045	80.0000	83.09	8612
51 2,6-Dinitrotoluene	165	10.167	10.150	(0.982)	168735	80.0000	81.71	9157
52 Acenaphthylene	152	10.117	10.116	(0.977)	810488	80.0000	81.20	9294
53 3-Nitroaniline	138	10.387	10.352	(1.003)	346377	160.000	169.4	9314
54 Acenaphthene	154	10.404	10.386	(1.005)	489736	80.0000	86.44	9615
55 2,4-Dinitrophenol	184	10.556	10.521	(1.020)	472458	400.000	401.9	
56 4-Nitrophenol	109	10.725	10.690	(1.036)	259140	160.000	156.1	8376
57 2,4-Dinitrotoluene	165	10.792	10.758	(1.042)	229889	80.0000	85.75	0(M)
58 Dibenzofuran	168	10.657	10.640	(1.029)	786361	80.0000	81.50	8616
59 Diethylphthalate	149	11.231	11.214	(1.085)	671149	80.0000	81.14	9549
60 4-Chlorophenyl-phenylether	204	11.282	11.265	(1.090)	348268	80.0000	82.72	0(M)
61 Fluorene	166	11.248	11.248	(1.086)	608031	80.0000	83.95	8265
62 4-Nitroaniline	138	11.468	11.400	(1.108)	347781	160.000	163.4	9031

Data File: /chem/5972hp66.i/DF020117A66.b/HH020117A66.d
Report Date: 17-Jan-2002 14:35

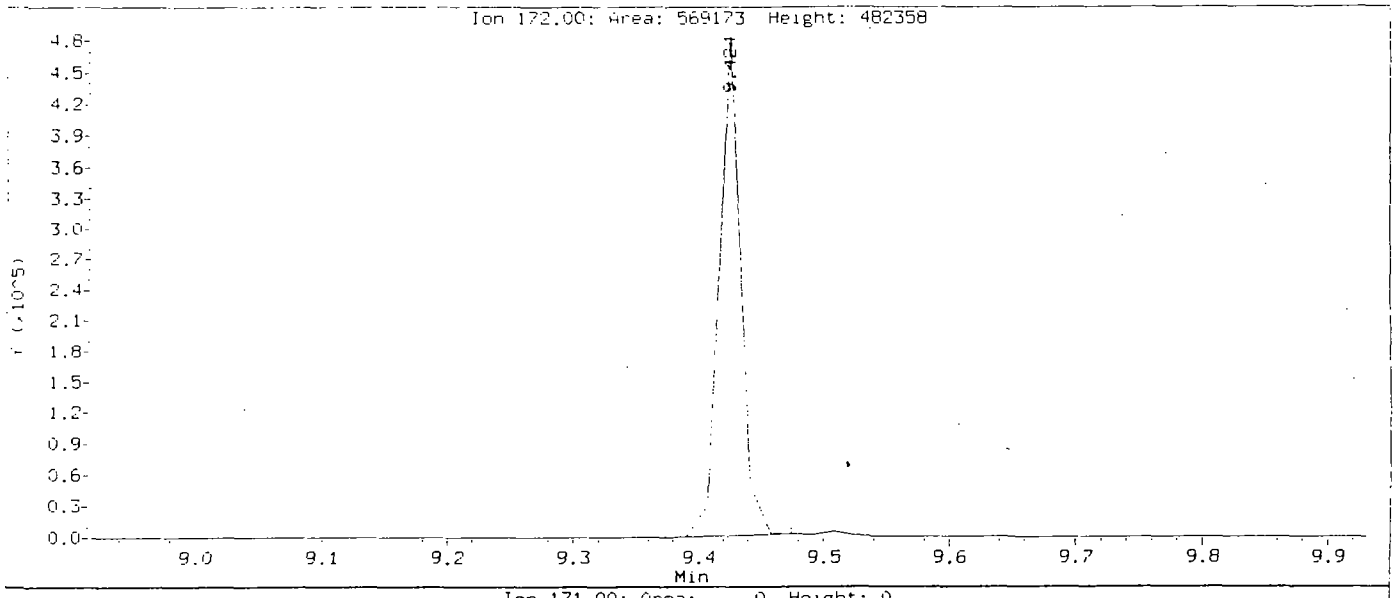
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
63 4,6-Dinitro-2-methylphenol	198	11.519	11.467	(0.903)	323301	160.000	170.6	7344
64 N-Nitrosodiphenylamine	169	11.519	11.501	(0.903)	351701	80.0000	84.12	7654
65 1,2-Diphenylhydrazine	77	11.552	11.535	(1.116)	974919	80.0000	88.66	9486
66 4-Bromophenyl-phenylether	248	12.076	12.075	(0.947)	223933	80.0000	83.47	9579
67 Hexachlorobenzene	284	12.296	12.295	(0.964)	265798	80.0000	79.17	9687
68 Atrazine	200	12.464	12.447	(0.977)	51429	80.0000	103.5	8603
69 Pentachlorophenol	266	12.600	12.599	(0.988)	312069	160.000	156.5	9027
70 Phenanthrene	178	12.785	12.768	(1.003)	900974	80.0000	81.63	
71 Anthracene	178	12.853	12.835	(1.008)	919995	80.0000	84.06	
72 Carbazole	167	13.123	13.122	(1.029)	697697	80.0000	83.13	9300
73 Di-n-butylphthalate	149	13.731	13.714	(1.077)	1348188	80.0000	92.31	9554
74 Fluoranthene	202	14.441	14.423	(1.132)	1231426	80.0000	85.87	
75 Benzidine	184	14.643	14.642	(0.899)	541561	160.000	167.0	8888
76 Pyrene	202	14.711	14.710	(0.904)	1086768	80.0000	84.89	
77 Butylbenzylphthalate	149	15.606	15.588	(0.958)	578873	80.0000	88.32	8694
78 3,3'-Dichlorobenzidine	252	16.265	16.264	(0.999)	444386	80.0000	84.31	8520
79 bis(2-ethylhexyl)Phthalate	149	16.417	16.399	(1.008)	821120	80.0000	87.21	8815
80 Benzo(a)anthracene	228	16.265	16.247	(0.999)	1147416	80.0000	82.94	
81 Chrysene	228	16.332	16.314	(1.003)	1204489	80.0000	86.08	
82 Di-n-octylphthalate	149	17.464	17.463	(0.913)	1504304	80.0000	81.62	
83 Benzo(b)fluoranthene	252	18.207	18.172	(0.952)	1334223	80.0000	77.90	
84 Benzo(k)fluoranthene	252	18.274	18.223	(0.956)	1174225	80.0000	79.42	
85 Benzo(a)pyrene	252	18.967	18.932	(0.992)	1144691	80.0000	81.36	
86 Indeno(1,2,3-cd)pyrene	276	22.615	22.530	(1.183)	1149868	80.0000	76.48	0(M)
87 Dibenzo(a,h)anthracene	278	22.733	22.648	(1.189)	1180473	80.0000	79.58	8130
88 Benzo(g,h,i)perylene	276	23.392	23.307	(1.223)	1271612	80.0000	80.47	8469

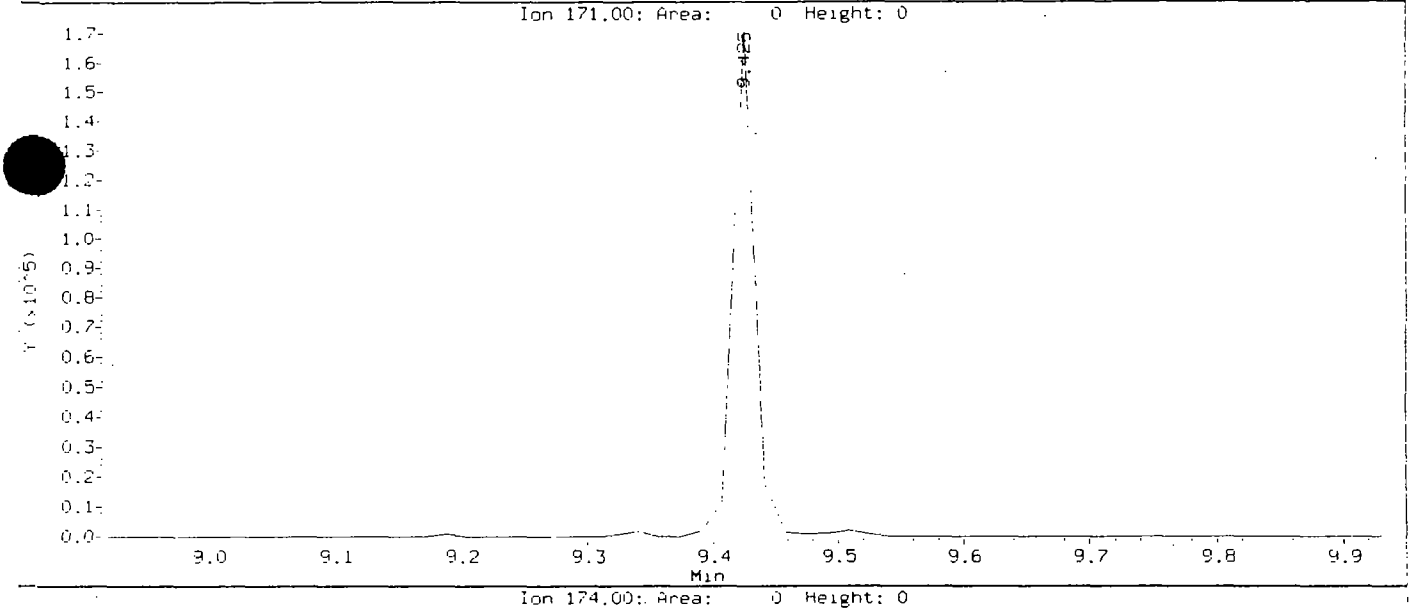
QC Flag Legend

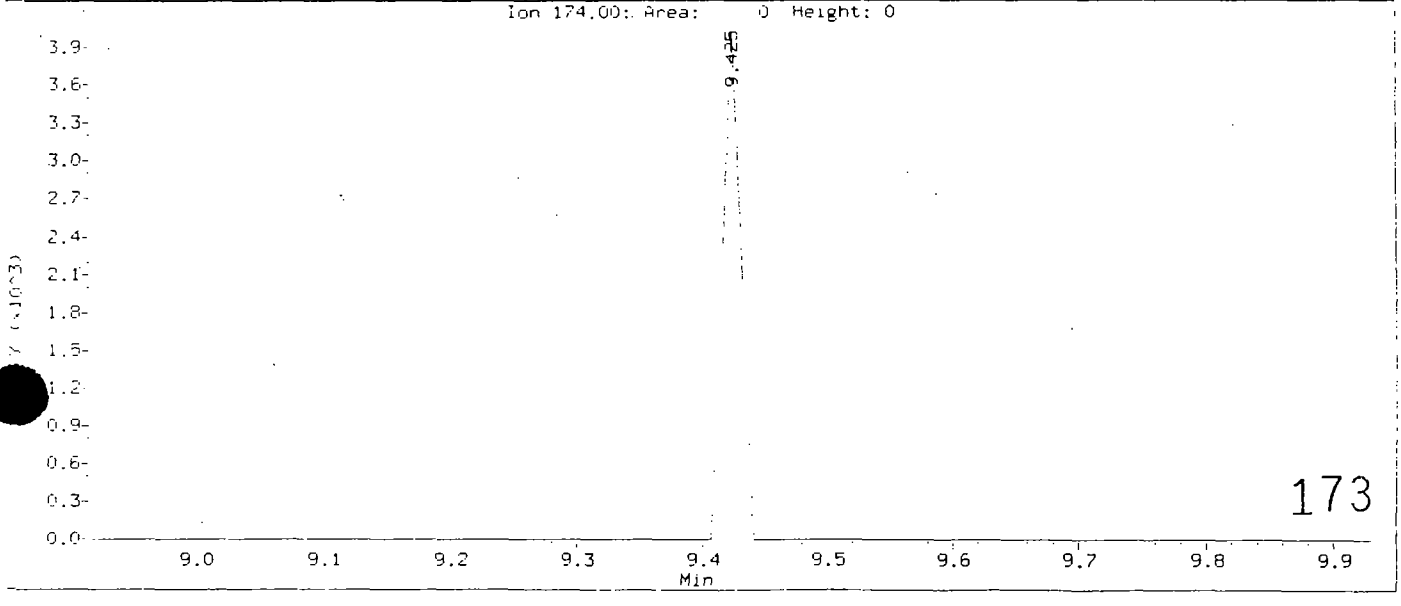
M - Compound response manually integrated.

Data File: /chem/5972hp66.i/DF020117A66.b/HH020117A66.d
Injection Date: 17-JAN-2002 09:57
Instrument: 5972hp66.i
[redacted]ent Sample ID: SSTD080

[redacted]ound: 2-Fluorobiphenyl
CAS Number: 321-60-8







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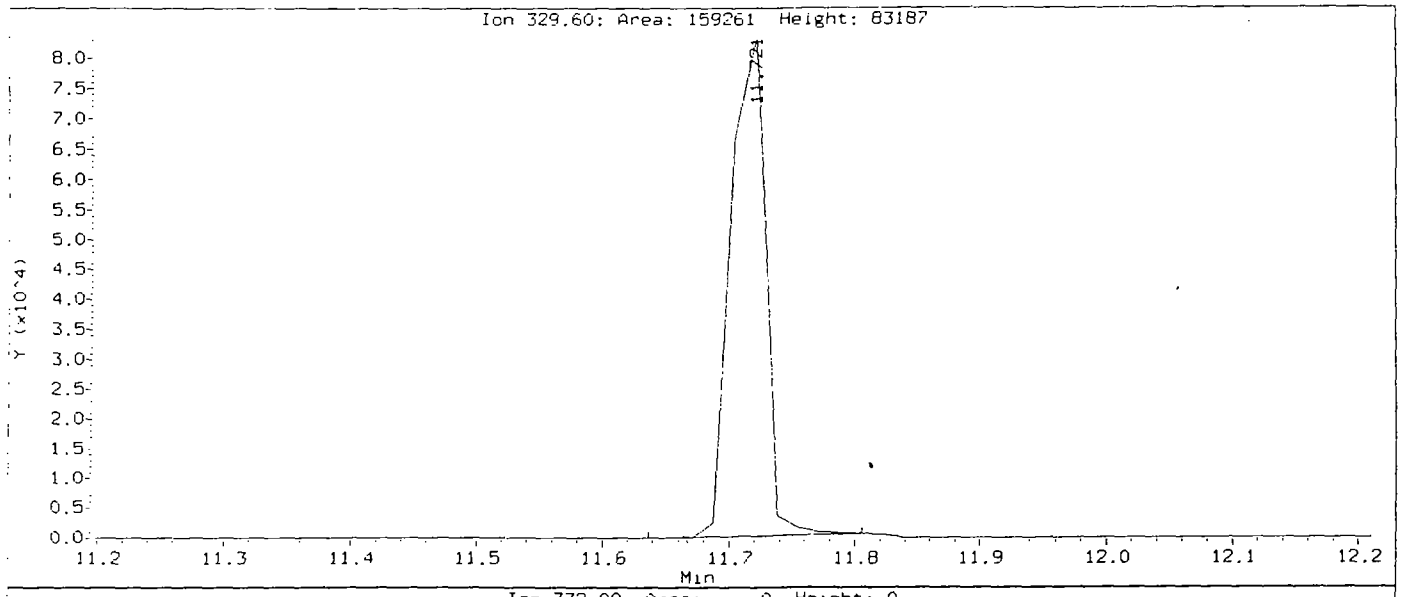
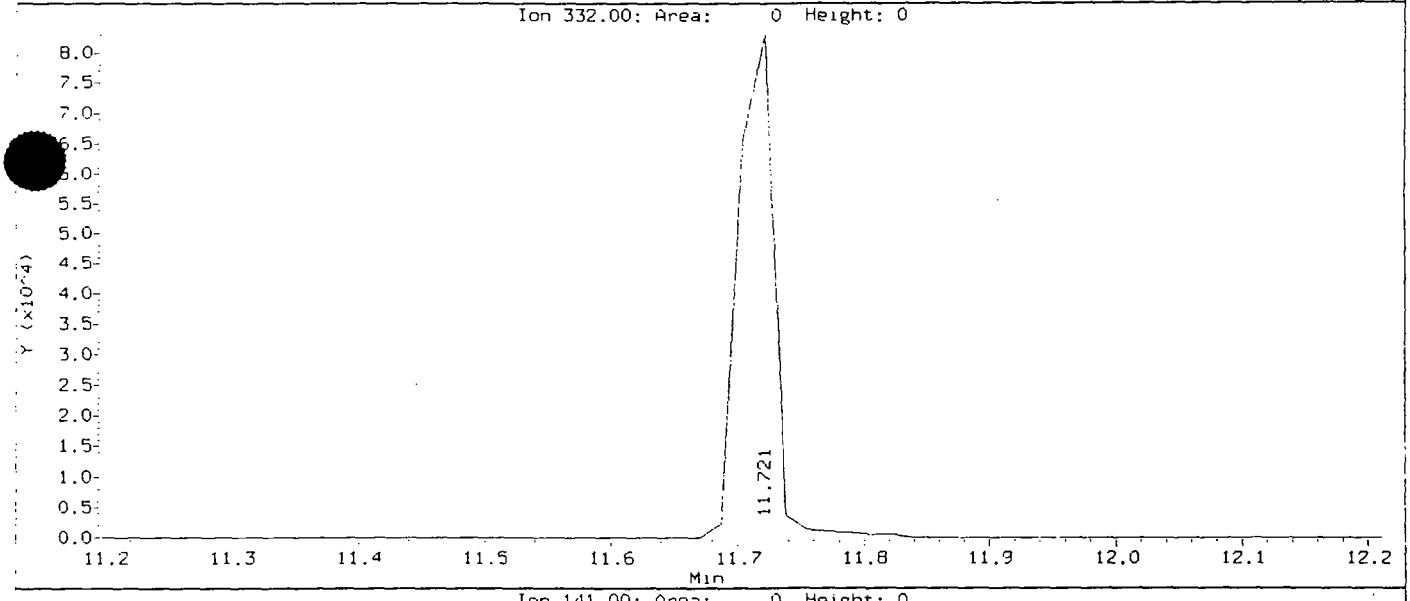
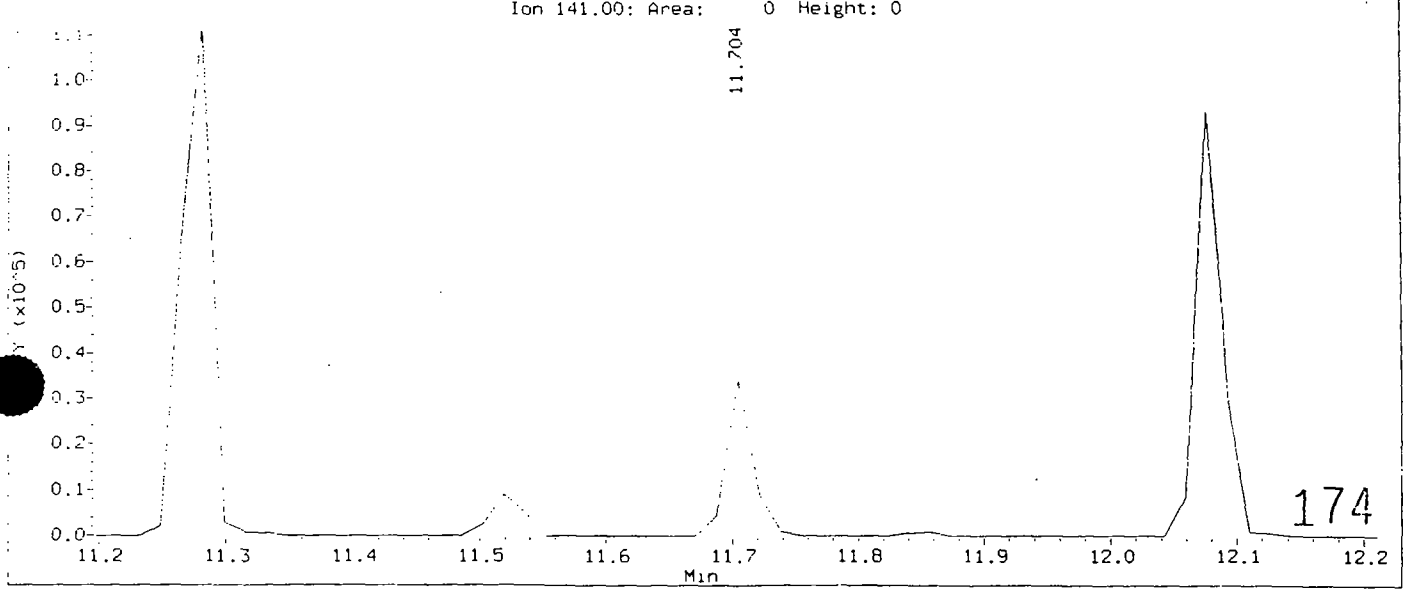
Injection Date: 17-JAN-2002 09:57
Instrument: 5972hp66.i
[redacted]t Sample ID: SSTD080

[redacted]ound: 2,4,6-Tribromophenol
CAS Number: 118-79-6







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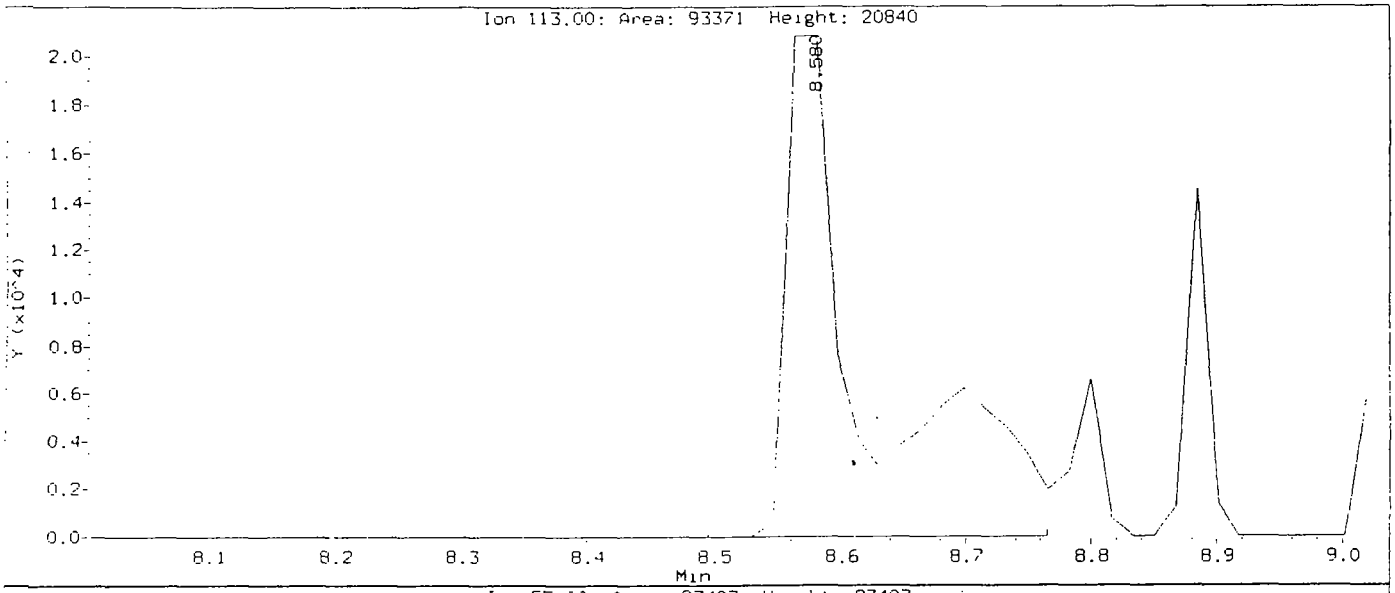
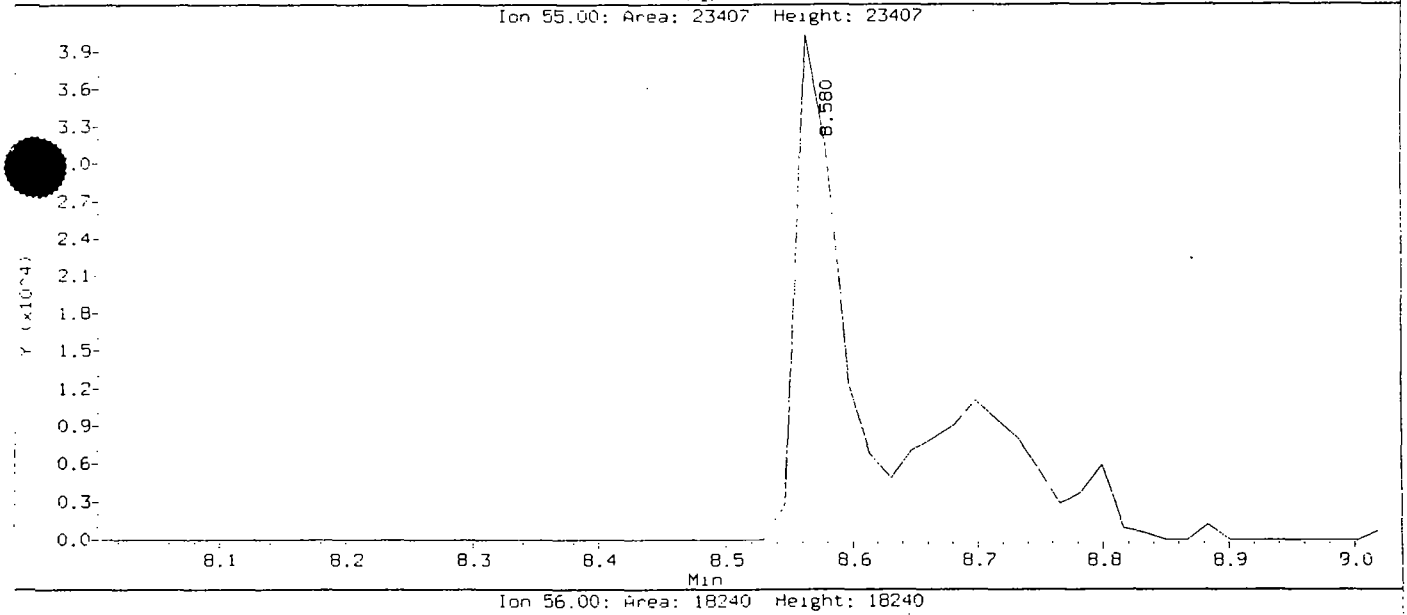
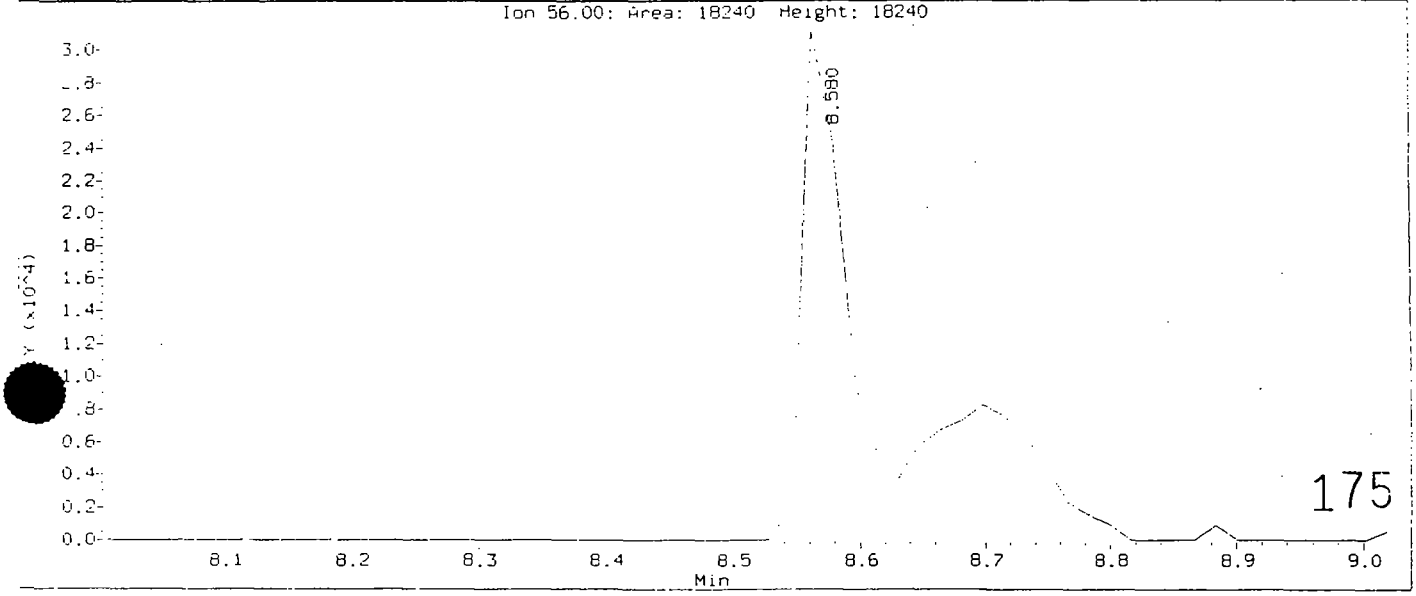
Injection Date: 17-JAN-2002 09:57
Instrument: 5972hp66.i
[redacted]nt Sample ID: SSTD080

[redacted]ound: Caprolactam
CAS Number: 105-60-2







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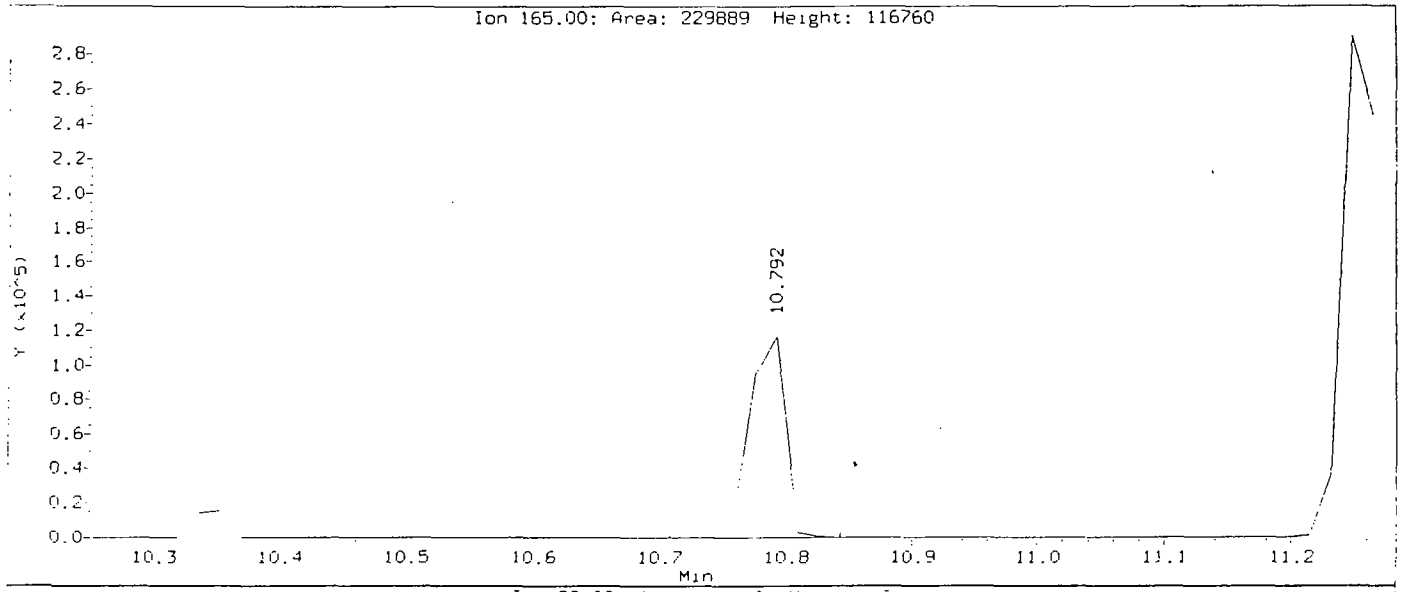
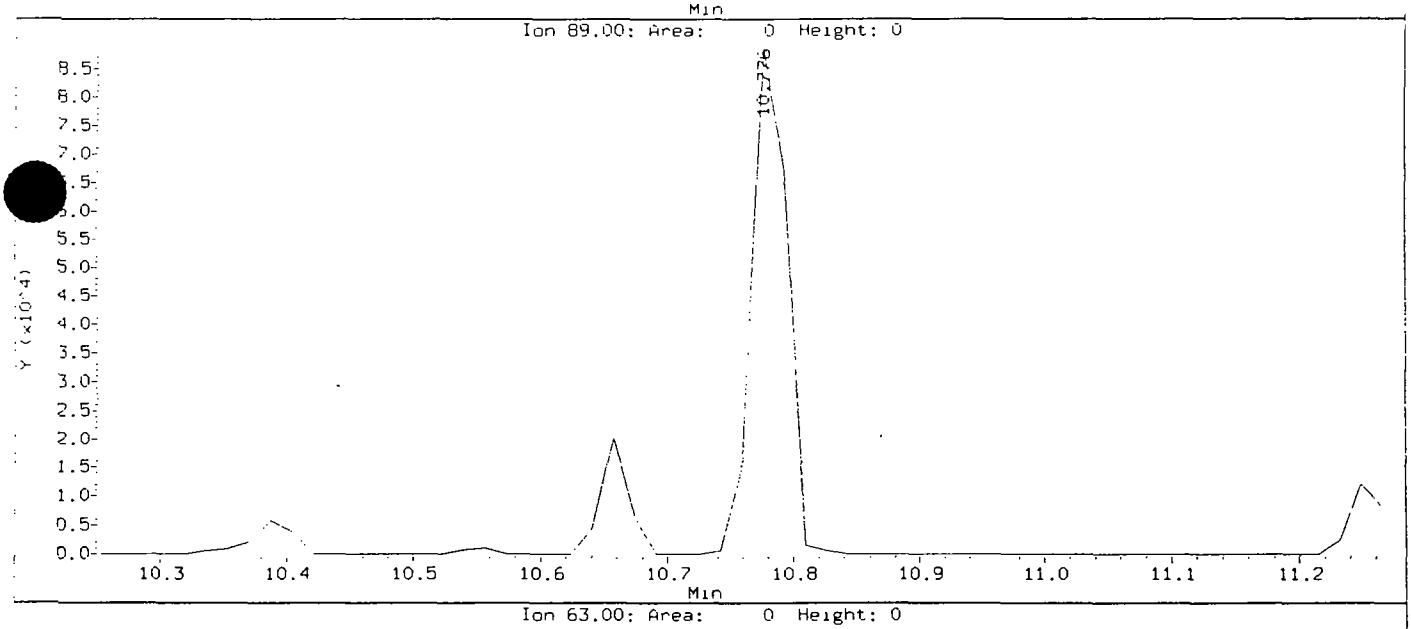
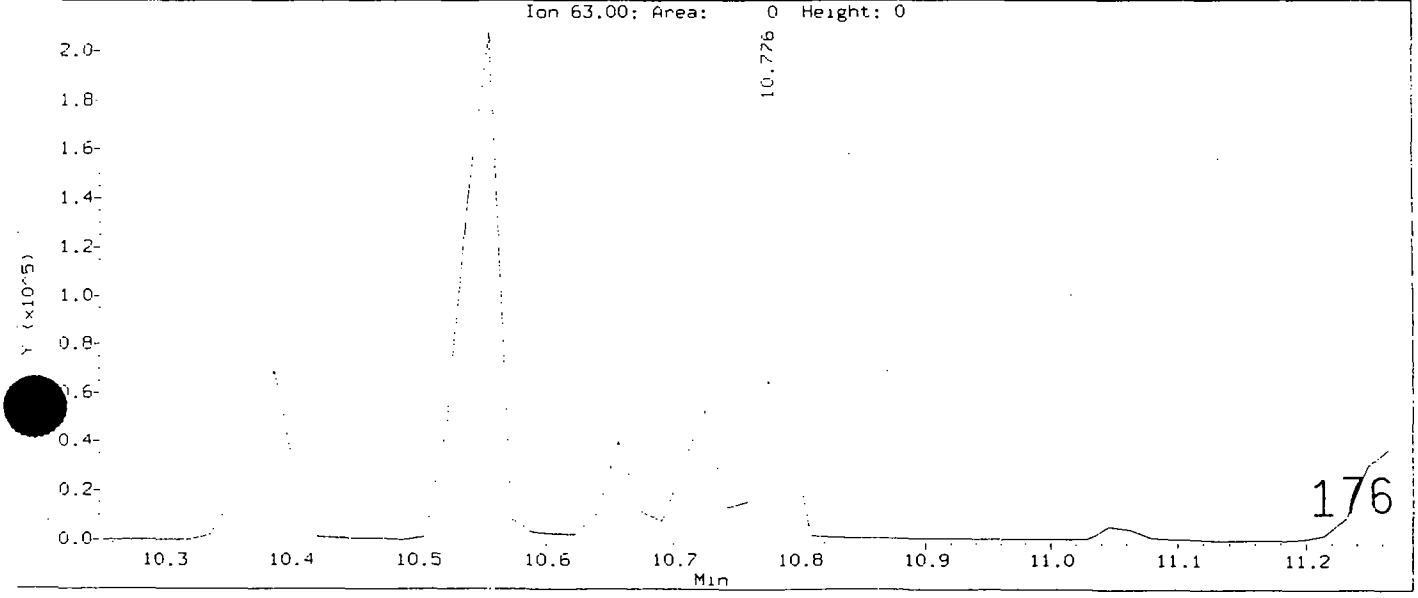
Injection Date: 17-JAN-2002 09:57
Instrument: 5972hp66.i
Client Sample ID: SSTD080

[redacted]ound: 2,4-Dinitrotoluene
[redacted] Number: 121-14-2







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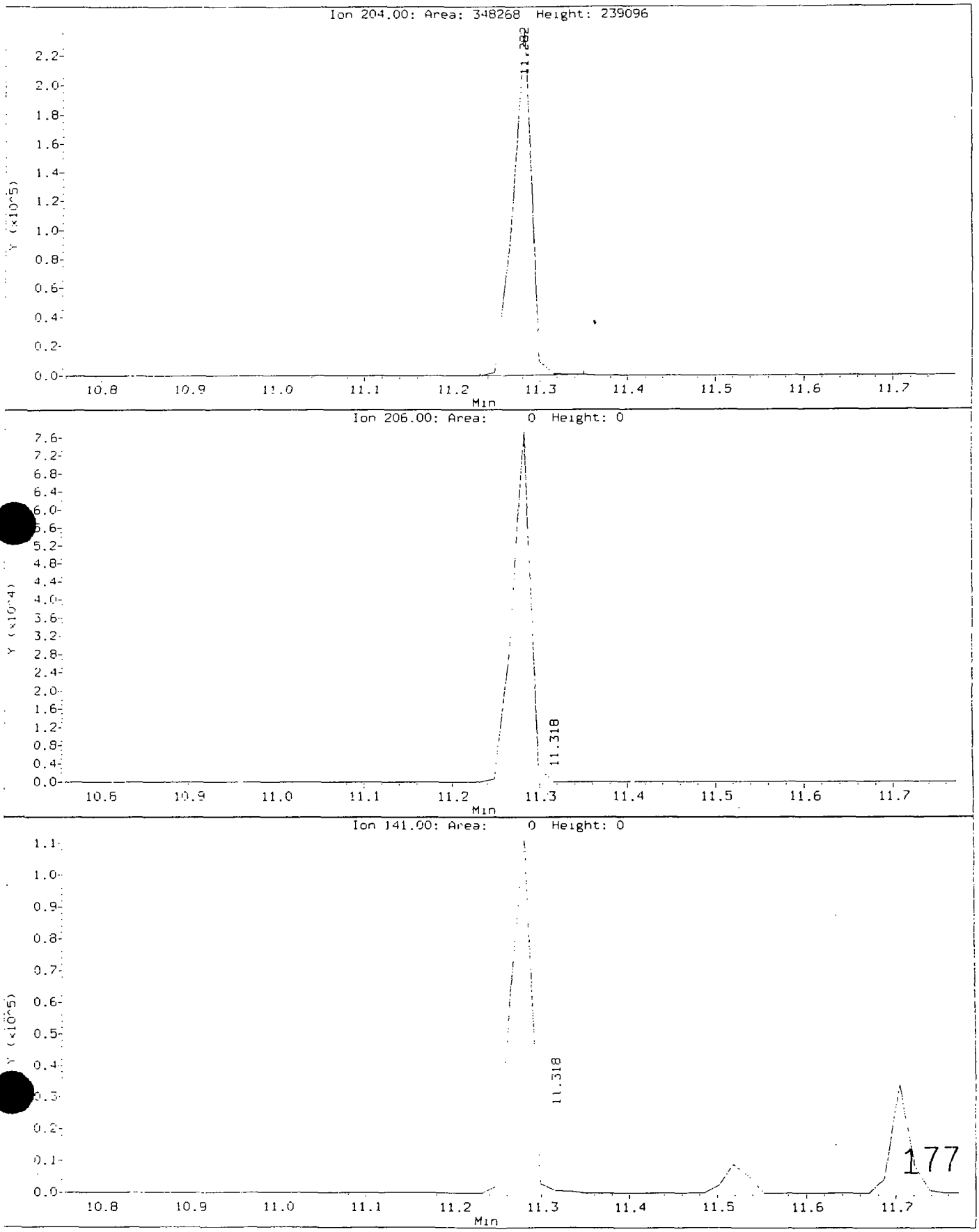
Injection Date: 17-JAN-2002 09:57
Instrument: 5972hp66.i
[redacted]nt Sample ID: SSTD080

[redacted]pound: 4-Chlorophenyl-phenylether
CAS Number: 7005-72-3



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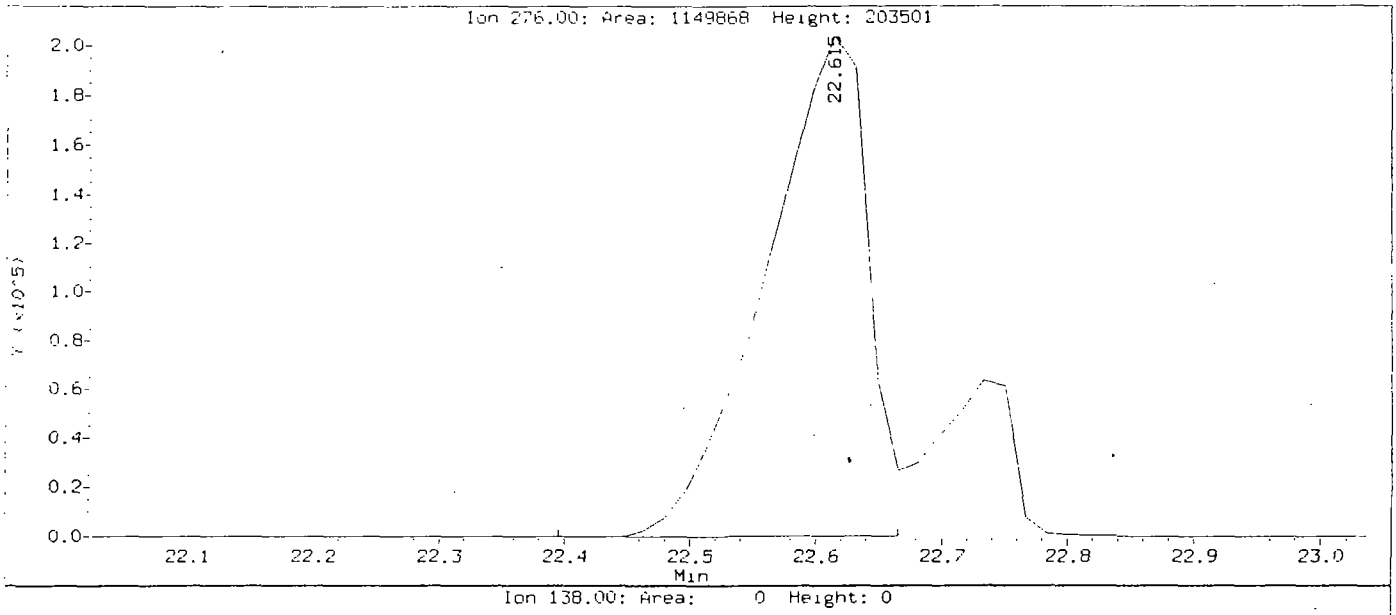
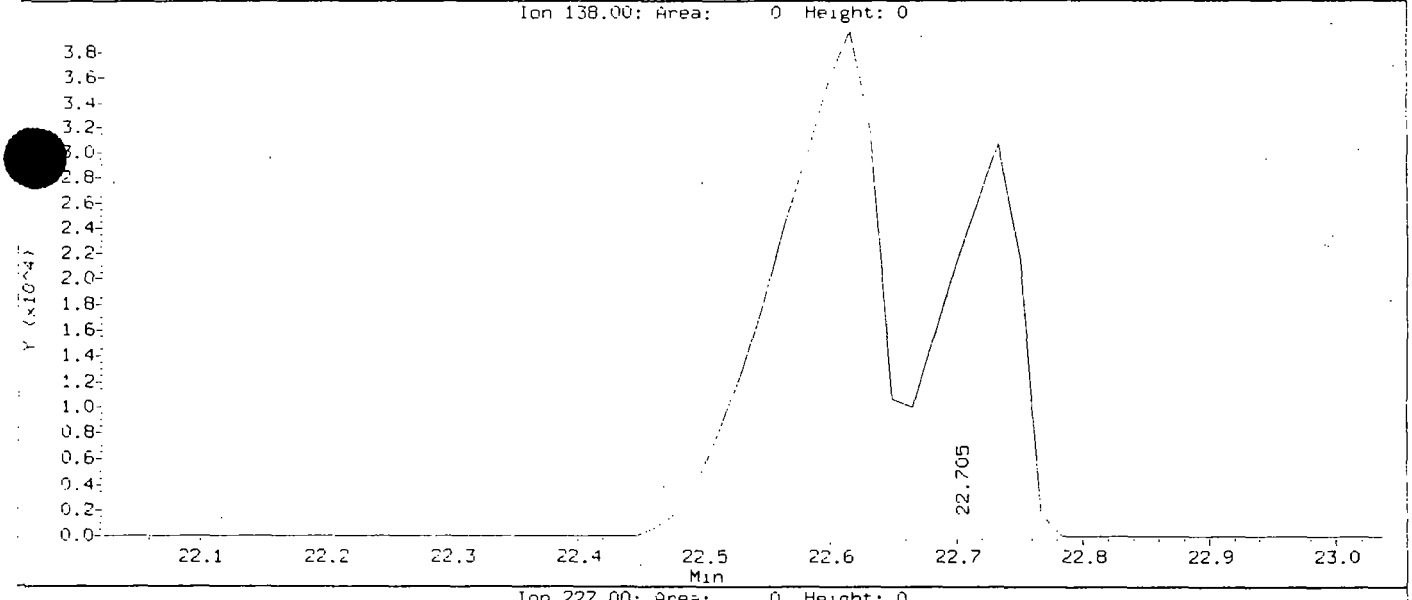
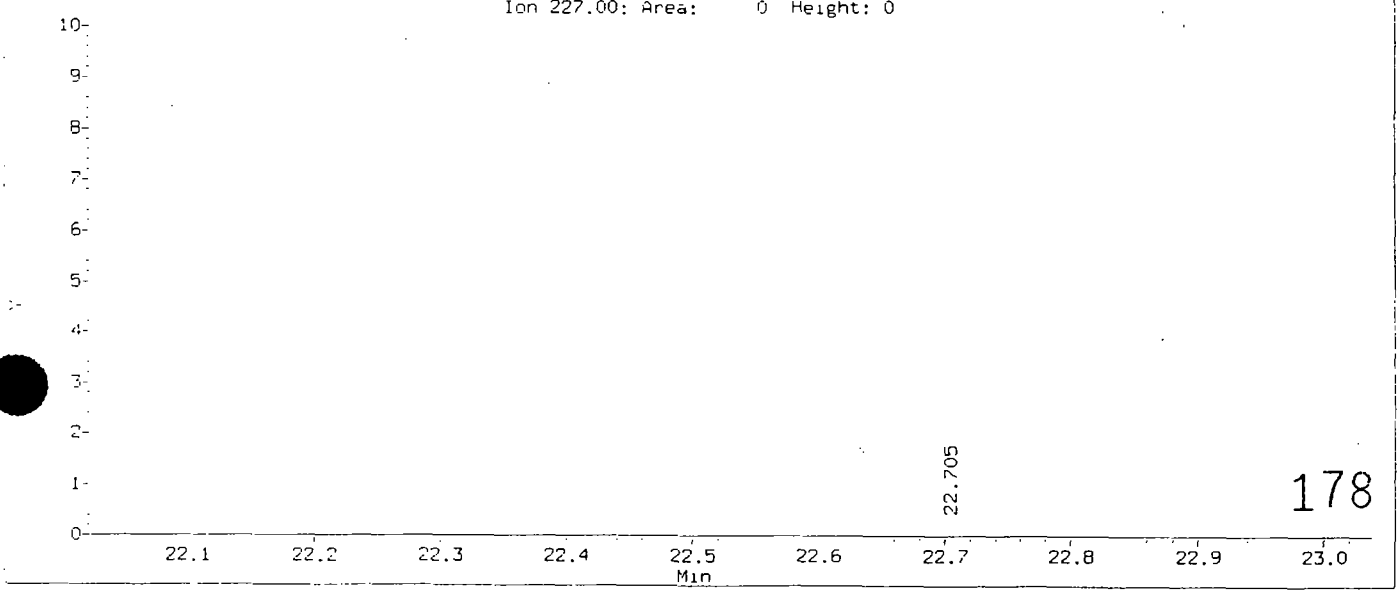
Injection Date: 17-JAN-2002 09:57
Instrument: 5972hp66.i
[redacted]nt Sample ID: SSTD080

[redacted]pound: Indeno(1,2,3-cd)pyrene
CAS Number: 193-39-5

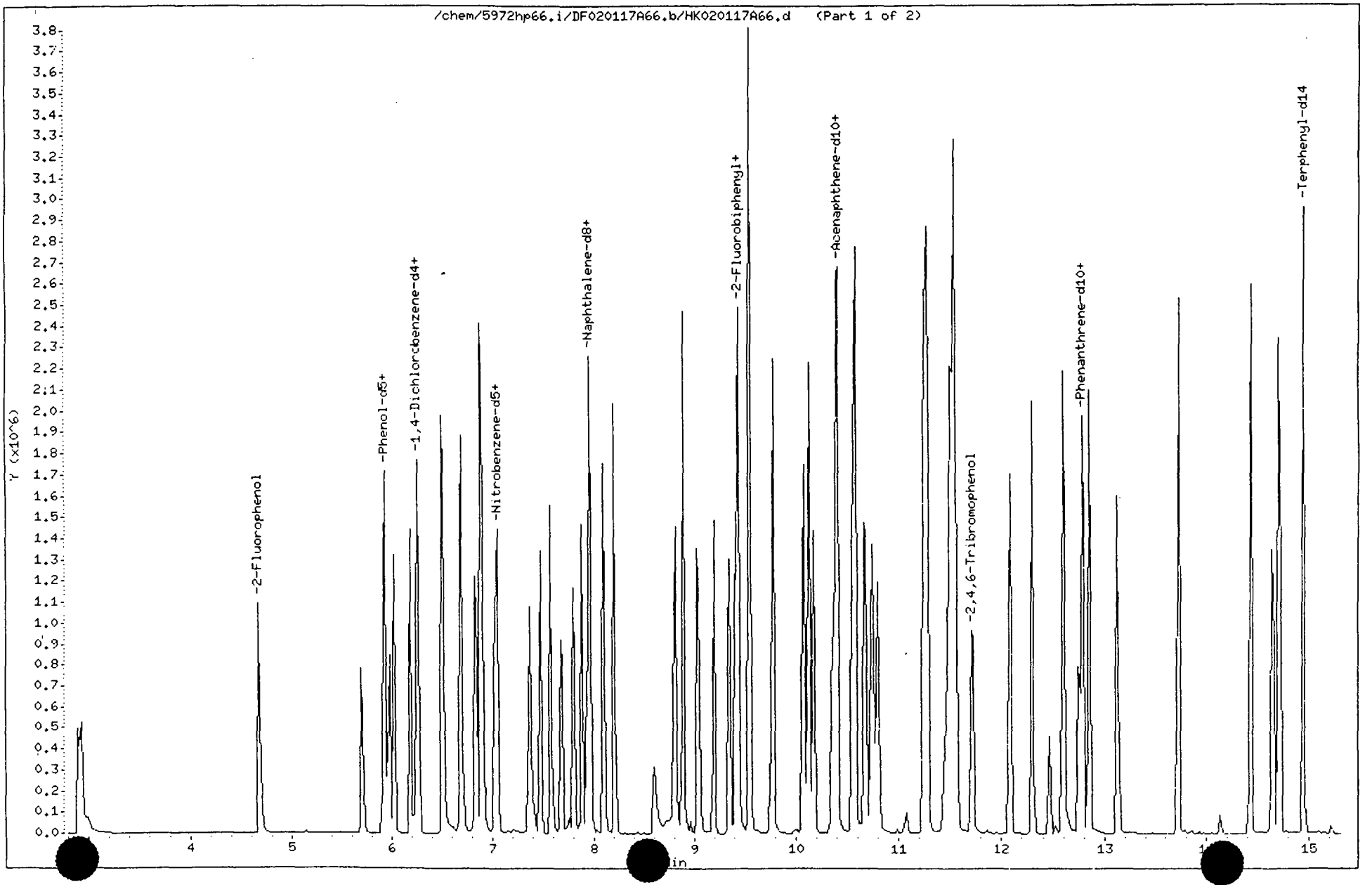






Data File: /chem/5972hp66.i/DF020117A66.b/HK020117A66.d
Date : 17-JAN-2002 12:23
Client ID: SSTD120
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2391
Column diameter: 0.25



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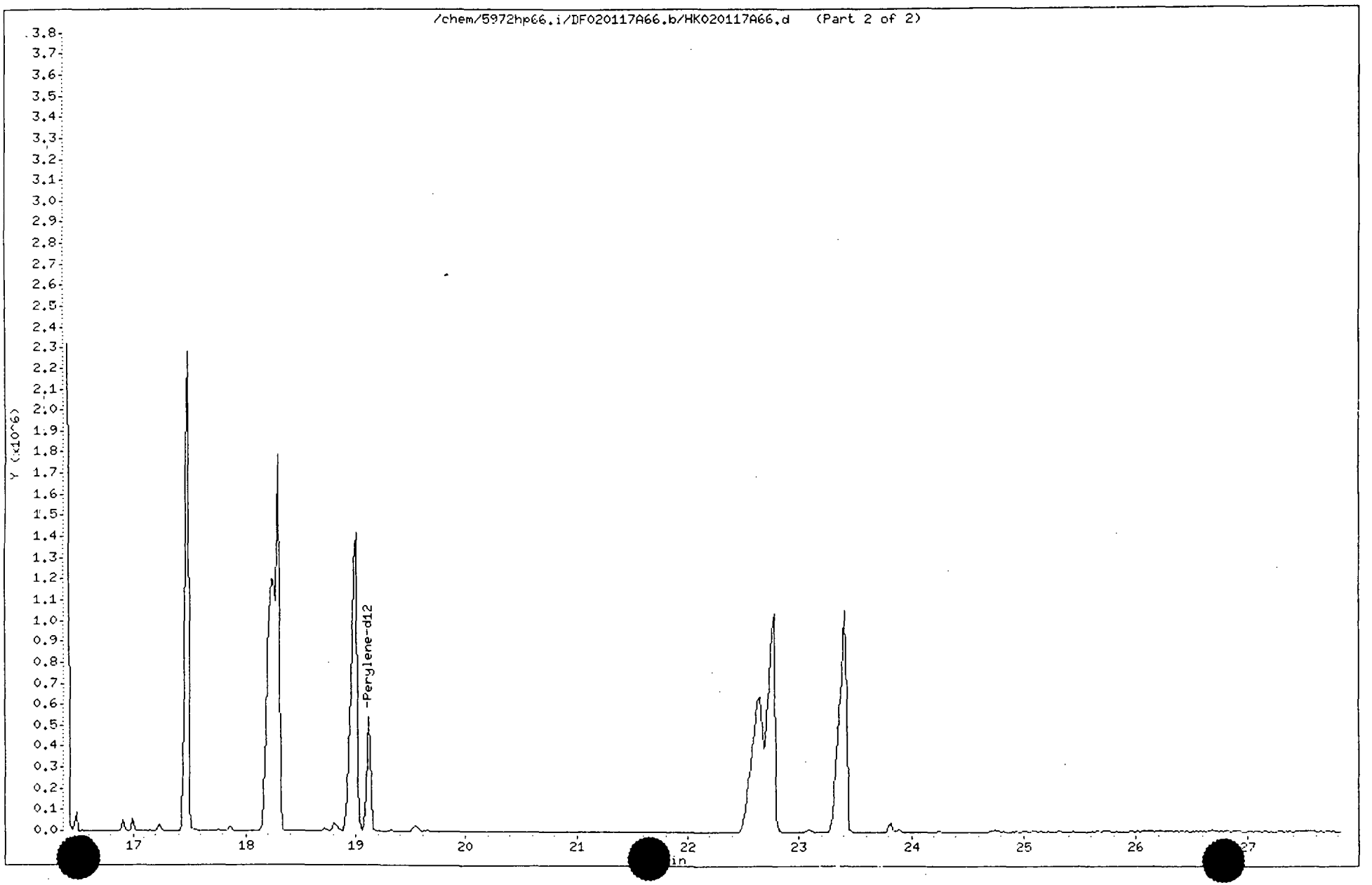
Date : 17-JAN-2002 12:23
Client ID: SSTD120
Instrument: 5972hp66.i
Sample Info:
Volume Injected (uL): 1.0
Operator: 2391
Column phase: RTX-5MS
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020117A66.b/HK020117A66.d
Report Date: 17-Jan-2002 14:35

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020117A66.b/HK020117A66.d
Lab Smp Id: SSTD120 Client Smp ID: SSTD120
Inj Date : 17-JAN-2002 12:23
Operator : 2391 Inst ID: 5972hp66.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020117A66.b/8270Cv6.m
Meth Date : 17-Jan-2002 14:33 respass Quant Type: ISTD
Cal Date : 17-JAN-2002 12:23 Cal File: HK020117A66.d
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 1	1,4-Dichlorobenzene-d4	152	6.238	6.231	(1.000)	117259	40.0000		
* 2	Naphthalene-d8	136	7.927	7.920	(1.000)	386079	40.0000		
* 3	Acenaphthene-d10	164	10.342	10.336	(1.000)	253738	40.0000		
* 4	Phenanthrene-d10	188	12.757	12.751	(1.000)	462560	40.0000		
* 5	Chrysene-d12	240	16.287	16.281	(1.000)	470266	40.0000		
* 6	Perylene-d12	264	19.124	19.101	(1.000)	474465	40.0000		
S 7	2-Fluorophenol	112	4.667	4.694	(0.748)	463420	120.000	119.6	
S 8	Phenol-d5	99	5.917	5.911	(0.949)	558148	120.000	106.8	
S 9	Nitrobenzene-d5	82	7.031	7.008	(0.887)	608821	120.000	116.5	
S 10	2-Fluorobiphenyl	172	9.430	9.424	(0.912)	887415	120.000	107.6	
S 11	2,4,6-Tribromophenol	330	11.727	11.704	(1.134)	283127	120.000	127.7	
S 12	Terphenyl-d14	244	14.953	14.946	(0.918)	1214403	120.000	106.6	
13	N-Nitrosodimethylamine	42	2.927	2.955	(0.469)	231939	120.000	114.3	9186
14	Pyridine	79	2.894	2.972	(0.464)	359625	120.000	110.9	9866
15	Benzaldehyde	77	5.697	5.708	(0.913)	233834	120.000	93.00	9510

Data File: /chem/5972hp66.i/DF020117A66.b/HK020117A66.d
Report Date: 17-Jan-2002 14:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
16 Phenol	94	5.934	5.927	(0.951)	491341	120.000	105.3	
17 Bis(2-chloroethyl)ether	93	5.984	5.978	(0.959)	483487	120.000	107.7	
18 2-Chlorophenol	128	6.018	6.029	(0.965)	430693	120.000	111.7	9210
19 1,3-Dichlorobenzene	146	6.187	6.181	(0.992)	461695	120.000	108.7	
20 1,4-Dichlorobenzene	146	6.255	6.265	(1.003)	489905	120.000	112.7	
21 Benzyl alcohol	108	6.508	6.502	(1.043)	294940	120.000	116.5	
22 1,2-Dichlorobenzene	146	6.491	6.502	(1.041)	429415	120.000	105.3	
23 2-Methylphenol	108	6.694	6.687	(1.073)	338594	120.000	106.5	
24 2,2'-oxybis(1-Chloropropane)	45	6.677	6.687	(1.070)	531364	120.000	98.14	9204
25 Acetophenone	105	6.829	6.823	(1.095)	624767	120.000	107.6	8645
26 3-Methylphenol	108	6.896	6.890	(1.106)	382096	120.000	101.4	
27 4-Methylphenol	108	6.896	6.890	(1.106)	382096	120.000	101.4	
28 N-Nitroso-di-N-propylamine	70	6.879	6.873	(1.103)	215880	120.000	104.9	8355
29 Hexachloroethane	117	6.879	6.890	(1.103)	212162	120.000	105.9	9400
30 Nitrobenzene	77	7.048	7.042	(0.889)	525259	120.000	109.6	9507
31 Isophorone	82	7.369	7.363	(0.930)	989603	120.000	111.5	7776
32 2-Nitrophenol	139	7.471	7.464	(0.942)	245755	120.000	116.6	8965
33 2,4-Dimethylphenol	122	7.572	7.566	(0.955)	335888	120.000	108.5	8866
34 Bis(2-chloroethoxy)methane	93	7.690	7.684	(0.970)	604863	120.000	110.4	8821
35 2,4-Dichlorophenol	162	7.808	7.785	(0.985)	351956	120.000	111.2	
36 1,2,4-Trichlorobenzene	180	7.876	7.887	(0.994)	438607	120.000	116.9	
37 Naphthalene	128	7.960	7.954	(1.004)	1285222	120.000	113.5	9528
38 4-Chloroaniline	127	8.095	8.089	(1.021)	570384	120.000	107.7	8430
39 Hexachlorobutadiene	225	8.197	8.208	(1.034)	315221	120.000	111.4	9212
40 Caprolactam	113	8.602	8.512	(1.085)	164875	120.000	130.1	9395 (M)
41 4-Chloro-3-methylphenol	107	8.805	8.782	(1.111)	410234	120.000	110.4	9611
42 2-Methylnaphthalene	142	8.889	8.883	(1.121)	817353	120.000	106.4	
43 1-Methylnaphthalene	142	9.041	9.035	(1.141)	705902	120.000	113.3	
44 Hexachlorocyclopentadiene	237	9.193	9.187	(0.889)	339483	120.000	150.6	9532
45 2,4,6-Trichlorophenol	196	9.345	9.339	(0.904)	318634	120.000	124.5	
46 2,4,5-Trichlorophenol	196	9.413	9.390	(0.910)	304274	120.000	108.5	
47 1,1'-Biphenyl	154	9.548	9.542	(0.923)	964802	120.000	123.6	8014
48 2-Chloronaphchalene	162	9.548	9.542	(0.923)	728684	120.000	111.1	
49 2-Nitroaniline	65	9.784	9.744	(0.946)	715222	240.000	226.2	9518
50 Dimethylphthalate	163	10.072	10.048	(0.974)	954746	120.000	110.8	9560
51 2,6-Dinitrotoluene	165	10.173	10.150	(0.984)	266623	120.000	119.0	9592
52 Acenaphthylene	152	10.122	10.116	(0.979)	1258761	120.000	109.0	8926
53 3-Nitroaniline	138	10.392	10.352	(1.005)	541217	240.000	230.7	9339
54 Acenaphthene	154	10.409	10.386	(1.007)	745814	120.000	110.9	9538
55 2,4-Dinitrophenol	184	10.578	10.521	(1.023)	832178	600.000	682.3	
56 4-Nitrophenol	109	10.747	10.690	(1.039)	425868	240.000	242.1	8577
57 2,4-Dinitrotoluene	165	10.798	10.758	(1.044)	337470	120.000	113.2	7868
58 Dibenzofuran	168	10.680	10.640	(1.033)	1319258	120.000	117.2	8233
59 Diethylphthalate	149	11.237	11.214	(1.087)	1072942	120.000	114.4	9344
60 4-Chlorophenyl-phenylether	204	11.286	11.265	(1.091)	541267	120.000	117.1	0 (M)
61 Fluorene	166	11.271	11.248	(1.090)	967495	120.000	113.3	7914
62 4-Nitroaniline	138	11.507	11.400	(1.113)	554937	240.000	221.9	8467

Data File: /chem/5972hp66.i/DF020117A66.b/HK020117A66.d
Report Date: 17-Jan-2002 14:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
63 4,6-Dinitro-2-methylphenol	198	11.541	11.467	(0.905)	543348	240.000	264.7	0 (M)
64 N-Nitrosodiphenylamine	169	11.541	11.501	(0.905)	553244	120.000	107.3	0 (M)
65 1,2-Diphenylhydrazine	77	11.558	11.535	(1.118)	1327965	120.000	111.3	9629
66 4-Bromophenyl phenylether	248	12.081	12.075	(0.947)	358294	120.000	118.0	9635
67 Hexachlorobenzene	284	12.301	12.295	(0.964)	410538	120.000	110.8	9679
68 Atrazine	200	12.470	12.447	(0.977)	82368	120.000	61.34	7919
69 Pentachlorophenol	266	12.605	12.599	(0.988)	544506	240.000	257.8	9011
70 Phenanthrene	178	12.791	12.768	(1.003)	1535302	120.000	116.5	
71 Anthracene	178	12.858	12.835	(1.008)	1487598	120.000	113.7	
72 Carbazole	167	13.129	13.122	(1.029)	1120504	120.000	109.4	9243
73 Di-n-butylphthalate	149	13.737	13.714	(1.077)	2112809	120.000	129.9	9495
74 Fluoranthene	202	14.446	14.423	(1.132)	1963958	120.000	123.9	
75 Benzidine	184	14.649	14.642	(0.899)	946818	240.000	226.1	8872
76 Pyrene	202	14.716	14.710	(0.904)	1778794	120.000	117.6	
77 Butylbenzylphthalate	149	15.594	15.588	(0.957)	878044	120.000	119.0	9487
78 3,3'-Dichlorobenzidine	252	16.287	16.264	(1.000)	752523	120.000	123.6	7882
79 bis(2-ethylhexyl)Phthalate	149	16.405	16.399	(1.007)	1256812	120.000	119.5	9405
80 Benzo(a)anthracene	228	16.270	16.247	(0.999)	1857099	120.000	123.8	
81 Chrysene	228	16.338	16.314	(1.003)	1637396	120.000	113.9	
82 Di-n-octylphthalate	149	17.486	17.463	(0.914)	2381360	120.000	116.1	
83 Benzo(b)fluoranthene	252	18.246	18.172	(0.954)	2380529	120.000	128.1	
84 Benzo(k)fluoranthene	252	18.297	18.223	(0.957)	1796238	120.000	110.7	(H)
85 Benzo(a)pyrene	252	19.006	18.932	(0.994)	1869869	120.000	120.6	
86 Indeno(1,2,3-cd)pyrene	276	22.654	22.530	(1.185)	1931341	120.000	121.6	0 (M)
87 Dibenzo(a,h)anthracene	278	22.789	22.648	(1.192)	1905029	120.000	119.9	8026
88 Benzo(g,h,i)perylene	276	23.414	23.307	(1.224)	2057502	120.000	121.2	8814

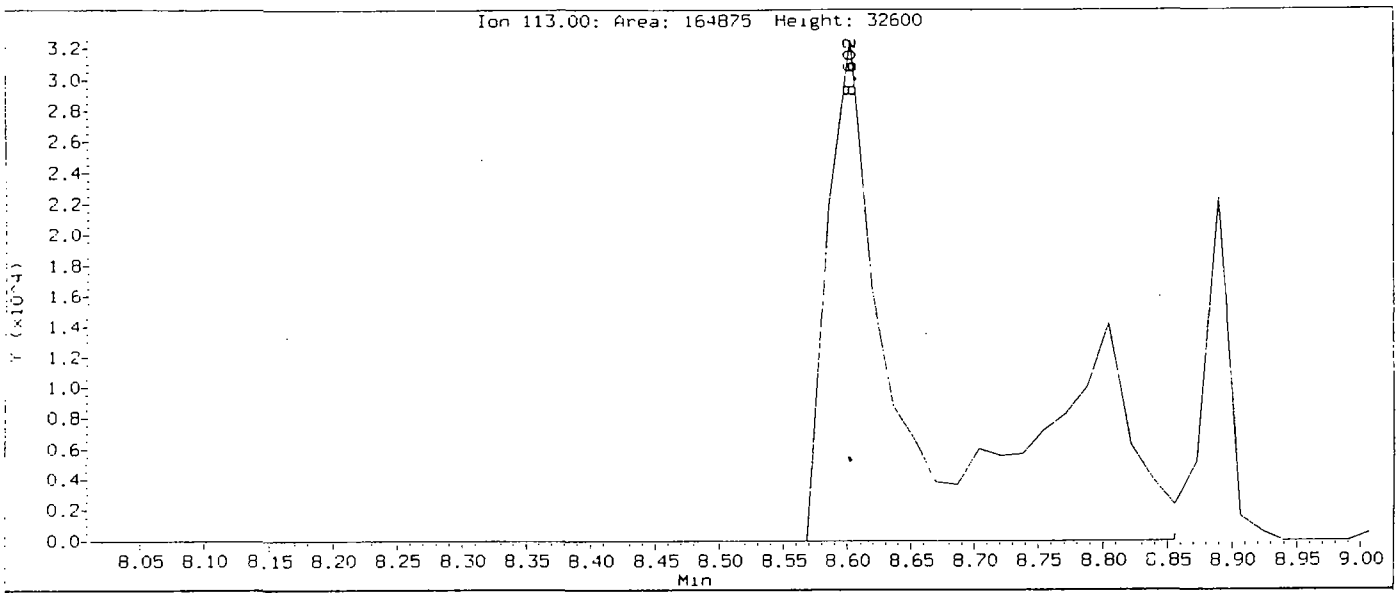
1/11/02

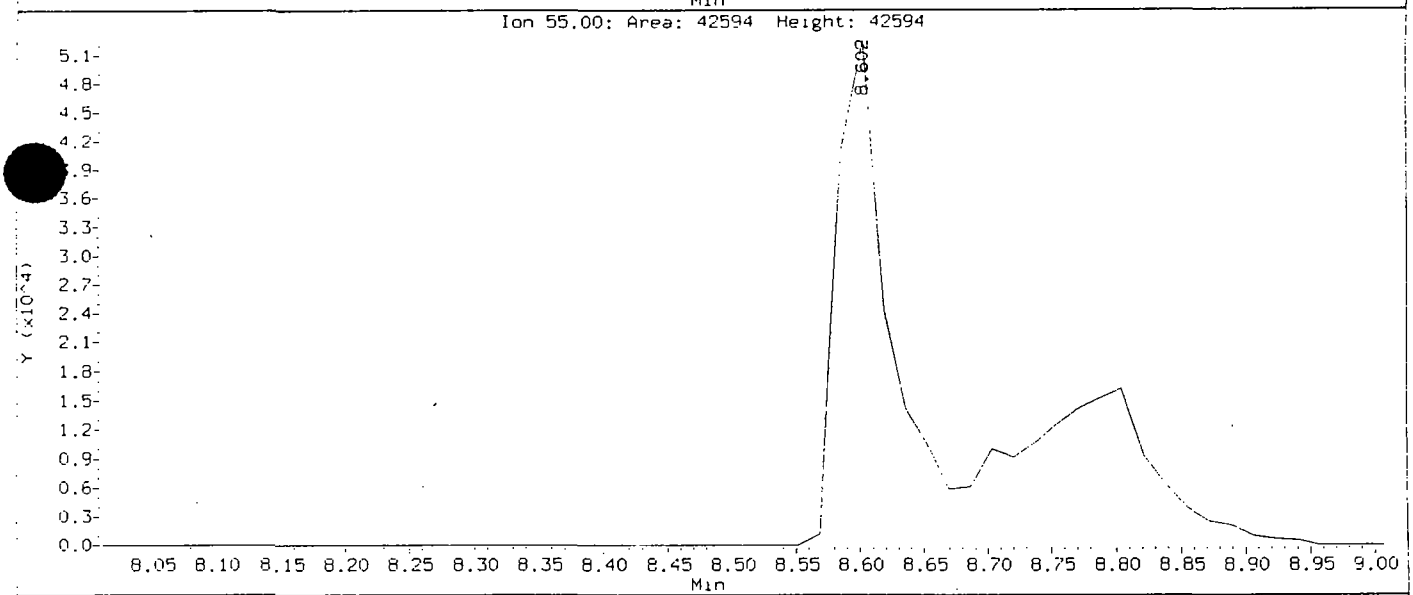
QC Flag Legend

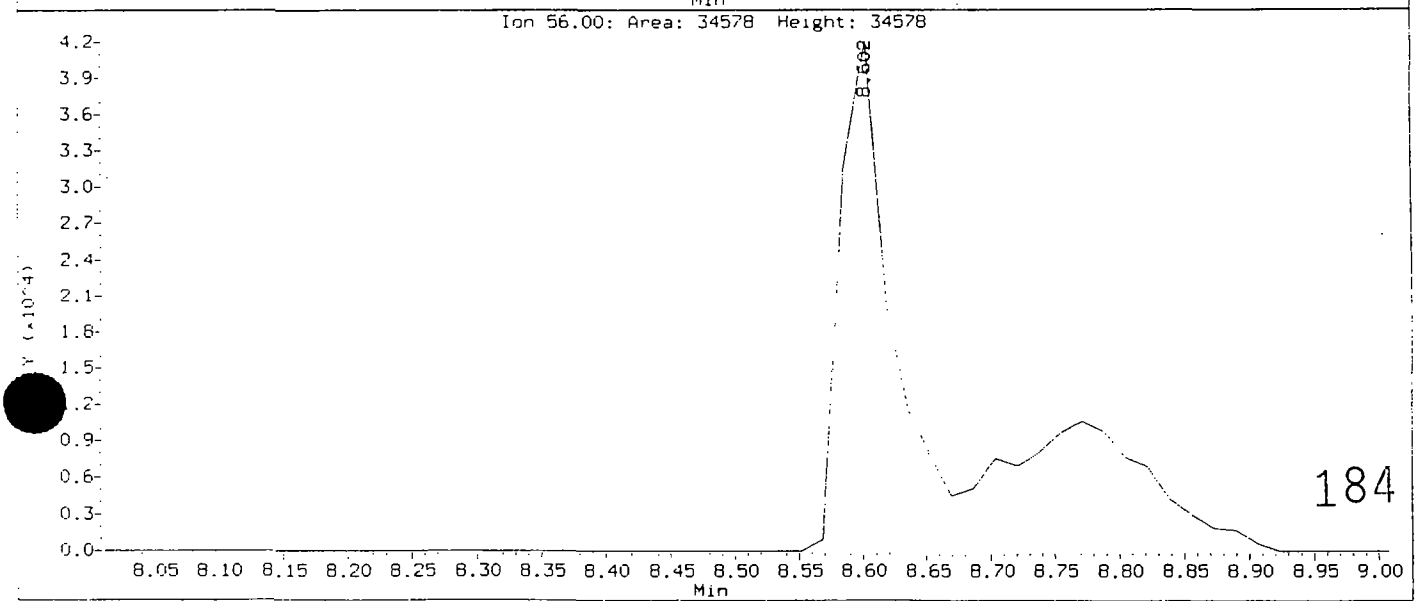
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /chem/5972hp66.i/DF020117A66.b/HK020117A66.d
Injection Date: 17-JAN-2002 12:23
Instrument: 5972hp66.i
[redacted]nt Sample ID: SSTD120

[redacted]ound: Caprolactam
CAS Number: 105-60-2







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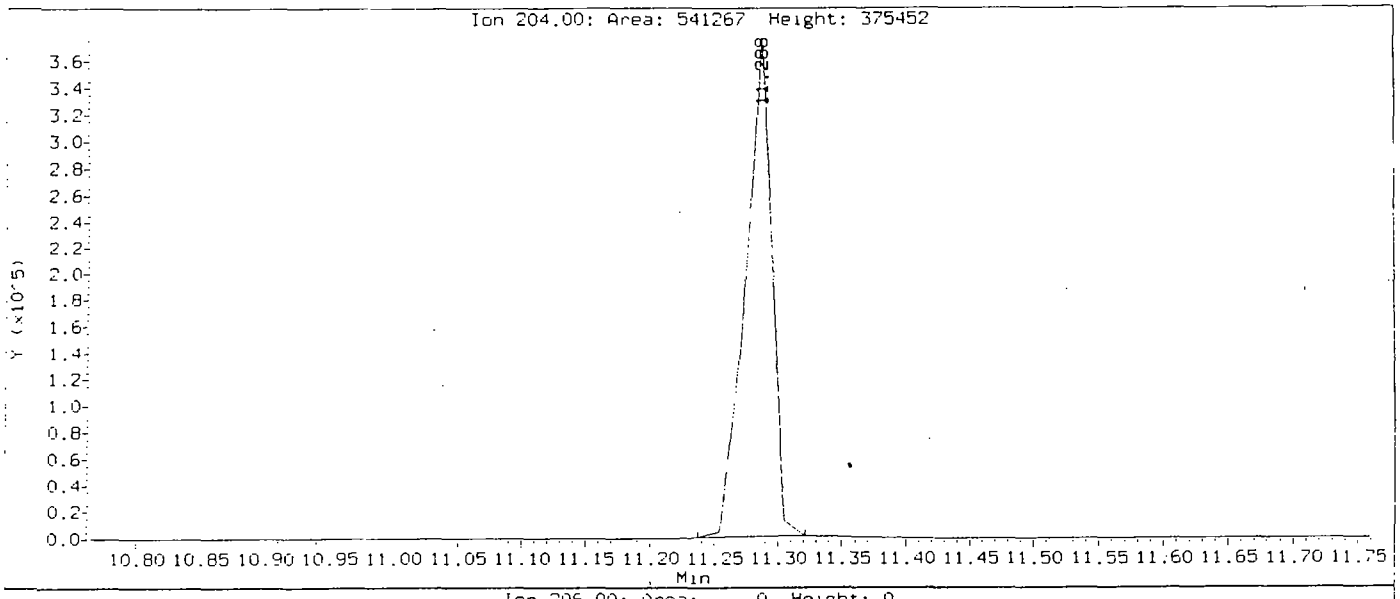
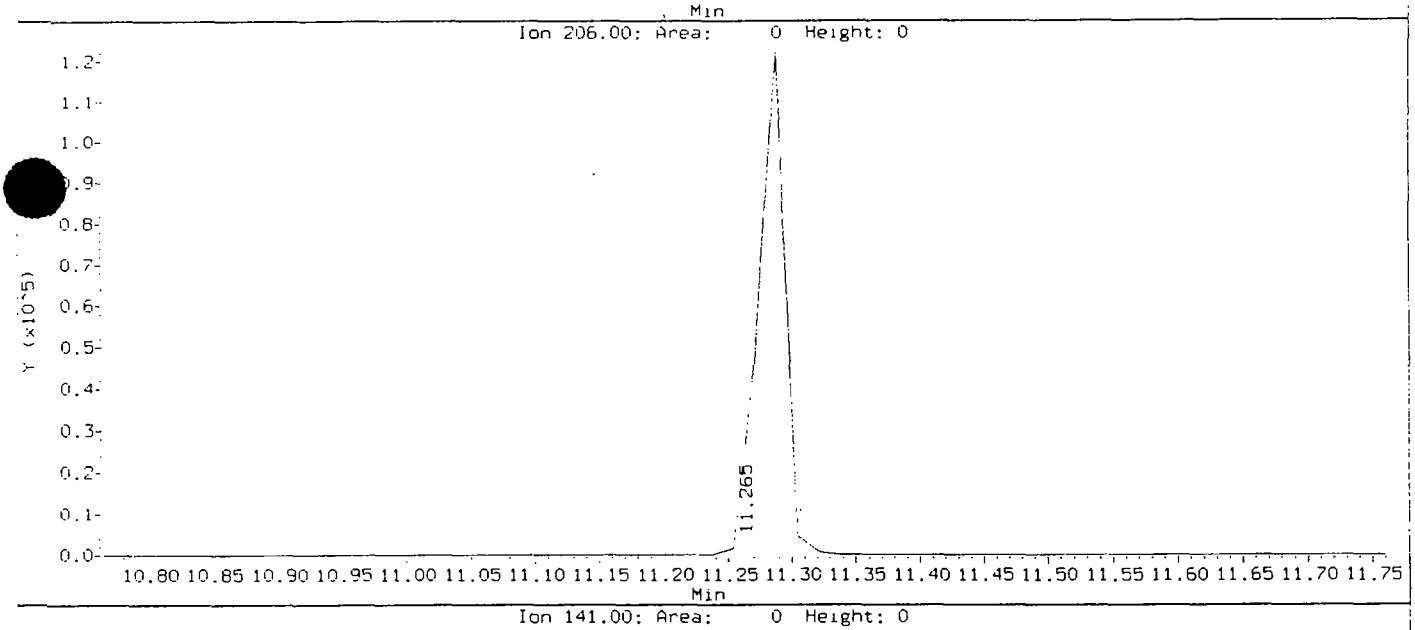
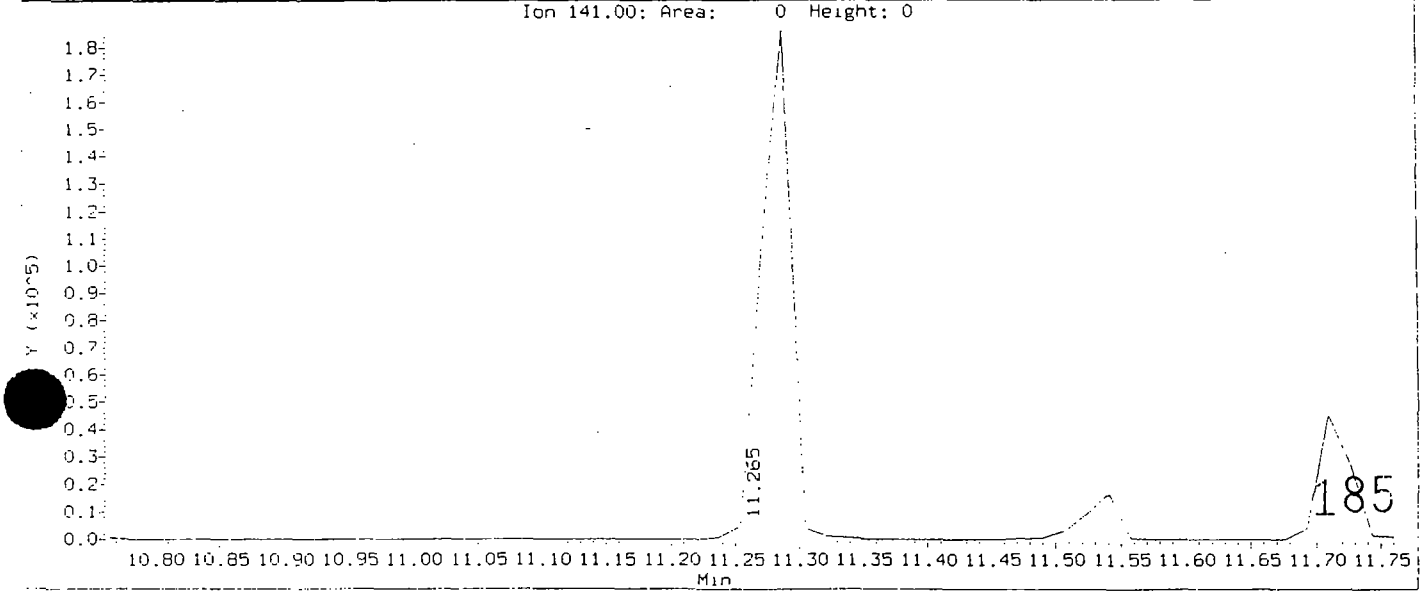
Injection Date: 17-JAN-2002 12:23
Instrument: 5972hp66.i
[redacted]nt Sample ID: SSTD120

[redacted]ound: 4-Chlorophenyl-phenylether
CAS Number: 7005-72-3







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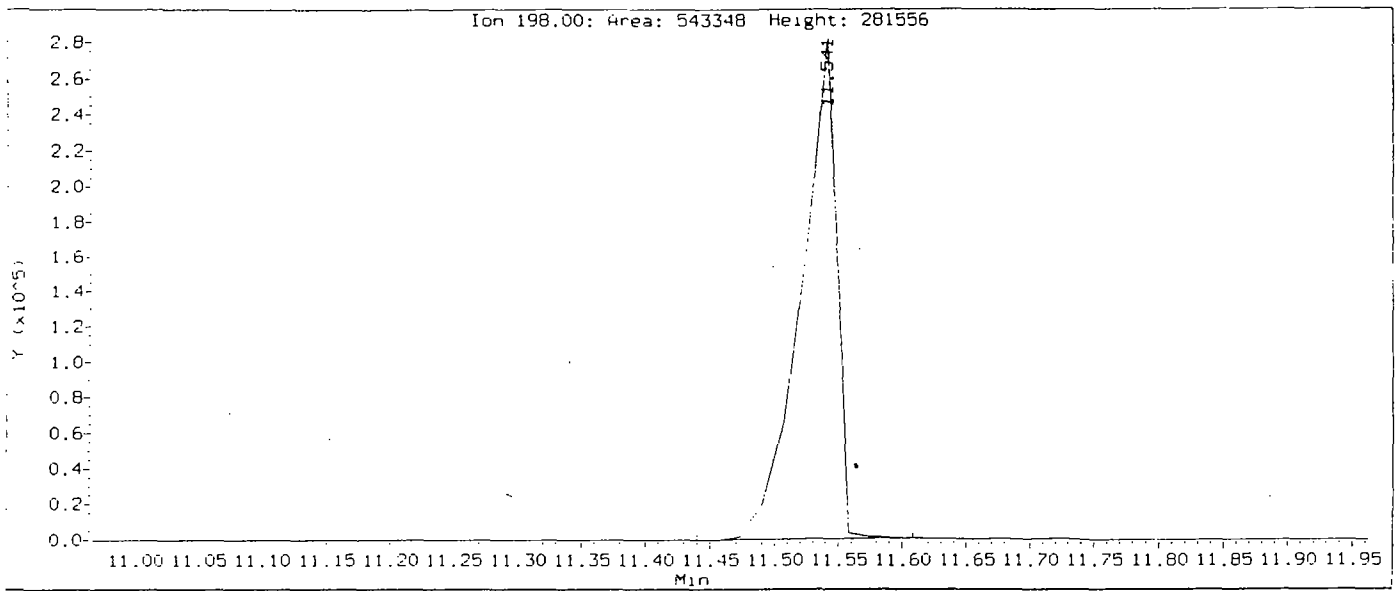
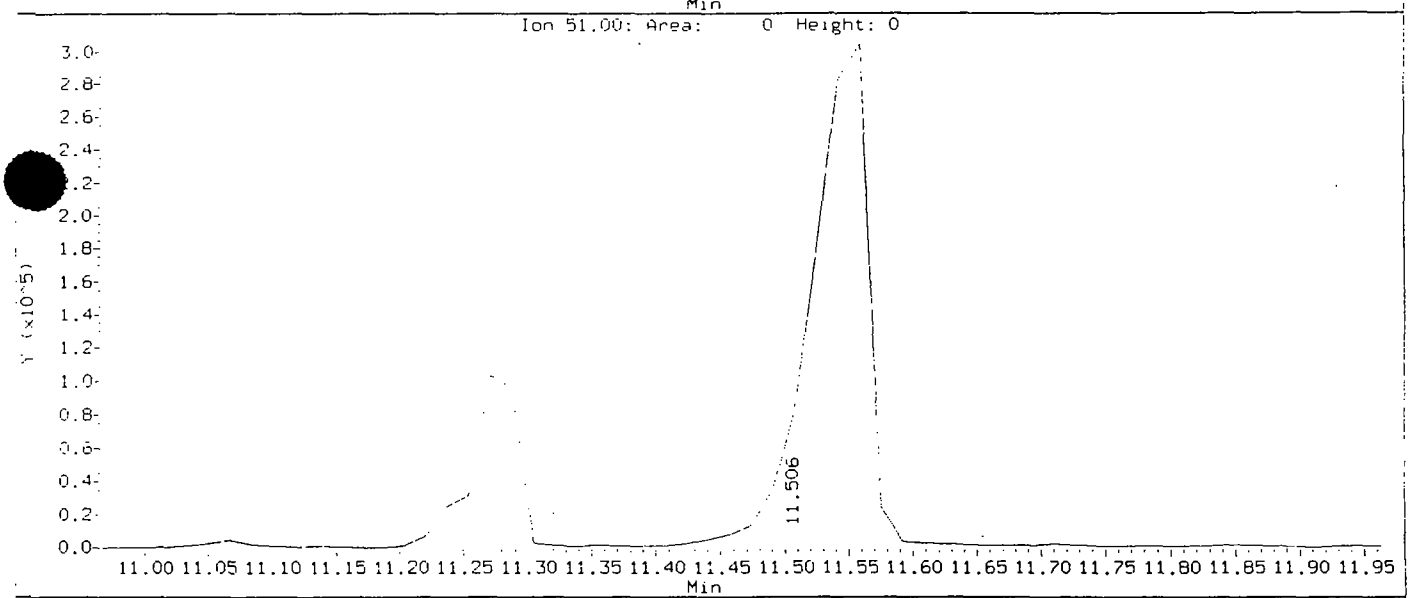
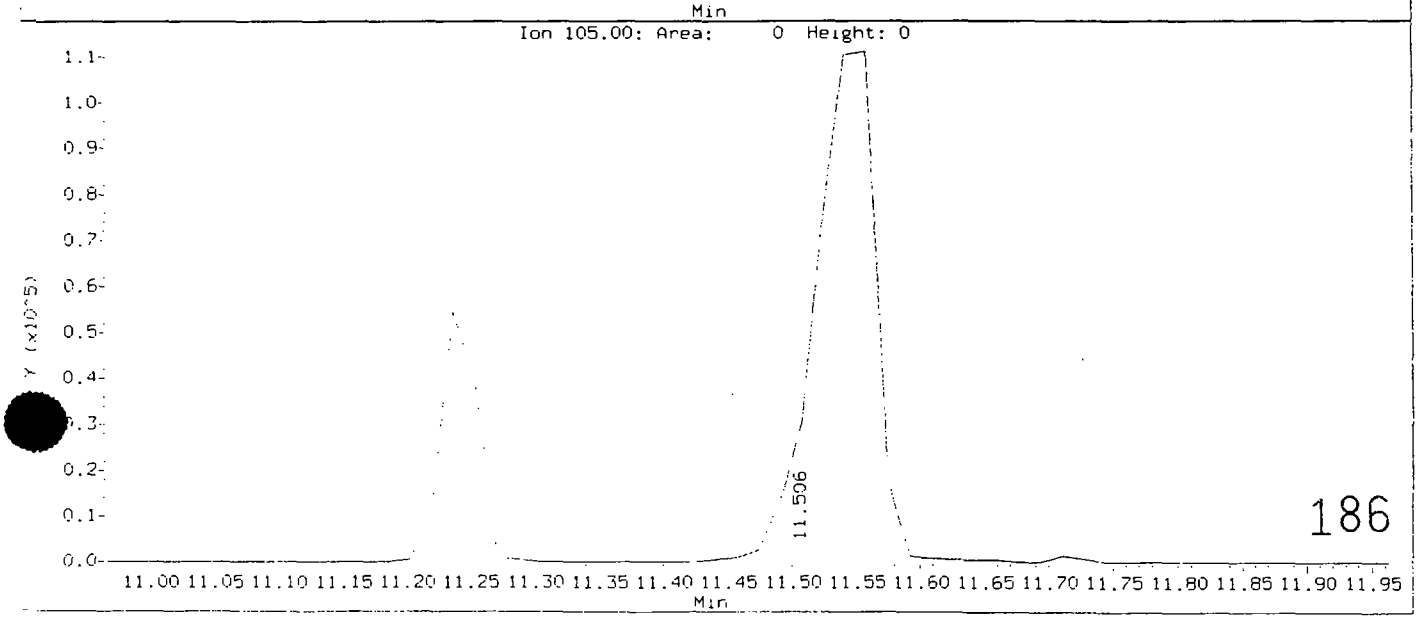
Injection Date: 17-JAN-2002 12:23
Instrument: 5972hp66.i
[redacted]nt Sample ID: SSTD120

[redacted]ound: 4.6-Dinitro-2-methylphenol
CAS Number: 534-52-1







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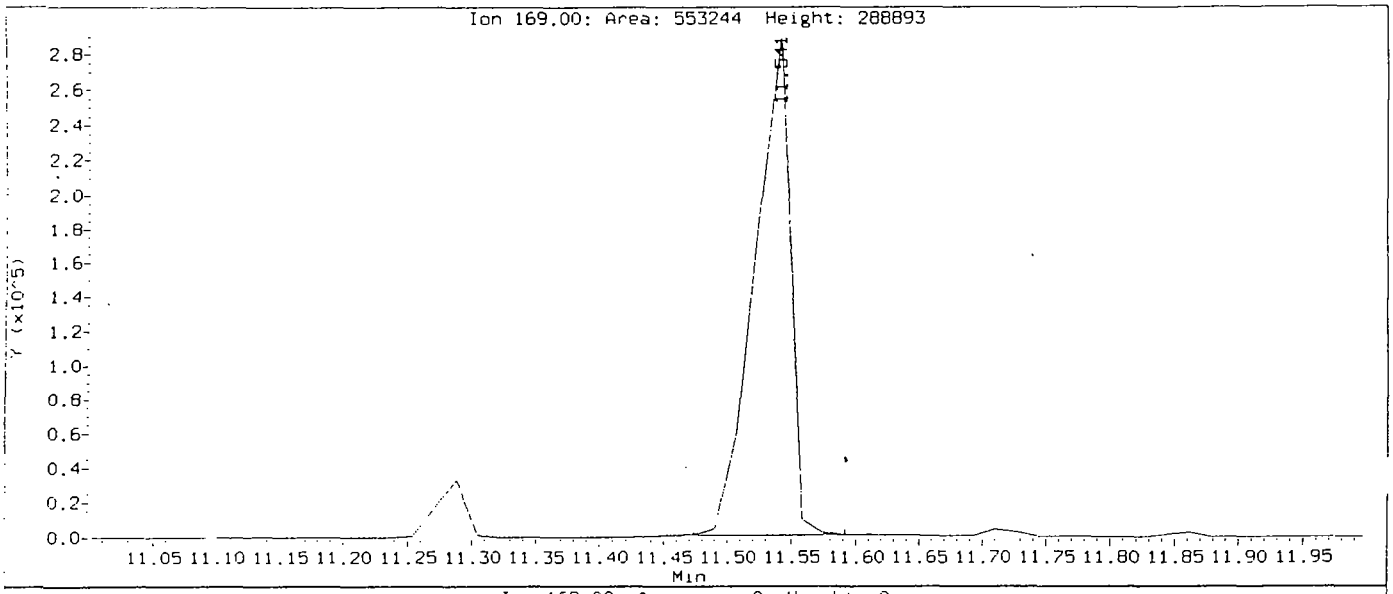
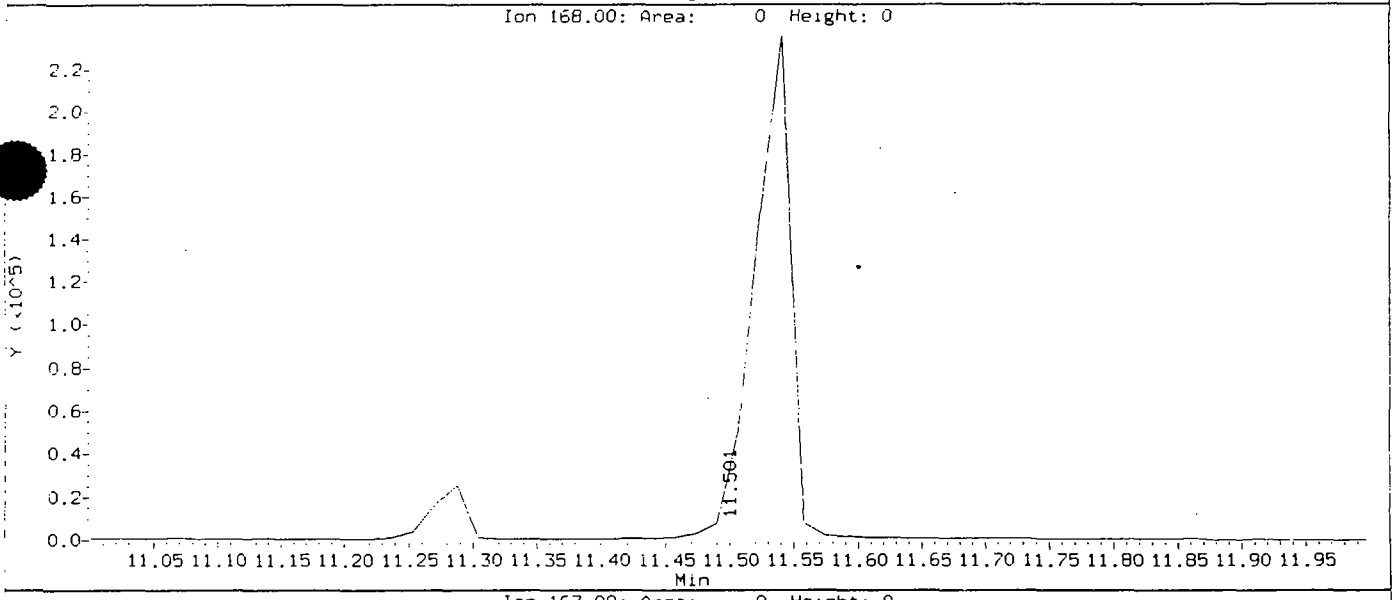
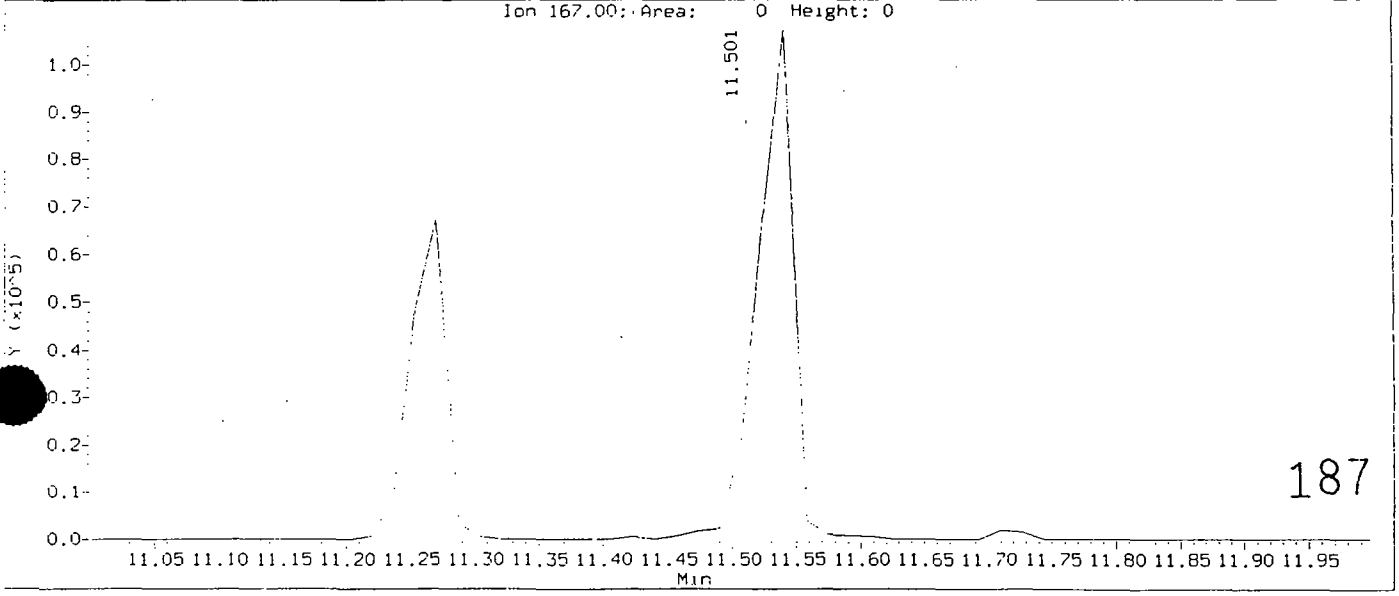
Injection Date: 17-JAN-2002 12:23
Instrument: 5972hp66.i
[redacted]ent Sample ID: SSTD120

[redacted]pound: N-Nitrosodiphenylamine
CAS Number: 86-30-6







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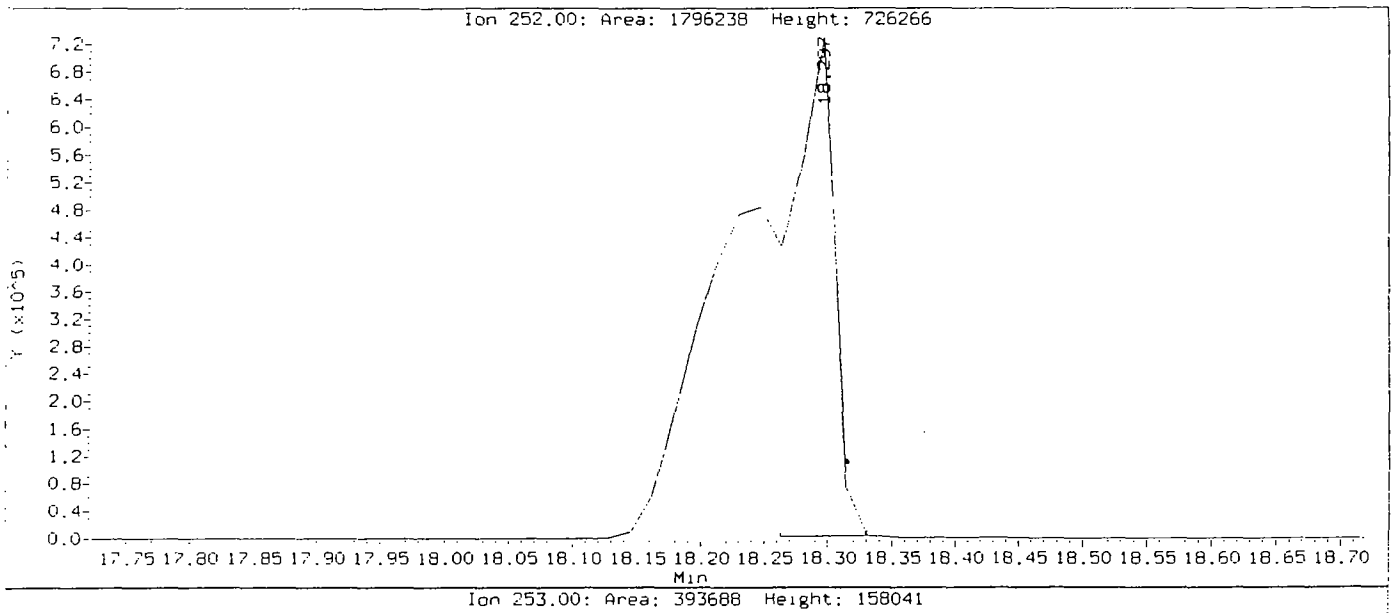
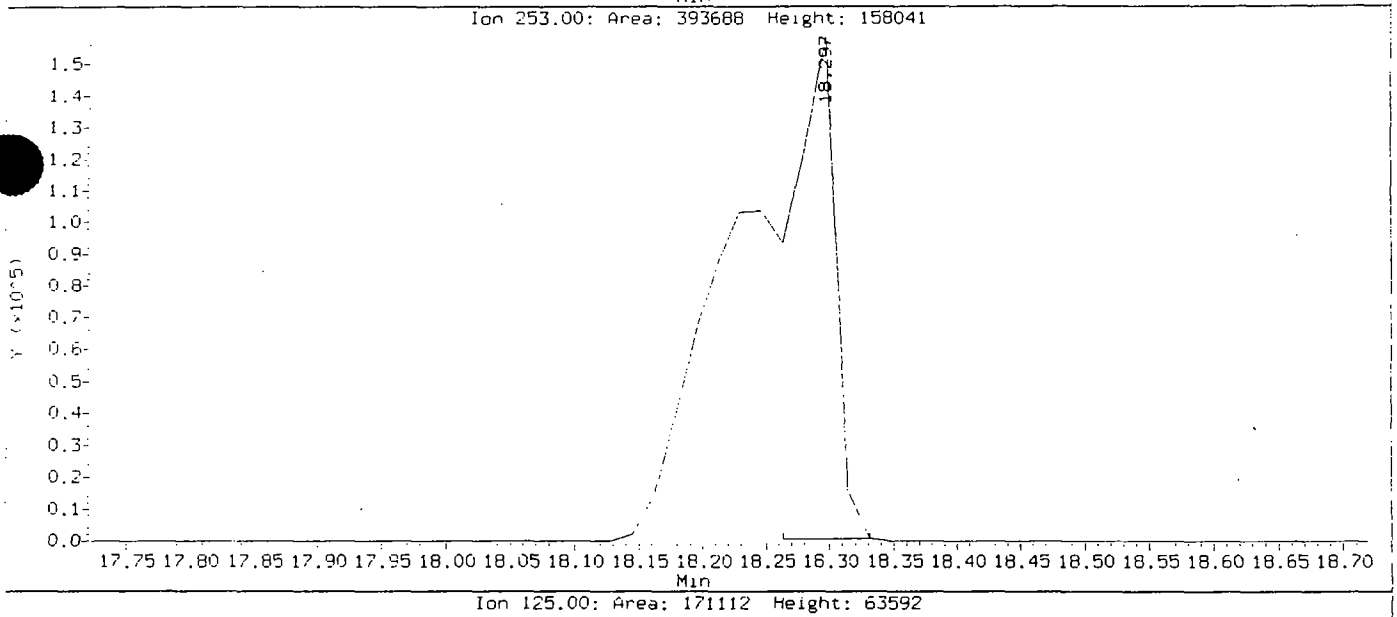
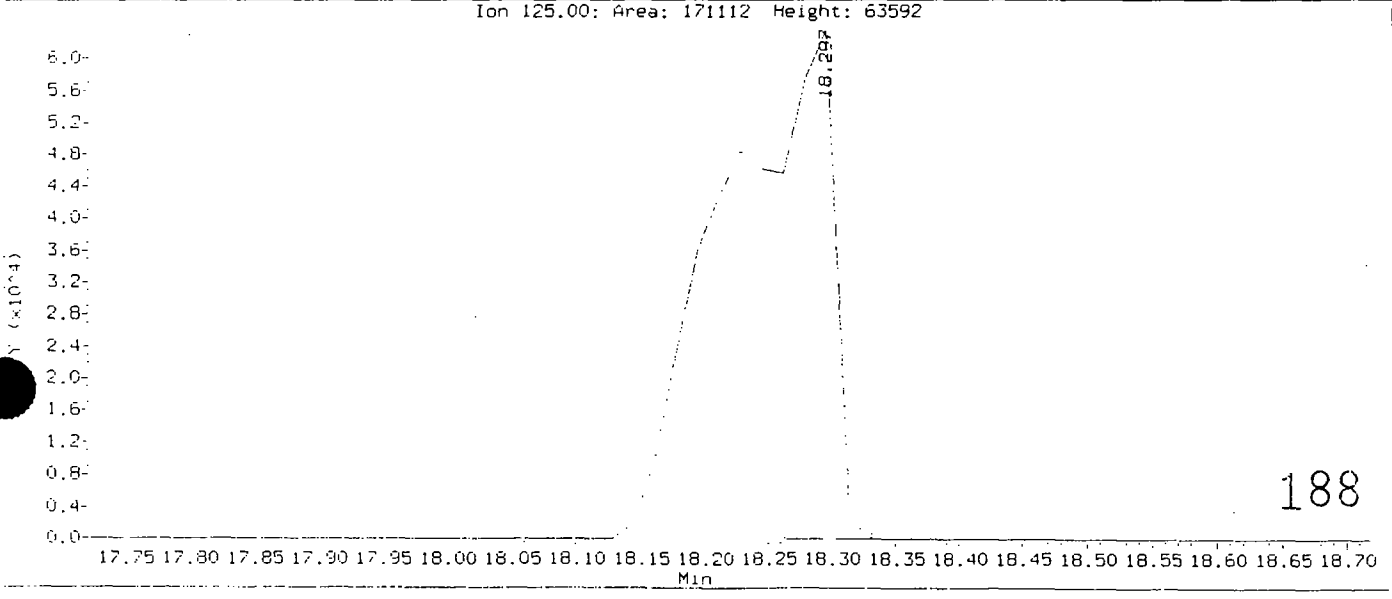
Injection Date: 17-JAN-2002 12:23
Instrument: 5972hp66.i
[redacted]ent Sample ID: SSTD120

[redacted]pound: Benzo(k)fluoranthene
CAS Number: 207-08-9







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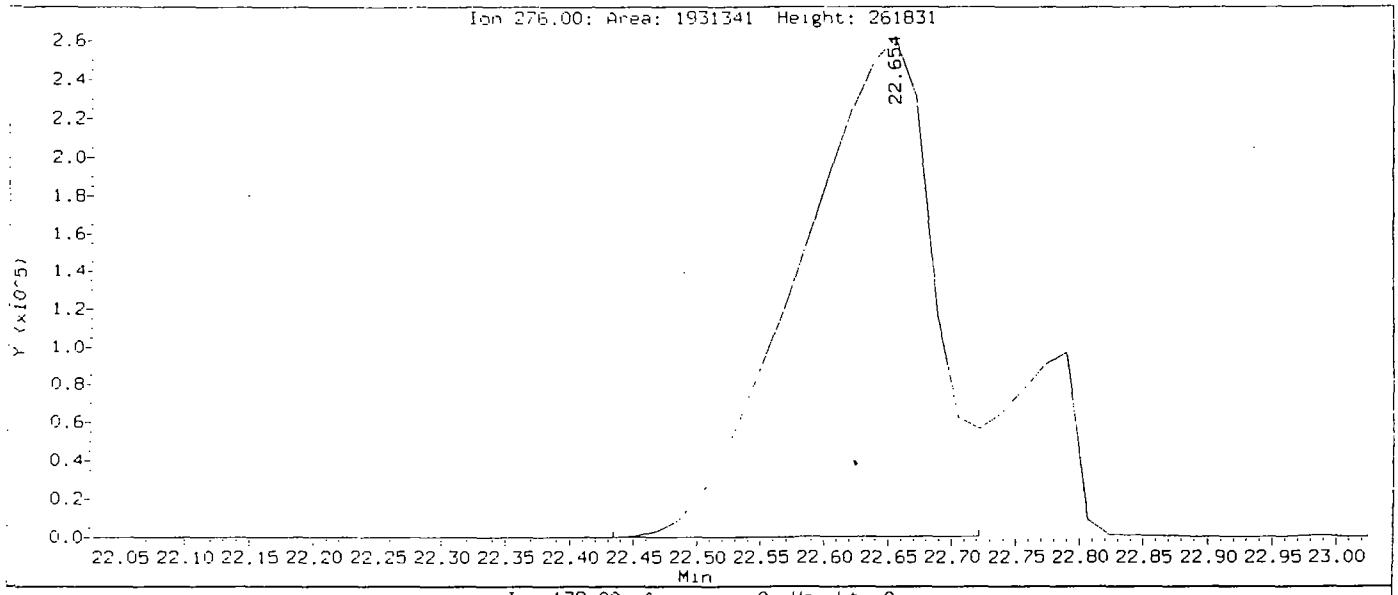
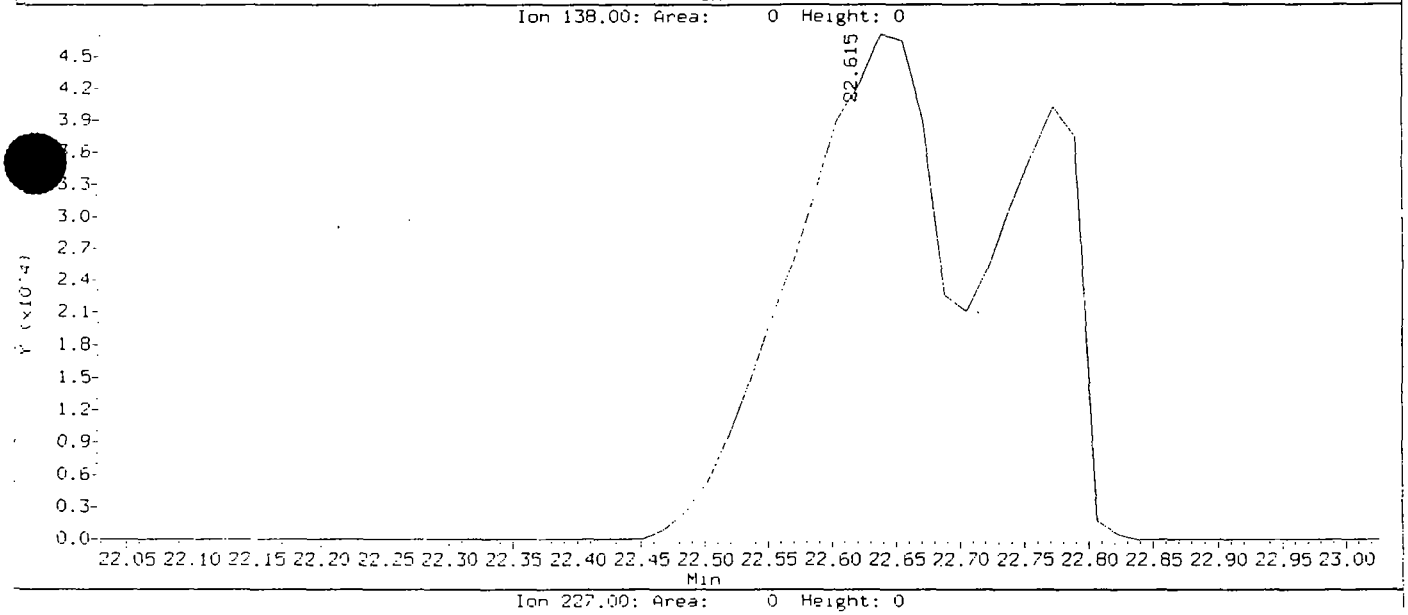
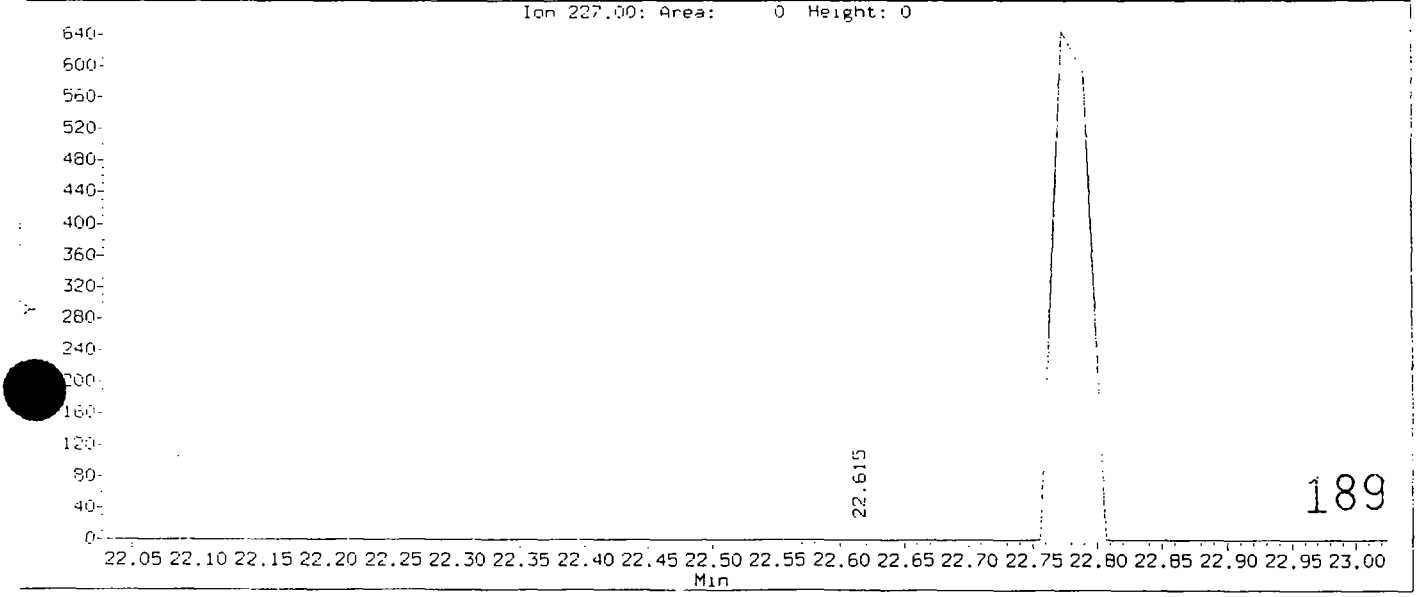
Injection Date: 17-JAN-2002 12:23
Instrument: 5972hp66.i
[redacted]t Sample ID: SSTD120

[redacted]ound: Indeno(1,2,3-cd)pyrene
CAS Number: 193-39-5



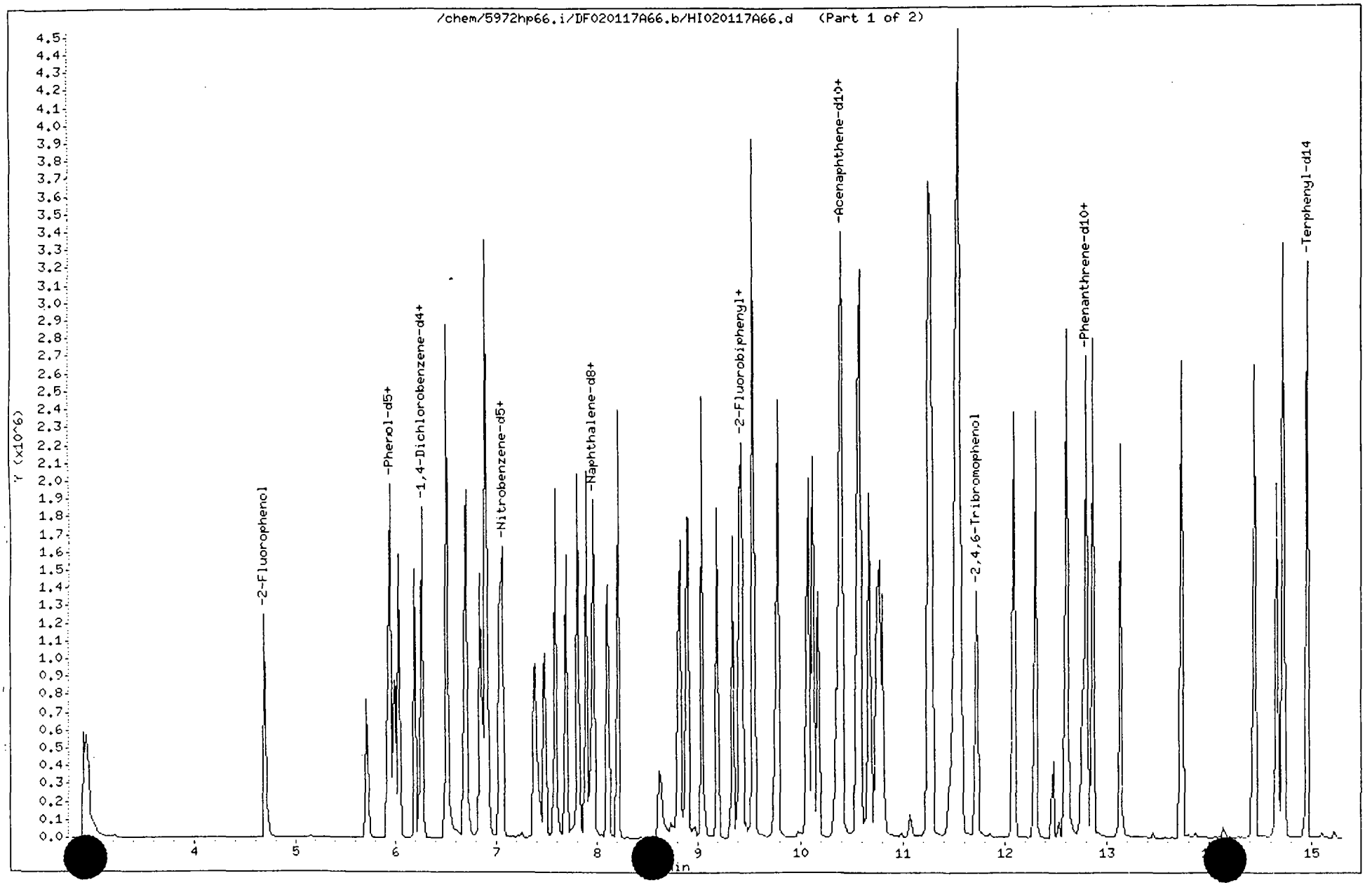




Data File: /chem/5972hp66.i/DF020117A66.b/HI020117A66.d
Date : 17-JAN-2002 11:09
Client ID: SSTD160
Sample Info: SSTD160:2391
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i

Operator: 2391
Column diameter: 0.25



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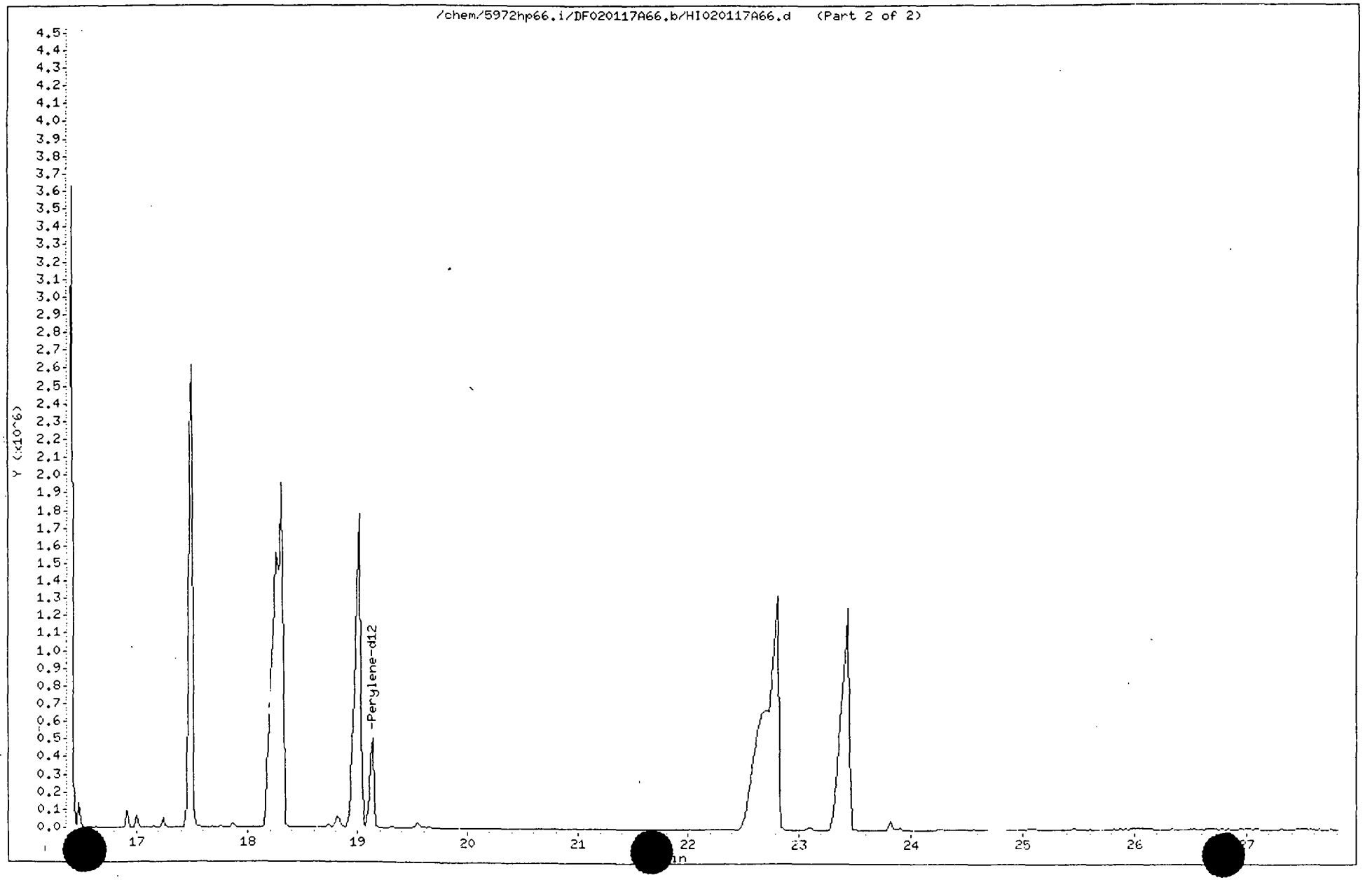
Date : 17-JAN-2002 11:09
Client ID: SSTD160
Sample Info: SSTD160:2391
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2391
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020117A66.b/HI020117A66.d
Report Date: 17-Jan-2002 14:35

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020117A66.b/HI020117A66.d
Lab Smp Id: SSTD160 Client Smp ID: SSTD160
Inj Date : 17-JAN-2002 11:09
Operator : 2391 Inst ID: 5972hp66.i
Smp Info : SSTD160:2391
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020117A66.b/8270Cv6.m
Meth Date : 17-Jan-2002 14:33 respass Quant Type: ISTD
Cal Date : 17-JAN-2002 11:09 Cal File: HI020117A66.d
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
*	1 1,4-Dichlorobenzene-d4	152	6.248	6.231	(1.000)	102303	40.0000		
*	2 Naphthalene-d8	136	7.937	7.920	(1.000)	358842	40.0000		
*	3 Acenaphthene-d10	164	10.352	10.336	(1.000)	244822	40.0000		
*	4 Phenanthrene-d10	188	12.767	12.751	(1.000)	436319	40.0000		
*	5 Chrysene-d12	240	16.297	16.281	(1.000)	471472	40.0000		
*	6 Perylene-d12	264	19.135	19.101	(1.000)	445165	40.0000		
S	7 2-Fluorophenol	112	4.677	4.694	(0.749)	560422	160.000	161.0	(A)
S	8 Phenol-d5	99	5.927	5.911	(0.949)	671142	160.000	148.2	
S	9 Nitrobenzene-d5	82	7.025	7.008	(0.885)	724842	160.000	149.6	
S	10 2-Fluorobiphenyl	172	9.440	9.424	(0.912)	1171824	160.000	159.1	
S	11 2,4,6-Tribromophenol	330	11.737	11.704	(1.134)	340506	160.000	162.1	(AM)
S	12 Terphenyl-d14	244	14.963	14.946	(0.918)	1880365	160.000	167.6	(A)
	13 N-Nitrosodimethylamine	42	2.938	2.955	(0.470)	285382	160.000	153.8	9151
	14 Pyridine	79	2.904	2.972	(0.465)	438415	160.000	163.3	9772 (A)
	15 Benzaldehyde	77	5.707	5.708	(0.913)	247731	160.000	135.4	9473

Data File: /chem/5972hp66.i/DF020117A66.b/HI020117A66.d
Report Date: 17-Jan-2002 14:35

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
16	Phenol	94	5.944	5.927	(0.951)	577942	160.000	145.5	
17	Bis(2-chloroethyl)ether	93	5.995	5.978	(0.959)	590068	160.000	149.4	
18	2-Chlorophenol	128	6.028	6.029	(0.965)	498883	160.000	149.2	8917
19	1,3-Dichlorobenzene	146	6.197	6.181	(0.992)	569474	160.000	151.3	
20	1,4-Dichlorobenzene	146	6.265	6.265	(1.003)	567462	160.000	151.6	
21	Benzyl alcohol	108	6.518	6.502	(1.043)	367584	160.000	157.3	
22	1,2-Dichlorobenzene	146	6.501	6.502	(1.041)	524410	160.000	151.1	
23	2-Methylphenol	108	6.704	6.687	(1.073)	422657	160.000	153.5	
24	2,2'-oxybis(1-Chloropropane)	45	6.687	6.687	(1.070)	666218	160.000	147.5	8893
25	Acetophenone	105	6.839	6.823	(1.095)	777985	160.000	152.4	8780
26	3-Methylphenol	108	6.907	6.890	(1.105)	482968	160.000	155.8	
27	4-Methylphenol	108	6.907	6.890	(1.105)	482968	160.000	155.8	
28	N-Nitroso-di-N-propylamine	70	6.890	6.873	(1.103)	247678	160.000	139.4	8267
29	Hexachloroethane	117	6.890	6.890	(1.103)	250789	160.000	153.1	9306
30	Nitrobenzene	77	7.059	7.042	(0.889)	680700	160.000	154.2	9352
31	Isophorone	82	7.379	7.363	(0.930)	1296343	160.000	158.2	9078
32	2-Nitrophenol	139	7.481	7.464	(0.943)	304535	160.000	157.0	8785
33	2,4-Dimethylphenol	122	7.582	7.566	(0.955)	415225	160.000	150.3	8900
34	Bis(2-chloroethoxy)methane	93	7.684	7.684	(0.968)	703633	160.000	145.1	9517
35	2,4-Dichlorophenol	162	7.802	7.785	(0.983)	439019	160.000	154.6	
36	1,2,4-Trichlorobenzene	180	7.886	7.887	(0.994)	539097	160.000	153.0	
37	Naphthalene	128	7.954	7.954	(1.002)	1456038	160.000	145.9	9510
38	4-Chloroaniline	127	8.106	8.089	(1.021)	726019	160.000	153.1	7908
39	Hexachlorobutadiene	225	8.207	8.208	(1.034)	420325	160.000	160.2	8910(A)
40	Caprolactam	113	8.612	8.512	(1.085)	181572	160.000	153.2	9624(M)
41	4-Chloro-3-methylphenol	107	8.815	8.782	(1.111)	531513	160.000	152.2	9543
42	2-Methylnaphthalene	142	8.900	8.883	(1.121)	1026388	160.000	154.2	
43	1-Methylnaphthalene	142	9.035	9.035	(1.138)	820430	160.000	145.4	
44	Hexachlorocyclopentadiene	237	9.187	9.187	(0.887)	394481	160.000	158.3	8806
45	2,4,6-Trichlorophenol	196	9.339	9.339	(0.902)	367778	160.000	153.0	
46	2,4,5-Trichlorophenol	196	9.406	9.390	(0.909)	365028	160.000	153.8	
47	1,1'-Biphenyl	154	9.541	9.542	(0.922)	922970	160.000	137.7	8667
48	2-Chloronaphthalene	162	9.558	9.542	(0.923)	926533	160.000	159.1	
49	2-Nitroaniline	65	9.795	9.744	(0.946)	902599	320.000	308.4	9546
50	Dimethylphthalate	163	10.082	10.048	(0.974)	1237057	160.000	153.8	8883
51	2,6-Dinitrotoluene	165	10.183	10.150	(0.984)	336600	160.000	156.6	9146
52	Acenaphthylene	152	10.132	10.116	(0.979)	1637454	160.000	157.6	8428
53	3-Nitroaniline	138	10.420	10.352	(1.007)	640735	320.000	301.1	9422
54	Acenaphthene	154	10.403	10.386	(1.005)	867618	160.000	147.1	8656
55	2,4-Dinitrophenol	184	10.588	10.521	(1.023)	974111	800.000	796.1	
56	4-Nitrophenol	109	10.774	10.690	(1.041)	566737	320.000	327.9	8266(A)
57	2,4-Dinitrotoluene	165	10.808	10.758	(1.044)	414390	160.000	148.5	8539
58	Dibenzofuran	168	10.673	10.640	(1.031)	1576674	160.000	157.0	9054
59	Diethylphthalate	149	11.264	11.214	(1.088)	1357766	160.000	157.7	8932
60	4-Chlorophenyl-phenylether	204	11.298	11.265	(1.091)	677332	160.000	154.6	0(M)
61	Fluorene	166	11.264	11.248	(1.088)	1146728	160.000	152.1	8297
62	4-Nitroaniline	138	11.534	11.400	(1.114)	693787	320.000	313.2	7717

1/17/02

Data File: /chem/5972hp66.i/DF020117A66.b/HI020117A66.d
Report Date: 17-Jan-2002 14:35

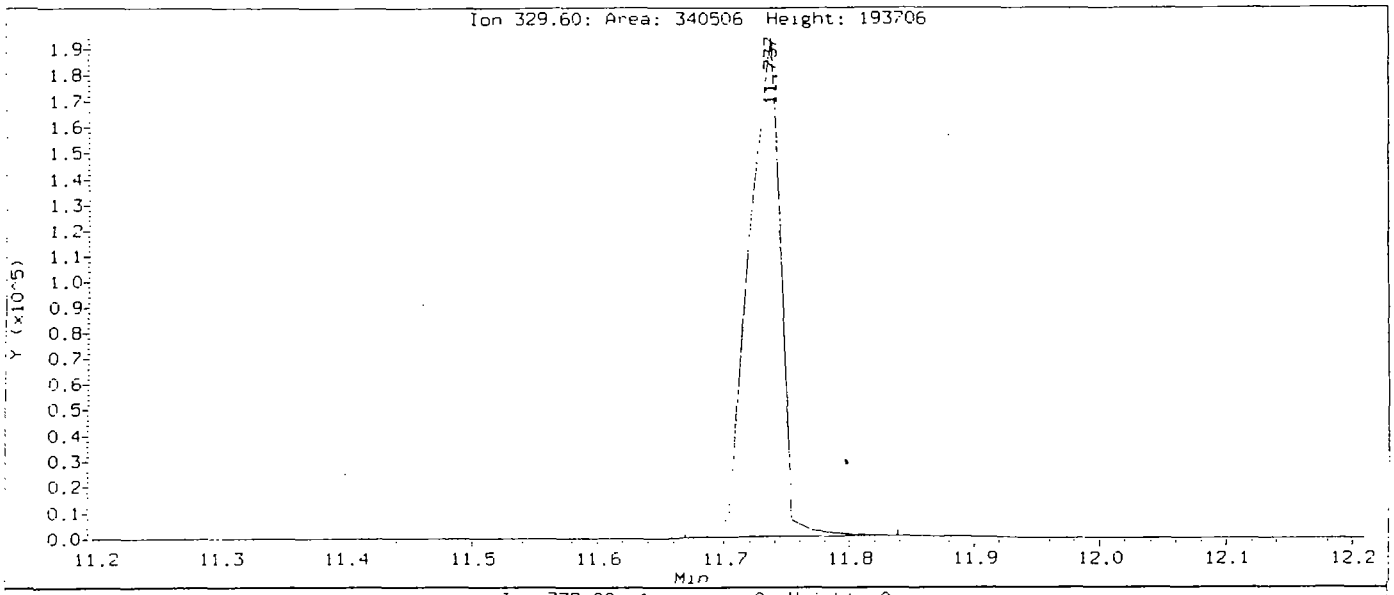
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
63	4,6-Dinitro-2-methylphenol	198	11.551	11.467	(0.905)	578770	320.000	298.9	7154
64	N-Nitrosodiphenylamine	169	11.551	11.501	(0.905)	648263	160.000	151.8	0(M)
65	1,2-Diphenylhydrazine	77	11.5 9	11.535	(1.117)	1633161	160.000	142.7	9627
66	4-Bromophenyl-phenylether	248	12.092	12.075	(0.947)	419539	160.000	153.1	9388
67	Hexachlorobenzene	284	12.311	12.295	(0.964)	554587	160.000	161.7	9197(A)
68	Atrazine	200	12.480	12.447	(0.978)	57348	160.000	113.0	8738
69	Pentachlorophenol	2	12.615	12.599	(0.988)	666198	320.000	327.0	8831(A)
70	Phenanthrene	178	12.801	12.768	(1.003)	1767666	160.000	156.7	
71	Anthracene	178	12.869	12.835	(1.008)	1698477	160.000	151.9	
72	Carbazole	167	13.139	13.122	(1.029)	1318424	160.000	153.7	9246
73	Di-n-butylphthalate	149	13.730	13.714	(1.075)	2020204	160.000	135.4	9318
74	Fluoranthene	202	14.439	14.423	(1.131)	2172460	160.000	148.3	
75	Benzidine	184	14.659	14.642	(0.899)	1071435	320.000	306.1	8736
76	Pyrene	202	14.726	14.710	(0.904)	2075547	160.000	150.2	
77	Butylbenzylphthalate	149	15.605	15.588	(0.958)	1014080	160.000	143.4	9576
78	3,3'-Dichlorobenzidine	252	16.280	16.264	(0.999)	861027	160.000	151.4	8493
79	bis(2-ethylhexyl)Phthalate	149	16.415	16.399	(1.007)	1479266	160.000	145.6	9475
80	Benzo(a)anthracene	228	16.263	16.247	(0.998)	2301152	160.000	154.1	
81	Chrysene	228	16.348	16.314	(1.003)	2232355	160.000	147.8	
82	Di-n-octylphthalate	149	17.496	17.463	(0.914)	2968928	160.000	156.8	
83	Benzo(b)fluoranthene	252	18.256	18.172	(0.954)	2890215	160.000	164.2	(A)
84	Benzo(k)fluoranthene	252	18.307	18.223	(0.957)	2448563	160.000	161.2	(A)
85	Benzo(a)pyrene	252	19.016	18.932	(0.994)	2274084	160.000	157.3	
86	Indeno(1,2,3-cd)pyrene	276	22.665	22.530	(1.184)	2580906	160.000	167.0	0(AM)
87	Dibenzo(a,h)anthracene	278	22.817	22.648	(1.192)	2452048	160.000	160.8	9345(A)
88	Benzo(g,h,i)perylene	276	23.441	23.307	(1.225)	2583070	160.000	159.1	8745

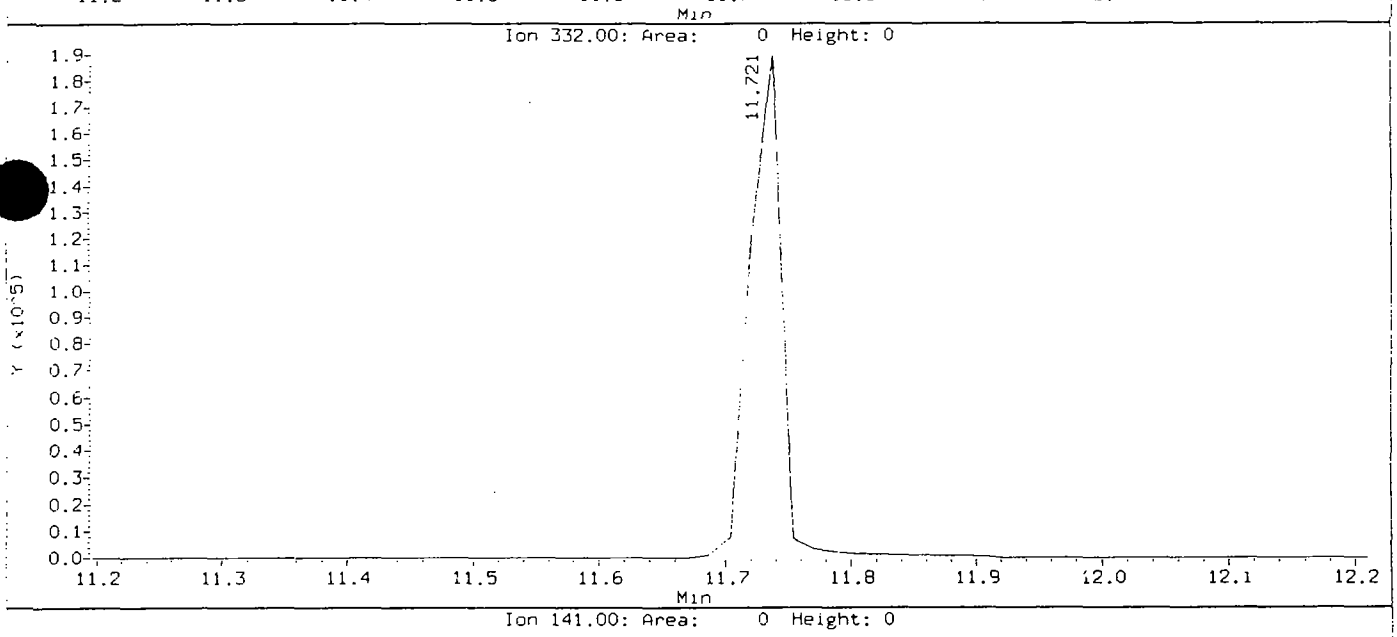
QC Flag Legend

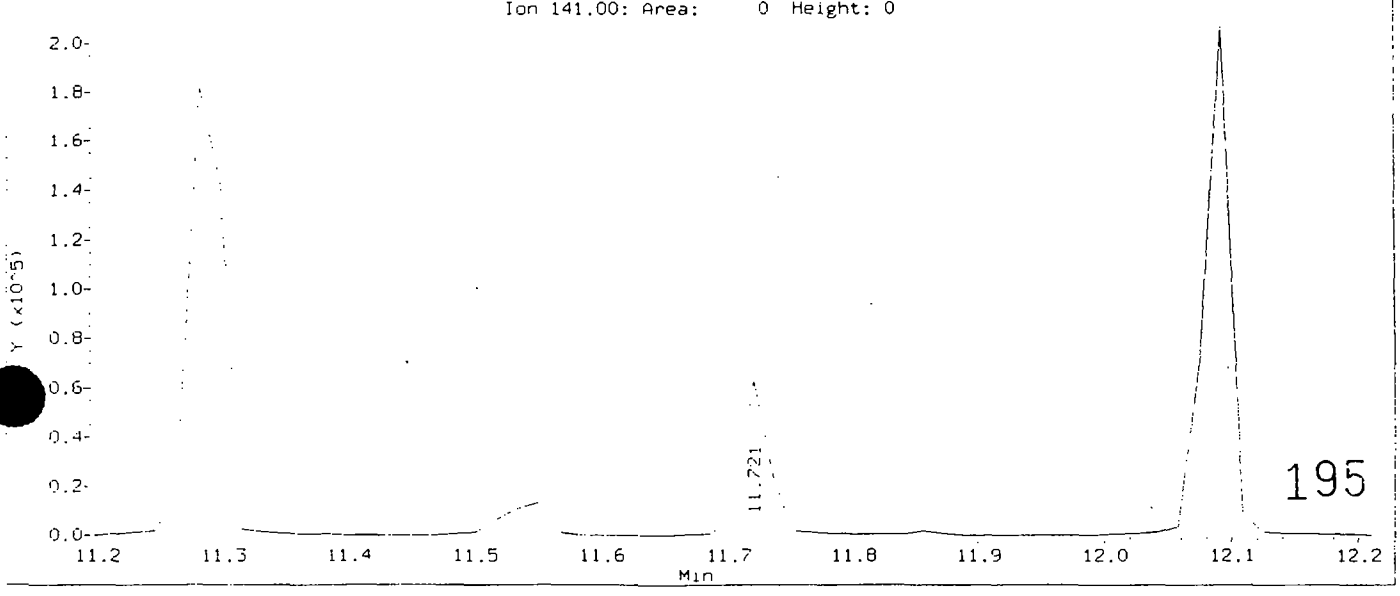
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/5972hp66.i/DF020117A66.b/HI020117A66.d
Injection Date: 17-JAN-2002 11:09
Instrument: 5972hp66.i
[redacted]ent Sample ID: SSTD160

[redacted]pound: 2,4,6-Tribromophenol
CAS Number: 118-79-6







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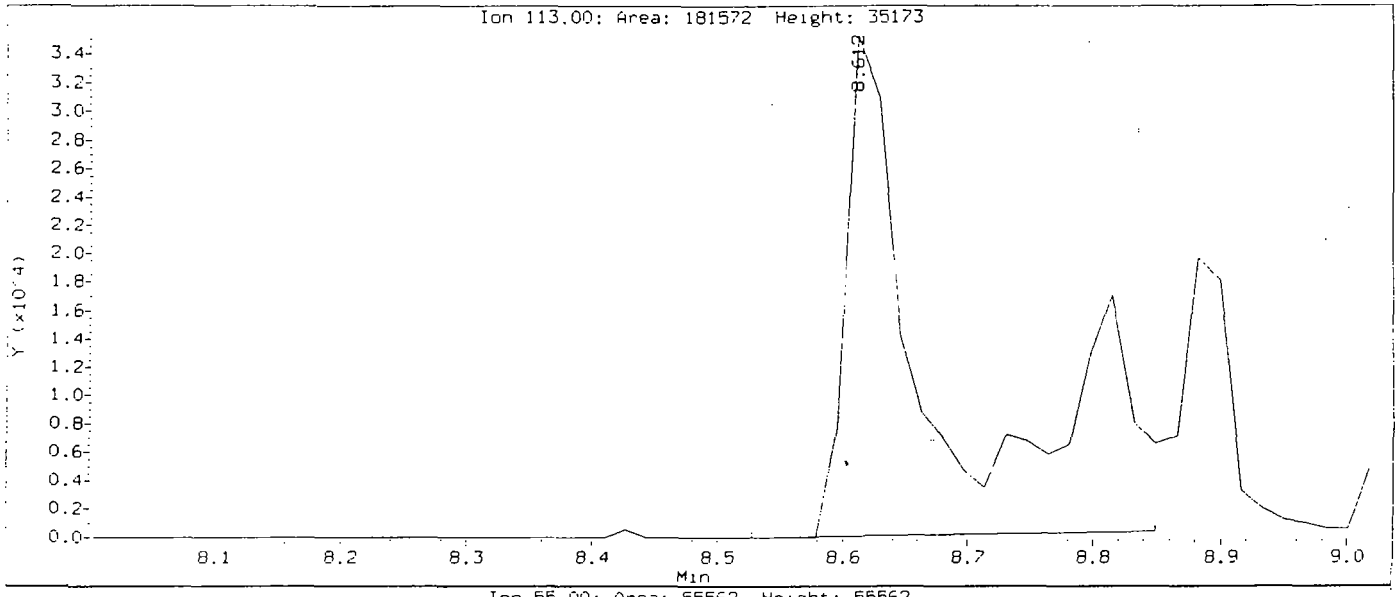
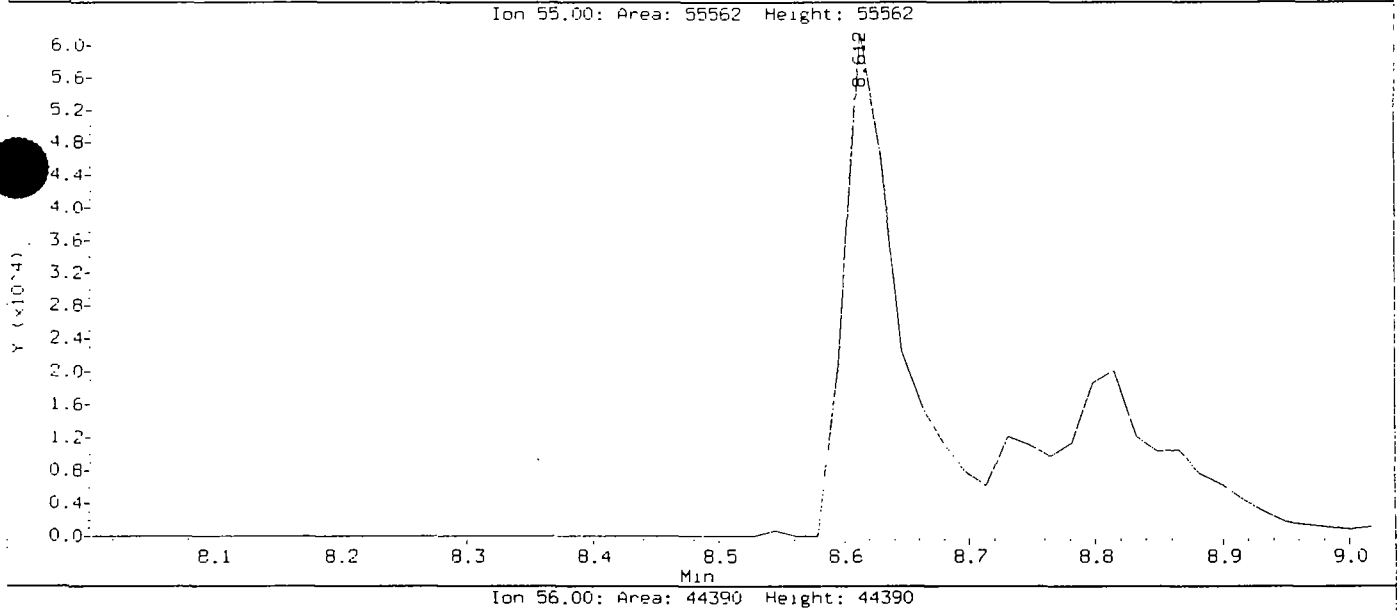
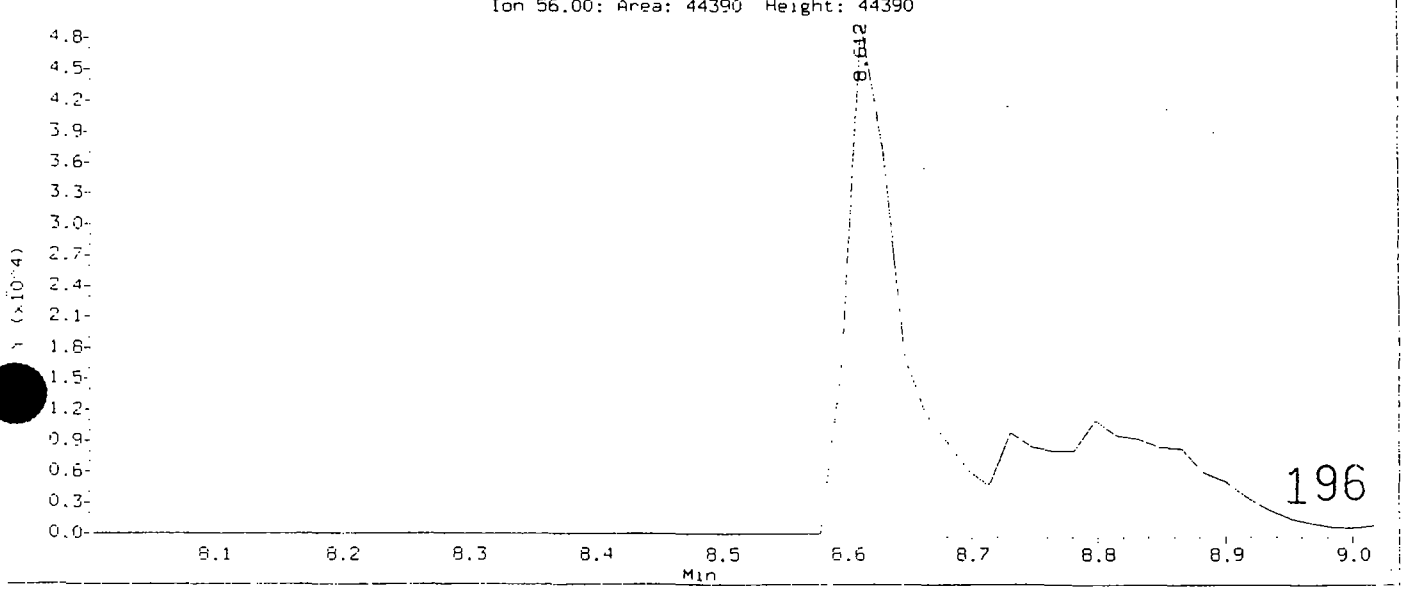
Injection Date: 17-JAN-2002 11:09
Instrument: 5972hp66.i
[redacted]ent Sample ID: SSTD160

[redacted]pound: Caprolactam
CAS Number: 105-60-2







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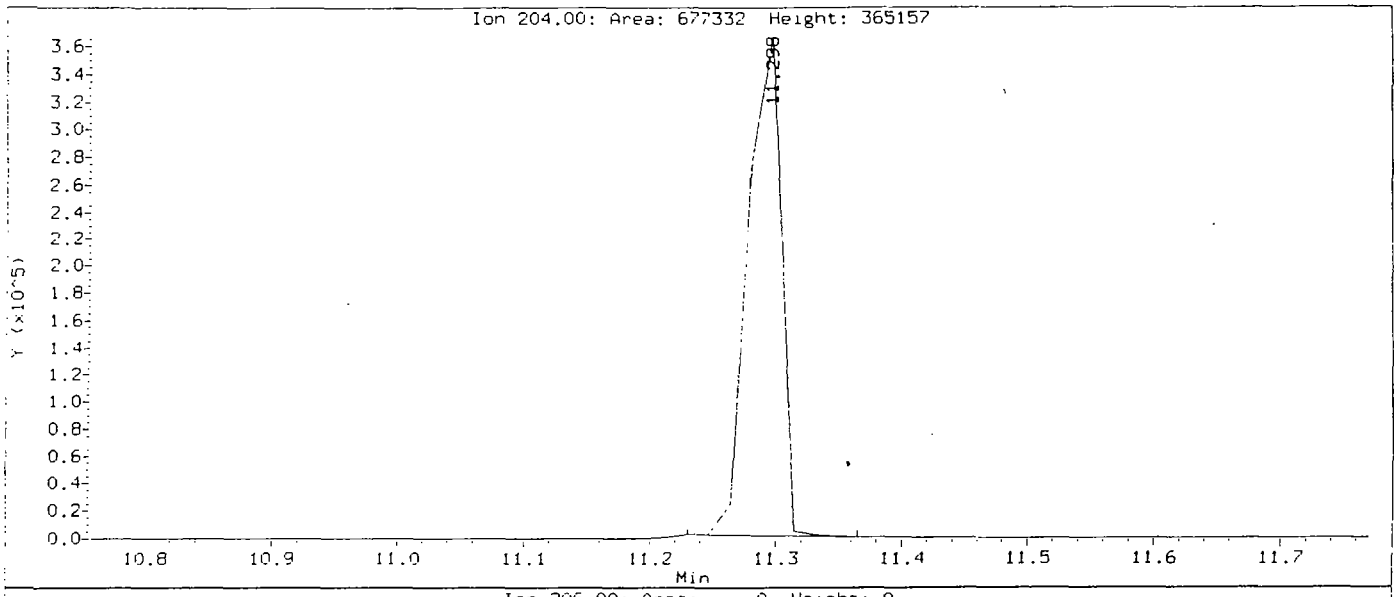
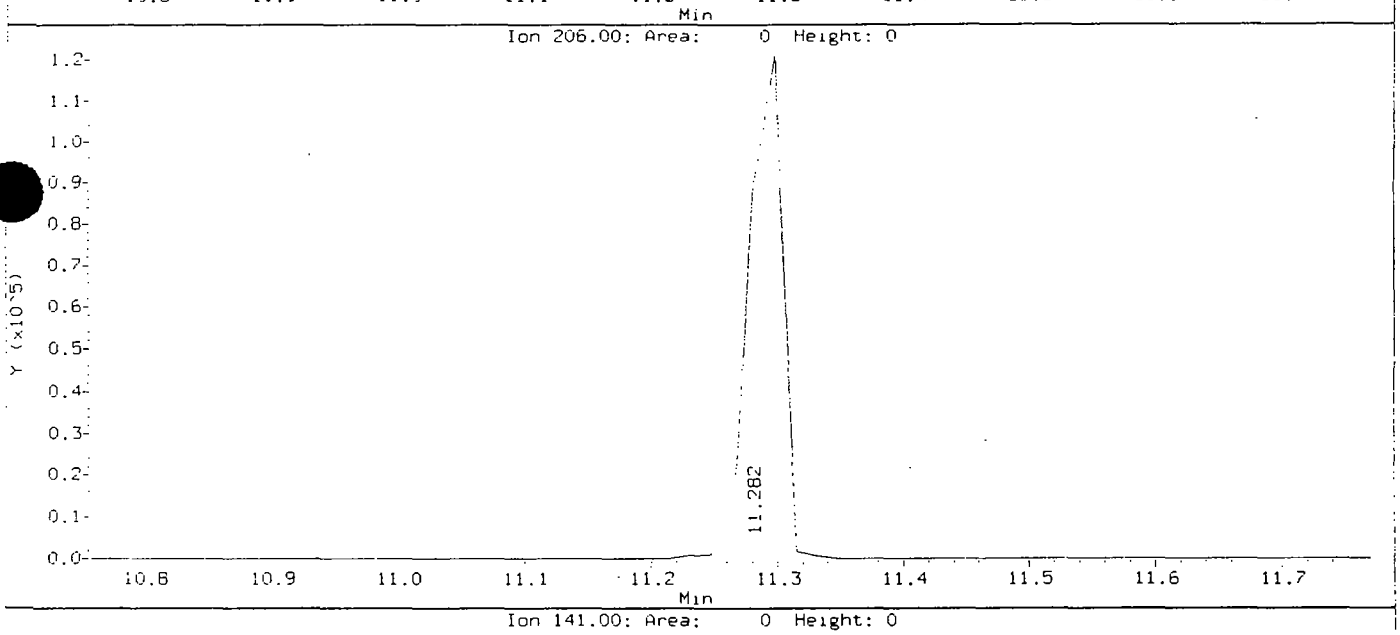
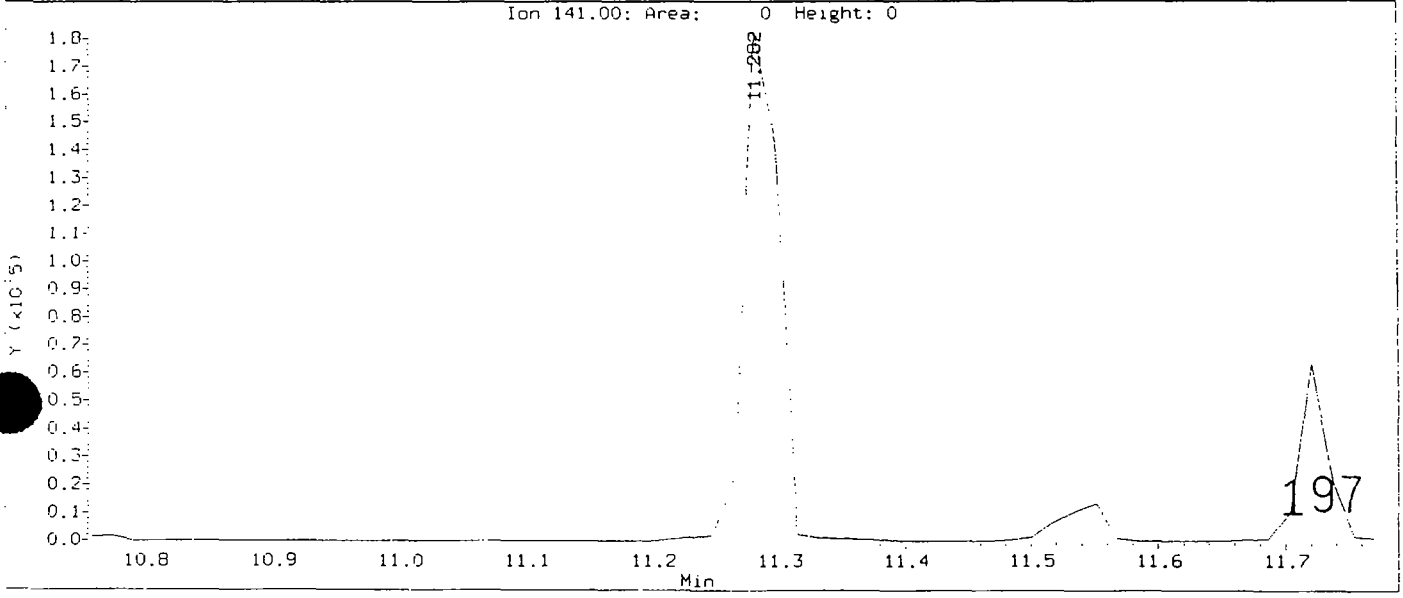
Injection Date: 17-JAN-2002 11:09
Instrument: 5972hp66.i
[redacted]ient Sample ID: SSTD160

[redacted]pound: 4-Chlorophenyl-phenylether
CAS Number: 7005-72-3







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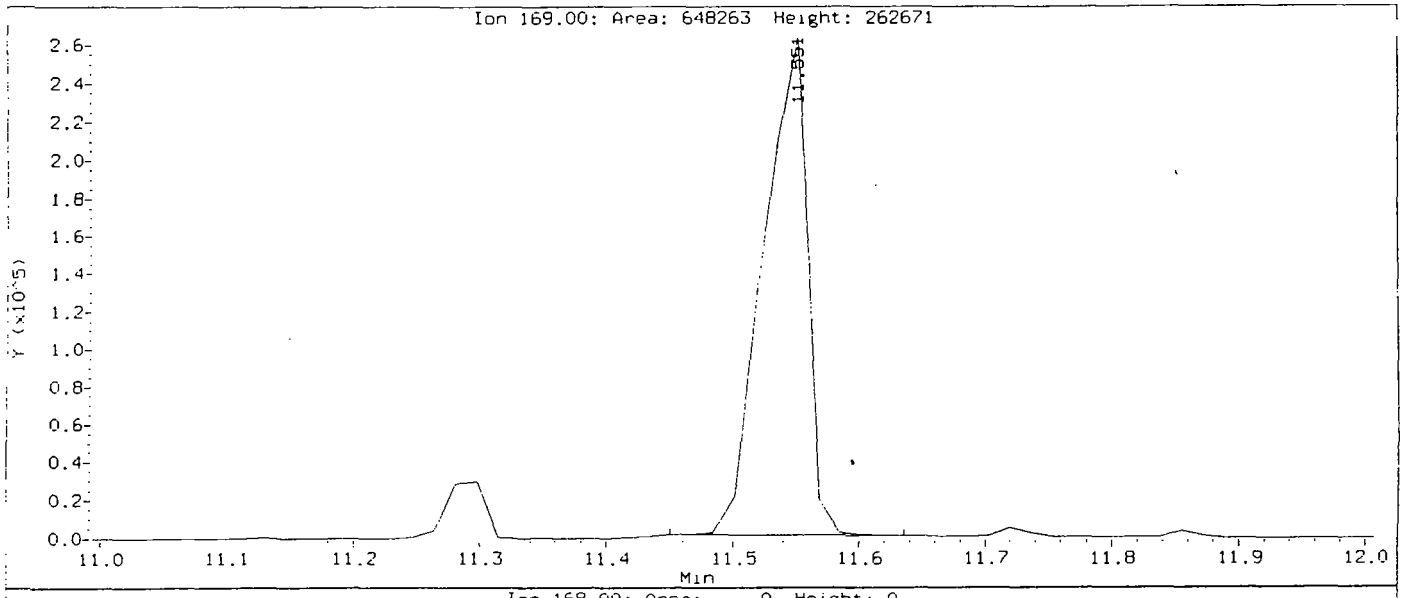
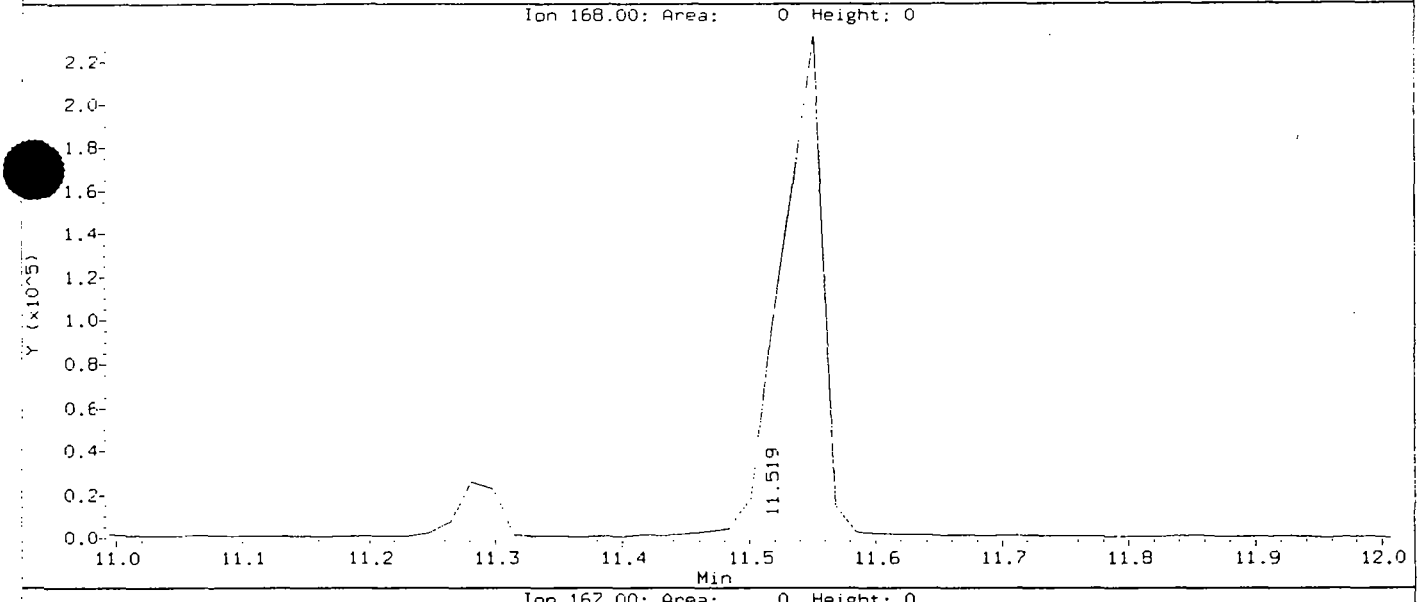
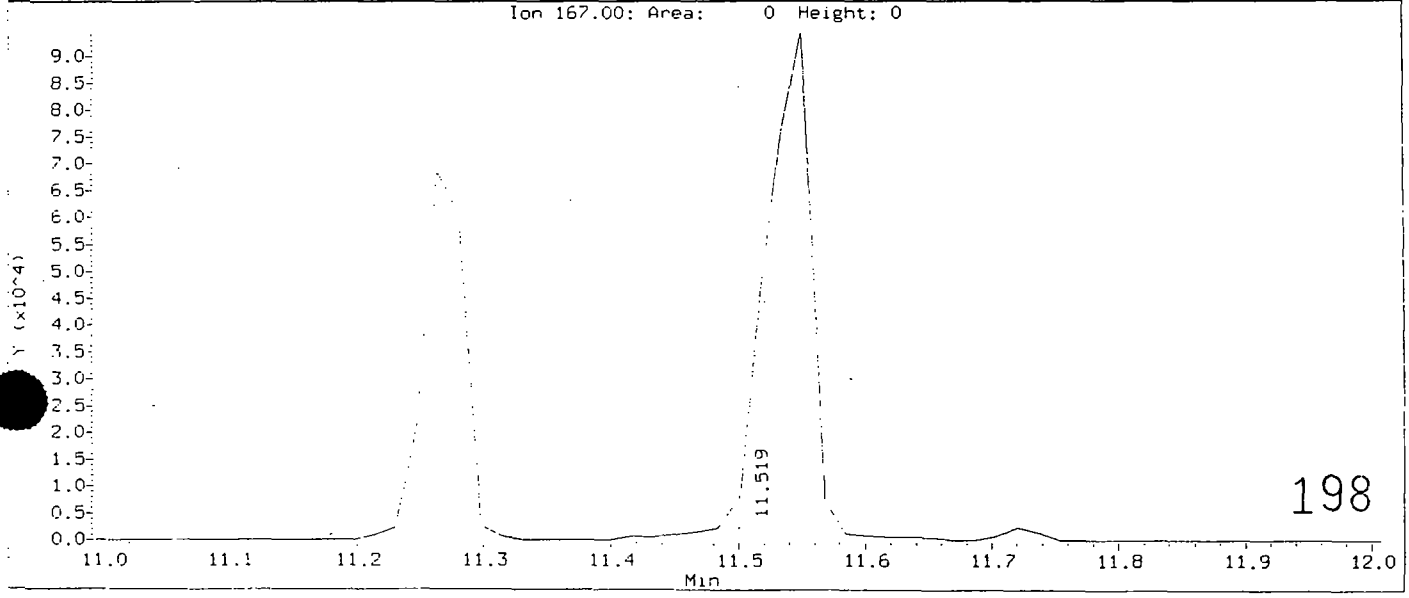
Injection Date: 17-JAN-2002 11:09
Instrument: 5972hp66.i
[redacted]ent Sample ID: SSTD160

[redacted]ound: N-Nitrosodiphenylamine
CAS Number: 86-30-6







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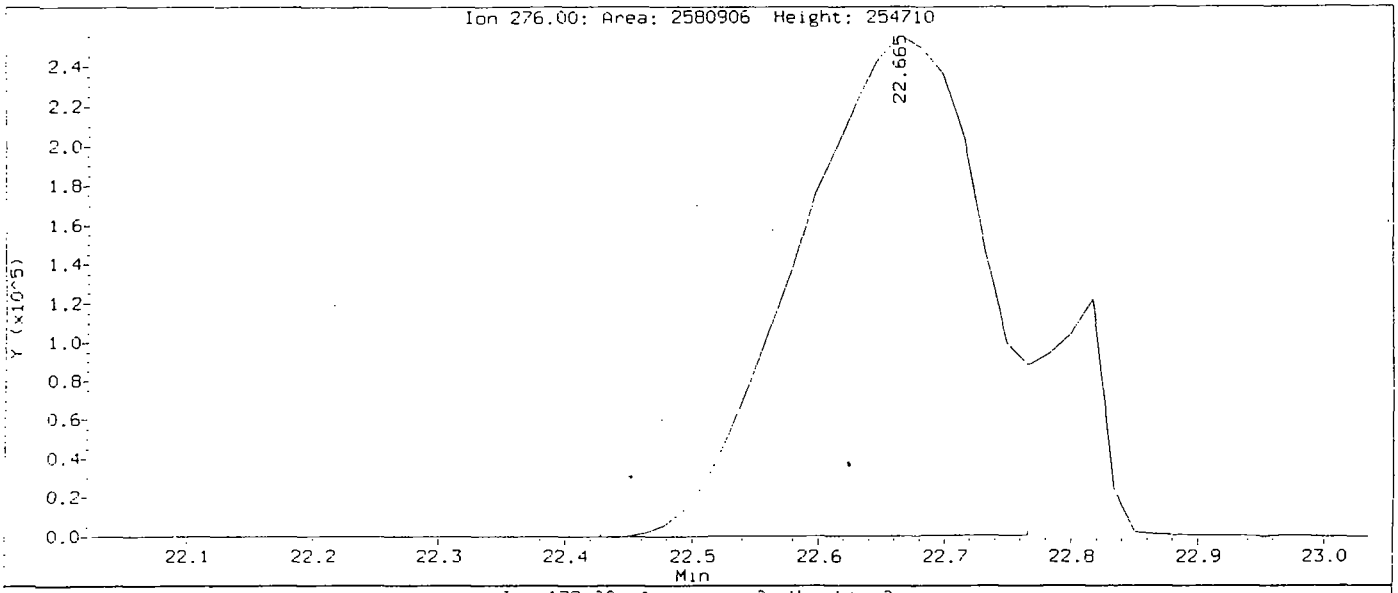
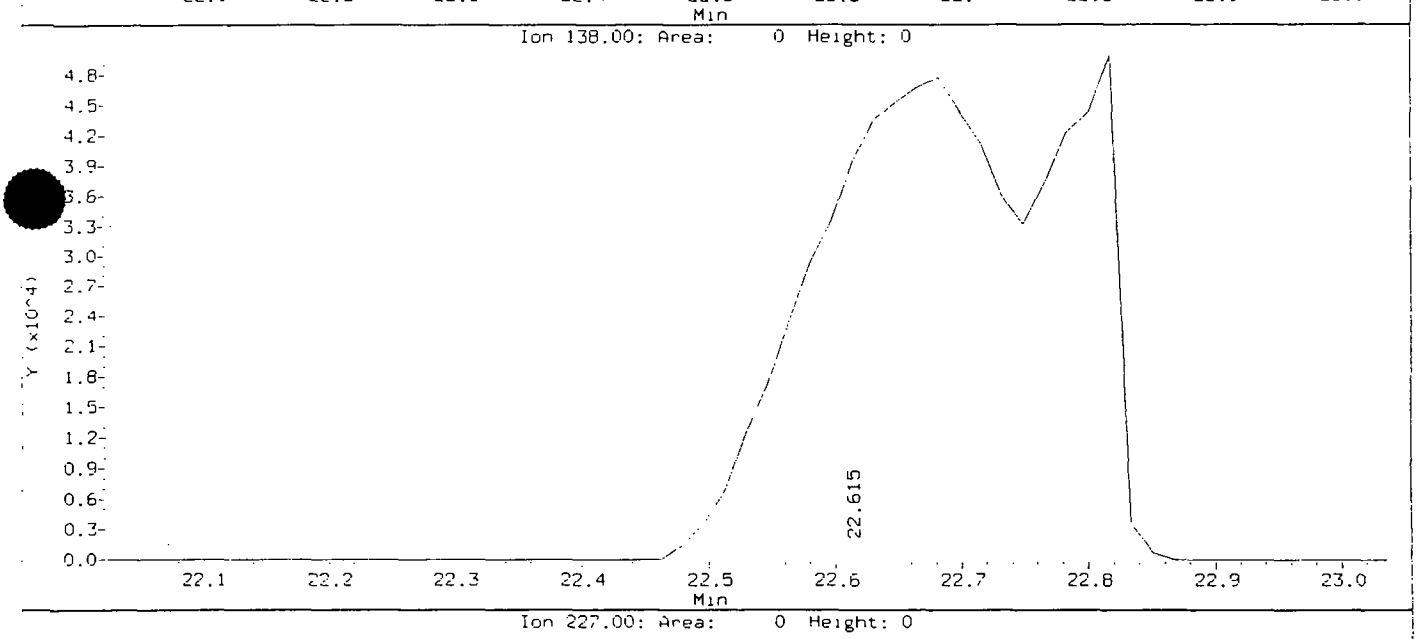
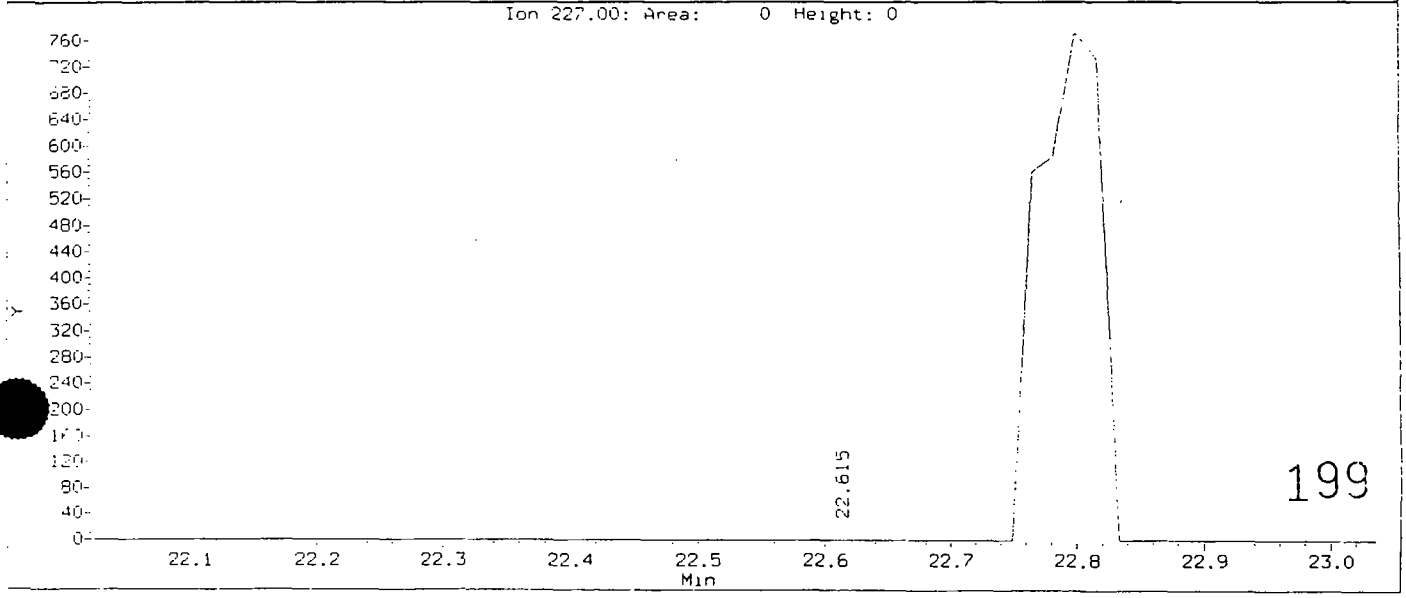
Injection Date: 17-JAN-2002 11:09
Instrument: 5972hp66.i
Client Sample ID: SSTD160

[redacted]ound: Indeno(1,2,3-cd)pyrene
[redacted]S Number: 193-39-5







Data File: /chem/5972hp66.i/DF020117A66.b/HN020117A66.d
Report Date: 18-Jan-2002 08:53

CompuChem

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: SSTD080VAL
Level: LOW
Data Type: MS DATA
SpikeList File: 2ndSourcev2.spk
Sublist File: 2ndSourcev2.sub
Method File: /chem/5972hp66.i/DF020117A66.b/8270Cv6.m
Misc Info:

Client SDG: DF020117A66
Fraction: SV
Client Smp ID: SSTD080VAL
Operator: 2391
SampleType: LCS
Quant Type: ISTD

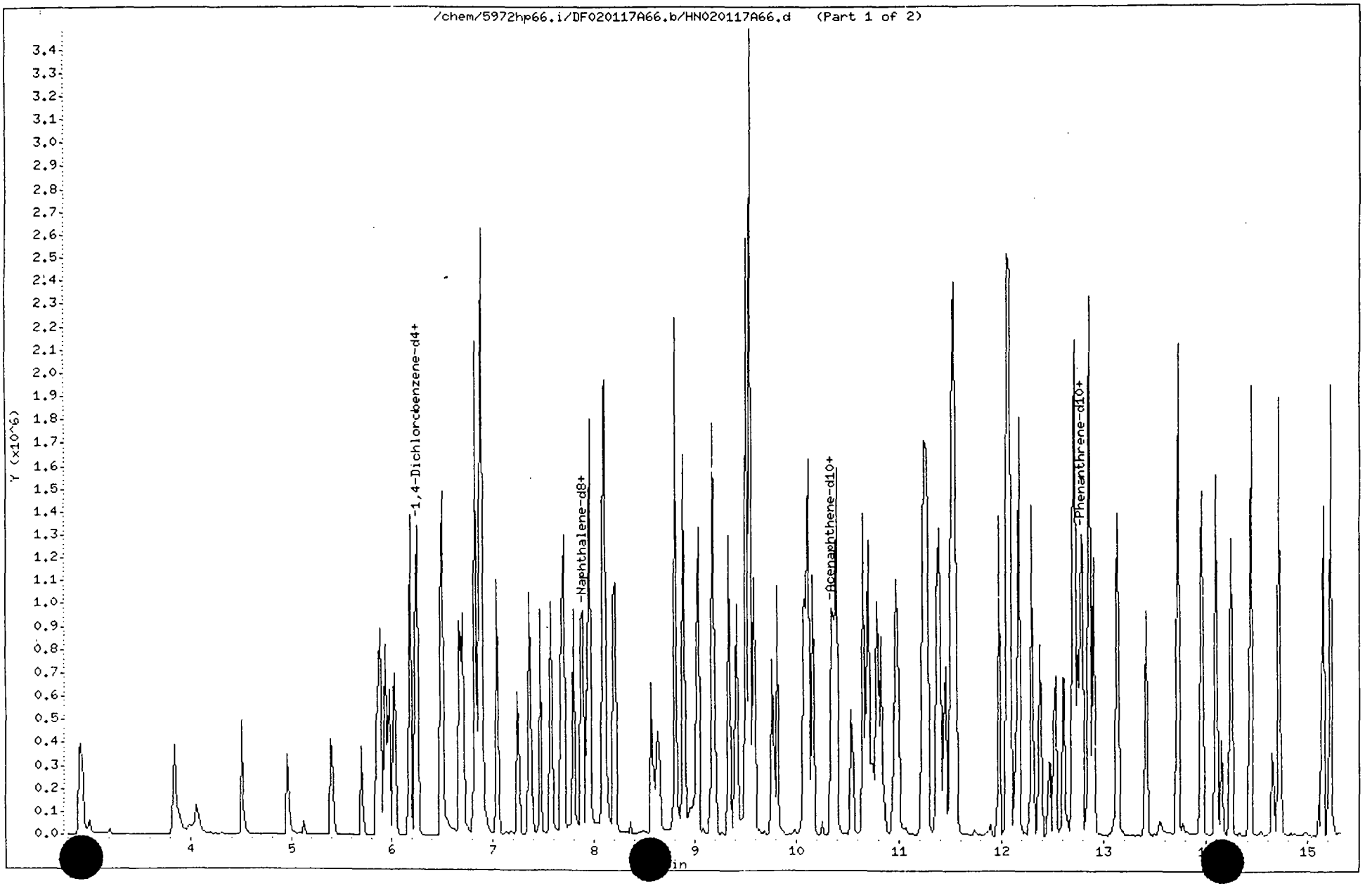
SPIKE COMPOUND	AMOUNT ADDED NG	AMOUNT RECOVERED NG	% RECOVERED	LIMITS
13 N-Nitrosodimethyla	80.00	77.24	96.55	70-130
14 Pyridine	80.00	58.93	73.66	70-130
15 Benzaldehyde	50.00	43.02	86.04	70-130
16 Phenol	80.00	84.05	105.07	70-130
17 Bis(2-chloroethyl)	80.00	66.28	82.85	70-130
18 2-Chlorophenol	80.00	72.23	90.28	70-130
19 1,3-Dichlorobenzen	80.00	80.28	100.36	70-130
20 1,4-Dichlorobenzen	80.00	79.38	99.23	70-130
21 Benzyl alcohol	80.00	70.22	87.78	70-130
22 1,2-Dichlorobenzen	80.00	74.07	92.58	70-130
23 2-Methylphenol	80.00	79.00	98.75	70-130
24 2,2'-oxybis(1-Chlo	80.00	80.50	100.63	70-130
25 Acetophenone	160.0	125.8	78.63	70-130
27 4-Methylphenol	80.00	69.20	86.50	70-130
28 N-Nitroso-di-N-pro	80.00	61.55	76.94	70-130
29 Hexachloroethane	80.00	69.55	86.93	70-130
30 Nitrobenzene	80.00	81.69	102.11	70-130
31 Isophorone	80.00	81.57	101.96	70-130
32 2-Nitrophenol	80.00	81.83	102.29	70-130
33 2,4-Dimethylphenol	80.00	79.60	99.50	70-130
34 Bis(2-chloroethoxy	80.00	94.91	118.64	70-130
35 2,4-Dichlorophenol	80.00	83.17	103.96	70-130
36 1,2,4-Trichloroben	80.00	89.99	112.49	70-130
37 Naphthalene	80.00	77.59	96.99	70-130
38 4-Chloroaniline	80.00	58.55	73.19	70-130
39 Hexachlorobutadien	80.00	86.96	108.71	70-130
40 Caprolactam	80.00	83.29	104.11	70-130
41 4-Chloro-3-methylp	80.00	72.50	90.62	70-130
42 2-Methylnaphthalen	80.00	69.74	87.17	70-130
43 1-Methylnaphthalen	80.00	85.10	106.37	70-130
44 Hexachlorocyclopen	80.00	82.04	102.56	70-130
45 2,4,6-Trichlorophe	80.00	81.65	102.06	70-130
46 2,4,5-Trichlorophe	80.00	88.75	110.94	70-130

Data File: /chem/5972hp66.i/DF020117A66.b/HN020117A66.d
Report Date: 18-Jan-2002 08:53

SPIKE COMPOUND	AMOUNT ADDED NG	AMOUNT RECOVERED NG	% RECOVERED	LIMITS
47 1,1'-Biphenyl	80.00	80.57	100.71	70-130
48 2-Chloronaphthalen	80.00	83.54	104.43	70-130
49 2-Nitroaniline	80.00	66.54	83.18	70-130
50 Dimethylphthalate	80.00	74.68	93.35	70-130
51 2,6-Dinitrotoluene	80.00	83.13	103.91	70-130
52 Acenaphthylene	80.00	69.31	86.64	70-130
53 3-Nitroaniline	80.00	69.63	87.04	70-130
54 Acenaphthene	80.00	77.78	97.22	70-130
55 2,4-Dinitrophenol	80.00	93.06	116.33	70-130
56 4-Nitrophenol	80.00	79.64	99.55	70-130
57 2,4-Dinitrotoluene	80.00	79.63	99.54	70-130
58 Dibenzofuran	80.00	71.28	89.10	70-130
59 Diethylphthalate	80.00	74.24	92.79	70-130
60 4-Chlorophenyl-phe	80.00	74.72	93.40	70-130
61 Fluorene	80.00	69.25	86.56	70-130
62 4-Nitroaniline	80.00	67.13	83.91	70-130
63 4,6-Dinitro-2-meth	80.00	79.12	98.90	70-130
64 N-Nitrosodiphenyla	200.0	188.7	94.35	70-130
65 1,2-Diphenylhydraz	80.00	82.57	103.21	70-130
66 4-Bromophenyl-phen	80.00	69.70	87.13	70-130
67 Hexachlorobenzene	80.00	81.97	102.46	70-130
68 Atrazine	80.00	57.20	71.50	70-130
69 Pentachlorophenol	80.00	85.67	107.09	70-130
70 Phenanthrene	80.00	77.00	96.25	70-130
71 Anthracene	80.00	72.65	90.82	70-130
72 Carbazole	80.00	96.10	120.13	70-130
73 Di-n-butylphthalat	80.00	84.56	105.70	70-130
74 Fluoranthene	80.00	80.22	100.27	70-130
75 Benzidine	160.0	54.60	34.12*	70-130
76 Pyrene	80.00	69.49	86.87	70-130
77 Butylbenzylphthala	80.00	80.16	100.20	70-130
78 3,3'-Dichlorobenzi	80.00	69.33	86.67	70-130
79 bis(2-ethylhexyl)P	80.00	78.34	97.92	70-130
80 Benzo(a)anthracene	80.00	76.87	96.09	70-130
81 Chrysene	80.00	79.88	99.85	70-130
82 Di-n-octylphthalat	80.00	75.20	94.00	70-130
83 Benzo(b)fluoranthe	80.00	77.26	96.58	70-130
84 Benzo(k)fluoranthe	80.00	71.15	88.94	70-130
85 Benzo(a)pyrene	80.00	72.70	90.87	70-130
86 Indeno(1,2,3-cd)py	80.00	81.93	102.41	70-130
87 Dibenzo(a,h)anthra	80.00	74.39	92.98	70-130
88 Benzo(g,h,i)peryle	80.00	74.56	93.20	70-130

Data File: /chem/5972hp66.i/DF020117A66.b/HN020117A66.d
Date : 17-JAN-2002 14:15
Client ID: SSTD080VAL
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2391
Column diameter: 0.25



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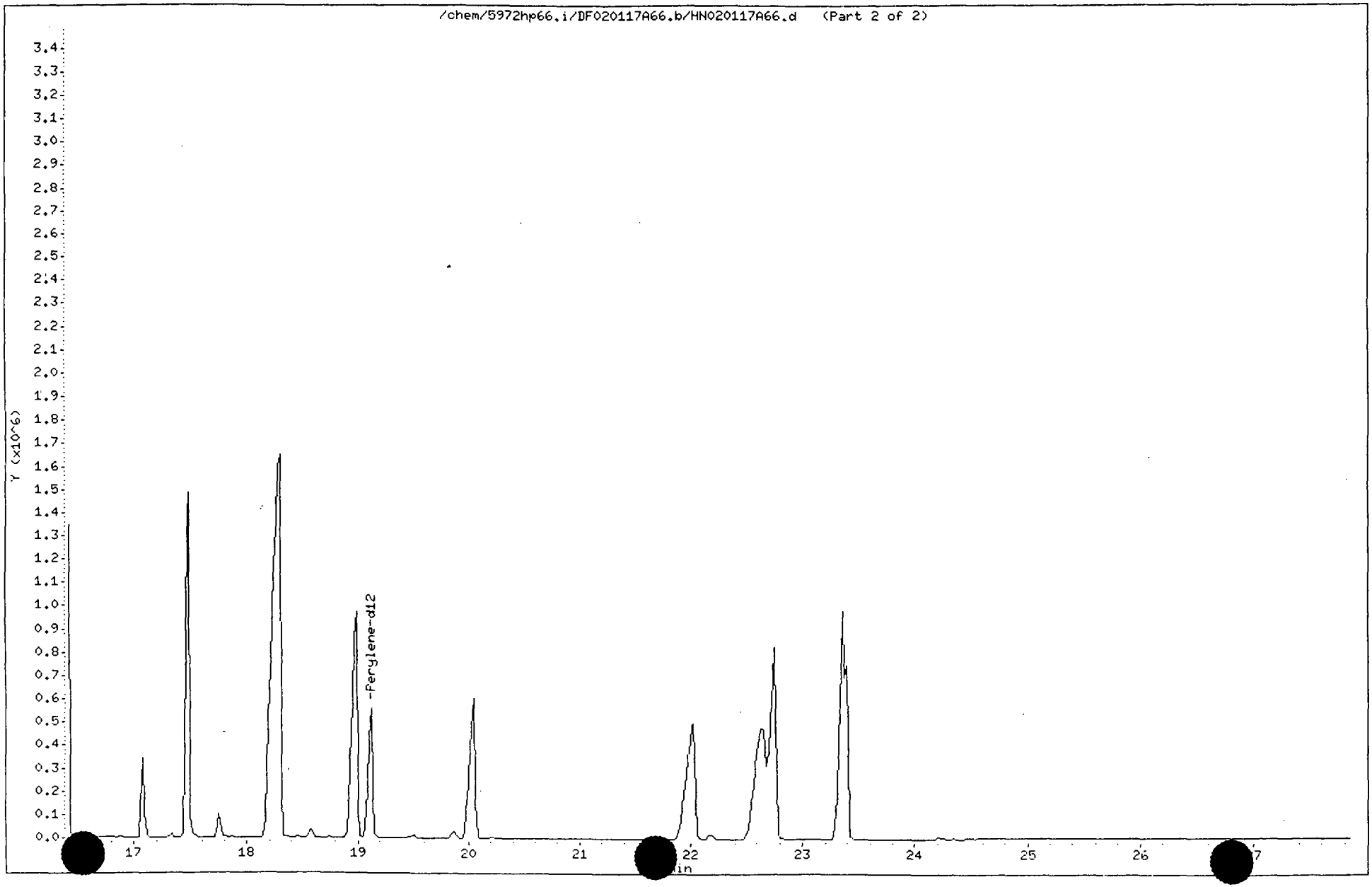
Date : 17-JAN-2002 14:15
Client ID: SSTD080VAL
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2391
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020117A66.b/HN020117A66.d
Report Date: 18-Jan-2002 08:53

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020117A66.b/HN020117A66.d
Lab Smp Id: SSTD080VAL Client Smp ID: SSTD080VAL
Inj Date : 17-JAN-2002 14:15
Operator : 2391 Inst ID: 5972hp66.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020117A66.b/8270Cv6.m
Meth Date : 18-Jan-2002 08:24 byrd Quant Type: ISTD
Cal Date : 17-JAN-2002 13:38 Cal File: HM020117A66.d
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2ndSourcev2.sub
Target Version: 3.50
Processing Host: einstein

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152	6.235	6.237	(1.000)	132023	40.0000		
* 2 Naphthalene-d8	136	7.924	7.926	(1.000)	409375	40.0000		
* 3 Acenaphthene-d10	164	10.356	10.341	(1.000)	279152	40.0000		
* 4 Phenanthrene-d10	188	12.754	12.756	(1.000)	493613	40.0000		
* 5 Chrysene-d12	240	16.284	16.286	(1.000)	519041	40.0000		
* 6 Perylene-d12	264	19.122	19.107	(1.000)	507145	40.0000		
13 N-Nitrosodimethylamine	42	2.925	2.926	(0.469)	176529	77.2419	77.24	9200
14 Pyridine	79	2.908	2.909	(0.466)	215137	58.9280	58.93	9614
15 Benzaldehyde	77	5.695	5.696	(0.913)	121776	43.0184	43.02	9603
16 Phenol	94	5.931	5.933	(0.951)	441489	84.0541	84.05	
17 Bis(2-chloroethyl)ether	93	5.982	5.966	(0.959)	334941	66.2836	66.28	
18 2-Chlorophenol	128	6.032	6.017	(0.967)	313497	72.2268	72.23	7912
19 1,3-Dichlorobenzene	146	6.184	6.186	(0.992)	383918	80.2846	80.28	
20 1,4-Dichlorobenzene	146	6.252	6.254	(1.003)	388472	79.3839	79.38	

Data File: /chem/5972hp66.i/DF020117A66.b/HN020117A66.d
Report Date: 18-Jan-2002 08:53

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY	
21 Benzyl alcohol	108	6.505	6.490	(1.043)	200146	70.2222	70.22		
22 1,2-Dichlorobenzene	146	6.505	6.507	(1.043)	339937	74.0650	74.07		
23 2-Methylphenol	108	6.708	6.693	(1.076)	282760	79.0033	79.00		
24 2,2'-oxybis(1-Chloropropane)	45	6.674	6.676	(1.070)	490769	80.5040	80.50	9360	
25 Acetophenone	105	6.826	6.828	(1.095)	822504	125.801	125.8	8921	
27 4-Methylphenol	108	6.894	6.895	(1.106)	293605	69.2035	69.20		(M)
28 N-Nitroso-di-N-propylamine	70	6.877	6.878	(1.103)	142670	61.5524	61.55		0 (M)
29 Hexachloroethane	117	6.877	6.878	(1.103)	156822	69.5480	69.55	8778	
30 Nitrobenzene	77	7.046	7.047	(0.889)	415187	81.6880	81.69	9375	
31 Isophorone	82	7.367	7.351	(0.930)	767836	81.5694	81.57	7996	
32 2-Nitrophenol	139	7.468	7.470	(0.942)	182802	81.8299	81.83	8800	
33 2,4-Dimethylphenol	122	7.569	7.571	(0.955)	261406	79.6010	79.60	8836	
34 Bis(2-chloroethoxy)methane	93	7.688	7.672	(0.970)	551563	94.9090	94.91	8585	
35 2,4-Dichlorophenol	162	7.806	7.791	(0.985)	279067	83.1708	83.17		
36 1,2,4-Trichlorobenzene	180	7.890	7.875	(0.996)	358121	89.9902	89.99		
37 Naphthalene	128	7.958	7.959	(1.004)	931751	77.5891	77.59	9691	
38 4-Chloroaniline	127	8.093	8.095	(1.021)	328864	58.5518	58.55	8107	
39 Hexachlorobutadiene	225	8.211	8.196	(1.036)	261014	86.9643	86.96	8415	
40 Caprolactam	113	8.633	8.551	(1.090)	111930	83.2859	83.29	6704	
41 4-Chloro-3-methylphenol	107	8.802	8.787	(1.111)	285531	72.4991	72.50	7921	
42 2-Methylnaphthalene	142	8.887	8.888	(1.121)	567890	69.7357	69.74		
43 1-Methylnaphthalene	142	9.039	9.023	(1.141)	562085	85.0975	85.10		
44 Hexachlorocyclopentadiene	237	9.191	9.192	(0.887)	203533	82.0442	82.04	9127	
45 2,4,6-Trichlorophenol	196	9.343	9.327	(0.902)	229824	81.6452	81.65		
46 2,4,5-Trichlorophenol	196	9.410	9.395	(0.909)	273733	88.7516	88.75		
47 1,1'-Biphenyl	154	9.545	9.530	(0.922)	692003	80.5701	80.57	9231	
48 2-Chloronaphthalene	162	9.545	9.547	(0.922)	602849	83.5419	83.54		(M)
49 2-Nitroaniline	65	9.765	9.767	(0.943)	231484	66.5407	66.54	9384	
50 Dimethylphthalate	163	10.086	10.071	(0.974)	708224	74.6799	74.68	9339	
51 2,6-Dinitrotoluene	165	10.170	10.155	(0.982)	204853	83.1277	83.13	9457	
52 Acenaphthylene	152	10.120	10.121	(0.977)	880931	69.3097	69.31	9645	
53 3-Nitroaniline	138	10.373	10.375	(1.002)	179680	69.6281	69.63	9377	
54 Acenaphthene	154	10.407	10.392	(1.005)	575558	77.7797	77.78	9660	
55 2,4-Dinitrophenol	184	10.559	10.544	(1.020)	124873	93.0605	93.06		
56 4-Nitrophenol	109	10.745	10.712	(1.038)	154118	79.6409	79.64		0 (M)
57 2,4-Dinitrotoluene	165	10.795	10.780	(1.042)	261193	79.6292	79.63	8519	
58 Dibenzofuran	168	10.660	10.662	(1.029)	882978	71.2825	71.28	9296	
59 Diethylphthalate	149	11.234	11.219	(1.085)	765812	74.2359	74.24	9580	
60 4-Chlorophenyl-phenylether	204	11.285	11.270	(1.090)	380020	74.7181	74.72		0 (M)
61 Fluorene	166	11.251	11.253	(1.086)	650346	69.2490	69.25	8065	
62 4-Nitroaniline	138	11.454	11.439	(1.106)	184720	67.1282	67.13	8781	
63 4,6-Dinitro-2-methylphenol	198	11.522	11.506	(0.903)	173334	79.1217	79.12		0 (M)
64 N-Nitrosodiphenylamine	169	11.538	11.523	(0.905)	1038526	188.701	188.7	8533 (A)	
65 1,2-Diphenylhydrazine	77	11.555	11.540	(1.116)	1084215	82.5671	82.57	9353	
66 4-Bromophenyl-phenylether	248	12.096	12.080	(0.948)	225817	69.7023	69.70		0 (M)
67 Hexachlorobenzene	284	12.298	12.300	(0.964)	324075	81.9716	81.97	9476	
68 Atrazine	200	12.484	12.469	(0.979)	81962	57.2000	57.20	8913	

Data File: /chem/5972hp66.i/DF020117A66.b/HN020117A66.d
Report Date: 18-Jan-2002 08:53

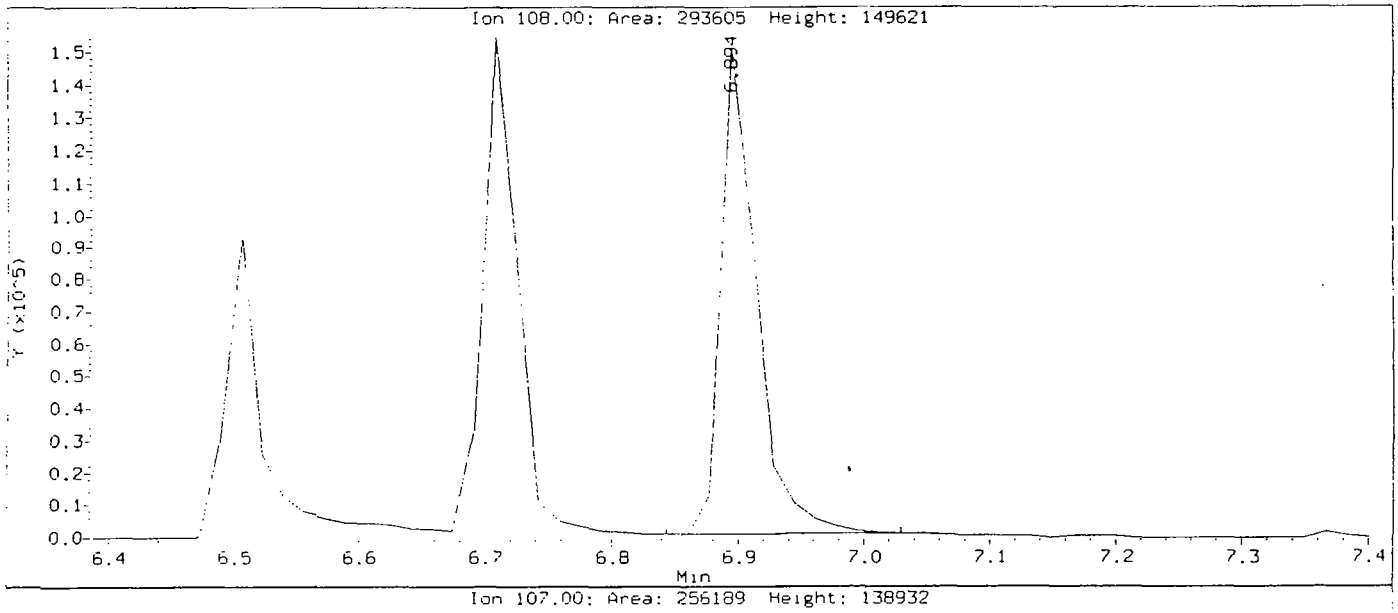
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
69 Pentachlorophenol	266	12.619	12.604	(0.989)	193103	85.6698	85.67	7387
70 Phenanthrene	178	12.805	12.790	(1.004)	1082828	76.9976	77.00	
71 Anthracene	178	12.856	12.857	(1.008)	1014319	72.6531	72.65	
72 Carbazole	167	13.143	13.128	(1.030)	1050772	96.1005	96.10	9489
73 Di-n-butylphthalate	149	13.734	13.719	(1.077)	1467344	84 5616	84.56	9683
74 Fluoranthene	202	14.443	14.428	(1.132)	1357034	80.2160	80.22	
75 Benzidine	184	14.663	14.648	(0.900)	252350	54.5995	54.60	7959(R)
76 Pyrene	202	14.714	14.715	(0.904)	1160235	69.4938	69.49	
77 Butylbenzylphthalate	149	15.592	15.594	(0.957)	652973	80.1573	80.16	9456
78 3,3'-Dichlorobenzidine	252	16.267	16.269	(0.999)	465836	69.3321	69.33	8641
79 bis(2-ethylhexyl)Phthalate	149	16.419	16.404	(1.008)	909575	78.3365	78.34	8654
80 Benzo(a)anthracene	228	16.267	16.252	(0.999)	1273145	76.8743	76.87	
81 Chrysene	228	16.335	16.320	(1.003)	1267660	79.8766	79.88	
82 Di-n-octylphthalate	149	17.484	17.468	(0.914)'	1649244	75.2014	75.20	
83 Benzo(b)fluoranthene	252	18.244	18.195	(0.954)	1534436	77.2628	77.26	
84 Benzo(k)fluoranthene	252	18.294	18.262	(0.957)	1234328	71.1509	71.15	(H)
85 Benzo(a)pyrene	252	18.987	18.955	(0.993)	1204632	72.6960	72.70	
86 Indeno(1,2,3-cd)pyrene	276	22.635	22.603	(1.184)	1390711	81.9254	81.93	0(M)
87 Dibenzo(a,h)anthracene	278	22.753	22.721	(1.190)	1263792	74.3869	74.39	8636
88 Benzo(g,h,i)perylene	276	23.395	23.363	(1.223)	1352436	74.5600	74.56	8982

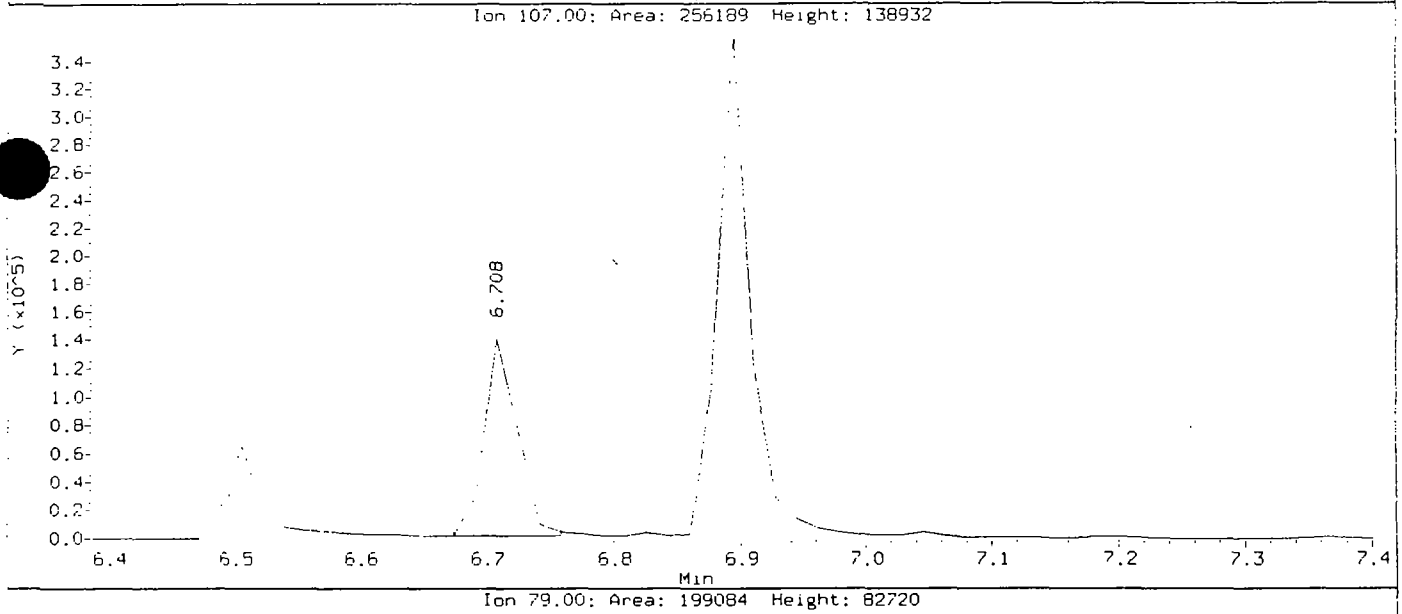
Flag Legend

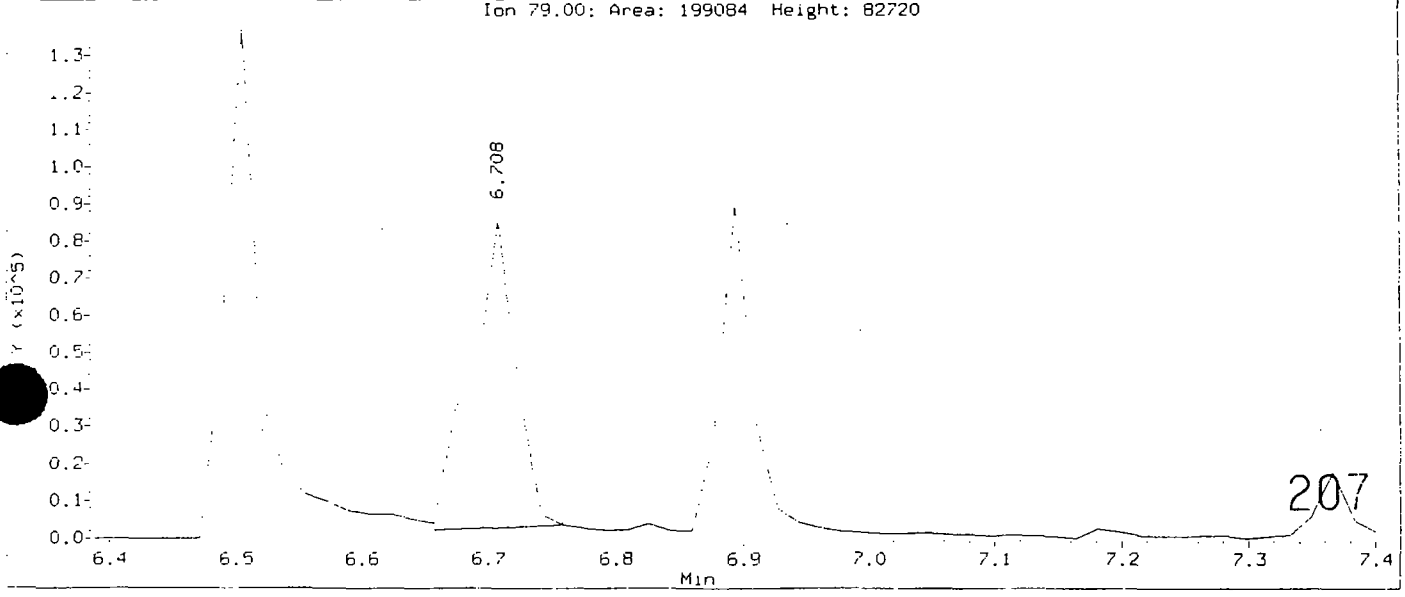
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /chem/5972hp66.i/DF020117A66.b/HN020117A66.d
Injection Date: 17-JAN-2002 14:15
Instrument: 5972hp66.i
[redacted]ent Sample ID: SSTD080VAL

[redacted]bound: 4-Methylphenol
CAS Number: 106-44-5







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strument: 5972hp66.i
[redacted] Sample ID: SSTD080VAL

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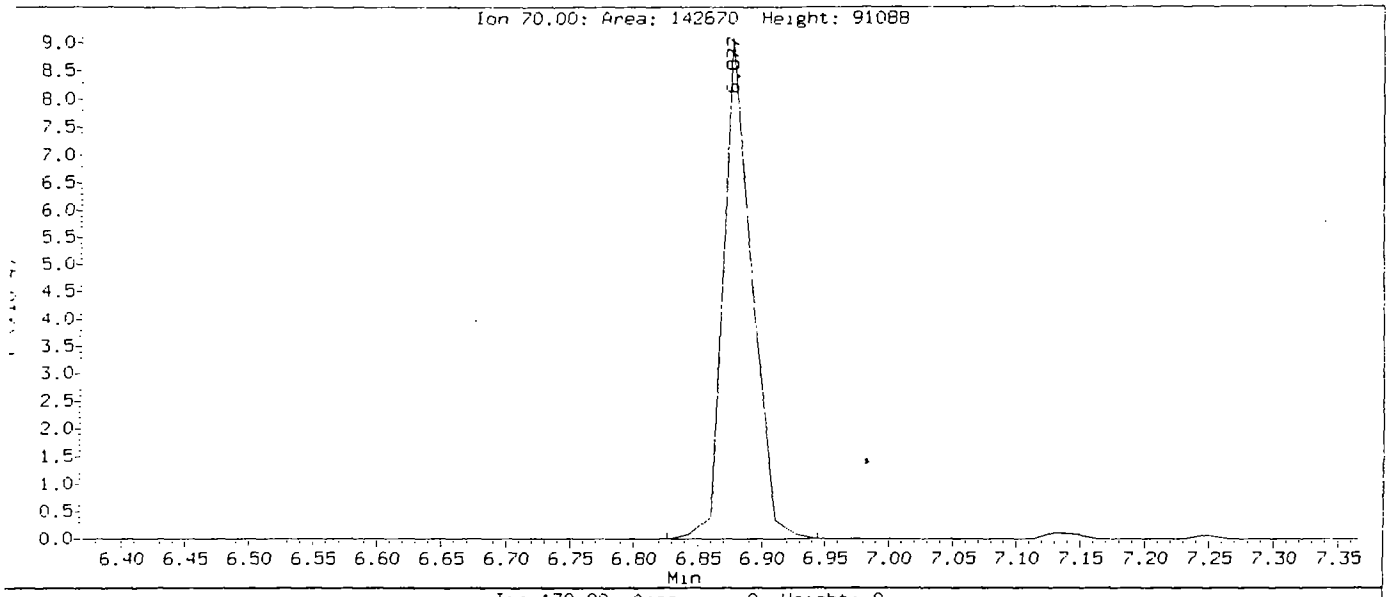
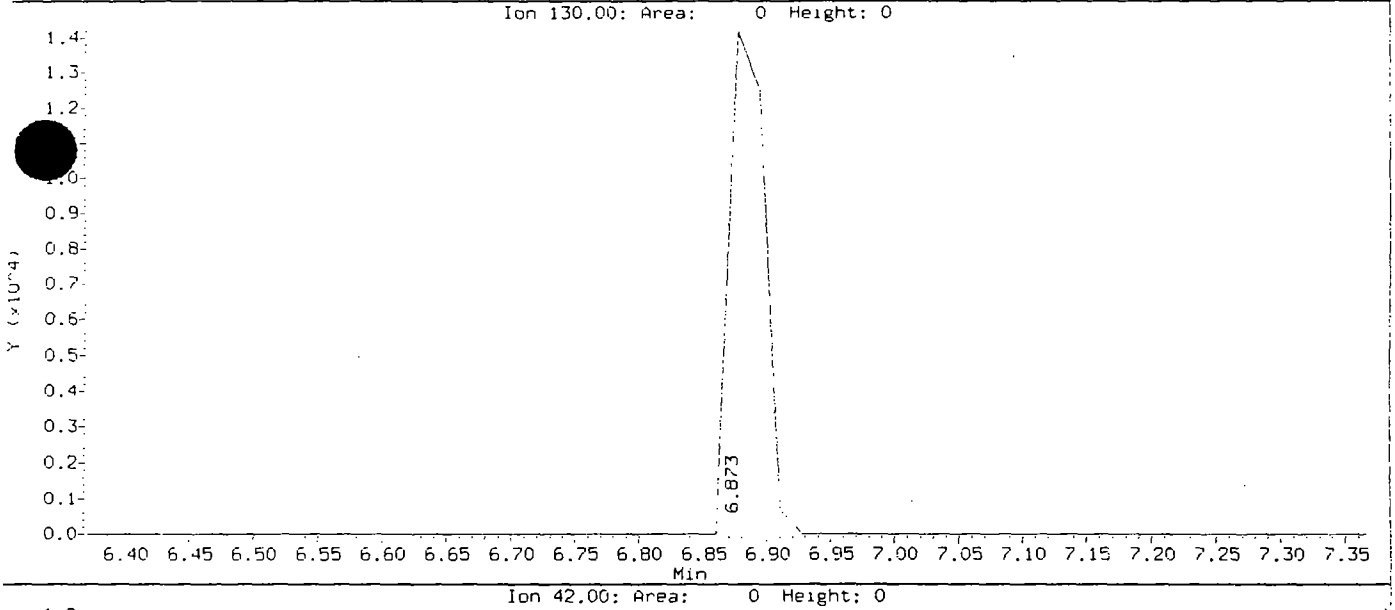
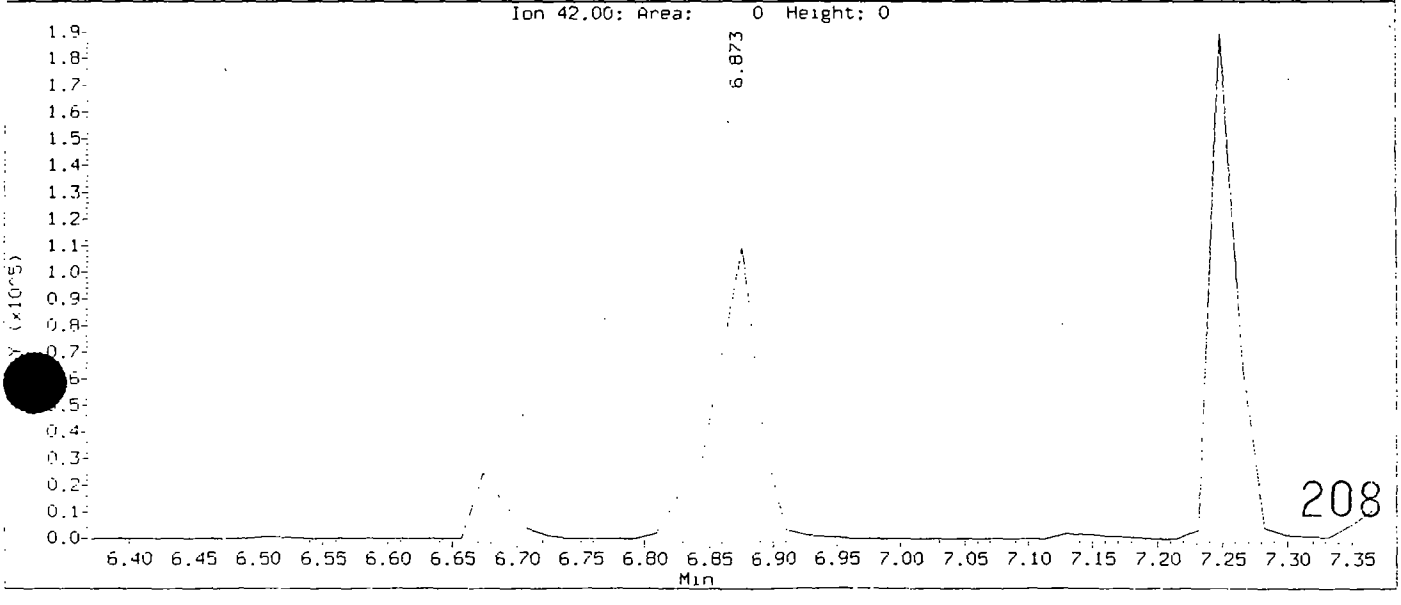
AS Number: 621-64-7







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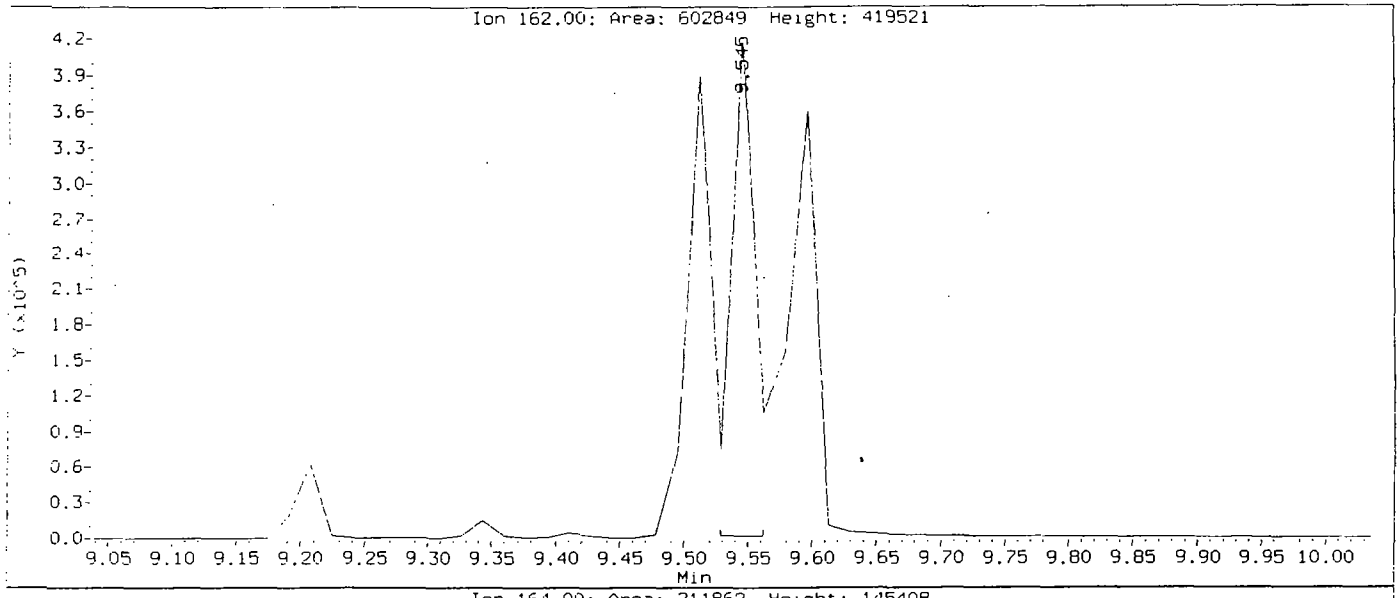
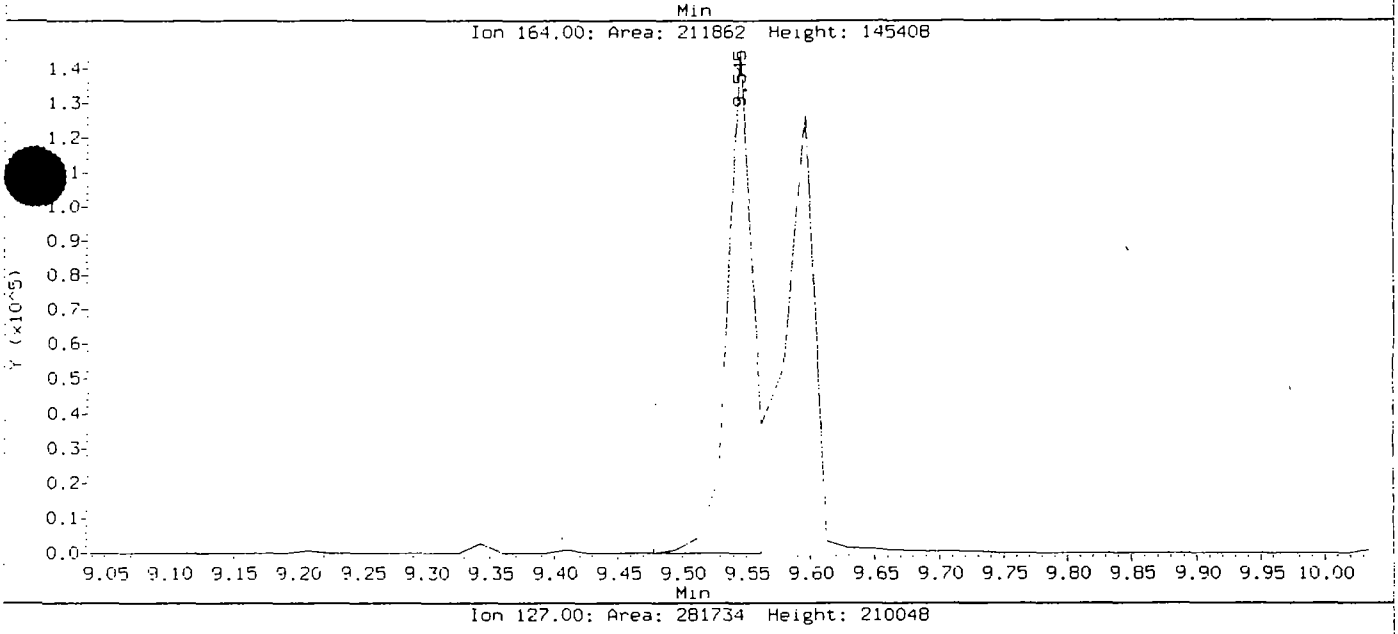
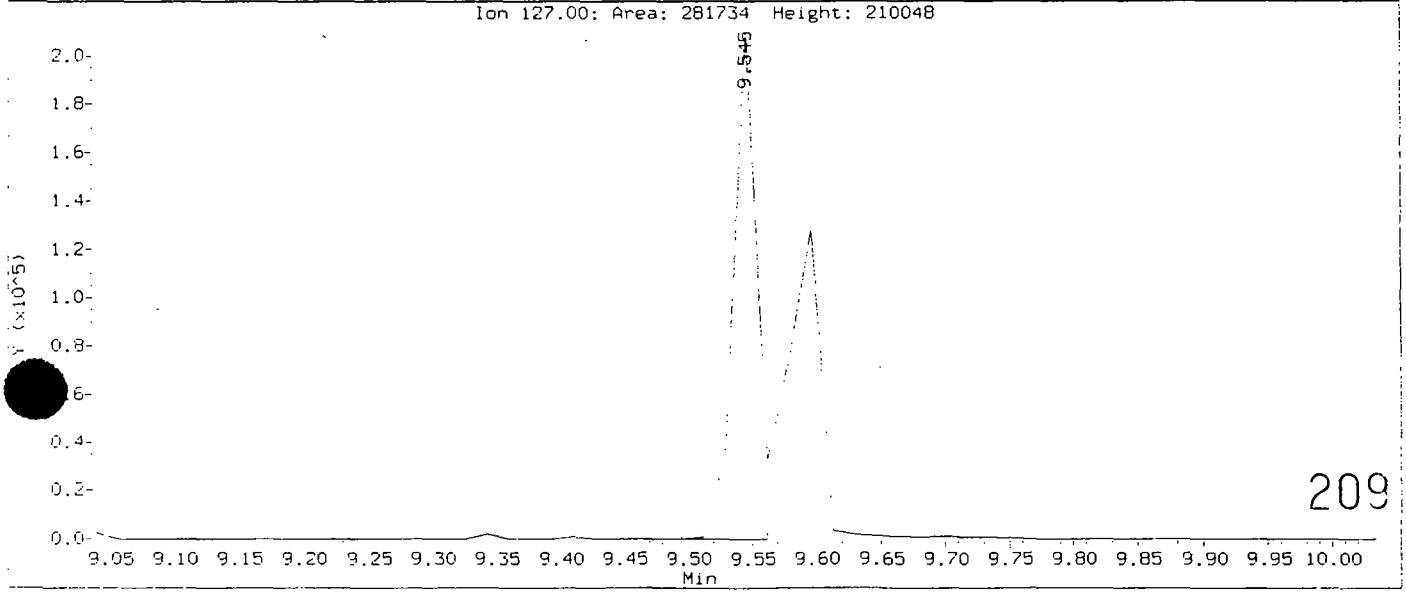
Injection Date: 17-JAN-2002 14:15
Instrument: 5972hp66.i
[redacted] Sample ID: SSTD080VAL

[redacted]ound: 2-Chloronaphthalene
CAS Number: 91-58-7







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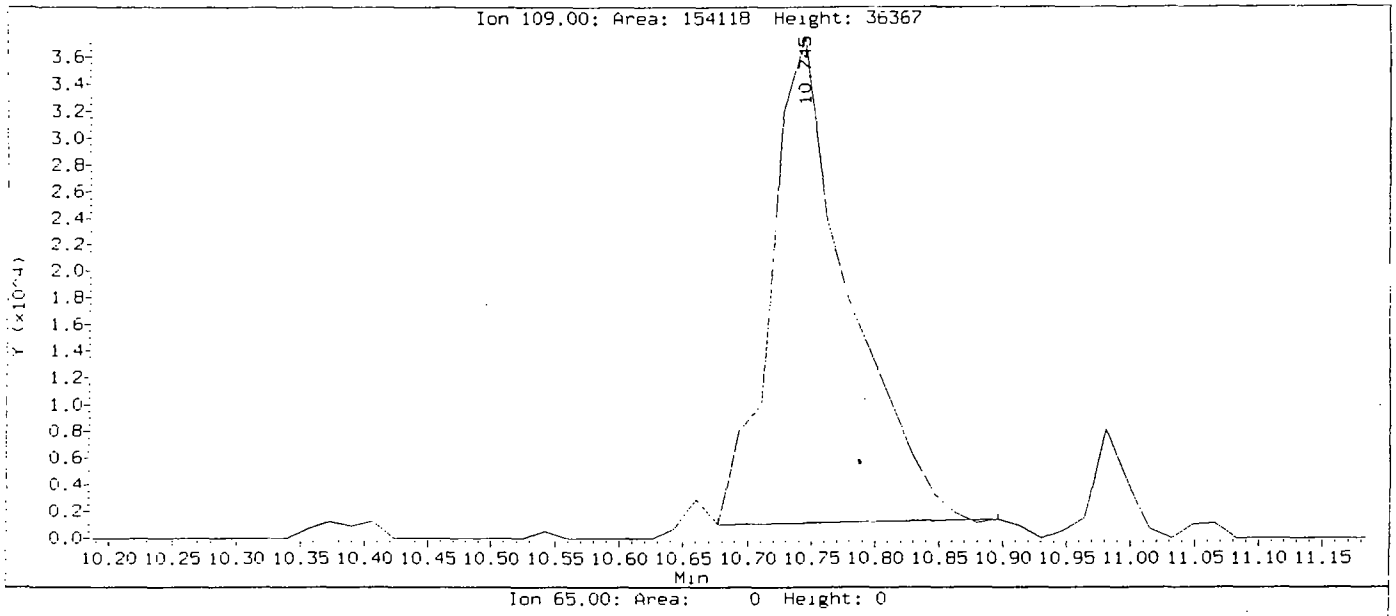
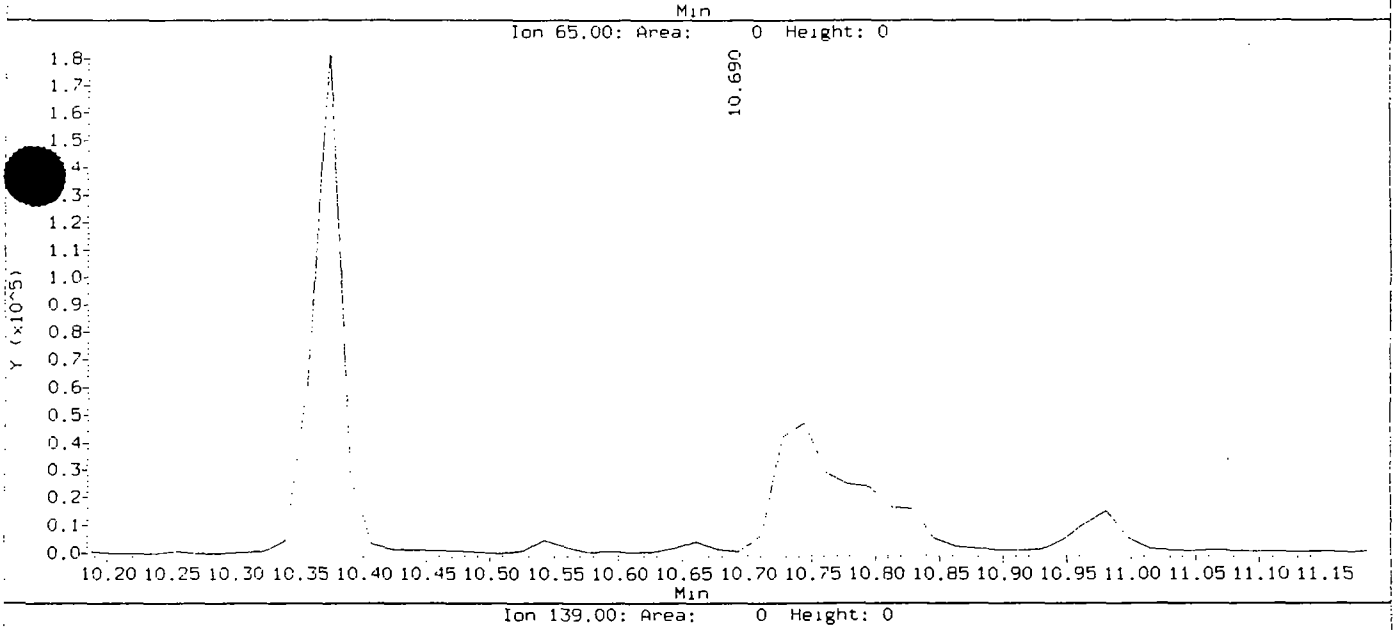
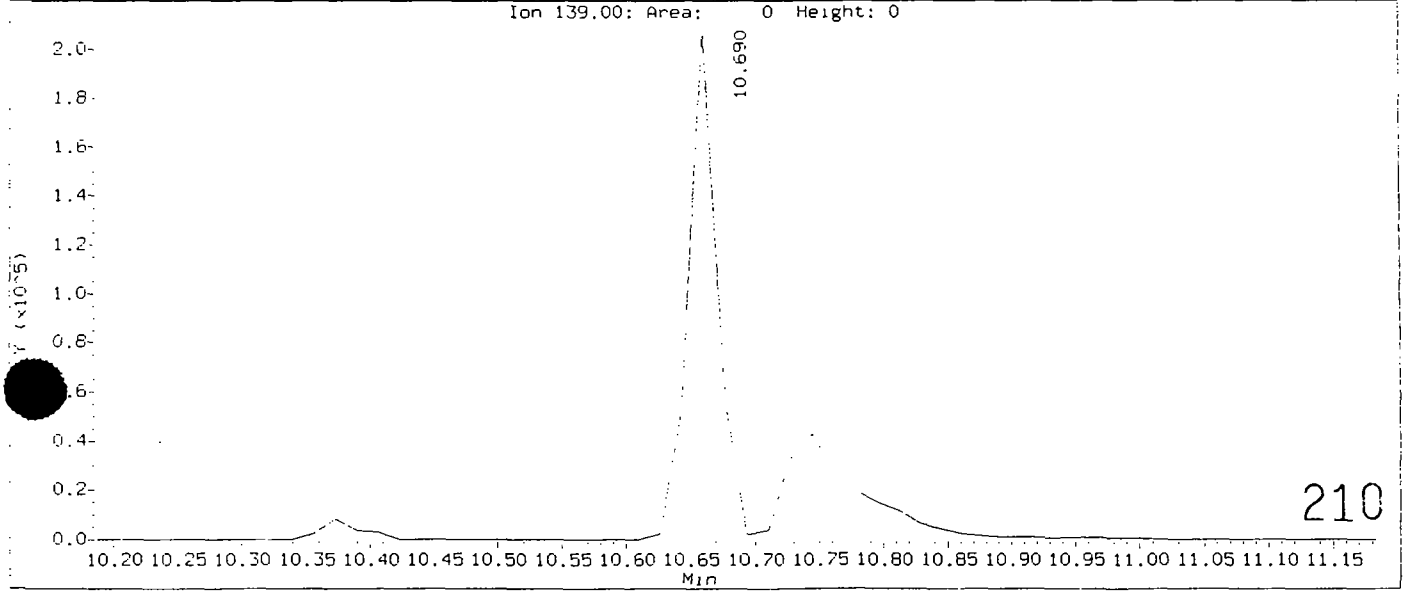
Injection Date: 17-JAN-2002 14:15
Instrument: 5972hp66.i
[redacted] Sample ID: SSTD080VAL

[redacted]ound: 4-Nitrophenol
CAS Number: 100-02-7







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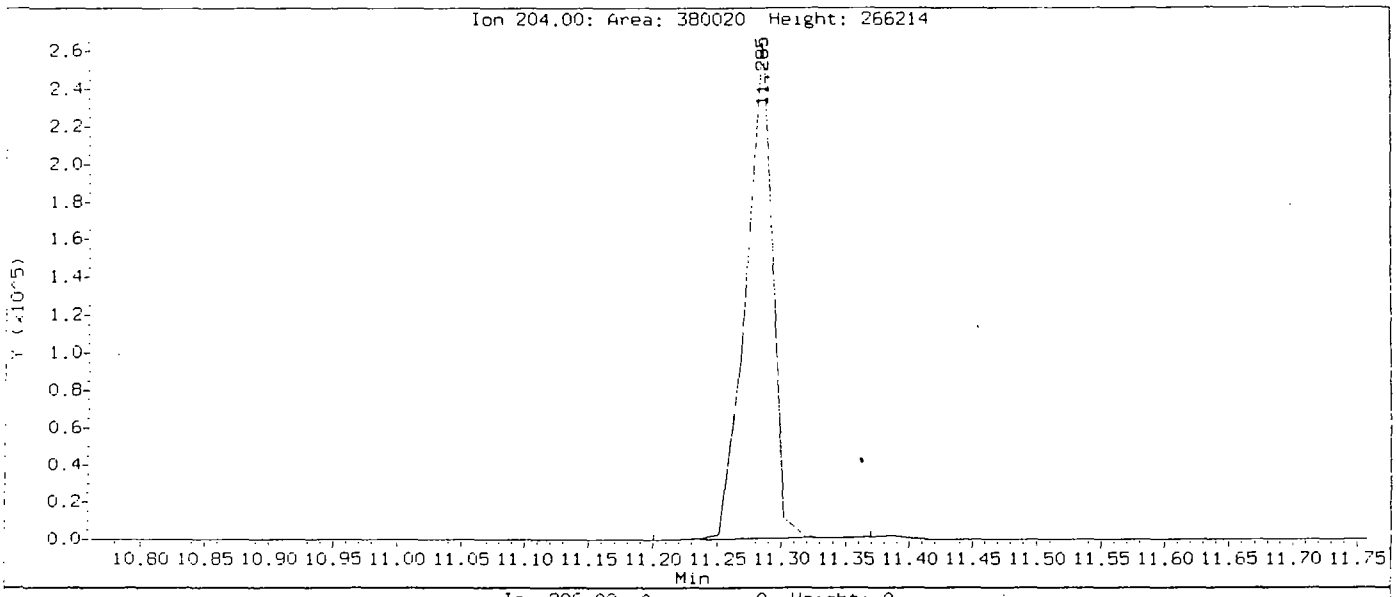
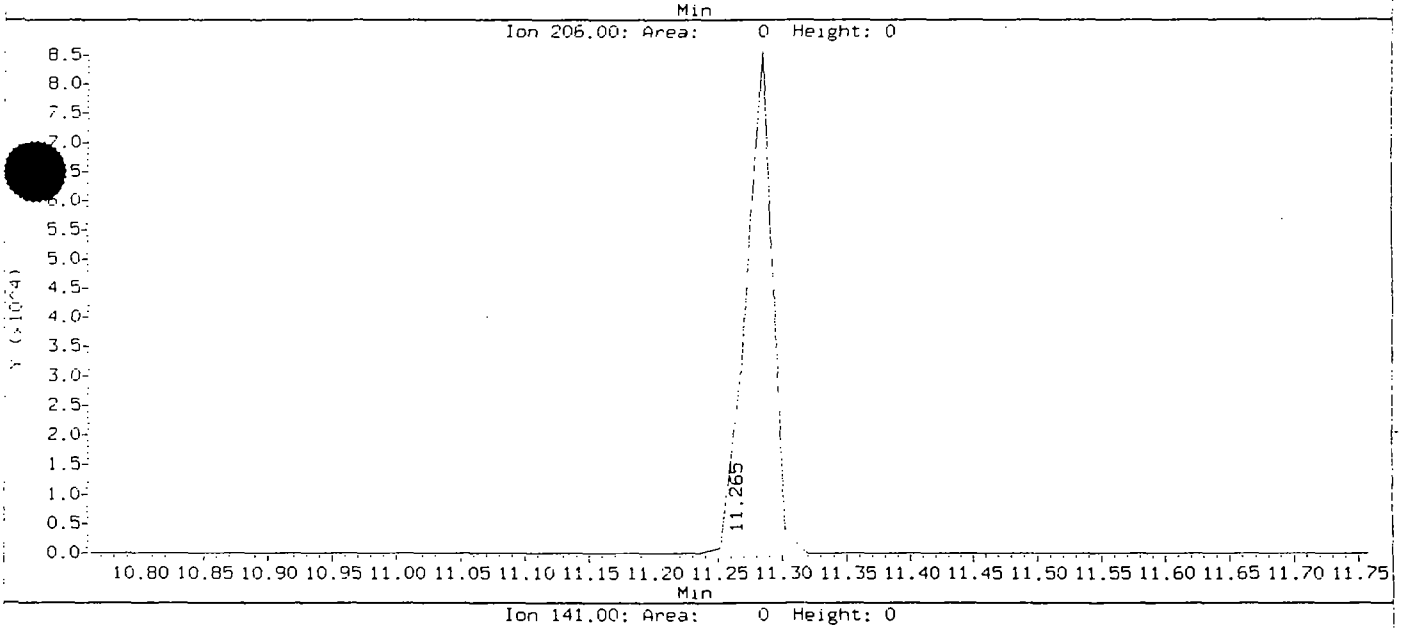
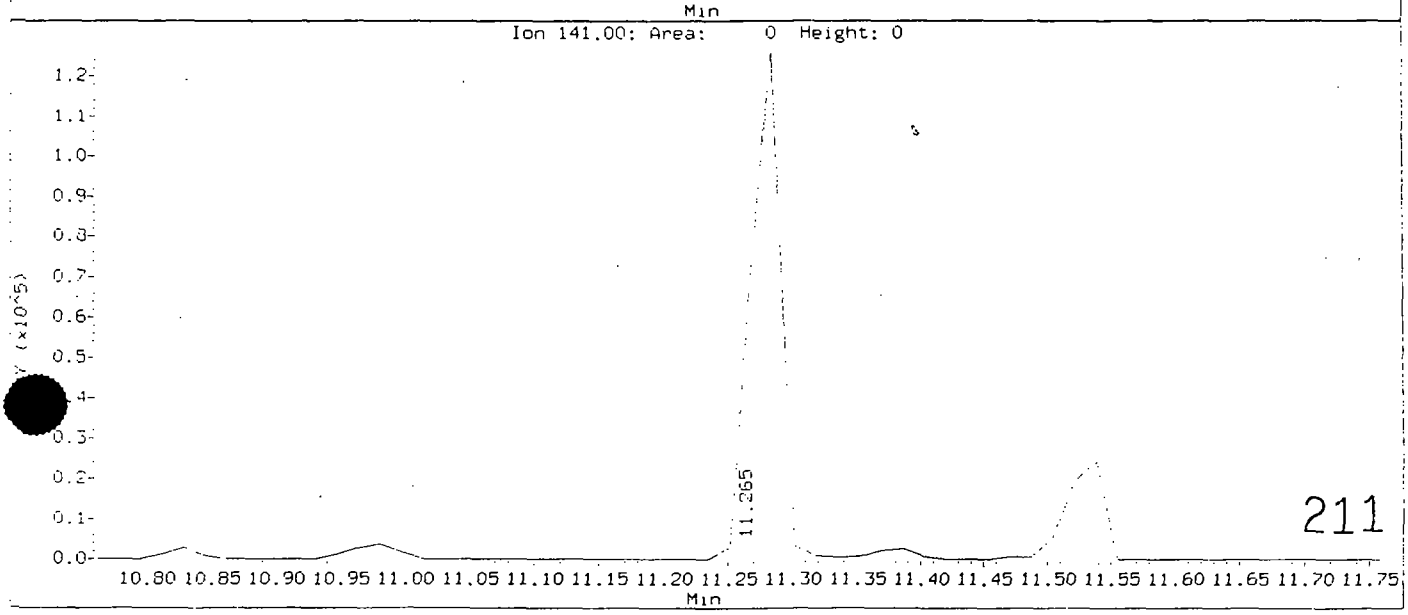
Injection Date: 17-JAN-2002 14:15
Instrument: 5972hp66.i
[redacted] Sample ID: SSTD080VAL

Compound: 4-Chlorophenyl-phenylether
CAS Number: 7005-72-3

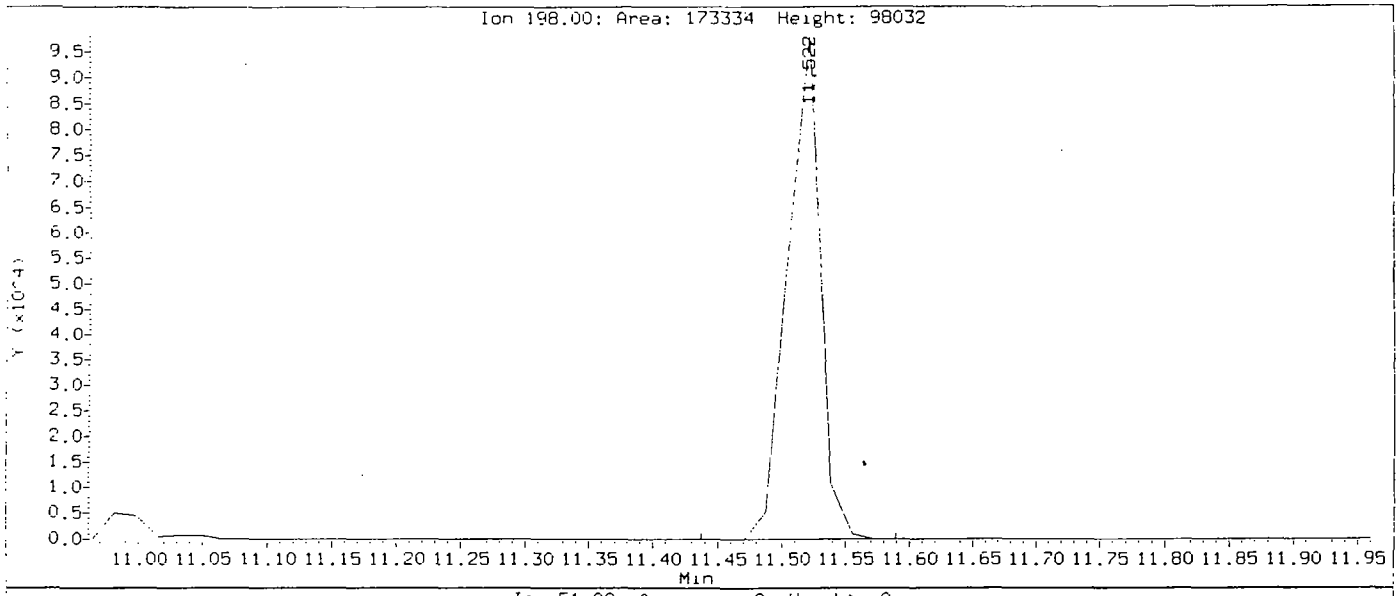


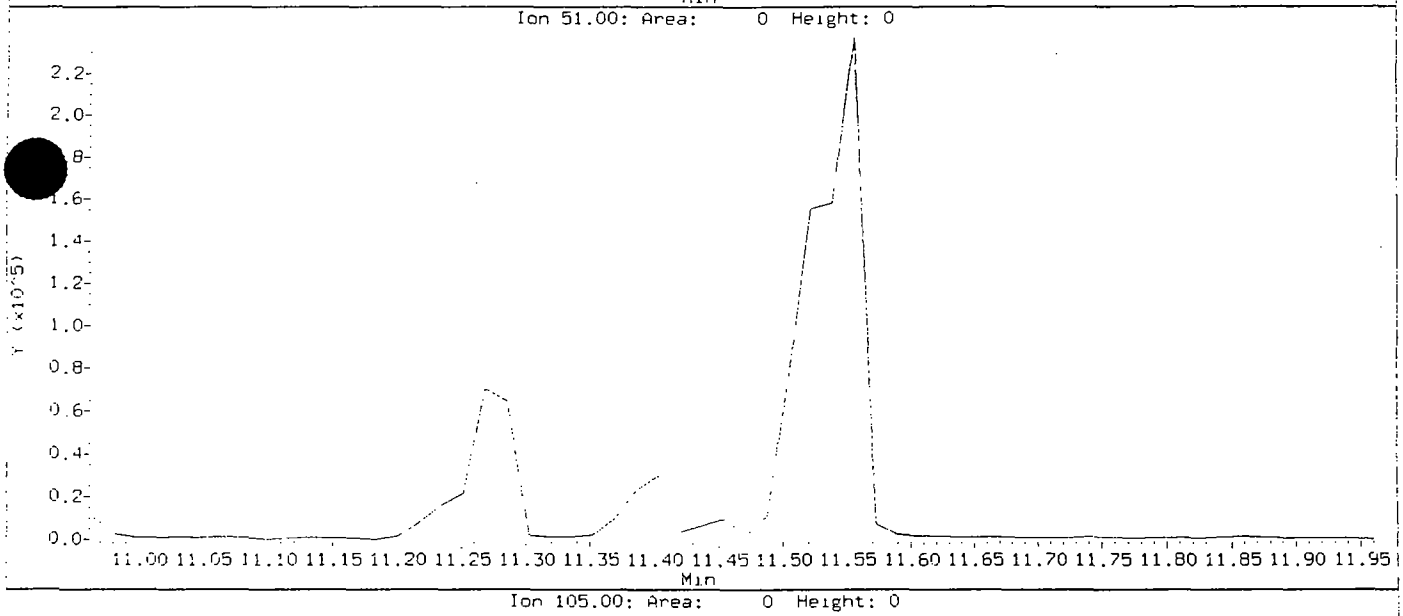


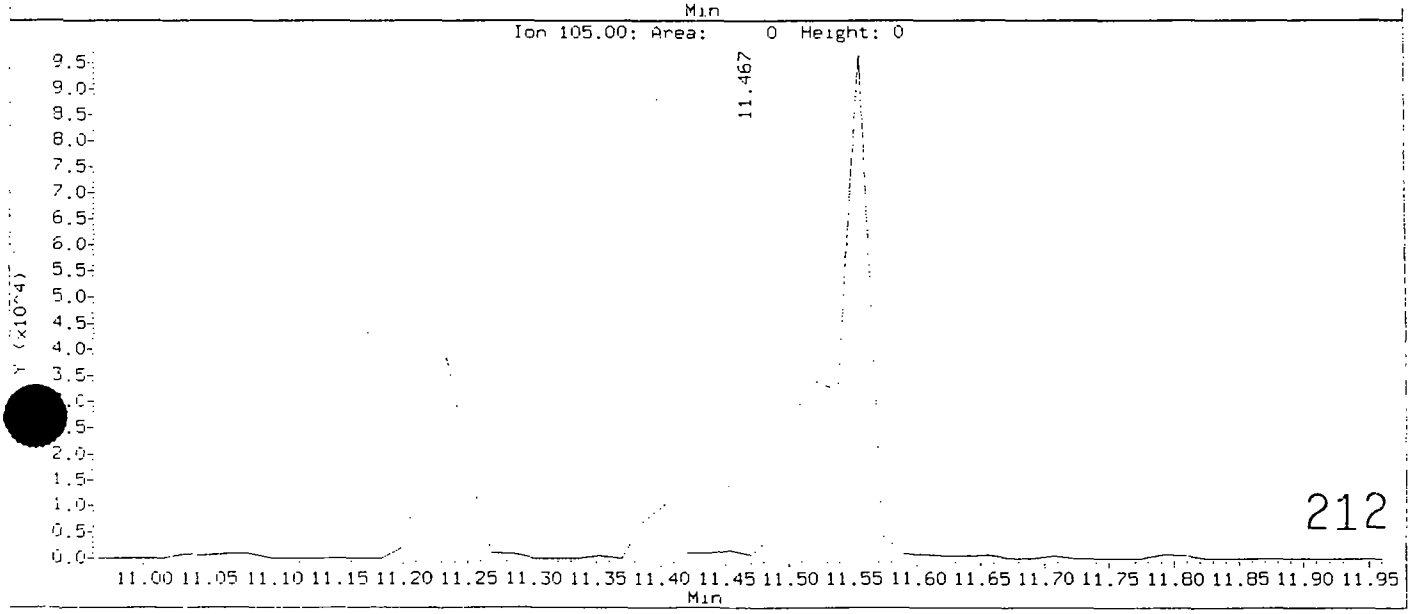


Data File: /chem/5972hp66.i/DF020117A66.b/HN020117A66.d
Injection Date: 17-JAN-2002 14:15
Instrument: 5972hp66.i
[redacted]t Sample ID: SSTD080VAL

[redacted]ound: 4,6-Dinitro-2-methylphenol
CAS Number: 534-52-1

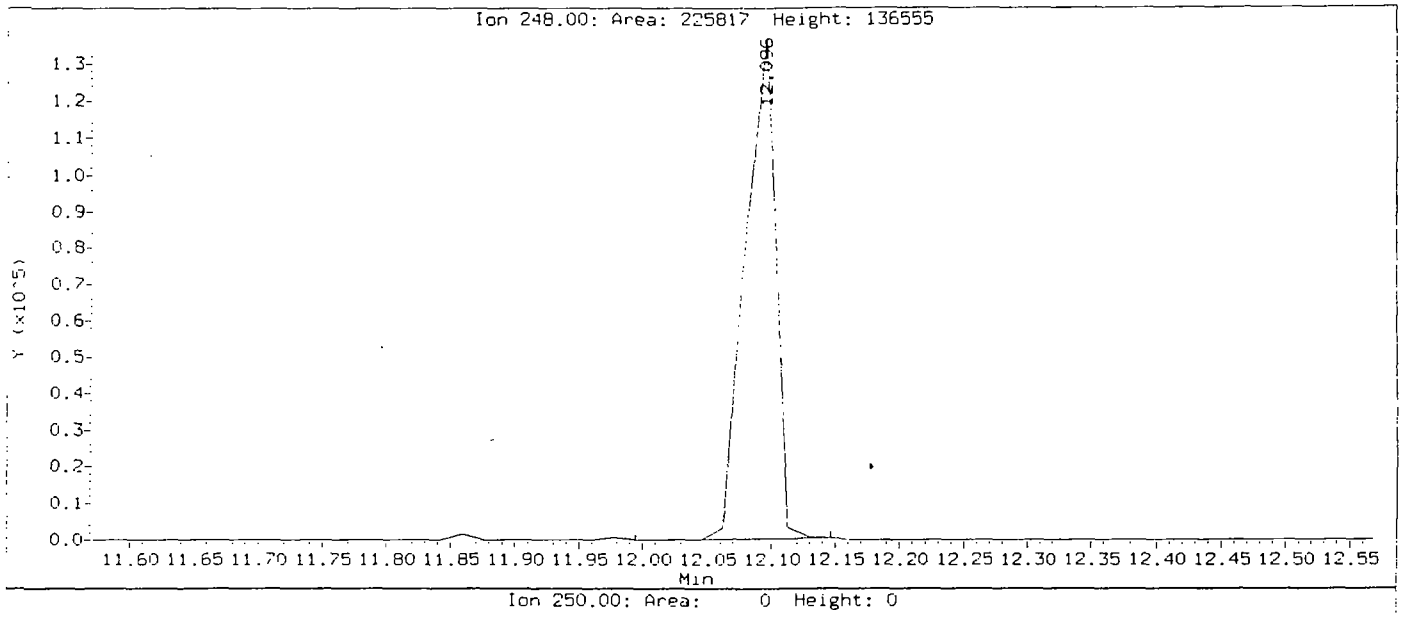


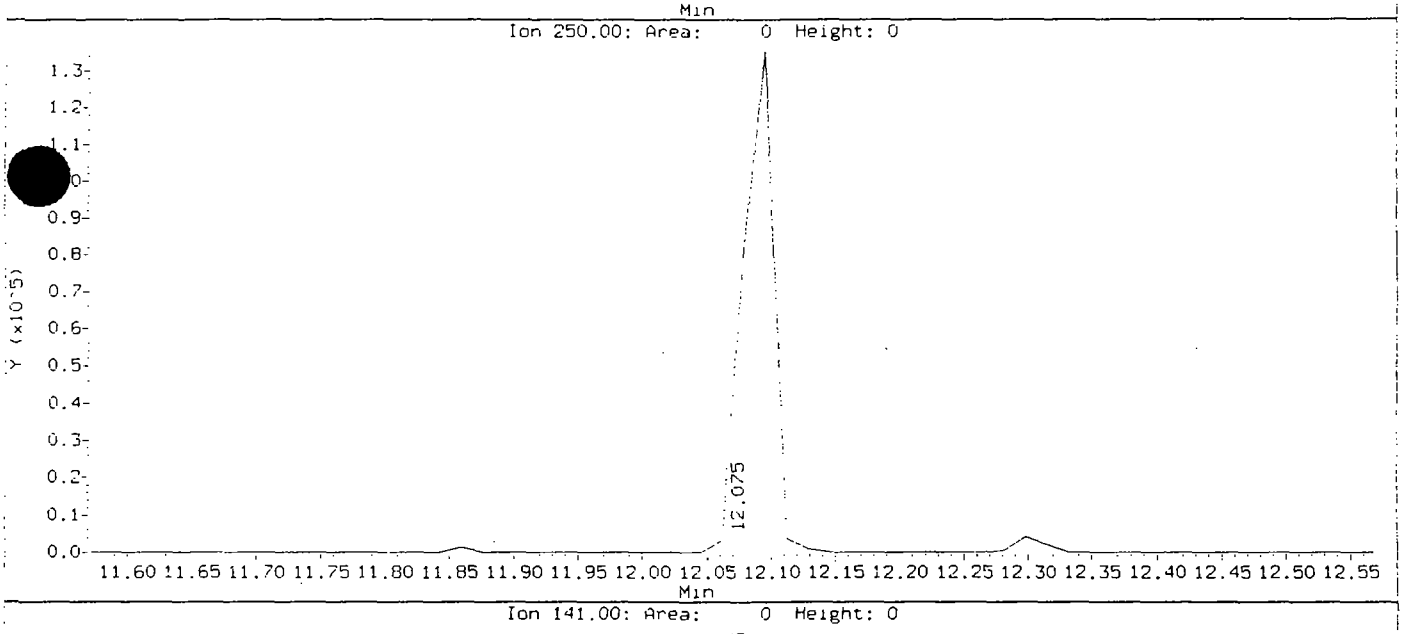


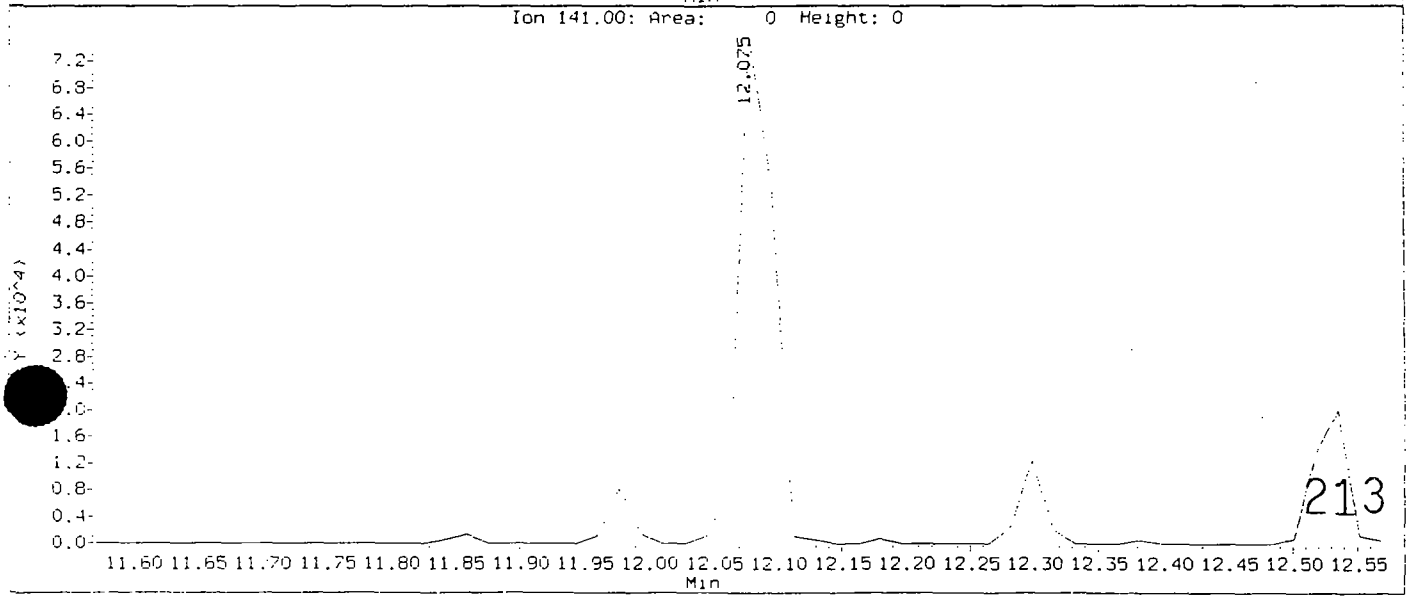


Data File: /chem/5972hp66.i/DF020117A66.b/HN020117A66.d
Injection Date: 17-JAN-2002 14:15
Instrument: 5972hp66.i
[redacted] Sample ID: SSTD080VAL

Compound: 4-Bromophenyl-phenylether
CAS Number: 101-55-3

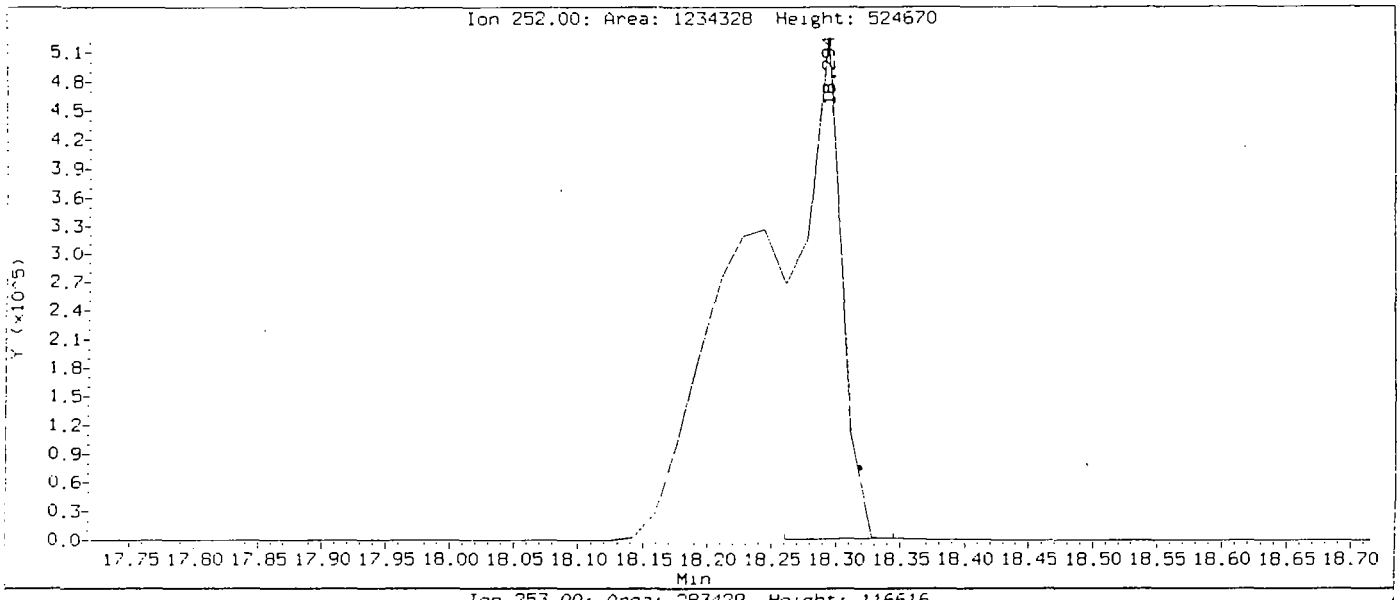


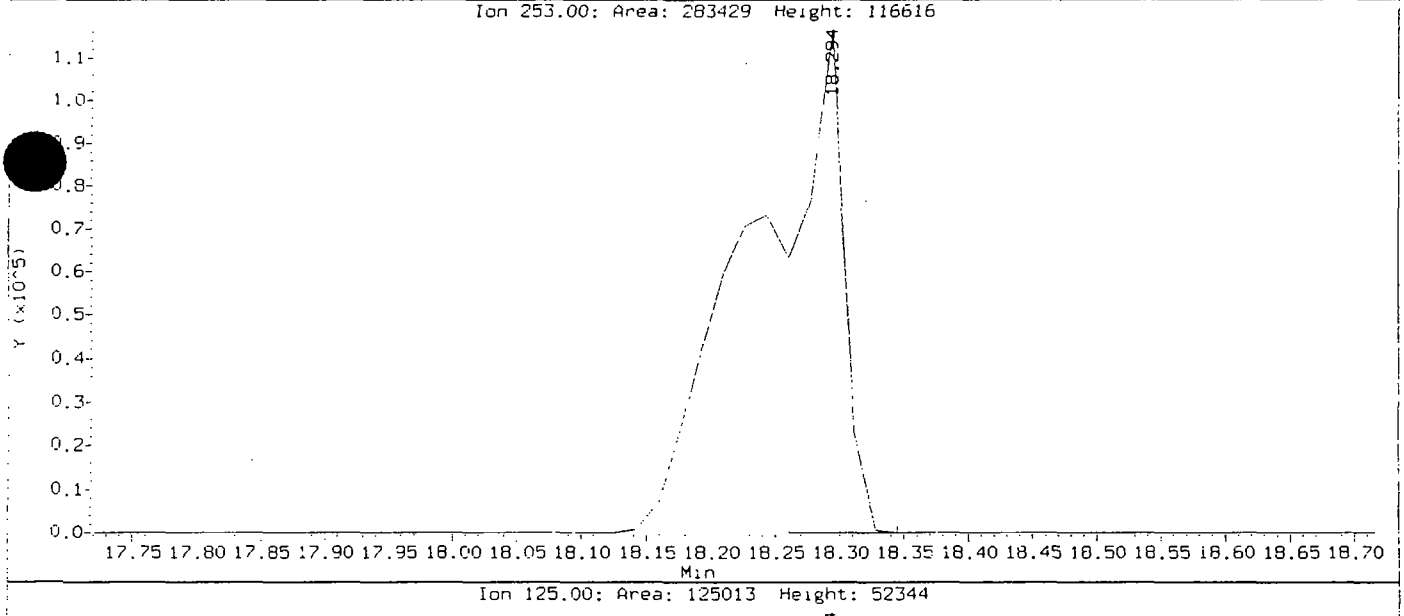


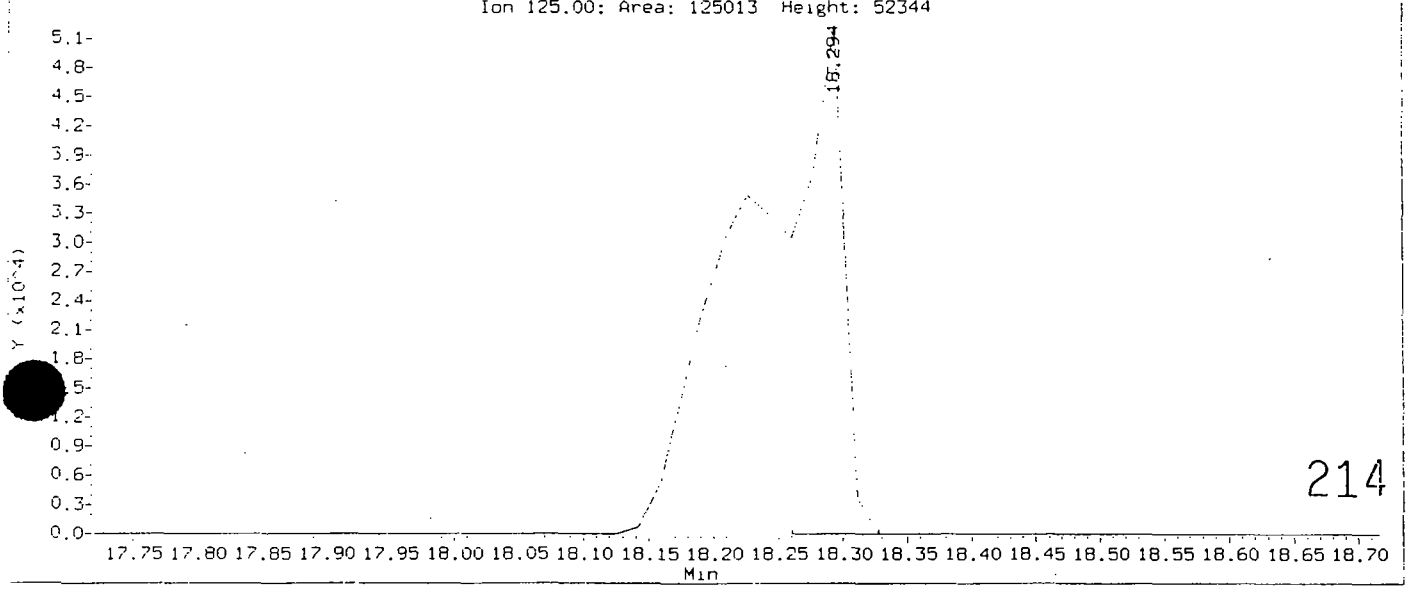


Data File: /chem/5972hp66.i/DF020117A66.b/HN020117A66.d
Injection Date: 17-JAN-2002 14:15
Instrument: 5972hp66.i
[redacted]nt Sample ID: SSTD080VAL

[redacted]ound: Benzo(k)fluoranthene
CAS Number: 207-08-9

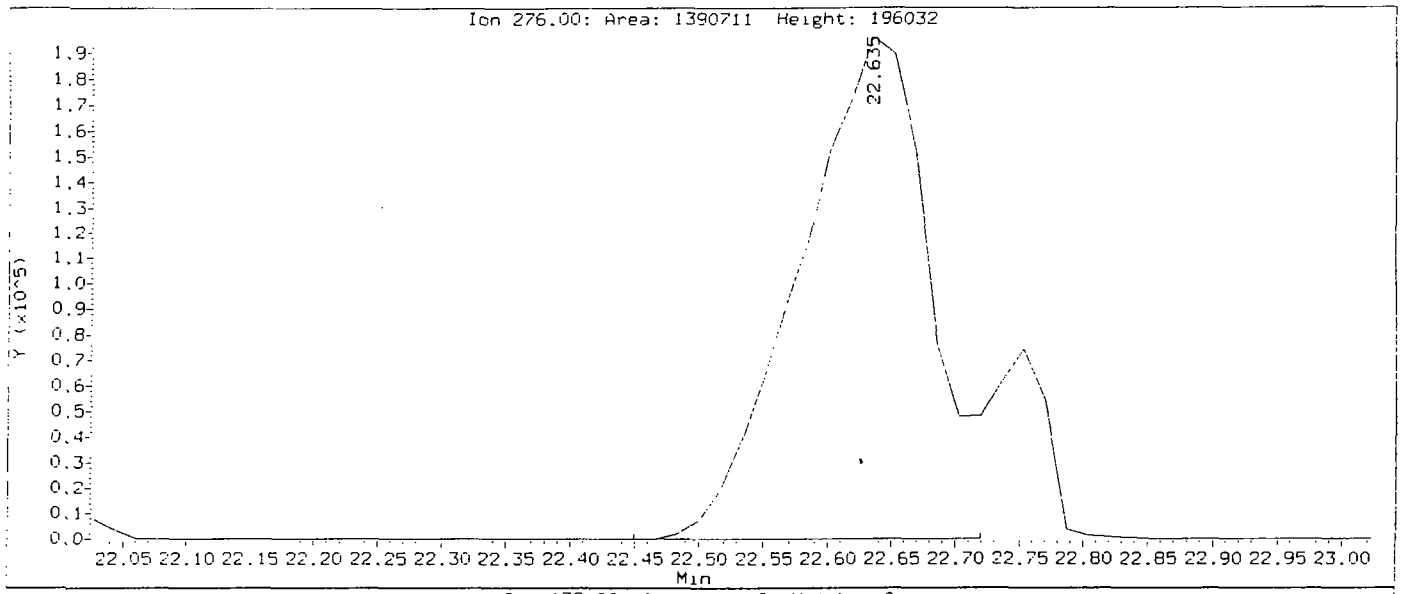


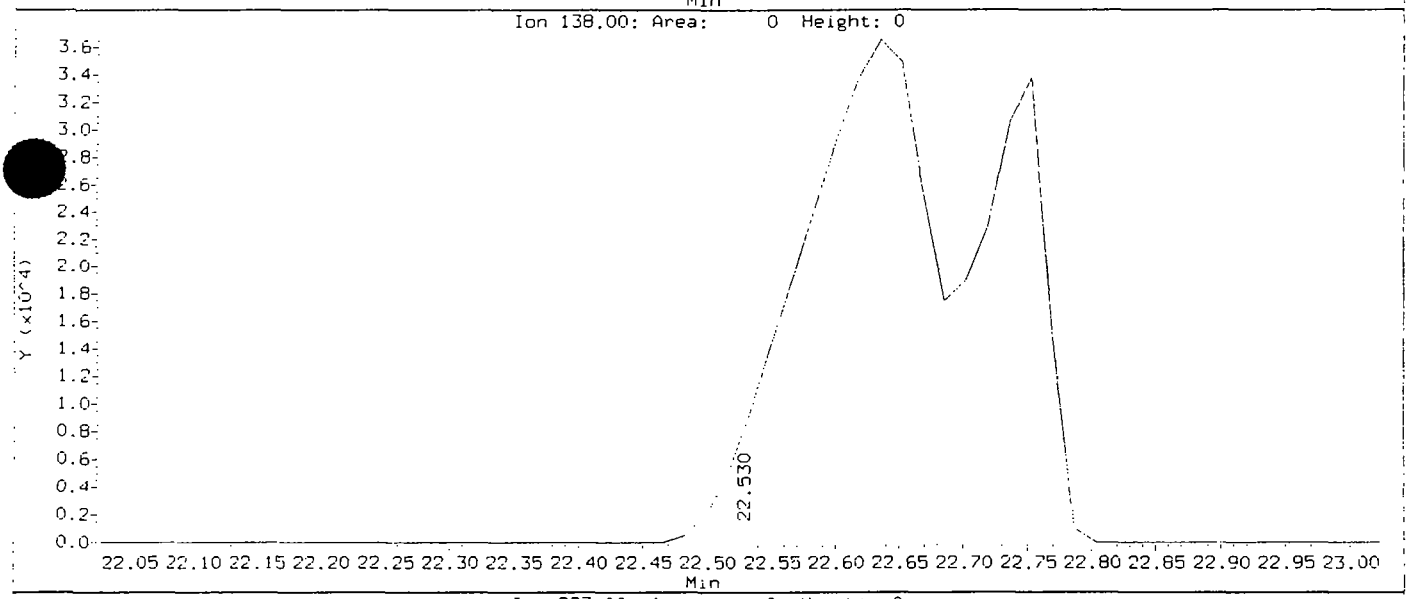


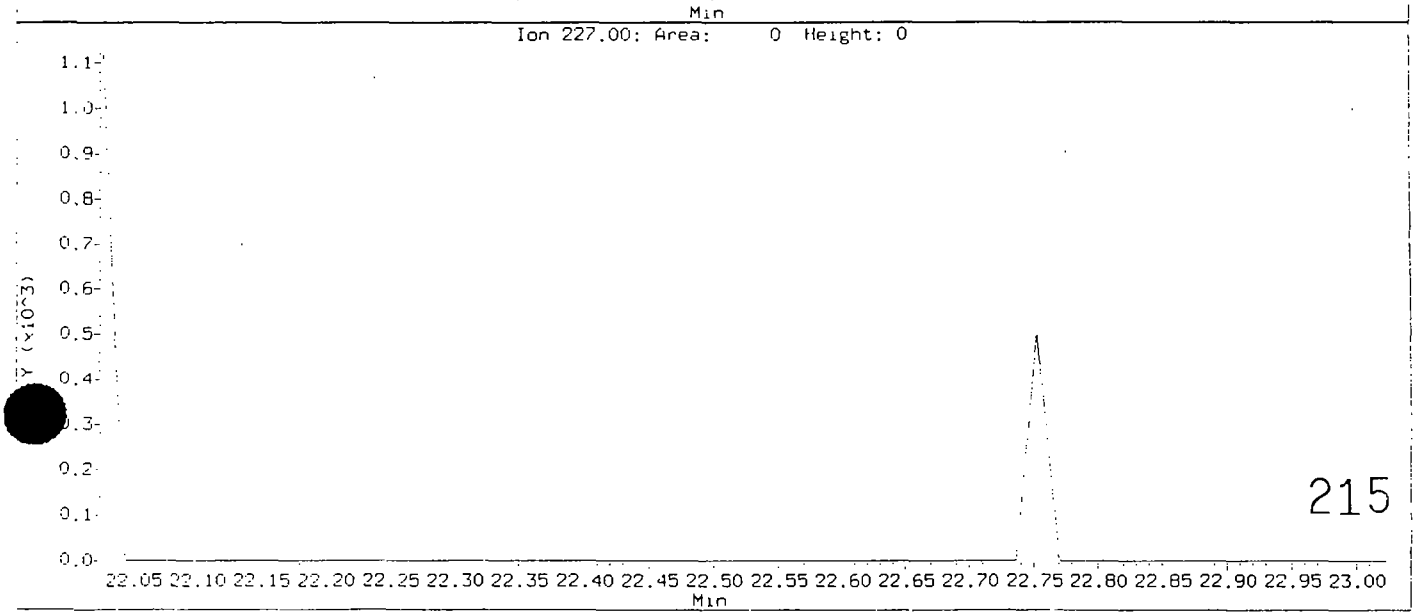


Data File: /chem/5972hp66.i/DF020117A66.b/HN020117A66.d
Injection Date: 17-JAN-2002 14:15
Instrument: 5972hp66.i
[redacted]nt Sample ID: SSTD080VAL

[redacted]pound: Indeno(1,2,3-cd)pyrene
CAS Number: 193-39-5







COMPUCHEM a division of Liberty Analytical Corp DATE 1/17/02 INITIAL TIME OF TUNE 0842 SHIFT/S(A) ✓ (B) ____ (C) ____

GC/MS SEMIVOLATILE RUN LOG TIME TUNE EXPIRES 2042 LINKER /METHOD 8270

COMPUCHEM .LOGBOOK 4 X(4) 4 (5972hp66)

PREVENTIVE MAINTENANCE Front Liner Septa FN 1/16/02

	REJECTED	FILE NAME	REPORTED	DATE	TIME	CLIENT ID#	CASE/SDG#	AMOUNT INJECTED	CHEMIST	COMMENTS(ETC.)/DISPOSITION
1		DF020117\066	/	1 17 02	0842	DFTPP	—	2µl	2391	SD=440
2	/	HG020117\066		/ /	0902	SSTD080	—			
3		HH020117\066	/	/ /	0957	SSTD080	—			52421
4		HI020117\066	/	/ /	1109	SSTD160	—			52423
5		HJ020117\066	/	/ /	1146	SSTD010	—			52418
6		HK020117\066	/	/ /	1223	SSTD120	—			52422
7		HL020117\066	/	/ /	1301	SSTD020	—			52419
8		HM020117\066	/	/ /	1338	SSTD050	—			52420
9		HN020117\066	/	/ /	1415	SSTD080VER	2nd Source			52315
10	/	WG15255-3\066 SL		/ /	1508	GF-SB3-0.5MS	Q2409			
11	/	WG15255-4\066 SL		/ /	1545	GF-SB3-0.5MSD	Q2409			
12		WG15255-3JA66	/	/ /	1705	GF-SB3-0.5MS				
13		WG15255-4JA66	/	/ /	1743	GF-SB3-0.5MSD				
14				/ /						
15				/ /						
16				/ /						
17				/ /						
18				/ /						
19				/ /						
20				/ /						
21				/ /						
22				/ /						
23				/ /						
24				/ /						

FN 1/17/02

STANDARDS

	Tune	Analytical	Int. Std.	Column Type
Std. ID #	7055	4387	800	RTX-5MS 0.25mm
Lot #	52031	52421	52415	

SUPERVISOR APPROVAL Frank L Rel

DATE 1-17-02

The presence of the Chemist's employee ID number, or signature, on this run log attests that strict compliance with the method's SOP has occurred Any SOP deviations require documentation by the responsible chemist together with the chemist's initials and the initials of the lab supervisor and QA department representative, signifying approval of the deviation.

b. Continuing Calibration Data (Form VII SV)

If more than one instrument is used, forms shall be arranged in order by instrument. If multiple continuing calibrations from the same instrument are used, they shall be in chronological order.

(1) Reconstructed Ion Chromatograms and quantitation reports for all continuing (12-hour) calibrations; Spectra not required

(2) EICPs displaying each manual integration

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Instrument ID: 5972HP66 Calibration Date: 01/20/02 Time: 1027

Lab File ID: HG020120A66 Init. Calib. Date(s): 01/17/02 01/17/02

Init. Calib. Times: 0957 1338

GC Column: RTX-5MS ID: 0.25 (mm)

COMPOUND	RRF OR AMOUNT	RRF80.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Phenol	1.5920000	1.4354144	0.01	-9.84	20.00	AVRG
Bis(2-chloroethyl)ether	1.5310000	1.3199142	0.01	-13.79	50.00	AVRG
2-Chlorophenol	1.3150000	1.3173776	0.01	0.18	50.00	AVRG
1,3-Dichlorobenzene	1.4490000	1.4916134	0.01	2.94	50.00	AVRG
1,4-Dichlorobenzene	1.4830000	1.4199539	0.01	-4.25	20.00	AVRG
1,2-Dichlorobenzene	1.3910000	1.4006736	0.01	0.70	50.00	AVRG
2-Methylphenol	1.0840000	1.0787334	0.01	-0.48	50.00	AVRG
2,2'-oxybis(1-Chloropropane)	1.8470000	1.6315812	0.01	-11.66	50.00	AVRG
4-Methylphenol	1.2850000	1.2784540	0.01	-0.51	50.00	AVRG
N-Nitroso-di-N-propylamine	0.7020000	0.6677697	0.05	-4.88	50.00	AVRG
Hexachloroethane	0.6830000	0.7145480	0.01	4.62	50.00	AVRG
Nitrobenzene	0.4970000	0.4503886	0.01	-9.38	50.00	AVRG
Isophorone	0.9200000	0.8225436	0.01	-10.59	50.00	AVRG
2-Nitrophenol	0.2180000	0.2145789	0.01	-1.57	20.00	AVRG
2,4-Dimethylphenol	0.3210000	0.3014790	0.01	-6.08	50.00	AVRG
Bis(2-chloroethoxy)methane	0.5680000	0.5481610	0.01	-3.49	50.00	AVRG
2,4-Dichlorophenol	0.3280000	0.3331753	0.01	1.58	20.00	AVRG
1,2,4-Trichlorobenzene	0.3890000	0.3835711	0.01	-1.40	50.00	AVRG
Naphthalene	1.1730000	1.1390799	0.01	-2.89	50.00	AVRG
4-Chloroaniline	0.5490000	0.4886466	0.01	-10.99	50.00	AVRG
Hexachlorobutadiene	0.2930000	0.3117748	0.01	6.41	20.00	AVRG
4-Chloro-3-methylphenol	0.3850000	0.3333880	0.01	-13.40	20.00	AVRG
2-Methylnaphthalene	0.7960000	0.7055894	0.01	-11.36	50.00	AVRG
Hexachlorocyclopentadiene	0.3560000	0.3105470	0.05	-12.77	50.00	AVRG
2,4,6-Trichlorophenol	0.4030000	0.3830113	0.01	-4.96	20.00	AVRG
2,4,5-Trichlorophenol	0.4420000	0.4762663	0.01	7.75	50.00	AVRG
2-Chloronaphthalene	1.0340000	0.9894743	0.01	-4.31	50.00	AVRG
2-Nitroaniline	0.4990000	0.4265625	0.01	-14.52	50.00	AVRG
Dimethylphthalate	1.3590000	1.3881615	0.01	2.14	50.00	AVRG
2,6-Dinitrotoluene	0.3530000	0.3220750	0.01	-8.76	50.00	AVRG
Acenaphthylene	1.8210000	1.7866997	0.01	-1.88	50.00	AVRG
3-Nitroaniline	0.3700000	0.3382786	0.01	-8.57	50.00	AVRG
Acenaphthene	1.0600000	0.9645023	0.01	-9.01	20.00	AVRG
2,4-Dinitrophenol	0.1920000	0.2215222	0.05	15.38	50.00	AVRG
4-Nitrophenol	0.2770000	0.2629038	0.05	-5.09	50.00	AVRG
2,4-Dinitrotoluene	0.4700000	0.4681516	0.01	-0.39	50.00	AVRG
Dibenzofuran	1.7750000	1.7366385	0.01	-2.16	50.00	AVRG
Diethylphthalate	1.4780000	1.4302234	0.01	-3.23	50.00	AVRG
4-Chlorophenyl-phenylether	0.7290000	0.6782248	0.01	-6.96	50.00	AVRG
Fluorene	1.3460000	1.3249508	0.01	-1.56	50.00	AVRG
4-Nitroaniline	0.3940000	0.3935565	0.01	-0.11	50.00	AVRG
4,6-Dinitro-2-methylphenol	0.1780000	0.1853277	0.01	4.12	50.00	AVRG

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Instrument ID: 5972HP66 Calibration Date: 01/20/02 Time: 1027

Lab File ID: HG020120A66 Init. Calib. Date(s): 01/17/02 01/17/02

Init. Calib. Times: 0957 1338

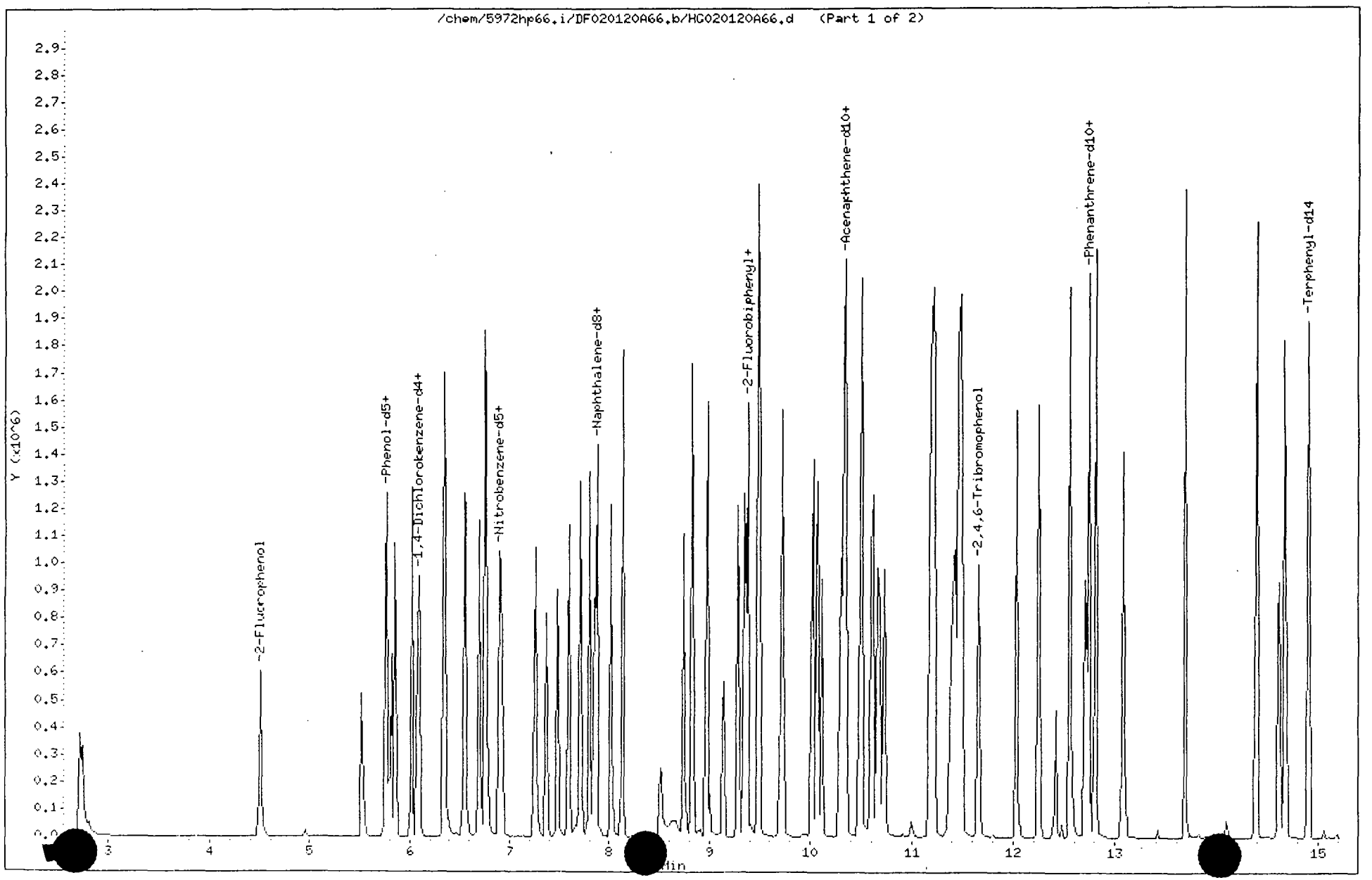
GC Column: RTX-5MS ID: 0.25 (mm)

COMPOUND	RRF OR AMOUNT	RRF80.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
N-Nitrosodiphenylamine	0.4460000	0.4872573	0.01	9.25	20.00	AVRG
4-Bromophenyl-phenylether	0.2620000	0.2589416	0.01	-1.17	50.00	AVRG
Hexachlorobenzene	0.3200000	0.3459346	0.01	8.10	50.00	AVRG
Pentachlorophenol	0.1830000	0.1809742	0.05	-1.11	20.00	AVRG
Phenanthrene	1.1400000	1.0629194	0.01	-6.76	50.00	AVRG
Anthracene	1.1310000	1.1183676	0.01	-1.12	50.00	AVRG
Carbazole	0.8860000	0.7780741	0.01	-12.18	50.00	AVRG
Di-n-butylphthalate	1.4060000	1.4123911	0.01	0.45	50.00	AVRG
Fluoranthene	1.3710000	1.4483108	0.01	5.64	20.00	AVRG
Pyrene	1.2870000	1.2070470	0.01	-6.21	50.00	AVRG
Butylbenzylphthalate	0.6280000	0.6610341	0.01	5.26	50.00	AVRG
3,3'-Dichlorobenzidine	0.5180000	0.4775910	0.01	-7.80	50.00	AVRG
s(2-ethylhexyl)Phthalate	0.8950000	0.8205404	0.01	-8.32	50.00	AVRG
enzo(a)anthracene	1.2760000	1.2174556	0.01	-4.59	50.00	AVRG
Chrysene	1.2230000	1.1174823	0.01	-8.63	50.00	AVRG
Di-n-octylphthalate	1.7300000	1.6605383	0.01	-4.02	20.00	AVRG
Benzo(b)fluoranthene	1.5660000	1.5586688	0.01	-0.47	50.00	AVRG
Benzo(k)fluoranthene	1.3680000	1.3438790	0.01	-1.76	50.00	AVRG
Benzo(a)pyrene	1.3070000	1.2964329	0.01	-0.81	20.00	AVRG
Indeno(1,2,3-cd)pyrene	1.3390000	1.3397690	0.01	0.06	50.00	AVRG
Dibenzo(a,h)anthracene	1.3400000	1.4027328	0.01	4.68	50.00	AVRG
Benzo(g,h,i)perylene	1.4310000	1.4656209	0.01	2.42	50.00	AVRG
2-Fluorophenol	1.3220000	1.0544896	0.01	-20.24	50.00	AVRG
Phenol-d5	1.7830000	1.5829879	0.01	-11.22	50.00	AVRG
Nitrobenzene-d5	0.5420000	0.5137196	0.01	-5.22	50.00	AVRG
2-Fluorobiphenyl	1.3000000	1.2965529	0.01	-0.26	50.00	AVRG
2,4,6-Tribromophenol	0.3500000	0.3594106	0.01	2.69	50.00	AVRG
Terphenyl-d14	0.9690000	0.8752269	0.01	-9.68	50.00	AVRG

Data File: /chem/5972hp66.i/DF020120A66.b/HG020120A66.d
Date : 20-JAN-2002 10:27
Client ID: SSTD080
Sample Info: SSTD080:2319
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i

Operator: 2319
Column diameter: 0.25

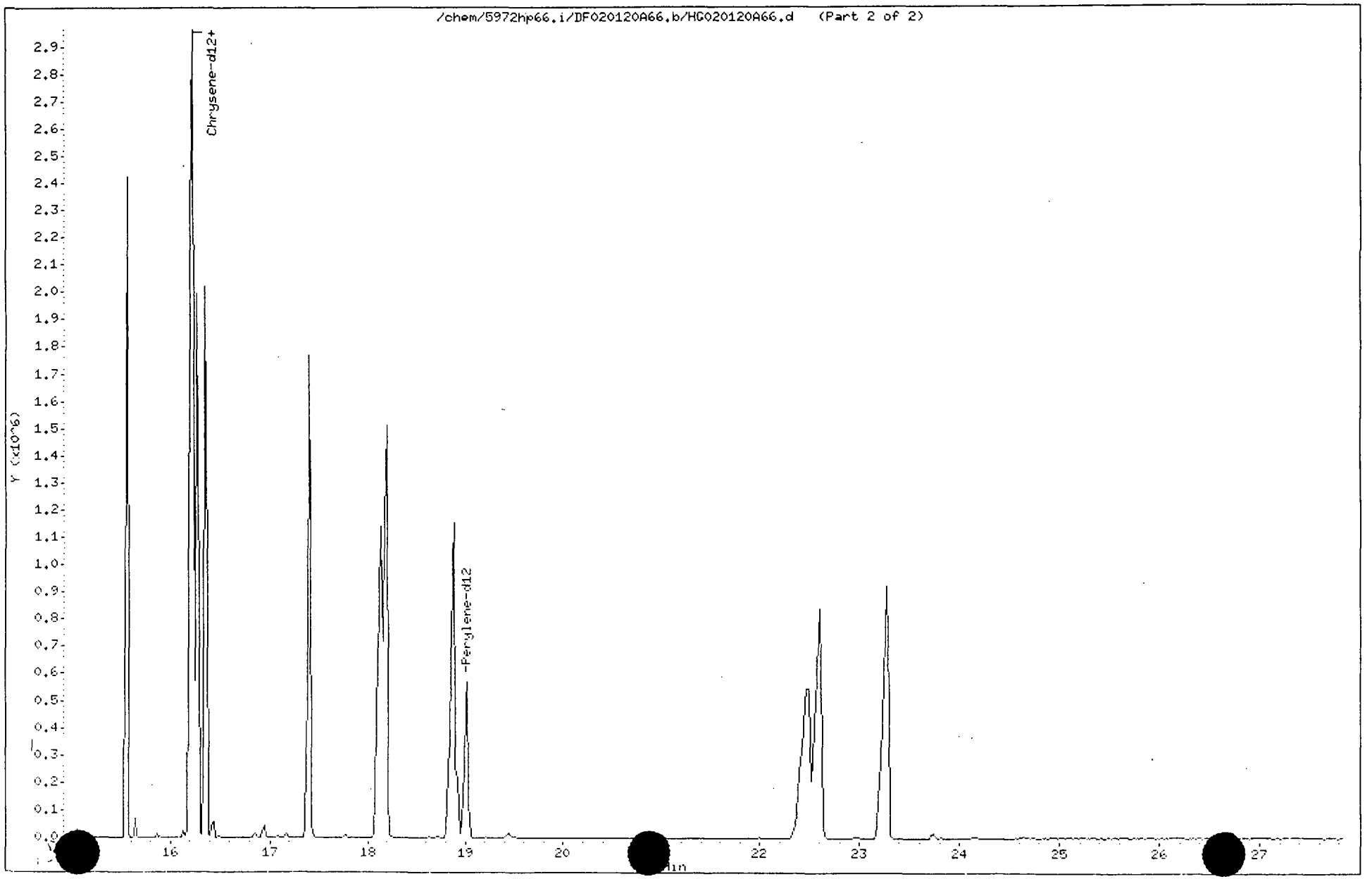


Data File: /chem/5972hp66.i/DF020120A66.b/HG020120A66.d
Date : 20-JAN-2002 10:27
Client ID: SSTD080
Sample Info: SSTD080:2319
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i

Operator: 2319
Column diameter: 0.25

221



Data File: /chem/5972hp66.i/DF020120A66.b/HG020120A66.d
Report Date: 20-Jan-2002 10:24

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020120A66.b/HG020120A66.d
Lab Smp Id: SSTD080 Client Smp ID: SSTD080
Inj Date : 20-JAN-2002 10:27
Operator : 2319 Inst ID: 5972hp66.i
Smp Info : SSTD080:2319
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020120A66.b/8270Cv6.m
Meth Date : 20-Jan-2002 10:24 naegler Quant Type: ISTD
Cal Date : 17-JAN-2002 13:38 Cal File: HM020117A66.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: einstein

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)	SIMILARITY
* 1 1,4-Dichlorobenzene-d4	152	6.067	6.067	(1.000)	118463	40.0000		
* 2 Naphthalene-d8	136	7.840	7.840	(1.000)	430224	40.0000		
* 3 Acenaphthene-d10	164	10.289	10.289	(1.000)	281835	40.0000		
* 4 Phenanthrene-d10	188	12.705	12.705	(1.000)	511432	40.0000		
* 5 Chrysene-d12	240	16.235	16.235	(1.000)	561940	40.0000		
* 6 Perylene-d12	264	19.021	19.021	(1.000)	535165	40.0000		
S 7 2-Fluorophenol	112	4.496	4.496	(0.741)	249836	80.0000	63.83	
S 8 Phenol-d5	99	5.746	5.746	(0.947)	375051	80.0000	71.02	
S 9 Nitrobenzene-d5	82	6.895	6.895	(0.879)	442029	80.0000	75.90	
S 10 2-Fluorobiphenyl	172	9.377	9.377	(0.911)	730828	80.0000	79.81	
S 11 2,4,6-Tribromophenol	330	11.657	11.657	(1.133)	202589	80.0000	82.23	
S 12 Terphenyl-d14	244	14.900	14.900	(0.918)	983650	80.0000	72.25	
13 N-Nitrosodimethylamine	42	2.740	2.740	(0.452)	154181	80.0000	75.19	9248
14 Pyridine	79	2.706	2.706	(0.446)	239817	80.0000	73.21	9760

Data File: /chem/5972hp66.i/DF020120A66.b/HG020120A66.d
Report Date: 20-Jan-2002 10:24

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
15 Benzaldehyde	77	5.510	5.510	(0.908)	195423	80.0000	76.94	9437
16 Phenol	94	5.763	5.763	(0.950)	340087	80.0000	72.16	
17 Bis(2-chloroethyl)ether	93	5.814	5.814	(0.958)	312722	80.0000	68.97	
18 2-Chlorophenol	128	5.847	5.847	(0.964)	312121	80.0000	80.14	9199
19 1,3-Dichlorobenzene	146	6.016	6.016	(0.992)	353402	80.0000	82.36	
20 1,4-Dichlorobenzene	146	6.101	6.101	(1.006)	336424	80.0000	76.62	
21 Benzyl alcohol	108	6.354	6.354	(1.047)	195559	80.0000	76.47	
22 1,2-Dichlorobenzene	146	6.337	6.337	(1.045)	331856	80.0000	80.58	
23 2-Methylphenol	108	6.557	6.557	(1.081)	255580	80.0000	79.58	
24 2,2'-oxybis(1-Chloropropane)	45	6.540	6.540	(1.078)	386564	80.0000	70.67	8959
25 Acetophenone	105	6.692	6.692	(1.103)	451785	80.0000	77.01	8779
26 3-Methylphenol	108	6.759	6.759	(1.114)	302899	80.0000	79.57	
27 4-Methylphenol	108	6.759	6.759	(1.114)	302899	80.0000	79.57	
28 N-Nitroso-di-N-propylamine	70	6.743	6.743	(1.111)	158212	80.0000	76.07	8523
29 Hexachloroethane	117	6.743	6.743	(1.111)	169295	80.0000	83.67	9608
30 Nitrobenzene	77	6.911	6.911	(0.882)	387536	80.0000	72.55	9579
31 Isophorone	82	7.249	7.249	(0.925)	707756	80.0000	71.54	8356
32 2-Nitrophenol	139	7.367	7.367	(0.940)	184634	80.0000	78.64	8993
33 2,4-Dimethylphenol	122	7.469	7.469	(0.953)	259407	80.0000	75.16	8774
34 Bis(2-chloroethoxy)methane	93	7.587	7.587	(0.968)	471664	80.0000	77.23	9469
35 2,4-Dichlorophenol	162	7.705	7.705	(0.983)	286680	80.0000	81.30	
36 1,2,4-Trichlorobenzene	180	7.790	7.790	(0.994)	330043	80.0000	78.92	
37 Naphthalene	128	7.874	7.874	(1.004)	980119	80.0000	77.66	9372
38 4-Chloroaniline	127	8.009	8.009	(1.022)	420455	80.0000	71.23	8622
39 Hexachlorobutadiene	225	8.128	8.128	(1.037)	268266	80.0000	85.05	9289
40 Caprolactam	113	8.516	8.516	(1.086)	68396	80.0000	48.43	9332
41 4-Chloro-3-methylphenol	107	8.736	8.736	(1.114)	286863	80.0000	69.31	9539
42 2-Methylnaphthalene	142	8.820	8.820	(1.125)	607123	80.0000	70.94	
43 1-Methylnaphthalene	142	8.972	8.972	(1.144)	553105	80.0000	79.68	
44 Hexachlorocyclopentadiene	237	9.141	9.141	(0.888)	175046	80.0000	69.89	9132
45 2,4,6-Trichlorophenol	196	9.276	9.276	(0.902)	215892	80.0000	75.97	
46 2,4,5-Trichlorophenol	196	9.344	9.344	(0.908)	268457	80.0000	86.21	
47 1,1'-Biphenyl	154	9.479	9.479	(0.921)	620464	80.0000	71.55	8540
48 2-Chloronaphthalene	162	9.496	9.496	(0.923)	557737	80.0000	76.55	
49 2-Nitroaniline	65	9.715	9.715	(0.944)	480881	160.000	136.9	9516
50 Dimethylphthalate	163	10.019	10.019	(0.974)	782465	80.0000	81.72	8798
51 2,6-Dinitrotoluene	165	10.104	10.104	(0.982)	181544	80.0000	72.97	9196
52 Acenaphthylene	152	10.070	10.070	(0.979)	1007109	80.0000	78.48	8819
53 3-Nitroaniline	138	10.323	10.323	(1.003)	381355	160.000	146.4	9492
54 Acenaphthene	154	10.340	10.340	(1.005)	543661	80.0000	72.77	9481
55 2,4-Dinitrophenol	184	10.509	10.509	(1.021)	624327	400.000	460.8	
56 4-Nitrophenol	109	10.678	10.678	(1.038)	296382	160.000	151.7	7013
57 2,4-Dinitrotoluene	165	10.729	10.729	(1.043)	263883	80.0000	79.68	7520
58 Dibenzofuran	168	10.610	10.610	(1.031)	978891	80.0000	78.27	8201
59 Diethylphthalate	149	11.185	11.185	(1.087)	806174	80.0000	77.40	9384
60 4-Chlorophenyl-phenylether	204	11.218	11.218	(1.090)	382295	80.0000	74.45	7231
61 Fluorene	166	11.201	11.201	(1.089)	746835	80.0000	78.77	8183

Data File: /chem/5972hp66.i/DF020120A66.b/HG020120A66.d
Report Date: 20-Jan-2002 10:24

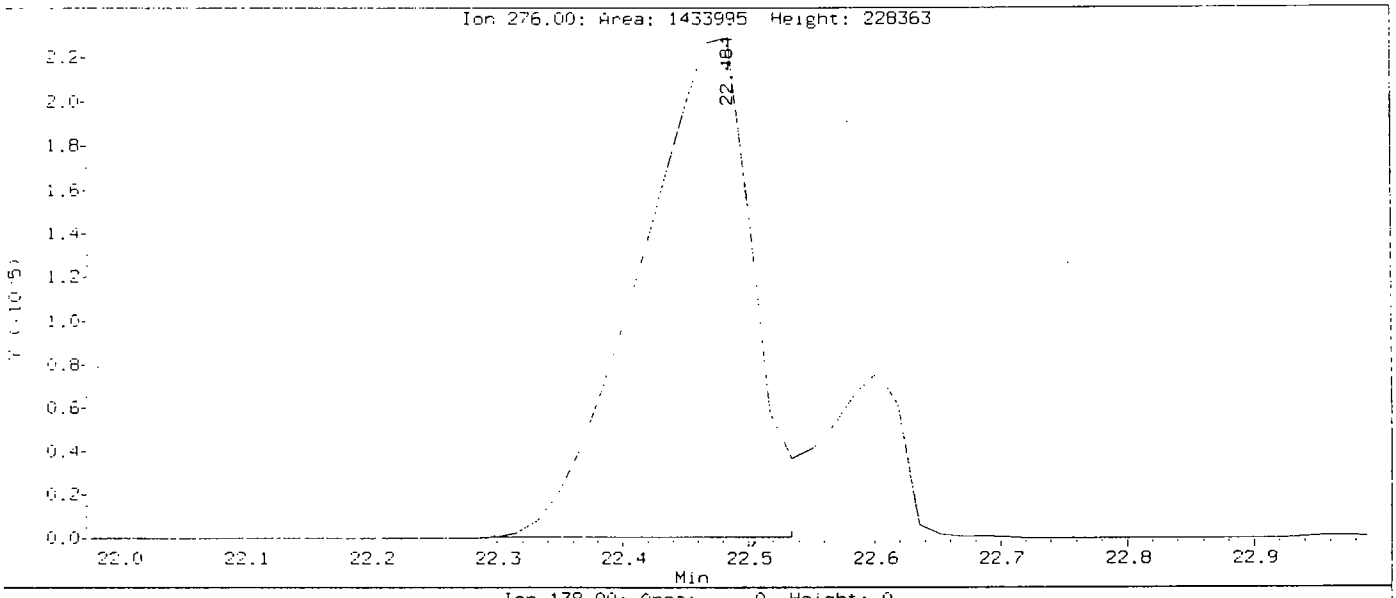
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)	SIMILARITY
62 4-Nitroaniline	138	11.421	11.421	(1.110)	443672	160.000	159.7	9348
63 4,6-Dinitro-2-methylphenol	198	11.455	11.455	(0.902)	379130	160.000	167.0	7840
64 N-Nitrosodiphenylamine	169	11.472	11.472	(0.903)	498398	80.0000	87.40	8815
65 1,2-Diphenylhydrazine	77	11.489	11.489	(1.117)	1056570	80.0000	79.70	9552
66 4-Bromophenyl-phenylether	248	12.029	12.029	(0.947)	264862	80.0000	78.91	9496
67 Hexachlorobenzene	284	12.249	12.249	(0.964)	353844	80.0000	86.38	9039
68 Atrazine	200	12.417	12.417	(0.977)	64982	80.0000	43.77	8701
69 Pentachlorophenol	266	12.553	12.553	(0.988)	370224	160.000	158.5	8863
70 Phenanthrene	178	12.738	12.738	(1.003)	1087222	80.0000	74.62	
71 Anthracene	178	12.806	12.806	(1.008)	1143938	80.0000	79.08	
72 Carbazole	167	13.076	13.076	(1.029)	795864	80.0000	70.25	9289
73 Di-n-butylphthalate	149	13.684	13.684	(1.077)	1444684	80.0000	80.35	9561
74 Fluoranthene	202	14.394	14.394	(1.133)	1481425	80.0000	84.52	
75 Benzidine	184	14.613	14.613	(0.900)	689950	160.000	137.9	8131
76 Pyrene	202	14.664	14.664	(0.903)	1356576	80.0000	75.05	
77 Butylbenzylphthalate	149	15.559	15.559	(0.958)	742923	80.0000	84.24	9569
78 3,3'-Dichlorobenzidine	252	16.218	16.218	(0.999)	536755	80.0000	73.79	8706
79 bis(2-ethylhexyl)Phthalate	149	16.353	16.353	(1.007)	922189	80.0000	73.36	9341
80 Benzo(a)anthracene	228	16.201	16.201	(0.998)	1368274	80.0000	76.31	
81 Chrysene	228	16.268	16.268	(1.002)	1255916	80.0000	73.10	
82 Di-n-octylphthalate	149	17.400	17.400	(0.915)	1777324	80.0000	76.80	
83 Benzo(b)fluoranthene	252	18.126	18.126	(0.953)	1668290	80.0000	79.60	
84 Benzo(k)fluoranthene	252	18.194	18.194	(0.956)	1438394	80.0000	78.57	
85 Benzo(a)pyrene	252	18.886	18.886	(0.993)	1387611	80.0000	79.35	
86 Indeno(1,2,3-cd)pyrene	276	22.484	22.484	(1.182)	1433995	80.0000	80.05	0(M) (
87 Dibenzo(a,h)anthracene	278	22.602	22.602	(1.188)	1501387	80.0000	83.74	9436
88 Benzo(g,h,i)perylene	276	23.277	23.277	(1.224)	1568698	80.0000	81.95	8896

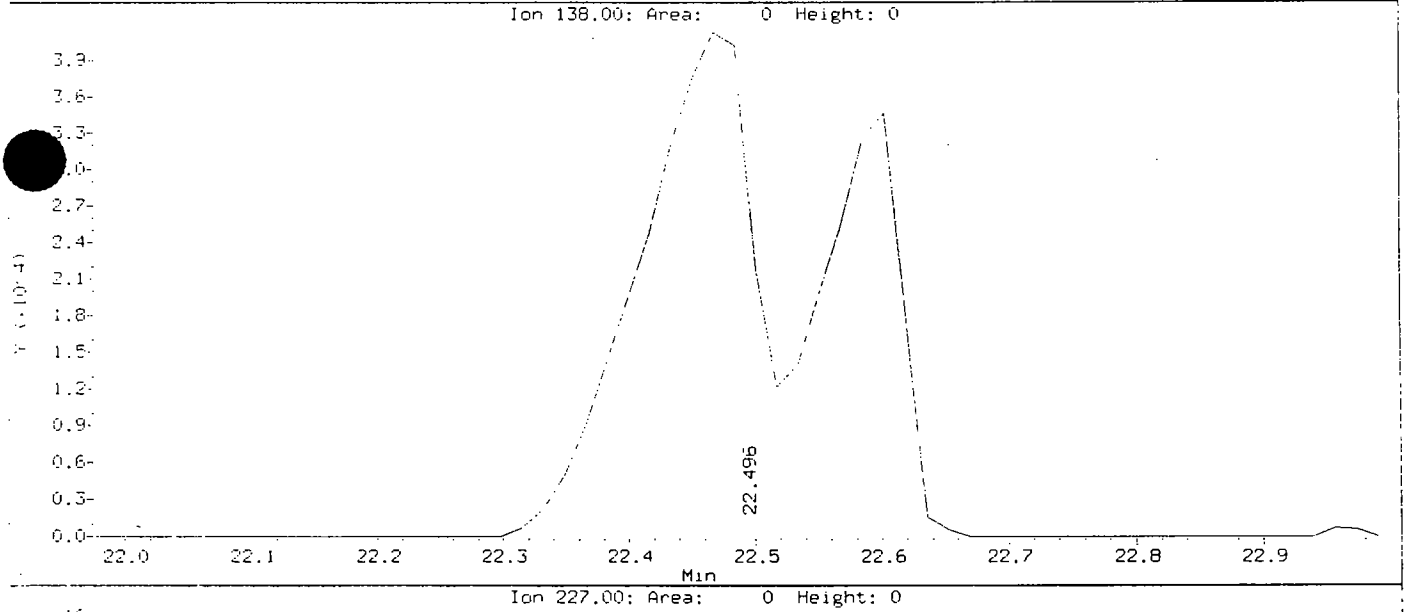
QC Flag Legend

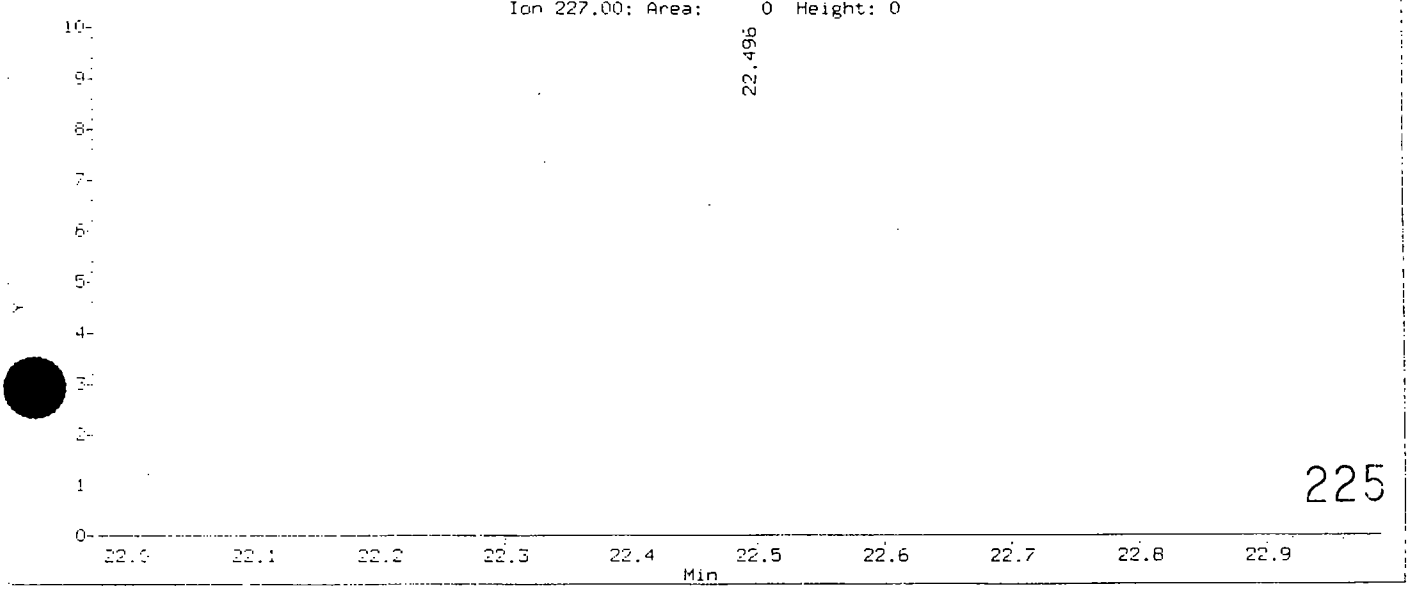
M - Compound response manually integrated.

Data File: /chem/5972hp66.i/DF020120A66.b/HG020120A66.d
Injection Date: 20-JAN-2002 10:27
Instrument: 5972hp66.i
[redacted] Sample ID: SSTD080

[redacted]ound: Indeno(1,2,3-cd)pyrene
CAS Number: 193-39-5







COMPUCHEM a division of Liberty Analytical Corp DATE 1/20/02 INITIAL TIME OF TUNE 1007 SHIFT/S(A) √ (B) (C)
GC/MS SEMIVOLATILE RUN LOG TIME TUNE EXPIRES 2207 LINKER /METHOD 8270C
COMPUCHEM .LOGBOOK 4 X(4) 4 (5972hp66)

PREVENTIVE MAINTENANCE None

	REJECTED	FILE NAME	REPORTED	DATE	TIME	CLIENT ID#	CASE/SDG#	AMOUNT INJECTED	CHEMIST	COMMENTS(ETC.)/DISPOSITION
1		DF020120A66	/	1/20/02	1007	DFTPP	-	2µL	2319	SCD=LCD
2		HG020120A66	/	1/20/02	1027	SSTD080	-	↓		
3		WG15377-1A66	/	1/20/02	1103	SBLKSZ	VARIOUS	1mL		
4		WG15377-2A66	/	1/20/02	1140	SSZLCS	↓			
5		B2418-1A66	/	1/20/02	1218	GSRS01	B2418			
6		Y1822-22A66	/	1/20/02	1255	DCG-S	Y1822			
7		QR1877-1A66	/	1/20/02	1332	INF-01	QR1877			
8		QR1877-3A66	/	1/20/02	1409	SS-1				
9		QR1877-4A66	/	1/20/02	1446	SS-2				
10		QR1877-5A66	/	1/20/02	1523	SS-3				
11		WG15377-3A66	/	1/20/02	1601	MS				
12		WG15377-4A66	/	1/20/02	1638	MSD				
13		QR1877-6A66	/	1/20/02	1716	SS-5	↓			
14		U2410-1A66	/	1/20/02	1751	QCRS01	U2410			
15		U2410-2A66	/	1/20/02	1828	QCRS02				
16		U2410-3A66	/	1/20/02	1905	020160G01				
17		U2410-4A66	/	1/20/02	1942	020160G02				
18		WG15377-5A66	/	1/20/02	2019	MS				
19		WG15377-6A66	/	1/20/02	2056	MSD				
20		U2410-5A66	/	1/20/02	2134	020160G02D	↓	↓	↓	
21				/ /						
22				/ /		GM 1-21-02				
23				/ /						
24				/ /						

226 494

STANDARDS

	Tune	Analytical	Int. Std.	Column Type
Std. ID #	7055	4387	800	RTX-5MS 0.25mm
Lot #	52031	52421	52415	

SUPERVISOR APPROVAL

DATE 1/21/02

The presence of the Chemist's employee ID number, or signature, on this run log attests that strict compliance with the method's SO occurred. Any SOP deviations require documentation by the responsible chemist together with the chemist's initials and the initials lab supervisor and a QA department representative, signifying approval of the deviation. 11/13/01

4. Raw QC Data

a. DFTPP Data

b. Blank Data

c. Laboratory Control Sample Data

d. Matrix Spike Data

e. Matrix Spike Duplicate Data

a. DFTPP Data

For each 12-hour period, per instrument utilized, include:

- Bar Graph spectrum and Tabulated Relative Abundances
- Mass listing
- Reconstructed ion chromatogram
- Tailing Factors for Benzidine and Pentachlorophenol
- Determination of DDT Breakdown

Data File: /chem/5972hp66.i/DF020117A66.b/DF020117A66.d

Date : 17-JAN-2002 08:42

Client ID: DFTPP

Instrument: 5972hp66.i

Sample Info: DFTPP;2391

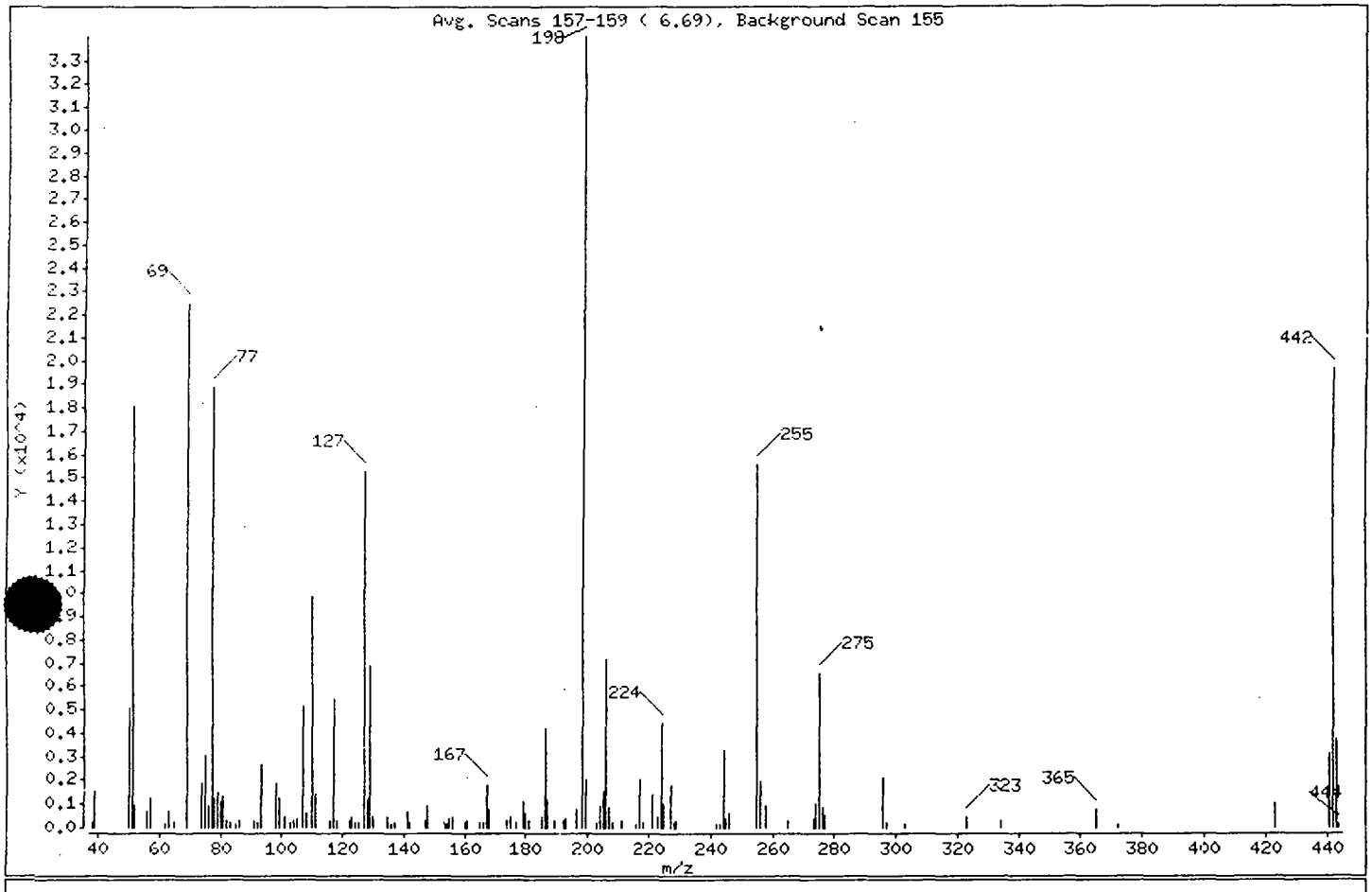
Volume Injected (uL): 2.0

Operator: 2391

Column phase: RTX-5MS

Column diameter: 0.25

1 Decafluorotriphenylphosphine



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	53.34
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	66.27
70	Less than 2.00% of mass 69	0.00 (0.00)
127	25.00 - 75.00% of mass 198	44.96
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	5.98
275	10.00 - 30.00% of mass 198	19.36
365	Greater than 0.75% of mass 198	2.41
441	Present, but less than mass 443	9.13
442	40.00 - 110.00% of mass 198	57.92
443	15.00 - 24.00% of mass 442	11.14 (19.24)

Data File: /chem/5972hp66.i/DF020117A66.b/DF020117A66.d

Date : 17-JAN-2002 08:42

Client ID: DFTPP Instrument: 5972hp66.i

Sample Info: DFTPP:2391

Volume Injected (uL): 2.0 Operator: 2391

Column phase: RTX-5MS Column diameter: 0.25

Data File: DF020117A66.d

Spectrum: Avg. Scans 157-159 (6.69), Background Scan 155

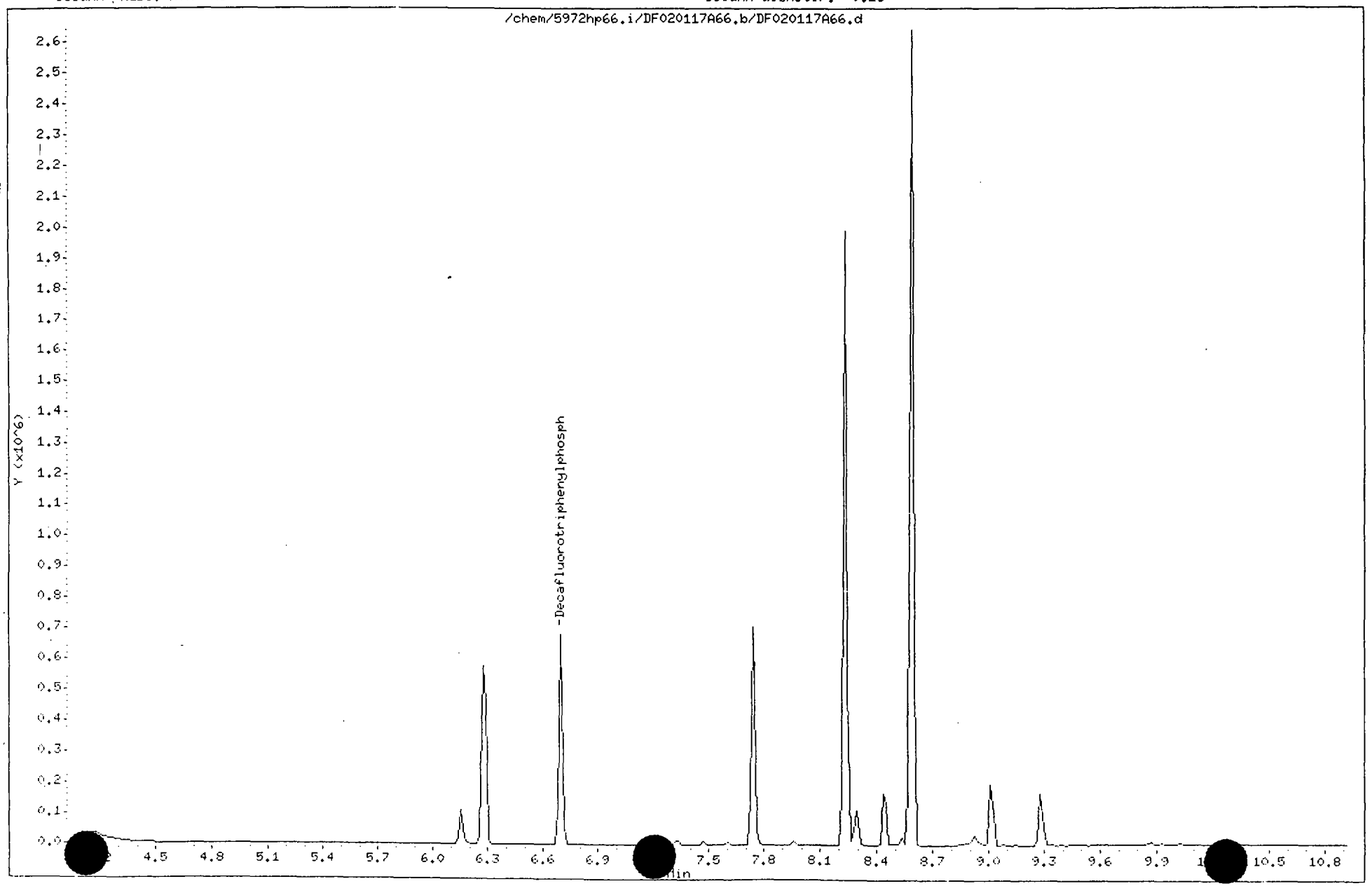
Location of Maximum: 198.00

Number of points: 122

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	238	105.00	355	167.00	1768	227.00	1790
39.00	1595	107.00	5137	168.00	747	228.00	254
50.00	5083	108.00	646	174.00	293	229.00	315
51.00	18128	110.00	9833	175.00	479	242.00	180
52.00	914	111.00	1425	177.00	254	243.00	186
56.00	675	116.00	284	179.00	1110	244.00	3270
57.00	1234	117.00	5472	180.00	657	245.00	389
62.00	188	118.00	333	181.00	300	246.00	631
63.00	672	122.00	339	185.00	509	255.00	15565
65.00	213	123.00	433	186.00	4191	256.00	1985
69.00	22520	124.00	215	187.00	1182	258.00	905
74.00	1912	125.00	204	189.00	283	265.00	351
75.00	3035	127.00	15284	192.00	344	273.00	361
76.00	965	128.00	1163	193.00	390	274.00	1052
77.00	18888	129.00	6884	196.00	787	275.00	6582
78.00	1243	130.00	472	198.00	33992	276.00	886
79.00	1493	135.00	434	199.00	2034	277.00	536
80.00	1131	136.00	172	203.00	196	296.00	2090
81.00	1368	137.00	219	204.00	952	297.00	269
82.00	276	141.00	693	205.00	1531	303.00	173
83.00	204	142.00	213	206.00	7178	323.00	508
85.00	189	147.00	325	207.00	871	334.00	313
86.00	344	148.00	973	208.00	237	365.00	819
91.00	280	153.00	206	211.00	327	372.00	174
92.00	269	154.00	175	216.00	168	423.00	1014
93.00	2656	155.00	419	217.00	2054	441.00	3103
98.00	1881	156.00	503	218.00	259	442.00	19688
99.00	1258	160.00	219	221.00	1404	443.00	3788
101.00	480	161.00	312	223.00	449	444.00	179
103.00	197	165.00	264	224.00	4500		
104.00	350	166.00	211	225.00	989		

Data File: /chem/5972hp66.i/DF020117A66.b/DF020117A66.d
Date : 17-JAN-2002 08:42
Client ID: DFTPP
Instrument: 5972hp66.i
Sample Info: DFTPP:2391
Volume Injected (uL): 2.0
Operator: 2391
Column phase: RTX-5MS
Column diameter: 0.25

231



TAILING FACTOR and DEGRADATION SUMMARY RESULTS

DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart -

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	100.00		PASS
51	30 - 80% of mass 198	53.34		PASS
68	Less than 2% of mass 69	0.00	(0.00)	PASS
69	Mass 69 relative abundance	66.27		PASS
70	Less than 2% of mass 69	0.00	(0.00)	PASS
127	25 - 75% of mass 198	44.96		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	5.98		PASS
275	10 - 30% of mass 198	19.36		PASS
365	Greater than 0.75% of mass 198	2.41		PASS
441	Present, but less than mass 443	9.13	(81.92)	PASS
442	40 - 110 % of mass 198	57.92		PASS
443	15 - 24% of mass 442	11.14	(19.24)	PASS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.9	5.0	PASS
Benzidine	0.0	3.0	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	581659			N/A
4,4-DDE	3500	0.6	20.0	PASS
4,4-DDD	32436	5.3	20.0	PASS
4,4-DDD + DDE	35936	5.8	20.0	PASS

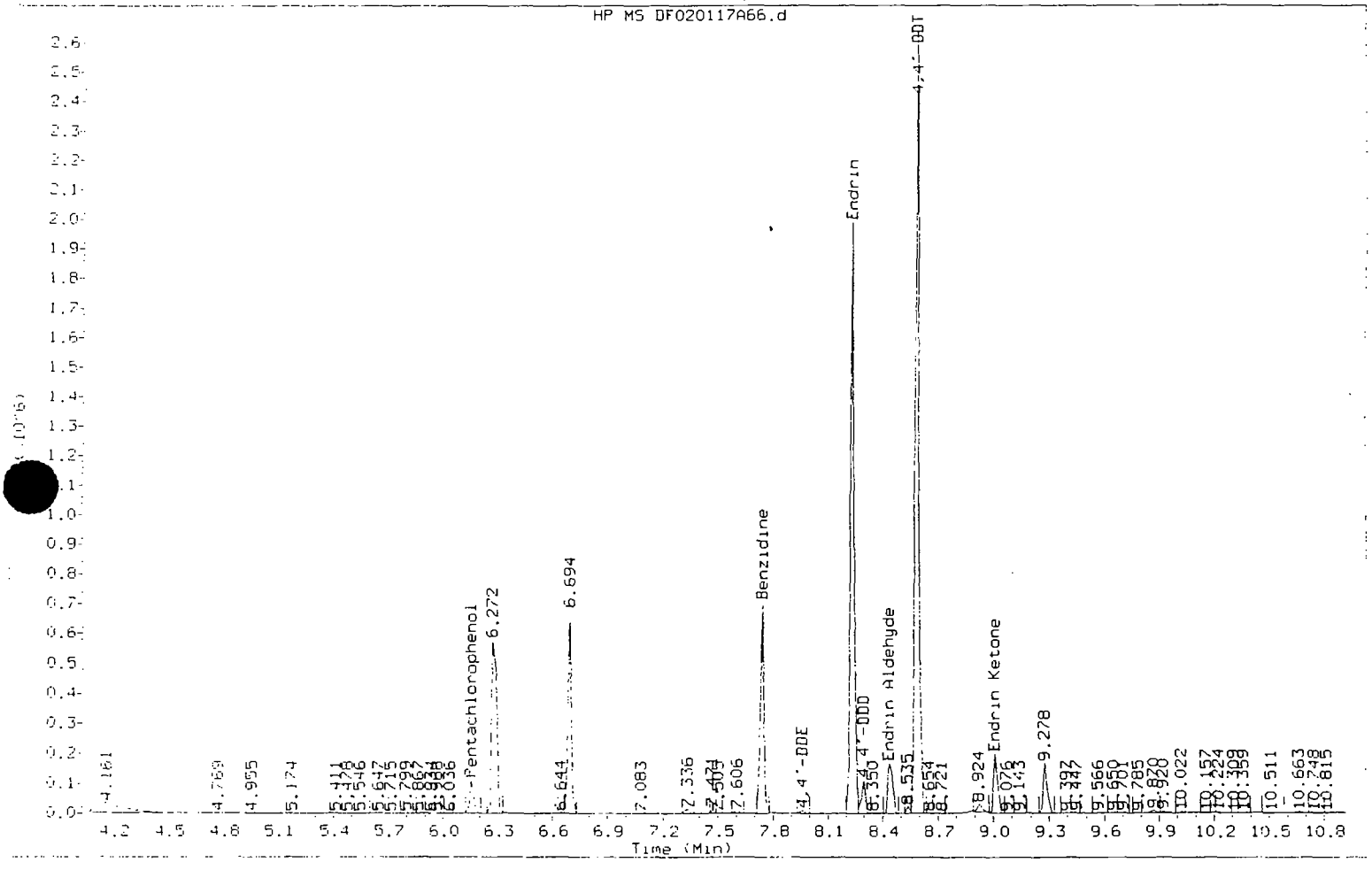
Tuning Sample, /chem/5972hp66.i/DF020117A66.b/DF020117A66.d/DF020117A66.d

*** PASSED ***

TAILING FACTOR and DEGRADATION SAMPLE AND GRAPHIC REPORT

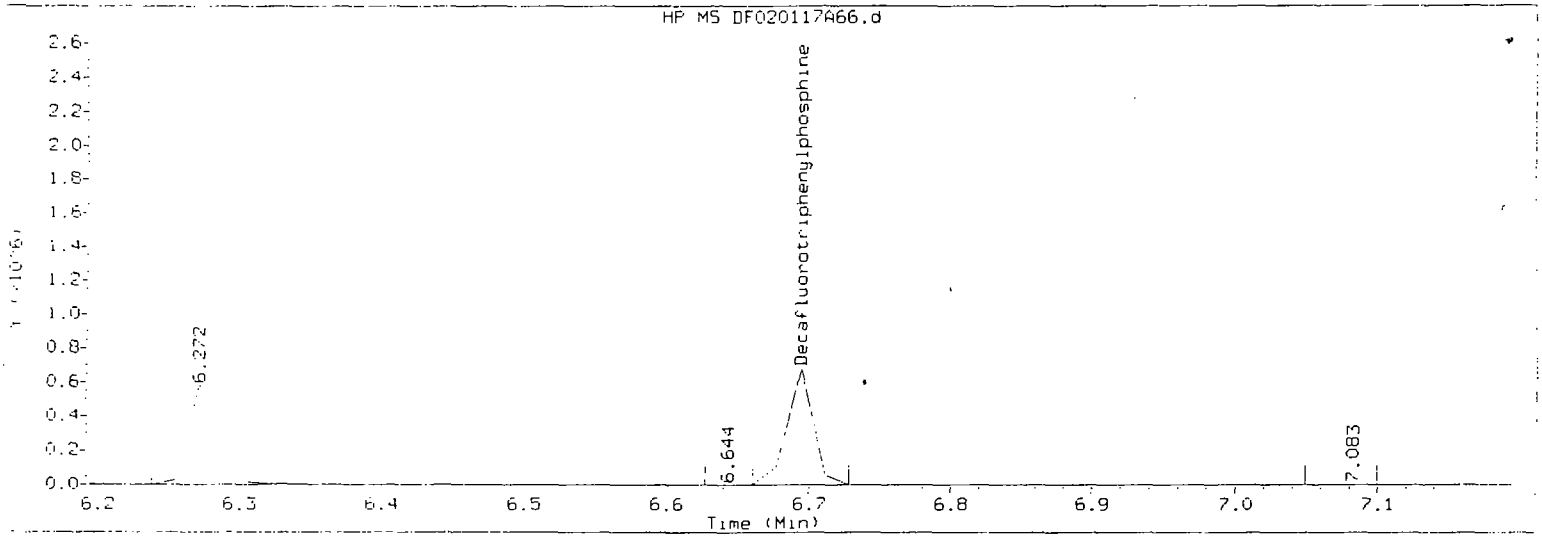
ort Date: 01/17/2002 08:25

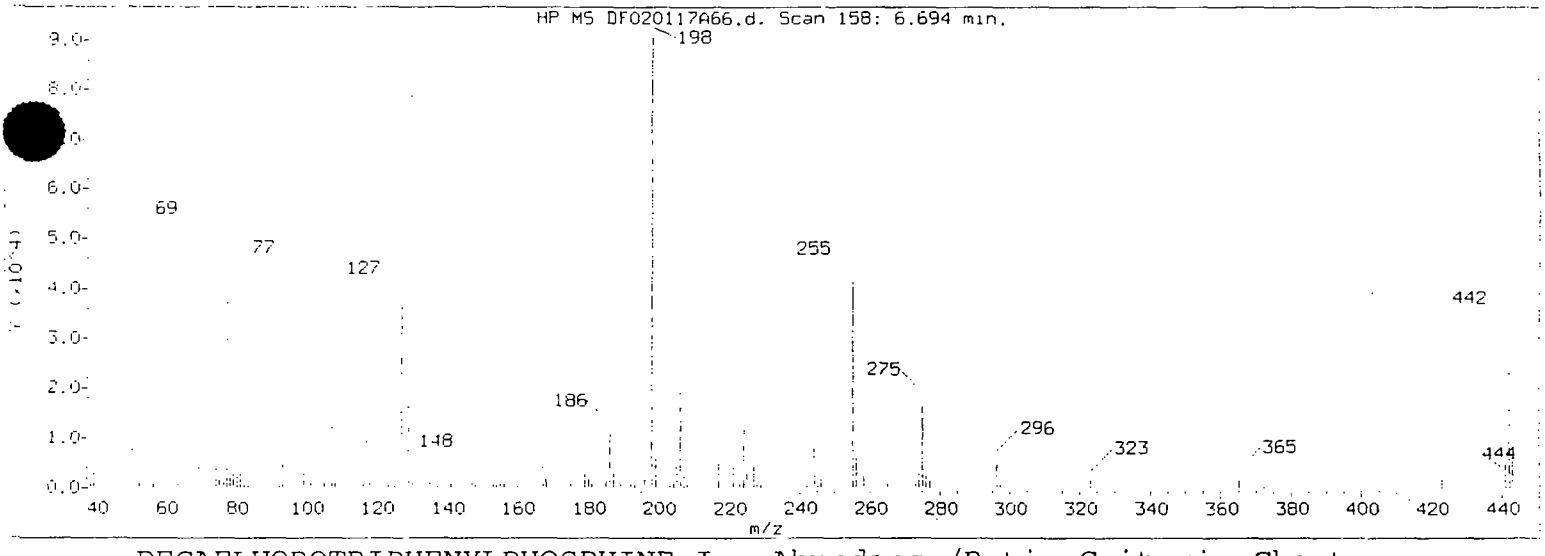
Datafile Analyzed: /chem/5972hp66.i/DF020117A66.b/DF020117A66.d/DF020117A66.d
Method Used: /chem/5972hp66.i/DF020117A66.b/dftpp8270C.m Inst: 5972hp66
Injection Date: 17-JAN-2002 08:42 Operator: 2391
Sample Info: DFTPP DFTPP:2391
Misc Info:



Report Date: 01/17/2002 08:25

Datafile Analyzed: /chem/5972hp66.i/DF020117A66.b/DF020117A66.d/DF020117A66.d
Method Used: /chem/5972hp66.i/DF020117A66.b/dftpp8270C.m Inst: 5972hp66
Injection Date: 17-JAN-2002 08:42 Operator: 2391
Sample Info: DFTPP DFTPP:2391
Misc Info:



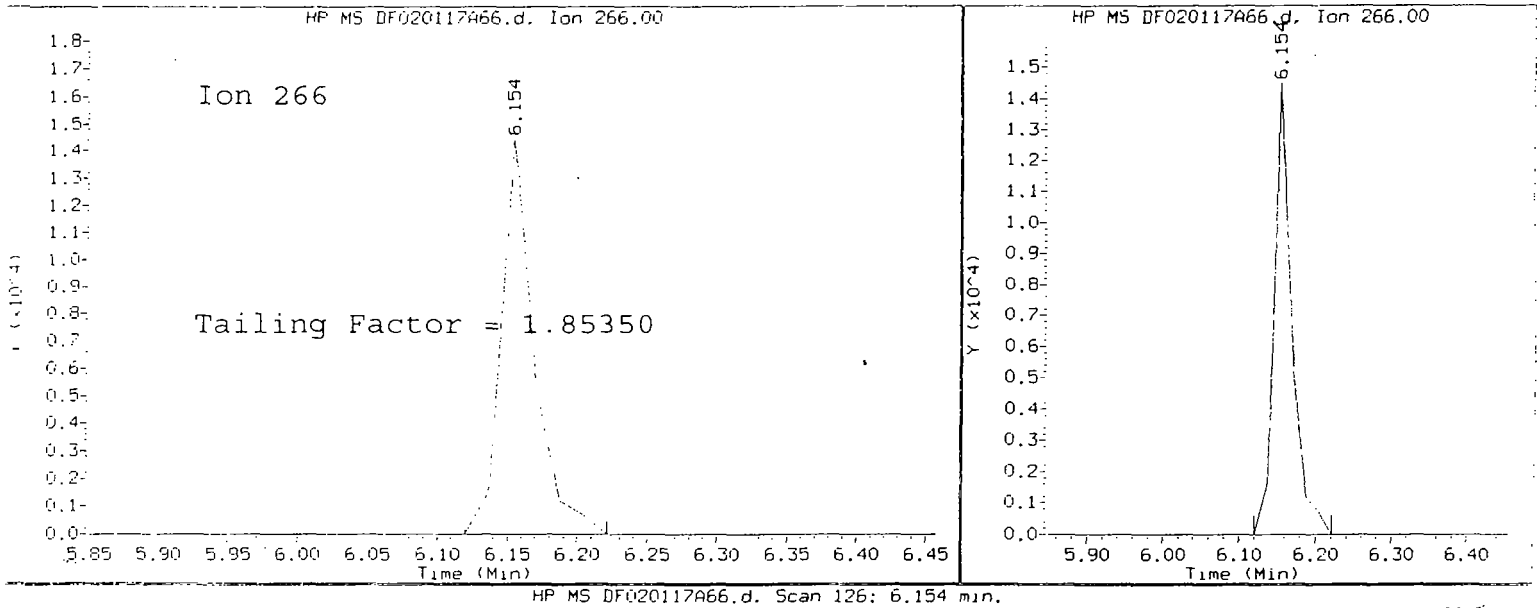


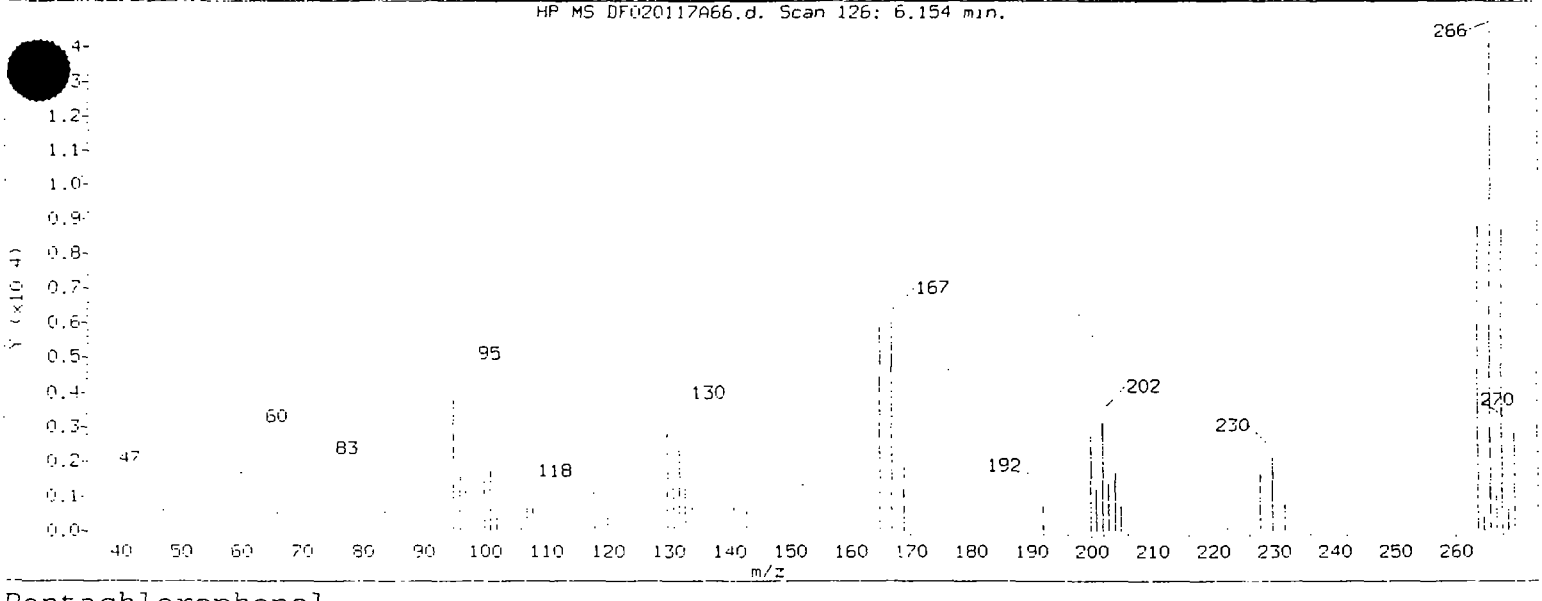
DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	100.00		PASS
51	30 - 80% of mass 198	53.34		PASS
68	Less than 2% of mass 69	0.00	(0.00)	PASS
69	Mass 69 relative abundance	66.27		PASS
70	Less than 2% of mass 69	0.00	(0.00)	PASS
127	25 - 75% of mass 198	44.96		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	5.98		PASS
275	10 - 30% of mass 198	19.36		PASS
365	Greater than 0.75% of mass 198	2.41		PASS
441	Present, but less than mass 443	9.13	(81.92)	PASS
442	40 - 110% of mass 198	57.92		PASS
443	15 - 24% of mass 442	11.14	(19.24)	PASS

Report Date: 01/17/2002 08:25

Datafile Analyzed: /chem/5972hp66.i/DF020117A66.b/DF020117A66.d/DF020117A66.d
Method Used: /chem/5972hp66.i/DF020117A66.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 17-JAN-2002 08:42 Operator:
Sample Info: DFTPP DFTPP:2391
Misc Info:





Pentachlorophenol
==========
Exp. RT = 6.290
Found RT = 6.154

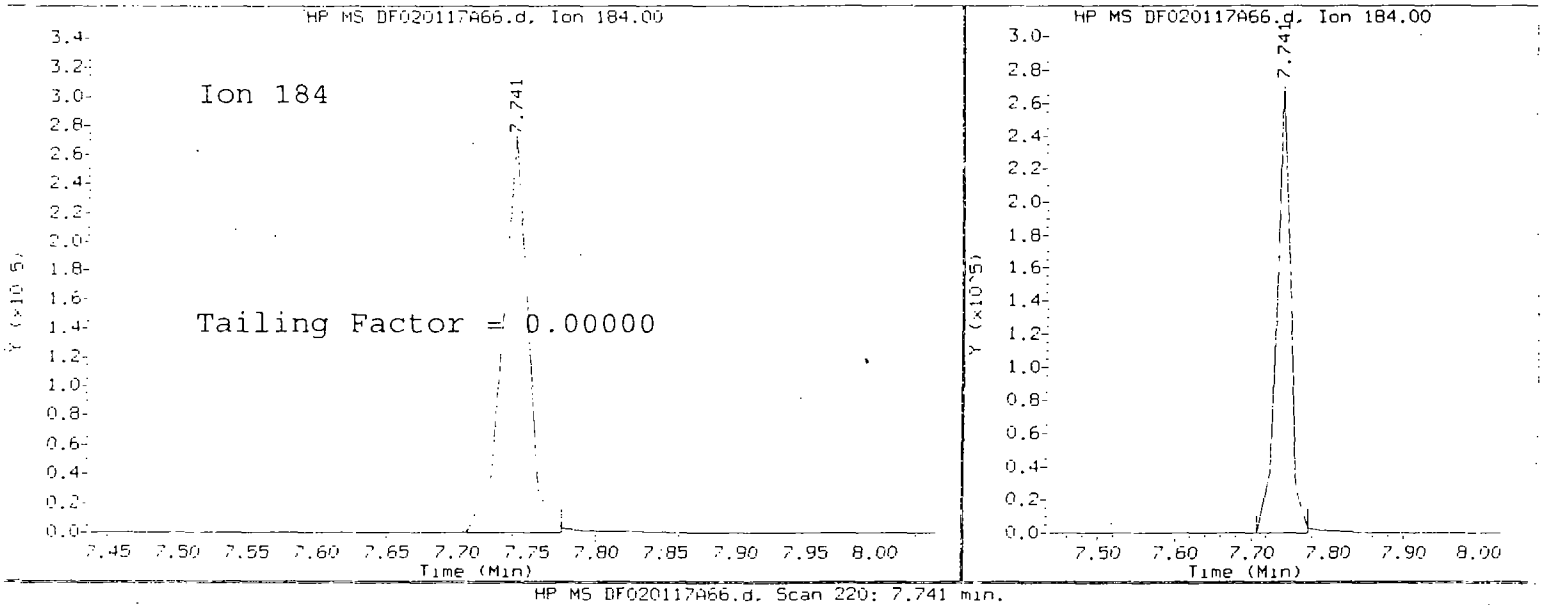
Mass	Area	Ratio
266	23333	100.00

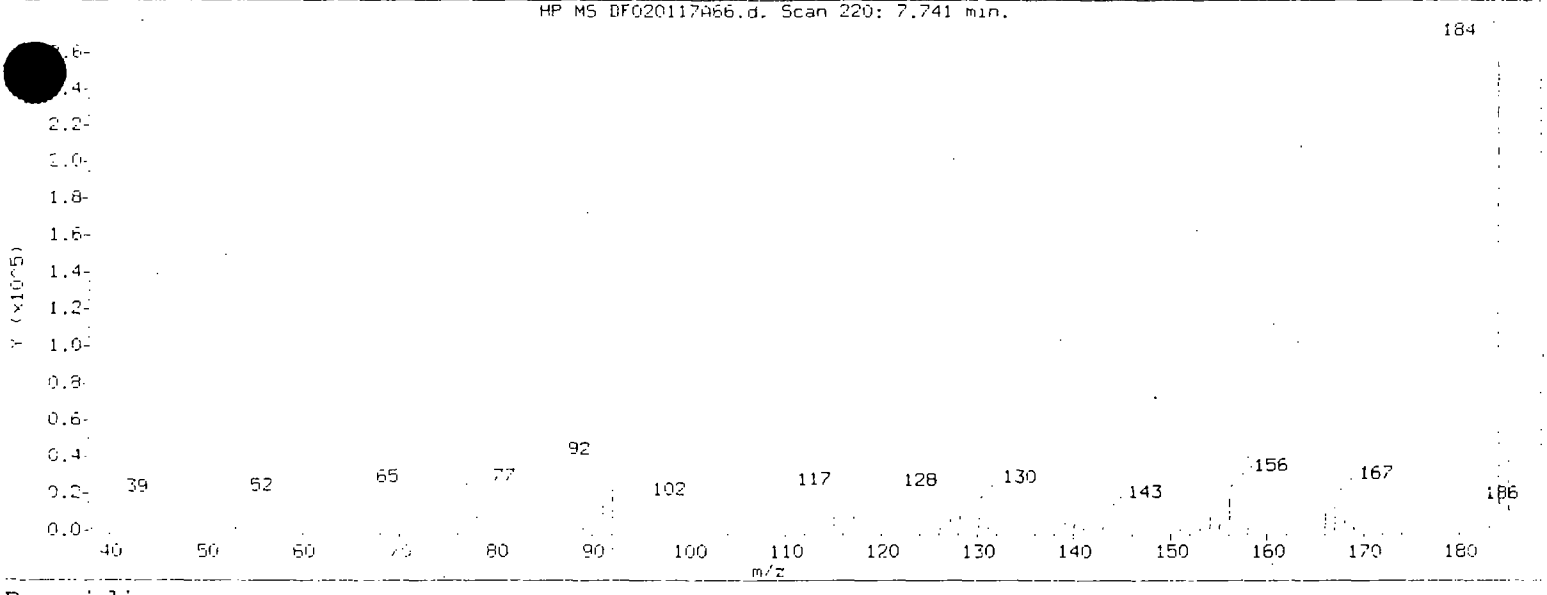
Tailing factor for Pentachlorophenol OK

Tailing Factor = 1.9 Maximum Allowed = 5.0

Report Date: 01/17/2002 08:26 -

Datafile Analyzed: /chem/5972hp66.i/DF020117A66.b/DF020117A66.d/DF020117A66.d
Method Used: /chem/5972hp66.i/DF020117A66.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 17-JAN-2002 08:42 Operator:
Sample Info: DFTPP DFTPP:2391
Misc Info:





Benzidine
==========
Exp. RT = 7.880
Found RT = 7.741

Mass	Area	Ratio
184	343865	100.00

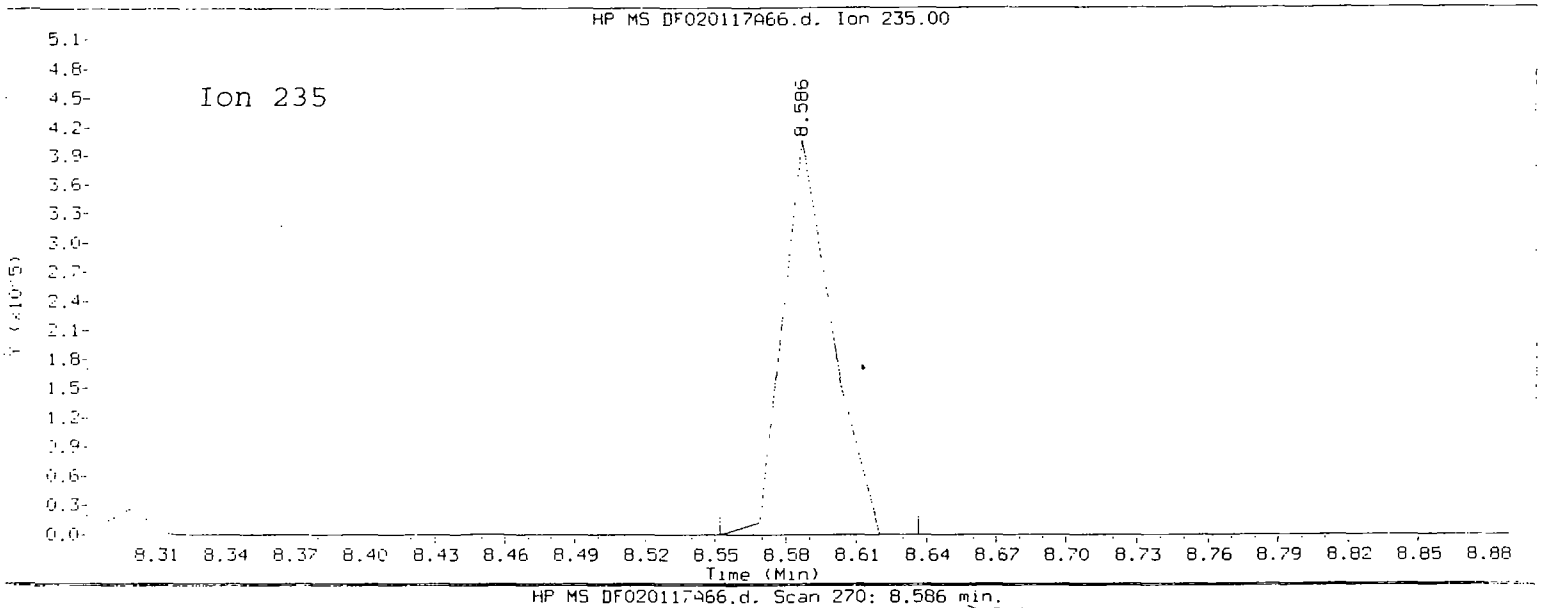
Tailing factor for Benzidine OK

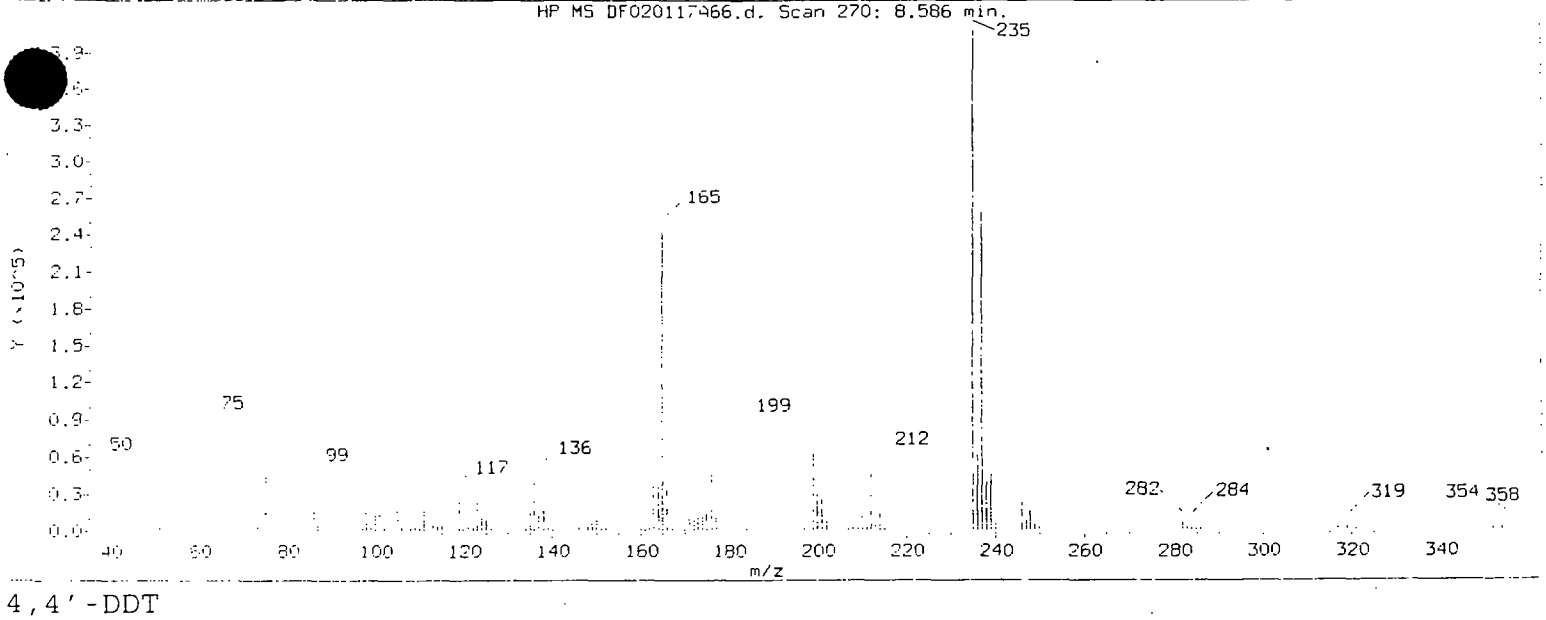
Tailing Factor = 0.0 Maximum Allowed = 3.0

If Tailing Factor < 1.0, then it is assumed that the peak is not tailing and a Tailing Factor of zero is reported.

Report Date: 01/17/2002 08:26

Datafile Analyzed: /chem/5972hp66.i/DF020117A66.b/DF020117A66.d/DF020117A66.d
Method Used: /chem/5972hp66.i/DF020117A66.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 17-JAN-2002 08:42 Operator:
Sample Info: DFTPP DFTPP:2391
Misc Info:



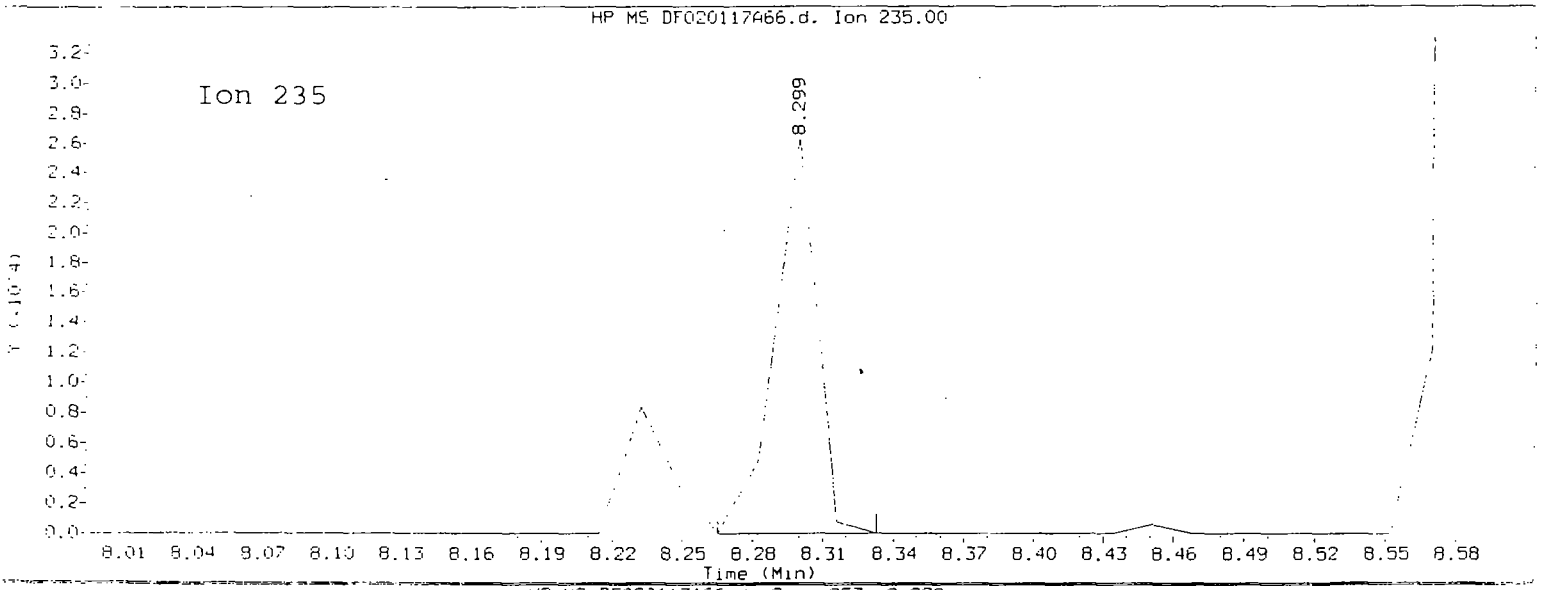


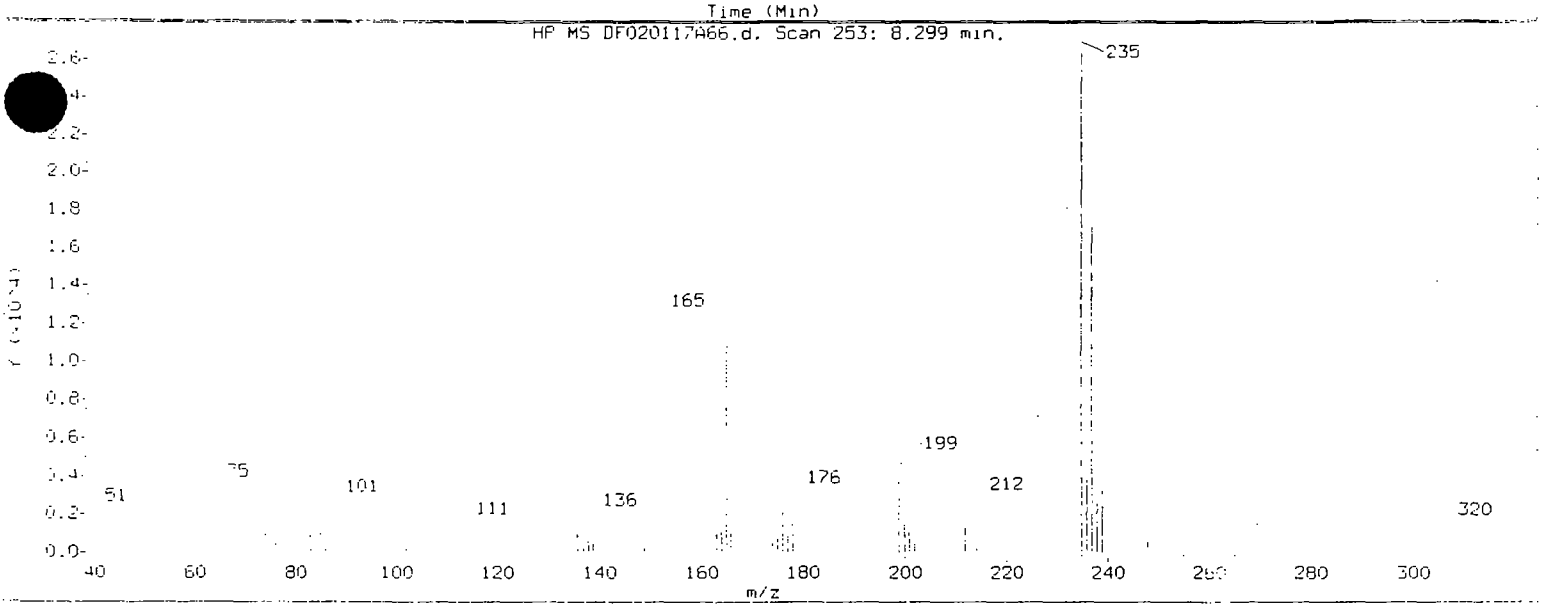
4,4'-DDT
========
Exp. RT = 8.730
Found RT = 8.586

Mass	Area	Ratio
235	581659	100.00

Report Date: 01/17/2002 08:26

Datafile Analyzed: /chem/5972hp66.i/DF020117A66.b/DF020117A66.d/DF020117A66.d
Method Used: /chem/5972hp66.i/DF020117A66.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 17-JAN-2002 08:42 Operator:
Sample Info: DFTPP DFTPP:2391
Misc Info:



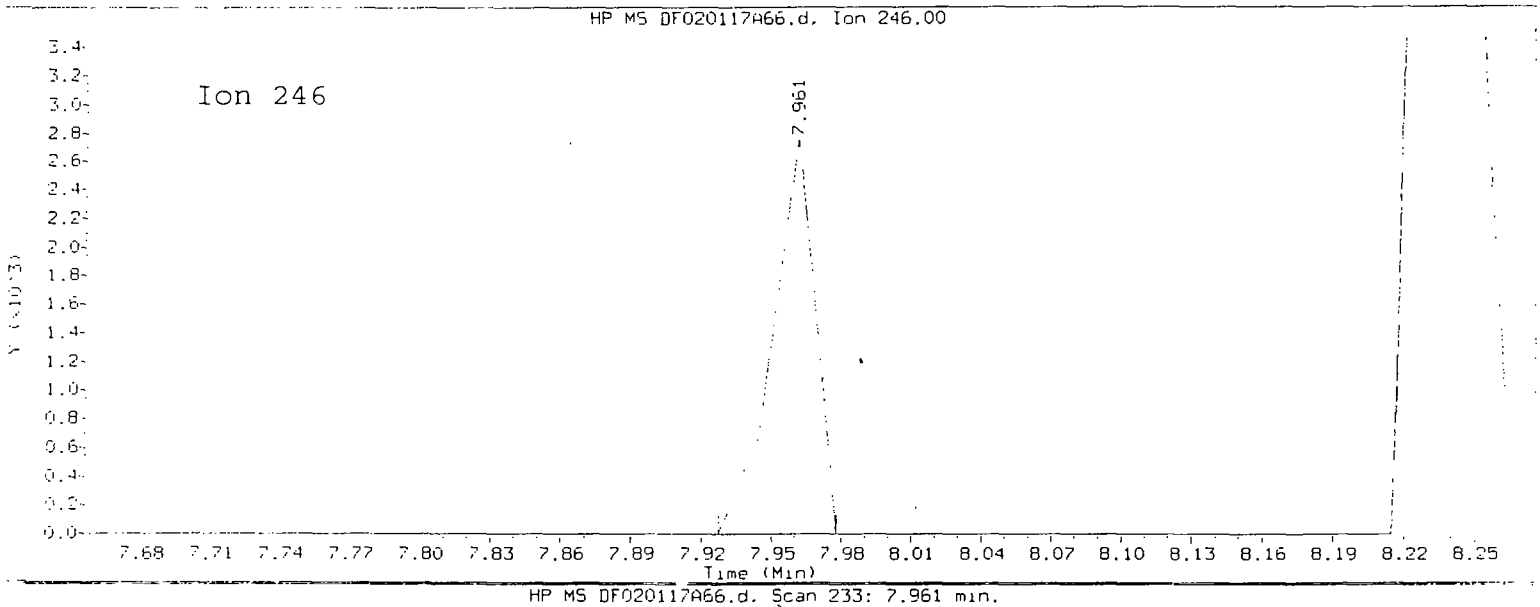


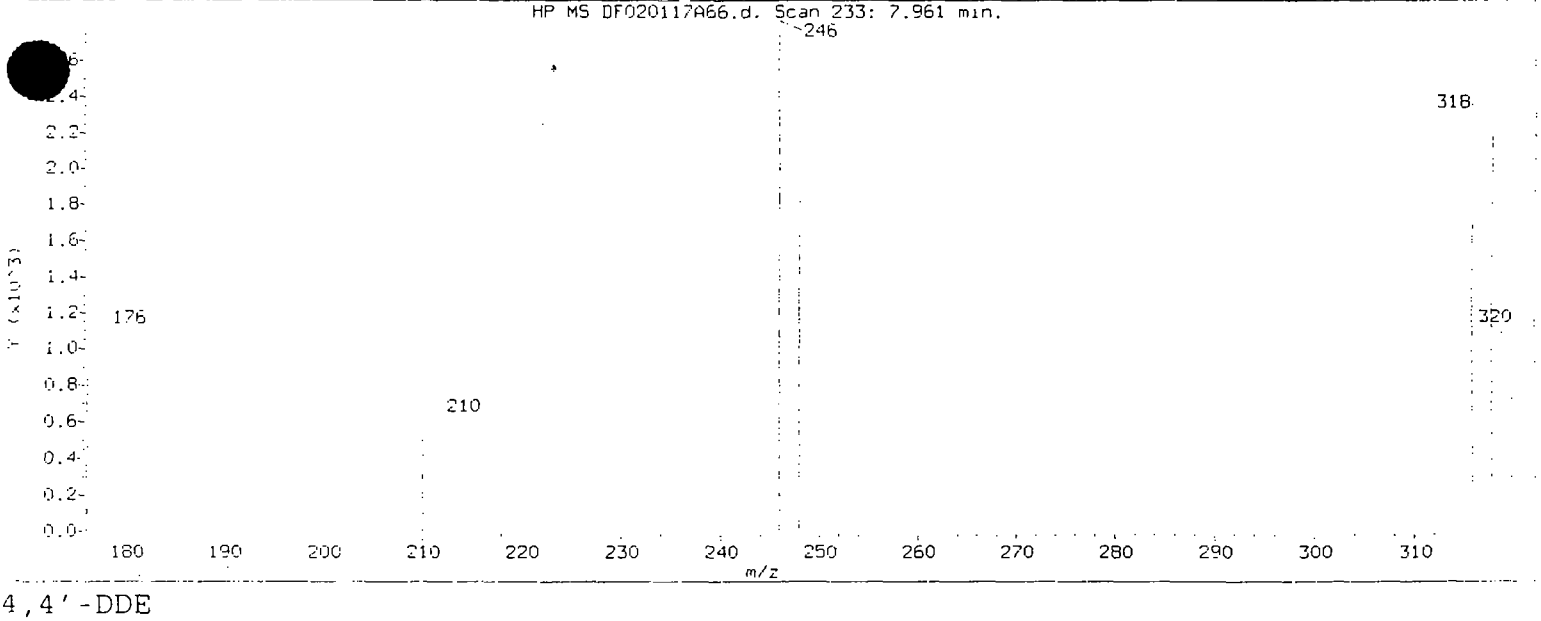
4,4'-DDD
========
Exp. RT = 8.400
Found RT = 8.299

Mass	Area	Ratio
235	32436	100.00

Report Date: 01/17/2002 08:26

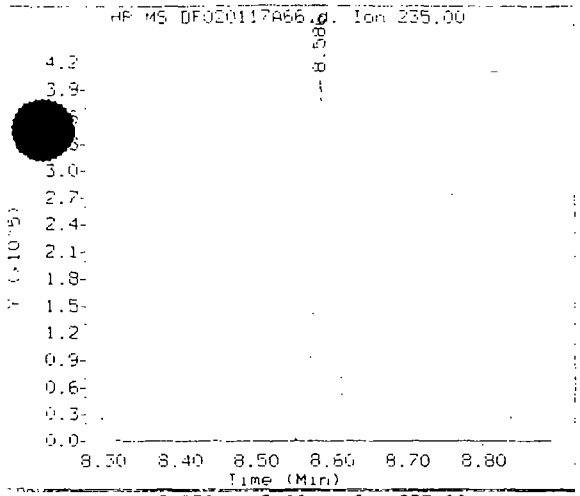
Datafile Analyzed: /chem/5972hp66.i/DF020117A66.b/DF020117A66.d/DF020117A66.d
Method Used: /chem/5972hp66.i/DF020117A66.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 17-JAN-2002 08:42 Operator:
Sample Info: DFTPP DFTPP:2391
Misc Info:



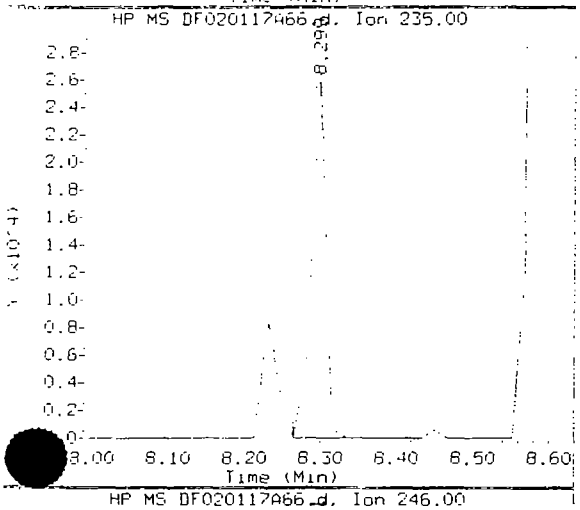


4,4'-DDE
========
Exp. RT = 8.080
Found RT = 7.961

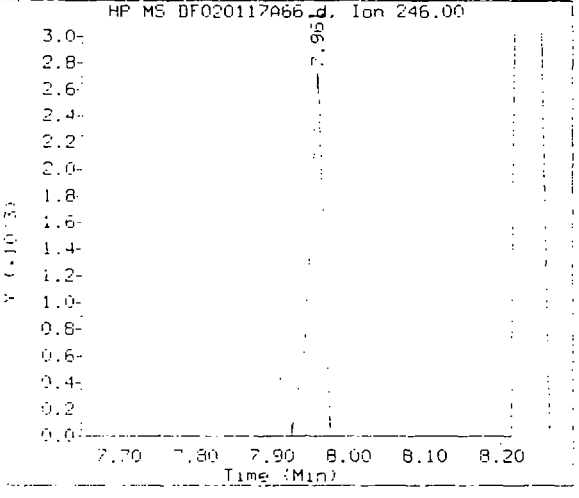
Mass	Area	Ratio
246	3500	100.00



Compound: 4,4'-DDT
Quant Mass: 235
RT: 8.586
Area: 581659



Compound: 4,4'-DDD
Quant Mass: 235
RT: 8.299
Area: 32436



Compound: 4,4'-DDE
Quant Mass: 246
RT: 7.961
Area: 3500

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	581659			N/A
4,4-DDE	3500	0.6	20.0	PASS
4,4-DDD	32436	5.3	20.0	PASS
4,4-DDD + DDE	35936	5.8	20.0	PASS

****
TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST
****

Data File: /chem/5972hp66.i/DF020120A66.b/DF020120A66.d

Date : 20-JAN-2002 10:07

Client ID: DFTPP

Instrument: 5972hp66.i

Sample Info: DFTPP:2319

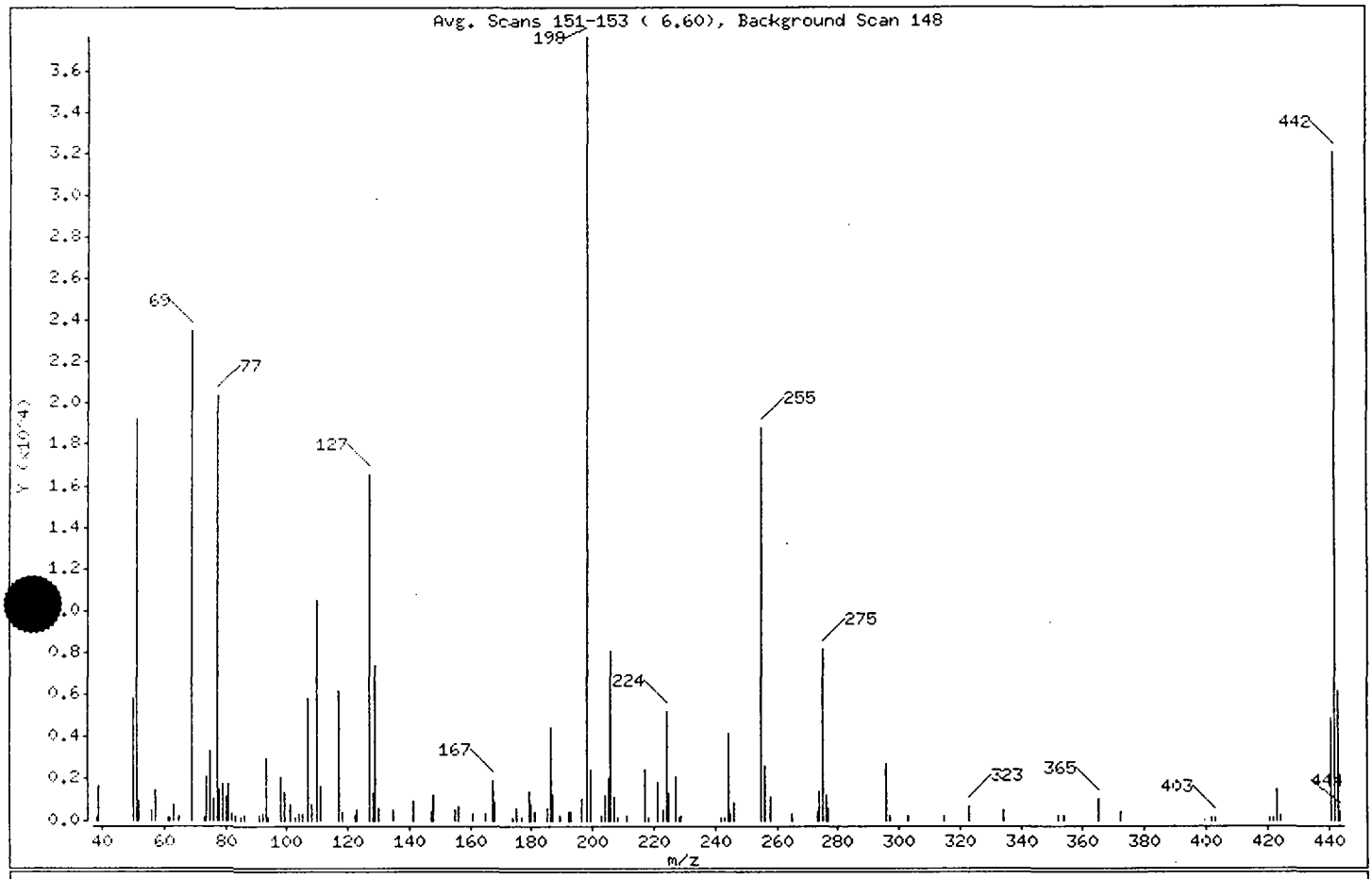
Volume Injected (uL): 2.0

Operator: 2319

Column phase: RTX-5MS

Column diameter: 0.25

1 Decafluorotriphenylphosphine



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	51.27
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	62.54
70	Less than 2.00% of mass 69	0.00 (0.00)
127	25.00 - 75.00% of mass 198	44.03
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.44
275	10.00 - 30.00% of mass 198	21.68
365	Greater than 0.75% of mass 198	2.85
441	Present, but less than mass 443	12.98
442	40.00 - 110.00% of mass 198	85.07
443	15.00 - 24.00% of mass 442	16.34 (19.20)

Data File: /chem/5972hp66.i/DF020120A66.b/DF020120A66.d

Date : 20-JAN-2002 10:07

Client ID: DFTPP Instrument: 5972hp66.i

Sample Info: DFTPP:2319

Volume Injected (uL): 2.0 Operator: 2319

Column phase: RTX-5MS Column diameter: 0.25

Data File: DF020120A66.d

Spectrum: Avg. Scans 151-153 (6.60), Background Scan 148

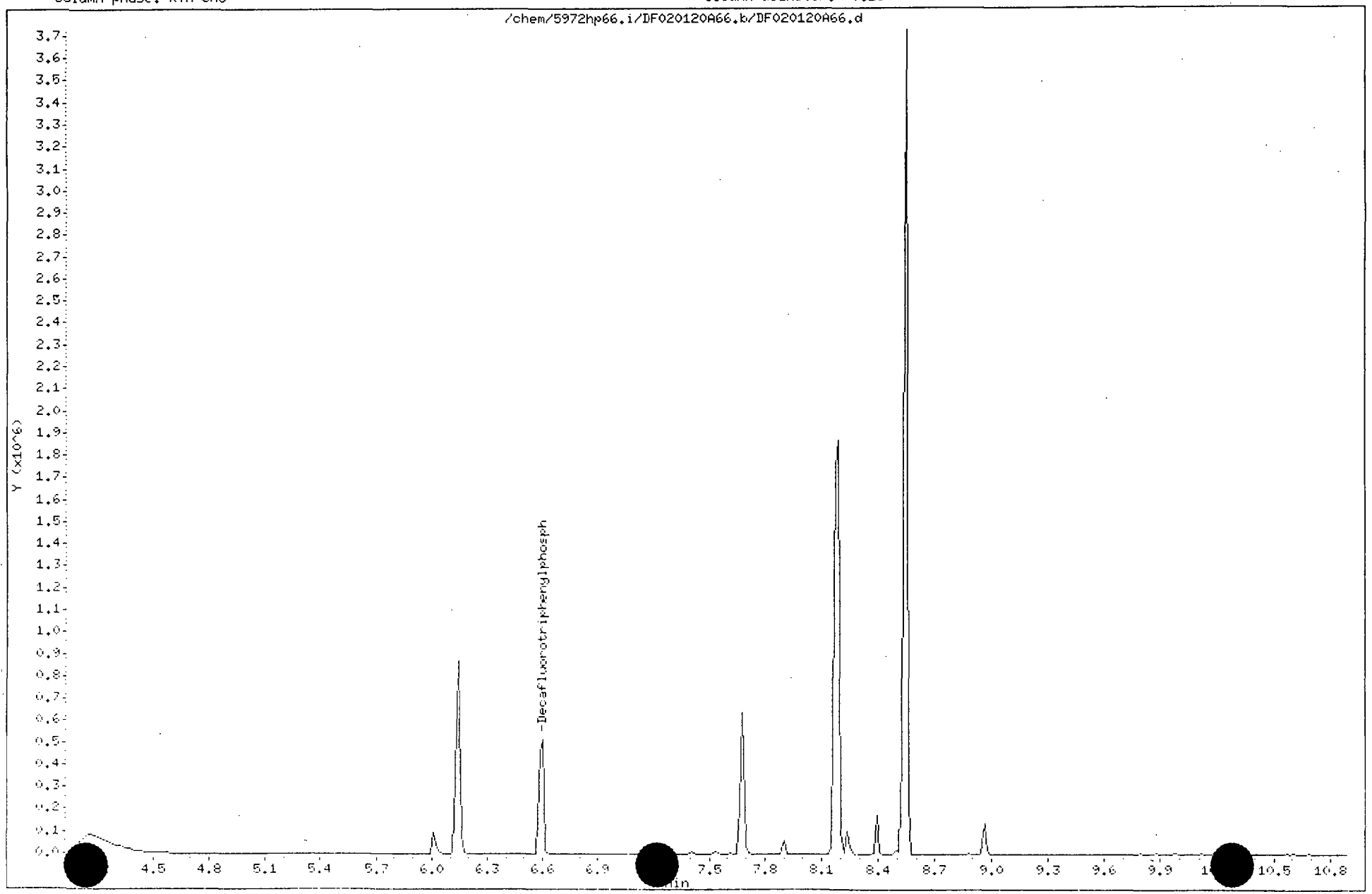
Location of Maximum: 198.00

Number of points: 122

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	214	101.00	791	181.00	394	255.00	18808
39.00	1667	103.00	183	185.00	633	256.00	2604
50.00	5780	104.00	381	186.00	4464	258.00	1159
51.00	19296	105.00	320	187.00	1215	265.00	319
52.00	952	107.00	5769	189.00	222	273.00	425
56.00	561	108.00	812	192.00	434	274.00	1363
57.00	1446	110.00	10515	193.00	410	275.00	8160
61.00	197	111.00	1630	196.00	999	276.00	1172
62.00	201	117.00	6164	198.00	37640	277.00	610
63.00	738	118.00	427	199.00	2424	296.00	2699
65.00	287	122.00	272	203.00	223	297.00	285
69.00	23536	123.00	552	204.00	1231	303.00	235
73.00	176	127.00	16576	205.00	2025	315.00	263
74.00	2056	128.00	1258	206.00	8034	323.00	711
75.00	3281	129.00	7341	207.00	1094	334.00	499
76.00	1012	130.00	589	208.00	175	352.00	241
77.00	20352	135.00	509	211.00	237	354.00	225
78.00	1482	141.00	965	217.00	2432	365.00	1073
79.00	1711	147.00	434	218.00	182	372.00	412
80.00	1163	148.00	1224	221.00	1789	402.00	176
81.00	1742	155.00	483	223.00	490	403.00	214
82.00	304	156.00	684	224.00	5163	421.00	185
83.00	260	161.00	353	225.00	1288	422.00	183
85.00	167	165.00	368	227.00	2068	423.00	1433
86.00	298	167.00	1901	228.00	192	424.00	263
91.00	252	168.00	886	229.00	297	441.00	4886
92.00	307	174.00	171	242.00	169	442.00	32016
93.00	2930	175.00	632	243.00	196	443.00	6150
94.00	175	177.00	197	244.00	4128	444.00	475
98.00	2070	179.00	1380	245.00	348		
99.00	1346	180.00	821	246.00	834		

Data File: /chem/5972hp66.i/DF020120A66.b/DF020120A66.d
Date : 20-JAN-2002 10:07
Client ID: DFTPP
Sample Info: DFTPP:2319
Volume Injected (uL): 2.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2319
Column diameter: 0.25



TAILING FACTOR and DEGRADATION SUMMARY RESULTS

DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

m/z	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	100.00		PASS
51	30 - 80% of mass 198	51.27		PASS
68	Less than 2% of mass 69	0.00	(0.00)	PASS
69	Mass 69 relative abundance	62.54		PASS
70	Less than 2% of mass 69	0.00	(0.00)	PASS
127	25 - 75% of mass 198	44.03		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	6.44		PASS
275	10 - 30% of mass 198	21.68		PASS
365	Greater than 0.75% of mass 198	2.85		PASS
441	Present, but less than mass 443	12.98	(79.45)	PASS
442	40 - 110 % of mass 198	85.07		PASS
443	15 - 24% of mass 442	16.34	(19.20)	PASS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	3.0	5.0	PASS
Benzidine	0.0	3.0	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	766233			N/A
4,4-DDE	9747	1.3	20.0	PASS
4,4-DDD	25950	3.3	20.0	PASS
4,4-DDD + DDE	35697	4.5	20.0	PASS

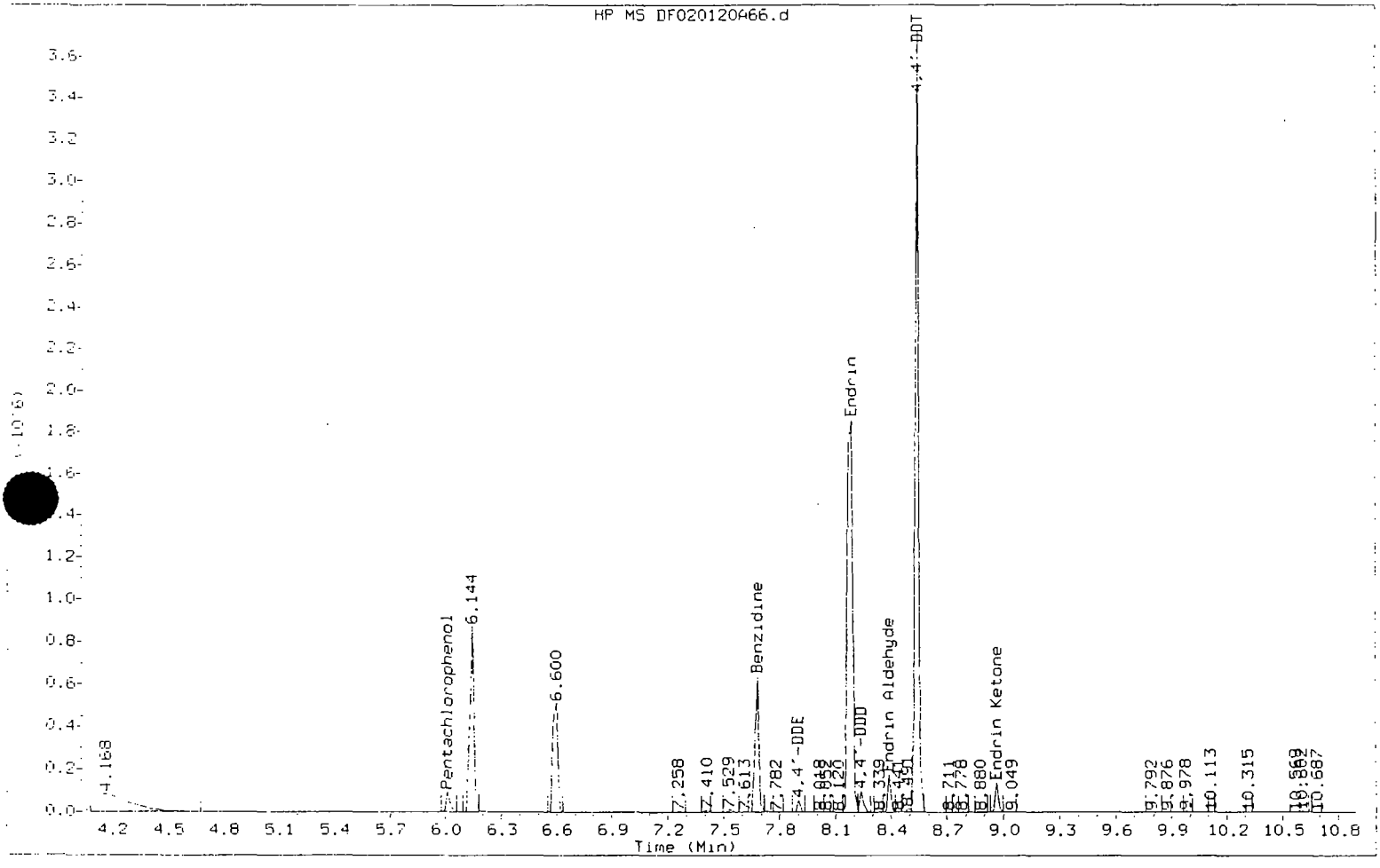
Tuning Sample, /chem/5972hp66.i/DF020120A66.b/DF020120A66.d/DF020120A66.d

*** PASSED ***

TAILING FACTOR and DEGRADATION SAMPLE AND GRAPHIC REPORT

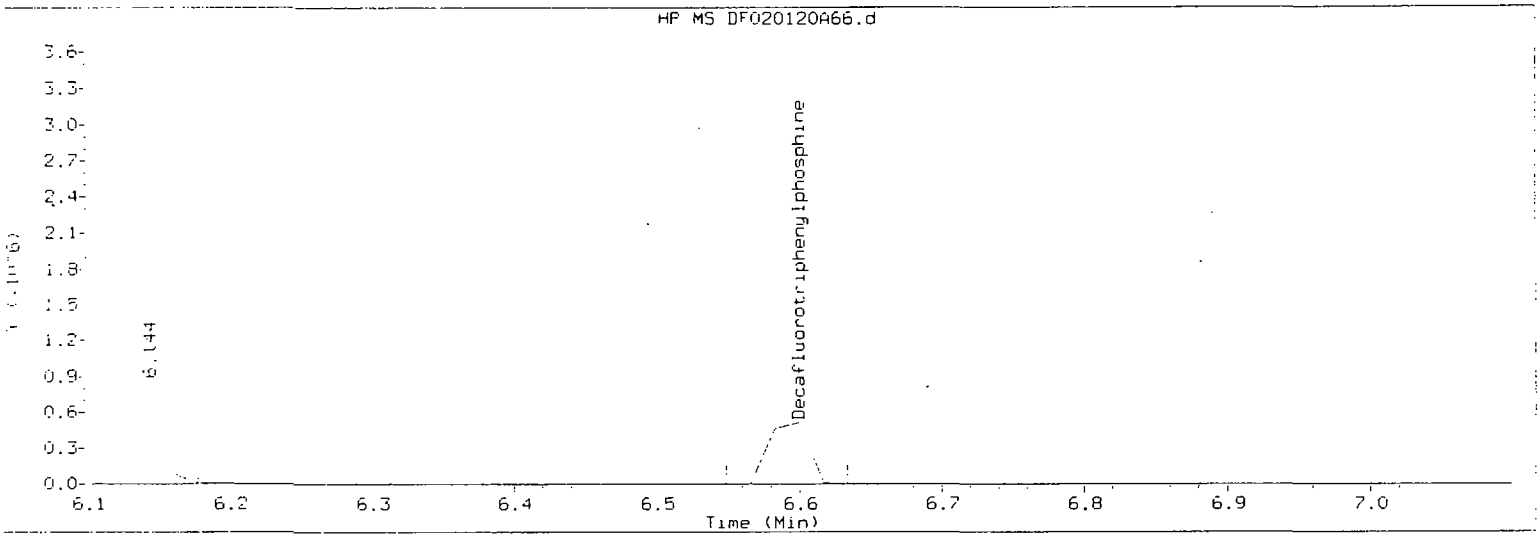
ort Date: 01/20/2002 10:39

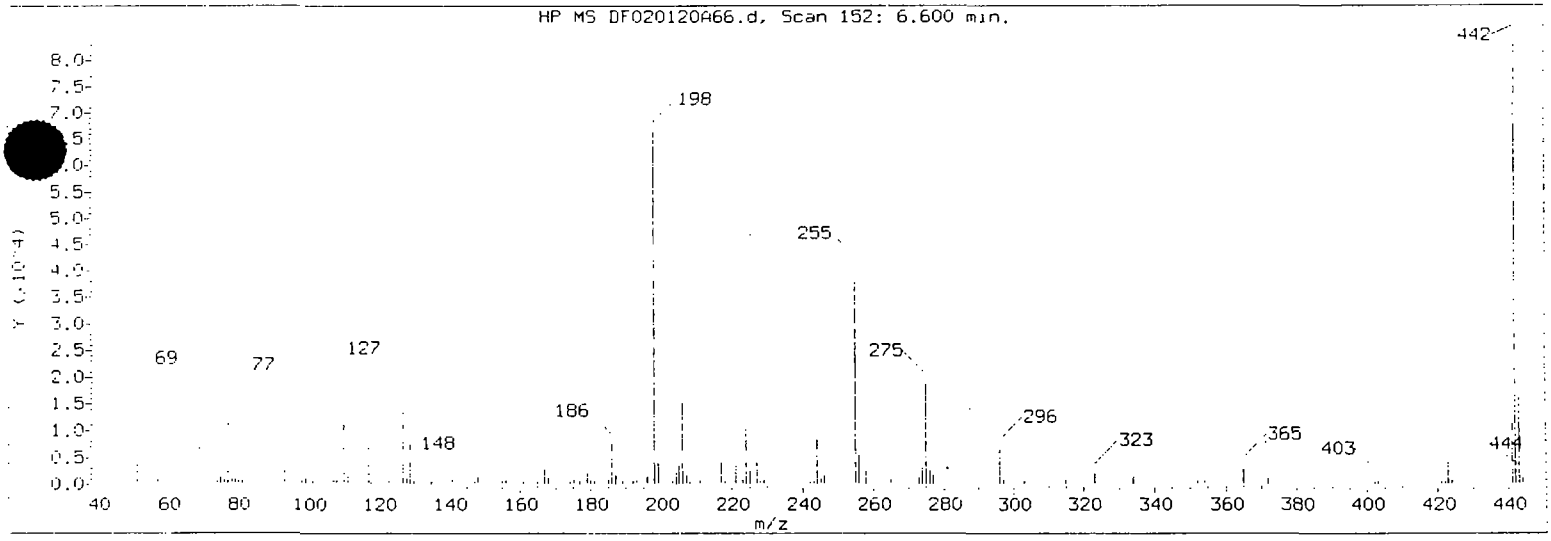
Datafile Analyzed: /chem/5972hp66.i/DF020120A66.b/DF020120A66.d/DF020120A66.d
Method Used: /chem/5972hp66.i/DF020120A66.b/dftpp8270C.m Inst: 5972hp66
Injection Date: 20-JAN-2002 10:07 Operator: 2319
Sample Info: DFTPP DFTPP:2319
Misc Info:



Report Date: 01/20/2002 10:39

Datafile Analyzed: /chem/5972hp66.i/DF020120A66.b/DF020120A66.d/DF020120A66.d
Method Used: /chem/5972hp66.i/DF020120A66.b/dftpp8270C.m Inst: 5972hp66
Injection Date: 20-JAN-2002 10:07 Operator: 2319
Sample Info: DFTPP DFTPP:2319
Misc Info:



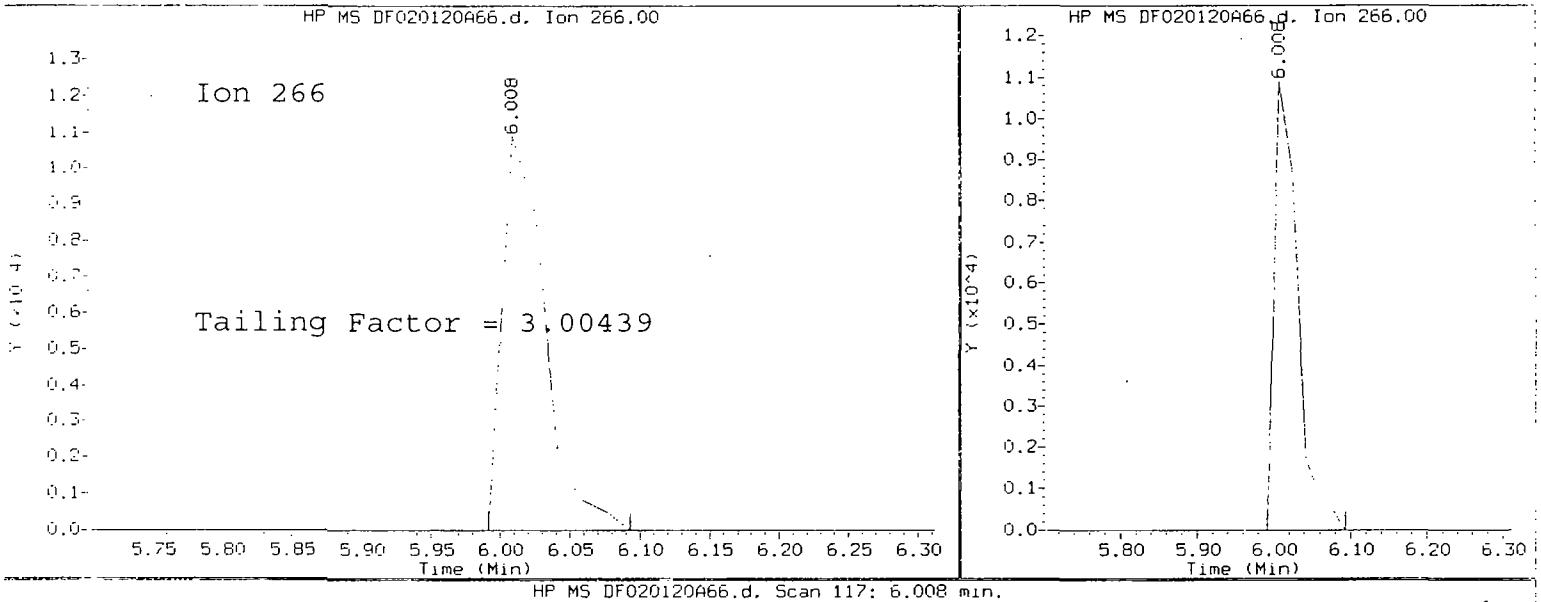


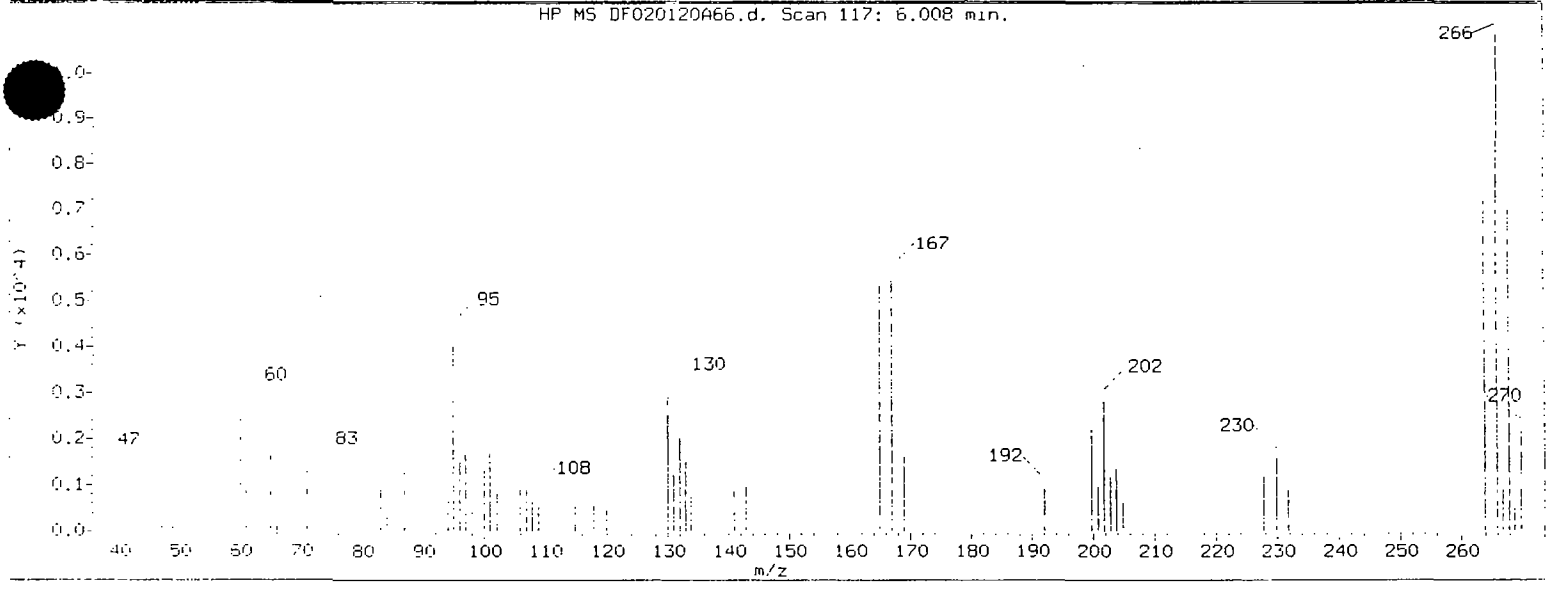
DECAFLUOROTRIPHENYLPHOSPHINE Ion Abundance/Ratio Criteria Chart

Ion	Abundance Criteria	Base Peak	Other	Test
198	Base Peak, 100% relative abundance	100.00		PASS
51	30 - 80% of mass 198	51.27		PASS
68	Less than 2% of mass 69	0.00	(0.00)	PASS
69	Mass 69 relative abundance	62.54		PASS
70	Less than 2% of mass 69	0.00	(0.00)	PASS
127	25 - 75% of mass 198	44.03		PASS
197	0 - 1% of mass 198	0.00		PASS
199	5 - 9% of mass 198	6.44		PASS
275	10 - 30% of mass 198	21.68		PASS
[illegible]5	Greater than 0.75% of mass 198	2.85		PASS
[illegible]1	Present, but less than mass 443	12.98	(79.45)	PASS
442	40 - 110% of mass 198	85.07		PASS
443	15 - 24% of mass 442	16.34	(19.20)	PASS

Report Date: 01/20/2002 10:39

Datafile Analyzed: /chem/5972hp66.i/DF020120A66.b/DF020120A66.d/DF020120A66.d
[redacted]hod Used: /chem/5972hp66.i/DF020120A66.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 20-JAN-2002 10:07 Operator:
Sample Info: DFTPP DFTPP:2319
Misc Info:





Pentachlorophenol
==========
Exp. RT = 6.290
Found RT = 6.008

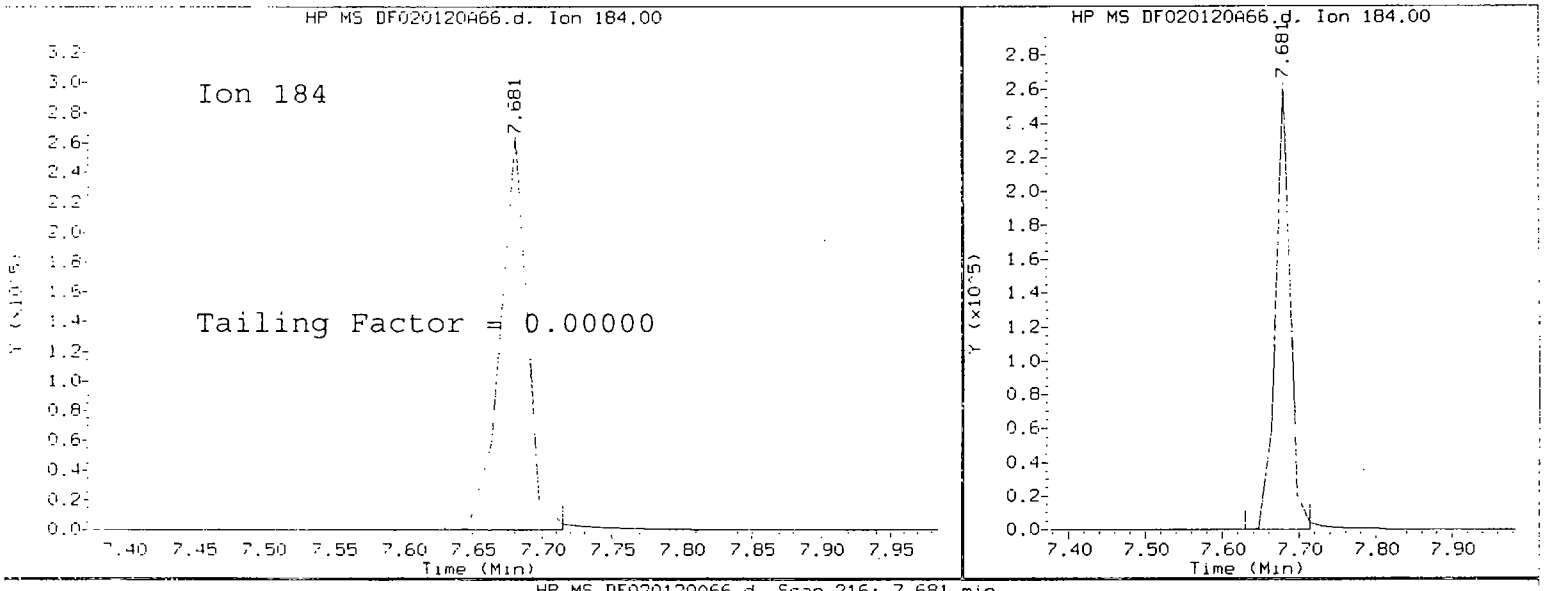
Mass	Area	Ratio
266	22907	100.00

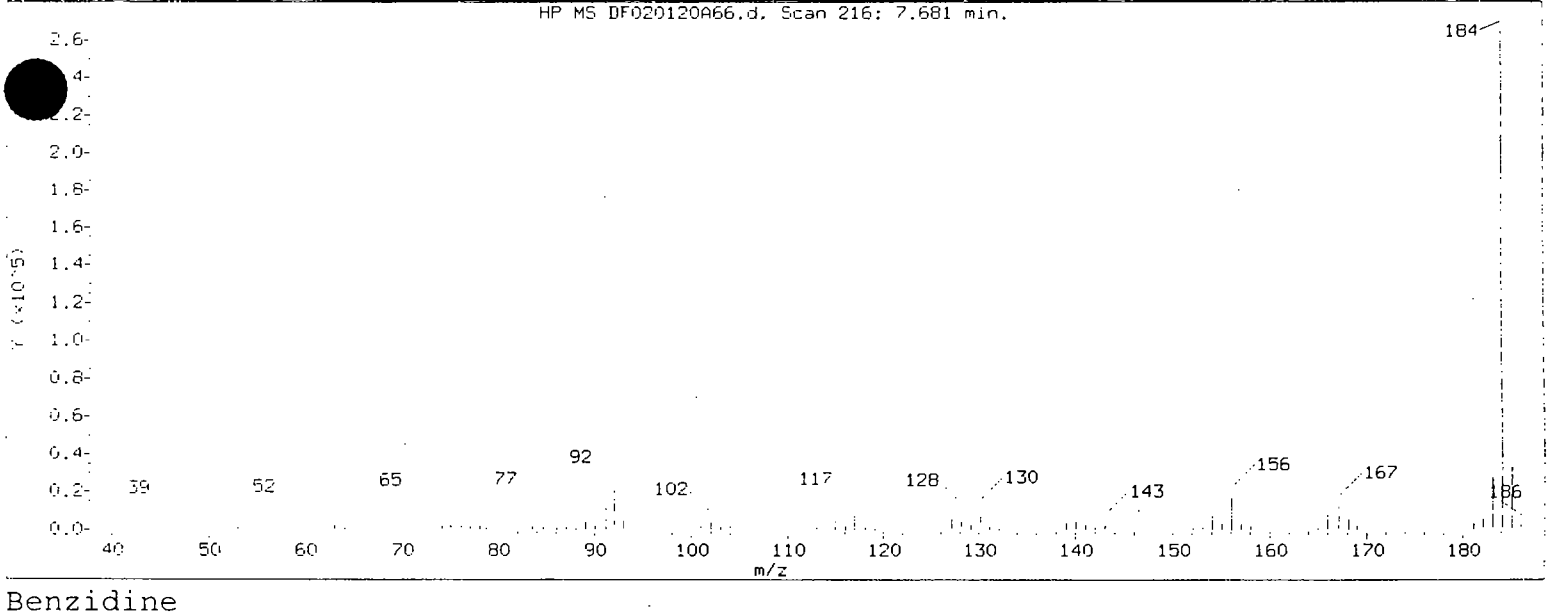
Tailing factor for Pentachlorophenol OK

Tailing Factor = 3.0 Maximum Allowed = 5.0

Report Date: 01/20/2002 10:39

Datafile Analyzed: /chem/5972hp66.i/DF020120A66.b/DF020120A66.d/DF020120A66.d
Method Used: /chem/5972hp66.i/DF020120A66.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 20-JAN-2002 10:07 Operator:
Sample Info: DFTPP DFTPP:2319
Misc Info:





Benzidine
==========
Exp. RT = 7.880
Found RT = 7.681

Mass	Area	Ratio
184	352953	100.00

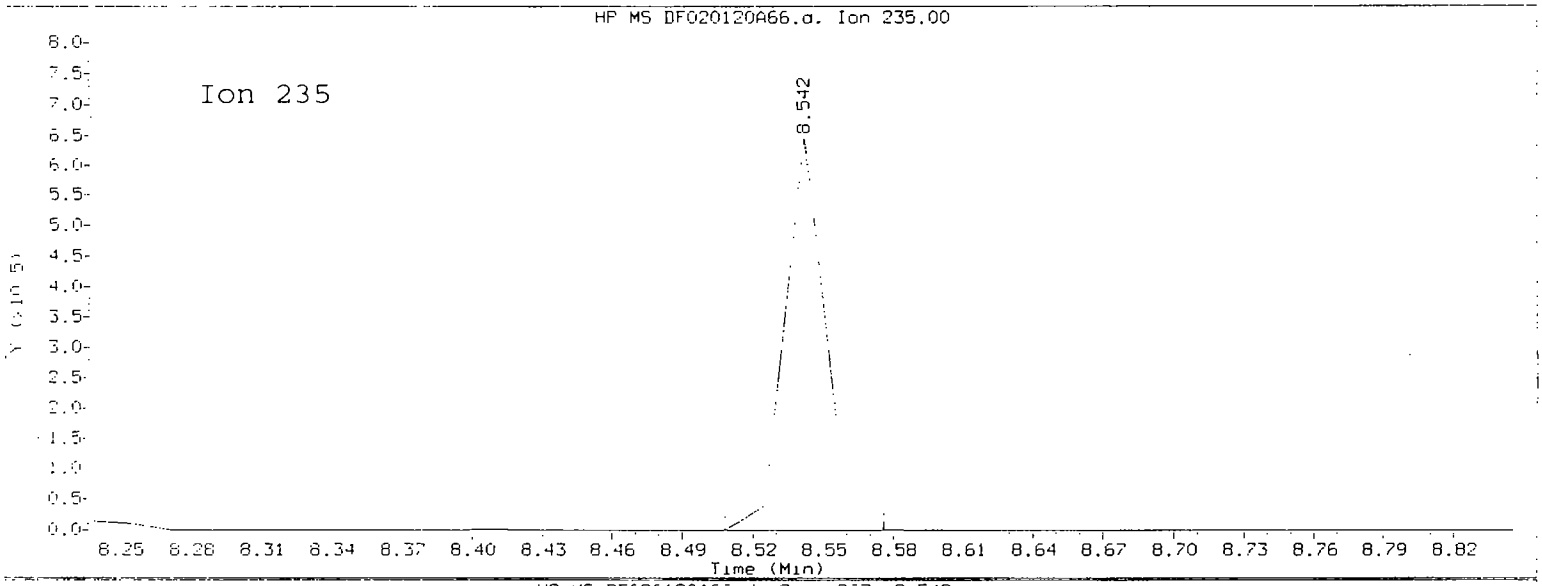
Tailing factor for Benzidine OK

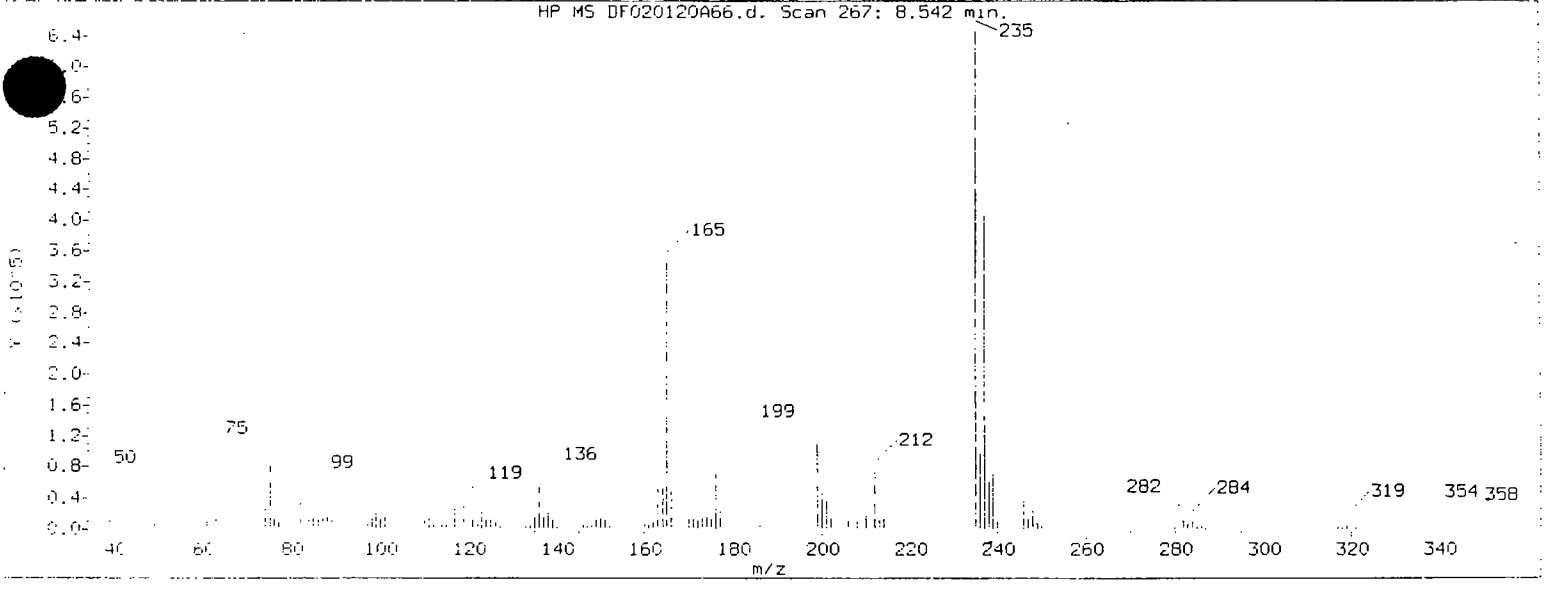
Tailing Factor = 0.0 Maximum Allowed = 3.0

If Tailing Factor < 1.0, then it is assumed that the peak is not tailing and a Tailing Factor of zero is reported.

Report Date: 01/20/2002 10:39

Datafile Analyzed: /chem/5972hp66.i/DF020120A66.b/DF020120A66.d/DF020120A66.d
Method Used: /chem/5972hp66.i/DF020120A66.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 20-JAN-2002 10:07 Operator:
Sample Info: DFTPP DFTPP:2319
Misc Info:



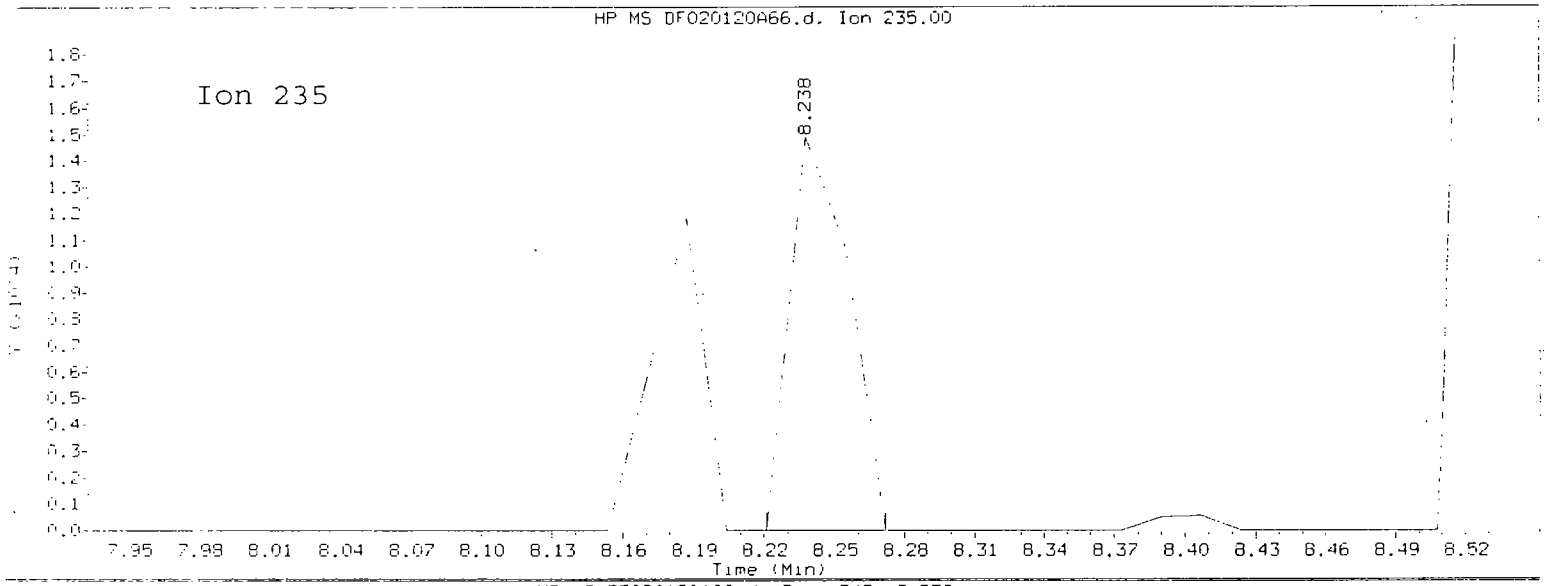


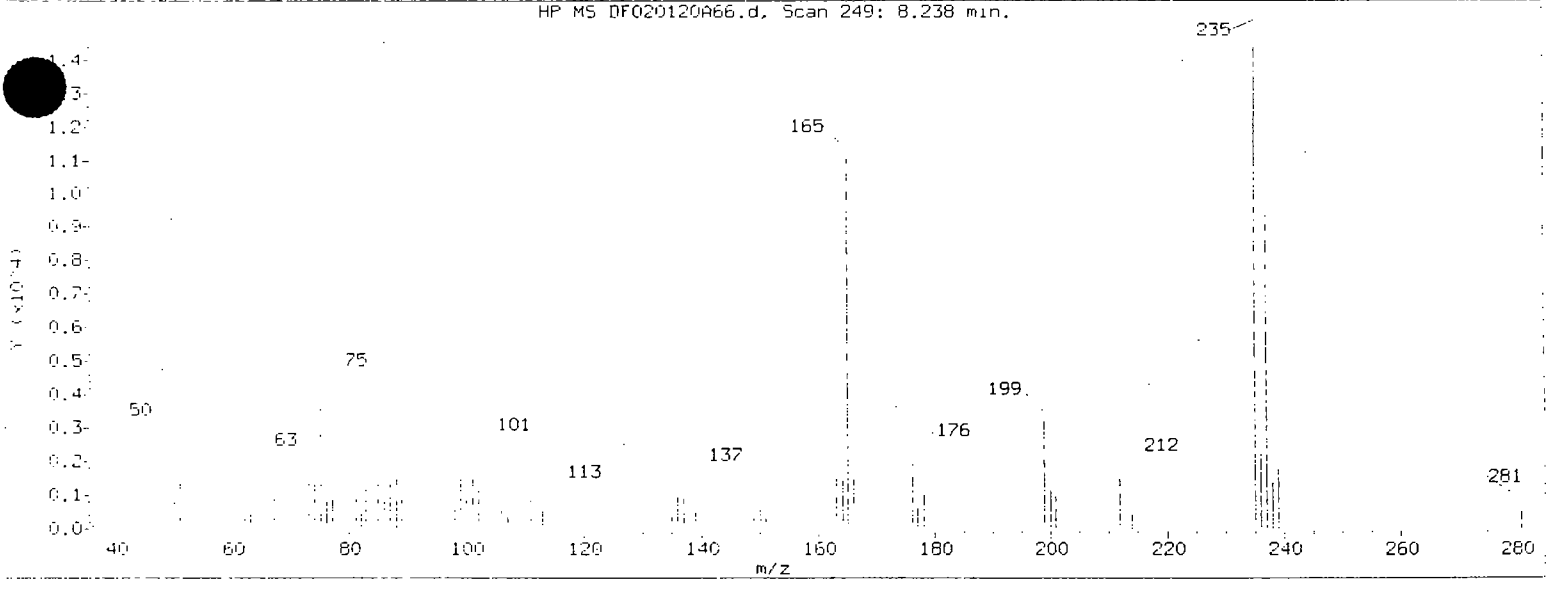
4,4'-DDT
========
Exp. RT = 8.730
Found RT = 8.542

Mass	Area	Ratio
235	766233	100.00

Report Date: 01/20/2002 10:39

Datafile Analyzed: /chem/5972hp66.i/DF020120A66.b/DF020120A66.d/DF020120A66.d
Method Used: /chem/5972hp66.i/DF020120A66.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 20-JAN-2002 10:07 Operator:
Sample Info: DFTPP DFTPP:2319
Misc Info:



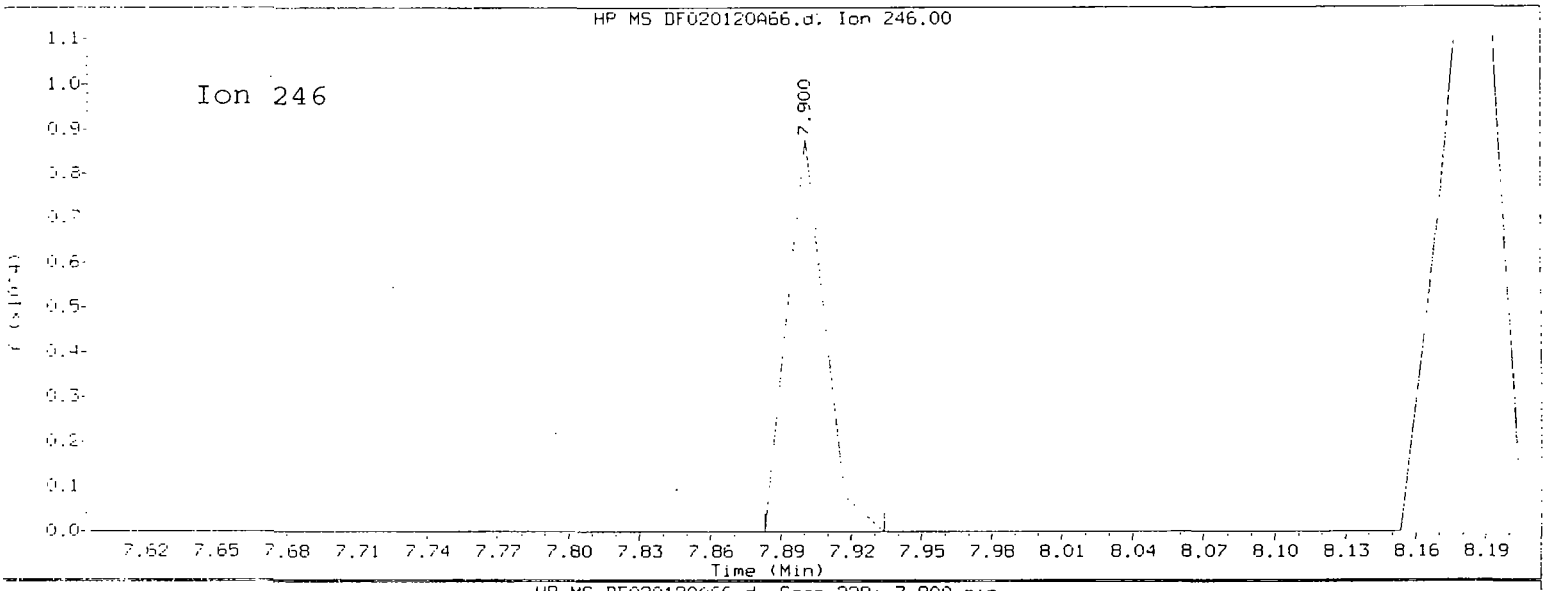


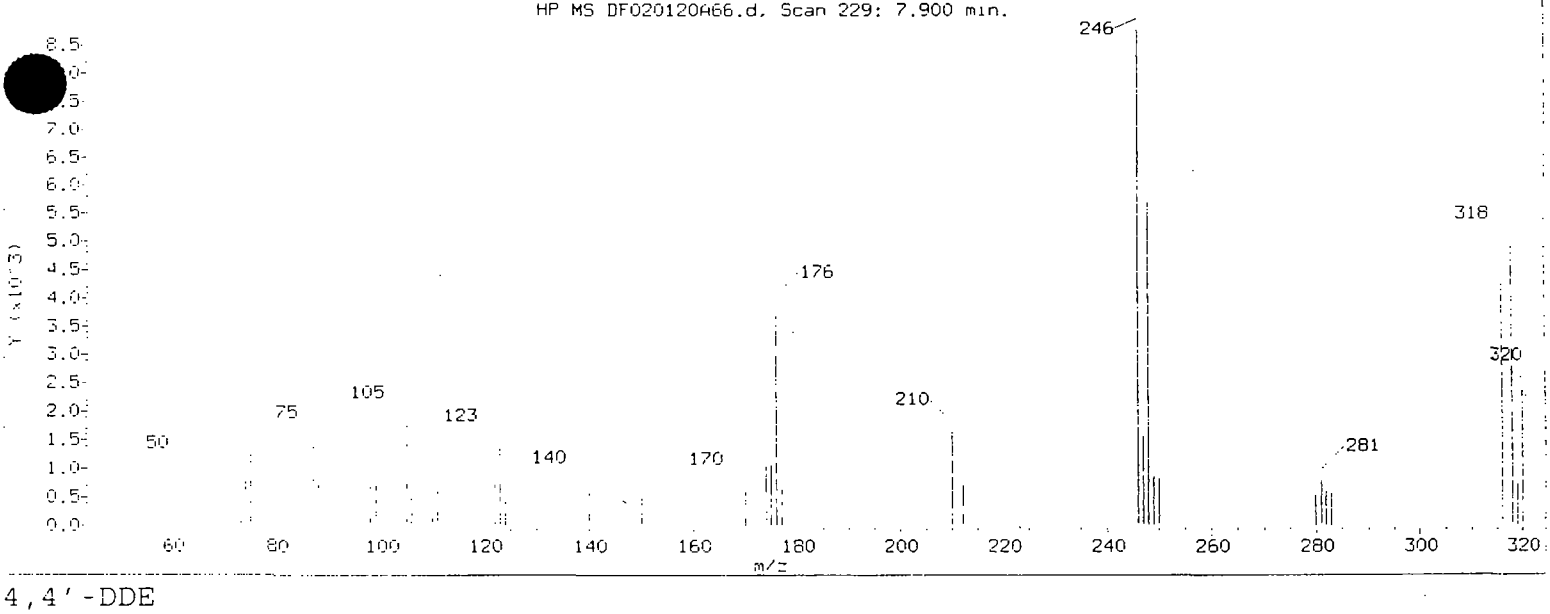
4,4'-DDD
========
Exp. RT = 8.400
Found RT = 8.238

Mass	Area	Ratio
235	25950	100.00

Report Date: 01/20/2002 10:39

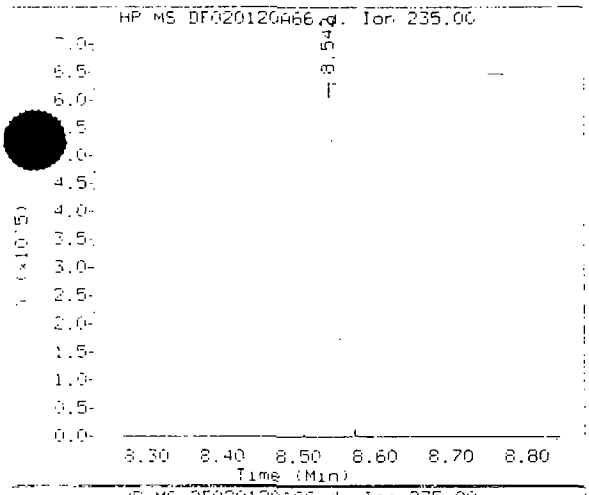
Datafile Analyzed: /chem/5972hp66.i/DF020120A66.b/DF020120A66.d/DF020120A66.d
Method Used: /chem/5972hp66.i/DF020120A66.b/dftpp8270C.m/BrkDwnTF.m Inst: 5972h
Injection Date: 20-JAN-2002 10:07 Operator:
Sample Info: DFTPP DFTPP:2319
Misc Info:



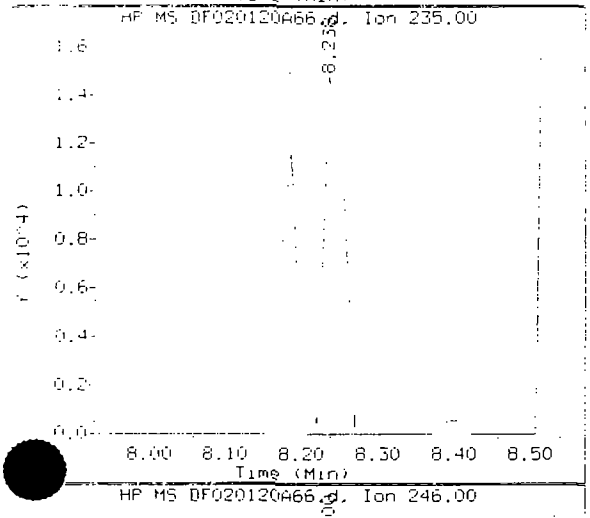


4,4'-DDE
========
Exp. RT = 8.080
Found RT = 7.900

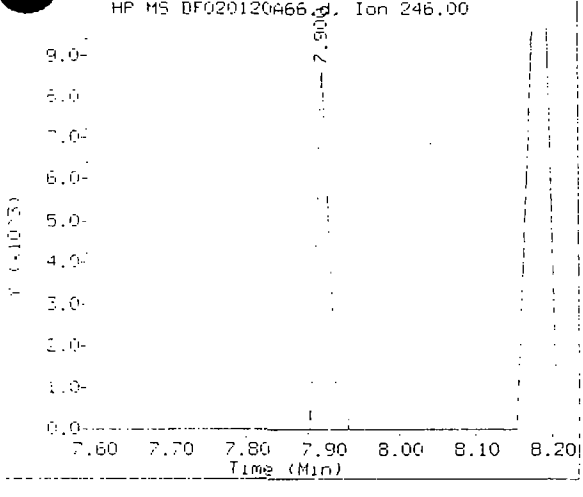
Mass	Area	Ratio
246	9747	100.00



Compound: 4,4'-DDT
Quant Mass: 235
RT: 8.542
Area: 766233



Compound: 4,4'-DDD
Quant Mass: 235
RT: 8.238
Area: 25950



Compound: 4,4'-DDE
Quant Mass: 246
RT: 7.900
Area: 9747

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	766233			N/A
4,4-DDE	9747	1.3	20.0	PASS
4,4-DDD	25950	3.3	20.0	PASS
4,4-DDD + DDE	35697	4.5	20.0	PASS

****

TUNE SAMPLE *** PASSED *** DDT BREAKDOWN TEST

****

b. Blank Data

Arranged in chronological order, by extraction date.

- Tabulated Results (Form I SV)
- Tentatively Identified Compounds (Form I SV-TIC)
- Reconstructed Ion Chromatogram and quantitation report
- Target compound spectra with lab-generated standard spectra
- Quantitation/Calculation of TIC concentrations
- GC/MS library search spectra for TICs

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKSZ

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: WG15377-1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: WG15377-1A66

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	10	U
111-44-4	Bis(2-chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-N-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	10	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SBLKSZ

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: WG15377-1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: WG15377-1A66

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

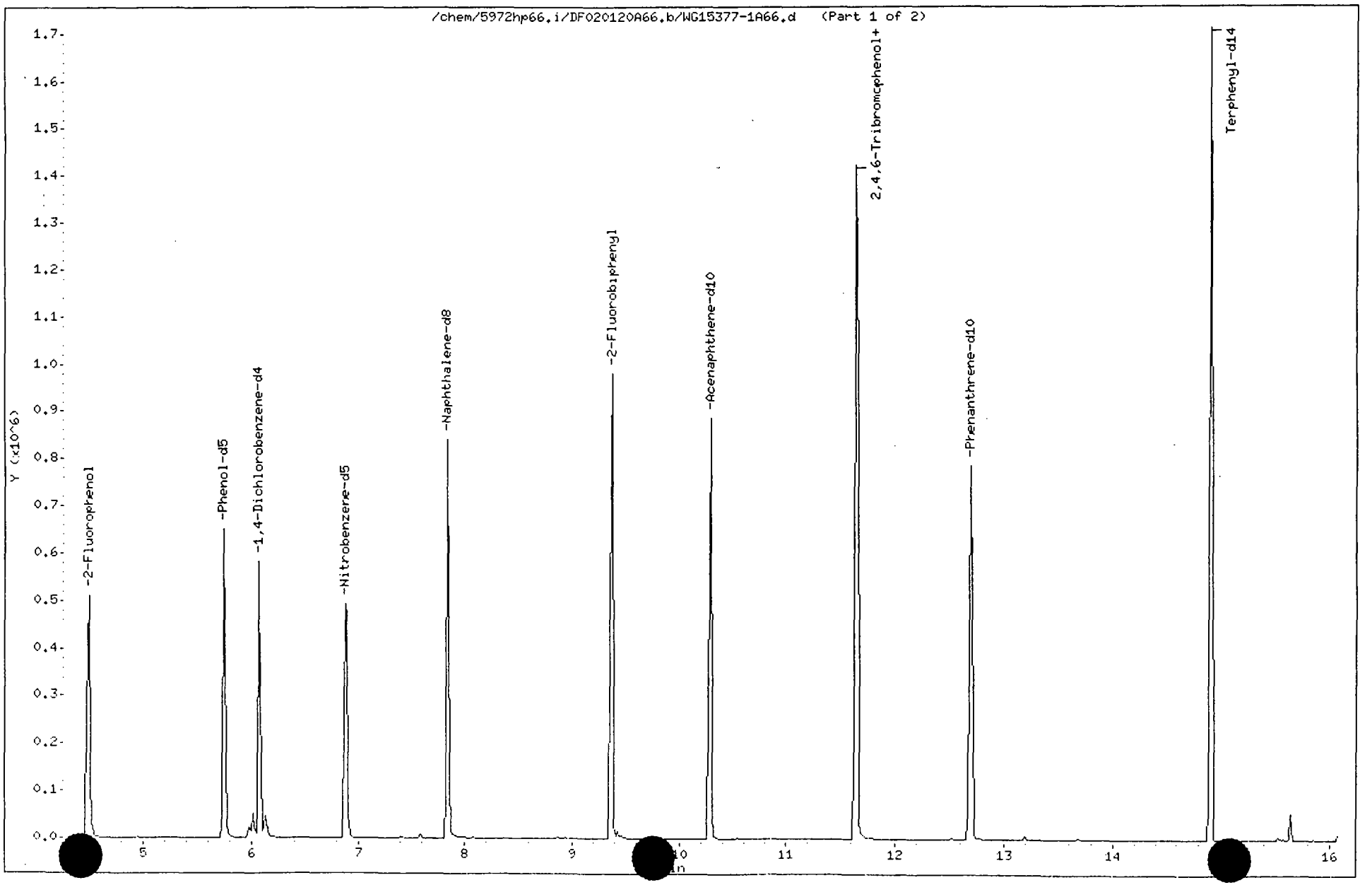
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	20	U
121-14-2	2,4-Dinitrotoluene	10	U
132-64-9	Dibenzofuran	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
117-81-7	bis(2-ethylhexyl)Phthalate	1	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-1A66.d
Date : 20-JAN-2002 11:03
Client ID: SBLKSZ
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2319
Column diameter: 0.25



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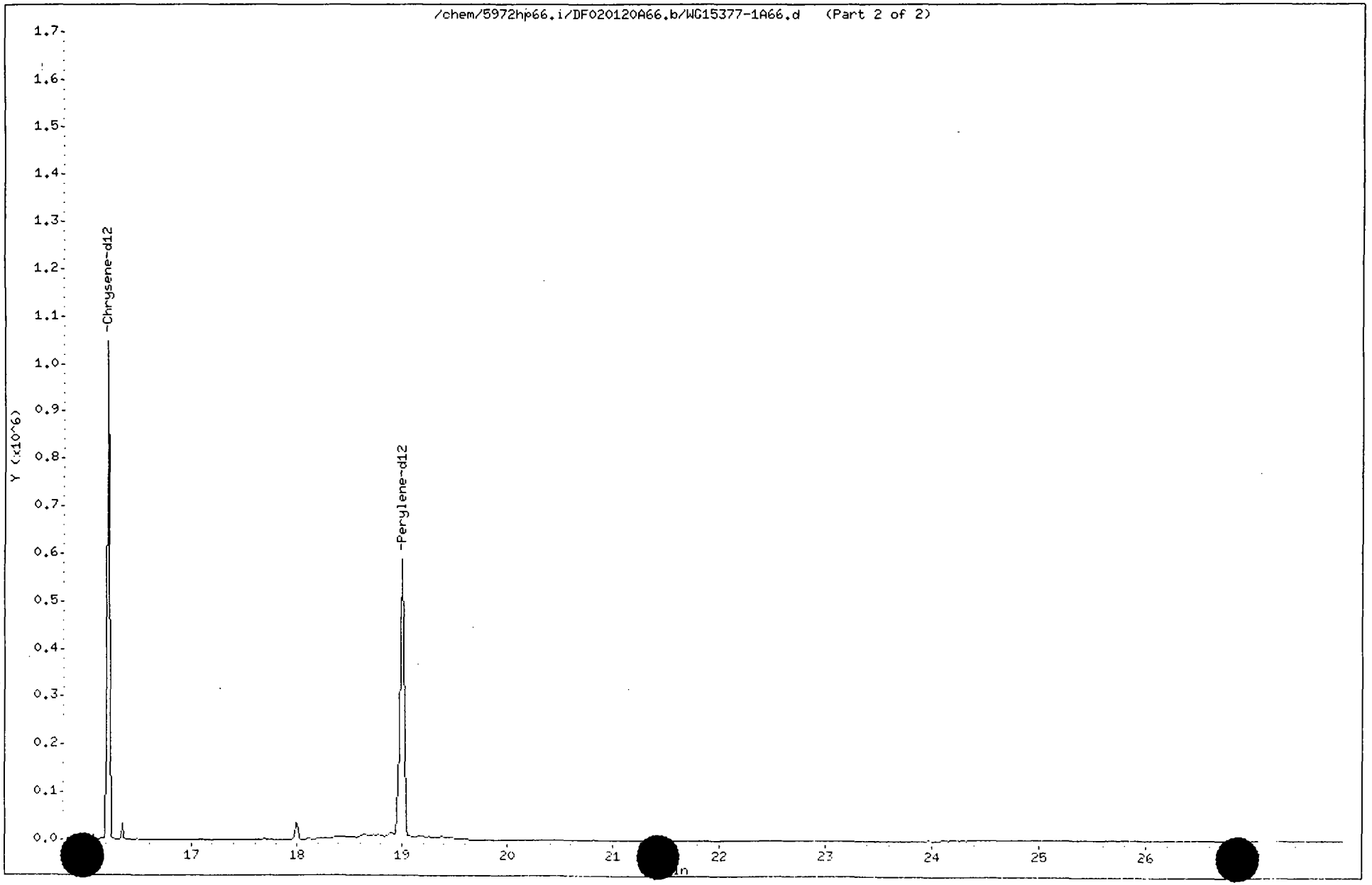
Date : 20-JAN-2002 11:03
Client ID: SBLKSZ
Instrument: 5972hp66.i
Sample Info:
Volume Injected (uL): 1.0
Operator: 2319
Column phase: RTX-5MS
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-1A66.d
Report Date: 23-Jan-2002 11:33

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020120A66.b/WG15377-1A66.d
Lab Smp Id: WG15377-1 Client Smp ID: SBLKSZ
Inj Date : 20-JAN-2002 11:03
Operator : 2319 Inst ID: 5972hp66.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020120A66.b/8270Cv6.m
Meth Date : 23-Jan-2002 11:31 byrd Quant Type: ISTD
Cal Date : 17-JAN-2002 13:38 Cal File: HM020117A66.d
Als bottle: 3 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLM03.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	SIMILARITY	
*	1 1,4-Dichlorobenzene-d4	152	6.064	6.067	(1.000)	125692	40.0000			
*	2 Naphthalene-d8	136	7.838	7.840	(1.000)	445326	40.0000			
*	3 Acenaphthene-d10	164	10.287	10.289	(1.000)	288679	40.0000			
*	4 Phenanthrene-d10	188	12.685	12.705	(1.000)	503502	40.0000			
*	5 Chrysene-d12	240	16.215	16.235	(1.000)	528192	40.0000			
*	6 Perylene-d12	264	19.002	19.021	(1.000)	521926	40.0000			
S	7 2-Fluorophenol	112	4.494	4.496	(0.742)	231425	55.7277	55.73		
S	8 Phenol-d5	99	5.743	5.746	(0.947)	278827	49.7603	49.76		
S	9 Nitrobenzene-d5	82	6.875	6.895	(0.877)	336305	55.7872	55.79		
S	10 2-Fluorobiphenyl	172	9.375	9.377	(0.911)	586334	62.5090	62.51		
S	11 2,4,6-Tribromophenol	330	11.655	11.657	(1.133)	363146	143.911	143.9		(M) /
S	12 Terphenyl-d14	244	14.897	14.900	(0.919)	901530	70.4443	70.44		
	16 Phenol	94	Compound Not Detected.							
	17 Bis(2-chloroethyl)ether	93	Compound Not Detected.							
	18 2-Chlorophenol	128	Compound Not Detected.							

Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-1A66.d
Report Date: 23-Jan-2002 11:33

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
19	1,3-Dichlorobenzene	146	Compound Not Detected.						
20	1,4-Dichlorobenzene	146	Compound Not Detected.						
22	1,2-Dichlorobenzene	146	Compound Not Detected.						
23	2-Methylphenol	108	Compound Not Detected.						
24	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.						
27	4-Methylphenol	108	Compound Not Detected.						
28	N-Nitroso-di-N-propylamine	70	Compound Not Detected.						
29	Hexachloroethane	117	Compound Not Detected.						
30	Nitrobenzene	77	Compound Not Detected.						
31	Isophorone	82	Compound Not Detected.						
32	2-Nitrophenol	139	Compound Not Detected.						
33	2,4-Dimethylphenol	122	Compound Not Detected.						
34	Bis(2-chloroethoxy)methane	93	Compound Not Detected.						
35	2,4-Dichlorophenol	162	Compound Not Detected.						
36	1,2,4-Trichlorobenzene	180	Compound Not Detected.						
37	Naphthalene	128	Compound Not Detected.						
38	4-Chloroaniline	127	Compound Not Detected.						
39	Hexachlorobutadiene	225	Compound Not Detected.						
41	4-Chloro-3-methylphenol	107	Compound Not Detected.						
42	2-Methylnaphthalene	142	Compound Not Detected.						
44	Hexachlorocyclopentadiene	237	Compound Not Detected.						
45	2,4,6-Trichlorophenol	196	Compound Not Detected.						
46	2,4,5-Trichlorophenol	196	Compound Not Detected.						
47	2-Chloronaphthalene	162	Compound Not Detected.						
49	2-Nitroaniline	65	Compound Not Detected.						
50	Dimethylphthalate	163	Compound Not Detected.						
51	2,6-Dinitrotoluene	165	Compound Not Detected.						
52	Acenaphthylene	152	Compound Not Detected.						
53	3-Nitroaniline	138	Compound Not Detected.						
54	Acenaphthene	154	Compound Not Detected.						
55	2,4-Dinitrophenol	184	Compound Not Detected.						
56	4-Nitrophenol	109	Compound Not Detected.						
57	2,4-Dinitrotoluene	165	Compound Not Detected.						
58	Dibenzofuran	168	Compound Not Detected.						
59	Diethylphthalate	149	Compound Not Detected.						
60	4-Chlorophenyl-phenylether	204	Compound Not Detected.						
61	Fluorene	166	Compound Not Detected.						
62	4-Nitroaniline	138	Compound Not Detected.						
63	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						
64	N-Nitrosodiphenylamine	169	Compound Not Detected.						
66	4-Bromophenyl-phenylether	248	Compound Not Detected.						
67	Hexachlorobenzene	284	Compound Not Detected.						
69	Pentachlorophenol	266	Compound Not Detected.						
70	Phenanthrene	178	Compound Not Detected.						
71	Anthracene	178	Compound Not Detected.						
72	Carbazole	167	Compound Not Detected.						
73	Di-n-butylphthalate	149	Compound Not Detected.						

Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-1A66.d
Report Date: 23-Jan-2002 11:33

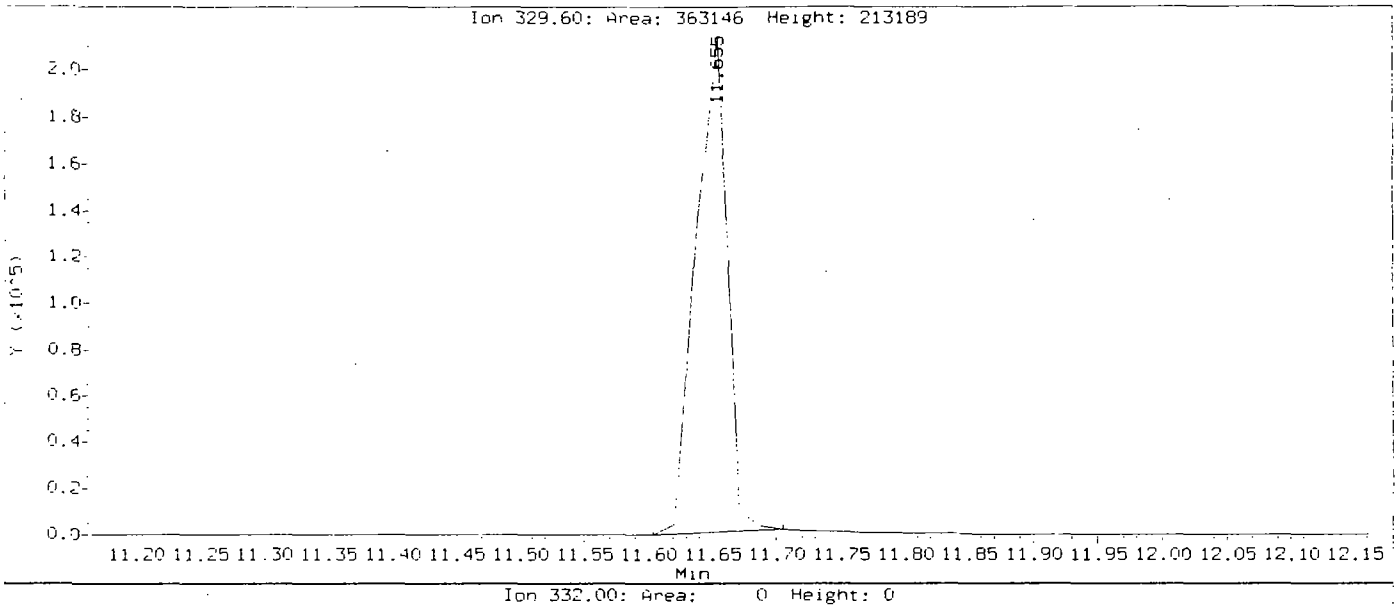
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
74 Fluoranthene	202	Compound Not Detected.						
76 Pyrene	202	Compound Not Detected.						
77 Butylbenzylphthalate	149	Compound Not Detected.						
78 3,3'-Dichlorobenzidine	252	Compound Not Detected.						
79 bis(2-ethylhexyl)Phthalate	149	16.350	16.353	(1.008)	14163	1.19865	1.20	8947(a)
80 Benzo(a)anthracene	228	Compound Not Detected.						
81 Chrysene	228	Compound Not Detected.						
82 Di-n-octylphthalate	149	Compound Not Detected.						
83 Benzo(b)fluoranthene	252	Compound Not Detected.						
84 Benzo(k)fluoranthene	252	Compound Not Detected.						
85 Benzo(a)pyrene	252	Compound Not Detected.						
86 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
87 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
88 Benzo(g,h,i)perylene	276	Compound Not Detected.						

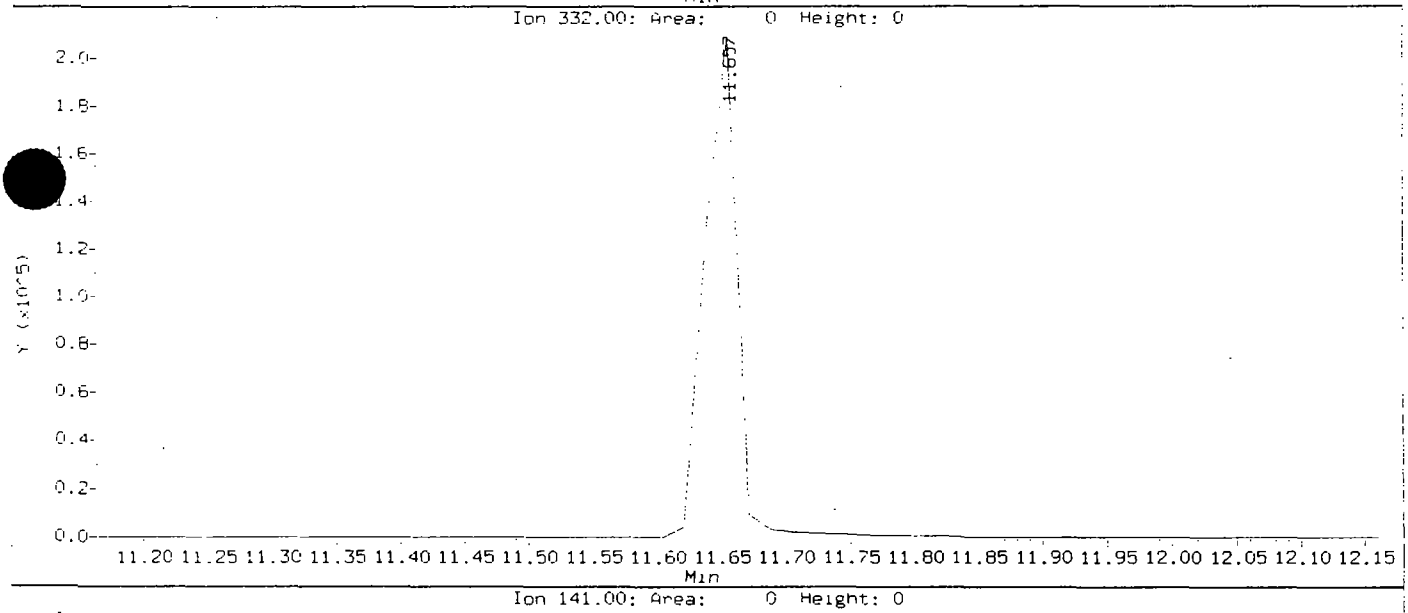
QC Flag Legend

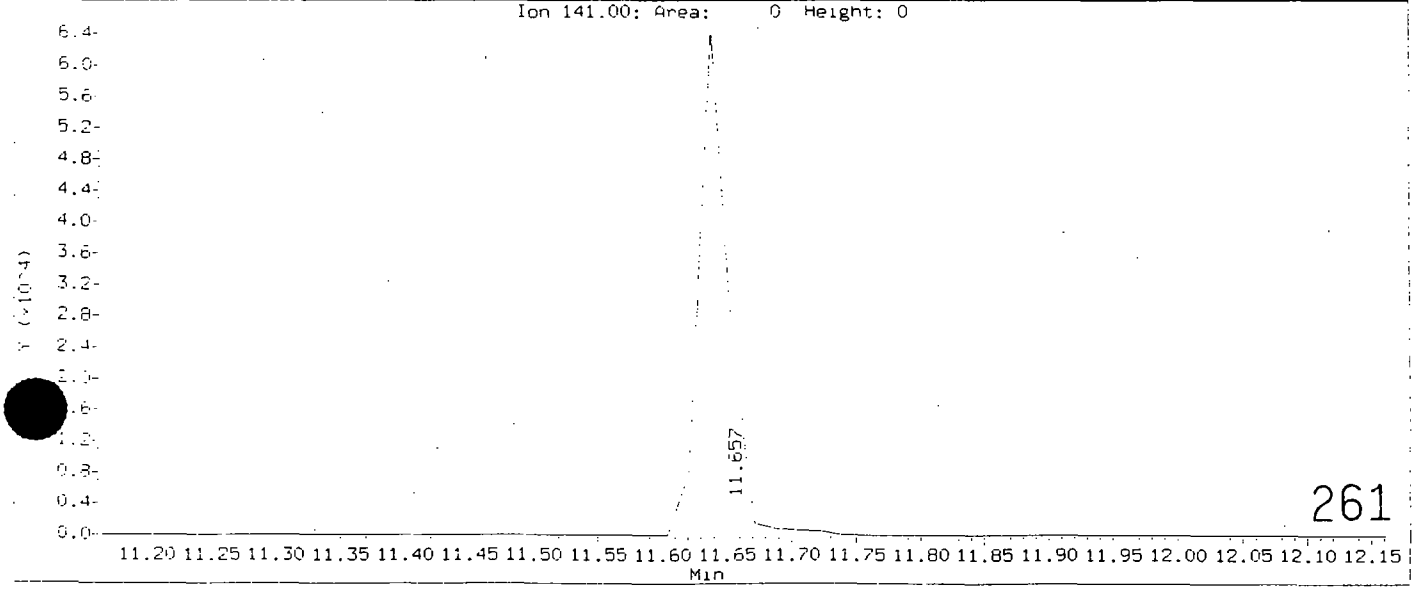
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/5972hp66.i/DF020120A66.D/WG15377-1A66.d
Injection Date: 20-JAN-2002 11:03
Instrument: 5972hp66.i
Client Sample ID: SBLKS2

[redacted]ound: 2,4,6-Tribromophenol
CAS Number: 118-79-6







Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-1A66.d

Date : 20-JAN-2002 11:03

Client ID: SBLKSZ

Instrument: 5972hp66.i

Sample Info:

Volume Injected (uL): 1.0

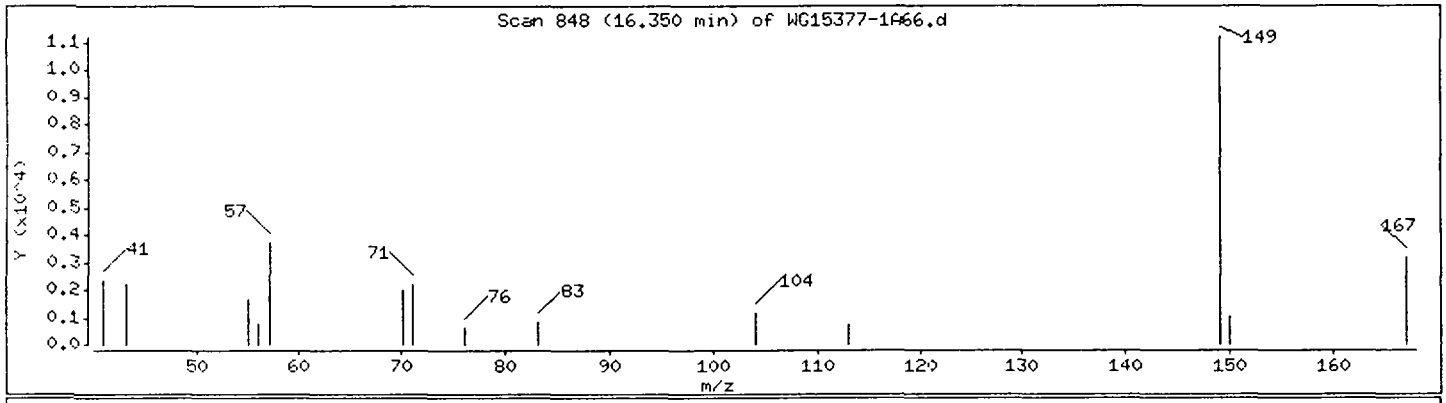
Operator: 2319

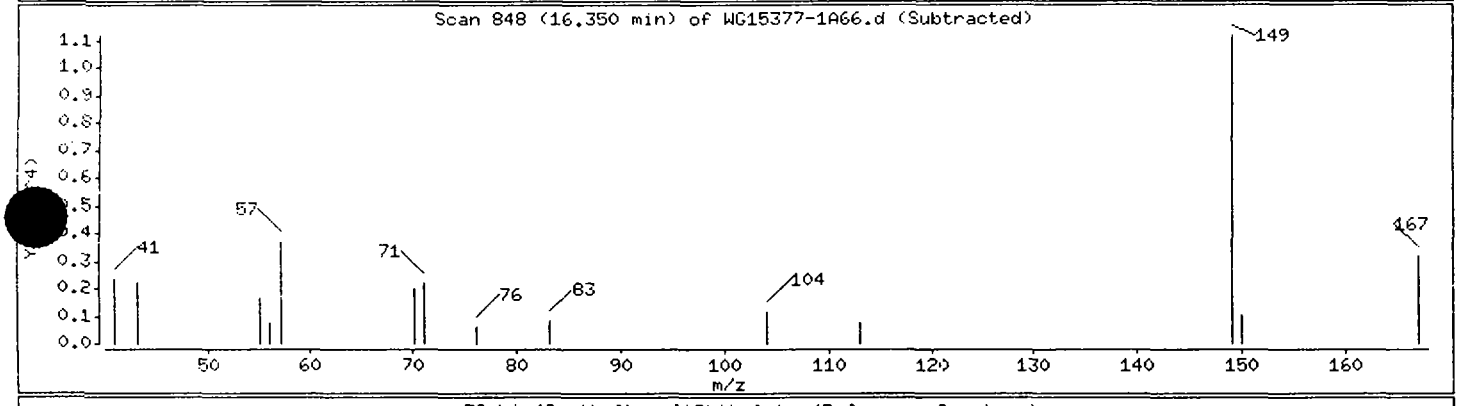
Column phase: RTX-5MS

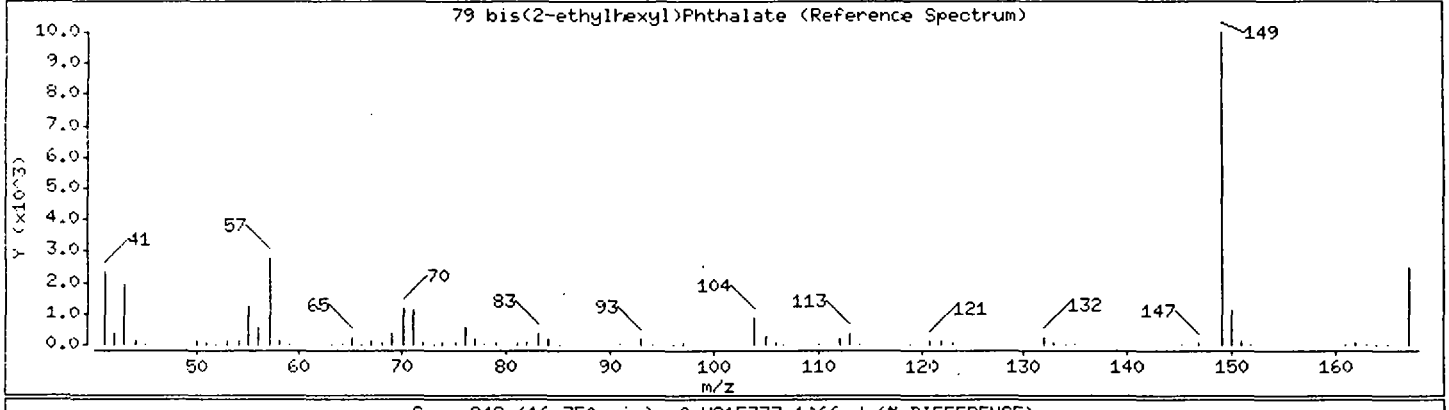
Column diameter: 0.25

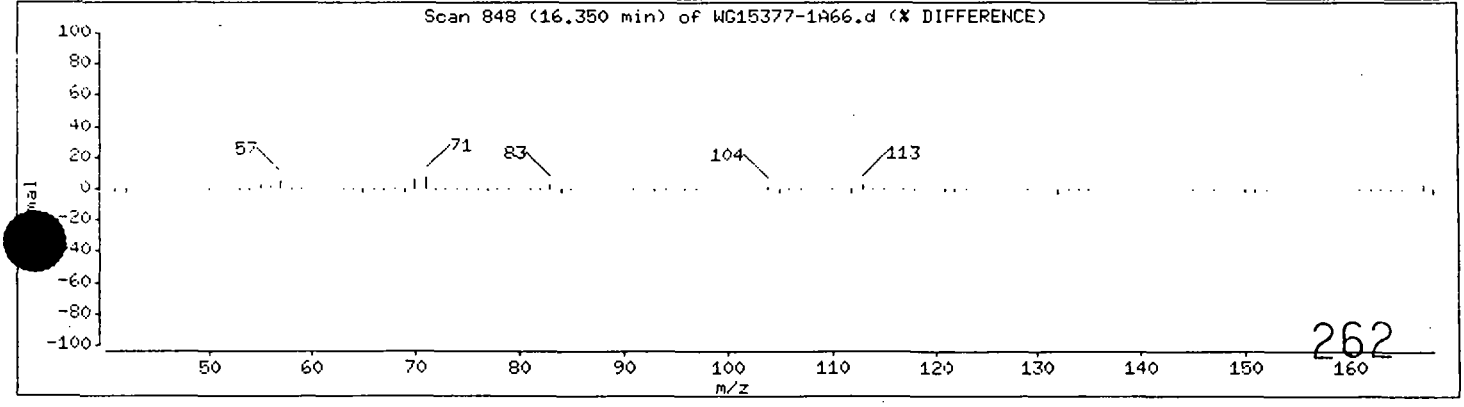
79 bis(2-ethylhexyl)Phthalate

Concentration: 1.20 ug/L









CompuChem
a Division of Liberty Analytical Corp.

GC/MS SEMI-VOA WORKSHEET

LAB INSTRUCTIONS:

RECEIPT DATE: 1/17/02 0:00 SAMPLE DATE: DUE DATE:

CASE#: SDG: WG15377 **COMPUCHEM #: WG15377-1**

CLIENT ID: SBLKSZ

ANALYSIS DESCRIPTION: SVOA-8270C

Injection Volume :____1____µL Dilution Prep (if needed)_____

Extraction Date __1__/__18__/__02__

DFTPP Filename __DF020120A66__

Sample File Name__**WG15377-1**__A66__

ANALYST (S): Injection__2319__ Work-up __2319__

GC/MS DATE REVIEW

CONDITION CODE [a]

Disposition: [✓] Complete

Extraneous Peak Search Results:

Number of peaks found: N/A

Number of Hits found: 1

Number of Surrogate Outliers: 0

[ ] Reinjection Required

[ ] Re-extraction Required

[ ] Reinject Neat

[ ] Dilute (X)

Quality Assurance Notice (s)
Number of Notices Required 0

Comments:

#GC/MS Review [signature] Date 1/23/2 Auditor_____Date__/__/__

Final Reportable Package(s):

WG15377-1A66

ASSIGNED TO: Matt / David / [illegible]

EMP ID NUMBER: 2466, 2503 / ~~2357~~ 2378 [illegible]

CompuChem
EXTRACTION WORKSHEET
SEMI-VOLATILE WATER, Method 3510C for 8270C

-079

1-18-02

DATE EXTRACTED/POSTED: 1/18/02

264

	SAMPLE NUMBER	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	FINAL VOLUME (ml)	Adjusted pH A/N	Adjusted pH BASE	COMMENTS
1	QR1877-1		1100	1.0	1.6	13.0	
2	3		500	[illegible]	1.6	13.0	
3	4		1100	1.0	1.6	13.0	
4	5	QC	1100	1.0	1.6	13.0	
5	6		1100	1.0	1.6	13.0	use Q-5 for 3/4 SS
6	WG15377-3	SS	1100	1.0	1.6	13.0	
7	-4	SS	1100	1.0	1.6	13.0	
8	R2418-1		1075	1.0	1.6	13.0	
9	U2416-1		1040	1.0	1.6	13.0	
10	2		1050	1.0	1.6	13.0	
11	3		1050	1.0	1.6	13.0	
12	4	QC	500	~~1.0~~ 0.5	1.6	13.0	use U-4 for 5/6 SS
13	5		1100	1.0	1.6	13.0	
14	WG15377-5	SS	500	0.5	1.6	13.0	
15	-6	SS	500	0.5	1.6	13.0	
16	V2403-1		1000	1.0	1.6	13.0	use reduced volume for V-1 – NYASP
17	Y1822-22		1010	1.0	1.6	13.0	
18							
19							
20							GFB 1/18/02
21							
22							
23	WG15377-1	BLK	1000	1.0	1.6	13.0	
24	-2	LCS	1000	1.0	1.6	13.0	*Add 1.0 mL validation spike to LCS and SSs unless otherwise noted

		S-VOL	Acid	B/N	8270
SURROGATE	NO.	393			
	AMT.	1.0 ml			
	LOT	52623			
SPIKE	NO.		3012	2021	VALID.
	AMT.		1.0 ml	1.0ml	1.0 ml
	LOT				52452

FINAL VOLUME VERIFIED: [signature]

SUPERVISOR REVIEWED: [signature]

SURROGATE & SPIKE ADDED BY: GFB 1-18-02
Initials Date

Analyst initials. Extracted MC [illegible] KD JS/GFB N2 B/GFB/B Bottle up GFB/B/JS

Witness [signature] 1/18/02
Initials Date

[illegible]ufacturer and lot number of reagents/solvents used MeCl: CC995[illegible] [illegible] T0950 H2SO4: V03029 Na2SO4: [illegible] 313 7

Rev. [illegible]

c. Laboratory Control Sample Data

Arranged in chronological order, by extraction date

- Tabulated Results (Form I SV)

- Reconstructed Ion Chromatogram and quantitation report

- FORM 1 -

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SSZLCS

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: WG15377-2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: WG15377-2A66

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	33	
111-44-4	Bis(2-chloroethyl)ether	55	
95-57-8	2-Chlorophenol	62	
541-73-1	1,3-Dichlorobenzene	50	
106-46-7	1,4-Dichlorobenzene	53	
95-50-1	1,2-Dichlorobenzene	50	
95-48-7	2-Methylphenol	64	
108-60-1	2,2'-oxybis(1-Chloropropane)	58	
106-44-5	4-Methylphenol	100	
621-64-7	N-Nitroso-di-N-propylamine	54	
67-72-1	Hexachloroethane	50	
98-95-3	Nitrobenzene	51	
78-59-1	Isophorone	56	
88-75-5	2-Nitrophenol	74	
105-67-9	2,4-Dimethylphenol	60	
111-91-1	Bis(2-chloroethoxy)methane	54	
120-83-2	2,4-Dichlorophenol	71	
120-82-1	1,2,4-Trichlorobenzene	57	
91-20-3	Naphthalene	56	
106-47-8	4-Chloroaniline	53	
87-68-3	Hexachlorobutadiene	54	
59-50-7	4-Chloro-3-methylphenol	66	
91-57-6	2-Methylnaphthalene	58	
77-47-4	Hexachlorocyclopentadiene	41	
88-06-2	2,4,6-Trichlorophenol	77	
95-95-4	2,4,5-Trichlorophenol	65	
91-58-7	2-Chloronaphthalene	52	
88-74-4	2-Nitroaniline	52	
131-11-3	Dimethylphthalate	56	
606-20-2	2,6-Dinitrotoluene	54	
208-96-8	Acenaphthylene	52	
99-09-2	3-Nitroaniline	52	
83-32-9	Acenaphthene	58	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SSZLCS

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: WG15377-2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: WG15377-2A66

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

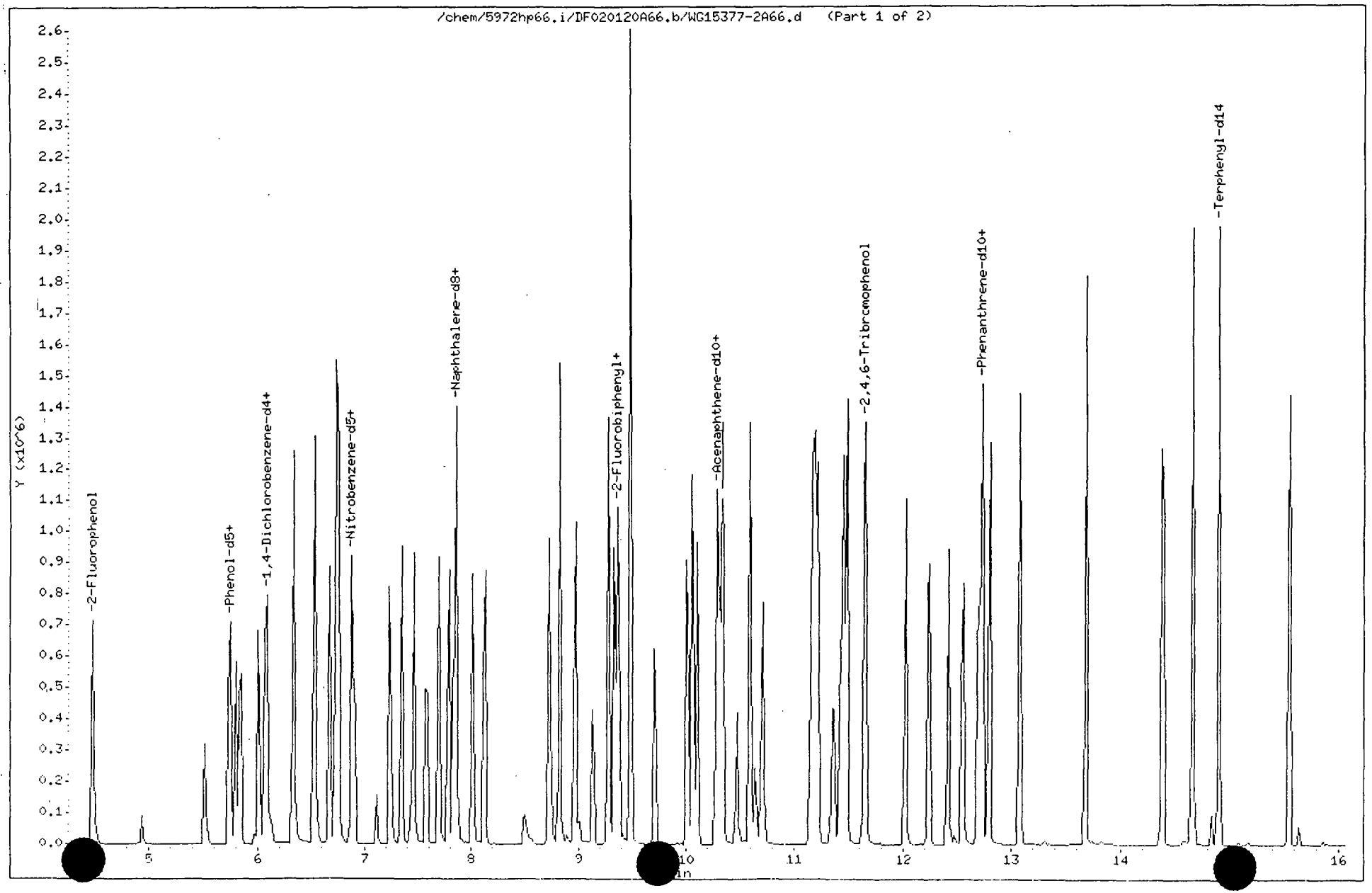
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	61	
100-02-7	4-Nitrophenol	26	
121-14-2	2,4-Dinitrotoluene	55	
132-64-9	Dibenzofuran	55	
84-66-2	Diethylphthalate	57	
7005-72-3	4-Chlorophenyl-phenylether	58	
86-73-7	Fluorene	55	
100-01-6	4-Nitroaniline	48	
534-52-1	4,6-Dinitro-2-methylphenol	64	
86-30-6	N-Nitrosodiphenylamine (1)	60	
101-55-3	4-Bromophenyl-phenylether	60	
118-74-1	Hexachlorobenzene	61	
87-86-5	Pentachlorophenol	73	
85-01-8	Phenanthrene	61	
120-12-7	Anthracene	60	
86-74-8	Carbazole	63	
84-74-2	Di-n-butylphthalate	63	
206-44-0	Fluoranthene	56	
129-00-0	Pyrene	53	
85-68-7	Butylbenzylphthalate	58	
91-94-1	3,3'-Dichlorobenzidine	38	
117-81-7	bis(2-ethylhexyl)Phthalate	53	
56-55-3	Benzo(a)anthracene	55	
218-01-9	Chrysene	56	
117-84-0	Di-n-octylphthalate	54	
205-99-2	Benzo(b)fluoranthene	52	
207-08-9	Benzo(k)fluoranthene	62	
50-32-8	Benzo(a)pyrene	56	
193-39-5	Indeno(1,2,3-cd)pyrene	51	
53-70-3	Dibenzo(a,h)anthracene	57	
191-24-2	Benzo(g,h,i)perylene	58	

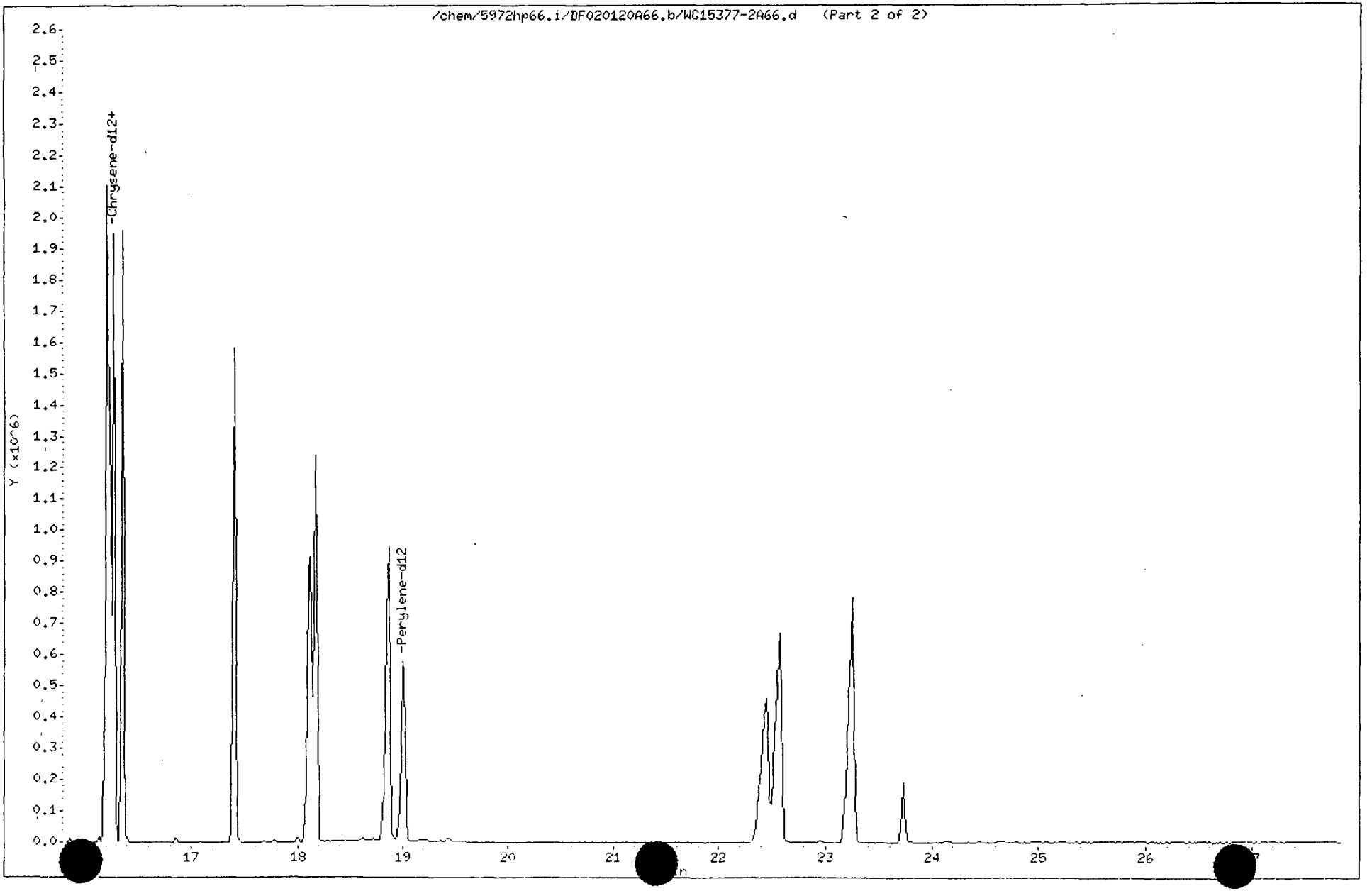
(1) - Cannot be separated from Diphenylamine

Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-2A66.d
Date : 20-JAN-2002 11:40
Client ID: SSZLCS
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2319
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-2A66.d
Date : 20-JAN-2002 11:40
Client ID: SSZLCS
Instrument: 5972hp66.i
Sample Info:
Volume Injected (uL): 1.0
Operator: 2319
Column phase: RTX-5MS
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-2A66.d
Report Date: 23-Jan-2002 11:34

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020120A66.b/WG15377-2A66.d
Lab Smp Id: WG15377-2 Client Smp ID: SSZLCS
Inj Date : 20-JAN-2002 11:40
Operator : 2319 Inst ID: 5972hp66.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020120A66.b/8270Cv6.m
Meth Date : 23-Jan-2002 11:31 byrd Quant Type: ISTD
Cal Date : 17-JAN-2002 13:38 Cal File: HM020117A66.d
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLM03.sub
Target Version: 3.50
Processing Host: einstein

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
*	1	1,4-Dichlorobenzene-d4	152	6.067	6.067	(1.000)	118473	40.0000		
*	2	Naphthalene-d8	136	7.841	7.840	(1.000)	440657	40.0000		
*	3	Acenaphthene-d10	164	10.290	10.289	(1.000)	308711	40.0000		
*	4	Phenanthrene-d10	188	12.705	12.705	(1.000)	557961	40.0000		
*	5	Chrysene-d12	240	16.235	16.235	(1.000)	613489	40.0000		
*	6	Perylene-d12	264	19.005	19.021	(1.000)	573524	40.0000		
S	7	2-Fluorophenol	112	4.480	4.496	(0.738)	279400	71.3798	71.38	
S	8	Phenol-d5	99	5.729	5.746	(0.944)	266123	50.3871	50.39	
S	9	Nitrobenzene-d5	82	6.878	6.895	(0.877)	347959	58.3320	58.33	
S	10	2-Fluorobiphenyl	172	9.378	9.377	(0.911)	563539	56.1804	56.18	
S	11	2,4,6-Tribromophenol	330	11.658	11.657	(1.133)	370878	137.438	137.4	
S	12	Terphenyl-d14	244	14.900	14.900	(0.918)	798313	53.7061	53.71	
	16	Phenol	94	5.746	5.763	(0.947)	154403	32.7586	32.76	
	17	Bis(2-chloroethyl)ether	93	5.797	5.814	(0.955)	248979	54.9074	54.91	

Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-2A66.d
Report Date: 23-Jan-2002 11:34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
18	2-Chlorophenol	128	5.848	5.847	(0.964)	239877	61.5862	61.59	7508
19	1,3-Dichlorobenzene	146	6.000	6.016	(0.989)	214563	50.0010	50.00	
20	1,4-Dichlorobenzene	146	6.084	6.101	(1.003)	231461	52.7131	52.71	
22	1,2-Dichlorobenzene	146	6.337	6.337	(1.045)	205905	49.9933	49.99	
23	2-Methylphenol	108	6.540	6.557	(1.078)	205088	63.8554	63.86	
24	2,2'-oxybis(1-Chloropropane)	45	6.523	6.540	(1.075)	318243	58.1740	58.17	9393
27	4-Methylphenol	108	6.760	6.759	(1.114)	389070	102.193	102.2	
28	N-Nitroso-di-N-propylamine	70	6.726	6.743	(1.109)	112468	54.0719	54.07	8521
29	Hexachloroethane	117	6.743	6.743	(1.111)	101511	50.1673	50.17	9118
30	Nitrobenzene	77	6.895	6.911	(0.879)	276994	50.6297	50.63	9563
31	Isophorone	82	7.233	7.249	(0.922)	572406	56.4916	56.49	7455
32	2-Nitrophenol	139	7.351	7.367	(0.938)	177978	74.0147	74.01	8860
33	2,4-Dimethylphenol	122	7.469	7.469	(0.953)	213442	60.3815	60.38	8900
34	Bis(2-chloroethoxy)methane	93	7.587	7.587	(0.968)	340714	54.4657	54.47	8901
35	2,4-Dichlorophenol	162	7.689	7.705	(0.981)	254928	70.5831	70.58	
36	1,2,4-Trichlorobenzene	180	7.790	7.790	(0.994)	242040	56.5032	56.50	
37	Naphthalene	128	7.858	7.874	(1.002)	728516	56.3586	56.36	9807
38	4-Chloroaniline	127	8.010	8.009	(1.022)	318456	52.6737	52.67	8173
39	Hexachlorobutadiene	225	8.128	8.128	(1.037)	173731	53.7743	53.77	8670
41	4-Chloro-3-methylphenol	107	8.719	8.736	(1.112)	281498	66.4011	66.40	9558
42	2-Methylnaphthalene	142	8.820	8.820	(1.125)	510951	58.2896	58.29	
44	Hexachlorocyclopentadiene	237	9.141	9.141	(0.888)	111304	40.5707	40.57	8736
45	2,4,6-Trichlorophenol	196	9.276	9.276	(0.902)	240521	77.2640	77.26	
46	2,4,5-Trichlorophenol	196	9.327	9.344	(0.906)	221201	64.8522	64.85	
48	2-Chloronaphthalene	162	9.479	9.496	(0.921)	411829	51.6061	51.61	
49	2-Nitroaniline	65	9.698	9.715	(0.943)	200691	52.1655	52.17	9397
50	Dimethylphthalate	163	10.002	10.019	(0.972)	582867	55.5765	55.58	9364
51	2,6-Dinitrotoluene	165	10.104	10.104	(0.982)	147806	54.2355	54.24	9412
52	Acenaphthylene	152	10.053	10.070	(0.977)	734341	52.2442	52.24	9467
53	3-Nitroaniline	138	10.307	10.323	(1.002)	147918	51.8316	51.83	9394
54	Acenaphthene	154	10.340	10.340	(1.005)	477124	58.3038	58.30	9701
55	2,4-Dinitrophenol	184	10.475	10.509	(1.018)	90041	60.6773	60.68	
56	4-Nitrophenol	109	10.644	10.678	(1.034)	56640	26.4664	26.47	0(M)
57	2,4-Dinitrotoluene	165	10.712	10.729	(1.041)	199171	54.9067	54.91	8739
58	Dibenzofuran	168	10.594	10.610	(1.030)	758730	55.3871	55.39	9369
59	Diethylphthalate	149	11.168	11.185	(1.085)	651417	57.1004	57.10	8597
60	4-Chlorophenyl-phenylether	204	11.219	11.218	(1.090)	326514	58.0511	58.05	0(M)
61	Fluorene	166	11.185	11.201	(1.087)	565981	54.4954	54.50	8208
62	4-Nitroaniline	138	11.371	11.421	(1.105)	146590	48.1708	48.17	9370
63	4,6-Dinitro-2-methylphenol	198	11.438	11.455	(0.900)	158186	63.8797	63.88	8307
64	N-Nitrosodiphenylamine	169	11.455	11.472	(0.902)	372887	59.9400	59.94	9677
66	4-Bromophenyl-phenylether	248	12.029	12.029	(0.947)	219459	59.9276	59.93	8723
67	Hexachlorobenzene	284	12.249	12.249	(0.964)	272932	61.0738	61.07	8367
69	Pentachlorophenol	266	12.553	12.553	(0.988)	185327	72.7378	72.74	7837
70	Phenanthrene	178	12.739	12.738	(1.003)	962455	60.5454	60.55	
71	Anthracene	178	12.806	12.806	(1.008)	952124	60.3331	60.33	
72	Carbazole	167	13.076	13.076	(1.029)	776483	62.8249	62.82	9517

Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-2A66.d
Report Date: 23-Jan-2002 11:34

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
73 Di-n-butylphthalate	149	13.684	13.684	(1.077)	1233482	62.8864	62.89	9622
74 Fluoranthene	202	14.394	14.394	(1.133)	1063397	55.6094	55.61	
76 Pyrene	202	14.664	14.664	(0.903)	1042605	52.8342	52.83	
77 Butylbenzylphthalate	149	15.559	15.559	(0.958)	555726	57.7169	57.72	9144
78 3,3'-Dichlorobenzidine	252	16.218	16.218	(0.999)	300117	37.7909	37.79	7935
79 bis(2-ethylhexyl)Phthalate	149	16.353	16.353	(1.007)	731561	53.3054	53.31	9340
80 Benzo a anthracene	228	16.201	16.201	(0.998)	1073980	54.8649	54.86	
81 Chrysene	228	16.269	16.268	(1.002)	1041086	55.5007	55.50	
82 Di-n-octylphthalate	149	17.400	17.400	(0.916)	1351353	54.4867	54.49	
83 Benzo(b)fluoranthene	252	18.126	18.126	(0.954)	1167579	51.9862	51.99	
84 Benzo(k)fluoranthene	252	18.177	18.194	(0.956)	1219560	62.1633	62.16	
85 Benzo(a)pyrene	252	18.870	18.886	(0.993)	1044956	55.7615	55.76	
86 Indeno(1,2,3-cd)pyrene	276	22.450	22.484	(1.181)	984153	51.2655	51.27	0(M)
87 Dibenzo(a,h)anthracene	278	22.585	22.602	(1.188)	1098080	57.1525	57.15	7766
88 Benzo(g,h,i)perylene	276	23.261	23.277	(1.224)	1187609	57.8953	57.90	8869

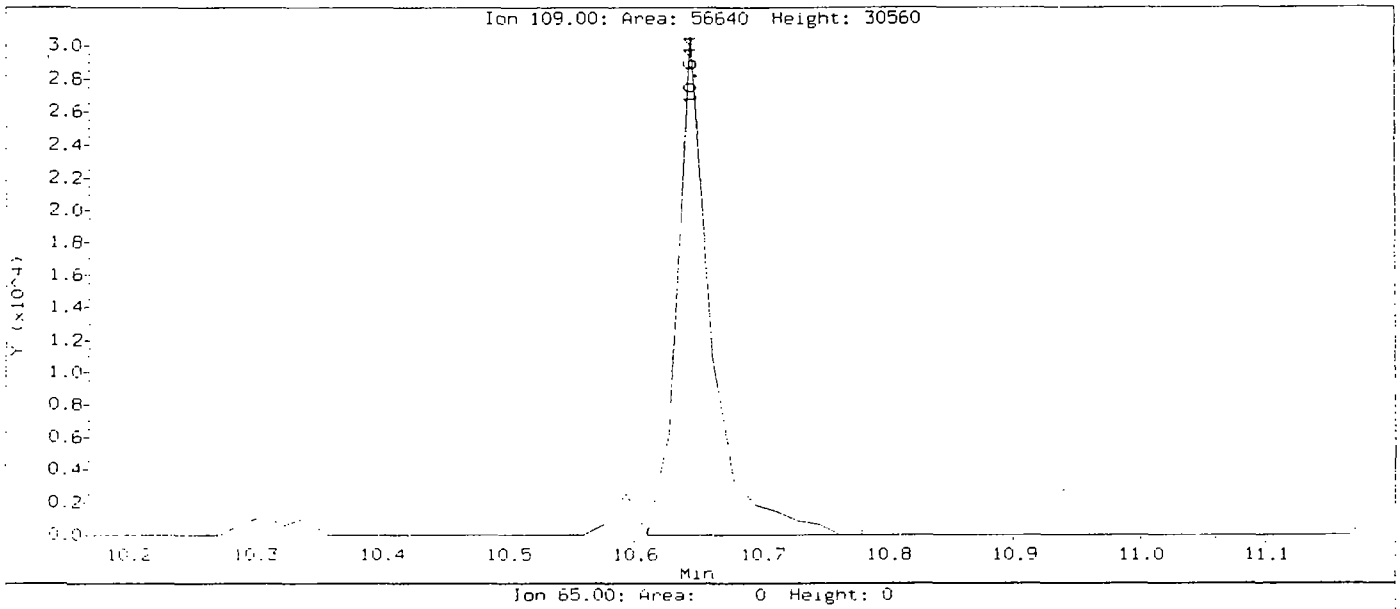
CH 1/23/2

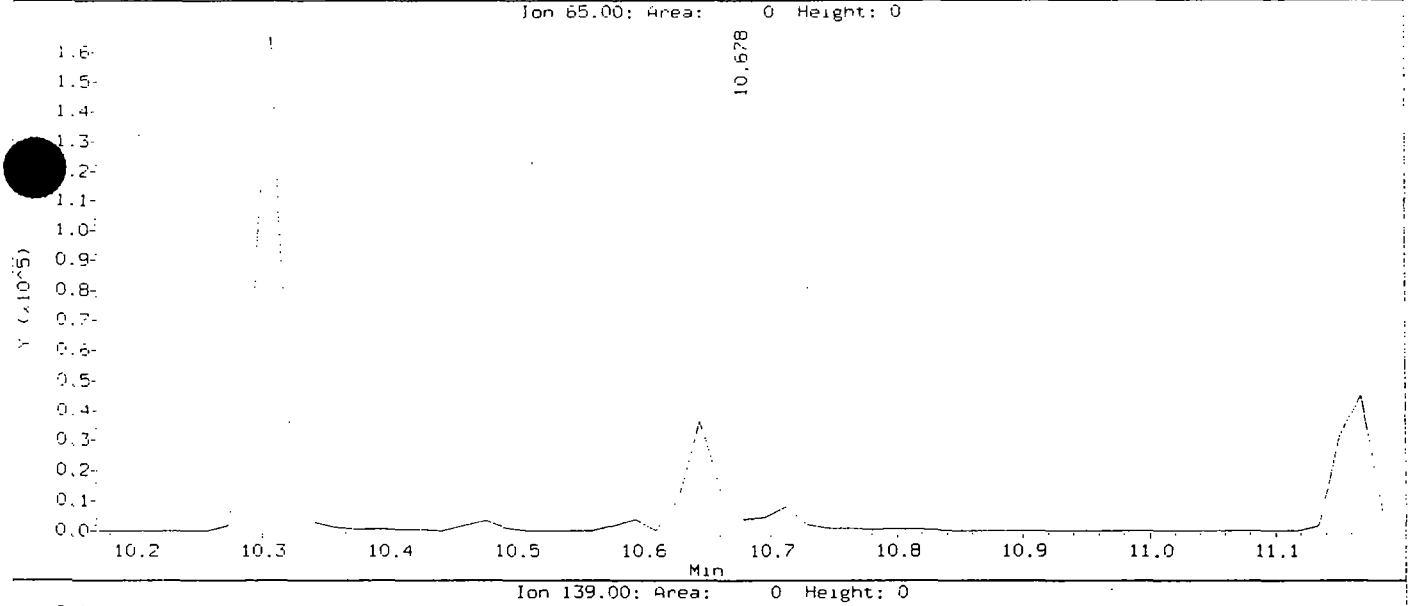
QC Flag Legend

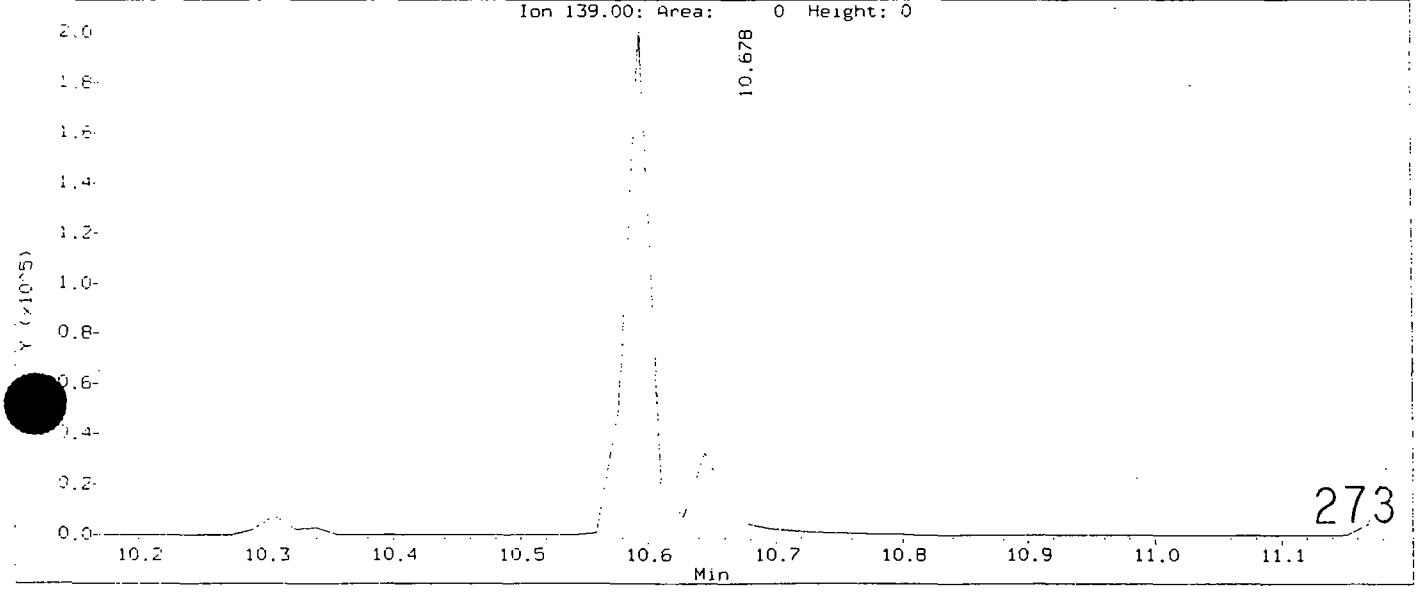
M - Compound response manually integrated.

Data File: /chem/5972hp66.1/DF020120A66.b/WG15377-2A66.d
Injection Date: 20-JAN-2002 11:40
Instrument: 5972hp66.1
[redacted]nt Sample ID: SSZLCS

[redacted]ound: 4-Nitrophenol
CAS Number: 100-02-7







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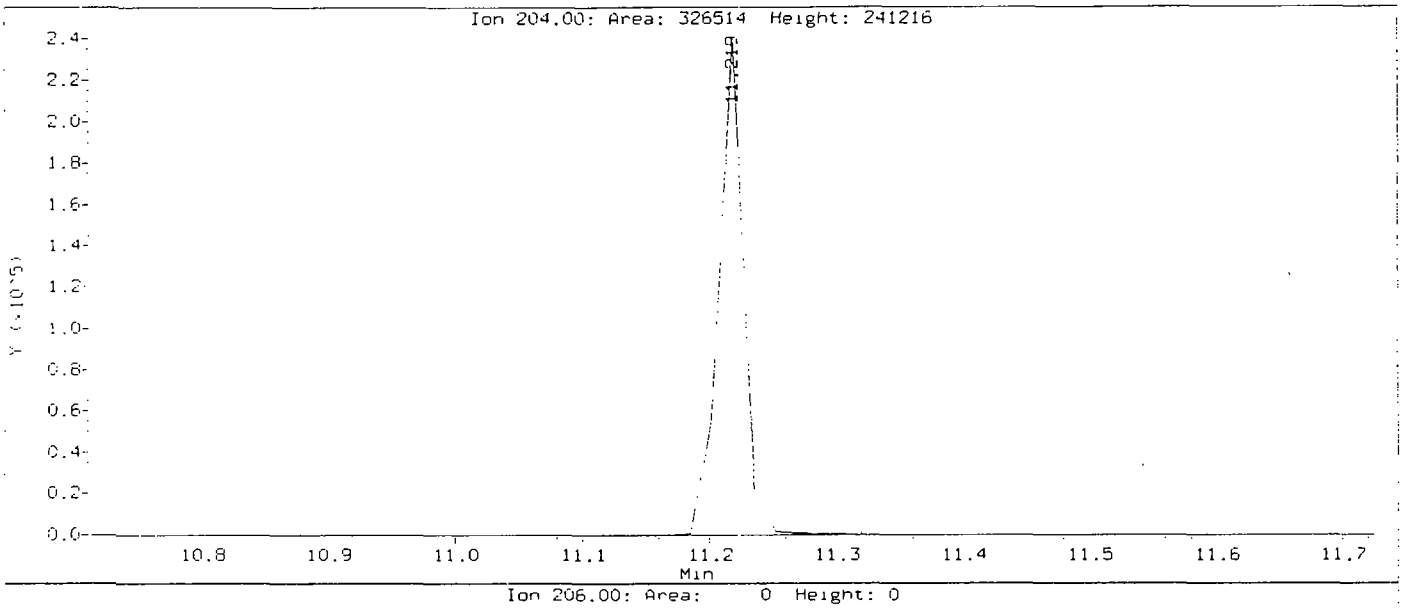
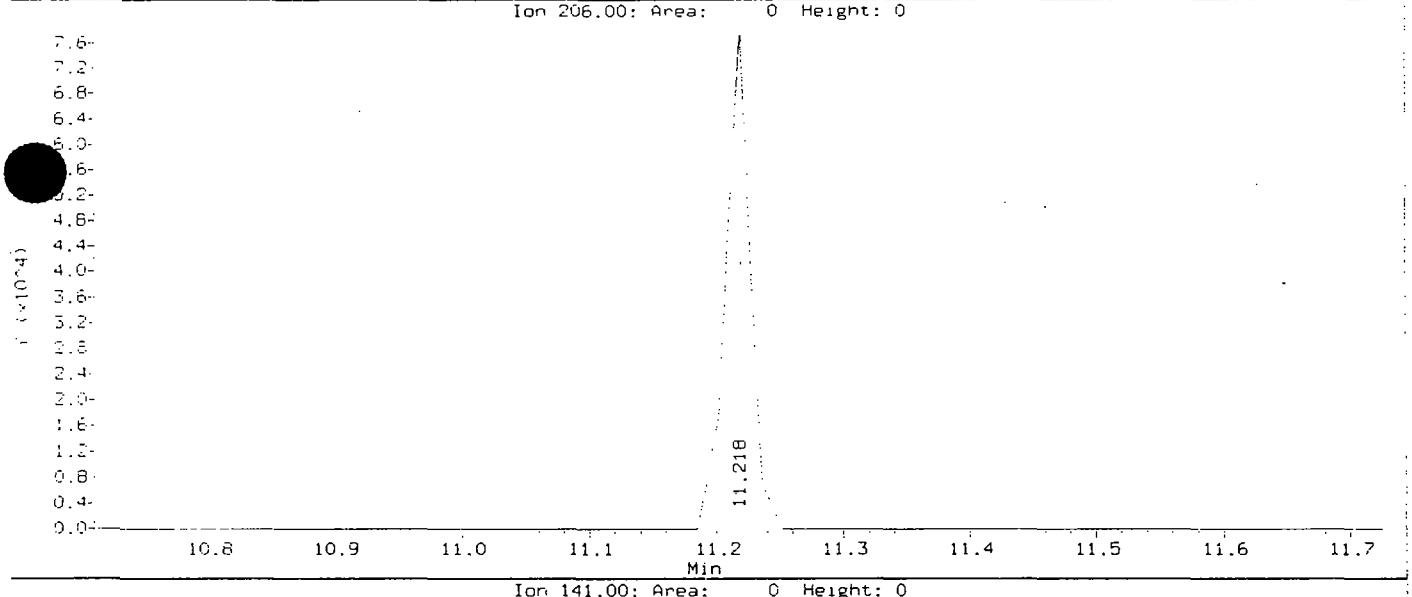
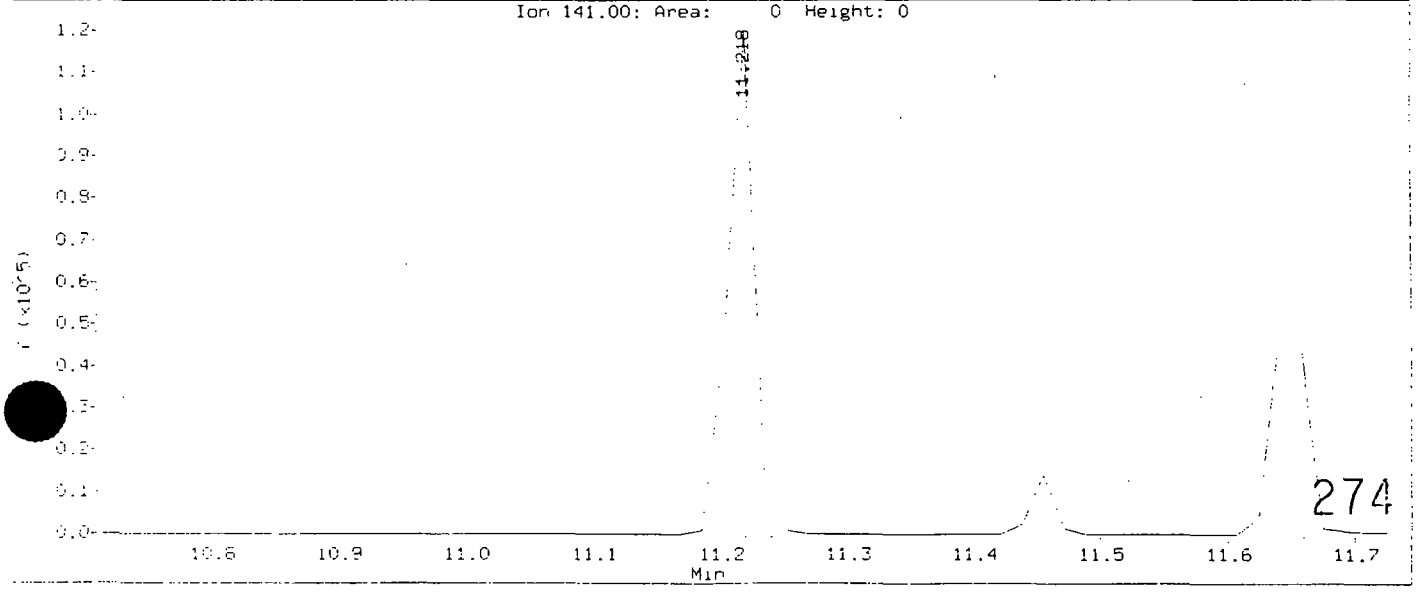
Injection Date: 20-JAN-2002 11:40
Instrument: 5972hp66.i
[redacted] Sample ID: SSZLCS

[redacted]und: 4-Chlorophenyl-phenylether
CAS Number: 7005-72-3







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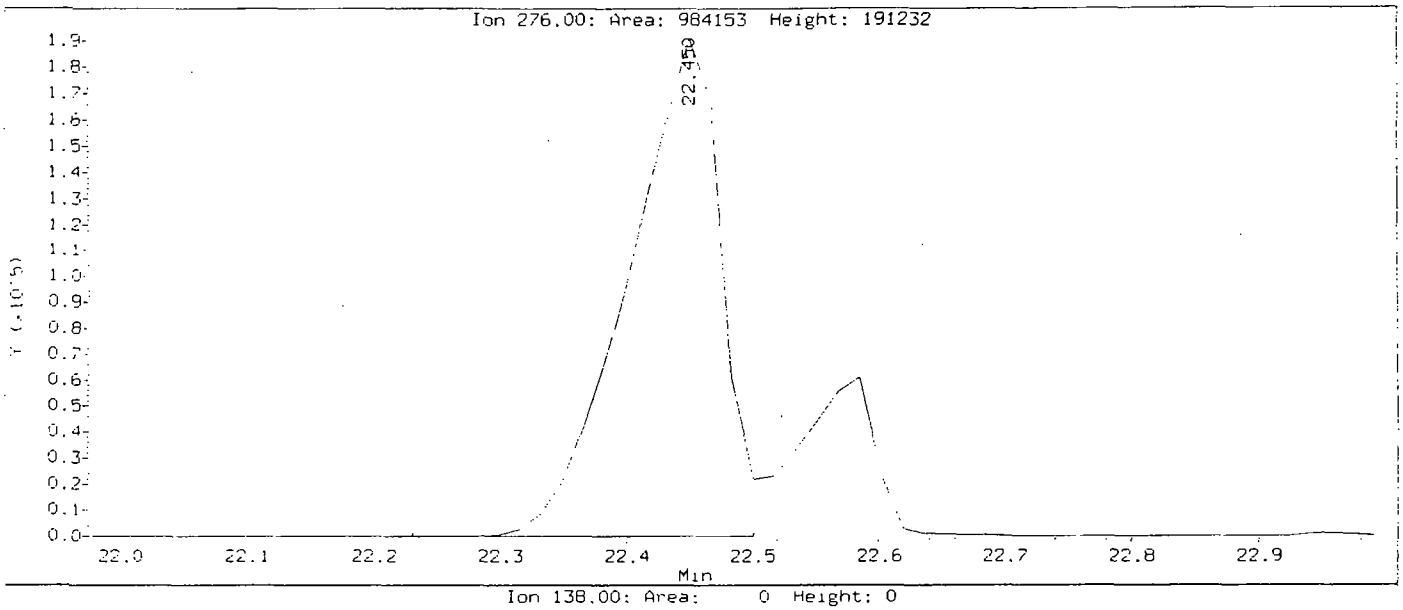
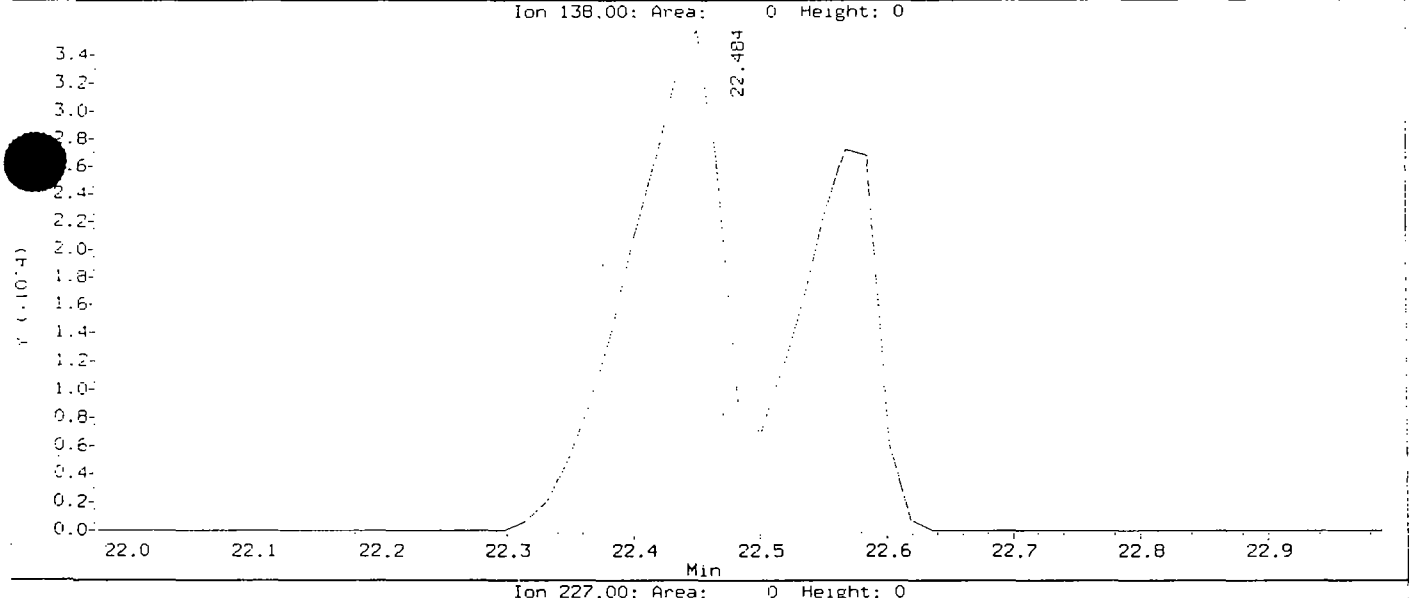
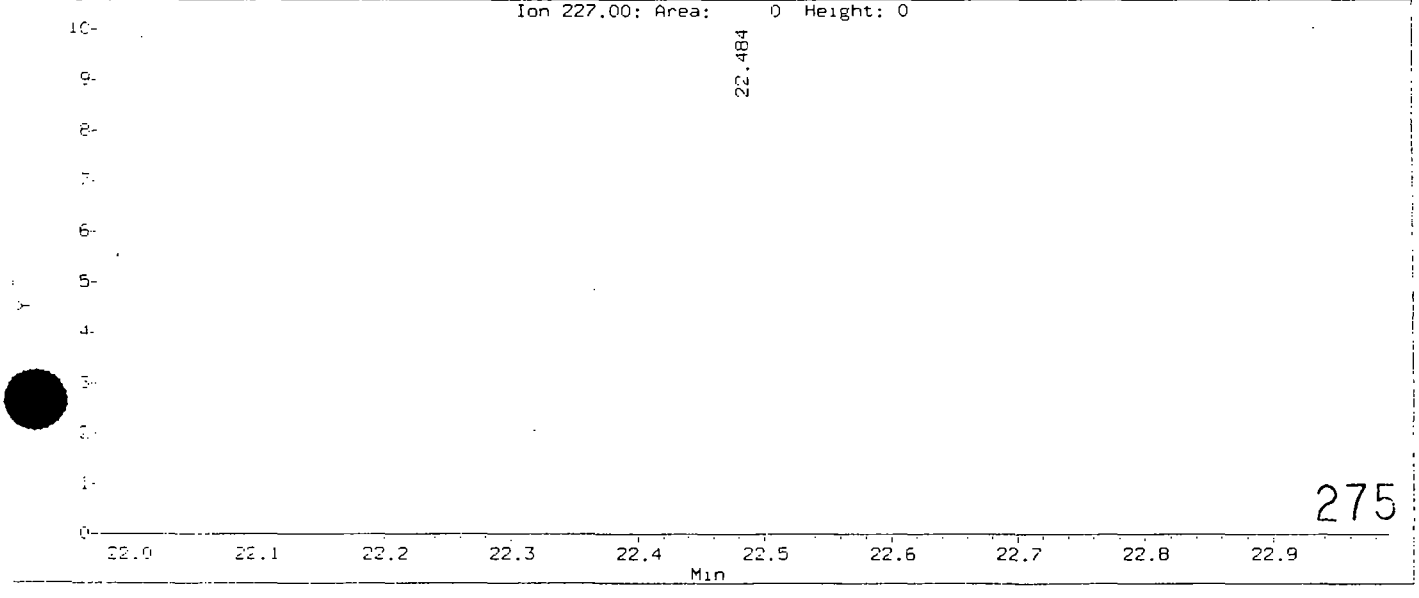
Injection Date: 20-JAN-2002 11:40
Instrument: 5972hp66.i
[redacted]t Sample ID: SSZLCS

[redacted]ound: Indeno(1,2,3-cd)pyrene
CAS Number: 193-39-5







CompuChem
a Division of Liberty Analytical Corp.

GC/MS SEMI-VOA WORKSHEET

LAB INSTRUCTIONS:

RECEIPT DATE: 1/17/02 0:00 SAMPLE DATE: DUE DATE:

CASE#: SDG: WG15377 **COMPUCHEM #: WG15377-2**

CLIENT ID. SSZLCS

ANALYSIS DESCRIPTION: SVOA-8270C

Injection Volume :____1____µL Dilution Prep (if needed)_____

Extraction Date __1__/__18__/__02__

DFTPP Filename __DF020120A66_____

Sample File Name__**WG15377-2**__A66_____

ANALYST (S): Injection__2319__ Work-up 2319

GC/MS DATE REVIEW

CONDITION CODE

OK

Disposition: [X] Complete

Extraneous Peak Search Results:

[ ] Reinjection Required

Number of peaks found: N/A

[ ] Re-extraction Required

Number of Hits found: NC

[ ] Reinject Neat

Number of Surrogate Outliers: 0

[ ] Dilute (X)

Quality Assurance Notice (s)
Number of Notices Required 0

Comments:

#GC/MS Review NAD Date 1/23/2 Auditor_____Date__/__/__

Final Reportable Package(s):

_____ / WG15377-2A66 / _____

ASSIGNED TO: Matt / David / [illegible]

LMP ID NUMBER: 2466, 2503/ ~~2357~~ 2378 [illegible]

CompuChem
EXTRACTION WORKSHEET
SEMI-VOLATILE WATER, Method 3510C for 8270C

-079

1-18-02

DATE EXTRACTED/POSTED: 1/18/02

277

	SAMPLE NUMBER	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	FINAL VOLUME (ml)	Adjusted pH A/N	Adjusted pH BASE	COMMENTS
1	QR1877-1		1100	1.0	1.6	13.0	
2	3		500	0.5	1.6	13.0	
3	4		1100	1.0	1.6	13.0	
4	5	QC	1100	1.0	1.6	13.0	use Q-5 for 3/4 SS
5	6		1100	1.0	1.6	13.0	
6	W15377-3	SS	1100	1.0	1.6	13.0	
7	-4	SS	1100	1.0	1.6	13.0	
8	R2418-1		1075	1.0	1.6	13.0	
9	U2410-1		1040	1.0	1.6	13.0	
10	2		1050	1.0	1.6	13.0	
11	3		1050	1.0	1.6	13.0	
12	4	QC	500	0.5	1.6	13.0	use U-4 for 5/6 SS
13	5		1100	1.0	1.6	13.0	
14	W15377-5	SS	500	0.5	1.6	13.0	
15	-6	SS	500	0.5	1.6	13.0	
16	V2403-1		1000	1.0	1.6	13.0	use reduced volume for V-1 - NYASP
17	Y182222		1010	1.0	1.6	13.0	
18							
19							
20							1/18/02
21							
22							
23	W15377-1	BLK	1000	1.0	1.6	13.0	
24	-2	LCS	1000	1.0	1.6	13.0	*Add 1.0 mL validation spike to LCS and SSs unless otherwise noted

		S-VOL	Acid	B/N	8270
SURROGATE	NO.	393			
	AMT.	1.0 ml			
	LOT	52623			
SPIKE	NO.		3012	2021	VALID.
	AMT.		1.0 ml	1.0ml	1.0 ml
	LOT				52452

FINAL VOLUME VERIFIED: [signature]

SUPERVISOR REVIEWED: [signature]

SURROGATE & SPIKE ADDED BY: GJB 1-18-02
Initials Date

Analyst initials. Extracted MC [illegible] KD JS/GFB N2 [illegible]/GFB/JS Bottle up GFB/[illegible]/JS

Witness [signature] 1/18/02
Initials Date

Manufacturer and lot number of reagents/solvents used MeCl: CC995 [illegible] NaOH: T09501 H2SO4: V03029 Na2SO4: [illegible]3137

d. Matrix Spike Data

- Tabulated Results (Form I SV)

- Reconstructed Ion Chromatogram and quantitation report

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-3MS

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: WG15377-3

Sample wt/vol: 1100 (g/mL) ML Lab File ID: WG15377-3A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

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
108-95-2	Phenol	28	
111-44-4	Bis(2-chloroethyl)ether	43	
95-57-8	2-Chlorophenol	60	
541-73-1	1,3-Dichlorobenzene	45	
106-46-7	1,4-Dichlorobenzene	47	
95-50-1	1,2-Dichlorobenzene	49	
95-48-7	2-Methylphenol	50	
108-60-1	2,2'-oxybis(1-Chloropropane)	47	
106-44-5	4-Methylphenol	80	
621-64-7	N-Nitroso-di-N-propylamine	50	
67-72-1	Hexachloroethane	49	
98-95-3	Nitrobenzene	52	
78-59-1	Isophorone	50	
88-75-5	2-Nitrophenol	68	
105-67-9	2,4-Dimethylphenol	63	
111-91-1	Bis(2-chloroethoxy)methane	59	
120-83-2	2,4-Dichlorophenol	74	
120-82-1	1,2,4-Trichlorobenzene	55	
91-20-3	Naphthalene	55	
106-47-8	4-Chloroaniline	51	
87-68-3	Hexachlorobutadiene	52	
59-50-7	4-Chloro-3-methylphenol	72	
91-57-6	2-Methylnaphthalene	54	
77-47-4	Hexachlorocyclopentadiene	59	
88-06-2	2,4,6-Trichlorophenol	77	
95-95-4	2,4,5-Trichlorophenol	77	
91-58-7	2-Chloronaphthalene	55	
88-74-4	2-Nitroaniline	55	
131-11-3	Dimethylphthalate	59	
606-20-2	2,6-Dinitrotoluene	56	
208-96-8	Acenaphthylene	55	
99-09-2	3-Nitroaniline	55	
83-32-9	Acenaphthene	62	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.: SS-3MS

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: WG15377-3

Sample wt/vol: 1100 (g/mL) ML Lab File ID: WG15377-3A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

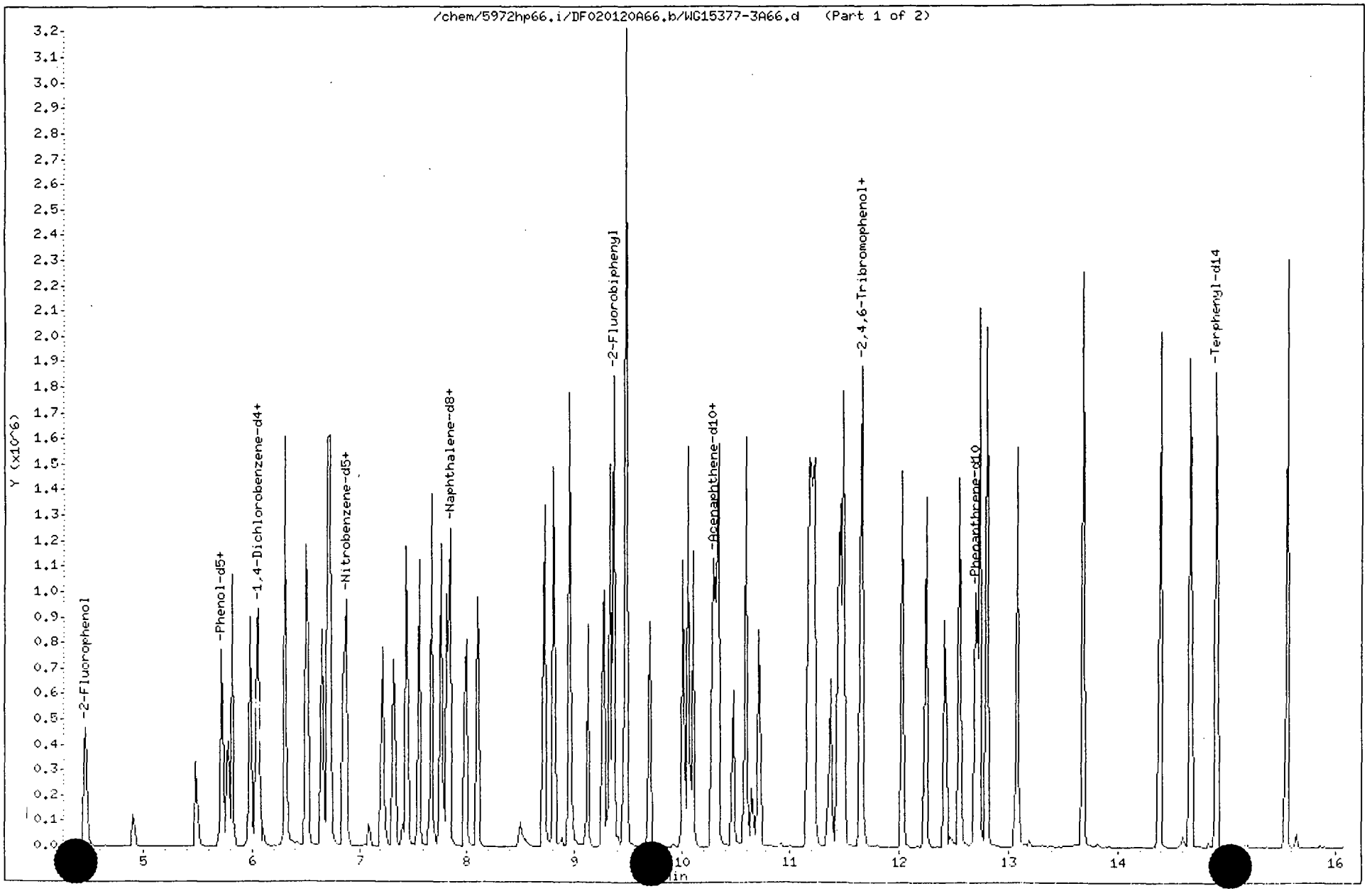
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	71	
100-02-7	4-Nitrophenol	25	
121-14-2	2,4-Dinitrotoluene	58	
132-64-9	Dibenzofuran	58	
84-66-2	Diethylphthalate	59	
7005-72-3	4-Chlorophenyl-phenylether	58	
86-73-7	Fluorene	59	
100-01-6	4-Nitroaniline	50	
534-52-1	4,6-Dinitro-2-methylphenol	68	
86-30-6	N-Nitrosodiphenylamine (1)	58	
101-55-3	4-Bromophenyl-phenylether	60	
118-74-1	Hexachlorobenzene	65	
87-86-5	Pentachlorophenol	89	
85-01-8	Phenanthrene	62	
120-12-7	Anthracene	62	
86-74-8	Carbazole	62	
84-74-2	Di-n-butylphthalate	60	
206-44-0	Fluoranthene	63	
129-00-0	Pyrene	54	
85-68-7	Butylbenzylphthalate	63	
91-94-1	3,3'-Dichlorobenzidine	39	
117-81-7	bis(2-ethylhexyl)Phthalate	55	
56-55-3	Benzo(a)anthracene	57	
218-01-9	Chrysene	54	
117-84-0	Di-n-octylphthalate	56	
205-99-2	Benzo(b)fluoranthene	59	
207-08-9	Benzo(k)fluoranthene	58	
50-32-8	Benzo(a)pyrene	57	
193-39-5	Indeno(1,2,3-cd)pyrene	54	
53-70-3	Dibenzo(a,h)anthracene	59	
191-24-2	Benzo(g,h,i)perylene	58	

(1) - Cannot be separated from Diphenylamine

Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-3A66.d
Date : 20-JAN-2002 16:01
Client ID: SS-3MS
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

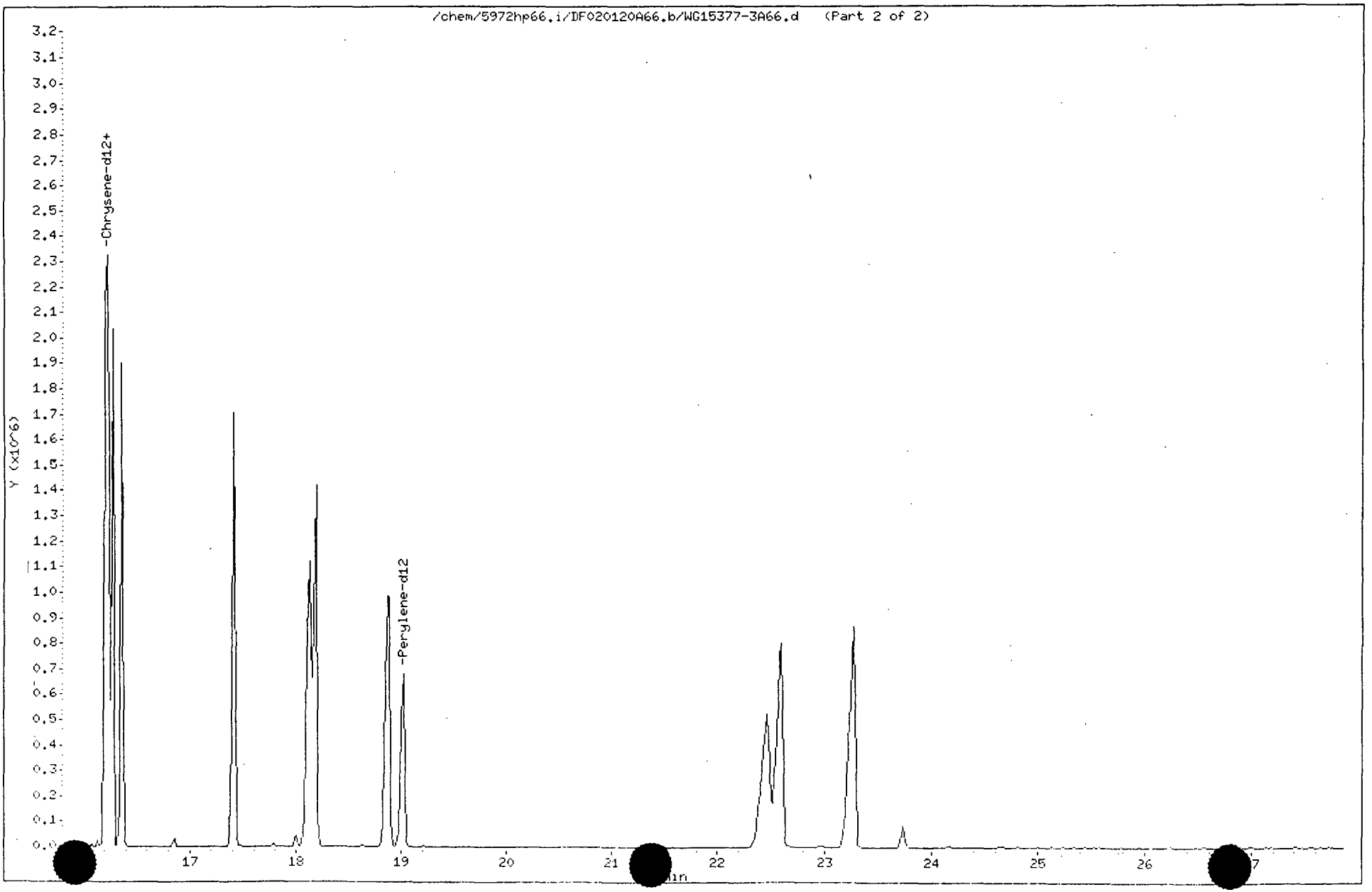
Instrument: 5972hp66.i

Operator: 2319
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-3A66.d
Date : 20-JAN-2002 16:01
Client ID: SS-3MS
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2319
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-3A66.d
Report Date: -23-Jan-2002 11:36

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020120A66.b/WG15377-3A66.d
Lab Smp Id: WG15377-3 Client Smp ID: SS-3MS
Inj Date : 20-JAN-2002 16:01
Operator : 2319 Inst ID: 5972hp66.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020120A66.b/8270Cv6.m
Meth Date : 23-Jan-2002 11:31 byrd Quant Type: ISTD
Cal Date : 17-JAN-2002 13:38 Cal File: HM020117A66.d
Als bottle: 11 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLM03.sub
Target Version: 3.50
Processing Host: einstein

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1100.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
	1	1,4-Dichlorobenzene-d4	152	6.034	6.067	(1.000)	141780	40.0000		
	2	Naphthalene-d8	136	7.807	7.840	(1.000)	487009	40.0000		
	3	Acenaphthene-d10	164	10.290	10.289	(1.000)	320406	40.0000		
	4	Phenanthrene-d10	188	12.705	12.705	(1.000)	588098	40.0000		
	5	Chrysene-d12	240	16.235	16.235	(1.000)	642958	40.0000		
	6	Perylene-d12	264	19.022	19.021	(1.000)	616556	40.0000		
S	7	2-Fluorophenol	112	4.463	4.496	(0.740)	248059	52.9552	48.14	
S	8	Phenol-d5	99	5.713	5.746	(0.947)	269328	42.6111	38.74	
S	9	Nitrobenzene-d5	82	6.844	6.895	(0.877)	400835	60.8006	55.27	
S	10	2-Fluorobiphenyl	172	9.361	9.377	(0.910)	671660	64.5151	58.65	
S	11	2,4,6-Tribromophenol	330	11.658	11.657	(1.133)	400296	142.925	129.9	(M)
S	12	Terphenyl-d14	244	14.901	14.900	(0.918)	1001773	64.3049	58.46	
	16	Phenol	94	5.729	5.763	(0.950)	172403	30.5646	27.79	
	17	Bis(2-chloroethyl)ether	93	5.780	5.814	(0.958)	256370	47.2432	42.95	

1/23/02

Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-3A66.d
Report Date: 23-Jan-2002 11:36

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
18	2-Chlorophenol	128	5.814	5.847	(0.964)	307928	66.0615	60.06	8476
19	1,3-Dichlorobenzene	146	5.983	6.016	(0.992)	254995	49.6547	45.14	
20	1,4-Dichlorobenzene	146	6.050	6.101	(1.003)	273260	51.9976	47.27	
22	1,2-Dichlorobenzene	146	6.304	6.337	(1.045)	266425	54.0536	49.14	
23	2-Methylphenol	108	6.523	6.557	(1.081)	209734	54.5671	49.61	
24	2,2'-oxybis(1-Chloropropane)	45	6.506	6.540	(1.078)	336477	51.3961	46 72	8772
27	4-Methylphenol	108	6.726	6.759	(1.115)	402466	88.3338	80.30	
28	N-Nitroso-di-N-propylamine	70	6.709	6.743	(1.112)	137847	55.3789	50.34	8681
29	Hexachloroethane	117	6.709	6.743	(1.112)	129425	53.4478	48.59	9582
30	Nitrobenzene	77	6.878	6.911	(0.881)	349124	57.7403	52.49	9342
31	Isophorone	82	7.216	7.249	(0.924)	611690	54.6229	49.66	7346
32	2-Nitrophenol	139	7.334	7.367	(0.939)	200224	75.3410	68.49	8787
33	2,4-Dimethylphenol	122	7.435	7.469	(0.952)	272286	69.6968	63.36	8821
34	Bis(2-chloroethoxy)methane	93	7.554	7.587	(0.968)	445095	64.3798	58.53	9352
35	2,4-Dichlorophenol	162	7.672	7.705	(0.983)	322798	80.8682	73.52	
36	1,2,4-Trichlorobenzene	180	7.756	7.790	(0.994)	284851	60.1682	54.70	
37	Naphthalene	128	7.841	7.874	(1.004)	865165	60.5597	55.05	9383
38	4-Chloroaniline	127	7.992	8.009	(1.024)	376752	56.3850	51.26	8015
39	Hexachlorobutadiene	225	8.111	8.128	(1.039)	204926	57.3929	52.18	8451
41	4-Chloro-3-methylphenol	107	8.719	8.736	(1.117)	371808	79.3564	72.14	9472
42	2-Methylnaphthalene	142	8.803	8.820	(1.128)	575848	59.4406	54.04	
44	Hexachlorocyclopentadiene	237	9.124	9.141	(0.887)	184191	64.6876	58.81	9556
45	2,4,6-Trichlorophenol	196	9.276	9.276	(0.902)	272738	84.4153	76.74	
46	2,4,5-Trichlorophenol	196	9.327	9.344	(0.906)	299990	84.7414	77.04	
48	2-Chloronaphthalene	162	9.479	9.496	(0.921)	499903	60.3562	54.87	
49	2-Nitroaniline	65	9.699	9.715	(0.943)	241255	60.4203	54.93	9420
50	Dimethylphthalate	163	10.003	10.019	(0.972)	708028	65.0464	59.13	9376
51	2,6-Dinitrotoluene	165	10.104	10.104	(0.982)	174647	61.7454	56.13	9337
52	Acenaphthylene	152	10.053	10.070	(0.977)	878820	60.2410	54.76	9463
53	3-Nitroaniline	138	10.307	10.323	(1.002)	178325	60.2057	54.73	9402
54	Acenaphthene	154	10.340	10.340	(1.005)	574662	67.6597	61.51	9674
55	2,4-Dinitrophenol	184	10.475	10.509	(1.018)	119571	77.6360	70.58	
56	4-Nitrophenol	109	10.644	10.678	(1.034)	61249	27.5754	25.07	0(M)
57	2,4-Dinitrotoluene	165	10.712	10.729	(1.041)	241882	64.2472	58.41	8621
58	Dibenzofuran	168	10.594	10.610	(1.030)	903538	63.5506	57.77	9399
59	Diethylphthalate	149	11.168	11.185	(1.085)	770079	65.0380	59.13	8674
60	4-Chlorophenyl-phenylether	204	11.219	11.218	(1.090)	374871	64.2157	58.38	7221
61	Fluorene	166	11.185	11.201	(1.087)	697527	64.7098	58.83	8067
62	4-Nitroaniline	138	11.371	11.421	(1.105)	175194	55.4690	50.43	9195
63	4,6-Dinitro-2-methylphenol	198	11.438	11.455	(0.900)	194785	74.6284	67.84	9419
64	N-Nitrosodiphenylamine	169	11.455	11.472	(0.902)	420996	64.2054	58.37	8973
66	4-Bromophenyl-phenylether	248	12.029	12.029	(0.947)	253852	65.7670	59.79	9231
67	Hexachlorobenzene	284	12.249	12.249	(0.964)	336427	71.4242	64.93	8794
69	Pentachlorophenol	266	12.553	12.553	(0.988)	261618	97.4189	88.56	8434
70	Phenanthrene	178	12.739	12.738	(1.003)	1145586	68.3726	62.16	
71	Anthracene	178	12.806	12.806	(1.008)	1138471	68.4445	62.22	
72	Carbazole	167	13.076	13.076	(1.029)	890117	68.3284	62.12	9314

Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-3A66.d
Report Date: 23-Jan-2002 11:36

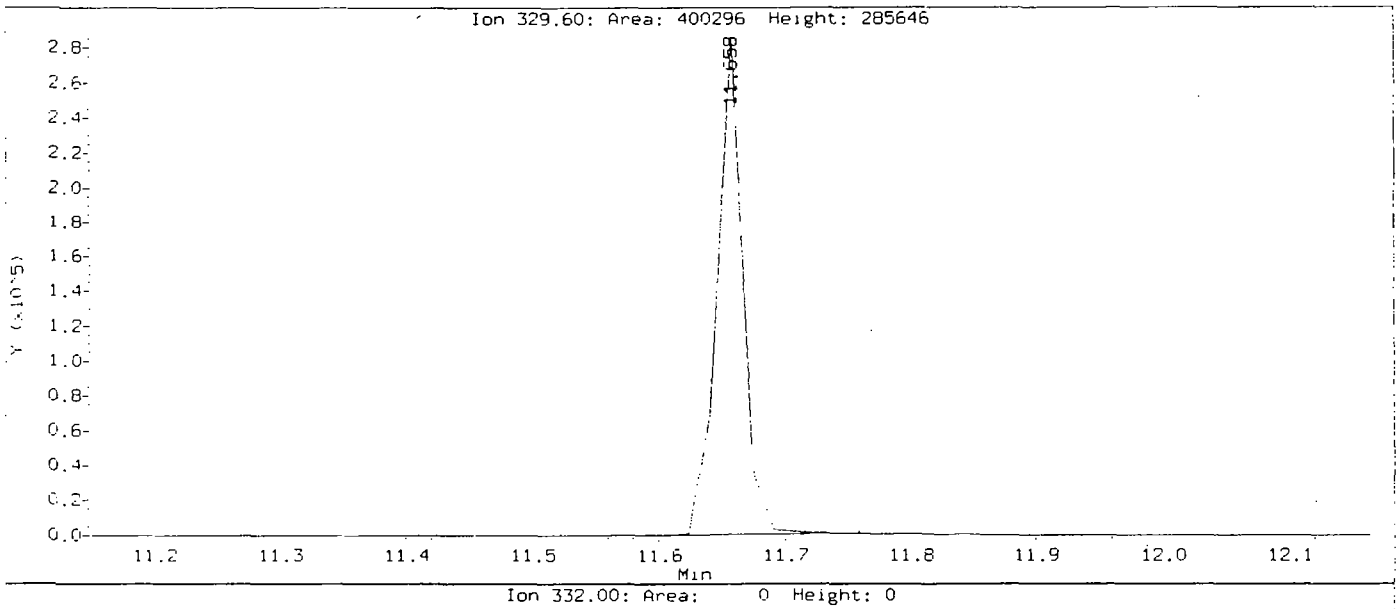
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
73 Di-n-butylphthalate	149	13.684	13.684	(1.077)	1370505	66.2916	60.27	9583
74 Fluoranthene	202	14.394	14.394	(1.133)	1404673	69.6919	63.36	
76 Pyrene	202	14.664	14.664	(0.903)	1238388	59.8792	54.44	
77 Butylbenzylphthalate	149	15.559	15.559	(0.958)	701078	69.4757	63.16	9548
78 3,3'-Dichlorobenzidine	252	16.218	16.218	(0.999)	359779	43.2271	39.30	8661
79 bis(2-ethylhexyl)Phthalate	149	16.353	16.353	(1.007)	869401	60.4456	54.95	9215
80 Benzo(a)anthracene	228	16.201	16.201	(0.998)	1292445	62.9991	57.27	
81 Chrysene	228	16.269	16.268	(1.002)	1166154	59.3187	53.93	
82 Di-n-octylphthalate	149	17.400	17.400	(0.915)	1645340	61.7101	56.10	
83 Benzo(b)fluoranthene	252	18.126	18.126	(0.953)	1569863	65.0194	59.11	
84 Benzo(k)fluoranthene	252	18.194	18.194	(0.956)	1356322	64.3091	58.46	
85 Benzo(a)pyrene	252	18.886	18.886	(0.993)	1271860	63.1328	57.39	
86 Indeno(1,2,3-cd)pyrene	276	22.467	22.484	(1.181)	1232027	59.6982	54.27	0(M)
87 Dibenzo(a,h)anthracene	278	22.602	22.602	(1.188)	1348340	65.2799	59.35	7785
88 Benzo(g,h,i)perylene	276	23.278	23.277	(1.224)	1410274	63.9517	58.14	8898

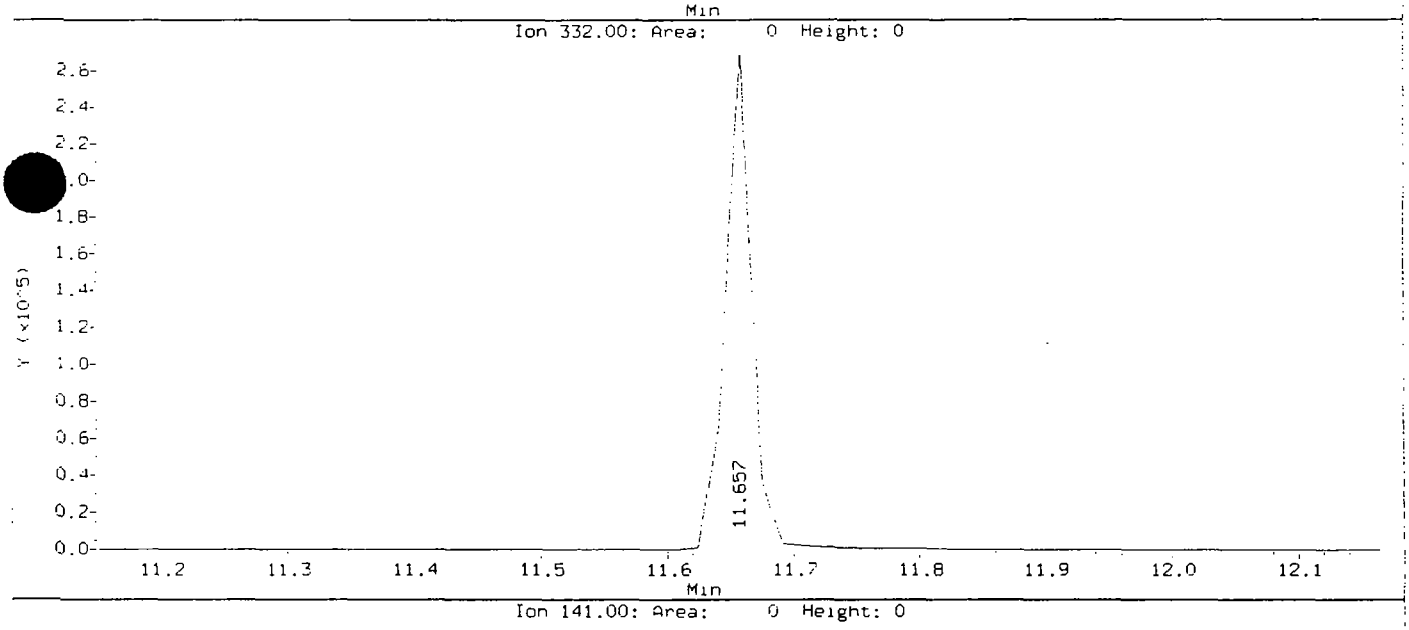
QC Flag Legend

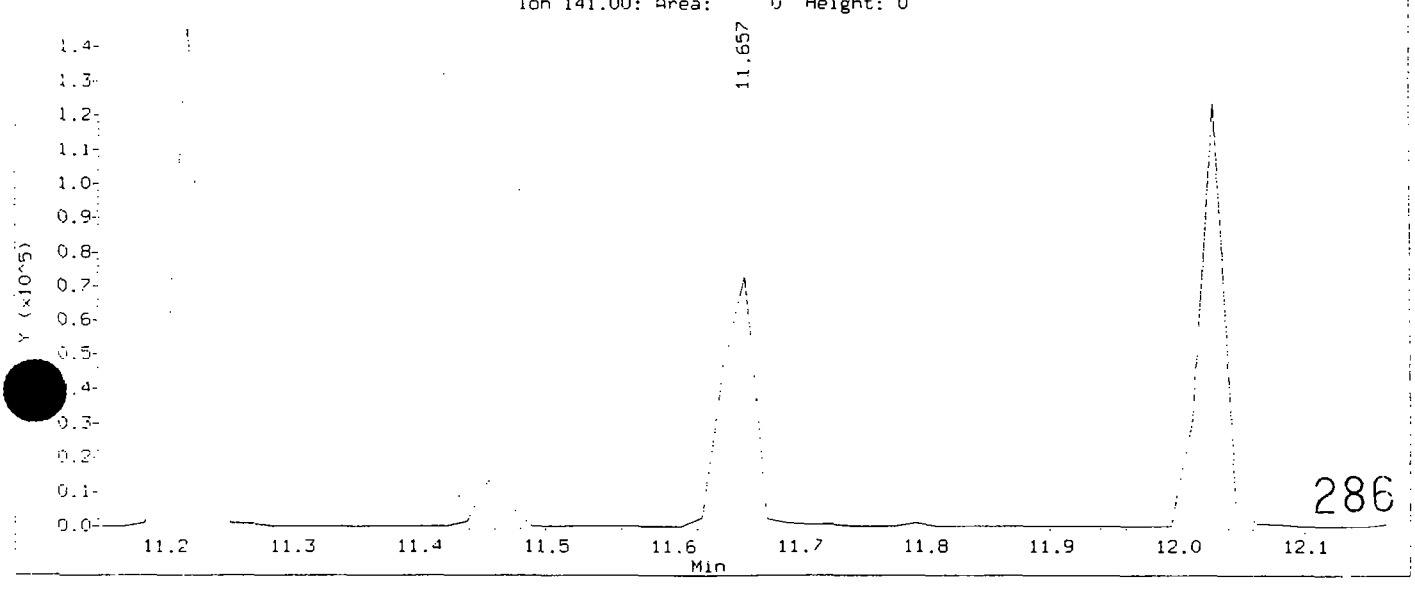
M - Compound response manually integrated.

Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-3A66.d
Injection Date: 20-JAN-2002 16:01
Instrument: 5972hp66.i
[redacted]t Sample ID: SS-3MS

[redacted]ound: 2,4,6-Tribromophenol
CAS Number: 118-79-6







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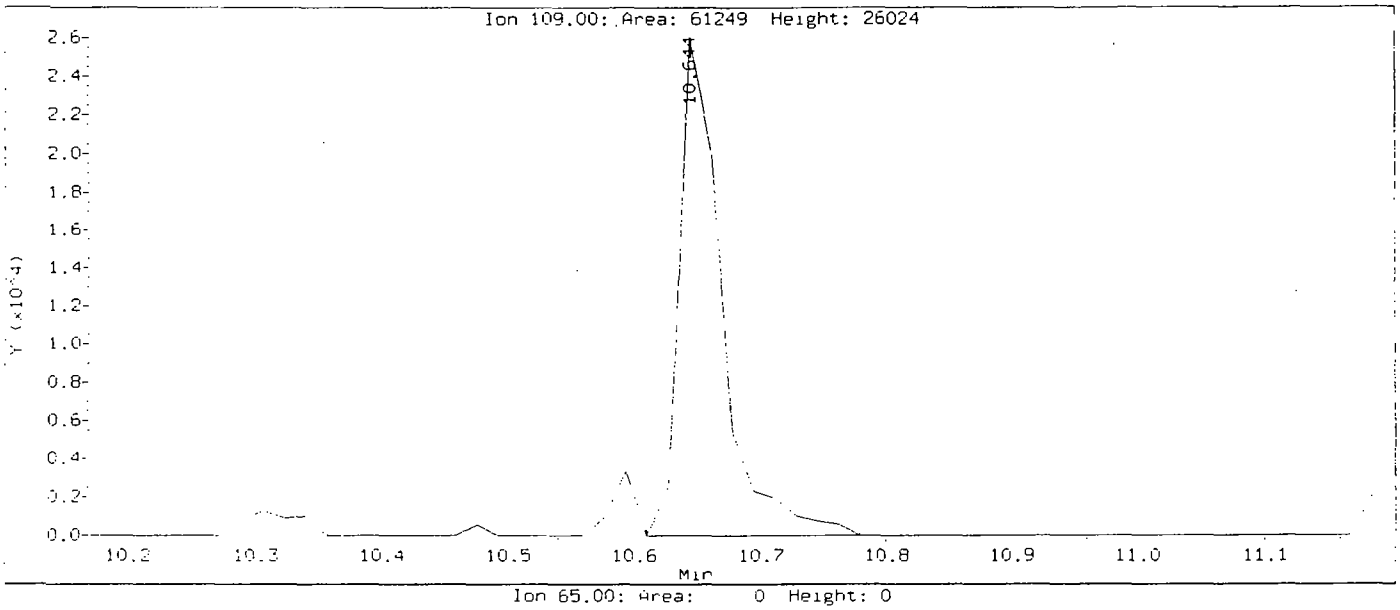
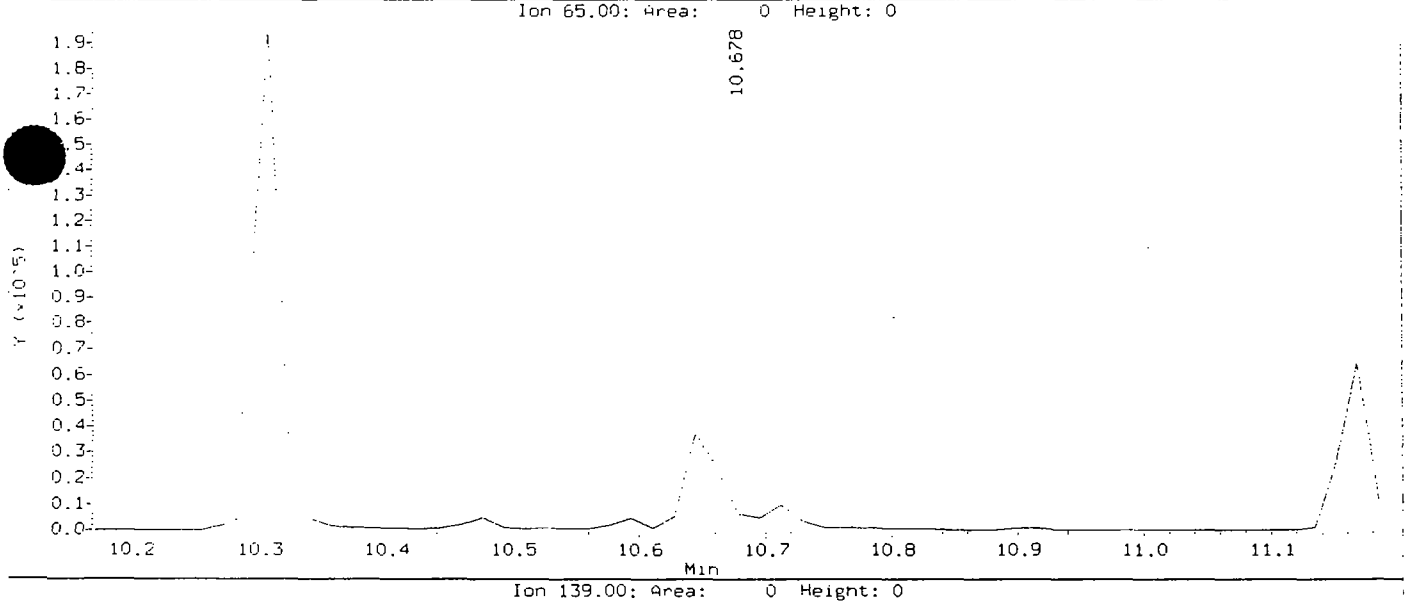
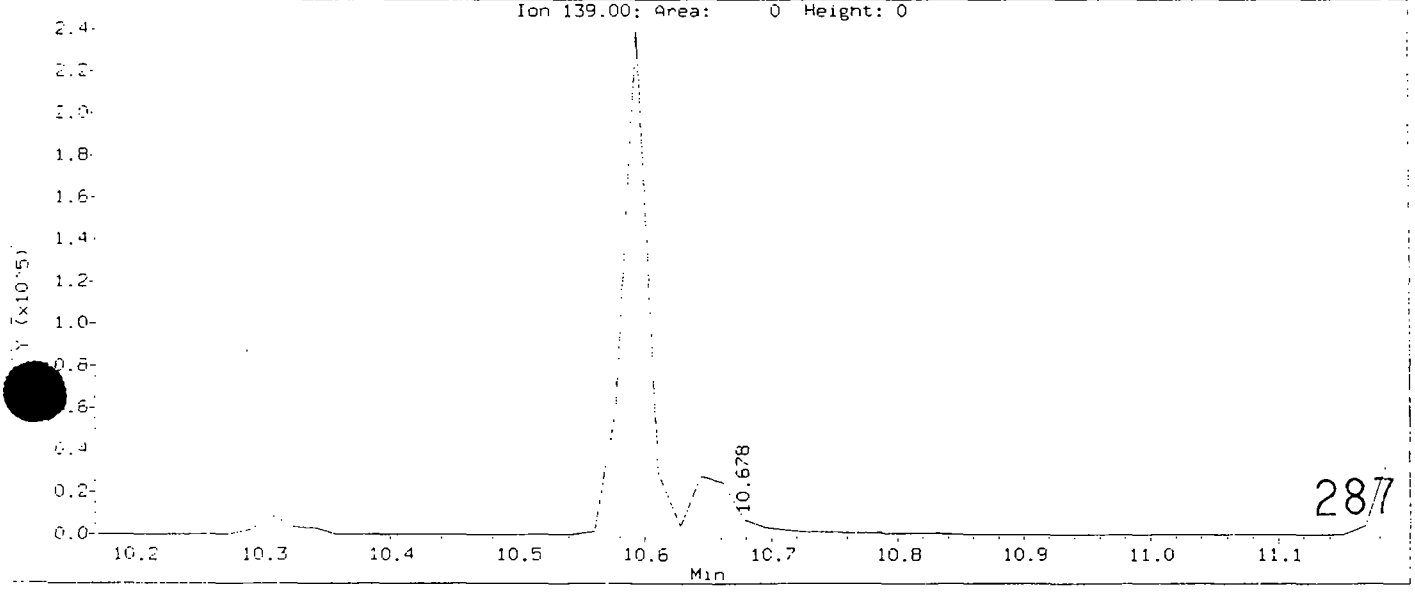
Injection Date: 20-JAN-2002 16:01
Instrument: 5972hp66.i
[redacted] Sample ID: SS-3MS

Compound: 4-Nitrophenol
CAS Number: 100-02-7







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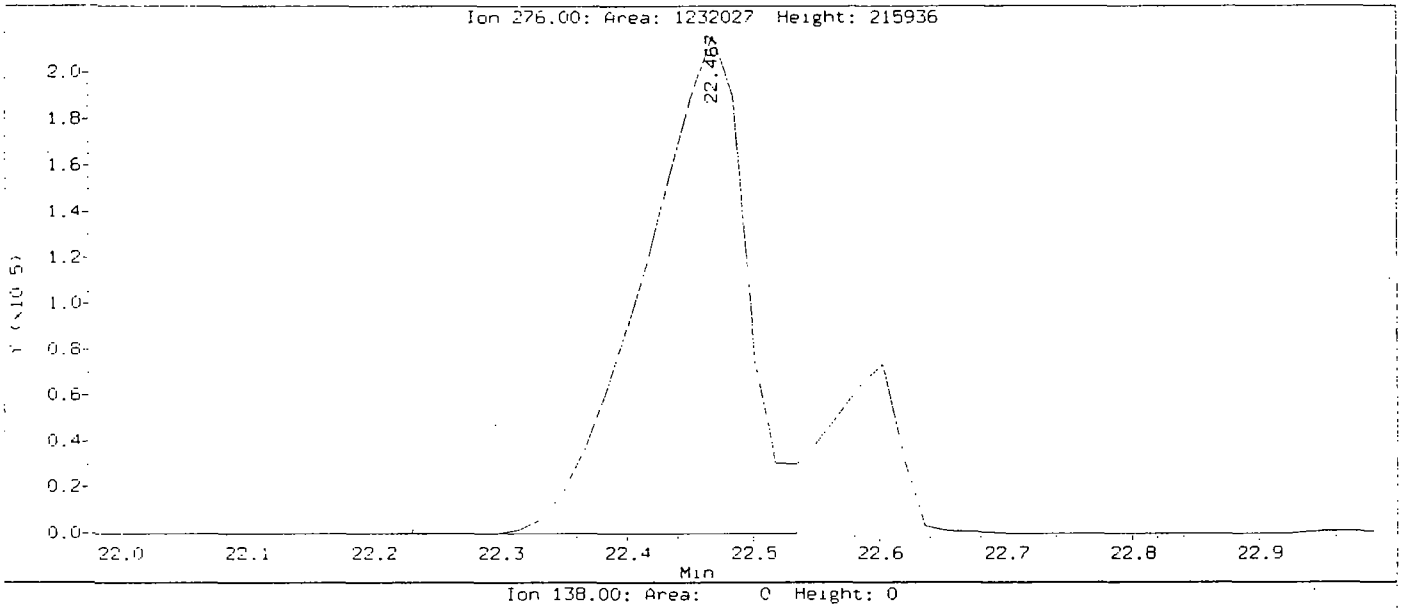
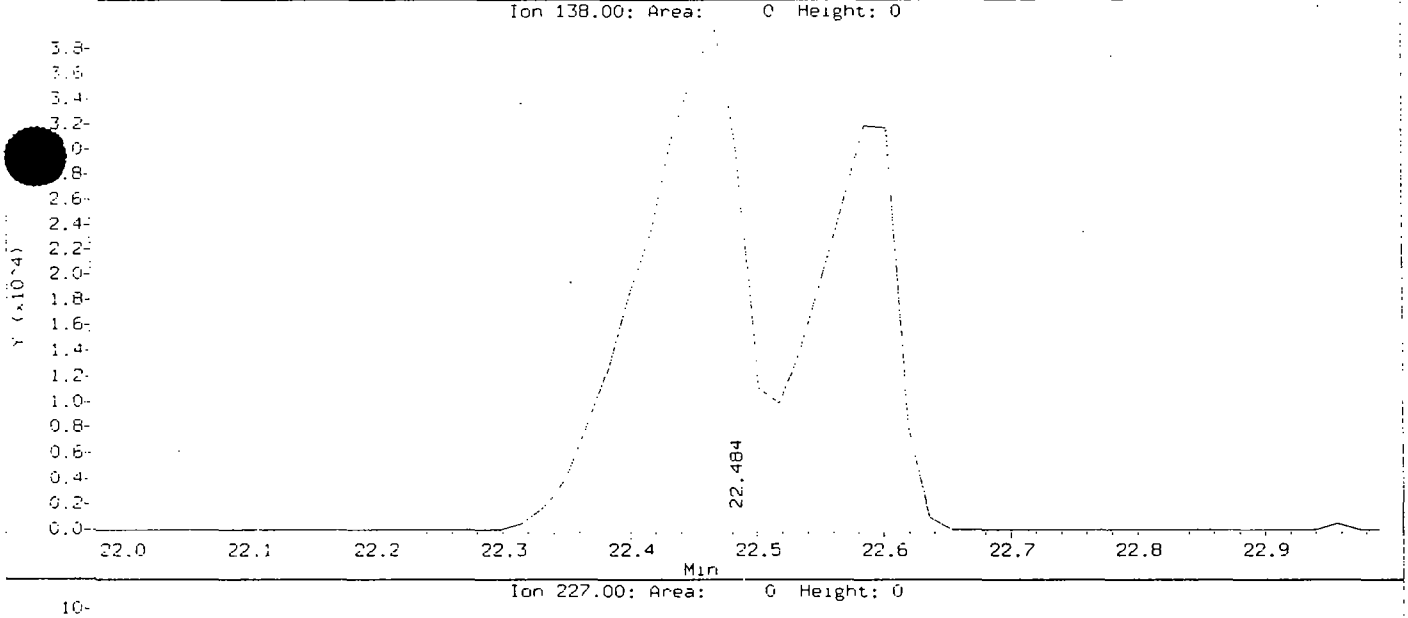
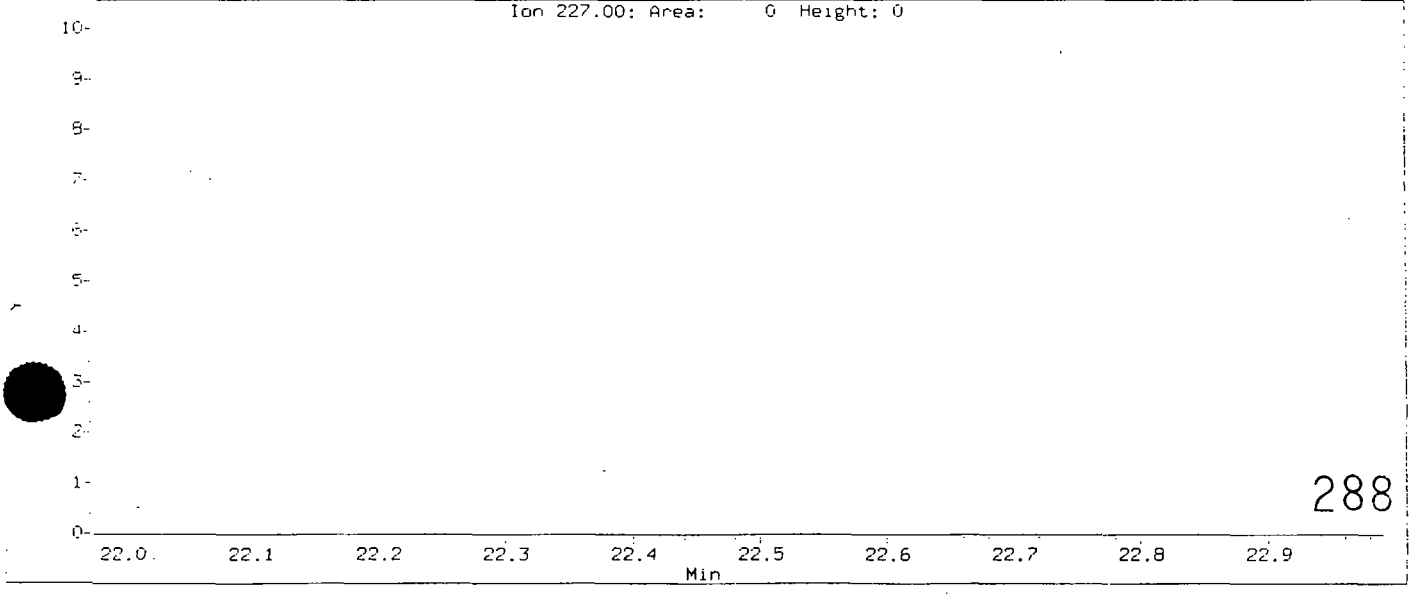
Injection Date: 20-JAN-2002 16:01
Instrument: 5972hp66.i
[redacted] Sample ID: SS-3MS

Compound: Indeno(1,2,3-cd)pyrene
CAS Number: 193-39-5







CompuChem
a Division of Liberty Analytical Corp.

GC/MS SEMI-VOA WORKSHEET

LAB INSTRUCTIONS:

RECEIPT DATE: 1/17/02 0:00 SAMPLE DATE: DUE DATE:

CASE#: SDG: WG15377 **COMPUCHEM #: WG15377-3**

CLIENT ID: Matrix Spike

ANALYSIS DESCRIPTION: SVOA-8270C

Injection Volume :_____1_____µL Dilution Prep (if needed)_____

Extraction Date __1__/__18__/__02__

DFTPP Filename _____DF020120A66_____

Sample File Name_____**WG15377-3**__A66_____

ANALYST (S): Injection_____2319_____ Work-up _____ 9/7

GC/MS DATE REVIEW

CONDITION CODE

[Ok]

Disposition: [X] Complete

Extraneous Peak Search Results:

[ ] Reinjection Required

Number of peaks found: NA

[ ] Re-extraction Required

Number of Hits found: NA

[ ] Reinject Neat

Number of Surrogate Outliers: 0

[ ] Dilute (X)

Quality Assurance Notice (s)
Number of Notices Required 0

Comments.

#GC/MS Review_____ Date 1/23/2 Auditor_____ Date__/__/__

Final Reportable Package(s):

WG15377-3A66

289

ASSIGNED TO: Kath / David / Grover

EMP ID NUMBER: 2466, 2503/ 2378 2357 Lisa

CompuChem
EXTRACTION WORKSHEET
SEMI-VOLATILE WATER, Method 3510C for 8270C
-079

1-18-2

DATE EXTRACTED/POSTED: 1/18/02

	SAMPLE NUMBER	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	FINAL VOLUME (ml)	Adjusted pH A/N	Adjusted pH BASE	COMMENTS
1	GC1877-1		1100	1.0	1.6	13.0	
2	3		500	1.0	1.6	13.0	
3	4		1100	1.0	1.6	13.0	
4	5	QC	1100	1.0	1.6	13.0	use Q-5 for 3/4 SS
5	6		1100	1.0	1.6	13.0	
6	MB 15377-3	SS	1100	1.0	1.6	13.0	
7	4	SS	1100	1.0	1.6	13.0	
8	KC2418-1		1075	1.0	1.6	13.0	
9	KC2416-1		1140	1.0	1.6	13.0	
10	2		1050	1.0	1.6	13.0	
11	3		1050	1.0	1.6	13.0	
12	4	QC	500 *	1.0	1.6	13.0	use 4-7 for 5/6 SS
13	5		1100	1.0	1.6	13.0	
14	MB-15377-5	SS	500	0.5	1.6	13.0	
15	6	SS	500	0.5	1.6	13.0	
16	VZY03-1		1000	1.0	1.6	13.0	use reduced volume for V-1 - WYASP
17	Y18222		1060	1.0	1.6	13.0	
18							1/18 - 2
19							
20							
21							
22							
23	MB 15377-1	BLK	1000	1.0	1.6	13.0	
24	4 - 2	LCS	1000	1.0	1.6	13.0	

		S-VOL	Acid	B/N	8270
SURROGATE	NO.	393			
	AMT.	1.0 ml			
	LOT	52623			
SPIKE	NO.		3012	2021	VALID.
	AMT.		1.0 ml	1.0ml	1.0 ml
	LOT				52452

*Add 1.0 mL validation spike to LCS and SSs unless otherwise noted

FINAL VOLUME VERIFIED: Kh Kolar

SUPERVISOR REVIEWED: Kh Kolar

SURROGATE & SPIKE ADDED BY: HZB, 1-18-02
Initials Date

Witness: [illegible] 1/18/02
Initials Date

Analyst initials. Extracted MC KD JS/GFB N2 BJ/GFB/JS Bottle up GFB/MC/JS

Manufacturer and lot number of reagents/solvents used Mecl2 CC995 [illegible] TA1501 H2SO4 VC3029 Na2SO4 [illegible]

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e. Matrix Spike Duplicate Data

- Tabulated Results (Form I SV)

- Reconstructed Ion Chromatogram and quantitation report

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS-3MSD

Lab Name: COMPUCHEM Contract: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: QR1877

Matrix: (soil/water) WATER Lab Sample ID: WG15377-4

Sample wt/vol: 1100 (g/mL) ML Lab File ID: WG15377-4A66

Level: (low/med) LOW Date Received: 01/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:01/18/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 01/20/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

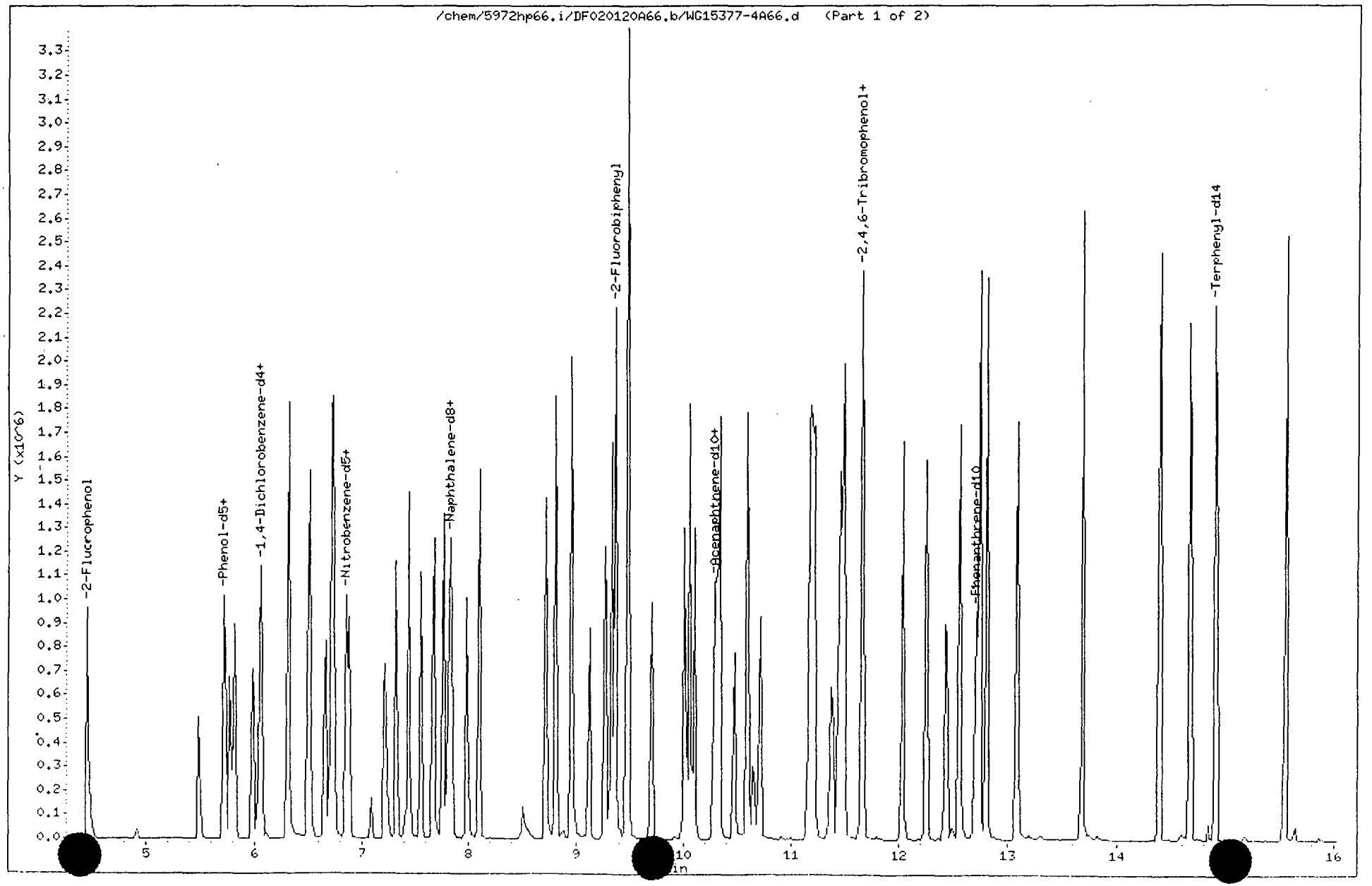
GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	89	
100-02-7	4-Nitrophenol	34	
121-14-2	2,4-Dinitrotoluene	70	
132-64-9	Dibenzofuran	66	
84-66-2	Diethylphthalate	67	
7005-72-3	4-Chlorophenyl-phenylether	69	
86-73-7	Fluorene	67	
100-01-6	4-Nitroaniline	63	
534-52-1	4,6-Dinitro-2-methylphenol	84	
86-30-6	N-Nitrosodiphenylamine (1)	70	
101-55-3	4-Bromophenyl-phenylether	73	
118-74-1	Hexachlorobenzene	78	
87-86-5	Pentachlorophenol	110	
85-01-8	Phenanthrene	72	
120-12-7	Anthracene	74	
86-74-8	Carbazole	74	
84-74-2	Di-n-butylphthalate	74	
206-44-0	Fluoranthene	78	
129-00-0	Pyrene	66	
85-68-7	Butylbenzylphthalate	78	
91-94-1	3,3'-Dichlorobenzidine	47	
117-81-7	bis(2-ethylhexyl)Phthalate	66	
56-55-3	Benzo(a)anthracene	68	
218-01-9	Chrysene	66	
117-84-0	Di-n-octylphthalate	68	
205-99-2	Benzo(b)fluoranthene	70	
207-08-9	Benzo(k)fluoranthene	72	
50-32-8	Benzo(a)pyrene	69	
193-39-5	Indeno(1,2,3-cd)pyrene	68	
53-70-3	Dibenzo(a,h)anthracene	72	
191-24-2	Benzo(g,h,i)perylene	73	

(1) - Cannot be separated from Diphenylamine

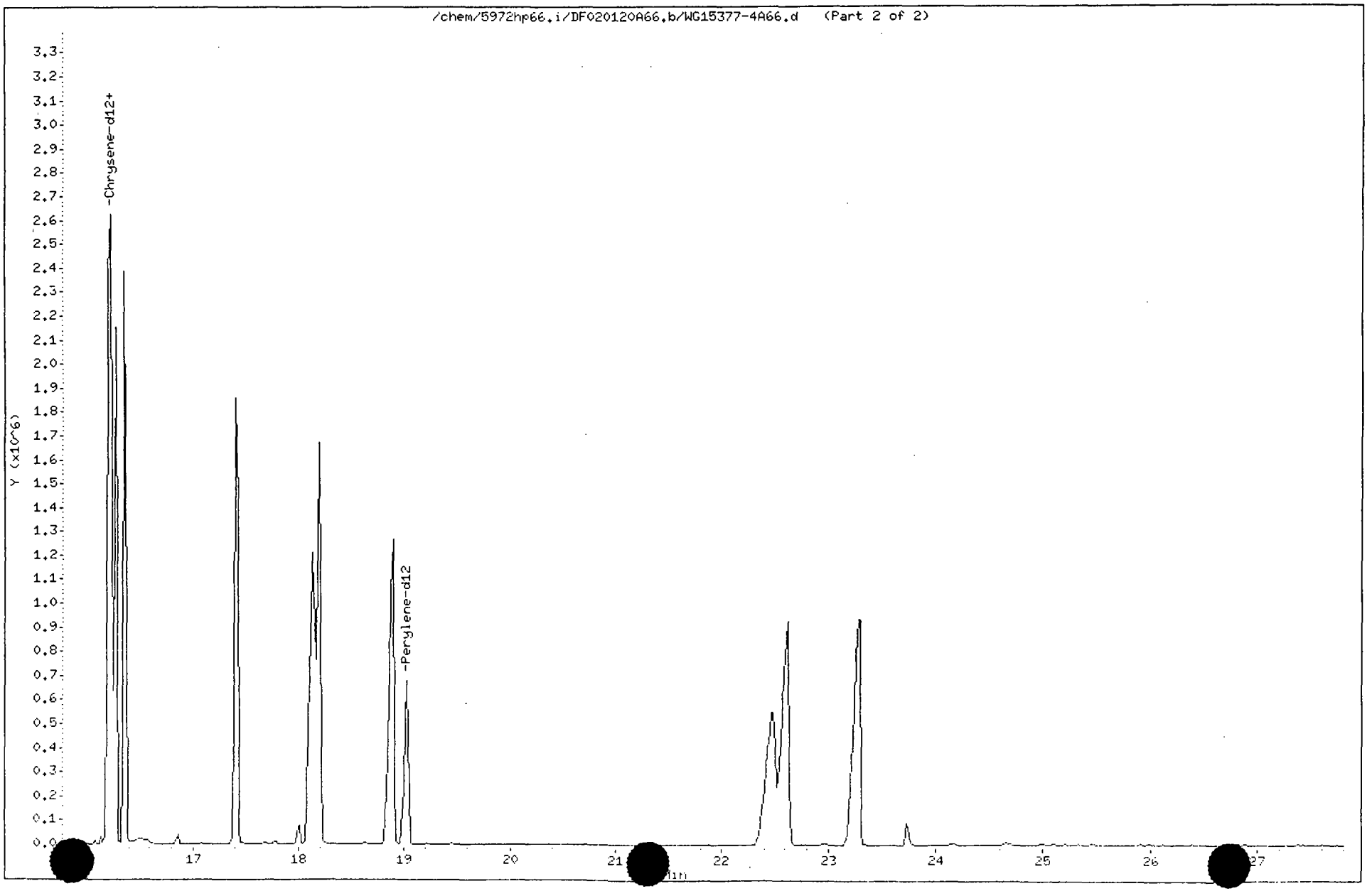
Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-4A66.d
Date : 20-JAN-2002 16:38
Client ID: SS3MSD
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2319
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-4A66.d
Date : 20-JAN-2002 16:38
Client ID: SS3MSD
Sample Info:
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 5972hp66.i
Operator: 2319
Column diameter: 0.25



Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-4A66.d
Report Date: 23-Jan-2002 11:38

CompuChem

Semivolatile Report SW-846 Method 8270C

Data file : /chem/5972hp66.i/DF020120A66.b/WG15377-4A66.d
Lab Smp Id: WG15377-4 Client Smp ID: SS3MSD
Inj Date : 20-JAN-2002 16:38
Operator : 2319 Inst ID: 5972hp66.i
Smp Info :
Misc Info :
Comment :
Method : /chem/5972hp66.i/DF020120A66.b/8270Cv6.m
Meth Date : 23-Jan-2002 11:31 byrd Quant Type: ISTD
Cal Date : 17-JAN-2002 13:38 Cal File: HM020117A66.d
Als bottle: 12 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: OLM03.sub
Target Version: 3.50
Processing Host: einstein

Concentration Formula: Amt * DF * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	1000.00000	Volume of final extract (uL)
Vo	1100.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(NG)	(ug/L)	SIMILARITY
*	1	1,4-Dichlorobenzene-d4	152	6.035	6.067	(1.000)	132873	40.0000		
*	2	Naphthalene-d8	136	7.809	7.840	(1.000)	477330	40.0000		
*	3	Acenaphthene-d10	164	10.292	10.289	(1.000)	315343	40.0000		
*	4	Phenanthrene-d10	188	12.707	12.705	(1.000)	570110	40.0000		
*	5	Chrysene-d12	240	16.237	16.235	(1.000)	626246	40.0000		
*	6	Perylene-d12	264	19.024	19.021	(1.000)	604411	40.0000		
S	7	2-Fluorophenol	112	4.448	4.496	(0.737)	378401	86.1954	78.36	
S	8	Phenol-d5	99	5.715	5.746	(0.947)	356940	60.2580	54.78	
S	9	Nitrobenzene-d5	82	6.846	6.895	(0.877)	467507	72.3517	65.77	
S	10	2-Fluorobiphenyl	172	9.363	9.377	(0.910)	793579	77.4497	70.41	
S	11	2,4,6-Tribromophenol	330	11.660	11.657	(1.133)	483287	175.327	159.4	(AM)
S	12	Terphenyl-d14	244	14.903	14.900	(0.918)	1244472	82.0158	74.56	
	16	Phenol	94	5.731	5.763	(0.950)	208538	39.4491	35.86	
	17	Bis(2-chloroethyl)ether	93	5.765	5.814	(0.955)	321371	63.1913	57.45	

Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-4A66.d
Report Date: 23-Jan-2002 11:38

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
18	2-Chlorophenol	128	5.816	5.847	(0.964)	319489	73.1364	66.49	7796
19	1,3-Dichlorobenzene	146	5.985	6.016	(0.992)	286230	59.4733	54.07	
20	1,4-Dichlorobenzene	146	6.052	6.101	(1.003)	316914	64.3468	58.50	
22	1,2-Dichlorobenzene	146	6.306	6.337	(1.045)	28180[illegible]	61.0059	55.46	
23	2-Methylphenol	108	6.508	6.557	(1.078)	246735	68.4969	62.27	
24	2,2'-oxybis(1-Chloropropane)	45	6.492	6.540	(1.076)	413513	67.3972	61.27	9261
27	4-Methylphenol	108	6.728	6.759	(1.115)	465748	109.075	99.16	
28	N-Nitroso-di-N-propylamine	70	6.711	6.743	(1.112)	142627	61.1402	55.58	8565
29	Hexachloroethane	117	6.711	6.743	(1.112)	136478	60.1385	54.67	9177
30	Nitrobenzene	77	6.880	6.911	(0.881)	392181	66.1765	60.16	9102
31	Isophorone	82	7.218	7.249	(0.924)	734711	66.9388	60.85	7248
32	2-Nitrophenol	139	7.319	7.367	(0.937)	229863	88.2476	80.23	8695
33	2,4-Dimethylphenol	122	7.437	7.469	(0.952)	302216	78.9266	71.75	8920
34	Bis(2-chloroethoxy)methane	93	7.556	7.587	(0.968)	480962	70.9785	64.53	9196
35	2,4-Dichlorophenol	162	7.674	7.705	(0.983)	356704	91.1744	82.89	
36	1,2,4-Trichlorobenzene	180	7.758	7.790	(0.994)	321575	69.3027	63.00	
37	Napnthalene	128	7.826	7.874	(1.002)	926856	66.1935	60.18	9478
38	4-Chloroaniline	127	7.978	8.009	(1.022)	415184	63.3968	57.63	8655
39	Hexachlorobutadiene	225	8.096	8.128	(1.037)	239574	68.4572	62.23	9418
41	4-Chloro-3-methylphenol	107	8.721	8.736	(1.117)	420689	91.6100	83.28	9444
42	2-Methylnaphthalene	142	8.805	8.820	(1.128)	633021	66.6671	60.61	
44	Hexachlorocyclopentadiene	237	9.126	9.141	(0.887)	205750	73.4193	66.74	9567
45	2,4,6-Trichlorophenol	196	9.278	9.276	(0.902)	311530	97.9699	89.06	
[illegible]	2,4,5-Trichlorophenol	196	9.329	9.344	(0.906)	350642	100.640	91 49	
[illegible]	2-Chloronaphthalene	162	9.481	9.496	(0.921)	573752	70.3846	63.99	
49	2-Nitroaniline	65	9.701	9.715	(0.943)	271304	69.0368	62.76	9463
50	Dimethylphthalate	163	10.005	10.019	(0.972)	808463	75.4659	68.61	9416
51	2,6-Dinitrotoluene	165	10.106	10.104	(0.982)	195021	70.0555	63.69	9323
52	Acenaphthylene	152	10.055	10.070	(0.977)	1004736	69.9780	63.62	9437
53	3-Nitroaniline	138	10.309	10.323	(1.002)	206169	70.7239	64.29	9408
54	Acenaphthene	154	10.342	10.340	(1.005)	656556	78.5428	71.40	9650
55	2,4-Dinitrophenol	184	10.477	10.509	(1.018)	147674	97.4224	88.57	
56	4-Nitrophenol	109	10.646	10.678	(1.034)	81357	37.2166	33.83	0(M)
57	2,4-Dinitrotoluene	165	10.714	10.729	(1.041)	284761	76.8509	69.86	8567
58	Dibenzofuran	168	10.596	10.610	(1.030)	1020296	72.9150	66.29	9387
59	Diethylphthalate	149	11.170	11.185	(1.085)	860276	73.8222	67.11	9496
60	4-Chlorophenyl-phenylether	204	11.221	11.218	(1.090)	438932	76.3966	69.45	7148
61	Fluorene	166	11.187	11.201	(1.087)	786708	74.1550	67.41	8287
62	4-Nitroaniline	138	11.373	11.421	(1.105)	215975	69.4787	63.16	9132
63	4,6-Dinitro-2-methylphenol	198	11.440	11.455	(0.900)	234255	92.5825	84.17	8376
64	N-Nitrosodiphenylamine	169	11.457	11.472	(0.902)	489267	76.9716	69.97	8541
66	4-Bromophenyl-phenylether	248	12.031	12.029	(0.947)	301826	80.6631	73.33	9179
67	Hexachlorobenzene	284	12.251	12.249	(0.964)	394038	86.2946	78.45	8755
69	Pentachlorophenol	266	12.555	12.553	(0.988)	311304	119.578	108.7	8436
70	Phenanthrene	178	12.741	12.738	(1.003)	1290591	79.4574	72.23	
71	Anthracene	178	12.808	12.806	(1.008)	1312183	81.3770	73.98	
72	Carbazole	167	13.078	13.076	(1.029)	1033774	81.8598	74.42	9275

Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-4A66.d
Report Date: 23-Jan-2002 11:38

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	CONCENTRATIONS FINAL (ug/L)	SIMILARITY
73	Di-n-butylphthalate	149	13.686	13.684	(1.077)	1628642	81.2634	73.88	9571
74	Fluoranthene	202	14.396	14.394	(1.133)	1686257	86.3022	78.46	
76	Pyrene	202	14.666	14.664	(0.903)	1456404	72.3001	65.73	
77	Butylbenzylphthalate	149	15.561	15.559	(0.958)	844687	85.9410	78.13	9465
78	3,3'-Dichlorobenzidine	252	16.220	16.218	(0.999)	415914	51.3052	46.64	8580
79	bis(2-ethylhexyl)Phthalate	149	16.355	16.353	(1.007)	1012484	72.2721	65.70	9368
80	Benzo(a)anthracene	228	16.203	16.201	(0.998)	1497551	74.9448	68.13	
81	Chrysene	228	16.271	16.268	(1.002)	1383254	72.2396	65.67	
82	Di-n-octylphthalate	149	17.402	17.400	(0.915)	1946966	74.4902	67.72	
83	Benzo(b)fluoranthene	252	18.128	18.126	(0.953)	1809685	76.4583	69.51	
84	Benzo(k)fluoranthene	252	18.196	18.194	(0.956)	1628384	78.7602	71.60	
85	Benzo(a)pyrene	252	18.888	18.886	(0.993)	1500394	75.9733	69.07	
86	Indeno(1,2,3-cd)pyrene	276	22.486	22.484	(1.182)	1507205	74.4995	67.73	0(M)
87	Dibenzo(a,h)anthracene	278	22.621	22.602	(1.189)	1613961	79.7101	72.46	7896
88	Benzo(g,h,i)perylene	276	23.297	23.277	(1.225)	1736946	80.3481	73.04	8468

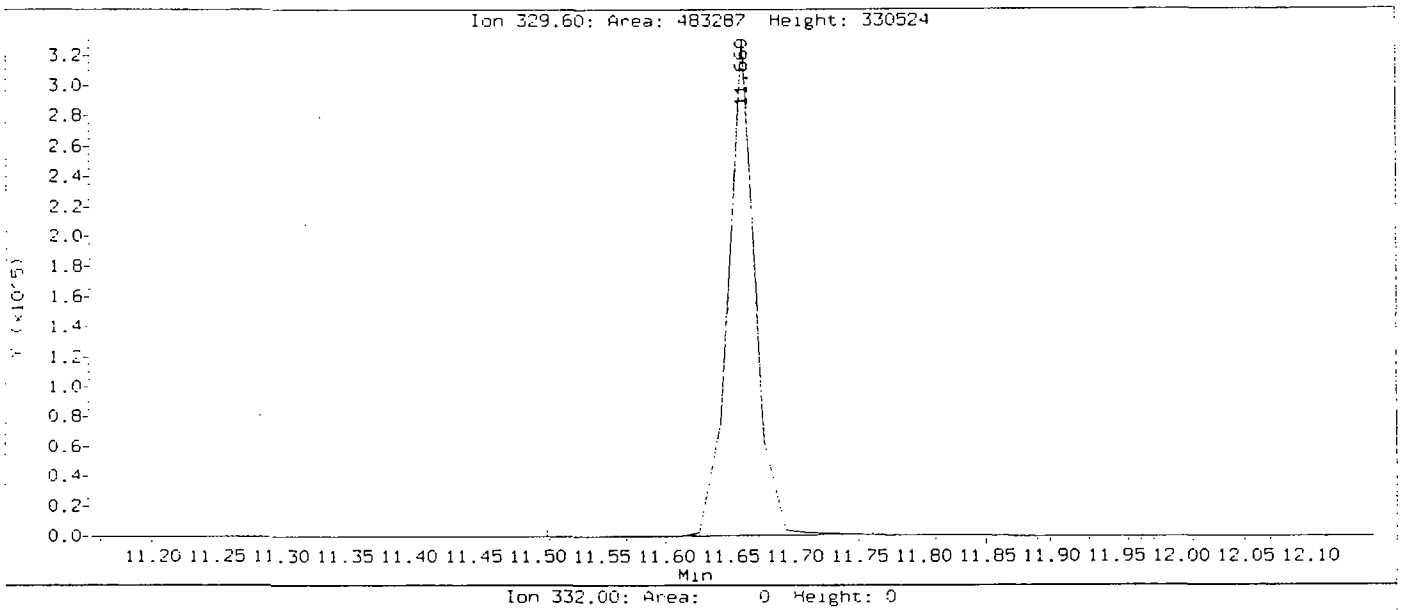
QC Flag Legend

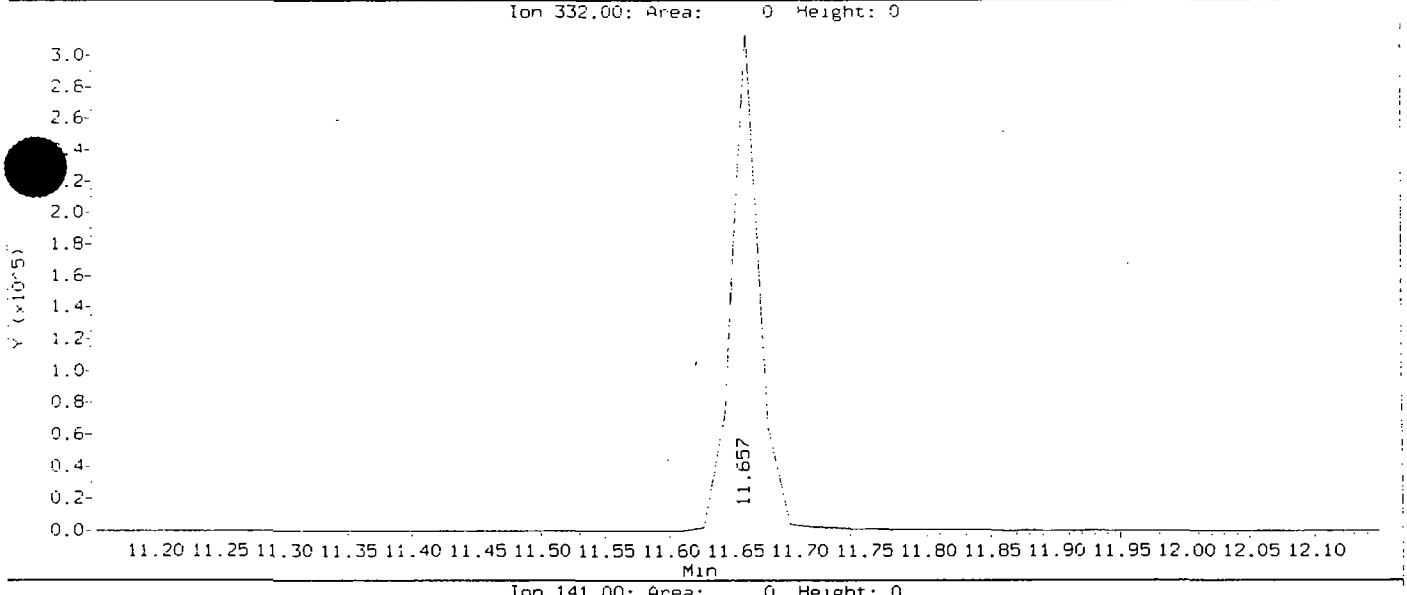
01/23/02

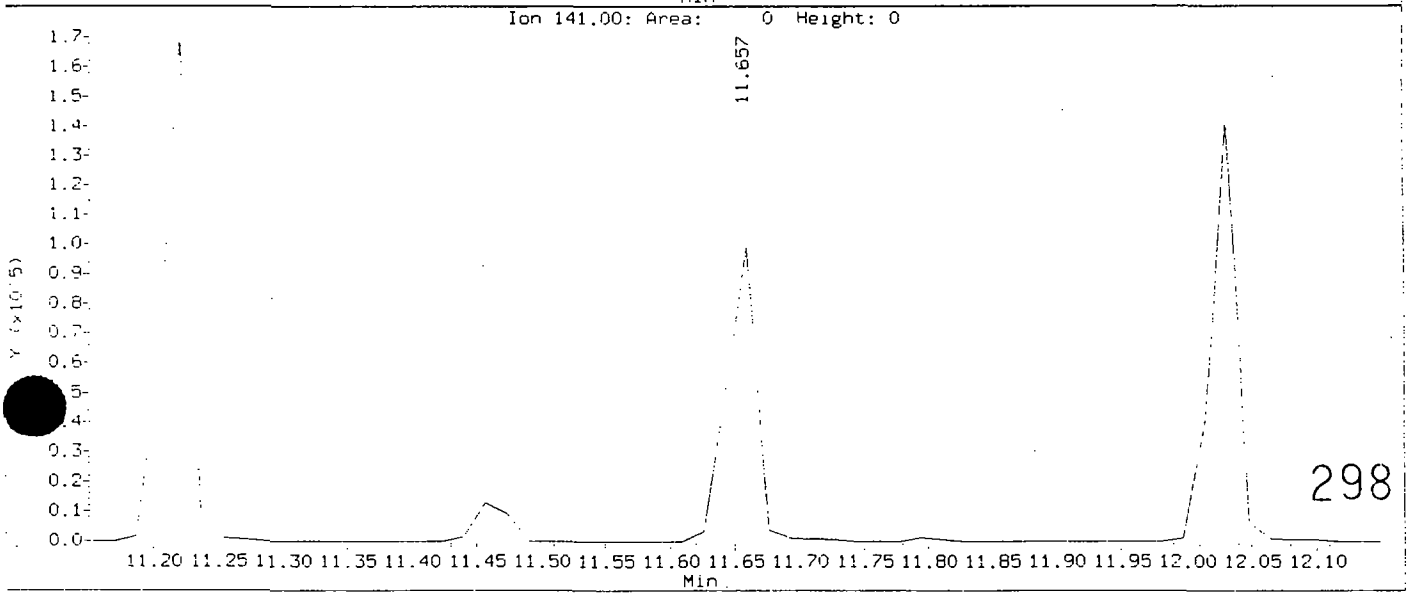
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-4A66.d
Injection Date: 20-JAN-2002 16:38
Instrument: 5972hp66.i
[redacted]t Sample ID: SS3MSD

[redacted]ound: 2,4,6-Tribromophenol
CAS Number: 118-79-6







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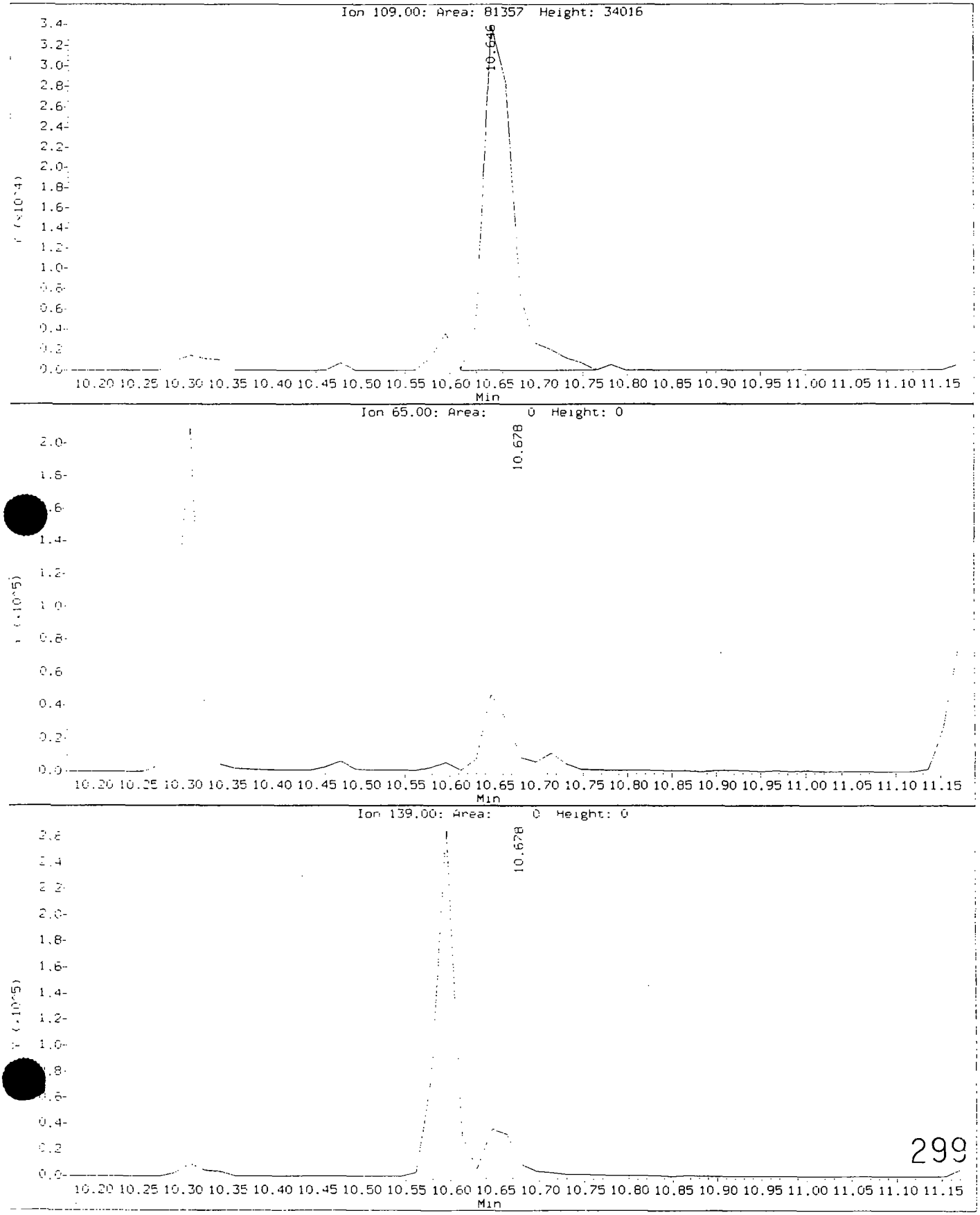
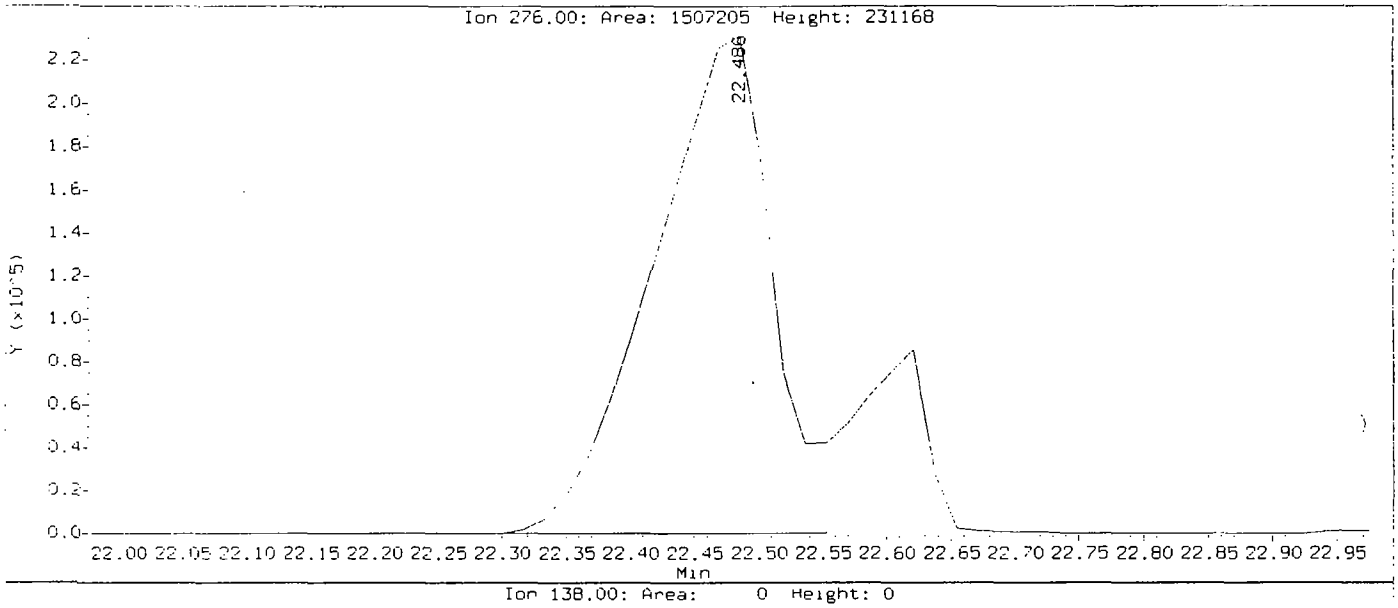
Injection Date: 20-JAN-2002 16:38
Instrument: 5972hp66.i
[redacted]t Sample ID: SS3MSD

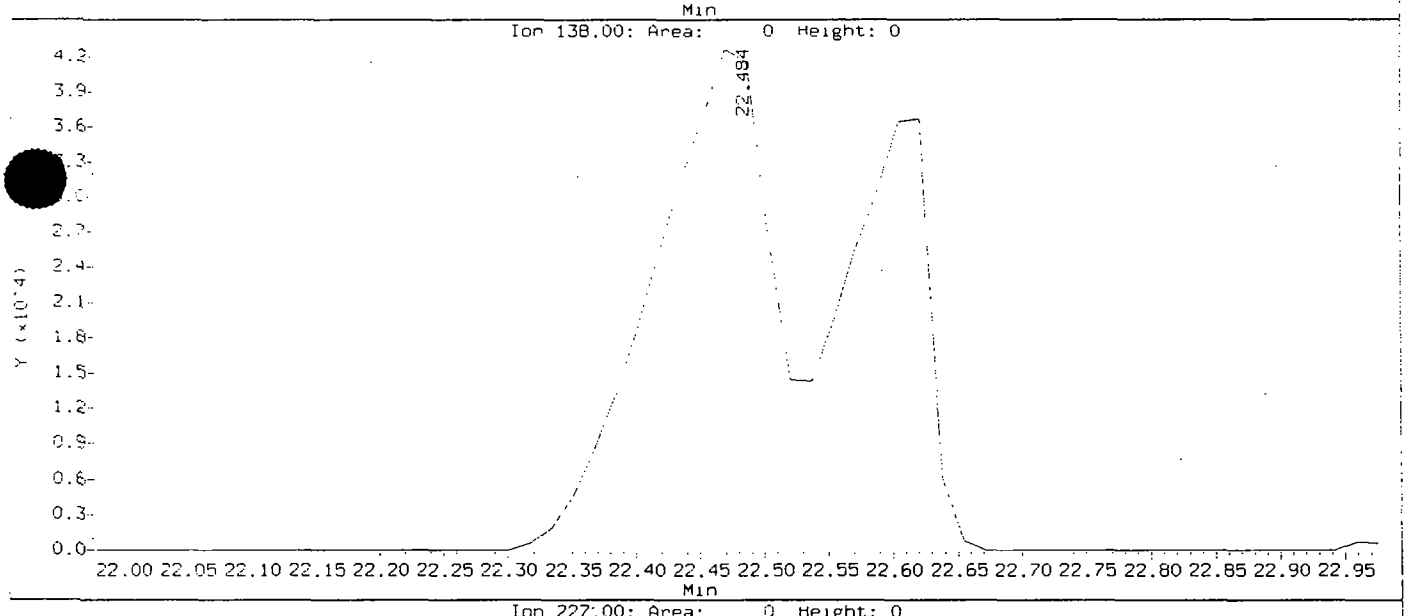
[redacted]ound: 4-Nitrophenol
CAS Number: 100-02-7

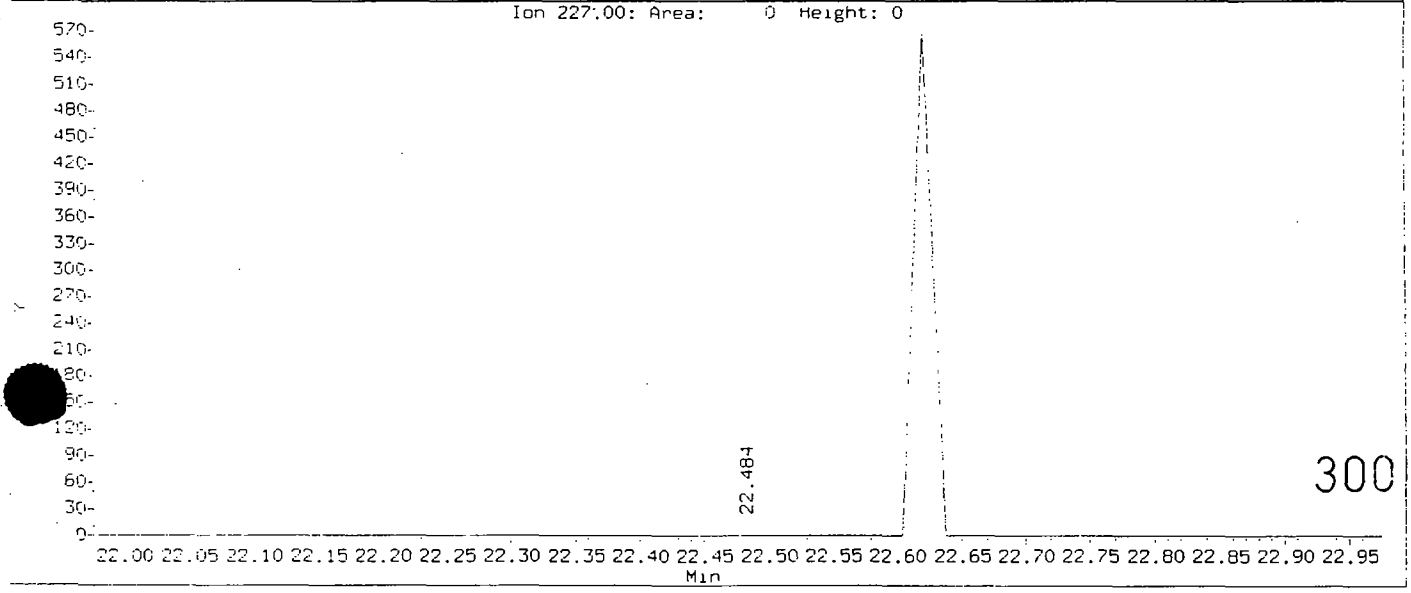


Data File: /chem/5972hp66.i/DF020120A66.b/WG15377-4A66.d
Injection Date: 20-JAN-2002 16:38
Instrument: 5972hp66.i
[redacted]t Sample ID: SS3MSD

[redacted]ound: Indeno(1,2,3-cd)pyrene
CAS Number: 193-39-5







CompuChem
a Division of Liberty Analytical Corp.

GC/MS SEMI-VOA WORKSHEET

LAB INSTRUCTIONS:

RECEIPT DATE: 1/17/02 0:00 SAMPLE DATE: DUE DATE:

CASE#: SDG: WG15377 **COMPUCHEM #: WG15377-4**

CLIENT ID: Matrix Spike Duplica

ANALYSIS DESCRIPTION: SVOA-8270C

Injection Volume :____1____µL Dilution Prep (if needed)_____

Extraction Date __1__/__18__/__02__

DFTPP Filename ____DF020120A66_____

Sample File Name____**WG15377-4**__A66_____

ANALYST (S): Injection____2319_____ Work-up _____ 9/7

GC/MS DATE REVIEW

CONDITION CODE

OK

Disposition: [/] Complete

Extraneous Peak Search Results:

[ ] Reinjection Required

Number of peaks found: N/A

[ ] Re-extraction Required

Number of Hits found: NA

[ ] Reinject Neat

Number of Surrogate Outliers: 0

[ ] Dilute (X)

Quality Assurance Notice (s)
Number of Notices Required 0

Comments:

#GC/MS Review TVS Date 1/23/2 Auditor_____ Date__/__/__

Final Reportable Package(s):

WG15377-4 raw

ASSIGNED TO: Kath / David / Grace

LMP ID NUMBER: 2466, 2503/ 2378 2357 Silica

CompuChem
EXTRACTION WORKSHEET
SEMI-VOLATILE WATER, Method 3510C for 8270C
-079

1-18-2

DATE EXTRACTED/POSTED: 1/18/02

	SAMPLE NUMBER	QC SAMPLE TYPE	SAMPLE VOLUME (ml)	FINAL VOLUME (ml)	Adjusted pH A/N	Adjusted pH BASE	COMMENTS
1	QC 1877-1		1100	1.0	1.6	13.0	
2	3		500	1.0	1.6	13.0	
3	4		1100	1.0	1.6	13.0	
4	5	QC	1100	1.0	1.6	13.0	use Q-5 for 3/4 SS
5	6		1100	1.0	1.6	13.0	
6	MB 1877-3	SS	1100	1.0	1.6	13.0	
7	4	SS	1100	1.0	1.6	13.0	
8	1C 2418-1		1075	1.0	1.6	13.0	
9	1C 2416-1		1140	1.0	1.6	13.0	
10	2		1050	1.0	1.6	13.0	
11	3		1050	1.0	1.6	13.0	
12	4	QC	500	1.0	1.6	13.0	use 4-4 for 5/6 SS
13	5		1100	1.0	1.6	13.0	
14	MB 1877-5	SS	500	0.5	1.6	13.0	
15	6	SS	500	0.5	1.6	13.0	
16	VZ 4C 3-1		1000	1.0	1.6	13.0	use reduced volume for V-1 - WYASP
17	Y 18 22 22		1060	1.0	1.6	13.0	
18							
19							
20							
21							
22							
23	MB 1877-1	BLK	1000	1.0	1.6	13.0	
24	2	LCS	1000	1.0	1.6	13.0	

*Add 1.0 mL validation spike to LCS and SSs unless otherwise noted

		S-VOL	Acid	B/N	8270
SURROGATE	NO.	393			
	AMT.	1.0 ml			
	LOT	52623			
SPIKE	NO.		3012	2021	VALID.
	AMT.		1.0 ml	1.0ml	1.0 ml
	LOT				52452

FINAL VOLUME VERIFIED: [signature]

SUPERVISOR REVIEWED: [signature]

SURROGATE & SPIKE ADDED BY: DB, 1-18-02 (Initials, Date)

Analyst initials Extracted MC TB KD JS/GFB N2 MB/GFB/TB Bottle up GFB/MB/JS

Witness [signature] 1/18/02 (Initials, Date)

Manufacturer and lot number of reagents/solvents used Mecl: CC99 Na2SO4: I01501 H2SO4: V03029 Na2SO4: [illegible]

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