UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE RD.
HOUSTON, TEXAS 77099

MEMORANDUM

Date: 1-16-1997

Subject: **Contract Laboratory Program Data Review**

From: M. Humphrey for Melvin L. Ritter, ESAT RPO, 6MD-HC

To: L. Biasco , 6SF-RA

Site: WILCOX OIL

Case#: 25159

SDG#: FF-G24

The EPA Region 6 Houston Branch ESAT data validation team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review and assessment report for this case.

The data package was found to be:

(X) Acceptable: No major problems with data package.

( ) Provisional: Use of data requires caution.
Data is acceptable for Regional use. Problems are noted in the review report.

( ) Unacceptable: Some or all of data should not be used.
Problems are noted in the review report.

Questions regarding the data review report can be addressed to me.

Attachments

9417635

cc: R. Flores, Region 6 CLP/TPO
M. El-feky, Region 6 Data Coordinator

Files (2)

Recycled/Recyclable
Printed with Soy/Canola Ink on paper that contains at least 50% recycled fiber

LOCKHEED MARTIN SERVICES GROUP
10101 Southwest Freeway, Suite 500
HOUSTON, TX 77074

MEMORANDUM

DATE: January 10, 1997

TO: Dr. Melvin Ritter, ESAT RPO, Region VI

FROM: Dr. Tom C. H. Chiang, ESAT ETM, Region VI

SUBJECT: CLP Data Review

REF: TDF # 6-7114A
ESAT # O-1787

Attached is the data review summary for Case # 25159
SDG # FFG24
Site Wilcox Oil

COMMENTS:

I. CONTRACTUAL ASSESSMENT OF THE DATA PACKAGE

A. The data package contained the following contractual non-compliance as determined by the CCS audit and confirmed by hard copy data review.

The laboratory extracted BNA samples FF-G24 and FF-G24MS 12 days past the holding time limit, 22 days after sample receipt (OLM03.0, D-18/SVOA, 8.4.1). Sample results were not technically affected by this non-compliance.

B. The data package contained the following contractual non-compliance as determined by the hard copy data review but not by CCS.

The data package was three days late.

II. TECHNICAL/USABILITY ASSESSMENT OF THE DATA PACKAGE

A total of 125 results were reviewed for this data package. The data package is technically acceptable although it contained two contractual non-compliances.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE ROAD
HOUSTON, TEXAS 77099

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 25159
LABORATORY AATS
CONTRACT# 68-D5-0022
SDG# FFG24
SOW# RAS SOW OLM03.2
ACCT# 7FAXJN28 SF# FAXUZZ

SITE Wilcox Oil
NO. OF SAMPLES 1
MATRIX Soil
REVIEWER (IF NOT ESD) ESAT
REVIEWER'S NAME Maria Missler
COMPLETION DATE January 10, 1997

SAMPLE NO. FF-G24

DATA ASSESSMENT SUMMARY

	VOA	BNA	PEST
1. HOLDING TIMES	O	O	O
2. GC/MS TUNE/INSTR. PERFORM.	O	O	O
3. CALIBRATIONS	O	O	O
4. BLANKS	O	O	O
5. SMC/SURROGATES	O	O	O
6. MATRIX SPIKE/DUPLICATE	O	O	O
7. OTHER QC	N/A	N/A	N/A
8. INTERNAL STANDARDS	O	O	N/A
9. COMPOUND ID/QUANTITATION	O	O	O
10. PERFORMANCE/COMPLETENESS	O	O	O
11. OVERALL ASSESSMENT	O	O	O

O = Data had no problems.
M = Data qualified because of major or minor problems.
Z = Data unacceptable.
NA = Not applicable.

ACTION ITEMS: BNA samples FF-G24 and FF-G24MS were extracted 12 days past the contractual holding time limit.

AREA OF CONCERN: The data package arrived three days late.

COMMENTS/CLARIFICATIONS
REGION 6 CLP QA REVIEW

CASE 25159 **SDG** FFG24 **SITE** Wilcox Oil **LAB** AATS

The following is a summary of sample qualifiers used by Region 6 in reporting this CLP data:

No.	Acceptable	Provisional	Unacceptable
VOA	1		
BNA	1		
PEST	1		

COMMENTS: The case consisted of one soil sample for complete RAS organic analysis. The OTR/COC Record designated sample FF-G24 for MS/MSD analyses. The data package arrived 3 days late for the contractual 35-day turnaround time. BNA samples FF-G24 and FF-G24MS were extracted 12 days past the contractual holding time limit.

The laboratory analyzed the VOA/BNA soil samples following the low level methods. No TCL analytes were reported in the sample above the CRQL's. Results are acceptable for sample FF-G24.

The technical usability of all reported sample results is appropriately indicated by ESAT's final data qualifiers in the attached Data Summary Tables. An Evidence Audit was conducted for the Complete Sample Delivery Group File (CSF), and the Evidence Inventory Checklist is attached to this report.

NOTE: THE FOLLOWING REVIEW NARRATIVE ADDRESSES BOTH CONTRACTUAL AND TECHNICAL ISSUES. THE ASSESSMENT MADE FOR EACH QC PARAMETER IS SOLELY BASED ON THE TECHNICAL DATA USABILITY, WHICH MAY NOT NECESSARILY BE AFFECTED BY CONTRACTUAL PROBLEMS.

1. **Holding Times:** Acceptable. The sample met the contractual holding time requirements except as follows. No technical holding time criteria exist for soil samples.

BNA samples FF-G24 and FF-G24MS were extracted 22 days after collection and receipt. This holding time problem did not affect the spiked sample results as the spike compounds were added at the time of sample extraction. The reviewer did not qualify results for the native sample FF-G24 because the reported TCL analyte results were consistent with those in sample FF-G24MSD, which met the holding time criteria.

2. **Tuning/Performance:** Acceptable. The BFB and DFTPP analyses met GC/MS tuning criteria. The VOA and BNA sample analyses were within 12 hours of the respective BFB/DFTPP analyses. The Pest/PCB analyses met performance guidelines.

ORGANIC QA REVIEW
CONTINUATION PAGE

CASE 25159 **SDG** FFG24 **SITE** Wilcox Oil **LAB** AATS

3. Calibrations: Acceptable. Target compounds generally met contractual and technical criteria for all fractions.

Pest/PCB The reviewer was unable to verify the following calibration results on both analytical columns based on the raw data submitted:

all analyte and surrogate initial calibration factors; and

all nominal amounts in calibration verification analyses PEM and INDAM/INDBM.

The results reported by the laboratory differed consistently by a factor of two from the reviewer-calculated ones. The reviewer did not qualify results because the reported %RSD and %D values were not affected. However, the laboratory was contacted for clarification of this discrepancy.

4. Blanks: Acceptable. The method, storage, and instrument blanks met contractual requirements.

The BNA method blanks contained phthalates below the CRQL's. In the reviewer's opinion, all "B"-flagged laboratory results should be used as quantitation limits because the sample concentrations were less than 10X the associated blank concentrations.

The VOA storage blank and its associated method blank contained acetone below the CRQL. Sample results were not affected.

5. System Monitoring Compounds (SMC)/Surrogates: Acceptable.

VOA/BNA The VOA MS/MSD analyses had low recoveries for one SMC. Since the unspiked sample had acceptable recoveries, results were not qualified. Other SMC and surrogate recoveries met QC criteria.

Pest/PCB All reported surrogate recoveries were a factor of two lower than the reviewer-calculated ones. This problem is a consequence of the incorrect calibration factors reported for the initial calibrations (see section 3). Since surrogate recoveries were within QC limits based on the reviewer's calculations, no results were qualified.

6. Matrix Spike/Matrix Spike Duplicate: Acceptable. The MS/MSD analyses met recovery and precision requirements with one exception. Trichloroethene had a high MS recovery. Since the analyte was not detected in the unspiked sample, sample results were not affected.

ORGANIC QA REVIEW
CONTINUATION PAGE

CASE 25159 **SDG** FFG24 **SITE** Wilcox Oil **LAB** AATS

7. **Other QC:** Not Applicable.

8. **Internal Standards:** Acceptable. The internal standard (IS) responses and retention times were within the QC limits for all analyses.

9. **Compound Identity/Quantitation:** Acceptable. No TCL analytes were detected in the sample above the CRQL's. PAH's and phthalates were reported below the CRQL's. Reported analytes met compound identification criteria.

10. **Performance/Completeness:** Acceptable. The data package was complete with minor deficiencies. The laboratory was contacted for correction and resubmission (see attached FAX Record Log).

11. **Overall Assessment:** Data are acceptable for sample FF-G24.

ORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

U Not detected at reported quantitation limit.

N Identification is tentative.

J Estimated value.

R Unusable.

^ High biased. Actual concentration may be lower than the concentration reported.

v Low biased. Actual concentration may be higher than the concentration reported.

F+ A false positive exists.

F- A false negative exists.

B This result may be high biased because of laboratory/field contamination. The reported concentration is above 5X or 10X the concentration reported in the method/field blank.

UJ Estimated quantitation limit.

T Identification is questionable because of absence of other commonly coexisting pesticides.

***** Result not recommended for use because of associated QA/QC performance inferior to that from other analysis.

ORGANIC DATA SUMMARY

Case No.: 25159 SDG: FFG24 Reviewer: M. Missler

Laboratory: AATS Matrix: SOIL Units: ug/Kg

VOLATILES		FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER:	FF-G24							
Chloromethane	11 U							
Bromomethane	11 U							
Vinyl chloride	11 U							
Chloroethane	11 U							
Methylene chloride	11 U							
Acetone	11 U							
Carbon disulfide	11 U							
1,1-Dichloroethene	11 U							
1,1-Dichloroethane	11 U							
1,2-Dichloroethene (total)	11 U							
Chloroform	11 U							
1,2-Dichloroethane	11 U							
2-Butanone	11 U							
1,1,1-Trichloroethane	11 U							
Carbon tetrachloride	11 U							
Bromodichloromethane	11 U							
1,2-Dichloropropane	11 U							
cis-1,3-Dichloropropene	11 U							
Trichloroethene	11 U							
Dibromochloromethane	11 U							
1,1,2-Trichloroethane	11 U							
Benzene	11 U							
trans-1,3-Dichloropropene	11 U							
Bromoform	11 U							
4-Methyl-2-pentanone	11 U							
2-Hexanone	11 U							
Tetrachloroethene	11 U							
1,1,2,2-Tetrachloroethane	11 U							
Toluene	11 U							
Chlorobenzene	11 U							
Ethylbenzene	11 U							
Styrene	11 U							
Xylenes (total)	11 U							
Sample wt (g):	5							
%Moisture:	10							
Dilution Factor:	1							
Level:	LOW							
Number of TIC's:	0							

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

ORGANIC DATA SUMMARY

Case No.: 25159 SDG: FFG24 Reviewer: M. Missler

Laboratory: AATS Matrix: SOIL Units: ug/Kg

SEMIVOLATILES	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER:	FF-G24						
Phenol	370 U						
bis(2-Chloroethyl)ether	370 U						
2-Chlorophenol	370 U						
1,3-Dichlorobenzene	370 U						
1,4-Dichlorobenzene	370 U						
1,2-Dichlorobenzene	370 U						
2-Methylphenol	370 U						
2,2'-Oxybis(1-chloropropane)	370 U						
4-Methylphenol	370 U						
N-Nitroso-di-n-propylamine	370 U						
Hexachloroethane	370 U						
Nitrobenzene	370 U						
Isophorone	370 U						
2-Nitrophenol	370 U						
2,4-Dimethylphenol	370 U						
bis(2-Chloroethoxy)methane	370 U						
2,4-Dichlorophenol	370 U						
1,2,4-Trichlorobenzene	370 U						
Naphthalene	370 U						
4-Chloroaniline	370 U						
Hexachlorobutadiene	370 U						
4-Chloro-3-methylphenol	370 U						
2-Methylnaphthalene	370 U						
Hexachlorocyclopentadiene	370 U						
2,4,6-Trichlorophenol	370 U						
2,4,5-Trichlorophenol	920 U						
2-Chloronaphthalene	370 U						
2-Nitroaniline	920 U						
Dimethylphthalate	370 U						
Acenaphthylene	370 U						
2,6-Dinitrotoluene	370 U						
3-Nitroaniline	920 U						
Acenaphthene	370 U						
2,4-Dinitrophenol	920 U						
4-Nitrophenol	920 U						
Dibenzofuran	370 U						
2,4-Dinitrotoluene	370 U						
Diethylphthalate	370 U						
4-Chlorophenyl-phenylether	370 U						
Fluorene	370 U						
4-Nitroaniline	920 U						
4,6-Dinitro-2-methylphenol	920 U						
N-Nitrosodiphenylamine	370 U						
4-Bromophenyl-phenylether	370 U						
Hexachlorobenzene	370 U						
Pentachlorophenol	920 U						
Phenanthrene	22 J						
Anthracene	370 U						

ORGANIC DATA SUMMARY

Case No.: 25159 SDG: FFG24 Reviewer: M. Missler

Laboratory: AATS Matrix: SOIL Units: ug/Kg

SEMIVOLATILES		FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER:	FF-G24							
Carbazole	370	U						
Di-n-butylphthalate	370	U						
Fluoranthene	22	J						
Pyrene	58	J						
Butylbenzylphthalate	370	U						
3,3'-Dichlorobenzidine	370	U						
Benzo(a)anthracene	27	J						
Chrysene	54	J						
bis(2-Ethylhexyl)phthalate	370	U						
Di-n-octylphthalate	370	U						
Benzo(b)fluoranthene	30	J						
Benzo(k)fluoranthene	370	U						
Benzo(a)pyrene	20	J						
Indeno(1,2,3-cd)pyrene	370	U						
Dibenz(a,h)anthracene	370	U						
Benzo(g,h,i)perylene	370	U						
Sample wt (g):	30							
%Moisture:	10							
Dilution Factor:	1							
Level:	LOW							
Number of TIC's:	13							

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

ORGANIC DATA SUMMARY

Case No.: 25159 SDG: FFG24 Reviewer: M. Missler

Laboratory: AATS Matrix: SOIL Units: ug/Kg

PESTICIDES/PCBs		FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER:	FF-G24							
alpha-BHC	1.9 U							
beta-BHC	1.9 U							
delta-BHC	1.9 U							
gamma-BHC (lindane)	1.9 U							
Heptachlor	1.9 U							
Aldrin	1.9 U							
Heptachlor epoxide	1.9 U							
Endosulfan I	1.9 U							
Dieldrin	3.7 U							
4,4'-DDE	3.7 U							
Endrin	3.7 U							
Endosulfan II	3.7 U							
4,4'-DDD	3.7 U							
Endosulfan sulfate	3.7 U							
4,4'-DDT	3.7 U							
Methoxychlor	19 U							
Endrin ketone	3.7 U							
Endrin aldehyde	3.7 U							
alpha-Chlordane	1.9 U							
gamma-Chlordane	1.9 U							
Toxaphene	190 U							
Aroclor-1016	37 U							
Aroclor-1221	74 U							
Aroclor-1232	37 U							
Aroclor-1242	37 U							
Aroclor-1248	37 U							
Aroclor-1254	37 U							
Aroclor-1260	37 U							
Sample wt (g):	30							
%Moisture:	10							
Dilution Factor:	1							

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No. 25159 SDG No. FFG24 SDG Nos. To Follow SAS No. Date Rec 12/27/96

EPA Lab ID: AATS

Lab Location: Broken Arrow, OK 74012

Region: 6 Audit No.: 25159/FFG24

Re_Submitted CSF? Yes _____ No X

Box No(s): 1

COMMENTS:

13 No airbills were available as the samples were delivered in person.

Over for additional comments.

ORIGINALS	YES	NO	N/A
CUSTODY SEALS			
1. Present on package?	X		
2. Intact upon receipt?	X		
FORM DC-2			
3. Numbering scheme accurate?	X		
4. Are enclosed documents listed?	X		
5. Are listed documents enclosed?	X		
FORM DC-1			
6. Present?	X		
7. Complete?	X		
8. Accurate?	X		
CHAIN-OF-CUSTODY RECORD(s)			
9. Signed?	X		
10. Dated?	X		
TRAFFIC REPORT(s) PACKING LIST(s)			
11. Signed?	X		
12. Dated?	X		
AIRBILLS/AIRBILL STICKER			
13. Present?			X
14. Signed?			X
15. Dated?			X
SAMPLE TAGS			
16. Does DC-1 list tags as being included?	X		
17. Present?	X		
OTHER DOCUMENTS			
18. Complete?	X		
19. Legible?	X		
20. Original?		X	
20a.If "NO", does the copy indicate where original documents are located?	X		

Audited by: Maria Missler — Maria Missler / ESAT Data Reviewer — Date 1/8/97

Audited by: _____ — _____ — Date _____

Audited by: _____ — _____ — Date _____

Signature — Printed Name/Title

TO BE COMPLETED BY CEAT

Date Recvd by CEAT: _____ Date Entered: _____ Date Reviewed: _____

Entered by: _____ _____

Reviewed by: _____ _____

Signature — Printed Name/Title

In Reference to Case No(s):
25159 SDG: FFG24 (O-1787)

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
FAX Record Log

Date of FAX: January 10, 1997
Laboratory Name: AATS
Lab Contact: Harry Borg

Region: 6
Regional Contact: Maria Missler - ESAT

FAX initiated by: _____Laboratory ___X___Region

In reference to data for the following fractions:

VOA Pest/PCB

Summary of Questions/Issues:

A. VOA

1. Method Blank VBLK3: A spectrum was submitted for the TIC at 12.190 minutes (page 145) but the TIC was not listed on Form I VOA-TIC (page 138). Please revise the Form I VOA-TIC to include this TIC and resubmit.

B. Pest/PCB

1. Forms VI PEST-2, pages 397 and 398: The reviewer was unable to reproduce the calibration factors reported for all TCL analytes and surrogates based on the raw data (pages 431-444). Please correct and resubmit these forms to match the raw data or demonstrate your calculations.

2. Forms VII PEST-1 and Forms VII PEST-2, pages 406-411: The reviewer was unable to reproduce the nominal amount on these forms based on a 0.5 μL injection. According to your case narrative (pages 4-7) the nominal amount on these forms should be half of what is reported. Please correct these forms to match your raw data and to match the <u>corrected calibration factors</u> in question 1 above.

FAX COMMUNICATION LOG

Continuation Page 2
Laboratory/Contact AATS / Harry Borg
In Reference To Case No. 25159 **SDG**: FFG24

NOTE: Any laboratory resubmission should be submitted either as an addendum to the original CSF with a revised Form DC-2 or submitted as a new CSF with a new Form DC-2 (OLM03.0, p. B-29), except those containing only replacement pages. Custody seals are required for all CSF resubmission shipments.

Please respond to the above items. Region 6 resubmissions may be included with CCS response or sent separately **within 7 days** to:

Mr. Mahmoud El-Feky
U.S. EPA Region 6 Laboratory
10625 Fallstone Road
Houston, TX 77099

If you have any questions, please contact me at (713) 988-2995.

Mary Nissler
Signature

January 10, 1997
Date

Distribution: (1) Lab Copy (2) Region Copy

Original in SDG FFG02

EPA United States Environmental Protection Agency Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

Case No. 25159

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
—	—	6	Roy F. Weston	—	—

Regional Information: —

Sampler (Name): Eric Tate

Airbill Number: —

Non-Superfund Program: —

Sampler Signature: Eric Tate

Site Name: Wilcox Oil

City, State: Bristow, OK

Site Spill ID: ZZ

3. Purpose*: Lead: SF, PRP, ST, FED; Early Action: CLEM, PA, REM, RI, SI, ESI; Long-Term Action: FS, RD, RA, O&M, NPLD

5. Ship To: AATS, 1700 West Albany, Suite C, Broken Arrow, OK 74012, (918) 251-2858

ATTN: Harry Borg

6. Matrix (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify in Column A)

7. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Ice only 6. Other (Specify in Column D) N. Not preserved

CLP Sample Numbers (from labels)	A Matrix (from Box 6) Other:	B Conc.: Low Med High	C Sample Type: Comp./Grab	D Preservative (from Box 7) Other:	E RAS Analysis VOA	BNA	Pest/PCB	High only ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Field QC Qualifier (B = Blank S = Spike D = Duplicate R = Rinsate PE = Perform. Eval. — = Not a QC Sample)
FFG06	5	L	G	5	X	X	X		6-015017-19	SED05	11/19/96 1430	MFGZ48	ECT	—
FFG11	5	L	G	5	X	X	X		6-015037-39	SS01	11/19/96 1210	MFGZ53	ECT	—
FFG12	5	L	G	5	X	X	X		6-015041-43	SS02	11/19/96 1215	MFGZ54	ECT	—
FFG13	5	L	G	5	X	X	X		6-015045-47	SS03	11/19/96 1230	MFGZ55	ECT	—
FFG17	5	L	G	5	X	X	X		6-015061-63	SS07	11/19/96 1405	MFGZ59	ECT	—
FFG18	5	L	G	5	X	X	X		6-015065-67	SS08	11/19/96 1415	MFGZ60	ECT	D(FFG17)
FFG21	5	L	G	5	X	X	X		6-015077-79	SS11	11/19/96 1350	MFGZ63	ECT	—
FFG09	5	L	G	5	X	X	X		6-015029-31	SED08	11/19/96 1020	MFGZ51	ECT	—
FFG10	5	L	G	5	X	X	X		6-015033-35	SED09	11/19/96 1105	MFGZ52	ECT	—
FFG24	5	L	G	5	X	X	X		6-015089-91	SED10	11/19/96 1535	MFGZ66	ECT	—

Shipment for Case Complete? (Y/N): Y

Page 1 of 21

Sample(s) to be Used for Laboratory QC: FFG24

Additional Sampler Signatures: [signature]

Chain of Custody Seal Number(s):

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Eric Tate	11/19/96 1800	Tim Rushdy			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

DISTRIBUTION: Blue - Region Copy; White - Lab Copy for Return to Region; Pink - CLASS Copy; Yellow - Lab Copy for Return to CLASS

EPA Form 9110-2

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

A21-012-15 REV.

369077

METHOD	SV	PEST • PCB	OTHER
CONT. EX.			
SEP-F			1
SONC.	M5517		

☑ RUSH ☐ REEXTRACT ☐ TCLP ☐ DIOXIN

SAMPLE EXTRACTION LOG

SWOK • AATS

Southwest Laboratory of Oklahoma, Inc.
American Analytical & Technical Services, Inc.

CLIENT: AATS-E DATE RECEIVED: 11/19/96

CASE: 25159 EXTRACT DATE: 11/20/96

11/24

SAMPLE ID (EPISODE #)	CLIENT ID	MATRIX • LEVEL	SAMPLE pH	% MOISTURE (%)	DRY WEIGHT (g)	AMOUNT EXTRACTED (mL)	EXTRACTED VOLUME (mL)	GPC VOLUME (mL)	GPC ELUTE VOL (mL)	FLORISIL VOL CONC (mL)	FLORISIL FIN VOL CONC (mL)	VOL SV • P (mL)	FIN PROCESS VOLUME (mL)	SCREEN Y/N	MS SV • P (µL)	SURR SV • P (µL)	BASE pH CONFIRMATION	ACID pH CONFIRMATION	COMMENTS
BL112054		S/L	—	—		30.0	400	10/5	50			10.0	0.5			500			
BD112054			—	—															
27683.01	FF606		6.48	21.95															
27683.02	FF609		6.28	28.72															
27683.03	FF610		6.65	17.59															
27683.04	FF611		7.01	19.46															
27683.05	FF612		6.86	19.66															
27683.06	FF613		6.54	14.52															
27683.07	FF617		6.43	18.27															
27683.08	FF618		6.35	18.56															
27683.09	FF621		6.40	18.28															
27683.10	FF624		6.56	10.06															
27683.10 MS	FF624		—	—											500				
27683.10 MSD	FF624	S/L	—	—		30.0	400	10/5	50			10.0	0.5		500	500			

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FF602
Signature L. Jackell
Date 12/23/96

INITIALS			
WEIGHING:		EXTRACTION:	MG
CLEANUP:	JR	KD:	MG / SRS (W)
BLOWDOWN:			
SURROG. SPIKER:	M.G.	VERIFIER:	
MATRIX SPIKER:	M.G.	VERIFIER:	
SUBMITTED BY:	11/26	REVIEWED BY:	

ID NUMBERS	
FLORISIL CARTRIDGE #:	
GPC COLUMN #:	114745 11/24/96
SURROGATES ID CONC #:	1-017-12
MATRIX SPIKE SOL ID/CONC #(S):	1-050-12
MISC:	

COMMENTS
Prep Batch # 961205M
SOEV BLK 112496A

[EX013-0393-01]

52982

573

SAMPLE EXTRACTION LOG

SWOK • AATS

Southwest Laboratory of Oklahoma, Inc.
American Analytical & Technical Services, Inc.

☒ RUSH ☒ REEXTRACT ☐ TCLP ☐ DIOXIN

CLIENT: AATS-E DATE RECEIVED: 11/19/96

CASE: 25159 EXTRACT DATE: 12/11/96

METHOD	SV	PEST • PCB	OTHER
CONT. EX.			
SEP-F			
SONC.	MS517		

SAMPLE ID (EPISODE #)	CLIENT ID	MATRIX • LEVEL	SAMPLE pH	% MOISTURE	DRY WEIGHT	AMOUNT EXTRACTED	EXTRACTED VOLUME	GPC VOLUME	GPC ELUTE VOL	FLORISIL VOL CONC	FLORISIL FIN VOL CONC	VOL SV • P	FIN PROCESS VOLUME	SCREEN Y/N	MS SV • P	SURR SV • P	BASE pH CONFIRMATION	ACID pH CONFIRMATION	COMMENTS
				%	g	g • mL	mL	mL	mL	mL	mL	mL	mL		µL	µL			
BL121 15A	–	S/L	–	–		30.0	400	10/5	50			10.0	0.5			500			
BBi211 5A	–		–	–										–					
27683.10	FFG24		6.56	10.06															
MS 27683.10	FFG24		–	–											500				
27683.01	FFG06	S/L	6.48	21.95		30.0	400	10/5	50			10.0	0.5			500			

INITIALS			
WEIGHING:		EXTRACTION:	
CLEANUP:	TR	KD:	CD (BTB) (TV)
BLOWDOWN:			
SURROG. SPIKER:		VERIFIER:	DW
MATRIX SPIKER:		VERIFIER:	DW
SUBMITTED BY:	12/16	REVIEWED BY:	12/13/96

ID NUMBERS	
FLORISIL CARTRIDGE #:	16
GPC COLUMN #:	169014 12/14/96
SURROGATES ID CONC #:	1-017-12
MATRIX SPIKE SOL ID/CONC #(S):	1-004-12
MISC:	

COMMENTS
Prep Batch # 9612115
SOLV BLK 121496A OR 121496B
CH_2Cl_2 # 964929
Na_2SO_4 # C04

[EX013-0393-01]

53332

574

METHOD	SV	PEST • PCB	OTHER
CONT. EX.			1
SEP-F			
SONC.		GC817	

☒ RUSH ☐ REEXTRACT ☐ TCLP ☐ DIOXIN

CLIENT: AATS-E DATE RECEIVED: 11/19/96

CASE: 25159 EXTRACT DATE: 11/20/96

SAMPLE EXTRACTION LOG

12-4

SWOK • AATS

Southwest Laboratory of Oklahoma, Inc.
American Analytical & Technical Services, Inc.

SAMPLE ID (EPISODE #)	CLIENT ID	MATRIX • LEVEL	SAMPLE pH	% MOISTURE	DRY WEIGHT	AMOUNT EXTRACTED	EXTRACTED VOLUME	GPC VOLUME	GPC ELUTE VOL	FLORISIL VOL CONC	FLORISIL FIN VOL CONC	VOL SV • P	FIN PROCESS VOLUME	SCREEN Y/N	MS SV • P	SURR SV • P	BASE pH CONFIRMATION	ACID pH CONFIRMATION	COMMENTS
				%	g	g • mL	mL	mL	mL	mL	mL	mL	mL		µL	µL			
BL112058	16-02023.D	S/L	—	—		30.0	400	10/5	40	5/1	10	10.0	1.0			2000			
BB112058			—	—															
27683.01	FFG06		6.48	21.95															
27683.02	FFG09		6.28	28.72															
27683.03	FFG10		6.65	17.59															
27683.04	FFG11		7.01	19.46															
27683.05	FFG12		6.86	19.66															
27683.06	FFG13		6.54	14.52															
27683.07	FFG17		6.43	18.27															
27683.08	FFG18		6.35	18.56															
27683.09	FFG21		6.40	18.28															
27683.10	FFG24		6.56	10.06															
MS 27683.10	FFG24		—	—											1000				
MSD 27683.10	FFG24	S/L	—	—		30.0	400	10/5	40	5/1	10	10.0	1.0		1000	2000			

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FFG02
Signature Arnelda M. William
Date 12/9/96

INITIALS	
WEIGHING: [initials]	EXTRACTION: M.G.
CLEANUP: TR	KD: MG/SRS (TV)
BLOWDOWN: [initials]	
SURROG. SPIKER: M.G.	VERIFIER: [initials]
MATRIX SPIKER: M.G.	VERIFIER: [initials]
SUBMITTED BY: [initials] 12/2	REVIEWED BY: [initials] 11/21/96

ID NUMBERS	
FLORISIL CARTRIDGE #:	941389/1939 DW 11/27/96
GPC COLUMN #:	114745 11/25/96 16-01955.D
SURROGATES ID CONC #:	5-338-16
MATRIX SPIKE SOL ID/CONC #(S):	5-195-16
MISC:	

COMMENTS
Prep Batch # 9611205B
SOLV BLK 112596A

[EX013-0393-01]

52983

575

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: C961121A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C22742.D

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

% Moisture: not dec. 0 Date Analyzed: 11/21/96

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

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FFG24

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: 27683.10

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C22745.D

Level: (low/med) LOW Date Received: 11/19/96

% Moisture: not dec. 10 Date Analyzed: 11/21/96

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

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (Total)	11	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK2

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: C961122A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C22760.D

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

% Moisture: not dec. 0 Date Analyzed: 11/22/96

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

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK3

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) WATER Lab Sample ID: L961126A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L23525.D

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

% Moisture: not dec. _____ Date Analyzed: 11/26/96

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

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	2	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLK1

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) WATER Lab Sample ID: VHBLK1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L23540.D

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

% Moisture: not dec. _____ Date Analyzed: 11/26/96

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

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	2	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FFG24MS

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: 27683.10MS

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C22765.D

Level: (low/med) LOW Date Received: 11/19/96

% Moisture: not dec. 10 Date Analyzed: 11/22/96

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

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	58	
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	77	
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	55	
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	46	
108-90-7	Chlorobenzene	56	
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (Total)	11	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FFG24MSD

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: 27683.10MSD

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C22766.D

Level: (low/med) LOW Date Received: 11/19/96

% Moisture: not dec. 10 Date Analyzed: 11/22/96

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

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	59	
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	71	
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	48	
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	44	
108-90-7	Chlorobenzene	56	
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (Total)	11	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FFG24

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: 27683.10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: M3905.D

Level: (low/med) LOW Date Received: 11/19/96

% Moisture: 10 decanted: (Y/N) N Date Extracted: 12/11/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/16/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)Ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-di-n-propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
111-91-1	bis(2-Chloroethoxy)methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-Methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	920	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	920	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U
99-09-2	3-Nitroaniline	920	U
83-32-9	Acenaphthene	370	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FFG24

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: 27683.10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: M3905.D

Level: (low/med) LOW Date Received: 11/19/96

% Moisture: 10 decanted: (Y/N) N Date Extracted: 12/11/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/16/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	920	U
100-02-7	4-Nitrophenol	920	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-01-6	4-Nitroaniline	920	U
534-52-1	4,6-Dinitro-2-methylphenol	920	U
86-30-6	N-Nitrosodiphenylamine (1)	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	920	U
85-01-8	Phenanthrene	22	J
120-12-7	Anthracene	370	U
86-74-8	Carbazole	370	U
84-74-2	Di-n-butylphthalate	26	JB
206-44-0	Fluoranthene	22	J
129-00-0	Pyrene	58	J
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	370	U
56-55-3	Benzo(a)anthracene	27	J
218-01-9	Chrysene	54	J
117-81-7	bis(2-Ethylhexyl)phthalate	24	JB
117-84-0	Di-n-octylphthalate	370	U
205-99-2	Benzo(b)fluoranthene	30	J
207-08-9	Benzo(k)fluoranthene	370	U
50-32-8	Benzo(a)pyrene	20	J
193-39-5	Indeno(1,2,3-cd)pyrene	370	U
53-70-3	Dibenz(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FFG24

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: 27683.10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: M3905.D

Level: (low/med) LOW Date Received: 11/19/96

% Moisture: 10 decanted: (Y/N) N Date Extracted: 12/11/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/16/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6

Number TICs found: 13

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALCOHOL	0.851	91	J
2.		Unknown	0.890	160	J
3.		UNKNOWN ALKENE	0.969	700	J
4.		UNKNOWN	1.216	340	JB
5.	123-42-2	2-Pentanone, 4-hydroxy-4-met	1.285	6200	NJAB
6.		UNKNOWN	1.373	88	J
7.		UNKNOWN	1.896	190	JB
8.		-Ethyl--hexene	2.152	150	J
9.		UNKNOWN	7.781	130	J
10.	7704-34-9	Sulfur	11.854	560	NJ
11.		UNKNOWN PAH	17.776	82	J
12.		UNKNOWN	18.108	180	J
13.	471-68-1	Olean-12-ene	18.238	92	NJ
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: BL1120SA

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P10248.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 11/20/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/08/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	830	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	830	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	830	U
83-32-9	Acenaphthene	330	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: BL1120SA

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P10248.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 11/20/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/08/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	830	U
100-02-7	4-Nitrophenol	830	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	21	J
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenz(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK1

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: BL1120SA

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P10248.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 11/20/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/08/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.835	840	NJA
2.	UNKNOWN	4.989	330	J
3.	UNKNOWN	5.117	320	J
4.	UNKNOWN ORGANIC ACID	11.805	68	J
5.	-Dodecatrien--ol, -trimethy	19.658	280	J
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: BL1211SA

Sample wt/vol: 30.0 (g/mL) G Lab File ID: M3902.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:12/11/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/16/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	830	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	830	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	830	U
83-32-9	Acenaphthene	330	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: BL1211SA

Sample wt/vol: 30.0 (g/mL) G Lab File ID: M3902.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 12/11/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/16/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	830	U
100-02-7	4-Nitrophenol	830	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butylphthalate	35	J
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	22	J
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	49	J
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenz(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK2

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: BL1211SA

Sample wt/vol: 30.0 (g/mL) G Lab File ID: M3902.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:12/11/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/16/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Number TICs found: 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	141-79-7	3-Penten-2-one, 4-methyl-	0.959	220	NJA
2.		UNKNOWN	1.048	84	J
3.		UNKNOWN	1.117	130	J
4.	123-42-2	2-Pentanone, 4-hydroxy-4-met	1.275	4000	NJA
5.		UNKNOWN	1.895	120	J
6.		UNKNOWN ORGANIC ACID	2.162	82	J
7.		UNKNOWN ORGANIC ACID	8.897	120	J
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FFG24MS

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: 27683.10MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: M3906.D

Level: (low/med) LOW Date Received: 11/19/96

% Moisture: 10 decanted: (Y/N) N Date Extracted: 12/11/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/16/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1800	
111-44-4	bis(2-Chloroethyl)Ether	370	U
95-57-8	2-Chlorophenol	1800	
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	1100	
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-di-n-propylamine	1200	
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
111-91-1	bis(2-Chloroethoxy)methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	1200	
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-Methylphenol	1900	
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	920	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	920	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U
99-09-2	3-Nitroaniline	920	U
83-32-9	Acenaphthene	1300	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FFG24MS

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: 27683.10MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: M3906.D

Level: (low/med) LOW Date Received: 11/19/96

% Moisture: 10 decanted: (Y/N) N Date Extracted: 12/11/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/16/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	920	U
100-02-7	4-Nitrophenol	2100	
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	1400	
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-01-6	4-Nitroaniline	920	U
534-52-1	4,6-Dinitro-2-methylphenol	920	U
86-30-6	N-Nitrosodiphenylamine (1)	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	✓ 1600	
85-01-8	Phenanthrene	100	J
120-12-7	Anthracene	370	U
86-74-8	Carbazole	370	U
84-74-2	Di-n-butylphthalate	25	JB
206-44-0	Fluoranthene	30	J
129-00-0	Pyrene	✓1500	
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	370	U
56-55-3	Benzo(a)anthracene	46	J
218-01-9	Chrysene	86	J
117-81-7	bis(2-Ethylhexyl)phthalate	34	JB
117-84-0	Di-n-octylphthalate	370	U
205-99-2	Benzo(b)fluoranthene	41	J
207-08-9	Benzo(k)fluoranthene	370	U
50-32-8	Benzo(a)pyrene	27	J
193-39-5	Indeno(1,2,3-cd)pyrene	370	U
53-70-3	Dibenz(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FFG24MSD

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: 27683.10MSD

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P10259.D

Level: (low/med) LOW Date Received: 11/19/96

% Moisture: 10 decanted: (Y/N) N Date Extracted: 11/20/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/09/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1800	
111-44-4	bis(2-Chloroethyl)Ether	370	U
95-57-8	2-Chlorophenol	1900	
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	1300	
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-di-n-propylamine	1400	
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
111-91-1	bis(2-Chloroethoxy)methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	1400	
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-Methylphenol	2000	
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	920	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	920	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U
99-09-2	3-Nitroaniline	920	U
83-32-9	Acenaphthene	1400	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FFG24MSD

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: 27683.10MSD

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P10259.D

Level: (low/med) LOW Date Received: 11/19/96

% Moisture: 10 decanted: (Y/N) N Date Extracted: 11/20/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/09/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	920	U
100-02-7	4-Nitrophenol	2400	
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	1400	
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-01-6	4-Nitroaniline	920	U
534-52-1	4,6-Dinitro-2-methylphenol	920	U
86-30-6	N-Nitrosodiphenylamine (1)	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	2400	
85-01-8	Phenanthrene	51	J
120-12-7	Anthracene	370	U
86-74-8	Carbazole	370	U
84-74-2	Di-n-butylphthalate	370	U
206-44-0	Fluoranthene	19	J
129-00-0	Pyrene	1600	
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	370	U
56-55-3	Benzo(a)anthracene	31	J
218-01-9	Chrysene	65	J
117-81-7	bis(2-Ethylhexyl)phthalate	34	JB
117-84-0	Di-n-octylphthalate	370	U
205-99-2	Benzo(b)fluoranthene	370	U
207-08-9	Benzo(k)fluoranthene	370	U
50-32-8	Benzo(a)pyrene	370	U
193-39-5	Indeno(1,2,3-cd)pyrene	370	U
53-70-3	Dibenz(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FFG24

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: 27683.10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 10 decanted: (Y/N) N Date Received: 11/19/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 11/20/96

Concentrated Extract Volume: 5000(uL) Date Analyzed: 12/02/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.9	U
319-85-7	beta-BHC	1.9	U
319-86-8	delta-BHC	1.9	U
58-89-9	gamma-BHC (Lindane)	1.9	U
76-44-8	Heptachlor	1.9	U
309-00-2	Aldrin	1.9	U
1024-57-3	Heptachlor epoxide	1.9	U
959-98-8	Endosulfan I	1.9	U
60-57-1	Dieldrin	3.7	U
72-55-9	4,4'-DDE	3.7	U
72-20-8	Endrin	3.7	U
33213-65-9	Endosulfan II	3.7	U
72-54-8	4,4'-DDD	3.7	U
1031-07-8	Endosulfan sulfate	3.7	U
50-29-3	4,4'-DDT	3.7	U
72-43-5	Methoxychlor	19	U
53494-70-5	Endrin ketone	3.7	U
7421-93-4	Endrin aldehyde	3.7	U
5103-71-9	alpha-Chlordane	1.9	U
5103-74-2	gamma-Chlordane	1.9	U
8001-35-2	Toxaphene	190	U
12674-11-2	Aroclor-1016	37	U
11104-28-2	Aroclor-1221	74	U
11141-16-5	Aroclor-1232	37	U
53469-21-9	Aroclor-1242	37	U
12672-29-6	Aroclor-1248	37	U
11097-69-1	Aroclor-1254	37	U
11096-82-5	Aroclor-1260	37	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKSB

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: PBLKSB

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 11/20/96

Concentrated Extract Volume: 5000(uL) Date Analyzed: 12/02/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-93-4	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK16P

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) WATER Lab Sample ID: 5-266-1616P

Sample wt/vol: _____ (g/mL) Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 12/02/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK16P

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) WATER Lab Sample ID: 5-266-1616P

Sample wt/vol: _____ (g/mL) Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 12/02/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK16Q

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) WATER Lab Sample ID: 5-266-1616Q

Sample wt/vol: _____ (g/mL) Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 12/02/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK16Q

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) WATER Lab Sample ID: 5-266-1616Q

Sample wt/vol: _____ (g/mL) Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) ____ Date Extracted:_____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 12/02/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FFG24MS

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: 27683.10MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 10 decanted: (Y/N) N Date Received: 11/19/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 11/20/96

Concentrated Extract Volume: 5000(uL) Date Analyzed: 12/02/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.9	U
319-85-7	beta-BHC	1.9	U
319-86-8	delta-BHC	1.9	U
58-89-9	gamma-BHC (Lindane)	10	
76-44-8	Heptachlor	11	
309-00-2	Aldrin	10	
1024-57-3	Heptachlor epoxide	1.9	U
959-98-8	Endosulfan I	1.9	U
60-57-1	Dieldrin	24	
72-55-9	4,4'-DDE	3.7	U
72-20-8	Endrin	28	
33213-65-9	Endosulfan II	3.7	U
72-54-8	4,4'-DDD	3.7	U
1031-07-8	Endosulfan sulfate	3.7	U
50-29-3	4,4'-DDT	23	
72-43-5	Methoxychlor	19	U
53494-70-5	Endrin ketone	3.7	U
7421-93-4	Endrin aldehyde	3.7	U
5103-71-9	alpha-Chlordane	1.9	U
5103-74-2	gamma-Chlordane	1.9	U
8001-35-2	Toxaphene	190	U
12674-11-2	Aroclor-1016	37	U
11104-28-2	Aroclor-1221	74	U
11141-16-5	Aroclor-1232	37	U
53469-21-9	Aroclor-1242	37	U
12672-29-6	Aroclor-1248	37	U
11097-69-1	Aroclor-1254	37	U
11096-82-5	Aroclor-1260	37	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FFG24MSD

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: 27683.10MSD

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 10 decanted: (Y/N) N Date Received: 11/19/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 11/20/96

Concentrated Extract Volume: 5000(uL) Date Analyzed: 12/02/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.9	U
319-85-7	beta-BHC	1.9	U
319-86-8	delta-BHC	1.9	U
58-89-9	gamma-BHC (Lindane)	11	
76-44-8	Heptachlor	12	
309-00-2	Aldrin	11	
1024-57-3	Heptachlor epoxide	1.9	U
959-98-8	Endosulfan I	1.9	U
60-57-1	Dieldrin	26	
72-55-9	4,4'-DDE	3.7	U
72-20-8	Endrin	29	
33213-65-9	Endosulfan II	3.7	U
72-54-8	4,4'-DDD	3.7	U
1031-07-8	Endosulfan sulfate	3.7	U
50-29-3	4,4'-DDT	23	
72-43-5	Methoxychlor	19	U
53494-70-5	Endrin ketone	3.7	U
7421-93-4	Endrin aldehyde	3.7	U
5103-71-9	alpha-Chlordane	1.9	U
5103-74-2	gamma-Chlordane	1.9	U
8001-35-2	Toxaphene	190	U
12674-11-2	Aroclor-1016	37	U
11104-28-2	Aroclor-1221	74	U
11141-16-5	Aroclor-1232	37	U
53469-21-9	Aroclor-1242	37	U
12672-29-6	Aroclor-1248	37	U
11097-69-1	Aroclor-1254	37	U
11096-82-5	Aroclor-1260	37	U

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME American Analytical & Technical Service
CITY/STATE Broken Arrow, OK

CASE NO. 25159 SDG NO. EF624 SDG NOS. TO FOLLOW _____
_____ _____ SAS NO. _____

CONTRACT NO. 68-D5-0022
SOW NO. OLM03.2

All documents delivered in the Complete SDG File must be original documents where possible.

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK EPA
1. Inventory Sheet (Form DC-2) (Do not number)			✓	✓
2. SDG Case Narrative	1	9		✓
3. SDG Cover Sheet/Traffic Report	10	11		✓
4. Volatiles Data				
a. QC Summary				
System Monitoring Compound Summary (Form II VOA)	12	13		✓
Matrix Spike/Matrix Spike Duplicate Summary (Form III VOA)	14	14		✓
Method Blank Summary (Form IV VOA)	15	17		✓
GC/MS Instrument Performance Check (Form V VOA)	18	22		✓
Internal Standard Area and RT Summary (Form VIII VOA)	23	25		✓
b. Sample Data	26	29		✓
TCL Results - (Form I VOA)				✓
Tentatively Identified Compounds (Form I VOA-TIC)				✓
Reconstructed total ion chromatograms (RIC) for each sample				✓
For each sample:				
Raw spectra and background-subtracted mass spectra of target compounds identified				✓
Quantitation reports				✓
Mass spectra of all reported TICs with three best library matches				✓
c. Standards Data (All Instruments)	30	113		✓
Initial Calibration Data (Form VI VOA)				✓
RICs and Quan Reports for all Standards				✓
Continuing Calibration Data (Form VII VOA)				✓
RICs and Quantitation Reports for all Standards				✓
d. Raw QC Data				
BFB	114	128		✓
Blank Data	129	153		✓
Matrix Spike/Matrix Spike Duplicate Data	154	169		✓

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (Cont.)

CASE NO. 25159 SDG NO. FF624 SDG NOS. TO FOLLOW _____
_____ _____ SAS NO. _____

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK EPA
5. Semivolatiles Data				
a. QC Summary				
Surrogate Percent Recovery Summary (Form II SV)	170	170		✓
MS/MSD Summary (Form III SV)	171	171		✓
Method Blank Summary (Form IV SV)	172	173		✓
GC/MS Instrument Performance Check (Form V SV)	174	176		✓
Internal Standard Area and RT Summary (Form VIII SV)	177	180		✓
b. Sample Data	181	213		
TCL Results (Form I SV-1, SV-2)				✓
Tentatively Identified Compounds (Form I SV-TIC)				✓
Reconstructed total ion chromatograms (RIC) for each sample				✓
For each sample:				
Raw spectra and background-subtracted mass spectra of target compounds				✓
Quantitation reports				✓
Mass spectra of TICs with three best library matches				✓
GPC chromatograms (if GPC performed)				—
c. Standards Data (All Instruments)	214	278		✓
Initial Calibration Data (Form VI SV-1, SV-2)				✓
RICs and Quan Reports for all Standards				✓
Continuing Calibration Data (Form VII SV-1, SV-2)				✓
RICs and Quantitation Reports for all Standards				✓
d. Raw QC Data				
DFTPP	279	289		✓
Blank Data	290	326		✓
Matrix Spike/Matrix Spike Duplicate Data	327	349		✓
e. Raw GPC Data	350	388		✓
6. Pesticides				
a. QC Summary				
Surrogate Percent Recovery Summary (Form II PEST)	389	389		✓
MS/MSD Duplicate Summary (Form III PEST)	390	390		✓
Method Blank Summary (Form IV PEST)	391	391		✓

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (Cont.)

CASE NO. 25159 SDG NO. FFG24 SDG NOS. TO FOLLOW _____
_____ _____ SAS NO. _____

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK EPA
6. **Pesticides** (Cont.)				
b. Sample Data	392	394		✓
TCL Results - Organic Analysis Data Sheet (Form I PEST)			✓	✓
Chromatograms (Primary Column)				✓
Chromatograms from second GC column confirmation				✓
GC Integration report or data system printout				✓
Manual work sheets				✓
For pesticides/Aroclors confirmed by GC/MS, copies of raw spectra and copies of background-subtracted mass spectra of target compounds (samples & standards)				—
c. Standards Data	395	466		✓
Initial Calibration of Single Component Analytes (Form VI PEST-1 and PEST-2)				✓
Initial Calibration of Multicomponent Analytes (Form VI PEST-3)				✓
Analyte Resolution Summary (Form VI PEST-4)				✓
Performance Evaluation Mixture (Form VI PEST-5)				✓
Individual Standard Mixture A (Form VI PEST-6)				✓
Individual Standard Mixture B (Form VI PEST-7)				✓
Calibration Verification Summary (Form VII PEST-1)				✓
Calibration Verification Summary (Form VII PEST-2)				✓
Analytical Sequence (Form VIII PEST)				✓
Florisil Cartridge Check (Form IX PEST-1)				✓
Pesticide GPC Calibration (Form IX PEST-2)				✓
Pesticide Identification Summary for Single Component Analytes (Form X PEST-1)				✓
Pesticide Identification Summary for Multicomponent Analytes (Form X PEST-2)				—
Chromatograms and data system printouts				
A printout of retention times and corresponding peak areas or peak heights				✓
d. Raw QC Data				
Blank Data	467	477		✓
Matrix Spike/Matrix Spike Duplicate Data	478	483		✓

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (Cont.)

CASE NO. 25159 SDG NO. FF624 SDG NOS. TO FOLLOW _____
_____ _____ SAS NO. _____

	PAGE NOs FROM	PAGE NOs TO	CHECK LAB	CHECK EPA
6. **Pesticides** (Cont.)				
e. Raw GPC Data	484	549		✓
f. Raw Florisil Data	550	557		✓
7. **Miscellaneous Data**				
Original preparation and analysis forms or copies of preparation and analysis logbook pages	558	572		✓
Internal sample and sample extract transfer chain-of-custody records	573	575		✓
Screening records	576	648		✓
All instrument output, including strip charts from screening activities (describe or list)				
	NA	NA		
	↓	↓		
8. **EPA Shipping/Receiving Documents**				
Airbills (No. of shipments 0)	NA	NA		
Chain-of-Custody Records	649	649		✓
Sample Tags	649A	649C		✓
Sample Log-In Sheet (Lab & DCI)	650	651		✓
Miscellaneous Shipping/Receiving Records (describe or list)				
% Moisture Report	652	653		✓
	NA	NA		
9. **Internal Lab Sample Transfer Records and Tracking Sheets** (describe or list)				
10. **Other Records** (describe or list)				
Telephone Communication Log				
	↓	↓	↓	

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (Cont.)

CASE NO. 25159	SDG NO. FF624	SDG NOS. TO FOLLOW	
		SAS NO.	

11. Comments:

Completed by: (CLP Lab)	Gaye Alexander (Signature)	Gaye Alexander Data Clerk (Printed Name/Title)	12-23-96 (Date)
Verified by: (CLP Lab)	Sandra Tackett (Signature)	Sandra Tackett/Data Clerk (Printed Name/Title)	12-23-96 (Date)
Audited by: (EPA)	Maria Missler (Signature)	Maria Missler/ESAT Data Reviewer (Printed Name/Title)	1/8/97 (Date)

AMERICAN ANALYTICAL AND TECHNICAL SERVICES
1700 West Albany, Suite A / Broken Arrow, OK 74012
918-251-2858

SDG NARRATIVE
December 19, 1996

CONTRACT NO.: 68-D5-0022

CASE NO.: 25159

SAMPLE NOS.: FFG24, FFG24MS, FFG24MSD

SDG NO.: FFG24

VOLATILE FRACTION

One soil sample plus MS/MSD was submitted for Volatile Organic Analysis. The samples were analyzed by GC/MS following the OLM03.2 CLP Statement of Work.

Alternate columns used for the analysis of volatile compounds by Method OLM03.2 are the Restek XTI-5 (bonded 5% phenyl-95% dimethyl polysiloxane), 30m, 0.25mm ID, 1um film thickness (Restek #12253) and the DB624, 75m, 0.53mmID Megabore, 3um film thickness (J&W 125-1374).

An alternate trap used for the analysis of volatile compounds by method OLM03.2 is the Vocarb 3000 (Carbopack B/Carboxen 1000 & 1001; Tekmar #2-1066).

Blanks: VBLK3 and VHBLK1 each contained low level Acetone contamination below the CRQL.

Surrogates: Samples FFG24MS and FFG24MSD each had surrogates outside QC recovery limits. Since all surrogates were within limits in the sample, no reanalyses were done.

Matrix Spikes: Sample FFG24MS had Trichloroethene outside its QC recovery limit (137) with a value of 138. All compounds were within their RPD limits.

Internal Standards: No problems.

NOTE: All manual integrations in this data package for GC/MS Volatiles have been performed for one of the following reasons:

a. Data system missed peak during acquisition.
b. Data system improperly integrated peak.

If water samples are contained in this case, their pH data is included on the page accompanying this SDG narrative.

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

Harry M. Borg
Harry M. Borg
Organic Program Manager

December 20, 1996

AMERICAN ANALYTICAL & TECHNICAL SERVICE
1700 West Albany, Suite A / Broken Arrow, OK 74012
918-251-2858

SDG NARRATIVE
December 23, 1996

CONTRACT NO.: 68-D5-0022

CASE NO.: 25159

SAMPLE NOS.: FFG24, FFG24MS, FFG24MSD

SDG NO.: FFG24

SEMIVOLATILE FRACTION

One soil sample was submitted for Semivolatile Organic Analyses. The sample was analyzed by GC/MS following the OLM03.2 CLP Organic Statement of Work.

The following column is used for the semivolatile analysis: Restek XTI-5 (bonded 5% phenyl-95% dimethyl polysiloxane), 30m, 0.25mm ID, 0.25um film thickness (Restek #12223).

One major problem occured during the analysis of this sample. FFG24 was spiked with matrix spike solution and FFG24MS had low spike recoveries, which is expected to have been an extraction problem (possible GPC). Therefore, these samples were re-extracted (outside of hold time) and re-analyzed. The re-extracts were reported, and the original analyses have been put in the miscellaneous data portion of the Data Package.

The following samples had alkanes reported and the reports are included at the end of this SDG Narrative: FFG24 and SBLK1.

Blanks: SBLK1 and SBLK2 had low level phthalate contamination below CRQL.

Surrogates: No problems.

Matrix Spikes: No problems.

Internal Standards: No problems.

NOTE: All manual integrations in this data package for GC/MS Volatiles/Semivolatiles have been performed for one of the following reasons:

a. Data system missed peak during acquisition.
b. Data system improperly integrated peak.

If water samples are contained in this case, their pH data is included on the page accompanying this SDG narrative.

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

Harry M. Borg

Harry M. Borg
Organic Program Manager
ga

December 23, 1996

SDG Narrative

Case: 25159
SDG: FFG24
Contract: 68-D5-0022
Samples: FFG24.
Fraction: Pesticide/PCB

SDG FFG24 consisted of 1 soil sample which was analyzed for pesticide/PCBs. All samples, blanks and spikes were extracted and analyzed according to EPA SOW OLM03.2. The sample was analyzed on J&W Scientific dual analytical columns (30m x 0.32mm ID, 0.25µm film thickness, DB-17 and DB-1701). The DB-17 phase consists of (50%-Phenyl) Methylpolysiloxane and the DB-1701 phase consists of (14%-Cyanopropylphenyl) Methylpolysiloxane. These columns were specifically designed for pesticide/PCB separation as required by the EPA's SOW. All applicable manufacturer's instructions were followed for the analysis of pesticides/PCBs. Manufacturer provided information concerning the performance characteristics of the column are kept on site. Hydrogen was used as the carrier gas for instrument HP-15. Helium was used as the carrier gas for all other instruments.

All surrogate and matrix spike recoveries were within advisory limits.

The following tables list the total nanograms injected on column for each calibration standard based upon amount injected on column, 0.5µL, 1µL, or 2µL:

RESOLUTION CHECK

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
gamma-Chlordane	0.005	0.01	0.02
Endosulfan I	0.005	0.01	0.02
4,4'-DDE	0.01	0.02	0.04
Dieldrin	0.01	0.02	0.04
Endosulfan Sulfate	0.01	0.02	0.04
Endrin Ketone	0.01	0.02	0.04
Methoxychlor	0.5	0.1	0.2
Tetrachloro-m-xylene	0.01	0.02	0.04
Decachlorobiphenyl	0.01	0.02	0.04

PERFORMANCE EVALUATION

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
gamma-BHC	0.005	0.01	0.02
alpha-BHC	0.005	0.01	0.02
4,4'-DDT	0.05	0.1	.02

beta-BHC	0.005	0.01	0.02
Endrin	0.025	0.05	0.1
Methoxychlor	0.125	0.25	0.5
Tetrachloro-m-xylene	0.01	0.02	0.04
Decachlorobiphenyl	0.01	0.02	0.04

INDIVIDUAL STANDARD MIXTURE A -- LOW

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
alpha-BHC	0.0025	0.005	0.01
Heptachlor	0.0025	0.005	0.01
gamma-BHC	0.0025	0.005	0.01
Endosulfan I	0.0025	0.005	0.01
Dieldrin	0.005	0.01	0.02
Endrin	0.005	0.01	0.02
4,4'-DDD	0.005	0.01	0.02
4,4'-DDT	0.005	0.01	0.02
Methoxychlor	0.025	0.05	0.1
Tetrachloro-m-xylene	0.0025	0.005	0.01
Decachlorobiphenyl	0.005	0.01	0.02

INDIVIDUAL STANDARD MIXTURE B -- LOW

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.0025	0.005	0.01
delta-BHC	0.0025	0.005	0.01
Aldrin	0.0025	0.005	0.01
Heptachlor epoxide	0.0025	0.005	0.01
alpha-Chlordane	0.0025	0.005	0.01
gamma-Chlordane	0.0025	0.005	0.01
4,4'-DDE	0.005	0.01	0.02
Endosulfan sulfate	0.005	0.01	0.02
Endrin aldehyde	0.005	0.01	0.02
Endrin ketone	0.005	0.01	0.02
Endosulfan II	0.005	0.01	0.02
Tetrachloro-m-xylene	0.0025	0.005	0.01
Decachlorobiphenyl	0.005	0.01	0.02

INDIVIDUAL STANDARD MIXTURE A -- MEDIUM

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
alpha-BHC	0.01	0.02	0.04
Heptachlor	0.01	0.02	0.04

gamma-BHC	0.01	0.02	0.04
Endosulfan I	0.01	0.02	0.04
Dieldrin	0.02	0.04	0.08
Endrin	0.02	0.04	0.08
4,4'-DDD	0.02	0.04	0.08
4,4'-DDT	0.02	0.04	0.08
Methoxychlor	0.1	0.2	0.4
Tetrachloro-m-xylene	0.01	0.02	0.04
Decachlorobiphenyl	0.02	0.04	0.08

INDIVIDUAL STANDARD MIXTURE B -- MEDIUM

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.01	0.02	0.04
delta-BHC	0.01	0.02	0.04
Aldrin	0.01	0.02	0.04
Heptachlor epoxide	0.01	0.02	0.04
alpha-Chlordane	0.01	0.02	0.04
gamma-Chlordane	0.01	0.02	0.04
4,4'-DDE	0.02	0.04	0.08
Endosulfan sulfate	0.02	0.04	0.08
Endrin aldehyde	0.02	0.04	0.08
Endrin ketone	0.02	0.04	0.08
Endosulfan II	0.02	0.04	0.08
Tetrachloro-m-xylene	0.01	0.02	0.04
Decachlorobiphenyl	0.02	0.04	0.08

INDIVIDUAL STANDARD MIXTURE A -- HIGH

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
alpha-BHC	0.04	0.08	0.16
Heptachlor	0.04	0.08	0.16
gamma-BHC	0.04	0.08	0.16
Endosulfan I	0.04	0.08	0.16
Dieldrin	0.08	0.16	0.32
Endrin	0.08	0.16	0.32
4,4'-DDD	0.08	0.16	0.32
4,4'-DDT	0.08	0.16	0.32
Methoxychlor	0.4	0.8	1.6
Tetrachloro-m-xylene	0.04	0.08	0.16
Decachlorobiphenyl	0.08	0.16	0.32

INDIVIDUAL STANDARD MIXTURE B -- HIGH

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.04	0.08	0.16
delta-BHC	0.04	0.08	0.16
Aldrin	0.04	0.08	0.16
Heptachlor epoxide	0.04	0.08	0.16
alpha-Chlordane	0.04	0.08	0.16
gamma-Chlordane	0.04	0.08	0.16
4,4'-DDE	0.08	0.16	0.32
Endosulfan sulfate	0.08	0.16	0.32
Endrin aldehyde	0.08	0.16	0.32
Endrin ketone	0.08	0.16	0.32
Endosulfan II	0.08	0.16	0.32
Tetrachloro-m-xylene	0.04	0.08	0.16
Decachlorobiphenyl	0.08	0.16	0.32

MULTI-RESPONSE STANDARD MIXTURES

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
Aroclor-1016	0.05	0.1	0.2
Aroclor-1221	0.1	0.2	0.4
Aroclor-1232	0.05	0.1	0.2
Aroclor-1242	0.05	0.1	0.2
Aroclor-1248	0.05	0.1	0.2
Aroclor-1254	0.05	0.1	0.2
Aroclor-1260	0.05	0.1	0.2
Toxaphene	0.25	0.5	1.0

All manual integrations in this data package for GC/EC have been performed for one of the following reasons:

a. Data system missed a peak during processing.
b. Data system improperly integrated a peak.

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

Brett R Dees
GC Laboratory Supervisor
December 11, 1996

Data file : m3905.d Matrix : SOIL

CAS #	Compound	R.T.	Estimated Conc.
7778-85-0	Propane, 1,2-dimethoxy-	1.107	141.00
630-06-8	Hexatriacontane	16.35	132.24
629-78-7	Heptadecane	17.19	92.15

Concentration Units: Water: UG/L Soil: UG/KG

Data file : p10248.d Matrix : SOIL

CAS #	Compound	R.T.	Estimated Conc.
2213-23-2	Heptane, 2,4-dimethyl-	3.607	94.94
1072-05-5	Heptane, 2,6-dimethyl-	3.676	79.53
2216-30-0	Heptane, 2,5-dimethyl-	3.746	263.64
1069-53-0	Hexane, 2,3,5-trimethyl-	3.973	118.83
15869-80-4	Heptane, 3-ethyl-	4.002	93.88
2216-34-4	Octane, 4-methyl-	4.042	261.18
2216-33-3	Octane, 3-methyl-	4.121	463.37
62237-97-2	Decane, 2,2,6-trimethyl-	4.259	68.64

Concentration Units: Water: UG/L Soil: UG/KG

SAMPLE DELIVERY GROUP (SDG)
TRAFFIC REPORT (TR) COVER SHEET

LAB NAME: AMERICAN ANALYTICAL & TECHNICAL SERVICE CONTRACT NO.: 68-D5-0022

LAB CODE: AATS CASE NO.: 25159 SAS NO.: _____

FULL SAMPLE ANALYSIS PRICE IN CONTRACT: $ 605.95

SDG No./First Sample in SDG: FFG24 Sample Receipt Date: 11/19/96 (MM/DD/YY)
(Lowest EPA Sample Number in first shipment of samples received under SDG).

Last Sample in SDG: FFG24 Sample Receipt Date: 11/19/96 (MM/DD/YY)
(Highest EPA Sample Number in last shipment of samples received under SDG).

EPA Sample Numbers in the SDG (listed in alphanumeric order):

1) FFG24	11)
2)	12)
3)	13)
4)	14)
5)	15)
6)	16)
7)	17)
8)	18)
9)	19)
10)	20)

Note: There are a maximum of 20 field samples in a SDG.

Attach Traffic Reports to this form in alphanumeric order
(i.e., the order listed on this form).

Harry M Bory
Sample Custodian

11-21-96
Date

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

Case No. 25159

1. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify in Column A)

2. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaHSO4
4. H2SO4
5. Ice only
6. Other (Specify in Column D)
N. Not preserved

2. Region No.: 6
Sampling Co.: Roy F. Weston
Sampler (Name): Eric Tate
Sampler Signature: Eric Tate

3. Purpose*
Lead: SF, PRP, ST, FED
Early Action: CLEM, PA, REM, RI, SI, ESI
Long-Term Action: FS, RD, RA, O&M, NPLD

4. Date Shipped: —
Carrier: —
Airbill Number: —

5. Ship To: AATS
1700 West Albany, Suite C
Broken Arrow, OK 74012
(918) 251-2858
ATTN: Harry Borg

6. Date Received -- Received by: M. McCord 11/19/96
Laboratory Contract Number:
Unit Price:
7. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med High	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other:	E RAS Analysis VOA	BNA	Pest/PCB	High only ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K High Phases Solids	Water-Miscible Liq.	Water-Immis. Liq.
FFG06	5	L	G	5	X	X	X		6-015017-19	SED05	11/19/96 1430	MFGZ48	ECT			
FFG11	5	L	G	5	X	X	X		6-015037-39	SS01	11/19/96 1210	MFGZ53	ECT			
FFG12	5	L	G	5	X	X	X		6-015041-43	SS02	11/19/96 1215	MFGZ54	ECT			
FFG13	5	L	G	5	X	X	X		6-015045-47	SS03	11/19/96 1230	MFGZ55	ECT			
FFG17	5	L	G	5	X	X	X		6-015061-63	SS07	11/19/96 1405	MFGZ59	ECT			
FFG18	5	L	G	5	X	X	X		6-015065-67	SS08	11/19/96 1415	MFGZ60	ECT			
FFG21	5	L	G	5	X	X	X		6-015077-79	SS11	11/19/96 1350	MFGZ63	ECT			
FFG09	5	L	G	5	X	X	X		6-015029-31	SED08	11/19/96 1020	MFGZ51	ECT			
FFG10	5	L	G	5	X	X	X		6-015033-35	SED09	11/19/96 1105	MFGZ52	ECT			
* FFG24	5	L	G	5	X	X	X		6-015089-91	SED10	11/19/96 1535	MFGZ66	ECT			

Shipment for Case Complete? (Y/N) Y
Page 1 of 21 (ECT)
Sample(s) to be Used for Laboratory QC: FFG24
Additional Sampler Signatures:
Chain of Custody Seal Number(s):

* SDG Final Sample

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Eric Tate	11/19/96 1800	Tim Kuhl			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	Is custody seal intact? (Y/N)/none
		M. McCord	11/19/96 19:00	intact	

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FFG02
Signature G. Alexander
Date 11-20-96

A21-012-16 REV.

DISTRIBUTION: Blue - Region Copy; White - Lab Copy for Return to Region; Pink - CLASS Copy FFG24; Yellow - Lab Copy for Return to CLASS

EPA Form 9110-2

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

369077

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLK3	108	110	101		0
02	VHBLK1	101	96	95		0
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(88-110)
SMC2 (BFB)	= Bromofluorobenzene	(86-115)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Level: (low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLK1	103	101	104		0
02	FFG24	103	98	110		0
03	VBLK2	99	96	94		0
04	FFG24MS	80*	85	98		1
05	FFG24MSD	78*	87	96		1
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(84-138)
SMC2 (BFB)	= Bromofluorobenzene	(59-113)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3B
SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix Spike - EPA Sample No.: FFG24 Level(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	56	0	58	104	59-172
Trichloroethene	56	0	77	138*	62-137
Benzene	56	0	55	98	66-142
Toluene	56	0	46	82	59-139
Chlorobenzene	56	0	56	100	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	56	59	105	1	22	59-172
Trichloroethene	56	71	127	8	24	62-137
Benzene	56	48	86	13	21	66-142
Toluene	56	44	78	5	21	59-139
Chlorobenzene	56	56	100	0	21	60-133

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

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 1 out of 10 outside limits

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK1

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID: C22742.D Lab Sample ID: C961121A

Date Analyzed: 11/21/96 Time Analyzed: 1112

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: C

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	FFG24	27683.10	C22745.D	1409
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

page 01 of 01

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK2

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID: C22760.D Lab Sample ID: C961122A

Date Analyzed: 11/22/96 Time Analyzed: 1109

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: C

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	FFG24MS	27683.10MS	C22765.D	1341
02	FFG24MSD	27683.10MSD	C22766.D	1407
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

page 01 of 01

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK3

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID: L23525.D Lab Sample ID: L961126A

Date Analyzed: 11/26/96 Time Analyzed: 1007

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: L

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VHBLK1	VHBLK1	L23540.D	1811
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

page 01 of 01

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID: C22086.D BFB Injection Date: 09/25/96

Instrument ID: C BFB Injection Time: 0912

GC Column:DB624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.4
75	30.0 - 66.0% of mass 95	48.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	106.4
175	4.0 - 9.0% of mass 174	8.4 (7.9)1
176	93.0 - 101.0% of mass 174	106.8 (100.4)1
177	5.0 - 9.0% of mass 176	7.2 (6.8)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050C6	VSTD050C6	C22087.D	09/25/96	0925
02	VSTD020C6	VSTD020C6	C22088.D	09/25/96	0953
03	VSTD010C6	VSTD010C6	C22089.D	09/25/96	1018
04	VSTD100C6	VSTD100C6	C22090.D	09/25/96	1044
05	VSTD200C6	VSTD200C6	C22092.D	09/25/96	1149
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID: C22740.D BFB Injection Date: 11/21/96

Instrument ID: C BFB Injection Time: 0915

GC Column:DB624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.9
75	30.0 - 66.0% of mass 95	52.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.7 (0.6)1
174	50.0 - 120.0% of mass 95	113.7
175	4.0 - 9.0% of mass 174	9.7 (8.5)1
176	93.0 - 101.0% of mass 174	112.4 (98.9)1
177	5.0 - 9.0% of mass 176	8.2 (7.3)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CM	VSTD050CM	C22741.D	11/21/96	1021
02	VBLK1	C961121A	C22742.D	11/21/96	1112
03	FFG24	27683.10	C22745.D	11/21/96	1409
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID: C22758.D BFB Injection Date: 11/22/96

Instrument ID: C BFB Injection Time: 0924

GC Column:DB624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	16.1
75	30.0 - 66.0% of mass 95	52.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	114.7
175	4.0 - 9.0% of mass 174	9.0 (7.9)1
176	93.0 - 101.0% of mass 174	113.8 (99.1)1
177	5.0 - 9.0% of mass 176	7.9 (6.9)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050CN	VSTD050CN	C22759.D	11/22/96	1005
02	VBLK2	C961122A	C22760.D	11/22/96	1109
03	FFG24MS	27683.10MS	C22765.D	11/22/96	1341
04	FFG24MSD	27683.10MSD	C22766.D	11/22/96	1407
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID: L23015.D BFB Injection Date: 10/07/96

Instrument ID: L BFB Injection Time: 1713

GC Column:DB624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	12.3
75	30.0 - 66.0% of mass 95	38.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	53.7
175	4.0 - 9.0% of mass 174	4.2 (7.8)1
176	93.0 - 101.0% of mass 174	52.4 (97.5)1
177	5.0 - 9.0% of mass 176	3.5 (6.7)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050L5	VSTD050L5	L23016.D	10/07/96	1731
02	VSTD010L5	VSTD010L5	L23017.D	10/07/96	1806
03	VSTD020L5	VSTD020L5	L23018.D	10/07/96	1831
04	VSTD100L5	VSTD100L5	L23019.D	10/07/96	1857
05	VSTD200L5	VSTD200L5	L23020.D	10/07/96	1922
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID: L23523.D BFB Injection Date: 11/26/96

Instrument ID: L BFB Injection Time: 0908

GC Column:DB624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	9.9
75	30.0 - 66.0% of mass 95	35.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	63.1
175	4.0 - 9.0% of mass 174	4.7 (7.4)1
176	93.0 - 101.0% of mass 174	61.6 (97.6)1
177	5.0 - 9.0% of mass 176	4.0 (6.5)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050LA	VSTD050LA	L23524.D	11/26/96	0924
02	VBLK3	L961126A	L23525.D	11/26/96	1007
03	VHBLK1	VHBLK1	L23540.D	11/26/96	1811
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID (Standard): C22741.D Date Analyzed: 11/21/96

Instrument ID: C Time Analyzed: 1021

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	218707	9.36	546292	10.36	671559	12.98
	UPPER LIMIT	437414	9.86	1092584	10.86	1343118	13.48
	LOWER LIMIT	109354	8.86	273146	9.86	335780	12.48
	EPA SAMPLE No.						
01	VBLK1	200258	9.38	774052	10.39	643403	12.99
02	FFG24	159456	9.37	582462	10.39	470894	12.99
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

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 values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID (Standard): C22759.D Date Analyzed: 11/22/96

Instrument ID: C Time Analyzed: 1005

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	194037	9.49	533951	10.48	613463	13.10
	UPPER LIMIT	388074	9.99	1067902	10.98	1226926	13.60
	LOWER LIMIT	97018	8.99	266976	9.98	306732	12.60
	EPA SAMPLE No.						
01	VBLK2	186097	9.49	725095	10.49	578256	13.10
02	FFG24MS	138369	9.49	384838	10.49	402793	13.11
03	FFG24MSD	143205	9.49	448519	10.50	420343	13.12
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

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 values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID (Standard): L23524.D Date Analyzed: 11/26/96

Instrument ID: L Time Analyzed: 0924

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	1012272	8.84	4737430	10.03	4140617	13.21
	UPPER LIMIT	2024544	9.34	9474860	10.53	8281234	13.71
	LOWER LIMIT	506136	8.34	2368715	9.53	2070308	12.71
	EPA SAMPLE No.						
01	VBLK3	899351	8.82	4150704	10.02	3676586	13.19
02	VHBLK1	918523	8.84	3963194	10.03	3313449	13.21
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

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 values outside QC limits with an asterisk.
* Values outside of QC limits.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FFG24

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: 27683.10

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C22745.D

Level: (low/med) LOW Date Received: 11/19/96

% Moisture: not dec. 10 Date Analyzed: 11/21/96

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

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

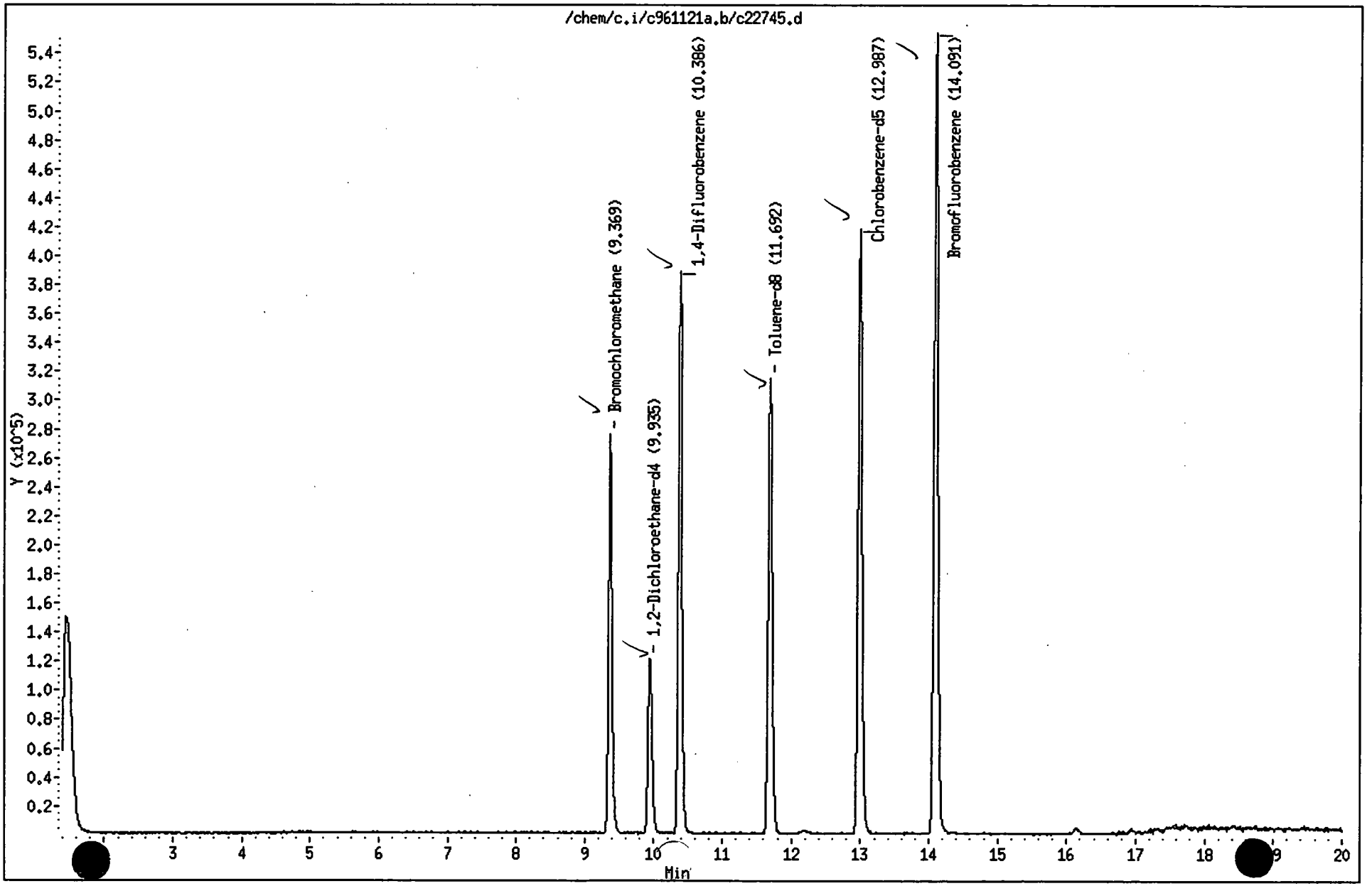
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

28

Data File: /chem/c.i/c961121a.b/c22745.d
Date : 21-NOV-96 14:09
Instrument : c.i
Sample ID : FFG24
Column phase : DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53

OPERATOR: Linda



SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/c.i/c961121a.b/c22745.d
Lab. Id. : 27683.10 Quant Type: ISTD
Inj Date : 21-NOV-96 14:09
Operator : rebecca Inst ID: c.i
Smp Info : FFG24
Misc Info : MS317**INST:C*25159*27683.10*5G
Comment :
Method : /chem/c.i/c961121a.b/OLM3SOIL.m
Meth Date : 21-Nov-1996 11:04
Cal Date : 21-NOV-96 10:21 Cal File: c22741.d
Als bottle: 6
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
* 14 Bromochloromethane	128.00	9.369	(1.000)	159456	50.00	
$ 18 1,2-Dichloroethane-d4	65.00	9.945	(1.061)	196788	54.77	54.77
* 21 1,4-Difluorobenzene	114.00	10.386	(1.000)	582462	50.00	
$ 37 Toluene-d8	98.00	11.682	(0.899)	435560	51.63	51.63
* 39 Chlorobenzene-d5	117.00	12.987	(1.000)	470894	50.00	
$ 42 Bromofluorobenzene	95.00	14.091	(1.085)	394992	49.14	49.14

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: C Calibration Date(s): 09/25/96

Heated Purge: (Y/N) Y Calibration Times: 0925 1149

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

LAB FILE ID: RRF10 =C22089.D RRF20 =C22088.D
RRF50 =C22087.D RRF100=C22090.D RRF200=C22092.D

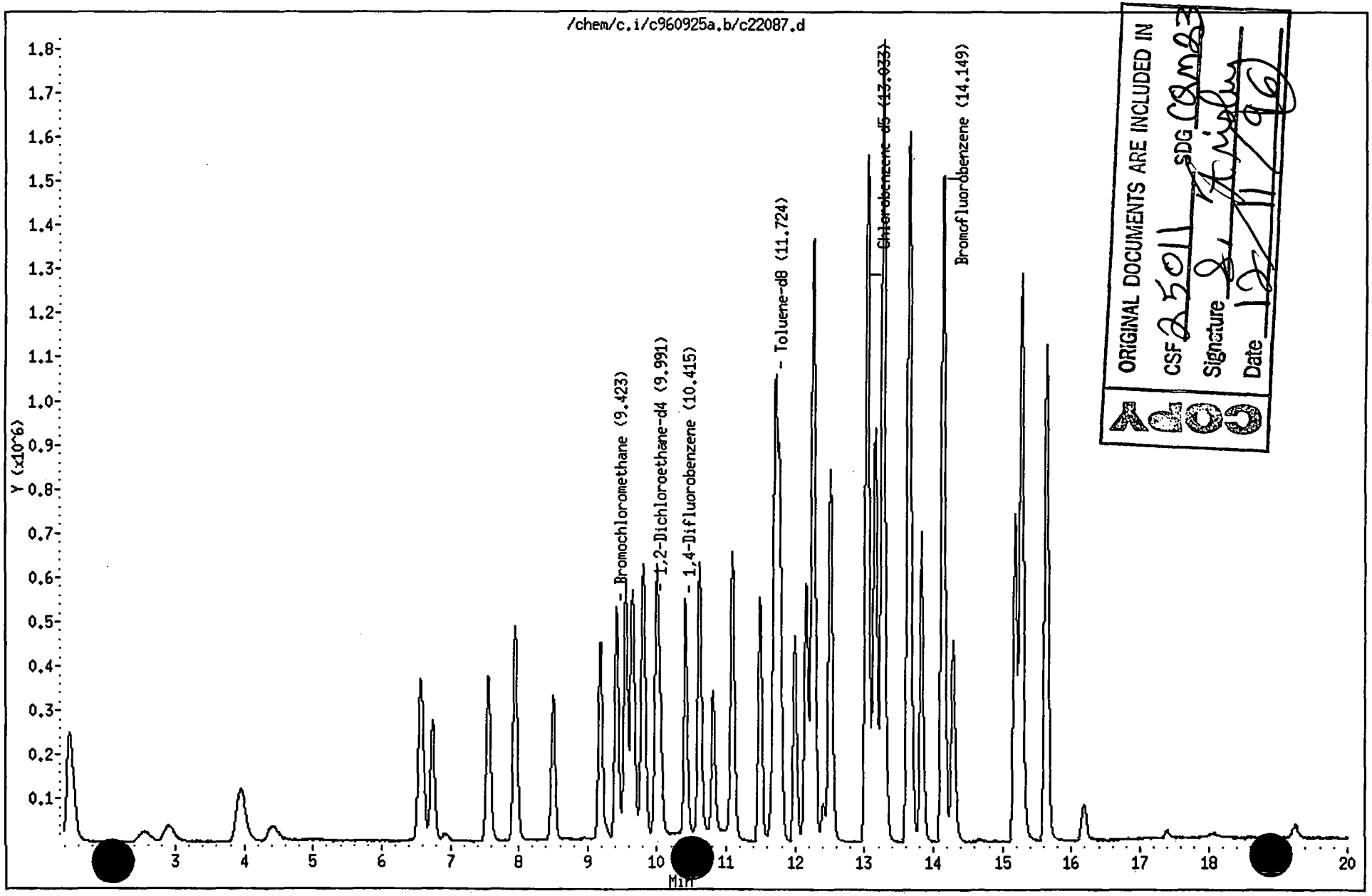
COMPOUND	RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Chloromethane	0.570	0.568	0.521	0.545	0.544	0.550	3.6
Bromomethane *	1.336	1.347	1.324	1.307	1.279	1.319	2.0*
Vinyl Chloride *	0.796	0.784	0.768	0.749	0.753	0.770	2.6*
Chloroethane	0.571	0.579	0.580	0.550	0.548	0.566	2.7
Methylene Chloride	1.342	1.355	1.292	1.221	1.189	1.280	5.7
Acetone	0.354	0.237	0.174	0.179	0.177	0.224	34.4
Carbon Disulfide	3.282	3.263	3.254	3.145	3.066	3.202	2.9
1,1-Dichloroethene *	1.450	1.426	1.406	1.344	1.289	1.383	4.7*
1,1-Dichloroethane *	2.186	2.130	2.067	1.997	1.927	2.061	4.9*
1,2-Dichloroethene (total)	1.437	1.429	1.391	1.301	1.258	1.363	5.8
Chloroform *	3.035	2.963	2.861	2.657	2.570	2.817	7.0*
1,2-Dichloroethane *	1.324	1.334	1.188	1.158	1.166	1.234	7.1*
2-Butanone	0.230	0.254	0.195	0.165	0.182	0.205	17.7
1,1,1-Trichloroethane *	1.038	1.041	0.984	0.900	0.890	0.970	7.4*
Carbon Tetrachloride *	1.045	1.081	1.040	0.954	0.951	1.014	5.7*
Bromodichloromethane *	1.443	1.416	1.040	1.325	1.314	1.308	12.2*
1,2-Dichloropropane	0.529	0.347	0.268	0.464	0.445	0.411	25.0
cis-1,3-Dichloropropene *	0.842	0.826	0.773	0.750	0.744	0.787	5.6*
Trichloroethene *	0.908	0.561	0.515	0.839	0.814	0.727	24.3*
Dibromochloromethane *	1.366	1.461	1.227	1.256	1.258	1.314	7.4*
1,1,2-Trichloroethane *	0.625	0.631	0.497	0.489	0.481	0.545	14.0*
Benzene *	0.894	0.895	0.845	0.771	0.745	0.830	8.3*
trans-1,3-Dichloropropene *	0.763	0.774	0.675	0.653	0.653	0.704	8.5*
Bromoform *	1.062	1.160	0.919	0.926	0.910	0.995	11.1*
4-Methyl-2-Pentanone	0.246	0.209	0.154	0.139	0.149	0.179	25.6
2-Hexanone	0.188	0.165	0.114	0.104	0.108	0.136	28.2
Tetrachloroethene *	0.724	0.694	0.674	0.642	0.640	0.675	5.2*
1,1,2,2-Tetrachloroethane *	0.585	0.576	0.427	0.401	0.408	0.479	19.3*
Toluene *	1.084	1.016	0.999	0.955	0.966	1.004	5.1*
Chlorobenzene *	1.042	1.018	0.966	0.923	0.932	0.976	5.3*
Ethylbenzene *	0.443	0.409	0.413	0.390	0.378	0.407	6.1*
Styrene *	0.880	0.888	0.829	0.782	0.774	0.831	6.4*
Xylene (Total) *	0.516	0.519	0.485	0.453	0.453	0.485	6.5*
Toluene-d8	1.342	1.241	1.255	1.208	1.203	1.250	4.4
Bromofluorobenzene *	1.165	1.107	1.035	1.012	0.963	1.056	7.5*
1,2-Dichloroethane-d4	1.540	1.498	1.377	1.323	1.294	1.406	7.6

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

Data File: /chem/c.i/c960925a.b/c22087.d
Date : 25-SEP-1996 09:25
Instrument : c.i
Sample ID : VSTD050C6
Column phase : DB-624
Volume Injected (uL) : 0.0

OPERATOR: Becky

Column diameter : 0.53



ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25011 SDG C8M83
Signature
Date 12/11/96
Copy

SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/c.i/c960925a.b/c22087.d
Lab. Id. : VSTD050C6 Quant Type: ISTD
Inj Date : 25-SEP-1996 09:25
Operator : rebecca Inst ID: c.i
Smp Info : VSTD050C6(2-072-11)
Misc Info : MS317**INST:C*SWLO*VSTD050C6*5ML
Comment :
Method : /chem/c.i/c960925a.b/OLM3SOIL.m
Meth Date : 25-Sep-1996 10:19 rebecca
Cal Date : 25-SEP-1996 09:25 Cal File: c22087.d
Als bottle: 2 Calibration Sample, Level: 3
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
	1 Chloromethane	50.00	2.557	(0.271)	158607	50.00	50.00
	2 Vinyl Chloride	62.00	2.922	(0.310)	233741	50.00	50.00
	3 Bromomethane	94.00	3.968	(0.421)	403321	50.00	50.00
	4 Chloroethane	64.00	4.448	(0.472)	176628	50.00	50.00
	5 1,1-Dichloroethene	96.00	6.579	(0.698)	428057	50.00	50.00
	6 Acetone	43.00	6.944	(0.737)	52926	50.00	50.00
	7 Carbon Disulfide	76.00	6.752	(0.717)	991013	50.00	50.00
	8 Methylene Chloride	84.00	7.568	(0.803)	393405	50.00	50.00
M	9 1,2-Dichloroethene (total)	96.00			847244	100.00	100.00
	10 trans-1,2-Dichloroethene	96.00	7.962	(0.845)	438177	50.00	50.00
	11 1,1-Dichloroethane	63.00	8.510	(0.903)	629625	50.00	50.00
	12 cis-1,2-Dichloroethene	96.00	9.192	(0.975)	409067	50.00	50.00
	13 2-Butanone	43.00	9.269	(0.984)	59502	50.00	50.00
*	14 Bromochloromethane	128.00	9.423	(1.000)	304537	50.00	
	15 Chloroform	83.00	9.548	(1.013)	871366	50.00	50.00
	16 1,1,1-Trichloroethane	97.00	9.654	(0.927)	767382	50.00	50.00
	17 Carbon Tetrachloride	117.00	9.808	(0.942)	811017	50.00	50.00
$	18 1,2-Dichloroethane-d4	65.00	9.991	(1.060)	419309	50.00	50.00
	19 Benzene	78.00	10.020	(0.962)	658717	50.00	50.00
	20 1,2-Dichloroethane	62.00	10.059	(1.067)	361717	50.00	50.00
*	21 1,4-Difluorobenzene	114.00	10.415	(1.000)	779789	50.00	
	22 Trichloroethene	130.00	10.617	(1.019)	401715	50.00	50.00
	23 1,2-Dichloropropane	63.00	10.820	(1.039)	209407	50.00	50.00
	24 Bromodichloromethane	83.00	11.099	(1.066)	810802	50.00	50.00
	25 cis-1,3-Dichloropropene	75.00	11.493	(1.104)	602989	50.00	50.00
	26 4-Methyl-2-Pentanone	43.00	11.676	(0.896)	175388	50.00	50.00
$	27 Toluene-d8	98.00	11.724	(0.900)	1424883	50.00	50.00
	28 Toluene	91.00	11.782	(0.904)	1134287	50.00	50.00
	29 trans-1,3-Dichloropropene	75.00	12.013	(1.153)	526215	50.00	50.00
	30 1,1,2-Trichloroethane	97.00	12.167	(1.168)	387612	50.00	50.00
	31 Tetrachloroethene	164.00	12.273	(0.942)	765197	50.00	50.00

Data File: /chem/c.i/c960925a.b/c22087.d
Report Date: 25-Sep-1996 10:19

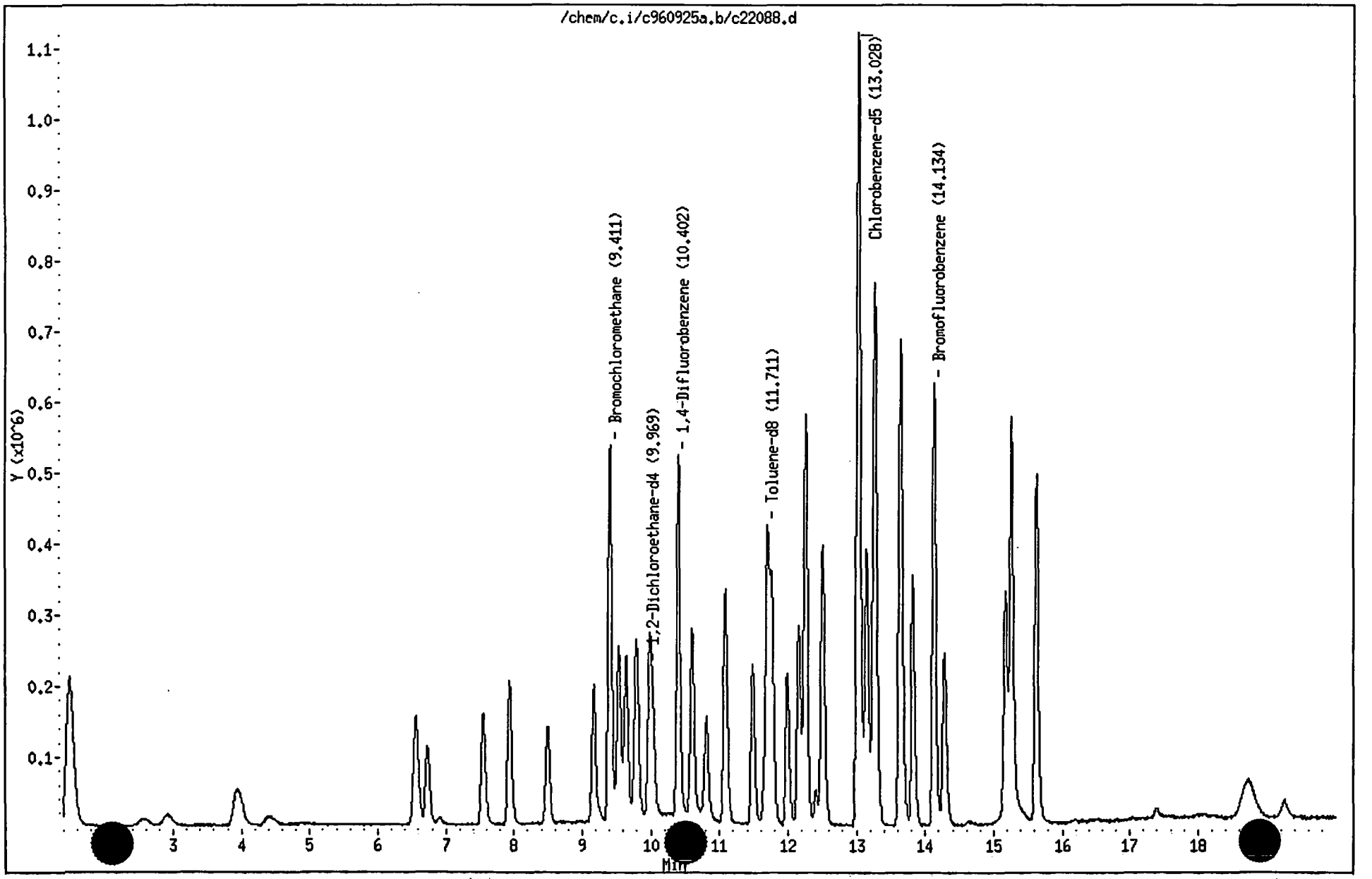
	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
	32 2-Hexanone	43.00	12.417	(0.953)	129502	50.00	50.00
	33 Dibromochloromethane	129.00	12.523	(1.202)	956980	50.00	50.00
*	34 Chlorobenzene-d5	117.00	13.033	(1.000)	1135375	50.00	
	35 Chlorobenzene	112.00	13.062	(1.002)	1096670	50.00	50.00
	36 Ethylbenzene	106.00	13.168	(1.010)	468740	50.00	50.00
	37 m,p-Xylene	106.00	13.284	(1.019)	1170455	100.00	100.00
	38 o-Xylene	106.00	13.649	(1.047)	551182	50.00	50.00
M	39 Xylene (Total)	106.00			1721637	156.17	156.17
	40 Styrene	104.00	13.668	(1.049)	941238	50.00	50.00
	41 Bromoform	172.80	13.842	(1.329)	716897	50.00	50.00
$	42 Bromofluorobenzene	95.00	14.140	(1.085)	1174882	50.00	50.00
	43 1,1,2,2-Tetrachloroethane	83.00	14.304	(1.098)	485356	50.00	50.00

9/26/96

Data File: /chem/c.i/c960925a.b/c22088.d
Date : 25-SEP-96 09:53
Instrument : c.i
Sample ID : VSTD020C6
Column phase : DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53

OPERATOR: Becky



SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/c.i/c960925a.b/c22088.d
Lab. Id. : VSTD020C6 Quant Type: ISTD
Inj Date : 25-SEP-96 09:53
Operator : rebecca Inst ID: c.i
Smp Info : VSTD020C6(2-072-11)
Misc Info : MS317**INST:C*SWLO*VSTD020C6*5ML
Comment :
Method : /chem/c.i/c960925a.b/OLM3SOIL.m
Meth Date : 25-Sep-1996 10:31
Cal Date : 25-SEP-1996 09:25 Cal File: c22087.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
	1 Chloromethane	50.00	2.548	(0.271)	68828	20.86	20.86
	2 Vinyl Chloride	62.00	2.912	(0.309)	95079	20.21	20.21
	3 Bromomethane	94.00	3.949	(0.420)	163253	20.16	20.16
	4 Chloroethane	64.00	4.428	(0.471)	70177	19.98	19.98
	1,1-Dichloroethene	96.00	6.568	(0.698)	172877	20.14	20.14
	Acetone	43.00	6.924	(0.736)	28777	23.09	23.09
	7 Carbon Disulfide	76.00	6.732	(0.715)	395535	20.02	20.02
	8 Methylene Chloride	84.00	7.557	(0.803)	164306	20.48	20.48
M	9 1,2-Dichloroethene (total)	96.00			346361	40.53	40.53
	10 trans-1,2-Dichloroethene	96.00	7.941	(0.844)	178328	20.22	20.22
	11 1,1-Dichloroethane	63.00	8.489	(0.902)	258183	20.29	20.29
	12 cis-1,2-Dichloroethene	96.00	9.171	(0.974)	168033	20.31	20.31
	13 2-Butanone	43.00	9.248	(0.983)	30850	22.62	22.62
*	14 Bromochloromethane	128.00	9.411	(1.000)	303050	50.00	
	15 Chloroform	83.00	9.536	(1.013)	359142	20.34	20.34
	16 1,1,1-Trichloroethane	97.00	9.642	(0.927)	311210	20.55	20.55
	17 Carbon Tetrachloride	117.00	9.796	(0.942)	323401	20.39	20.39
$	18 1,2-Dichloroethane-d4	65.00	9.969	(1.059)	181564	20.84	20.84
	19 Benzene	78.00	9.998	(0.961)	267677	20.57	20.57
	20 1,2-Dichloroethane	62.00	10.037	(1.066)	161760	21.16	21.16
*	21 1,4-Difluorobenzene	114.00	10.402	(1.000)	747599	50.00	
	22 Trichloroethene	130.00	10.605	(1.019)	167650	20.84	20.84
	23 1,2-Dichloropropane	63.00	10.807	(1.039)	103701	22.54	22.54
	24 Bromodichloromethane	83.00	11.086	(1.066)	423329	23.06	23.06
	25 cis-1,3-Dichloropropene	75.00	11.489	(1.104)	247087	20.66	20.66
	26 4-Methyl-2-Pentanone	43.00	11.662	(0.895)	92352	22.99	22.99
$	27 Toluene-d8	98.00	11.711	(0.899)	549001	19.88	19.88
	28 Toluene	91.00	11.768	(0.903)	449579	20.17	20.17
	29 trans-1,3-Dichloropropene	75.00	11.999	(1.153)	231601	21.37	21.37
	30 1,1,2-Trichloroethane	97.00	12.163	(1.169)	188713	22.37	22.37
	31 Tetrachloroethene	164.00	12.259	(0.941)	307173	20.29	20.29

Data File: /chem/c.i/c960925a.b/c22088.d
Report Date: 25-Sep-1996 10:31

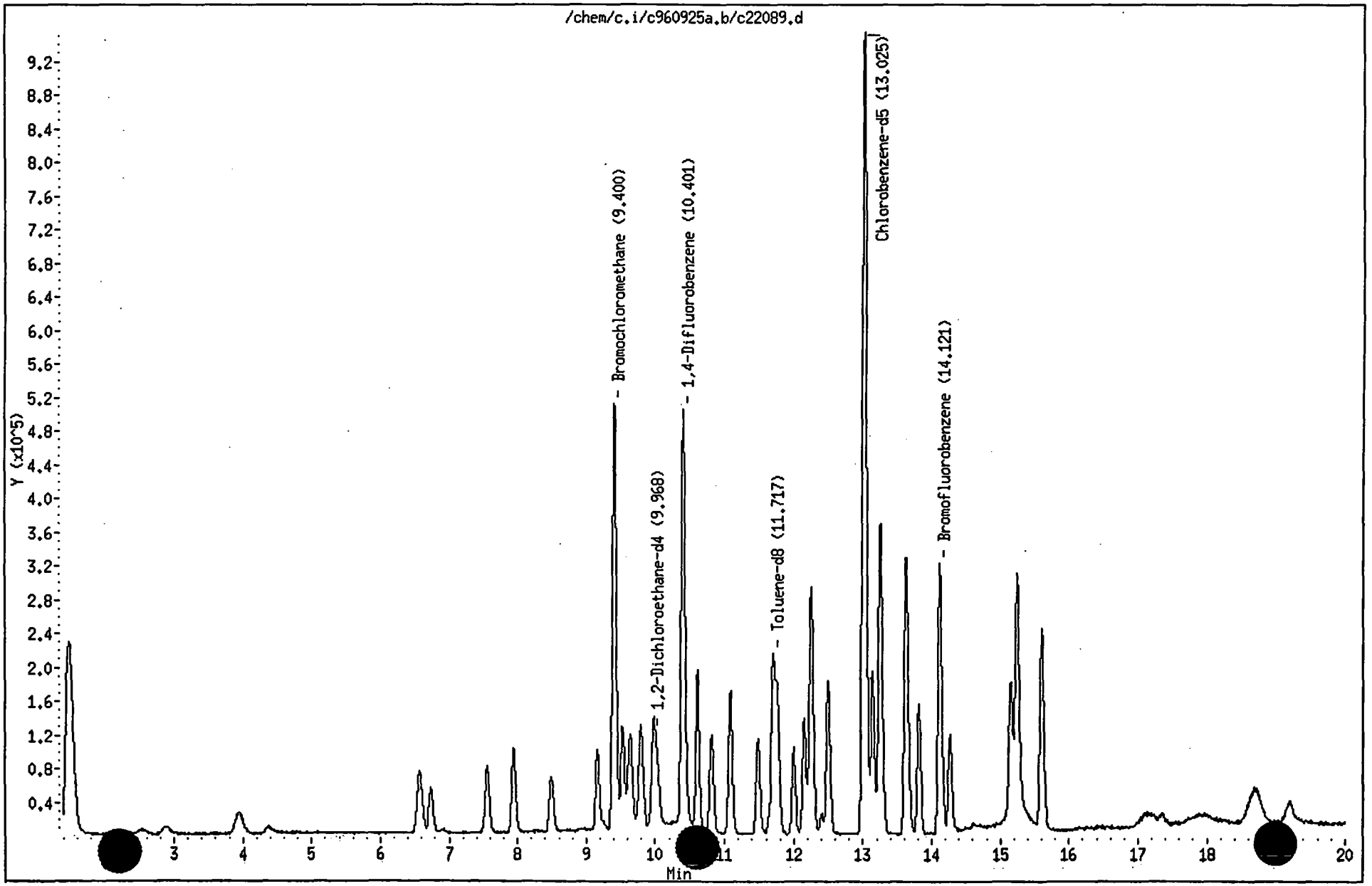
	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
	32 2-Hexanone	43.00	12.413	(0.953)	73183	23.67	23.67
	33 Dibromochloromethane	129.00	12.509	(1.203)	436894	21.73	21.73
*	34 Chlorobenzene-d5	117.00	13.028	(1.000)	1105861	50.00	
	35 Chlorobenzene	112.00	13.047	(1.001)	450258	20.52	20.52
	36 Ethylbenzene	106.00	13.163	(1.010)	181026	19.91	19.91
	37 m,p-Xylene	106.00	13.269	(1.018)	486878	41.30	41.30
	38 o-Xylene	106.00	13.634	(1.047)	229527	20.66	20.66
M	39 Xylene (Total)	106.00			716405	64.50	64.50
	40 Styrene	104.00	13.653	(1.048)	392989	20.69	20.69
	41 Bromoform	172.80	13.827	(1.329)	346896	22.31	22.31
$	42 Bromofluorobenzene	95.00	14.134	(1.085)	489814	20.67	20.67
	43 1,1,2,2-Tetrachloroethane	83.00	14.288	(1.097)	254631	22.95	22.95

9/25/96

Data File: /chem/c.i/c960925a.b/c22089.d
Date : 25-SEP-1996 10:18
Instrument : c.i
Sample ID : VSTD010C6
Column phase : DB-624
Volume Injected (uL) : 0.0

OPERATOR: Becky

Column diameter : 0.53



SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/c.i/c960925a.b/c22089.d
Lab. Id. : VSTD010C6 Quant Type: ISTD
Inj Date : 25-SEP-1996 10:18
Operator : rebecca Inst ID: c.i
Smp Info : VSTD010C6(2-072-11)
Misc Info : MS317**INST:C*SWLO*VSTD010C6*5ML
Comment :
Method : /chem/c.i/c960925a.b/OLM3SOIL.m
Meth Date : 25-Sep-1996 11:09
Cal Date : 25-SEP-1996 09:25 Cal File: c22087.d
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
	1 Chloromethane	50.00	2.528	(0.269)	33525	10.31	10.31
	2 Vinyl Chloride	62.00	2.874	(0.306)	46771	10.17	10.17
	3 Bromomethane	94.00	3.939	(0.419)	78505	10.00	10.00
	4 Chloroethane	64.00	4.370	(0.465)	33544	9.90	9.90(a)
	5 1,1-Dichloroethene	96.00	6.578	(0.700)	85208	10.15	10.15
	6 Acetone	43.00	6.923	(0.000)	20813	13.88	13.88(M)
	7 Carbon Disulfide	76.00	6.741	(0.717)	192884	10.04	10.04
	8 Methylene Chloride	84.00	7.566	(0.805)	78893	10.09	10.09
M	9 1,2-Dichloroethene (total)	96.00			168931	20.25	20.25
	10 trans-1,2-Dichloroethene	96.00	7.950	(0.846)	87384	10.14	10.14
	11 1,1-Dichloroethane	63.00	8.488	(0.903)	128435	10.27	10.27
	12 cis-1,2-Dichloroethene	96.00	9.170	(0.975)	81547	10.11	10.11
	13 2-Butanone	43.00	9.256	(0.000)	13538	10.16	10.16(M)
*	14 Bromochloromethane	128.00	9.400	(1.000)	293824	50.00	
	15 Chloroform	83.00	9.535	(1.014)	178361	10.27	10.27
	16 1,1,1-Trichloroethane	97.00	9.641	(0.927)	150613	10.16	10.16
	17 Carbon Tetrachloride	117.00	9.785	(0.941)	151676	9.90	9.90(a)
$	18 1,2-Dichloroethane-d4	65.00	9.968	(1.060)	90521	10.46	10.46
	19 Benzene	78.00	9.997	(0.961)	129770	10.18	10.18
	20 1,2-Dichloroethane	62.00	10.045	(1.069)	77813	10.32	10.32
*	21 1,4-Difluorobenzene	114.00	10.401	(1.000)	725459	50.00	
	22 Trichloroethene	130.00	10.613	(1.020)	131813	13.73	13.73
	23 1,2-Dichloropropane	63.00	10.824	(1.041)	76767	13.87	13.87
	24 Bromodichloromethane	83.00	11.093	(1.067)	209430	11.10	11.10
	25 cis-1,3-Dichloropropene	75.00	11.487	(1.104)	122232	10.35	10.35
	26 4-Methyl-2-Pentanone	43.00	11.660	(0.896)	52040	12.11	12.11
$	27 Toluene-d8	98.00	11.717	(0.900)	283721	10.48	10.48
	28 Toluene	91.00	11.775	(0.905)	229358	10.49	10.49
	29 trans-1,3-Dichloropropene	75.00	11.996	(1.153)	110663	10.34	10.34
	30 1,1,2-Trichloroethane	97.00	12.169	(1.170)	90748	10.70	10.70
	31 Tetrachloroethene	164.00	12.256	(0.942)	153124	10.38	10.38

9/25/96

Data File: /chem/c.i/c960925a.b/c22089.d
Report Date: 25-Sep-1996 11:15

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
	32 2-Hexanone	43.00	12.410	(0.953)	39857	12.08	12.08
	33 Dibromochloromethane	129.00	12.506	(1.202)	198224	10.10	10.10
*	34 Chlorobenzene-d5	117.00	13.015	(1.000)	1057348	50.00	
	35 Chlorobenzene	112.00	13.044	(1.002)	220466	10.33	10.33
	36 Ethylbenzene	106.00	13.150	(1.010)	93711	10.50	10.50
	37 m,p-Xylene	106.00	13.265	(1.019)	232517	20.41	20.41
	38 o-Xylene	106.00	13.630	(1.047)	109047	10.17	10.17
M	39 Xylene (Total)	106.00			341564	31.87	31.87
	40 Styrene	104.00	13.650	(1.049)	186046	10.16	10.16
	41 Bromoform	172.80	13.813	(1.328)	154039	10.14	10.14
$	42 Bromofluorobenzene	95.00	14.121	(1.085)	246297	10.56	10.56
	43 1,1,2,2-Tetrachloroethane	83.00	14.275	(1.097)	123687	11.04	11.04

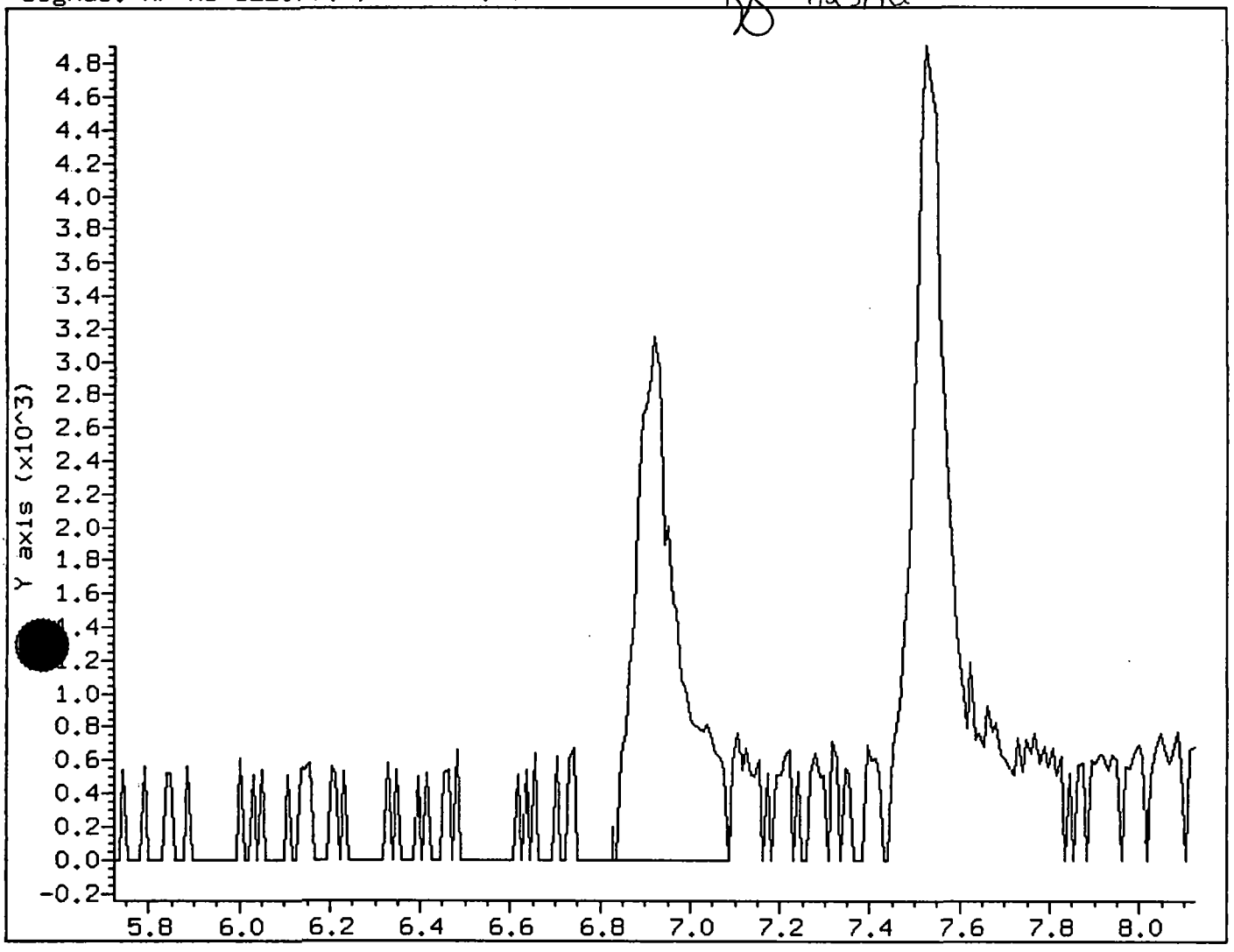
QC Flag Legend

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

Manual Integration

Client Sample ID: VSTD010C6
Injection Date: 25-SEP-96 10:18
Instrument: c.i
Compound: Acetone
Signal: HP MS c22089.d, Ion 43.00

RS 9/25/96



MANUAL INTEGRATION REPORT

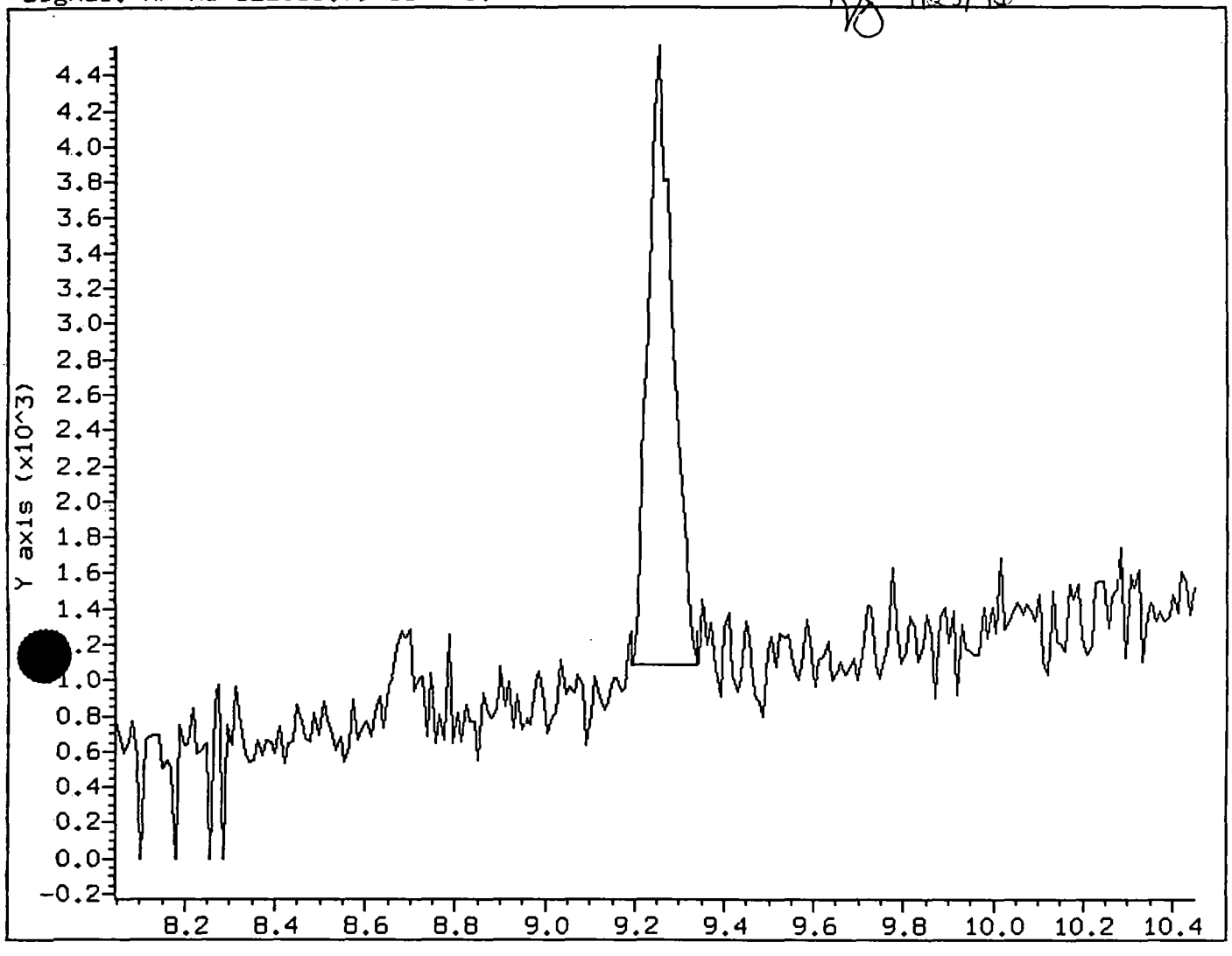
LAB SAMPLE ID: VSTD010C6
SAMPLE ID. : VSTD010C6
FILENAME : /chem/c.i/c960925a.b/c22089.d
INST ID. : c.i
ANALYST : rebecca
DATE INJECTED: 25-SEP-1996 10:18
COMPOUND : Acetone
ION: 43 AREA: 20813 CONCENTRATION: 13.88
INTEGRATION SCAN RANGE: 605 - 632

Report Generated: 09/25/96 at 11:15 by _____

Manual Integration

Client Sample ID: VSTD010C6
Injection Date: 25-SEP-96 10:18
Instrument: c.i
Compound: 2-Butanone
Signal: HP MS c22089.d, Ion 43.00

RB 9/25/96



MANUAL INTEGRATION REPORT

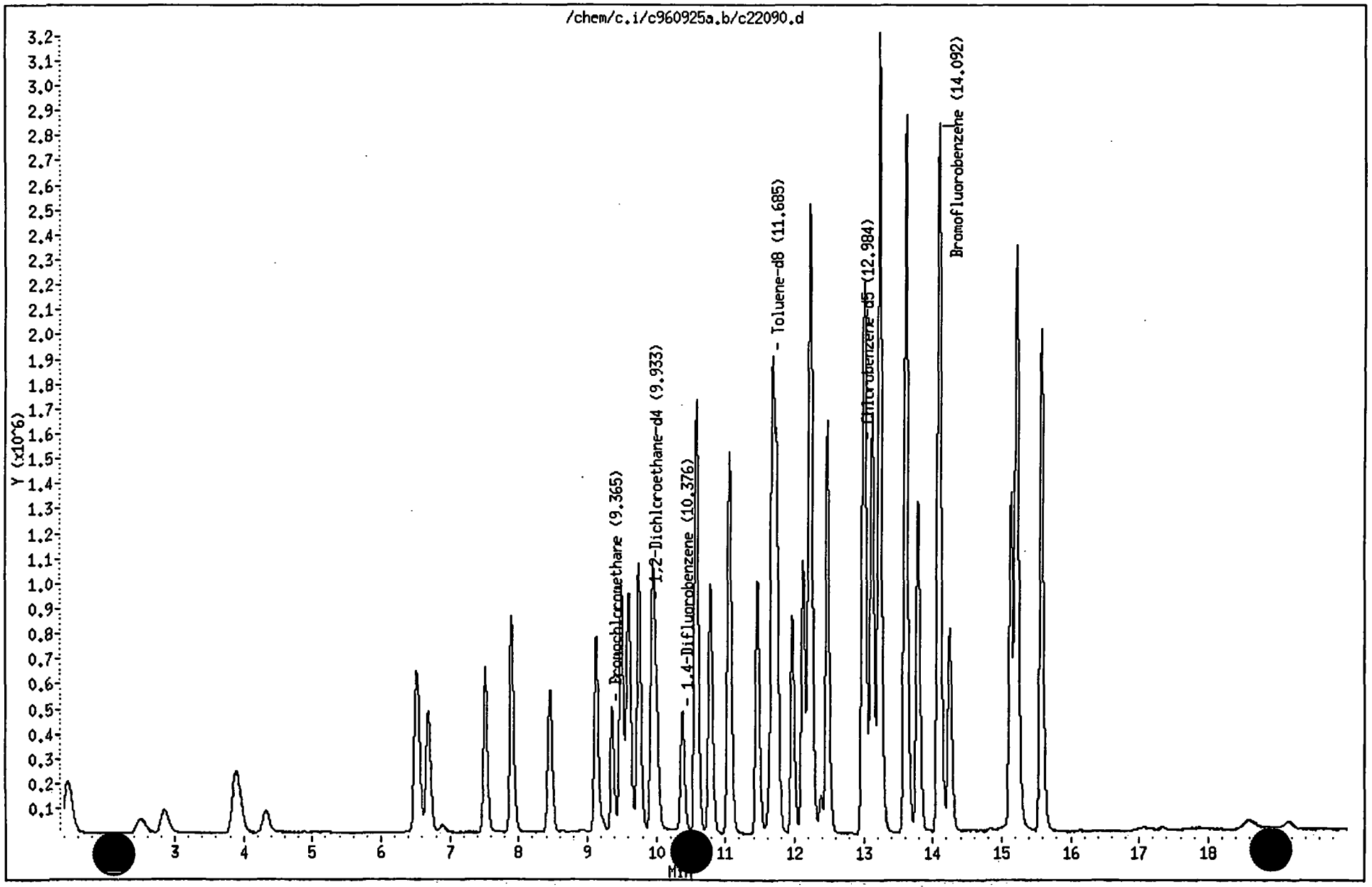
LAB SAMPLE ID: VSTD010C6
SAMPLE ID. : VSTD010C6
FILENAME : /chem/c.i/c960925a.b/c22089.d
INST ID. : c.i
ANALYST : rebecca
DATE INJECTED: 25-SEP-1996 10:18
COMPOUND : 2-Butanone
ION: 43 AREA: 13538 CONCENTRATION: 10.16
INTEGRATION SCAN RANGE: 852 - 867

Report Generated: 09/25/96 at 11:15 by _____

Data File: /chem/c.i/c960925a.b/c22090.d
Date : 25-SEP-96 10:44
Instrument : c.i
Sample ID : VSTD100C6
Column phase : DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53

OPERATOR: Becky



SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/c.i/c960925a.b/c22090.d
Lab. Id. : VSTD100C6 Quant Type: ISTD
Inj Date : 25-SEP-96 10:44
Operator : rebecca Inst ID: c.i
Smp Info : VSTD100C6(2-072-11)
Misc Info : MS317**INST:C*SWLO*VSTD100C6*5ML
Comment :
Method : /chem/c.i/c960925a.b/OLM3SOIL.m
Meth Date : 25-Sep-1996 11:34
Cal Date : 25-SEP-1996 09:25 Cal File: c22087.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
	1 Chloromethane	50.00	2.509	(0.268)	304225	98.85	98.85
	2 Vinyl Chloride	62.00	2.845	(0.304)	418405	96.75	96.75
	3 Bromomethane	94.00	3.891	(0.415)	730293	98.40	98.40
	4 Chloroethane	64.00	4.314	(0.461)	307020	96.45	96.45
	1,1-Dichloroethene	96.00	6.521	(0.696)	750621	95.54	95.54
	Acetone	43.00	6.886	(0.735)	99778	75.69	75.69
	7 Carbon Disulfide	76.00	6.685	(0.714)	1756976	97.19	97.19
	8 Methylene Chloride	84.00	7.520	(0.803)	681961	93.72	93.72
M	9 1,2-Dichloroethene (total)	96.00			1453383	187.25	187.25
	10 trans-1,2-Dichloroethene	96.00	7.904	(0.844)	755195	94.06	94.06
	11 1,1-Dichloroethane	63.00	8.452	(0.902)	1115491	95.32	95.32
	12 cis-1,2-Dichloroethene	96.00	9.134	(0.975)	698188	93.15	93.15
	13 2-Butanone	43.00	9.230	(0.986)	92201	78.10	78.10
*	14 Bromochloromethane	128.00	9.365	(1.000)	279294	50.00	
	15 Chloroform	83.00	9.500	(1.014)	1484035	92.28	92.28
	16 1,1,1-Trichloroethane	97.00	9.606	(0.926)	1318936	90.86	90.86
	17 Carbon Tetrachloride	117.00	9.750	(0.940)	1398321	92.63	92.63
$	18 1,2-Dichloroethane-d4	65.00	9.933	(1.061)	738947	92.22	92.22
	19 Benzene	78.00	9.962	(0.960)	1129773	90.58	90.58
	20 1,2-Dichloroethane	62.00	10.001	(1.068)	646766	92.55	92.55
*	21 1,4-Difluorobenzene	114.00	10.376	(1.000)	732518	50.00	
	22 Trichloroethene	130.00	10.578	(1.019)	1229538	118.89	118.89
	23 1,2-Dichloropropane	63.00	10.780	(1.039)	679346	115.34	115.34
	24 Bromodichloromethane	83.00	11.059	(1.066)	1941803	101.48	101.48
	25 cis-1,3-Dichloropropene	75.00	11.453	(1.104)	1099530	94.03	94.03
	26 4-Methyl-2-Pentanone	43.00	11.627	(0.895)	293378	74.18	74.18
$	27 Toluene-d8	98.00	11.685	(0.900)	2555855	95.79	95.79
	28 Toluene	91.00	11.743	(0.904)	2019086	94.18	94.18
	29 trans-1,3-Dichloropropene	75.00	11.964	(1.153)	957373	91.22	91.22
	30 1,1,2-Trichloroethane	97.00	12.128	(1.169)	716026	87.18	87.18
	31 Tetrachloroethene	164.00	12.224	(0.941)	1357795	93.91	93.91

Data File: /chem/c.i/c960925a.b/c22090.d
Report Date: 25-Sep-1996 11:34

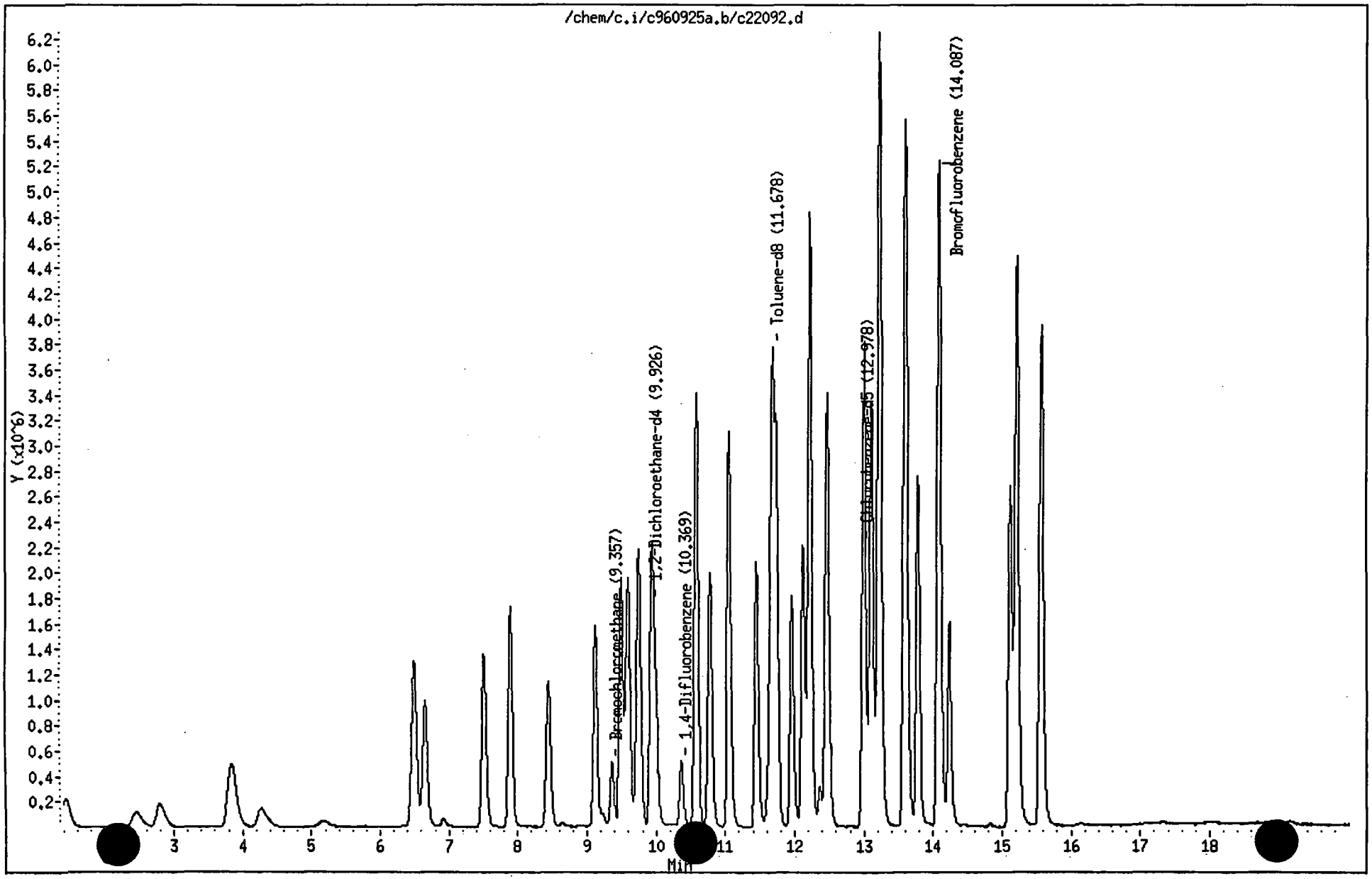
	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
	32 2-Hexanone	43.00	12.378	(0.953)	220749	72.95	72.95
	33 Dibromochloromethane	129.00	12.475	(1.202)	1839849	94.59	94.59
*	34 Chlorobenzene-d5	117.00	12.984	(1.000)	1057376	50.00	
	35 Chlorobenzene	112.00	13.013	(1.002)	1952754	93.51	93.51
	36 Ethylbenzene	106.00	13.119	(1.010)	824531	94.22	94.22
	37 m,p-Xylene	106.00	13.235	(1.019)	1988164	180.30	180.30
	38 o-Xylene	106.00	13.600	(1.047)	958478	91.87	91.87
M	39 Xylene (Total)	106.00			2946642	282.45	282.45
	40 Styrene	104.00	13.620	(1.049)	1653977	92.57	92.57
	41 Bromoform	172.80	13.793	(1.329)	1356234	91.05	91.05
$	42 Bromofluorobenzene	95.00	14.092	(1.085)	2139269	93.70	93.70
	43 1,1,2,2-Tetrachloroethane	83.00	14.246	(1.097)	848593	80.68	80.68

9/26/96

Data File: /chem/c.i/c960925a.b/c22092.d
Date : 25-SEP-1996 11:49
Instrument : c.i
Sample ID : VSTD200C6
Column phase : DB-624
Volume Injected (uL) : 0.0

OPERATOR: Becky

Column diameter : 0.53



SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/c.i/c960925a.b/c22092.d
Lab. Id. : VSTD200C6 Quant Type: ISTD
Inj Date : 25-SEP-1996 11:49
Operator : rebecca Inst ID: c.i
Smp Info : VSTD200C6(2-072-11)
Misc Info : MS317**INST:C*SWLO*VSTD200C6*5ML
Comment :
Method : /chem/c.i/c960925a.b/OLM3SOIL.m
Meth Date : 25-Sep-1996 12:37 linda
Cal Date : 25-SEP-1996 09:25 Cal File: c22087.d
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
	1 Chloromethane	50.00	2.452	(0.262)	637619	198.05	198.05
	2 Vinyl Chloride	62.00	2.807	(0.300)	881768	195.52	195.52
	3 Bromomethane	94.00	3.834	(0.000)	1498332	193.97	193.97(M)
	4 Chloroethane	64.00	4.257	(0.455)	642687	193.98	193.98
	1,1-Dichloroethene	96.00	6.494	(0.694)	1510313	186.43	186.43
	Acetone	43.00	6.917	(0.739)	207274	157.83	157.83
	7 Carbon Disulfide	76.00	6.657	(0.711)	3592542	191.52	191.52
	8 Methylene Chloride	84.00	7.512	(0.803)	1393495	185.84	185.84
M	9 1,2-Dichloroethene (total)	96.00			2948215	369.19	369.19
	10 trans-1,2-Dichloroethene	96.00	7.887	(0.843)	1540450	186.14	186.14
	11 1,1-Dichloroethane	63.00	8.444	(0.902)	2257945	186.98	186.98
	12 cis-1,2-Dichloroethene	96.00	9.126	(0.975)	1407765	182.93	182.93
	13 2-Butanone	43.00	9.232	(0.987)	212814	176.88	176.88
*	14 Bromochloromethane	128.00	9.357	(1.000)	292886	50.00	
	15 Chloroform	83.00	9.492	(1.014)	3010598	182.43	182.43
	16 1,1,1-Trichloroethane	97.00	9.598	(0.926)	2732145	183.36	183.36
	17 Carbon Tetrachloride	117.00	9.743	(0.940)	2920852	187.53	187.53
$	18 1,2-Dichloroethane-d4	65.00	9.926	(1.061)	1515946	184.01	184.01
	19 Benzene	78.00	9.955	(0.960)	2288414	179.56	179.56
	20 1,2-Dichloroethane	62.00	10.003	(1.069)	1365847	188.95	188.95
*	21 1,4-Difluorobenzene	114.00	10.369	(1.000)	767594	50.00	
	22 Trichloroethene	130.00	10.581	(1.020)	2498132	223.69	223.69(A)
	23 1,2-Dichloropropane	63.00	10.783	(1.040)	1367037	216.83	216.83(A)
	24 Bromodichloromethane	83.00	11.052	(1.066)	4033046	200.91	200.91
	25 cis-1,3-Dichloropropene	75.00	11.456	(1.105)	2282852	188.89	188.89
	26 4-Methyl-2-Pentanone	43.00	11.630	(0.896)	628337	166.43	166.43
$	27 Toluene-d8	98.00	11.678	(0.900)	5062101	192.54	192.54
	28 Toluene	91.00	11.736	(0.904)	4063964	192.41	192.41
	29 trans-1,3-Dichloropropene	75.00	11.967	(1.154)	2005124	185.60	185.60
	30 1,1,2-Trichloroethane	97.00	12.131	(1.170)	1477744	176.71	176.71
	31 Tetrachloroethene	164.00	12.227	(0.942)	2692360	189.66	189.66

BS 9/25/96

Data File: /chem/c.i/c960925a.b/c22092.d
Report Date: 25-Sep-1996 12:39

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
	32 2-Hexanone	43.00	12.372	(0.953)	453077	158.37	158.37
	33 Dibromochloromethane	129.00	12.469	(1.203)	3861972	191.50	191.50
*	34 Chlorobenzene-d5	117.00	12.978	(1.000)	1051666	50.00	
	35 Chlorobenzene	112.00	13.007	(1.002)	3921726	190.96	190.96
	36 Ethylbenzene	106.00	13.123	(1.011)	1591480	186.05	186.05
	37 m,p-Xylene	106.00	13.229	(1.019)	3951567	367.61	367.61
	38 o-Xylene	106.00	13.595	(1.048)	1907626	186.86	186.86
M	39 Xylene (Total)	106.00			5859193	573.95	573.95
	40 Styrene	104.00	13.615	(1.049)	3256613	186.38	186.38
	41 Bromoform	172.80	13.778	(1.329)	2795714	182.93	182.93
$	42 Bromofluorobenzene	95.00	14.087	(1.085)	4053106	182.41	182.41
	43 1,1,2,2-Tetrachloroethane	83.00	14.241	(1.097)	1715070	170.08	170.08

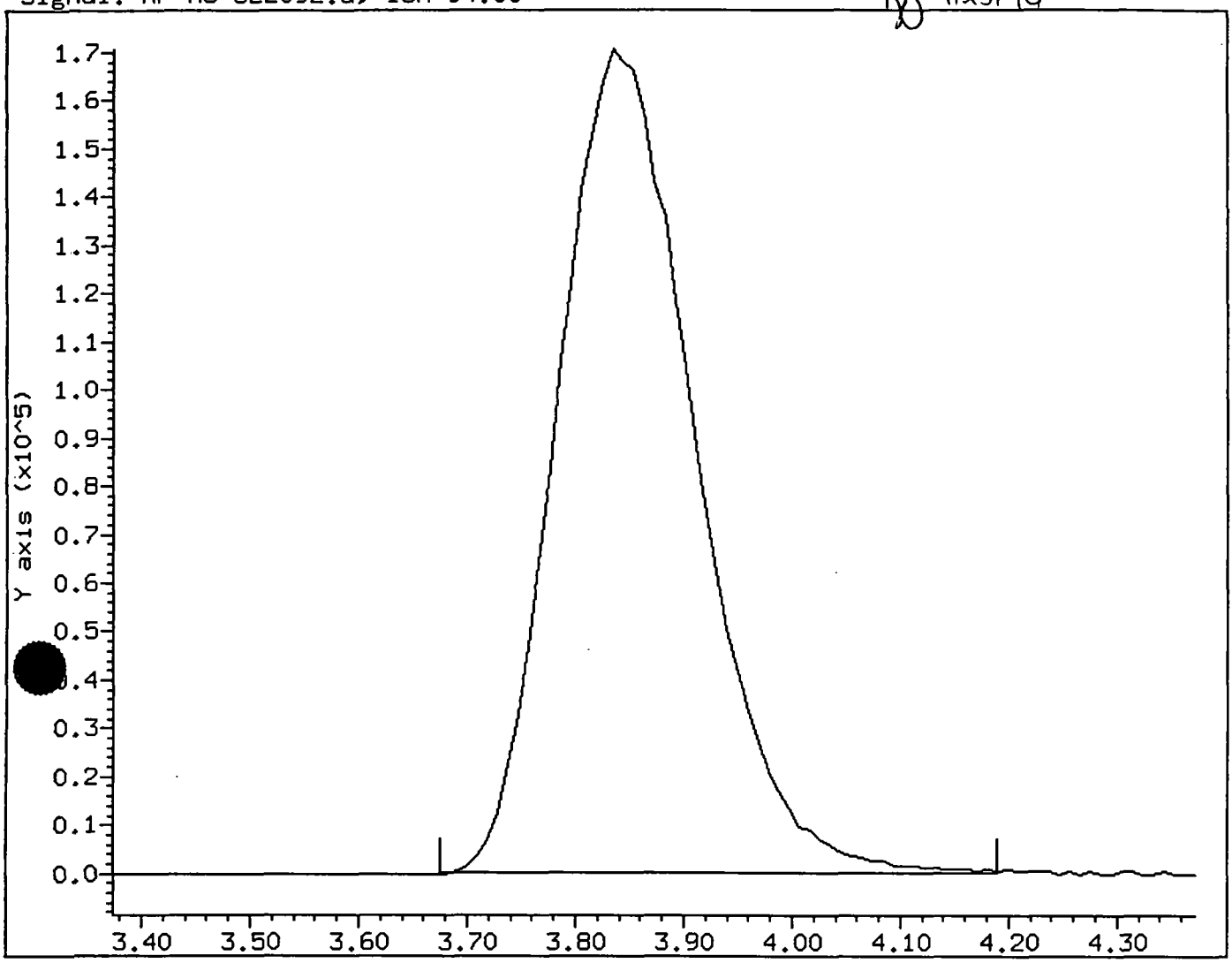
QC Flag Legend

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

Manual Integration

Client Sample ID: VSTD200C6
Injection Date: 25-SEP-96 11:49
Instrument: c.i
Compound: Bromomethane
Signal: HP MS c22092.d, Ion 94.00

RB 9/25/96



MANUAL INTEGRATION REPORT

LAB SAMPLE ID: VSTD200C6
SAMPLE ID. : VSTD200C6
FILENAME : /chem/c.i/c960925a.b/c22092.d
INST ID. : c.i
ANALYST : rebecca
DATE INJECTED: 25-SEP-1996 11:49
COMPOUND : Bromomethane
ION: 94 AREA: 1498332 CONCENTRATION: 193.97
INTEGRATION SCAN RANGE: 276 - 330

Report Generated: 09/25/96 at 12:39 by _____

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: L Calibration Date(s): 10/07/96

Heated Purge: (Y/N) N Calibration Times: 1731 1922

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

LAB FILE ID: RRF10 =L23017.D RRF20 =L23018.D
RRF50 =L23016.D RRF100=L23019.D RRF200=L23020.D

COMPOUND	RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Chloromethane	1.839	1.823	1.766	1.766	1.755	1.790	2.1
Bromomethane *	2.548	2.403	2.475	2.323	2.326	2.415	4.0*
Vinyl Chloride *	2.000	1.949	1.952	1.853	1.839	1.918	3.6*
Chloroethane	1.160	1.093	1.102	1.034	1.040	1.086	4.7
Methylene Chloride	1.654	1.588	1.631	1.465	1.450	1.558	6.0
Acetone	0.333	0.385	0.363	0.321	0.324	0.345	8.0
Carbon Disulfide	5.208	4.896	4.955	4.527	4.469	4.811	6.4
1,1-Dichloroethene *	1.907	1.792	1.814	1.688	1.642	1.769	5.9*
1,1-Dichloroethane *	2.428	2.303	2.349	2.158	2.149	2.277	5.3*
1,2-Dichloroethene (total)	1.743	1.693	1.712	1.569	1.557	1.655	5.1
Chloroform *	2.804	2.579	2.604	2.336	2.286	2.522	8.4*
1,2-Dichloroethane *	1.156	1.037	0.739	1.051	1.067	1.010	15.7*
2-Butanone	0.296	0.402	0.331	0.339	0.361	0.346	11.3
1,1,1-Trichloroethane *	0.574	0.597	0.590	0.469	0.439	0.534	13.9*
Carbon Tetrachloride *	0.721	0.586	0.612	0.549	0.533	0.600	12.3*
Bromodichloromethane *	0.723	0.739	0.722	0.634	0.618	0.687	8.2*
1,2-Dichloropropane	0.344	0.351	0.352	0.309	0.305	0.332	7.0
cis-1,3-Dichloropropene *	0.480	0.485	0.467	0.445	0.439	0.463	4.4*
Trichloroethene *	0.457	0.461	0.462	0.409	0.399	0.438	7.1*
Dibromochloromethane *	0.587	0.609	0.583	0.524	0.530	0.567	6.5*
1,1,2-Trichloroethane *	0.332	0.324	0.295	0.266	0.265	0.296	10.6*
Benzene *	0.909	0.803	0.670	0.780	0.773	0.787	10.8*
trans-1,3-Dichloropropene *	0.379	0.368	0.330	0.325	0.323	0.345	7.7*
Bromoform *	0.359	0.415	0.378	0.346	0.349	0.369	7.6*
4-Methyl-2-Pentanone	0.231	0.266	0.250	0.223	0.218	0.238	8.3
2-Hexanone	0.238	0.251	0.216	0.199	0.194	0.219	11.1
Tetrachloroethene *	0.395	0.378	0.399	0.354	0.349	0.375	6.1*
1,1,2,2-Tetrachloroethane *	0.627	0.714	0.660	0.585	0.580	0.633	8.8*
Toluene *	1.110	1.076	1.115	1.003	0.972	1.055	6.0*
Chlorobenzene *	0.929	0.911	0.943	0.844	0.845	0.895	5.2*
Ethylbenzene *	0.433	0.413	0.425	0.387	0.377	0.407	5.9*
Styrene *	0.995	0.977	0.990	0.847	0.814	0.925	9.3*
Xylene (Total) *	0.604	0.588	0.628	0.524	0.513	0.571	8.8*
Toluene-d8	0.855	0.800	0.826	0.777	0.768	0.805	4.4
Bromofluorobenzene *	0.769	0.716	0.735	0.635	0.606	0.692	9.9*
1,2-Dichloroethane-d4	0.956	0.656	0.586	0.800	0.813	0.762	19.0

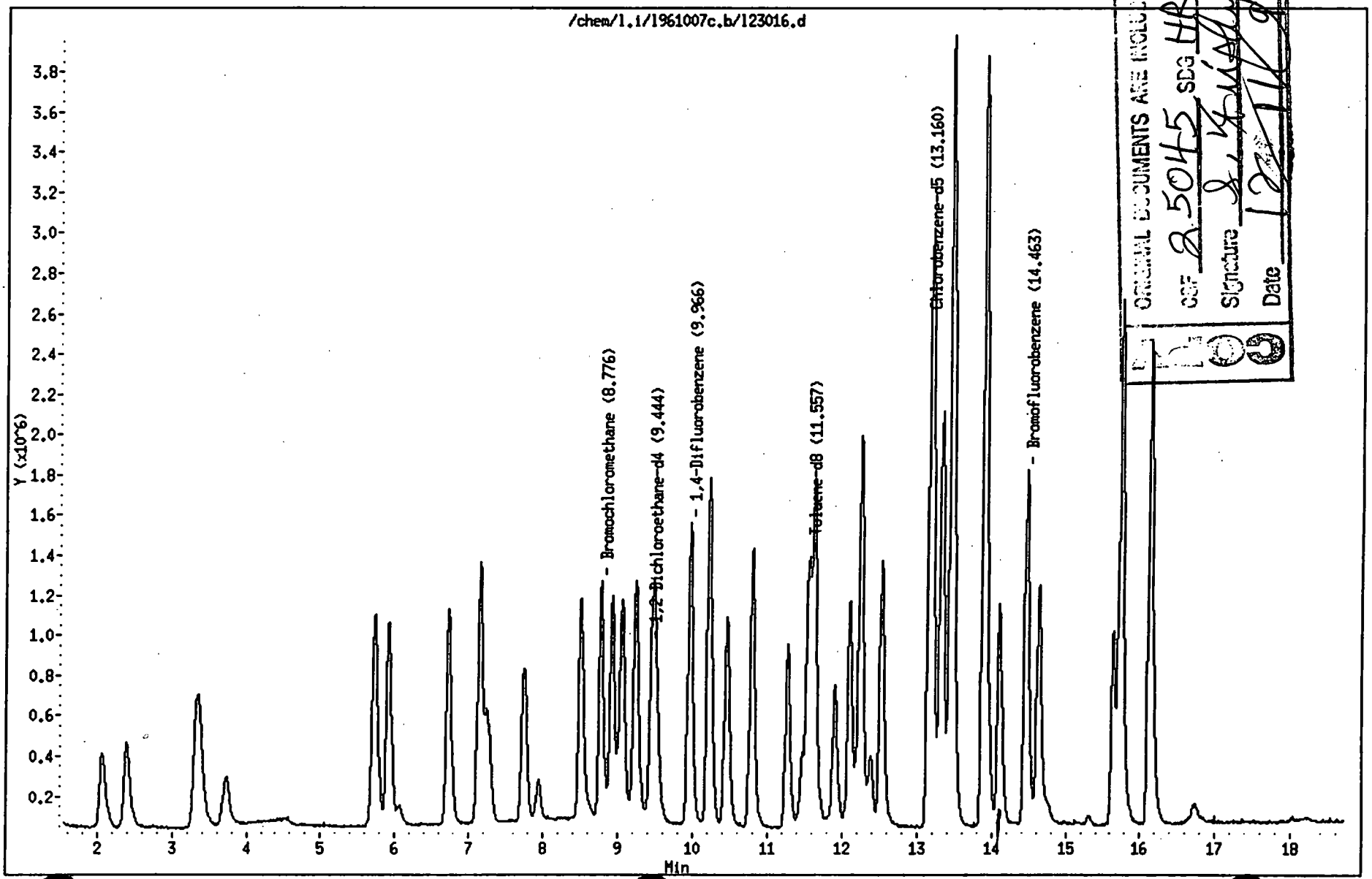
* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

10/11/96

Data File: /chem/l.i/1961007c.b/123016.d
Date : 07-OCT-1996 17:31
Instrument : l.i
Sample ID : VSTD050L5
Column phase : DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53

OPERATOR: Linda



ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 8.5045 SDG HR034
Signature
Date 12/11/96

SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/l.i/1961007c.b/123016.d
Lab. Id. : VSTD050L5 Quant Type: ISTD
Inj Date : 07-OCT-1996 17:31
Operator : LINDA Inst ID: l.i
Smp Info : VSTD050L5
Misc Info : MS317**INST:L*SWLO*2-056-11*5ML
Comment :
Method : /chem/l.i/1961007c.b/OLM3WAT.m
Meth Date : 10-Oct-1996 09:33 linda
Cal Date : 07-OCT-96 17:31 Cal File: 123016.d
Als bottle: 24 Calibration Sample, Level: 3
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: WATER

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	1 Chloromethane	50.00	2.065	(0.235)	1436315	49.09	49.09
	2 Vinyl Chloride	62.00	2.392	(0.273)	1587927	49.62	49.62
	3 Bromomethane	94.00	3.344	(0.381)	2012974	51.24	51.24
	4 Chloroethane	64.00	3.720	(0.424)	896734	50.23	50.23
	5 1,1-Dichloroethene	96.00	5.726	(0.652)	1475409	49.35	49.35
	6 Acetone	43.00	6.063	(0.691)	295081	51.76	51.76
	7 Carbon Disulfide	76.00	5.918	(0.674)	4030302	50.59	50.59
	8 Methylene Chloride	84.00	6.728	(0.767)	1326744	51.46	51.46
M	9 1,2-Dichloroethene (total)	96.00			2784351	114.72	114.72
	10 trans-1,2-Dichloroethene	96.00	7.143	(0.000)	1463107	63.40	63.40(M)
	11 1,1-Dichloroethane	63.00	7.742	(0.882)	1910843	51.57	51.57
	12 cis-1,2-Dichloroethene	96.00	8.505	(0.969)	1321244	51.88	51.88
	13 2-Butanone	43.00	8.602	(0.980)	269280	46.22	46.22
*	14 Bromochloromethane	128.00	8.776	(1.000)	813399	50.00	
	15 Chloroform	83.00	8.921	(1.017)	2118469	51.63	51.63
	16 1,1,1-Trichloroethane	97.00	9.057	(0.909)	1952861	55.24	55.24
	17 Carbon Tetrachloride	117.00	9.241	(0.927)	2027080	51.00	51.00
$	18 1,2-Dichloroethane-d4	65.00	9.444	(1.076)	477069	39.11	39.11
	19 Benzene	78.00	9.473	(0.951)	2217006	42.55	42.55
	20 1,2-Dichloroethane	62.00	9.522	(1.085)	601111	36.58	36.58
*	21 1,4-Difluorobenzene	114.00	9.966	(1.000)	3310583	50.00	
	22 Trichloroethene	130.00	10.226	(1.026)	1529590	52.78	52.78
	23 1,2-Dichloropropane	63.00	10.458	(1.049)	1165966	53.00	53.00
	24 Bromodichloromethane	83.00	10.795	(1.083)	2390887	52.53	52.53
	25 cis-1,3-Dichloropropene	75.00	11.268	(1.131)	1545796	50.41	50.41
	26 4-Methyl-2-Pentanone	43.00	11.470	(0.872)	720049	52.57	52.57
$	27 Toluene-d8	98.00	11.557	(0.878)	2377743	51.26	51.26
	28 Toluene	91.00	11.625	(0.883)	3210339	52.82	52.82
	29 trans-1,3-Dichloropropene	75.00	11.905	(1.195)	1093992	47.85	47.85
	30 1,1,2-Trichloroethane	97.00	12.098	(1.214)	976221	49.74	49.74
	31 Tetrachloroethene	164.00	12.243	(0.930)	1150382	53.26	53.26

10/10/96 AB

Data File: /chem/l.i/1961007c.b/123016.d
Report Date: 10-Oct-1996 09:35

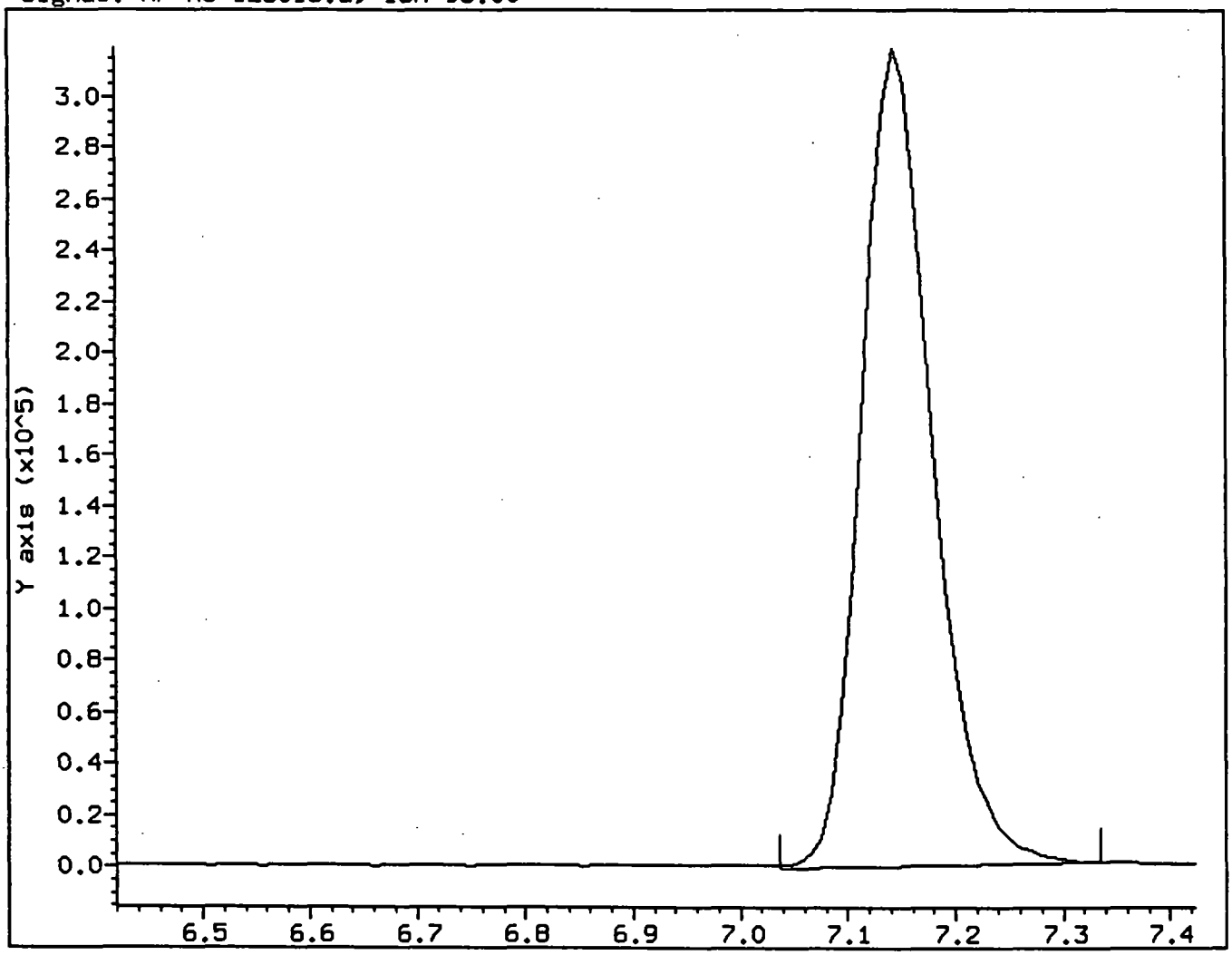
	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	32 2-Hexanone	43.00	12.388	(0.941)	622118	49.21	49.21
	33 Dibromochloromethane	129.00	12.533	(1.258)	1930261	51.44	51.44
*	34 Chlorobenzene-d5	117.00	13.160	(1.000)	2879706	50.00	
	35 Chlorobenzene	112.00	13.198	(1.003)	2716751	52.00	52.00
	36 Ethylbenzene	106.00	13.324	(1.012)	1224885	52.25	52.25
	37 m,p-Xylene	106.00	13.459	(1.023)	3411363	107.46	107.46
	38 o-Xylene	106.00	13.893	(1.056)	1809467	54.97	54.97
M	39 Xylene (Total)	106.00			5220830	158.62	158.62
	40 Styrene	104.00	13.903	(1.056)	2849795	51.95	51.95
	41 Bromoform	173.00	14.106	(1.415)	1253281	51.23	51.23
$	42 Bromofluorobenzene	95.00	14.463	(1.099)	2116837	53.11	53.11
	43 1,1,2,2-Tetrachloroethane	83.00	14.637	(1.112)	1900185	52.10	52.10

QC Flag Legend

M - Compound response manually integrated.

Manual Integration

Client Sample ID: VSTD050L5
Injection Date: 07-OCT-96 17:31
Instrument: l.i
Compound: trans-1,2-Dichloroethene
Signal: HP MS 123016.d, Ion 96.00



10/10/96
AA

MANUAL INTEGRATION REPORT

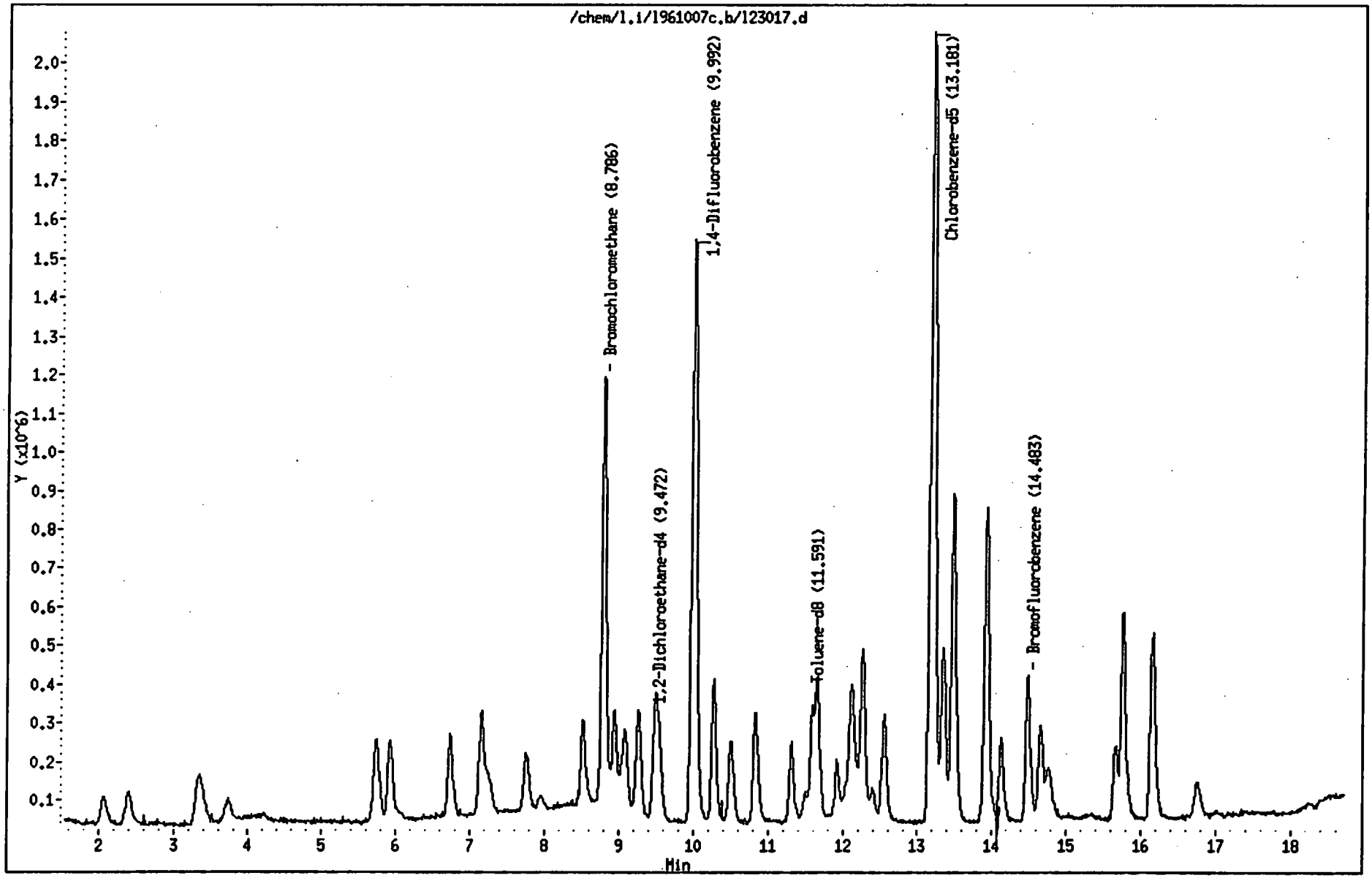
LAB SAMPLE ID: VSTD050L5
SAMPLE ID. : VSTD050L5
FILENAME : /chem/l.i/1961007c.b/123016.d
INST ID. : l.i
ANALYST : LINDA
DATE INJECTED: 07-OCT-1996 17:31
COMPOUND : trans-1,2-Dichloroethene
ION: 96 AREA: 1463107 CONCENTRATION: 63.40
INTEGRATION SCAN RANGE: 593 - 624

Report Generated: 10/10/96 at 09:35 by _____

Data File: /chem/1.i/1961007c.b/123017.d
Date : 07-OCT-1996 18:06
Instrument : 1.i
Sample ID : VSTD010L5
Column phase : DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53

OPERATOR: Linda



SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/l.i/1961007c.b/123017.d
Lab. Id. : VSTD010L5 Quant Type: ISTD
Inj Date : 07-OCT-1996 18:06
Operator : LINDA Inst ID: l.i
Smp Info : VSTD010L5
Misc Info : MS317**INST:L*SWLO*2-056-11*5ML
Comment :
Method : /chem/l.i/1961007c.b/OLM3WAT.m
Meth Date : 10-Oct-1996 09:33 linda
Cal Date : 07-OCT-96 17:31 Cal File: 123016.d
Als bottle: 25 Calibration Sample, Level: 1
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: WATER

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	1 Chloromethane	50.00	2.073	(0.236)	289188	10.22	10.22
	2 Vinyl Chloride	62.00	2.400	(0.273)	314467	10.16	10.16
	3 Bromomethane	94.00	3.351	(0.381)	400635	10.55	10.55
	4 Chloroethane	64.00	3.726	(0.424)	182436	10.57	10.57
	5 1,1-Dichloroethene	96.00	5.738	(0.652)	299881	10.37	10.37
	6 Acetone	43.00	6.046	(0.687)	52419	9.51	9.51(a)
	7 Carbon Disulfide	76.00	5.930	(0.674)	818914	10.63	10.63
	8 Methylene Chloride	84.00	6.730	(0.765)	260139	10.44	10.44
M	9 1,2-Dichloroethene (total)	96.00			548118	23.36	23.36
	10 trans-1,2-Dichloroethene	96.00	7.154	(0.813)	292475	13.11	13.11
	11 1,1-Dichloroethane	63.00	7.752	(0.881)	381712	10.65	10.65
	12 cis-1,2-Dichloroethene	96.00	8.515	(0.968)	255643	10.38	10.38
	13 2-Butanone	43.00	8.593	(0.000)	46562	8.56	8.56(aM)
*	14 Bromochloromethane	128.00	8.796	(1.000)	786215	50.00	
	15 Chloroform	83.00	8.941	(1.016)	440884	11.11	11.11
	16 1,1,1-Trichloroethane	97.00	9.086	(0.908)	389555	10.76	10.76
	17 Carbon Tetrachloride	117.00	9.260	(0.926)	488749	12.00	12.00
$	18 1,2-Dichloroethane-d4	65.00	9.472	(1.077)	150397	12.75	12.75
	19 Benzene	78.00	9.501	(0.950)	616140	11.54	11.54
	20 1,2-Dichloroethane	62.00	9.549	(1.086)	181851	11.44	11.44
*	21 1,4-Difluorobenzene	114.00	10.002	(1.000)	3390550	50.00	
	22 Trichloroethene	130.00	10.272	(1.027)	310164	10.45	10.45
	23 1,2-Dichloropropane	63.00	10.503	(1.050)	232959	10.34	10.34
	24 Bromodichloromethane	83.00	10.830	(1.083)	490604	10.52	10.52
	25 cis-1,3-Dichloropropene	75.00	11.311	(1.131)	325314	10.36	10.36
	26 4-Methyl-2-Pentanone	43.00	11.494	(0.872)	138909	9.72	9.72(a)
$	27 Toluene-d8	98.00	11.591	(0.879)	513646	10.61	10.61
	28 Toluene	91.00	11.658	(0.884)	666851	10.51	10.51
	29 trans-1,3-Dichloropropene	75.00	11.928	(1.193)	257307	10.99	10.99
	30 1,1,2-Trichloroethane	97.00	12.121	(1.212)	225361	11.21	11.21
	31 Tetrachloroethene	164.00	12.257	(0.930)	237383	10.53	10.53

10/10/96

Data File: /chem/l.i/l961007c.b/l23017.d
Report Date: 10-Oct-1996 09:36

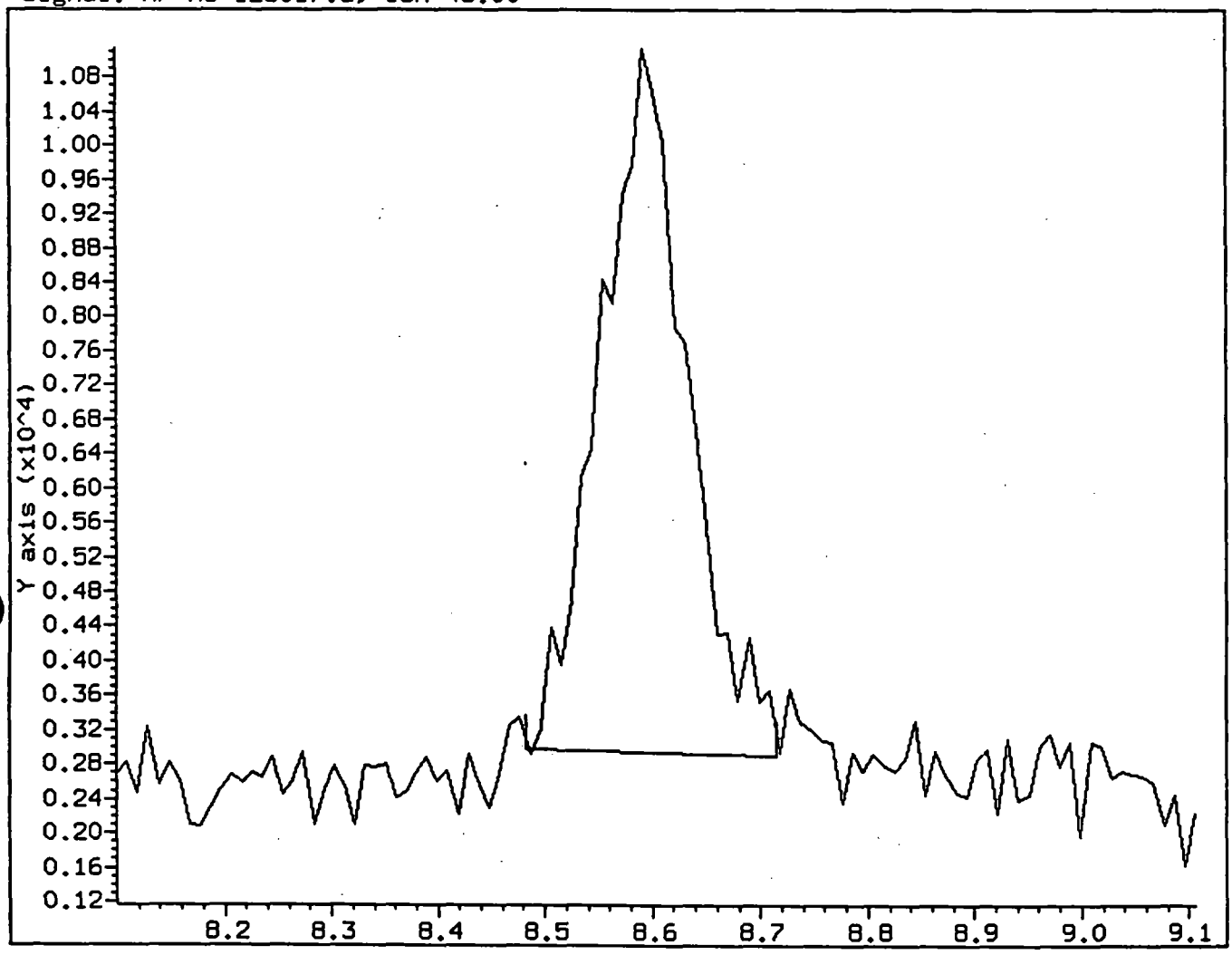
	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	32 2-Hexanone	43.00	12.392	(0.940)	142790	10.82	10.82
	33 Dibromochloromethane	129.00	12.546	(1.254)	398197	10.36	10.36
*	34 Chlorobenzene-d5	117.00	13.181	(1.000)	3005151	50.00	
	35 Chlorobenzene	112.00	13.210	(1.002)	558512	10.24	10.24
	36 Ethylbenzene	106.00	13.346	(1.012)	260069	10.63	10.63
	37 m,p-Xylene	106.00	13.471	(1.022)	721082	21.76	21.76
	38 o-Xylene	106.00	13.905	(1.055)	363169	10.57	10.57
M	39 Xylene (Total)	106.00			1084251	31.56	31.56
	40 Styrene	104.00	13.924	(1.056)	598319	10.45	10.45
	41 Bromoform	173.00	14.126	(1.412)	243591	9.72	9.72(a)
$	42 Bromofluorobenzene	95.00	14.483	(1.099)	462098	11.11	11.11
	43 1,1,2,2-Tetrachloroethane	83.00	14.647	(1.111)	376708	9.89	9.89(a)

QC Flag Legend

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

Manual Integration

Client Sample ID: VSTD010L5
Injection Date: 07-OCT-96 18:06
Instrument: 1.i
Compound: 2-Butanone
Signal: HP MS 123017.d, Ion 43.00



10/10/96
RB

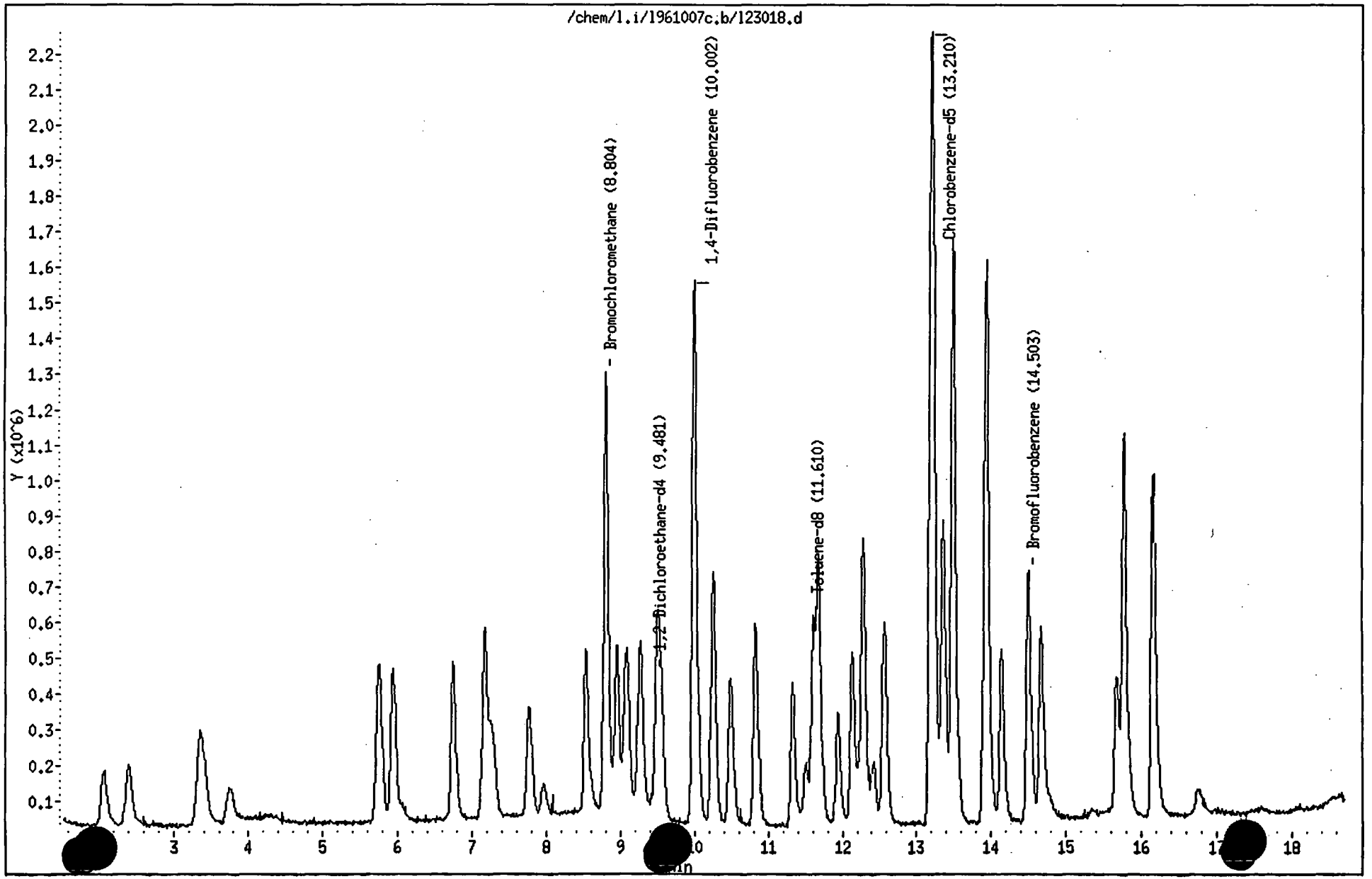
MANUAL INTEGRATION REPORT

LAB SAMPLE ID: VSTD010L5
SAMPLE ID. : VSTD010L5
FILENAME : /chem/l.i/1961007c.b/123017.d
INST ID. : l.i
ANALYST : LINDA
DATE INJECTED: 07-OCT-1996 18:06
COMPOUND : 2-Butanone
ION: 43 AREA: 46562 CONCENTRATION: 8.56
INTEGRATION SCAN RANGE: 744 - 768

Report Generated: 10/10/96 at 09:36 by AR

Data File: /chem/l.i/1961007c.b/123018.d
Date : 07-OCT-1996 18:31
Instrument : l.i
Sample ID : VSTD020L5
Column phase : DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/l.i/l961007c.b/l23018.d
Lab. Id. : VSTD020L5 Quant Type: ISTD
Inj Date : 07-OCT-96 18:31
Operator : LINDA Inst ID: l.i
Smp Info : VSTD020L5
Misc Info : MS317**INST:L*SWLO*2-056-11*5ML
Comment :
Method : /chem/l.i/l961007c.b/OLM3WAT.m
Meth Date : 10-Oct-1996 09:32
Cal Date : 07-OCT-96 17:31 Cal File: l23016.d
Als bottle: 26 Calibration Sample, Level: 2
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: WATER

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	1 Chloromethane	50.00	2.082	(0.237)	621216	20.15	20.15
	2 Vinyl Chloride	62.00	2.400	(0.273)	664137	19.81	19.81
	3 Bromomethane	94.00	3.361	(0.382)	818980	19.41	19.41
	4 Chloroethane	64.00	3.745	(0.425)	372562	19.54	19.54
	5 1,1-Dichloroethene	96.00	5.757	(0.654)	610760	19.50	19.50
	6 Acetone	43.00	6.075	(0.690)	131181	21.36	21.36
	7 Carbon Disulfide	76.00	5.940	(0.675)	1668605	19.50	19.50
	8 Methylene Chloride	84.00	6.749	(0.767)	541086	19.54	19.54
M	9 1,2-Dichloroethene (total)	96.00			1154182	47.83	47.83
	10 trans-1,2-Dichloroethene	96.00	7.173	(0.815)	606246	19.55	19.55
	11 1,1-Dichloroethane	63.00	7.771	(0.883)	784881	19.51	19.51
	12 cis-1,2-Dichloroethene	96.00	8.534	(0.969)	547936	19.85	19.85
	13 2-Butanone	43.00	8.592	(0.976)	136978	21.93	21.93
*	14 Bromochloromethane	128.00	8.804	(1.000)	852005	50.00	
	15 Chloroform	83.00	8.959	(1.018)	879068	19.37	19.37
	16 1,1,1-Trichloroethane	97.00	9.085	(0.908)	799849	20.34	20.34
	17 Carbon Tetrachloride	117.00	9.268	(0.927)	784131	18.31	18.31
$	18 1,2-Dichloroethane-d4	65.00	9.481	(1.077)	223530	17.89	17.89
	19 Benzene	78.00	9.510	(0.951)	1075839	20.23	20.23
	20 1,2-Dichloroethane	62.00	9.558	(1.086)	353317	21.21	21.21
*	21 1,4-Difluorobenzene	114.00	10.002	(1.000)	3347889	50.00	
	22 Trichloroethene	130.00	10.262	(1.026)	617611	20.04	20.04
	23 1,2-Dichloropropane	63.00	10.503	(1.050)	470655	20.13	20.13
	24 Bromodichloromethane	83.00	10.830	(1.083)	989456	20.29	20.29
	25 cis-1,3-Dichloropropene	75.00	11.340	(1.134)	649163	20.31	20.31
	26 4-Methyl-2-Pentanone	43.00	11.514	(0.872)	320302	21.35	21.35
$	27 Toluene-d8	98.00	11.610	(0.879)	964041	19.35	19.35
	28 Toluene	91.00	11.687	(0.885)	1295669	19.55	19.55
	29 trans-1,3-Dichloropropene	75.00	11.947	(1.195)	493572	20.50	20.50
	30 1,1,2-Trichloroethane	97.00	12.131	(1.213)	433592	20.42	20.42
	31 Tetrachloroethene	164.00	12.285	(0.931)	454896	19.33	19.33

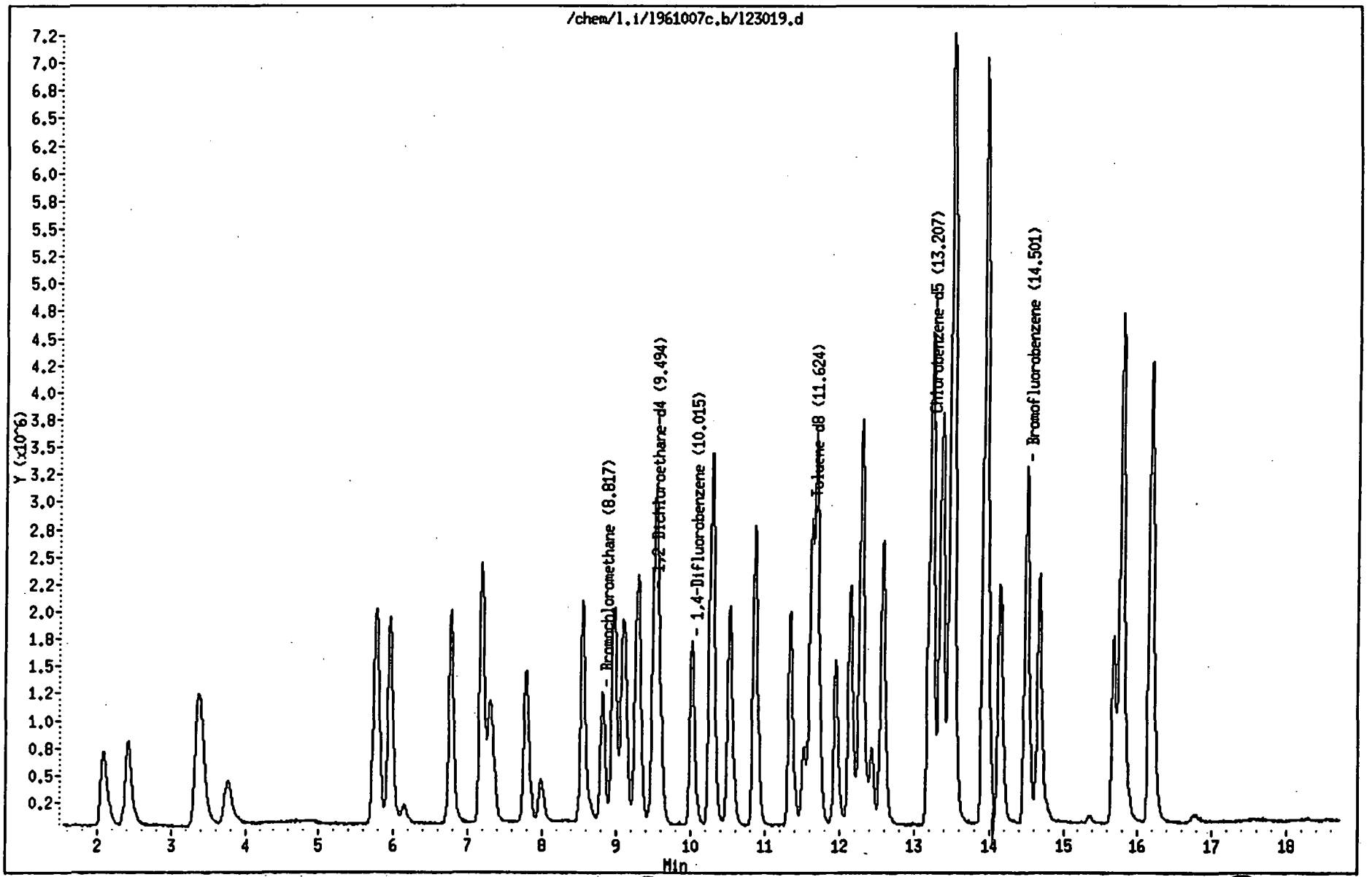
Data File: /chem/l.i/l961007c.b/l23018.d
Report Date: 10-Oct-1996 09:32

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	32 2-Hexanone	43.00	12.420	(0.941)	301935	21.35	21.35
	33 Dibromochloromethane	129.00	12.565	(1.256)	815095	20.52	20.52
*	34 Chlorobenzene-d5	117.00	13.201	(1.000)	3011038	50.00	
	35 Chlorobenzene	112.00	13.230	(1.002)	1097432	19.63	19.63
	36 Ethylbenzene	106.00	13.355	(1.012)	497222	19.49	19.49
	37 m,p-Xylene	106.00	13.490	(1.022)	1365195	38.66	38.66
	38 o-Xylene	106.00	13.924	(1.055)	707771	19.37	19.37
M	39 Xylene (Total)	106.00			2072966	56.73	56.73
	40 Styrene	104.00	13.943	(1.056)	1176962	19.79	19.79
	41 Bromoform	173.00	14.146	(1.414)	555346	21.59	21.59
$	42 Bromofluorobenzene	95.00	14.503	(1.099)	861812	19.34	19.34
	43 1,1,2,2-Tetrachloroethane	83.00	14.667	(1.111)	860236	21.41	21.41

Data File: /chem/1.i/1961007c.b/123019.d
Date : 07-OCT-1996 18:57
Instrument : 1.i
Sample ID : VSTD100L5
Column phase : DB-624
Volume Injected (uL) : 0.0

OPERATOR: Linda

Column diameter : 0.53



SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/l.i/1961007c.b/123019.d
Lab. Id. : VSTD100L5 Quant Type: ISTD
Inj Date : 07-OCT-1996 18:57
Operator : LINDA Inst ID: l.i
Smp Info : VSTD100L5
Misc Info : MS317**INST:L*SWLO*2-056-11*5ML
Comment :
Method : /chem/l.i/1961007c.b/OLM3WAT.m
Meth Date : 10-Oct-1996 09:33 linda
Cal Date : 07-OCT-96 17:31 Cal File: 123016.d
Als bottle: 27 Calibration Sample, Level: 4
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: WATER

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	1 Chloromethane	50.00	2.082	(0.236)	2925215	98.21	98.21
	2 Vinyl Chloride	62.00	2.419	(0.000)	3069209	95.60	95.60(M)
	3 Bromomethane	94.00	3.380	(0.383)	3846822	96.18	96.18
	4 Chloroethane	64.00	3.764	(0.427)	1711934	94.19	94.19
	5 1,1-Dichloroethene	96.00	5.769	(0.000)	2796399	93.78	93.78(M)
	6 Acetone	43.00	6.145	(0.697)	531024	91.50	91.50
	7 Carbon Disulfide	76.00	5.952	(0.675)	7496682	92.44	92.44
	8 Methylene Chloride	84.00	6.771	(0.768)	2426648	92.46	92.46
M	9 1,2-Dichloroethene (total)	96.00			5195971	210.30	210.30
	10 trans-1,2-Dichloroethene	96.00	7.186	(0.815)	2738944	116.59	116.59
	11 1,1-Dichloroethane	63.00	7.794	(0.884)	3574167	94.76	94.76
	12 cis-1,2-Dichloroethene	96.00	8.547	(0.969)	2457027	94.78	94.78
	13 2-Butanone	43.00	8.634	(0.979)	560757	97.94	97.94
*	14 Bromochloromethane	128.00	8.817	(1.000)	828053	50.00	
	15 Chloroform	83.00	8.972	(1.018)	3869574	92.64	92.64
	16 1,1,1-Trichloroethane	97.00	9.098	(0.908)	3480339	87.86	87.86
	17 Carbon Tetrachloride	117.00	9.291	(0.927)	4076884	91.54	91.54
$	18 1,2-Dichloroethane-d4	65.00	9.494	(1.077)	1324675	106.69	106.69
	19 Benzene	78.00	9.533	(0.951)	5788620	99.14	99.14
	20 1,2-Dichloroethane	62.00	9.581	(1.087)	1741166	104.08	104.08
*	21 1,4-Difluorobenzene	114.00	10.024	(1.000)	3709638	50.00	
	22 Trichloroethene	130.00	10.285	(1.026)	3032236	93.39	93.39
	23 1,2-Dichloropropane	63.00	10.526	(1.050)	2292556	93.00	93.00
	24 Bromodichloromethane	83.00	10.863	(1.084)	4703752	92.23	92.23
	25 cis-1,3-Dichloropropene	75.00	11.345	(1.132)	3299403	96.03	96.03
	26 4-Methyl-2-Pentanone	43.00	11.518	(0.872)	1395346	93.93	93.93
$	27 Toluene-d8	98.00	11.615	(0.879)	4853966	96.49	96.49
	28 Toluene	91.00	11.692	(0.885)	6268516	95.10	95.10
	29 trans-1,3-Dichloropropene	75.00	11.952	(1.192)	2413049	94.19	94.19
	30 1,1,2-Trichloroethane	97.00	12.146	(1.212)	1971510	89.65	89.65
	31 Tetrachloroethene	164.00	12.291	(0.931)	2208832	94.30	94.30

10/10/96

Data File: /chem/l.i/l961007c.b/l23019.d
Report Date: 10-Oct-1996 09:38

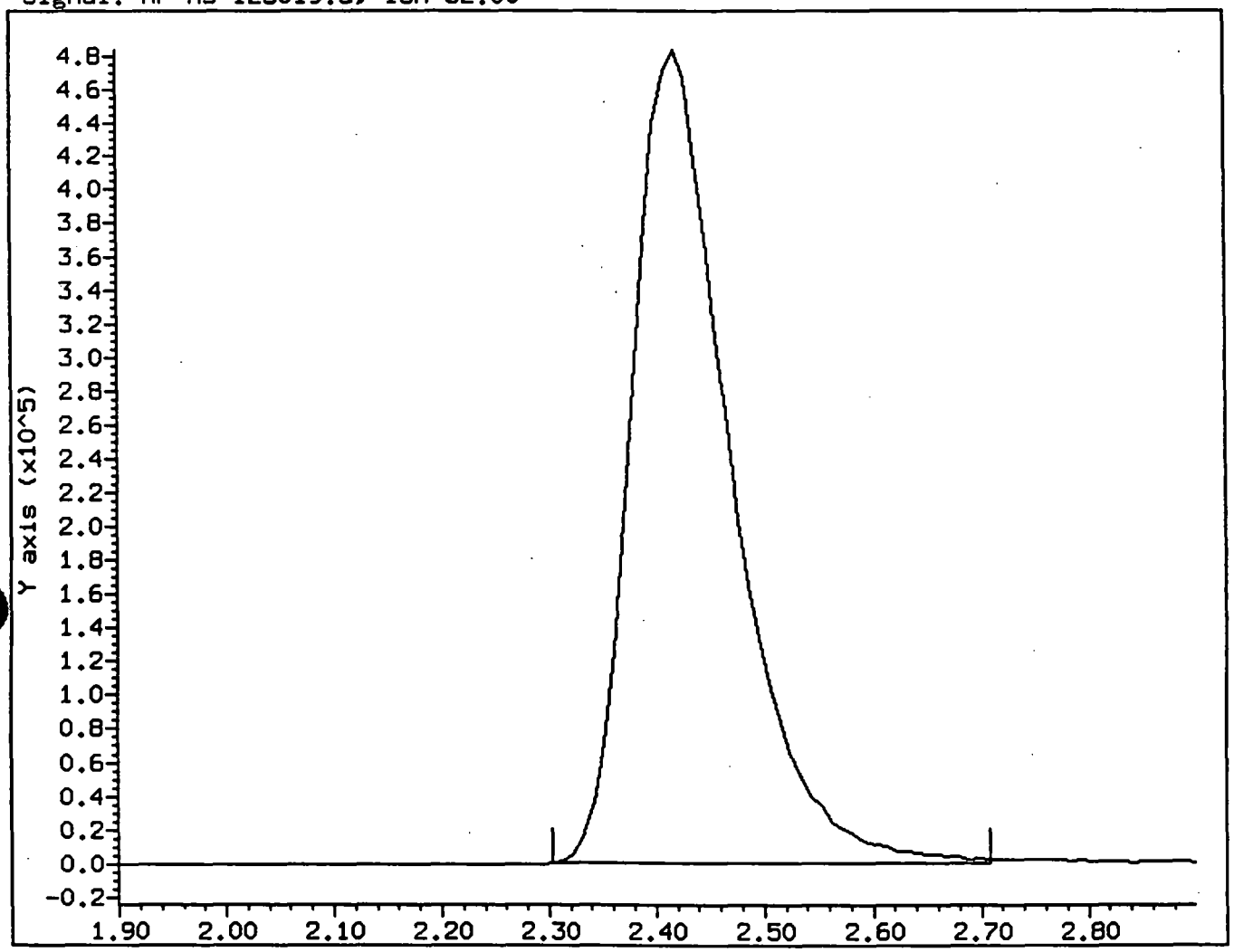
	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	32 2-Hexanone	43.00	12.426	(0.941)	1246109	90.88	90.88
	33 Dibromochloromethane	129.00	12.581	(1.255)	3891880	92.56	92.56
*	34 Chlorobenzene-d5	117.00	13.207	(1.000)	3123374	50.00	
	35 Chlorobenzene	112.00	13.236	(1.002)	5275512	93.10	93.10
	36 Ethylbenzene	106.00	13.362	(1.012)	2415154	94.99	94.99
	37 m,p-Xylene	106.00	13.497	(1.022)	6319794	183.55	183.55
	38 o-Xylene	106.00	13.931	(1.055)	3273426	91.70	91.70
M	39 Xylene (Total)	106.00			9593220	268.73	268.73
	40 Styrene	104.00	13.951	(1.056)	5293228	88.96	88.96
	41 Bromoform	173.00	14.144	(1.411)	2565018	93.57	93.57
$	42 Bromofluorobenzene	95.00	14.501	(1.098)	3966794	91.76	91.76
	43 1,1,2,2-Tetrachloroethane	83.00	14.675	(1.111)	3655642	92.42	92.42

QC Flag Legend

M - Compound response manually integrated.

Manual Integration

Client Sample ID: VSTD100L5
Injection Date: 07-OCT-96 18:57
Instrument: l.i
Compound: Vinyl Chloride
Signal: HP MS 123019.d, Ion 62.00



10/10/96
AB

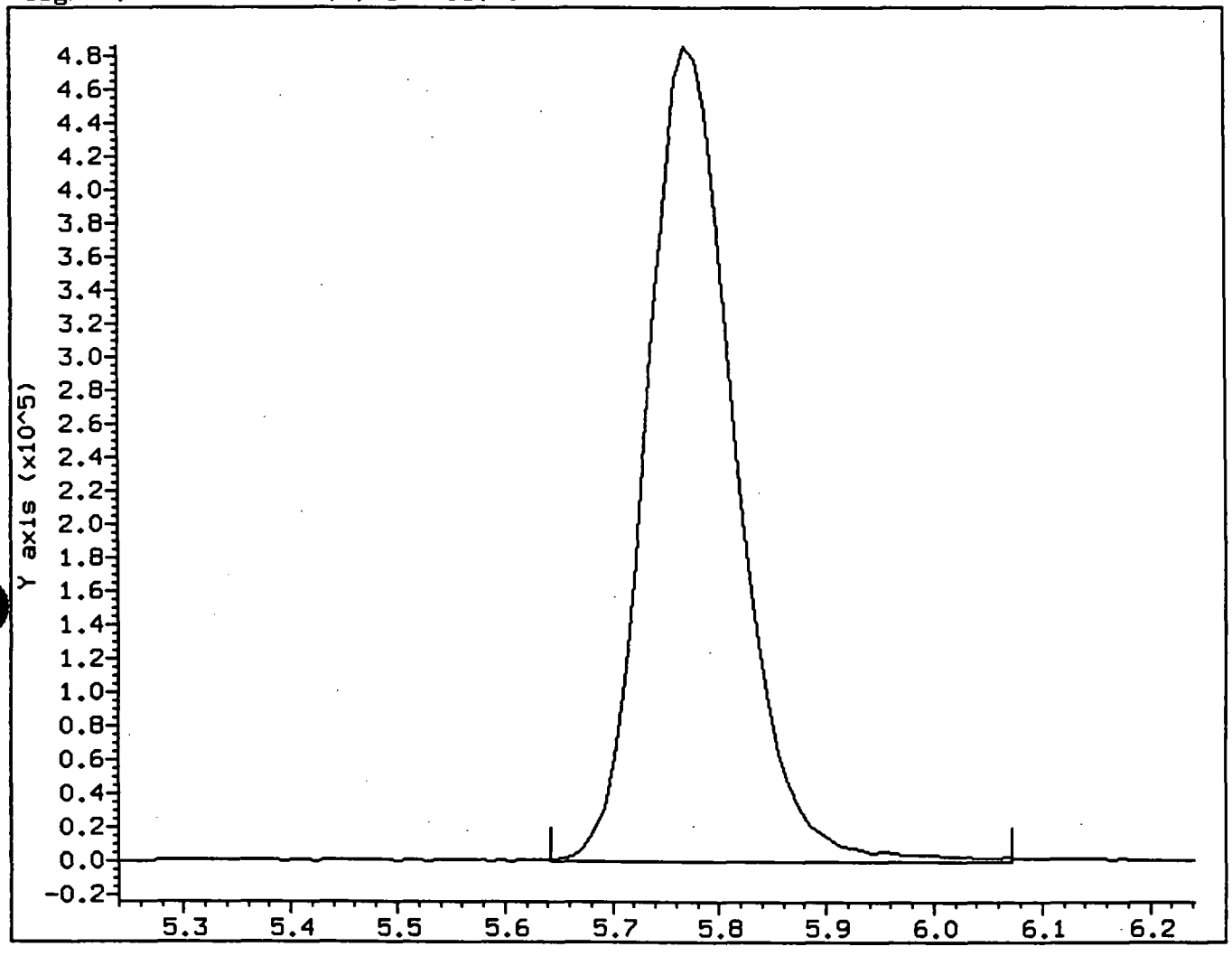
MANUAL INTEGRATION REPORT

LAB SAMPLE ID: VSTD100L5
SAMPLE ID. : VSTD100L5
FILENAME : /chem/l.i/1961007c.b/123019.d
INST ID. : l.i
ANALYST : LINDA
DATE INJECTED: 07-OCT-1996 18:57
COMPOUND : Vinyl Chloride
ION: 62 AREA: 3069209 CONCENTRATION: 95.60
INTEGRATION SCAN RANGE: 102 - 144

Report Generated: 10/10/96 at 09:38 by LD

Manual Integration

Client Sample ID: VSTD100L5
Injection Date: 07-OCT-96 18:57
Instrument: 1.i
Compound: 1,1-Dichloroethene
Signal: HP MS 123019.d, Ion 96.00



10/10/96
AB

MANUAL INTEGRATION REPORT

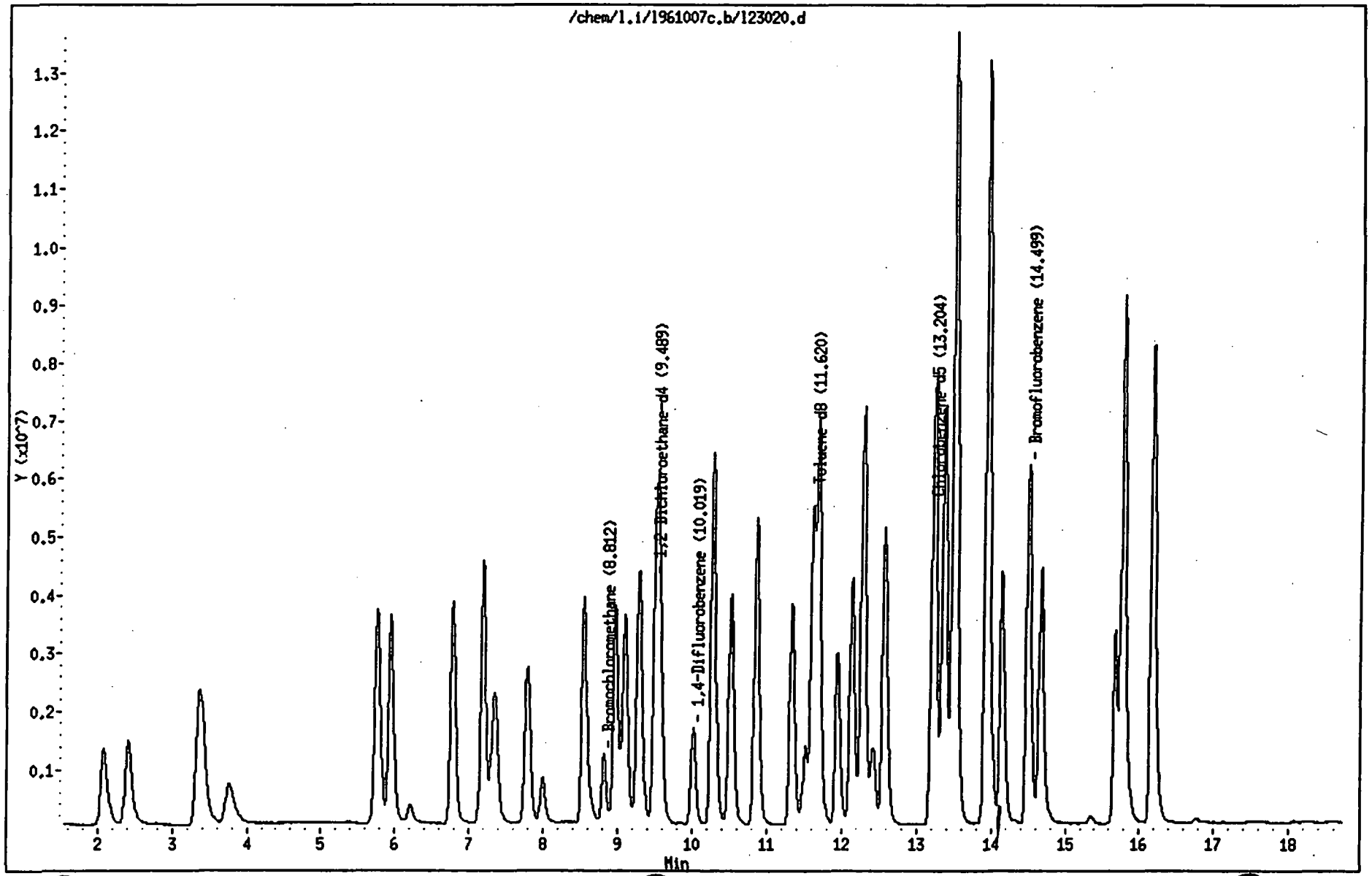
LAB SAMPLE ID: VSTD100L5
SAMPLE ID. : VSTD100L5
FILENAME : /chem/1.i/1961007c.b/123019.d
INST ID. : 1.i
ANALYST : LINDA
DATE INJECTED: 07-OCT-1996 18:57
COMPOUND : 1,1-Dichloroethene
ION: 96 AREA: 2796399 CONCENTRATION: 93.78
INTEGRATION SCAN RANGE: 449 - 493

Report Generated: 10/10/96 at 09:38 by LW

Data File: /chem/1.i/1961007c.b/123020.d
Date : 07-OCT-1996 19:22
Instrument : 1.i
Sample ID : VSTD200L5
Column phase : DB-624
Volume Injected (uL) : 0.0

OPERATOR: Unde

Column diameter : 0.53



73

SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/l.i/l961007c.b/l23020.d
Lab. Id. : VSTD200L5 Quant Type: ISTD
Inj Date : 07-OCT-1996 19:22
Operator : LINDA Inst ID: l.i
Smp Info : VSTD200L5
Misc Info : MS317**INST:L*SWLO*2-056-11*5ML
Comment :
Method : /chem/l.i/l961007c.b/OLM3WAT.m
Meth Date : 10-Oct-1996 09:33 linda
Cal Date : 07-OCT-96 17:31 Cal File: 123016.d
Als bottle: 28 Calibration Sample, Level: 5
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: WATER

10/10/96

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	1 Chloromethane	50.00	2.073	(0.000)	5673533	196.09	196.09(M)
	2 Vinyl Chloride	62.00	2.409	(0.000)	5945109	191.68	191.68(M)
	3 Bromomethane	94.00	3.370	(0.382)	7518867	192.61	192.61
	4 Chloroethane	64.00	3.765	(0.000)	3361407	191.49	191.49(M)
	5 1,1-Dichloroethene	96.00	5.763	(0.000)	5308260	185.65	185.65(M)
	6 Acetone	43.00	6.206	(0.000)	1048116	187.83	187.83(M)
	7 Carbon Disulfide	76.00	5.946	(0.000)	14449960	185.79	185.79(M)
	8 Methylene Chloride	84.00	6.775	(0.000)	4687123	186.14	186.14(M)
M	9 1,2-Dichloroethene (total)	96.00			10068975	376.41	376.41
	10 trans-1,2-Dichloroethene	96.00	7.180	(0.000)	5267564	186.82	186.82(M)
	11 1,1-Dichloroethane	63.00	7.788	(0.883)	6947228	188.71	188.71
	12 cis-1,2-Dichloroethene	96.00	8.542	(0.968)	4801411	189.74	189.74
	13 2-Butanone	43.00	8.629	(0.978)	1166491	208.73	208.73(A)
*	14 Bromochloromethane	128.00	8.822	(1.000)	808270	50.00	
	15 Chloroform	83.00	8.967	(1.016)	7390334	181.27	181.27
	16 1,1,1-Trichloroethane	97.00	9.093	(0.908)	6478723	164.34	164.34
	17 Carbon Tetrachloride	117.00	9.286	(0.927)	7873121	177.63	177.63
$	18 1,2-Dichloroethane-d4	65.00	9.489	(0.000)	2628875	213.31	213.31(AM)
	19 Benzene	78.00	9.518	(0.950)	11412181	196.40	196.40
	20 1,2-Dichloroethane	62.00	9.576	(1.085)	3449886	211.27	211.27(A)
*	21 1,4-Difluorobenzene	114.00	10.019	(1.000)	3691893	50.00	
	22 Trichloroethene	130.00	10.280	(1.026)	5889291	182.25	182.25
	23 1,2-Dichloropropane	63.00	10.521	(1.050)	4504229	183.60	183.60
	24 Bromodichloromethane	83.00	10.859	(1.084)	9129130	179.87	179.87
	25 cis-1,3-Dichloropropene	75.00	11.331	(1.131)	6486784	189.71	189.71
	26 4-Methyl-2-Pentanone	43.00	11.514	(0.872)	2729431	183.73	183.73
$	27 Toluene-d8	98.00	11.611	(0.879)	9603166	190.88	190.88
	28 Toluene	91.00	11.688	(0.885)	12149712	184.30	184.30
	29 trans-1,3-Dichloropropene	75.00	11.949	(1.193)	4764850	186.89	186.89
	30 1,1,2-Trichloroethane	97.00	12.142	(1.212)	3915958	178.94	178.94
	31 Tetrachloroethene	164.00	12.287	(0.931)	4362031	186.20	186.20

Data File: /chem/l.i/1961007c.b/123020.d
Report Date: 10-Oct-1996 09:41

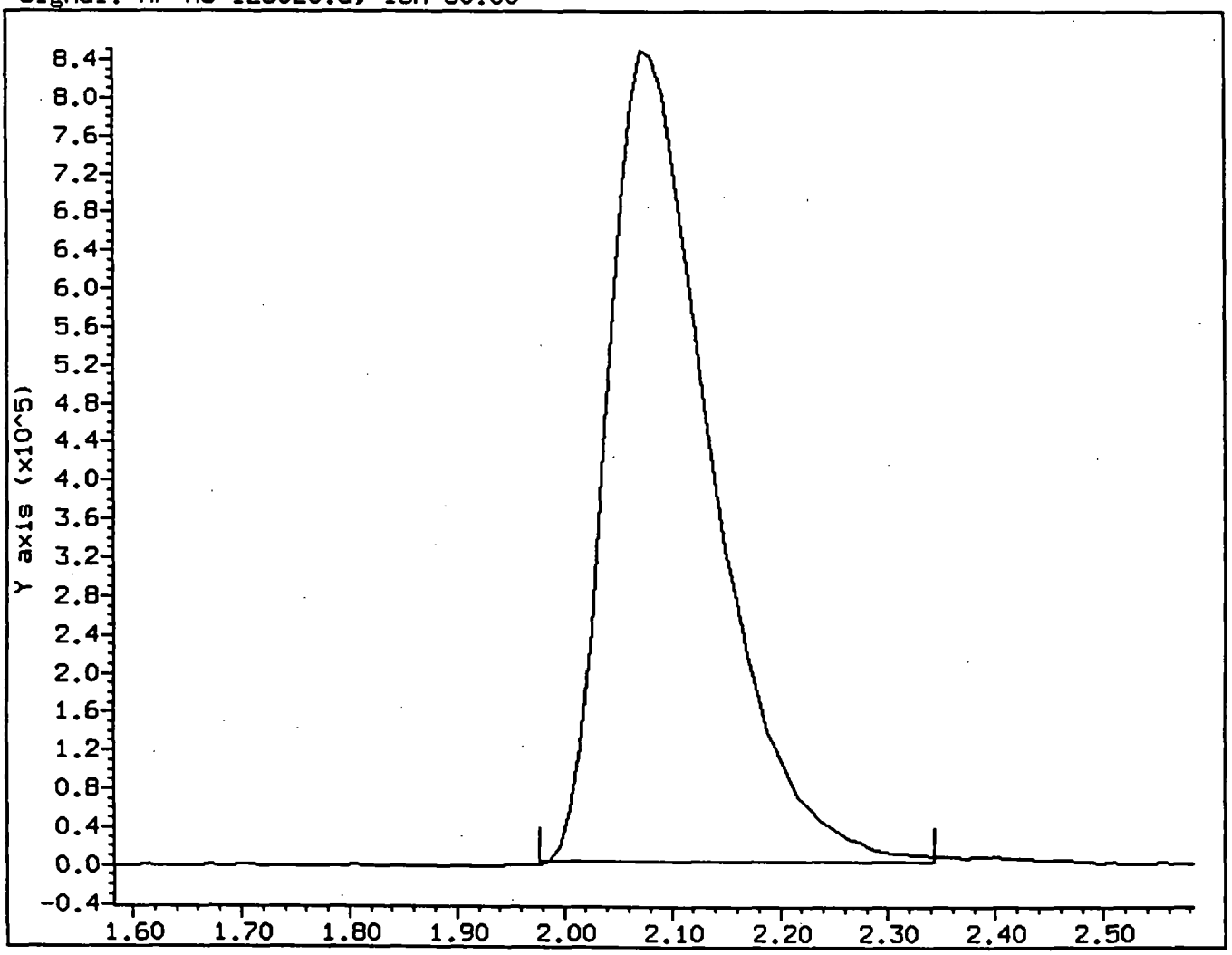
	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	32 2-Hexanone	43.00	12.422	(0.941)	2419210	176.43	176.43
	33 Dibromochloromethane	129.00	12.567	(1.254)	7824785	187.00	187.00
*	34 Chlorobenzene-d5	117.00	13.204	(1.000)	3123711	50.00	
	35 Chlorobenzene	112.00	13.233	(0.000)	10555483	188.85	188.85(M)
	36 Ethylbenzene	106.00	13.369	(1.012)	4716360	185.48	185.48
	37 m,p-Xylene	106.00	13.494	(1.022)	12272734	356.40	356.40
	38 o-Xylene	106.00	13.929	(1.055)	6409886	179.54	179.54
M	39 Xylene (Total)	106.00			18682620	523.30	523.30
	40 Styrene	104.00	13.948	(0.000)	10177279	176.14	176.14(M)
	41 Bromoform	173.00	14.141	(1.411)	5156321	189.00	189.00
$	42 Bromofluorobenzene	95.00	14.499	(1.098)	7566575	175.01	175.01
	43 1,1,2,2-Tetrachloroethane	83.00	14.673	(1.111)	7245020	183.15	183.15

QC Flag Legend

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

Manual Integration

Client Sample ID: VSTD200L5
Injection Date: 07-OCT-96 19:22
Instrument: l.i
Compound: Chloromethane
Signal: HP MS 123020.d, Ion 50.00



10/10/96
RB

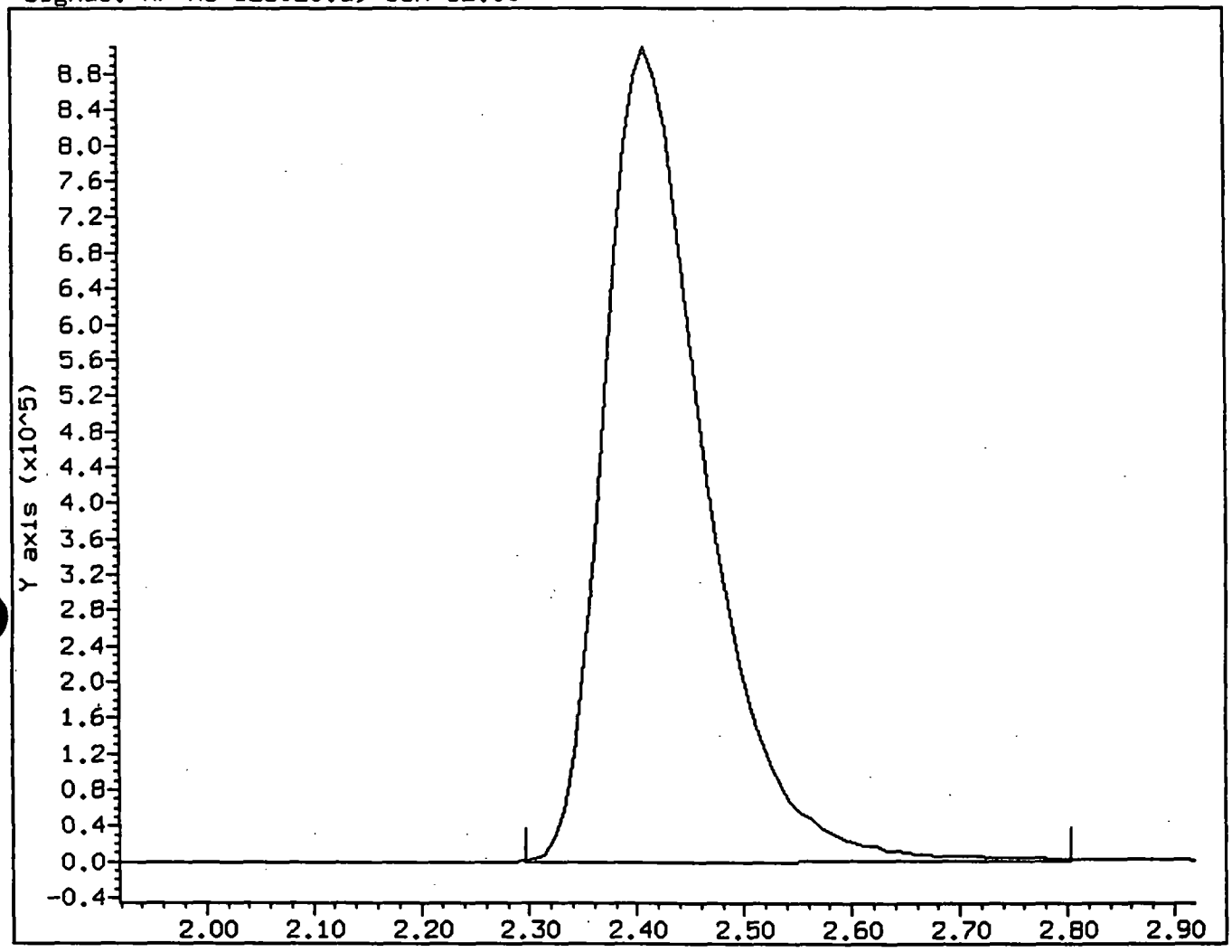
MANUAL INTEGRATION REPORT

LAB SAMPLE ID: VSTD200L5
SAMPLE ID. : VSTD200L5
FILENAME : /chem/l.i/1961007c.b/123020.d
INST ID. : l.i
ANALYST : LINDA
DATE INJECTED: 07-OCT-1996 19:22
COMPOUND : Chloromethane
ION: 50 AREA: 5673533 CONCENTRATION: 196.09
INTEGRATION SCAN RANGE: 68 - 106

Report Generated: 10/10/96 at 09:41 by LD

Manual Integration

Client Sample ID: VSTD200L5
Injection Date: 07-OCT-96 19:22
Instrument: l.i
Compound: Vinyl Chloride
Signal: HP MS 123020.d, Ion 62.00



10/10/96
HB

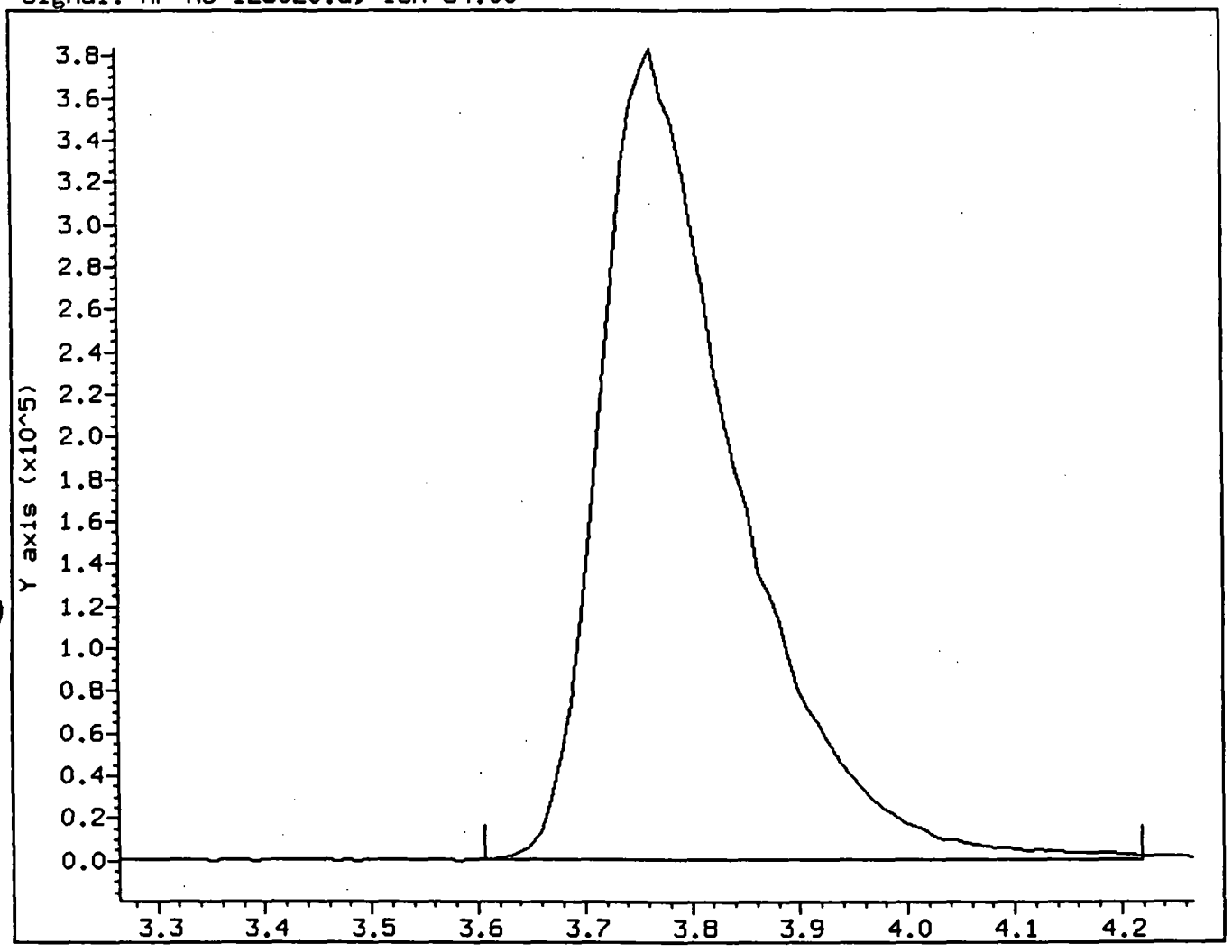
MANUAL INTEGRATION REPORT

LAB SAMPLE ID: VSTD200L5
SAMPLE ID. : VSTD200L5
FILENAME : /chem/l.i/1961007c.b/123020.d
INST ID. : l.i
ANALYST : LINDA
DATE INJECTED: 07-OCT-1996 19:22
COMPOUND : Vinyl Chloride
ION: 62 AREA: 5945109 CONCENTRATION: 191.68
INTEGRATION SCAN RANGE: 101 - 154

Report Generated: 10/10/96 at 09:41 by LPD

Manual Integration

Client Sample ID: VSTD200L5
Injection Date: 07-OCT-96 19:22
Instrument: l.i
Compound: Chloroethane
Signal: HP MS 123020.d, Ion 64.00



10/10/96
AB

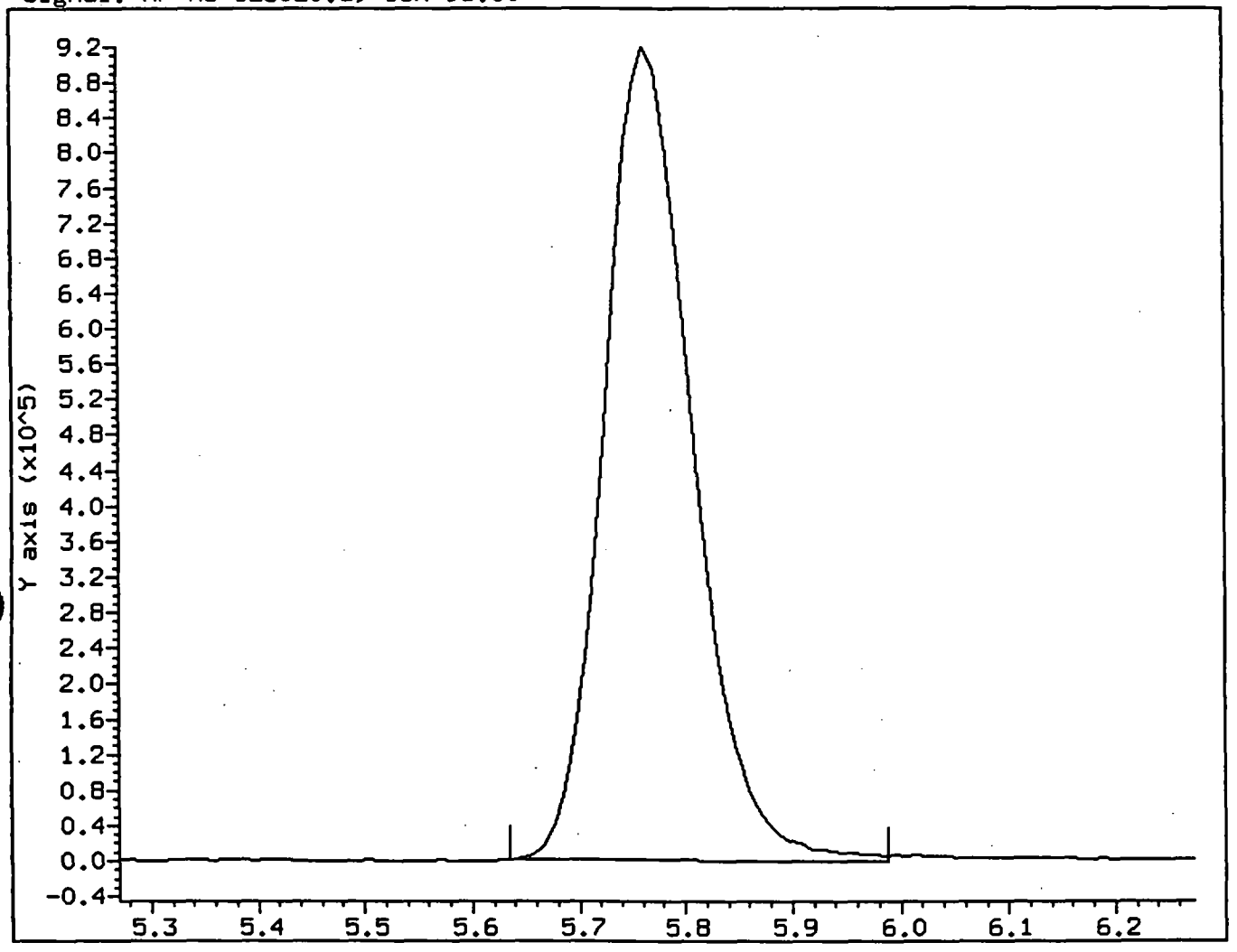
MANUAL INTEGRATION REPORT

LAB SAMPLE ID: VSTD200L5
SAMPLE ID. : VSTD200L5
FILENAME : /chem/l.i/1961007c.b/123020.d
INST ID. : l.i
ANALYST : LINDA
DATE INJECTED: 07-OCT-1996 19:22
COMPOUND : Chloroethane
ION: 64 AREA: 3361407 CONCENTRATION: 191.49
INTEGRATION SCAN RANGE: 238 - 301

Report Generated: 10/10/96 at 09:41 by _____

Manual Integration

Client Sample ID: VSTD200L5
Injection Date: 07-OCT-96 19:22
Instrument: 1.i
Compound: 1,1-Dichloroethene
Signal: HP MS 123020.d, Ion 96.00



10/10/96
RB

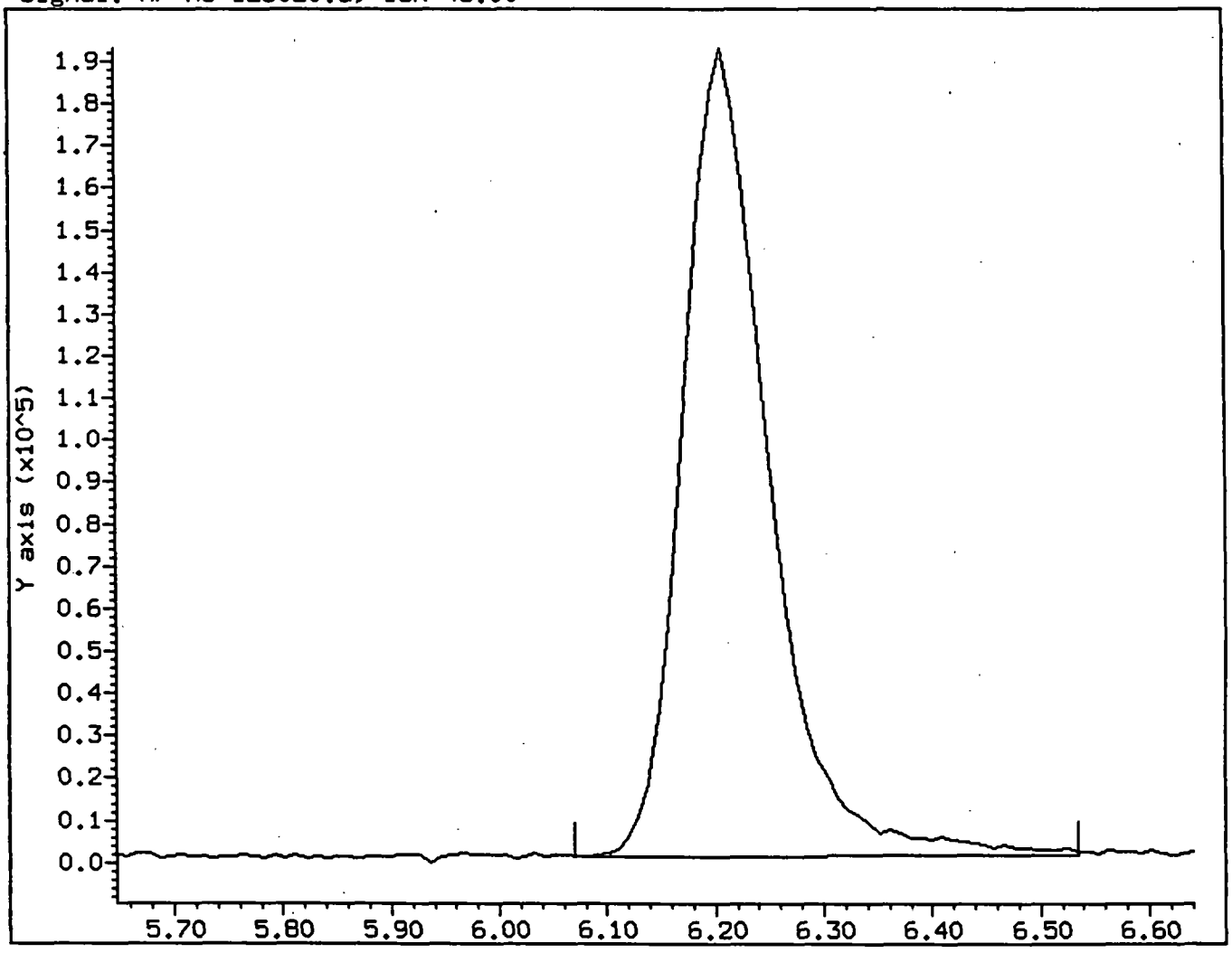
MANUAL INTEGRATION REPORT

LAB SAMPLE ID: VSTD200L5
SAMPLE ID. : VSTD200L5
FILENAME : /chem/l.i/1961007c.b/123020.d
INST ID. : l.i
ANALYST : LINDA
DATE INJECTED: 07-OCT-1996 19:22
COMPOUND : 1,1-Dichloroethene
ION: 96 AREA: 5308260 CONCENTRATION: 185.65
INTEGRATION SCAN RANGE: 448 - 484

Report Generated: 10/10/96 at 09:41 by LD

Manual Integration

Client Sample ID: VSTD200L5
Injection Date: 07-OCT-96 19:22
Instrument: l.i
Compound: Acetone
Signal: HP MS 123020.d, Ion 43.00



10/10/96
RB

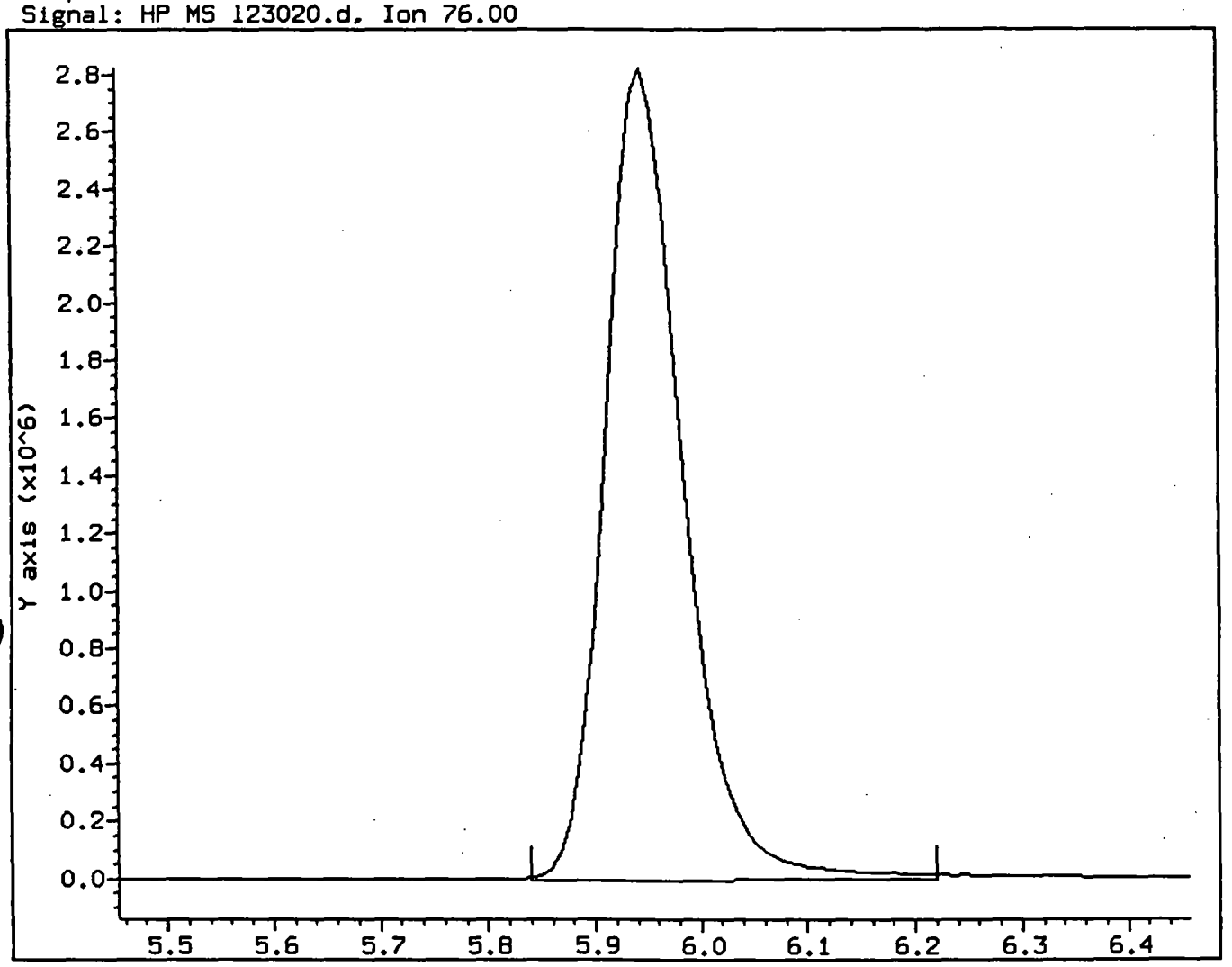
MANUAL INTEGRATION REPORT

LAB SAMPLE ID: VSTD200L5
SAMPLE ID. : VSTD200L5
FILENAME : /chem/l.i/1961007c.b/123020.d
INST ID. : l.i
ANALYST : LINDA
DATE INJECTED: 07-OCT-1996 19:22
COMPOUND : Acetone
ION: 43 AREA: 1048116 CONCENTRATION: 187.83
INTEGRATION SCAN RANGE: 493 - 541

Report Generated: 10/10/96 at 09:41 by _____

Manual Integration

Client Sample ID: VSTD200L5
Injection Date: 07-OCT-96 19:22
Instrument: 1.i
Compound: Carbon Disulfide
Signal: HP MS 123020.d, Ion 76.00



10/10/96
AR

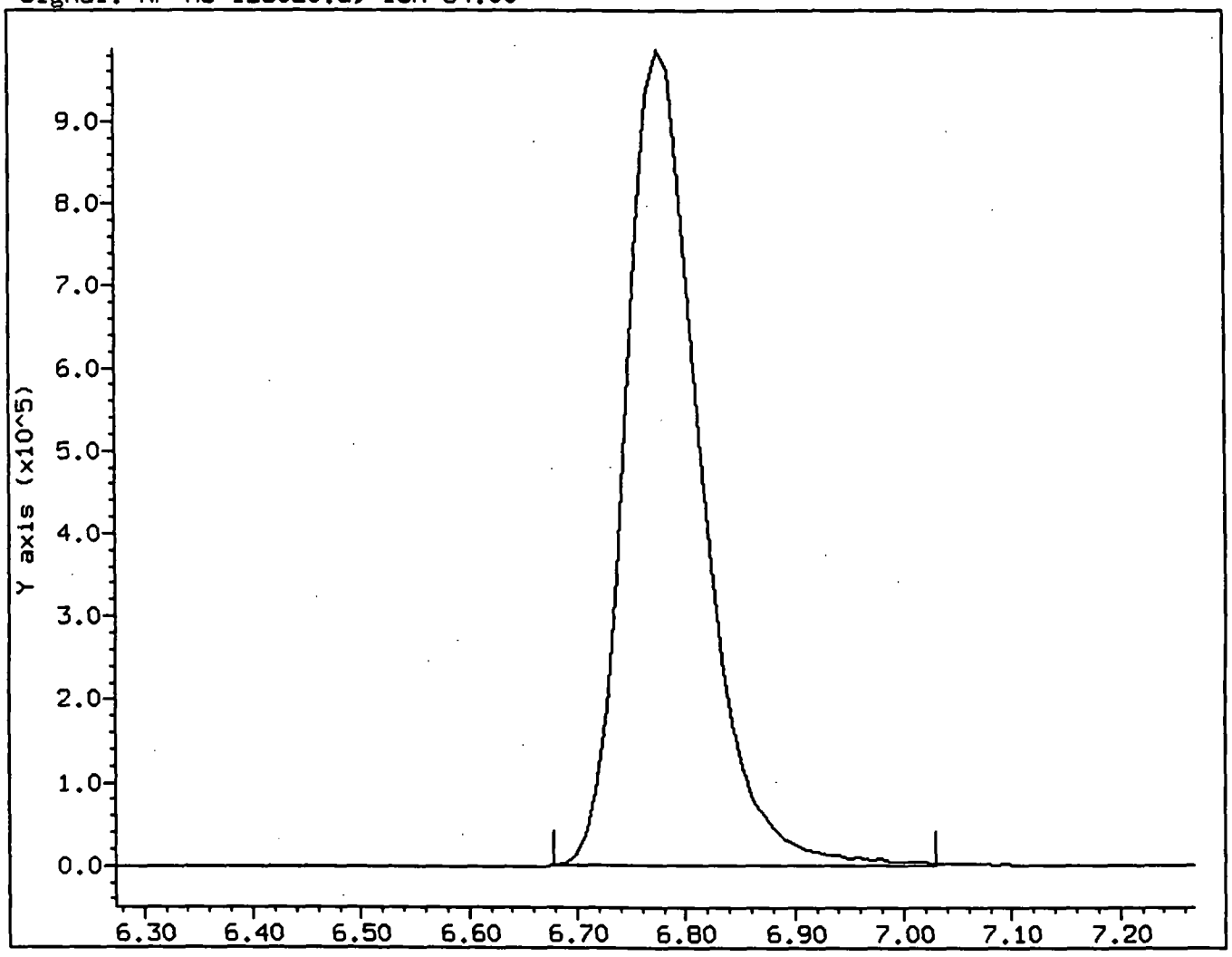
MANUAL INTEGRATION REPORT

LAB SAMPLE ID: VSTD200L5
SAMPLE ID. : VSTD200L5
FILENAME : /chem/l.i/1961007c.b/123020.d
INST ID. : l.i
ANALYST : LINDA
DATE INJECTED: 07-OCT-1996 19:22
COMPOUND : Carbon Disulfide
ION: 76 AREA: 14449960 CONCENTRATION: 185.79
INTEGRATION SCAN RANGE: 469 - 509

Report Generated: 10/10/96 at 09:41 by LD

Manual Integration

Client Sample ID: VSTD200L5
Injection Date: 07-OCT-96 19:22
Instrument: l.i
Compound: Methylene Chloride
Signal: HP MS 123020.d, Ion 84.00



10/10/96
AB

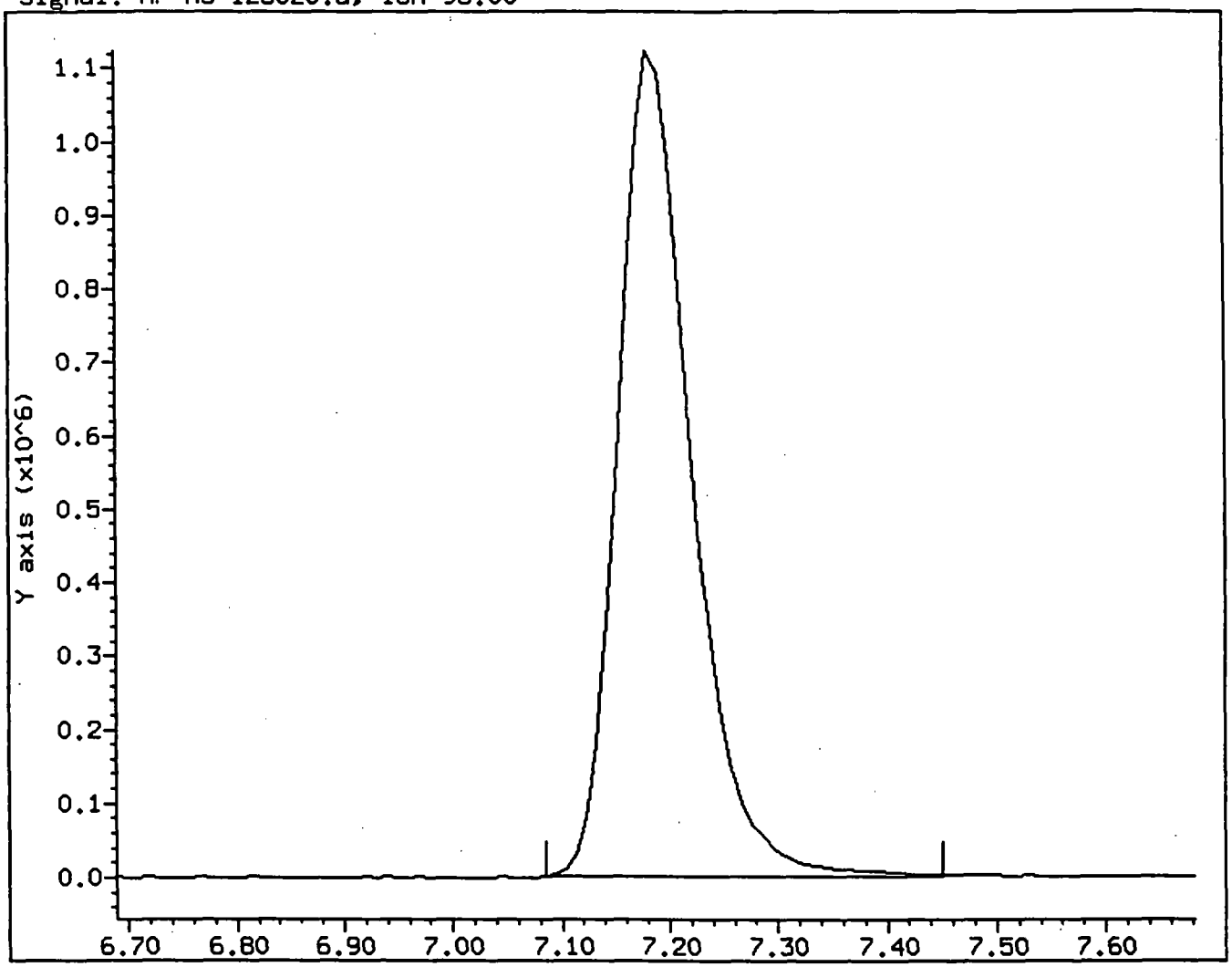
MANUAL INTEGRATION REPORT

LAB SAMPLE ID: VSTD200L5
SAMPLE ID. : VSTD200L5
FILENAME : /chem/l.i/1961007c.b/123020.d
INST ID. : l.i
ANALYST : LINDA
DATE INJECTED: 07-OCT-1996 19:22
COMPOUND : Methylene Chloride
ION: 84 AREA: 4687123 CONCENTRATION: 186.14
INTEGRATION SCAN RANGE: 556 - 592

Report Generated: 10/10/96 at 09:41 by LB

Manual Integration

Client Sample ID: VSTD200L5
Injection Date: 07-OCT-96 19:22
Instrument: 1.i
Compound: trans-1,2-Dichloroethene
Signal: HP MS 123020.d, Ion 96.00



10/10/96
AA

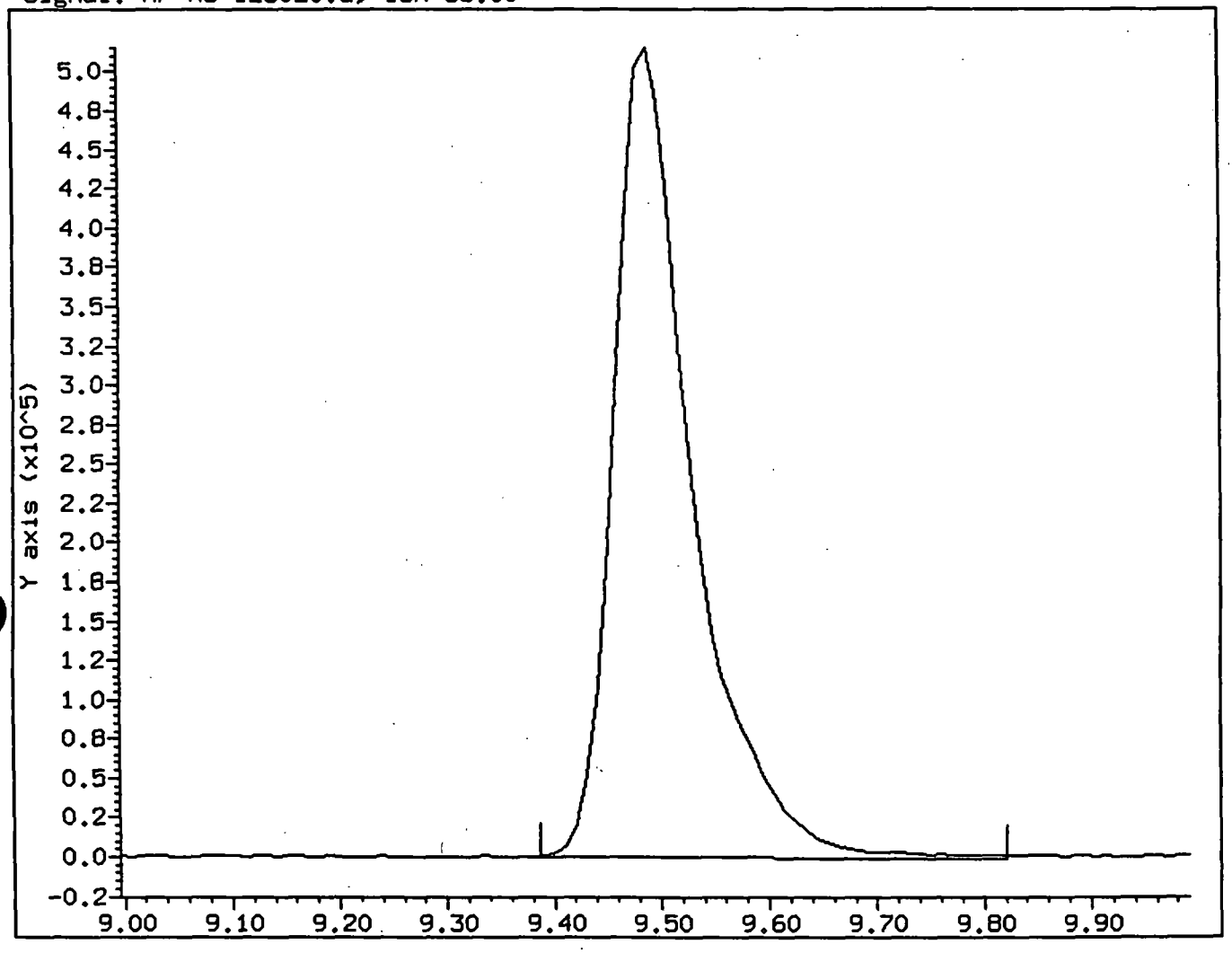
MANUAL INTEGRATION REPORT

LAB SAMPLE ID: VSTD200L5
SAMPLE ID. : VSTD200L5
FILENAME : /chem/l.i/1961007c.b/123020.d
INST ID. : l.i
ANALYST : LINDA
DATE INJECTED: 07-OCT-1996 19:22
COMPOUND : trans-1,2-Dichloroethene
ION: 96 AREA: 5267564 CONCENTRATION: 186.82
INTEGRATION SCAN RANGE: 598 - 636

Report Generated: 10/10/96 at 09:41 by LD

Manual Integration

Client Sample ID: VSTD200L5
Injection Date: 07-OCT-96 19:22
Instrument: 1.i
Compound: 1,2-Dichloroethane-d4
Signal: HP MS 123020.d, Ion 65.00



10/10/96
AB

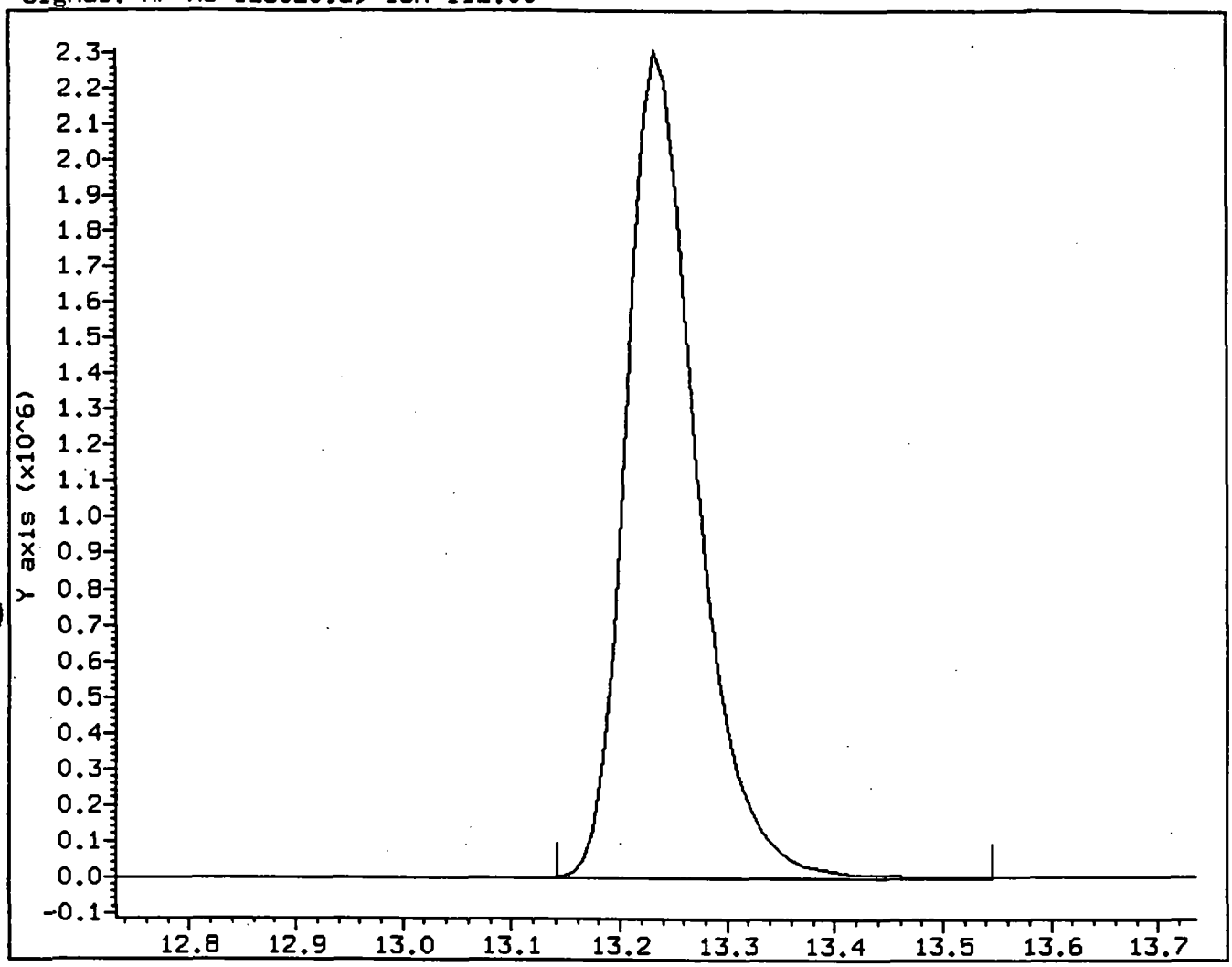
MANUAL INTEGRATION REPORT

LAB SAMPLE ID: VSTD200L5
SAMPLE ID. : VSTD200L5
FILENAME : /chem/1.i/1961007c.b/123020.d
INST ID. : 1.i
ANALYST : LINDA
DATE INJECTED: 07-OCT-1996 19:22
COMPOUND : 1,2-Dichloroethane-d4
ION: 65 AREA: 2628875 CONCENTRATION: 213.31
INTEGRATION SCAN RANGE: 836 - 881

Report Generated: 10/10/96 at 09:41 by _____

Manual Integration

Client Sample ID: VSTD200L5
Injection Date: 07-OCT-96 19:22
Instrument: l.i
Compound: Chlorobenzene
Signal: HP MS 123020.d, Ion 112.00



10/10/96
JB

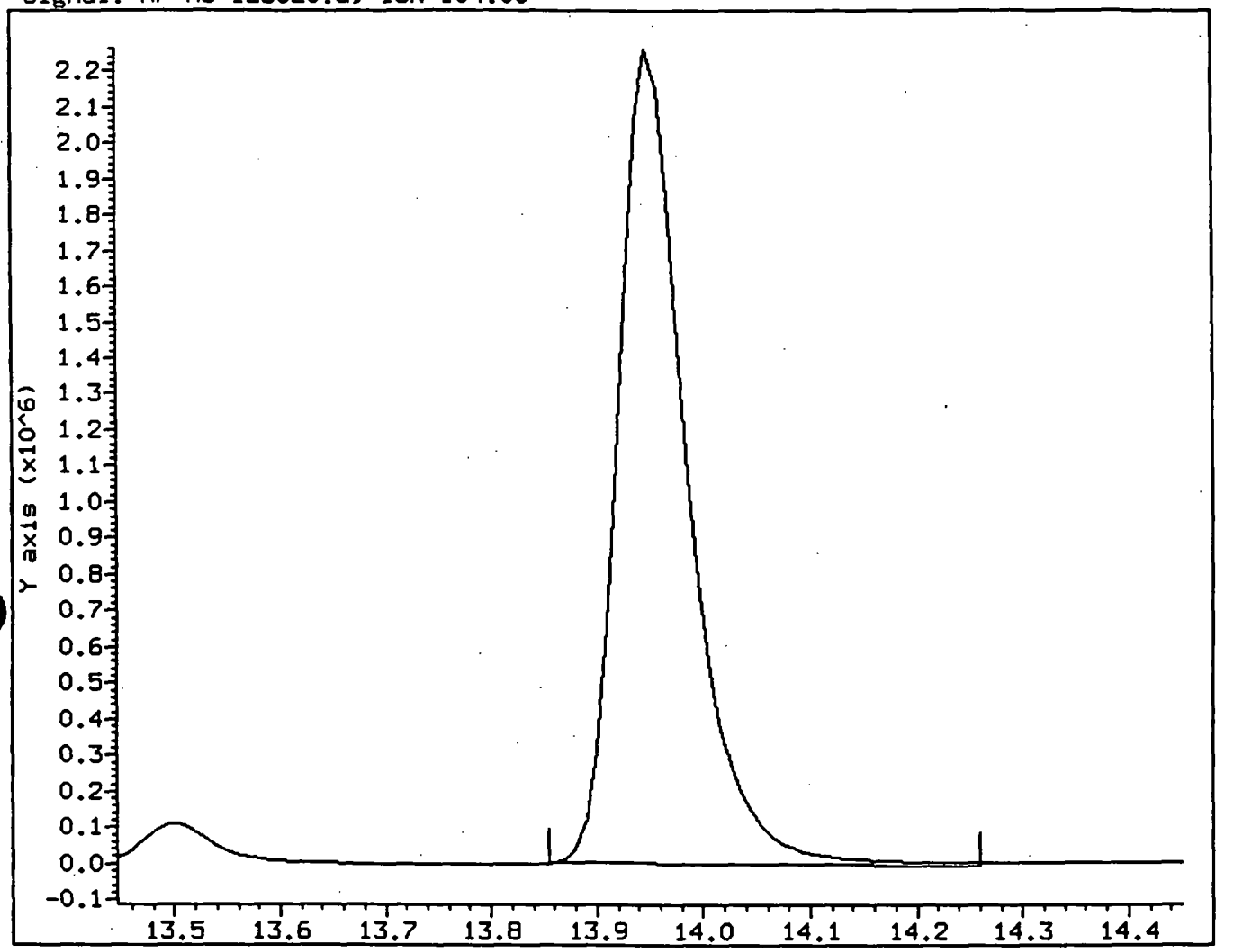
MANUAL INTEGRATION REPORT

LAB SAMPLE ID: VSTD200L5
SAMPLE ID. : VSTD200L5
FILENAME : /chem/l.i/1961007c.b/123020.d
INST ID. : l.i
ANALYST : LINDA
DATE INJECTED: 07-OCT-1996 19:22
COMPOUND : Chlorobenzene
ION: 112 AREA: 10555483 CONCENTRATION: 188.85
INTEGRATION SCAN RANGE: 1226 - 1267

Report Generated: 10/10/96 at 09:41 by _____

Manual Integration

Client Sample ID: VSTD200L5
Injection Date: 07-OCT-96 19:22
Instrument: 1.i
Compound: Styrene
Signal: HP MS 123020.d, Ion 104.00



10/10/96
JB

MANUAL INTEGRATION REPORT

LAB SAMPLE ID: VSTD200L5
SAMPLE ID. : VSTD200L5
FILENAME : /chem/l.i/1961007c.b/123020.d
INST ID. : l.i
ANALYST : LINDA
DATE INJECTED: 07-OCT-1996 19:22
COMPOUND : Styrene
ION: 104 AREA: 10177279 CONCENTRATION: 176.14
INTEGRATION SCAN RANGE: 1299 - 1341

Report Generated: 10/10/96 at 09:41 by _____

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: C Calibration Date: 11/21/96 Time: 1021

Lab File ID: C22741.D Init. Calibration Date(s): 09/25/96

Heated Purge: (Y/N) Y Init. Calibration Times: 0925 1149

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

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.550	0.484		-12.0	
Bromomethane	1.319	1.174	0.100	-11.0	25.0
Vinyl Chloride	0.770	0.675	0.100	-12.3	25.0
Chloroethane	0.566	0.464		-18.0	
Methylene Chloride	1.280	0.957		-25.2	
Acetone	0.224	0.269		20.1	
Carbon Disulfide	3.202	2.230		-30.4	
1,1-Dichloroethene	1.383	1.089	0.100	-21.3	25.0
1,1-Dichloroethane	2.061	1.663	0.200	-19.3	25.0
1,2-Dichloroethene (total)	1.363	1.093		-19.8	
Chloroform	2.817	2.592	0.200	-8.0	25.0
1,2-Dichloroethane	1.234	1.248	0.100	1.1	25.0
2-Butanone	0.205	0.250		22.0	
1,1,1-Trichloroethane	0.970	1.054	0.100	8.7	25.0
Carbon Tetrachloride	1.014	1.190	0.100	17.4	25.0
Bromodichloromethane	1.308	1.320	0.200	0.9	25.0
1,2-Dichloropropane	0.411	0.227		-44.8	
cis-1,3-Dichloropropene	0.787	0.632	0.200	-19.7	25.0
Trichloroethene	0.727	0.512	0.300	-29.6	25.0
Dibromochloromethane	1.314	1.345	0.100	2.4	25.0
1,1,2-Trichloroethane	0.545	0.436	0.100	-20.0	25.0
Benzene	0.830	0.661	0.500	-20.4	25.0
trans-1,3-Dichloropropene	0.704	0.598	0.100	-15.1	25.0
Bromoform	0.995	1.112	0.100	11.8	25.0
4-Methyl-2-Pentanone	0.179	0.199		11.2	
2-Hexanone	0.136	0.200		47.1	
Tetrachloroethene	0.675	0.742	0.200	9.9	25.0
1,1,2,2-Tetrachloroethane	0.479	0.445	0.300	-7.1	25.0
Toluene	1.004	0.902	0.400	-10.2	25.0
Chlorobenzene	0.976	0.894	0.500	-8.4	25.0
Ethylbenzene	0.407	0.353	0.100	-13.3	25.0
Styrene	0.831	0.724	0.300	-12.9	25.0
Xylene (Total)	0.485	0.426	0.300	-12.2	25.0
Toluene-d8	1.250	0.896		-28.3	
Bromofluorobenzene	1.056	0.853	0.200	-19.2	25.0
1,2-Dichloroethane-d4	1.406	1.126		-19.9	

All other compounds must meet a minimum RRF of 0.010.

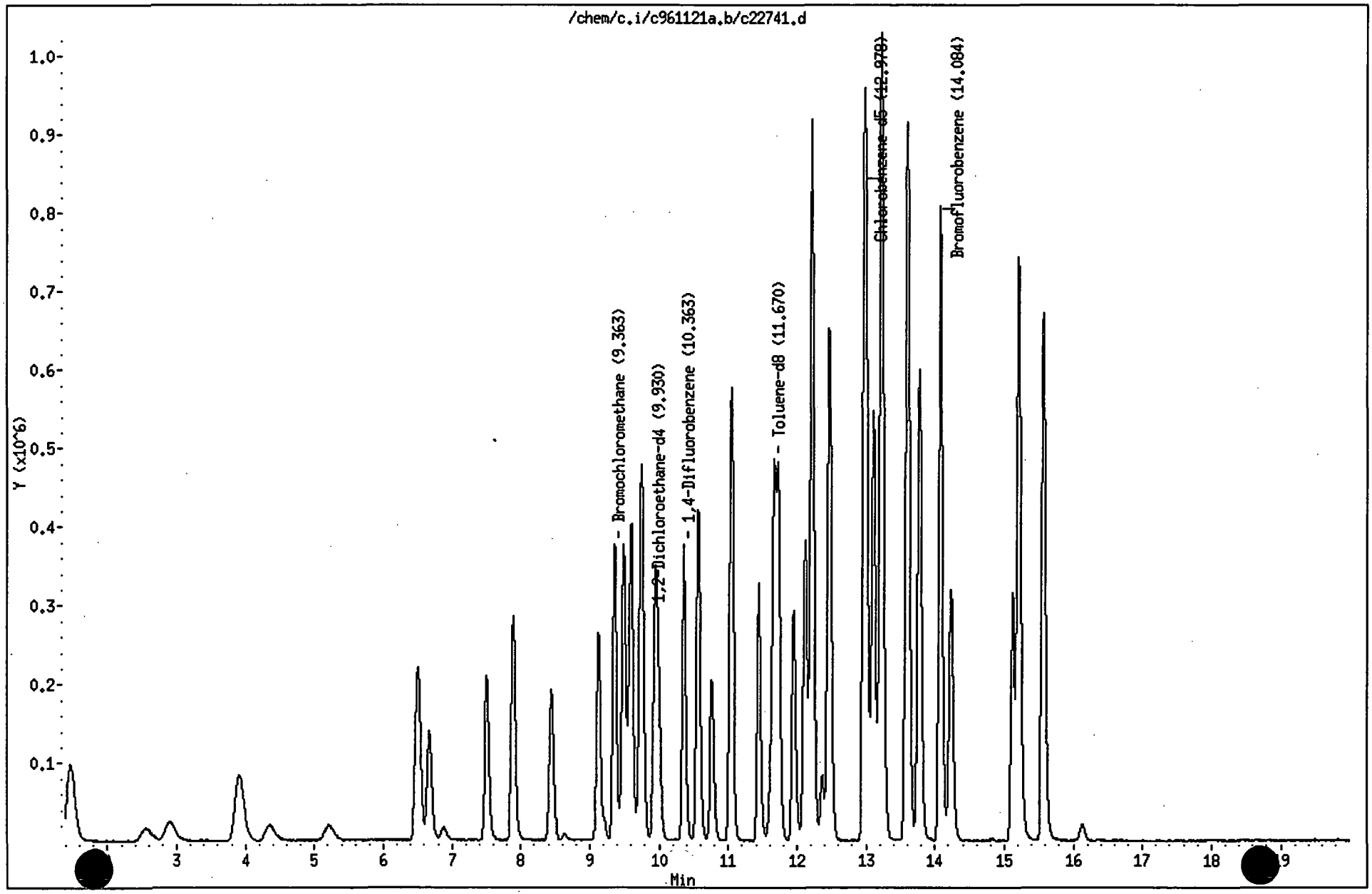
JW 11/28/96

OPERATOR: Linda

99

Data File: /chem/c.i/c961121a.b/c22741.d
Date : 21-NOV-96 10:21
Instrument : c.i
Sample ID : VSTD050CM
Column phase : DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/c.i/c961121a.b/c22741.d
Lab. Id. : VSTD050CM
Quant Type: ISTD
Inj Date : 21-NOV-96 10:21
Operator : rebecca
Inst ID: c.i
Smp Info : VSTD050CM
Misc Info : MS317**INST:C*SWOK*2-077-11*5ML
Comment :
Method : /chem/c.i/c961121a.b/OLM3SOIL.m
Meth Date : 21-Nov-1996 11:04
Cal Date : 21-NOV-96 10:21
Cal File: c22741.d
Als bottle: 2
Continuing Calibration Sample
Dil Factor: 1.000
Target Version: Target 3.00
Integrator: HP RTE
Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
	1 Chloromethane	50.00	2.586	(0.276)	105800	44.01	44.01
	2 Vinyl Chloride	62.00	2.912	(0.311)	147579	43.82	43.82
	3 Bromomethane	94.00	3.910	(0.418)	256742	44.51	44.51
	4 Chloroethane	64.00	4.361	(0.466)	101611	41.07	41.07
	5 1,1-Dichloroethene	96.00	6.511	(0.695)	238131	39.36	39.36
	6 Acetone	43.00	6.895	(0.736)	58753	59.91	59.91
	7 Carbon Disulfide	76.00	6.674	(0.713)	487639	34.81	34.81
	8 Methylene Chloride	84.00	7.509	(0.802)	209325	37.38	37.38
M	9 1,2-Dichloroethene (total)	96.00			478210	80.19	80.19
	10 trans-1,2-Dichloroethene	96.00	7.893	(0.843)	244768	39.60	39.60
	11 1,1-Dichloroethane	63.00	8.450	(0.903)	363815	40.34	40.34
	12 cis-1,2-Dichloroethene	96.00	9.132	(0.975)	233442	40.62	40.62
	13 2-Butanone	43.00	9.218	(0.985)	54649	60.82	60.82
*	14 Bromochloromethane	128.00	9.363	(1.000)	218707	50.00	
	15 Chloroform	83.00	9.497	(1.014)	566816	45.99	45.99
	16 1,1,1-Trichloroethane	97.00	9.603	(0.927)	575739	54.29	54.29
	17 Carbon Tetrachloride	117.00	9.747	(0.941)	650007	58.64	58.64
$	18 1,2-Dichloroethane-d4	65.00	9.930	(1.061)	246368	40.04	40.04
	19 Benzene	78.00	9.959	(0.961)	361197	39.82	39.82
	20 1,2-Dichloroethane	62.00	10.007	(1.069)	273036	50.58	50.58
*	21 1,4-Difluorobenzene	114.00	10.363	(1.000)	546292	50.00	
	22 Trichloroethene	130.00	10.565	(1.019)	279835	35.20	35.20
	23 1,2-Dichloropropane	63.00	10.767	(1.039)	124127	27.66	27.66
	24 Bromodichloromethane	83.00	11.045	(1.066)	721169	50.48	50.48
	25 cis-1,3-Dichloropropene	75.00	11.449	(1.105)	345159	40.13	40.13
	26 4-Methyl-2-Pentanone	43.00	11.622	(0.895)	133792	55.49	55.49
$	27 Toluene-d8	98.00	11.670	(0.899)	601538	35.83	35.83
	28 Toluene	91.00	11.728	(0.904)	605470	44.89	44.89
	29 trans-1,3-Dichloropropene	75.00	11.958	(1.154)	326972	42.52	42.52
	30 1,1,2-Trichloroethane	97.00	12.112	(1.169)	238069	40.00	40.00
	31 Tetrachloroethene	164.00	12.218	(0.941)	498390	54.98	54.98

Data File: /chem/c.i/c961121a.b/c22741.d
Report Date: 21-Nov-1996 11:04

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
	32 2-Hexanone	43.00	12.372	(0.953)	134575	73.66	73.66
	33 Dibromochloromethane	129.00	12.459	(1.202)	734683	51.18	51.18
*	34 Chlorobenzene-d5	117.00	12.978	(1.000)	671559	50.00	
	35 Chlorobenzene	112.00	13.007	(1.002)	600105	45.76	45.76
	36 Ethylbenzene	106.00	13.113	(1.010)	236846	43.36	43.36
	37 m,p-Xylene	106.00	13.219	(1.019)	606459	88.35	88.35
	38 o-Xylene	106.00	13.593	(1.047)	286368	43.93	43.93
M	39 Xylene (Total)	106.00			892827	136.96	136.96
	40 Styrene	104.00	13.603	(1.048)	485888	43.54	43.54
	41 Bromoform	172.80	13.776	(1.329)	607490	55.85	55.85
$	42 Bromofluorobenzene	95.00	14.084	(1.085)	573158	40.39	40.39
	43 1,1,2,2-Tetrachloroethane	83.00	14.238	(1.097)	299015	46.43	46.43

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: C Calibration Date: 11/22/96 Time: 1005

Lab File ID: C22759.D Init. Calibration Date(s): 09/25/96

Heated Purge: (Y/N) Y Init. Calibration Times: 0925 1149

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

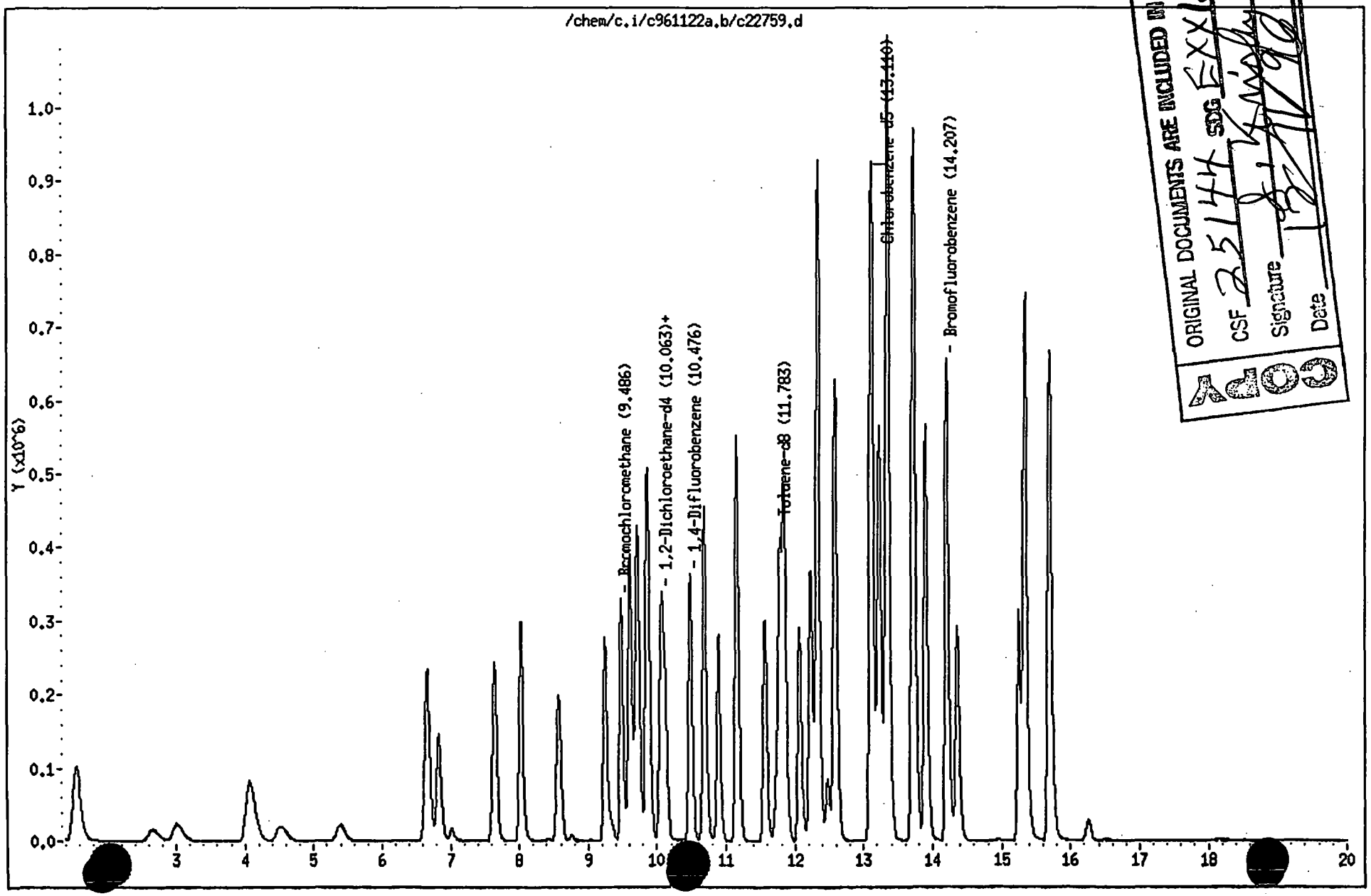
COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.550	0.552		0.4	
Bromomethane	1.319	1.274	0.100	-3.4	25.0
Vinyl Chloride	0.770	0.730	0.100	-5.2	25.0
Chloroethane	0.566	0.522		-7.8	
Methylene Chloride	1.280	1.283		0.2	
Acetone	0.224	0.296		32.1	
Carbon Disulfide	3.202	2.574		-19.6	
1,1-Dichloroethene	1.383	1.268	0.100	-8.3	25.0
1,1-Dichloroethane	2.061	1.936	0.200	-6.1	25.0
1,2-Dichloroethene (total)	1.363	1.281		-6.0	
Chloroform	2.817	3.017	0.200	7.1	25.0
1,2-Dichloroethane	1.234	1.461	0.100	18.4	25.0
2-Butanone	0.205	0.282		37.6	
1,1,1-Trichloroethane	0.970	1.149	0.100	18.5	25.0
Carbon Tetrachloride	1.014	1.276	0.100	25.8	25.0
Bromodichloromethane	1.308	1.294	0.200	-1.1	25.0
1,2-Dichloropropane	0.411	0.310		-24.6	
cis-1,3-Dichloropropene	0.787	0.624	0.200	-20.7	25.0
Trichloroethene	0.727	0.557	0.300	-23.4	25.0
Dibromochloromethane	1.314	1.328	0.100	1.1	25.0
1,1,2-Trichloroethane	0.545	0.429	0.100	-21.3	25.0
Benzene	0.830	0.701	0.500	-15.5	25.0
trans-1,3-Dichloropropene	0.704	0.610	0.100	-13.4	25.0
Bromoform	0.995	1.056	0.100	6.1	25.0
4-Methyl-2-Pentanone	0.179	0.219		22.3	
2-Hexanone	0.136	0.220		61.8	
Tetrachloroethene	0.675	0.809	0.200	19.9	25.0
1,1,2,2-Tetrachloroethane	0.479	0.454	0.300	-5.2	25.0
Toluene	1.004	1.039	0.400	3.5	25.0
Chlorobenzene	0.976	1.014	0.500	3.9	25.0
Ethylbenzene	0.407	0.392	0.100	-3.7	25.0
Styrene	0.831	0.841	0.300	1.2	25.0
Xylene (Total)	0.485	0.499	0.300	2.9	25.0
Toluene-d8	1.250	0.830		-33.6	
Bromofluorobenzene	1.056	0.774	0.200	-26.7	25.0
1,2-Dichloroethane-d4	1.406	1.092		-22.3	

All other compounds must meet a minimum RRF of 0.010.

Data File: /chem/c.i/c961122a.b/c22759.d
Date : 22-NOV-96 10:05
Instrument : c.i
Sample ID : VSTD050CN
Column phase : DB-624
Volume Injected (uL) : 0.0

OPERATOR: Linda

Column diameter : 0.53



ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25144 SDG EXX18
Signature
Date
COPY

103

SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/c.i/c961122a.b/c22759.d
Lab. Id. : VSTD050CN
Quant Type: ISTD
Inj Date : 22-NOV-96 10:05
Operator : rebecca
Inst ID: c.i
Smp Info : VSTD050CN
Misc Info : MS317**INST:C*SWOK*2-077-11*5ML
Comment :
Method : /chem/c.i/c961122a.b/OLM3SOIL.m
Meth Date : 22-Nov-1996 10:51
Cal Date : 22-NOV-96 10:05
Cal File: c22759.d
Als bottle: 2
Continuing Calibration Sample
Dil Factor: 1.000
Target Version: Target 3.00
Integrator: HP RTE
Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
	1 Chloromethane	50.00	2.662	(0.281)	107093	50.21	50.21
	2 Vinyl Chloride	62.00	3.017	(0.318)	141577	47.38	47.38
	3 Bromomethane	94.00	4.073	(0.429)	247121	48.29	48.29
	4 Chloroethane	64.00	4.495	(0.474)	101360	46.18	46.18
	1,1-Dichloroethene	96.00	6.664	(0.702)	246067	45.85	45.85
	Acetone	43.00	7.019	(0.740)	57503	66.09	66.09
	7 Carbon Disulfide	76.00	6.827	(0.720)	499420	40.18	40.18
	8 Methylene Chloride	84.00	7.643	(0.806)	248959	50.11	50.11
M	9 1,2-Dichloroethene (total)	96.00			497187	93.97	93.97
	10 trans-1,2-Dichloroethene	96.00	8.017	(0.845)	258635	47.17	47.17
	11 1,1-Dichloroethane	63.00	8.574	(0.904)	375693	46.96	46.96
	12 cis-1,2-Dichloroethene	96.00	9.246	(0.975)	238552	46.79	46.79
	13 2-Butanone	43.00	9.332	(0.984)	54740	68.67	68.67
*	14 Bromochloromethane	128.00	9.486	(1.000)	194037	50.00	
	15 Chloroform	83.00	9.611	(1.013)	585361	53.54	53.54
	16 1,1,1-Trichloroethane	97.00	9.717	(0.928)	613510	59.19	59.19
	17 Carbon Tetrachloride	117.00	9.871	(0.942)	681143	62.87	62.87
$	18 1,2-Dichloroethane-d4	65.00	10.053	(1.060)	211879	38.82	38.82
	19 Benzene	78.00	10.073	(0.961)	374224	42.21	42.21
	20 1,2-Dichloroethane	62.00	10.121	(1.067)	283529	59.20	59.20
*	21 1,4-Difluorobenzene	114.00	10.476	(1.000)	533951	50.00	
	22 Trichloroethene	130.00	10.678	(1.019)	297604	38.31	38.31
	23 1,2-Dichloropropane	63.00	10.880	(1.039)	165576	37.75	37.75
	24 Bromodichloromethane	83.00	11.159	(1.065)	691071	49.49	49.49
	25 cis-1,3-Dichloropropene	75.00	11.553	(1.103)	333289	39.64	39.64
	26 4-Methyl-2-Pentanone	43.00	11.726	(0.895)	134491	61.07	61.07
$	27 Toluene-d8	98.00	11.783	(0.899)	509277	33.20	33.20
	28 Toluene	91.00	11.841	(0.904)	637442	51.73	51.73
	29 trans-1,3-Dichloropropene	75.00	12.072	(1.152)	325739	43.34	43.34
	30 1,1,2-Trichloroethane	97.00	12.235	(1.168)	229302	39.41	39.41
	31 Tetrachloroethene	164.00	12.332	(0.941)	496484	59.95	59.95

Data File: /chem/c.i/c961122a.b/c22759.d
Report Date: 22-Nov-1996 10:51

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
	32 2-Hexanone	43.00	12.476	(0.952)	135093	80.95	80.95
	33 Dibromochloromethane	129.00	12.582	(1.201)	709145	50.55	50.55
*	34 Chlorobenzene-d5	117.00	13.101	(1.000)	613463	50.00	
	35 Chlorobenzene	112.00	13.130	(1.002)	622090	51.92	51.92
	36 Ethylbenzene	106.00	13.236	(1.010)	240541	48.20	48.20
	37 m,p-Xylene	106.00	13.342	(1.018)	643501	102.62	102.62
	38 o-Xylene	106.00	13.707	(1.046)	305910	51.37	51.37
M	39 Xylene (Total)	106.00			949411	159.43	159.43
	40 Styrene	104.00	13.726	(1.048)	515856	50.61	50.61
	41 Bromoform	172.80	13.899	(1.327)	563763	53.03	53.03
$	42 Bromofluorobenzene	95.00	14.207	(1.084)	474722	36.62	36.62
	43 1,1,2,2-Tetrachloroethane	83.00	14.361	(1.096)	278453	47.34	47.34

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: L Calibration Date: 11/26/96 Time: 0924

Lab File ID: L23524.D Init. Calibration Date(s): 10/07/96

Heated Purge: (Y/N) N Init. Calibration Times: 1731 1922

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

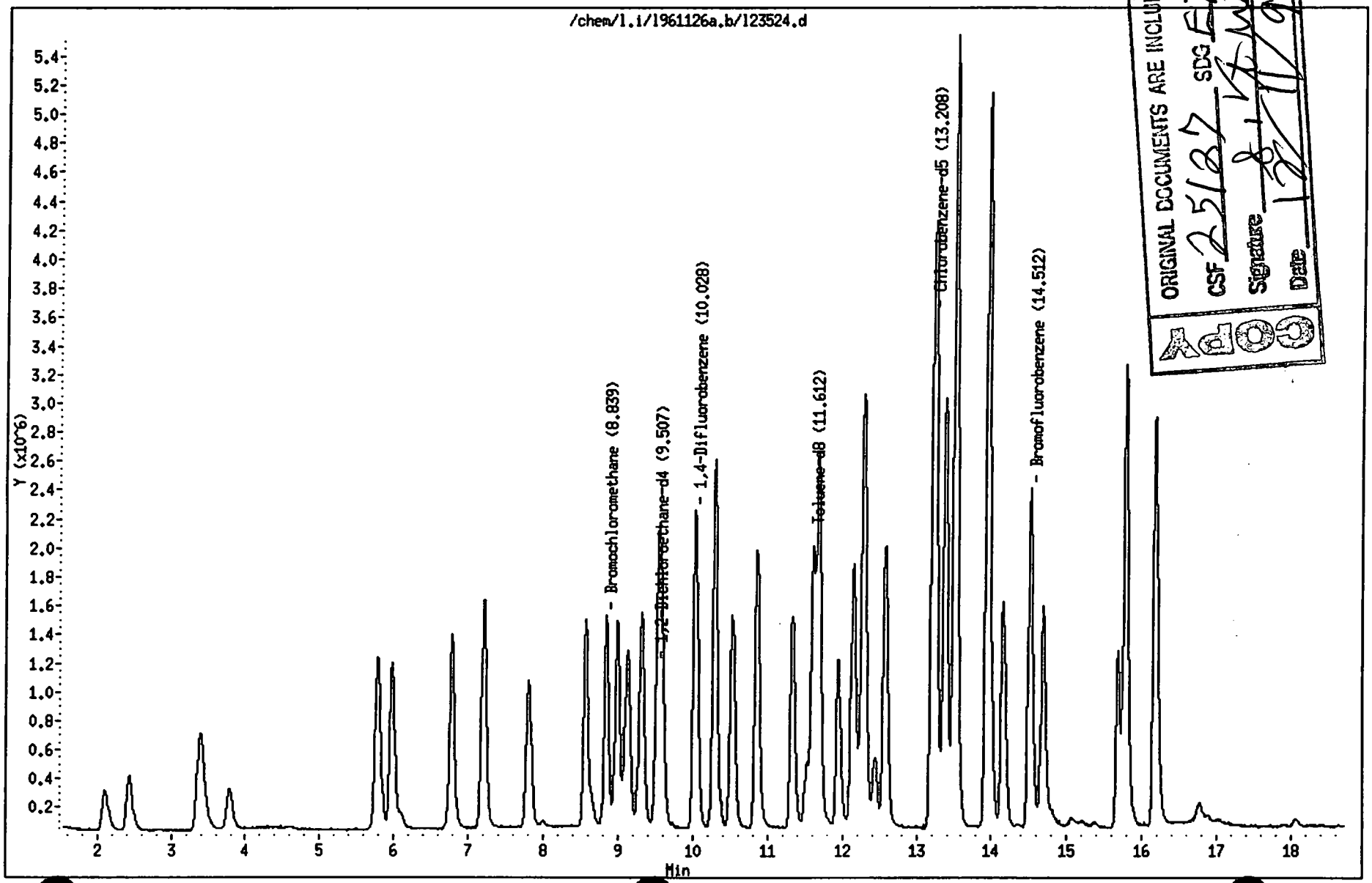
COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chloromethane	1.790	1.054		-41.1	
Bromomethane	2.415	1.968	0.100	-18.5	25.0
Vinyl Chloride	1.918	1.401	0.100	-27.0	25.0
Chloroethane	1.086	0.938		-13.6	
Methylene Chloride	1.558	1.711		9.8	
Acetone	0.345	0.274		-20.6	
Carbon Disulfide	4.811	4.444		-7.6	
1,1-Dichloroethene	1.769	1.738	0.100	-1.8	25.0
1,1-Dichloroethane	2.277	2.453	0.200	7.7	25.0
1,2-Dichloroethene (total)	1.655	1.783		7.7	
Chloroform	2.522	2.730	0.200	8.2	25.0
1,2-Dichloroethane	1.010	0.932	0.100	-7.7	25.0
2-Butanone	0.346	0.359		3.8	
1,1,1-Trichloroethane	0.534	0.472	0.100	-11.6	25.0
Carbon Tetrachloride	0.600	0.541	0.100	-9.8	25.0
Bromodichloromethane	0.687	0.680	0.200	-1.0	25.0
1,2-Dichloropropane	0.332	0.352		6.0	
cis-1,3-Dichloropropene	0.463	0.528	0.200	14.0	25.0
Trichloroethene	0.438	0.474	0.300	8.2	25.0
Dibromochloromethane	0.567	0.603	0.100	6.3	25.0
1,1,2-Trichloroethane	0.296	0.321	0.100	8.4	25.0
Benzene	0.787	0.887	0.500	12.7	25.0
trans-1,3-Dichloropropene	0.345	0.383	0.100	11.0	25.0
Bromoform	0.369	0.392	0.100	6.2	25.0
4-Methyl-2-Pentanone	0.238	0.185		-22.3	
2-Hexanone	0.219	0.185		-15.5	
Tetrachloroethene	0.375	0.447	0.200	19.2	25.0
1,1,2,2-Tetrachloroethane	0.633	0.578	0.300	-8.7	25.0
Toluene	1.055	1.146	0.400	8.6	25.0
Chlorobenzene	0.895	0.973	0.500	8.7	25.0
Ethylbenzene	0.407	0.431	0.100	5.9	25.0
Styrene	0.925	0.932	0.300	0.8	25.0
Xylene (Total)	0.571	0.550	0.300	-3.7	25.0
Toluene-d8	0.805	0.807		0.2	
Bromofluorobenzene	0.692	0.632	0.200	-8.7	25.0
1,2-Dichloroethane-d4	0.762	0.702		-7.9	

All other compounds must meet a minimum RRF of 0.010.

Data File: /chem/1.i/1961126a.b/123524.d
Date : 26-NOV-1996 09:24
Instrument : 1.i
Sample ID : VSTD050LA
Column phase : DB-624
Volume Injected (uL) : 0.0

OPERATOR: Linda

Column diameter : 0.53



ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25187 SDG EXD80
Signature
Date 12/17/96
COPY

107

SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/l.i/1961126a.b/123524.d
Lab. Id. : VSTD050LA
Quant Type: ISTD
Inj Date : 26-NOV-1996 09:24
Operator : LINDA
Inst ID: l.i
Smp Info : VSTD050LA
Misc Info : MS317**INST:L*SWLO*2-077-11*5ML
Comment :
Method : /chem/l.i/1961126a.b/OLM3WAT.m
Meth Date : 26-Nov-1996 09:53
Cal Date : 26-NOV-96 09:24
Cal File: 123524.d
Als bottle: 24
Continuing Calibration Sample
Dil Factor: 1.000
Target Version: Target 3.00
Integrator: HP RTE
Compound Sublist: all.sub
Sample Type: WATER

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	1 Chloromethane	50.00	2.103	(0.238)	1067096	29.44	29.44
	2 Vinyl Chloride	62.00	2.430	(0.275)	1417862	36.50	36.50
	3 Bromomethane	94.00	3.392	(0.384)	1991790	40.74	40.74
	4 Chloroethane	64.00	3.787	(0.428)	949950	43.21	43.21
	5 1,1-Dichloroethene	96.00	5.781	(0.654)	1759892	49.14	49.14
	6 Acetone	43.00	6.090	(0.689)	277370	39.69	39.69
	7 Carbon Disulfide	76.00	5.974	(0.000)	4498539	46.18	46.18(M)
	8 Methylene Chloride	84.00	6.783	(0.767)	1732442	54.93	54.93
M	9 1,2-Dichloroethene (total)	96.00			3610355	107.76	107.76
	10 trans-1,2-Dichloroethene	96.00	7.208	(0.815)	1857192	52.59	52.59
	11 1,1-Dichloroethane	63.00	7.806	(0.883)	2483540	53.86	53.86
	12 cis-1,2-Dichloroethene	96.00	8.569	(0.969)	1753163	55.32	55.32
	13 2-Butanone	43.00	8.656	(0.979)	363534	51.94	51.94
*	14 Bromochloromethane	128.00	8.839	(1.000)	1012272	50.00	
	15 Chloroform	83.00	8.985	(1.016)	2763121	54.11	54.11
	16 1,1,1-Trichloroethane	97.00	9.130	(0.910)	2234097	44.16	44.16
	17 Carbon Tetrachloride	117.00	9.314	(0.929)	2562956	45.06	45.06
$	18 1,2-Dichloroethane-d4	65.00	9.507	(1.075)	710183	46.01	46.01
	19 Benzene	78.00	9.545	(0.952)	4202246	56.36	56.36
	20 1,2-Dichloroethane	62.00	9.594	(1.085)	942999	46.11	46.11
*	21 1,4-Difluorobenzene	114.00	10.028	(1.000)	4737430	50.00	
	22 Trichloroethene	130.00	10.289	(1.026)	2248165	54.21	54.21
	23 1,2-Dichloropropane	63.00	10.521	(1.049)	1667753	52.97	52.97
	24 Bromodichloromethane	83.00	10.849	(1.082)	3223530	49.49	49.49
	25 cis-1,3-Dichloropropene	75.00	11.332	(1.130)	2503200	57.05	57.05
	26 4-Methyl-2-Pentanone	43.00	11.525	(0.873)	767079	38.95	38.95
$	27 Toluene-d8	98.00	11.612	(0.879)	3339990	50.08	50.08
	28 Toluene	91.00	11.680	(0.884)	4744176	54.29	54.29
	29 trans-1,3-Dichloropropene	75.00	11.941	(1.191)	1816233	55.51	55.51
	30 1,1,2-Trichloroethane	97.00	12.144	(1.211)	1521674	54.18	54.18
	31 Tetrachloroethene	164.00	12.290	(0.930)	1851703	59.63	59.63

11/20/96

Data File: /chem/1.i/1961126a.b/123524.d
Report Date: 26-Nov-1996 09:54

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	32 2-Hexanone	43.00	12.435	(0.941)	767159	42.20	42.20
	33 Dibromochloromethane	129.00	12.580	(0.000)	2855199	53.17	53.17(M)
*	34 Chlorobenzene-d5	117.00	13.208	(1.000)	4140617	50.00	
	35 Chlorobenzene	112.00	13.237	(1.002)	4028520	54.37	54.37
	36 Ethylbenzene	106.00	13.372	(1.012)	1784379	52.94	52.94
	37 m,p-Xylene	106.00	13.508	(1.023)	4757556	104.23	104.23
	38 o-Xylene	106.00	13.942	(1.056)	2279744	48.17	48.17
M	39 Xylene (Total)	106.00			7037300	148.70	148.70
	40 Styrene	104.00	13.961	(1.057)	3860625	50.40	50.40
	41 Bromoform	172.80	14.155	(1.411)	1857135	53.05	53.05
$	42 Bromofluorobenzene	95.00	14.512	(1.099)	2617408	45.67	45.67
	43 1,1,2,2-Tetrachloroethane	83.00	14.687	(1.112)	2395352	45.68	45.68

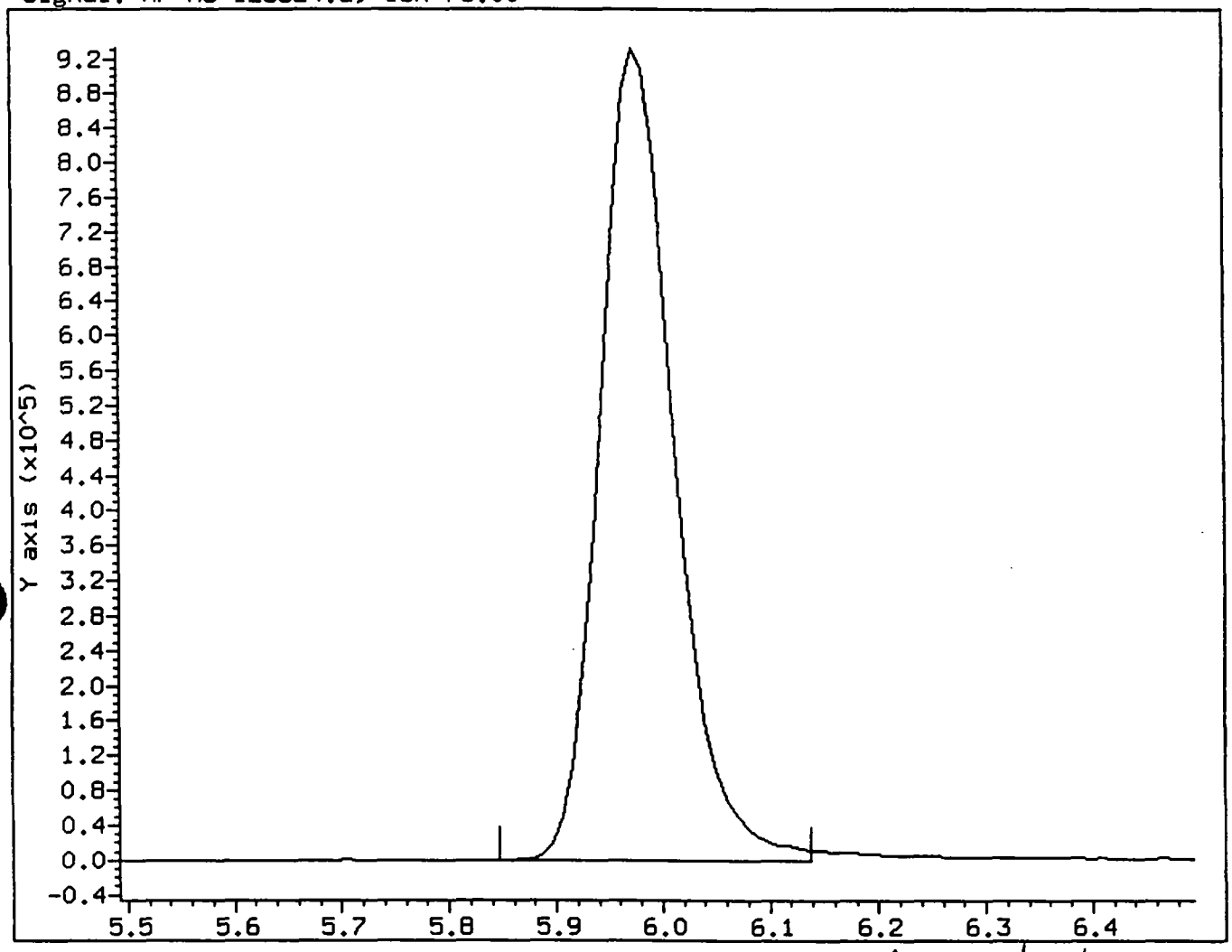
BBJ
11/26/96

QC Flag Legend

M - Compound response manually integrated.

Manual Integration

Client Sample ID: VSTD050LA
Injection Date: 26-NOV-96 09:24
Instrument: l.i
Compound: Carbon Disulfide
Signal: HP MS 123524.d, Ion 76.00



11/26/96

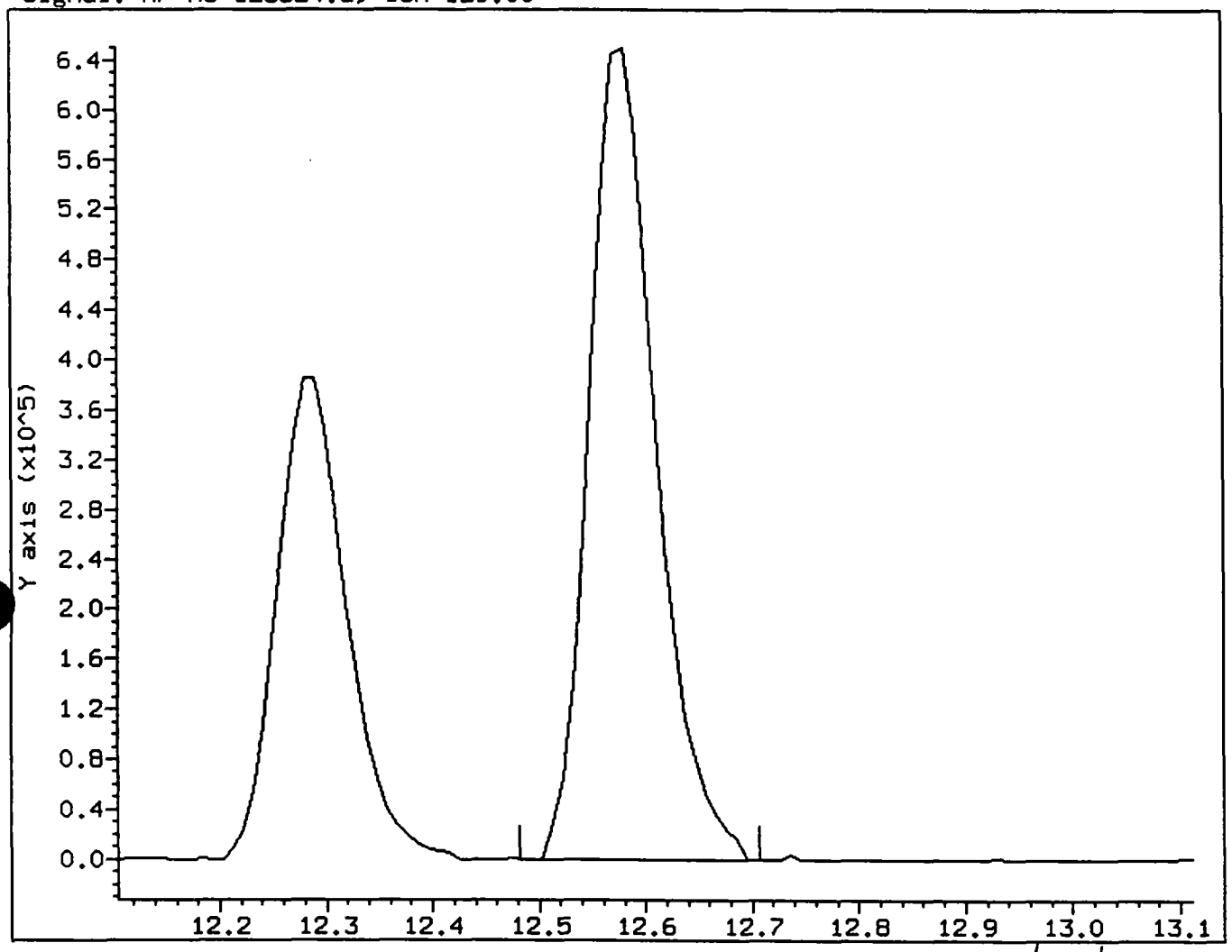
MANUAL INTEGRATION REPORT

LAB SAMPLE ID: VSTD050LA
SAMPLE ID. : VSTD050LA
FILENAME : /chem/1.i/1961126a.b/123524.d
INST ID. : 1.i
ANALYST : LINDA
DATE INJECTED: 26-NOV-1996 09:24
COMPOUND : Carbon Disulfide
ION: 76 AREA: 4498539 CONCENTRATION: 46.18
INTEGRATION SCAN RANGE: 470 - 500

Report Generated: 11/26/96 at 09:54 by _____

Manual Integration

Client Sample ID: VSTD050LA
Injection Date: 26-NOV-96 09:24
Instrument: l.i
Compound: Dibromochloromethane
Signal: HP MS 123524.d, Ion 129.00



SBG 11/26/96

MANUAL INTEGRATION REPORT

LAB SAMPLE ID: VSTD050LA
SAMPLE ID. : VSTD050LA
FILENAME : /chem/1.i/1961126a.b/123524.d
INST ID. : 1.i
ANALYST : LINDA
DATE INJECTED: 26-NOV-1996 09:24
COMPOUND : Dibromochloromethane
ION: 129 AREA: 2855199 CONCENTRATION: 53.17
INTEGRATION SCAN RANGE: 1157 - 1180

Report Generated: 11/26/96 at 09:54 by _____

Data File: /chem/c.i/c960925a.b/c22086.d

Date : 25-SEP-96 09:12

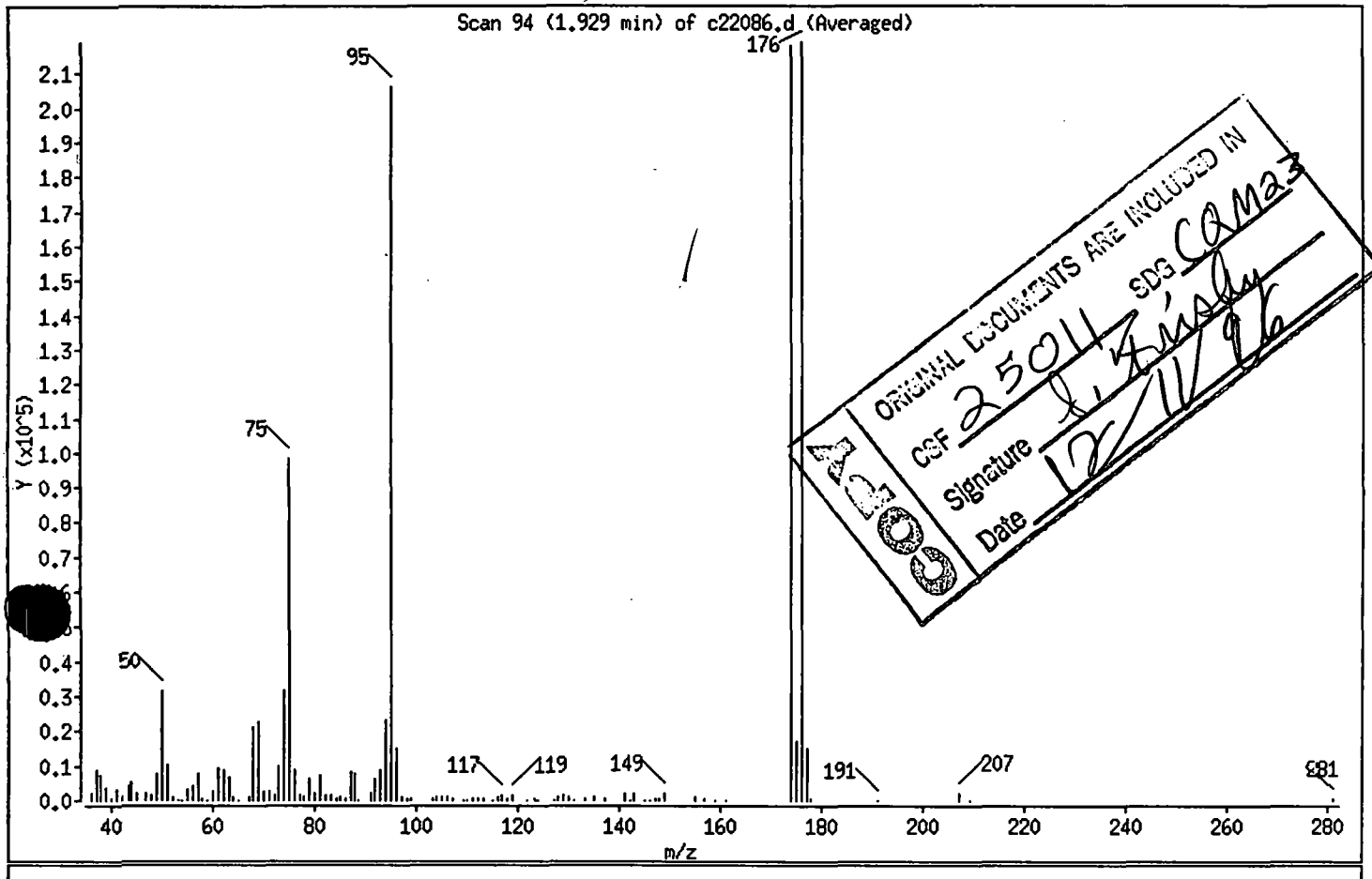
Instrument : c.i

Sample ID : BFB

Column phase : DB624 Column diameter : 0.53

Volume Injected (uL) : 0.0

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.0
50	8.00 - 40.00% of mass 95	15.4
75	30.00 - 66.00% of mass 95	48.0
96	5.00 - 9.00% of mass 95	6.9
173	Less than 2.00% of mass 174	0.0
174	50.00 - 120.00% of mass 95	106.4
175	4.00 - 9.00% of mass 174	7.9
176	93.00 - 101.00% of mass 174	100.4
177	5.00 - 9.00% of mass 176	6.8

Data File: /chem/c.i/c960925a.b/c22086.d

Date : 25-SEP-96 09:12

Instrument : c.i

Sample ID : BFB

Column phase : DB624 Column diameter : 0.53

Volume Injected (uL) : 0.0

Spectrum: Scans 94-96 (1.929 min), Subtraction Scan 85

Location of Maximum: 176.00

Number of points: 96

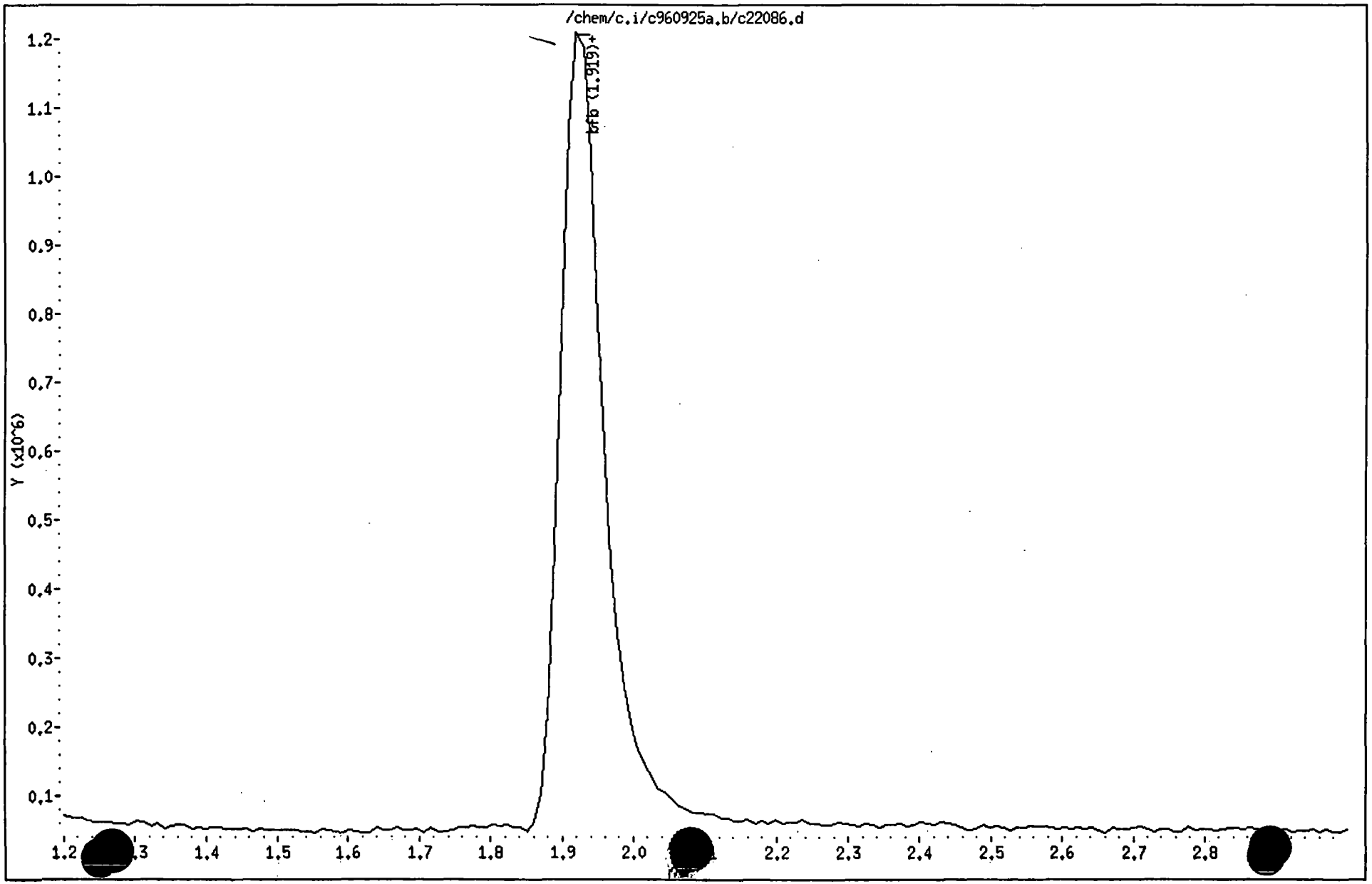
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1940	65.00	217	95.00	205066	135.00	350
37.00	9026	67.00	428	96.00	14061	137.00	410
38.00	7247	68.00	20466	97.00	257	141.00	2002
39.00	2644	69.00	21454	98.00	83	142.00	169
40.00	151	70.00	1297	104.00	1292	143.00	1895
41.00	504	71.00	277	105.00	548	145.00	166
44.00	777	72.00	1083	106.00	1101	146.00	171
45.00	1387	73.00	9007	107.00	388	147.00	591
47.00	2038	74.00	31826	110.00	186	148.00	764
48.00	1341	75.00	98450	112.00	586	149.00	99
49.00	7637	76.00	8864	113.00	472	155.00	815
50.00	31669	77.00	964	115.00	170	157.00	452
51.00	10102	78.00	1184	116.00	807	159.00	213
52.00	893	79.00	6467	117.00	1549	161.00	207
54.00	173	80.00	1976	118.00	773	174.00	218090
55.00	303	81.00	6167	119.00	1576	175.00	17173
56.00	2798	82.00	982	122.00	185	176.00	219008
57.00	4259	86.00	407	123.00	347	177.00	14862
58.00	203	87.00	8461	124.00	176	178.00	689
59.00	229	88.00	7983	127.00	194	191.00	184
60.00	1824	89.00	239	128.00	1240	209.00	168
61.00	9523	91.00	991	129.00	677		
62.00	8994	92.00	6135	130.00	910		
63.00	6877	93.00	8719	131.00	211		
64.00	819	94.00	23130	133.00	32		

9/26/96

Data File: /chem/c.i/c960925a.b/c22086.d
Date : 25-SEP-96 09:12
Instrument : c.i
Sample ID : BFB
Column phase : DB624
Volume Injected (uL) : 0.0

Column diameter : 0.53

OPERATOR: Becky



Data File: /chem/c.i/c961121a.b/c22740.d

Date : 21-NOV-96 09:15

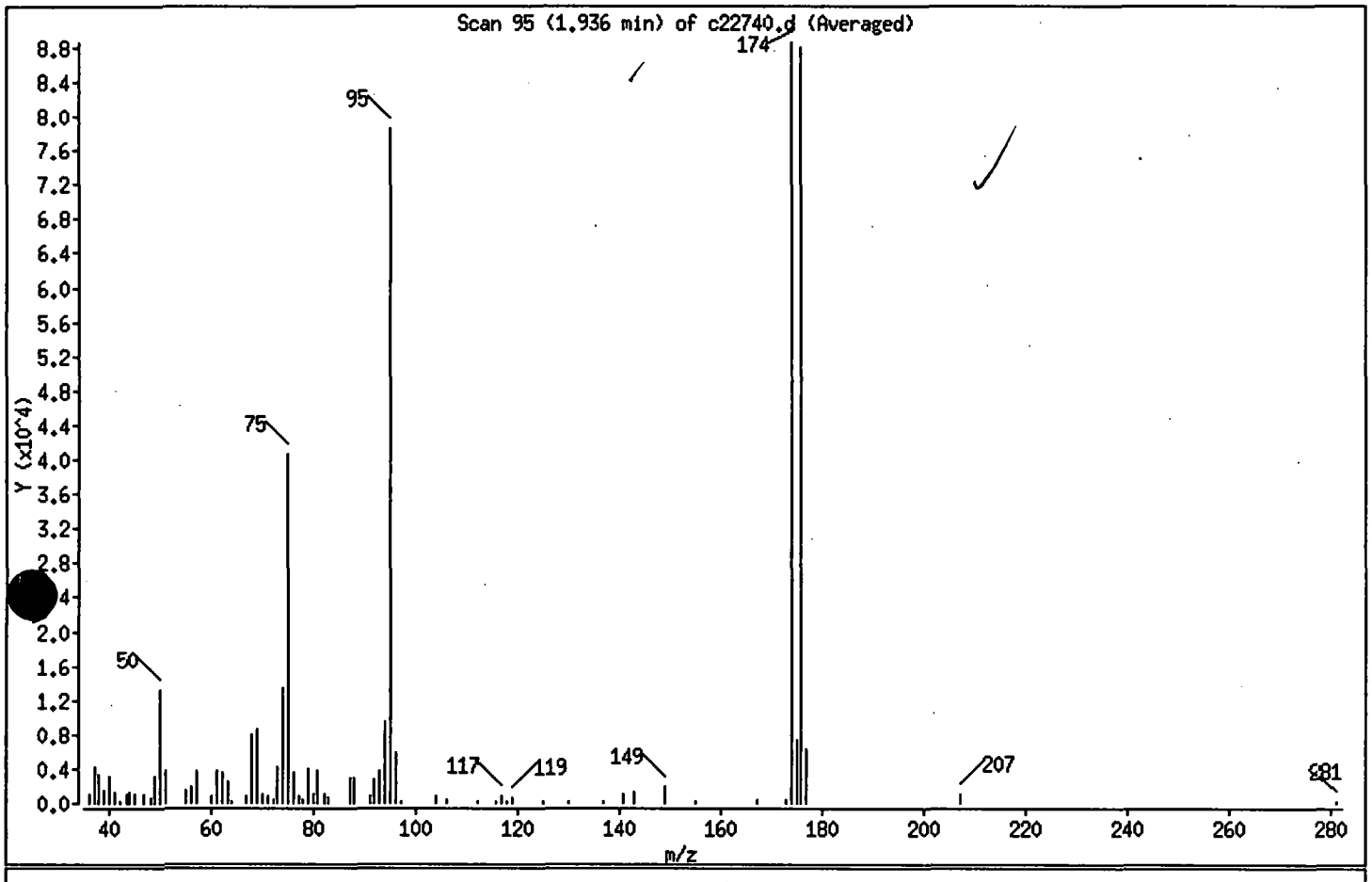
Instrument : c.i

Sample ID : BFB

Column phase : DB624 Column diameter : 0.53

Volume Injected (uL) : 0.0

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.0
50	8.00 - 40.00% of mass 95	15.9
75	30.00 - 66.00% of mass 95	52.5
96	5.00 - 9.00% of mass 95	7.3
173	Less than 2.00% of mass 174	0.6
174	50.00 - 120.00% of mass 95	113.7
175	4.00 - 9.00% of mass 174	8.5
176	93.00 - 101.00% of mass 174	98.9
177	5.00 - 9.00% of mass 176	7.3

Data File: /chem/c.i/c961121a.b/c22740.d
Date : 21-NOV-96 09:15
Instrument : c.i
Sample ID : BFB
Column phase : DB624 Column diameter : 0.53
Volume Injected (uL) : 0.0

Spectrum: Scans 95-97 (1.936 min), Subtraction Scan 90
Location of Maximum: 174.00
Number of points: 69

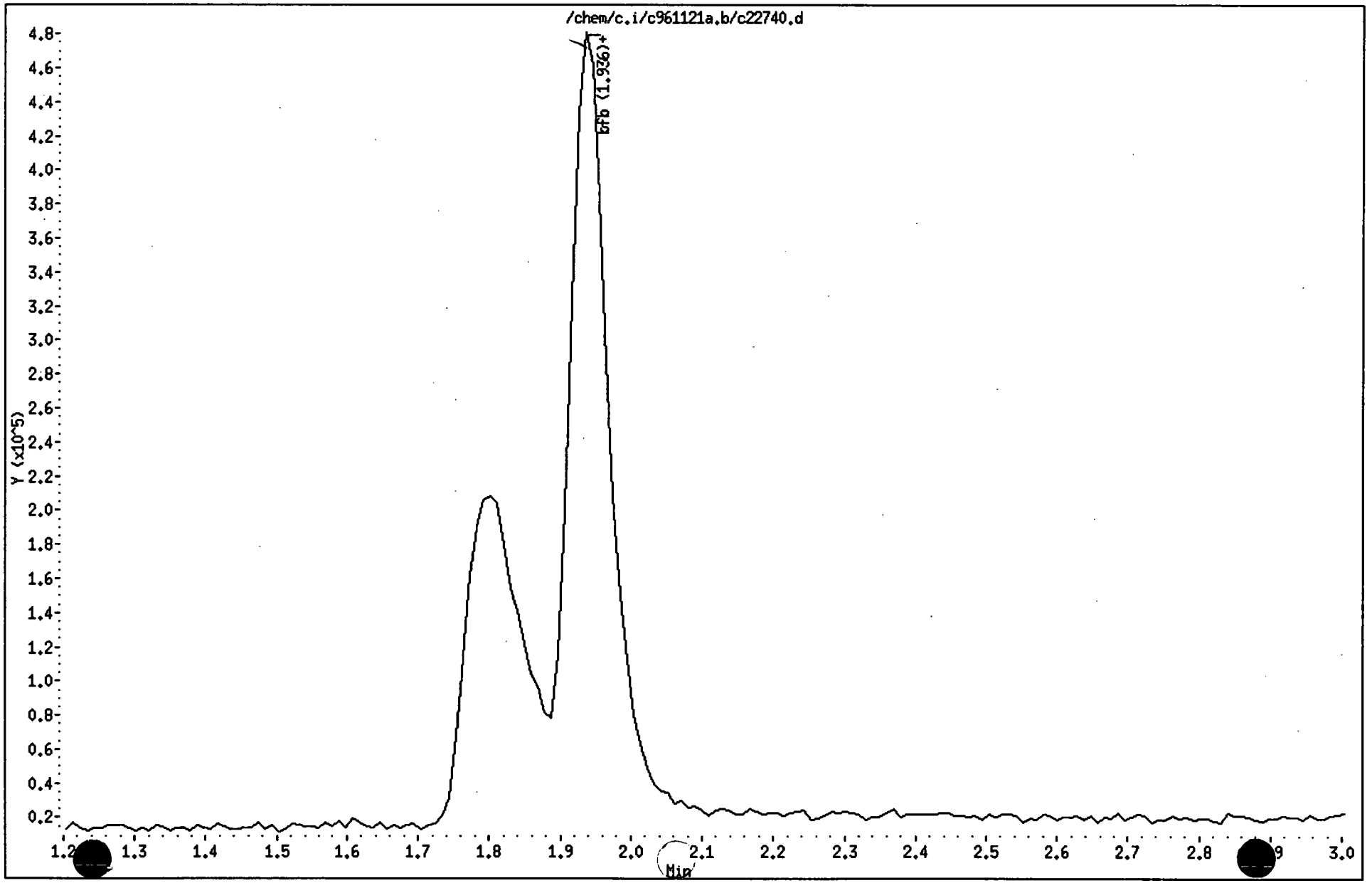
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1001	61.00	2888	81.00	2877	119.00	666
37.00	3569	62.00	2995	82.00	1145	125.00	172
38.00	2806	63.00	2567	83.00	118	130.00	175
39.00	451	64.00	169	87.00	2350	137.00	179
40.00	344	67.00	231	88.00	2174	141.00	1100
41.00	121	68.00	6078	91.00	736	143.00	1303
42.00	223	69.00	6211	92.00	2702	149.00	424
44.00	594	70.00	5	93.00	2932	155.00	167
45.00	1062	71.00	7	94.00	7860	167.00	386
47.00	1082	72.00	452	95.00	66520	173.00	464
48.00	613	73.00	3181	96.00	4832	174.00	75633
49.00	2471	74.00	11590	97.00	251	175.00	6446
50.00	10608	75.00	34895	104.00	762	176.00	74784
51.00	2820	76.00	2865	106.00	433	177.00	5450
55.00	300	77.00	821	112.00	227	281.00	176
56.00	1830	78.00	372	116.00	195		
57.00	2336	79.00	3147	117.00	812		
60.00	841	80.00	959	118.00	176		

11/26/96

Data File: /chem/c.i/c961121a.b/c22740.d
Date : 21-NOV-96 09:15
Instrument : c.i
Sample ID : BFB
Column phase : DB624
Volume Injected (uL) : 0.0

Column diameter : 0.53

OPERATOR: Linda



Data File: /chem/c.i/c961122a.b/c22758.d

Date : 22-NOV-96 09:24

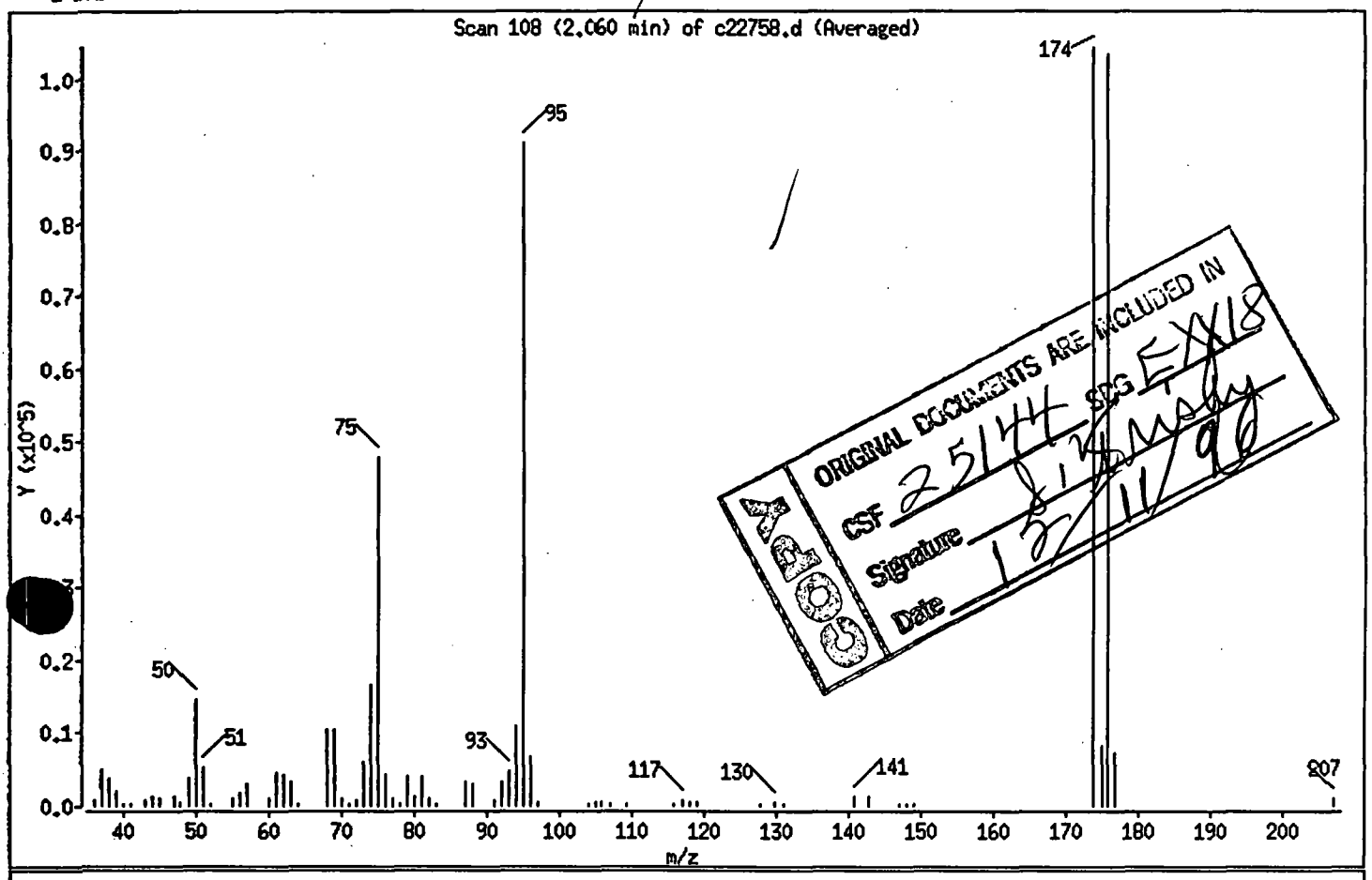
Instrument : c.i

Sample ID : BFB

Column phase : DB624 Column diameter : 0.53

Volume Injected (uL) : 0.0

1 bfb



ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25144 SDG EX18
Signature
Date 12/11/96

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.0
50	8.00 - 40.00% of mass 95	16.1
75	30.00 - 66.00% of mass 95	52.5
96	5.00 - 9.00% of mass 95	7.4
173	Less than 2.00% of mass 174	0.0
174	50.00 - 120.00% of mass 95	114.7
175	4.00 - 9.00% of mass 174	7.9
176	93.00 - 101.00% of mass 174	99.1
177	5.00 - 9.00% of mass 176	6.9

Data File: /chem/c.i/c961122a.b/c22758.d

Date : 22-NOV-96 09:24

Instrument : c.i

Sample ID : BFB

Column phase : DB624 Column diameter : 0.53

Volume Injected (uL) : 0.0

Spectrum: Scans 108-110 (2.060 min), Subtraction Scan 98

Location of Maximum: 174.00

Number of points: 69

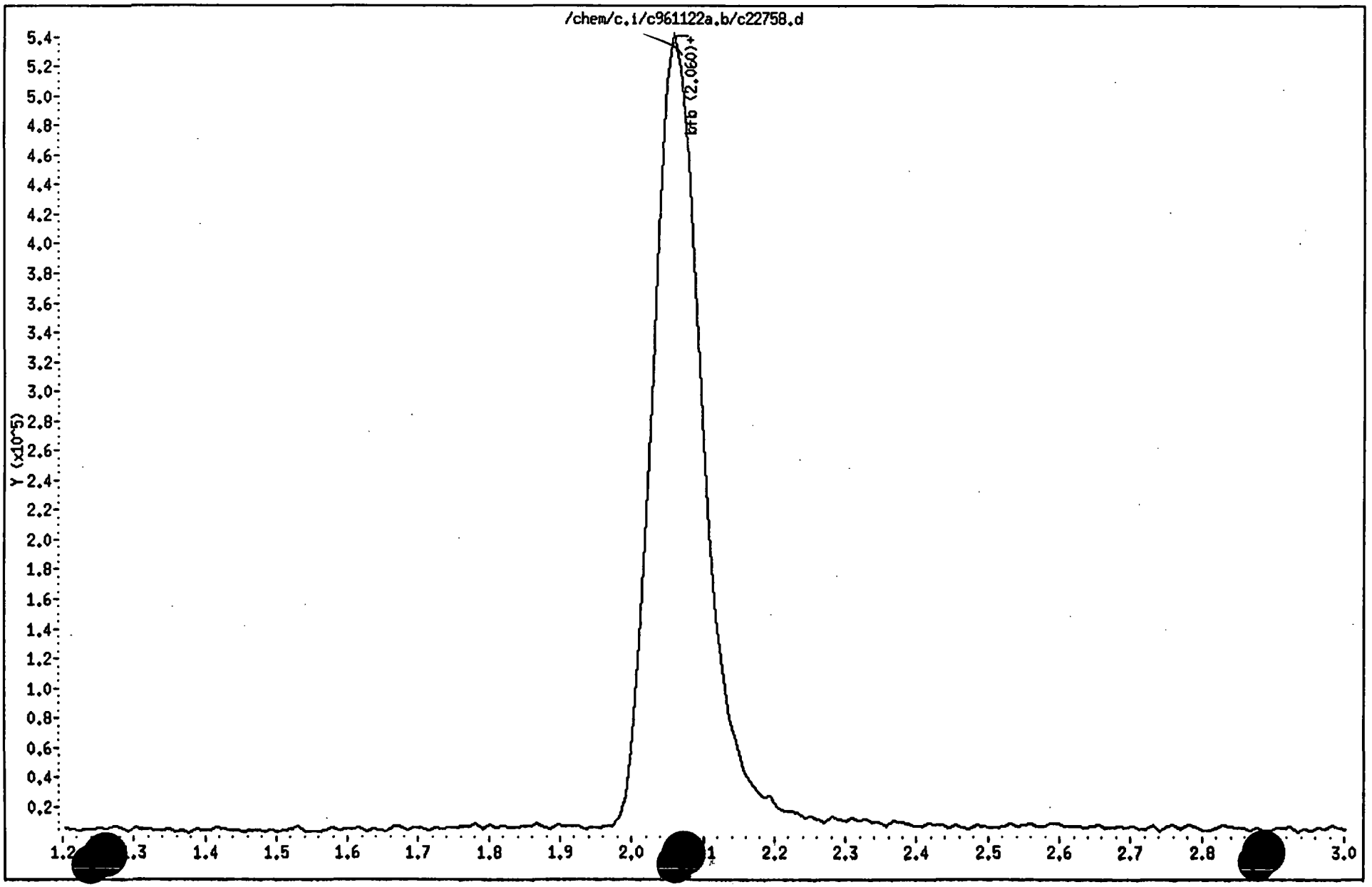
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	852	60.00	941	81.00	4033	117.00	745
37.00	4852	61.00	4402	82.00	903	118.00	390
38.00	3630	62.00	4238	83.00	167	119.00	566
39.00	1488	63.00	3241	87.00	3260	128.00	210
40.00	213	64.00	191	88.00	3034	130.00	594
41.00	346	68.00	10262	91.00	677	131.00	177
43.00	110	69.00	9595	92.00	3217	141.00	1296
44.00	1229	70.00	975	93.00	4793	143.00	1244
45.00	1089	71.00	201	94.00	10846	147.00	177
47.00	1327	72.00	773	95.00	90933	148.00	368
48.00	553	73.00	5031	96.00	6773	149.00	168
49.00	3803	74.00	16533	97.00	440	174.00	104344
50.00	14660	75.00	47760	104.00	239	175.00	8223
51.00	5209	76.00	4093	105.00	421	176.00	103453
52.00	350	77.00	946	106.00	383	177.00	7181
55.00	307	78.00	353	107.00	232		
56.00	1604	79.00	3862	109.00	167		
57.00	2368	80.00	1132	116.00	186		

11/26/96

Data File: /chem/c.i/c961122a.b/c22758.d
Date : 22-NOV-96 09:24
Instrument : c.i
Sample ID : BFB
Column phase : DB624
Volume Injected (uL) : 0.0

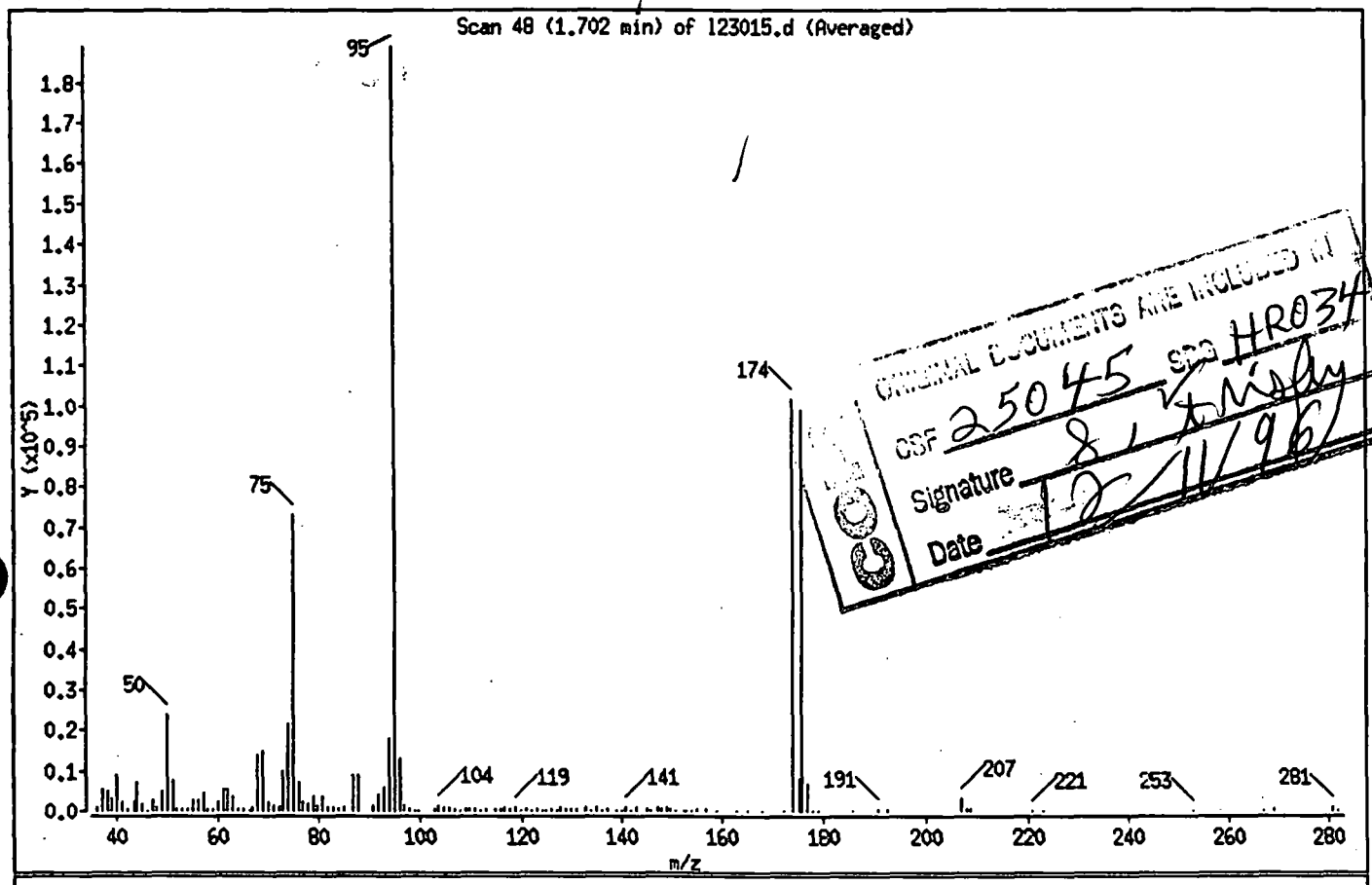
Column diameter : 0.53

OPERATOR: Linda



Data File: /chem/1.i/1961007c.b/123015.d
Date : 07-OCT-96 17:13
Instrument : 1.i
Sample ID : BFB
Column phase : DB624 Column diameter : 0.53
Volume Injected (uL) : 0.0

1 bfb



ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25045 SDG HR034
Signature
Date 12/11/96

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.0
50	8.00 - 40.00% of mass 95	12.3
75	30.00 - 66.00% of mass 95	38.4
96	5.00 - 9.00% of mass 95	6.2
173	Less than 2.00% of mass 174	0.0
174	50.00 - 120.00% of mass 95	53.7
175	4.00 - 9.00% of mass 174	7.8
176	93.00 - 101.00% of mass 174	97.5
177	5.00 - 9.00% of mass 176	6.7

Data File: /chem/1.i/1961007c.b/123015.d
Date : 07-OCT-96 17:13
Instrument : 1.i
Sample ID : BFB
Column phase : DB624 Column dianeter : 0.53
Volume Injected (uL) : 0.0

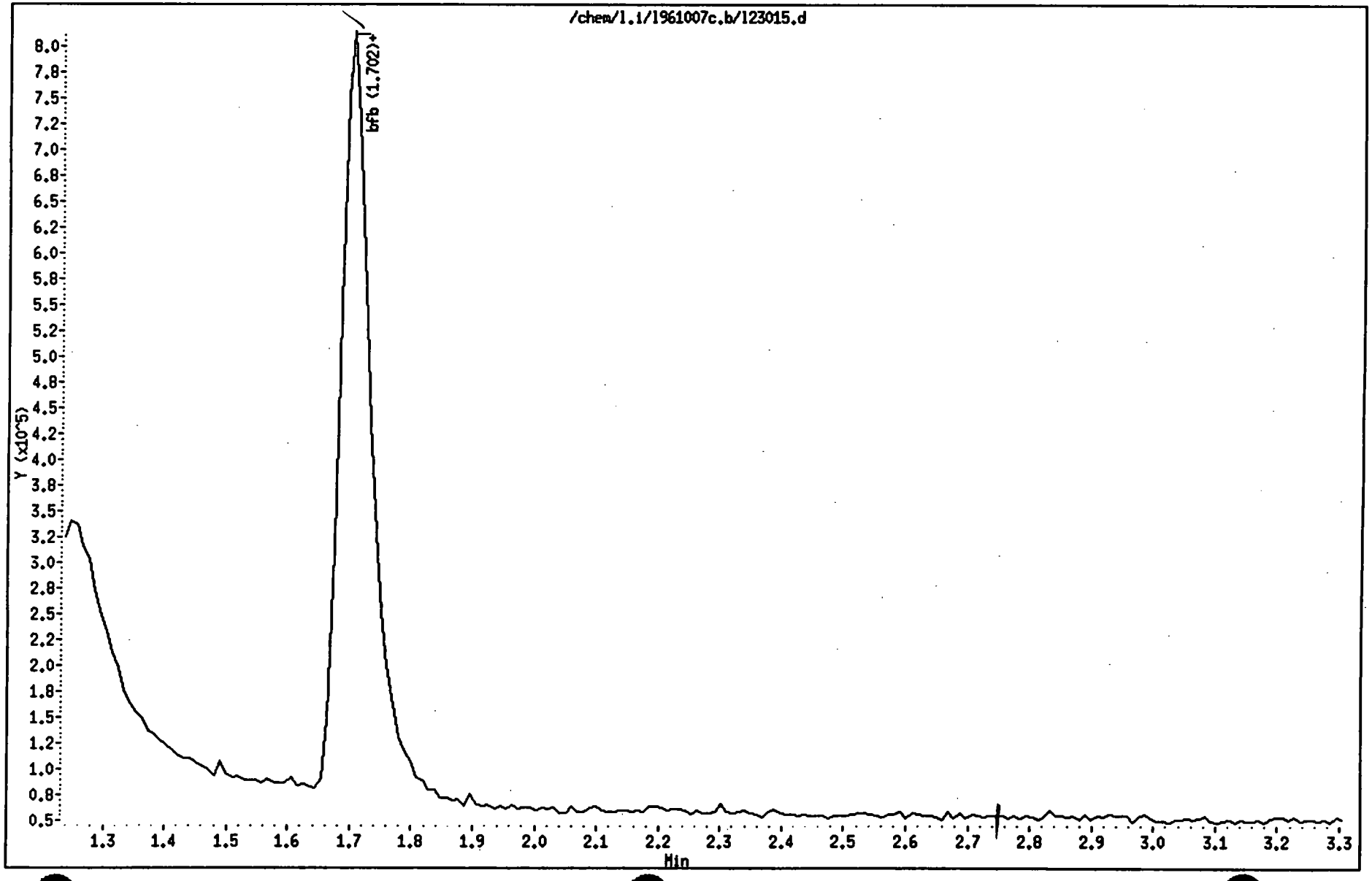
Spectrum: Scans 48-50 (1.702 min), Subtraction Scan 39
Location of Maximum: 95.00
Number of points: 99

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	956	72.00	421	107.00	72	152.00	75
37.00	5354	73.00	5525	108.00	73	153.00	72
38.00	4678	74.00	20861	111.00	55	154.00	75
39.00	1710	75.00	72493	115.00	82	155.00	569
45.00	744	76.00	6397	116.00	486	157.00	319
46.00	92	77.00	335	117.00	725	159.00	191
47.00	2682	78.00	800	118.00	469	163.00	217
48.00	721	79.00	3071	119.00	548	168.00	174
49.00	5058	80.00	1170	120.00	69	172.00	114
50.00	23257	81.00	2826	126.00	88	174.00	101416
51.00	7268	82.00	534	127.00	16	175.00	7923
52.00	334	84.00	120	128.00	519	176.00	98858
53.00	3	87.00	8730	129.00	180	177.00	6667
56.00	1527	88.00	8953	130.00	520	178.00	221
57.00	1782	91.00	493	131.00	411	179.00	92
60.00	1229	92.00	3985	135.00	156	186.00	70
61.00	5134	93.00	5385	136.00	75	191.00	104
62.00	5201	94.00	17408	137.00	346	207.00	645
63.00	3449	95.00	188709	141.00	619	208.00	104
64.00	217	96.00	11704	142.00	193	221.00	88
65.00	57	97.00	515	143.00	893	223.00	78
67.00	219	98.00	121	145.00	245	253.00	208
68.00	13402	104.00	428	146.00	179	269.00	65
69.00	13220	105.00	79	148.00	263	282.00	78
70.00	586	106.00	464	150.00	241		

Data File: /chem/1.i/1961007c.b/123015.d
Date : 07-OCT-96 17:13
Instrument : 1.i
Sample ID : BFB
Column phase : DB624
Volume Injected (uL) : 0.0

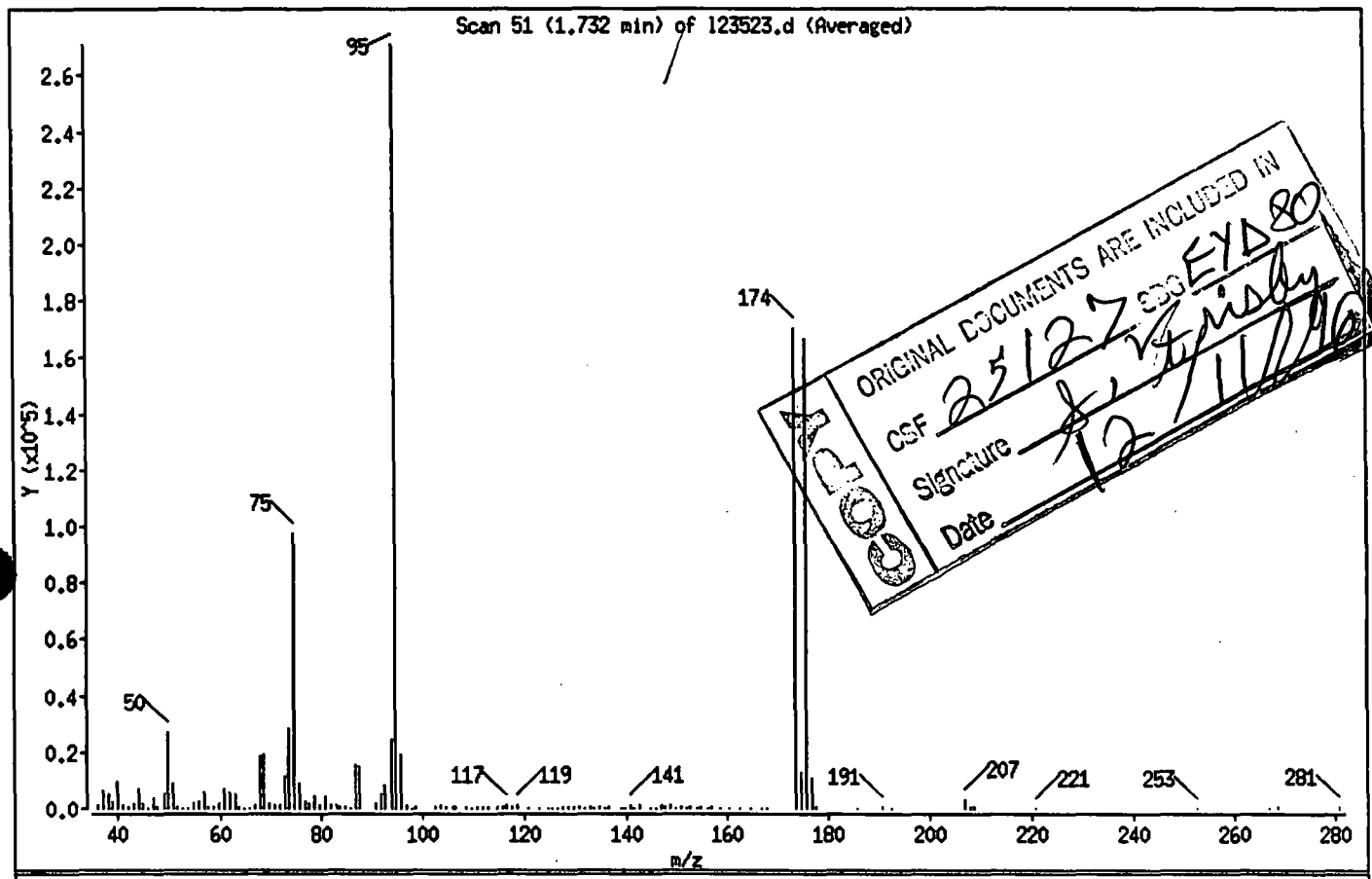
OPERATOR: Linda

Column diameter : 0.53



Data File: /chem/1.i/1961126a.b/123523.d
Date : 26-NOV-96 09:08
Instrument : 1.i
Sample ID : BFB
Column phase : DB624 Column diameter : 0.53
Volume Injected (uL) : 0.0

1 bfb



ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25127 SDG EYD80
Signature
Date 12/11/96

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.0
50	8.00 - 40.00% of mass 95	9.9
75	30.00 - 66.00% of mass 95	35.9
96	5.00 - 9.00% of mass 95	6.5
173	Less than 2.00% of mass 174	0.0
174	50.00 - 120.00% of mass 95	63.1
175	4.00 - 9.00% of mass 174	7.4
176	93.00 - 101.00% of mass 174	97.6
177	5.00 - 9.00% of mass 176	6.5

Data File: /chem/1.i/1961126a.b/123523.d
Date : 26-NOV-96 09:08
Instrument : 1.i
Sample ID : BFB
Column phase : DB624 Column diameter : 0.53
Volume Injected (uL) : 0.0

Spectrum: Scans 51-53 (1.732 min), Subtraction Scan 42
Location of Maximum: 95.00
Number of points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1172	66.00	232	103.00	124	148.00	328
37.00	6516	67.00	305	104.00	532	149.00	21
38.00	5324	68.00	17997	105.00	190	150.00	297
39.00	1791	69.00	17522	106.00	928	152.00	86
40.00	1536	70.00	1038	107.00	139	153.00	322
43.00	181	72.00	1015	112.00	214	154.00	85
44.00	330	73.00	6846	113.00	11	155.00	445
45.00	1079	74.00	27534	115.00	385	156.00	207
46.00	279	75.00	97193	116.00	624	157.00	397
47.00	3937	76.00	8523	117.00	883	159.00	276
48.00	765	77.00	1698	118.00	694	161.00	276
49.00	5428	78.00	1324	119.00	820	163.00	5
50.00	26688	79.00	3523	123.00	179	165.00	8
51.00	8396	80.00	1199	128.00	660	174.00	170773
52.00	227	81.00	3684	129.00	590	175.00	12623
53.00	273	82.00	860	130.00	676	176.00	166592
54.00	9	83.00	10	131.00	153	177.00	10802
56.00	1580	86.00	145	132.00	67	178.00	459
57.00	2952	87.00	14656	134.00	171	186.00	67
58.00	52	88.00	14535	136.00	242	191.00	25
59.00	73	91.00	451	137.00	423	207.00	224
60.00	1622	92.00	4671	140.00	104	208.00	159
61.00	6524	93.00	8270	141.00	1258	253.00	81
62.00	5949	94.00	23993	142.00	174	267.00	158
63.00	4625	95.00	270434	143.00	1162	269.00	14
64.00	468	96.00	17609	145.00	189		
65.00	42	97.00	164	146.00	291		

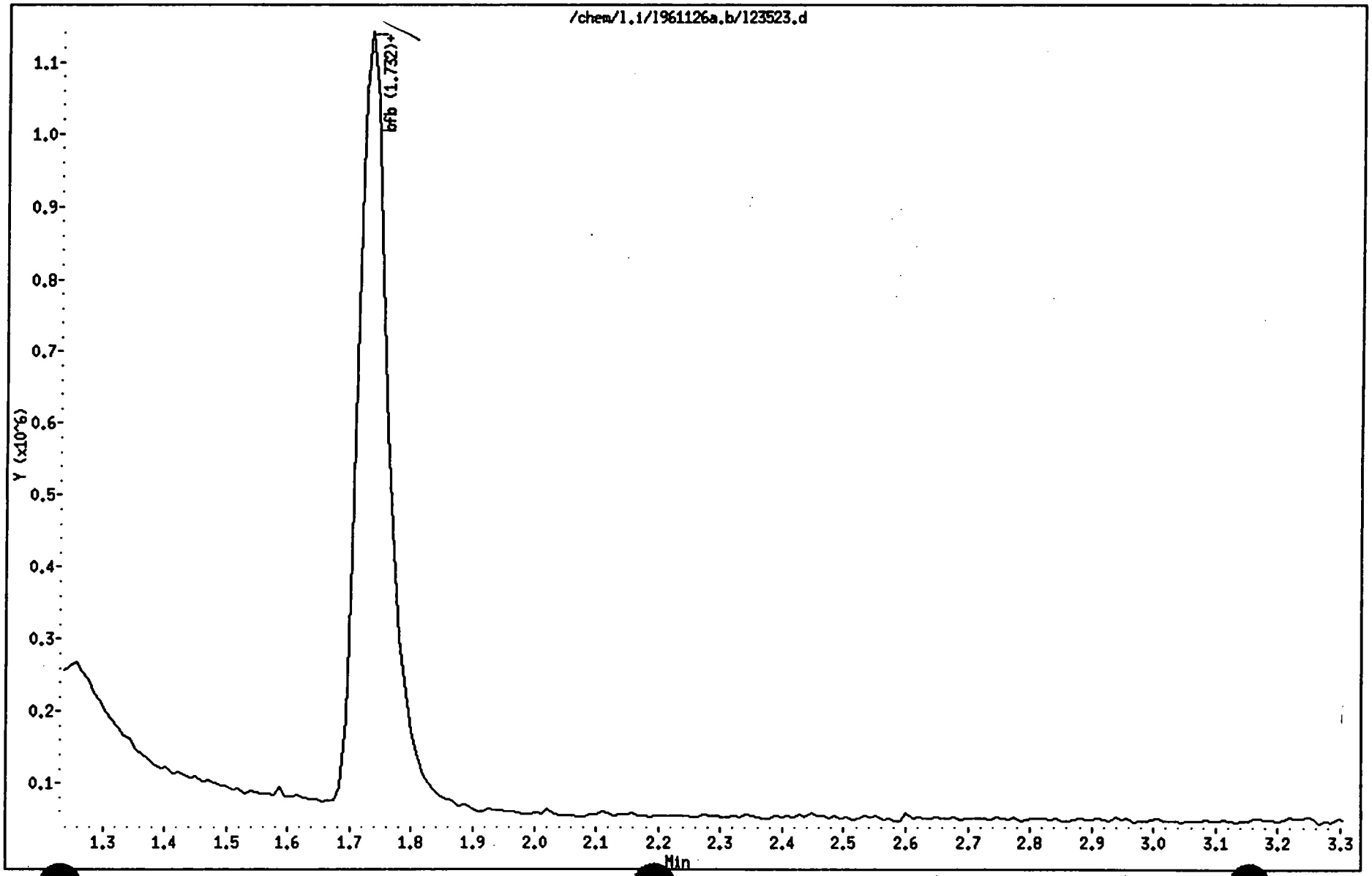
11/26/96

128

OPERATOR: Linda

Data File: /chem/1.i/1961126a.b/123523.d
Date : 26-NOV-96 09:08
Instrument : 1.i
Sample ID : BFB
Column phase : DB624
Volume Injected (uL) : 0.0

Column diameter : 0.53



1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK1

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: C961121A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C22742.D

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

% Moisture: not dec. 0 Date Analyzed: 11/21/96

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

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

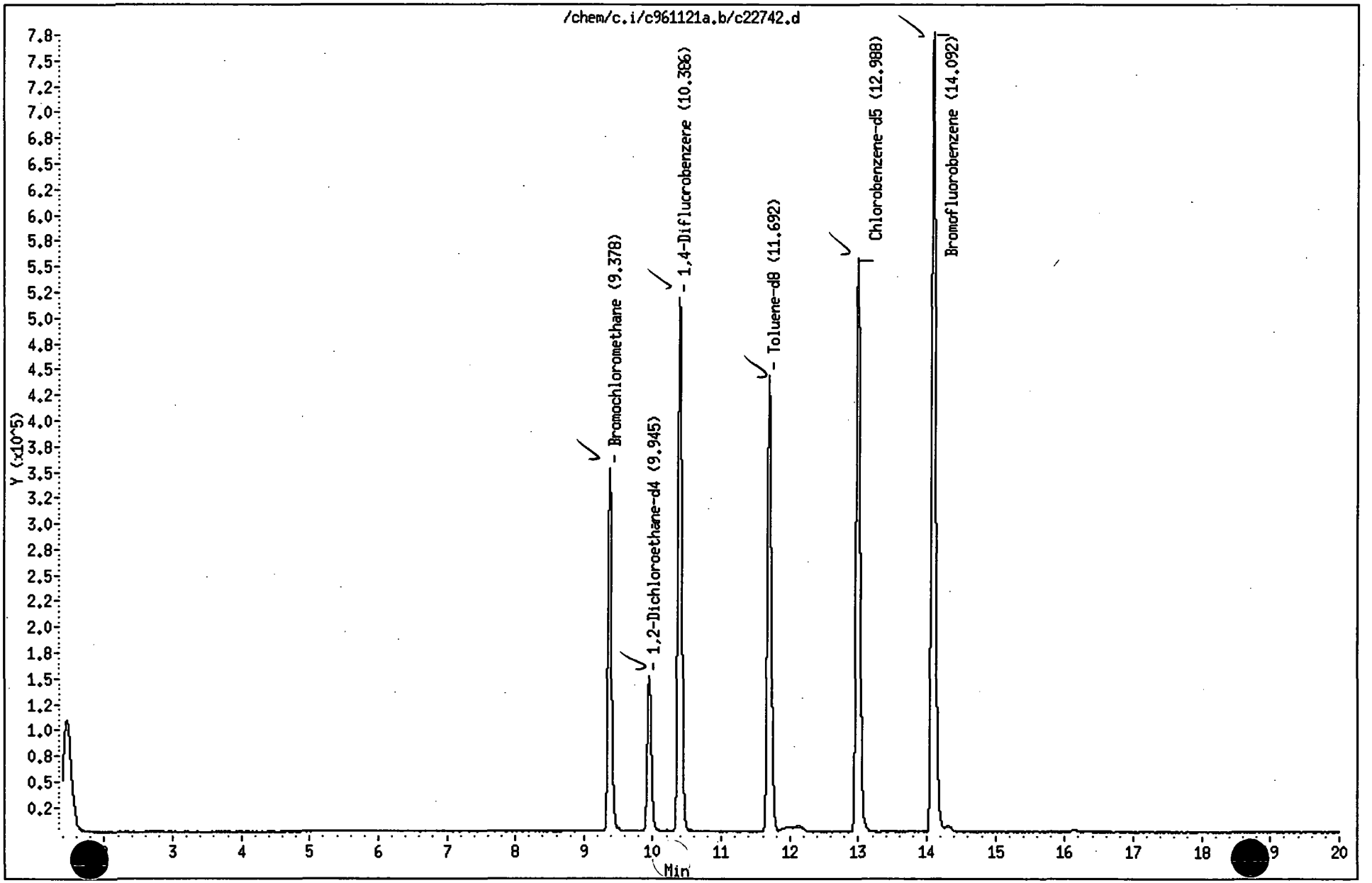
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

11/22/96

Data File: /chem/c.i/c961121a.b/c22742.d
Date : 21-NOV-96 11:12
Instrument : c.i
Sample ID : VBLK
Column phase : DB-624
Volume Injected (uL) : 0.0

OPERATOR: Linda

Column diameter : 0.53



SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/c.i/c961121a.b/c22742.d
Lab. Id. : C961121A Quant Type: ISTD
Inj Date : 21-NOV-96 11:12
Operator : rebecca Inst ID: c.i
Smp Info : VBLK
Misc Info : MS317**INST:C*SWOK*C961121A*5ML
Comment :
Method : /chem/c.i/c961121a.b/OLM3SOIL.m
Meth Date : 21-Nov-1996 11:04
Cal Date : 21-NOV-96 10:21 Cal File: c22741.d
Als bottle: 3 QC Sample: BLANK
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
* 14 Bromochloromethane	128.00	9.378	(1.000)	200258	50.00	
$ 18 1,2-Dichloroethane-d4	65.00	9.945	(1.060)	234832	52.04	52.04
* 21 1,4-Difluorobenzene	114.00	10.386	(1.000)	774052	50.00	
$ 27 Toluene-d8	98.00	11.692	(0.900)	594611	51.58	51.58
Chlorobenzene-d5	117.00	12.988	(1.000)	643403	50.00	
$ 42 Bromofluorobenzene	95.00	14.082	(1.084)	555389	50.57	50.57

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK2

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) SOIL Lab Sample ID: C961122A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C22760.D

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

% Moisture: not dec. 0 Date Analyzed: 11/22/96

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

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

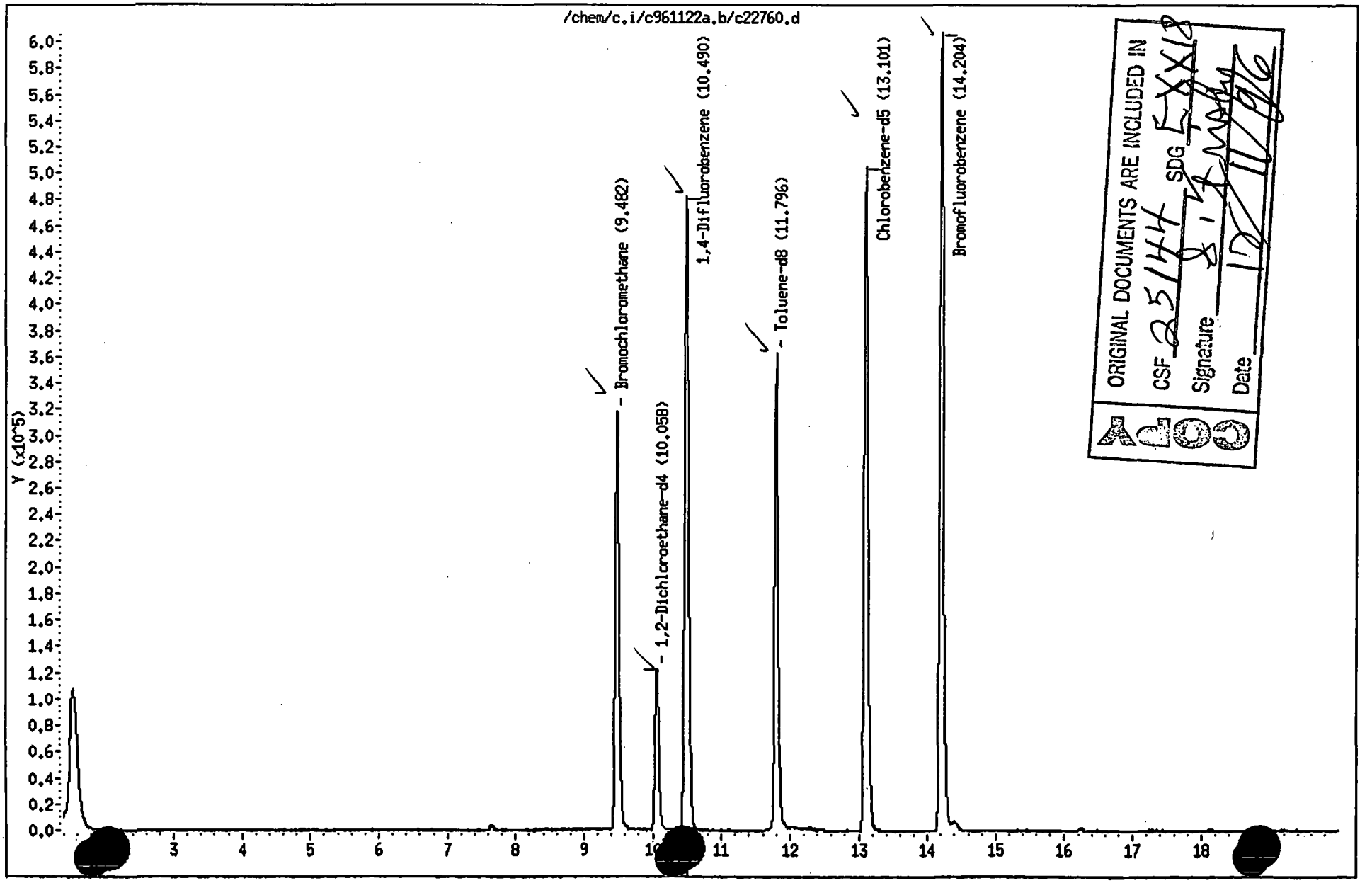
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Data File: /chem/c.i/c961122a.b/c22760.d
Date : 22-NOV-96 11:09
Instrument : c.i
Sample ID : VBLK
Column phase : DB-624
Volume Injected (uL) : 0.0

OPERATOR: Linda

Column diameter : 0.53



ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25144 SDG EXX18
Signature
Date 12/11/96

SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/c.i/c961122a.b/c22760.d
Lab. Id. : C961122A Quant Type: ISTD
Inj Date : 22-NOV-96 11:09
Operator : rebecca Inst ID: c.i
Smp Info : VBLK 2
Misc Info : MS317**INST:C*SWOK*C961122A*5ML
Comment :
Method : /chem/c.i/c961122a.b/OLM3SOIL.m ✓
Meth Date : 22-Nov-1996 10:51
Cal Date : 22-NOV-96 10:05 Cal File: c22759.d
Als bottle: 3 QC Sample: BLANK
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
* 14 Bromochloromethane	128.00	9.492	(1.000)	186097	50.00	
$ 18 1,2-Dichloroethane-d4	65.00	10.049	(1.059) ✓	191011	46.99	46.99
* 21 1,4-Difluorobenzene	114.00	10.490	(1.000)	725095	50.00	
$ 27 Toluene-d8	98.00	11.796	(0.900) ✓	476141	49.59	49.59
[illegible] Chlorobenzene-d5	117.00	13.101	(1.000)	578256	50.00	
$ [illegible] Bromofluorobenzene	95.00	14.204	(1.084) ✓	432039	48.27	48.27

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK3

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) WATER Lab Sample ID: L961126A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L23525.D

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

% Moisture: not dec. _____ Date Analyzed: 11/26/96

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

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

11/26/96

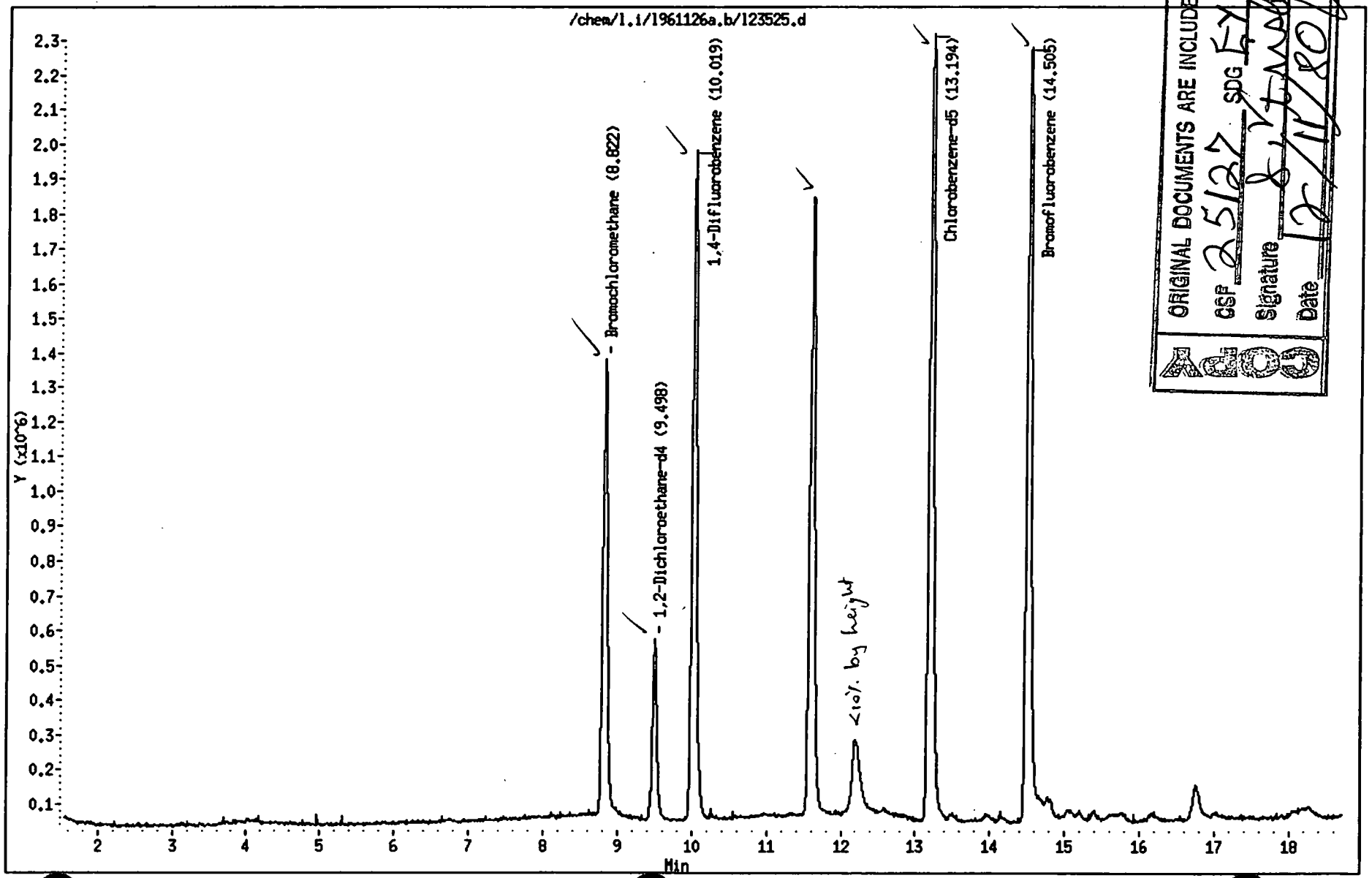
~~OPERATOR: Linda~~ 11/26/96

OPERATOR: Linda

139

Data File: /chem/1.i/1961126a.b/123525.d
Date : 26-NOV-96 10:07
Instrument : 1.i
Sample ID : VBLK3
Column phase : DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



ORIGINAL DOCUMENTS ARE INCLUDED IN
GSF 25127 SDG FY080
Signature
Date 12/11/80

SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/l.i/1961126a.b/123525.d
Lab. Id. : L961126A
Quant Type: ISTD
Inj Date : 26-NOV-1996 10:07
Operator : LINDA
Inst ID: l.i
Smp Info : VBLK 3
Misc Info : MS317**INST:L*SWLO*L961126A*5ML
Comment :
Method : /chem/l.i/1961126a.b/OLM3WAT.m
Meth Date : 26-Nov-1996 10:40 linda
Cal Date : 26-NOV-96 09:24
Cal File: 123524.d
Als bottle: 29
QC Sample: BLANK
Dil Factor: 1.000
Target Version: Target 3.00
Integrator: HP RTE
Compound Sublist: all.sub
Sample Type: WATER

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
6 Acetone	43.00	6.094	(0.691)	7716	1.56	1.56(aQ)
* 14 Bromochloromethane	128.00	8.822	(1.000)	899351	50.00	
$ 18 1,2-Dichloroethane-d4	65.00	9.498	(1.077)	637976	50.55	50.55
21 1,4-Difluorobenzene	114.00	10.019	(1.000)	4150704	50.00	
$ 27 Toluene-d8	98.00	11.591	(0.000) 0.929	3216477	54.22	54.22(M)
* 34 Chlorobenzene-d5	117.00	13.194	(1.000)	3676586	50.00	
$ 42 Bromofluorobenzene	95.00	14.496	(1.099)	2561215	55.10	55.10

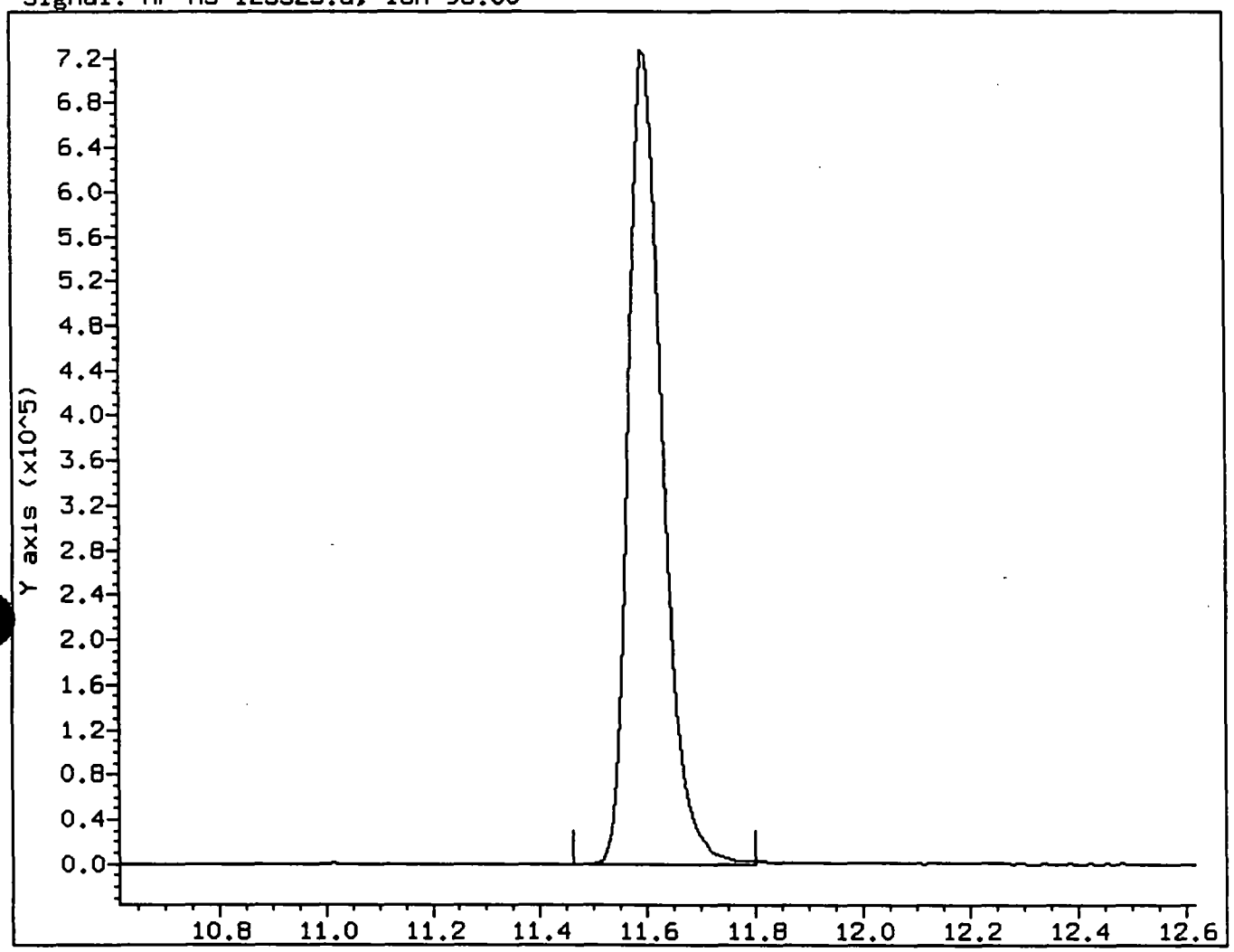
bbg 11/26/96

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Manual Integration

Client Sample ID: VBLK 3
Injection Date: 26-NOV-96 10:07
Instrument: l.i
Compound: Toluene-d8
Signal: HP MS 123525.d, Ion 98.00



DBJ 11/26/96

MANUAL INTEGRATION REPORT

LAB SAMPLE ID: L961126A
SAMPLE ID. : VBLK 3
FILENAME : /chem/1.i/1961126a.b/123525.d
INST ID. : 1.i
ANALYST : LINDA
DATE INJECTED: 26-NOV-1996 10:07
COMPOUND : Toluene-d8
ION: 98 AREA: 3216477 CONCENTRATION: 54.22
INTEGRATION SCAN RANGE: 1053 - 1087

Report Generated: 11/26/96 at 10:42 by BBJ

Data File: /chem/1.i/1961126a.b/123525.d

Date : 26-NOV-96 10:07

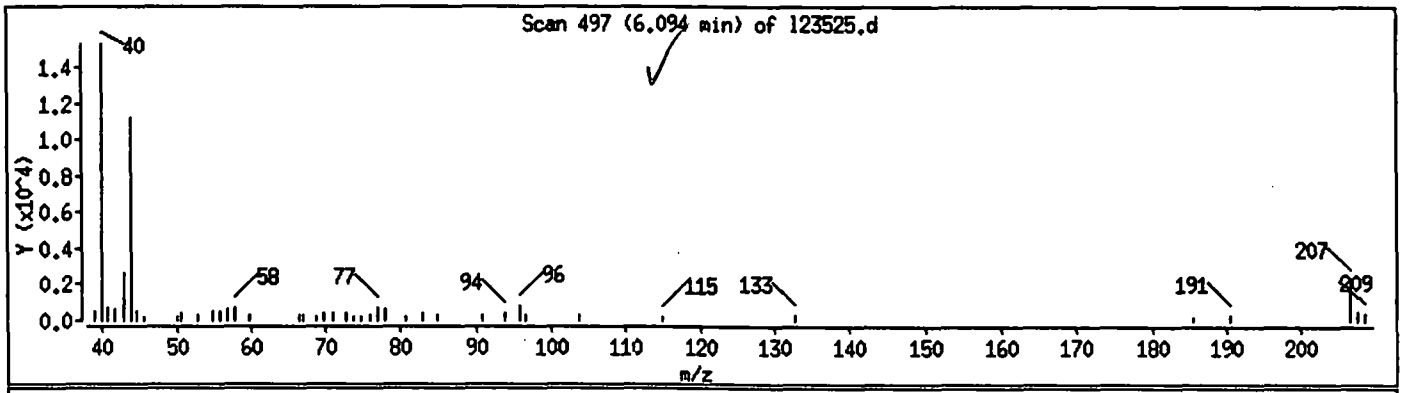
Instrument : 1.i

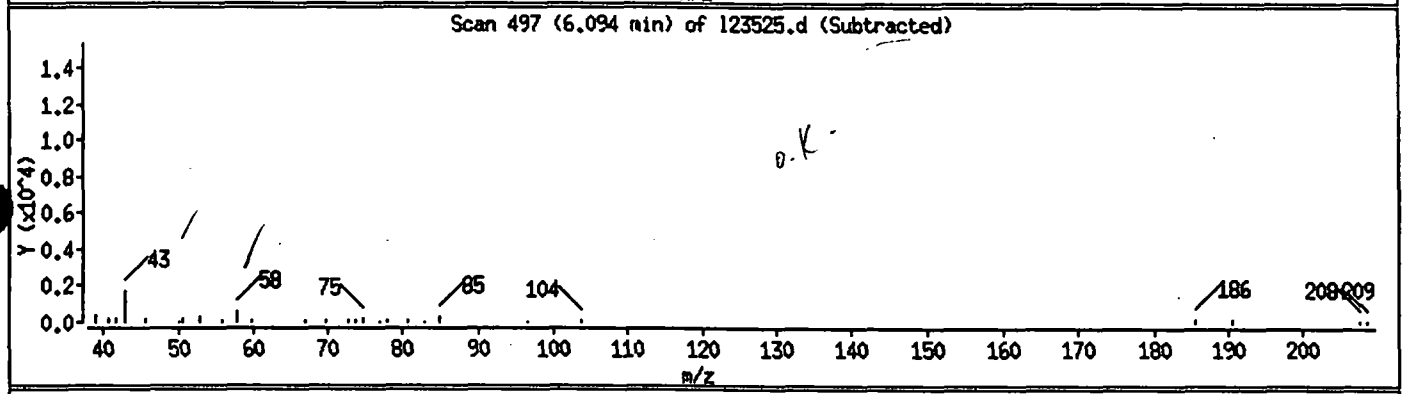
Sample ID : VBLK 3

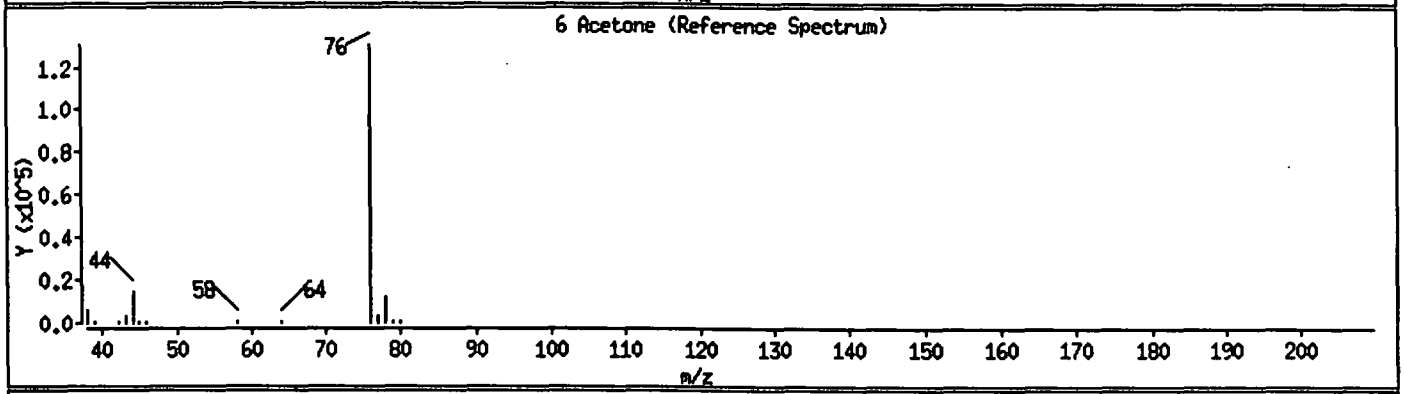
Column phase : DB-624 Column diameter : 0.53

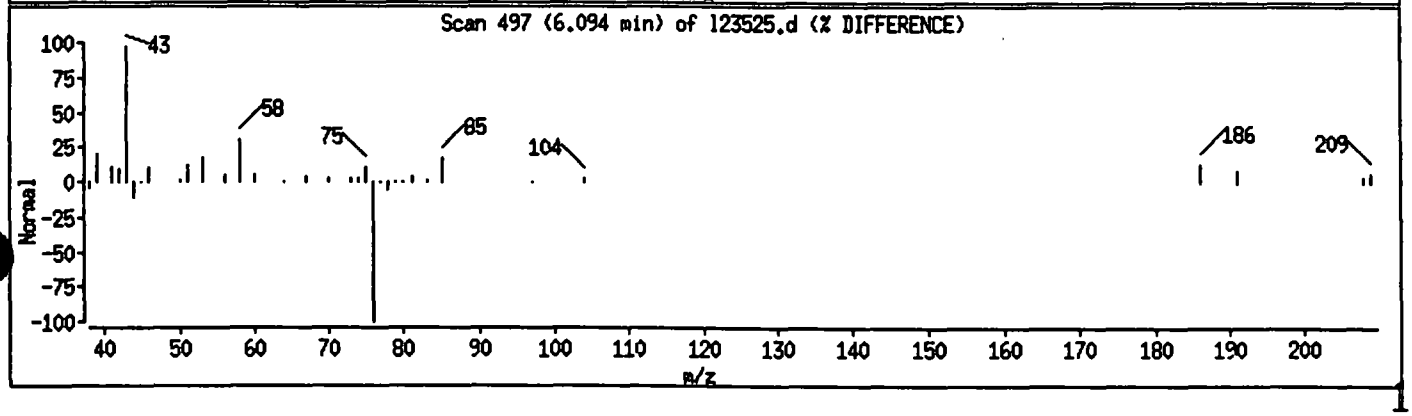
Volume Injected (uL) : 0.0

6 Acetone









SWOK/AATS

Unknown Compounds Quantitation Report

Data file : /chem/l.i/1961126a.b/123525.d
Lab. Id. : L961126A
Inj Date : 26-NOV-1996 10:07
Operator : LINDA Inst ID: l.i
Smp Info : VBLK 3
Misc Info : MS317**INST:L*SWLO*L961126A*5ML
Comment :
Method : /chem/l.i/1961126a.b/OLM3WAT.m
Meth Date : 26-Nov-1996 10:40 linda
Cal Date : 26-NOV-96 09:24 Cal File: 123524.d
Als bottle: 29 QC Sample: BLANK
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: WATER
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 21 1,4-Difluorobenzene	10.019	8460948	50.000
* 34 Chlorobenzene-d5	13.194	9927374	50.000

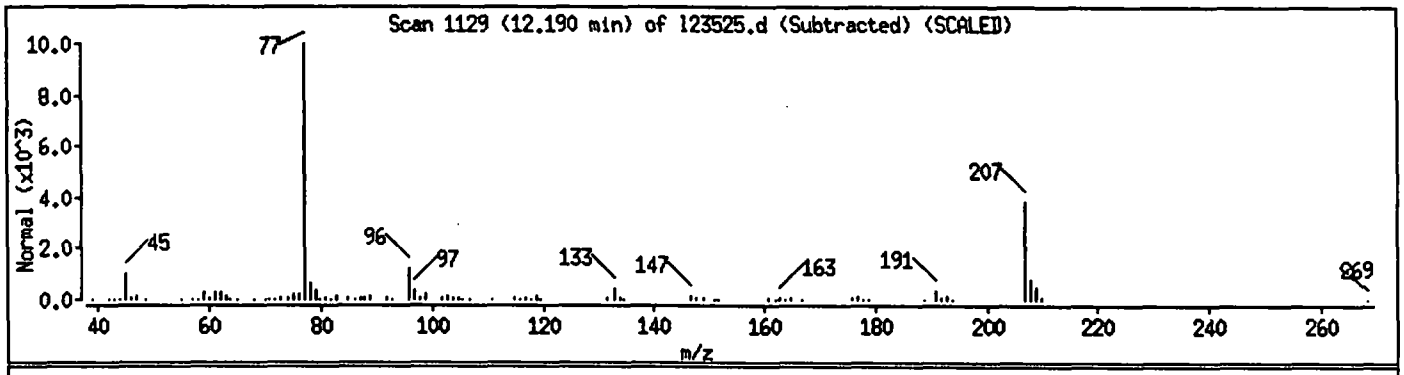
RT	AREA	CONC(ug/L)	QUAL	LIBRARY	LIB ENTRY	QUANT	CPND #
Unknown					CAS #:		
12.190	2061293	10.38	0		0		34

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: /chem/1.i/1961126a.b/123525.d
Date : 26-NOV-96 10:07
Instrument : 1.i
Sample ID : VBLK 3
Column phase : DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLK1

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix: (soil/water) WATER Lab Sample ID: VHBLK1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L23540.D

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

% Moisture: not dec. _____ Date Analyzed: 11/26/96

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

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

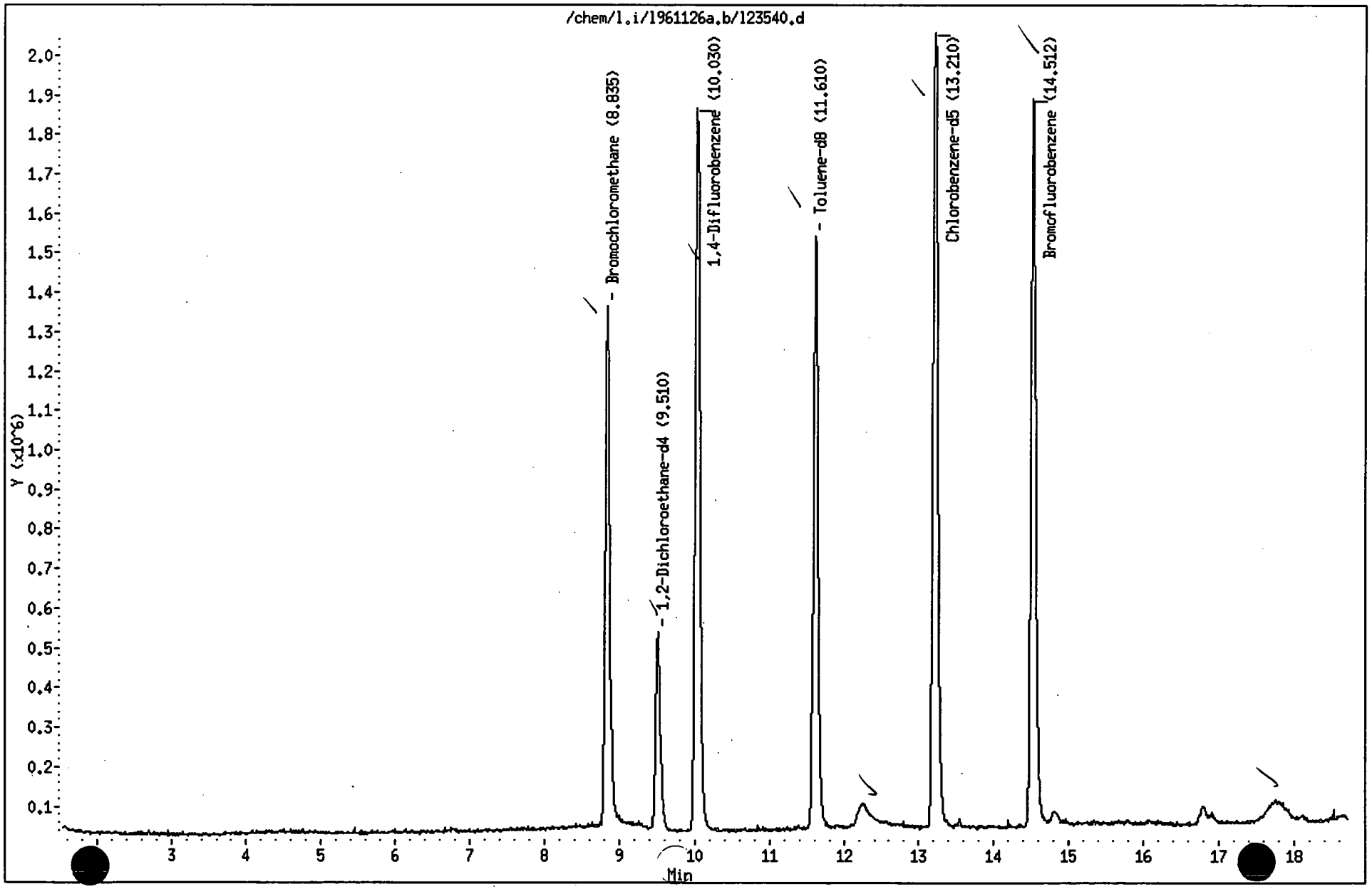
Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Cyclotrisiloxane	12.236	5	J
2.		UNKNOWN	17.766	6	J
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Data File: /chem/l.i/1961126a.b/123540.d
Date : 26-NOV-96 18:11
Instrument : l.i
Sample ID : VHBLK
Column phase : DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/l.i/l961126a.b/l23540.d
Lab. Id. : VHBLK
Inj Date : 26-NOV-96 18:11
Operator : LINDA
Smp Info : VHBLK
Misc Info : MS317**INST:L*SWLO*VHBLK*5ML
Comment :
Method : /chem/l.i/l961126a.b/OLM3WAT.m
Meth Date : 26-Nov-1996 10:40 linda
Cal Date : 26-NOV-96 09:24
Als bottle: 5
Dil Factor: 1.000
Integrator: HP RTE
Sample Type: WATER

Quant Type: ISTD
Inst ID: l.i
Cal File: l23524.d
Target Version: Target 3.00
Compound Sublist: all.sub

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
6 Acetone	43.00	6.110	(0.691)	9112	1.81	1.81(a)
* 14 Bromochloromethane	128.00	8.844	(1.000)	918523	50.00	
$ 18 1,2-Dichloroethane-d4	65.00	9.510	(1.075)	610163	47.34	47.34
* 21 1,4-Difluorobenzene	114.00	10.030	(1.000)	3963194	50.00	
$ 27 Toluene-d8	98.00	11.610	(0.879)	2711559	50.72	50.72
* 34 Chlorobenzene-d5	117.00	13.210	(1.000)	3313449	50.00	
$ 42 Bromofluorobenzene	95.00	14.512	(1.099)	2013101	48.05	48.05

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/l.i/1961126a.b/123540.d

Date : 26-NOV-96 18:11

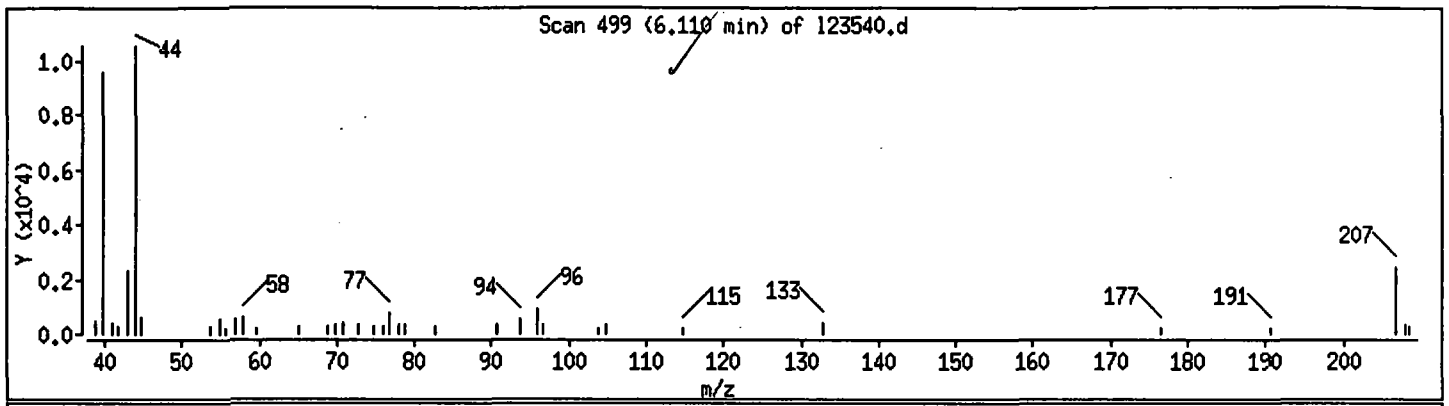
Instrument : l.i

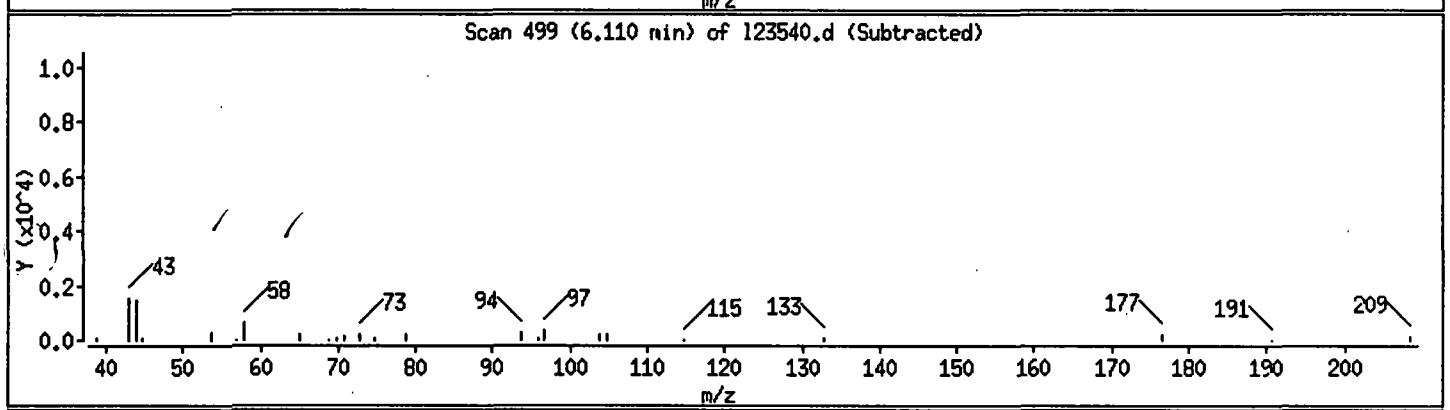
Sample ID : VHBLK

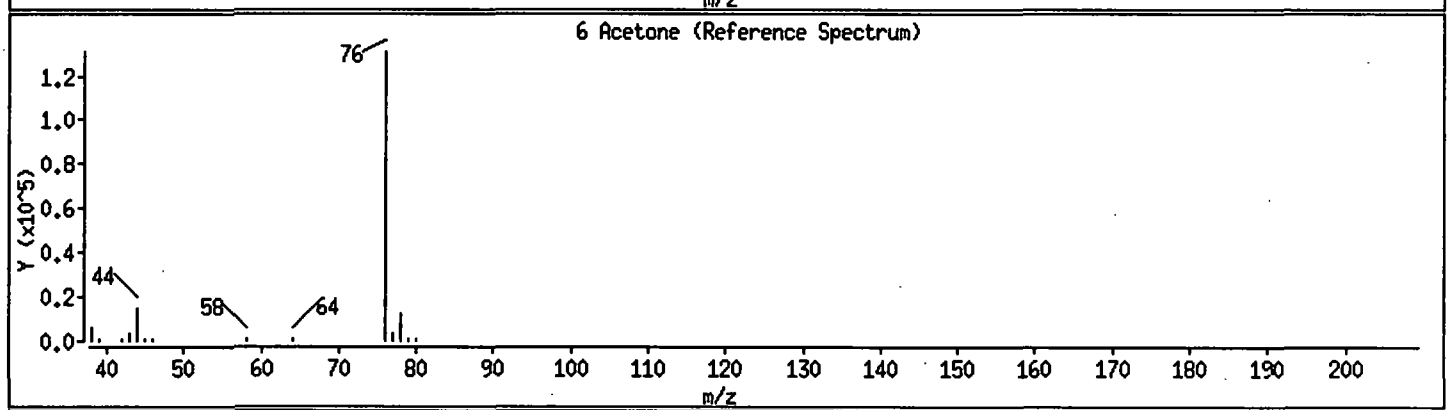
Column phase : DB-624 Column diameter : 0.53

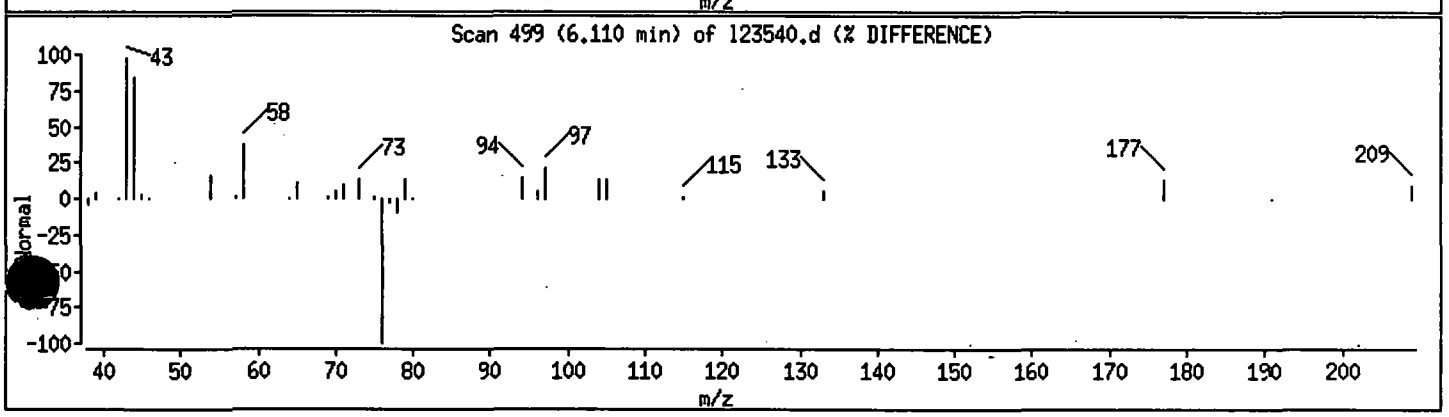
Volume Injected (uL) : 0.0

6 Acetone









SWOK/AATS

Unknown Compounds Quantitation Report

Data file : /chem/l.i/1961126a.b/123540.d
Lab. Id. : VHBLK
Inj Date : 26-NOV-96 18:11
Operator : LINDA Inst ID: l.i
Smp Info : VHBLK
Misc Info : MS317**INST:L*SWLO*VHBLK*5ML
Comment :
Method : /chem/l.i/1961126a.b/OLM3WAT.m
Meth Date : 26-Nov-1996 10:40 linda
Cal Date : 26-NOV-96 09:24 Cal File: 123524.d
Als bottle: 5
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: WATER
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 34 Chlorobenzene-d5	13.210	8688956	50.000

RT	AREA	CONC(ug/L)	QUAL	LIBRARY	LIB ENTRY	QUANT	CPND #
Cyclotrisiloxane, hexamethyl-					CAS #: 541-05-9		
12.236	948293	5.45	53	NBS75K.l	70586	34	
Isobornyl isovalerate					CAS #: 0-00-0		
17.766	989194	5.69	42	NBS75K.l	31574	34	

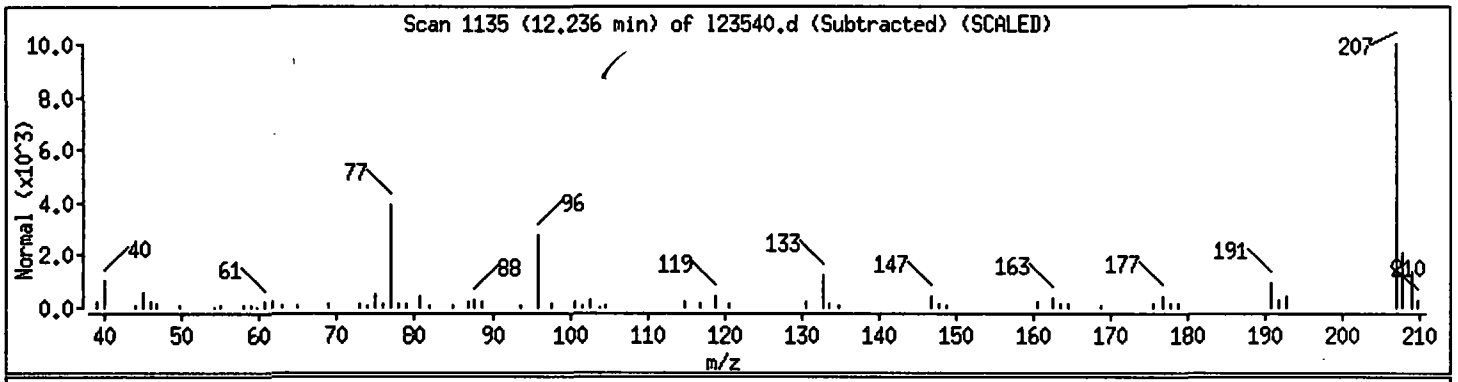
QC Flag Legend

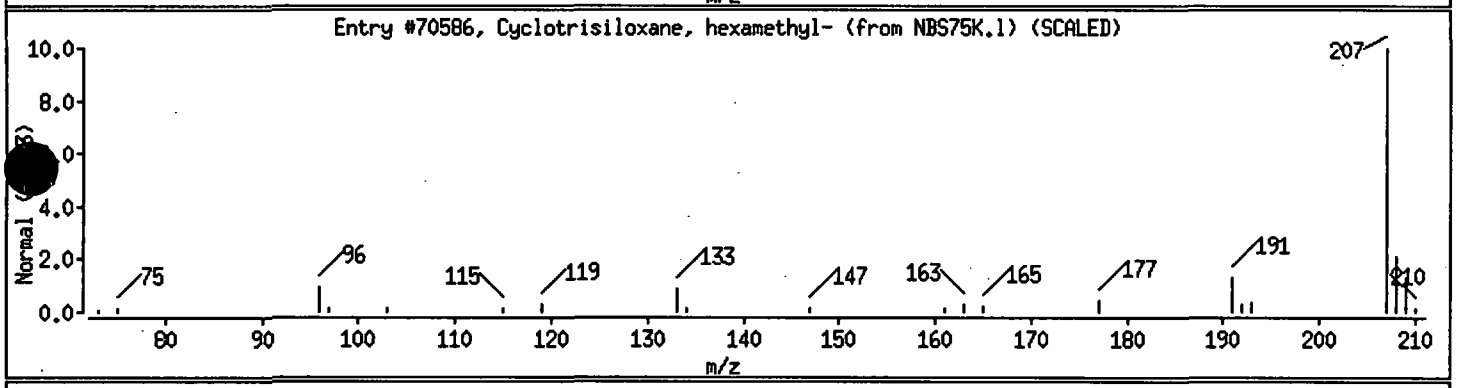
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

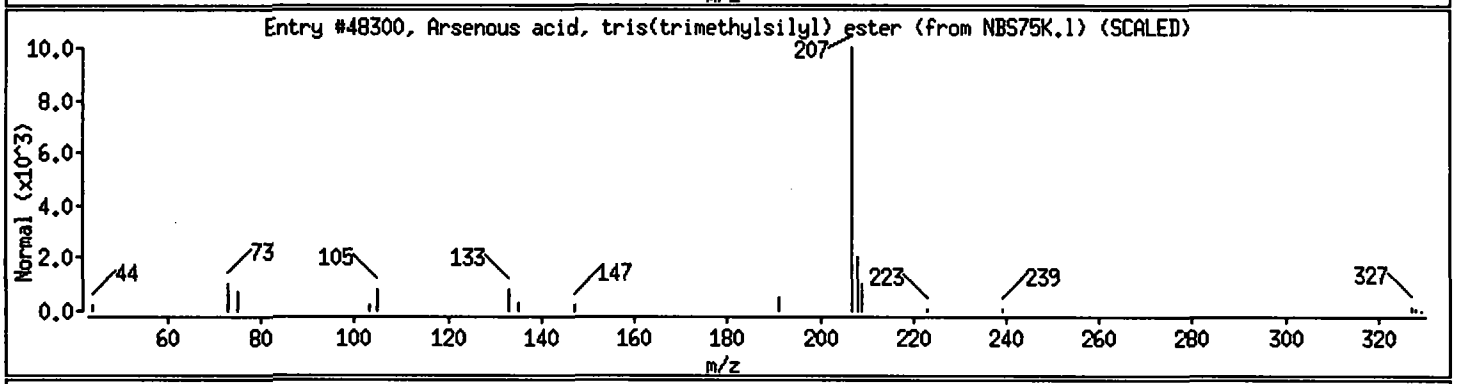
Data File: /chem/l.i/1961126a.b/123540.d
Date : 26-NOV-96 10:11
Instrument : l.i
Sample ID : VHBLK
Column phase : DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

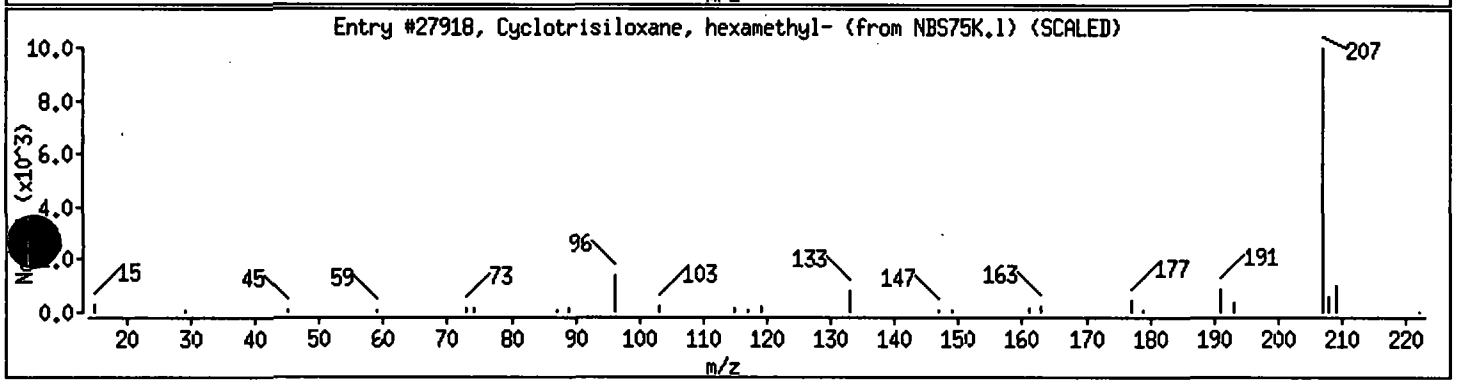
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Cyclotrisiloxane, ~~hexamethyl-~~	~~541-05-9~~	NBS75K.l	70586	53
Arsenous acid, tris(trimethylsilyl) este	55429-29-3	NBS75K.l	48300	40
Cyclotrisiloxane, hexamethyl-	541-05-9	NBS75K.l	27918	40

BLW 12/16/97





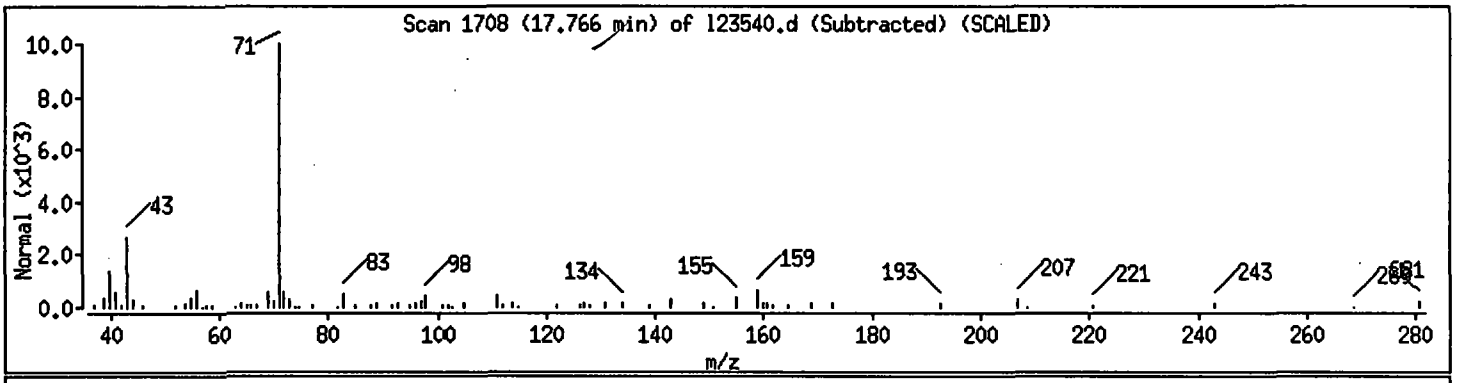


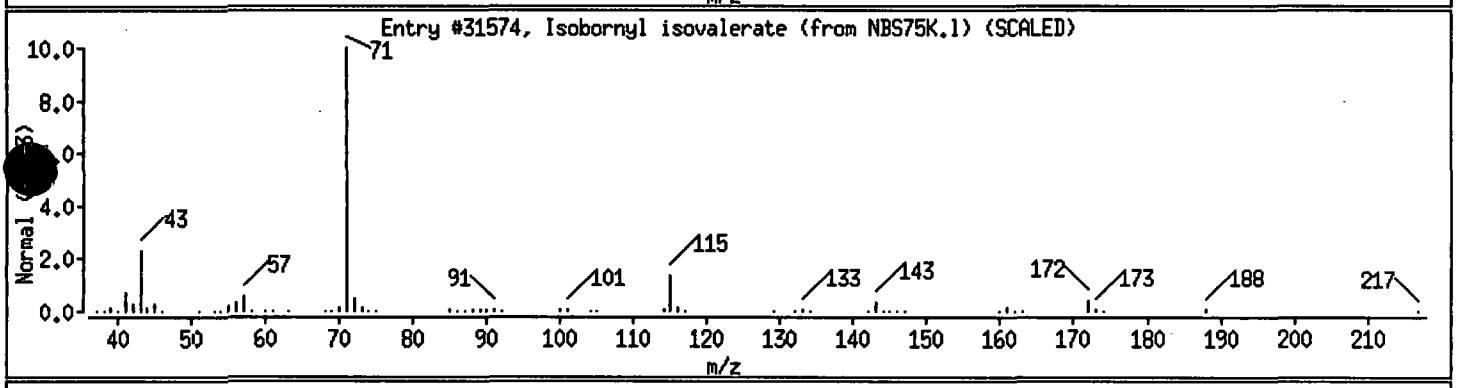


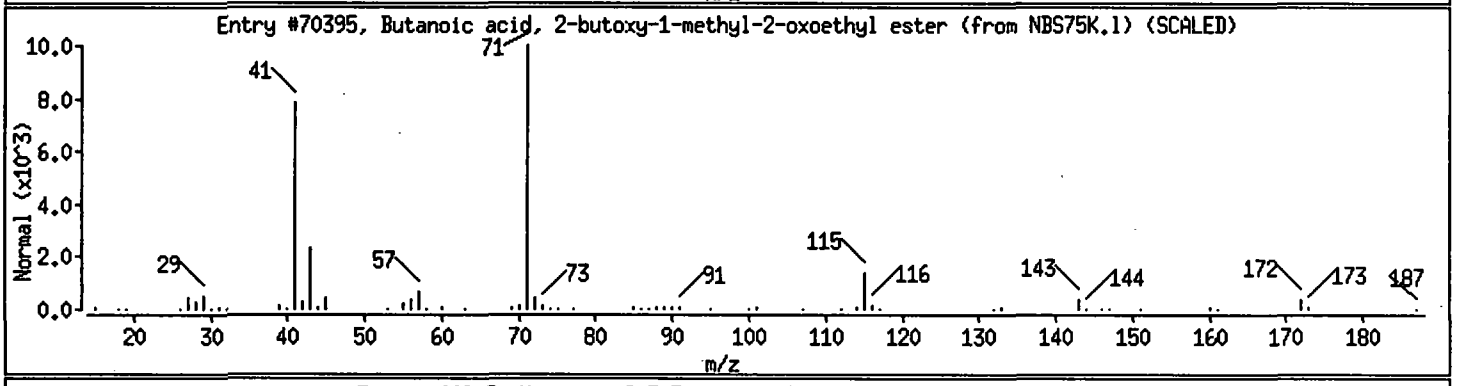
Data File: /chem/l.i/1961126a.b/123540.d
Date : 26-NOV-96 18:11
Instrument : l.i
Sample ID : VHBLK
Column phase : DB-624 Column diameter : 0.53
Volume Injected (uL) : 0.0

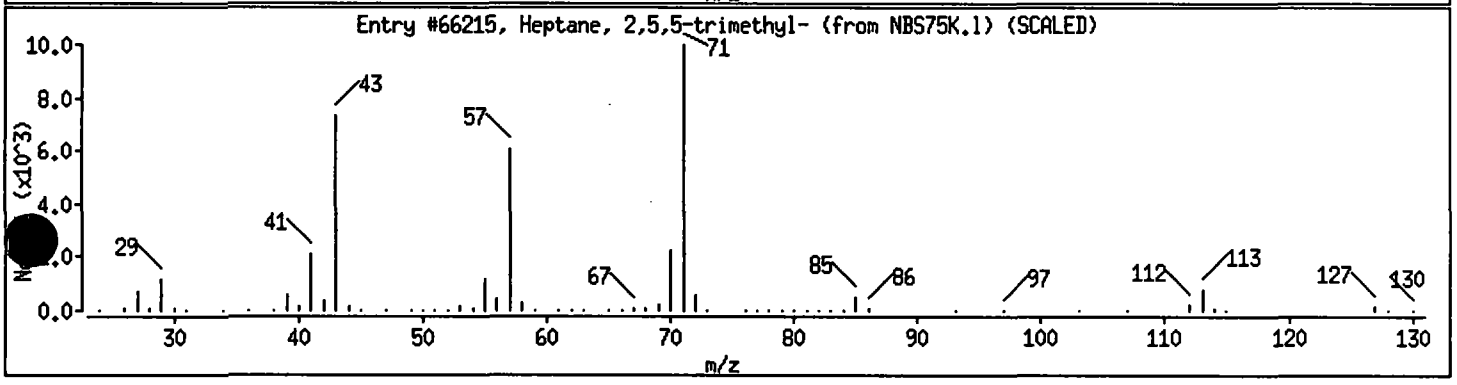
UNKNOWN

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Isobornyl isovalerate	0-00-0	NBS75K.l	31574	42
Butanoic acid, 2-butoxy-1-methyl-2-oxoet	7492-70-8	NBS75K.l	70395	38
Heptane, 2,5,5-trimethyl-	1189-99-7	NBS75K.l	66215	36





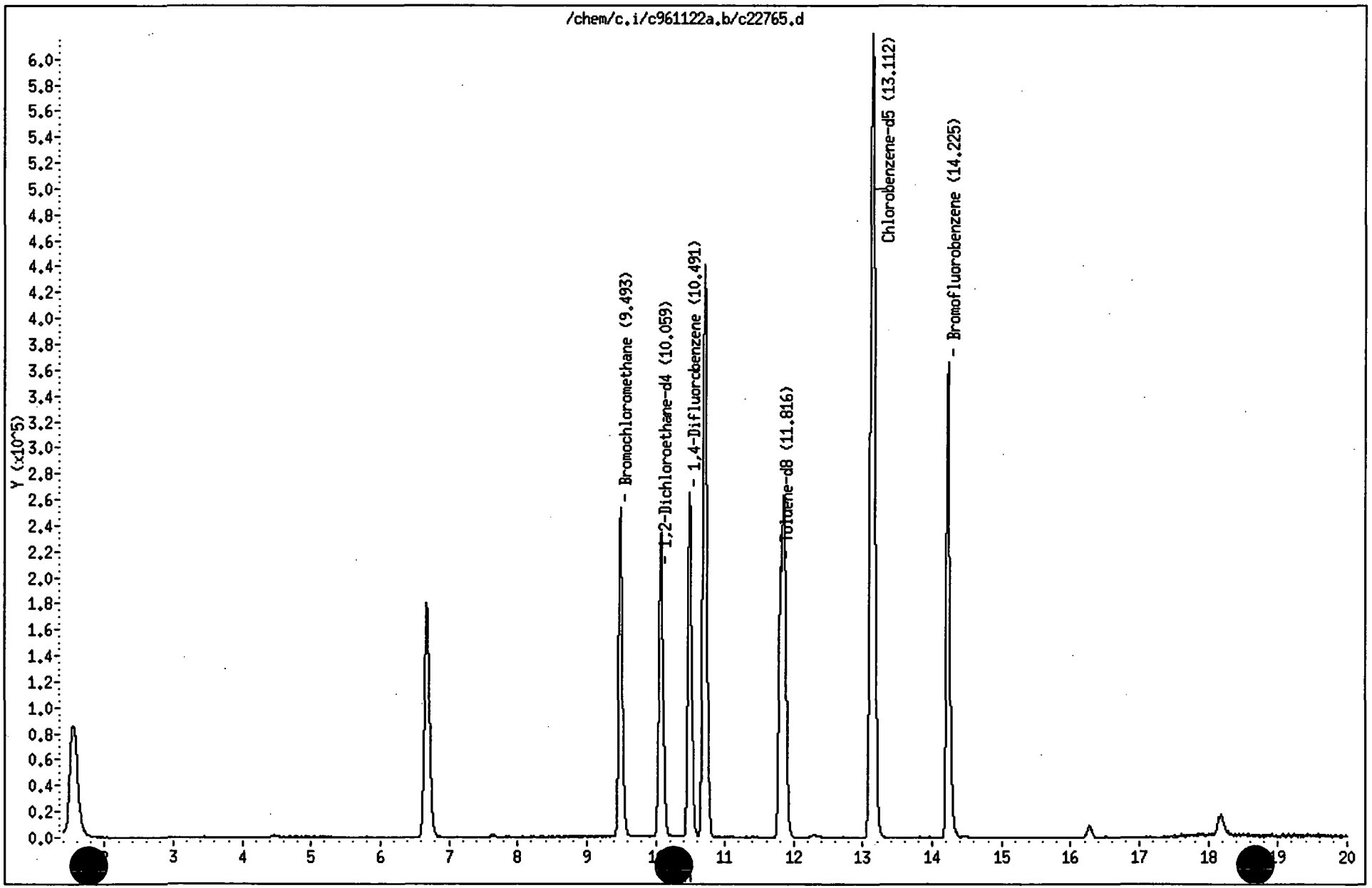




OPERATOR: Linda

Data File: /chem/c.i/c961122a.b/c22765.d
Date : 22-NOV-96 13:41
Instrument : c.i
Sample ID : FFG24MS
Column phase : DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53



SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/c.i/c961122a.b/c22765.d
Lab. Id. : 27683.10MS
Quant Type: ISTD
Inj Date : 22-NOV-96 13:41
Operator : rebecca
Inst ID: c.i
Smp Info : FFG24MS
Misc Info : MS317**INST:C*25159*27683.10MS*5G
Comment :
Method : /chem/c.i/c961122a.b/OLM3SOIL.m
Meth Date : 22-Nov-1996 10:51
Cal Date : 22-NOV-96 10:05
Cal File: c22759.d
Als bottle: 6
QC Sample: MS
Dil Factor: 1.000
Target Version: Target 3.00
Integrator: HP RTE
Compound Sublist: all.sub
Sample Type: SOIL

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
5 1,1-Dichloroethene	96.00	6.691	(0.705)	184056	52.44	52.44
* 14 Bromochloromethane	128.00	9.493	(1.000)	138369	50.00	
$ 18 1,2-Dichloroethane-d4	65.00	10.059	(1.060)	147883	48.93	48.93
19 Benzene	78.00	10.078	(0.961)	269205	49.90	49.90
1,4-Difluorobenzene	114.00	10.491	(1.000)	384838	50.00	
22 Trichloroethene	130.00	10.703	(1.020)	298427	69.56	69.56(R)
$ 27 Toluene-d8	98.00	11.806	(0.900)	268615	40.16	40.16(R)
28 Toluene	91.00	11.864	(0.905)	347930	41.56	41.56
* 34 Chlorobenzene-d5	117.00	13.112	(1.000)	402793	50.00	
35 Chlorobenzene	112.00	13.140	(1.002)	408468	50.00	50.00
$ 42 Bromofluorobenzene	95.00	14.225	(1.085)	264737	42.46	42.46

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/c.i/c961122a.b/c22765.d

Date : 22-NOV-96 13:41

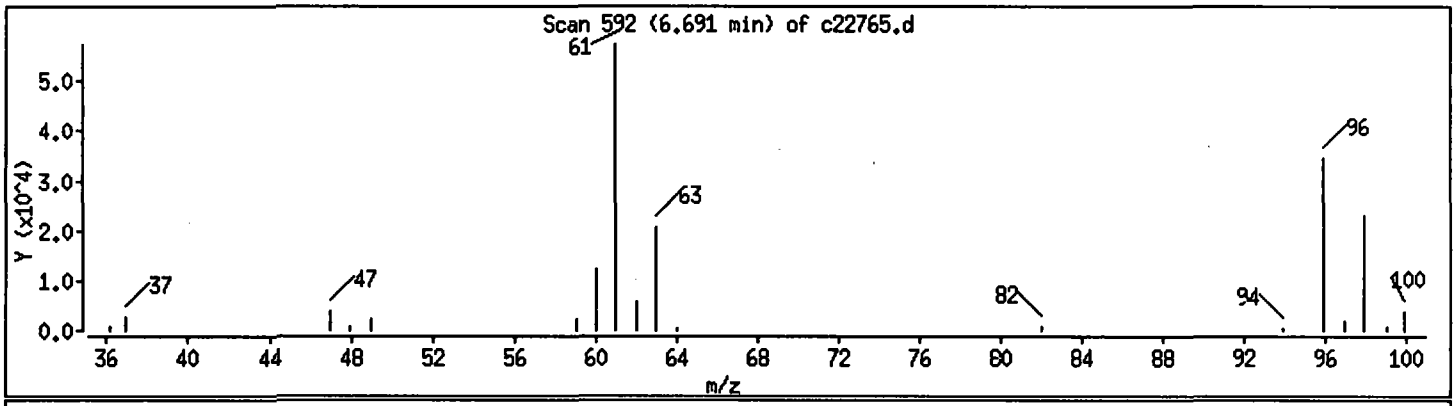
Instrument : c.i

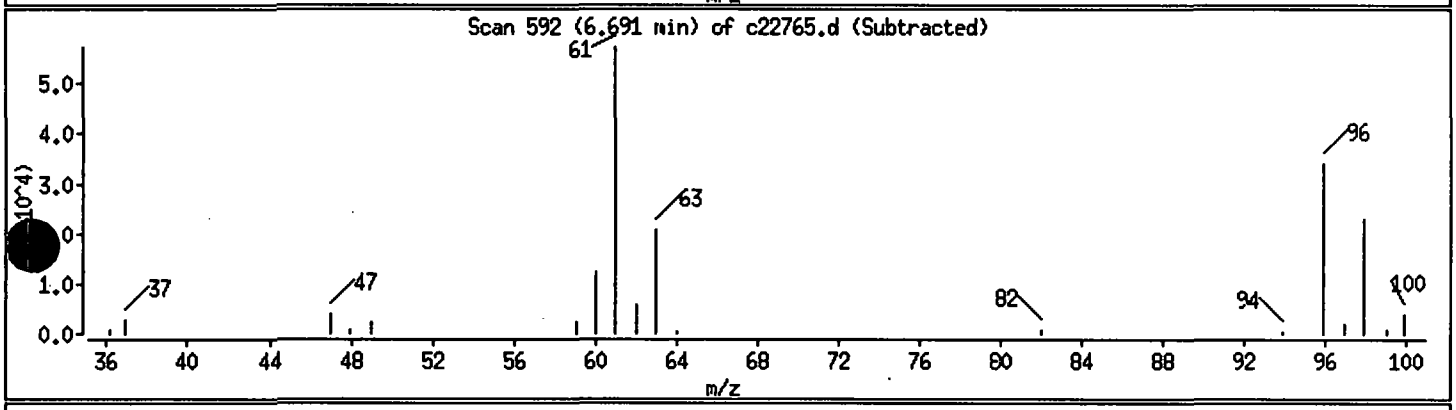
Sample ID : FFG24MS

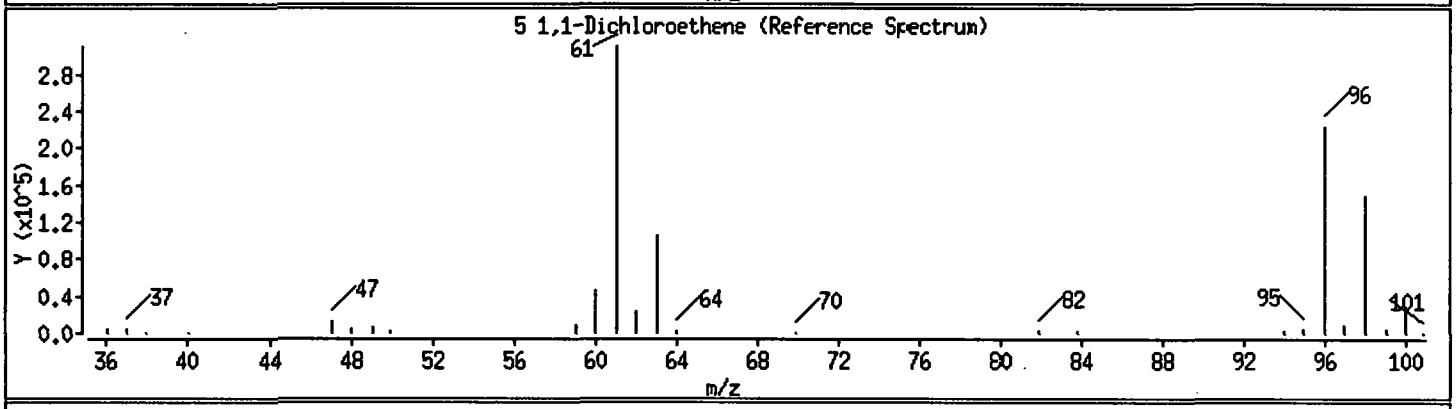
Column phase : DB-624 Column diameter : 0.53

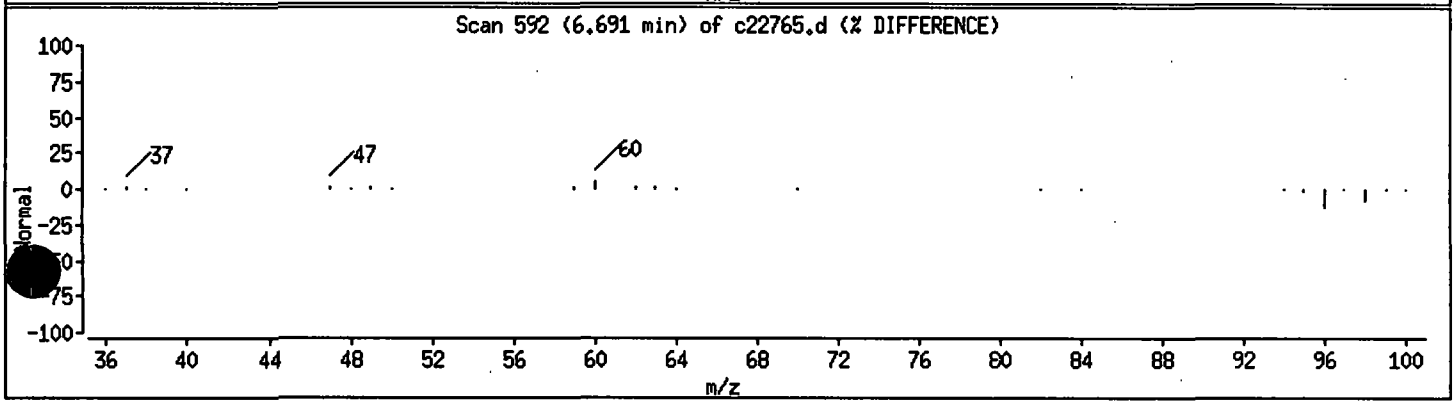
Volume Injected (uL) : 0.0

5 1,1-Dichloroethene









Data File: /chem/c.i/c961122a.b/c22765.d

Date : 22-NOV-96 13:41

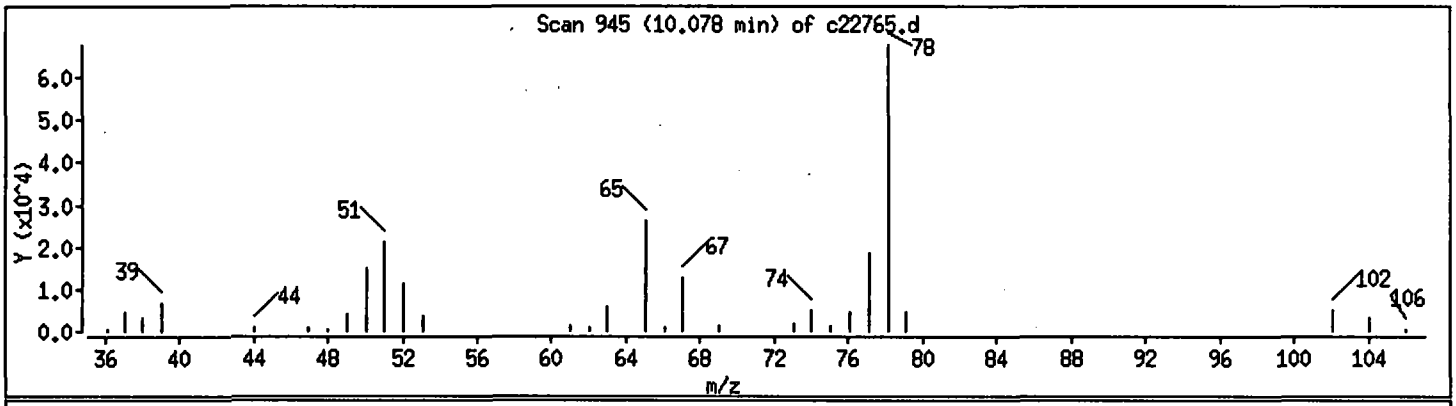
Instrument : c.i

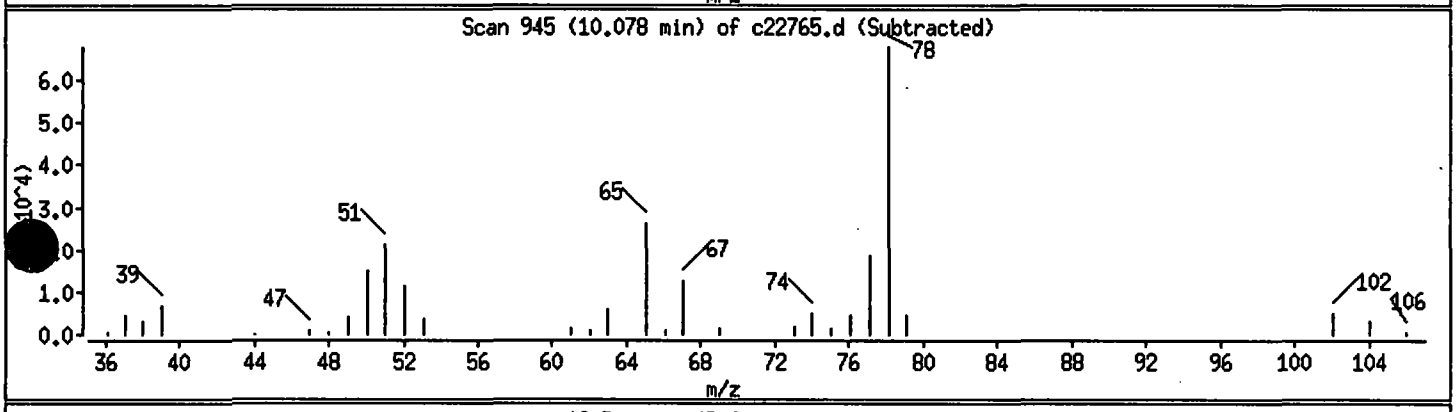
Sample ID : FFG24MS

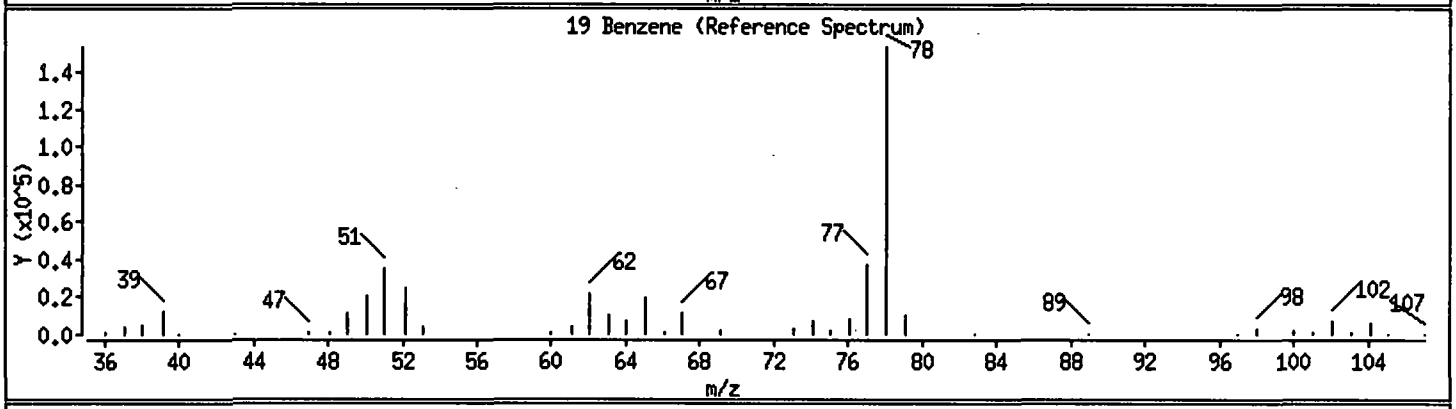
Column phase : DB-624 Column diameter : 0.53

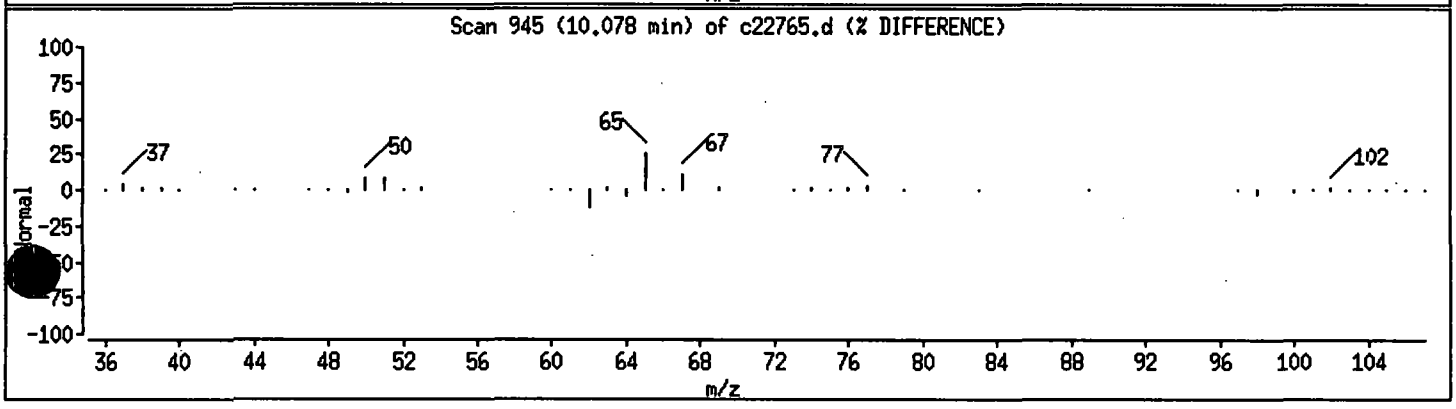
Volume Injected (uL) : 0.0

19 Benzene









Data File: /chem/c.i/c961122a.b/c22765.d

Date : 22-NOV-96 13:41

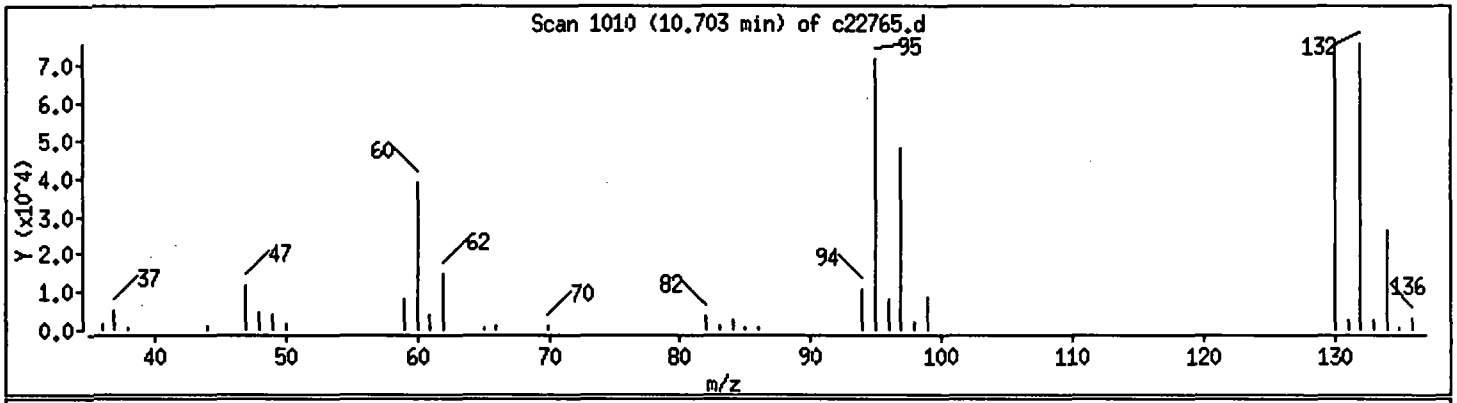
Instrument : c.i

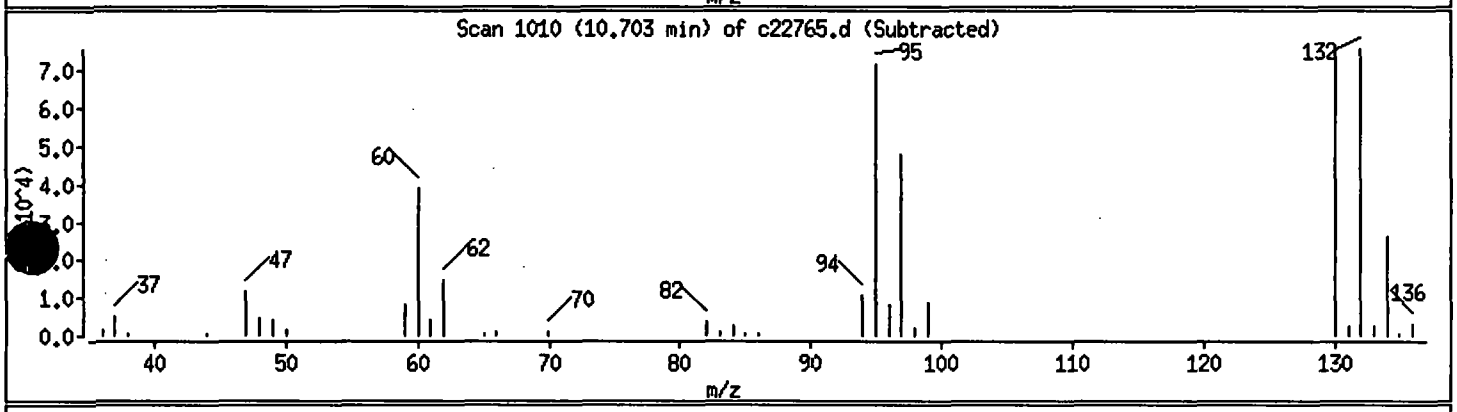
Sample ID : FFG24MS

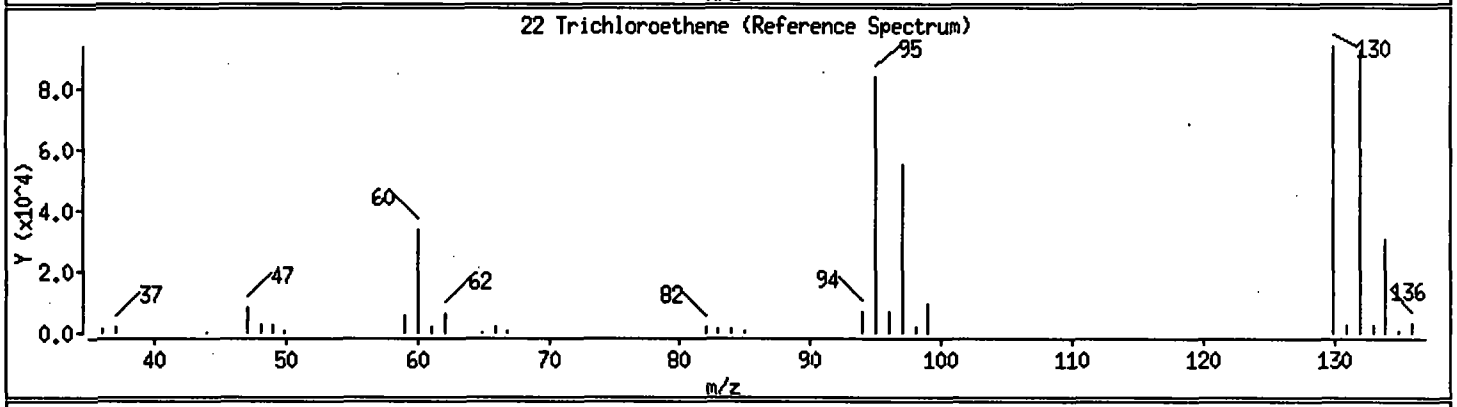
Column phase : DB-624 Column diameter : 0.53

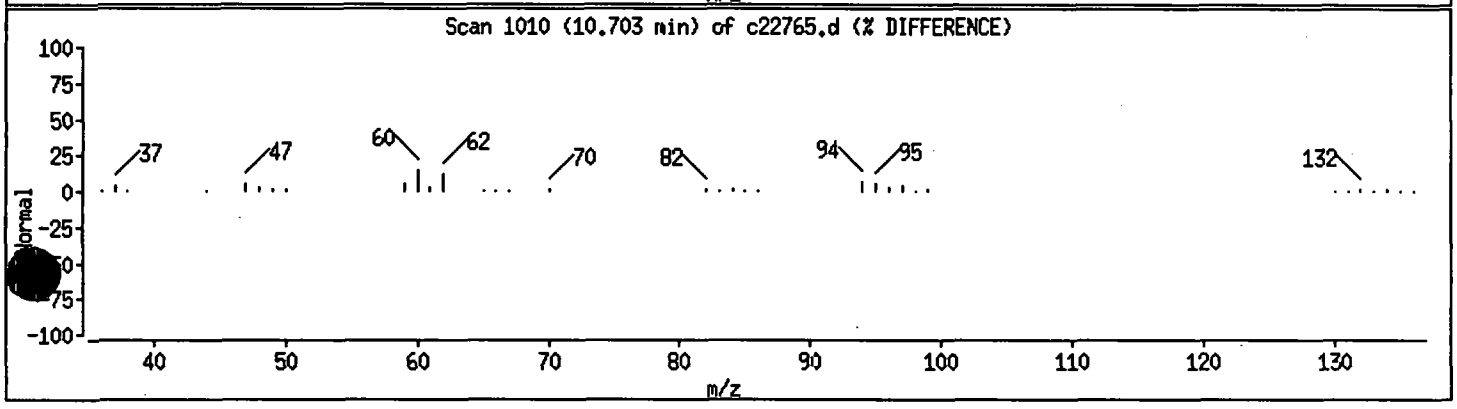
Volume Injected (uL) : 0.0

22 Trichloroethene









Data File: /chem/c.i/c961122a.b/c22765.d

Date : 22-NOV-96 13:41

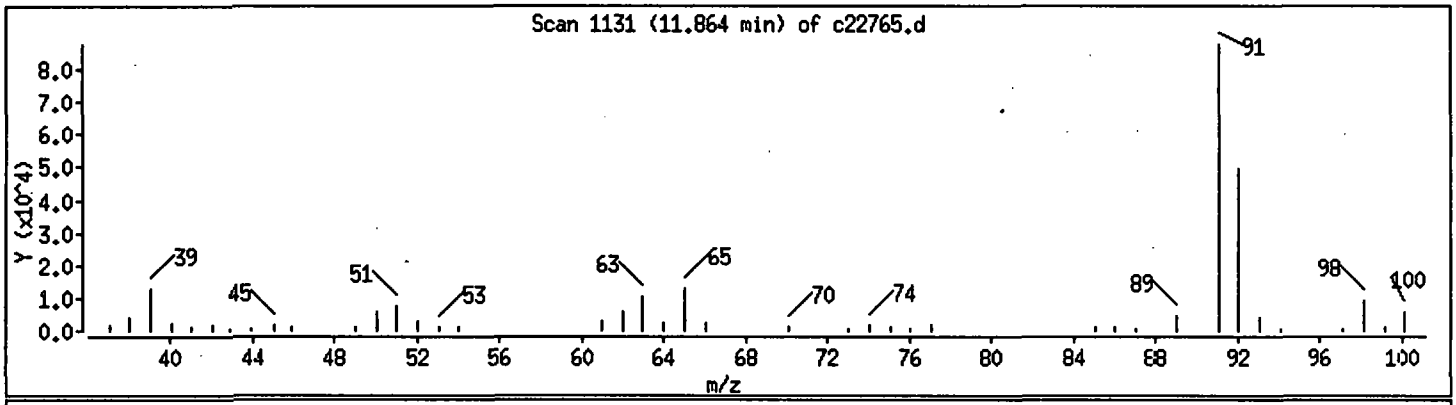
Instrument : c.i

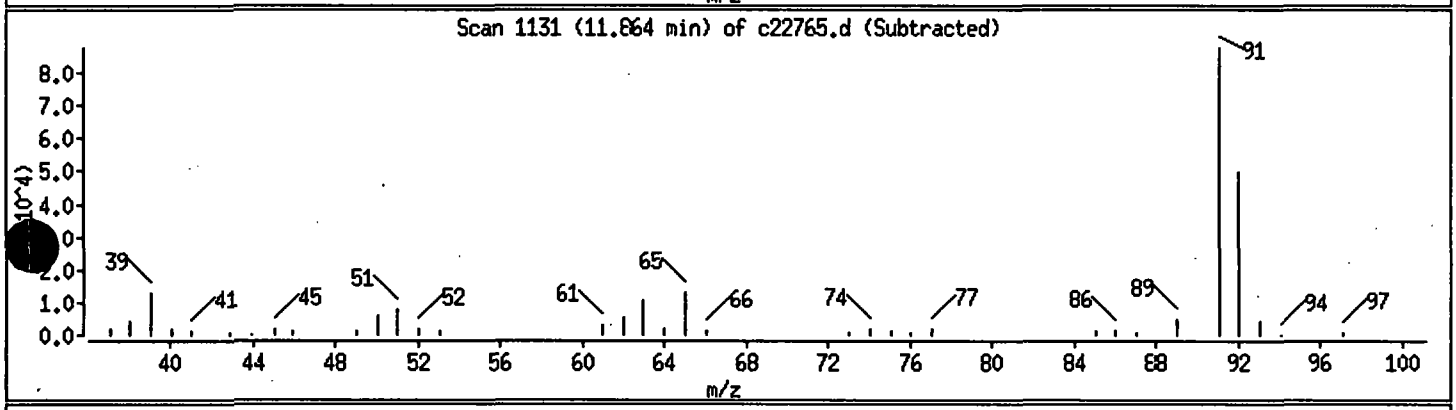
Sample ID : FFG24MS

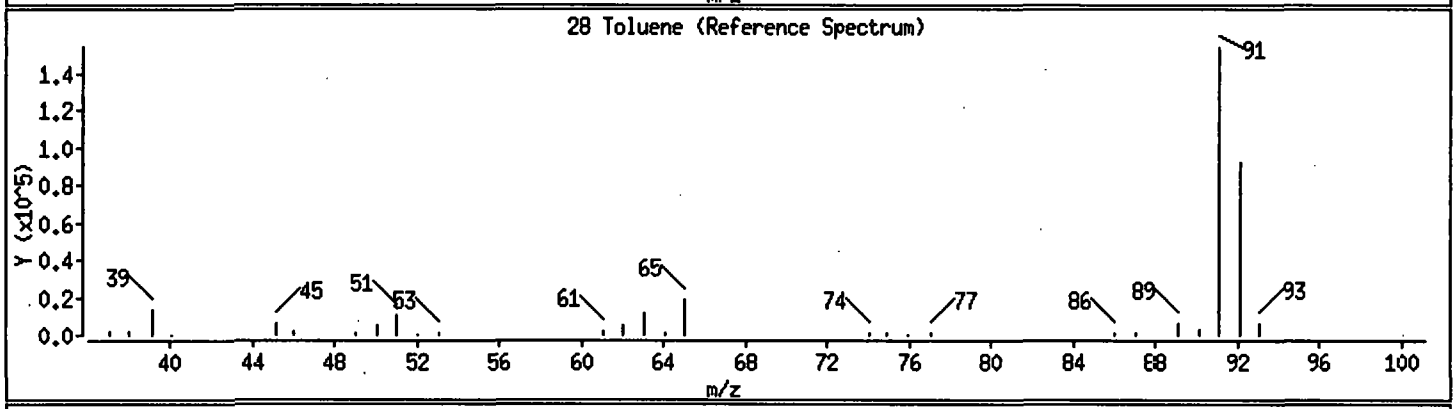
Column phase : DB-624 Column diameter : 0.53

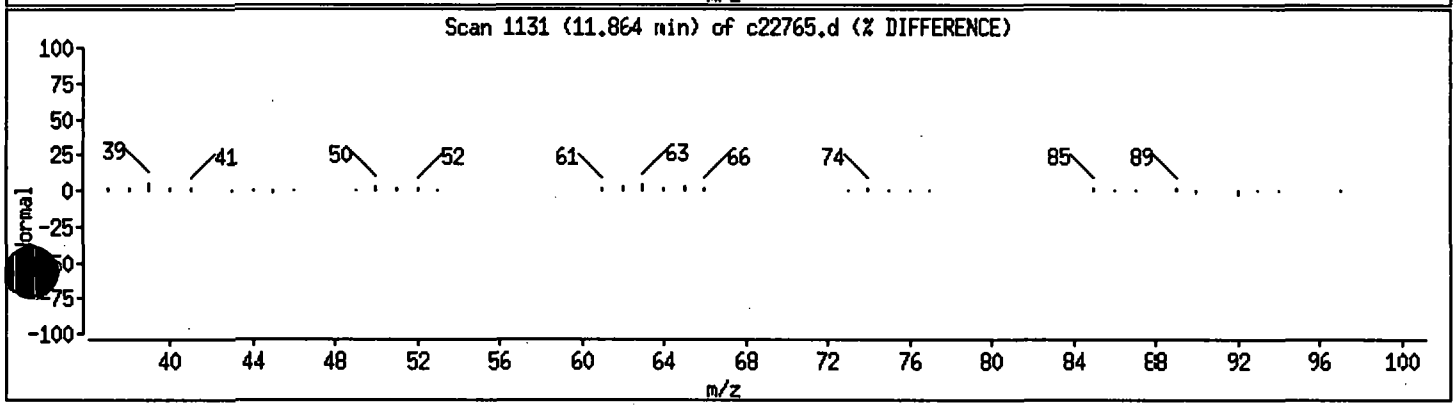
Volume Injected (uL) : 0.0

28 Toluene









Data File: /chem/c.i/c961122a.b/c22765.d

Date : 22-NOV-96 13:41

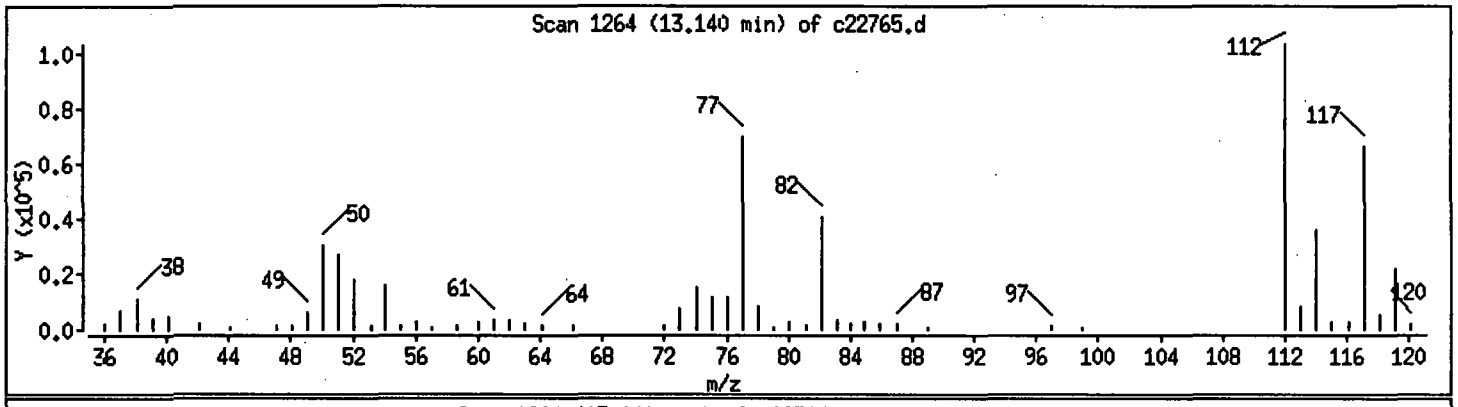
Instrument : c.i

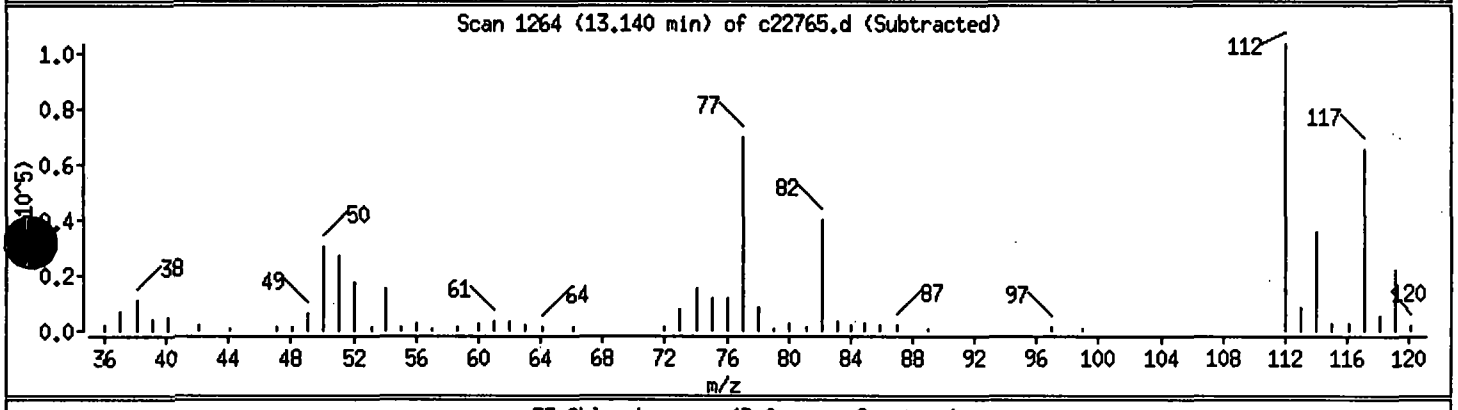
Sample ID : FFG24MS

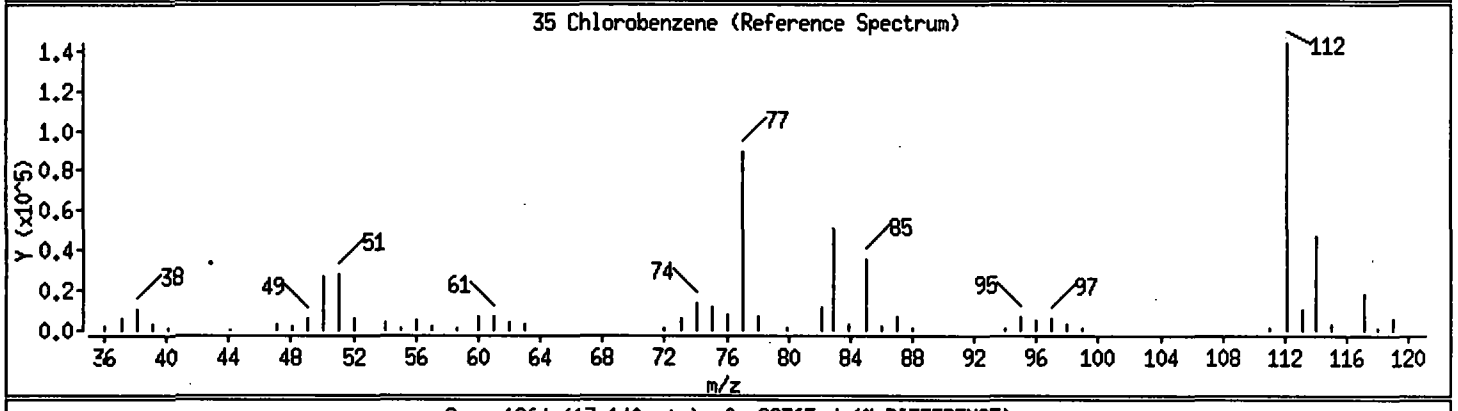
Column phase : DB-624 Column diameter : 0.53

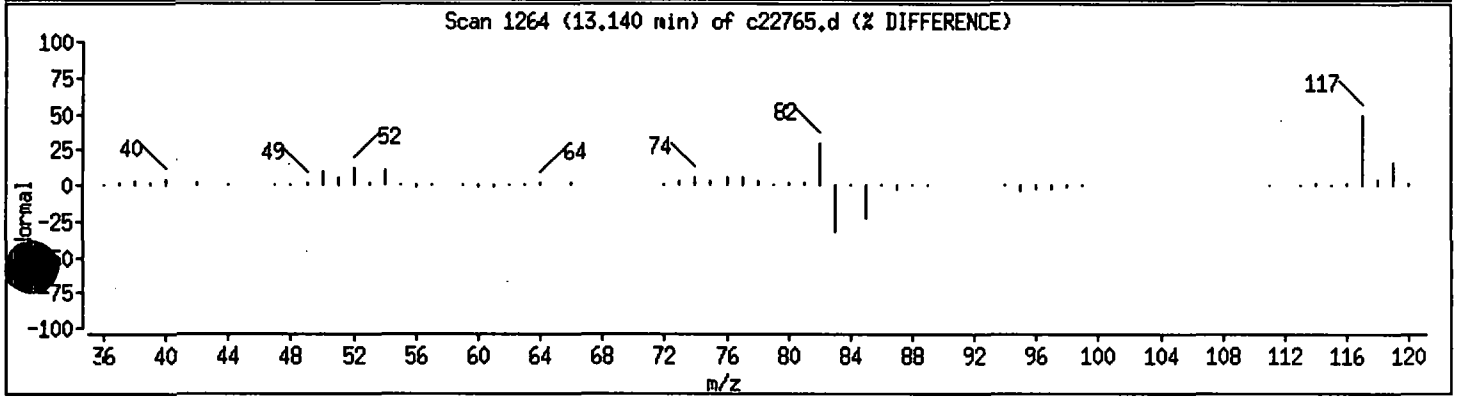
Volume Injected (uL) : 0.0

35 Chlorobenzene





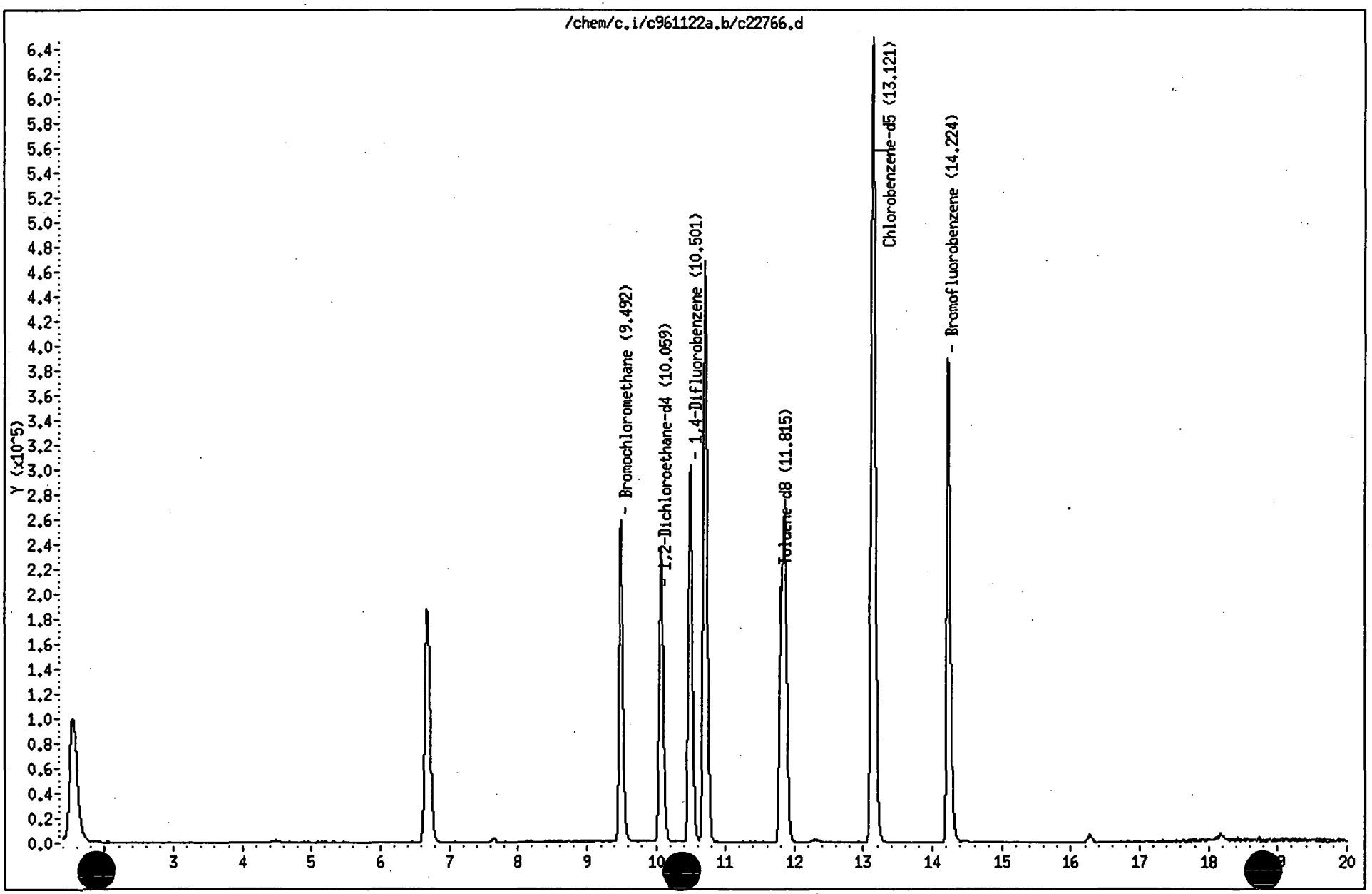




Data File: /chem/c.i/c961122a.b/c22766.d
Date : 22-NOV-96 14:07
Instrument : c.i
Sample ID : FFG24MSD
Column phase : DB-624
Volume Injected (uL) : 0.0

Column diameter : 0.53

OPERATOR: Linda



SWOK/AATS

VOLATILE QUANT REPORT

Data file : /chem/c.i/c961122a.b/c22766.d
Lab. Id. : 27683.10MSD
Quant Type: ISTD
Inj Date : 22-NOV-96 14:07
Operator : rebecca
Inst ID: c.i
Smp Info : FFG24MSD
Misc Info : MS317**INST:C*25159*27683.10MSD*5G
Comment :
Method : /chem/c.i/c961122a.b/OLM3SOIL.m
Meth Date : 22-Nov-1996 10:51
Cal Date : 22-NOV-96 10:05
Cal File: c22759.d
Als bottle: 7
QC Sample: MSD
Dil Factor: 1.000
Target Version: Target 3.00
Integrator: HP RTE
Compound Sublist: all.sub
Sample Type: SOIL

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/Kg)
5 1,1-Dichloroethene	96.00	6.691	(0.705)	192625	53.03	53.03
* 14 Bromochloromethane	128.00	9.492	(1.000)	143205	50.00	
$ 18 1,2-Dichloroethane-d4	65.00	10.059	(1.060)	150611	48.15	48.15
19 Benzene	78.00	10.088	(0.961)	272972	43.41	43.41
21 1,4-Difluorobenzene	114.00	10.501	(1.000)	448519	50.00	
22 Trichloroethene	130.00	10.702	(1.019)	318019	63.60	63.60
$ 27 Toluene-d8	98.00	11.806	(0.900)	271410	38.88	38.88(R)
28 Toluene	91.00	11.864	(0.904)	346185	39.63	39.63
* 34 Chlorobenzene-d5	117.00	13.121	(1.000)	420343	50.00	
35 Chlorobenzene	112.00	13.150	(1.002)	426042	49.97	49.97
$ 42 Bromofluorobenzene	95.00	14.224	(1.084)	283447	43.57	43.57

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/c.i/c961122a.b/c22766.d

Date : 22-NOV-96 14:07

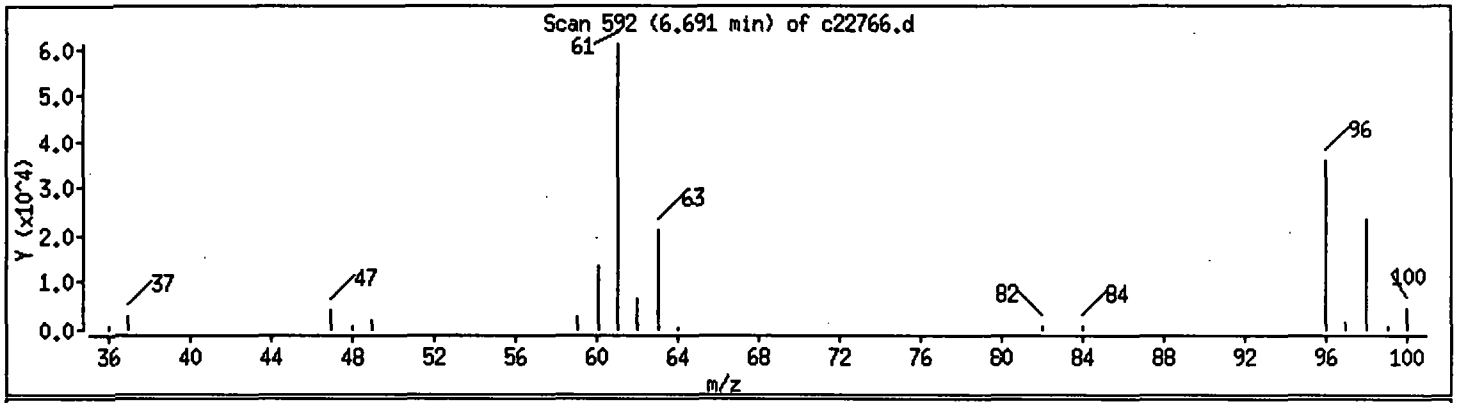
Instrument : c.i

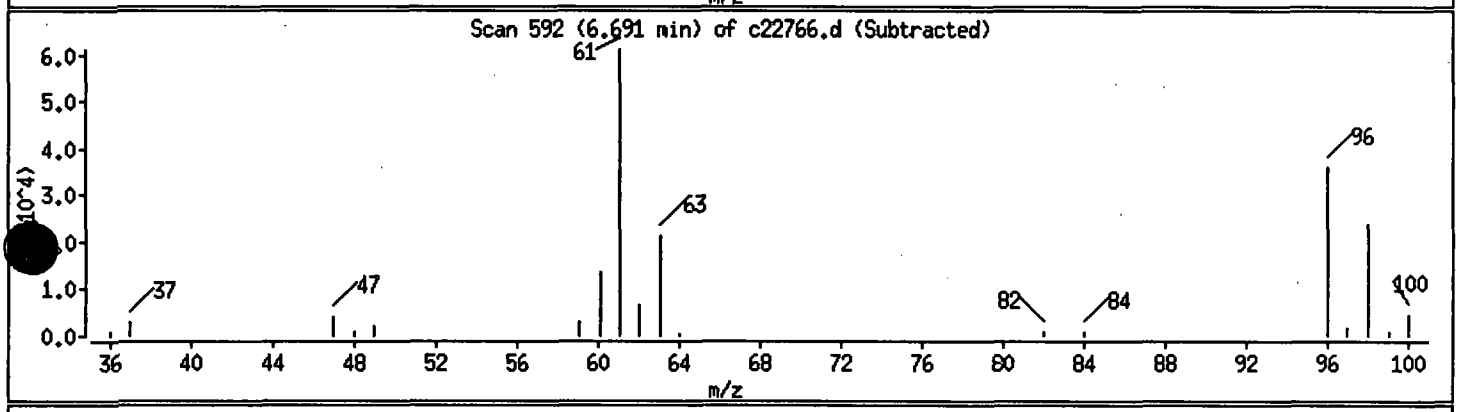
Sample ID : FFG24MSD

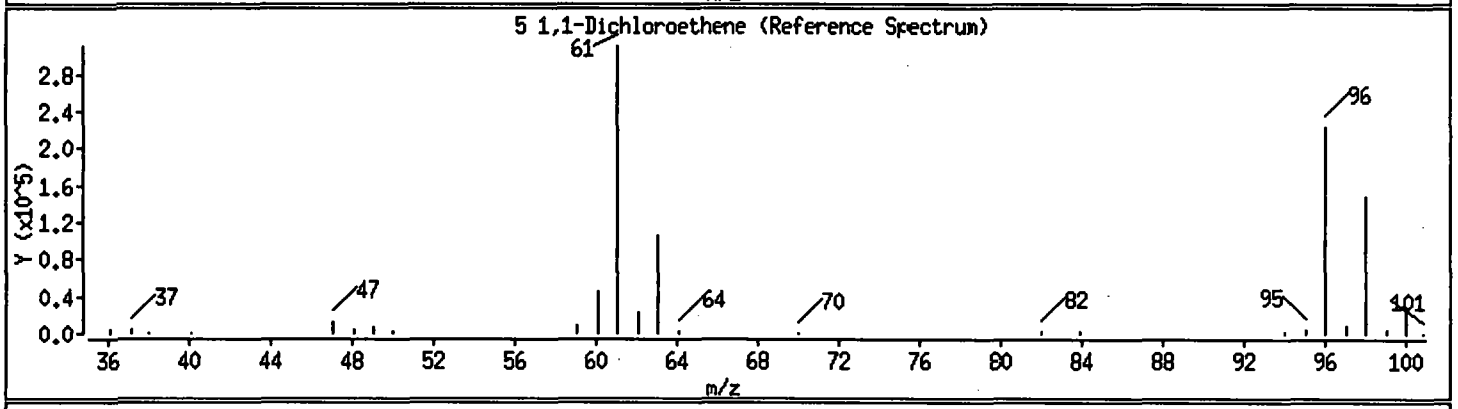
Column phase : DB-624 Column diameter : 0.53

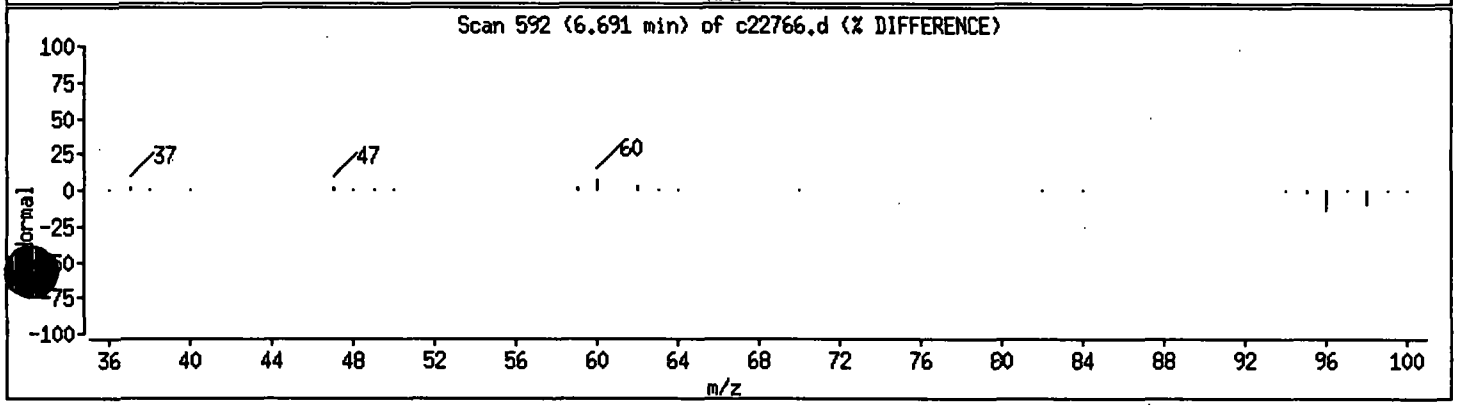
Volume Injected (uL) : 0.0

5 1,1-Dichloroethene









Data File: /chem/c.i/c961122a.b/c22766.d

Date : 22-NOV-96 14:07

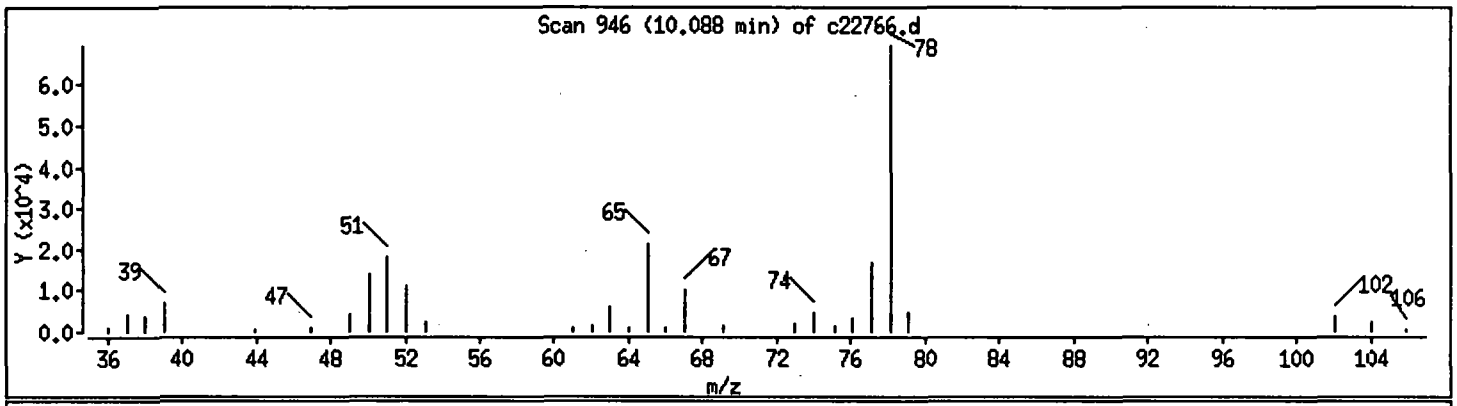
Instrument : c.i

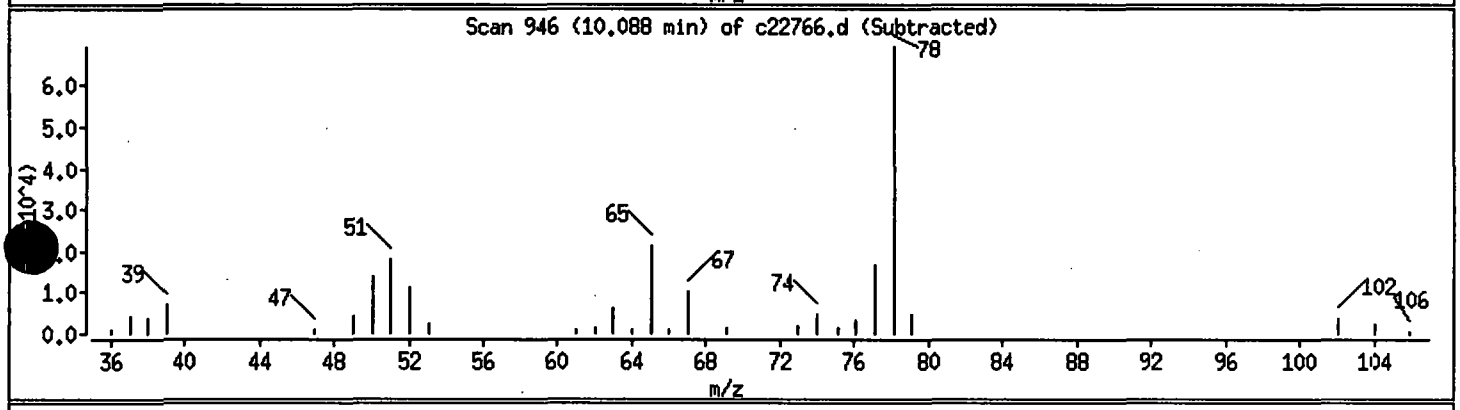
Sample ID : FFG24MSD

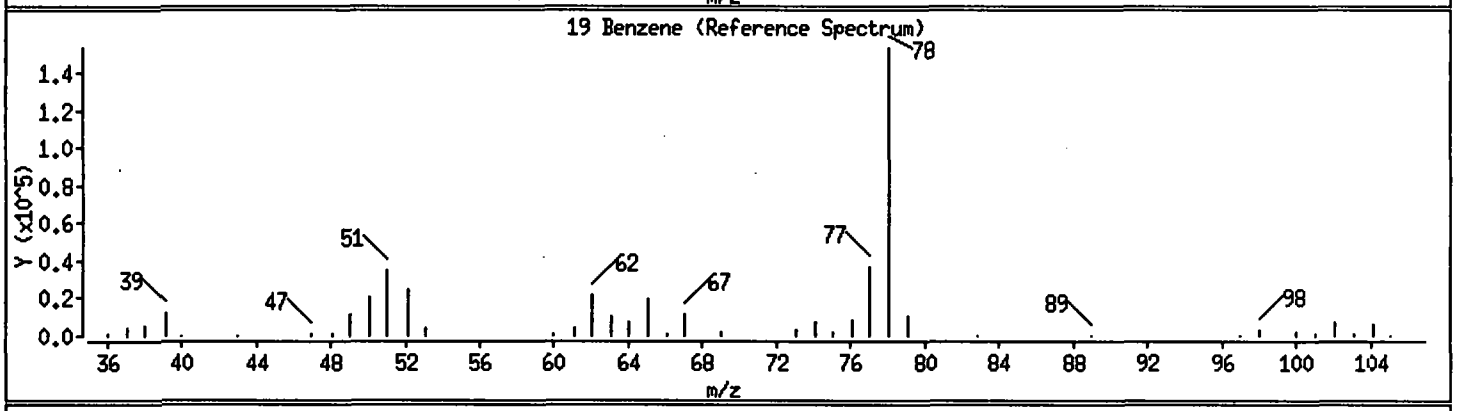
Column phase : DB-624 Column diameter : 0.53

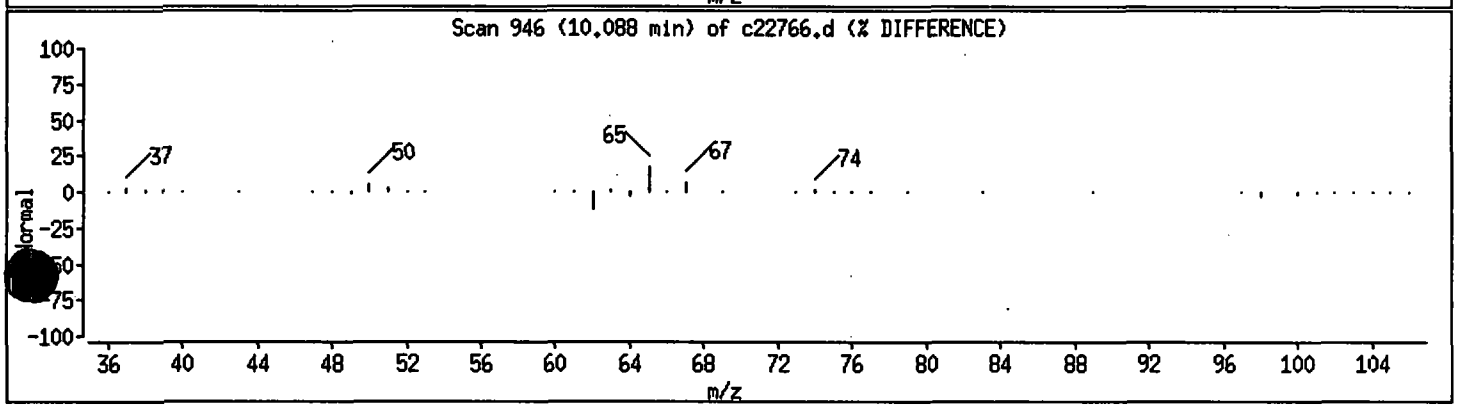
Volume Injected (uL) : 0.0

19 Benzene









Data File: /chem/c.i/c961122a.b/c22766.d

Date : 22-NOV-96 14:07

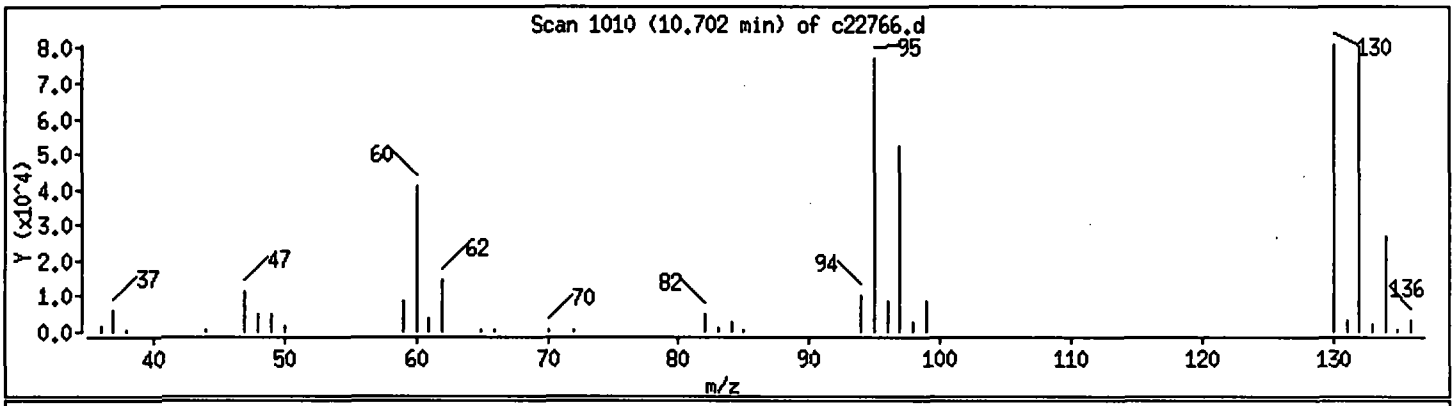
Instrument : c.i

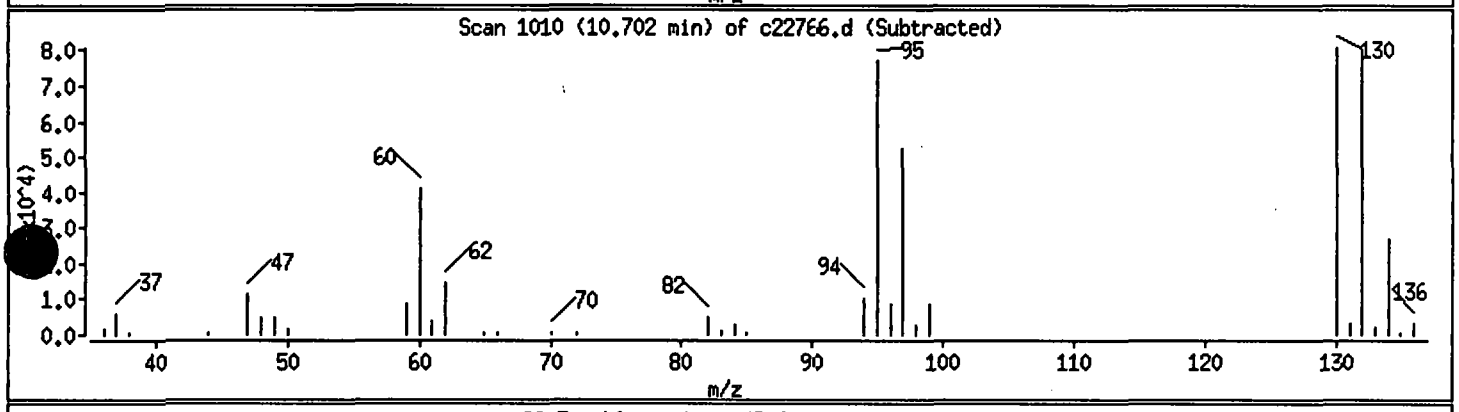
Sample ID : FFG24MSD

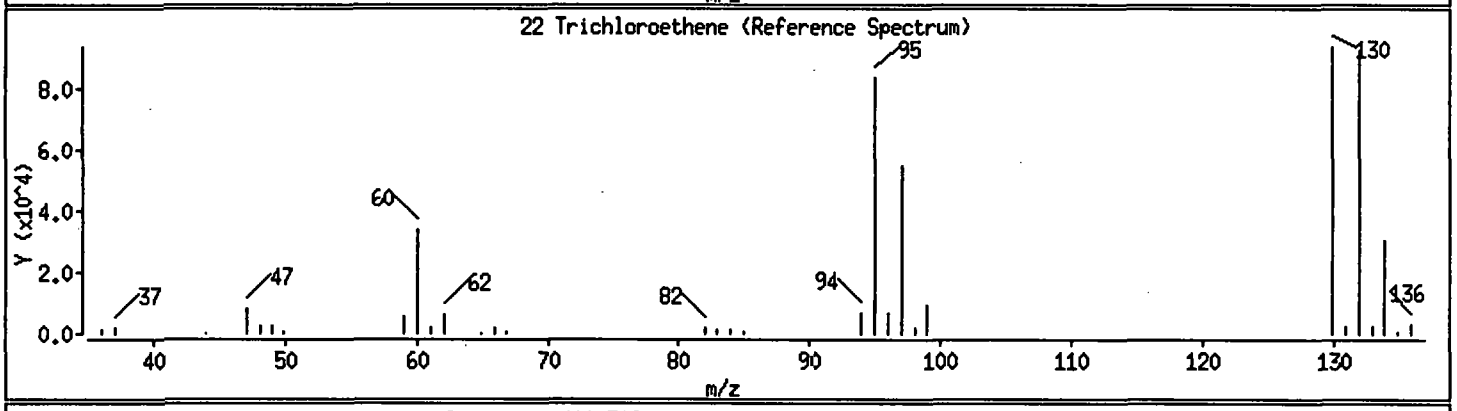
Column phase : DB-624 Column diameter : 0.53

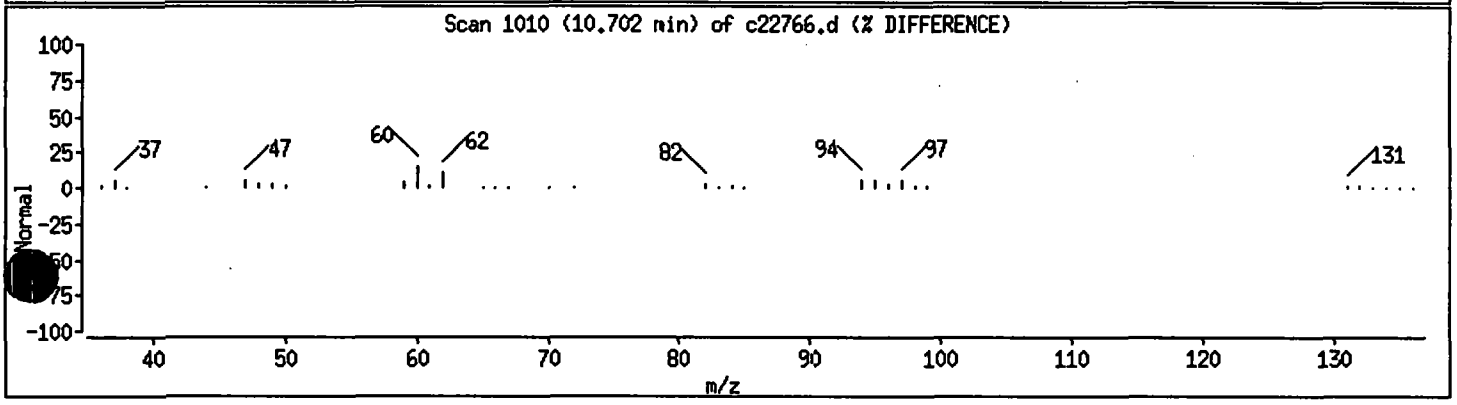
Volume Injected (uL) : 0.0

22 Trichloroethene









Data File: /chem/c.i/c961122a.b/c22766.d

Date : 22-NOV-96 14:07

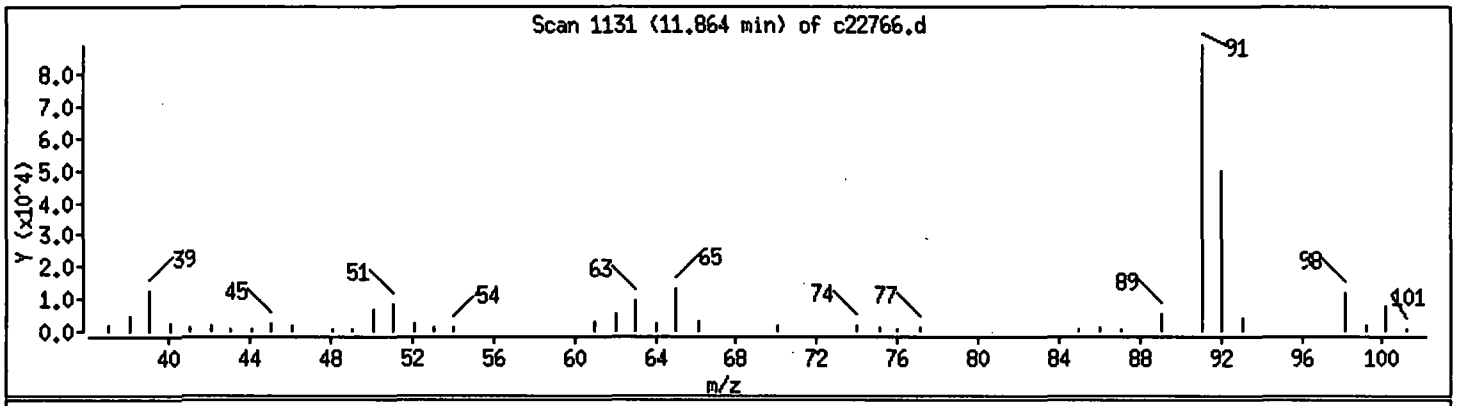
Instrument : c.i

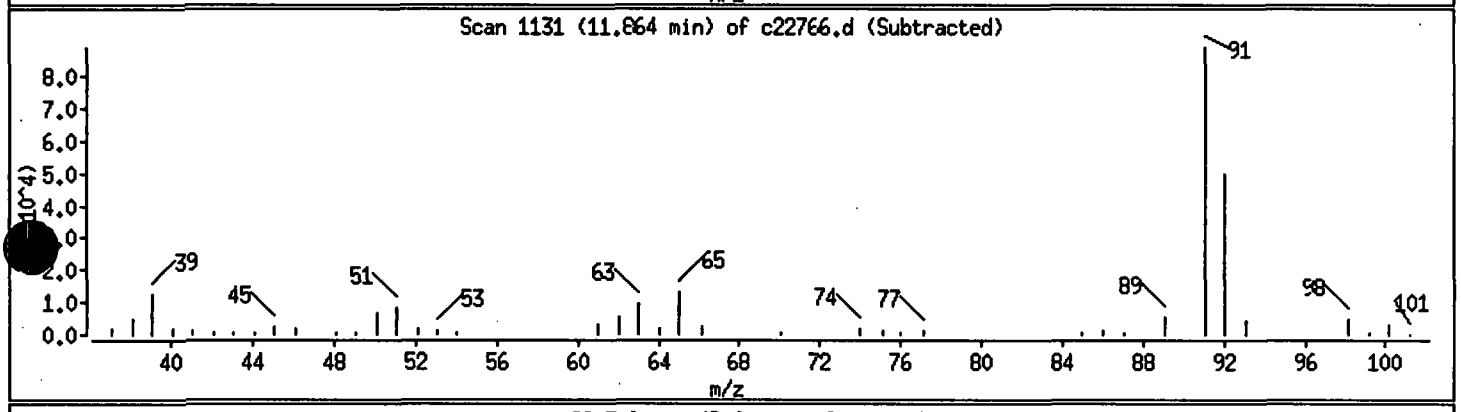
Sample ID : FFG24MSD

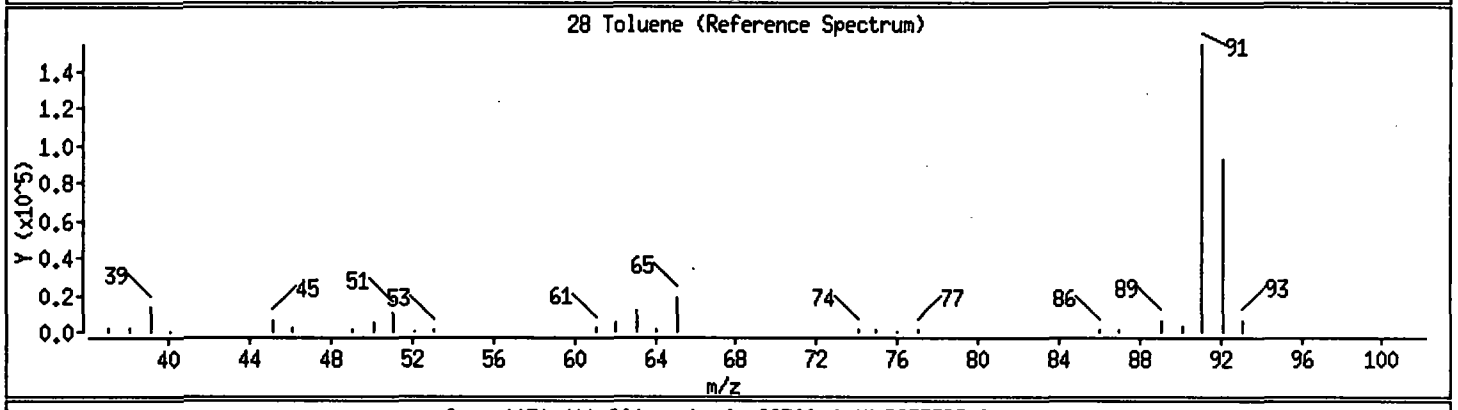
Column phase : DB-624 Column diameter : 0.53

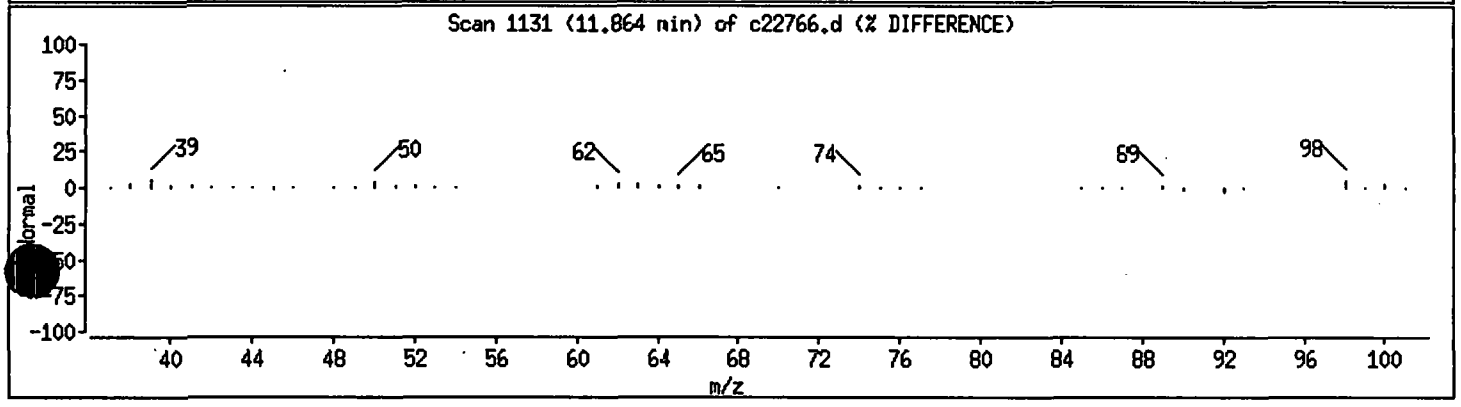
Volume Injected (uL) : 0.0

28 Toluene









Data File: /chem/c.i/c961122a.b/c22766.d

Date : 22-NOV-96 14:07

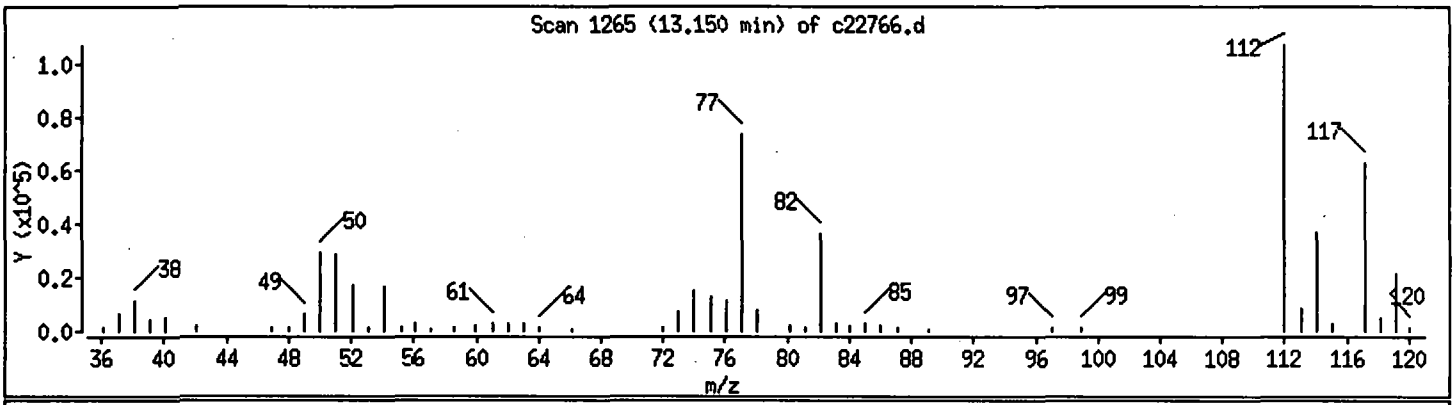
Instrument : c.i

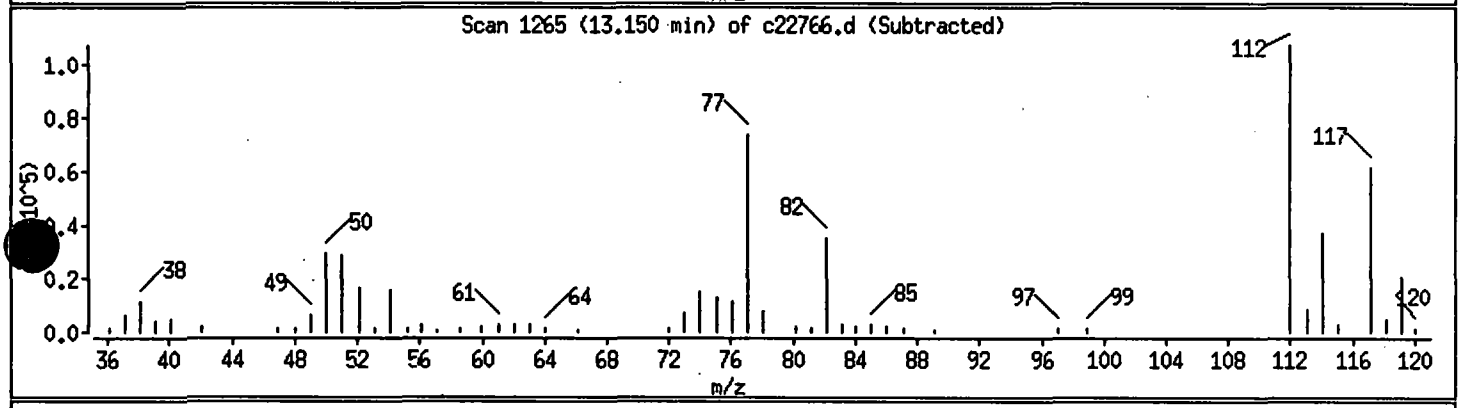
Sample ID : FFG24MSD

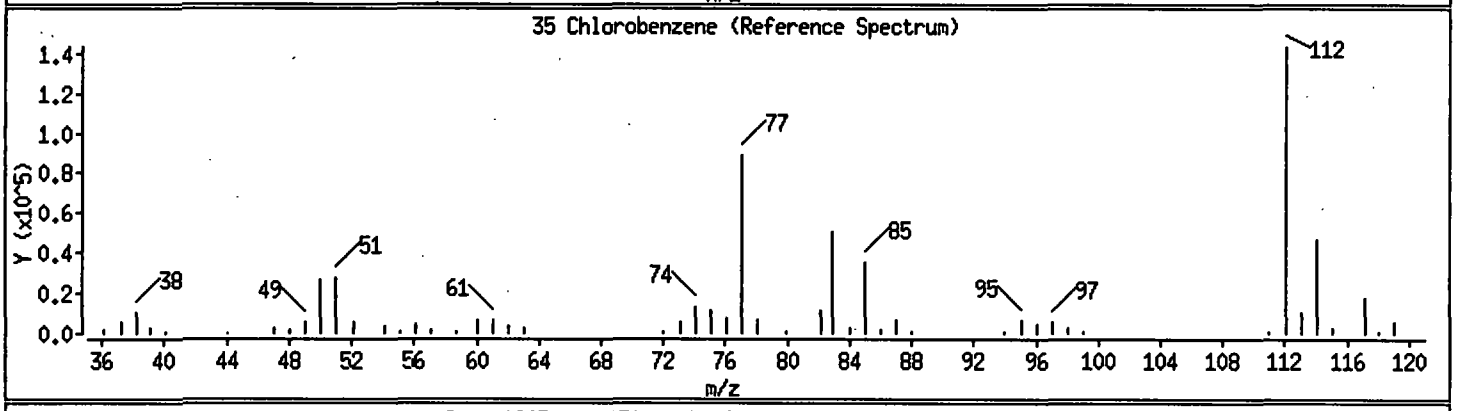
Column phase : DB-624 Column diameter : 0.53

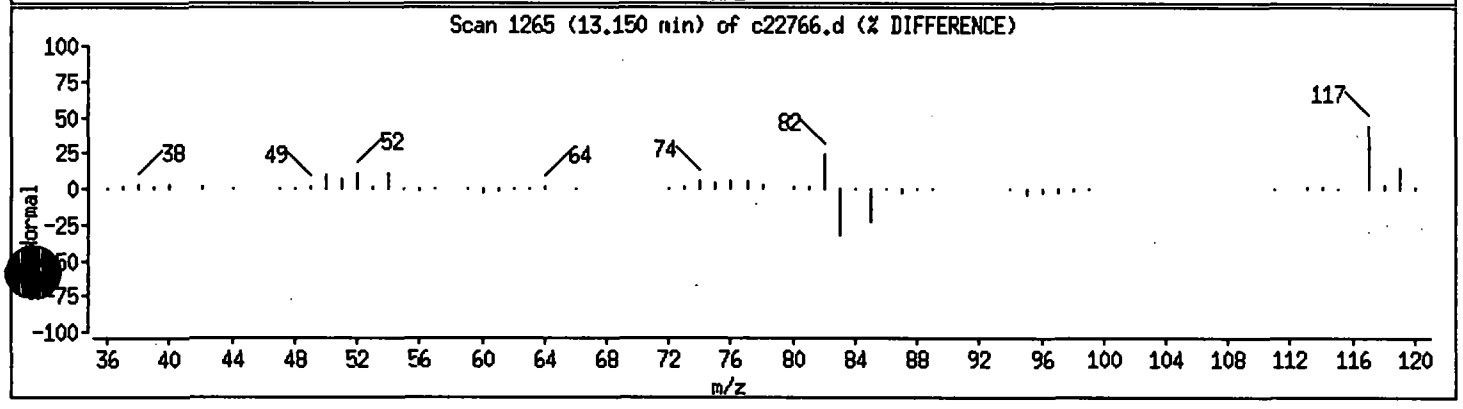
Volume Injected (uL) : 0.0

35 Chlorobenzene









2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 (2CP)#	S8 (DCB)#	TOT OUT
01	SBLK1	87	84	86	66	68	65	71	90	0
02	FFG24MSD	82	92	111	68	69	105	76	86	0
03	SBLK2	52	61	78	54	56	53	56	62	0
04	FFG24	45	53	63	46	47	45	47	52	0
05	FFG24MS	65	73	91	66	64	58	66	75	0
06										
07										
08										
09										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(23-120)	
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)	
S3 (TPH)	= Terphenyl-d14	(18-137)	
S4 (PHL)	= Phenol-d5	(24-113)	
S5 (2FP)	= 2-Fluorophenol	(25-121)	
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)	
S7 (2CP)	= 2-Chlorophenol-d4	(20-130)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(20-130)	(advisory)

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

3D
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix Spike - EPA Sample No.: FFG24 Level(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	2800	0	1800	64	26- 90
2-Chlorophenol	2800	0	1800	64	25-102
1,4-Dichlorobenzene	1800	0	1100	61	28-104
N-Nitroso-di-n-prop.(1)	1800	0	1200	67	41-126
1,2,4-Trichlorobenzene	1800	0	1200	67	38-107
4-Chloro-3-Methylphenol	2800	0	1900	68	26-103
Acenaphthene	1800	0	1300	72	31-137
4-Nitrophenol	2800	0	2100	75	11-114
2,4-Dinitrotoluene	1800	0	1400	78	28- 89
Pentachlorophenol	2800	0	1600	57	17-109
Pyrene	1800	58	1500	80	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	2800	1800	64	0	35	26- 90
2-Chlorophenol	2800	1900	68	6	50	25-102
1,4-Dichlorobenzene	1800	1300	72	16	27	28-104
N-Nitroso-di-n-prop.(1)	1800	1400	78	15	38	41-126
1,2,4-Trichlorobenzene	1800	1400	78	15	23	38-107
4-Chloro-3-Methylphenol	2800	2000	71	4	33	26-103
Acenaphthene	1800	1400	78	8	19	31-137
4-Nitrophenol	2800	2400	86	14	50	11-114
2,4-Dinitrotoluene	1800	1400	78	0	47	28- 89
Pentachlorophenol	2800	2400	86	40	47	17-109
Pyrene	1800	1600	86	7	36	35-142

(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 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK1

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID: P10248.D Lab Sample ID: BL1120SA

Instrument ID: P Date Extracted: 11/20/96

Matrix: (soil/water) SOIL Date Analyzed: 12/08/96

Level:(low/med) LOW Time Analyzed: 1910

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	FFG24MSD	27683.10MSD	P10259.D	12/09/96
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK2

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID: M3902.D Lab Sample ID: BL1211SA

Instrument ID: M Date Extracted: 12/11/96

Matrix: (soil/water) SOIL Date Analyzed: 12/16/96

Level:(low/med) LOW Time Analyzed: 1953

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	FFG24	27683.10	M3905.D	12/16/96
02	FFG24MS	27683.10MS	M3906.D	12/16/96
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID: M3884.D DFTPP Injection Date: 12/16/96

Instrument ID: M DFTPP Injection Time: 0948

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	35.2
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	44.3
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	41.0
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	7.8
275	10.0 - 30.0% of mass 198	25.5
365	Greater than 0.75% of mass 198	2.49
441	Present, but less than mass 443	12.5
442	40.0 - 110.0% of mass 198	68.3
443	15.0 - 24.0% of mass 442	13.1 (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	SSTD050MW	SSTD050MW	M3885.D	12/16/96	1003
02	SSTD160MW	SSTD160MW	M3886.D	12/16/96	1041
03	SSTD020MW	SSTD020MW	M3887.D	12/16/96	1116
04	SSTD120MW	SSTD120MW	M3888.D	12/16/96	1146
05	SSTD080MW	SSTD080MW	M3889.D	12/16/96	1216
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID: M3892.D DFTPP Injection Date: 12/16/96

Instrument ID: M DFTPP Injection Time: 1512

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	33.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	47.2
70	Less than 2.0% of mass 69	0.6 (1.3)1
127	25.0 - 75.0% of mass 198	40.0
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	7.3
275	10.0 - 30.0% of mass 198	25.6
365	Greater than 0.75% of mass 198	2.56
441	Present, but less than mass 443	13.6
442	40.0 - 110.0% of mass 198	66.6
443	15.0 - 24.0% of mass 442	13.7 (20.6)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	SSTD050MX	SSTD050MX	M3893.D	12/16/96	1526
02	SBLK2	BL1211SA	M3902.D	12/16/96	1953
03	FFG24	27683.10	M3905.D	12/16/96	2123
04	FFG24MS	27683.10MS	M3906.D	12/16/96	2153
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID: P10241.D DFTPP Injection Date: 12/08/96

Instrument ID: P DFTPP Injection Time: 1534

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	49.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	74.2
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	25.0 - 75.0% of mass 198	62.4
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	6.8
275	10.0 - 30.0% of mass 198	19.5
365	Greater than 0.75% of mass 198	1.99
441	Present, but less than mass 443	6.9
442	40.0 - 110.0% of mass 198	44.8
443	15.0 - 24.0% of mass 442	8.5 (19.1)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	SSTD050PK	SSTD050PK	P10242.D	12/08/96	1549
02	SSTD160PK	SSTD160PK	P10243.D	12/08/96	1630
03	SSTD020PK	SSTD020PK	P10244.D	12/08/96	1712
04	SSTD120PK	SSTD120PK	P10245.D	12/08/96	1749
05	SSTD080PK	SSTD080PK	P10246.D	12/08/96	1825
06	SBLK1	BL1120SA	P10248.D	12/08/96	1910
07	FFG24MSD	27683.10MSD	P10259.D	12/09/96	0151
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID (Standard): M3893.D Date Analyzed: 12/16/96

Instrument ID: M Time Analyzed: 1526

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	289806	2.72	914197	4.24	623395	7.71
	UPPER LIMIT	579612	3.22	1828394	4.74	1246790	8.21
	LOWER LIMIT	144903	2.22	457098	3.74	311698	7.21
	EPA SAMPLE No.						
01	SBLK2	311461	2.74	1193220	4.25	820591	7.72
02	FFG24	310794	2.74	1151956	4.24	786126	7.71
03	FFG24MS	321383	2.74	1244597	4.24	883690	7.71
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

8C
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID (Standard): M3893.D Date Analyzed: 12/16/96

Instrument ID: M Time Analyzed: 1526

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	1136287	10.20	1079206	14.26	1084567	16.26
	UPPER LIMIT	2272574	10.70	2158412	14.76	2169134	16.76
	LOWER LIMIT	568144	9.70	539603	13.76	542284	15.76
	EPA SAMPLE No.						
01	SBLK2	1556378	10.19	1618888	14.26	1570030	16.26
02	FFG24	1646115	10.19	1659538	14.26	1299600	16.26
03	FFG24MS	1819295	10.19	1593645	14.26	1178385	16.26
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID (Standard): P10242.D Date Analyzed: 12/08/96

Instrument ID: P Time Analyzed: 1549

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	324340	5.80	1053367	7.87	629778	10.96
	UPPER LIMIT	648680	6.30	2106734	8.37	1259556	11.46
	LOWER LIMIT	162170	5.30	526684	7.37	314889	10.46
	EPA SAMPLE No.						
01	SBLK1	336909	5.79	1052539	7.85	688794	10.95
02	FFG24MSD	436238	5.80	1434175	7.85	813487	10.96
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

8C
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab File ID (Standard): P10242.D Date Analyzed: 12/08/96

Instrument ID: P Time Analyzed: 1549

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	1110503	13.54	818704	18.16	753555	20.47
	UPPER LIMIT	2221006	14.04	1637408	18.66	1507110	20.97
	LOWER LIMIT	555252	13.04	409352	17.66	376778	19.97
	EPA SAMPLE No.						
01	SBLK1	1199296	13.52	1031161	18.15	960941	20.46
02	FFG24MSD	1176614	13.54	793829	18.15	551235	20.47
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

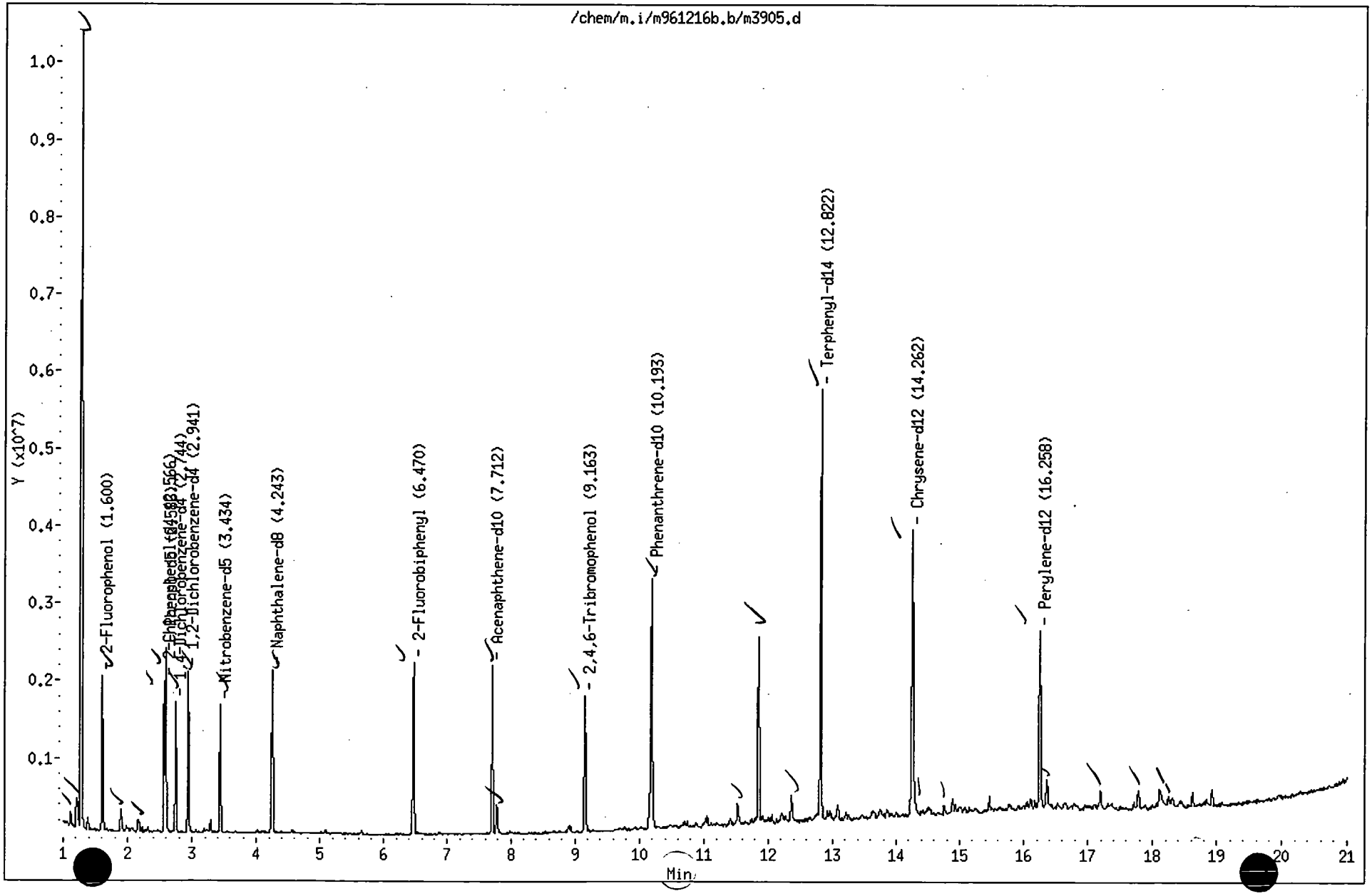
Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

Data File: /chem/m.i/m961216b.b/m3905.d
Date : 16-DEC-1996 21:23
Instrument : m.i
Sample ID : FFG24
Column phase : XTI-5
Volume Injected (uL) : 2.0

Column diameter : 0.25

OPERATOR: Ann Page 1

184



Data File: /chem/m.i/m961216b.b/m3905.d
Report Date: 17-Dec-1996 21:37

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/m.i/m961216b.b/m3905.d
Lab. Id. : 27683.10 Quant Type: ISTD
Inj Date : 16-DEC-1996 21:23
Operator : Annie Inst ID: m.i
Smp Info : FFG24
Misc Info : MS517**INSTM*AATS-E:25159*27683.10*30G/0.5ML/2UL*
Comment :
Method : /chem/m.i/m961216b.b/BNA517EPA.m
Meth Date : 17-Dec-1996 21:24 ann
Cal Date : 16-DEC-1996 15:26 Cal File: m3893.d
Als bottle: 12
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 1 2-Fluorophenol	112.00	1.600	(0.583)	547528	70.84	1312.02
$ 2 Phenol-d5	98.80	2.586	(0.942)	807684	68.77	1273.58
$ 5 2-Chlorophenol-d4	132.00	2.566	(0.935)	679802	70.70	1309.39
* 8 1,4-Dichlorobenzene-d4	152.00	2.744	(1.000)	310794	40.00	
$ 10 1,2-Dichlorobenzene-d4	152.00	2.941	(1.072)	350436	52.40	970.47
$ 17 Nitrobenzene-d5	82.00	3.434	(0.809)	518498	45.36	840.07
* 25 Naphthalene-d8	135.65	4.243	(1.000)	1151956	40.00	
$ 34 2-Fluorobiphenyl	172.00	6.470	(0.839)	1305992	52.80	977.93
* 40 Acenaphthene-d10	164.00	7.712	(1.000)	786126	40.00	
$ 53 2,4,6-Tribromophenol	329.80	9.163	(0.899)	301299	67.27	1245.76
* 57 Phenanthrene-d10	187.65	10.193	(1.000)	1646115	40.00	
58 Phenanthrene	178.00	10.223	(1.003)	54908	1.21	22.42(a)
61 Di-n-butylphthalate	149.00	11.525	(1.131)	79487	1.42	26.42(a)
62 Fluoranthene	202.00	12.063	(1.183)	58412	1.16	21.59(a)
63 Pyrene	202.00	12.372	(0.868)	174327	3.12	57.85(a)
$ 64 Terphenyl-d14	244.00	12.822	(0.899)	2256894	63.44	1174.82
66 Benzo(a)anthracene	228.00	14.242	(0.999)	75766	1.46	27.06(a)
* 67 Chrysene-d12	240.00	14.262	(1.000)	1659538	40.00	
69 Chrysene	228.00	14.292	(1.002)	159959	2.93	54.34(a)
70 bis(2-Ethylhexyl)phthalate	149.00	14.753	(1.034)	50951	1.30	24.24(a)
72 Benzo(b)fluoranthene	252.00	15.776	(0.970)	63340	1.59	29.54(a)
74 Benzo(a)pyrene	252.00	16.168	(0.994)	37047	1.08	20.06(a)
* 75 Perylene-d12	264.00	16.258	(1.000)	1299600	40.00	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/m.i/m961216b.b/m3905.d

Date : 16-DEC-1996 21:23

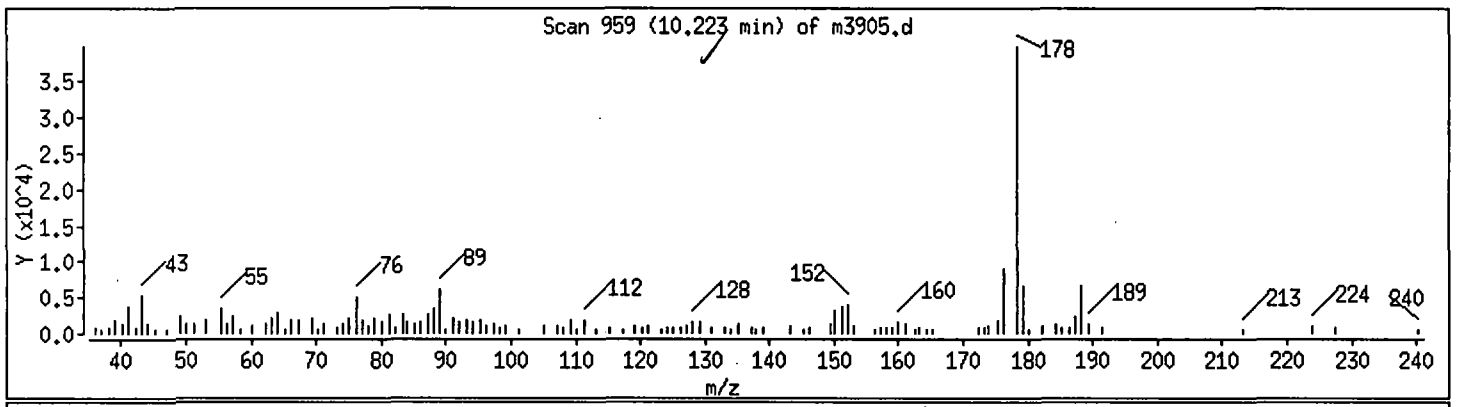
Instrument : m.i

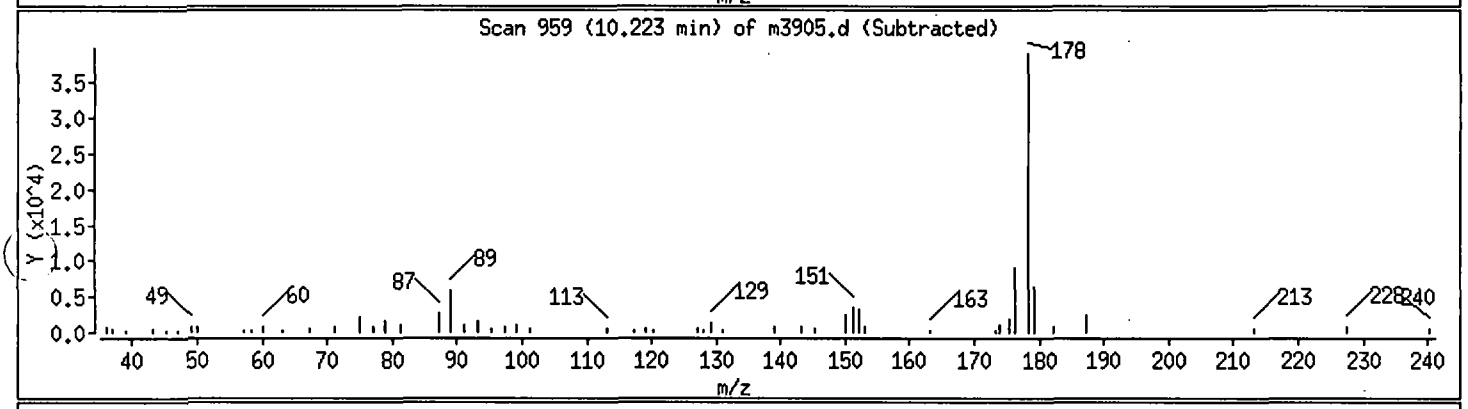
Sample ID : FFG24

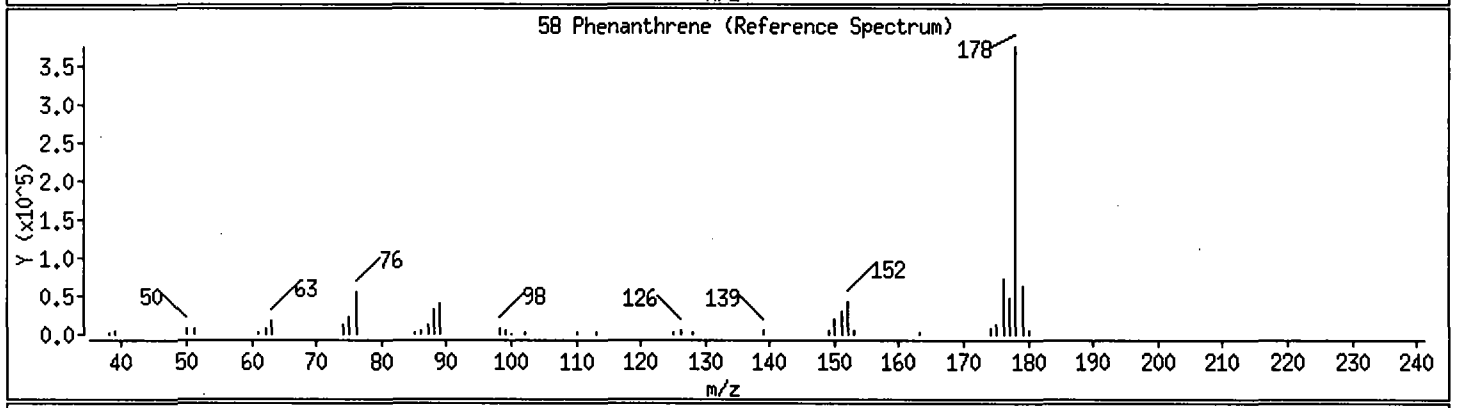
Column phase : XTI-5 Column diameter : 0.25

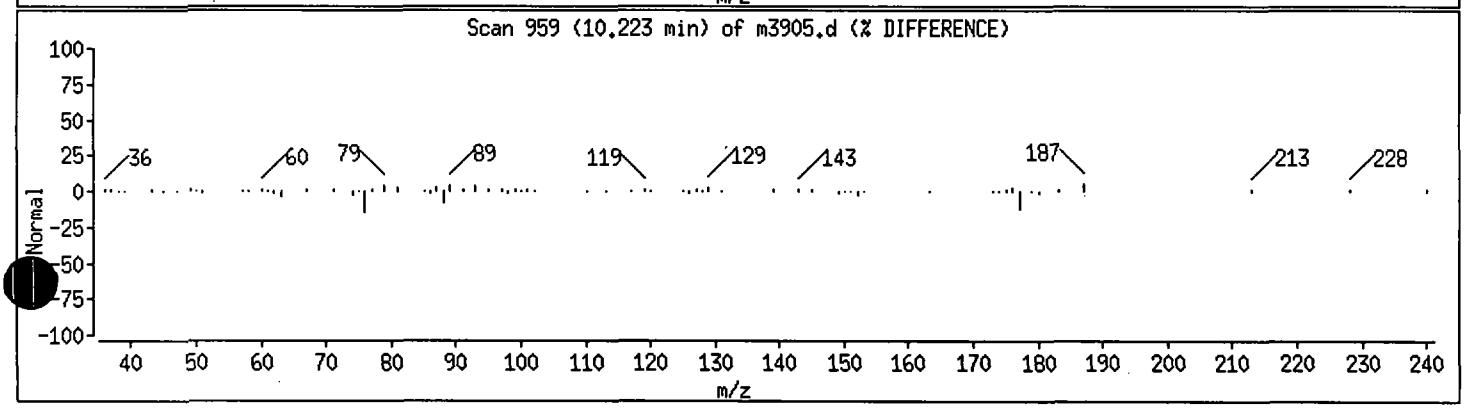
Volume Injected (uL) : 2.0

58 Phenanthrene









Data File: /chem/m.i/m961216b.b/m3905.d

Date : 16-DEC-1996 21:23

Instrument : m.i

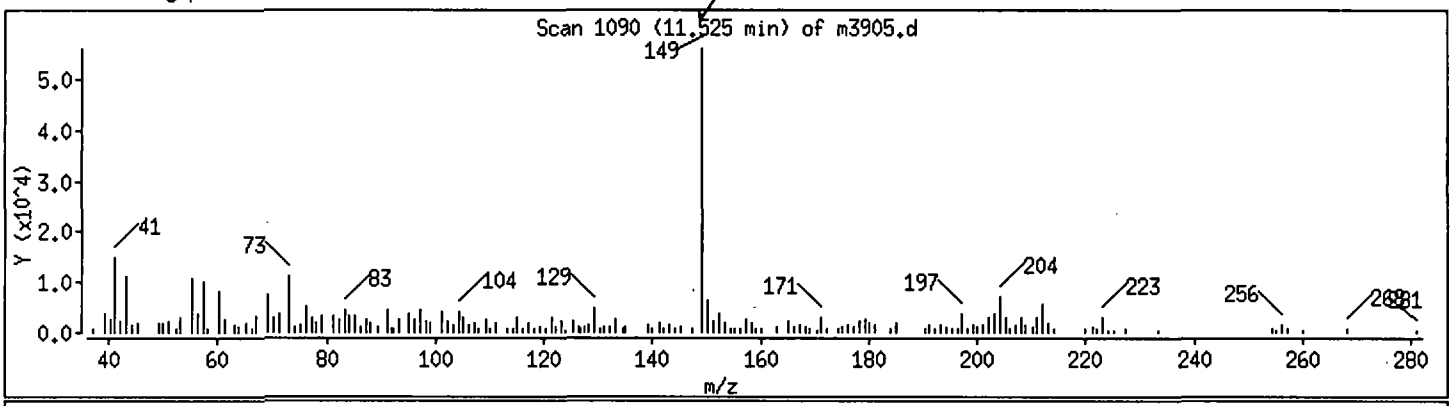
Sample ID : FFG24

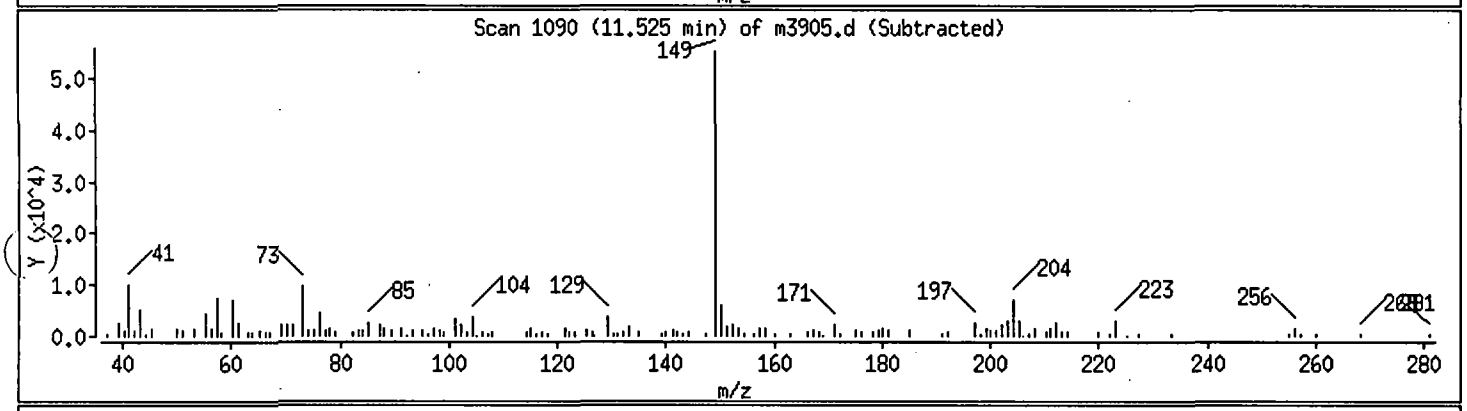
Column phase : XTI-5

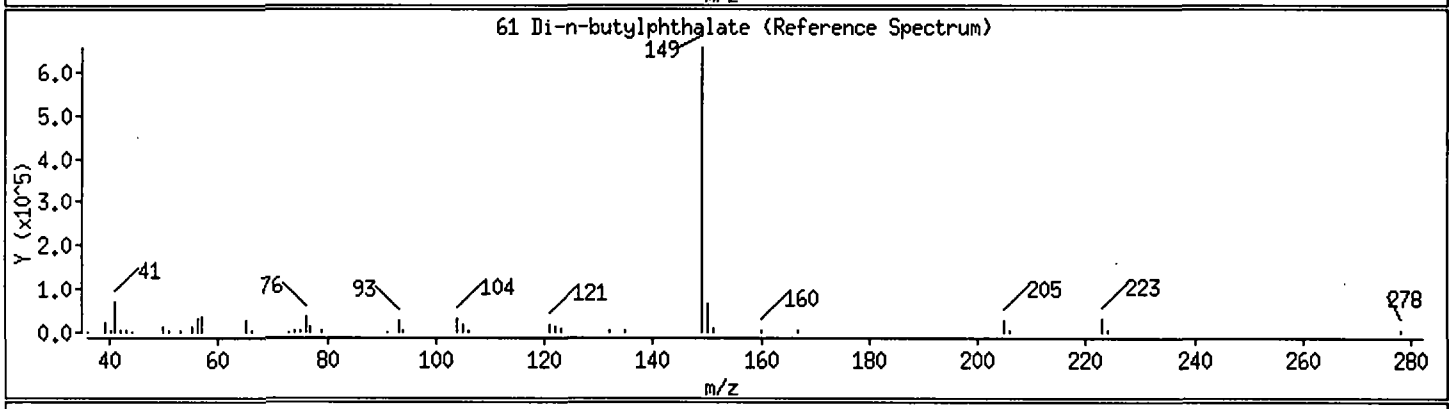
Column diameter : 0.25

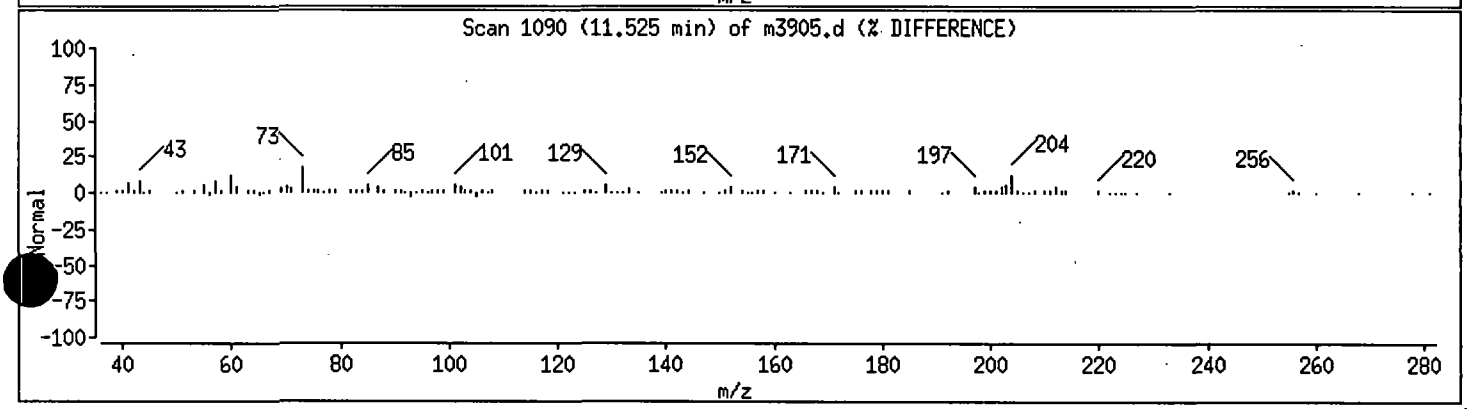
Volume Injected (uL) : 2.0

61 Di-n-butylphthalate









Data File: /chem/m.i/m961216b.b/m3905.d

Date : 16-DEC-1996 21:23

Instrument : m.i

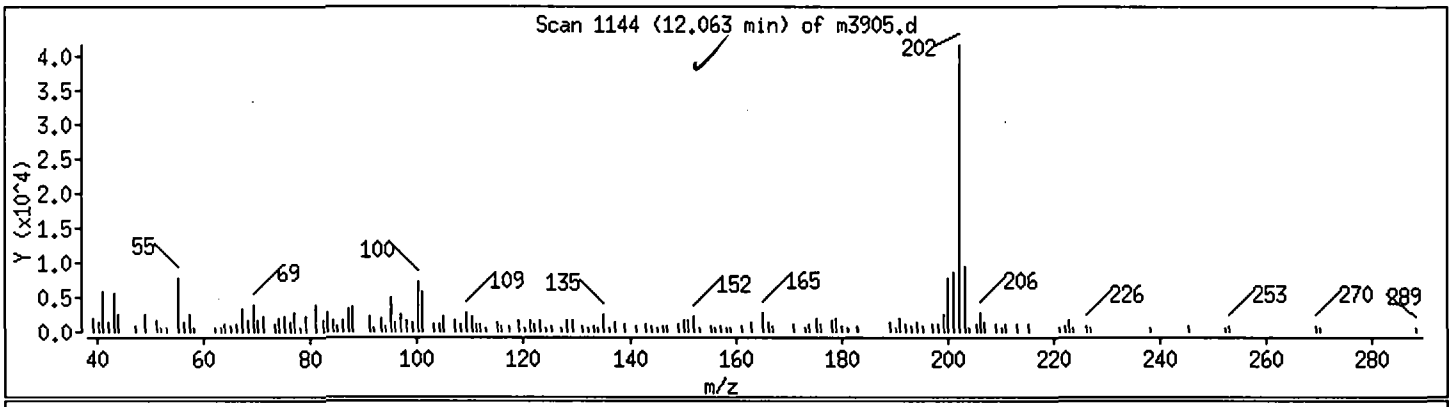
Sample ID : FFG24

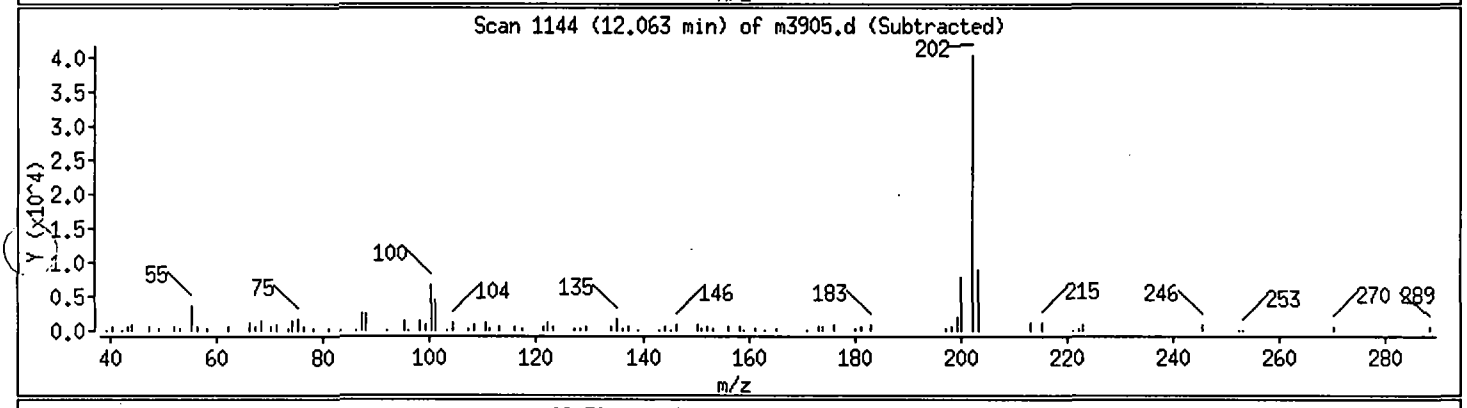
Column phase : XTI-5

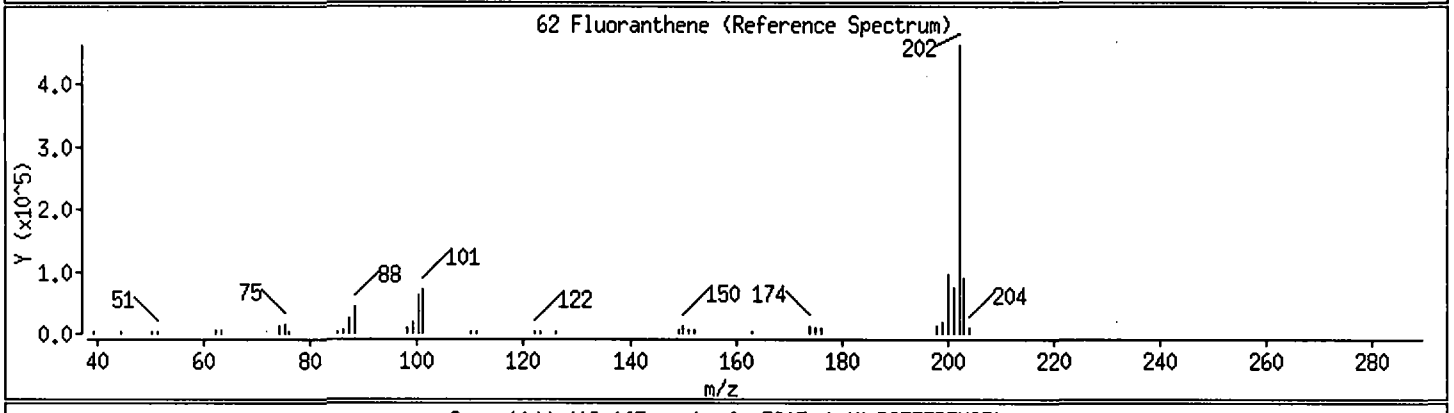
Column diameter : 0.25

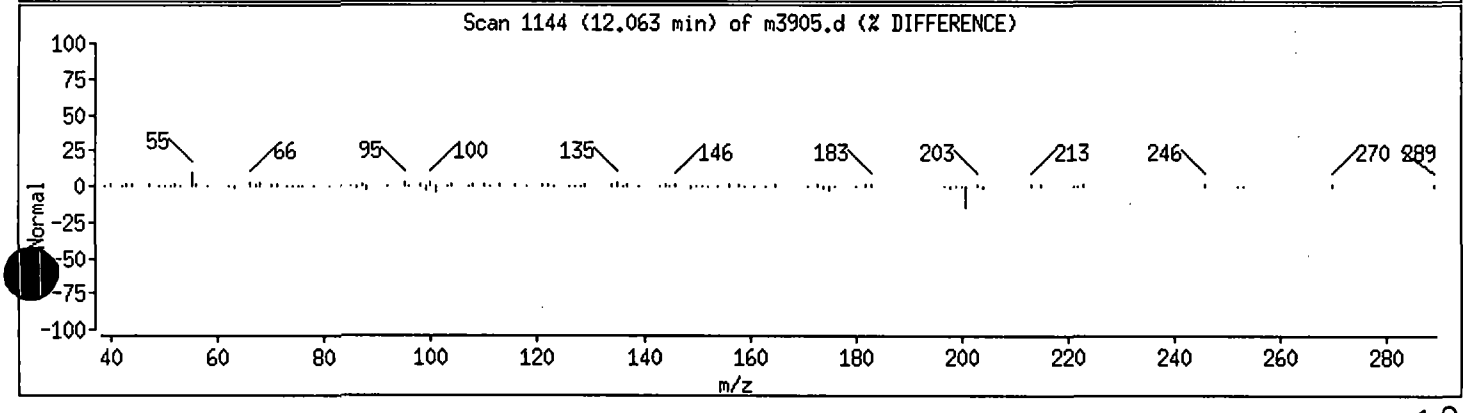
Volume Injected (uL) : 2.0

62 Fluoranthene









Data File: /chem/m.i/m961216b.b/m3905.d

Date : 16-DEC-1996 21:23

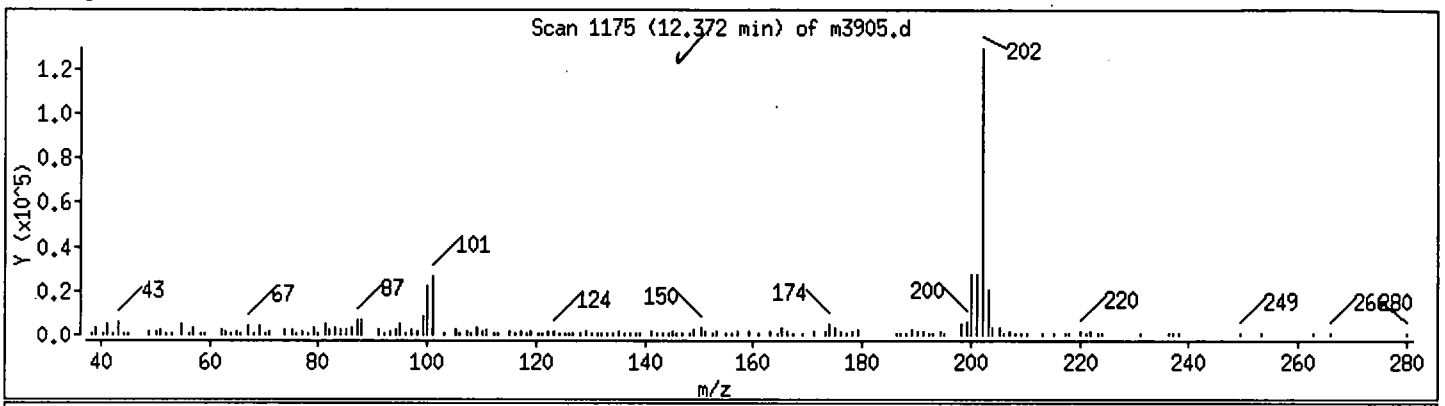
Instrument : m.i

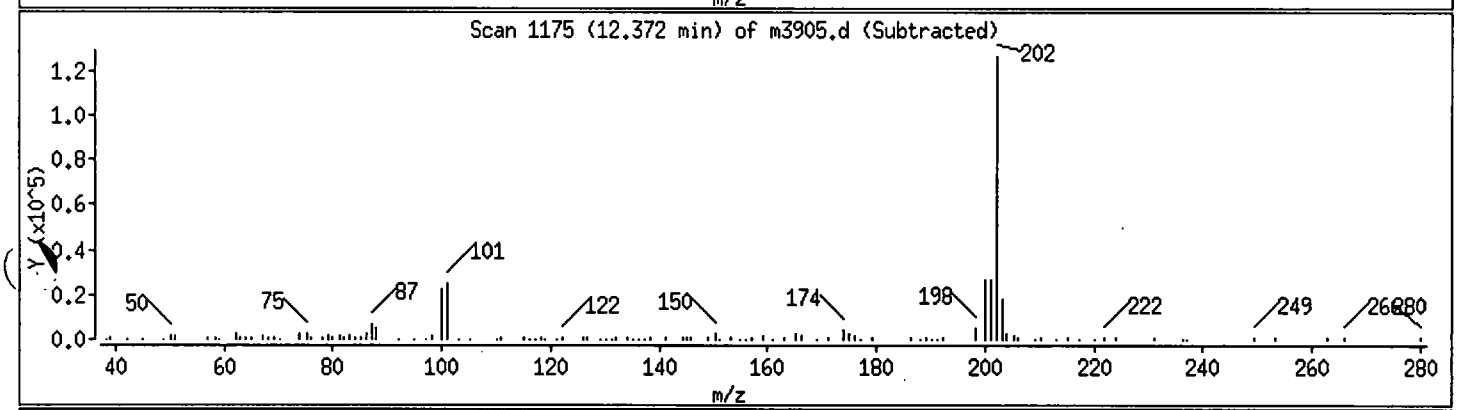
Sample ID : FFG24

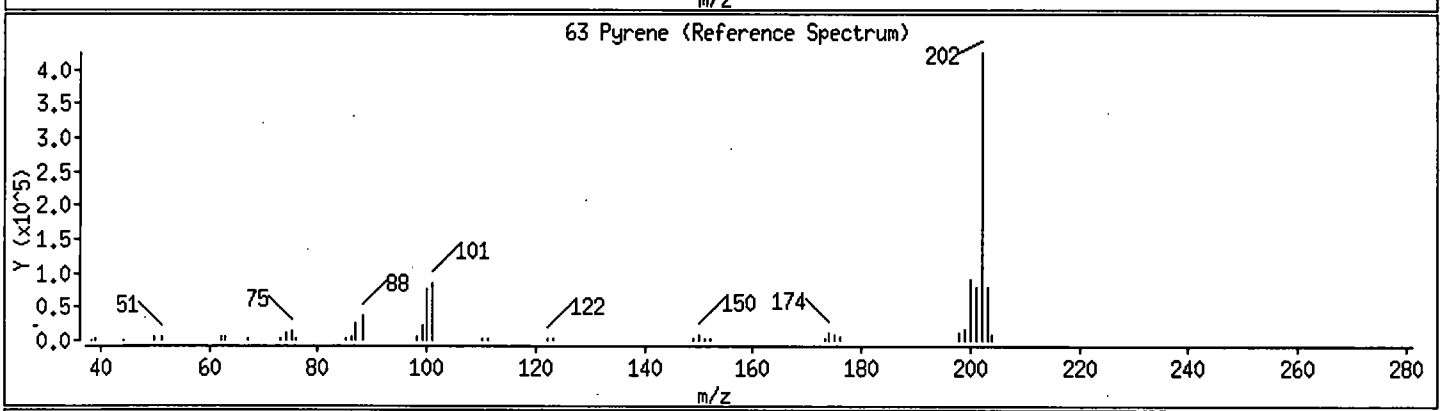
Column phase : XTI-5 Column diameter : 0.25

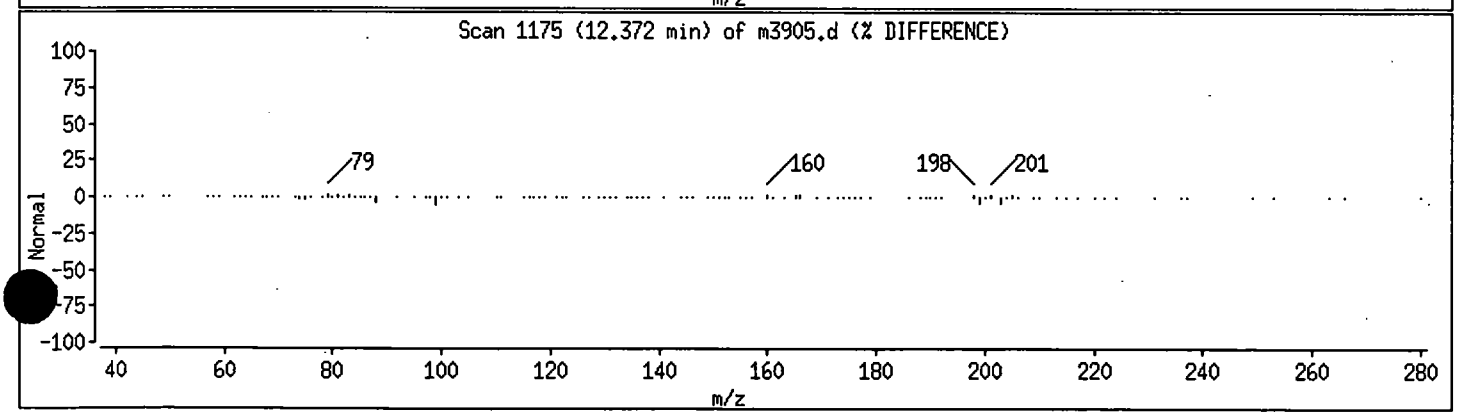
Volume Injected (uL) : 2.0

63 Pyrene









Data File: /chem/m.i/m961216b.b/m3905.d

Date : 16-DEC-1996 21:23

Instrument : m.i

Sample ID : FFG24

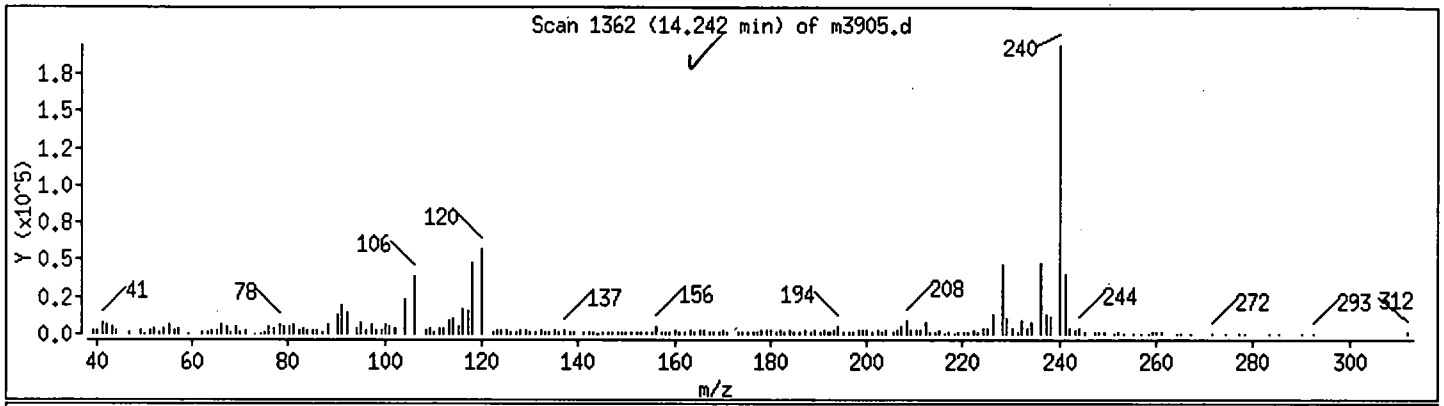
Column phase : XTI-5

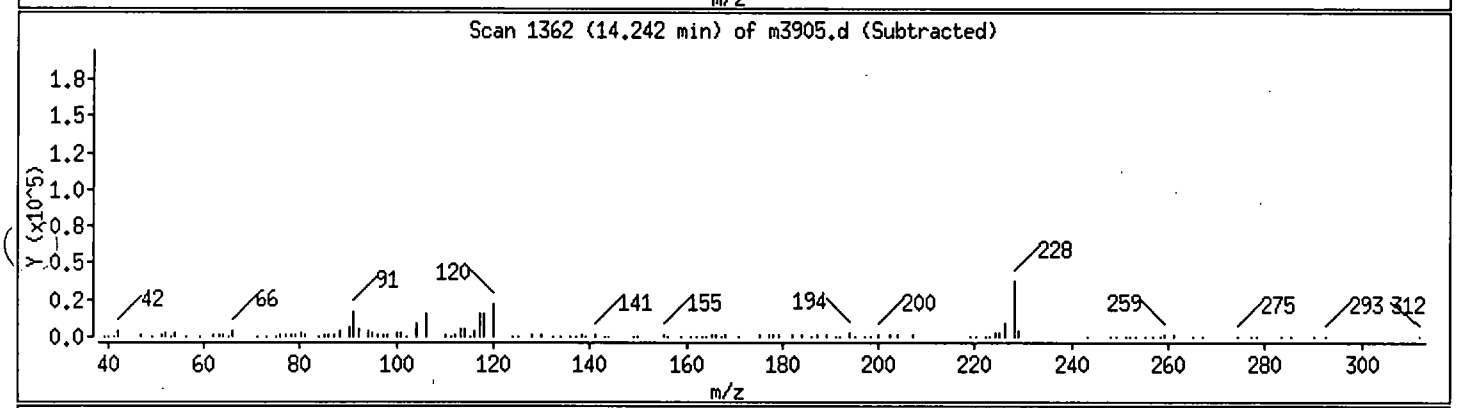
Column diameter : 0.25

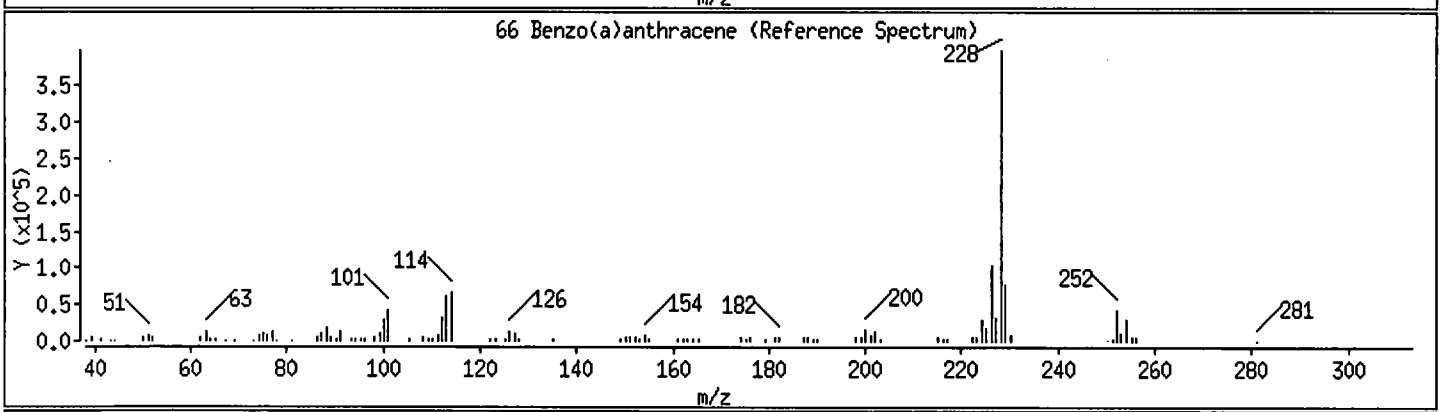
Volume Injected (uL) : 2.0

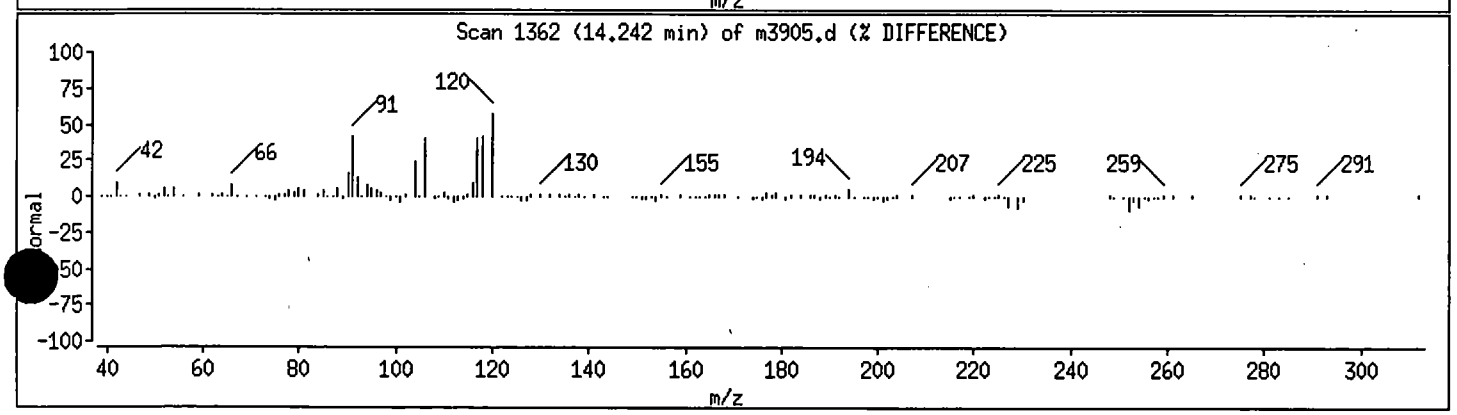
+ co-eluter

66 Benzo(a)anthracene









Data File: /chem/m.i/m961216b.b/m3905.d

Date : 16-DEC-1996 21:23

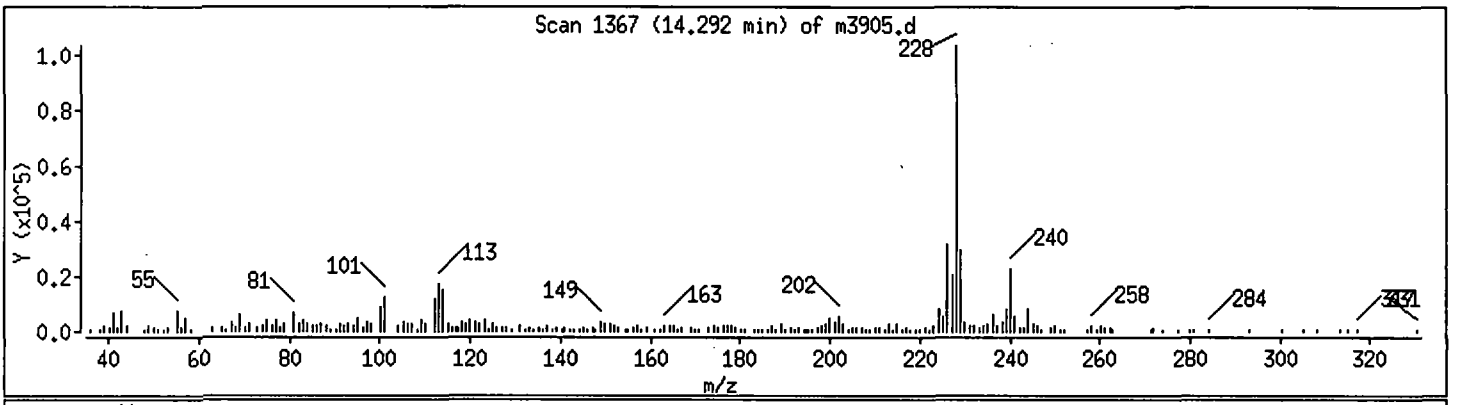
Instrument : m.i

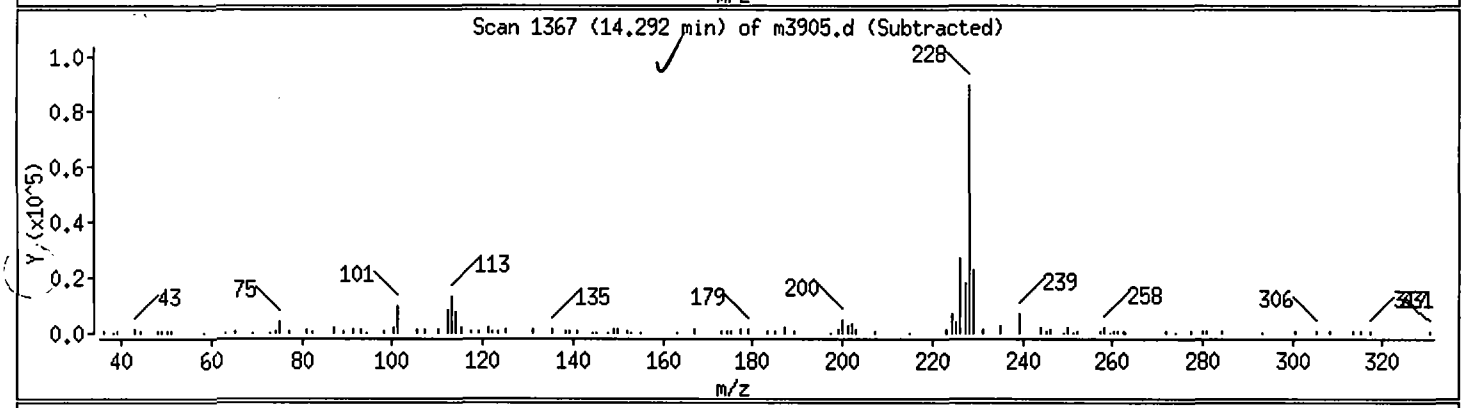
Sample ID : FFG24

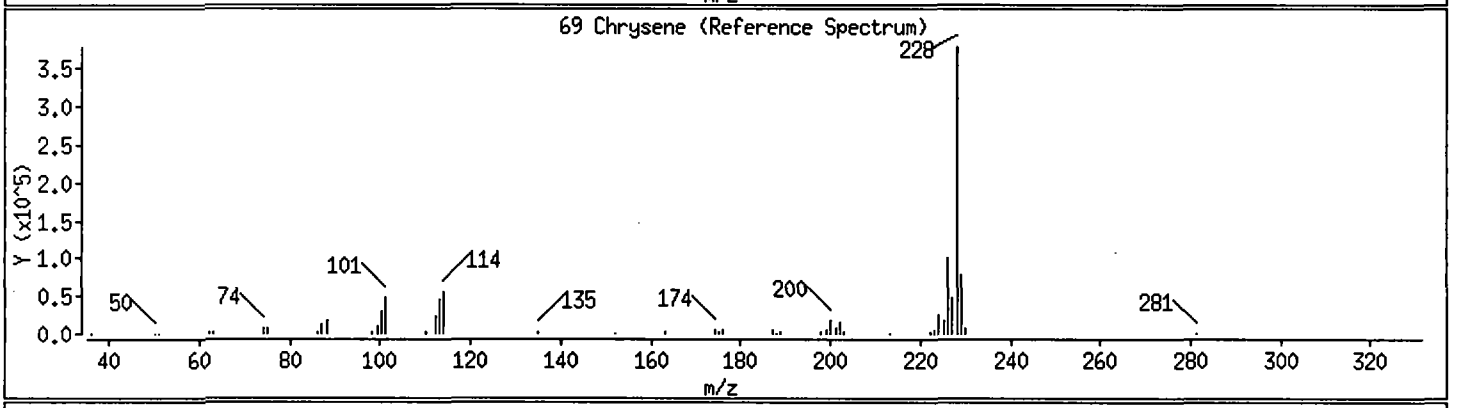
Column phase : XTI-5 Column diameter : 0.25

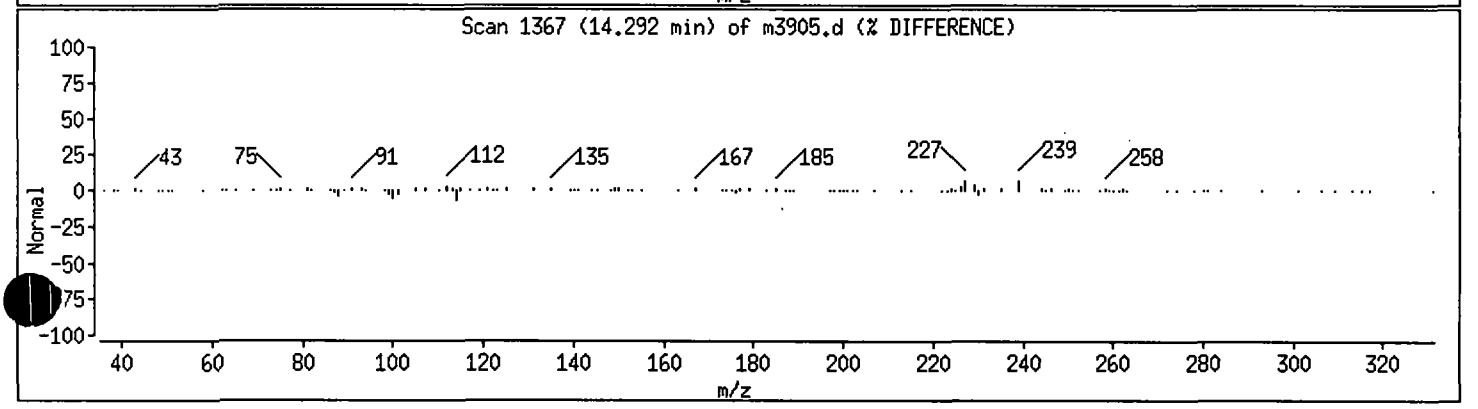
Volume Injected (uL) : 2.0

69 Chrysene









Data File: /chem/m.i/m961216b.b/m3905.d

Date : 16-DEC-1996 21:23

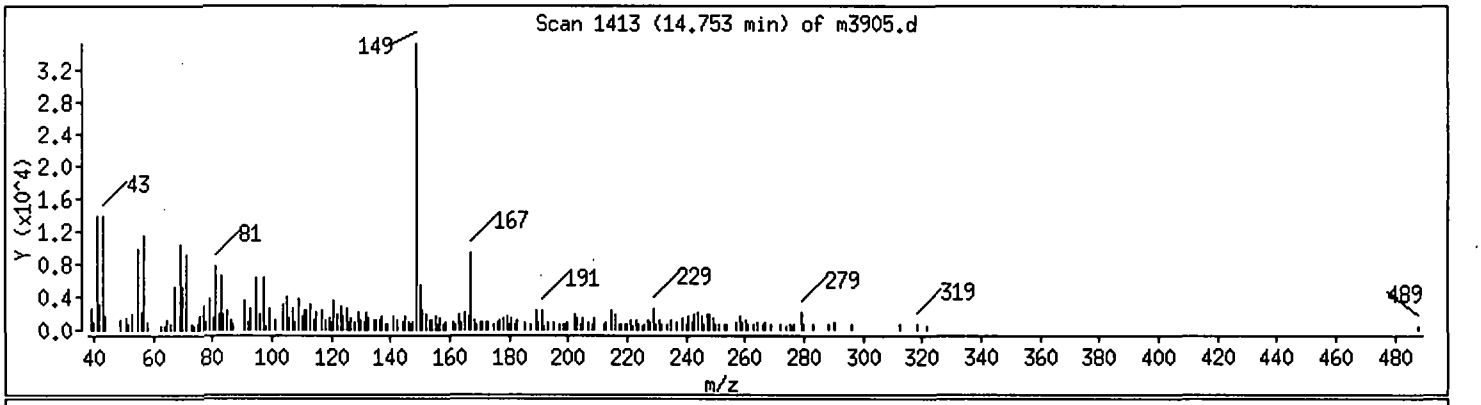
Instrument : m.i

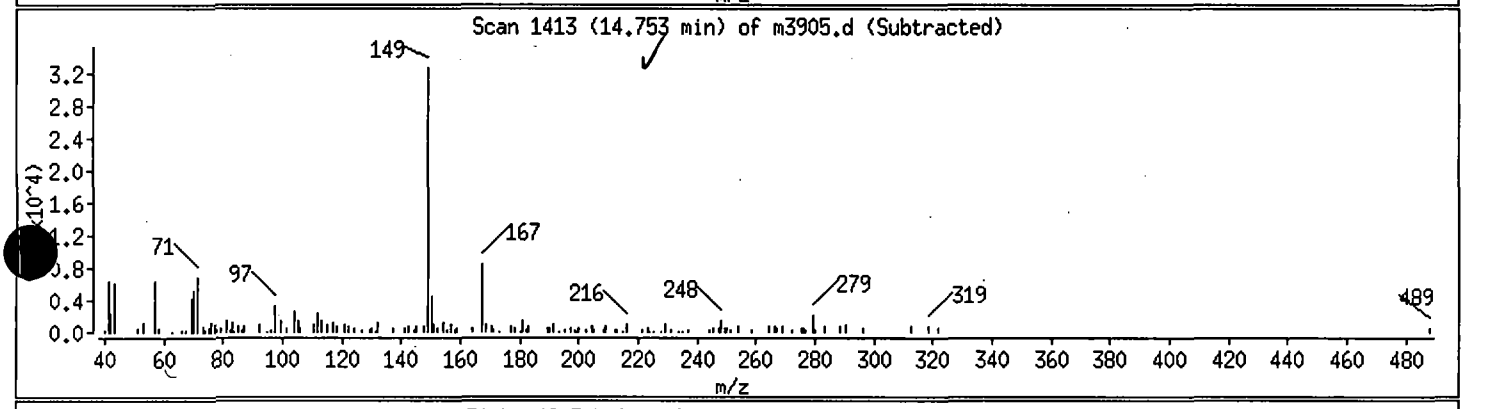
Sample ID : FFG24

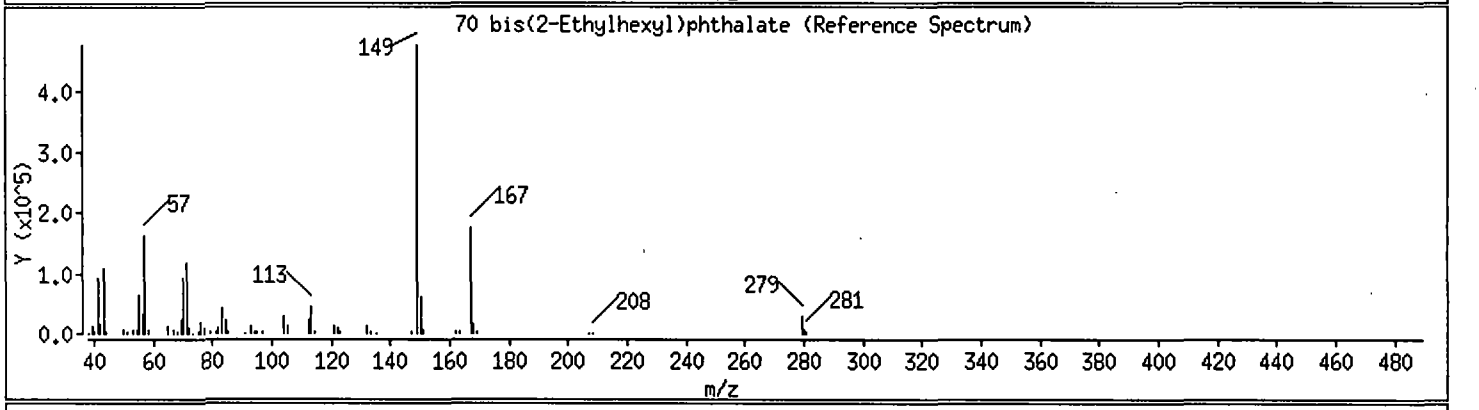
Column phase : XTI-5 Column diameter : 0.25

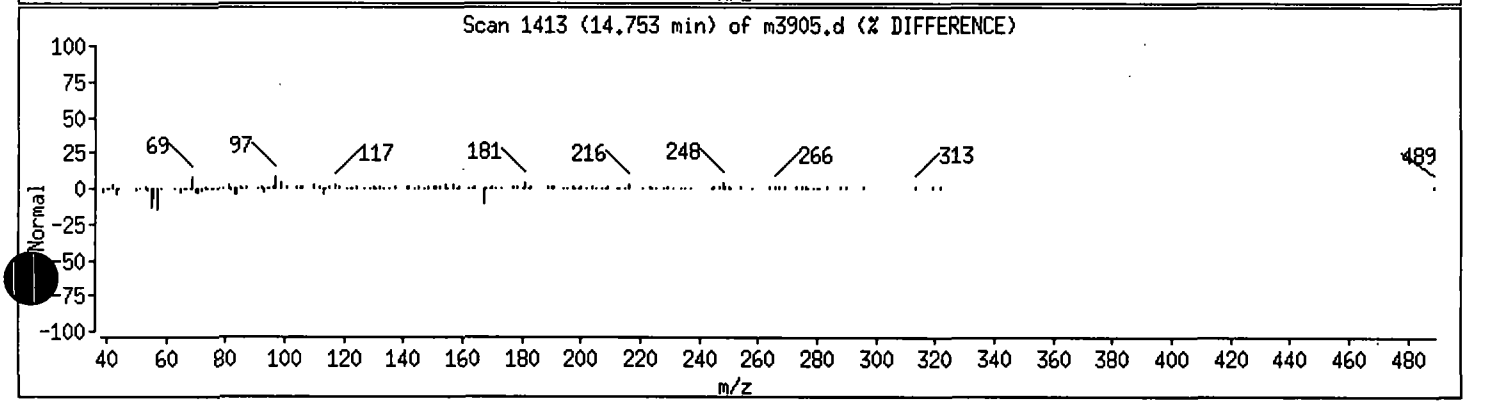
Volume Injected (uL) : 2.0

70 bis(2-Ethylhexyl)phthalate









Data File: /chem/m.i/m961216b.b/m3905.d

Date : 16-DEC-1996 21:23

Instrument : m.i

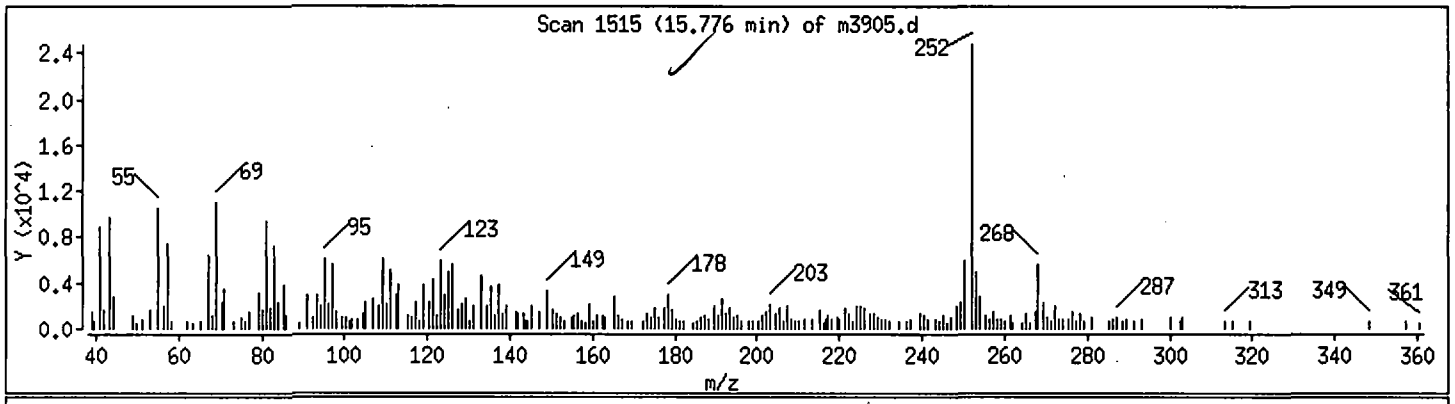
Sample ID : FFG24

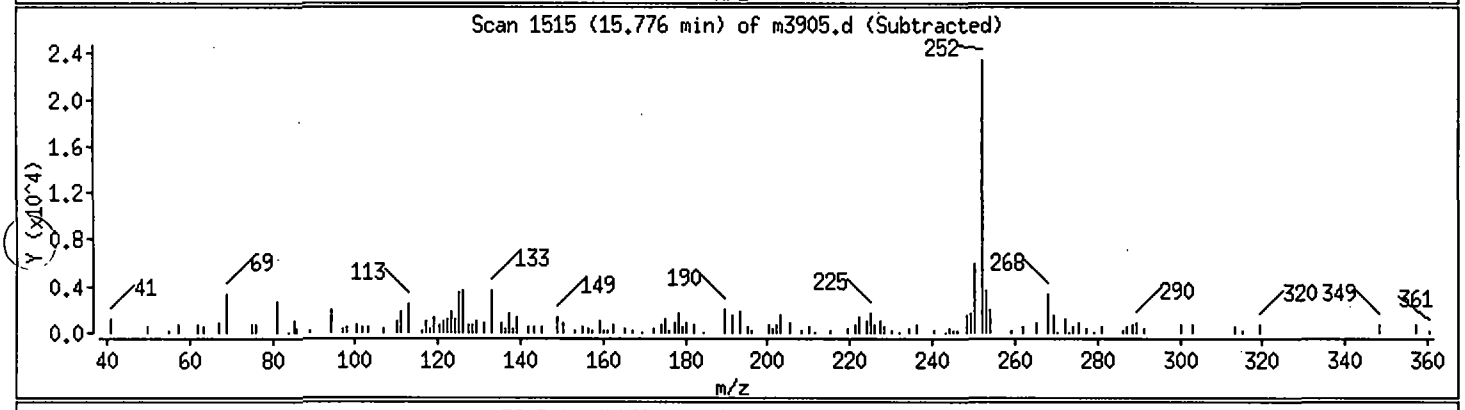
Column phase : XTI-5

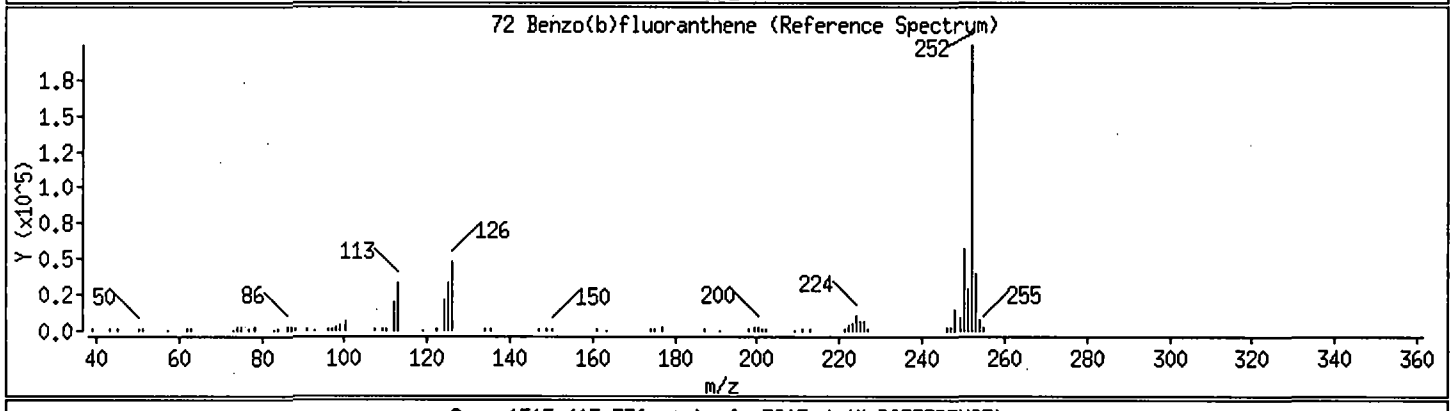
Column diameter : 0.25

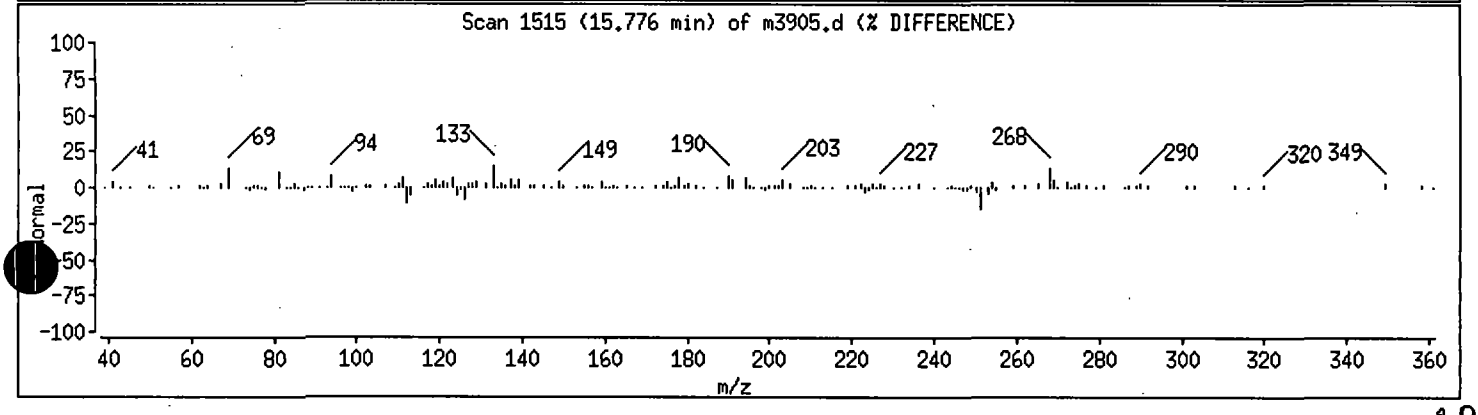
Volume Injected (uL) : 2.0

72 Benzo(b)fluoranthene









Data File: /chem/m.i/m961216b.b/m3905.d

Date : 16-DEC-1996 21:23

Instrument : m.i

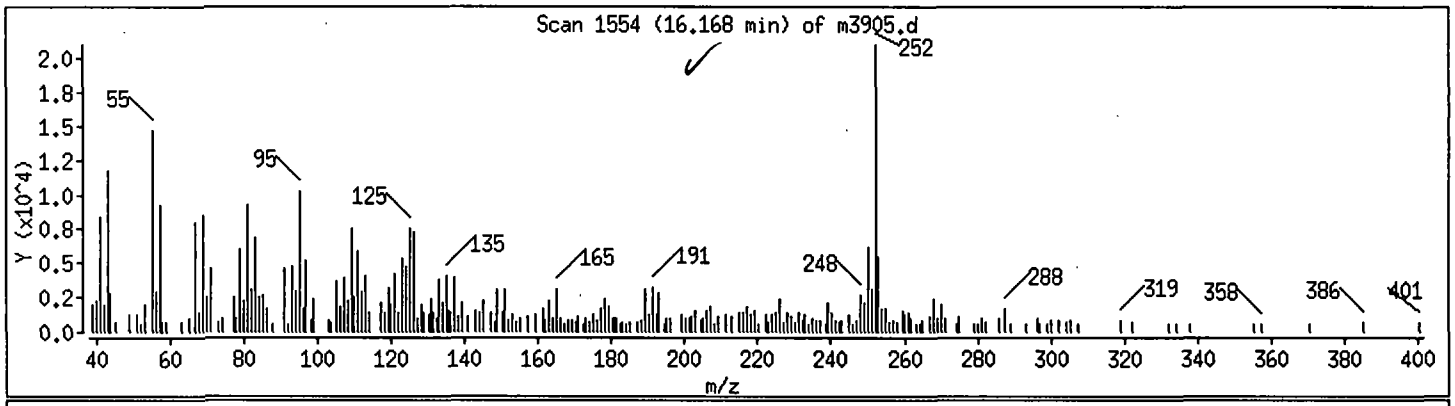
Sample ID : FFG24

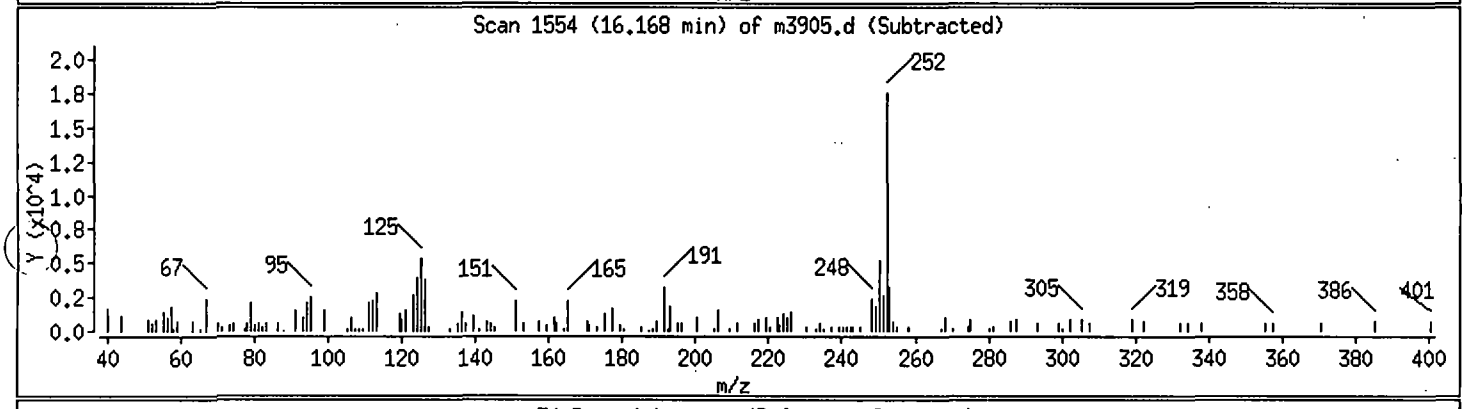
Column phase : XTI-5

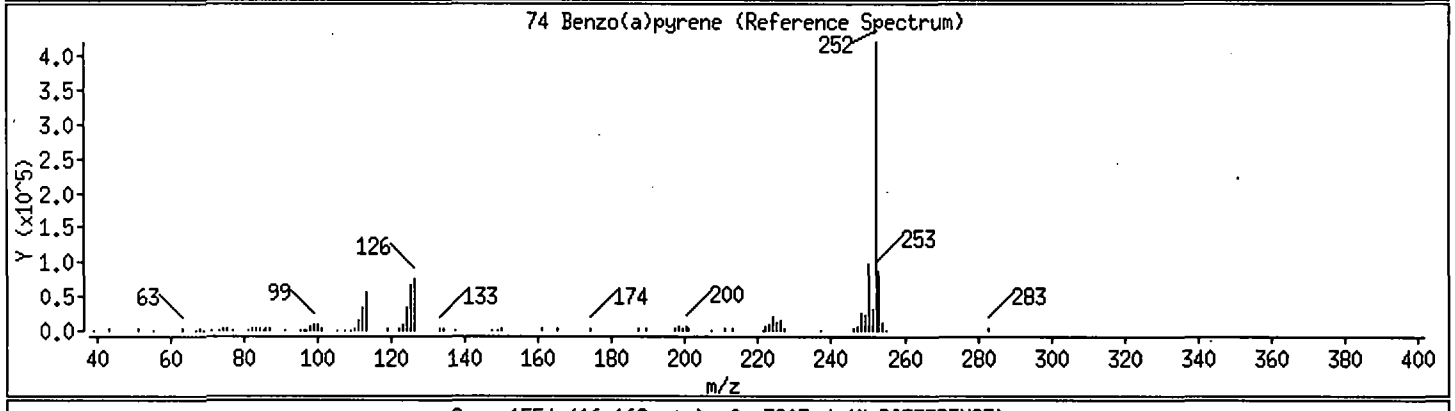
Column diameter : 0.25

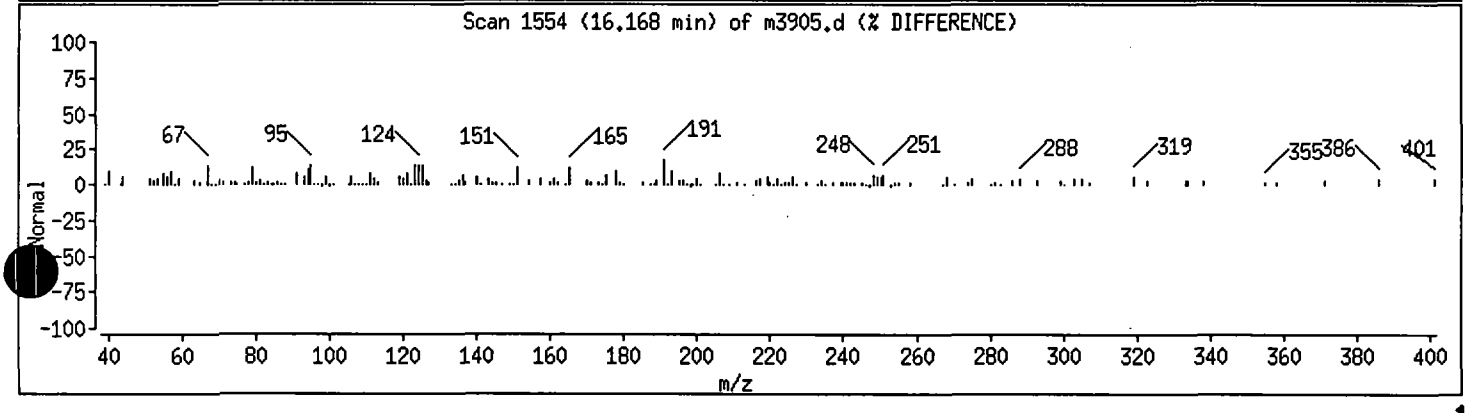
Volume Injected (uL) : 2.0

74 Benzo(a)pyrene









Data File: /chem/m.i/m961216b.b/m3905.d
Report Date: 17-Dec-1996 21:37

SWOK/AATS

Unknown Compounds Quantitation Report

Data file : /chem/m.i/m961216b.b/m3905.d
Lab. Id. : 27683.10
Inj Date : 16-DEC-1996 21:23
Operator : Annie Inst ID: m.i
Smp Info : FFG24
Misc Info : MS517**INSTM*AATS-E:25159*27683.10*30G/0.5ML/2UL*
Comment :
Method : /chem/m.i/m961216b.b/BNA517EPA.m
Meth Date : 17-Dec-1996 21:24 ann
Cal Date : 16-DEC-1996 15:26 Cal File: m3893.d
Als bottle: 12
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 8 1,4-Dichlorobenzene-d4	2.744	1741591	40.000
* 40 Acenaphthene-d10	7.712	3398163	40.000
* 57 Phenanthrene-d10	10.193	5089965	40.000
* 75 Perylene-d12	16.258	3910243	40.000

RT	AREA	CONC(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	QUANT	CPND #
3-Penten-2-ol					CAS #: 1569-50-2		
0.851	213630	90.86	53	NBS75K.l	724		8
Unknown					CAS #:		
0.890	376507	160.13	0		0		8
2-Hexene, 2-methyl-					CAS #: 2738-19-4		
0.969	1643980	699.22	80	NBS75K.l	63229		8
Propane, 1,2-dimethoxy-					CAS #: 7778-85-0		
1.107	331528	141.00	59	NBS75K.l	63620		8
1-Octen-4-ol					CAS #: 40575-42-6		
1.216	789164	335.65	38	NBS75K.l	5106		8
2-Pentanone, 4-hydroxy-4-methyl-					CAS #: 123-42-2		
1.285	14646595	6229.54	50	NBS75K.l	3245		8

Data File: /chem/m.i/m961216b.b/m3905.d
Report Date: 17-Dec-1996 21:37

RT	AREA	CONC(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	QUANT	CPND #
Oxirane, tetramethyl-					CAS #: 5076-20-0		
1.373	207554	88.27	72	NBS75K.l	63415		8
3-Ethyl-2-methyl-1-heptene					CAS #: 19780-60-0		
1.896	452123	192.29	43	NBS75K.l	7610		8
4-Ethyl-1-hexene					CAS #: 0-00-0		
2.152	344208	146.40	78	NBS75K.l	2639		8
Pyrazole, 3-(p-chlorophenyl)-5-methyl-					CAS #: 17629-27-5		
7.781	612290	133.46	6	NBS75K.l	20661		40
Sulfur					CAS #: 7704-34-9		
11.854	3859458	561.66	93	NBS75K.l	35240		57
Hexatriacontane					CAS #: 630-06-8		
16.359	698112	132.24	91	NBS75K.l	74635		75
Heptadecane					CAS #: 629-78-7		
17.193	486454	92.15	76	NBS75K.l	32063		75
1,12-Benzperylene					CAS #: 0-00-0		
17.776	430566	81.56	55	NBS75K.l	38893		75
Ergost-5-en-3-ol, (3.beta.)-					CAS #: 4651-51-8		
18.108	958425	181.56	16	NBS75K.l	53987		75
Olean-12-ene					CAS #: 471-68-1		
18.238	483235	91.54	40	NBS75K.l	54654		75

Data File: /chem/m.i/m961216b.b/m3905.d
Report Date: 17-Dec-1996 21:37

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/m.i/m961216b.b/m3905.d

Date : 16-DEC-1996 21:23

Instrument : m.i

Sample ID : FFG24

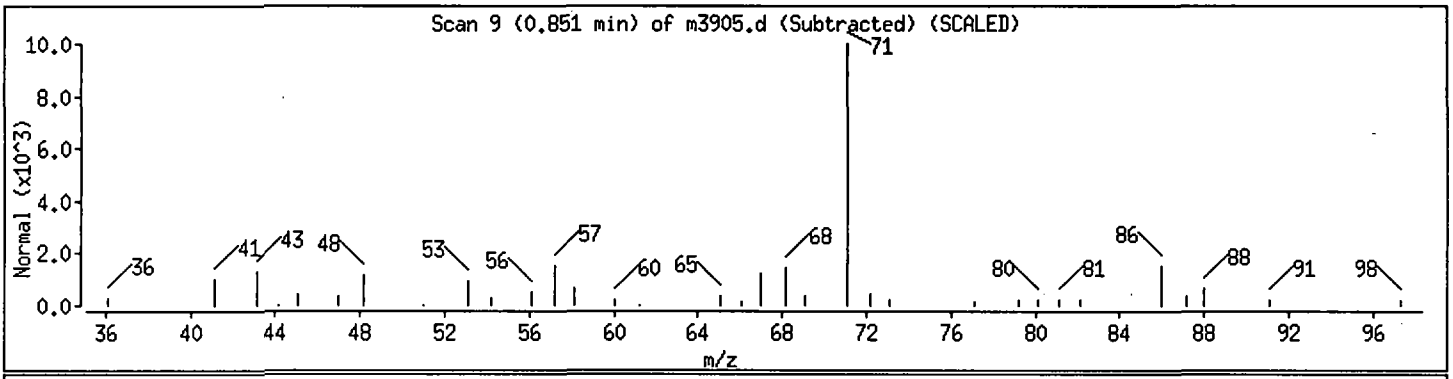
UNKNOWN ALCOHOL

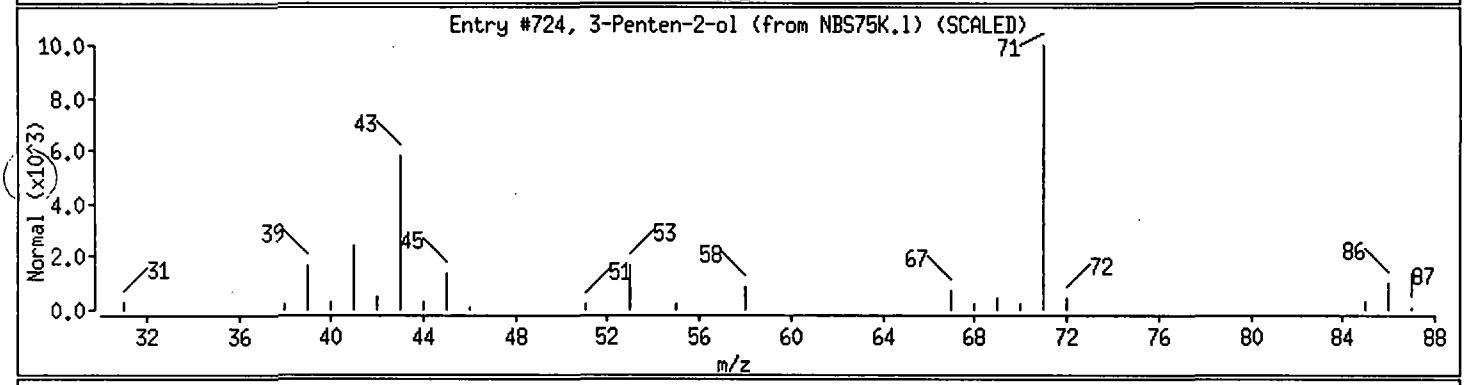
Column phase : XTI-5

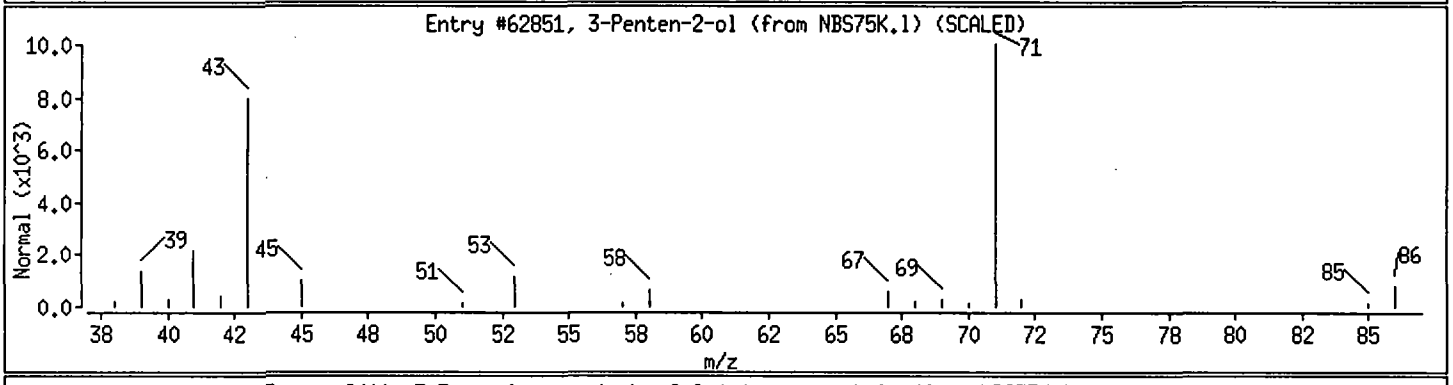
Column diameter : 0.25

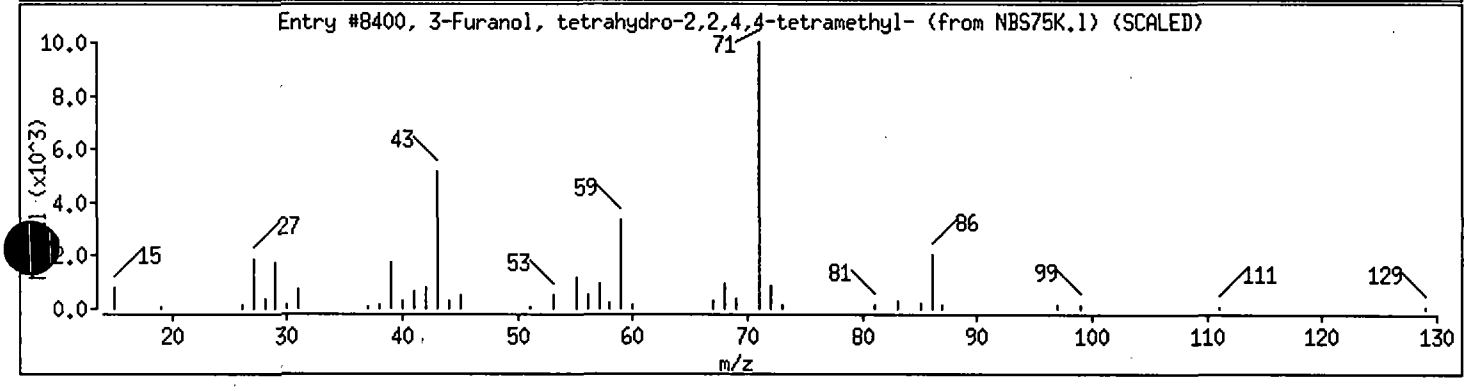
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
3-Penten-2-ol	1569-50-2	NBS75K.l	724	53
3-Penten-2-ol	1569-50-2	NBS75K.l	62851	50
3-Furanol, tetrahydro-2,2,4,4-tetramethy	3611-76-5	NBS75K.l	8400	40





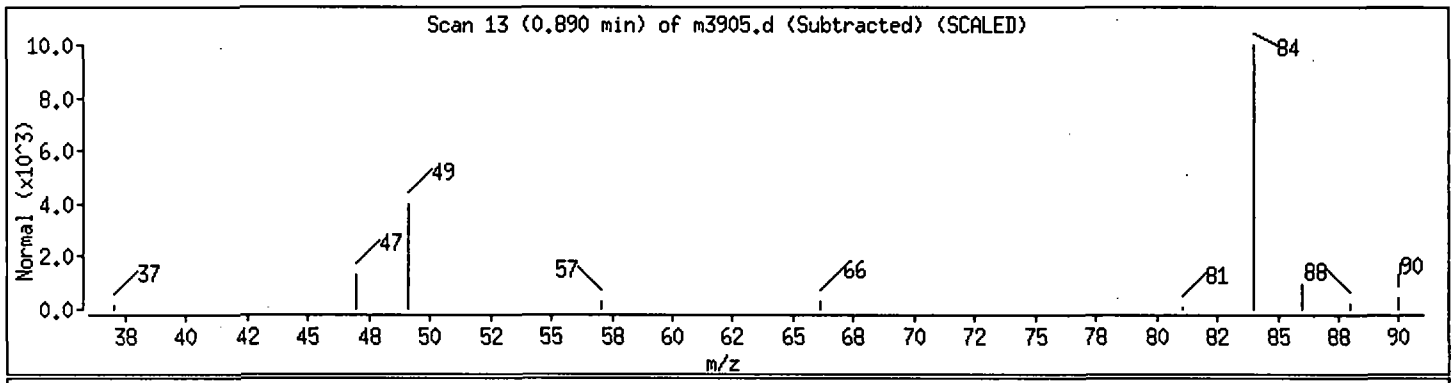




Data File: /chem/m.i/m961216b.b/m3905.d

Date : 16-DEC-1996 21:23
Instrument : m.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Unknown			0	0

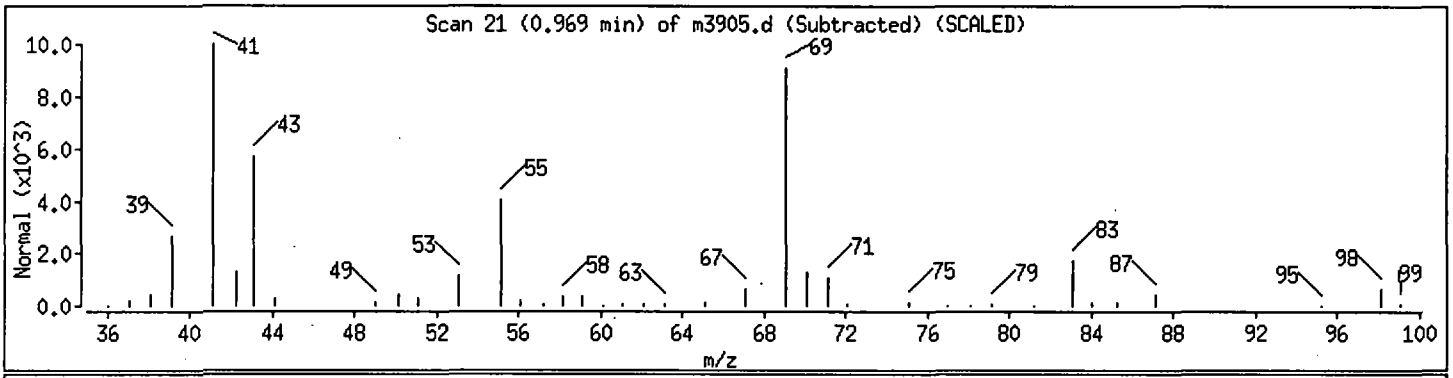


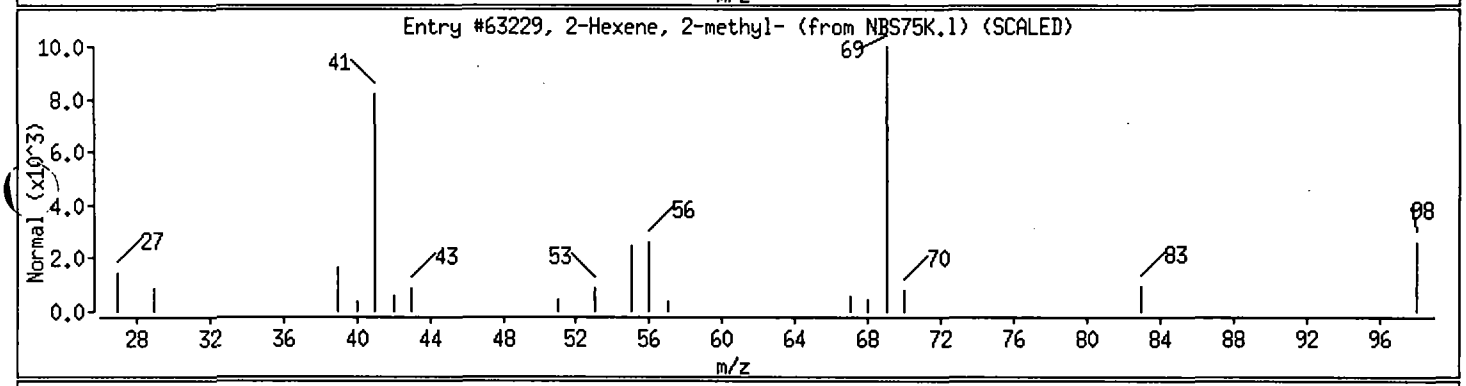
Data File: /chem/m.i/m961216b.b/m3905.d
Date : 16-DEC-1996 21:23
Instrument : m.i
Sample ID : FFG24
Column phase : XTI-5
Volume Injected (uL) : 2.0

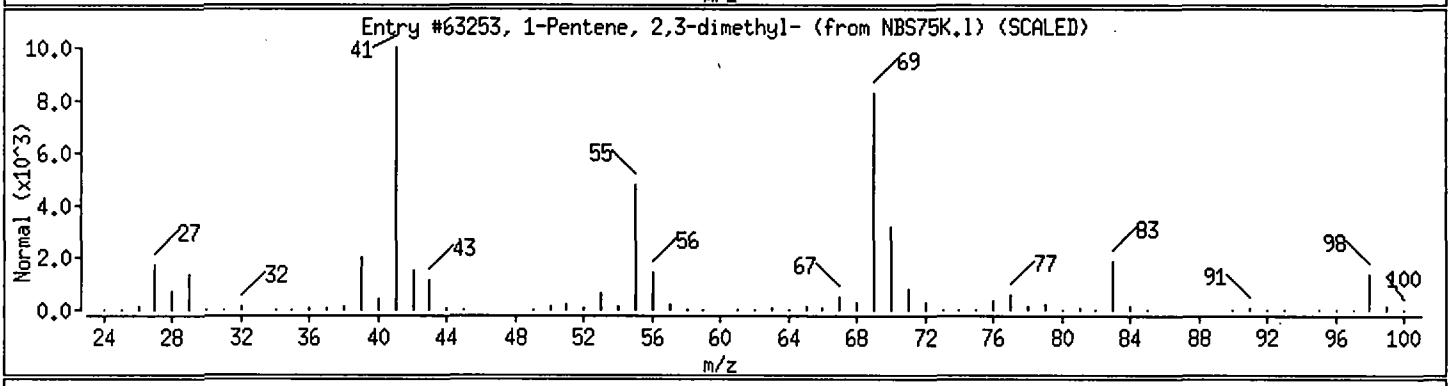
UNKNOWN ALKENE

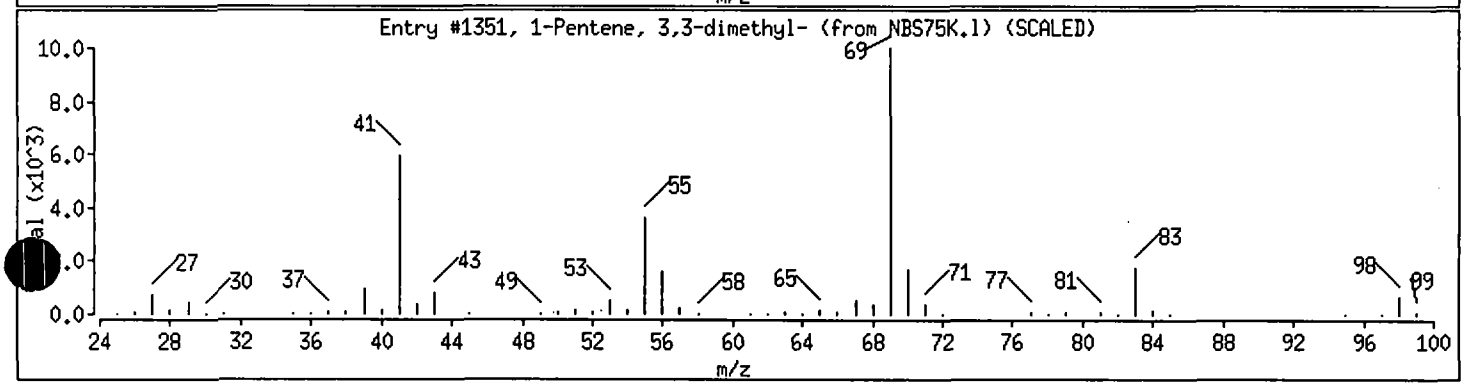
Column diameter : 0.25

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
2-Hexene, 2-methyl-	2738-19-4	NBS75K.1	63229	80
1-Pentene, 2,3-dimethyl-	3404-72-6	NBS75K.1	63253	80
1-Pentene, 3,3-dimethyl-	3404-73-7	NBS75K.1	1351	72





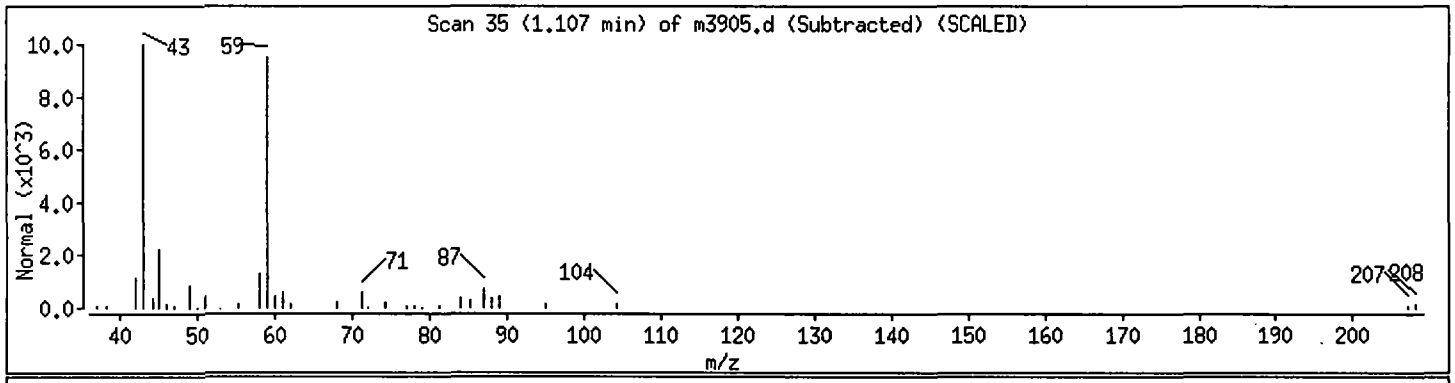


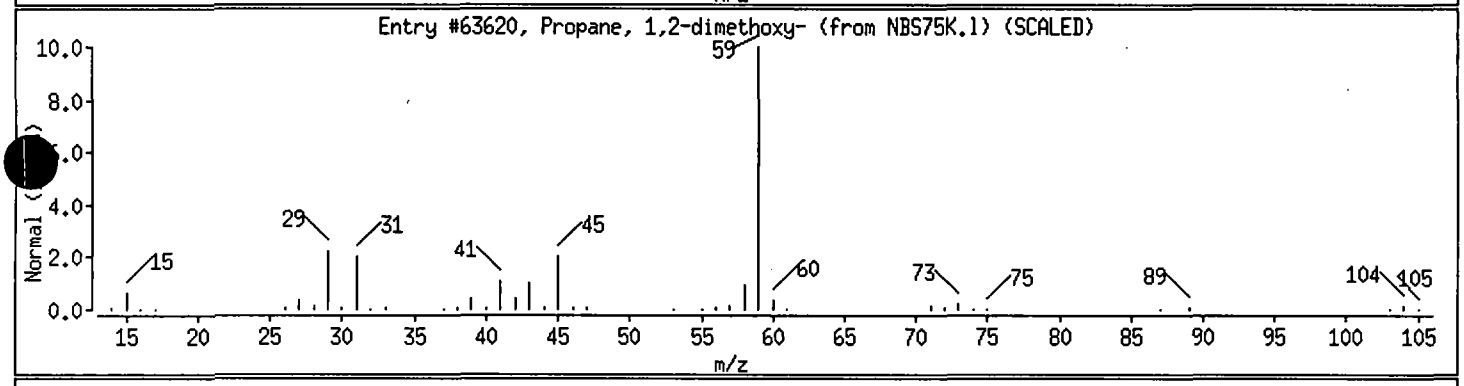


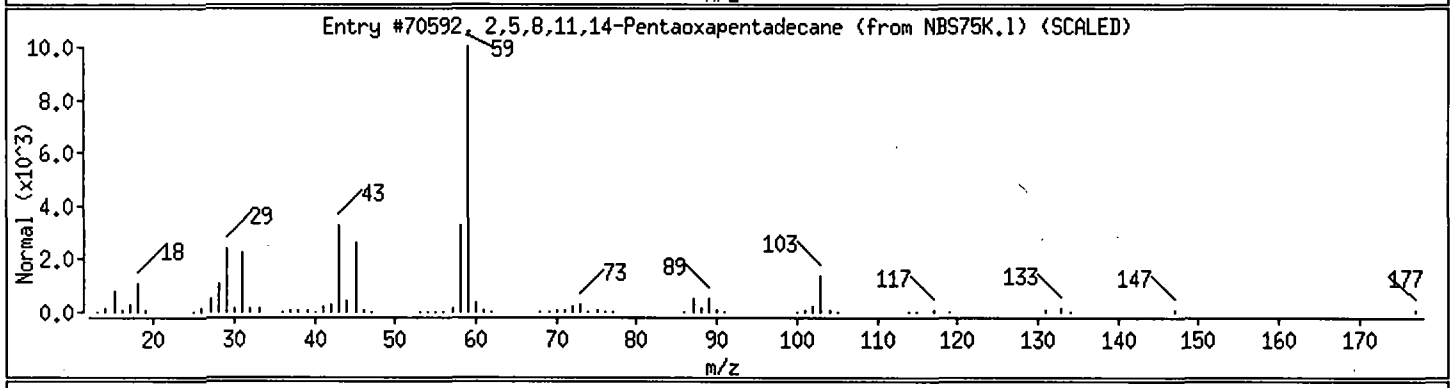
Data File: /chem/m.i/m961216b.b/m3905.d

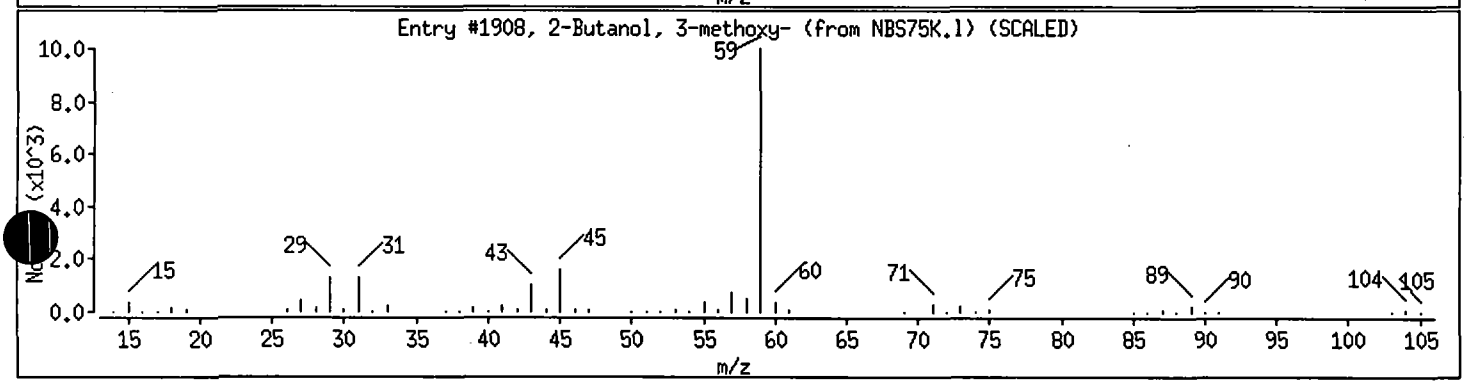
Date : 16-DEC-1996 21:23
Instrument : m.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Propane, 1,2-dimethoxy-	7778-85-0	NBS75K.l	63620	59
2,5,8,11,14-Pentaoxapentadecane	143-24-8	NBS75K.l	70592	50
2-Butanol, 3-methoxy-	53778-72-6	NBS75K.l	1908	45







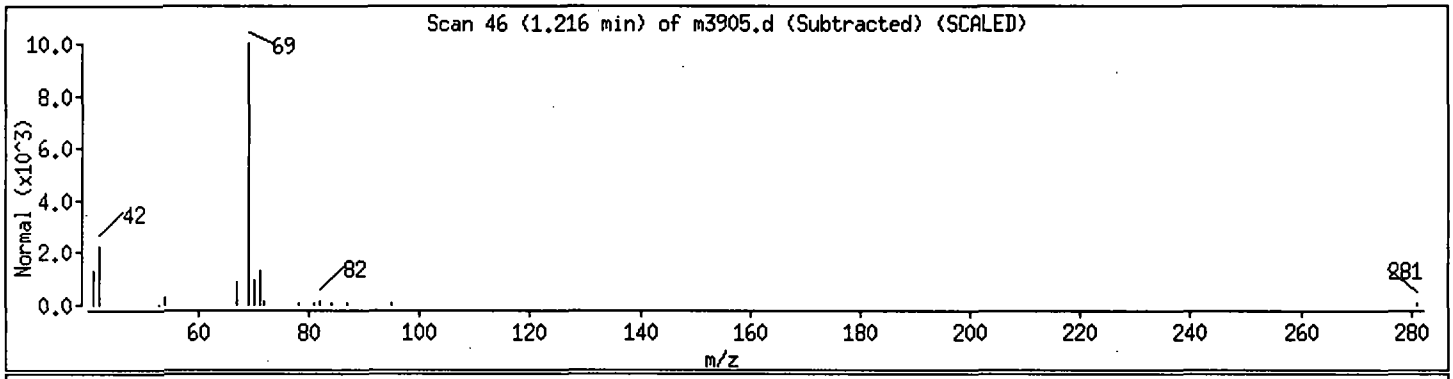


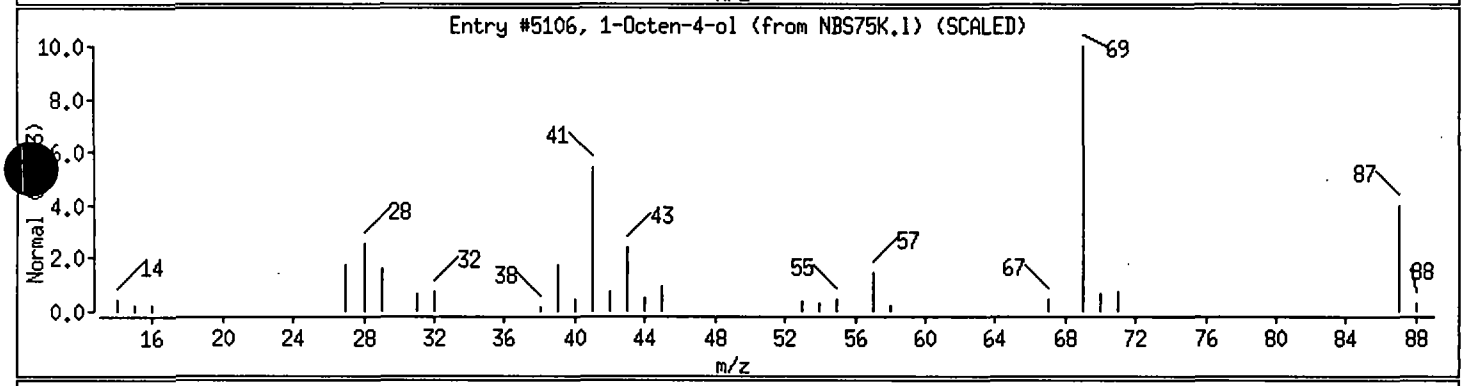
Data File: /chem/m.i/m961216b.b/m3905.d

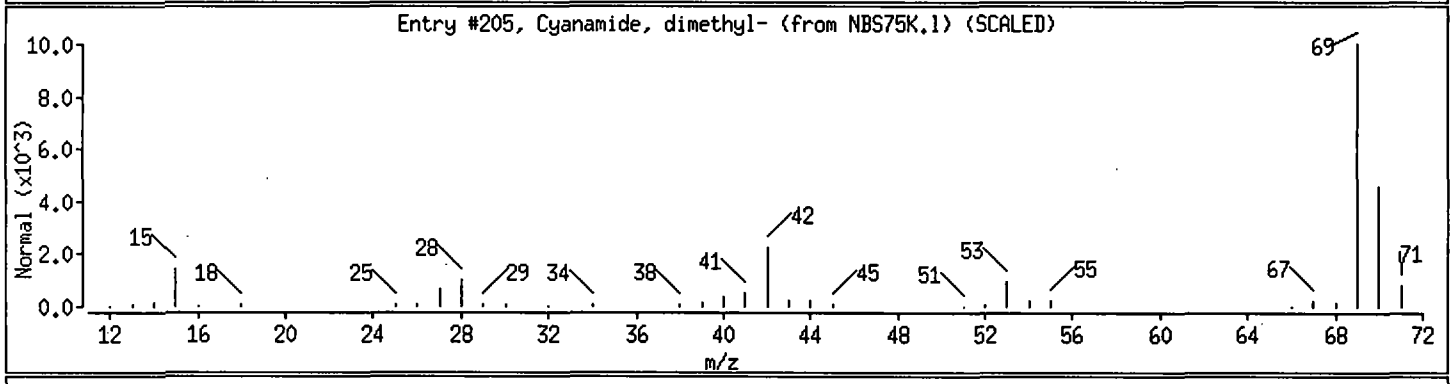
Date : 16-DEC-1996 21:23
Instrument : m.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

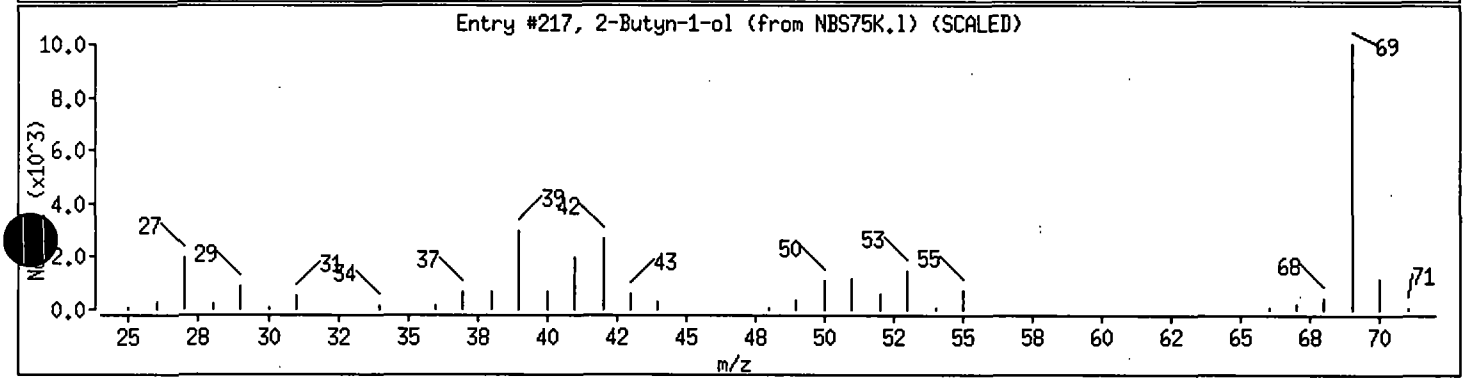
UNKNOWN

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
1-Octen-4-ol	40575-42-6	NBS75K.1	5106	38
Cyanamide, dimethyl-	1467-79-4	NBS75K.1	205	38
2-Butyn-1-ol	764-01-2	NBS75K.1	217	38







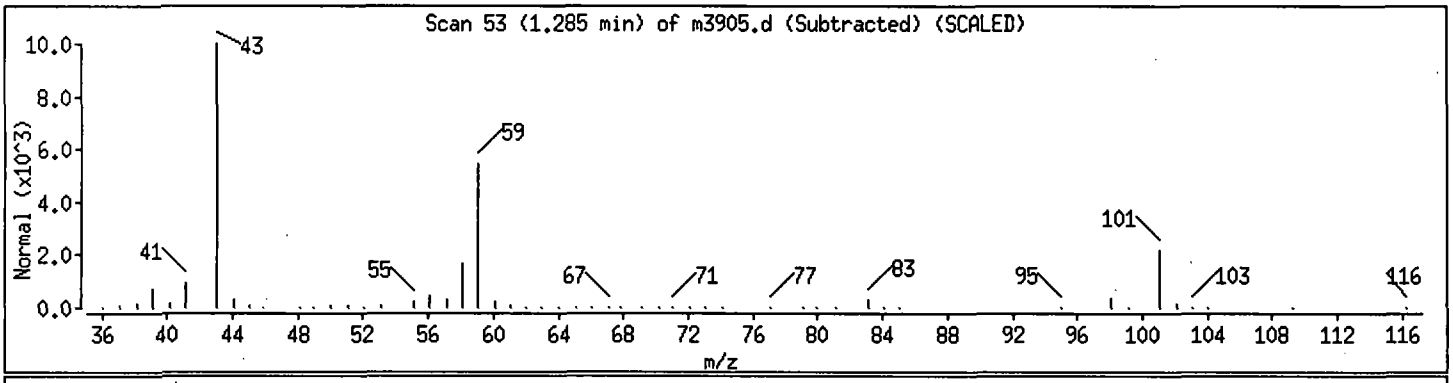


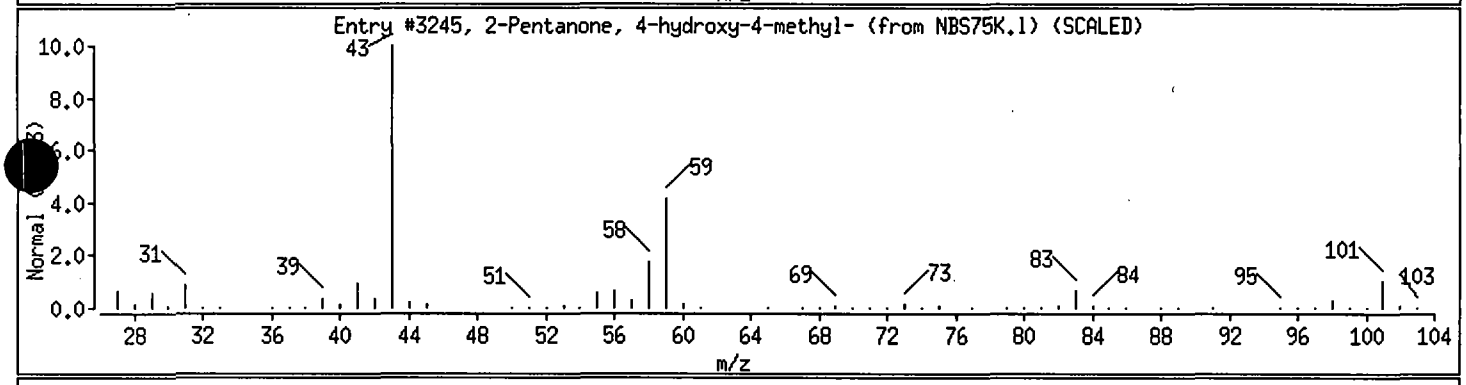
Data File: /chem/m.i/m961216b.b/m3905.d
Date : 16-DEC-1996 21:23
Instrument : m.i
Sample ID : FFG24
Column phase : XTI-5
Volume Injected (uL) : 2.0

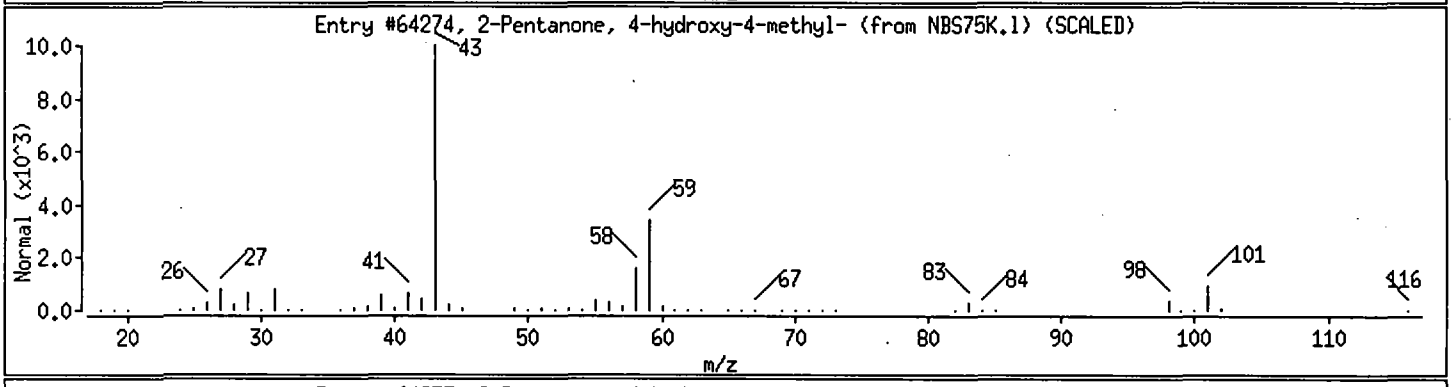
ALDOL CONDENSATE

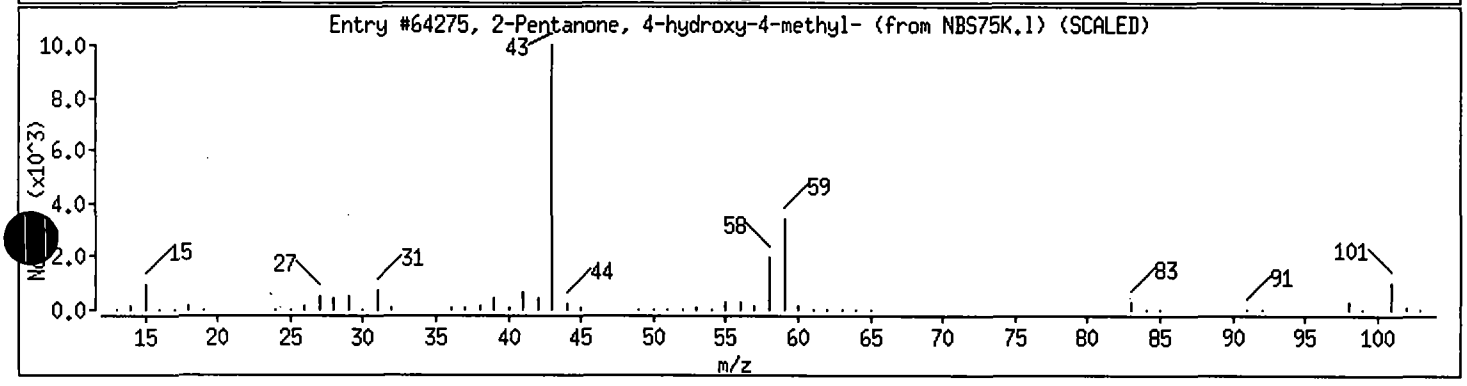
Column diameter : 0.25

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NBS75K.1	3245	50
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NBS75K.1	64274	39
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NBS75K.1	64275	38









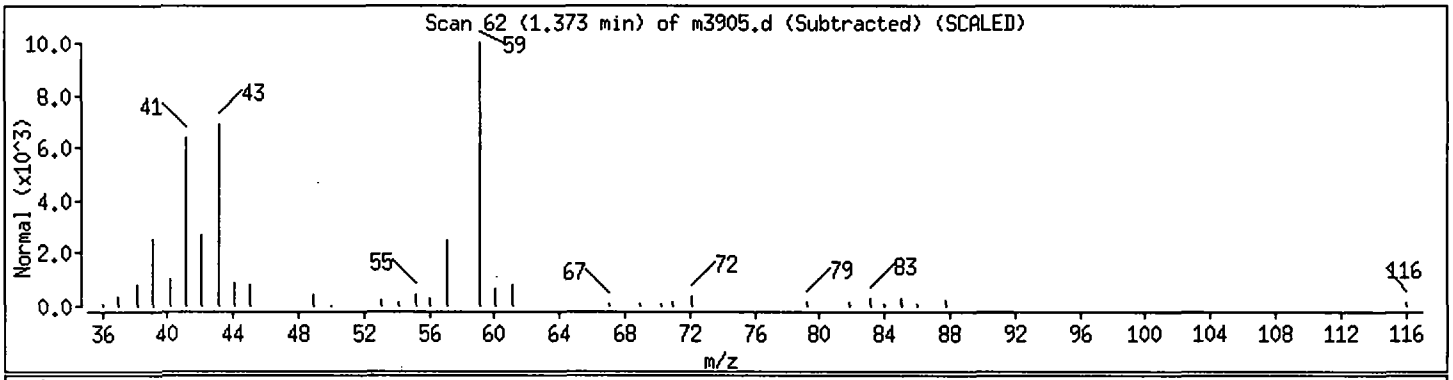
Data File: /chem/m.i/m961216b.b/m3905.d

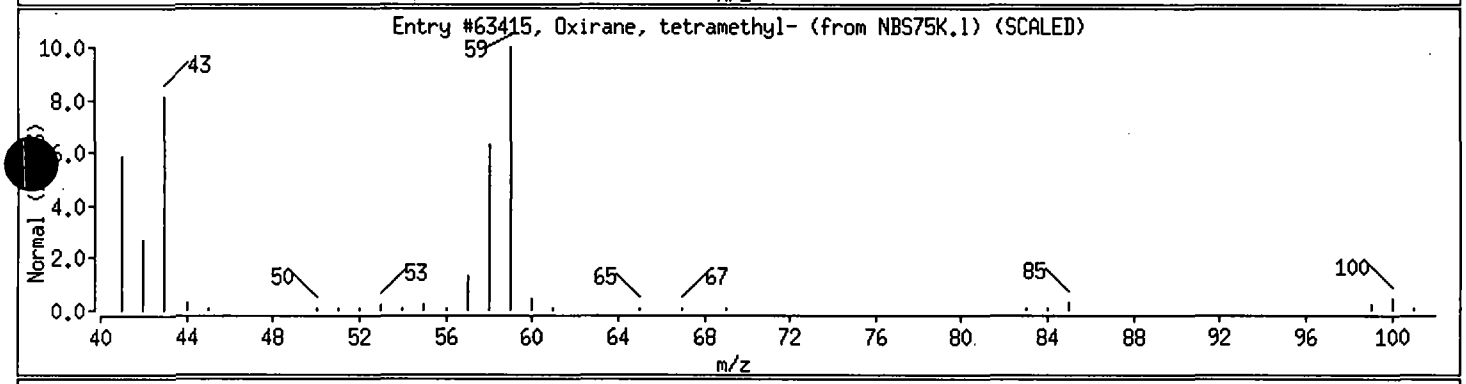
Date : 16-DEC-1996 21:23
Instrument : m.i
Sample ID : FFG24

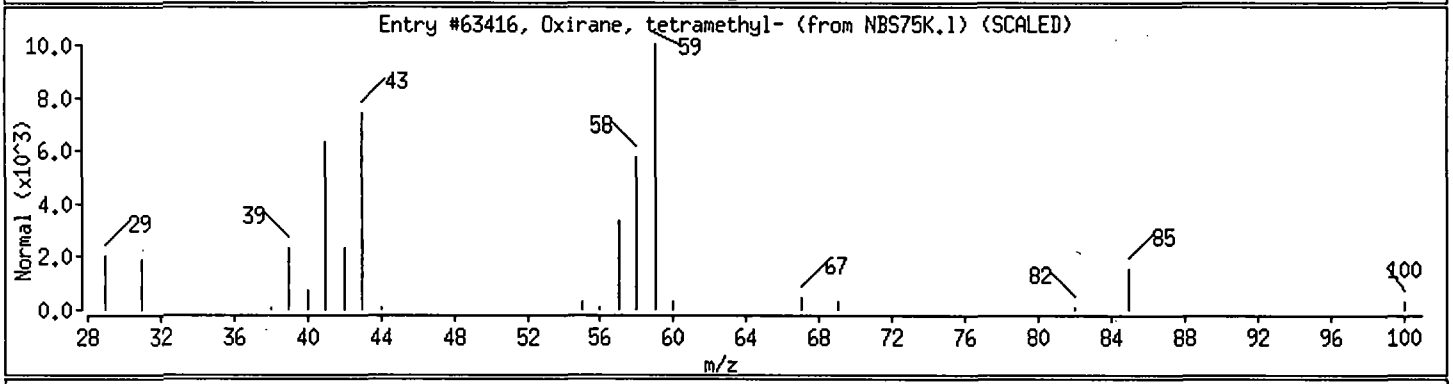
UNKNOWN

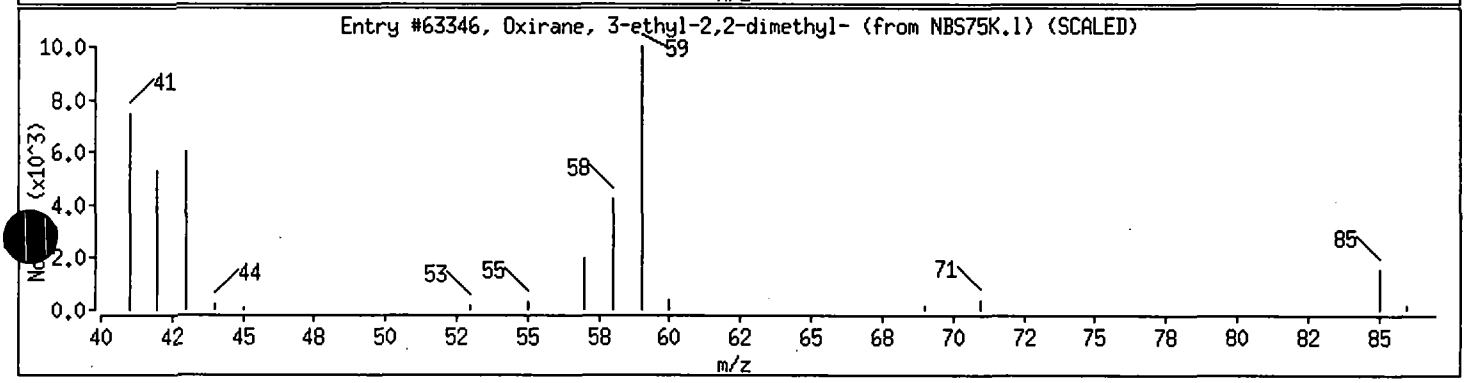
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Oxirane, tetramethyl-	5076-20-0	NBS75K.l	63415	72
Oxirane, tetramethyl-	5076-20-0	NBS75K.l	63416	45
Oxirane, 3-ethyl-2,2-dimethyl-	1192-22-9	NBS75K.l	63346	40









Data File: /chem/m.i/m961216b.b/m3905.d

Date : 16-DEC-1996 21:23

Instrument : m.i

Sample ID : FFG24

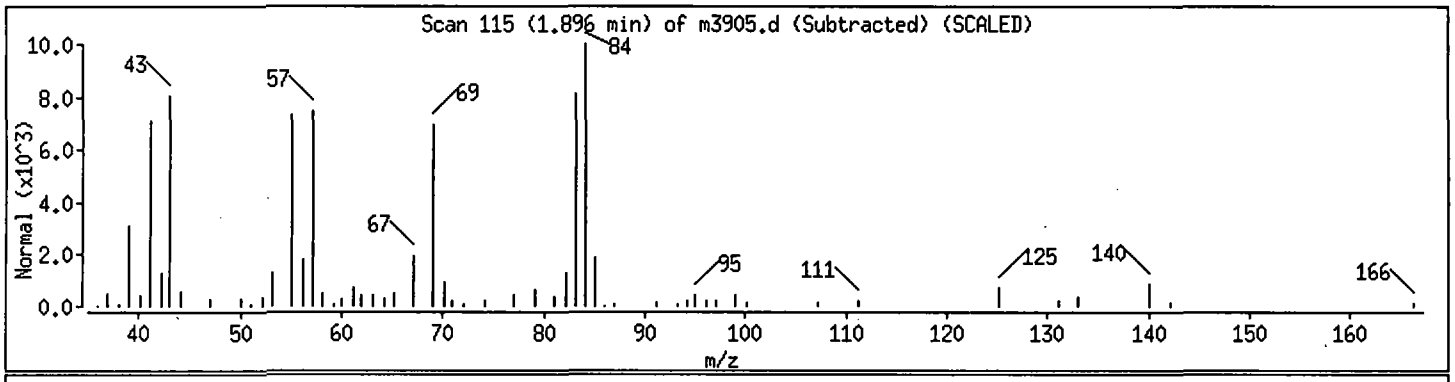
UNKNOWN

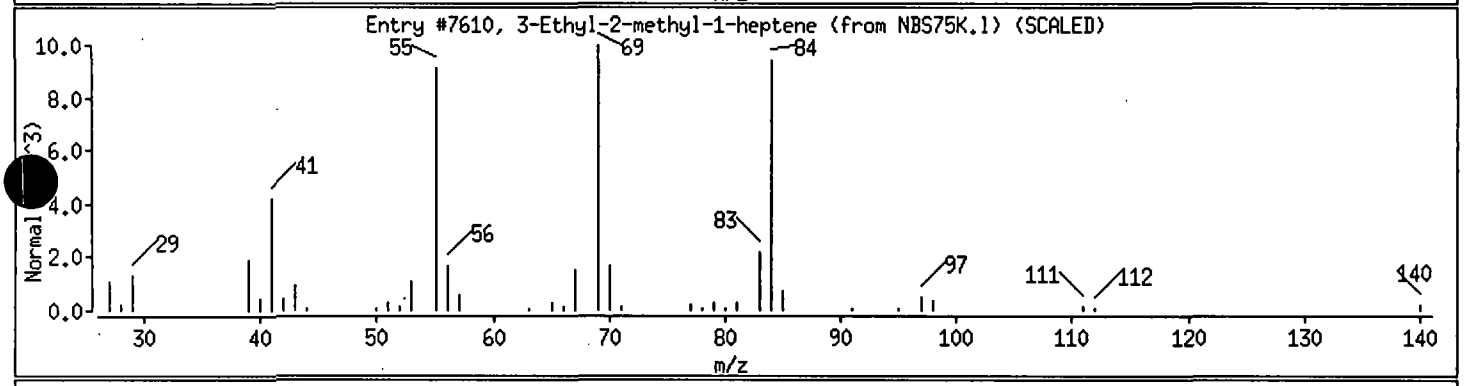
Column phase : XTI-5

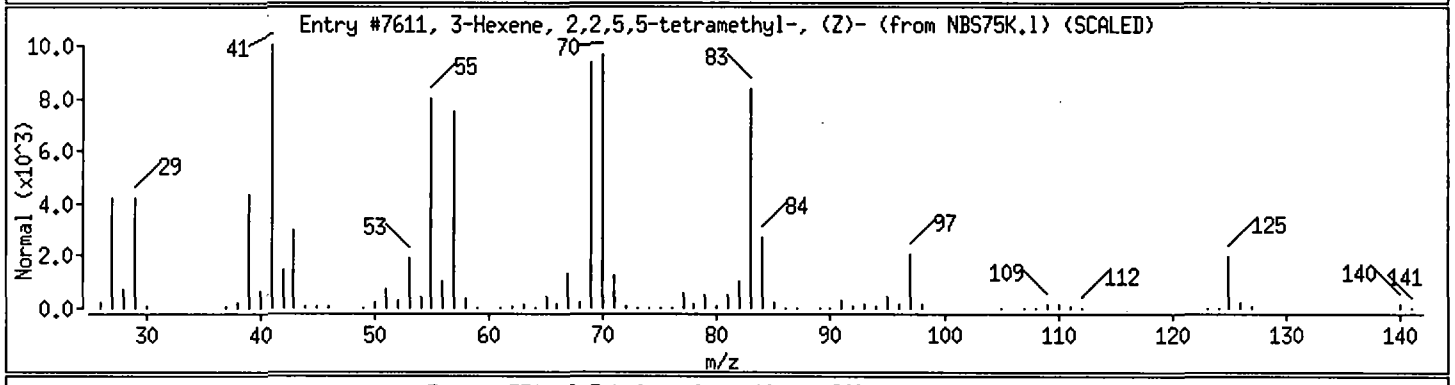
Column diameter : 0.25

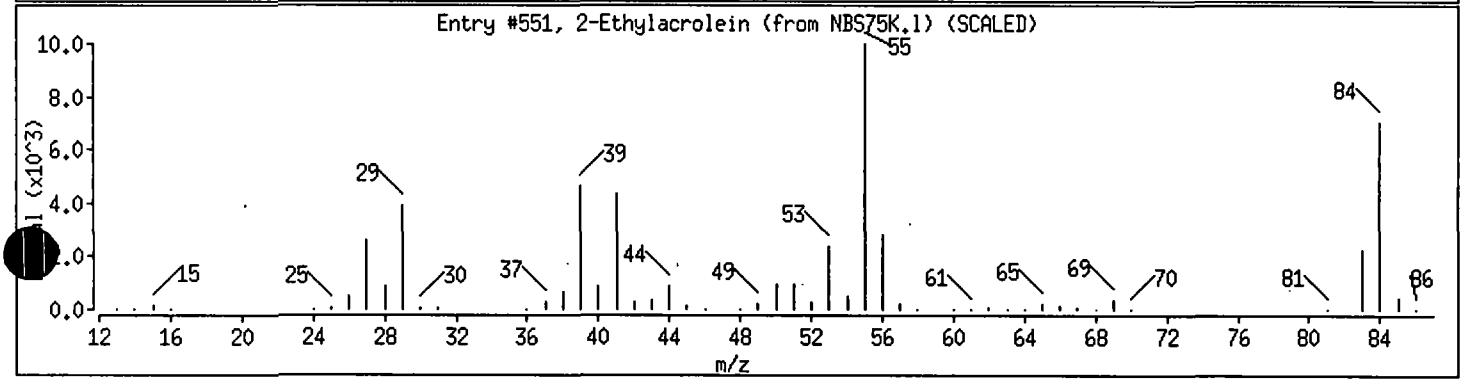
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
3-Ethyl-2-methyl-1-heptene	19780-60-0	NBS75K.1	7610	43
3-Hexene, 2,2,5,5-tetramethyl-, (Z)-	692-47-7	NBS75K.1	7611	38
2-Ethylacrolein	922-63-4	NBS75K.1	551	38





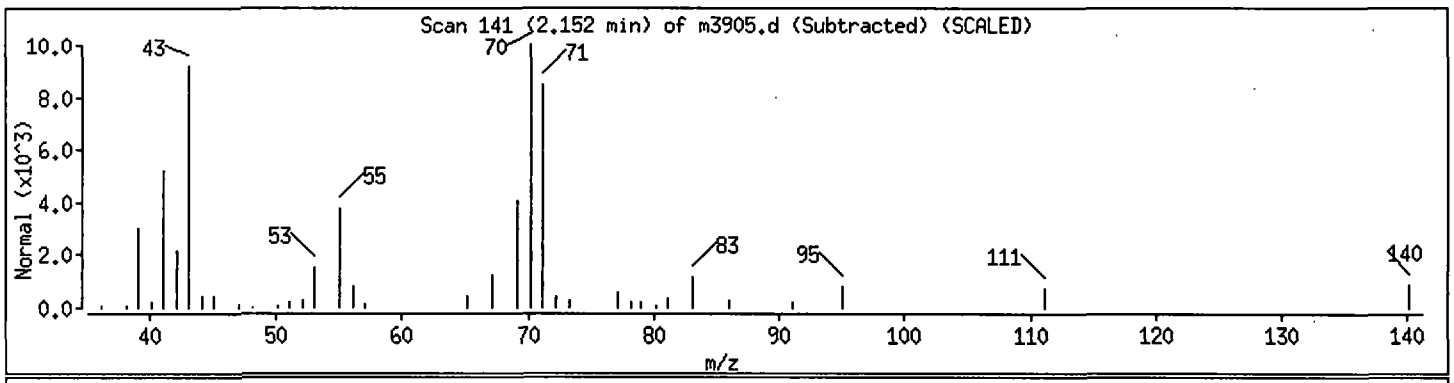


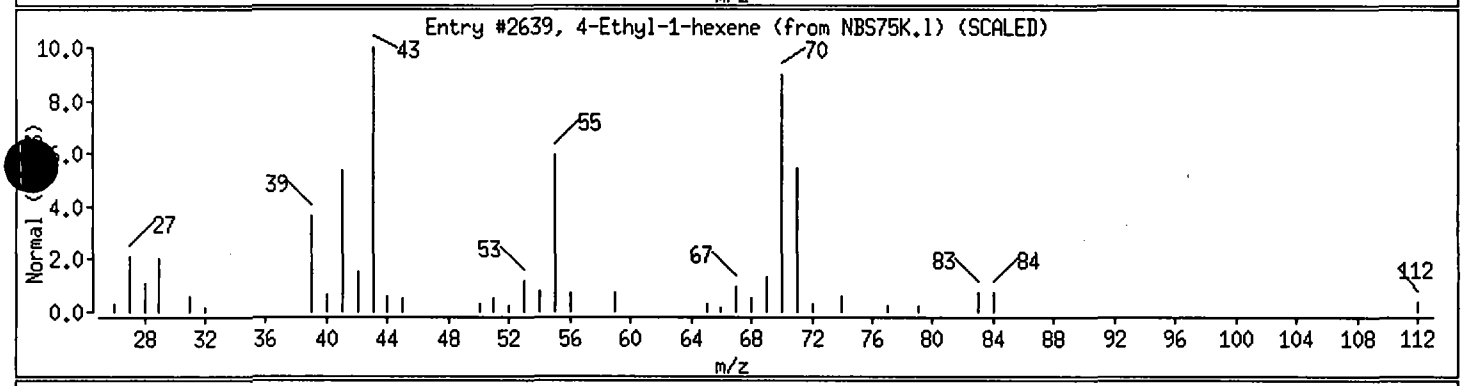


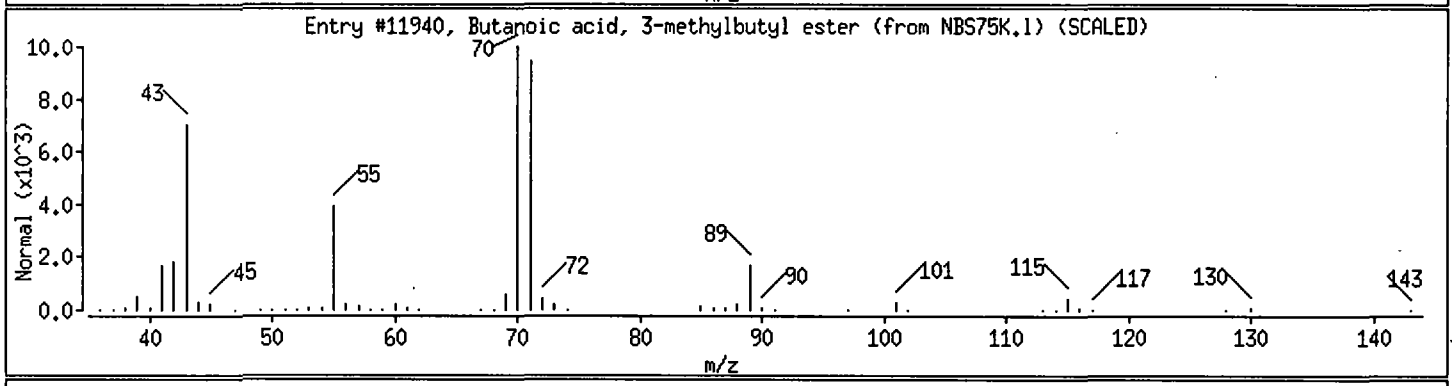
Data File: /chem/m.i/m961216b.b/m3905.d

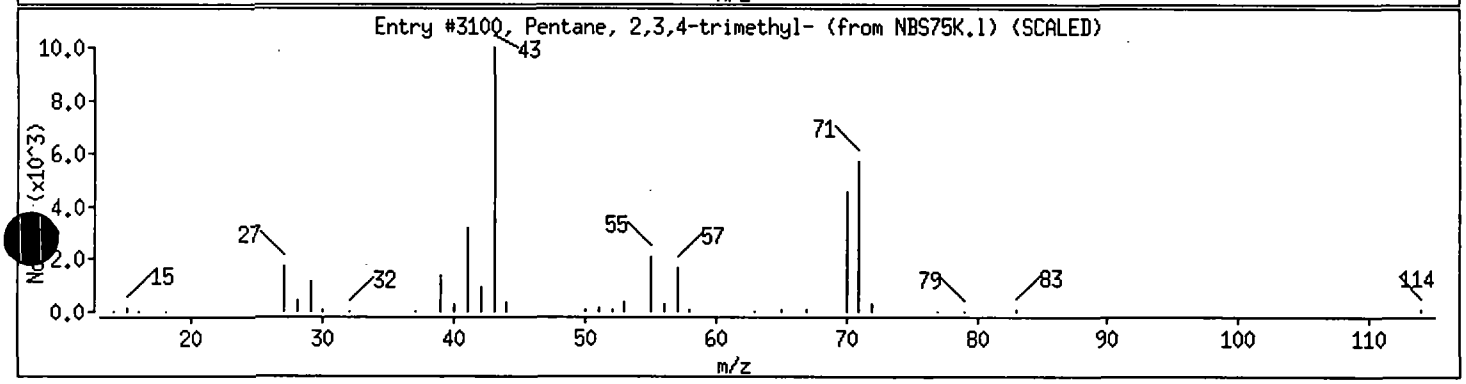
Date : 16-DEC-1996 21:23
Instrument : m.i
Sample ID : FFG24
Column phase : XTI-5 12/20/96 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
4-Ethyl-1-hexene	~~0-00-0~~	NBS75K.1	2639	78
Butanoic acid, 3-methylbutyl ester	106-27-4	NBS75K.1	11940	64
Pentane, 2,3,4-trimethyl-	565-75-3	NBS75K.1	3100	64







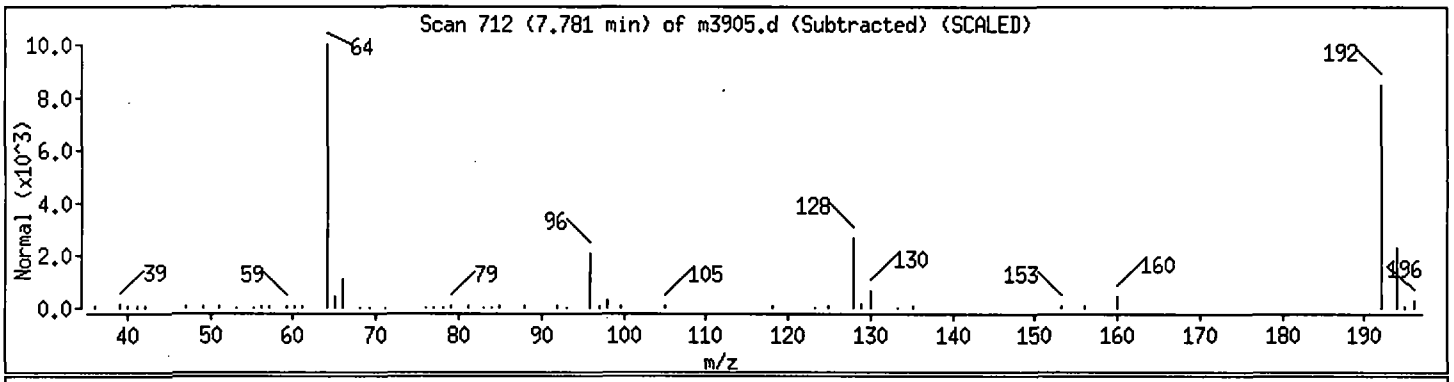


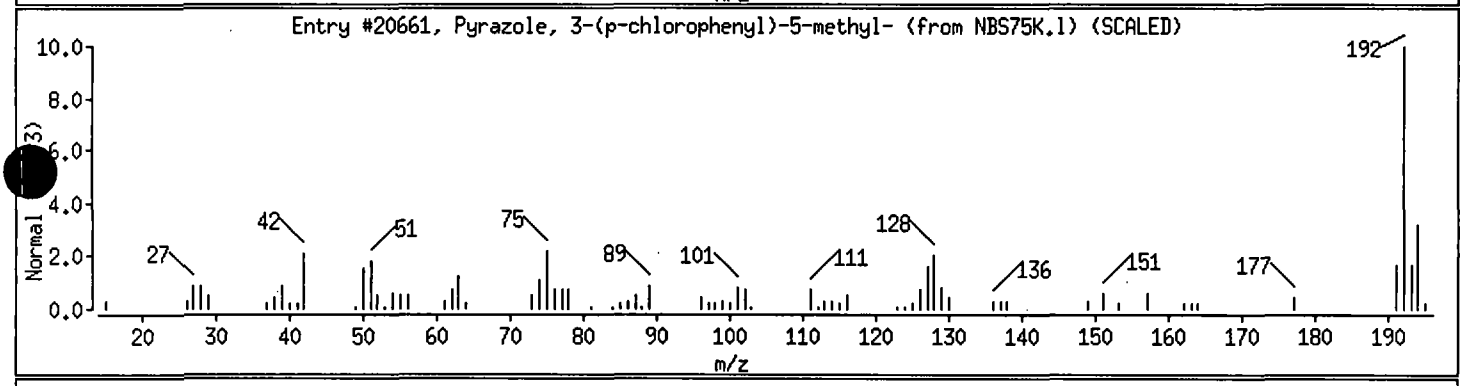
Data File: /chem/m.i/m961216b.b/m3905.d
Date : 16-DEC-1996 21:23
Instrument : m.i
Sample ID : FFG24
Column phase : XTI-5
Volume Injected (uL) : 2.0

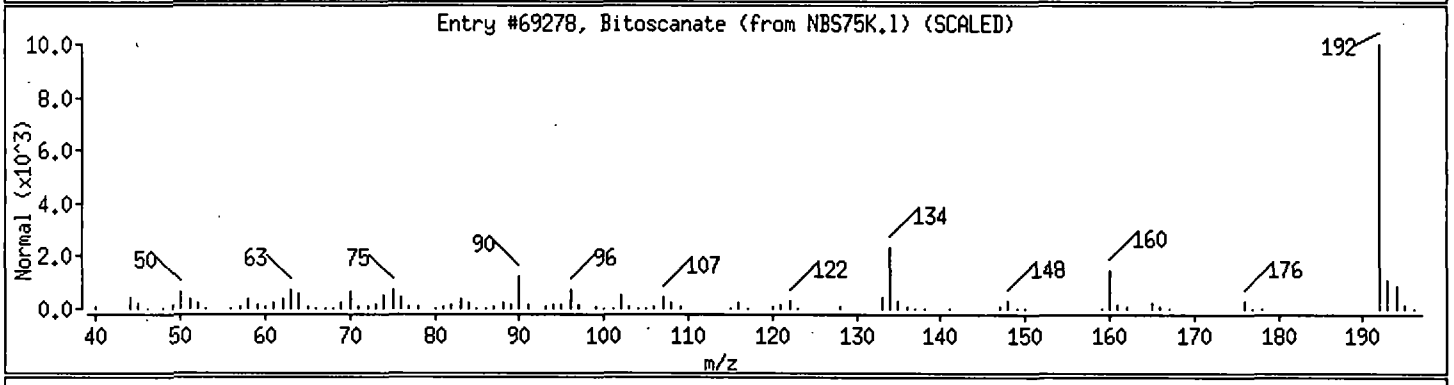
UNKNOWN

Column diameter : 0.25

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Pyrazole, 3-(p-chlorophenyl)-5-methyl-	17629-27-5	NBS75K.l	20661	6
Bitoscanate	4044-65-9	NBS75K.l	69278	6



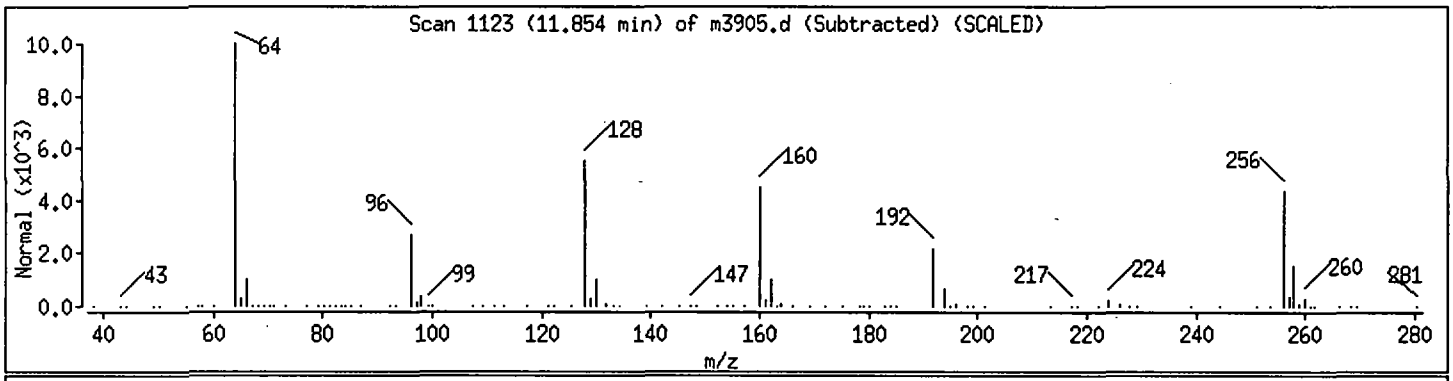


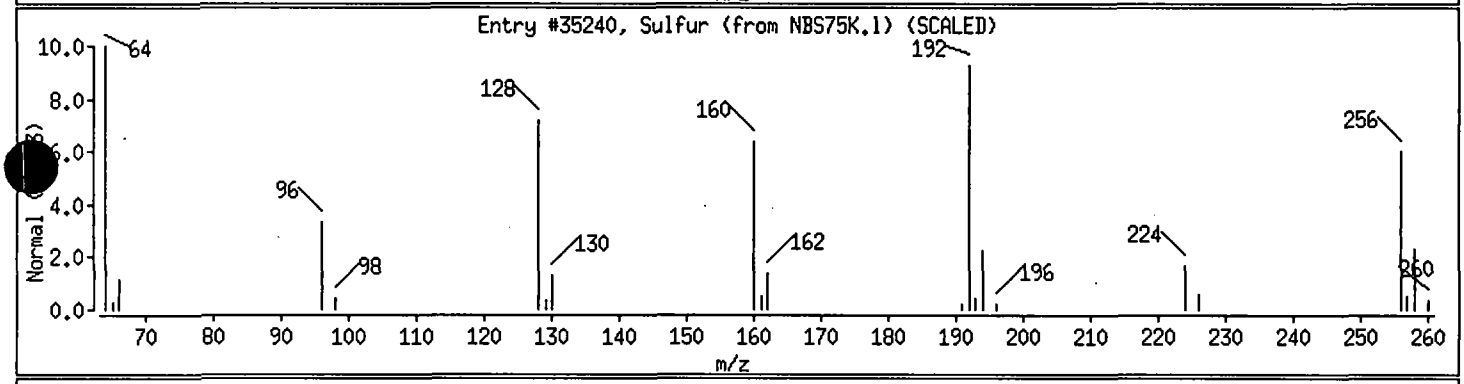


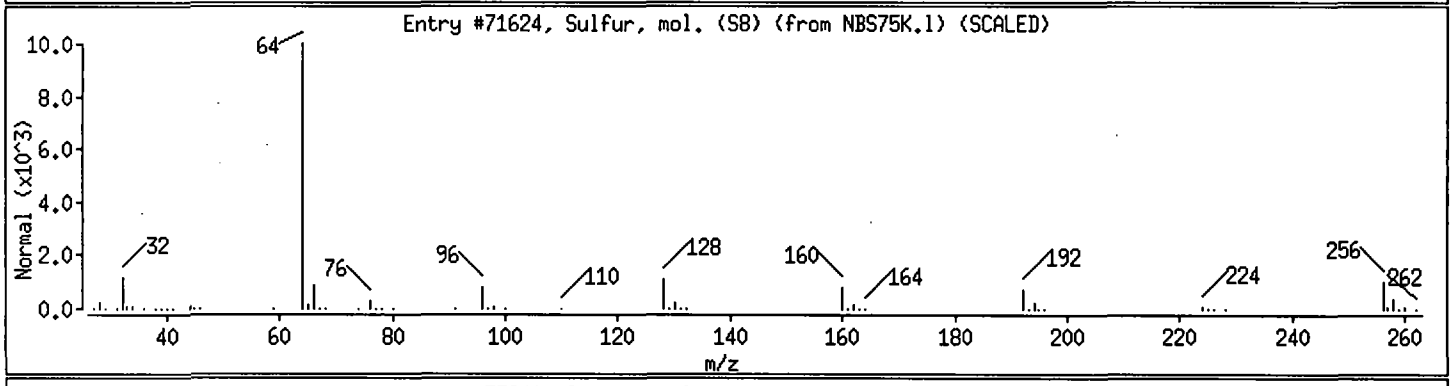
Data File: /chem/m.i/m961216b.b/m3905.d

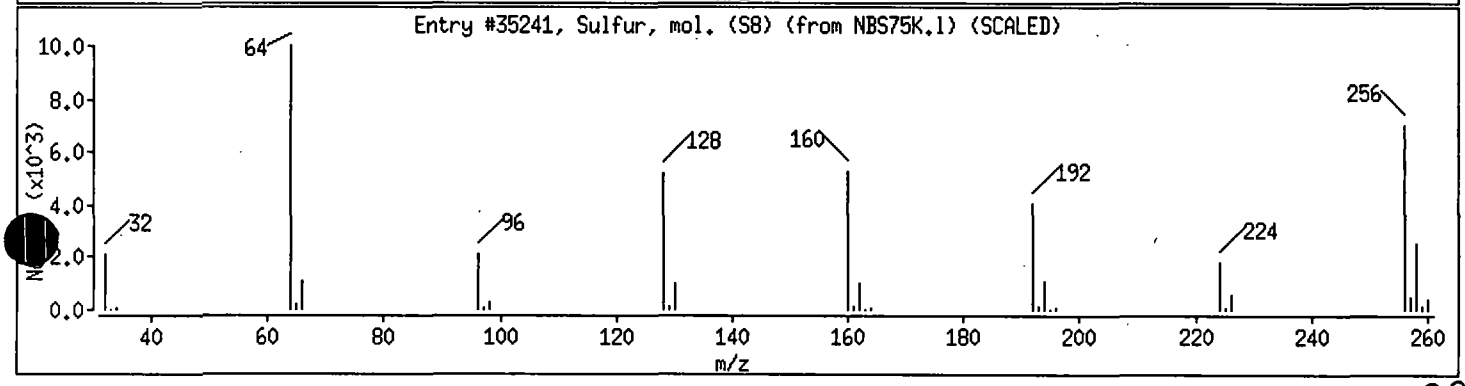
Date : 16-DEC-1996 21:23
Instrument : m.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Sulfur	7704-34-9	NBS75K.1	35240	93
Sulfur, mol. (S8)	10544-50-0	NBS75K.1	71624	90
Sulfur, mol. (S8)	10544-50-0	NBS75K.1	35241	78





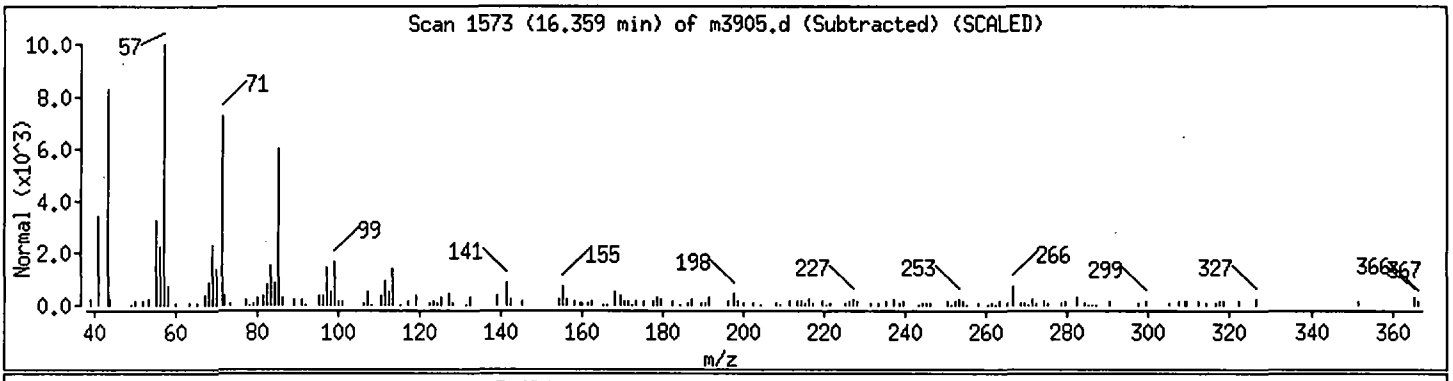


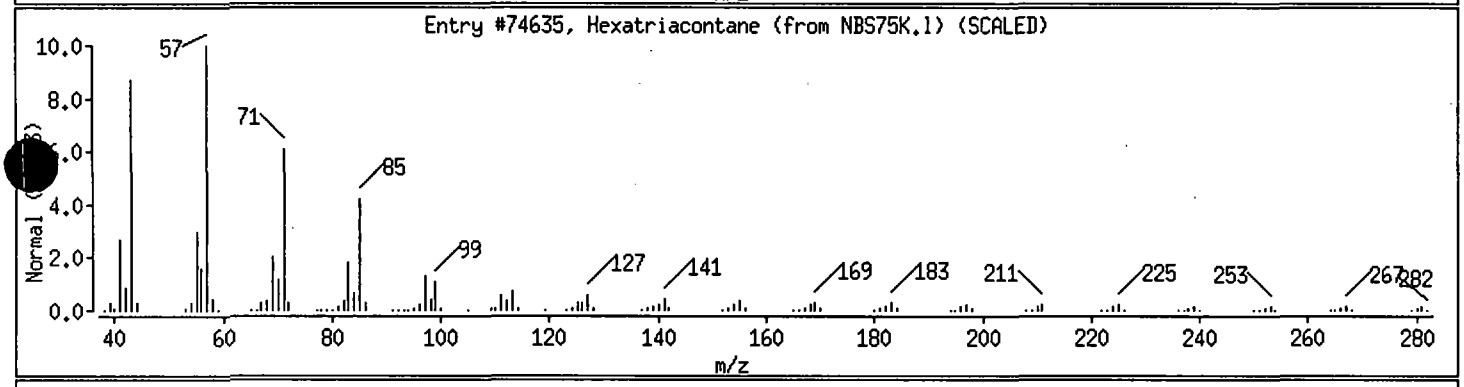


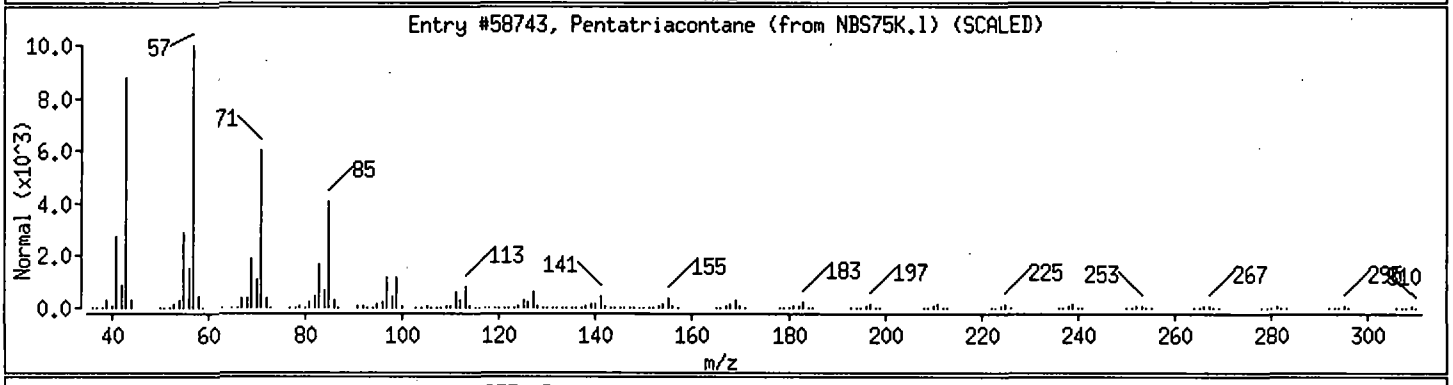
Data File: /chem/m.i/m961216b.b/m3905.d

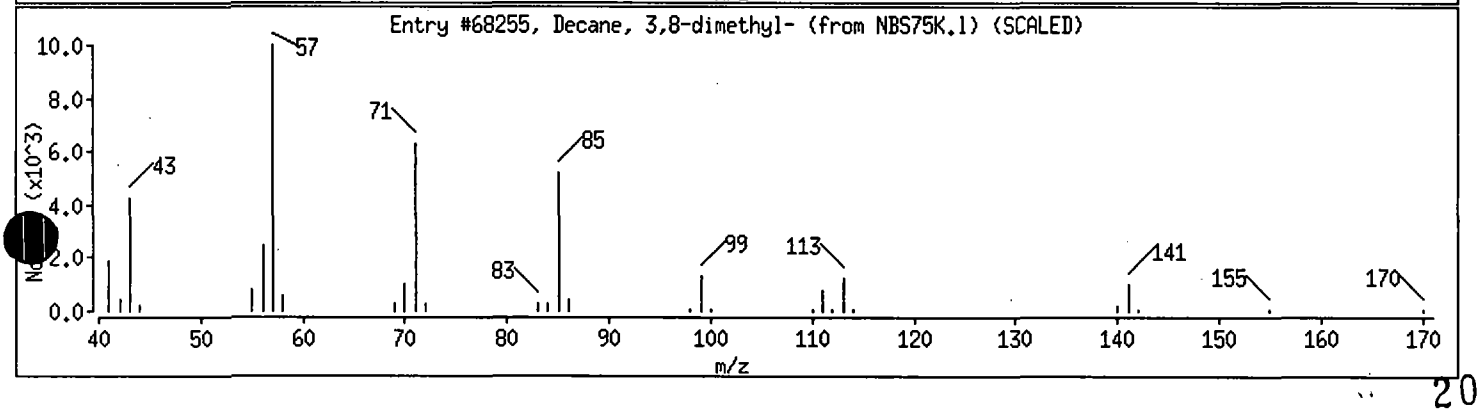
Date : 16-DEC-1996 21:23
Instrument : m.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Hexatriacontane	630-06-8	NBS75K.1	74635	91
Pentatriacontane	630-07-9	NBS75K.1	58743	87
Decane, 3,8-dimethyl-	17312-55-9	NBS75K.1	68255	87





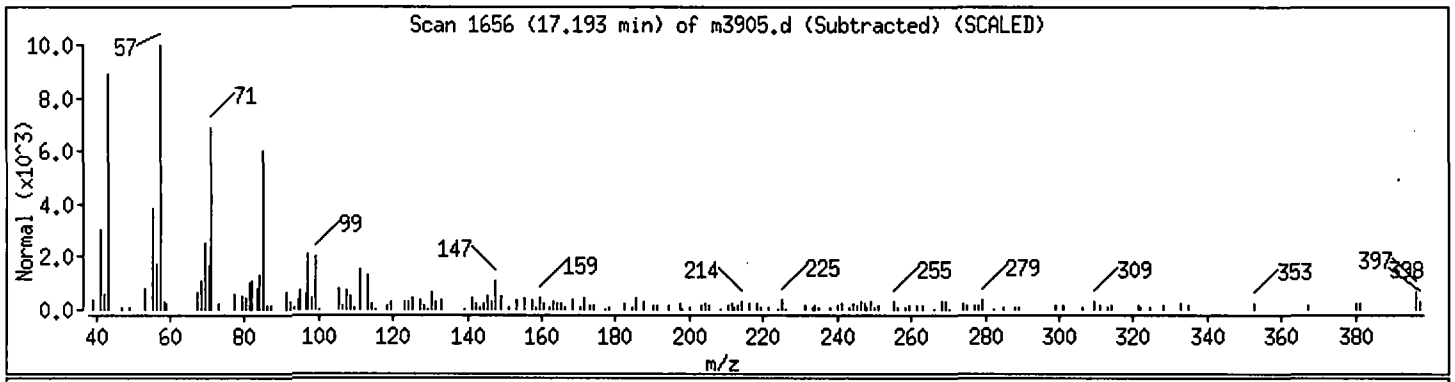


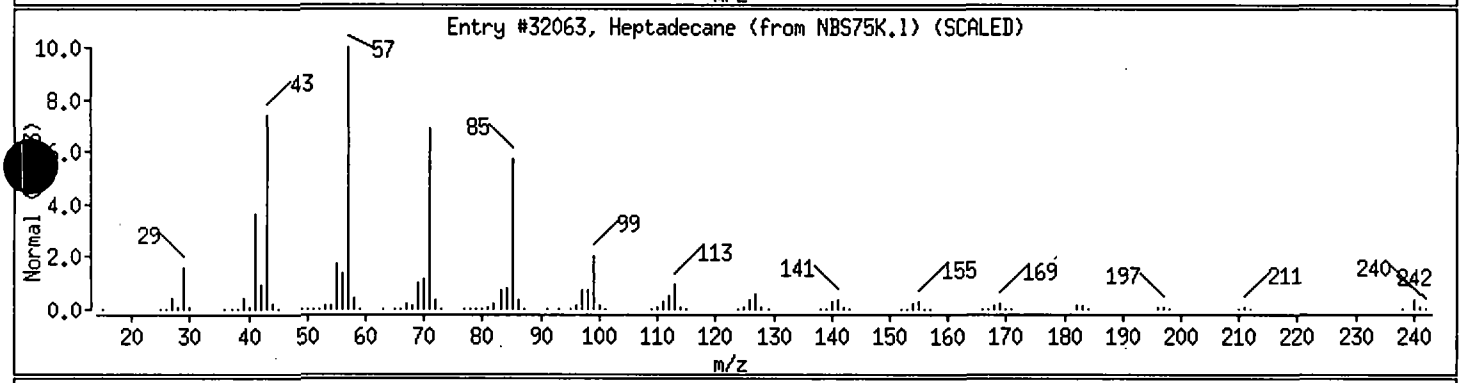


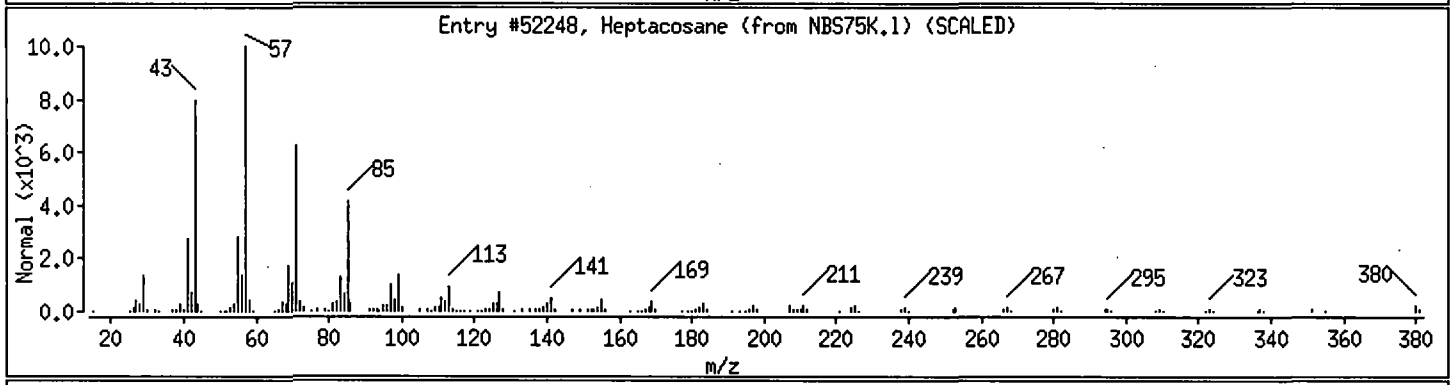
Data File: /chem/m.i/m961216b.b/m3905.d

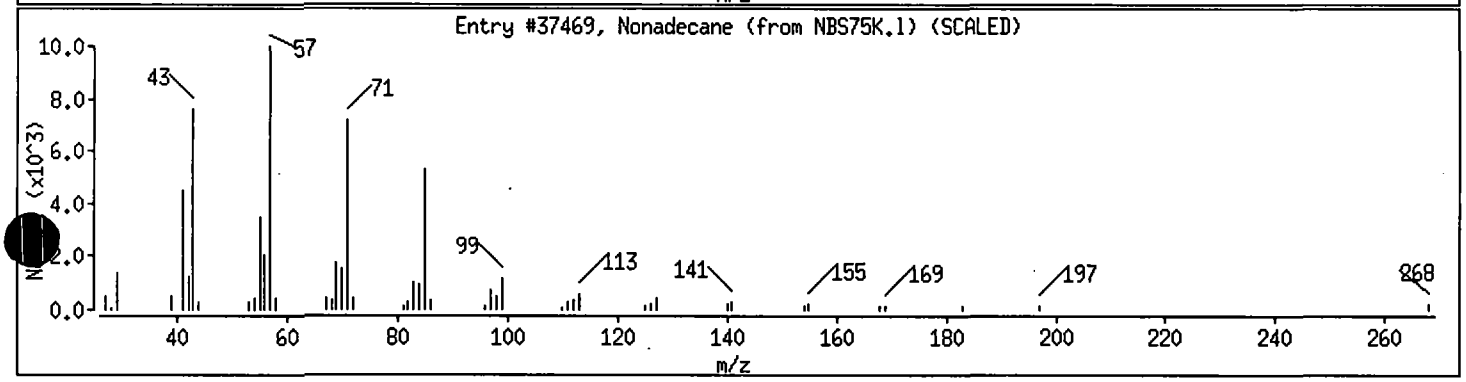
Date : 16-DEC-1996 21:23
Instrument : m.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Heptadecane	629-78-7	NBS75K.l	32063	76
Heptacosane	593-49-7	NBS75K.l	52248	74
Nonadecane	629-92-5	NBS75K.l	37469	64





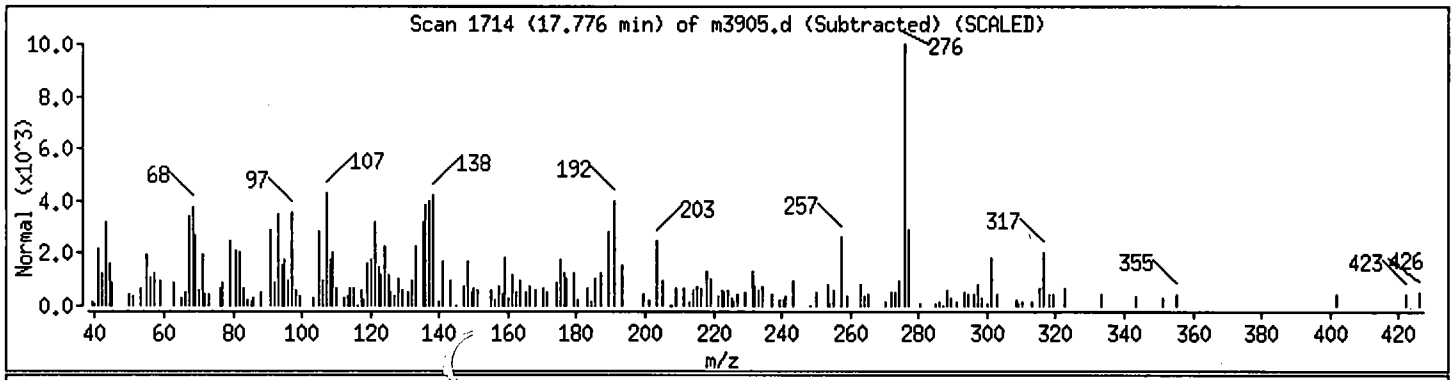


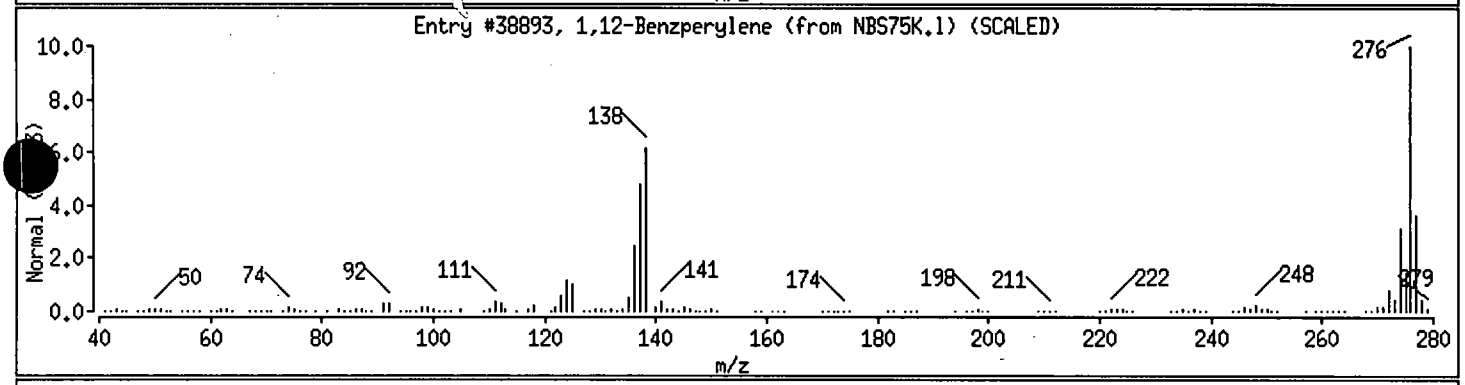


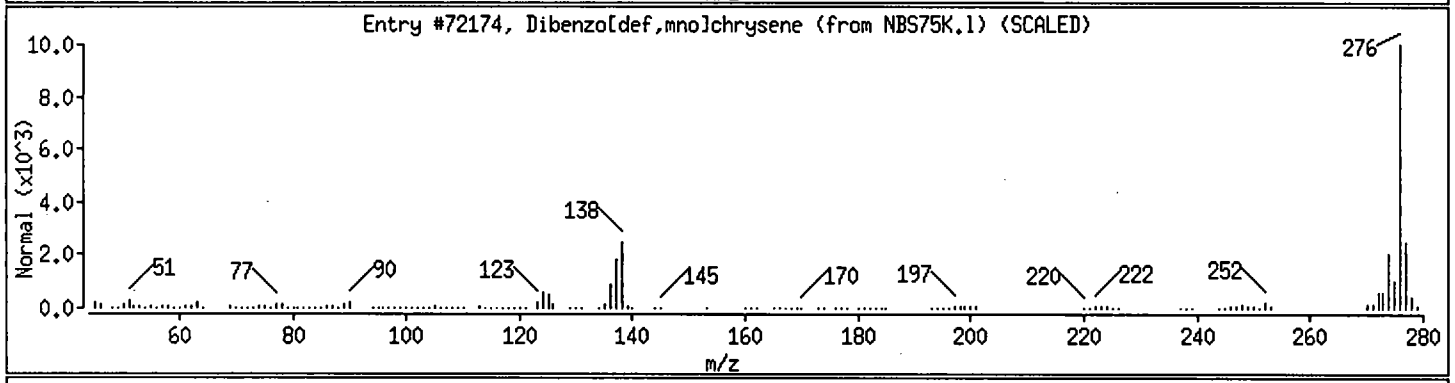
Data File: /chem/m.i/m961216b.b/m3905.d

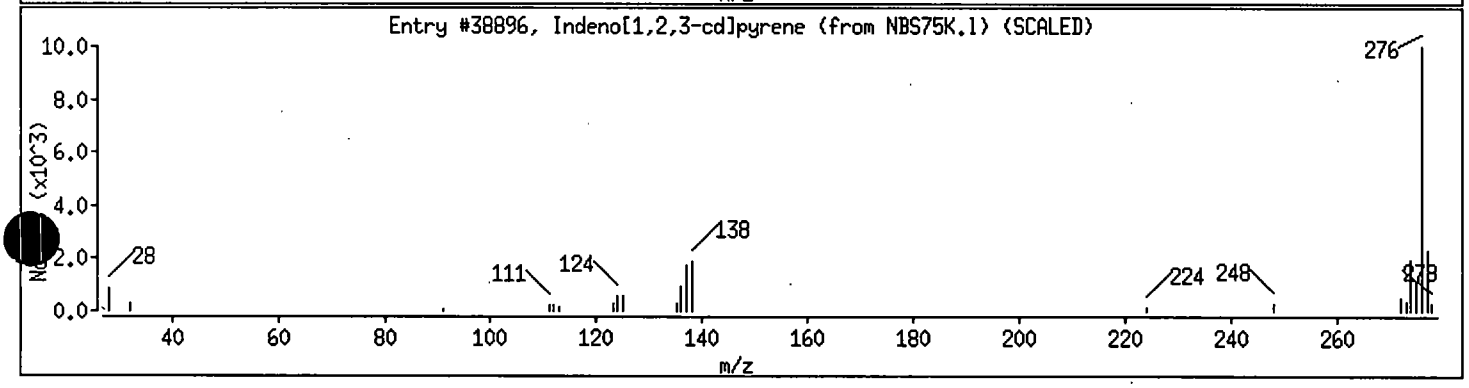
Date : 16-DEC-1996 21:23
Instrument : m.i
Sample ID : FFG24
Column phase : XTI-5
Column diameter : 0.25 UNKNOWN PAH
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
1,12-Benzperylene	0-00-0	NBS75K.l	38893	55
Dibenzo[def,mno]chrysene	191-26-4	NBS75K.l	72174	49
Indeno[1,2,3-cd]pyrene	193-39-5	NBS75K.l	38896	49







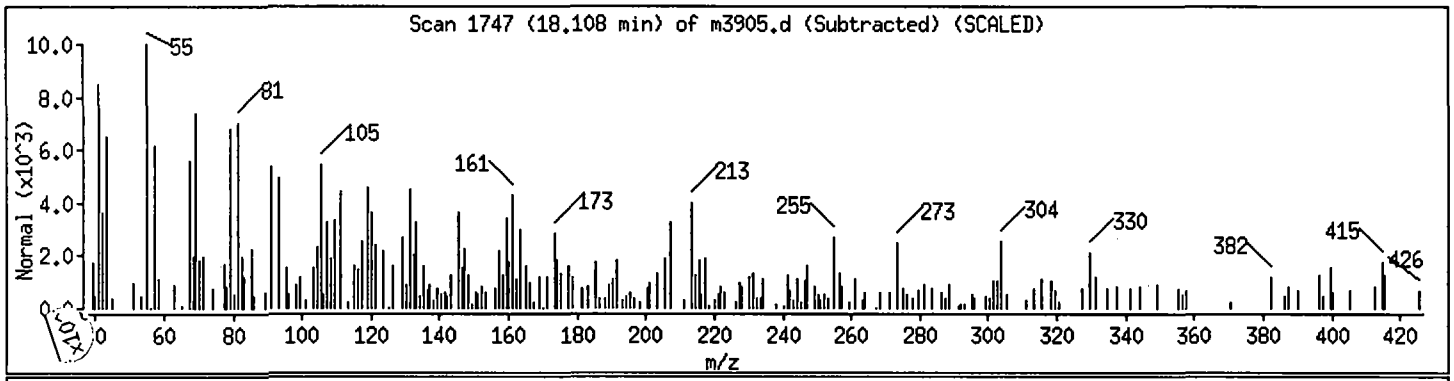


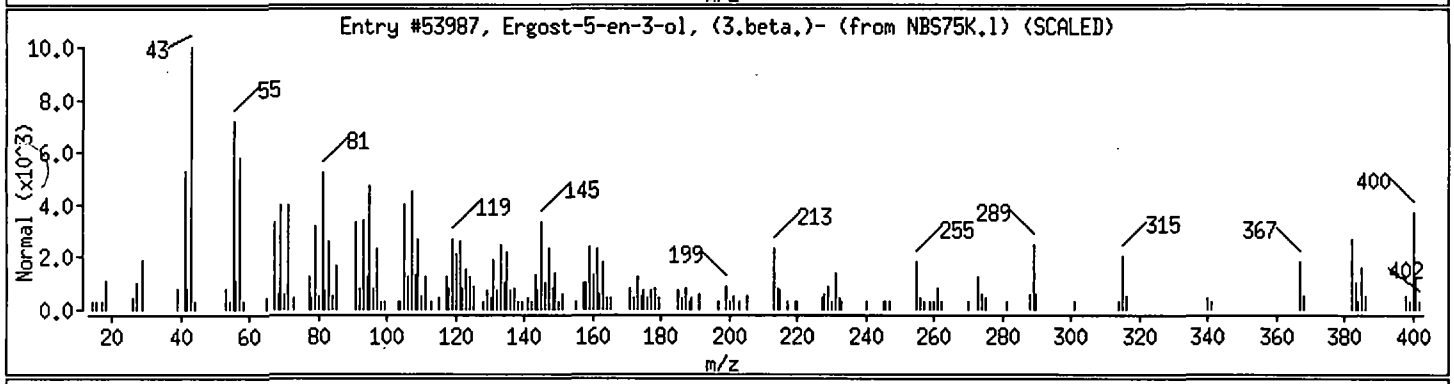
Data File: /chem/m.i/m961216b.b/m3905.d

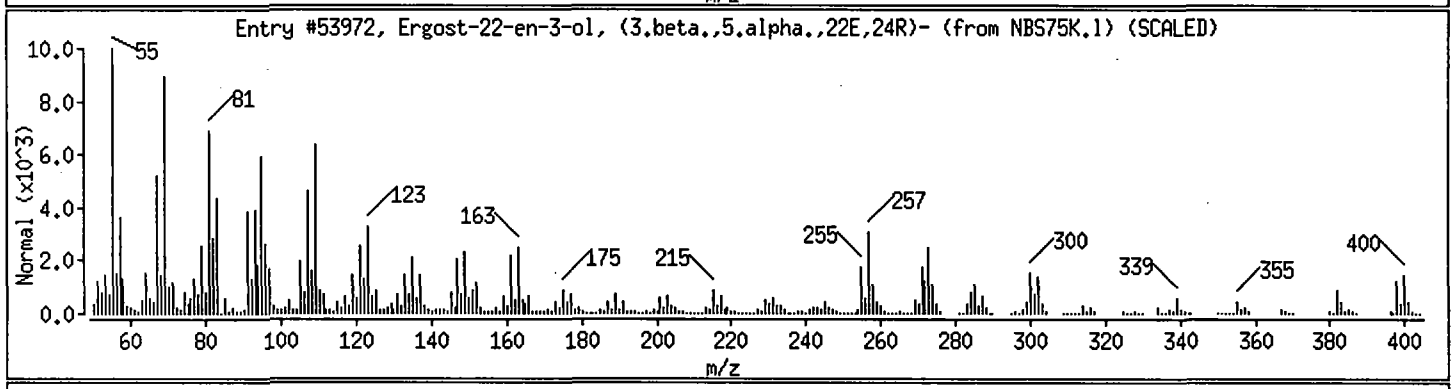
Date : 16-DEC-1996 21:23
Instrument : m.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

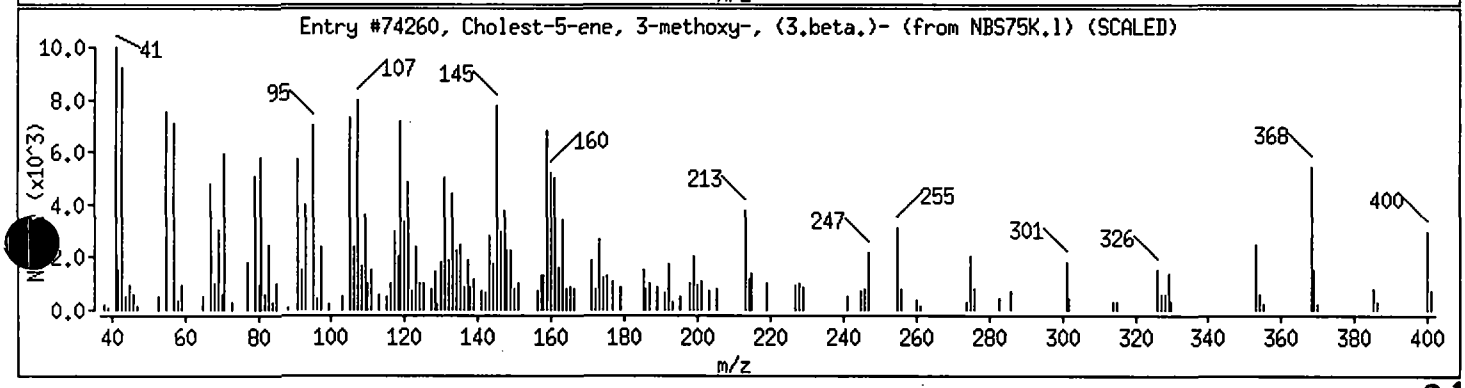
UNKNOWN

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Ergost-5-en-3-ol, (3.beta.)-	4651-51-8	NBS75K.l	53987	16
Ergost-22-en-3-ol, (3.beta.,5.alpha.,22E	36422-25-0	NBS75K.l	53972	15
Cholest-5-ene, 3-methoxy-, (3.beta.)-	1174-92-1	NBS75K.l	74260	12





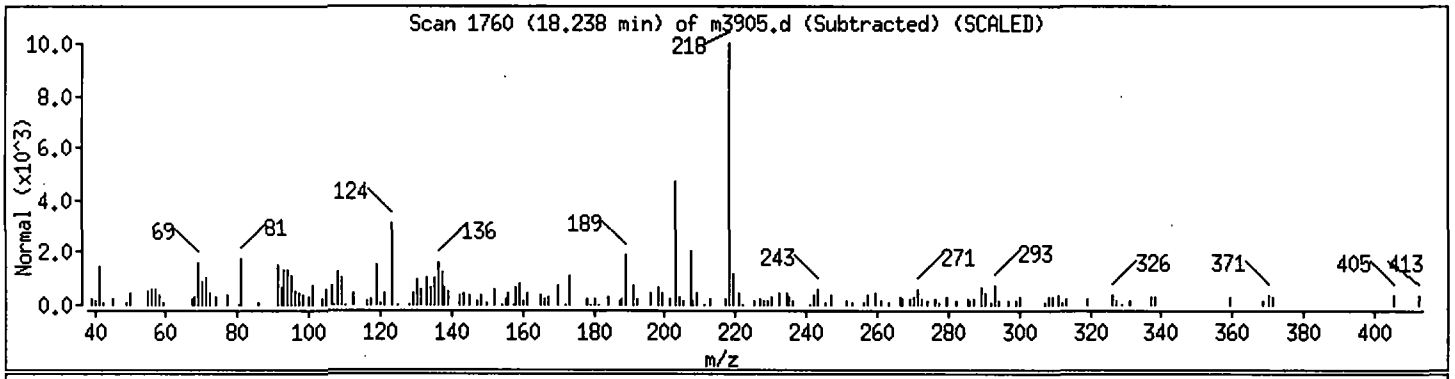


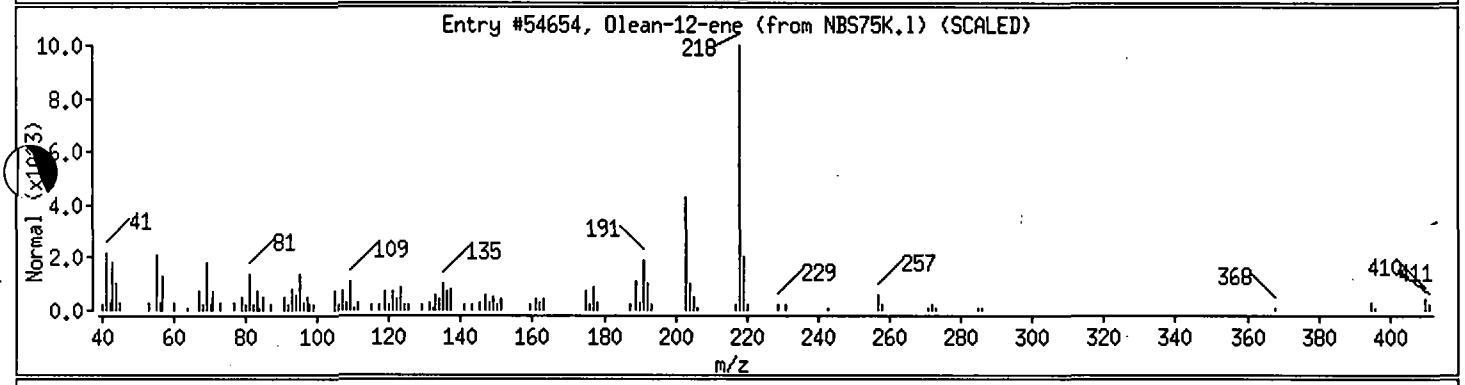


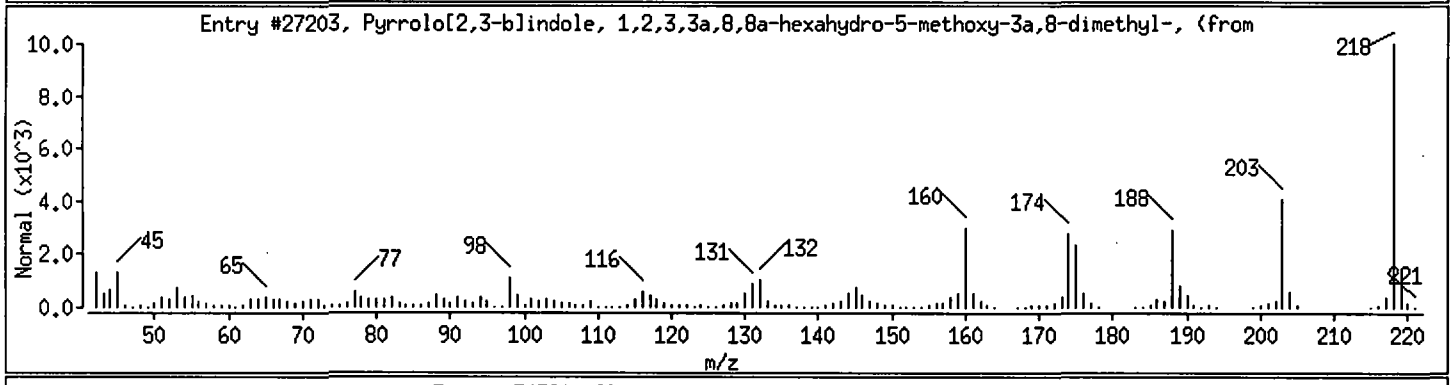
Data File: /chem/m.i/m961216b.b/m3905.d

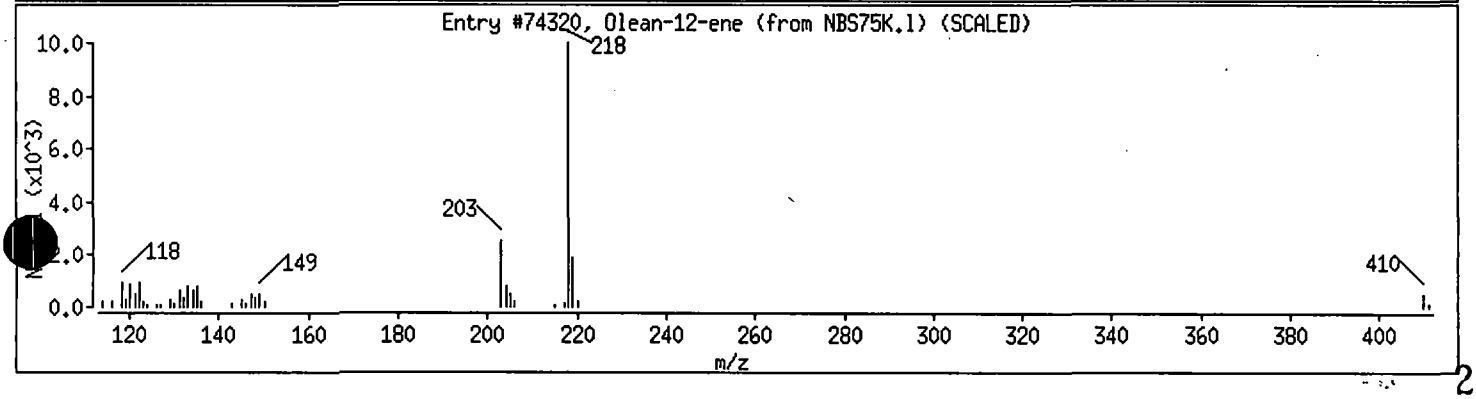
Date : 16-DEC-1996 21:23
Instrument : m.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Olean-12-ene	471-68-1	NBS75K.1	54654	40
Pyrrolo[2,3-b]indole, 1,2,3,3a,8,8a-hexa	0-00-0	NBS75K.1	27203	40
Olean-12-ene	471-68-1	NBS75K.1	74320	37









6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

I[illegible] Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: M Calibration Date(s): 12/16/96

Calibration Times: 1003 1216

LAB FILE ID: RRF20 =M3887.D RRF50 =M3885.D
RRF80 =M3889.D RRF120=M3888.D RRF160=M3886.D

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol *	1.616	1.680	1.489	1.669	1.484	1.588	6.0*
bis(2-Chloroethyl)Ether *	1.117	1.320	1.140	1.144	0.955	1.135	11.4*
2-Chlorophenol *	1.260	1.300	1.183	1.301	1.179	1.245	4.8*
1,3-Dichlorobenzene *	1.441	1.491	1.353	1.430	1.355	1.414	4.2*
1,4-Dichlorobenzene *	1.493	1.573	1.391	1.510	1.395	1.472	5.3*
1,2-Dichlorobenzene *	1.410	1.443	1.333	1.393	1.290	1.374	4.4*
2-Methylphenol *	1.095	1.176	1.066	1.216	1.058	1.122	6.2*
2,2'-oxybis(1-Chloropropane)	1.375	1.428	1.354	1.474	1.357	1.398	3.7
4-Methylphenol *	1.179	1.293	1.187	1.320	1.171	1.230	5.7*
N-Nitroso-di-n-propylamine *	0.844	0.873	0.831	0.936	0.856	0.868	4.7*
Hexachloroethane *	0.563	0.585	0.558	0.610	0.532	0.570	5.2*
Nitrobenzene *	0.422	0.537	0.476	0.460	0.442	0.467	9.3*
Isophorone *	0.627	0.759	0.629	0.616	0.609	0.648	9.6*
2-Nitrophenol *	0.191	0.254	0.214	0.222	0.224	0.221	10.1*
2,4-Dimethylphenol *	0.286	0.337	0.326	0.341	0.332	0.324	6.8*
bis(2-Chloroethoxy)methane *	0.410	0.433	0.428	0.421	0.402	0.419	3.0*
2,4-Dichlorophenol *	0.304	0.345	0.324	0.324	0.333	0.326	4.5*
1,2,4-Trichlorobenzene *	0.374	0.370	0.341	0.347	0.356	0.358	4.0*
Naphthalene *	1.105	1.145	1.082	1.018	1.010	1.072	5.3*
4-Chloroaniline	0.389	0.415	0.384	0.398	0.386	0.395	3.2
Hexachlorobutadiene	0.196	0.208	0.192	0.192	0.205	0.198	3.8
4-Chloro-3-Methylphenol *	0.292	0.344	0.329	0.327	0.337	0.326	6.1*
2-Methylnaphthalene *	0.674	0.710	0.667	0.664	0.693	0.682	2.8*
Hexachlorocyclopentadiene	0.217	0.236	0.299	0.317	0.307	0.275	16.4
2,4,6-Trichlorophenol *	0.345	0.365	0.365	0.365	0.355	0.359	2.4*
2,4,5-Trichlorophenol *		0.403	0.405	0.403	0.393	0.401	1.3*
2-Chloronaphthalene *	1.120	1.088	1.125	1.112	1.044	1.098	3.0*
2-Nitroaniline		0.291	0.323	0.335	0.296	0.311	6.7
Dimethylphthalate	1.324	1.347	1.313	1.316	1.277	1.316	1.9
Acenaphthylene *	1.730	1.702	1.768	1.759	1.673	1.726	2.3*
2,6-Dinitrotoluene *	0.228	0.270	0.283	0.302	0.295	0.275	10.6*
3-Nitroaniline		0.275	0.306	0.314	0.275	0.292	7.0
Acenaphthene *	1.222	1.157	1.185	1.167	1.100	1.166	3.8*
2,4-Dinitrophenol		0.146	0.131	0.175	0.181	0.158	14.9
4-Nitrophenol		0.195	0.192	0.220	0.204	0.203	6.0
Dibenzofuran *	1.683	1.673	1.511	1.597	1.560	1.605	4.5*
2,4-Dinitrotoluene *	0.337	0.416	0.376	0.414	0.428	0.394	9.4*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

I[illegible] Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: M Calibration Date(s): 12/16/96

Calibration Times: 1003 1216

LAB FILE ID: RRF20 =M3887.D RRF50 =M3885.D
RRF80 =M3889.D RRF120=M3888.D RRF160=M3886.D

COMPOUND		RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Diethylphthalate		1.400	1.365	1.264	1.391	1.309	1.346	4.3
4-Chlorophenyl-phenylether	*	0.650	0.673	0.569	0.623	0.612	0.626	6.3*
Fluorene	*	1.326	1.319	1.179	1.283	1.242	1.270	4.8*
4-Nitroaniline			0.378	0.342	0.358	0.347	0.356	4.4
4,6-Dinitro-2-methylphenol			0.138	0.133	0.144	0.150	0.141	5.3
N-Nitrosodiphenylamine (1)		0.541	0.528	0.524	0.545	0.517	0.531	2.2
4-Bromophenyl-phenylether	*	0.204	0.210	0.202	0.210	0.198	0.205	2.4*
Hexachlorobenzene	*	0.223	0.234	0.235	0.222	0.219	0.227	3.1*
Pentachlorophenol	*		0.155	0.150	0.156	0.153	0.153	1.7*
Phenanthrene	*	1.128	1.124	1.080	1.075	1.051	1.092	3.0*
Anthracene	*	1.042	1.053	1.012	0.933	1.012	1.010	4.6*
Carbazole		1.050	1.079	1.032	0.968	1.027	1.031	3.9
Di-n-butylphthalate		1.308	1.367	1.349	1.282	1.316	1.324	2.5
[illegible]luoranthene	*	1.123	1.237	1.142	1.075	1.154	1.146	5.1*
[illegible]rene	*	1.287	1.251	1.293	1.212	1.163	1.241	4.3*
Butylbenzylphthalate		0.613	0.669	0.672	0.665	0.669	0.658	3.7
3,3'-Dichlorobenzidine		0.355	0.312	0.402	0.391	0.388	0.369	9.9
Benzo(a)anthracene	*	1.212	1.253	1.150	1.178	1.179	1.194	3.3*
Chrysene	*	1.267	1.259	1.226	1.113	1.090	1.191	6.9*
bis(2-Ethylhexyl)phthalate		0.705	0.919	0.922	0.914	0.892	0.870	10.7
Di-n-octylphthalate		1.103	1.446	1.379	1.512	1.459	1.380	11.7
Benzo(b)fluoranthene	*	1.321	1.332	1.202	1.214	1.173	1.248	5.8*
Benzo(k)fluoranthene	*	1.302	1.440	1.236	1.246	1.219	1.289	6.9*
Benzo(a)pyrene	*	0.998	1.028	0.987	0.948	0.970	0.986	3.0*
Indeno(1,2,3-cd)pyrene	*	0.835	0.837	0.848	0.831	0.864	0.843	1.5*
Dibenz(a,h)anthracene	*	0.815	0.823	0.853	0.845	0.831	0.833	1.8*
Benzo(g,h,i)perylene	*	0.961	0.929	0.915	0.881	0.908	0.919	3.1*
Nitrobenzene-d5	*	0.332	0.409	0.338	0.326	0.325	0.346	10.3*
2-Fluorobiphenyl	*	1.223	1.217	1.221	1.226	1.142	1.206	2.9*
Terphenyl-d14	*	0.855	0.800	0.792	0.773	0.756	0.795	4.7*
Phenol-d5	*	1.531	1.527	1.364	1.475	1.403	1.460	5.1*
2-Fluorophenol	*	0.972	1.081	0.916	1.060	1.018	1.009	6.6*
2,4,6-Tribromophenol		0.096	0.109	0.108	0.114	0.108	0.107	6.1
2-Chlorophenol-d4	*	1.155	1.254	1.162	1.229	1.154	1.191	3.9*
1,2-Dichlorobenzene-d4	*	0.804	0.872	0.788	0.811	0.752	0.805	5.4*

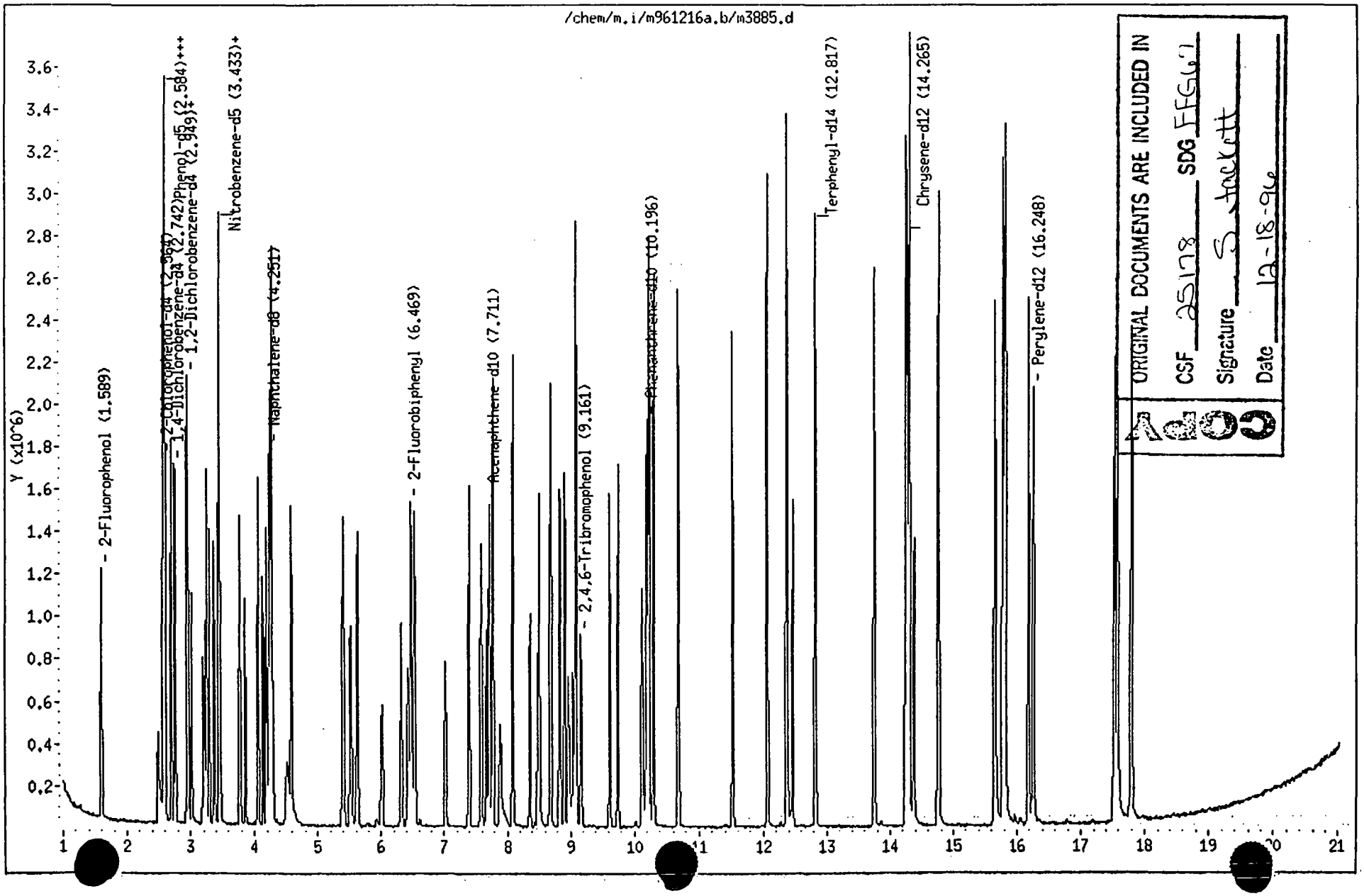
(1) - Cannot be separated from Diphenylamine
* Compounds with required minimum RRF and maximum %RSD values.
[illegible]ll other compounds must meet a minimum RRF of 0.010.

OPERATOR: Ann

216

Data File: /chem/m.i/m961216a.b/m3885.d
Date : 16-DEC-1996 10:03
Instrument : m.i
Sample ID : SSTD050MW
Column phase : XTI-5
Volume Injected (uL) : 2.0

Column diameter : 0.25



ORIGINAL DOCUMENTS ARE INCLUDED IN

CSF 25178 SDG FFG61

Signature S. Hackett

Date 12-18-96

Data File: /chem/m.i/m961216a.b/m3885.d
Report Date: 16-Dec-1996 12:50

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/m.i/m961216a.b/m3885.d
Lab. Id. : SSTD050MW Quant Type: ISTD
Inj Date : 16-DEC-1996 10:03
Operator : Annie Inst ID: m.i
Smp Info : SSTD050MW
Misc Info : MS517**INSTM*SSTD050MW*1-106-12*2UL*
Comment :
Method : /chem/m.i/m961216a.b/BNA517EPA.m
Meth Date : 16-Dec-1996 12:49 ann
Cal Date : 16-DEC-1996 10:03 Cal File: m3885.d
Als bottle: 99 Calibration Sample, Level: 2
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: WATER

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
$	1 2-Fluorophenol	112.00	1.589	(0.580)	358370	52.31	26.15
$	2 Phenol-d5	98.80	2.584	(0.942)	506456	51.44	25.72
	4 bis(2-Chloroethyl)Ether	93.00	2.584	(0.942)	437937	58.22	29.11
	3 Phenol	94.00	2.594	(0.946)	557011	52.08	26.04
	6 2-Chlorophenol	128.00	2.574	(0.939)	431058	51.57	25.78
	5 2-Chlorophenol-d4	132.00	2.564	(0.935)	416009	52.34	26.17
	7 1,3-Dichlorobenzene	146.00	2.693	(0.982)	494623	52.17	26.09
*	8 1,4-Dichlorobenzene-d4	152.00	2.742	(1.000)	265322	40.00	
	9 1,4-Dichlorobenzene	146.00	2.762	(1.007)	521695	52.69	26.34
$	10 1,2-Dichlorobenzene-d4	152.00	2.939	(1.072)	289347	53.86	26.93
	11 1,2-Dichlorobenzene	146.00	2.959	(1.079)	478630	52.13	26.06
	13 2,2'-oxybis(1-Chloropropane)	45.00	3.196	(1.165)	473544	50.68	25.34
	12 2-Methylphenol	108.00	3.245	(1.183)	390039	51.75	25.87
	16 Hexachloroethane	117.00	3.294	(1.201)	193857	51.05	25.52
	15 N-Nitroso-di-n-propylamine	70.00	3.364	(1.227)	289642	49.76	24.88
	14 4-Methylphenol	108.00	3.433	(1.252)	428782	52.09	26.04
$	17 Nitrobenzene-d5	82.00	3.433	(0.807)	439124	58.78	29.39
	18 Nitrobenzene	77.00	3.452	(0.812)	577042	57.73	28.86
	19 Isophorone	82.00	3.758	(0.884)	815265	58.15	29.07
	20 2-Nitrophenol	139.00	3.856	(0.907)	272593	56.96	28.48
	21 2,4-Dimethylphenol	107.00	4.053	(0.954)	361651	51.96	25.98
	22 bis(2-Chloroethoxy)methane	93.00	4.132	(0.972)	464928	51.96	25.98
	23 2,4-Dichlorophenol	162.00	4.182	(0.984)	370332	52.81	26.40
	24 1,2,4-Trichlorobenzene	180.00	4.231	(0.995)	397640	51.18	25.59
*	25 Naphthalene-d8	135.65	4.251	(1.000)	859014	40.00	
	26 Naphthalene	128.00	4.271	(1.005)	1229481	53.53	26.76
	27 4-Chloroaniline	127.00	4.508	(1.060)	445739	52.26	26.13
	28 Hexachlorobutadiene	224.80	4.577	(1.077)	223005	51.91	25.95
	29 4-Chloro-3-Methylphenol	107.00	5.522	(1.299)	369838	52.98	26.49
	30 2-Methylnaphthalene	142.00	5.394	(1.269)	762168	51.79	25.89
	31 Hexachlorocyclopentadiene	236.80	6.005	(0.779)	173903	43.82	21.91

Data File: /chem/m.i/m961216a.b/m3885.d
Report Date: 16-Dec-1996 12:50

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	32 2,4,6-Trichlorophenol	196.00	6.311	(0.818)	268904	51.04	25.52
	33 2,4,5-Trichlorophenol	196.00	6.419	(0.833)	296839	50.43	25.21
$	34 2-Fluorobiphenyl	172.00	6.469	(0.839)	896002	50.61	25.30
	35 2-Chloronaphthalene	162.00	6.529	(0.847)	801546	49.87	24.93
	36 2-Nitroaniline	65.00	7.021	(0.911)	214530	47.33	23.66(a)
	38 Acenaphthylene	152.00	7.385	(0.958)	1253511	49.59	24.79
	37 Dimethylphthalate	163.00	7.592	(0.985)	992341	51.18	25.59
	39 2,6-Dinitrotoluene	165.00	7.661	(0.994)	198544	49.25	24.62
*	40 Acenaphthene-d10	164.00	7.711	(1.000)	589211	40.00	
	42 Acenaphthene	153.00	7.770	(1.008)	852385	49.82	24.91
	41 3-Nitroaniline	138.00	7.888	(1.023)	202643	47.79	23.89(a)
	43 2,4-Dinitrophenol	184.00	8.085	(1.049)	107333	43.55	21.77(a)
	44 Dibenzofuran	168.00	8.085	(1.049)	1232161	51.37	25.68
	46 2,4-Dinitrotoluene	165.00	8.361	(1.084)	306062	52.10	26.05
	45 4-Nitrophenol	109.00	8.480	(1.100)	143588	47.27	23.63(a)
	48 Fluorene	166.00	8.687	(1.127)	971339	51.01	25.50
	49 4-Chlorophenyl-phenylether	204.00	8.835	(1.146)	495892	52.62	26.31
	47 Diethylphthalate	149.00	8.904	(1.155)	1005574	49.95	24.97
	50 4-Nitroaniline	138.00	8.973	(1.164)	278593	52.36	26.18
	51 4,6-Dinitro-2-methylphenol	198.00	9.042	(0.887)	185504	47.72	23.86(a)
	52 N-Nitrosodiphenylamine (1)	169.00	9.082	(0.891)	712400	49.56	24.78
$	53 2,4,6-Tribromophenol	329.80	9.161	(0.898)	147443	51.20	25.60
	54 4-Bromophenyl-phenylether	248.00	9.614	(0.943)	282757	50.99	25.49
	55 Hexachlorobenzene	283.80	9.743	(0.956)	315223	52.04	26.02
	56 Pentachlorophenol	265.80	10.117	(0.992)	208753	50.08	25.04
*	57 Phenanthrene-d10	187.65	10.196	(1.000)	1078826	40.00	
	58 Phenanthrene	178.00	10.226	(1.003)	1515829	51.35	25.67
	59 Anthracene	178.00	10.295	(1.010)	1420034	52.13	26.06
	60 Carbazole	167.00	10.669	(1.046)	1454886	52.33	26.16
	61 Di-n-butylphthalate	149.00	11.526	(1.130)	1843382	51.84	25.92
	62 Fluoranthene	202.00	12.067	(1.183)	1667830	53.90	26.95
	63 Pyrene	202.00	12.373	(0.867)	1808770	50.92	25.46
$	64 Terphenyl-d14	244.00	12.817	(0.898)	1156620	50.24	25.12
	65 Butylbenzylphthalate	149.00	13.752	(0.964)	967107	51.12	25.56
	66 Benzo(a)anthracene	228.00	14.245	(0.999)	1812207	51.98	25.99
*	67 Chrysene-d12	240.00	14.265	(1.000)	1156593	40.00	
	69 Chrysene	228.00	14.295	(1.002)	1819662	53.22	26.61
	68 3,3'-Dichlorobenzidine	252.00	14.374	(1.008)	451061	43.17	21.58
	70 bis(2-Ethylhexyl)phthalate	149.00	14.759	(1.035)	1329306	53.61	26.80
	71 Di-n-octylphthalate	149.00	15.645	(0.962)	2102542	52.37	26.18
	72 Benzo(b)fluoranthene	252.00	15.773	(0.970)	1937508	52.86	26.43
	73 Benzo(k)fluoranthene	252.00	15.813	(0.973)	2094296	55.30	27.65
	74 Benzo(a)pyrene	252.00	16.178	(0.995)	1495316	52.13	26.06
*	75 Perylene-d12	264.00	16.258	(1.000)	1163516	40.00	
	76 Indeno(1,2,3-cd)pyrene	276.00	17.519	(1.078)	1217136	49.69	24.84
	77 Dibenz(a,h)anthracene	278.00	17.578	(1.081)	1197343	49.67	24.83
	78 Benzo(g,h,i)perylene	276.00	17.786	(1.094)	1350695	50.48	25.24

Data File: /chem/m.i/m961216a.b/m3885.d
Report Date: 16-Dec-1996 12:50

Flag Legend

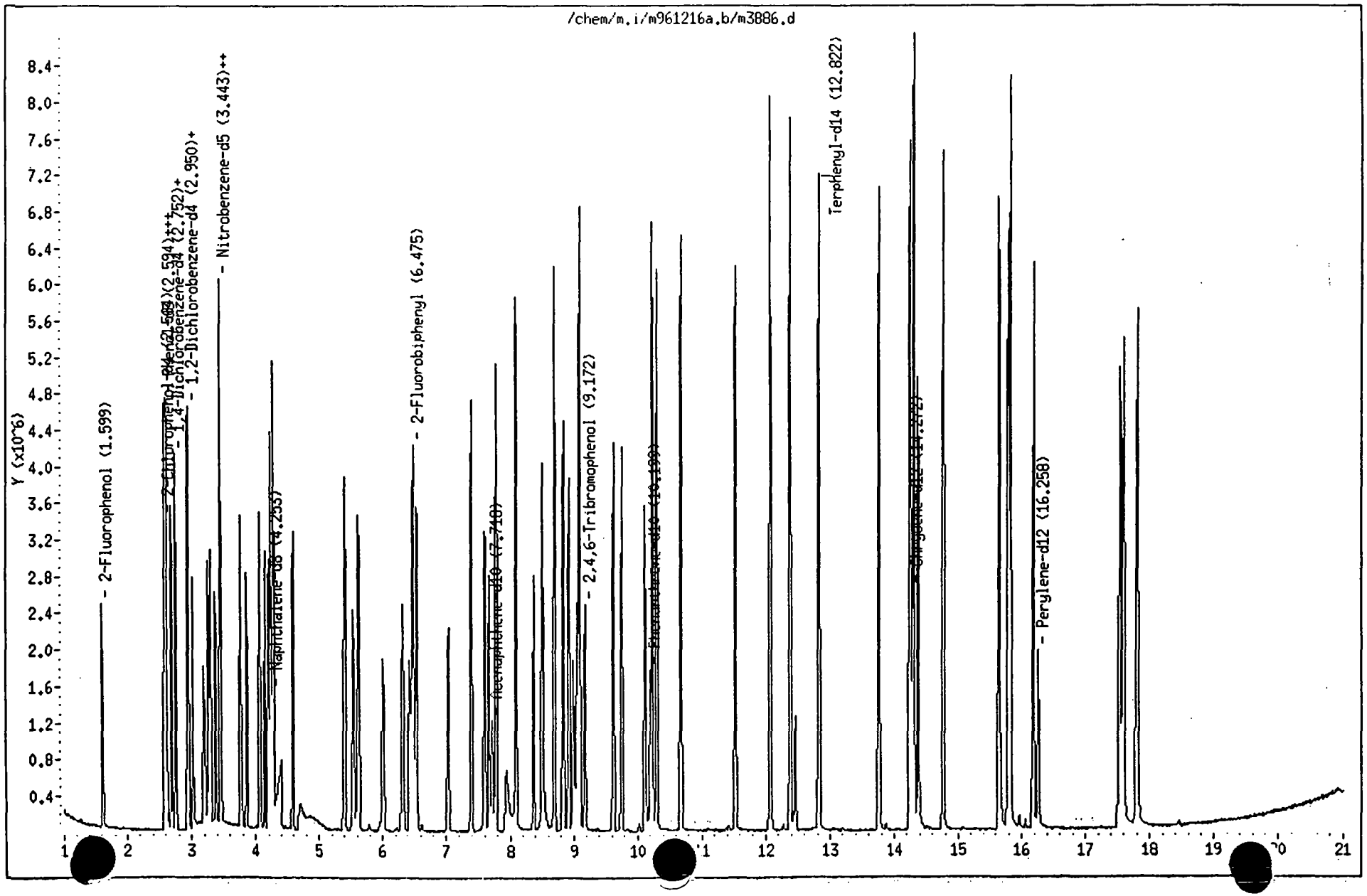
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

220

OPERATOR: Ann

Data File: /chem/m.i/m961216a.b/m3886.d
Date : 16-DEC-1996 10:41
Instrument : m.i
Sample ID : SSTD160MW
Column phase : XTI-5
Volume Injected (uL) : 2.0

Column diameter : 0.25



Data File: /chem/m.i/m961216a.b/m3886.d
Report Date: 16-Dec-1996 12:46

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/m.i/m961216a.b/m3886.d
Lab. Id. : SSTD160MW
Inj Date : 16-DEC-1996 10:41
Operator : Annie
Smp Info : SSTD160MW
Misc Info : MS517**INSTM*SSTD160MW*1-106-12*2UL*
Comment :
Method : /chem/m.i/m961216a.b/BNA517EPA.m
Meth Date : 16-Dec-1996 12:44
Cal Date : 16-DEC-96 10:03
Als bottle: 1
Dil Factor: 1.000
Integrator: HP RTE
Sample Type: WATER

Quant Type: ISTD
Inst ID: m.i
Cal File: m3885.d
Calibration Sample, Level: 5
Target Version: Target 3.00
Compound Sublist: all.sub

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
$	1 2-Fluorophenol	112.00	1.599	(0.583)	821872	202.03	101.01(A)
$	2 Phenol-d5	98.80	2.594	(0.946)	1132512	153.47	76.73
	4 bis(2-Chloroethyl)Ether	93.00	2.584	(0.942)	770391	136.43	68.21
	3 Phenol	94.00	2.604	(0.950)	1197934	151.19	75.59
	6 2-Chlorophenol	128.00	2.584	(0.942)	951819	150.12	75.06
	5 2-Chlorophenol-d4	132.00	2.564	(0.935)	931362	154.42	77.21
	7 1,3-Dichlorobenzene	146.00	2.683	(0.978)	1093270	152.87	76.43
*	8 1,4-Dichlorobenzene-d4	152.00	2.742	(1.000)	201765	40.00	
	9 1,4-Dichlorobenzene	146.00	2.752	(1.004)	1125449	152.79	76.39
$	10 1,2-Dichlorobenzene-d4	152.00	2.940	(1.072)	606739	148.77	74.38
	11 1,2-Dichlorobenzene	146.00	2.950	(1.076)	1041314	150.35	75.17
	13 2,2'-oxybis(1-Chloropropane)	45.00	3.196	(1.166)	1095189	154.26	77.13
	12 2-Methylphenol	108.00	3.256	(1.187)	854009	150.80	75.40
	16 Hexachloroethane	117.00	3.285	(1.198)	428974	148.95	74.47
	15 N-Nitroso-di-n-propylamine	70.00	3.364	(1.227)	690907	156.69	78.34
	14 4-Methylphenol	108.00	3.443	(1.256)	945258	151.70	75.85
$	17 Nitrobenzene-d5	82.00	3.434	(0.807)	936697	155.41	77.70
	18 Nitrobenzene	77.00	3.453	(0.812)	1275766	164.22	82.11(A)
	19 Isophorone	82.00	3.759	(0.884)	1757188	155.22	77.61
	20 2-Nitrophenol	139.00	3.848	(0.905)	646286	166.20	83.10(A)
	21 2,4-Dimethylphenol	107.00	4.056	(0.953)	957731	163.45	81.72(A)
	22 bis(2-Chloroethoxy)methane	93.00	4.135	(0.972)	1160171	153.18	76.59
	23 2,4-Dichlorophenol	162.00	4.194	(0.986)	960765	163.83	81.91(A)
	24 1,2,4-Trichlorobenzene	180.00	4.224	(0.993)	1026045	157.99	78.99
*	25 Naphthalene-d8	135.65	4.253	(1.000)	721409	40.00	
	26 Naphthalene	128.00	4.273	(1.005)	2914239	151.44	75.72
	27 4-Chloroaniline	127.00	4.688	(1.102)	1113823	342.64	171.32(AM)
	28 Hexachlorobutadiene	224.80	4.579	(1.077)	592397	164.16	82.08(A)
	29 4-Chloro-3-Methylphenol	107.00	5.527	(1.299)	972326	165.58	82.79(A)
	30 2-Methylnaphthalene	142.00	5.399	(1.269)	2000020	162.01	81.00(A)
	31 Hexachlorocyclopentadiene	236.80	6.001	(0.777)	639394	174.39	87.19(A)

12/16/96

Data File: /chem/m.i/m961216a.b/m3886.d
Report Date: 16-Dec-1996 12:46

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	32 2,4,6-Trichlorophenol	196.00	6.317	(0.818)	740440	157.02	78.51
	33 2,4,5-Trichlorophenol	196.00	6.425	(0.833)	818241	154.81	77.40
$	34 2-Fluorobiphenyl	172.00	6.475	(0.839)	2379676	148.50	74.25
	35 2-Chloronaphthalene	162.00	6.535	(0.847)	2174778	150.49	75.24
	36 2-Nitroaniline	65.00	7.028	(0.911)	617480	150.56	75.28
	38 Acenaphthylene	152.00	7.392	(0.958)	3484448	153.13	76.56
	37 Dimethylphthalate	163.00	7.599	(0.985)	2661483	153.28	76.64
	39 2,6-Dinitrotoluene	165.00	7.669	(0.994)	614913	171.06	85.53(A)
*	40 Acenaphthene-d10	164.00	7.718	(1.000)	520840	40.00	
	42 Acenaphthene	153.00	7.778	(1.008)	2291651	148.99	74.49
	41 3-Nitroaniline	138.00	7.945	(1.029)	572270	139.82	69.91
	43 2,4-Dinitrophenol	184.00	8.084	(1.047)	376498	184.10	92.05(A)
	44 Dibenzofuran	168.00	8.094	(1.049)	3249428	154.02	77.01
	46 2,4-Dinitrotoluene	165.00	8.368	(1.083)	891068	173.93	86.96(A)
	45 4-Nitrophenol	109.00	8.489	(1.100)	425159	160.37	80.18(A)
	48 Fluorene	166.00	8.697	(1.127)	2587606	154.73	77.36
	49 4-Chlorophenyl-phenylether	204.00	8.835	(1.145)	1275961	156.05	78.02
	47 Diethylphthalate	149.00	8.914	(1.155)	2727778	153.81	76.90
	50 4-Nitroaniline	138.00	8.993	(1.165)	723693	154.72	77.36
	51 4,6-Dinitro-2-methylphenol	198.00	9.053	(0.888)	562446	173.95	86.98(A)
	52 N-Nitrosodiphenylamine (1)	169.00	9.093	(0.892)	1932328	153.47	76.73
$	53 2,4,6-Tribromophenol	329.80	9.172	(0.899)	403466	156.75	78.37
	4-Bromophenyl-phenylether	248.00	9.616	(0.943)	741444	153.60	76.80
	Hexachlorobenzene	283.80	9.745	(0.955)	819517	152.55	76.27
	Pentachlorophenol	265.80	10.119	(0.992)	571859	154.28	77.14
*	57 Phenanthrene-d10	187.65	10.199	(1.000)	934626	40.00	
	58 Phenanthrene	178.00	10.229	(1.003)	3928267	154.26	77.13
	59 Anthracene	178.00	10.298	(1.010)	3784271	162.78	81.39(A)
	60 Carbazole	167.00	10.683	(1.047)	3838028	162.41	81.20(A)
	61 Di-n-butylphthalate	149.00	11.531	(1.131)	4918904	159.75	79.87
	62 Fluoranthene	202.00	12.073	(1.184)	4314138	163.57	81.78(A)
	63 Pyrene	202.00	12.378	(0.867)	4477969	147.51	73.75
$	64 Terphenyl-d14	244.00	12.822	(0.898)	2908737	147.98	73.99
	65 Butylbenzylphthalate	149.00	13.759	(0.964)	2575527	161.65	80.82(A)
	66 Benzo(a)anthracene	228.00	14.252	(0.999)	4538641	158.37	79.18
*	67 Chrysene-d12	240.00	14.272	(1.000)	962303	40.00	
	69 Chrysene	228.00	14.312	(1.003)	4197346	147.35	73.67
	68 3,3'-Dichlorobenzidine	252.00	14.371	(1.007)	1492390	156.59	78.29
	70 bis(2-Ethylhexyl)phthalate	149.00	14.757	(1.034)	3433349	161.27	80.63(A)
	71 Di-n-octylphthalate	149.00	15.644	(0.962)	5609609	169.41	84.70(A)
	72 Benzo(b)fluoranthene	252.00	15.783	(0.971)	4509408	150.00	75.00
	73 Benzo(k)fluoranthene	252.00	15.822	(0.973)	4687431	158.39	79.19
	74 Benzo(a)pyrene	252.00	16.188	(0.996)	3729571	158.11	79.05
*	75 Perylene-d12	264.00	16.258	(1.000)	960991	40.00	
	76 Indeno(1,2,3-cd)pyrene	276.00	17.531	(1.078)	3321569	155.99	77.99
	77 Dibenz(a,h)anthracene	278.00	17.591	(1.082)	3195225	153.70	76.85
	78 Benzo(g,h,i)perylene	276.00	17.799	(1.095)	3492036	151.94	75.97

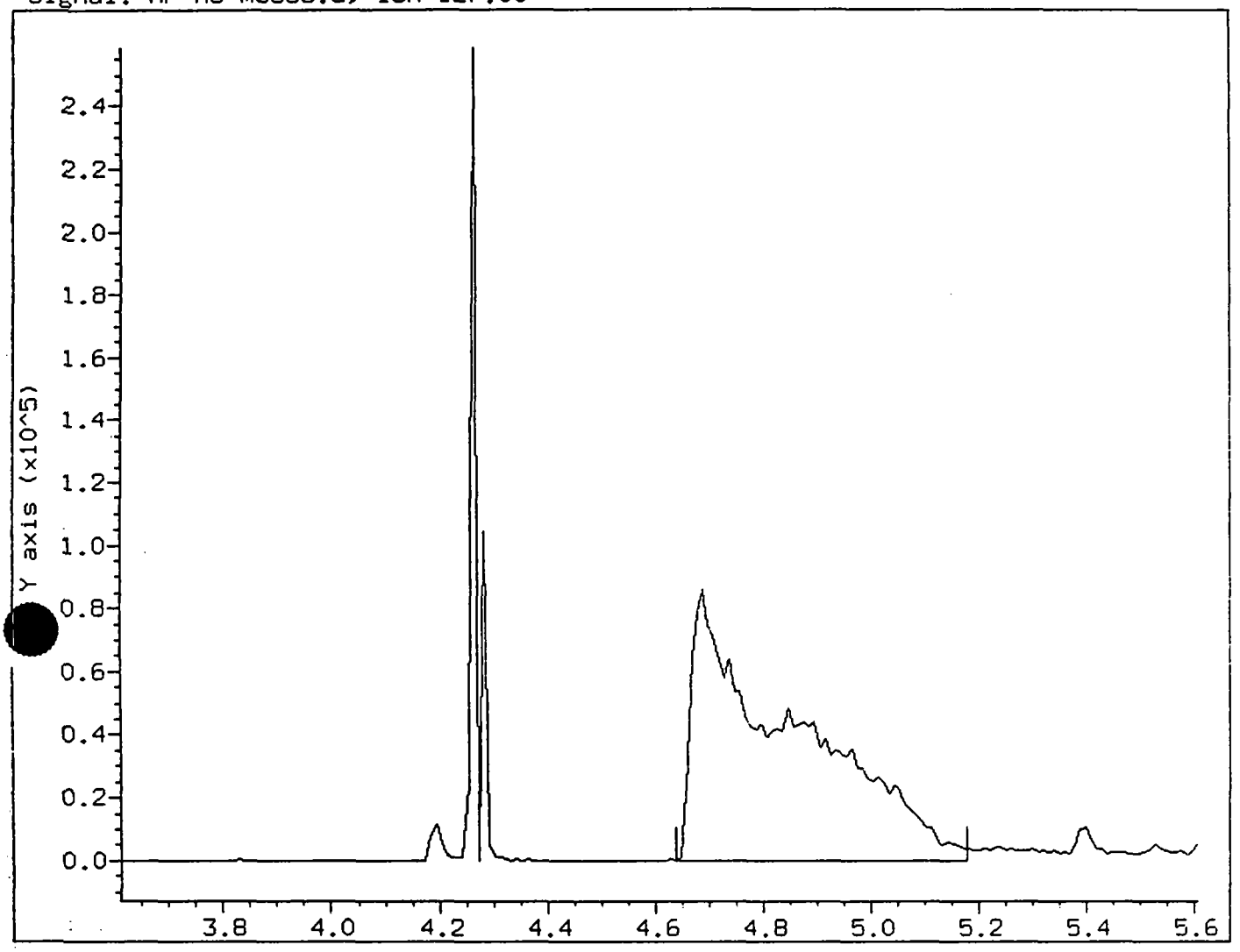
Data File: /chem/m.i/m961216a.b/m3886.d
Report Date: 16-Dec-1996 12:46

Flag Legend

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

Manual Integration

Client Sample ID: SSTD160MW
Injection Date: 16-DEC-96 10:41
Instrument: m.i
Compound: 4-Chloroaniline
Signal: HP MS m3886.d, Ion 127.00



OK 12/18/96

MANUAL INTEGRATION REPORT

LAB SAMPLE ID: SSTD160MW
SAMPLE ID. : SSTD160MW
FILENAME : /chem/m.i/m961216a.b/m3886.d
INST ID. : m.i
ANALYST : Annie
DATE INJECTED: 16-DEC-1996 10:41
COMPOUND : 4-Chloroaniline
ION: 127 AREA: 1113823 CONCENTRATION: 78.27
INTEGRATION SCAN RANGE: 392 - 447

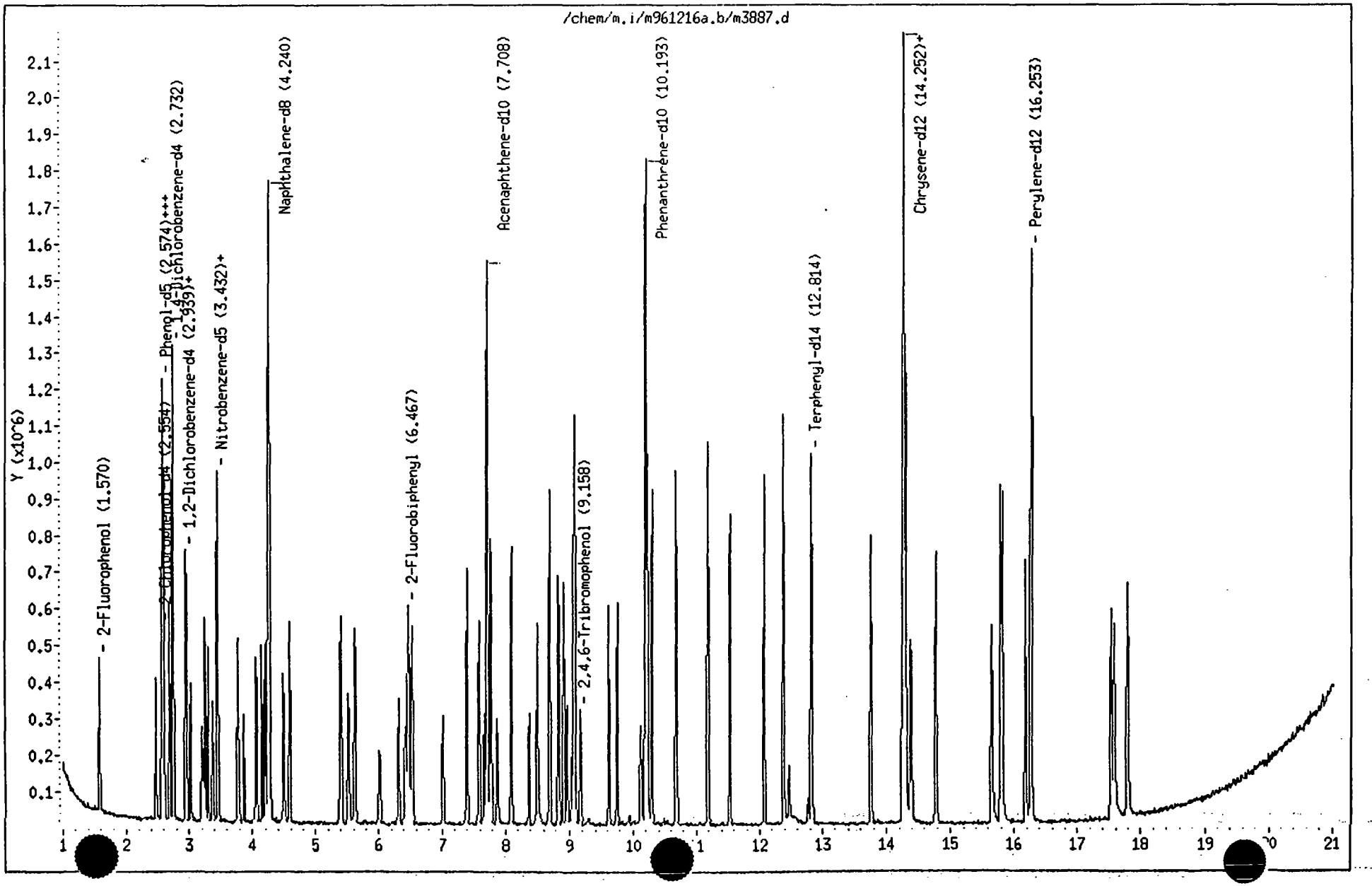
OPERATOR: Ann

Report Generated: 12/16/96 at 12:57 by _____

Data File: /chem/m.i/m961216a.b/m3887.d
Date : 16-DEC-1996 11:16
Instrument : m.i
Sample ID : SSTD020MW
Column phase : XTI-5
Volume Injected (uL) : 2.0

OPERATOR: AMR

Column diameter : 0.25



Data File: /chem/m.i/m961216a.b/m3887.d
Report Date: 16-Dec-1996 12:47

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/m.i/m961216a.b/m3887.d
Lab. Id. : SSTD020MW
Inj Date : 16-DEC-1996 11:16
Operator : Annie
Smp Info : SSTD020MW
Misc Info : MS517**INSTM*SSTD020MW*1-106-12*2UL*
Comment :
Method : /chem/m.i/m961216a.b/BNA517EPA.m
Meth Date : 16-Dec-1996 12:44
Cal Date : 16-DEC-96 10:03
Als bottle: 2
Dil Factor: 1.000
Integrator: HP RTE
Sample Type: WATER

Quant Type: ISTD
Inst ID: m.i
Cal File: m3885.d
Calibration Sample, Level: 1
Target Version: Target 3.00
Compound Sublist: all.sub

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
$ 1 2-Fluorophenol	112.00	1.570	(0.575)	112359	19.48	9.74(a)
$ 2 Phenol-d5	98.80	2.574	(0.942)	177044	20.93	10.46
4 bis(2-Chloroethyl)Ether	93.00	2.574	(0.942)	129120	19.95	9.97(a)
5 Phenol	94.00	2.584	(0.946)	186824	20.57	10.28
2-Chlorophenol	128.00	2.564	(0.939)	145696	20.04	10.02
6 2-Chlorophenol-d4	132.00	2.554	(0.935)	133584	19.32	9.66(a)
7 1,3-Dichlorobenzene	146.00	2.683	(0.982)	166570	20.32	10.16
* 8 1,4-Dichlorobenzene-d4	152.00	2.732	(1.000)	231249	40.00	
9 1,4-Dichlorobenzene	146.00	2.752	(1.007)	172659	20.45	10.22
$ 10 1,2-Dichlorobenzene-d4	152.00	2.939	(1.076)	92994	19.89	9.94(a)
11 1,2-Dichlorobenzene	146.00	2.949	(1.079)	163016	20.53	10.26
13 2,2'-oxybis(1-Chloropropane)	45.00	3.195	(1.170)	159015	19.54	9.77(a)
12 2-Methylphenol	108.00	3.235	(1.184)	126568	19.50	9.75(a)
16 Hexachloroethane	117.00	3.284	(1.202)	65139	19.73	9.86(a)
15 N-Nitroso-di-n-propylamine	70.00	3.363	(1.231)	97623	19.31	9.65(a)
14 4-Methylphenol	108.00	3.432	(1.256)	136321	19.08	9.54(a)
$ 17 Nitrobenzene-d5	82.00	3.432	(0.809)	140240	19.84	9.92(a)
18 Nitrobenzene	77.00	3.452	(0.814)	178587	19.60	9.80(a)
19 Isophorone	82.00	3.757	(0.886)	265092	19.97	9.98(a)
20 2-Nitrophenol	139.00	3.856	(0.909)	80811	17.72	8.86(a)
21 2,4-Dimethylphenol	107.00	4.043	(0.953)	121039	17.62	8.81(a)
22 bis(2-Chloroethoxy)methane	93.00	4.131	(0.974)	173453	19.53	9.76(a)
23 2,4-Dichlorophenol	162.00	4.181	(0.986)	128651	18.71	9.35(a)
24 1,2,4-Trichlorobenzene	180.00	4.220	(0.995)	158260	20.78	10.39
* 25 Naphthalene-d8	135.65	4.240	(1.000)	845772	40.00	
26 Naphthalene	128.00	4.260	(1.005)	467225	20.71	10.35
27 4-Chloroaniline	127.00	4.467	(0.000)	164535	30.28	15.14(M)
28 Hexachlorobutadiene	224.80	4.575	(1.079)	82688	19.54	9.77(a)
29 4-Chloro-3-Methylphenol	107.00	5.511	(1.300)	123582	17.95	8.97(a)
30 2-Methylnaphthalene	142.00	5.393	(1.272)	285035	19.69	9.84(a)
31 Hexachlorocyclopentadiene	236.80	5.994	(0.778)	59657	15.44	7.72(a)

Data File: /chem/m.i/m961216a.b/m3887.d
Report Date: 16-Dec-1996 12:47

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	32 2,4,6-Trichlorophenol	196.00	6.299	(0.817)	94729	19.06	9.53(a)
	33 2,4,5-Trichlorophenol	196.00	6.418	(0.833)	104007	18.67	9.33(a)
$	34 2-Fluorobiphenyl	172.00	6.467	(0.839)	335609	19.87	9.93(a)
	35 2-Chloronaphthalene	162.00	6.517	(0.845)	307307	20.18	10.09
	36 2-Nitroaniline	65.00	7.009	(0.909)	72008	16.66	8.33(a)
	38 Acenaphthylene	152.00	7.383	(0.958)	474717	19.79	9.90(a)
	37 Dimethylphthalate	163.00	7.580	(0.983)	363409	19.86	9.93(a)
	39 2,6-Dinitrotoluene	165.00	7.659	(0.994)	62531	16.50	8.25(a)
*	40 Acenaphthene-d10	164.00	7.708	(1.000)	548802	40.00	
	42 Acenaphthene	153.00	7.758	(1.006)	335186	20.68	10.34
	41 3-Nitroaniline	138.00	7.866	(1.020)	72927	16.91	8.45(a)
	43 2,4-Dinitrophenol	184.00	8.083	(1.049)	15331	7.11	3.55(a)
	44 Dibenzofuran	168.00	8.083	(1.049)	461865	20.77	10.38
	46 2,4-Dinitrotoluene	165.00	8.359	(1.084)	92575	17.15	8.57(a)
	45 4-Nitrophenol	109.00	8.477	(1.100)	45166	16.16	8.08(a)
	48 Fluorene	166.00	8.684	(1.127)	363931	20.65	10.32
	49 4-Chlorophenyl-phenylether	204.00	8.822	(1.145)	178418	20.71	10.35
	47 Diethylphthalate	149.00	8.901	(1.155)	384298	20.56	10.28
	50 4-Nitroaniline	138.00	8.961	(1.162)	91427	18.55	9.27(aH)
	51 4,6-Dinitro-2-methylphenol	198.00	9.030	(0.886)	43070	12.59	6.29(a)
	52 N-Nitrosodiphenylamine (1)	169.00	9.079	(0.891)	267622	20.09	10.04
$	53 2,4,6-Tribromophenol	329.80	9.158	(0.898)	47482	17.43	8.71(a)
	4-Bromophenyl-phenylether	248.00	9.611	(0.943)	101077	19.79	9.89(a)
	Hexachlorobenzene	283.80	9.739	(0.956)	110250	19.39	9.70(a)
	56 Pentachlorophenol	265.80	10.114	(0.992)	49535	12.63	6.31(a)
*	57 Phenanthrene-d10	187.65	10.193	(1.000)	988744	40.00	
	58 Phenanthrene	178.00	10.223	(1.003)	557516	20.69	10.34
	59 Anthracene	178.00	10.292	(1.010)	514982	20.94	10.47
	60 Carbazole	167.00	10.666	(1.046)	518952	20.75	10.37
	61 Di-n-butylphthalate	149.00	11.523	(1.131)	646466	19.84	9.92(a)
	62 Fluoranthene	202.00	12.065	(1.184)	555107	19.89	9.94(a)
	63 Pyrene	202.00	12.370	(0.867)	591966	20.40	10.20
$	64 Terphenyl-d14	244.00	12.814	(0.898)	393409	20.93	10.47
	65 Butylbenzylphthalate	149.00	13.749	(0.964)	282157	18.52	9.26(a)
	66 Benzo(a)anthracene	228.00	14.242	(0.999)	557461	20.35	10.17
*	67 Chrysene-d12	240.00	14.262	(1.000)	919848	40.00	
	69 Chrysene	228.00	14.292	(1.002)	582603	21.39	10.69
	68 3,3'-Dichlorobenzidine	252.00	14.371	(1.008)	163222	17.91	8.95(a)
	70 bis(2-Ethylhexyl)phthalate	149.00	14.755	(1.035)	324249	15.93	7.96(a)
	71 Di-n-octylphthalate	149.00	15.641	(0.962)	465780	16.01	8.00(a)
	72 Benzo(b)fluoranthene	252.00	15.770	(0.970)	557424	21.10	10.55
	73 Benzo(k)fluoranthene	252.00	15.799	(0.972)	549602	21.14	10.57
	74 Benzo(a)pyrene	252.00	16.174	(0.995)	421268	20.33	10.16
*	75 Perylene-d12	264.00	16.253	(1.000)	844192	40.00	
	76 Indeno(1,2,3-cd)pyrene	276.00	17.514	(1.078)	352638	18.85	9.42(a)
	77 Dibenz(a,h)anthracene	278.00	17.573	(1.081)	344155	18.84	9.42(a)
	78 Benzo(g,h,i)perylene	276.00	17.780	(1.094)	405567	20.08	10.04

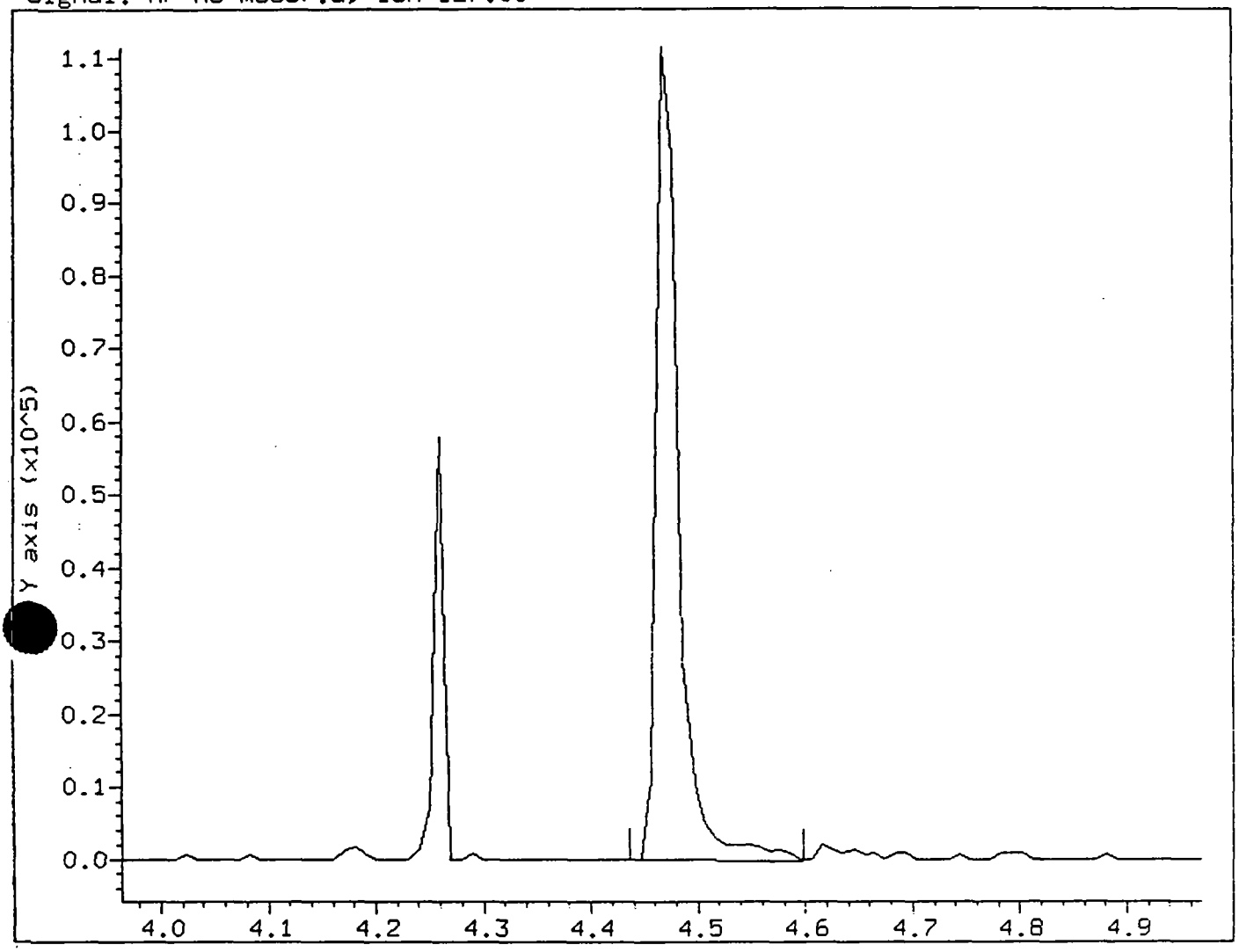
Data File: /chem/m.i/m961216a.b/m3887.d
Report Date: 16-Dec-1996 12:47

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.

Manual Integration

ient Sample ID: SSTD020MW
jection Date: 16-DEC-96 11:16
strument: m.i
Compound: 4-Chloroaniline
Signal: HP MS m3887.d, Ion 127.00



OK 12/18/96

MANUAL INTEGRATION REPORT

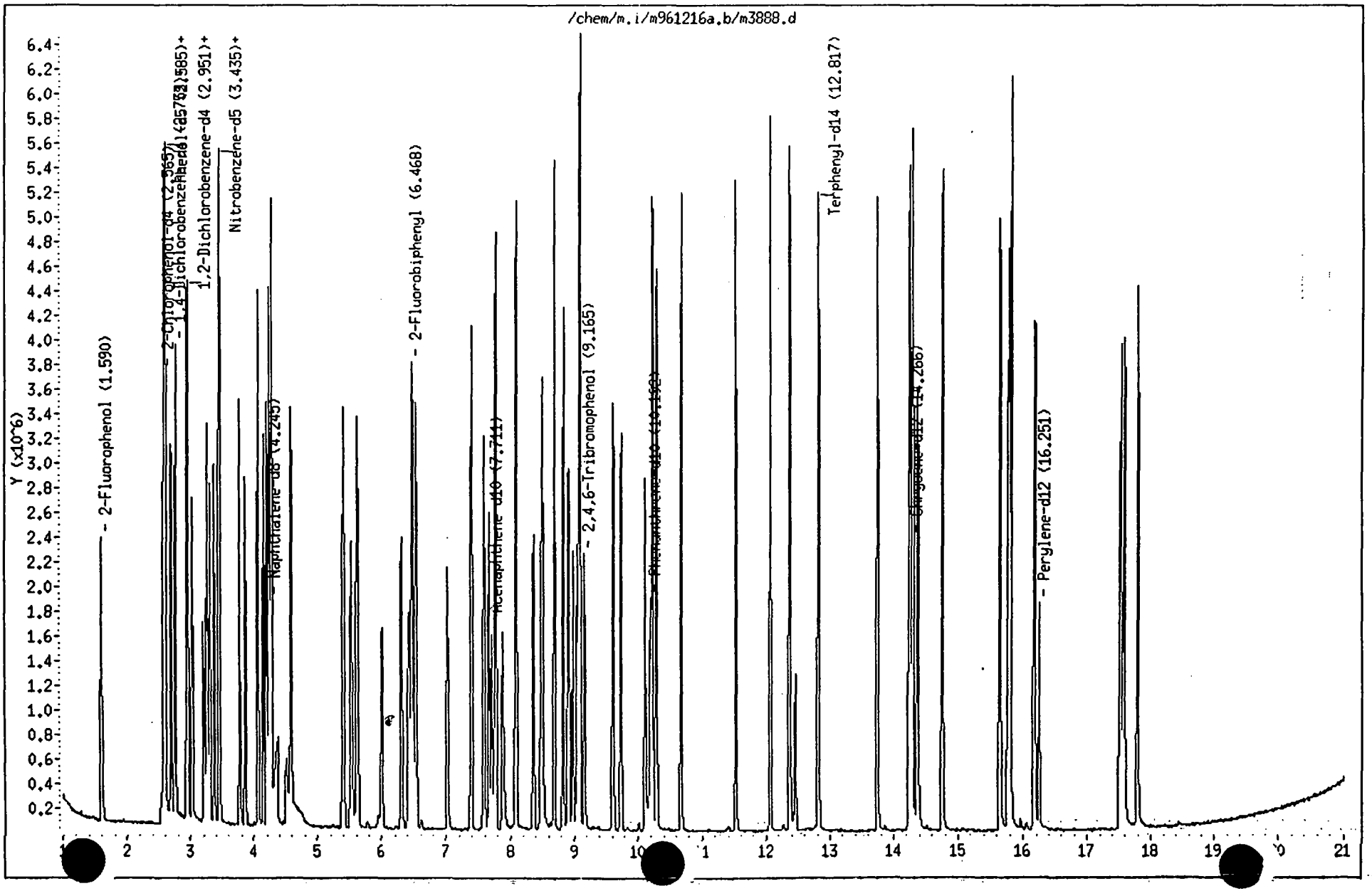
LAB SAMPLE ID: SSTD020MW
SAMPLE ID. : SSTD020MW
FILENAME : /chem/m.i/m961216a.b/m3887.d
INST ID. : m.i
ANALYST : Annie
DATE INJECTED: 16-DEC-1996 11:16
COMPOUND : 4-Chloroaniline
ION: 127 AREA: 164535 CONCENTRATION: 9.86
INTEGRATION SCAN RANGE: 372 - 388

OPERATOR: Ann

Report Generated: 12/16/96 at 12:57 by _____

Data File: /chem/m.i/m961216a.b/m3888.d
Date : 16-DEC-1996 11:46
Instrument : m.i
Sample ID : SSTD120MW
Column phase : XTI-5
Volume Injected (uL) : 2.0

Column diameter : 0.25



Data File: /chem/m.i/m961216a.b/m3888.d
Report Date: 16-Dec-1996 12:48

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/m.i/m961216a.b/m3888.d
Lab. Id. : SSTD120MW
Inj Date : 16-DEC-1996 11:46
Operator : Annie
Smp Info : SSTD120MW
Misc Info : MS517**INSTM*SSTD120MW*1-106-12*2UL*
Comment :
Method : /chem/m.i/m961216a.b/BNA517EPA.m
Meth Date : 16-Dec-1996 12:44
Cal Date : 16-DEC-96 10:03
Als bottle: 3
Dil Factor: 1.000
Integrator: HP RTE
Sample Type: WATER

Quant Type: ISTD
Inst ID: m.i
Cal File: m3885.d
Calibration Sample, Level: 4
Target Version: Target 3.00
Compound Sublist: all.sub

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
$ 1 2-Fluorophenol	112.00	1.590	(0.580)	737900	127.56	63.78
$ 2 Phenol-d5	98.80	2.595	(0.946)	1026719	120.99	60.49
4 bis(2-Chloroethyl)Ether	93.00	2.585	(0.942)	796235	122.61	61.30
3 Phenol	94.00	2.605	(0.950)	1161973	127.52	63.76
2-Chlorophenol	128.00	2.575	(0.939)	905586	124.19	62.09
2-Chlorophenol-d4	132.00	2.565	(0.935)	855211	123.30	61.65
7 1,3-Dichlorobenzene	146.00	2.694	(0.982)	995259	121.01	60.50
* 8 1,4-Dichlorobenzene-d4	152.00	2.743	(1.000)	232030	40.00	
9 1,4-Dichlorobenzene	146.00	2.755	(1.004)	1050890	124.06	62.03
$ 10 1,2-Dichlorobenzene-d4	152.00	2.941	(1.072)	564277	120.31	60.15
11 1,2-Dichlorobenzene	146.00	2.951	(1.076)	969576	121.73	60.86
13 2,2'-oxybis(1-Chloropropane)	45.00	3.198	(1.166)	1026077	125.67	62.83
12 2-Methylphenol	108.00	3.247	(1.184)	846268	129.94	64.97
16 Hexachloroethane	117.00	3.287	(1.198)	424833	128.27	64.13
15 N-Nitroso-di-n-propylamine	70.00	3.366	(1.227)	651606	128.50	64.25
14 4-Methylphenol	108.00	3.445	(1.256)	918876	128.23	64.11
$ 17 Nitrobenzene-d5	82.00	3.435	(0.809)	895874	117.14	58.57
18 Nitrobenzene	77.00	3.455	(0.814)	1262717	128.09	64.04
19 Isophorone	82.00	3.761	(0.886)	1691717	117.76	58.88
20 2-Nitrophenol	139.00	3.850	(0.907)	610781	123.78	61.89
21 2,4-Dimethylphenol	107.00	4.057	(0.956)	937313	126.06	63.03
22 bis(2-Chloroethoxy)methane	93.00	4.138	(0.974)	1156530	120.33	60.16
23 2,4-Dichlorophenol	162.00	4.185	(0.986)	889901	119.59	59.79
24 1,2,4-Trichlorobenzene	180.00	4.225	(0.995)	952347	115.56	57.78
* 25 Naphthalene-d8	135.65	4.245	(1.000)	915419	40.00	
26 Naphthalene	128.00	4.275	(1.007)	2796141	114.51	57.25
27 4-Chloroaniline	127.00	4.502	(1.084)	1093657	147.06	73.53(M)
28 Hexachlorobutadiene	224.80	4.571	(1.077)	525997	114.87	57.43
29 4-Chloro-3-Methylphenol	107.00	5.519	(1.300)	896899	120.36	60.18
30 2-Methylnaphthalene	142.00	5.400	(1.272)	1823583	116.41	58.20
31 Hexachlorocyclopentadiene	236.80	6.003	(0.778)	542731	135.18	67.59

Data File: /chem/m.i/m961216a.b/m3888.d
Report Date: 16-Dec-1996 12:48

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	32 2,4,6-Trichlorophenol	196.00	6.309	(0.818)	623981	120.84	60.42
	33 2,4,5-Trichlorophenol	196.00	6.408	(0.831)	689514	119.13	59.56
$	34 2-Fluorobiphenyl	172.00	6.468	(0.839)	2096934	119.50	59.75
	35 2-Chloronaphthalene	162.00	6.527	(0.846)	1902797	120.25	60.12
	36 2-Nitroaniline	65.00	7.020	(0.910)	573833	127.78	63.89
	38 Acenaphthylene	152.00	7.385	(0.958)	3009792	120.79	60.39
	37 Dimethylphthalate	163.00	7.592	(0.985)	2251073	118.39	59.19
	39 2,6-Dinitrotoluene	165.00	7.661	(0.994)	516585	131.23	65.61
*	40 Acenaphthene-d10	164.00	7.711	(1.000)	570330	40.00	
	42 Acenaphthene	153.00	7.770	(1.008)	1997048	118.57	59.28
	41 3-Nitroaniline	138.00	7.879	(1.022)	536807	119.77	59.88
	43 2,4-Dinitrophenol	184.00	8.077	(1.047)	300115	134.02	67.01
	44 Dibenzofuran	168.00	8.087	(1.049)	2732462	118.27	59.13
	46 2,4-Dinitrotoluene	165.00	8.363	(1.085)	709184	126.41	63.20
	45 4-Nitrophenol	109.00	8.482	(1.100)	375707	129.42	64.71
	48 Fluorene	166.00	8.690	(1.127)	2195635	119.90	59.95
	49 4-Chlorophenyl-phenylether	204.00	8.828	(1.145)	1065813	119.04	59.52
	47 Diethylphthalate	149.00	8.917	(1.156)	2380227	122.57	61.28
	50 4-Nitroaniline	138.00	8.986	(1.165)	612418	119.56	59.78
	51 4,6-Dinitro-2-methylphenol	198.00	9.046	(0.887)	422602	125.21	62.60
	52 N-Nitrosodiphenylamine (1)	169.00	9.085	(0.891)	1595160	121.37	60.68
$	53 2,4,6-Tribromophenol	329.80	9.165	(0.899)	333027	123.95	61.97
	54 4-Bromophenyl-phenylether	248.00	9.609	(0.943)	614178	121.89	60.94
	[illegible] Hexachlorobenzene	283.80	9.748	(0.956)	650604	116.02	58.01
	[illegible] Pentachlorophenol	265.80	10.113	(0.992)	456202	117.90	58.95
*	57 Phenanthrene-d10	187.65	10.192	(1.000)	975613	40.00	
	58 Phenanthrene	178.00	10.232	(1.004)	3147564	118.41	59.20
	59 Anthracene	178.00	10.302	(1.011)	2730053	112.50	56.25
	60 Carbazole	167.00	10.677	(1.048)	2832746	114.83	57.41
	61 Di-n-butylphthalate	149.00	11.524	(1.131)	3753649	116.78	58.39
	62 Fluoranthene	202.00	12.066	(1.184)	3146362	114.28	57.14
	63 Pyrene	202.00	12.372	(0.867)	3354756	115.24	57.62
$	64 Terphenyl-d14	244.00	12.817	(0.898)	2140994	113.58	56.79
	65 Butylbenzylphthalate	149.00	13.753	(0.964)	1841822	120.55	60.27
	66 Benzo(a)anthracene	228.00	14.246	(0.999)	3259832	118.61	59.30
*	67 Chrysene-d12	240.00	14.266	(1.000)	922799	40.00	
	69 Chrysene	228.00	14.306	(1.003)	3082437	112.84	56.42
	68 3,3'-Dichlorobenzidine	252.00	14.366	(1.007)	1081628	118.35	59.17
	70 bis(2-Ethylhexyl)phthalate	149.00	14.761	(1.035)	2529016	123.88	61.94
	71 Di-n-octylphthalate	149.00	15.638	(0.962)	4106655	131.61	65.80
	72 Benzo(b)fluoranthene	252.00	15.786	(0.971)	3298821	116.45	58.22
	73 Benzo(k)fluoranthene	252.00	15.816	(0.973)	3385250	120.77	60.38(H)
	74 Benzo(a)pyrene	252.00	16.182	(0.996)	2575291	115.86	57.93
*	75 Perylene-d12	264.00	16.251	(1.000)	905536	40.00	
	76 Indeno(1,2,3-cd)pyrene	276.00	17.523	(1.078)	2258777	112.57	56.28
	77 Dibenz(a,h)anthracene	278.00	17.583	(1.082)	2295059	117.16	58.58
	78 Benzo(g,h,i)perylene	276.00	17.791	(1.095)	2392890	110.49	55.24

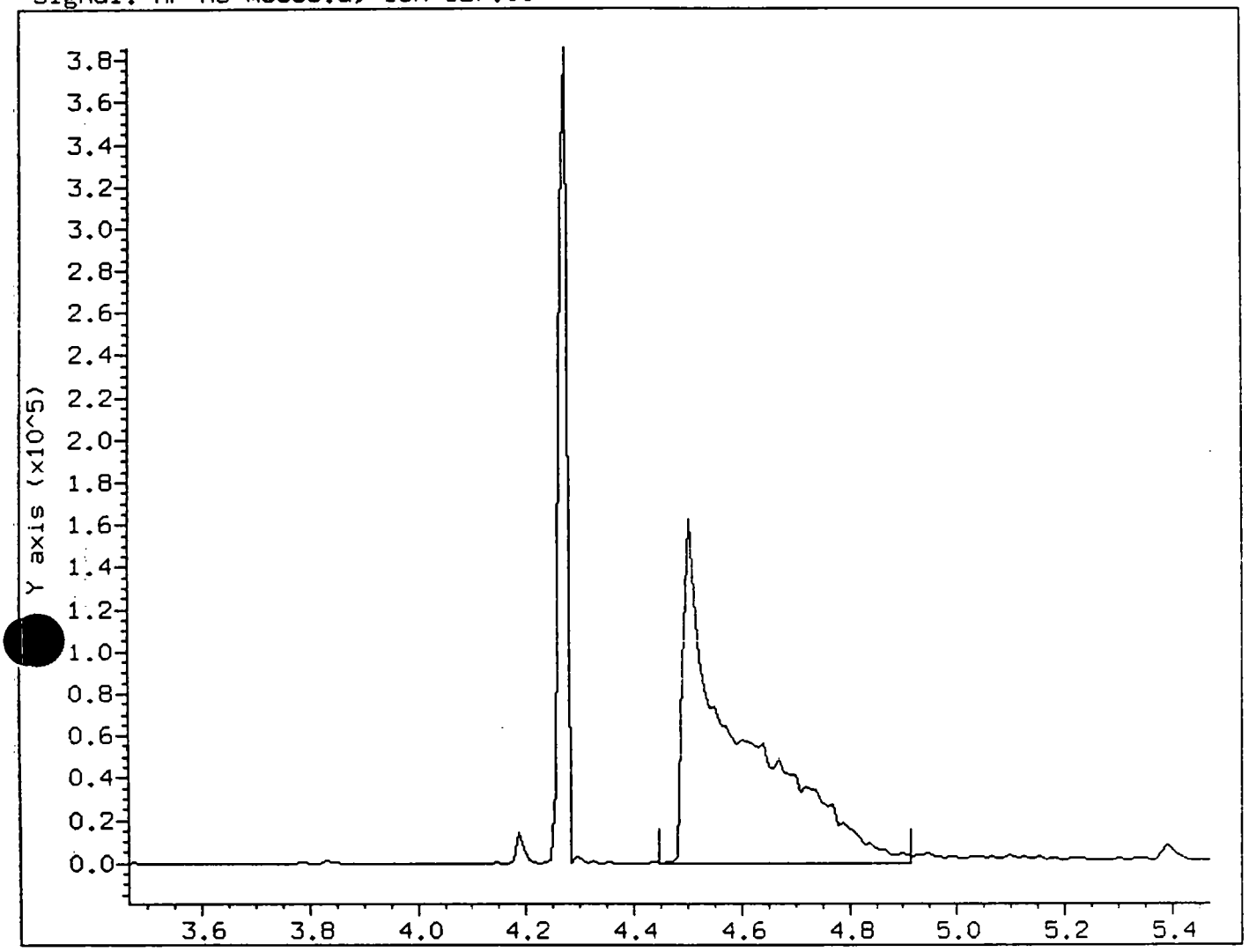
Data File: /chem/m.i/m961216a.b/m3888.d
Report Date: 16-Dec-1996 12:48

QC Flag Legend

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

Manual Integration

Client Sample ID: SSTD120MW
Injection Date: 16-DEC-96 11:46
Instrument: m.i
Compound: 4-Chloroaniline
Signal: HP MS m3888.d, Ion 127.00



12/16/96
OK 12/18/96

MANUAL INTEGRATION REPORT

LAB SAMPLE ID: SSTD120MW
SAMPLE ID. : SSTD120MW
FILENAME : /chem/m.i/m961216a.b/m3888.d
INST ID. : m.i
ANALYST : Annie
DATE INJECTED: 16-DEC-1996 11:46
COMPOUND : 4-Chloroaniline
ION: 127 AREA: 1093657 CONCENTRATION: 60.56
INTEGRATION SCAN RANGE: 372 - 420

OPERATOR: Ann

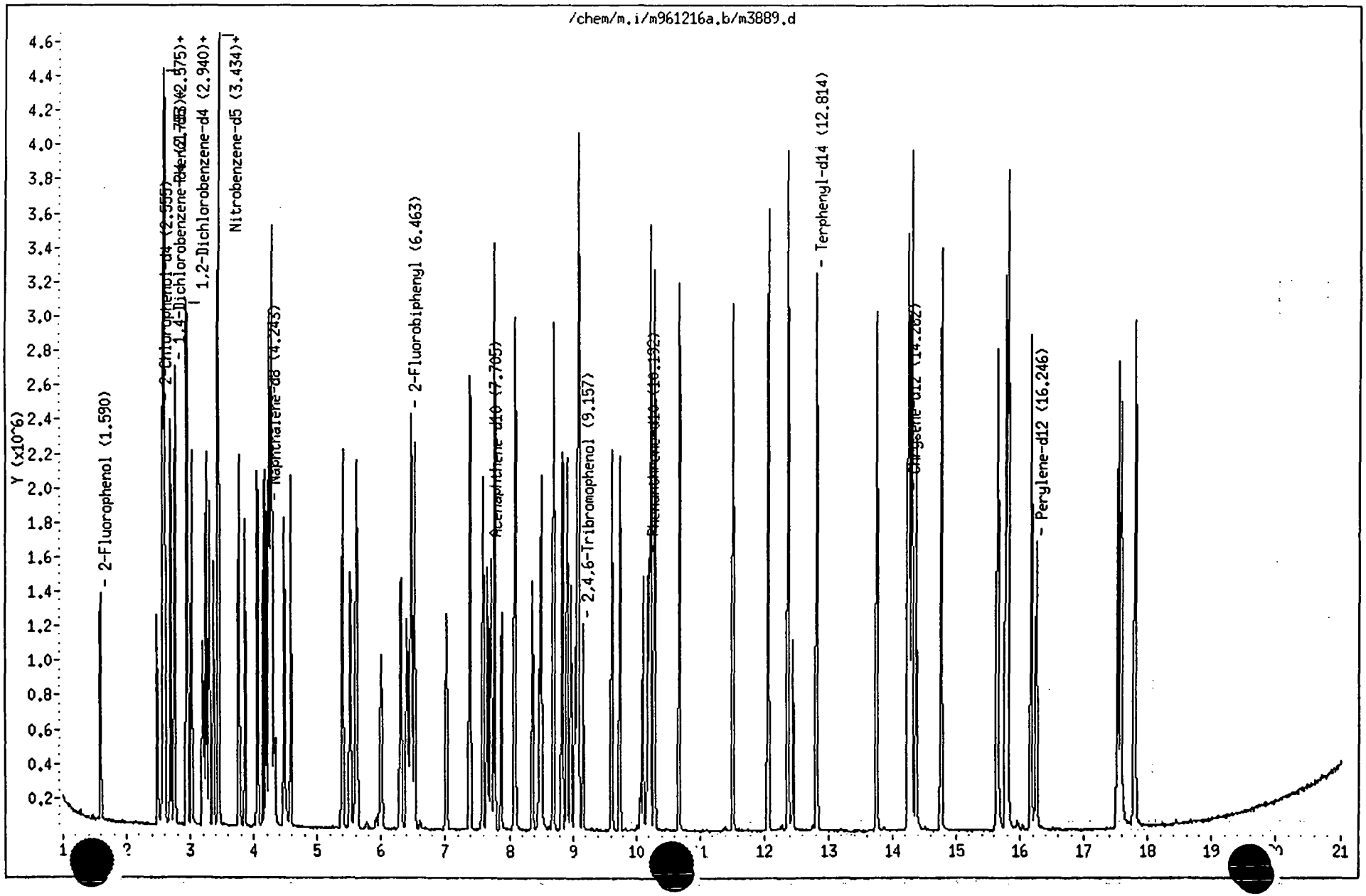
Report Generated: 12/16/96 at 12:57 by _____

OPERATOR: Ann

238

Data File: /chem/m.i/m961216a.b/m3889.d
Date : 16-DEC-1996 12:16
Instrument : m.i
Sample ID : SSTD080MW
Column phase : XTI-5
Volume Injected (uL) : 2.0

Column diameter : 0.25



Data File: /chem/m.i/m961216a.b/m3889.d
Report Date: 16-Dec-1996 12:49

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/m.i/m961216a.b/m3889.d
Lab. Id. : SSTD080MW
Inj Date : 16-DEC-1996 12:16
Operator : Annie
Smp Info : SSTD080MW
Misc Info : MS517**INSTM*SSTD080MW*1-106-12*2UL*
Comment :
Method : /chem/m.i/m961216a.b/BNA517EPA.m
Meth Date : 16-Dec-1996 12:44
Cal Date : 16-DEC-96 10:03
Als bottle: 4
Dil Factor: 1.000
Integrator: HP RTE
Sample Type: WATER

Quant Type: ISTD
Inst ID: m.i
Cal File: m3885.d
Calibration Sample, Level: 3
Target Version: Target 3.00
Compound Sublist: all.sub

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
$	1 2-Fluorophenol	112.00	1.590	(0.580)	465989	73.45	36.72
$	2 Phenol-d5	98.80	2.585	(0.942)	694366	74.60	37.30
	4 bis(2-Chloroethyl)Ether	93.00	2.575	(0.939)	580223	81.46	40.73
	3 Phenol	94.00	2.595	(0.946)	757881	75.84	37.92
	6 2-Chlorophenol	128.00	2.575	(0.939)	602043	75.28	37.64
	5 2-Chlorophenol-d4	132.00	2.555	(0.932)	591233	77.72	38.86
	7 1,3-Dichlorobenzene	146.00	2.684	(0.978)	688415	76.32	38.16
*	8 1,4-Dichlorobenzene-d4	152.00	2.743	(1.000)	254479	40.00	
	9 1,4-Dichlorobenzene	146.00	2.753	(1.004)	708211	76.23	38.11
$	10 1,2-Dichlorobenzene-d4	152.00	2.940	(1.072)	401137	77.98	38.99
	11 1,2-Dichlorobenzene	146.00	2.950	(1.076)	678555	77.68	38.84
	13 2,2'-oxybis(1-Chloropropane)	45.00	3.197	(1.165)	689166	76.96	38.48
	12 2-Methylphenol	108.00	3.246	(1.184)	542665	75.97	37.98
	16 Hexachloroethane	117.00	3.286	(1.198)	283894	78.15	39.07
	15 N-Nitroso-di-n-propylamine	70.00	3.365	(1.227)	422943	76.05	38.02
	14 4-Methylphenol	108.00	3.434	(1.252)	604074	76.86	38.43
$	17 Nitrobenzene-d5	82.00	3.434	(0.809)	597731	80.89	40.44
	18 Nitrobenzene	77.00	3.454	(0.814)	841777	88.38	44.19
	19 Isophorone	82.00	3.759	(0.886)	1112543	80.16	40.08
	20 2-Nitrophenol	139.00	3.848	(0.907)	378923	79.48	39.74
	21 2,4-Dimethylphenol	107.00	4.045	(0.953)	576774	80.29	40.14
	22 bis(2-Chloroethoxy)methane	93.00	4.134	(0.974)	757930	81.62	40.81
	23 2,4-Dichlorophenol	162.00	4.174	(0.984)	572806	79.67	39.83
	24 1,2,4-Trichlorobenzene	180.00	4.223	(0.995)	603598	75.81	37.90
*	25 Naphthalene-d8	135.65	4.243	(1.000)	884439	40.00	
	26 Naphthalene	128.00	4.263	(1.005)	1913277	81.10	40.55
	27 4-Chloroaniline	127.00	4.470	(1.054)	679414	76.60	38.30(H)
	28 Hexachlorobutadiene	224.80	4.569	(1.077)	338950	76.61	38.30
	29 4-Chloro-3-Methylphenol	107.00	5.506	(1.298)	581760	80.80	40.40
	30 2-Methylnaphthalene	142.00	5.397	(1.272)	1179510	77.93	38.96
	31 Hexachlorocyclopentadiene	236.80	5.999	(0.779)	324987	85.05	42.52

Data File: /chem/m.i/m961216a.b/m3889.d
Report Date: 16-Dec-1996 12:49

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	32 2,4,6-Trichlorophenol	196.00	6.304	(0.818)	396498	80.68	40.34
	33 2,4,5-Trichlorophenol	196.00	6.403	(0.831)	439424	79.77	39.88
$	34 2-Fluorobiphenyl	172.00	6.463	(0.839)	1325799	79.38	39.69
	35 2-Chloronaphthalene	162.00	6.522	(0.846)	1221541	81.11	40.55
	36 2-Nitroaniline	65.00	7.005	(0.909)	350207	81.94	40.97
	38 Acenaphthylene	152.00	7.380	(0.958)	1919168	80.92	40.46
	37 Dimethylphthalate	163.00	7.587	(0.985)	1425158	78.76	39.38
	39 2,6-Dinitrotoluene	165.00	7.656	(0.994)	306693	81.86	40.93
*	40 Acenaphthene-d10	164.00	7.705	(1.000)	542802	40.00	
	42 Acenaphthene	153.00	7.765	(1.008)	1286815	80.28	40.14
	41 3-Nitroaniline	138.00	7.873	(1.022)	332627	77.98	38.99
	43 2,4-Dinitrophenol	184.00	8.070	(1.047)	142629	66.92	33.46
	44 Dibenzofuran	168.00	8.080	(1.049)	1640053	74.59	37.29
	46 2,4-Dinitrotoluene	165.00	8.356	(1.084)	408436	76.49	38.25
	45 4-Nitrophenol	109.00	8.465	(1.099)	208628	75.51	37.75
	48 Fluorene	166.00	8.692	(1.128)	1279388	73.40	36.70
	49 4-Chlorophenyl-phenylether	204.00	8.830	(1.146)	617779	72.50	36.25
	47 Diethylphthalate	149.00	8.909	(1.156)	1372318	74.25	37.12
	50 4-Nitroaniline	138.00	8.969	(1.164)	371571	76.22	38.11
	51 4,6-Dinitro-2-methylphenol	198.00	9.038	(0.887)	232711	77.10	38.55
	52 N-Nitrosodiphenylamine (1)	169.00	9.087	(0.892)	914130	77.77	38.88
$	53 2,4,6-Tribromophenol	329.80	9.167	(0.899)	188486	78.44	39.22
	[illegible] 4-Bromophenyl-phenylether	248.00	9.610	(0.943)	353072	78.35	39.17
	[illegible] Hexachlorobenzene	283.80	9.738	(0.955)	409547	81.66	40.83
	[illegible]6 Pentachlorophenol	265.80	10.113	(0.992)	261445	75.55	37.77
*	57 Phenanthrene-d10	187.65	10.192	(1.000)	872498	40.00	
	58 Phenanthrene	178.00	10.222	(1.003)	1884952	79.29	39.64
	59 Anthracene	178.00	10.292	(1.010)	1766438	81.39	40.69
	60 Carbazole	167.00	10.666	(1.046)	1799993	81.59	40.79
	61 Di-n-butylphthalate	149.00	11.523	(1.131)	2354449	81.90	40.95
	62 Fluoranthene	202.00	12.065	(1.184)	1992548	80.92	40.46
	63 Pyrene	202.00	12.370	(0.867)	2094016	81.96	40.98
$	64 Terphenyl-d14	244.00	12.814	(0.898)	1282006	77.50	38.75
	65 Butylbenzylphthalate	149.00	13.750	(0.964)	1087826	81.13	40.56
	66 Benzo(a)anthracene	228.00	14.242	(0.999)	1862468	77.22	38.61
*	67 Chrysene-d12	240.00	14.262	(1.000)	809829	40.00	
	69 Chrysene	228.00	14.292	(1.002)	1985977	82.84	41.42
	68 3,3'-Dichlorobenzidine	252.00	14.362	(1.007)	651176	81.19	40.59
	70 bis(2-Ethylhexyl)phthalate	149.00	14.756	(1.035)	1493054	83.33	41.67
	71 Di-n-octylphthalate	149.00	15.643	(0.963)	2379010	80.04	40.02
	72 Benzo(b)fluoranthene	252.00	15.771	(0.971)	2073865	76.85	38.42
	73 Benzo(k)fluoranthene	252.00	15.811	(0.973)	2133070	79.44	39.72(H)
	74 Benzo(a)pyrene	252.00	16.176	(0.996)	1703069	80.43	40.21
*	75 Perylene-d12	264.00	16.246	(1.000)	862609	40.00	
	76 Indeno(1,2,3-cd)pyrene	276.00	17.517	(1.078)	1463628	76.57	38.28
	77 Dibenz(a,h)anthracene	278.00	17.577	(1.082)	1470922	78.82	39.41
	78 Benzo(g,h,i)perylene	276.00	17.784	(1.095)	1577859	76.48	38.24

Data File: /chem/m.i/m961216a.b/m3889.d
Report Date: 16-Dec-1996 12:49

QC Flag Legend

H - Operator selected an alternate compound hit.

6B
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

I[illegible] Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: P Calibration Date(s): 12/08/96

Calibration Times: 1549 1825

LAB FILE ID: RRF20 =P10244.D RRF50 =P10242.D
RRF80 =P10246.D RRF120=P10245.D RRF160=P10243.D

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol *	1.620	1.568	1.394	1.375	1.341	1.460	8.6*
bis(2-Chloroethyl)Ether *	1.279	1.287	1.079	1.081	1.066	1.158	9.8*
2-Chlorophenol *	1.325	1.314	1.184	1.169	1.128	1.224	7.3*
1,3-Dichlorobenzene *	1.547	1.515	1.457	1.419	1.359	1.460	5.1*
1,4-Dichlorobenzene *	1.509	1.498	1.446	1.424	1.388	1.453	3.4*
1,2-Dichlorobenzene *	1.371	1.360	1.243	1.230	1.234	1.287	5.5*
2-Methylphenol *	1.196	1.179	1.051	0.985	0.974	1.077	9.8*
2,2'-oxybis(1-Chloropropane)	1.093	1.040	0.866	0.824	0.796	0.924	14.4
4-Methylphenol *	1.241	1.231	1.100	1.106	1.066	1.149	7.0*
N-Nitroso-di-n-propylamine *	0.782	0.776	0.708	0.691	0.640	0.720	8.3*
Hexachloroethane *	0.708	0.683	0.632	0.612	0.571	0.641	8.5*
Nitrobenzene *	0.438	0.419	0.409	0.401	0.389	0.411	4.4*
Isophorone *	0.835	0.805	0.778	0.767	0.761	0.789	3.9*
[illegible]-Nitrophenol *	0.233	0.237	0.227	0.230	0.224	0.230	2.1*
[illegible]4-Dimethylphenol *	0.370	0.386	0.375	0.382	0.372	0.377	1.8*
bis(2-Chloroethoxy)methane *	0.490	0.472	0.435	0.431	0.427	0.451	6.2*
2,4-Dichlorophenol *	0.330	0.328	0.323	0.330	0.335	0.329	1.2*
1,2,4-Trichlorobenzene *	0.358	0.363	0.355	0.358	0.352	0.357	1.0*
Naphthalene *	1.115	1.111	1.074	1.099	1.088	1.098	1.5*
4-Chloroaniline	0.465	0.453	0.451	0.451	0.447	0.453	1.4
Hexachlorobutadiene	0.213	0.225	0.238	0.244	0.242	0.232	5.6
4-Chloro-3-Methylphenol *	0.402	0.401	0.401	0.398	0.398	0.400	0.4*
2-Methylnaphthalene *	0.760	0.768	0.762	0.782	0.771	0.769	1.1*
Hexachlorocyclopentadiene	0.339	0.388	0.383	0.413	0.431	0.391	8.9
2,4,6-Trichlorophenol *	0.382	0.412	0.378	0.387	0.390	0.390	3.3*
2,4,5-Trichlorophenol *		0.439	0.418	0.426	0.431	0.428	1.9*
2-Chloronaphthalene *	1.168	1.186	1.083	1.094	1.090	1.124	4.3*
2-Nitroaniline		0.413	0.383	0.379	0.373	0.387	4.5
Dimethylphthalate	1.541	1.541	1.414	1.417	1.404	1.463	4.8
Acenaphthylene *	1.954	1.946	1.765	1.777	1.762	1.841	5.4*
2,6-Dinitrotoluene *	0.324	0.320	0.305	0.310	0.308	0.313	2.6*
3-Nitroaniline		0.384	0.368	0.370	0.370	0.373	1.9
Acenaphthene *	1.127	1.129	1.058	1.069	1.059	1.088	3.3*
2,4-Dinitrophenol		0.173	0.196	0.211	0.213	0.198	9.1
4-Nitrophenol		0.313	0.308	0.309	0.308	0.310	0.8
Dibenzofuran *	1.679	1.691	1.598	1.626	1.618	1.642	2.4*
2,4-Dinitrotoluene *	0.464	0.477	0.463	0.472	0.472	0.470	1.2*

* Compounds with required minimum RRF and maximum %RSD values.
[illegible] All other compounds must meet a minimum RRF of 0.010.

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: P Calibration Date(s): 12/08/96

Calibration Times: 1549 1825

LAB FILE ID: RRF20 =P10244.D RRF50 =P10242.D
RRF80 =P10246.D RRF120=P10245.D RRF160=P10243.D

COMPOUND		RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Diethylphthalate		1.675	1.618	1.540	1.550	1.532	1.583	3.9
4-Chlorophenyl-phenylether	*	0.641	0.671	0.686	0.727	0.745	0.694	6.0*
Fluorene	*	1.355	1.359	1.309	1.330	1.349	1.340	1.5*
4-Nitroaniline			0.408	0.393	0.400	0.404	0.401	1.5
4,6-Dinitro-2-methylphenol			0.149	0.161	0.175	0.181	0.167	8.5
N-Nitrosodiphenylamine (1)		0.502	0.538	0.507	0.535	0.539	0.524	3.4
4-Bromophenyl-phenylether	*	0.212	0.236	0.237	0.249	0.251	0.237	6.5*
Hexachlorobenzene	*	0.232	0.262	0.263	0.279	0.280	0.263	7.3*
Pentachlorophenol	*		0.173	0.174	0.188	0.185	0.180	4.2*
Phenanthrene	*	1.012	1.040	1.020	1.044	1.041	1.031	1.4*
Anthracene	*	0.960	0.966	0.947	0.970	0.957	0.960	0.9*
Carbazole		0.976	0.971	0.928	0.945	0.920	0.948	2.6
Di-n-butylphthalate		1.602	1.578	1.496	1.513	1.459	1.530	3.8
Fluoranthene	*	1.191	1.225	1.221	1.243	1.220	1.220	1.5*
Pyrene	*	1.503	1.673	1.494	1.542	1.525	1.547	4.7*
Butylbenzylphthalate		0.959	0.971	0.892	0.898	0.889	0.922	4.3
3,3'-Dichlorobenzidine		0.516	0.573	0.616	0.659	0.688	0.611	11.1
Benzo(a)anthracene	*	1.366	1.464	1.481	1.560	1.563	1.487	5.4*
Chrysene	*	1.108	1.195	1.205	1.269	1.308	1.217	6.2*
bis(2-Ethylhexyl)phthalate		1.067	1.075	1.018	1.064	1.076	1.060	2.2
Di-n-octylphthalate		1.951	2.111	1.898	1.996	2.020	1.995	3.9
Benzo(b)fluoranthene	*	1.374	1.479	1.503	1.626	1.837	1.564	11.3*
Benzo(k)fluoranthene	*	1.215	1.398	1.322	1.477	1.400	1.362	7.2*
Benzo(a)pyrene	*	1.057	1.135	1.106	1.169	1.205	1.134	5.0*
Indeno(1,2,3-cd)pyrene	*	1.056	1.302	1.349	1.399	1.456	1.312	11.7*
Dibenz(a,h)anthracene	*	0.850	1.083	1.157	1.231	1.295	1.123	15.3*
Benzo(g,h,i)perylene	*	0.795	0.913	0.940	0.979	1.017	0.928	9.1*
Nitrobenzene-d5	*	0.473	0.461	0.447	0.441	0.433	0.451	3.5*
2-Fluorobiphenyl	*	1.276	1.325	1.217	1.221	1.235	1.255	3.6*
Terphenyl-d14	*	1.017	1.126	1.088	1.131	1.127	1.098	4.4*
Phenol-d5	*	1.541	1.569	1.383	1.361	1.349	1.441	7.3*
2-Fluorophenol	*	1.212	1.253	1.152	1.191	1.121	1.186	4.3*
2,4,6-Tribromophenol		0.108	0.130	0.129	0.143	0.143	0.130	10.9
2-Chlorophenol-d4	*	1.280	1.300	1.202	1.173	1.137	1.219	5.7*
1,2-Dichlorobenzene-d4	*	0.815	0.823	0.753	0.757	0.769	0.783	4.2*

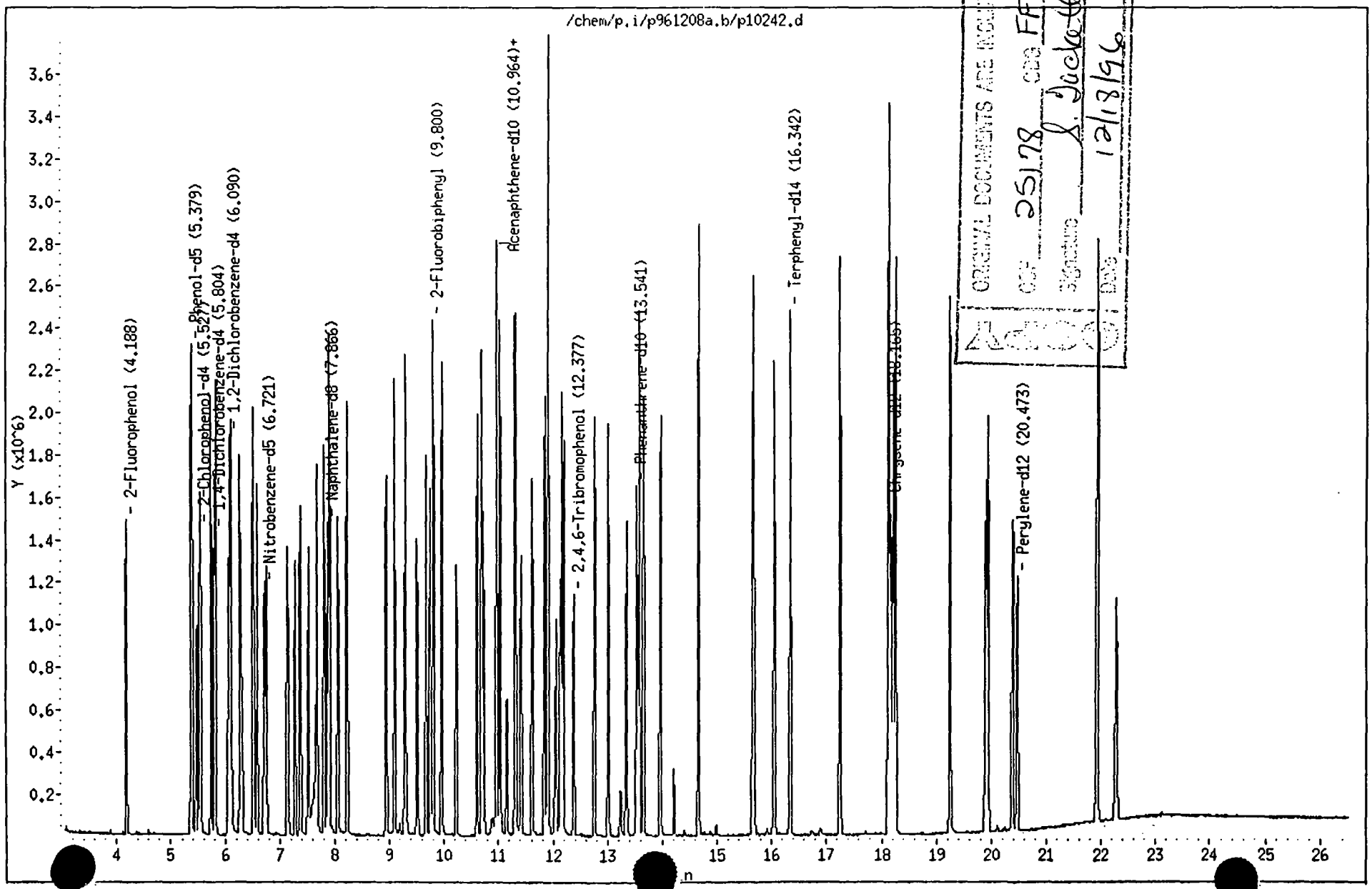
(1) - Cannot be separated from Diphenylamine
* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

Data File: /chem/p.i/p961208a.b/p10242.d
Date : 08-DEC-1996 15:49
Instrument : p.i
Sample ID : SSTD050PK
Column phase : XTI-5
Volume Injected (uL) : 2.0

Column diameter : 0.25

OPERATOR: Ann

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25178 SDG FF667
Signature L. Jackett
Date 12/13/96



Data File: /chem/p.i/p961208a.b/p10242.d
Report Date: 08-Dec-1996 18:41

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/p.i/p961208a.b/p10242.d
Lab. Id. : SSTD050PK Quant Type: ISTD
Inj Date : 08-DEC-1996 15:49
Operator : Annie Inst ID: p.i
Smp Info : SSTD050PK
Misc Info : MS517**INSTP*SSTD050PK*1-106-12*2UL*
Comment :
Method : /chem/p.i/p961208a.b/BNA517EPA.m
Meth Date : 08-Dec-1996 18:41 ann
Cal Date : 08-DEC-1996 15:49 Cal File: p10242.d
Als bottle: 99 Continuing Calibration Sample
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: WATER

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
$	1 2-Fluorophenol	112.00	4.188	(0.722)	507909	52.82	26.41
$	2 Phenol-d5	98.80	5.369	(0.925)	636224	54.46	27.23
	3 Phenol	94.00	5.379	(0.927)	635740	53.71	26.86(H)
	4 bis(2-Chloroethyl)Ether	93.00	5.478	(0.944)	521867	55.55	27.77(H)
	5 2-Chlorophenol-d4	132.00	5.527	(0.952)	526998	53.33	26.66
	6 2-Chlorophenol	128.00	5.547	(0.956)	532645	53.67	26.83
	7 1,3-Dichlorobenzene	146.00	5.744	(0.990)	614410	51.91	25.95(H)
*	8 1,4-Dichlorobenzene-d4	151.85	5.804	(1.000)	324340	40.00	
	9 1,4-Dichlorobenzene	146.00	5.823	(1.003)	607144	51.53	25.76
$	10 1,2-Dichlorobenzene-d4	152.00	6.090	(1.049)	333712	52.53	26.26
	11 1,2-Dichlorobenzene	146.00	6.109	(1.053)	551306	52.81	26.40
	12 2-Methylphenol	108.00	6.267	(1.080)	478100	54.76	27.38
	13 2,2'-oxybis(1-Chloropropane)	45.00	6.287	(1.083)	421582	56.28	28.14
	14 4-Methylphenol	108.00	6.504	(1.121)	499001	53.56	26.78
	15 N-Nitroso-di-n-propylamine	70.00	6.524	(1.124)	314772	53.95	26.97
	16 Hexachloroethane	117.00	6.583	(1.134)	276997	53.28	26.64
$	17 Nitrobenzene-d5	82.00	6.721	(0.854)	606384	51.05	25.52
	18 Nitrobenzene	77.00	6.751	(0.858)	551394	50.93	25.46
	19 Isophorone	82.00	7.135	(0.907)	1060096	51.01	25.50
	20 2-Nitrophenol	139.00	7.273	(0.925)	311930	51.39	25.69
	21 2,4-Dimethylphenol	107.00	7.372	(0.937)	508565	51.22	25.61
	22 bis(2-Chloroethoxy)methane	93.00	7.520	(0.956)	621694	52.33	26.16
	23 2,4-Dichlorophenol	162.00	7.678	(0.976)	431430	49.76	24.88
	24 1,2,4-Trichlorobenzene	180.00	7.807	(0.992)	477523	50.76	25.38
*	25 Naphthalene-d8	135.65	7.866	(1.000)	1053367	40.00	
	26 Naphthalene	128.00	7.906	(1.005)	1463497	50.63	25.31
	27 4-Chloroaniline	127.00	8.054	(1.024)	596447	49.94	24.97
	28 Hexachlorobutadiene	224.65	8.222	(1.045)	295667	48.29	24.14
	29 4-Chloro-3-Methylphenol	107.00	8.941	(1.137)	527379	50.06	25.03
	30 2-Methylnaphthalene	142.00	9.108	(1.158)	1011645	49.98	24.99
	31 Hexachlorocyclopentadiene	236.80	9.503	(0.867)	305453	49.66	24.83

Data File: /chem/p.i/p961208a.b/p10242.d
Report Date: 08-Dec-1996 18:41

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	32 2,4,6-Trichlorophenol	196.00	9.671	(0.882)	324107	52.84	26.42(H)
	33 2,4,5-Trichlorophenol	196.00	9.740	(0.888)	345305	51.19	25.59
$	34 2-Fluorobiphenyl	172.00	9.800	(0.894)	1042839	52.79	26.39
	35 2-Chloronaphthalene	162.00	9.958	(0.908)	933583	52.73	26.36
	36 2-Nitroaniline	65.00	10.224	(0.933)	324801	53.32	26.66
	37 Dimethylphthalate	163.00	10.608	(0.968)	1213163	52.65	26.32
	38 Acenaphthylene	152.00	10.697	(0.976)	1532129	52.86	26.43
	39 2,6-Dinitrotoluene	165.00	10.727	(0.978)	251936	51.06	25.53
*	40 Acenaphthene-d10	164.00	10.964	(1.000)	629778	40.00	
	41 3-Nitroaniline	138.00	10.964	(1.000)	302451	51.47	25.73
	42 Acenaphthene	153.00	11.023	(1.005)	888891	51.87	25.93
	43 2,4-Dinitrophenol	183.85	11.152	(1.017)	136538	43.72	21.86(a)
	44 Dibenzofuran	168.00	11.300	(1.031)	1331572	51.49	25.74
	45 4-Nitrophenol	109.00	11.320	(1.032)	246779	50.61	25.30
	46 2,4-Dinitrotoluene	165.00	11.409	(1.041)	375411	50.77	25.38
	47 Fluorene	166.00	11.912	(1.087)	1070047	50.70	25.35
	48 Diethylphthalate	149.00	11.853	(1.081)	1273446	51.10	25.55
	49 4-Chlorophenyl-phenylether	204.00	11.922	(1.087)	528063	48.33	24.16
	50 4-Nitroaniline	138.00	12.061	(1.100)	321177	50.87	25.43
	51 4,6-Dinitro-2-methylphenol	198.00	12.130	(0.896)	207405	44.86	22.43(a)
	52 N-Nitrosodiphenylamine (1)	169.00	12.160	(0.898)	747472	51.35	25.67
$	53 2,4,6-Tribromophenol	329.80	12.377	(0.914)	179830	49.64	24.82
	54 4-Bromophenyl-phenylether	248.00	12.762	(0.942)	327557	49.78	24.89
	55 Hexachlorobenzene	283.80	13.018	(0.961)	363120	49.68	24.84
	56 Pentachlorophenol	265.80	13.344	(0.985)	240386	48.05	24.02(a)
*	57 Phenanthrene-d10	187.65	13.541	(1.000)	1110503	40.00	
	58 Phenanthrene	178.00	13.581	(1.003)	1444100	50.43	25.21(H)
	59 Anthracene	178.00	13.660	(1.009)	1340775	50.29	25.14
	60 Carbazole	167.00	13.966	(1.031)	1348418	51.23	25.61
	61 Di-n-butylphthalate	149.00	14.666	(1.083)	2191111	51.59	25.79
	62 Fluoranthene	202.00	15.661	(1.157)	1700878	50.20	25.10
	63 Pyrene	202.00	16.056	(0.884)	1712434	54.07	27.03
$	64 Terphenyl-d14	244.00	16.342	(0.900)	1152174	51.27	25.63
	65 Butylbenzylphthalate	149.00	17.248	(0.950)	993738	52.66	26.33
	66 Benzo(a)anthracene	228.00	18.135	(0.998)	1498690	49.24	24.62(H)
*	67 Chrysene-d12	240.00	18.165	(1.000)	818704	40.00	
	68 Chrysene	228.00	18.215	(1.003)	1223039	49.09	24.54
	69 bis(2-Ethylhexyl)phthalate	149.00	18.255	(1.005)	1100637	50.72	25.36
	70 Di-n-octylphthalate	149.00	19.240	(0.940)	1988076	52.89	26.44
	71 Benzo(b)fluoranthene	252.00	19.900	(0.972)	1392833	47.27	23.64(H)
	72 Benzo(k)fluoranthene	252.00	19.940	(0.974)	1317207	51.32	25.66
	73 3,3'-Dichlorobenzidine	251.65	18.125	(0.998)	586808	46.94	23.47
	74 Benzo(a)pyrene	252.00	20.384	(0.996)	1069225	50.03	25.01
*	75 Perylene-d12	264.00	20.473	(1.000)	753555	40.00	
	76 Indeno(1,2,3-cd)pyrene	276.00	21.925	(1.071)	1226002	49.59	24.79
	77 Dibenz(a,h)anthracene	278.00	21.925	(1.071)	1020322	48.21	24.10
	78 Benzo(g,h,i)perylene	276.00	22.281	(1.088)	859537	49.14	24.57

Data File: /chem/p.i/p961208a.b/p10242.d
Report Date: 08-Dec-1996 18:41

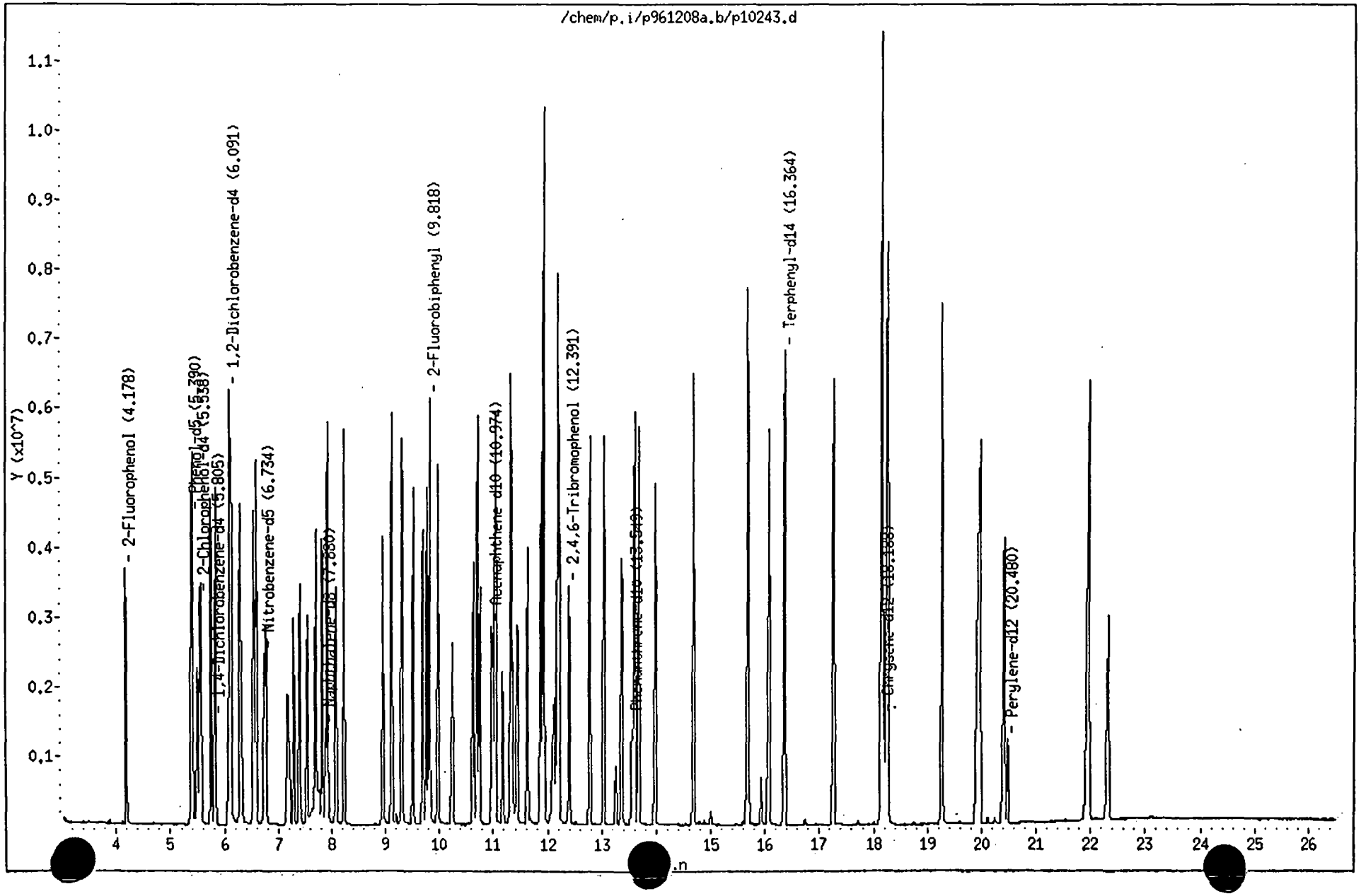
QC Flag Legend

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

Data File: /chem/p.i/p961208a.b/p10243.d
Date : 08-DEC-1996 16:30
Instrument : p.i
Sample ID : SSTD160PK
Column phase : XTI-5
Volume Injected (uL) : 2.0

OPERATOR: Ann

Column diameter : 0.25



Data File: /chem/p.i/p961208a.b/p10243.d
Report Date: 08-Dec-1996 18:36

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/p.i/p961208a.b/p10243.d
Lab. Id. : SSTD160PK Quant Type: ISTD
Inj Date : 08-DEC-1996 16:30
Operator : Annie Inst ID: p.i
Smp Info : SSTD160PK
Misc Info : MS517**INSTP*SSTD160PK*1-106-12*2UL*
Comment :
Method : /chem/p.i/p961208a.b/BNA517EPA.m
Meth Date : 08-Dec-1996 18:34
Cal Date : 08-DEC-1996 15:49 Cal File: p10242.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: WATER

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
$	1 2-Fluorophenol	112.00	4.178	(0.720)	1367448	150.21	75.10
$	2 Phenol-d5	98.80	5.390	(0.928)	1645127	148.34	74.17
	3 Phenol	94.00	5.409	(0.932)	1635302	145.36	72.68
	4 bis(2-Chloroethyl)Ether	93.00	5.489	(0.945)	1300499	144.79	72.39
	5 2-Chlorophenol-d4	132.00	5.538	(0.954)	1386345	148.78	74.39
	6 2-Chlorophenol	128.00	5.558	(0.957)	1375107	146.20	73.10
	7 1,3-Dichlorobenzene	146.00	5.746	(0.990)	1657595	148.91	74.45
*	8 1,4-Dichlorobenzene-d4	151.85	5.805	(1.000)	304883	40.00	
	9 1,4-Dichlorobenzene	146.00	5.825	(1.003)	1692924	152.68	76.34
$	10 1,2-Dichlorobenzene-d4	152.00	6.091	(1.049)	937317	155.45	77.72
	11 1,2-Dichlorobenzene	146.00	6.121	(1.054)	1505009	152.04	76.02
	12 2-Methylphenol	108.00	6.279	(1.082)	1187237	143.79	71.89
	13 2,2'-oxybis(1-Chloropropane)	45.00	6.299	(1.085)	970858	135.75	67.87
	14 4-Methylphenol	108.00	6.536	(1.126)	1300463	146.93	73.46
	15 N-Nitroso-di-n-propylamine	70.00	6.576	(1.133)	780937	141.83	70.91
	16 Hexachloroethane	117.00	6.586	(1.134)	696404	141.98	70.99
$	17 Nitrobenzene-d5	82.00	6.734	(0.855)	1577572	153.31	76.65
	18 Nitrobenzene	77.00	6.763	(0.858)	1417017	151.20	75.60
	19 Isophorone	82.00	7.158	(0.908)	2772557	153.74	76.87
	20 2-Nitrophenol	139.00	7.287	(0.925)	817701	155.30	77.65
	21 2,4-Dimethylphenol	107.00	7.395	(0.938)	1354114	157.51	78.75
	22 bis(2-Chloroethoxy)methane	93.00	7.544	(0.957)	1555115	150.09	75.04
	23 2,4-Dichlorophenol	162.00	7.702	(0.977)	1219293	161.93	80.96(A)
	24 1,2,4-Trichlorobenzene	180.00	7.811	(0.991)	1283892	157.64	78.82
*	25 Naphthalene-d8	135.65	7.880	(1.000)	910759	40.00	
	26 Naphthalene	128.00	7.920	(1.005)	3963803	157.76	78.88
	27 4-Chloroaniline	127.00	8.068	(1.024)	1629429	157.59	78.79
	28 Hexachlorobutadiene	224.65	8.227	(1.044)	880291	167.38	83.69(A)
	29 4-Chloro-3-Methylphenol	107.00	8.947	(1.135)	1450650	159.38	79.69
	30 2-Methylnaphthalene	142.00	9.115	(1.157)	2808808	160.12	80.06(A)
	31 Hexachlorocyclopentadiene	236.80	9.510	(0.867)	1056932	175.48	87.74(A)

Data File: /chem/p.i/p961208a.b/p10243.d
Report Date: 08-Dec-1996 18:36

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	32 2,4,6-Trichlorophenol	196.00	9.688	(0.883)	955950	158.80	79.40
	33 2,4,5-Trichlorophenol	196.00	9.758	(0.889)	1057051	159.59	79.79
$	34 2-Fluorobiphenyl	172.00	9.818	(0.895)	3030003	156.27	78.13
	35 2-Chloronaphthalene	162.00	9.976	(0.909)	2675049	153.70	76.85
	36 2-Nitroaniline	65.00	10.253	(0.934)	915974	153.79	76.89
	37 Dimethylphthalate	163.00	10.638	(0.969)	3445506	152.20	76.10
	38 Acenaphthylene	152.00	10.707	(0.976)	4324437	151.59	75.79
	39 2,6-Dinitrotoluene	165.00	10.757	(0.980)	755539	156.13	78.06
*	40 Acenaphthene-d10	164.00	10.974	(1.000)	613530	40.00	
	41 3-Nitroaniline	138.00	10.994	(1.002)	908192	157.98	78.99
	42 Acenaphthene	153.00	11.044	(1.006)	2599005	154.62	77.31
	43 2,4-Dinitrophenol	183.85	11.173	(1.018)	521904	170.90	85.45(A)
	44 Dibenzofuran	168.00	11.321	(1.032)	3970637	156.55	78.27
	45 4-Nitrophenol	109.00	11.351	(1.034)	755136	158.77	79.38
	46 2,4-Dinitrotoluene	165.00	11.450	(1.043)	1157256	160.09	80.04(A)
	47 Fluorene	166.00	11.926	(1.087)	3310073	160.07	80.03(A)
	48 Diethylphthalate	149.00	11.876	(1.082)	3760223	305.79	152.89(A)
	49 4-Chlorophenyl-phenylether	204.00	11.936	(1.088)	1828993	171.32	85.66(A)
	50 4-Nitroaniline	138.00	12.124	(1.105)	990245	159.91	79.95
	51 4,6-Dinitro-2-methylphenol	198.00	12.183	(0.899)	784149	171.72	85.86(A)
	52 N-Nitrosodiphenylamine (1)	169.00	12.193	(0.900)	2338862	163.24	81.62(A)
	53 2,4,6-Tribromophenol	329.80	12.401	(0.915)	618019	174.43	87.21(A)
	54 4-Bromophenyl-phenylether	248.00	12.777	(0.943)	1087334	169.36	84.68(A)
	55 Hexachlorobenzene	283.80	13.034	(0.962)	1213780	170.14	85.07(A)
	56 Pentachlorophenol	265.80	13.371	(0.987)	801437	162.34	81.17(A)
*	57 Phenanthrene-d10	187.65	13.549	(1.000)	1084078	40.00	
	58 Phenanthrene	178.00	13.599	(1.004)	4515198	161.05	80.53(A)
	59 Anthracene	178.00	13.678	(1.010)	4150729	158.96	79.48
	60 Carbazole	167.00	13.984	(1.032)	3988743	154.42	77.21
	61 Di-n-butylphthalate	149.00	14.685	(1.084)	6327732	151.78	75.89
	62 Fluoranthene	202.00	15.681	(1.157)	5291877	160.02	80.01(A)
	63 Pyrene	202.00	16.077	(0.884)	5133660	156.30	78.15
$	64 Terphenyl-d14	244.00	16.364	(0.900)	3794783	163.85	81.92(A)
	65 Butylbenzylphthalate	149.00	17.261	(0.949)	2994041	153.10	76.55
	66 Benzo(a)anthracene	228.00	18.158	(0.998)	5263277	168.01	84.00(A)
*	67 Chrysene-d12	240.00	18.188	(1.000)	841848	40.00	
	68 Chrysene	228.00	18.248	(1.003)	4405904	171.57	85.78(A)
	69 bis(2-Ethylhexyl)phthalate	149.00	18.268	(1.004)	3623386	160.78	80.39(A)
	70 Di-n-octylphthalate	149.00	19.264	(0.941)	6134336	160.08	80.04(A)
	71 Benzo(b)fluoranthene	252.00	19.949	(0.975)	5577653	245.16	122.58(AM)
	72 Benzo(k)fluoranthene	252.00	19.975	(0.975)	4250926	209.43	104.71(AM)
	73 3,3'-Dichlorobenzidine	251.65	18.158	(0.998)	2317211	180.69	90.34(A)
	74 Benzo(a)pyrene	252.00	20.420	(0.997)	3659205	218.87	109.43(A)
*	75 Perylene-d12	264.00	20.480	(1.000)	759039	40.00	
	76 Indeno(1,2,3-cd)pyrene	276.00	21.962	(1.072)	4420113	178.75	89.37(A)
	77 Dibenz(a,h)anthracene	278.00	21.962	(1.072)	3932516	185.88	92.94(A)
	78 Benzo(g,h,i)perylene	276.00	22.318	(1.090)	3086259	175.70	87.85(A)

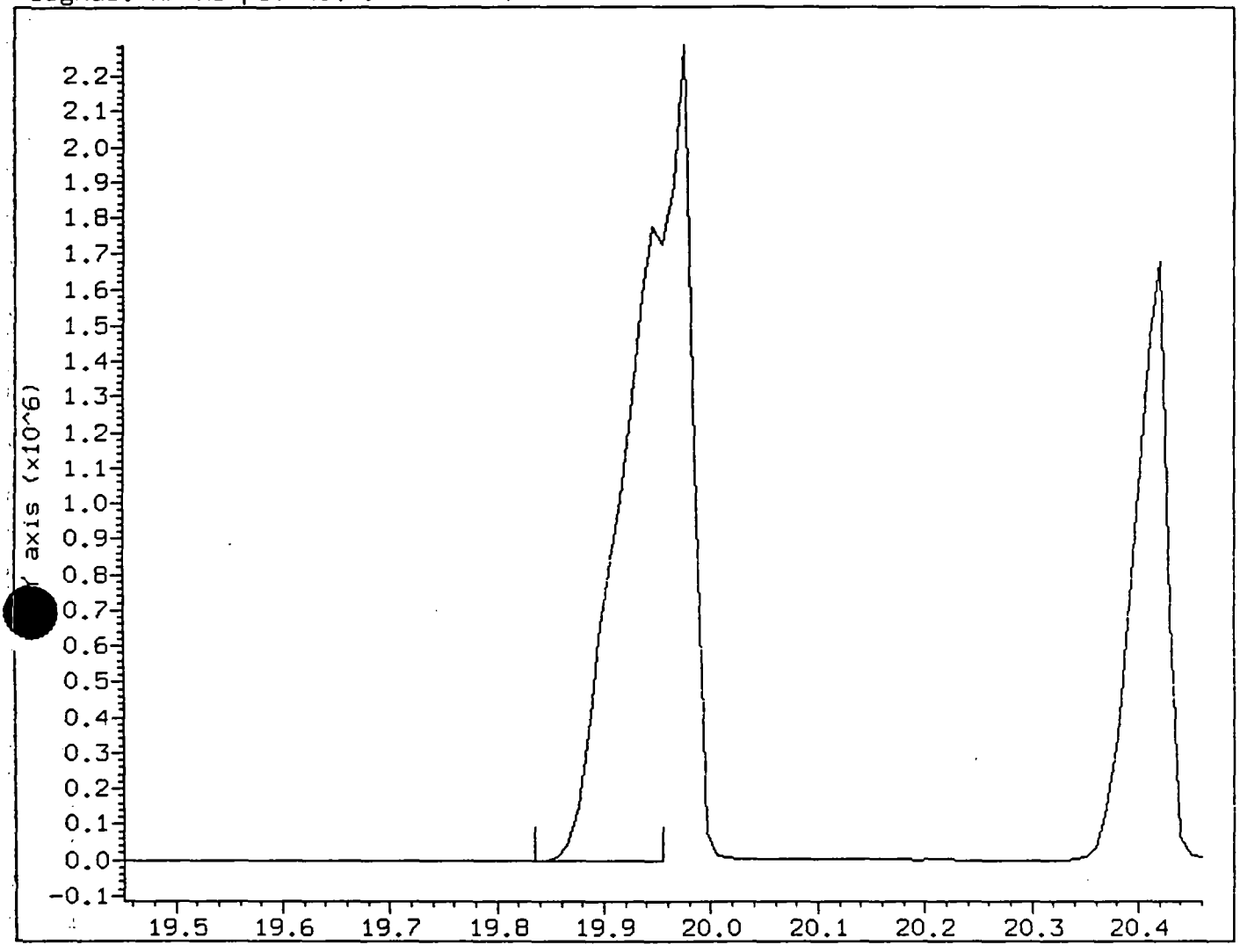
Data File: /chem/p.i/p961208a.b/p10243.d
Report Date: 08-Dec-1996 18:36

QC Flag Legend

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

Manual Integration

ient Sample ID: SSTD160PK
jection Date: 08-DEC-96 16:30
nstrument: p.i
Compound: Benzo(b)fluoranthene
Signal: HP MS p10243.d, Ion 252.00



12/05/96

OK 12/05/96

MANUAL INTEGRATION REPORT

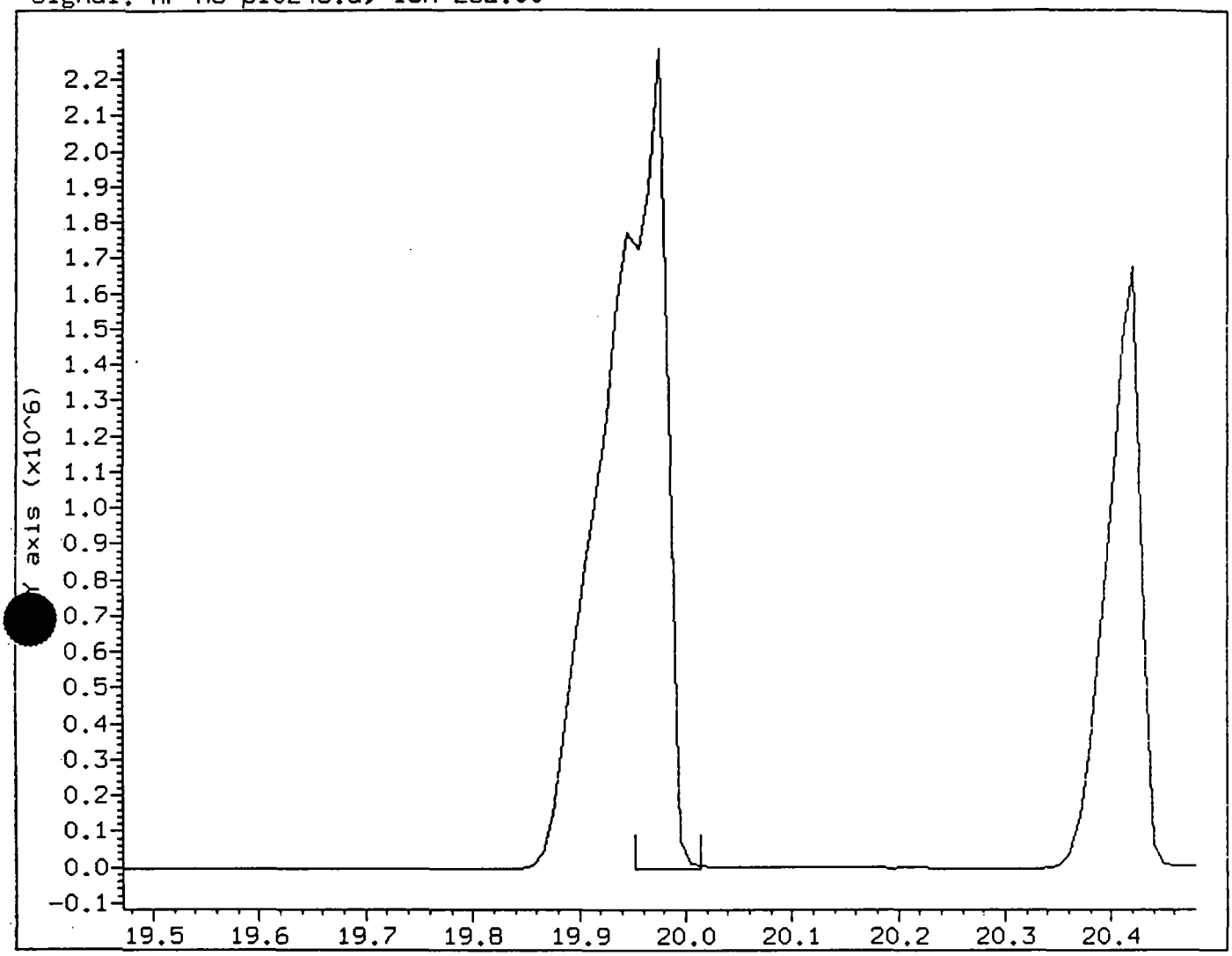
LAB SAMPLE ID: SSTD160PK
SAMPLE ID. : SSTD160PK
FILENAME : /chem/p.i/p961208a.b/p10243.d
INST ID. : p.i
ANALYST : Annie
DATE INJECTED: 08-DEC-1996 16:30
COMPOUND : Benzo(b)fluoranthene
ION: 252 AREA: 5577653 CONCENTRATION: 122.58
INTEGRATION SCAN RANGE: 1700 - 1712

OPERATOR: Ann

Report Generated: 12/08/96 at 18:36 by _____

Manual Integration

ient Sample ID: SSTD160PK
ijection Date: 08-DEC-96 16:30
Instrument: p.i
Compound: Benzo(k)fluoranthene
Signal: HP MS p10243.d, Ion 252.00



12/08/96

ok 12/09/96

MANUAL INTEGRATION REPORT

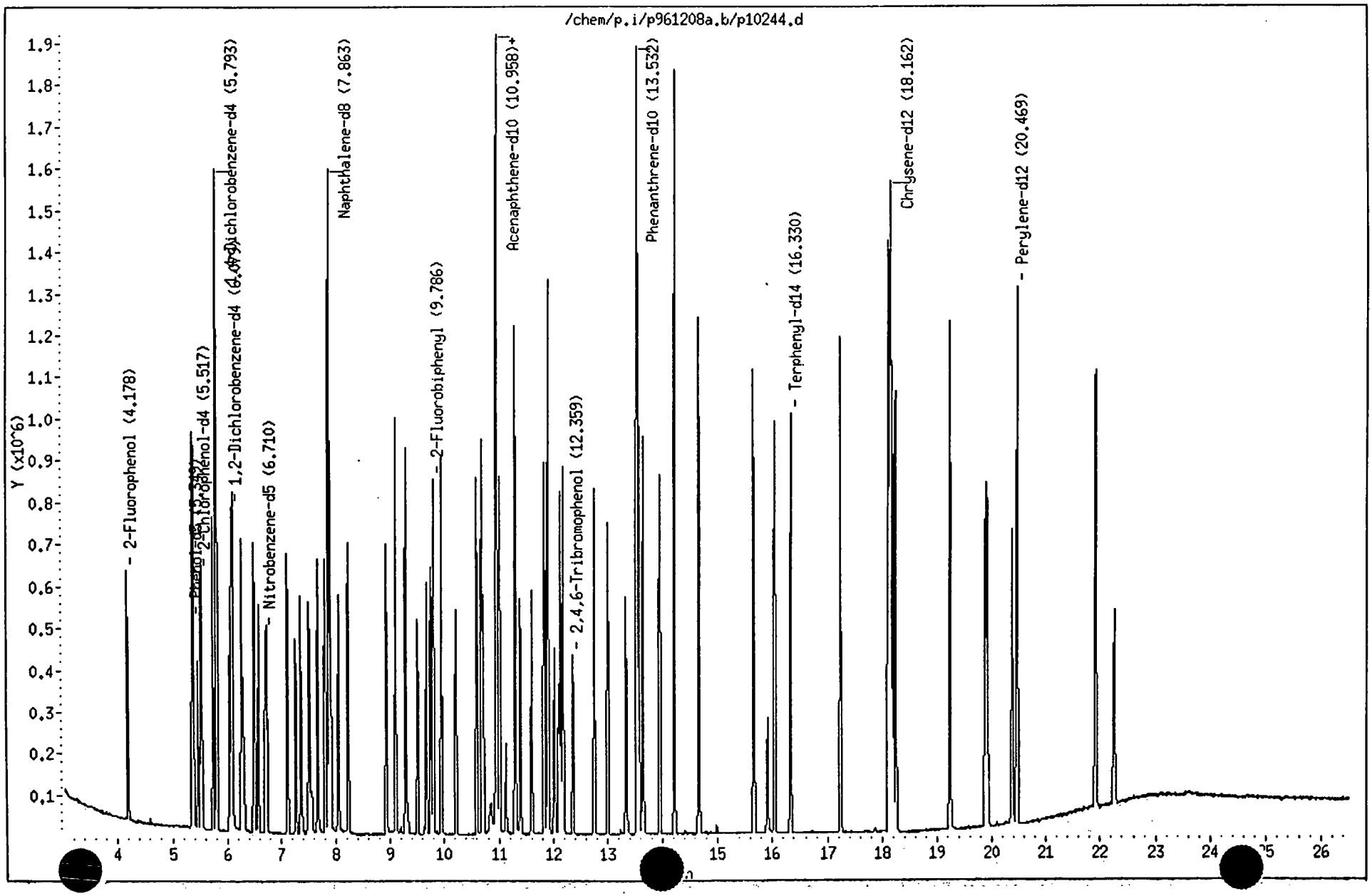
LAB SAMPLE ID: SSTD160PK
SAMPLE ID. : SSTD160PK
FILENAME : /chem/p.i/p961208a.b/p10243.d
INST ID. : p.i
ANALYST : Annie
DATE INJECTED: 08-DEC-1996 16:30
COMPOUND : Benzo(k)fluoranthene
ION: 252 AREA: 4250926 CONCENTRATION: 104.71
INTEGRATION SCAN RANGE: 1712 - 1718

Report Generated: 12/08/96 at 18:36 by OPERATOR: Ann

Data File: /chem/p.i/p961208a.b/p10244.d
Date : 08-DEC-1996 17:12
Instrument : p.i
Sample ID : SSTD020PK
Column phase : XTI-5
Volume Injected (uL) : 2.0

OPERATOR: Ann

Column diameter : 0.25



Data File: /chem/p.i/p961208a.b/p10244.d
Report Date: 08-Dec-1996 18:37

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/p.i/p961208a.b/p10244.d
Lab. Id. : SSTD020PK Quant Type: ISTD
Inj Date : 08-DEC-1996 17:12
Operator : Annie Inst ID: p.i
Smp Info : SSTD020PK
Misc Info : MS517**INSTP*SSTD020PK*1-106-12*2UL*
Comment :
Method : /chem/p.i/p961208a.b/BNA517EPA.m
Meth Date : 08-Dec-1996 18:34
Cal Date : 08-DEC-1996 15:49 Cal File: p10242.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: WATER

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
$	1 2-Fluorophenol	112.00	4.178	(0.721)	186450	20.30	10.15
$	2 Phenol-d5	98.80	5.349	(0.923)	236964	21.17	10.58
	3 Phenol	94.00	5.369	(0.927)	249148	21.95	10.97
	4 bis(2-Chloroethyl)Ether	93.00	5.458	(0.942)	196764	21.71	10.85
	5 2-Chlorophenol-d4	132.00	5.517	(0.952)	196868	20.94	10.47
	6 2-Chlorophenol	128.00	5.537	(0.956)	203816	21.47	10.73
	7 1,3-Dichlorobenzene	146.00	5.734	(0.990)	237999	21.19	10.59
*	8 1,4-Dichlorobenzene-d4	151.85	5.793	(1.000)	307604	40.00	
	9 1,4-Dichlorobenzene	146.00	5.813	(1.003)	232128	20.75	10.37
$	10 1,2-Dichlorobenzene-d4	152.00	6.079	(1.049)	125406	20.61	10.30
	11 1,2-Dichlorobenzene	146.00	6.099	(1.053)	210858	21.11	10.55
	12 2-Methylphenol	108.00	6.256	(1.080)	183903	22.07	11.03
	13 2,2'-oxybis(1-Chloropropane)	45.00	6.276	(1.083)	168052	23.29	11.64
	14 4-Methylphenol	108.00	6.493	(1.121)	190903	21.37	10.68
	15 N-Nitroso-di-n-propylamine	70.00	6.503	(1.123)	120243	21.64	10.82
	16 Hexachloroethane	117.00	6.572	(1.134)	108876	22.00	11.00
$	17 Nitrobenzene-d5	82.00	6.710	(0.853)	231982	20.94	10.47
	18 Nitrobenzene	77.00	6.730	(0.856)	214437	21.26	10.63
	19 Isophorone	82.00	7.114	(0.905)	409385	21.09	10.54
	20 2-Nitrophenol	139.00	7.262	(0.923)	114267	20.16	10.08
	21 2,4-Dimethylphenol	107.00	7.360	(0.936)	181374	19.60	9.80(a)
	22 bis(2-Chloroethoxy)methane	93.00	7.508	(0.955)	240076	21.52	10.76
	23 2,4-Dichlorophenol	162.00	7.666	(0.975)	161799	19.96	9.98(a)
	24 1,2,4-Trichlorobenzene	180.00	7.794	(0.991)	175312	20.00	10.00
*	25 Naphthalene-d8	135.65	7.863	(1.000)	980214	40.00	
	26 Naphthalene	128.00	7.893	(1.004)	546636	20.21	10.10
	27 4-Chloroaniline	127.00	8.041	(1.023)	227853	20.47	10.23
	28 Hexachlorobutadiene	224.65	8.219	(1.045)	104568	18.47	9.23(a)
	29 4-Chloro-3-Methylphenol	107.00	8.928	(1.135)	197048	20.11	10.05
	30 2-Methylnaphthalene	142.00	9.095	(1.157)	372687	19.74	9.87(a)
	31 Hexachlorocyclopentadiene	236.80	9.499	(0.867)	103317	17.24	8.62(a)

Data File: /chem/p.i/p961208a.b/p10244.d
Report Date: 08-Dec-1996 18:37

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	32 2,4,6-Trichlorophenol	196.00	9.667	(0.882)	116532	19.46	9.73(a)
	33 2,4,5-Trichlorophenol	196.00	9.736	(0.888)	124475	18.89	9.44(a)
$	34 2-Fluorobiphenyl	172.00	9.786	(0.893)	389480	20.19	10.09
	35 2-Chloronaphthalene	162.00	9.943	(0.907)	356517	20.59	10.29
	36 2-Nitroaniline	65.00	10.209	(0.932)	129769	21.90	10.95(a)
	37 Dimethylphthalate	163.00	10.593	(0.967)	470249	20.88	10.44
	38 Acenaphthylene	152.00	10.682	(0.975)	596156	21.01	10.50
	39 2,6-Dinitrotoluene	165.00	10.712	(0.977)	98941	20.55	10.27
*	40 Acenaphthene-d10	164.00	10.958	(1.000)	610237	40.00	
	41 3-Nitroaniline	138.00	10.942	(0.999)	118056	20.64	10.32(a)
	42 Acenaphthene	153.00	11.018	(1.005)	343736	20.56	10.28
	43 2,4-Dinitrophenol	183.85	11.136	(1.016)	43618	14.36	7.18(a)
	44 Dibenzofuran	168.00	11.294	(1.031)	512412	20.31	10.15
	45 4-Nitrophenol	109.00	11.304	(1.032)	92854	19.62	9.81(a)
	46 2,4-Dinitrotoluene	165.00	11.393	(1.040)	141658	19.70	9.85(a)
	47 Fluorene	166.00	11.896	(1.085)	413434	20.10	10.05
	48 Diethylphthalate	149.00	11.836	(1.080)	511082	27.61	13.80
	49 4-Chlorophenyl-phenylether	204.00	11.915	(1.087)	195689	18.42	9.21(a)
	50 4-Nitroaniline	138.00	12.034	(1.098)	130387	21.17	10.58(a)
	51 4,6-Dinitro-2-methylphenol	198.00	12.103	(0.894)	71725	14.76	7.38(a)
	52 N-Nitrosodiphenylamine (1)	169.00	12.143	(0.897)	289552	18.99	9.50(a)
$	53 2,4,6-Tribromophenol	329.80	12.369	(0.914)	62230	16.51	8.25(a)
	54 4-Bromophenyl-phenylether	248.00	12.753	(0.942)	122245	17.90	8.95(a)
	55 Hexachlorobenzene	283.80	13.010	(0.961)	133989	17.65	8.82(a)
	56 Pentachlorophenol	265.80	13.335	(0.985)	85044	16.19	8.09(a)
*	57 Phenanthrene-d10	187.65	13.532	(1.000)	1153167	40.00	
	58 Phenanthrene	178.00	13.572	(1.003)	583497	19.56	9.78(a)
	59 Anthracene	178.00	13.641	(1.008)	553637	19.93	9.96(a)
	60 Carbazole	167.00	13.946	(1.031)	562764	20.48	10.24
	61 Di-n-butylphthalate	149.00	14.655	(1.083)	923883	20.83	10.41
	62 Fluoranthene	202.00	15.650	(1.156)	686988	19.53	9.76(a)
	63 Pyrene	202.00	16.034	(0.883)	663449	19.26	9.63(a)
$	64 Terphenyl-d14	244.00	16.330	(0.899)	449143	18.49	9.24(a)
	65 Butylbenzylphthalate	149.00	17.235	(0.949)	423316	20.64	10.32
	66 Benzo(a)anthracene	228.00	18.122	(0.998)	603176	18.35	9.18(a)
*	67 Chrysene-d12	240.00	18.162	(1.000)	882912	40.00	
	68 Chrysene	228.00	18.202	(1.002)	489313	18.16	9.08(a)
	69 bis(2-Ethylhexyl)phthalate	149.00	18.251	(1.005)	471015	19.92	9.96(a)
	70 Di-n-octylphthalate	149.00	19.236	(0.940)	859689	19.32	9.66(a)
	71 Benzo(b)fluoranthene	252.00	19.886	(0.972)	605250	17.82	8.91(aH)
	72 Benzo(k)fluoranthene	252.00	19.926	(0.973)	535325	17.70	8.85(a)
	73 3,3'-Dichlorobenzidine	251.65	18.112	(0.997)	227956	16.94	8.47(a)
	74 Benzo(a)pyrene	252.00	20.369	(0.995)	465840	18.52	9.26(a)
*	75 Perylene-d12	264.00	20.469	(1.000)	881290	40.00	
	76 Indeno(1,2,3-cd)pyrene	276.00	21.909	(1.070)	465294	16.20	8.10(a)
	77 Dibenz(a,h)anthracene	278.00	21.909	(1.070)	374467	15.24	7.62(a)
	78 Benzo(g,h,i)perylene	276.00	22.255	(1.087)	350175	17.17	8.58(a)

Data File: /chem/p.i/p961208a.b/p10244.d
Report Date: 08-Dec-1996 18:37

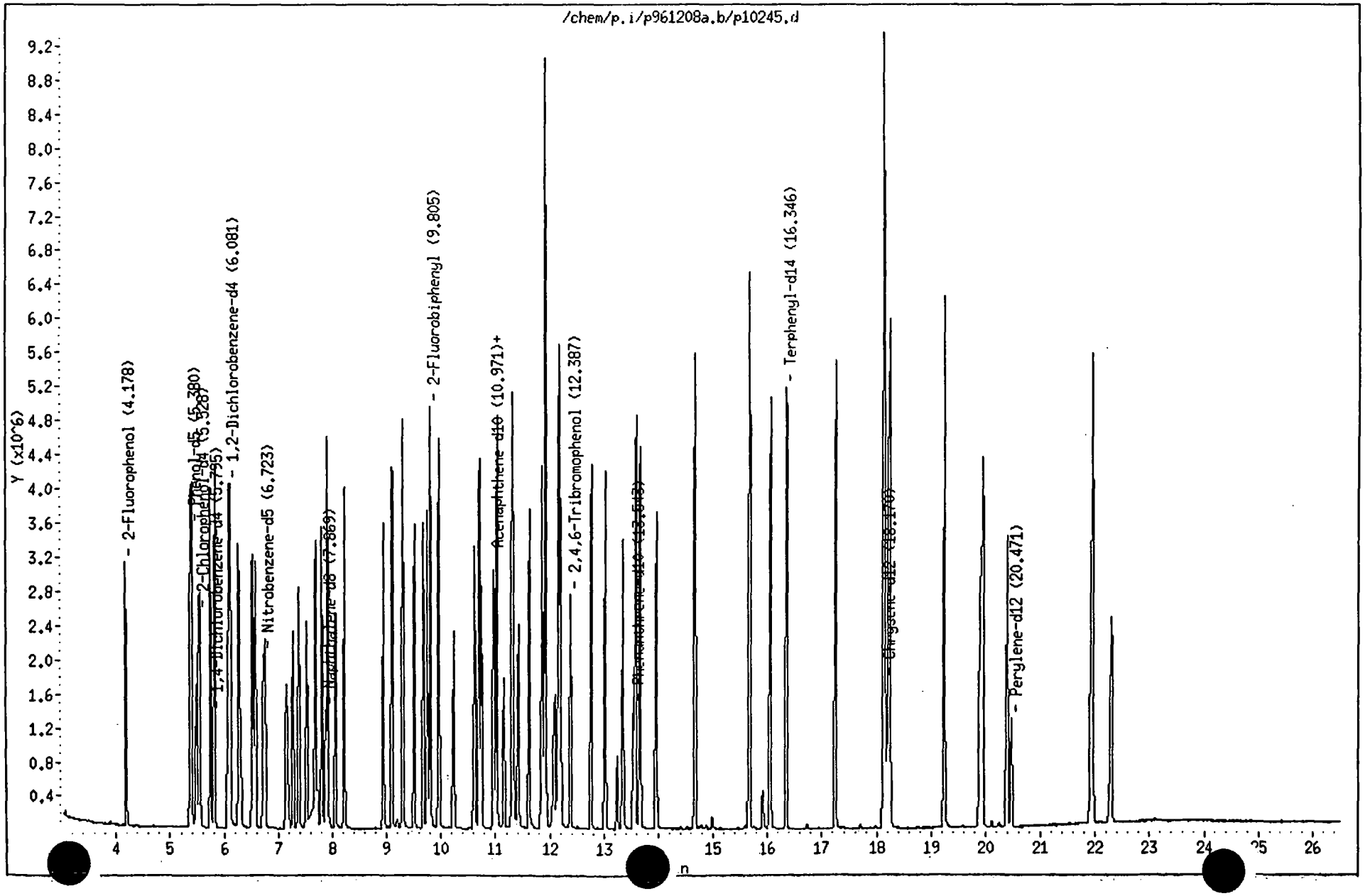
QC Flag Legend

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

Data File: /chem/p.i/p961208a.b/p10245.d
Date : 08-DEC-1996 17:49
Instrument : p.i
Sample ID : SSTD120PK
Column phase : XTI-5
Volume Injected (uL) : 2.0

OPERATOR: Ann

Column diameter : 0.25



Data File: /chem/p.i/p961208a.b/p10245.d
Report Date: 08-Dec-1996 18:38

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/p.i/p961208a.b/p10245.d
Lab. Id. : SSTD120PK Quant Type: ISTD
Inj Date : 08-DEC-1996 17:49
Operator : Annie Inst ID: p.i
Smp Info : SSTD120PK
Misc Info : MS517**INSTP*SSTD120PK*1-106-12*2UL*
Comment :
Method : /chem/p.i/p961208a.b/BNA517EPA.m
Meth Date : 08-Dec-1996 18:34
Cal Date : 08-DEC-1996 15:49 Cal File: p10242.d
Als bottle: 3 Calibration Sample, Level: 4
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: WATER

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
$	1 2-Fluorophenol	112.00	4.178	(0.721)	1067132	119.65	59.82
$	2 Phenol-d5	98.80	5.380	(0.928)	1219696	112.25	56.12
	3 Phenol	94.00	5.399	(0.932)	1231901	111.77	55.88
	4 bis(2-Chloroethyl)Ether	93.00	5.488	(0.947)	968275	110.03	55.01
	5 2-Chlorophenol-d4	132.00	5.528	(0.954)	1051481	115.17	57.58
	6 2-Chlorophenol	128.00	5.558	(0.959)	1047751	113.70	56.85
	7 1,3-Dichlorobenzene	146.00	5.745	(0.991)	1271828	116.62	58.31
*	8 1,4-Dichlorobenzene-d4	151.85	5.795	(1.000)	298700	40.00	
	9 1,4-Dichlorobenzene	146.00	5.824	(1.005)	1275691	117.43	58.71
$	10 1,2-Dichlorobenzene-d4	152.00	6.091	(1.051)	678569	114.86	57.43
	11 1,2-Dichlorobenzene	146.00	6.111	(1.055)	1101888	113.62	56.81
	12 2-Methylphenol	108.00	6.269	(1.082)	882238	109.06	54.53
	13 2,2'-oxybis(1-Chloropropane)	45.00	6.289	(1.085)	738791	105.44	52.72
	14 4-Methylphenol	108.00	6.526	(1.126)	991319	114.32	57.16
	15 N-Nitroso-di-n-propylamine	70.00	6.545	(1.130)	619103	114.77	57.38
	16 Hexachloroethane	117.00	6.575	(1.135)	548272	114.09	57.04
$	17 Nitrobenzene-d5	82.00	6.723	(0.854)	1220723	117.04	58.52
	18 Nitrobenzene	77.00	6.763	(0.859)	1110781	116.93	58.46
	19 Isophorone	82.00	7.147	(0.908)	2123169	116.15	58.07
	20 2-Nitrophenol	139.00	7.276	(0.925)	638323	119.60	59.80
	21 2,4-Dimethylphenol	107.00	7.384	(0.938)	1058556	121.48	60.74
	22 bis(2-Chloroethoxy)methane	93.00	7.533	(0.957)	1194645	113.74	56.87
	23 2,4-Dichlorophenol	162.00	7.691	(0.977)	914745	119.85	59.92
	24 1,2,4-Trichlorobenzene	180.00	7.810	(0.992)	991480	120.10	60.05
*	25 Naphthalene-d8	135.65	7.869	(1.000)	923178	40.00	
	26 Naphthalene	128.00	7.909	(1.005)	3043446	119.50	59.75
	27 4-Chloroaniline	127.00	8.067	(1.025)	1249710	119.24	59.62
	28 Hexachlorobutadiene	224.65	8.225	(1.045)	676841	126.96	63.48
	29 4-Chloro-3-Methylphenol	107.00	8.945	(1.137)	1102608	119.51	59.75
	30 2-Methylnaphthalene	142.00	9.113	(1.158)	2165449	121.78	60.89
	31 Hexachlorocyclopentadiene	236.80	9.508	(0.867)	789685	126.34	63.17

Data File: /chem/p.i/p961208a.b/p10245.d
Report Date: 08-Dec-1996 18:38

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	32 2,4,6-Trichlorophenol	196.00	9.676	(0.882)	738684	118.24	59.12
	33 2,4,5-Trichlorophenol	196.00	9.745	(0.888)	813858	118.40	59.20
$	34 2-Fluorobiphenyl	172.00	9.805	(0.894)	2331409	115.86	57.93
	35 2-Chloronaphthalene	162.00	9.963	(0.908)	2090250	115.73	57.86
	36 2-Nitroaniline	65.00	10.240	(0.933)	724085	117.15	58.57
	37 Dimethylphthalate	163.00	10.625	(0.968)	2707165	115.23	57.61
	38 Acenaphthylene	152.00	10.704	(0.976)	3394072	114.65	57.32
	39 2,6-Dinitrotoluene	165.00	10.743	(0.979)	591709	117.83	58.91
*	40 Acenaphthene-d10	164.00	10.971	(1.000)	636693	40.00	
	41 3-Nitroaniline	138.00	10.981	(1.001)	706856	118.49	59.24
	42 Acenaphthene	153.00	11.030	(1.005)	2041091	117.01	58.50
	43 2,4-Dinitrophenol	183.85	11.159	(1.017)	403368	127.28	63.64
	44 Dibenzofuran	168.00	11.317	(1.032)	3104960	117.96	58.98
	45 4-Nitrophenol	109.00	11.337	(1.033)	590311	119.60	59.80
	46 2,4-Dinitrotoluene	165.00	11.436	(1.042)	902427	120.29	60.14
	47 Fluorene	166.00	11.921	(1.087)	2539502	118.34	59.17
	48 Diethylphthalate	149.00	11.871	(1.082)	2959786	116.68	58.34(H)
	49 4-Chlorophenyl-phenylether	204.00	11.931	(1.088)	1388053	125.28	62.64
	50 4-Nitroaniline	138.00	12.099	(1.103)	763348	118.79	59.39
	51 4,6-Dinitro-2-methylphenol	198.00	12.159	(0.898)	585112	124.79	62.39
	52 N-Nitrosodiphenylamine (1)	169.00	12.179	(0.899)	1784895	121.33	60.66
$	53 2,4,6-Tribromophenol	329.80	12.387	(0.915)	477240	131.18	65.59
	54 4-Bromophenyl-phenylether	248.00	12.772	(0.943)	830872	126.04	63.02
	55 Hexachlorobenzene	283.80	13.029	(0.962)	931715	127.19	63.60
	56 Pentachlorophenol	265.80	13.355	(0.986)	629343	124.16	62.08
*	57 Phenanthrene-d10	187.65	13.543	(1.000)	1113088	40.00	
	58 Phenanthrene	178.00	13.593	(1.004)	3486362	121.11	60.56
	59 Anthracene	178.00	13.672	(1.010)	3240639	120.87	60.43
	60 Carbazole	167.00	13.978	(1.032)	3155644	118.98	59.49
	61 Di-n-butylphthalate	149.00	14.668	(1.083)	5051683	118.01	59.00
	62 Fluoranthene	202.00	15.674	(1.157)	4152124	122.29	61.14
	63 Pyrene	202.00	16.060	(0.884)	4060069	118.53	59.26
$	64 Terphenyl-d14	244.00	16.346	(0.900)	2979851	123.38	61.69
	65 Butylbenzylphthalate	149.00	17.253	(0.950)	2364234	115.93	57.96
	66 Benzo(a)anthracene	228.00	18.140	(0.998)	4108581	125.76	62.88
*	67 Chrysene-d12	240.00	18.170	(1.000)	877913	40.00	
	68 Chrysene	228.00	18.230	(1.003)	3341461	124.77	62.38
	69 bis(2-Ethylhexyl)phthalate	149.00	18.260	(1.005)	2803594	119.30	59.65
	70 Di-n-octylphthalate	149.00	19.256	(0.941)	4903761	118.58	59.29
	71 Benzo(b)fluoranthene	252.00	19.927	(0.973)	3995500	123.58	61.79(H)
	72 Benzo(k)fluoranthene	252.00	19.957	(0.975)	3628253	129.10	64.55
	73 3,3'-Dichlorobenzidine	251.65	18.140	(0.998)	1736792	129.86	64.93
	74 Benzo(a)pyrene	252.00	20.401	(0.997)	2871908	122.85	61.43
*	75 Perylene-d12	264.00	20.471	(1.000)	819066	40.00	
	76 Indeno(1,2,3-cd)pyrene	276.00	21.952	(1.072)	3437675	128.83	64.41
	77 Dibenz(a,h)anthracene	278.00	21.952	(1.072)	3025621	132.53	66.26
	78 Benzo(g,h,i)perylene	276.00	22.298	(1.089)	2405208	126.89	63.44

Data File: /chem/p.i/p961208a.b/p10245.d
Report Date: 08-Dec-1996 18:38

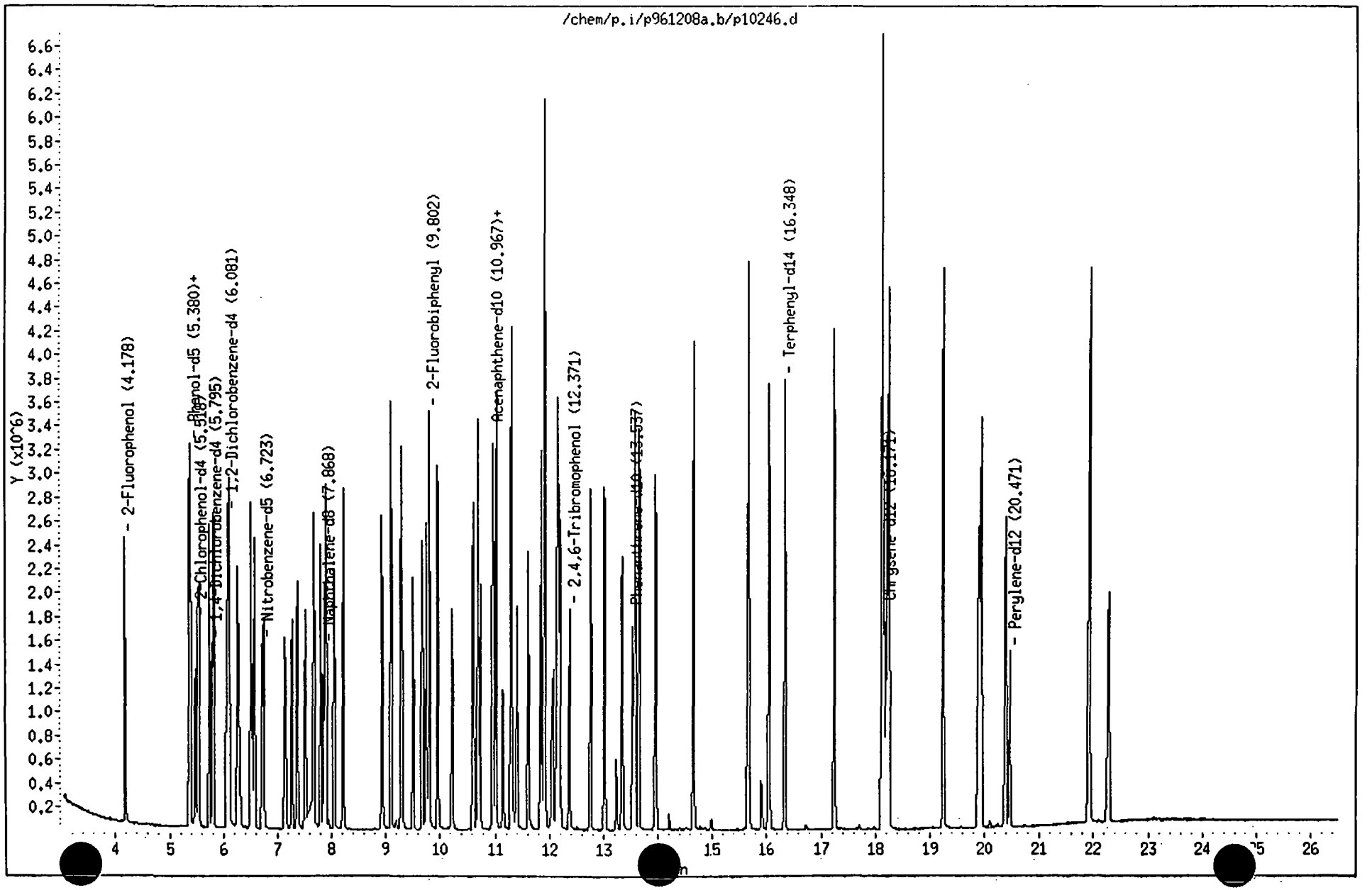
QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/p.i/p961208a.b/p10246.d
Date : 08-DEC-1996 18:25
Instrument : p.i
Sample ID : SSTD080PK
Column phase : XTI-5
Volume Injected (uL) : 2.0

OPERATOR: Ann

Column diameter : 0.25



Data File: /chem/p.i/p961208a.b/p10246.d
Report Date: 08-Dec-1996 18:41

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/p.i/p961208a.b/p10246.d
Lab. Id. : SSTD080PK Quant Type: ISTD
Inj Date : 08-DEC-1996 18:25
Operator : Annie Inst ID: p.i
Smp Info : SSTD080PK
Misc Info : MS517**INSTP*SSTD080PK*1-106-12*2UL*
Comment :
Method : /chem/p.i/p961208a.b/BNA517EPA.m
Meth Date : 08-Dec-1996 18:40
Cal Date : 08-DEC-1996 15:49 Cal File: p10242.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: WATER

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
$ 1 2-Fluorophenol	112.00	4.178	(0.721)	723867	77.73	38.86
$ 2 Phenol-d5	98.80	5.370	(0.927)	868879	76.80	38.40
3 Phenol	94.00	5.390	(0.930)	875610	76.40	38.20
4 bis(2-Chloroethyl)Ether	93.00	5.478	(0.945)	677632	74.49	37.24
5 2-Chlorophenol-d4	132.00	5.518	(0.952)	755379	78.94	39.47
6 2-Chlorophenol	128.00	5.548	(0.957)	743503	77.36	38.68
7 1,3-Dichlorobenzene	146.00	5.745	(0.991)	914953	79.83	39.91
* 8 1,4-Dichlorobenzene-d4	151.85	5.795	(1.000)	314088	40.00	
9 1,4-Dichlorobenzene	146.00	5.824	(1.005)	908635	79.64	39.82
$ 10 1,2-Dichlorobenzene-d4	152.00	6.081	(1.049)	472908	76.87	38.43
11 1,2-Dichlorobenzene	146.00	6.100	(1.053)	780536	77.21	38.60
12 2-Methylphenol	108.00	6.258	(1.080)	660033	78.06	39.03
13 2,2'-oxybis(1-Chloropropane)	45.00	6.288	(1.085)	544021	74.99	37.49
14 4-Methylphenol	108.00	6.505	(1.123)	690837	76.57	38.28
15 N-Nitroso-di-n-propylamine	70.00	6.535	(1.128)	444841	78.73	39.36
16 Hexachloroethane	117.00	6.575	(1.135)	396699	78.80	39.40
$ 17 Nitrobenzene-d5	82.00	6.713	(0.853)	880715	79.36	39.68
18 Nitrobenzene	77.00	6.752	(0.858)	805382	79.62	39.81
19 Isophorone	82.00	7.137	(0.907)	1530577	78.82	39.41
20 2-Nitrophenol	139.00	7.275	(0.925)	447676	78.93	39.46
21 2,4-Dimethylphenol	107.00	7.373	(0.937)	737855	79.53	39.76
22 bis(2-Chloroethoxy)methane	93.00	7.522	(0.956)	856742	77.18	38.59
23 2,4-Dichlorophenol	162.00	7.680	(0.976)	636439	78.56	39.28
24 1,2,4-Trichlorobenzene	180.00	7.798	(0.991)	698962	79.53	39.76
* 25 Naphthalene-d8	135.65	7.868	(1.000)	984228	40.00	
26 Naphthalene	128.00	7.907	(1.005)	2114847	78.30	39.15
27 4-Chloroaniline	127.00	8.055	(1.024)	887562	79.54	39.77
28 Hexachlorobutadiene	224.65	8.213	(1.044)	469239	82.03	41.01
29 4-Chloro-3-Methylphenol	107.00	8.933	(1.135)	789576	80.22	40.11
30 2-Methylnaphthalene	142.00	9.100	(1.157)	1498988	79.25	39.62
31 Hexachlorocyclopentadiene	236.80	9.505	(0.867)	515509	78.33	39.16

Data File: /chem/p.i/p961208a.b/p10246.d
Report Date: 08-Dec-1996 18:41

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	32 2,4,6-Trichlorophenol	196.00	9.673	(0.882)	509051	77.57	38.78
	33 2,4,5-Trichlorophenol	196.00	9.742	(0.888)	563688	78.10	39.05
$	34 2-Fluorobiphenyl	172.00	9.802	(0.894)	1639608	77.57	38.78
	35 2-Chloronaphthalene	162.00	9.950	(0.907)	1460034	77.07	38.53
	36 2-Nitroaniline	65.00	10.227	(0.932)	515749	79.12	39.56
	37 Dimethylphthalate	163.00	10.611	(0.968)	1905164	77.27	38.63
	38 Acenaphthylene	152.00	10.690	(0.975)	2378049	76.68	38.34
	39 2,6-Dinitrotoluene	165.00	10.730	(0.978)	411015	77.85	38.92
*	40 Acenaphthene-d10	164.00	10.967	(1.000)	673846	40.00	
	41 3-Nitroaniline	138.00	10.967	(1.000)	496502	78.97	39.48
	42 Acenaphthene	153.00	11.026	(1.005)	1425996	77.78	38.89
	43 2,4-Dinitrophenol	183.85	11.155	(1.017)	264151	79.06	39.53
	44 Dibenzofuran	168.00	11.303	(1.031)	2153731	77.83	38.91
	45 4-Nitrophenol	109.00	11.323	(1.032)	415648	79.67	39.83
	46 2,4-Dinitrotoluene	165.00	11.422	(1.041)	624064	78.87	39.43
	47 Fluorene	166.00	11.906	(1.086)	1763798	78.11	39.06
	48 Diethylphthalate	149.00	11.857	(1.081)	2074832	77.81	38.90
	49 4-Chlorophenyl-phenylether	204.00	11.916	(1.087)	924104	79.04	39.52
	50 4-Nitroaniline	138.00	12.074	(1.101)	529538	78.38	39.19
	51 4,6-Dinitro-2-methylphenol	198.00	12.144	(0.897)	386845	77.15	38.57
	52 N-Nitrosodiphenylamine (1)	169.00	12.164	(0.899)	1221012	77.34	38.67
	53 2,4,6-Tribromophenol	329.80	12.381	(0.915)	311912	79.39	39.69
	54 4-Bromophenyl-phenylether	248.00	12.766	(0.943)	571973	80.15	40.07
	55 Hexachlorobenzene	283.80	13.023	(0.962)	634400	80.03	40.01
	56 Pentachlorophenol	265.80	13.349	(0.986)	419685	77.36	38.68
*	57 Phenanthrene-d10	187.65	13.537	(1.000)	1204344	40.00	
	58 Phenanthrene	178.00	13.576	(1.003)	2456086	79.08	39.54
	59 Anthracene	178.00	13.656	(1.009)	2281518	78.91	39.45
	60 Carbazole	167.00	13.961	(1.031)	2235516	78.31	39.15
	61 Di-n-butylphthalate	149.00	14.661	(1.083)	3602451	78.21	39.10
	62 Fluoranthene	202.00	15.666	(1.157)	2940106	80.02	40.01
	63 Pyrene	202.00	16.052	(0.883)	2844637	77.24	38.62
$	64 Terphenyl-d14	244.00	16.348	(0.900)	2071339	79.26	39.63
	65 Butylbenzylphthalate	149.00	17.244	(0.949)	1699282	77.44	38.72
	66 Benzo(a)anthracene	228.00	18.131	(0.998)	2819379	79.66	39.83
*	67 Chrysene-d12	240.00	18.171	(1.000)	952048	40.00	
	68 Chrysene	228.00	18.221	(1.003)	2293970	79.19	39.59
	69 bis(2-Ethylhexyl)phthalate	149.00	18.251	(1.004)	1938175	76.81	38.40
	70 Di-n-octylphthalate	149.00	19.246	(0.940)	3476165	76.11	38.05
	71 Benzo(b)fluoranthene	252.00	19.907	(0.972)	2753160	76.91	38.45
	72 Benzo(k)fluoranthene	252.00	19.947	(0.974)	2420389	77.61	38.80
	73 3,3'-Dichlorobenzidine	251.65	18.131	(0.998)	1173026	80.70	40.35
	74 Benzo(a)pyrene	252.00	20.391	(0.996)	2024983	77.98	38.99
*	75 Perylene-d12	264.00	20.471	(1.000)	915587	40.00	
	76 Indeno(1,2,3-cd)pyrene	276.00	21.931	(1.071)	2469570	82.22	41.11
	77 Dibenz(a,h)anthracene	278.00	21.931	(1.071)	2119506	82.42	41.21
	78 Benzo(g,h,i)perylene	276.00	22.288	(1.089)	1720732	80.96	40.48

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: M Calibration Date: 12/16/96 Time: 1526

Lab File ID: M3893.D Init. Calibration Date(s): 12/16/96

Init. Calibration Times: 1003 1216

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.588	1.601	0.800	0.8	25.0
bis(2-Chloroethyl)Ether	1.135	1.166	0.700	2.7	25.0
2-Chlorophenol	1.245	1.299	0.800	4.4	25.0
1,3-Dichlorobenzene	1.414	1.452	0.600	2.7	25.0
1,4-Dichlorobenzene	1.472	1.544	0.500	4.9	25.0
1,2-Dichlorobenzene	1.374	1.430	0.400	4.1	25.0
2-Methylphenol	1.122	1.168	0.700	4.1	25.0
2,2'-oxybis(1-Chloropropane)	1.398	1.422		1.7	
4-Methylphenol	1.230	1.267	0.600	3.0	25.0
N-Nitroso-di-n-propylamine	0.868	0.895	0.500	3.1	25.0
Hexachloroethane	0.570	0.551	0.300	-3.3	25.0
Nitrobenzene	0.467	0.556	0.200	19.0	25.0
Isophorone	0.648	0.785	0.400	21.1	25.0
2-Nitrophenol	0.221	0.258	0.100	16.5	25.0
2,4-Dimethylphenol	0.324	0.371	0.200	14.4	25.0
bis(2-Chloroethoxy)methane	0.419	0.499	0.300	19.1	25.0
2,4-Dichlorophenol	0.326	0.347	0.200	6.5	25.0
1,2,4-Trichlorobenzene	0.358	0.377	0.200	5.4	25.0
Naphthalene	1.072	1.133	0.700	5.7	25.0
4-Chloroaniline	0.395	0.435		10.2	
Hexachlorobutadiene	0.198	0.219		10.2	
4-Chloro-3-Methylphenol	0.326	0.344	0.200	5.7	25.0
2-Methylnaphthalene	0.682	0.735	0.400	7.8	25.0
Hexachlorocyclopentadiene	0.275	0.216		-21.7	
2,4,6-Trichlorophenol	0.359	0.367	0.200	2.1	25.0
2,4,5-Trichlorophenol	0.401	0.391	0.200	-2.4	25.0
2-Chloronaphthalene	1.098	1.127	0.800	2.7	25.0
2-Nitroaniline	0.311	0.300		-3.6	
Dimethylphthalate	1.316	1.364		3.7	
Acenaphthylene	1.726	1.771	0.900	2.6	25.0
2,6-Dinitrotoluene	0.275	0.282	0.200	2.4	25.0
3-Nitroaniline	0.292	0.351		20.2	
Acenaphthene	1.166	1.182	0.900	1.4	25.0
2,4-Dinitrophenol	0.158	0.127		-19.6	
4-Nitrophenol	0.203	0.202		-0.1	
Dibenzofuran	1.605	1.656	0.800	3.2	25.0
2,4-Dinitrotoluene	0.394	0.427	0.200	8.3	25.0

All other compounds must meet a minimum RRF of 0.010.

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: M Calibration Date: 12/16/96 Time: 1526

Lab File ID: M3893.D Init. Calibration Date(s): 12/16/96

Init. Calibration Times: 1003 1216

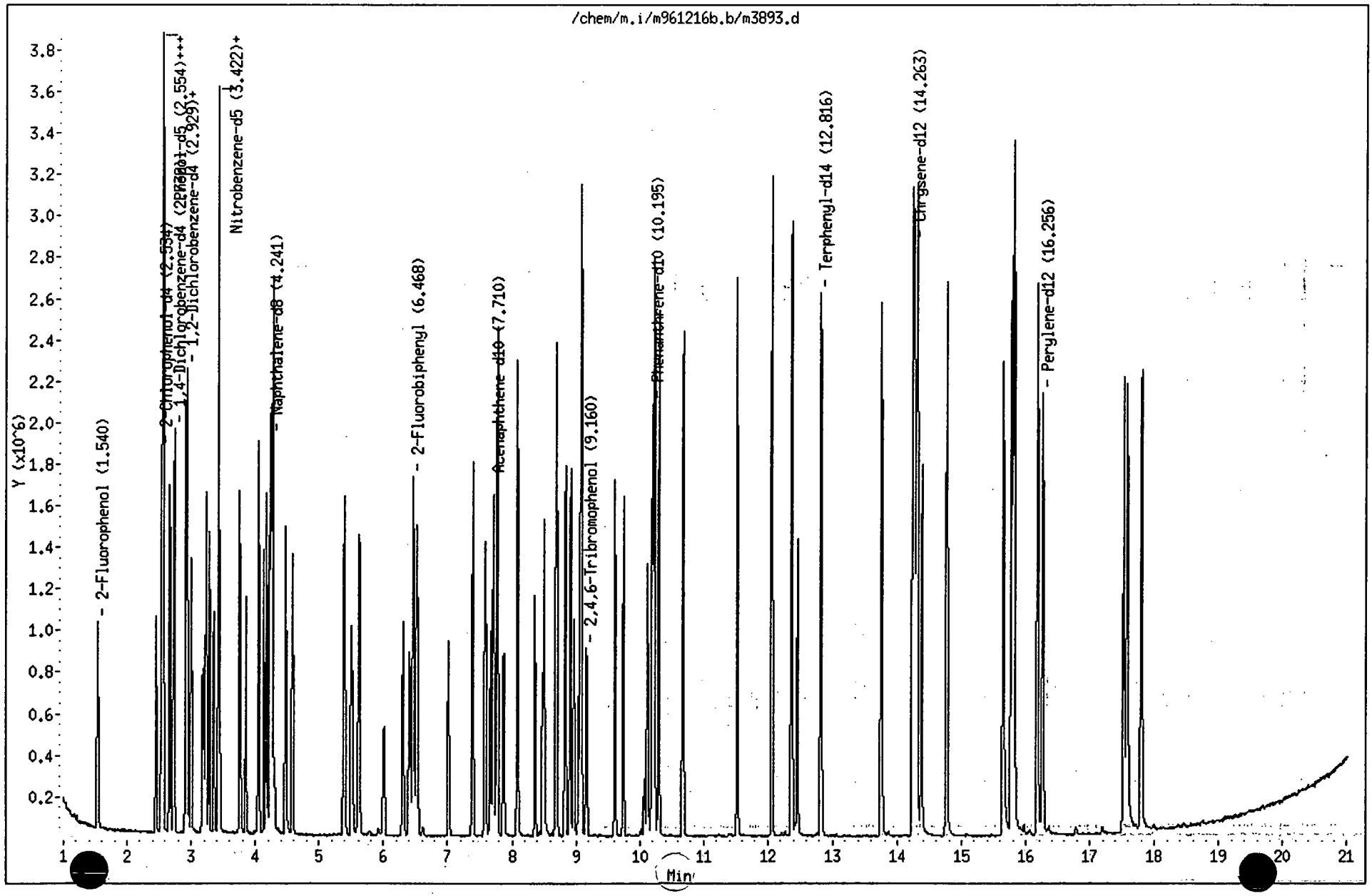
COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.346	1.399		4.0	
4-Chlorophenyl-phenylether	0.626	0.677	0.400	8.3	25.0
Fluorene	1.270	1.356	0.900	6.8	25.0
4-Nitroaniline	0.356	0.393		10.1	
4,6-Dinitro-2-methylphenol	0.141	0.137		-3.2	
N-Nitrosodiphenylamine (1)	0.531	0.539		1.6	
4-Bromophenyl-phenylether	0.205	0.212	0.100	3.3	25.0
Hexachlorobenzene	0.227	0.238	0.100	5.0	25.0
Pentachlorophenol	0.153	0.154	0.050	0.3	25.0
Phenanthrene	1.092	1.102	0.700	0.9	25.0
Anthracene	1.010	1.018	0.700	0.8	25.0
Carbazole	1.031	1.051		2.0	
Di-n-butylphthalate	1.324	1.354		2.2	
Fluoranthene	1.146	1.217	0.600	6.2	25.0
Pyrene	1.241	1.345	0.600	8.4	25.0
Butylbenzylphthalate	0.658	0.686		4.3	
3,3'-Dichlorobenzidine	0.369	0.394		6.6	
Benzo(a)anthracene	1.194	1.249	0.800	4.6	25.0
Chrysene	1.191	1.314	0.700	10.3	25.0
bis(2-Ethylhexyl)phthalate	0.870	0.938		7.8	
Di-n-octylphthalate	1.380	1.452		5.2	
Benzo(b)fluoranthene	1.248	1.222	0.700	-2.1	25.0
Benzo(k)fluoranthene	1.289	1.581	0.700	22.7	25.0
Benzo(a)pyrene	0.986	1.052	0.700	6.7	25.0
Indeno(1,2,3-cd)pyrene	0.843	0.924	0.500	9.6	25.0
Dibenz(a,h)anthracene	0.833	0.915	0.400	9.8	25.0
Benzo(g,h,i)perylene	0.919	0.991	0.500	7.8	25.0
Nitrobenzene-d5	0.346	0.397	0.200	14.8	25.0
2-Fluorobiphenyl	1.206	1.258	0.700	4.4	25.0
Terphenyl-d14	0.795	0.857	0.500	7.8	25.0
Phenol-d5	1.460	1.512	0.800	3.5	25.0
2-Fluorophenol	1.009	0.995	0.600	-1.5	25.0
2,4,6-Tribromophenol	0.107	0.109		1.7	
2-Chlorophenol-d4	1.191	1.237	0.800	3.9	25.0
1,2-Dichlorobenzene-d4	0.805	0.861	0.400	6.9	25.0

(1) Cannot be separated from Diphenylamine
All other compounds must meet a minimum RRF of 0.010.

Data File: /chem/m.i/m961216b.b/m3893.d
Date : 16-DEC-1996 15:26
Instrument : m.i
Sample ID : SSTD050MX
Column phase : XTI-5
Volume Injected (uL) : 2.0

OPERATOR: Ann

Column diameter : 0.25



Data File: /chem/m.i/m961216b.b/m3893.d
Report Date: 16-Dec-1996 15:37

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/m.i/m961216b.b/m3893.d
Lab. Id. : SSTD050MX
Inj Date : 16-DEC-1996 15:26
Operator : Annie
Smp Info : SSTD050MX
Misc Info : MS517**INSTM*SSTD050MX*1-106-12*2UL*
Comment :
Method : /chem/m.i/m961216b.b/BNA517EPA.m
Meth Date : 16-Dec-1996 15:37 ann
Cal Date : 16-DEC-1996 15:26
Als bottle: 99
Dil Factor: 1.000
Integrator: HP RTE
Sample Type: WATER

Quant Type: ISTD
Inst ID: m.i
Cal File: m3893.d
Continuing Calibration Sample
Target Version: Target 3.00
Compound Sublist: all.sub

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
$ 1 2-Fluorophenol	112.00	1.540	(0.566)	360309	49.27	24.63
$ 2 Phenol-d5	98.80	2.554	(0.938)	547553	51.75	25.87
4 bis(2-Chloroethyl)Ether	93.00	2.554	(0.938)	422401	51.36	25.68
3 Phenol	94.00	2.564	(0.942)	579933	50.41	25.20
6 2-Chlorophenol	128.00	2.544	(0.935)	470706	52.20	26.10
$ 5 2-Chlorophenol-d4	132.00	2.534	(0.931)	448252	51.95	25.97
7 1,3-Dichlorobenzene	146.00	2.663	(0.978)	526007	51.35	25.67
* 8 1,4-Dichlorobenzene-d4	152.00	2.722	(1.000)	289806	40.00	
9 1,4-Dichlorobenzene	146.00	2.732	(1.004)	559419	52.44	26.22
$ 10 1,2-Dichlorobenzene-d4	152.00	2.919	(1.072)	311772	53.42	26.71
11 1,2-Dichlorobenzene	146.00	2.939	(1.080)	517898	52.02	26.01
13 2,2'-oxybis(1-Chloropropane)	45.00	3.186	(1.170)	515065	50.86	25.43
12 2-Methylphenol	108.00	3.235	(1.188)	423205	52.05	26.02
16 Hexachloroethane	117.00	3.274	(1.203)	199439	48.33	24.16
15 N-Nitroso-di-n-propylamine	70.00	3.353	(1.232)	324383	51.57	25.78
14 4-Methylphenol	108.00	3.422	(1.257)	459114	51.51	25.75
$ 17 Nitrobenzene-d5	82.00	3.422	(0.807)	453534	57.37	28.68
18 Nitrobenzene	77.00	3.442	(0.812)	635905	59.51	29.75
19 Isophorone	82.00	3.748	(0.884)	896757	60.55	30.27
20 2-Nitrophenol	139.00	3.846	(0.907)	294385	58.25	29.12
21 2,4-Dimethylphenol	107.00	4.043	(0.953)	424155	57.19	28.59
22 bis(2-Chloroethoxy)methane	93.00	4.132	(0.974)	570344	59.56	29.78
23 2,4-Dichlorophenol	162.00	4.172	(0.984)	396659	53.24	26.62
24 1,2,4-Trichlorobenzene	180.00	4.221	(0.995)	430798	52.70	26.35
* 25 Naphthalene-d8	135.65	4.241	(1.000)	914197	40.00	
26 Naphthalene	128.00	4.261	(1.005)	1295169	52.86	26.43
27 4-Chloroaniline	127.00	4.468	(1.054)	496849	55.10	27.55
28 Hexachlorobutadiene	224.80	4.577	(1.079)	249810	55.11	27.55
29 4-Chloro-3-Methylphenol	107.00	5.512	(1.300)	393509	52.84	26.42
30 2-Methylnaphthalene	142.00	5.394	(1.272)	839582	53.89	26.95
31 Hexachlorocyclopentadiene	236.80	6.005	(0.779)	167942	39.12	19.56

Data File: /chem/m.i/m961216b.b/m3893.d
Report Date: 16-Dec-1996 15:37

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	32 2,4,6-Trichlorophenol	196.00	6.300	(0.817)	285774	51.05	25.52
	33 2,4,5-Trichlorophenol	196.00	6.399	(0.830)	304961	48.81	24.40(a)
$	34 2-Fluorobiphenyl	172.00	6.468	(0.839)	980570	52.18	26.09
	35 2-Chloronaphthalene	162.00	6.528	(0.847)	878319	51.33	25.66
	36 2-Nitroaniline	65.00	7.010	(0.909)	233909	48.19	24.09(a)
	38 Acenaphthylene	152.00	7.384	(0.958)	1380301	51.30	25.65
	37 Dimethylphthalate	163.00	7.591	(0.985)	1063183	51.85	25.92
	39 2,6-Dinitrotoluene	165.00	7.660	(0.994)	219657	51.17	25.58
*	40 Acenaphthene-d10	164.00	7.710	(1.000)	623395	40.00	
	42 Acenaphthene	153.00	7.769	(1.008)	921304	50.68	25.34
	41 3-Nitroaniline	138.00	7.878	(1.022)	273885	60.08	30.04
	43 2,4-Dinitrophenol	184.00	8.075	(1.047)	99201	40.20	20.10(a)
	44 Dibenzofuran	168.00	8.084	(1.049)	1290668	51.60	25.80
	46 2,4-Dinitrotoluene	165.00	8.360	(1.084)	332676	54.14	27.07
	45 4-Nitrophenol	109.00	8.469	(1.098)	157788	49.94	24.97(a)
	48 Fluorene	166.00	8.696	(1.128)	1056552	53.39	26.69
	49 4-Chlorophenyl-phenylether	204.00	8.834	(1.146)	527848	54.14	27.07
	47 Diethylphthalate	149.00	8.913	(1.156)	1090491	51.98	25.99
	50 4-Nitroaniline	138.00	8.972	(1.164)	305944	55.07	27.53
	51 4,6-Dinitro-2-methylphenol	198.00	9.041	(0.887)	194369	48.37	24.18(a)
	52 N-Nitrosodiphenylamine (1)	169.00	9.091	(0.892)	766065	50.77	25.39
$	53 2,4,6-Tribromophenol	329.80	9.170	(0.899)	154585	50.84	25.42
	54 4-Bromophenyl-phenylether	248.00	9.613	(0.943)	300802	51.67	25.83
	55 Hexachlorobenzene	283.80	9.751	(0.956)	337868	52.49	26.24
	56 Pentachlorophenol	265.80	10.116	(0.992)	218414	50.13	25.06
*	57 Phenanthrene-d10	187.65	10.195	(1.000)	1136287	40.00	
	58 Phenanthrene	178.00	10.225	(1.003)	1564944	50.46	25.23
	59 Anthracene	178.00	10.294	(1.010)	1445985	50.37	25.18
	60 Carbazole	167.00	10.678	(1.047)	1493207	50.98	25.49
	61 Di-n-butylphthalate	149.00	11.525	(1.130)	1922800	51.10	25.55
	62 Fluoranthene	202.00	12.066	(1.184)	1728760	53.09	26.55
	63 Pyrene	202.00	12.382	(0.868)	1814369	54.17	27.08
$	64 Terphenyl-d14	244.00	12.816	(0.898)	1156725	53.91	26.95
	65 Butylbenzylphthalate	149.00	13.751	(0.964)	925678	52.16	26.08
	66 Benzo(a)anthracene	228.00	14.243	(0.999)	1685494	52.30	26.15
*	67 Chrysene-d12	240.00	14.263	(1.000)	1079206	40.00	
	69 Chrysene	228.00	14.303	(1.003)	1772353	55.15	27.57
	68 3,3'-Dichlorobenzidine	252.00	14.373	(1.008)	531415	53.31	26.65
	70 bis(2-Ethylhexyl)phthalate	149.00	14.757	(1.035)	1265251	53.88	26.94
	71 Di-n-octylphthalate	149.00	15.643	(0.962)	1968212	52.60	26.30
	72 Benzo(b)fluoranthene	252.00	15.782	(0.971)	1656806	48.94	24.47
	73 Benzo(k)fluoranthene	252.00	15.811	(0.973)	2143143	61.32	30.66
	74 Benzo(a)pyrene	252.00	16.177	(0.995)	1426787	53.35	26.67
*	75 Perylene-d12	264.00	16.256	(1.000)	1084567	40.00	
	76 Indeno(1,2,3-cd)pyrene	276.00	17.527	(1.078)	1252852	54.79	27.39
	77 Dibenz(a,h)anthracene	278.00	17.576	(1.081)	1240704	54.90	27.45
	78 Benzo(g,h,i)perylene	276.00	17.794	(1.095)	1342983	53.91	26.95

Data File: /chem/m.i/m961216b.b/m3893.d
Report Date: 16-Dec-1996 15:37

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: P Calibration Date: 12/08/96 Time: 1549

Lab File ID: P10242.D Init. Calibration Date(s): 12/08/96

Init. Calibration Times: 1549 1825

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.460	1.568	0.800	7.4	25.0
bis(2-Chloroethyl)Ether	1.158	1.287	0.700	11.1	25.0
2-Chlorophenol	1.224	1.314	0.800	7.3	25.0
1,3-Dichlorobenzene	1.460	1.515	0.600	3.8	25.0
1,4-Dichlorobenzene	1.453	1.498	0.500	3.1	25.0
1,2-Dichlorobenzene	1.287	1.360	0.400	5.6	25.0
2-Methylphenol	1.077	1.179	0.700	9.5	25.0
2,2'-oxybis(1-Chloropropane)	0.924	1.040		12.6	
4-Methylphenol	1.149	1.231	0.600	7.1	25.0
N-Nitroso-di-n-propylamine	0.720	0.776	0.500	7.9	25.0
Hexachloroethane	0.641	0.683	0.300	6.6	25.0
Nitrobenzene	0.411	0.419	0.200	1.9	25.0
Isophorone	0.789	0.805	0.400	2.0	25.0
2-Nitrophenol	0.230	0.237	0.100	2.8	25.0
2,4-Dimethylphenol	0.377	0.386	0.200	2.4	25.0
bis(2-Chloroethoxy)methane	0.451	0.472	0.300	4.7	25.0
2,4-Dichlorophenol	0.329	0.328	0.200	-0.5	25.0
1,2,4-Trichlorobenzene	0.357	0.363	0.200	1.5	25.0
Naphthalene	1.098	1.111	0.700	1.3	25.0
4-Chloroaniline	0.453	0.453		-0.1	
Hexachlorobutadiene	0.232	0.225		-3.4	
4-Chloro-3-Methylphenol	0.400	0.401	0.200	0.1	25.0
2-Methylnaphthalene	0.769	0.768	0.400	0.0	25.0
Hexachlorocyclopentadiene	0.391	0.388		-0.7	
2,4,6-Trichlorophenol	0.390	0.412	0.200	5.7	25.0
2,4,5-Trichlorophenol	0.428	0.439	0.200	2.4	25.0
2-Chloronaphthalene	1.124	1.186	0.800	5.5	25.0
2-Nitroaniline	0.387	0.413		6.6	
Dimethylphthalate	1.463	1.541		5.3	
Acenaphthylene	1.841	1.946	0.900	5.7	25.0
2,6-Dinitrotoluene	0.313	0.320	0.200	2.1	25.0
3-Nitroaniline	0.373	0.384		3.0	
Acenaphthene	1.088	1.129	0.900	3.8	25.0
2,4-Dinitrophenol	0.198	0.173		-12.5	
4-Nitrophenol	0.310	0.313		1.2	
Dibenzofuran	1.642	1.691	0.800	3.0	25.0
2,4-Dinitrotoluene	0.470	0.477	0.200	1.5	25.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: P Calibration Date: 12/08/96 Time: 1549

Lab File ID: P10242.D Init. Calibration Date(s): 12/08/96

Init. Calibration Times: 1549 1825

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.583	1.618		2.2	
4-Chlorophenyl-phenylether	0.694	0.671	0.400	-3.3	25.0
Fluorene	1.340	1.359	0.900	1.4	25.0
4-Nitroaniline	0.401	0.408		1.7	
4,6-Dinitro-2-methylphenol	0.167	0.149		-10.3	
N-Nitrosodiphenylamine (1)	0.524	0.538		2.7	
4-Bromophenyl-phenylether	0.237	0.236	0.100	-0.4	25.0
Hexachlorobenzene	0.263	0.262	0.100	-0.6	25.0
Pentachlorophenol	0.180	0.173	0.050	-3.9	25.0
Phenanthrene	1.031	1.040	0.700	0.9	25.0
Anthracene	0.960	0.966	0.700	0.6	25.0
Carbazole	0.948	0.971		2.5	
Di-n-butylphthalate	1.530	1.578		3.2	
Fluoranthene	1.220	1.225	0.600	0.4	25.0
Pyrene	1.547	1.673	0.600	8.1	25.0
Butylbenzylphthalate	0.922	0.971		5.3	
3,3'-Dichlorobenzidine	0.611	0.573		-6.1	
Benzo(a)anthracene	1.487	1.464	0.800	-1.5	25.0
Chrysene	1.217	1.195	0.700	-1.8	25.0
bis(2-Ethylhexyl)phthalate	1.060	1.075		1.4	
Di-n-octylphthalate	1.995	2.111		5.8	
Benzo(b)fluoranthene	1.564	1.479	0.700	-5.4	25.0
Benzo(k)fluoranthene	1.362	1.398	0.700	2.6	25.0
Benzo(a)pyrene	1.134	1.135	0.700	0.1	25.0
Indeno(1,2,3-cd)pyrene	1.312	1.302	0.500	-0.8	25.0
Dibenz(a,h)anthracene	1.123	1.083	0.400	-3.6	25.0
Benzo(g,h,i)perylene	0.928	0.913	0.500	-1.7	25.0
Nitrobenzene-d5	0.451	0.461	0.200	2.1	25.0
2-Fluorobiphenyl	1.255	1.325	0.700	5.6	25.0
Terphenyl-d14	1.098	1.126	0.500	2.5	25.0
Phenol-d5	1.441	1.569	0.800	8.9	25.0
2-Fluorophenol	1.186	1.253	0.600	5.6	25.0
2,4,6-Tribromophenol	0.130	0.130		-0.7	
2-Chlorophenol-d4	1.219	1.300	0.800	6.7	25.0
1,2-Dichlorobenzene-d4	0.783	0.823	0.400	5.1	25.0

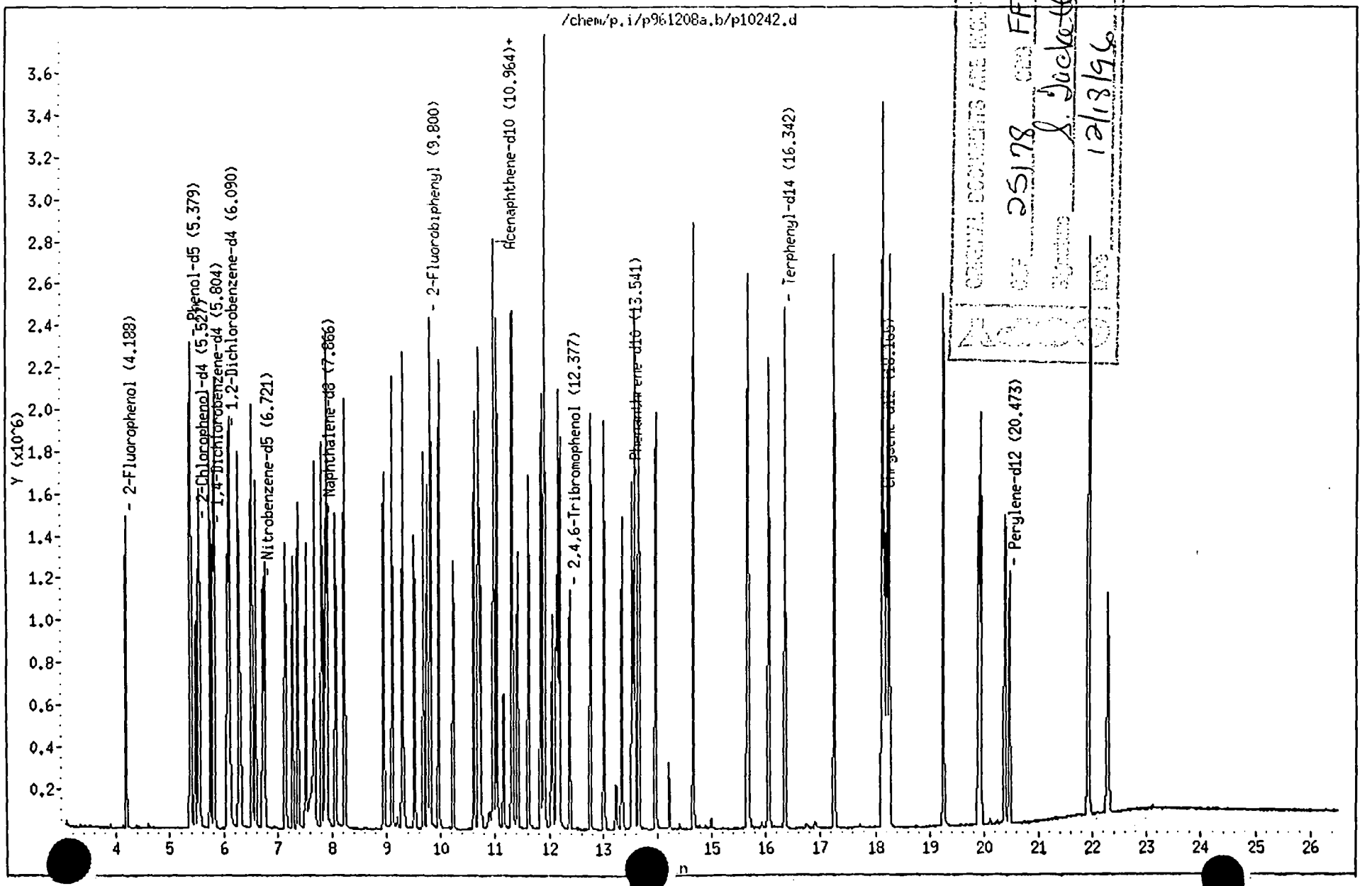
(1) Cannot be separated from Diphenylamine
All other compounds must meet a minimum RRF of 0.010.

Data File: /chem/p.i/p961208a.b/p10242.d
Date : 08-DEC-1996 15:49
Instrument : p.i
Sample ID : SSTD050PK
Column phase : XTI-5
Volume Injected (uL) : 2.0

Column diameter : 0.25

OPERATOR: Ann

ORIGINAL DOCUMENTS ARE INCLUDED IN
OCP 25178 CDB FF667
Signature S. Jackett
Date 12/13/96



Data File: /chem/p.i/p961208a.b/p10242.d
Report Date: 08-Dec-1996 18:41

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/p.i/p961208a.b/p10242.d
Lab. Id. : SSTD050PK Quant Type: ISTD
Inj Date : 08-DEC-1996 15:49
Operator : Annie Inst ID: p.i
Smp Info : SSTD050PK
Misc Info : MS517**INSTP*SSTD050PK*1-106-12*2UL*
Comment :
Method : /chem/p.i/p961208a.b/BNA517EPA.m
Meth Date : 08-Dec-1996 18:41 ann
Cal Date : 08-DEC-1996 15:49 Cal File: p10242.d
Als bottle: 99 Continuing Calibration Sample
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: WATER

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
$	1 2-Fluorophenol	112.00	4.188	(0.722)	507909	52.82	26.41
$	2 Phenol-d5	98.80	5.369	(0.925)	636224	54.46	27.23
	3 Phenol	94.00	5.379	(0.927)	635740	53.71	26.86(H)
	4 bis(2-Chloroethyl)Ether	93.00	5.478	(0.944)	521867	55.55	27.77(H)
	5 2-Chlorophenol-d4	132.00	5.527	(0.952)	526998	53.33	26.66
	6 2-Chlorophenol	128.00	5.547	(0.956)	532645	53.67	26.83
	7 1,3-Dichlorobenzene	146.00	5.744	(0.990)	614410	51.91	25.95(H)
*	8 1,4-Dichlorobenzene-d4	151.85	5.804	(1.000)	324340	40.00	
	9 1,4-Dichlorobenzene	146.00	5.823	(1.003)	607144	51.53	25.76
$	10 1,2-Dichlorobenzene-d4	152.00	6.090	(1.049)	333712	52.53	26.26
	11 1,2-Dichlorobenzene	146.00	6.109	(1.053)	551306	52.81	26.40
	12 2-Methylphenol	108.00	6.267	(1.080)	478100	54.76	27.38
	13 2,2'-oxybis(1-Chloropropane)	45.00	6.287	(1.083)	421582	56.28	28.14
	14 4-Methylphenol	108.00	6.504	(1.121)	499001	53.56	26.78
	15 N-Nitroso-di-n-propylamine	70.00	6.524	(1.124)	314772	53.95	26.97
	16 Hexachloroethane	117.00	6.583	(1.134)	276997	53.28	26.64
$	17 Nitrobenzene-d5	82.00	6.721	(0.854)	606384	51.05	25.52
	18 Nitrobenzene	77.00	6.751	(0.858)	551394	50.93	25.46
	19 Isophorone	82.00	7.135	(0.907)	1060096	51.01	25.50
	20 2-Nitrophenol	139.00	7.273	(0.925)	311930	51.39	25.69
	21 2,4-Dimethylphenol	107.00	7.372	(0.937)	508565	51.22	25.61
	22 bis(2-Chloroethoxy)methane	93.00	7.520	(0.956)	621694	52.33	26.16
	23 2,4-Dichlorophenol	162.00	7.678	(0.976)	431430	49.76	24.88
	24 1,2,4-Trichlorobenzene	180.00	7.807	(0.992)	477523	50.76	25.38
*	25 Naphthalene-d8	135.65	7.866	(1.000)	1053367	40.00	
	26 Naphthalene	128.00	7.906	(1.005)	1463497	50.63	25.31
	27 4-Chloroaniline	127.00	8.054	(1.024)	596447	49.94	24.97
	28 Hexachlorobutadiene	224.65	8.222	(1.045)	295667	48.29	24.14
	29 4-Chloro-3-Methylphenol	107.00	8.941	(1.137)	527379	50.06	25.03
	30 2-Methylnaphthalene	142.00	9.108	(1.158)	1011645	49.98	24.99
	31 Hexachlorocyclopentadiene	236.80	9.503	(0.867)	305453	49.66	24.83

Data File: /chem/p.i/p961208a.b/p10242.d
Report Date: 08-Dec-1996 18:41

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	32 2,4,6-Trichlorophenol	196.00	9.671	(0.882)	324107	52.84	26.42(H)
	33 2,4,5-Trichlorophenol	196.00	9.740	(0.888)	345305	51.19	25.59
$	34 2-Fluorobiphenyl	172.00	9.800	(0.894)	1042839	52.79	26.39
	35 2-Chloronaphthalene	162.00	9.958	(0.908)	933583	52.73	26.36
	36 2-Nitroaniline	65.00	10.224	(0.933)	324801	53.32	26.66
	37 Dimethylphthalate	163.00	10.608	(0.968)	1213163	52.65	26.32
	38 Acenaphthylene	152.00	10.697	(0.976)	1532129	52.86	26.43
	39 2,6-Dinitrotoluene	165.00	10.727	(0.978)	251936	51.06	25.53
*	40 Acenaphthene-d10	164.00	10.964	(1.000)	629778	40.00	
	41 3-Nitroaniline	138.00	10.964	(1.000)	302451	51.47	25.73
	42 Acenaphthene	153.00	11.023	(1.005)	888891	51.87	25.93
	43 2,4-Dinitrophenol	183.85	11.152	(1.017)	136538	43.72	21.86(a)
	44 Dibenzofuran	168.00	11.300	(1.031)	1331572	51.49	25.74
	45 4-Nitrophenol	109.00	11.320	(1.032)	246779	50.61	25.30
	46 2,4-Dinitrotoluene	165.00	11.409	(1.041)	375411	50.77	25.38
	47 Fluorene	166.00	11.912	(1.087)	1070047	50.70	25.35
	48 Diethylphthalate	149.00	11.853	(1.081)	1273446	51.10	25.55
	49 4-Chlorophenyl-phenylether	204.00	11.922	(1.087)	528063	48.33	24.16
	50 4-Nitroaniline	138.00	12.061	(1.100)	321177	50.87	25.43
	51 4,6-Dinitro-2-methylphenol	198.00	12.130	(0.896)	207405	44.86	22.43(a)
	52 N-Nitrosodiphenylamine (1)	169.00	12.160	(0.898)	747472	51.35	25.67
$	53 2,4,6-Tribromophenol	329.80	12.377	(0.914)	179830	49.64	24.82
	54 4-Bromophenyl-phenylether	248.00	12.762	(0.942)	327557	49.78	24.89
	55 Hexachlorobenzene	283.80	13.018	(0.961)	363120	49.68	24.84
	56 Pentachlorophenol	265.80	13.344	(0.985)	240386	48.05	24.02(a)
*	57 Phenanthrene-d10	187.65	13.541	(1.000)	1110503	40.00	
	58 Phenanthrene	178.00	13.581	(1.003)	1444100	50.43	25.21(H)
	59 Anthracene	178.00	13.660	(1.009)	1340775	50.29	25.14
	60 Carbazole	167.00	13.966	(1.031)	1348418	51.23	25.61
	61 Di-n-butylphthalate	149.00	14.666	(1.083)	2191111	51.59	25.79
	62 Fluoranthene	202.00	15.661	(1.157)	1700878	50.20	25.10
	63 Pyrene	202.00	16.056	(0.884)	1712434	54.07	27.03
$	64 Terphenyl-d14	244.00	16.342	(0.900)	1152174	51.27	25.63
	65 Butylbenzylphthalate	149.00	17.248	(0.950)	993738	52.66	26.33
	66 Benzo(a)anthracene	228.00	18.135	(0.998)	1498690	49.24	24.62(H)
*	67 Chrysene-d12	240.00	18.165	(1.000)	818704	40.00	
	68 Chrysene	228.00	18.215	(1.003)	1223039	49.09	24.54
	69 bis(2-Ethylhexyl)phthalate	149.00	18.255	(1.005)	1100637	50.72	25.36
	70 Di-n-octylphthalate	149.00	19.240	(0.940)	1988076	52.89	26.44
	71 Benzo(b)fluoranthene	252.00	19.900	(0.972)	1392833	47.27	23.64(H)
	72 Benzo(k)fluoranthene	252.00	19.940	(0.974)	1317207	51.32	25.66
	73 3,3'-Dichlorobenzidine	251.65	18.125	(0.998)	586808	46.94	23.47
	74 Benzo(a)pyrene	252.00	20.384	(0.996)	1069225	50.03	25.01
*	75 Perylene-d12	264.00	20.473	(1.000)	753555	40.00	
	76 Indeno(1,2,3-cd)pyrene	276.00	21.925	(1.071)	1226002	49.59	24.79
	77 Dibenz(a,h)anthracene	278.00	21.925	(1.071)	1020322	48.21	24.10
	78 Benzo(g,h,i)perylene	276.00	22.281	(1.088)	859537	49.14	24.57

Data File: /chem/p.i/p961208a.b/p10242.d
Report Date: 08-Dec-1996 18:41

QC Flag Legend

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

Data File: /chem/m.i/m961216a.b/m3884.d

Date : 16-DEC-96 09:48

Instrument : m.i

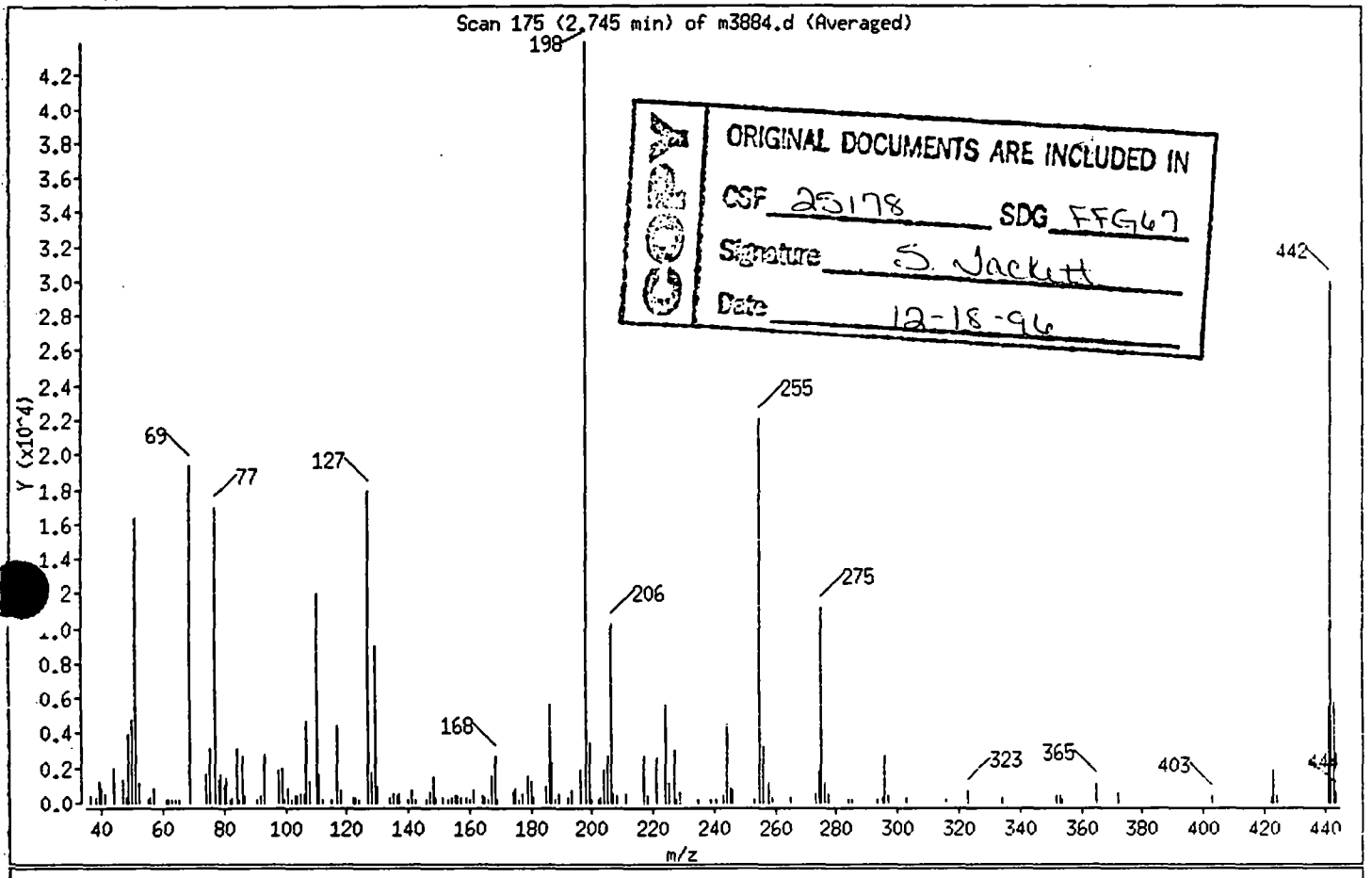
Sample ID : DFTPP

Column phase : XTI-5

Column diameter : 0.25

Volume Injected (uL) : 2.0

1 dftpp



ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25178 SDG FFG67
Signature S. Jackett
Date 12-18-96

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.0
51	30.00 - 80.00% of mass 198	35.2
68	Less than 2.00% of mass 69	0.0
69	Mass 69 relative abundance	44.3
70	Less than 2.00% of mass 69	0.0
127	25.00 - 75.00% of mass 198	41.0
197	Less than 1.00% of mass 198	0.0
199	5.00 - 9.00% of mass 198	7.8
275	10.00 - 30.00% of mass 198	25.5
365	Greater than 0.75% of mass 198	2.5
441	Present, but less than mass 443	95.1
442	40.00 - 110.00% of mass 198	68.3
443	15.00 - 24.00% of mass 442	19.2

OK 12/18/96

Data File: /chem/m.i/m961216a.b/m3884.d

Date : 16-DEC-96 09:48

Instrument : m.i

Sample ID : DFTPP

Column phase : XTI-5

Column diameter : 0.25

Volume Injected (uL) : 2.0

Spectrum: Scans 175-177 (2.745 min), Subtraction Scan 173
Location of Maximum: 198.00
Number of points: 156

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	366	107.00	4698	169.00	168	245.00	780
38.00	275	108.00	1229	174.00	602	246.00	712
39.00	1199	110.00	12060	175.00	801	253.00	180
47.00	329	111.00	1652	176.00	203	255.00	22112
48.00	319	112.00	202	177.00	509	256.00	3206
50.00	4772	115.00	252	179.00	1512	258.00	1273
51.00	15433	117.00	4498	180.00	1204	259.00	356
52.00	1112	118.00	687	181.00	310	265.00	331
56.00	317	122.00	303	185.00	973	273.00	533
57.00	871	123.00	327	186.00	5710	274.00	1790
61.00	249	124.00	240	187.00	2251	275.00	11183
62.00	251	127.00	17980	188.00	199	276.00	1157
63.00	213	128.00	1783	189.00	531	277.00	506
64.00	170	129.00	8985	192.00	319	284.00	179
65.00	228	130.00	955	193.00	734	285.00	183
69.00	19431	134.00	305	196.00	1829	293.00	187
74.00	1692	135.00	525	198.00	43904	295.00	268
75.00	3163	136.00	466	199.00	3416	296.00	2726
77.00	17047	137.00	499	200.00	199	297.00	369
78.00	1349	140.00	177	202.00	223	303.00	291
79.00	1612	141.00	708	203.00	356	316.00	181
80.00	1061	142.00	208	204.00	1863	323.00	777
81.00	1404	146.00	208	205.00	2735	334.00	309
82.00	206	147.00	647	206.00	10254	352.00	463
83.00	331	148.00	1574	207.00	535	353.00	404
85.00	210	149.00	346	208.00	381	354.00	196
86.00	586	152.00	279	211.00	524	365.00	1093
87.00	376	153.00	226	217.00	2655	372.00	667
91.00	170	154.00	265	218.00	402	403.00	393
92.00	394	155.00	462	221.00	2603	422.00	346
93.00	2845	156.00	443	224.00	5565	423.00	1874
98.00	1880	157.00	281	225.00	1169	424.00	407
99.00	2020	159.00	300	227.00	3057	441.00	5475
100.00	187	160.00	234	228.00	255	442.00	29974
101.00	830	161.00	764	229.00	654	443.00	5756

Data File: /chem/m.i/m961216a.b/m3884.d

Date : 16-DEC-96 09:48

Instrument : m.i

Sample ID : DFTPP

Column phase : XTI-5

Column diameter : 0.25

Volume Injected (uL) : 2.0

Spectrum: Scans 175-177 (2.745 min), Subtraction Scan 173
Location of Maximum: 198.00
Number of points: 156

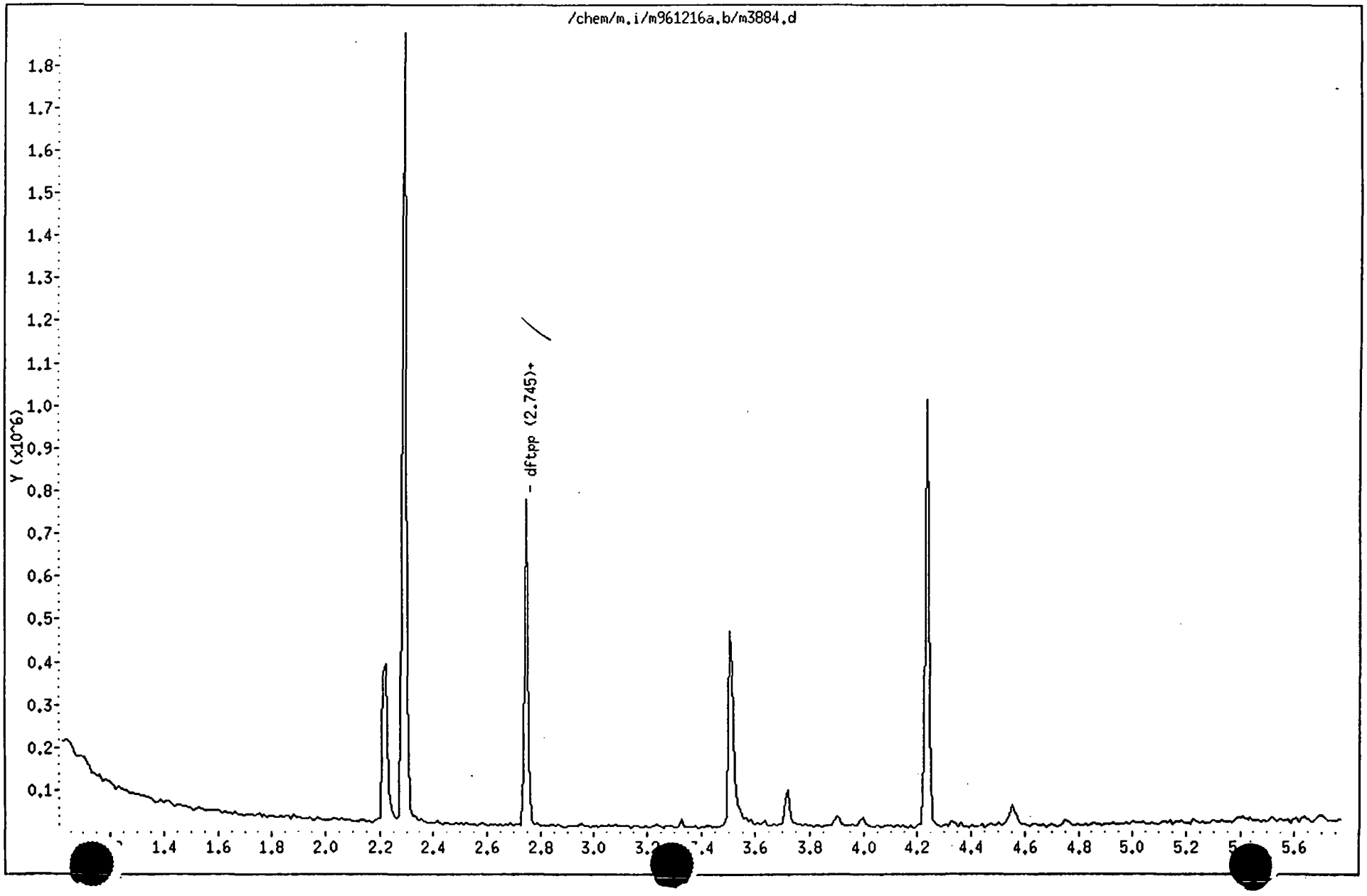
m/z	Y	m/z	Y	m/z	Y	m/z	Y
102.00	250	164.00	424	235.00	247	444.00	630
103.00	419	165.00	328	239.00	210		
104.00	385	166.00	250	241.00	240		
105.00	496	167.00	1572	243.00	449		
106.00	551	168.00	2674	244.00	4491		

OPERATOR: AM

282

Data File: /chem/m.i/m961216a.b/m3884.d
Date : 16-DEC-96 09:48
Instrument : m.i
Sample ID : DFTPP
Column phase : XTI-5
Volume Injected (uL) : 2.0

Column diameter : 0.25



Data File: /chem/m.i/m961216b.b/m3892.d

Date : 16-DEC-96 15:12

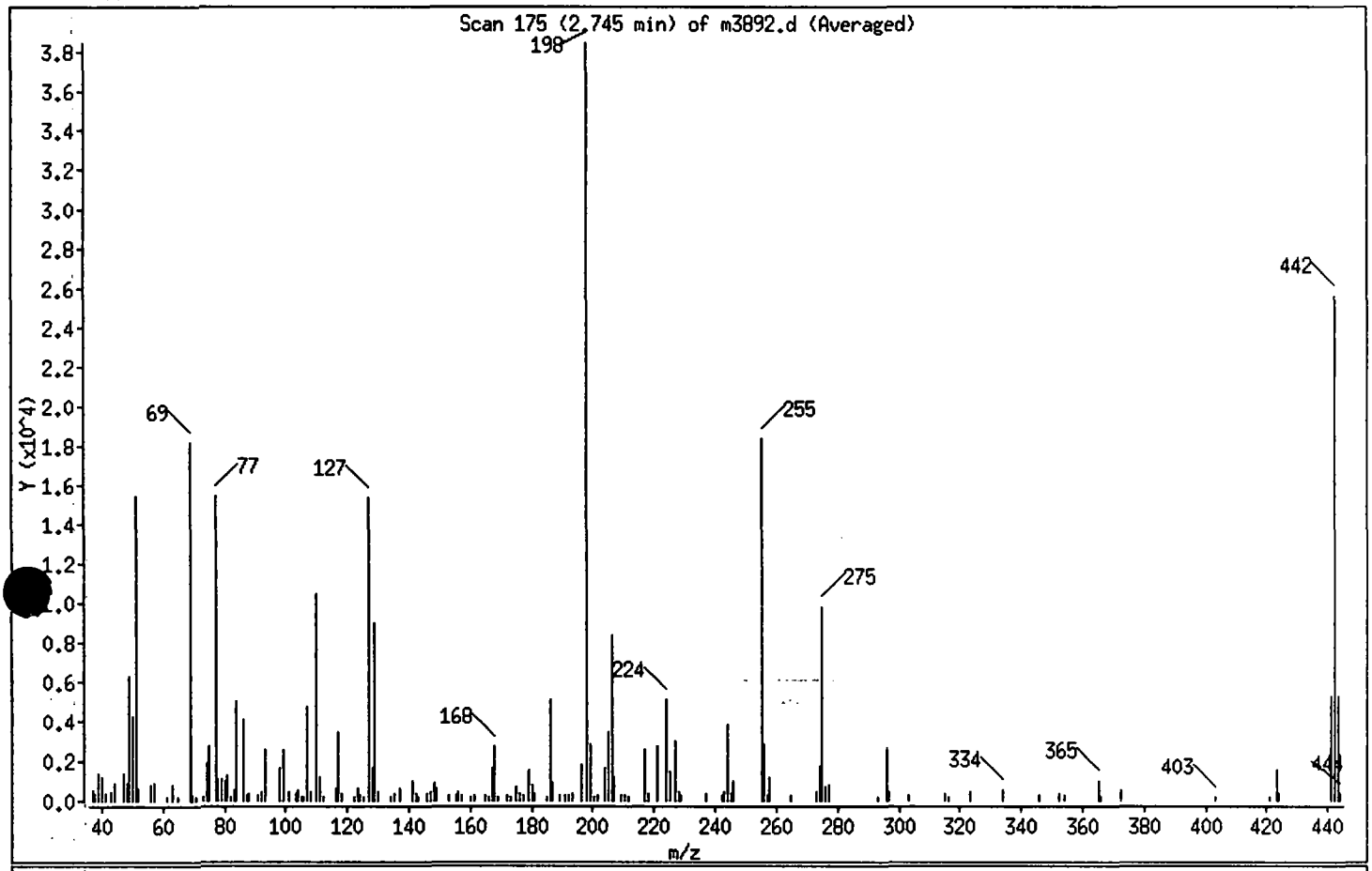
Instrument : m.i

Sample ID : DFTPP

Column phase : XTI-5 Column diameter : 0.25

Volume Injected (uL) : 2.0

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.0
51	30.00 - 80.00% of mass 198	33.6
68	Less than 2.00% of mass 69	0.0
69	Mass 69 relative abundance	47.2
70	Less than 2.00% of mass 69	1.3
127	25.00 - 75.00% of mass 198	40.0
197	Less than 1.00% of mass 198	0.0
199	5.00 - 9.00% of mass 198	7.3
275	10.00 - 30.00% of mass 198	25.6
365	Greater than 0.75% of mass 198	2.6
441	Present, but less than mass 443	99.0
442	40.00 - 110.00% of mass 198	66.6
443	15.00 - 24.00% of mass 442	20.6

OK 12/18/96

Data File: /chem/m.i/m961216b.b/m3892.d

Date : 16-DEC-96 15:12

Instrument : m.i

Sample ID : DFTPP

Column phase : XTI-5 Column diameter : 0.25

Volume Injected (uL) : 2.0

Spectrum: Scans 175-177 (2.745 min), Subtraction Scan 173

Location of Maximum: 198.00

Number of points: 153

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	543	104.00	556	168.00	2694	243.00	489
38.00	406	105.00	170	169.00	203	244.00	3839
39.00	1330	106.00	185	172.00	230	245.00	386
41.00	398	107.00	4726	173.00	195	246.00	1007
43.00	415	108.00	497	175.00	742	255.00	18339
44.00	117	109.00	186	176.00	388	256.00	2772
48.00	872	110.00	10418	177.00	242	257.00	258
49.00	256	111.00	1199	179.00	1507	258.00	1168
50.00	3708	112.00	186	180.00	798	265.00	239
51.00	12929	116.00	599	181.00	349	273.00	464
52.00	666	117.00	3446	185.00	221	274.00	1720
56.00	806	118.00	392	186.00	5069	275.00	9848
57.00	877	122.00	214	187.00	915	276.00	755
61.00	171	123.00	661	189.00	281	277.00	796
63.00	840	124.00	263	191.00	255	293.00	207
65.00	224	125.00	222	192.00	262	296.00	2653
69.00	18130	127.00	15375	193.00	336	297.00	450
70.00	237	128.00	1600	196.00	1804	303.00	318
71.00	168	129.00	8962	198.00	38434	315.00	365
73.00	189	130.00	488	199.00	2796	316.00	185
74.00	1903	134.00	177	200.00	180	323.00	417
75.00	2682	135.00	378	202.00	234	334.00	573
77.00	15483	137.00	591	204.00	1626	346.00	230
78.00	1061	141.00	976	205.00	3409	352.00	319
79.00	1114	142.00	334	206.00	8400	354.00	250
80.00	968	143.00	166	207.00	1183	365.00	985
81.00	1294	146.00	339	209.00	241	366.00	172
82.00	182	147.00	497	211.00	291	372.00	551
83.00	521	148.00	893	212.00	175	403.00	218
86.00	922	149.00	642	217.00	2501	421.00	179
87.00	282	153.00	243	218.00	380	423.00	1563
88.00	368	155.00	315	221.00	2696	424.00	359
91.00	262	156.00	463	224.00	5044	441.00	5228
92.00	425	157.00	262	225.00	1412	442.00	25608
93.00	2533	160.00	203	227.00	2979	443.00	5279

Data File: /chem/m.i/m961216b.b/m3892.d

Date : 16-DEC-96 15:12

Instrument : m.i

Sample ID : DFTPP

Column phase : XTI-5

Column diameter : 0.25

Volume Injected (uL) : 2.0

Spectrum: Scans 175-177 (2.745 min), Subtraction Scan 173

Location of Maximum: 198.00

Number of points: 153

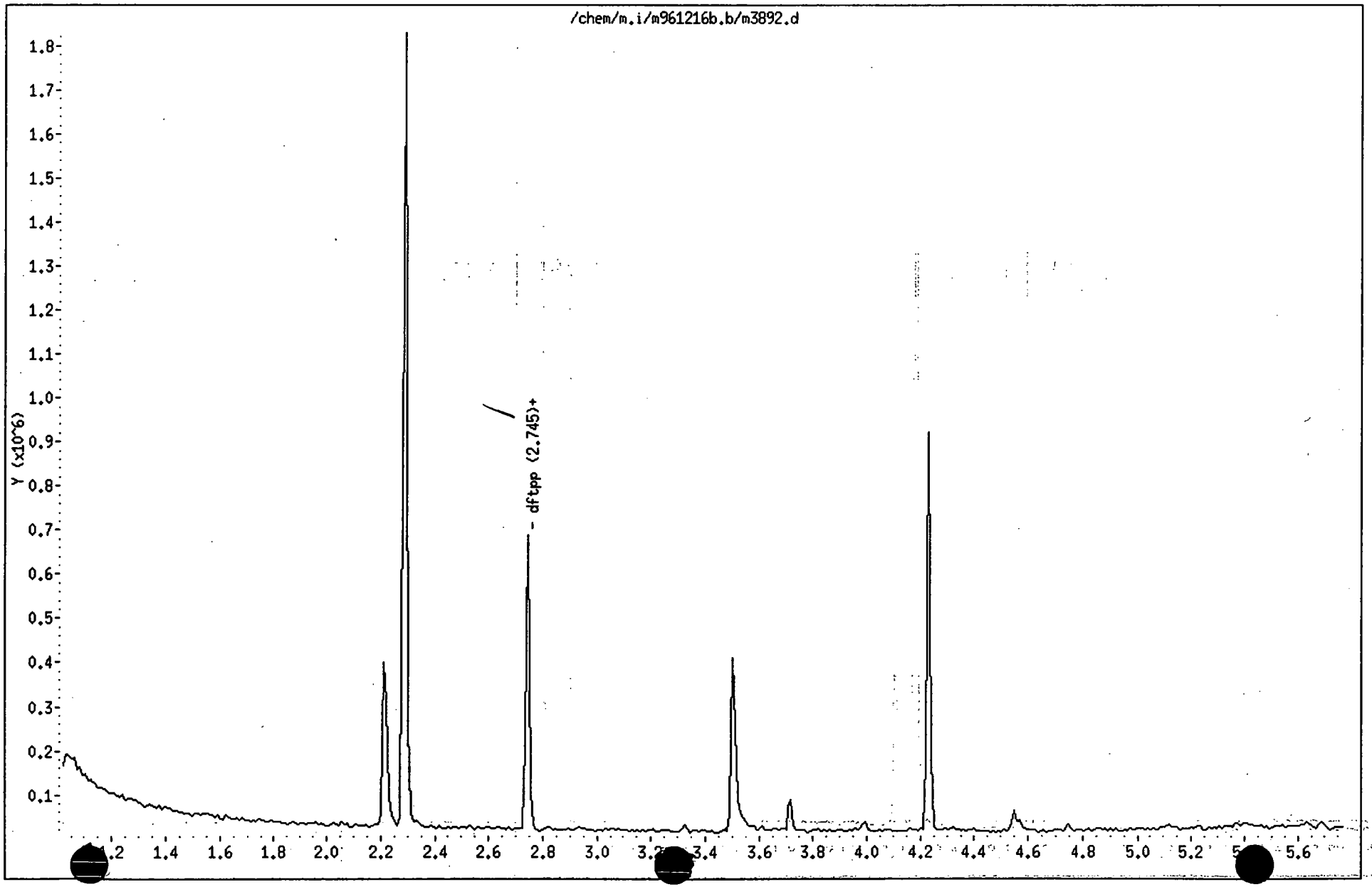
m/z	Y	m/z	Y	m/z	Y	m/z	Y
98.00	1638	161.00	248	228.00	422	444.00	389
99.00	2576	165.00	251	229.00	270		
101.00	470	166.00	171	237.00	325		
103.00	359	167.00	1602	242.00	250		

Data File: /chem/m.i/m961216b.b/m3892.d
Date : 16-DEC-96 15:12
Instrument : m.i
Sample ID : DFTPP
Column phase : XTI-5
Volume Injected (uL) : 2.0

OPERATOR: Ann

286

Column diameter : 0.25



Data File: /chem/p.i/p961208a.b/p10241.d

Date : 08-DEC-96 15:34

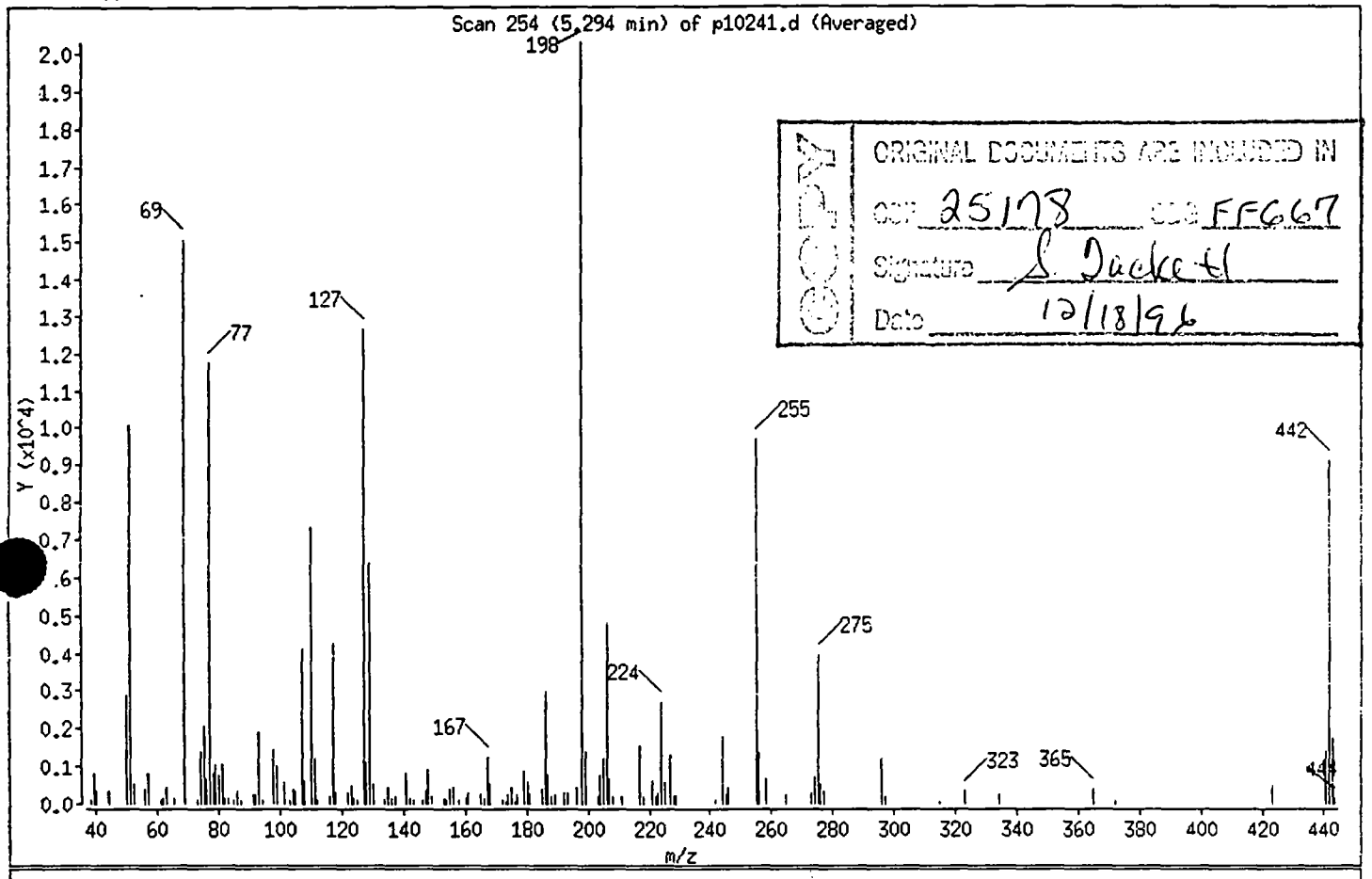
Instrument : p.i

Sample ID : DFTPP

Column phase : XTI-5 Column diameter : 0.25

Volume Injected (uL) : 2.0

1 dftpp



ORIGINAL DOCUMENTS ARE INCLUDED IN
CCF 25178 SDG FF667
Signature S. Dackett
Date 12/18/96

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.0
51	30.00 - 80.00% of mass 198	49.6
68	Less than 2.00% of mass 69	0.0
69	Mass 69 relative abundance	74.2
70	Less than 2.00% of mass 69	0.0
127	25.00 - 75.00% of mass 198	62.4
197	Less than 1.00% of mass 198	0.0
199	5.00 - 9.00% of mass 198	6.8
275	10.00 - 30.00% of mass 198	19.5
365	Greater than 0.75% of mass 198	2.0
441	Present, but less than mass 443	81.1
442	40.00 - 110.00% of mass 198	44.8
443	15.00 - 24.00% of mass 442	19.1

GK 12/09/96

Data File: /chem/p.i/p961208a.b/p10241.d

Date : 08-DEC-96 15:34

Instrument : p.i

Sample ID : DFTPP

Column phase : XTI-5

Column diameter : 0.25

Volume Injected (uL) : 2.0

Spectrum: Scans 254-256 (5.294 min), Subtraction Scan 252
Location of Maximum: 198.00
Number of points: 135

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	89	104.00	384	160.00	150	221.00	626
39.00	826	105.00	337	161.00	301	222.00	205
50.00	2892	107.00	4124	165.00	255	223.00	296
51.00	10068	108.00	646	166.00	121	224.00	2674
52.00	507	110.00	7360	167.00	1264	225.00	581
56.00	386	111.00	1216	168.00	507	227.00	1282
57.00	820	112.00	110	172.00	87	228.00	184
61.00	105	116.00	211	173.00	68	229.00	243
62.00	130	117.00	4266	174.00	251	242.00	72
63.00	447	118.00	283	175.00	445	244.00	1785
65.00	146	122.00	281	176.00	69	245.00	260
69.00	15049	123.00	466	177.00	222	246.00	425
73.00	82	124.00	157	179.00	886	255.00	9711
74.00	1385	125.00	105	180.00	595	256.00	1351
75.00	2071	127.00	12666	181.00	245	258.00	651
76.00	660	128.00	1102	185.00	404	265.00	260
77.00	11736	129.00	6362	186.00	2956	273.00	272
78.00	829	130.00	505	187.00	791	274.00	735
79.00	1040	134.00	95	188.00	181	275.00	3954
80.00	771	135.00	411	189.00	240	276.00	506
81.00	1066	136.00	129	192.00	267	277.00	359
82.00	135	137.00	206	193.00	268	296.00	1199
83.00	150	141.00	805	196.00	444	297.00	178
85.00	113	142.00	165	198.00	20286	315.00	67
86.00	326	143.00	88	199.00	1374	323.00	339
87.00	100	146.00	91	203.00	179	334.00	219
91.00	255	147.00	338	204.00	748	365.00	404
92.00	250	148.00	917	205.00	1200	372.00	102
93.00	1936	149.00	193	206.00	4776	423.00	481
94.00	93	153.00	167	207.00	649	441.00	1406
98.00	1437	154.00	108	208.00	192	442.00	9089
99.00	985	155.00	360	211.00	215	443.00	1733
101.00	562	156.00	453	217.00	1535	444.00	129
103.00	116	158.00	98	218.00	178		

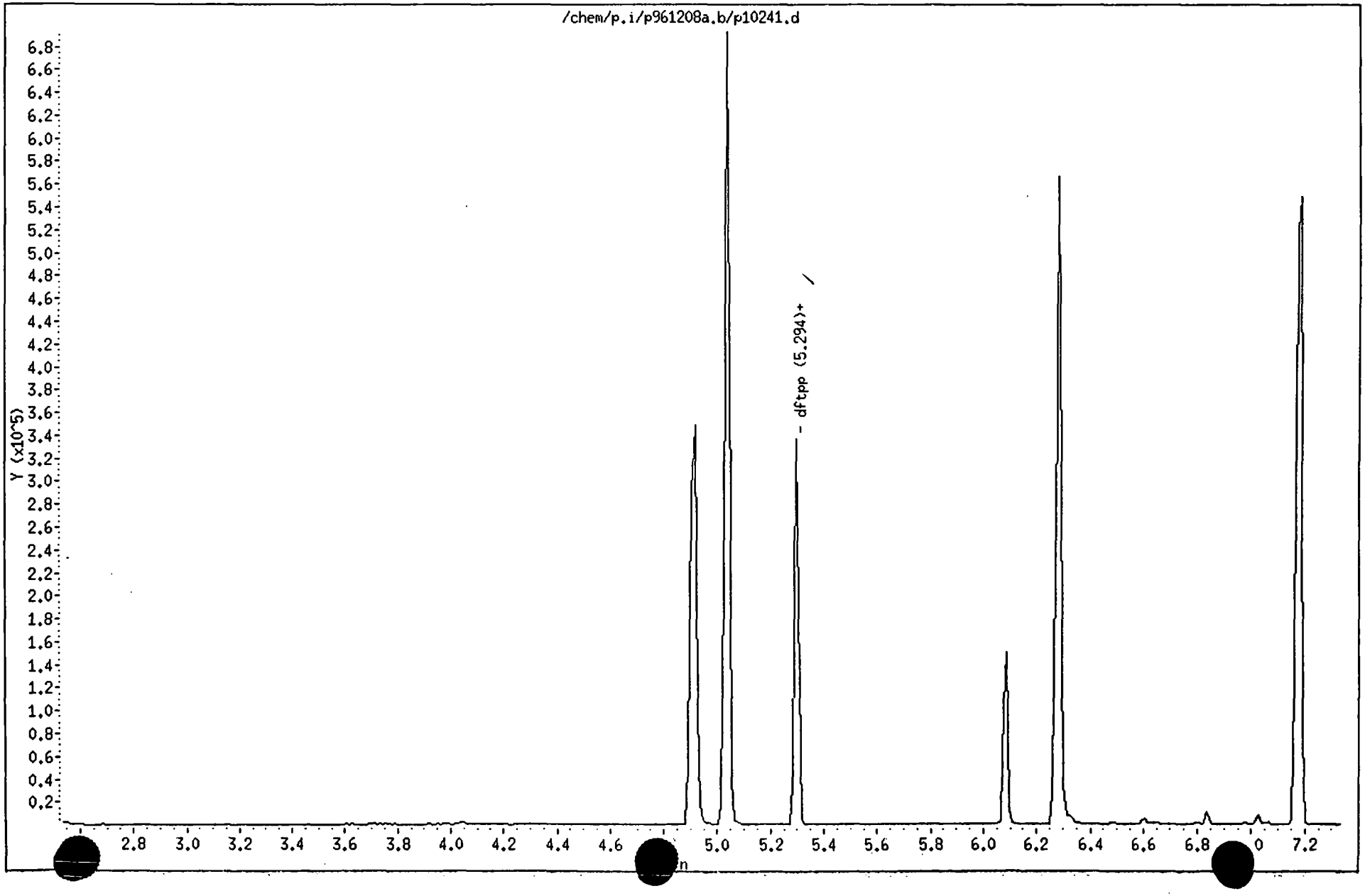
Data File: /chem/p.i/p961208a.b/p10241.d
Date : 08-DEC-96 15:34
Instrument : p.i
Sample ID : DFTPP
Column phase : XTI-5
Volume Injected (uL) : 2.0

OPERATOR: Ann

Page 1

289

Column diameter : 0.25



Data File: /chem/p.i/p961208a.b/p10248.d
Date : 08-DEC-1996 19:10
Instrument : p.i
Sample ID : SBLK
Column phase : XTI-5
Volume Injected (uL) : 2.0

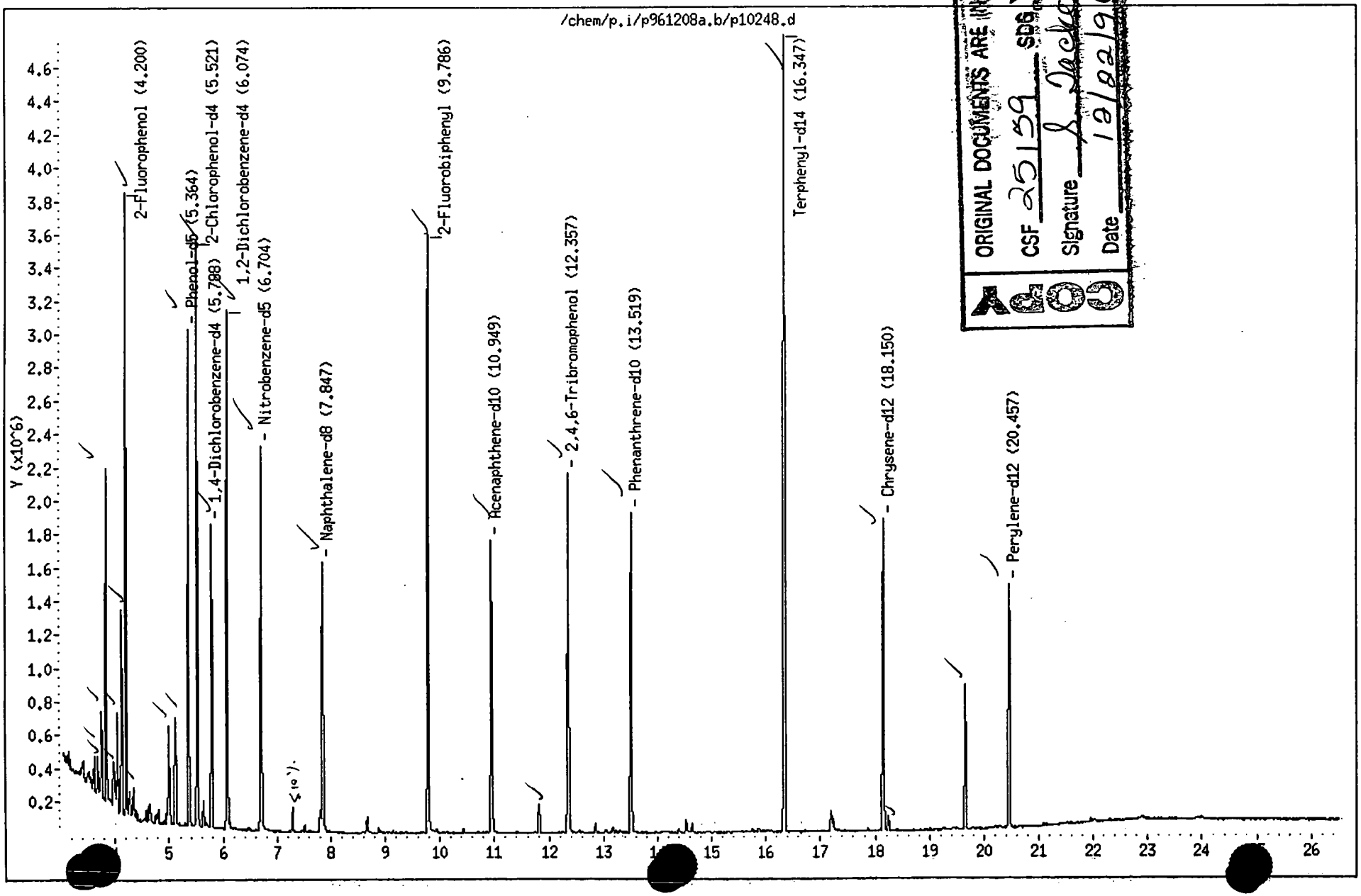
OPERATOR: Ann

Column diameter : 0.25

293

ok 12/20/96

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FFC02
Signature
Date 12/20/96



Data File: /chem/p.i/p961208a.b/p10248.d
Report Date: 09-Dec-1996 13:28

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/p.i/p961208a.b/p10248.d
Lab. Id. : BL1120SA
Inj Date : 08-DEC-1996 19:10
Operator : Annie
Smp Info : SBLK
Misc Info : MS517**INSTP*AATS-E:25159*BL1120SA*30G/0.5ML/2UL*
Comment :
Method : /chem/p.i/p961208a.b/BNA517EPA.m
Meth Date : 09-Dec-1996 13:23 ann
Cal Date : 08-DEC-1996 15:49
Als bottle: 5
Dil Factor: 1.000
Integrator: HP RTE
Sample Type: SOIL

Quant Type: ISTD
Inst ID: p.i
Cal File: p10242.d
QC Sample: BLANK
Target Version: Target 3.00
Compound Sublist: all.sub

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 1 2-Fluorophenol	112.00	4.200	(0.726)	1076422	102.01	1700.21
$ 2 Phenol-d5	98.80	5.364	(0.927)	1315325	99.51	1658.55
$ 5 2-Chlorophenol-d4	132.00	5.521	(0.954)	1168187	106.69	1778.32
8 1,4-Dichlorobenzene-d4	151.85	5.788	(1.000)	336909	40.00	
0 1,2-Dichlorobenzene-d4	152.00	6.074	(1.049)	624239	90.04	1500.67
$ 17 Nitrobenzene-d5	82.00	6.704	(0.854)	1051399	86.76	1446.03
* 25 Naphthalene-d8	135.65	7.847	(1.000)	1052539	40.00	
$ 34 2-Fluorobiphenyl	172.00	9.786	(0.894)	1915193	83.95	1399.30
* 40 Acenaphthene-d10	164.00	10.949	(1.000)	688794	40.00	
$ 53 2,4,6-Tribromophenol	329.80	12.357	(0.914)	380894	98.06	1634.38
* 57 Phenanthrene-d10	187.65	13.519	(1.000)	1199296	40.00	
$ 64 Terphenyl-d14	244.00	16.347	(0.901)	2504951	86.30	1438.46
* 67 Chrysene-d12	240.00	18.150	(1.000)	1031161	40.00	
69 bis(2-Ethylhexyl)phthalate	149.00	18.239	(1.005)	34907	1.25	20.98(a)
* 75 Perylene-d12	264.00	20.457	(1.000)	960941	40.00	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/p.i/p961208a.b/p10248.d

Date : 08-DEC-1996 19:10

Instrument : p.i

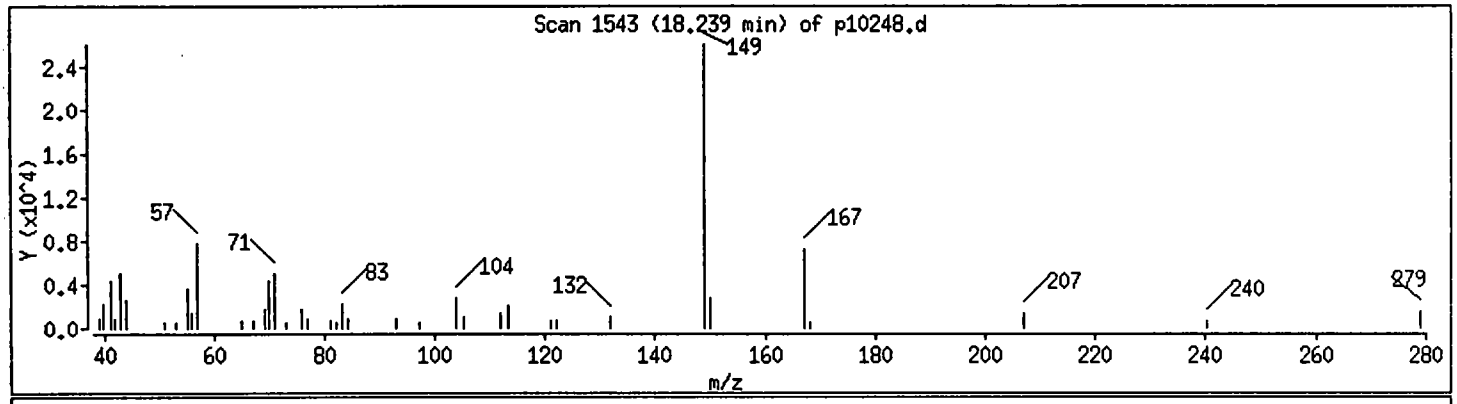
Sample ID : SBLK

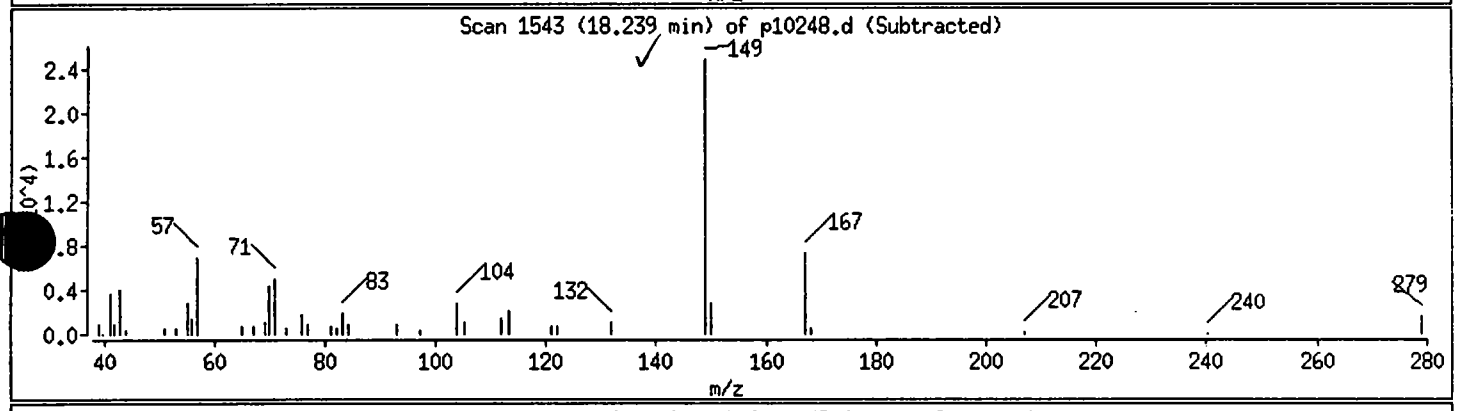
Column phase : XTI-5

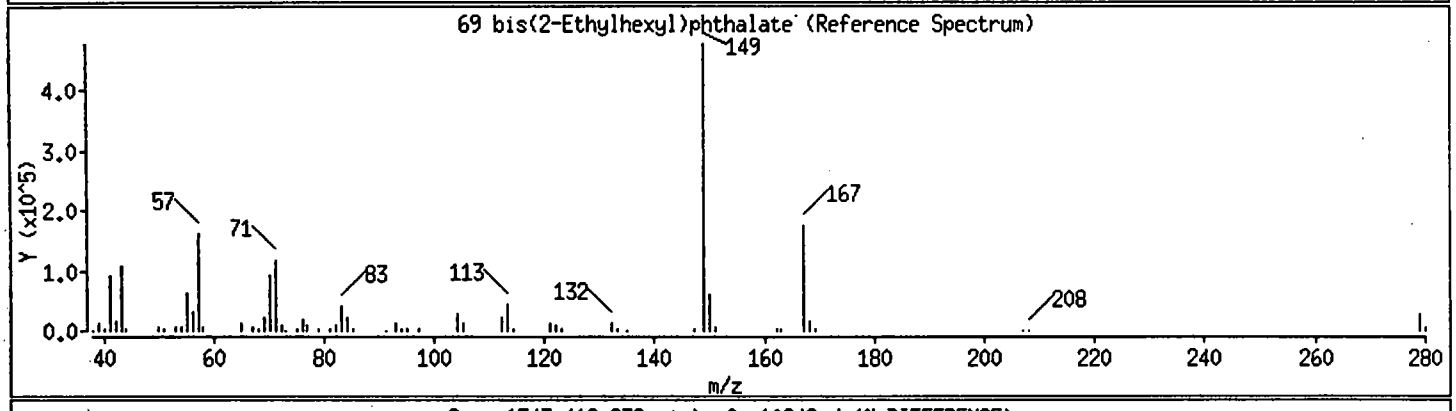
Column diameter : 0.25

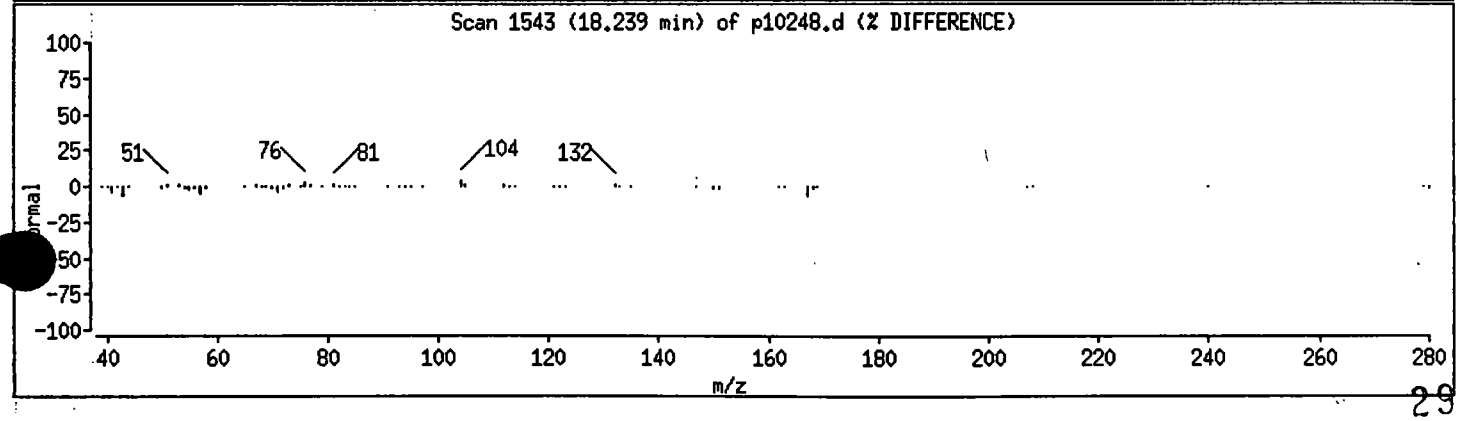
Volume Injected (uL) : 2.0

69 bis(2-Ethylhexyl)phthalate









Data File: /chem/p.i/p961208a.b/p10248.d
Report Date: 09-Dec-1996 13:28

SWOK/AATS

Unknown Compounds Quantitation Report

Data file : /chem/p.i/p961208a.b/p10248.d
Lab. Id. : BL1120SA
Inj Date : 08-DEC-1996 19:10
Operator : Annie Inst ID: p.i
Smp Info : SBLK
Misc Info : MS517**INSTP*AATS-E:25159*BL1120SA*30G/0.5ML/2UL*
Comment :
Method : /chem/p.i/p961208a.b/BNA517EPA.m
Meth Date : 09-Dec-1996 13:23 ann
Cal Date : 08-DEC-1996 15:49 Cal File: p10242.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 8 1,4-Dichlorobenzene-d4	5.788	2049107	40.000
* 40 Acenaphthene-d10	10.949	2928472	40.000
* 75 Perylene-d12	20.457	2671702	40.000

RT	AREA	CONC(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	QUANT	CPND #
Heptane, 2,4-dimethyl-					CAS #: 2213-23-2		
3.608	291834	94.94	76	NBS75K.l	5145		8
Heptane, 2,6-dimethyl-					CAS #: 1072-05-5		
3.677	244476	79.53	64	NBS75K.l	5156		8
Heptane, 2,5-dimethyl-					CAS #: 2216-30-0		
3.746	810349	263.64	91	NBS75K.l	5143		8
2-Pentanone, 4-hydroxy-4-methyl-					CAS #: 123-42-2		
3.835	2588754	842.23	40	NBS75K.l	64274		8
Hexane, 2,3,5-trimethyl-					CAS #: 1069-53-0		
3.973	365242	118.83	72	NBS75K.l	65140		8
Heptane, 3-ethyl-					CAS #: 15869-80-4		
4.003	288564	93.88	38	NBS75K.l	5141		8
Octane, 4-methyl-					CAS #: 2216-34-4		
4.042	802780	261.18	72	NBS75K.l	65132		8

Data File: /chem/p.i/p961208a.b/p10248.d
Report Date: 09-Dec-1996 13:28

RT	AREA	CONC(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	QUANT	CPND #
Octane, 3-methyl-					CAS #: 2216-33-3		
4.121	1424271	463.37	91	NBS75K.l	5150		8
Decane, 2,2,6-trimethyl-					CAS #: 62237-97-2		
4.260	210977	68.64	64	NBS75K.l	18995		8
4H-1,2,4-Triazole, 4-ethyl-					CAS #: 43183-55-7		
4.989	1009845	328.54	40	NBS75K.l	1157		8
4-Octenoic acid, 6-ethyl-3-hydroxy-3,7-d					CAS #: 41654-25-5		
5.117	968953	315.24	34	NBS75K.l	29590		8
Phenmetrazine					CAS #: 134-49-6		
11.805	300938	68.50	59	NBS75K.l	68552		40
2,6,10-Dodecatrien-1-ol, 3,7,11-trimethy					CAS #: 106-28-5		
19.658	1107422	276.33	72	NBS75K.l	28198		75

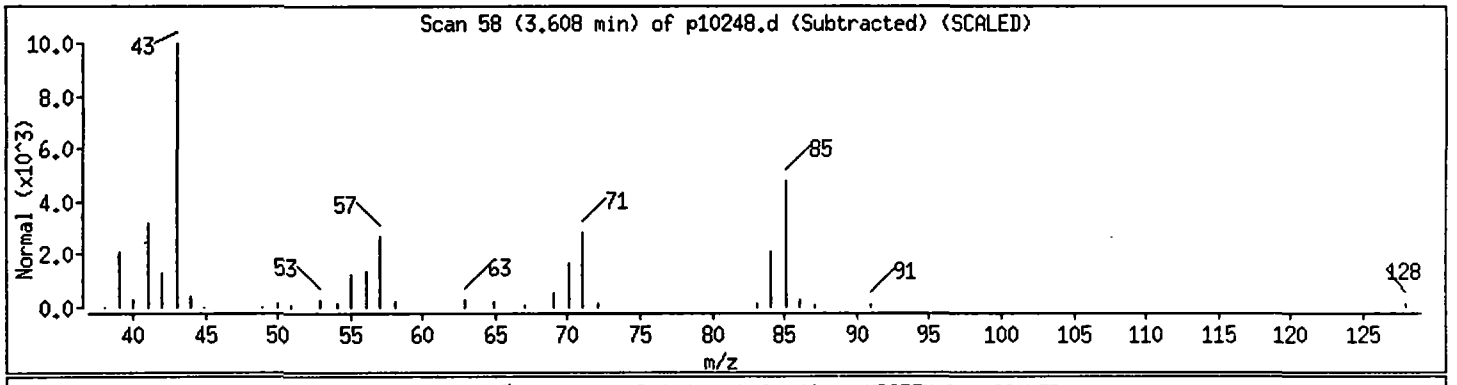
QC Flag Legend

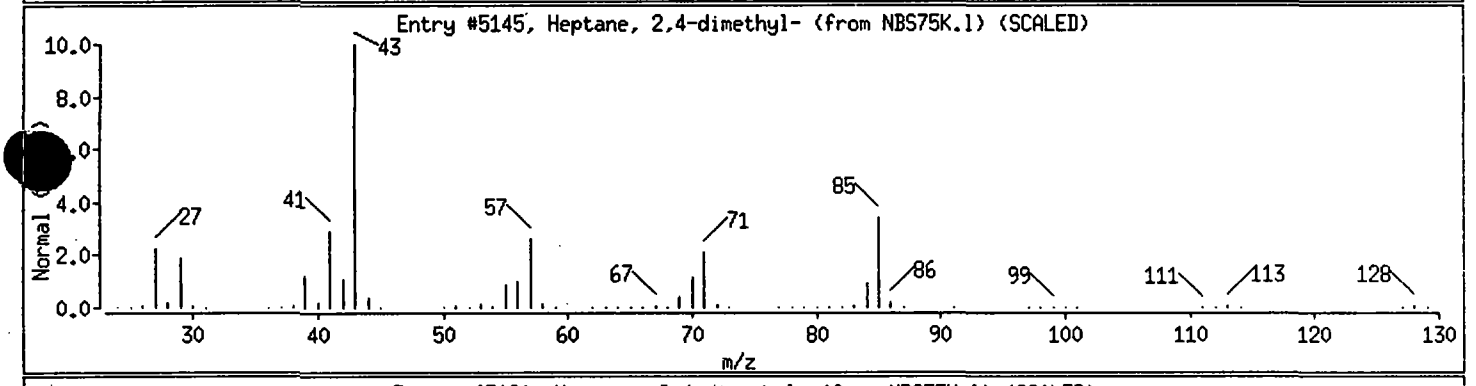
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

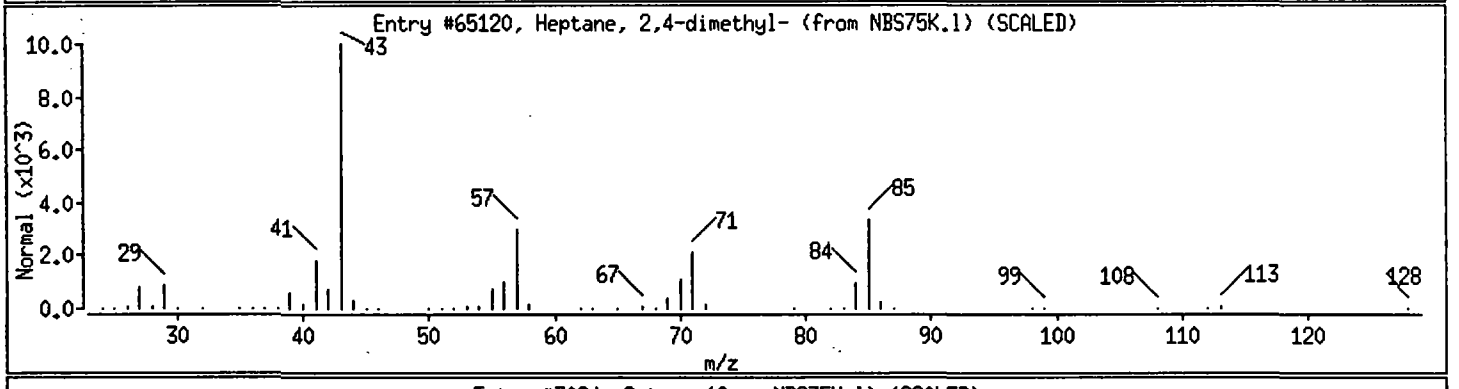
Data File: /chem/p.i/p961208a.b/p10248.d

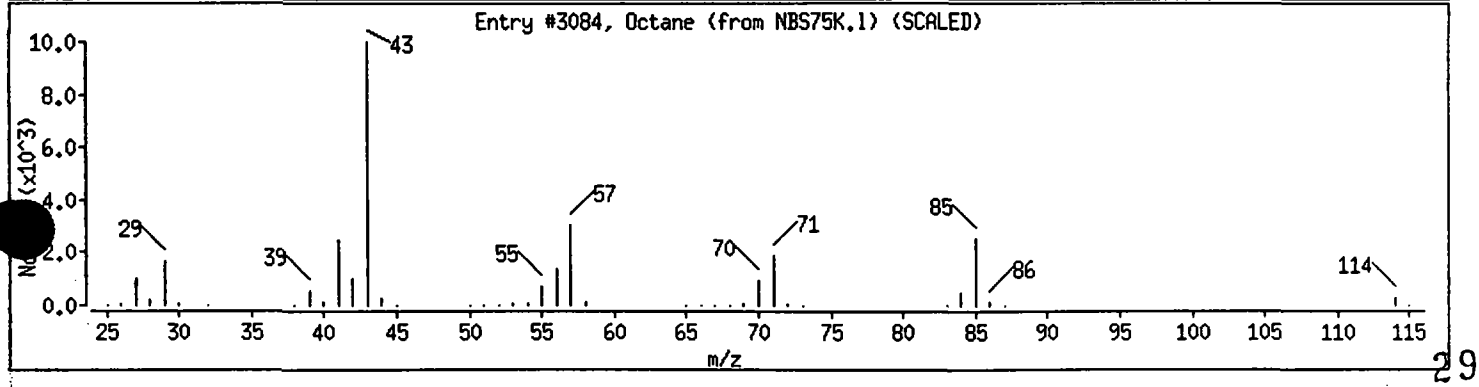
Date : 08-DEC-1996 19:10
Instrument : p.i
Sample ID : SBLK
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Heptane, 2,4-dimethyl-	2213-23-2	NBS75K.l	5145	76
Heptane, 2,4-dimethyl-	2213-23-2	NBS75K.l	65120	72
Octane	111-65-9	NBS75K.l	3084	72



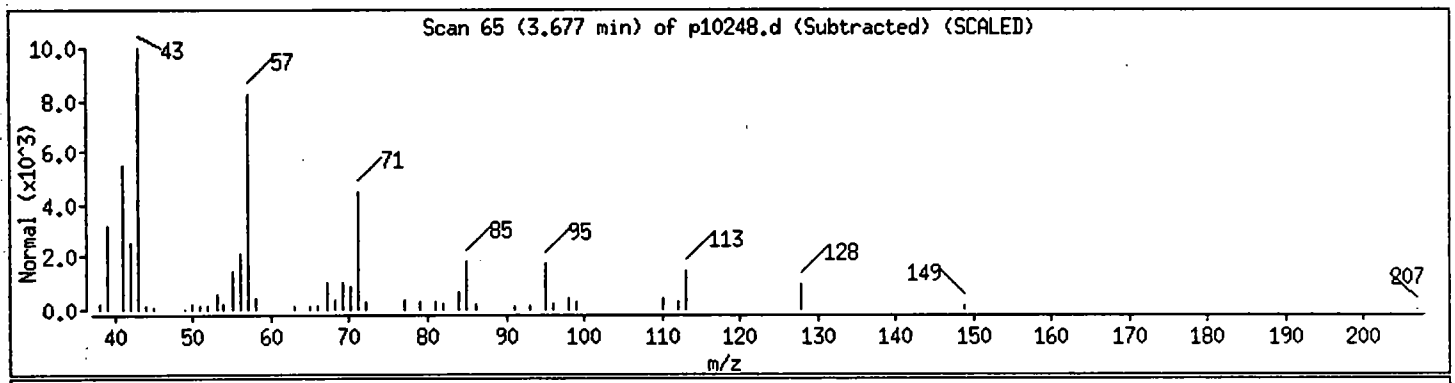


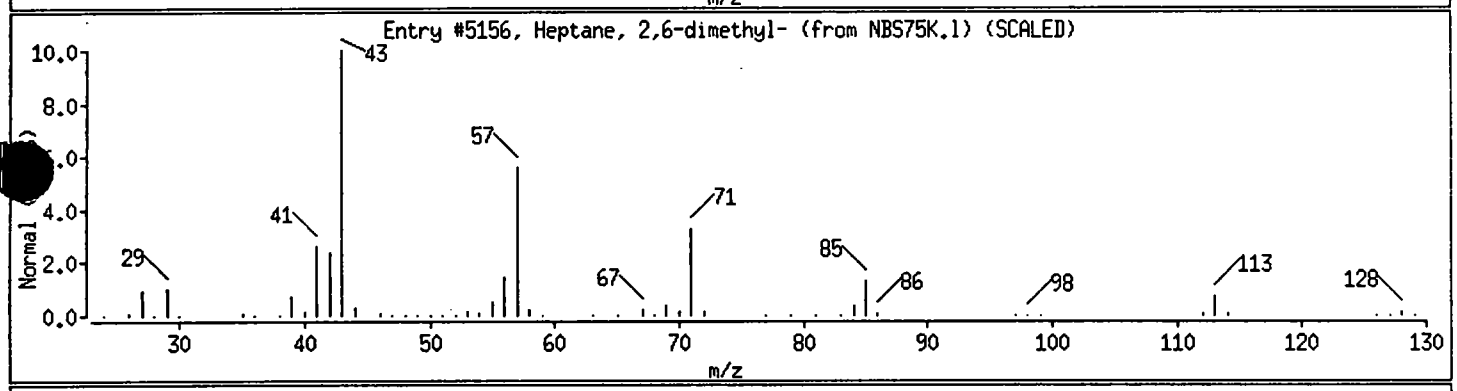


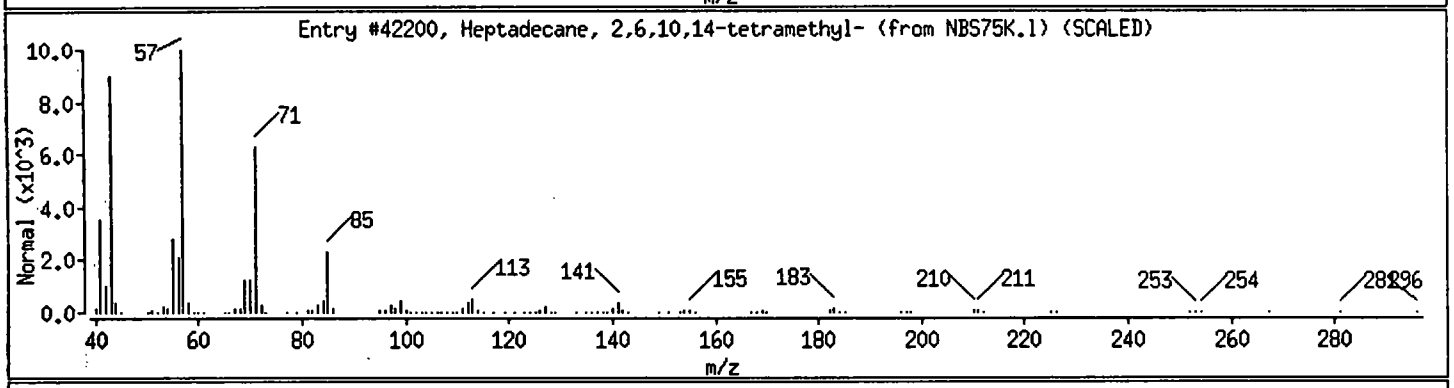


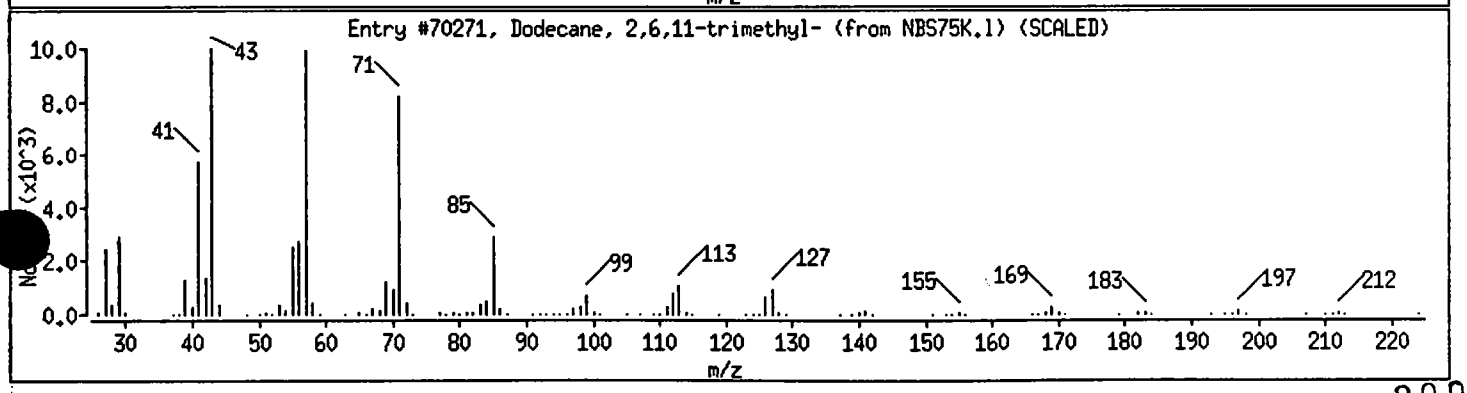
Data File: /chem/p.i/p961208a.b/p10248.d
Date : 08-DEC-1996 19:10
Instrument : p.i
Sample ID : SBLK
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Heptane, 2,6-dimethyl-	1072-05-5	NBS75K.l	5156	64
Heptadecane, 2,6,10,14-tetramethyl-	18344-37-1	NBS75K.l	42200	53
Dodecane, 2,6,11-trimethyl-	31295-56-4	NBS75K.l	70271	50





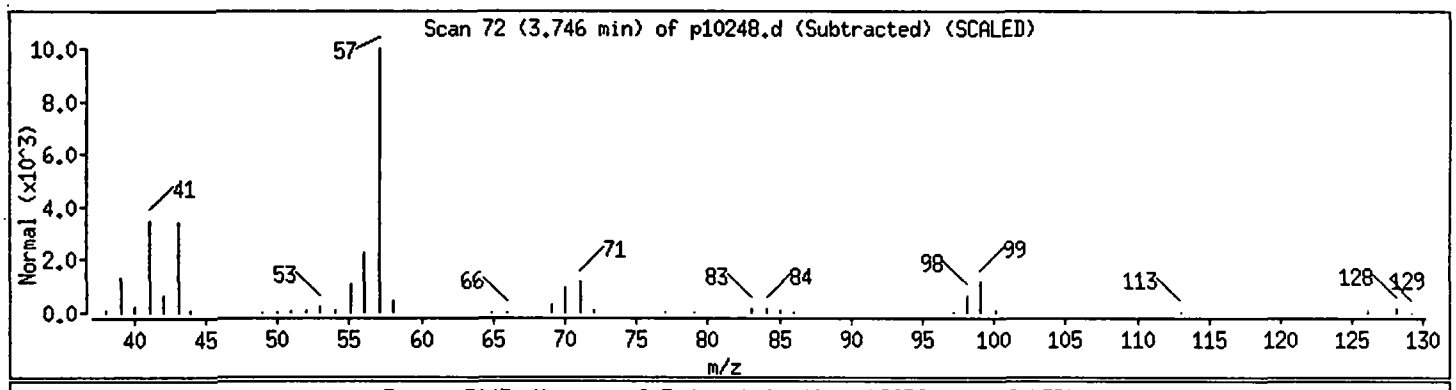


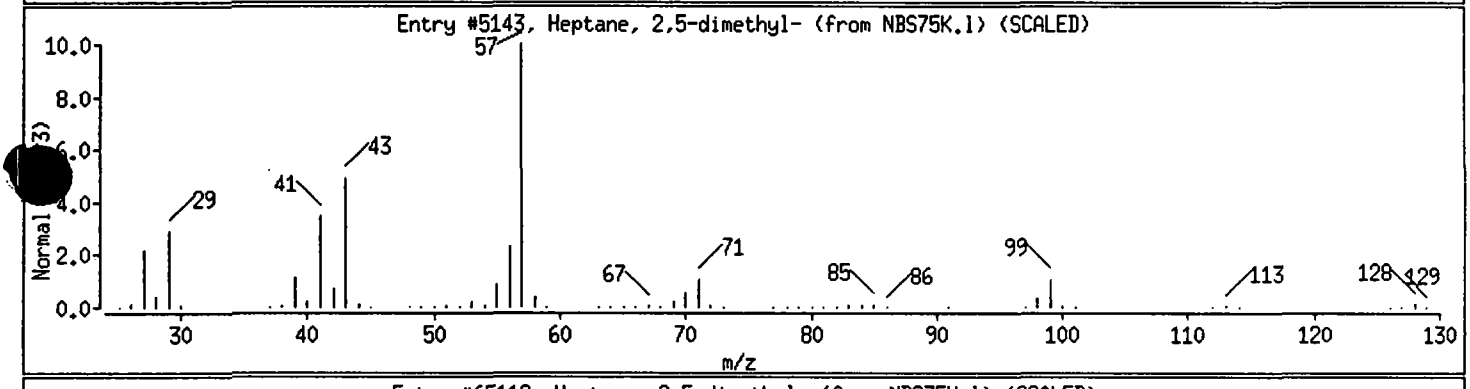


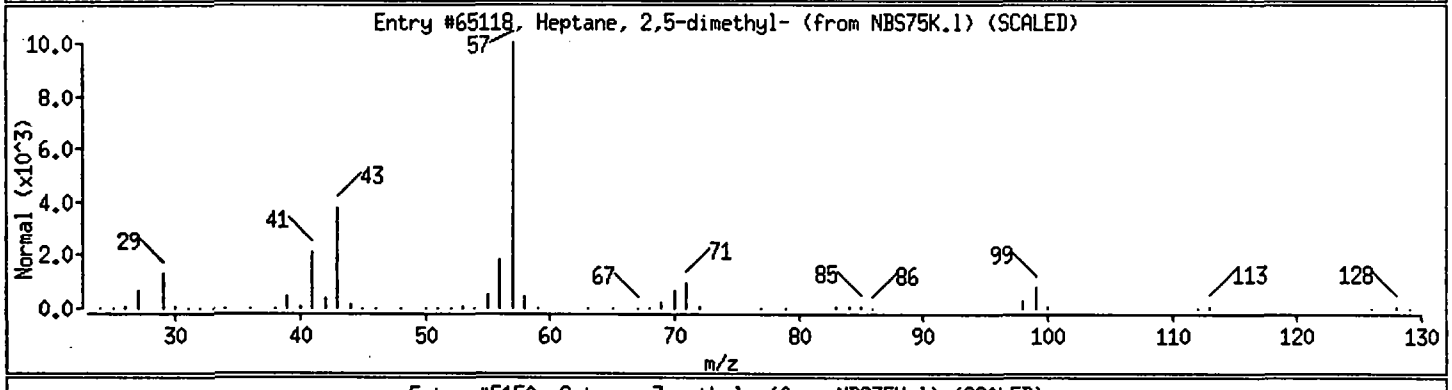
Data File: /chem/p.i/p961208a.b/p10248.d

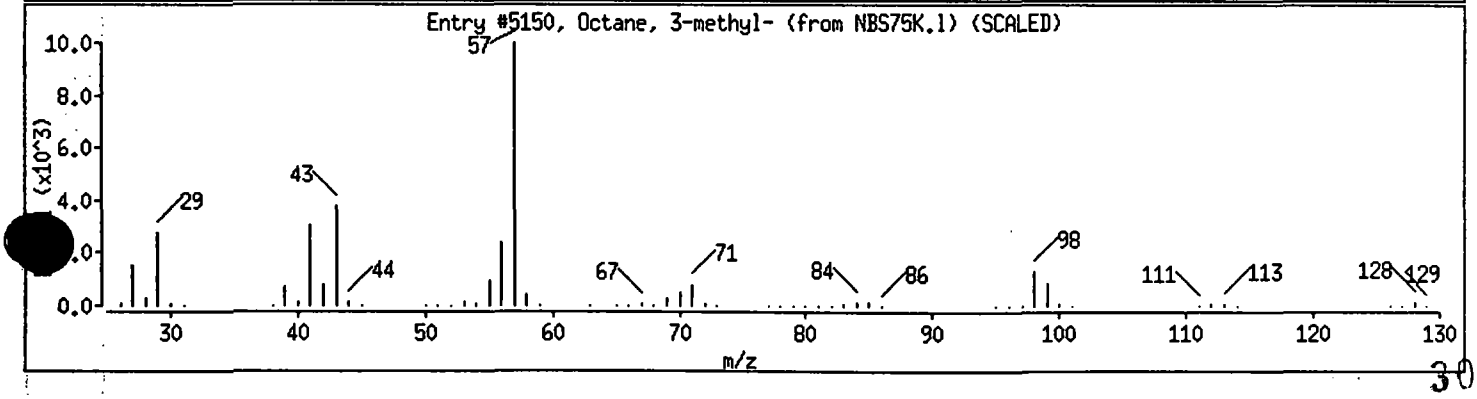
Date : 08-DEC-1996 19:10
Instrument : p.i
Sample ID : SBLK
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Heptane, 2,5-dimethyl-	2216-30-0	NBS75K.l	5143	91
Heptane, 2,5-dimethyl-	2216-30-0	NBS75K.l	65118	83
Octane, 3-methyl-	2216-33-3	NBS75K.l	5150	80









Data File: /chem/p.i/p961208a.b/p10248.d

Date : 08-DEC-1996 19:10

Instrument : p.i

Sample ID : SBLK

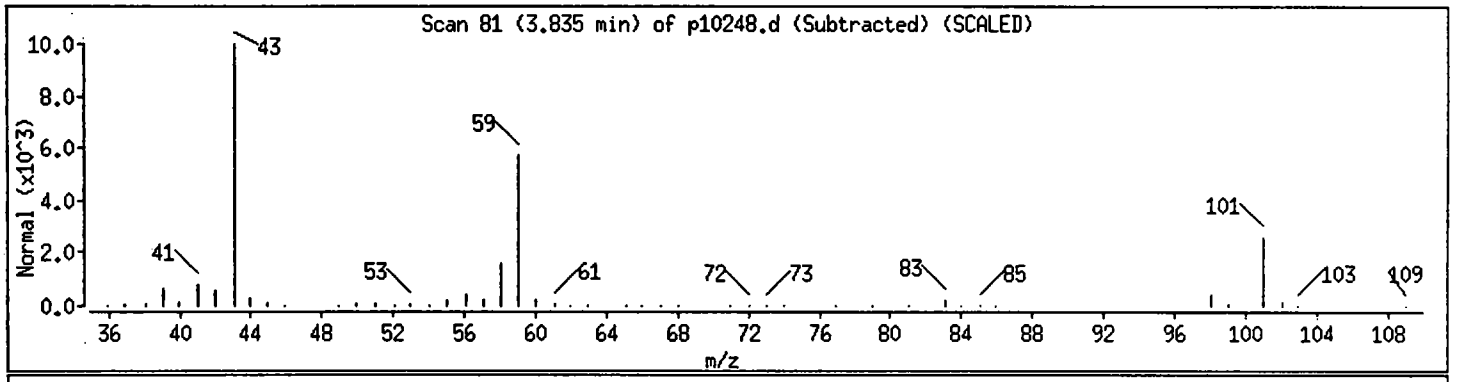
Column phase : XTI-5

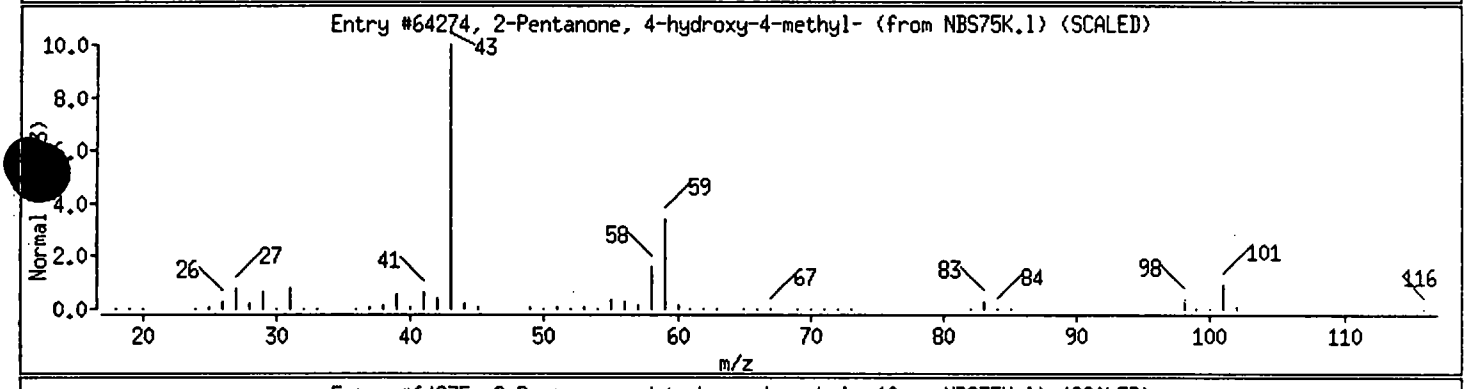
Column diameter : 0.25

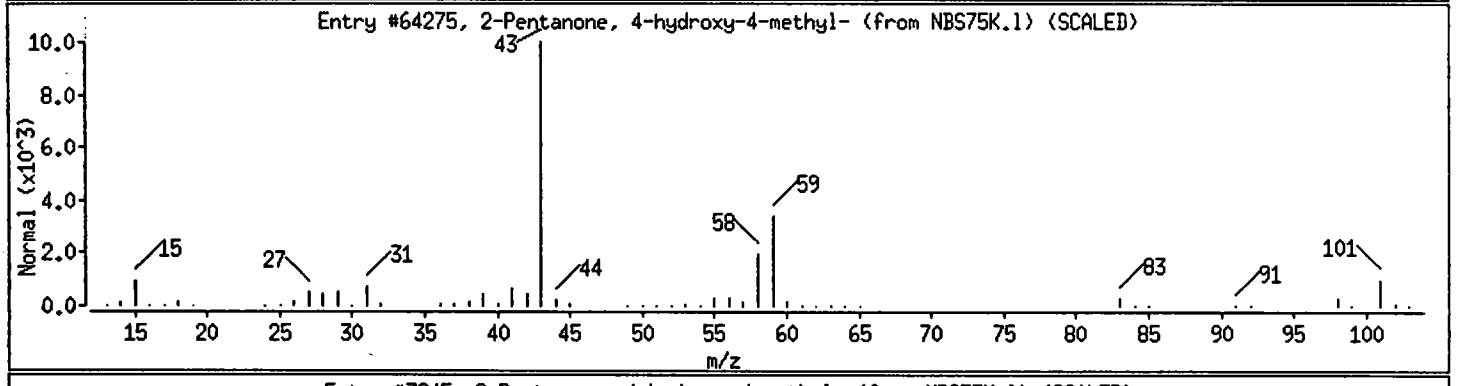
ALDOL CONDENSATE

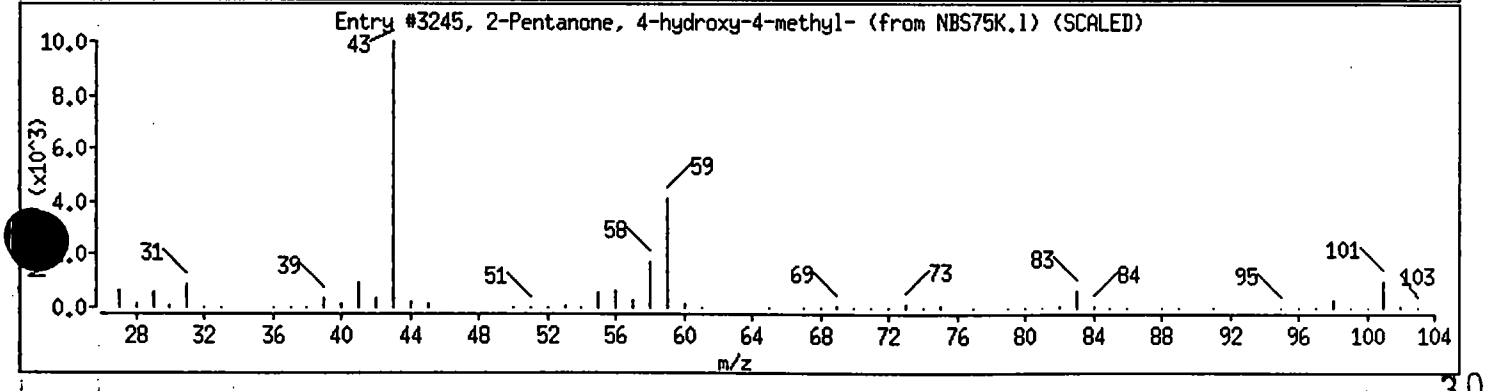
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NBS75K.l	64274	40
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NBS75K.l	64275	39
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NBS75K.l	3245	39





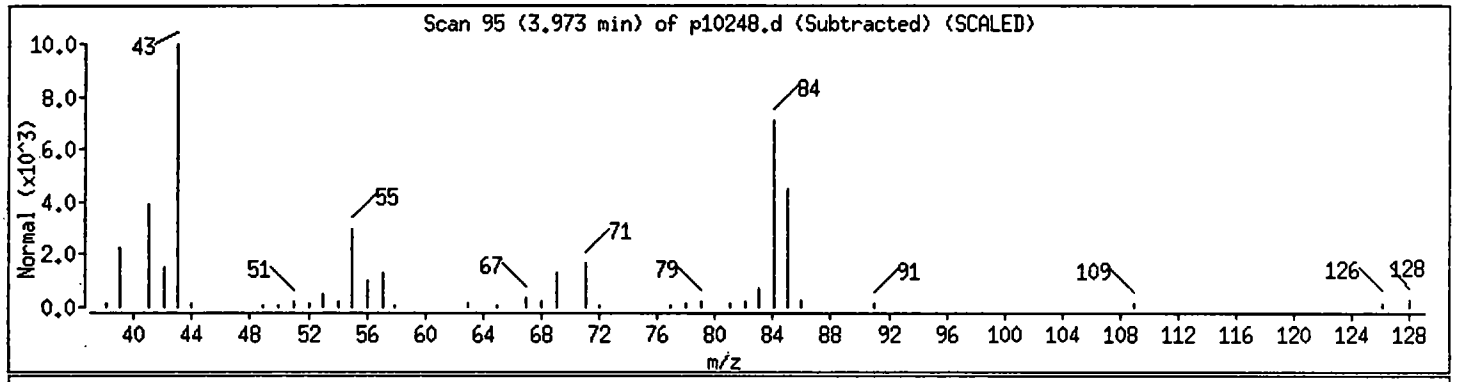


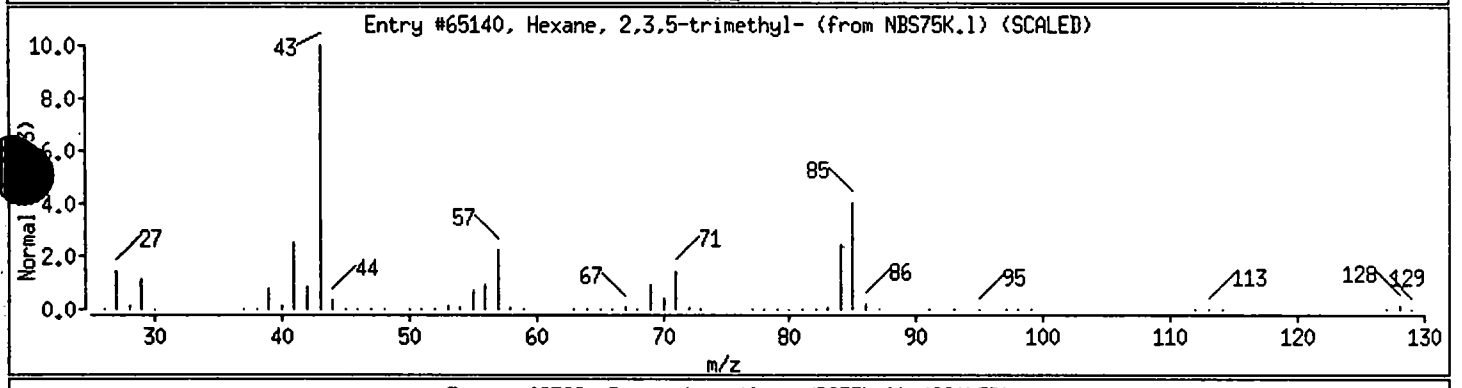


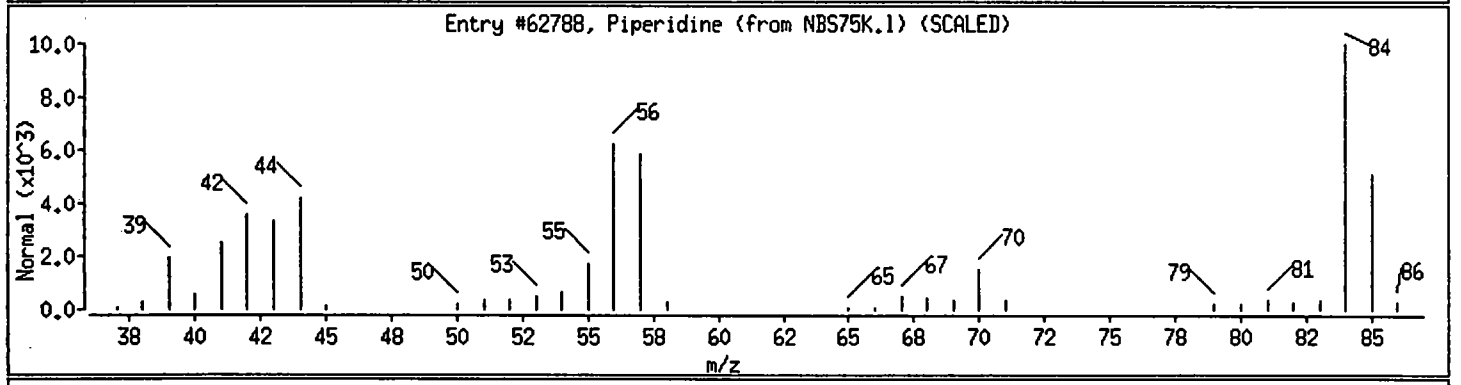
Data File: /chem/p.i/p961208a.b/p10248.d

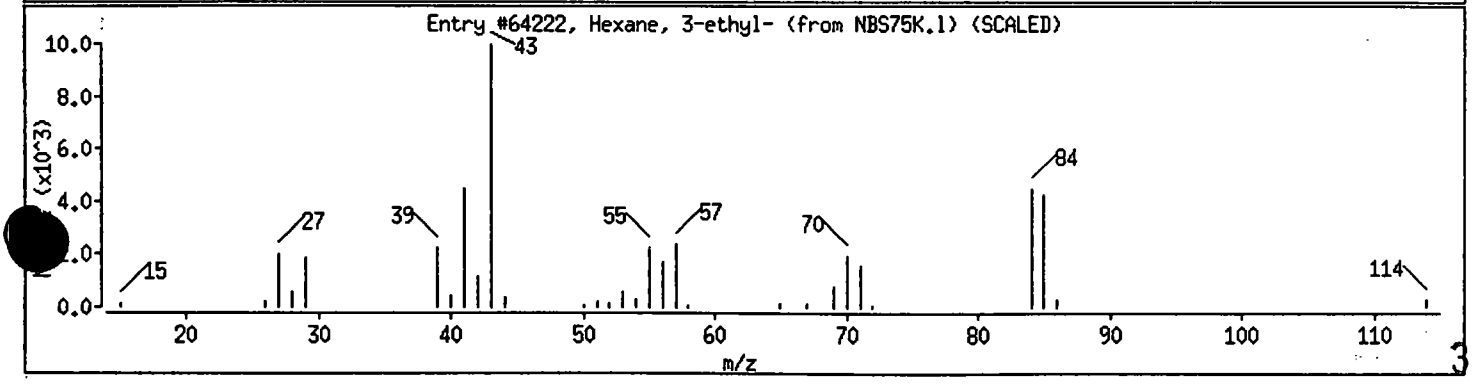
Date : 08-DEC-1996 19:10
Instrument : p.i
Sample ID : SBLK
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Hexane, 2,3,5-trimethyl-	1069-53-0	NBS75K.l	65140	72
Piperidine	110-89-4	NBS75K.l	62788	53
Hexane, 3-ethyl-	619-99-8	NBS75K.l	64222	50





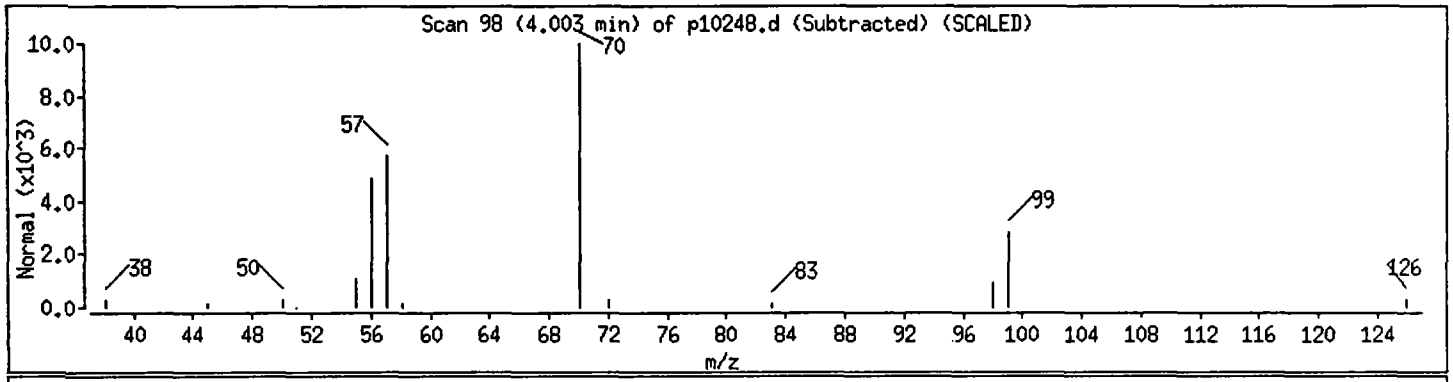


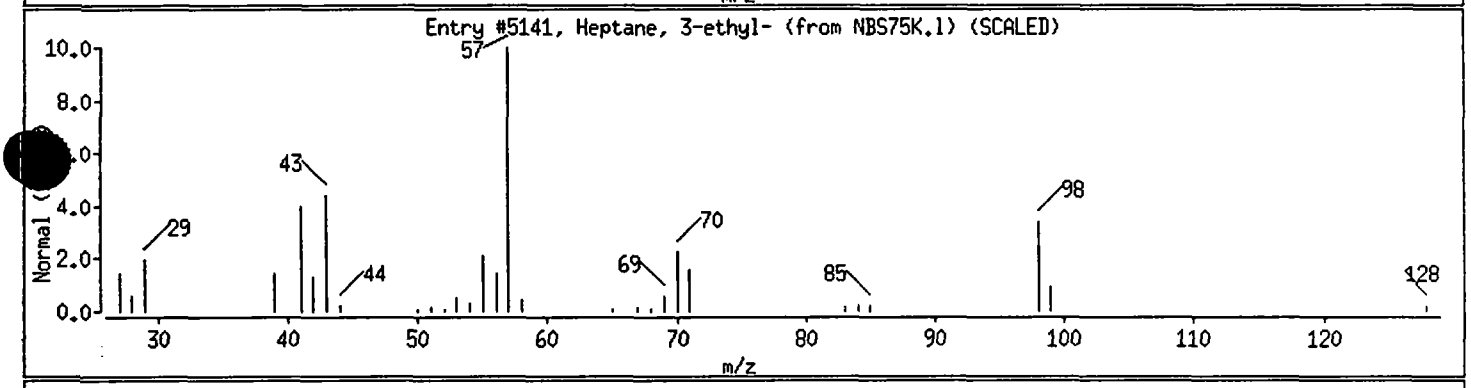


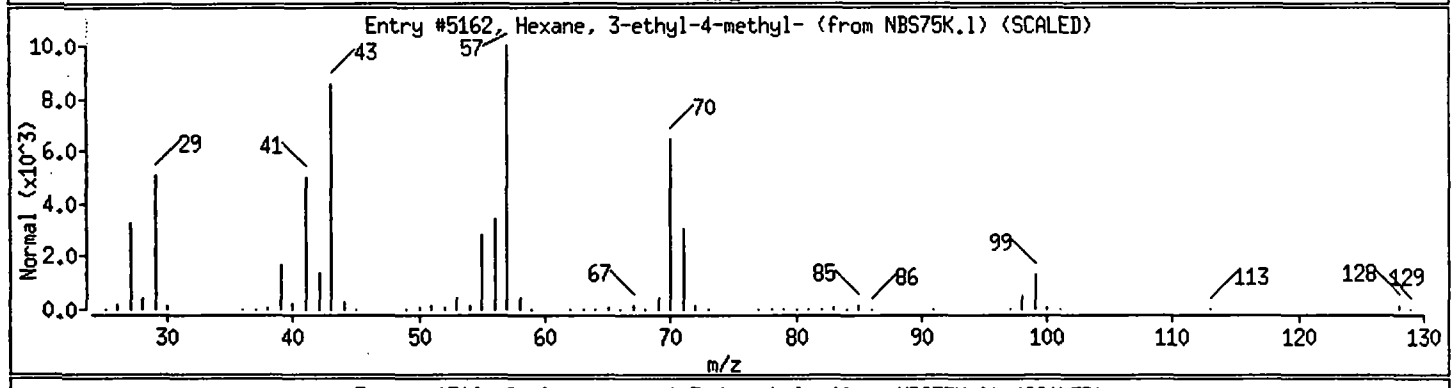
Data File: /chem/p.i/p961208a.b/p10248.d

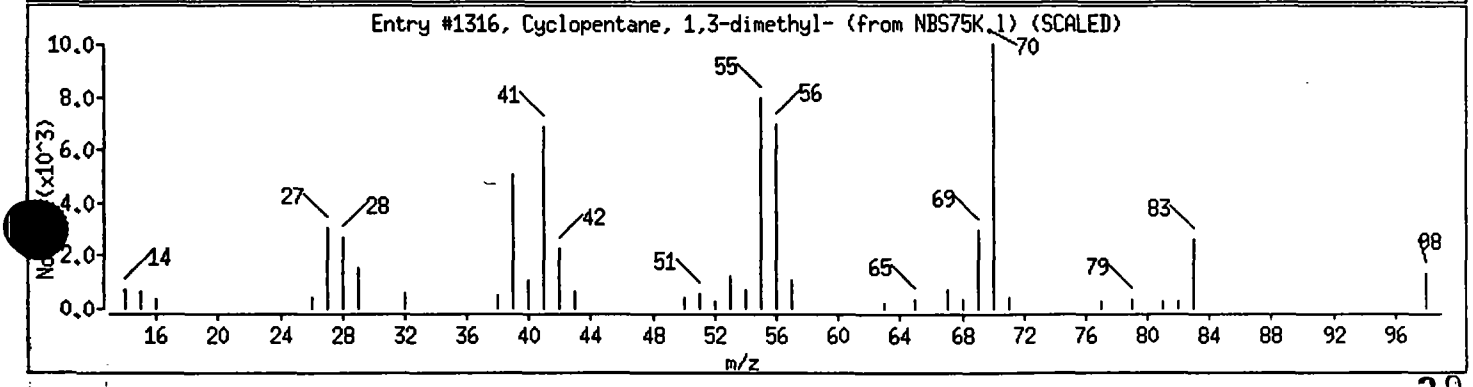
Date : 08-DEC-1996 19:10
Instrument : p.i
Sample ID : SBLK
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Heptane, 3-ethyl-	15869-80-4	NBS75K.l	5141	38
Hexane, 3-ethyl-4-methyl-	3074-77-9	NBS75K.l	5162	38
Cyclopentane, 1,3-dimethyl-	2453-00-1	NBS75K.l	1316	38





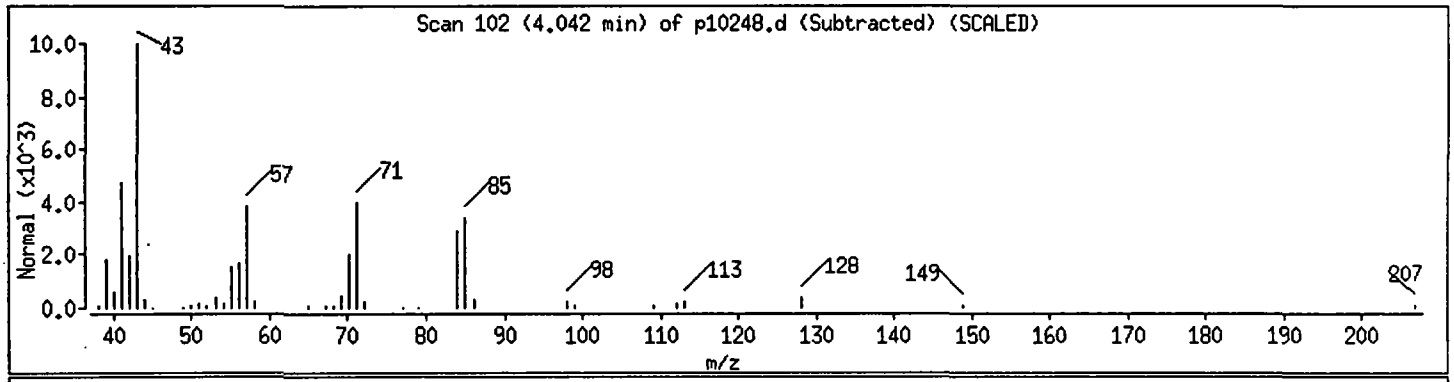


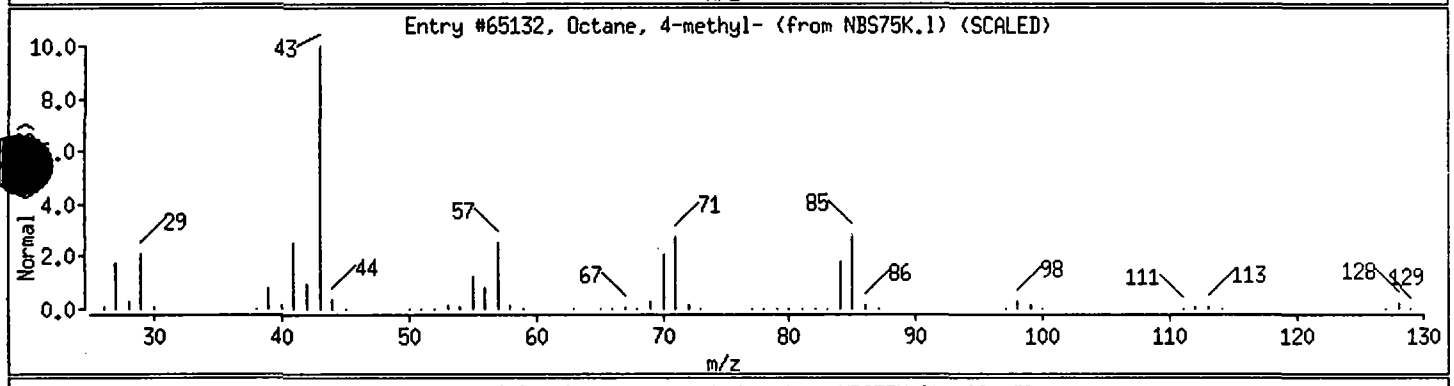


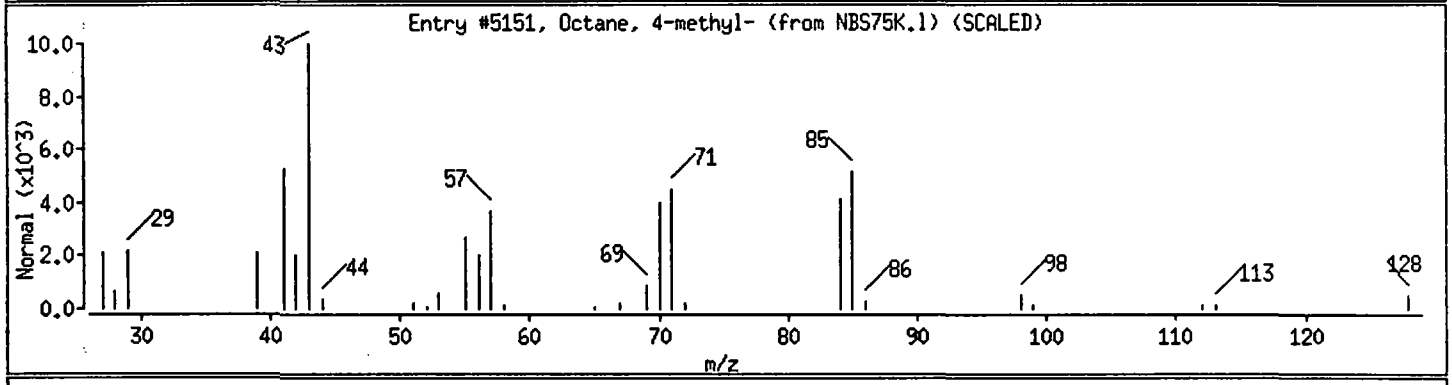
Data File: /chem/p.i/p961208a.b/p10248.d

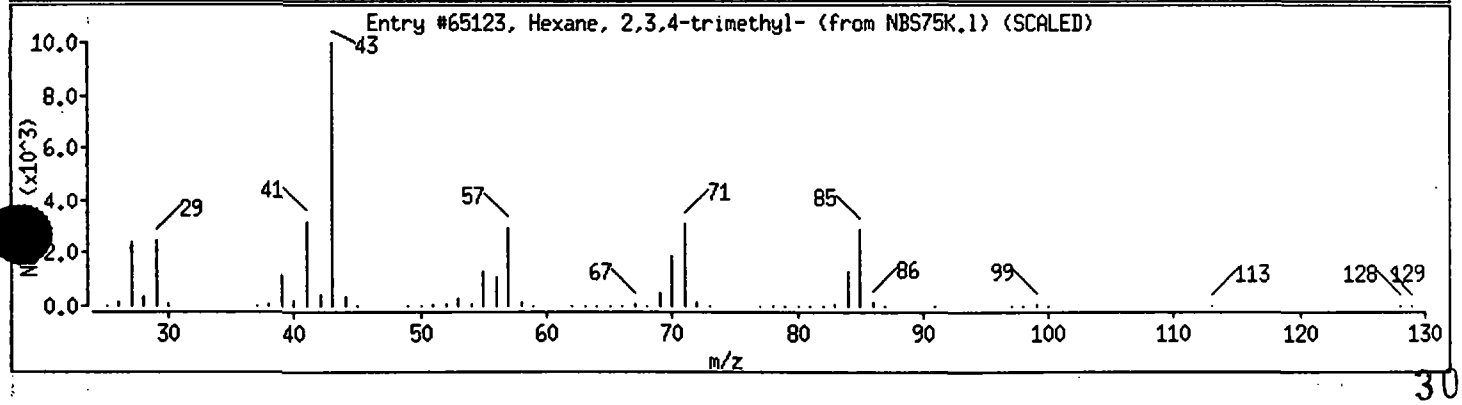
Date : 08-DEC-1996 19:10
Instrument : p.i
Sample ID : SBLK
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Octane, 4-methyl-	2216-34-4	NBS75K.l	65132	72
Octane, 4-methyl-	2216-34-4	NBS75K.l	5151	64
Hexane, 2,3,4-trimethyl-	921-47-1	NBS75K.l	65123	64





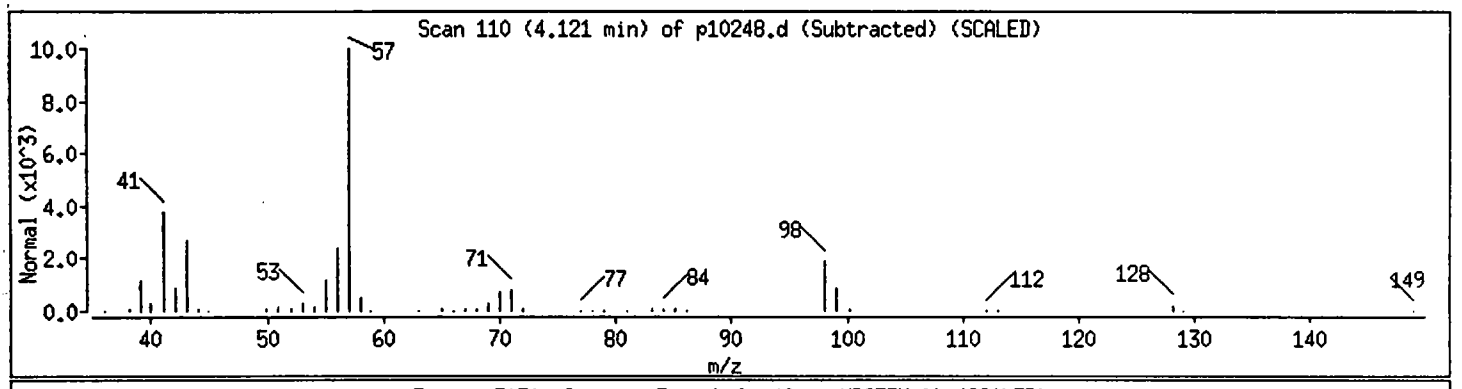


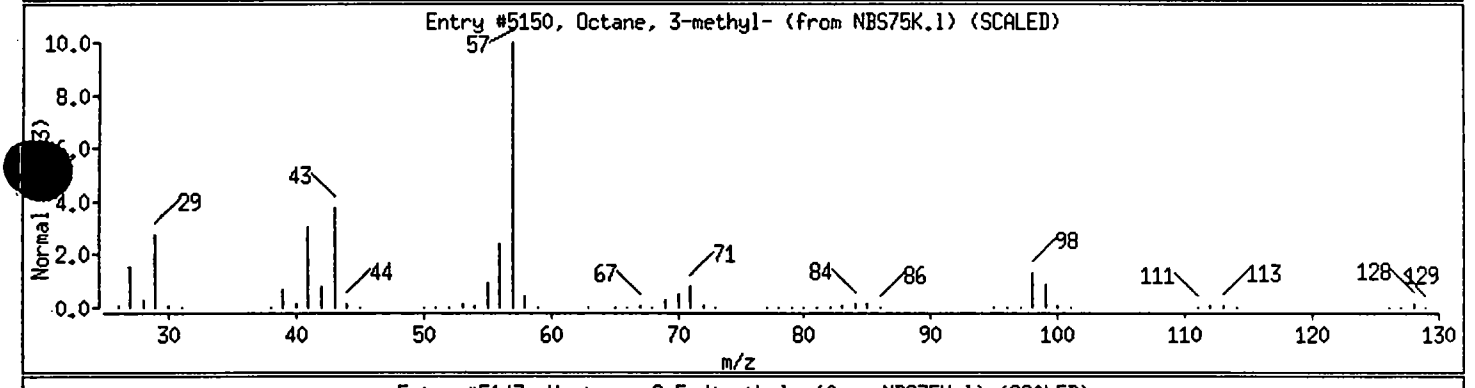


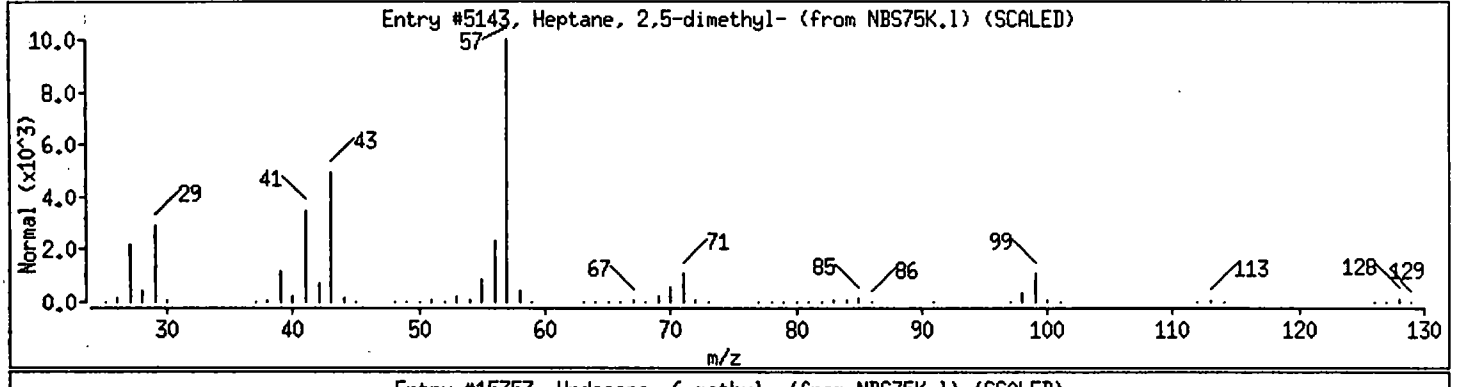
Data File: /chem/p.i/p961208a.b/p10248.d

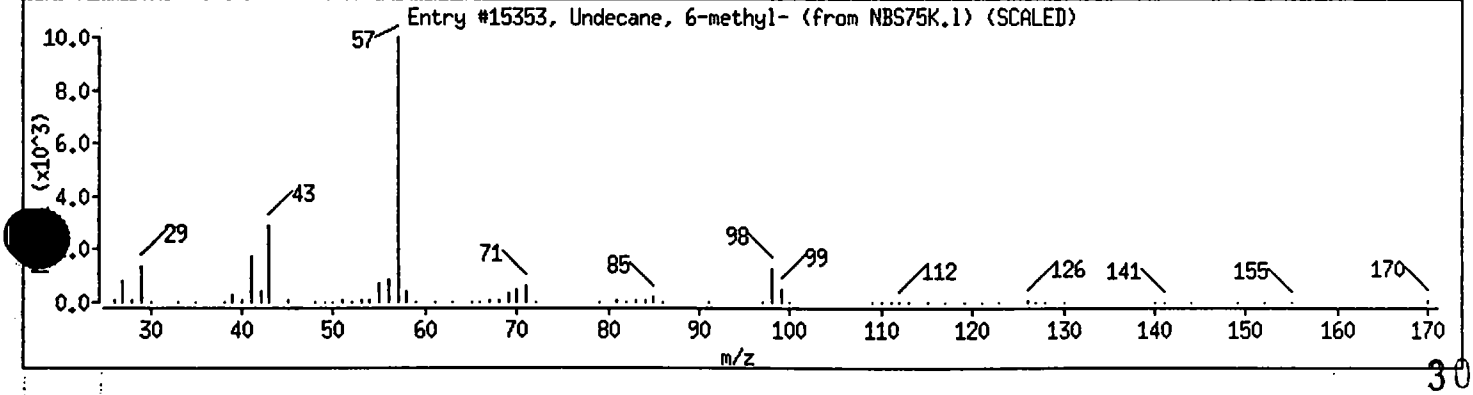
Date : 08-DEC-1996 19:10
Instrument : p.i
Sample ID : SBLK
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Octane, 3-methyl-	2216-33-3	NBS75K.l	5150	91
Heptane, 2,5-dimethyl-	2216-30-0	NBS75K.l	5143	72
Undecane, 6-methyl-	17302-33-9	NBS75K.l	15353	64





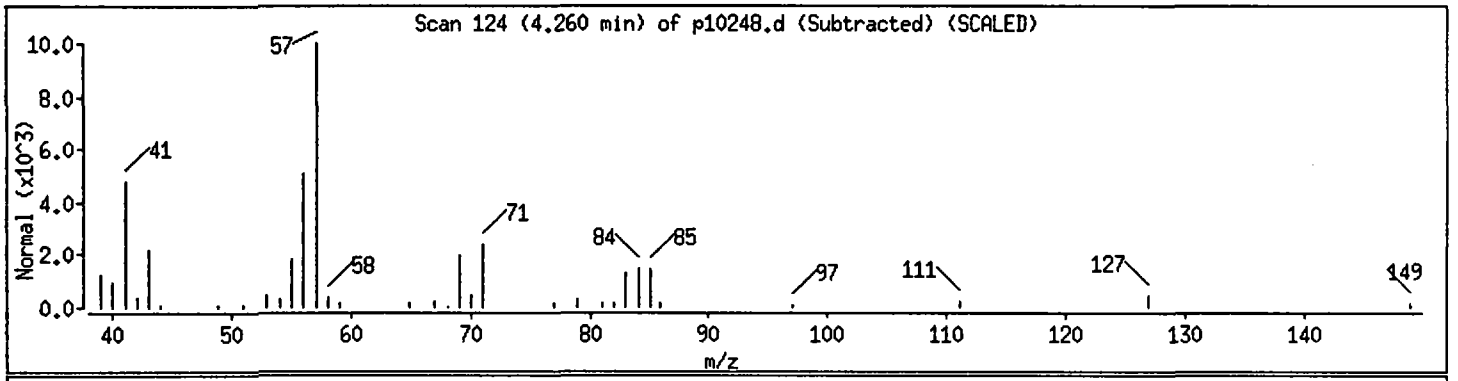


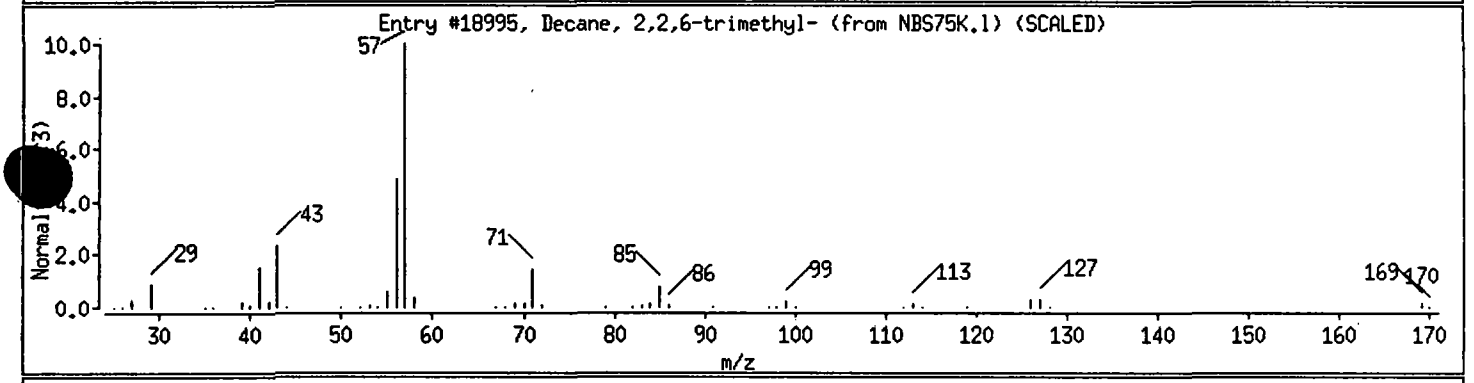


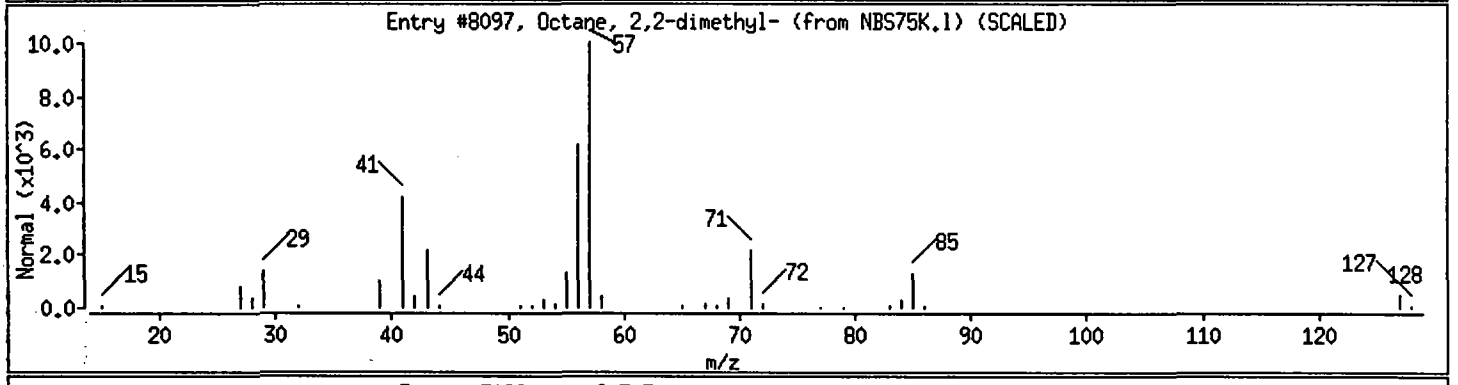
Data File: /chem/p.i/p961208a.b/p10248.d

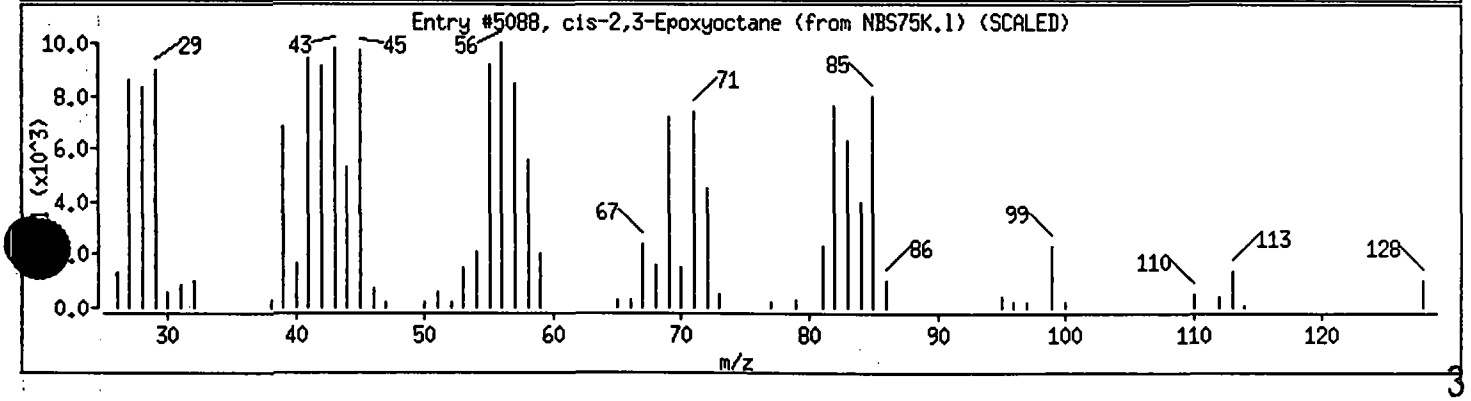
Date : 08-DEC-1996 19:10
Instrument : p.i
Sample ID : SBLK
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Decane, 2,2,6-trimethyl-	62237-97-2	NBS75K.l	18995	64
Octane, 2,2-dimethyl-	15869-87-1	NBS75K.l	8097	64
cis-2,3-Epoxyoctane	23024-54-6	NBS75K.l	5088	50







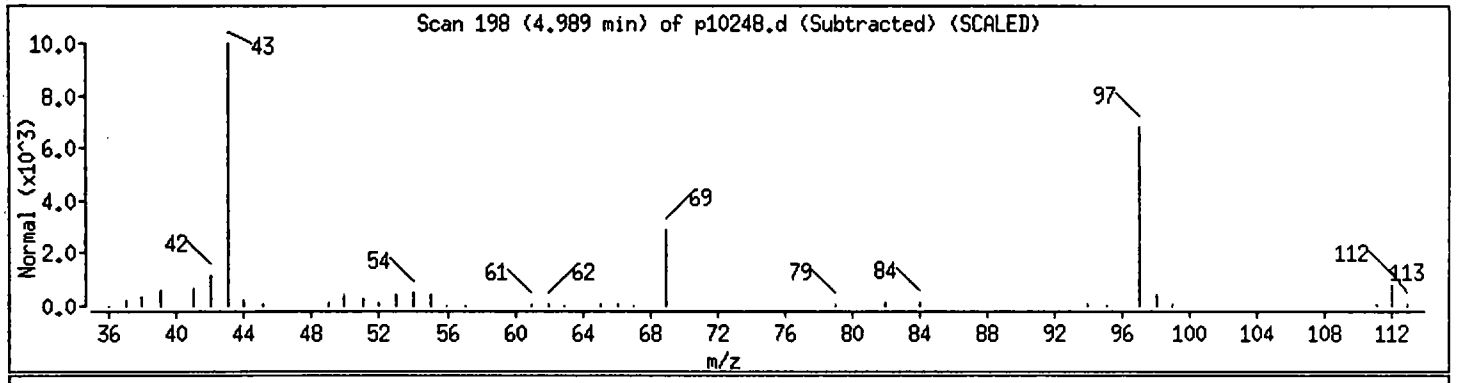


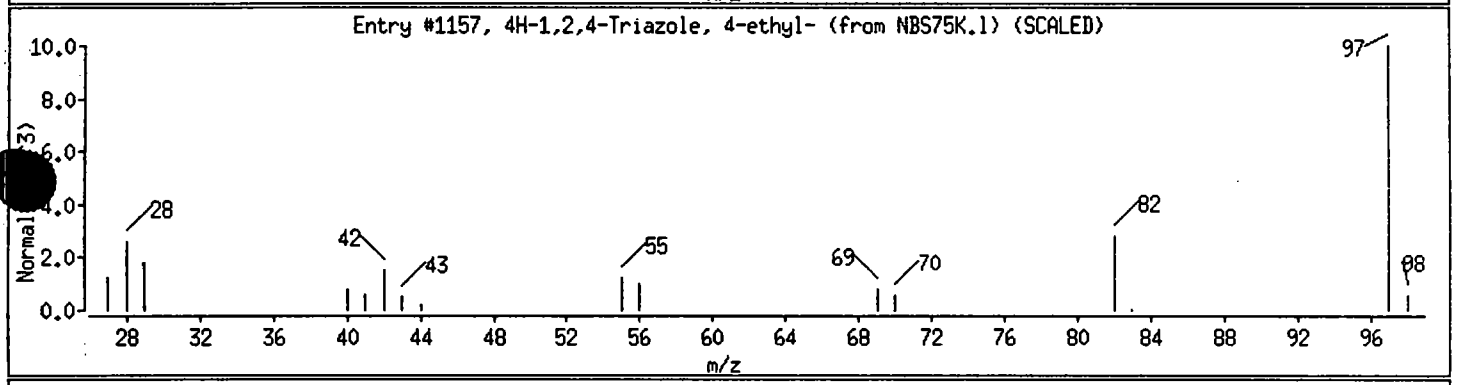
Data File: /chem/p.i/p961208a.b/p10248.d

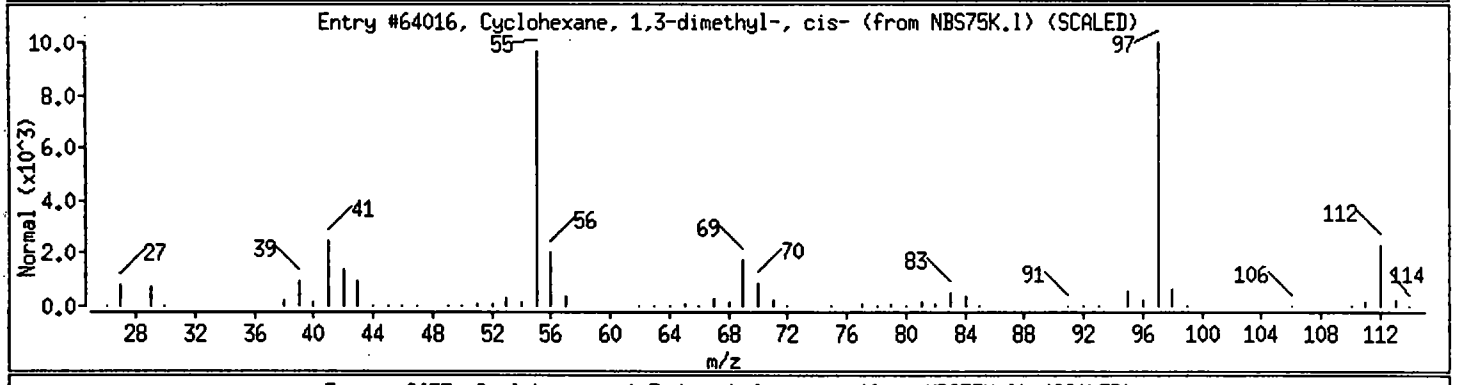
Date : 08-DEC-1996 19:10
Instrument : p.i
Sample ID : SBLK
Column phase : XTI-5
Column diameter : 0.25
Volume Injected (uL) : 2.0

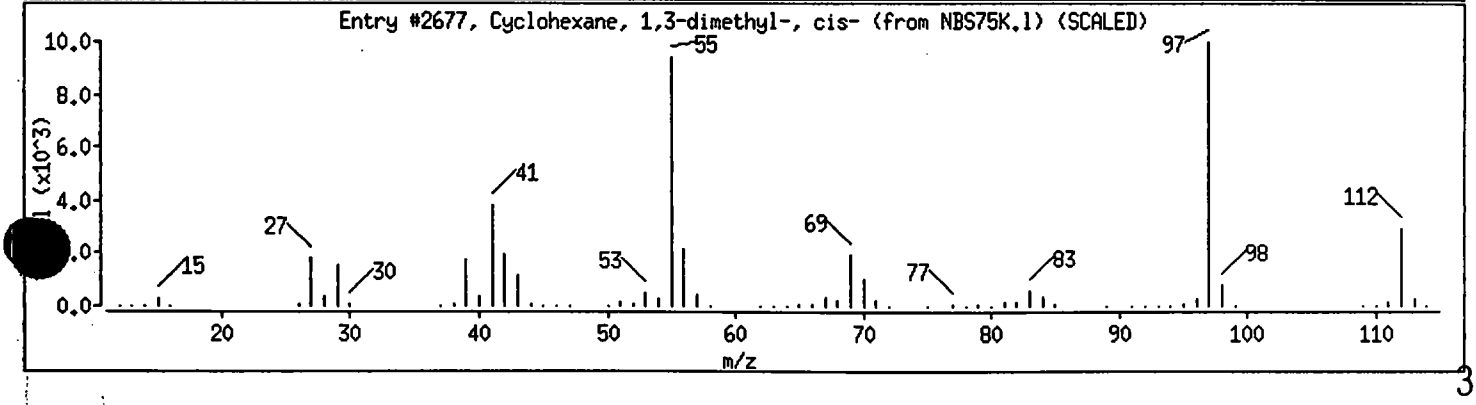
UNKNOWN

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
4H-1,2,4-Triazole, 4-ethyl-	43183-55-7	NBS75K.l	1157	40
Cyclohexane, 1,3-dimethyl-, cis-	638-04-0	NBS75K.l	64016	34
Cyclohexane, 1,3-dimethyl-, cis-	638-04-0	NBS75K.l	2677	34









Data File: /chem/p.i/p961208a.b/p10248.d

Date : 08-DEC-1996 19:10

Instrument : p.i

Sample ID : SBLK

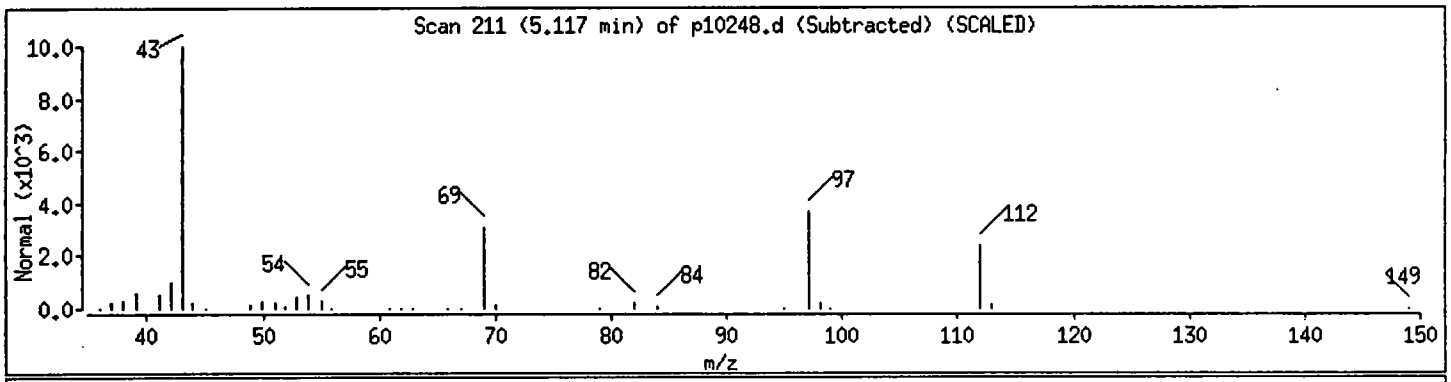
UNKNOWN

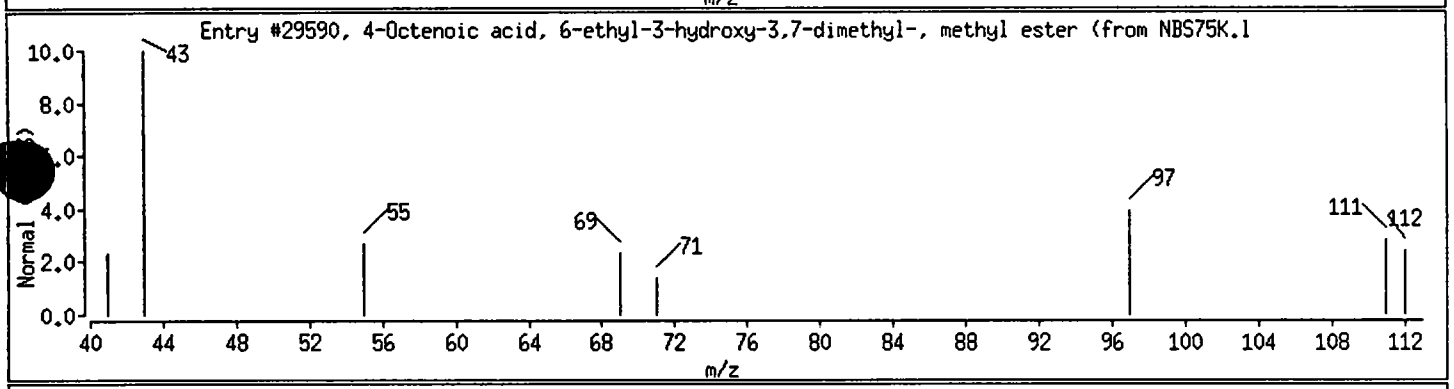
Column phase : XTI-5

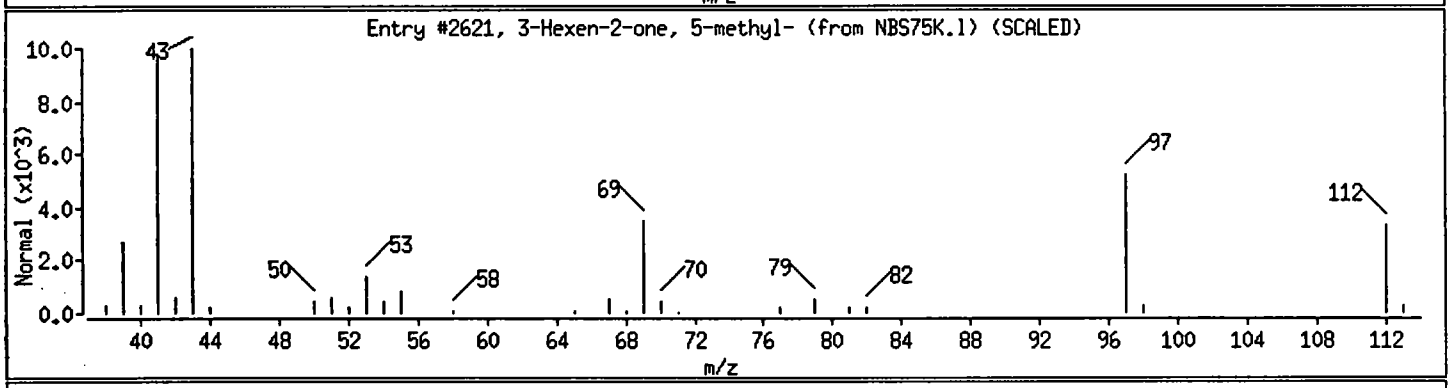
Column diameter : 0.25

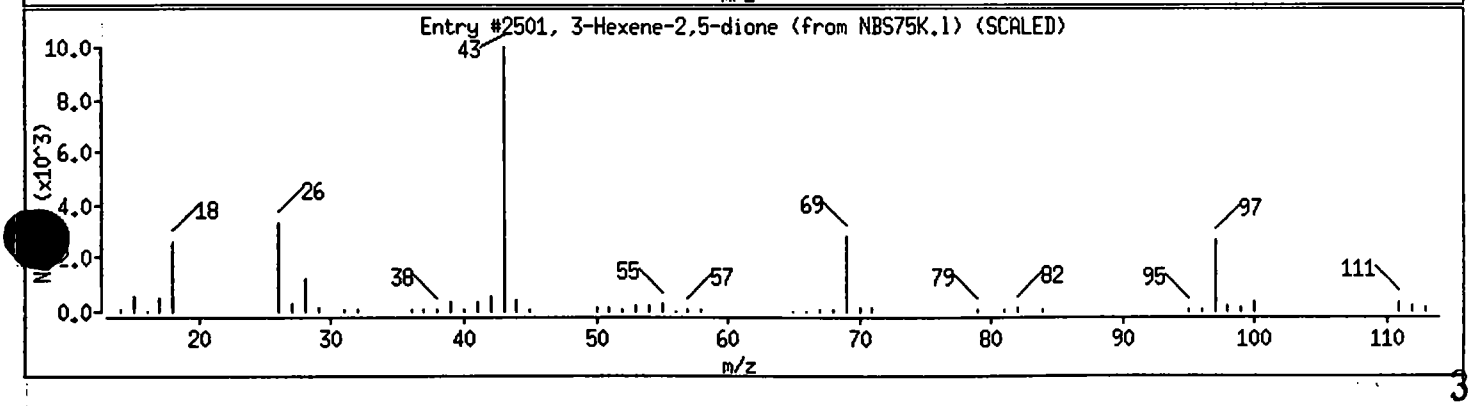
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
4-Octenoic acid, 6-ethyl-3-hydroxy-3,7-d	41654-25-5	NBS75K.l	29590	34
3-Hexen-2-one, 5-methyl-	5166-53-0	NBS75K.l	2621	34
3-Hexene-2,5-dione	4436-75-3	NBS75K.l	2501	33





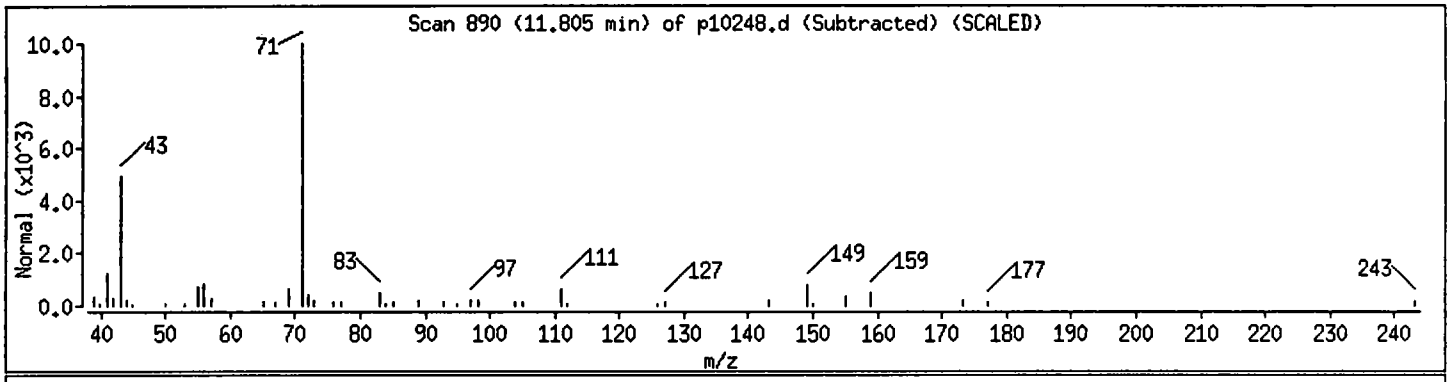


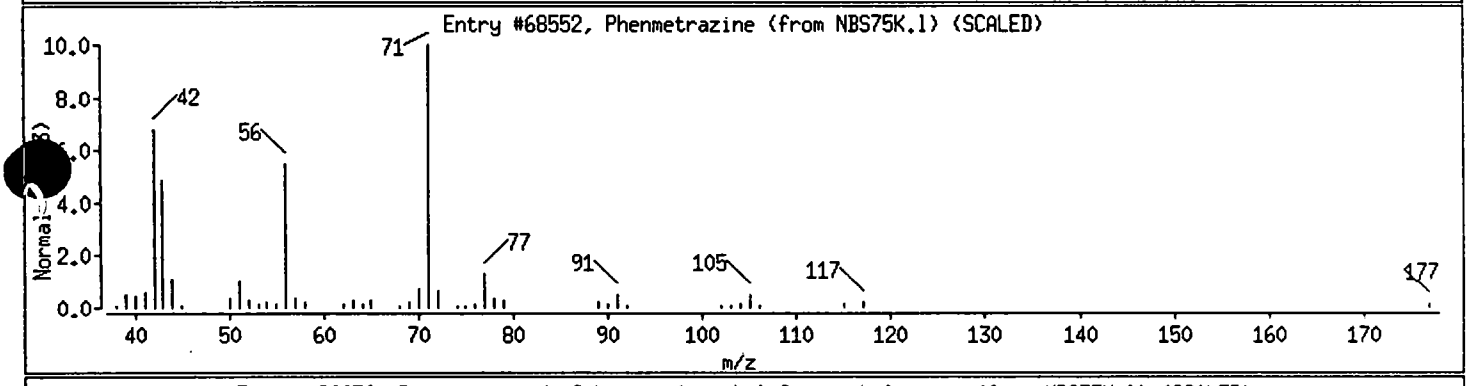


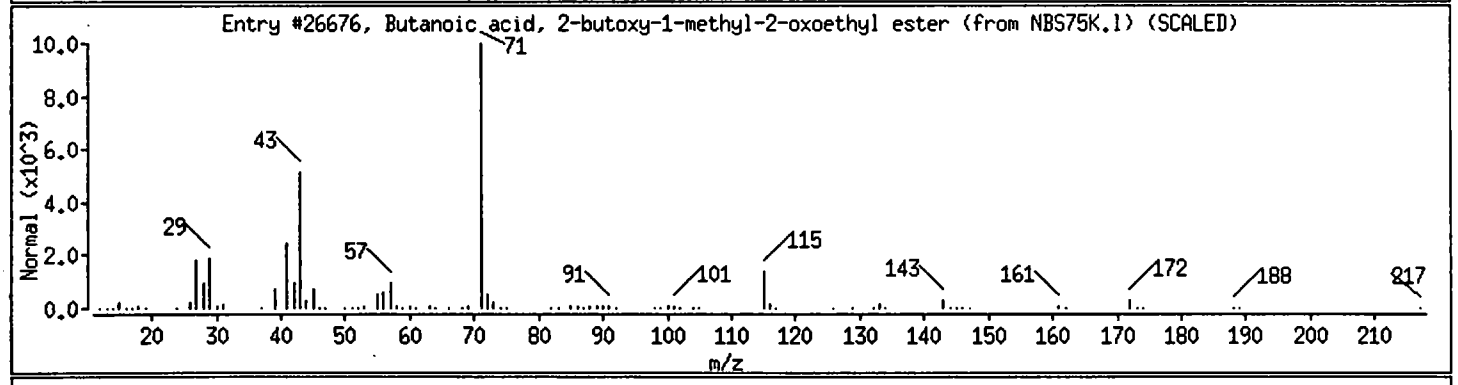
UNKNOWN ORGANIC ACID

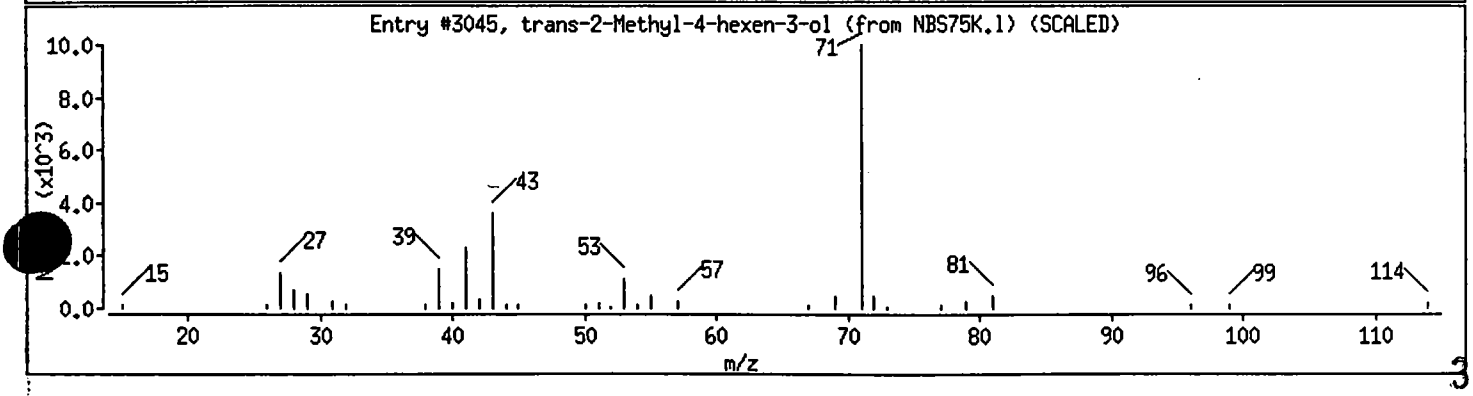
Data File: /chem/p.i/p961208a.b/p10248.d
Date : 08-DEC-1996 19:10
Instrument : p.i
Sample ID : SBLK
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Phenmetrazine	134-49-6	NBS75K.l	68552	59
Butanoic acid, 2-butoxy-1-methyl-2-oxoet	7492-70-8	NBS75K.l	26676	45
trans-2-Methyl-4-hexen-3-ol	96346-76-8	NBS75K.l	3045	45





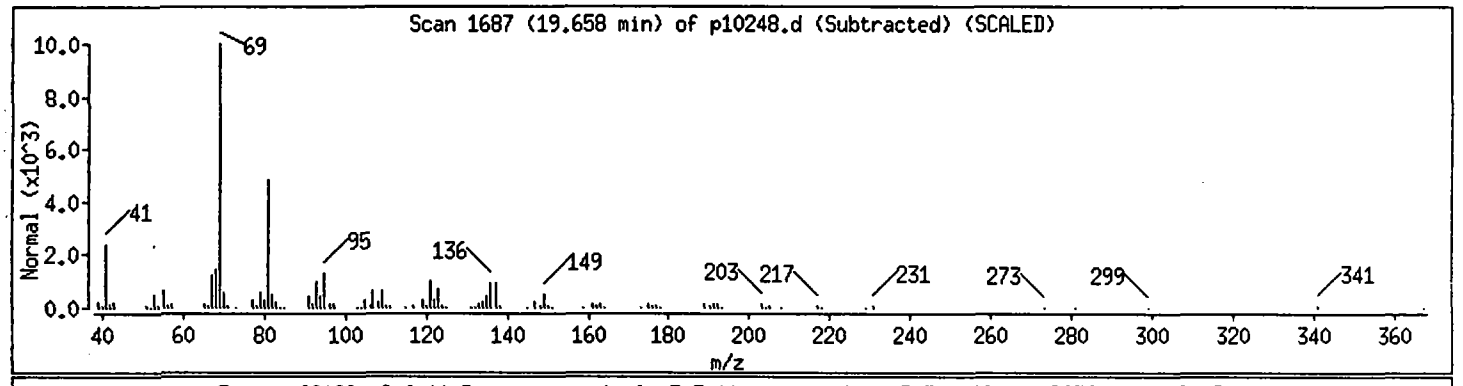


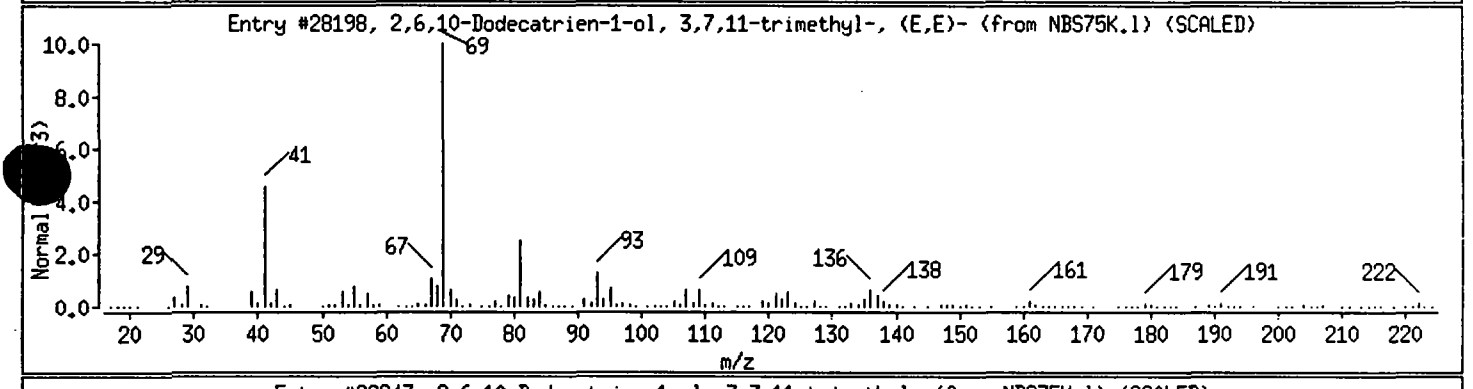


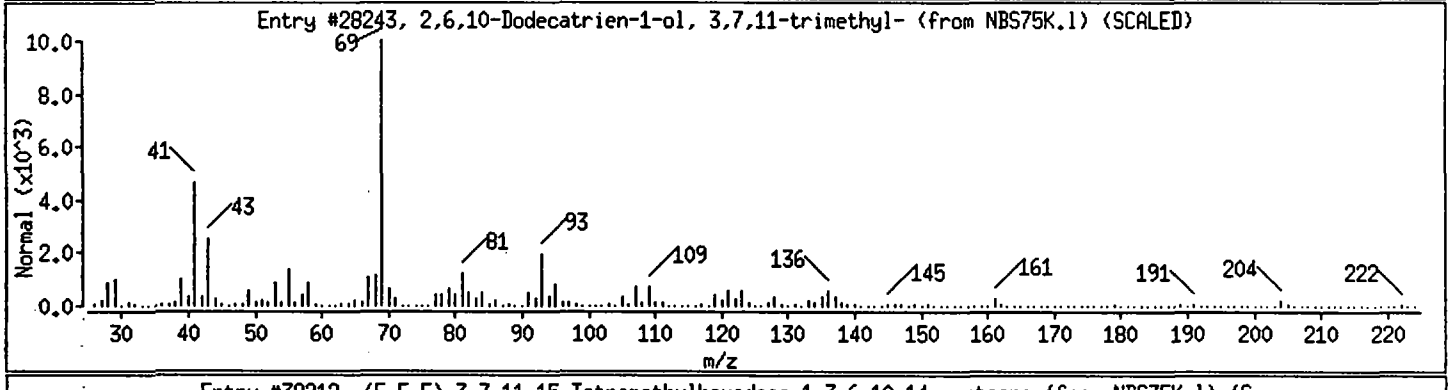
Data File: /chem/p.i/p961208a.b/p10248.d

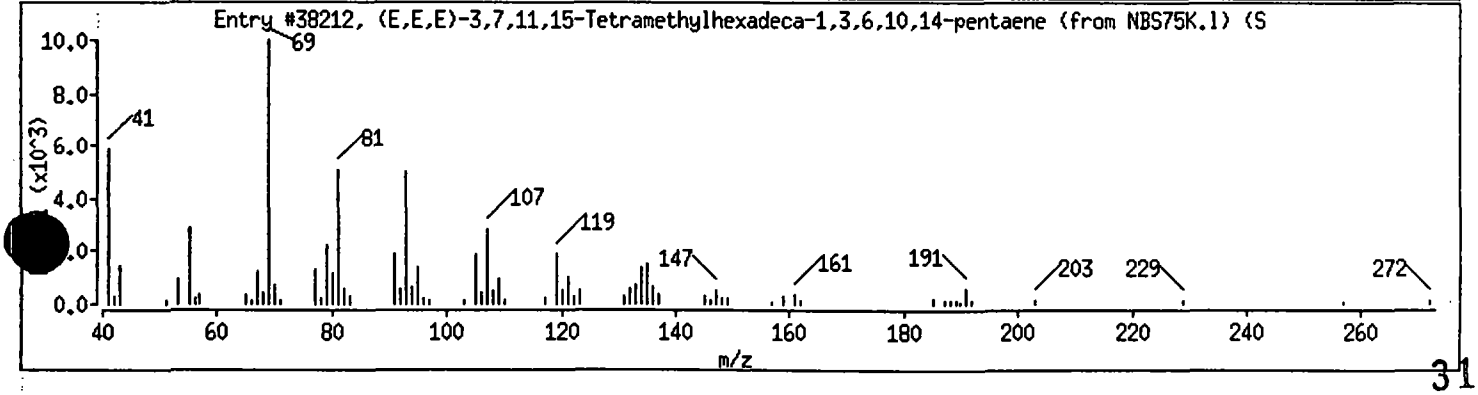
Date : 08-DEC-1996 19:10
Instrument : p.i
Sample ID : SBLK
Column phase : XTI-5 12/20/96 Column diameter : 0.25
Volume Injected (uL) : 2.0
DN

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
~~2,6,10-Dodecatrien-1-ol, 3,7,11-trimethy~~	~~106-28-5~~	NBS75K.l	28198	72
2,6,10-Dodecatrien-1-ol, 3,7,11-trimethy	4602-84-0	NBS75K.l	28243	64
(E,E,E)-3,7,11,15-Tetramethylhexadeca-1,	77898-97-6	NBS75K.l	38212	56





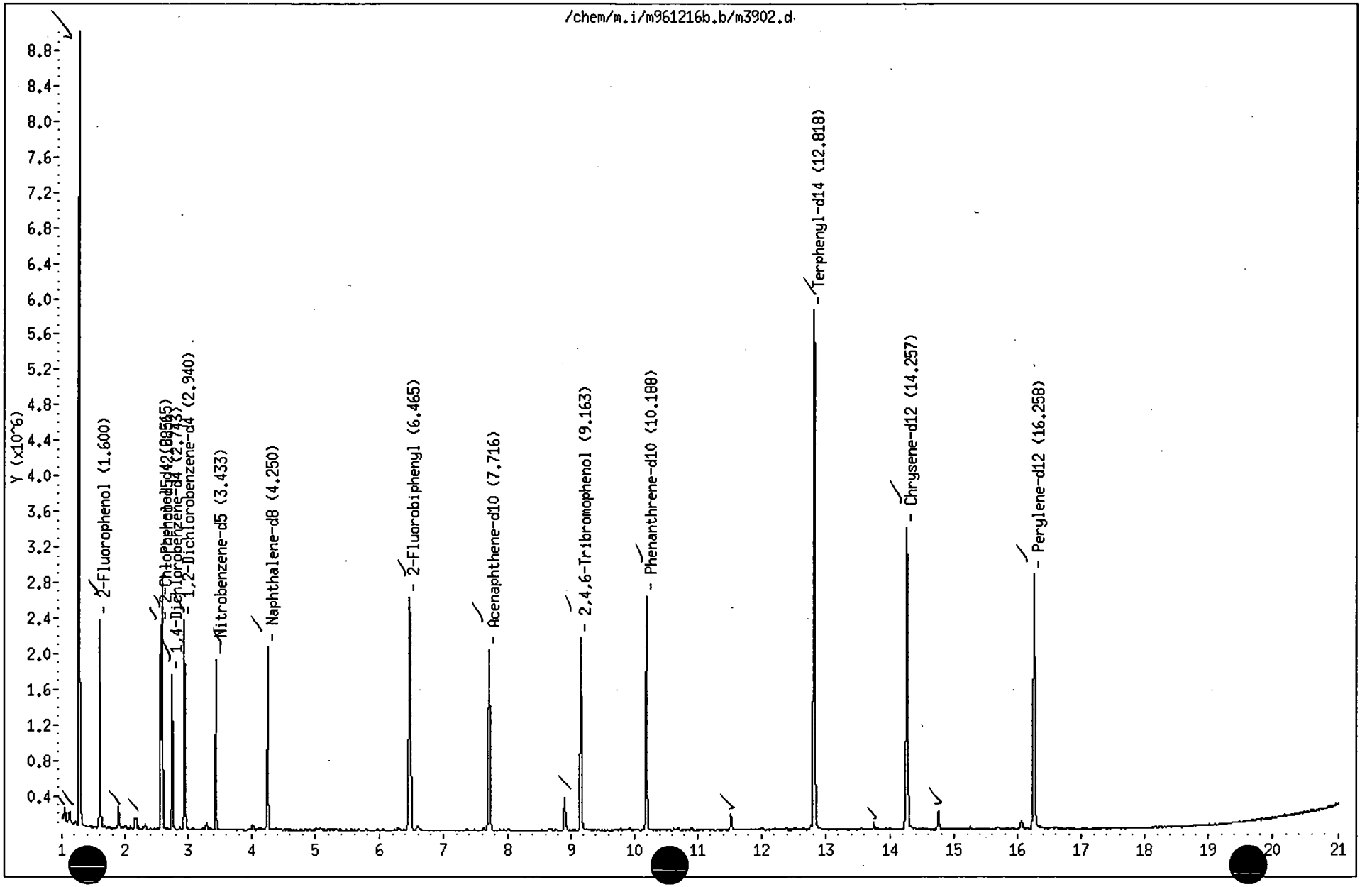




Data File: /chem/m.i/m961216b.b/m3902.d
Date : 16-DEC-1996 19:53
Instrument : m.i
Sample ID : SBLK
Column phase : XTI-5
Volume Injected (uL) : 2.0

Column diameter : 0.25

OPERATOR: Ann



Data File: /chem/m.i/m961216b.b/m3902.d
Report Date: 17-Dec-1996 21:35

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/m.i/m961216b.b/m3902.d
Lab. Id. : BL1211SA
Inj Date : 16-DEC-1996 19:53
Operator : Annie
Smp Info : SBLK
Misc Info : MS517**INSTM*AATS-E:25159*BL1211SA*30G/0.5ML/2UL*
Comment :
Method : /chem/m.i/m961216b.b/BNA517EPA.m
Meth Date : 17-Dec-1996 21:24 ann
Cal Date : 16-DEC-1996 15:26
Als bottle: 9
Dil Factor: 1.000
Integrator: HP RTE
Sample Type: SOIL

Quant Type: ISTD
Inst ID: m.i
Cal File: m3893.d
QC Sample: BLANK
Target Version: Target 3.00
Compound Sublist: all.sub

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 1 2-Fluorophenol	112.00	1.600	(0.583)	647911	83.65	1394.32
$ 2 Phenol-d5	98.80	2.585	(0.942)	956725	81.29	1354.82
$ 5 2-Chlorophenol-d4	132.00	2.565	(0.935)	806968	83.75	1395.90
* 8 1,4-Dichlorobenzene-d4	152.00	2.743	(1.000)	311461	40.00	
10 1,2-Dichlorobenzene-d4	152.00	2.940	(1.072)	413759	61.74	1029.04
$ 17 Nitrobenzene-d5	82.00	3.433	(0.808)	614472	51.90	865.02
* 25 Naphthalene-d8	135.65	4.250	(1.000)	1193220	40.00	
$ 34 2-Fluorobiphenyl	172.00	6.465	(0.838)	1582681	61.30	1021.81
* 40 Acenaphthene-d10	164.00	7.716	(1.000)	820591	40.00	
$ 53 2,4,6-Tribromophenol	329.80	9.163	(0.899)	334915	79.08	1318.13
* 57 Phenanthrene-d10	187.65	10.188	(1.000)	1556378	40.00	
61 Di-n-butylphthalate	149.00	11.517	(1.131)	110015	2.08	34.81(a)
$ 64 Terphenyl-d14	244.00	12.818	(0.899)	2696880	77.71	1295.20
65 Butylbenzylphthalate	149.00	13.744	(0.964)	35850	1.29	21.51(a)
* 67 Chrysene-d12	240.00	14.257	(1.000)	1618888	40.00	
70 bis(2-Ethylhexyl)phthalate	149.00	14.760	(1.035)	111891	2.94	49.12(a)
* 75 Perylene-d12	264.00	16.258	(1.000)	1570030	40.00	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/m.i/m961216b.b/m3902.d

Date : 16-DEC-1996 19:53

Instrument : m.i

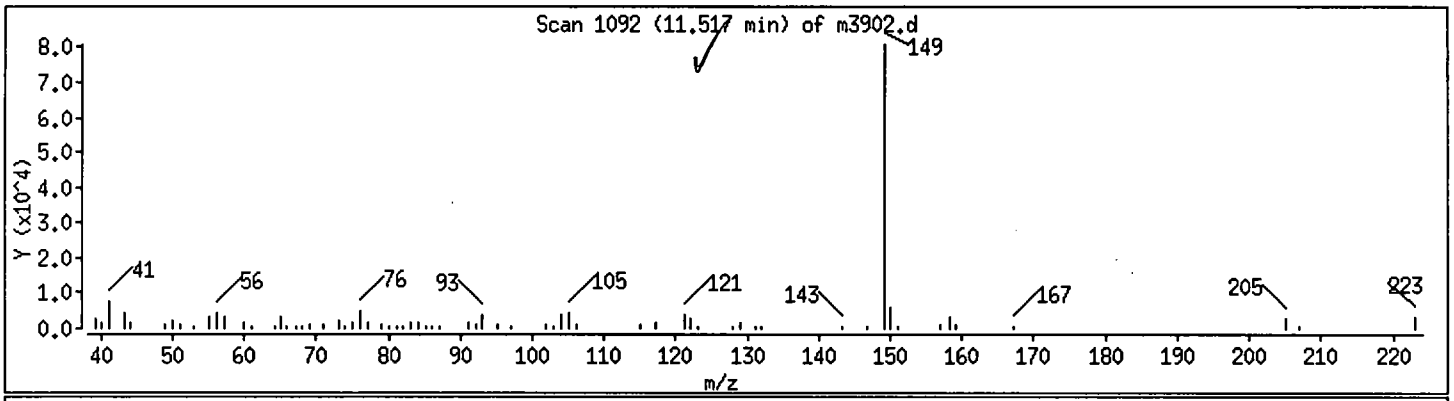
Sample ID : SBLK 2

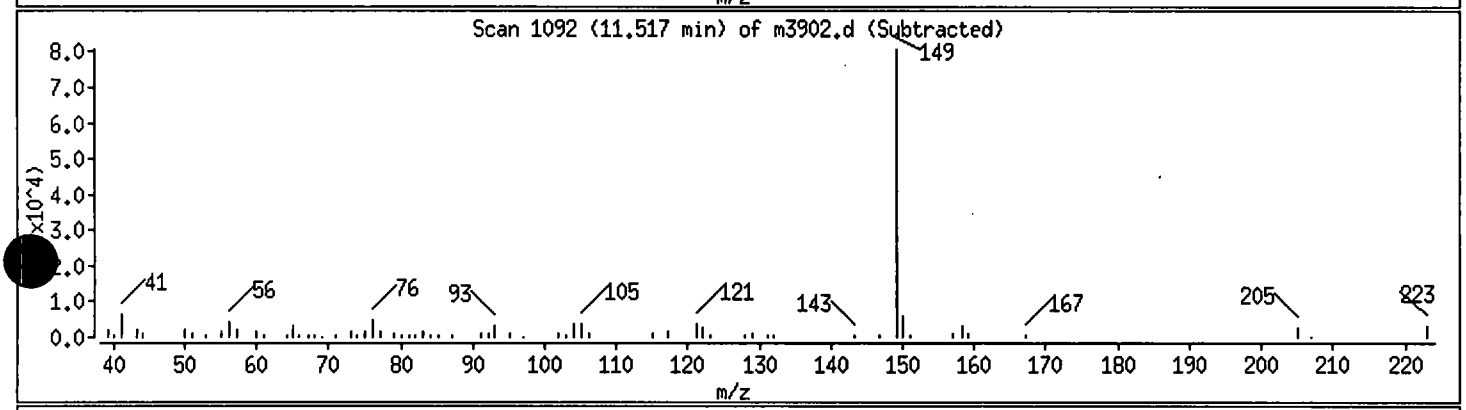
Column phase : XTI-5

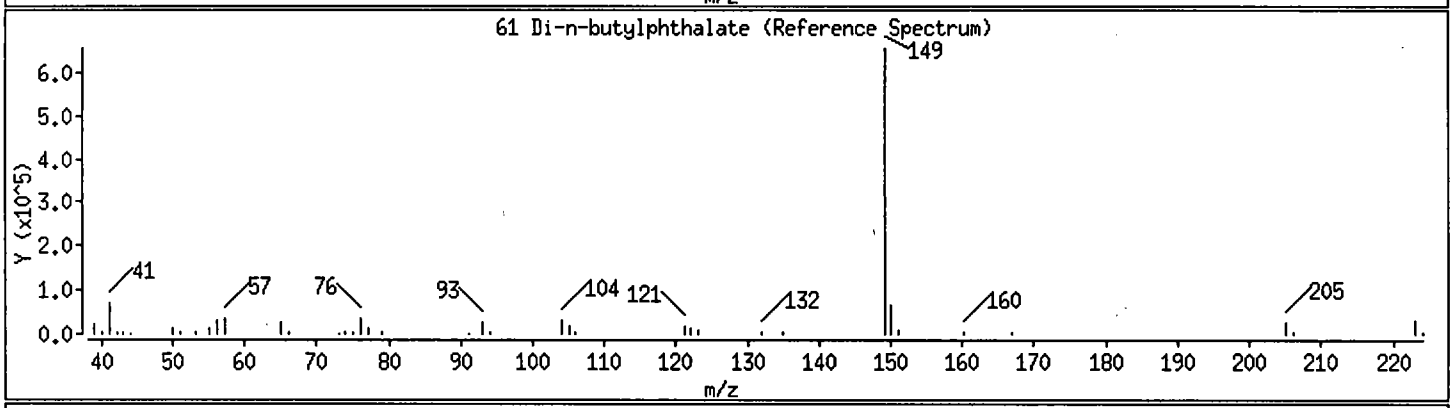
Column diameter : 0.25

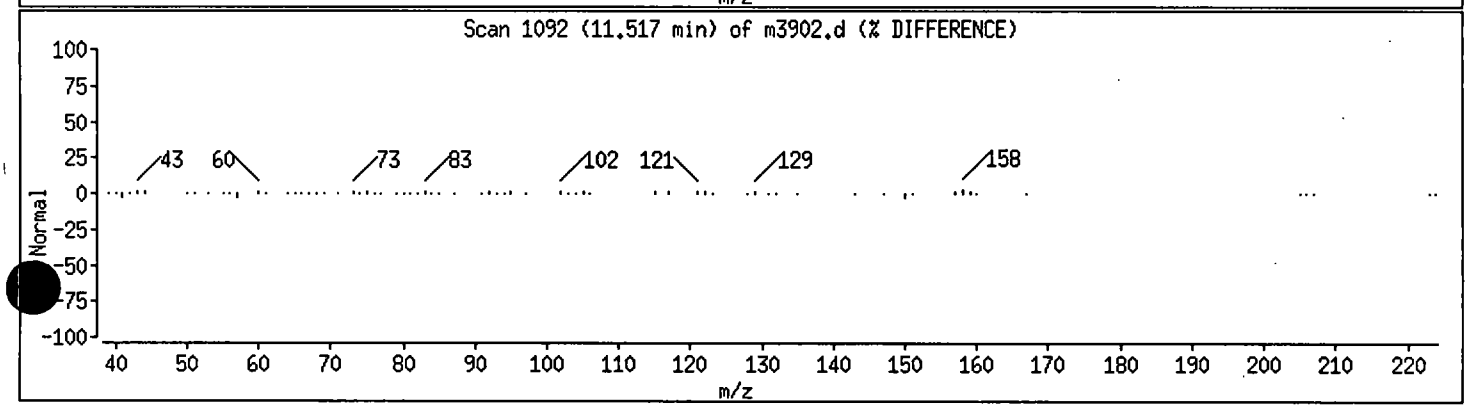
Volume Injected (uL) : 2.0

61 Di-n-butylphthalate









Data File: /chem/m.i/m961216b.b/m3902.d

Date : 16-DEC-1996 19:53

Instrument : m.i

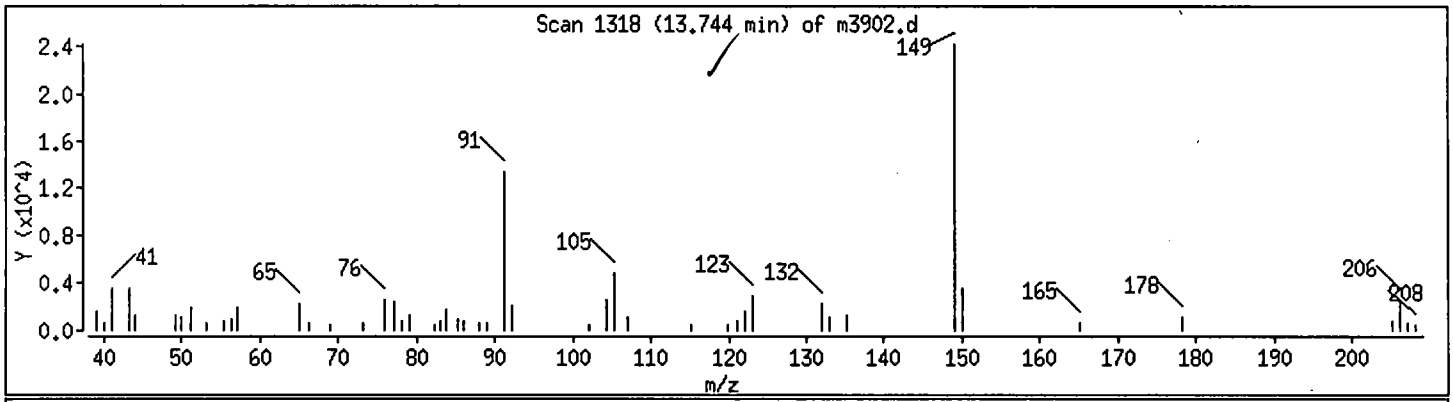
Sample ID : SBLK 2

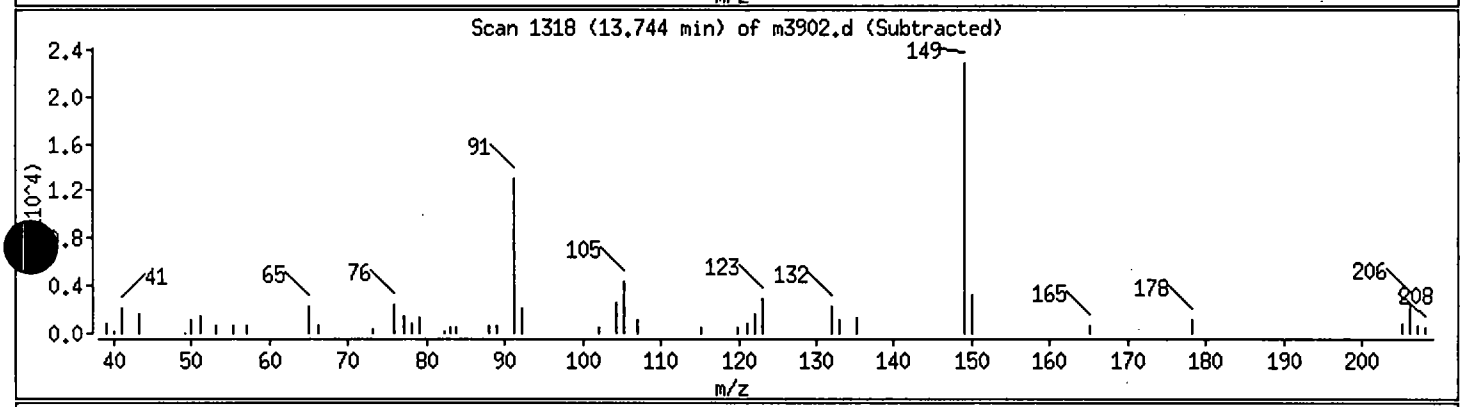
Column phase : XTI-5

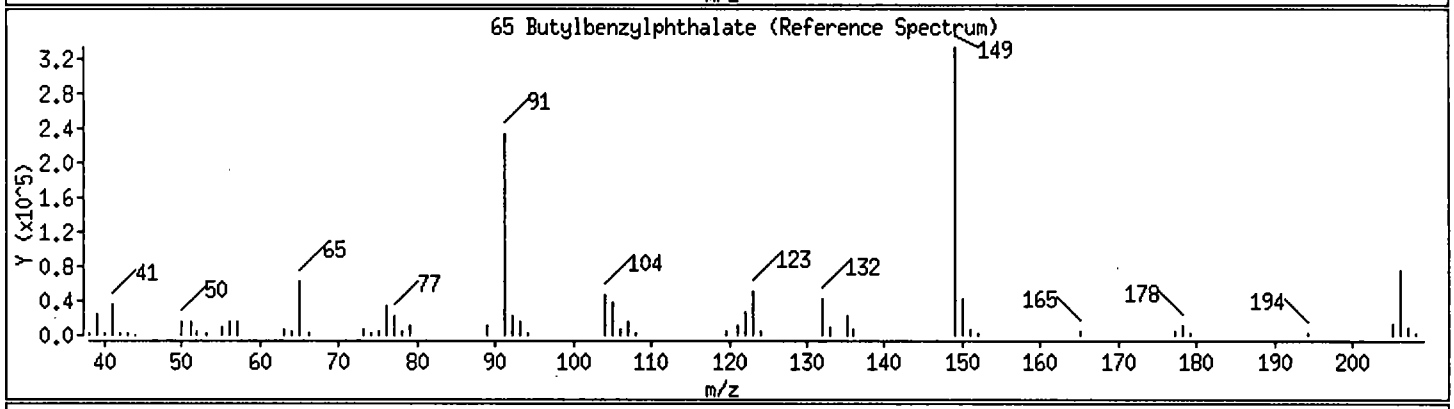
Column diameter : 0.25

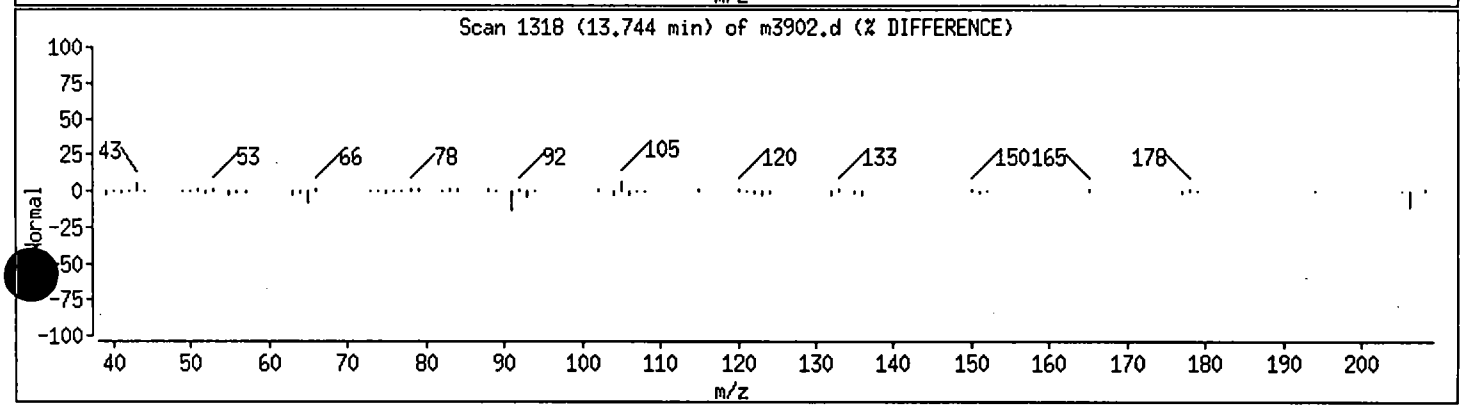
Volume Injected (uL) : 2.0

65 Butylbenzylphthalate









Data File: /chem/m.i/m961216b.b/m3902.d

Date : 16-DEC-1996 19:53

Instrument : m.i

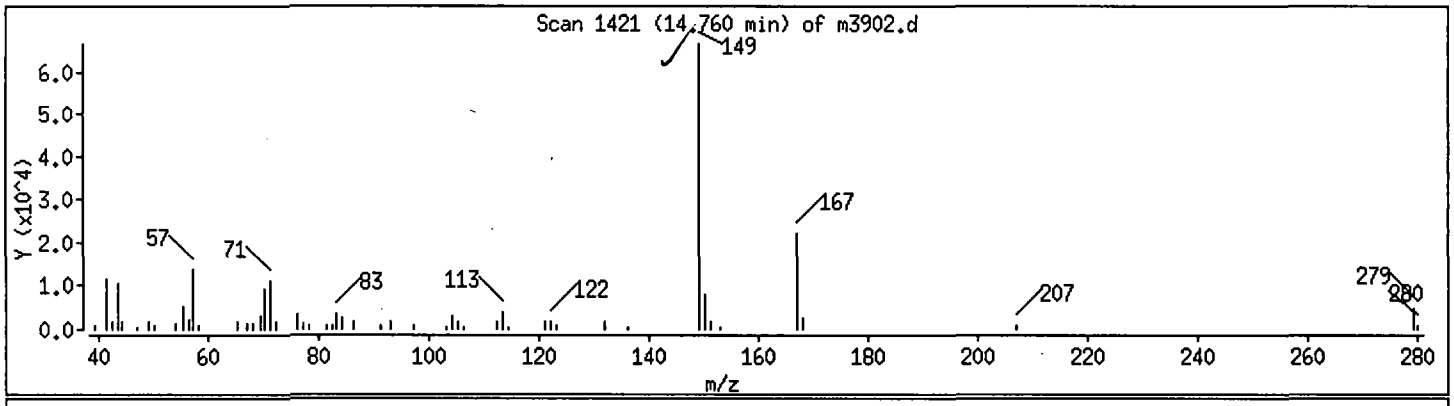
Sample ID : SBLK 2

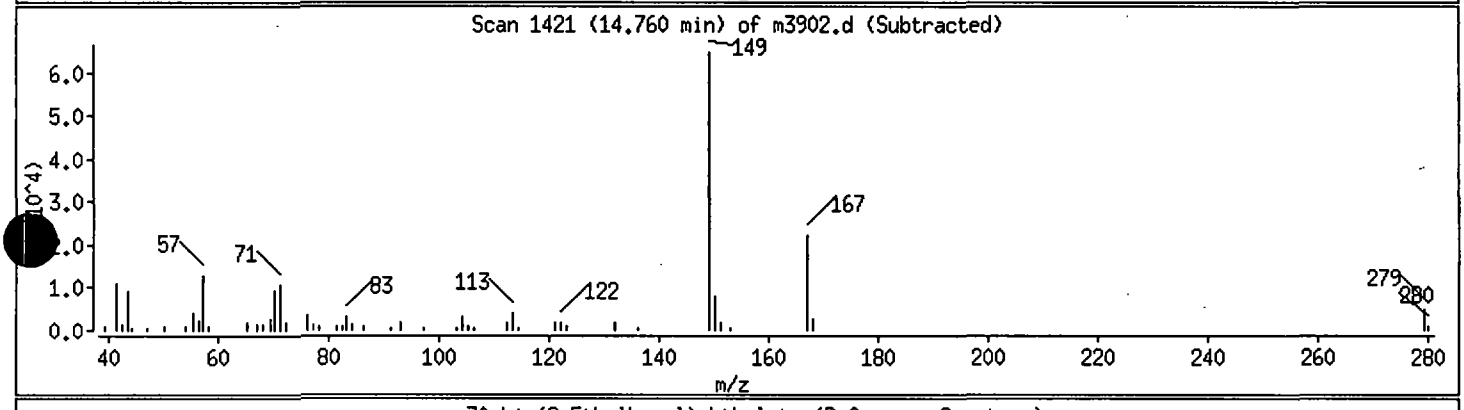
Column phase : XTI-5

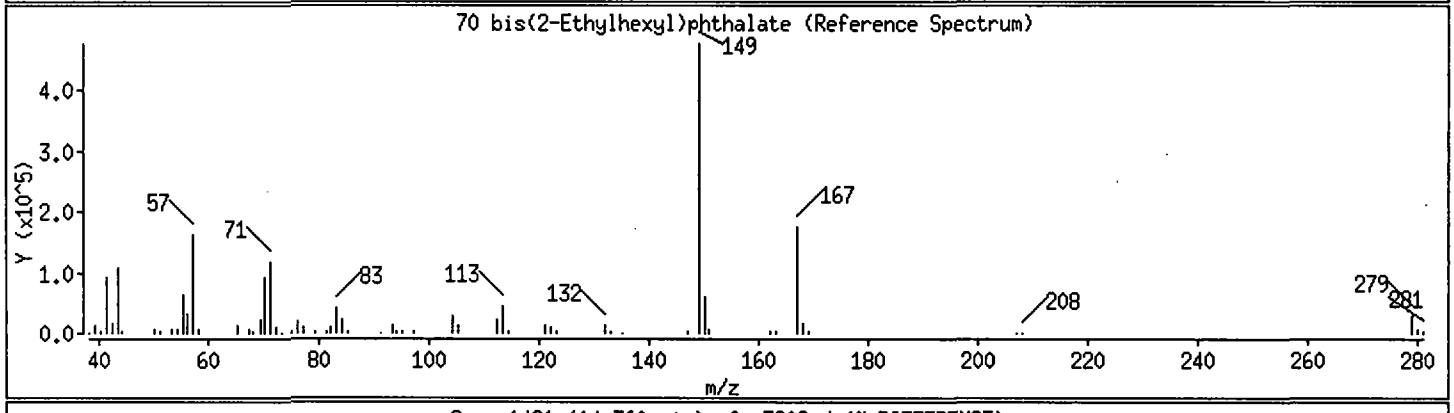
Column diameter : 0.25

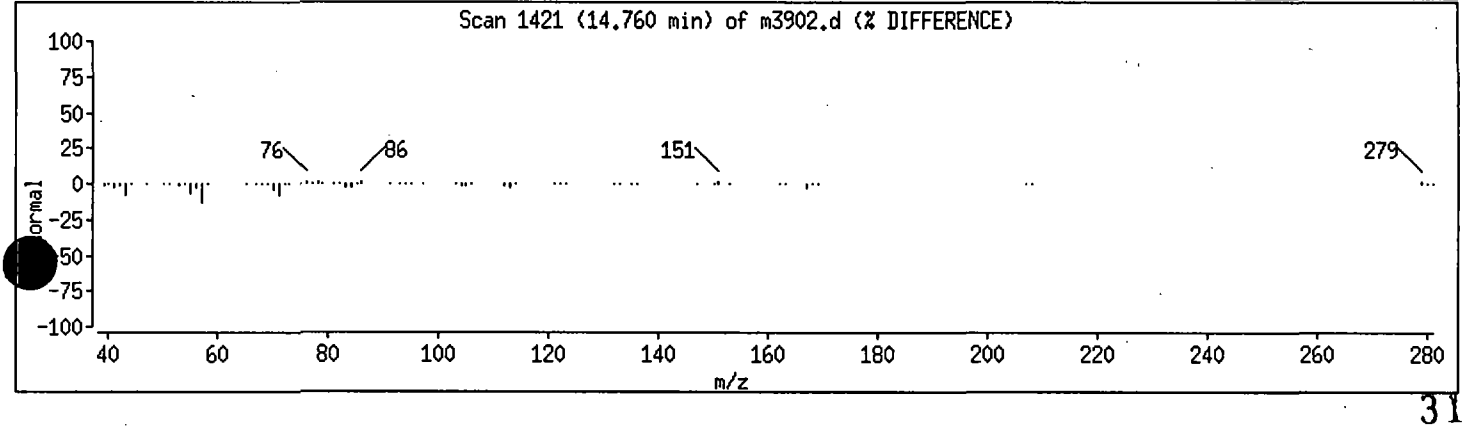
Volume Injected (uL) : 2.0

70 bis(2-Ethylhexyl)phthalate









Data File: /chem/m.i/m961216b.b/m3902.d
Report Date: 17-Dec-1996 21:35

SWOK/AATS

Unknown Compounds Quantitation Report

Data file : /chem/m.i/m961216b.b/m3902.d
Lab. Id. : BL1211SA
Inj Date : 16-DEC-1996 19:53
Operator : Annie Inst ID: m.i
Smp Info : SBLK a
Misc Info : MS517**INSTM*AATS-E:25159*BL1211SA*30G/0.5ML/2UL*
Comment :
Method : /chem/m.i/m961216b.b/BNA517EPA.m
Meth Date : 17-Dec-1996 21:24 ann
Cal Date : 16-DEC-1996 15:26 Cal File: m3893.d
Als bottle: 9 QC Sample: BLANK
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 8 1,4-Dichlorobenzene-d4	2.743	1779128	40.000
* 40 Acenaphthene-d10	7.716	3417717	40.000

RT	AREA	CONC(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	QUANT	CPND #
3-Penten-2-one, 4-methyl-					CAS #: 141-79-7		
0.959	600879	225.15	94	NBS75K.l	63215		8
2-Heptanol, acetate					CAS #: 5921-82-4		
1.048	225501	84.49	25	NBS75K.l	67414		8
2-Pentanol, 2-methyl-					CAS #: 590-36-3		
1.117	342125	128.19	38	NBS75K.l	1763		8
2-Pentanone, 4-hydroxy-4-methyl-					CAS #: 123-42-2		
1.275	10580668	3964.73	50	NBS75K.l	64274		8
Furan, 2,3-dihydro-3-methyl-					CAS #: 1708-27-6		
1.895	308861	115.73	52	NBS75K.l	577		8
Butanoic acid, 3-methylbutyl ester					CAS #: 106-27-4		
2.162	220271	82.53	50	NBS75K.l	11940		8
Butane, 1-bromo-2-methyl-, (S)-					CAS #: 534-00-9		
8.897	600931	117.21	42	NBS75K.l	66686		40

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/m.i/m961216b.b/m3902.d

Date : 16-DEC-1996 19:53

Instrument : m.i

Sample ID : SBLK 2

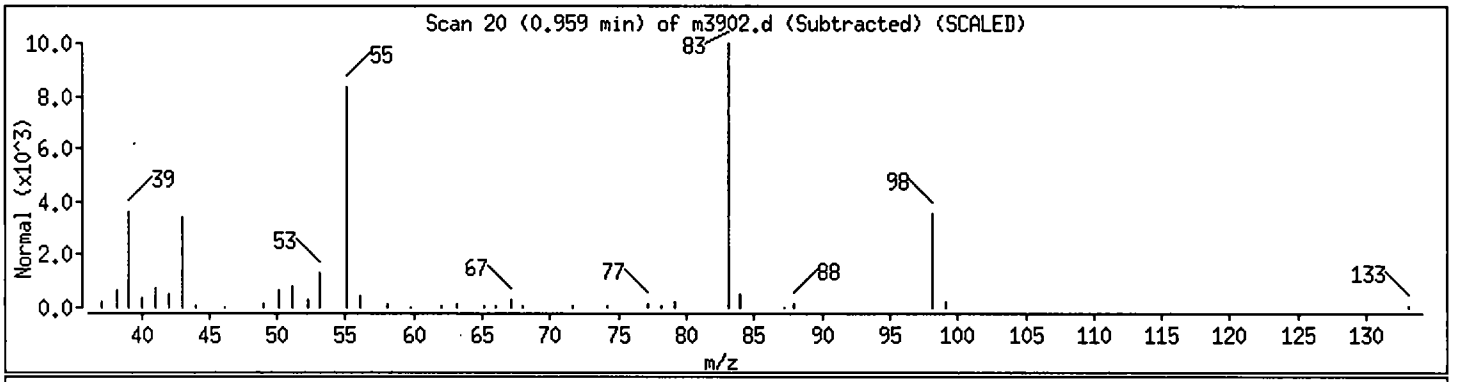
Column phase : XTI-5

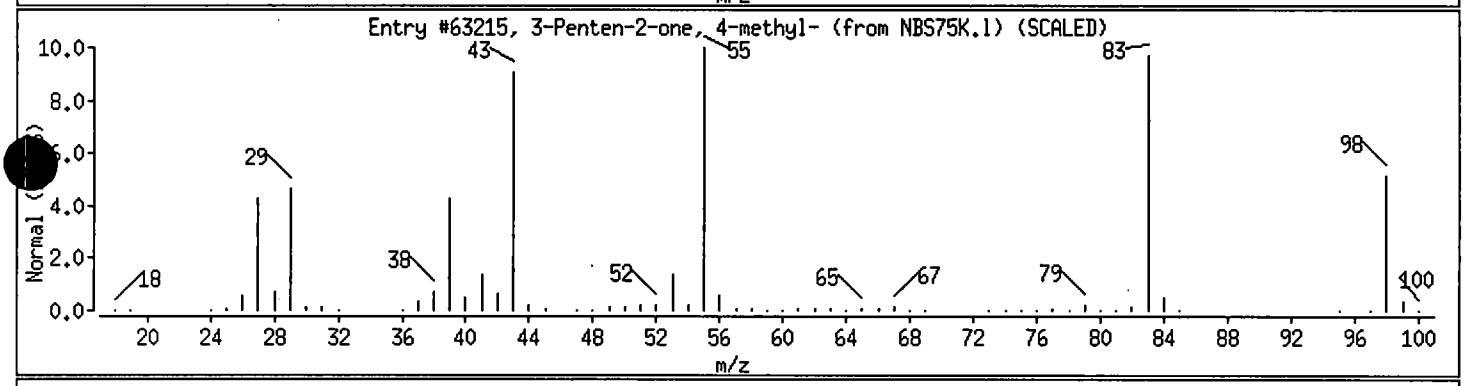
Column diameter : 0.25

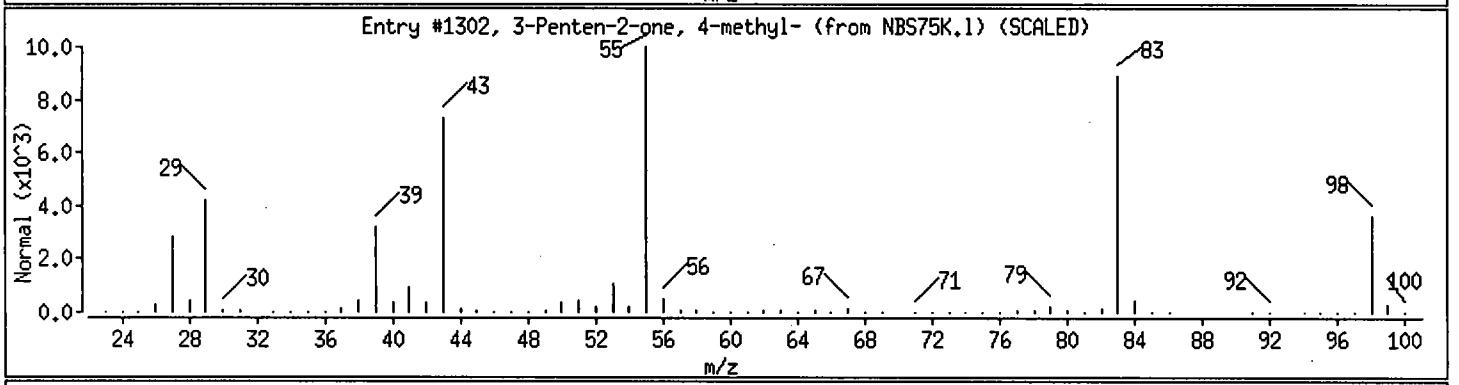
Volume Injected (uL) : 2.0

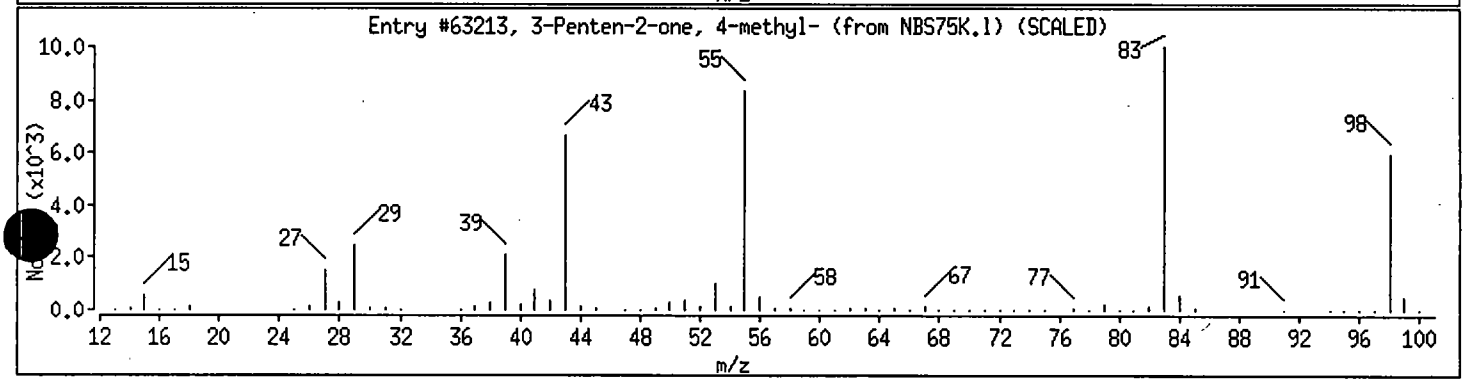
ALDOL CONDENSATE

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
3-Penten-2-one, 4-methyl-	141-79-7	NBS75K.l	63215	94
3-Penten-2-one, 4-methyl-	141-79-7	NBS75K.l	1302	91
3-Penten-2-one, 4-methyl-	141-79-7	NBS75K.l	63213	90







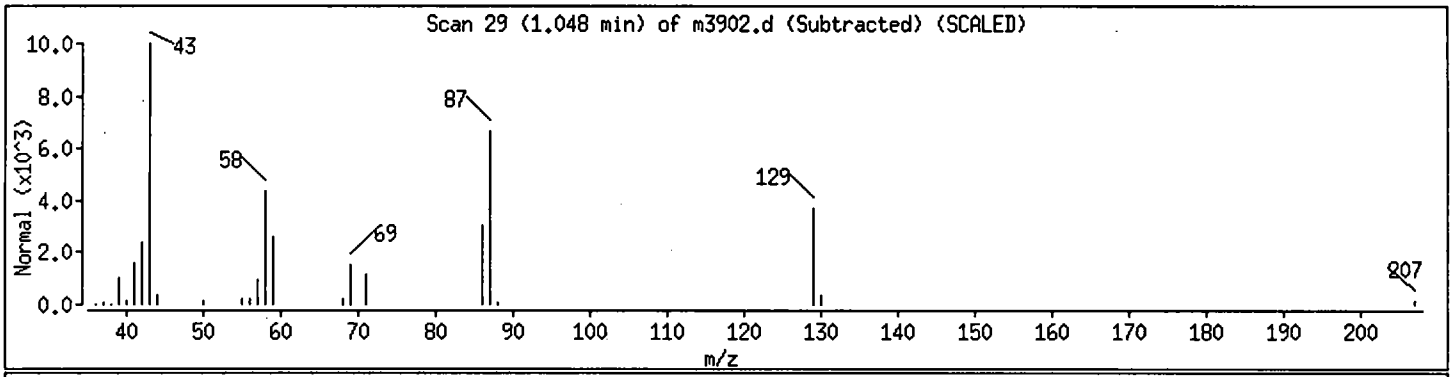


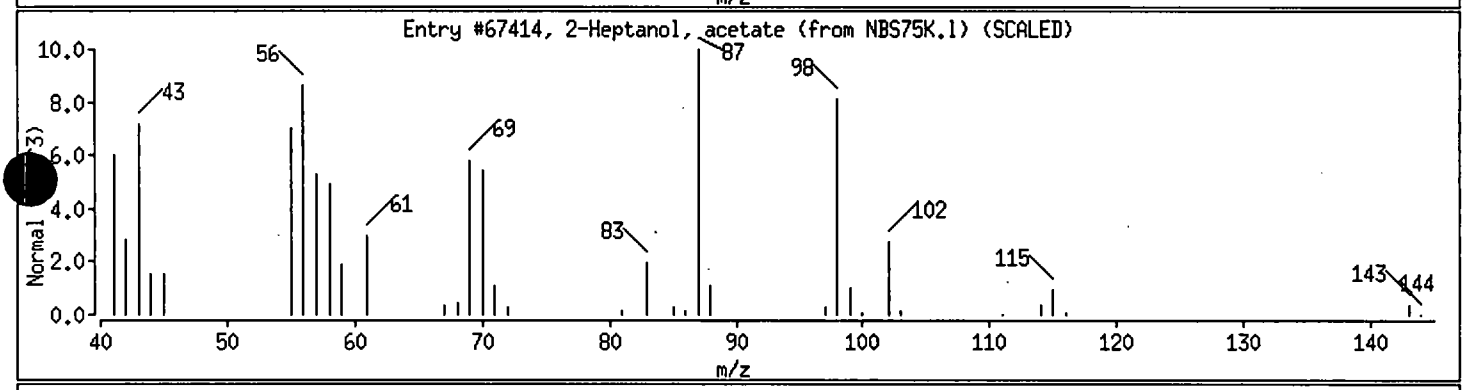
Data File: /chem/m.i/m961216b.b/m3902.d
Date : 16-DEC-1996 19:53
Instrument : m.i
Sample ID : SBLK 2
Column phase : XTI-5
Volume Injected (uL) : 2.0

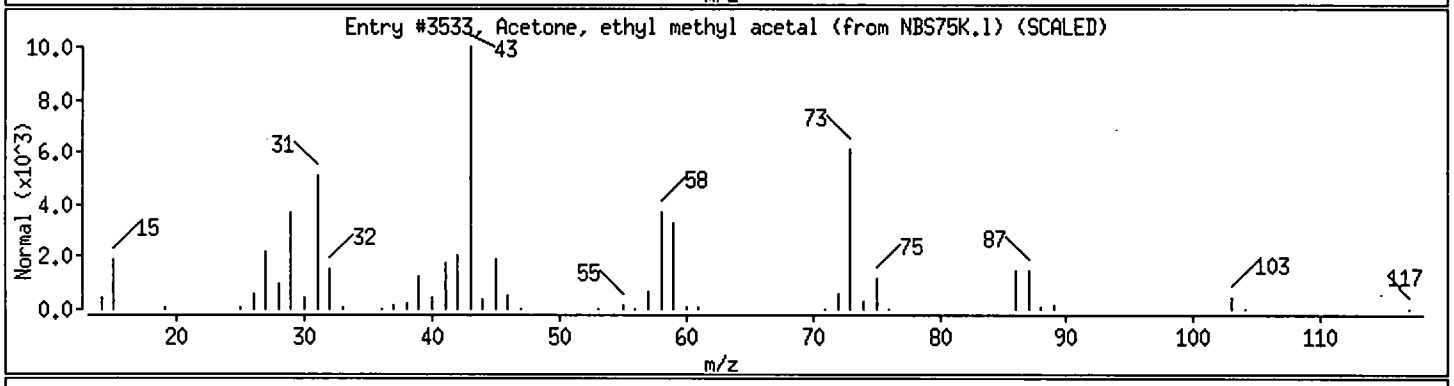
UNKNOWN

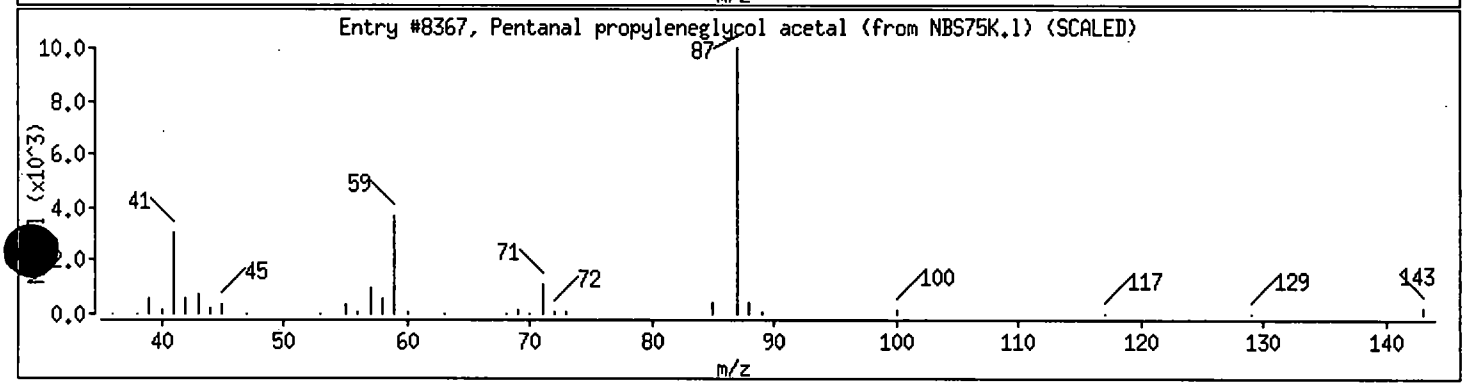
Column diameter : 0.25

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
2-Heptanol, acetate	5921-82-4	NBS75K.1	67414	25
Acetone, ethyl methyl acetal	29328-22-1	NBS75K.1	3533	20
Pentanal propyleneglycol acetal	0-00-0	NBS75K.1	8367	17









Data File: /chem/m.i/m961216b.b/m3902.d

Date : 16-DEC-1996 19:53

Instrument : m.i

Sample ID : SBLK 2

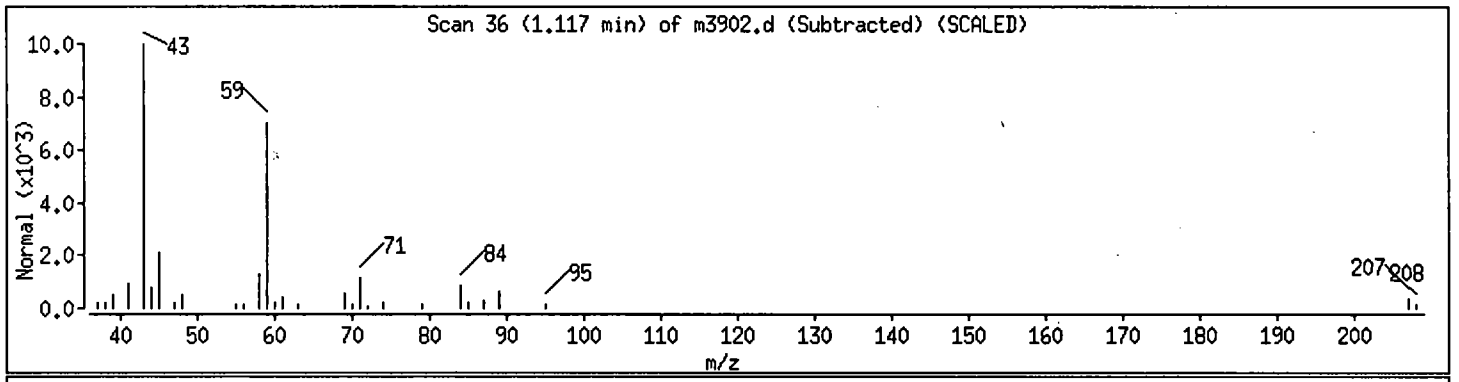
UNKNOWN

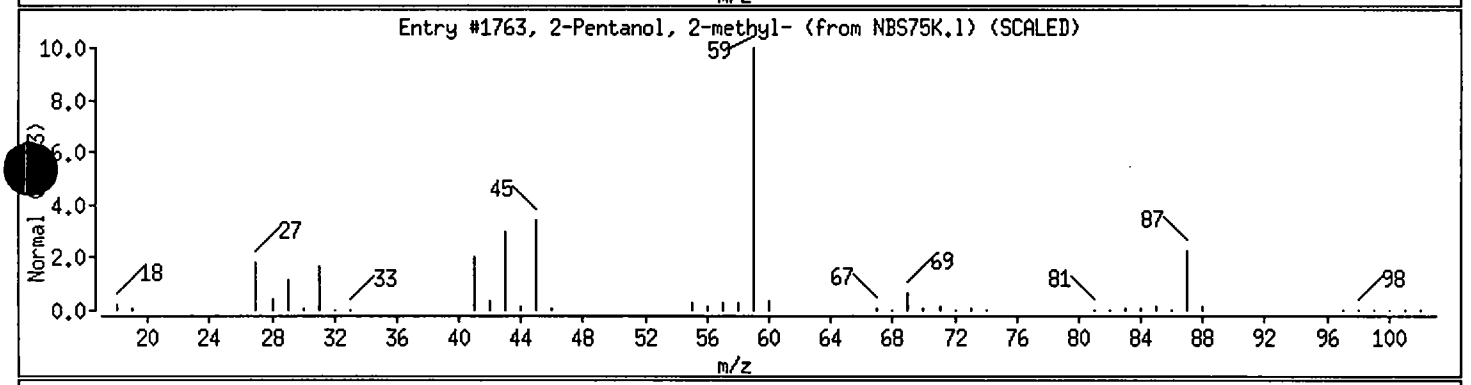
Column phase : XTI-5

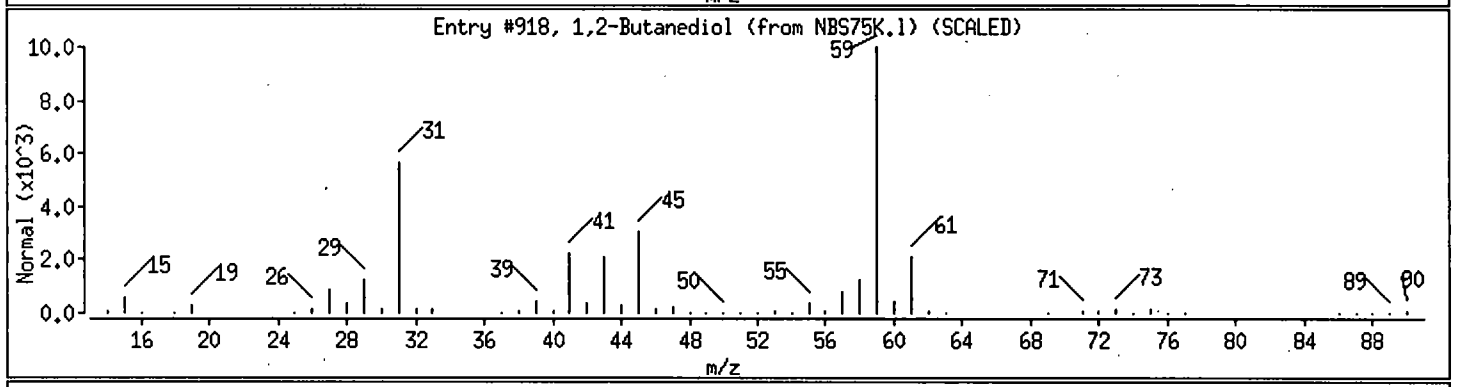
Column diameter : 0.25

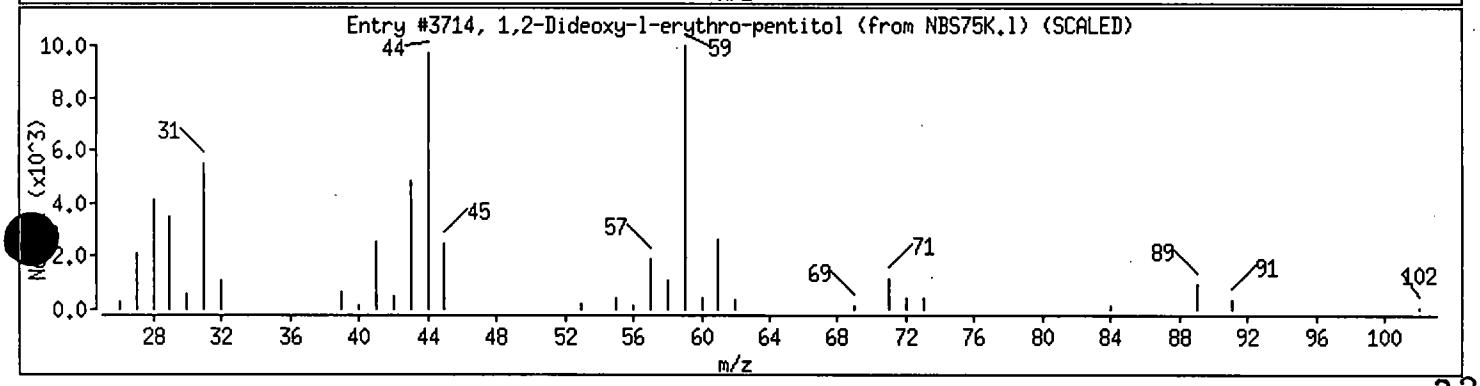
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
2-Pentanol, 2-methyl-	590-36-3	NBS75K.l	1763	38
1,2-Butanediol	584-03-2	NBS75K.l	918	36
1,2-Dideoxy-l-erythro-pentitol	0-00-0	NBS75K.l	3714	36









Data File: /chem/m.i/m961216b.b/m3902.d

Date : 16-DEC-1996 19:53

Instrument : m.i

Sample ID : SBLK 2

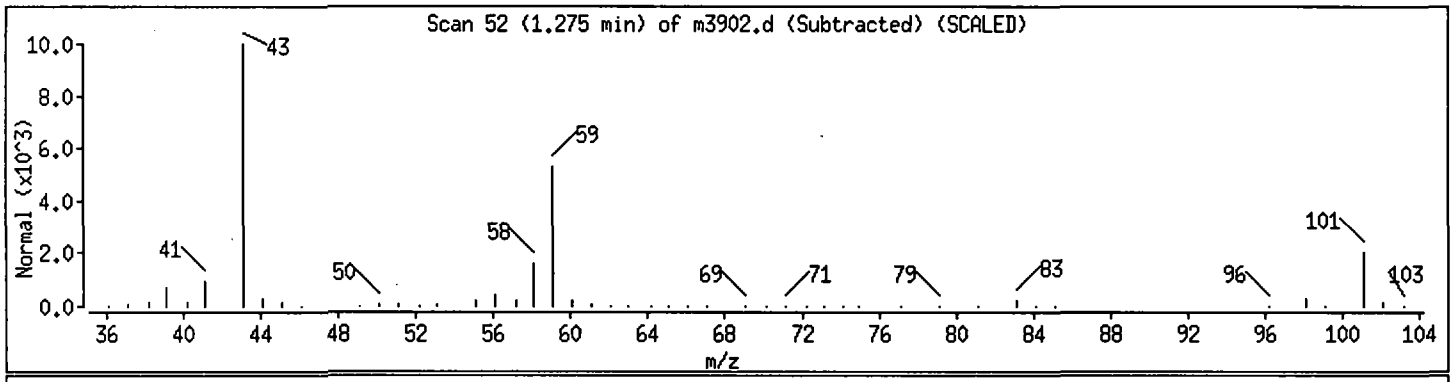
Column phase : XTI-5

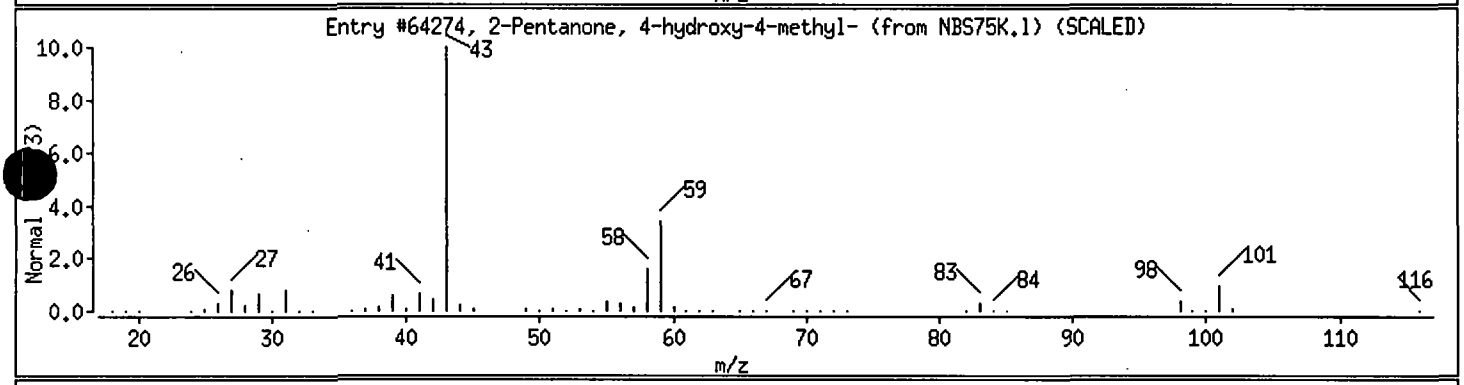
Column diameter : 0.25

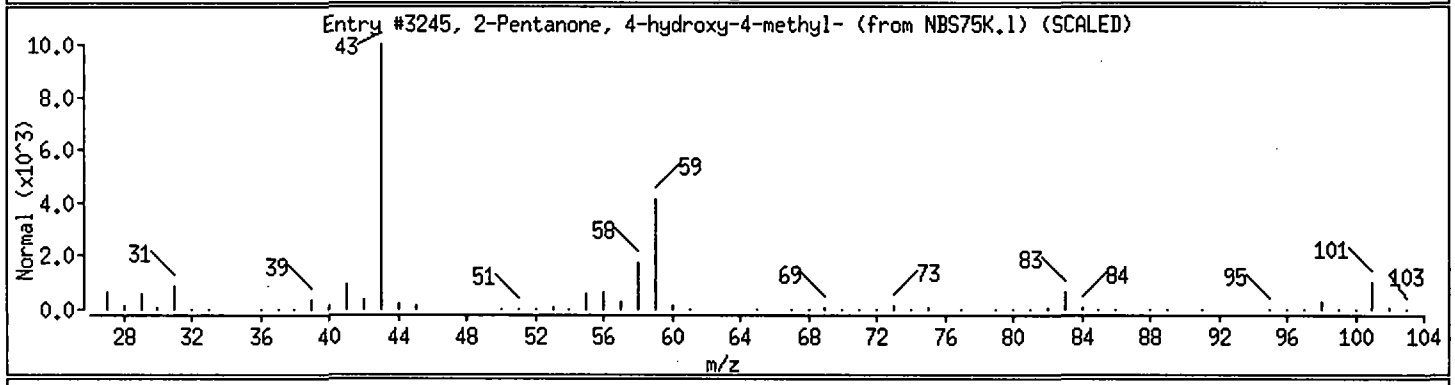
ALDOL CONDENSATE

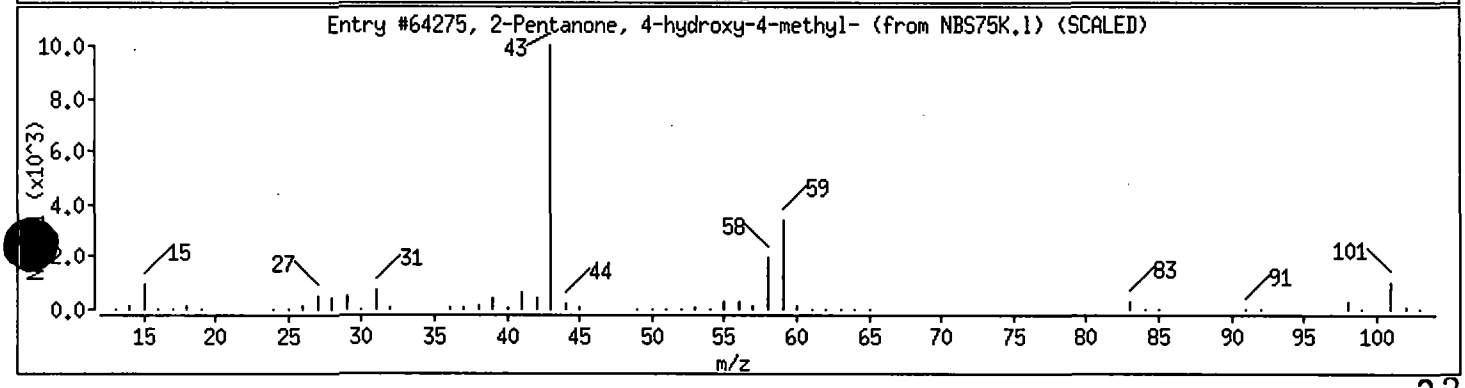
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NBS75K.1	64274	50
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NBS75K.1	3245	45
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NBS75K.1	64275	38









Data File: /chem/m.i/m961216b.b/m3902.d

Date : 16-DEC-1996 19:53

Instrument : m.i

Sample ID : SBLK 2

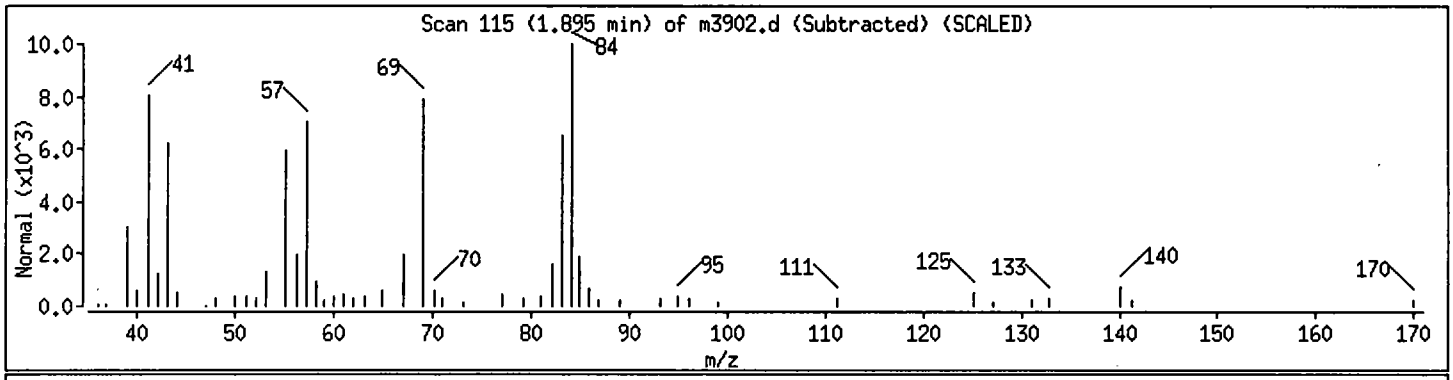
UNKNOWN

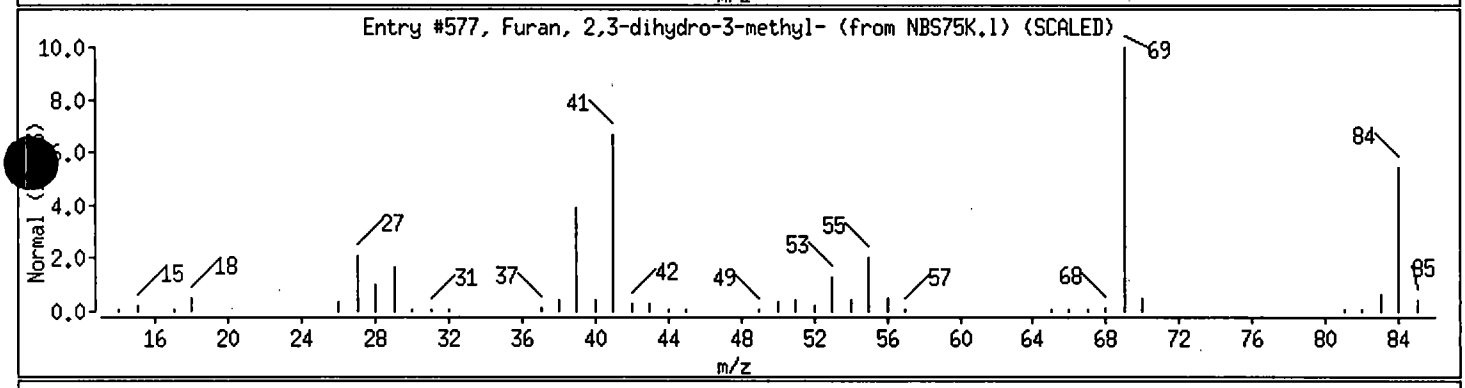
Column phase : XTI-5

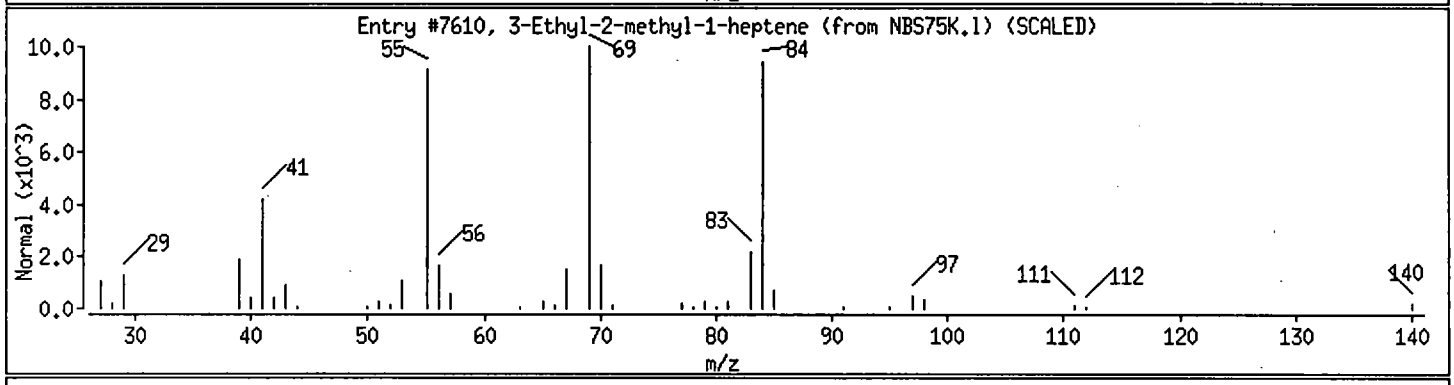
Column diameter : 0.25

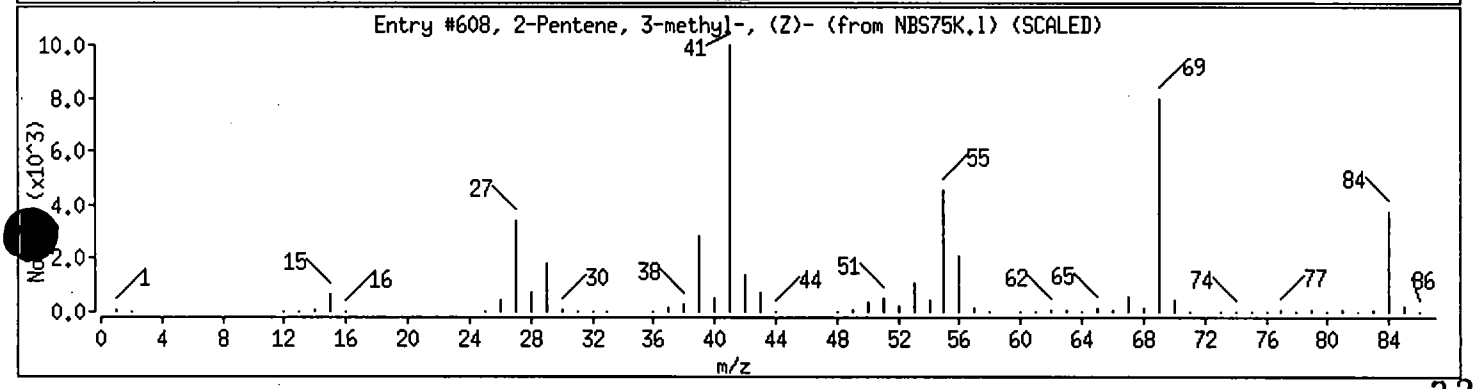
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Furan, 2,3-dihydro-3-methyl-	1708-27-6	NBS75K.l	577	52
3-Ethyl-2-methyl-1-heptene	19780-60-0	NBS75K.l	7610	50
2-Pentene, 3-methyl-, (Z)-	922-62-3	NBS75K.l	608	43







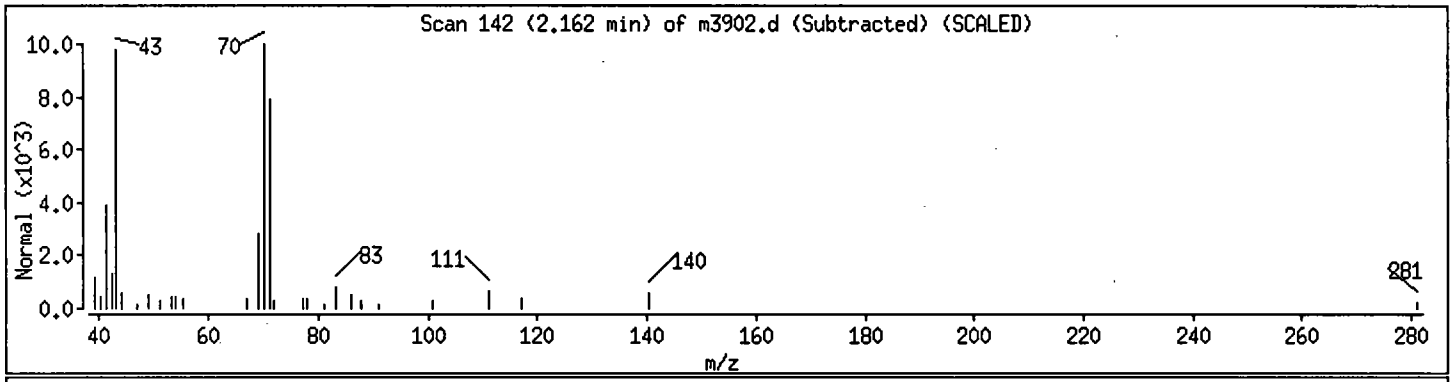


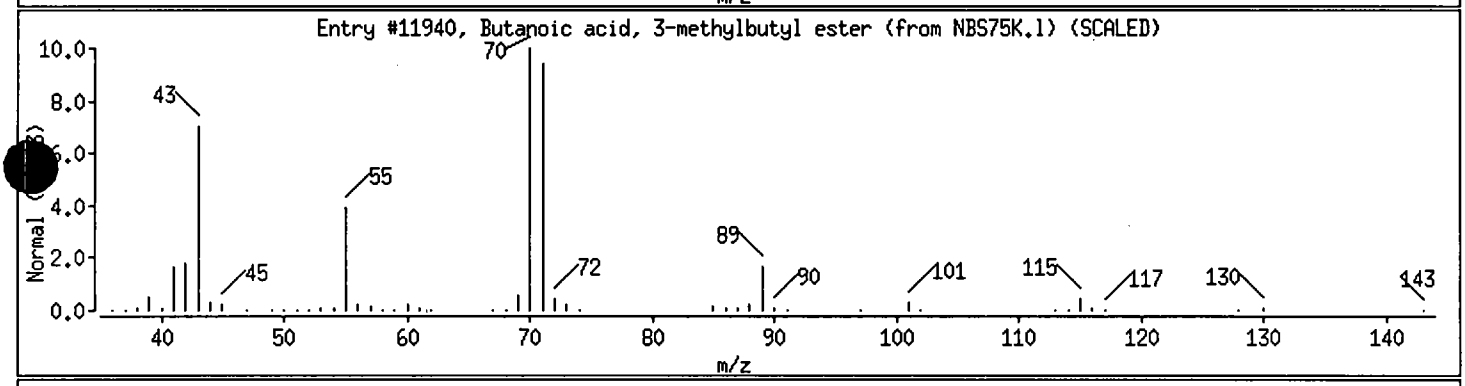
Data File: /chem/m.i/m961216b.b/m3902.d

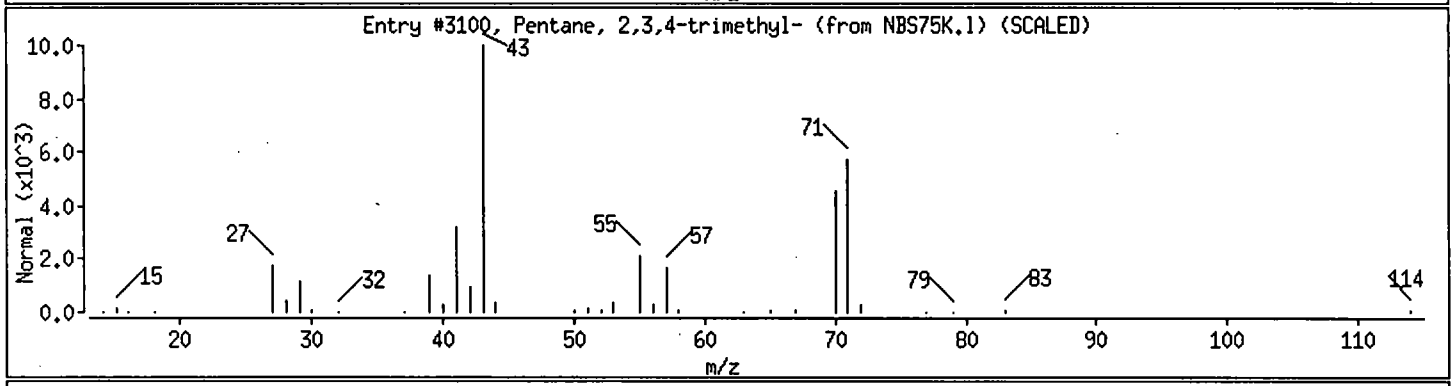
Date : 16-DEC-1996 19:53
Instrument : m.i
Sample ID : SBLK 2
Column phase : XTI-5
Column diameter : 0.25
Volume Injected (uL) : 2.0

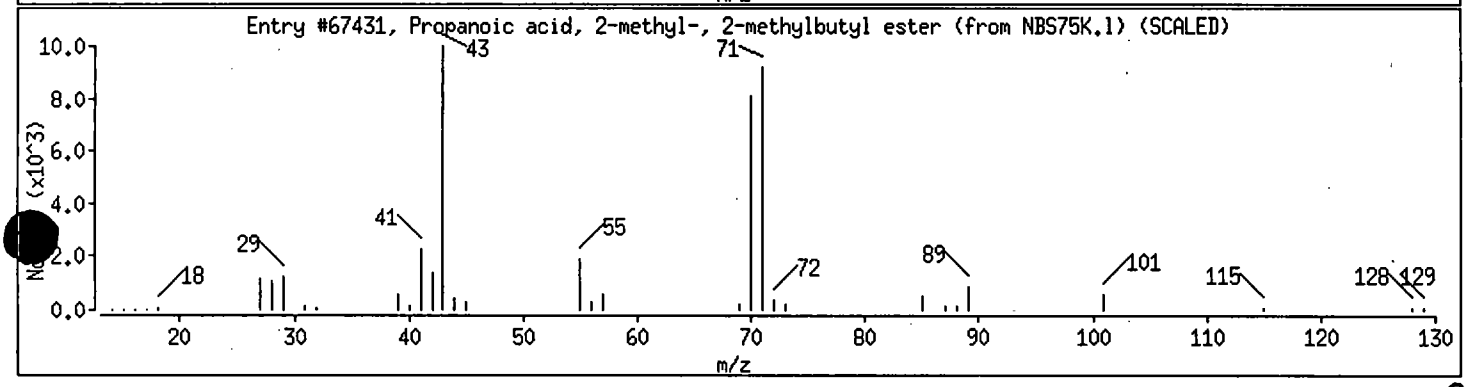
UNKNOWN ORGANIC ACID

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Butanoic acid, 3-methylbutyl ester	106-27-4	NBS75K.1	11940	50
Pentane, 2,3,4-trimethyl-	565-75-3	NBS75K.1	3100	42
Propanoic acid, 2-methyl-, 2-methylbutyl	2445-69-4	NBS75K.1	67431	40









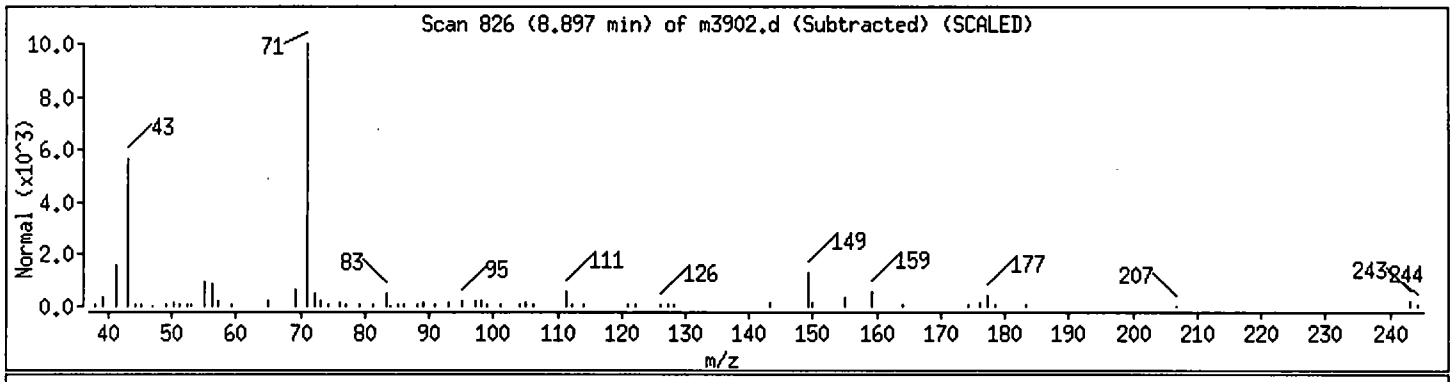
Data File: /chem/m.i/m961216b.b/m3902.d

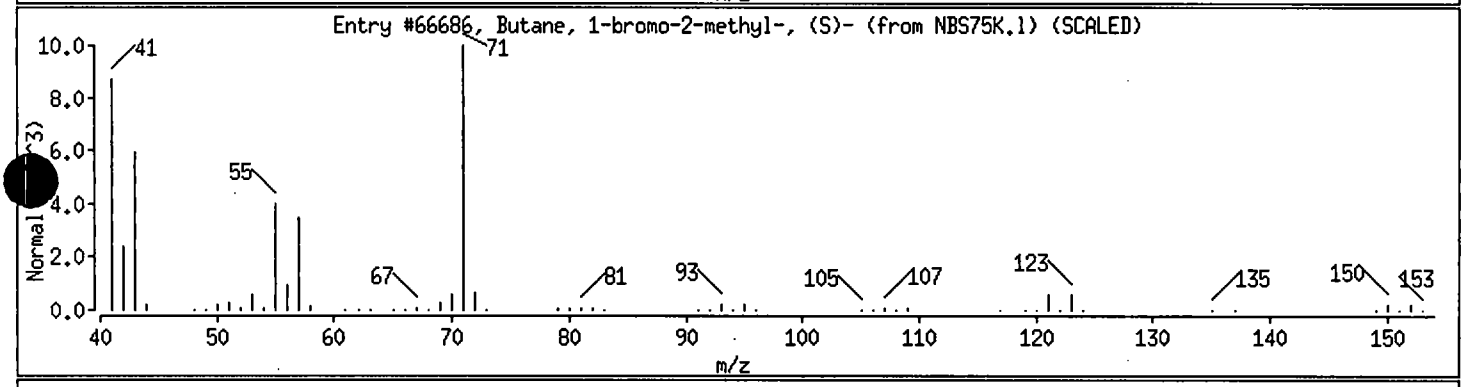
Date : 16-DEC-1996 19:53
Instrument : m.i
Sample ID : SBLK 2
Column phase : XTI-5
Column diameter : 0.25

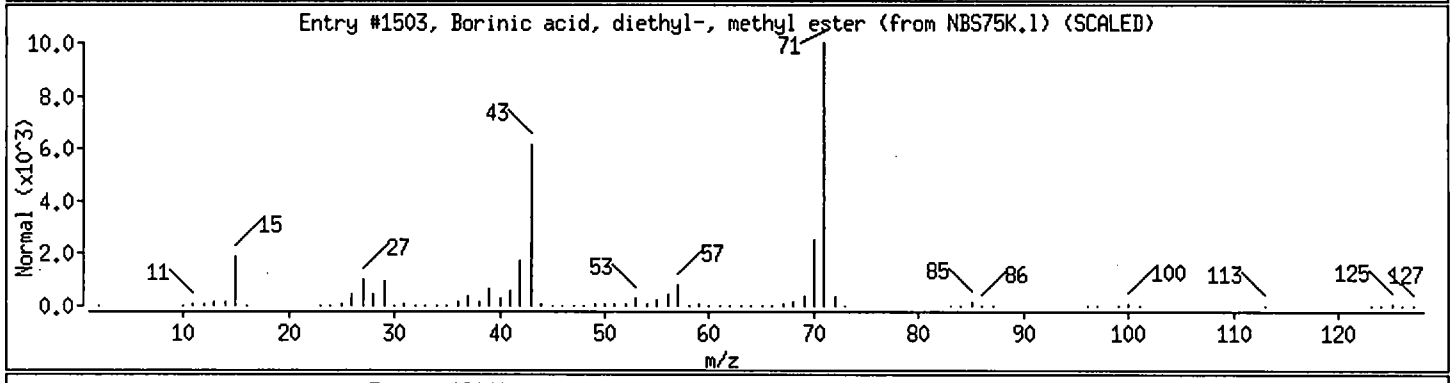
UNKNOWN ORGANIC ACID

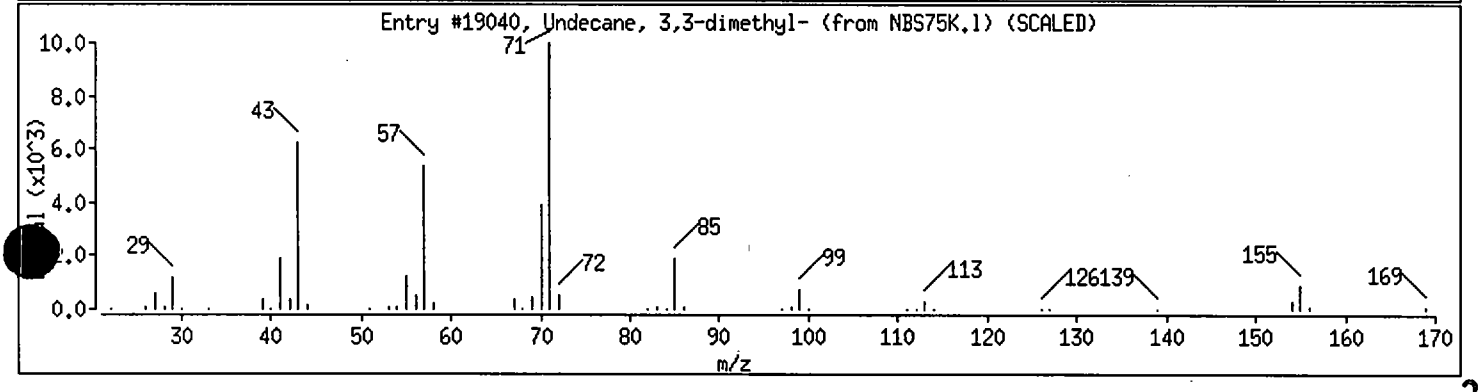
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Butane, 1-bromo-2-methyl-, (S)-	534-00-9	NBS75K.l	66686	42
Borinic acid, diethyl-, methyl ester	7397-46-8	NBS75K.l	1503	42
Undecane, 3,3-dimethyl-	17312-65-1	NBS75K.l	19040	36









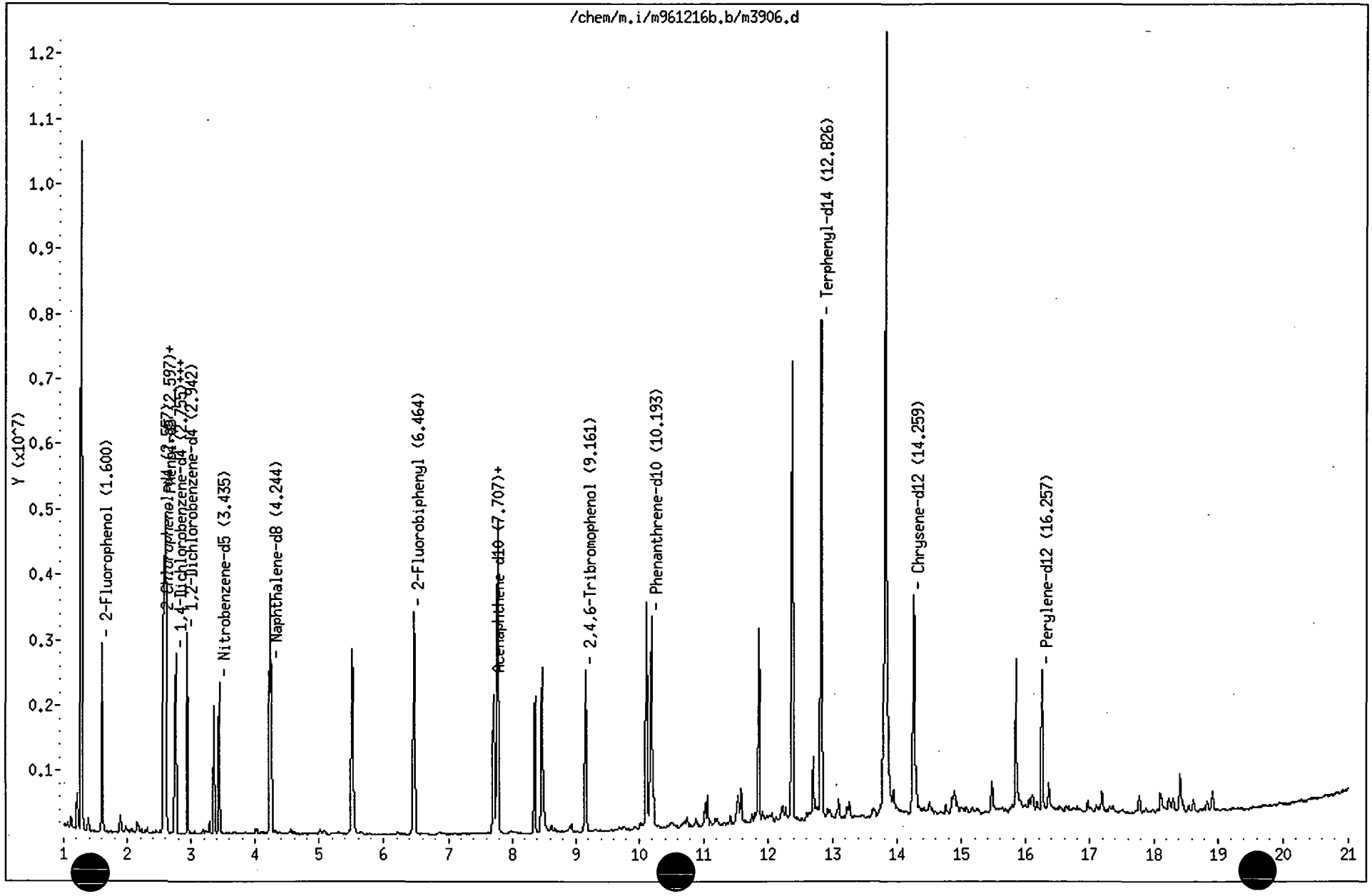
Data File: /chem/m.i/m961216b.b/m3906.d
Date : 16-DEC-1996 21:53
Instrument : m.i
Sample ID : FFG24 MS
Column phase : XTI-5
Volume Injected (uL) : 2.0

OK 12/20/96

Column diameter : 0.25

OPERATOR: Ann

329



Data File: /chem/m.i/m961216b.b/m3906.d
Report Date: 17-Dec-1996 21:38

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/m.i/m961216b.b/m3906.d
Lab. Id. : 27683.10 MS
Inj Date : 16-DEC-1996 21:53
Operator : Annie
Smp Info : FFG24 MS
Misc Info : MS517**INSTM*AATS-E:25159*27683.10MS*30G/0.5ML/2UL*
Comment :
Method : /chem/m.i/m961216b.b/BNA517EPA.m
Meth Date : 17-Dec-1996 21:24 ann
Cal Date : 16-DEC-1996 15:26
Als bottle: 13
Dil Factor: 1.000
Integrator: HP RTE
Sample Type: SOIL

Quant Type: ISTD
Inst ID: m.i
Cal File: m3893.d
QC Sample: MS
Target Version: Target 3.00
Compound Sublist: all.sub

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 1 2-Fluorophenol	112.00	1.600	(0.583)	774029	96.85	1793.67
$ 2 Phenol-d5	98.80	2.587	(0.942)	1202170	98.99	1833.16
3 Phenol	94.00	2.606	(0.950)	1244757	96.77	1792.12
6 2-Chlorophenol	128.00	2.577	(0.939)	1008077	96.56	1788.15
5 2-Chlorophenol-d4	132.00	2.557	(0.932)	980651	98.63	1826.64
* 8 1,4-Dichlorobenzene-d4	152.00	2.745	(1.000)	321383	40.00	
9 1,4-Dichlorobenzene	146.00	2.755	(1.004)	769545	62.02	1148.57
$ 10 1,2-Dichlorobenzene-d4	152.00	2.942	(1.072)	518212	74.94	1387.81
15 N-Nitroso-di-n-propylamine	70.00	3.356	(1.223)	482673	67.08	1242.38
$ 17 Nitrobenzene-d5	82.00	3.435	(0.809)	806880	65.34	1210.00
24 1,2,4-Trichlorobenzene	180.00	4.225	(0.995)	761493	64.91	1202.20
* 25 Naphthalene-d8	135.65	4.244	(1.000)	1244597	40.00	
29 4-Chloro-3-Methylphenol	107.00	5.507	(1.298)	1118770	104.41	1933.63
$ 34 2-Fluorobiphenyl	172.00	6.464	(0.839)	2022669	72.75	1347.36
* 40 Acenaphthene-d10	164.00	7.707	(1.000)	883690	40.00	
42 Acenaphthene	153.00	7.766	(1.008)	1844014	70.59	1307.37
46 2,4-Dinitrotoluene	165.00	8.359	(1.085)	709545	75.23	1393.15
45 4-Nitrophenol	109.00	8.468	(1.099)	515165	115.16	2132.61
$ 53 2,4,6-Tribromophenol	329.80	9.161	(0.899)	427334	86.32	1598.67
56 Pentachlorophenol	265.80	10.113	(0.992)	599988	85.78	1588.63
* 57 Phenanthrene-d10	187.65	10.193	(1.000)	1819295	40.00	
58 Phenanthrene	178.00	10.223	(1.003)	280587	5.59	103.68(a)
61 Di-n-butylphthalate	149.00	11.517	(1.130)	82151	1.33	24.70(a)
62 Fluoranthene	202.00	12.066	(1.184)	89133	1.61	29.81(a)
63 Pyrene	202.00	12.376	(0.868)	4470465	83.42	1544.95
$ 64 Terphenyl-d14	244.00	12.826	(0.900)	3113981	91.15	1688.00
66 Benzo(a)anthracene	228.00	14.239	(0.999)	124992	2.51	46.49(a)
* 67 Chrysene-d12	240.00	14.259	(1.000)	1593645	40.00	
69 Chrysene	228.00	14.289	(1.002)	243923	4.66	86.29(a)
70 bis(2-Ethylhexyl)phthalate	149.00	14.760	(1.035)	68477	1.83	33.93(a)
72 Benzo(b)fluoranthene	252.00	15.774	(0.970)	80058	2.22	41.17(a)

Data File: /chem/m.i/m961216b.b/m3906.d
Report Date: 17-Dec-1996 21:38

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
74 Benzo(a)pyrene	252.00	16.176	(0.995)	45376	1.46	27.10(a)
* 75 Perylene-d12	264.00	16.257	(1.000)	1178385	40.00	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/m.i/m961216b.b/m3906.d

Date : 16-DEC-1996 21:53

Instrument : m.i

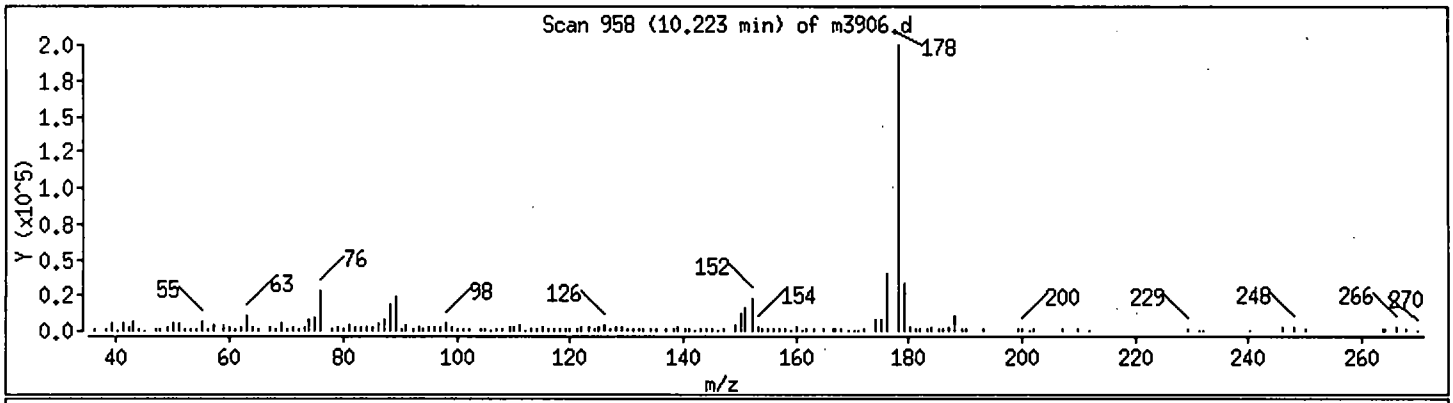
Sample ID : FFG24 MS

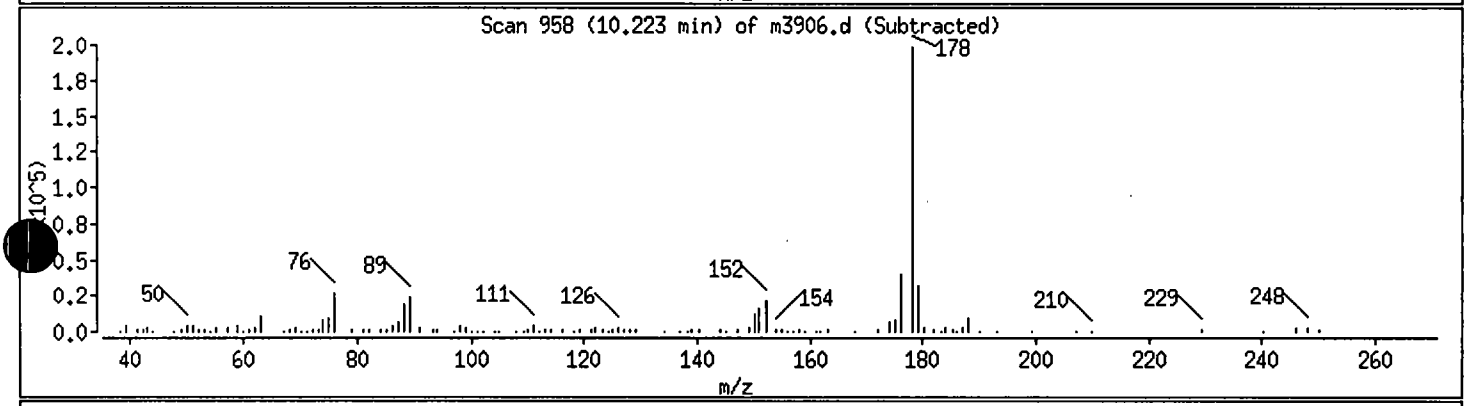
Column phase : XTI-5

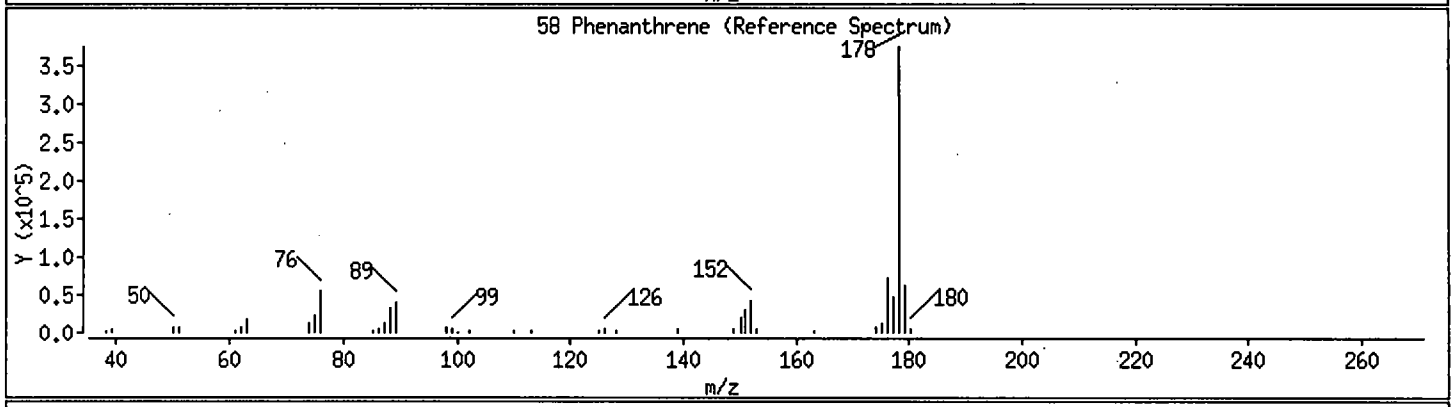
Column diameter : 0.25

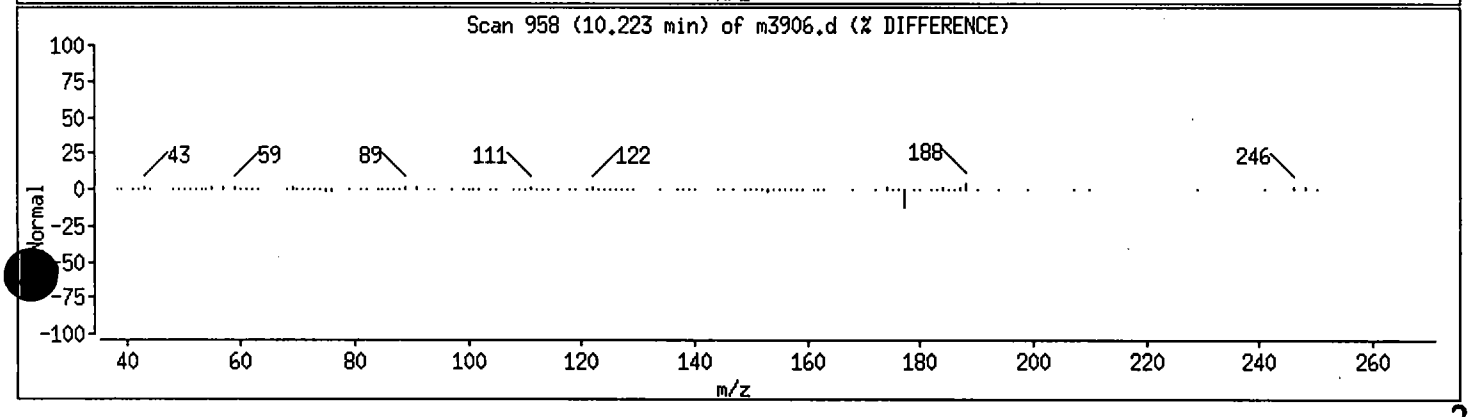
Volume Injected (uL) : 2.0

58 Phenanthrene









Data File: /chem/m.i/m961216b.b/m3906.d

Date : 16-DEC-1996 21:53

Instrument : m.i

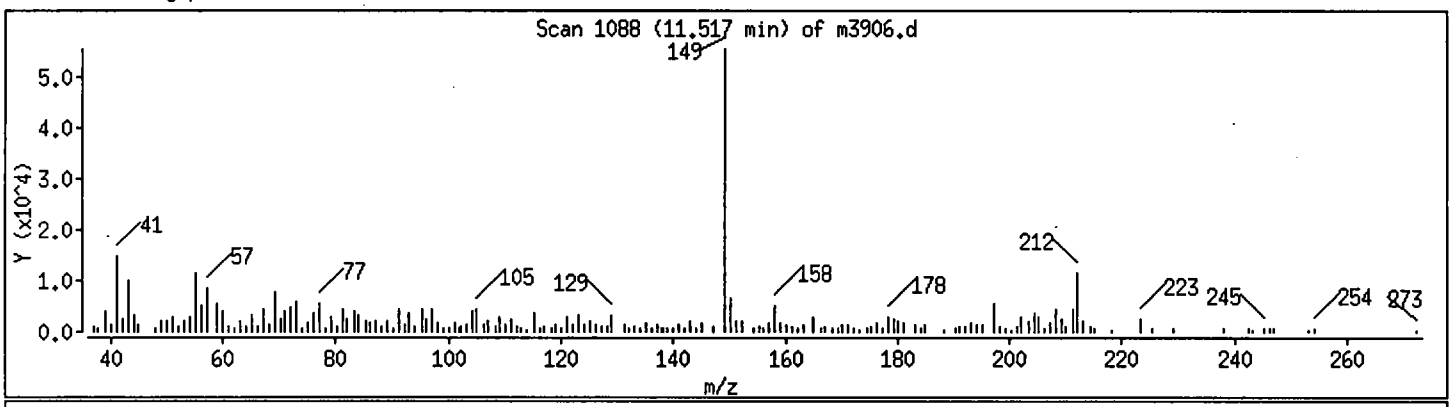
Sample ID : FFG24 MS

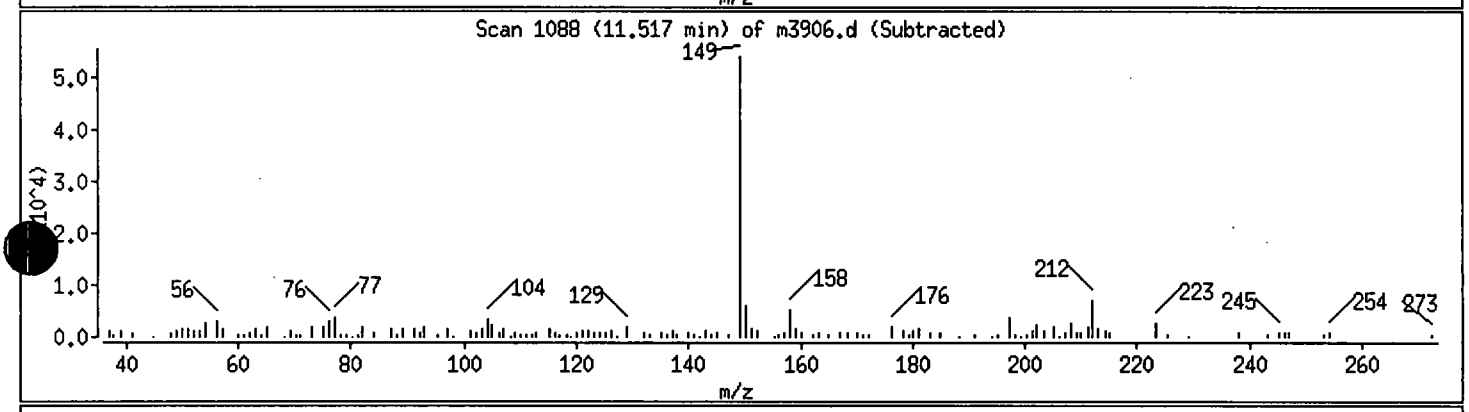
Column phase : XTI-5

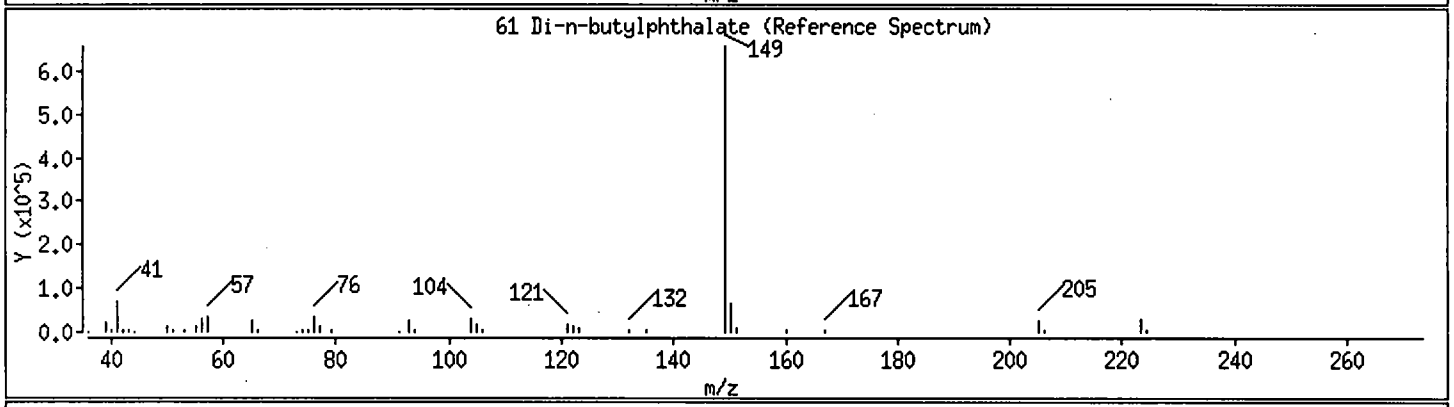
Column diameter : 0.25

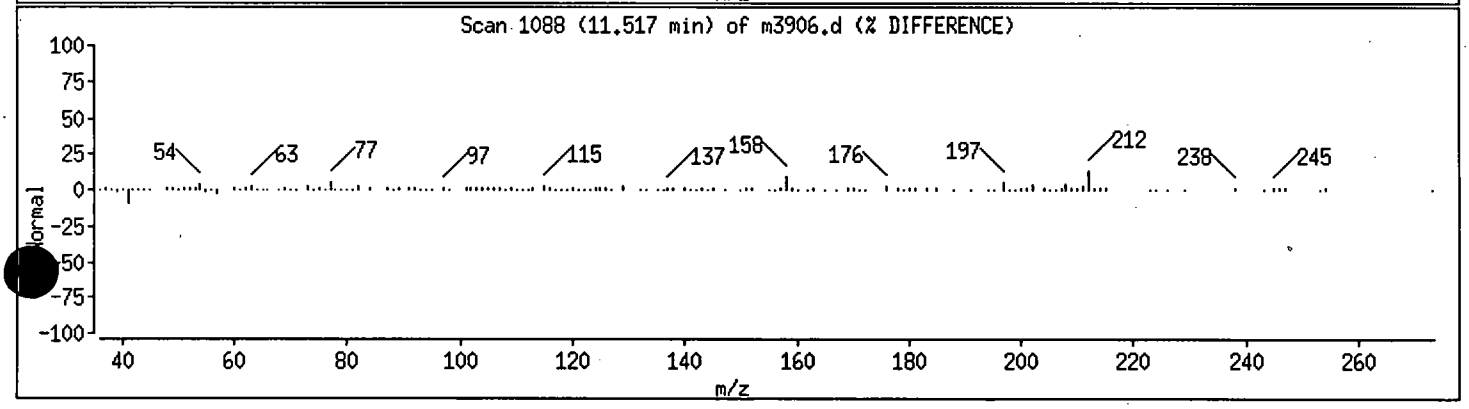
Volume Injected (uL) : 2.0

61 Di-n-butylphthalate









Data File: /chem/m.i/m961216b.b/m3906.d

Date : 16-DEC-1996 21:53

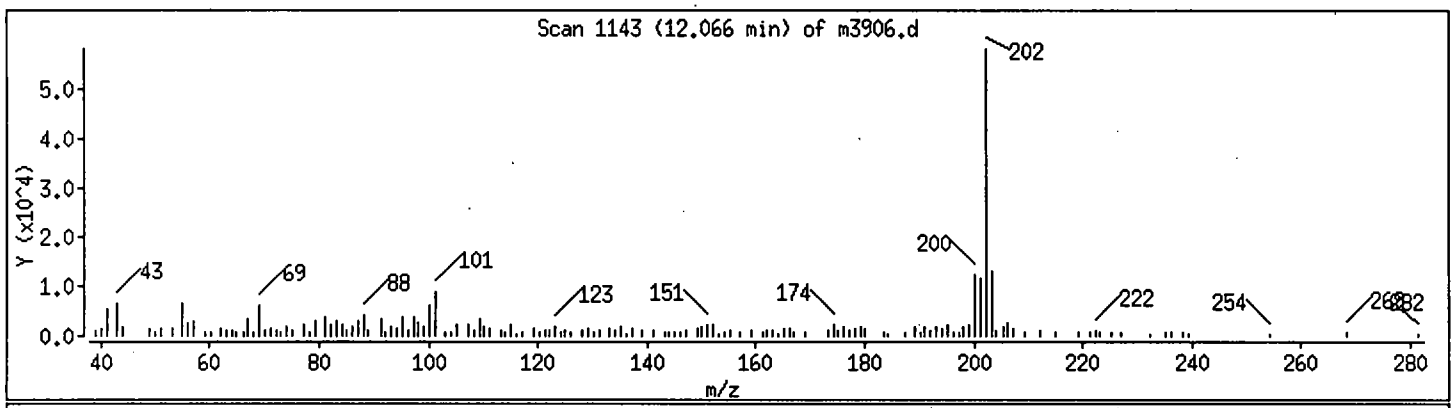
Instrument : m.i

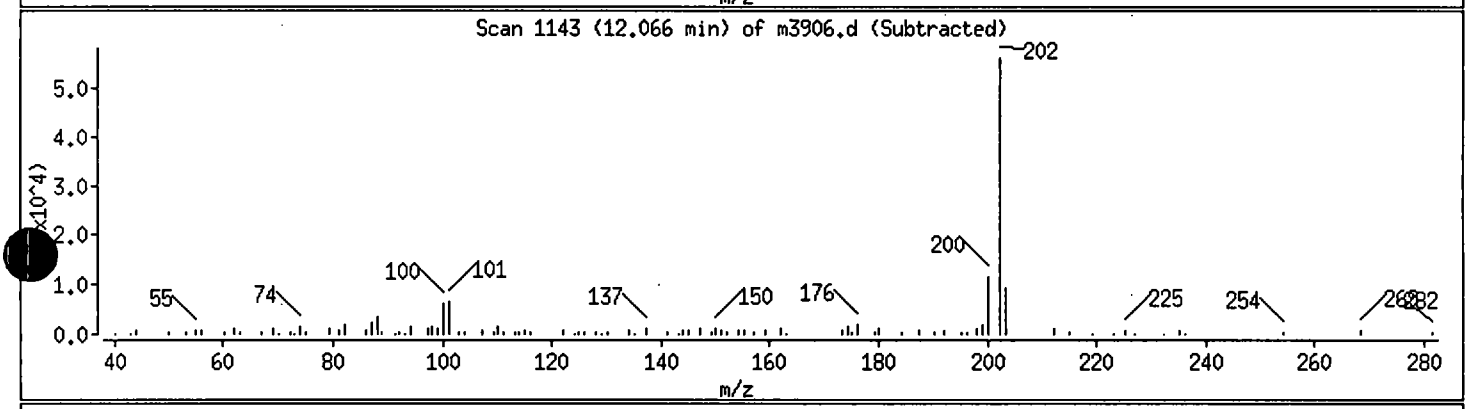
Sample ID : FFG24 MS

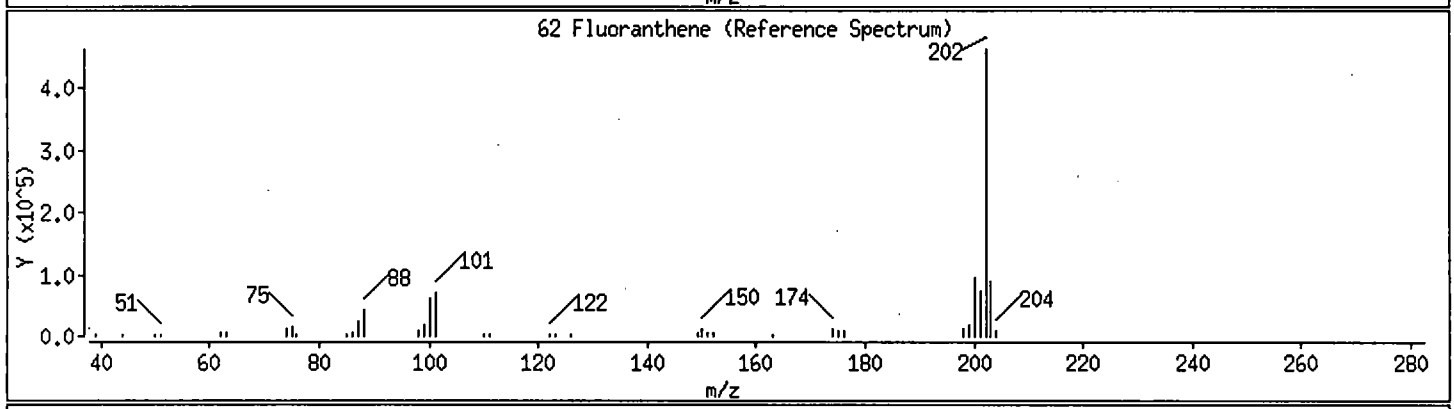
Column phase : XTI-5 Column diameter : 0.25

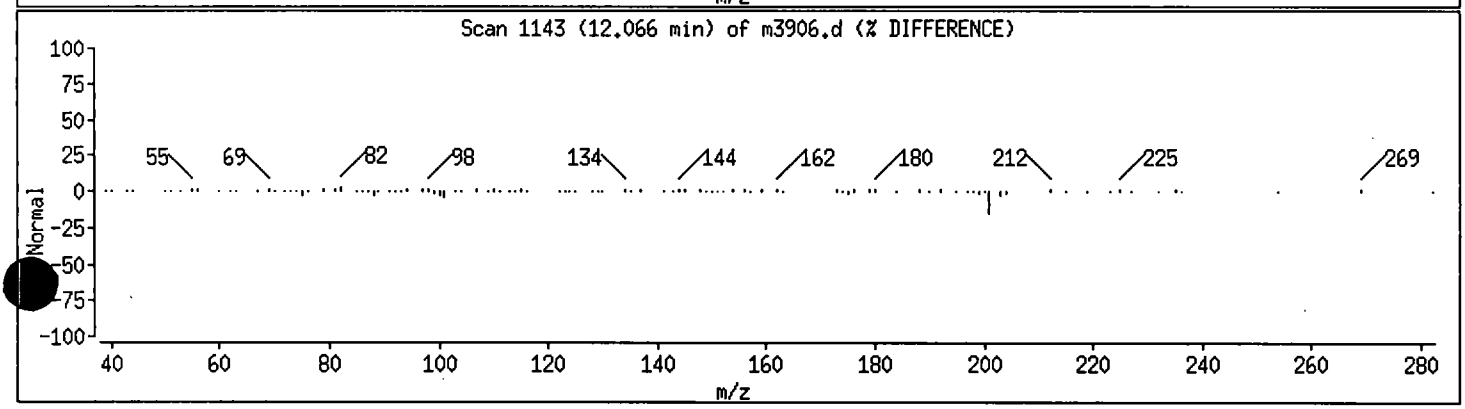
Volume Injected (uL) : 2.0

62 Fluoranthene









Data File: /chem/m.i/m961216b.b/m3906.d

Date : 16-DEC-1996 21:53

Instrument : m.i

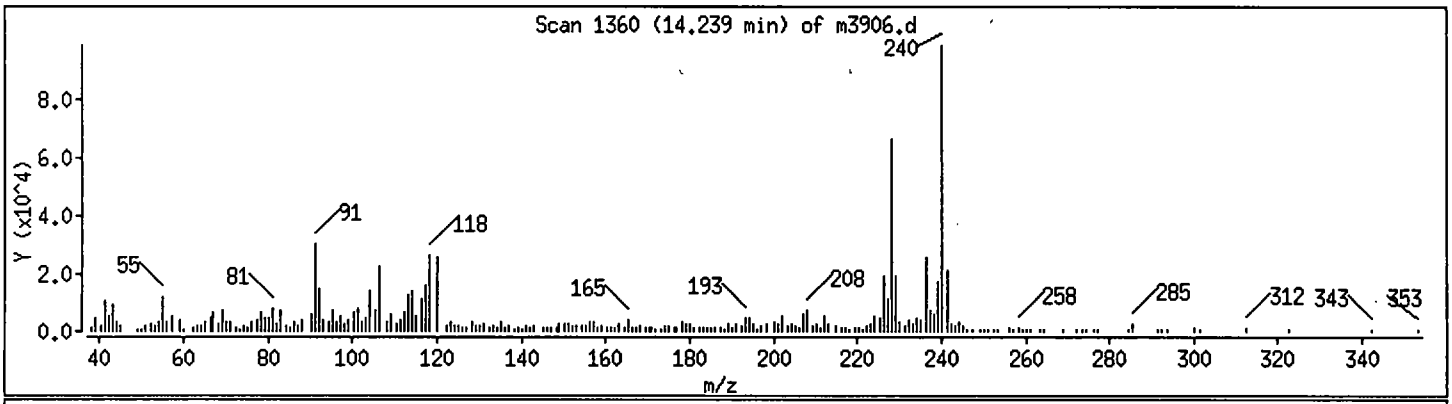
Sample ID : FFG24 MS

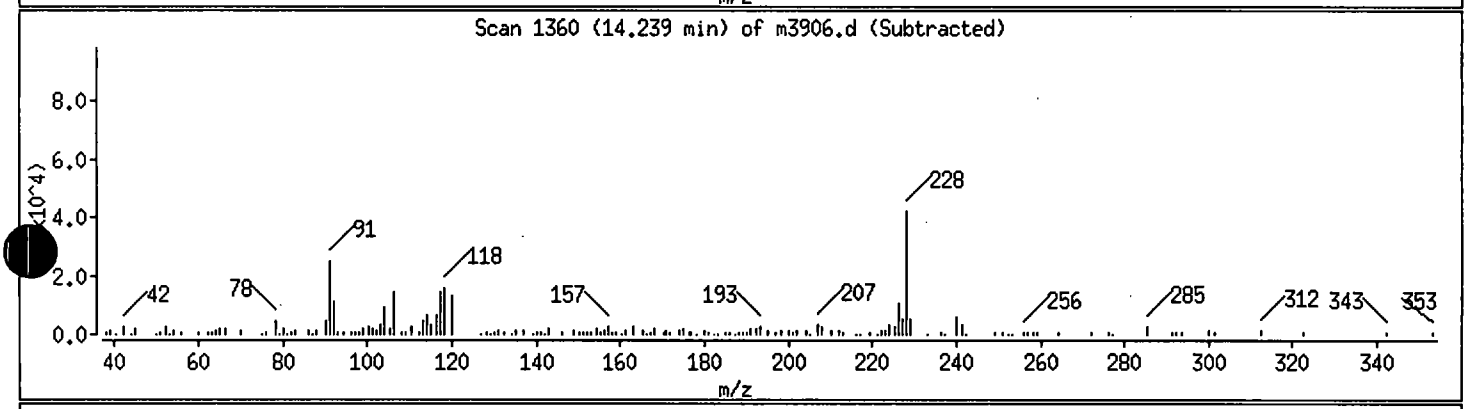
Column phase : XTI-5 + co-eluter

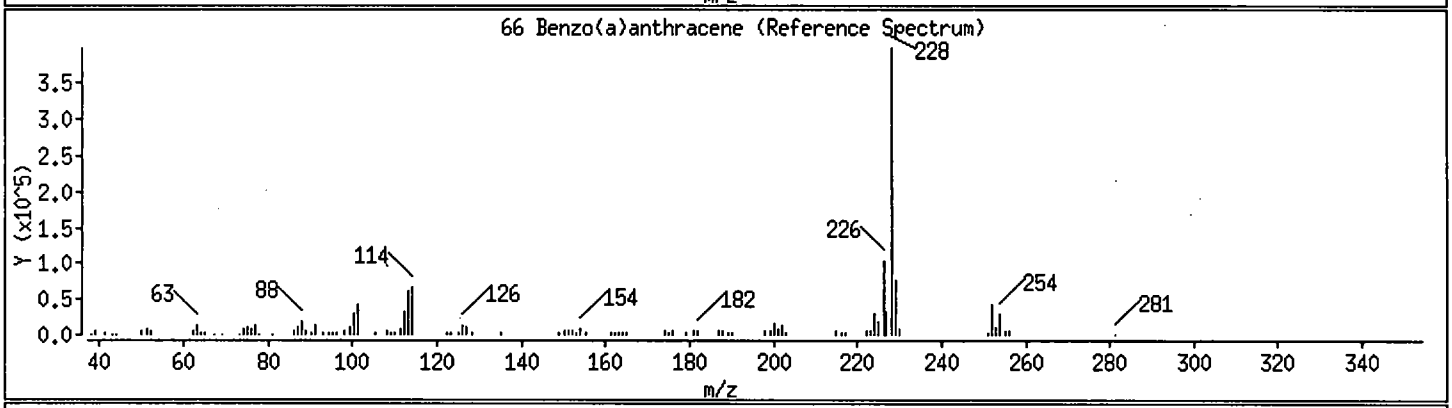
Column diameter : 0.25

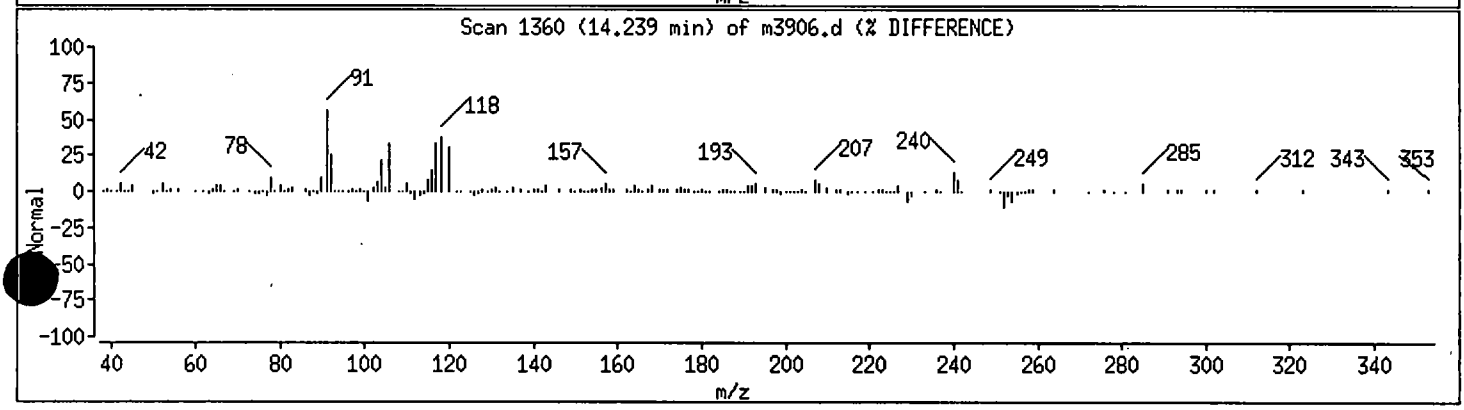
Volume Injected (uL) : 2.0

66 Benzo(a)anthracene









Data File: /chem/m.i/m961216b.b/m3906.d

Date : 16-DEC-1996 21:53

Instrument : m.i

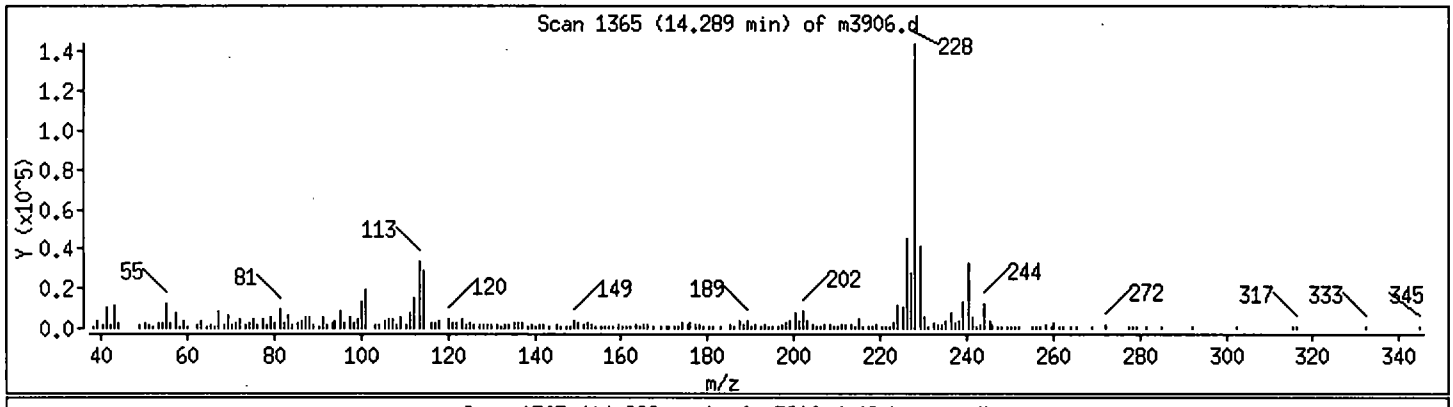
Sample ID : FFG24 MS

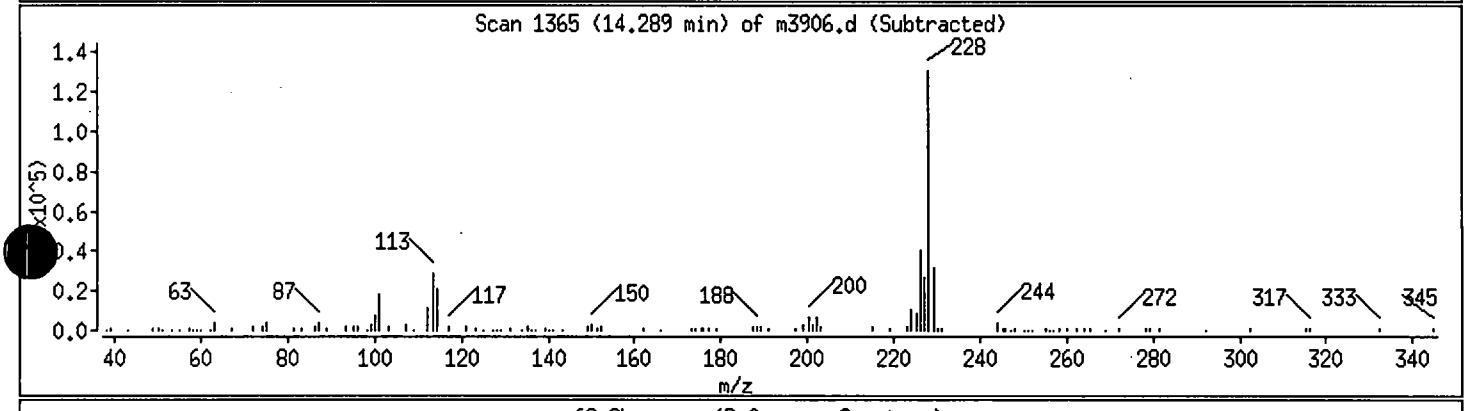
Column phase : XTI-5

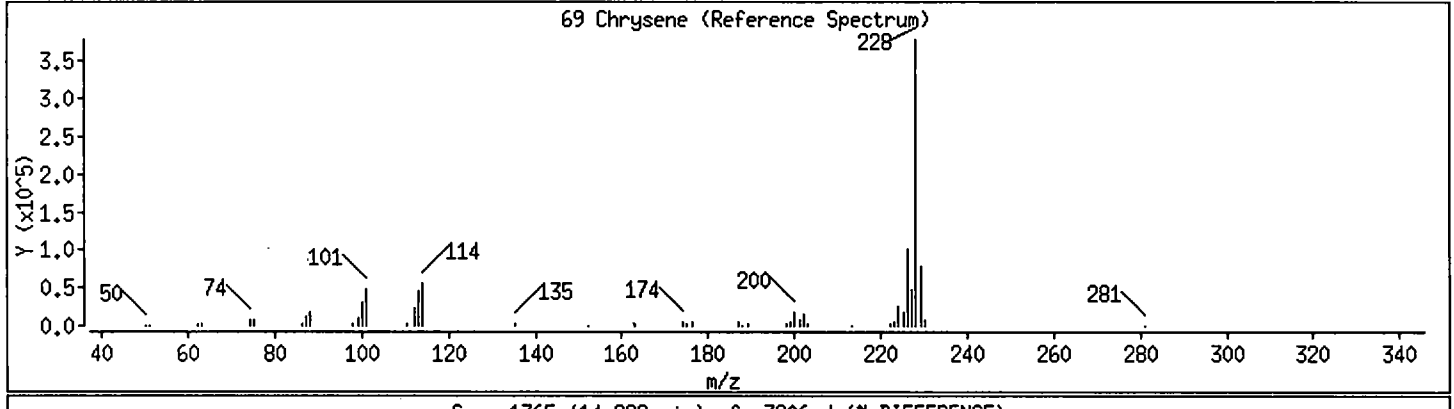
Column diameter : 0.25

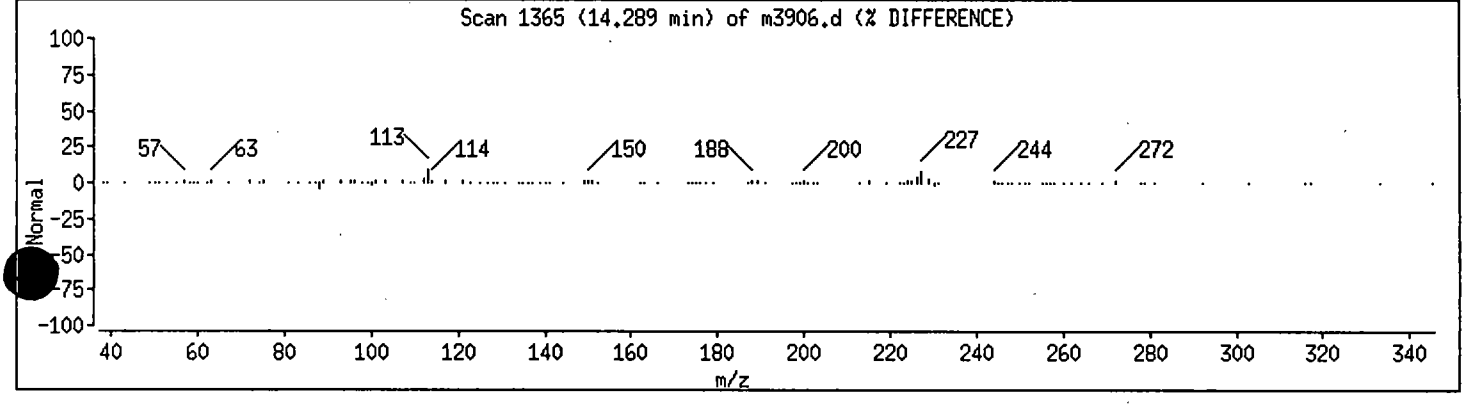
Volume Injected (uL) : 2.0

69 Chrysene









Data File: /chem/m.i/m961216b.b/m3906.d

Date : 16-DEC-1996 21:53

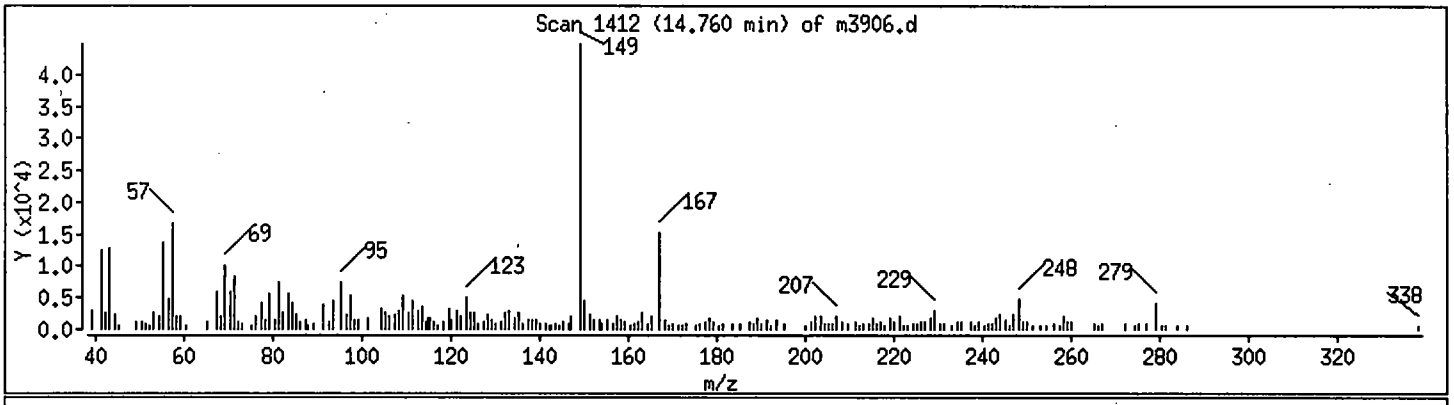
Instrument : m.i

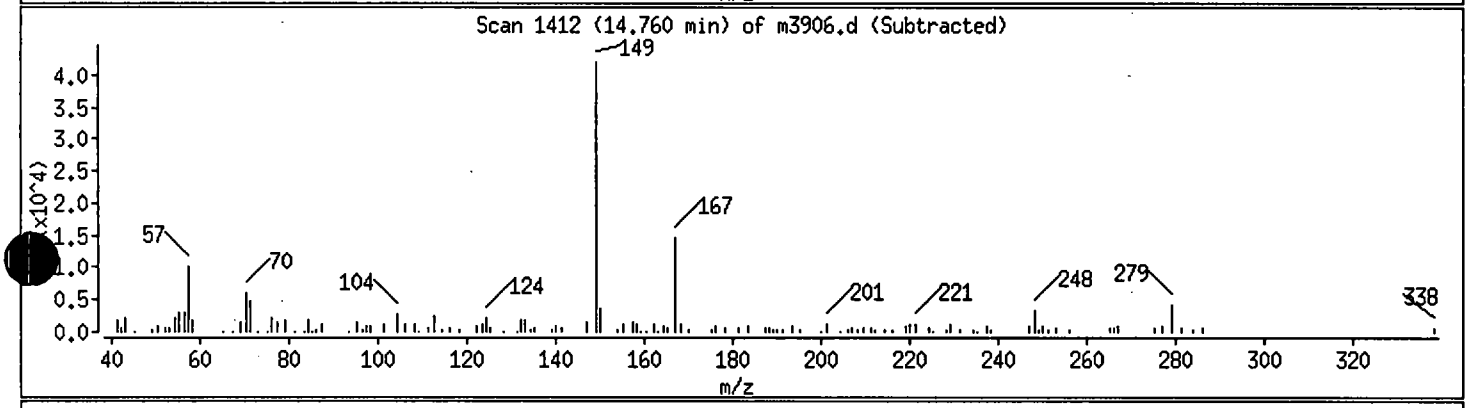
Sample ID : FFG24 MS

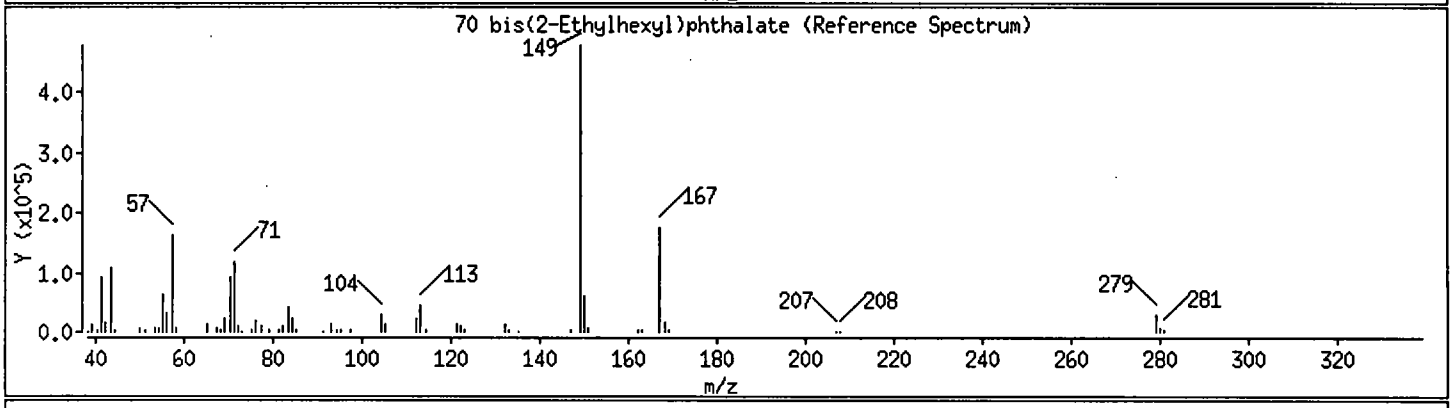
Column phase : XTI-5 Column diameter : 0.25

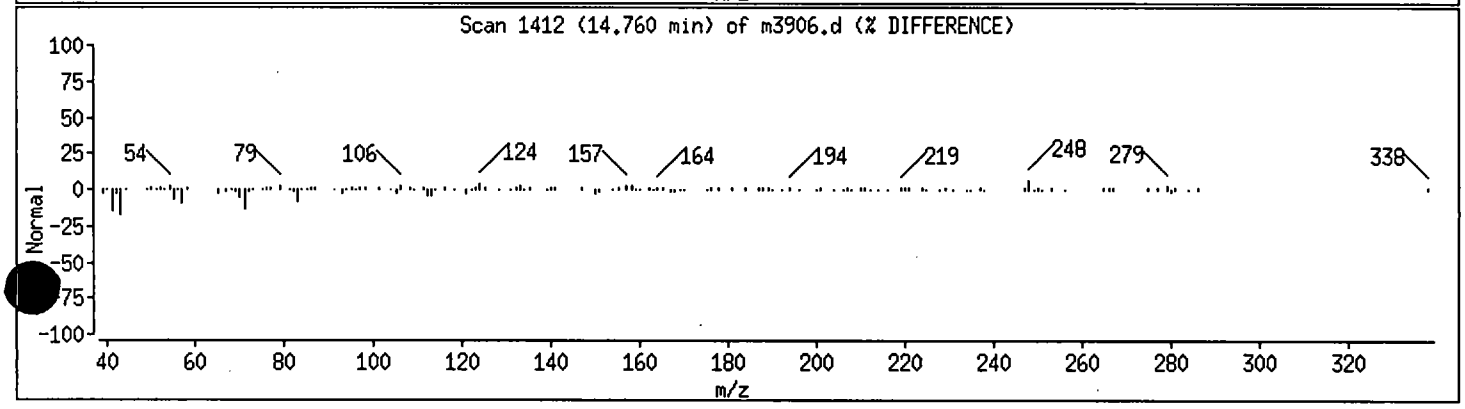
Volume Injected (uL) : 2.0

70 bis(2-Ethylhexyl)phthalate



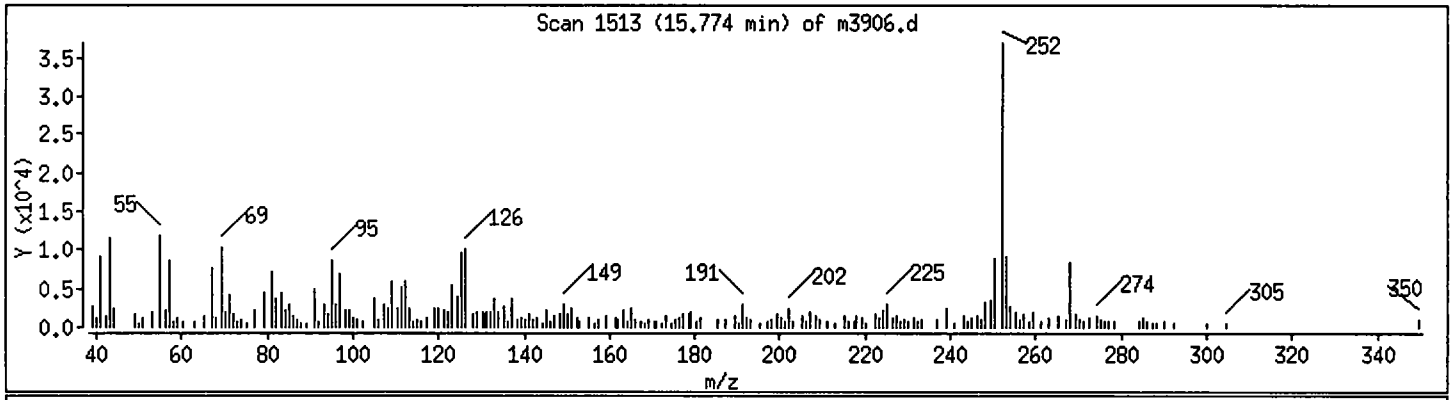


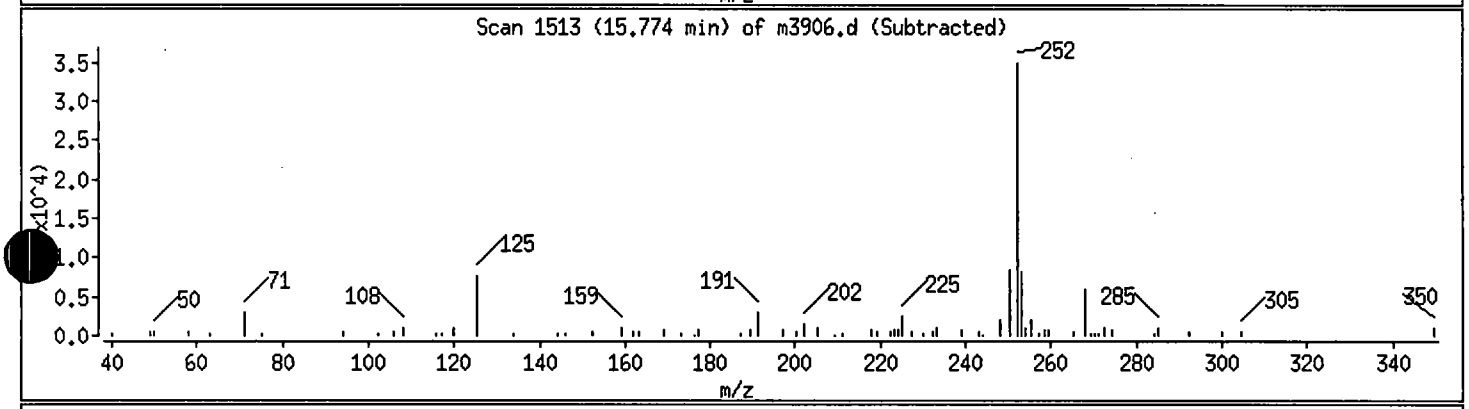


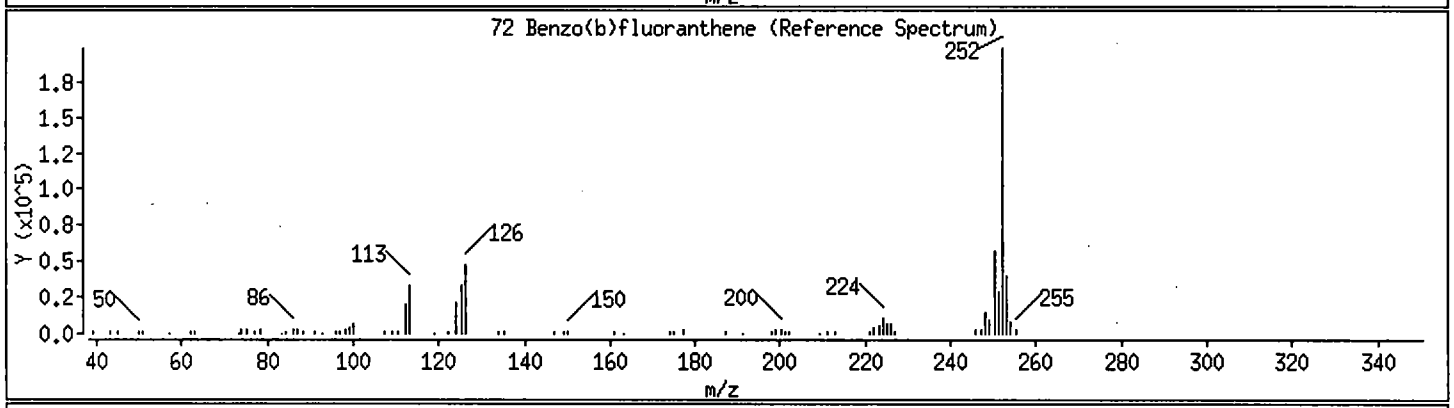


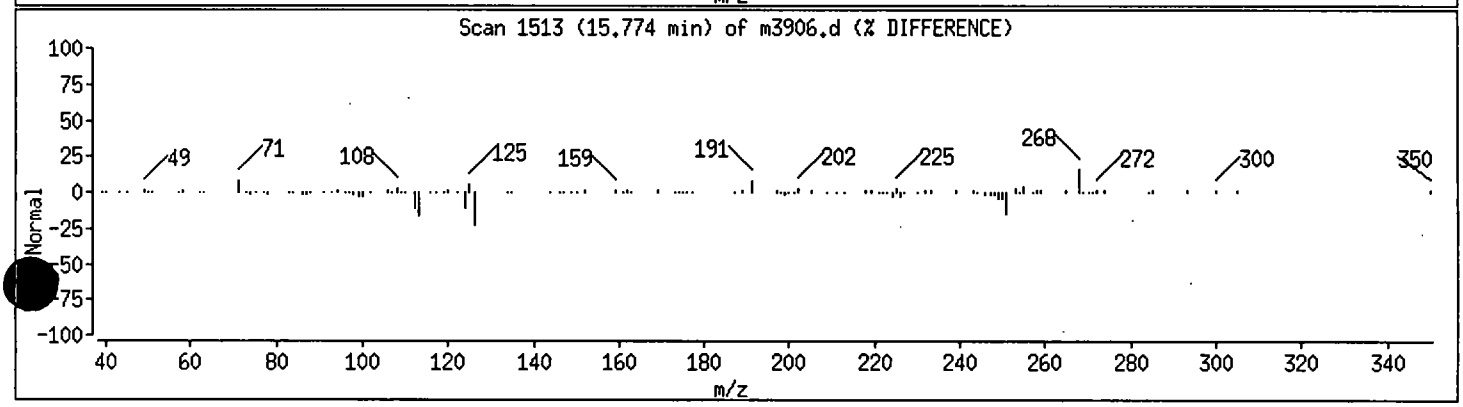
Data File: /chem/m.i/m961216b.b/m3906.d
Date : 16-DEC-1996 21:53
Instrument : m.i
Sample ID : FFG24 MS
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

72 Benzo(b)fluoranthene









Data File: /chem/m.i/m961216b.b/m3906.d

Date : 16-DEC-1996 21:53

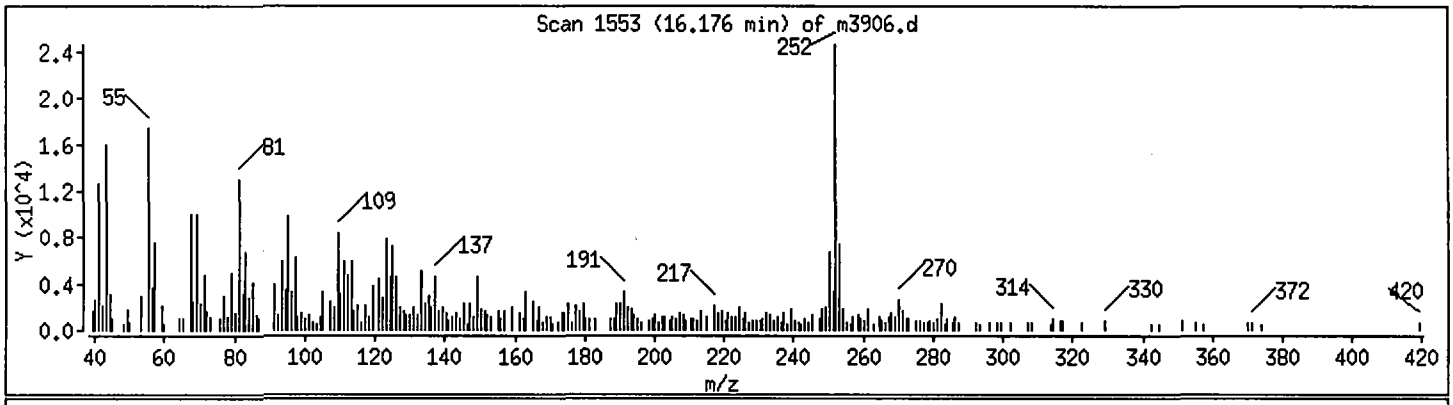
Instrument : m.i

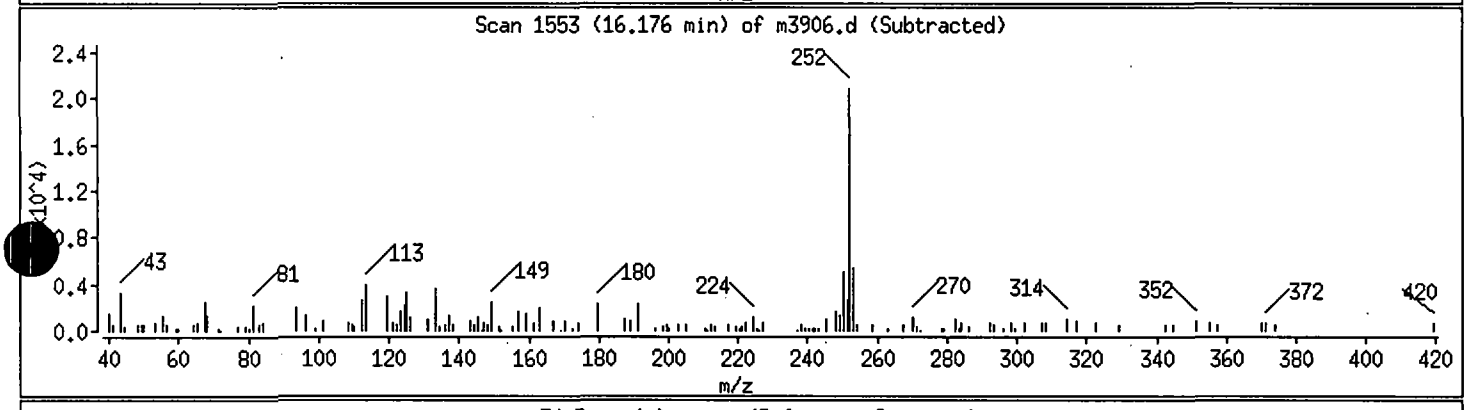
Sample ID : FFG24 MS

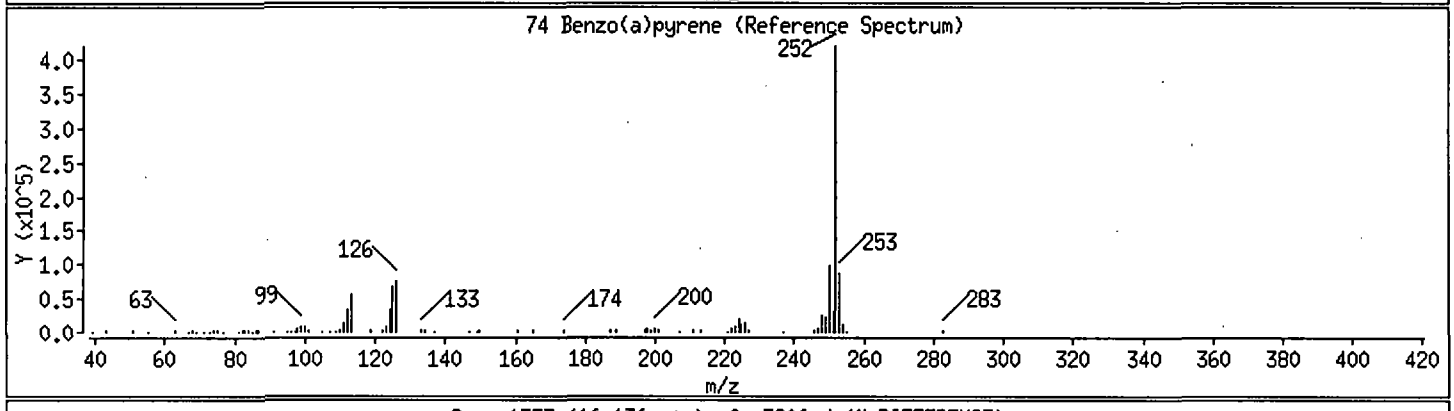
Column phase : XTI-5 Column diameter : 0.25

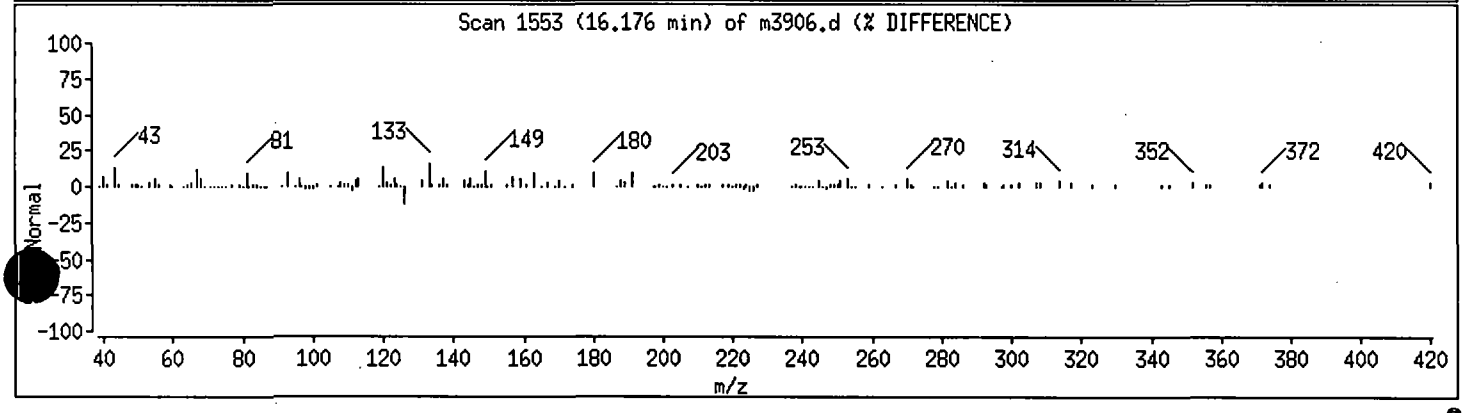
Volume Injected (uL) : 2.0

74 Benzo(a)pyrene









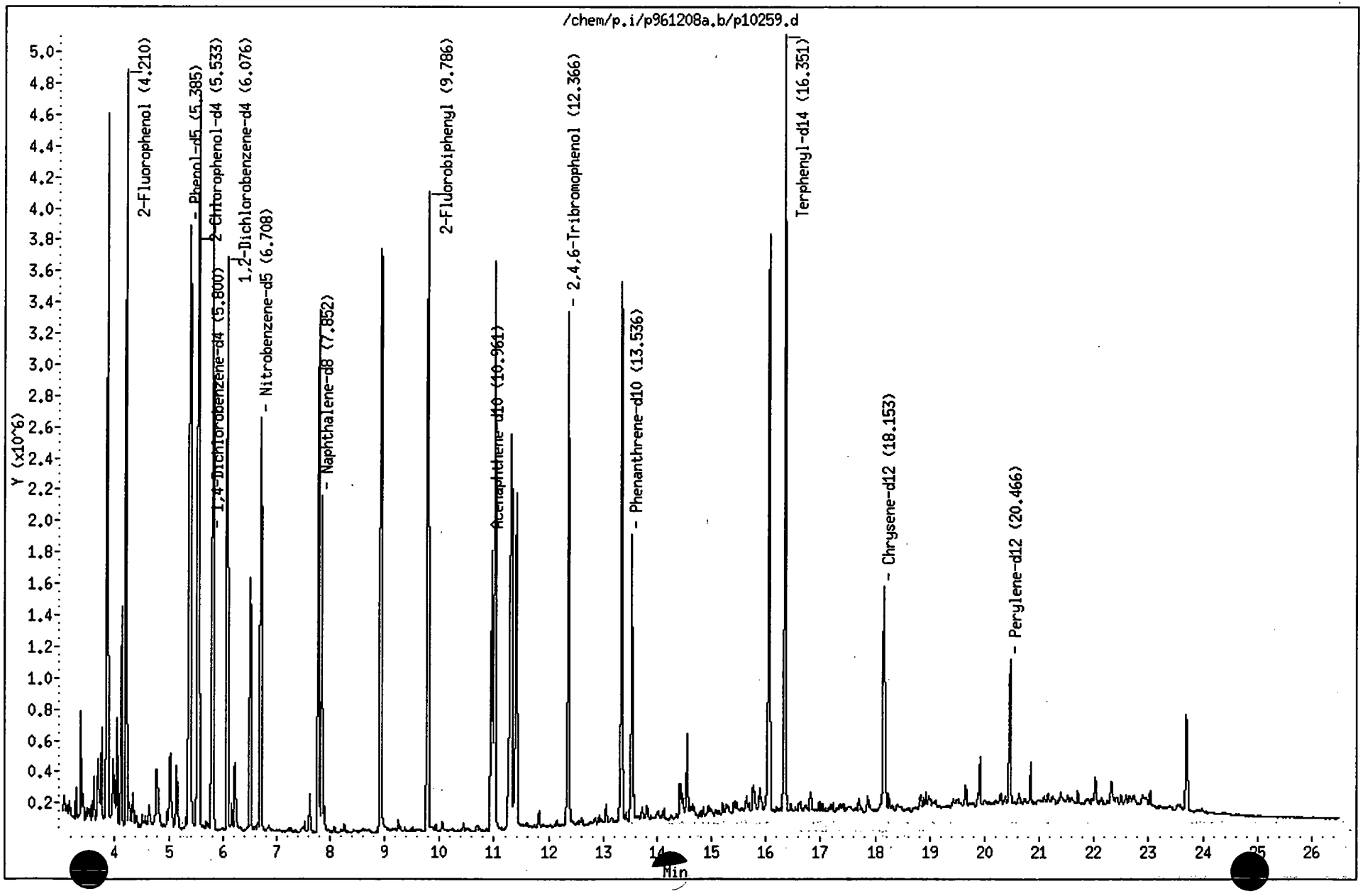
Data File: /chem/p.i/p961208a.b/p10259.d
Date : 09-DEC-1996 01:51
Instrument : p.i
Sample ID : FFG24 MSD
Column phase : XTI-5
Volume Injected (uL) : 2.0

6K 12/20/96

OPERATOR: Ann

Column diameter : 0.25

342



Data File: /chem/p.i/p961208a.b/p10259.d
Report Date: 09-Dec-1996 13:58

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/p.i/p961208a.b/p10259.d
Lab. Id. : 27683.10 MSD
Inj Date : 09-DEC-1996 01:51
Operator : Annie
Smp Info : FFG24 MSD
Misc Info : MS517**INSTP*AATS-E:25159*27683.10MSD*30G/0.5ML/2UL*
Comment :
Method : /chem/p.i/p961208a.b/BNA517EPA.m
Meth Date : 09-Dec-1996 13:32 ann
Cal Date : 08-DEC-1996 15:49
Als bottle: 16
Dil Factor: 1.000
Integrator: HP RTE
Sample Type: SOIL

Quant Type: ISTD
Inst ID: p.i
Cal File: p10242.d
QC Sample: MSD
Target Version: Target 3.00
Compound Sublist: all.sub

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 1 2-Fluorophenol	112.00	4.210	(0.726)	1417236	103.73	1920.92
$ 2 Phenol-d5	98.80	5.385	(0.928)	1752856	102.42	1896.66
3 Phenol	94.00	5.405	(0.932)	1622638	94.88	1757.09
$ 5 2-Chlorophenol-d4	132.00	5.533	(0.954)	1610070	113.57	2103.24
6 2-Chlorophenol	128.00	5.553	(0.957)	1487866	103.84	1923.00
* 8 1,4-Dichlorobenzene-d4	151.85	5.800	(1.000)	436238	40.00	
9 1,4-Dichlorobenzene	146.00	5.820	(1.003)	1126925	69.00	1277.78
$ 10 1,2-Dichlorobenzene-d4	152.00	6.076	(1.048)	774770	86.30	1598.28
15 N-Nitroso-di-n-propylamine	70.00	6.511	(1.123)	659403	77.87	1442.14
$ 17 Nitrobenzene-d5	82.00	6.708	(0.854)	1361050	82.42	1526.44
24 1,2,4-Trichlorobenzene	180.00	7.793	(0.992)	1008381	77.54	1436.09
* 25 Naphthalene-d8	135.65	7.852	(1.000)	1434175	40.00	
29 4-Chloro-3-Methylphenol	107.00	8.927	(1.137)	1552285	108.09	2001.71
$ 34 2-Fluorobiphenyl	172.00	9.786	(0.893)	2475535	91.88	1701.62
* 40 Acenaphthene-d10	164.00	10.961	(1.000)	813487	40.00	
42 Acenaphthene	153.00	11.020	(1.005)	1750856	76.24	1411.93
45 4-Nitrophenol	109.00	11.317	(1.032)	818082	128.32	2376.30(Q)
46 2,4-Dinitrotoluene	165.00	11.406	(1.041)	759120	78.27	1449.49
$ 53 2,4,6-Tribromophenol	329.80	12.366	(0.914)	599692	157.37	2914.25
56 Pentachlorophenol	265.80	13.347	(0.986)	663164	130.18	2410.87
* 57 Phenanthrene-d10	187.65	13.536	(1.000)	1176614	40.00	
58 Phenanthrene	178.00	13.566	(1.002)	84600	2.76	51.19(a)
62 Fluoranthene	202.00	15.643	(1.156)	36330	1.00	18.66(a)
63 Pyrene	202.00	16.062	(0.885)	2964945	89.28	1653.40
$ 64 Terphenyl-d14	244.00	16.351	(0.901)	2487615	111.33	2061.77
66 Benzo(a)anthracene	228.00	18.113	(0.998)	49313	1.69	31.42(a)
* 67 Chrysene-d12	240.00	18.153	(1.000)	793829	40.00	
68 Chrysene	228.00	18.193	(1.002)	83481	3.52	65.18(a)
69 bis(2-Ethylhexyl)phthalate	149.00	18.243	(1.005)	39136	1.83	33.95(a)
* 75 Perylene-d12	264.00	20.466	(1.000)	551235	40.00	

Data File: /chem/p.i/p961208a.b/p10259.d
Report Date: 09-Dec-1996 13:58

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/p.i/p961208a.b/p10259.d

Date : 09-DEC-1996 01:51

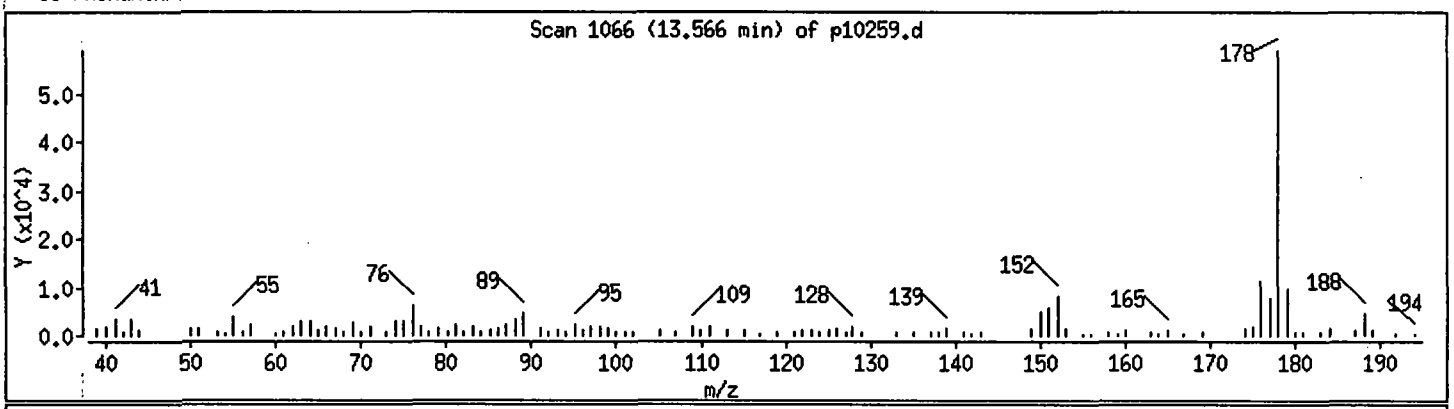
Instrument : p.i

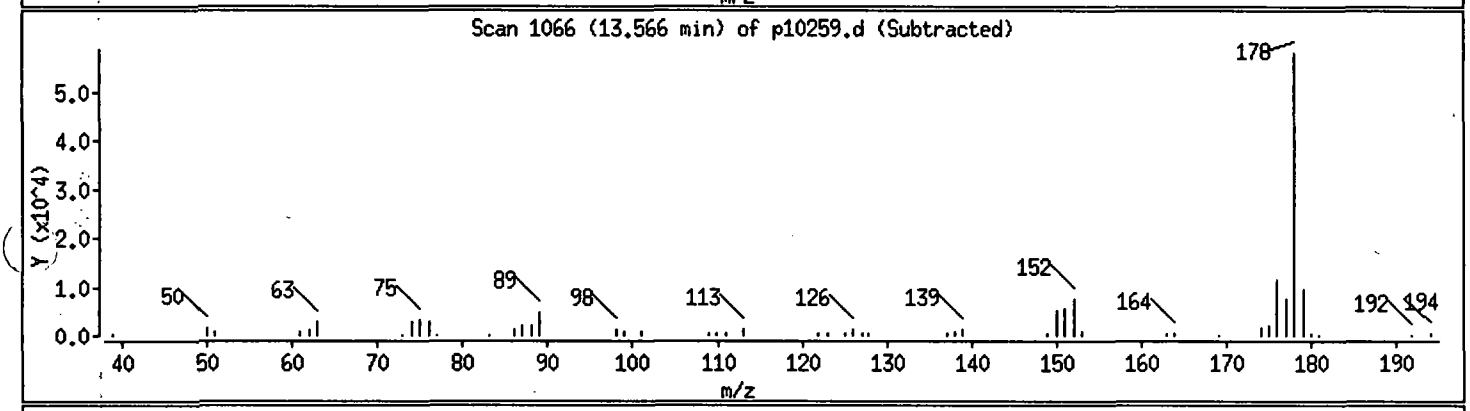
Sample ID : FFG24 MSD

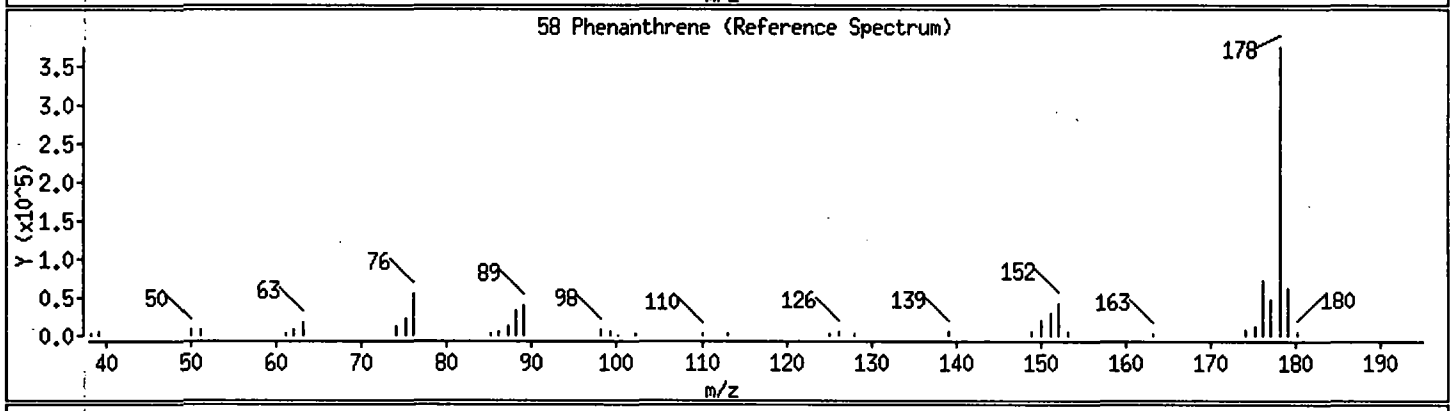
Column phase : XTI-5 Column diameter : 0.25

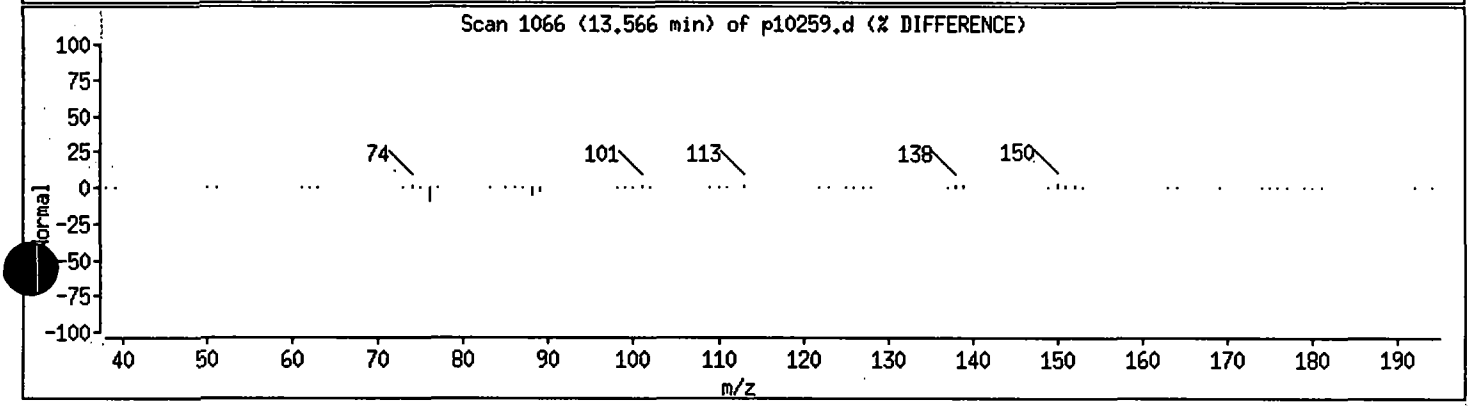
Volume Injected (uL) : 2.0

58 Phenanthrene









Data File: /chem/p.i/p961208a.b/p10259.d

Date : 09-DEC-1996 01:51

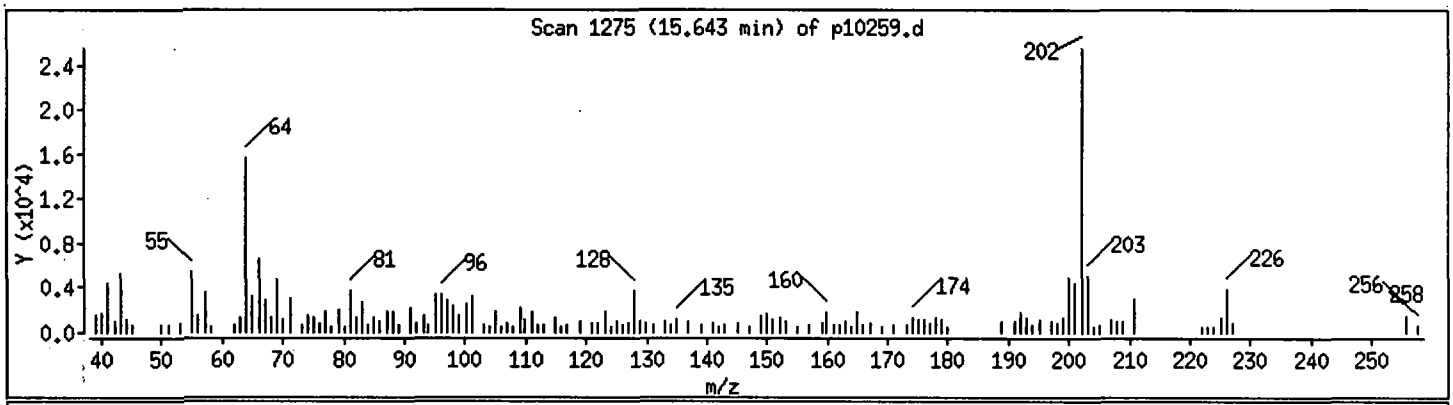
Instrument : p.i

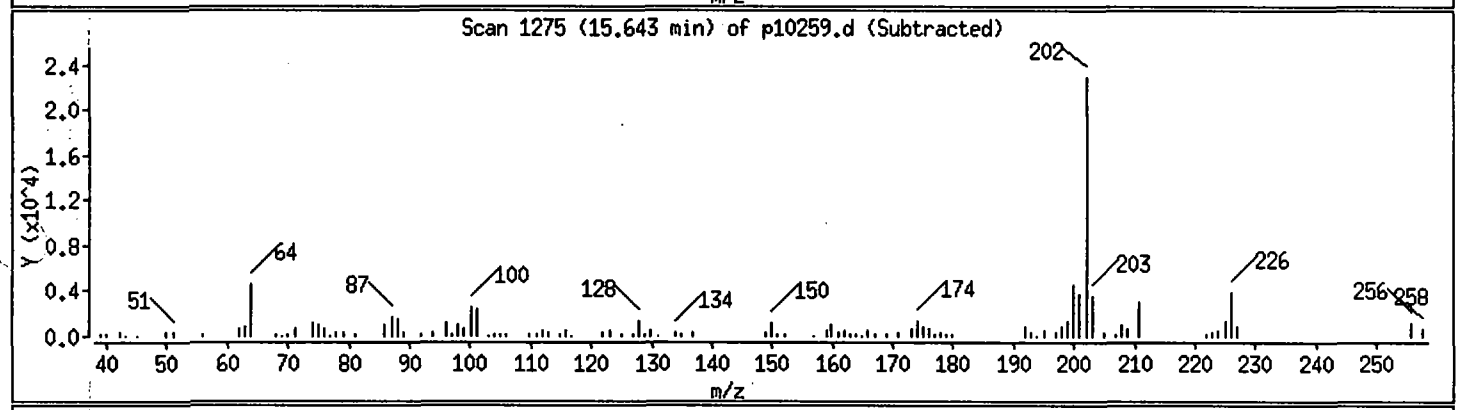
Sample ID : FFG24 MSD

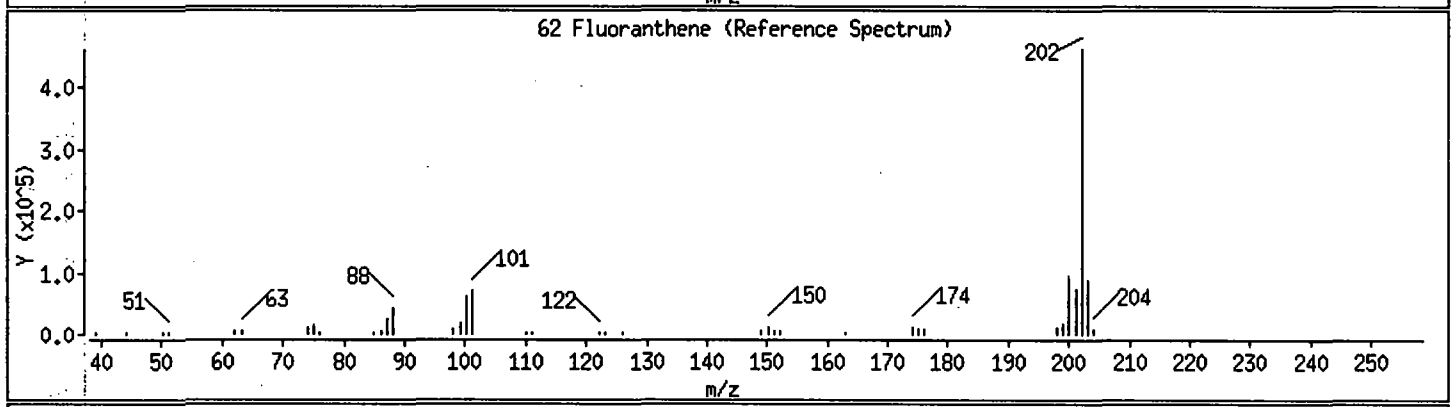
Column phase : XTI-5 Column diameter : 0.25

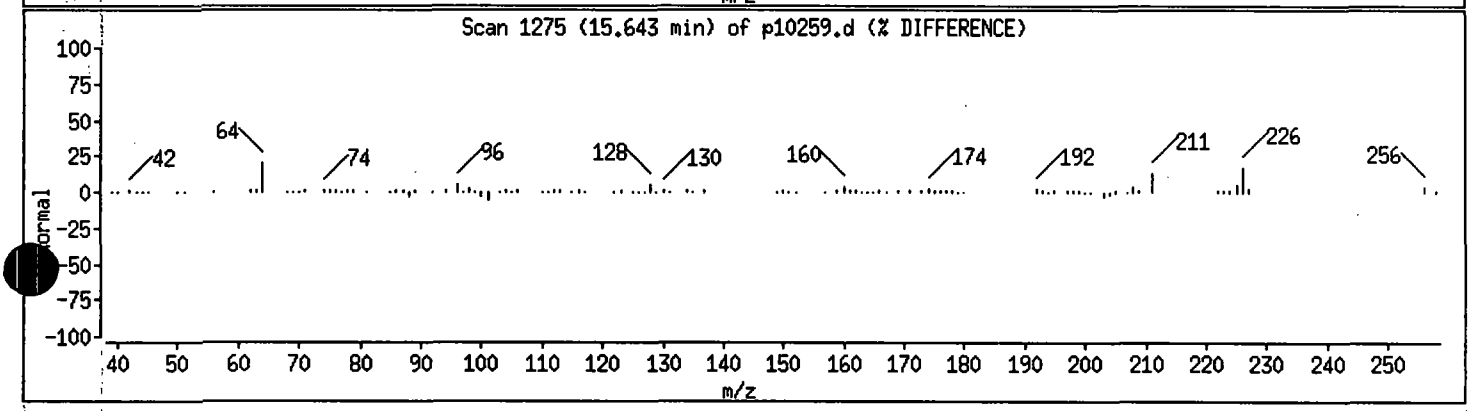
Volume Injected (uL) : 2.0

62 Fluoranthene









Data File: /chem/p.i/p961208a.b/p10259.d

Date : 09-DEC-1996 01:51

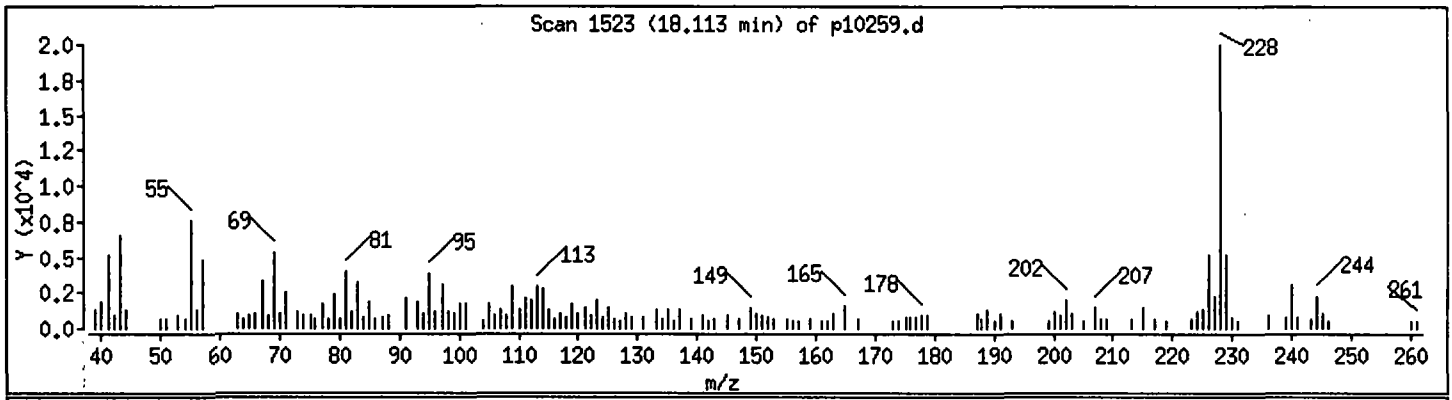
Instrument : p.i

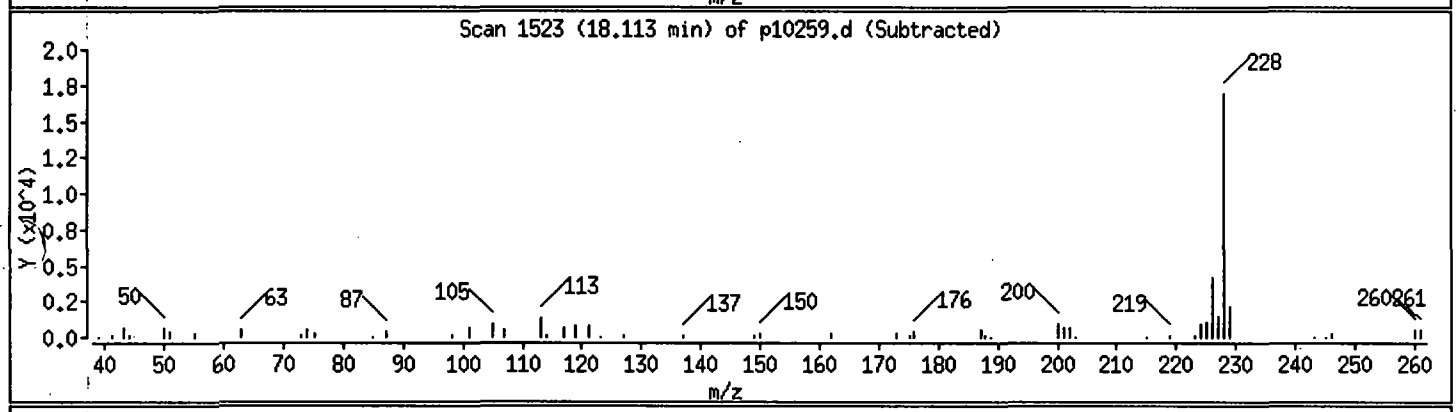
Sample ID : FFG24 MSD

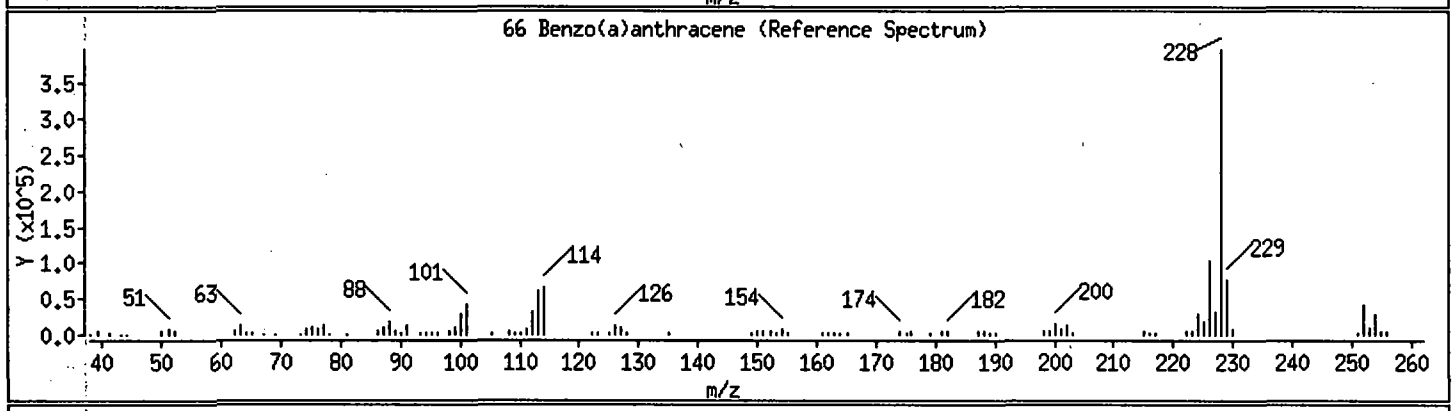
Column phase : XTI-5 Column diameter : 0.25

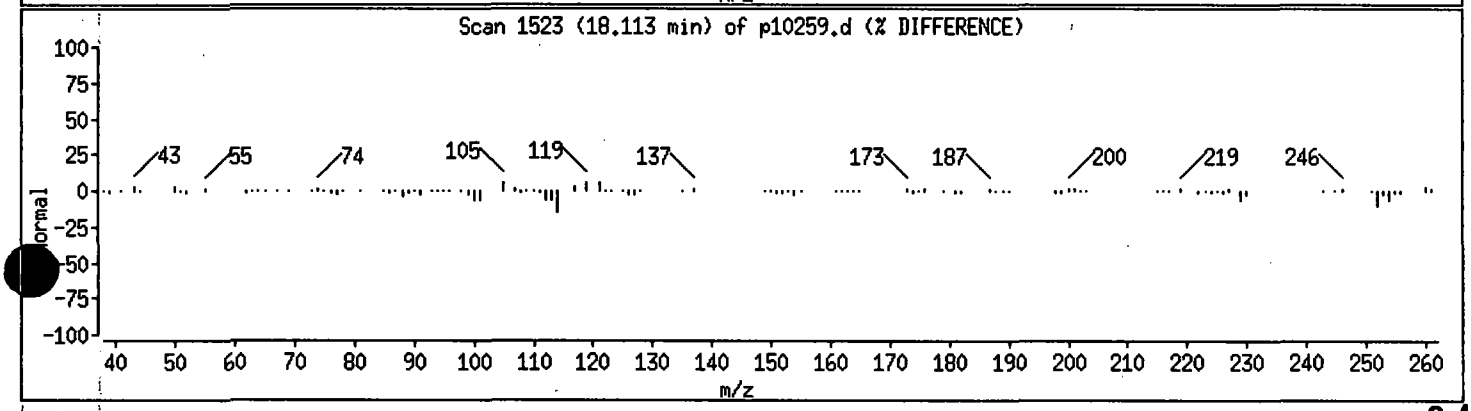
Volume Injected (uL) : 2.0

66 Benzo(a)anthracene









Data File: /chem/p.i/p961208a.b/p10259.d

Date : 09-DEC-1996 01:51

Instrument : p.i

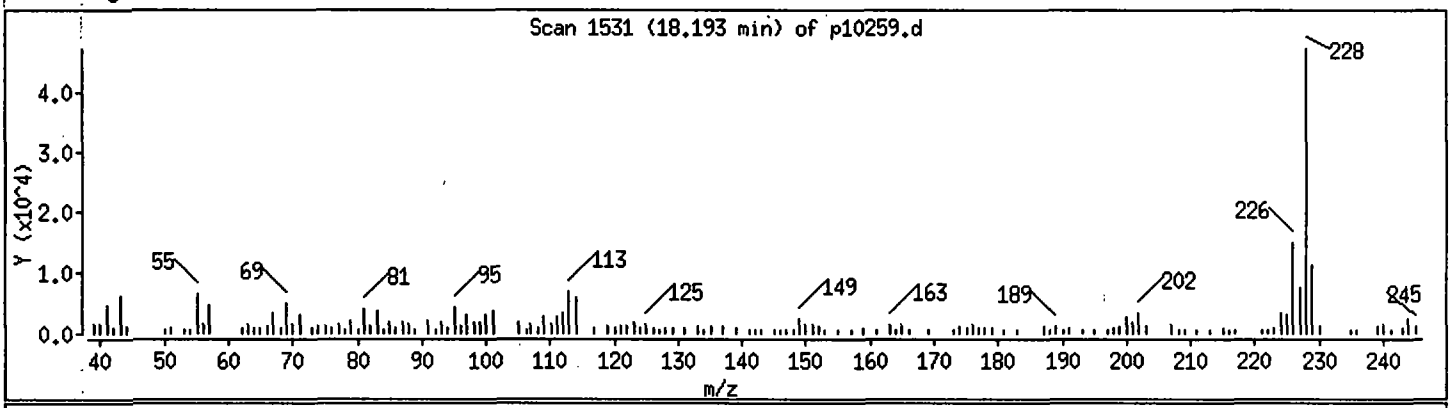
Sample ID : FFG24 MSD

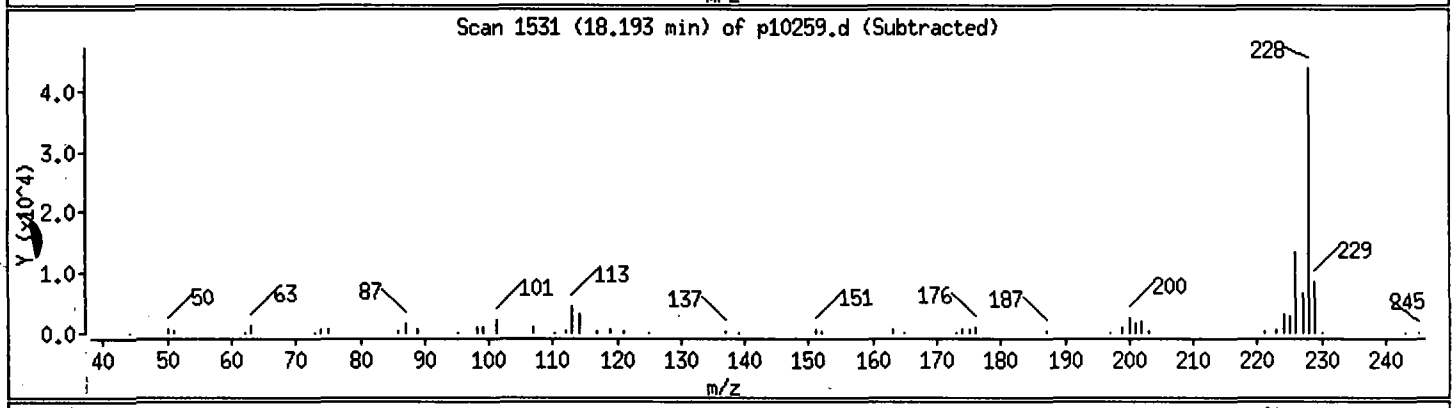
Column phase : XTI-5

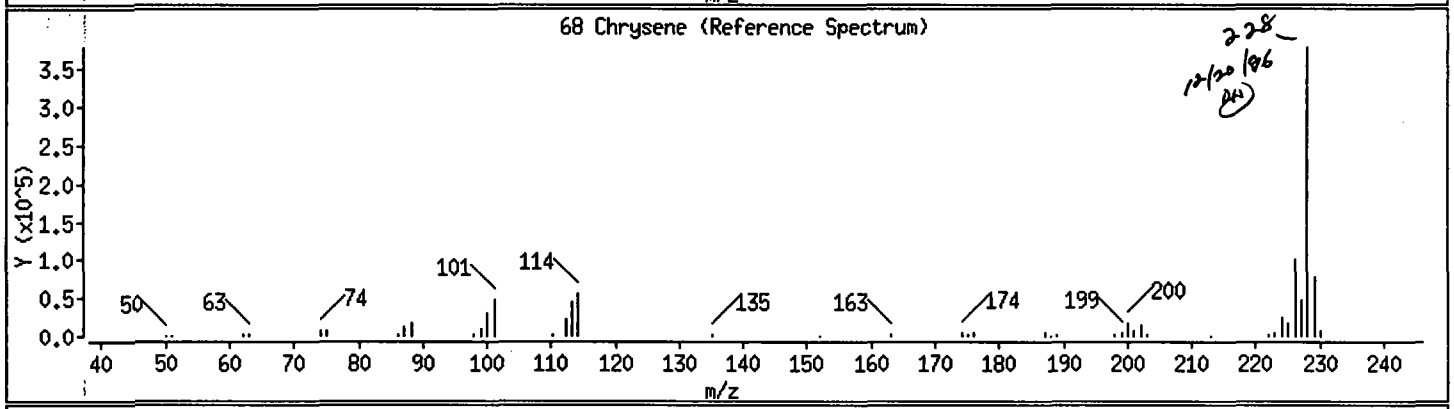
Column diameter : 0.25

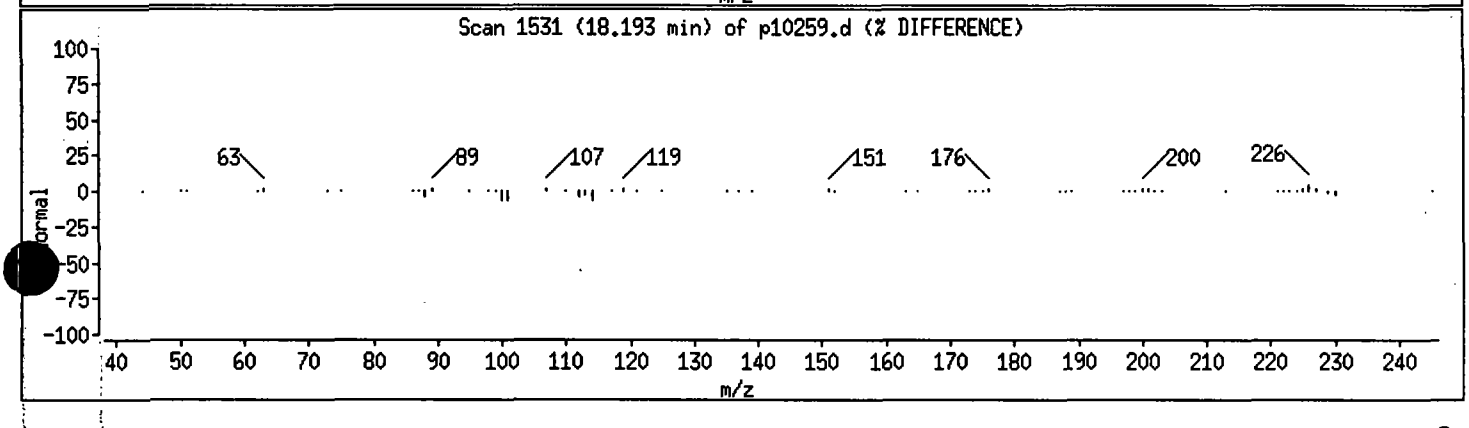
Volume Injected (uL) : 2.0

68 Chrysene









Data File: /chem/p.i/p961208a.b/p10259.d

Date : 09-DEC-1996 01:51

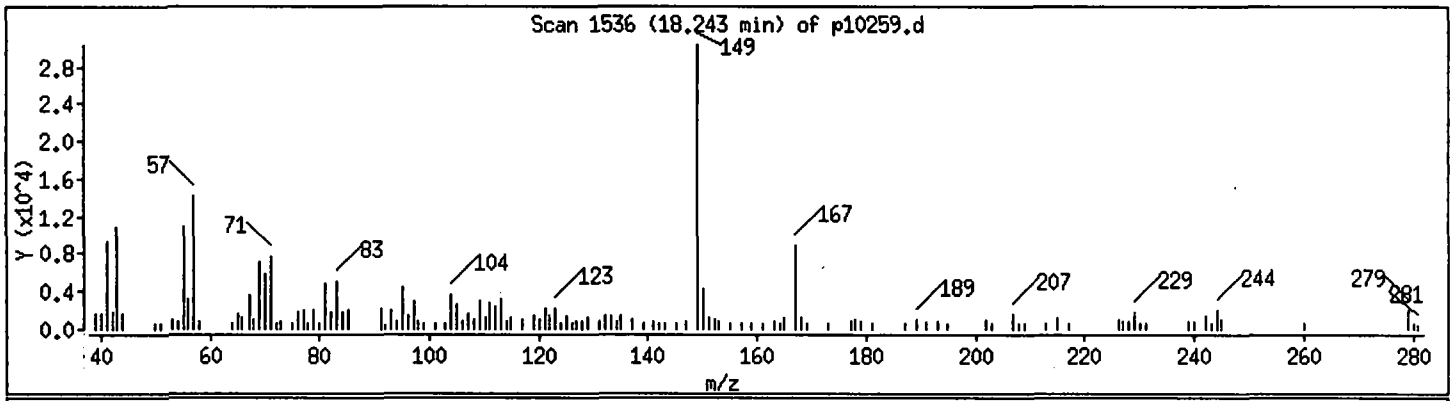
Instrument : p.i

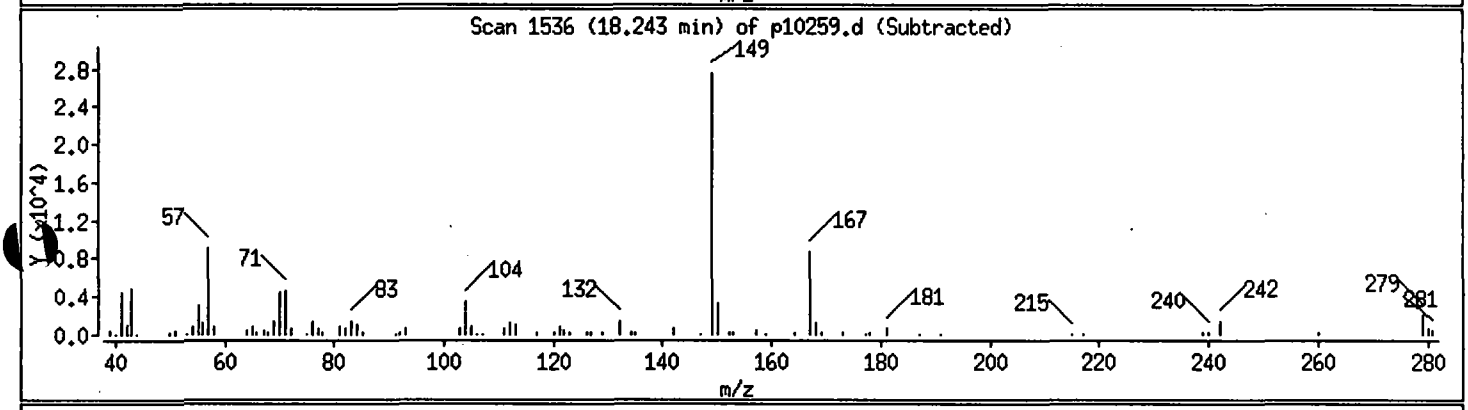
Sample ID : FFG24 MSD

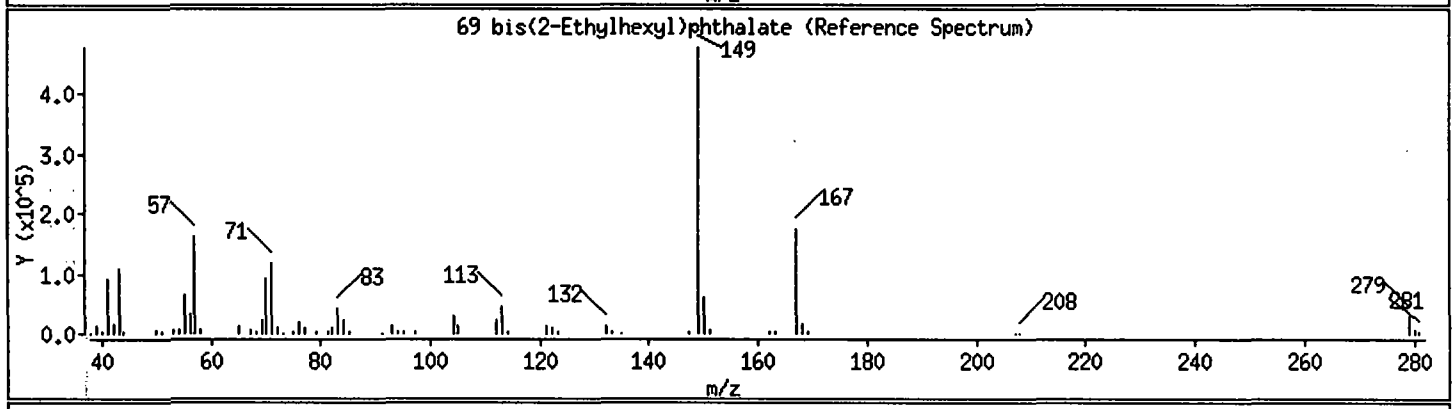
Column phase : XTI-5 Column diameter : 0.25

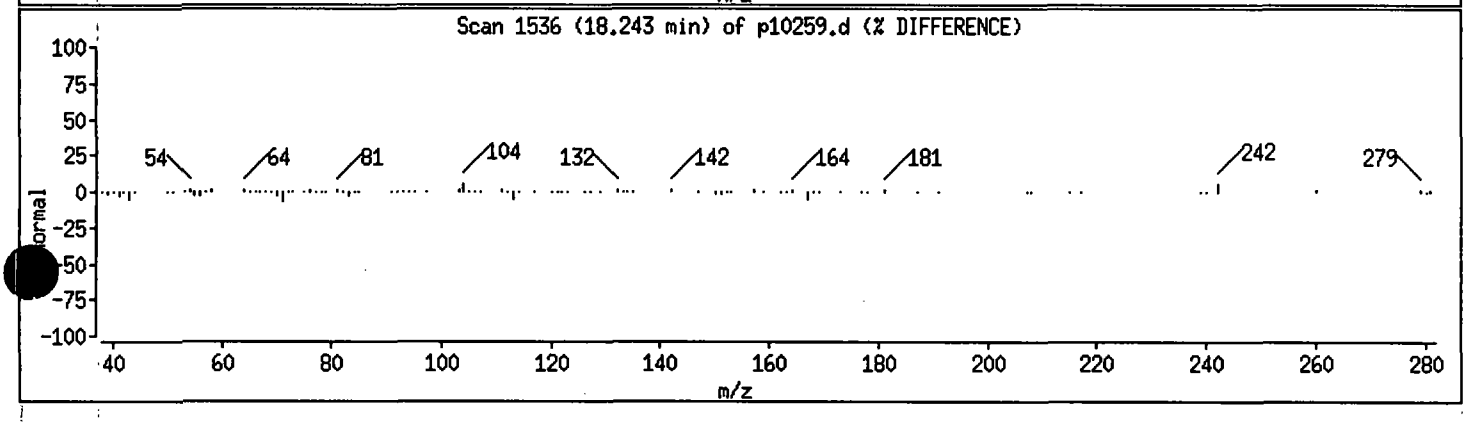
Volume Injected (uL) : 2.0

69 bis(2-Ethylhexyl)phthalate









GEL PERMEATION CHROMATOGRAPHY

EXTRACTIONS DEPARTMENT

16P1124A=33

COLLECT= 50mls

COLUMN ID:	ZYMARK 114745
CLIENT:	EPA - EPA
FRACTION:	SV (LL)
PROTOCOL:	MS517
CYCLE:	13:30 - 10:00 - 6:30
CASE NUMBER:	25159 - 25162

(*) INITIAL CAL STD: 11-24-96 @ 10:04

OPERATOR	DATE	TIME	POSITION #	SAMPLE I.D.	
TR	11-24-96	13:06	7	SOLBLK-112496A-	(25159)
		13:36	8	SOLBLK-112496B-	(25162)
		14:07	9	BL11205C	↓
		14:37	10	BB11205C	(25162)
		15:07	11	BL11205A	(25159)
		15:38	12	BB11205A	
		16:08	13	FFG 24 MSD-27683.10MSD	
		16:38	14	24 MS	.10 MS
		17:09	15	24	.10
		17:39	16	12	.05
		18:09	17	10	.03
		18:39	18	13	.06
		19:10	19	11	.04
		19:40	20	09	.02
		20:10	21	18	.08
		20:41	22	17	.07
		21:11	23	21	.09
		21:41	24	FFG 06 -27683.01	(25159)
		22:12	25	—SB—	
		22:42	26	DMA 46 27682.04	(25162)
		23:12	27	48	.06
	11-24-96	23:42	28	45	.03
	11-25-96	00:13	29	45MS	.03MS
		00:43	30	45MSD	.03MSD
TR	11-25-96	01:13	31	DMA 47 27682.05	(25162)

ORIGINAL DOCUMENTS ARE INCLUDED IN CSF 25159 SDG FFG02 Signature S. Jackett Date 12/23/96

COPY

* FINAL CAL STD: 11-25-96 @ 02:14

COMPOUND	INITIAL R.T.	FINAL R.T.	% DIFFERENCE
PHTHALATE	14.61	14.62	0.07
METHOXYCHLOR	16.25	16.21	0.25
PERYLENE	21.10	21.03	0.33

350

VG Data Systems - Minichrom v1.65

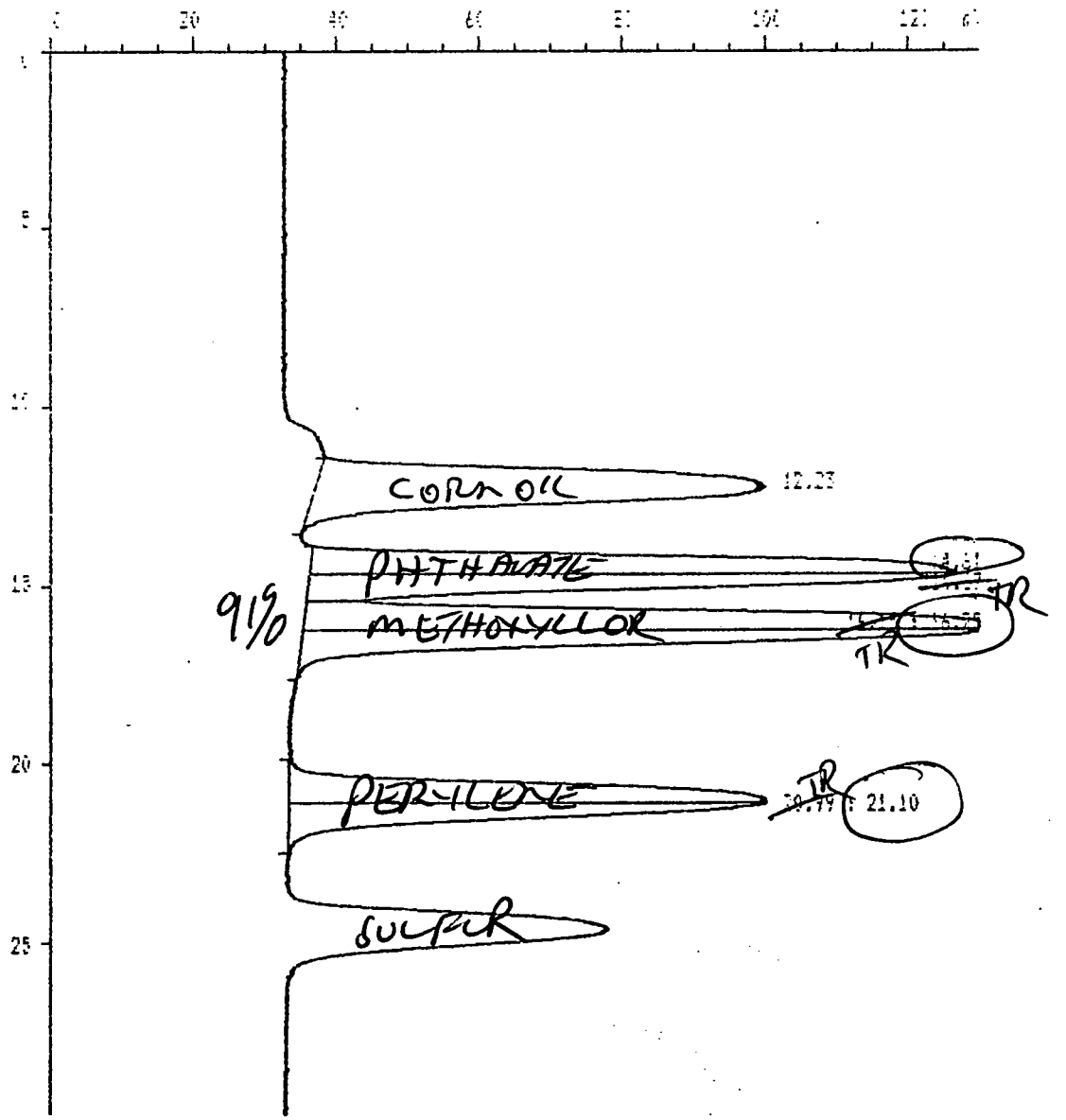
LONG PLOT

Injection C: <TIM1> 1 1GP1124A.1.1

INITIAL

Sample name.....: CAL.STD.
Sample ID.....:
ZYMARK COL# 114745 (#162670&162671S)

Acquired on 24-Nov-96 at 10:04:48
Reported on 25-Nov-96 at 10:53:16



VG Data Systems - Minichrom v1.65

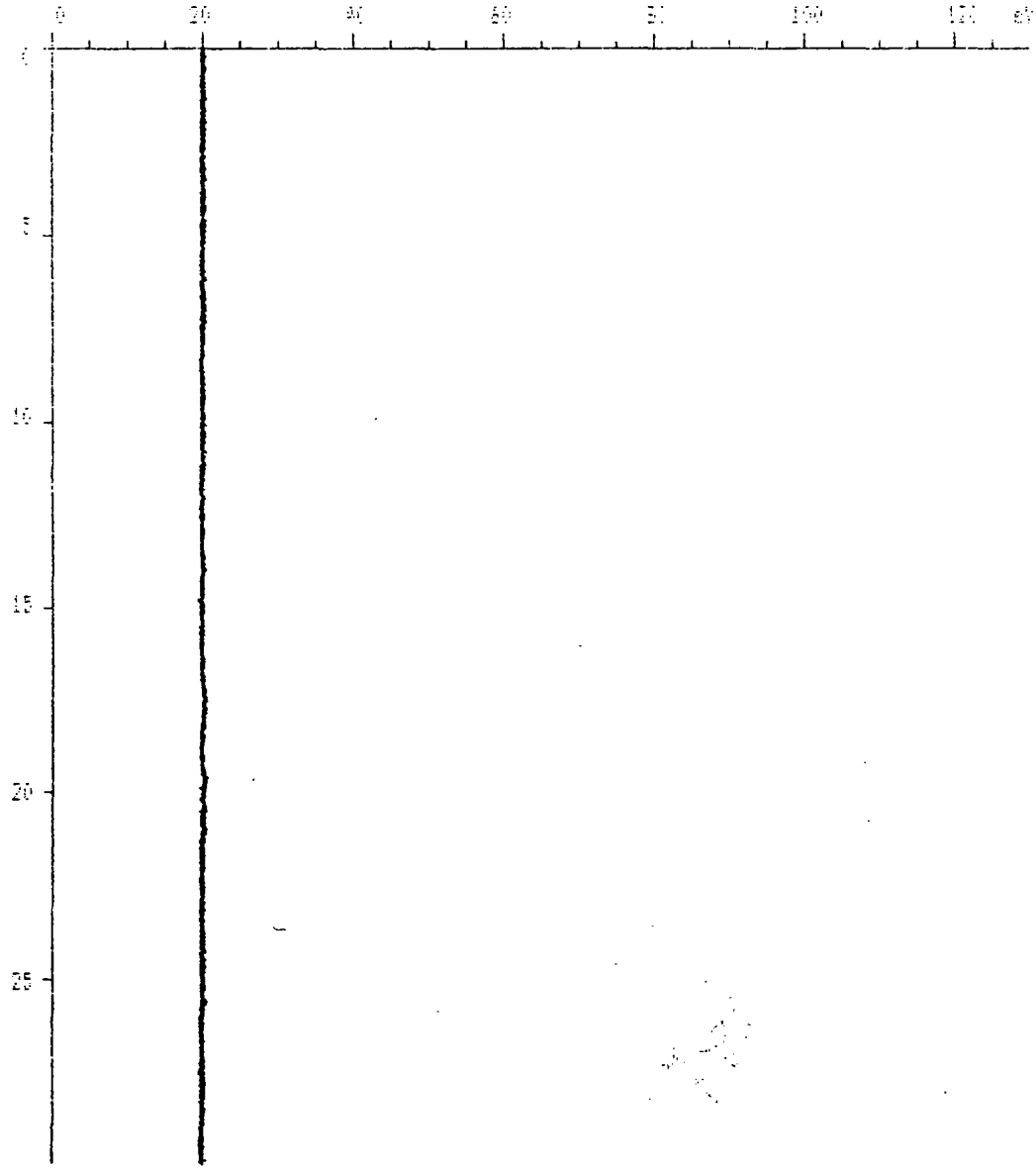
LONG PLOT

Injection C: <TIM1> 1 1GP1124A,7,1

Sample name.....: SV-LL-MS317
Sample ID.....: EPA-25159
ZYMARK COL# 114745 (w1626708162671)

SB-112496A

Acquired on 24-Nov-96 at 13:06:37
Reported on 25-Nov-96 at 11:13:36



VG Data Systems - Minichrom v1.65

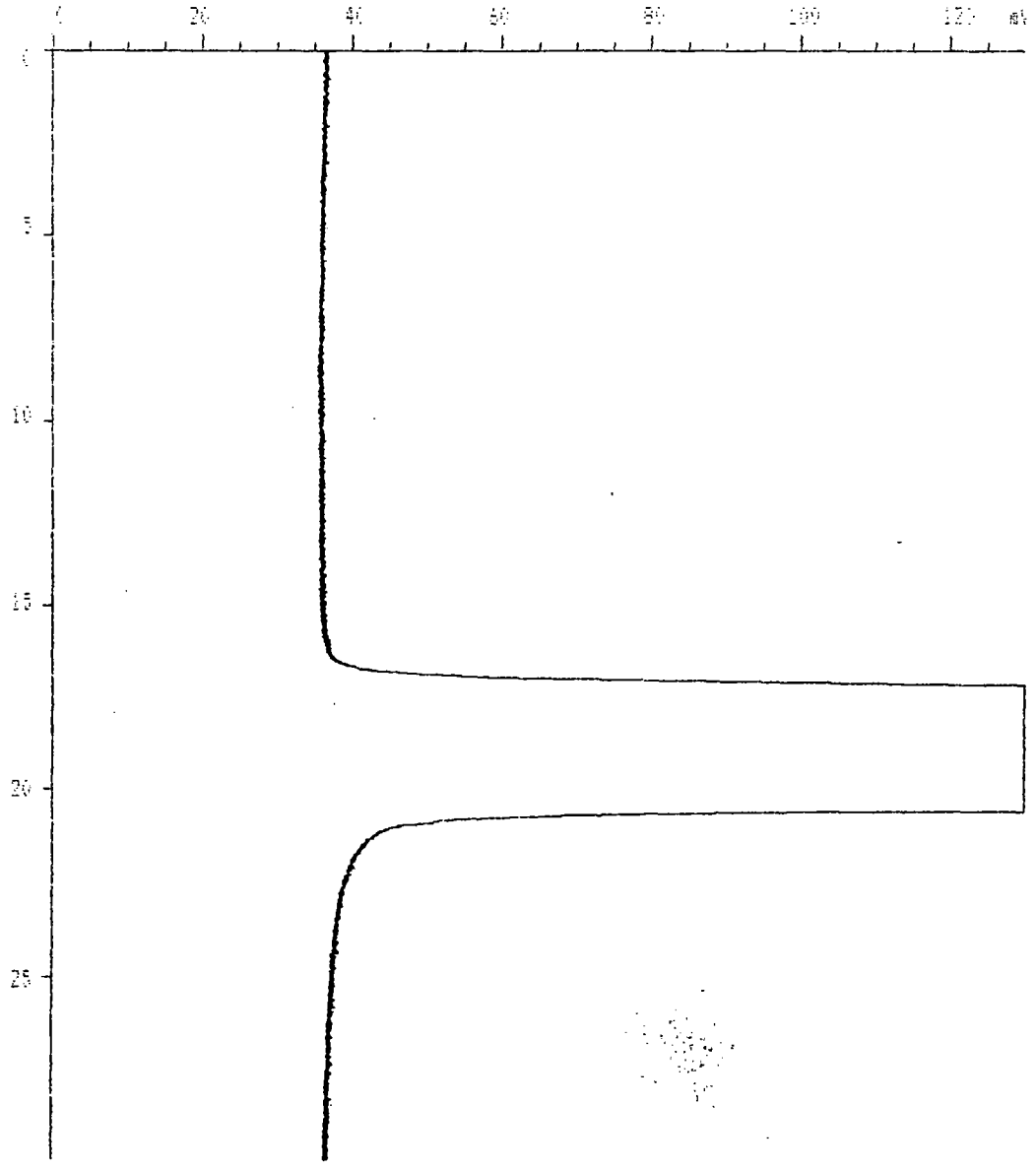
LONG PLOT

Injection C: (TIM1) 1 1GP1124A,11.1

Sample name.....: BV-LL-M3817
Sample ID.....: EPA-23159
ZYMARK COL# 114745 (w162570@1626713)

BL11205A

Acquired on 24-Nov-96 at 15:07:49
Reported on 25-Nov-96 at 11:19:11



VG Data Systems - Minichrom v1.65

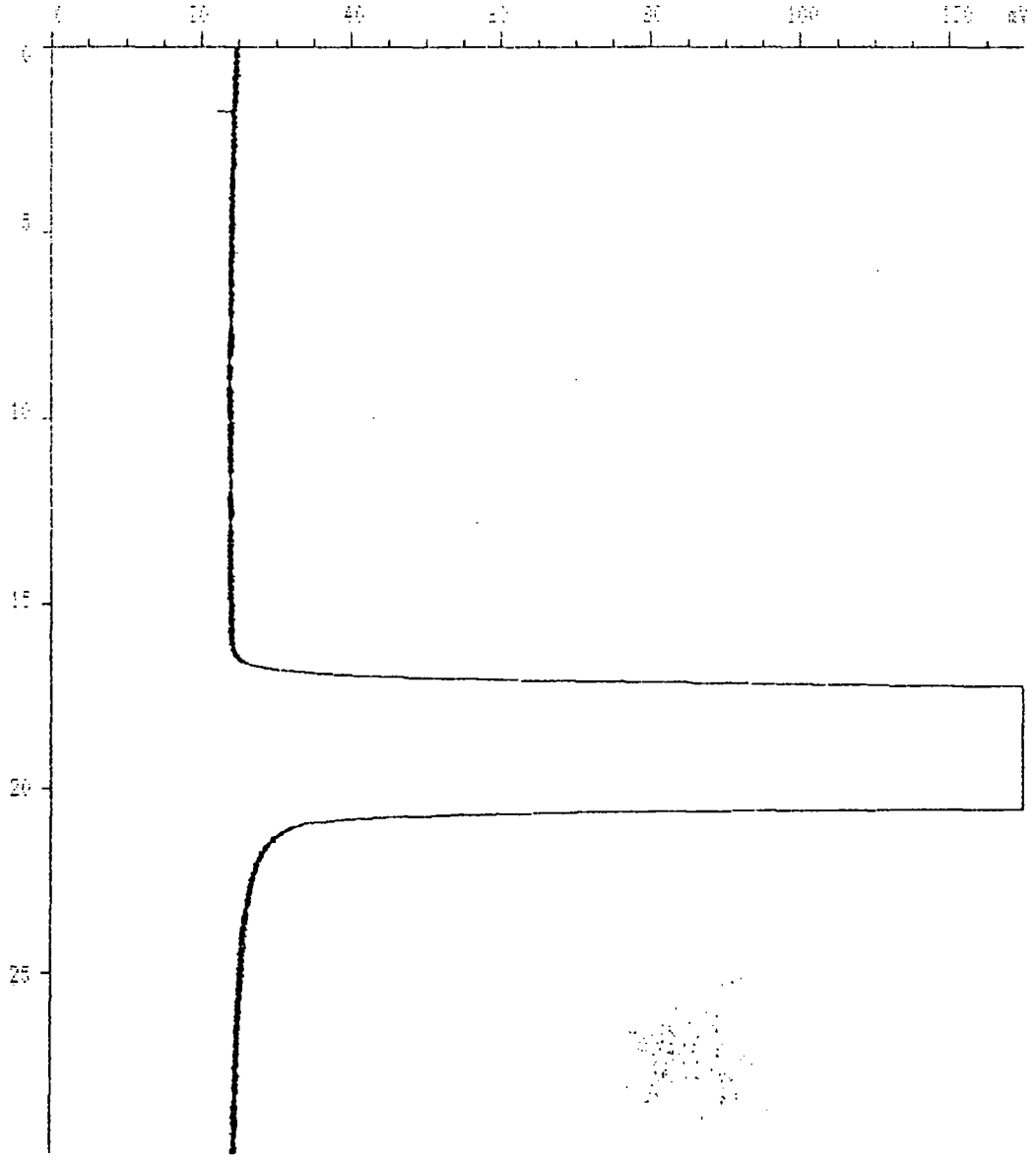
LONG PLOT

Injection C: <TIM1> 1 10P1124A,12.1

Sample name.....: SV-LL-MS517
Sample ID.....: EPA-25159
ZYMARK COL# 114745 (W162670G1s26718)

BB1120 SA

Acquired on 24-Nov-96 at 15:38:07
Reported on 25-Nov-96 at 11:20:48



VG Data Systems - Minichrom v1.65

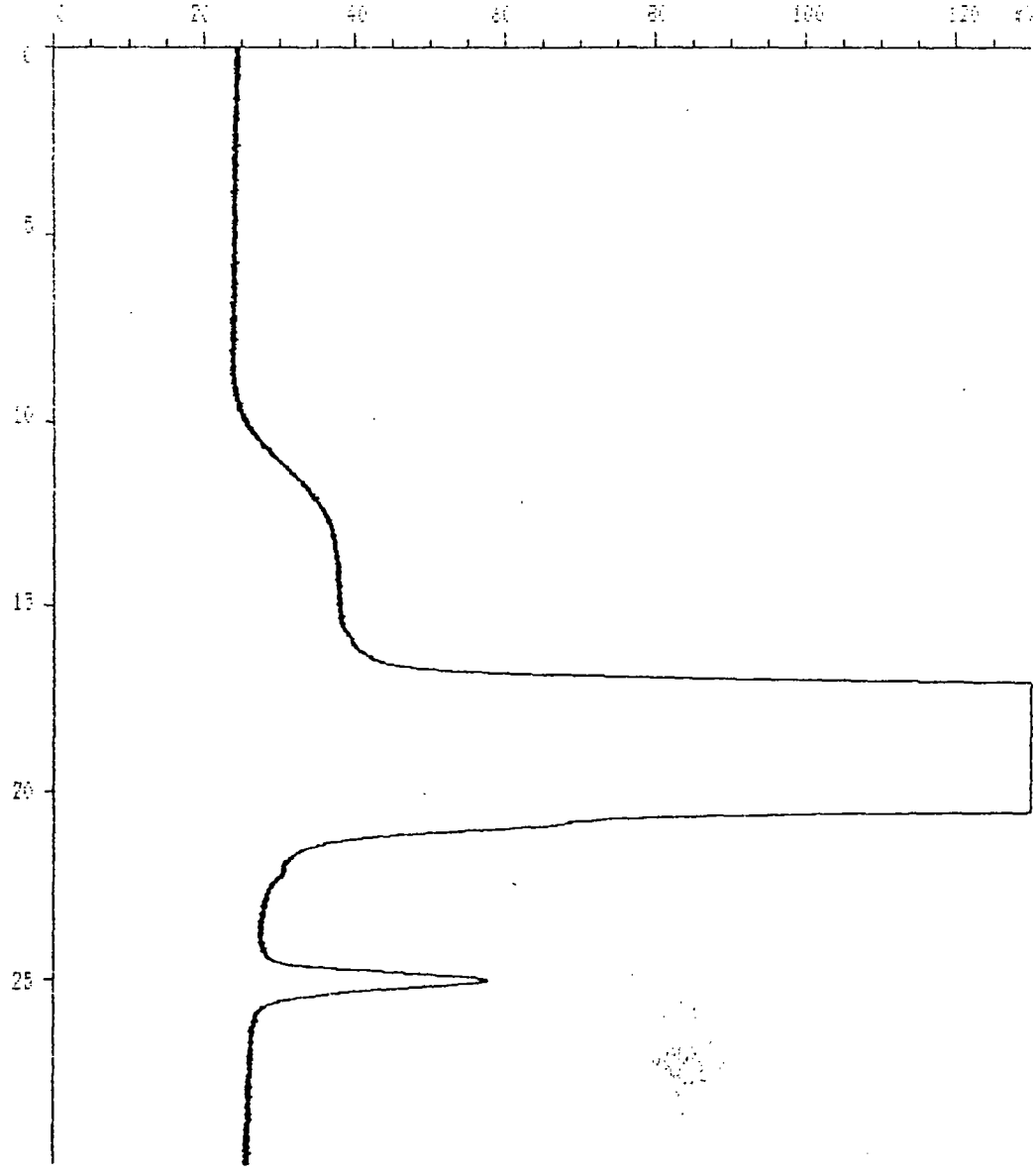
LONG PLOT

Injection C: <TIM1> 1 1GP1124A.13.1

Sample name.....: SV-LL-MS517
Sample ID.....: EPA-25159
ZYMARK COL# 114745 (W162670&1626710)

FFG 24 MSD
27683.10A SD

Acquired on 24-Nov-96 at 16:08:25
Reported on 25-Nov-96 at 11:22:16



VG Data Systems - Minichrom v1.65

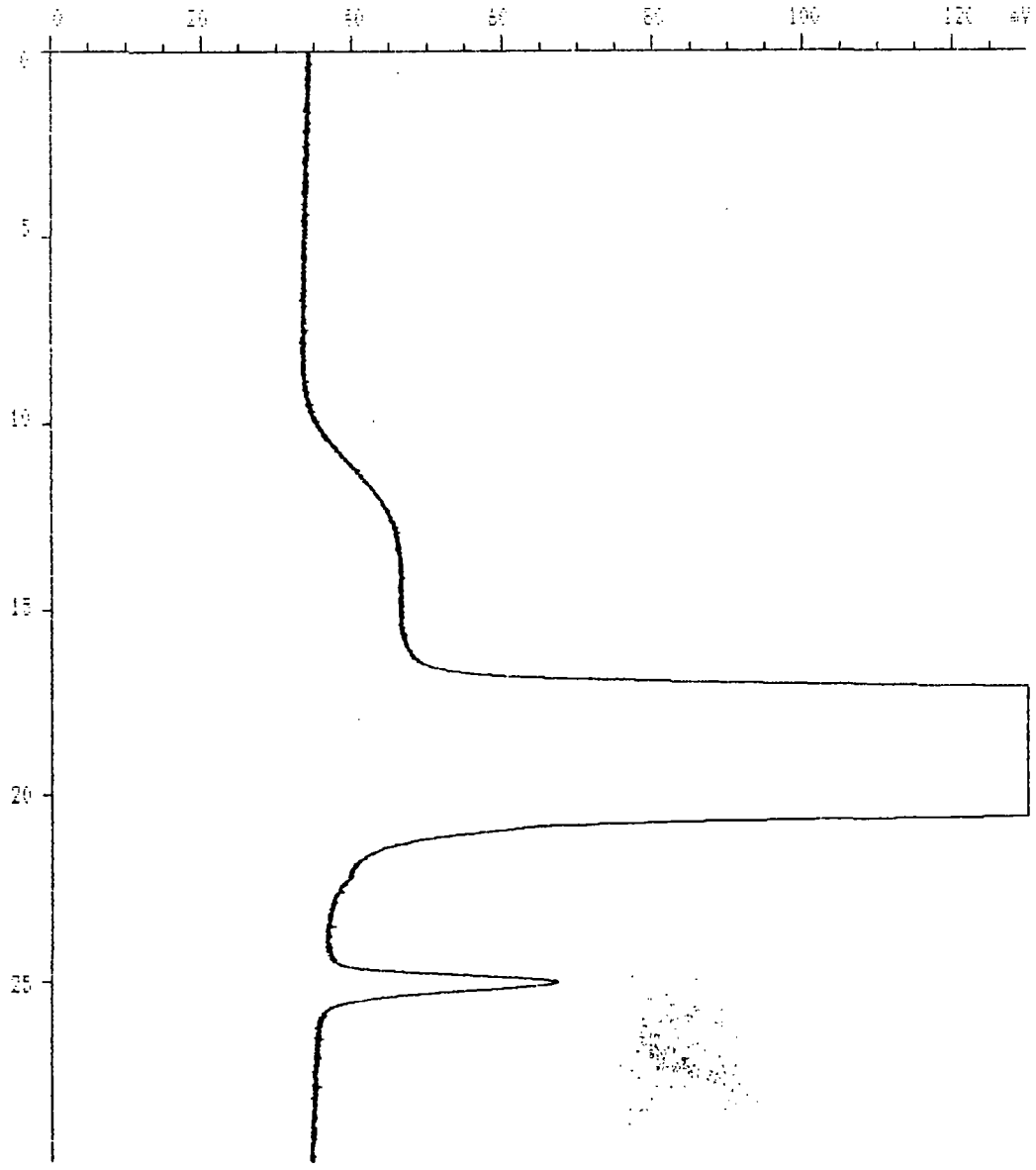
LONG PLOT

Injection C: <TIM1> 1 1GP1124A,14.1

Sample name.....: SV-LL-M3517
Sample ID.....: CPA-25159
ZYMARK COL# 114745 (w162670&1626710)

FFG-24ms
27683.10 ms

Acquired on 24-Nov-96 at 16:38:43
Reported on 25-Nov-96 at 11:23:48



VG Data Systems - Minichrom v1.65

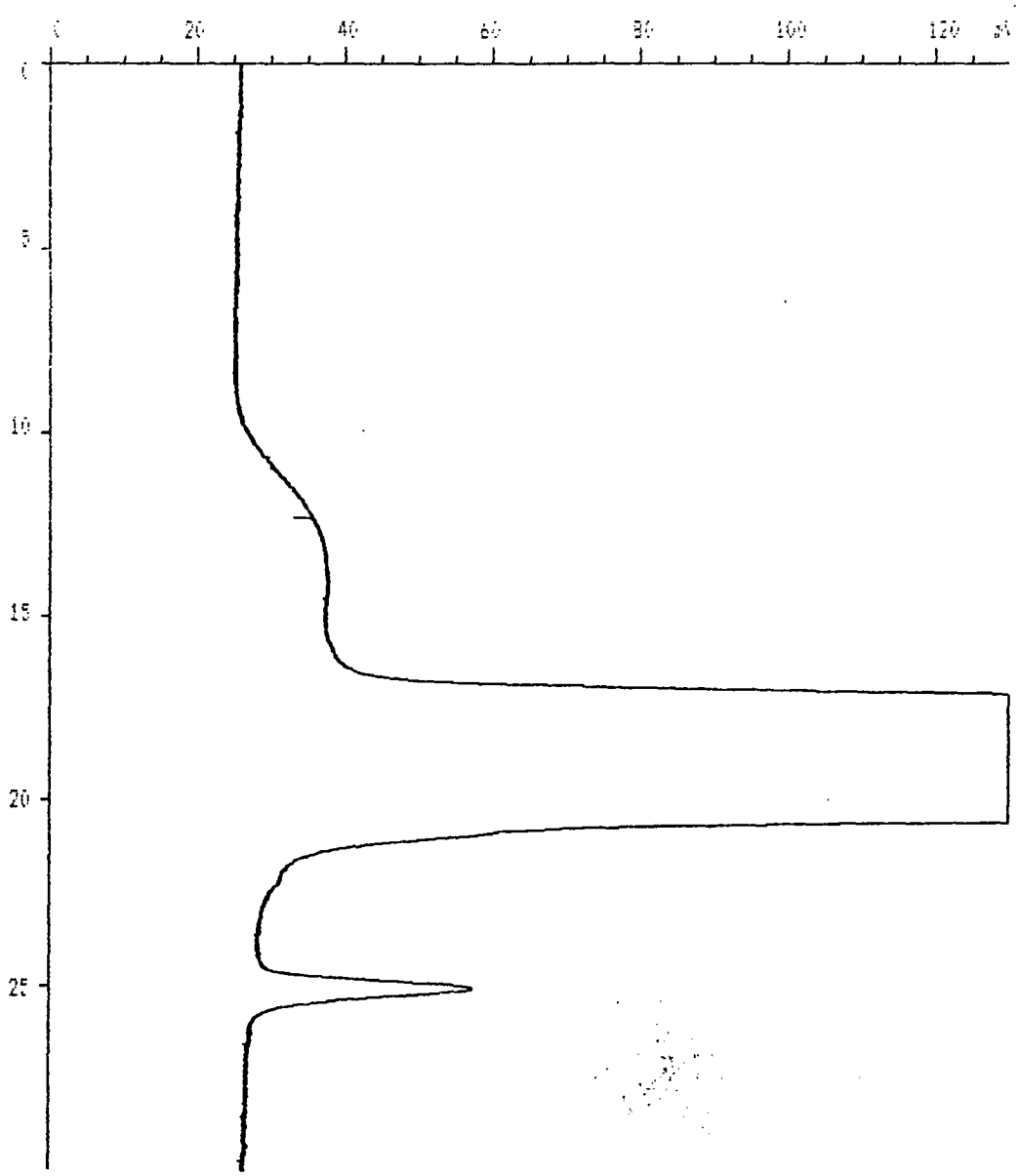
LONG PLOT

Injection C: <TIM1> 1 1GP1124A.15.1

Sample name.....: SV-LL-MS517
Sample ID.....: EPA-25159
ZYMARK COL# 114745 (w162670&162671G)

FPG 24
27683.10

Acquired on 24-Nov-96 at 17:09:01
Reported on 25-Nov-96 at 11:25:29



VG Data Systems - Minichrom v1.65

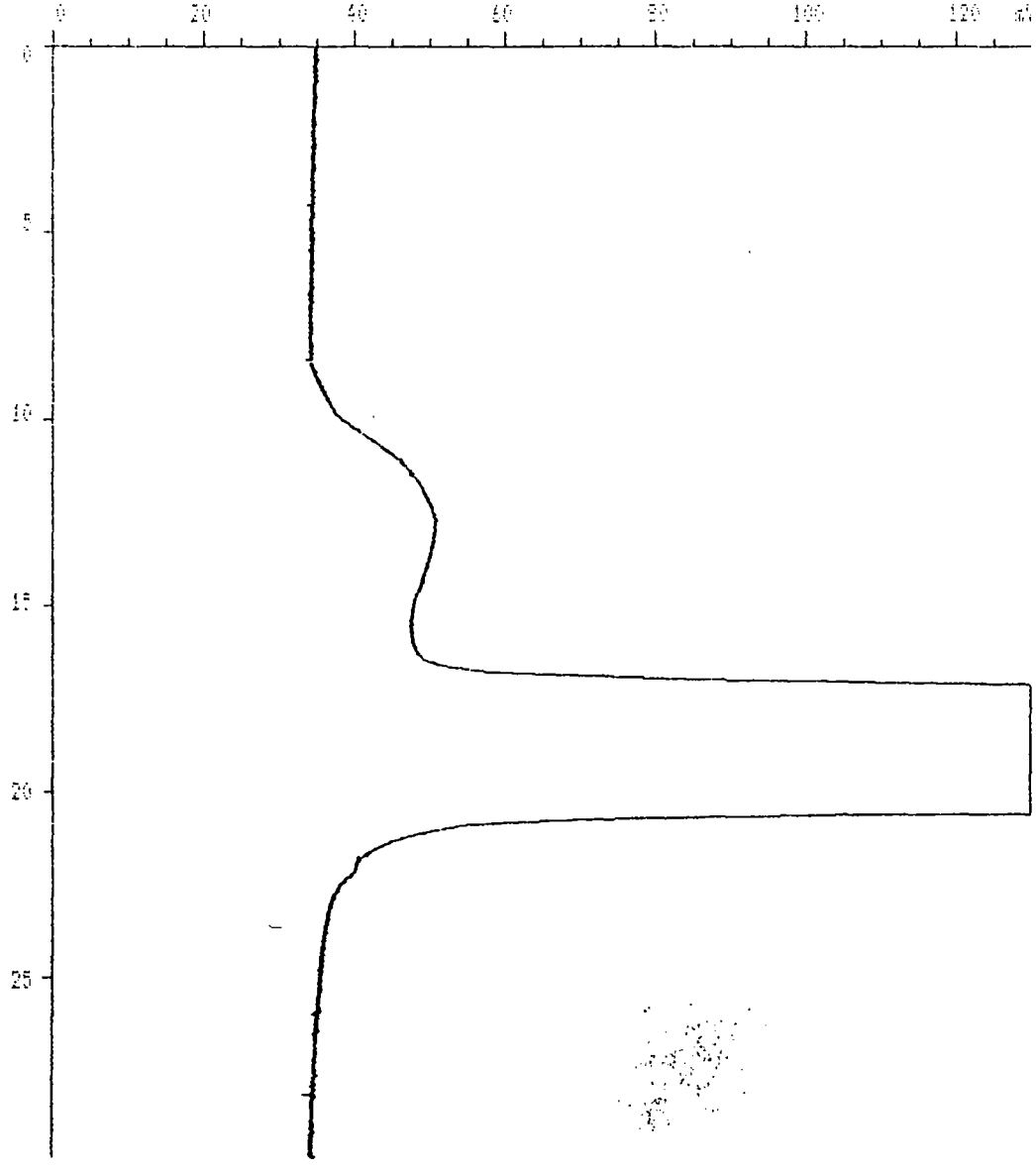
LONG PLOT

Injection C: <TIM1> 1 1GP1124A,16.1

Sample name.....: SV-LL-MS517
Sample ID.....: EPA-25159
ZYMARK COL# 114745 (016267001625715)

FFG 12
27683.05

Acquired on 24-Nov-96 at 17:39:19
Reported on 25-Nov-96 at 11:27:01



VG Data Systems - Minichrom v1.65

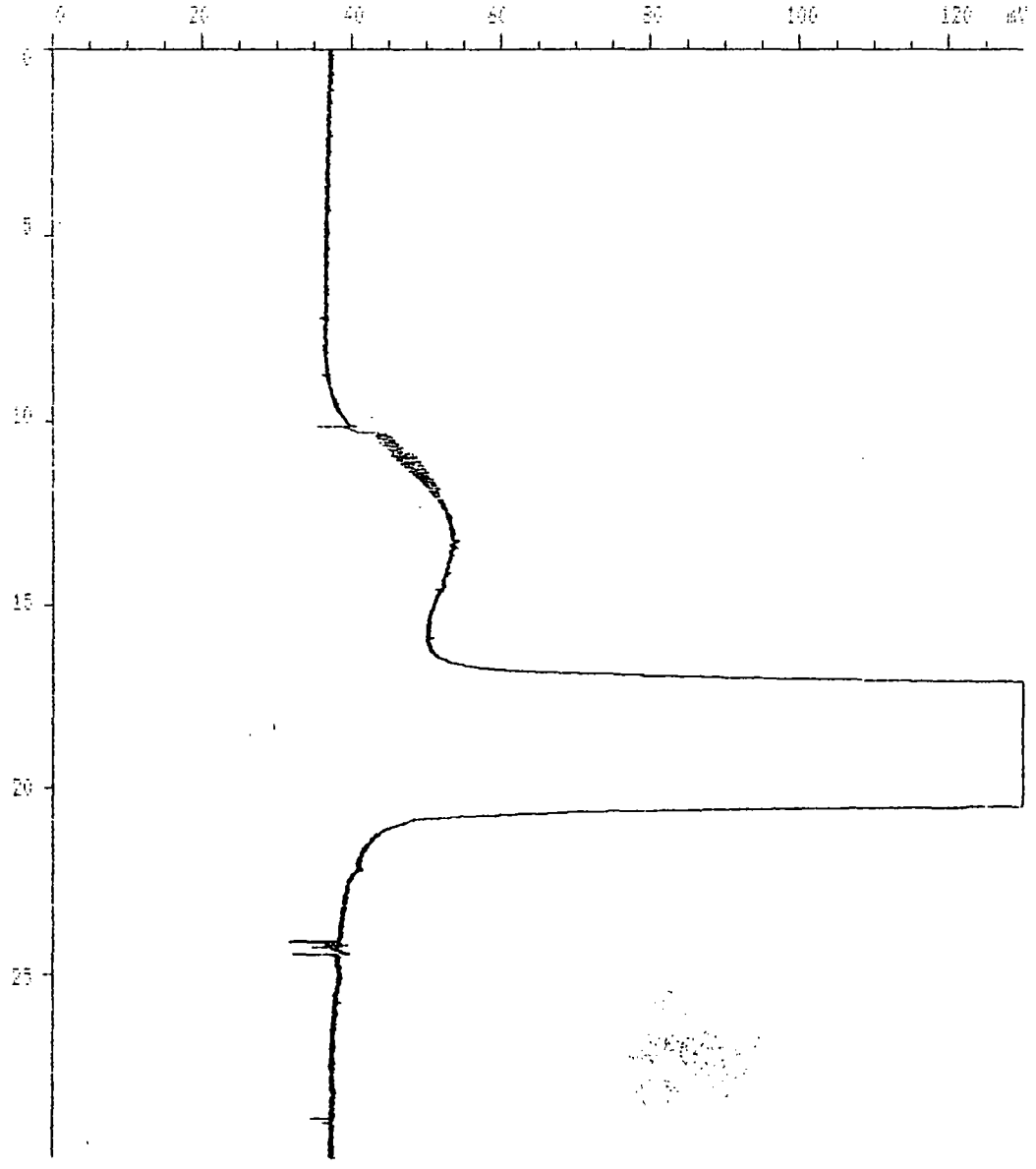
LONG PLOT

Injection C: <TIM1> 1 1GP1124A.17,1

Sample name.....: SV-LL-MS517
Sample ID.....: EPA-23159
ZYMARK COL# 114745 (w162670&162671O)

FFG-10
27683.03

Acquired on 24-Nov-96 at 18:09:37
Reported on 25-Nov-96 at 11:28:41



VG Data Systems - Minichrom v1.65

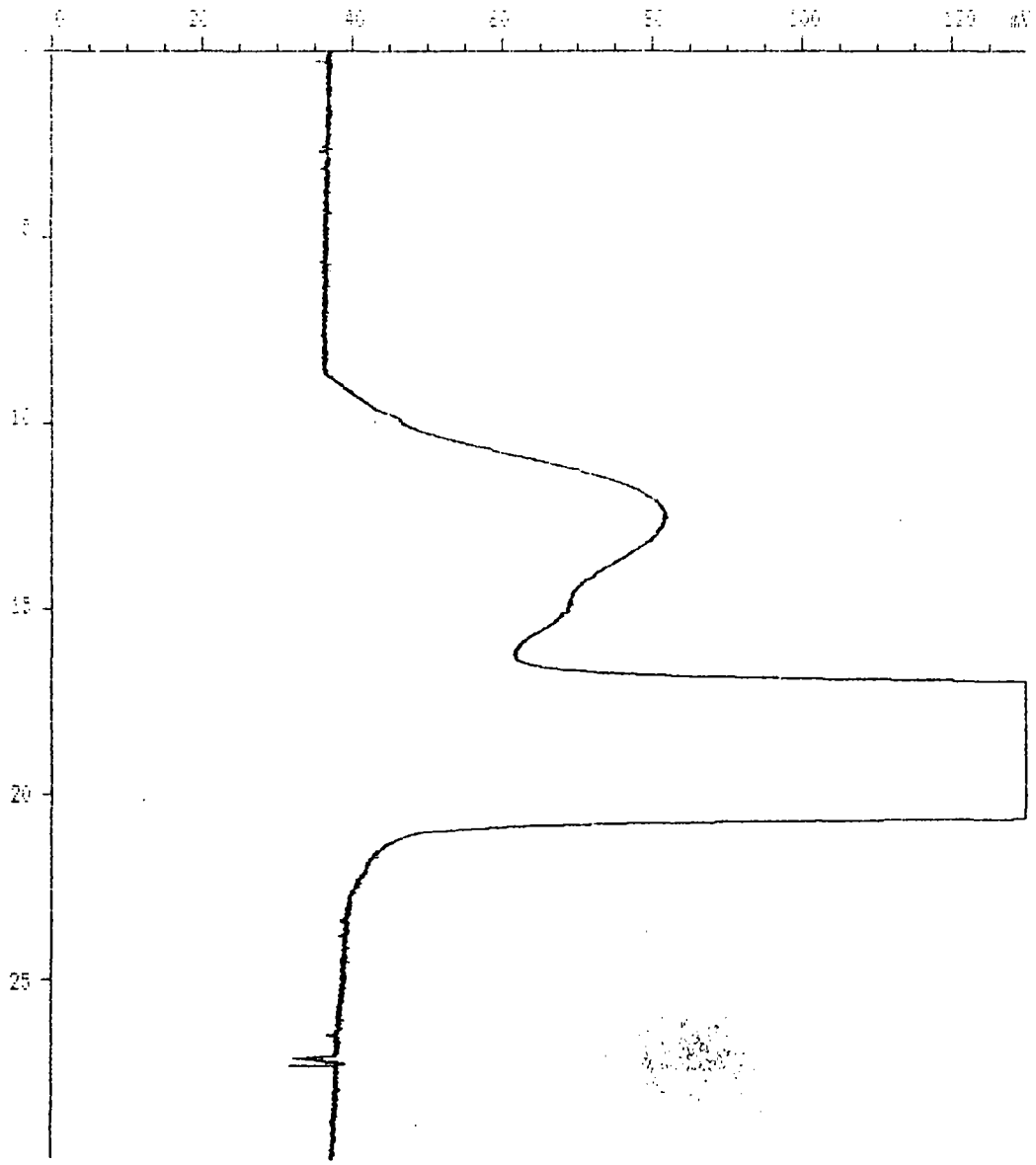
LONG PLOT

Injection C: <TIM1> 1 10P1124A.18.1

Sample name.....: SV-LL-MB517
Sample ID.....: EPA-23159
ZYMARK DOL# 114715 (Q162670&1626710)

Acquired on 24-Nov-96 at 18:39:55
Reported on 25-Nov-96 at 11:30:23

FFG13
27683.06



VG Data Systems - Minichrom v1.65

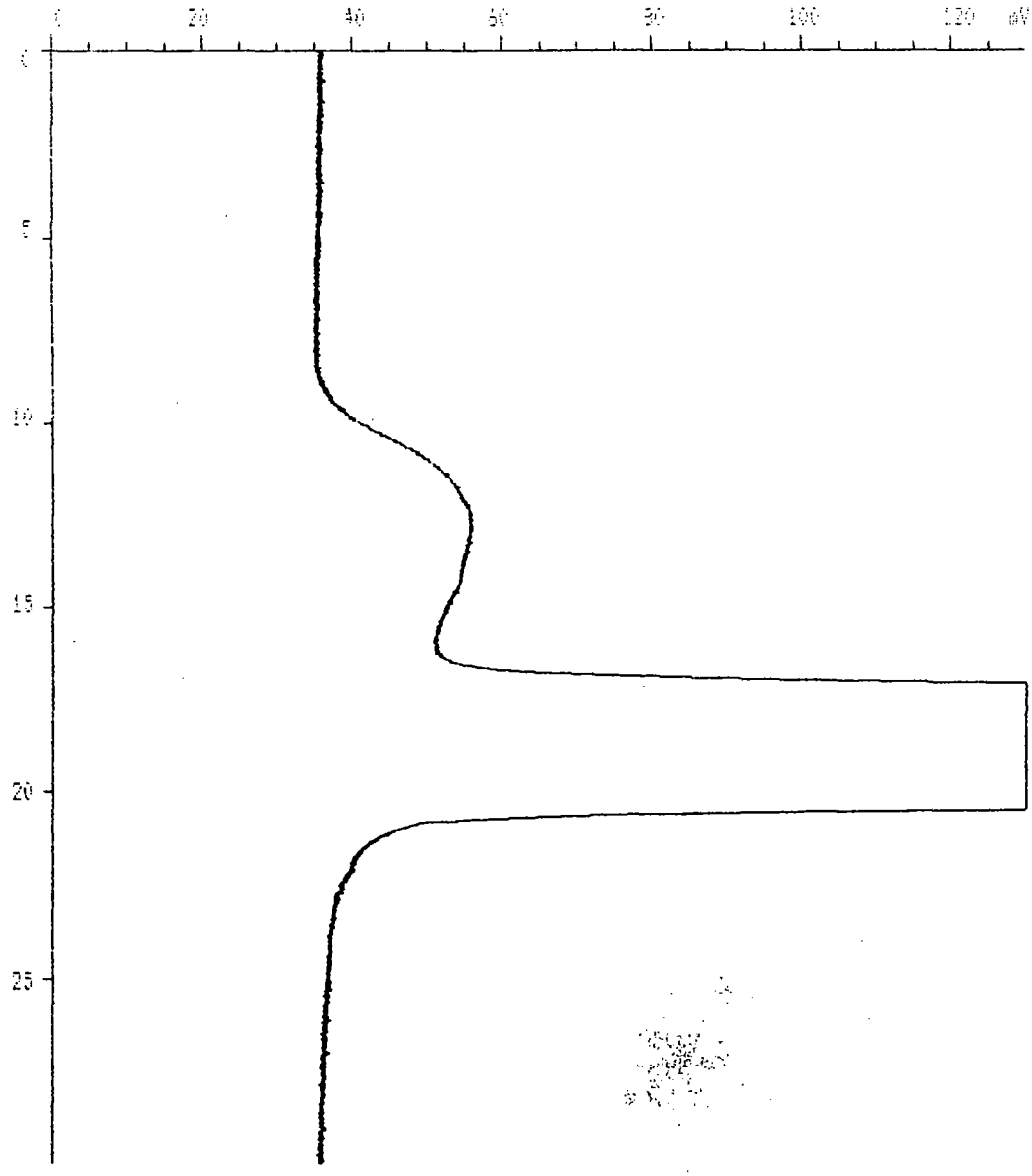
LONG PLOT

Injection C: <TIM1> 1 1GP1124A.19.1

Sample name.....: SV-LL-MS517
Sample ID.....: EPA-25159
ZYMARK COL# 114745 (w162670&162671G)

FFG-11
27683.04

Acquired on 24-Nov-96 at 19:10:13
Reported on 25-Nov-96 at 11:32:10



VG Data Systems - Minichrom v1.65

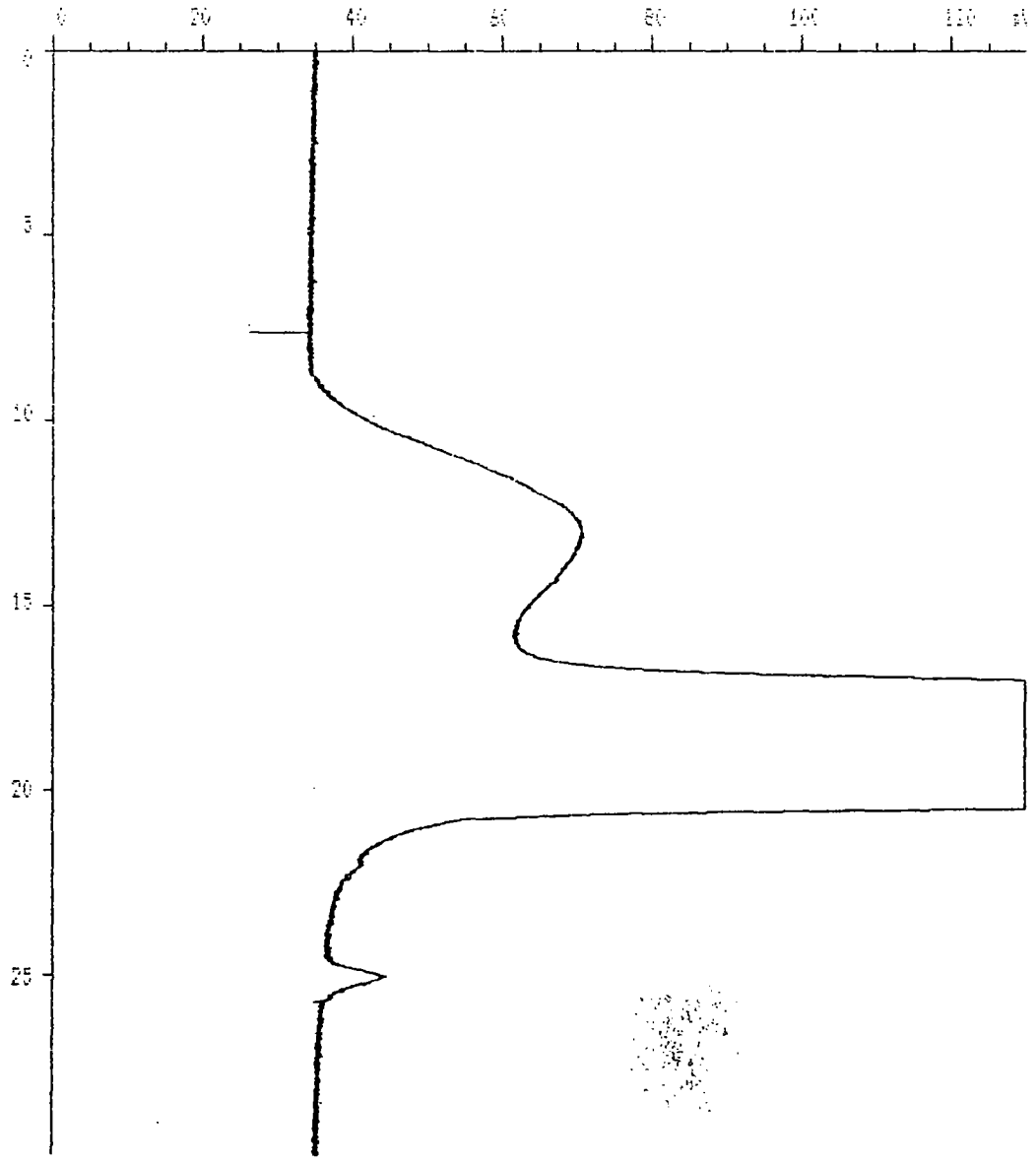
LONG PLOT

Injection C: <TIM1> 1 10P1124A.20.1

Sample name.....: SV-LL-MS517
Sample ID.....: EPA-25155
ZYMARK COL# 114745 (w162670&162671G)

FFG-09
27683.02

Acquired on 24-Nov-96 at 19:40:31
Reported on 25-Nov-96 at 11:33:51



VG Data Systems - Minichrom v1.65

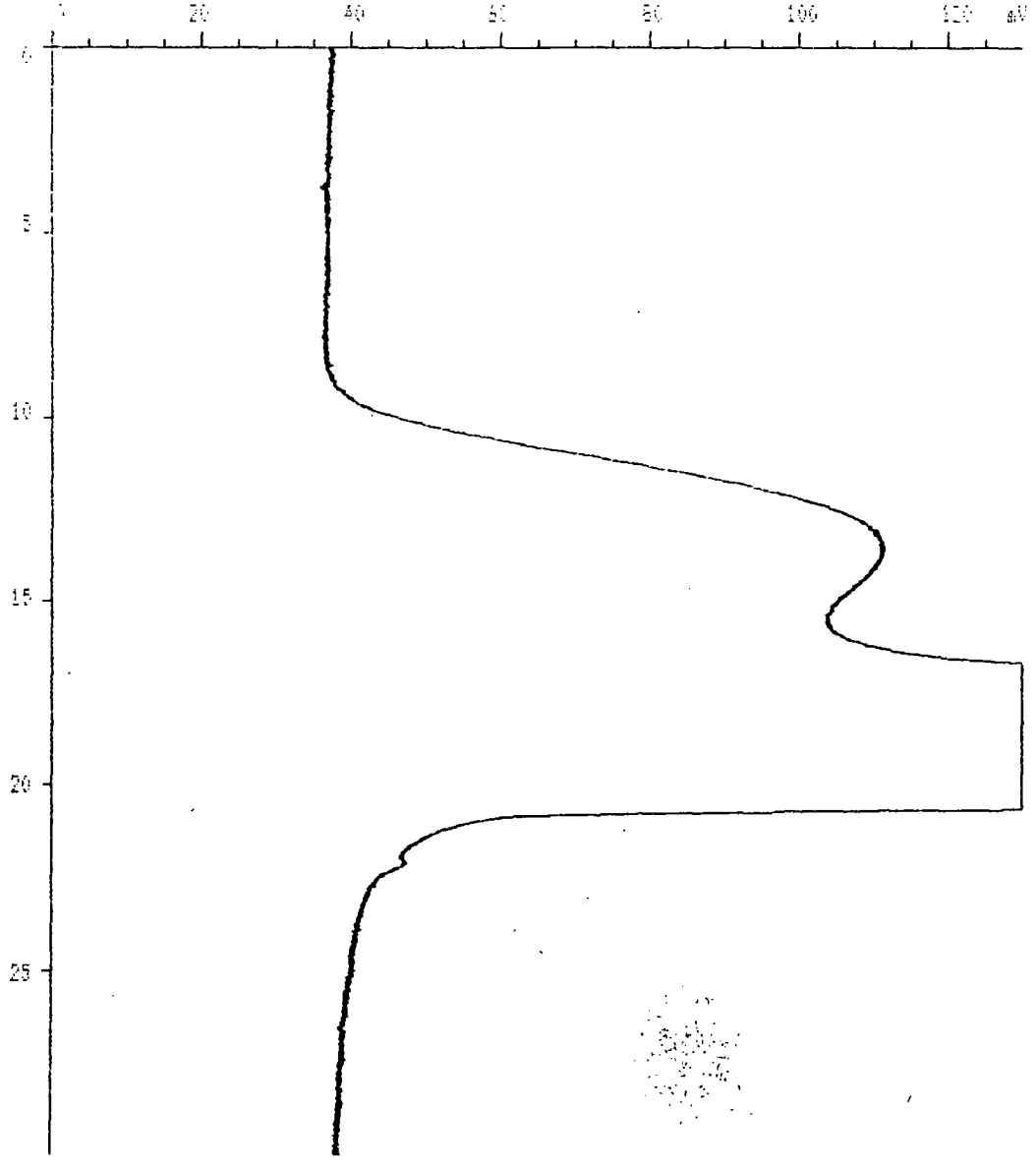
LONG PLOT

Injection C: <TIM1> 1 1GP1124A.Z1,1

Sample name.....: SV-LL-MS317
Sample ID.....: EPA-25157
ZYMARK COL# 114745 (W16257081626710)

FFG18
27683.08

Acquired on 24-Nov-96 at 20:10:49
Reported on 25-Nov-96 at 11:55:35



VG Data Systems - Minichrom v1.65

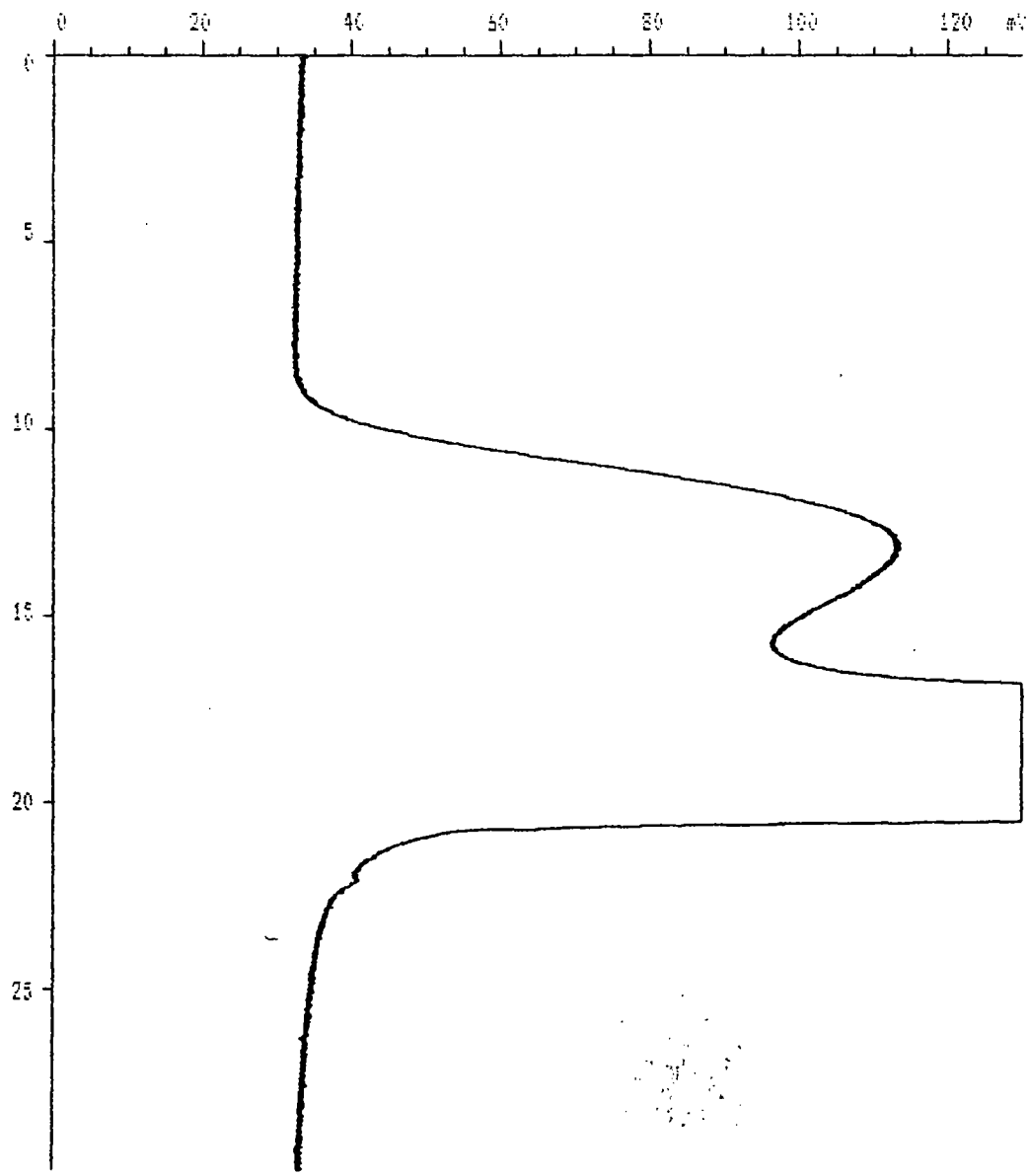
LONG PLOT

Injection C: <TIM1> 1 1GP1124A,22.1

Sample name.....: SV-LL-MS517
Sample ID.....: EPA-25155
ZYMARK COL# 115745 (w162670&162671G)

FFG17
27683.07

Acquired on 24-Nov-96 at 20:41:07
Reported on 25-Nov-96 at 11:37:29



VG Data Systems - Minichrom v1.65

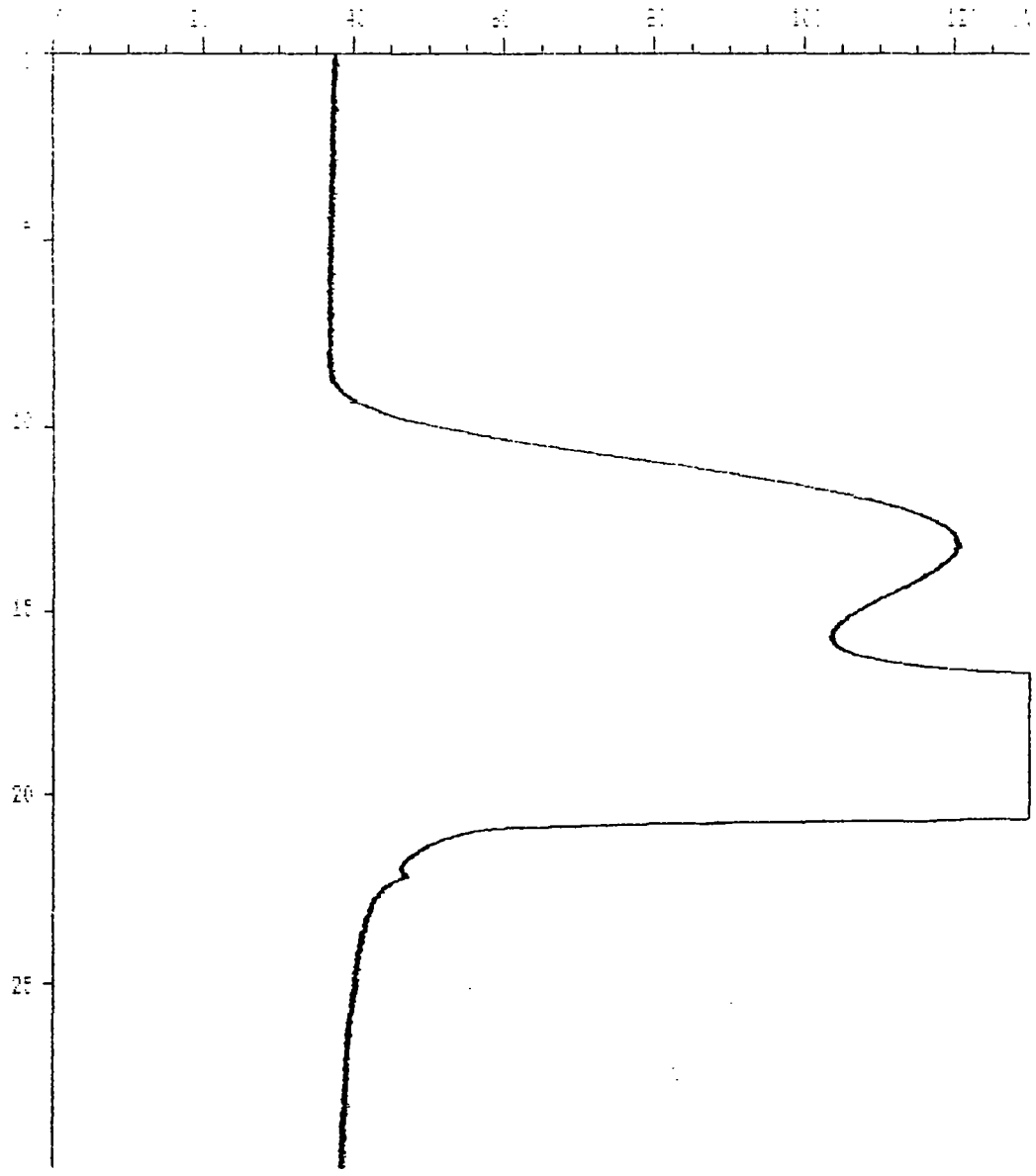
LONG PLOT

Injection C: <TIM1> : 1GP1124A.23.1

Sample name.....: [illegible]
Sample ID.....: [illegible]
[illegible]

Acquired on 24-Nov-96 at 21.11.[illegible]
Re[illegible] 25-Nov-96 at [illegible]

FFG 21
27683.09



VG Data Systems - Minichrom v1.65

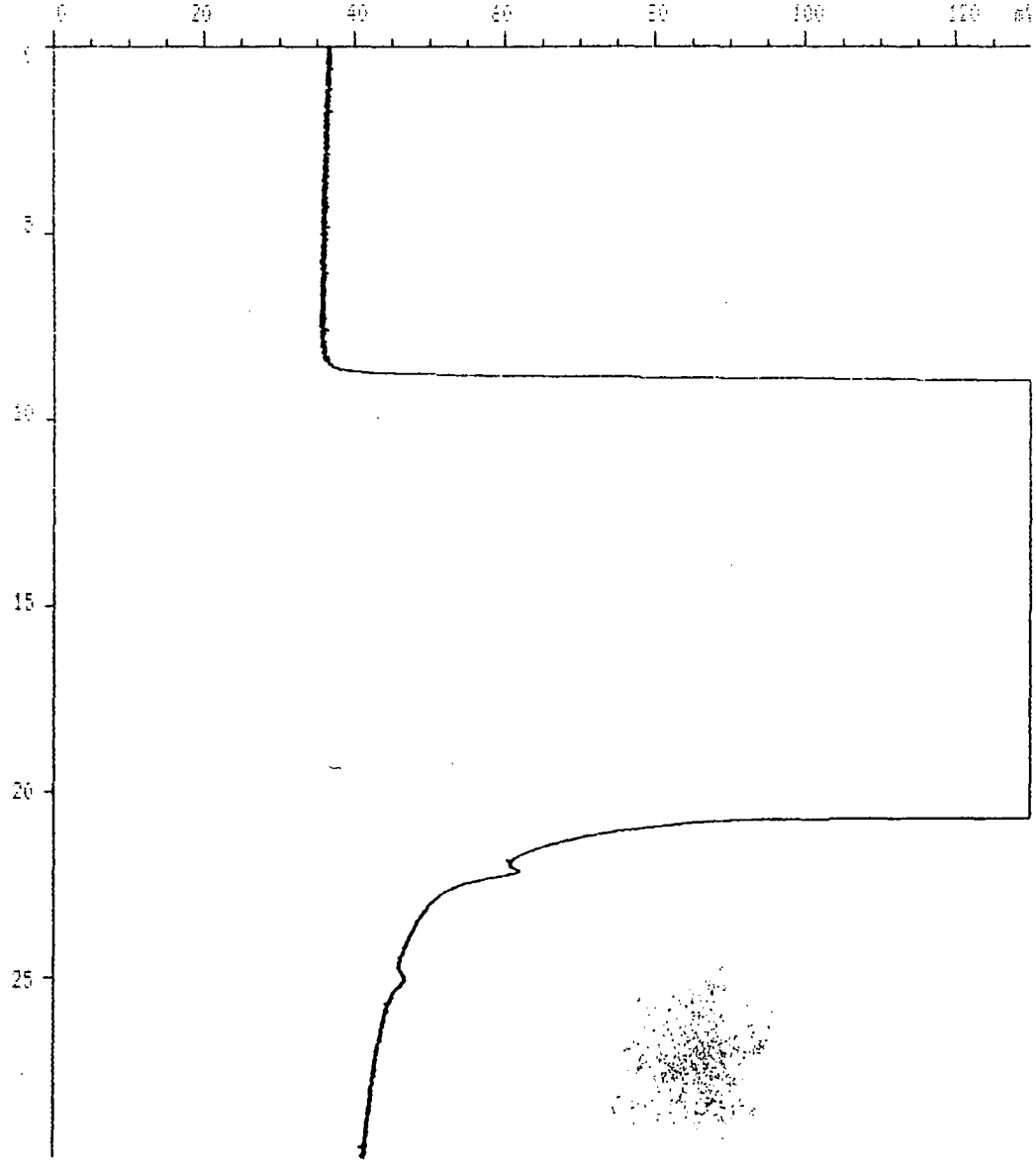
LONG PLOT

Injection C: <TIM1> 1 1GP1124A,24.1

Sample name.....: SV-LL-MS517
Sample ID.....: EPA-25159
ZYMARK COL# 114745 (w16267081626710)

FFG-06
27683.01

Acquired on 24-Nov-96 at 21:41:43
Reported on 25-Nov-96 at 11:41:13



VG Data Systems - Minichrom v1.6?

[illegible] PLOT

Injection [illegible]

FINAL

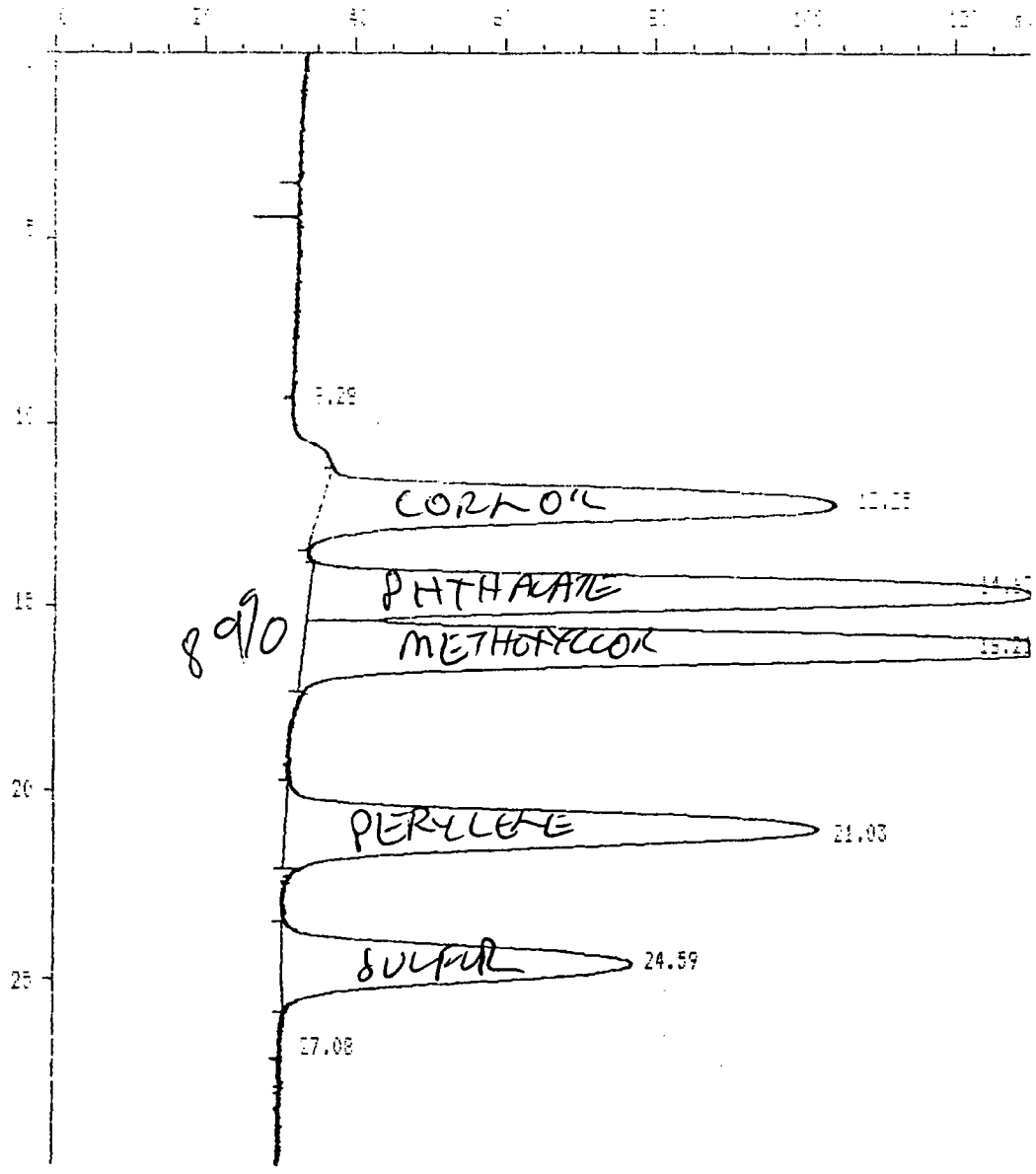
Sample [illegible]

Sample ID.....

ZYMARK [illegible]

Acquired on 25-Nov-96 at [illegible]

Recorded on 25-Nov-96 at [illegible]



CHROMATOGRAPHY

EXTRACTIONS DEPARTMENT

26P1214A=36

COLLECT=50mls

COLUMN ID: 169014 (MARATHON)
CLIENT: EPA, EPA, EPA(R) EPA(R)
FRACTION: SV (LOW LVL)
PROTOCOL: MS517
CYCLE: 14-10-7
CASE NUMBER: 25196, 25196, 25159(R) 25160(R)

(*) INITIAL CAL STD: 12/14/96 @ 12:22

OPERATOR	DATE	TIME	POSITION #	SAMPLE I.D.		
TR	12-14-96	15:30	7	SB-121496A		25159(R)
		16:01	8	SB-121496B		25160(R)
		16:33	9	SB-121496C		25196
		17:04	10	SB-121496E		*
		17:36	11	BL-12105C		
		18:07	12	BB 12105C		
		18:39	13	BL 12115E		*
		19:11	14	BB 12115E		25196 *
		19:42	15	BL 12115A		25159(R)
		20:13	16	BB 12115A		25159(R)
		20:45	17	BL 12115B		25160(R)
		21:16	18	BB 12115B		
		21:48	19	FEX 72	27707.04	25160(R)
		22:19	20	FFG 24	27683.10	25159(R)
		22:50	21	FFG 24ms	.10ms	
		23:22	22	FFG 06	27683.01	25159(R)
		23:53	23	EBAG 9ms	27888.08ms	25196 *
	12-14-96	00:24	24	9msD	.08msD	*
	12-15-96	00:56	25	9	.08	
		01:28	26	5	.06	
		01:59	27	4	.05	
		02:30	28	2	.03	
		03:02	29	3	.04	
		03:33	30	EBAG 6	.07	
		04:04	31	EBAF 6	.01	
		04:36	32	7 DILUTE	.02 DILUTE 1:1	
TR	12-15-96	05:07	33	EBAF 7 1:1	27888.02	25196
* FINAL CAL STD:	12/15/96 @ 06:42					

ORIGINAL DOCUMENTS ARE INCLUDED IN
CCF 25159 SDG FFG02
Signature [signature]
Date 12/23/96

COMPOUND	INITIAL R.T.	FINAL R.T.	% DIFFERENCE
PHTHALATE	14.93	14.89	0.27
METHOXYCHLOR	16.47	16.45	0.12
PERYLENE	21.03	21.03	0.00

368

VG Data Systems - Minichrom v1.65

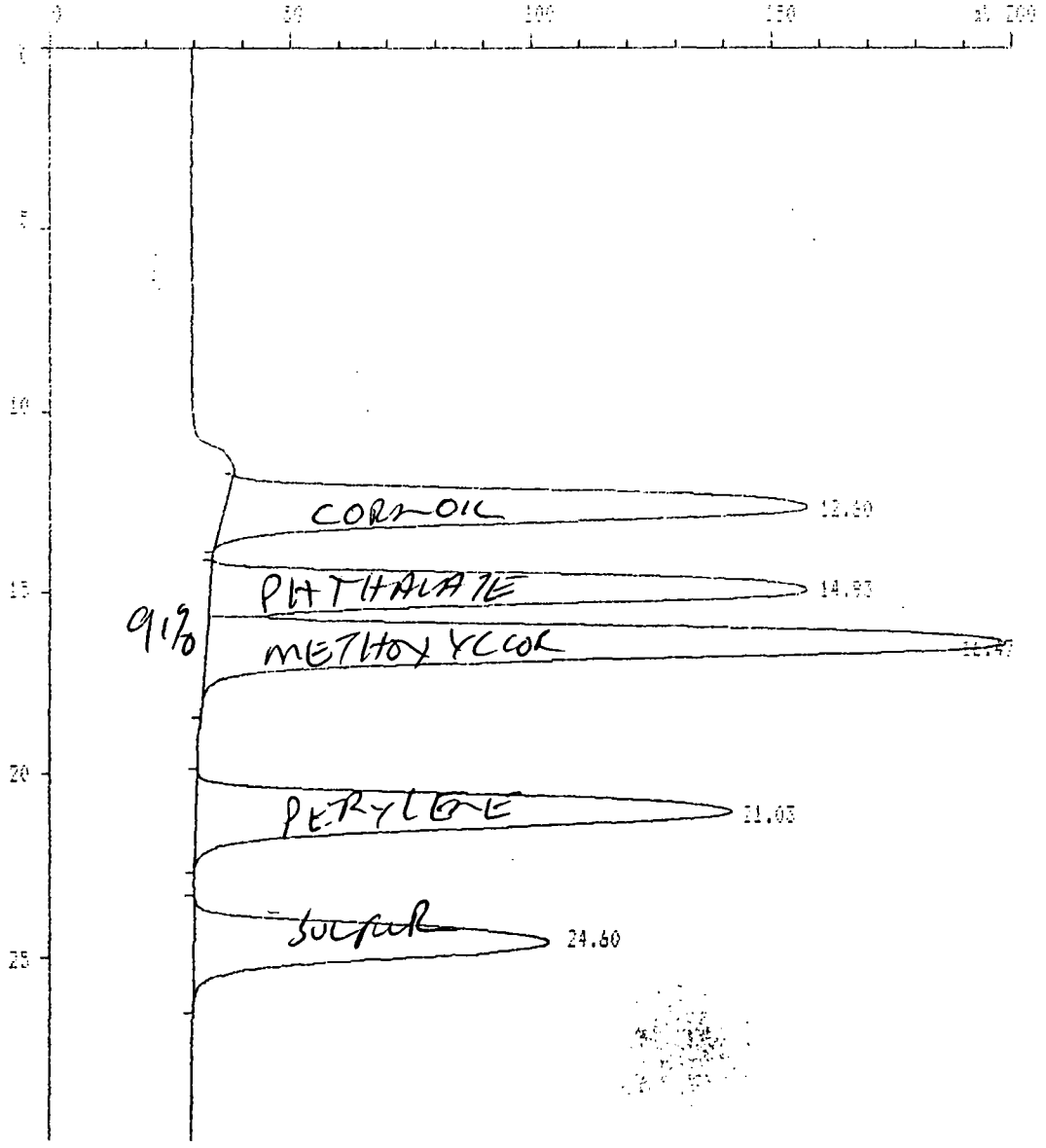
LONG PLOT

Injection C: <TIM1> 2 2GP1214A,1.1

INITIAL

Sample name.....: CAL.STD.
Sample ID.....:
MARATHON COL# 169014 (W:1411749162670)

Acquired on 14-Dec-96 at 19:22:14
Reported on 15-Dec-96 at 12:51:21



VG Data Systems - Minichrom v1.65

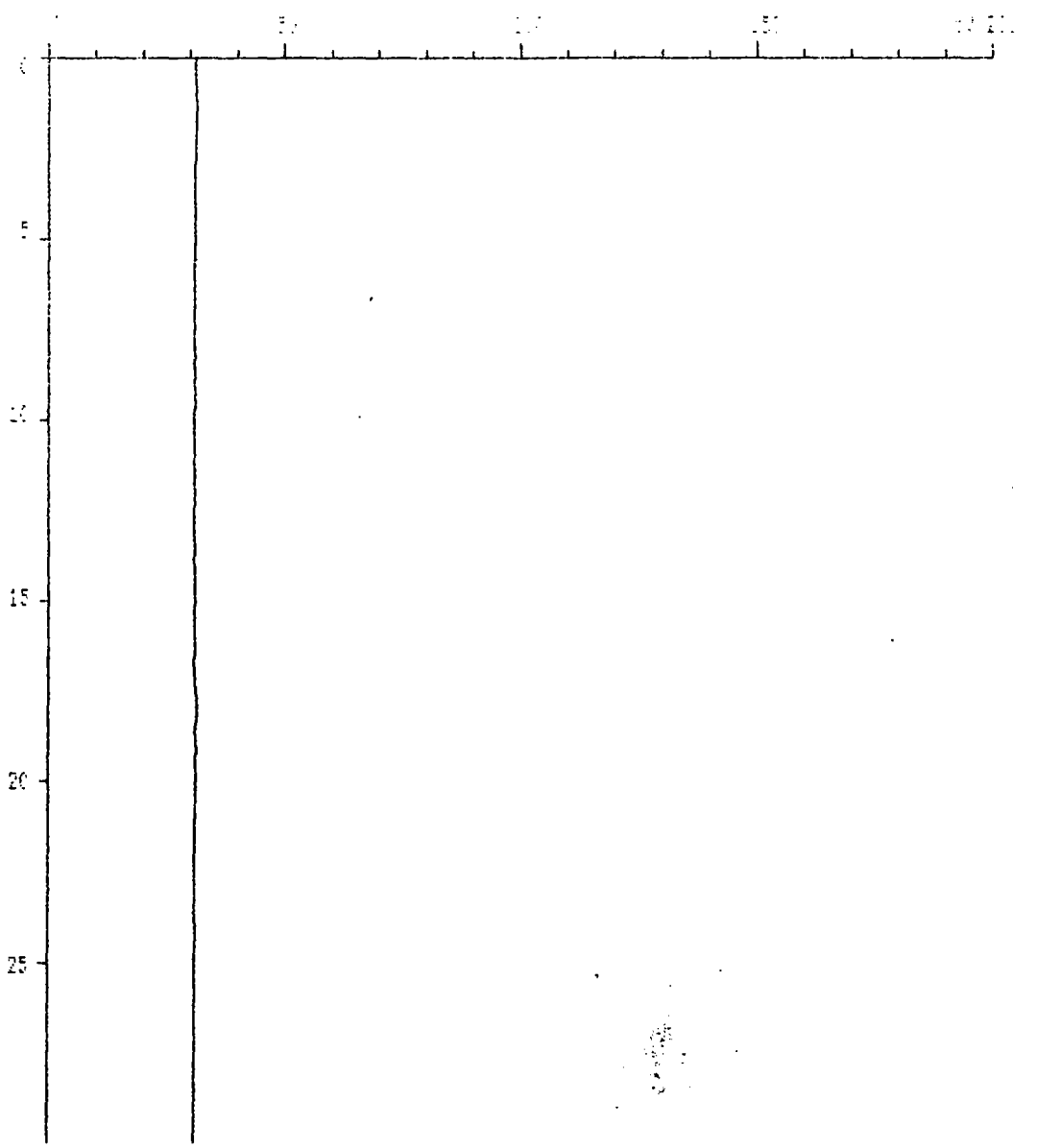
LONG PLOT

Injection Or (TIM1) 2 20F12146.7.1

Sample name..... [illegible]
Sample ID..... [illegible]
[illegible]

SB 121496A

Acquired on 14-Dec-9[illegible] at [illegible]
Reported on 15-Dec-[illegible] at [illegible]



VG Data Systems - Minichrom v1.65

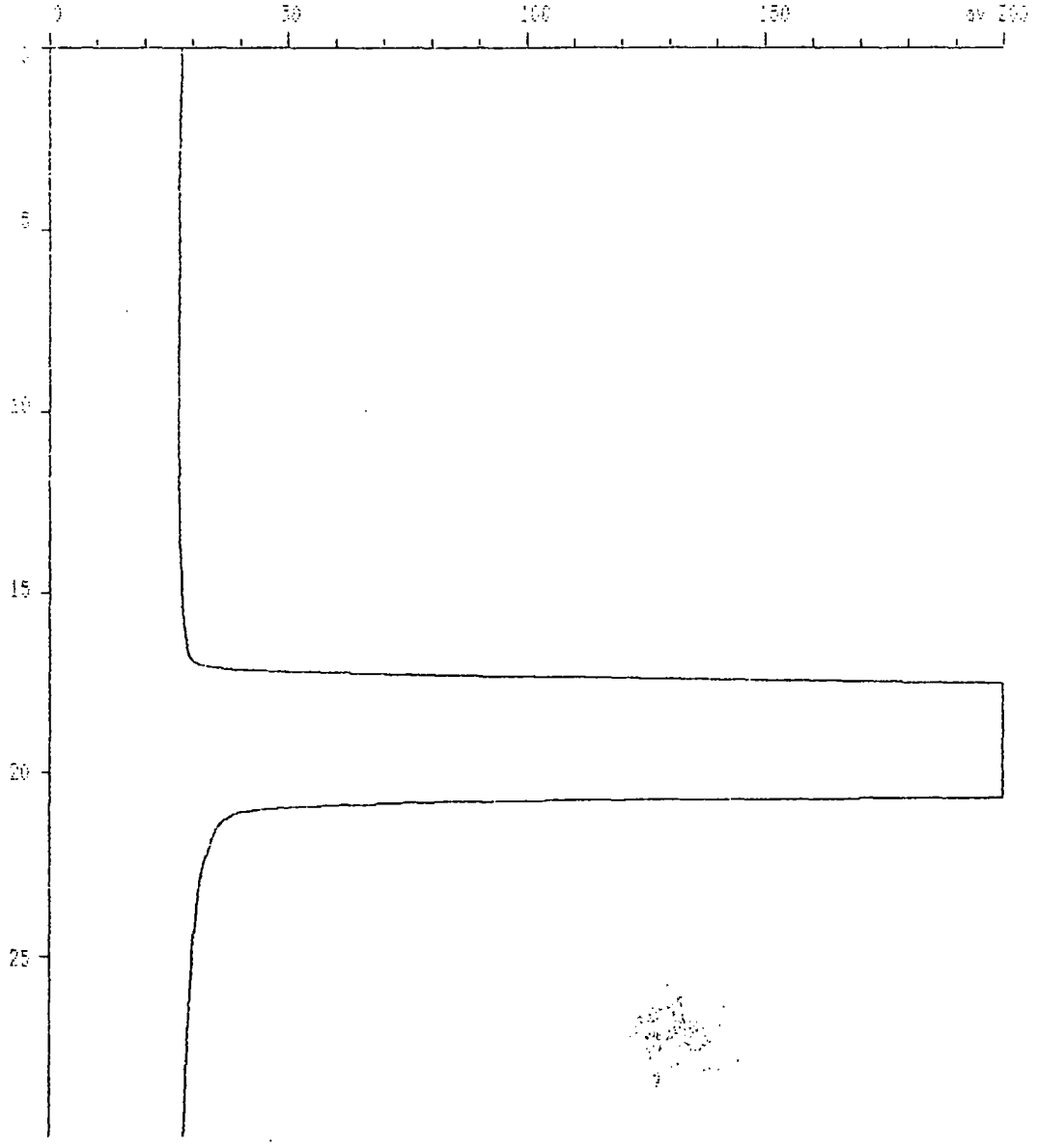
LONG PLOT

Injection C: <TIM1> 2 2GP1214A,15,1

Sample name.....: SV-LOW LVL *REEXTRACT*
Sample ID.....: EPA-25159
MARATHON COL# 169014 (W:141174&162670)

BL12115A

Acquired on 14-Dec-96 at 19:42:22
Reported on 15-Dec-96 at 13:09:44



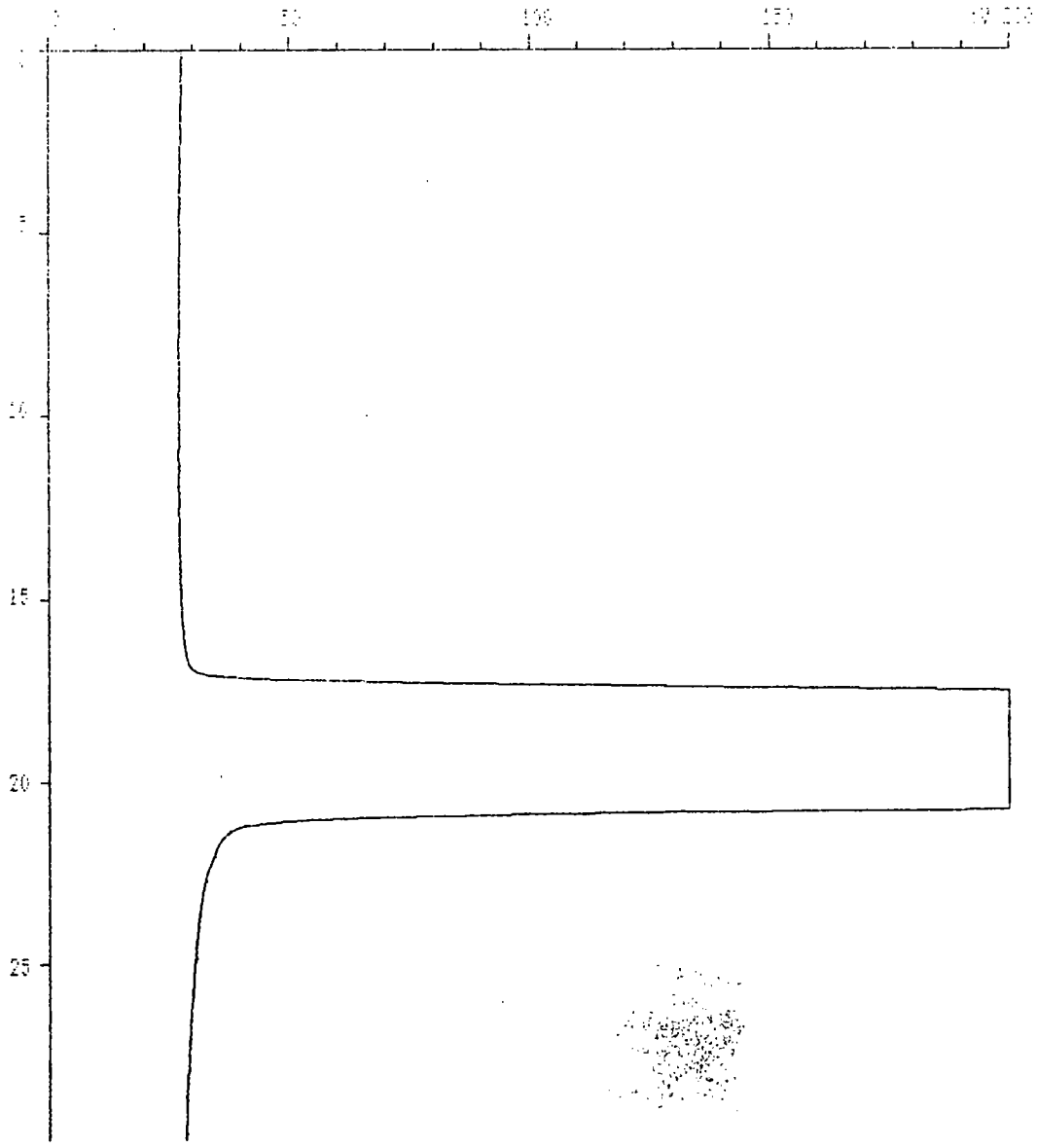
VG Data Systems - Minichrom v1.65

LONG PLOT

Injection C: <TIM1> 2 2GF1214A.16.1

Sample name..... SV-LOW LVL %REEXTRACT%
Sample ID..... EPA-25159
MARATHON SOL# 169014 (W:1[illegible]) BB1211SA

Acquired on 14-Dec-96 at 20:13:27
Reported on 15-Dec-96 at 13:11:06



VG Data Systems - Minichrom v1.65

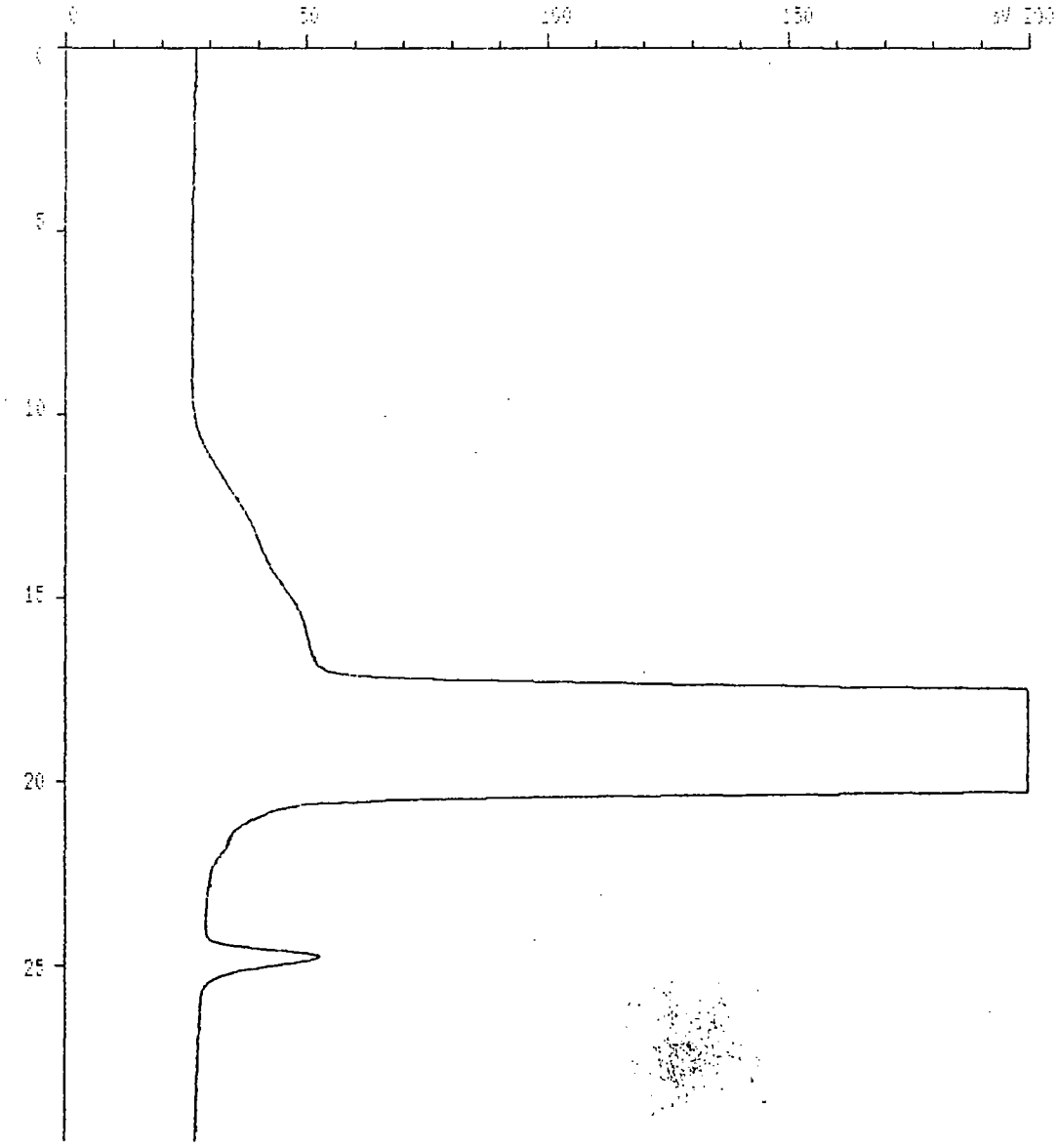
LONG PLOT

Injection C: <TIM1> 2 2GP1214A.20.1

Sample name.....: SV-LOW LVL *REEXTRACT*
Sample ID.....: EFA-25159
MARATHON COL# 169014 (W:141194&162670)

FFG 24
27683.10

Acquired on 14-Dec-96 at 22:17:13
Reported on 15-Dec-96 at 13:16:44



VG Data Systems - Minichrom v1.65

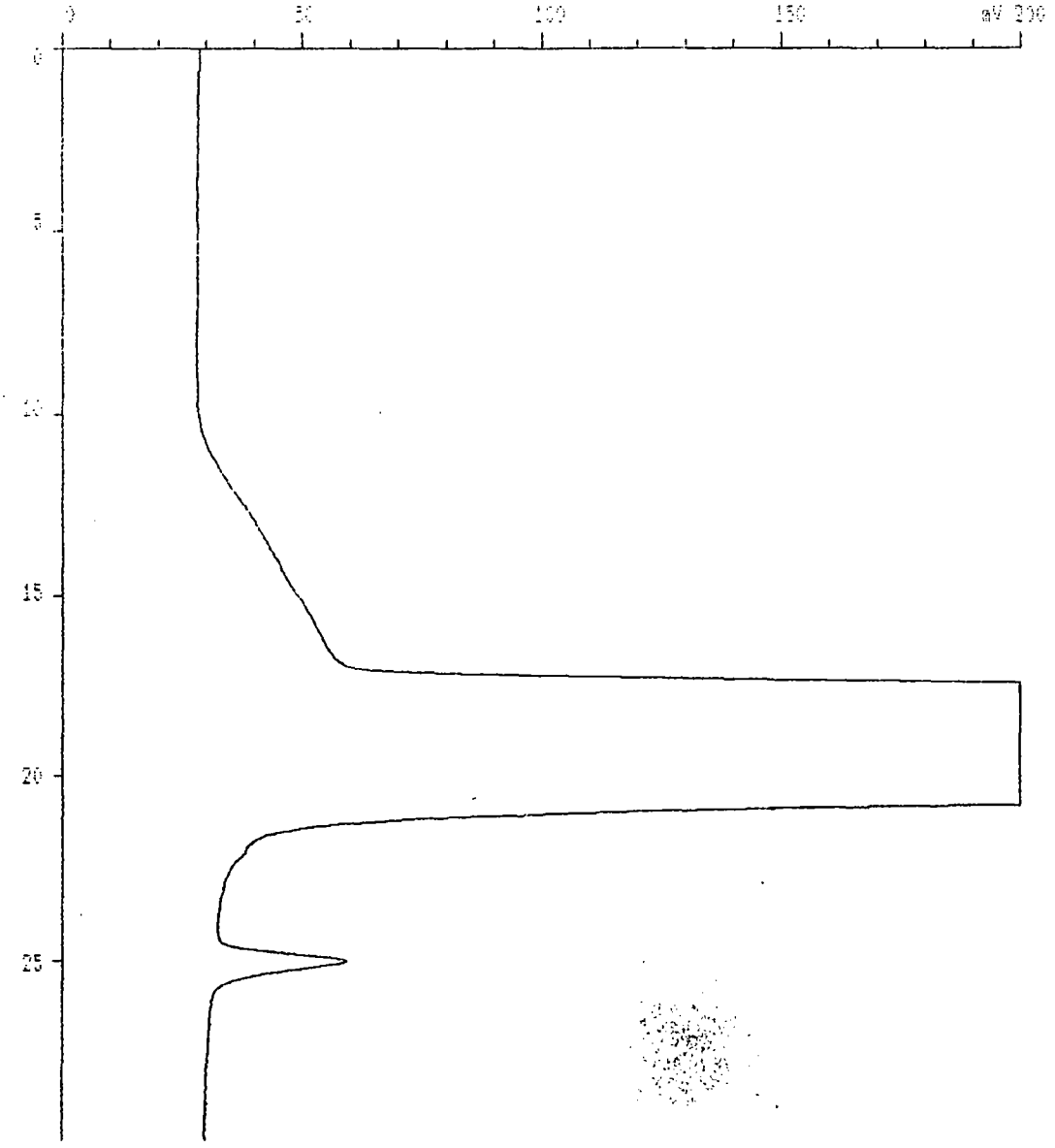
LONG PLOT

Injection C: <TIMi> 2 2GP1214A,21,1

Sample name.....: SV-LOW LVL %REEXTRACT%
Sample ID.....: EPA-25159
MARATHON COL# 169014 (W:1411948162870)

FFG-24ms
2 7683.10ms

Acquired on 14-Dec-96 at 22:50:50
Reported on 15-Dec-96 at 13:13:08



VG Data Systems - Minichrom v1.65

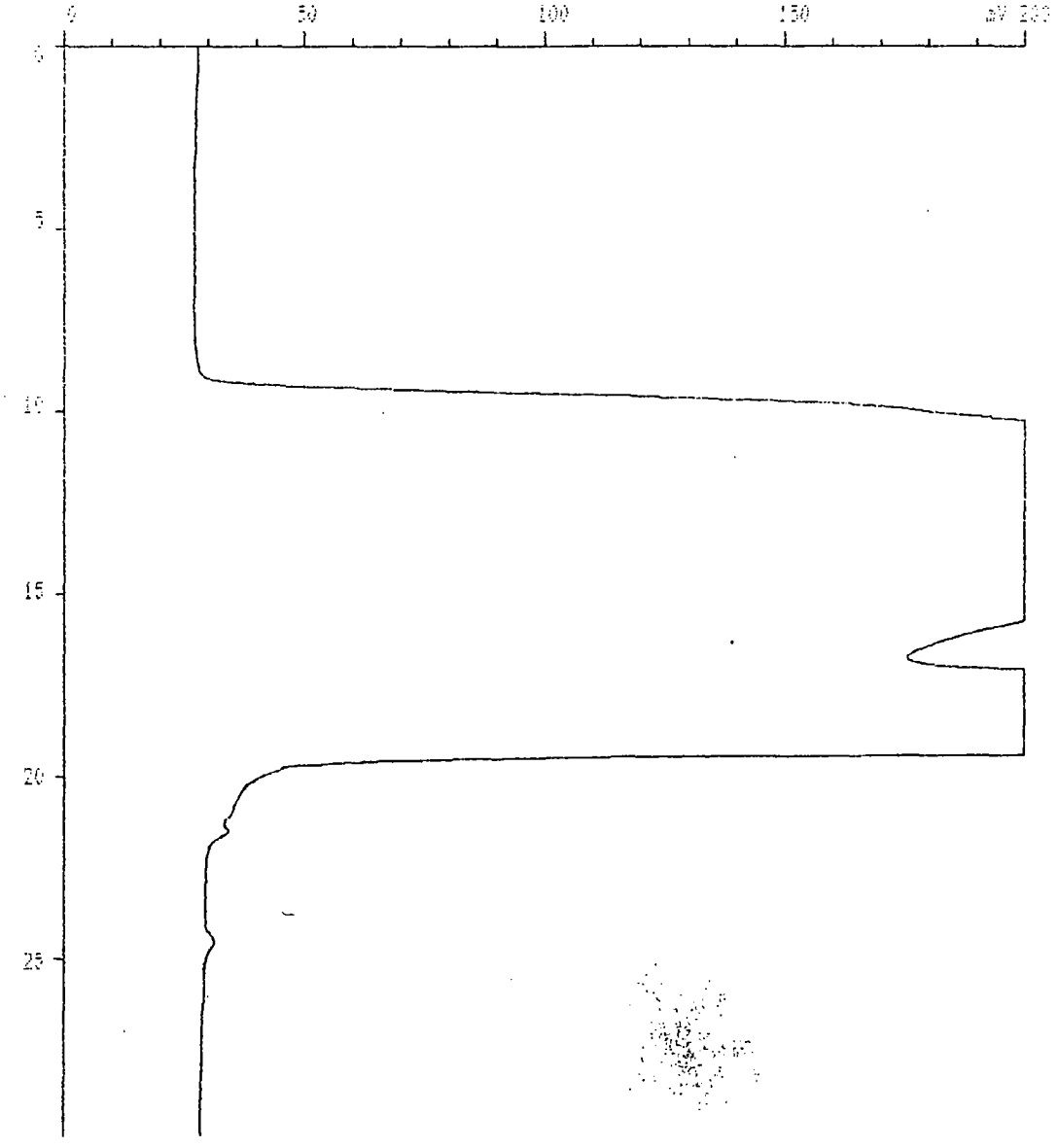
LONG PLOT

Injection C: <TIM1> 2 20P1214A.22.1

Sample name.....: BV-LOW LVL *REEXTRACT*
Sample ID.....: EPA-25159
MARATHON CCLW 169014 (W:141194&162670)

FFG-06
27683.01

Acquired on 14-Dec-96 at 23:22:02
Reported on 15-Dec-96 at 13:19:38



VG Data Systems - Minimum [illegible]

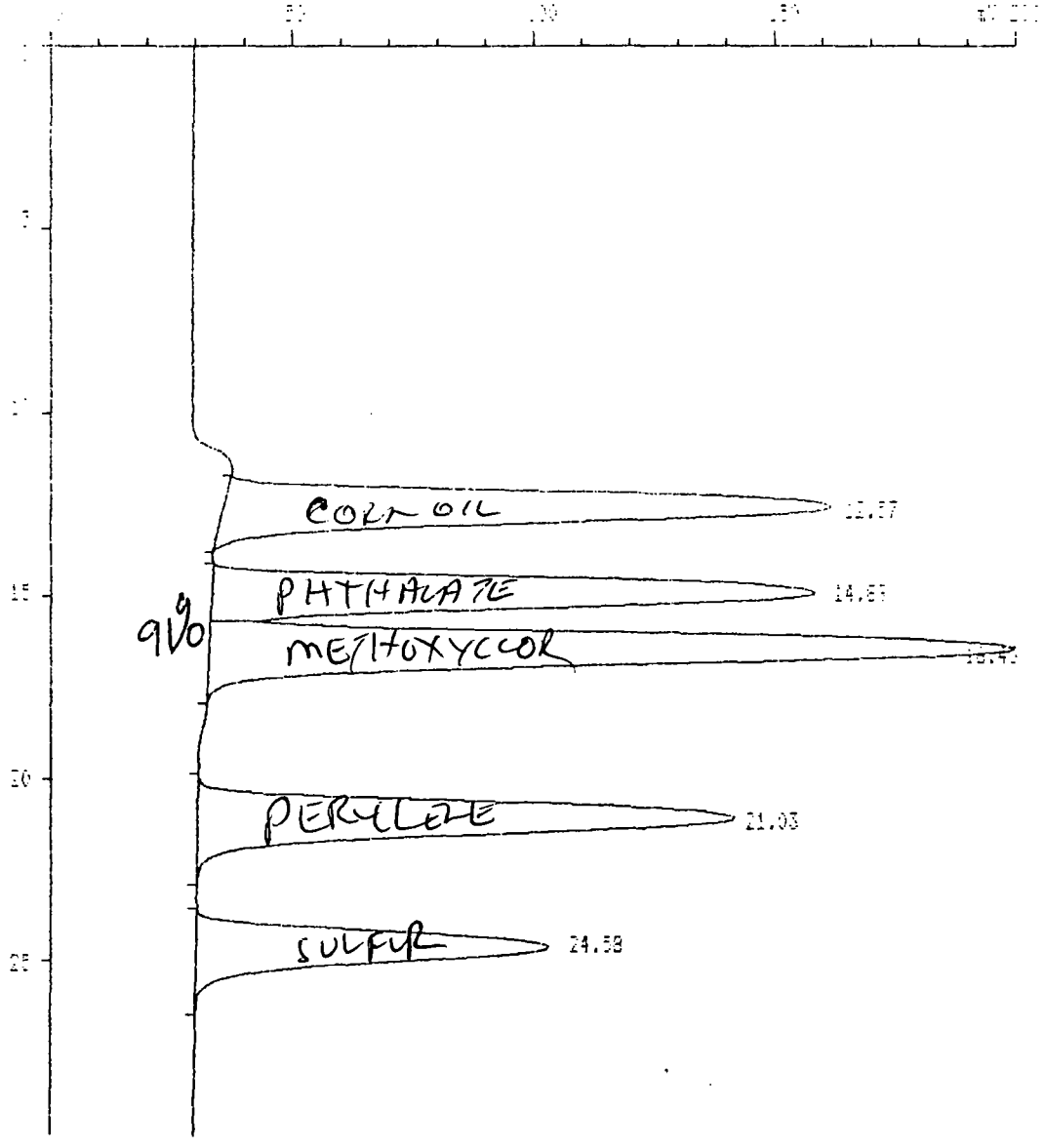
[illegible]

Injection C: [illegible]

FINAL

Sample Name..... [illegible]
Sample ID..... [illegible]
MARATHON [illegible]

Acquired on [illegible]
Recorded on [illegible]



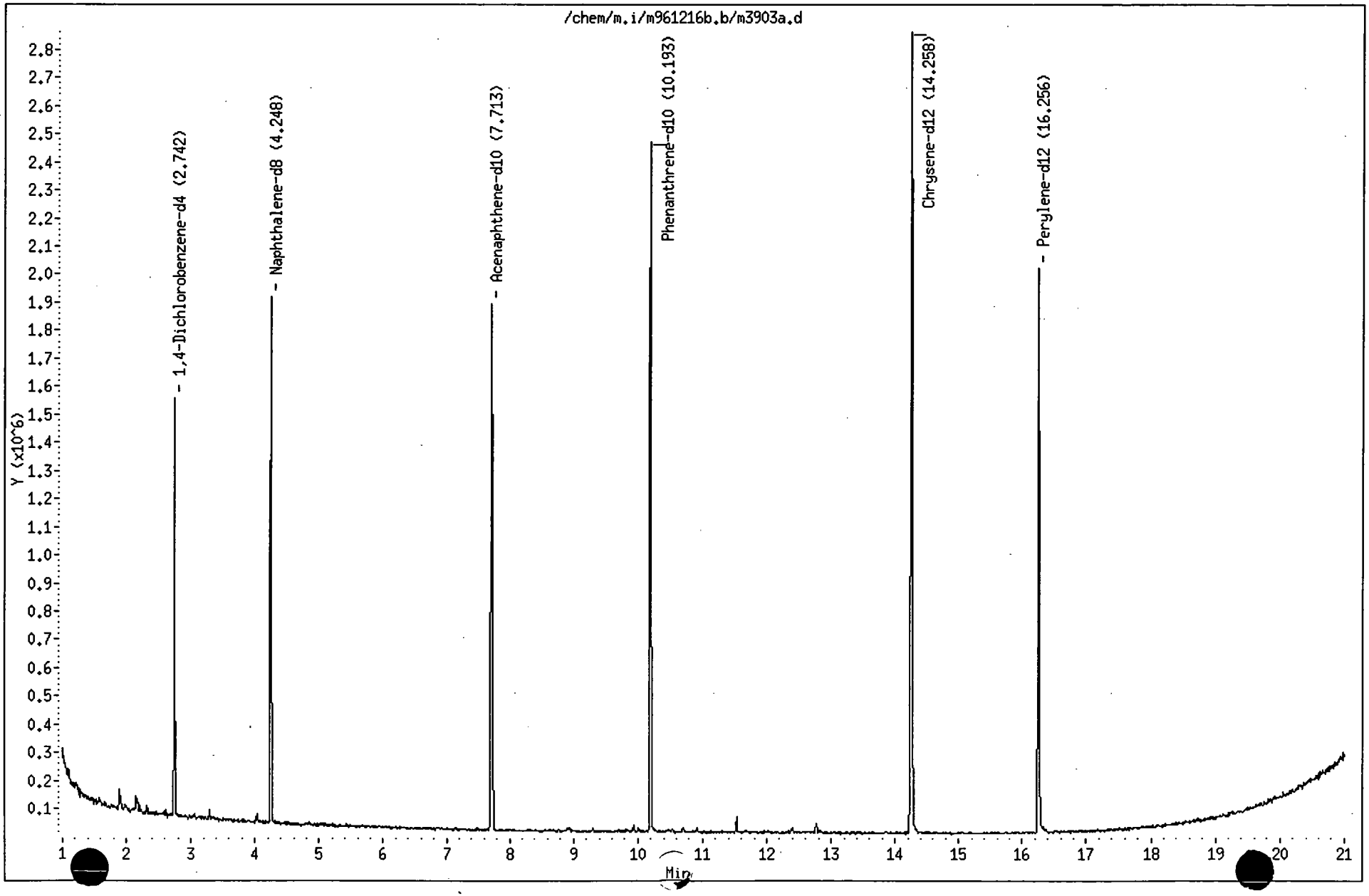
Data File: /chem/m.i/m961216b.b/m3903a.d
Date : 16-DEC-1996 20:24
Instrument : m.i
Sample ID : GPC BLK
Column phase : XTI-5
Volume Injected (uL) : 2.0

OK 12/20/96

OPERATOR: Ann

Column diameter : 0.25

377



Data File: /chem/m.i/m961216b.b/m3903a.d
Report Date: 17-Dec-1996 21:26

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/m.i/m961216b.b/m3903a.d
Lab. Id. : G121496A Quant Type: ISTD
Inj Date : 16-DEC-1996 20:24
Operator : Annie Inst ID: m.i
Smp Info : GPC BLK
Misc Info : MS517**INSTM*AATS-E:25159*G121496A*30G/0.5ML/2UL*
Comment :
Method : /chem/m.i/m961216b.b/BNA517EPA.m
Meth Date : 17-Dec-1996 21:24 ann
Cal Date : 16-DEC-1996 15:26 Cal File: m3893.d
Als bottle: 10
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

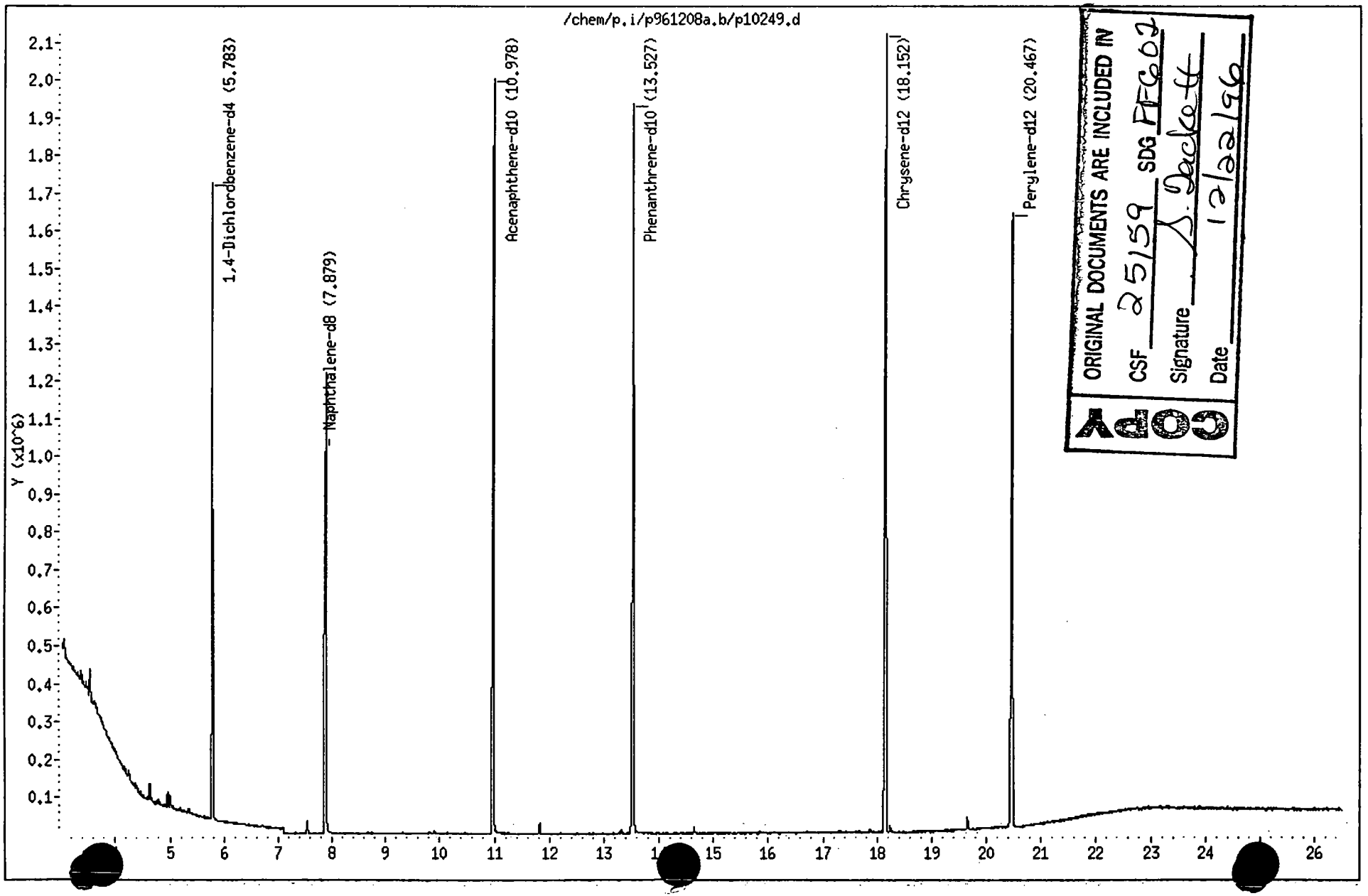
Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
* 8 1,4-Dichlorobenzene-d4	152.00	2.742	(1.000)	266390	40.00	
* 25 Naphthalene-d8	135.65	4.248	(1.000)	983332	40.00	
* 40 Acenaphthene-d10	164.00	7.713	(1.000)	669501	40.00	
* 57 Phenanthrene-d10	187.65	10.193	(1.000)	1316394	40.00	
* 67 Chrysene-d12	240.00	14.258	(1.000)	1265492	40.00	
* 75 Perylene-d12	264.00	16.256	(1.000)	1130436	40.00	

Data File: /chem/p.i/p961208a.b/p10249.d
Date : 08-DEC-1996 19:46
Instrument : p.i
Sample ID : GPC BLK
Column phase : XTI-5
Volume Injected (uL) : 2.0

OK 12/20/96

Column diameter : 0.25

OPERATOR: Ann



ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG PFC602
Signature S. Jackoff
Date 12/22/96
COPY

Data File: /chem/p.i/p961208a.b/p10249.d
Report Date: 09-Dec-1996 13:29

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

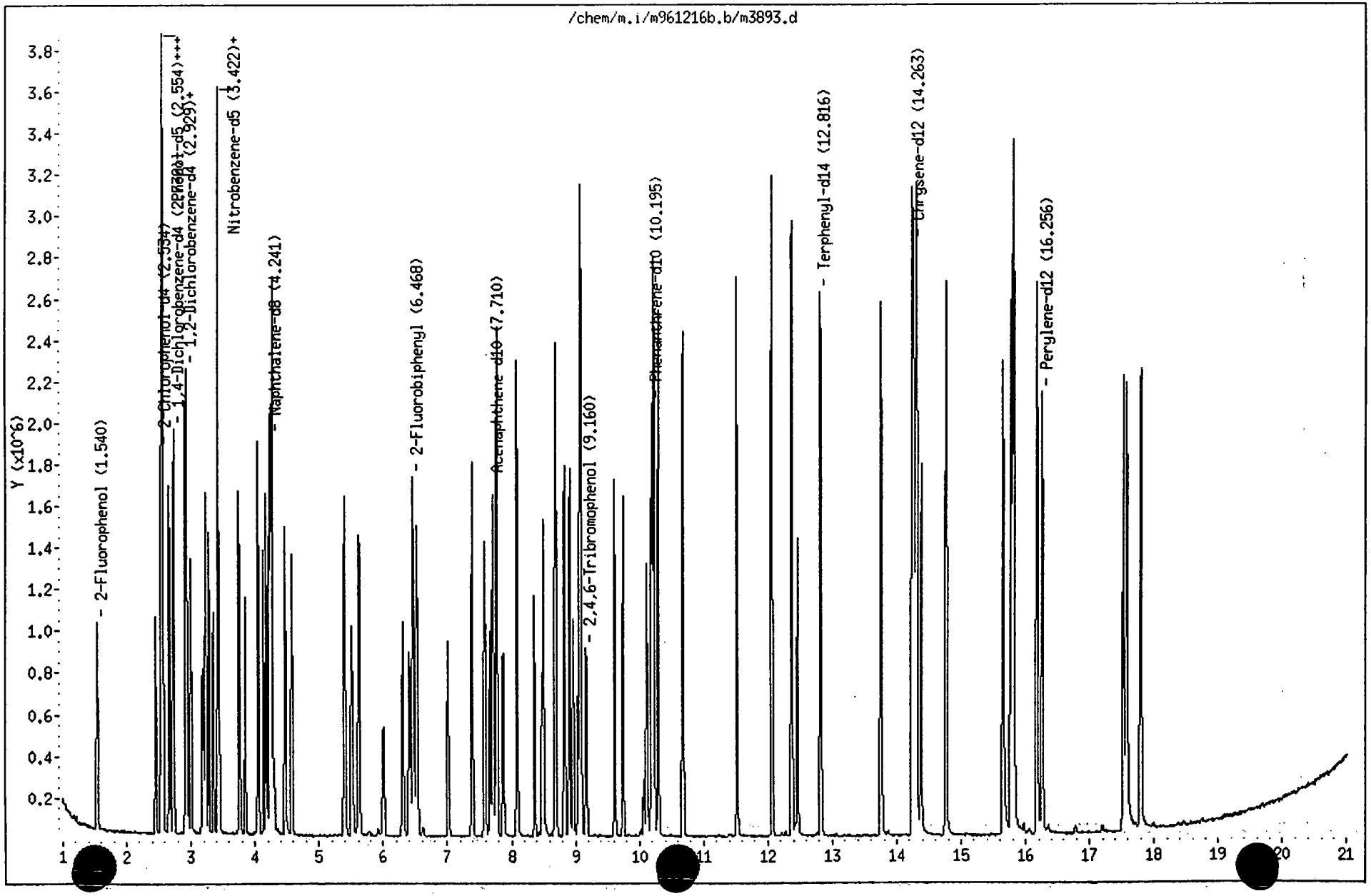
Data file : /chem/p.i/p961208a.b/p10249.d
Lab. Id. : G112496A Quant Type: ISTD
Inj Date : 08-DEC-1996 19:46
Operator : Annie Inst ID: p.i
Smp Info : GPC BLK
Misc Info : MS517**INSTP*AATS-E:25159*G112496A*30G/0.5ML/2UL*
Comment :
Method : /chem/p.i/p961208a.b/BNA517EPA.m
Meth Date : 09-Dec-1996 13:23 ann
Cal Date : 08-DEC-1996 15:49 Cal File: p10242.d
Als bottle: 6
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
* 8 1,4-Dichlorobenzene-d4	151.85	5.783	(1.000)	371488	40.00	
* 25 Naphthalene-d8	135.65	7.879	(1.000)	739310	40.00	
* 40 Acenaphthene-d10	164.00	10.978	(1.000)	697946	40.00	
* 57 Phenanthrene-d10	187.65	13.537	(1.000)	1276311	40.00	
* 7 Chrysene-d12	240.00	18.152	(1.000)	1198756	40.00	
* 75 Perylene-d12	264.00	20.467	(1.000)	1203421	40.00	

Data File: /chem/m.i/m961216b.b/m3893.d
Date : 16-DEC-1996 15:26
Instrument : m.i
Sample ID : SSTD050MX
Column phase : XTI-5
Volume Injected (uL) : 2.0

OPERATOR: AMB

Column diameter : 0.25



Data File: /chem/m.i/m961216b.b/m3893.d
Report Date: 16-Dec-1996 15:37

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/m.i/m961216b.b/m3893.d
Lab. Id. : SSTD050MX
Inj Date : 16-DEC-1996 15:26
Operator : Annie
Smp Info : SSTD050MX
Misc Info : MS517**INSTM*SSTD050MX*1-106-12*2UL*
Comment :
Method : /chem/m.i/m961216b.b/BNA517EPA.m
Meth Date : 16-Dec-1996 15:37 ann
Cal Date : 16-DEC-1996 15:26
Als bottle: 99
Dil Factor: 1.000
Integrator: HP RTE
Sample Type: WATER

Quant Type: ISTD
Inst ID: m.i
Cal File: m3893.d
Continuing Calibration Sample
Target Version: Target 3.00
Compound Sublist: all.sub

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
$ 1 2-Fluorophenol	112.00	1.540	(0.566)	360309	49.27	24.63
$ 2 Phenol-d5	98.80	2.554	(0.938)	547553	51.75	25.87
4 bis(2-Chloroethyl)Ether	93.00	2.554	(0.938)	422401	51.36	25.68
3 Phenol	94.00	2.564	(0.942)	579933	50.41	25.20
2-Chlorophenol	128.00	2.544	(0.935)	470706	52.20	26.10
2-Chlorophenol-d4	132.00	2.534	(0.931)	448252	51.95	25.97
7 1,3-Dichlorobenzene	146.00	2.663	(0.978)	526007	51.35	25.67
* 8 1,4-Dichlorobenzene-d4	152.00	2.722	(1.000)	289806	40.00	
9 1,4-Dichlorobenzene	146.00	2.732	(1.004)	559419	52.44	26.22
$ 10 1,2-Dichlorobenzene-d4	152.00	2.919	(1.072)	311772	53.42	26.71
11 1,2-Dichlorobenzene	146.00	2.939	(1.080)	517898	52.02	26.01
13 2,2'-oxybis(1-Chloropropane)	45.00	3.186	(1.170)	515065	50.86	25.43
12 2-Methylphenol	108.00	3.235	(1.188)	423205	52.05	26.02
16 Hexachloroethane	117.00	3.274	(1.203)	199439	48.33	24.16
15 N-Nitroso-di-n-propylamine	70.00	3.353	(1.232)	324383	51.57	25.78
14 4-Methylphenol	108.00	3.422	(1.257)	459114	51.51	25.75
$ 17 Nitrobenzene-d5	82.00	3.422	(0.807)	453534	57.37	28.68
18 Nitrobenzene	77.00	3.442	(0.812)	635905	59.51	29.75
19 Isophorone	82.00	3.748	(0.884)	896757	60.55	30.27
20 2-Nitrophenol	139.00	3.846	(0.907)	294385	58.25	29.12
21 2,4-Dimethylphenol	107.00	4.043	(0.953)	424155	57.19	28.59
22 bis(2-Chloroethoxy)methane	93.00	4.132	(0.974)	570344	59.56	29.78
23 2,4-Dichlorophenol	162.00	4.172	(0.984)	396659	53.24	26.62
24 1,2,4-Trichlorobenzene	180.00	4.221	(0.995)	430798	52.70	26.35
* 25 Naphthalene-d8	135.65	4.241	(1.000)	914197	40.00	
26 Naphthalene	128.00	4.261	(1.005)	1295169	52.86	26.43
27 4-Chloroaniline	127.00	4.468	(1.054)	496849	55.10	27.55
28 Hexachlorobutadiene	224.80	4.577	(1.079)	249810	55.11	27.55
29 4-Chloro-3-Methylphenol	107.00	5.512	(1.300)	393509	52.84	26.42
30 2-Methylnaphthalene	142.00	5.394	(1.272)	839582	53.89	26.95
31 Hexachlorocyclopentadiene	236.80	6.005	(0.779)	167942	39.12	19.56

Data File: /chem/m.i/m961216b.b/m3893.d
Report Date: 16-Dec-1996 15:37

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	32 2,4,6-Trichlorophenol	196.00	6.300	(0.817)	285774	51.05	25.52
	33 2,4,5-Trichlorophenol	196.00	6.399	(0.830)	304961	48.81	24.40(a)
$	34 2-Fluorobiphenyl	172.00	6.468	(0.839)	980570	52.18	26.09
	35 2-Chloronaphthalene	162.00	6.528	(0.847)	878319	51.33	25.66
	36 2-Nitroaniline	65.00	7.010	(0.909)	233909	48.19	24.09(a)
	38 Acenaphthylene	152.00	7.384	(0.958)	1380301	51.30	25.65
	37 Dimethylphthalate	163.00	7.591	(0.985)	1063183	51.85	25.92
	39 2,6-Dinitrotoluene	165.00	7.660	(0.994)	219657	51.17	25.58
*	40 Acenaphthene-d10	164.00	7.710	(1.000)	623395	40.00	
	42 Acenaphthene	153.00	7.769	(1.008)	921304	50.68	25.34
	41 3-Nitroaniline	138.00	7.878	(1.022)	273885	60.08	30.04
	43 2,4-Dinitrophenol	184.00	8.075	(1.047)	99201	40.20	20.10(a)
	44 Dibenzofuran	168.00	8.084	(1.049)	1290668	51.60	25.80
	46 2,4-Dinitrotoluene	165.00	8.360	(1.084)	332676	54.14	27.07
	45 4-Nitrophenol	109.00	8.469	(1.098)	157788	49.94	24.97(a)
	48 Fluorene	166.00	8.696	(1.128)	1056552	53.39	26.69
	49 4-Chlorophenyl-phenylether	204.00	8.834	(1.146)	527848	54.14	27.07
	47 Diethylphthalate	149.00	8.913	(1.156)	1090491	51.98	25.99
	50 4-Nitroaniline	138.00	8.972	(1.164)	305944	55.07	27.53
	51 4,6-Dinitro-2-methylphenol	198.00	9.041	(0.887)	194369	48.37	24.18(a)
	52 N-Nitrosodiphenylamine (1)	169.00	9.091	(0.892)	766065	50.77	25.39
$	53 2,4,6-Tribromophenol	329.80	9.170	(0.899)	154585	50.84	25.42
	54 4-Bromophenyl-phenylether	248.00	9.613	(0.943)	300802	51.67	25.83
	[illegible] Hexachlorobenzene	283.80	9.751	(0.956)	337868	52.49	26.24
	56 Pentachlorophenol	265.80	10.116	(0.992)	218414	50.13	25.06
*	57 Phenanthrene-d10	187.65	10.195	(1.000)	1136287	40.00	
	58 Phenanthrene	178.00	10.225	(1.003)	1564944	50.46	25.23
	59 Anthracene	178.00	10.294	(1.010)	1445985	50.37	25.18
	60 Carbazole	167.00	10.678	(1.047)	1493207	50.98	25.49
	61 Di-n-butylphthalate	149.00	11.525	(1.130)	1922800	51.10	25.55
	62 Fluoranthene	202.00	12.066	(1.184)	1728760	53.09	26.55
	63 Pyrene	202.00	12.382	(0.868)	1814369	54.17	27.08
$	64 Terphenyl-d14	244.00	12.816	(0.898)	1156725	53.91	26.95
	65 Butylbenzylphthalate	149.00	13.751	(0.964)	925678	52.16	26.08
	66 Benzo(a)anthracene	228.00	14.243	(0.999)	1685494	52.30	26.15
*	67 Chrysene-d12	240.00	14.263	(1.000)	1079206	40.00	
	69 Chrysene	228.00	14.303	(1.003)	1772353	55.15	27.57
	68 3,3'-Dichlorobenzidine	252.00	14.373	(1.008)	531415	53.31	26.65
	70 bis(2-Ethylhexyl)phthalate	149.00	14.757	(1.035)	1265251	53.88	26.94
	71 Di-n-octylphthalate	149.00	15.643	(0.962)	1968212	52.60	26.30
	72 Benzo(b)fluoranthene	252.00	15.782	(0.971)	1656806	48.94	24.47
	73 Benzo(k)fluoranthene	252.00	15.811	(0.973)	2143143	61.32	30.66
	74 Benzo(a)pyrene	252.00	16.177	(0.995)	1426787	53.35	26.67
*	75 Perylene-d12	264.00	16.256	(1.000)	1084567	40.00	
	76 Indeno(1,2,3-cd)pyrene	276.00	17.527	(1.078)	1252852	54.79	27.39
	77 Dibenz(a,h)anthracene	278.00	17.576	(1.081)	1240704	54.90	27.45
	78 Benzo(g,h,i)perylene	276.00	17.794	(1.095)	1342983	53.91	26.95

Data File: /chem/m.i/m961216b.b/m3893.d
Report Date: 16-Dec-1996 15:37

QC Flag Legend

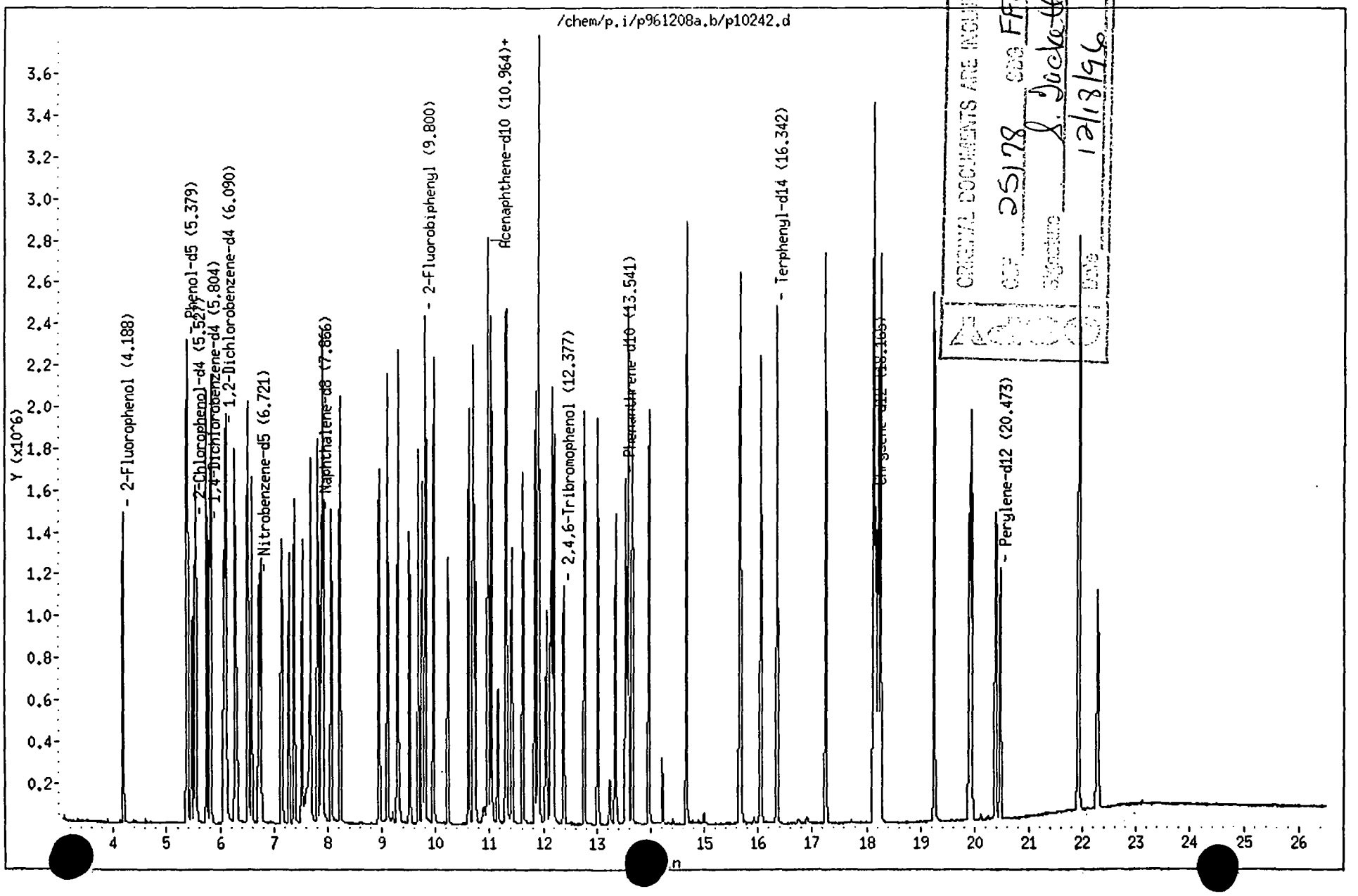
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/p.i/p961208a.b/p10242.d
Date : 08-DEC-1996 15:49
Instrument : p.i
Sample ID : SSTD050PK
Column phase : XTI-5
Volume Injected (uL) : 2.0

Column diameter : 0.25

OPERATOR: Ann

ORIGINAL DOCUMENTS ARE INCLUDED IN
OCP 25178 CDG FFG67
Signature S. Jackett
Date 12/18/96



Data File: /chem/p.i/p961208a.b/p10242.d
Report Date: 08-Dec-1996 18:41

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/p.i/p961208a.b/p10242.d
Lab. Id. : SSTD050PK Quant Type: ISTD
Inj Date : 08-DEC-1996 15:49
Operator : Annie Inst ID: p.i
Smp Info : SSTD050PK
Misc Info : MS517**INSTP*SSTD050PK*1-106-12*2UL*
Comment :
Method : /chem/p.i/p961208a.b/BNA517EPA.m
Meth Date : 08-Dec-1996 18:41 ann
Cal Date : 08-DEC-1996 15:49 Cal File: p10242.d
Als bottle: 99 Continuing Calibration Sample
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: WATER

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
$	1 2-Fluorophenol	112.00	4.188	(0.722)	507909	52.82	26.41
$	2 Phenol-d5	98.80	5.369	(0.925)	636224	54.46	27.23
	3 Phenol	94.00	5.379	(0.927)	635740	53.71	26.86(H)
	4 bis(2-Chloroethyl)Ether	93.00	5.478	(0.944)	521867	55.55	27.77(H)
	5 2-Chlorophenol-d4	132.00	5.527	(0.952)	526998	53.33	26.66
	6 2-Chlorophenol	128.00	5.547	(0.956)	532645	53.67	26.83
	7 1,3-Dichlorobenzene	146.00	5.744	(0.990)	614410	51.91	25.95(H)
*	8 1,4-Dichlorobenzene-d4	151.85	5.804	(1.000)	324340	40.00	
	9 1,4-Dichlorobenzene	146.00	5.823	(1.003)	607144	51.53	25.76
$	10 1,2-Dichlorobenzene-d4	152.00	6.090	(1.049)	333712	52.53	26.26
	11 1,2-Dichlorobenzene	146.00	6.109	(1.053)	551306	52.81	26.40
	12 2-Methylphenol	108.00	6.267	(1.080)	478100	54.76	27.38
	13 2,2'-oxybis(1-Chloropropane)	45.00	6.287	(1.083)	421582	56.28	28.14
	14 4-Methylphenol	108.00	6.504	(1.121)	499001	53.56	26.78
	15 N-Nitroso-di-n-propylamine	70.00	6.524	(1.124)	314772	53.95	26.97
	16 Hexachloroethane	117.00	6.583	(1.134)	276997	53.28	26.64
$	17 Nitrobenzene-d5	82.00	6.721	(0.854)	606384	51.05	25.52
	18 Nitrobenzene	77.00	6.751	(0.858)	551394	50.93	25.46
	19 Isophorone	82.00	7.135	(0.907)	1060096	51.01	25.50
	20 2-Nitrophenol	139.00	7.273	(0.925)	311930	51.39	25.69
	21 2,4-Dimethylphenol	107.00	7.372	(0.937)	508565	51.22	25.61
	22 bis(2-Chloroethoxy)methane	93.00	7.520	(0.956)	621694	52.33	26.16
	23 2,4-Dichlorophenol	162.00	7.678	(0.976)	431430	49.76	24.88
	24 1,2,4-Trichlorobenzene	180.00	7.807	(0.992)	477523	50.76	25.38
*	25 Naphthalene-d8	135.65	7.866	(1.000)	1053367	40.00	
	26 Naphthalene	128.00	7.906	(1.005)	1463497	50.63	25.31
	27 4-Chloroaniline	127.00	8.054	(1.024)	596447	49.94	24.97
	28 Hexachlorobutadiene	224.65	8.222	(1.045)	295667	48.29	24.14
	29 4-Chloro-3-Methylphenol	107.00	8.941	(1.137)	527379	50.06	25.03
	30 2-Methylnaphthalene	142.00	9.108	(1.158)	1011645	49.98	24.99
	31 Hexachlorocyclopentadiene	236.80	9.503	(0.867)	305453	49.66	24.83

Data File: /chem/p.i/p961208a.b/p10242.d
Report Date: 08-Dec-1996 18:41

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/L)
	32 2,4,6-Trichlorophenol	196.00	9.671	(0.882)	324107	52.84	26.42(H)
	33 2,4,5-Trichlorophenol	196.00	9.740	(0.888)	345305	51.19	25.59
$	34 2-Fluorobiphenyl	172.00	9.800	(0.894)	1042839	52.79	26.39
	35 2-Chloronaphthalene	162.00	9.958	(0.908)	933583	52.73	26.36
	36 2-Nitroaniline	65.00	10.224	(0.933)	324801	53.32	26.66
	37 Dimethylphthalate	163.00	10.608	(0.968)	1213163	52.65	26.32
	38 Acenaphthylene	152.00	10.697	(0.976)	1532129	52.86	26.43
	39 2,6-Dinitrotoluene	165.00	10.727	(0.978)	251936	51.06	25.53
*	40 Acenaphthene-d10	164.00	10.964	(1.000)	629778	40.00	
	41 3-Nitroaniline	138.00	10.964	(1.000)	302451	51.47	25.73
	42 Acenaphthene	153.00	11.023	(1.005)	888891	51.87	25.93
	43 2,4-Dinitrophenol	183.85	11.152	(1.017)	136538	43.72	21.86(a)
	44 Dibenzofuran	168.00	11.300	(1.031)	1331572	51.49	25.74
	45 4-Nitrophenol	109.00	11.320	(1.032)	246779	50.61	25.30
	46 2,4-Dinitrotoluene	165.00	11.409	(1.041)	375411	50.77	25.38
	47 Fluorene	166.00	11.912	(1.087)	1070047	50.70	25.35
	48 Diethylphthalate	149.00	11.853	(1.081)	1273446	51.10	25.55
	49 4-Chlorophenyl-phenylether	204.00	11.922	(1.087)	528063	48.33	24.16
	50 4-Nitroaniline	138.00	12.061	(1.100)	321177	50.87	25.43
	51 4,6-Dinitro-2-methylphenol	198.00	12.130	(0.896)	207405	44.86	22.43(a)
	52 N-Nitrosodiphenylamine (1)	169.00	12.160	(0.898)	747472	51.35	25.67
$	53 2,4,6-Tribromophenol	329.80	12.377	(0.914)	179830	49.64	24.82
	[illegible] 4-Bromophenyl-phenylether	248.00	12.762	(0.942)	327557	49.78	24.89
	[illegible] Hexachlorobenzene	283.80	13.018	(0.961)	363120	49.68	24.84
	56 Pentachlorophenol	265.80	13.344	(0.985)	240386	48.05	24.02(a)
*	57 Phenanthrene-d10	187.65	13.541	(1.000)	1110503	40.00	
	58 Phenanthrene	178.00	13.581	(1.003)	1444100	50.43	25.21(H)
	59 Anthracene	178.00	13.660	(1.009)	1340775	50.29	25.14
	60 Carbazole	167.00	13.966	(1.031)	1348418	51.23	25.61
	61 Di-n-butylphthalate	149.00	14.666	(1.083)	2191111	51.59	25.79
	62 Fluoranthene	202.00	15.661	(1.157)	1700878	50.20	25.10
	63 Pyrene	202.00	16.056	(0.884)	1712434	54.07	27.03
$	64 Terphenyl-d14	244.00	16.342	(0.900)	1152174	51.27	25.63
	65 Butylbenzylphthalate	149.00	17.248	(0.950)	993738	52.66	26.33
	66 Benzo(a)anthracene	228.00	18.135	(0.998)	1498690	49.24	24.62(H)
*	67 Chrysene-d12	240.00	18.165	(1.000)	818704	40.00	
	68 Chrysene	228.00	18.215	(1.003)	1223039	49.09	24.54
	69 bis(2-Ethylhexyl)phthalate	149.00	18.255	(1.005)	1100637	50.72	25.36
	70 Di-n-octylphthalate	149.00	19.240	(0.940)	1988076	52.89	26.44
	71 Benzo(b)fluoranthene	252.00	19.900	(0.972)	1392833	47.27	23.64(H)
	72 Benzo(k)fluoranthene	252.00	19.940	(0.974)	1317207	51.32	25.66
	73 3,3'-Dichlorobenzidine	251.65	18.125	(0.998)	586808	46.94	23.47
	74 Benzo(a)pyrene	252.00	20.384	(0.996)	1069225	50.03	25.01
*	75 Perylene-d12	264.00	20.473	(1.000)	753555	40.00	
	76 Indeno(1,2,3-cd)pyrene	276.00	21.925	(1.071)	1226002	49.59	24.79
	77 Dibenz(a,h)anthracene	278.00	21.925	(1.071)	1020322	48.21	24.10
	78 Benzo(g,h,i)perylene	276.00	22.281	(1.088)	859537	49.14	24.57

Data File: /chem/p.i/p961208a.b/p10242.d
Report Date: 08-Dec-1996 18:41

QC Flag Legend

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

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GC Column(1): DB-1701 ID: 0.32(mm) GC Column(2): DB-17 ID: 0.32(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLKSB	69	60	75	77			0
02	FFG24	111	64	68	75			0
03	FFG24MS	101	59	64	68			0
04	FFG24MSD	74	62	66	68			0
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

QC LIMITS

TCX = Tetrachloro-m-xylene (30-150)
DCB = Decachlorobiphenyl (30-150)

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

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Matrix Spike - EPA Sample NO.: FFG24

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
gamma-BHC(Lindane)	18.5	0	10.3	56	46-127
Heptachlor	18.5	0	10.8	58	35-130
Aldrin	18.5	0	10.5	57	34-132
Dieldrin	37.0	0	24.3	66	31-134
Endrin	37.0	0	27.5	74	42-139
4,4'-DDT	37.0	0	23.4	63	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC(Lindane)	18.5	11.4	62	10	50	46-127
Heptachlor	18.5	11.5	62	7	31	35-130
Aldrin	18.5	11.1	60	5	43	34-132
Dieldrin	37.0	26.2	71	7	38	31-134
Endrin	37.0	28.9	78	5	45	42-139
4,4'-DDT	37.0	23.2	62	2	50	23-134

Column to be used to flag recovery values

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Comments: _____

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKSB

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab Sample ID: PBLKSB Lab File ID: 16_02023

Matrix: (soil/water) SOIL Extraction: (SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) N Date Extracted: 11/20/96

Date Analyzed (1): 12/02/96 Date Analyzed (2): 12/02/96

Time Analyzed (1): 0716 Time Analyzed (2): 0716

Instrument ID (1): HP_16A Instrument ID (2): HP_16B

GC Column (1): DB-1701 ID: 0.32(mm) GC Column (2): DB-17 ID: 0.32(mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	FFG24	27683.10	12/02/96	12/02/96
02	FFG24MS	27683.10MS	12/02/96	12/02/96
03	FFG24MSD	27683.10MSD	12/02/96	12/02/96
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

Comments:

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02034.D Vial: 40
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02034.D\CONFIRM.D
Acq On : 02 Dec 96 12:46 Operator: JC
Sample : FF24 Inst : HP_16
Misc : 27683.10 Multiplr: 0.3704
Quant Time: Dec 4 14:46 1996

12/9/96

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Wed Dec 04 14:37:57 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
		Surrogate Compounds						
1)	S	TCX	7.38	8.03	429604	191361	16.49	9.46 #
					Recovery	=	111.30%	63.85%
22)	S	DCB	19.56	22.91	256967	248801	10.09	11.08
					Recovery	=	68.10%	74.78%
		Target Compounds						
2)	AE	alpha-BHC	9.27	0.00	24831	0	0.99	N.D. #
3)	MA	gamma-BHC (Lindane)	0.00	0.00	0	0	N.D.	N.D.
4)	MA	Heptachlor	10.46	11.12	14246	15254	0.65	0.96 #
5)	MB	Aldrin	0.00	0.00	0	0	N.D.	N.D.
6)	BE	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	B	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B	Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
10)	B	gamma-Chlordane	12.90	13.26	6207	6993	0.25	0.35 #
11)	B	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	MA	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	MA	Endrin	0.00	0.00	0	0	N.D.	N.D.
15)	B	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	A	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
17)	MA	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.
18)	B	Endrin Aldehyde	15.50f	15.99	56826	59615	3.14	4.13 #
19)	B	Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
20)	AE	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	B	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

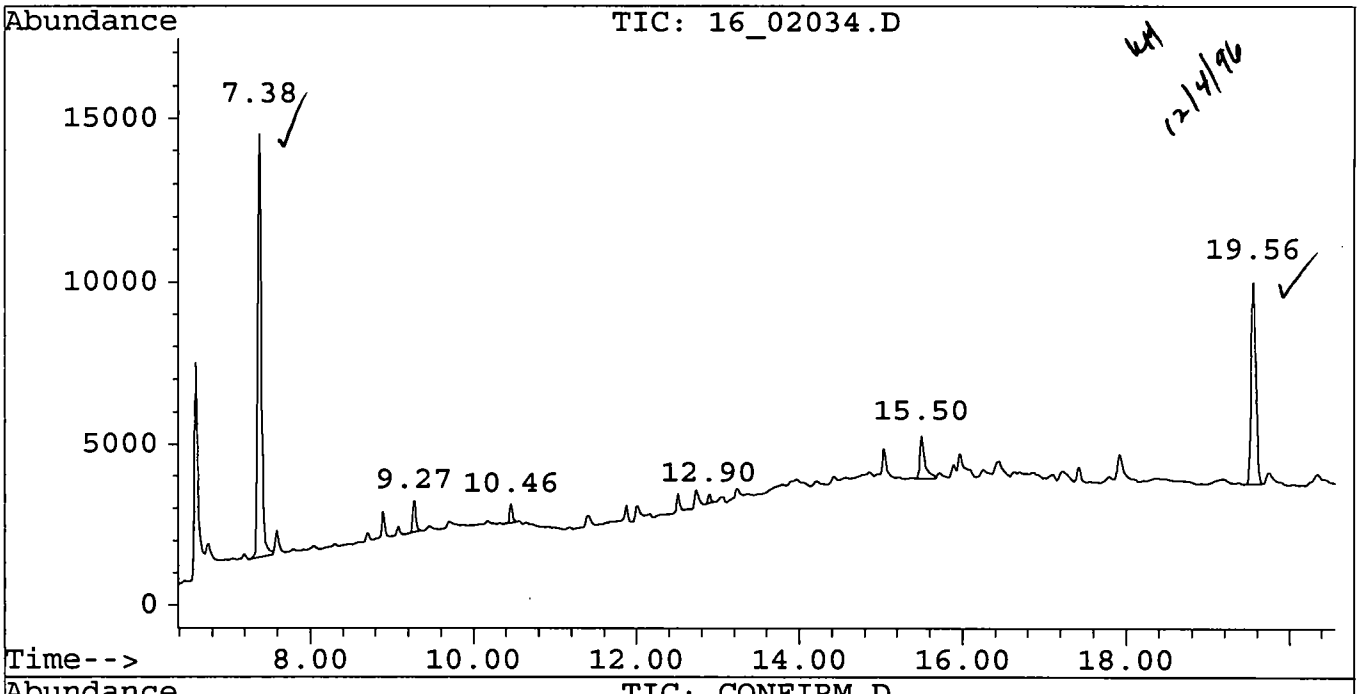
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

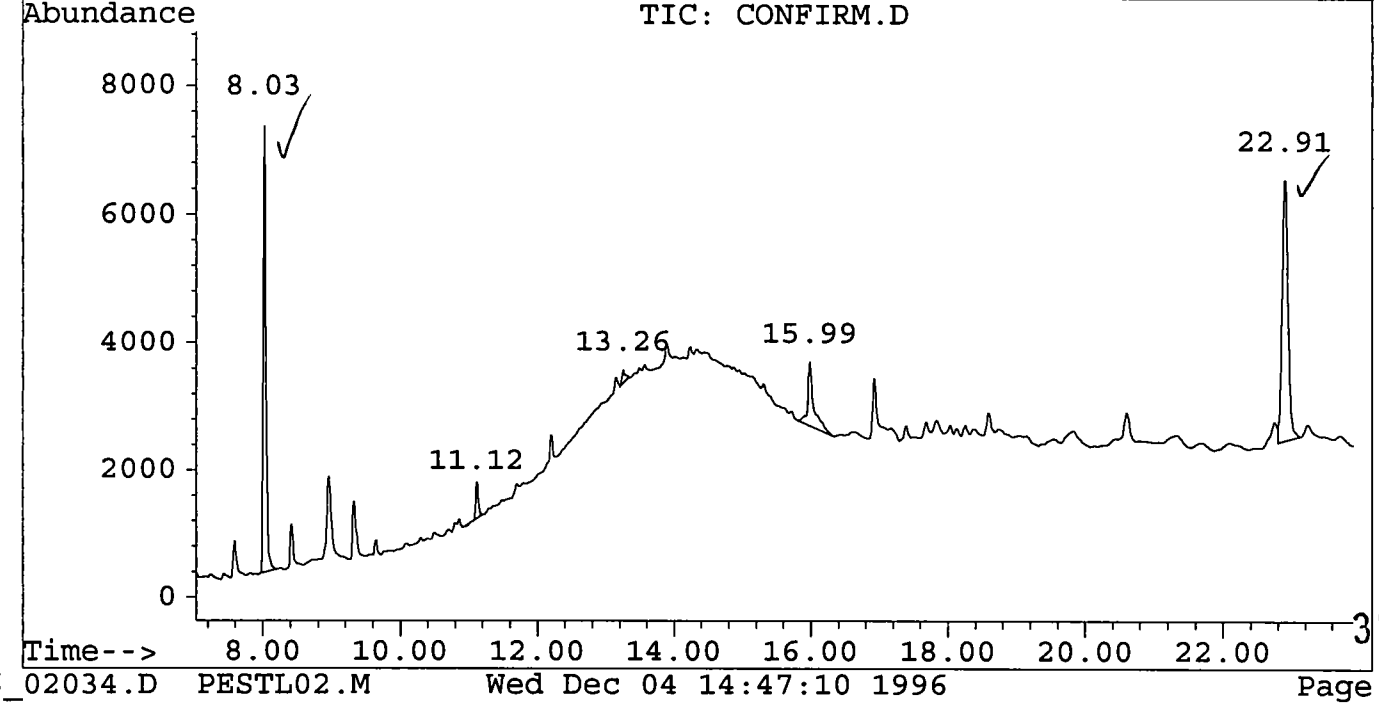
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02034.D Vial: 40
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02034.D\CONFIRM.D
Acq On : 02 Dec 96 12:46 Operator: JC
Sample : FF~~0~~24 Inst : HP_16
Misc : 27683.10 Multiplr: 0.3704
Quant Time: Dec 4 14:46 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Wed Dec 04 14:37:57 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





6D

PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: HP_16A Level (x low): low 1.0 mid 4.0 high 16.0

GC Column: DB-1701 ID: 0.32(mm) Date(s) Analyzed: 12/02/96 12/02/96

COMPOUND	RT OF STANDARDS LOW	MID	HIGH	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	9.28	9.28	9.28	9.28	9.23	9.33
beta-BHC	11.50	11.50	11.50	11.50	11.45	11.55
delta-BHC	11.95	11.95	11.95	11.95	11.90	12.00
gamma-BHC (Lindane)	10.08	10.08	10.08	10.08	10.03	10.13
Heptachlor	10.46	10.46	10.46	10.46	10.41	10.51
Aldrin	10.98	10.98	10.98	10.98	10.93	11.03
Heptachlor epoxide	12.32	12.32	12.32	12.32	12.25	12.39
Endosulfan I	12.83	12.83	12.83	12.83	12.76	12.90
Dieldrin	13.50	13.50	13.50	13.50	13.43	13.57
4,4'-DDE	13.14	13.14	13.14	13.14	13.07	13.21
Endrin	13.90	13.89	13.89	13.89	13.82	13.96
Endosulfan II	14.76	14.76	14.75	14.76	14.69	14.83
4,4'-DDD	14.56	14.56	14.56	14.56	14.49	14.63
Endosulfan sulfate	16.20	16.20	16.20	16.20	16.13	16.27
4,4'-DDT	14.86	14.86	14.86	14.86	14.79	14.93
Methoxychlor	16.04	16.04	16.04	16.04	15.97	16.11
Endrin ketone	17.13	17.13	17.13	17.13	17.06	17.20
Endrin aldehyde	15.55	15.55	15.54	15.55	15.48	15.62
alpha-Chlordane	13.04	13.04	13.04	13.04	12.97	13.11
gamma-Chlordane	12.90	12.90	12.90	12.90	12.83	12.97
Tetrachloro-m-xylene	7.40	7.40	7.40	7.40	7.35	7.45
Decachlorobiphenyl	19.57	19.57	19.57	19.57	19.47	19.67

* Surrogate retention times are measured from Standard Mix A analyses.

Retention time windows are +/- 0.05 minutes for all compounds that elute before Heptachlor epoxide, +/-0.07 minutes for all other compounds, except +/-0.10 minutes for Decachlorobiphenyl.

6D

PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: HP_16B Level (x low): low 1.0 mid 4.0 high 16.0

GC Column: DB-17 ID: 0.32(mm) Date(s) Analyzed: 12/02/96 12/02/96

COMPOUND	RT OF STANDARDS LOW	MID	HIGH	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	9.58	9.58	9.58	9.58	9.53	9.63
beta-BHC	10.57	10.57	10.57	10.57	10.52	10.62
delta-BHC	11.35	11.34	11.34	11.34	11.29	11.39
gamma-BHC (Lindane)	10.43	10.43	10.43	10.43	10.38	10.48
Heptachlor	11.12	11.12	11.12	11.12	11.07	11.17
Aldrin	11.82	11.82	11.82	11.82	11.77	11.87
Heptachlor epoxide	12.94	12.94	12.94	12.94	12.87	13.01
Endosulfan I	13.65	13.65	13.65	13.65	13.58	13.72
Dieldrin	14.25	14.25	14.25	14.25	14.18	14.32
4,4'-DDE	14.02	14.01	14.01	14.01	13.94	14.08
Endrin	14.98	14.98	14.98	14.98	14.91	15.05
Endosulfan II	15.33	15.33	15.33	15.33	15.26	15.40
4,4'-DDD	15.09	15.09	15.09	15.09	15.02	15.16
Endosulfan sulfate	16.30	16.30	16.30	16.30	16.23	16.37
4,4'-DDT	15.73	15.72	15.72	15.72	15.65	15.79
Methoxychlor	17.86	17.86	17.86	17.86	17.79	17.93
Endrin ketone	18.46	18.46	18.46	18.46	18.39	18.53
Endrin aldehyde	16.02	16.02	16.02	16.02	15.95	16.09
alpha-Chlordane	13.57	13.57	13.57	13.57	13.50	13.64
gamma-Chlordane	13.26	13.26	13.26	13.26	13.19	13.33
Tetrachloro-m-xylene	8.03	8.03	8.03	8.03	7.98	8.08
Decachlorobiphenyl	22.92	22.91	22.92	22.92	22.82	23.02

* Surrogate retention times are measured from Standard Mix A analyses.

Retention time windows are +/- 0.05 minutes for all compounds that elute before Heptachlor epoxide, +/-0.07 minutes for all other compounds, except +/-0.10 minutes for Decachlorobiphenyl.

6E

PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: HP_16A Level (x low): low 1.0 mid 4.0 high 16.0

GC Column: DB-1701 ID: 0.32(mm) Date(s) Analyzed: 12/02/96 12/02/96

COMPOUND	CALIBRATION FACTORS LOW	MID	HIGH	MEAN	%RSD
alpha-BHC	8902200	9295350	10100025	9432525	6.5
beta-BHC	6347800	5664250	5264088	5758713	9.5
delta-BHC	8001400	8428550	9439213	8623054	8.6
gamma-BHC (Lindane)	8855600	8956800	9043138	8951846	1.0
Heptachlor	9239200	8146800	7118288	8168096	13.0
Aldrin	9163400	9393950	10464900	9674083	7.2
Heptachlor epoxide	9413400	9100900	9553713	9356004	2.5
Endosulfan I	8544800	8443600	8491800	8493400	0.6
Dieldrin	7981700	8459125	8746338	8395721	4.6
4,4'-DDE	8146500	8977025	9692663	8938729	8.7
Endrin	6258100	6571700	6600731	6476844	2.9
Endosulfan II	7663300	7661725	8152706	7825910	3.6
4,4'-DDD	6058400	6569600	6457231	6361744	4.2
Endosulfan sulfate	7183800	7265350	7352350	7267167	1.2
4,4'-DDT	5186200	5270300	4799056	5085185	4.9
Methoxychlor	2751040	2421285	2144294	2438873	12.5
Endrin ketone	7511100	7938900	8030213	7826738	3.5
Endrin aldehyde	6053100	6700425	6821294	6524940	6.3
alpha-Chlordane	9315000	8955350	9097663	9122671	2.0
gamma-Chlordane	9651800	9224950	9521413	9466054	2.3
Tetrachloro-m-xylene	10015600	9647350	9275013	9645988	3.8
Decachlorobiphenyl	10568900	9432900	8127131	9376310	13.0

* Surrogate calibration factors are measured from Standard Mix A analyses.

6E

PESTICIDE INITIAL CALIBRATION OF SINGLE COMPONENT ANALYTES

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: HP_16B Level (x low): low 1.0 mid 4.0 high 16.0

GC Column: DB-17 ID: 0.32(mm) Date(s) Analyzed: 12/02/96 12/02/96

COMPOUND	CALIBRATION FACTORS LOW	MID	HIGH	MEAN	%RSD
alpha-BHC	6783800	7107900	7910413	7267371	8.0
beta-BHC	4389200	4185100	4001600	4191967	4.6
delta-BHC	6166200	6233450	6931425	6443692	6.6
gamma-BHC (Lindane)	6581600	6571650	6753325	6635525	1.5
Heptachlor	6729400	5883350	5121213	5911321	13.6
Aldrin	7068000	7427050	8670088	7721713	10.9
Heptachlor epoxide	7259800	6916250	7379888	7185313	3.3
Endosulfan I	6497000	6438050	6676388	6537146	1.9
Dieldrin	5891400	6084700	6325944	6100681	3.6
4,4'-DDE	5972300	6708100	7805881	6828760	13.5
Endrin	4225900	4269325	4290044	4261756	0.8
Endosulfan II	6085500	6056500	6409638	6183879	3.2
4,4'-DDD	4345900	4438400	4433038	4405779	1.2
Endosulfan sulfate	5581900	5636750	5915263	5711304	3.1
4,4'-DDT	4089600	3983475	3789138	3954071	3.9
Methoxychlor	2306780	2057890	1737109	2033926	14.0
Endrin ketone	6277100	6419050	6476613	6390921	1.6
Endrin aldehyde	5729900	5348750	5179038	5419229	5.2
alpha-Chlordane	7664800	7253950	7620400	7513050	3.0
gamma-Chlordane	7840400	7431000	7904925	7725442	3.3
Tetrachloro-m-xylene	7595000	7489900	7349313	7478071	1.6
Decachlorobiphenyl	9378700	8318900	7272356	8323319	12.7

* Surrogate calibration factors are measured from Standard Mix A analyses.

6F

PESTICIDE INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: HP_16A Date(s) Analyzed: 12/02/96 12/02/96

GC Column: DB-1701 ID: 0.32(mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Toxaphene	0.50	*1	14.01	13.94	14.08	102580
		*2	14.73	14.66	14.80	264438
		*3	16.03	15.96	16.10	180878
		4	16.13	16.06	16.20	231578
		5				
Aroclor 1016	0.10	*1	8.56	8.49	8.63	276540
		*2	9.36	9.29	9.43	519580
		*3	10.25	10.18	10.32	1015820
		4	10.52	10.45	10.59	456740
		5	11.40	11.33	11.47	431090
Aroclor 1221	0.20	*1	8.13	8.06	8.20	151840
		*2	8.44	8.37	8.51	112720
		*3	8.56	8.49	8.63	406635
		4				
		5				
Aroclor 1232	0.10	*1	8.56	8.49	8.63	341340
		*2	10.25	10.18	10.32	489930
		*3	10.52	10.45	10.59	216180
		4	11.40	11.33	11.47	194530
		5				
Aroclor 1242	0.10	*1	8.56	8.49	8.63	266500
		*2	9.36	9.29	9.43	458080
		*3	10.24	10.17	10.31	885410
		4	10.52	10.45	10.59	400320
		5	11.40	11.33	11.47	401300
Aroclor 1248	0.10	*1	9.36	9.29	9.43	487450
		*2	10.24	10.17	10.31	1247580
		*3	11.40	11.33	11.47	1346200
		4	11.59	11.52	11.66	1084730
		5	13.35	13.28	13.42	537300
Aroclor 1254	0.10	*1	10.90	10.83	10.97	436710
		*2	12.16	12.09	12.23	777620
		*3	13.35	13.28	13.42	761370
		4	13.78	13.71	13.85	552050
		5	14.67	14.60	14.74	702180
Aroclor 1260	0.10	*1	13.64	13.57	13.71	572970
		*2	14.03	13.96	14.10	641830
		*3	14.66	14.59	14.73	830790
		4	15.89	15.82	15.96	762650
		5	16.68	16.61	16.75	650840

* Denotes required peaks

6F

PESTICIDE INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Instrument ID: HP_16B Date(s) Analyzed: 12/02/96 12/02/96

GC Column: DB-17 ID: 0.32(mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Toxaphene	0.50	*1	14.14	14.07	14.21	37004
		*2	14.50	14.43	14.57	45980
		*3	15.40	15.33	15.47	98846
		4	17.46	17.39	17.53	221854
		5				
Aroclor 1016	0.10	*1	9.49	9.42	9.56	199090
		*2	10.38	10.31	10.45	482090
		*3	11.14	11.07	11.21	840280
		4	11.48	11.41	11.55	298460
		5	11.77	11.70	11.84	412300
Aroclor 1221	0.20	*1	9.02	8.95	9.09	128680
		*2	9.35	9.28	9.42	95690
		*3	9.49	9.42	9.56	292070
		4				
		5				
Aroclor 1232	0.10	*1	9.49	9.42	9.56	246290
		*2	10.38	10.31	10.45	253930
		*3	11.14	11.07	11.21	401000
		4	11.77	11.70	11.84	192440
		5				
Aroclor 1242	0.10	*1	9.49	9.42	9.56	202640
		*2	10.38	10.31	10.45	425600
		*3	11.14	11.07	11.21	730310
		4	11.48	11.41	11.55	263500
		5	12.44	12.37	12.51	292090
Aroclor 1248	0.10	*1	10.38	10.31	10.45	414140
		*2	11.77	11.70	11.84	901370
		*3	12.44	12.37	12.51	820080
		4	12.94	12.87	13.01	926100
		5	13.63	13.56	13.70	699670
Aroclor 1254	0.10	*1	11.78	11.71	11.85	275640
		*2	12.94	12.87	13.01	212190
		*3	13.89	13.82	13.96	175580
		4	14.83	14.76	14.90	343330
		5	15.73	15.66	15.80	465160
Aroclor 1260	0.10	*1	14.33	14.26	14.40	311440
		*2	14.82	14.75	14.89	587840
		*3	15.23	15.16	15.30	218900
		4	16.95	16.88	17.02	757030
		5	18.27	18.20	18.34	400110

* Denotes required peaks

6G

PESTICIDE ANALYTE RESOLUTION SUMMARY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GC Column (1): DB-1701 ID: 0.32(mm) Instrument ID (1): HP_16A

EPA Sample No. (Standard 1): RESC16D Lab Sample Id (1): 5-236-1616D

Date Analyzed (1): 12/01/96 Time Analyzed (1): 2217

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	7.40	100.0
02	Endosulfan I	12.83	83.6
03	gamma-Chlordane	12.90	100.0
04	4,4'-DDE	13.14	100.0
05	Dieldrin	13.50	100.0
06	Methoxychlor	16.05	98.8
07	Endosulfan Sulfate	16.20	100.0
08	Endrin Ketone	17.13	100.0
09	Decachlorobiphenyl	19.57	

GC Column (2): DB-17 ID: 0.32(mm) Instrument ID (2): HP_16B

EPA Sample No. (Standard 2): RESC16D Lab Sample Id (2): 5-236-1616D

Date Analyzed (2): 12/01/96 Time Analyzed (2): 2217

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	8.03	100.0
02	gamma-Chlordane	13.26	100.0
03	Endosulfan I	13.65	100.0
04	4,4'-DDE	14.01	100.0
05	Dieldrin	14.25	100.0
06	Endosulfan Sulfate	16.30	100.0
07	Methoxychlor	17.86	100.0
08	Endrin Ketone	18.46	100.0
09	Decachlorobiphenyl	22.91	

6H
PESTICIDE EVALUATION MIXTURE (PEM)

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GC Column (1): DB-1701 ID: 0.32(mm) Instrument ID (1): HP_16A

EPA Sample No. (Standard 1): PEM16K Lab Sample Id (1): 5-312-1616K

Date Analyzed (1): 12/01/96 Time Analyzed (1): 2247

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	7.40	100.0
02	alpha-BHC	9.28	100.0
03	gamma-BHC (Lindane)	10.09	100.0
04	beta-BHC	11.50	100.0
05	Endrin	13.90	100.0
06	4,4'-DDT	14.86	100.0
07	Methoxychlor	16.05	100.0
08	Decachlorobiphenyl	19.57	

GC Column (2): DB-17 ID: 0.32(mm) Instrument ID (2): HP_16B

EPA Sample No. (Standard 2): PEM16K Lab Sample Id (2): 5-312-1616K

Date Analyzed (2): 12/01/96 Time Analyzed (2): 2247

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	8.03	100.0
02	alpha-BHC	9.58	100.0
03	gamma-BHC (Lindane)	10.43	99.4
04	beta-BHC	10.57	100.0
05	Endrin	14.98	100.0
06	4,4'-DDT	15.72	100.0
07	Methoxychlor	17.86	100.0
08	Decachlorobiphenyl	22.91	

6H
PESTICIDE EVALUATION MIXTURE (PEM)

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GC Column (1): DB-1701 ID: 0.32(mm) Instrument ID (1): HP_16A

EPA Sample No. (Standard 1): PEM16L Lab Sample Id (1): 5-312-1616L

Date Analyzed (1): 12/02/96 Time Analyzed (1): 0616

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	7.40	100.0
02	alpha-BHC	9.28	100.0
03	gamma-BHC (Lindane)	10.08	100.0
04	beta-BHC	11.50	100.0
05	Endrin	13.89	100.0
06	4,4'-DDT	14.86	100.0
07	Methoxychlor	16.04	100.0
08	Decachlorobiphenyl	19.57	

GC Column (2): DB-17 ID: 0.32(mm) Instrument ID (2): HP_16B

EPA Sample No. (Standard 2): PEM16L Lab Sample Id (2): 5-312-1616L

Date Analyzed (2): 12/02/96 Time Analyzed (2): 0616

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	8.03	100.0
02	alpha-BHC	9.58	100.0
03	gamma-BHC (Lindane)	10.43	98.4
04	beta-BHC	10.57	100.0
05	Endrin	14.97	100.0
06	4,4'-DDT	15.72	100.0
07	Methoxychlor	17.86	100.0
08	Decachlorobiphenyl	22.91	

6I
INDIVIDUAL STANDARD MIXTURE A

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GC Column (1): DB-1701 ID: 0.32(mm) Instrument ID (1): HP_16A

EPA Sample No. (Standard 1): INDAM16K Lab Sample Id (1): 5-261-1616K

Date Analyzed (1): 12/02/96 Time Analyzed (1): 0346

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	7.40	100.0
02	alpha-BHC	9.28	100.0
03	gamma-BHC (Lindane)	10.08	100.0
04	Heptachlor	10.46	100.0
05	Endosulfan I	12.83	100.0
06	Dieldrin	13.50	100.0
07	Endrin	13.89	100.0
08	4,4'-DDD	14.56	100.0
09	4,4'-DDT	14.86	100.0
10	Methoxychlor	16.04	100.0
11	Decachlorobiphenyl	19.57	

GC Column (2): DB-17 ID: 0.32(mm) Instrument ID (2): HP_16B

EPA Sample No. (Standard 2): INDAM16K Lab Sample Id (2): 5-261-1616K

Date Analyzed (2): 12/02/96 Time Analyzed (2): 0346

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	8.03	100.0
02	alpha-BHC	9.58	100.0
03	gamma-BHC (Lindane)	10.43	100.0
04	Heptachlor	11.12	100.0
05	Endosulfan I	13.65	100.0
06	Dieldrin	14.25	100.0
07	Endrin	14.98	96.4
08	4,4'-DDD	15.09	100.0
09	4,4'-DDT	15.72	100.0
10	Methoxychlor	17.86	100.0
11	Decachlorobiphenyl	22.91	

6J
INDIVIDUAL STANDARD MIXTURE B

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GC Column (1): DB-1701 ID: 0.32(mm) Instrument ID (1): HP_16A

EPA Sample No. (Standard 1): INDBM16K Lab Sample Id (1): 5-264-1616K

Date Analyzed (1): 12/02/96 Time Analyzed (1): 0416

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	7.40	100.0
02	Aldrin	10.98	100.0
03	beta-BHC	11.50	100.0
04	delta-BHC	11.95	100.0
05	Heptachlor Epoxide	12.32	100.0
06	gamma-Chlordane	12.90	98.9
07	alpha-Chlordane	13.04	93.6
08	4,4'-DDE	13.14	100.0
09	Endosulfan II	14.76	100.0
10	Endrin Aldehyde	15.55	100.0
11	Endosulfan Sulfate	16.20	100.0
12	Endrin Ketone	17.13	100.0
13	Decachlorobiphenyl	19.57	

GC Column (2): DB-17 ID: 0.32(mm) Instrument ID (2): HP_16B

EPA Sample No. (Standard 2): INDBM16K Lab Sample Id (2): 5-264-1616K

Date Analyzed (2): 12/02/96 Time Analyzed (2): 0416

	ANALYTE	RT	RESOLUTION (%)
01	Tetrachloro-m-xylene	8.03	100.0
02	beta-BHC	10.57	100.0
03	delta-BHC	11.34	100.0
04	Aldrin	11.82	100.0
05	Heptachlor Epoxide	12.94	100.0
06	gamma-Chlordane	13.26	100.0
07	alpha-Chlordane	13.57	100.0
08	4,4'-DDE	14.01	100.0
09	Endosulfan II	15.33	100.0
10	Endrin Aldehyde	16.02	99.8
11	Endosulfan Sulfate	16.30	100.0
12	Endrin Ketone	18.46	100.0
13	Decachlorobiphenyl	22.92	

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GC Column: DB-1701 ID: 0.32(mm) Init. Calib Date(s): 12/02/96 12/02/96

EPA Sample No.(PIBLK): _____ Date Analyzed : _____

Lab Sample ID (PIBLK): _____ Time Analyzed : _____

EPA Sample No.(PEM): PEM16K Date Analyzed : 12/01/96

Lab Sample ID (PEM): 5-312-1616K Time Analyzed : 2247

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	9.28	9.23	9.33	0.010	0.010	-1.8
beta-BHC	11.50	11.45	11.55	0.010	0.010	-3.2
gamma-BHC (Lindane)	10.09	10.03	10.13	0.010	0.010	-2.7
Endrin	13.90	13.82	13.96	0.050	0.050	0.5
4,4'-DDT	14.86	14.79	14.93	0.084	0.100	-15.6
Methoxychlor	16.05	15.97	16.11	0.226	0.250	-9.5

4,4'-DDT % breakdown (1): 0.0 Endrin % breakdown (1): 0.0

Combined % breakdown (1): 0.0

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GC Column: DB-1701 ID: 0.32(mm) Init. Calib Date(s): 12/02/96 12/02/96

EPA Sample No.(PIBLK): PIBLK16P Date Analyzed : 12/02/96

Lab Sample ID (PIBLK): 5-266-1616P Time Analyzed : 0546

EPA Sample No.(PEM): PEM16L Date Analyzed : 12/02/96

Lab Sample ID (PEM): 5-312-1616L Time Analyzed : 0616

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	9.28	9.23	9.33	0.010	0.010	0.0
beta-BHC	11.50	11.45	11.55	0.010	0.010	2.3
gamma-BHC (Lindane)	10.08	10.03	10.13	0.010	0.010	1.7
Endrin	13.89	13.82	13.96	0.054	0.050	7.3
4,4'-DDT	14.86	14.79	14.93	0.090	0.100	-9.5
Methoxychlor	16.04	15.97	16.11	0.241	0.250	-3.4

4,4'-DDT % breakdown (1): 2.9 Endrin % breakdown (1): 0.0

Combined % breakdown (1): 2.9

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GC Column: DB-17 ID: 0.32(mm) Init. Calib Date(s): 12/02/96 12/02/96

EPA Sample No.(PIBLK): _____ Date Analyzed : _____

Lab Sample ID (PIBLK): _____ Time Analyzed : _____

EPA Sample No.(PEM): PEM16K Date Analyzed : 12/01/96

Lab Sample ID (PEM): 5-312-1616K Time Analyzed : 2247

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	9.58	9.53	9.63	0.010	0.010	-2.6
beta-BHC	10.57	10.52	10.62	0.010	0.010	-0.1
gamma-BHC (Lindane)	10.43	10.38	10.48	0.010	0.010	-1.9
Endrin	14.98	14.91	15.05	0.050	0.050	-0.4
4,4'-DDT	15.72	15.65	15.79	0.092	0.100	-8.2
Methoxychlor	17.86	17.79	17.93	0.230	0.250	-7.7

4,4'-DDT % breakdown (1): 0.0 Endrin % breakdown (1): 0.0

Combined % breakdown (1): 0.0

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GC Column: DB-17 ID: 0.32(mm) Init. Calib Date(s): 12/02/96 12/02/96

EPA Sample No.(PIBLK): PIBLK16P Date Analyzed : 12/02/96

Lab Sample ID (PIBLK): 5-266-1616P Time Analyzed : 0546

EPA Sample No.(PEM): PEM16L Date Analyzed : 12/02/96

Lab Sample ID (PEM): 5-312-1616L Time Analyzed : 0616

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	9.58	9.53	9.63	0.010	0.010	-0.1
beta-BHC	10.57	10.52	10.62	0.011	0.010	7.6
gamma-BHC (Lindane)	10.43	10.38	10.48	0.010	0.010	2.2
Endrin	14.97	14.91	15.05	0.052	0.050	4.1
4,4'-DDT	15.72	15.65	15.79	0.097	0.100	-3.4
Methoxychlor	17.86	17.79	17.93	0.242	0.250	-2.8

4,4'-DDT % breakdown (1): 0.0 Endrin % breakdown (1): 0.0

Combined % breakdown (1): 0.0

7E
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GC Column: DB-1701 ID: 0.32(mm) Init. Calib Date(s): 12/02/96 12/02/96

EPA Sample No.(PIBLK): PIBLK16Q Date Analyzed : 12/02/96

Lab Sample ID (PIBLK): 5-266-1616Q Time Analyzed : 1546

EPA Sample No.(INDA): INDAM16M Date Analyzed : 12/02/96

Lab Sample ID (INDA): 5-261-1616M Time Analyzed : 1616

INDIVIDUAL MIX A COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	9.27	9.23	9.33	0.021	0.020	5.0
gamma-BHC (Lindane)	10.08	10.03	10.13	0.021	0.020	5.7
Heptachlor	10.46	10.41	10.51	0.021	0.020	3.8
Endosulfan I	12.82	12.76	12.90	0.020	0.020	1.9
Dieldrin	13.50	13.43	13.57	0.042	0.040	3.8
Endrin	13.89	13.82	13.96	0.042	0.040	4.3
4,4'-DDD	14.56	14.49	14.63	0.042	0.040	3.8
4,4'-DDT	14.86	14.79	14.93	0.040	0.040	0.7
Methoxychlor	16.04	15.97	16.11	0.202	0.200	0.9
Tetrachloro-m-xylene	7.40	7.35	7.45	0.021	0.020	4.2
Decachlorobiphenyl	19.57	19.47	19.67	0.039	0.040	-2.0

EPA Sample No.(INDB): INDBM16M Date Analyzed : 12/02/96

Lab Sample ID (INDB): 5-264-1616M Time Analyzed : 1646

INDIVIDUAL MIX B COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
beta-BHC	11.50	11.45	11.55	0.022	0.020	10.1
delta-BHC	11.95	11.90	12.00	0.022	0.020	11.1
Aldrin	10.98	10.93	11.03	0.022	0.020	9.7
Heptachlor epoxide	12.32	12.25	12.39	0.022	0.020	9.2
4,4'-DDE	13.14	13.07	13.21	0.044	0.040	10.4
Endosulfan II	14.75	14.69	14.83	0.045	0.040	12.9
Endosulfan sulfate	16.20	16.13	16.27	0.044	0.040	9.6
Endrin ketone	17.12	17.06	17.20	0.044	0.040	9.4
Endrin aldehyde	15.54	15.48	15.62	0.041	0.040	3.4
alpha-Chlordane	13.04	12.97	13.11	0.022	0.020	9.5
gamma-Chlordane	12.90	12.83	12.97	0.022	0.020	9.0
Tetrachloro-m-xylene	7.40	7.35	7.45	0.022	0.020	11.4
Decachlorobiphenyl	19.56	19.47	19.67	0.043	0.040	6.5

7E
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GC Column: DB-17 ID: 0.32(mm) Init. Calib Date(s): 12/02/96 12/02/96

EPA Sample No.(PIBLK): PIBLK16Q Date Analyzed : 12/02/96

Lab Sample ID (PIBLK): 5-266-1616Q Time Analyzed : 1546

EPA Sample No.(INDA): INDAM16M Date Analyzed : 12/02/96

Lab Sample ID (INDA): 5-261-1616M Time Analyzed : 1616

INDIVIDUAL MIX A COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
alpha-BHC	9.58	9.53	9.63	0.021	0.020	4.6
gamma-BHC (Lindane)	10.43	10.38	10.48	0.021	0.020	5.9
Heptachlor	11.12	11.07	11.17	0.022	0.020	10.9
Endosulfan I	13.65	13.58	13.72	0.020	0.020	-1.0
Dieldrin	14.25	14.18	14.32	0.041	0.040	3.1
Endrin	14.98	14.91	15.05	0.042	0.040	3.7
4,4'-DDD	15.09	15.02	15.16	0.042	0.040	4.3
4,4'-DDT	15.72	15.65	15.79	0.039	0.040	-2.5
Methoxychlor	17.86	17.79	17.93	0.200	0.200	0.1
Tetrachloro-m-xylene	8.03	7.98	8.08	0.021	0.020	2.5
Decachlorobiphenyl	22.91	22.82	23.02	0.039	0.040	-3.5

EPA Sample No.(INDB): INDBM16M Date Analyzed : 12/02/96

Lab Sample ID (INDB): 5-264-1616M Time Analyzed : 1646

INDIVIDUAL MIX B COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
beta-BHC	10.57	10.52	10.62	0.023	0.020	12.5
delta-BHC	11.35	11.29	11.39	0.022	0.020	10.2
Aldrin	11.82	11.77	11.87	0.021	0.020	7.0
Heptachlor epoxide	12.94	12.87	13.01	0.022	0.020	7.5
4,4'-DDE	14.01	13.94	14.08	0.044	0.040	8.7
Endosulfan II	15.33	15.26	15.40	0.043	0.040	6.5
Endosulfan sulfate	16.30	16.23	16.37	0.043	0.040	7.1
Endrin ketone	18.46	18.39	18.53	0.043	0.040	7.4
Endrin aldehyde	16.02	15.95	16.09	0.043	0.040	6.5
alpha-Chlordane	13.57	13.50	13.64	0.021	0.020	5.7
gamma-Chlordane	13.26	13.19	13.33	0.021	0.020	6.2
Tetrachloro-m-xylene	8.03	7.98	8.08	0.022	0.020	9.6
Decachlorobiphenyl	22.91	22.82	23.02	0.042	0.040	5.9

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GC Column: DB-1701 ID: 0.32(mm) Init. Calib. Date(s): 12/02/96 12/02/96

Instrument ID: HP_16A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 7.40 DCB: 19.57

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	RESC16D	5-236-1616D	12/01/96	2217	7.40	19.57
02	PEM16K	5-312-1616K	12/01/96	2247	7.40	19.57
03	AR166016D	5-267-1616D	12/01/96	2317	7.40	19.57
04	AR122116D	5-268-1616D	12/01/96	2347	7.40	19.57
05	AR123216D	5-269-1616D	12/02/96	0017	7.40	19.57
06	AR124216D	5-270-1616D	12/02/96	0047	7.40	19.57
07	AR124816D	5-313-1616D	12/02/96	0117	7.39	19.57
08	AR125416D	5-271-1616D	12/02/96	0147	7.40	19.57
09	TOXAPH16D	5-251-1616D	12/02/96	0217	7.40	19.57
10	INDAL16D	5-262-1616D	12/02/96	0247	7.40	19.57
11	INDBL16D	5-265-1616D	12/02/96	0316	7.40	19.57
12	INDAM16K	5-261-1616K	12/02/96	0346	7.40	19.57
13	INDBM16K	5-264-1616K	12/02/96	0416	7.40	19.57
14	INDAH16D	5-260-1616D	12/02/96	0446	7.40	19.57
15	INDBH16D	5-263-1616D	12/02/96	0516	7.40	19.57
16	PIBLK16P	5-266-1616P	12/02/96	0546	7.40	19.57
17	PEM16L	5-312-1616L	12/02/96	0616	7.40	19.57
18	ZZZZZ	SB112596A	12/02/96	0646	0.00 *	0.00 *
19	PBLKSB	PBLKSB	12/02/96	0716	7.39	19.57
20	ZZZZZ	BB1120SB	12/02/96	0746	7.39	19.57
21	ZZZZZ	27683.01	12/02/96	0816	7.39	19.56
22	ZZZZZ	27683.02	12/02/96	0846	7.39	19.56
23	ZZZZZ	27683.03	12/02/96	0916	7.39	19.56
24	ZZZZZ	27683.04	12/02/96	0946	7.39	19.57
25	ZZZZZ	27683.05	12/02/96	1016	7.39	19.56
26	ZZZZZ	27683.06	12/02/96	1046	7.39	19.56
27	ZZZZZ	27683.07	12/02/96	1116	7.38	19.56
28	ZZZZZ	27683.08	12/02/96	1146	7.39	19.56
29	ZZZZZ	27683.09	12/02/96	1216	7.39	19.56
30	FFG24	27683.10	12/02/96	1246	7.38	19.56
31	FFG24MS	27683.10MS	12/02/96	1316	7.38	19.56
32	FFG24MSD	27683.10MSD	12/02/96	1346	7.39	19.56

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.10 MINUTES)

Column to be used to flag retention time values with an asterisk.
* Values outside of QC limits

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GC Column: DB-1701 ID: 0.32(mm) Init. Calib. Date(s): 12/02/96 12/02/96

Instrument ID: HP_16A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 7.40 DCB: 19.57

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	PIBLK16Q	5-266-1616Q	12/02/96	1546	7.40	19.56
02	INDAM16M	5-261-1616M	12/02/96	1616	7.40	19.56
03	INDBM16M	5-264-1616M	12/02/96	1646	7.40	19.56
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
TCX = Tetrachloro-m-xylene	(+/- 0.05 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.10 MINUTES)

Column to be used to flag retention time values with an asterisk.
* Values outside of QC limits

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GC Column: DB-17 ID: 0.32(mm) Init. Calib. Date(s): 12/02/96 12/02/96

Instrument ID: HP_16B

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 8.03 DCB: 22.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	RESC16D	5-236-1616D	12/01/96	2217	8.03	22.91
02	PEM16K	5-312-1616K	12/01/96	2247	8.03	22.91
03	AR166016D	5-267-1616D	12/01/96	2317	8.03	22.91
04	AR122116D	5-268-1616D	12/01/96	2347	8.03	22.91
05	AR123216D	5-269-1616D	12/02/96	0017	8.03	22.91
06	AR124216D	5-270-1616D	12/02/96	0047	8.03	22.91
07	AR124816D	5-313-1616D	12/02/96	0117	8.02	22.92
08	AR125416D	5-271-1616D	12/02/96	0147	8.03	22.92
09	TOXAPH16D	5-251-1616D	12/02/96	0217	8.03	22.92
10	INDAL16D	5-262-1616D	12/02/96	0247	8.03	22.92
11	INDBL16D	5-265-1616D	12/02/96	0316	8.03	22.92
12	INDAM16K	5-261-1616K	12/02/96	0346	8.03	22.91
13	INDBM16K	5-264-1616K	12/02/96	0416	8.03	22.92
14	INDAH16D	5-260-1616D	12/02/96	0446	8.03	22.92
15	INDBH16D	5-263-1616D	12/02/96	0516	8.03	22.91
16	PIBLK16P	5-266-1616P	12/02/96	0546	8.03	22.91
17	PEM16L	5-312-1616L	12/02/96	0616	8.03	22.91
18	ZZZZZ	SB112596A	12/02/96	0646	0.00 *	0.00 *
19	PBLKSB	PBLKSB	12/02/96	0716	8.03	22.91
20	ZZZZZ	BB1120SB	12/02/96	0746	8.03	22.91
21	ZZZZZ	27683.01	12/02/96	0816	8.03	22.91
22	ZZZZZ	27683.02	12/02/96	0846	8.03	22.91
23	ZZZZZ	27683.03	12/02/96	0916	8.03	22.91
24	ZZZZZ	27683.04	12/02/96	0946	8.03	22.91
25	ZZZZZ	27683.05	12/02/96	1016	8.03	22.91
26	ZZZZZ	27683.06	12/02/96	1046	8.03	22.91
27	ZZZZZ	27683.07	12/02/96	1116	8.03	22.91
28	ZZZZZ	27683.08	12/02/96	1146	8.03	22.91
29	ZZZZZ	27683.09	12/02/96	1216	8.03	22.91
30	FFG24	27683.10	12/02/96	1246	8.03	22.91
31	FFG24MS	27683.10MS	12/02/96	1316	8.03	22.91
32	FFG24MSD	27683.10MSD	12/02/96	1346	8.03	22.91

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.10 MINUTES)

Column to be used to flag retention time values with an asterisk.
* Values outside of QC limits

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GC Column: DB-17 ID: 0.32(mm) Init. Calib. Date(s): 12/02/96 12/02/96

Instrument ID: HP_16B

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 8.03 DCB: 22.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	PIBLK16Q	5-266-1616Q	12/02/96	1546	8.03	22.91
02	INDAM16M	5-261-1616M	12/02/96	1616	8.03	22.91
03	INDBM16M	5-264-1616M	12/02/96	1646	8.03	22.91
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.10 MINUTES)

Column to be used to flag retention time values with an asterisk.
* Values outside of QC limits

9A
PESTICIDE FLORISIL CARTRIDGE CHECK

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Florisil Catridge Lot Number: FLO941389 Date of Analysis: 08/08/96

GC Column(1): DB-17 ID: 0.32(mm) GC Column(2): DB-1701 ID: 0.32(mm)

COMPOUND	SPIKE ADDED (ng)	SPIKE RECOVERED (ng)	% REC #	QC LIMITS
alpha-BHC	10.0	8.59	86	80-120
gamma-BHC (Lindane)	10.0	8.93	89	80-120
Heptachlor	10.0	10.6	106	80-120
Endosulfan I	10.0	9.53	95	80-120
Dieldrin	20.0	17.2	86	80-120
Endrin	20.0	19.2	96	80-120
4,4'-DDD	20.0	19.7	98	80-120
4,4'-DDT	20.0	19.1	95	80-120
Methoxychlor	100.0	97.8	98	80-120
Tetrachloro-m-xylene	10.0	9.57	96	80-120
Decachlorobiphenyl	20.0	22.1	110	80-120

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

THIS CARTRIDGE LOT APPLIES TO THE FOLLOWING SAMPLES, BLANKS, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PBLKSB	PBLKSB	12/02/96	12/02/96
02	FFG24	27683.10	12/02/96	12/02/96
03	FFG24MS	27683.10MS	12/02/96	12/02/96
04	FFG24MSD	27683.10MSD	12/02/96	12/02/96
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				

9B
PESTICIDE GPC CALIBRATION

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

GPC Column: GPC114745 Calibration Date: 11/27/96

GC Column(1): DB-1701 ID: 0.32(mm) GC Column(2): DB-17 ID: 0.32(mm)

COMPOUND	SPIKE ADDED (ng)	SPIKE RECOVERED (ng)	% REC #	QC LIMITS
gamma-BHC (Lindane)	500.0	455	91	80-110
Heptachlor	500.0	417	83	80-110
Aldrin	500.0	432	86	80-110
Dieldrin	1000.0	1020	102	80-110
Endrin	1000.0	1070	107	80-110
4,4'-DDT	1000.0	1100	110	80-110

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

THIS GPC CALIBRATION APPLIES TO THE FOLLOWING SAMPLES, BLANKS, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PBLKSB	PBLKSB	12/02/96	12/02/96
02	FFG24	27683.10	12/02/96	12/02/96
03	FFG24MS	27683.10MS	12/02/96	12/02/96
04	FFG24MSD	27683.10MSD	12/02/96	12/02/96
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

FFG24MS

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab Sample ID: 27683.10MS Date(s) Analyzed: 12/02/96 12/02/96

Instrument ID (1): HP_16A Instrument ID (2): HP_16B

GC Column (1): DB-1701 ID: 0.32(mm) GC Column (2): DB-17 ID: 0.32(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
gamma-BHC (Lindane)	1	10.08	10.03	10.13	10	
	2	10.43	10.38	10.48	11	10.0
Heptachlor	1	10.46	10.41	10.51	11	
	2	11.12	11.07	11.17	12	9.1
Aldrin	1	10.98	10.93	11.03	10	
	2	11.82	11.77	11.87	11	10.0
Dieldrin	1	13.50	13.43	13.57	24	
	2	14.25	14.18	14.32	25	4.2
Endrin	1	13.89	13.82	13.96	28	
	2	14.98	14.91	15.05	28	0.0
4,4'-DDT	1	14.86	14.79	14.93	24	
	2	15.72	15.65	15.79	23	4.3
	1					
	2					
	1					
	2					

page 1 of 1

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

FFG24MSD

Lab Name: SWL-TULSA Contract: 68-D5-0022

Lab Code: AATS Case No.: 25159 SAS No.: SDG No.: FFG24

Lab Sample ID: 27683.10MSD Date(s) Analyzed: 12/02/96 12/02/96

Instrument ID (1): HP_16A Instrument ID (2): HP_16B

GC Column (1): DB-1701 ID: 0.32(mm) GC Column (2): DB-17 ID: 0.32(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
gamma-BHC (Lindane)	1	10.08	10.03	10.13	11	
	2	10.43	10.38	10.48	12	9.1
Heptachlor	1	10.46	10.41	10.51	12	
	2	11.12	11.07	11.17	12	0.0
Aldrin	1	10.98	10.93	11.03	11	
	2	11.82	11.77	11.87	11	0.0
Dieldrin	1	13.50	13.43	13.57	26	
	2	14.25	14.18	14.32	27	3.8
Endrin	1	13.89	13.82	13.96	30	
	2	14.98	14.91	15.05	29	3.4
4,4'-DDT	1	14.86	14.79	14.93	23	
	2	15.72	15.65	15.79	24	4.3
	1					
	2					
	1					
	2					

page 1 of 1

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02005.D Vial: 11
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02005.D\CONFIRM.D
Acq On : 01 Dec 96 22:17 Operator: JC
Sample : RESC16D Inst : HP_16
Misc : 5-236-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:05 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
		Surrogate Compounds						
1)	S	TCX	7.40	8.03	180969	142698	0.01	0.01
					Recovery	=	100.00%	100.00%
22)	S	DCB	19.57	22.91	182611	166212	0.01	0.01
					Recovery	=	100.00%	100.00%
		Target Compounds						
[illegible])	AE	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
[illegible]	MA	gamma-BHC (Lindane)	0.00	0.00	0	0	N.D.	N.D.
[illegible])	MA	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
5)	MB	Aldrin	0.00	0.00	0	0	N.D.	N.D.
6)	BE	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	B	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B	Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A	Endosulfan I	12.83	13.65	71892	60068	0.00	0.00
10)	B	gamma-Chlordane	12.90	13.26	82646	65868	0.00	0.00
11)	B	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B	4,4'-DDE	13.14	14.01	142231	109978	0.01	0.01
13)	MA	Dieldrin	13.50	14.25	142954	105908	0.01	0.01
14)	MA	Endrin	0.00	0.00	0	0	N.D.	N.D.
15)	B	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	A	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
17)	MA	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.
18)	B	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	B	Endosulfan Sulfate	16.20	16.30	121076	91951	0.01	0.01
20)	AE	Methoxychlor	16.05	17.86	246635	214529	0.05	0.05
21)	B	Endrin Ketone	17.13	18.46	138377	116379	0.01	0.01

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25460 SDG FEX69
Signature Lucella Stiver
Date 12-9-69

420

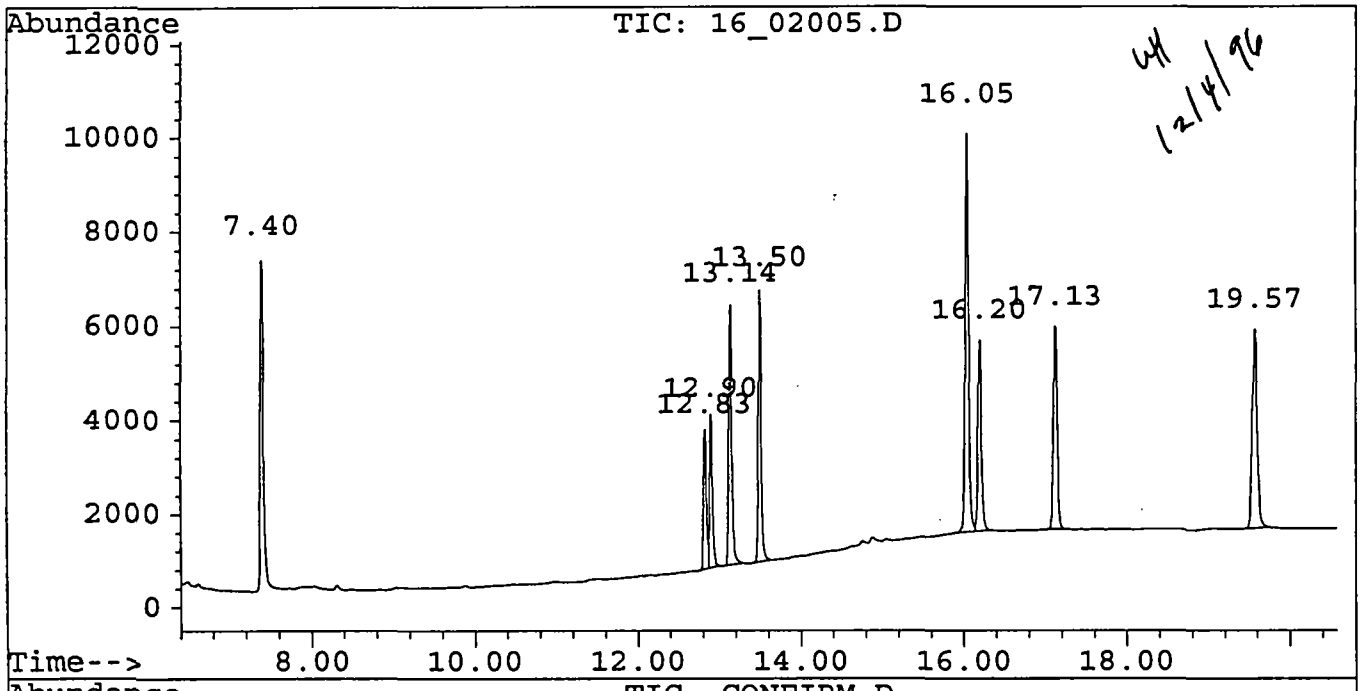
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

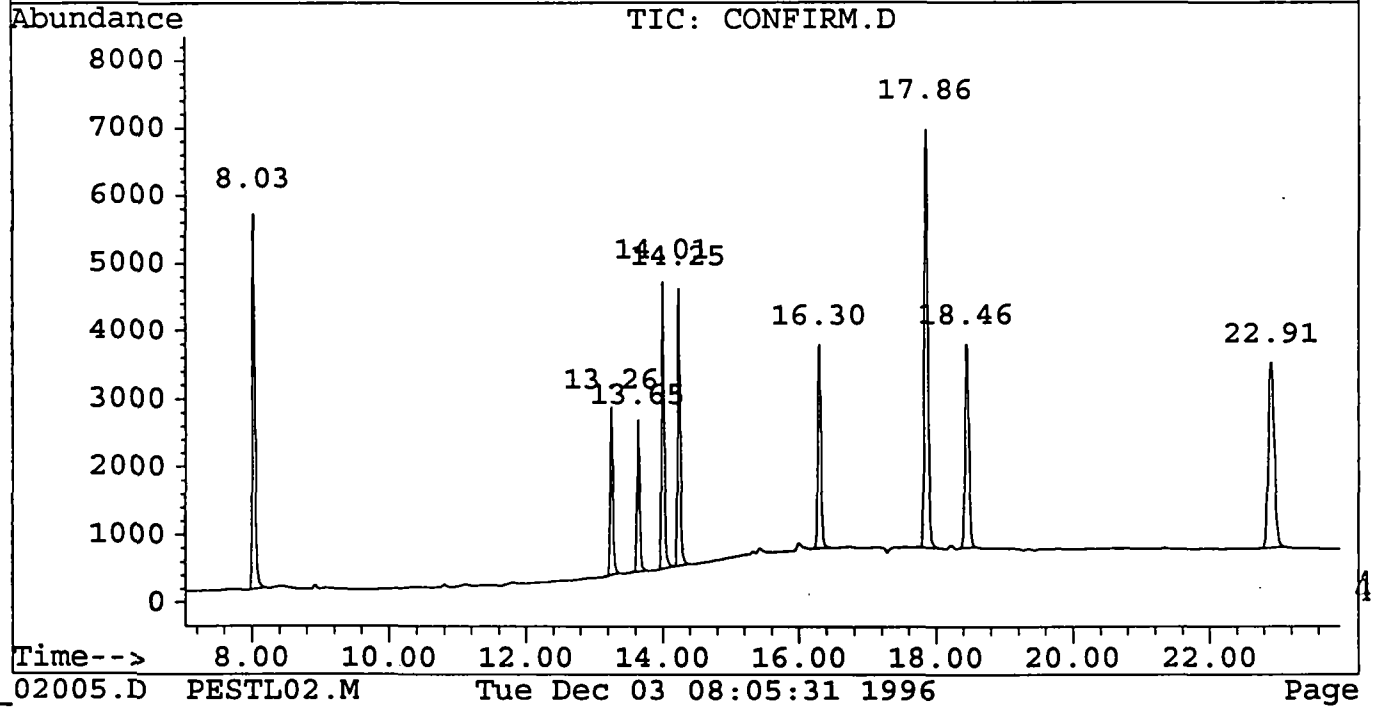
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02005.D Vial: 11
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02005.D\CONFIRM.D
Acq On : 01 Dec 96 22:17 Operator: JC
Sample : RESC16D Inst : HP_16
Misc : 5-236-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:05 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





121

Chromatographic Resolution Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02005.D Vial: 11
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02005.D\CONFIRM.D
Acq On : 01 Dec 96 22:17 Operator: JC
Sample : RESC16D Inst : HP_16
Misc : 5-236-1616D Multiplr: 0.0005

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB

RT#1	RT#2	Resolution	Compound for RT#1
7.399	12.830	100.00%	TCX
12.830	12.905	83.55%	Endosulfan I
12.905	13.140	100.00%	gamma-Chlordane
13.140	13.503	100.00%	4,4'-DDE
13.503	16.047	100.00%	Dieldrin
16.047	16.203	98.84%	Methoxychlor
16.203	17.132	100.00%	Endosulfan Sulfate
17.132	19.574	100.00%	Endrin Ketone
Signal #2			
8.032	13.261	100.00%	TCX #2
13.261	13.651	100.00%	gamma-Chlordane #2
13.651	14.013	100.00%	Endosulfan I #2
14.013	14.249	100.00%	4,4'-DDE #2
14.249	16.301	100.00%	Dieldrin #2
16.301	17.863	100.00%	Endosulfan Sulfate #2
17.863	18.458	100.00%	Methoxychlor #2
18.458	22.913	100.00%	Endrin Ketone #2

* = Value less than resolution criteria, 60 for RESC, 90 for PEM, INDA, INDB
16_02005.D PESTL02.M Tue Dec 03 08:05:51 1996

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02006.D Vial: 12
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02006.D\CONFIRM.D
Acq On : 01 Dec 96 22:47 Operator: JC
Sample : PEM16K Inst : HP_16
Misc : 5-312-1616K Multiplr: 0.0005
Quant Time: Dec 3 8:08 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
		Surrogate Compounds						
1)	S	TCX	7.40	8.03	185421	146392	0.01	0.01
					Recovery	=	100.00%	100.00%
22)	S	DCB	19.57	22.91	190418	172781	0.01	0.01
					Recovery	=	100.00%	100.00%
		Target Compounds						
2)	AE	alpha-BHC	9.28	9.58	91260	69251	0.00	0.00
	MA	gamma-BHC (Lindane)	10.09	10.43	87184	64490	0.00	0.00
	MA	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
5)	MB	Aldrin	0.00	0.00	0	0	N.D.	N.D.
6)	BE	beta-BHC	11.50	10.57	54817	41806	0.00	0.00
7)	B	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B	Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
10)	B	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	B	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	MA	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	MA	Endrin	13.90	14.98	330095	212577	0.03	0.02
15)	B	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	A	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
17)	MA	4,4'-DDT	14.86	15.72	444870	365845	0.04	0.05
18)	B	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	B	Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
20)	AE	Methoxychlor	16.05	17.86	547671	474991	0.11	0.12
21)	B	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25160 SDG FEX69
Signature [illegible]
Date 12-9-96

423

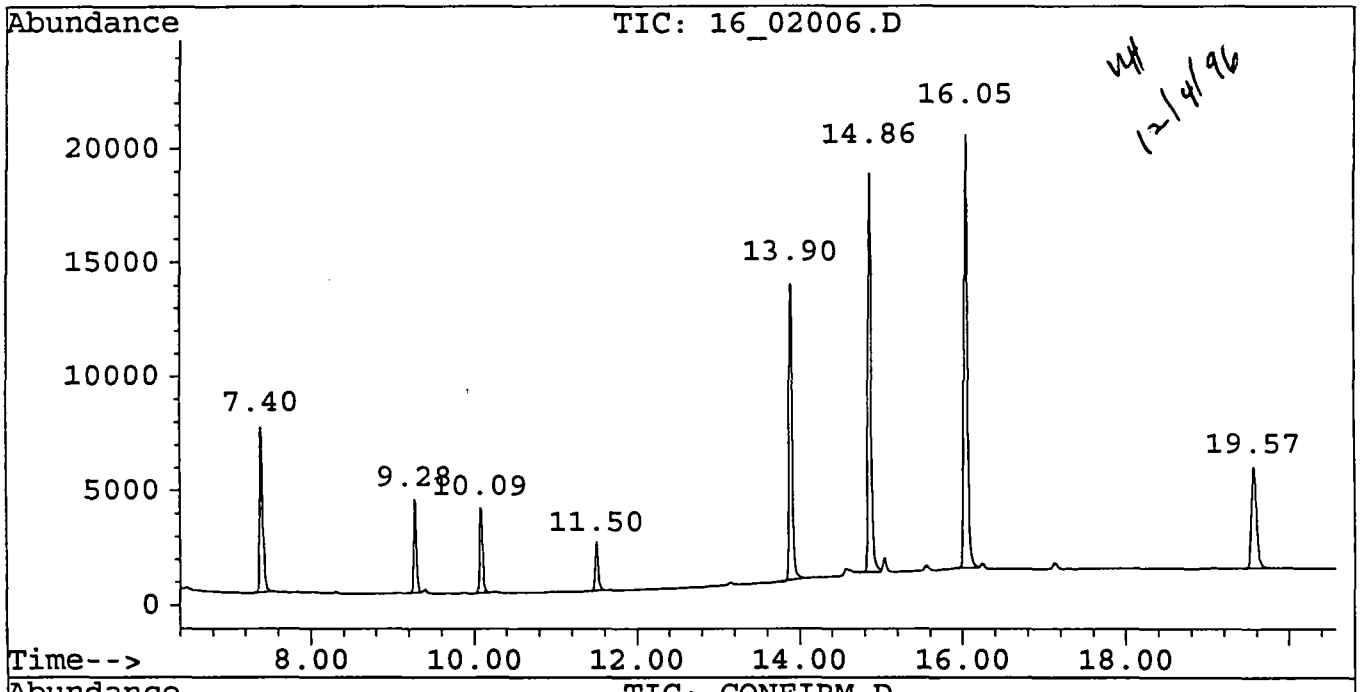
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

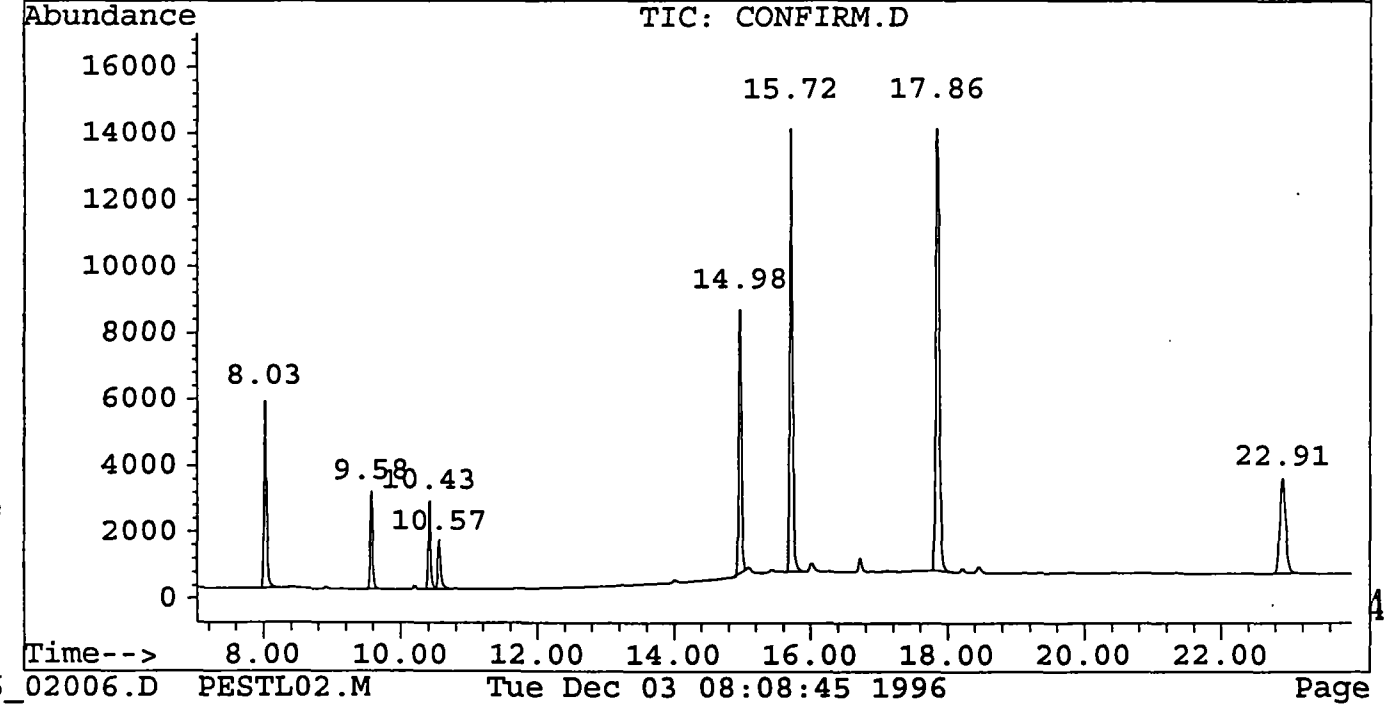
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02006.D Vial: 12
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02006.D\CONFIRM.D
Acq On : 01 Dec 96 22:47 Operator: JC
Sample : PEM16K Inst : HP_16
Misc : 5-312-1616K Multiplr: 0.0005
Quant Time: Dec 3 8:08 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





424

PEM REPORT

Data File: H:\HPCHEM\HP\16\DATA\12_02_96\16_02006.D
Date Acquired: 01 Dec 96 22:47
Inst: HP_16 Operator ID: JC
Name: PEM16K
Misc: 5-312-1616K
Method: H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title: OLM3.0 CLP Pesticide/PCB
Quant Time: Dec 3 8:08 1996

% D

Compound	Amount #1 (ng/mL)	Amount #2 (ng/mL)	Cnom	%D #1	%D #2
TCX	19.22	19.55	20	3.9	2.3
alpha-BHC	9.82	9.74	10	1.8	2.6
gamma-BHC	9.73	9.81	10	2.7	1.9
beta-BHC	9.68	9.99	10	3.2	0.1
Endrin	50.23	49.79	50	-0.5	0.4
4,4'-DDT	84.41	91.84	100	15.6	8.2
Methoxychlor	226.19	230.81	250	9.5	7.7
PCB	20.19	20.77	20	-0.9	-3.8

Acceptance range for %D: -25.0 to 25.0 * = Value outside acceptance range

Degradation

Calculated by CLP Method

% DDT deg. #1 = 0.0 % DDT deg. #2 = 0.0

% Endrin deg. #1 = 0.0 % Endrin deg. #2 = 0.0

% Total deg. #1 = 0.0 % Total deg. #2 = 0.0

Degradation acceptance criteria DDT and Endrin < 20.0 Total: < 30.0
* = Value failed acceptance criteria

Chromatographic Resolution Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02006.D Vial: 12
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02006.D\CONFIRM.D
Acq On : 01 Dec 96 22:47 Operator: JC
Sample : PEM16K Inst : HP_16
Misc : 5-312-1616K Multiplr: 0.0005

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB

RT#1	RT#2	Resolution	Compound for RT#1
7.398	9.278	100.00%	TCX
9.278	10.086	100.00%	alpha-BHC
10.086	11.502	100.00%	gamma-BHC (Lindane)
11.502	13.895	100.00%	beta-BHC
13.895	14.864	100.00%	Endrin
14.864	16.045	100.00%	4,4'-DDT
16.045	19.574	100.00%	Methoxychlor
Signal #2			
8.032	9.581	100.00%	TCX #2
9.581	10.428	100.00%	alpha-BHC #2
10.428	10.572	99.39%	gamma-BHC (Lindane) #2
10.572	14.975	100.00%	beta-BHC #2
14.975	15.722	100.00%	Endrin #2
15.722	17.861	100.00%	4,4'-DDT #2
17.861	22.914	100.00%	Methoxychlor #2

* = Value less than resolution criteria, 60 for RESC, 90 for PEM, INDA, INDB
16_02006.D PESTL02.M Tue Dec 03 08:09:09 1996

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02021.D Vial: 27
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02021.D\CONFIRM.D
Acq On : 02 Dec 96 06:16 Operator: JC
Sample : PEM16L Inst : HP_16
Misc : 5-312-1616L Multiplr: 0.0005
Quant Time: Dec 3 8:15 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
		Surrogate Compounds						
1)	S	TCX	7.40	8.03	189842	148063	0.01	0.01
					Recovery	=	100.00%	100.00%
22)	S	DCB	19.57	22.91	207600	185722	0.01	0.01
					Recovery	=	100.00%	100.00%
		Target Compounds						
2)	AE	alpha-BHC	9.28	9.58	92965	70975	0.01	0.00
	MA	gamma-BHC (Lindane)	10.08	10.43	91121	67145	0.01	0.01
	MA	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
5)	MB	Aldrin	0.00	0.00	0	0	N.D.	N.D.
6)	BE	beta-BHC	11.50	10.57	57954	45019	0.01	0.01
7)	B	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B	Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
10)	B	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	B	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	MA	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	MA	Endrin	13.89	14.97	352442	222216	0.03	0.03
15)	B	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	A	4,4'-DDD	14.57	0.00	19313	0	0.00	N.D. #
17)	MA	4,4'-DDT	14.86	15.72	476841	384806	0.05	0.05
18)	B	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	B	Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
20)	AE	Methoxychlor	16.04	17.86	584942	499948	0.12	0.12
21)	B	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25160 SDG FEX69
Signature
Date 12-9-96

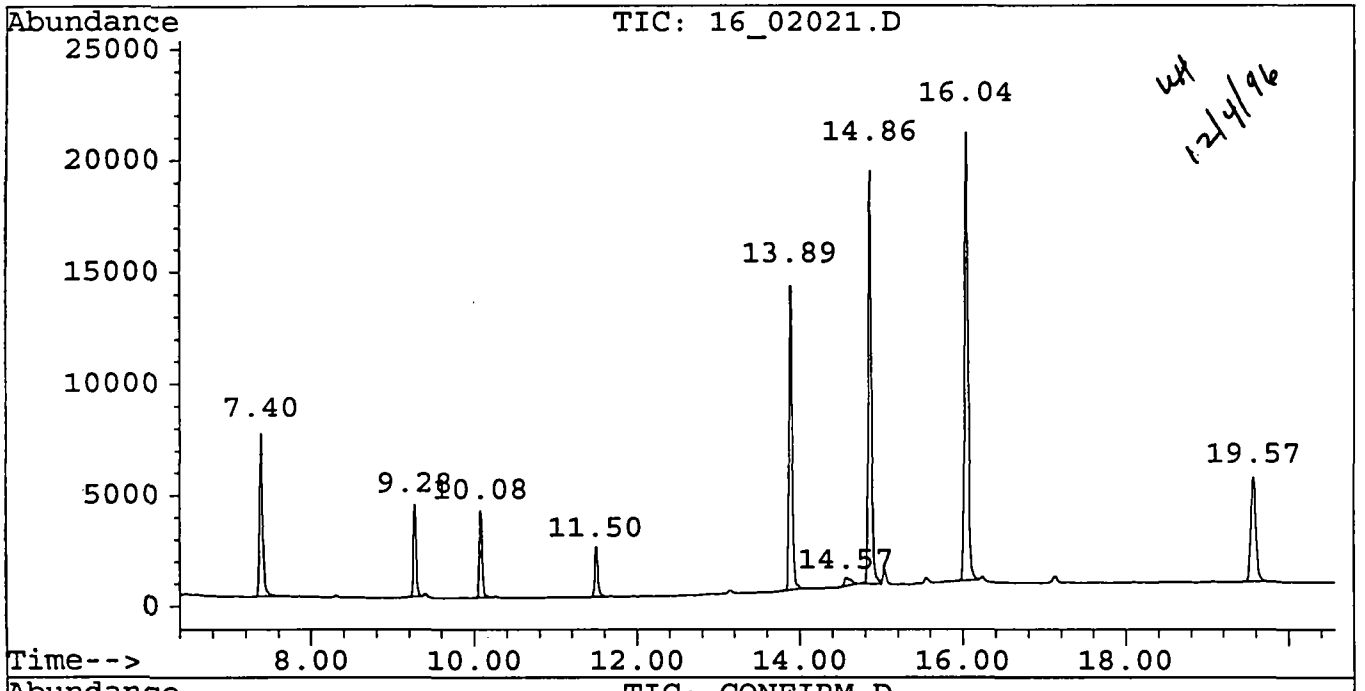
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

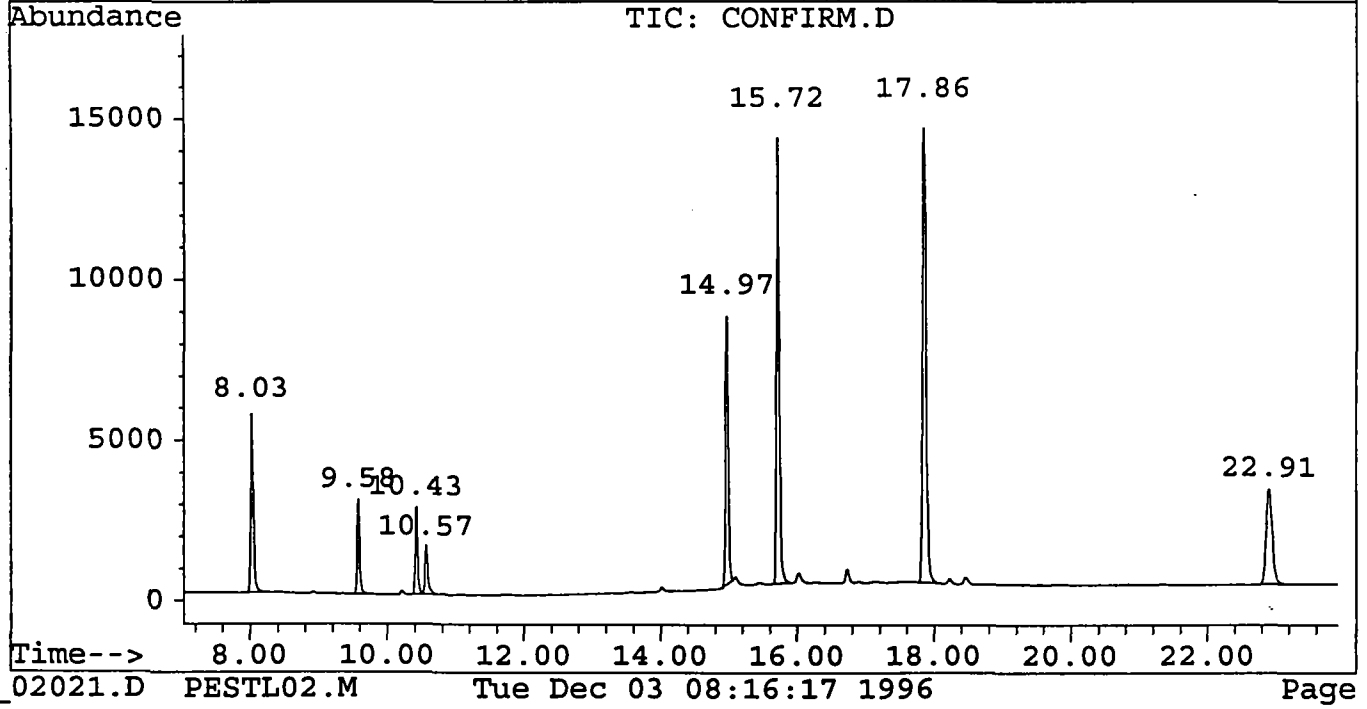
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02021.D Vial: 27
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02021.D\CONFIRM.D
Acq On : 02 Dec 96 06:16 Operator: JC
Sample : PEM16L Inst : HP_16
Misc : 5-312-1616L Multiplr: 0.0005
Quant Time: Dec 3 8:15 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





428

PEM REPORT

Data File: H:\HPCHEM\HP\16\DATA\12_02_96\16_02021.D
Date Acquired: 02 Dec 96 06:16
Inst: HP_16 Operator ID: JC
Name: PEM16L
Misc: 5-312-1616L
Method: H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title: OLM3.0 CLP Pesticide/PCB
Quant Time: Dec 3 8:15 1996

% D

Compound	Amount #1 (ng/mL)	Amount #2 (ng/mL)	Cnom	%D #1	%D #2
TCX	19.68	19.77	20	1.6	1.2
alpha-BHC	10.00	9.99	10	-0.0	0.1
gamma-BHC	10.17	10.22	10	-1.7	-2.2
beta-BHC	10.23	10.76	10	-2.3	-7.6
Endrin	53.63	52.05	50	-7.3	-4.1
4,4'-DDT	90.48	96.60	100	9.5	3.4
Methoxychlor	241.58	242.94	250	3.4	2.8
PCB	22.01	22.33	20	-10.0	-11.6

Acceptance range for %D: -25.0 to 25.0 * = Value outside acceptance range

Degradation

Calculated by CLP Method

% DDT deg. #1 = 2.9 % DDT deg. #2 = 0.0

% Endrin deg. #1 = 0.0 % Endrin deg. #2 = 0.0

% Total deg. #1 = 2.9 % Total deg. #2 = 0.0

Degradation acceptance criteria DDT and Endrin < 20.0 Total: < 30.0
* = Value failed acceptance criteria

Chromatographic Resolution Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02021.D Vial: 27
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02021.D\CONFIRM.D
Acq On : 02 Dec 96 06:16 Operator: JC
Sample : PEM16L Inst : HP_16
Misc : 5-312-1616L Multiplr: 0.0005

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB

RT#1	RT#2	Resolution	Compound for RT#1
7.396	9.275	100.00%	TCX
9.275	10.082	100.00%	alpha-BHC
10.082	11.499	100.00%	gamma-BHC (Lindane)
11.499	13.893	100.00%	beta-BHC
13.893	14.862	100.00%	Endrin
14.862	16.043	100.00%	4,4'-DDT
16.043	19.569	100.00%	Methoxychlor
Signal #2			
8.032	9.581	100.00%	TCX #2
9.581	10.428	100.00%	alpha-BHC #2
10.428	10.573	98.44%	gamma-BHC (Lindane) #2
10.573	14.975	100.00%	beta-BHC #2
14.975	15.723	100.00%	Endrin #2
15.723	17.862	100.00%	4,4'-DDT #2
17.862	22.915	100.00%	Methoxychlor #2

* = Value less than resolution criteria, 60 for RESC, 90 for PEM, INDA, INDB
16_02021.D PESTL02.M Tue Dec 03 08:16:36 1996

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02014.D Vial: 20
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02014.D\CONFIRM.D
Acq On : 02 Dec 96 02:47 Operator: JC
Sample : INDAL16D Inst : HP_16
Misc : 5-262-1616D Multiplr: 0.0005
Quant Time: Dec 3 7:55 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:55:58 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
	Surrogate Compounds						
1)	S TCX	7.40	8.03	50078	37975	0.00	0.00
				Recovery	=	0.00%	0.00%
22)	S DCB	19.57	22.92	105689	93787	0.01	0.01 #
				Recovery	=	100.00%	100.00%
	Target Compounds						
2)	AE alpha-BHC	9.28	9.58	44511	33919	0.00	0.00 #
[illegible]	MA gamma-BHC (Lindane)	10.08	10.43	44278	32908	0.00	0.00
	MA Heptachlor	10.47	11.12	46196	33647	0.00	0.00
5)	MB Aldrin	0.00	0.00	0	0	N.D.	N.D.
6)	BE beta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	B delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A Endosulfan I	12.83	13.65	42724	32485	0.00	0.00 #
10)	B gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	B alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B 4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	MA Dieldrin	13.50	14.25	79817	58914	0.00	0.01 #
14)	MA Endrin	13.90	14.98	62581	42259	0.00	0.01 #
15)	B Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	A 4,4'-DDD	14.56	15.09	60584	43459	0.01	0.01
17)	MA 4,4'-DDT	14.87	15.73	51862	40896	0.01	0.01
18)	B Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	B Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
20)	AE Methoxychlor	16.05	17.87	137552	115339	0.03	0.03
21)	B Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25760 SDG FEX69
Signature [signature]
Date 12-9-96

431

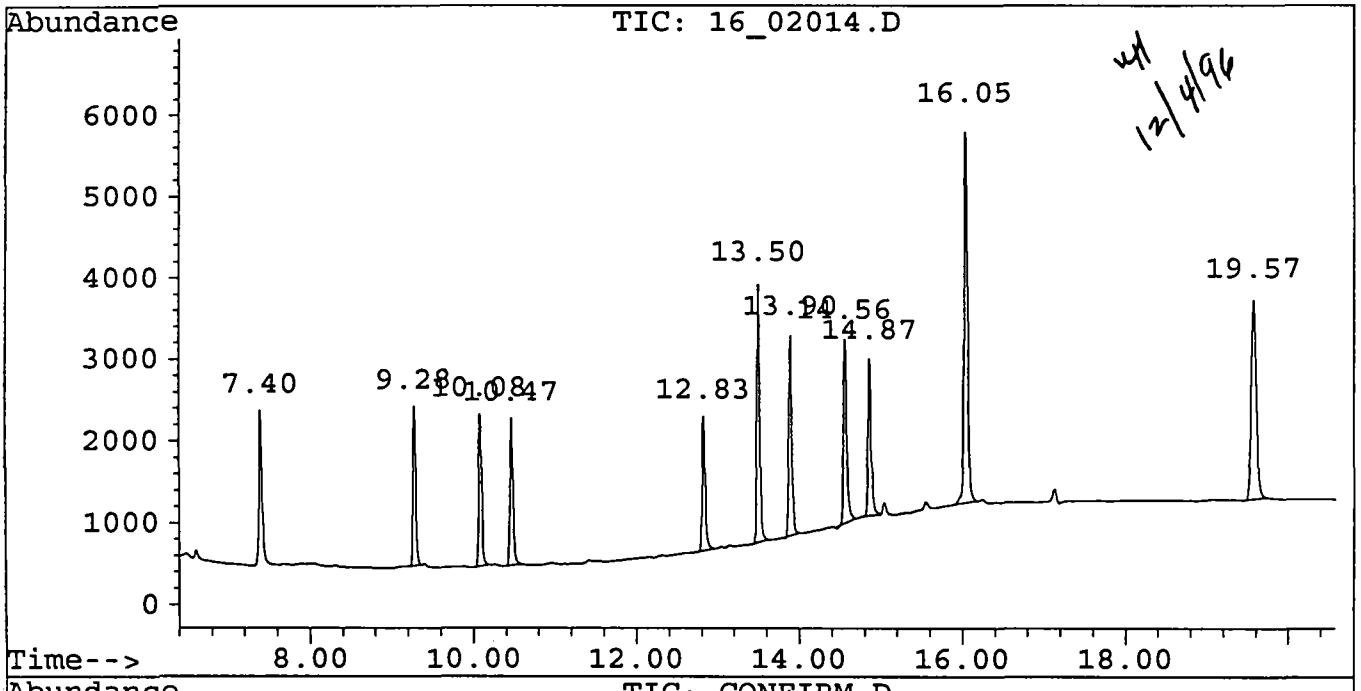
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

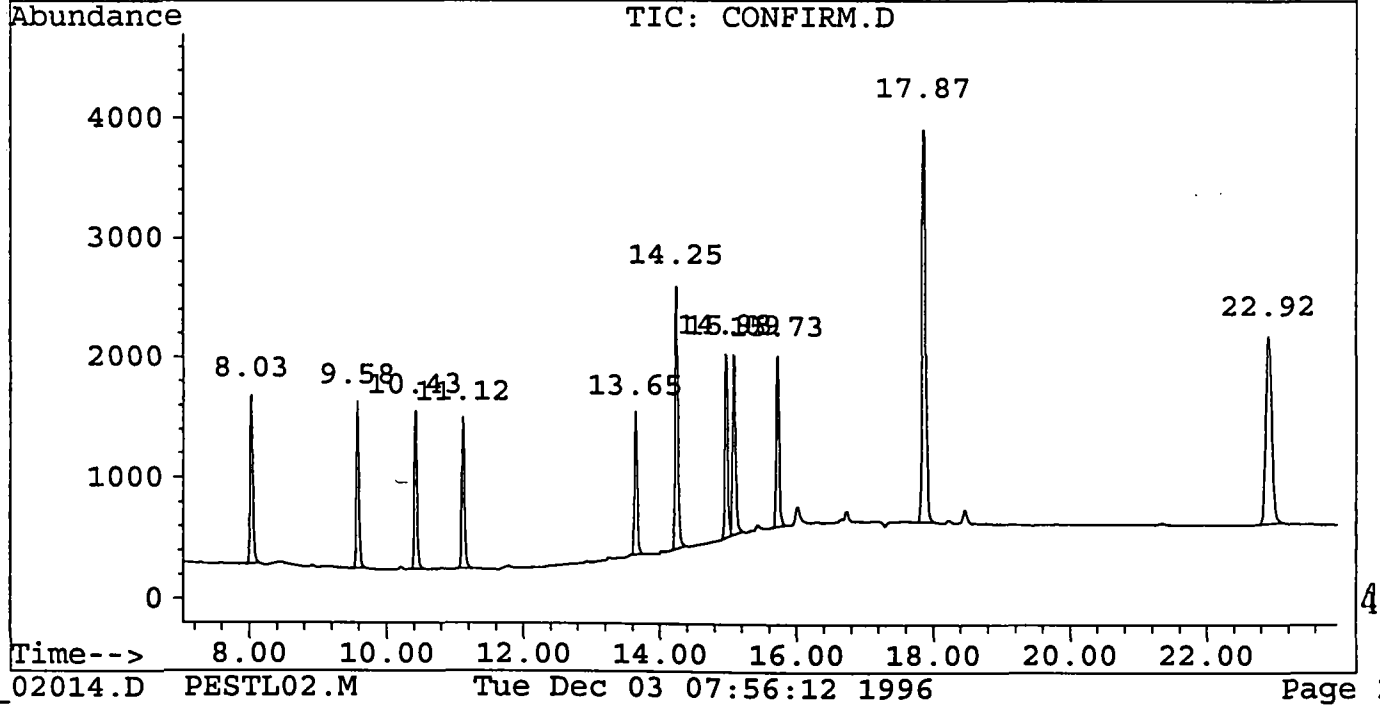
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02014.D Vial: 20
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02014.D\CONFIRM.D
Acq On : 02 Dec 96 02:47 Operator: JC
Sample : INDAL16D Inst : HP_16
Misc : 5-262-1616D Multiplr: 0.0005
Quant Time: Dec 3 7:55 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:55:58 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





432

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02016.D Vial: 22
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02016.D\CONFIRM.D
Acq On : 02 Dec 96 03:46 Operator: JC
Sample : INDAM16K Inst : HP_16
Misc : 5-261-1616K Multiplr: 0.0005
Quant Time: Dec 3 7:57 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:57:10 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
	Surrogate Compounds						
1)	S TCX	7.40	8.03	192947	149798	0.01	0.01
				Recovery	=	100.00%	100.00%
22)	S DCB	19.57	22.91	377316	332756	0.02	0.02 #
				Recovery	=	200.00%	200.00%
	Target Compounds						
2)	AE alpha-BHC	9.28	9.58	185907	142158	0.01	0.01 #
3)	MA gamma-BHC (Lindane)	10.08	10.43	179136	131433	0.01	0.01
4)	MA Heptachlor	10.46	11.12	162936	117667	0.01	0.01
5)	MB Aldrin	0.00	0.00	0	0	N.D.	N.D.
6)	BE beta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	B delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A Endosulfan I	12.83	13.65	168872	128761	0.01	0.01 #
10)	B gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	B alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B 4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	MA Dieldrin	13.50	14.25	338365	243388	0.02	0.03 #
14)	MA Endrin	13.89	14.98	262868	170773	0.02	0.03 #
15)	B Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	A 4,4'-DDD	14.56	15.09	262784	177536	0.02	0.03
17)	MA 4,4'-DDT	14.86	15.72	210812	159339	0.03	0.02
18)	B Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.d
19)	B Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
20)	AE Methoxychlor	16.04	17.86	484257	411578	0.12	0.12
21)	B Endrin Ketone	0.00	0.00	0	0	N.D.d	N.D.d

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25160 SDG FEX69
Signature Priscilla Stuver
Date 12-9-69

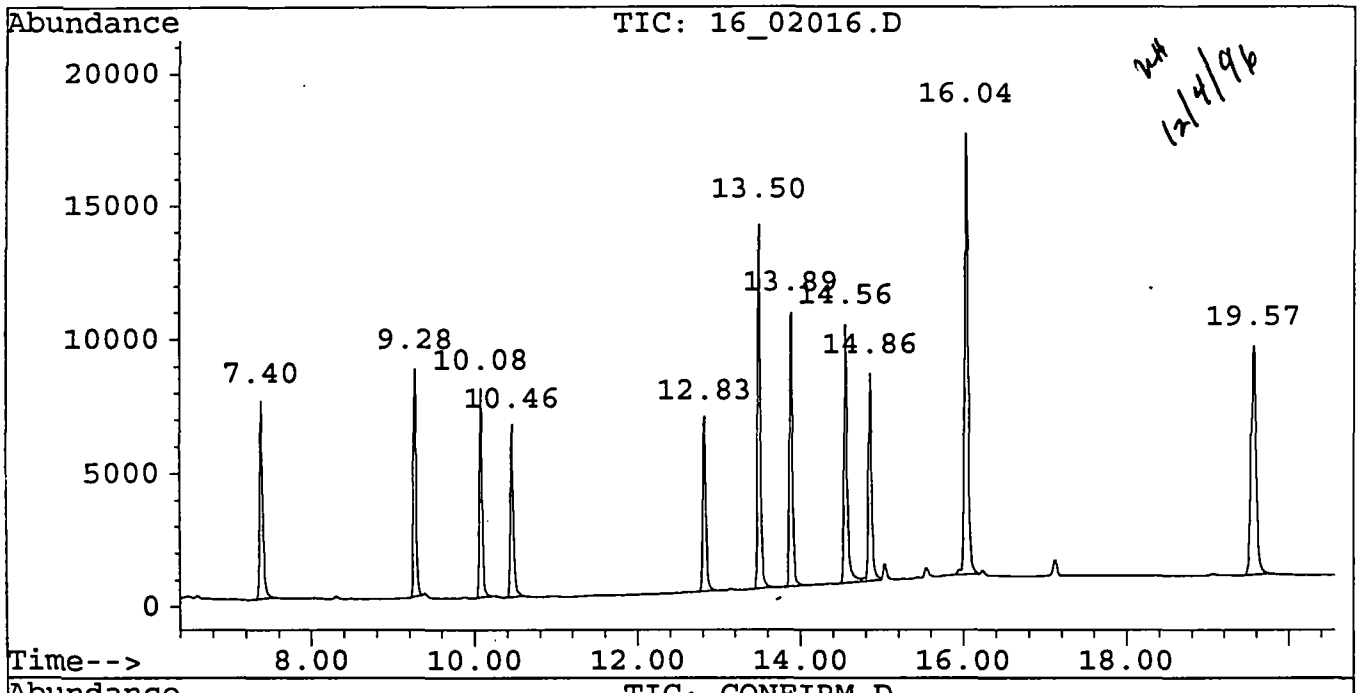
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted
16_02016.D PESTL02.M Tue Dec 03 07:57:18 1996 Page 1

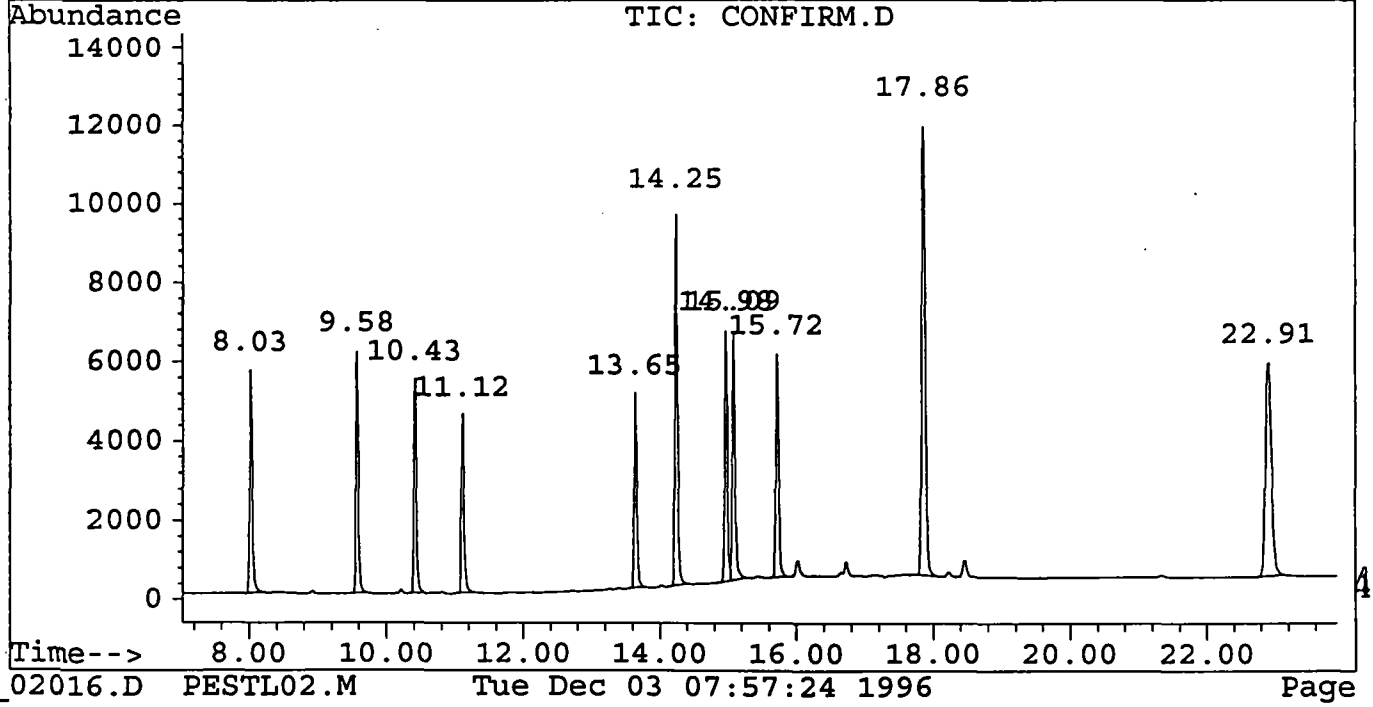
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02016.D Vial: 22
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02016.D\CONFIRM.D
Acq On : 02 Dec 96 03:46 Operator: JC
Sample : INDAM16K Inst : HP_16
Misc : 5-261-1616K Multiplr: 0.0005
Quant Time: Dec 3 7:57 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:57:10 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





434

Chromatographic Resolution Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02016.D Vial: 22
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02016.D\CONFIRM.D
Acq On : 02 Dec 96 03:46 Operator: JC
Sample : INDAM16K Inst : HP_16
Misc : 5-261-1616K Multiplr: 0.0005

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB

RT#1	RT#2	Resolution	Compound for RT#1
7.397	9.276	100.00%	TCX
9.276	10.083	100.00%	alpha-BHC
10.083	10.463	100.00%	gamma-BHC (Lindane)
10.463	12.827	100.00%	Heptachlor
12.827	13.501	100.00%	Endosulfan I
13.501	13.893	100.00%	Dieldrin
13.893	14.562	100.00%	Endrin
14.562	14.863	100.00%	4,4'-DDD
14.863	16.044	100.00%	4,4'-DDT
16.044	19.570	100.00%	Methoxychlor
Signal #2			
8.032	9.581	100.00%	TCX #2
9.581	10.428	100.00%	alpha-BHC #2
10.428	11.122	100.00%	gamma-BHC (Lindane) #2
11.122	13.651	100.00%	Heptachlor #2
13.651	14.249	100.00%	Endosulfan I #2
14.249	14.976	100.00%	Dieldrin #2
14.976	15.088	96.42%	Endrin #2
15.088	15.725	100.00%	4,4'-DDD #2
15.725	17.863	100.00%	4,4'-DDT #2
17.863	22.914	100.00%	Methoxychlor #2

* = Value less than resolution criteria, 60 for RESC, 90 for PEM, INDA, INDB
16_02016.D PESTL02.M Tue Dec 03 07:57:48 1996

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02018.D Vial: 24
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02018.D\CONFIRM.D
Acq On : 02 Dec 96 04:46 Operator: JC
Sample : INDAH16D Inst : HP_16
Misc : 5-260-1616D Multiplr: 0.0005
Quant Time: Dec 3 7:58 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:58:46 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
		Surrogate Compounds						
1)	S	TCX	7.40	8.03	742001	587945	0.04	0.04E
					Recovery	=	400.00%	400.00%
22)	S	DCB	19.57	22.92	1300341	1163577	0.07	0.07E
					Recovery	=	700.00%	700.00%
		Target Compounds						
2)	AE	alpha-BHC	9.28	9.58	808002	632833	0.04	0.04E
	MA	gamma-BHC (Lindane)	10.08	10.43	723451	540266	0.04	0.04E
	MA	Heptachlor	10.46	11.12	569463	409697	0.03E	0.03E
5)	MB	Aldrin	0.00	0.00	0	0	N.D.	N.D.
6)	BE	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	B	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B	Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A	Endosulfan I	12.83	13.65	679344	534111	0.04	0.04E
10)	B	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	B	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	MA	Dieldrin	13.50	14.25	1399414	1012151	0.08	0.08E
14)	MA	Endrin	13.89	14.98	1056117	686407	0.08	0.08E
15)	B	Endosulfan II	0.00	0.00	0	0	N.D.d	N.D.
16)	A	4,4'-DDD	14.56	15.09	1033157	709286	0.08E	0.08E
17)	MA	4,4'-DDT	14.86	15.72	767849	606262	0.07E	0.08E
18)	B	Endrin Aldehyde	0.00	0.00	0	0	N.D.d	N.D.d
19)	B	Endosulfan Sulfate	0.00	0.00	0	0	N.D.d	N.D.
20)	AE	Methoxychlor	16.04	17.86	1715435	1389687	0.35E	0.34E
21)	B	Endrin Ketone	0.00	0.00	0	0	N.D.d	N.D.d

COPY

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25160 SDG FE X69
Signature
Date 12-9-96

436

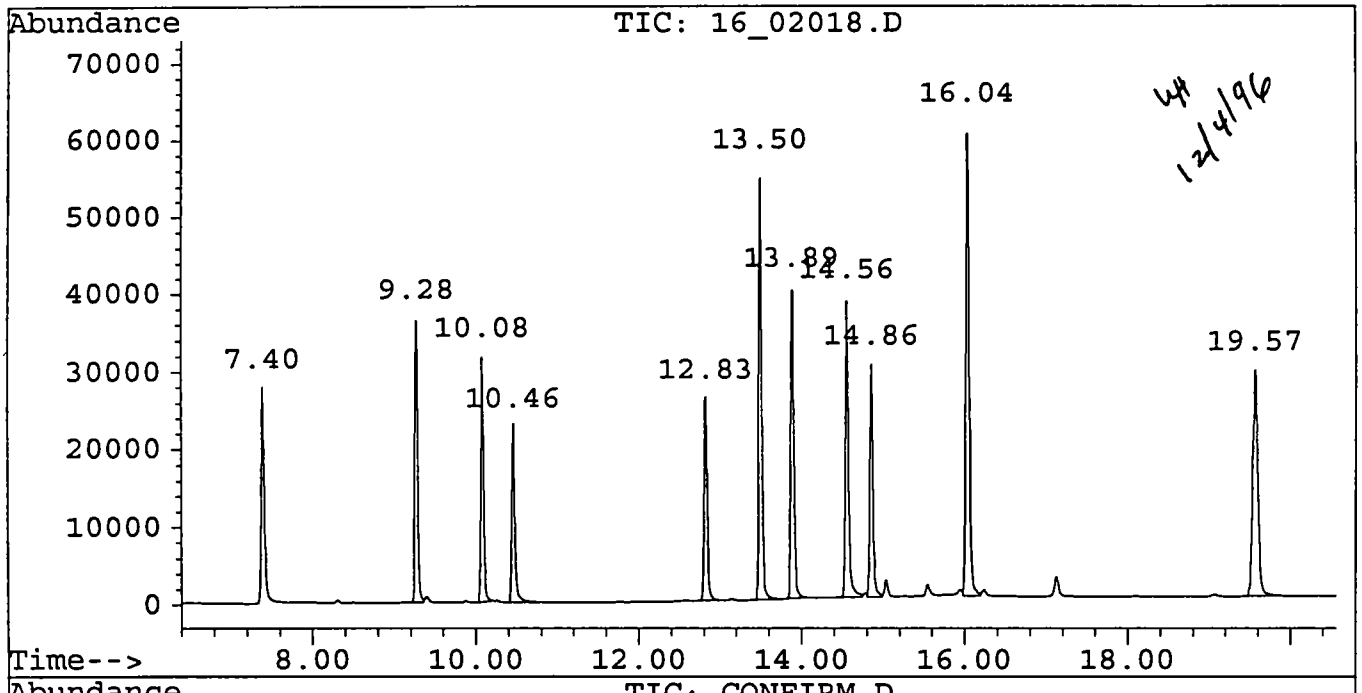
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

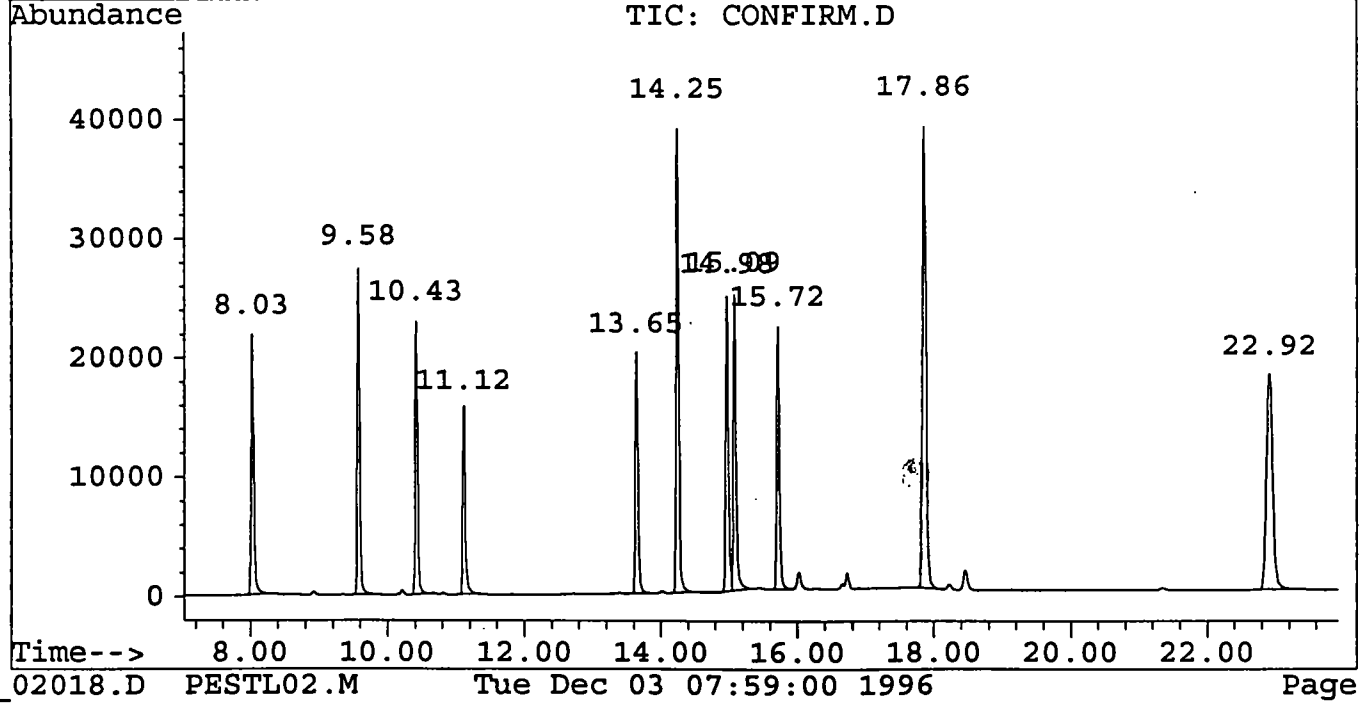
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02018.D Vial: 24
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02018.D\CONFIRM.D
Acq On : 02 Dec 96 04:46 Operator: JC
Sample : INDAH16D Inst : HP_16
Misc : 5-260-1616D Multiplr: 0.0005
Quant Time: Dec 3 7:58 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:58:46 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





437

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02015.D Vial: 21
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02015.D\CONFIRM.D
Acq On : 02 Dec 96 03:16 Operator: JC
Sample : INDBL16D Inst : HP_16
Misc : 5-265-1616D Multiplr: 0.0005
Quant Time: Dec 3 7:56 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:56:35 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
		Surrogate Compounds						
1)	S	TCX	7.40	8.03	51459	39331	0.00	0.00
					Recovery	=	0.00%	0.00%
22)	S	DCB	19.57	22.92	109163	96618	0.01	0.01 #
					Recovery	=	100.00%	100.00%
		Target Compounds						
2)	AE	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
	MA	gamma-BHC (Lindane)	0.00	0.00	0	0	N.D.	N.D.
	MA	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
5)	MB	Aldrin	10.98	11.82	45817	35340	0.00	0.00 #
6)	BE	beta-BHC	11.50	10.57	31739	21946	0.00	0.00
7)	B	delta-BHC	11.95	11.35	40007	30831	0.00	0.00 #
8)	B	Heptachlor Epoxide	12.32	12.94	47067	36299	0.00	0.00 #
9)	A	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
10)	B	gamma-Chlordane	12.90	13.26	48259	39202	0.00	0.00 #
11)	B	alpha-Chlordane	13.04	13.57	46575	38324	0.00	0.00 #
12)	B	4,4'-DDE	13.14	14.02	81465	59723	0.00	0.01 #
13)	MA	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	MA	Endrin	0.00	0.00	0	0	N.D.	N.D.
15)	B	Endosulfan II	14.76	15.33	76633	60855	0.00	0.01 #
16)	A	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
17)	MA	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.
18)	B	Endrin Aldehyde	15.55	16.03	60531	57299	0.00	0.01 #
19)	B	Endosulfan Sulfate	16.20	16.30	71838	55819	0.00	0.01 #
20)	AE	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	B	Endrin Ketone	17.13	18.46	75111	62771	0.00	0.01 #

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25460 SDG FEX69
Signature [illegible]
Date 12-9-96

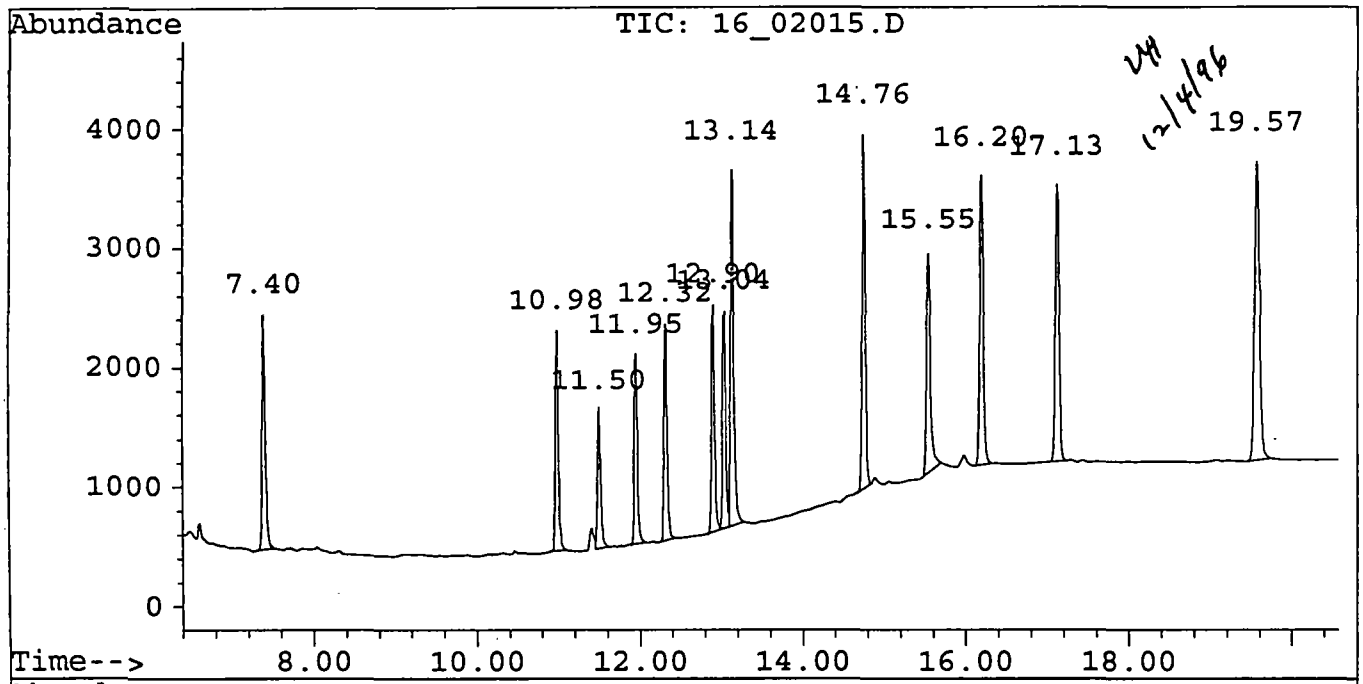
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

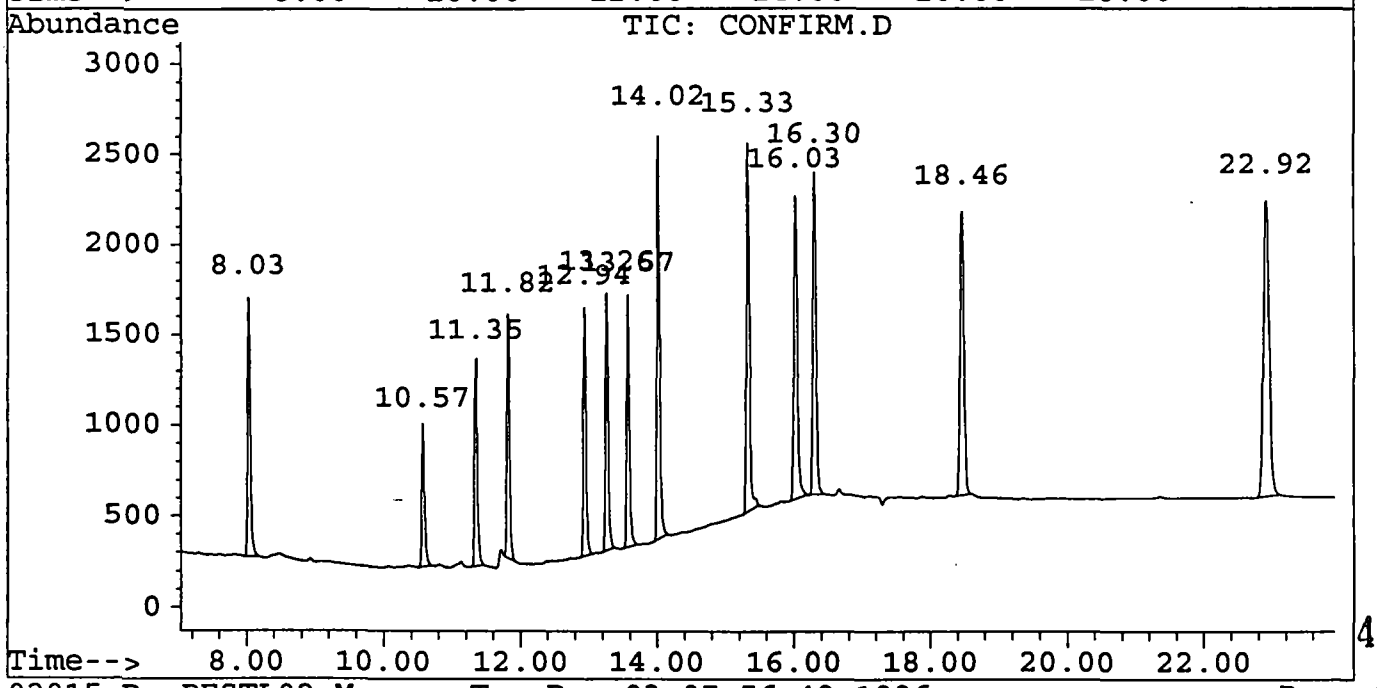
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02015.D Vial: 21
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02015.D\CONFIRM.D
Acq On : 02 Dec 96 03:16 Operator: JC
Sample : INDBL16D Inst : HP_16
Misc : 5-265-1616D Multiplr: 0.0005
Quant Time: Dec 3 7:56 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:56:35 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02017.D Vial: 23
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02017.D\CONFIRM.D
Acq On : 02 Dec 96 04:16 Operator: JC
Sample : INDBM16K Inst : HP_16
Misc : 5-264-1616K Multiplr: 0.0005
Quant Time: Dec 3 7:57 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:57:59 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
		Surrogate Compounds							
1)	S	TCX	7.40	8.03	194970	151695	0.01	0.01	
					Recovery	=	100.00%	100.00%	
22)	S	DCB	19.57	22.92	390773	346656	0.02	0.02	
					Recovery	=	200.00%	200.00%	
		Target Compounds							
2)	AE	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
	MA	gamma-BHC (Lindane)	0.00	0.00	0	0	N.D.	N.D.	
	MA	Heptachlor	0.00	0.00	0	0	N.D.	N.D.	
5)	MB	Aldrin	10.98	11.82	187879	148541	0.01	0.01	#
6)	BE	beta-BHC	11.50	10.57	113285	83702	0.01	0.01	
7)	B	delta-BHC	11.95	11.34	168571	124669	0.01	0.01	
8)	B	Heptachlor Epoxide	12.32	12.94	182018	138325	0.01	0.01	#
9)	A	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.	
10)	B	gamma-Chlordane	12.90	13.26	184499	148620	0.01	0.01	#
11)	B	alpha-Chlordane	13.04	13.57	179107	145079	0.01	0.01	#
12)	B	4,4'-DDE	13.14	14.01	359081	268324	0.02	0.03	#
13)	MA	Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14)	MA	Endrin	0.00	0.00	0	0	N.D.	N.D.	
15)	B	Endosulfan II	14.76	15.33	306469	242260	0.02	0.02	#
16)	A	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.	
17)	MA	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.	
18)	B	Endrin Aldehyde	15.55	16.02	268017	213950	0.02	0.03	#
19)	B	Endosulfan Sulfate	16.20	16.30	290614	225470	0.02	0.02	#
20)	AE	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.	
21)	B	Endrin Ketone	17.13	18.46	317556	256762	0.02	0.02	

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25160 SDG FEX69
Signature
Date 12-9-96

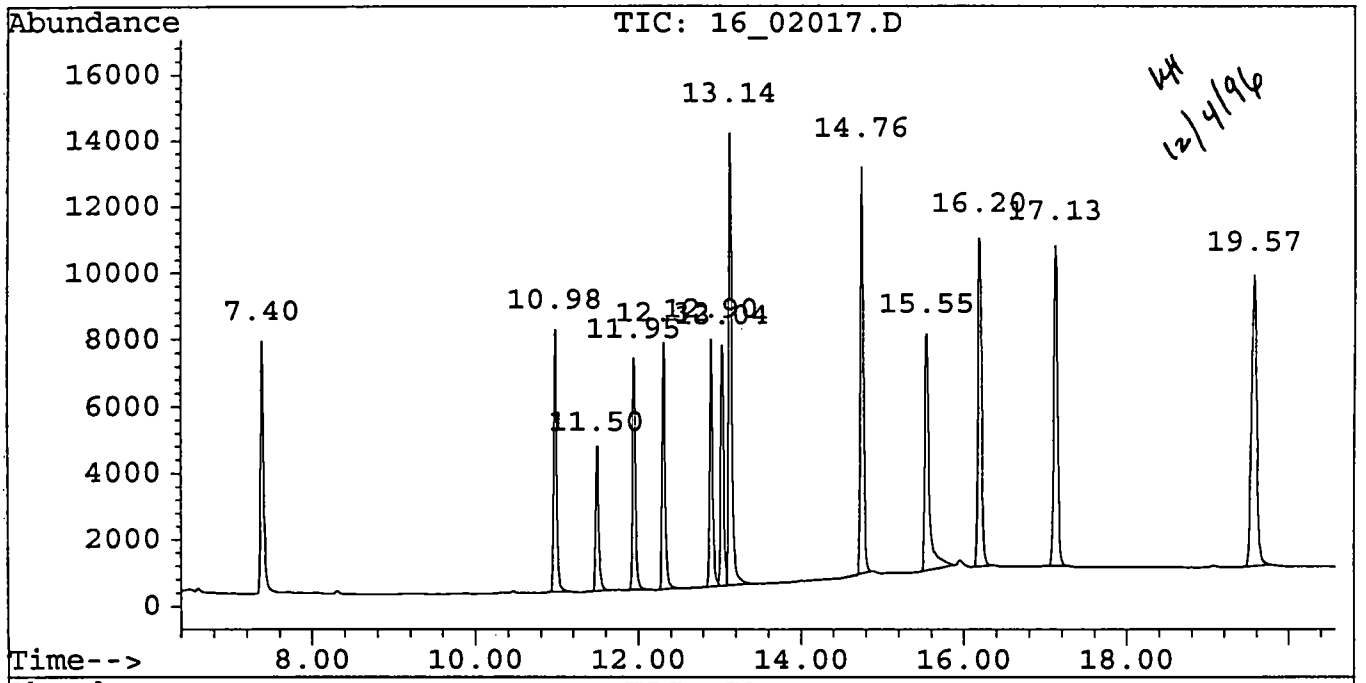
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

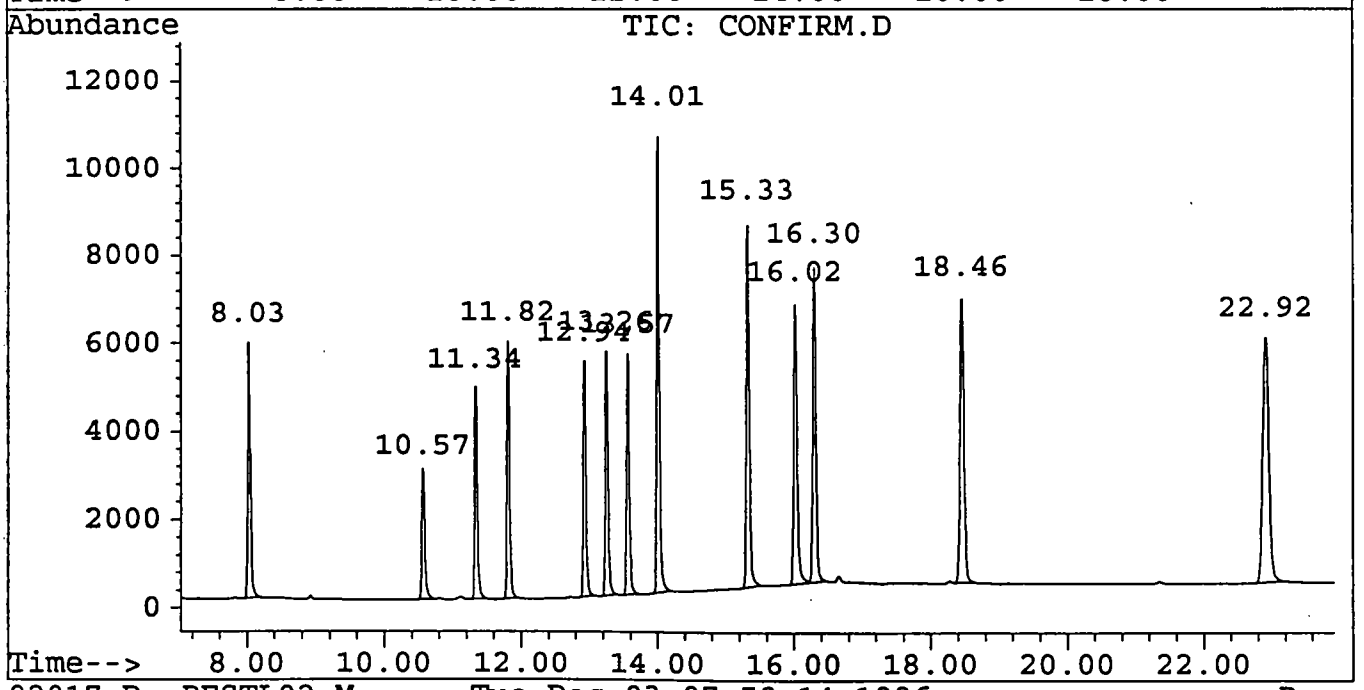
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02017.D Vial: 23
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02017.D\CONFIRM.D
Acq On : 02 Dec 96 04:16 Operator: JC
Sample : INDBM16K Inst : HP_16
Misc : 5-264-1616K Multiplr: 0.0005
Quant Time: Dec 3 7:57 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:57:59 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





Chromatographic Resolution Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02017.D Vial: 23
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02017.D\CONFIRM.D
Acq On : 02 Dec 96 04:16 Operator: JC
Sample : INDBM16K Inst : HP_16
Misc : 5-264-1616K Multiplr: 0.0005

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB

RT#1	RT#2	Resolution	Compound for RT#1
7.397	10.983	100.00%	TCX
10.983	11.499	100.00%	Aldrin
11.499	11.952	100.00%	beta-BHC
11.952	12.318	100.00%	delta-BHC
12.318	12.901	100.00%	Heptachlor Epoxide
12.901	13.039	98.90%	gamma-Chlordane
13.039	13.137	93.61%	alpha-Chlordane
13.137	14.756	100.00%	4,4'-DDE
14.756	15.547	100.00%	Endosulfan II
15.547	16.199	100.00%	Endrin Aldehyde
16.199	17.129	100.00%	Endosulfan Sulfate
17.129	19.571	100.00%	Endrin Ketone
Signal #2			
8.032	10.572	100.00%	TCX #2
10.572	11.345	100.00%	beta-BHC #2
11.345	11.817	100.00%	delta-BHC #2
11.817	12.936	100.00%	Aldrin #2
12.936	13.259	100.00%	Heptachlor Epoxide #2
13.259	13.572	100.00%	gamma-Chlordane #2
13.572	14.014	100.00%	alpha-Chlordane #2
14.014	15.328	100.00%	4,4'-DDE #2
15.328	16.024	100.00%	Endosulfan II #2
16.024	16.302	99.76%	Endrin Aldehyde #2
16.302	18.459	100.00%	Endosulfan Sulfate #2
18.459	22.916	100.00%	Endrin Ketone #2

* = Value less than resolution criteria, 60 for RESC, 90 for PEM, INDA, INDB
16_02017.D PESTL02.M Tue Dec 03 07:58:37 1996

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02019.D Vial: 25
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02019.D\CONFIRM.D
Acq On : 02 Dec 96 05:16 Operator: JC
Sample : INDBH16D Inst : HP_16
Misc : 5-263-1616D Multiplr: 0.0005
Quant Time: Dec 3 7:59 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
		Surrogate Compounds						
1)	S	TCX	7.40	8.03	771918	621915	0.04E	0.04E
					Recovery	=	400.00%	400.00%
22)	S	DCB	19.57	22.91	1351270	1213337	0.07E	0.07E
					Recovery	=	700.00%	700.00%
		Target Compounds						
2)	AE	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3)	MA	gamma-BHC (Lindane)	0.00	0.00	0	0	N.D.	N.D.
4)	MA	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
5)	MB	Aldrin	10.98	11.82	837192	693607	0.04	0.05E
6)	BE	beta-BHC	11.50	10.57	421127	320128	0.04E	0.04E
7)	B	delta-BHC	11.95	11.34	755137	554514	0.04	0.04E
8)	B	Heptachlor Epoxide	12.32	12.94	764297	590391	0.04	0.04E
9)	A	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
10)	B	gamma-Chlordane	12.90	13.26	761713	632394	0.04	0.04E
11)	B	alpha-Chlordane	13.04	13.57	727813	609632	0.04	0.04E
12)	B	4,4'-DDE	13.14	14.01	1550826	1248941	0.09	0.09E
13)	MA	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	MA	Endrin	0.00	0.00	0	0	N.D.	N.D.
15)	B	Endosulfan II	14.75	15.33	1304433	1025542	0.09	0.08E
16)	A	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
17)	MA	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.
18)	B	Endrin Aldehyde	15.55	16.02	1091407	828646	0.08	0.08E
19)	B	Endosulfan Sulfate	16.20	16.30	1176376	946442	0.08	0.08E
20)	AE	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	B	Endrin Ketone	17.13	18.46	1284834	1036258	0.08	0.08E

COPY

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25160 SDG FEX69
Signature [illegible]
Date 12-9-96

443

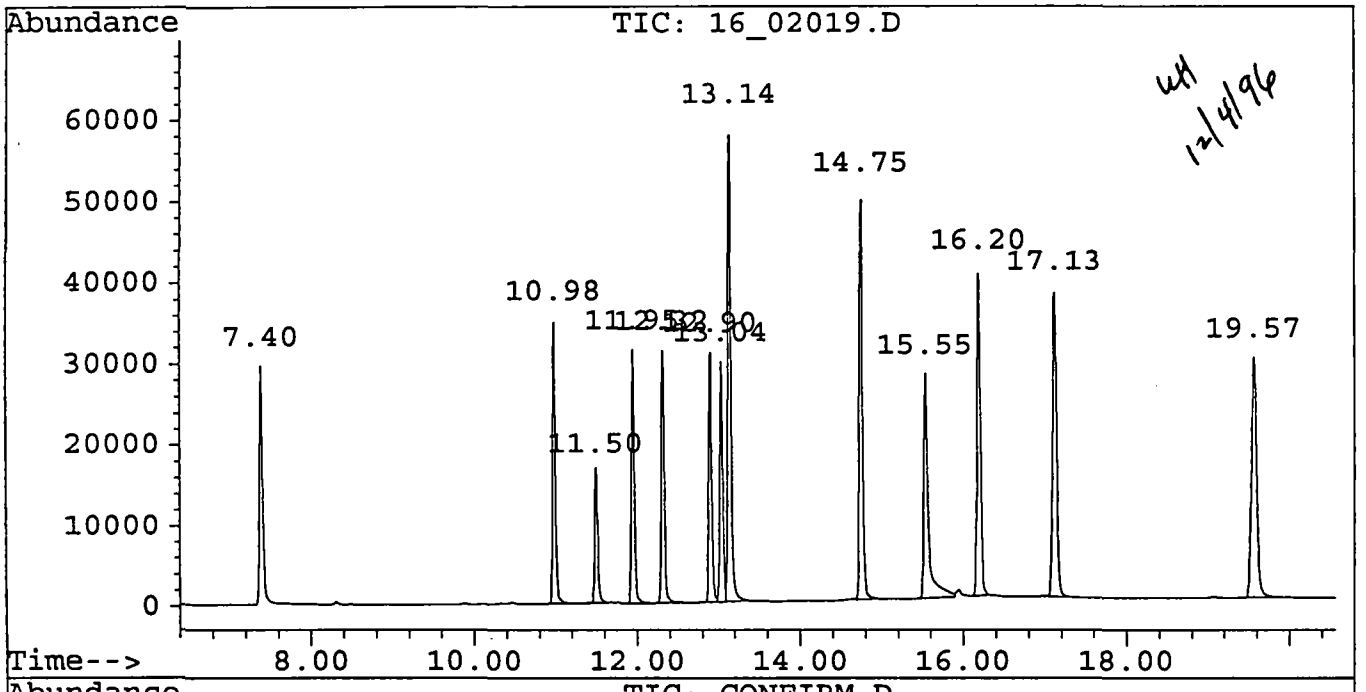
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

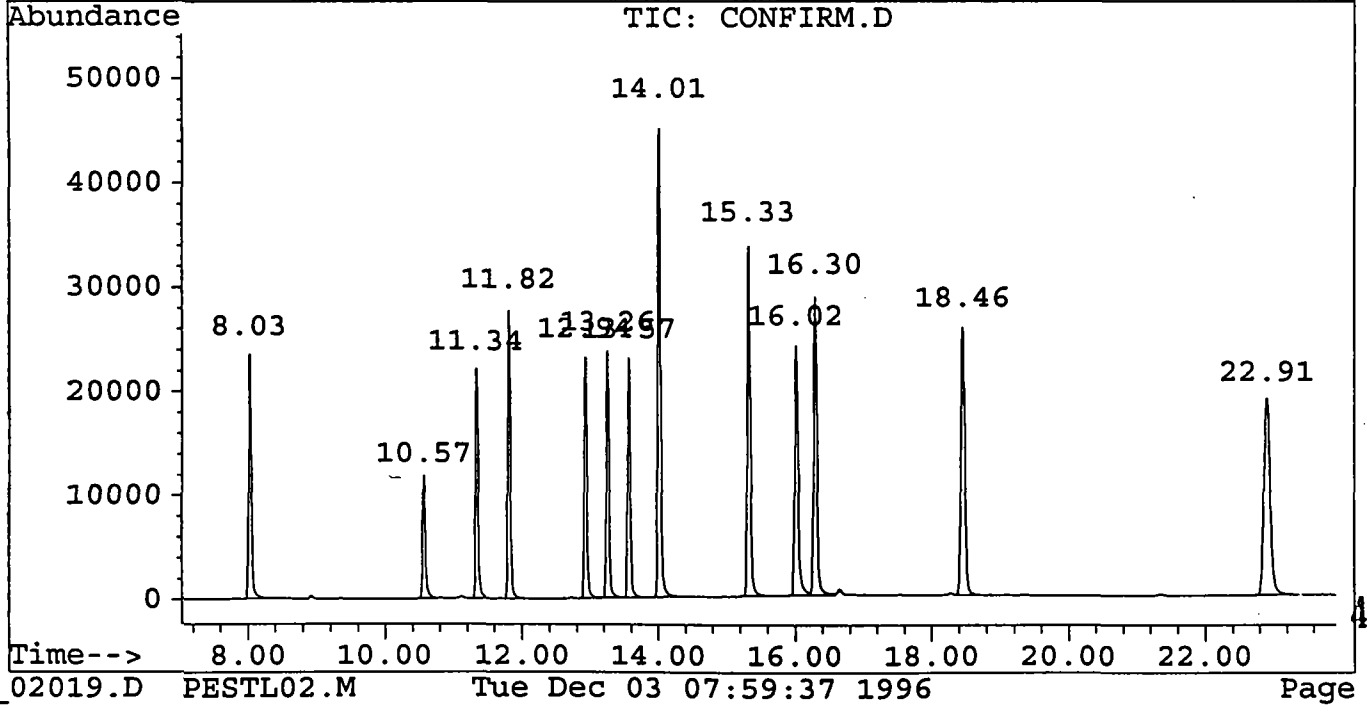
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02019.D Vial: 25
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02019.D\CONFIRM.D
Acq On : 02 Dec 96 05:16 Operator: JC
Sample : INDBH16D Inst : HP_16
Misc : 5-263-1616D Multiplr: 0.0005
Quant Time: Dec 3 7:59 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





444

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02007.D Vial: 13
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02007.D\CONFIRM.D
Acq On : 01 Dec 96 23:17 Operator: JC
Sample : AR166016D Inst : HP_16
Misc : 5-267-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:19 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:19:15 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
Surrogate Compounds							
1) S TCX	7.40	8.03	172376	134650	0.01	0.01	
			Recovery	=	100.00%	100.00%	
38) S DCB	19.57	22.91	178992	162325	0.01	0.01	
			Recovery	=	100.00%	100.00%	
Target Compounds							
2) L1 Aroclor-1016	8.56	9.49	27654	19909	0.05	0.06	
L1 Aroclor-1016 {2}	9.36	10.38	51958	48209	0.05	0.05	
L1 Aroclor-1016 {3}	10.25	11.14	101582	84028	0.05	0.05	
5) L1 Aroclor-1016 {4}	10.52	11.48	45674	29846	0.05	0.06	
6) L1 Aroclor-1016 {5}	11.40	11.77	43109	41230	0.05	0.06	
Total Aroclor-1016			269977	223223	0.26	0.28	
Total Aroclor-1221			0	0	N.D.	N.D.	
Total Aroclor-1232			0	0	N.D.	N.D.	
Total Aroclor-1242			0	0	N.D.	N.D.	
Total Aroclor-1248			0	0	N.D.	N.D.	
Total Aroclor-1254			0	0	N.D.	N.D.	
29) L7 Aroclor-1260	13.64	14.33	57297	31144	0.05	0.05	
30) L7 Aroclor-1260 {2}	14.03	14.82	64183	58784	0.05	0.05	
31) L7 Aroclor-1260 {3}	14.66	15.23	83079	21890	0.06	0.07	#
32) L7 Aroclor-1260 {4}	15.89	16.95	76265	75703	0.06	0.05	
33) L7 Aroclor-1260 {5}	16.68	18.27	65084	40011	0.05	0.05	
Total Aroclor-1260			345907	227532	0.27	0.28	
Total Toxaphene			0	0	N.D.	N.D.	

COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25H6D SDG FEX69
Signature [signature]
Date 12-9-96

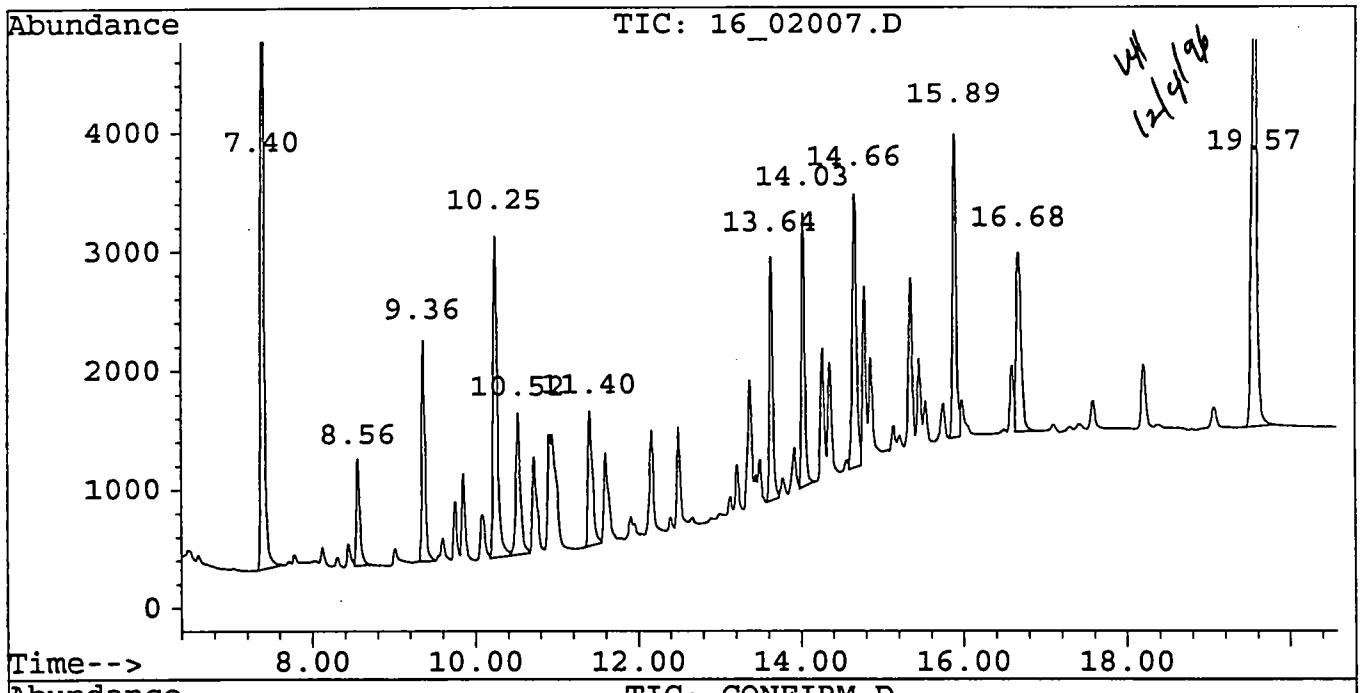
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

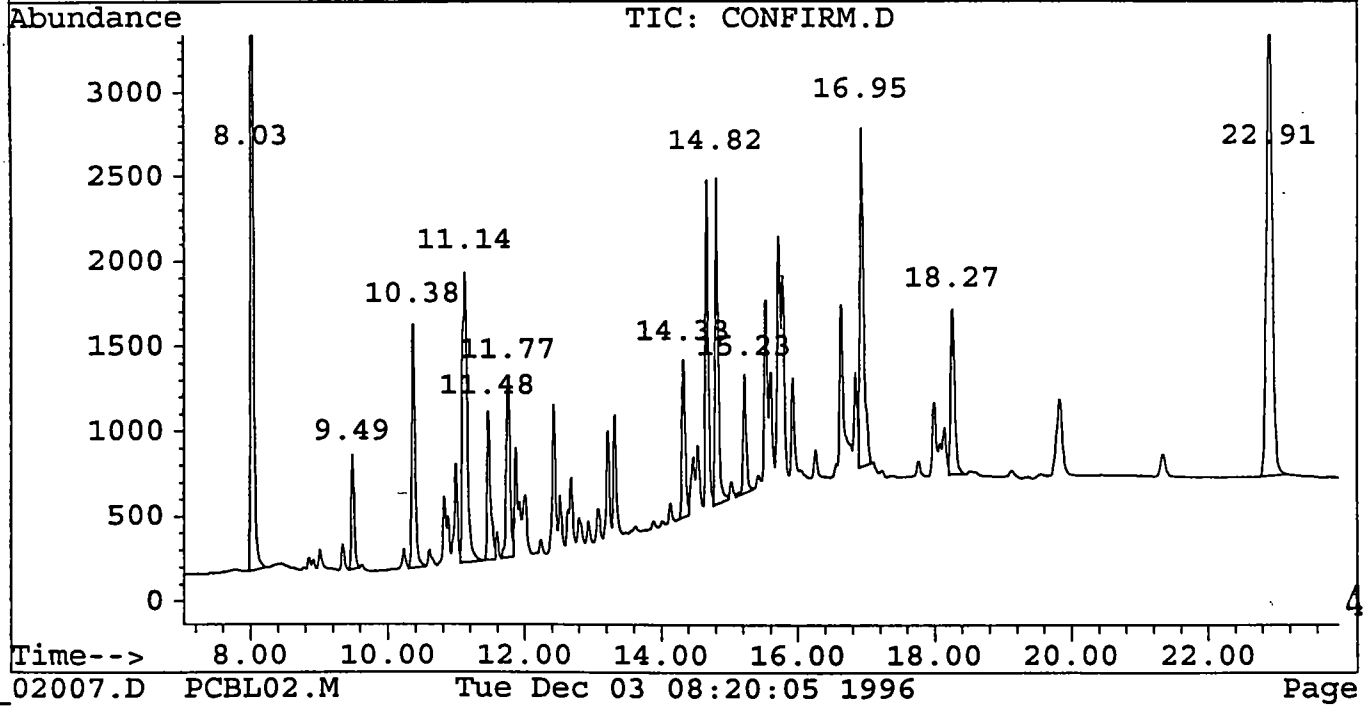
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02007.D Vial: 13
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02007.D\CONFIRM.D
Acq On : 01 Dec 96 23:17 Operator: JC
Sample : AR166016D Inst : HP_16
Misc : 5-267-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:19 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:19:15 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





446

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02008.D Vial: 14
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02008.D\CONFIRM.D
Acq On : 01 Dec 96 23:47 Operator: JC
Sample : AR122116D Inst : HP_16
Misc : 5-268-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:21 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:21:07 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
Surrogate Compounds							
1) S TCX	7.40	8.03	184279	136667	0.01	0.01	
			Recovery	=	100.00%	100.00%	
38) S DCB	19.57	22.91	182203	166303	0.01	0.01	
			Recovery	=	100.00%	100.00%	
Target Compounds							
Total Aroclor-1016			0	0	N.D.	N.D.	
L2 Aroclor-1221	8.13	9.02	30368	25736	0.10	0.10	
8) L2 Aroclor-1221 {2}	8.44	9.35	22544	19138	0.09	0.12	#
9) L2 Aroclor-1221 {3}	8.56	9.49	81327	58414	0.10	0.11	
Total Aroclor-1221			134240	103288	0.30	0.33	
Total Aroclor-1232			0	0	N.D.	N.D.	
Total Aroclor-1242			0	0	N.D.	N.D.	
Total Aroclor-1248			0	0	N.D.	N.D.	
Total Aroclor-1254			0	0	N.D.	N.D.	
Total Aroclor-1260			0	0	N.D.	N.D.	
Total Toxaphene			0	0	N.D.	N.D.	

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 2860 SDG FEX69
Signature [illegible]
Date 12-9-96

447

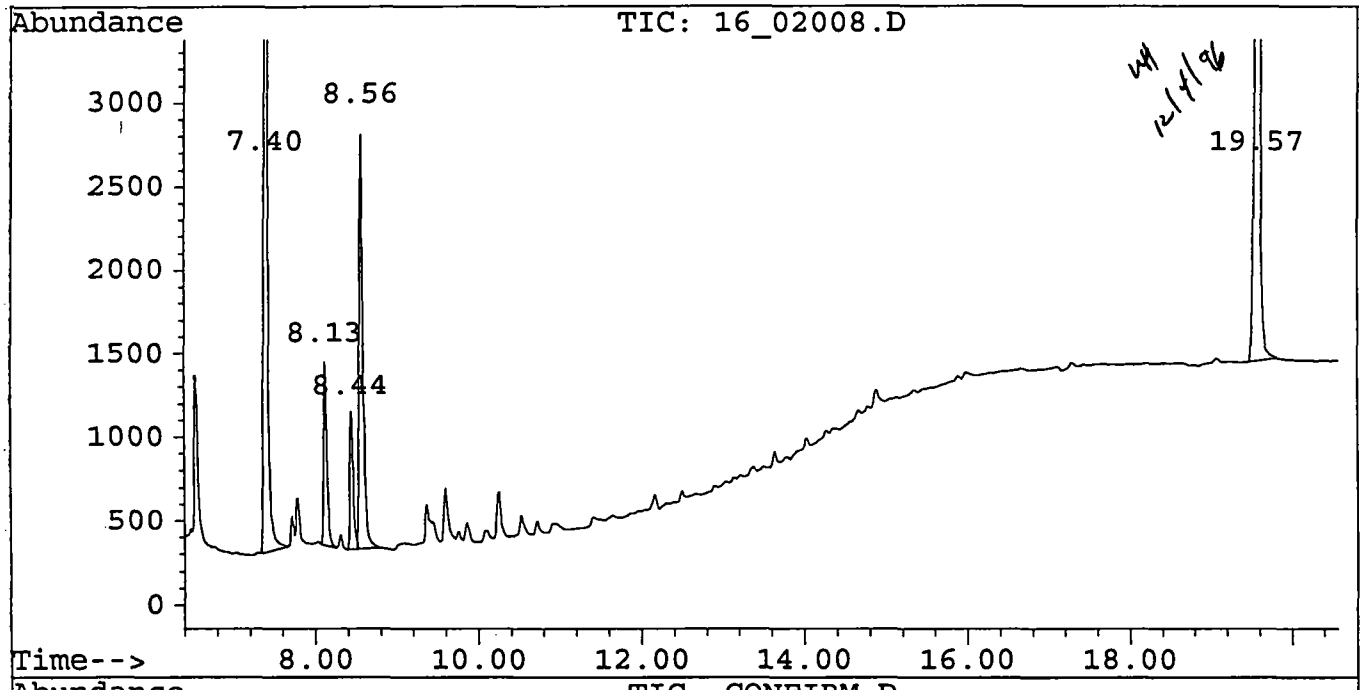
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

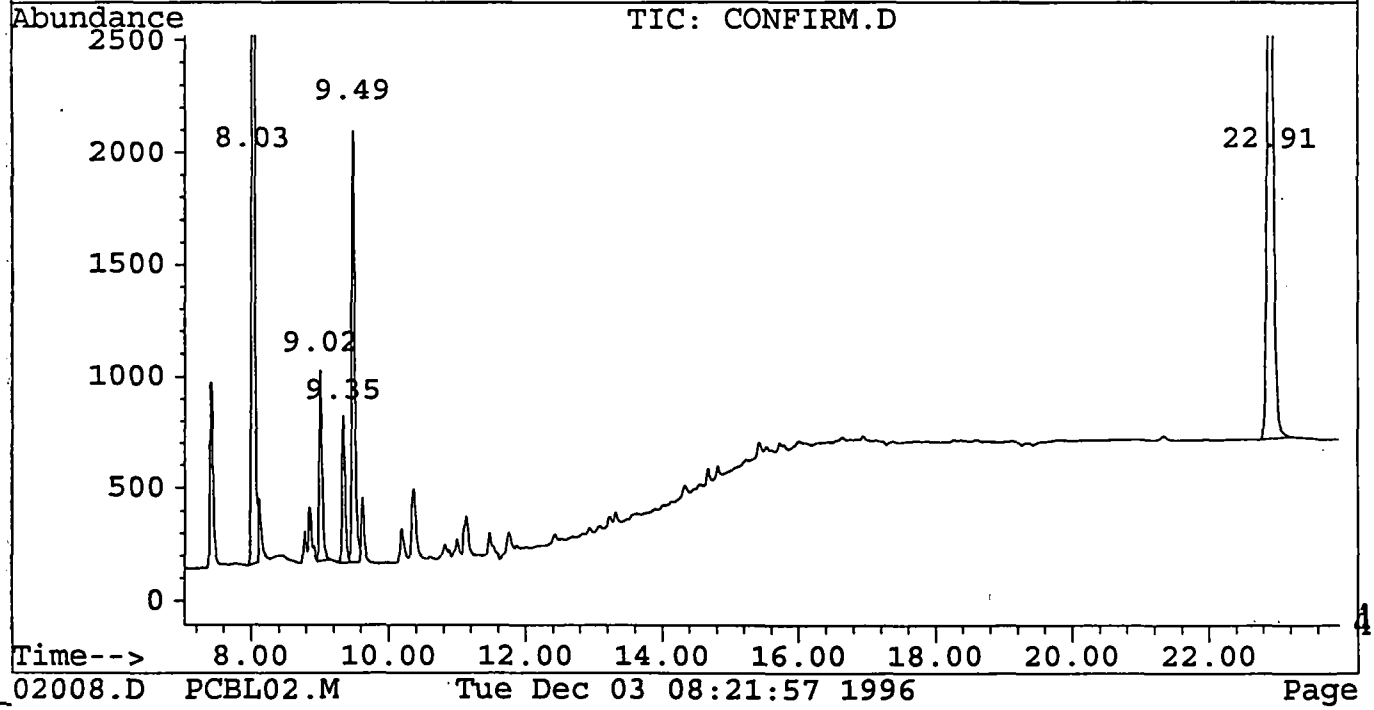
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02008.D Vial: 14
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02008.D\CONFIRM.D
Acq On : 01 Dec 96 23:47 Operator: JC
Sample : AR122116D Inst : HP_16
Misc : 5-268-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:21 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:21:07 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





448

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02009.D Vial: 15
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02009.D\CONFIRM.D
Acq On : 02 Dec 96 00:17 Operator: JC
Sample : AR123216D Inst : HP_16
Misc : 5-269-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:22 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:22:55 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
Surrogate Compounds							
1) S TCX	7.40	8.03	171227	134823	0.01	0.01	
			Recovery	=	100.00%	100.00%	
38) S DCB	19.57	22.91	179345	161706	0.01	0.01	
			Recovery	=	100.00%	100.00%	
Target Compounds							
Total Aroclor-1016			0	0	N.D.	N.D.	▒
Total Aroclor-1221			0	0	N.D.	N.D.	▒
10) L3 Aroclor-1232	8.56	9.49	34134	24629	0.05	0.06	#
11) L3 Aroclor-1232 {2}	10.25	10.38	48993	25393	0.05	0.06	
12) L3 Aroclor-1232 {3}	10.52	11.14	21618	40100	0.05	0.07	#
13) L3 Aroclor-1232 {4}	11.40	11.77	19453	19244	0.05	0.07	#
Total Aroclor-1232			124196	109365	0.20	0.26	▒
Total Aroclor-1242			0	0	N.D.	N.D.	▒
Total Aroclor-1248			0	0	N.D.	N.D.	▒
Total Aroclor-1254			0	0	N.D.	N.D.	▒
Total Aroclor-1260			0	0	N.D.	N.D.	▒
Total Toxaphene			0	0	N.D.	N.D.	▒

COPY

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25120 SDG FBX69
Signature [illegible]
Date 12-9-96

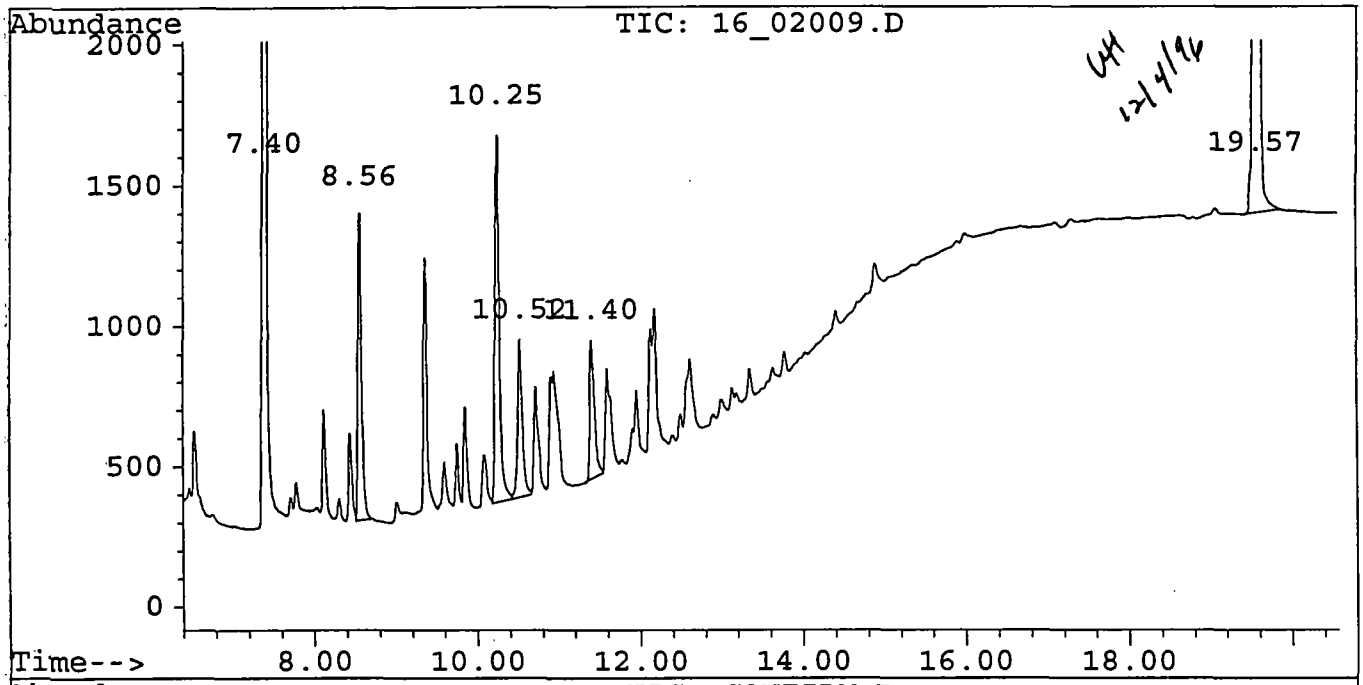
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

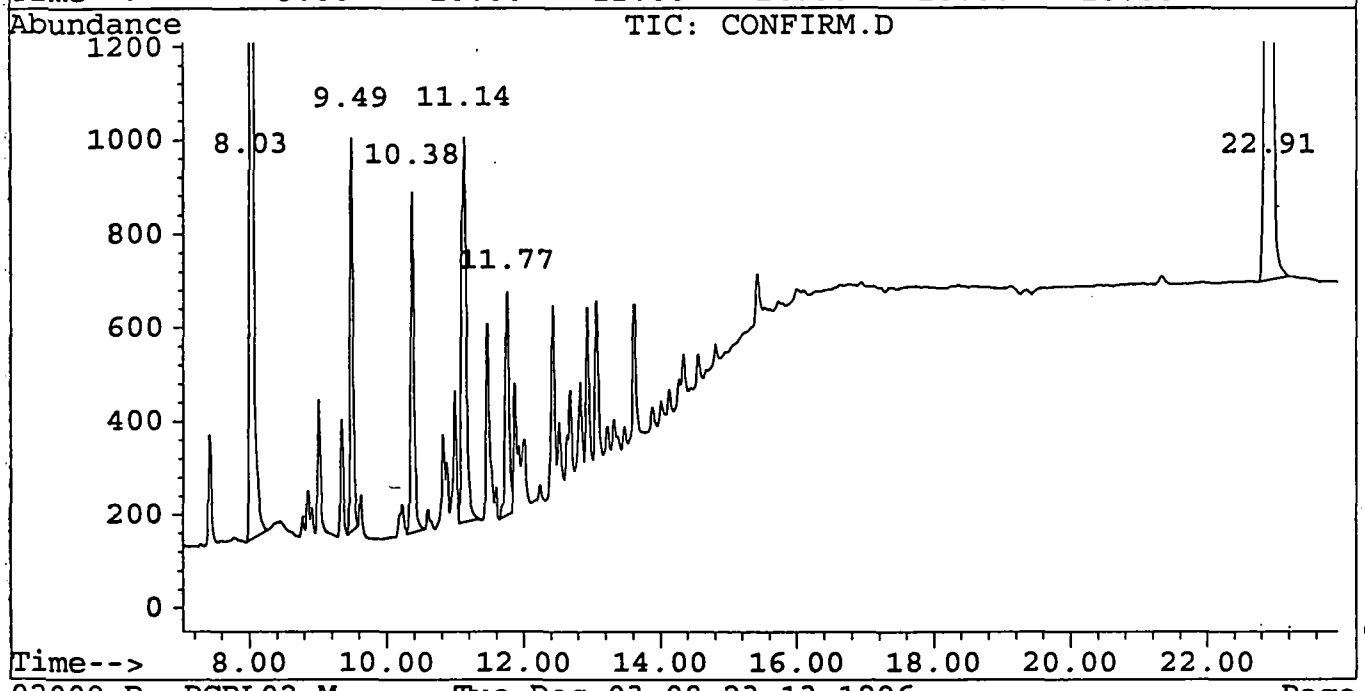
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02009.D Vial: 15
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02009.D\CONFIRM.D
Acq On : 02 Dec 96 00:17 Operator: JC
Sample : AR123216D Inst : HP_16
Misc : 5-269-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:22 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:22:55 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





450

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02010.D Vial: 16
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02010.D\CONFIRM.D
Acq On : 02 Dec 96 00:47 Operator: JC
Sample : AR124216D Inst : HP_16
Misc : 5-270-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:23 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:23:38 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
Surrogate Compounds							
1) S TCX	7.40	8.03	180216	141579	0.01	0.01	
			Recovery	=	100.00%	100.00%	
38) S DCB	19.57	22.91	187790	170174	0.01	0.01	
			Recovery	=	100.00%	100.00%	
Target Compounds							
Total Aroclor-1016			0	0	N.D.	N.D.	
Total Aroclor-1221			0	0	N.D.	N.D.	
Total Aroclor-1232			0	0	N.D.	N.D.	
14) L4 Aroclor-1242	8.56	9.49	26650	20264	0.05	0.06	#
15) L4 Aroclor-1242 {2}	9.36	10.38	45808	42560	0.05	0.06	#
16) L4 Aroclor-1242 {3}	10.24	11.14	88541	73031	0.05	0.07	#
17) L4 Aroclor-1242 {4}	10.52	11.48	40032	26350	0.05	0.06	
18) L4 Aroclor-1242 {5}	11.40	12.44	40130	29209	0.05	0.08	#
Total Aroclor-1242			241161	191414	0.25	0.33	
Total Aroclor-1248			0	0	N.D.	N.D.	
Total Aroclor-1254			0	0	N.D.	N.D.	
Total Aroclor-1260			0	0	N.D.	N.D.	
Total Toxaphene			0	0	N.D.	N.D.	

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25110 SDG FEX69
Signature
Date 12-9-96

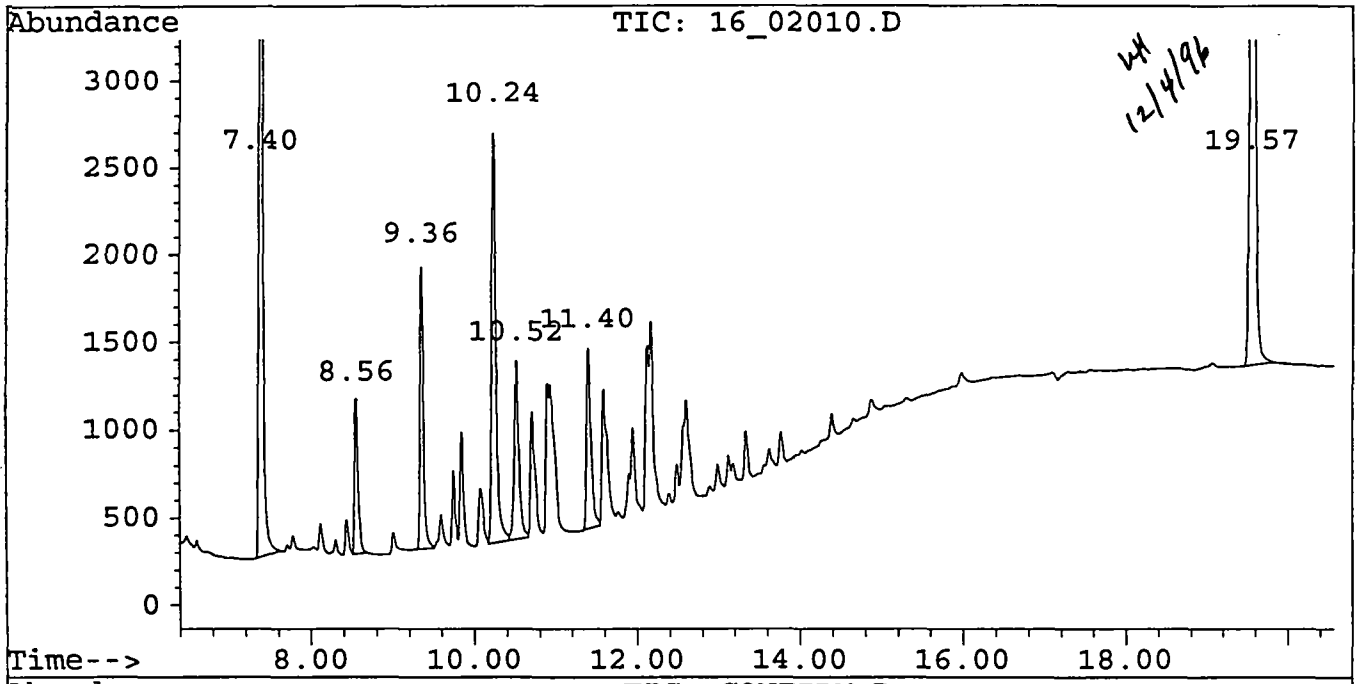
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

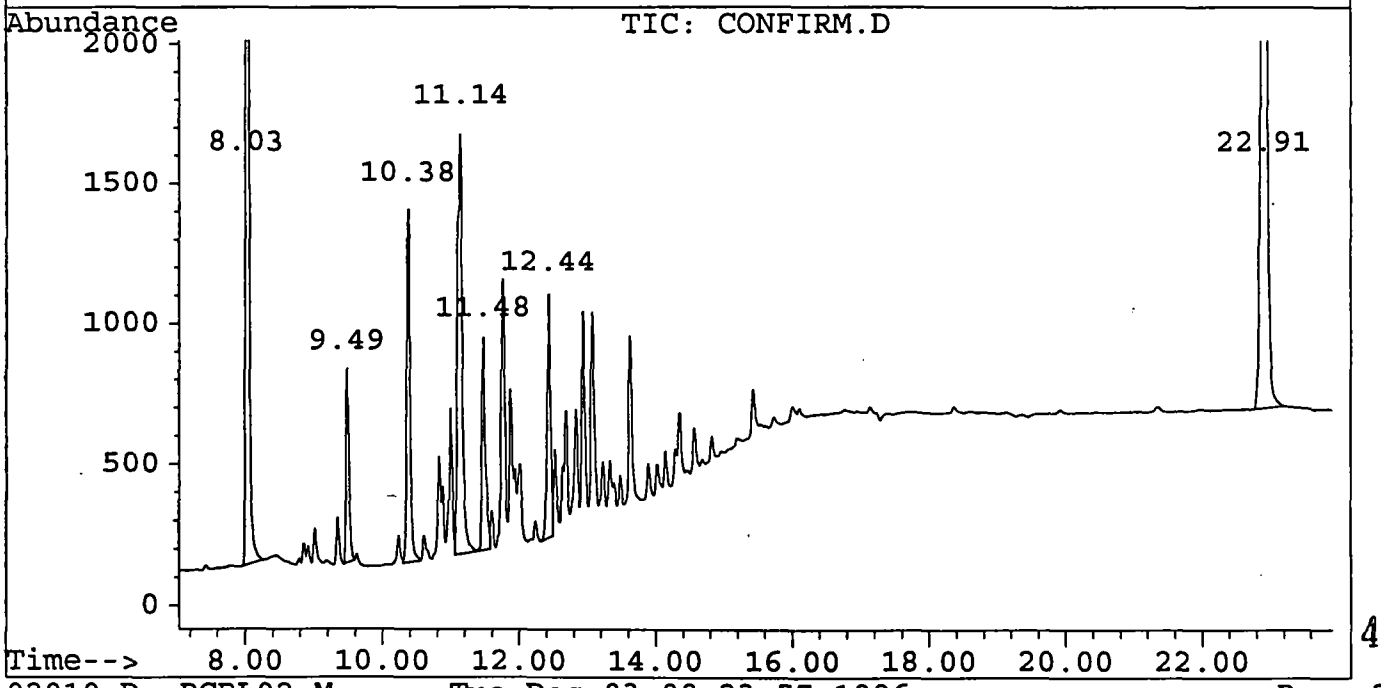
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02010.D Vial: 16
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02010.D\CONFIRM.D
Acq On : 02 Dec 96 00:47 Operator: JC
Sample : AR124216D Inst : HP_16
Misc : 5-270-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:23 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:23:38 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





452

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02011.D Vial: 17
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02011.D\CONFIRM.D
Acq On : 02 Dec 96 01:17 Operator: JC
Sample : AR124816D Inst : HP_16
Misc : 5-313-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:24 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:24:23 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
	Surrogate Compounds							
1)	S TCX	7.39	8.02	95509	70671	0.01	0.01	
				Recovery	=	100.00%	100.00%	
38)	S DCB	19.57	22.92	101104	85663	0.01	0.01	
				Recovery	=	100.00%	100.00%	
	Target Compounds							
	Total Aroclor-1016			0	0	N.D.	N.D.	
	Total Aroclor-1221			0	0	N.D.	N.D.	
	Total Aroclor-1232			0	0	N.D.	N.D.	
	Total Aroclor-1242			0	0	N.D.	N.D.	
19)	L5 Aroclor-1248	9.36	10.38	48745	41414	0.04	0.05	#
20)	L5 Aroclor-1248 {2}	10.24	11.77	124758	90137	0.04	0.06	
21)	L5 Aroclor-1248 {3}	11.40	12.44	134620	82008	0.04	0.05	
22)	L5 Aroclor-1248 {4}	11.59	12.94	108473	92610	0.05	0.06	#
23)	L5 Aroclor-1248 {5}	13.35	13.63	53730	69967	0.05	0.06	#
	Total Aroclor-1248			470326	376137	0.22	0.28	
	Total Aroclor-1254			0	0	N.D.	N.D.	
	Total Aroclor-1260			0	0	N.D.	N.D.	
	Total Toxaphene			0	0	N.D.	N.D.	

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25160 SDG FEX69
Signature Priscilla Steuer
Date 12-9-96

453

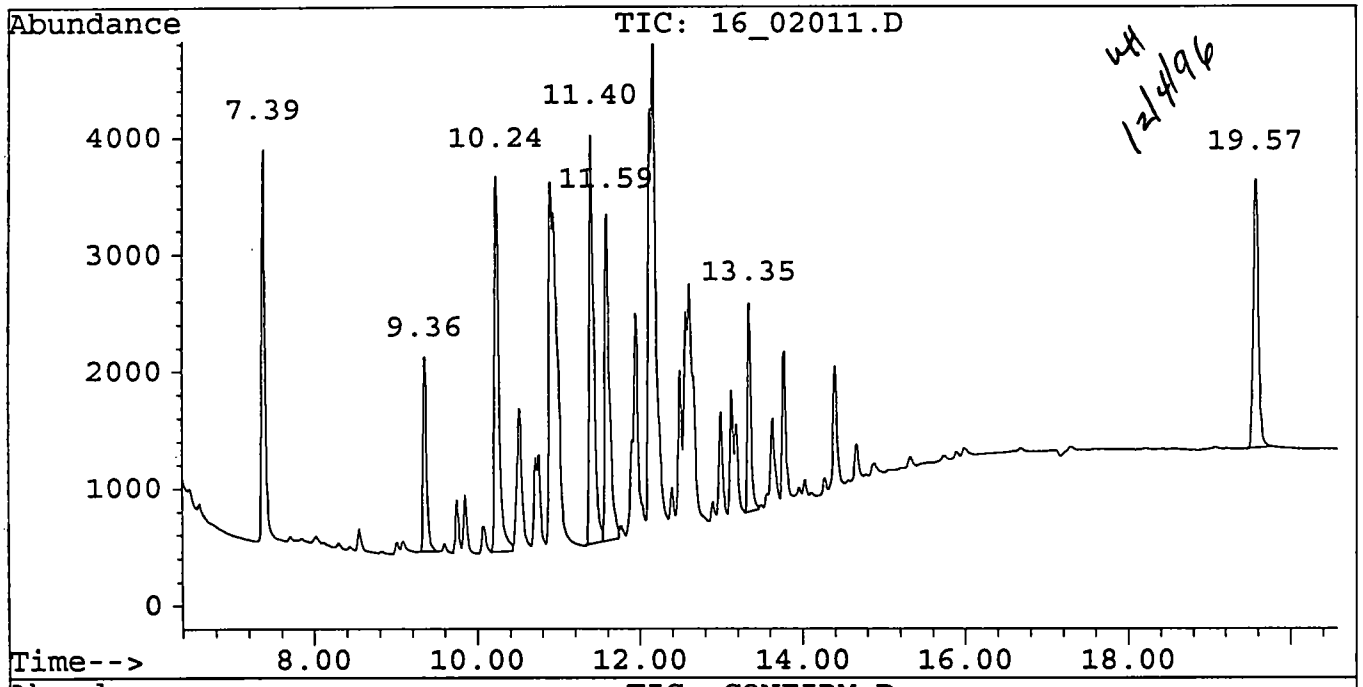
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

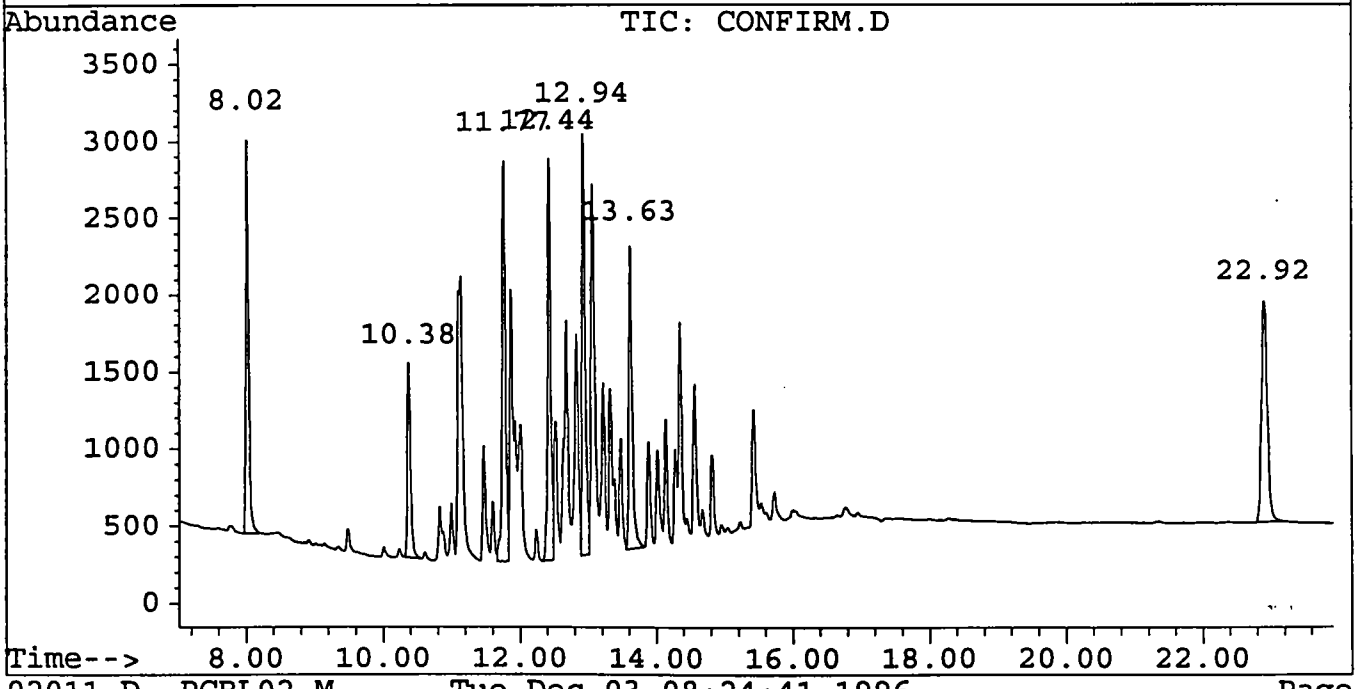
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02011.D Vial: 17
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02011.D\CONFIRM.D
Acq On : 02 Dec 96 01:17 Operator: JC
Sample : AR124816D Inst : HP_16
Misc : 5-313-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:24 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:24:23 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





454

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02012.D Vial: 18
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02012.D\CONFIRM.D
Acq On : 02 Dec 96 01:47 Operator: JC
Sample : AR125416D Inst : HP_16
Misc : 5-271-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:25 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:25:06 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
Surrogate Compounds							
1) S TCX	7.40	8.03	175692	135929	0.01	0.01	
			Recovery	=	100.00%	100.00%	
38) S DCB	19.57	22.92	184879	160696	0.01	0.01	
			Recovery	=	100.00%	100.00%	
Target Compounds							
Total Aroclor-1016			0	0	N.D.	N.D.	
Total Aroclor-1221			0	0	N.D.	N.D.	
Total Aroclor-1232			0	0	N.D.	N.D.	
Total Aroclor-1242			0	0	N.D.	N.D.	
Total Aroclor-1248			0	0	N.D.	N.D.	
24) L6 Aroclor-1254	10.90	11.78	43671	27564	0.05	0.07	#
25) L6 Aroclor-1254 {2}	12.16	12.94	77762	21219	0.06	0.06	
26) L6 Aroclor-1254 {3}	13.35	13.89	76137	17558	0.05	0.06	
27) L6 Aroclor-1254 {4}	13.78	14.83	55205	34333	0.05	0.06	#
28) L6 Aroclor-1254 {5}	14.67	15.73	70218	46516	0.05	0.06	
Total Aroclor-1254			322994	147190	0.25	0.31	
Total Aroclor-1260			0	0	N.D.	N.D.	
Total Toxaphene			0	0	N.D.	N.D.	

COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25460 SDG FEX69
Signature [illegible]
Date 12-9-96

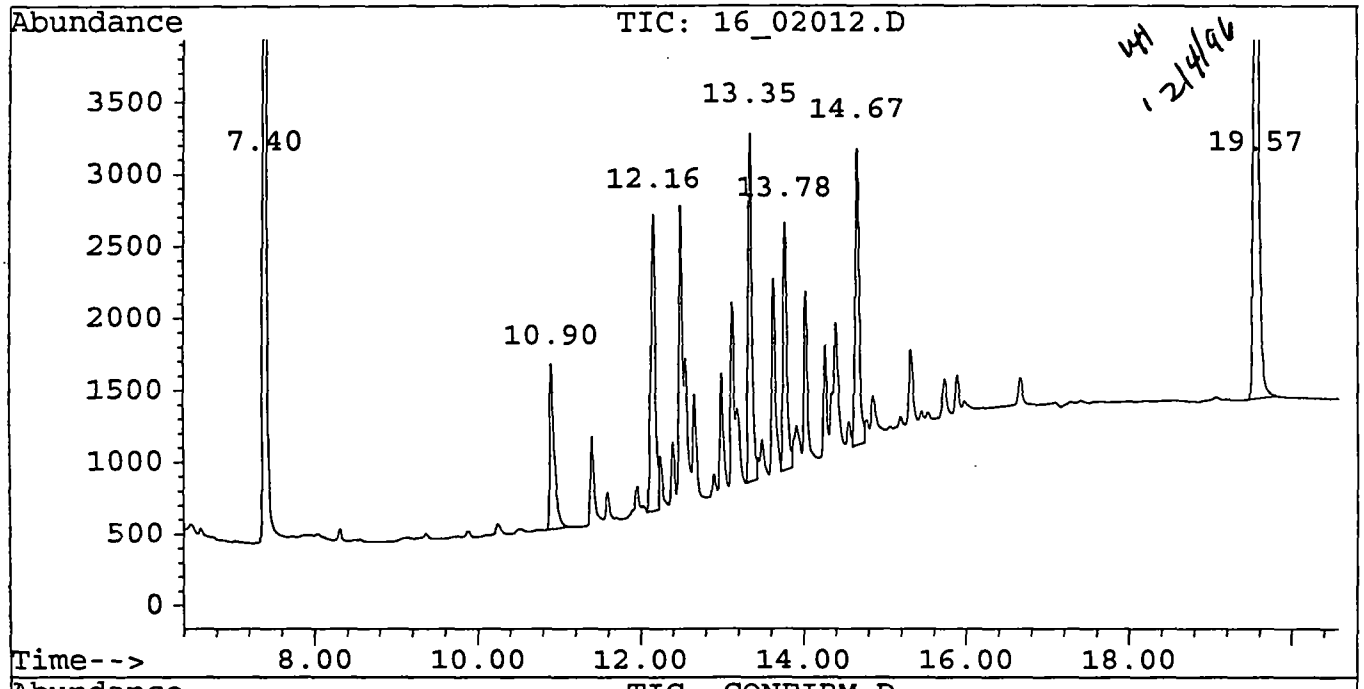
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

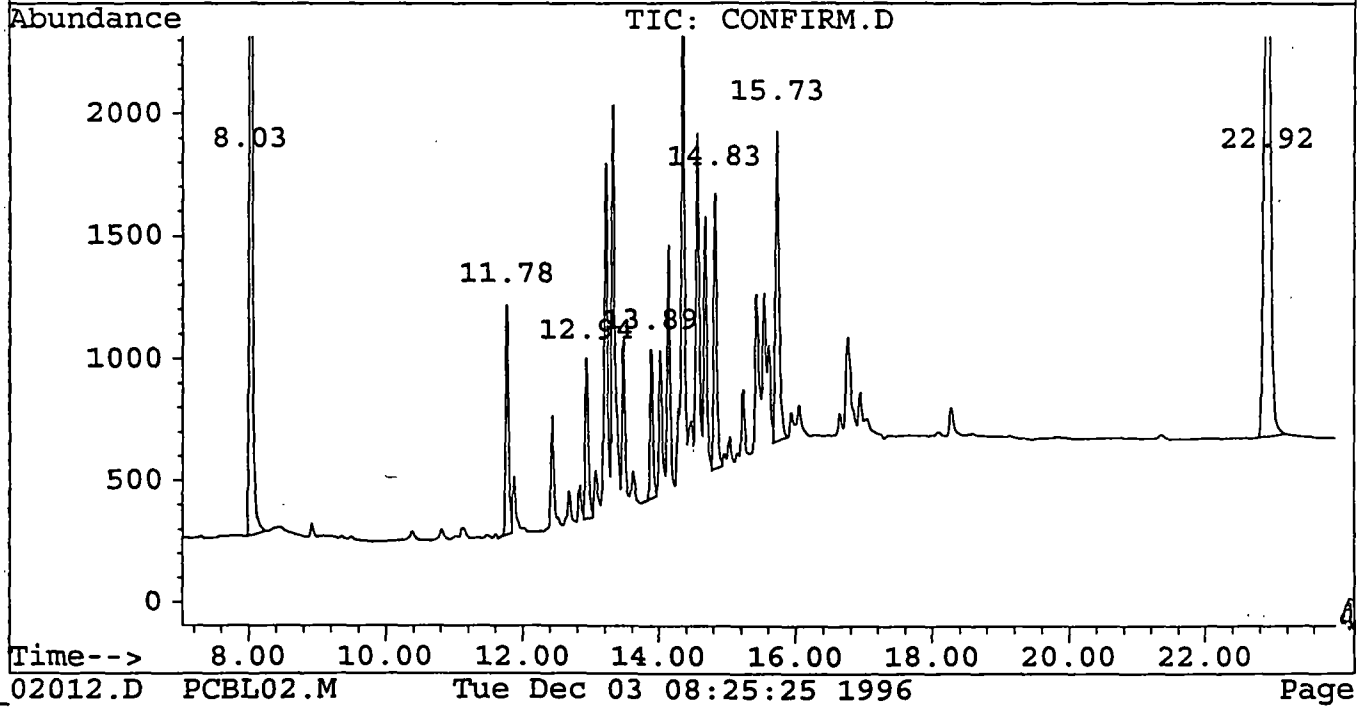
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02012.D Vial: 18
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02012.D\CONFIRM.D
Acq On : 02 Dec 96 01:47 Operator: JC
Sample : AR125416D Inst : HP_16
Misc : 5-271-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:25 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:25:06 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02013.D Vial: 19
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02013.D\CONFIRM.D
Acq On : 02 Dec 96 02:17 Operator: JC
Sample : TOXAPH16D Inst : HP_16
Misc : 5-251-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:25 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:25:49 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
Surrogate Compounds							
1) S TCX	7.40	8.03	190549	147519	0.01	0.01	
			Recovery	=	100.00%	100.00%	
38) S DCB	19.57	22.92	201199	179239	0.01	0.01	
			Recovery	=	100.00%	100.00%	
Target Compounds							
Total Aroclor-1016			0	0	N.D.	N.D.	
Total Aroclor-1221			0	0	N.D.	N.D.	
Total Aroclor-1232			0	0	N.D.	N.D.	
Total Aroclor-1242			0	0	N.D.	N.D.	
Total Aroclor-1248			0	0	N.D.	N.D.	
Total Aroclor-1254			0	0	N.D.	N.D.	
Total Aroclor-1260			0	0	N.D.	N.D.	
34) L8 Toxaphene	14.01	14.14	51290	18502	0.35	0.33	
35) L8 Toxaphene {2}	14.73	14.50	132219	22990	0.31	0.27	
36) L8 Toxaphene {3}	16.03	15.40	90439	49423	0.48	0.29	#
37) L8 Toxaphene {4}	16.13	17.46	115789	110927	0.35	0.38	
Total Toxaphene			389737	201841	1.48	1.28	

COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25100 SDG FEX69
Signature
Date 12-9-96

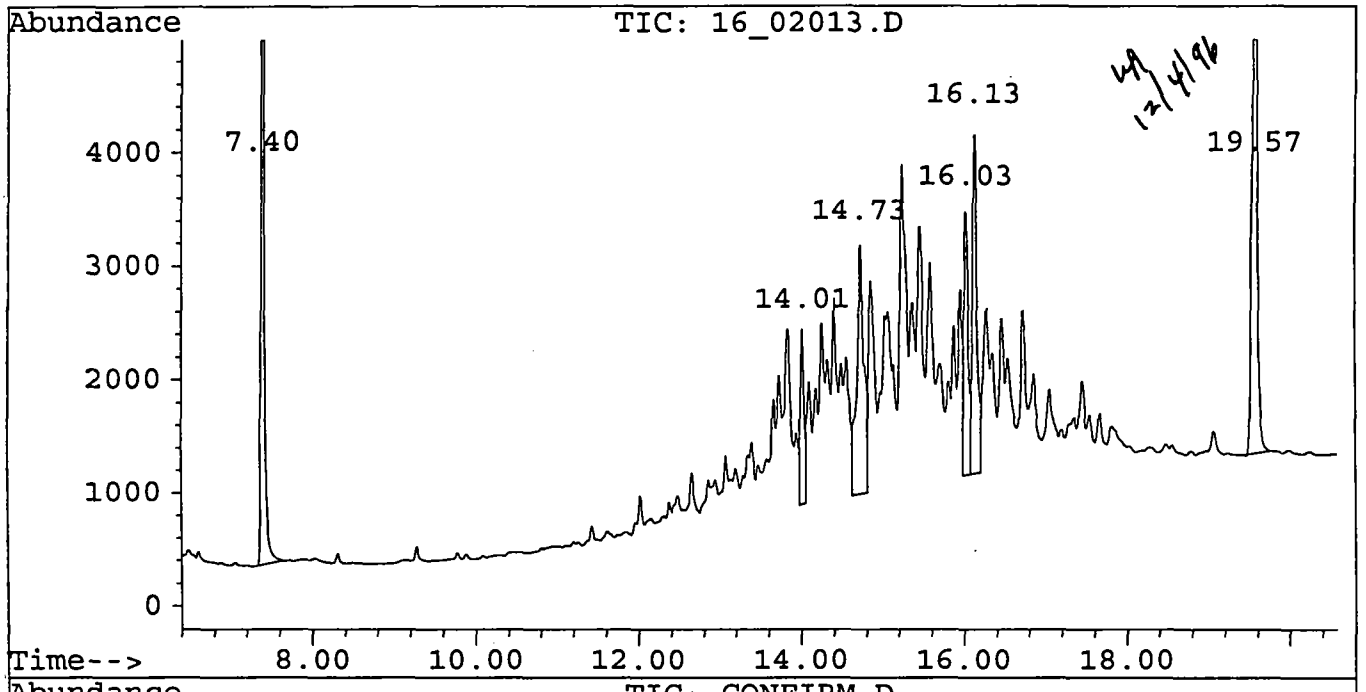
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

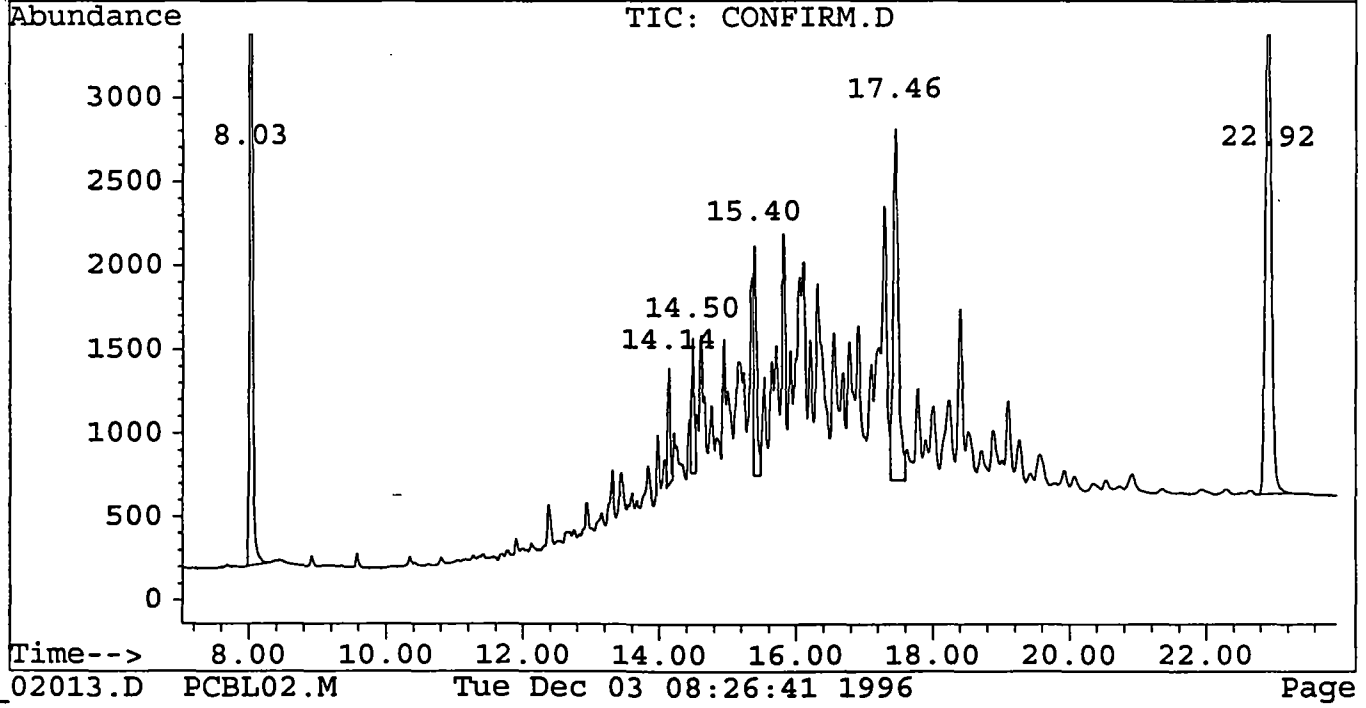
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02013.D Vial: 19
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02013.D\CONFIRM.D
Acq On : 02 Dec 96 02:17 Operator: JC
Sample : TOXAPH16D Inst : HP_16
Misc : 5-251-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:25 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:25:49 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





458

Response Factor Report HP_16

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Continuing Calibration

Calibration Files
LOW =16_02015.D MED =16_02017.D HIGH =16_02019.D
= =

	Compound	LOW	MED	HIGH	Avg	%RSD
1)	TCX	10.0	9.6	9.3	9.6 E3	3.84
2)	alpha-BHC	8.9	9.3	10.1	9.4 E3	6.47
3)	gamma-BHC (Lindane)	8.9	9.0	9.0	9.0 E3	1.05
4)	Heptachlor	9.2	8.1	7.1	8.2 E3	12.99
5)	Aldrin	9.2	9.4	10.5	9.7 E3	7.18
6)	beta-BHC	6.3	5.7	5.3	5.8 E3	9.52
7)	delta-BHC	8.0	8.4	9.4	8.6 E3	8.56
8)	Heptachlor Epoxide	9.4	9.1	9.6	9.4 E3	2.48
9)	Endosulfan I	8.5	8.4	8.5	8.5 E3	0.60
10)	gamma-Chlordane	9.7	9.2	9.5	9.5 E3	2.31
11)	alpha-Chlordane	9.3	9.0	9.1	9.1 E3	1.99
12)	4,4'-DDE	8.1	9.0	9.7	8.9 E3	8.66
13)	Dieldrin	8.0	8.5	8.7	8.4 E3	4.60
14)	Endrin	6.3	6.6	6.6	6.5 E3	2.93
15)	Endosulfan II	7.7	7.7	8.2	7.8 E3	3.62
16)	4,4'-DDD	6.1	6.6	6.5	6.4 E3	4.22
17)	4,4'-DDT	5.2	5.3	4.8	5.1 E3	4.94
18)	Endrin Aldehyde	6.1	6.7	6.8	6.5 E3	6.33
19)	Endosulfan Sulfate	7.2	7.3	7.4	7.3 E3	1.16
20)	Methoxychlor	2.8	2.4	2.1	2.4 E3	12.45
21)	Endrin Ketone	7.5	7.9	8.0	7.8 E3	3.54
22)	DCB	10.6	9.4	8.1	9.4 E3	13.03

Signal #2 Calibration Files
LOW =CONFIRM.D MED =CONFIRM.D HIGH =CONFIRM.D
= =

	Compound	LOW	MED	HIGH	Avg	%RSD
1)	TCX	7.6	7.5	7.3	7.5 E3	1.65
2)	alpha-BHC	6.8	7.1	7.9	7.3 E3	7.98
3)	gamma-BHC (Lindane)	6.6	6.6	6.8	6.6 E3	1.54
4)	Heptachlor	6.7	5.9	5.1	5.9 E3	13.61
5)	Aldrin	7.1	7.4	8.7	7.7 E3	10.89
6)	beta-BHC	4.4	4.2	4.0	4.2 E3	4.63
7)	delta-BHC	6.2	6.2	6.9	6.4 E3	6.58
8)	Heptachlor Epoxide	7.3	6.9	7.4	7.2 E3	3.35
9)	Endosulfan I	6.5	6.4	6.7	6.5 E3	1.90
10)	gamma-Chlordane	7.8	7.4	7.9	7.7 E3	3.33
11)	alpha-Chlordane	7.7	7.3	7.6	7.5 E3	3.00
12)	4,4'-DDE	6.0	6.7	7.8	6.8 E3	13.51
13)	Dieldrin	5.9	6.1	6.3	6.1 E3	3.57
14)	Endrin	4.2	4.3	4.3	4.3 E3	0.77
15)	Endosulfan II	6.1	6.1	6.4	6.2 E3	3.17
16)	4,4'-DDD	4.3	4.4	4.4	4.4 E3	1.18

459

(#) = Out of Range

Response Factor Report HP_16

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Continuing Calibration

Calibration Files
LOW =CONFIRM.D MED =CONFIRM.D HIGH =CONFIRM.D
= =

Compound	LOW	MED	HIGH	Avg	%RSD
17) 4,4'-DDT	4.1	4.0	3.8	4.0 E3	3.85
18) Endrin Aldehyde	5.7	5.3	5.2	5.4 E3	5.21
19) Endosulfan Sulfate	5.6	5.6	5.9	5.7 E3	3.13
20) Methoxychlor	2.3	2.1	1.7	2.0 E3	14.04
21) Endrin Ketone	6.3	6.4	6.5	6.4 E3	1.61
22) DCB	9.4	8.3	7.3	8.3 E3	12.65

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02041.D Vial: 47
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02041.D\CONFIRM.D
Acq On : 02 Dec 96 16:16 Operator: JC
Sample : INDAM16M Inst : HP_16
Misc : 5-261-1616M Multiplr: 0.0005
Quant Time: Dec 4 14:34 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
	Surrogate Compounds						
1)	S TCX	7.40	8.03	201060	153617	0.01	0.01
				Recovery	=	100.00%	100.00%
22)	S DCB	19.57	22.91	369801	321153	0.02	0.02
				Recovery	=	200.00%	200.00%
	Target Compounds						
2)	AE alpha-BHC	9.27	9.58	195181	148671	0.01	0.01
3)	MA gamma-BHC (Lindane)	10.08	10.43	189348	139236	0.01	0.01
4)	MA Heptachlor	10.46	11.12	169121	130535	0.01	0.01
5)	MB Aldrin	0.00	0.00	0	0	N.D.	N.D.
6)	BE beta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	B delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A Endosulfan I	12.82	13.65	172018	127504	0.01	0.01
10)	B gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	B alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B 4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	MA Dieldrin	13.50	14.25	351165	251051	0.02	0.02
14)	MA Endrin	13.89	14.98	274257	177094	0.02	0.02
15)	B Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	A 4,4'-DDD	14.56	15.09	272742	185235	0.02	0.02
17)	MA 4,4'-DDT	14.86	15.72	212243	155425	0.02	0.02
18)	B Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	B Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
20)	AE Methoxychlor	16.04	17.86	488738	411833	0.10	0.10
21)	B Endrin Ketone	17.13	0.00	18551	0	0.00	N.D. #

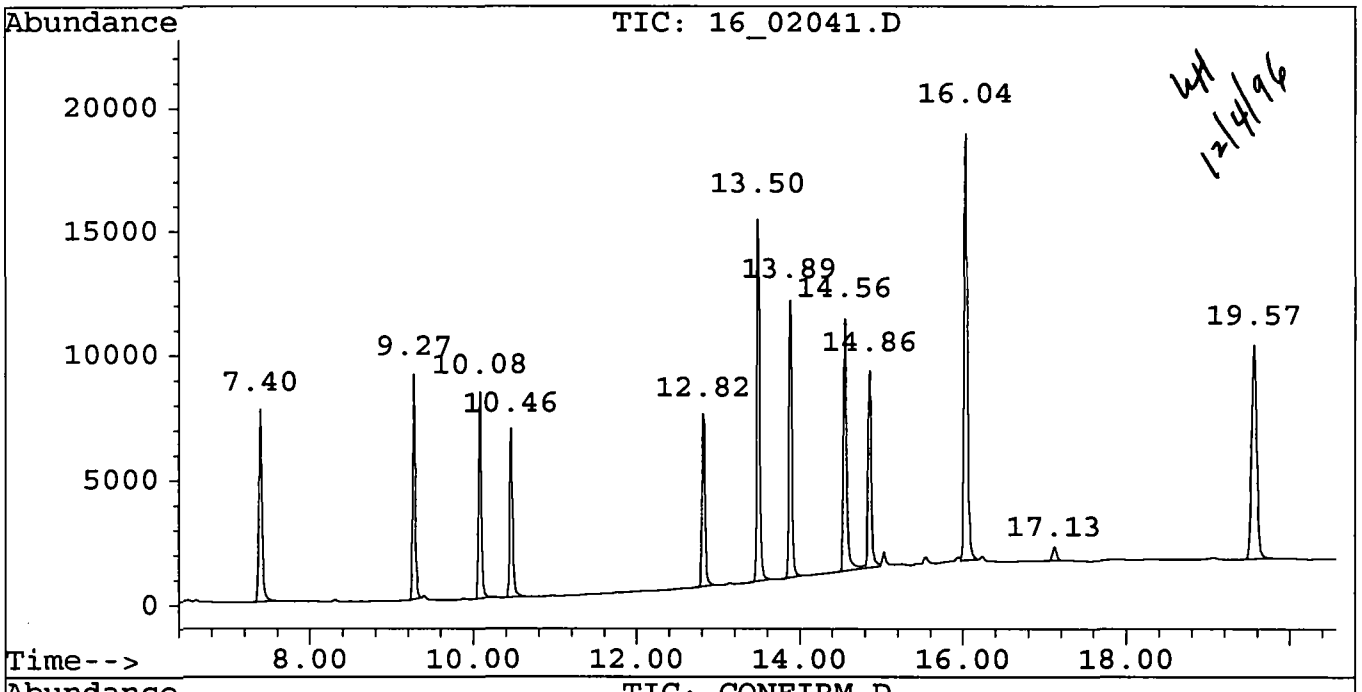
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

Quantitation Report

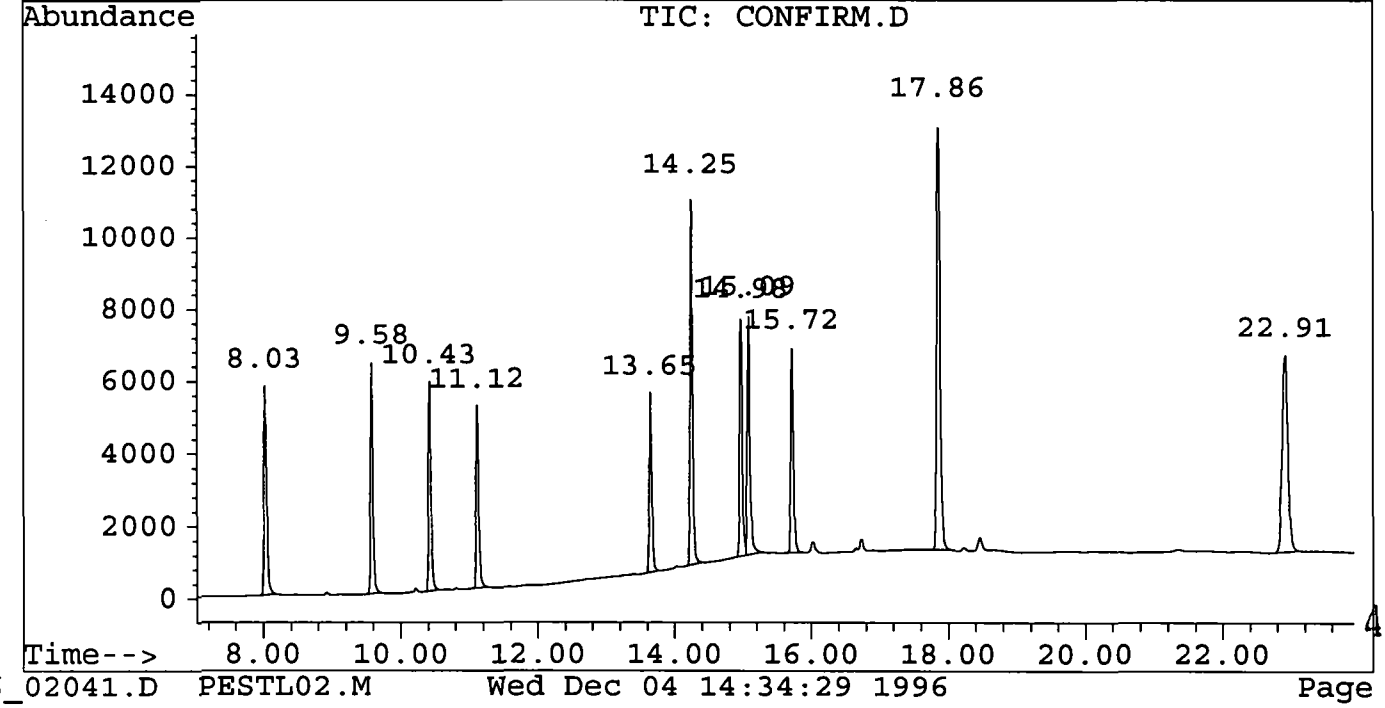
Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02041.D Vial: 47
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02041.D\CONFIRM.D
Acq On : 02 Dec 96 16:16 Operator: JC
Sample : INDAM16M Inst : HP_16
Misc : 5-261-1616M Multiplr: 0.0005
Quant Time: Dec 4 14:34 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B



WH 12/4/96



462

Evaluate INDA Continuing Calibration Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02041.D Vial: 47
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02041.D\CONFIRM.D
Acq On : 02 Dec 96 16:16 Operator: JC
Sample : INDAM16M Inst : HP_16
Misc : 5-261-1616M Multiplr: 0.0005

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Max. %D : 25% Max. R.T. Dev 0.20min

		Compound	MedRF	CCRF		%D	Dev(Min)
1	S	TCX	9.647	10.053	E3	4.2	0.00
2	AE	alpha-BHC	9.295	9.759	E3	5.0	0.00
3	MAE	gamma-BHC (Lindane)	8.957	9.467	E3	5.7	0.00
4	MA	Heptachlor	8.147	8.456	E3	3.8	0.00
9	A	Endosulfan I	8.444	8.601	E3	1.9	0.00
13	MA	Dieldrin	8.459	8.779	E3	3.8	0.00
14	MAE	Endrin	6.572	6.856	E3	4.3	0.00
16	A	4,4'-DDD	6.570	6.819	E3	3.8	0.00
17	MAE	4,4'-DDT	5.270	5.306	E3	0.7	0.00
20	AE	Methoxychlor	2.421	2.444	E3	0.9	0.00
22	S	DCB	9.433	9.245	E3	-2.0	0.00

Signal #2

		Compound	MedRF	CCRF		%D	Dev(Min)
1	S	TCX	7.490	7.681	E3	2.5	0.00
2	AE	alpha-BHC	7.108	7.434	E3	4.6	0.00
3	MAE	gamma-BHC (Lindane)	6.572	6.962	E3	5.9	0.00
4	MA	Heptachlor	5.883	6.527	E3	10.9	0.00
9	A	Endosulfan I	6.438	6.375	E3	-1.0	0.00
13	MA	Dieldrin	6.085	6.276	E3	3.1	0.00
14	MAE	Endrin	4.269	4.427	E3	3.7	0.00
16	A	4,4'-DDD	4.438	4.631	E3	4.3	0.00
17	MAE	4,4'-DDT	3.983	3.886	E3	-2.5	0.00
20	AE	Methoxychlor	2.058	2.059	E3	0.1	0.00
22	S	DCB	8.319	8.029	E3	-3.5	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CONFIRM.D PESTL02.M Wed Dec 04 14:34:47 1996 Page 1

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02042.D Vial: 48
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02042.D\CONFIRM.D
Acq On : 02 Dec 96 16:46 Operator: JC
Sample : INDBM16M Inst : HP_16
Misc : 5-264-1616M Multiplr: 0.0005
Quant Time: Dec 4 14:35 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
		Surrogate Compounds						
1)	S	TCX	7.40	8.03	215025	164193	0.01	0.01
					Recovery	=	100.00%	100.00%
22)	S	DCB	19.56	22.91	401670	352329	0.02	0.02
					Recovery	=	200.00%	200.00%
		Target Compounds						
2)	AE	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3)	MA	gamma-BHC (Lindane)	0.00	0.00	0	0	N.D.	N.D.
4)	MA	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
5)	MB	Aldrin	10.98	11.82	206029	158873	0.01	0.01
6)	BE	beta-BHC	11.50	10.57	124738	94143	0.01	0.01
7)	B	delta-BHC	11.95	11.35	187281	137415	0.01	0.01
8)	B	Heptachlor Epoxide	12.32	12.94	198837	148665	0.01	0.01
9)	A	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
10)	B	gamma-Chlordane	12.90	13.26	201160	157847	0.01	0.01
11)	B	alpha-Chlordane	13.04	13.57	196037	153307	0.01	0.01
12)	B	4,4'-DDE	13.14	14.01	396587	291684	0.02	0.02
13)	MA	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	MA	Endrin	0.00	0.00	0	0	N.D.	N.D.
15)	B	Endosulfan II	14.75	15.33	346001	258086	0.02	0.02
16)	A	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
17)	MA	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.
18)	B	Endrin Aldehyde	15.54	16.02	277009	227827	0.02	0.02
19)	B	Endosulfan Sulfate	16.20	16.30	318528	241476	0.02	0.02
20)	AE	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	B	Endrin Ketone	17.12	18.46	347432	275773	0.02	0.02

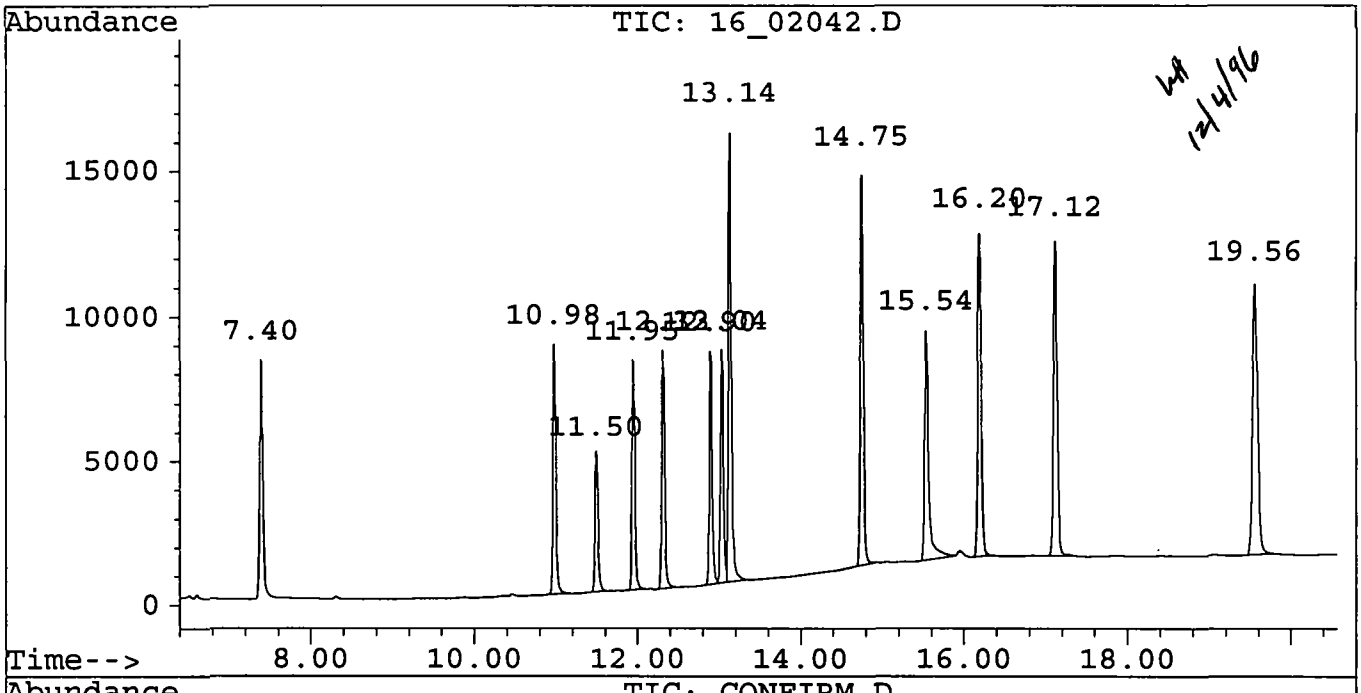
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

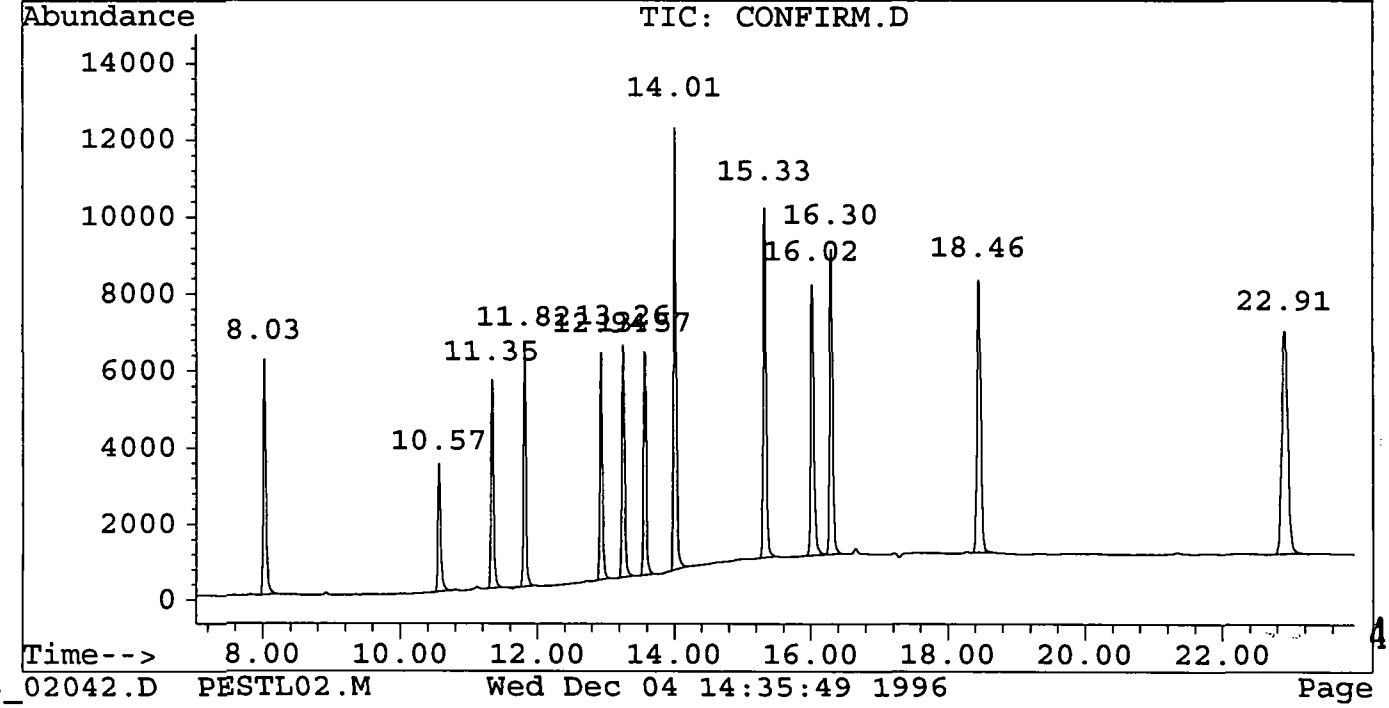
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02042.D Vial: 48
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02042.D\CONFIRM.D
Acq On : 02 Dec 96 16:46 Operator: JC
Sample : INDBM16M Inst : HP_16
Misc : 5-264-1616M Multiplr: 0.0005
Quant Time: Dec 4 14:35 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





Evaluate INDB Continuing Calibration Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02042.D Vial: 48
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02042.D\CONFIRM.D
Acq On : 02 Dec 96 16:46 Operator: JC
Sample : INDBM16M Inst : HP_16
Misc : 5-264-1616M Multiplr: 0.0005

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Max. %D : 25% Max. R.T. Dev 0.20min

		Compound	MedRF	CCRF		%D	Dev(Min)
1	S	TCX	9.647	10.751	E3	11.4	0.00
5	MB	Aldrin	9.394	10.301	E3	9.7	0.00
6	BE	beta-BHC	5.664	6.237	E3	10.1	0.00
7	B	delta-BHC	8.429	9.364	E3	11.1	0.00
8	B	Heptachlor Epoxide	9.101	9.942	E3	9.2	0.00
10	B	gamma-Chlordane	9.225	10.058	E3	9.0	0.00
11	B	alpha-Chlordane	8.955	9.802	E3	9.5	0.00
12	B	4,4'-DDE	8.977	9.915	E3	10.4	0.00
15	B	Endosulfan II	7.662	8.650	E3	12.9	0.00
18	B	Endrin Aldehyde	6.700	6.925	E3	3.4	0.00
19	B	Endosulfan Sulfate	7.265	7.963	E3	9.6	0.00
21	B	Endrin Ketone	7.939	8.686	E3	9.4	0.00
22	S	DCB	9.433	10.042	E3	6.5	0.00

Signal #2

		Compound	MedRF	CCRF		%D	Dev(Min)
1	S	TCX	7.490	8.210	E3	9.6	0.00
5	MB	Aldrin	7.427	7.944	E3	7.0	0.00
6	BE	beta-BHC	4.185	4.707	E3	12.5	0.00
7	B	delta-BHC	6.233	6.871	E3	10.2	0.00
8	B	Heptachlor Epoxide	6.916	7.433	E3	7.5	0.00
10	B	gamma-Chlordane	7.431	7.892	E3	6.2	0.00
11	B	alpha-Chlordane	7.254	7.665	E3	5.7	0.00
12	B	4,4'-DDE	6.708	7.292	E3	8.7	0.00
15	B	Endosulfan II	6.056	6.452	E3	6.5	0.00
18	B	Endrin Aldehyde	5.349	5.696	E3	6.5	0.00
19	B	Endosulfan Sulfate	5.637	6.037	E3	7.1	0.00
21	B	Endrin Ketone	6.419	6.894	E3	7.4	0.00
22	S	DCB	8.319	8.808	E3	5.9	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
CONFIRM.D PESTL02.M Wed Dec 04 14:36:11 1996 Page 1

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02023.D Vial: 29
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02023.D\CONFIRM.D
Acq On : 02 Dec 96 07:16 Operator: JC
Sample : ~~PLBKS~~ PBLKSB Inst : HP_16
Misc : ~~BL1120SB~~ PBLKSB Multiplr: 0.3333
Quant Time: Dec 4 14:39 1996
L. 12/10/96

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Wed Dec 04 14:37:57 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg	
		Surrogate Compounds							
1)	S	TCX	7.39	8.03	266861	178796	9.22	7.96	
					Recovery	=	69.16%	59.71%	
22)	S	DCB	19.57	22.91	284245	256700	10.04	10.28	
					Recovery	=	75.31%	77.11%	
		Target Compounds							
2)	AE	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
3)	MA	gamma-BHC (Lindane)	0.00	0.00	0	0	N.D.	N.D.	
4)	MA	Heptachlor	10.46	11.12	21743	22687	0.89	1.29	#
5)	MB	Aldrin	0.00	0.00	0	0	N.D.	N.D.	
6)	BE	beta-BHC	0.00	0.00	0	0	N.D.	N.D.	
7)	B	delta-BHC	0.00	0.00	0	0	N.D.	N.D.	
8)	B	Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.	
9)	A	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.	
10)	B	gamma-Chlordane	12.90	13.26	19111	20303	0.69	0.91	#
11)	B	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.	
12)	B	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.	
13)	MA	Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14)	MA	Endrin	0.00	0.00	0	0	N.D.	N.D.	
15)	B	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.	
16)	A	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.	
17)	MA	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.	
18)	B	Endrin Aldehyde	0.00	15.99	0	48460	N.D.	3.02	#
19)	B	Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.	
20)	AE	Methoxychlor	16.04	0.00	17522	0	2.41	N.D.	#
21)	B	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.	

COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FF602
Signature Imelda M. William
Date 12/9/96

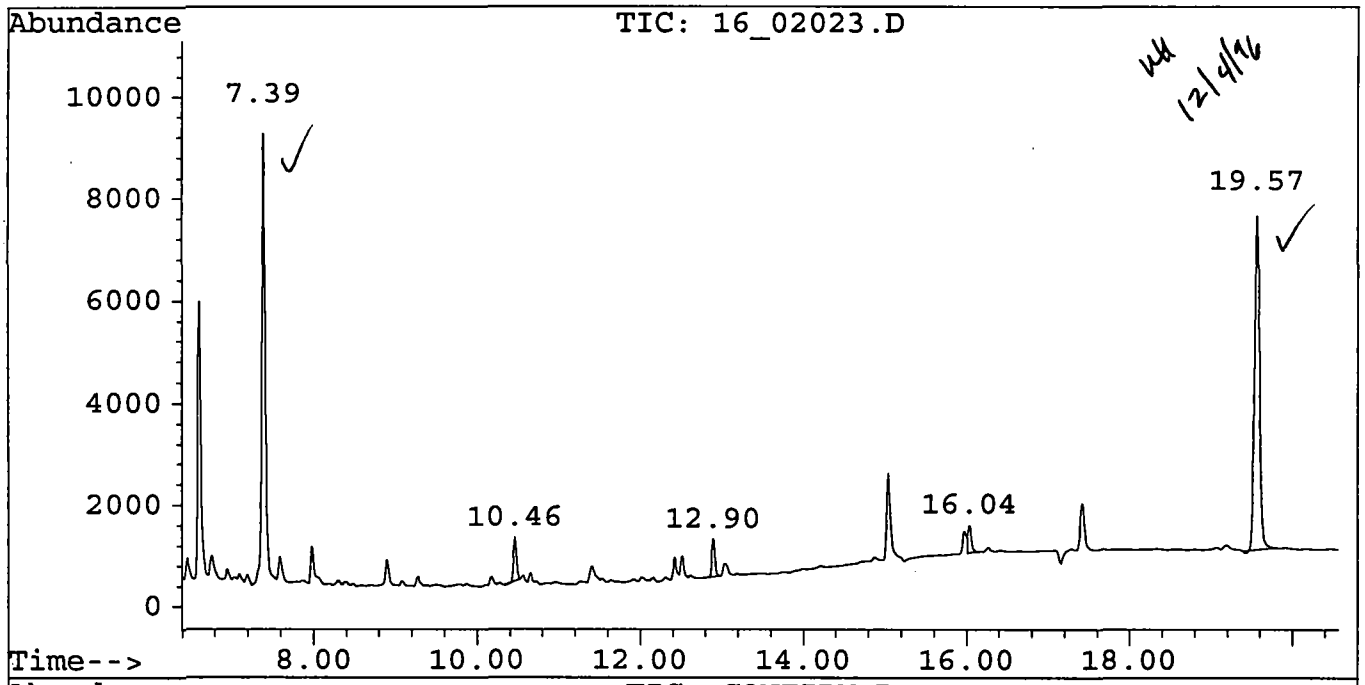
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int. 468
(E)= > Highest calibration standard (d)=compound deleted

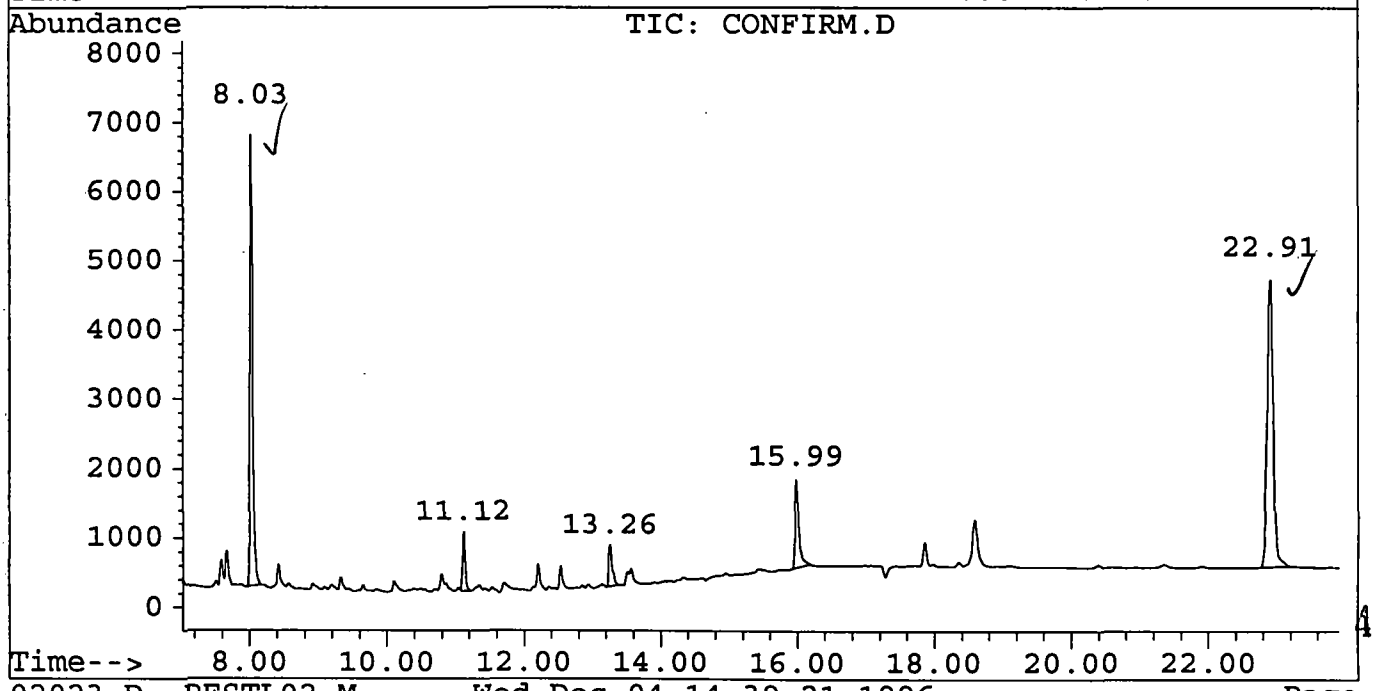
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02023.D Vial: 29
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02023.D\CONFIRM.D
Acq On : 02 Dec 96 07:16 Operator: JC
Sample : ~~PLBKS~~ PBLKSB Inst : HP_16
Misc : ~~BL1120SB~~ PBLKSB Multiplr: 0.3333
Quant Time: Dec 4 14:39 1996
L. 12/10/96

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Wed Dec 04 14:37:57 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





469

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02020.D Vial: 26
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02020.D\CONFIRM.D
Acq On : 02 Dec 96 05:46 Operator: JC
Sample : PIBLK16P Inst : HP_16
Misc : 5-266-1616P Multiplr: 0.0005
Quant Time: Dec 3 8:15 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
		Surrogate Compounds						
1)	S	TCX	7.40	8.03	177164	137383	0.01	0.01
					Recovery	=	100.00%	100.00%
22)	S	DCB	19.57	22.91	192467	171302	0.01	0.01
					Recovery	=	100.00%	100.00%
		Target Compounds						
2)	AE	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3)	MA	gamma-BHC (Lindane)	0.00	0.00	0	0	N.D.	N.D.
4)	MA	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
5)	MB	Aldrin	0.00	0.00	0	0	N.D.	N.D.
6)	BE	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	B	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B	Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
10)	B	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	B	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	MA	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	MA	Endrin	0.00	0.00	0	0	N.D.	N.D.
15)	B	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	A	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
17)	MA	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.
18)	B	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	B	Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
20)	AE	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	B	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

COPY

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 2540 SDG FEX69
Signature [illegible]
Date 12-9-96

472

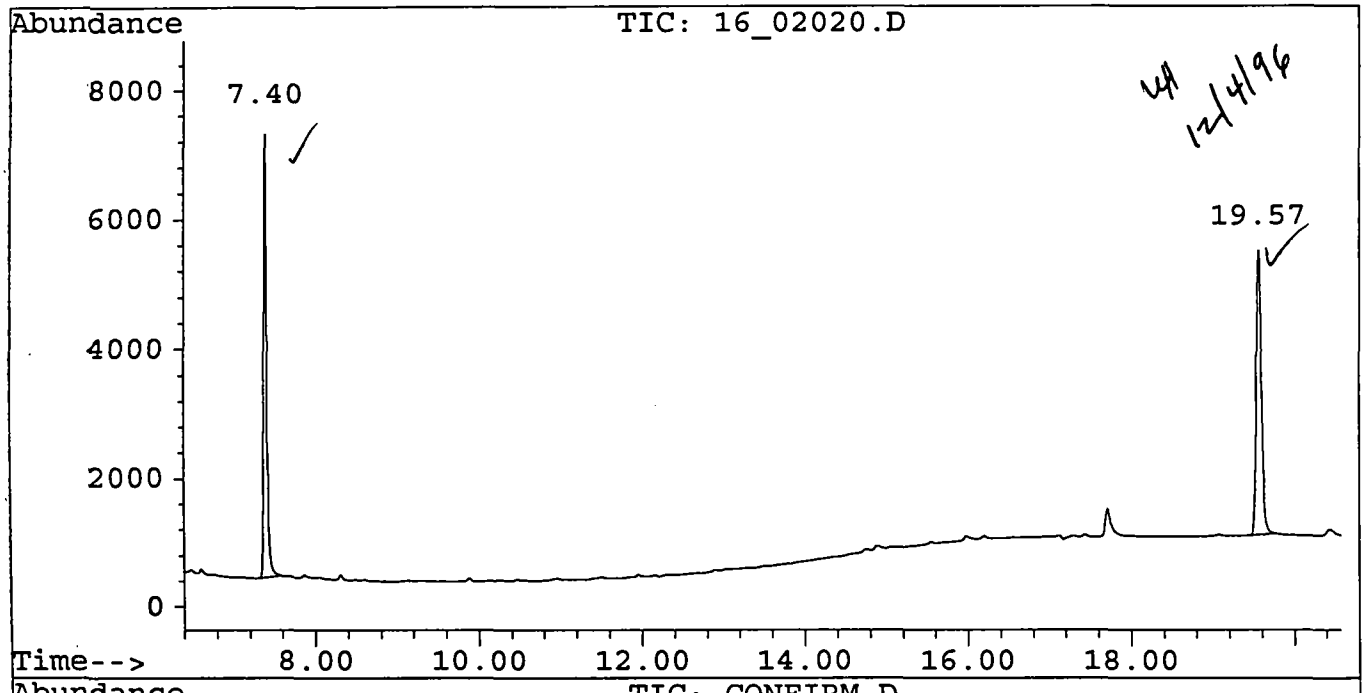
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

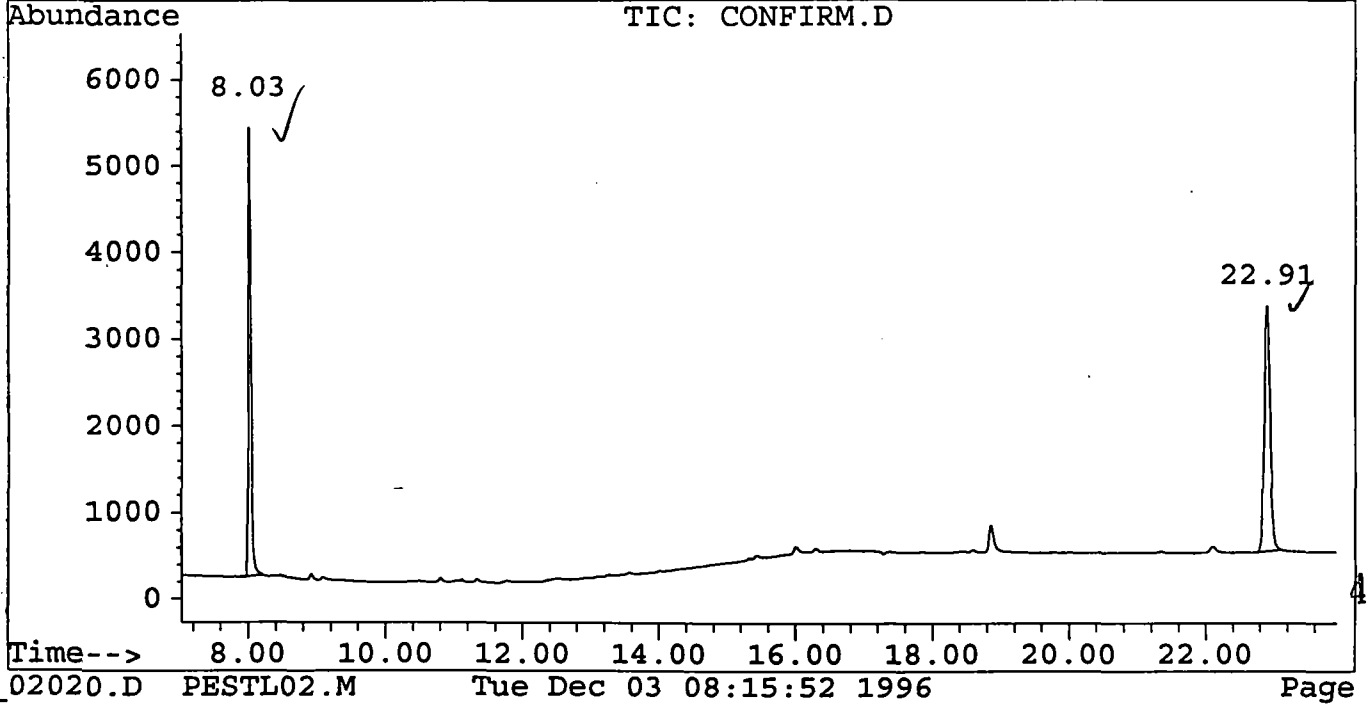
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02020.D Vial: 26
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02020.D\CONFIRM.D
Acq On : 02 Dec 96 05:46 Operator: JC
Sample : PIBLK16P Inst : HP_16
Misc : 5-266-1616P Multiplr: 0.0005
Quant Time: Dec 3 8:15 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





473

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02040.D Vial: 46
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02040.D\CONFIRM.D
Acq On : 02 Dec 96 15:46 Operator: JC
Sample : PIBLK16Q Inst : HP_16
Misc : 5-266-1616Q Multiplr: 0.0005
Quant Time: Dec 4 14:33 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
		Surrogate Compounds						
1)	S	TCX	7.40	8.03	185177	141033	0.01	0.01
					Recovery	=	100.00%	100.00%
22)	S	DCB	19.57	22.91	180564	156435	0.01	0.01
					Recovery	=	100.00%	100.00%
		Target Compounds						
2)	AE	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3)	MA	gamma-BHC (Lindane)	0.00	0.00	0	0	N.D.	N.D.
4)	MA	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
5)	MB	Aldrin	0.00	0.00	0	0	N.D.	N.D.
6)	BE	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	B	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B	Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
10)	B	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	B	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	MA	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	MA	Endrin	0.00	0.00	0	0	N.D.	N.D.
15)	B	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	A	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
17)	MA	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.
18)	B	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	B	Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
20)	AE	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	B	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

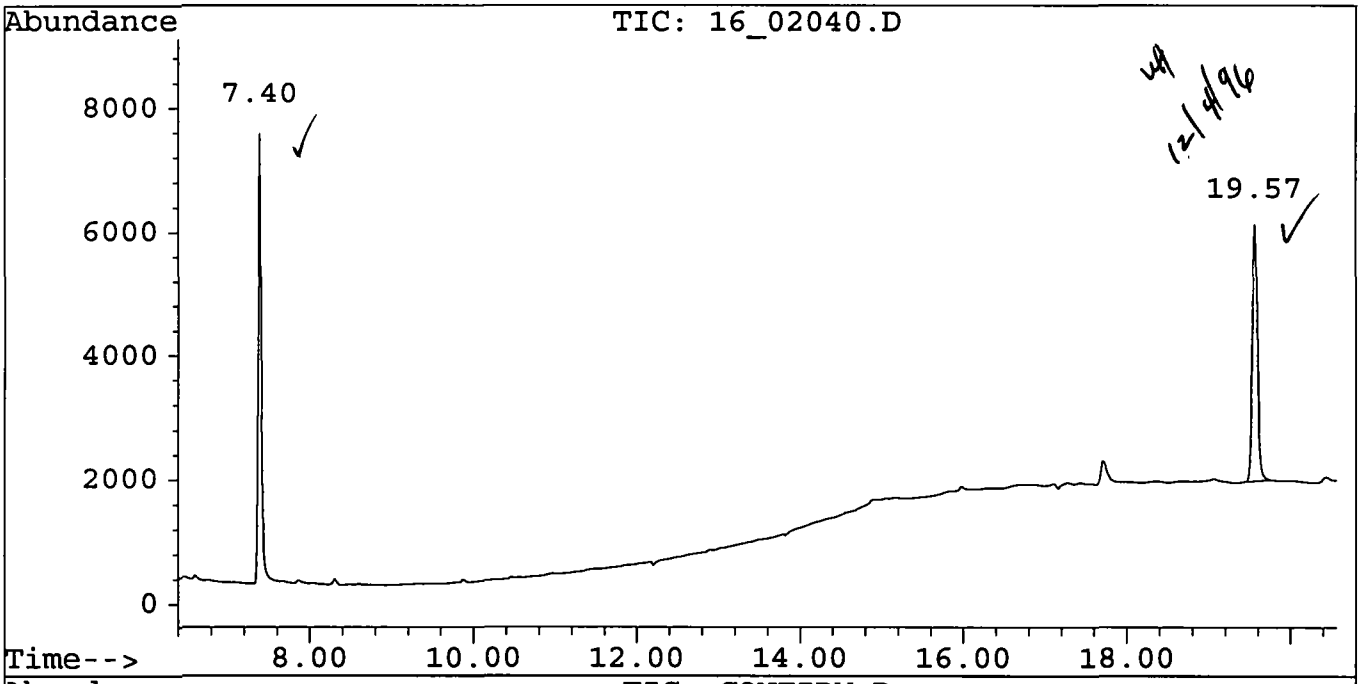
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

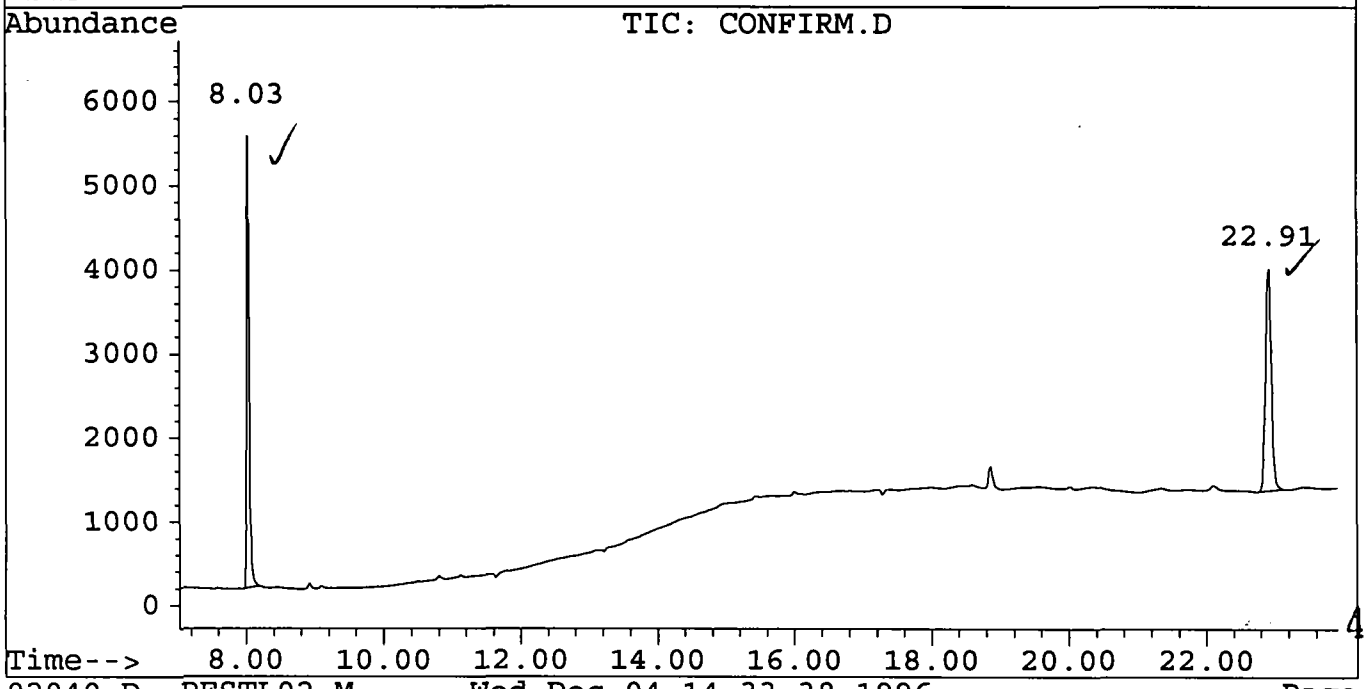
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02040.D Vial: 46
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02040.D\CONFIRM.D
Acq On : 02 Dec 96 15:46 Operator: JC
Sample : PIBLK16Q Inst : HP_16
Misc : 5-266-1616Q Multiplr: 0.0005
Quant Time: Dec 4 14:33 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:59:22 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





477

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02035.D Vial: 41
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02035.D\CONFIRM.D
Acq On : 02 Dec 96 13:16 Operator: JC
Sample : FF624 MS Inst : HP_16
Misc : 27683.10 MS Multiplr: 0.3704
Quant Time: Dec 4 14:47 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Wed Dec 04 14:37:57 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
		Surrogate Compounds						
1)	S	TCX	7.38	8.03	388210	175730	14.90	8.69 #
					Recovery	=	100.57%	58.65%
22)	S	DCB	19.56	22.91	241379	226002	9.48	10.06
					Recovery	=	63.98%	67.90%
		Target Compounds						
2)	AE	alpha-BHC	9.28	0.00	23575	0	0.94	N.D. #
3)	MA	gamma-BHC (Lindane)	10.08	10.43	249134	193244	10.30	10.89
4)	MA	Heptachlor	10.46	11.12	236908	185256	10.77	11.66
5)	MB	Aldrin	10.98	11.82	267070	212634	10.53	10.60
6)	BE	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	B	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B	Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
10)	B	gamma-Chlordane	0.00	13.26	0	8846	N.D.	0.44 #
11)	B	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B	4,4'-DDE	13.13	14.01	11299	14177	0.47	0.78 #
13)	MA	Dieldrin	13.50	14.25	555840	416223	24.34	25.34
14)	MA	Endrin	13.89	14.97	492920	317276	27.78	27.53
15)	B	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	A	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
17)	MA	4,4'-DDT	14.86	15.72	347805	251853	24.44	23.42
18)	B	Endrin Aldehyde	15.51f	15.99f	28415	93125	1.57	6.45 #
19)	B	Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
20)	AE	Methoxychlor	15.97f	0.00	18720	0	2.86	N.D. #
21)	B	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

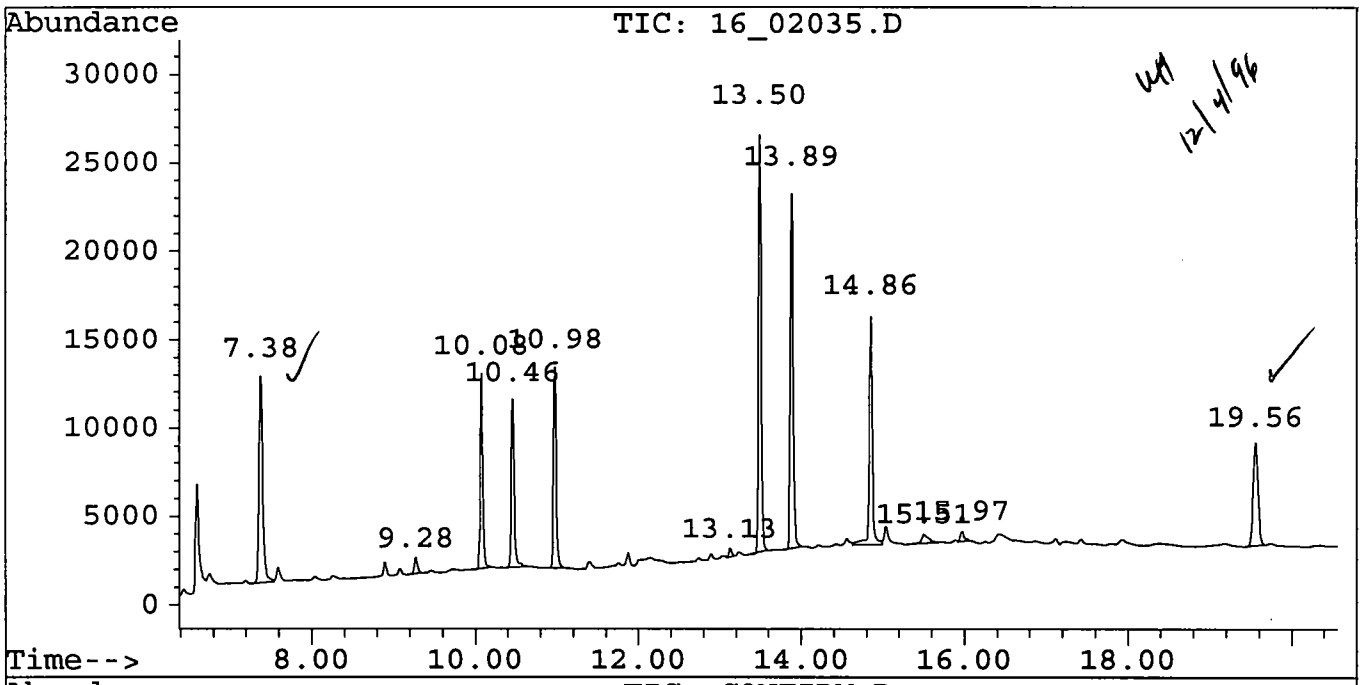
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

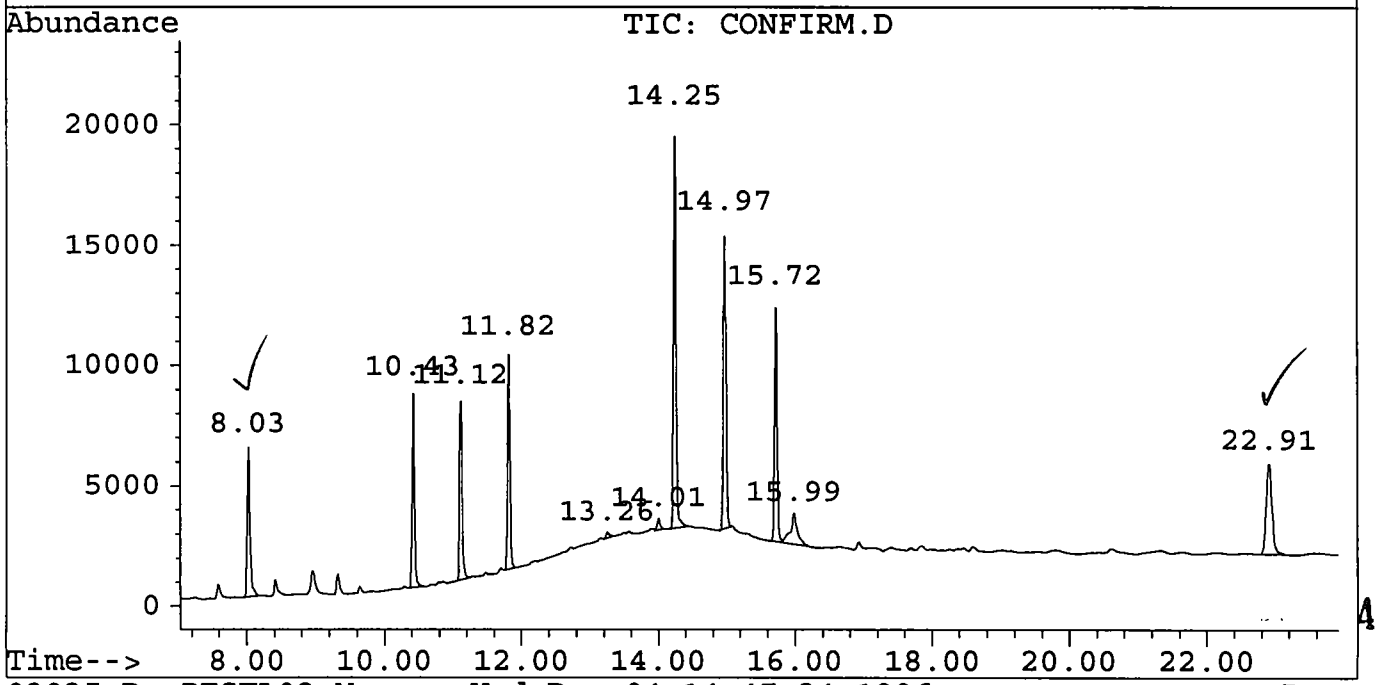
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02035.D Vial: 41
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02035.D\CONFIRM.D
Acq On : 02 Dec 96 13:16 Operator: JC
Sample : FF~~6~~24 MS Inst : HP_16
Misc : 27683.10 MS Multiplr: 0.3704
Quant Time: Dec 4 14:47 1996
L. 12/9/96

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Wed Dec 04 14:37:57 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





480

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02036.D Vial: 42
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02036.D\CONFIRM.D
Acq On : 02 Dec 96 13:46 Operator: JC
Sample : FF24 MSD Inst : HP_16
Misc : 27683.10 MSD Multiplr: 0.3704
Quant Time: Dec 4 14:47 1996
12/9/96
Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Wed Dec 04 14:37:57 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ug/Kg	ug/Kg
		Surrogate Compounds						
1)	S	TCX	7.39	8.03	285822	184602	10.97	9.13
					Recovery	=	74.04%	61.62%
22)	S	DCB	19.56	22.91	249531	225106	9.80	10.02
					Recovery	=	66.14%	67.63%
		Target Compounds						
2)	AE	alpha-BHC	9.27	0.00	16439	0	0.66	N.D. #
3)	MA	gamma-BHC (Lindane)	10.08	10.43	276830	208903	11.45	11.77
4)	MA	Heptachlor	10.46	11.12	253355	198368	11.52	12.49
5)	MB	Aldrin	10.98	11.82	285383	222407	11.25	11.09
6)	BE	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	B	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B	Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
10)	B	gamma-Chlordane	0.00	13.26	0	9729	N.D.	0.48 #
11)	B	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B	4,4'-DDE	13.13	14.01	11351	22337	0.47	1.23 #
13)	MA	Dieldrin	13.50	14.25	599214	439514	26.24	26.75
14)	MA	Endrin	13.89	14.97	535545	332838	30.18	28.88
15)	B	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	A	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
17)	MA	4,4'-DDT	14.86	15.72	329811	260431	23.18	24.22
18)	B	Endrin Aldehyde	15.51f	15.99f	28452	61610	1.57	4.27 #
19)	B	Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
20)	AE	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	B	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

482

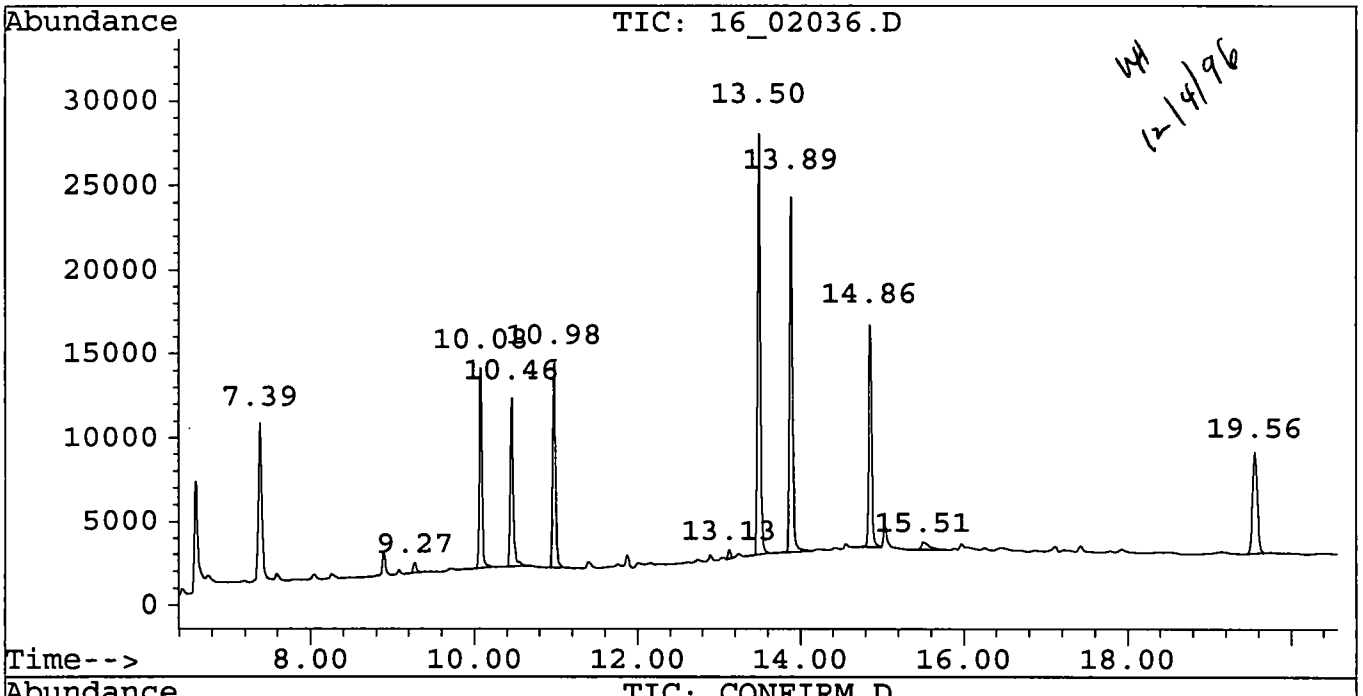
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

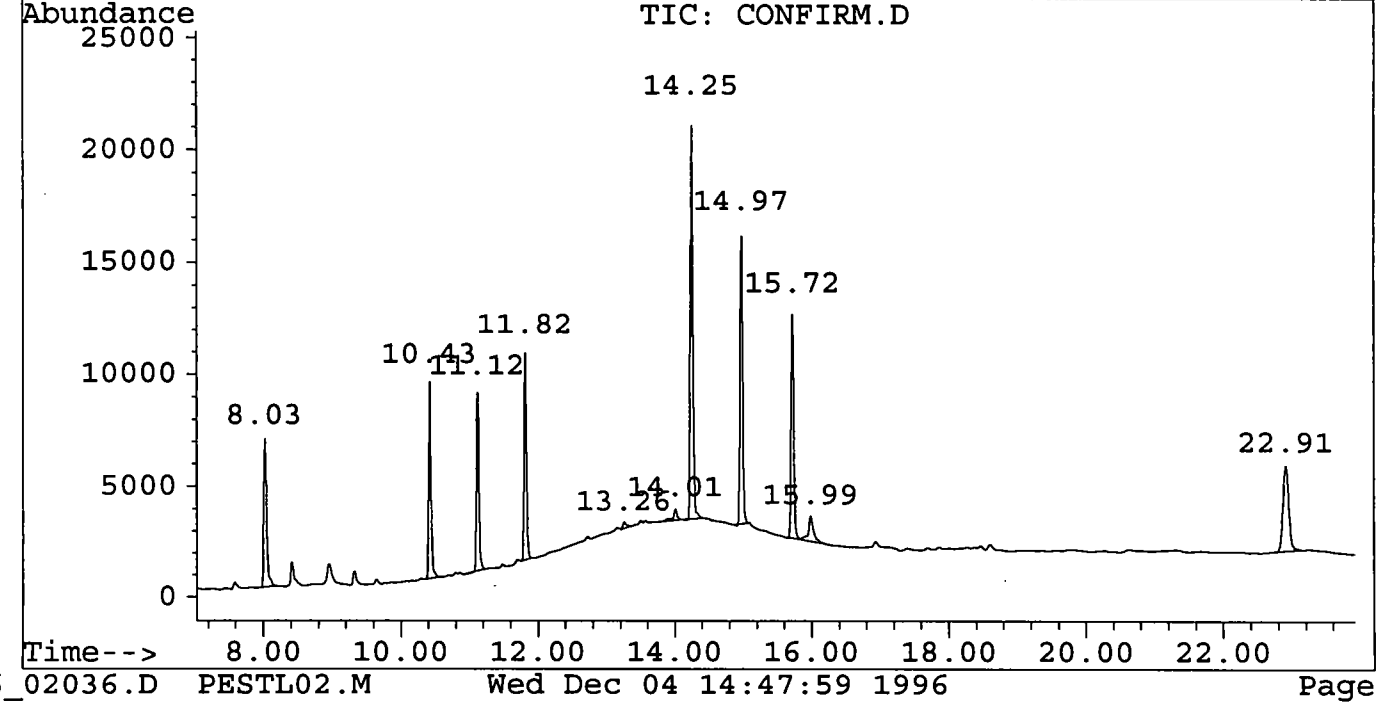
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02036.D Vial: 42
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02036.D\CONFIRM.D
Acq On : 02 Dec 96 13:46 Operator: JC
Sample : FF~~0~~24 MSD Inst : HP_16
Misc : 27683.10 MSD Multiplr: 0.3704
Quant Time: Dec 4 14:47 1996
4-12/9/96

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Wed Dec 04 14:37:57 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





GEL PERMEATION CHROMATOGRAPHY

EXTRACTIONS DEPARTMENT

16P1125A=32

COLLECT=40MLS

PAGE 1 OF 2

(*) INITIAL CAL STD: 11-25-96@13:10

	ZYMARK
COLUMN ID:	114745
CLIENT:	EPA - EPA
FRACTION:	PEST
PROTOCOL:	6C817
CYCLE:	15:30 - 8:00 - 6:30
CASE NUMBER:	25159 - 25159*

OPERATOR	DATE	TIME	POSITION #	SAMPLE I.D.	
TR	11-25-96	16:11	7	SOL BLKE 112596A -	
		16:42	8	SOL BLKE 112596B	*
		17:13	9	BL1119SC	*
		17:43	10	BB1119SC	*
		18:13	11	BL1120SB	
		18:44	12	BB1120SB	
		19:14	13	FFG24 MSD 27683.10 MSD	
		19:44	14	24 MS	.10 MS
		20:15	15	24	.10
		20:45	16	10	.03
		21:15	17	13	.06
		21:45	18	12	.05
		22:16	19	11	.04
		22:46	20	09	.02
		23:16	21	17	.07
	11-25-96	23:47	22	18	.08
	11-26-96	00:17	23	21	.09
TR	11-26-96	00:47	24	FFG06 27683.01	
FINAL					
CAL STD:	11-26-96@09:43				

COPY

ORIGINAL DOCUMENTS ARE INCLUDED IN

CSF 25159 SDG FFG02

Signature Imelda M. William

Date 12/9/96

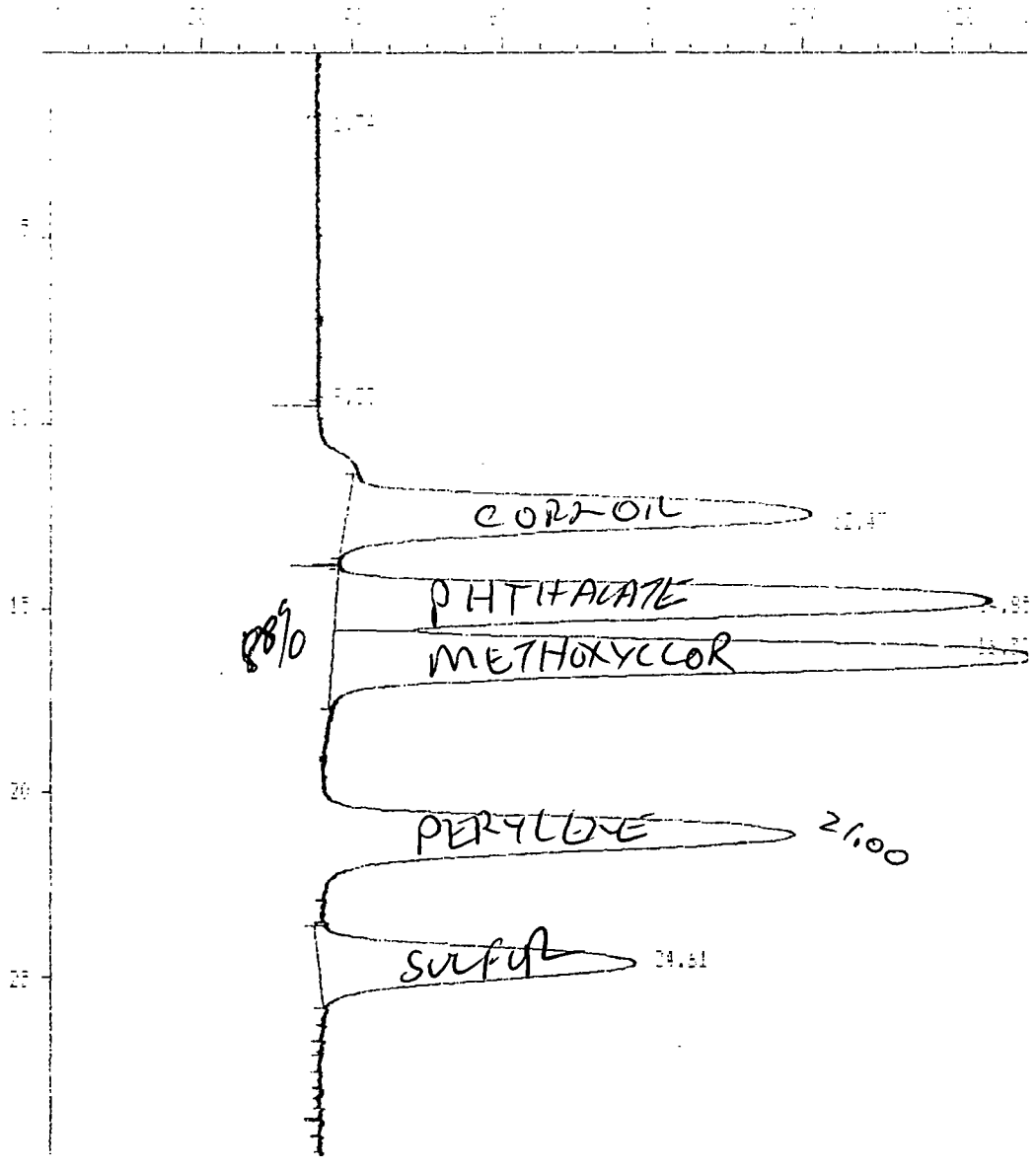
* CONTINUED ON PAGE 2 OF 2

COMPOUND	INITIAL R.T.	FINAL R.T.	% DIFFERENCE
PHTHALATE	14.85	14.72	0.88
METHOXYCHLOR	16.32	16.23	0.55
PERYLENE	21.00	21.06	0.29

484

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25/59 SDG FF502
Signature Amelda M. William
Date 12/9/96

INITIAL



SOLBLK-112596A

ORIGINAL DOCUMENTS ARE INCLUDED IN

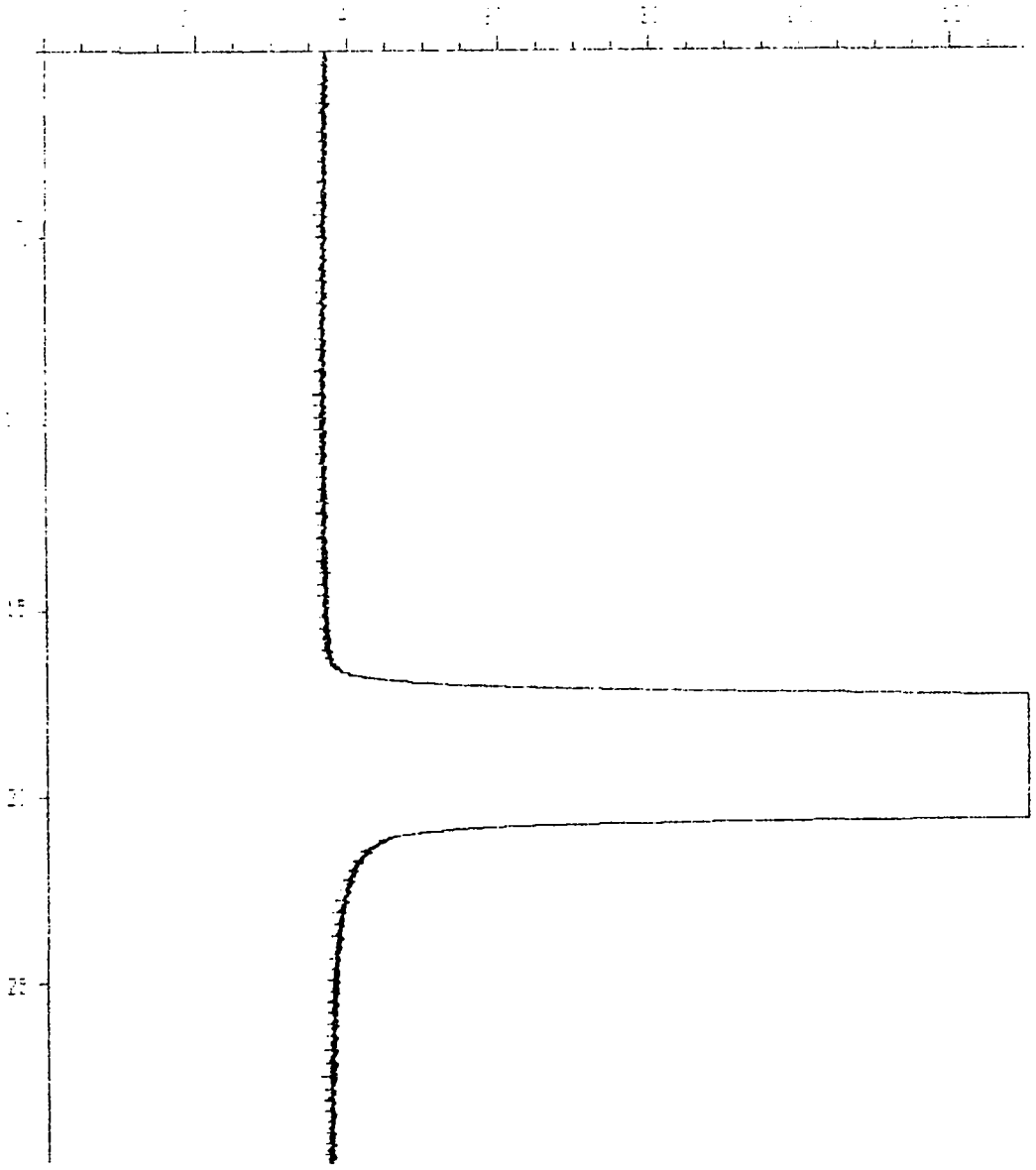
CSF 25159 SDG FF602

Signature Freida M. William

Date 12/9/96

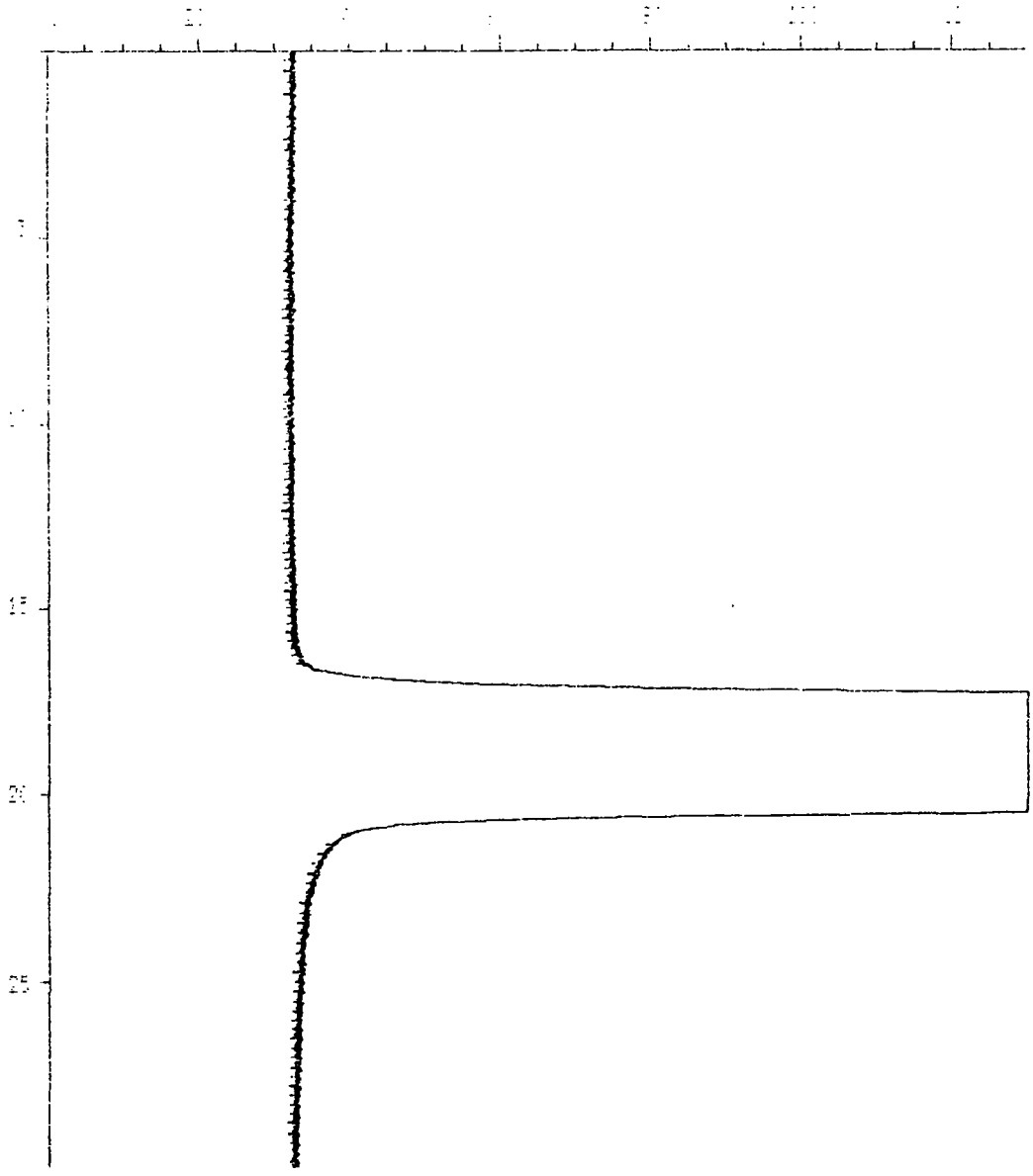
COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FFG02
Signature Imelda M. Williams
Date 12/9/96

BL 11205B



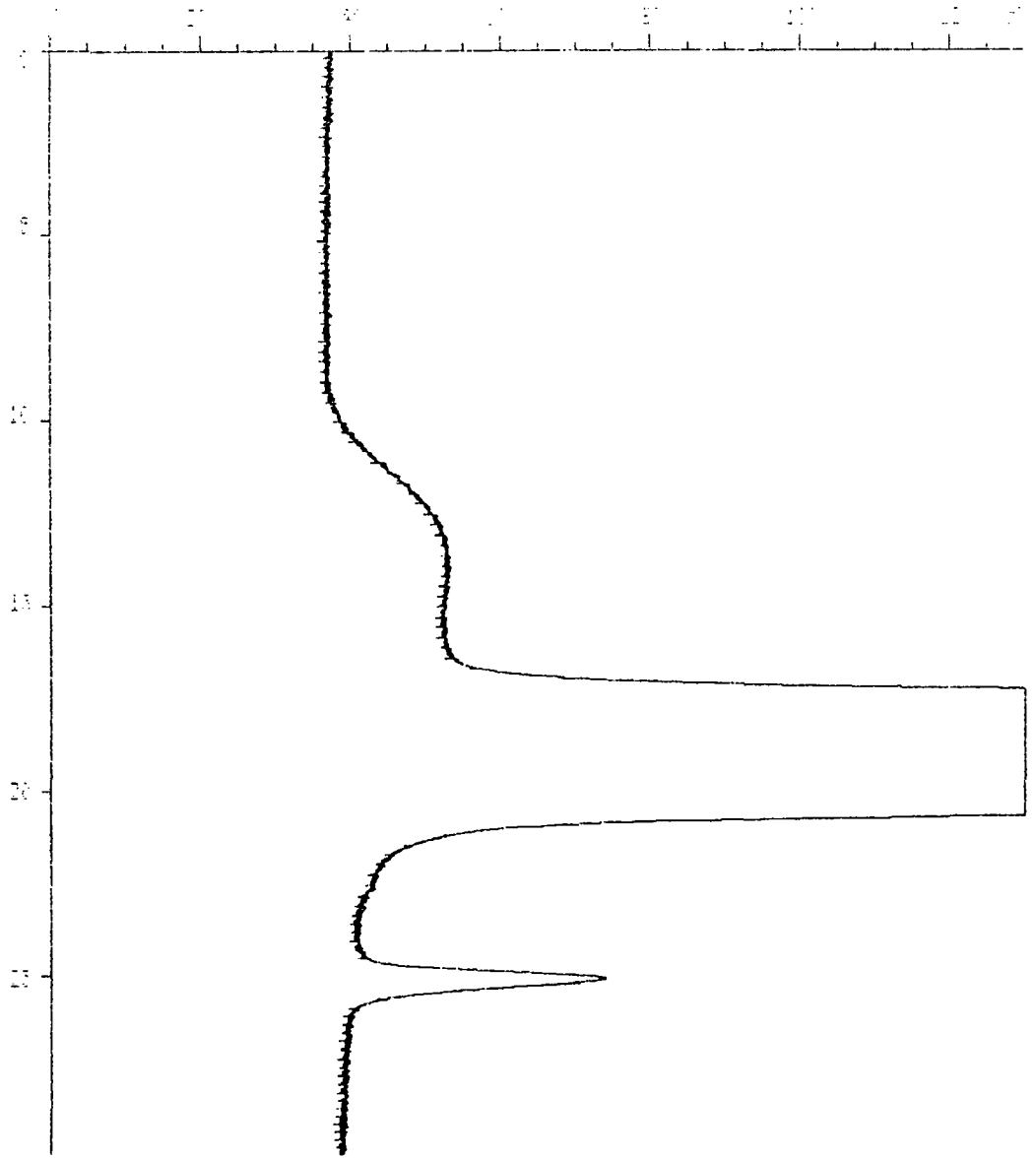
COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FFG02
Signature Imelda M. Willis
Date 12/9/96

BB 11205B



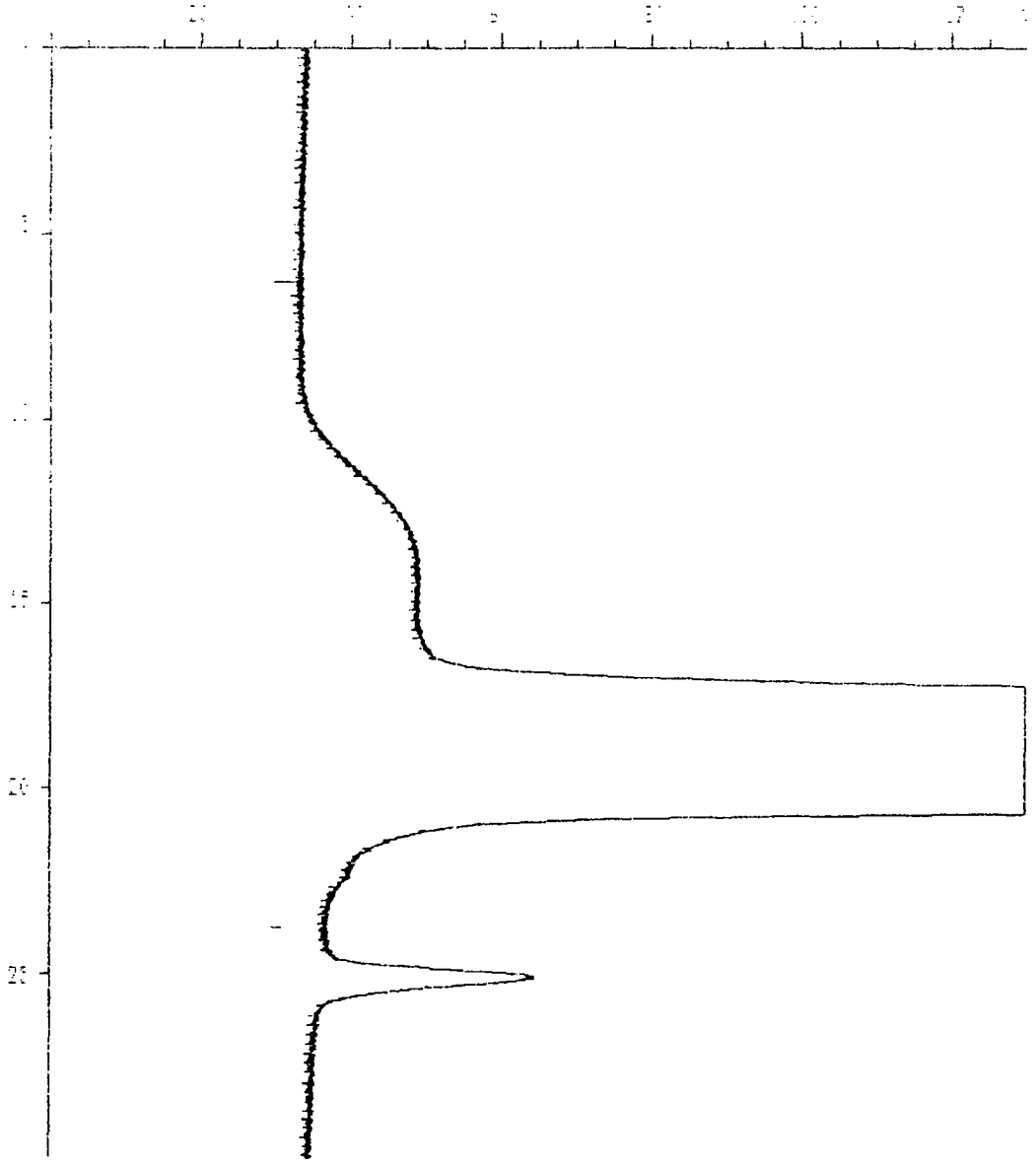
COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FF602
Signature Imelda M. William
Date 12/9/96

FFG 24MSD
27683.10MSD



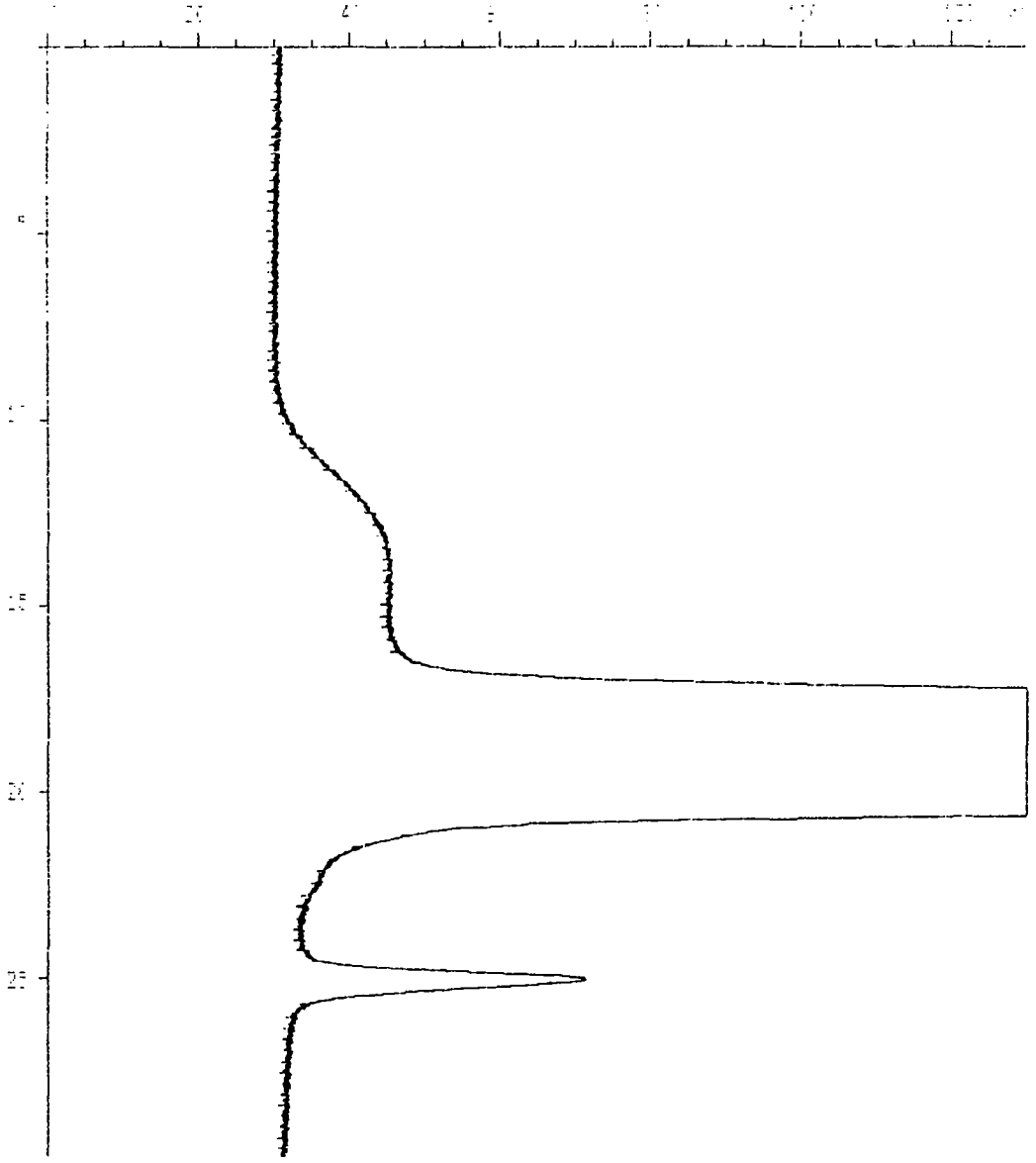
COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FF502
Signature Anelda M. William
Date 12/9/96

FFG 24ms
27683.10ms



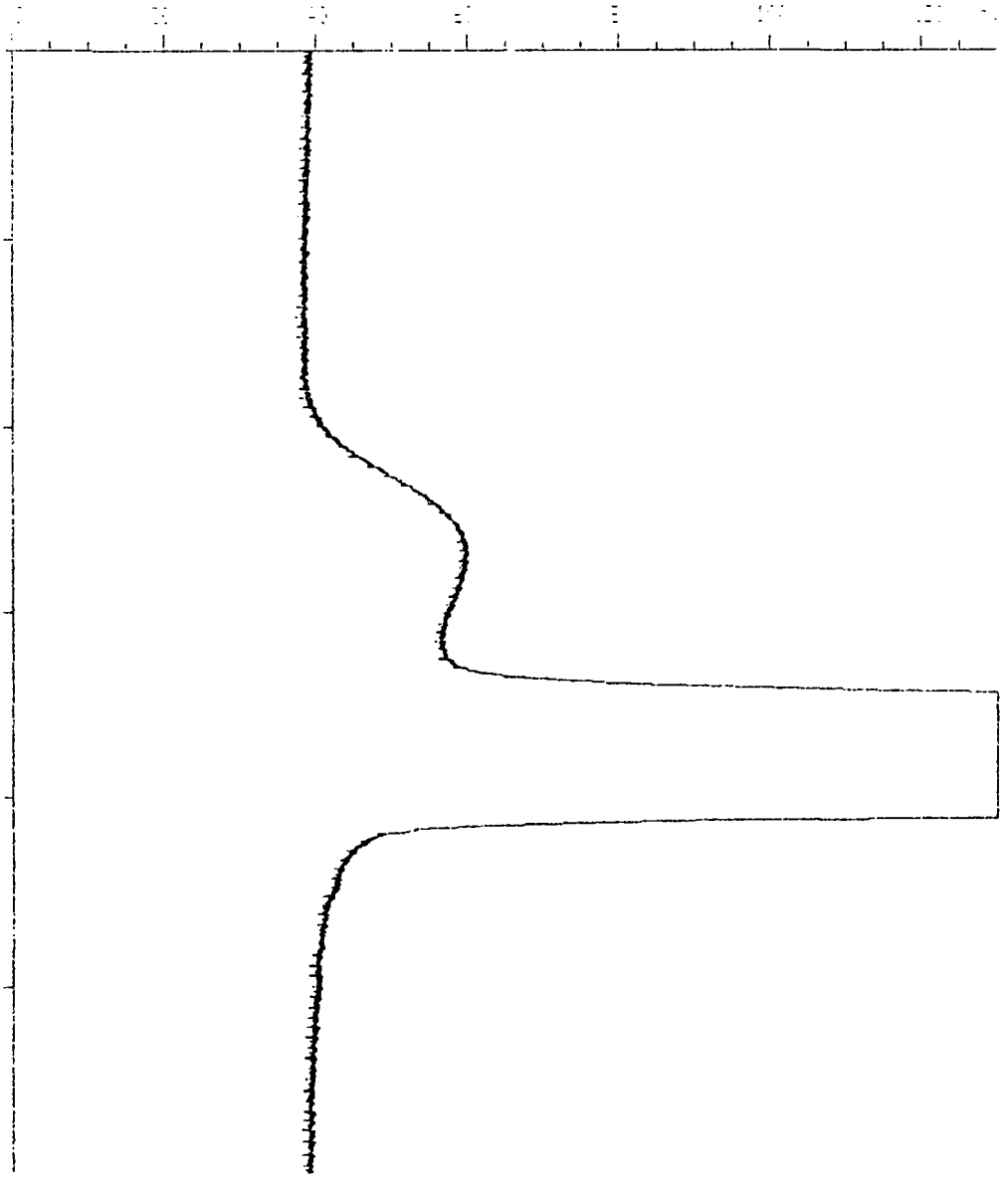
COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SEG FF602
Signature Amelia M. William
Date 12/9/96

FFG 24
27683.10



COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FF602
Signature Fredda M. Williams
Date 12/9/96

FF6-10
27683.03



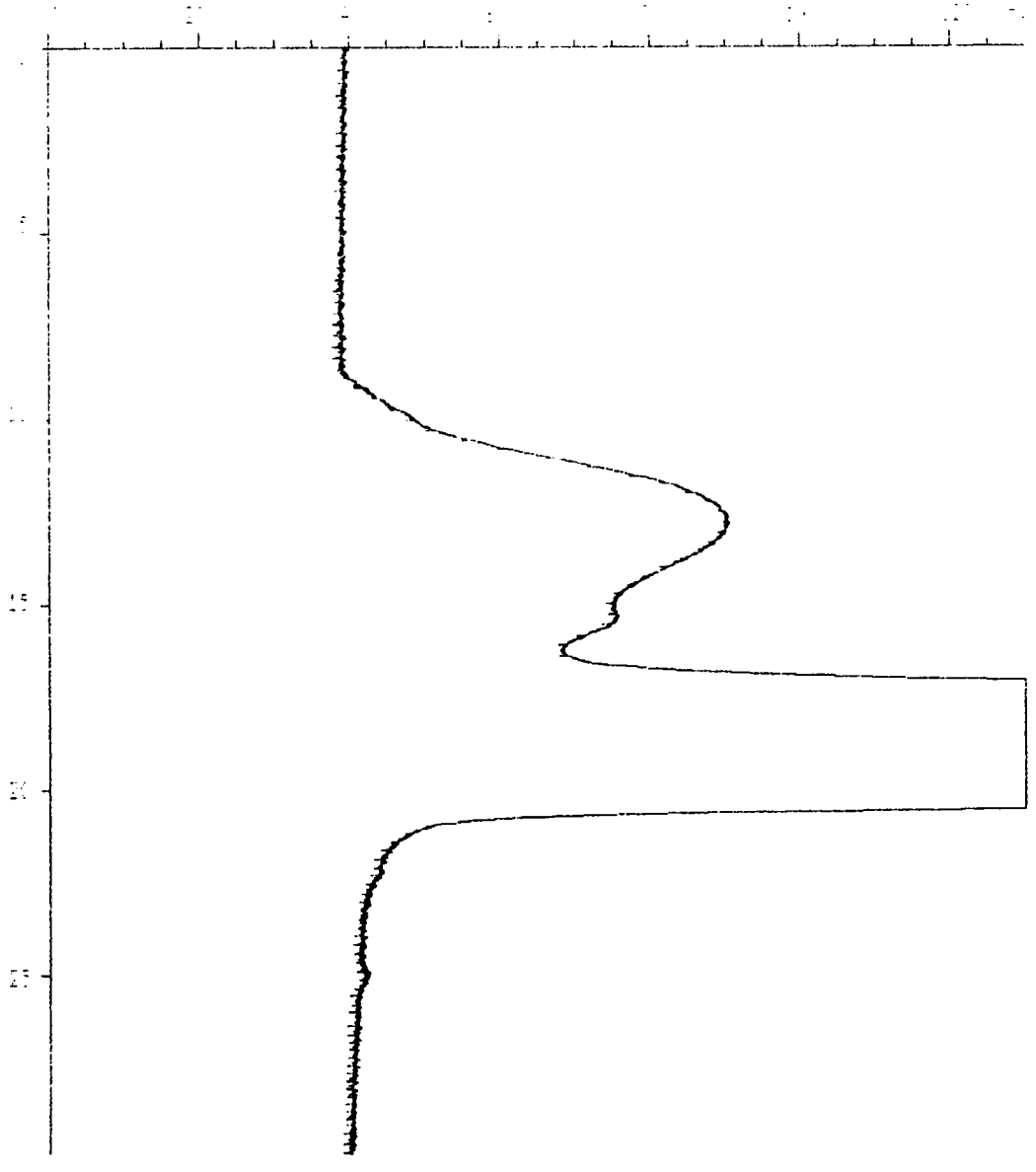
ORIGINAL DOCUMENTS ARE INCLUDED IN

CSF 25159 SDG FF602

Signature Amelia M. William

Date 12/9/96

FFG-13
27683.06



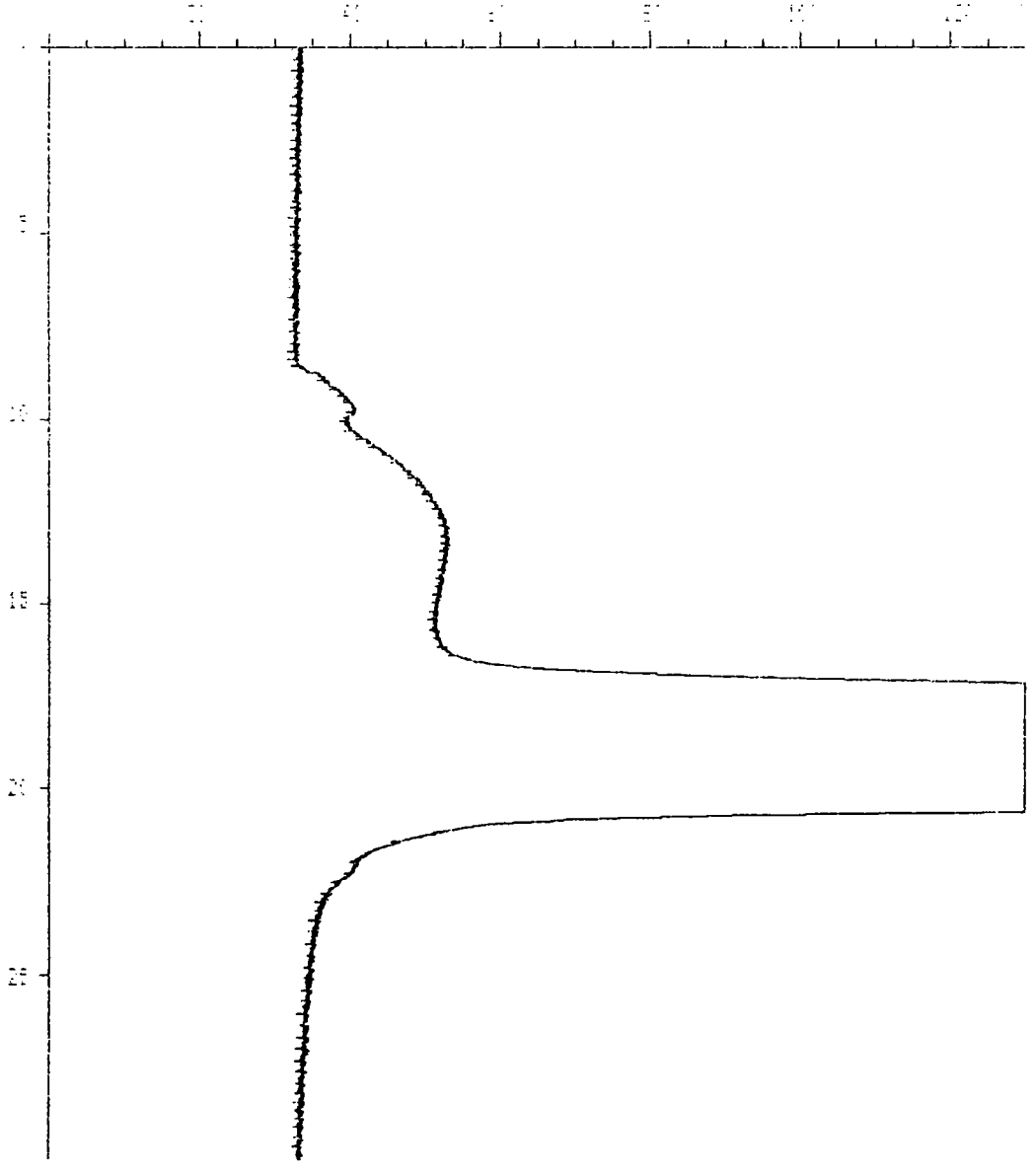
ORIGINAL DOCUMENTS ARE INCLUDED IN

CSF 25159 SDG FFG02

Signature Freddie M. William

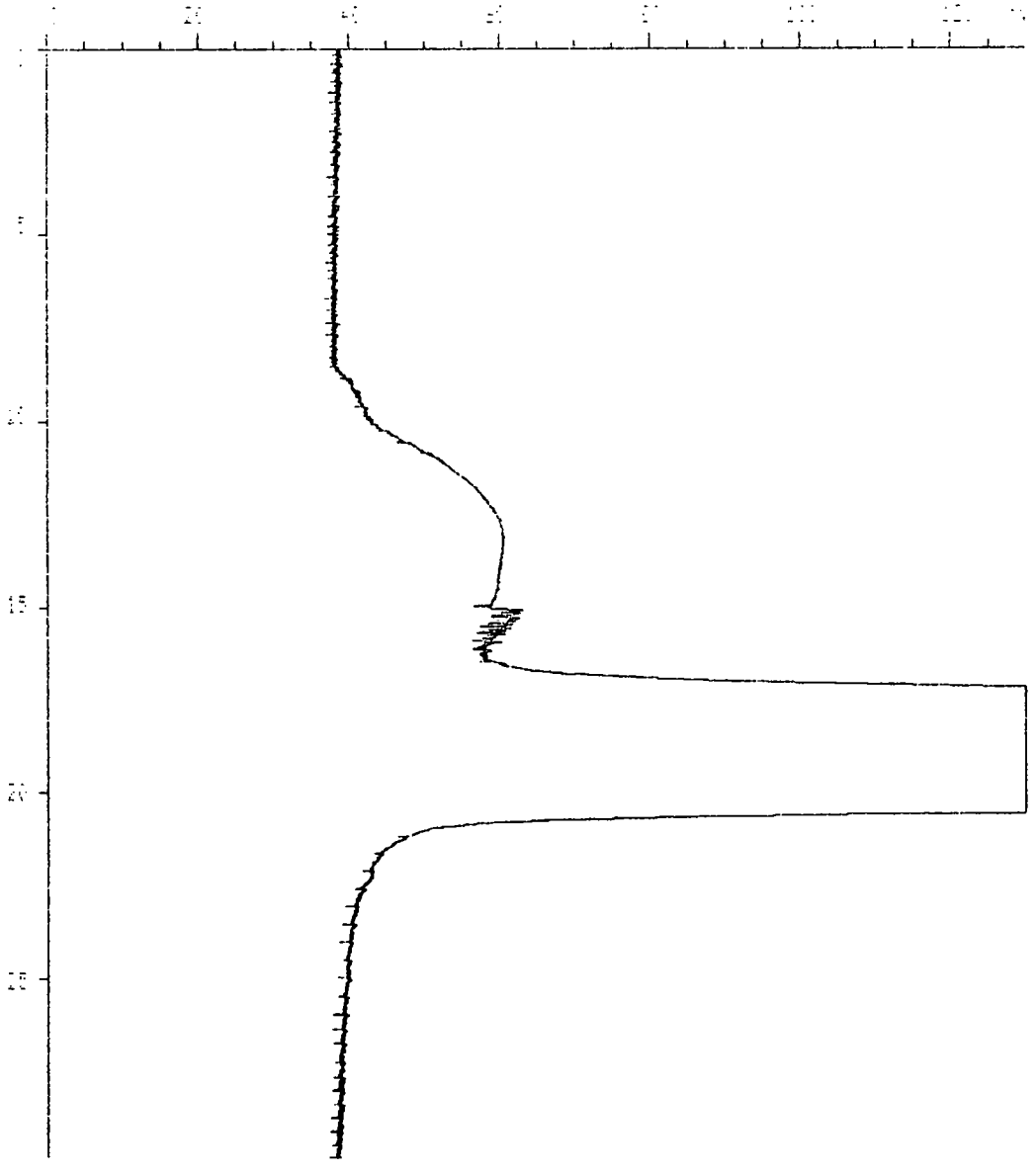
Date 12/9/96

FFG12
27683.05



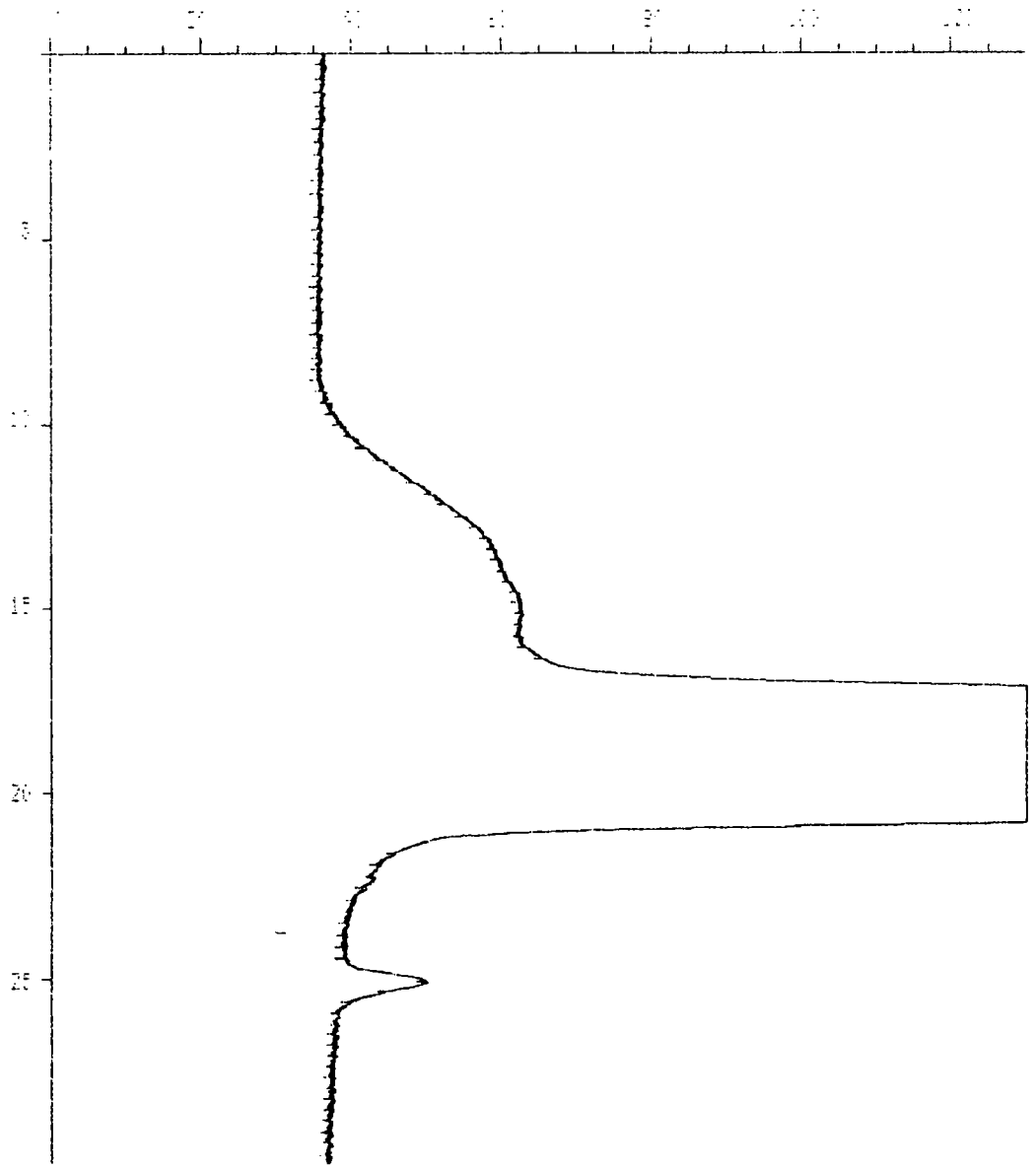
COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FFG02
Signature Fonelda M. William
Date 12/9/96

FFG 11
27683.04



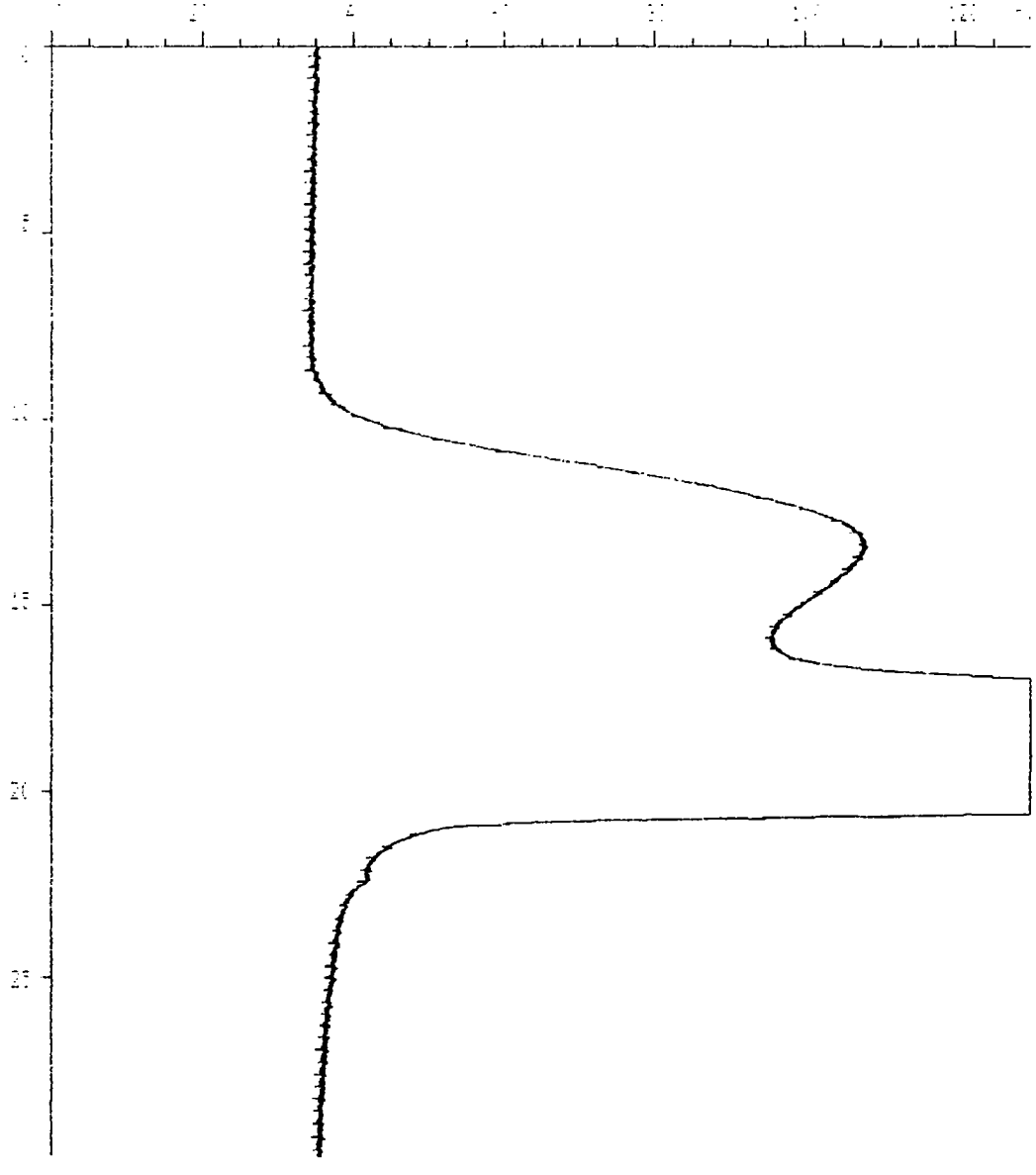
COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FFG02
Signature [illegible] M. William
Date 12/9/96

FFG 09
27683.02



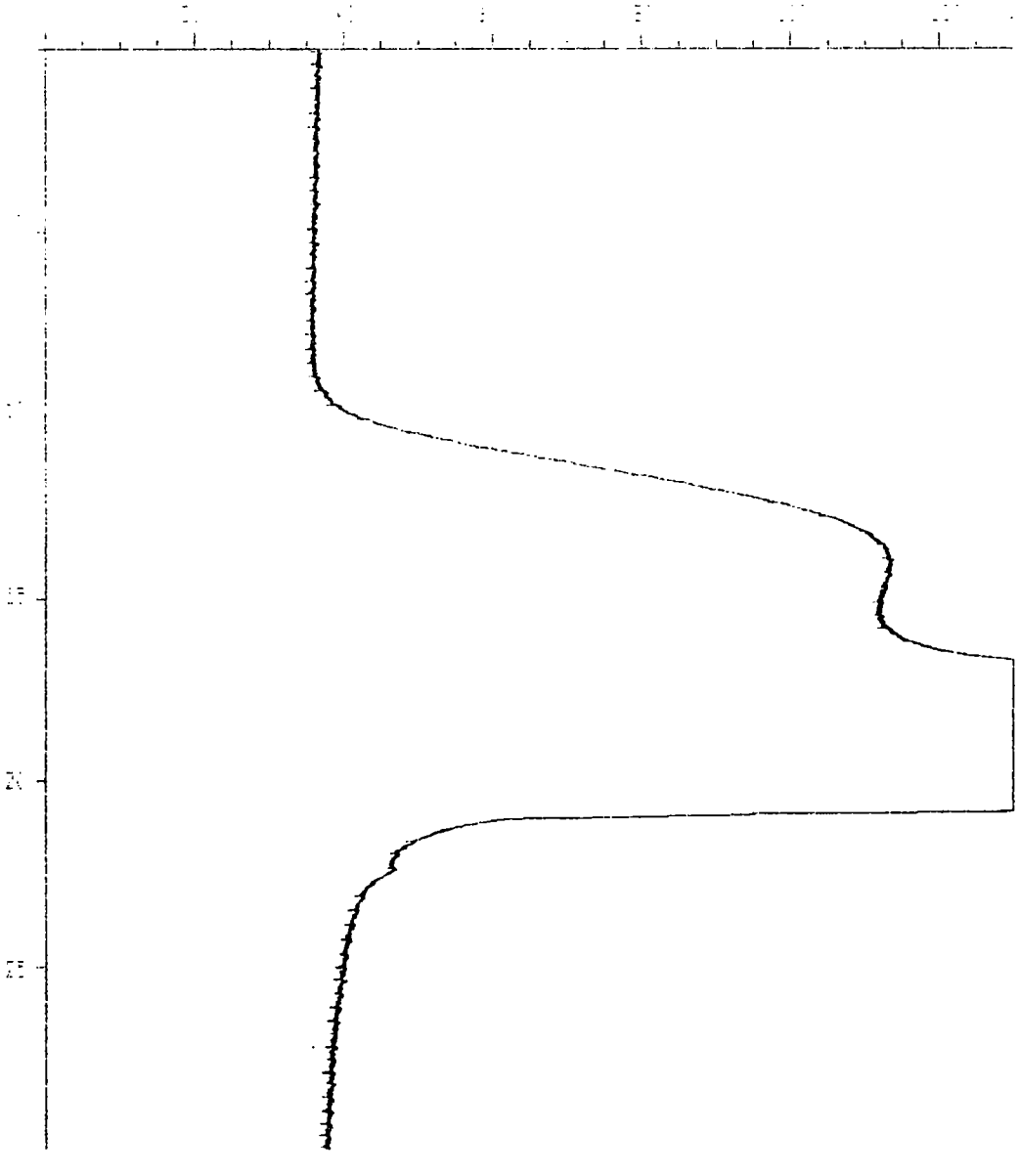
COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FFG02
Signature Farella M. William
Date 12/9/96

FFG17
27683-07



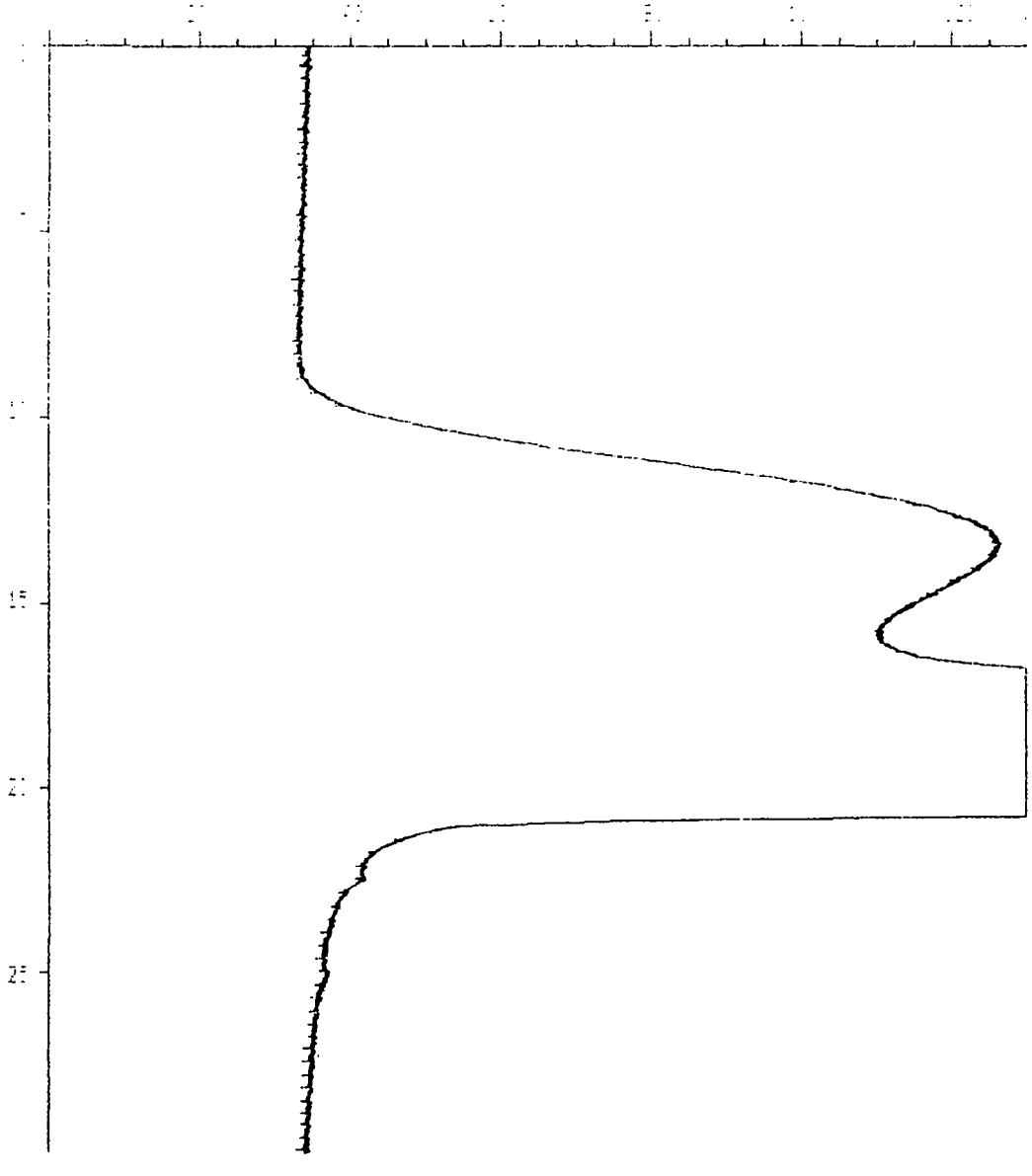
COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FFG02
Signature Imelda M. Williams
Date 12/9/96

FFG18
L7683.08



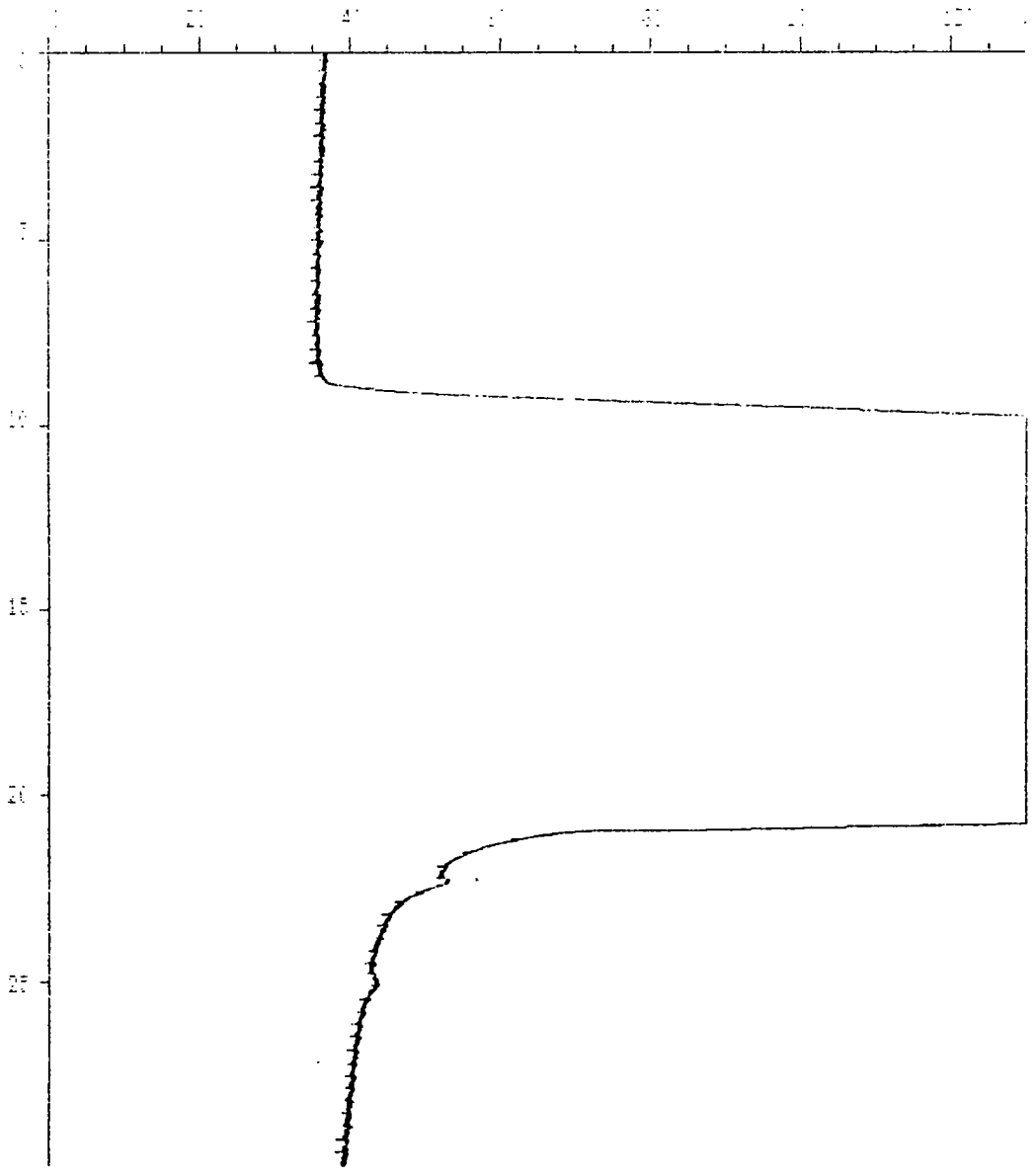
COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FF602
Signature Fuella M. Willis
Date 12/9/96

FFG 21
27683.09



COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FF502
Signature Amelia M. Williams
Date 12/9/96

VG Data Systems - Minitrace v1.55



FFG 06
27683.01

COPY

ORIGINAL DOCUMENTS ARE INCLUDED IN

CSF 25159 SDG FF602

Signature Imelda M. William

Date 12/9/94

VG Data Systems - [illegible]

[illegible] PLOT

Injection Cr [illegible]

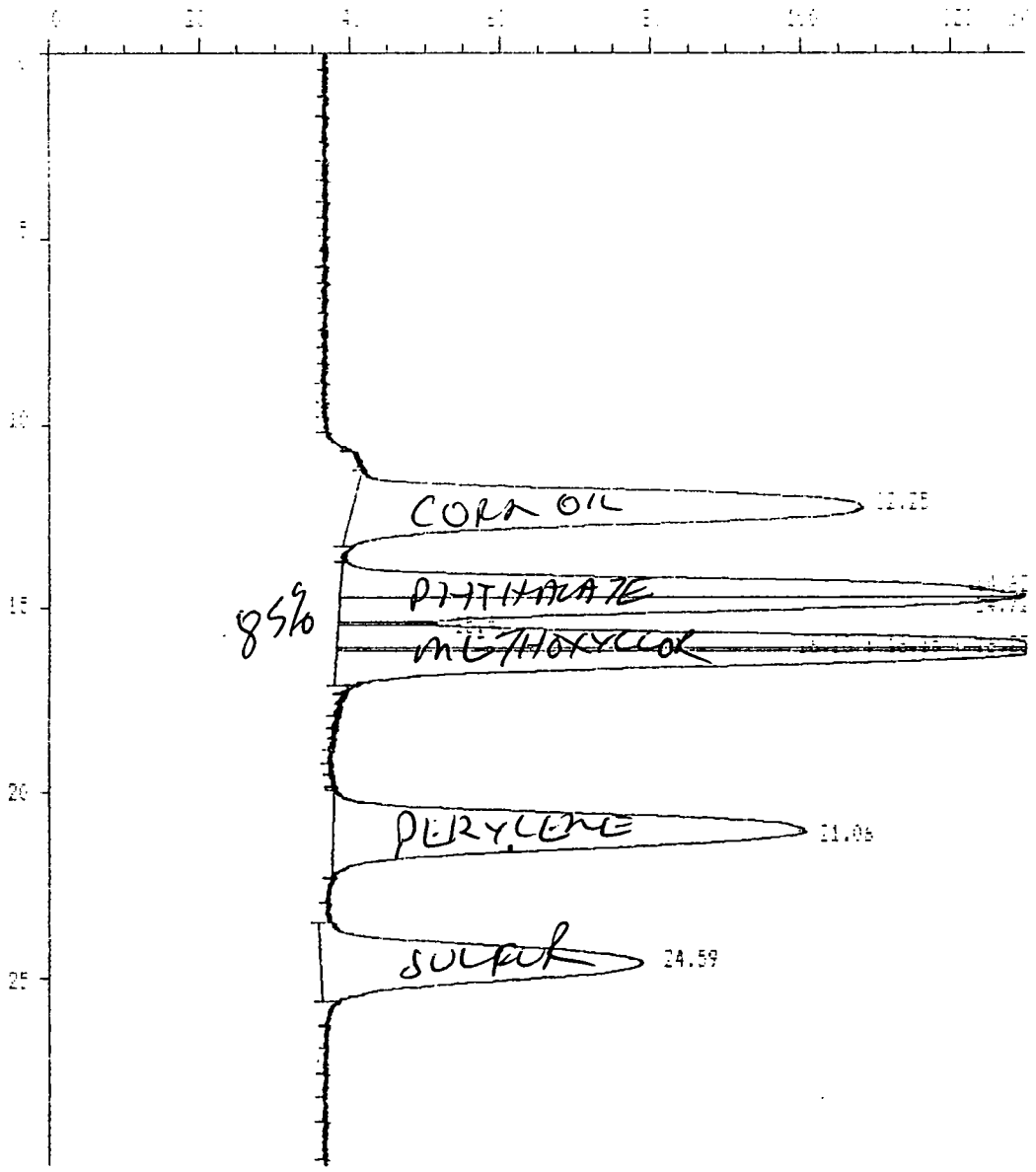
FINAL

Sample [illegible]

Sample [illegible]

[illegible]

[illegible]



Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_26_96\16_01955.D Vial: 16
Signal #2 : H:\HPCHEM\HP\16\DATA\11_26_96\16_01955.D\CONFIRM.D
Acq On : 27 Nov 96 00:20 Operator: JC
Sample : 114745 PB Inst : HP_16
Misc : 114745 11/20 Multiplr: 10.0000
Quant Time: Nov 27 7:55 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTK24.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Wed Nov 27 07:53:00 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonGPC	ngonGPC
		Surrogate Compounds						
1)	S	TCX	0.00	0.00	0	0	N.D.	N.D.
					Recovery	=	0.00%	0.00%
22)	S	DCB	0.00	0.00	0	0	N.D.	N.D.
					Recovery	=	0.00%	0.00%
		Target Compounds					X	
2)	AE	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3)	MA	gamma-BHC (Lindane)	10.08	10.43	416852	240634	455.36	434.46
4)	MA	Heptachlor	10.46	11.12	313547	209758	417.31	390.23
5)	MB	Aldrin	10.98	11.82	462395	283768	431.59	437.32
6)	BE	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	B	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B	Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
10)	B	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	B	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	MA	Dieldrin	13.50	14.25	905773	473199	1022.46	991.39
14)	MA	Endrin	13.90	14.98	744435	360886	1117.68	1073.81
15)	B	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	A	4,4'-DDD	14.57	15.10	27912	22645	47.02	64.27 #
17)	MA	4,4'-DDT	14.86	15.73	428107	312202	1096.03	968.93
18)	B	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	B	Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
20)	AE	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	B	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 28160 SDG FEX69
Signature
Date 12-9-96

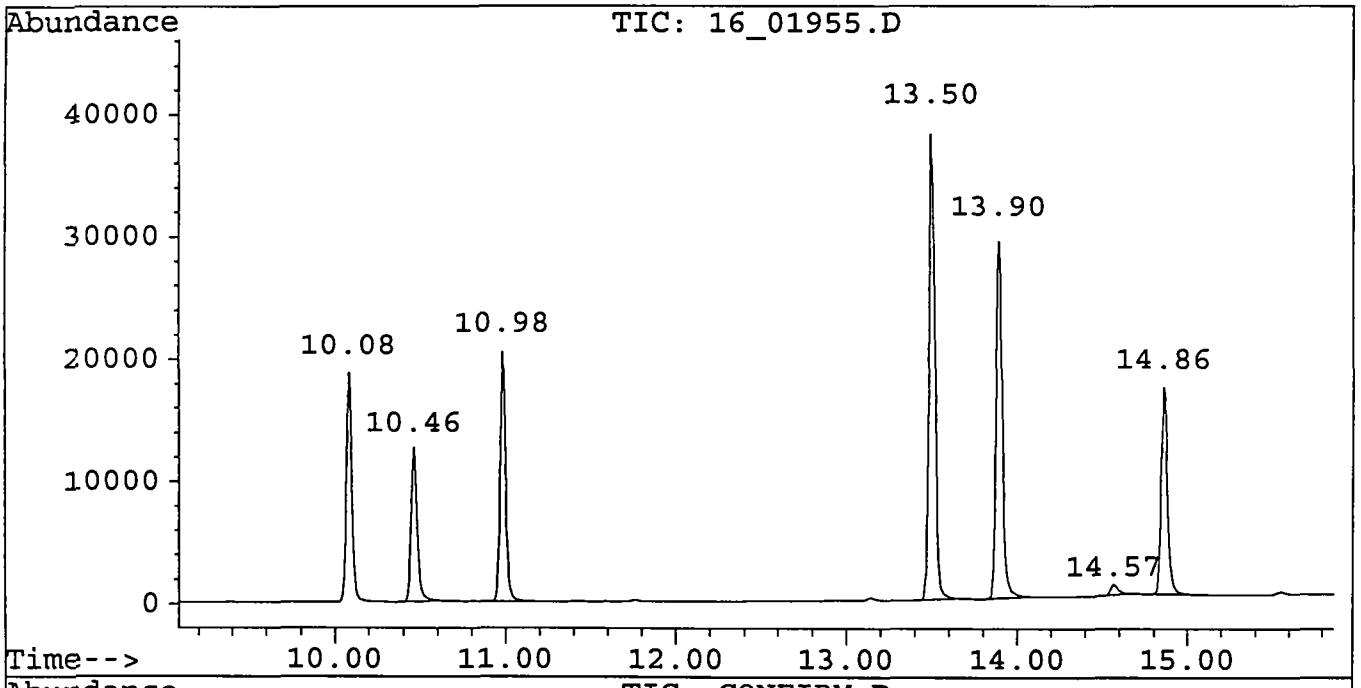
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int. 502
(E)= > Highest calibration standard (d)=compound deleted

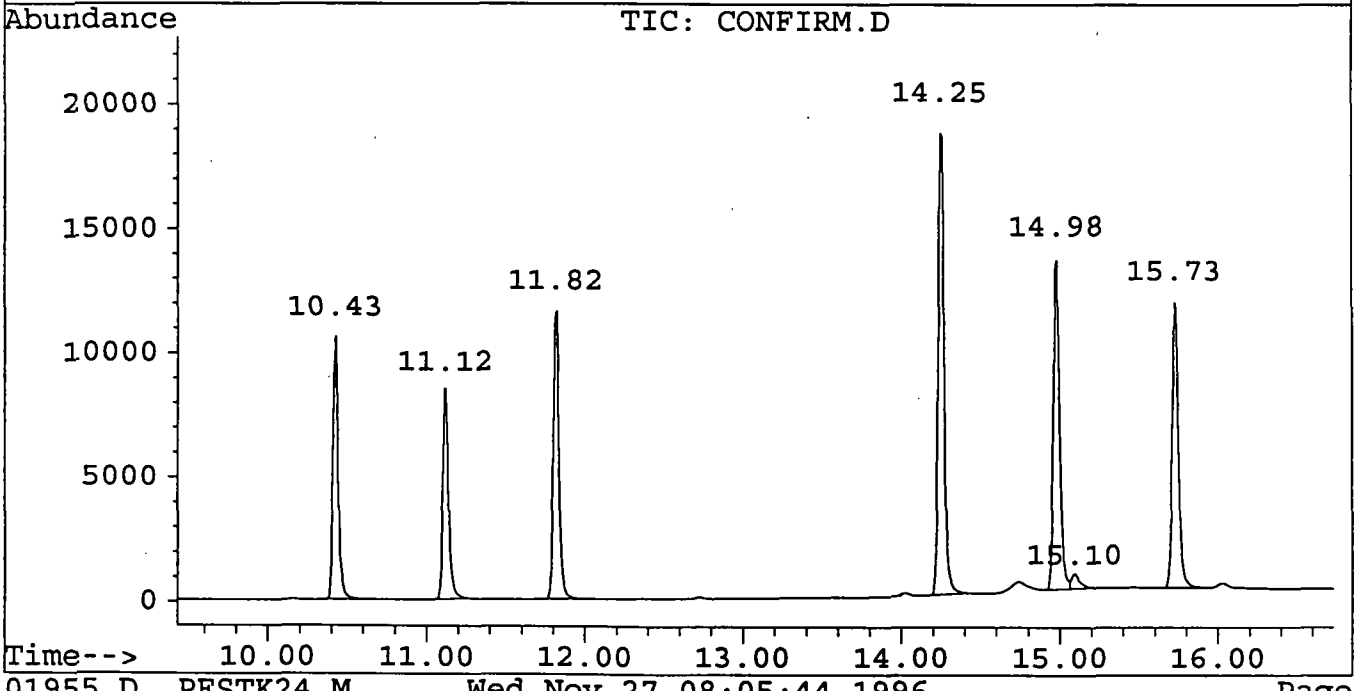
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_26_96\16_01955.D Vial: 16
Signal #2 : H:\HPCHEM\HP\16\DATA\11_26_96\16_01955.D\CONFIRM.D
Acq On : 27 Nov 96 00:20 Operator: JC
Sample : 114745 PB Inst : HP_16
Misc : 114745 11/20 Multiplr: 10.0000
Quant Time: Nov 27 7:55 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTK24.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Wed Nov 27 07:53:00 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





503

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_26_96\16_01957.D Vial: 18
Signal #2 : H:\HPCHEM\HP\16\DATA\11_26_96\16_01957.D\CONFIRM.D
Acq On : 27 Nov 96 01:20 Operator: JC
Sample : 114745 AROCLOR Inst : HP_16
Misc : 114745 11/20 Multiplr: 10.0000
Quant Time: Nov 27 8:10 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBK24.M
Title : PCB/TOXAPHENE
Last Update : Wed Nov 27 08:09:50 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonGPC	ngonGPC
Surrogate Compounds						
1) S TCX	0.00	0.00	0	0	N.D.	N.D.
			Recovery	=	0.00%	0.00%
38) S DCB	0.00	0.00	0	0	N.D.	N.D.
			Recovery	=	0.00%	0.00%
Target Compounds						
2) L1 Aroclor-1016	8.56	9.50	33273	20043	1162.41	1175.18
3) L1 Aroclor-1016 {2}	9.36	10.39	66171	47574	1139.17	1199.42
4) L1 Aroclor-1016 {3}	10.24	11.15	121205	81087	1189.93	1262.82
5) L1 Aroclor-1016 {4}	10.52	11.48	59558	29153	1322.93	1245.46
6) L1 Aroclor-1016 {5}	11.40	11.77	53895	40627	1233.01	1375.40
Total Aroclor-1016			334101	218484	6047.45	6258.29
Total Aroclor-1221			0	0	N.D.	N.D.
Total Aroclor-1232			0	0	N.D.	N.D.
Total Aroclor-1242			0	0	N.D.	N.D.
Total Aroclor-1248			0	0	N.D.	N.D.
Total Aroclor-1254			0	0	N.D.	N.D.
29) L7 Aroclor-1260	13.64	14.34	77328	32118	1240.07	1378.11
30) L7 Aroclor-1260 {2}	14.03	14.83	88988	57065	1263.90	1290.97
31) L7 Aroclor-1260 {3}	14.66	15.24	111844	21533	1299.00	1431.37
32) L7 Aroclor-1260 {4}	15.89	16.95	103195	89982	1401.02	1490.14
33) L7 Aroclor-1260 {5}	16.68	18.28	85905	43236	1323.23	1450.59
Total Aroclor-1260			467260	243936	6527.21	7041.18
Total Toxaphene			0	0	N.D.	N.D.

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25190 SDG FEX69
Signature [illegible]
Date 12-9-96

504

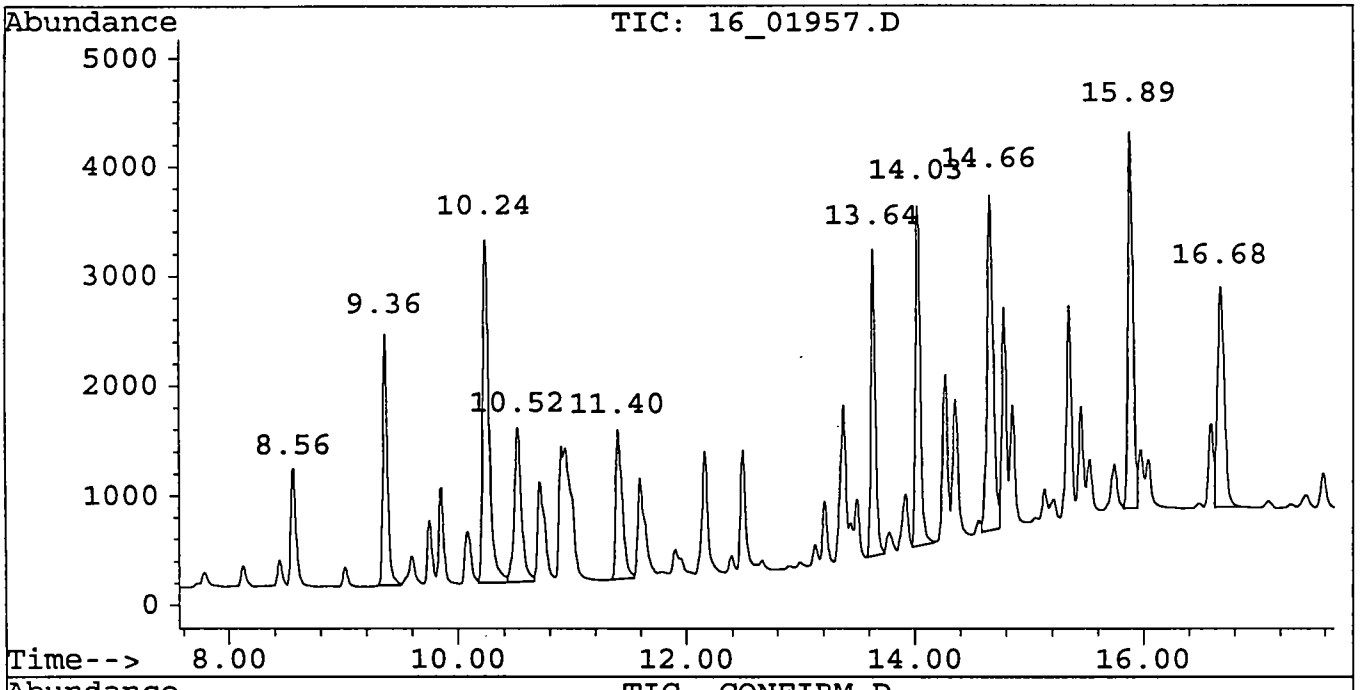
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

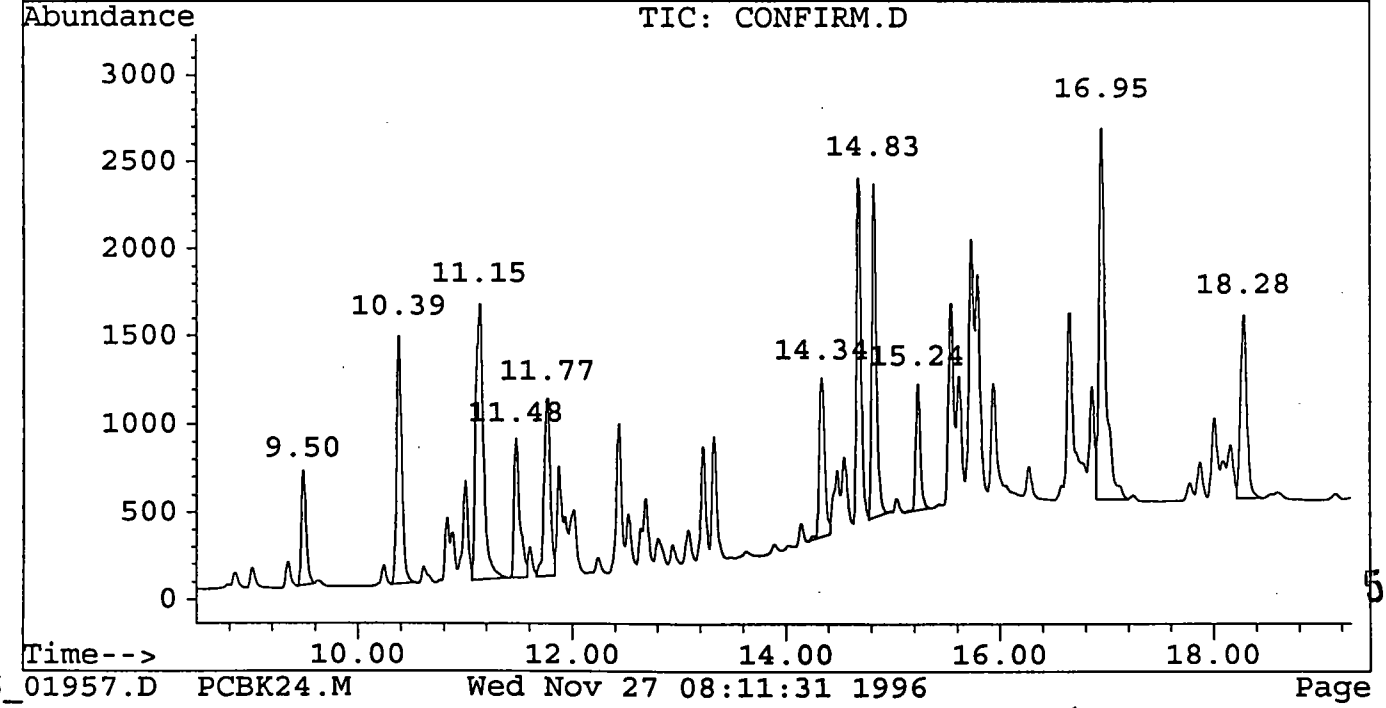
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_26_96\16_01957.D Vial: 18
Signal #2 : H:\HPCHEM\HP\16\DATA\11_26_96\16_01957.D\CONFIRM.D
Acq On : 27 Nov 96 01:20 Operator: JC
Sample : 114745 AROCLOR Inst : HP_16
Misc : 114745 11/20 Multiplr: 10.0000
Quant Time: Nov 27 8:10 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBK24.M
Title : PCB/TOXAPHENE
Last Update : Wed Nov 27 08:09:50 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





505

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_26_96\16_01954.D Vial: 15
Signal #2 : H:\HPCHEM\HP\16\DATA\11_26_96\16_01954.D\CONFIRM.D
Acq On : 26 Nov 96 23:50 Operator: JC
Sample : 114745 SOL BLK Inst : HP_16
Misc : 114745 11/20 Multiplr: 10.0000
Quant Time: Nov 27 7:55 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTK24.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Wed Nov 27 07:53:00 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

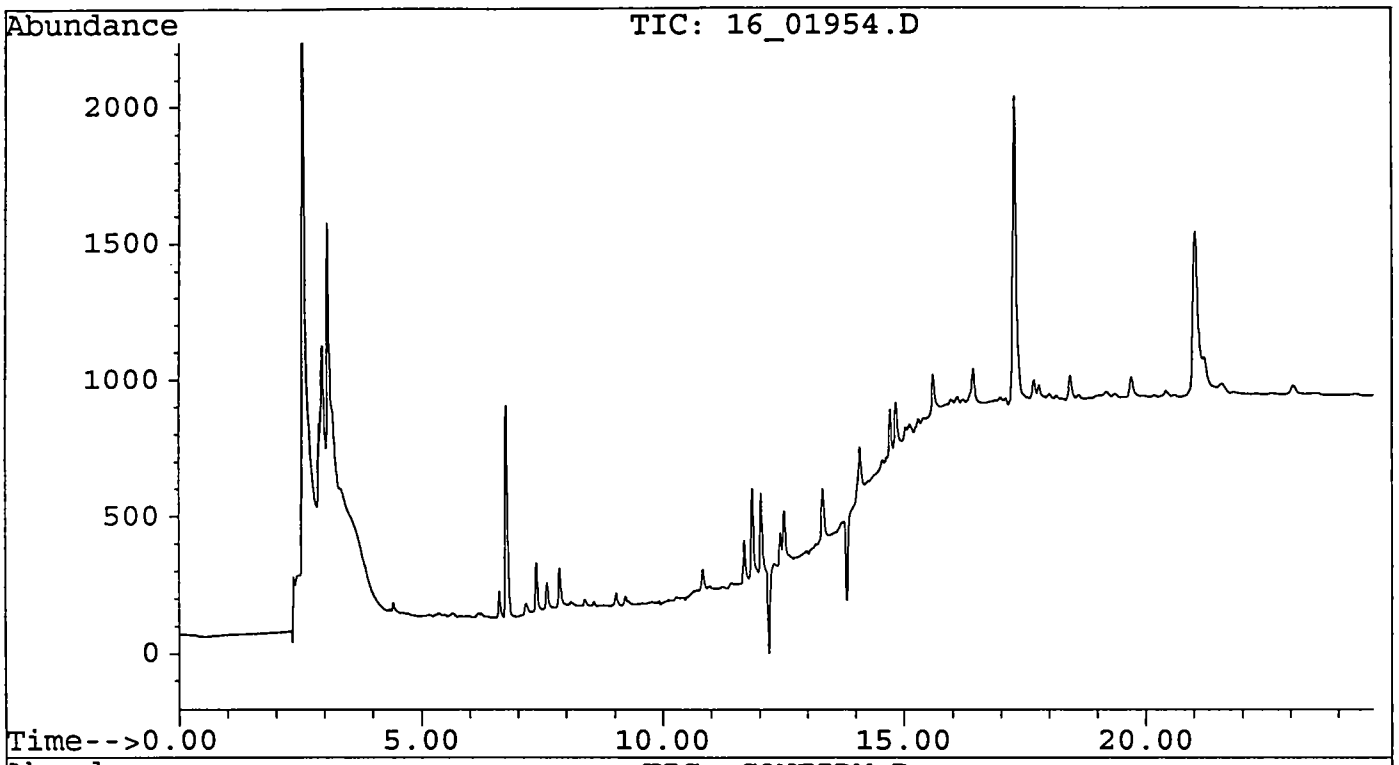
	Compound	RT#1	RT#2	Resp#1	Resp#2	ngonGPC	ngonGPC
	Surrogate Compounds						
1)	S TCX	0.00	0.00	0	0	N.D.	N.D.
				Recovery	=	0.00%	0.00%
22)	S DCB	0.00	0.00	0	0	N.D.	N.D.
				Recovery	=	0.00%	0.00%
	Target Compounds						
2)	AE alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3)	MA gamma-BHC (Lindane)	0.00	0.00	0	0	N.D.	N.D.
4)	MA Heptachlor	0.00	0.00	0	0	N.D.	N.D.
5)	MB Aldrin	0.00	0.00	0	0	N.D.	N.D.
6)	BE beta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	B delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
10)	B gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	B alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B 4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	MA Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	MA Endrin	0.00	0.00	0	0	N.D.	N.D.
15)	B Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	A 4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
17)	MA 4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.
18)	B Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	B Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
20)	AE Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	B Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

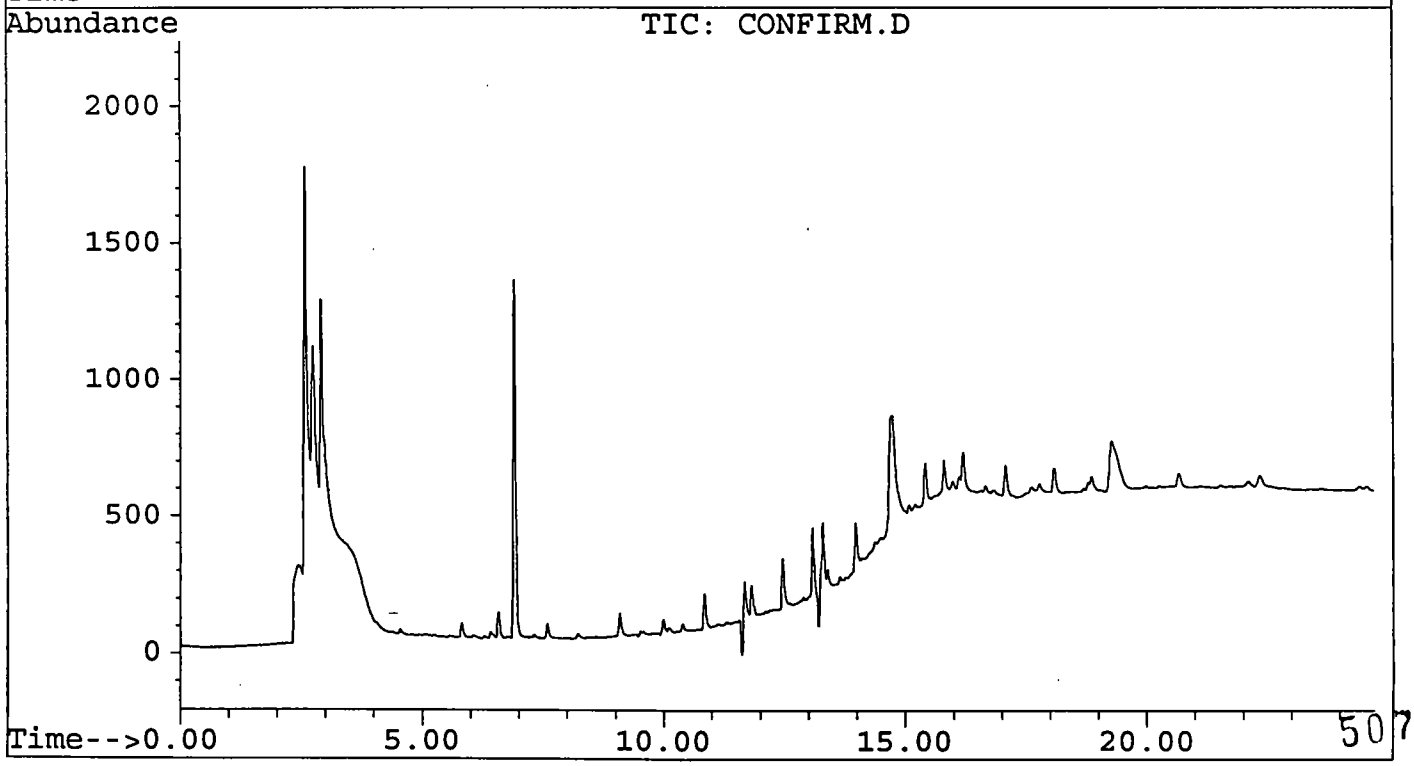
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25140 SDG FEX69
Signature [illegible]
Date 12-9-96

506

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

File : H:\HPCHEM\HP\16\DATA\11_26_96\16_01954.D
Operator : JC
Acquired : 26 Nov 96 11:50 PM using AcqMethod OLM03.MTH
Instrument : HP_16
Sample Name: 114745 SOL BLK
Misc Info : 114745 11/20
Vial Number: 15





Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02022.D Vial: 28
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02022.D\CONFIRM.D
Acq On : 02 Dec 96 06:46 Operator: JC
Sample : SB112596A Inst : HP_16
Misc : SB112596A Multiplr: 0.3333
Quant Time: Dec 4 14:37 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Wed Dec 04 14:37:14 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

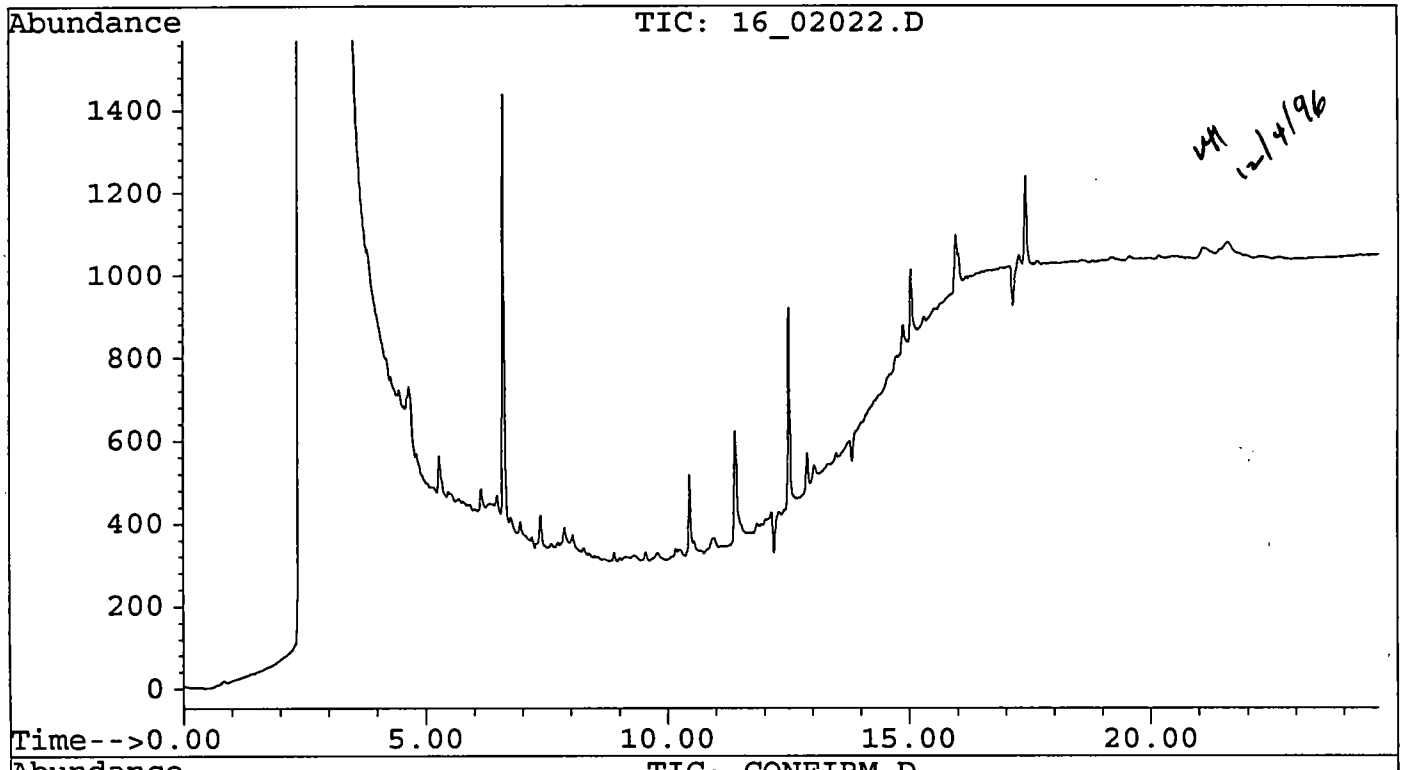
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/~~L~~Kg VH 12/4/96	ug/~~L~~Kg VH 12/4/96
	Surrogate Compounds						
1)	S TCX	0.00	0.00	0	0	N.D.	N.D.
				Recovery	=	0.00%	0.00%
22)	S DCB	0.00	0.00	0	0	N.D.	N.D.
				Recovery	=	0.00%	0.00%
	Target Compounds						
2)	AE alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3)	MA gamma-BHC (Lindane)	0.00	0.00	0	0	N.D.	N.D.
4)	MA Heptachlor	0.00	0.00	0	0	N.D.	N.D.
5)	MB Aldrin	0.00	0.00	0	0	N.D.	N.D.
6)	BE beta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	B delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
10)	B gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	B alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B 4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	MA Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	MA Endrin	0.00	0.00	0	0	N.D.	N.D.
15)	B Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	A 4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
17)	MA 4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.
18)	B Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	B Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
20)	AE Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	B Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

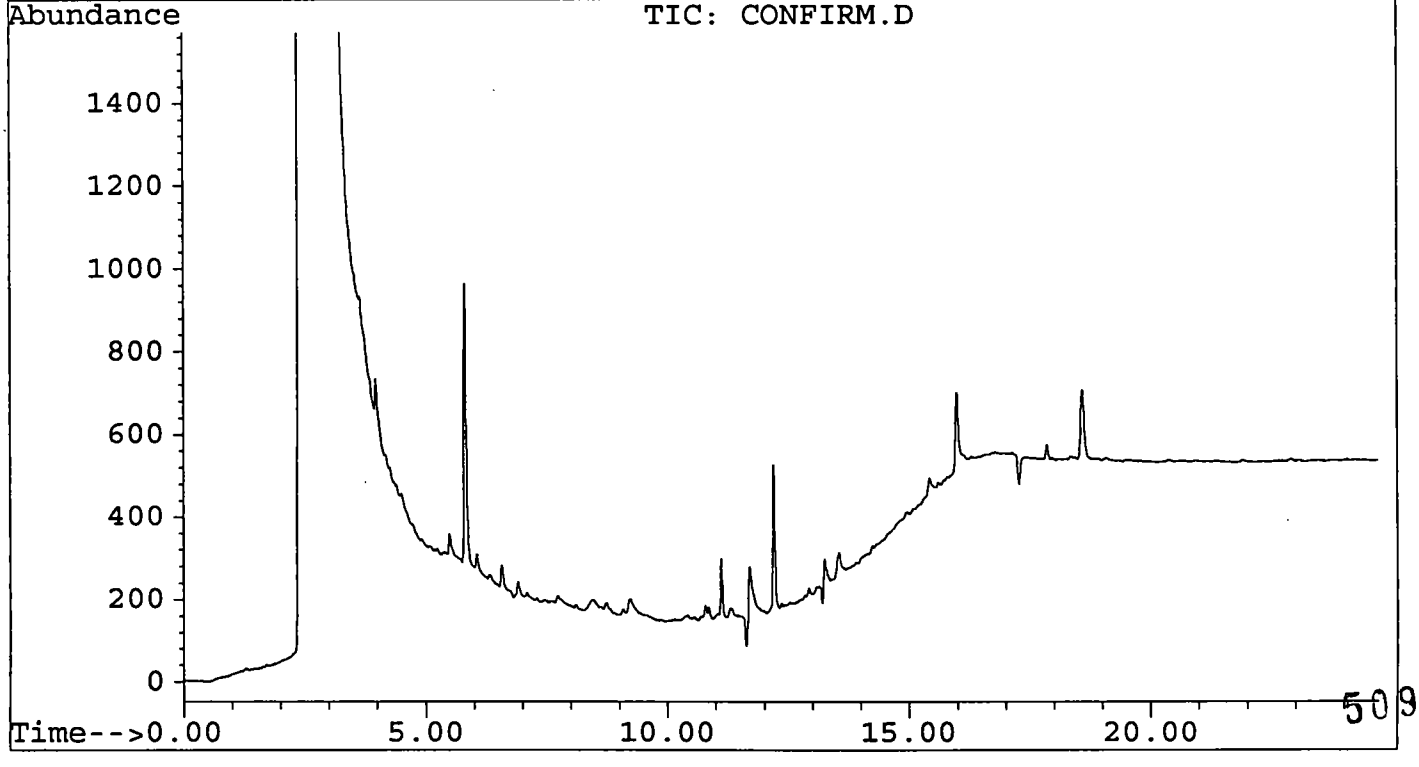
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FF602
Signature Freda M. William
Date 12/9/96

508

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

File : H:\HPCHEM\HP\16\DATA\12_02_96\16_02022.D
Operator : JC
Acquired : 02 Dec 96 06:46 AM using AcqMethod OLM03.MTH
Instrument : HP_16
Sample Name: SB112596A
Misc Info : SB112596A
Vial Number: 28





Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01903.D Vial: 8
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01903.D\CONFIRM.D
Acq On : 24 Nov 96 14:08 Operator: JC
Sample : AR166016C Inst : HP_16
Misc : 5-267-1616C Multiplr: 0.0005
Quant Time: Nov 25 11:53 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBK24.M
Title : PCB/TOXAPHENE
Last Update : Mon Nov 25 11:53:17 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
	Surrogate Compounds							
1)	S TCX	7.40	8.03	186473	122238	0.01	0.01	
				Recovery	=	100.00%	100.00%	
38)	S DCB	19.58	22.93	177291	128130	0.01	0.01	
				Recovery	=	100.00%	100.00%	
	Target Compounds							
2)	L1 Aroclor-1016	8.56	9.49	28624	17055	0.05	0.05	
[illegible])	L1 Aroclor-1016 {2}	9.37	10.39	58087	39664	0.05	0.05	
[illegible]	L1 Aroclor-1016 {3}	10.25	11.15	101859	64211	0.05	0.05	
[illegible])	L1 Aroclor-1016 {4}	10.52	11.48	45020	23407	0.05	0.05	
6)	L1 Aroclor-1016 {5}	11.41	11.77	43710	29538	0.05	0.05	
	Total Aroclor-1016			277299	173876	0.25	0.24	
	Total Aroclor-1221			0	0	N.D.	N.D.	
	Total Aroclor-1232			0	0	N.D.	N.D.	
	Total Aroclor-1242			0	0	N.D.	N.D.	
	Total Aroclor-1248			0	0	N.D.	N.D.	
	Total Aroclor-1254			0	0	N.D.	N.D.	
29)	L7 Aroclor-1260	13.64	14.34	62358	23306	0.05	0.05	
30)	L7 Aroclor-1260 {2}	14.03	14.83	70407	44203	0.05	0.05	
31)	L7 Aroclor-1260 {3}	14.67	15.24	86100	15044	0.05	0.04	
32)	L7 Aroclor-1260 {4}	15.90	16.95	73657	60385	0.05	0.04	
33)	L7 Aroclor-1260 {5}	16.68	18.28	64920	29806	0.05	0.04	
	Total Aroclor-1260			357443	172745	0.24	0.22	
	Total Toxaphene			0	0	N.D.	N.D.	

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25135 SDG F+950
Signature
Date 12-3-96

51-0

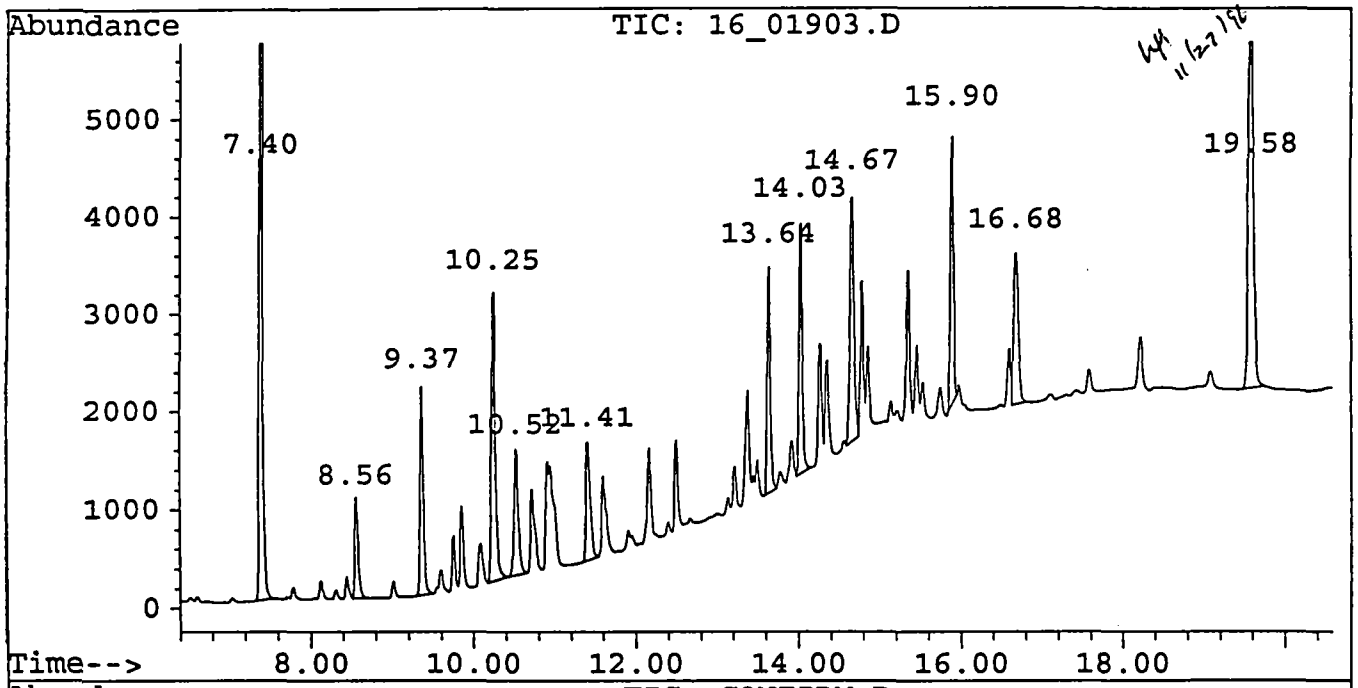
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

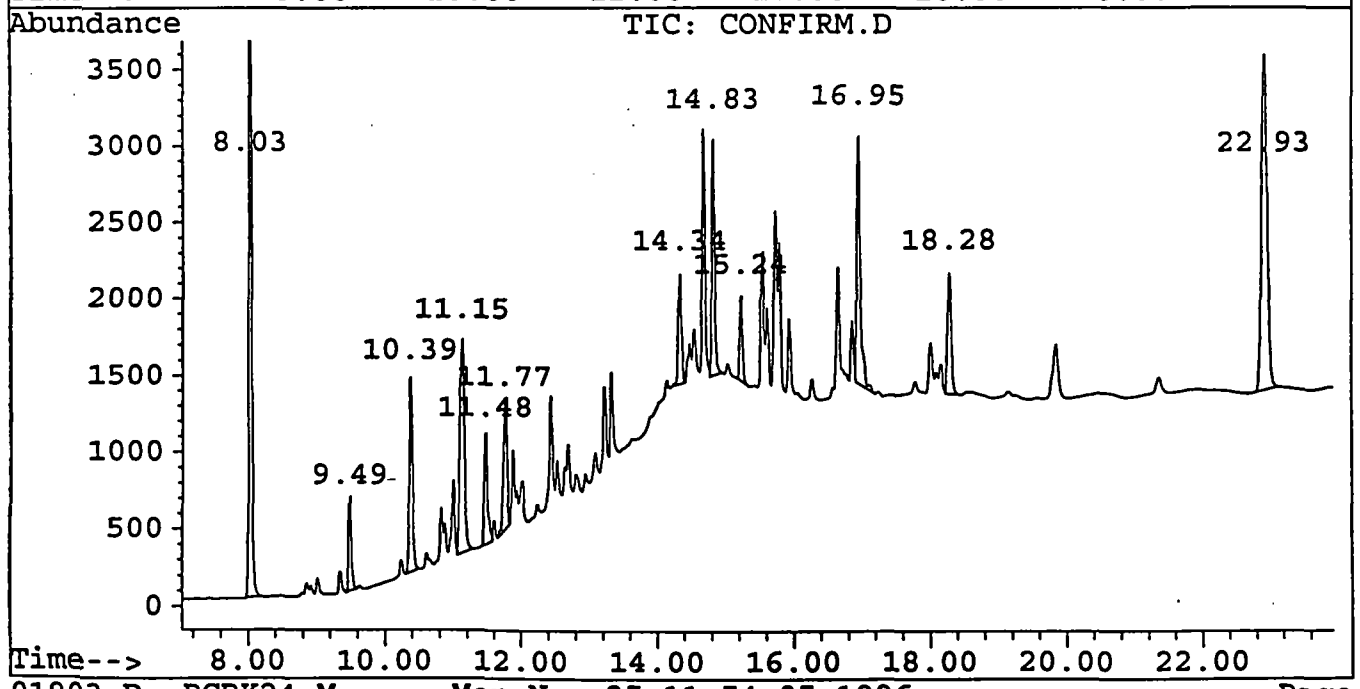
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01903.D Vial: 8
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01903.D\CONFIRM.D
Acq On : 24 Nov 96 14:08 Operator: JC
Sample : AR166016C Inst : HP_16
Misc : 5-267-1616C Multiplr: 0.0005
Quant Time: Nov 25 11:53 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBK24.M
Title : PCB/TOXAPHENE
Last Update : Mon Nov 25 11:53:17 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





511

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01904.D Vial: 9
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01904.D\CONFIRM.D
Acq On : 24 Nov 96 14:38 Operator: JC
Sample : AR122116C Inst : HP_16
Misc : 5-268-1616C Multiplr: 0.0005
Quant Time: Nov 25 11:54 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBK24.M
Title : PCB/TOXAPHENE
Last Update : Mon Nov 25 11:54:48 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
	Surrogate Compounds							
1)	S TCX	7.40	8.03	192148	114570	0.01	0.01	
				Recovery	=	100.00%	100.00%	
38)	S DCB	19.58	22.93	179755	128267	0.01	0.01	
				Recovery	=	100.00%	100.00%	
	Target Compounds							
	Total Aroclor-1016			0	0	N.D.	N.D.	
	L2 Aroclor-1221	8.13	9.02	32779	21821	0.10	0.10	
	L2 Aroclor-1221 {2}	8.45	9.35	24605	15918	0.10	0.10	
9)	L2 Aroclor-1221 {3}	8.56	9.49	82541	45273	0.10	0.10	
	Total Aroclor-1221			139925	83012	0.31	0.30	
	Total Aroclor-1232			0	0	N.D.	N.D.	
	Total Aroclor-1242			0	0	N.D.	N.D.	
	Total Aroclor-1248			0	0	N.D.	N.D.	
	Total Aroclor-1254			0	0	N.D.	N.D.	
	Total Aroclor-1260			0	0	N.D.	N.D.	
	Total Toxaphene			0	0	N.D.	N.D.	

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25135 SDG FK950
Signature
Date 12-3-96

512

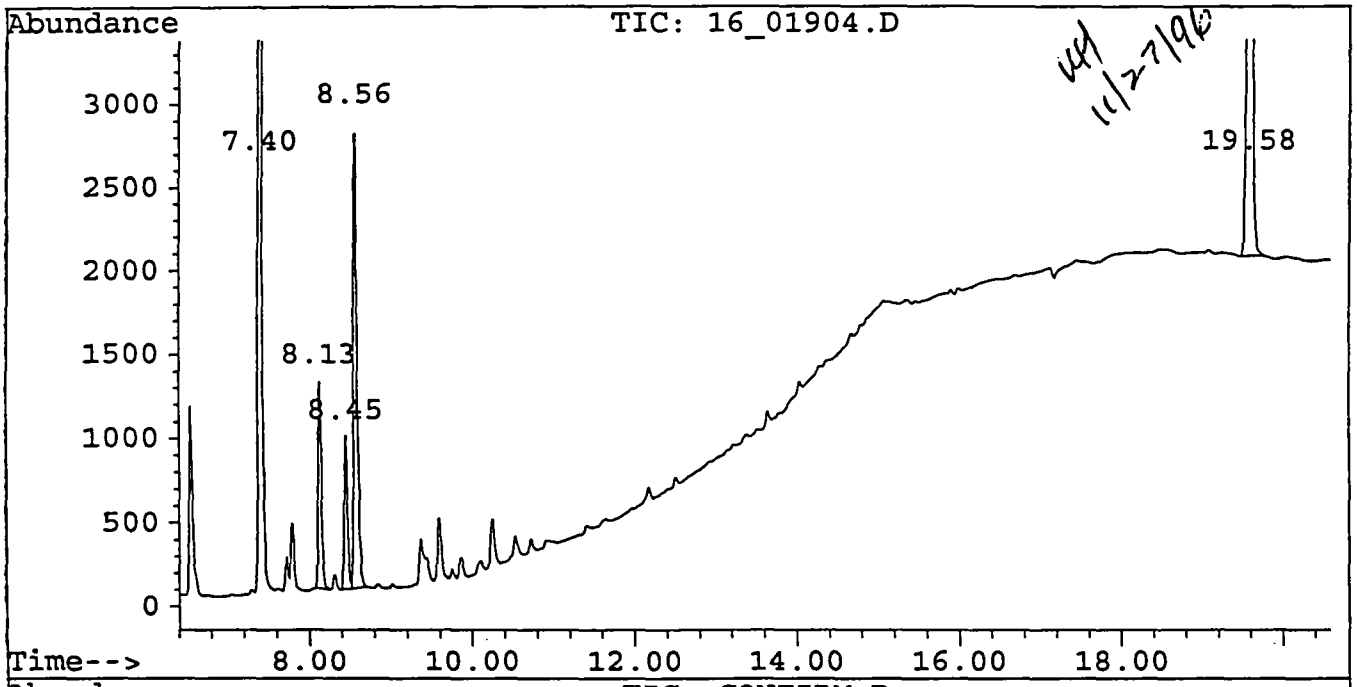
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

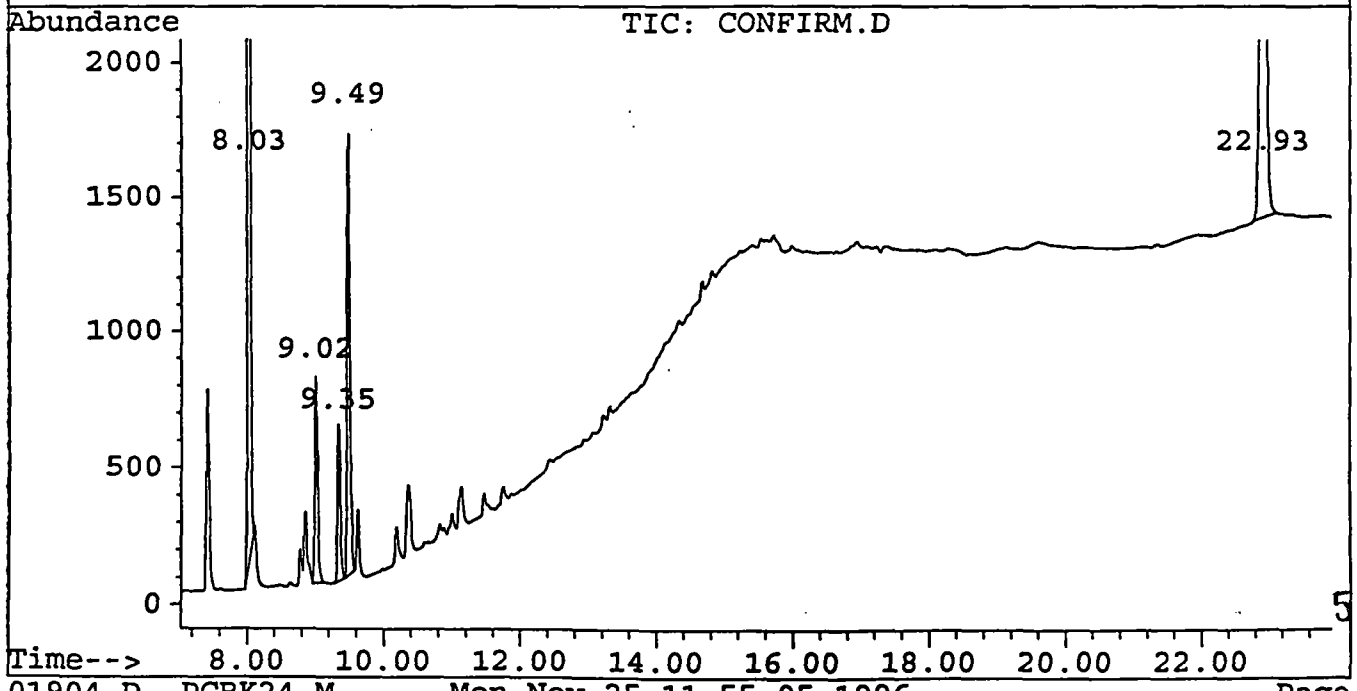
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01904.D Vial: 9
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01904.D\CONFIRM.D
Acq On : 24 Nov 96 14:38 Operator: JC
Sample : AR122116C Inst : HP_16
Misc : 5-268-1616C Multiplr: 0.0005
Quant Time: Nov 25 11:54 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBK24.M
Title : PCB/TOXAPHENE
Last Update : Mon Nov 25 11:54:48 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





513

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01905.D Vial: 10
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01905.D\CONFIRM.D
Acq On : 24 Nov 96 15:08 Operator: JC
Sample : AR123216C Inst : HP_16
Misc : 5-269-1616C Multiplr: 0.0005
Quant Time: Nov 25 12:00 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBK24.M
Title : PCB/TOXAPHENE
Last Update : Mon Nov 25 12:00:58 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
	Surrogate Compounds							
1)	S TCX	7.40	8.03	184867	121084	0.01	0.01	
				Recovery	=	100.00%	100.00%	
38)	S DCB	19.58	22.93	178050	126558	0.01	0.01	
				Recovery	=	100.00%	100.00%	
	Target Compounds							
	Total Aroclor-1016			0	0	N.D.	N.D.	
	Total Aroclor-1221			0	0	N.D.	N.D.	
10)	L3 Aroclor-1232	8.56	9.49	37369	20950	0.05	0.05	
11)	L3 Aroclor-1232 {2}	10.25	10.39	48560	20863	0.05	0.05	
12)	L3 Aroclor-1232 {3}	10.52	11.15	21469	30833	0.05	0.05	
13)	L3 Aroclor-1232 {4}	11.41	11.77	19245	13233	0.05	0.05	
	Total Aroclor-1232			126642	85879	0.20	0.20	
	Total Aroclor-1242			0	0	N.D.	N.D.	
	Total Aroclor-1248			0	0	N.D.	N.D.	
	Total Aroclor-1254			0	0	N.D.	N.D.	
	Total Aroclor-1260			0	0	N.D.	N.D.	
	Total Toxaphene			0	0	N.D.	N.D.	

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25135 SDG F4950
Signature
Date 12-3-96

514

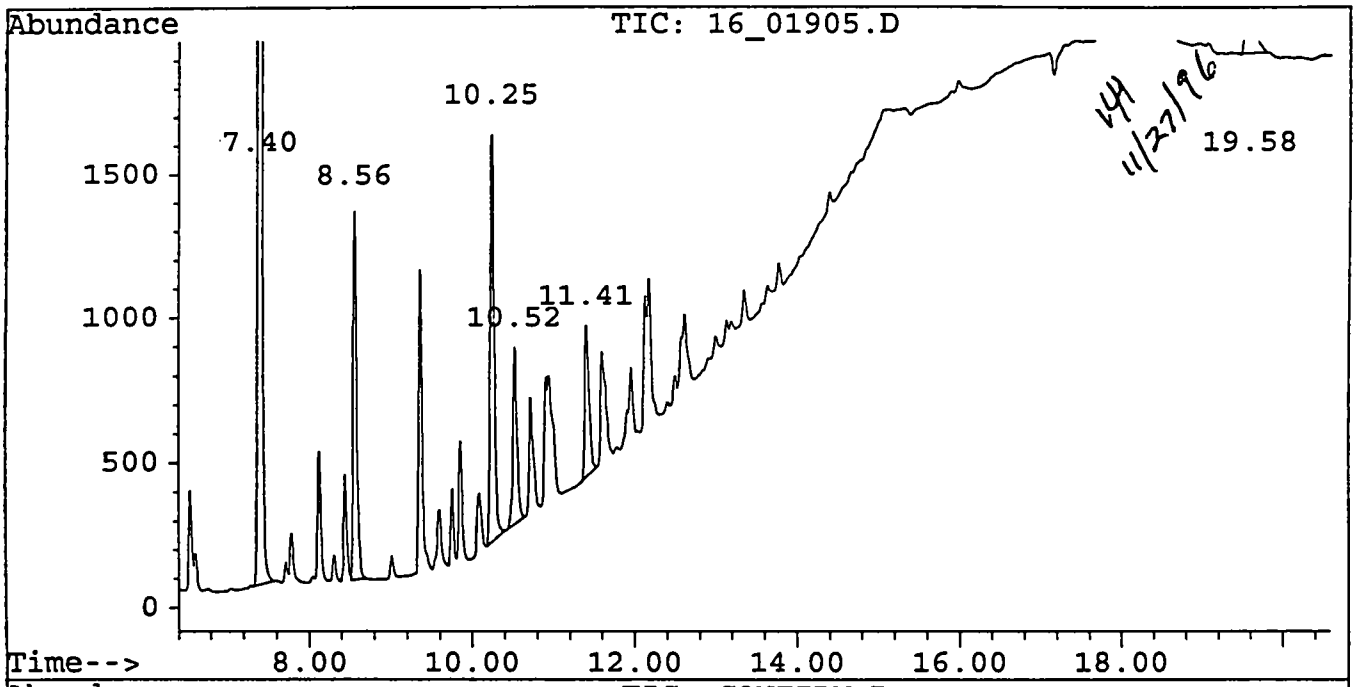
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

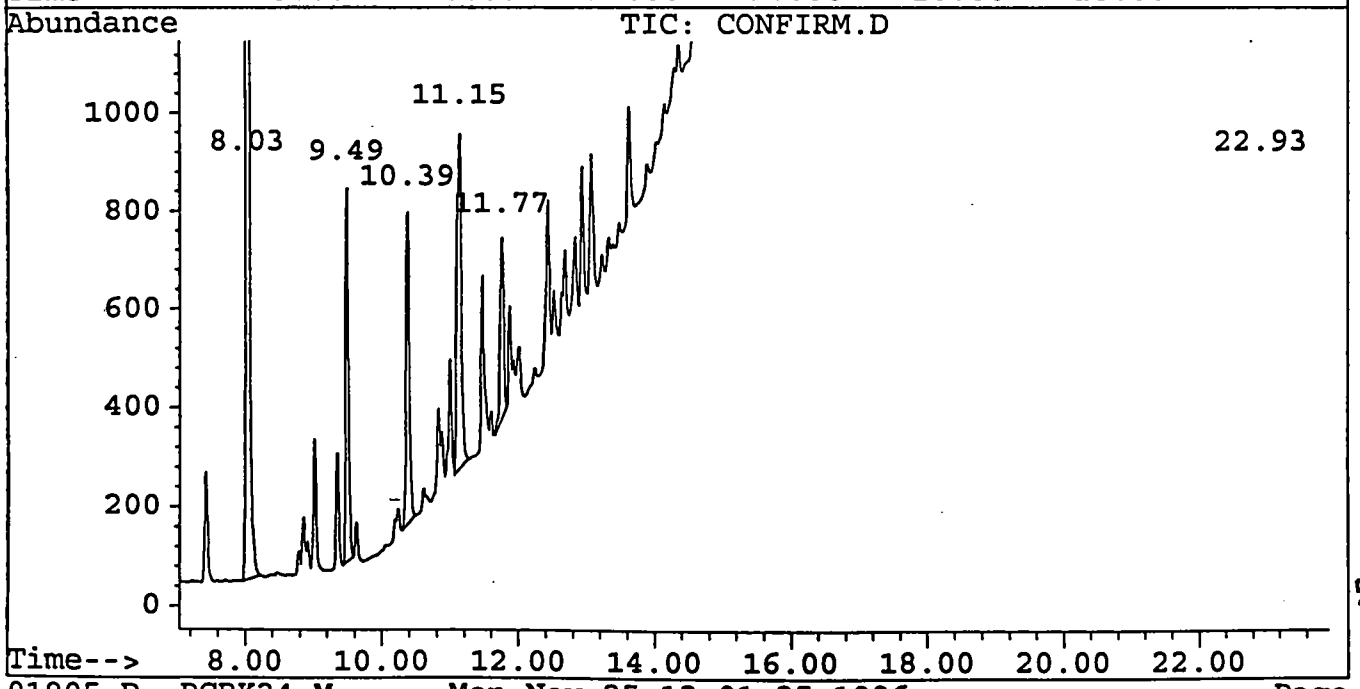
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01905.D Vial: 10
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01905.D\CONFIRM.D
Acq On : 24 Nov 96 15:08 Operator: JC
Sample : AR123216C Inst : HP_16
Misc : 5-269-1616C Multiplr: 0.0005
Quant Time: Nov 25 12:00 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBK24.M
Title : PCB/TOXAPHENE
Last Update : Mon Nov 25 12:00:58 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





515

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01906.D Vial: 11
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01906.D\CONFIRM.D
Acq On : 24 Nov 96 15:38 Operator: JC
Sample : AR124216C Inst : HP_16
Misc : 5-270-1616C Multiplr: 0.0005
Quant Time: Nov 25 11:55 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBK24.M
Title : PCB/TOXAPHENE
Last Update : Mon Nov 25 11:55:44 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
Surrogate Compounds							
1) S TCX	7.40	8.03	188533	121407	0.01	0.01	
			Recovery	=	100.00%	100.00%	
38) S DCB	19.58	22.93	182420	130013	0.01	0.01	
			Recovery	=	100.00%	100.00%	
Target Compounds							
Total Aroclor-1016			0	0	N.D.	N.D.	
Total Aroclor-1221			0	0	N.D.	N.D.	
Total Aroclor-1232			0	0	N.D.	N.D.	
14) L4 Aroclor-1242	8.56	9.49	28272	16533	0.05	0.05	
15) L4 Aroclor-1242 {2}	9.37	10.39	49131	33826	0.05	0.05	
16) L4 Aroclor-1242 {3}	10.25	11.15	86361	54401	0.05	0.05	
17) L4 Aroclor-1242 {4}	10.52	11.48	38682	20479	0.05	0.05	
18) L4 Aroclor-1242 {5}	11.41	12.44	39117	19155	0.05	0.04	
Total Aroclor-1242			241563	144395	0.25	0.23	
Total Aroclor-1248			0	0	N.D.	N.D.	
Total Aroclor-1254			0	0	N.D.	N.D.	
Total Aroclor-1260			0	0	N.D.	N.D.	
Total Toxaphene			0	0	N.D.	N.D.	

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25135 SDG F K950
Signature
Date 12-3-96

516

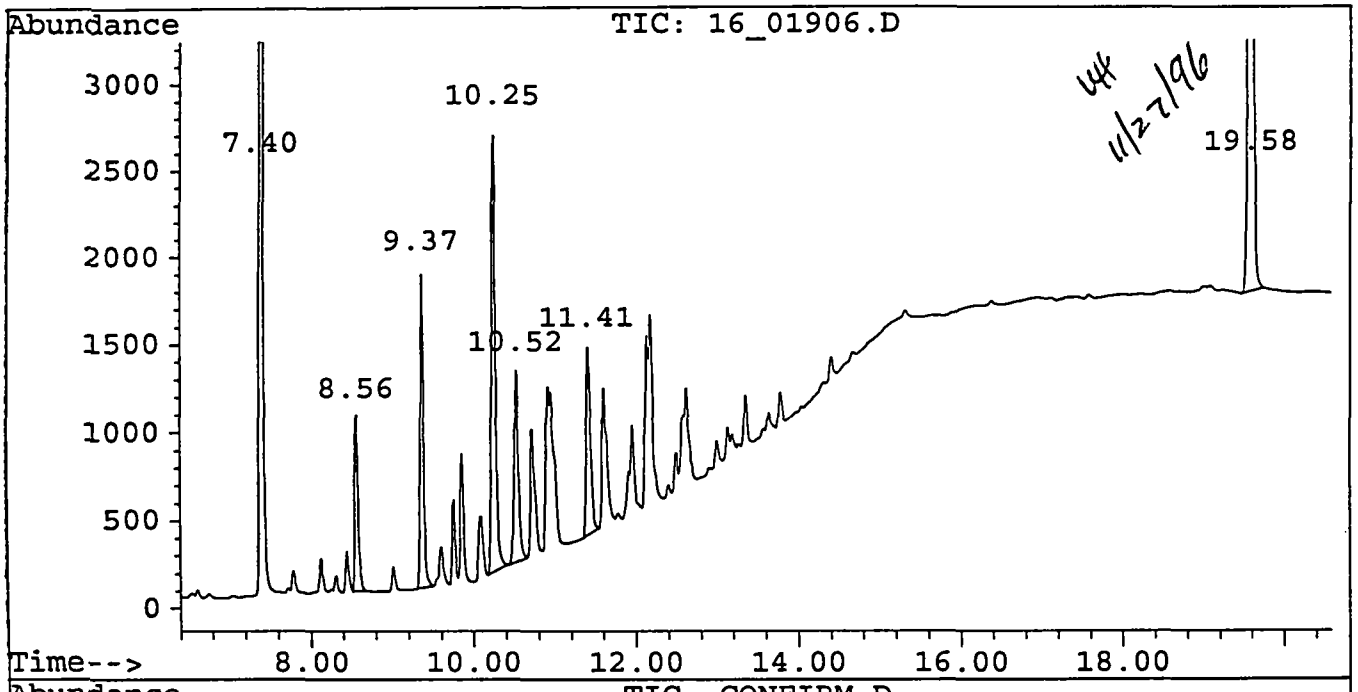
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

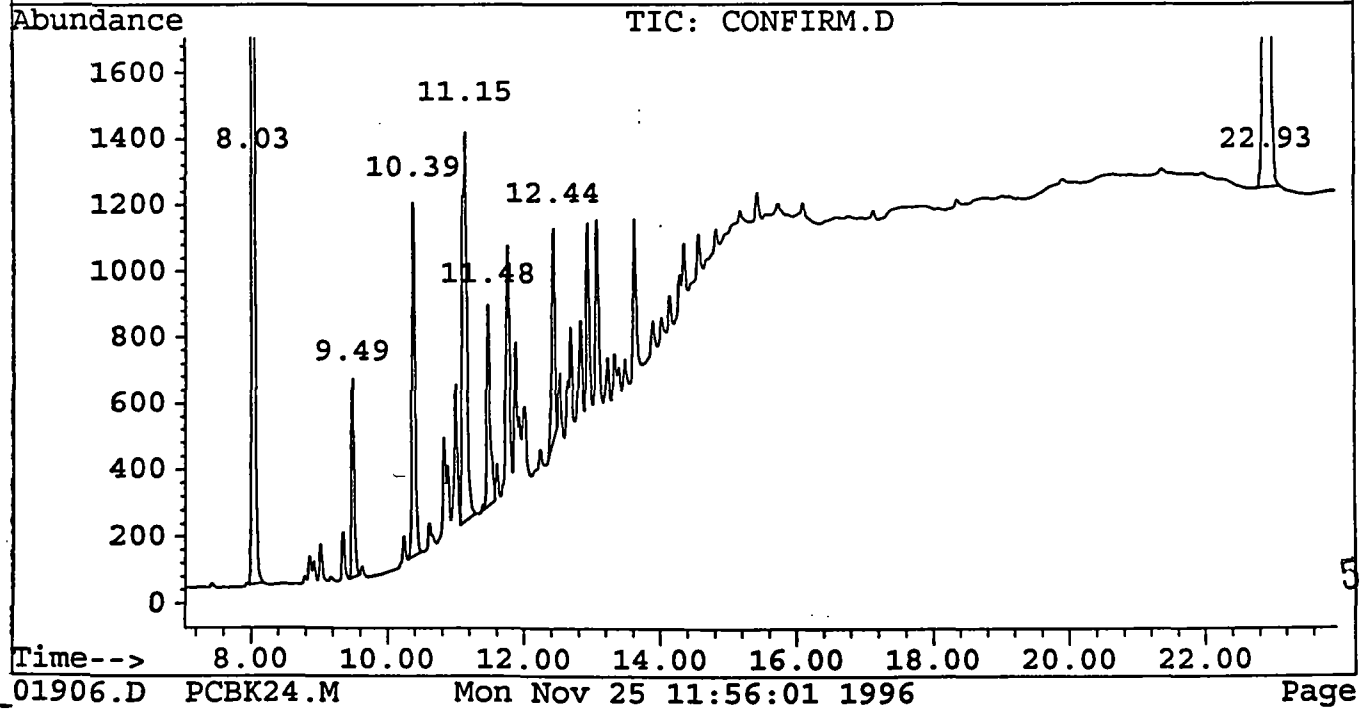
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01906.D Vial: 11
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01906.D\CONFIRM.D
Acq On : 24 Nov 96 15:38 Operator: JC
Sample : AR124216C Inst : HP_16
Misc : 5-270-1616C Multiplr: 0.0005
Quant Time: Nov 25 11:55 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBK24.M
Title : PCB/TOXAPHENE
Last Update : Mon Nov 25 11:55:44 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





517

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01907.D Vial: 12
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01907.D\CONFIRM.D
Acq On : 24 Nov 96 16:08 Operator: JC
Sample : AR124816C Inst : HP_16
Misc : 5-313-1616C Multiplr: 0.0005
Quant Time: Nov 25 11:56 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBK24.M
Title : PCB/TOXAPHENE
Last Update : Mon Nov 25 11:56:23 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
Surrogate Compounds						
1) S TCX	7.39	8.03	113945	71715	0.01	0.01
			Recovery	=	100.00%	100.00%
38) S DCB	19.58	22.93	100663	72741	0.01	0.01
			Recovery	=	100.00%	100.00%
Target Compounds						
Total Aroclor-1016			0	0	N.D.	N.D.
Total Aroclor-1221			0	0	N.D.	N.D.
Total Aroclor-1232			0	0	N.D.	N.D.
Total Aroclor-1242			0	0	N.D.	N.D.
19) L5 Aroclor-1248	9.36	10.38	60109	40005	0.05	0.05
20) L5 Aroclor-1248 {2}	10.24	11.78	139987	81858	0.05	0.05
21) L5 Aroclor-1248 {3}	11.40	12.44	151688	75029	0.05	0.05
22) L5 Aroclor-1248 {4}	11.60	12.94	119268	80088	0.05	0.04
23) L5 Aroclor-1248 {5}	13.35	13.63	59536	58839	0.05	0.04
Total Aroclor-1248			530589	335820	0.25	0.23
Total Aroclor-1254			0	0	N.D.	N.D.
Total Aroclor-1260			0	0	N.D.	N.D.
Total Toxaphene			0	0	N.D.	N.D.

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25135 SDG FK950
Signature
Date 12-3-96

518

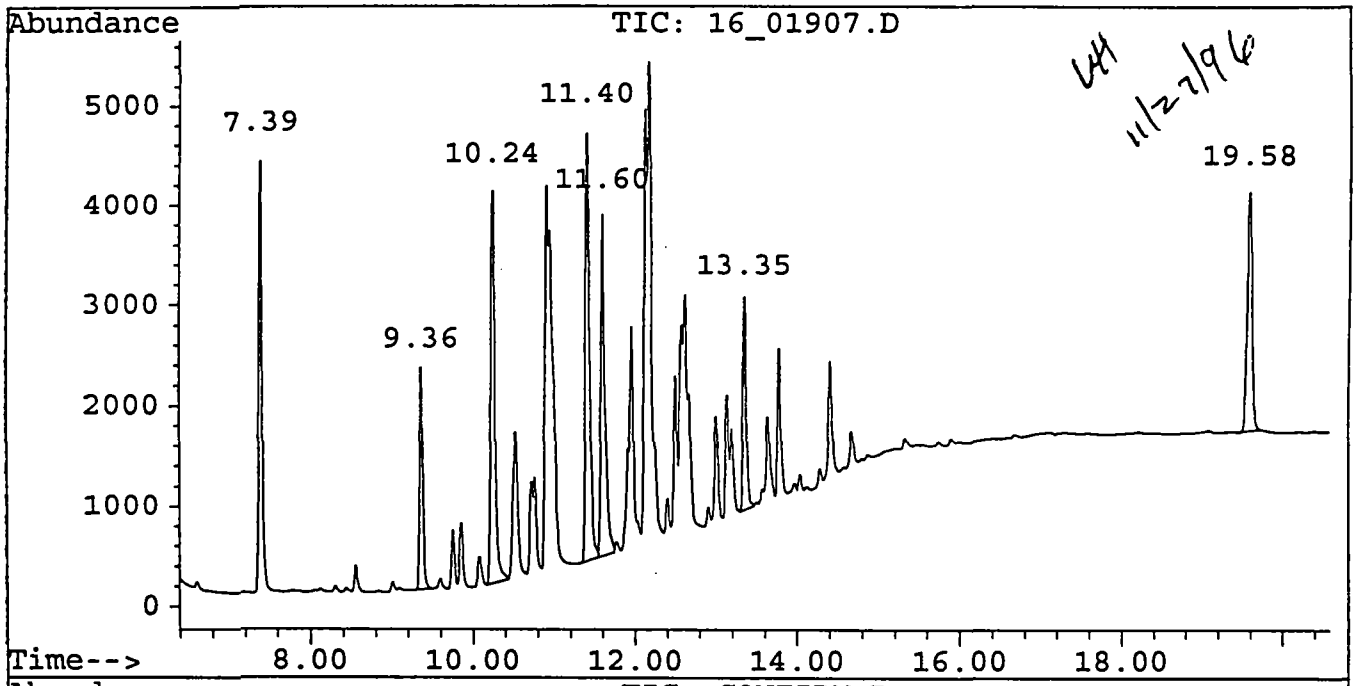
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

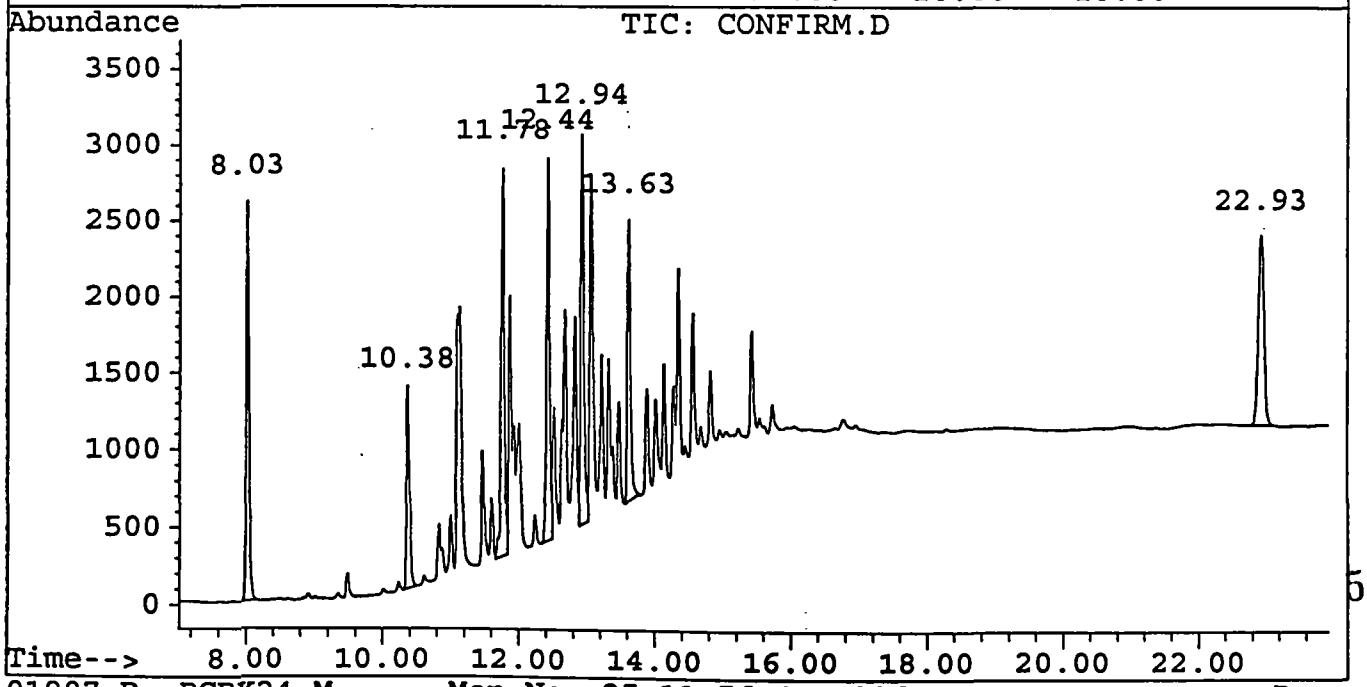
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01907.D Vial: 12
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01907.D\CONFIRM.D
Acq On : 24 Nov 96 16:08 Operator: JC
Sample : AR124816C Inst : HP_16
Misc : 5-313-1616C Multiplr: 0.0005
Quant Time: Nov 25 11:56 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBK24.M
Title : PCB/TOXAPHENE
Last Update : Mon Nov 25 11:56:23 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





519

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01908.D Vial: 13
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01908.D\CONFIRM.D
Acq On : 24 Nov 96 16:38 Operator: JC
Sample : AR125416C Inst : HP_16
Misc : 5-271-1616C Multiplr: 0.0005
Quant Time: Nov 25 11:56 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBK24.M
Title : PCB/TOXAPHENE
Last Update : Mon Nov 25 11:57:03 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
Surrogate Compounds							
1) S TCX	7.40	8.03	187554	120779	0.01	0.01	
			Recovery	=	100.00%	100.00%	
38) S DCB	19.58	22.93	183160	130726	0.01	0.01	
			Recovery	=	100.00%	100.00%	
Target Compounds							
Total Aroclor-1016			0	0	N.D.	N.D.	
Total Aroclor-1221			0	0	N.D.	N.D.	
Total Aroclor-1232			0	0	N.D.	N.D.	
Total Aroclor-1242			0	0	N.D.	N.D.	
Total Aroclor-1248			0	0	N.D.	N.D.	
24) L6 Aroclor-1254	10.91	11.78	45656	20828	0.05	0.05	
25) L6 Aroclor-1254 {2}	12.17	12.94	69662	17102	0.05	0.05	
26) L6 Aroclor-1254 {3}	13.35	13.90	82677	15453	0.05	0.05	
27) L6 Aroclor-1254 {4}	13.78	14.83	58372	26576	0.05	0.05	
28) L6 Aroclor-1254 {5}	14.67	15.74	66273	37191	0.05	0.04	
Total Aroclor-1254			322640	117150	0.26	0.23	
Total Aroclor-1260			0	0	N.D.	N.D.	
Total Toxaphene			0	0	N.D.	N.D.	

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25135 SDG FK950
Signature
Date 12-3-96

520

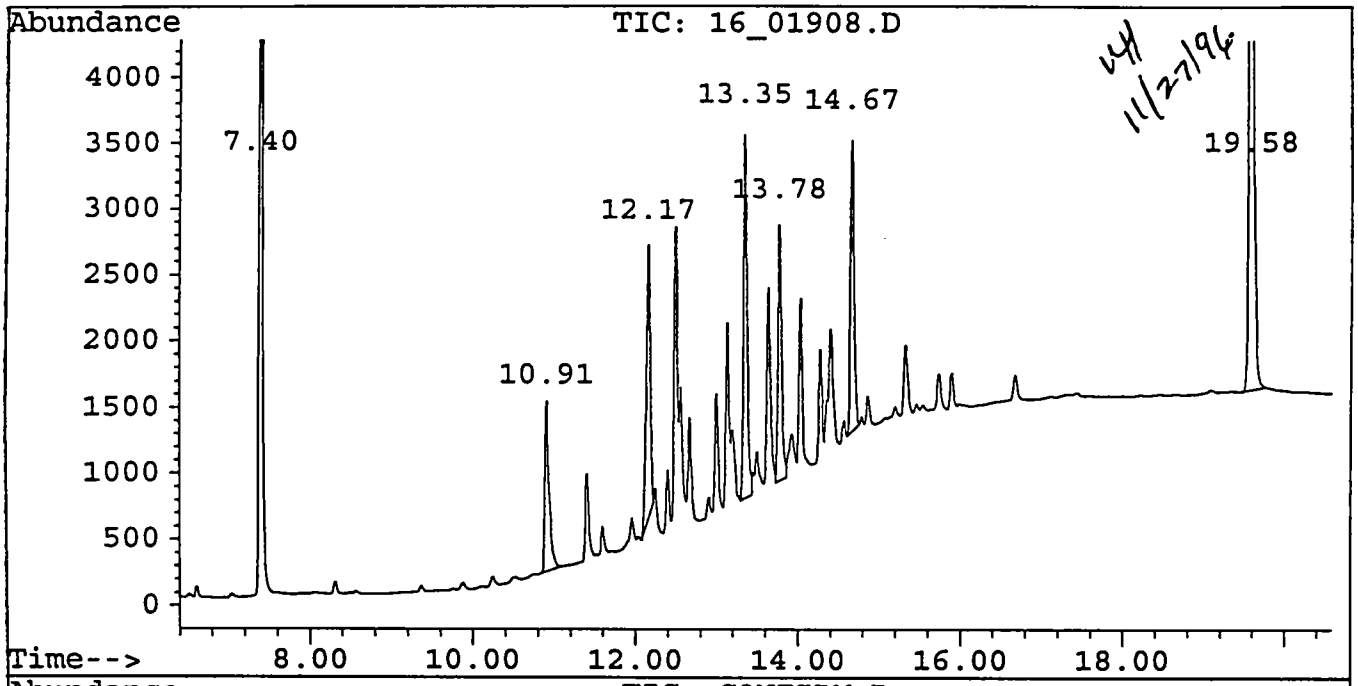
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

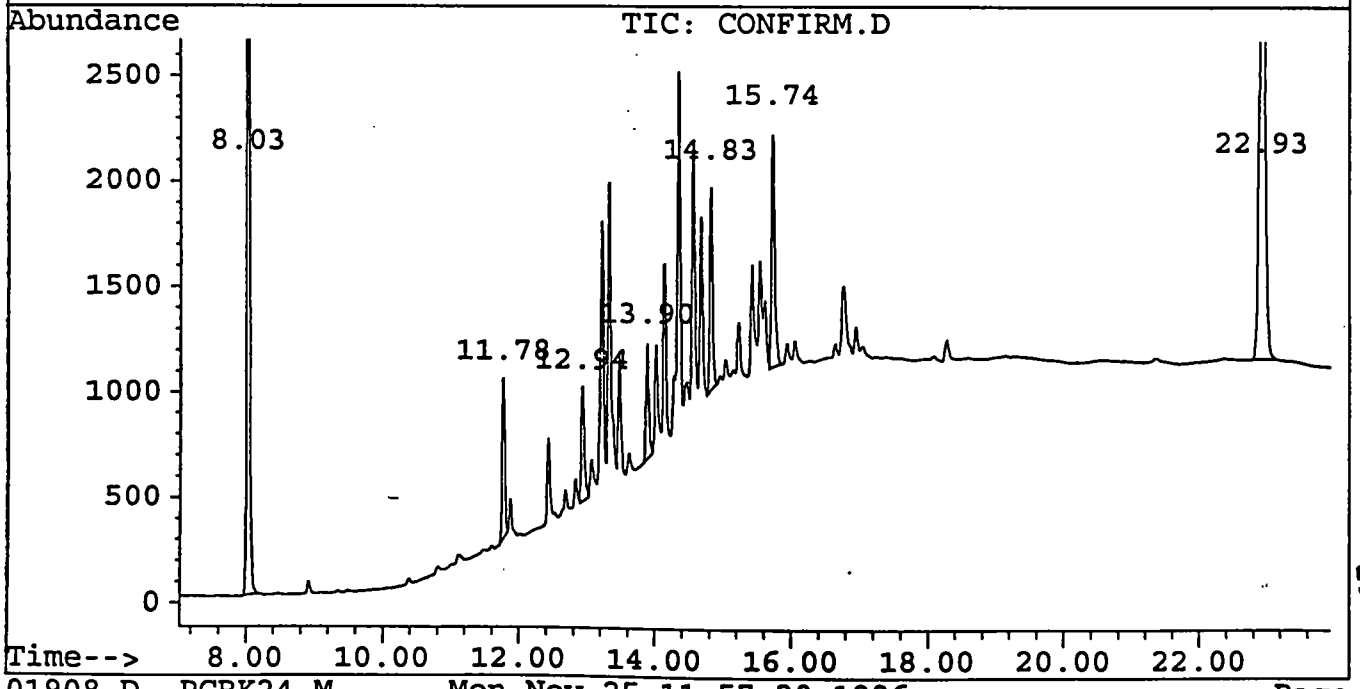
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01908.D Vial: 13
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01908.D\CONFIRM.D
Acq On : 24 Nov 96 16:38 Operator: JC
Sample : AR125416C Inst : HP_16
Misc : 5-271-1616C Multiplr: 0.0005
Quant Time: Nov 25 11:56 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBK24.M
Title : PCB/TOXAPHENE
Last Update : Mon Nov 25 11:57:03 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





521

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01909.D Vial: 14
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01909.D\CONFIRM.D
Acq On : 24 Nov 96 17:08 Operator: JC
Sample : TOXAPH16C Inst : HP_16
Misc : 5-251-1616C Multiplr: 0.0005
Quant Time: Nov 25 11:57 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBK24.M
Title : PCB/TOXAPHENE
Last Update : Mon Nov 25 11:57:42 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
Surrogate Compounds							
1) S TCX	7.40	8.03	203292	132035	0.01	0.01	
			Recovery	=	100.00%	100.00%	
38) S DCB	19.58	22.93	203824	145313	0.01	0.01	
			Recovery	=	100.00%	100.00%	
Target Compounds							
Total Aroclor-1016			0	0	N.D.	N.D.	▒
Total Aroclor-1221			0	0	N.D.	N.D.	▒
Total Aroclor-1232			0	0	N.D.	N.D.	▒
Total Aroclor-1242			0	0	N.D.	N.D.	▒
Total Aroclor-1248			0	0	N.D.	N.D.	▒
Total Aroclor-1254			0	0	N.D.	N.D.	▒
Total Aroclor-1260			0	0	N.D.	N.D.	▒
34) L8 Toxaphene	14.02	14.15	36254	13998	0.24	0.25	
35) L8 Toxaphene {2}	14.73	14.50	108319	21110	0.24	0.23	
36) L8 Toxaphene {3}	16.03	15.40	47307	42568	0.18	0.14	#
37) L8 Toxaphene {4}	16.14	17.47	83372	72369	0.21	0.21	
Total Toxaphene			275252	150046	0.86	0.82	▒

COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25135 SDG FK950
Signature [signature]
Date 12-3-96

522

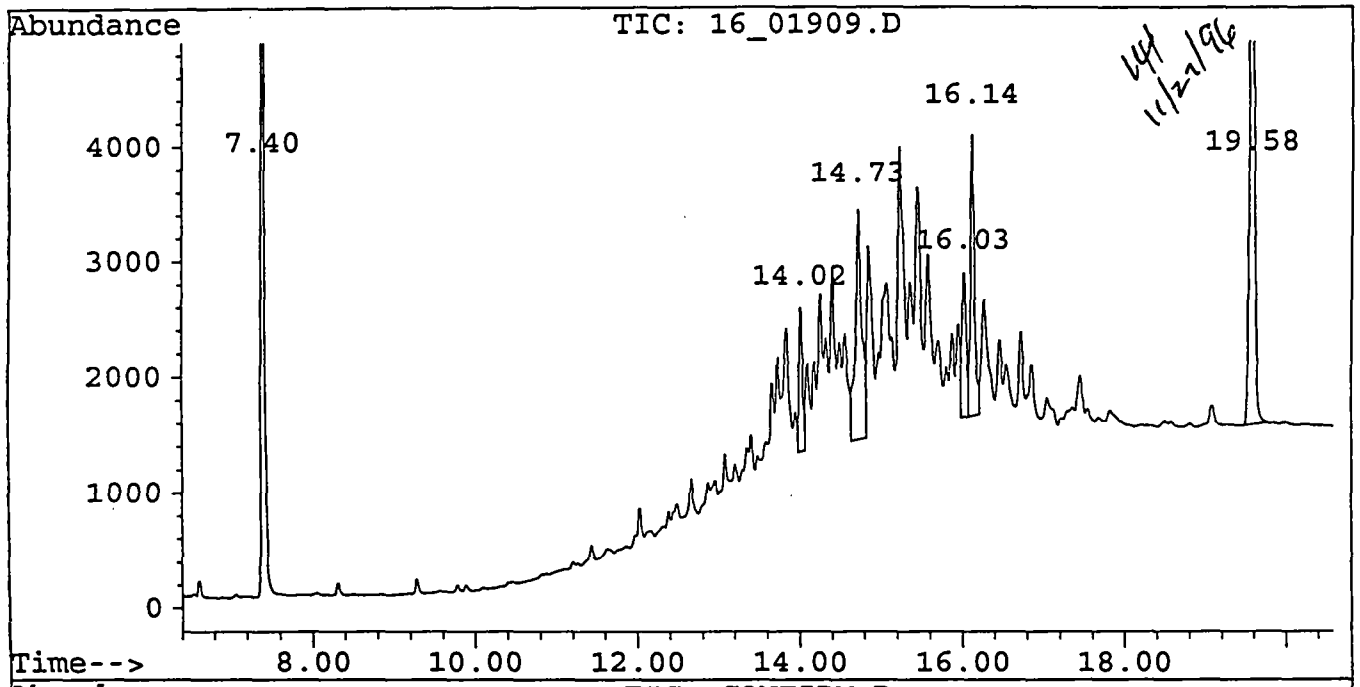
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

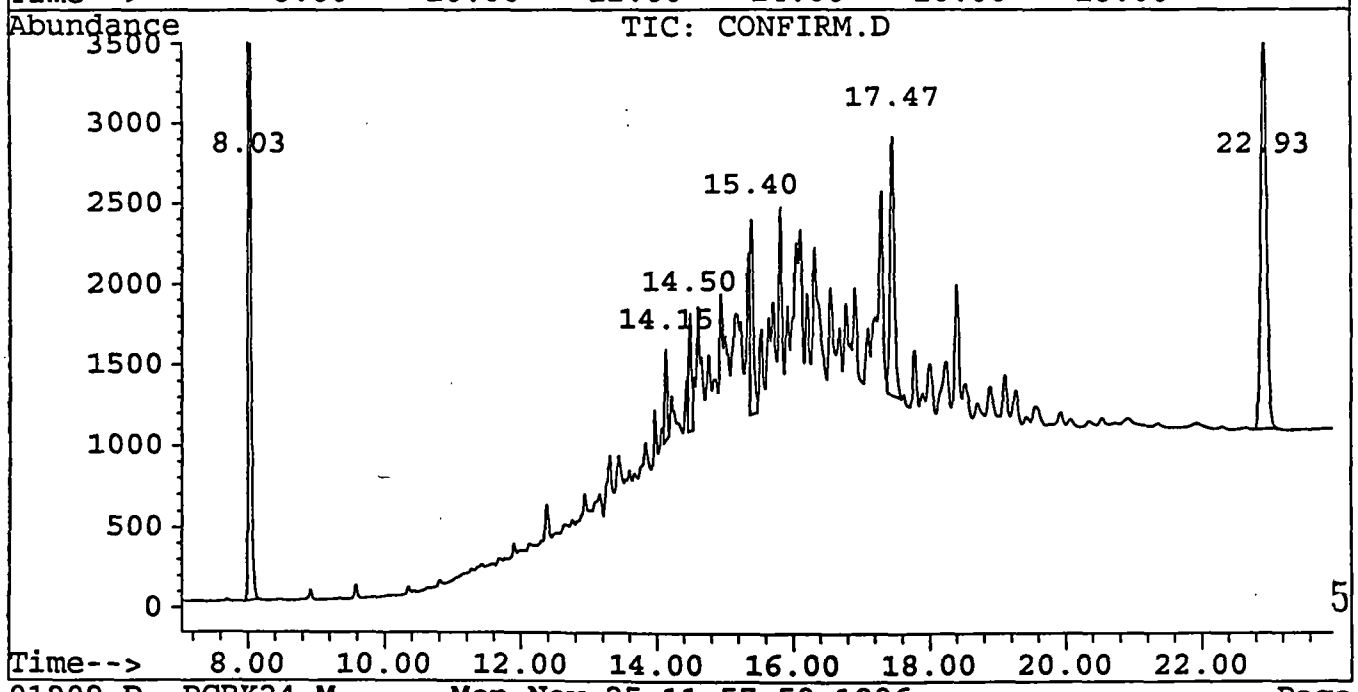
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01909.D Vial: 14
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01909.D\CONFIRM.D
Acq On : 24 Nov 96 17:08 Operator: JC
Sample : TOXAPH16C Inst : HP_16
Misc : 5-251-1616C Multiplr: 0.0005
Quant Time: Nov 25 11:57 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBK24.M
Title : PCB/TOXAPHENE
Last Update : Mon Nov 25 11:57:42 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





523

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02007.D Vial: 13
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02007.D\CONFIRM.D
Acq On : 01 Dec 96 23:17 Operator: JC
Sample : AR166016D Inst : HP_16
Misc : 5-267-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:19 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:19:15 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
Surrogate Compounds							
1) S TCX	7.40	8.03	172376	134650	0.01	0.01	
			Recovery	=	100.00%	100.00%	
38) S DCB	19.57	22.91	178992	162325	0.01	0.01	
			Recovery	=	100.00%	100.00%	
Target Compounds							
2) L1 Aroclor-1016	8.56	9.49	27654	19909	0.05	0.06	
L1 Aroclor-1016 {2}	9.36	10.38	51958	48209	0.05	0.05	
L1 Aroclor-1016 {3}	10.25	11.14	101582	84028	0.05	0.05	
5) L1 Aroclor-1016 {4}	10.52	11.48	45674	29846	0.05	0.06	
6) L1 Aroclor-1016 {5}	11.40	11.77	43109	41230	0.05	0.06	
Total Aroclor-1016			269977	223223	0.26	0.28	
Total Aroclor-1221			0	0	N.D.	N.D.	
Total Aroclor-1232			0	0	N.D.	N.D.	
Total Aroclor-1242			0	0	N.D.	N.D.	
Total Aroclor-1248			0	0	N.D.	N.D.	
Total Aroclor-1254			0	0	N.D.	N.D.	
29) L7 Aroclor-1260	13.64	14.33	57297	31144	0.05	0.05	
30) L7 Aroclor-1260 {2}	14.03	14.82	64183	58784	0.05	0.05	
31) L7 Aroclor-1260 {3}	14.66	15.23	83079	21890	0.06	0.07	#
32) L7 Aroclor-1260 {4}	15.89	16.95	76265	75703	0.06	0.05	
33) L7 Aroclor-1260 {5}	16.68	18.27	65084	40011	0.05	0.05	
Total Aroclor-1260			345907	227532	0.27	0.28	
Total Toxaphene			0	0	N.D.	N.D.	

COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25H.D SDG FEX69
Signature [signature]
Date 12-9-96

524

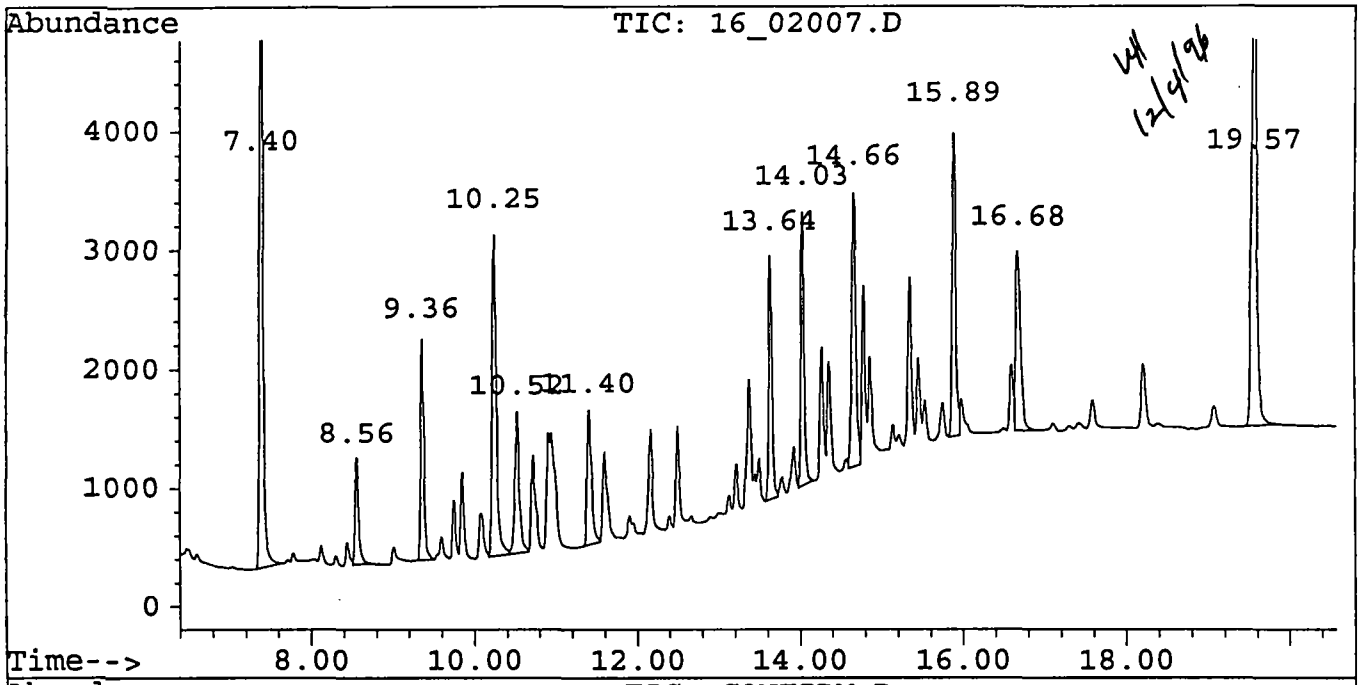
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

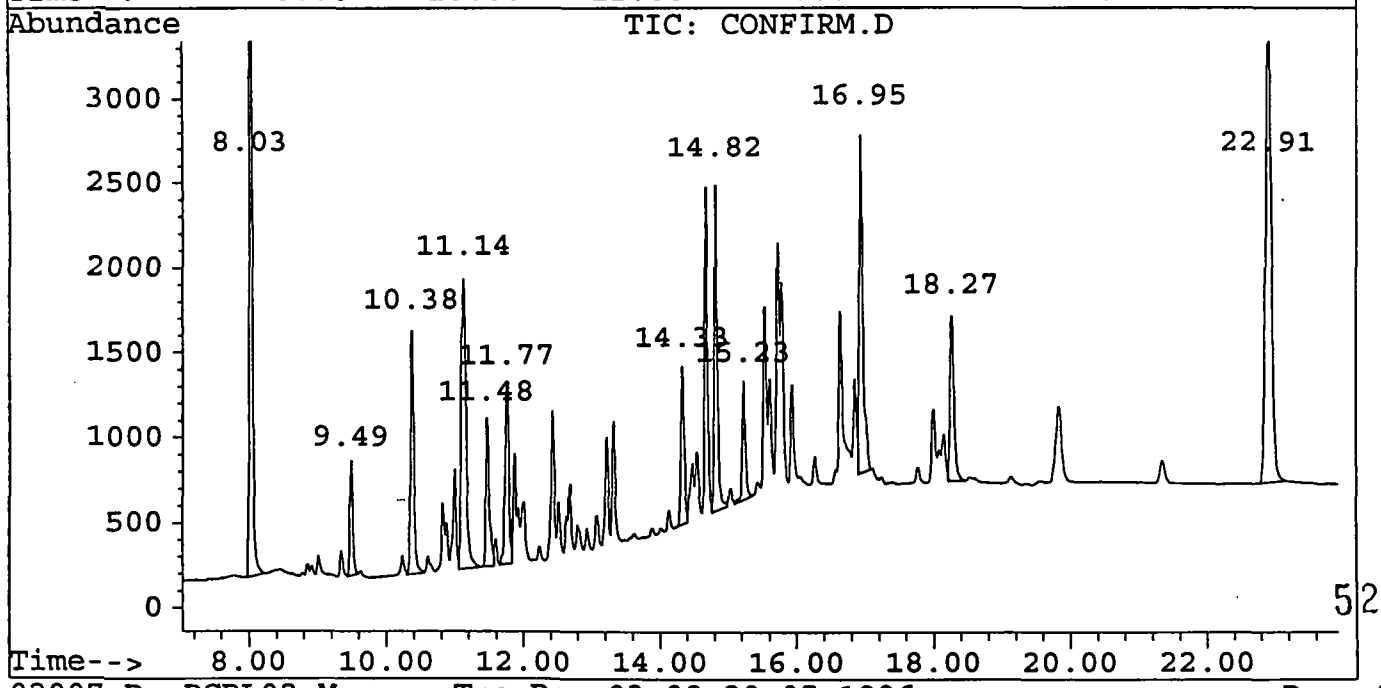
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02007.D Vial: 13
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02007.D\CONFIRM.D
Acq On : 01 Dec 96 23:17 Operator: JC
Sample : AR166016D Inst : HP_16
Misc : 5-267-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:19 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:19:15 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





525

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02008.D Vial: 14
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02008.D\CONFIRM.D
Acq On : 01 Dec 96 23:47 Operator: JC
Sample : AR122116D Inst : HP_16
Misc : 5-268-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:21 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:21:07 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
Surrogate Compounds							
1) S TCX	7.40	8.03	184279	136667	0.01	0.01	
			Recovery	=	100.00%	100.00%	
38) S DCB	19.57	22.91	182203	166303	0.01	0.01	
			Recovery	=	100.00%	100.00%	
Target Compounds							
Total Aroclor-1016			0	0	N.D.	N.D.	
L2 Aroclor-1221	8.13	9.02	30368	25736	0.10	0.10	
o) L2 Aroclor-1221 {2}	8.44	9.35	22544	19138	0.09	0.12	#
9) L2 Aroclor-1221 {3}	8.56	9.49	81327	58414	0.10	0.11	
Total Aroclor-1221			134240	103288	0.30	0.33	
Total Aroclor-1232			0	0	N.D.	N.D.	
Total Aroclor-1242			0	0	N.D.	N.D.	
Total Aroclor-1248			0	0	N.D.	N.D.	
Total Aroclor-1254			0	0	N.D.	N.D.	
Total Aroclor-1260			0	0	N.D.	N.D.	
Total Toxaphene			0	0	N.D.	N.D.	

COPY

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 2860 SDG FEX69
Signature [illegible]
Date 12-9-96

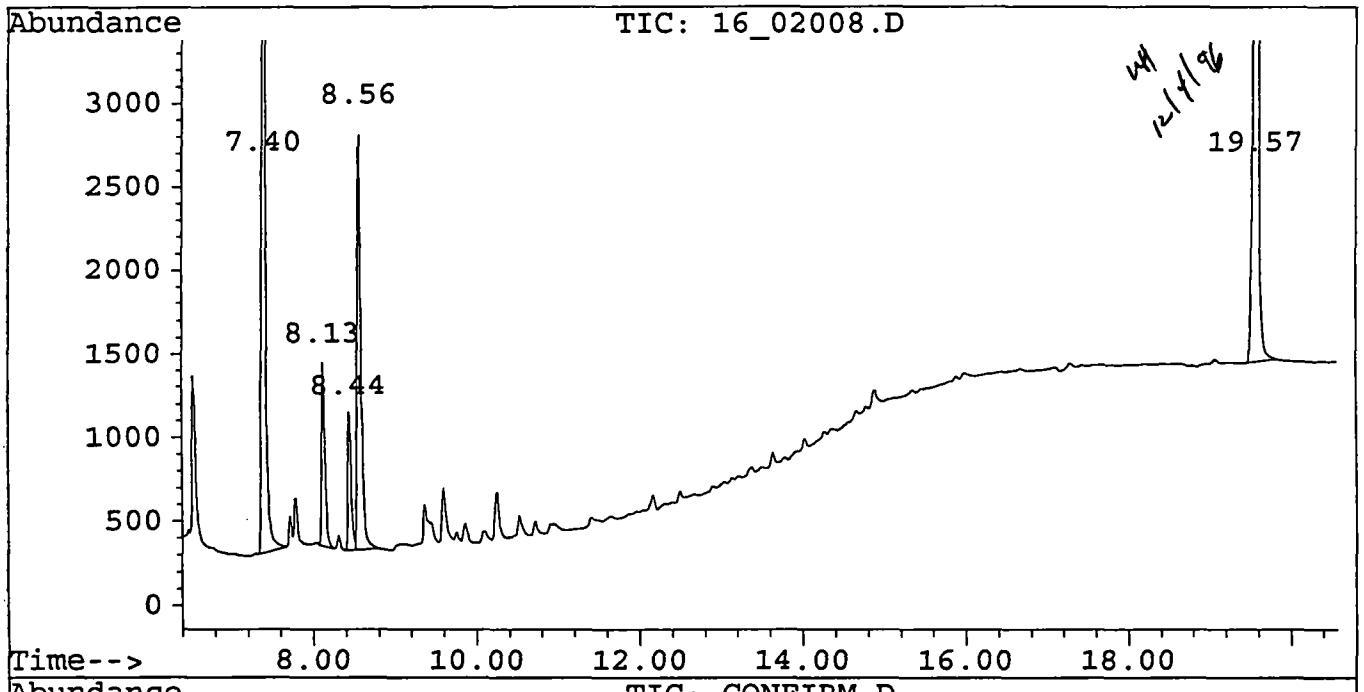
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

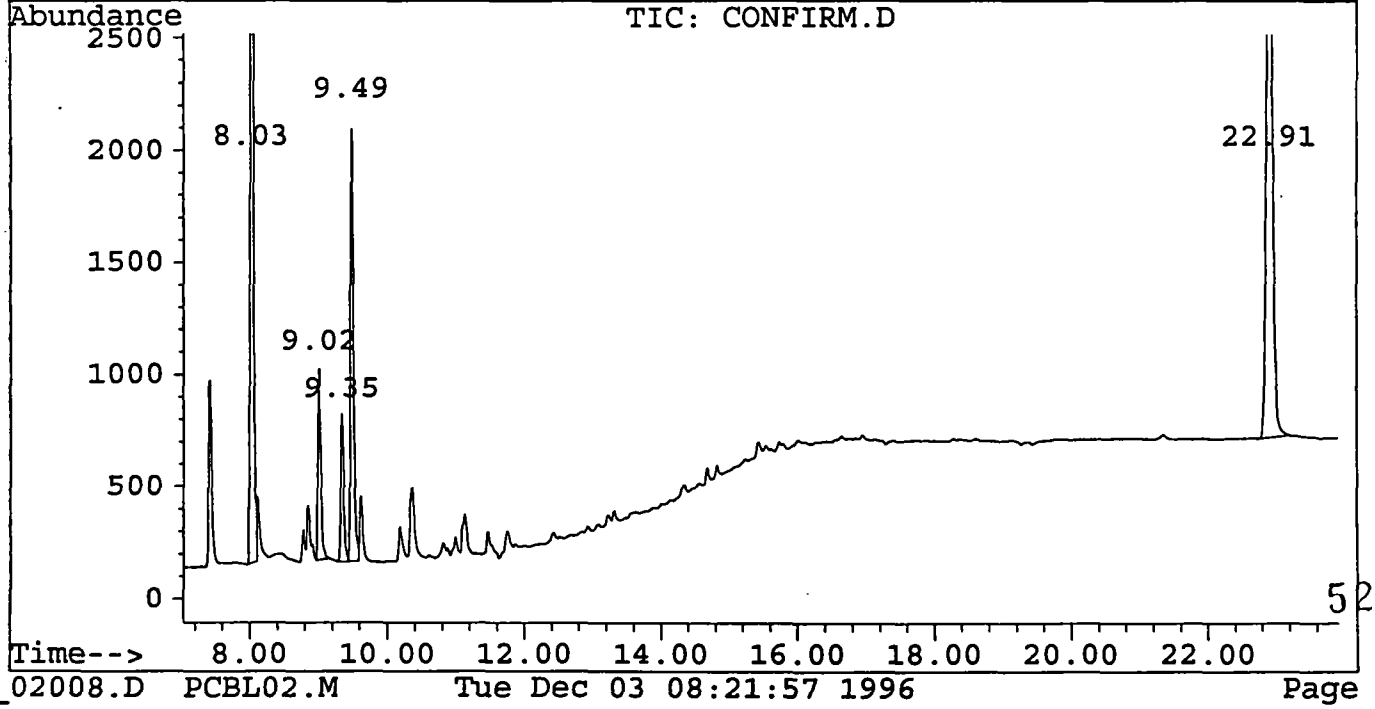
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02008.D Vial: 14
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02008.D\CONFIRM.D
Acq On : 01 Dec 96 23:47 Operator: JC
Sample : AR122116D Inst : HP_16
Misc : 5-268-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:21 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:21:07 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





527

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02009.D Vial: 15
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02009.D\CONFIRM.D
Acq On : 02 Dec 96 00:17 Operator: JC
Sample : AR123216D Inst : HP_16
Misc : 5-269-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:22 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:22:55 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
Surrogate Compounds							
1) S TCX	7.40	8.03	171227	134823	0.01	0.01	
			Recovery	=	100.00%	100.00%	
38) S DCB	19.57	22.91	179345	161706	0.01	0.01	
			Recovery	=	100.00%	100.00%	
Target Compounds							
Total Aroclor-1016			0	0	N.D.	N.D.	※
Total Aroclor-1221			0	0	N.D.	N.D.	※
10) L3 Aroclor-1232	8.56	9.49	34134	24629	0.05	0.06	#
11) L3 Aroclor-1232 {2}	10.25	10.38	48993	25393	0.05	0.06	
12) L3 Aroclor-1232 {3}	10.52	11.14	21618	40100	0.05	0.07	#
13) L3 Aroclor-1232 {4}	11.40	11.77	19453	19244	0.05	0.07	#
Total Aroclor-1232			124196	109365	0.20	0.26	※
Total Aroclor-1242			0	0	N.D.	N.D.	※
Total Aroclor-1248			0	0	N.D.	N.D.	※
Total Aroclor-1254			0	0	N.D.	N.D.	※
Total Aroclor-1260			0	0	N.D.	N.D.	※
Total Toxaphene			0	0	N.D.	N.D.	※

COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25160 SDG FEX69
Signature Priscilla Stuver
Date 12-9-96

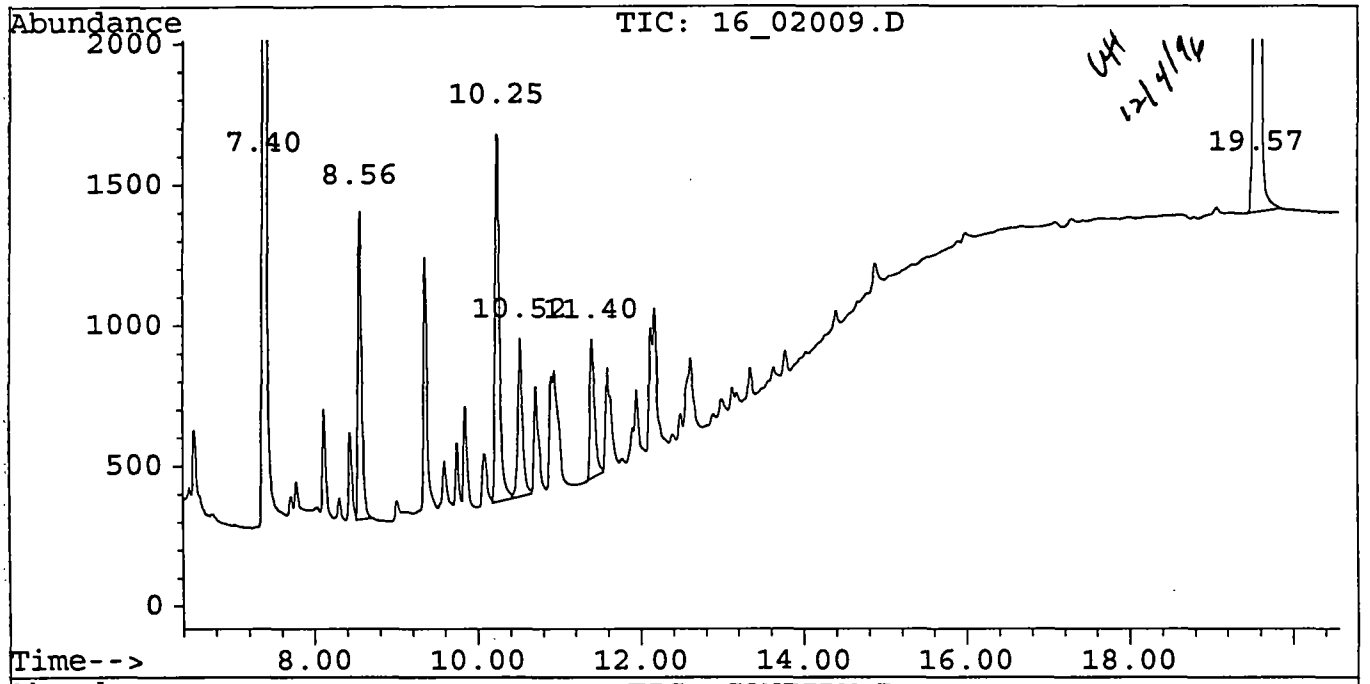
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

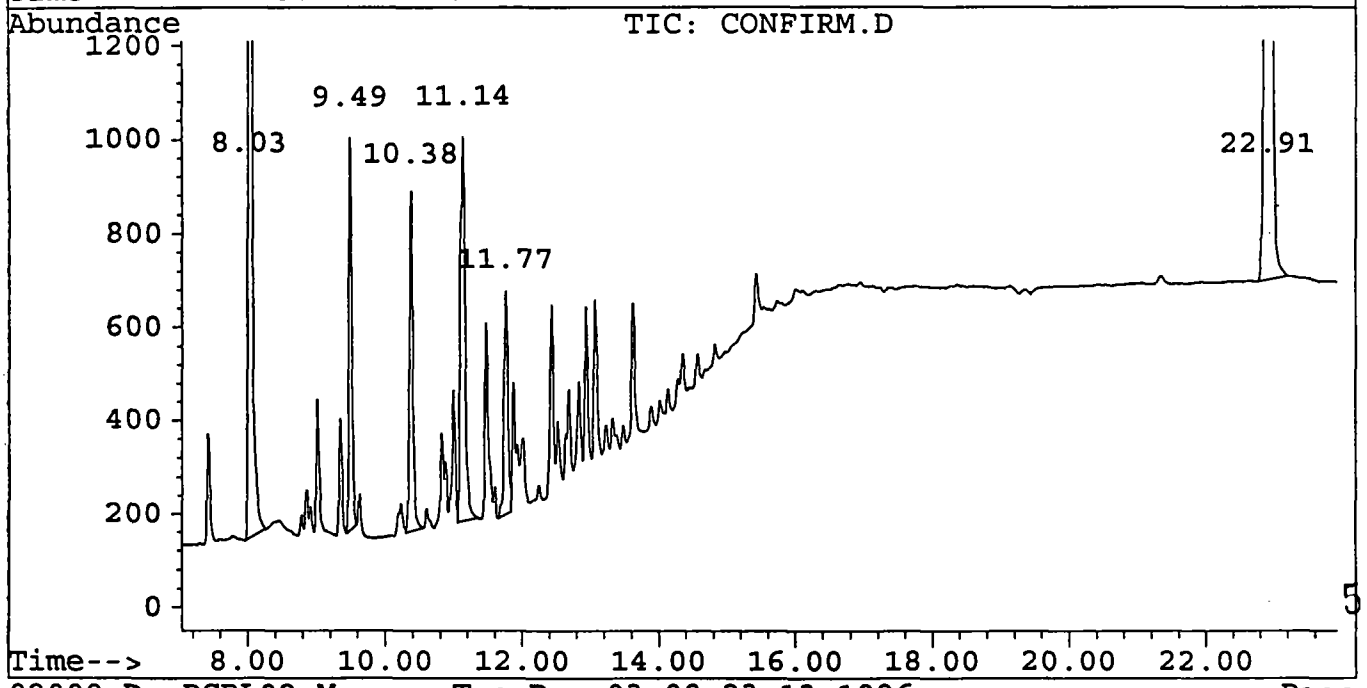
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02009.D Vial: 15
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02009.D\CONFIRM.D
Acq On : 02 Dec 96 00:17 Operator: JC
Sample : AR123216D Inst : HP_16
Misc : 5-269-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:22 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:22:55 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





529

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02010.D Vial: 16
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02010.D\CONFIRM.D
Acq On : 02 Dec 96 00:47 Operator: JC
Sample : AR124216D Inst : HP_16
Misc : 5-270-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:23 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:23:38 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
Surrogate Compounds							
1) S TCX	7.40	8.03	180216	141579	0.01	0.01	
			Recovery	=	100.00%	100.00%	
38) S DCB	19.57	22.91	187790	170174	0.01	0.01	
			Recovery	=	100.00%	100.00%	
Target Compounds							
Total Aroclor-1016			0	0	N.D.	N.D.	
Total Aroclor-1221			0	0	N.D.	N.D.	
Total Aroclor-1232			0	0	N.D.	N.D.	
14) L4 Aroclor-1242	8.56	9.49	26650	20264	0.05	0.06	#
15) L4 Aroclor-1242 {2}	9.36	10.38	45808	42560	0.05	0.06	#
16) L4 Aroclor-1242 {3}	10.24	11.14	88541	73031	0.05	0.07	#
17) L4 Aroclor-1242 {4}	10.52	11.48	40032	26350	0.05	0.06	
18) L4 Aroclor-1242 {5}	11.40	12.44	40130	29209	0.05	0.08	#
Total Aroclor-1242			241161	191414	0.25	0.33	
Total Aroclor-1248			0	0	N.D.	N.D.	
Total Aroclor-1254			0	0	N.D.	N.D.	
Total Aroclor-1260			0	0	N.D.	N.D.	
Total Toxaphene			0	0	N.D.	N.D.	

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 2500 SDG FEX69
Signature [illegible]
Date 12-9-96

530

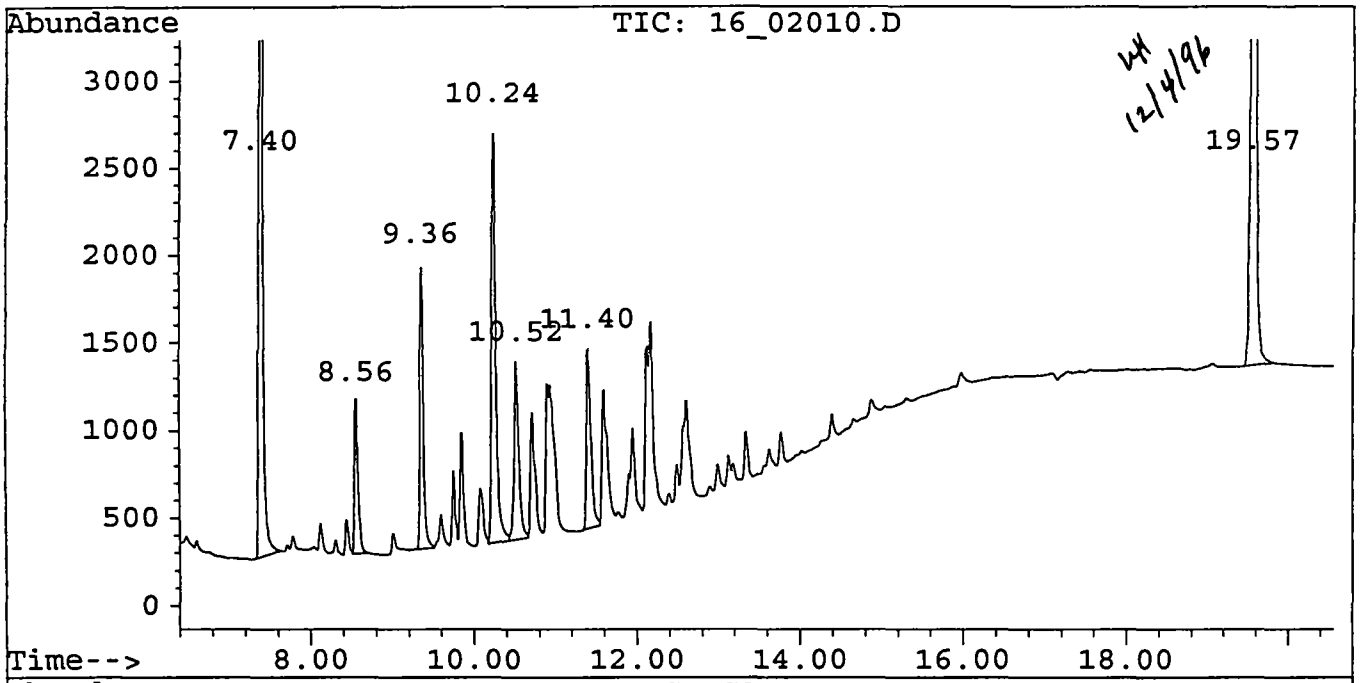
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

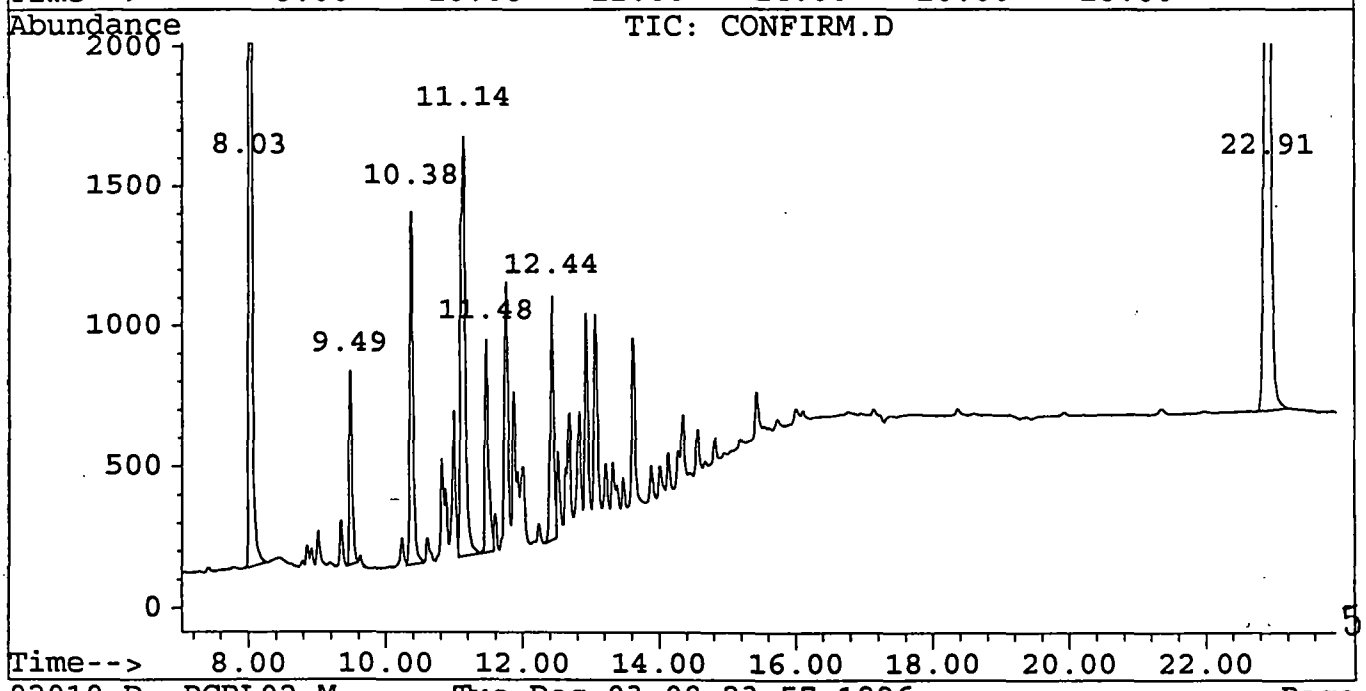
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02010.D Vial: 16
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02010.D\CONFIRM.D
Acq On : 02 Dec 96 00:47 Operator: JC
Sample : AR124216D Inst : HP_16
Misc : 5-270-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:23 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:23:38 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





531

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02011.D Vial: 17
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02011.D\CONFIRM.D
Acq On : 02 Dec 96 01:17 Operator: JC
Sample : AR124816D Inst : HP_16
Misc : 5-313-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:24 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:24:23 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
	Surrogate Compounds							
1)	S TCX	7.39	8.02	95509	70671	0.01	0.01	
				Recovery	=	100.00%	100.00%	
38)	S DCB	19.57	22.92	101104	85663	0.01	0.01	
				Recovery	=	100.00%	100.00%	
	Target Compounds							
	Total Aroclor-1016			0	0	N.D.	N.D.	
	Total Aroclor-1221			0	0	N.D.	N.D.	
	Total Aroclor-1232			0	0	N.D.	N.D.	
	Total Aroclor-1242			0	0	N.D.	N.D.	
19)	L5 Aroclor-1248	9.36	10.38	48745	41414	0.04	0.05	#
20)	L5 Aroclor-1248 {2}	10.24	11.77	124758	90137	0.04	0.06	
21)	L5 Aroclor-1248 {3}	11.40	12.44	134620	82008	0.04	0.05	
22)	L5 Aroclor-1248 {4}	11.59	12.94	108473	92610	0.05	0.06	#
23)	L5 Aroclor-1248 {5}	13.35	13.63	53730	69967	0.05	0.06	#
	Total Aroclor-1248			470326	376137	0.22	0.28	
	Total Aroclor-1254			0	0	N.D.	N.D.	
	Total Aroclor-1260			0	0	N.D.	N.D.	
	Total Toxaphene			0	0	N.D.	N.D.	

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25160 SDG FEX69
Signature Priscilla Steven
Date 12-9-96

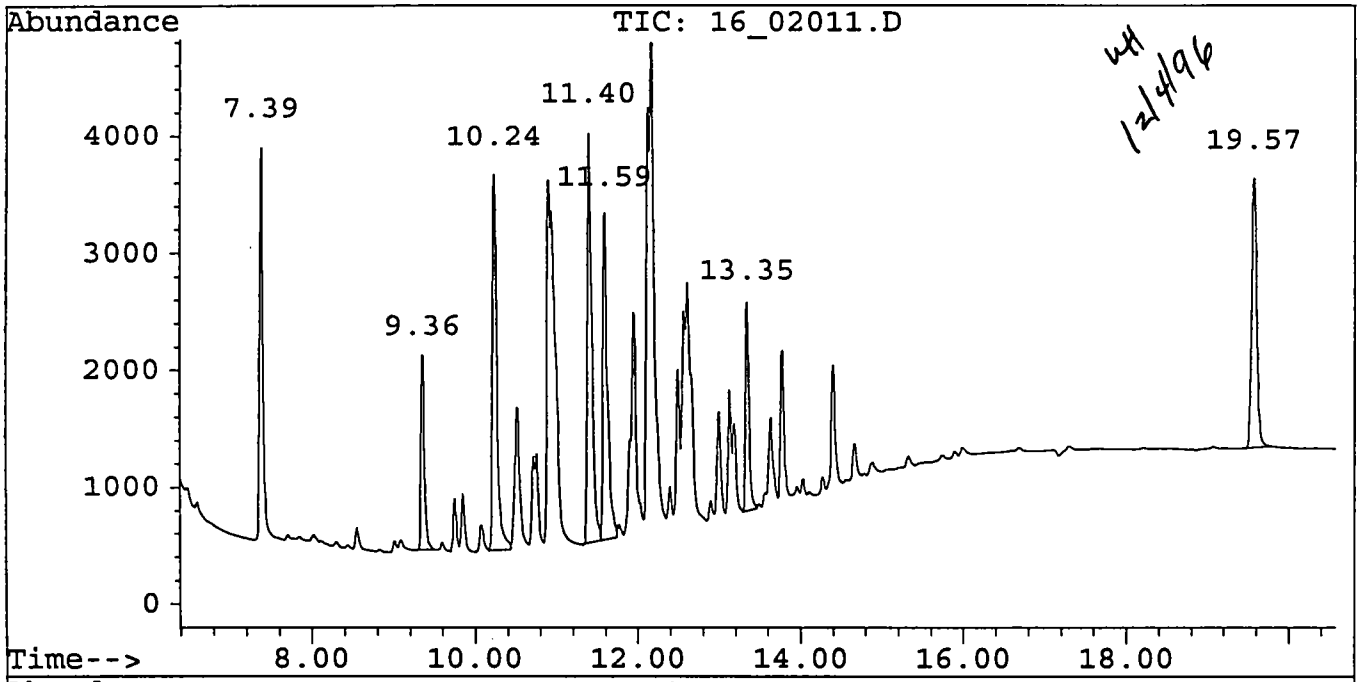
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

Quantitation Report

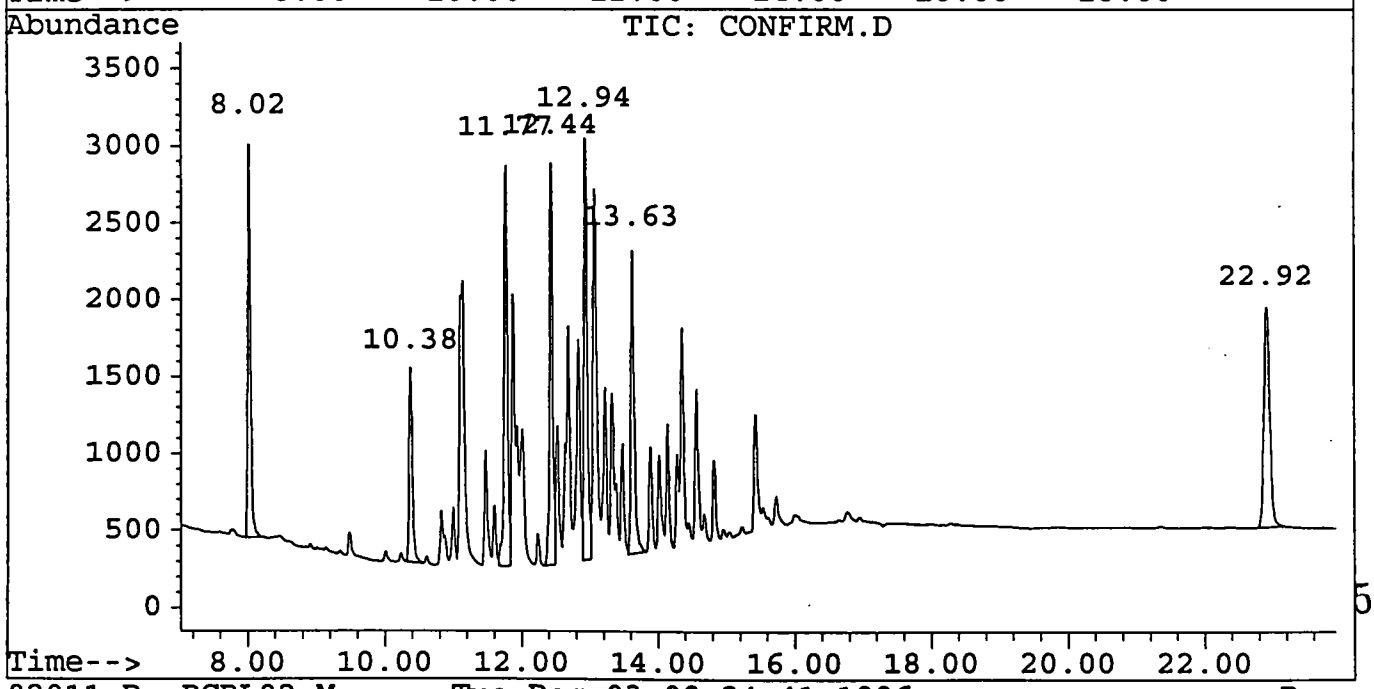
Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02011.D Vial: 17
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02011.D\CONFIRM.D
Acq On : 02 Dec 96 01:17 Operator: JC
Sample : AR124816D Inst : HP_16
Misc : 5-313-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:24 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:24:23 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B



wt 12/4/96



533

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02012.D Vial: 18
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02012.D\CONFIRM.D
Acq On : 02 Dec 96 01:47 Operator: JC
Sample : AR125416D Inst : HP_16
Misc : 5-271-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:25 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:25:06 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
Surrogate Compounds							
1) S TCX	7.40	8.03	175692	135929	0.01	0.01	
			Recovery	=	100.00%	100.00%	
38) S DCB	19.57	22.92	184879	160696	0.01	0.01	
			Recovery	=	100.00%	100.00%	
Target Compounds							
Total Aroclor-1016			0	0	N.D.	N.D.	
Total Aroclor-1221			0	0	N.D.	N.D.	
Total Aroclor-1232			0	0	N.D.	N.D.	
Total Aroclor-1242			0	0	N.D.	N.D.	
Total Aroclor-1248			0	0	N.D.	N.D.	
24) L6 Aroclor-1254	10.90	11.78	43671	27564	0.05	0.07	#
25) L6 Aroclor-1254 {2}	12.16	12.94	77762	21219	0.06	0.06	
26) L6 Aroclor-1254 {3}	13.35	13.89	76137	17558	0.05	0.06	
27) L6 Aroclor-1254 {4}	13.78	14.83	55205	34333	0.05	0.06	#
28) L6 Aroclor-1254 {5}	14.67	15.73	70218	46516	0.05	0.06	
Total Aroclor-1254			322994	147190	0.25	0.31	
Total Aroclor-1260			0	0	N.D.	N.D.	
Total Toxaphene			0	0	N.D.	N.D.	

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25160 SDG FEX69
Signature [illegible]
Date 12-9-96

534

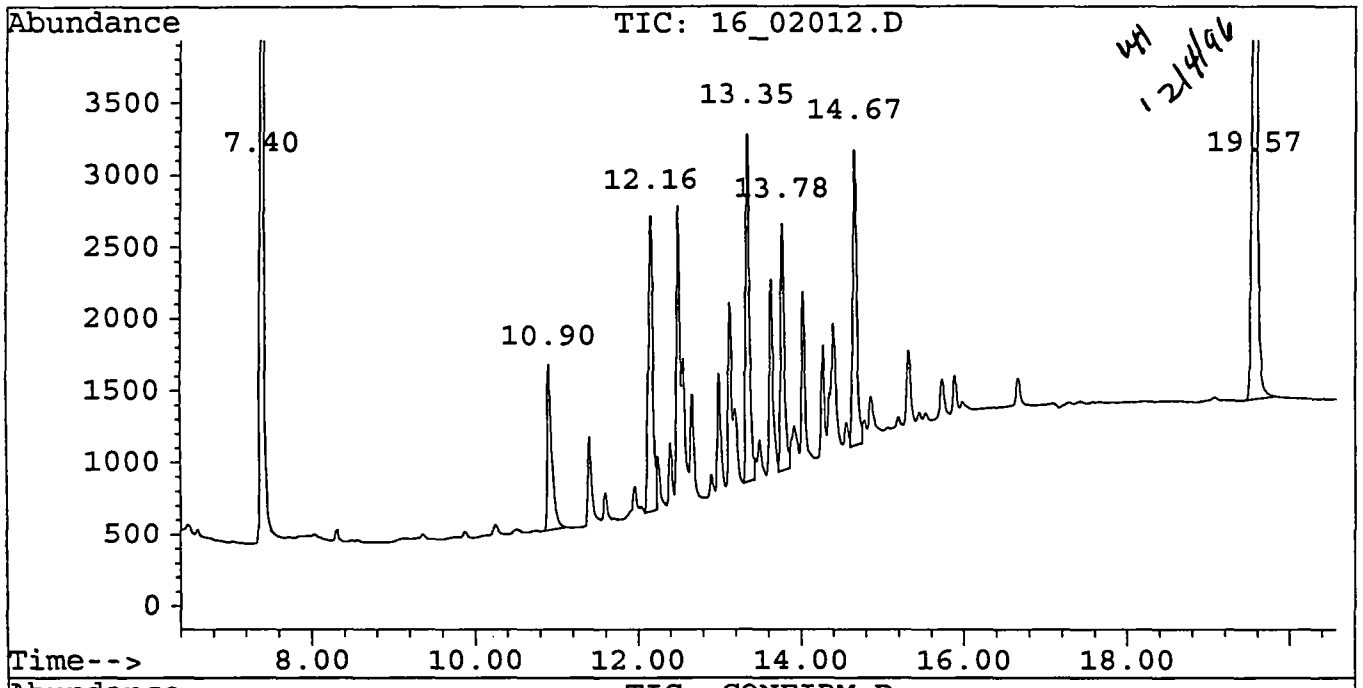
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

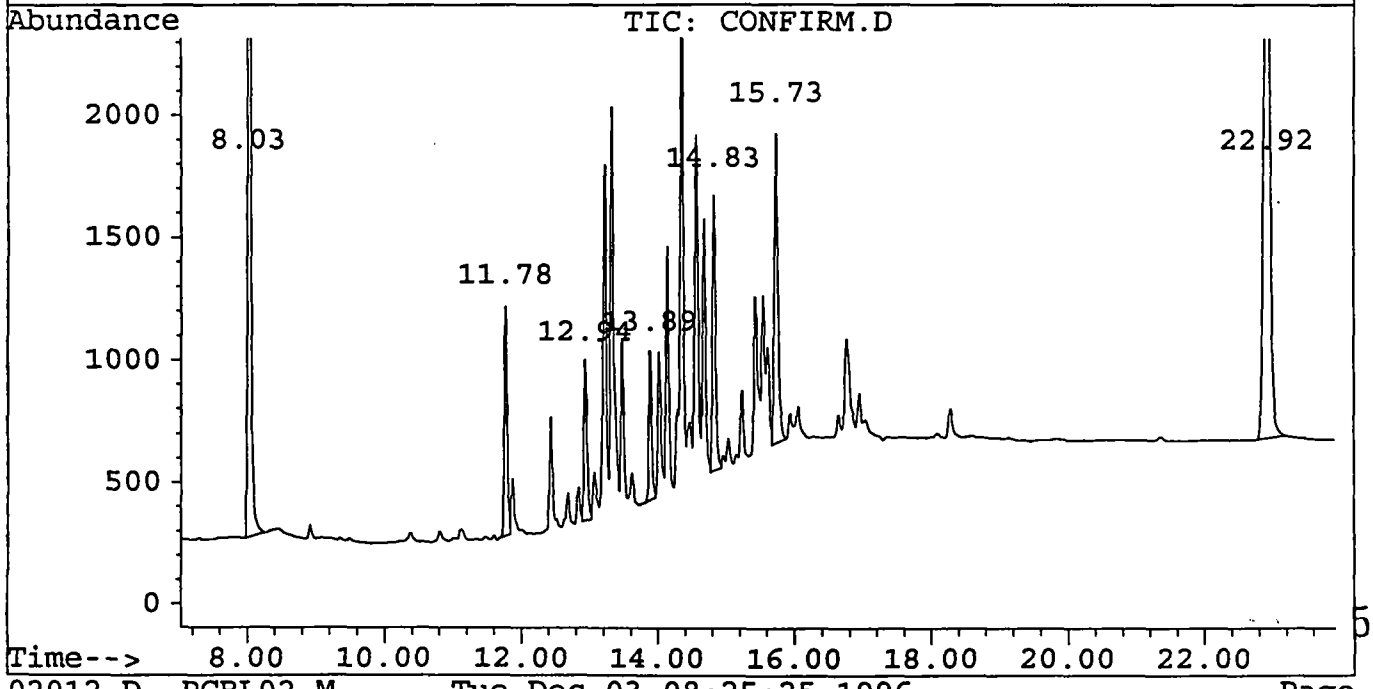
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02012.D Vial: 18
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02012.D\CONFIRM.D
Acq On : 02 Dec 96 01:47 Operator: JC
Sample : AR125416D Inst : HP_16
Misc : 5-271-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:25 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:25:06 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





535

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02013.D Vial: 19
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02013.D\CONFIRM.D
Acq On : 02 Dec 96 02:17 Operator: JC
Sample : TOXAPH16D Inst : HP_16
Misc : 5-251-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:25 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:25:49 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
Surrogate Compounds							
1) S TCX	7.40	8.03	190549	147519	0.01	0.01	
			Recovery	=	100.00%	100.00%	
38) S DCB	19.57	22.92	201199	179239	0.01	0.01	
			Recovery	=	100.00%	100.00%	
Target Compounds							
Total Aroclor-1016			0	0	N.D.	N.D.	▒
Total Aroclor-1221			0	0	N.D.	N.D.	▒
Total Aroclor-1232			0	0	N.D.	N.D.	▒
Total Aroclor-1242			0	0	N.D.	N.D.	▒
Total Aroclor-1248			0	0	N.D.	N.D.	▒
Total Aroclor-1254			0	0	N.D.	N.D.	▒
Total Aroclor-1260			0	0	N.D.	N.D.	▒
34) L8 Toxaphene	14.01	14.14	51290	18502	0.35	0.33	
35) L8 Toxaphene {2}	14.73	14.50	132219	22990	0.31	0.27	
36) L8 Toxaphene {3}	16.03	15.40	90439	49423	0.48	0.29	#
37) L8 Toxaphene {4}	16.13	17.46	115789	110927	0.35	0.38	
Total Toxaphene			389737	201841	1.48	1.28	▒

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25100 SDG FE X69
Signature [illegible]
Date 12-9-96

536

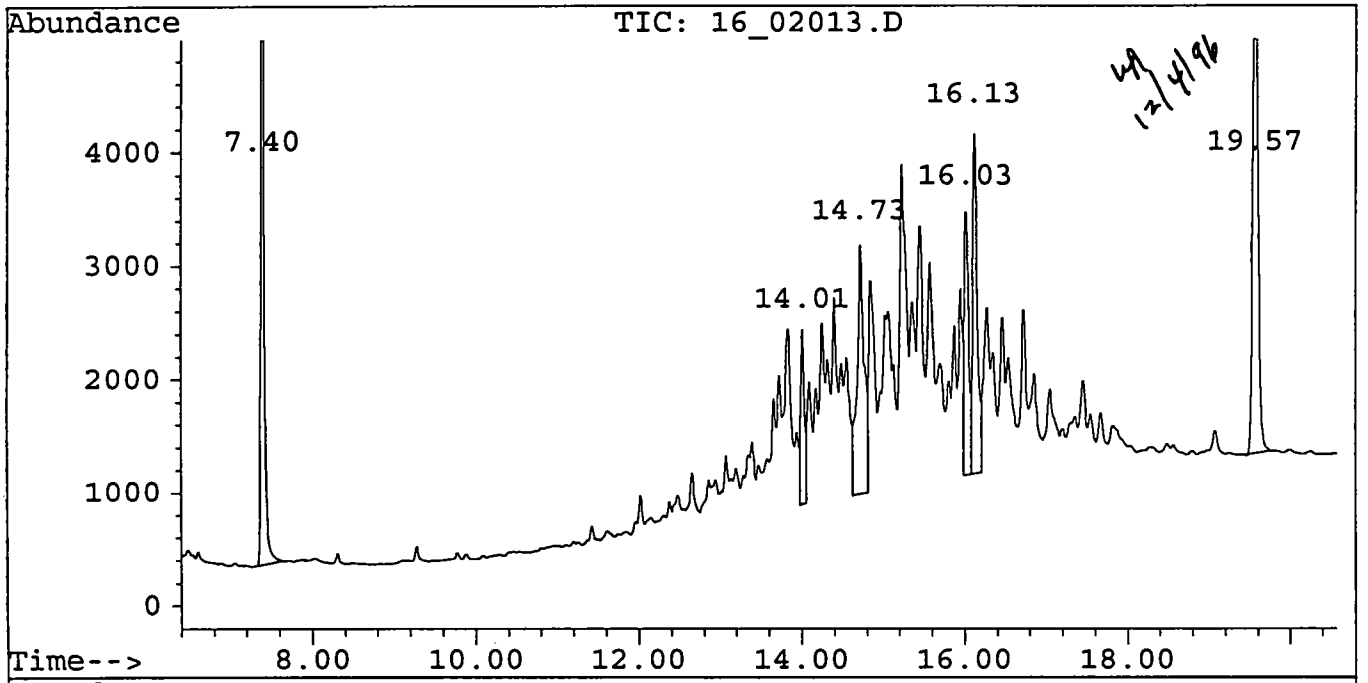
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

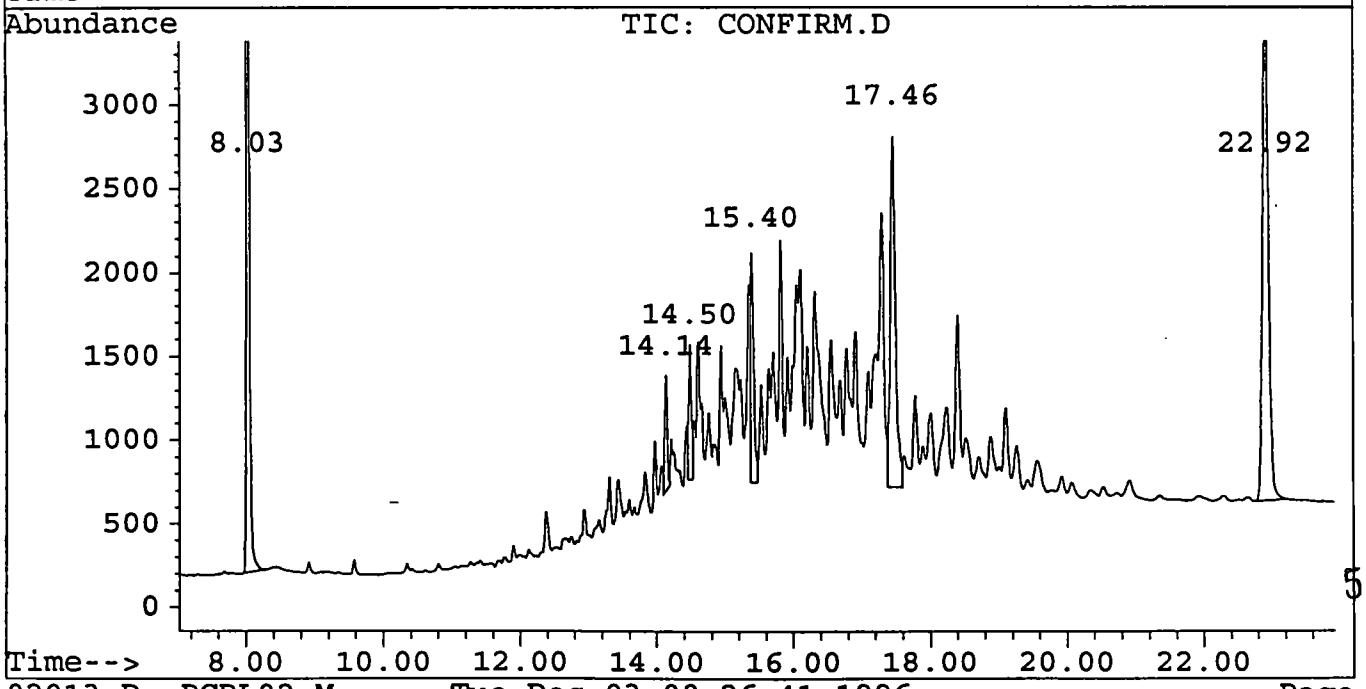
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02013.D Vial: 19
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02013.D\CONFIRM.D
Acq On : 02 Dec 96 02:17 Operator: JC
Sample : TOXAPH16D Inst : HP_16
Misc : 5-251-1616D Multiplr: 0.0005
Quant Time: Dec 3 8:25 1996

Method : H:\HPCHEM\HP\16\METHODS\PCBL02.M
Title : PCB/TOXAPHENE
Last Update : Tue Dec 03 08:25:49 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





537

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01912.D Vial: 17
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01912.D\CONFIRM.D
Acq On : 25 Nov 96 09:15 Operator: JC
Sample : INDAM16G Inst : HP_16
Misc : 5-61-1616G Multiplr: 0.0005
Quant Time: Nov 25 11:46 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTK24.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Mon Nov 25 11:46:31 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
		Surrogate Compounds						
1)	S	TCX	7.40	8.03	213618	133406	0.01	0.01
					Recovery	=	100.00%	100.00%
22)	S	DCB	19.58	22.93	395206	268826	0.02	0.02
					Recovery	=	200.00%	200.00%
		Target Compounds						
2)	AE	alpha-BHC	9.28	9.58	199876	120832	0.01	0.01
3)	MA	gamma-BHC (Lindane)	10.09	10.43	183088	110774	0.01	0.01
4)	MA	Heptachlor	10.47	11.12	150270	107506	0.01	0.01
5)	MB	Aldrin	0.00	0.00	0	0	N.D.	N.D.
6)	BE	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	B	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B	Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A	Endosulfan I	12.83	13.66	178647	105895	0.01	0.01
10)	B	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	B	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	MA	Dieldrin	13.50	14.25	354351	190924	0.02	0.02
14)	MA	Endrin	13.90	14.98	266421	134432	0.02	0.02
15)	B	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	A	4,4'-DDD	14.57	15.09	237458	140927	0.02	0.02
17)	MA	4,4'-DDT	14.87	15.73	156239	128886	0.02	0.02
18)	B	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
19)	B	Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
20)	AE	Methoxychlor	16.05	17.87	405228	346785	0.10	0.10
21)	B	Endrin Ketone	0.00	0.00	0	0	N.D.d	N.D.

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25135 SDGF 8950
Signature [illegible]
Date 12-3-96

538

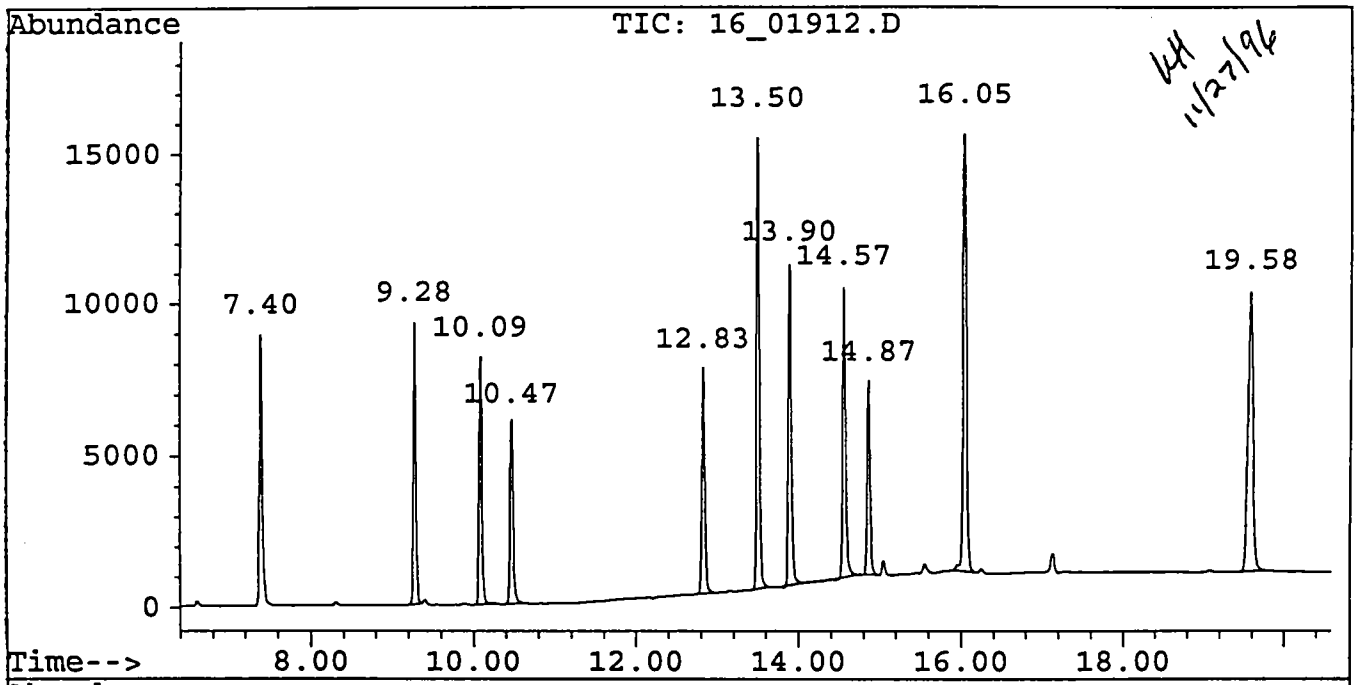
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

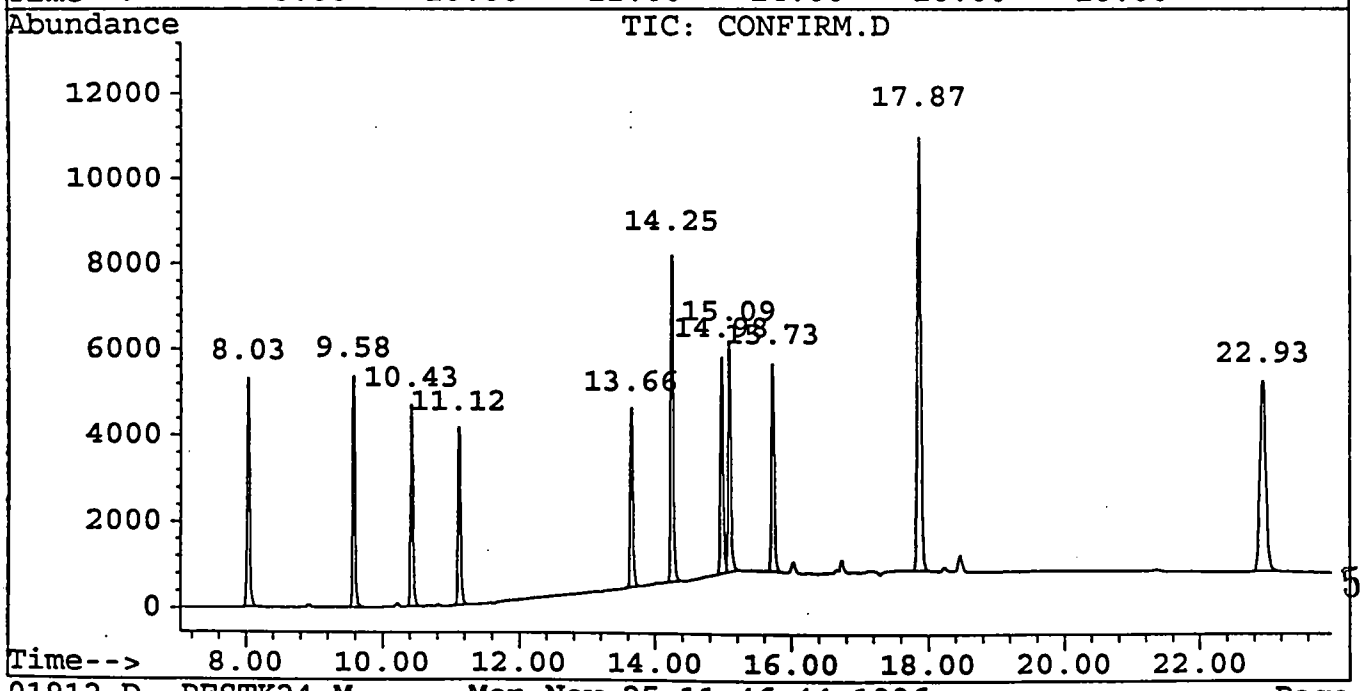
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01912.D Vial: 17
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01912.D\CONFIRM.D
Acq On : 25 Nov 96 09:15 Operator: JC
Sample : INDAM16G Inst : HP_16
Misc : 5-61-1616G Multiplr: 0.0005
Quant Time: Nov 25 11:46 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTK24.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Mon Nov 25 11:46:31 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





539

Chromatographic Resolution Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01912.D Vial: 17
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01912.D\CONFIRM.D
Acq On : 25 Nov 96 09:15 Operator: JC
Sample : INDAM16G Inst : HP_16
Misc : 5-61-1616G Multiplr: 0.0005

Method : H:\HPCHEM\HP\16\METHODS\PESTK24.M
Title : OLM3.0 CLP Pesticide/PCB

RT#1	RT#2	Resolution	Compound for RT#1
7.398	9.280	100.00%	TCX
9.280	10.087	100.00%	alpha-BHC
10.087	10.467	100.00%	gamma-BHC (Lindane)
10.467	12.831	100.00%	Heptachlor
12.831	13.505	100.00%	Endosulfan I
13.505	13.899	100.00%	Dieldrin
13.899	14.566	100.00%	Endrin
14.566	14.868	100.00%	4,4'-DDD
14.868	16.050	100.00%	4,4'-DDT
16.050	19.580	100.00%	Methoxychlor
Signal #2			
8.033	9.583	100.00%	TCX #2
9.583	10.430	100.00%	alpha-BHC #2
10.430	11.125	100.00%	gamma-BHC (Lindane) #2
11.125	13.656	100.00%	Heptachlor #2
13.656	14.252	100.00%	Endosulfan I #2
14.252	14.980	100.00%	Dieldrin #2
14.980	15.092	95.60%	Endrin #2
15.092	15.730	100.00%	4,4'-DDD #2
15.730	17.872	100.00%	4,4'-DDT #2
17.872	22.930	100.00%	Methoxychlor #2

* = Value less than resolution criteria, 60 for RESC, 90 for PEM, INDA, INDB
16_01912.D PESTK24.M Mon Nov 25 11:47:06 1996

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02016.D Vial: 22
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02016.D\CONFIRM.D
Acq On : 02 Dec 96 03:46 Operator: JC
Sample : INDAM16K Inst : HP_16
Misc : 5-261-1616K Multiplr: 0.0005
Quant Time: Dec 3 7:57 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:57:10 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
		Surrogate Compounds						
1)	S	TCX	7.40	8.03	192947	149798	0.01	0.01
					Recovery	=	100.00%	100.00%
22)	S	DCB	19.57	22.91	377316	332756	0.02	0.02 #
					Recovery	=	200.00%	200.00%
		Target Compounds						
2)	AE	alpha-BHC	9.28	9.58	185907	142158	0.01	0.01 #
	MA	gamma-BHC (Lindane)	10.08	10.43	179136	131433	0.01	0.01
,	MA	Heptachlor	10.46	11.12	162936	117667	0.01	0.01
5)	MB	Aldrin	0.00	0.00	0	0	N.D.	N.D.
6)	BE	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	B	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B	Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	A	Endosulfan I	12.83	13.65	168872	128761	0.01	0.01 #
10)	B	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
11)	B	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	MA	Dieldrin	13.50	14.25	338365	243388	0.02	0.03 #
14)	MA	Endrin	13.89	14.98	262868	170773	0.02	0.03 #
15)	B	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	A	4,4'-DDD	14.56	15.09	262784	177536	0.02	0.03
17)	MA	4,4'-DDT	14.86	15.72	210812	159339	0.03	0.02
18)	B	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.d
19)	B	Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
20)	AE	Methoxychlor	16.04	17.86	484257	411578	0.12	0.12
21)	B	Endrin Ketone	0.00	0.00	0	0	N.D.d	N.D.d

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25460 SDG FEX69
Signature Priscilla Stuver
Date 12-9-69

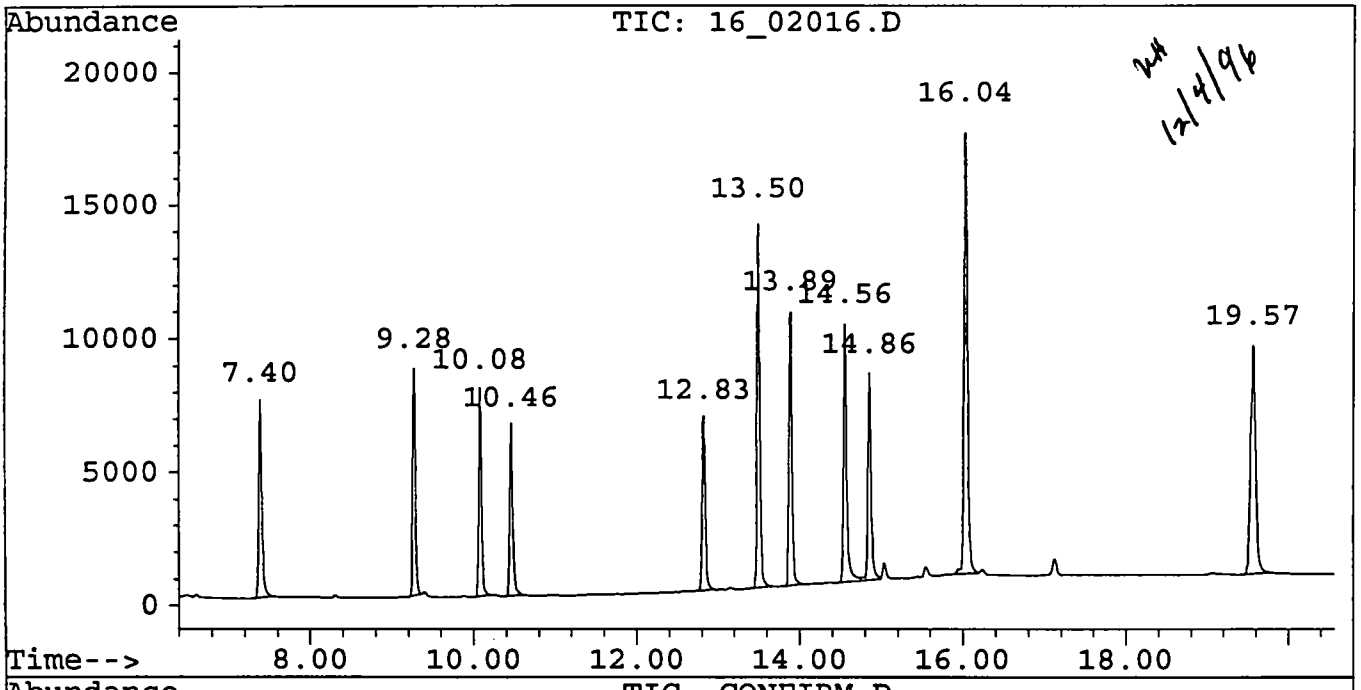
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

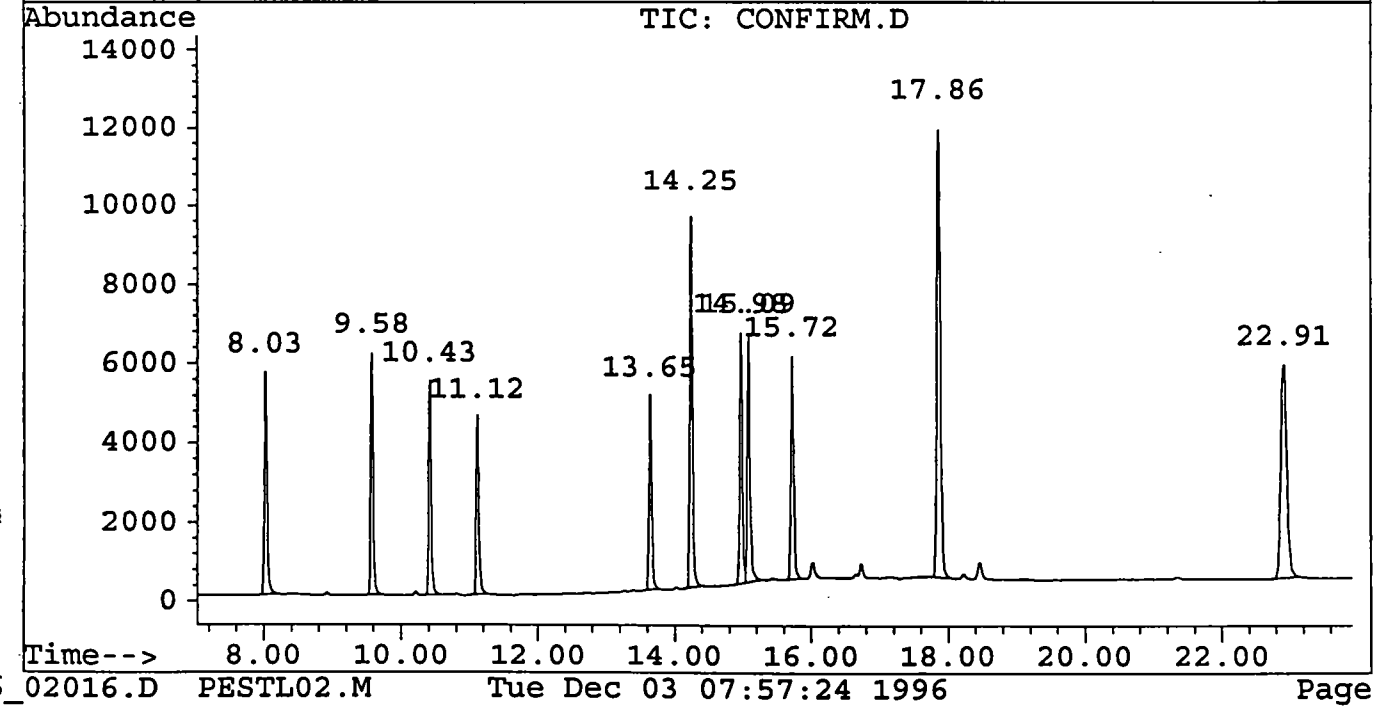
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02016.D Vial: 22
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02016.D\CONFIRM.D
Acq On : 02 Dec 96 03:46 Operator: JC
Sample : INDAM16K Inst : HP_16
Misc : 5-261-1616K Multiplr: 0.0005
Quant Time: Dec 3 7:57 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:57:10 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





542

Chromatographic Resolution Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02016.D Vial: 22
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02016.D\CONFIRM.D
Acq On : 02 Dec 96 03:46 Operator: JC
Sample : INDAM16K Inst : HP_16
Misc : 5-261-1616K Multiplr: 0.0005

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB

RT#1	RT#2	Resolution	Compound for RT#1
7.397	9.276	100.00%	TCX
9.276	10.083	100.00%	alpha-BHC
10.083	10.463	100.00%	gamma-BHC (Lindane)
10.463	12.827	100.00%	Heptachlor
12.827	13.501	100.00%	Endosulfan I
13.501	13.893	100.00%	Dieldrin
13.893	14.562	100.00%	Endrin
14.562	14.863	100.00%	4,4'-DDD
14.863	16.044	100.00%	4,4'-DDT
16.044	19.570	100.00%	Methoxychlor
Signal #2			
8.032	9.581	100.00%	TCX #2
9.581	10.428	100.00%	alpha-BHC #2
10.428	11.122	100.00%	gamma-BHC (Lindane) #2
11.122	13.651	100.00%	Heptachlor #2
13.651	14.249	100.00%	Endosulfan I #2
14.249	14.976	100.00%	Dieldrin #2
14.976	15.088	96.42%	Endrin #2
15.088	15.725	100.00%	4,4'-DDD #2
15.725	17.863	100.00%	4,4'-DDT #2
17.863	22.914	100.00%	Methoxychlor #2

* = Value less than resolution criteria, 60 for RESC, 90 for PEM, INDA, INDB
16_02016.D PESTL02.M Tue Dec 03 07:57:48 1996

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01913.D Vial: 18
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01913.D\CONFIRM.D
Acq On : 25 Nov 96 09:45 Operator: JC
Sample : INDBM16G Inst : HP_16
Misc : 5-264-1616G Multiplr: 0.0005
Quant Time: Nov 25 11:47 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTK24.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Mon Nov 25 11:47:17 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
		Surrogate Compounds						
1)	S	TCX	7.40	8.03	218551	136205	0.01	0.01
					Recovery	=	100.00%	100.00%
22)	S	DCB	19.58	22.93	409301	280476	0.02	0.02
					Recovery	=	200.00%	200.00%
		Target Compounds						
2)	AE	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
	MA	gamma-BHC (Lindane)	0.00	0.00	0	0	N.D.	N.D.
	MA	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
,	MB	Aldrin	10.99	11.82	214276	129775	0.01	0.01
6)	BE	beta-BHC	11.50	10.57	113625	69088	0.01	0.01
7)	B	delta-BHC	11.96	11.35	175967	105188	0.01	0.01
8)	B	Heptachlor Epoxide	12.32	12.94	190342	113083	0.01	0.01
9)	A	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
10)	B	gamma-Chlordane	12.91	13.26	204578	125017	0.01	0.01
11)	B	alpha-Chlordane	13.04	13.58	201470	123212	0.01	0.01
12)	B	4,4'-DDE	13.14	14.02	386413	204619	0.02	0.02
13)	MA	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	MA	Endrin	0.00	0.00	0	0	N.D.	N.D.
15)	B	Endosulfan II	14.76	15.33	351065	198853	0.02	0.02
16)	A	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
17)	MA	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.
18)	B	Endrin Aldehyde	15.55	16.03	271292	161551	0.02	0.02
19)	B	Endosulfan Sulfate	16.21	16.31	322154	191182	0.02	0.02
20)	AE	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	B	Endrin Ketone	17.14	18.47	321595	208820	0.02	0.02

COPY

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25435 SDG F4950
Signature [illegible]
Date 12-3-96

544

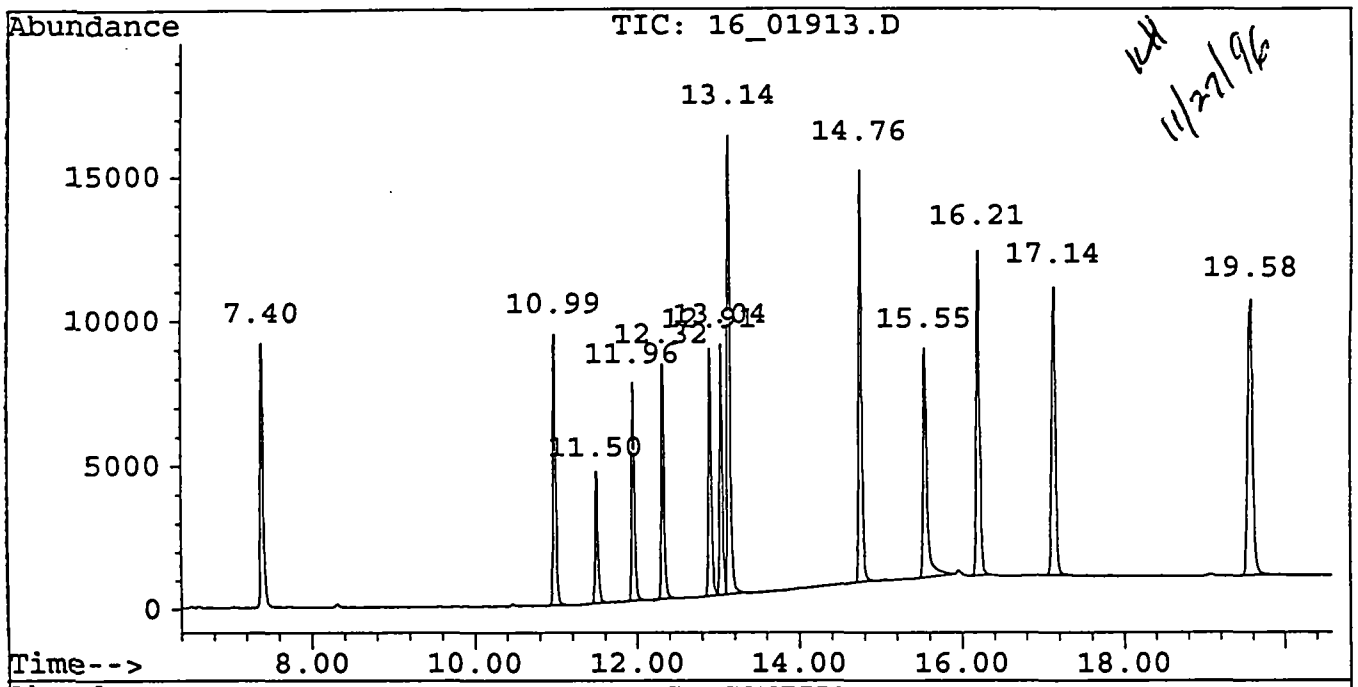
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

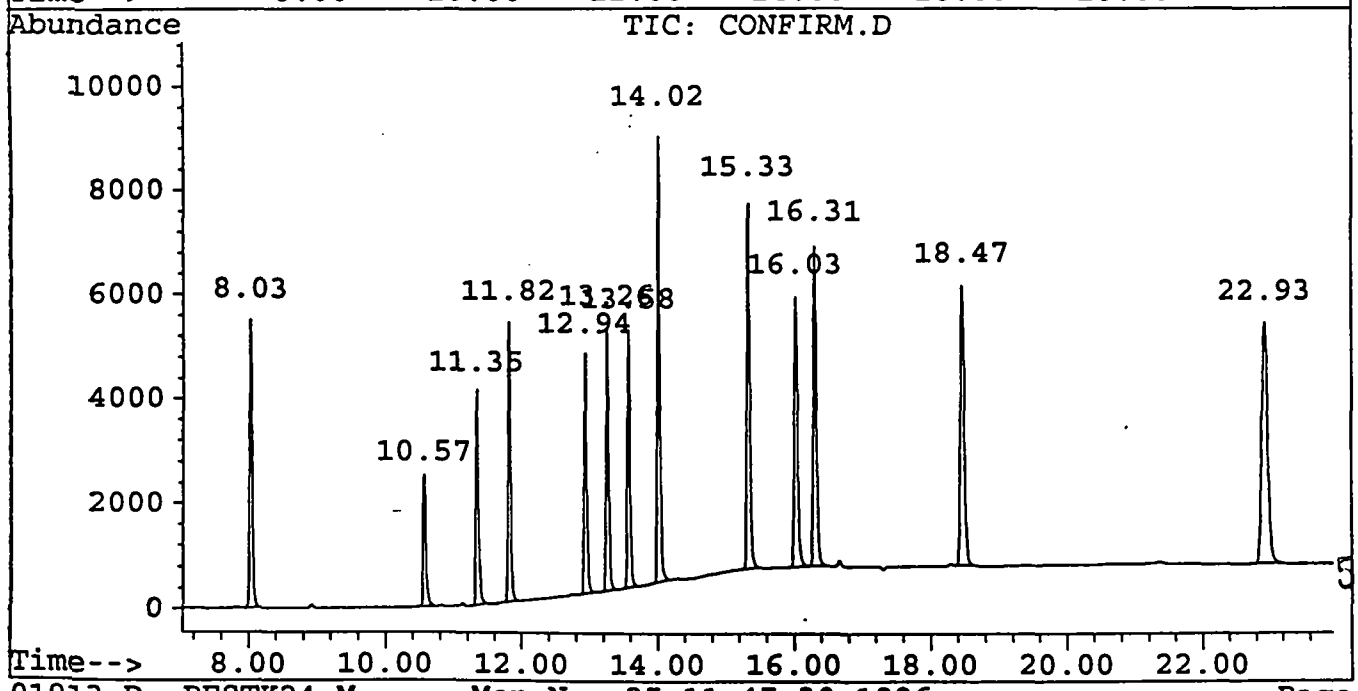
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01913.D Vial: 18
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01913.D\CONFIRM.D
Acq On : 25 Nov 96 09:45 Operator: JC
Sample : INDBM16G Inst : HP_16
Misc : 5-264-1616G Multiplr: 0.0005
Quant Time: Nov 25 11:47 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTK24.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Mon Nov 25 11:47:17 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





545

Chromatographic Resolution Report

Signal #1 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01913.D Vial: 18
Signal #2 : H:\HPCHEM\HP\16\DATA\11_24_96\16_01913.D\CONFIRM.D
Acq On : 25 Nov 96 09:45 Operator: JC
Sample : INDBM16G Inst : HP_16
Misc : 5-264-1616G Multiplr: 0.0005

Method : H:\HPCHEM\HP\16\METHODS\PESTK24.M
Title : OLM3.0 CLP Pesticide/PCB

RT#1	RT#2	Resolution	Compound for RT#1
7.398	10.987	100.00%	TCX
10.987	11.505	100.00%	Aldrin
11.505	11.958	100.00%	beta-BHC
11.958	12.323	100.00%	delta-BHC
12.323	12.907	100.00%	Heptachlor Epoxide
12.907	13.044	100.00%	gamma-Chlordane
13.044	13.141	96.24%	alpha-Chlordane
13.141	14.762	100.00%	4,4'-DDE
14.762	15.554	100.00%	Endosulfan II
15.554	16.209	100.00%	Endrin Aldehyde
16.209	17.138	100.00%	Endosulfan Sulfate
17.138	19.581	100.00%	Endrin Ketone
Signal #2			
8.034	10.574	100.00%	TCX #2
10.574	11.348	100.00%	beta-BHC #2
11.348	11.822	100.00%	delta-BHC #2
11.822	12.941	100.00%	Aldrin #2
12.941	13.264	100.00%	Heptachlor Epoxide #2
13.264	13.577	100.00%	gamma-Chlordane #2
13.577	14.018	100.00%	alpha-Chlordane #2
14.018	15.333	100.00%	4,4'-DDE #2
15.333	16.030	100.00%	Endosulfan II #2
16.030	16.309	100.00%	Endrin Aldehyde #2
16.309	18.468	100.00%	Endosulfan Sulfate #2
18.468	22.929	100.00%	Endrin Ketone #2

* = Value less than resolution criteria, 60 for RESC, 90 for PEM, INDA, INDB
16_01913.D PESTK24.M Mon Nov 25 11:47:53 1996

Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02017.D Vial: 23
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02017.D\CONFIRM.D
Acq On : 02 Dec 96 04:16 Operator: JC
Sample : INDBM16K Inst : HP_16
Misc : 5-264-1616K Multiplr: 0.0005
Quant Time: Dec 3 7:57 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:57:59 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol	
		Surrogate Compounds							
1)	S	TCX	7.40	8.03	194970	151695	0.01	0.01	
					Recovery	=	100.00%	100.00%	
22)	S	DCB	19.57	22.92	390773	346656	0.02	0.02	
					Recovery	=	200.00%	200.00%	
		Target Compounds							
3)	AE	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.	
4)	MA	gamma-BHC (Lindane)	0.00	0.00	0	0	N.D.	N.D.	
5)	MA	Heptachlor	0.00	0.00	0	0	N.D.	N.D.	
5)	MB	Aldrin	10.98	11.82	187879	148541	0.01	0.01	#
6)	BE	beta-BHC	11.50	10.57	113285	83702	0.01	0.01	
7)	B	delta-BHC	11.95	11.34	168571	124669	0.01	0.01	
8)	B	Heptachlor Epoxide	12.32	12.94	182018	138325	0.01	0.01	#
9)	A	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.	
10)	B	gamma-Chlordane	12.90	13.26	184499	148620	0.01	0.01	#
11)	B	alpha-Chlordane	13.04	13.57	179107	145079	0.01	0.01	#
12)	B	4,4'-DDE	13.14	14.01	359081	268324	0.02	0.03	#
13)	MA	Dieldrin	0.00	0.00	0	0	N.D.	N.D.	
14)	MA	Endrin	0.00	0.00	0	0	N.D.	N.D.	
15)	B	Endosulfan II	14.76	15.33	306469	242260	0.02	0.02	#
16)	A	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.	
17)	MA	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.	
18)	B	Endrin Aldehyde	15.55	16.02	268017	213950	0.02	0.03	#
19)	B	Endosulfan Sulfate	16.20	16.30	290614	225470	0.02	0.02	#
20)	AE	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.	
21)	B	Endrin Ketone	17.13	18.46	317556	256762	0.02	0.02	

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25460 SDG FEX69
Signature
Date 12-9-96

547

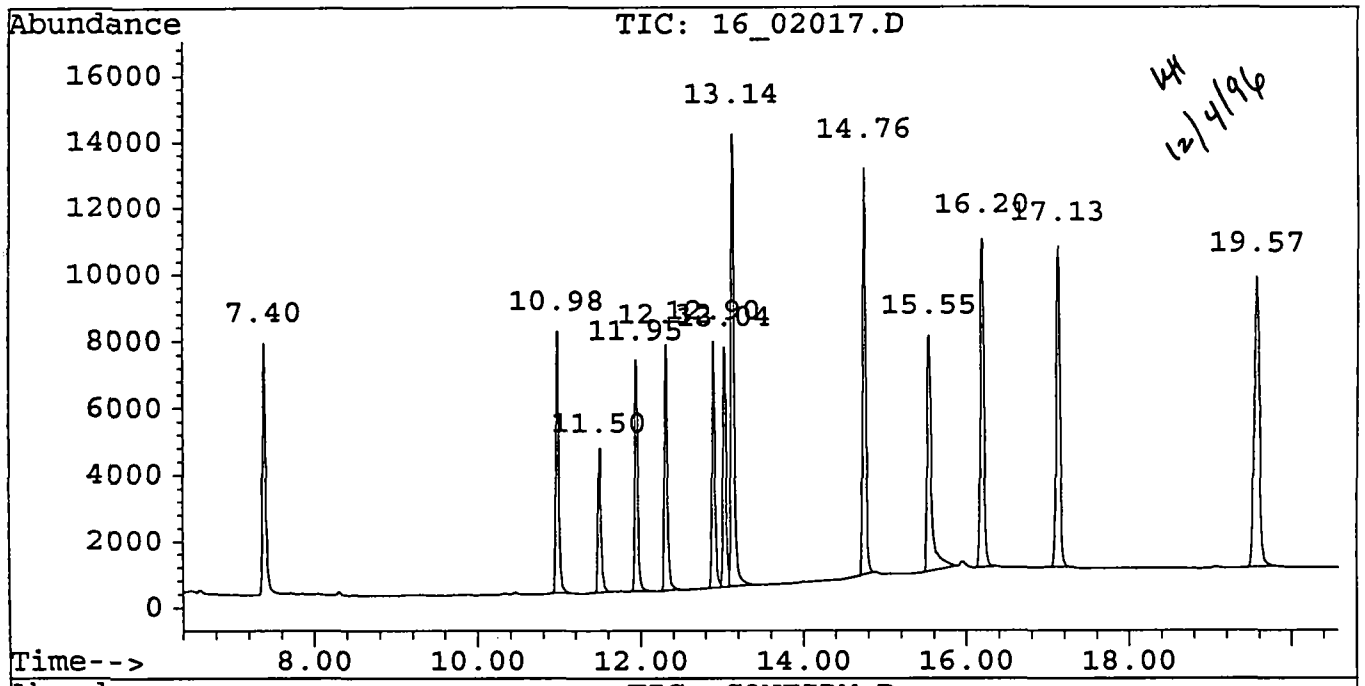
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

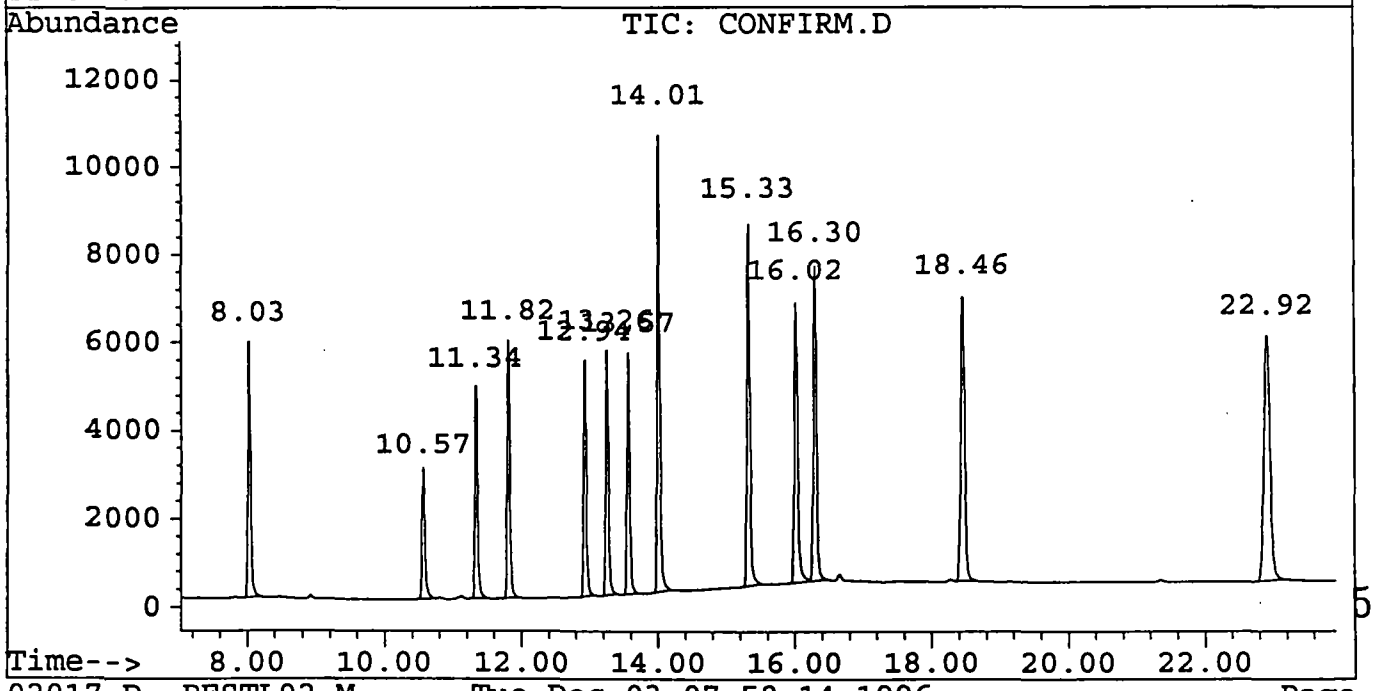
Quantitation Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02017.D Vial: 23
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02017.D\CONFIRM.D
Acq On : 02 Dec 96 04:16 Operator: JC
Sample : INDBM16K Inst : HP_16
Misc : 5-264-1616K Multiplr: 0.0005
Quant Time: Dec 3 7:57 1996

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Tue Dec 03 07:57:59 1996
Response via : Single Level Calibration

Volume Inj. : 0.5uL
Signal #1 Phase : DB-1701 Signal #2 Phase: DB-17
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_16A Signal #2 Inst : HP_16B





548

Chromatographic Resolution Report

Signal #1 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02017.D Vial: 23
Signal #2 : H:\HPCHEM\HP\16\DATA\12_02_96\16_02017.D\CONFIRM.D
Acq On : 02 Dec 96 04:16 Operator: JC
Sample : INDBM16K Inst : HP_16
Misc : 5-264-1616K Multiplr: 0.0005

Method : H:\HPCHEM\HP\16\METHODS\PESTL02.M
Title : OLM3.0 CLP Pesticide/PCB

RT#1	RT#2	Resolution	Compound for RT#1
7.397	10.983	100.00%	TCX
10.983	11.499	100.00%	Aldrin
11.499	11.952	100.00%	beta-BHC
11.952	12.318	100.00%	delta-BHC
12.318	12.901	100.00%	Heptachlor Epoxide
12.901	13.039	98.90%	gamma-Chlordane
13.039	13.137	93.61%	alpha-Chlordane
13.137	14.756	100.00%	4,4'-DDE
14.756	15.547	100.00%	Endosulfan II
15.547	16.199	100.00%	Endrin Aldehyde
16.199	17.129	100.00%	Endosulfan Sulfate
17.129	19.571	100.00%	Endrin Ketone
Signal #2			
8.032	10.572	100.00%	TCX #2
10.572	11.345	100.00%	beta-BHC #2
11.345	11.817	100.00%	delta-BHC #2
11.817	12.936	100.00%	Aldrin #2
12.936	13.259	100.00%	Heptachlor Epoxide #2
13.259	13.572	100.00%	gamma-Chlordane #2
13.572	14.014	100.00%	alpha-Chlordane #2
14.014	15.328	100.00%	4,4'-DDE #2
15.328	16.024	100.00%	Endosulfan II #2
16.024	16.302	99.76%	Endrin Aldehyde #2
16.302	18.459	100.00%	Endosulfan Sulfate #2
18.459	22.916	100.00%	Endrin Ketone #2

* = Value less than resolution criteria, 60 for RESC, 90 for PEM, INDA, INDB
16_02017.D PESTL02.M Tue Dec 03 07:58:37 1996

Calibration Report

Signal #1 : H:\HPCHEM\HP\14\DATA\08_08_96\14_05879.D Vial: 10
Signal #2 : H:\HPCHEM\HP\14\DATA\08_08_96\14_05879.D\CONFIRM.D
Acq On : 08 Aug 96 22:40 Operator: VLH
Sample : FLO941389 Inst : HP_14
Misc : FLO941389 Multiplr: 1.0000
Quant Time: Aug 9 9:31 1996

Method : H:\HPCHEM\HP\14\METHODS\FLOH05.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Fri Aug 09 09:24:50 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-17 Signal #2 Phase: DB-1701
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_14A Signal #2 Inst : HP_14B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCar	ngonCar
		Surrogate Compounds						
2)	S	TCX	7.87	7.32	112876	194647	9.5711	11.6220
					Recovery	=	47.86%	58.11%
23)	S	DCB	22.38	19.35	290777	399322	22.0981	23.0603
					Recovery	=	110.49%	115.30%
		Target Compounds						
1)	a	2,4,5-TCP	5.54	0.00	11397	0	1.3071	N.D. #
3)	AE	alpha-BHC	9.42	9.15	111183	162666	8.5942	9.1890
	MA	gamma-BHC (Lindane	10.26	9.95	113368	162920	8.9346	9.2683
	MA	Heptachlor	10.95	10.36	118083	190603	10.6496	10.3492
6)	MB	Aldrin	11.61f	0.00	19178	0	1.7148	N.D. #
7)	BE	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
9)	B	Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
10)	A	Endosulfan I	13.47	12.71	99102	152649	9.5290	10.3185
11)	B	gamma-Chlordane	13.06	0.00	15857	0	1.4386	N.D. #
12)	B	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
13)	B	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
14)	MA	Dieldrin	14.07	13.37	185388	312350	17.1789	19.9149
15)	MA	Endrin	14.79	13.76	147272	237852	19.2274	19.9455
16)	B	Endosulfan II	0.00	14.54f	0	15314	N.D.	1.1502 #
17)	A	4,4'-DDD	14.91	14.42	163572	245793	19.7043	20.2260
18)	MA	4,4'-DDT	15.53	14.73	145376	208105	19.0667	18.0091
19)	B	Endrin Aldehyde	15.81	0.00	21722	0	2.8323	N.D. #
20)	B	Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
21)	AE	Methoxychlor	17.59	15.88	410900	632132	97.7717	98.1986
22)	B	Endrin Ketone	0.00	16.89	0	15917	N.D.	1.1041 #

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 24913 SDG AMF88
Signature Amelda M. Williams
Date 8/15/96

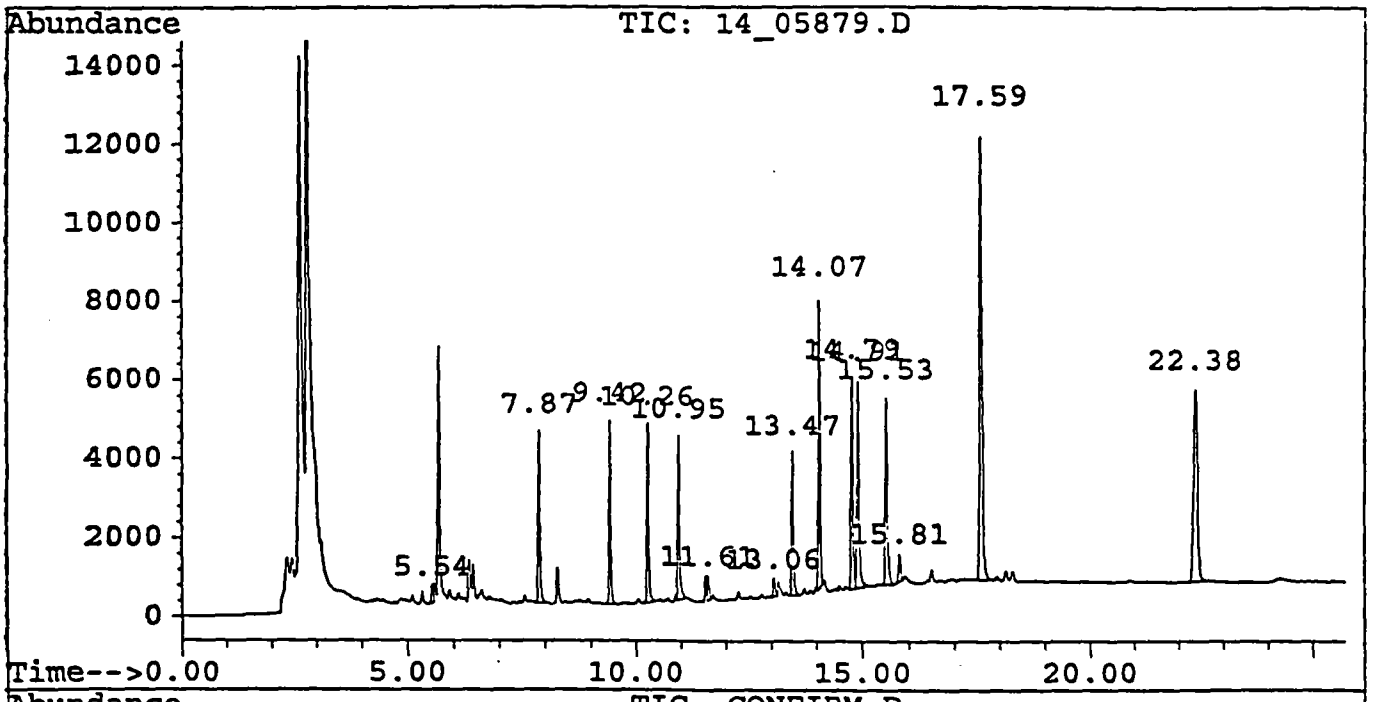
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

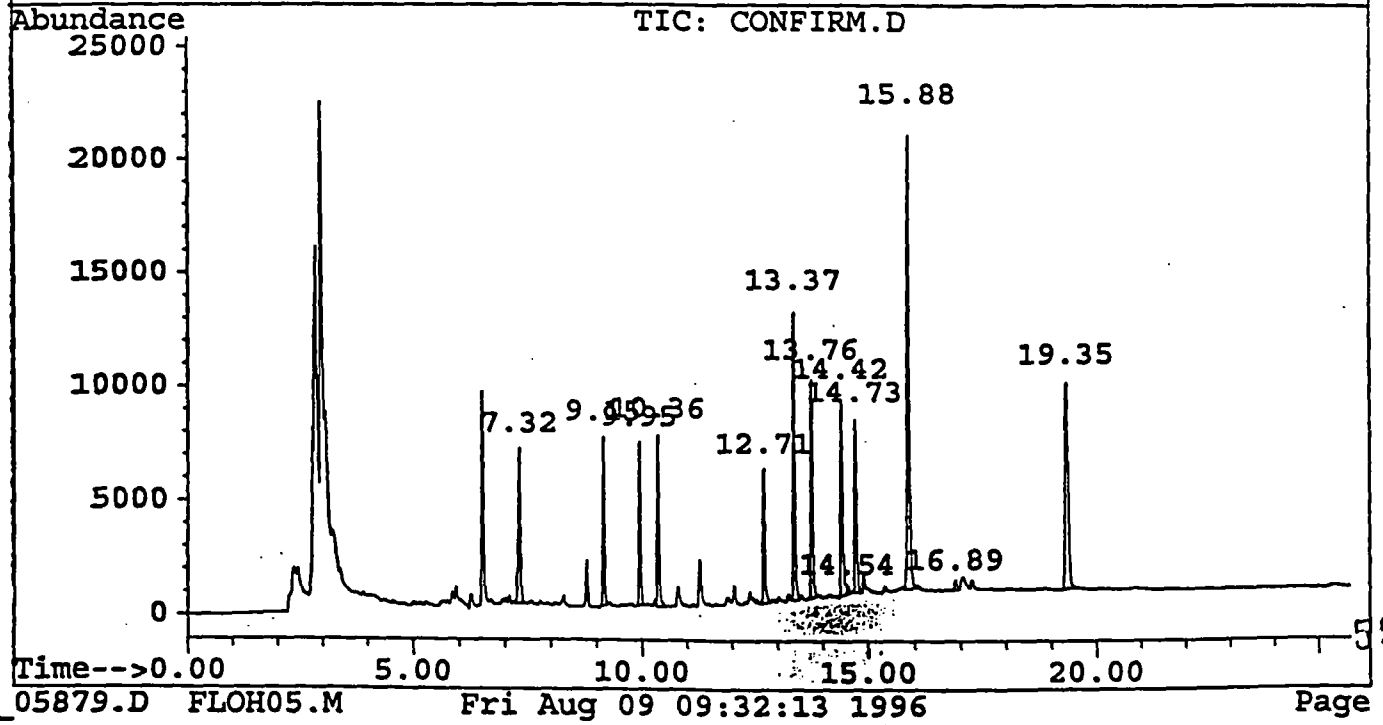
Quantitation Report

Signal #1 : H:\HPCHEM\HP\14\DATA\08_08_96\14_05879.D Vial: 10
Signal #2 : H:\HPCHEM\HP\14\DATA\08_08_96\14_05879.D\CONFIRM.D
Acq On : 08 Aug 96 22:40 Operator: VLH
Sample : FLO941389 Inst : HP_14
Misc : FLO941389 Multiplr: 1.0000
Quant Time: Aug 9 9:31 1996

Method : H:\HPCHEM\HP\14\METHODS\FLOH05.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Fri Aug 09 09:24:50 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-17 Signal #2 Phase: DB-1701
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_14A Signal #2 Inst : HP_14B





551

Quantitation Report

Signal #1 : H:\HPCHEM\HP\14\DATA\08_08_96\14_05871.D Vial: 2
Signal #2 : H:\HPCHEM\HP\14\DATA\08_08_96\14_05871.D\CONFIRM.D
Acq On : 08 Aug 96 18:34 Operator: VLH
Sample : 2,4,5-TCP Inst : HP_14
Misc : 5-213-16 Multiplr: 0.0010
Quant Time: Aug 9 9:25 1996

Method : H:\HPCHEM\HP\14\METHODS\FLOH05.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Fri Aug 09 09:24:50 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-17 Signal #2 Phase: DB-1701
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_14A Signal #2 Inst : HP_14B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCar	ngonCar
		Surrogate Compounds						
2)	S	TCX	0.00	0.00	0	0	N.D.	N.D.
					Recovery	=	0.00%	0.00%
23)	S	DCB	0.00	0.00	0	0	N.D.	N.D.
					Recovery	=	0.00%	0.00%
		Target Compounds						
1)	a	2,4,5-TCP	5.54	0.00	871883	0	0.1000	N.D. #
3)	AE	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
	MA	gamma-BHC (Lindane	0.00	0.00	0	0	N.D.	N.D.
	MA	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
6)	MB	Aldrin	0.00	0.00	0	0	N.D.	N.D.
7)	BE	beta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B	delta-BHC	0.00	0.00	0	0	N.D.	N.D.
9)	B	Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
10)	A	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.
11)	B	gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B	alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
13)	B	4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
14)	MA	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
15)	MA	Endrin	0.00	0.00	0	0	N.D.	N.D.
16)	B	Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
17)	A	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
18)	MA	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.
19)	B	Endrin Aldehyde	0.00	0.00	0	0	N.D.	N.D.
20)	B	Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
21)	AE	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
22)	B	Endrin Ketone	0.00	0.00	0	0	N.D.	N.D.

COPY

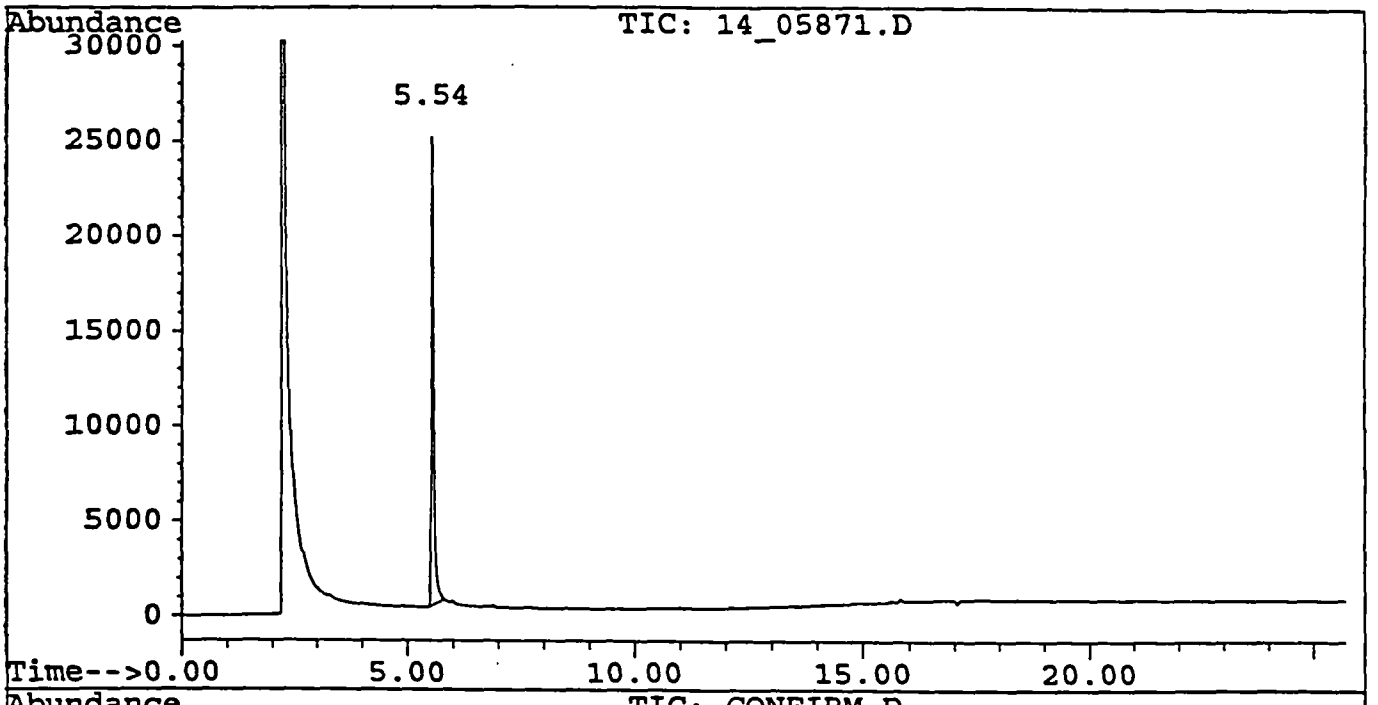
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 24913 SDG AMF88
Signature Amelda M. Williams
Date 8/15/96

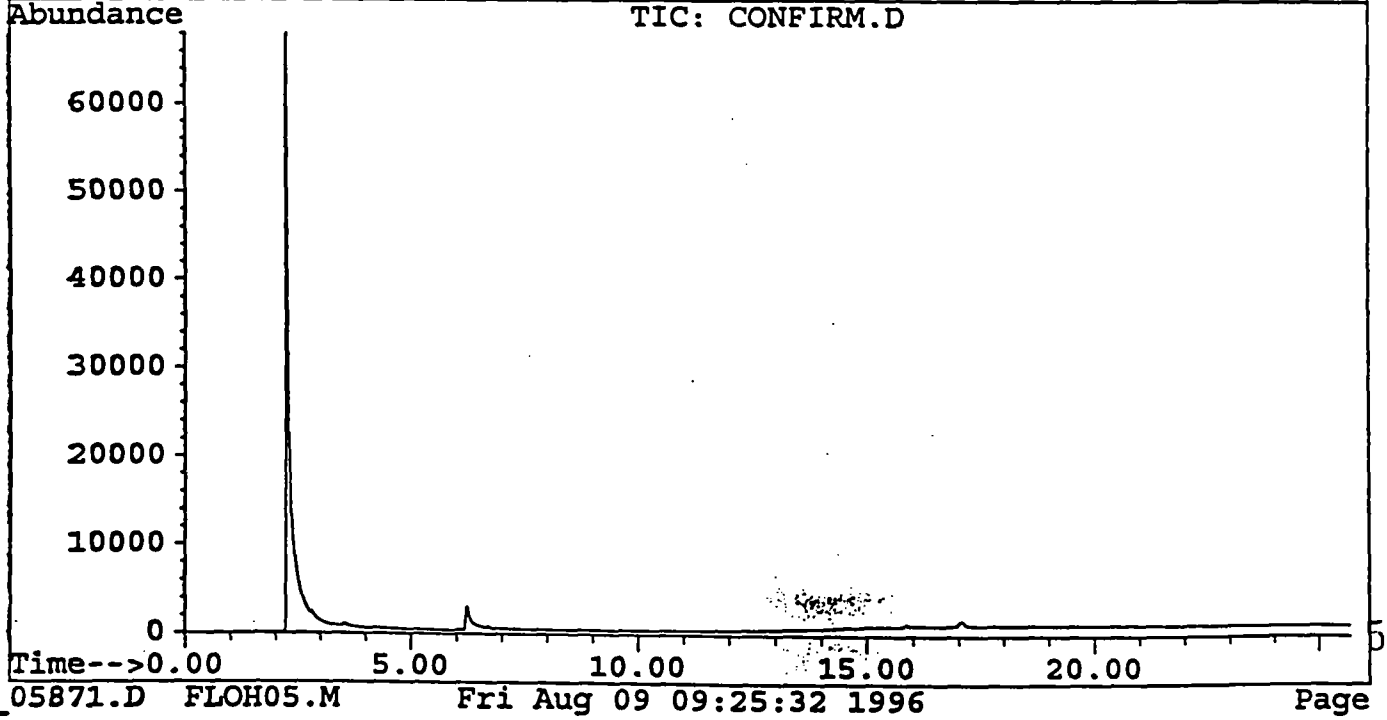
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

Signal #1 : H:\HPCHEM\HP\14\DATA\08_08_96\14_05871.D Vial: 2
Signal #2 : H:\HPCHEM\HP\14\DATA\08_08_96\14_05871.D\CONFIRM.D
Acq On : 08 Aug 96 18:34 Operator: VLH
Sample : 2,4,5-TCP Inst : HP_14
Misc : 5-213-16 Multiplr: 0.0010
Quant Time: Aug 9 9:25 1996

Method : H:\HPCHEM\HP\14\METHODS\FLOH05.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Fri Aug 09 09:24:50 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-17 Signal #2 Phase: DB-1701
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_14A Signal #2 Inst : HP_14B





553

Signal #1 : H:\HPCHEM\HP\14\DATA\08_05_96\14_05813.D Vial: 17
Signal #2 : H:\HPCHEM\HP\14\DATA\08_05_96\14_05813.D\CONFIRM.D
Acq On : 06 Aug 96 04:29 Operator: VLH
Sample : INDAM14B Inst : HP_14
Misc : 5-159-1614B Multiplr: 0.0010
Quant Time: Aug 6 8:12 1996

Method : H:\HPCHEM\HP\14\METHODS\FLOH05.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Fri Aug 09 09:24:50 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-17 Signal #2 Phase: DB-1701
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_14A Signal #2 Inst : HP_14B

	Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
	Surrogate Compounds						
1)	a TCX	7.87	7.32	235870	334963	0.0239	0.0257
				Recovery	=	119.50%	128.50%
22)	B DCB	22.38	19.36	526339	692657	0.0482	0.0480
				Recovery	=	241.00%	240.00%
	Target Compounds						
2)	S alpha-BHC	9.42	9.16	258741	354043	0.0262	0.0271
3)	AE gamma-BHC (Lindane	10.26	9.96	253772	351563	0.0259	0.0247
	MA Heptachlor	10.95	10.37	221760	368345	0.0249	0.0249
	MA Aldrin	0.00	0.00	0	0	N.D.	N.D.
	MB beta-BHC	0.00	0.00	0	0	N.D.	N.D.
7)	BE delta-BHC	0.00	0.00	0	0	N.D.	N.D.
8)	B Heptachlor Epoxide	0.00	0.00	0	0	N.D.	N.D.
9)	B Endosulfan I	13.47	12.71	208000	295874	0.0267	0.0273
10)	A gamma-Chlordane	0.00	0.00	0	0	N.D.	N.D.d
11)	B alpha-Chlordane	0.00	0.00	0	0	N.D.	N.D.
12)	B 4,4'-DDE	0.00	0.00	0	0	N.D.	N.D.
13)	B Dieldrin	14.07	13.38	431665	627370	0.0518	0.0521
14)	MA Endrin	14.79	13.77	306379	477004	0.0555	0.0552
15)	MA Endosulfan II	0.00	0.00	0	0	N.D.	N.D.
16)	B 4,4'-DDD	14.92	14.43	332054	486094	0.0527	0.0527
17)	A 4,4'-DDT	15.53	14.74	304985	462223	0.0544	0.0525
18)	B Endrin Aldehyde	0.00	0.00	0	0	N.D.d	N.D.d
19)	B Endosulfan Sulfate	0.00	0.00	0	0	N.D.	N.D.
20)	B Methoxychlor	17.60	15.89	840530	1287456	0.2577	0.2503
21)	B Endrin Ketone	0.00	0.00	0	0	N.D.d	N.D.d

COPY

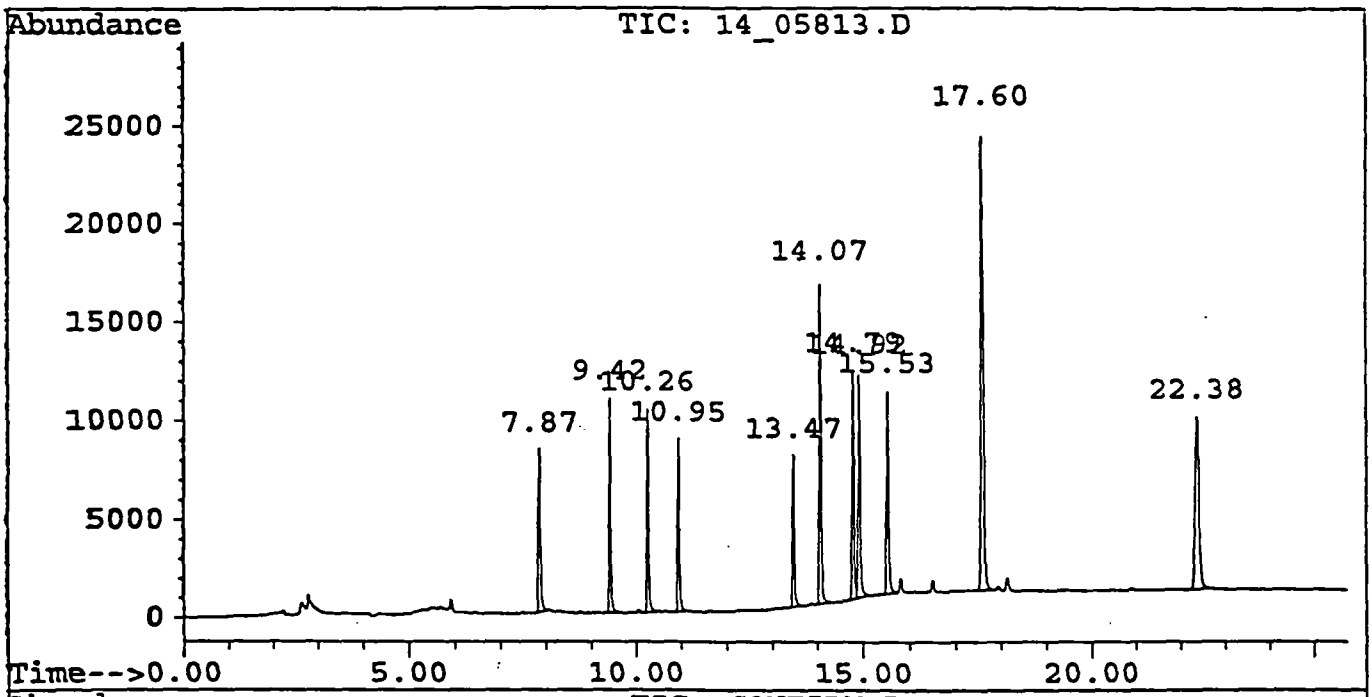
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 24913 SDG AMF88
Signature Freda M. Williams
Date 8/15/96

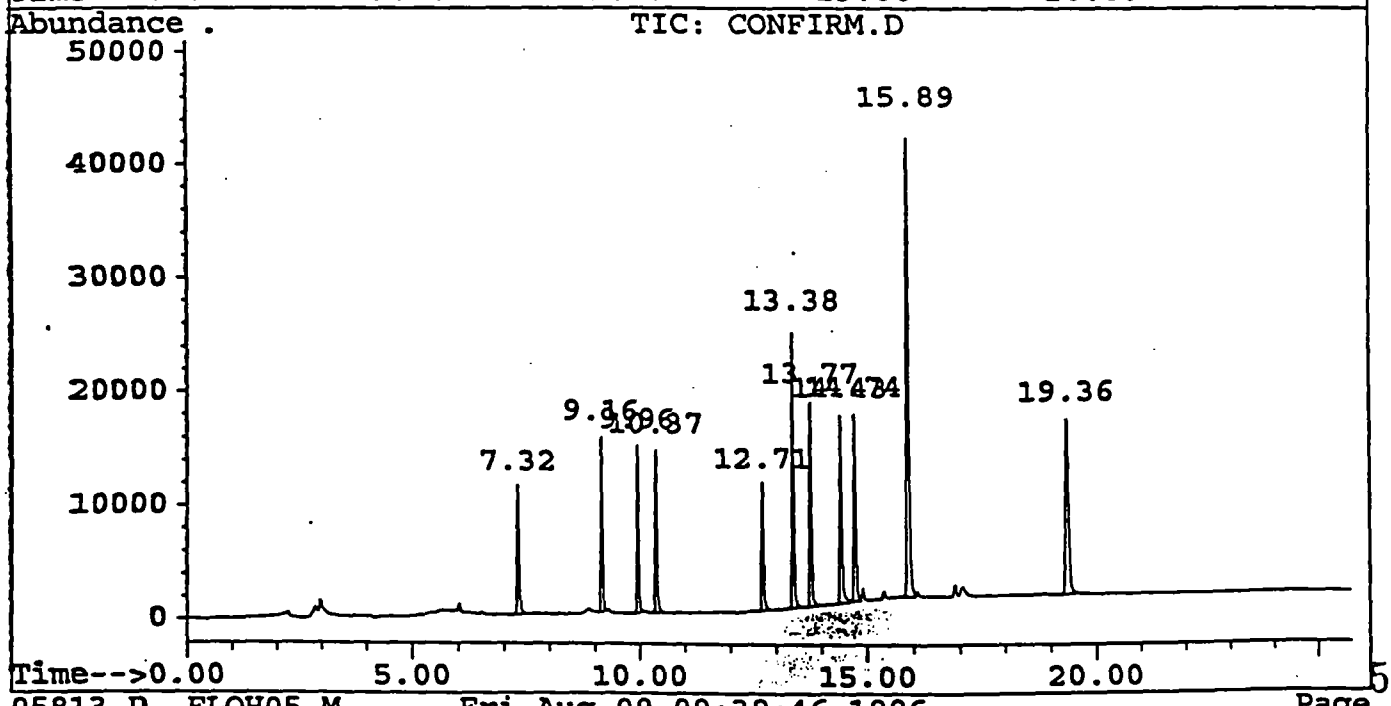
(*)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

Signal #1 : H:\HPCHEM\HP\14\DATA\08_05_96\14_05813.D Vial: 17
Signal #2 : H:\HPCHEM\HP\14\DATA\08_05_96\14_05813.D\CONFIRM.D
Acq On : 06 Aug 96 04:29 Operator: VLH
Sample : INDAM14B Inst : HP_14
Misc : 5-159-1614B Multiplr: 0.0010
Quant Time: Aug 6 8:12 1996

Method : H:\HPCHEM\HP\14\METHODS\FLOH05.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Fri Aug 09 09:24:50 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-17 Signal #2 Phase: DB-1701
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_14A Signal #2 Inst : HP_14B





555

Quantification Report

Signal #1 : H:\HPCHEM\HP\14\DATA\08_05_96\14_05814.D Vial: 18
Signal #2 : H:\HPCHEM\HP\14\DATA\08_05_96\14_05814.D\CONFIRM.D
Acq On : 06 Aug 96 05:00 Operator: VLH
Sample : INDBM14B Inst : HP_14
Misc : 5-162-1614B Multiplr: 0.0010
Quant Time: Aug 6 8:16 1996

Method : H:\HPCHEM\HP\14\METHODS\FLOH05.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Fri Aug 09 09:24:50 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-17 Signal #2 Phase: DB-1701
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_14A Signal #2 Inst : HP_14B

		Compound	RT#1	RT#2	Resp#1	Resp#2	ngonCol	ngonCol
		Surrogate Compounds						
1)	a	TCX	7.86	7.31	232902	327754	0.0197	0.0196
					Recovery	=	98.50%	98.00%
22)	B	DCB	22.39	19.36	527672	694700	0.0401	0.0401
					Recovery	=	200.50%	200.50%
		Target Compounds						
2)	S	alpha-BHC	0.00	0.00	0	0	N.D.	N.D.
3)	AE	gamma-BHC (Lindane	0.00	0.00	0	0	N.D.	N.D.
	MA	Heptachlor	0.00	0.00	0	0	N.D.	N.D.
	MA	Aldrin	11.64	10.89	223667	321318	0.0200	0.0200
6)	MB	beta-BHC	10.41	11.34	144296	199418	0.0200	0.0200
7)	BE	delta-BHC	11.18	11.80	217682	300105	0.0200	0.0200
8)	B	Heptachlor Epoxide	12.76	12.20	215119	306704	0.0200	0.0200
9)	B	Endosulfan I	0.00	0.00	0	0	N.D.	N.D.d
10)	A	gamma-Chlordane	13.08	12.78	220462	311141	0.0200	0.0200
11)	B	alpha-Chlordane	13.40	12.92	231052	327619	0.0200	0.0200
12)	B	4,4'-DDE	13.85	13.03	386941	572621	0.0400	0.0400
13)	B	Dieldrin	0.00	0.00	0	0	N.D.	N.D.
14)	MA	Endrin	0.00	0.00	0	0	N.D.	N.D.
15)	MA	Endosulfan II	15.13	14.61	375443	532569	0.0400	0.0400
16)	B	4,4'-DDD	0.00	0.00	0	0	N.D.	N.D.
17)	A	4,4'-DDT	0.00	0.00	0	0	N.D.	N.D.
18)	MA	Endrin Aldehyde	15.81	15.37	306781	409333	0.0400	0.0400
19)	B	Endosulfan Sulfate	16.08	16.00	365566	466861	0.0400	0.0400
20)	B	Methoxychlor	0.00	0.00	0	0	N.D.	N.D.
21)	AE	Endrin Ketone	18.15	16.90	462944	576646	0.0400	0.0400

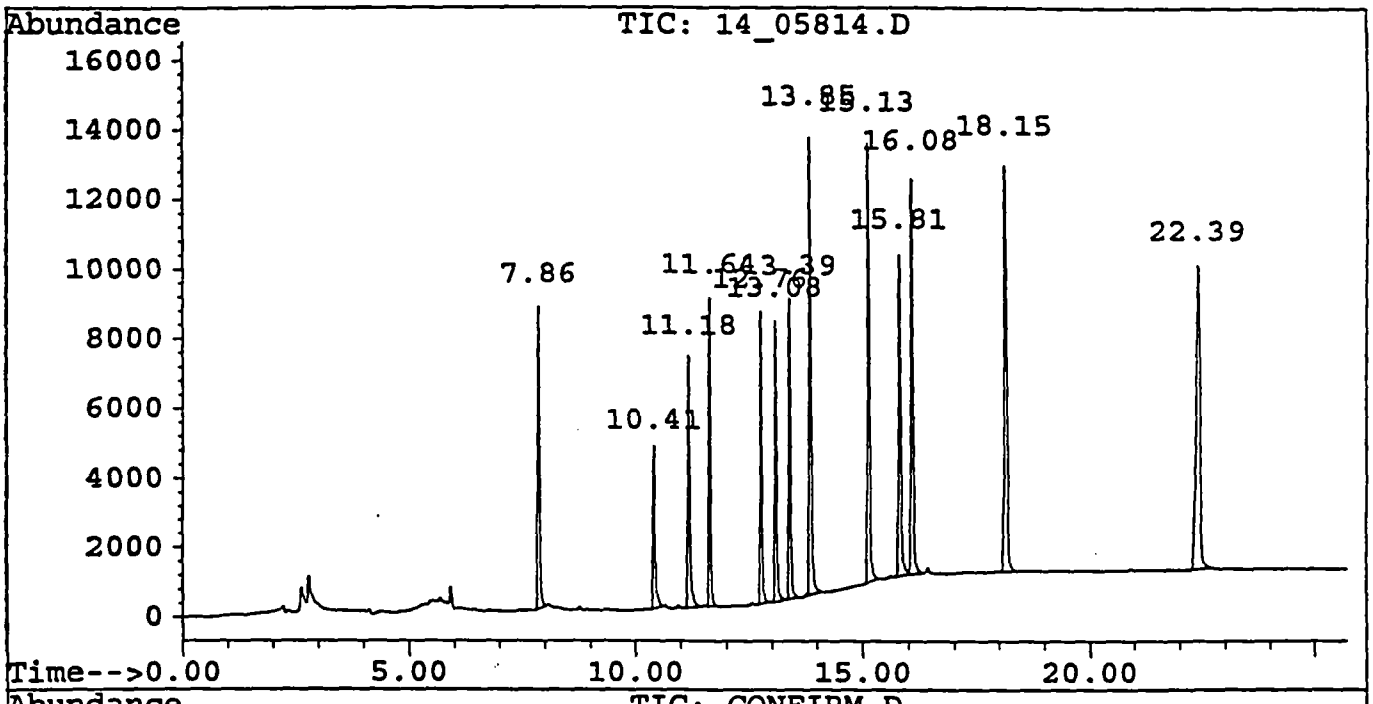
COPY
ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 24913 SDG AMF88
Signature Imelda M. Williams
Date 8/15/96

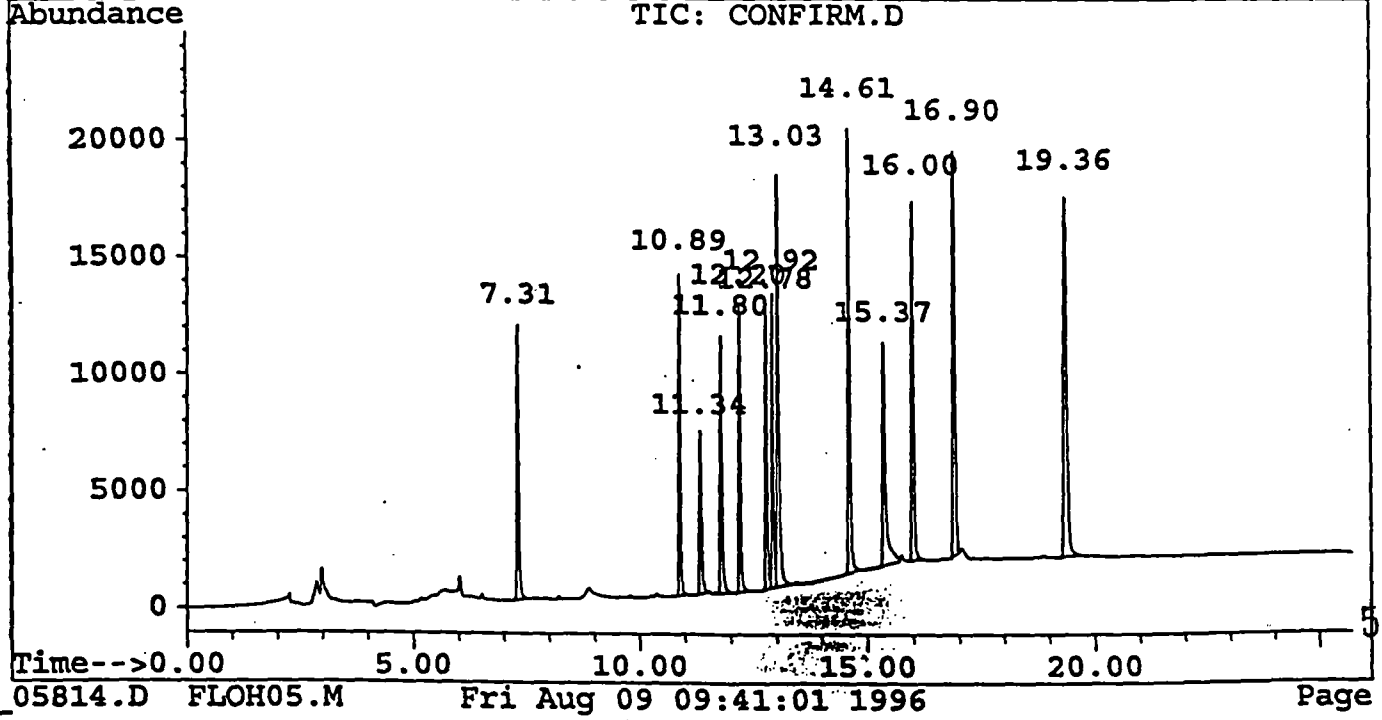
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
(E)= > Highest calibration standard (d)=compound deleted

Signal #1 : H:\HPCHEM\HP\14\DATA\08_05_96\14_05814.D Vial: 18
Signal #2 : H:\HPCHEM\HP\14\DATA\08_05_96\14_05814.D\CONFIRM.D
Acq On : 06 Aug 96 05:00 Operator: VLH
Sample : INDBM14B Inst : HP_14
Misc : 5-162-1614B Multiplr: 0.0010
Quant Time: Aug 6 8:16 1996

Method : H:\HPCHEM\HP\14\METHODS\FLOH05.M
Title : OLM3.0 CLP Pesticide/PCB
Last Update : Fri Aug 09 09:24:50 1996
Response via : Single Level Calibration

Volume Inj. : 1uL
Signal #1 Phase : DB-17 Signal #2 Phase: DB-1701
Signal #1 Info : 0.32mm Signal #2 Info : 0.32mm
Signal #1 Inst : HP_14A Signal #2 Inst : HP_14B





557

VOLATILES GC/MS RUN LOG

VOLATILES GC/MS DEPARTMENT

SWOK / AATS

MS Std. # 2-090-10
IS Std.# 2-060-11
Surr Std. # 2-071-11

TUNE FILE ID: BFB2
INSTRUMENT: C
CB/ID FILE ID: BFB/OLM3Soil

METHOD FILES BFB/VOA-NEW
DATE 9/25/96
ARCHIVE TAPE #:

Time	File	SWOK/AATS Sample ID	Client ID	Vol.	IS Area	Surr. Rec.	Lin. Chk.	Comments	ALS POS	OK/ RR
9:12	C22086	2-008-11	BFB	1µL	–	–	–	P	–	✓
925	C22087	2-115-10	VSTD050C6	5ml					17	✓
953	C22088	2-115-10	VSTD020C6	5ml					17	✓
1018	C22089	2-115-10	VSTD010C6	5ml					17	✓
1044	C22090	2-115-10	VSTD100C6	5ml					17	✓
1110	C22091	2-115-10	VSTD200C6	5ml					17	
1149	C22092	2-115-10	VSTD200C6	5ml					17	✓
1244	C22093	C960925A	VBLK	5ml	✓	✓	✓		18	✓
1317	C22094	27003.01	CQM23	5g	✓	✓	✓		20	OK
1343	C22095	27003.02	CQM24	5g	✓	✓	✓		21	OK
1409	C22096	27003.02MS	CQM24MS	5g	✓	✓	✓		22	OK
1434	C22097	27003.02MSD	CQM24MSD	5g	all low	✓	✓		23	OK
1500	C22098	27003.03	CQM25	5g	✓	✓	✓		24	OK
1526	C22099	27003.04	CQM26	5g	✓	✓	✓		25	OK
1552	C22100	27003.05	CQM27	5g	✓	✓	✓		26	OK
1618	C22101	27003.06	CQM28	5g	✓	✓	✓		27	OK
1643	C22102	27003.07	CQM29	5g	✓	✓	✓		28	OK
1710	C22103	27003.08	CQM30	5g	✓	✓	✓		29	OK
1735	C22104	27003.09	CQM31	5g	#3 low	✓	✓		30	RR
1801	C22105	27003.10	CQM32	5g	all low	✓	✓		31	RR
1827	C22106	27003.11	CQM33	5g	#3 low	✓	✓		32	RR

558

Rebecca L Lee
Analyst Signature

VOLATILES GC/MS RUN LOG

VOLATILES GC/MS DEPARTMENT

SWOK / AATS ™

MS Std. # 2-078-11
IS Std.# 2-093-11
Surr Std. # 2-110-11

TUNE FILE ID: BFB2
METHOD FILES BFBNEW, CRYONEW
INSTRUMENT: C
DATE 11/20/96
CB/ID FILE ID: BFB-NEW, OLM3SOIL
ARCHIVE TAPE #:

Time	File	SWOK/AATS Sample ID	Client ID	Vol.	IS Area	Surr. Rec.	Lin. Chk.	Comments	ALS POS	OK/RR
0915	C22740	2-114-11	BFB	1ul						✓
1021	C22741	2-077-11	VSTD050CM	5ml					17	✓
1112	C22742	C961121A	VBLK	5ml	✓	✓	✓		18	✓
1316	C22743	27683.08	FFG18	5g	✓	✓	✓		20	OK
1342	C22744	27683.09	FFG21	5g	#1 hi	✓			21	OK
1409	C22745	27683.10	FFG24	5g	✓	✓	✓		22	OK
1441	C22746	27670.07	FFG14	5g	✓	✓	✓		23	OK
1507	C22747	27670.10	FFG22	5g	#3 low	✓	✓	See C22724	24	OK
1544	C22748	27670.11	FFG23	5g	✓	✓	✓		25	OK
1611	C22749	27682.03	DMA45	5g	#3 low	✓	✓	See C22763	26	OK
1638	C22750	27682.05	DMA47	5g	#1,3 low	✓	✓	See C22728	27	OK
1704	C22751	27682.06	DMA48	5g	✓	✓	✓		28	OK
1731	C22752	27683.01	FFG06	5g	✓	✓	✓		29	OK
1757	C22753	27683.03	FFG10	5g	✓	✓	✓		30	OK
1824	C22754	27683.04	FFG11	5g	#3 low	✓	✓	See C22733	31	OK
1850	C22755	27683.05	FFG12	5g	#3 low	✓	✓		32	RR
1917	C22756	27683.05	FFG12	5g	✓	✓	✓		3	OK
								559		

Linda Godwold 100
Analyst Signature

VOLATILES GC/MS RUN LOG

VOLATILES GC/MS DEPARTMENT

SWOK / AATS

TM

MS Std. # 2-078-11
IS Std.# 2-093-11
Surr Std. # 2-110-11

TUNE FILE ID: BFB2
METHOD FILES BFB-NEW, CRYONEW
INSTRUMENT: C
DATE ~~11/21/96~~ b.b. RD 11/22/96
CB/ID FILE ID: BFB-NEW, OLM3S01L
ARCHIVE TAPE #:

Time	File	SWOK/AATS Sample ID	Client ID	Vol.	IS Area	Surr. Rec.	Lin. Chk.	Comments	ALS POS	OK/ RR
0924	C22758	2-114-11	BFB	1ul						✓
1005	C22759	2-077-11	VSTD050CN	5ml					17	✓
1109	C22760	C961122A	VBLK	5ml	✓	✓	✓		18	✓
1143	C22761	27670.01MS	FFG02MS	5g	✓	✓	✓		20	OK
1224	C22762	27670.01MSD	FFG02MSD	5g	✓	✓	✓		21	OK
1250	C22763	27682.03MS	DMA45MS	5g	#3 low	✓	✓		22	OK
1316	C22764	27682.03MSD	DMA45MSD	5g	#3 low	✓	✓		23	OK
1341	C22765	27683.10MS	FFG24MS	5g	✓	#2 low	✓		24	OK
1407	C22766	27683.10MSD	FFG24MSD	5g	✓	#2 low	✓		25	OK
1435	C22767	27626.06	EXX23	5g	X	X	X	bad purge	26	RR
1511	C22768	27683.06	FFG13	5g	#1,3 low	✓	✓		27	RR
1549	C22769	27683.06	FFG13	5g	#1,3 low	✓	✓	see C22768	28	OK
1614	C22770	27683.07	FFG17	5g	✓	✓	✓		29	OK
1640	C22771	27683.07	FFG17	5g				not needed	30	/
1706	C22772	27683.09	FFG21	5g	#3 low	✓	✓		31	RR
1758	C22773	27683.09	FFG21	5g	X	X	X	bad purge	32	/
2037	C22774	27626.06	EXX23	5g	low	#3 low	-	see L23485	28	OK
									560	

Linda Godbold 101
Analyst Signature

C.b

VOLATILES GC/MS RUN LOG

VOLATILES GC/MS DEPARTMENT

SWOK / AATS

MS Std. # 2-078-11
IS Std.# 2-060-11
Surr Std. # 2-071-11

TUNE FILE ID: BFB
METHOD FILES BFBL, CR40L
INSTRUMENT: L
DATE 10/07/96
CB/ID FILE ID: BFB-NELL, OLM3SOIL, OLM3WAT, OLM3SALL, OLM3WALL
ARCHIVE TAPE #:

Time	File	SWOK/AATS Sample ID	Client ID	Vol.	IS Area	Surr. Rec.	Lin. Chk.	Comments	ALS POS	OK/RR
1713	L23015	2-076-11	BFB	1ul						✓
1731	L23016	2-077-11	VSTD050L5	5ml				water I-cal	17	✓
1806	L23017	2-077-11	VSTD010L5	5ml					18	✓
1831	L23018	2-077-11	VSTD020L5	5ml					19	✓
1857	L23019	2-077-11	VSTD100L5	5ml					20	✓
1922	L23020	2-077-11	VSTD200L5	5ml					21	✓
	L23021	2-077-11	VSTD200L6	5ml				soil I-cal	25	✓
	L23022	2-077-11	VSTD100L6	5ml					26 ~~24~~	✓
	L23023	2-077-11	VSTD050L6	5ml					28 ~~25~~	✓
	L23024	2-077-11	VSTD020L6	5ml					28 ~~26~~	✓
	L23025	2-077-11	VSTD010L6	5ml					29 ~~27~~	✓
	L23026	2-077-11	VSTD010L6	5ml				dont need	30 ~~28~~	
	L23027	2-077-11	VSTD020L6	5ml					31 ~~29~~	
	L23028	2-077-11	VSTD050L6	5ml					32 ~~30~~	
	L23029	2-077-11	VSTD100L6	5ml					~~31~~	
	L23030	2-077-11	VSTD200L6	5ml					33 ~~32~~	

Linda Godbold
Analyst Signature

561 03

VOLATILES GC/MS RUN LOG

VOLATILES GC/MS DEPARTMENT

SWOK / AATS

TM

MS Std. # 2-078-11
IS Std.# 2-093-11
Surr Std. # 2-110-11

TUNE FILE ID: BFB
METHOD FILES BFBL/CRYOL
INSTRUMENT: L
DATE 11/26/96
CB/ID FILE ID: BFB-NEW/OLM3WAT
ARCHIVE TAPE #:

Time	File	SWOK/AATS Sample ID	Client ID	Vol.	IS Area	Surr. Rec.	Lin. Chk.	Comments	ALS POS	OK/RR
0908	L23523	2-114-11	BFB	1uL						✓
0924	L23524	2-077-11	VSTD050LA	5mL					17	✓
1007	L23525	DBJ 11/26/96 L961126A	VBLK	5mL	✓	✓	✓		23	✓
1040	L23526	27752.01	FEX63	5mL	✓	✓	✓		1	OK
1105	L23527	27752.05	FEX67	5mL	✓	✓	✓		2	OK
1130	L23528	27752.06	FEX68	5mL	✓	✓	✓		3	OK
1155	L23529	27721.03 DL	DMA55 DL	1mL	✓	✓	✓		4	OK
1220	L23530	27752.02	FEX64	500uL	✓	✓	✓		5	OK
1244	L23531	27752.03	FEX65	500uL	✓	✓	✓		6	OK
1309	L23532	DBJ 11/26/96 27752.04	FEX66	100uL	✓	dB hi	X	Chlorobenz.=320 Run 50uL	7	RR
1407	L23533	VIBLK	VIBLK	5mL	✓	✓	✓		7	OK
1441	L23534	27752.04 DL	FEX66 DL	50uL	✓	✓	✓		7	OK
1518	L23535	27721.04 (PE)	DMA42	(5mL) 10uL	✓	✓	✓		1	OK
1631	L23536	Blank	VHBLK	5mL	✓	✓	✓		2	✓
1656	L23537	Case #25159 FFG02	VHBLK	5mL	✓	✓	✓		3	OK
1721	L23538	Blank	VHBLK	5mL					4	✓
1746	L23539	Blank	VHBLK	5mL					5	✓
1811	L23540	Case #25159 FFG24	VHBLK	5mL	✓	✓	✓		6	OK
1836	L23541	Case #25127 EYD80	VHBLK	5mL	✓	✓	✓		7	OK
1901	L23542	Case #25144 EXX18	VHBLK	5mL	✓	✓	✓		8	OK
									562	

Ginar Jackson
Analyst Signature

34 9/1

SEMIVOLATILE GC/MS RUN LOG

SEMIVOLATILES GC/MS DEPARTMENT

SWOK / AATS

BOOK 12 PAGE 115

CLIENT: AATS-E

DATE (mo/day/yr): 121696

EPISODE: 27888

INST. ID (A,B,C, etc.): M

SDG: 25196

COLUMN ID: XTI-5

MS CODE: MS517

TUNE FILE ID: TUNEM

MATRIX: H_2O

EMV: 1800

ANALYSIS METHODS: DETPPMNP, BNM350

INT. STD.: 1-108-12

TARGET PROCESSING METHODS: DETPP350.M, BNAS17EPA.M

TIME LIMIT: 2148, ~~0322~~ 0312 AW 121796

TARGET BATCH: Chem/M.il MS61216a.b, MS61216b.b

TIME	INIT	CLIENT SAMPLE ID	LAB ID	FILE ID	SAMPLE AMOUNT wt	SAMPLE AMOUNT vol	SAMPLE AMOUNT inj	DIL. FACT.	AUTO INJ POS	RUN NO
0548	AW	DETPP	1-111-12	M3884			2uL			1
1003		SS70050MW	1-106-12	M3885						2
1041		SS70160 MW		M3886						3
1116		SS70020 MW		M3887						4
1146		SS70120 MW		M3888						5
1216		SS70080 MW	1-106-12	M3889						6
1310		DETPP	1-111-12	M3890						7
1327		DETPP	1-111-12	M3891						8
1512 ~~1522~~		DETPP	1-111-12	M3892						9
1526		SS70050MX	1-106-12	M3893						10
1556		EBAHS	27888.09	M3894	1000mL	1mL		2X		11
1625		CLJ01	27886.01	M3895						12
1655		CLJ05	27886.02	M3896						13
1724		CLJ10	27886.03	M3897						14
1753	AW	CLJ11	27886.05	M3898	1000mL	1mL	2uL			15

AW 121796

Anne E. Wade
Analyst Signature

SEMIVOLATILE GC/MS RUN LOG

SEMIVOLATILES GC/MS DEPARTMENT

SWOK / AATS

BOOK 12 PAGE 119

(Check appropriate box. All major maintenance should be recorded in maintenance logbook.)

ROUTINE MAINTENANCE: ☐ MAJOR MAINTENANCE: ☐ in Book_____Page_____.

DATE: _____ TIME: _____

COMMENTS: _____

INTERNAL STANDARD AREAS

Cpd.	IS #1	IS #2	IS #3	IS #4	IS #5	IS #6	Int Stds. OK	Surrs. OK	COMMENT
Std. RT	2.722	4.241	7.710	10.195	14.203	16.256			M 3894.d
NO.	m/z=	m/z=	m/z=	m/z=	m/z=	m/z=			
1									Pass
2	265322	859014	589211	1078826	1156553	1163516			
3	201765	721405	520840	934626	962303	960951			N.P. ICAL Good
4	231249	845772	548802	988744	916148	844192			
5	232000	915449	570330	975613	922759	905536			
6	254479	884439	542802	872458	809829	862609			
7									Fail
8									Not Used
9									Pass
10	289806	914197	623315	1136287	1079206	1084587			Pass
11							✓	✓	✓
12							✓	IL	✓ (Advisory Surr. Low)
13							✓	IL	✓ (Advisory Surr. Low)
14							✓	✓	✓
15							✓	1 Acid 1 BN Low	✓ (1 Advisory Surr. Low)

Added Surr. Results (ATTACHED) - 12/1/95

564

Ann E. Wade
Analyst Signature

SEMIVOLATILE GC/MS RUN LOG

SEMIVOLATILES GC/MS DEPARTMENT

SWOK / AATS

BOOK 12 PAGE 120

CLIENT: EPA AATS-E EPA

EPISODE: 27886 27683-RE 27791

SDG: 25191 25165 25176

MS CODE: MS517 MS517 MS517

MATRIX: H2O SOIL SOIL

ANALYSIS METHODS: BNM350

TARGET PROCESSING METHODS: BNA517EPA.M

TARGET BATCH: Chem/M.i/ M961216b.b

DATE (mo/day/yr): 121696

INST. ID (A,B,C, etc.): M

COLUMN ID: XTI-5

TUNE FILE ID: TUNEM

EMV: 1800

INT. STD.: 1-108-12

TIME LIMIT: ~~0322~~ 0312 Au 121796

TIME	INIT	CLIENT SAMPLE ID	LAB ID	FILE ID	SAMPLE AMOUNT wt	vol	inj	DIL. FACT.	AUTO INJ POS	RUN NO
1822	Aw	CLJ15	27886.07	M3899	1000mL	1mL	2mL		6	1
1852		CLJ27	27886.10	M3900	1000mL	1mL			7	2
1921		SBLK (27707 RE)	BL12113B	M3901	30g	0.5mL			8	3
1953		SBLK (27683 RE)	BL12115A	M3902					9	4
2024		GPC BLK (RE)	G121496A	M3903					10	5
2053		FFG06 (RE)	27683.01	M3904					11	6
2123		FFG24 (RE)	27683.10	M3905					12	7
2153		FFG24MS (RE)	MS 27683.10	M3906					13	8
2222		FEX72 (RE)	27707.04	M3907					14	9
2251		EBLT7	27791.06	M3908				2X	15	10
2321		EBLT9	27791.08	M3909				4X	16	11
2350		SBLK (27852)	BL11075D	M3910	30g	0.5mL			17	12
0020		GPC BLK	G121196A	M3911					18	13
0050		EBJE0	27852.01	M3912					19	14
0120	Aw	EBJE1	27852.02	M3913	30g	0.5mL	2mL		20	15

565

Ann E. Wade
Analyst Signature

SEMIVOLATILE GC/MS RUN LOG

SEMIVOLATILES GC/MS DEPARTMENT

SWOK / ~~AATS~~

BOOK 12 PAGE 120

TM

(Check appropriate box. All major maintenance should be recorded in maintenance logbook.)

ROUTINE MAINTENANCE: ☐ MAJOR MAINTENANCE: ☐ in Book_____Page_____.

DATE: _____ TIME: _____

COMMENTS: _____

INTERNAL STANDARD AREAS

Cpd.	IS #1	IS #2	IS #3	IS #4	IS #5	IS #6	Int Stds. OK	Surrs. OK	COMMENT
Std. RT									
NO.	m/z=	m/z=	m/z=	m/z=	m/z=	m/z=			
1							✓	1L	✓ (Advisory Surr low)
2							✓	✓	✓
3							✓	✓	✓
4							✓	✓	✓
5							✓	—	✓
6							✓	7 Low	Reext Again (Original 3 High)
7							✓	✓	✓
8							✓	✓	✓
9							✓	✓	✓
10							✓	✓	✓
11							✓	✓	Rerun @ 5X
12							✓	✓	✓
13							✓	—	✓
14							✓	✓	✓
15							✓	✓	✓

Int Std / Surr Reports with case - [illegible]

566

Ann E. Wade

Analyst Signature

SEMIVOLATILE GC/MS RUN LOG

SEMIVOLATILES GC/MS DEPARTMENT

SWOK / AATS

BOOK 11 PAGE 144

CLIENT: EPA AATS-E

DATE (mo/day/yr): 120896

EPISODE: 27682 27683

INST. ID (A,B,C, etc.): P

SDG: 25162 25159

COLUMN ID: XTI-5

MS CODE: MS517 MS517

TUNE FILE ID: TUNEP

MATRIX: SOIL SOIL

EMV: 2400

ANALYSIS METHODS: DFTPPNP, BNP390

INT. STD.: 1-108-12

TARGET PROCESSING METHODS: DFTPP390.M, BNA517EPA.M

TIME LIMIT: 0334

TARGET BATCH: Chem/ P.il P9612080.b

TIME	INIT	CLIENT SAMPLE ID	LAB ID	FILE ID	SAMPLE AMOUNT wt	vol	inj	DIL. FACT.	AUTO INJ POS	RUN NO
1534	Am	DFTPP	1-111-12	P10241			2uL			1
1549		SSTD050PK	1-106-12	P10242						2
1630		SSTD100PK		P10243						3
1712		SSTD020PK		P10244						4
1749		SSTD120PK		P10245						5
1825		SSTD080PK	1-106-12	P10246						6
1910		SBLK (27683)	BL112058A	P10248	30g	0.5mL				7
1946		GPC BLK (27683)	G112496A	P10249						8
2023		DMA46	27682.04	P10250						9
2059		DMA48	27682.06	P10251						10
2136		DMA45	27682.03	P10252				5X		11
2212		FFG10	27683.03	P10253						12
2249		FFG11	27683.04	P10254						13
2325		FFG12	27683.05	P10255						14
0002	Am	FFG13	27683.06	P10256	30g	0.5mL	2uL			15

9 Corr. AC 120896

567

Analyst Signature

SEMIVOLATILE GC/MS RUN LOG

SEMIVOLATILES GC/MS DEPARTMENT

SWOK / AATS

BOOK 11 PAGE 144

(Check appropriate box. All major maintenance should be recorded in maintenance logbook.)

ROUTINE MAINTENANCE: ☑ MAJOR MAINTENANCE: ☐ in Book_____ Page_____.

DATE: 120896 TIME: _____

COMMENTS: CHANGED INS. POLY LINER, SEPTA, SEAL, O-RING, FERRULE, CLIPPED 3 1/2" OFF COLUMN.

INTERNAL STANDARD AREAS

Cpd.	IS #1	IS #2	IS #3	IS #4	IS #5	IS #6	Int Stds. OK	Surrs. OK	COMMENT
Std. RT	6.050	7.846	10.504	13.541	18.165	20.473			P 10242.d
NO.	m/z=	m/z=	m/z=	m/z=	m/z=	m/z=			
1									PASS
2	324346	1053367	625778	1110503	818704	753555			
3	304883	910785	613530	1084778	841848	759035			N.P. INITIAL
4	307604	880214	610237	1153167	882512	881290			CALIB. GOOD
5	298700	923178	636633	1112088	827812	819066			
6	314088	984228	673846	1204344	952048	915587			
7							✓	✓	✓
8							✓	—	✓
9							✓	✓	✓
10							✓	✓	✓
11							✓	✓	✓
12							✓	✓	✓
13							✓	✓	✓
14							✓	✓	✓
15							✓	✓	✓

Int. Std / Surr. Errors with cass. - AE 120896

Ann E. Rhode
Analyst Signature

568

SEMIVOLATILE GC/MS RUN LOG

SEMIVOLATILES GC/MS DEPARTMENT

SWOK / AATS

BOOK 11 PAGE 145

CLIENT: AATS-E AATS-E

DATE (mo/day/yr): 120896

EPISODE: 27683 27670

INST. ID (A,B,C, etc.): P

SDG: 25759 25759

COLUMN ID: XTI-5

MS CODE: MS517 MS517

TUNE FILE ID: TUNEP

MATRIX: SOIL SOIL

EMV: 2400

ANALYSIS METHODS: BNA350

INT. STD.: 1-108-12

TARGET PROCESSING METHODS: BNA8270PP.M

TIME LIMIT: 0334

TARGET BATCH: Chem/P.i / P961208a.b

TIME	INIT	CLIENT SAMPLE ID	LAB ID	FILE ID	SAMPLE AMOUNT wt	SAMPLE AMOUNT vol	SAMPLE AMOUNT inj	DIL. FACT.	AUTO INJ POS	RUN NO
0038	AW	FFG 24	27683.10	P10257	30g	0.5mL	2uL			1
0114		FFG 24 MS	27683.10 MS	P10258						2
0151		FFG 24 MSD	27683.10 MSD	P10259						3
0228		FFG 23	27670.11	P10260						4
—		BLANK	—	P10261						5
—		FFG09	27683.02	P10262						6
—		FFG17	27683.07	P10263						7
—		FFG18	27683.09	P10264	30g	0.5mL				8
—		BLANK	—	P10247						9
—	AW	BLANKS	P10265	P10275			2uL			10
										11
										12
			AW	120896						13
										14
										15

569

Ann E. Wade
Analyst Signature

SEMIVOLATILE GC/MS RUN LOG

SEMIVOLATILES GC/MS DEPARTMENT

SWOK / AATS

BOOK 11 PAGE 145

TM

(Check appropriate box. All major maintenance should be recorded in maintenance logbook.)

ROUTINE MAINTENANCE: ☐ MAJOR MAINTENANCE: ☐ in Book_____ Page_____.

DATE: _____ TIME: _____

COMMENTS: _____

INTERNAL STANDARD AREAS

Cpd.	IS #1	IS #2	IS #3	IS #4	IS #5	IS #6	Int Stds. OK	Surrs. OK	COMMENT
Std. RT									
NO.	m/z=	m/z=	m/z=	m/z=	m/z=	m/z=			
1							✓	✓	HAS ALL SPIKE CMPDS
2							✓	✓	ALL SPIKE CMPDS LOW
3							✓	✓	✓
4							2L	1H	✓ 2ND RUN
5									—
6									DID NOT RUN - INJ. ERROR
7									DID NOT RUN "
8									DID NOT RUN "
9									—
10									—
11									
12									
13									
14									
15									

Int. Std / Surr. Reports with cases - AC 120856

AC 120856

Ann E. Wade

Analyst Signature

570

PESTICIDE/PCB GC RUN LOG

SWOK/AATS

INSTRUMENT : HP_16

CASE NO.: 25159

INJ. VOL : .5 uL

SDG NO. :

METHOD FILE : PEST-02

DATE/TIME	COL. 1 / COL. 2 CLIENT ID	SAMPLE ID	FILE	COMMENT
12/01/96 22:17	RESC16D	5-236-1616D	16_02005	✓ OK
12/01/96 22:47	PEM16K	5-312-1616K	16_02006	
12/01/96 23:17	AR166016D	5-267-1616D	16_02007	
12/01/96 23:47	AR122116D	5-268-1616D	16_02008	
12/02/96 00:17	AR123216D	5-269-1616D	16_02009	
12/02/96 00:47	AR124216D	5-270-1616D	16_02010	
12/02/96 01:17	AR124816D	5-313-1616D	16_02011	
12/02/96 01:47	AR125416D	5-271-1616D	16_02012	
12/02/96 02:17	TOXAPH16D	5-251-1616D	16_02013	
12/02/96 02:47	INDAL16D	5-262-1616D	16_02014	
12/02/96 03:16	INDBL16D	5-265-1616D	16_02015	
12/02/96 03:46	INDAM16K	5-261-1616K	16_02016	
12/02/96 04:16	INDBM16K	5-264-1616K	16_02017	
12/02/96 04:46	INDAH16D	5-260-1616D	16_02018	
12/02/96 05:16	INDBH16D	5-263-1616D	16_02019	
12/02/96 05:46	PIBLK16P	5-266-1616P	16_02020	
12/02/96 06:16	PEM16L	5-312-1616L	16_02021	✓
12/02/96 06:46	SB112596A	SB112596A	16_02022	O
12/02/96 07:16	PLBKS	BL1120SB	16_02023	✓

Unless noted, Client id is the same for both columns

Verification Signature

Analyst Signature

12-04-96

Date

12/4/96

Date

Book: HP_16 Page: 49

PESTICIDE/PCB GC RUN LOG

SWOK/AATS

INSTRUMENT : HP_16

CASE NO.: 25159

INJ. VOL : .5 uL

SDG NO. :

METHOD FILE : PEST102

DATE/TIME	COL. 1 / COL. 2 CLIENT ID	SAMPLE ID	FILE	COMMENT
12/02/96 07:46	PLBKS	BB1120SB	16_02024	O OK
12/02/96 08:16	FF606	27683.01	16_02025	O
12/02/96 08:46	FF609	27683.02	16_02026	O
12/02/96 09:16	FF610	27683.03	16_02027	O
12/02/96 09:46	FF611	27683.04	16_02028	O
12/02/96 10:16	FF612	27683.05	16_02029	O
12/02/96 10:46	FF613	27683.06	16_02030	O
12/02/96 11:16	FF617	27683.07	16_02031	O
12/02/96 11:46	FF618	27683.08	16_02032	O
12/02/96 12:16	FF621	27683.09	16_02033	O
12/02/96 12:46	FF624	27683.10	16_02034	✓
12/02/96 13:16	FF624 MS	27683.10 MS	16_02035	✓
12/02/96 13:46	FF624 MSD	27683.10 MS	16_02036	✓
12/02/96 14:16	HEXANE	HEXANE	16_02037	NOT USED
12/02/96 14:46	HEXANE	HEXANE	16_02038	
12/02/96 15:16	HEXANE	HEXANE	16_02039	
12/02/96 15:46	PIBLK16Q	5-266-1616Q	16_02040	✓ OK
12/02/96 16:16	INDAM16M	5-261-1616M	16_02041	✓
12/02/96 16:46	INDBM16M	5-264-1616M	16_02042	✓

Unless noted, Client id is the same for both columns

Verification Signature

Analyst Signature

12-04-96

Date

12/4/96

Date

Book: HP_16 Page: 50

Data File: /chem/p.i/p961208a.b/p10257.d
Report Date: 09-Dec-1996 14:54

SWOK/AATS

RECOVERY REPORT

Client Name: AATS-E:25159
Sample Matrix: SOLID
Client ID: FFG24
Data Type: MS DATA
SpikeList File: SoilMsd.spk
Method File: /chem/p.i/p961208a.b/BNA517EPA.m
Misc Info: MS517**INSTP*AATS-E:25159*27683.10*30G/0.5ML/2UL*

Client SDG: p961208a.b
Fraction: SV
Level: LOW
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	2777.77	1335.70	48.09	25-121
$ 2 Phenol-d5	2777.77	1413.01	50.87	24-113
$ 5 2-Chlorophenol-d4	2777.77	1482.56	53.37	20-130
$ 10 1,2-Dichlorobenzen	1851.85	1151.99	62.21	20-130
$ 17 Nitrobenzene-d5	1851.85	1082.46	58.45	23-120
$ 34 2-Fluorobiphenyl	1851.85	1273.99	68.80	30-115
$ 53 2,4,6-Tribromophen	2777.77	2113.23	76.08	19-122
$ 64 Terphenyl-d14	1851.85	1473.15	79.55	18-137

* - Values outside of QC limits
Spike Recovery: 0 out of 8 outside limits
0 out of 8 not found

Data File: /chem/p.i/p961208a.b/p10257.d
Report Date: 09-Dec-1996 14:54

SWOK/AATS

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: p.i
Lab File ID: p10257.d
Lab Sample ID: 27683.10
Analysis Type: SV
Quant Type: ISTD
Method File: /chem/p.i/p961208a.b/BNA517EPA.m
Misc Info: MS517**INSTP*AATS-E:25159*27683.10*30G/0.5ML/2UL*

Calibration Date: 12/08/96
Calibration Time: 1549
Sample Type: SOIL
Level: LOW

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
8 1,4-Dichlorobenzene-	324340	162170	648680	407788	25.73
25 Naphthalene-d8	1053367	526683	2106734	1406926	33.56
40 Acenaphthene-d10	629778	314889	1259556	778195	23.57
57 Phenanthrene-d10	1110503	555251	2221006	1126825	1.47
67 Chrysene-d12	818704	409352	1637408	802075	-2.03
75 Perylene-d12	753555	376777	1507110	621156	-17.57

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
8 1,4-Dichlorobenzene-	5.80	5.30	6.30	5.79	-0.26
25 Naphthalene-d8	7.87	7.37	8.37	7.85	-0.21
40 Acenaphthene-d10	10.96	10.46	11.46	10.96	-0.07
57 Phenanthrene-d10	13.54	13.04	14.04	13.53	-0.07
67 Chrysene-d12	18.16	17.66	18.66	18.16	-0.05
75 Perylene-d12	20.47	19.97	20.97	20.47	-0.03

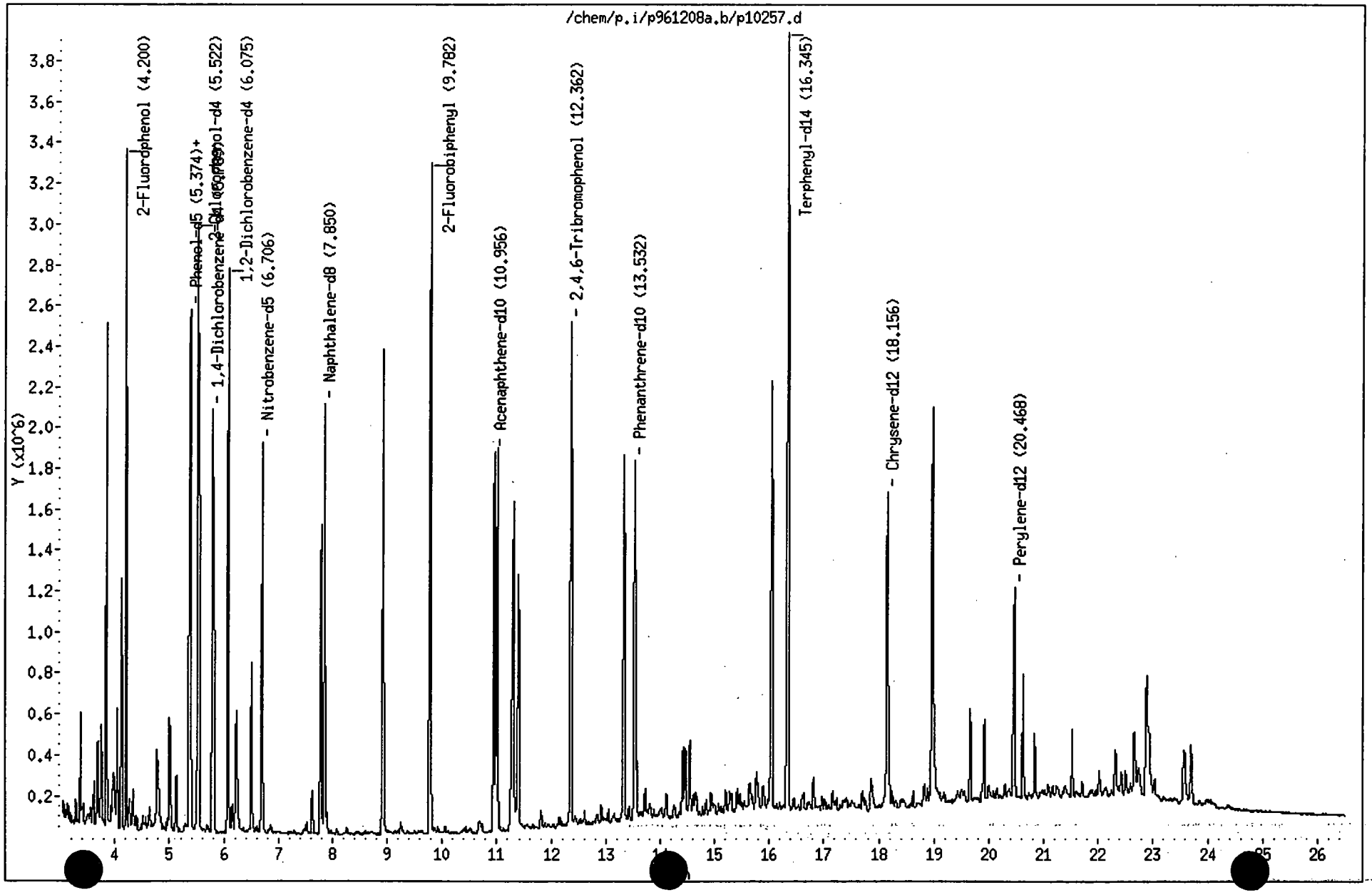
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/p.i/p961208a.b/p10257.d
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5
Volume Injected (uL) : 2.0

OPERATOR: Ann

Page 1

Column diameter : 0.25



Data File: /chem/p.i/p961208a.b/p10257.d
Report Date: 09-Dec-1996 14:54

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/p.i/p961208a.b/p10257.d
Lab. Id. : 27683.10 Quant Type: ISTD
Inj Date : 09-DEC-1996 00:38
Operator : Annie Inst ID: p.i
Smp Info : FFG24
Misc Info : MS517**INSTP*AATS-E:25159*27683.10*30G/0.5ML/2UL*
Comment :
Method : /chem/p.i/p961208a.b/BNA517EPA.m
Meth Date : 09-Dec-1996 13:59 ann
Cal Date : 08-DEC-1996 15:49 Cal File: p10242.d
Als bottle: 14
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

	Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$	1 2-Fluorophenol	112.00	4.200	(0.726)	921202	72.12	1335.70
$	2 Phenol-d5	98.80	5.364	(0.927)	1220711	76.30	1413.01
	3 Phenol	94.00	5.384	(0.930)	723551	45.26	838.17
	5 2-Chlorophenol-d4	132.00	5.522	(0.954)	1060913	80.05	1482.56
	6 2-Chlorophenol	128.00	5.542	(0.957)	642318	47.95	888.08
	~~7 1,3-Dichlorobenzene~~	~~146.00~~	~~5.818~~	~~(1.005)~~	~~476526~~	~~30.84~~	~~571.17~~
*	8 1,4-Dichlorobenzene-d4	151.85	5.789	(1.000)	407788	40.00	
	9 1,4-Dichlorobenzene	146.00	5.818	(1.005)	476526	31.21	578.01
$	10 1,2-Dichlorobenzene-d4	152.00	6.075	(1.049)	522010	62.20	1151.99
	15 N-Nitroso-di-n-propylamine	70.00	6.499	(1.123)	300157	37.92	702.25
$	17 Nitrobenzene-d5	82.00	6.706	(0.854)	946841	58.45	1082.46
	24 1,2,4-Trichlorobenzene	180.00	7.790	(0.992)	425709	33.37	618.02
*	25 Naphthalene-d8	135.65	7.850	(1.000)	1406926	40.00	
	29 4-Chloro-3-Methylphenol	107.00	8.924	(1.137)	770742	54.71	1013.14
$	34 2-Fluorobiphenyl	172.00	9.782	(0.893)	1773010	68.79	1273.99
*	40 Acenaphthene-d10	164.00	10.956	(1.000)	778195	40.00	
	42 Acenaphthene	153.00	11.006	(1.005)	819769	37.31	691.06
	45 4-Nitrophenol	109.00	11.303	(1.032)	398378	65.32	1209.65(Q)
	46 2,4-Dinitrotoluene	165.00	11.392	(1.040)	365759	39.42	730.06
$	53 2,4,6-Tribromophenol	329.80	12.362	(0.914)	416458	114.11	2113.23
	56 Pentachlorophenol	265.80	13.333	(0.985)	257805	52.84	978.63
*	57 Phenanthrene-d10	187.65	13.532	(1.000)	1126825	40.00	
	58 Phenanthrene	178.00	13.561	(1.002)	187903	6.41	118.73(a)
	62 Fluoranthene	202.00	15.648	(1.156)	35735	1.03	19.17(a)
	63 Pyrene	202.00	16.046	(0.884)	1420821	42.34	784.17
$	64 Terphenyl-d14	244.00	16.345	(0.900)	1795879	79.55	1473.15
	66 Benzo(a)anthracene	228.00	18.116	(0.998)	60905	2.07	38.40(a)
*	67 Chrysene-d12	240.00	18.156	(1.000)	802075	40.00	
	68 Chrysene	228.00	18.187	(1.002)	98706	4.11	76.27(a)
	69 bis(2-Ethylhexyl)phthalate	149.00	18.246	(1.005)	31363	1.45	26.93(a)
*	75 Perylene-d12	264.00	20.468	(1.000)	621156	40.00	

FP 12/20/96

FP - FALSE POSITIVE

Data File: /chem/p.i/p961208a.b/p10257.d
Report Date: 09-Dec-1996 14:54

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

Instrument : p.i

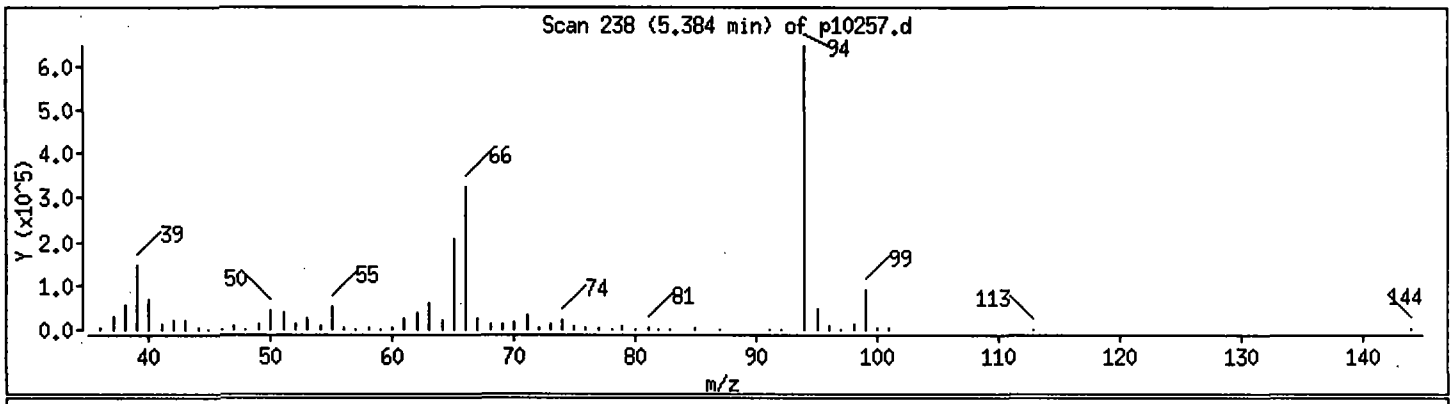
Sample ID : FFG24

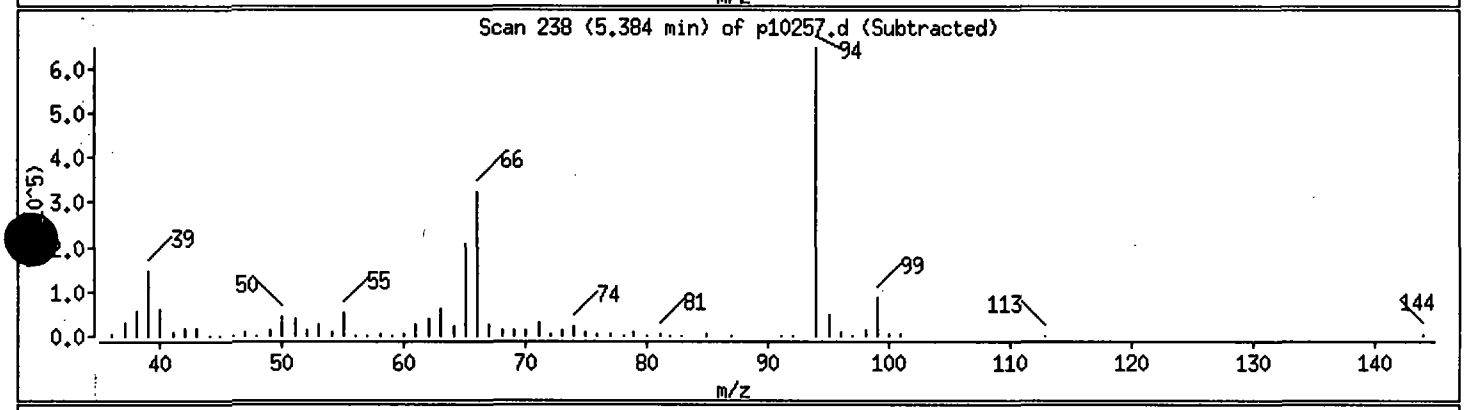
Column phase : XTI-5

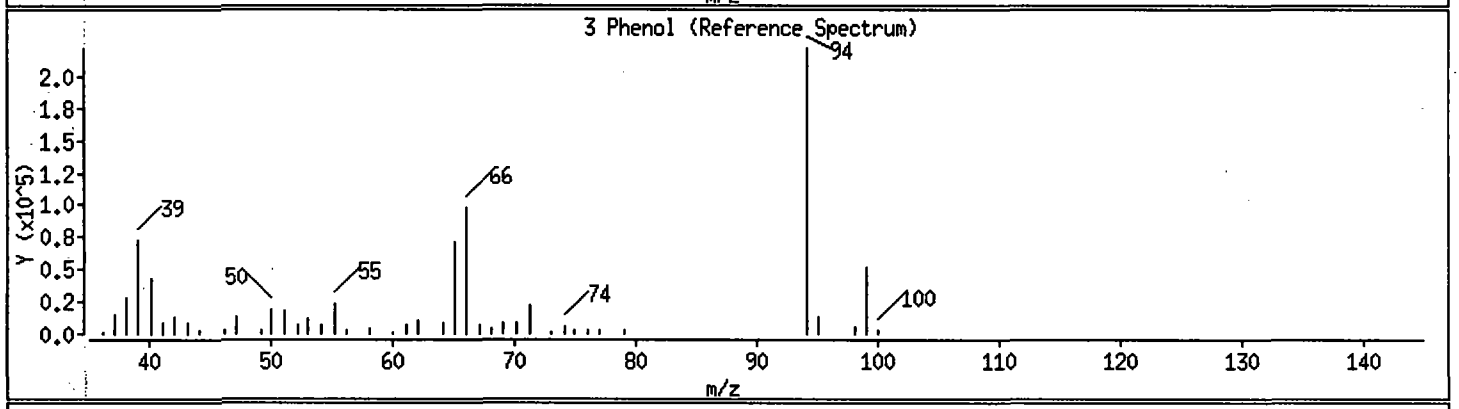
Column diameter : 0.25

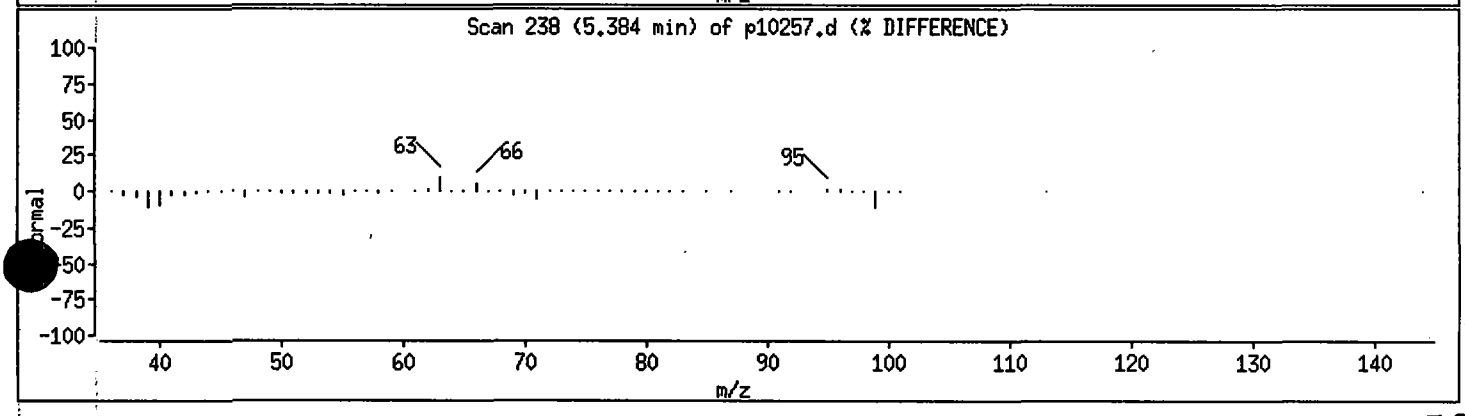
Volume Injected (uL) : 2.0

3 Phenol









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

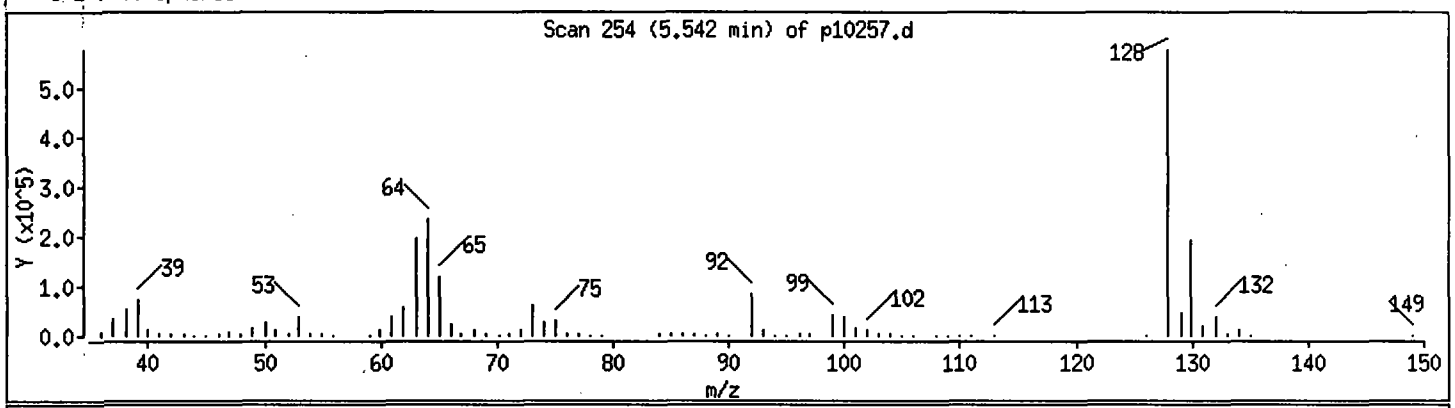
Instrument : p.i

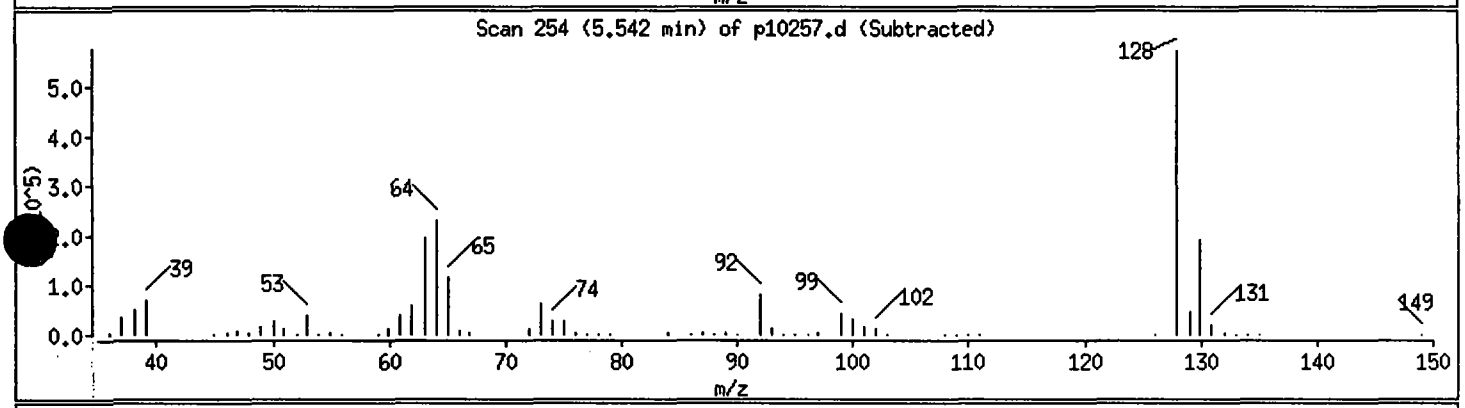
Sample ID : FFG24

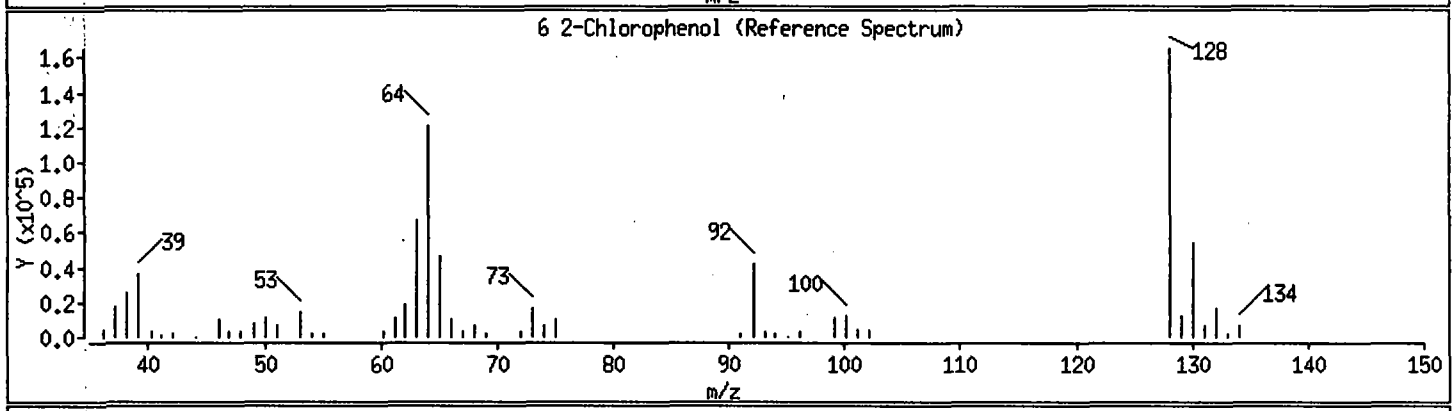
Column phase : XTI-5 Column diameter : 0.25

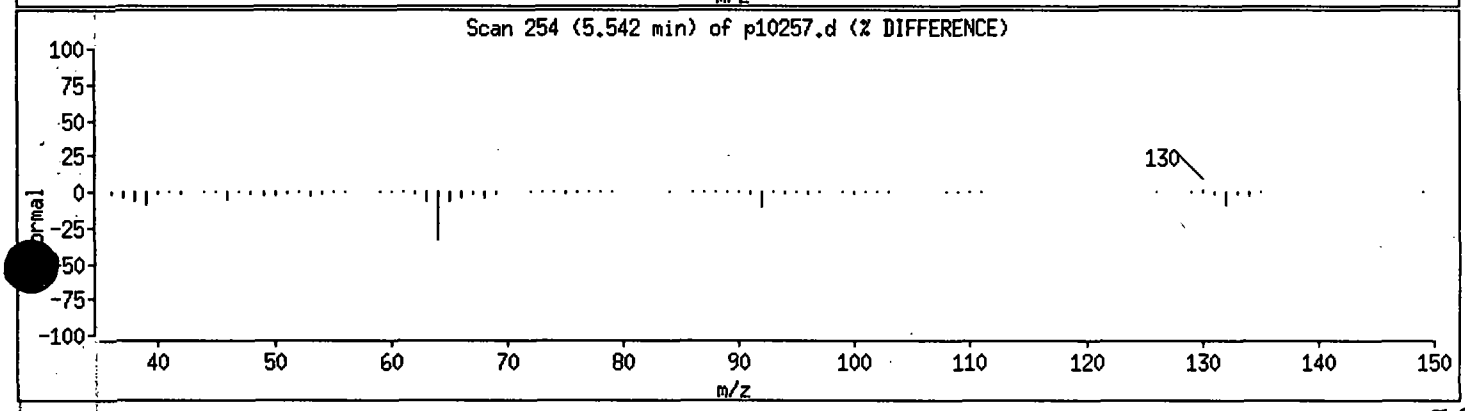
Volume Injected (uL) : 2.0

6 2-Chlorophenol









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

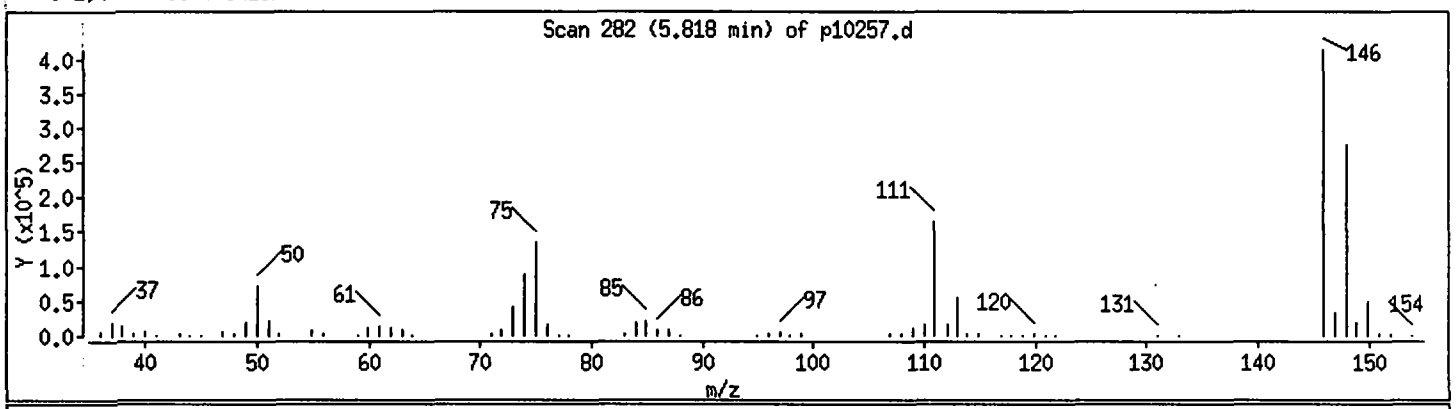
Instrument : p.i

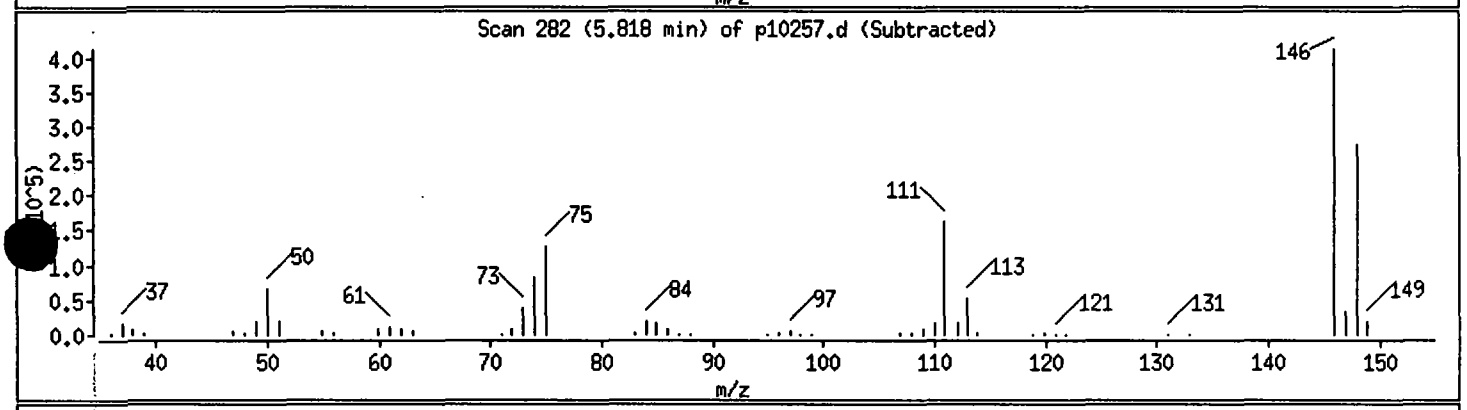
Sample ID : FFG24

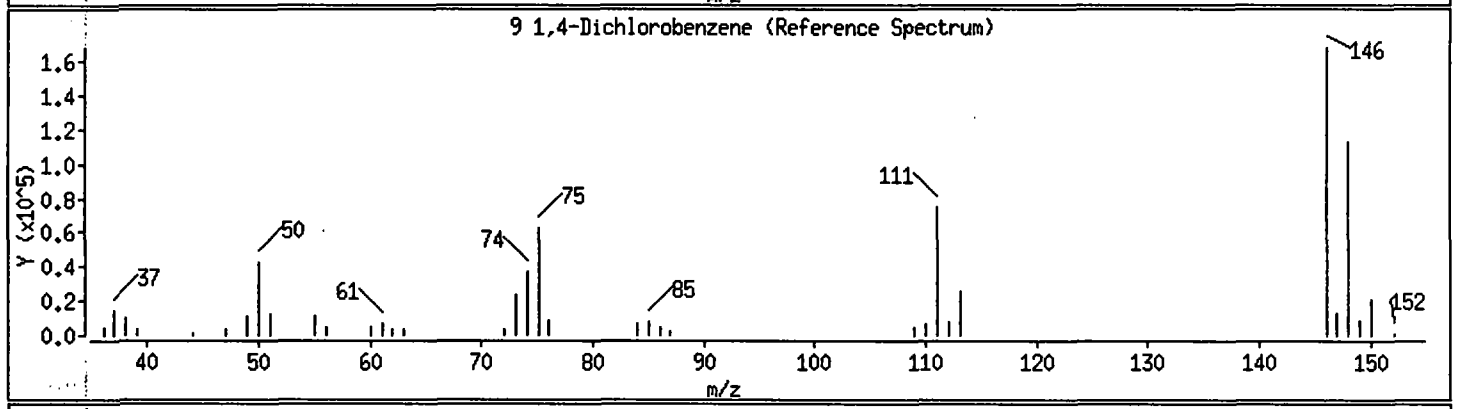
Column phase : XTI-5 Column diameter : 0.25

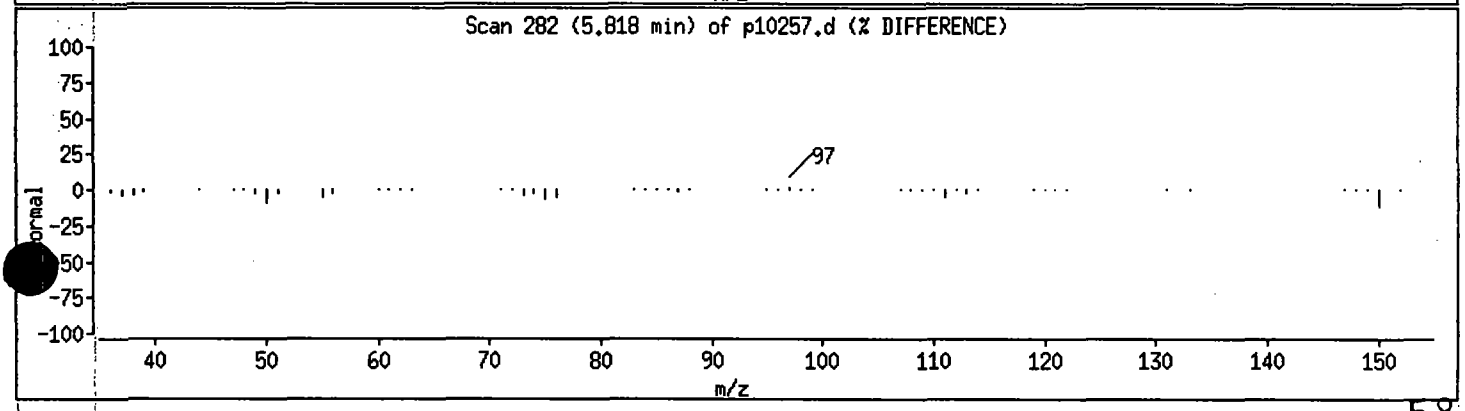
Volume Injected (uL) : 2.0

9 1,4-Dichlorobenzene









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

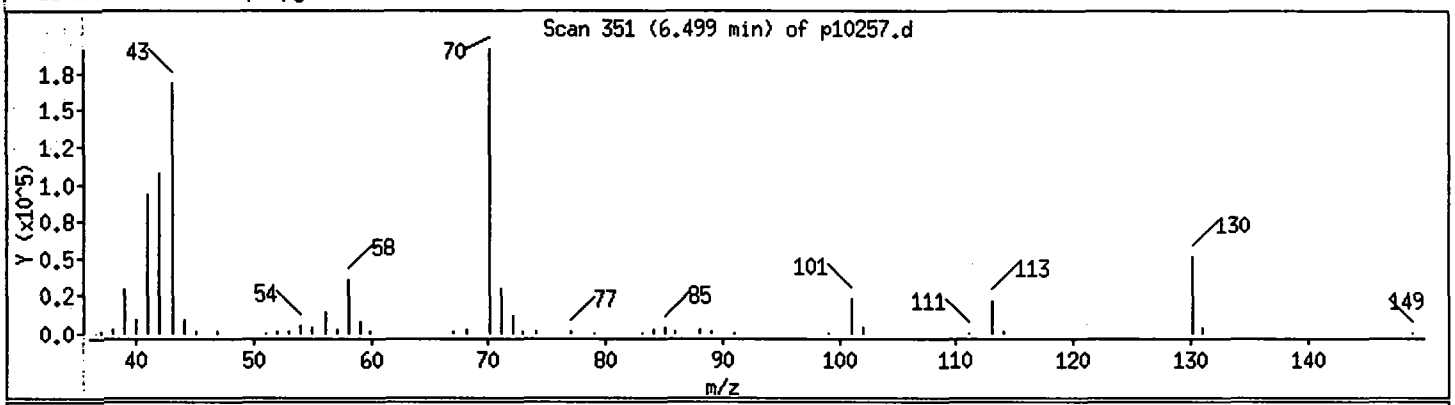
Instrument : p.i

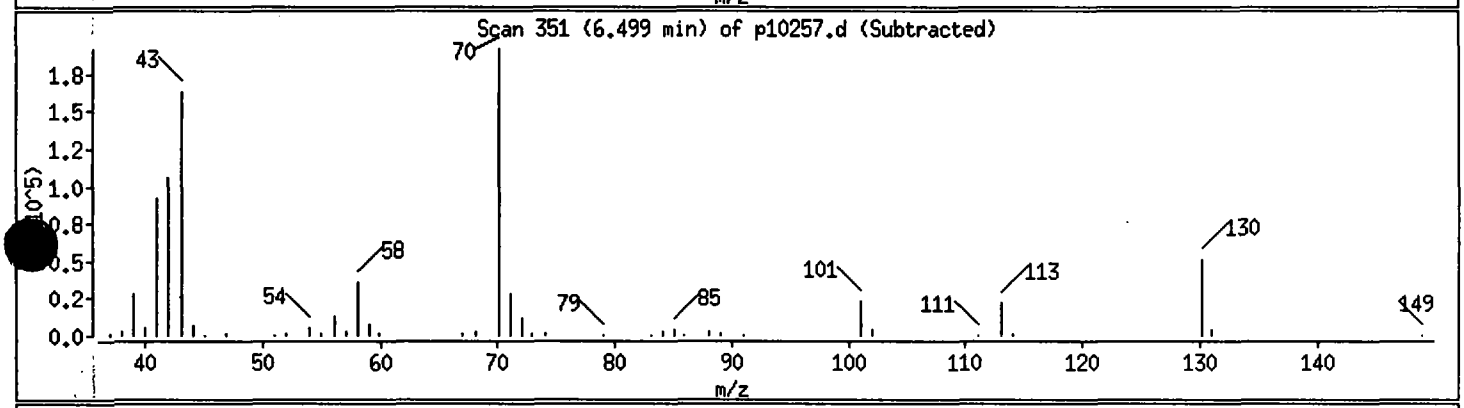
Sample ID : FFG24

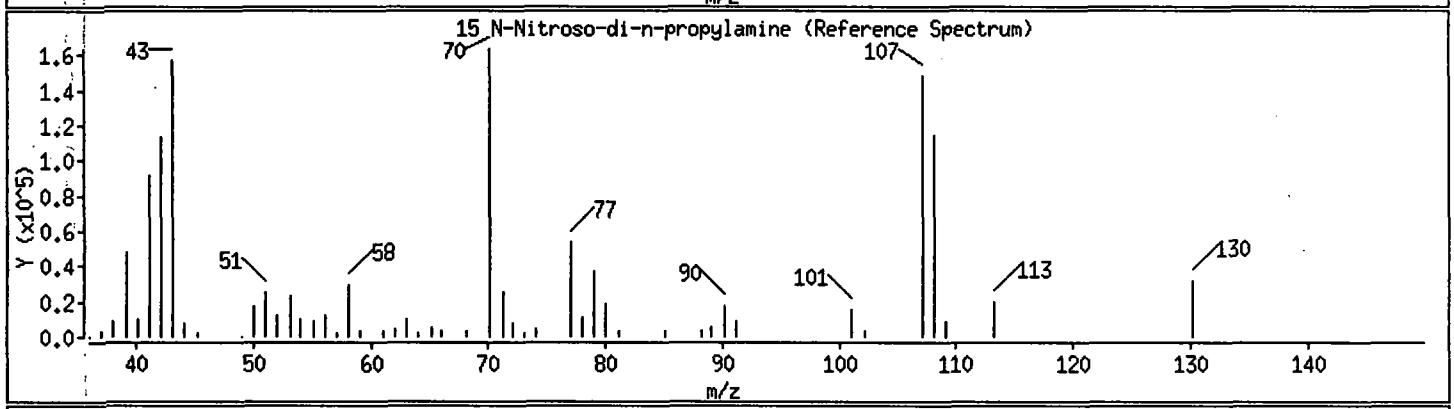
Column phase : XTI-5 Column diameter : 0.25

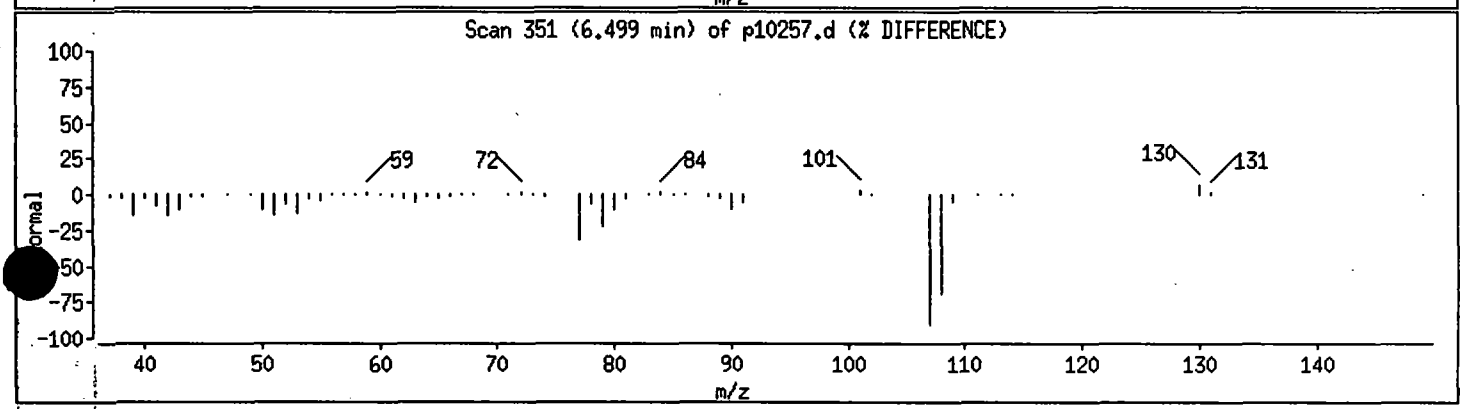
Volume Injected (uL) : 2.0

15 N-Nitroso-di-n-propylamine









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

Instrument : p.i

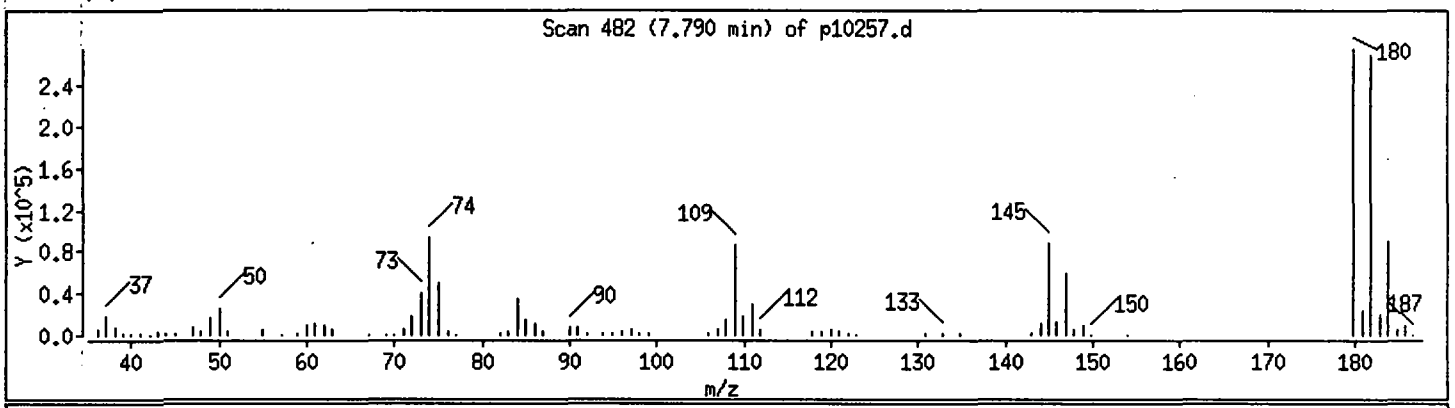
Sample ID : FFG24

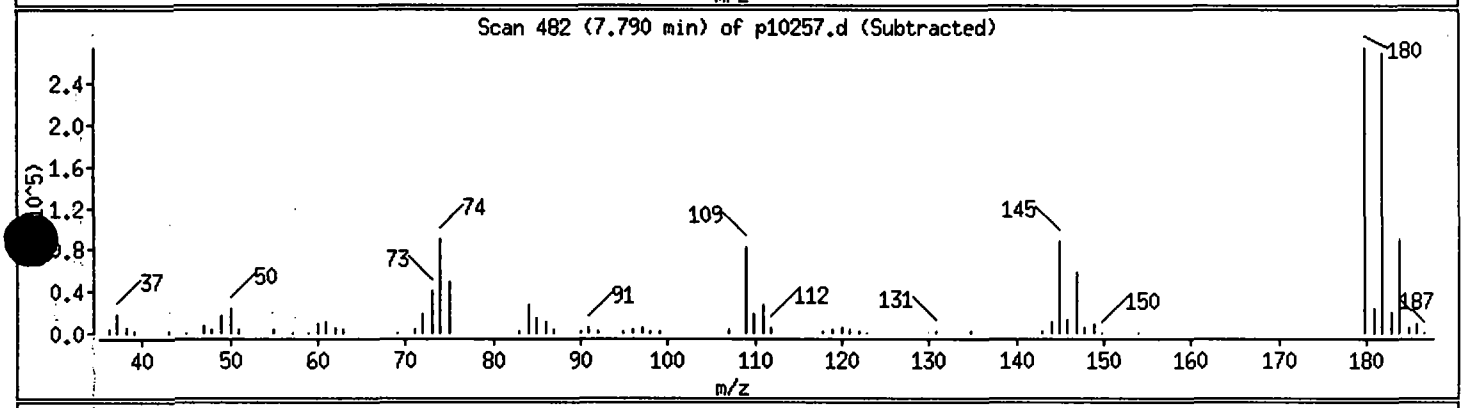
Column phase : XTI-5

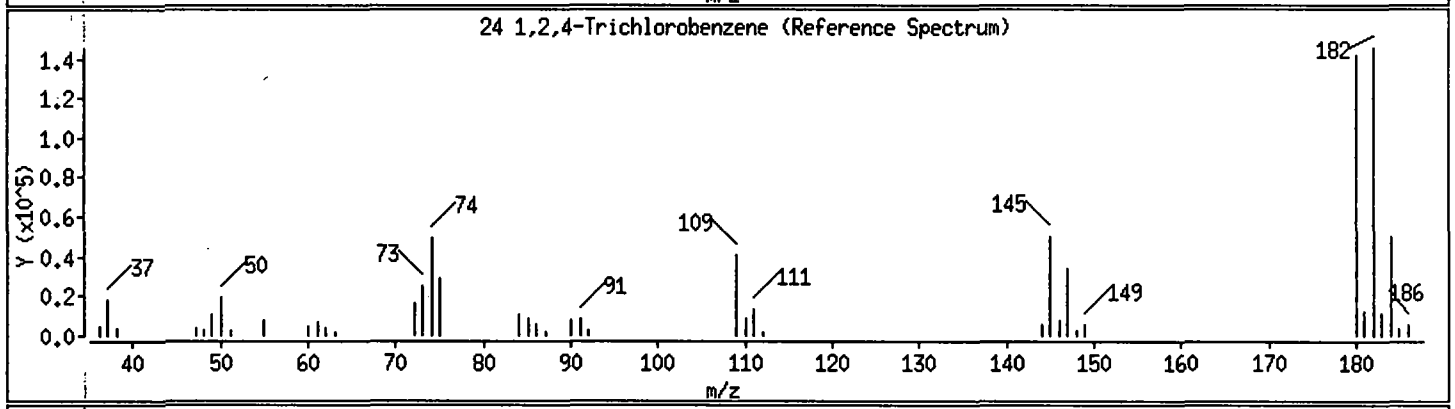
Column diameter : 0.25

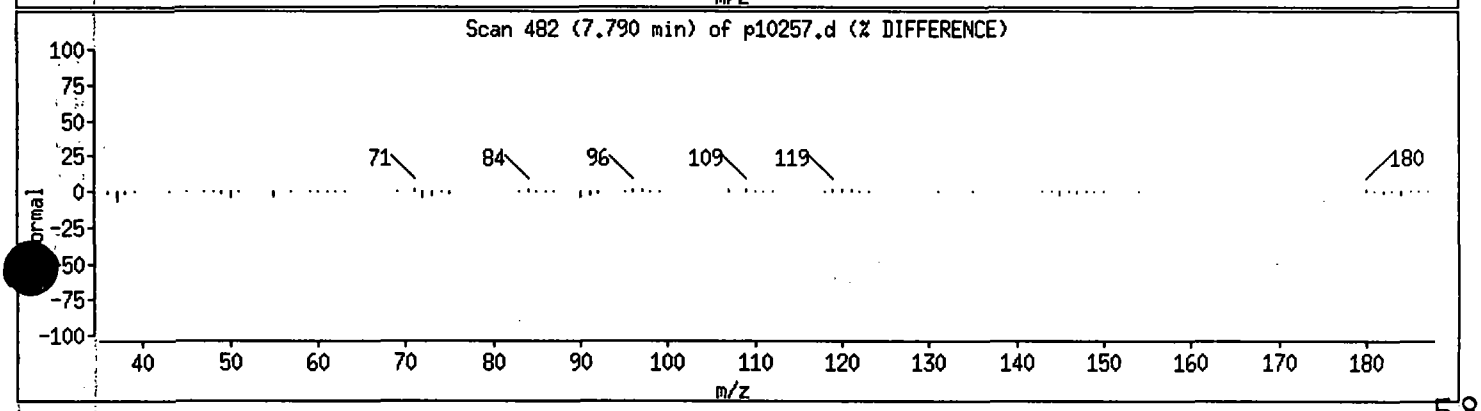
Volume Injected (uL) : 2.0

24 1,2,4-Trichlorobenzene









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

Instrument : p.i

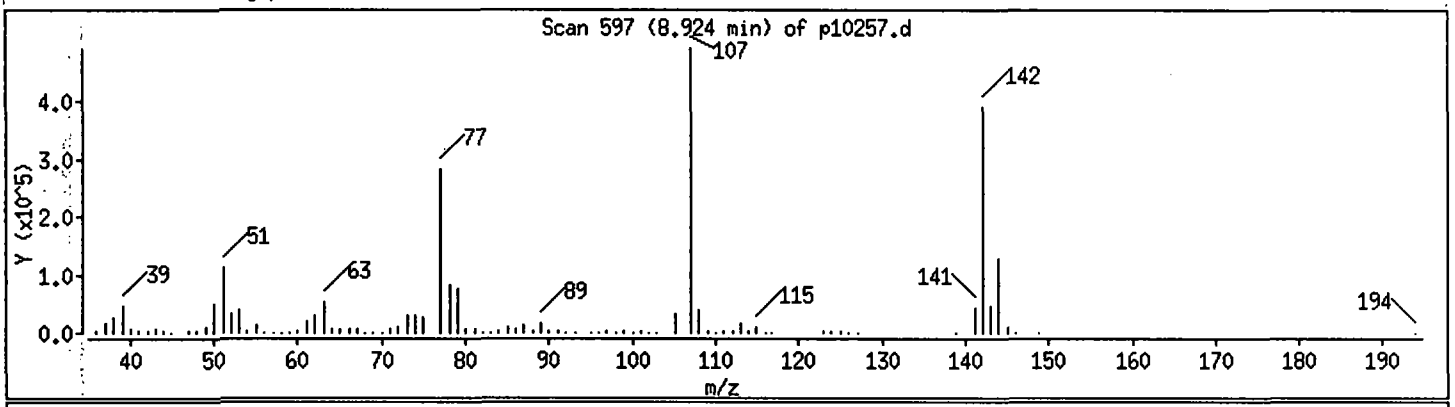
Sample ID : FFG24

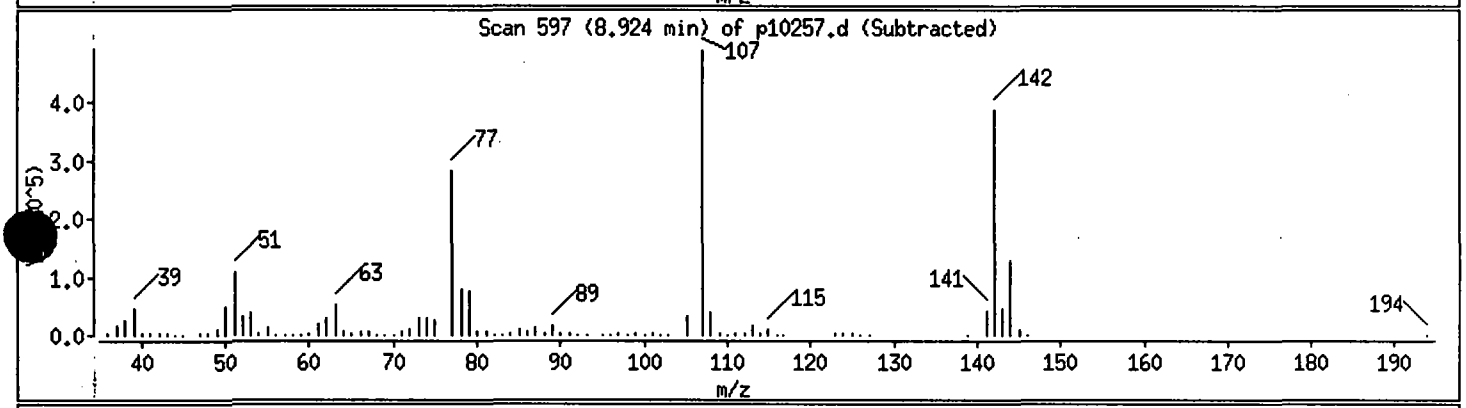
Column phase : XTI-5

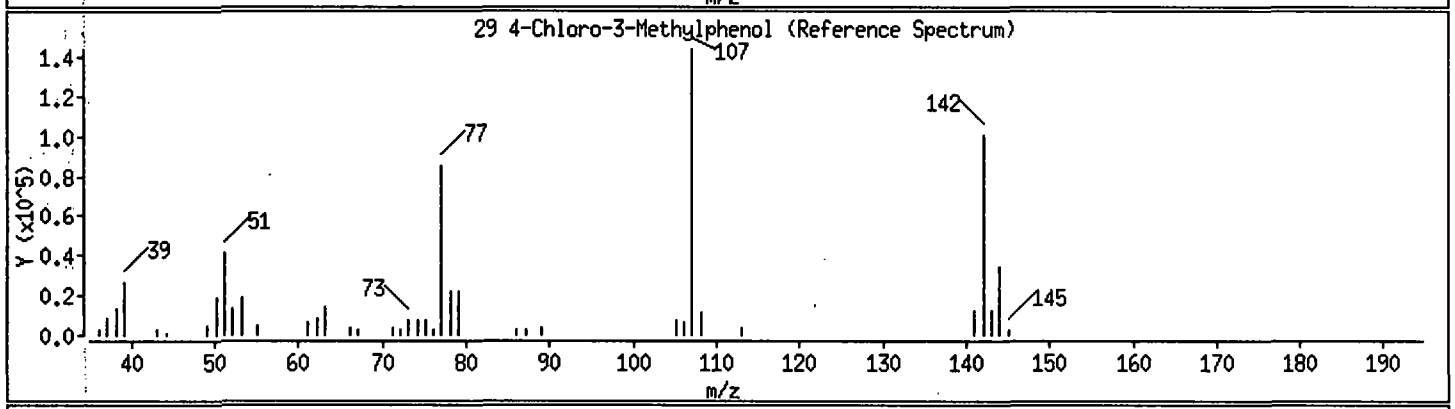
Column diameter : 0.25

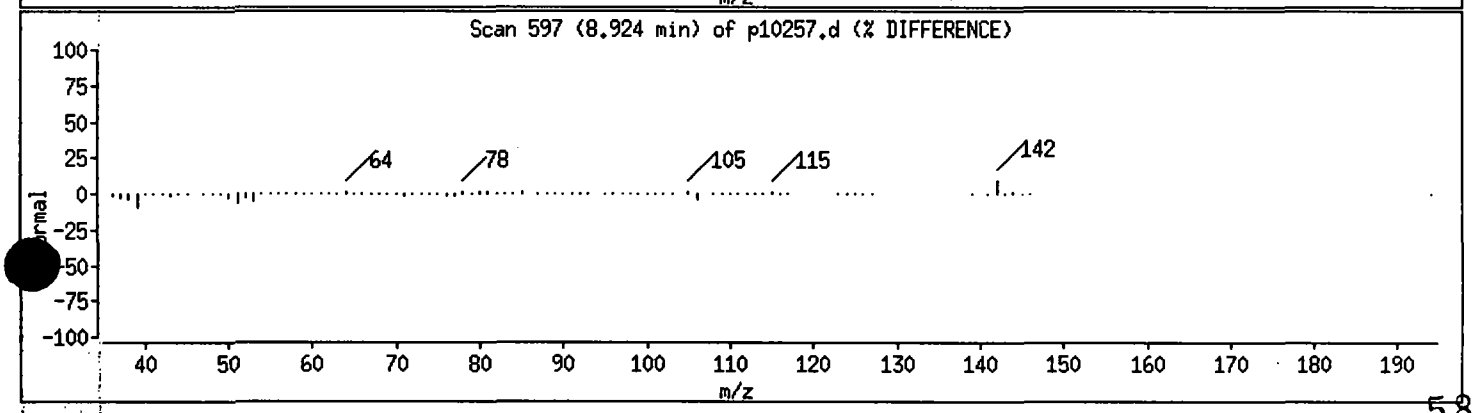
Volume Injected (uL) : 2.0

29 4-Chloro-3-Methylphenol









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

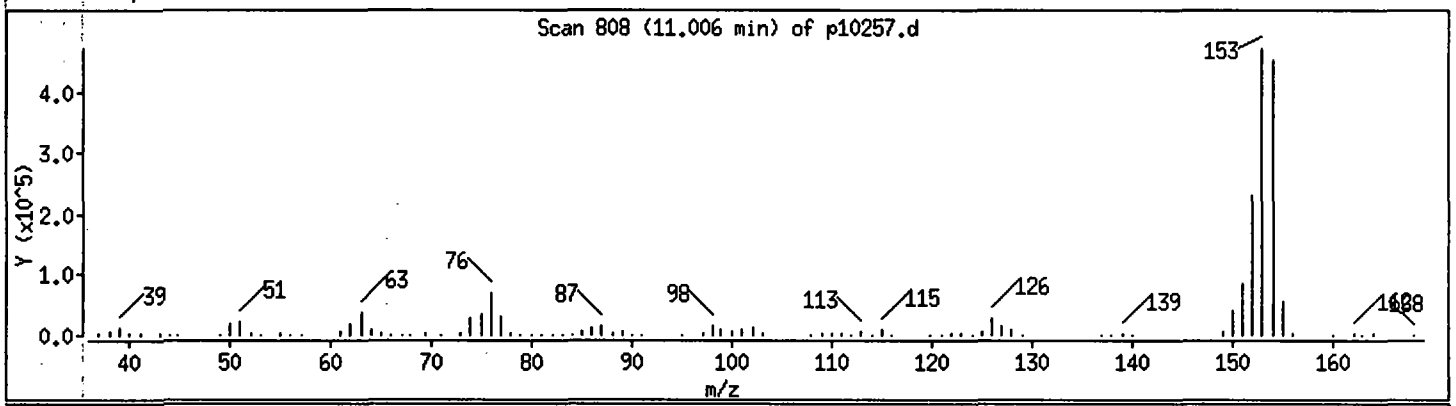
Instrument : p.i

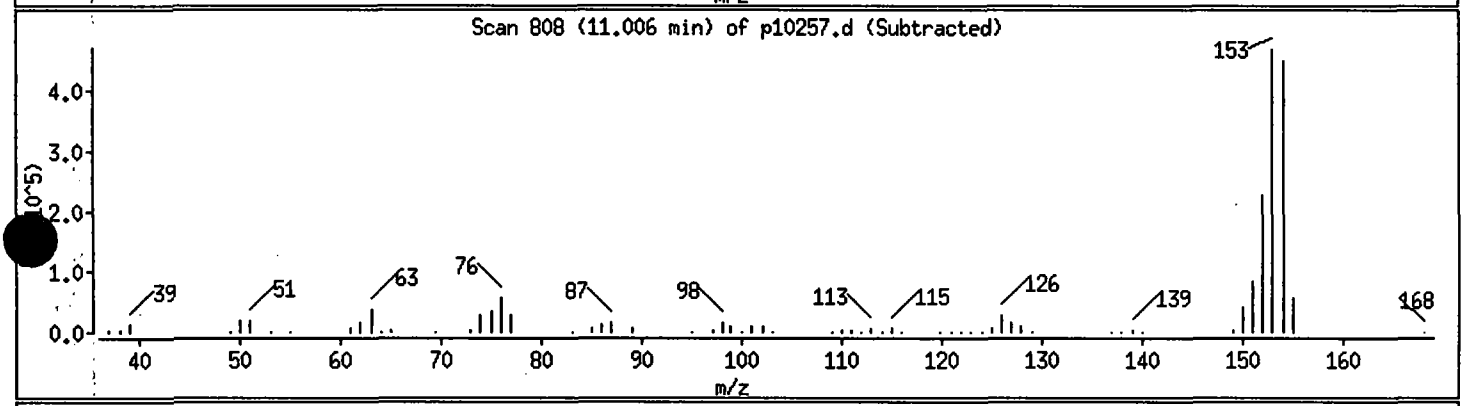
Sample ID : FFG24

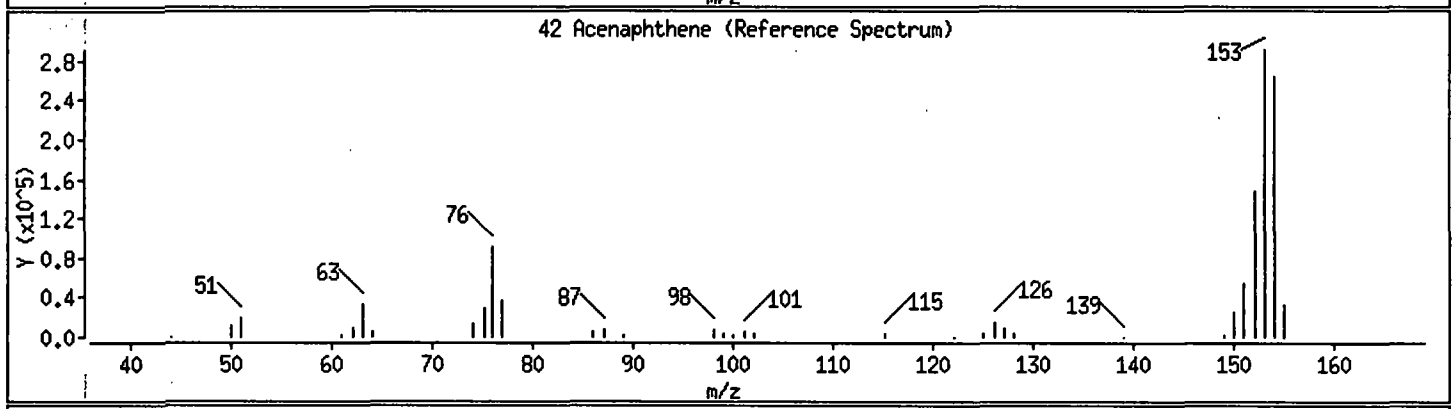
Column phase : XTI-5 Column diameter : 0.25

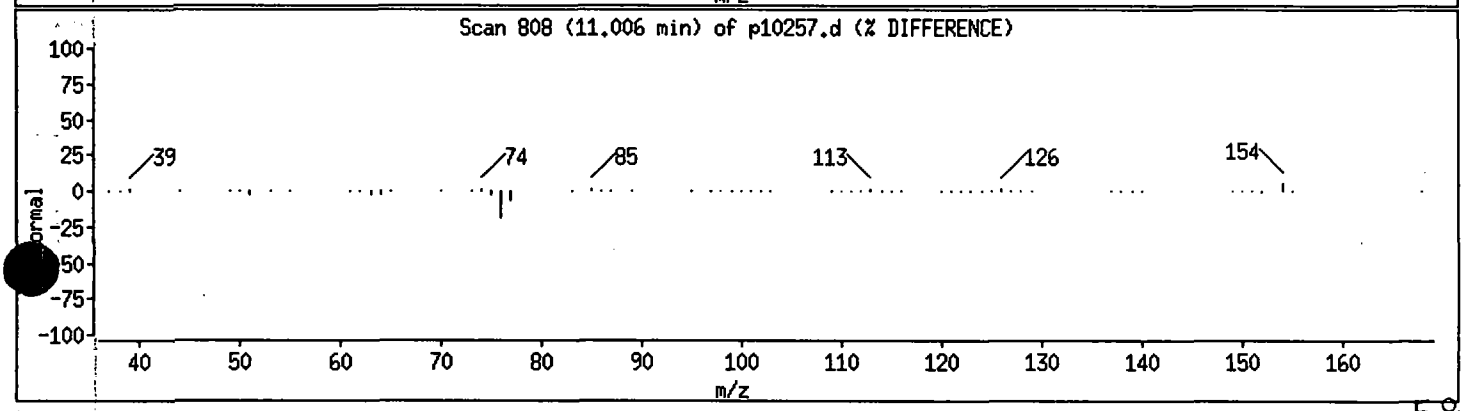
Volume Injected (uL) : 2.0

42 Acenaphthene









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

Instrument : p.i

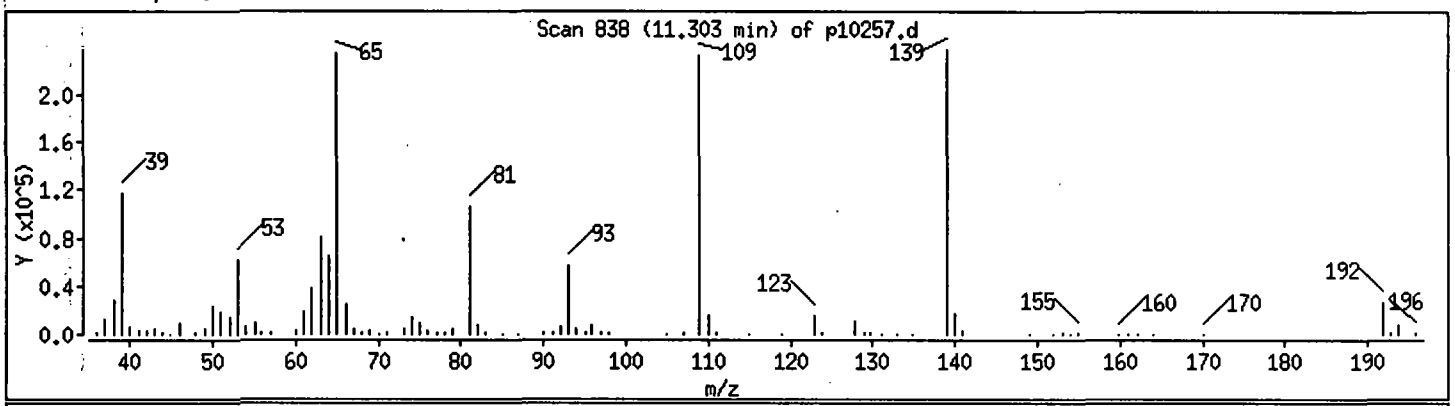
Sample ID : FFG24

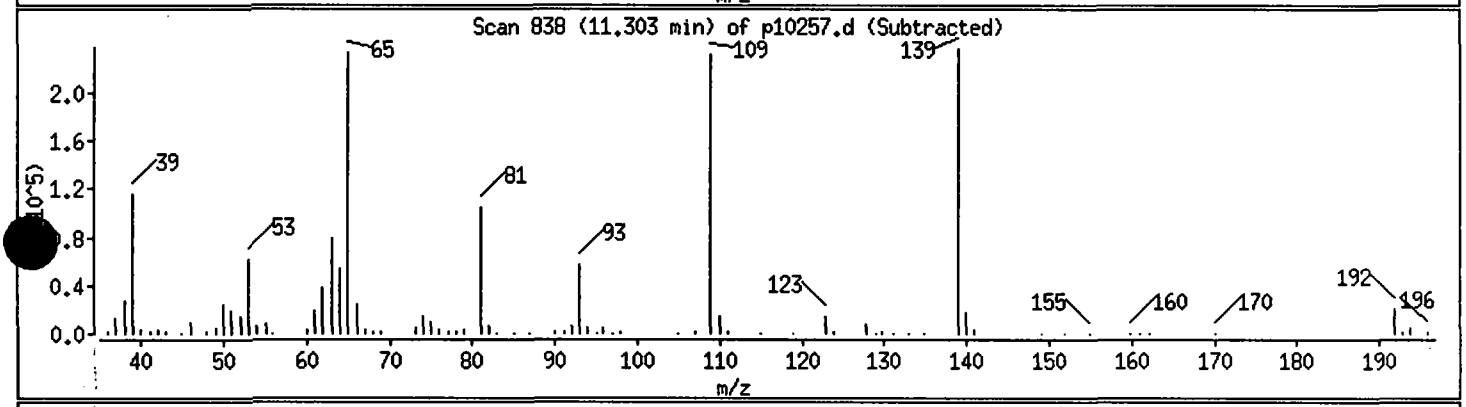
Column phase : XTI-5

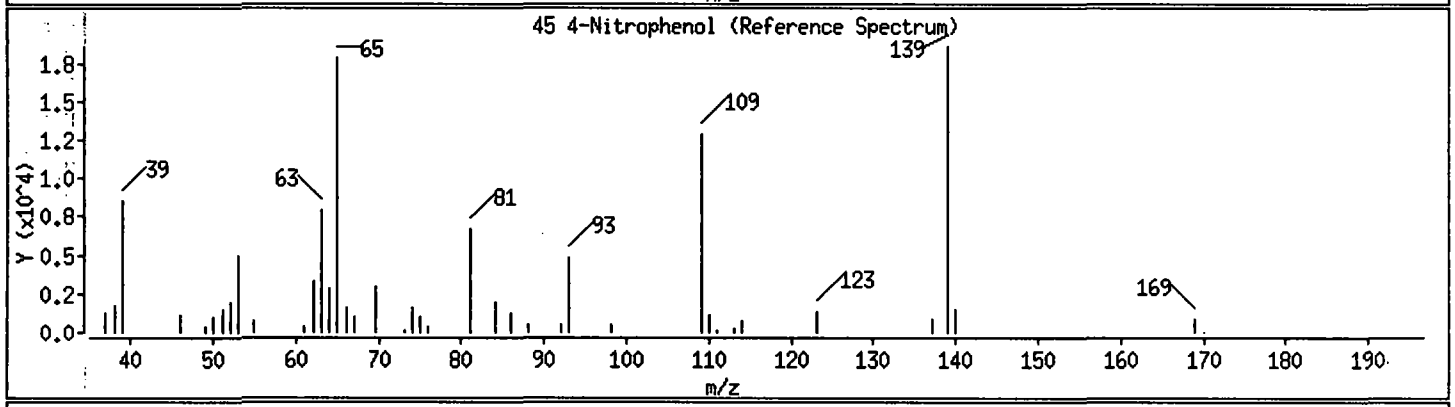
Column diameter : 0.25

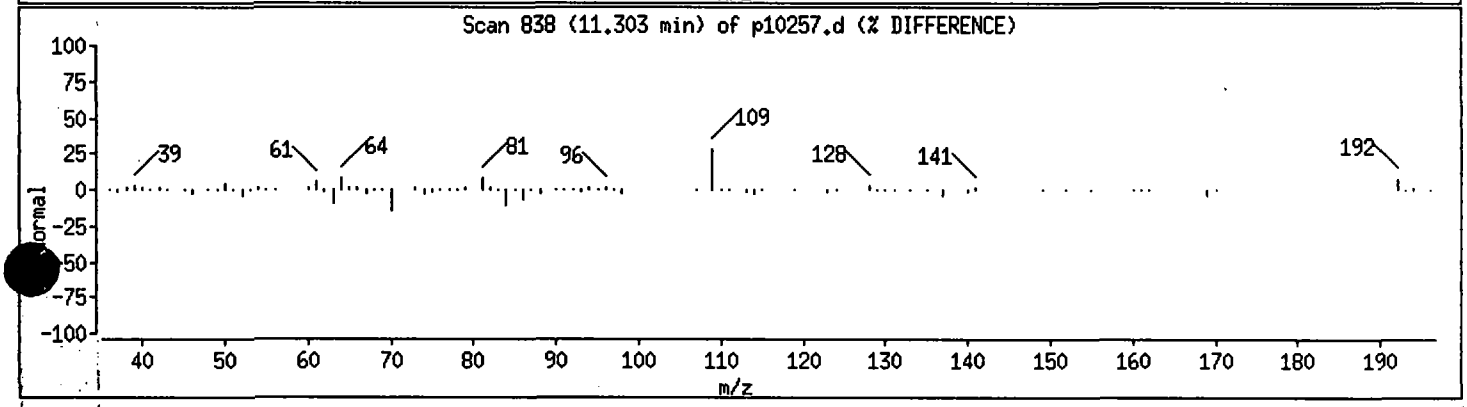
Volume Injected (uL) : 2.0

45 4-Nitrophenol









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

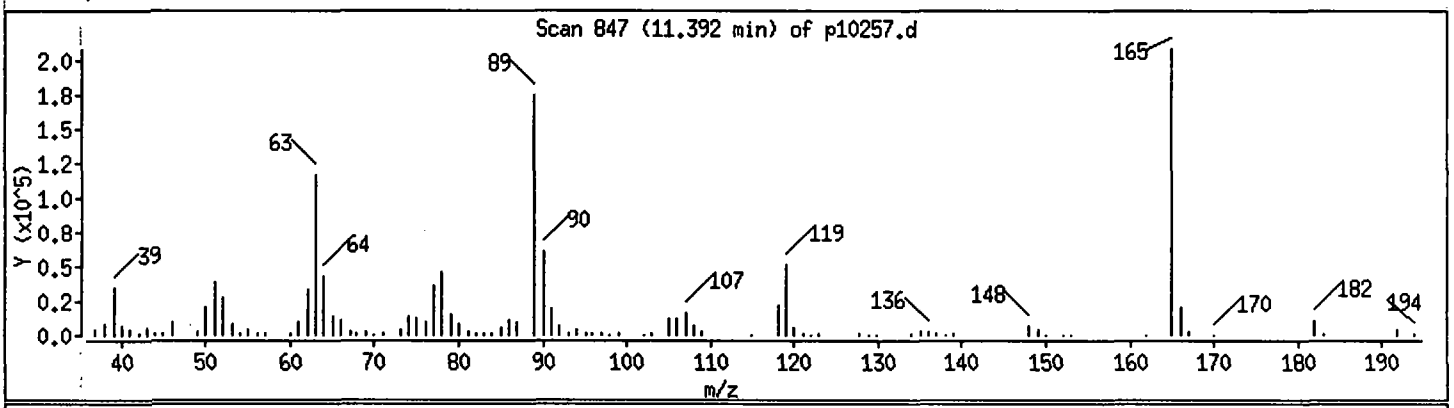
Instrument : p.i

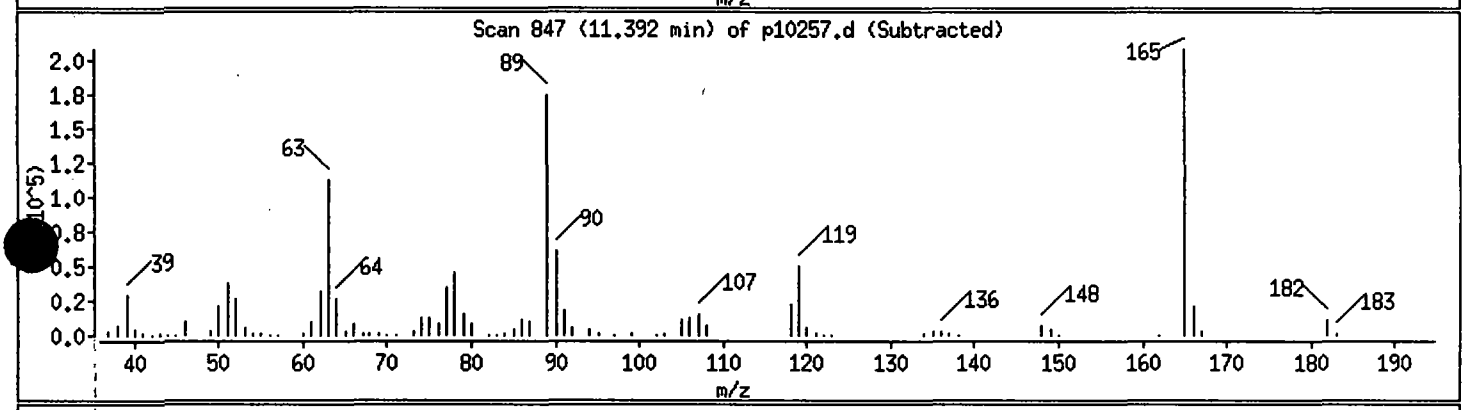
Sample ID : FFG24

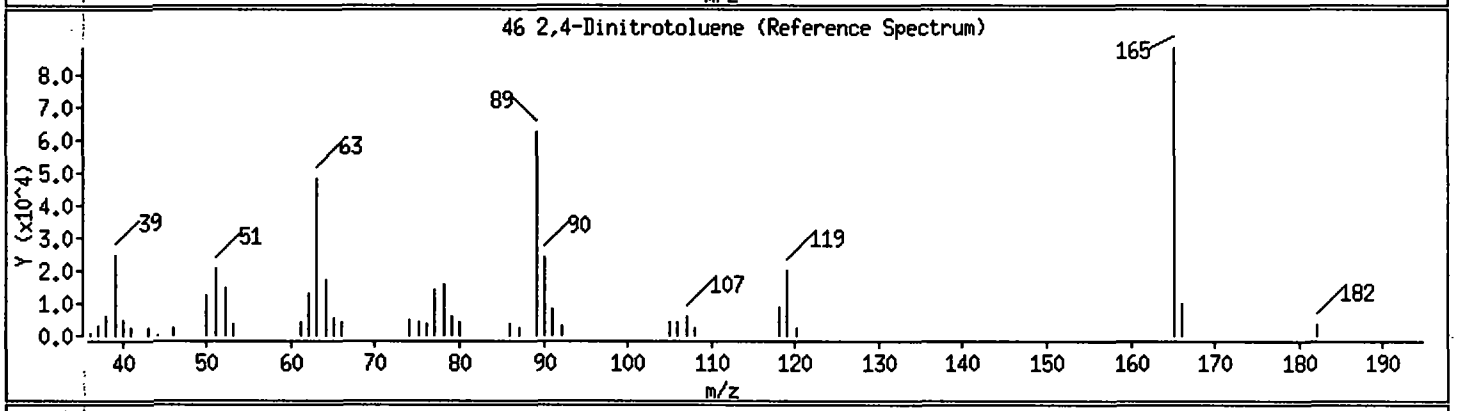
Column phase : XTI-5 Column diameter : 0.25

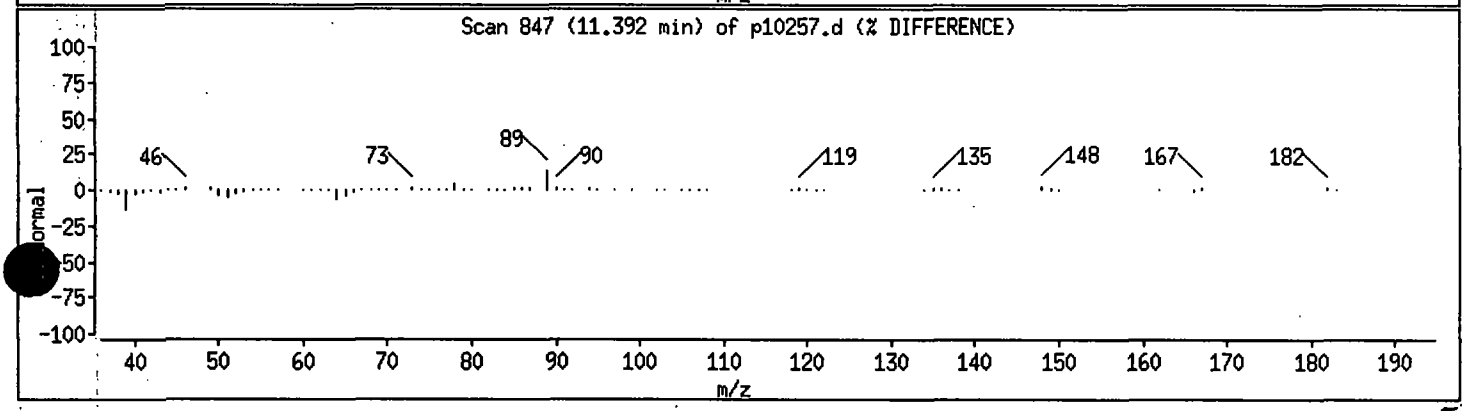
Volume Injected (uL) : 2.0

46 2,4-Dinitrotoluene









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

Instrument : p.i

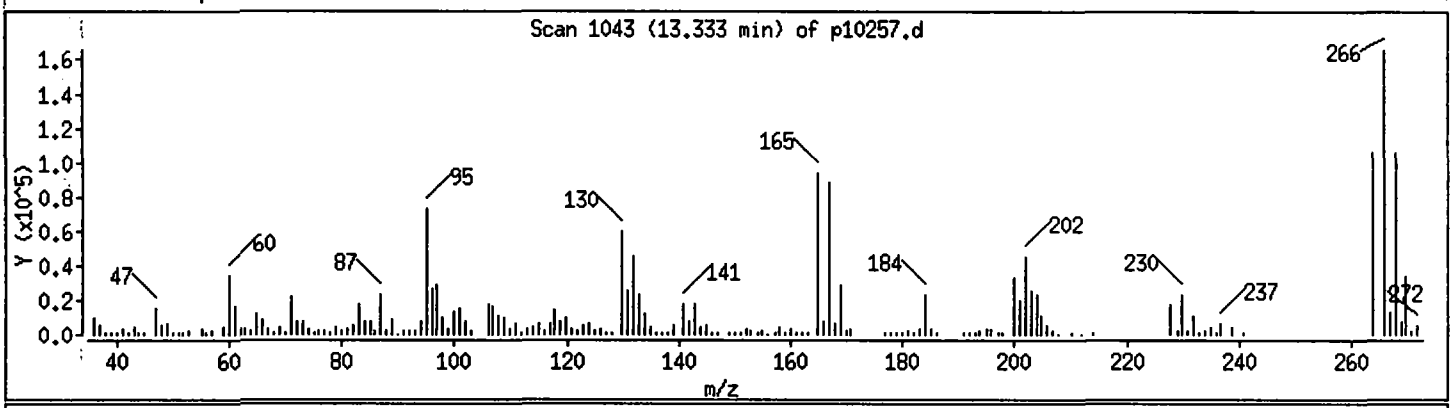
Sample ID : FFG24

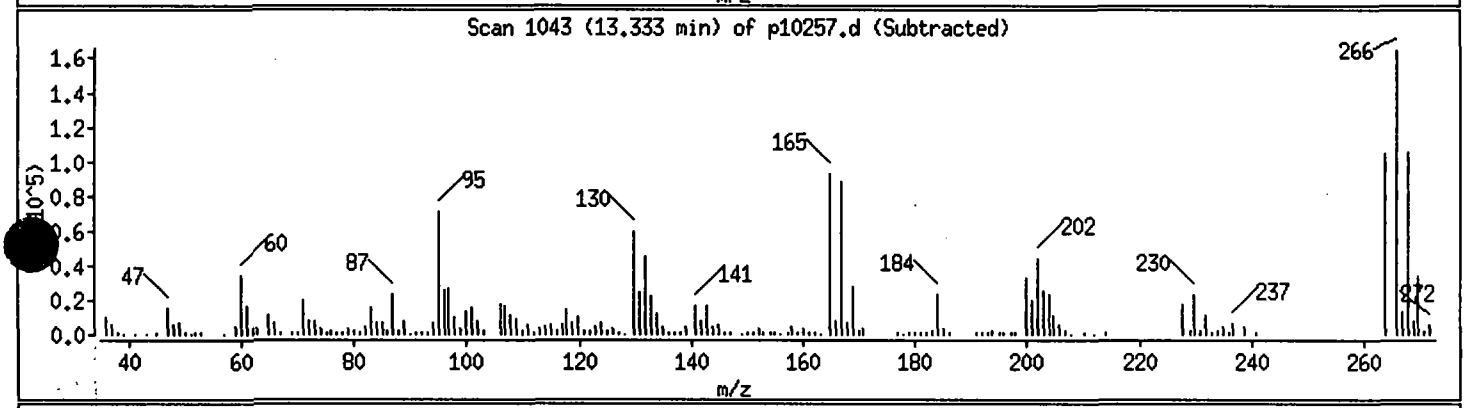
Column phase : XTI-5

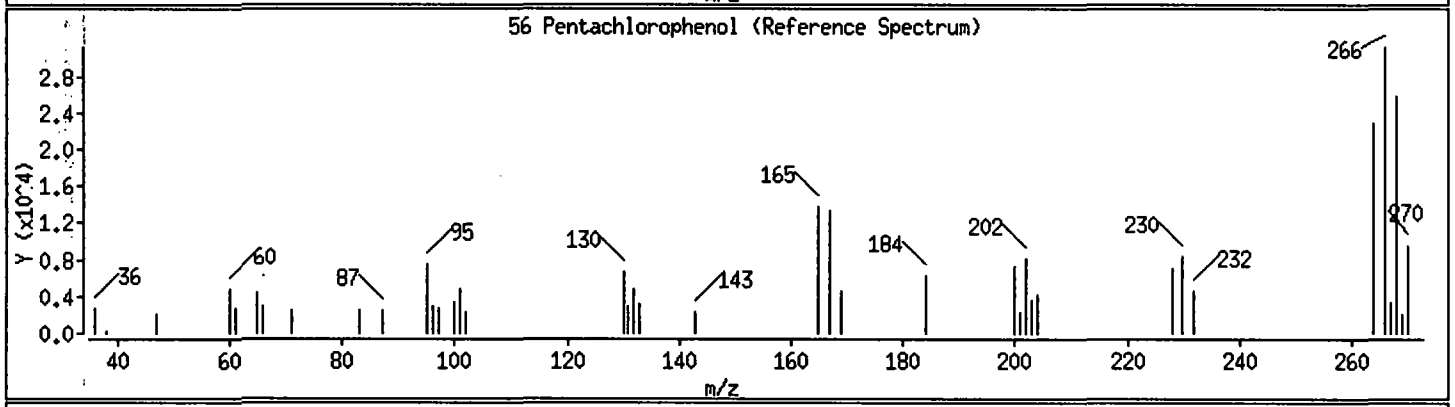
Column diameter : 0.25

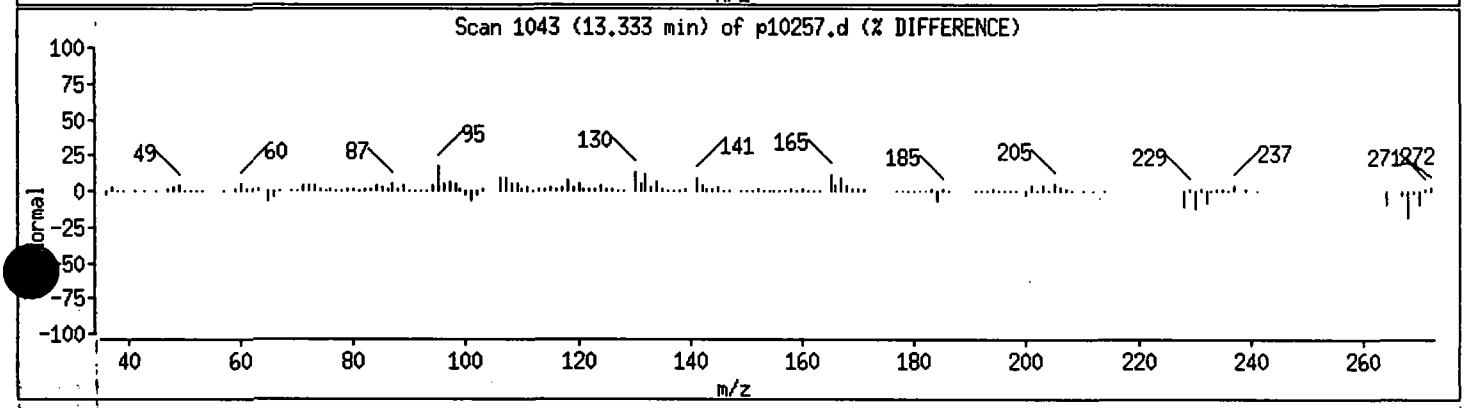
Volume Injected (uL) : 2.0

56 Pentachlorophenol









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

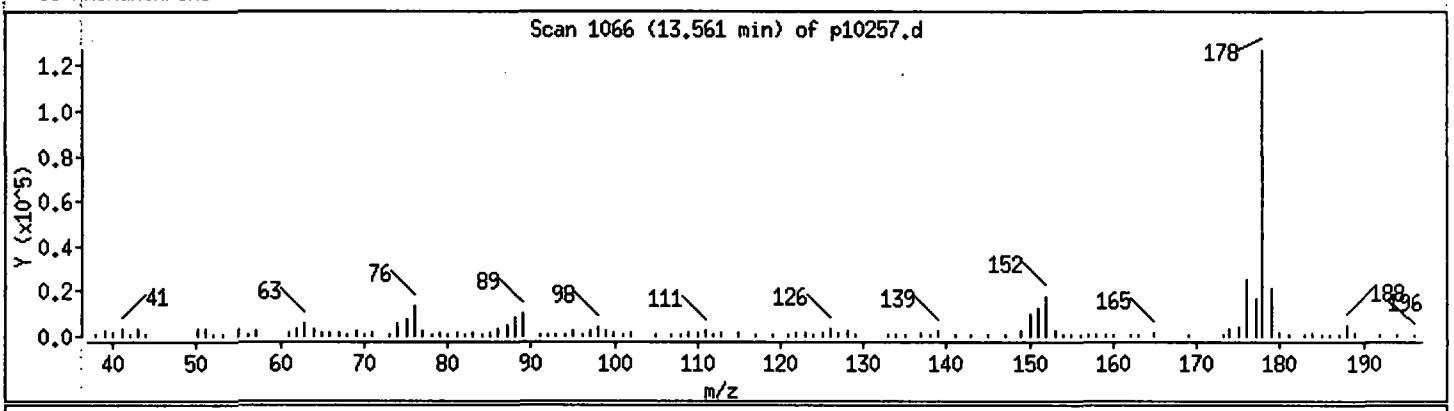
Instrument : p.i

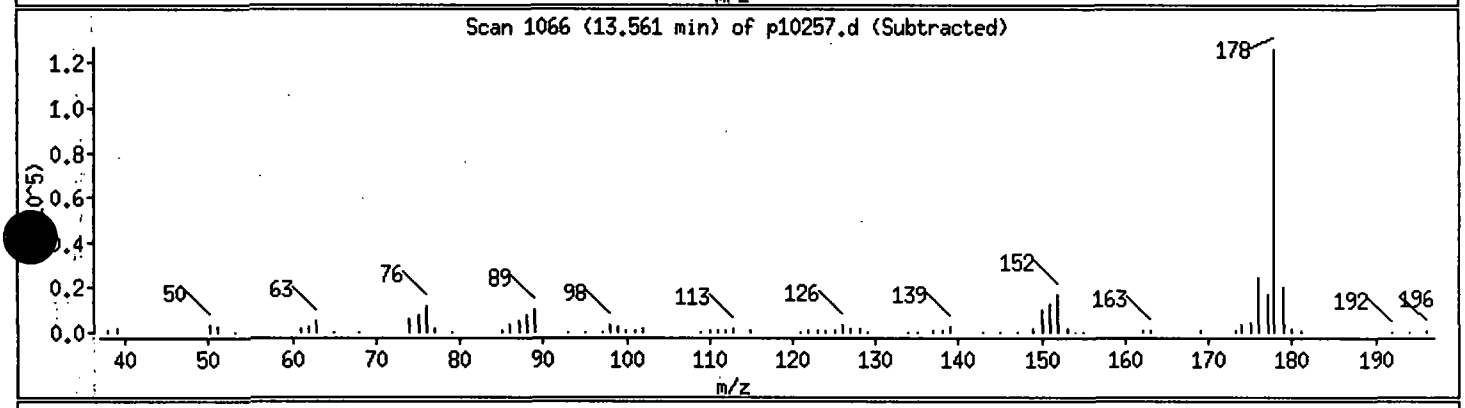
Sample ID : FFG24

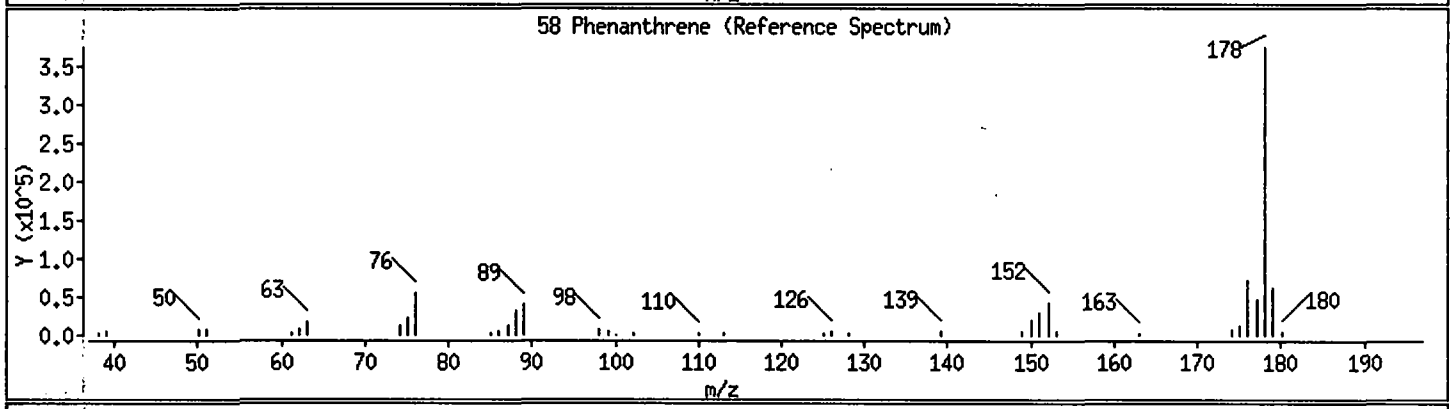
Column phase : XTI-5 Column diameter : 0.25

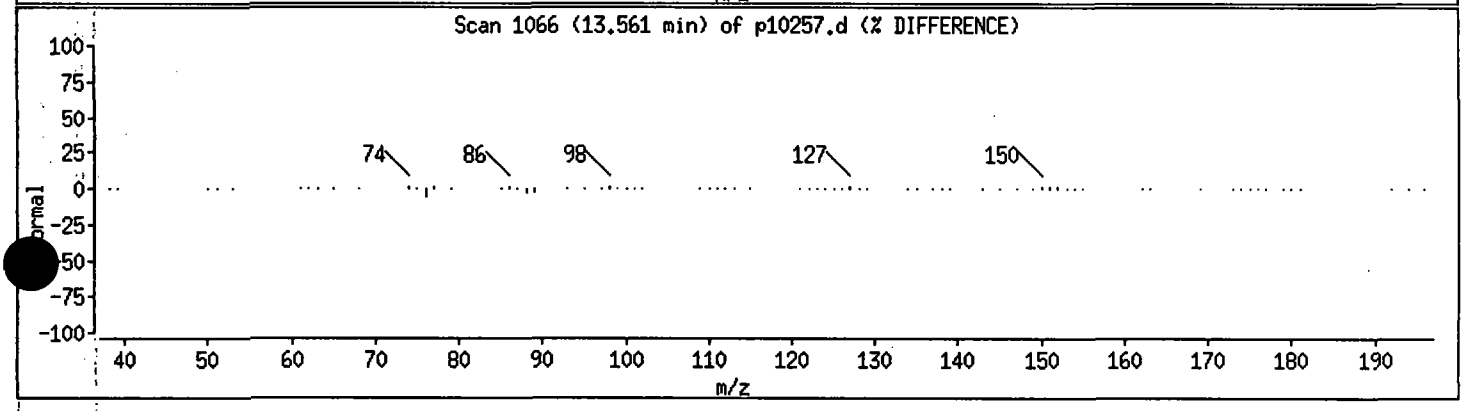
Volume Injected (uL) : 2.0

58 Phenanthrene









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

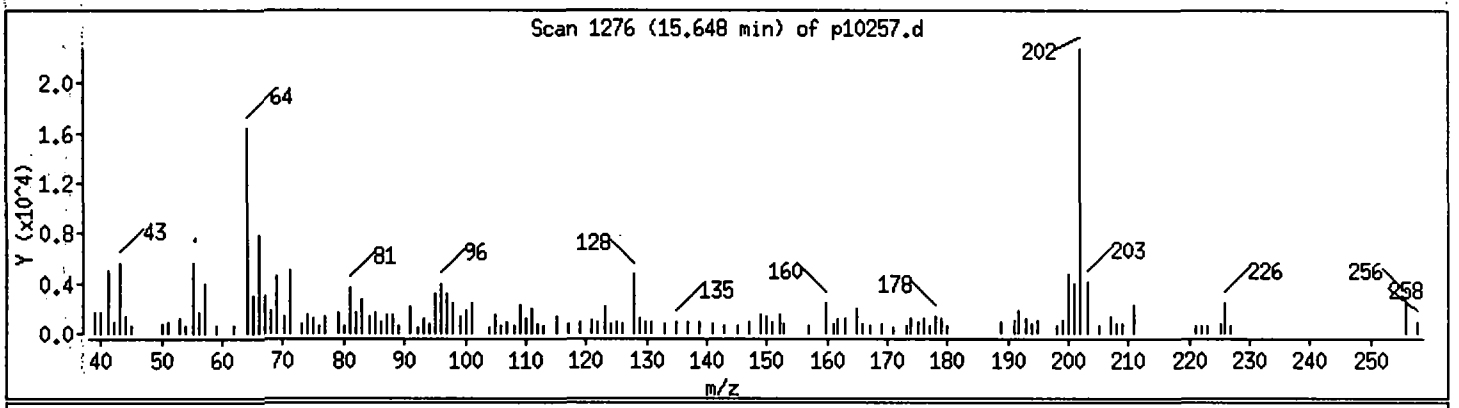
Instrument : p.i

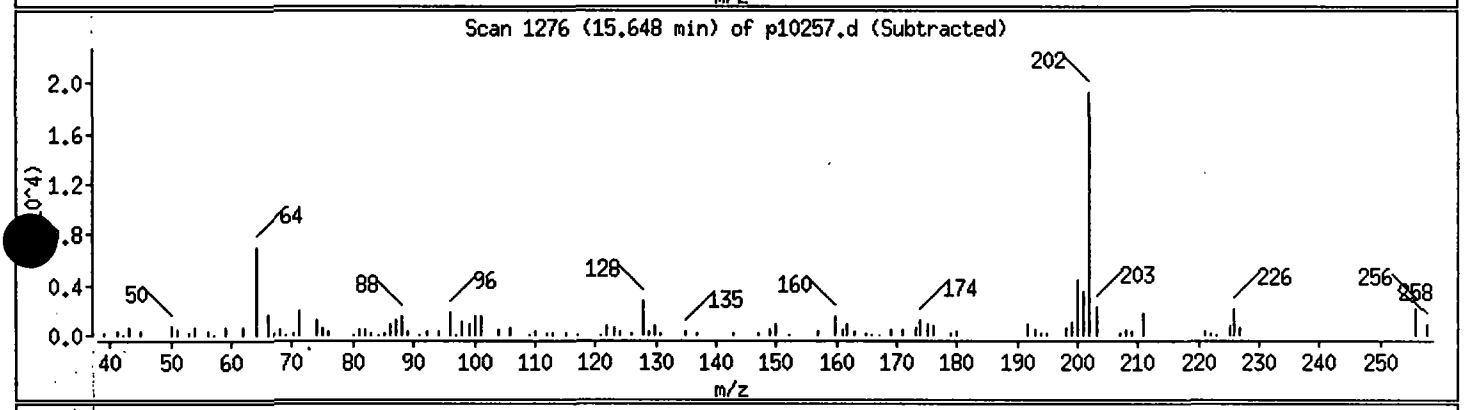
Sample ID : FFG24

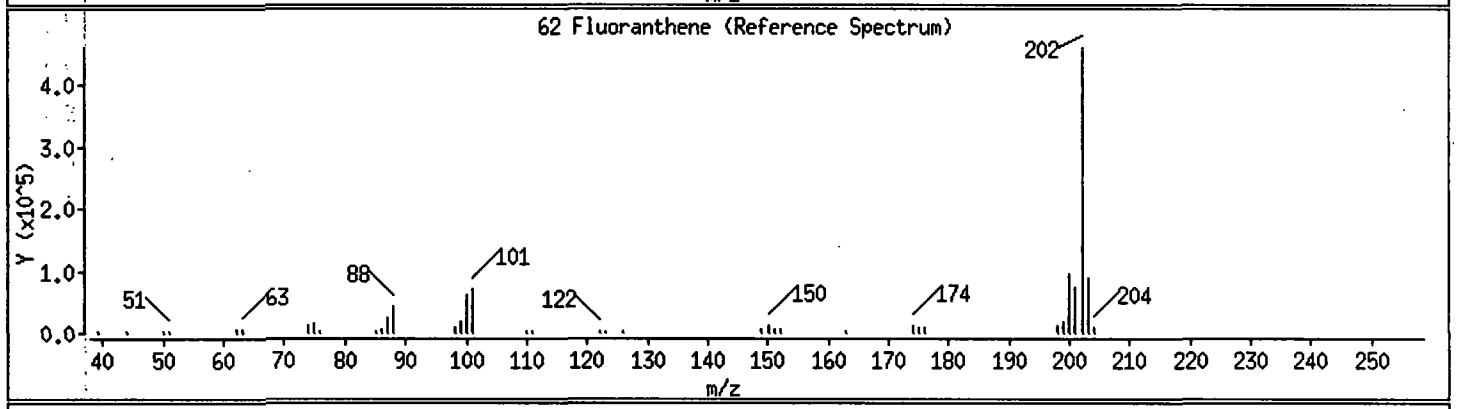
Column phase : XTI-5 Column diameter : 0.25

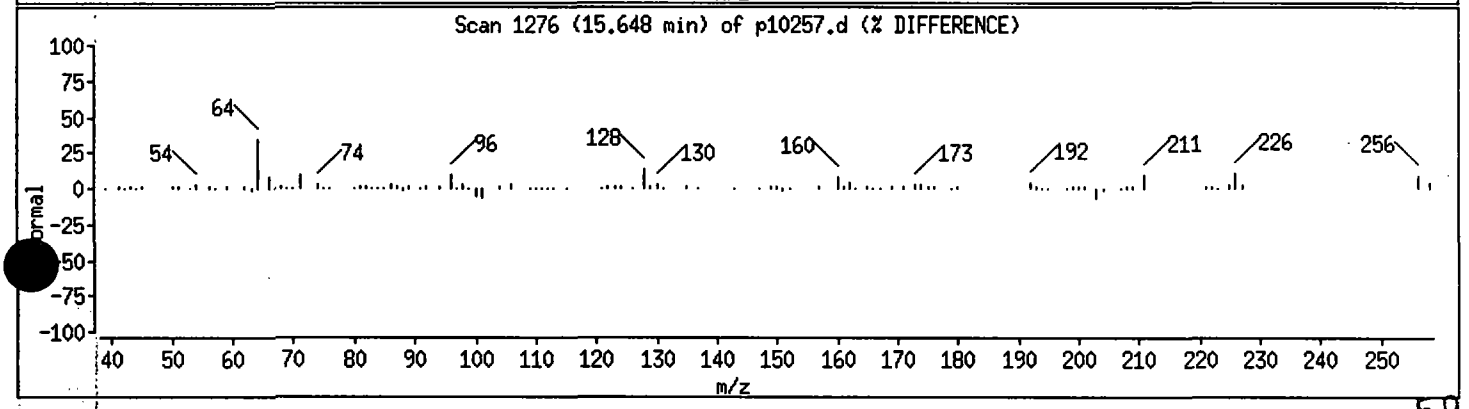
Volume Injected (uL) : 2.0

62 Fluoranthene









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

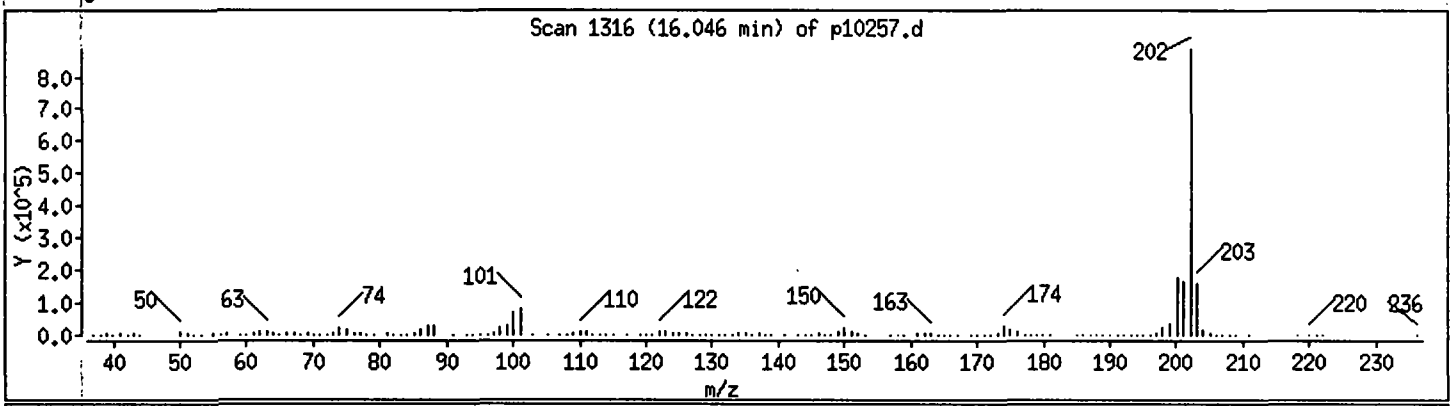
Instrument : p.i

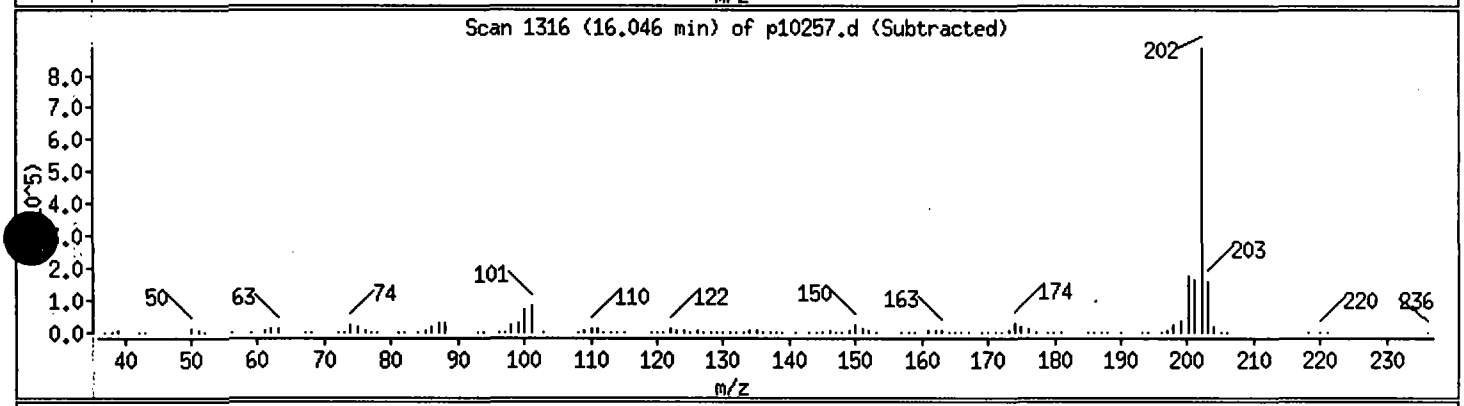
Sample ID : FFG24

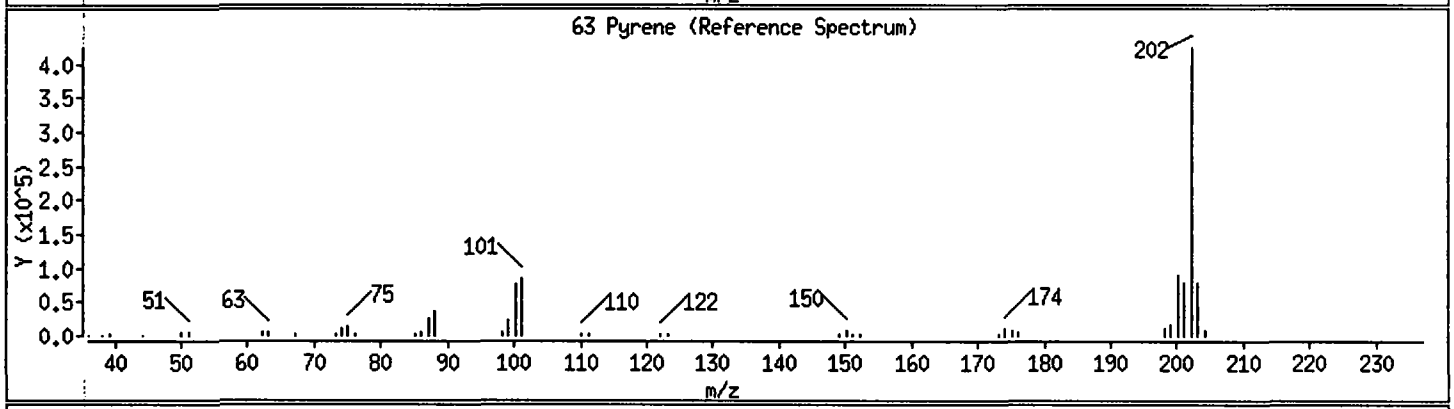
Column phase : XTI-5 Column diameter : 0.25

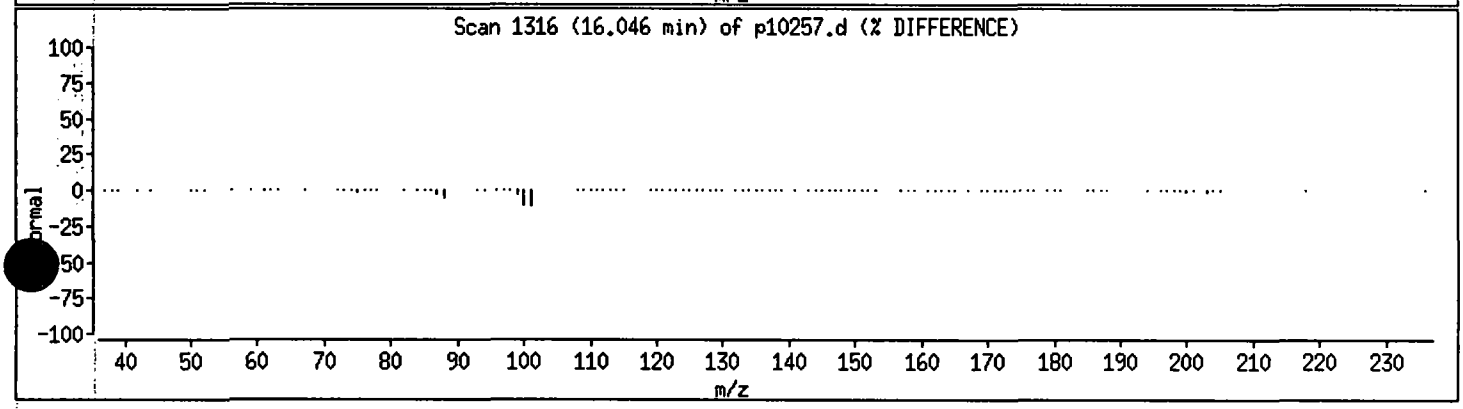
Volume Injected (uL) : 2.0

63 Pyrene









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

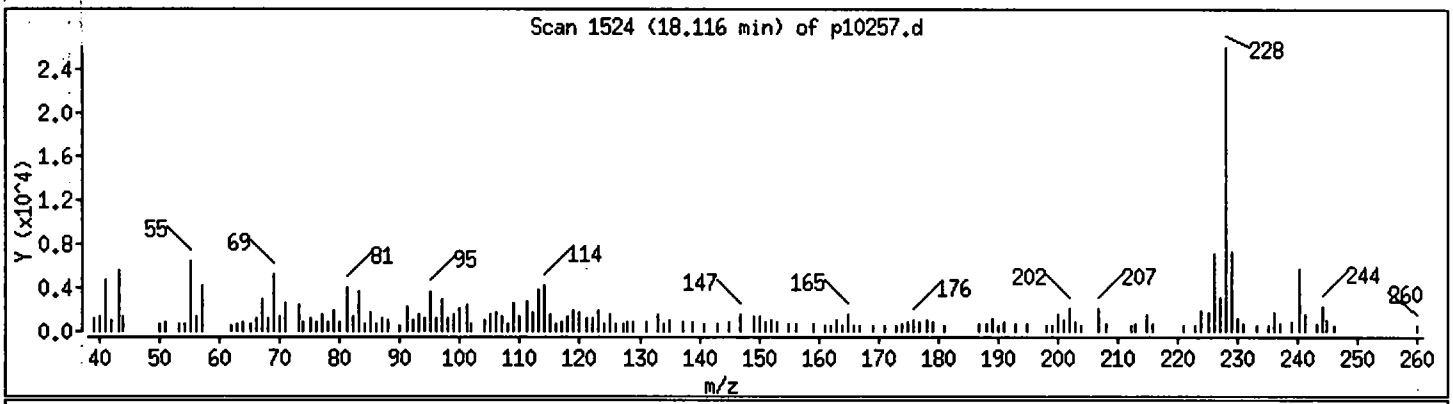
Instrument : p.i

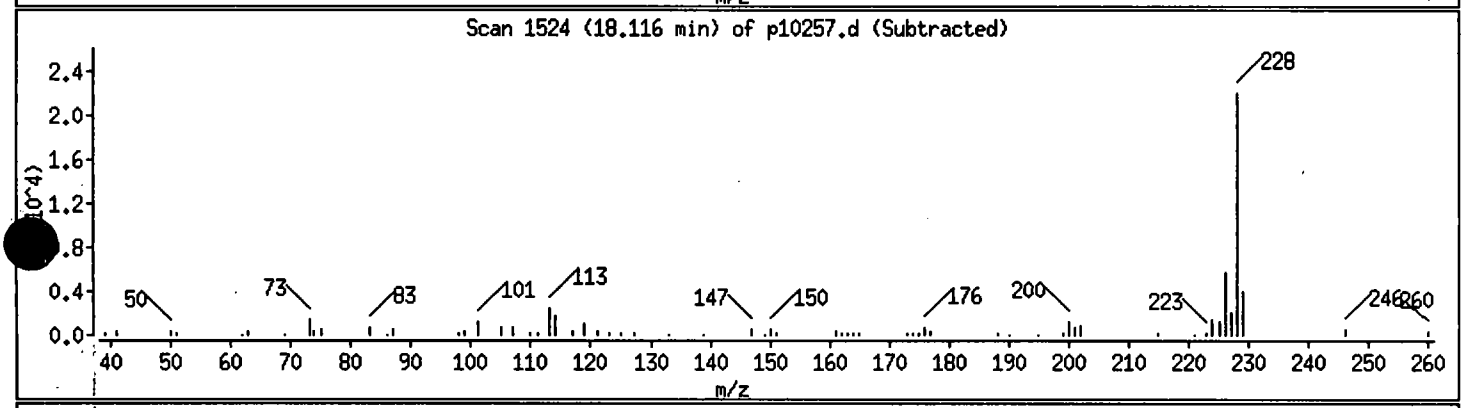
Sample ID : FFG24

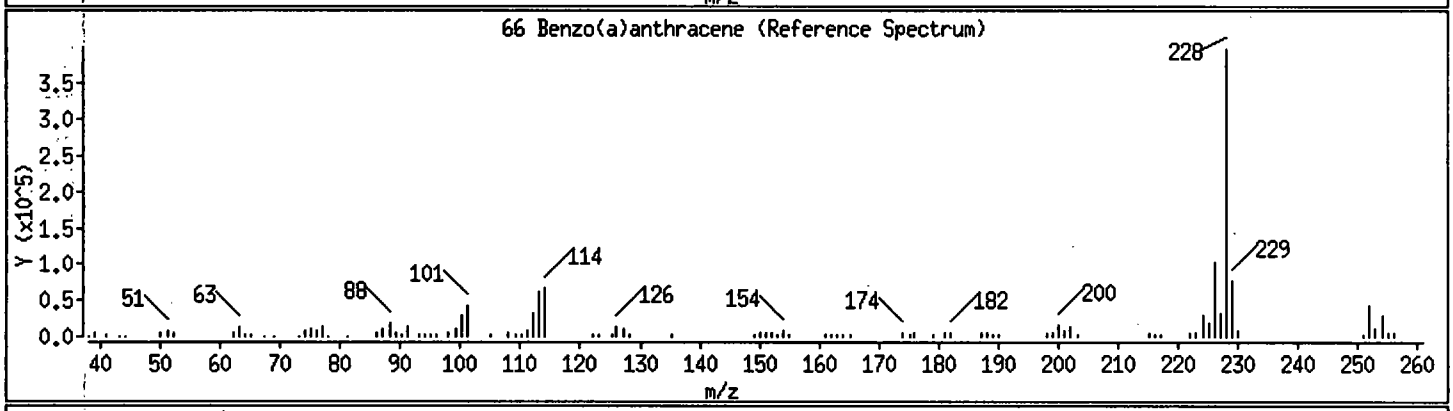
Column phase : XTI-5 Column diameter : 0.25

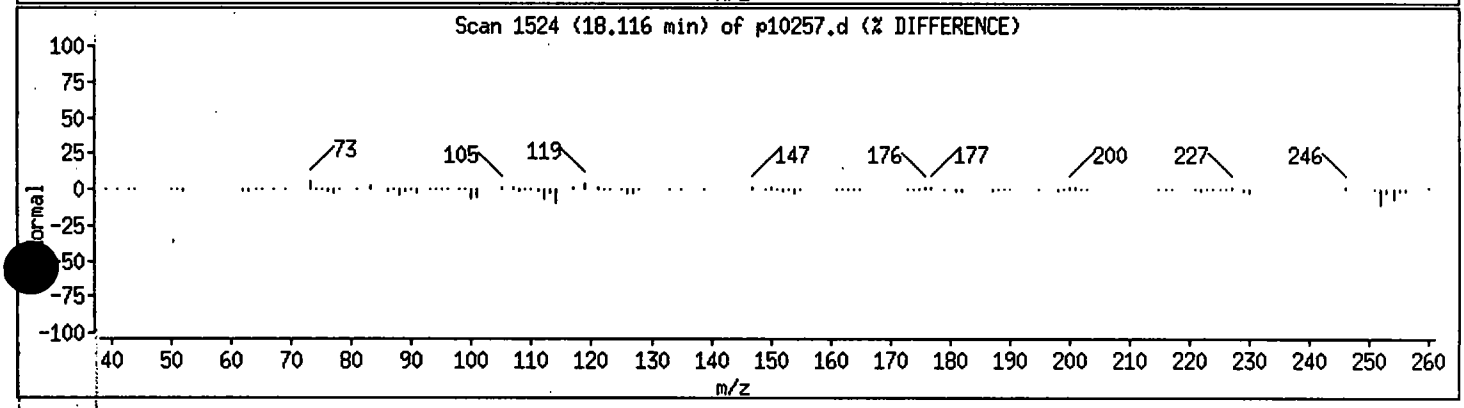
Volume Injected (uL) : 2.0

66 Benzo(a)anthracene









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

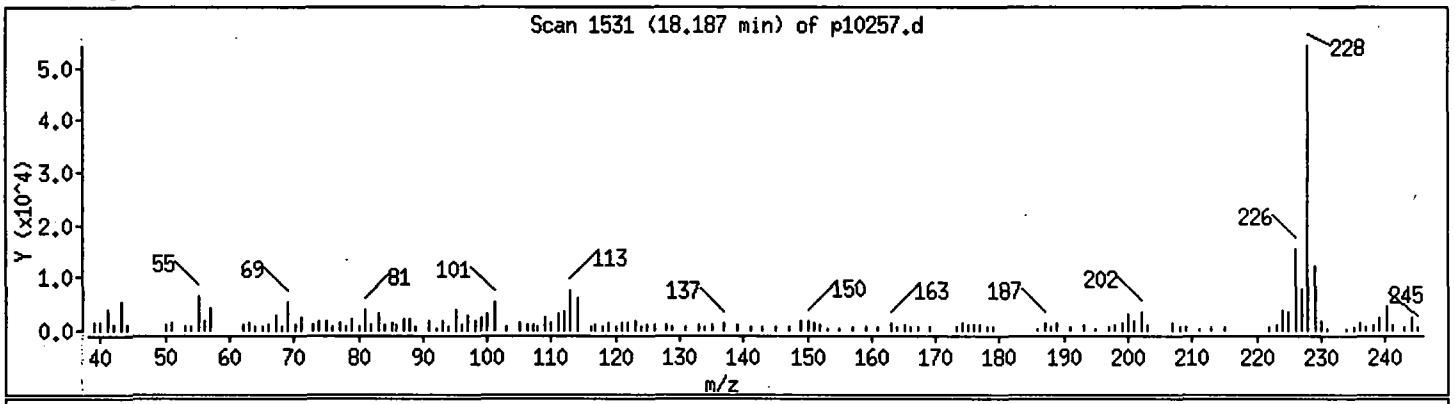
Instrument : p.i

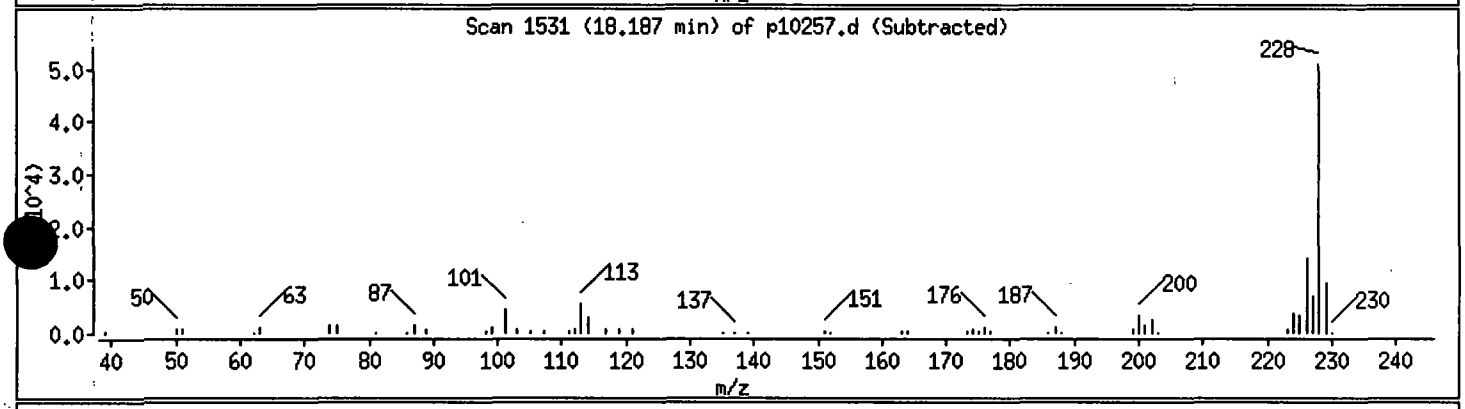
Sample ID : FFG24

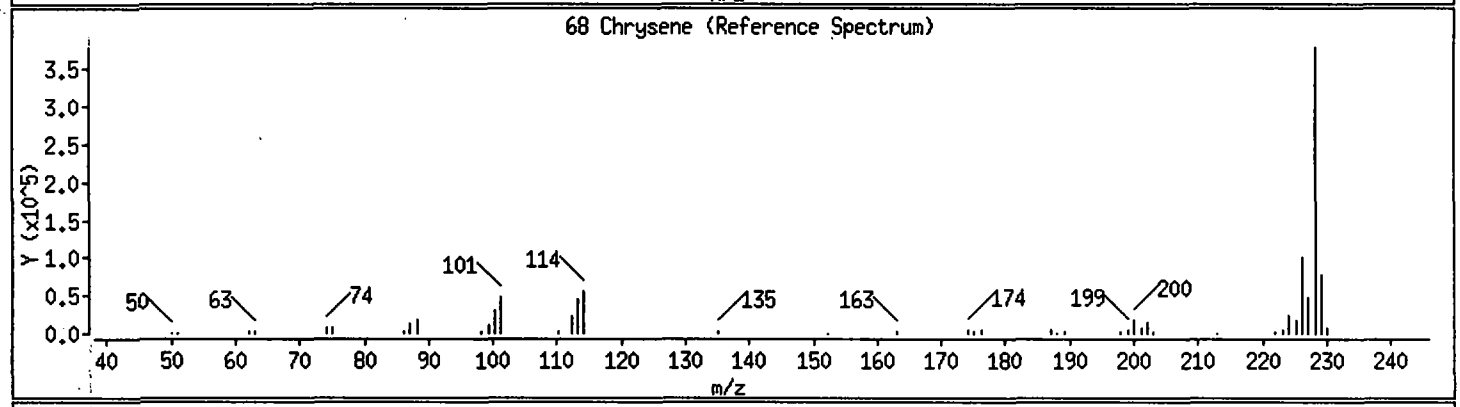
Column phase : XTI-5 Column diameter : 0.25

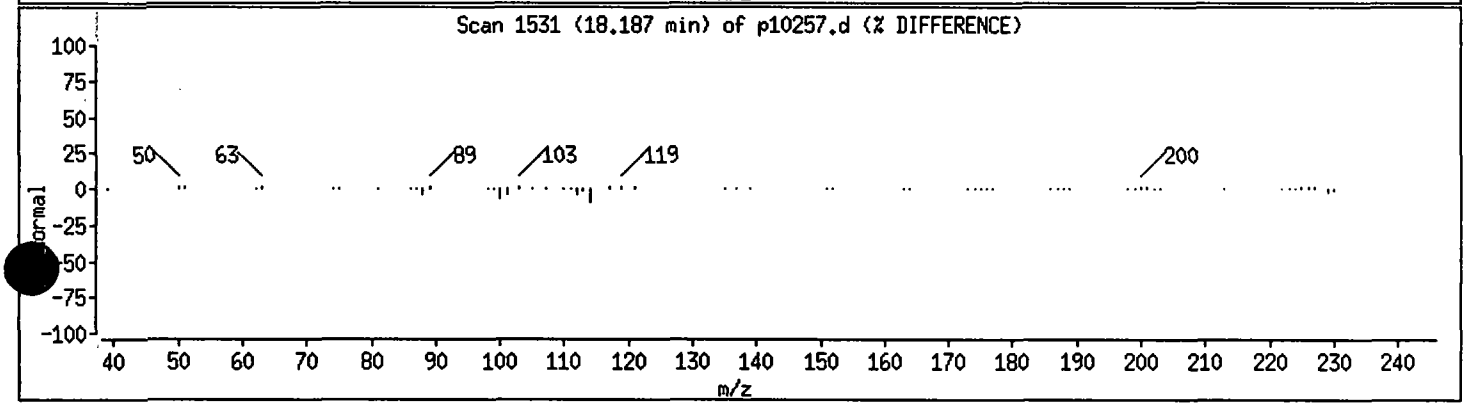
Volume Injected (uL) : 2.0

68 Chrysene









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

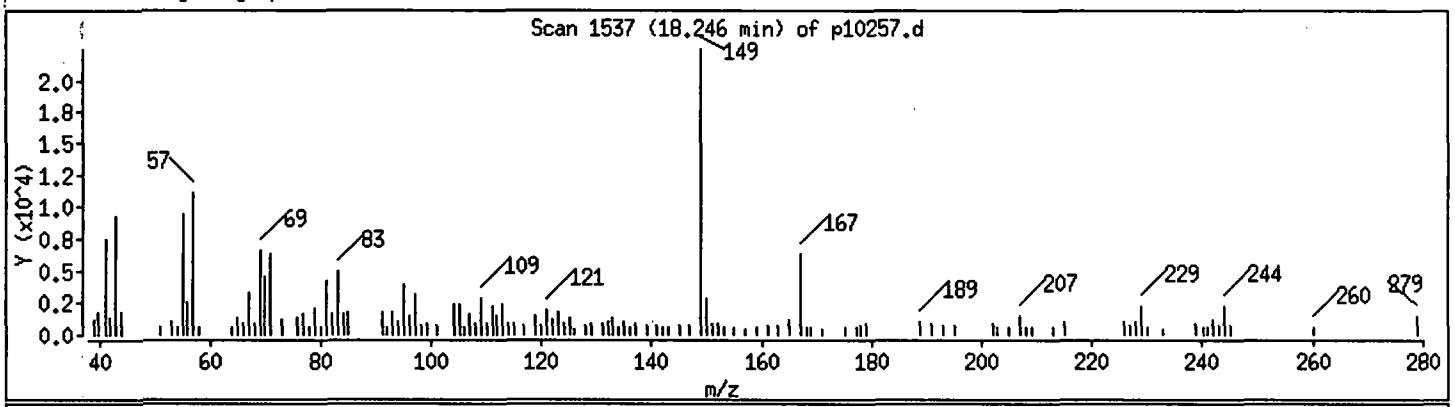
Instrument : p.i

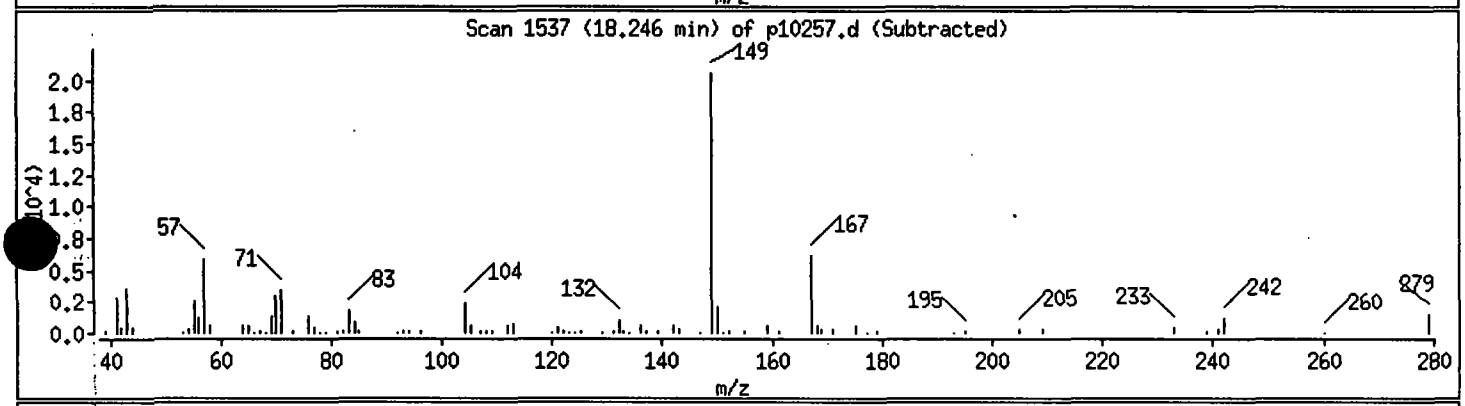
Sample ID : FFG24

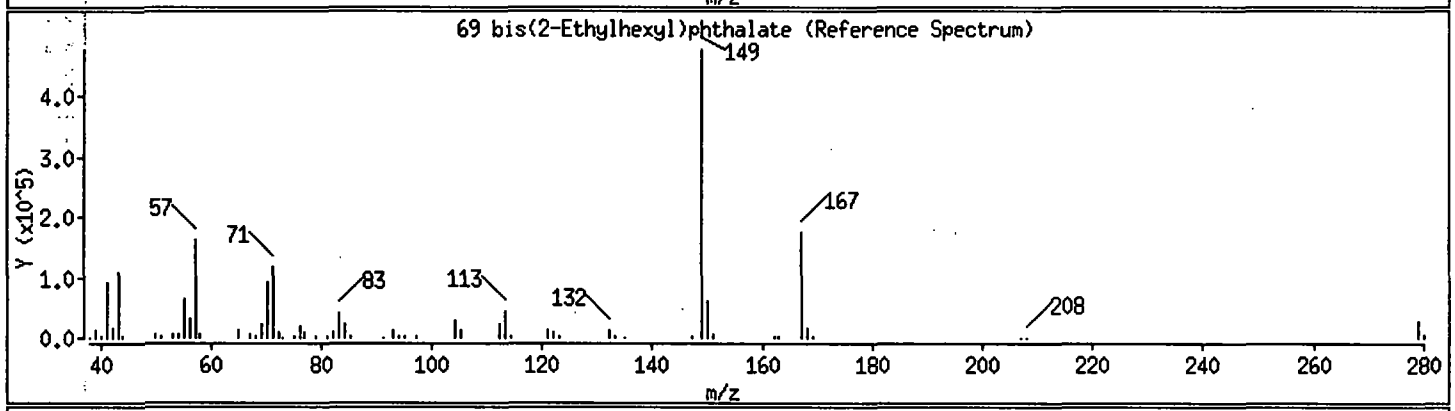
Column phase : XTI-5 Column diameter : 0.25

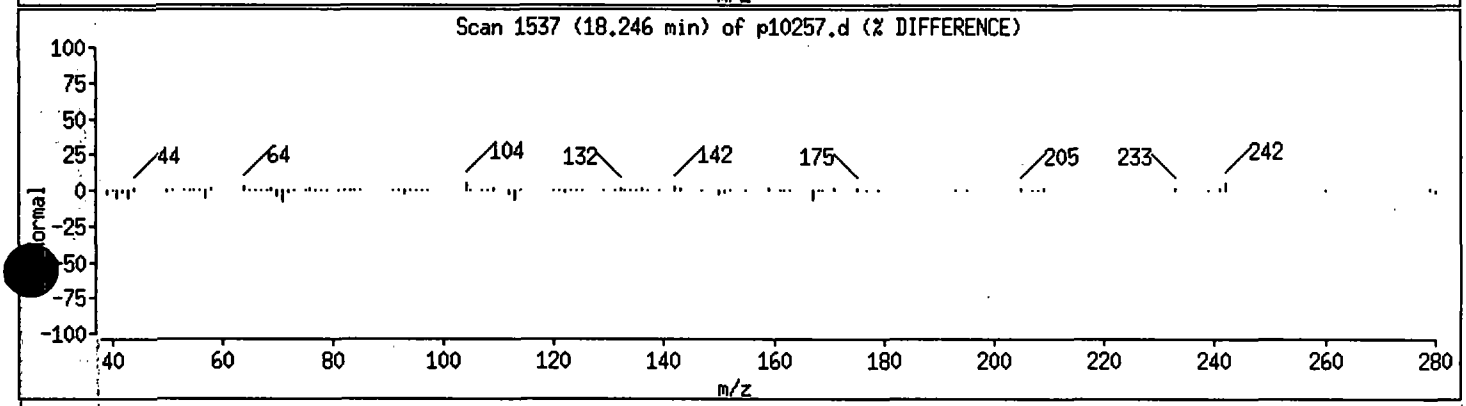
Volume Injected (uL) : 2.0

69 bis(2-Ethylhexyl)phthalate









Data File: /chem/p.i/p961208a.b/p10257.d
Report Date: 09-Dec-1996 14:54

SWOK/AATS

Unknown Compounds Quantitation Report

Data file : /chem/p.i/p961208a.b/p10257.d
Lab. Id. : 27683.10
Inj Date : 09-DEC-1996 00:38
Operator : Annie Inst ID: p.i
Smp Info : FFG24
Misc Info : MS517**INSTP*AATS-E:25159*27683.10*30G/0.5ML/2UL*
Comment :
Method : /chem/p.i/p961208a.b/BNA517EPA.m
Meth Date : 09-Dec-1996 13:59 ann
Cal Date : 08-DEC-1996 15:49 Cal File: p10242.d
Als bottle: 14
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 8 1,4-Dichlorobenzene-d4	5.789	3311941	40.000
* 57 Phenanthrene-d10	13.532	3241945	40.000
* 67 Chrysene-d12	18.156	3023284	40.000
* 75 Perylene-d12	20.468	1863469	40.000

RT	AREA	CONC(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	QUANT	CPND #
1-Pentene, 3,3-dimethyl-					CAS #: 3404-73-7		
3.371	639749	143.08	50	NBS75K.l	63258		8
1-Pentene, 2,3-dimethyl-					CAS #: 3404-72-6		
3.687	686209	153.47	50	NBS75K.l	63252		8
Octane, 3-methyl-					CAS #: 2216-33-3		
3.746	680021	152.09	83	NBS75K.l	5150		8
2-Pentanone, 4-hydroxy-4-methyl-					CAS #: 123-42-2		
3.845	3026447	676.88	50	NBS75K.l	64274		8
Decane, 5,6-dimethyl-					CAS #: 1636-43-7		
3.963	471979	105.56	64	NBS75K.l	15355		8
Cyclopentane, 1,3-dimethyl-					CAS #: 2453-00-1		
4.003	426322	95.35	34	NBS75K.l	1316		8

Data File: /chem/p.i/p961208a.b/p10257.d
Report Date: 09-Dec-1996 14:54

RT	AREA	CONC(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	QUANT	CPND #
Octane, 4-methyl-					CAS #: 2216-34-4		
4.042	775357	173.41	81	NBS75K.l	5151		8
Octane, 3-methyl-					CAS #: 2216-33-3		
4.121	1427714	319.31	90	NBS75K.l	5150		8
4-Hydroxy-5-oxohexanoic acid lactone					CAS #: 0-00-0		
4.772	1123392	251.25	50	NBS75K.l	4870		8
4H-1,2,4-Triazole, 4-ethyl-					CAS #: 43183-55-7		
4.999	922219	206.26	53	NBS75K.l	1157		8
4-Octenoic acid, 6-ethyl-3-hydroxy-3,7-d					CAS #: 41654-25-5		
5.127	485132	108.50	36	NBS75K.l	29590		8
2H-Pyran-2-one, tetrahydro-4-hydroxy-4-m					CAS #: 503-48-0		
6.223	1447248	323.68	28	NBS75K.l	65195		8
Anthracene, 1-methyl-					CAS #: 610-48-0		
14.415	612988	140.05	95	NBS75K.l	20868		57
Anthracene, 1-methyl-					CAS #: 610-48-0		
14.455	630554	144.07	97	NBS75K.l	20868		57
Hexadecanoic acid					CAS #: 57-10-3		
14.544	666294	152.23	99	NBS75K.l	71607		57
Heptacosane					CAS #: 593-49-7		
17.868	519768	127.34	90	NBS75K.l	52248		67
1-Docosene					CAS #: 1599-67-3		
18.973	3994326	978.65	99	NBS75K.l	72943		67
17-Octadecenal					CAS #: 56554-86-0		
19.661	656297	260.88	91	NBS75K.l	37041		75
Nonacosane					CAS #: 630-03-5		
19.920	606135	240.94	94	NBS75K.l	54526		75
Octadecanal					CAS #: 638-66-4		
20.627	923035	366.91	91	NBS75K.l	37453		75
Heptadecane, 2,6,10,15-tetramethyl-					CAS #: 54833-48-6		
20.837	422296	167.86	96	NBS75K.l	42196		75
(Z)14-Tricosenyl formate					CAS #: 77899-10-6		
21.524	453995	180.46	90	NBS75K.l	50987		75
1H-Cycloprop[e]azulene, 1a,2,3,4,4a,5,6,					CAS #: 489-40-7		
22.023	238287	94.72	45	NBS75K.l	69951		75

Data File: /chem/p.i/p961208a.b/p10257.d
Report Date: 09-Dec-1996 14:54

RT	AREA	CONC(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	QUANT	CPND #
.gamma.-Sitosterol					CAS #: 83-47-6		
22.322	588457	233.91	46	NBS75K.l	54958	75	
Oxirane, hexadecyl-					CAS #: 7390-81-0		
22.421	291926	116.04	91	NBS75K.l	37448	75	
5(1H)-Azulenone, 2,4,6,7,8,8a-hexahydro-					CAS #: 6754-66-1		
22.501	302580	120.27	43	NBS75K.l	27256	75	
.beta.-Amyrin					CAS #: 559-70-6		
22.661	848103	337.12	72	NBS75K.l	55706	75	
Bicyclo[2.2.1]heptane, 2-methyl-					CAS #: 15185-11-2		
22.731	306566	121.86	47	NBS75K.l	2379	75	
.beta.-Amyrin trimethylsilyl ether					CAS #: 1721-67-1		
22.751	274241	109.01	38	NBS75K.l	58902	75	
Cyclohexane, 1-ethenyl-1-methyl-2,4-bis(					CAS #: 515-13-9		
22.880	1524135	605.85	70	NBS75K.l	23914	75	
.alpha.-Amyrin					CAS #: 638-95-9		
22.920	906951	360.51	55	NBS75K.l	55727	75	
5-Tetradecyne					CAS #: 35216-11-6		
23.567	908727	361.22	55	NBS75K.l	21426	75	
Cyclopropylidene-3,3-dimethylcyclohex-5-					CAS #: 0-00-0		
23.697	686308	272.81	42	NBS75K.l	17789	75	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data file : p10257.d Matrix : SOIL

CAS #	Compound	R.T.	Estimated Conc.
2216-33-3	Octane, 3-methyl-	3.746	152.09
1636-43-7	Decane, 5,6-dimethyl-	3.963	105.56
2453-00-1	Cyclopentane, 1,3-dimethyl-	4.002	95.35
2216-34-4	Octane, 4-methyl-	4.042	173.41
2216-33-3	Octane, 3-methyl-	4.121	319.31
593-49-7	Heptacosane	17.86	127.34
630-03-5	Nonacosane	19.91	240.94
54833-48-6	Heptadecane, 2,6,10,15-tetramethyl-	20.83	167.86
15185-11-2	Bicyclo[2.2.1]heptane, 2-methyl-	22.73	121.86
515-13-9	Cyclohexane, 1-ethenyl-1-methyl-2,4-bis(	22.88	605.85

Concentration Units: Water: UG/L Soil: UG/KG

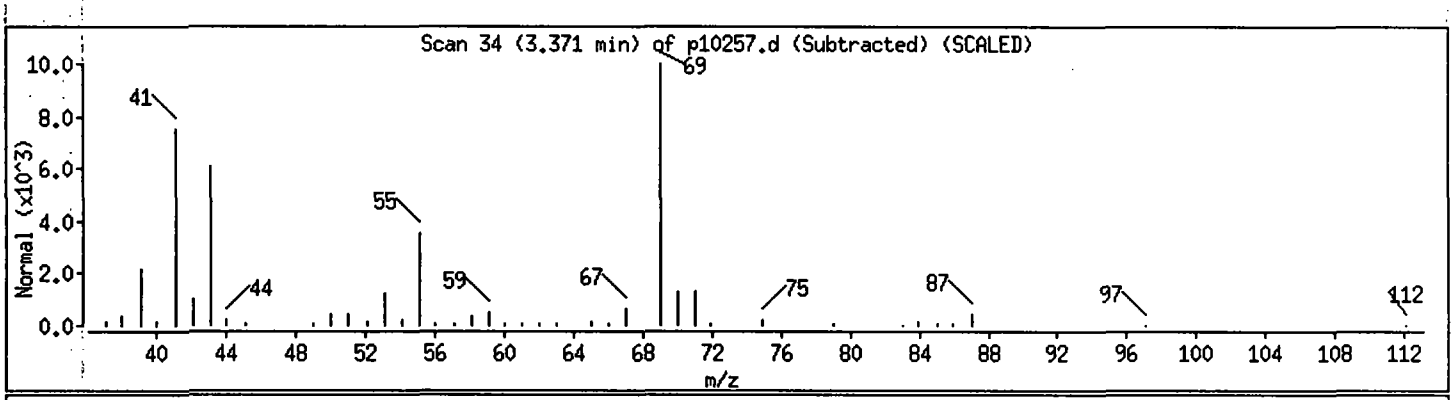
Data File: /chem/p.i/p961208a.b/p10257.d

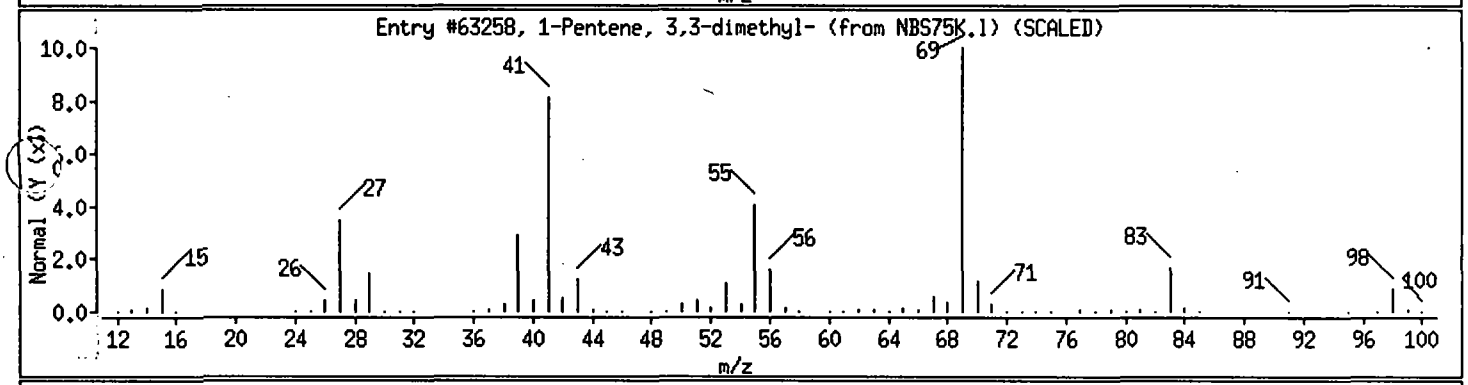
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24

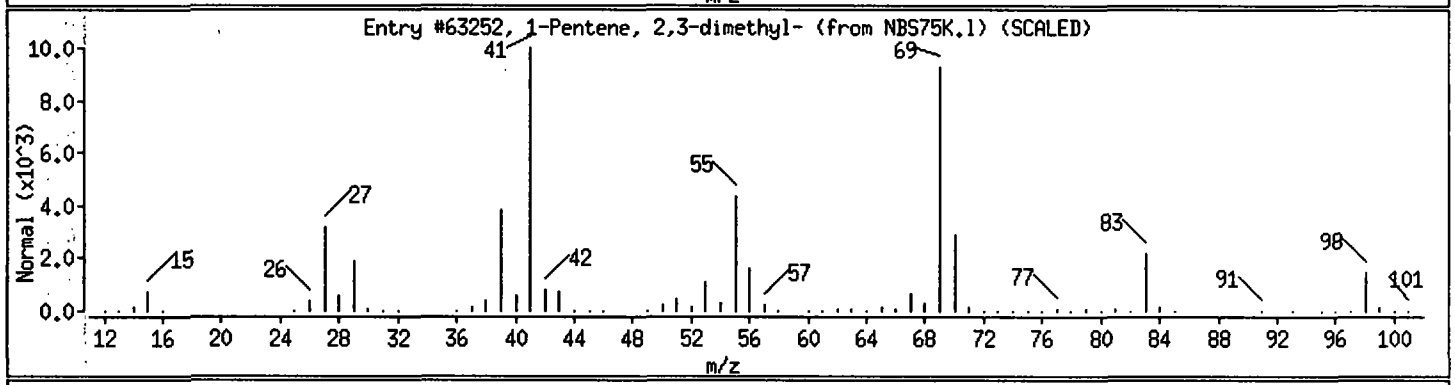
UNKNOWN ALKENE

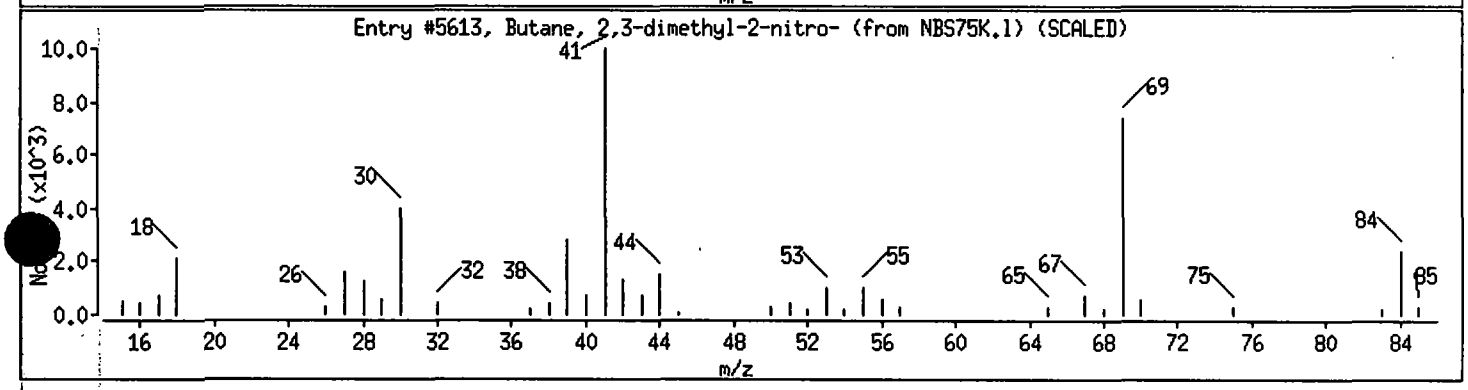
Column phase : XTI-5
Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
1-Pentene, 3,3-dimethyl-	3404-73-7	NBS75K.l	63258	50
1-Pentene, 2,3-dimethyl-	3404-72-6	NBS75K.l	63252	50
Butane, 2,3-dimethyl-2-nitro-	34075-28-0	NBS75K.l	5613	50







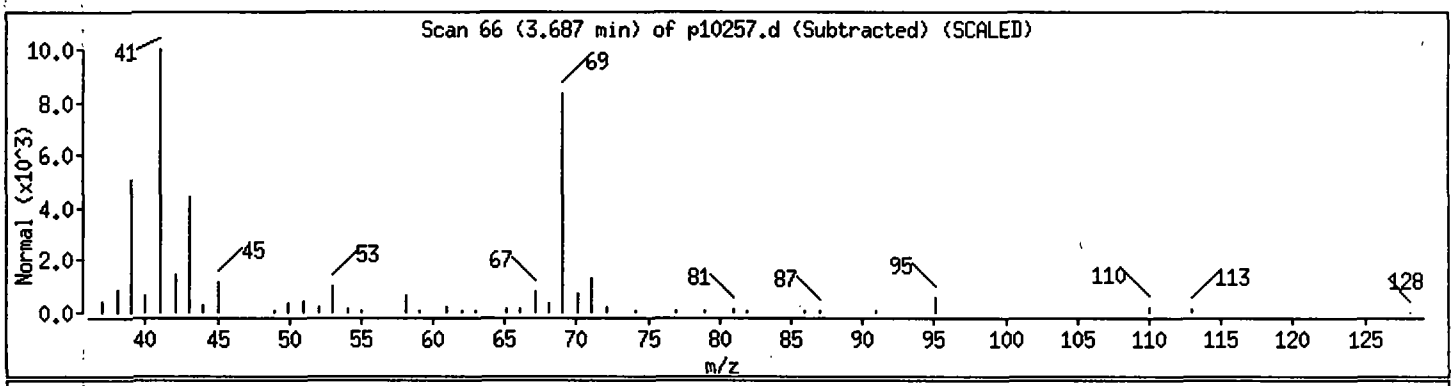


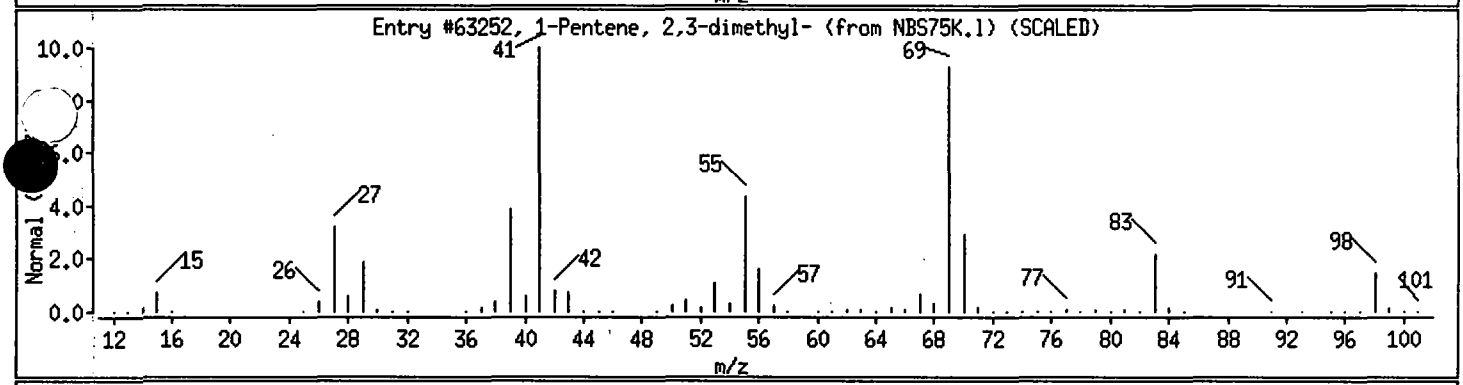
Data File: /chem/p.i/p961208a.b/p10257.d

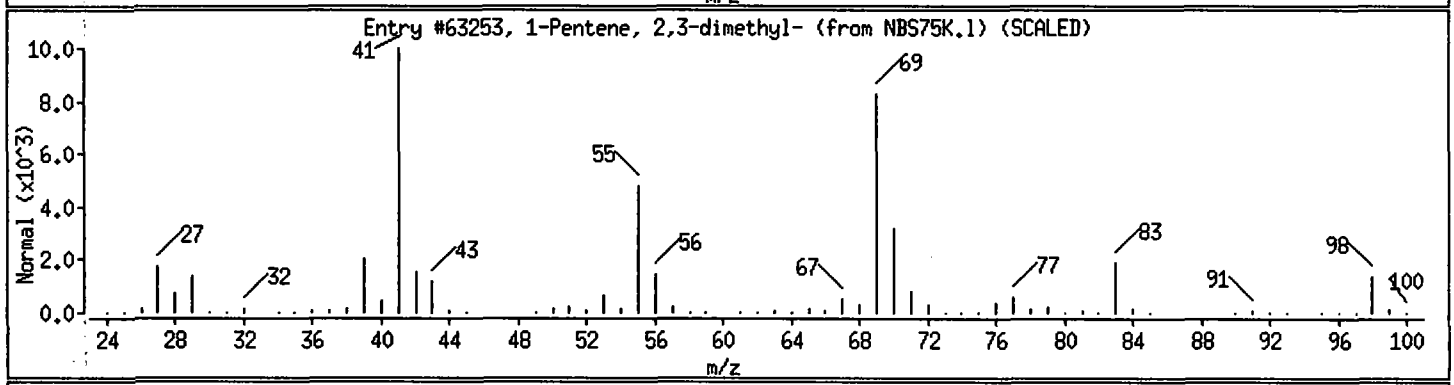
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5
Column diameter : 0.25
Volume Injected (uL) : 2.0

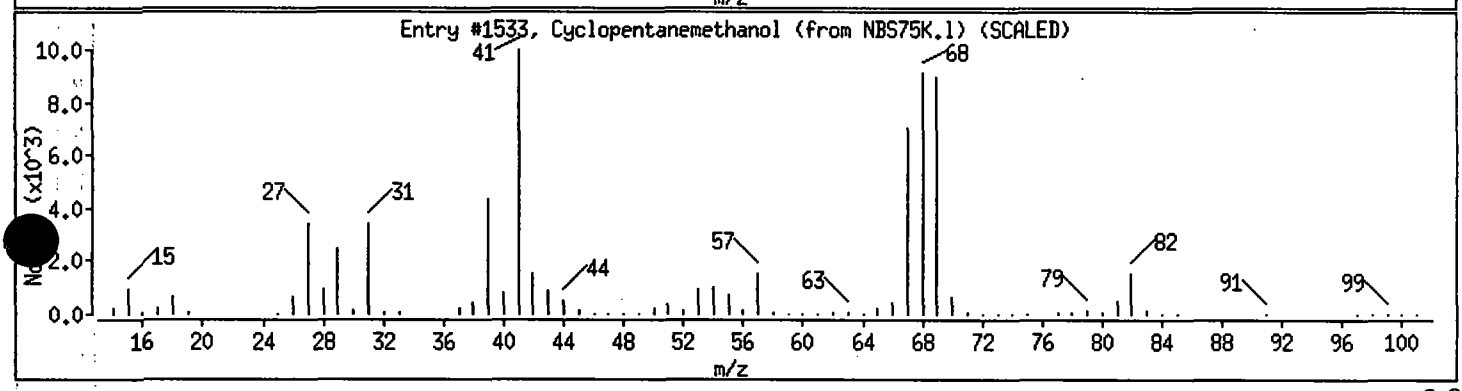
UNKNOWN ALKENE

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
1-Pentene, 2,3-dimethyl-	3404-72-6	NBS75K.l	63252	50
1-Pentene, 2,3-dimethyl-	3404-72-6	NBS75K.l	63253	40
Cyclopentanemethanol	3637-61-4	NBS75K.l	1533	39





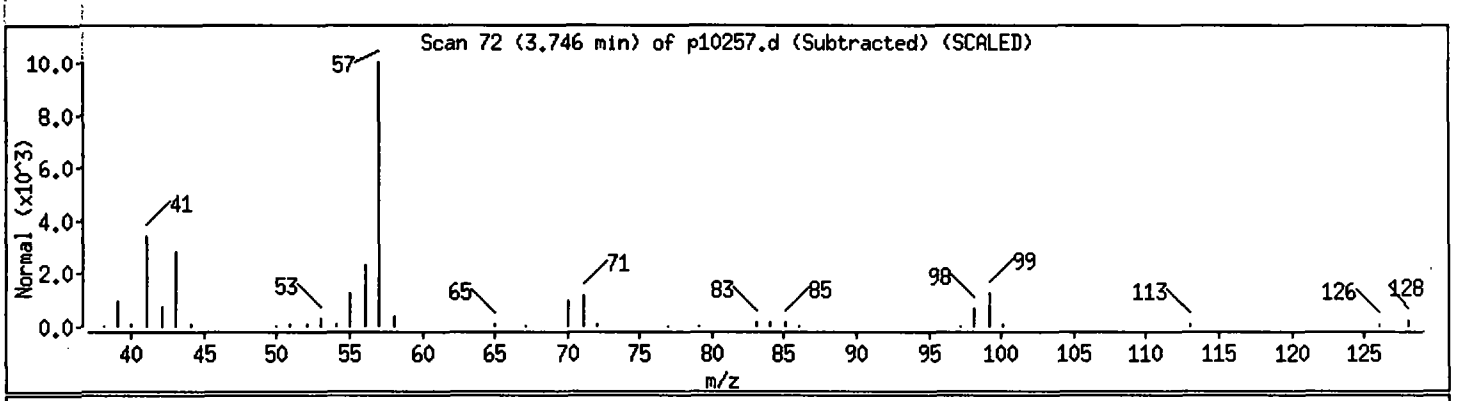


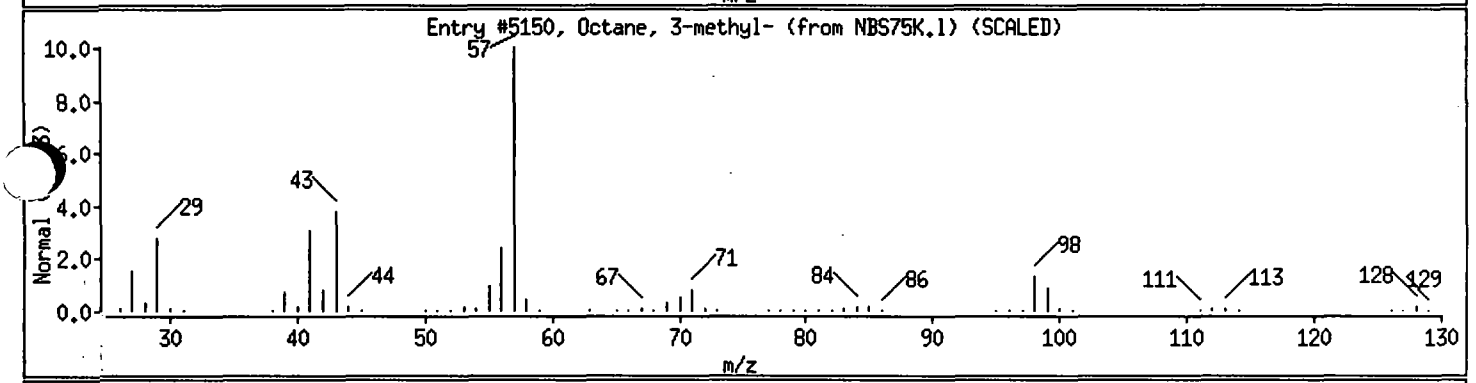


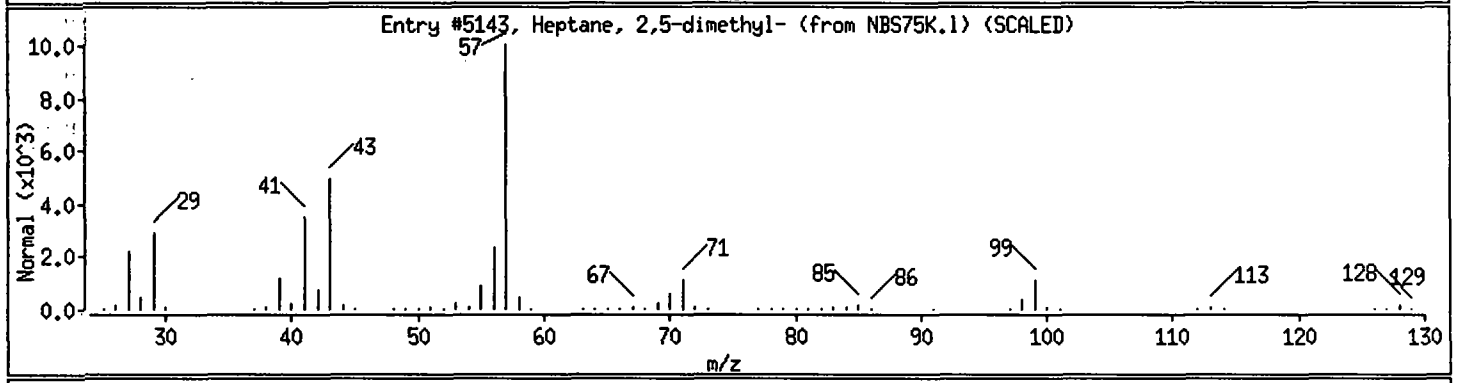
Data File: /chem/p.i/p961208a.b/p10257.d

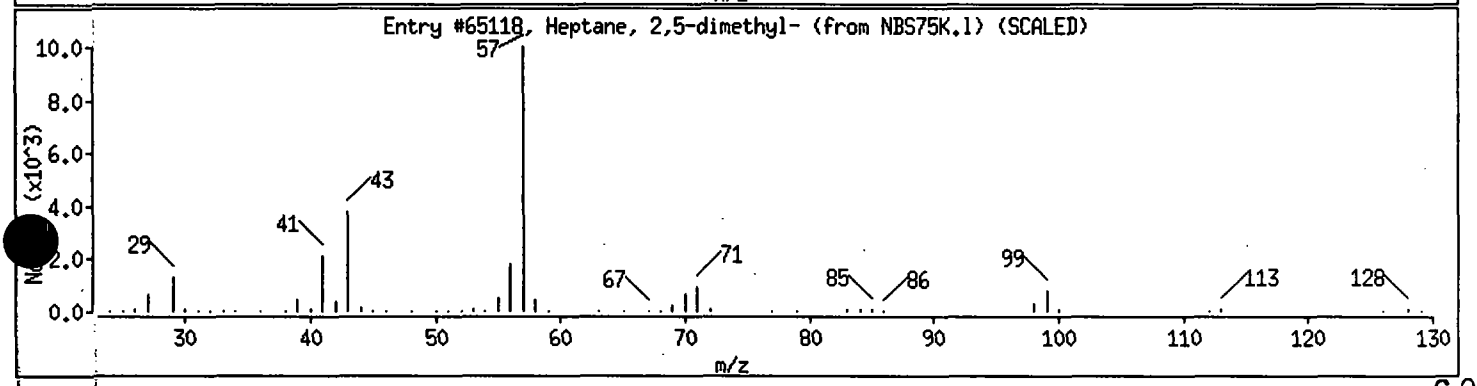
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Octane, 3-methyl-	2216-33-3	NBS75K.1	5150	83
Heptane, 2,5-dimethyl-	2216-30-0	NBS75K.1	5143	78
Heptane, 2,5-dimethyl-	2216-30-0	NBS75K.1	65118	64









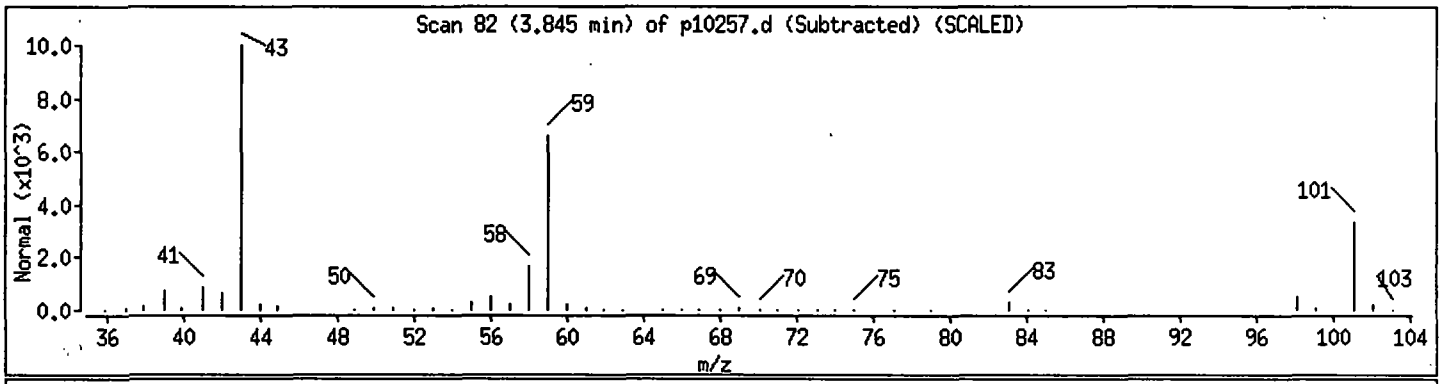
Data File: /chem/p.i/p961208a.b/p10257.d

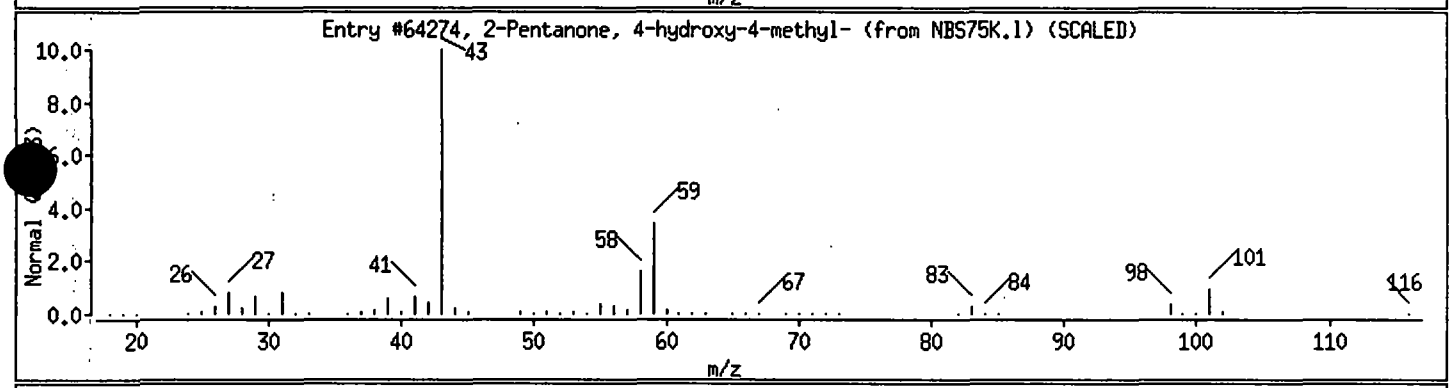
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24

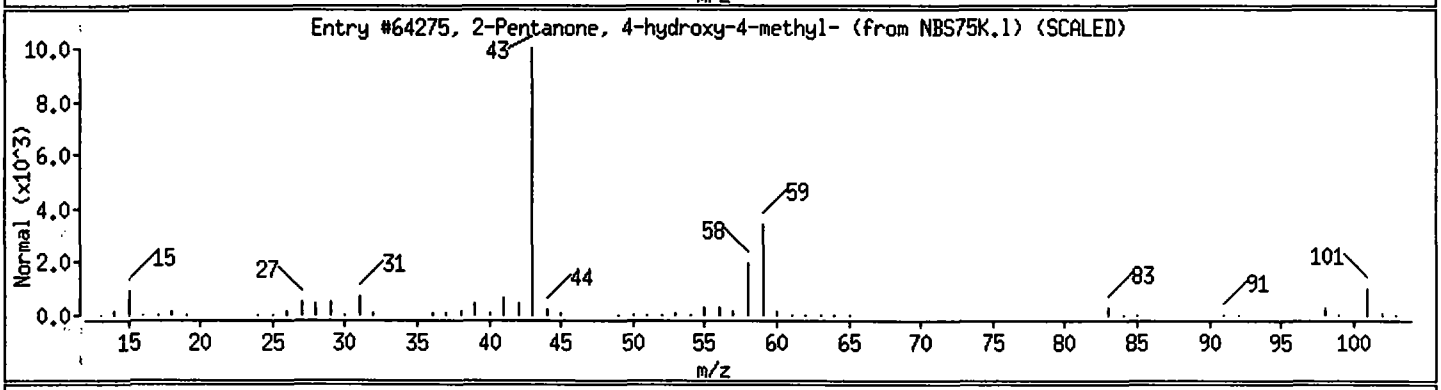
ALDOL CONDENSATE

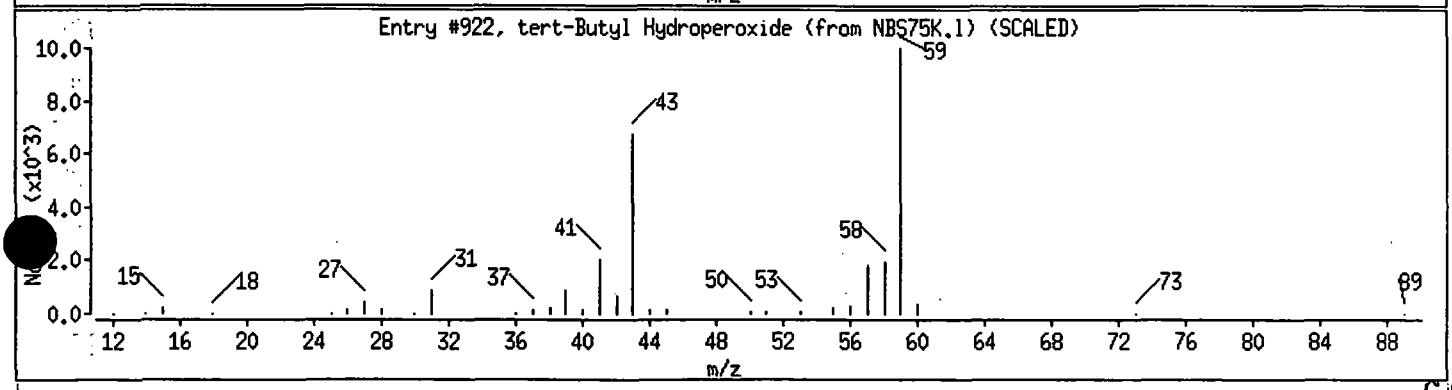
Column phase : XTI-5
Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NBS75K.1	64274	50
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NBS75K.1	64275	40
tert-Butyl Hydroperoxide	75-91-2	NBS75K.1	922	36





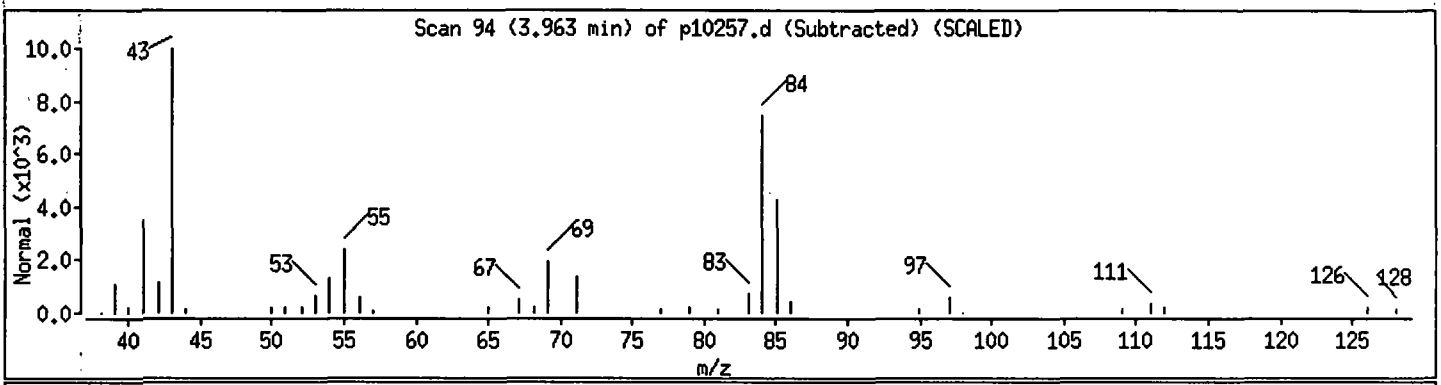


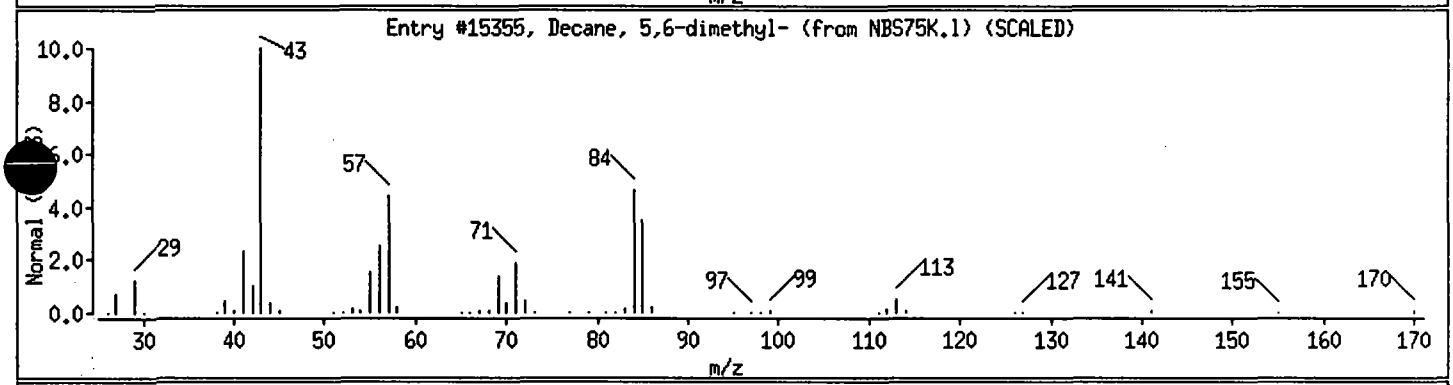


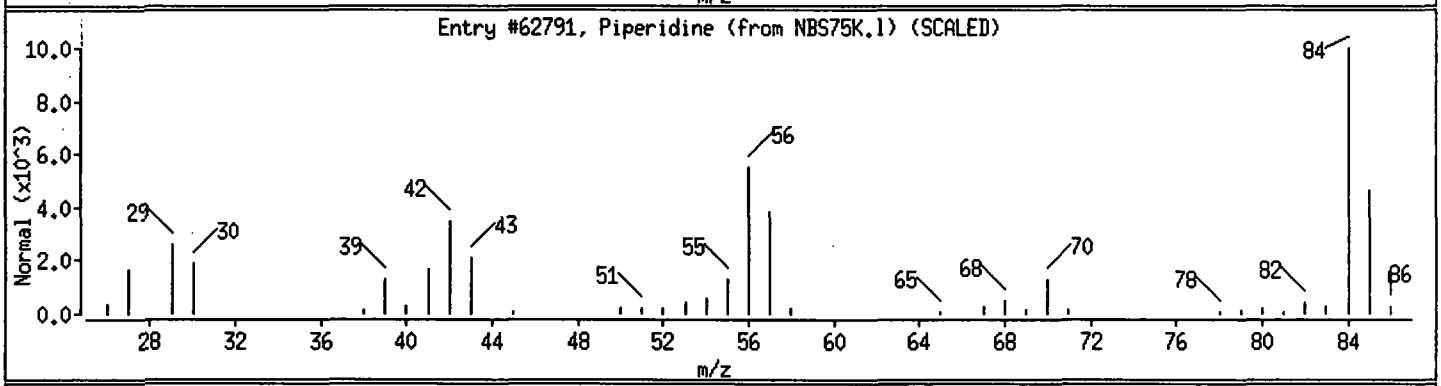
Data File: /chem/p.i/p961208a.b/p10257.d

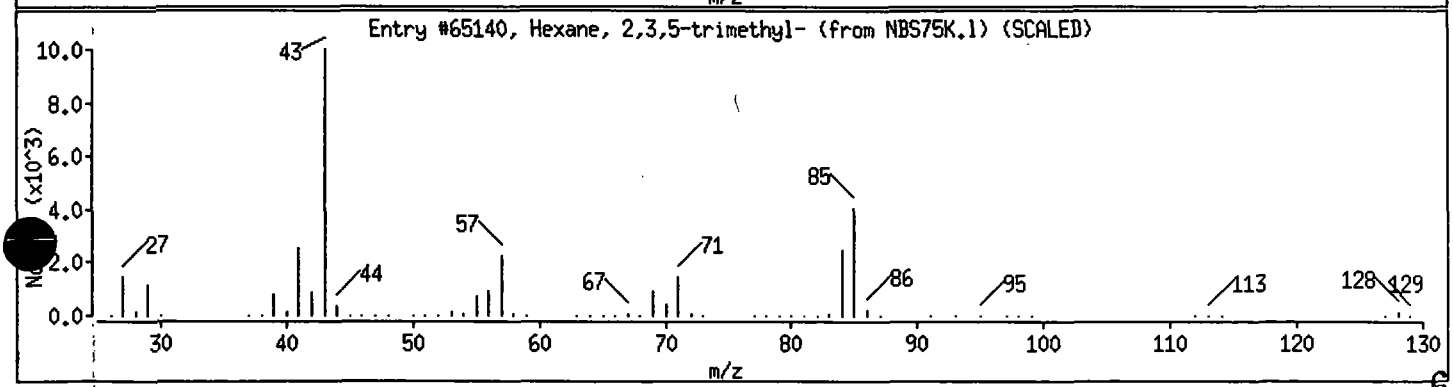
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Decane, 5,6-dimethyl-	1636-43-7	NBS75K.l	15355	64
Piperidine	110-89-4	NBS75K.l	62791	52
Hexane, 2,3,5-trimethyl-	1069-53-0	NBS75K.l	65140	43





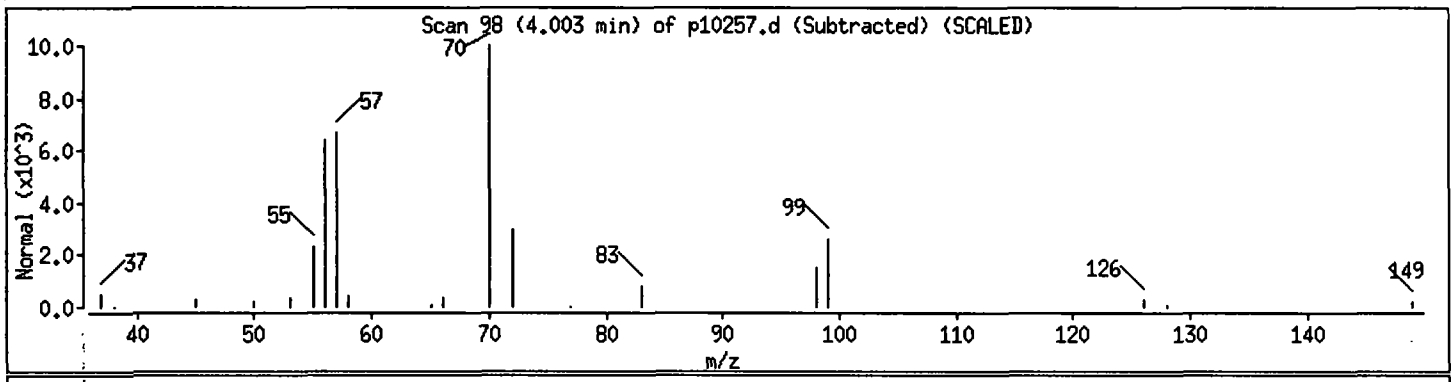


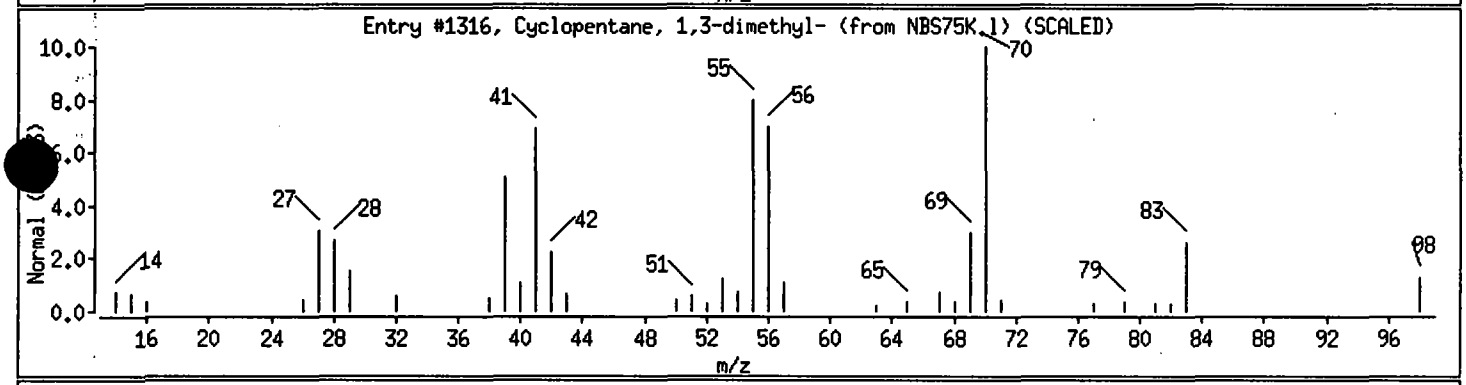


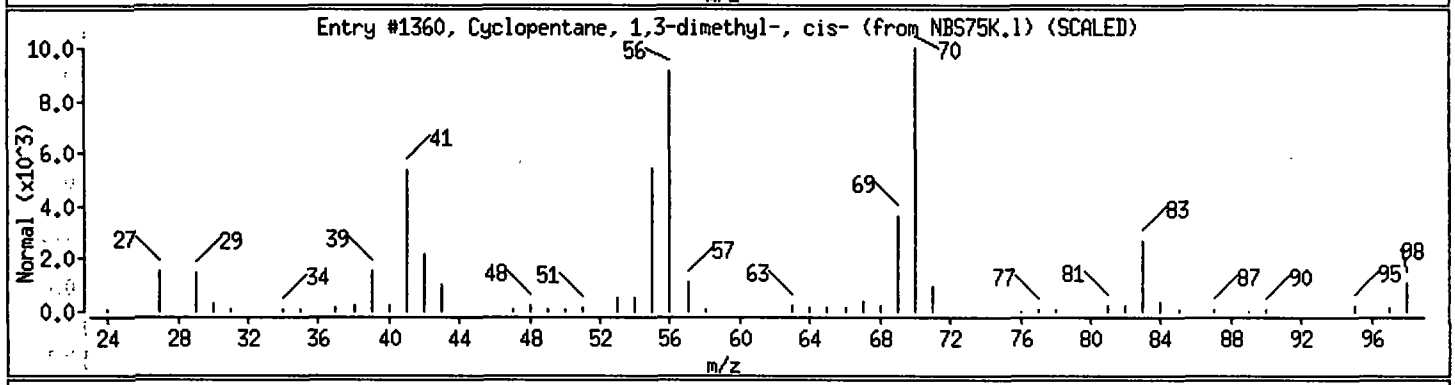
Data File: /chem/p.i/p961208a.b/p10257.d

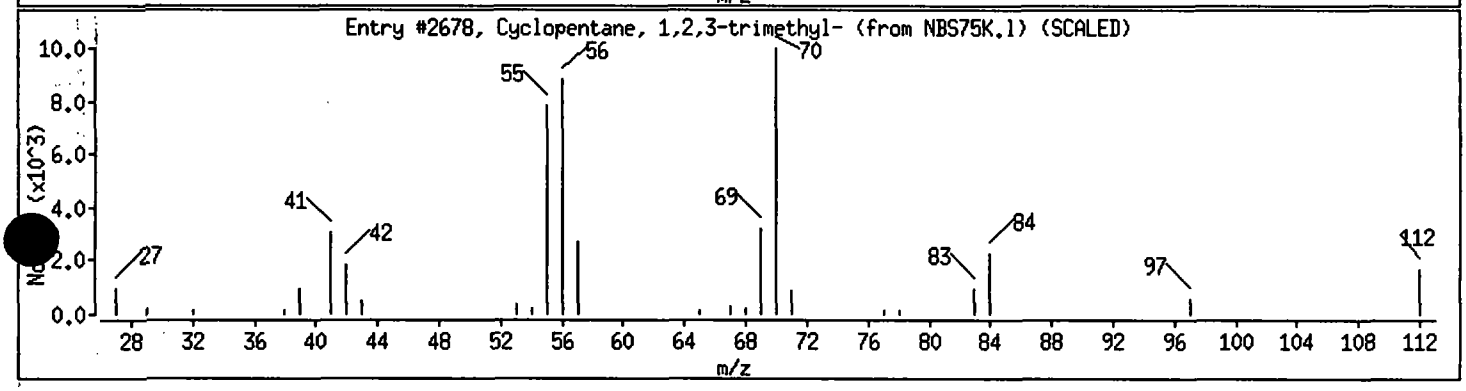
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Cyclopentane, 1,3-dimethyl-	2453-00-1	NBS75K.l	1316	34
Cyclopentane, 1,3-dimethyl-, cis-	2532-58-3	NBS75K.l	1360	34
Cyclopentane, 1,2,3-trimethyl-	2815-57-8	NBS75K.l	2678	30





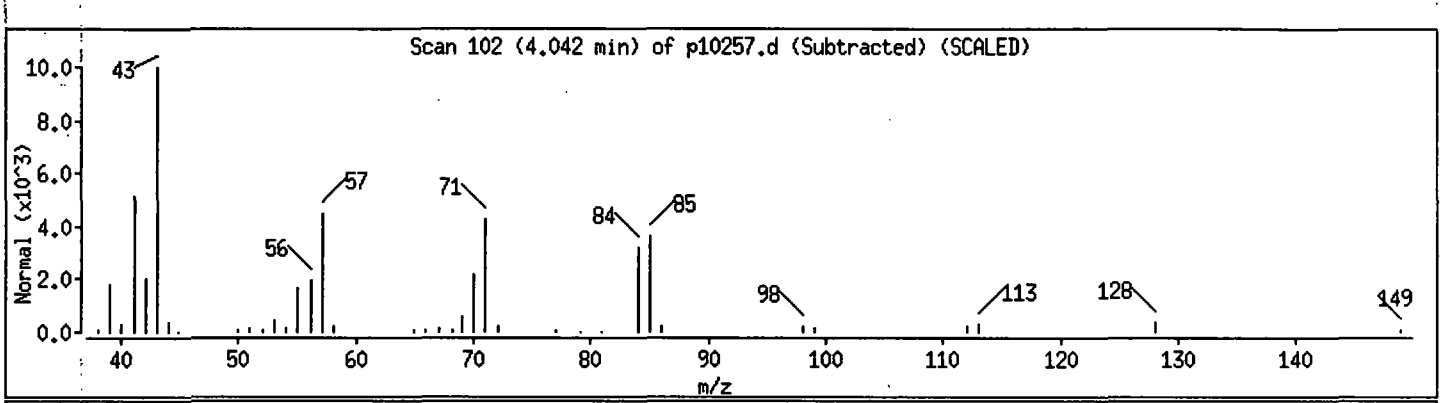


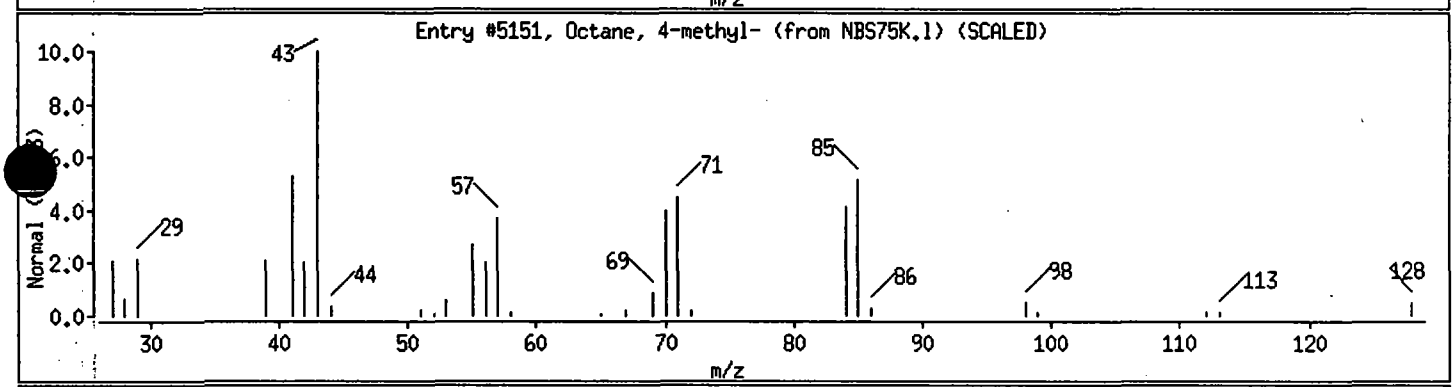


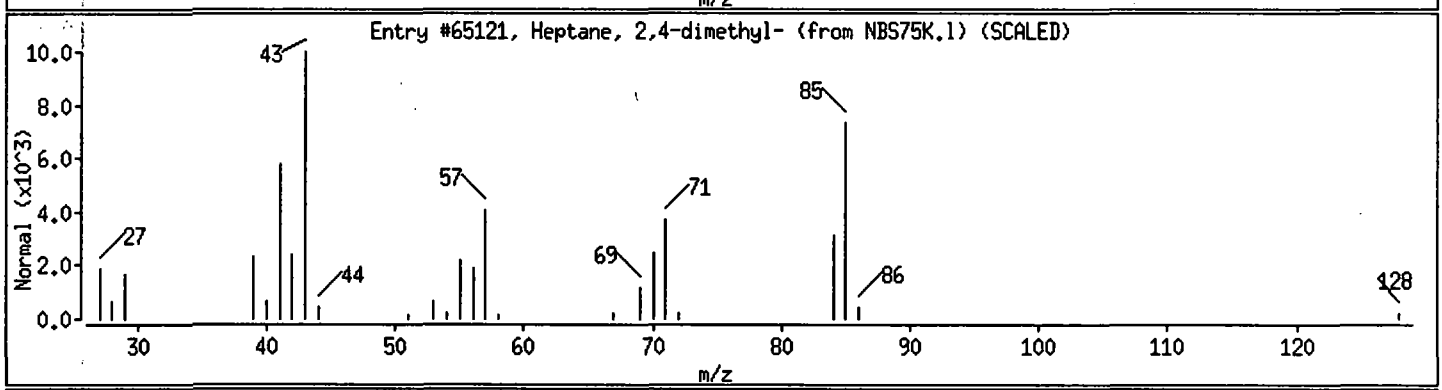
Data File: /chem/p.i/p961208a.b/p10257.d

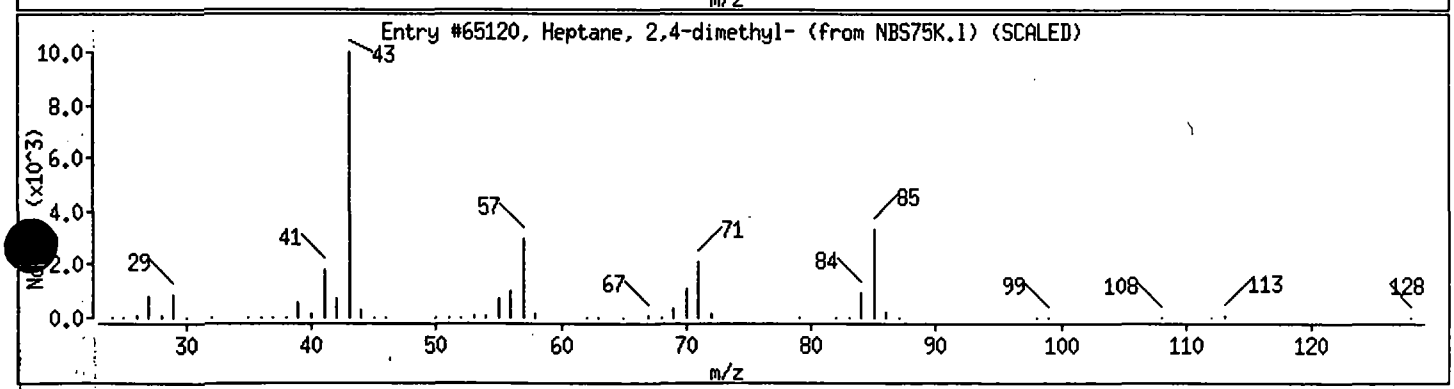
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Octane, 4-methyl-	2216-34-4	NBS75K.l	5151	81
Heptane, 2,4-dimethyl-	2213-23-2	NBS75K.l	65121	80
Heptane, 2,4-dimethyl-	2213-23-2	NBS75K.l	65120	64





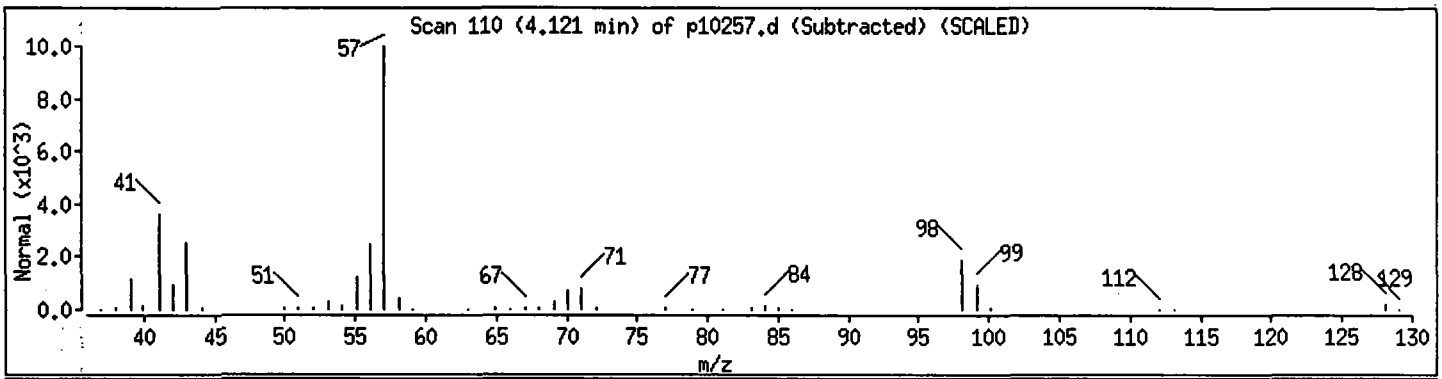


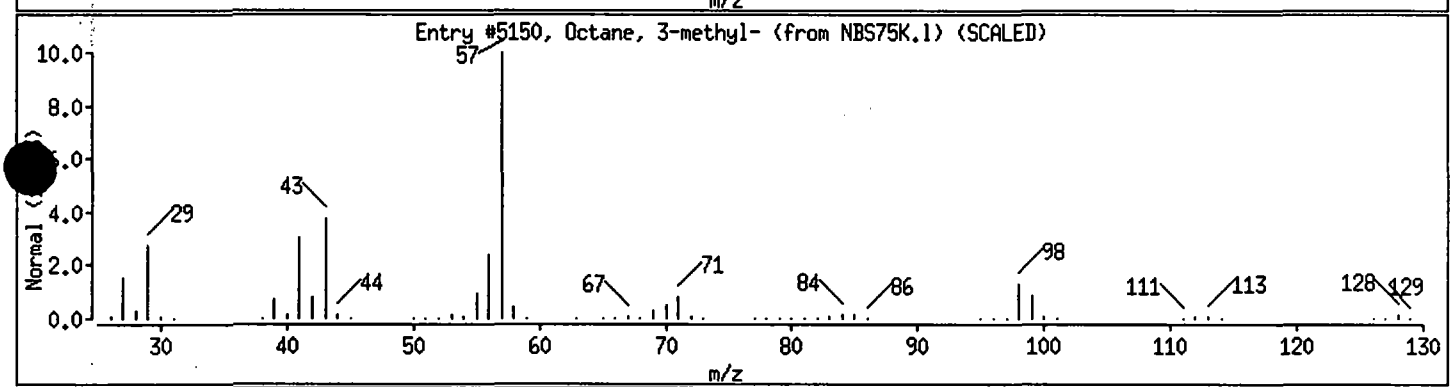


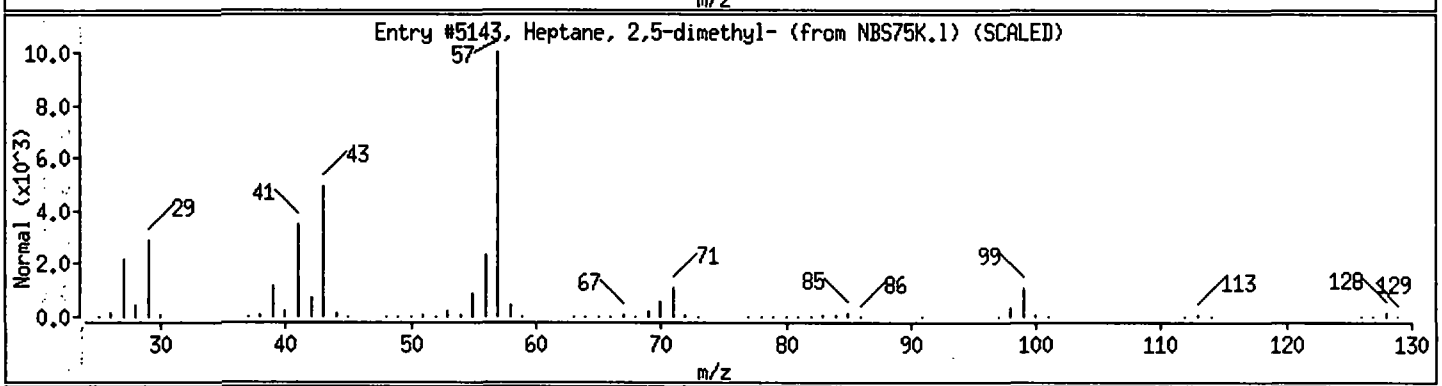
Data File: /chem/p.i/p961208a.b/p10257.d

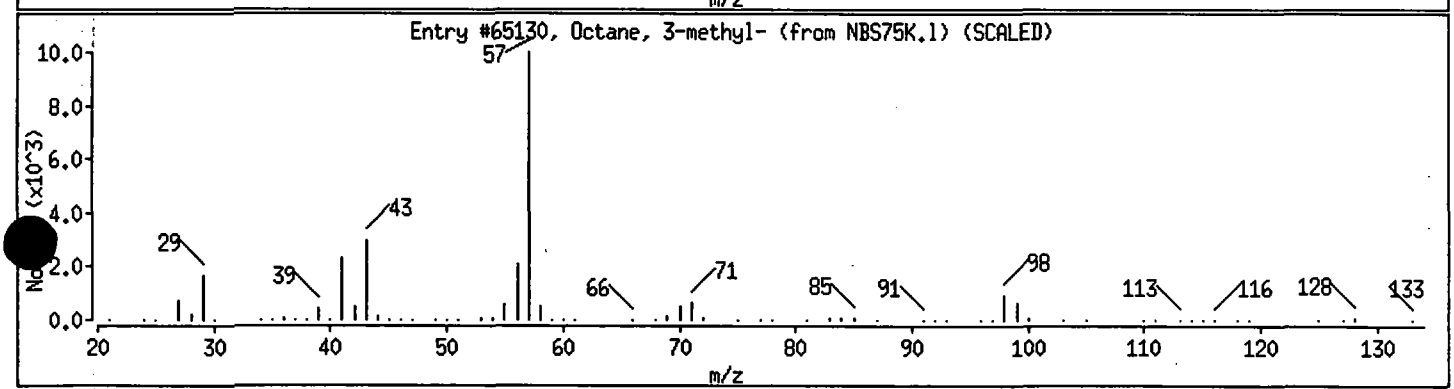
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Octane, 3-methyl-	2216-33-3	NBS75K.l	5150	90
Heptane, 2,5-dimethyl-	2216-30-0	NBS75K.l	5143	72
Octane, 3-methyl-	2216-33-3	NBS75K.l	65130	72





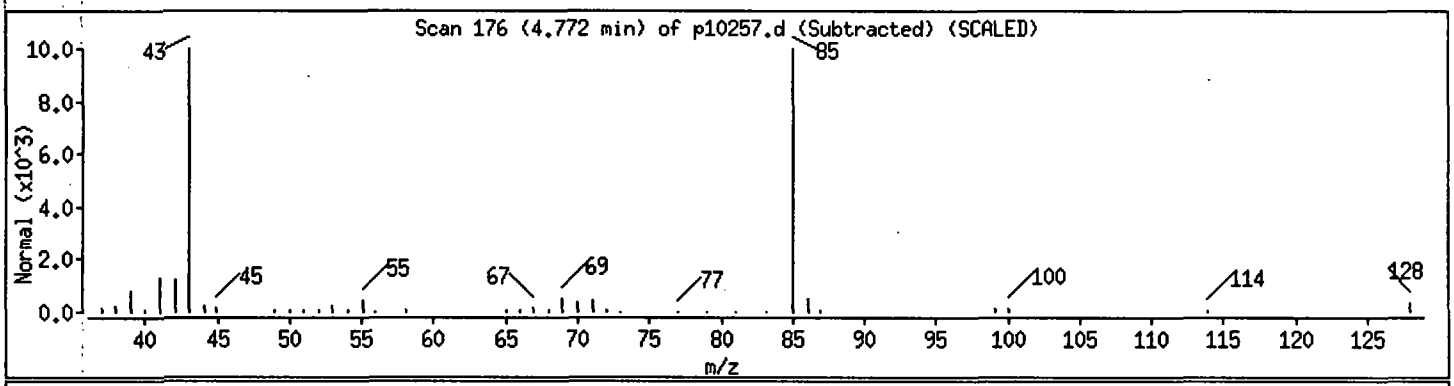


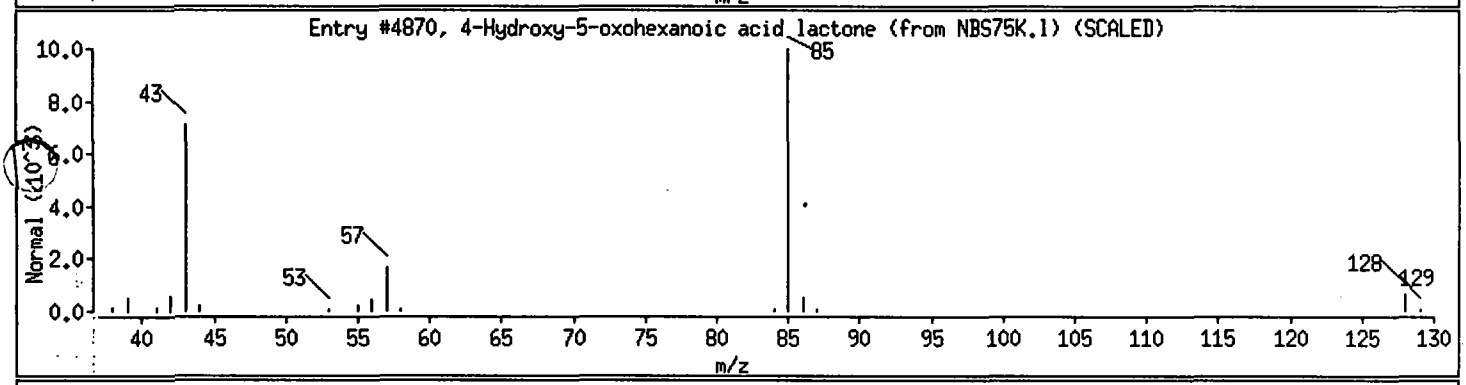


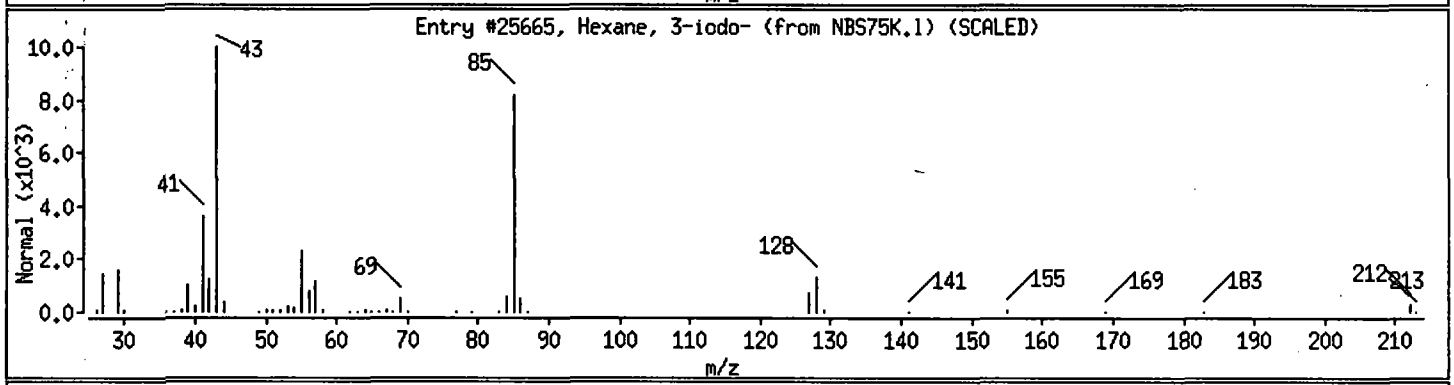
Data File: /chem/p.i/p961208a.b/p10257.d

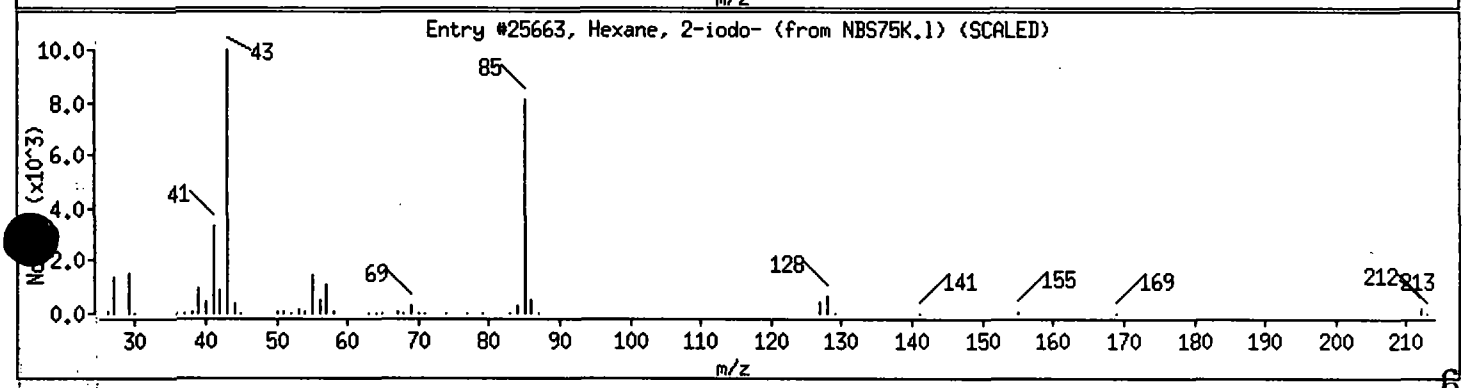
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 12/20/96
Column diameter : 0.25
Volume Injected (uL) : 2.0 DH

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
4-Hydroxy-5-oxohexanoic acid lactone	~~0-00-0~~	NBS75K.1	4870	50
Hexane, 3-iodo-	31294-91-4	NBS75K.1	25665	39
Hexane, 2-iodo-	18589-27-0	NBS75K.1	25663	39









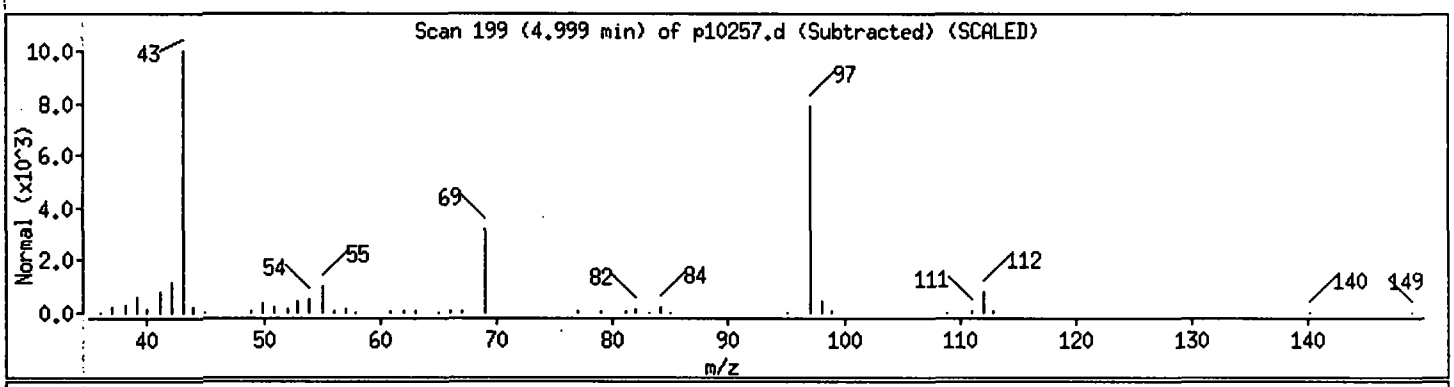
Data File: /chem/p.i/p961208a.b/p10257.d

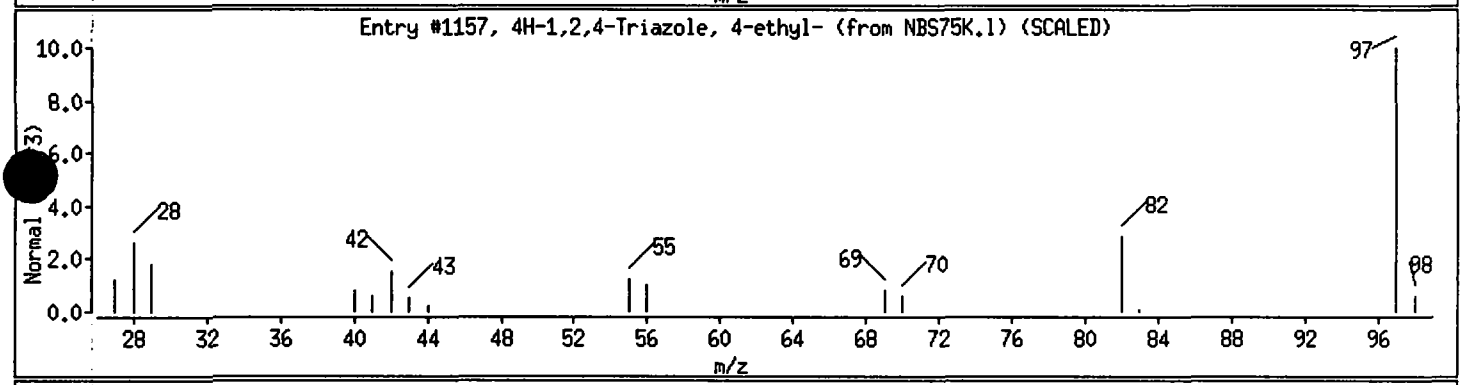
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24

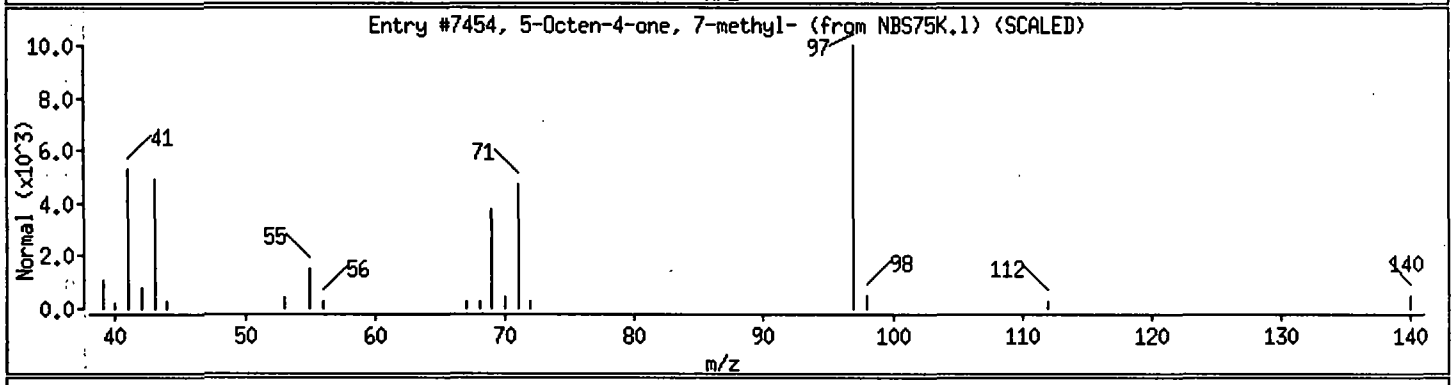
UNKNOWN

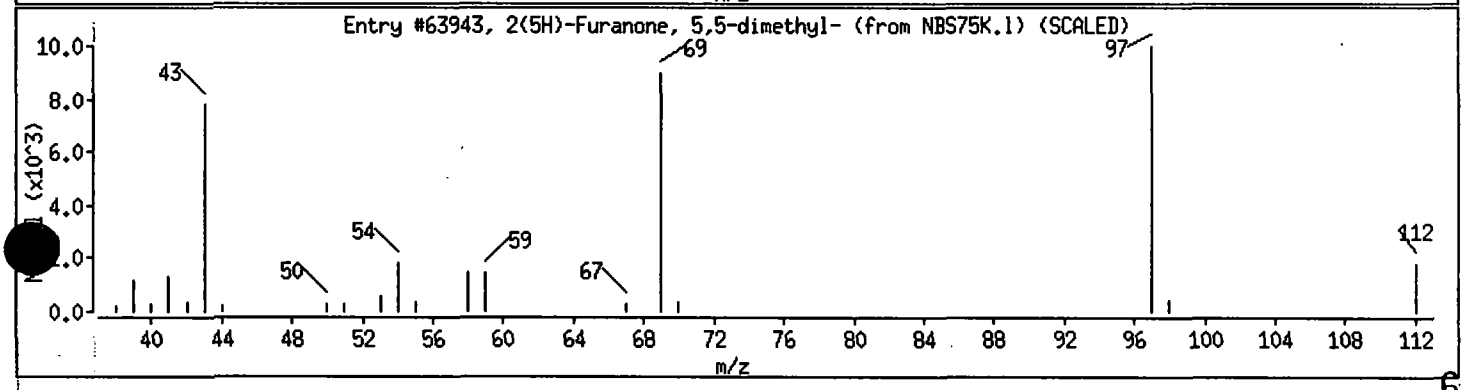
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
4H-1,2,4-Triazole, 4-ethyl-	43183-55-7	NBS75K.l	1157	53
5-Octen-4-one, 7-methyl-	32064-78-1	NBS75K.l	7454	38
2(5H)-Furanone, 5,5-dimethyl-	20019-64-1	NBS75K.l	63943	36









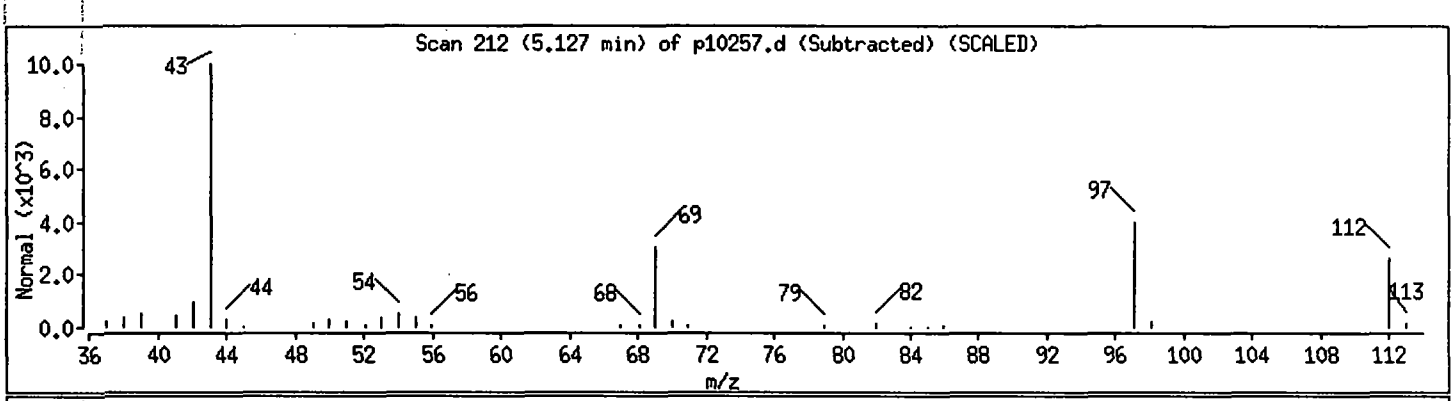
Data File: /chem/p.i/p961208a.b/p10257.d

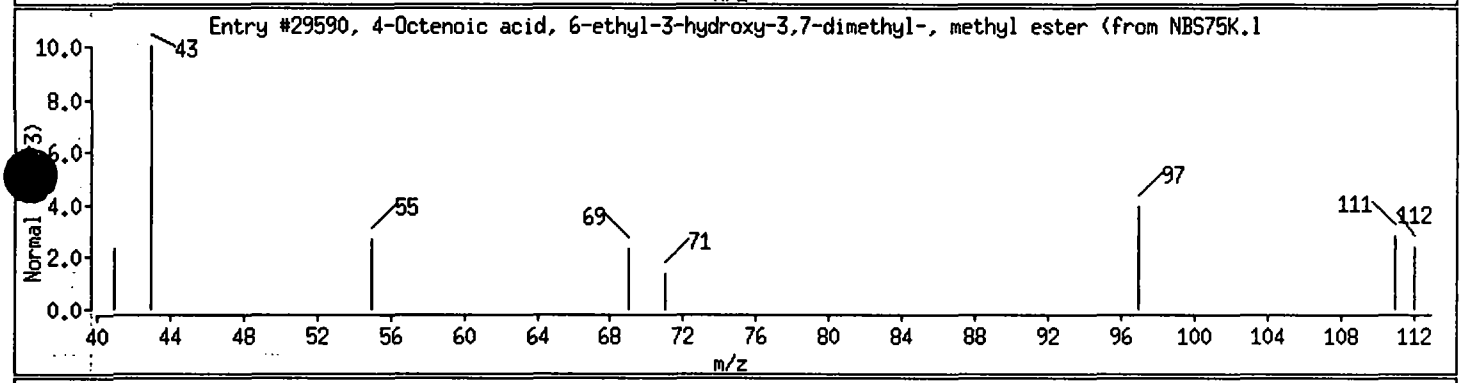
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25

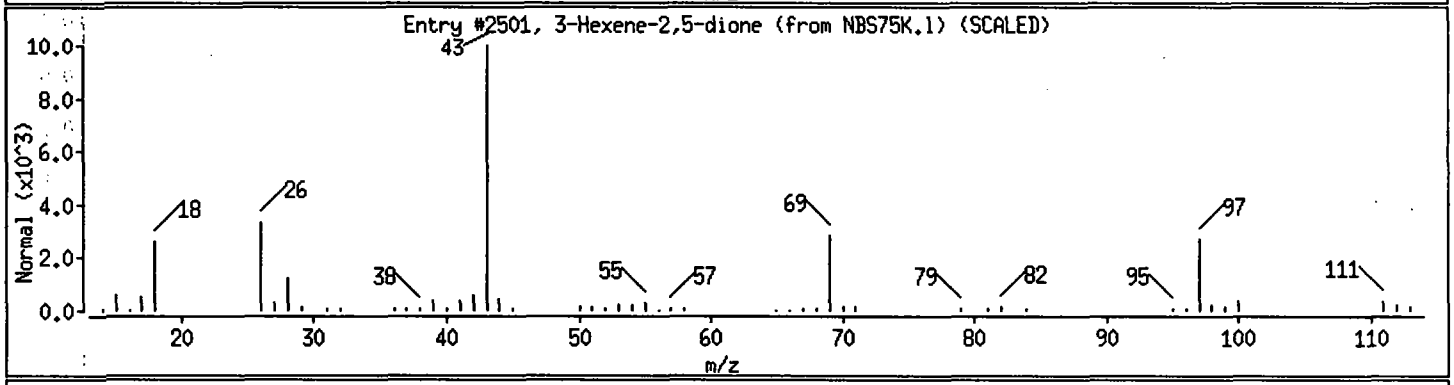
UNKNOWN

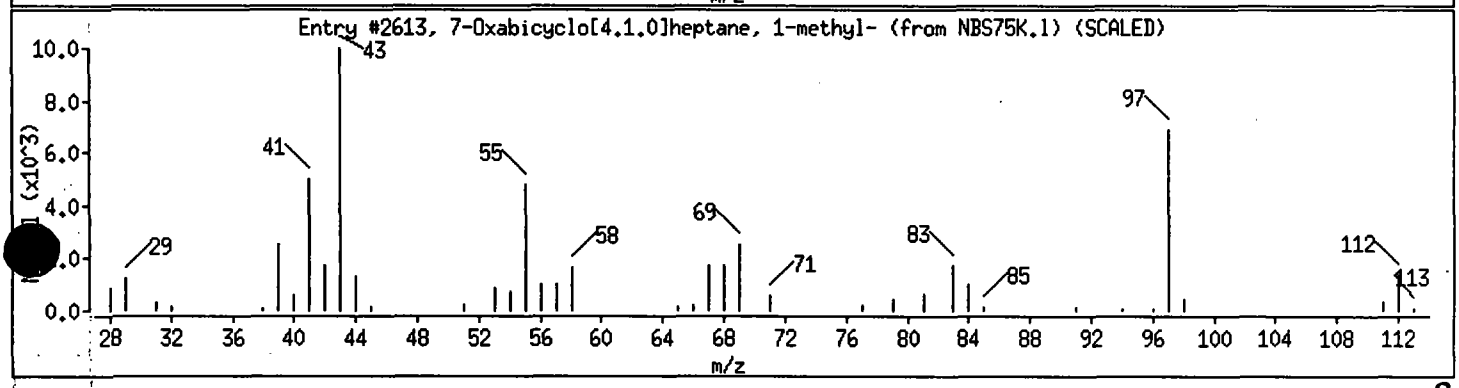
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
4-Octenoic acid, 6-ethyl-3-hydroxy-3,7-d	41654-25-5	NBS75K.l	29590	36
3-Hexene-2,5-dione	4436-75-3	NBS75K.l	2501	36
7-Oxabicyclo[4.1.0]heptane, 1-methyl-	1713-33-3	NBS75K.l	2613	25





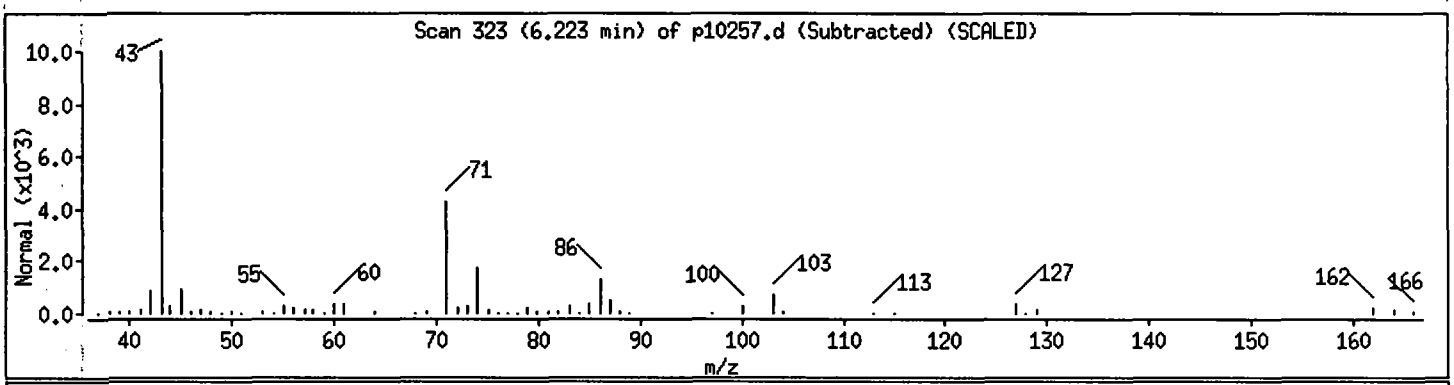


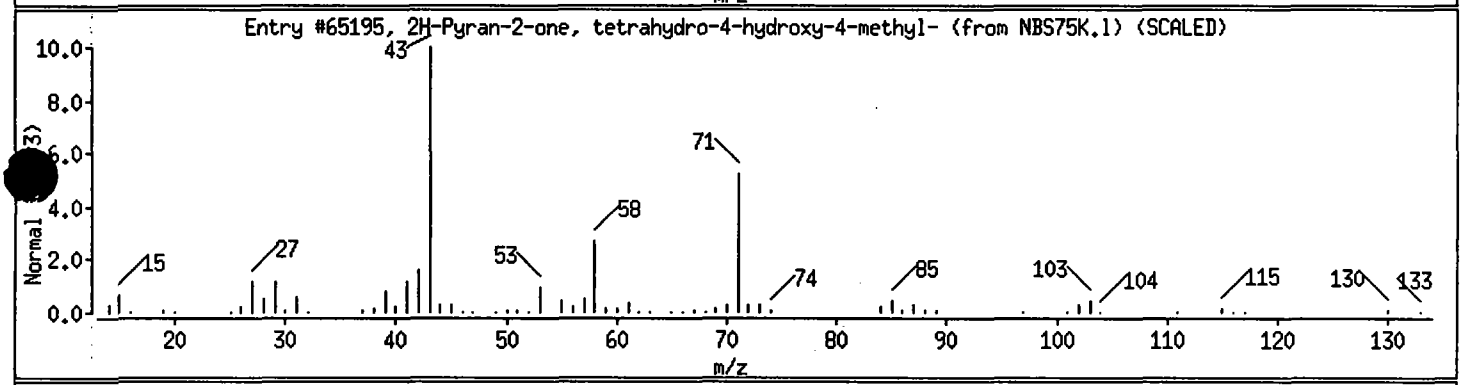


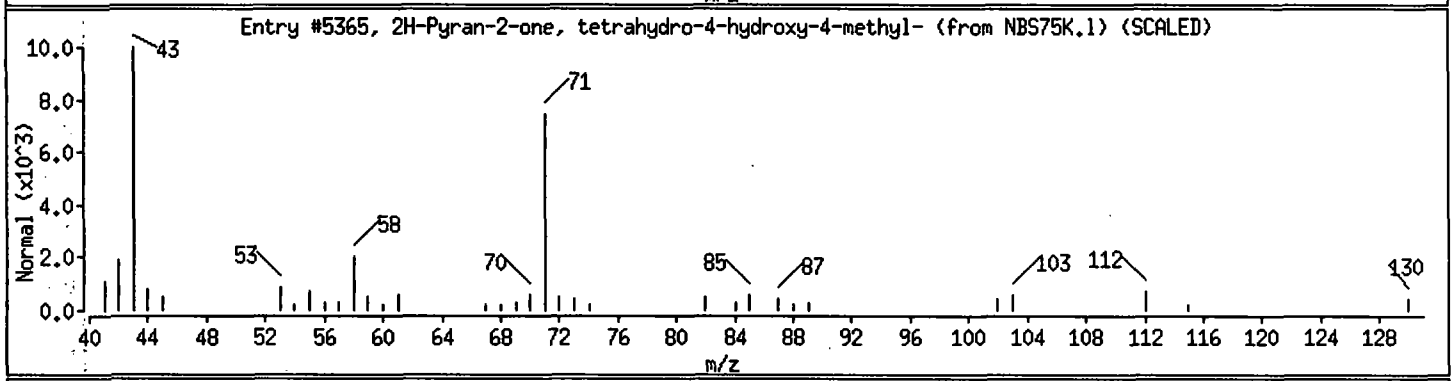
Data File: /chem/p.i/p961208a.b/p10257.d
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5
Volume Injected (uL) : 2.0

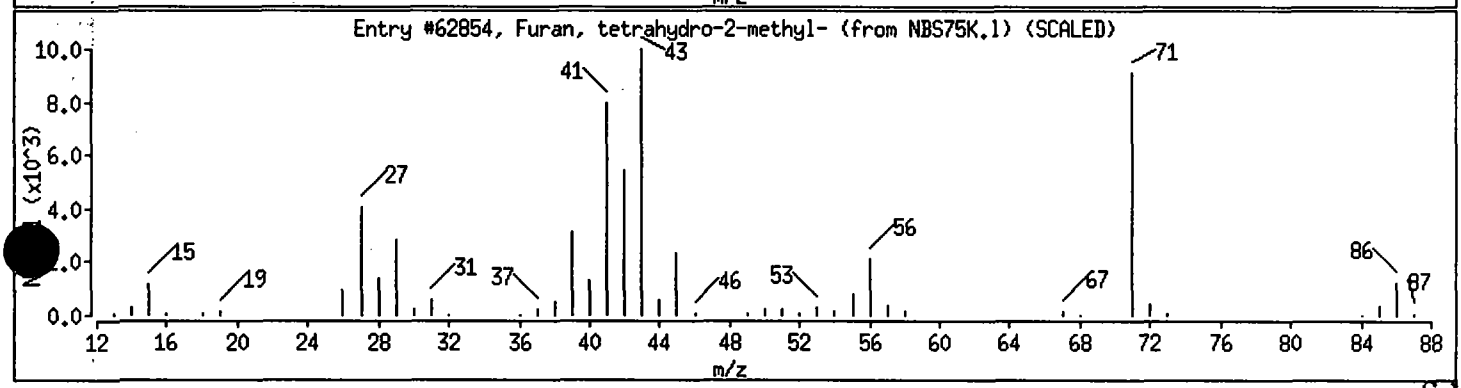
Column diameter : 0.25 **UNKNOWN ORGANIC ACID**

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
2H-Pyran-2-one, tetrahydro-4-hydroxy-4-m	503-48-0	NBS75K.l	65195	28
2H-Pyran-2-one, tetrahydro-4-hydroxy-4-m	503-48-0	NBS75K.l	5365	25
Furan, tetrahydro-2-methyl-	96-47-9	NBS75K.l	62854	20









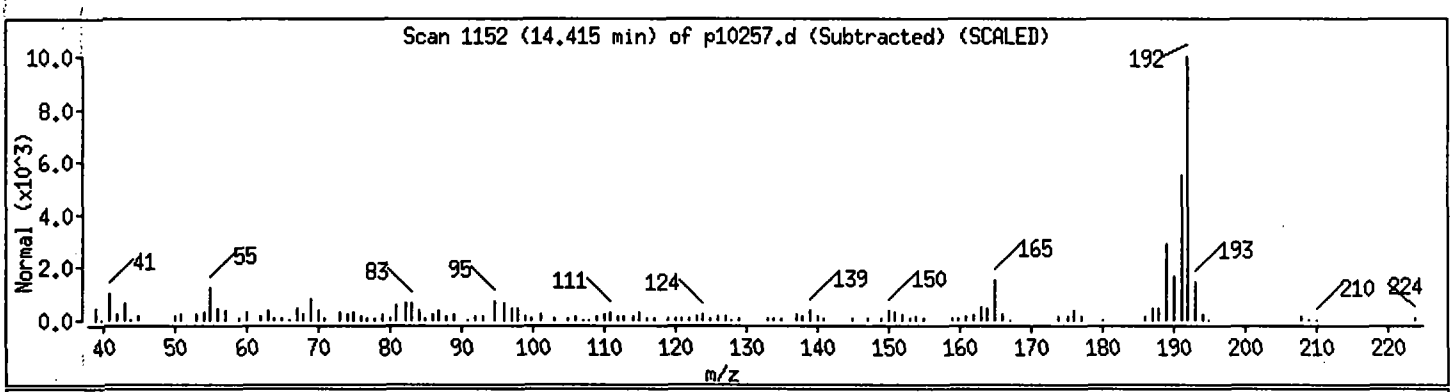
Data File: /chem/p.i/p961208a.b/p10257.d

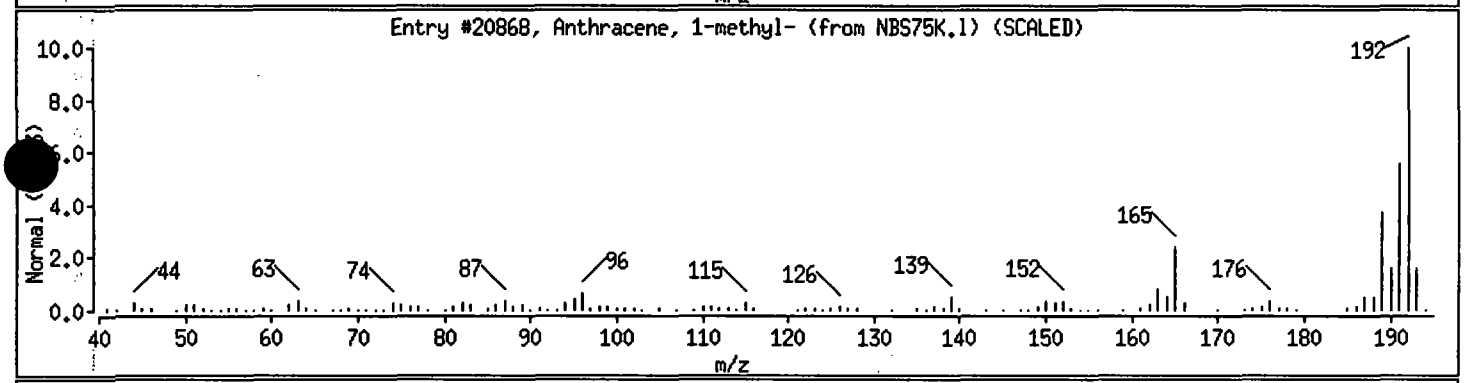
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5
Volume Injected (uL) : 2.0

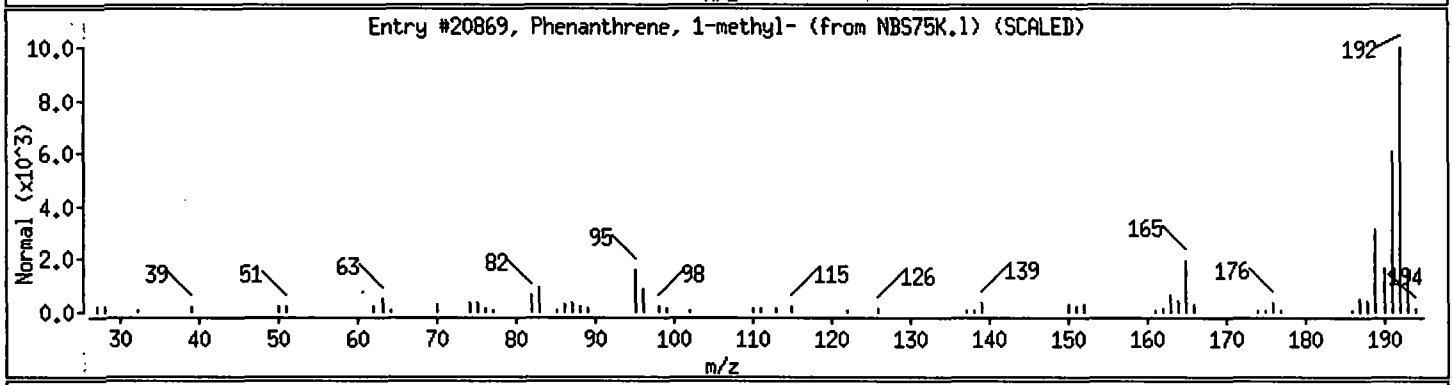
12/20/96
PH

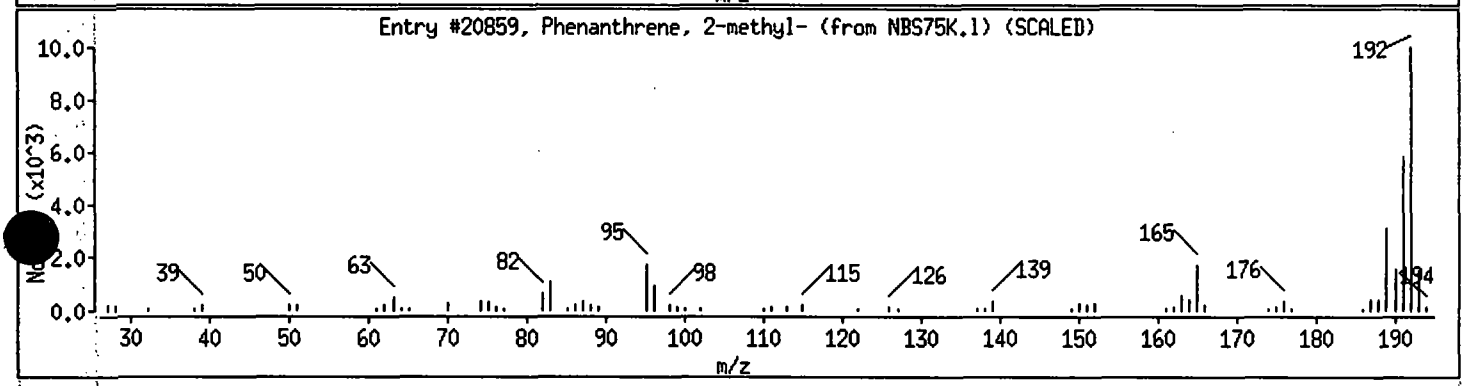
Column diameter : 0.25

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Anthracene, 1-methyl-	~~610-48-0~~	NBS75K.l	20868	95
Phenanthrene, 1-methyl-	832-69-9	NBS75K.l	20869	95
Phenanthrene, 2-methyl-	2531-84-2	NBS75K.l	20859	94





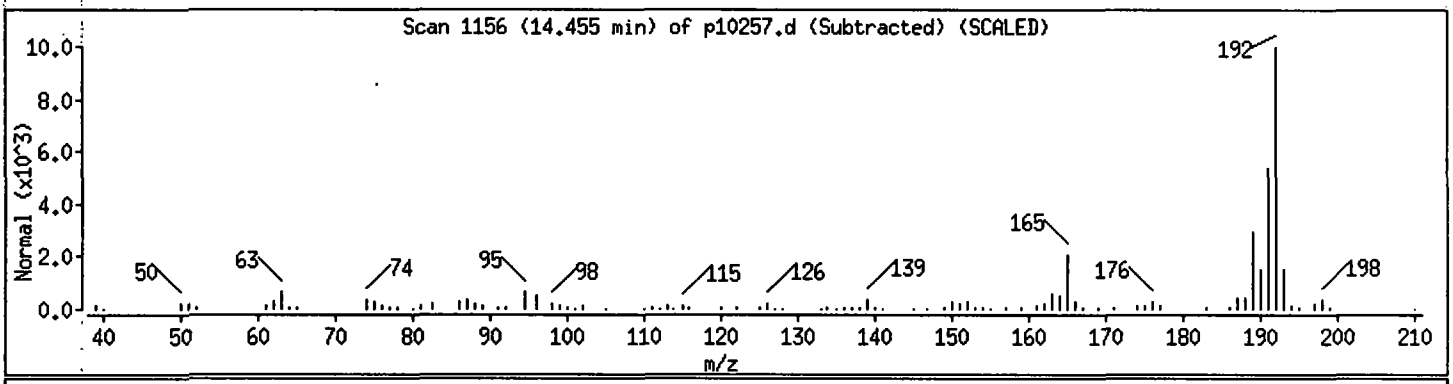


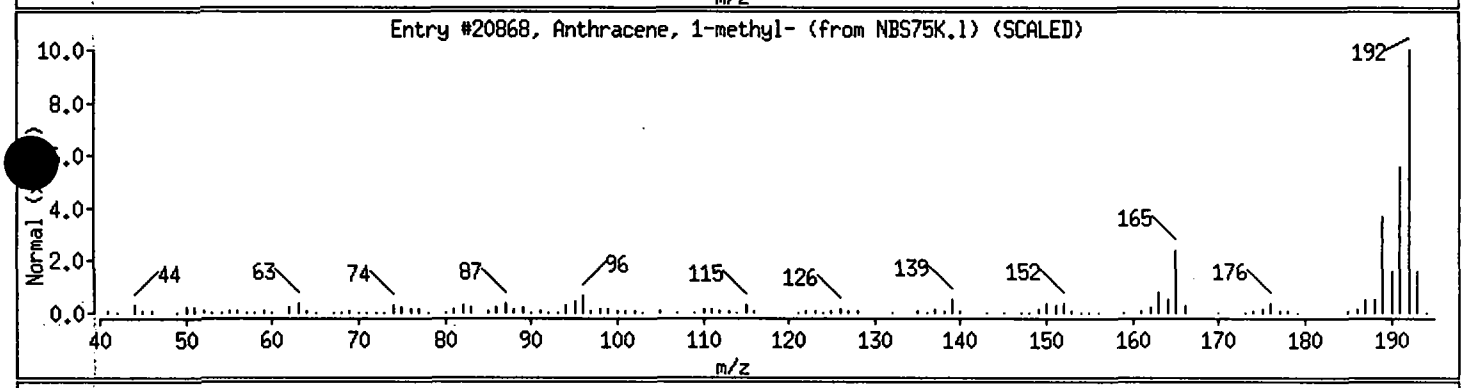


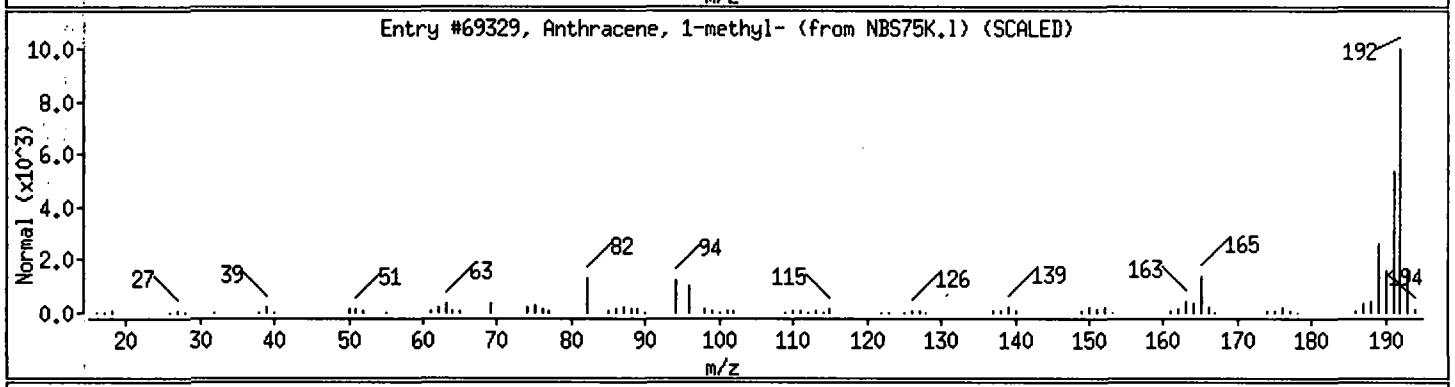
Data File: /chem/p.i/p961208a.b/p10257.d

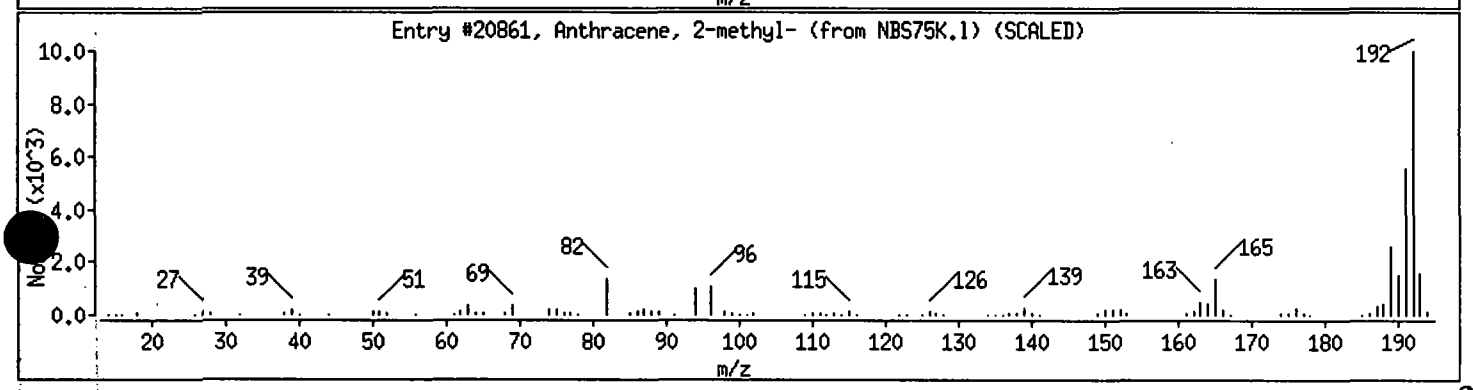
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 12/20/96 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Anthracene, ~~1-methyl-~~	~~610-48-0~~	NBS75K.l	20868	97
Anthracene, 1-methyl-	610-48-0	NBS75K.l	69329	95
Anthracene, 2-methyl-	613-12-7	NBS75K.l	20861	95





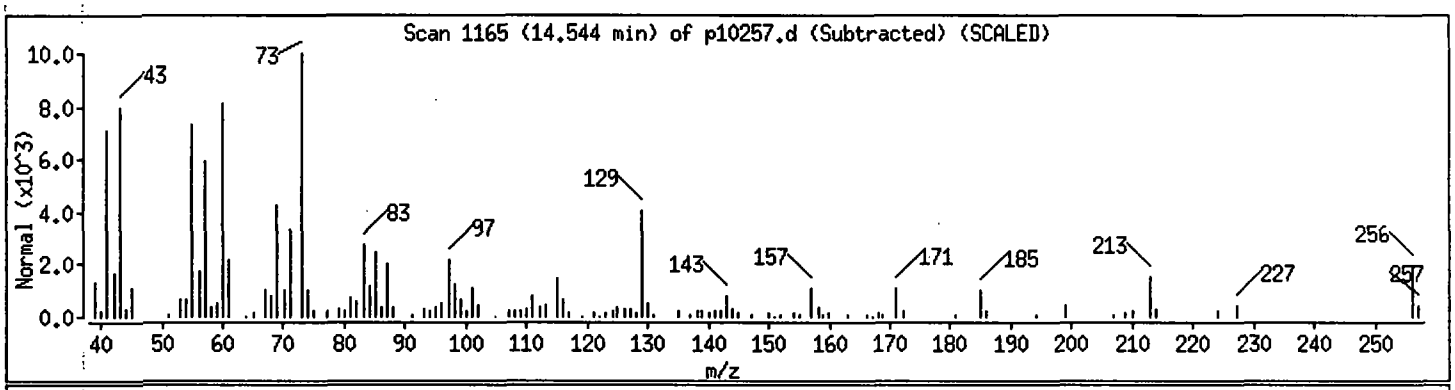


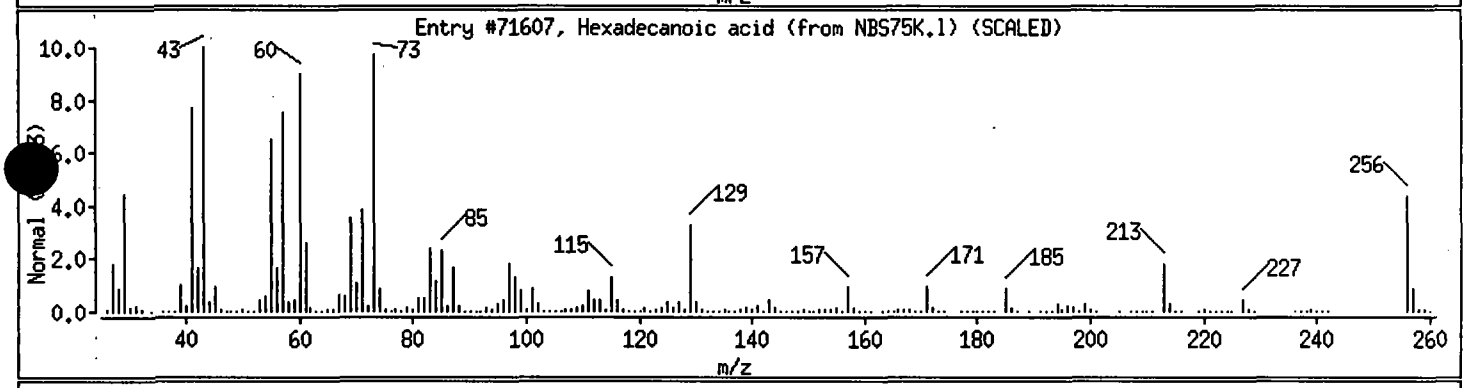


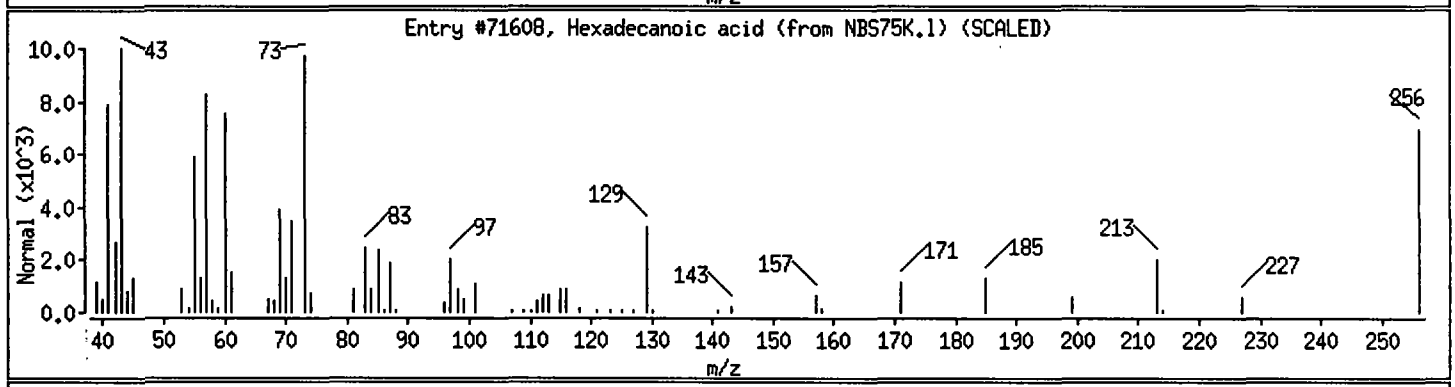
Data File: /chem/p.i/p961208a.b/p10257.d

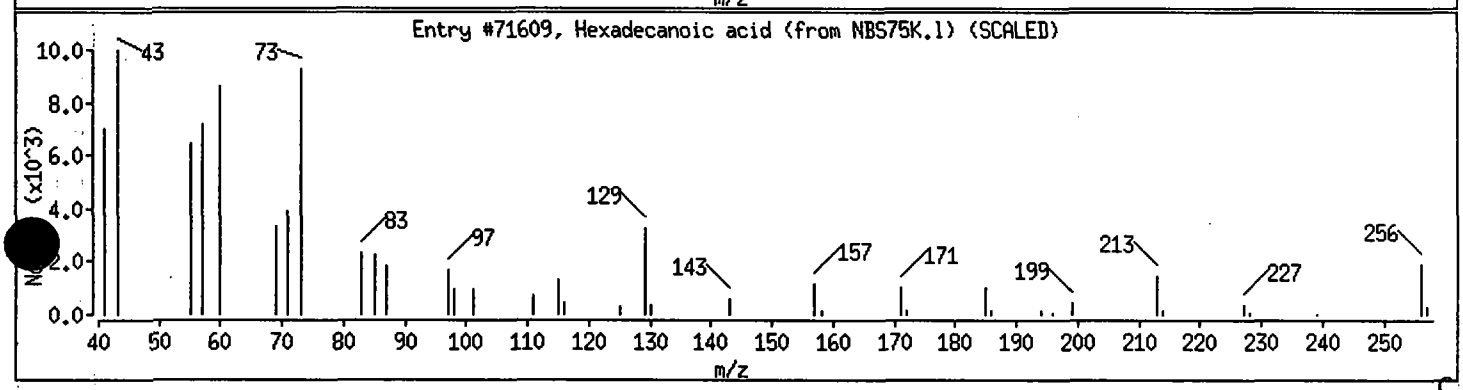
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Hexadecanoic acid	57-10-3	NBS75K.l	71607	99
Hexadecanoic acid	57-10-3	NBS75K.l	71608	98
Hexadecanoic acid	57-10-3	NBS75K.l	71609	95





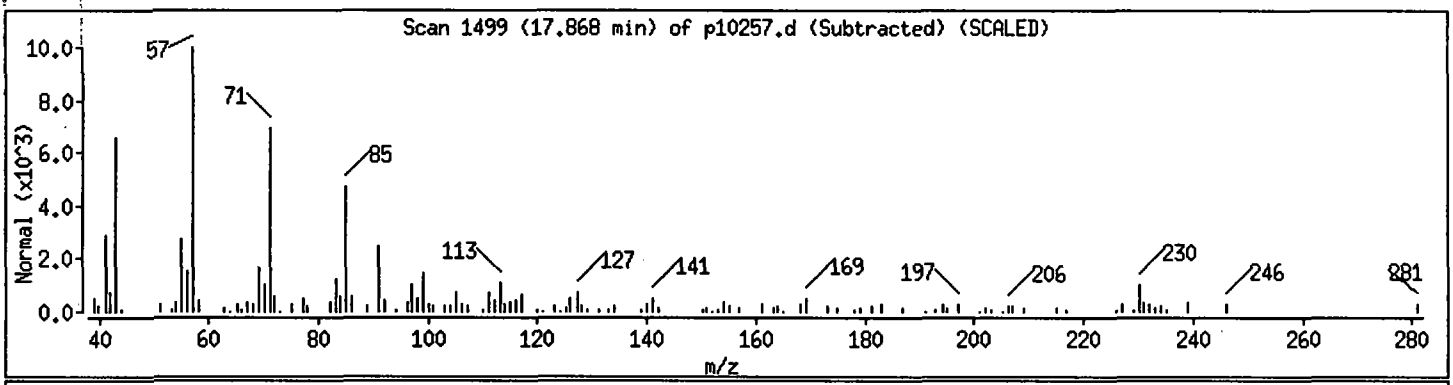


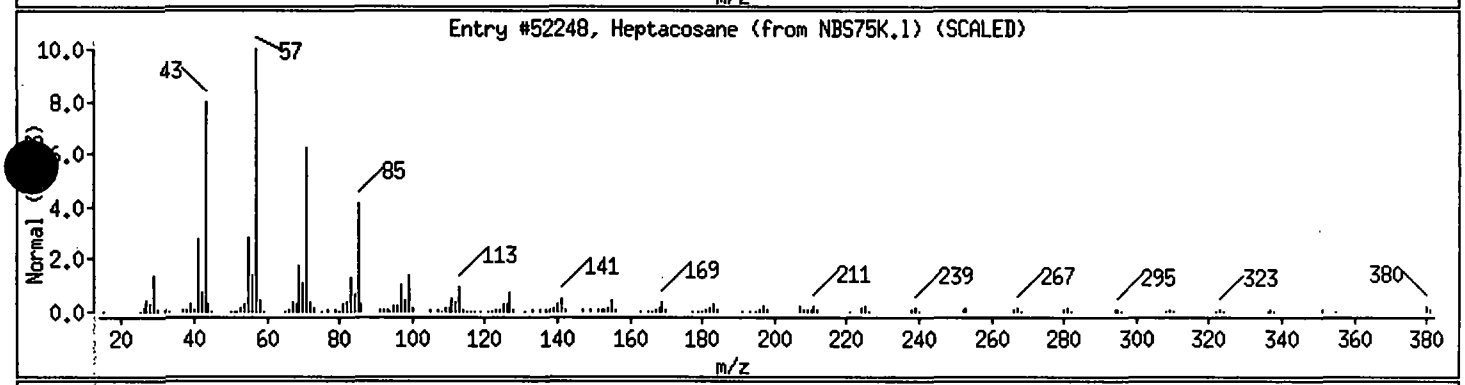


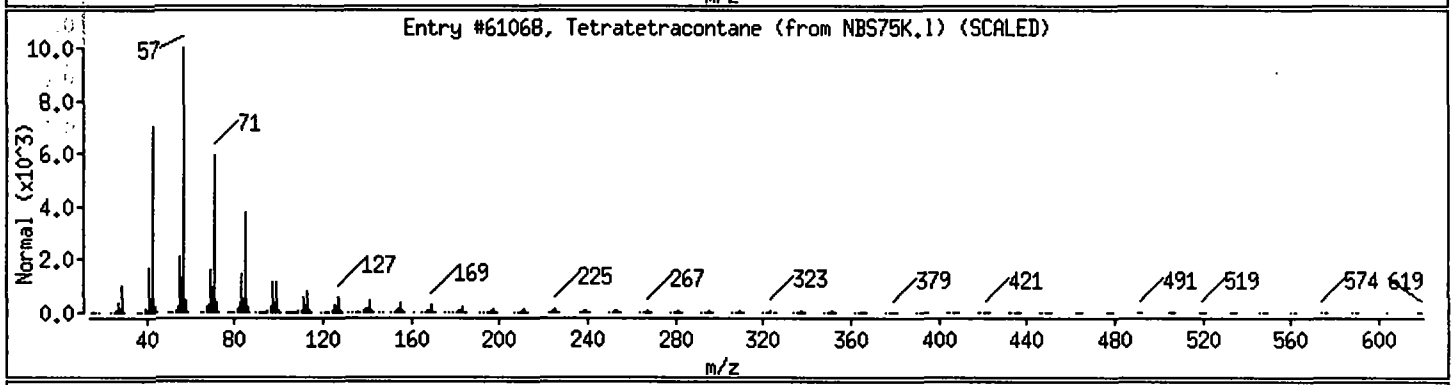
Data File: /chem/p.i/p961208a.b/p10257.d

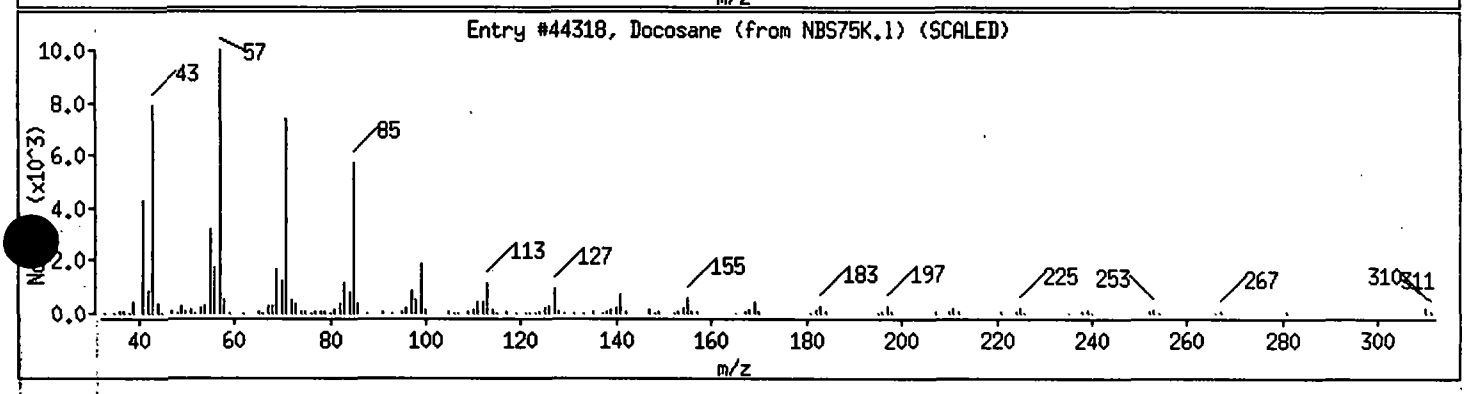
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Heptacosane	593-49-7	NBS75K.l	52248	90
Tetratetracontane	7098-22-8	NBS75K.l	61068	87
Docosane	629-97-0	NBS75K.l	44318	87





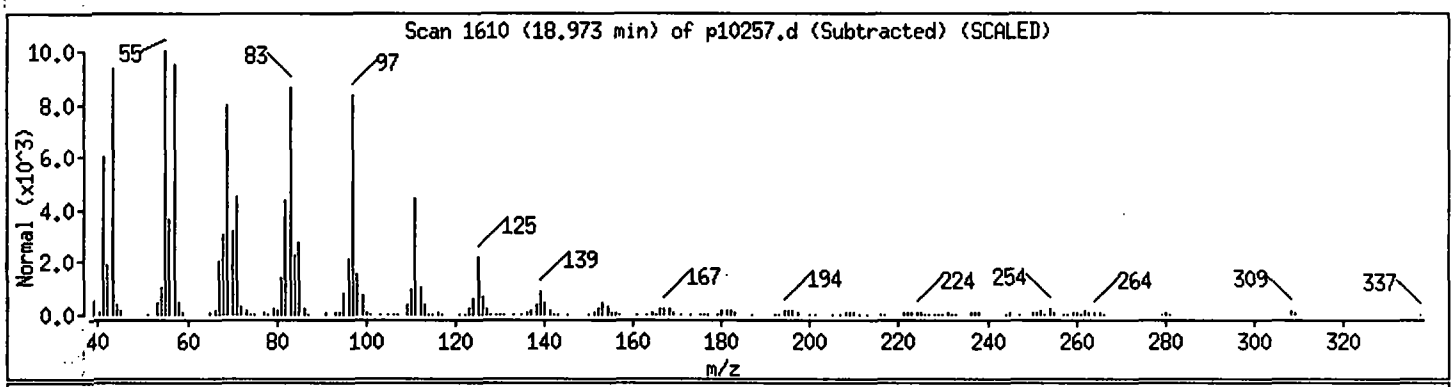


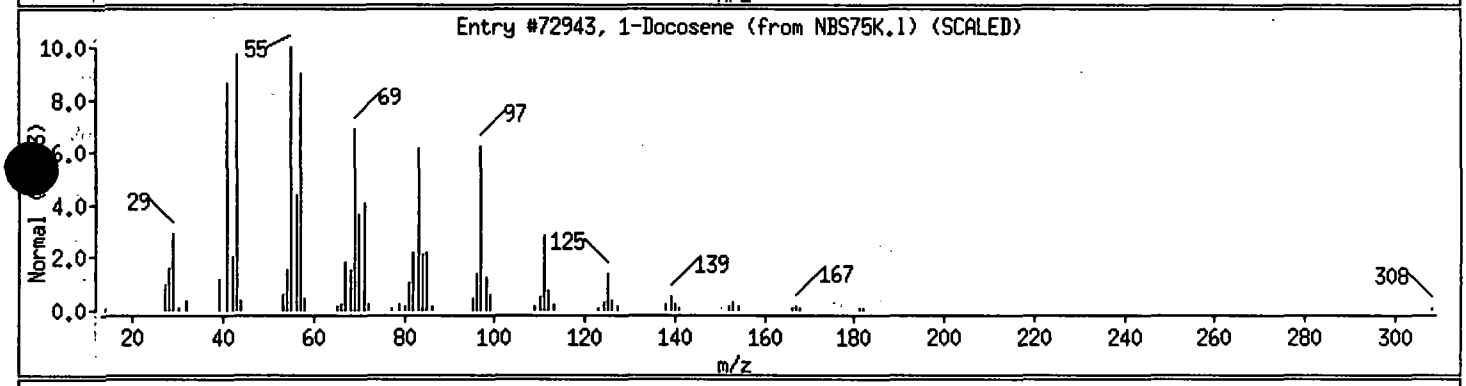


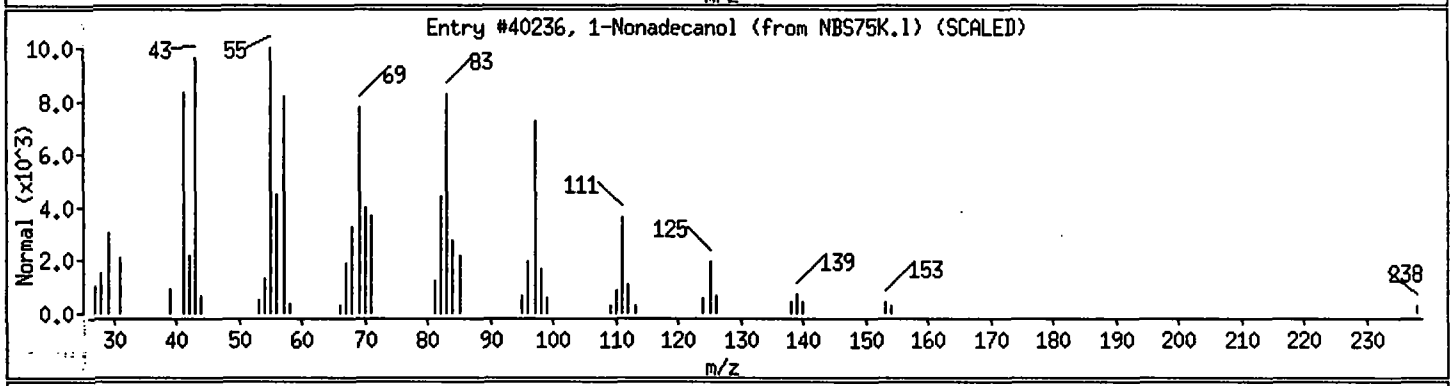
Data File: /chem/p.i/p961208a.b/p10257.d

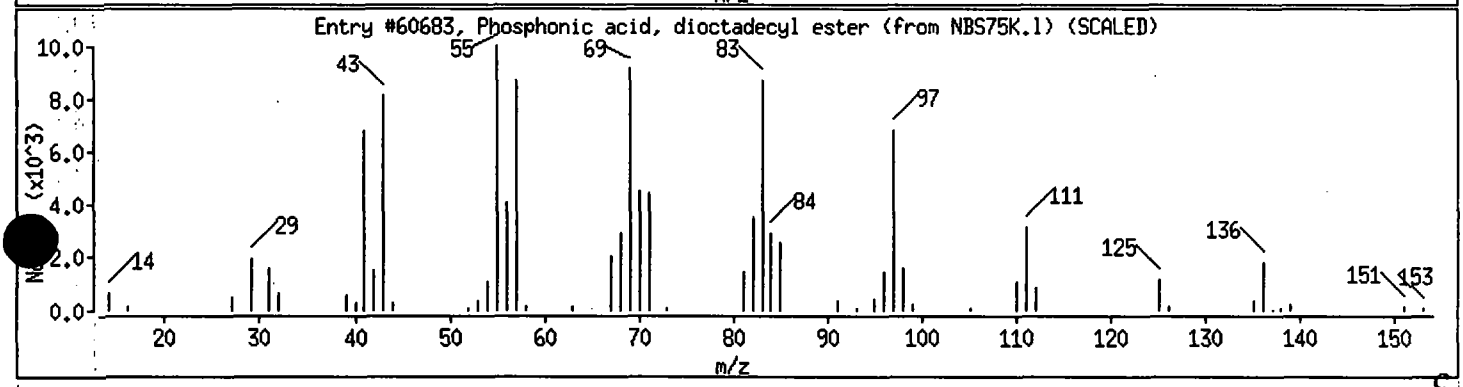
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
1-Docosene	1599-67-3	NBS75K.l	72943	99
1-Nonadecanol	1454-84-8	NBS75K.l	40236	93
Phosphonic acid, dioctadecyl ester	19047-85-9	NBS75K.l	60683	87









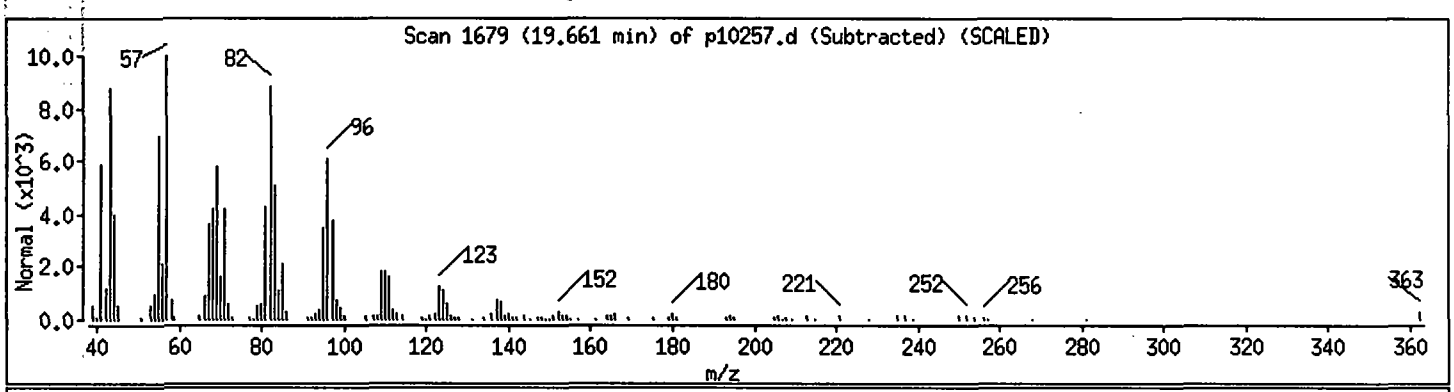
Data File: /chem/p.i/p961208a.b/p10257.d

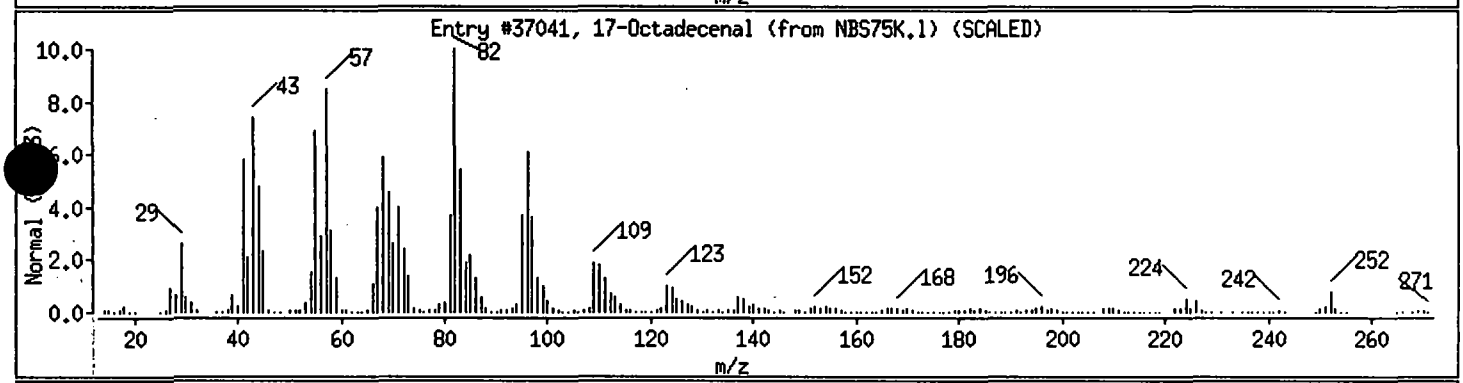
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5
Volume Injected (uL) : 2.0

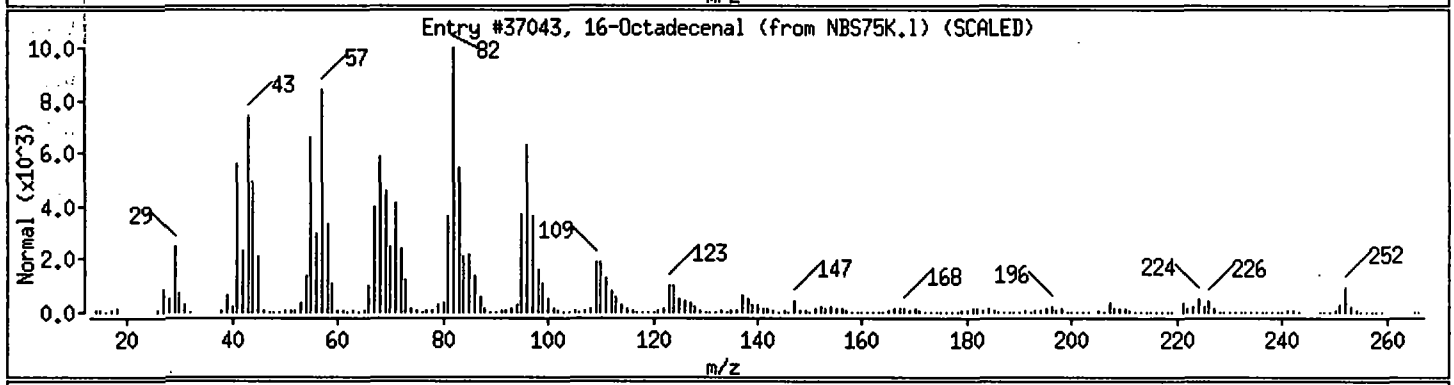
12/20/96

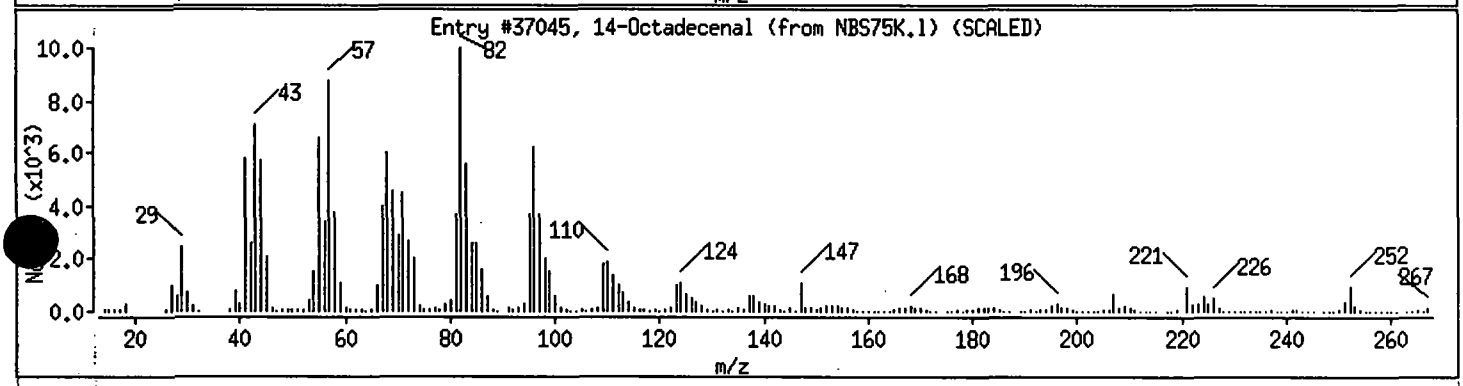
Column diameter : 0.25

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
17-Octadecenal	~~56554-86-0~~	NBS75K.1	37041	91
16-Octadecenal	56554-87-1	NBS75K.1	37043	91
14-Octadecenal	56554-89-3	NBS75K.1	37045	90





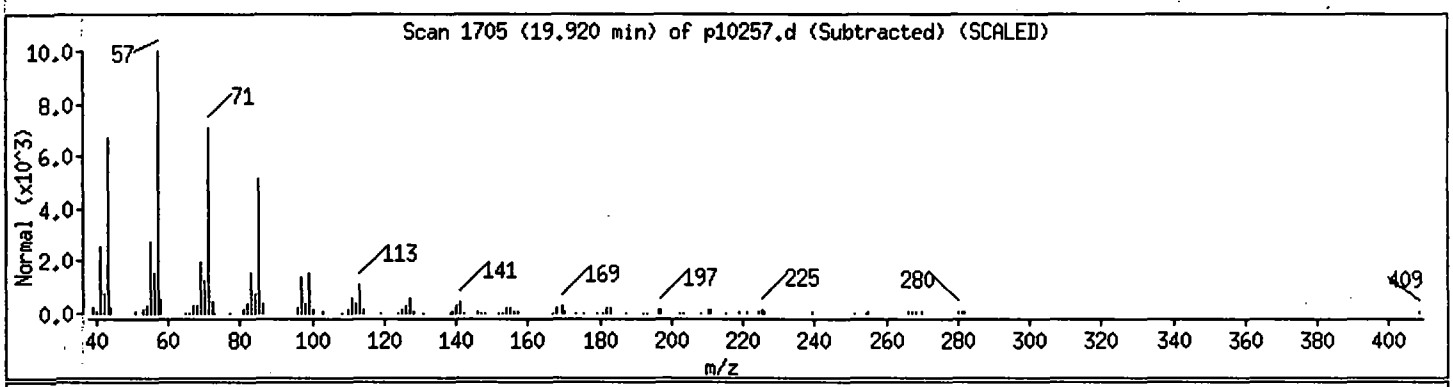


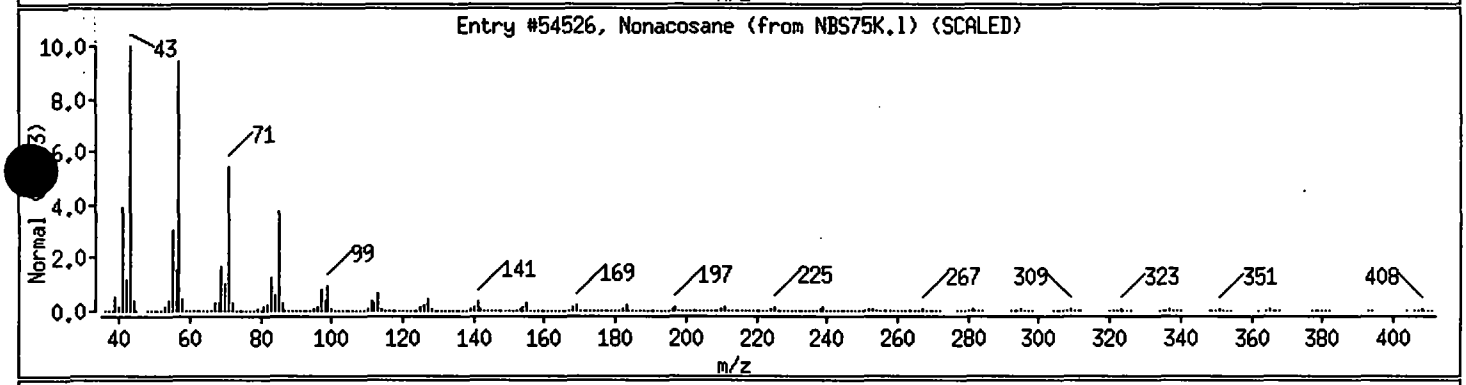


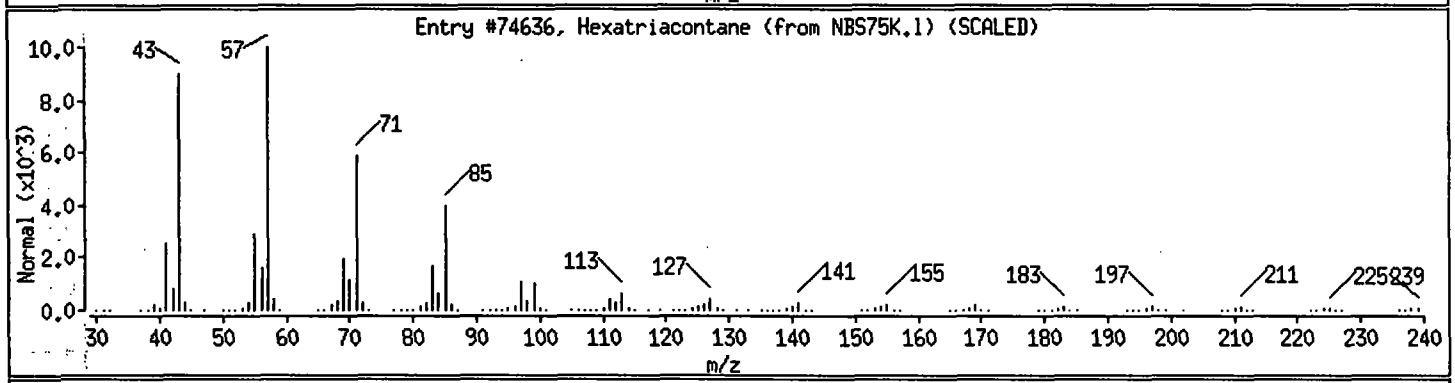
Data File: /chem/p.i/p961208a.b/p10257.d

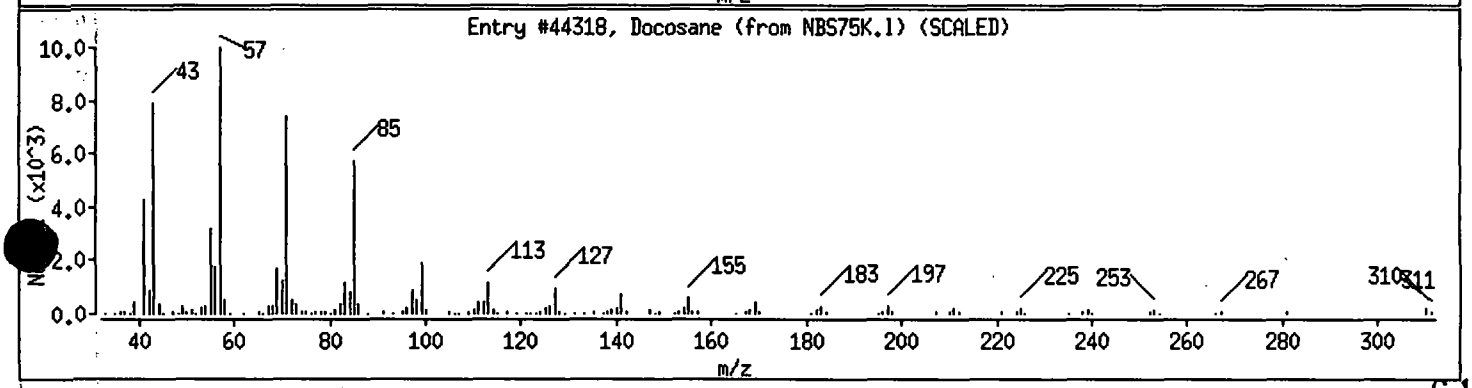
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Nonacosane	630-03-5	NBS75K.l	54526	94
Hexatriacontane	630-06-8	NBS75K.l	74636	91
Docosane	629-97-0	NBS75K.l	44318	91





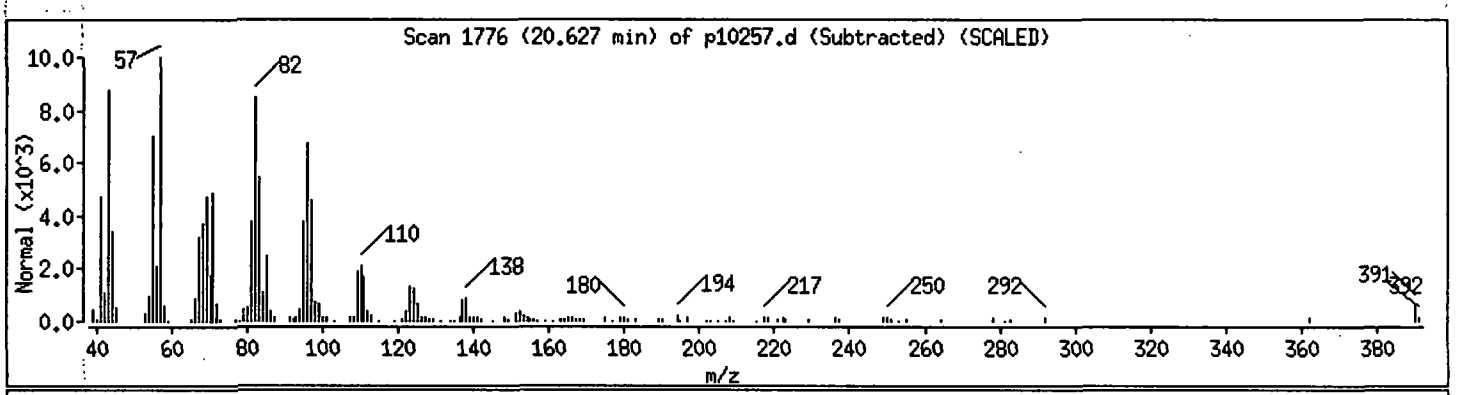


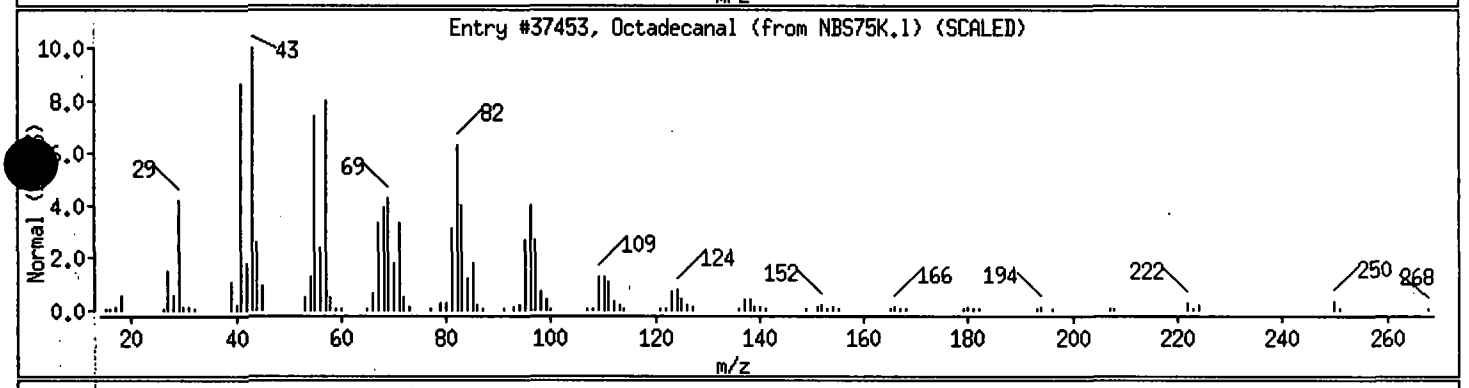


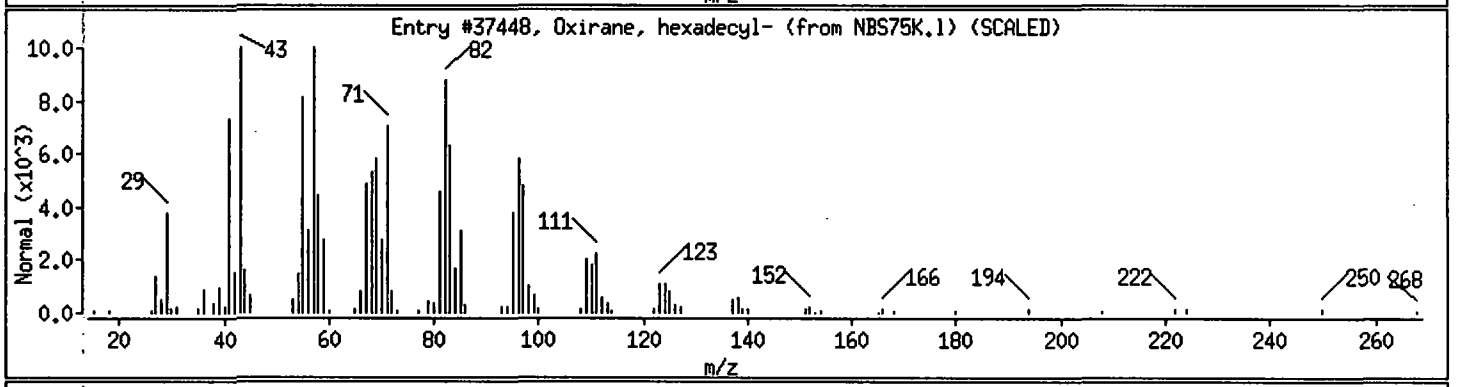
Data File: /chem/p.i/p961208a.b/p10257.d

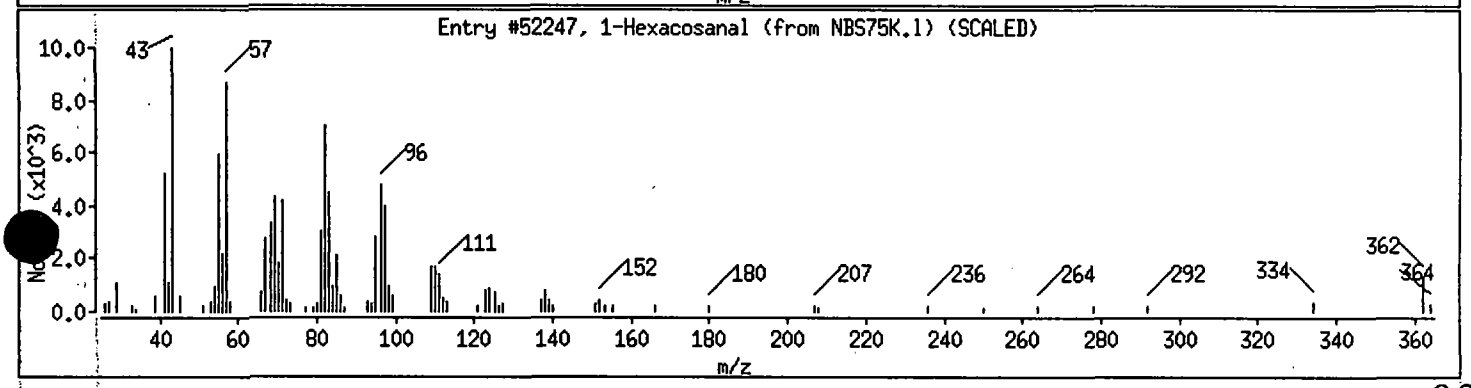
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Octadecanal	638-66-4	NBS75K.1	37453	91
Oxirane, hexadecyl-	7390-81-0	NBS75K.1	37448	91
1-Hexacosanal	0-00-0	NBS75K.1	52247	91





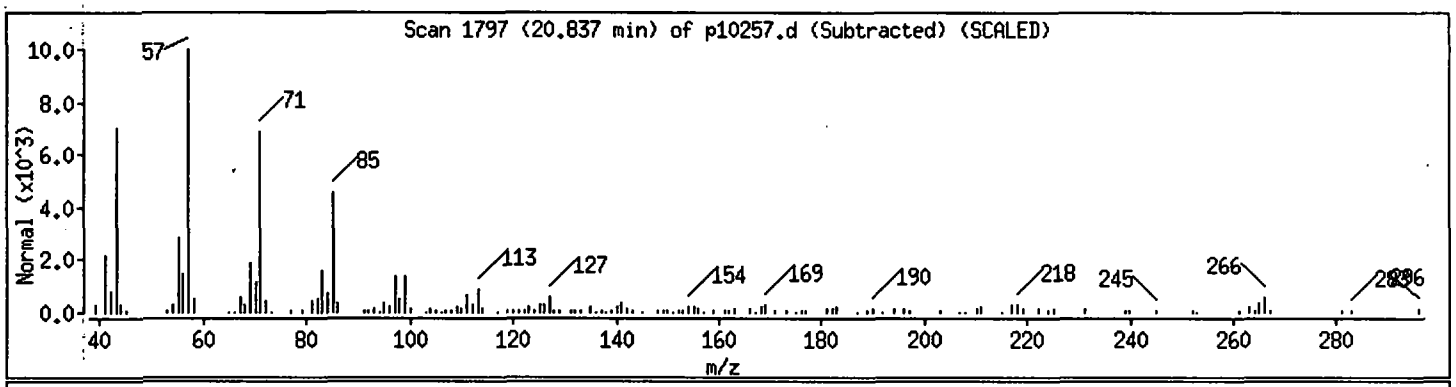


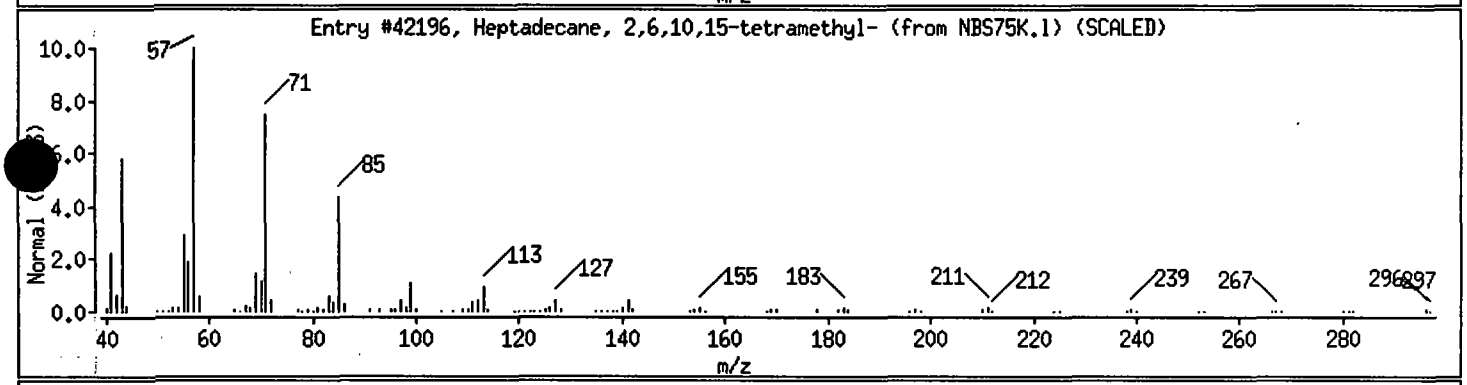


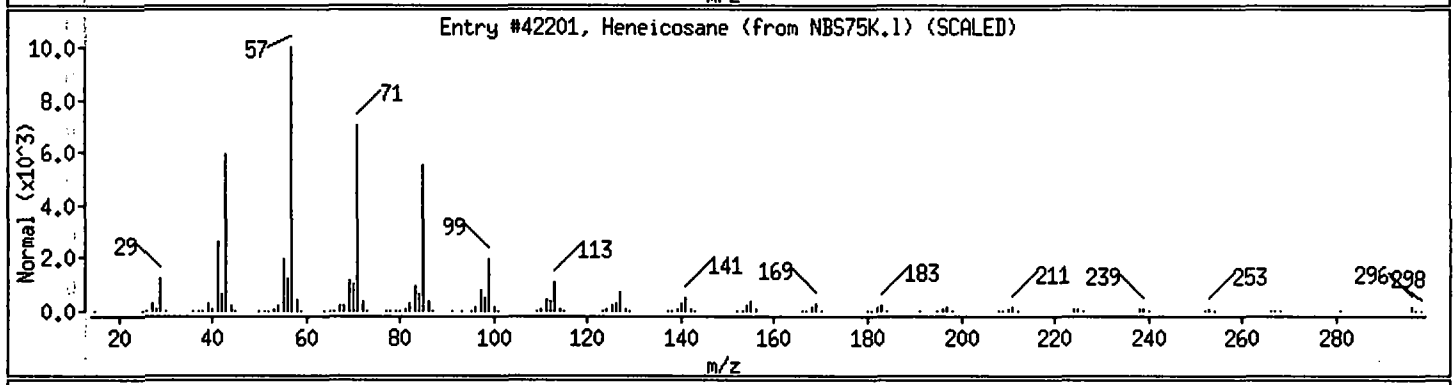
Data File: /chem/p.i/p961208a.b/p10257.d

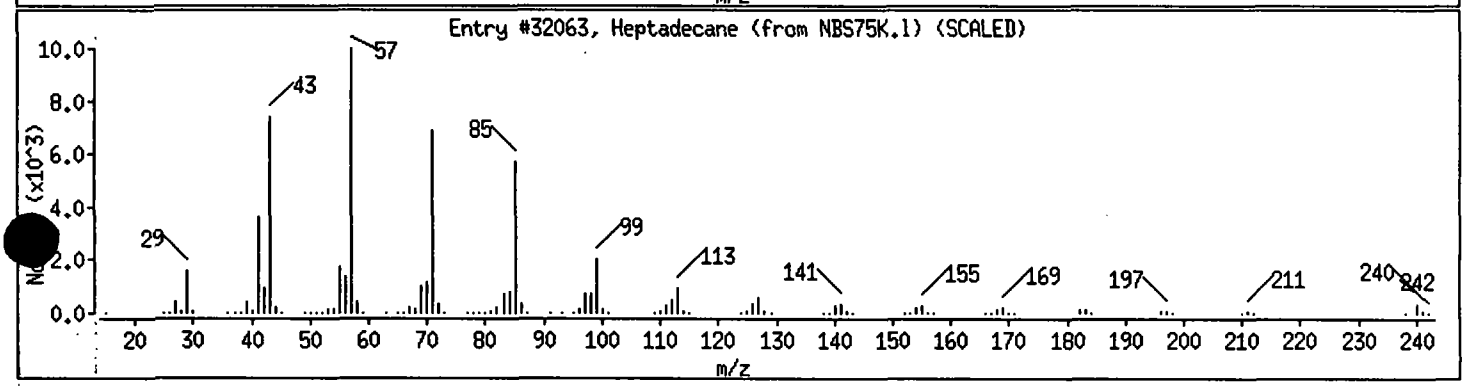
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Heptadecane, 2,6,10,15-tetramethyl-	54833-48-6	NBS75K.l	42196	96
Heneicosane	629-94-7	NBS75K.l	42201	95
Heptadecane	629-78-7	NBS75K.l	32063	95





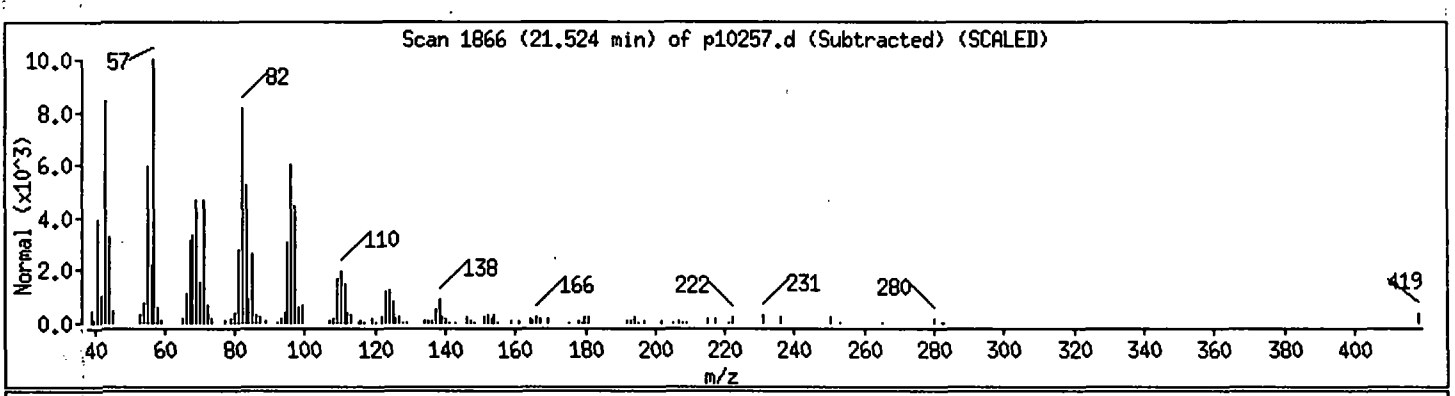


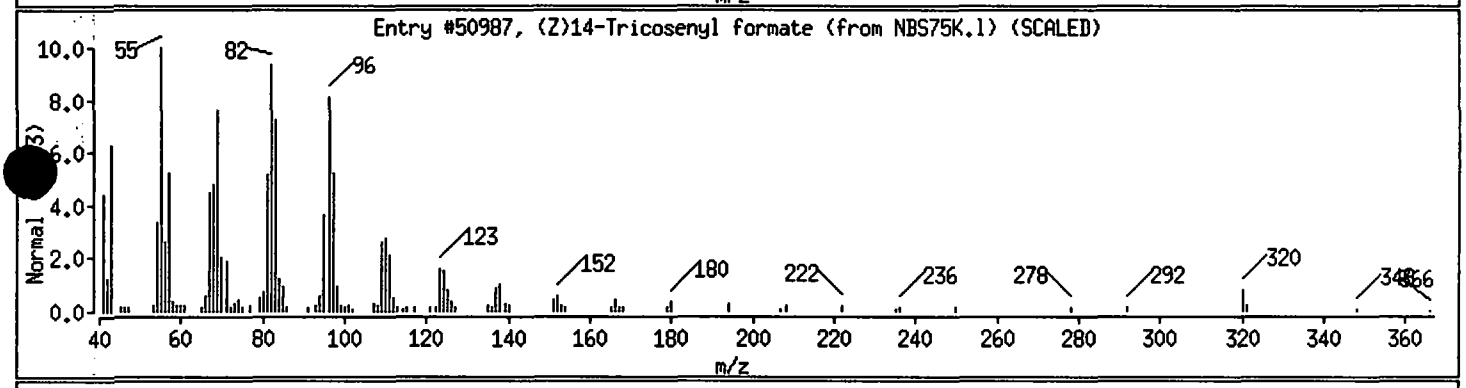


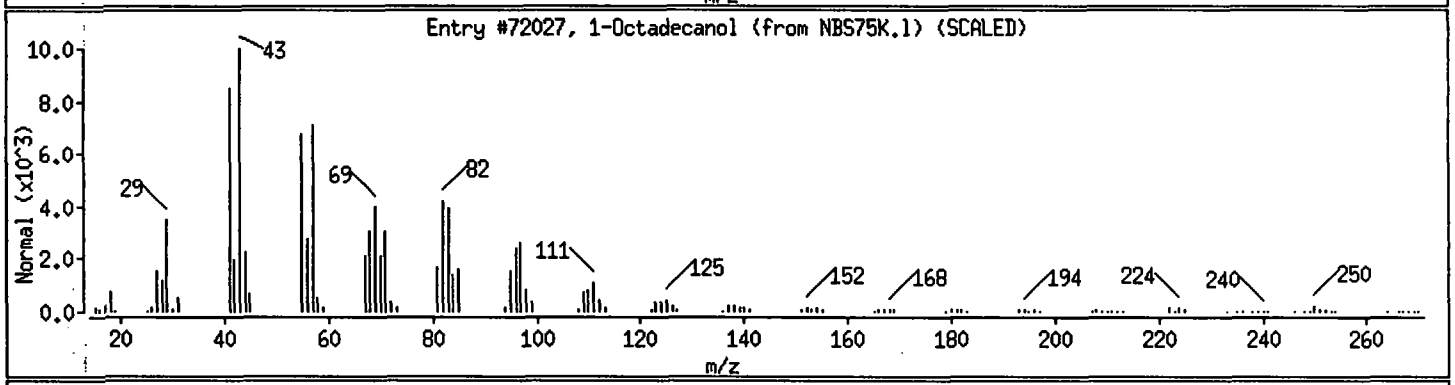
Data File: /chem/p.i/p961208a.b/p10257.d
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5
Volume Injected (uL) : 2.0

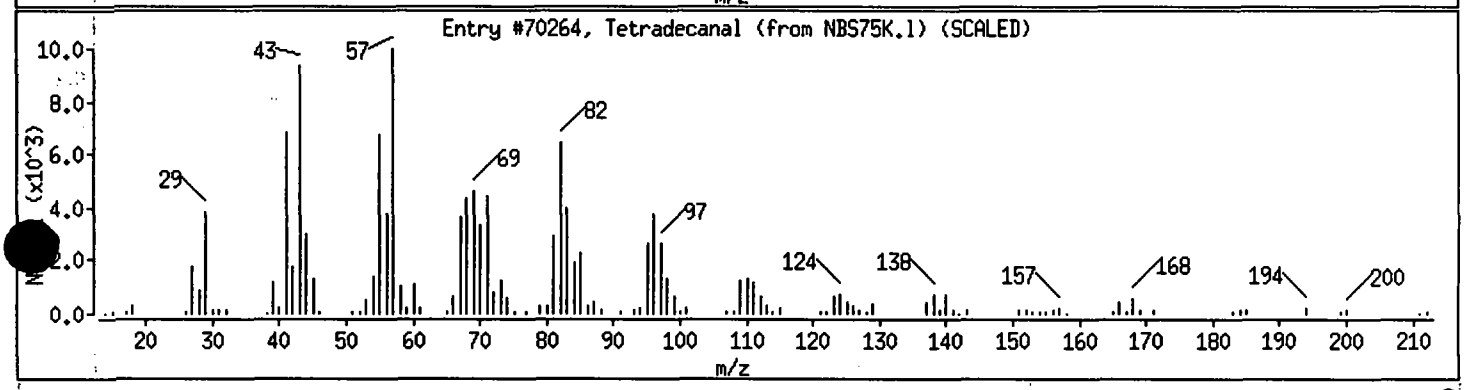
Column diameter : 0.25 **UNKNOWN ALDEHYDE**

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
(Z)14-Tricosenyl formate	77899-10-6	NBS75K.l	50987	90
1-Octadecanol	112-92-5	NBS75K.l	72027	72
Tetradecanal	124-25-4	NBS75K.l	70264	72







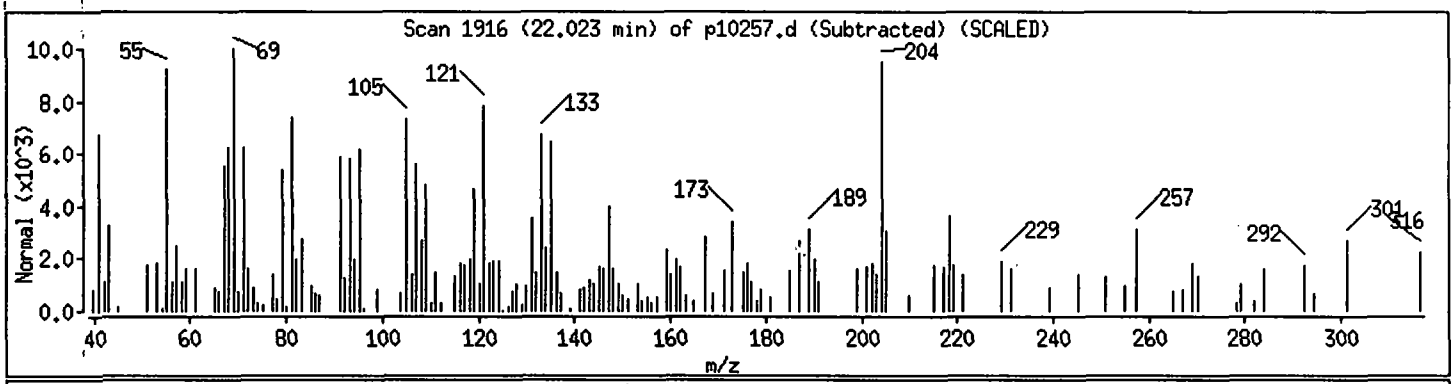


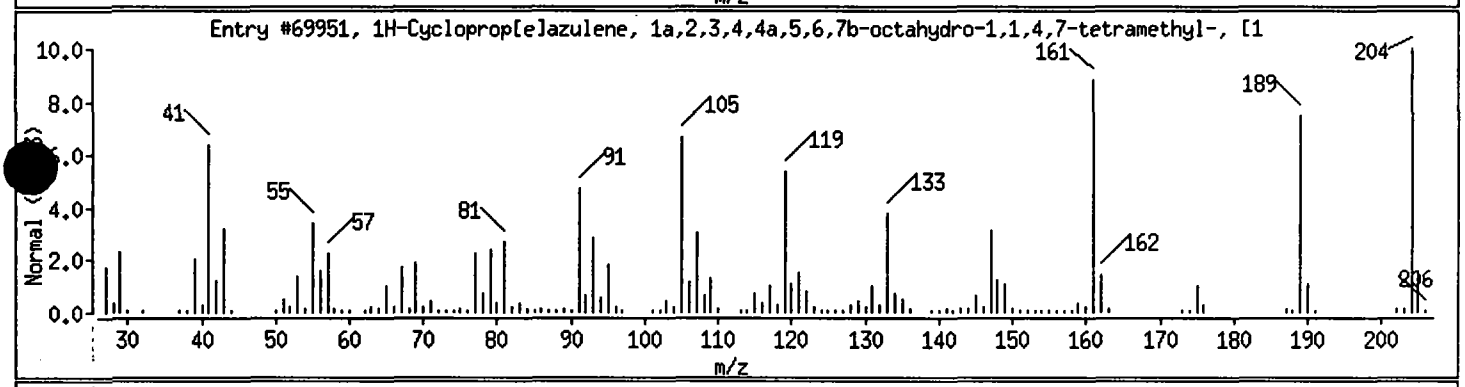
Data File: /chem/p.i/p961208a.b/p10257.d

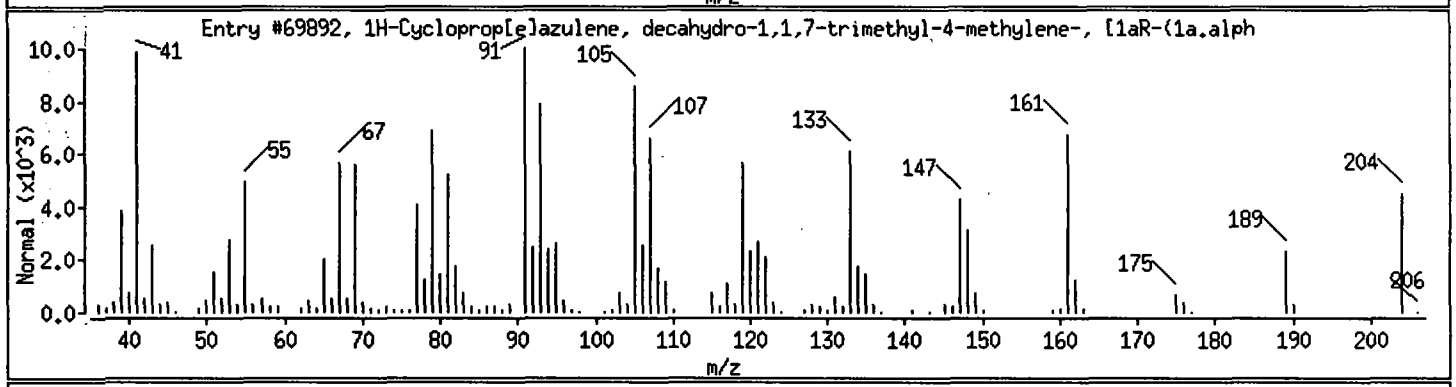
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5
Column diameter : 0.25
Volume Injected (uL) : 2.0

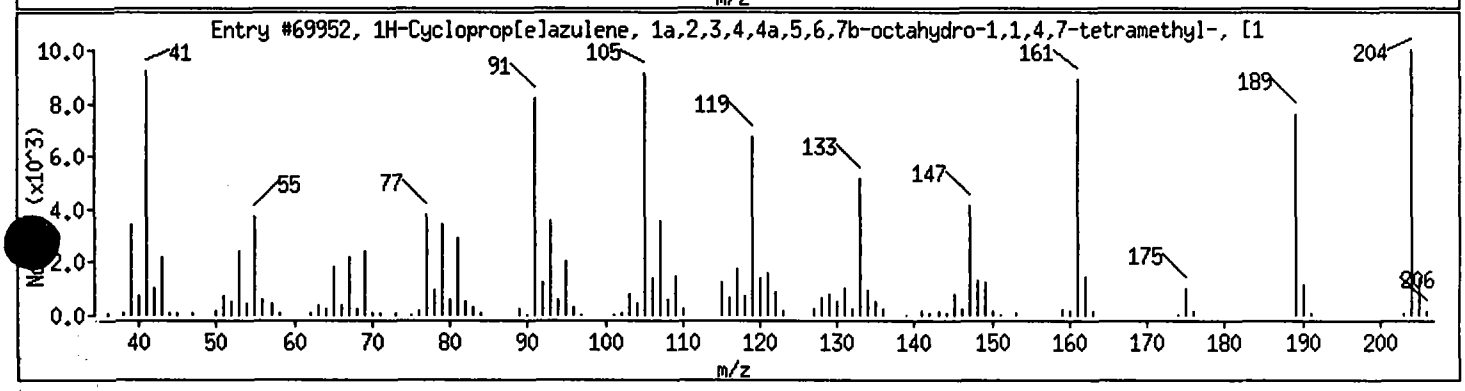
UNKNOWN PAH

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
1H-Cycloprop[e]azulene, 1a,2,3,4,4a,5,6,	489-40-7	NBS75K.1	69951	45
1H-Cycloprop[e]azulene, decahydro-1,1,7-	25246-27-9	NBS75K.1	69892	43
1H-Cycloprop[e]azulene, 1a,2,3,4,4a,5,6,	489-40-7	NBS75K.1	69952	38





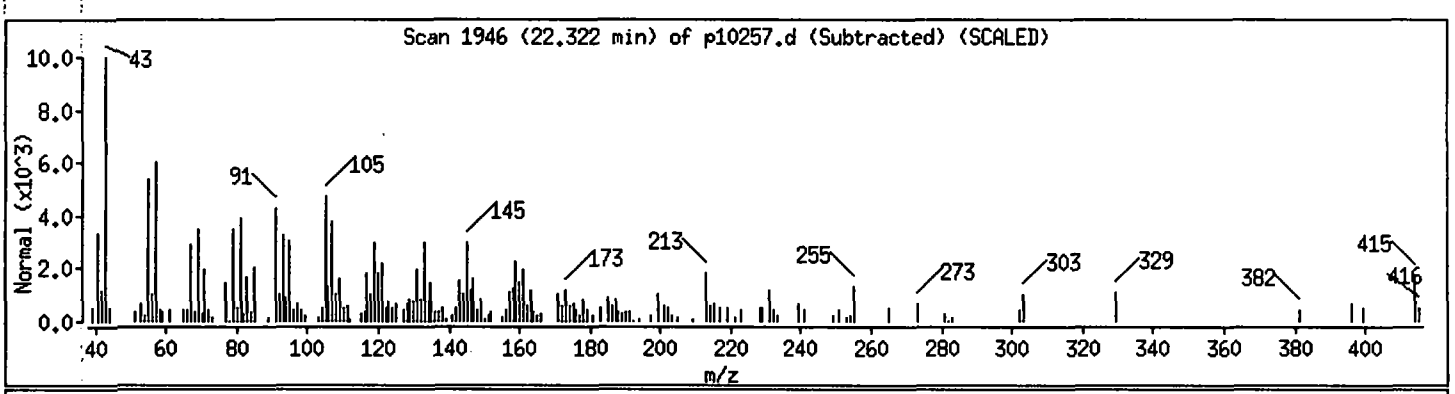


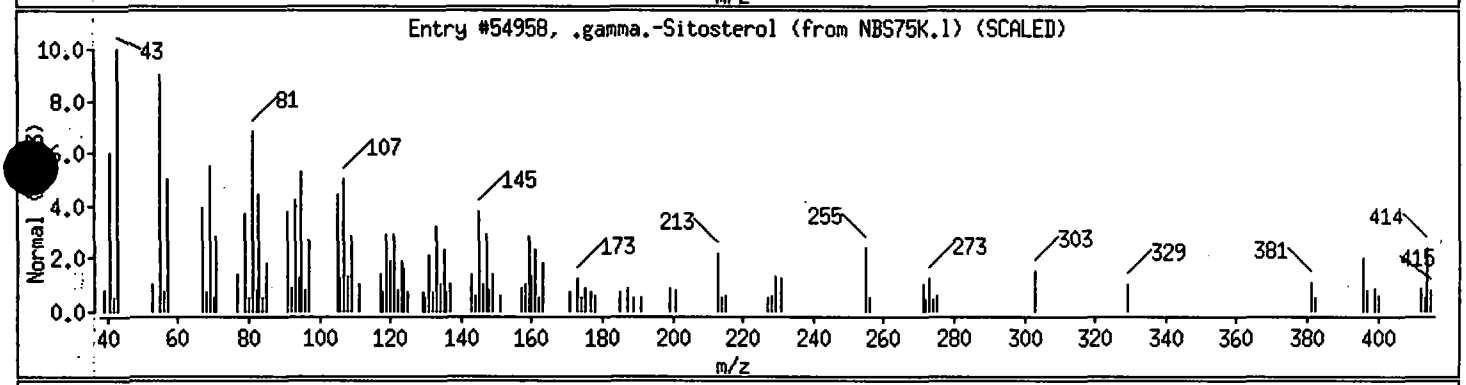


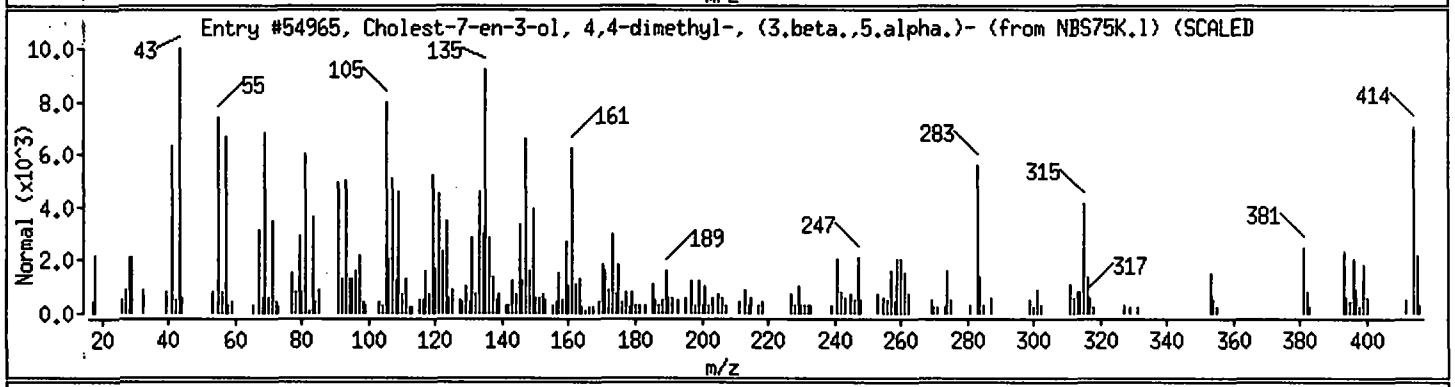
Data File: /chem/p.i/p961208a.b/p10257.d

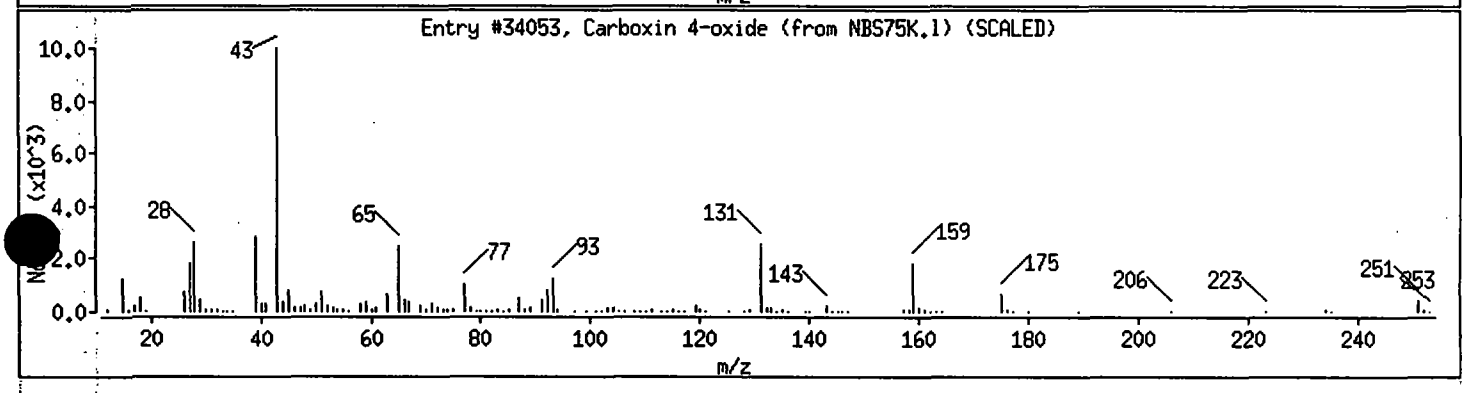
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
.gamma.-Sitosterol	83-47-6	NBS75K.l	54958	46
Cholest-7-en-3-ol, 4,4-dimethyl-, (3.bet	6384-28-7	NBS75K.l	54965	14
Carboxin 4-oxide	17757-70-9	NBS75K.l	34053	11







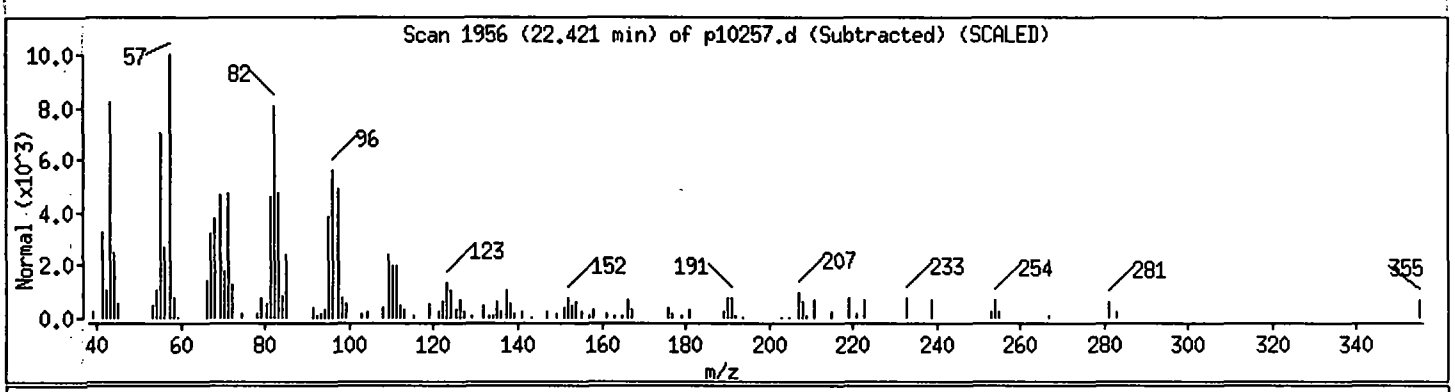


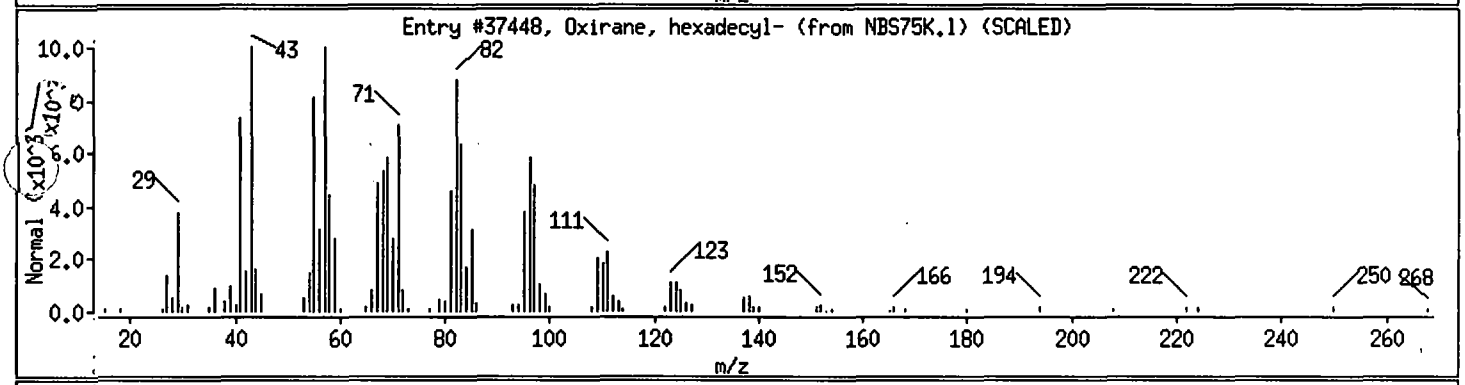
Data File: /chem/p.i/p961208a.b/p10257.d
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5
Volume Injected (uL) : 2.0

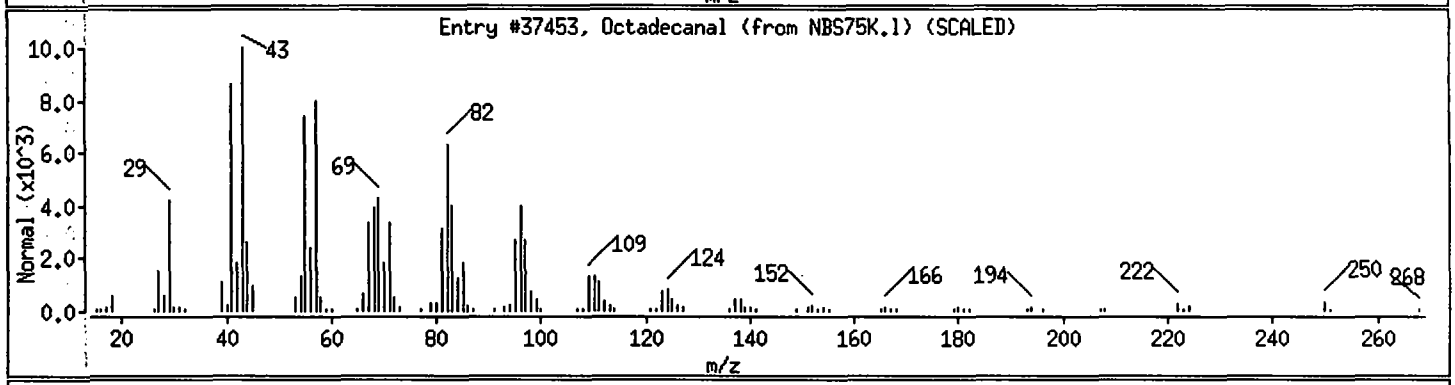
UNKNOWN ALDEHYDE

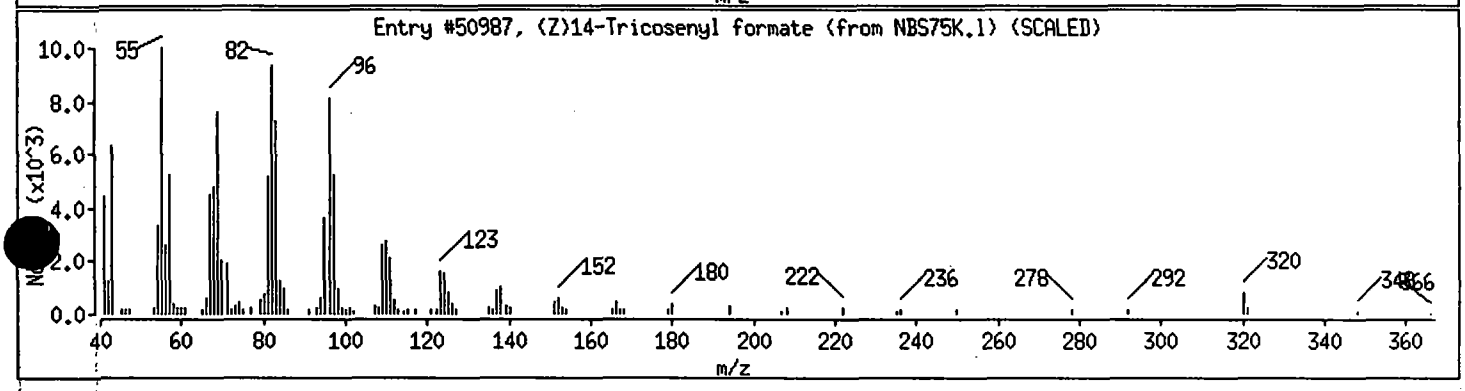
Column diameter : 0.25

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Oxirane, hexadecyl-	7390-81-0	NBS75K.l	37448	91
Octadecanal	638-66-4	NBS75K.l	37453	87
(Z)14-Tricosenyl formate	77899-10-6	NBS75K.l	50987	81







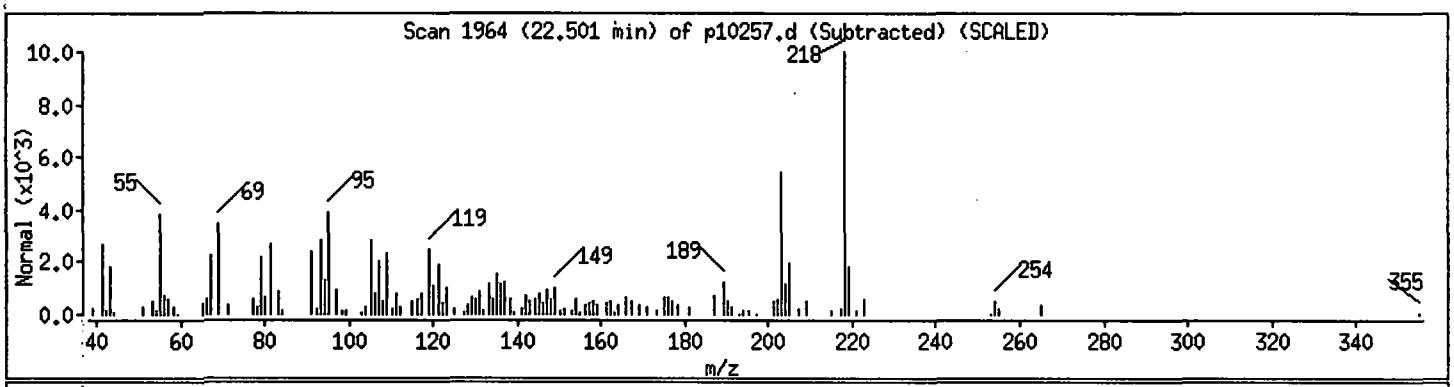


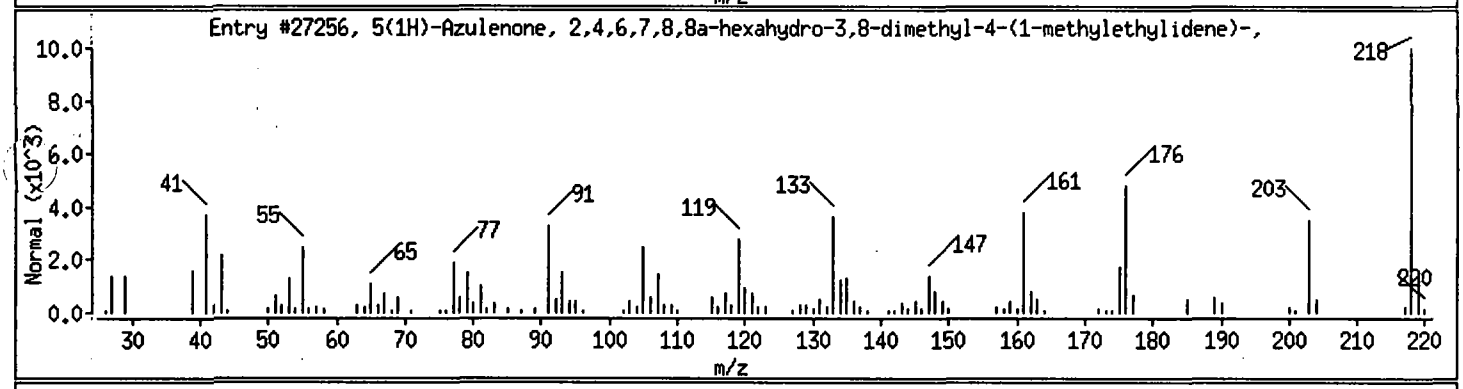
Data File: /chem/p.i/p961208a.b/p10257.d

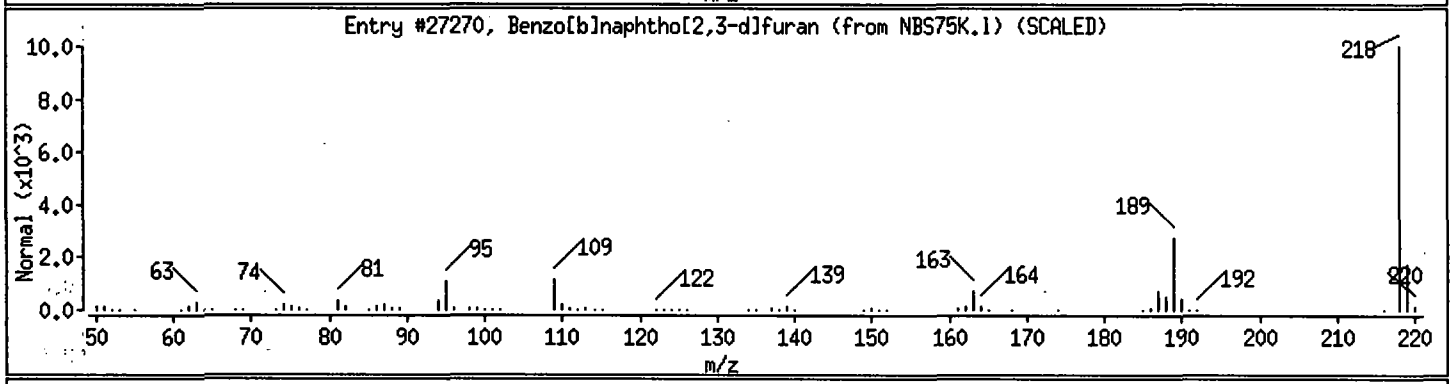
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5
Column diameter : 0.25
Volume Injected (uL) : 2.0

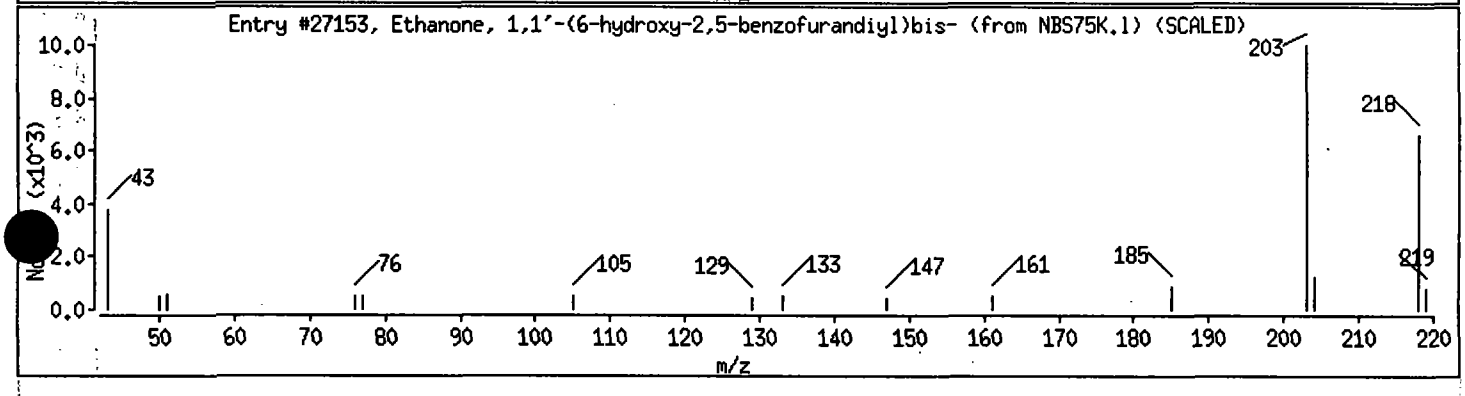
UNKNOWN PAH

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
5(1H)-Azulenone, 2,4,6,7,8,8a-hexahydro-	6754-66-1	NBS75K.l	27256	43
Benzo[b]naphtho[2,3-d]furan	243-42-5	NBS75K.l	27270	43
Ethanone, 1,1'-(6-hydroxy-2,5-benzofuran	53947-86-7	NBS75K.l	27153	38









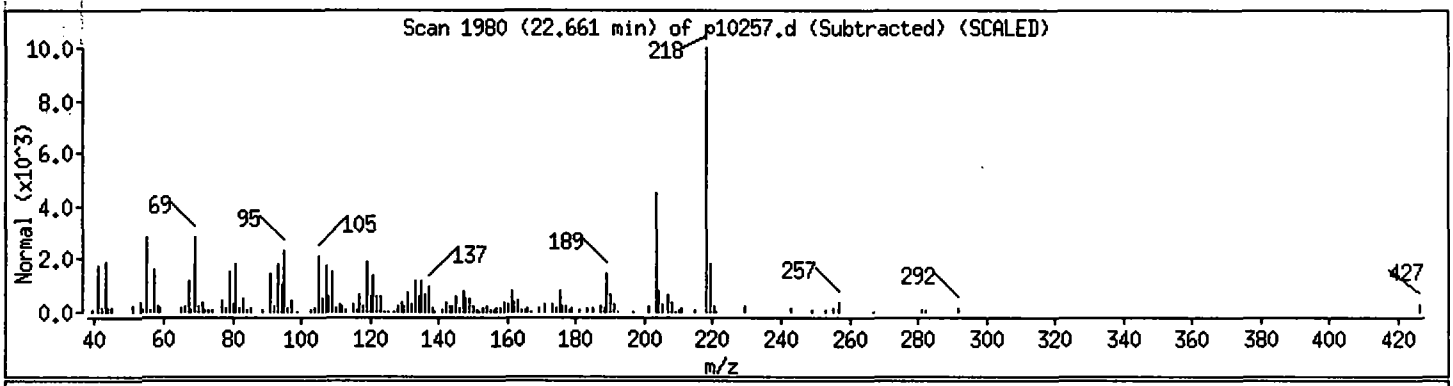
Data File: /chem/p.i/p961208a.b/p10257.d

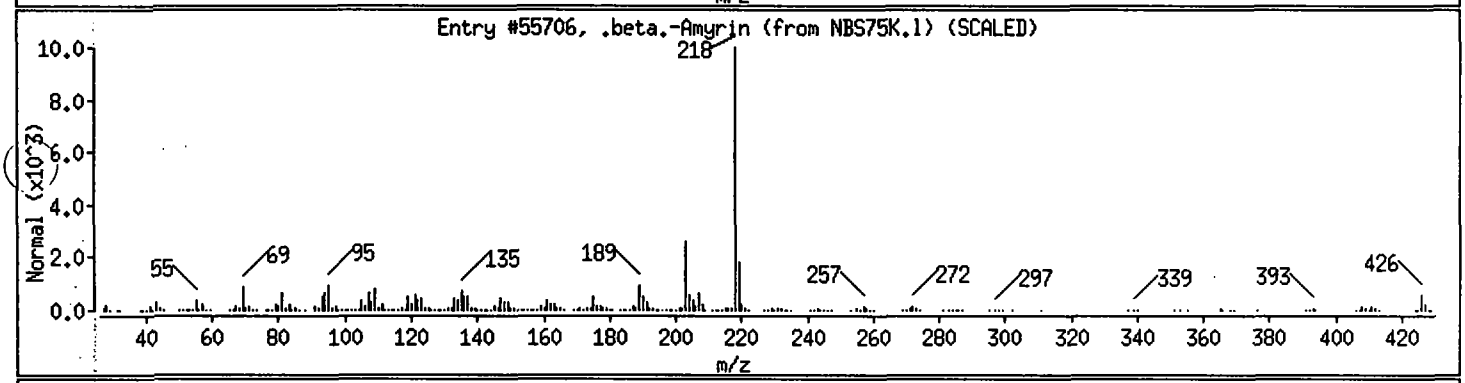
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5
Volume Injected (uL) : 2.0

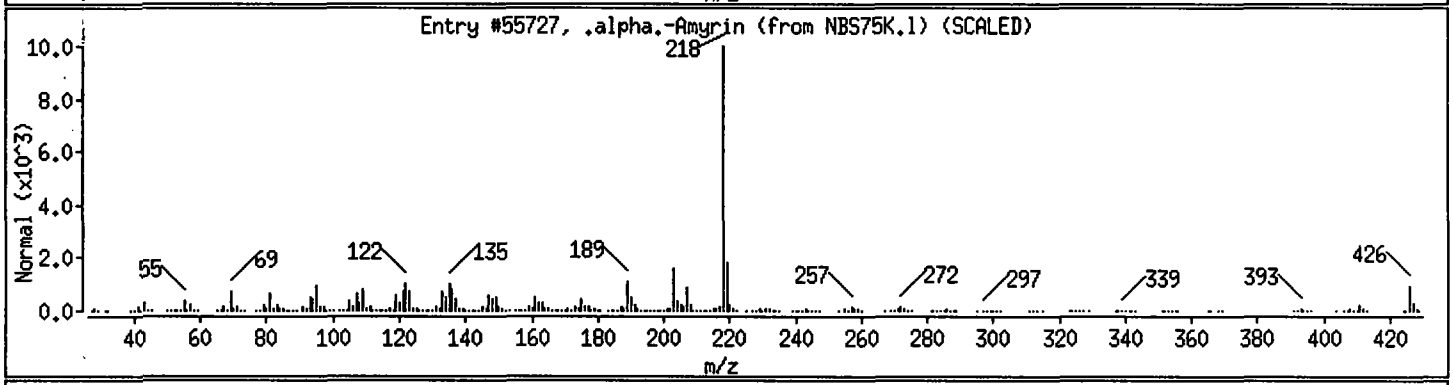
12/20/96
DH

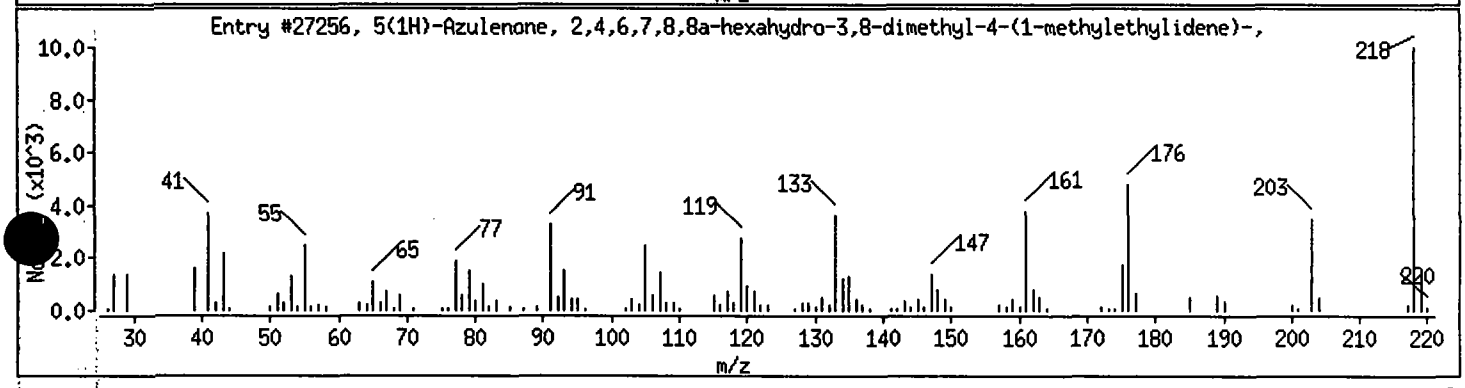
Column diameter : 0.25

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
~~.beta.~~-Amyrin	~~559-70-6~~	NBS75K.l	55706	72
.alpha.-Amyrin	638-95-9	NBS75K.l	55727	70
5(1H)-Azulenone, 2,4,6,7,8,8a-hexahydro-	6754-66-1	NBS75K.l	27256	60





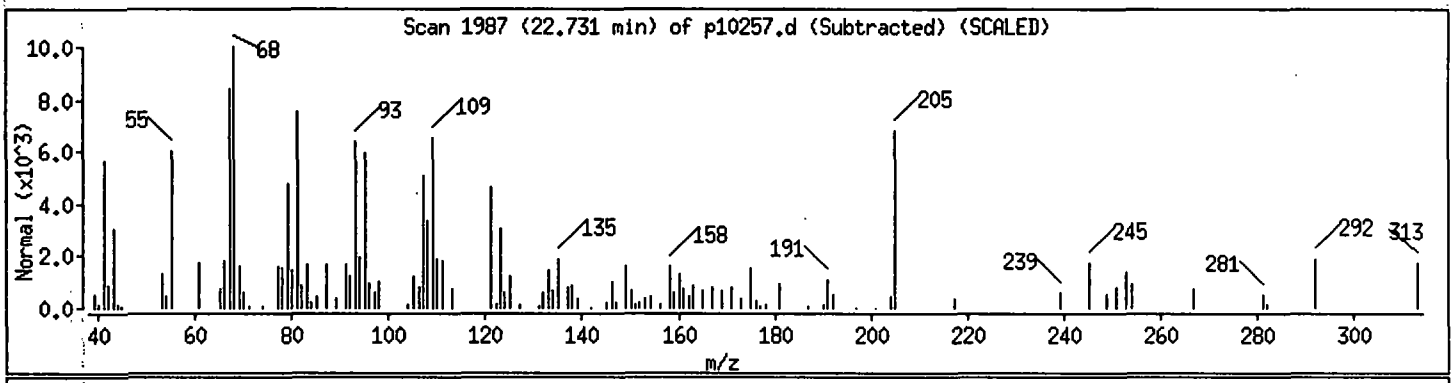


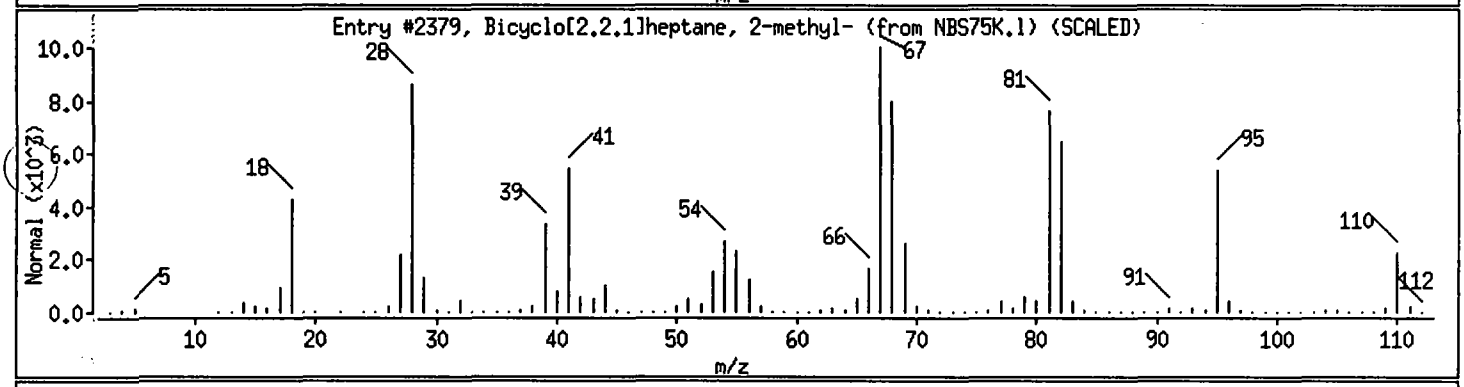


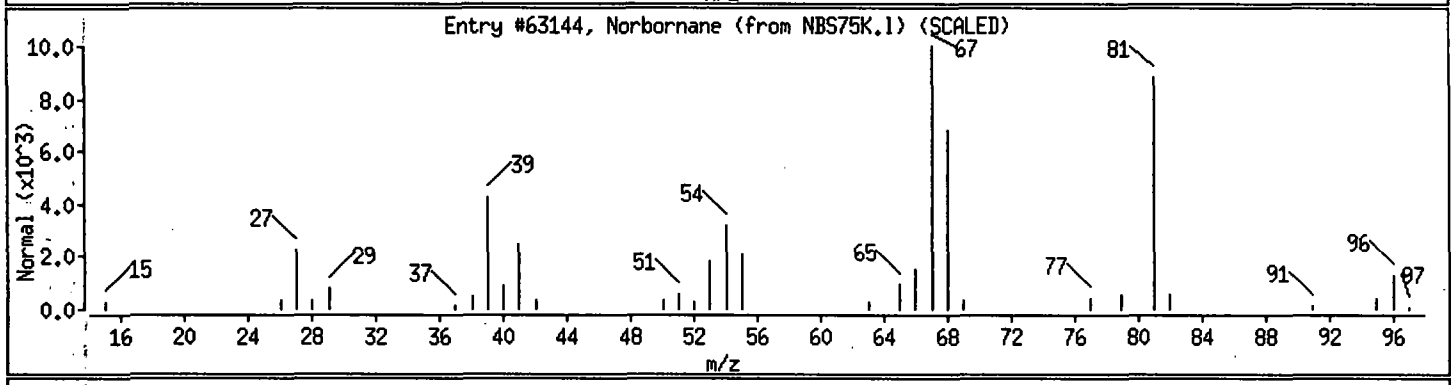
Data File: /chem/p.i/p961208a.b/p10257.d

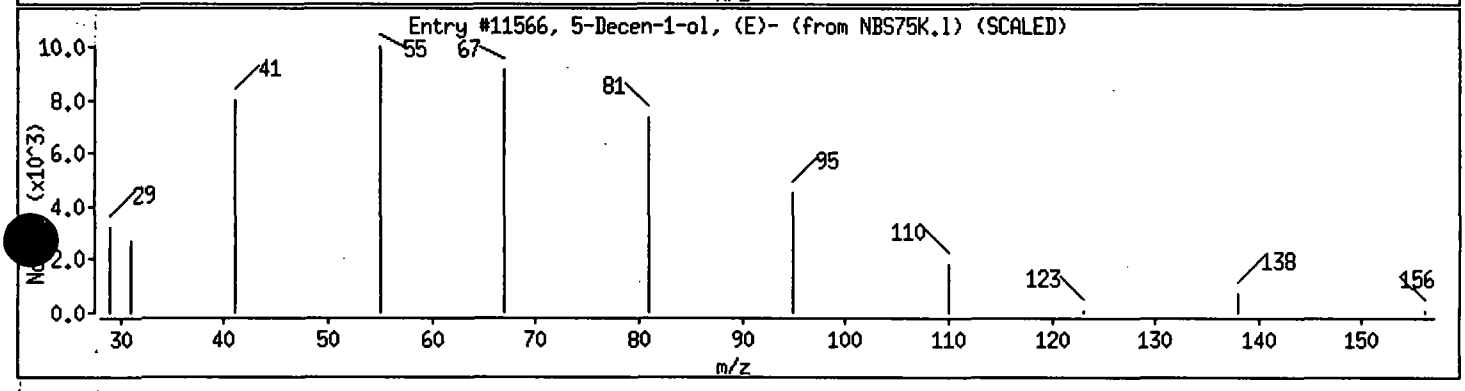
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Bicyclo[2.2.1]heptane, 2-methyl-	15185-11-2	NBS75K.l	2379	47
Norbornane	279-23-2	NBS75K.l	63144	35
5-Decen-1-ol, (E)-	56578-18-8	NBS75K.l	11566	35









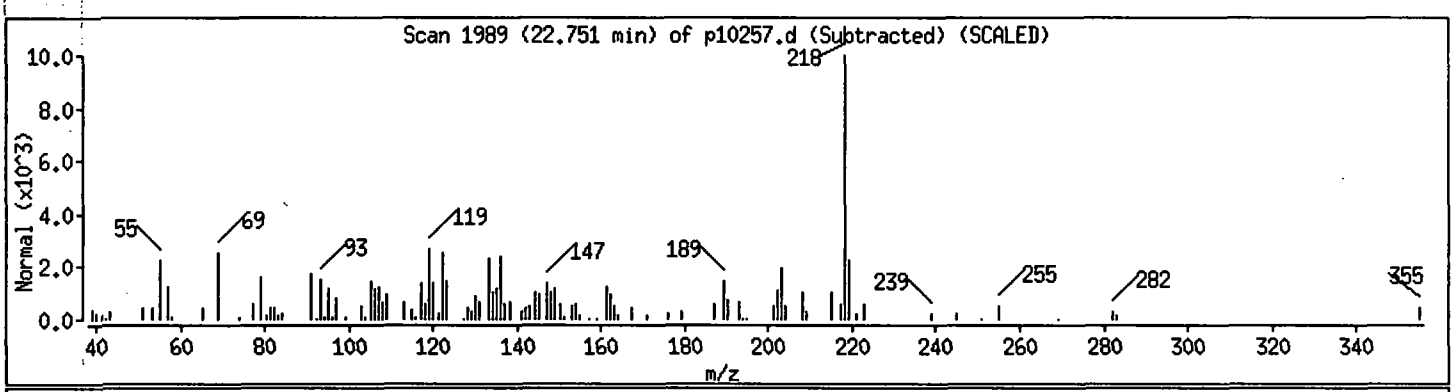
Data File: /chem/p.i/p961208a.b/p10257.d

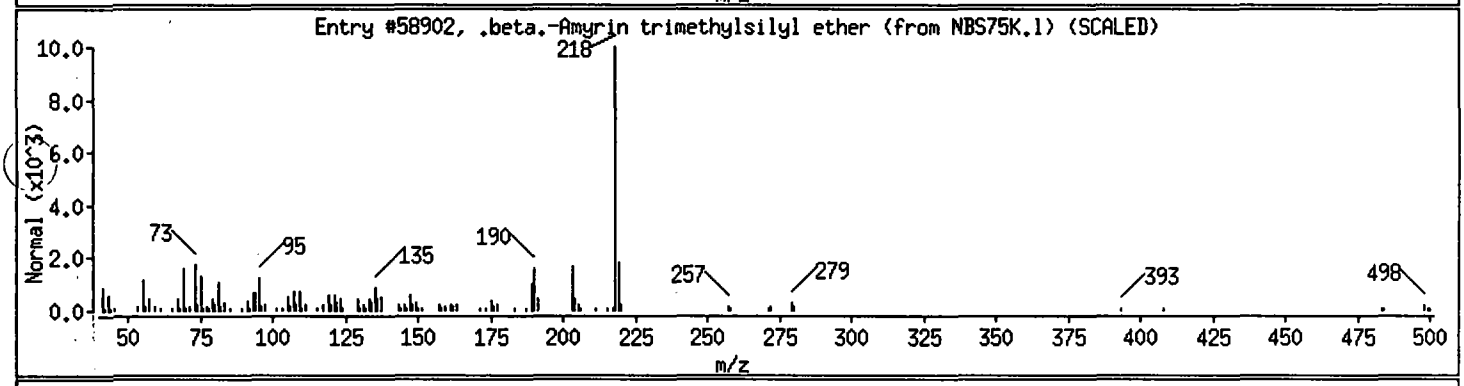
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24

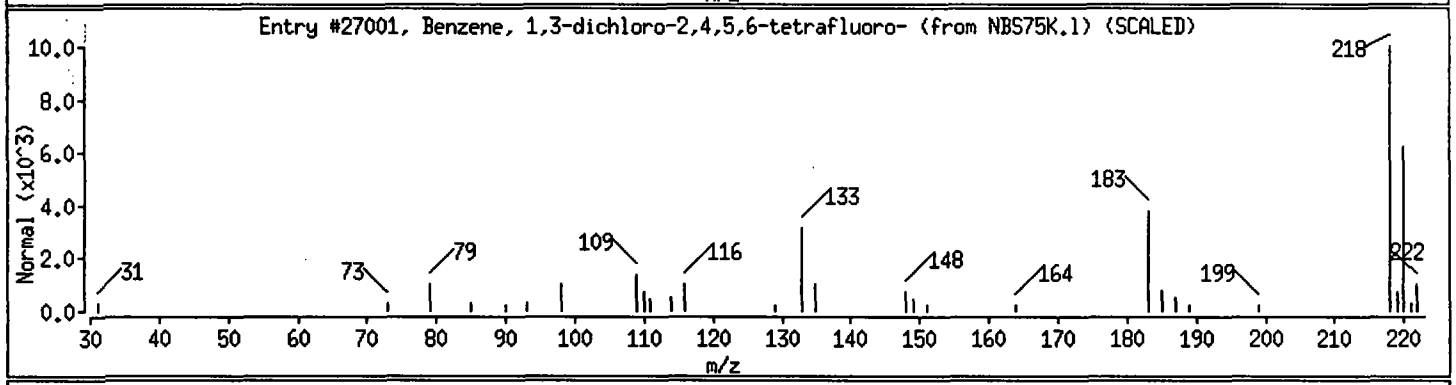
UNKNOWN

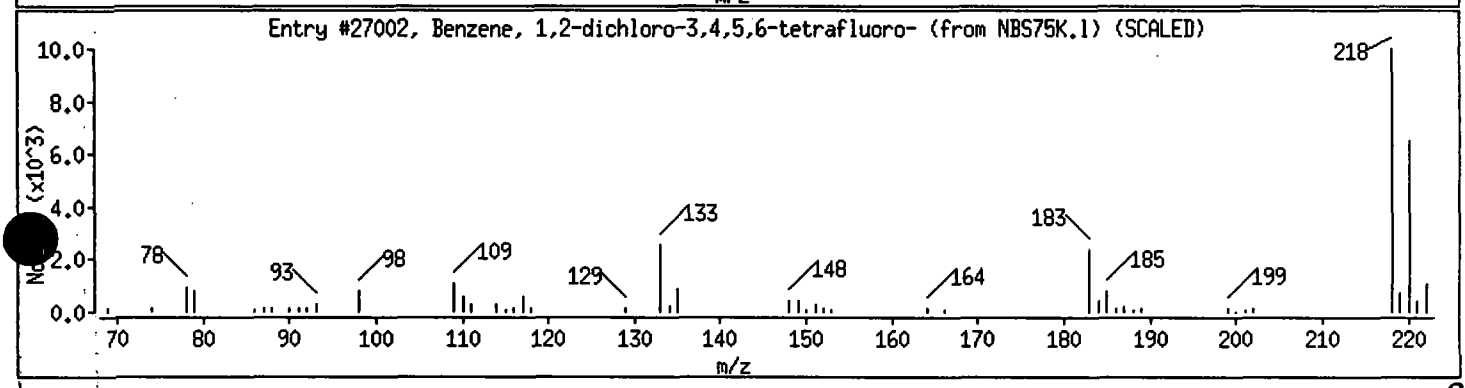
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
.beta.-Amyrin trimethylsilyl ether	1721-67-1	NBS75K.l	58902	38
Benzene, 1,3-dichloro-2,4,5,6-tetrafluor	1198-61-4	NBS75K.l	27001	38
Benzene, 1,2-dichloro-3,4,5,6-tetrafluor	1198-59-0	NBS75K.l	27002	25



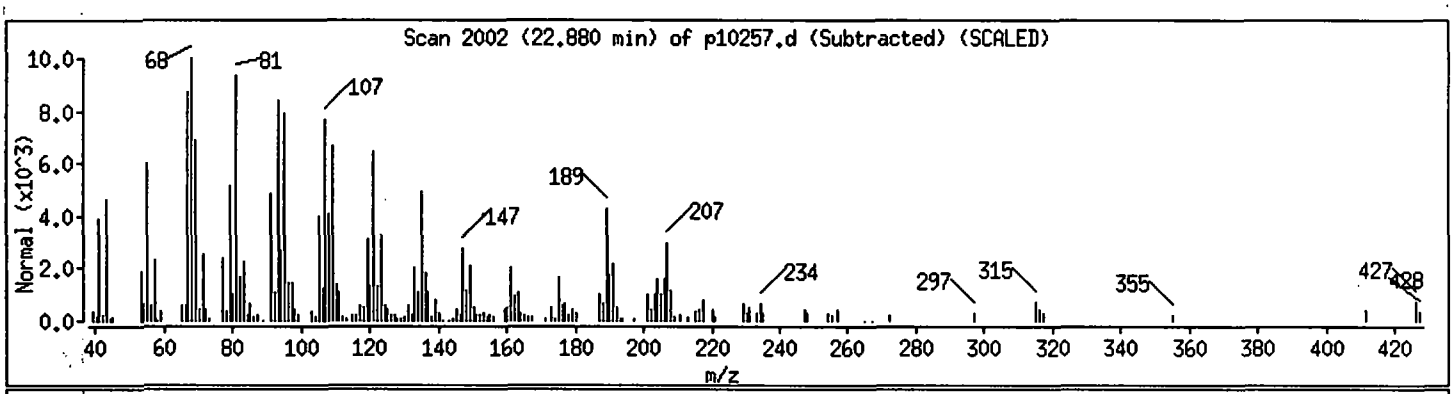


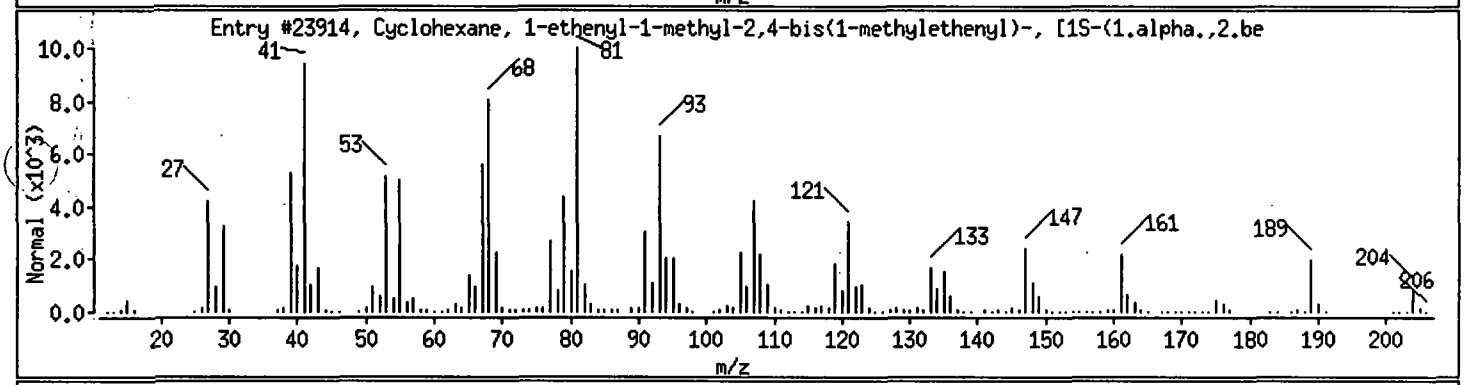


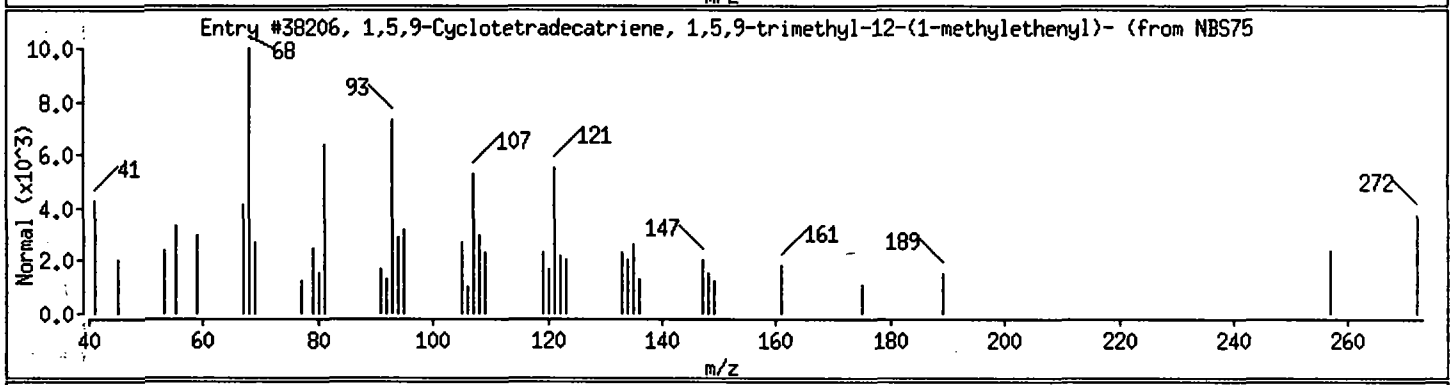


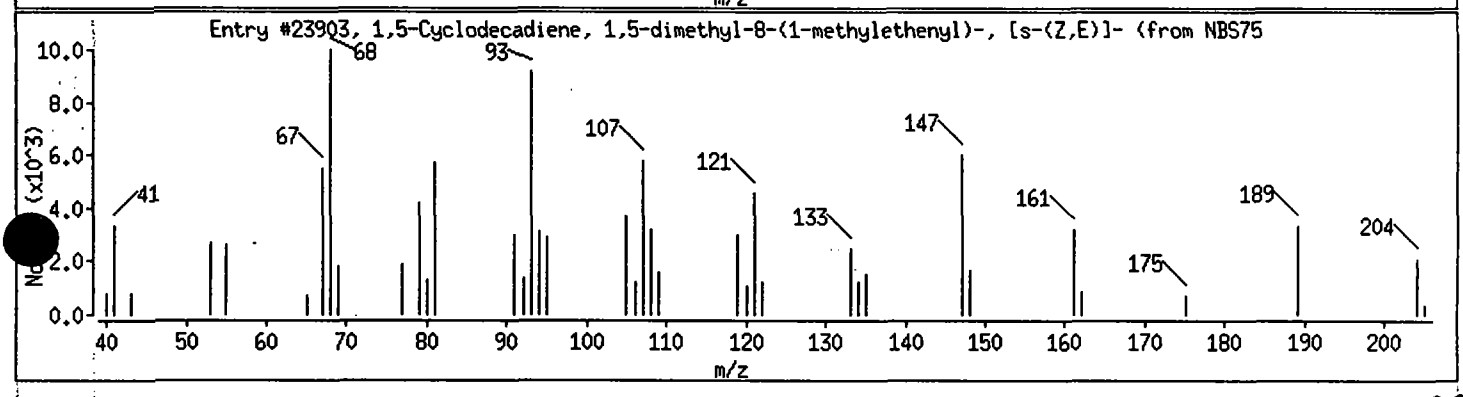
Data File: /chem/p.i/p961208a.b/p10257.d
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5 Column diameter : 0.25
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Cyclohexane, 1-ethenyl-1-methyl-2,4-bis(	515-13-9	NBS75K.l	23914	70
1,5,9-Cyclotetradecatriene, 1,5,9-trimet	38748-84-4	NBS75K.l	38206	49
1,5-Cyclodecadiene, 1,5-dimethyl-8-(1-me	75023-40-4	NBS75K.l	23903	46









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

Instrument : p.i

12/20/96

Sample ID : FFG24

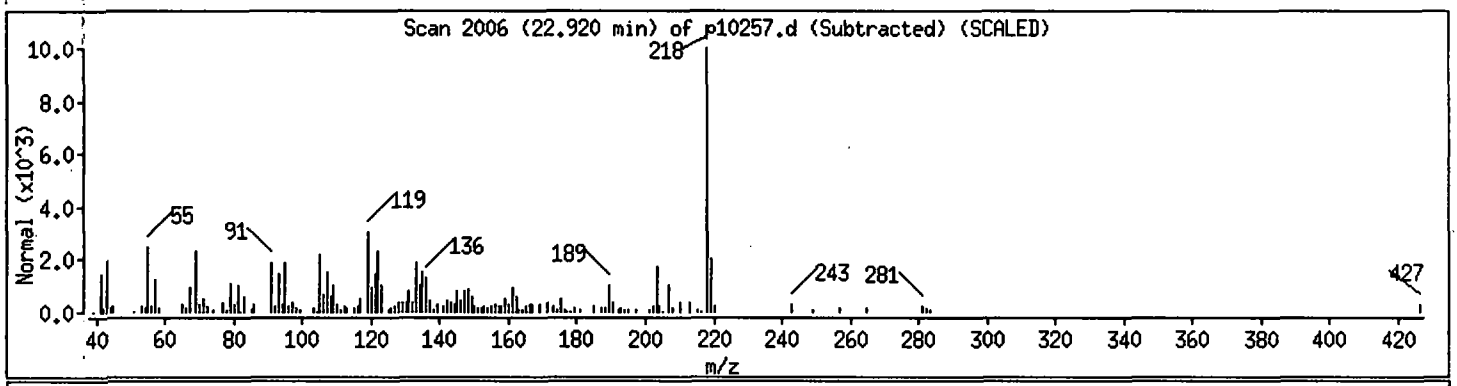
DH

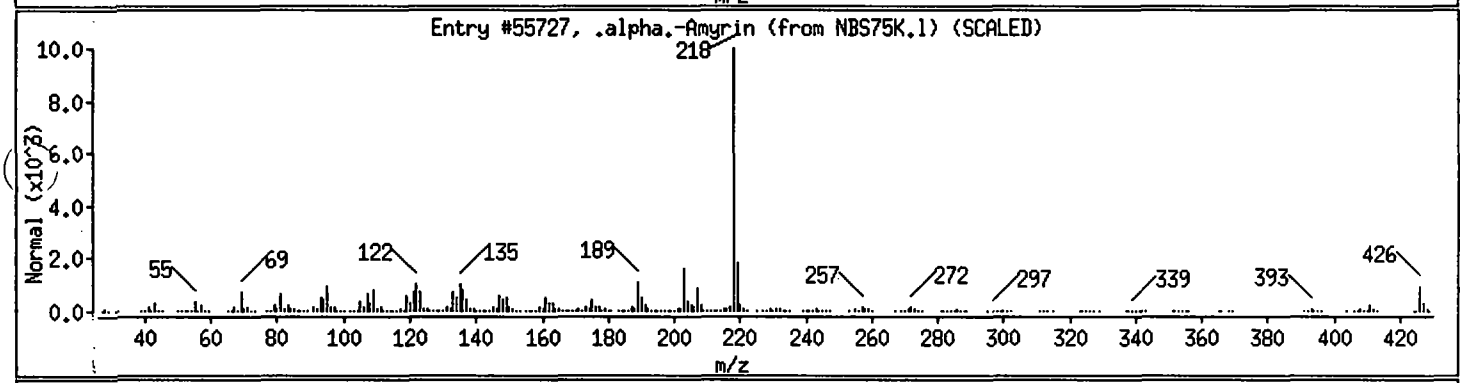
Column phase : XTI-5

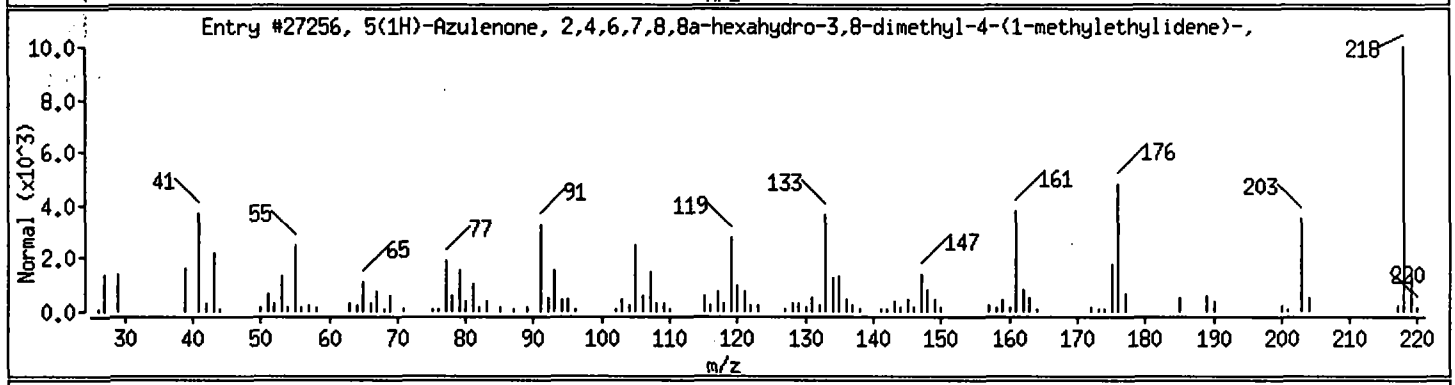
Column diameter : 0.25

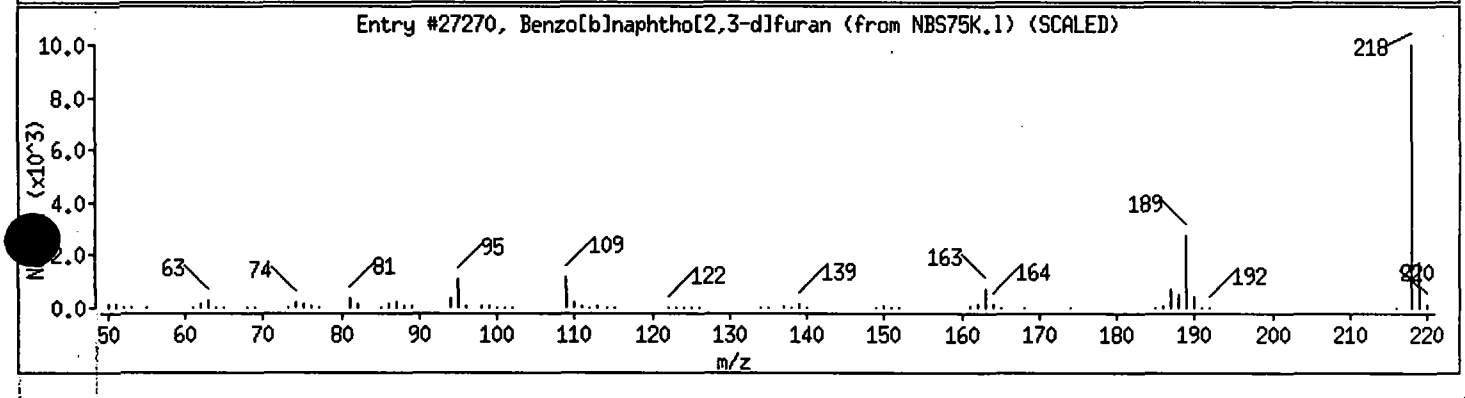
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
.alpha.-Amyrin	~~638-95-9~~	NBS75K.l	55727	55
5(1H)-Azulenone, 2,4,6,7,8,8a-hexahydro-	6754-66-1	NBS75K.l	27256	52
Benzo[b]naphtho[2,3-d]furan	243-42-5	NBS75K.l	27270	46









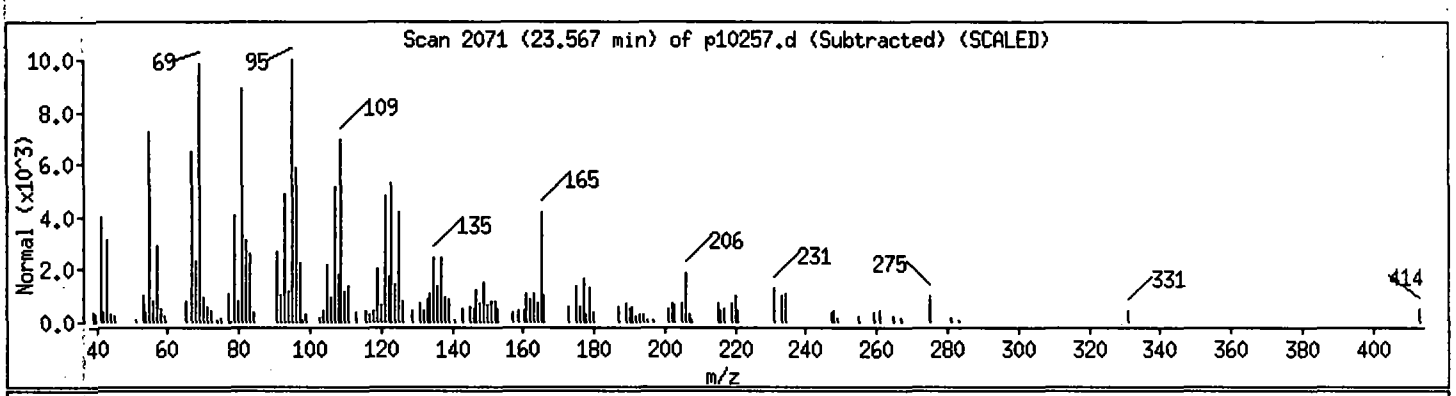
Data File: /chem/p.i/p961208a.b/p10257.d

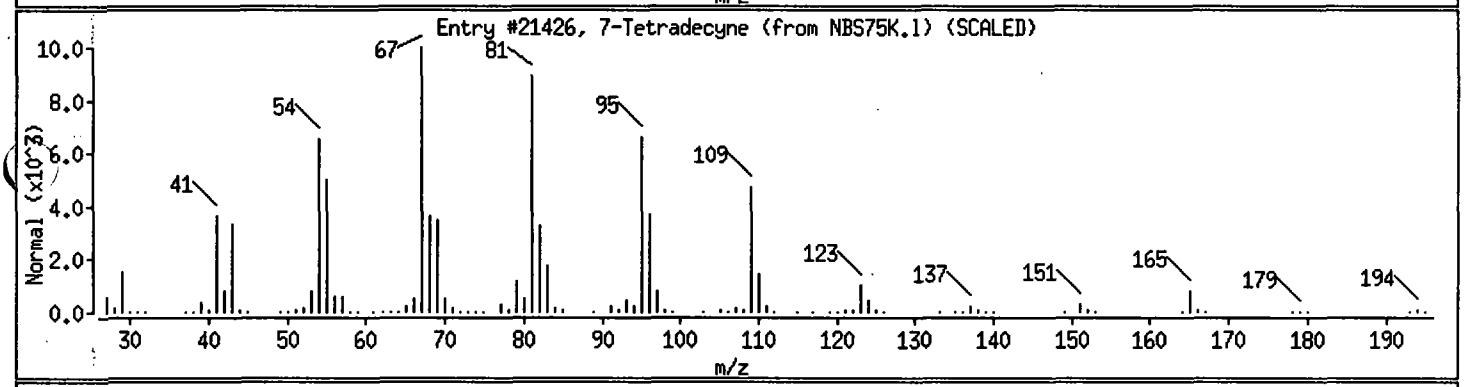
Date : 09-DEC-1996 00:38
Instrument : p.i
Sample ID : FFG24
Column phase : XTI-5
Volume Injected (uL) : 2.0

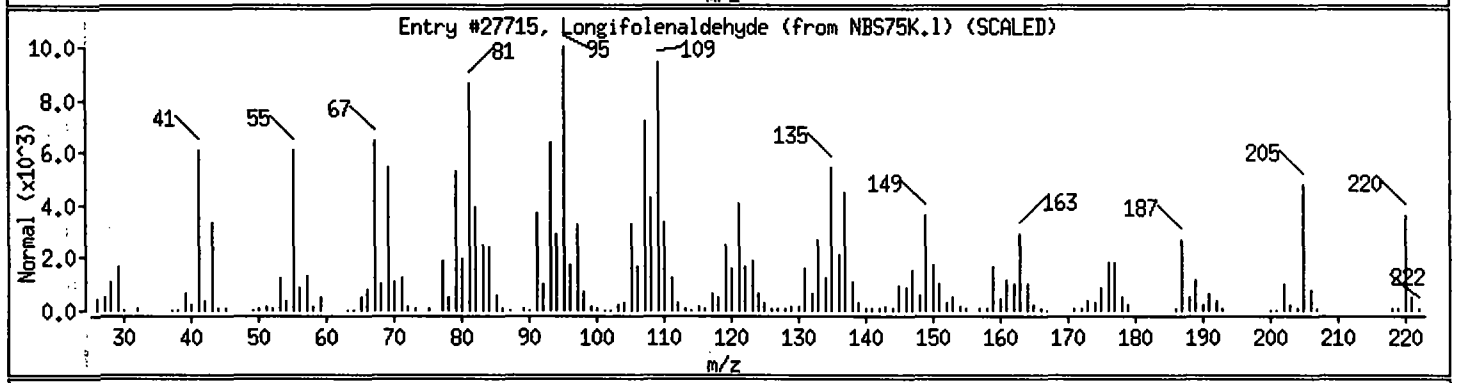
12/20/96

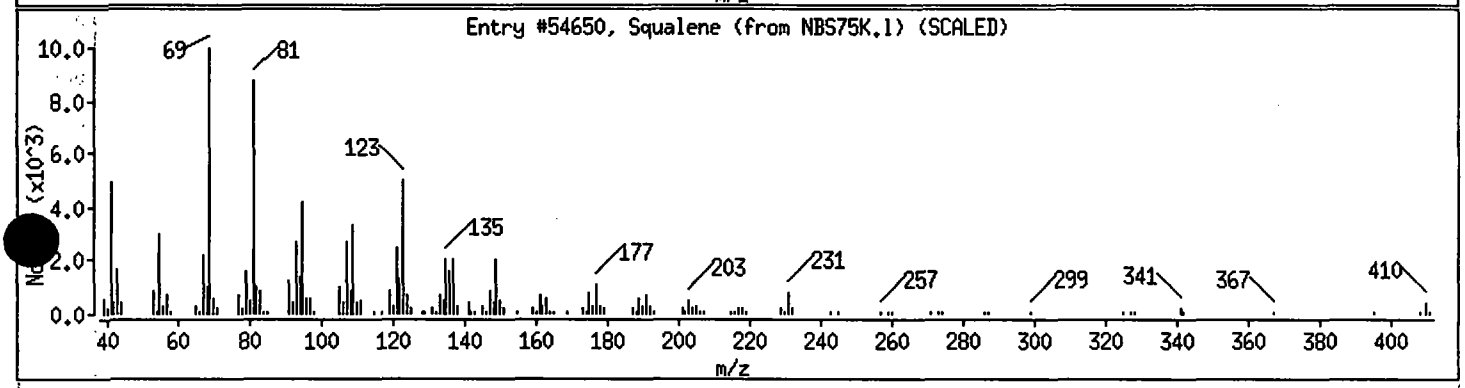
Column diameter : 0.25

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
7-Tetradecyne	~~35216-11-6~~	NBS75K.1	21426	55
Longifolenaldehyde	19890-84-7	NBS75K.1	27715	45
Squalene	7683-64-9	NBS75K.1	54650	43









Data File: /chem/p.i/p961208a.b/p10257.d

Date : 09-DEC-1996 00:38

UNKNOWN

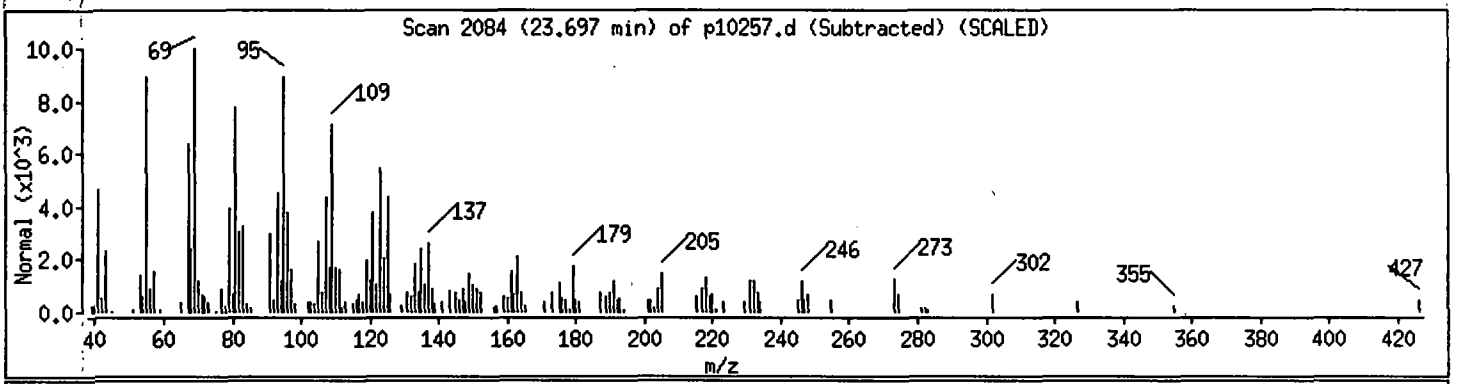
Instrument : p.i

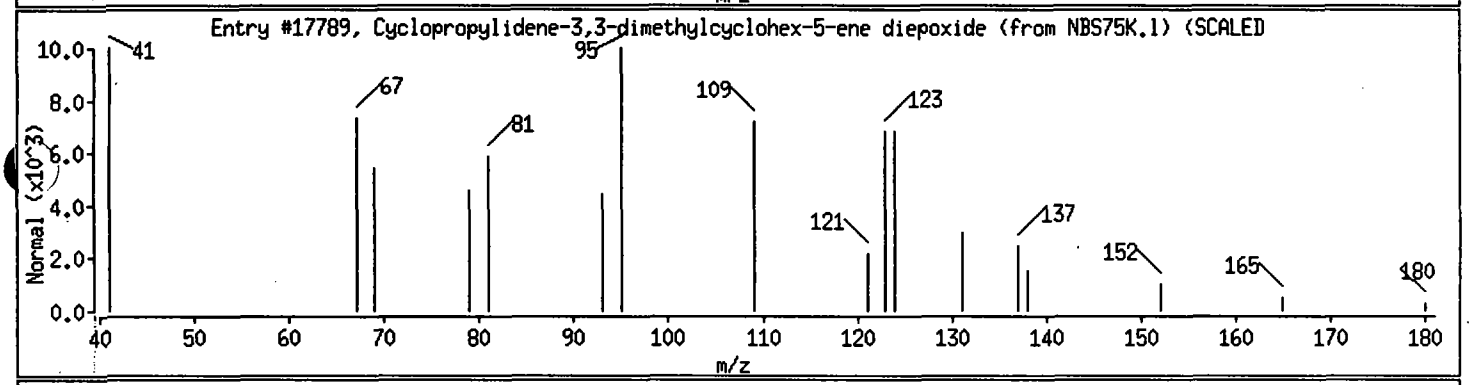
Sample ID : FFG24

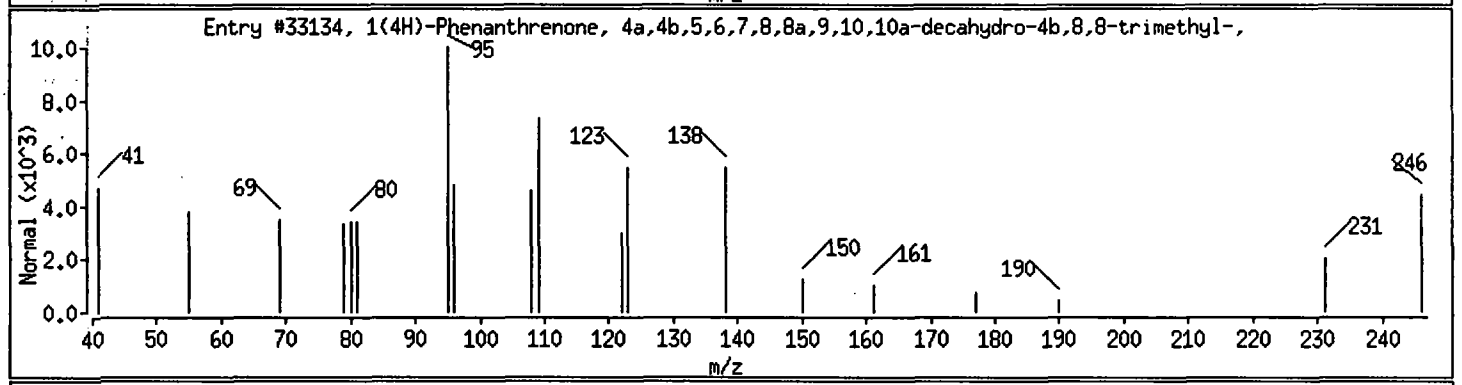
Column phase : XTI-5 Column diameter : 0.25

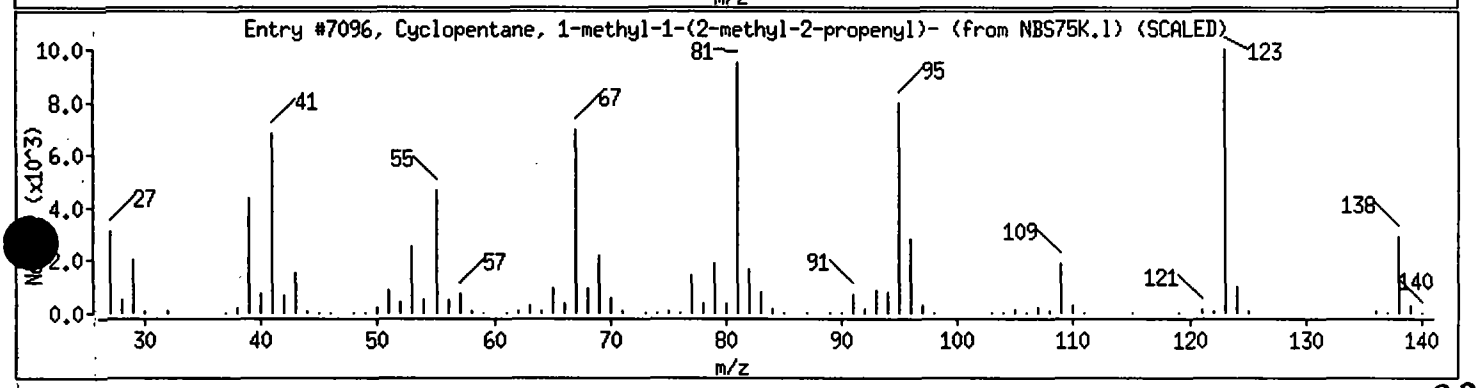
Volume Injected (uL) : 2.0

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Cyclopropylidene-3,3-dimethylcyclohex-5-	0-00-0	NBS75K.1	17789	42
1(4H)-Phenanthrenone, 4a,4b,5,6,7,8,8a,9	57684-15-8	NBS75K.1	33134	38
Cyclopentane, 1-methyl-1-(2-methyl-2-pro	74764-47-9	NBS75K.1	7096	38









Data File: /chem/p.i/p961208a.b/p10258.d
Report Date: 09-Dec-1996 13:57

SWOK/AATS

RECOVERY REPORT

Client Name: AATS-E:25159
Sample Matrix: SOLID
Client ID: FFG24 MS
Data Type: MS DATA
SpikeList File: SoilMsd.spk
Client SDG: p961208a.b
Fraction: SV
Level: LOW
SampleType: MS
Quant Type: ISTD
Method File: /chem/p.i/p961208a.b/BNA517EPA.m
Misc Info: MS517**INSTP*AATS-E:25159*27683.10MS*30G/0.5ML/2UL*

SPIKE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
3 Phenol	2777.77	395.24	14.23 *	26-90
6 2-Chlorophenol	2777.77	418.90	15.08 *	25-102
9 1,4-Dichlorobenzen	1851.85	272.45	14.71 *	28-104
15 N-Nitroso-di-n-pro	1851.85	322.36	17.41 *	41-126
24 1,2,4-Trichloroben	1851.85	281.48	15.20 *	38-107
29 4-Chloro-3-Methylp	2777.77	455.18	16.39 *	26-103
42 Acenaphthene	1851.85	303.98	16.42 *	31-137
45 4-Nitrophenol	2777.77	518.39	18.66	11-114
46 2,4-Dinitrotoluene	1851.85	315.66	17.05 *	28-89
56 Pentachlorophenol	2777.77	408.02	14.69 *	17-109
63 Pyrene	1851.85	420.39	22.70 *	35-142

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 1 2-Fluorophenol	2777.77	1599.07	57.57	25-121
$ 2 Phenol-d5	2777.77	1645.69	59.24	24-113
$ 5 2-Chlorophenol-d4	2777.77	1776.42	63.95	20-130
$ 10 1,2-Dichlorobenzen	1851.85	1352.49	73.03	20-130
$ 17 Nitrobenzene-d5	1851.85	1268.91	68.52	23-120
$ 34 2-Fluorobiphenyl	1851.85	1490.11	80.47	30-115
$ 53 2,4,6-Tribromophen	2777.77	2563.43	92.28	19-122
$ 64 Terphenyl-d14	1851.85	1835.09	99.10	18-137

* - Values outside of QC limits
Spike Recovery: 10 out of 19 outside limits
0 out of 19 not found

Data File: /chem/p.i/p961208a.b/p10258.d
Report Date: 09-Dec-1996 13:57

SWOK/AATS

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: p.i
Lab File ID: p10258.d
Lab Sample ID: 27683.10 MS
Analysis Type: SV
Quant Type: ISTD
Method File: /chem/p.i/p961208a.b/BNA517EPA.m
Misc Info: MS517**INSTP*AATS-E:25159*27683.10MS*30G/0.5ML/2UL*

Calibration Date: 12/08/96
Calibration Time: 1549
Sample Type: SOIL
Level: LOW

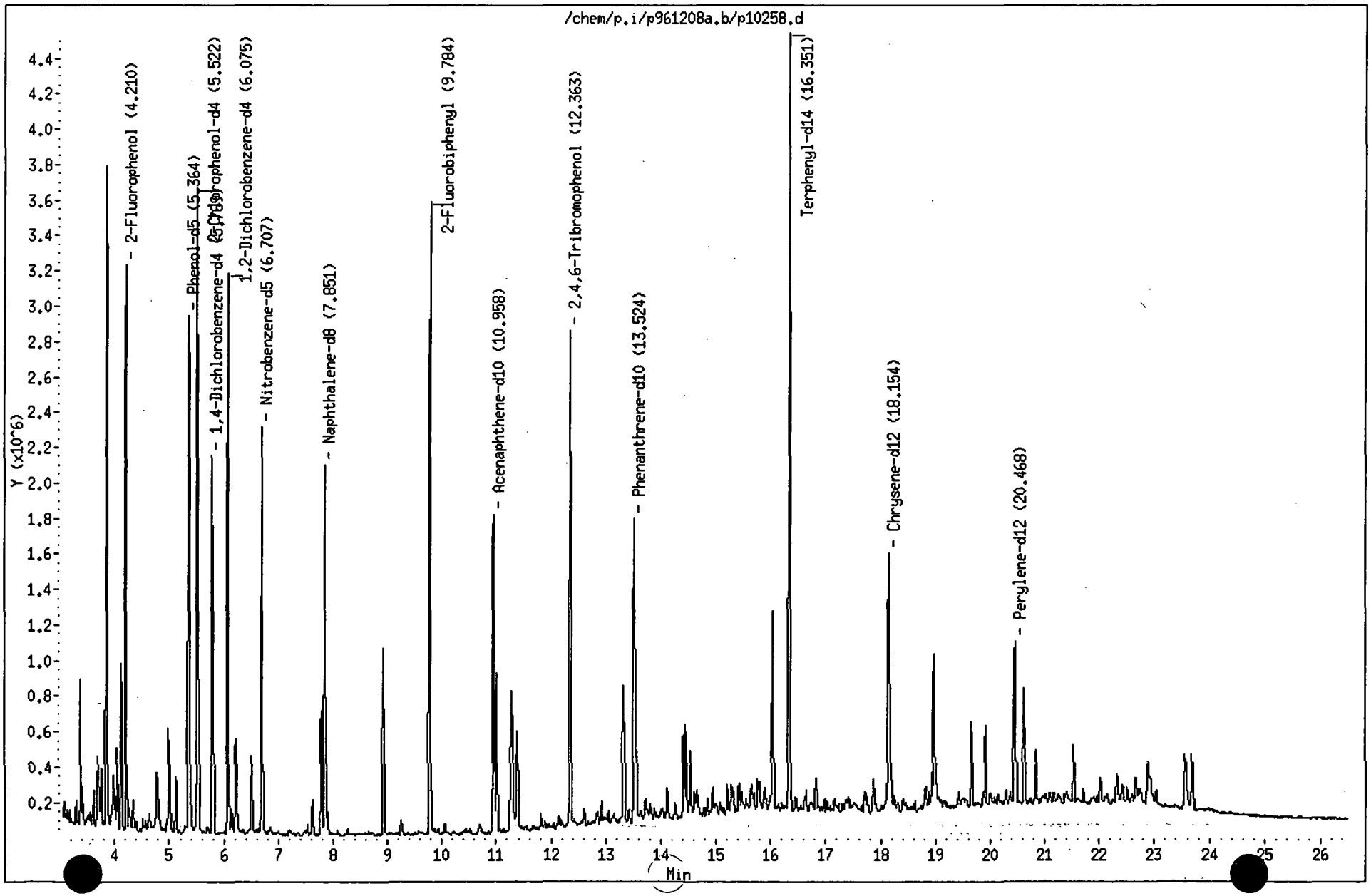
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
8 1,4-Dichlorobenzene-	324340	162170	648680	416034	28.27
25 Naphthalene-d8	1053367	526683	2106734	1414059	34.24
40 Acenaphthene-d10	629778	314889	1259556	762555	21.08
57 Phenanthrene-d10	1110503	555251	2221006	1082017	-2.57
67 Chrysene-d12	818704	409352	1637408	752696	-8.06
75 Perylene-d12	753555	376777	1507110	564522	-25.09

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
8 1,4-Dichlorobenzene-	5.80	5.30	6.30	5.79	-0.25
25 Naphthalene-d8	7.87	7.37	8.37	7.85	-0.20
40 Acenaphthene-d10	10.96	10.46	11.46	10.96	-0.05
57 Phenanthrene-d10	13.54	13.04	14.04	13.52	-0.13
67 Chrysene-d12	18.16	17.66	18.66	18.15	-0.06
75 Perylene-d12	20.47	19.97	20.97	20.47	-0.03

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.

Data File: /chem/p.i/p961208a.b/p10258.d
Date : 09-DEC-1996 01:14
Instrument : p.i
Sample ID : FFG24 MS
Column phase : XTI-5
Volume Injected (uL) : 2.0

Column diameter : 0.25



Data File: /chem/p.i/p961208a.b/p10258.d
Report Date: 09-Dec-1996 13:57

SWOK/AATS

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/p.i/p961208a.b/p10258.d
Lab. Id. : 27683.10 MS Quant Type: ISTD
Inj Date : 09-DEC-1996 01:14
Operator : Annie Inst ID: p.i
Smp Info : FFG24 MS
Misc Info : MS517**INSTP*AATS-E:25159*27683.10MS*30G/0.5ML/2UL*
Comment :
Method : /chem/p.i/p961208a.b/BNA517EPA.m
Meth Date : 09-Dec-1996 13:32 ann
Cal Date : 08-DEC-1996 15:49 Cal File: p10242.d
Als bottle: 15 QC Sample: MS
Dil Factor: 1.000 Target Version: Target 3.00
Integrator: HP RTE Compound Sublist: all.sub
Sample Type: SOIL

Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$ 1 2-Fluorophenol	112.00	4.210	(0.727)	1125142	86.35	1599.07
$ 2 Phenol-d5	98.80	5.364	(0.927)	1450475	88.86	1645.69
3 Phenol	94.00	5.384	(0.930)	348098	21.34	395.24(R)
$ 5 2-Chlorophenol-d4	132.00	5.522	(0.954)	1296905	95.92	1776.42
6 2-Chlorophenol	128.00	5.542	(0.957)	309106	22.62	418.90(R)
* 8 1,4-Dichlorobenzene-d4	151.85	5.789	(1.000)	416034	40.00	
9 1,4-Dichlorobenzene	146.00	5.819	(1.005)	229159	14.71	272.45(aR)
$ 10 1,2-Dichlorobenzene-d4	152.00	6.075	(1.049)	625260	73.03	1352.49
15 N-Nitroso-di-n-propylamine	70.00	6.500	(1.123)	140573	17.40	322.36(aR)
$ 17 Nitrobenzene-d5	82.00	6.707	(0.854)	1115560	68.52	1268.91
24 1,2,4-Trichlorobenzene	180.00	7.791	(0.992)	194875	15.20	281.48(aR)
* 25 Naphthalene-d8	135.65	7.851	(1.000)	1414059	40.00	
29 4-Chloro-3-Methylphenol	107.00	8.925	(1.137)	348031	24.58	455.18(R)
$ 34 2-Fluorobiphenyl	172.00	9.784	(0.893)	2032097	80.46	1490.11
* 40 Acenaphthene-d10	164.00	10.958	(1.000)	762555	40.00	
42 Acenaphthene	153.00	11.008	(1.005)	353355	16.41	303.98(aR)
45 4-Nitrophenol	109.00	11.294	(1.031)	167292	27.99	518.39(aQ)
46 2,4-Dinitrotoluene	165.00	11.394	(1.040)	154968	17.04	315.66(aR)
$ 53 2,4,6-Tribromophenol	329.80	12.363	(0.914)	485090	138.42	2563.43
56 Pentachlorophenol	265.80	13.335	(0.986)	103212	22.03	408.02(aR)
* 57 Phenanthrene-d10	187.65	13.524	(1.000)	1082017	40.00	
58 Phenanthrene	178.00	13.564	(1.003)	281749	10.01	185.40(a)
59 Anthracene	178.00	13.634	(1.008)	29508	1.12	20.91(a)
62 Fluoranthene	202.00	15.643	(1.157)	52439	1.58	29.29(a)
63 Pyrene	202.00	16.042	(0.884)	714801	22.70	420.39(R)
$ 64 Terphenyl-d14	244.00	16.351	(0.901)	2099388	99.09	1835.09
66 Benzo(a)anthracene	228.00	18.114	(0.998)	72922	2.64	49.00(a)
* 67 Chrysene-d12	240.00	18.154	(1.000)	752696	40.00	
68 Chrysene	228.00	18.195	(1.002)	125838	5.59	103.62(a)
69 bis(2-Ethylhexyl)phthalate	149.00	18.244	(1.005)	30205	1.49	27.63(a)
71 Benzo(b)fluoranthene	252.00	19.879	(0.971)	22558	1.08	20.01(aM)

12/09/96

Data File: /chem/p.i/p961208a.b/p10258.d
Report Date: 09-Dec-1996 13:57

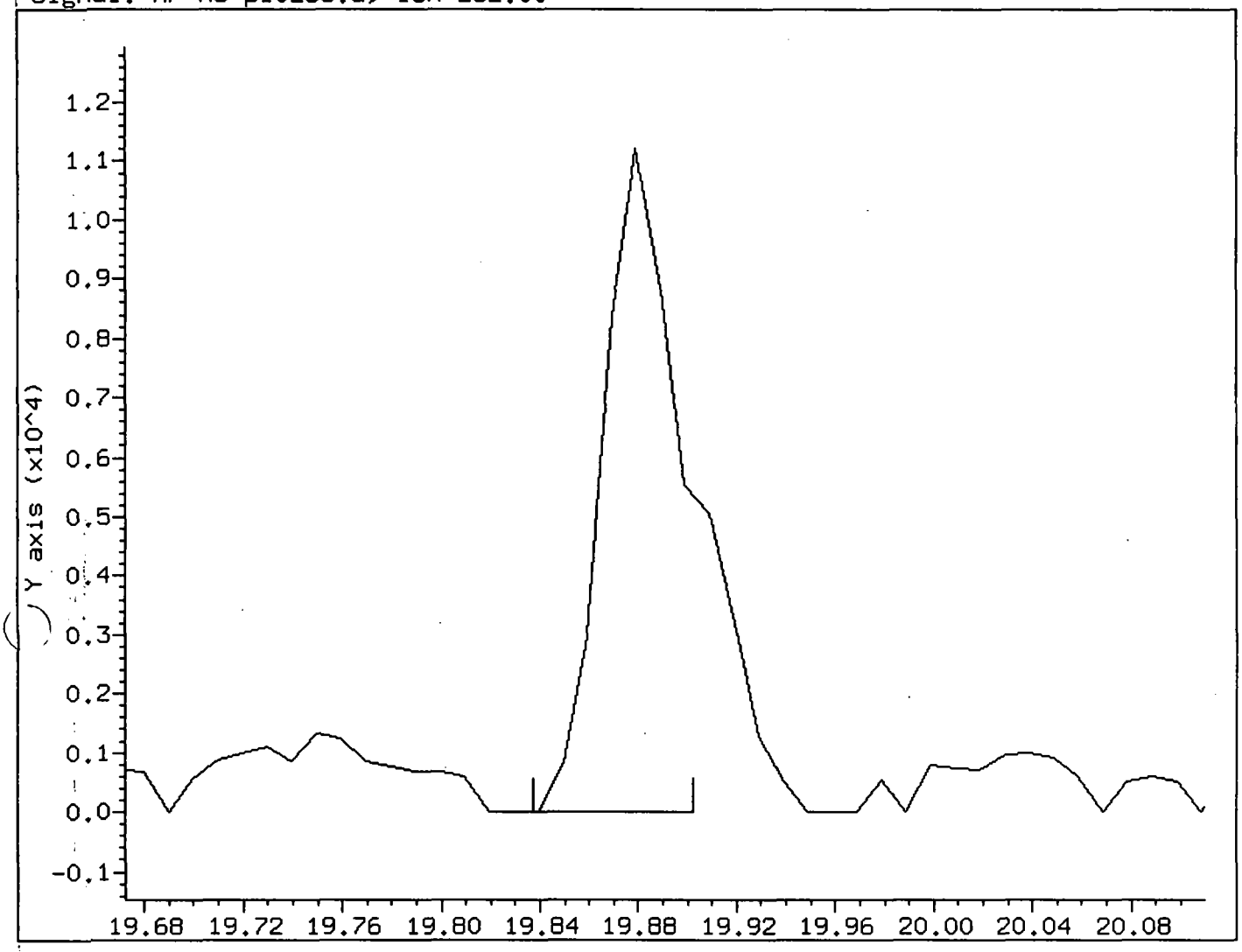
Compounds	QUANT SIG MASS	RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
74 Benzo(a)pyrene	252.00	20.368	(0.995)	17674	1.10	20.43(a)
* 75 Perylene-d12	264.00	20.468	(1.000)	564522	40.00	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Manual Integration

Client Sample ID: FFG24 MS
Injection Date: 09-DEC-96 01:14
Instrument: p.i
Compound: Benzo(b)fluoranthene
Signal: HP MS p10258.d, Ion 252.00



120996

OK 12/20/96 [illegible]

MANUAL INTEGRATION REPORT

LAB SAMPLE ID: 27683.10 MS
SAMPLE ID. : FFG24 MS
FILENAME : /chem/p.i/p961208a.b/p10258.d
INST ID. : p.i
ANALYST : Annie
DATE INJECTED: 09-DEC-1996 01:14
COMPOUND : Benzo(b)fluoranthene
ION: 252 AREA: 22558 CONCENTRATION: 20.01
INTEGRATION SCAN RANGE: 1695 - 1701

Report Generated: 12/09/96 at 13:57 by OPERATOR an

Data File: /chem/p.i/p961208a.b/p10258.d

Date : 09-DEC-1996 01:14

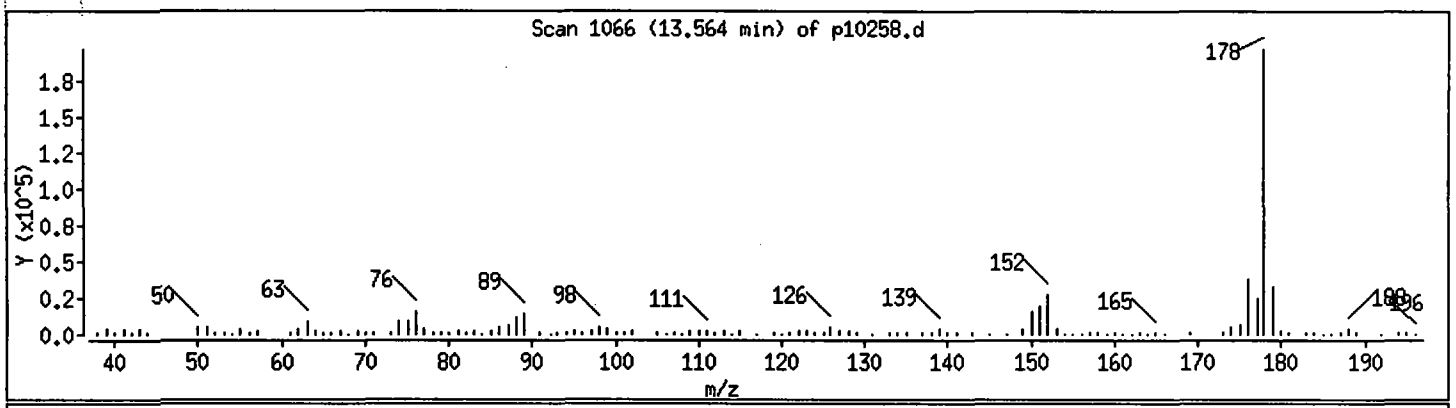
Instrument : p.i

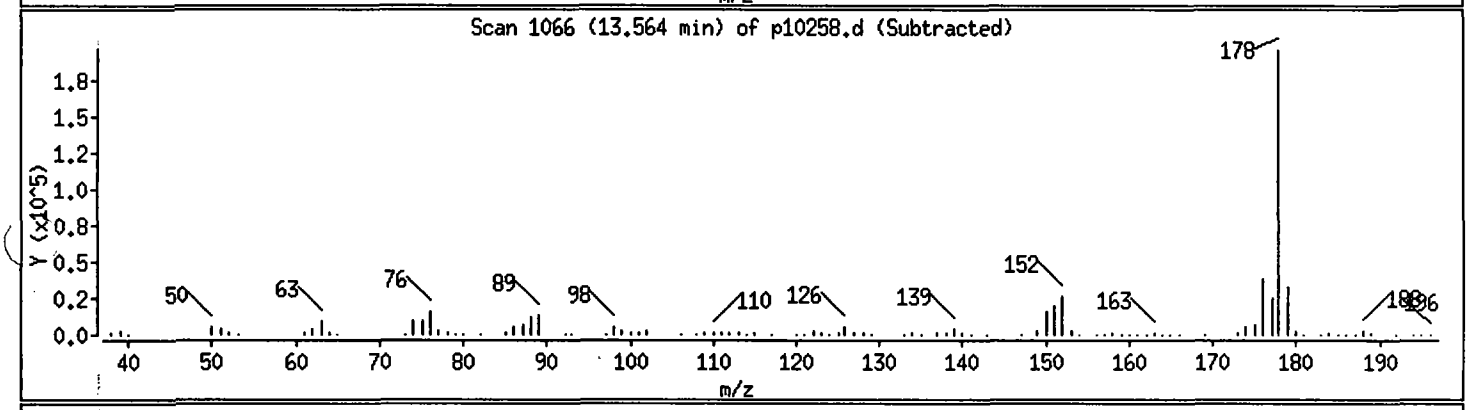
Sample ID : FFG24 MS

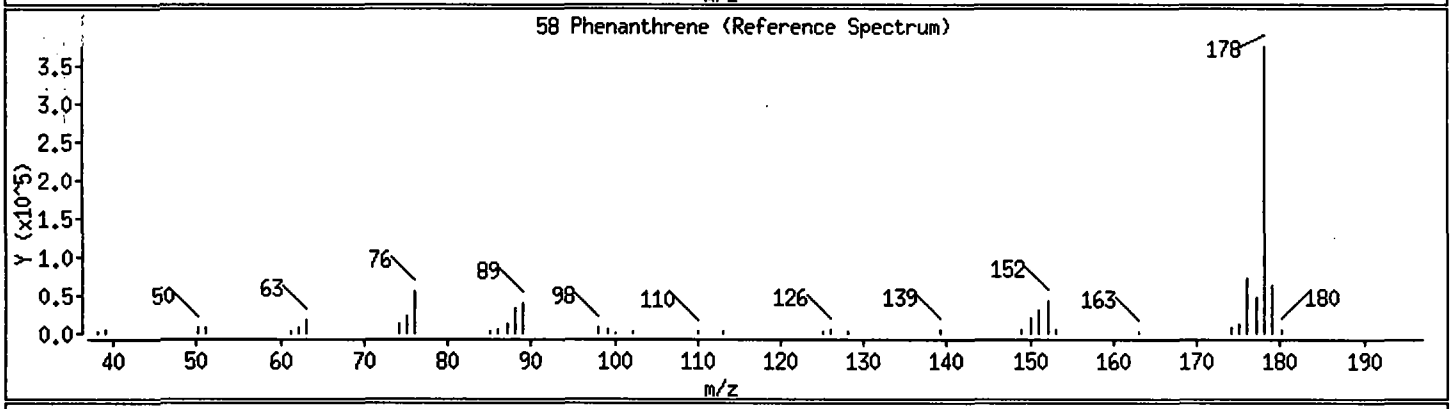
Column phase : XTI-5 Column diameter : 0.25

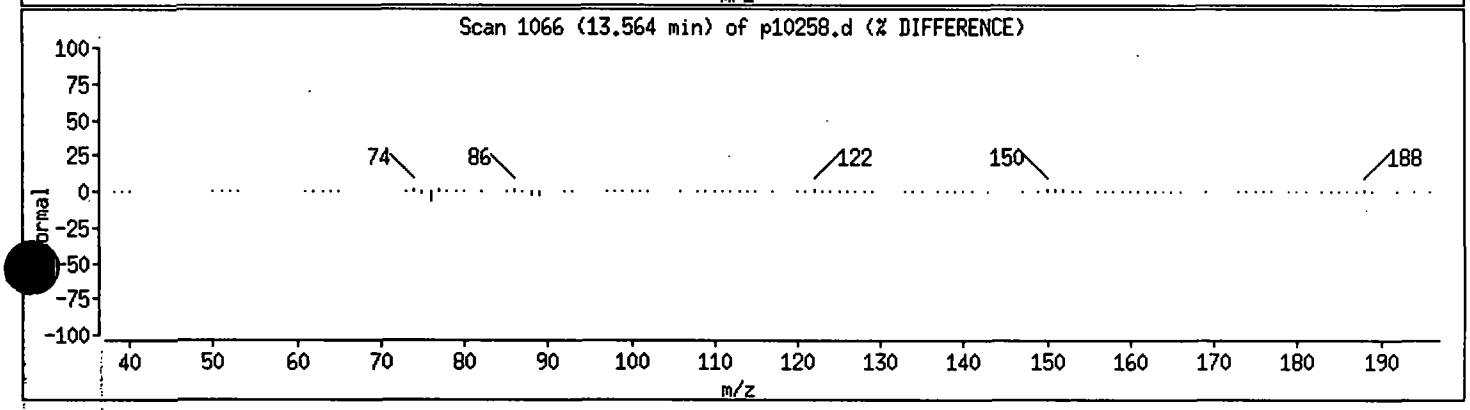
Volume Injected (uL) : 2.0

58 Phenanthrene









Data File: /chem/p.i/p961208a.b/p10258.d

Date : 09-DEC-1996 01:14

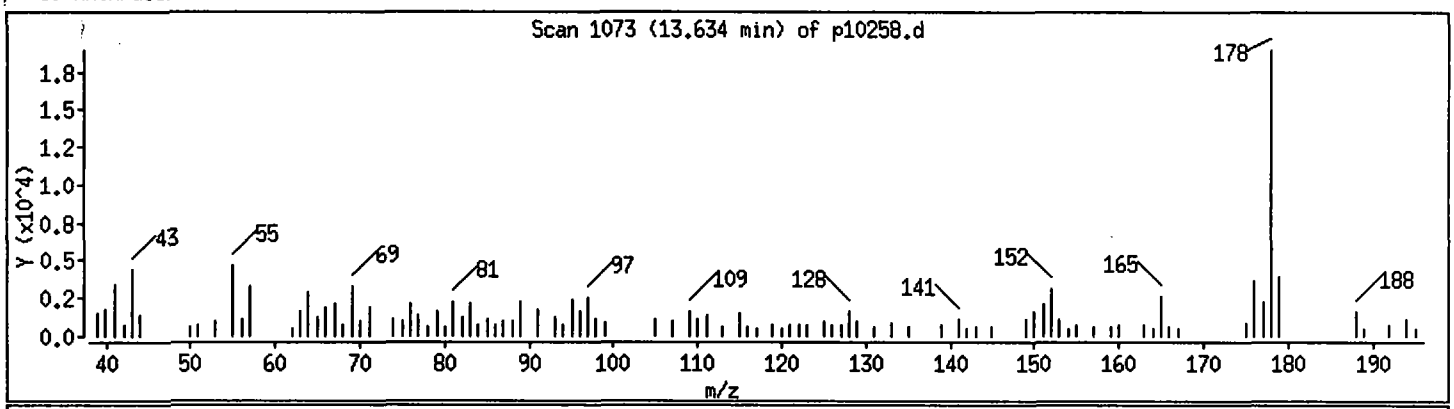
Instrument : p.i

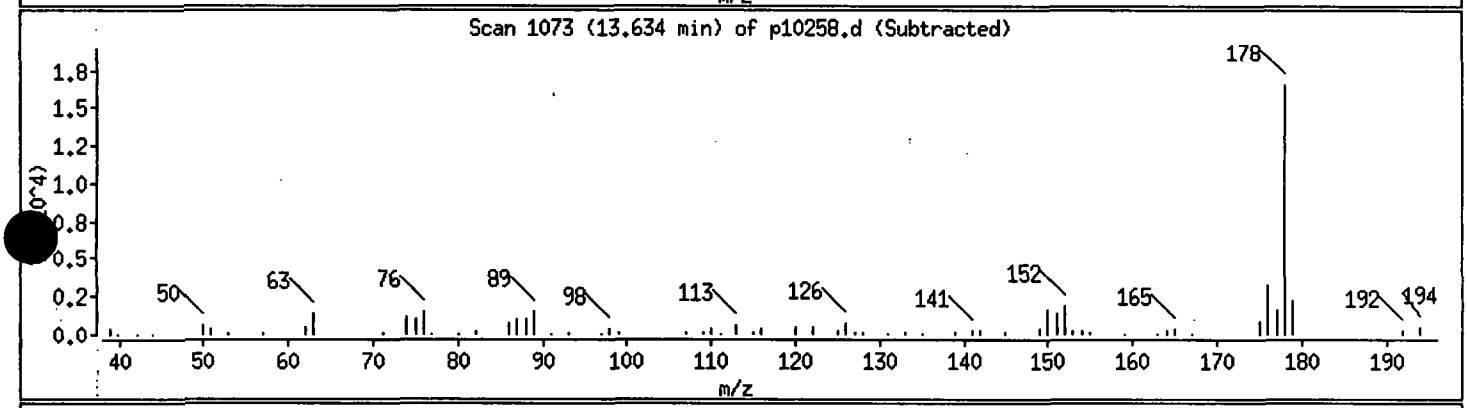
Sample ID : FFG24 MS

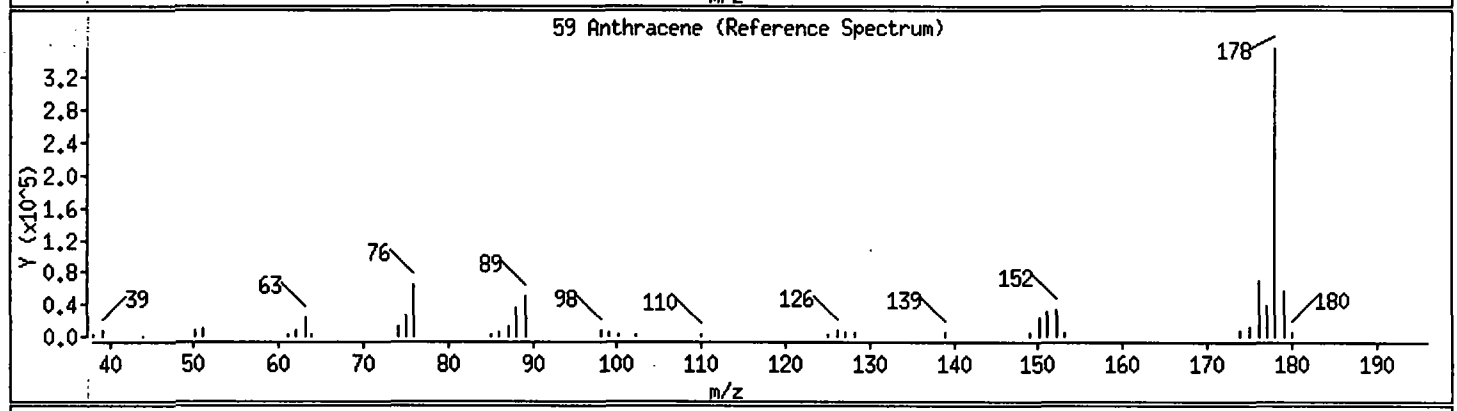
Column phase : XTI-5 Column diameter : 0.25

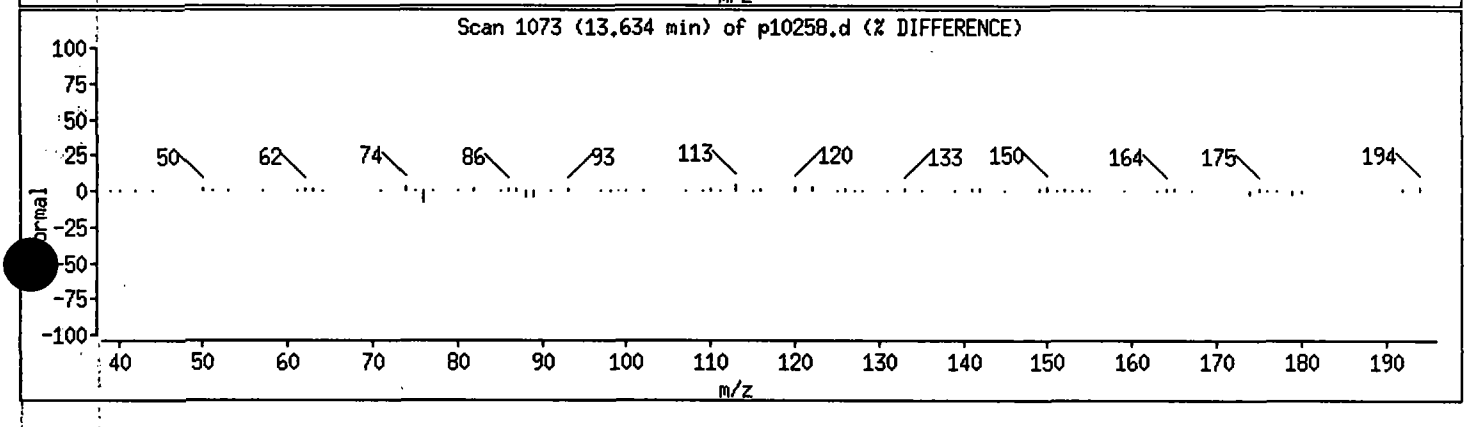
Volume Injected (uL) : 2.0

59 Anthracene









Data File: /chem/p.i/p961208a.b/p10258.d

Date : 09-DEC-1996 01:14

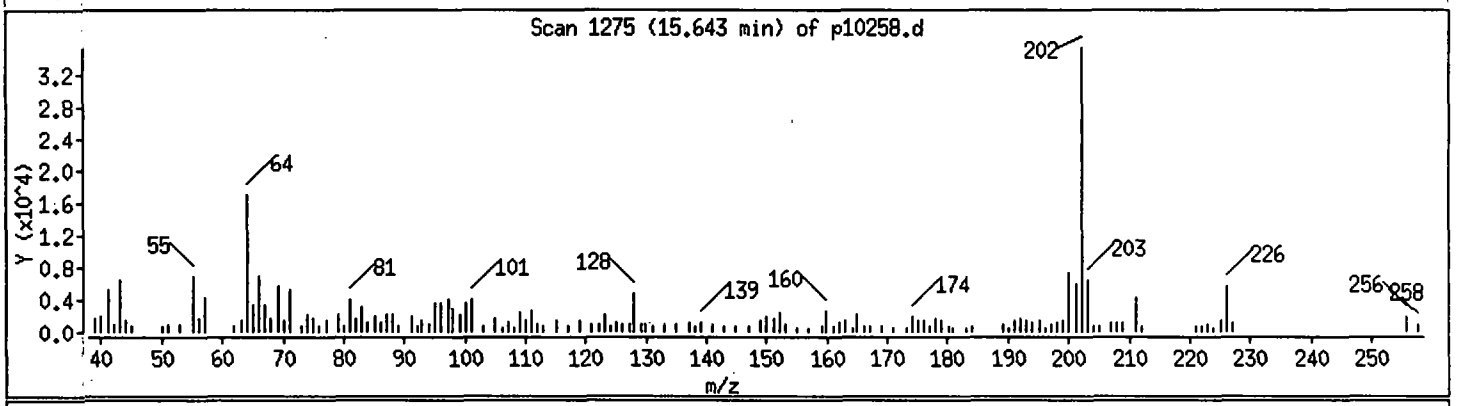
Instrument : p.i

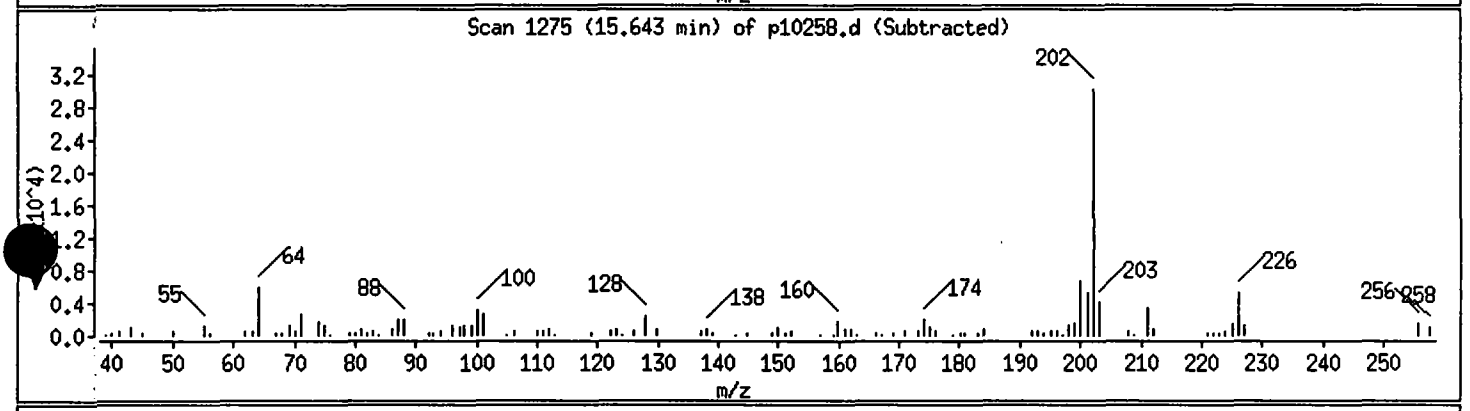
Sample ID : FFG24 MS

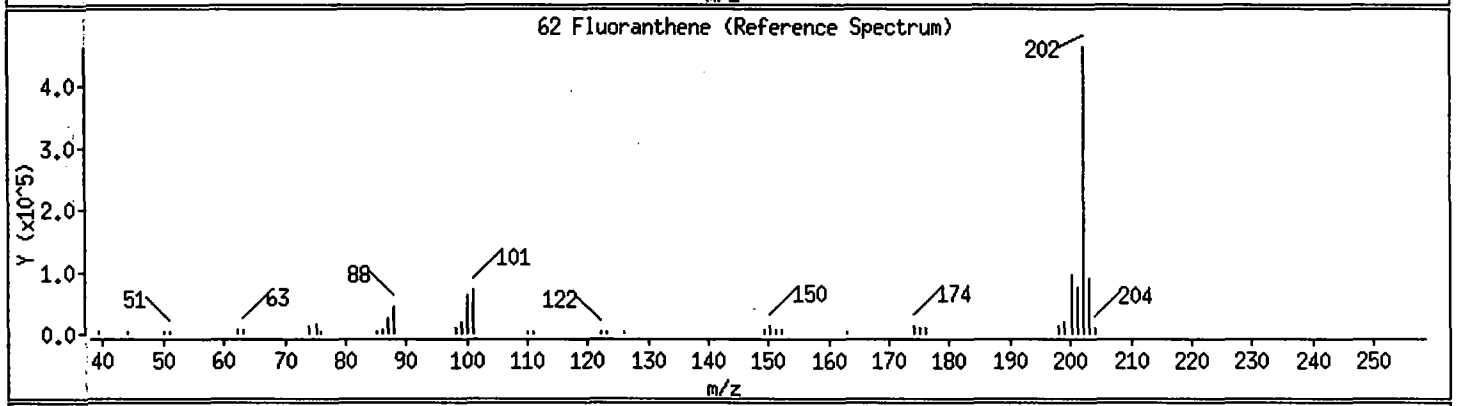
Column phase : XTI-5 Column diameter : 0.25

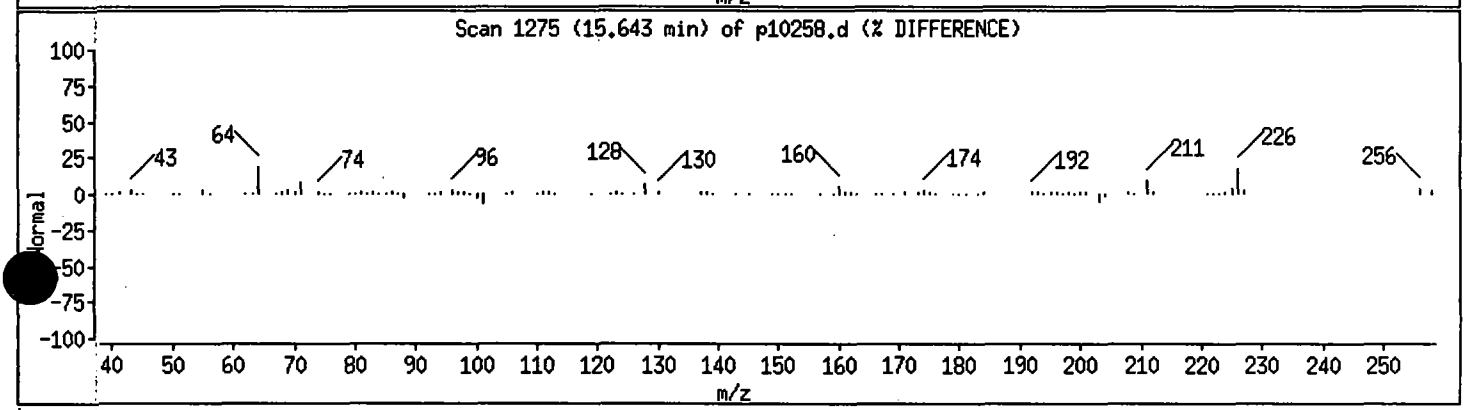
Volume Injected (uL) : 2.0

62 Fluoranthene









Data File: /chem/p.i/p961208a.b/p10258.d

Date : 09-DEC-1996 01:14

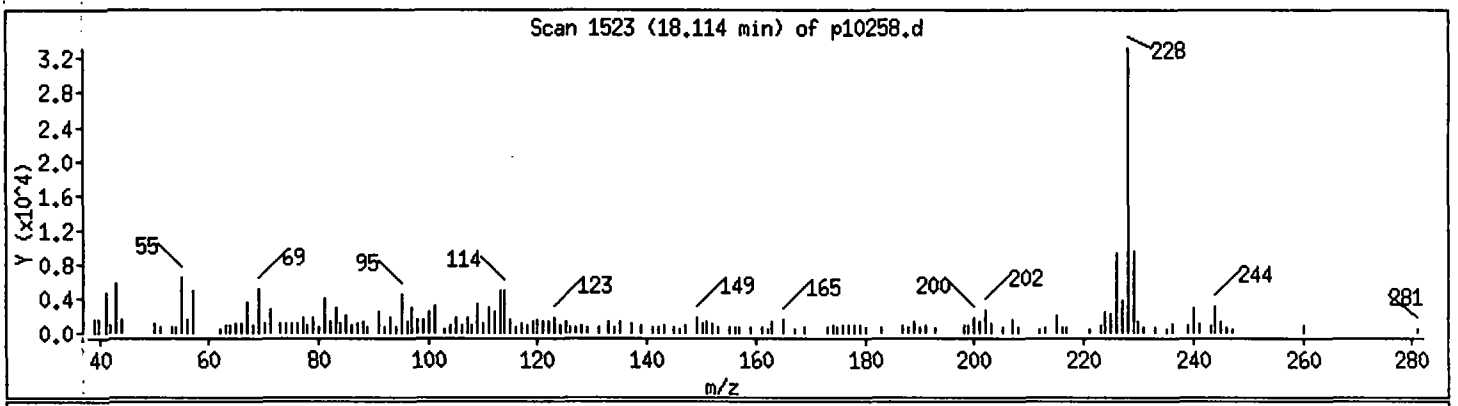
Instrument : p.i

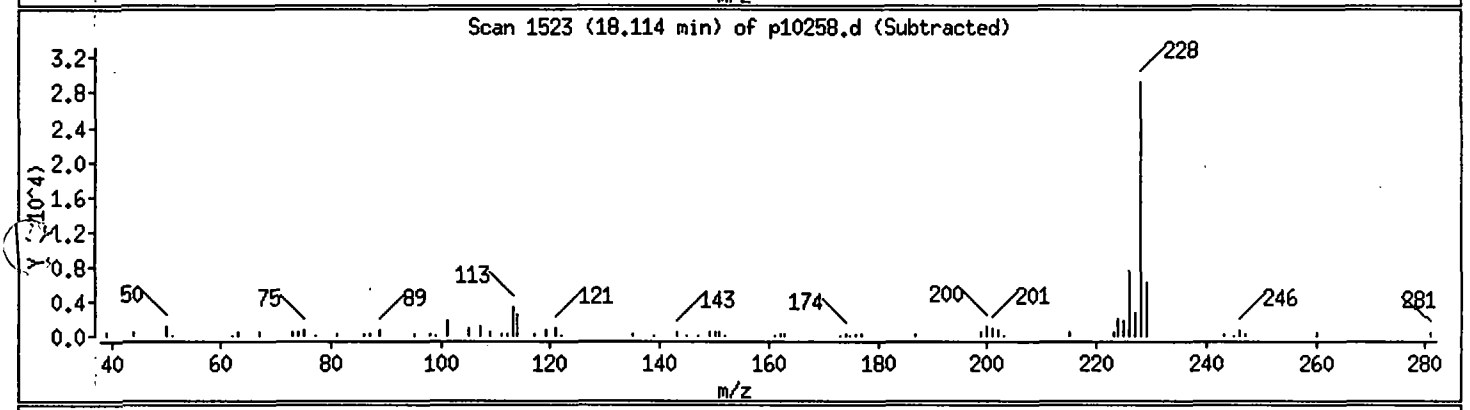
Sample ID : FFG24 MS

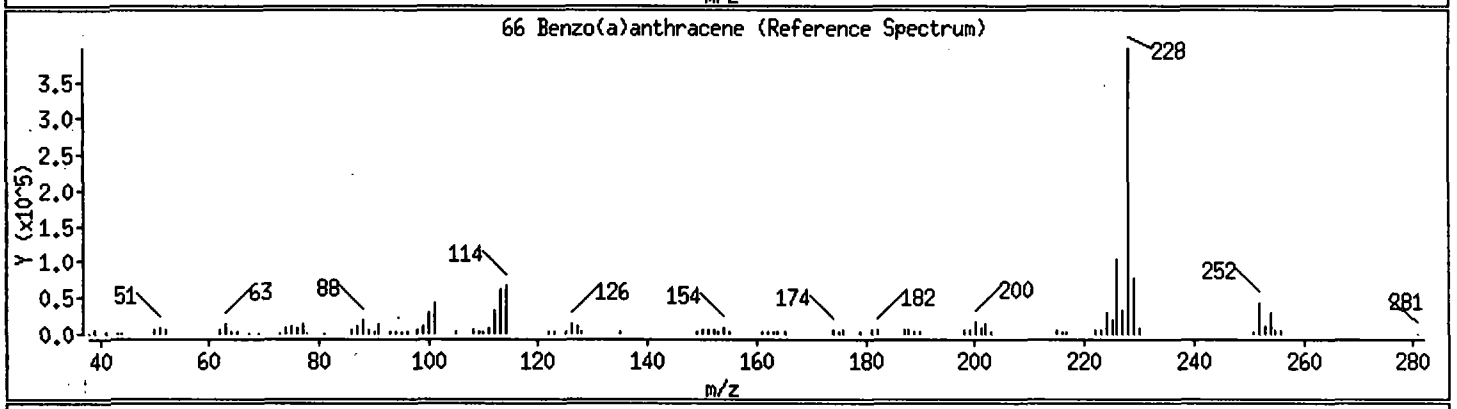
Column phase : XTI-5 Column diameter : 0.25

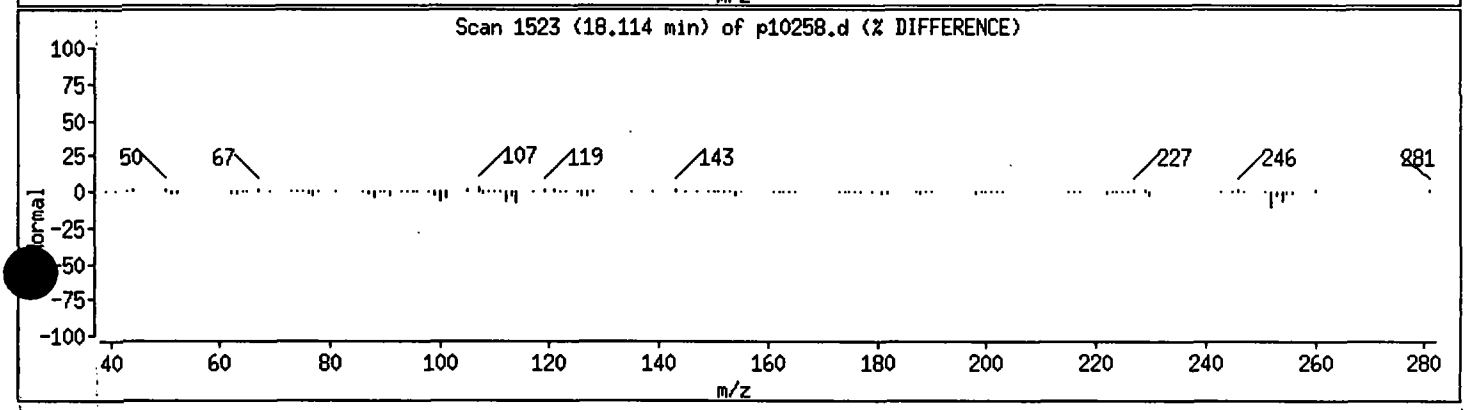
Volume Injected (uL) : 2.0

66 Benzo(a)anthracene









Data File: /chem/p.i/p961208a.b/p10258.d

Date : 09-DEC-1996 01:14

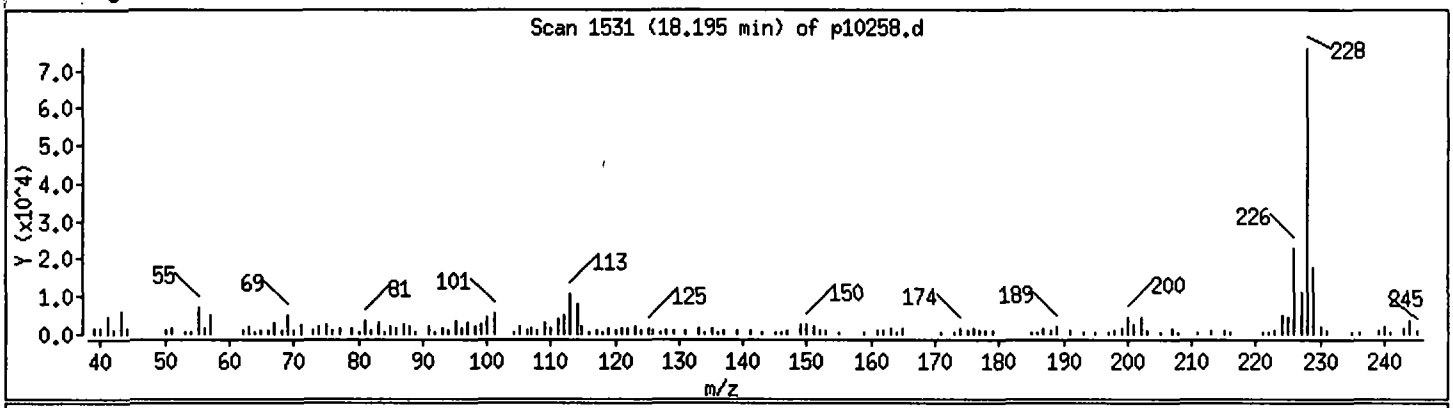
Instrument : p.i

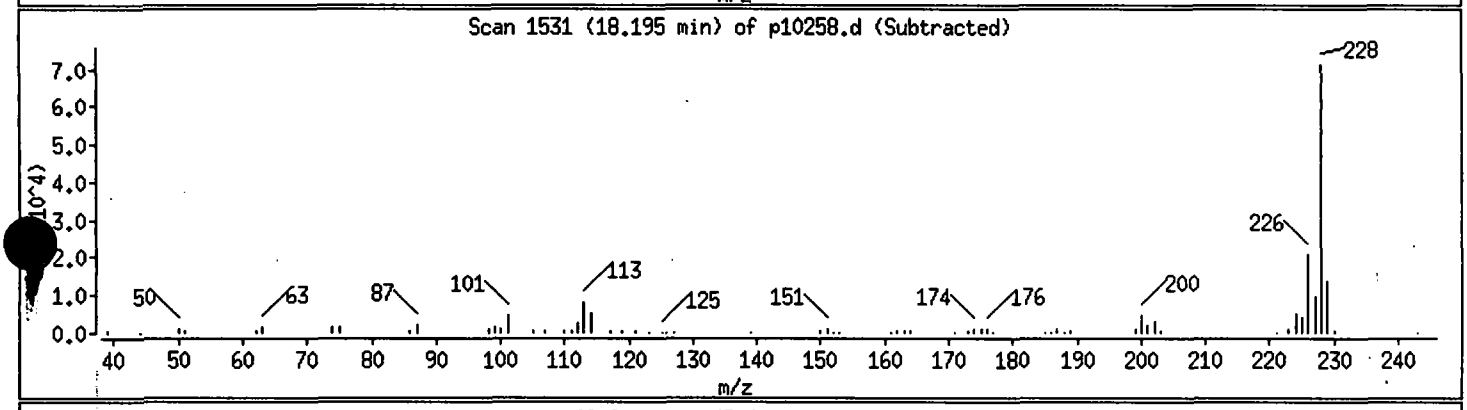
Sample ID : FFG24 MS

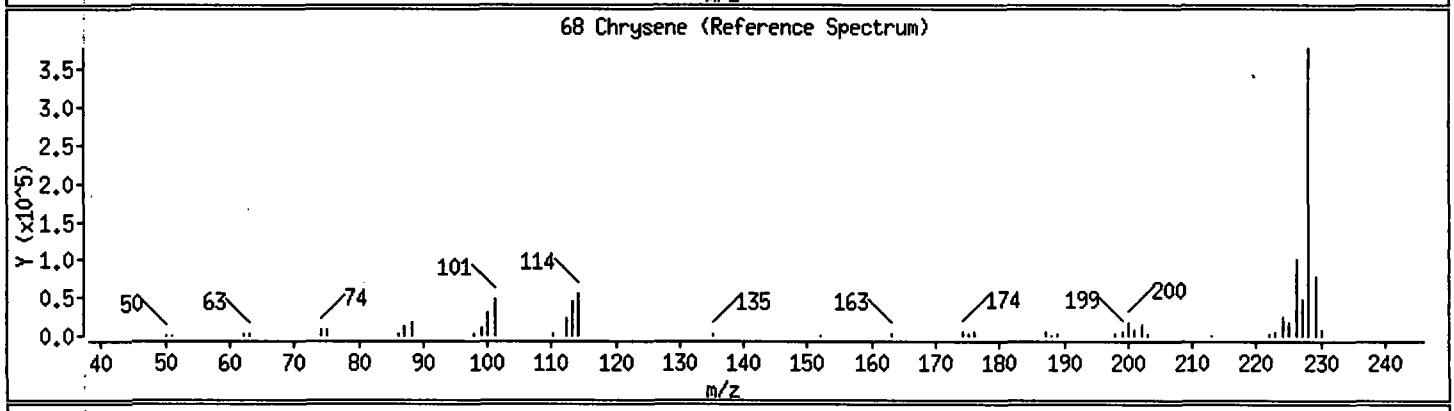
Column phase : XTI-5 Column diameter : 0.25

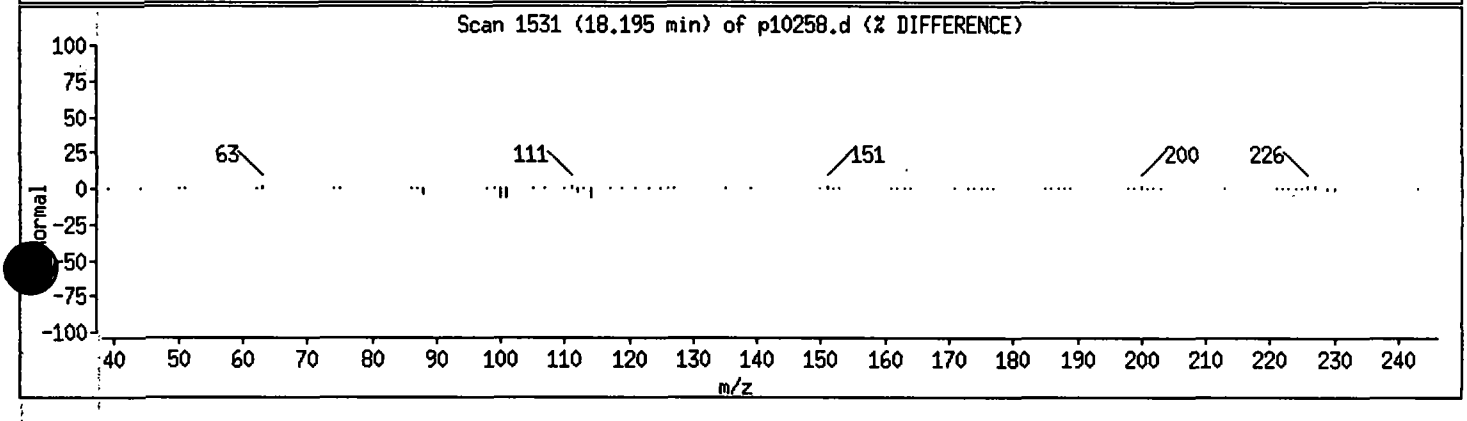
Volume Injected (uL) : 2.0

68 Chrysene









Data File: /chem/p.i/p961208a.b/p10258.d

Date : 09-DEC-1996 01:14

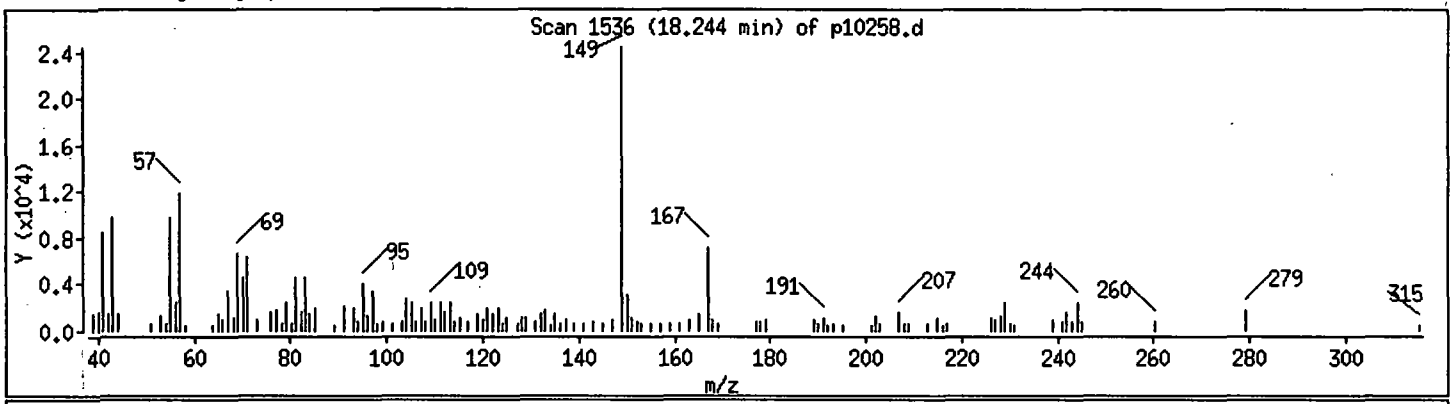
Instrument : p.i

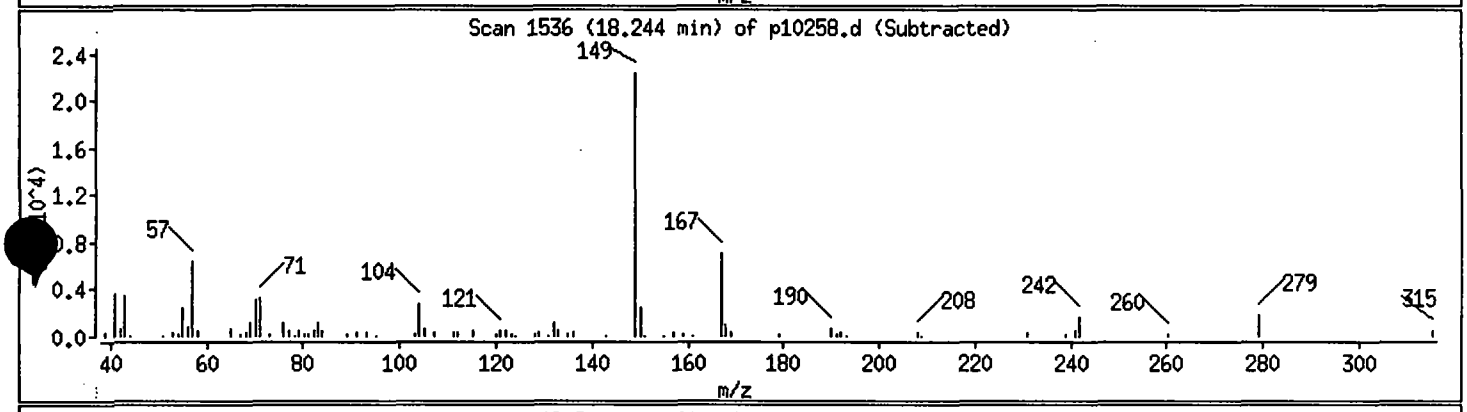
Sample ID : FFG24 MS

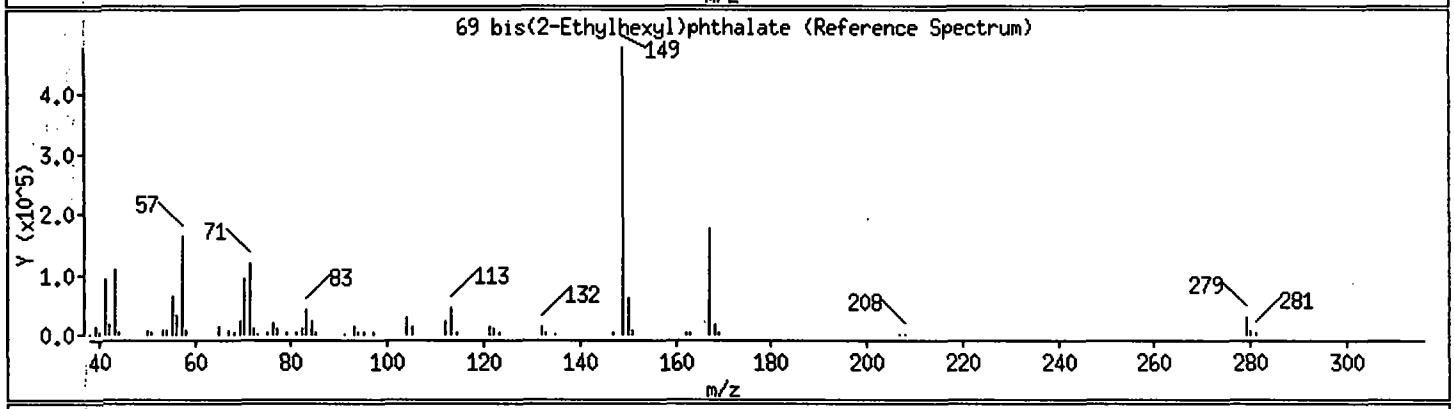
Column phase : XTI-5 Column diameter : 0.25

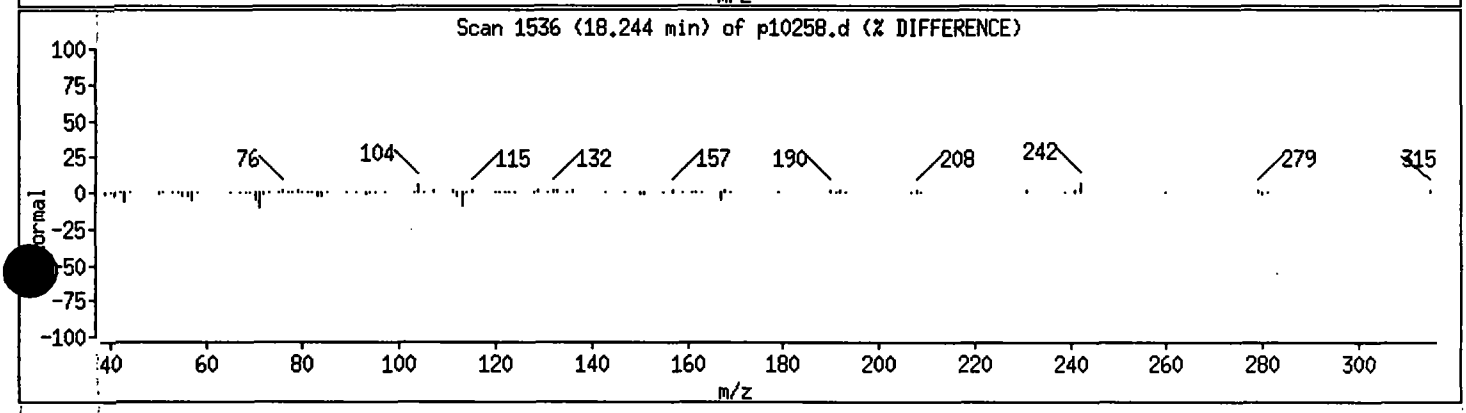
Volume Injected (uL) : 2.0

69 bis(2-Ethylhexyl)phthalate









Data File: /chem/p.i/p961208a.b/p10258.d

Date : 09-DEC-1996 01:14

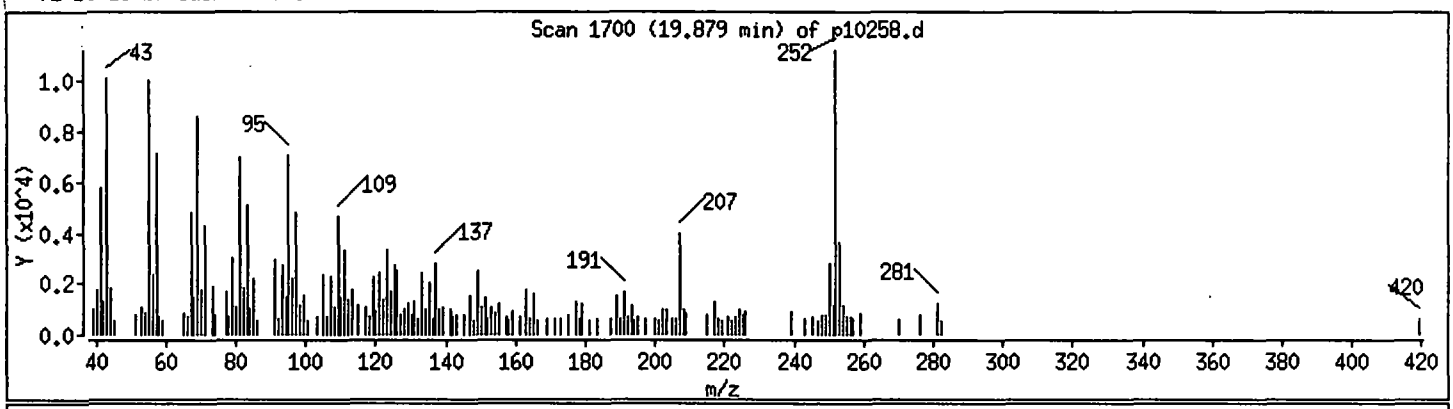
Instrument : p.i

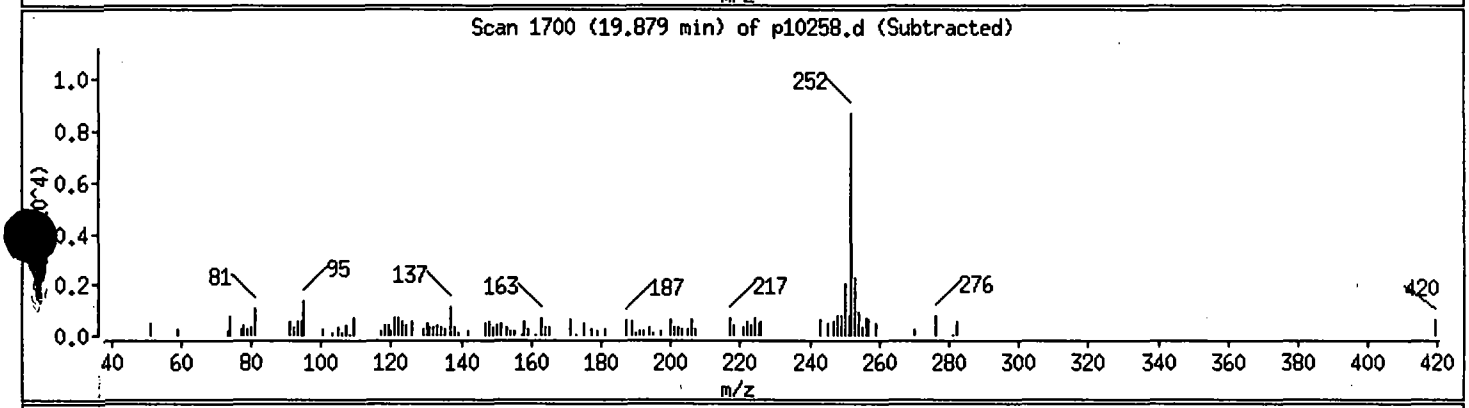
Sample ID : FFG24 MS

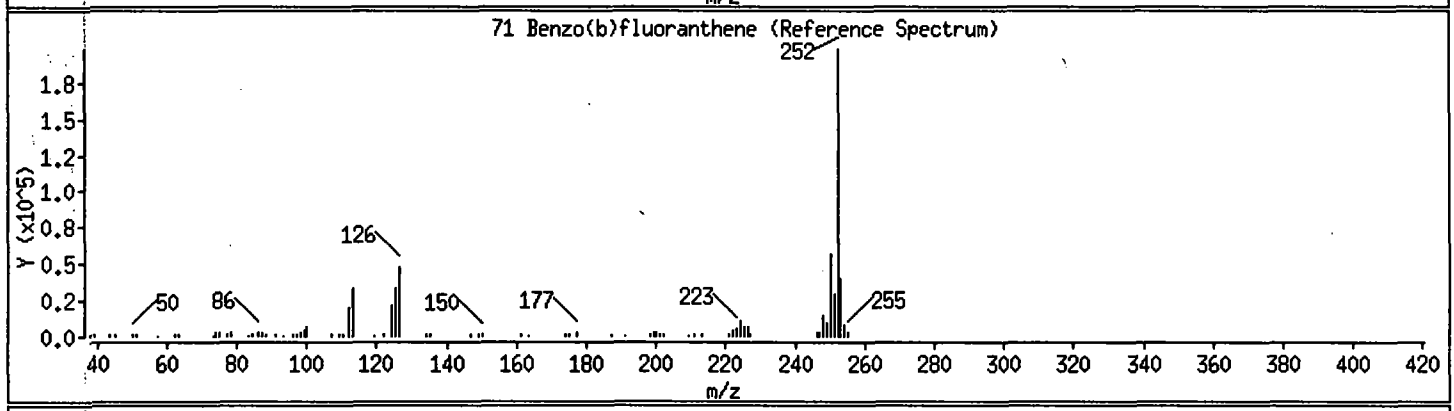
Column phase : XTI-5 Column diameter : 0.25

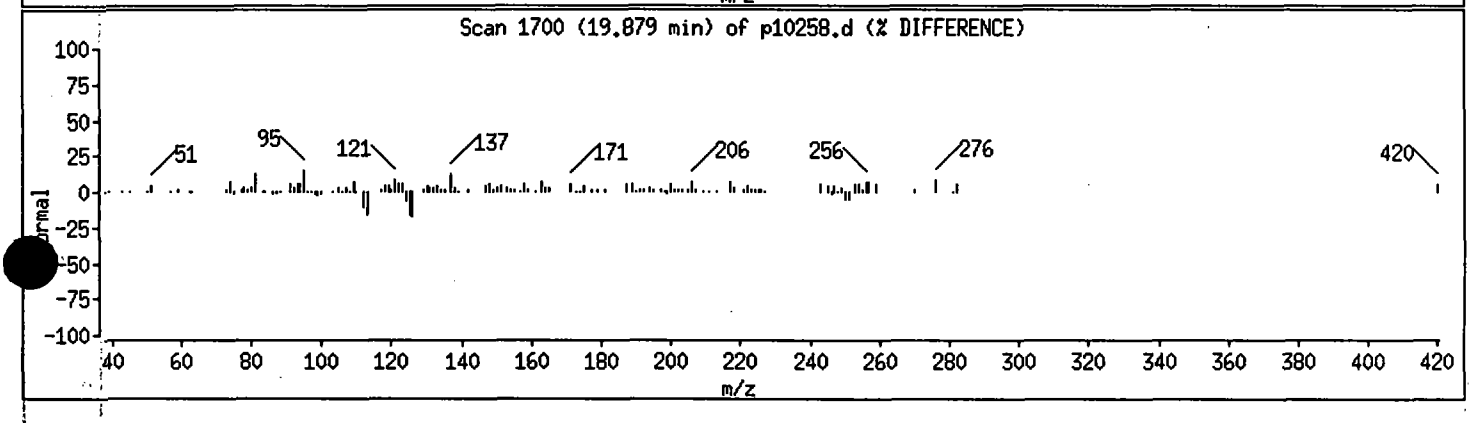
Volume Injected (uL) : 2.0

71 Benzo(b)fluoranthene









Data File: /chem/p.i/p961208a.b/p10258.d

Date : 09-DEC-1996 01:14

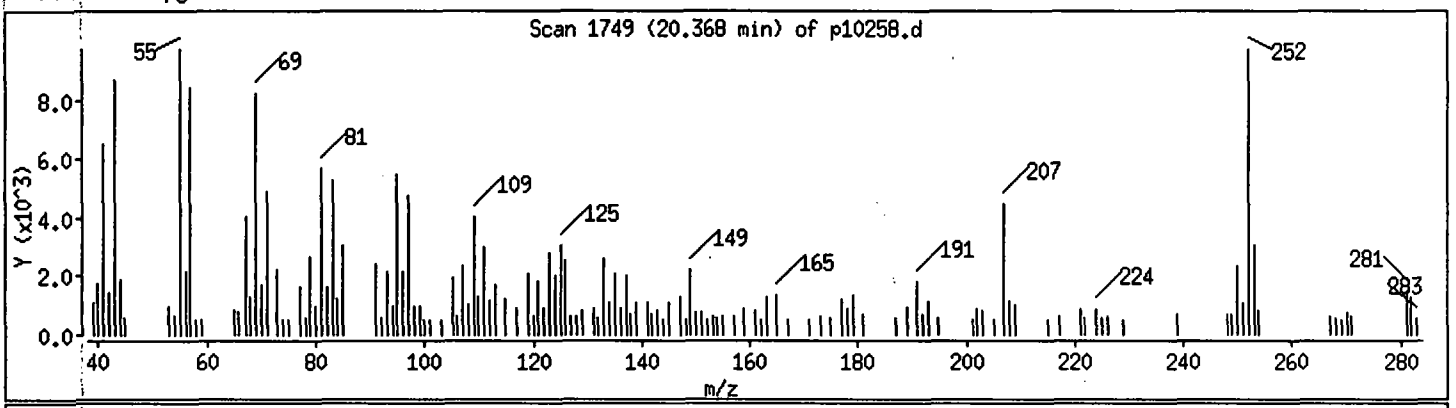
Instrument : p.i

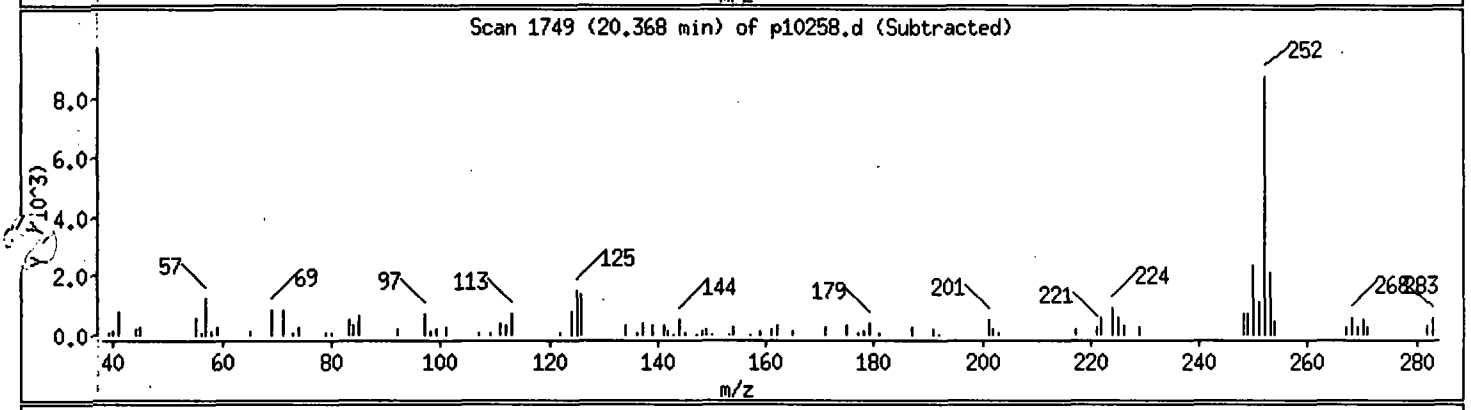
Sample ID : FFG24 MS

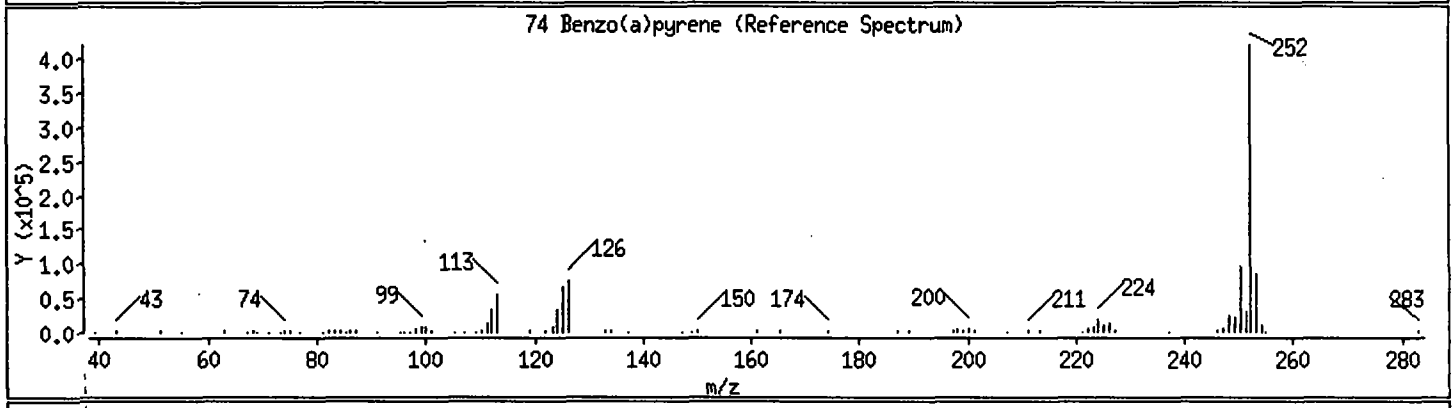
Column phase : XTI-5 Column diameter : 0.25

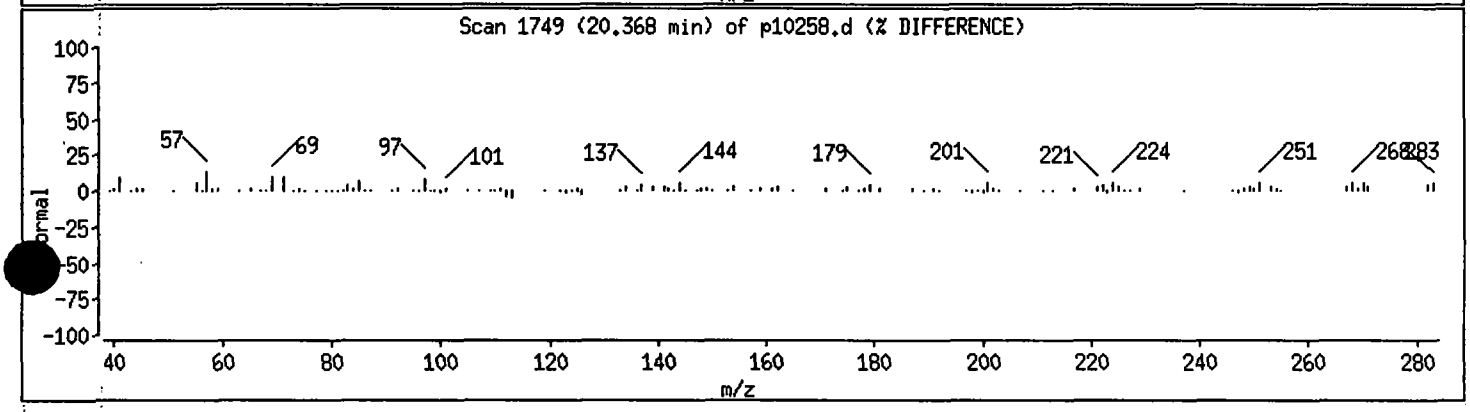
Volume Injected (uL) : 2.0

74 Benzo(a)pyrene









EPA United States Environmental Protection Agency Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

Case No. 25159

1. Matrix (Enter In Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify In Column A)

2. Preservative (Enter In Column D)
1. HCl
2. HNO3
3. NaHSO4
4. H2SO4
5. Ice only
6. Other (Specify In Column D)
N. Not preserved

2. Region No. 6
Sampling Co. Roy F. Weston
Sampler (Name) Eric Tate
Sampler Signature Eric Tate

3. Purpose*
Lead: SF, PRP, ST, FED
Early Action: CLEM, PA, REM, RI, SI, ESI
Long-Term Action: FS, RD, RA, O&M, NPLD

4. Date Shipped —
Carrier —
Airbill Number —
5. Ship To AATS 1700 West Albany, Suite C Broken Arrow, OK 74012 (918) 251-2858
ATTN: Harry Borg

6. Date Received -- Received by: M. Mason 11/19/96
Laboratory Contract Number
Unit Price
7. Transfer to:
Date Received
Received by
Contract Number
Price

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med High	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other:	E RAS Analysis VOA	BNA	Pest/PCB	High only ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K High Phases Solids	Water-Miscible Liq.	Water-Immis. Liq.
FFG06	5	L	G	5	X	X	X		6-015017-19	SED05	11/19/96 1430	MFG749	ECT			
FFG11	5	L	G	5	X	X	X		6-015037-39	SS01	11/19/96 1210	MFG753	ECT			
FFG12	5	L	G	5	X	X	X		6-015041-43	SS02	11/19/96 1215	MFG754	ECT			
FFG13	5	L	G	5	X	X	X		6-015045-47	SS03	11/19/96 1230	MFG755	ECT			
FFG17	5	L	G	5	X	X	X		6-015061-63	SS07	11/19/96 1405	MFG759	ECT			
FFG18	5	L	G	5	X	X	X		6-015065-67	SS08	11/19/96 1415	MFG760	ECT			
FFG21	5	L	G	5	X	X	X		6-015077-79	SS11	11/19/96 1350	MFG763	ECT			
FFG09	5	L	G	5	X	X	X		6-015029-31	SED08	11/19/96 1020	MFG751	ECT			
FFG10	5	L	G	5	X	X	X		6-015033-35	SED09	11/19/96 1105	MFG752	ECT			
* FFG24	5	L	G	5	X	X	X		6-015089-91	SED10	11/19/96 1535	MFG766	ECT			

Shipment for Case Complete? (Y/N) Y
Page 1 of 21
Sample(s) to be Used for Laboratory QC: FFG24
Additional Sampler Signatures
Chain of Custody Seal Number(s)

* SDG Final Sample

CHAIN OF CUSTODY RECORD

ORIGINAL DOCUMENTS ARE INCLUDED IN CSF 25159 SDG FFG02
Signature G. Alexander
Date 11-20-96

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Eric Tate	11/19/96 1800	Tim Kutch			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? (Y/N/none)	
		M. Mason	11/19/96 19:00	intact	

DISTRIBUTION: Blue - Region Copy; White - Lab Copy for Return to Region; Pink - CLASS Copy FFG24; Yellow - Lab Copy for Return to CLASS

EPA Form 9110-2

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

A21-012-16 REV.

649

369077

MPLE #	DATE IN	DESCRIPTION	SDG	MA	NC	TEST	PRI	DUE	CONTAINER	DESCRIPTION	RESULTS	ANALYST	DATE/TIME
27683.09 (cont)						IN660	8	11/20/96	ABC	% MOISTURE			
						MS317	4	12/09/96	AB	VOA-CLP OLM03.			
						MS517	4	12/09/96	C	BNA CLP OLM03.			
										EXTRACTION			
27683.10	11/19/96	FFG24 *QA/QC		S	3	GC817	4	12/09/96	C	PEST CLP OLM03			
										EXTRACTION			
						IN660	8	11/20/96	ABC	% MOISTURE			
						MS317	4	12/09/96	AB	VOA-CLP OLM03.			
						MS517	4	12/09/96	C	BNA CLP OLM03.			
										EXTRACTION			

Total samples = 10

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FFG02
Signature G. Alexander
Date 11-20-96

SAMPLE LOG-IN SHEET

Lab Name: AMERICAN. ANALYTICAL AND TECHNICAL SERVICES	Page 1 of 1
Received by (Print Name): KIM WILLISON/MATT MCCOMBER	Log-in Date: 11-19-96
Received by (Signature): [signature]	
Case Number: 25159	Sample Delivery Group No.: FFG24
	SAS Number:

Remarks:

1. Custody Seal(s) — Present/Absent* — Intact/Broken
2. Custody Seal Nos. — N/A
3. Chain-of Custody Records — Present/Absent*
4. Traffic Reports or Packing Lists — Present/Absent*
5. Airbill — ~~Airbill~~/Sticker — ~~Present~~/Absent* — 11/19/96
6. Airbill No. — Walk-In
7. Sample Tags — Present/Absent*
   Sample Tag Numbers — Listed/Not Listed on Chain-of-Custody
8. Sample Condition — Intact/Broken*/Leaking
9. Does information on custody records, traffic reports, and sample tags agree? — Yes/No*
10. Date Received at Lab — 11-19-96
11. Time Received — 19:00

EPA Sample #	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
FFG06	6-015017-19	27683.01	intact - 4°c
FFG09	6-015029-31	27683.02	
FFG10	6-015033-35	27683.03	
FFG11	6-015037-39	27683.04	
FFG12	6-015041-43	27653.05	
FFG13	6-015045-47	27683.06	
FFG17	6-015061-63	27683.07	
FFG18	6-015065-67	27683.08	
FFG21	6-015077-79	27683.09	
FFG24	6-015089-91	27683.10	

Sample Transfer	
Fraction:	Fraction
Area #	Area #
By [signature]	By [signature]
On	On

ORIGINAL DOCUMENTS ARE INCLUDED IN
CSF 25159 SDG FFG02
Signature G. Alexander
Date 11-20-96

* Contact SMO and attach record of resolution.

Reviewed by	Logbook No.
Date	Logbook Page No.

PERCENT MOISTURE REPORT

11/21/96 09:44

SAMPLE	WET WT	DATE WEIGHED	INIT	DRY WT	DATE WEIGHED	INIT	PERCENT
27683.01	15.76	11/20/96 12:56	CD	12.30	11/21/96 08:41	CD	21.95
27683.02	16.26	11/20/96 12:58	CD	11.59	11/21/96 08:41	CD	28.72
27683.03	16.71	11/20/96 13:00	CD	13.77	11/21/96 08:43	CD	17.59
27683.04	17.06	11/20/96 13:04	CD	13.74	11/21/96 08:42	CD	19.46
27683.05	17.40	11/20/96 13:06	CD	13.98	11/21/96 08:44	CD	19.66
27683.06	14.33	11/20/96 13:07	CD	12.25	11/21/96 08:42	CD	14.52
27683.07	16.91	11/20/96 13:10	CD	13.82	11/21/96 08:43	CD	18.27
27683.08	16.38	11/20/96 13:12	CD	13.34	11/21/96 08:42	CD	18.56
27683.09	16.14	11/20/96 13:14	CD	13.19	11/21/96 08:43	CD	18.28
27683.10	16.70	11/20/96 13:22	CD	15.02	11/21/96 08:42	CD	10.06
27682.03	16.24	11/20/96 13:38	CD	14.82	11/21/96 08:44	CD	8.74
27682.04	16.78	11/20/96 13:39	CD	14.13	11/21/96 08:40	CD	15.79
27682.05	16.51	11/20/96 13:42	CD	15.07	11/21/96 08:41	CD	8.72
27682.06	16.29	11/20/96 13:44	CD	15.12	11/21/96 08:55	CD	7.18
27684.14	15.95	11/20/96 14:04	CD	13.40	11/21/96 08:46	CD	15.99
27684.15	17.18	11/20/96 14:05	CD	11.68	11/21/96 08:53	CD	32.01
27684.16	17.18	11/20/96 14:08	CD	11.47	11/21/96 08:53	CD	33.24
27684.17	16.11	11/20/96 14:10	CD	13.62	11/21/96 08:44	CD	15.46
27684.18	17.92	11/20/96 14:14	CD	12.44	11/21/96 08:44	CD	30.58
27684.19	13.96	11/20/96 14:15	CD	11.76	11/21/96 08:46	CD	15.76
27684.20	14.59	11/20/96 14:17	CD	10.57	11/21/96 08:45	CD	27.55
27684.21	16.56	11/20/96 14:19	CD	12.90	11/21/96 08:45	CD	22.10
27684.22	17.28	11/20/96 14:30	CD	12.88	11/21/96 08:45	CD	25.46
27684.23	15.06	11/20/96 14:31	CD	11.34	11/21/96 08:45	CD	24.70
27684.24	16.46	11/20/96 14:34	CD	11.27	11/21/96 08:46	CD	31.53
27690.01	15.88	11/20/96 15:43	CD	15.08	11/21/96 08:47	CD	5.04
27691.01	13.51	11/20/96 15:55	CD	11.80	11/21/96 08:52	CD	12.66
27691.02	16.34	11/20/96 15:56	CD	14.24	11/21/96 08:52	CD	12.85
27691.03	15.65	11/20/96 15:58	CD	13.39	11/21/96 08:52	CD	14.44
27691.04	13.69	11/20/96 16:00	CD	11.49	11/21/96 08:52	CD	16.07
27685.01	15.24	11/20/96 16:25	CD	12.12	11/21/96 08:48	CD	20.47
27685.02	17.75	11/20/96 16:32	CD	10.93	11/21/96 08:49	CD	38.42
27685.03	14.37	11/20/96 16:35	CD	10.95	11/21/96 08:48	CD	23.80
27685.04	15.34	11/20/96 16:37	CD	11.54	11/21/96 08:49	CD	24.77
27685.05	14.06	11/20/96 16:39	CD	10.06	11/21/96 08:50	CD	28.45
27685.06	17.74	11/20/96 16:41	CD	13.62	11/21/96 08:49	CD	23.22
27685.07	17.13	11/20/96 16:43	CD	12.70	11/21/96 08:50	CD	25.86
27685.15	15.85	11/20/96 16:46	CD	11.75	11/21/96 08:49	CD	25.67
27685.16	15.55	11/20/96 16:47	CD	11.61	11/21/96 08:51	CD	25.34
27685.17	20.48	11/20/96 16:49	CD	17.34	11/21/96 08:48	CD	15.33
27685.18	15.57	11/20/96 16:50	CD	8.19	11/21/96 08:48	CD	47.40
27685.19	15.15	11/20/96 16:53	CD	9.46	11/21/96 08:50	CD	37.56

ORIGINAL DOCUMENTS ARE INCLUDED IN

CSF 25159 SDG FF602

Signature S. Jackett

Date 12/23/96

Episode	Analyzed	Initials	Moisture
27683.01	1996-11-21 00:00	CD	21.95
27683.02	1996-11-21 00:00	CD	28.72
27683.03	1996-11-21 00:00	CD	17.59
27683.04	1996-11-21 00:00	CD	19.46
27683.05	1996-11-21 00:00	CD	19.66
27683.06	1996-11-21 00:00	CD	14.52
27683.07	1996-11-21 00:00	CD	18.27
27683.08	1996-11-21 00:00	CD	18.56
27683.09	1996-11-21 00:00	CD	18.28
27683.10	1996-11-21 00:00	CD	10.06

CASE PACKET FORM

CASE NO. 25159 SDG FFG24

RECEIVED 11/19/96

DUE DATE 12/9/96 (20) V-B-P

ENCLOSED ITEMS
(check if enclosed, add pg. numbers)

ORIGINAL AIR BILL	____ pg	____ to pg	____
ORIGINAL SAMPLE TAGS	____ pg	____ to pg	____
ORIGINAL GPC CHROMATOGRAMS	____ pg	____ to pg	____
MISCELLANEOUS			
____	____ pg	____ to pg	____
____	____ pg	____ to pg	____
____	____ pg	____ to pg	____
____	____ pg	____ to pg	____
____	____ pg	____ to pg	____
____	____ pg	____ to pg	____

Preservative: ICE

Yes ☒ No ☐

Designate			
Grab. X	Volatile Organics	X
	Semi Volatiles (ABN)	
Comp.	Pesticides/PCB	
	_____ Metals	
	Cyanide	
	Alkalinity/Hardness	
Time 1535	TCLP	
	☐ VOA	
	☐ ABN	
	☐ METALS	
Month/Day/Year 11/19/96	Asbestos	
	Dioxin	
	Oil and Grease	
Station # SED-10	619A	

Remarks: FFG24

Concentration: ☒ L ☐ M ☐ H

Project Code 1 CLP Case # 25159

Tag Number	Lab Sample Number
6- 015089	

Preservative: ICE

Yes ☒ No ☐

Designate		
Grab.	Volatile Organics	X
	Semi Volatiles (ABN)	
Comp.	Pesticides/PCB	
	Metals	
	Cyanide	
	Alkalinity/Hardness	
	TCLP	
	☐ VOA	
	☐ ABN	
	☐ METALS	
	Asbestos	
	Dioxin	
	Oil and Grease	
	1049B	

Time: 1535

Month/Day/Year: 11/19/96

Station #: SED-10

Remarks: FFG24

Project Code 1 CLP Case #: 25159

Concentration: ☒ L ☐ M ☐ H

Tag Number: 6- 015090

Lab Sample Number:

Preservative: ICE

Yes ☒ No ☐

Designate		
Grab.	Volatile Organics	
	Semi Volatiles (ABN)	X
Comp.	Pesticides/PCB	X
	Metals	
	Cyanide	
	Alkalinity/Hardness	
	TCLP	
	☐ VOA	
	☐ ABN	
	☐ METALS	
	Asbestos	
	Dioxin	
	Oil and Grease	
	6490	

Time: 1535

Month/Day/Year: 11/19/96

Station #: SED-10

Remarks: FFG24

Project Code 1 CLP Case #: 25139

Conceptration: ☒ L ☐ M ☐ H

Tag Number: 6- 015091

Lab Sample Number: