0048575

PARAGON ANALYTICS, INC.
225 Commerce Drive ◆ Fort Collins, CO 80524 ◆ (800) 443-1511◆ (970) 490-1511 ◆ FAX (970) 490-1522

December 9, 1997

Mr. Jerry Yokel
Washington State Department of Ecology
1315 West 4th Avenue
Kennewick, WA 99336

JAN 1998
RECEIVED
EDMC

RE: Paragon Workorder: 97-11-014
Client Project Name: North Slope Bioremediation
Client Project Number: Not Submitted

Dear Mr. Yokel:

Three soil samples were received from Washington State Department of Ecology on November 4, 1997. The samples were scheduled for the following analyses:

Herbicides	pages 1-80
GC/MS Semivolatiles	pages 1-165

The results of these analyses are contained in the enclosed reports.

Thank you for your confidence in Paragon Analytics, Inc. Should you have any questions, please call.

Sincerely,

Paragon Analytics, Inc.
Lance Steere
Senior Project Manager

LS/nmu
Enclosure: Report

Paragon Analytics, Inc.

Herbicides Case Narrative

Washington State Dept. of Ecology

North Slope Bioremediation

Order Number - 9711014

1. This report consists of 3 soil samples received by Paragon on 11/4/97. The samples were received at 17°C.

2. These samples were extracted and analyzed based on Method 8151 protocols. Specifically, the soil samples were extracted via shaking. The samples are also processed through washing procedures to reduce interferences using the protocols listed in the method. The extracts were then derivitized using the diazomethane procedure contained in the method.

3. The extracts were then analyzed using GC/ECD (electron capture detectors) with a DB-1701 capillary column according to protocols based on Method 8151. All positive results were then confirmed on a RTx-20 column. The quantitation of each analyte is the lower of the concentrations obtained from each column. This minimizes the chances of reporting elevated results based on interferences.

4. All samples were extracted and analyzed within the established holding times.

5. The method blank associated with this project was below the reporting limits for all analytes.

6. All blank spike and blank spike duplicate recoveries and RPDs were within the acceptance criteria.

7. All matrix spike and matrix spike duplicate criteria were met with the following exceptions.

Spike Compound	Sample	Criteria
2,4,5-T	MS and MSD	% Recovery and RPD

The recoveries of this compound in the blank spike and blank spike duplicate were within control limits, which demonstrated the spike outliers in the matrix spikes were due to matrix effects, so no further action is needed. Recoveries for 2,4-D could not be reported due to target interfernce in the native sample.

8. All surrogate recoveries were within acceptance criteria.

9. Samples 1 and 2 were analyzed at a higher dilution in order to get target analytes within the calibration range of the instrument. The reporting limits have been adjusted accordingly.

10. All initial calibration criteria were within acceptance criteria. All continuing calibration criteria were met with the following exceptions;

    Continuing calibration #1 - MCPA was out low on column #1.
    Continuing calibration #2 - MCPP was out high on column #2.

    Because no target compounds were detected, no further action was taken. Reporting limits are supported.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, Paragon Analytics, Inc. certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Marty Brown
GC Analyst

11-20-97
Date

Reviewer's Initials

11-22-97
Date

Paragon Analytics, Incorporated

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 9711014
Client Name: Washington State Dept. of Ecology
Client Project Name:
Client Project Number: North Slope Bioremediation
Client PO Number: TBD:

Client Sample	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
H97023	9711014-1		Soil	10/27/97	
H97024	9711014-2		Soil	10/27/97	
H97025	9711014-3		Soil	10/27/97	

AnalyticalTechnologies,Inc.
225 COMMERCE DRIVE
FORT COLLINS, CO
80524
(303) 490-1511
(303) 490-1522 FAX
1 (800) 443-1511

Chain of Custody

DATE 6-27-97 PAGE 1 OF 1

ACCESSION NUMBER: 97.11.014

PROJECT MANAGER: Jerry Yokel
COMPANY: Ecology
ADDRESS: 1315 W 4TH
Kennewick, WA
99336
SAMPLER:
PHONE NUMBER: 736-7009
FAX NUMBER: -3030

ANALYSIS REQUESTED

SAMPLE ID	SAMPLE DATE	SAMPLE TIME	MATRIX	LAB ID	9070/9071 — Oil & Grease	418.1 — TRPH	8015 Mod. — Gasoline	8015 Mod. — Diesel	8015/8020 — Gasoline/BTEX	8020 — BTEX	8240 — GC/MS VOC's	8270 — GC/MS SVOC's TICs	8080 — Pesticides/PCB's	8080 — PCB Only	8310 — PNA's	8150 — Herbicides	8140 — OP Pesticides	TOX — EOX — TX	Total Metals:	TCLP:	Gross Alpha	Gross Beta	Radium 226	Radium 228	Tritium	Strontium	% Moisture							Number of Containers
H97023	6-27	[illegible]	soil	01								X				X																		
H97024				02								X				X																		
H97025				03								X				X																		

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NUMBER:		TOTAL NUMBER OF CONTAINERS	
PROJECT NAME:		CHAIN OF CUSTODY SEALS Y/N	
PURCHASE ORDER NUMBER:		SEALS INTACT? Y/N/NA	
TAT: [ ] STANDARD [ ] RUSH DUE:		RECEIVED GOOD COND./COLD	

SAMPLE DISPOSAL: [ ] HAZ WASTE $5.00 [ ] RAD CHEM $15.00 [ ] RETURN

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [illegible] Time:	Signature: Time:	Signature: Time:
Printed Name: Jerry Yokel Date: 6-27-97	Printed Name: Date:	Printed Name: Date:
Company: Ecology	Company: UPS	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: Time:	Signature: Time: 1050	Signature: Time:
Printed Name: Date:	Printed Name: [illegible] Date: 6/27/97	Printed Name: Date:
Company: ERS	Company: PAE	Company:

DISTRIBUTION: White, Canary - ANALYTICAL TECHNOLOGIES, INC. • Pink - ORIGINATOR

000014

CONDITION OF SAMPLE UPON RECEIPT

CLIENT: WDOE SHIPPING CONTAINER #: Cooler

WORKORDER NO. 97-11-014 INITIALS: DA DATE: 11/4/97

1.	Does this project require special handling according to NEESA, Level 3, or CLP protocols? If yes, complete a. and b. a. Cooler Temperature_____ b. Lot No's._____ c. Airbill Number		Yes	No
2.	Are custody seals on the cooler intact? If so, how many	N/A	Yes	No
3.	Are custody seals on sample containers intact?	N/A	Yes	No
4.	Is there a Chain of Custody (COC) or other representative documents, letters or shipping memos?		Yes	No
5.	Is the COC complete? Relinquished: Yes ✓ No Requested Analysis: Yes ✓ No	N/A	Yes	No
6.	Is the COC in agreement with the samples received? No. of Samples: Yes ✓ No___ Sample ID's: Yes ✓ No___ Matrix: Yes ✓ No No. of Containers: Yes ✓ No		Yes	No
7.	Are the samples requiring chemical preservation preserved correctly?	N/A	Yes	No
8.	Is there enough sample? If so, are they in the proper containers?		Yes	No
9.	Are all samples within holding times for the requested analyses?		Yes	No
10.	Were the sample(s) shipped on ice?	N/A	Yes	No
11.	Were all sample containers received intact? (not broken or leaking, etc.)		Yes	No
12.	Are samples requiring no headspace, headspace free?	N/A	Yes	No
13.	Do the samples require quarantine?		Yes	No
14.	Do samples require Paragon disposal?		Yes	No
15.	Did the client return any unused bottles?		Yes	No

Describe "NO" items (except No's 1, 13, &14):_____

Was the client contacted? Yes____ No____

If yes, Date:_____ Name of person contacted:_____

Describe actions taken or client instructions:_____

Group Leader's Signature:_____ Date:_____

Cooler Temperature: 17°C

FRM 201FC7 (30/7/97)

Analytical Results

CHLORINATED HERBICIDES

Method 8151

Sample ID

Reagent Blank

Lab Name: Paragon Analytics, Inc.
Client Name: Washington State Department of Ecology
Client Project ID: North Slope Bioremediation

Lab Sample ID: SRB1 11/10/97

Sample Matrix: Sodium Sulfate
Cleanup: N/A
Final Volume: 0 %
Results based on wet weight

Date Collected: N/A
Date Extracted: 11/10/97
Date Analyzed: 11/19/97

Sample Weight: 30 g
Final Volume: 10 mL
Dilution Factor: 1

Analyte	Conc (ug/kg)	Reporting Limit (ug/kg)
Dalapon	ND	50
Dicamba	ND	2.0
MCPP	ND	2,000
MCPA	ND	2,000
Dichloroprop	ND	20
2,4-D	ND	20
Silvex	ND	2.0
2,4,5-T	ND	2.0
2,4-DB	ND	20
Dinoseb	ND	10

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits
2,4-Dichlorophenylacetic acid	74	47 - 154

ND = Not Detected at or above client requested reporting limit.

CHLORINATED HERBICIDES

Method 8151

Sample ID

H97023

Lab Name: Paragon Analytics, Inc.
Client Name: Washington State Department of Ecology
Client Project ID: North Slope Bioremediation

Lab Sample ID: 9711014-1

Date Collected: 10/27/97
Date Extracted: 11/10/97
Date Analyzed: 11/19/97

Sample Matrix: Soil
Cleanup: N/A
Final Volume: 0 %
Results based on wet weight

Sample Weight: 30 g
Final Volume: 10 mL
Dilution Factor: 1

Analyte	Conc (ug/kg)	Reporting Limit (ug/kg)
Dalapon	ND	50
Dicamba	ND	2.0
MCPP	ND	2,000
MCPA	ND	2,000
Dichloroprop	ND	20
2,4-D	790 *	100
Silvex	ND	2.0
2,4,5-T	ND	2.0
2,4-DB	ND	20
Dinoseb	ND	10

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits
2,4-Dichlorophenylacetic acid	69	47 - 154

* Result reported from a 1:5 dilution. Reporting limit adjusted accordingly.
ND = Not Detected at or above client requested reporting limit.

CHLORINATED HERBICIDES

Method 8151

Sample ID

H97024

Lab Name: Paragon Analytics, Inc.
Client Name: Washington State Department of Ecology
Client Project ID: North Slope Bioremediation

Lab Sample ID: 9711014-2

Date Collected: 10/27/97
Date Extracted: 11/10/97
Date Analyzed: 11/19/97

Sample Matrix: Soil
Cleanup: N/A
Final Volume: 0 %
Results based on wet weight

Sample Weight: 30 g
Final Volume: 10 mL
Dilution Factor: 1

Analyte	Conc (ug/kg)	Reporting Limit (ug/kg)
Dalapon	ND	50
Dicamba	ND	2.0
MCPP	ND	2,000
MCPA	ND	2,000
Dichloroprop	ND	20
2,4-D	1,400 *	200
Silvex	ND	2.0
2,4,5-T	ND	2.0
2,4-DB	ND	20
Dinoseb	ND	10

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits
2,4-Dichlorophenylacetic acid	82	47 - 154

* Result reported from a 1:10 dilution. Reporting limit adjusted accordingly.
ND = Not Detected at or above client requested reporting limit.

CHLORINATED HERBICIDES

Method 8151

Sample ID

H97025

Lab Name: Paragon Analytics, Inc.
Client Name: Washington State Department of Ecology
Client Project ID: North Slope Bioremediation

Lab Sample ID: 9711014-3

Date Collected: 10/27/97
Date Extracted: 11/10/97
Date Analyzed: 11/19/97

Sample Matrix: Soil
Cleanup: N/A
Final Volume: 0 %
Results based on wet weight

Sample Weight: 30 g
Final Volume: 10 mL
Dilution Factor: 1

Analyte	Conc (ug/kg)	Reporting Limit (ug/kg)
Dalapon	ND	50
Dicamba	ND	2.0
MCPP	ND	2,000
MCPA	ND	2,000
Dichloroprop	ND	20
2,4-D	73	20
Silvex	ND	2.0
2,4,5-T	ND	2.0
2,4-DB	ND	20
Dinoseb	ND	10

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits
2,4-Dichlorophenylacetic acid	84	47 - 154

ND = Not Detected at or above client requested reporting limit.

Supporting QA/QC Data

HERBICIDES SURROGATE SUMMARY

Method 8151

Lab Name: Paragon Analytics, Inc.
Client Name: Washington State Department of Ecology
Client Project ID: North Slope Bioremediation
Sample Matrix: Soil

Client ID	Laboratory ID	DCAA % Rec
Reagent Blank	SRB1 11/10/97	74
H97023	9711014-1MS	71
H97023	9711014-1MSD	68
Blank Spike	SBS1 11/10/97	81
Blank Spike Dup	SBS2 11/10/97	77
H97023	9711014-1	69
H97024	9711014-2	82
H97025	9711014-3	84

QC Limits

DCAA = 2,4-Dichlorophenylacetic acid (47-154)

CHLORINATED HERBICIDES BLANK SPIKE

Method 8151

Sample ID

Blank Spike

Lab Name: Paragon Analytics, Inc.
Client Name: Washington State Department of Ecology
Client Project ID: North Slope Bioremediation

Date Extracted: 11/10/97
Date Analyzed: 11/19/97

Lab Sample ID: SBS1 11/10/97

Sample Matrix: Sodium Sulfate
Cleanup: N/A

Sample Weight: 30 g
Final Volume: 10 mL

Analyte	Spike Added (ug/kg)	BS Concentration (ug/kg)	BS Percent Recovery	QC Limits % Rec
Silvex	8.3	7.2	86	50 - 150
2,4,5-T	8.3	6.9	82	50 - 150

Analyte	Spike Added (ug/kg)	BSD Concentration (ug/kg)	BSD Percent Recovery	RPD	QC Limits RPD
Silvex	8.3	6.9	83	4	20
2,4,5-T	8.3	5.6	67	20	20

SURROGATE RECOVERY BS/BSD

Analyte	% Recovery BS	% Recovery BSD	% Rec Limits
2,4-Dichlorophenylacetic acid	81	77	47 - 154

CHLORINATED HERBICIDES MATRIX SPIKE

Method 8151

Sample ID

H97023

Lab Name: Paragon Analytics, Inc.
Client Name: Washington State Department of Ecology
Client Project ID: North Slope Bioremediation

Lab Sample ID: 9711014-1MS

Sample Matrix: Soil
Cleanup: N/A
% Moisture: 0 %
Results based on wet weight

Date Collected: 10/27/97
Date Extracted: 11/10/97
Date Analyzed: 11/19/97

Sample Weight: 30 g
Final Volume: 10 mL
Dilution Factor: 1

Analyte	Spike Added (ug/kg)	Sample Concentration (ug/kg)	MS Concentration (ug/kg)	MS Percent Recovery	QC Limits % Rec
Silvex	8.3	ND	6.2	74	50 - 150
2,4,5-T	8.3	ND	4.1	49 *	50 - 150

Analyte	Spike Added (ug/kg)	MSD Concentration (ug/kg)	MSD Percent Recovery	RPD	QC Limits RPD
Silvex	8.3	5.2	63	16	20
2,4,5-T	8.3	3.1	37 *	28 *	20

SURROGATE RECOVERY MS/MSD

Analyte	% Recovery MS	% Recovery MSD	% Rec Limits
2,4-Dichlorophenylacetic acid	71	68	47 - 154

ND = Not Detected

HERBICIDES METHOD BLANK SUMMARY

Method 8151

Sample ID

Reagent Blank

Lab Name: Paragon Analytics, Inc.
Client Name: Washington State Department of Ecology
Client Project ID: North Slope Bioremediation

Lab Sample ID: SRB1 11/10/97

Sample Matrix: Soil

Date Collected: N/A
Date Extracted: 11/10/97
Date Analyzed: 11/19/97

Sample Volume: 30 g
Final Volume: 10 mL
Dilution Factor: 1

Client ID	Laboratory ID	Date Analyzed
H97023	9711014-1MS	11/19/97
H97023	9711014-1MSD	11/19/97
Blank Spike	SBS1 11/10/97	11/19/97
Blank Spike Dup	SBS2 11/10/97	11/19/97
H97023	9711014-1	11/19/97
H97024	9711014-2	11/19/97
H97025	9711014-3	11/19/97

Paragon Analytics, Inc.

Method: C:\HPCHEM\7\METHODS\HB111997.M
Calibration Date: 11/19/97

Inst. ID: ECD3
Colunm #1: DB-1701

Calibration files
1 = 1119EG05.D 2 = 1119EG04.D 3 = 1119EG03.D
5 = 1119EG01.D 6 = 7 =

	Calibration Factors								Corr Coef	Curve Fit
Compoumds	1	2	3	4	5	6	Ave. CF	%RSD	r2	Type
Dalapon	5188	4660	4023	3579	3339		4158	18.4	N/A	Ave RF
Herb Surr	6881	6435	5504	4802	4360		5596	19.0	0.995	Linear
Dicamba	19586	19086	17237	15760	14563		17246	12.4	0.997	Linear
MCPP	23	24	21	20	19		21	9.7	0.997	Linear
MCPA	45	41	35	32	29		36	17.6	0.997	Linear
Dichlorprop	7240	6385	5294	4540	4159		5523	23.2	0.996	Linear
2,4-D	7063	6482	5494	4792	4385		5643	19.9	0.996	Linear
Silvex	25682	26277	24786	23630	22336		24542	6.5	0.998	Linear
2,4,5-T	25218	25766	23958	23158	21793		23979	6.7	0.998	Linear
2,4-DB	4812	4763	4180	3791	3438		4197	14.3	0.995	Linear
Dinoseb	13545	13651	12888	12190	11464		12747	7.3	0.998	Linear

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Paragon Analytics, Inc.

Method: C:\HPCHEM\7\METHODS\HB111997.M
Calibration Date: 11/19/97

Inst. ID: ECD3
Colunm #2: RTX-20

Calibration files
1 = 1119EG05.D 2 = 1119EG04.D 3 = 1119EG03.D
5 = 1119EG01.D 6 = 7 =

	Calibration Factors								Corr Coef	Curve Fit
Compoumds	1	2	3	4	5	6	Ave. CF	%RSD	r2	Type
Dalapon	5914	5441	4993	4459	4161		4994	14.3	N/A	Ave RF
Herb Surr	6508	6252	5506	4897	4557		5544	15.2	0.997	Linear
Dicamba	20758	19175	17133	15854	15054		17595	13.4	0.999	Linear
MCPP	23	25	22	20	19		22	10.5	0.997	Linear
MCPA	52	45	37	32	29		39	24.3	0.997	Linear
Dichlorprop	7460	6765	5719	5003	4590		5907	20.3	0.996	Linear
2,4-D	7333	6831	5879	5213	4804		6012	17.7	0.997	Linear
Silvex	23392	23961	22875	22785	21990		23001	3.2	0.999	Linear
2,4,5-T	23226	24089	23165	22946	22246		23134	2.9	1.000	Linear
2,4-DB	4980	4898	4396	3974	3677		4385	12.9	0.996	Linear
Dinoseb	12374	12705	12365	12043	11567		12211	3.5	0.999	Linear

000017

Paragon Analytics, Inc.

Method: C:\HPCHEM\7\METHODS\HB111997.M
Calibration Date: 11/19/97

Inst. ID: ECD3

Calibration files
1 = 1119EG05.D 2 = 1119EG04.D 3 = 1119EG03.D
4 = 1119EG02.D 5 = 1119EG01.D 6 =
7 =

	Initial Calibration Concentration Levels (ng/ml)					
Compoumds	1	2	3	4	5	6
Dalapon	125	250	500	1000	1500	
Herb Surr	25	50	100	200	300	
Dicamba	5	10	20	40	60	
MCPP	5000	10000	20000	40000	60000	
MCPA	5000	10000	20000	40000	60000	
Dichlorprop	50	100	200	400	600	
2,4-D	50	100	200	400	600	
Silvex	5	10	20	40	60	
2,4,5-T	5	10	20	40	60	
2,4-DB	50	100	200	400	600	
Dinoseb	25	50	100	200	300	

000018

Paragon Analytics, Inc.

Method: C:\HPCHEM\7\METHODS\HB111997.M
Calibration Date: 11/19/97

Inst. ID: ECD3

Calibration files
1 = 1119EG05.D 2 = 1119EG04.D 3 = 1119EG03.D
4 = 1119EG02.D 5 = 1119EG01.D 6 =
7 =

	Column #1	RT Window		Column #2	RT Window	
Compoumds	RT	From	To	RT	From	To
Dalapon	5.317	5.217	5.417	5.758	5.658	5.858
Herb Surr	11.728	11.628	11.828	12.529	12.429	12.629
Dicamba	12.035	11.935	12.135	12.817	12.717	12.917
MCPP	12.316	12.216	12.416	12.956	12.856	13.056
MCPA	12.753	12.653	12.853	13.354	13.254	13.454
Dichlorprop	13.270	13.170	13.370	13.931	13.831	14.031
2,4-D	13.899	13.799	13.999	14.509	14.409	14.609
Silvex	15.345	15.245	15.445	16.328	16.228	16.428
2,4,5-T	16.449	16.349	16.549	17.356	17.256	17.456
2,4-DB	17.647	17.547	17.747	18.907	18.807	19.007
Dinoseb	19.685	19.585	19.785	18.676	18.576	18.776

Colunm #1: DB-1701 Colunm #2: RTX-20

000019

Calibration Verification Summary

Paragon Analytics, Inc.

Sample: HERB 2ND SRC MX-C15-06 20%

Inst. ID: ECD3
Date Aquired:19 Nov 97 07:04 P

000020

Data File #1: C:\HPCHEM\7\DATA\971119\1119EG06.D
Data File #2: C:\HPCHEM\7\DATA\971119\1119EG06.D\1119EH06.D

	Column #1			Column #2				Col. #1	Col.#2	Col. #1	Col.#2
COMPOUND	Exp. RT (min)	Found RT (min)	Dev (min)	Exp. RT (min)	Found RT (min)	Dev (min)	Nom Conc ng/ml	Conc ng/ml	Conc ng/ml	%D	%D
Dalapon	5.317	5.317	-0.001	5.758	5.758	0.000	1000	938.70	891.05	6.13	10.89
Herb Surr	11.728	11.729	-0.002	12.529	12.531	-0.001	200	219.60	217.04	9.80	8.52
Dicamba	12.035	12.038	-0.002	12.817	12.819	-0.002	40	44.27	43.00	10.67	7.50
MCPP	12.316	12.318	-0.002	12.956	12.959	-0.002	40000	39618.49	41611.94	0.95	4.03
MCPA	12.753	12.755	-0.002	13.354	13.356	-0.002	40000	36984.43	40720.26	7.54	1.80
Dichlorprop	13.270	13.272	-0.001	13.931	13.933	-0.002	400	407.18	411.69	1.80	2.92
2,4-D	13.899	13.902	-0.003	14.509	14.512	-0.003	400	415.30	407.11	3.83	1.78
Silvex	15.345	15.349	-0.004	16.328	16.332	-0.004	40	42.70	41.07	6.76	2.68
2,4,5-T	16.449	16.456	-0.007	17.356	17.363	-0.007	40	42.18	41.21	5.45	3.02
2,4-DB	17.647	17.655	-0.008	18.907	18.915	-0.008	400	449.09	419.91	12.27	4.98
Dinoseb	19.685	19.692	-0.007	18.676	18.683	-0.007	200	206.31	207.06	3.16	3.53

Column #1: DB-1701

Column #2: RTX-20

Calibration Verification Summary

Paragon Analytics, Inc.

Sample: HERB CAL MX-B97-06 20% CCV

Inst. ID: ECD3
Date Aquired:20 Nov 97 00:47 A

Data File #1: C:\HPCHEM\7\DATA\971119\1119EG15.D
Data File #2: C:\HPCHEM\7\DATA\971119\1119EG15.D\1119EH15.D

	Column #1			Column #2				Col. #1	Col.#2	Col. #1	Col.#2
COMPOUND	Exp. RT (min)	Found RT (min)	Dev (min)	Exp. RT (min)	Found RT (min)	Dev (min)	Nom Conc ng/ml	Conc ng/ml	Conc ng/ml	%D	%D
Dalapon	5.317	5.315	0.001	5.758	5.758	0.001	1000	891.94	876.70	10.81	12.33
Herb Surr	11.728	11.729	-0.001	12.529	12.530	-0.001	200	197.98	197.25	1.01	1.38
Dicamba	12.035	12.036	0.000	12.817	12.817	0.000	40	39.20	39.20	2.00	1.99
MCPP	12.316	12.316	0.001	12.956	12.957	0.000	40000	35004.51	37943.62	12.49	5.14
MCPA	12.753	12.753	0.000	13.354	13.354	0.000	40000	33392.76	38607.55	16.52	3.48
Dichlorprop	13.270	13.272	-0.001	13.931	13.933	-0.002	400	397.73	404.40	0.57	1.10
2,4-D	13.899	13.904	-0.005	14.509	14.515	-0.005	400	403.47	405.75	0.87	1.44
Silvex	15.345	15.351	-0.006	16.328	16.334	-0.006	40	39.40	40.07	1.51	0.18
2,4,5-T	16.449	16.459	-0.009	17.356	17.365	-0.009	40	40.06	39.68	0.16	0.80
2,4-DB	17.647	17.659	-0.012	18.907	18.919	-0.012	400	417.17	417.95	4.29	4.49
Dinoseb	19.685	19.692	-0.007	18.676	18.684	-0.008	200	218.13	215.02	9.07	7.51

Column #1: DB-1701

Column #2: RTX-20

Calibration Verification Summary

Paragon Analytics, Inc.

Sample: HERB CAL MX-B97-06 20% CCV

Inst. ID: ECD3
Date Aquired:20 Nov 97 10:29 A

000022

Data File #1: C:\HPCHEM\7\DATA\971120\1120EG01.D
Data File #2: C:\HPCHEM\7\DATA\971120\1120EG01.D\1120EH01.D

	Column #1			Column #2				Col. #1	Col.#2	Col. #1	Col.#2
COMPOUND	Exp. RT (min)	Found RT (min)	Dev (min)	Exp. RT (min)	Found RT (min)	Dev (min)	Nom Conc ng/ml	Conc ng/ml	Conc ng/ml	%D	%D
Dalapon	5.317	5.317	-0.001	5.758	5.758	0.000	1000	883.17	852.50	11.68	14.75
Herb Surr	11.728	11.730	-0.003	12.529	12.531	-0.001	200	204.86	199.46	2.43	0.27
Dicamba	12.035	12.037	-0.002	12.817	12.818	-0.001	40	40.44	38.46	1.10	3.86
MCPP	12.316	12.316	0.000	12.956	12.957	-0.001	40000	37996.44	46872.17	5.01	17.18
MCPA	12.753	12.754	0.000	13.354	13.355	-0.001	40000	38912.26	45550.72	2.72	13.88
Dichlorprop	13.270	13.272	-0.002	13.931	13.934	-0.003	400	412.48	399.73	3.12	0.07
2,4-D	13.899	13.905	-0.006	14.509	14.515	-0.006	400	415.96	397.68	3.99	0.58
Silvex	15.345	15.353	-0.008	16.328	16.335	-0.007	40	40.63	38.67	1.56	3.32
2,4,5-T	16.449	16.462	-0.013	17.356	17.366	-0.009	40	41.01	37.70	2.52	5.76
2,4-DB	17.647	17.661	-0.014	18.907	18.920	-0.013	400	434.30	416.90	8.58	4.23
Dinoseb	19.685	19.691	-0.006	18.676	18.684	-0.008	200	227.84	216.35	13.92	8.18

Column #1: DB-1701

Column #2: RTX-20

Calibration Verification Summary

Paragon Analytics, Inc.

Sample: HERB CAL MX-B97-06 20% CCV

Inst. ID: ECD3
Date Aquired:20 Nov 97 12:46 P

000023

Data File #1: C:\HPCHEM\7\DATA\971120\1120EG04.D
Data File #2: C:\HPCHEM\7\DATA\971120\1120EG04.D\1120EH04.D

	Column #1			Column #2				Col. #1	Col.#2	Col. #1	Col.#2
COMPOUND	Exp. RT (min)	Found RT (min)	Dev (min)	Exp. RT (min)	Found RT (min)	Dev (min)	Nom Conc ng/ml	Conc ng/ml	Conc ng/ml	%D	%D
Dalapon	5.317	5.317	-0.001	5.758	5.759	0.000	1000	901.66	860.78	9.83	13.92
Herb Surr	11.728	11.731	-0.003	12.529	12.531	-0.002	200	203.87	199.63	1.94	0.19
Dicamba	12.035	12.037	-0.002	12.817	12.818	-0.001	40	41.29	38.74	3.23	3.15
MCPP	12.316	12.316	0.000	12.956	12.957	-0.001	40000	36299.18	42739.65	9.25	6.85
MCPA	12.753	12.753	0.000	13.354	13.355	-0.001	40000	35572.08	42204.28	11.07	5.51
Dichlorprop	13.270	13.273	-0.002	13.931	13.933	-0.002	400	413.86	403.38	3.47	0.84
2,4-D	13.899	13.906	-0.007	14.509	14.516	-0.007	400	420.32	403.05	5.08	0.76
Silvex	15.345	15.355	-0.010	16.328	16.335	-0.008	40	40.82	38.93	2.06	2.67
2,4,5-T	16.449	16.463	-0.014	17.356	17.368	-0.011	40	41.17	38.64	2.92	3.41
2,4-DB	17.647	17.662	-0.014	18.907	18.920	-0.013	400	437.68	420.15	9.42	5.04
Dinoseb	19.685	19.691	-0.006	18.676	18.683	-0.007	200	229.93	217.97	14.96	8.99

Column #1: DB-1701

Column #2: RTX-20

CHLORINATED HERBICIDES

Method 8151

Sample ID

H97023

Lab Name: Paragon Analytics, Inc.
Client Name: Washington State Department of Ecology
Client Project ID: North Slope Bioremediation

Lab Sample ID: 9711014-1

Sample Matrix: Soil
Cleanup: N/A
% Moisture: 0 %
Results based on wet weight

Date Collected: 10/27/97
Date Extracted: 11/10/97
Date Analyzed: 11/19/97

Sample Weight: 30 g
Final Volume: 10 mL
Dilution Factor: 5

Analyte	Column #1 RT	Column #1 Lower Upper	Conc. (ug/kg)	Column #2 RT	Column #2 Lower Upper	Conc. (ug/kg)	% Difference
2,4-D	13.90	13.8 to 14.00	790	14.51	14.41 to 14.61	750	5

CHLORINATED HERBICIDES

Method 8151

Sample ID

H97024

Lab Name: Paragon Analytics, Inc.
Client Name: Washington State Department of Ecology
Client Project ID: North Slope Bioremediation

Lab Sample ID: 9711014-2

Sample Matrix: Soil
Cleanup: N/A
% Moisture: %
Results based on wet weight

Date Collected: 10/27/97
Date Extracted: 11/10/97
Date Analyzed: 11/19/97

Sample Weight: 30 g
Final Volume: 10 mL
Dilution Factor: 5

Analyte	Column #1 RT	Column #1 Lower	Column #1 Upper	Conc. (ug/kg)	Column #2 RT	Column #2 Lower	Column #2 Upper	Conc. (ug/kg)	% Difference
2,4-D	13.91	13.8 to 14.00		730	14.52	14.41 to 14.61		720	1

CHLORINATED HERBICIDES

Method 8151

Sample ID

H97025

Lab Name: Paragon Analytics, Inc.
Client Name: Washington State Department of Ecology
Client Project ID: North Slope Bioremediation

Lab Sample ID: 9711014-3

Sample Matrix: Soil
Cleanup: N/A
% Moisture: %
Results based on wet weight

Date Collected: 10/27/97
Date Extracted: 11/10/97
Date Analyzed: 11/19/97

Sample Weight: 30 g
Final Volume: 10 mL
Dilution Factor: 1

Analyte	Column #1 RT	Column #1 Lower Upper	Conc. (ug/kg)	Column #2 RT	Column #2 Lower Upper	Conc. (ug/kg)	% Difference
2,4-D	13.89	13.8 to 14.00	72	14.50	14.41 to 14.61	120	50

Supporting Raw Data

Sequence Name: C:\HPCHEM\7\SEQUENCE\111997.S
Comment:
Operator: MBROWN
Data Path: C:\HPCHEM\7\DATA\971119\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1)	DeleteGC				
2)	MaskName - -----H--				
3)	GCMethod - 3HB001				
4)	Sample	100	PRIME	HB111997	PRIME
5)	Sample	100	PRIME	HB111997	PRIME
6)	Sample	99	HEXANE1	HB111997	HEXANE
7)	Sample	1	1119EG01	HB111997	HERB CAL MX-B97-06 30%
8)	Sample	2	1119EG02	HB111997	HERB CAL MX-B97-06 20%
9)	Sample	3	1119EG03	HB111997	HERB CAL MX-B97-06 10%
10)	Sample	4	1119EG04	HB111997	HERB CAL MX-B97-06 5%
11)	Sample	5	1119EG05	HB111997	HERB CAL MX-B97-06 2.5%
12)	Sample	6	1119EG06	HB111997	HERB 2ND SRC MX-C15-06 20%
13)	Sample	7	1119EG07	HB111997	SRB1 11/10/97 HERB
14)	Sample	8	1119EG08	HB111997	SBS1 11/10/97 HERB
15)	Sample	9	1119EG09	HB111997	SBS2 11/10/97 HERB
16)	Sample	10	1119EG10	HB111997	9711014-1
17)	Sample	11	1119EG11	HB111997	9711014-1MS
18)	Sample	12	1119EG12	HB111997	9711014-1MSD
19)	Sample	13	1119EG13	HB111997	9711014-2
20)	Sample	14	1119EG14	HB111997	9711014-3
21)	Sample	99	HEXANE2	HB111997	HEXANE
22)	Sample	15	1119EG15	HB111997	HERB CAL MX-B97-06 20% CCV
23)					

Sequence Name: C:\HPCHEM\7\SEQUENCE\112097.S
Comment:
Operator: MBROWN
Data Path: C:\HPCHEM\7\DATA\971120\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1)	DeleteGC				
2)	MaskName - -----H--				
3)	GCMethod - 3HB001				
4)	Sample	100	PRIME	HB111997	PRIME
5)	Sample	100	PRIME	HB111997	PRIME
6)	Sample	99	HEXANE1	HB111997	HEXANE
7)	Sample	1	1120EG01	HB111997	HERB CAL MX-B97-06 20% CCV
8)	Sample	2	1120EG02	HB111997	9711014-1 DL5
9)	Sample	3	1120EG03	HB111997	9711014-2 DL10
10)	Sample	99	HEXANE2	HB111997	HEXANE
11)	Sample	4	1120EG04	HB111997	HERB CAL MX-B97-06 20% CCV
12)					

Calibration Raw Data

Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG01.D Vial: 1
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG01.D\1119EH01.D
Acq On : 19 Nov 97 04:14 PM Operator: MBROWN
Sample : HERB CAL MX-B97-06 30% Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:06 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
2)	S Herb Surr	11.72	12.53	1307867	1367246	292.78	294.73
				Recovery	=	146.39%	147.37%
	Target Compounds						
1)	TM Dalapon	5.32	5.76	5008842	6241387	1204.61	1249.86
3)	TM Dicamba	12.03	12.81	873804	903264	58.77	59.34
4)	TM MCPP	12.32	12.96	1120094	1140055	58734.39	58927.
5)	TM MCPA	12.75	13.35	1752717	1738189	58837.74	58950.
6)	TM Dichlorprop	13.27	13.93	2495115	2753718	588.60	588.13
7)	TM 2,4-D	13.89	14.51	2630979	2882342	587.47	588.39
8)	TM Silvex	15.34	16.32	1340160	1319410	59.08	59.45
9)	TM 2,4,5-T	16.44	17.35	1307567	1334777	59.04	59.50
10)	TM 2,4-DB	17.64	18.90	2062753	2205910	584.50	587.84
11)	TM Dinoseb	19.68	18.67	3439075	3470041	295.00	296.62

11/20/97

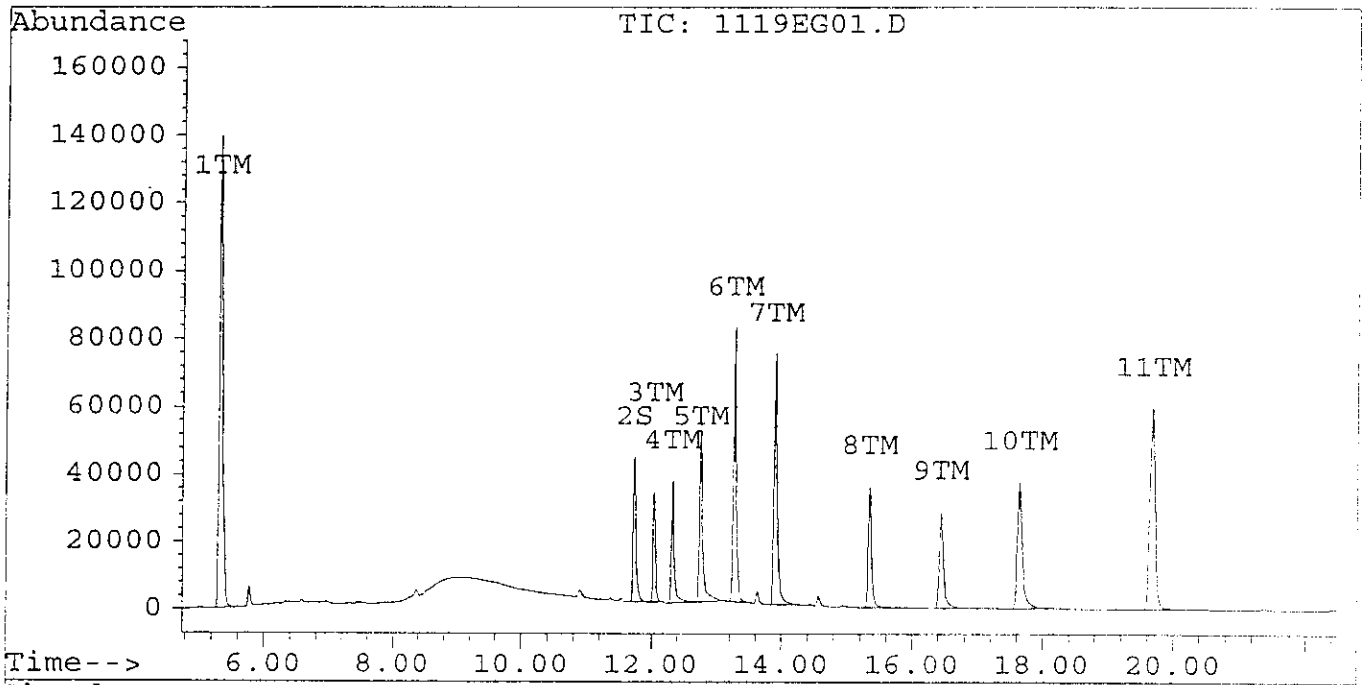
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

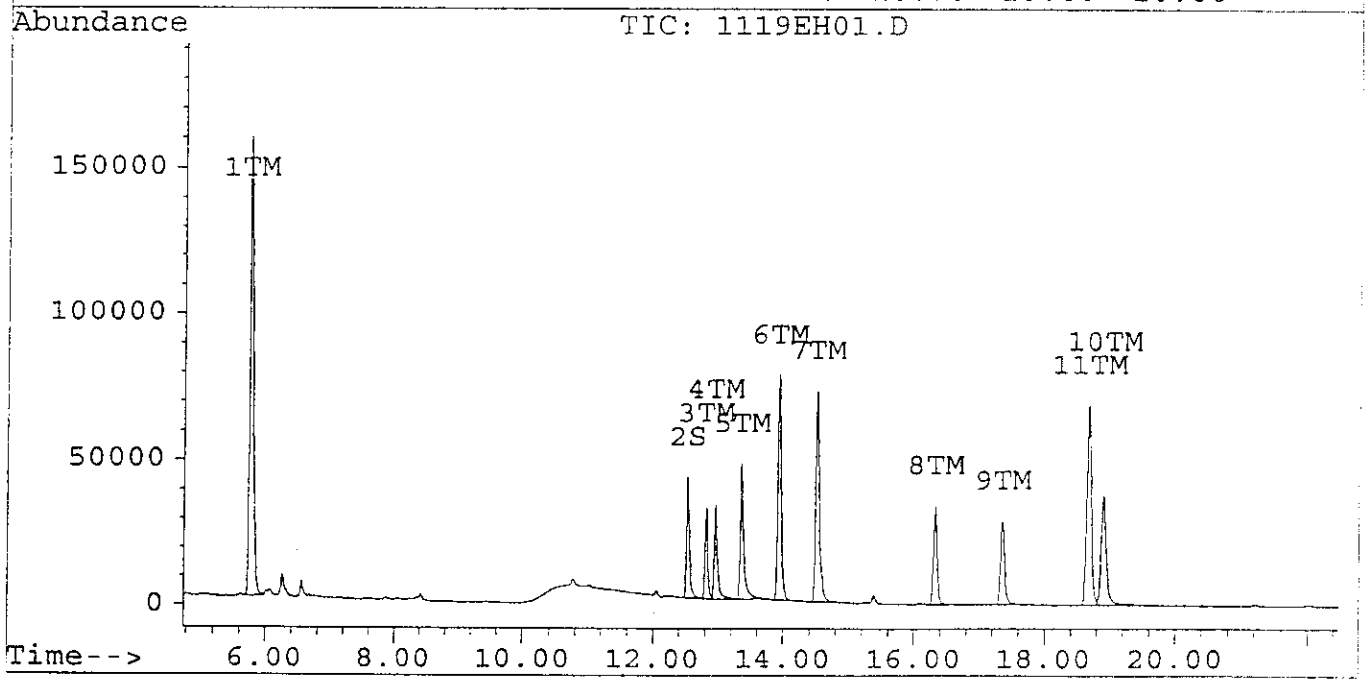
Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG01.D Vial: 1
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG01.D\1119EH01.D
Acq On : 19 Nov 97 04:14 PM Operator: MBROWN
Sample : HERB CAL MX-B97-06 30% Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:06 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG02.D Vial: 2
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG02.D\1119EH02.D
Acq On : 19 Nov 97 04:48 PM Operator: MBROWN
Sample : HERB CAL MX-B97-06 20% Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:07 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
2)	S Herb Surr	11.73	12.53	960494	979371	207.85	205.30
				Recovery	=	103.93%	102.65%
	Target Compounds						
1)	TM Dalapon	5.32	5.76	3579462	4459433	860.85	893.02
3)	TM Dicamba	12.04	12.82	630414	634151	41.44	40.75
4)	TM MCPP	12.32	12.96	808491	813004	41645.17	41195.
5)	TM MCPA	12.75	13.35	1271820	1260584	41498.09	40983.
6)	TM Dichlorprop	13.27	13.93	1815963	2001127	411.39	412.63
7)	TM 2,4-D	13.90	14.51	1916988	2085283	413.29	412.61
8)	TM Silvex	15.35	16.33	945190	911384	41.13	40.81
9)	TM 2,4,5-T	16.45	17.36	926318	917823	41.29	40.69
10)	TM 2,4-DB	17.65	18.91	1516384	1589786	418.69	413.49
11)	TM Dinoseb	19.69	18.68	2437919	2408626	206.09	204.30

11/20/97
WS

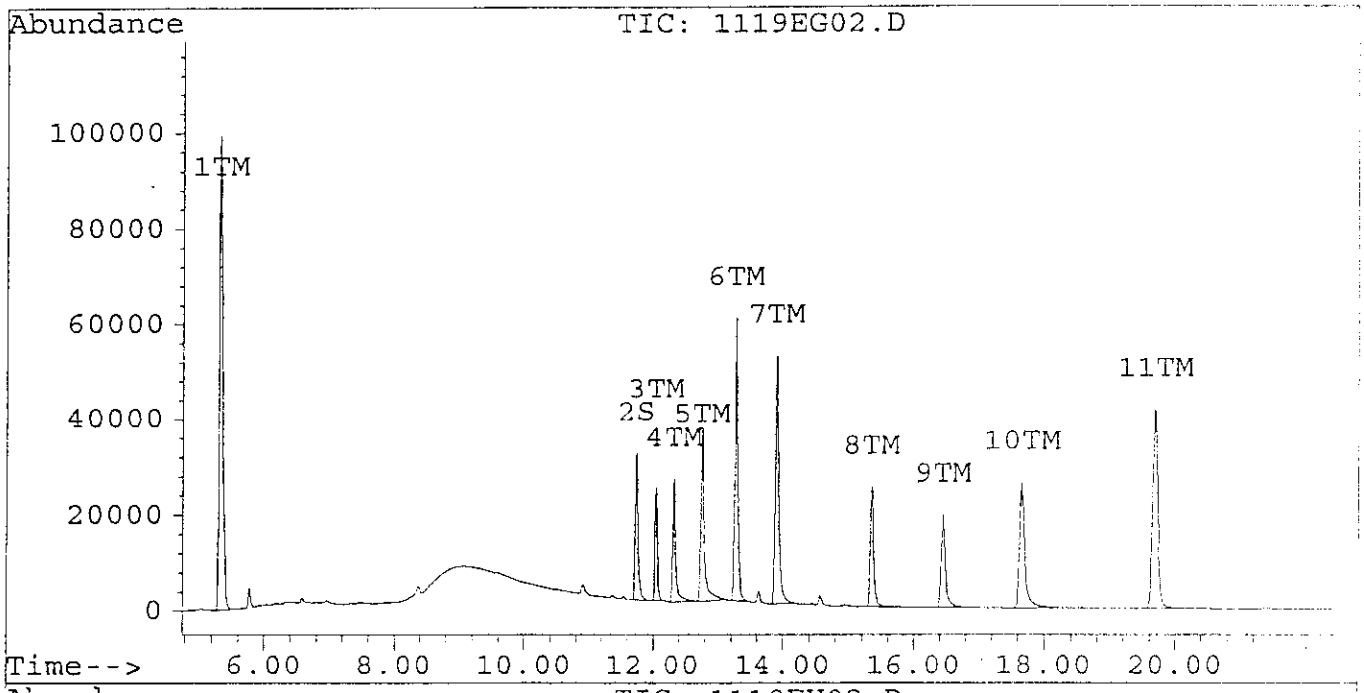
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

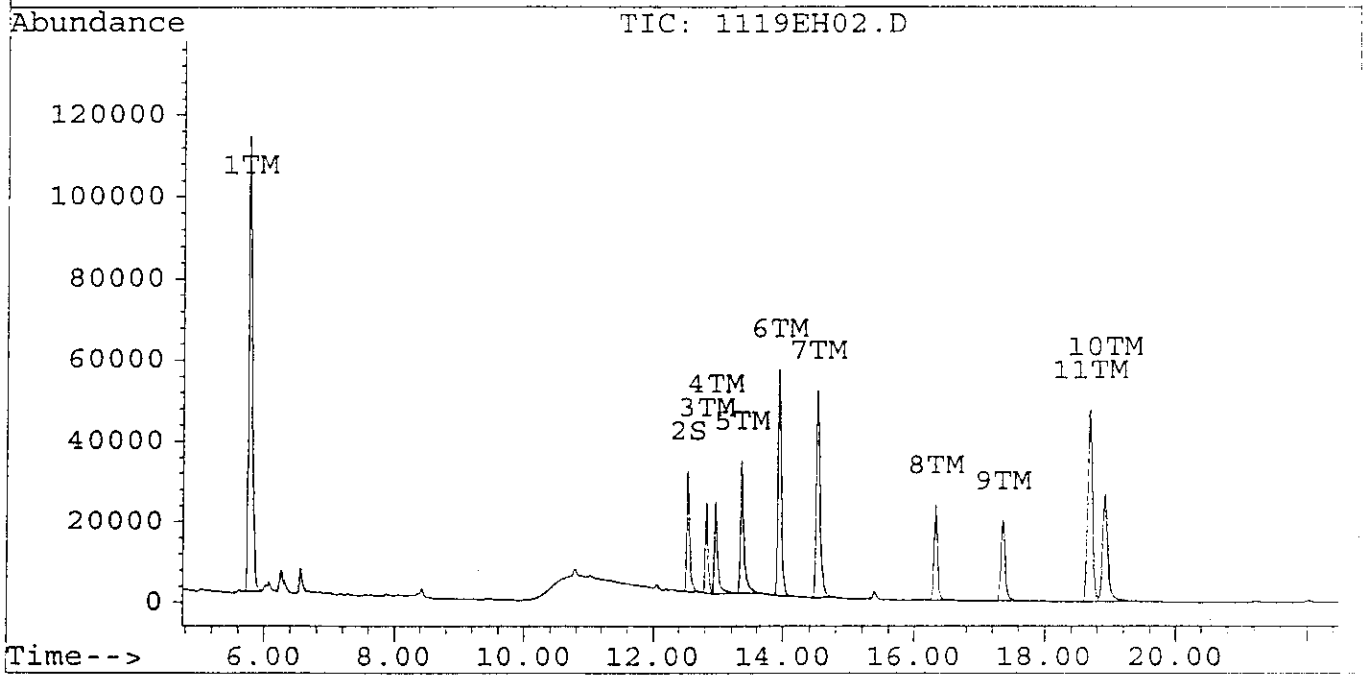
Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG02.D Vial: 2
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG02.D\1119EH02.D
Acq On : 19 Nov 97 04:48 PM Operator: MBROWN
Sample : HERB CAL MX-B97-06 20% Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:07 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG03.D Vial: 3
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG03.D\1119EH03.D
Acq On : 19 Nov 97 05:22 PM Operator: MBROWN
Sample : HERB CAL MX-B97-06 10% Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:07 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
2)	S Herb Surr	11.73	12.53	550398	550582	107.59	106.45
				Recovery	=	53.80%	53.22%
	Target Compounds						
1)	TM Dalapon	5.32	5.76	2011631	2496450	483.79	499.92
3)	TM Dicamba	12.04	12.82	344738	342657	21.10	20.61
4)	TM MCPP	12.32	12.96	425475	439268	20639.40	20952.
5)	TM MCPA	12.75	13.36	693836	741255	20657.79	21446.
6)	TM Dichlorprop	13.27	13.93	1058717	1143824	213.81	212.66
7)	TM 2,4-D	13.90	14.51	1098755	1175716	213.68	212.02
8)	TM Silvex	15.35	16.33	495728	457496	20.69	20.08
9)	TM 2,4,5-T	16.46	17.36	479163	463295	20.47	20.17
10)	TM 2,4-DB	17.66	18.92	836028	879140	212.22	212.39
11)	TM Dinoseb	19.69	18.68	1288790	1236492	104.04	102.34

11/20/97

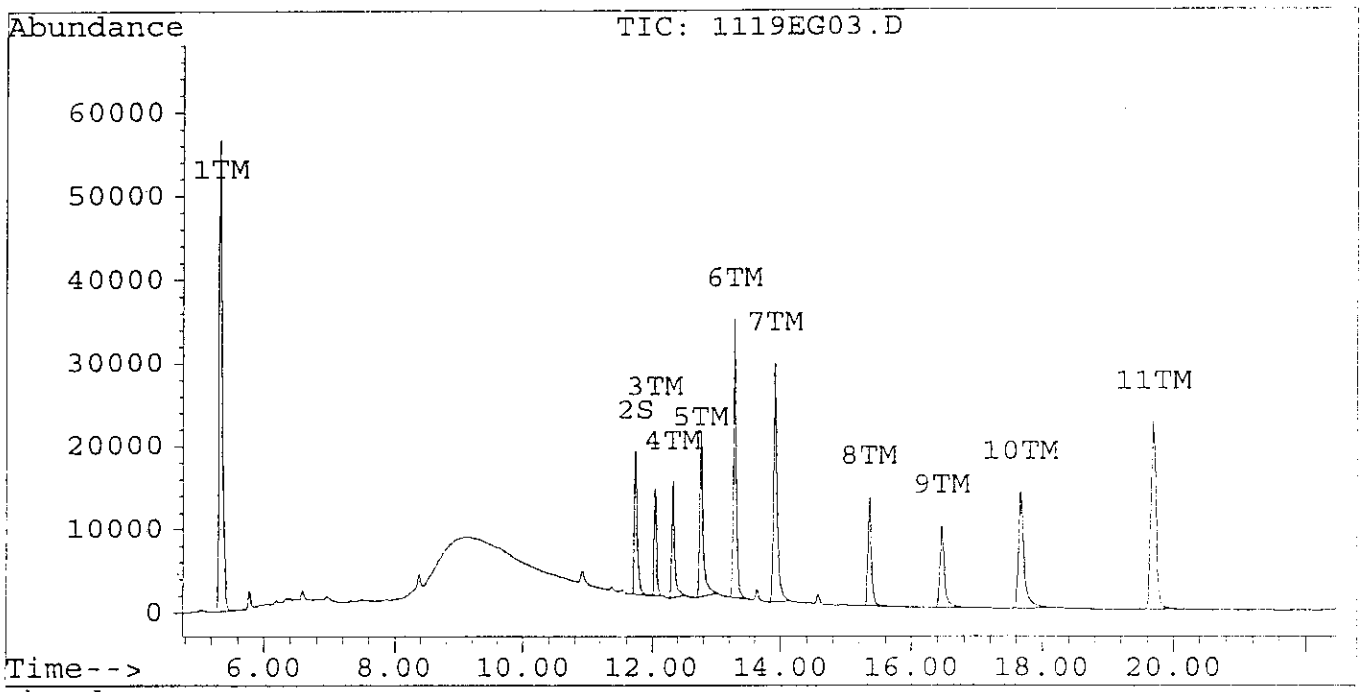
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

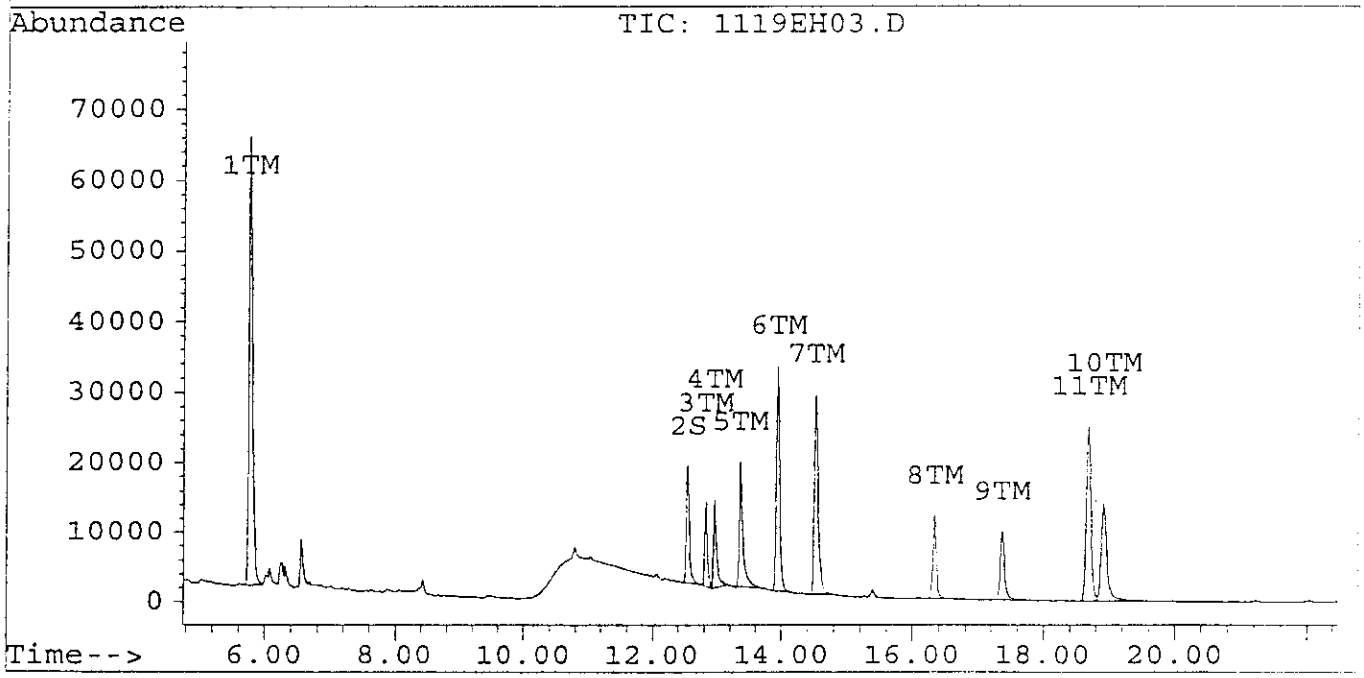
Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG03.D Vial: 3
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG03.D\1119EH03.D
Acq On : 19 Nov 97 05:22 PM Operator: MBROWN
Sample : HERB CAL MX-B97-06 10% Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:07 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG04.D Vial: 4
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG04.D\1119EH04.D
Acq On : 19 Nov 97 05:56 PM Operator: MBROWN
Sample : HERB CAL MX-B97-06 5% Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:07 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
2)	S Herb Surr	11.74	12.54	321736	312603	51.69	51.55
				Recovery	=	25.85%	25.78%
	Target Compounds						
1)	TM Dalapon	5.32	5.76	1165051	1360214	280.19	272.39
3)	TM Dicamba	12.04	12.82	190858	191748	10.15	10.19
4)	TM MCPP	12.32	12.96	240364	249320	10487.33	10633.
5)	TM MCPA	12.76	13.36	407264	445518	10324.90	10320.
6)	TM Dichlorprop	13.28	13.94	638548	676545	104.18	103.67
7)	TM 2,4-D	13.91	14.52	648152	683100	103.76	103.38
8)	TM Silvex	15.35	16.33	262772	239613	10.10	10.13
9)	TM 2,4,5-T	16.46	17.37	257657	240889	10.16	10.13
10)	TM 2,4-DB	17.66	18.92	476314	489812	103.06	102.21
11)	TM Dinoseb	19.69	18.68	682567	635259	50.20	50.04

11/24/97 MO

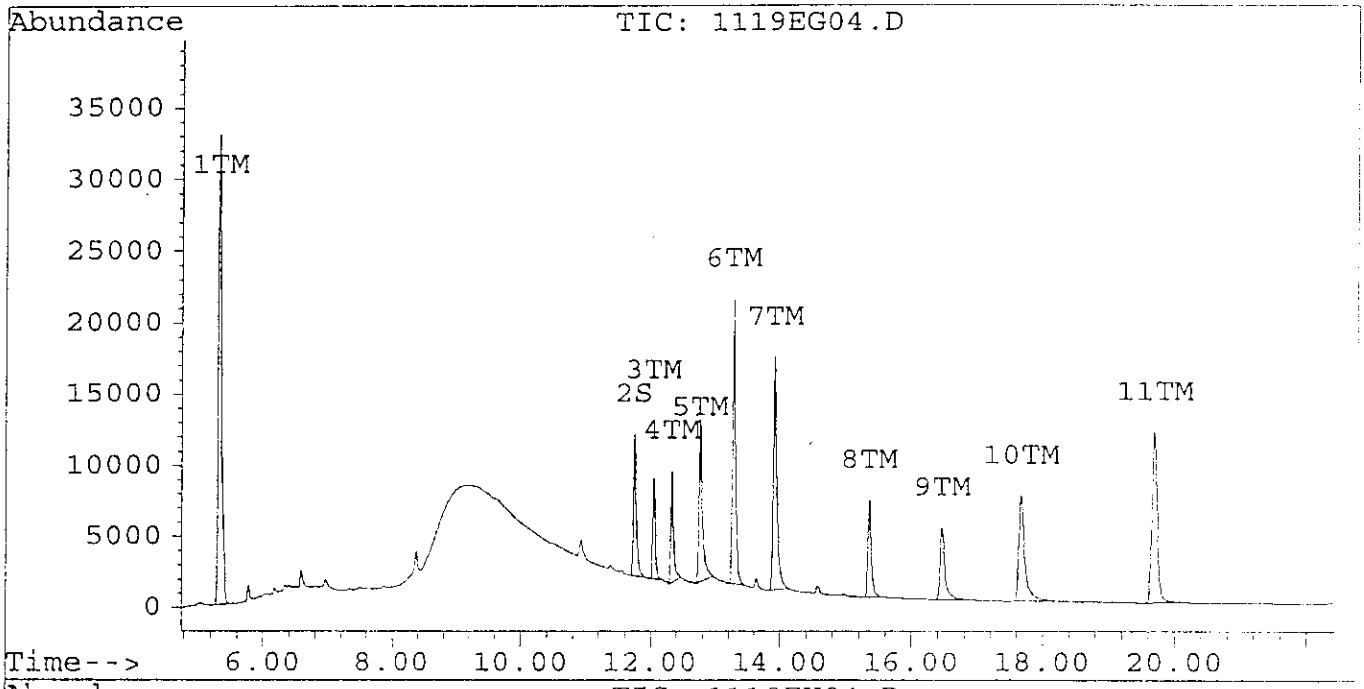
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

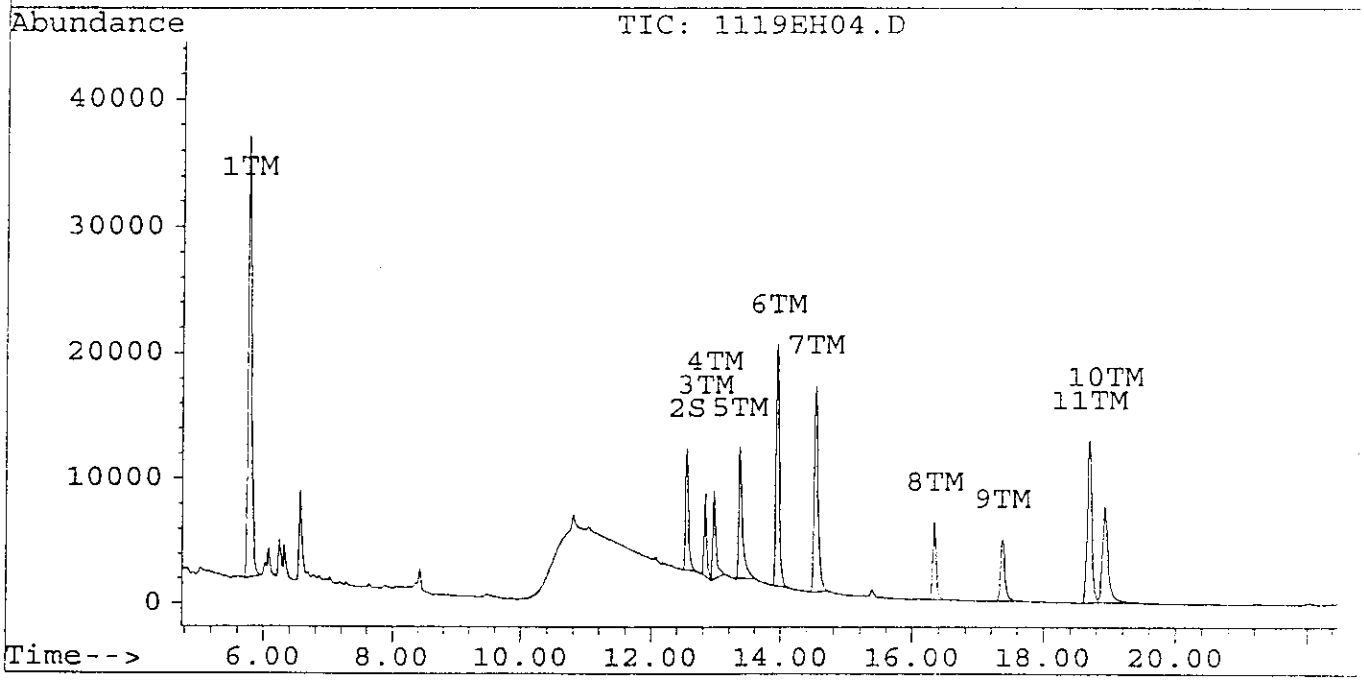
Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG04.D Vial: 4
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG04.D\1119EH04.D
Acq On : 19 Nov 97 05:56 PM Operator: MBROWN
Sample : HERB CAL MX-B97-06 5% Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:07 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG05.D Vial: 5
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG05.D\1119EH05.D
Acq On : 19 Nov 97 06:30 PM Operator: MBROWN
Sample : HERB CAL MX-B97-06 2.5% Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:07 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
2)	S Herb Surr	11.75	12.54	172021	162699	15.09	16.99
				Recovery	=	7.55%	8.49%
	Target Compounds						
1)	TM Dalapon	5.32	5.76	648523	739274	155.97	148.04
3)	TM Dicamba	12.05	12.83	97928	103788	3.54	4.11
4)	TM MCPP	12.33	12.97	112843	114266	3493.71	3311.27
5)	TM MCPA	12.76	13.36	223016	258881	3681.49	3299.29
6)	TM Dichlorprop	13.28	13.94	361984	373014	32.01	32.87
7)	TM 2,4-D	13.91	14.52	353162	366642	31.80	33.59
8)	TM Silvex	15.35	16.33	128409	116958	3.99	4.53
9)	TM 2,4,5-T	16.47	17.37	126090	116131	4.04	4.50
10)	TM 2,4-DB	17.67	18.93	240609	249020	31.53	34.07
11)	TM Dinoseb	19.70	18.69	338622	309341	19.66	21.69

11/20/97

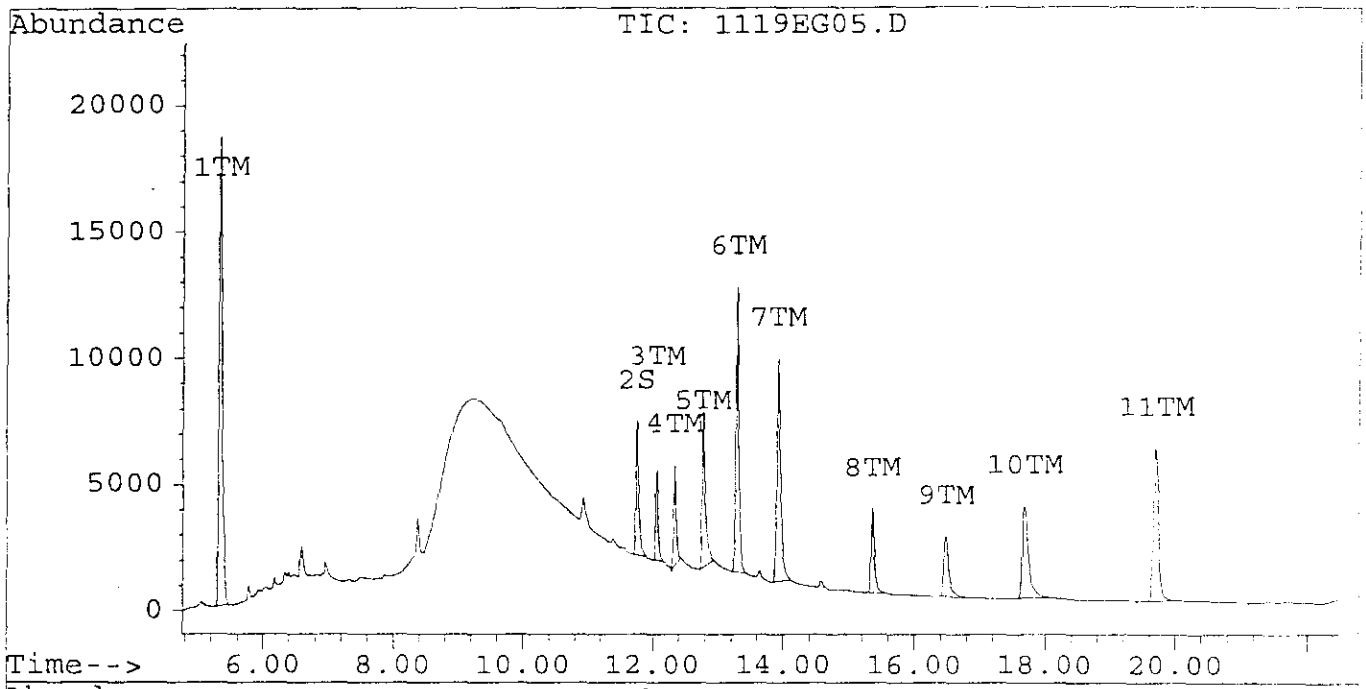
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

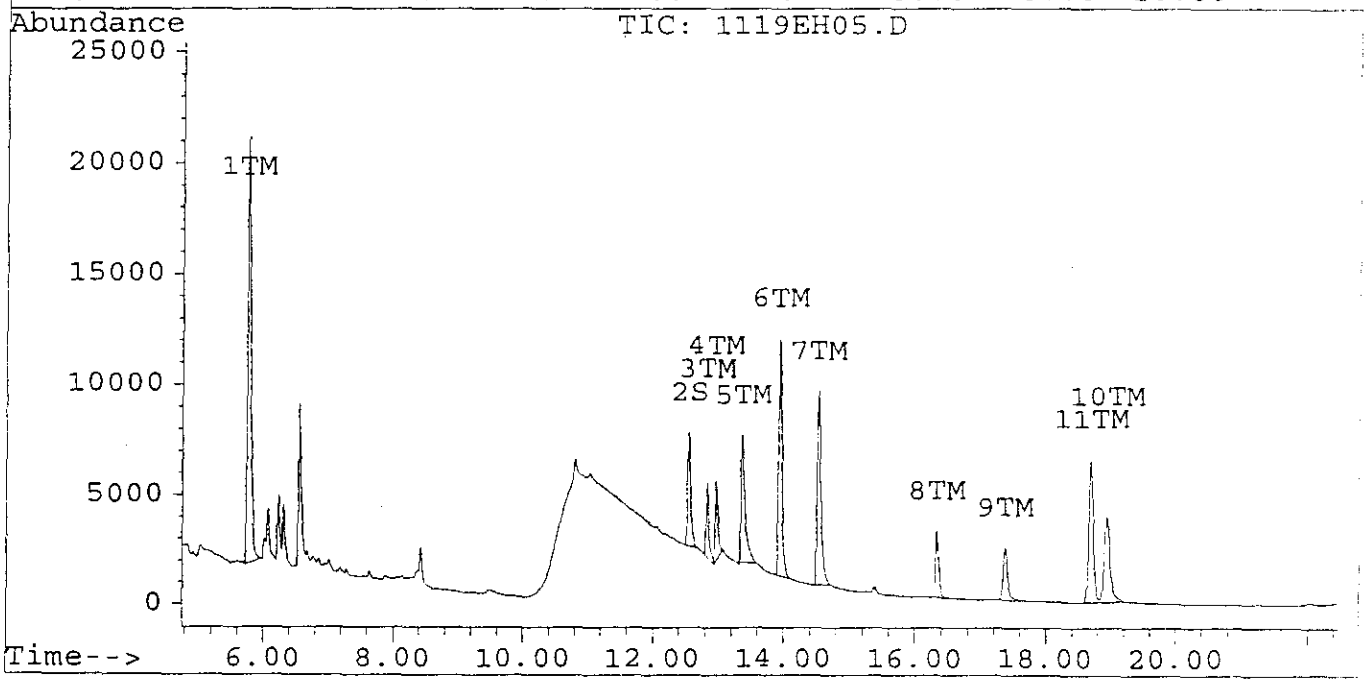
Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG05.D Vial: 5
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG05.D\1119EH05.D
Acq On : 19 Nov 97 06:30 PM Operator: MBROWN
Sample : HERB CAL MX-B97-06 2.5% Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:07 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG06.D Vial: 6
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG06.D\1119EH06.D
Acq On : 19 Nov 97 07:04 PM Operator: MBROWN
Sample : HERB 2ND SRC MX-C15-06 20% Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:08 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
2)	S Herb Surr	11.73	12.53	1008548	1030289	219.60	217.04
				Recovery	=	109.80%	108.52%
	Target Compounds						
1)	TM Dalapon	5.32	5.76	3903172	4449625	938.70	891.05
3)	TM Dicamba	12.04	12.82	670130	666719	44.27	43.00
4)	TM MCPP	12.32	12.96	771537	820686	39618.49	41611.
5)	TM MCPA	12.76	13.36	1146638	1253593	36984.43	40720.
6)	TM Dichlorprop	13.27	13.93	1799822	1997105	407.18	411.69
7)	TM 2,4-D	13.90	14.51	1925242	2060327	415.30	407.11
8)	TM Silvex	15.35	16.33	979870	917041	42.70	41.07
9)	TM 2,4,5-T	16.46	17.36	945457	929395	42.18	41.21
10)	TM 2,4-DB	17.66	18.92	1616550	1612484	449.09	419.91
11)	TM Dinoseb	19.69	18.68	2440420	2440375	206.31	207.06

11/20/97
WB

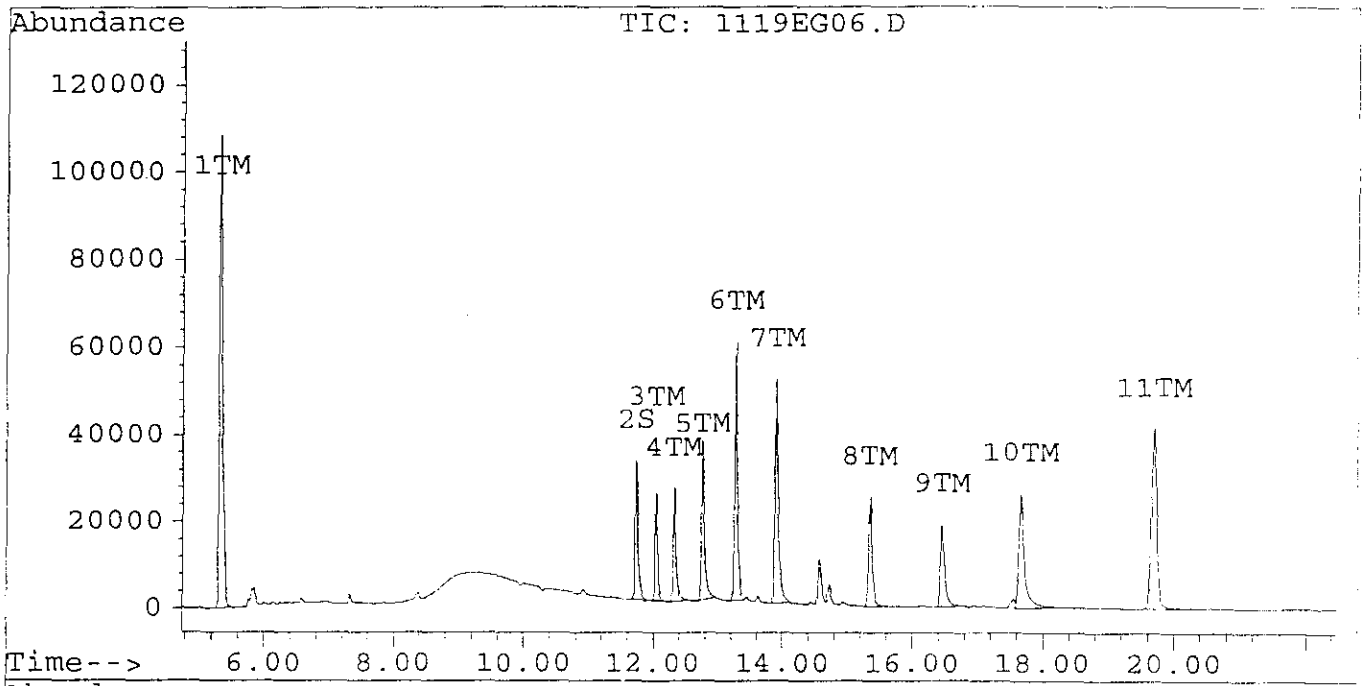
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

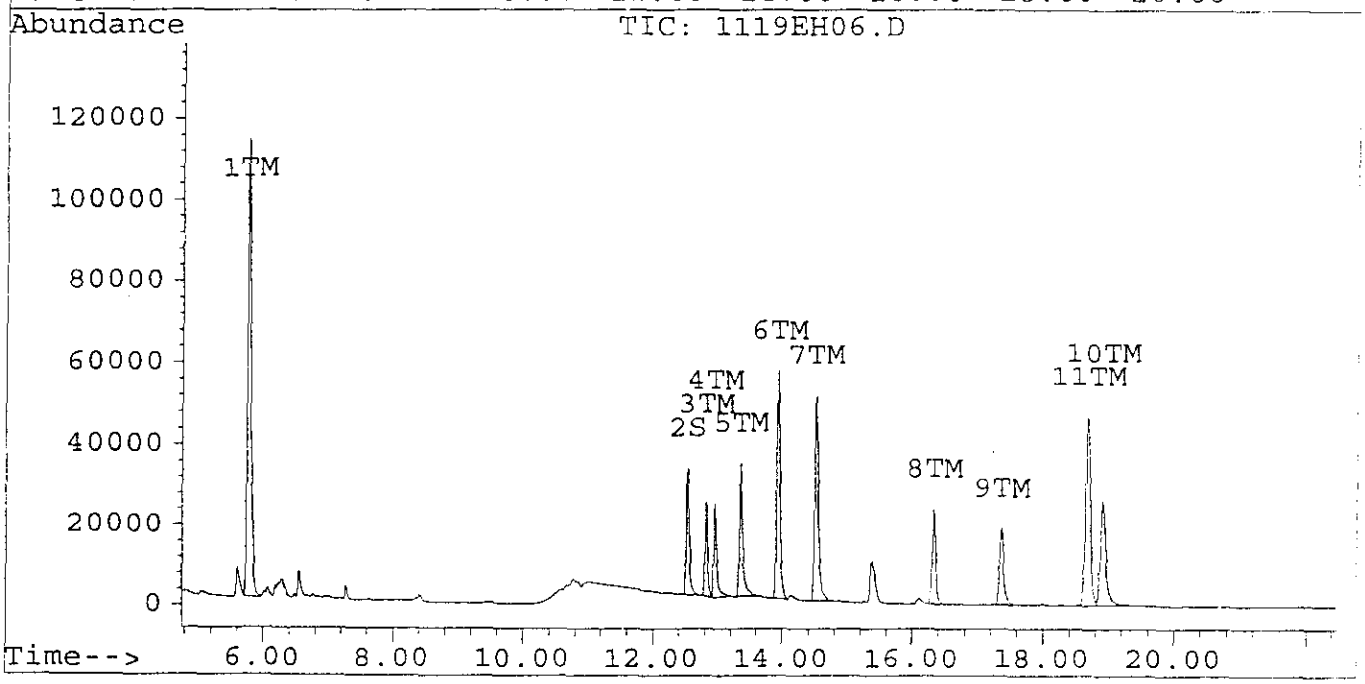
Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG06.D Vial: 6
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG06.D\1119EH06.D
Acq On : 19 Nov 97 07:04 PM Operator: MBROWN
Sample : HERB 2ND SRC MX-C15-06 20% Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:08 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG15.D Vial: 15
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG15.D\1119EH15.D
Acq On : 20 Nov 97 00:47 AM Operator: MBROWN
Sample : HERB CAL MX-B97-06 20% CCV Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:10 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

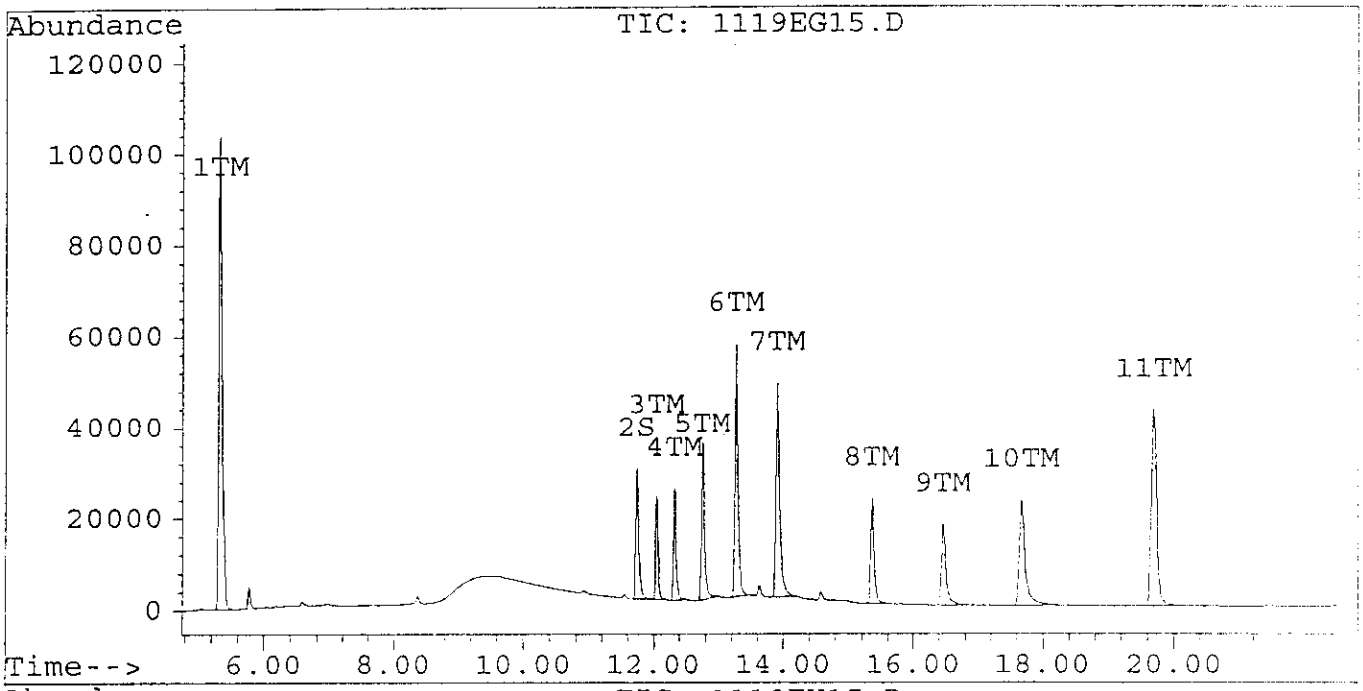
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
2)	S Herb Surr	11.73	12.53	920127	944452	197.98	197.25
				Recovery	=	98.99%	98.63%
	Target Compounds						
1)	TM Dalapon	5.32	5.76	3708742	4377941	891.94	876.70
3)	TM Dicamba	12.04	12.82	598947	611766	39.20	39.20
4)	TM MCPP	12.32	12.96	687407	753028	35004.51	37943.
5)	TM MCPA	12.75	13.35	1047027	1197433	33392.76	38607.
6)	TM Dichlorprop	13.27	13.93	1763609	1965846	397.73	404.40
7)	TM 2,4-D	13.90	14.51	1876748	2054178	403.47	405.75
8)	TM Silvex	15.35	16.33	907137	895185	39.40	40.07
9)	TM 2,4,5-T	16.46	17.37	900002	895502	40.06	39.68
10)	TM 2,4-DB	17.66	18.92	1511379	1605544	417.17	417.96
11)	TM Dinoseb	19.69	18.68	2573485	2531954	218.13	215.02

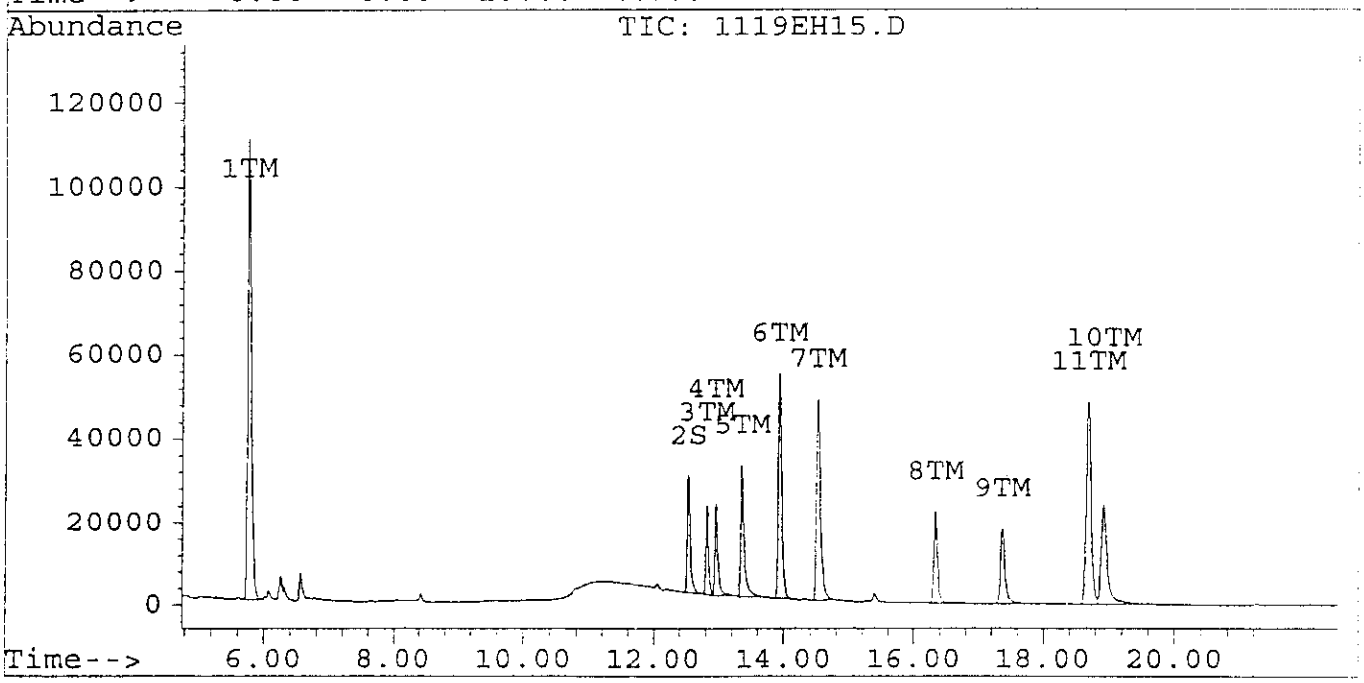
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG15.D Vial: 15
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG15.D\1119EH15.D
Acq On : 20 Nov 97 00:47 AM Operator: MBROWN
Sample : HERB CAL MX-B97-06 20% CCV Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:10 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971120\1120EG01.D Vial: 1
Signal #2 : C:\HPCHEM\7\DATA\971120\1120EG01.D\1120EH01.D
Acq On : 20 Nov 97 10:29 AM Operator: MBROWN
Sample : HERB CAL MX-B97-06 20% CCV Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 11:06 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

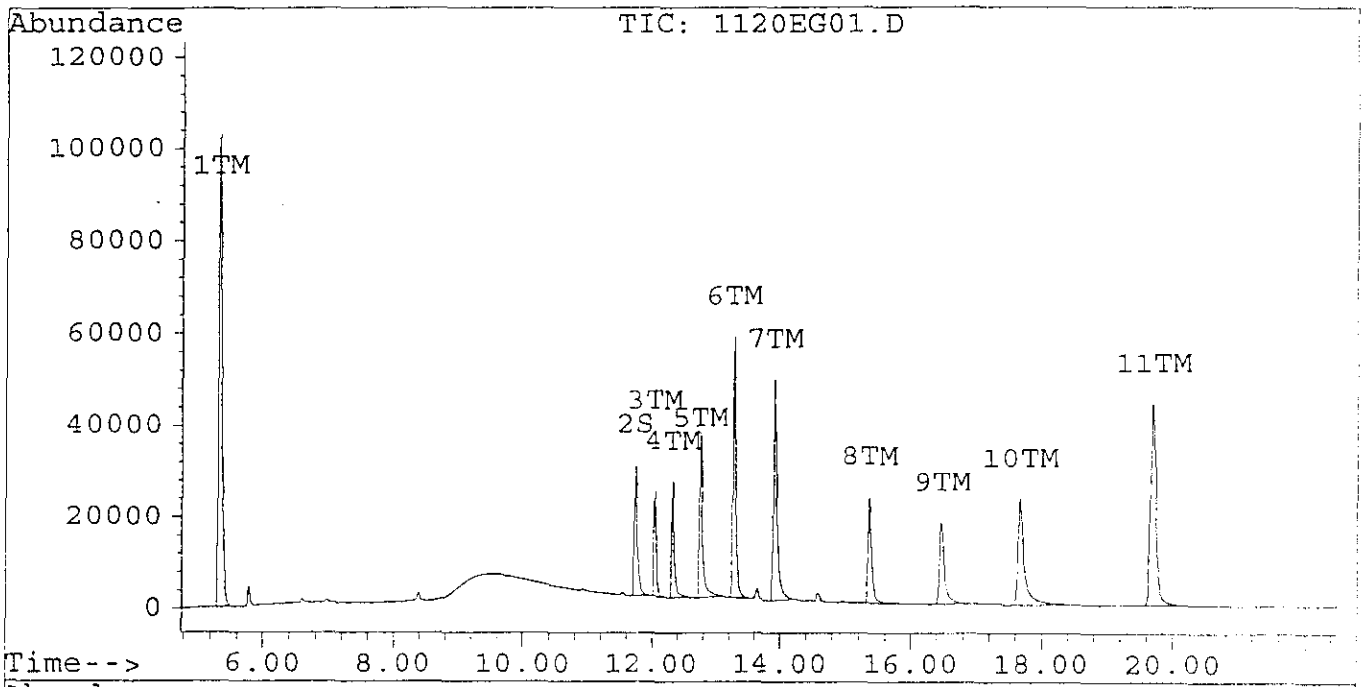
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
2)	S Herb Surr	11.73	12.53	948237	954044	204.86	199.46
				Recovery	=	102.43%	99.73%
	Target Compounds						
1)	TM Dalapon	5.32	5.76	3672279	4257084	883.17	852.50
3)	TM Dicamba	12.04	12.82	616344	600951	40.44	38.46
4)	TM MCPP	12.32	12.96	741961	917707	37996.44	46872.
5)	TM MCPA	12.75	13.36	1200105	1381994	38912.26	45550.
6)	TM Dichlorprop	13.27	13.93	1820124	1945833	412.48	399.73
7)	TM 2,4-D	13.91	14.52	1927949	2017584	415.96	397.68
8)	TM Silvex	15.35	16.33	934146	864535	40.63	38.67
9)	TM 2,4,5-T	16.46	17.37	920319	851615	41.01	37.70
10)	TM 2,4-DB	17.66	18.92	1567829	1601857	434.30	416.90
11)	TM Dinoseb	19.69	18.68	2682838	2547210	227.84	216.35

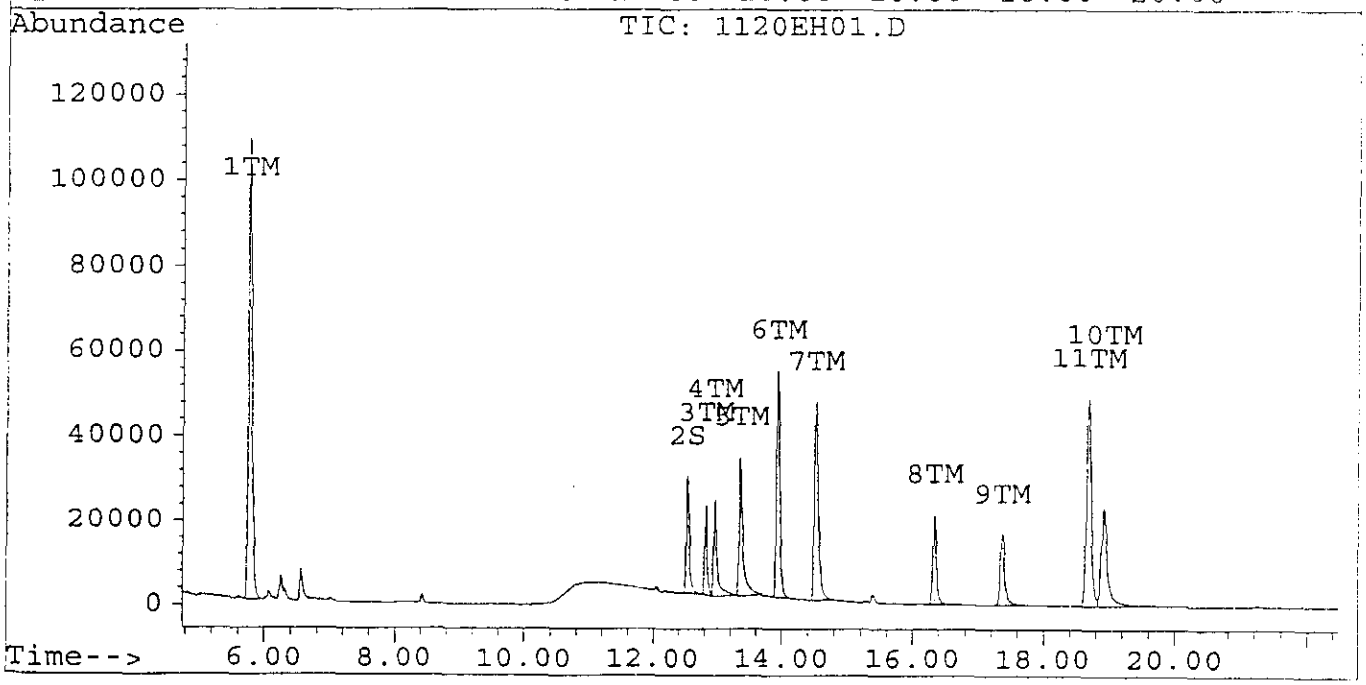
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Signal #1 : C:\HPCHEM\7\DATA\971120\1120EG01.D Vial: 1
Signal #2 : C:\HPCHEM\7\DATA\971120\1120EG01.D\1120EH01.D
Acq On : 20 Nov 97 10:29 AM Operator: MBROWN
Sample : HERB CAL MX-B97-06 20% CCV Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 11:06 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Signal #1 : C:\HPCHEM\7\DATA\971120\1120EG04.D Vial: 4
Signal #2 : C:\HPCHEM\7\DATA\971120\1120EG04.D\1120EH04.D
Acq On : 20 Nov 97 12:46 PM Operator: MBROWN
Sample : HERB CAL MX-B97-06 20% CCV Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 13:15 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

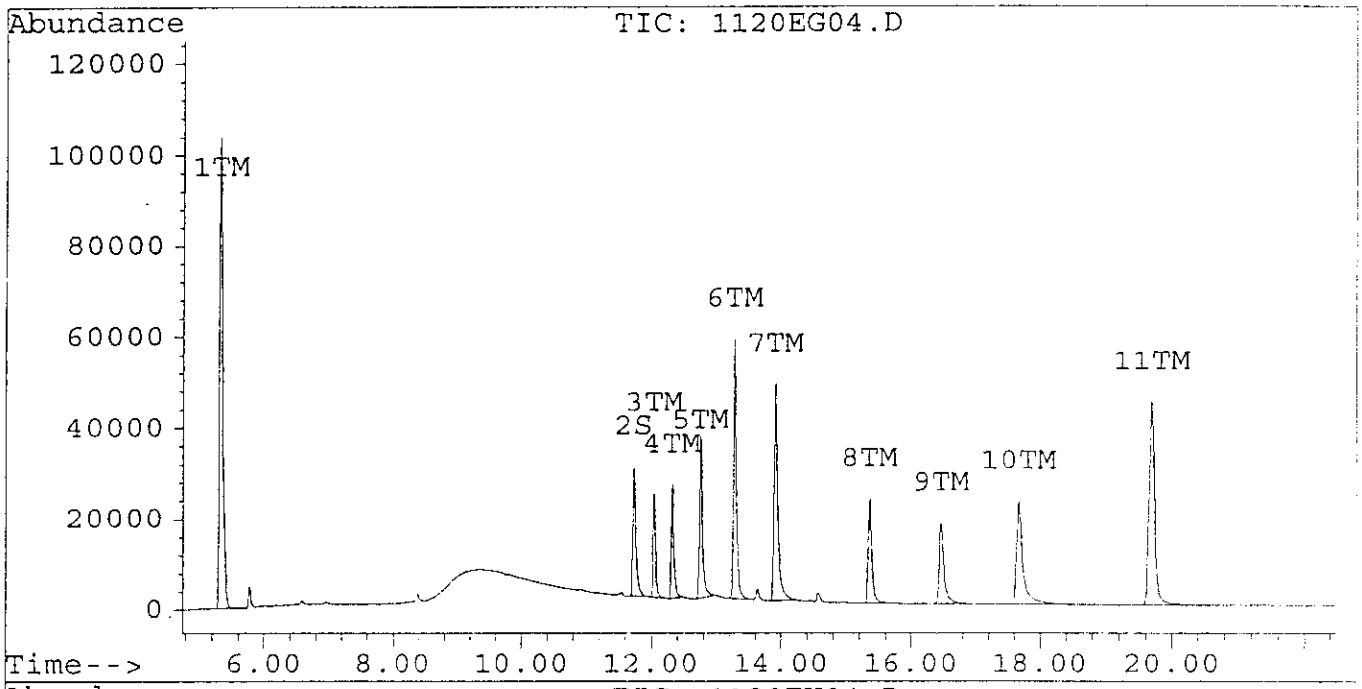
	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
2)	S Herb Surr	11.73	12.53	944215	954775	203.87	199.63
				Recovery	=	101.94%	99.82%
	Target Compounds						
1)	TM Dalapon	5.32	5.76	3749153	4298463	901.66	860.78
3)	TM Dicamba	12.04	12.82	628309	605086	41.29	38.74
4)	TM MCPP	12.32	12.96	711013	841486	36299.18	42739.
5)	TM MCPA	12.75	13.35	1107468	1293041	35572.08	42204.
6)	TM Dichlorprop	13.27	13.93	1825423	1961451	413.86	403.38
7)	TM 2,4-D	13.91	14.52	1945801	2041914	420.32	403.05
8)	TM Silvex	15.35	16.34	938529	870208	40.82	38.93
9)	TM 2,4,5-T	16.46	17.37	923720	872423	41.17	38.64
10)	TM 2,4-DB	17.66	18.92	1578951	1613328	437.68	420.15
11)	TM Dinoseb	19.69	18.68	2706294	2565860	229.93	217.97

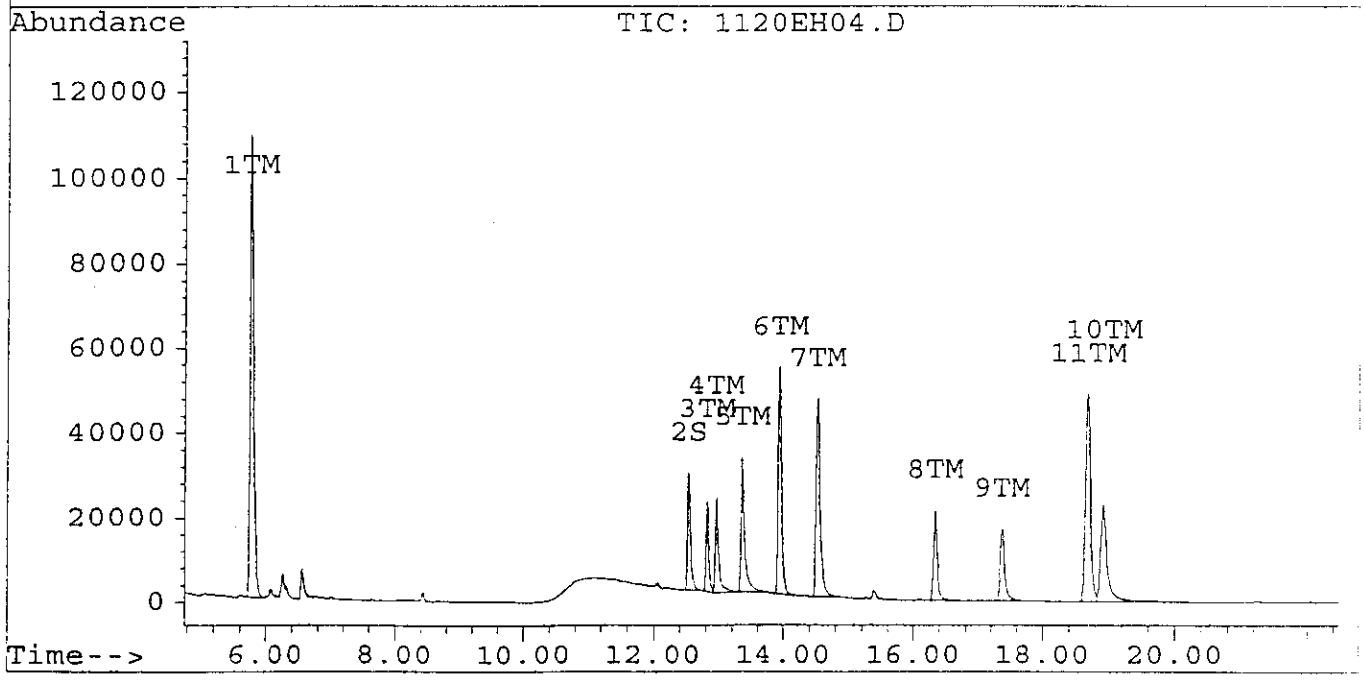
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Signal #1 : C:\HPCHEM\7\DATA\971120\1120EG04.D Vial: 4
Signal #2 : C:\HPCHEM\7\DATA\971120\1120EG04.D\1120EH04.D
Acq On : 20 Nov 97 12:46 PM Operator: MBROWN
Sample : HERB CAL MX-B97-06 20% CCV Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 13:15 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Sample Raw Data

Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG07.D Vial: 7
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG07.D\1119EH07.D
Acq On : 19 Nov 97 07:39 PM Operator: MBROWN
Sample : SRB1 11/10/97 HERB Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:08 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
2)	S Herb Surr	11.75	12.55	747129	730825	155.69	147.99
				Recovery	=	77.85%	74.00%
	Target Compounds						
1)	TM Dalapon	5.33	0.00	193292	0	46.49	N.D. #
3)	TM Dicamba	0.00	12.76f	0	59511	N.D.	1.05 #
4)	TM MCPP	0.00	0.00	0	0	N.D.	N.D.
5)	TM MCPA	12.76	0.00	178824	0	2088.08	N.D.
6)	TM Dichlorprop	0.00	0.00	0	0	N.D.	N.D.
7)	TM 2,4-D	0.00	0.00	0	0	N.D.	N.D.
8)	TM Silvex	0.00	0.00	0	0	N.D.	N.D.
9)	TM 2,4,5-T	0.00	0.00	0	0	N.D.	N.D.
10)	TM 2,4-DB	0.00	0.00	0	0	N.D.	N.D.
11)	TM Dinoseb	0.00	0.00	0	0	N.D.	N.D.

BDL
11/24/97

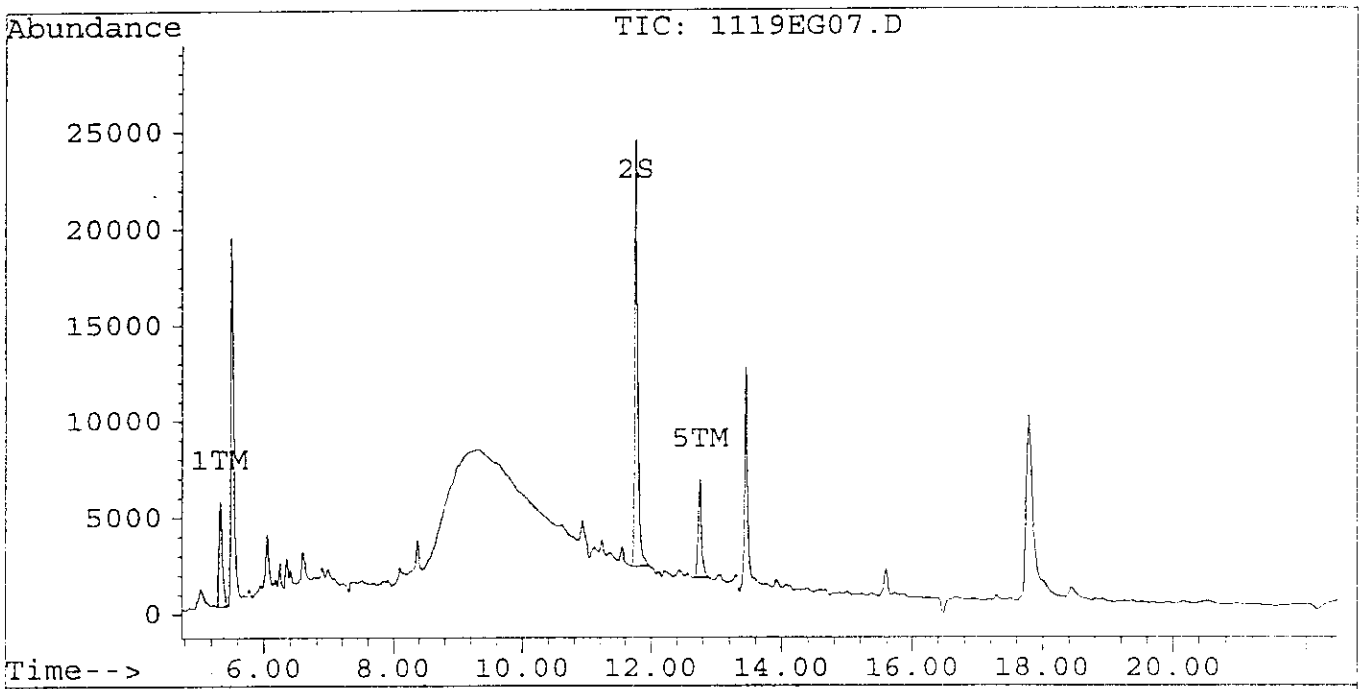
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

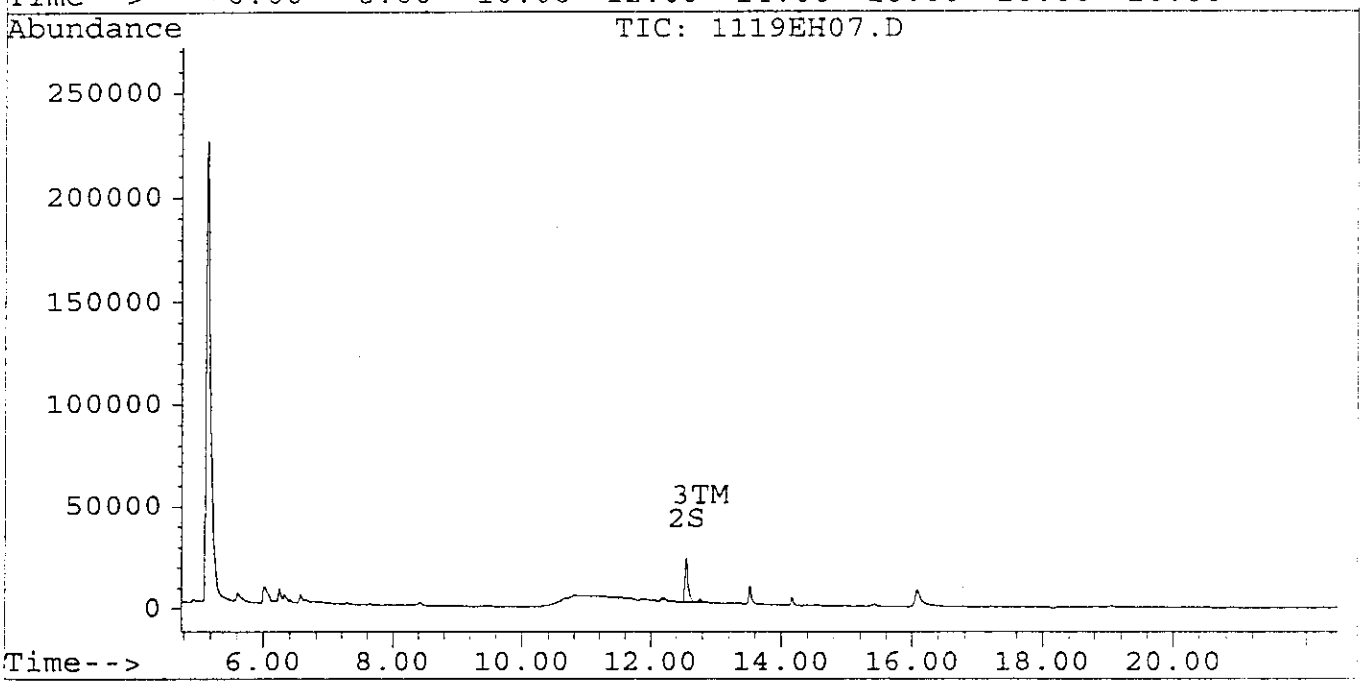
Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG07.D Vial: 7
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG07.D\1119EH07.D
Acq On : 19 Nov 97 07:39 PM Operator: MBROWN
Sample : SRB1 11/10/97 HERB Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:08 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG10.D Vial: 10
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG10.D\1119EH10.D
Acq On : 19 Nov 97 09:21 PM Operator: MBROWN
Sample : 9711014-1 Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:08 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
2)	S Herb Surr	11.74	12.54	699849	687754	144.13	138.06
				Recovery	=	72.07%	69.03%
	Target Compounds						
1)	TM Dalapon	5.33	0.00	1863391	0	448.14	N.D. #
3)	TM Dicamba	0.00	12.75f	0	123865	N.D.	5.50 #
4)	TM MCPP	0.00	12.95	0	245981	N.D.	10452.60
5)	TM MCPA	12.75	0.00	308023	0	6746.59	N.D.
6)	TM Dichlorprop	13.22f	13.94	385818	398251	~~38.23~~	38.75
7)	TM 2,4-D	13.89	14.50	7650810	8420439	1812.05	1809.72
8)	TM Silvex	0.00	16.28	0	200167	N.D.	8.33 #
9)	TM 2,4,5-T	16.40	17.35	36765	112807	N.D.	4.35
10)	TM 2,4-DB	0.00	18.84f	0	68746	N.D.	N.D.
11)	TM Dinoseb	0.00	18.71	0	176027	N.D.	10.10 #

2,4-D - 474.21 (5x)

Re-run at 5X
11/20/97

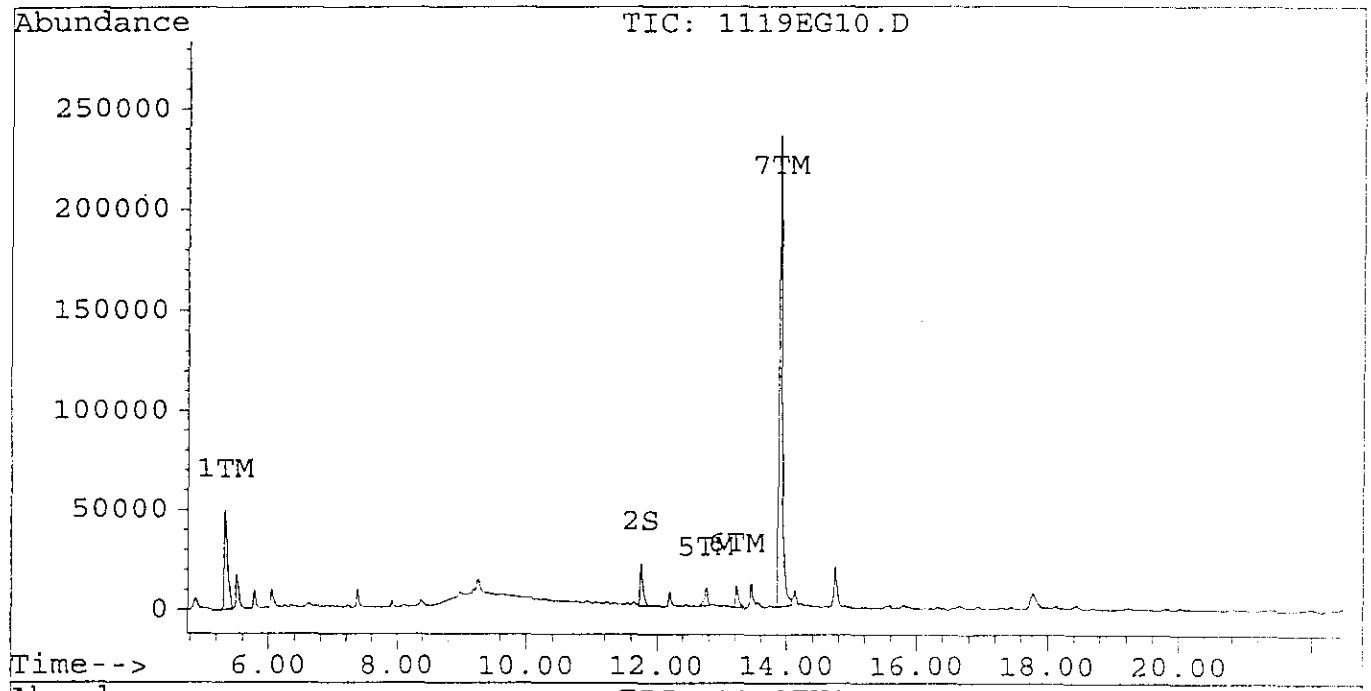
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

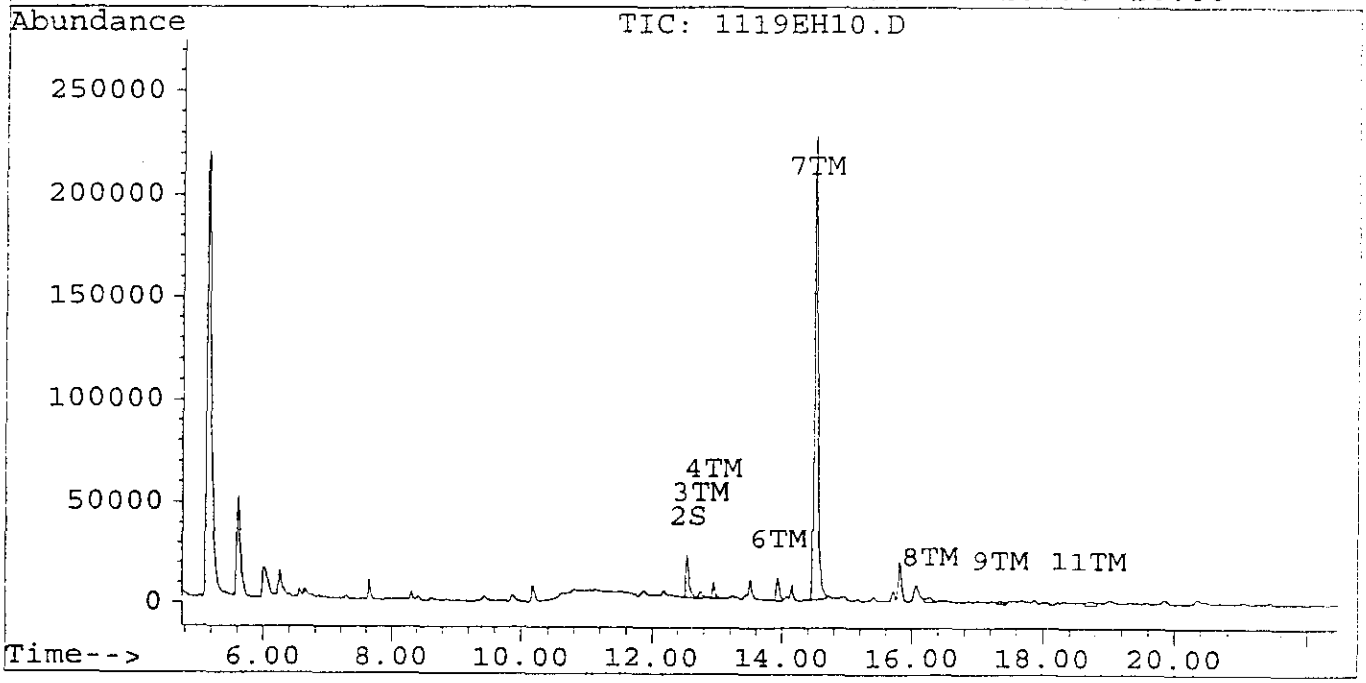
Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG10.D Vial: 10
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG10.D\1119EH10.D
Acq On : 19 Nov 97 09:21 PM Operator: MBROWN
Sample : 9711014-1 Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:08 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971120\1120EG02.D Vial: 2
Signal #2 : C:\HPCHEM\7\DATA\971120\1120EG02.D\1120EH02.D
Acq On : 20 Nov 97 11:03 AM Operator: MBROWN
Sample : 9711014-1 DL5 Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 12:02 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
System Monitoring Compounds						
2) S Herb Surr	11.76	12.56	186889	175211	18.72	19.87
			Recovery	=	9.36%	9.94%
Target Compounds						
1) TM Dalapon	5.33	0.00	510914	0	122.87	N.D. #
3) TM Dicamba	0.00	0.00	0	0	N.D.	N.D.
4) TM MCPP	0.00	0.00	0	0	N.D.	N.D.
5) TM MCPA	12.76	0.00	62865	0	N.D.	N.D.
6) TM Dichlorprop	13.23	13.95	103827	75095	N.D.	N.D.
7) TM 2,4-D	13.90	14.51	2166719	2263933	474.21	452.0
8) TM Silvex	0.00	16.29	0	22737	N.D.	0.22 #
9) TM 2,4,5-T	0.00	0.00	0	0	N.D.	N.D.
10) TM 2,4-DB	0.00	0.00	0	0	N.D.	N.D.
11) TM Dinoseb	0.00	18.71	0	7288	N.D.	N.D

DF=5

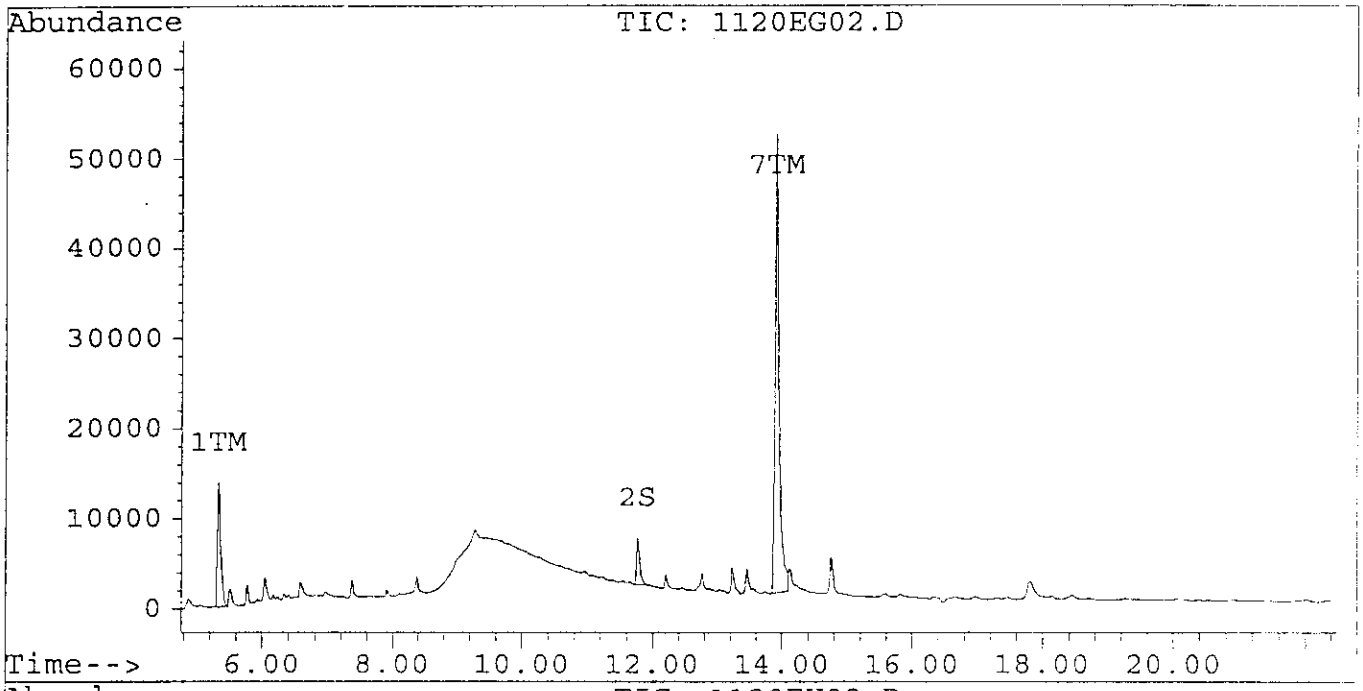
11/20/97
WZ

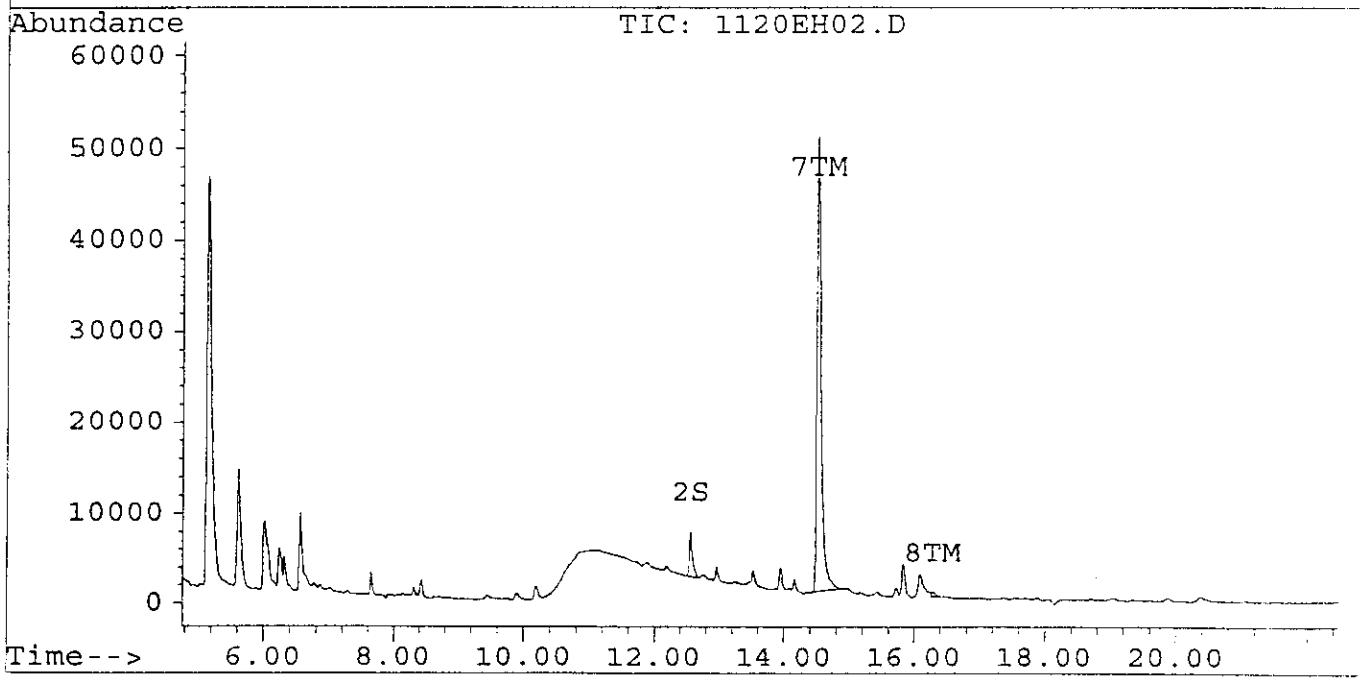
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Signal #1 : C:\HPCHEM\7\DATA\971120\1120EG02.D Vial: 2
Signal #2 : C:\HPCHEM\7\DATA\971120\1120EG02.D\1120EH02.D
Acq On : 20 Nov 97 11:03 AM Operator: MBROWN
Sample : 9711014-1 DL5 Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 12:02 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG13.D Vial: 13
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG13.D\1119EH13.D
Acq On : 19 Nov 97 11:04 PM Operator: MBROWN
Sample : 9711014-2 Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:09 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
System Monitoring Compounds						
2) S Herb Surr	11.74	12.54	860363	799537	183.37	163.83
			Recovery	=	91.69%	81.92%
Target Compounds						
1) TM Dalapon	5.33	0.00	3282013	0	789.31	N.D. #
3) TM Dicamba	0.00	0.00	0	0	N.D.	N.D.
4) TM MCPP	0.00	12.95	0	494403	N.D.	23921.54
5) TM MCPA	12.75	0.00	443054	0	11615.38	N.D.
6) TM Dichlorprop	13.21f	13.93	1075449	1094812	~~218.18~~	201.23
7) TM 2,4-D	13.89	14.50	12788745	14528361	3065.45	3156.72
8) TM Silvex	0.00	16.28	0	355934	N.D.	15.44 #
9) TM 2,4,5-T	0.00	0.00	0	0	N.D.	N.D.
10) TM 2,4-DB	0.00	18.85f	0	99478	N.D.	N.D.
11) TM Dinoseb	0.00	18.71	0	169319	N.D.	9.51 #

2,4-D - 430.96 µg/ml (10X)

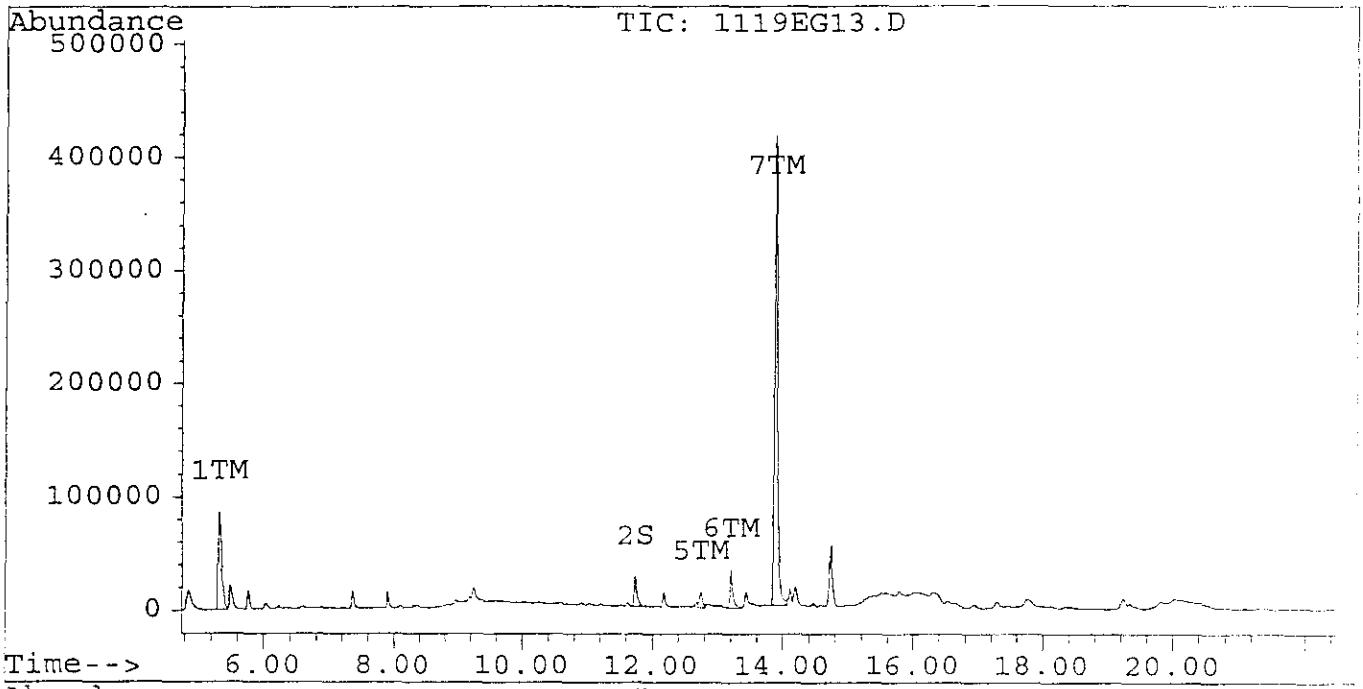
Re-run at 10X
11/20/97

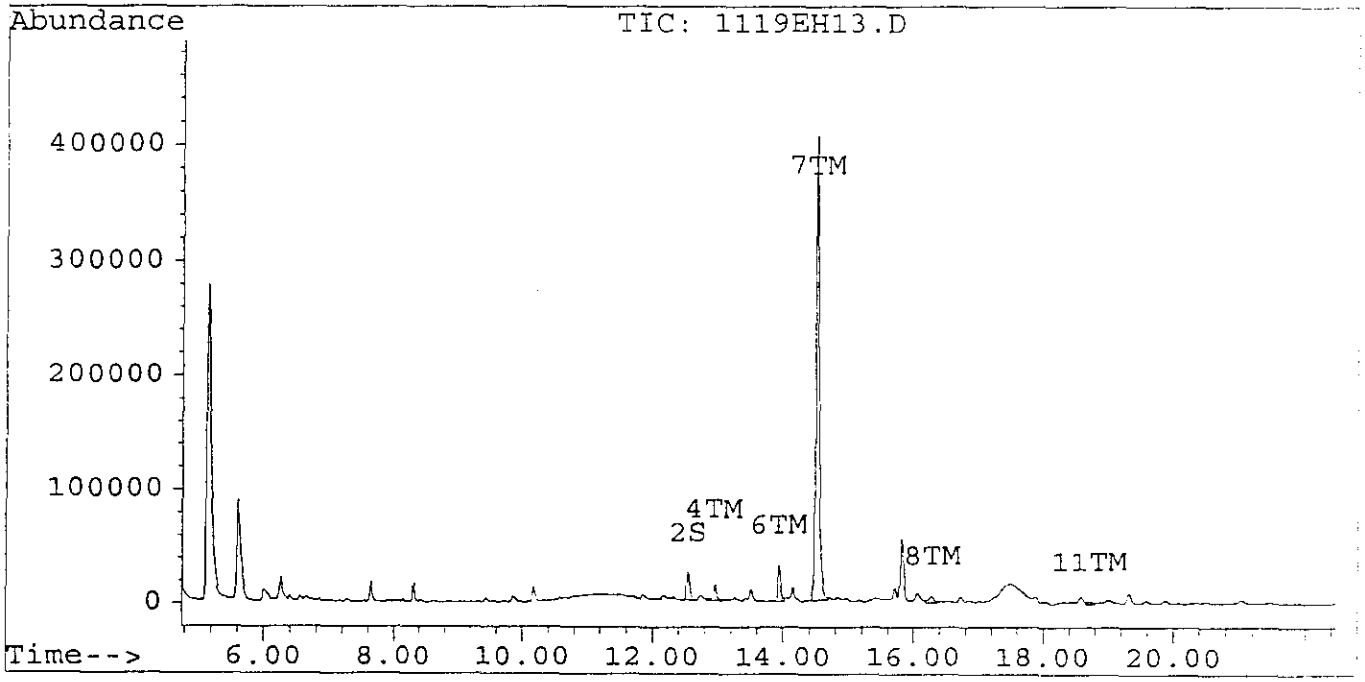
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG13.D Vial: 13
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG13.D\1119EH13.D
Acq On : 19 Nov 97 11:04 PM Operator: MBROWN
Sample : 9711014-2 Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:09 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Signal #1 : C:\HPCHEM\7\DATA\971120\1120EG03.D Vial: 3
Signal #2 : C:\HPCHEM\7\DATA\971120\1120EG03.D\1120EH03.D
Acq On : 20 Nov 97 11:37 AM Operator: MBROWN
Sample : 9711014-2 DL10 Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 12:07 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
2)	S Herb Surr	11.77	12.56	122353	113927	2.94	5.74 #
				Recovery	=	1.47%	2.87%
	Target Compounds						
1)	TM Dalapon	5.33	0.00	502622	0	120.88	N.D. #
3)	TM Dicamba	0.00	0.00	0	0	N.D.	N.D.
4)	TM MCPP	0.00	0.00	0	0	N.D.	N.D.
5)	TM MCPA	0.00	0.00	0	0	N.D.	N.D.
6)	TM Dichlorprop	13.23	13.95	161832	130707	N.D.	N.D.
7)	TM 2,4-D	13.91	14.52	2017084	2168483	437.71	430.96
8)	TM Silvex	0.00	16.30	0	26518	N.D.	0.40 #
9)	TM 2,4,5-T	0.00	0.00	0	0	N.D.	N.D.
10)	TM 2,4-DB	0.00	0.00	0	0	N.D.	N.D.
11)	TM Dinoseb	0.00	18.61f	0	73499	N.D.	1.18 #

DF = 10

11/20/97

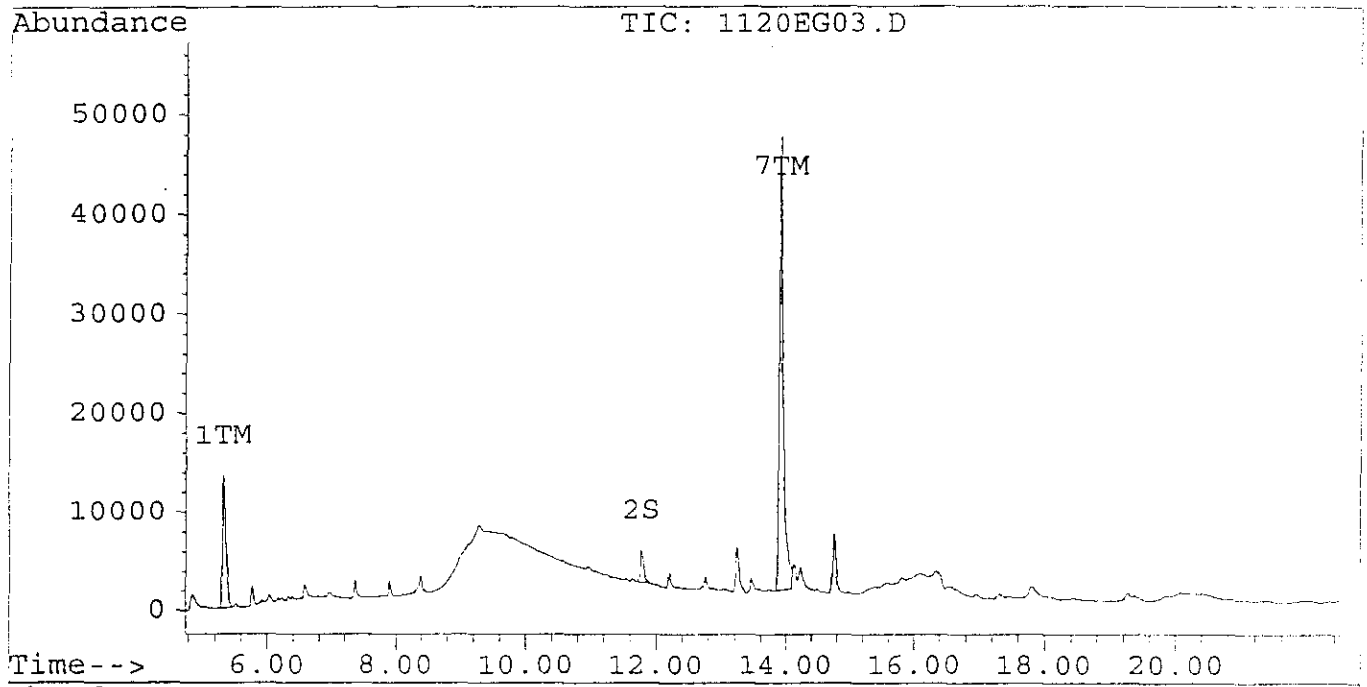
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

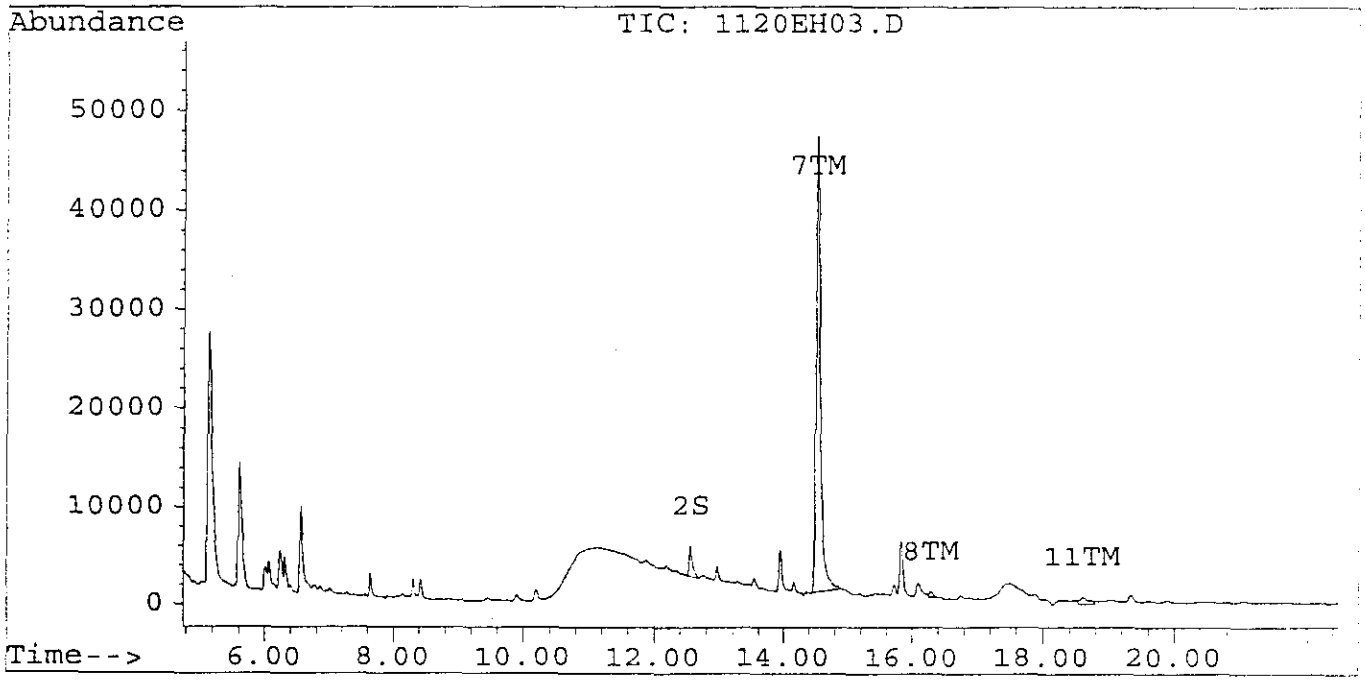
Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971120\1120EG03.D Vial: 3
Signal #2 : C:\HPCHEM\7\DATA\971120\1120EG03.D\1120EH03.D
Acq On : 20 Nov 97 11:37 AM Operator: MBROWN
Sample : 9711014-2 DL10 Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 12:07 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG14.D Vial: 14
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG14.D\1119EH14.D
Acq On : 19 Nov 97 11:39 PM Operator: MBROWN
Sample : 9711014-3 Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:09 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
2)	S Herb Surr	11.74	12.54	903045	817591	193.81	167.99
				Recovery	=	96.91%	84.00%
	Target Compounds						
1)	TM Dalapon	5.33	0.00	2628071	0	632.04	N.D. #
3)	TM Dicamba	0.00	12.82	0	303121	N.D.	17.88 #
4)	TM MCPP	0.00	12.95	0	555604	N.D.	27239.71
5)	TM MCPA	12.75	0.00	489141	0	13277.14	N.D.
6)	TM Dichlorprop	13.22	13.94	391907	323046	39.82	21.21 #
7)	TM 2,4-D	13.89	14.50	1114155	1896565	217.44	370.99 #
8)	TM Silvex	0.00	16.28	0	334855	N.D.	14.48 #
9)	TM 2,4,5-T	0.00	0.00	0	0	N.D.	N.D.
10)	TM 2,4-DB	0.00	18.85f	0	94423	N.D.	N.D.
11)	TM Dinoseb	0.00	18.71	0	156847	N.D.	8.43 #

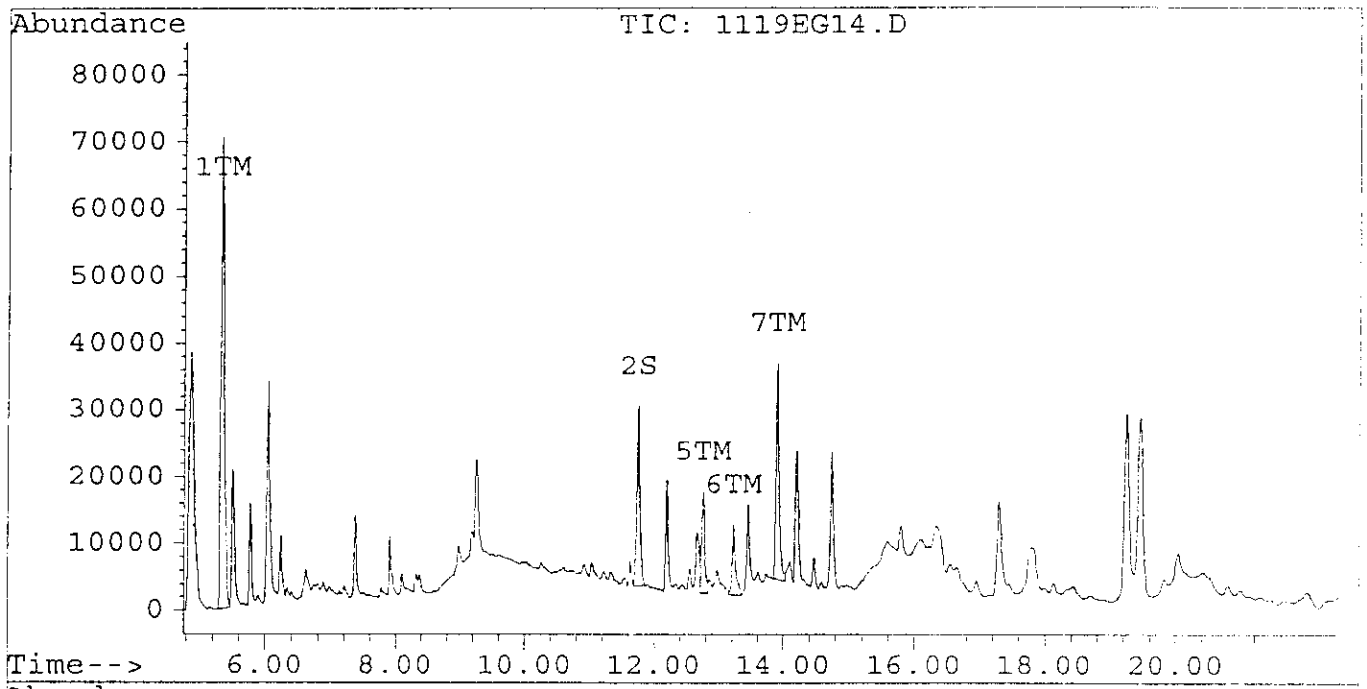
11/20/97 WB

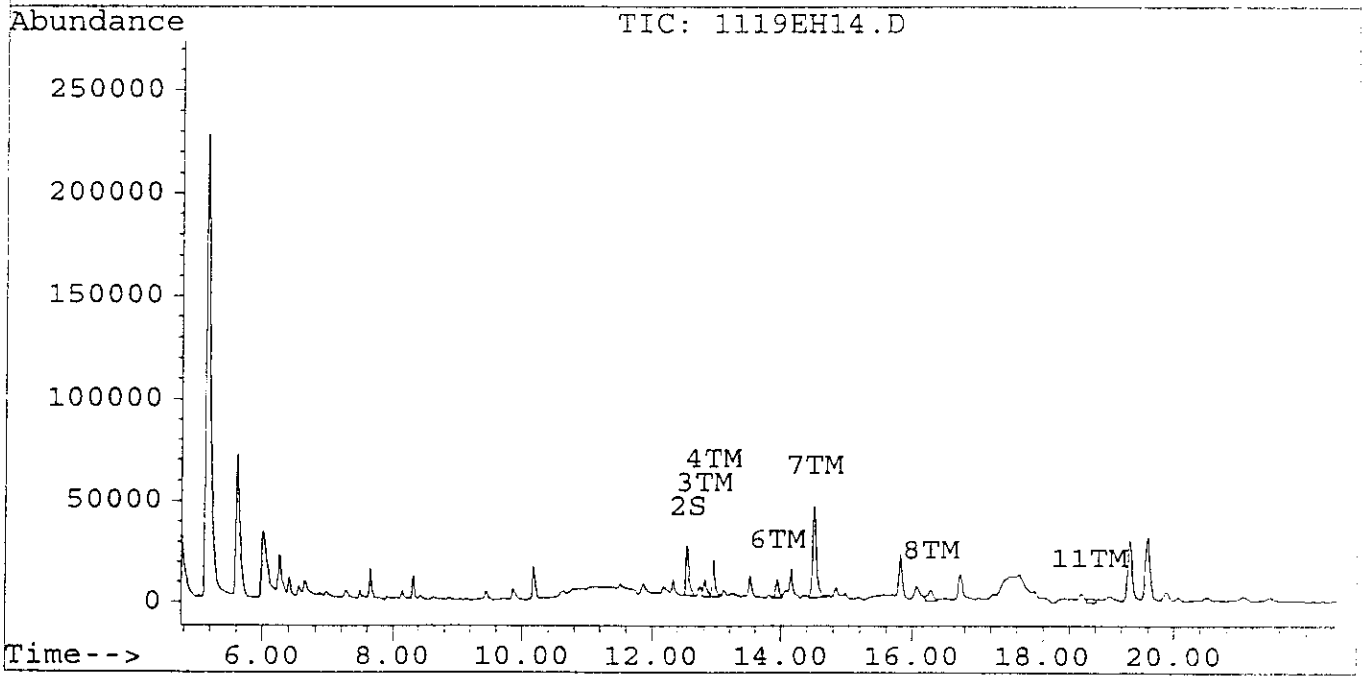
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG14.D Vial: 14
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG14.D\1119EH14.D
Acq On : 19 Nov 97 11:38 PM Operator: MBROWN
Sample : 9711014-3 Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:09 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Raw Data Quality Control Samples

Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG08.D Vial: 8
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EH08.D
Acq On : 19 Nov 97 08:13 PM Operator: MBROWN
Sample : SBS1 11/10/97 HERB Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:08 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml	
System Monitoring Compounds							
2) S Herb Surr	11.73	12.53	780319	793388	163.80	162.41	
			Recovery	=	81.90%	81.21%	
Target Compounds							
1) TM Dalapon	5.32	5.76	1265803	1202473	304.42	240.80	
3) TM Dicamba	12.04	12.82	326958	360671	19.84	21.86	
4) TM MCPP	12.32	12.96	390313	414024	18711.02	19563.	
5) TM MCPA	12.75	13.36	762512	684823	23134.04	19323.	
6) TM Dichlorprop	13.27	13.93	1033783	1152301	207.30	214.64	
7) TM 2,4-D	13.90	14.51	1152416	1240544	226.77	226.32	
8) TM Silvex	15.34	16.32	516100	575046	21.62	25.45	
9) TM 2,4,5-T	16.44	17.35	481674	626673	20.59	27.55	#
10) TM 2,4-DB	17.64	18.90	758596	1168557	188.72	294.29	#
11) TM Dinoseb	19.68	18.68	746379	914924	55.87	74.37	#

11/20/97

Spiked at 250/25 ng/ml

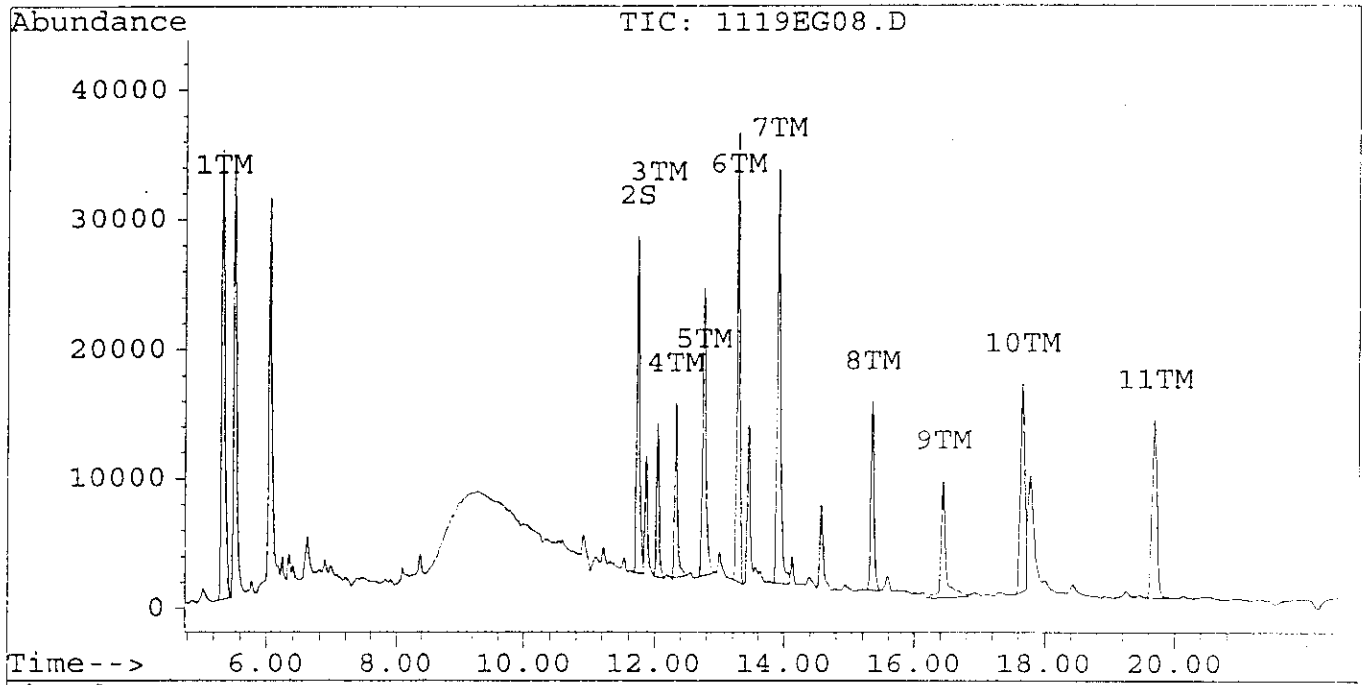
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

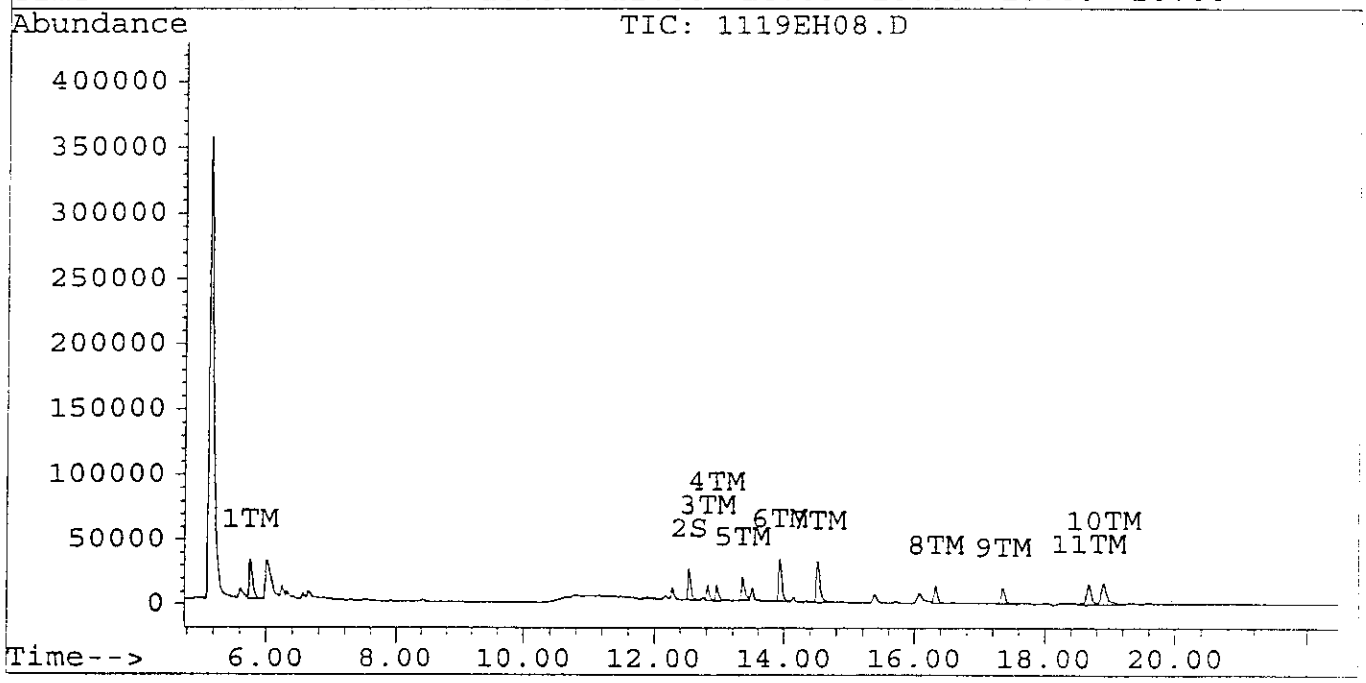
Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG08.D Vial: 8
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG08.D\1119EH08.D
Acq On : 19 Nov 97 08:13 PM Operator: MBROWN
Sample : SBS1 11/10/97 HERB Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:08 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG09.D Vial: 9
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG09.D\1119EH09.D
Acq On : 19 Nov 97 08:47 PM Operator: MBROWN
Sample : SBS2 11/10/97 HERB Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:08 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml	
	System Monitoring Compounds							
2)	S Herb Surr	11.73	12.53	744637	760431	155.08	154.81	
				Recovery	=	77.54%	77.41%	
	Target Compounds							
1)	TM Dalapon	5.32	5.76	1160997	1084150	279.22	217.11	
3)	TM Dicamba	12.04	12.82	313728	342873	18.90	20.63	
4)	TM MCPP	12.32	12.96	373755	392215	17802.93	18381.	
5)	TM MCPA	12.75	13.35	1131582	646894	36441.55	17896.	
6)	TM Dichlorprop	13.27	13.93	992244	1124898	196.47	208.25	
7)	TM 2,4-D	13.90	14.51	1134417	1200061	222.38	217.39	
8)	TM Silvex	15.34	16.32	496742	506532	20.74	22.32	
9)	TM 2,4,5-T	16.44	17.35	399916	546097	16.78	23.91	#
10)	TM 2,4-DB	17.65	18.90	731318	974768	180.45	239.45	#
11)	TM Dinoseb	19.68	18.67	773968	771805	58.32	61.92	

11/20/97 MJ

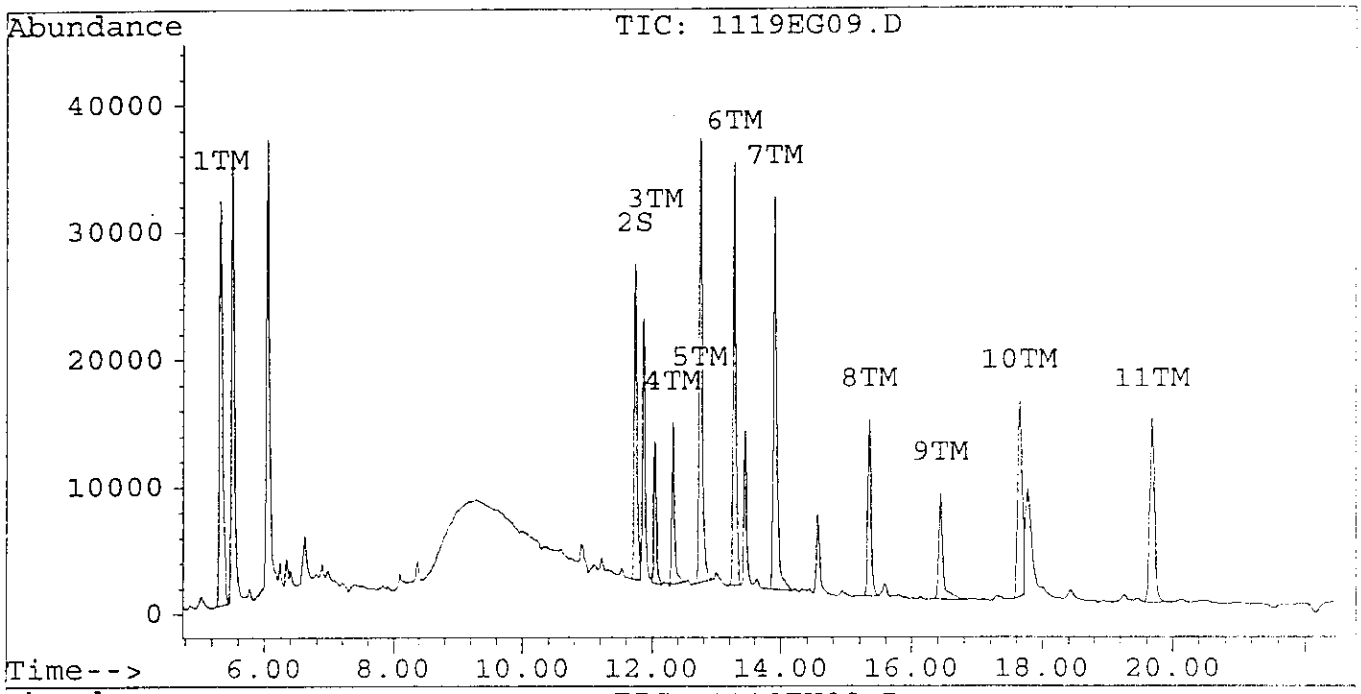
Spiked at 250/25 ng/ml

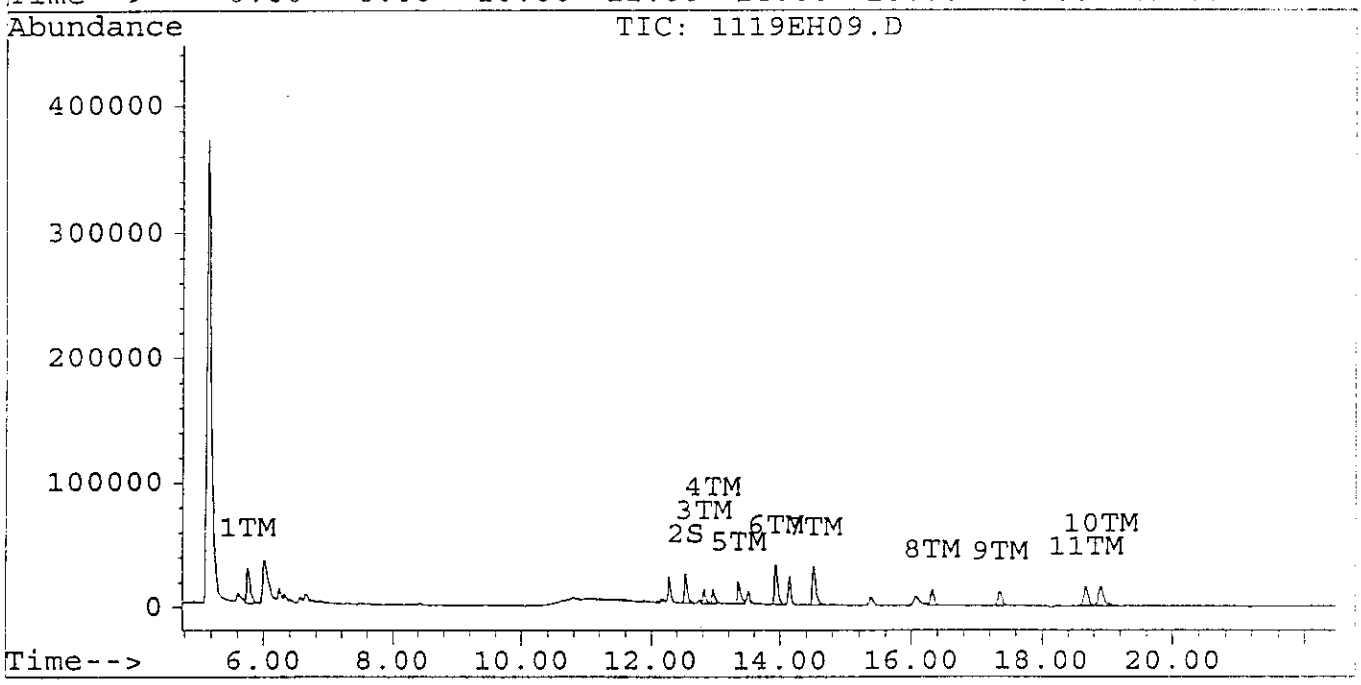
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG09.D Vial: 9
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG09.D\1119EH09.D
Acq On : 19 Nov 97 08:47 PM Operator: MBROWN
Sample : SBS2 11/10/97 HERB Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:08 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um





Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG11.D Vial: 11
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG11.D\1119EH11.D
Acq On : 19 Nov 97 09:56 PM Operator: MBROWN
Sample : 9711014-1MS Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:32 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
2)	S Herb Surr	11.73	12.53	1075856	704425	236.06	141.90 #
				Recovery	=	118.03%	70.95%
	Target Compounds						
1)	TM Dalapon	5.32	5.76	2702378	946045	649.91	189.45 #
3)	TM Dicamba	12.04	12.82	293573	569458	17.46	36.28 #
4)	TM MCPP	12.32	12.95	312060	652344	14419.40	32484.
5)	TM MCPA	12.75	13.35	573962	615402	16335.51	16711.
6)	TM Dichlorprop	13.27	13.93	1207426	1238384	252.61	234.72
7)	TM 2,4-D	13.89	14.50	1992775	2803567	431.78	571.02 #
8)	TM Silvex	15.34	16.31	447200	584858	18.49m	25.90m#
9)	TM 2,4,5-T	16.43	17.35	301703	554810	12.21m	24.30m#
10)	TM 2,4-DB	17.64	18.90	831533	1262380	210.86	320.84 #
11)	TM Dinoseb	19.68	18.67	1017410	603173	79.94	47.25 #

11/20/97 MW

spiked at 250 ug/25 ml

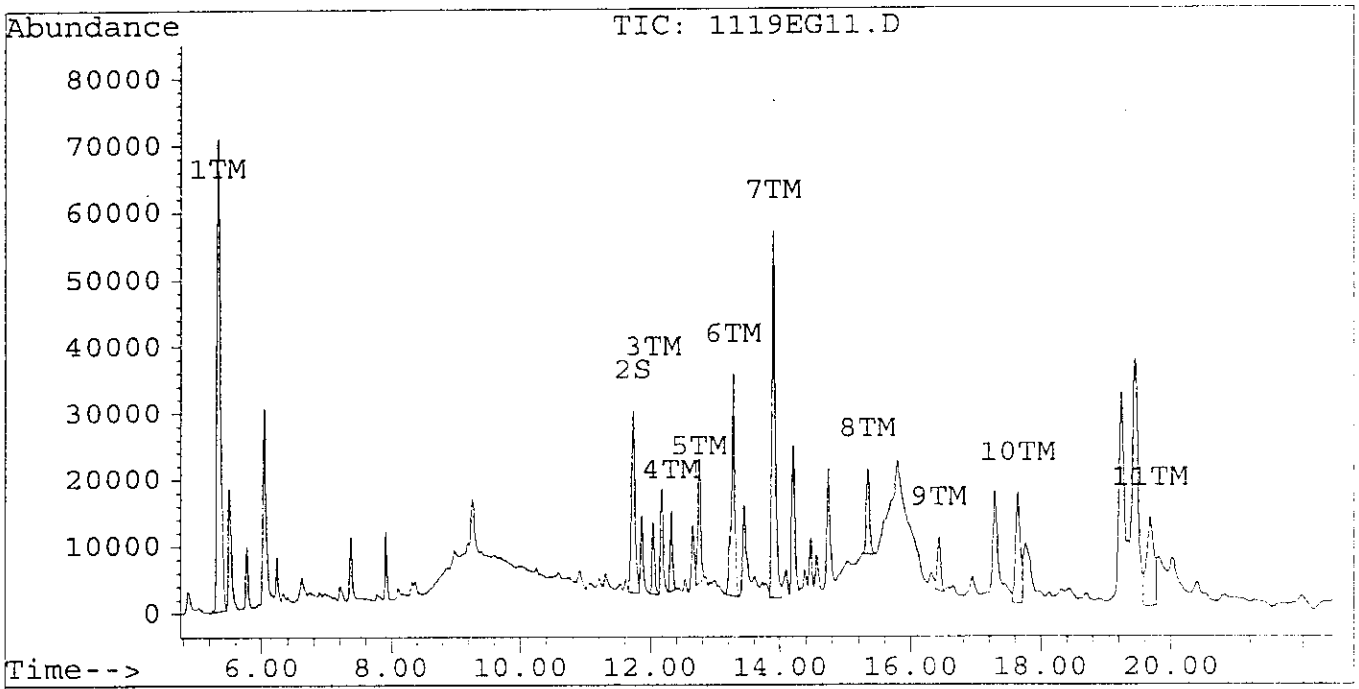
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

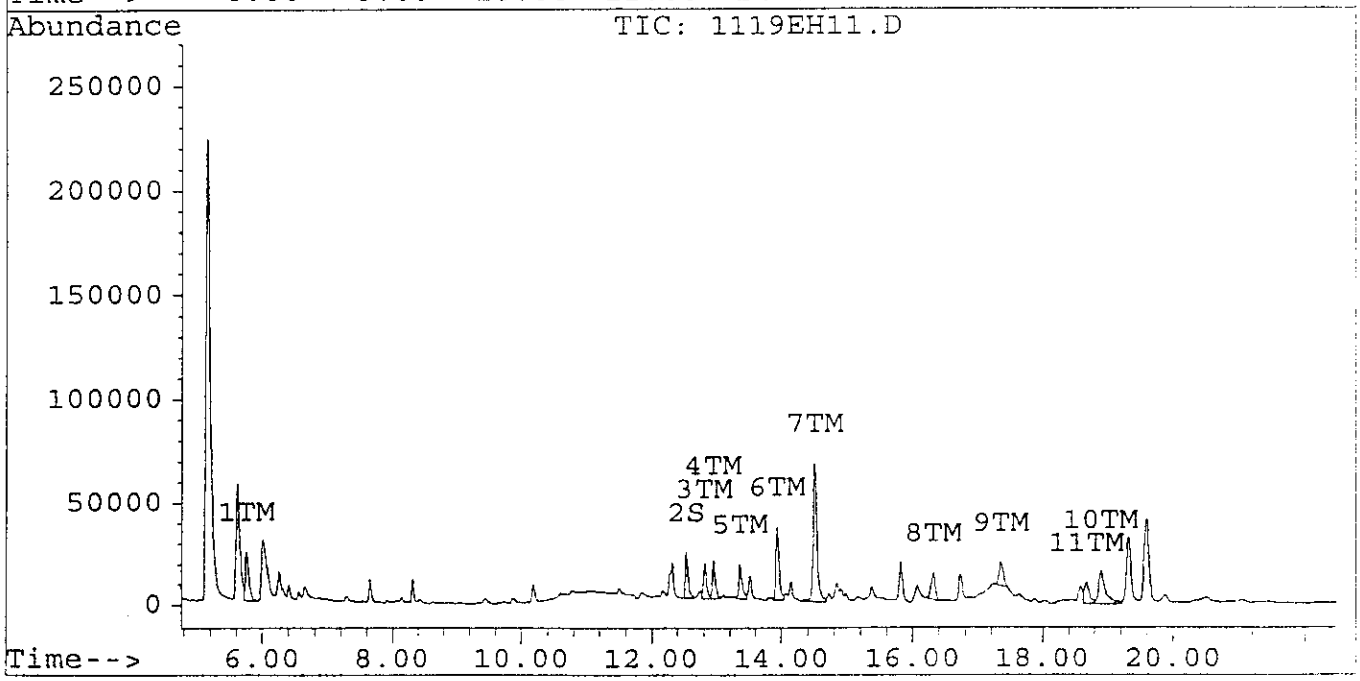
Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG11.D Vial: 11
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG11.D\1119EH11.D
Acq On : 19 Nov 97 09:56 PM Operator: MBROWN
Sample : 9711014-1MS Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:32 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

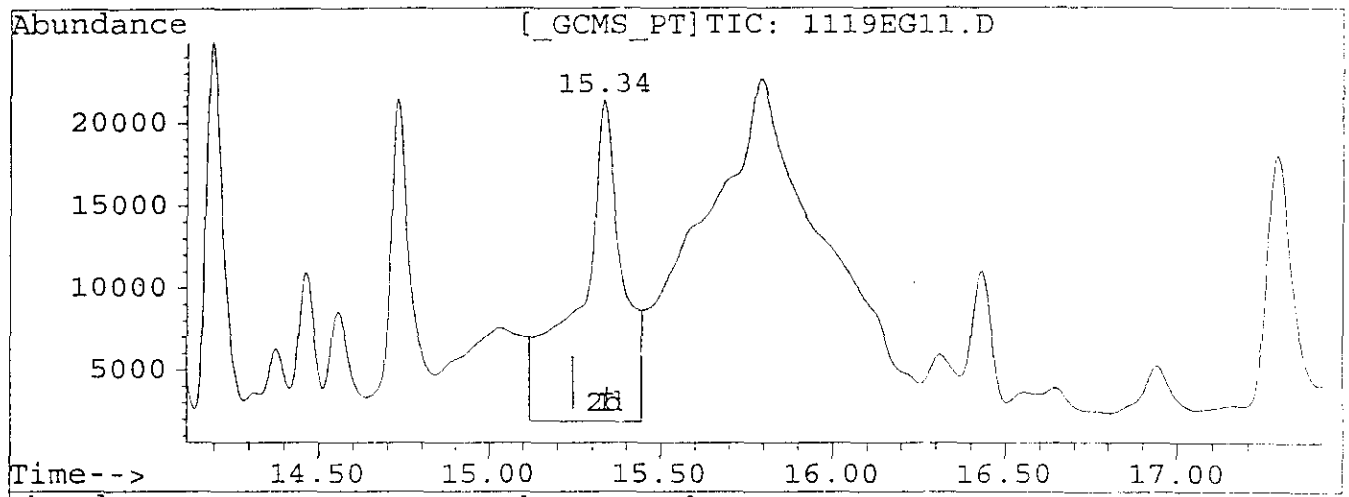


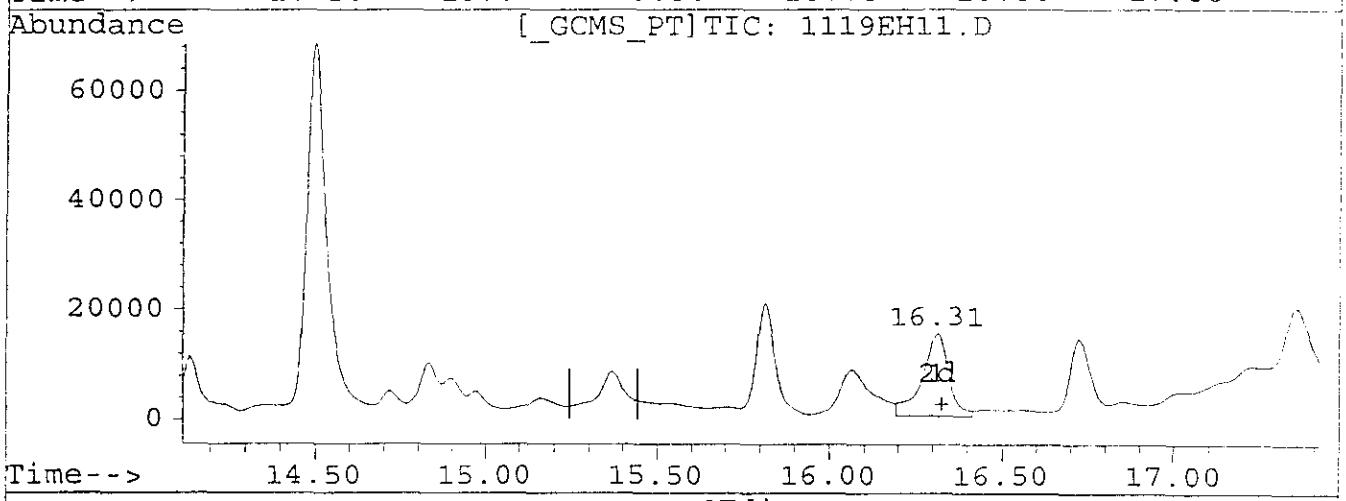


Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG11.D Vial: 11
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG11.D\1119EH11.D
Acq On : 19 Nov 97 09:56 PM Operator: MBROWN
Sample : 9711014-1MS Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:09 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration





QEdit

(8) Silvex (TM)
15.34min 75.18ng/ml
response 1694247

(8) Silvex #2 (TM)
16.31min 35.73ng/ml
response 800120

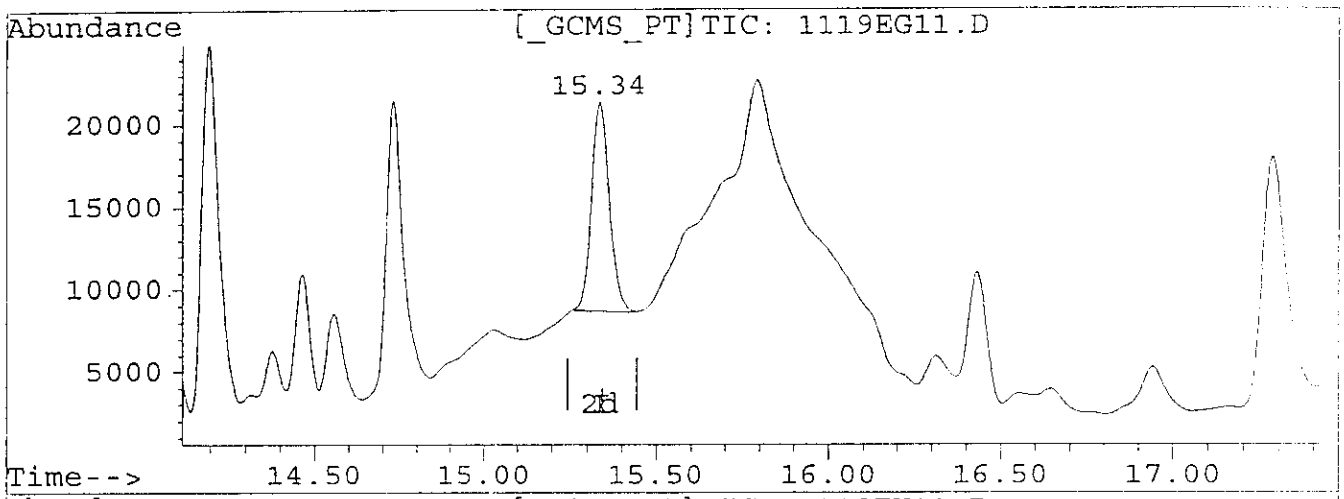
initial int
11/20/97

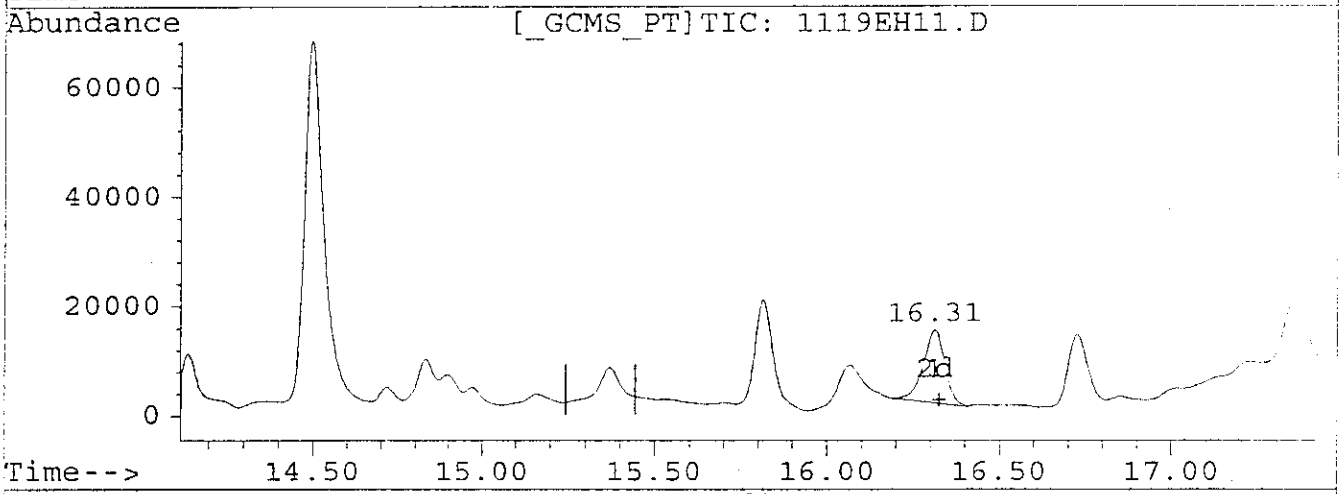
(+) = Expected Retention Time

Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG11.D Vial: 11
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG11.D\1119EH11.D
Acq On : 19 Nov 97 09:56 PM Operator: MBROWN
Sample : 9711014-1MS Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:31 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration





QEdit

(8) Silvex (TM)
15.34min 18.49ng/ml m
response 447200

(8) Silvex #2 (TM)
16.31min 25.90ng/ml m
response 584858

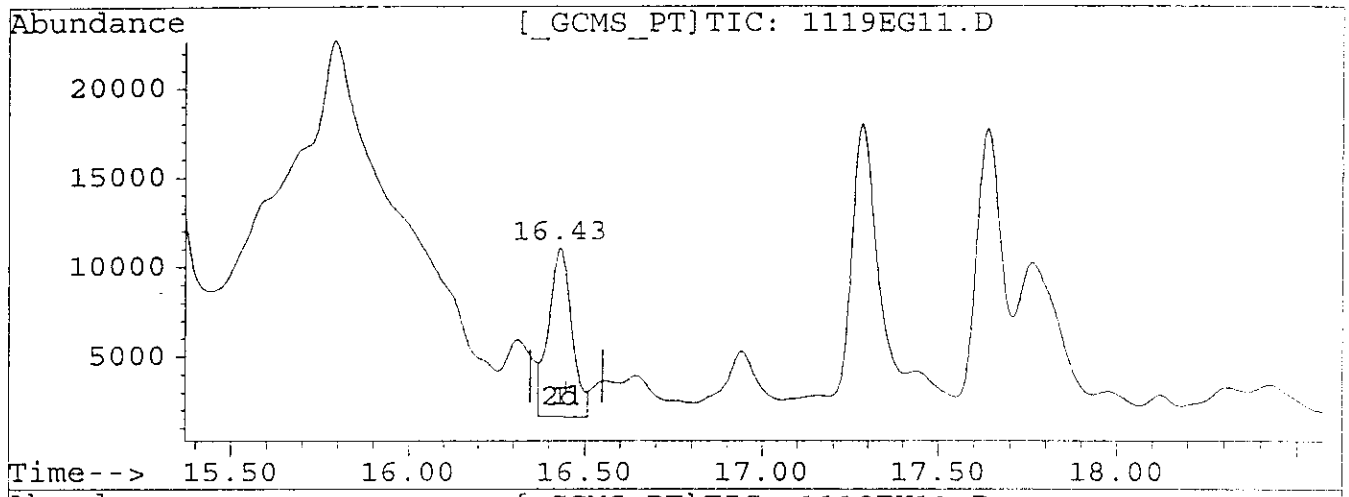
Re-Int
11/20/97

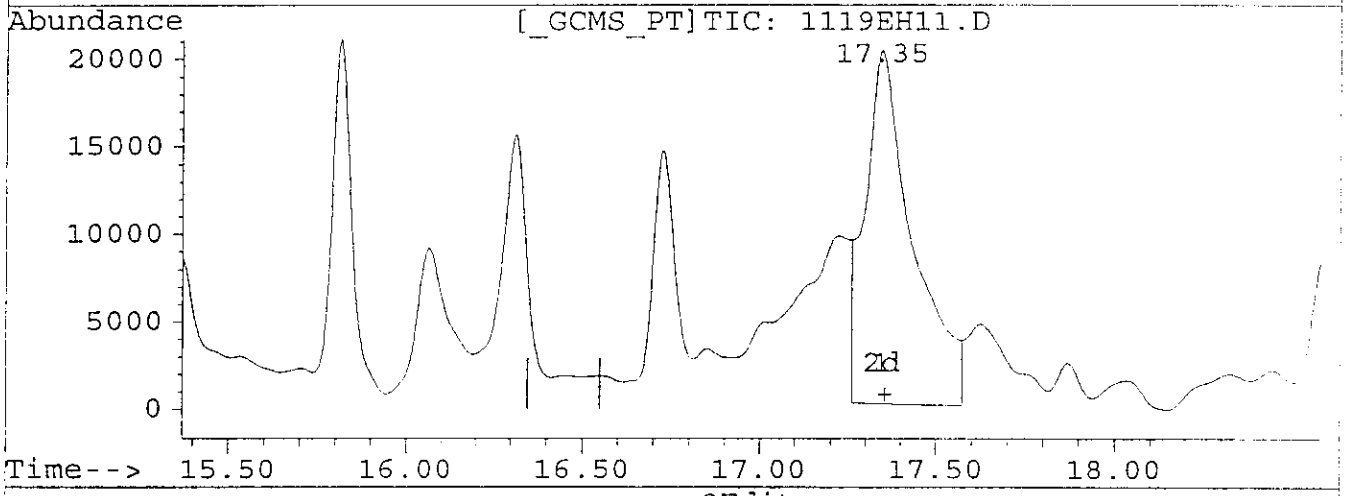
(+) = Expected Retention Time
1119EG11.D HB111997.M Thu Nov 20 08:31:28 1997 ECD1

Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG11.D Vial: 11
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG11.D\1119EH11.D
Acq On : 19 Nov 97 09:56 PM Operator: MBROWN
Sample : 9711014-1MS Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:31 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration





QEdit

(9) 2,4,5-T (TM)
16.43min 18.02ng/ml
response 426468

(9) 2,4,5-T #2 (TM)
17.35min 86.41ng/ml
response 1930925

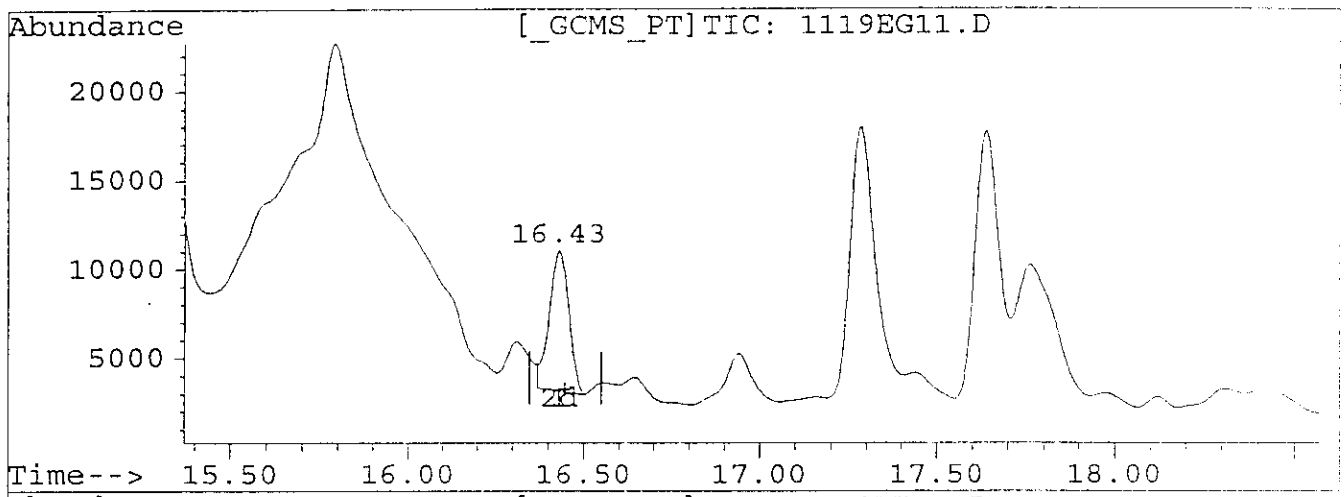
Initial hj
11/20/97

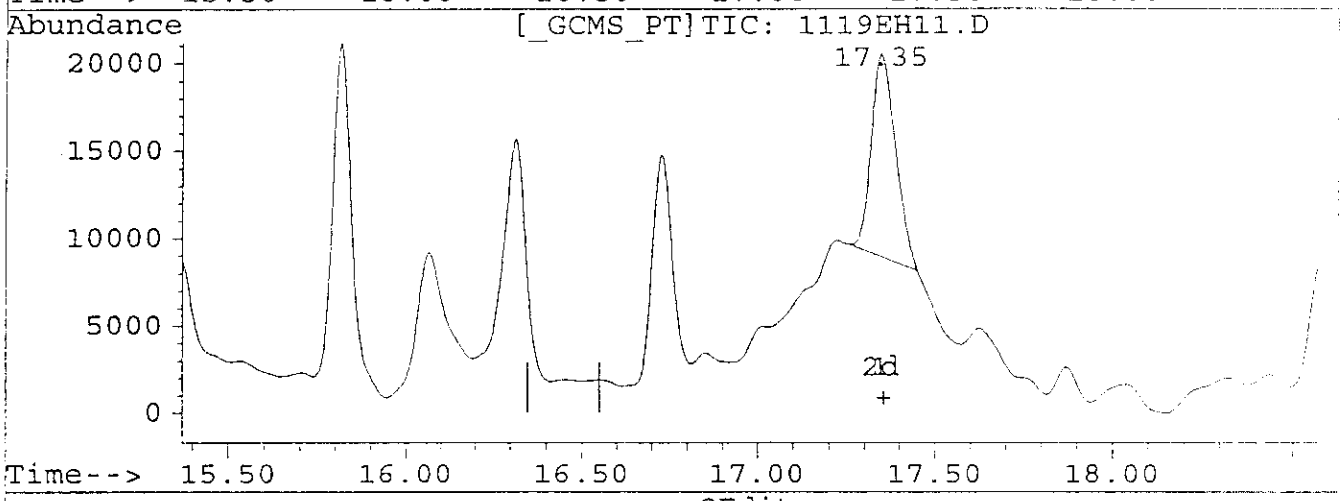
(+) = Expected Retention Time
1119EG11.D HB111997.M Thu Nov 20 08:31:33 1997 ECD1

Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG11.D Vial: 11
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG11.D\1119EH11.D
Acq On : 19 Nov 97 09:56 PM Operator: MBROWN
Sample : 9711014-1MS Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:32 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration





QEdit

(9) 2,4,5-T (TM)
16.43min 12.21ng/ml m
response 301703

(9) 2,4,5-T #2 (TM)
17.35min 24.30ng/ml m
response 554810

Re-int 11/20/97

(+) = Expected Retention Time
1119EG11.D HB111997.M Thu Nov 20 08:32:20 1997 ECD1

Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG12.D Vial: 12
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG12.D\1119EH12.D
Acq On : 19 Nov 97 10:30 PM Operator: MBROWN
Sample : 9711014-1MSD Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:35 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml	
	System Monitoring Compounds							
2)	S Herb Surr	11.73	12.53	998149	677078	217.06	135.59	#
				Recovery	=	108.53%	67.80%	
	Target Compounds							
1)	TM Dalapon	5.32	5.76	2691429	937264	647.28	187.69	#
3)	TM Dicamba	12.04	12.82	279029	437500	16.43	27.16	#
4)	TM MCPP	12.32	12.95	298518	515331	13676.70	25056.	
5)	TM MCPA	12.75	13.35	661730	551548	19500.15	14309.	
6)	TM Dichlorprop	13.27	13.93	988140	1240172	195.39	235.13	
7)	TM 2,4-D	13.89	14.50	2275005	2838295	500.63	578.67	
8)	TM Silvex	15.34	16.32	386797	426135	15.74m	18.65m	
9)	TM 2,4,5-T	16.43	17.35	238046	420786	9.25m	18.25m	#
10)	TM 2,4-DB	17.64	18.90	745688	1239596	184.81	314.39	#
11)	TM Dinoseb	19.69	18.67	3413311	828390	292.71	66.84	#

11/20/97
VZ

Spiked at 250/25 ug/ml

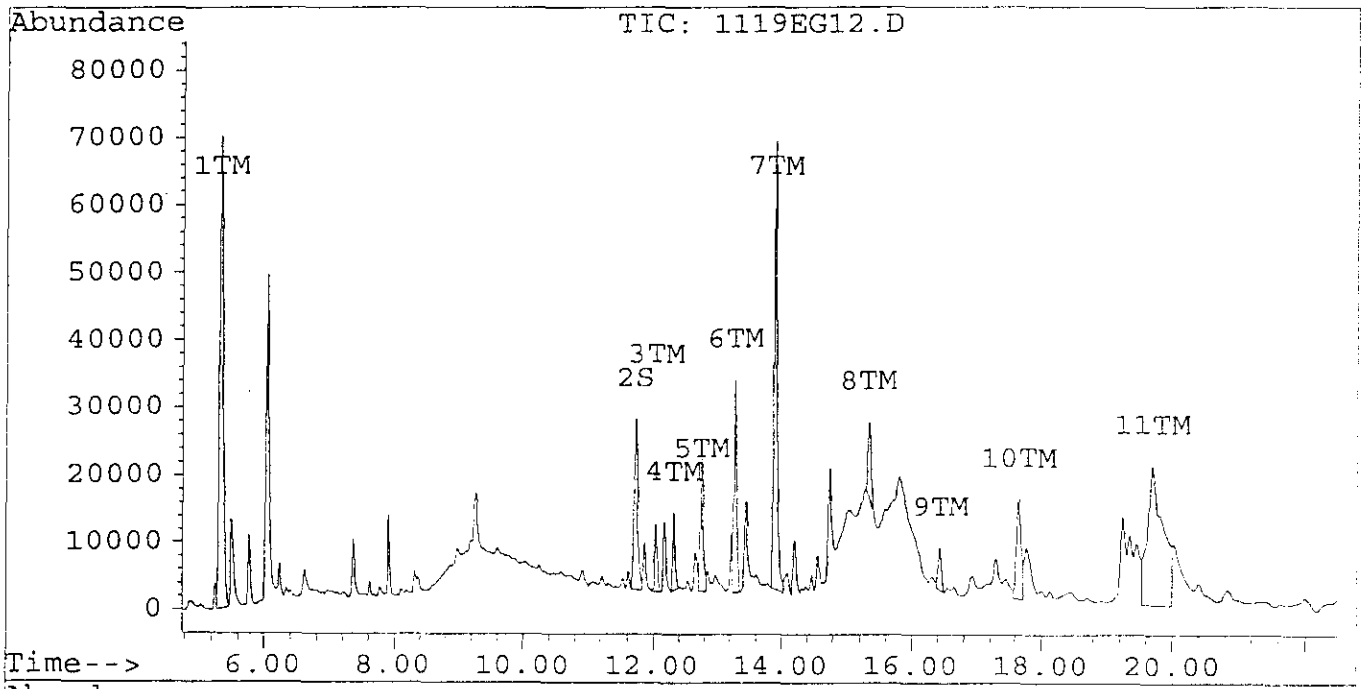
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

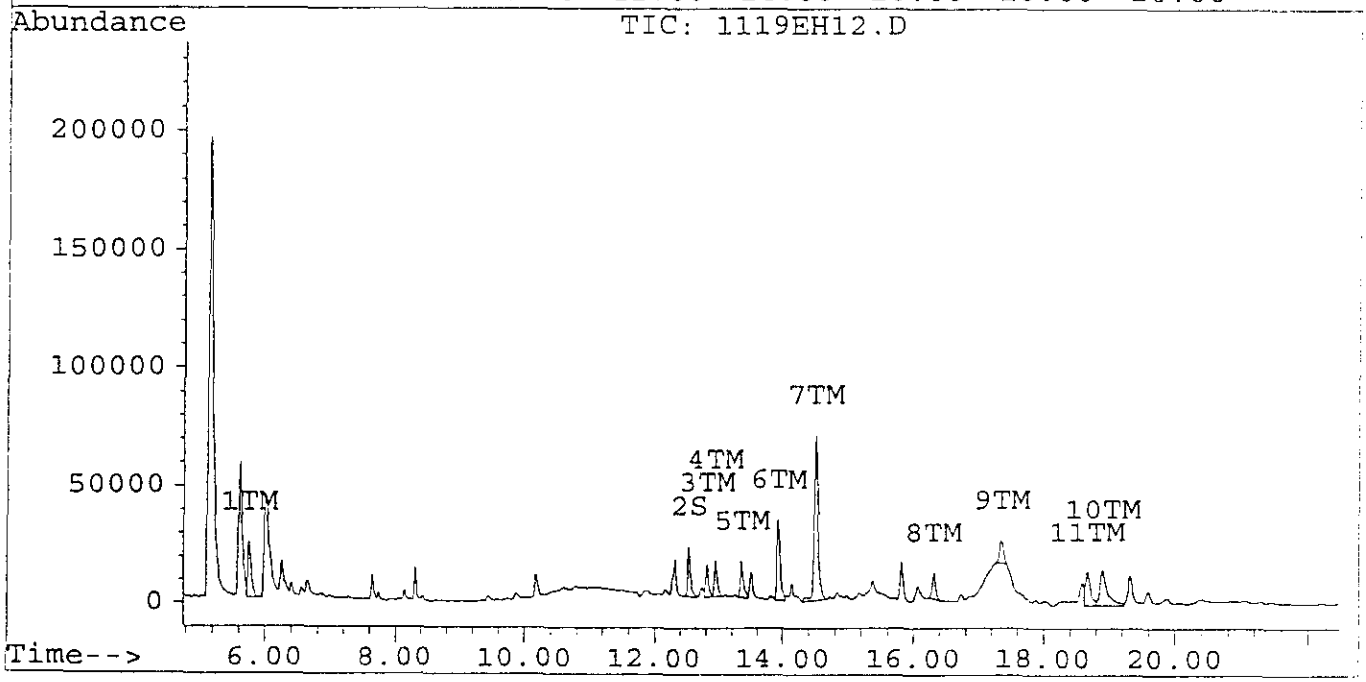
Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG12.D Vial: 12
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG12.D\1119EH12.D
Acq On : 19 Nov 97 10:30 PM Operator: MBROWN
Sample : 9711014-1MSD Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:35 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration

Volume Inj. : 1 ul
Signal #1 Phase : DB-1701 Signal #2 Phase: RTX-20
Signal #1 Info : 30 x 0.32 x 0.25u Signal #2 Info : 30 x 0.32 x 0.25um

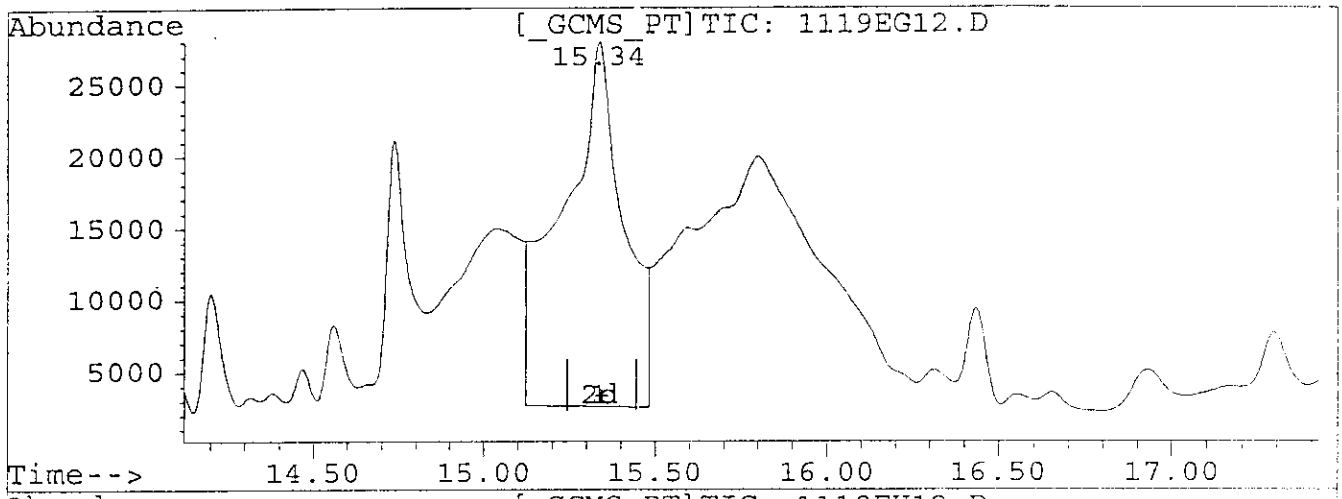


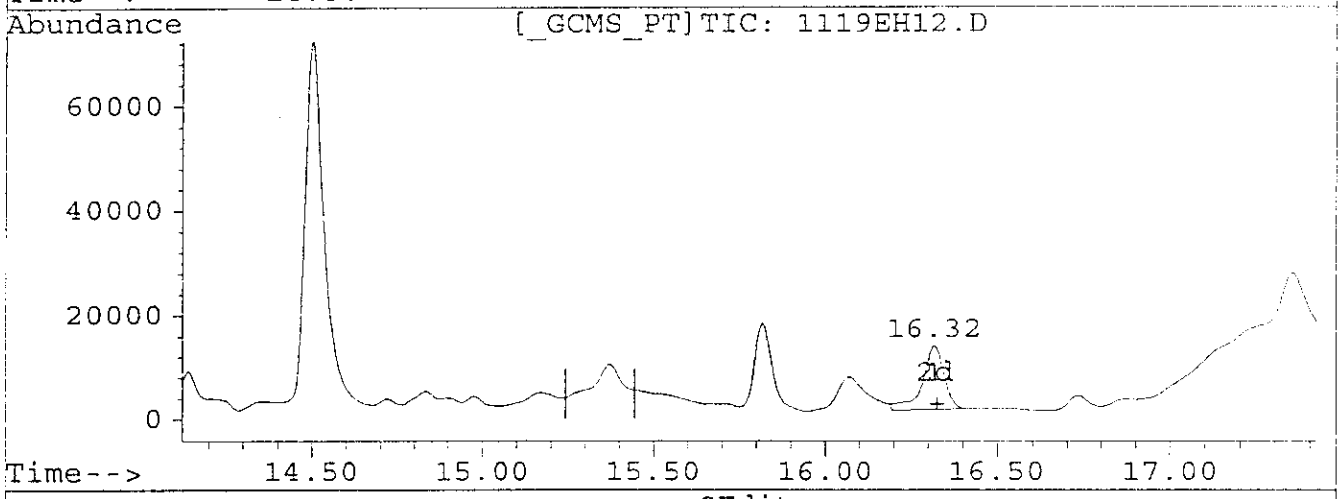


Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG12.D Vial: 12
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG12.D\1119EH12.D
Acq On : 19 Nov 97 10:30 PM Operator: MBROWN
Sample : 9711014-1MSD Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:09 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration





QEdit

(8) Silvex (TM)
15.34min 140.66ng/ml
response 3134493

(8) Silvex #2 (TM)
16.32min 23.64ng/ml
response 535369

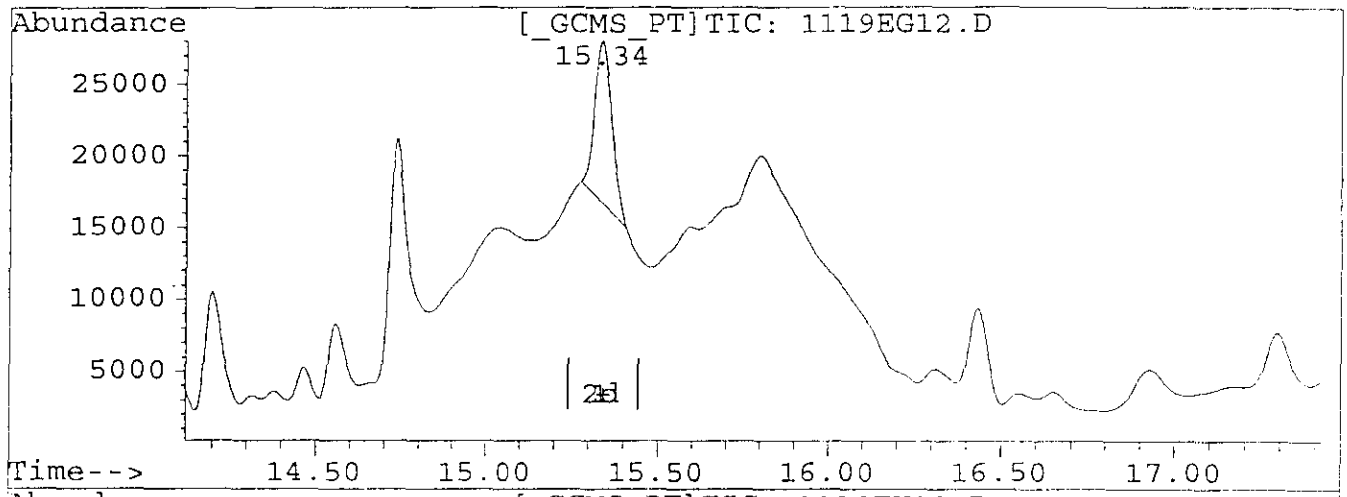
Initial Int
11/20/97

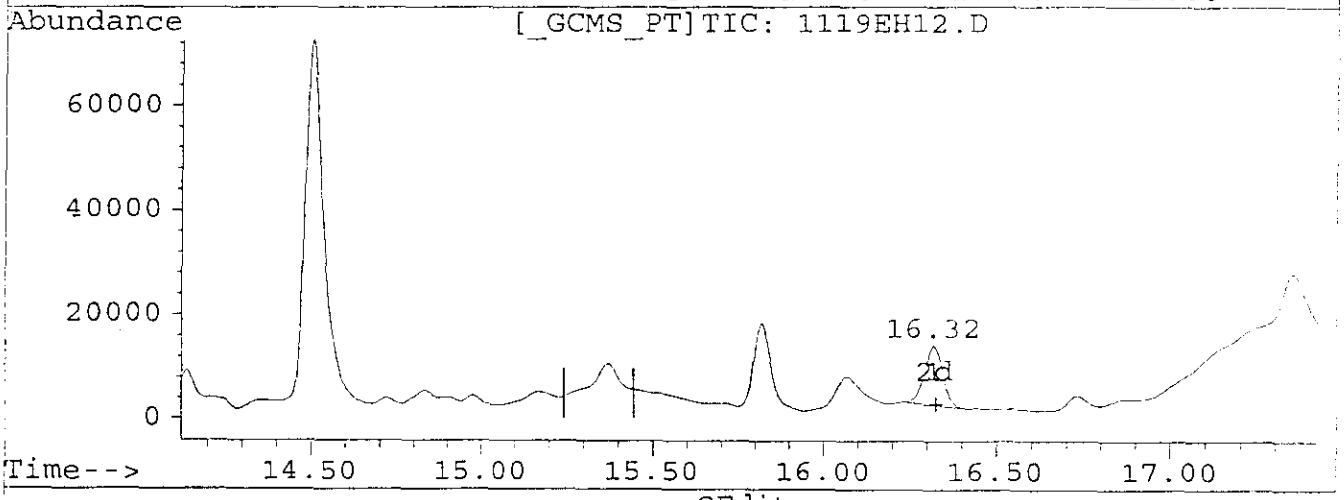
(+) = Expected Retention Time
1119EG12.D HB111997.M Thu Nov 20 08:34:17 1997 ECD1

Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG12.D Vial: 12
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG12.D\1119EH12.D
Acq On : 19 Nov 97 10:30 PM Operator: MBROWN
Sample : 9711014-1MSD Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:34 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration





QEdit

(8) Silvex (TM)
15.34min 15.74ng/ml m
response 386797

(8) Silvex #2 (TM)
16.32min 18.65ng/ml m
response 426135

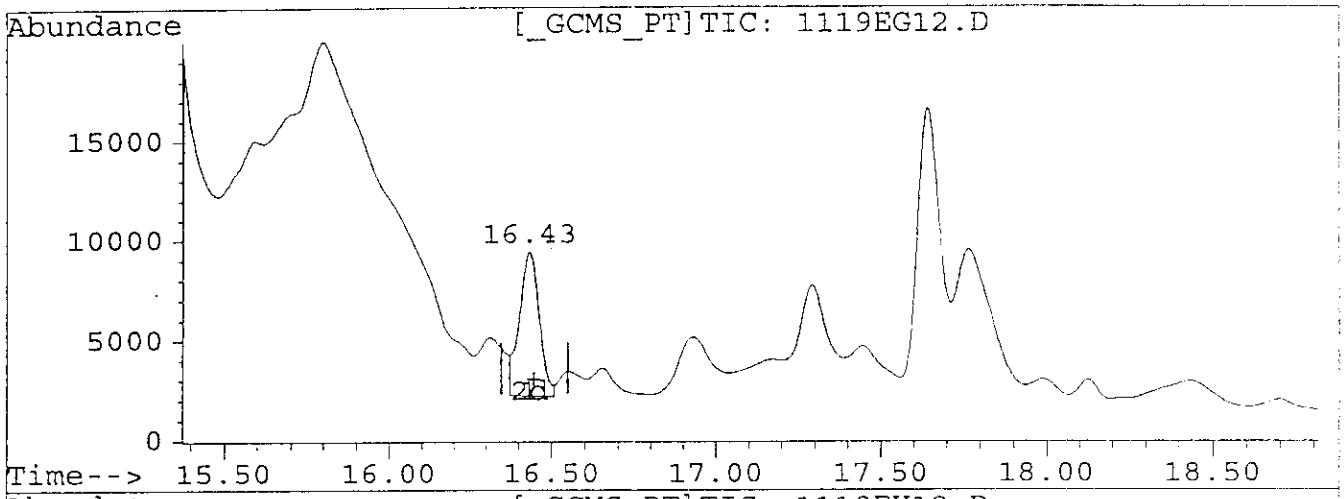
Re-hl
11/20/97
MZ

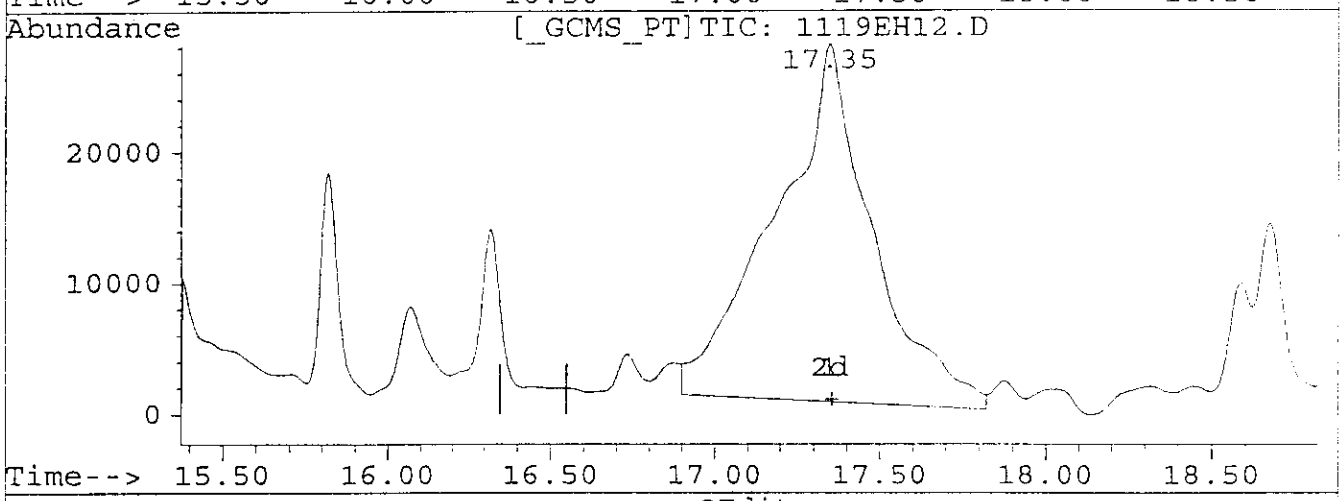
(+) = Expected Retention Time
1119EG12.D HB111997.M Thu Nov 20 08:34:47 1997 ECD1

Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG12.D Vial: 12
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG12.D\1119EH12.D
Acq On : 19 Nov 97 10:30 PM Operator: MBROWN
Sample : 9711014-1MSD Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:34 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration





QEdit

(9) 2,4,5-T (TM)
16.44min 12.37ng/ml
response 305097

(9) 2,4,5-T #2 (TM)
17.35min 252.22ng/ml
response 5604646

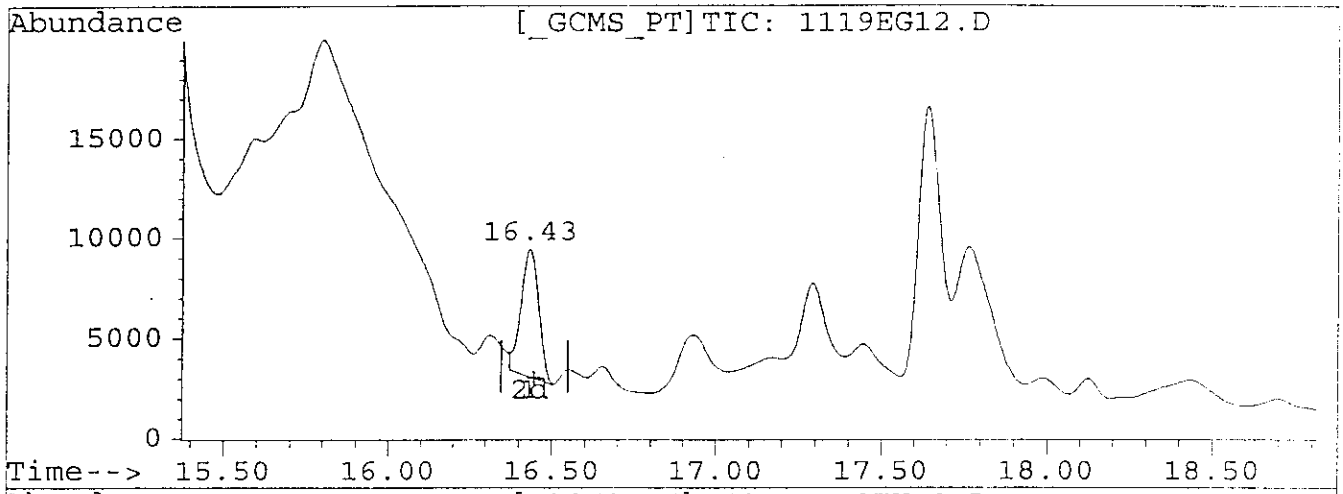
Initial Int.
11/20/97

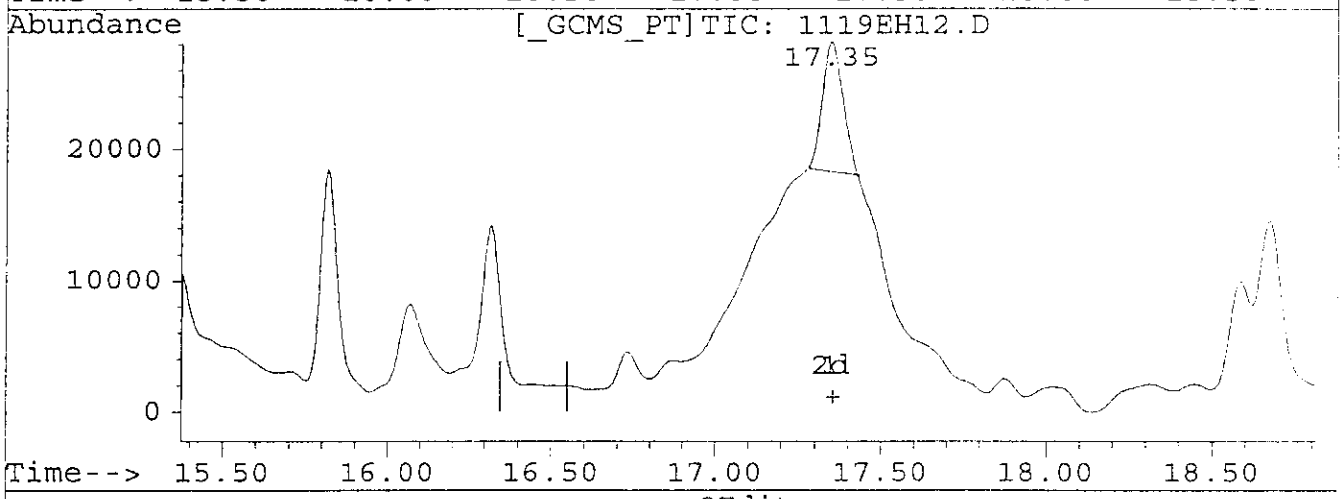
(+) = Expected Retention Time
1119EG12.D HB111997.M Thu Nov 20 08:34:52 1997 ECD1

Quantitation Report

Signal #1 : C:\HPCHEM\7\DATA\971119\1119EG12.D Vial: 12
Signal #2 : C:\HPCHEM\7\DATA\971119\1119EG12.D\1119EH12.D
Acq On : 19 Nov 97 10:30 PM Operator: MBROWN
Sample : 9711014-1MSD Inst : ECD3
Misc : Multiplr: 1.00
Quant Time: Nov 20 8:35 1997

Method : C:\HPCHEM\7\METHODS\HB111997.M
Title : Chlorinated Herbicides Calibration
Last Update : Thu Nov 20 08:02:38 1997
Response via : Multiple Level Calibration





QEdit

(9) 2,4,5-T (TM)
16.43min 9.25ng/ml m
response 238046

(9) 2,4,5-T #2 (TM)
17.35min 18.25ng/ml m
response 420786

Rev. ML 11/20/97 V.V

(+) = Expected Retention Time

1119EG12.D HB111997.M Thu Nov 20 08:35:09 1997 ECD1

Miscellaneous

ET UP DATE: 11/10/97

'ORKORDER #s 97·11·014

ACIDIFIED GLASS WOOL & SODIUM SULFATE YES

EXTRACTION CODE 8150 TCLP HE 615 515

Surrogate Code A SR·A25·03 Matrix Spike Code A MS·A30·25

Surrogate Code B N/A Matrix Spike Code B N/A

SAMPLE													EXTRACT							COMMENTS
Initials		WSM											WSM							
SAMPLE		Amount	pH	Amount	pH	Surrogate			Matrix Spike				Init KD	Final KD	Xch	Deriv	Acids	Final	Vialed	
Number	Matrix	gm/mL	12	mL	<2	A Vol	B Vol	Spk/Wt	A Vol	B Vol	Spk/Wt		Date	Date	HEX	Vol	Size	Vol	Date	
SRB1	Soil	30g	13	~30	1	1mL	N/A	W 5mL	N/A	N/A	N/A	N/A	11/14	11/18	Yes	2mL	N/A	10mL	11/18	
014·01																				
02																				
03																				
01MS									1mL		W 5mL									
01MSD																				
SBS1																				
SBS2																				

WSM 11/10/97

AFFRM60-FC

Extraction Pesticides

Solvent Lot #s: DCM 37233 Hexane 37065 Diazomethane 11/18/97 TRAY 11/13/97

Paragon Analytics, Inc.

GC/MS Semivolatiles Case Narrative

Washington State Dept. of Ecology

North Slope Bioremediation

Order Number - 9711014

1. This report consists of 3 soil samples received by Paragon on November 4, 1997. The samples were received at 17°C which is outside SW-846 criteria of 2-6°C.

2. These samples were prepared and analyzed according to SW-846, 3rd Edition procedures. Specifically, the soil samples were extracted via soxhlet based on Method 3540.

3. The samples were analyzed using GC/MS with a DB-5.625 capillary column according to protocols based on SW-846 Method 8270B. All positive results were quantitated against the daily calibration standards using the internal standard technique. The identification of positive results was achieved by a comparison of the retention time and mass spectrum of the sample versus the daily calibration standard.

4. All samples were extracted and analyzed within the established holding times.

5. The method blank had di-n-butylphthalate detected below the reporting limit. This compound was detected in the samples, so the data were flagged accordingly.

6. Matrix spikes and matrix spike duplicates were performed on an in-house sample not provided by the client. The data have not been provided in this report. A blank spike and blank spike duplicate data have been provided instead. A Non-Conformance Report has been included.

7. All blank spike and blank spike duplicate recoveries and RPDs were within the acceptance criteria.

8. All surrogate recoveries were within acceptance criteria.

9. All internal standard recoveries were within acceptance criteria.

10. All initial calibration criteria were met. Method 8270B states any compound exceeding 15% RSD is to be quantitated with a higher order curve. Several compounds from the curves that were analyzed November 10 and 11, 1997, were within the acceptance limit but exceeded the 15% RSD criteria and should be analyzed with a higher curve such as quadratic. We quantitated these compounds using the average response factor due to a software programming problem associated with Hewlett-Packard MSDs. The manufacturer is now aware of the problem and is working on a solution.

11. All continuing calibration criteria were met.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, Paragon Analytics, Inc. certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Gary R. Brook GC/MS Manager	11-17-97 Date
Reviewer's Initials	11-17-97 Date

Paragon Analytics, Incorporated

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 9711014
Client Name: Washington State Dept. of Ecology
Client Project Name:
Client Project Number: North Slope Bioremediation
Client PO Number: TBD:

Client Sample	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
H97023	9711014-1		Soil	10/27/97	
H97024	9711014-2		Soil	10/27/97	
H97025	9711014-3		Soil	10/27/97	

AnalyticalTechnologies,Inc.
225 COMMERCE DRIVE
FORT COLLINS, CO
80524
(303) 490-1511
(303) 490-1522 FAX
1 (800) 443-1511

Chain of Custody

DATE 10-27-97 PAGE 1 OF 1

ACCESSION NUMBER: 97.11.014

PROJECT MANAGER: Jerry Yokel
COMPANY: Ecology
ADDRESS: 1315 W 4TH
Kennewick, WA
99336
SAMPLER:
PHONE NUMBER: 736-3009
FAX NUMBER: -3030

SAMPLE ID	SAMPLE DATE	SAMPLE TIME	MATRIX	LAB ID
H97023	10-27	[illegible]	soil	01
H97024				02
H97025				03

ANALYSIS REQUESTED

9070/9071 — Oil & Grease	418.1 — TRPH	8015 Mod. — Gasoline	8015 Mod. — Diesel	8015/8020 — Gasoline/BTEX	8020 — BTEX	8240 — GC/MS VOC's	8270 — GC/MS SVOC's TICS	8080 — Pesticides/PCB's	8080 — PCB Only	8310 — PNA's	8150 — Herbicides	8140 — OP Pesticides	TOX — EOX — TX	Total Metals:	TCLP:	Gross Alpha	Gross Beta	Radium 226	Radium 228	Tritium	Strontium	% Moisture	Number of Containers
							X				X												
							X				X												
							X				X												

PROJECT INFORMATION	SAMPLE RECEIPT	
PROJECT NUMBER:	TOTAL NUMBER OF CONTAINERS	
PROJECT NAME:	CHAIN OF CUSTODY SEALS Y/N	
PURCHASE ORDER NUMBER:	SEALS INTACT? Y/N/NA	
TAT: ☐ STANDARD ☐ RUSH DUE:	RECEIVED GOOD COND./COLD	

SAMPLE DISPOSAL: ☐ HAZ WASTE $5.00 ☐ RAD CHEM $15.00 ☐ RETURN

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [illegible] Time: 10:[illegible] a.m.	Signature: Time:	Signature: Time:
Printed Name: Jerry Yokel Date: 10-27-97	Printed Name: Date:	Printed Name: Date:
Company: Ecology	Company: DPS	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: Time:	Signature: Time: 1050	Signature: Time:
Printed Name: Date:	Printed Name: Date: 11/4/97	Printed Name: Date:
Company: EPS	Company: PAF	Company:

DISTRIBUTION: White, Canary - ANALYTICAL TECHNOLOGIES, INC. • Pink - ORIGINATOR

000014

CONDITION OF SAMPLE UPON RECEIPT

CLIENT: WDOE SHIPPING CONTAINER #: Cooler

WORKORDER NO. 97-11-014 INITIALS: [illegible] DATE: 11/4/97

1.	Does this project require special handling according to NEESA, Level 3, or CLP protocols? If yes, complete a. and b. a. Cooler Temperature_____ b. Lot No's._____ c. Airbill Number		Yes	(No)
2.	Are custody seals on the cooler intact? If so, how many	(N/A)	Yes	No
3.	Are custody seals on sample containers intact?	N/A	(Yes)	No
4.	Is there a Chain of Custody (COC) or other representative documents, letters or shipping memos?		(Yes)	No
5.	Is the COC complete? Relinquished: Yes ✓ No Requested Analysis: Yes ✓ No	N/A	(Yes)	No
6.	Is the COC in agreement with the samples received? No. of Samples: Yes ✓ No___ Sample ID's: Yes ✓ No___ Matrix: Yes ✓ No No. of Containers: Yes ✓ No		(Yes)	No
7.	Are the samples requiring chemical preservation preserved correctly?	(N/A)	Yes	No
8.	Is there enough sample? If so, are they in the proper containers?		(Yes)	No
9.	Are all samples within holding times for the requested analyses?		(Yes)	No
10.	Were the sample(s) shipped on ice?	N/A	Yes	(No)
11.	Were all sample containers received intact? (not broken or leaking, etc.)		(Yes)	No
12.	Are samples requiring no headspace, headspace free?	(N/A)	Yes	No
13.	Do the samples require quarantine?		Yes	(No)
14.	Do samples require Paragon disposal?		(Yes)	No
15.	Did the client return any unused bottles?		Yes	(No)

Describe "NO" items (except No's 1, 13, &14):_____

Was the client contacted? Yes____ No____

If yes, Date:_____ Name of person contacted:_____

Describe actions taken or client instructions:_____

Group Leader's Signature:_____ Date:_____

Cooler Temperature: 17°C

FRM 201FC7 (30/7/97)

Analytical Results

Semi-volatile Organics by GC/MS

Method SW8270

Method Blank

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:
Reported on: Monday, November 17, 1997

Field ID:	LABQC	**Sample Matrix:**	Solid	**Date Collected:**	10-Nov-97	**Sample Aliquot:**	30
Lab ID:	S-111097MB	**% Moisture:**	N/A	**Date Extracted:**	10-Nov-97	**Final Volume:**	1
		Cleanup Method:	NONE	**Date Analyzed:**	11-Nov-97	**Dilution:**	1
		Report Basis:	NA	**Prep Batch:**	sv11014		

CASNO	Target Analyte	Result	Units	Reporting Limit	Result Qualifier	Result Footnote
110-86-1	PYRIDINE	330	ug/kg	330	U	
62-75-9	N-NITROSODIMETHYLAMINE	330	ug/kg	330	U	
62-53-3	ANILINE	830	ug/kg	830	U	
108-95-2	PHENOL	330	ug/kg	330	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	330	ug/kg	330	U	
95-57-8	2-CHLOROPHENOL	330	ug/kg	330	U	
541-73-1	1,3-DICHLOROBENZENE	330	ug/kg	330	U	
106-46-7	1,4-DICHLOROBENZENE	330	ug/kg	330	U	
95-50-1	1,2-DICHLOROBENZENE	330	ug/kg	330	U	
100-51-6	BENZYL ALCOHOL	330	ug/kg	330	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	330	ug/kg	330	U	
95-48-7	2-METHYLPHENOL	330	ug/kg	330	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	330	ug/kg	330	U	
106-44-5	4-METHYLPHENOL	330	ug/kg	330	U	
67-72-1	HEXACHLOROETHANE	330	ug/kg	330	U	
98-95-3	NITROBENZENE	330	ug/kg	330	U	
78-59-1	ISOPHORONE	330	ug/kg	330	U	
88-75-5	2-NITROPHENOL	330	ug/kg	330	U	
105-67-9	2,4-DIMETHYLPHENOL	330	ug/kg	330	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	330	ug/kg	330	U	
120-83-2	2,4-DICHLOROPHENOL	330	ug/kg	330	U	
65-85-0	BENZOIC ACID	1700	ug/kg	1700	U	
120-82-1	1,2,4-TRICHLOROBENZENE	330	ug/kg	330	U	
91-20-3	NAPHTHALENE	330	ug/kg	330	U	
106-47-8	4-CHLOROANILINE	830	ug/kg	830	U	
87-68-3	HEXACHLOROBUTADIENE	330	ug/kg	330	U	
59-50-7	4-CHLORO-3-METHYLPHENOL	330	ug/kg	330	U	
91-57-6	2-METHYLNAPHTHALENE	330	ug/kg	330	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	330	ug/kg	330	U	
88-06-2	2,4,6-TRICHLOROPHENOL	330	ug/kg	330	U	
95-95-4	2,4,5-TRICHLOROPHENOL	330	ug/kg	330	U	
91-58-7	2-CHLORONAPHTHALENE	330	ug/kg	330	U	
88-74-4	2-NITROANILINE	1700	ug/kg	1700	U	
131-11-3	DIMETHYL PHTHALATE	330	ug/kg	330	U	
606-20-2	2,6-DINITROTOLUENE	330	ug/kg	330	U	
208-96-8	ACENAPHTHYLENE	330	ug/kg	330	U	
99-09-2	3-NITROANILINE	1700	ug/kg	1700	U	

Semi-volatile Organics by GC/MS

Method SW8270

Method Blank

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:
Reported on: Monday, November 17, 1997

Field ID: LABQC	**Sample Matrix:**	Solid	**Date Collected:**	10-Nov-97	**Sample Aliquot:**	30
Lab ID: S-111097MB	**% Moisture:**	N/A	**Date Extracted:**	10-Nov-97	**Final Volume:**	1
	Cleanup Method:	NONE	**Date Analyzed:**	11-Nov-97	**Dilution:**	1
	Report Basis:	NA	**Prep Batch:**	sv11014		

83-32-9	ACENAPHTHENE	330	ug/kg	330	U
51-28-5	2,4-DINITROPHENOL	1700	ug/kg	1700	U
100-02-7	4-NITROPHENOL	1700	ug/kg	1700	U
132-64-9	DIBENZOFURAN	330	ug/kg	330	U
121-14-2	2,4-DINITROTOLUENE	330	ug/kg	330	U
84-66-2	DIETHYL PHTHALATE	330	ug/kg	330	U
86-73-7	FLUORENE	330	ug/kg	330	U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	330	ug/kg	330	U
100-01-6	4-NITROANILINE	1700	ug/kg	1700	U
103-33-3	AZOBENZENE	330	ug/kg	330	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1700	ug/kg	1700	U
86-30-6	N-NITROSODIPHENYLAMINE	330	ug/kg	330	U
101-55-3	4-BROMOPHENYL PHENYL ETHER	330	ug/kg	330	U
118-74-1	HEXACHLOROBENZENE	330	ug/kg	330	U
87-86-5	PENTACHLOROPHENOL	1700	ug/kg	1700	U
85-01-8	PHENANTHRENE	330	ug/kg	330	U
120-12-7	ANTHRACENE	330	ug/kg	330	U
86-74-8	CARBAZOLE	330	ug/kg	330	U
84-74-2	DI-N-BUTYL PHTHALATE	50	ug/kg	330	J
206-44-0	FLUORANTHENE	330	ug/kg	330	U
129-00-0	PYRENE	330	ug/kg	330	U
85-68-7	BUTYL BENZYL PHTHALATE	330	ug/kg	330	U
56-55-3	BENZO(A)ANTHRACENE	330	ug/kg	330	U
91-94-1	3,3'-DICHLOROBENZIDINE	1700	ug/kg	1700	U
218-01-9	CHRYSENE	330	ug/kg	330	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	330	ug/kg	330	U
117-84-0	DI-N-OCTYL PHTHALATE	330	ug/kg	330	U
205-99-2	BENZO(B,K)FLUORANTHENE	330	ug/kg	330	U
50-32-8	BENZO(A)PYRENE	330	ug/kg	330	U
193-39-5	INDENO(1,2,3-CD)PYRENE	330	ug/kg	330	U
53-70-3	DIBENZO(A,H)ANTHRACENE	330	ug/kg	330	U
191-24-2	BENZO(G,H,I)PERYLENE	330	ug/kg	330	U

Semi-volatile Organics by GC/MS

Method SW8270

Method Blank

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:
Reported on: Monday, November 17, 1997

Field ID:	LABQC	**Sample Matrix:**	Solid	**Date Collected:**	10-Nov-97	**Sample Aliquot:**	30
Lab ID:	S-111097MB	**% Moisture:**	N/A	**Date Extracted:**	10-Nov-97	**Final Volume:**	1
		Cleanup Method:	NONE	**Date Analyzed:**	11-Nov-97	**Dilution:**	1
		Report Basis:	NA	**Prep Batch:**	sv11014		

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Units	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	1580	ug/kg	2500	63	19 - 113
321-60-8	2-FLUOROBIPHENYL	1150	ug/kg	1670	69	30 - 105
367-12-4	2-FLUOROPHENOL	1640	ug/kg	2500	66	25 - 100
4165-60-0	NITROBENZENE-D5	1170	ug/kg	1670	70	31 - 106
13127-88-3	PHENOL-D5	1810	ug/kg	2500	73	24 - 104
1718-51-0	TERPHENYL-D14	1210	ug/kg	1670	73	18 - 112

U = Less than the Reporting Limit

Semi-volatile Organics by GC/MS

Method SW8270

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:
Reported on: Monday, November 17, 1997

Field ID: H97023	Sample Matrix: Solid	Date Collected: 27-Oct-97	Sample Aliquot: 30
Lab ID: 9711014-1	% Moisture: N/A	Date Extracted: 10-Nov-97	Final Volume: 1
	Cleanup Method: NONE	Date Analyzed: 12-Nov-97	Dilution: 1
	Report Basis: AS RECEIVED	Prep Batch: sv11014	

CASNO	Target Analyte	Result	Units	Reporting Limit	Result Qualifier	Result Footnote
110-86-1	PYRIDINE	330	ug/kg	330	U	
62-75-9	N-NITROSODIMETHYLAMINE	330	ug/kg	330	U	
62-53-3	ANILINE	830	ug/kg	830	U	
108-95-2	PHENOL	330	ug/kg	330	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	330	ug/kg	330	U	
95-57-8	2-CHLOROPHENOL	330	ug/kg	330	U	
541-73-1	1,3-DICHLOROBENZENE	330	ug/kg	330	U	
106-46-7	1,4-DICHLOROBENZENE	330	ug/kg	330	U	
95-50-1	1,2-DICHLOROBENZENE	330	ug/kg	330	U	
100-51-6	BENZYL ALCOHOL	330	ug/kg	330	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	330	ug/kg	330	U	
95-48-7	2-METHYLPHENOL	330	ug/kg	330	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	330	ug/kg	330	U	
106-44-5	4-METHYLPHENOL	330	ug/kg	330	U	
67-72-1	HEXACHLOROETHANE	330	ug/kg	330	U	
98-95-3	NITROBENZENE	330	ug/kg	330	U	
78-59-1	ISOPHORONE	330	ug/kg	330	U	
88-75-5	2-NITROPHENOL	330	ug/kg	330	U	
105-67-9	2,4-DIMETHYLPHENOL	330	ug/kg	330	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	330	ug/kg	330	U	
120-83-2	2,4-DICHLOROPHENOL	330	ug/kg	330	U	
65-85-0	BENZOIC ACID	1700	ug/kg	1700	U	
120-82-1	1,2,4-TRICHLOROBENZENE	330	ug/kg	330	U	
91-20-3	NAPHTHALENE	330	ug/kg	330	U	
106-47-8	4-CHLOROANILINE	830	ug/kg	830	U	
87-68-3	HEXACHLOROBUTADIENE	330	ug/kg	330	U	
59-50-7	4-CHLORO-3-METHYLPHENOL	330	ug/kg	330	U	
91-57-6	2-METHYLNAPHTHALENE	330	ug/kg	330	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	330	ug/kg	330	U	
88-06-2	2,4,6-TRICHLOROPHENOL	330	ug/kg	330	U	
95-95-4	2,4,5-TRICHLOROPHENOL	330	ug/kg	330	U	
91-58-7	2-CHLORONAPHTHALENE	330	ug/kg	330	U	
88-74-4	2-NITROANILINE	1700	ug/kg	1700	U	
131-11-3	DIMETHYL PHTHALATE	330	ug/kg	330	U	

Semi-volatile Organics by GC/MS

Method SW8270

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:
Reported on: Monday, November 17, 1997

Field ID: H97023	**Sample Matrix:** Solid	**Date Collected:** 27-Oct-97	**Sample Aliquot:** 30
Lab ID: 9711014-1	**% Moisture:** N/A	**Date Extracted:** 10-Nov-97	**Final Volume:** 1
	Cleanup Method: NONE	**Date Analyzed:** 12-Nov-97	**Dilution:** 1
	Report Basis: AS RECEIVED	**Prep Batch:** sv11014	

606-20-2	2,6-DINITROTOLUENE	330	ug/kg	330	U
208-96-8	ACENAPHTHYLENE	330	ug/kg	330	U
99-09-2	3-NITROANILINE	1700	ug/kg	1700	U
83-32-9	ACENAPHTHENE	330	ug/kg	330	U
51-28-5	2,4-DINITROPHENOL	1700	ug/kg	1700	U
100-02-7	4-NITROPHENOL	1700	ug/kg	1700	U
132-64-9	DIBENZOFURAN	330	ug/kg	330	U
121-14-2	2,4-DINITROTOLUENE	330	ug/kg	330	U
84-66-2	DIETHYL PHTHALATE	330	ug/kg	330	U
86-73-7	FLUORENE	330	ug/kg	330	U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	330	ug/kg	330	U
100-01-6	4-NITROANILINE	1700	ug/kg	1700	U
103-33-3	AZOBENZENE	330	ug/kg	330	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1700	ug/kg	1700	U
86-30-6	N-NITROSODIPHENYLAMINE	330	ug/kg	330	U
101-55-3	4-BROMOPHENYL PHENYL ETHER	330	ug/kg	330	U
118-74-1	HEXACHLOROBENZENE	330	ug/kg	330	U
87-86-5	PENTACHLOROPHENOL	1700	ug/kg	1700	U
85-01-8	PHENANTHRENE	330	ug/kg	330	U
120-12-7	ANTHRACENE	330	ug/kg	330	U
86-74-8	CARBAZOLE	330	ug/kg	330	U
84-74-2	DI-N-BUTYL PHTHALATE	59	ug/kg	330	J,B
206-44-0	FLUORANTHENE	330	ug/kg	330	U
129-00-0	PYRENE	330	ug/kg	330	U
85-68-7	BUTYL BENZYL PHTHALATE	330	ug/kg	330	U
56-55-3	BENZO(A)ANTHRACENE	330	ug/kg	330	U
91-94-1	3,3'-DICHLOROBENZIDINE	1700	ug/kg	1700	U
218-01-9	CHRYSENE	330	ug/kg	330	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	330	ug/kg	330	U
117-84-0	DI-N-OCTYL PHTHALATE	330	ug/kg	330	U
205-99-2	BENZO(B,K)FLUORANTHENE	330	ug/kg	330	U
50-32-8	BENZO(A)PYRENE	330	ug/kg	330	U
193-39-5	INDENO(1,2,3-CD)PYRENE	330	ug/kg	330	U
53-70-3	DIBENZO(A,H)ANTHRACENE	330	ug/kg	330	U
191-24-2	BENZO(G,H,I)PERYLENE	330	ug/kg	330	U

Semi-volatile Organics by GC/MS

Method SW8270

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:
Reported on: Monday, November 17, 1997

Field ID: H97023	**Sample Matrix:** Solid	**Date Collected:** 27-Oct-97	**Sample Aliquot:** 30
Lab ID: 9711014-1	**% Moisture:** N/A	**Date Extracted:** 10-Nov-97	**Final Volume:** 1
	Cleanup Method: NONE	**Date Analyzed:** 12-Nov-97	**Dilution:** 1
	Report Basis: AS RECEIVED	**Prep Batch:** sv11014	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Units	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	2000	ug/kg	2500	80	19 - 113
321-60-8	2-FLUOROBIPHENYL	1200	ug/kg	1670	72	30 - 105
367-12-4	2-FLUOROPHENOL	1620	ug/kg	2500	65	25 - 100
4165-60-0	NITROBENZENE-D5	1100	ug/kg	1670	66	31 - 106
13127-88-3	PHENOL-D5	1950	ug/kg	2500	78	24 - 104
1718-51-0	TERPHENYL-D14	1300	ug/kg	1670	78	18 - 112

U = Less than the Reporting Limit

Semi-volatile Organics by GC/MS

Method SW8270

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:
Reported on: Monday, November 17, 1997

Field ID: H97024	**Sample Matrix:** Solid	**Date Collected:** 27-Oct-97	**Sample Aliquot:** 30
Lab ID: 9711014-2	**% Moisture:** N/A	**Date Extracted:** 10-Nov-97	**Final Volume:** 1
	Cleanup Method: NONE	**Date Analyzed:** 12-Nov-97	**Dilution:** 1
	Report Basis: AS RECEIVED	**Prep Batch:** sv11014	

CASNO	Target Analyte	Result	Units	Reporting Limit	Result Qualifier	Result Footnote
110-86-1	PYRIDINE	330	ug/kg	330	U	
62-75-9	N-NITROSODIMETHYLAMINE	330	ug/kg	330	U	
62-53-3	ANILINE	830	ug/kg	830	U	
108-95-2	PHENOL	330	ug/kg	330	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	330	ug/kg	330	U	
95-57-8	2-CHLOROPHENOL	330	ug/kg	330	U	
541-73-1	1,3-DICHLOROBENZENE	330	ug/kg	330	U	
106-46-7	1,4-DICHLOROBENZENE	330	ug/kg	330	U	
95-50-1	1,2-DICHLOROBENZENE	330	ug/kg	330	U	
100-51-6	BENZYL ALCOHOL	330	ug/kg	330	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	330	ug/kg	330	U	
95-48-7	2-METHYLPHENOL	330	ug/kg	330	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	330	ug/kg	330	U	
106-44-5	4-METHYLPHENOL	330	ug/kg	330	U	
67-72-1	HEXACHLOROETHANE	330	ug/kg	330	U	
98-95-3	NITROBENZENE	330	ug/kg	330	U	
78-59-1	ISOPHORONE	330	ug/kg	330	U	
88-75-5	2-NITROPHENOL	330	ug/kg	330	U	
105-67-9	2,4-DIMETHYLPHENOL	330	ug/kg	330	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	330	ug/kg	330	U	
120-83-2	2,4-DICHLOROPHENOL	330	ug/kg	330	U	
65-85-0	BENZOIC ACID	1700	ug/kg	1700	U	
120-82-1	1,2,4-TRICHLOROBENZENE	330	ug/kg	330	U	
91-20-3	NAPHTHALENE	330	ug/kg	330	U	
106-47-8	4-CHLOROANILINE	830	ug/kg	830	U	
87-68-3	HEXACHLOROBUTADIENE	330	ug/kg	330	U	
59-50-7	4-CHLORO-3-METHYLPHENOL	330	ug/kg	330	U	
91-57-6	2-METHYLNAPHTHALENE	330	ug/kg	330	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	330	ug/kg	330	U	
88-06-2	2,4,6-TRICHLOROPHENOL	330	ug/kg	330	U	
95-95-4	2,4,5-TRICHLOROPHENOL	330	ug/kg	330	U	
91-58-7	2-CHLORONAPHTHALENE	330	ug/kg	330	U	
88-74-4	2-NITROANILINE	1700	ug/kg	1700	U	
131-11-3	DIMETHYL PHTHALATE	330	ug/kg	330	U	

Semi-volatile Organics by GC/MS

Method SW8270

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:
Reported on: Monday, November 17, 1997

Field ID: H97024	**Sample Matrix:** Solid	**Date Collected:** 27-Oct-97	**Sample Aliquot:** 30
Lab ID: 9711014-2	**% Moisture:** N/A	**Date Extracted:** 10-Nov-97	**Final Volume:** 1
	Cleanup Method: NONE	**Date Analyzed:** 12-Nov-97	**Dilution:** 1
	Report Basis: AS RECEIVED	**Prep Batch:** sv11014	

606-20-2	2,6-DINITROTOLUENE	330	ug/kg	330	U
208-96-8	ACENAPHTHYLENE	330	ug/kg	330	U
99-09-2	3-NITROANILINE	1700	ug/kg	1700	U
83-32-9	ACENAPHTHENE	330	ug/kg	330	U
51-28-5	2,4-DINITROPHENOL	1700	ug/kg	1700	U
100-02-7	4-NITROPHENOL	1700	ug/kg	1700	U
132-64-9	DIBENZOFURAN	330	ug/kg	330	U
121-14-2	2,4-DINITROTOLUENE	330	ug/kg	330	U
84-66-2	DIETHYL PHTHALATE	330	ug/kg	330	U
86-73-7	FLUORENE	330	ug/kg	330	U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	330	ug/kg	330	U
100-01-6	4-NITROANILINE	1700	ug/kg	1700	U
103-33-3	AZOBENZENE	330	ug/kg	330	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1700	ug/kg	1700	U
86-30-6	N-NITROSODIPHENYLAMINE	330	ug/kg	330	U
101-55-3	4-BROMOPHENYL PHENYL ETHER	330	ug/kg	330	U
118-74-1	HEXACHLOROBENZENE	330	ug/kg	330	U
87-86-5	PENTACHLOROPHENOL	1700	ug/kg	1700	U
85-01-8	PHENANTHRENE	330	ug/kg	330	U
120-12-7	ANTHRACENE	330	ug/kg	330	U
86-74-8	CARBAZOLE	330	ug/kg	330	U
84-74-2	DI-N-BUTYL PHTHALATE	64	ug/kg	330	J,B
206-44-0	FLUORANTHENE	330	ug/kg	330	U
129-00-0	PYRENE	330	ug/kg	330	U
85-68-7	BUTYL BENZYL PHTHALATE	330	ug/kg	330	U
56-55-3	BENZO(A)ANTHRACENE	330	ug/kg	330	U
91-94-1	3,3'-DICHLOROBENZIDINE	1700	ug/kg	1700	U
218-01-9	CHRYSENE	330	ug/kg	330	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	330	ug/kg	330	U
117-84-0	DI-N-OCTYL PHTHALATE	330	ug/kg	330	U
205-99-2	BENZO(B,K)FLUORANTHENE	330	ug/kg	330	U
50-32-8	BENZO(A)PYRENE	330	ug/kg	330	U
193-39-5	INDENO(1,2,3-CD)PYRENE	330	ug/kg	330	U
53-70-3	DIBENZO(A,H)ANTHRACENE	330	ug/kg	330	U
191-24-2	BENZO(G,H,I)PERYLENE	330	ug/kg	330	U

Semi-volatile Organics by GC/MS

Method SW8270

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:
Reported on: Monday, November 17, 1997

Field ID: H97024	**Sample Matrix:** Solid	**Date Collected:** 27-Oct-97	**Sample Aliquot:** 30
Lab ID: 9711014-2	**% Moisture:** N/A	**Date Extracted:** 10-Nov-97	**Final Volume:** 1
	Cleanup Method: NONE	**Date Analyzed:** 12-Nov-97	**Dilution:** 1
	Report Basis: AS RECEIVED	**Prep Batch:** sv11014	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Units	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	1860	ug/kg	2500	74	19 - 113
321-60-8	2-FLUOROBIPHENYL	1070	ug/kg	1670	64	30 - 105
367-12-4	2-FLUOROPHENOL	1390	ug/kg	2500	56	25 - 100
4165-60-0	NITROBENZENE-D5	1090	ug/kg	1670	65	31 - 106
13127-88-3	PHENOL-D5	1740	ug/kg	2500	70	24 - 104
1718-51-0	TERPHENYL-D14	1180	ug/kg	1670	71	18 - 112

U = Less than the Reporting Limit

Semi-volatile Organics by GC/MS

Method SW8270

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:
Reported on: Monday, November 17, 1997

Field ID: H97025	**Sample Matrix:** Solid	**Date Collected:** 27-Oct-97	**Sample Aliquot:** 30
Lab ID: 9711014-3	**% Moisture:** N/A	**Date Extracted:** 10-Nov-97	**Final Volume:** 1
	Cleanup Method: NONE	**Date Analyzed:** 12-Nov-97	**Dilution:** 1
	Report Basis: AS RECEIVED	**Prep Batch:** sv11014	

CASNO	Target Analyte	Result	Units	Reporting Limit	Result Qualifier	Result Footnote
110-86-1	PYRIDINE	330	ug/kg	330	U	
62-75-9	N-NITROSODIMETHYLAMINE	330	ug/kg	330	U	
62-53-3	ANILINE	830	ug/kg	830	U	
108-95-2	PHENOL	330	ug/kg	330	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	330	ug/kg	330	U	
95-57-8	2-CHLOROPHENOL	330	ug/kg	330	U	
541-73-1	1,3-DICHLOROBENZENE	330	ug/kg	330	U	
106-46-7	1,4-DICHLOROBENZENE	330	ug/kg	330	U	
95-50-1	1,2-DICHLOROBENZENE	330	ug/kg	330	U	
100-51-6	BENZYL ALCOHOL	330	ug/kg	330	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	330	ug/kg	330	U	
95-48-7	2-METHYLPHENOL	330	ug/kg	330	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	330	ug/kg	330	U	
106-44-5	4-METHYLPHENOL	330	ug/kg	330	U	
67-72-1	HEXACHLOROETHANE	330	ug/kg	330	U	
98-95-3	NITROBENZENE	330	ug/kg	330	U	
78-59-1	ISOPHORONE	330	ug/kg	330	U	
88-75-5	2-NITROPHENOL	330	ug/kg	330	U	
105-67-9	2,4-DIMETHYLPHENOL	330	ug/kg	330	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	330	ug/kg	330	U	
120-83-2	2,4-DICHLOROPHENOL	330	ug/kg	330	U	
65-85-0	BENZOIC ACID	1700	ug/kg	1700	U	
120-82-1	1,2,4-TRICHLOROBENZENE	330	ug/kg	330	U	
91-20-3	NAPHTHALENE	330	ug/kg	330	U	
106-47-8	4-CHLOROANILINE	830	ug/kg	830	U	
87-68-3	HEXACHLOROBUTADIENE	330	ug/kg	330	U	
59-50-7	4-CHLORO-3-METHYLPHENOL	330	ug/kg	330	U	
91-57-6	2-METHYLNAPHTHALENE	330	ug/kg	330	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	330	ug/kg	330	U	
88-06-2	2,4,6-TRICHLOROPHENOL	330	ug/kg	330	U	
95-95-4	2,4,5-TRICHLOROPHENOL	330	ug/kg	330	U	
91-58-7	2-CHLORONAPHTHALENE	330	ug/kg	330	U	
88-74-4	2-NITROANILINE	1700	ug/kg	1700	U	
131-11-3	DIMETHYL PHTHALATE	330	ug/kg	330	U	

Semi-volatile Organics by GC/MS

Method SW8270

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:
Reported on: Monday, November 17, 1997

Field ID: H97025	**Sample Matrix:** Solid	**Date Collected:** 27-Oct-97	**Sample Aliquot:** 30
Lab ID: 9711014-3	**% Moisture:** N/A	**Date Extracted:** 10-Nov-97	**Final Volume:** 1
	Cleanup Method: NONE	**Date Analyzed:** 12-Nov-97	**Dilution:** 1
	Report Basis: AS RECEIVED	**Prep Batch:** sv11014	

606-20-2	2,6-DINITROTOLUENE	330	ug/kg	330	U
208-96-8	ACENAPHTHYLENE	330	ug/kg	330	U
99-09-2	3-NITROANILINE	1700	ug/kg	1700	U
83-32-9	ACENAPHTHENE	330	ug/kg	330	U
51-28-5	2,4-DINITROPHENOL	1700	ug/kg	1700	U
100-02-7	4-NITROPHENOL	1700	ug/kg	1700	U
132-64-9	DIBENZOFURAN	330	ug/kg	330	U
121-14-2	2,4-DINITROTOLUENE	330	ug/kg	330	U
84-66-2	DIETHYL PHTHALATE	330	ug/kg	330	U
86-73-7	FLUORENE	330	ug/kg	330	U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	330	ug/kg	330	U
100-01-6	4-NITROANILINE	1700	ug/kg	1700	U
103-33-3	AZOBENZENE	330	ug/kg	330	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1700	ug/kg	1700	U
86-30-6	N-NITROSODIPHENYLAMINE	330	ug/kg	330	U
101-55-3	4-BROMOPHENYL PHENYL ETHER	330	ug/kg	330	U
118-74-1	HEXACHLOROBENZENE	330	ug/kg	330	U
87-86-5	PENTACHLOROPHENOL	1700	ug/kg	1700	U
85-01-8	PHENANTHRENE	330	ug/kg	330	U
120-12-7	ANTHRACENE	330	ug/kg	330	U
86-74-8	CARBAZOLE	330	ug/kg	330	U
84-74-2	DI-N-BUTYL PHTHALATE	58	ug/kg	330	J,B
206-44-0	FLUORANTHENE	330	ug/kg	330	U
129-00-0	PYRENE	330	ug/kg	330	U
85-68-7	BUTYL BENZYL PHTHALATE	330	ug/kg	330	U
56-55-3	BENZO(A)ANTHRACENE	330	ug/kg	330	U
91-94-1	3,3'-DICHLOROBENZIDINE	1700	ug/kg	1700	U
218-01-9	CHRYSENE	330	ug/kg	330	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	55	ug/kg	330	J
117-84-0	DI-N-OCTYL PHTHALATE	330	ug/kg	330	U
205-99-2	BENZO(B,K)FLUORANTHENE	330	ug/kg	330	U
50-32-8	BENZO(A)PYRENE	330	ug/kg	330	U
193-39-5	INDENO(1,2,3-CD)PYRENE	330	ug/kg	330	U
53-70-3	DIBENZO(A,H)ANTHRACENE	330	ug/kg	330	U
191-24-2	BENZO(G,H,I)PERYLENE	330	ug/kg	330	U

Semi-volatile Organics by GC/MS

Method SW8270

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:
Reported on: Monday, November 17, 1997

Field ID: H97025	**Sample Matrix:** Solid	**Date Collected:** 27-Oct-97	**Sample Aliquot:** 30
Lab ID: 9711014-3	**% Moisture:** N/A	**Date Extracted:** 10-Nov-97	**Final Volume:** 1
	Cleanup Method: NONE	**Date Analyzed:** 12-Nov-97	**Dilution:** 1
	Report Basis: AS RECEIVED	**Prep Batch:** sv11014	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Units	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	2040	ug/kg	2500	82	19 - 113
321-60-8	2-FLUOROBIPHENYL	1130	ug/kg	1670	68	30 - 105
367-12-4	2-FLUOROPHENOL	1540	ug/kg	2500	62	25 - 100
4165-60-0	NITROBENZENE-D5	1020	ug/kg	1670	61	31 - 106
13127-88-3	PHENOL-D5	1730	ug/kg	2500	69	24 - 104
1718-51-0	TERPHENYL-D14	1280	ug/kg	1670	77	18 - 112

U = Less than the Reporting Limit

Supporting QA/QC Data

Surrogate Summary for Semi-volatile Organics by GC/MS

Method SW8270

Monday, November 17, 1997

Surrogate Compound	Control Limits Lower	Control Limits Upper
2,4,6-Tribromophenol	19	113
2-Fluorobiphenyl	30	105
2-Fluorophenol	25	100
Nitrobenzene-d5	31	106
Phenol-d5	24	104
Terphenyl-d14	18	112

Prep Batch ID: sv11014

Project Number: 9711014

Lab ID	Client Sample ID	Date Collected	Date Received	246TB % Recovery	2FBP % Recovery	2FP % Recovery	ND5 % Recovery	PD5 % Recovery	TD14 % Recovery
9711014-1	H97023	10/27/97	11/4/97	80	72	65	66	78	78
9711014-2	H97024	10/27/97	11/4/97	74	64	56	65	70	71
9711014-3	H97025	10/27/97	11/4/97	82	68	62	61	69	77
S-111097LCS	LABQC	11/10/97	11/10/97	83	72	61	67	75	84
S-111097LCSD	LABQC	11/10/97	11/10/97	84	74	62	68	72	85
S-111097MB	LABQC	11/10/97	11/10/97	63	69	66	70	73	73

Semi-volatile Organics by GC/MS

Blank Spike and Blank Spike Duplicate

Method SW8270

Lab Name: Paragon Analytics, Inc.

Work Order Number: 9711014

Client Name: Washington State Dept. of Ecol

ClientProject ID:

Reported on: Monday, November 17, 1997

BS ID: S-111097LCS	**Sample Matrix:**	Solid	**Date Collected:**	10-Nov-97	**Sample Aliquot:**	30
BSD ID: S-111097LCSD	**% Moisture:**	N/A	**Date Extracted:**	10-Nov-97	**Final Volume:**	1
	Cleanup Method:	NONE	**Date Analyzed:**	11-Nov-97	**Dilution:**	1
	Report Basis:	N/A	**Prep Batch:**	sv11014		

CASNO	Target Analyte	Spike Added	BS Result	Units	Reporting Limit	BS % Rec.	Control Limits
108-95-2	PHENOL	2500	1660	ug/kg	333	66	25 - 112
95-57-8	2-CHLOROPHENOL	2500	1690	ug/kg	333	68	28 - 110
106-46-7	1,4-DICHLOROBENZENE	1670	1020	ug/kg	333	61	27 - 104
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1670	1060	ug/kg	333	64	24 - 116
120-82-1	1,2,4-TRICHLOROBENZENE	1670	1170	ug/kg	333	70	33 - 105
59-50-7	4-CHLORO-3-METHYLPHENOL	2500	1780	ug/kg	333	71	31 - 108
83-32-9	ACENAPHTHENE	1670	1090	ug/kg	333	66	33 - 102
100-02-7	4-NITROPHENOL	2500	1580	ug/kg	1670	63	21 - 133
121-14-2	2,4-DINITROTOLUENE	1670	1220	ug/kg	333	73	23 - 121
87-86-5	PENTACHLOROPHENOL	2500	1600	ug/kg	1670	64	11 - 120
129-00-0	PYRENE	1670	1190	ug/kg	333	71	29 - 114

Semi-volatile Organics by GC/MS

Blank Spike and Blank Spike Duplicate

Method SW8270

Lab Name: Paragon Analytics, Inc.

Work Order Number: 9711014

Client Name: Washington State Dept. of Ecol

ClientProject ID:

Reported on: Monday, November 17, 1997

CASNO	Target Analyte	Spike Added	BSD Result	Units	Reporting Limit	BSD % Rec.	RPD	RPD Limits
108-95-2	PHENOL	2500	1680	ug/kg	333	67	2	44
95-57-8	2-CHLOROPHENOL	2500	1740	ug/kg	333	70	3	41
106-46-7	1,4-DICHLOROBENZENE	1670	1090	ug/kg	333	65	6	39
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1670	976	ug/kg	333	59	8	46
120-82-1	1,2,4-TRICHLOROBENZENE	1670	1250	ug/kg	333	75	7	36
59-50-7	4-CHLORO-3-METHYLPHENOL	2500	1780	ug/kg	333	71	0	38
83-32-9	ACENAPHTHENE	1670	1150	ug/kg	333	69	4	35
100-02-7	4-NITROPHENOL	2500	1680	ug/kg	1670	67	6	67
121-14-2	2,4-DINITROTOLUENE	1670	1180	ug/kg	333	71	3	49
87-86-5	PENTACHLOROPHENOL	2500	1640	ug/kg	1670	66	3	54
129-00-0	PYRENE	1670	1210	ug/kg	333	73	3	42

Surrogate Recovery BS/BSD

CASNO	Target Analyte	Spike Added	BS % Rec.	BSD % Rec.	RPD	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	2500	83	84	1	19 - 113
321-60-8	2-FLUOROBIPHENYL	1670	72	74	3	30 - 105
367-12-4	2-FLUOROPHENOL	2500	61	62	2	25 - 100
4165-60-0	NITROBENZENE-D5	1670	67	68	1	31 - 106
13127-88-3	PHENOL-D5	2500	75	72	4	24 - 104
1718-51-0	TERPHENYL-D14	1670	84	85	1	18 - 112

Prep Batch Summary for Semi-volatile Organics by GC/MS

Method SW8270

Prep Batch ID: sv11014
Date prepped: 10-Nov-97

Project Number: 9711014
COC Number:

Lab ID	Client Sample ID	Date Collected	Date Received
9711014-1	H97023	10/27/97	11/4/97
9711014-2	H97024	10/27/97	11/4/97
9711014-3	H97025	10/27/97	11/4/97
S-111097LCS	LABQC	11/10/97	11/10/97
S-111097LCSD	LABQC	11/10/97	11/10/97
S-111097MB	LABQC	11/10/97	11/10/97

5B

Semi-Volatile Organic GC/MS Tuning And Mass Calibration--Decafluorotriphenylphosphine (DFTPP)

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:

DFTPP Injection Date: 11/10/97
DFTPP Injection Time: 12:52
Reported on: Monday, November 17, 1997

Sample Matrix: Solid **Level:** Low **Column:** Cap

m/e	Ion Abundance Criteria	% Relative Abundance
51	30.0 - 60.0 percent of mass 198	36
68	Less than 2.0 percent of mass 69	0
69	Mass 69 relative abundance of mass 198	45.3
70	Less than 2.0 percent of mass 69	0
127	40.0 - 60.0 percent of mass 198	54.1
197	Less than 1.0 percent of mass 198	0
198	Base peak, 100 percent of relative abundance	100
199	5.0 - 9.0 percent of mass 198	19.6
275	10.0 - 30.0 percent of mass 198	2.5
365	Greater than 1.00 percent of mass 198	73.4
441	Present, but less than mass 443 (percent of 443)	60.5
442	Greater than 40.0 percent of mass 198	19.9
443	17.0 - 23.0 percent of mass 442	18.8

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

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
SSTD010	10 NG 8270	P0201	11/10/97	13:06
SSTD020	20 NG 8270	P0202	11/10/97	13:37
SSTD050	50 NG 8270	P0203	11/10/97	14:08
SSTD080	80 NG 8270	P0204	11/10/97	14:38
SSTD100	100 NG 8270	P0205	11/10/97	15:10
SSTD120	120 NG 8270	P0206	11/10/97	15:41
SSTD160	160 NG 8270	P0207	11/10/97	16:12

5B

Semi-Volatile Organic GC/MS Tuning And Mass Calibration--Decafluorotriphenylphosphine (DFTPP)

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:

DFTPP Injection Date: 11/11/97
DFTPP Injection Time: 13:02
Reported on: Monday, November 17, 1997

Sample Matrix: Solid **Level:** Low **Column:** Cap

m/e	Ion Abundance Criteria	% Relative Abundance
51	30.0 - 60.0 percent of mass 198	35.3
68	Less than 2.0 percent of mass 69	0
69	Mass 69 relative abundance of mass 198	40.5
70	Less than 2.0 percent of mass 69	0
127	40.0 - 60.0 percent of mass 198	52.1
197	Less than 1.0 percent of mass 198	0
198	Base peak, 100 percent of relative abundance	100
199	5.0 - 9.0 percent of mass 198	6.8
275	10.0 - 30.0 percent of mass 198	21.2
365	Greater than 1.00 percent of mass 198	2.7
441	Present, but less than mass 443 (percent of 443)	78.2
442	Greater than 40.0 percent of mass 198	57.6
443	17.0 - 23.0 percent of mass 442	18.7

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

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
SSTD050	50 NG STD	P0221	11/11/97	13:15
LABQC	S-111097MB	P0222	11/11/97	13:49
LABQC	S-111097LCS	P0223	11/11/97	14:20
LABQC	S-111097LCSD	P0224	11/11/97	14:51

Calibration Table Report
Method: 111097.M
Title: GC-MS Semivolatiles
Last Calibration: Mon Nov 10 16:50:08 1997

Form 6 HPSV-2 11-10-97

Calibration Files

Compound	10 P0201.D	20 P0202.D	50 P0203.D	80 P0204.D	100 P0205.D	120 P0206.D	160 P0207.D	Avg	%RSD
1,4-Dichlorobenzene-d4	ISTD								
Pyridine	2.428	2.335	2.371	2.296	1.967	1.999	1.704	2.16	12.50
n-Nitrosodimethylamine	1.345	1.285	1.254	1.206	1.011	1.009	0.995	1.16	12.86
2-Fluorophenol	2.957	2.791	2.711	2.696	2.645	2.626	2.574	2.71	4.70
2-Chlorophenol-d4	1.298	1.277	1.173	1.183	1.210	1.182	1.208	1.22	4.04
Aniline	3.889	3.687	3.133	2.987	2.930	2.661	2.218	3.07	18.68
Phenol-d5	3.692	3.695	3.566	3.377	3.319	3.240	3.233	3.45	5.87
Phenol	4.258	4.099	3.903	3.839	3.731	3.630	3.605	3.87	6.26
Bis(2-chloroethyl)ether	3.170	3.229	3.026	2.906	2.855	2.900	2.771	2.98	5.67
2-Chlorophenol	1.563	1.550	1.463	1.458	1.522	1.419	1.465	1.49	3.37
1,3-Dichlorobenzene	1.688	1.677	1.612	1.603	1.569	1.482	1.528	1.59	4.69
1,4-Dichlorobenzene	1.784	1.876	1.728	1.678	1.712	1.646	1.661	1.73	4.67
1,2-Dichlorobenzene-d4	1.037	1.081	0.980	0.974	1.013	1.011	0.991	1.01	3.88
1,2-Dichlorobenzene	1.618	1.665	1.560	1.532	1.583	1.562	1.572	1.56	2.77
Benzyl Alcohol	1.945	2.056	1.938	1.903	1.933	1.855	1.805	1.92	4.11
Bis(2-chloroisopropyl)ether	1.869	2.011	1.986	1.900	1.892	1.741	1.740	1.88	5.68
2-Methylphenol	2.569	2.739	2.743	2.533	2.603	2.465	2.511	2.59	4.20
n-Nitroso-di-n-propylamine	1.158	1.233	1.183	1.082	1.091	0.983	1.026	1.11	7.99
4-Methylphenol	2.746	2.965	2.675	2.642	2.707	2.536	2.567	2.72	5.97
Hexachloroethane	1.211	1.326	1.274	1.214	1.238	1.187	1.209	1.24	3.87
Naphthalene-d8	ISTD								
Nitrobenzene-d5	0.623	0.730	0.792	0.727	0.737	0.724	0.788	0.73	7.64
Nitrobenzene	0.552	0.656	0.714	0.666	0.632	0.650	0.672	0.65	5.70
Isophorone	1.359	1.466	1.661	1.442	1.363	1.287	1.395	1.43	8.40
2-Nitrophenol	0.222	0.237	0.288	0.259	0.276	0.279	0.294	0.27	10.21
2,4-Dimethylphenol	0.452	0.494	0.570	0.492	0.526	0.521	0.532	0.51	7.28
Bis(2-chloroethoxy)methane	1.026	1.158	1.259	1.131	1.121	1.153	1.148	1.14	6.00
2,4-Dichlorophenol	0.300	0.313	0.440	0.401	0.433	0.427	0.435	0.39	15.37
Benzoic acid			0.058	0.296	0.405	0.460	0.515	0.35	52.01
1,2,4-Trichlorobenzene	0.406	0.437	0.481	0.421	0.447	0.462	0.465	0.45	5.93
Naphthalene	1.148	1.297	1.358	1.242	1.332	1.299	1.266	1.28	5.37
4-Chloroaniline	0.462	0.550	0.541	0.464	0.490	0.469	0.439	0.49	8.31
Hexachlorobutadiene	0.264	0.304	0.326	0.298	0.307	0.304	0.314	0.30	6.21
4-Chloro-3-methylphenol	0.665	0.789	0.858	0.777	0.798	0.790	0.768	0.78	7.41
2-Methylnaphthalene	0.644	0.783	0.750	0.741	0.805	0.769	0.829	0.76	7.93
Acenaphthene-d10	ISTD								
Hexachlorocyclopentadiene	0.217	0.234	0.255	0.413	0.449	0.463	0.481	0.36	29.98
2,4,6-Trichlorophenol	0.212	0.298	0.483	0.498	0.519	0.496	0.522	0.43	28.82
2,4,5-Trichlorophenol	0.304	0.424	0.530	0.537	0.561	0.542	0.562	0.49	19.51
2-Fluorobiphenyl	1.437	1.516	1.580	1.531	1.550	1.570	1.558	1.54	3.42
2-Chloronaphthalene	1.322	1.316	1.426	1.292	1.426	1.380	1.291	1.36	4.00
2-Nitroaniline	0.277	0.39	0.43	0.399	0.435	0.396	0.378	0.40	4.81
Dimethylphthalate	1.538	1.592	1.738	1.597	1.655	1.616	1.52	1.61	4.54
2,6-Dinitrotoluene	0.297	0.315	0.365	0.372	0.366	0.373	0.377	0.35	9.11
Acenaphthylene	1.622	1.67	1.92	1.845	2.113	1.94	2.013	1.93	5.20
3-Nitroaniline	0.317	0.25	0.348	0.35	0.358	0.358	0.315	0.34	5.29
Acenaphthene	1.132	1.263	1.224	1.119	1.2	1.238	1.2	1.20	4.44
2,4-Dinitrophenol			0.141	0.182	0.224	0.21	0.229	0.20	18.47
4-Nitrophenol	0.222	0.317	0.355	0.406	0.432	0.41	0.387	0.37	19.99
Dibenzofuran	1.736	1.859	2.116	1.983	2.002	1.954	1.942	1.94	6.18
2,4-Dinitrotoluene	0.345	0.412	0.492	0.476	0.485	0.434	0.479	0.45	12.27
Diethylphthalate	1.568	1.778	1.692	1.566	1.717	1.657	1.553	1.65	5.13
Fluorene	1.389	1.512	1.513	1.469	1.471	1.518	1.422	1.47	3.28
4-Chlorophenyl phenyl ether	0.673	0.772	0.755	0.755	0.728	0.768	0.721	0.74	5.46
4-Nitroaniline	0.326	0.377	0.363	0.334	0.35	0.348	0.319	0.35	5.97
Azobenzene	1.89	2.072	2.207	2.014	1.919	1.956	1.767	1.97	7.13
2,4,6-Tribromophenol	0.127	0.182	0.211	0.212	0.226	0.232	0.214	0.20	16.07
Phenanthrene-d10	ISTD								
4,6-Dinitro-2-methylphenol		0.099	0.138	0.15	0.168	0.175	0.181	0.15	20.10
n-Nitrosodiphenylamine	0.517	0.59	0.569	0.53	0.585	0.545	0.593	0.56	5.52
4-Bromophenyl phenyl ether	0.201	0.241	0.222	0.219	0.218	0.211	0.23	0.22	5.63
Hexachlorobenzene	0.254	0.288	0.276	0.26	0.278	0.272	0.285	0.27	4.48
Pentachlorophenol			0.115	0.133	0.169	0.166	0.162	0.15	18.16
Phenanthrene	1.048	1.131	1.153	1.111	1.11	1.087	1.093	1.10	3.05
Anthracene	1.031	1.175	1.055	1.033	1.149	1.103	1.162	1.11	5.33
Carbazole	0.936	1.024	0.994	0.926	1.037	1.024	0.994	0.99	4.43
Di-n-butylphthalate	1.428	1.405	1.28	1.345	1.381	1.346	1.281	1.35	4.77
Fluoranthene	1.08	1.166	1.037	1.166	1.125	1.116	1.167	1.12	4.45
Chrysene-d12	ISTD								
Benzidine	0.141	0.103	0.072	0.123	0.148	0.135	0.121	0.12	23.63
Pyrene	2.357	2.669	2.471	2.394	2.203	2.213	2.272	2.34	7.54
p-Terphenyl-d14	1.411	1.464	1.424	1.254	1.229	1.284	1.261	1.33	7.26
Butylbenzylphthalate	0.991	1.102	1.066	0.972	0.949	0.939	0.912	0.99	7.22
Benzo(a)anthracene	1.4	1.505	1.447	1.404	1.374	1.424	1.426	1.43	2.94
3,3'-Dichlorobenzidine	0.48	0.522	0.523	0.454	0.498	0.492	0.471	0.50	3.92
Chrysene	1.307	1.449	1.319	1.258	1.358	1.339	1.298	1.33	4.52
Bis(2-ethylhexyl)phthalate	1.071	1.034	1.016	1.012	1.018	1.006	0.989	1.02	2.52
Perylene-d12	ISTD								
Di-n-octylphthalate	2.207	2.324	2.529	2.306	2.368	2.41	2.551	2.39	5.16
Benzo(b)fluoranthene	1.403	1.594	1.636	1.495	1.501	1.534	2.794	1.71	26.36
Benzo(k)fluoranthene	1.299	1.526	1.611	1.423	1.388	3.077	3.151	1.93	42.51
Benzo(a)pyrene	1.143	1.317	1.326	1.222	1.246	1.275	1.289	1.26	5.02
Indeno(1,2,3-c,d)pyrene	1.009		1.142	1.105	1.149	1.089	1.041	1.09	5.09
Dibenzo(a,h)anthracene	0.791		0.948	0.921	0.971	0.937	0.883	0.91	7.12
Benzo(g,h,i)perylene	0.801		0.873	0.911	0.935	0.861	0.828	0.87	5.76

Mon Nov 10 16:55:18 1997

Calibration Table Report
Method: 111297.M
Title: GC-MS Semivolatiles
Last Calibration Edit: Thu Nov 13 06:59:34 1997

Form 6 HPSV-2 11-12-97

Calibration Files

Compound	10 P0246.D	20 P0247.D	50 P0248.D	80 P0249.D	100 P0250.D	120 P0251.D	160 P0252.D	Avg	%RSD
1,4-Dichlorobenzene-d4	ISTD								
Pyridine	2.699	2.622	2.743	2.360	2.521	2.361	2.294	2.58	9.39
n-Nitrosodimethylamine	1.592	1.538	1.395	1.288	1.454	1.368	1.366	1.43	7.32
2-Fluorophenol	2.724	2.616	2.521	2.499	2.612	2.615	2.684	2.61	3.08
2-Chlorophenol-d4	1.152	1.156	1.176	1.138	1.127	1.223	1.319	1.19	5.41
Aniline	4.008	3.569	3.000	2.544	2.629	2.804	2.619	3.01	18.96
Phenol-d5	3.907	4.002	3.736	3.644	3.897	3.851	3.565	3.87	3.37
Phenol	4.701	4.733	4.458	4.326	4.619	4.634	4.615	4.59	3.01
Bis(2-chloroethyl)ether	3.588	3.554	3.536	3.668	3.716	3.687	3.278	3.58	4.14
2-Chlorophenol	1.458	1.521	1.492	1.451	1.453	1.579	1.617	1.51	4.36
1,3-Dichlorobenzene	1.494	1.565	1.494	1.419	1.528	1.539	1.574	1.52	3.48
1,4-Dichlorobenzene	1.654	1.758	1.692	1.676	1.754	1.666	1.733	1.71	2.00
1,2-Dichlorobenzene-d4	0.978	1.049	1.022	1.008	1.039	1.107	1.171	1.05	4.94
1,2-Dichlorobenzene	1.557	1.602	1.589	1.519	1.658	1.756	1.783	1.64	6.09
Benzyl Alcohol	1.920	2.126	2.021	1.955	1.996	2.148	2.044	2.03	4.34
Bis(2-chloroisopropyl)ether	2.523	2.741	2.587	2.590	2.607	2.797	2.785	2.66	4.24
2-Methylphenol	2.638	2.878	2.661	2.569	2.744	2.768	2.826	2.73	4.01
n-Nitroso-di-n-propylamine	1.403	1.682	1.518	1.501	1.508	1.568	1.498	1.53	5.68
4-Methylphenol	2.663	3.069	2.811	2.777	2.893	3.024	2.922	2.86	4.92
Hexachloroethane	1.347	1.364	1.317	1.236	1.282	1.303	1.252	1.30	3.62
Naphthalene-d8	ISTD								
Nitrobenzene-d5	0.931	0.962	1.003	0.940	1.057	0.954	0.965	0.96	4.44
Nitrobenzene	0.831	0.884	0.846	0.828	0.913	0.857	0.852	0.86	3.35
Isophorone	1.715	1.809	1.772	1.665	1.870	1.807	1.834	1.78	3.57
2-Nitrophenol	0.239	0.253	0.271	0.268	0.288	0.293	0.291	0.27	7.12
2,4-Dimethylphenol	0.443	0.493	0.530	0.487	0.549	0.533	0.565	0.51	8.23
Bis(2-chloroethoxy)methane	1.373	1.328	1.290	1.316	1.265	1.264	1.338	1.33	2.56
2,4-Dichlorophenol	0.377	0.396	0.408	0.396	0.441	0.438	0.469	0.42	7.74
Benzoic acid			0.595	0.604	0.657	0.657	0.748	0.67	9.80
1,2,4-Trichlorobenzene	0.433	0.455	0.460	0.433	0.495	0.476	0.483	0.46	5.16
Naphthalene	1.174	1.245	1.250	1.275	1.431	1.400	1.478	1.32	8.59
4-Chloroaniline	0.430	0.424	0.315	0.316	0.406	0.416	0.390	0.39	12.90
Hexachlorobutadiene	0.370	0.372	0.368	0.350	0.373	0.342	0.334	0.36	4.48
4-Chloro-3-methylphenol	0.768	0.864	0.796	0.760	0.870	0.841	0.833	0.82	4.45
2-Methylnaphthalene	0.627	0.747	0.766	0.737	0.862	0.843	0.863	0.78	11.45
Acenaphthene-d10	ISTD								
Hexachlorocyclopentadiene	0.318	0.315	0.404	0.483	0.496	0.550	0.508	0.44	21.51
2,4,6-Trichlorophenol	0.503	0.496	0.531	0.547	0.563	0.615	0.567	0.55	7.92
2,4,5-Trichlorophenol	0.516	0.564	0.543	0.539	0.592	0.617	0.566	0.57	6.24
2-Fluorobiphenyl	1.550	1.512	1.549	1.518	1.519	1.690	1.619	1.57	4.33
2-Chloronaphthalene	1.323	1.320	1.249	1.402	1.427	1.568	1.470	1.41	6.38
2-Nitroaniline	0.495	0.543	0.557	0.522	0.56	0.557	0.526	0.54	5.30
Dimethylphthalate	1.547	1.648	1.579	1.563	1.702	1.762	1.614	1.63	4.83
2,6-Dinitrotoluene	0.326	0.371	0.36	0.376	0.411	0.413	0.424	0.38	8.44
Acenaphthylene	1.824	1.755	1.77	1.521	2.011	2.225	2.13	1.95	9.34
3-Nitroaniline	0.275	0.301	0.174	0.125	0.2	0.243	0.262	0.23	28.24
Acenaphthene	1.091	1.155	1.15	1.213	1.362	1.433	1.253	1.24	9.53
2,4-Dinitrophenol			0.229	0.289	0.307	0.322	0.298	0.29	12.20
4-Nitrophenol	0.336	0.468	0.476	0.494	0.495	0.519	0.495	0.47	13.01
Dibenzofuran	1.566	1.631	1.685	1.815	1.951	2.229	2.06	1.91	10.34
2,4-Dinitrotoluene	0.395	0.465	0.492	0.462	0.559	0.555	0.598	0.51	13.63
Diethylphthalate	1.554	1.746	1.629	1.654	1.691	1.840	1.67	1.71	7.34
Fluorene	1.356	1.366	1.433	1.462	1.614	1.636	1.571	1.47	11.32
4-Chlorophenyl phenyl ether	0.742	0.827	0.815	0.812	0.858	0.846	0.834	0.82	5.45
4-Nitroaniline	0.235	0.276	0.131	0.107	0.122	0.148	0.174	0.17	36.90
Azobenzene	2.328	2.596	2.451	2.274	2.473	2.579	2.265	2.43	5.53
2,4,6-Tribromophenol	0.192	0.242	0.25	0.23	0.273	0.279	0.247	0.24	12.75
Phenanthrene-d10	ISTD								
4,6-Dinitro-2-methylphenol		0.185	0.186	0.198	0.205	0.2	0.211	0.20	4.38
n-Nitrosodiphenylamine	0.526	0.49	0.364	0.353	0.393	0.371	0.429	0.42	15.38
4-Bromophenyl phenyl ether	0.271	0.247	0.235	0.242	0.253	0.247	0.246	0.25	4.46
Hexachlorobenzene	0.33	0.315	0.301	0.302	0.311	0.31	0.295	0.31	3.48
Pentachlorophenol			0.193	0.197	0.211	0.211	0.214	0.21	4.16
Phenanthrene	1.24	1.174	1.101	1.171	1.246	1.266	1.206	1.19	4.50
Anthracene	1.054	1.077	1.101	1.157	1.253	1.161	1.26	1.15	7.08
Carbazole	0.622	0.659	0.434	0.35	0.365	0.386	0.532	0.53	38.82
Di-n-butylphthalate	1.321	1.445	1.468	1.558	1.568	1.621	1.824	1.55	10.16
Fluoranthene	1.235	1.3	1.368	1.359	1.43	1.295	1.412	1.33	7.48
Chrysene-d12	ISTD								
Benzidine	0.065	0.017	0.012	0.015	0.016	0.025	0.038	0.03	70.70
Pyrene	1.585	1.623	1.679	1.58	1.801	1.761	1.72	1.68	5.35
p-Terphenyl-d14	1.056	1.094	1.104	0.966	1.172	1.094	1.120	1.09	5.29
Butylbenzylphthalate	0.775	0.782	0.859	0.851	0.893	0.666	0.561	0.86	8.21
Benzo[a]anthracene	1.424	1.371	1.37	1.327	1.346	1.427	1.42	1.39	2.93
3,3'-Dichlorobenzidine	0.46	0.41	0.416	0.38	0.349	0.292	0.397	0.40	8.52
Chrysene	1.25	1.347	1.326	1.211	1.257	1.296	1.318	1.29	3.79
Bis(2-ethylhexyl)phthalate	0.563	0.869	1.011	1.038	1.073	1.205	1.354	1.07	24.96
Perylene-d12	ISTD								
Di-n-octylphthalate	1.83	1.947	2.191	2.366	2.526	2.602	3.929	2.48	26.08
Benzo(b)fluoranthene	1.465	1.593	1.559	1.5	1.622	1.564	3.031	1.76	33.75
Benzo(k)fluoranthene	2.964	3.102	3.117	3.019	3.242	3.147	3.405	3.15	4.61
Benzo[a]pyrene	1.158	1.264	1.289	1.224	1.296	1.272	1.305	1.27	3.18
Indeno(1,2,3-c,d)pyrene	0.964		1.099	1.072	1.118	1.153	0.917	1.05	8.82
Dibenzo[a,h]anthracene	0.769		0.915	0.898	0.924	0.984	0.791	0.88	9.46
Benzo[g,h,i]perylene	0.774		0.865	0.641	0.689	0.877	0.687	0.83	9.74

Thu Nov 13 09:00:14 1997

All CCC's & SPCC's < 30 % RSD

All RFs > 0.05 except for Benzidine

Data File : C:\HPCHEM\1\DATA\111197\P0221.D
Acq On : 11 Nov 97 1:15 pm
Sample : 50 ng 8270 std
Misc : 1283-55-06

Vial: 2
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration

Form 7

Min. RRF : 0.050 Min. Rel. Area : 10% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	127	0.00
2	T	Pyridine	2.157	2.259	-4.7	121	0.00
3	T	n-Nitrosodimethylamine	1.158	1.272	-9.8	129	0.00
4	S	2-Fluorophenol	2.714	2.898	-6.8	136	0.00
5	S	2-Chlorophenol-d4	1.219	1.270	-4.2	138	0.00
6	T	Aniline	3.072	2.727	11.2	111	0.00
7	S	Phenol-d5	3.446	3.590	-4.2	128	0.00
8	TMC	Phenol	3.867	4.211	-8.9	137	0.00
9	T	Bis(2-chloroethyl)ether	2.980	3.181	-6.8	134	0.00
10	TM	2-Chlorophenol	1.493	1.530	-2.5	131	0.01
11	T	1,3-Dichlorobenzene	1.594	1.584	0.6	125	0.00
12	TMC	1,4-Dichlorobenzene	1.727	1.725	0.1	127	0.00
13	S	1,2-Dichlorobenzene-d4	1.012	1.020	-0.7	133	0.01
14	T	1,2-Dichlorobenzene	1.585	1.594	-0.6	130	0.00
15	T	Benzyl Alcohol	1.919	2.021	-5.3	133	0.01
16	T	Bis(2-chloroisopropyl)ether	1.877	1.903	-1.4	122	0.00
17	T	2-Methylphenol	2.595	2.762	-6.4	128	0.01
18	TMP	n-Nitroso-di-n-propylamine	1.108	1.070	3.4	115	0.00
19	T	4-Methylphenol	2.722	2.773	-1.8	123	0.00
20	T	Hexachloroethane	1.237	1.338	-8.1	134	0.00
21	I	Naphthalene-d8	1.000	1.000	0.0	130	0.01
22	S	Nitrobenzene-d5	0.732	0.881	-20.4#	145	0.00
23	T	Nitrobenzene	0.655	0.765	-16.9	140	0.00
24	T	Isophorone	1.425	1.471	-3.2	115	0.00
25	TC	2-Nitrophenol	0.265	0.286	-7.9	129	0.00
26	T	2,4-Dimethylphenol	0.513	0.532	-3.8	122	0.01
27	T	Bis(2-chloroethoxy)methane	1.142	1.234	-8.0	128	0.00
28	TC	2,4-Dichlorophenol	0.393	0.434	-10.6	129	0.00
29	T	Benzoic acid	0.347	0.554	-59.7#	1234#	0.02
30	TM	1,2,4-Trichlorobenzene	0.445	0.475	-6.7	129	0.00
31	T	Naphthalene	1.277	1.258	1.5	121	0.00
32	T	4-Chloroaniline	0.491	0.486	1.0	117	0.00
33	TC	Hexachlorobutadiene	0.302	0.348	-15.2	139	0.00
34	TMC	4-Chloro-3-methylphenol	0.778	0.835	-7.4	127	0.00
35	T	2-Methylnaphthalene	0.763	0.771	-1.0	134	0.01
36	I	Acenaphthene-d10	1.000	1.000	0.0	128	0.00
37	TP	Hexachlorocyclopentadiene	0.360	0.273	24.1#	119	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\111197\P0221.D
Acq On : 11 Nov 97 1:15 pm
Sample : 50 ng 8270 std
Misc : 1283-55-06

Vial: 2
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration

Form 1

Min. RRF : 0.050 Min. Rel. Area : 10% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
38	TC	2,4,6-Trichlorophenol	0.432	0.500	-15.6	133	0.00
39	T	2,4,5-Trichlorophenol	0.494	0.547	-10.8	133	0.00
40	S	2-Fluorobiphenyl	1.540	1.544	-0.2	125	0.00
41	T	2-Chloronaphthalene	1.365	1.427	-4.6	128	0.00
42	T	2-Nitroaniline	0.398	0.449	-13.0	134	0.00
43	T	Dimethylphthalate	1.608	1.588	1.3	117	0.00
44	T	2,6-Dinitrotoluene	0.352	0.367	-4.2	129	0.00
45	T	Acenaphthylene	1.932	1.729	10.5	115	0.00
46	T	3-Nitroaniline	0.342	0.332	2.9	122	0.00
47	TMC	Acenaphthene	1.197	1.206	-0.8	126	0.00
48	TP	2,4-Dinitrophenol	0.198	0.226	-14.5	206#	0.00
49	TMP	4-Nitrophenol	0.367	0.437	-19.0	142	0.00
50	T	Dibenzofuran	1.943	1.866	3.9	113	0.00
51	TM	2,4-Dinitrotoluene	0.455	0.470	-3.4	123	0.00
52	T	Diethylphthalate	1.650	1.646	0.2	125	0.00
53	T	Fluorene	1.466	1.490	-1.6	126	0.00
54	T	4-Chlorophenyl phenyl ether	0.744	0.794	-6.7	128	0.00
55	T	4-Nitroaniline	0.345	0.321	7.1	113	0.01
56	T	Azobenzene	1.975	2.155	-9.1	125	0.00
57	S	2,4,6-Tribromophenol	0.200	0.248	-23.9#	151#	0.00
58	I	Phenanthrene-d10	1.000	1.000	0.0	122	0.00
59	T	4,6-Dinitro-2-methylphenol	0.152	0.182	-19.6	160#	0.00
60	TC	n-Nitrosodiphenylamine	0.561	0.554	1.3	118	0.00
61	T	4-Bromophenyl phenyl ether	0.220	0.234	-6.3	128	0.00
62	T	Hexachlorobenzene	0.273	0.297	-8.7	131	0.00
63	TMC	Pentachlorophenol	0.153	0.179	-16.8	189#	0.00
64	T	Phenanthrene	1.105	1.153	-4.3	122	0.00
65	T	Anthracene	1.107	1.071	3.2	119	0.00
66	T	Carbazole	0.991	0.971	2.0	119	0.00
67	T	Di-n-butylphthalate	1.348	1.271	5.7	124	0.00
68	TC	Fluoranthene	1.122	1.119	0.3	131	0.00
69	I	Chrysene-d12	1.000	1.000	0.0	138	0.00
70	T	Benzidine	0.121	0.029#	75.9#	56	0.00
71	TM	Pyrene	2.340	2.276	2.7	127	0.01
72	S	p-Terphenyl-d14	1.332	1.378	-3.4	134	0.00
73	T	Butylbenzylphthalate	0.990	0.952	3.8	123	0.00
74	T	Benzo[a]anthracene	1.426	1.391	2.5	133	0.00

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\111197\P0221.D Vial: 2
Acq On : 11 Nov 97 1:15 pm Operator: GB
Sample : 50 ng 8270 std Inst : HP-SV 2
Misc : 1283-55-06 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration

Form 7

Min. RRF : 0.050 Min. Rel. Area : 10% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
75	T	3,3'-Dichlorobenzidine	0.497	0.468	5.8	123	0.01
76	T	Chrysene	1.333	1.416	-6.3	148	0.01
77	T	Bis(2-ethylhexyl)phthalate	1.021	0.988	3.2	134	0.00
78	I	Perylene-d12	1.000	1.000	0.0	152#	0.00
79	TC	Di-n-octylphthalate	2.385	2.320	2.7	140	0.00
80	T	Benzo[b]fluoranthene	1.708	1.569	8.1	146	0.00
81	T	Benzo[k]fluoranthene	1.925	1.549	19.5	146	0.00
82	TC	Benzo[a]pyrene	1.260	1.322	-5.0	152#	0.00
83	T	Indeno(1,2,3-c,d)pyrene	1.089	1.193	-9.5	159#	0.00
84	T	Dibenzo[a,h]anthracene	0.909	1.026	-12.9	165#	0.01
85	T	Benzo[g,h,i]perylene	0.868	0.964	-11.1	168#	0.01

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

5B

Semi-Volatile Organic GC/MS Tuning And Mass Calibration--Decafluorotriphenylphosphine (DFTPP)

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:

DFTPP Injection Date: 11/12/97
DFTPP Injection Time: 13:44
Reported on: Monday, November 17, 1997

Sample Matrix: Solid **Level:** Low **Column:** Cap

m/e	Ion Abundance Criteria	% Relative Abundance
51	30.0 - 60.0 percent of mass 198	37.9
68	Less than 2.0 percent of mass 69	0
69	Mass 69 relative abundance of mass 198	48.3
70	Less than 2.0 percent of mass 69	0
127	40.0 - 60.0 percent of mass 198	47.9
197	Less than 1.0 percent of mass 198	0
198	Base peak, 100 percent of relative abundance	100
199	5.0 - 9.0 percent of mass 198	6.6
275	10.0 - 30.0 percent of mass 198	21.8
365	Greater than 1.00 percent of mass 198	3
441	Present, but less than mass 443 (percent of 443)	75.5
442	Greater than 40.0 percent of mass 198	64.3
443	17.0 - 23.0 percent of mass 442	18.8

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

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
SSTD010	10 NG 8270 STD	P0246	11/12/97	13:57
SSTD020	20 NG 8270 STD	P0247	11/12/97	14:28
SSTD050	50 NG 8270 STD	P0248	11/12/97	14:59
SSTD080	80 NG 8270 STD	P0249	11/12/97	15:30
SSTD100	100 NG 8270 STD	P0250	11/12/97	16:02
SSTD120	120 NG 8270 STD	P0251	11/12/97	16:33
SSTD160	160 NG 8270 STD	P0252	11/12/97	17:04
H97023	9711014-1	P0254	11/12/97	18:07
H97024	9711014-2	P0255	11/12/97	18:38
H97025	9711014-3	P0256	11/12/97	19:09

8B

Semi-Volatile Internal Standard Area Summary

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:

Date Analyzed: 11/11/97
Time Analyzed: 13:15
Reported on: Monday, November 17, 1997

Instrument ID: HPSV-2
Lab File ID: P0221

	IS1(DCB)		IS2(NPT)		IS3(ANT)		IS4(PHN)		IS5(CRY)		IS6(PRY)	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
12 Hour STD	187841	8.16	547696	10.85	324559	13.46	558184	15.39	260917	18.72	160471	20.55
Upper Limit	375682	8.66	1095392	11.4	649118	14	1116368	15.9	521834	19.2	320942	21.1
Lower Limit	93920.5	7.66	273848	10.4	162280	13	279092	14.9	130459	18.2	80235.5	20.1
Lab Sample ID												
S-111097LCSD	111270	8.15	343427	10.83	199406	13.45	353178	15.39	168943	18.7	109111	20.54
S-111097LCS	114346	8.15	367483	10.84	217397	13.45	378667	15.39	183008	18.7	113749	20.54
S-111097MB	126036	8.15	394416	10.83	229303	13.45	387550	15.38	182499	18.71	118983	20.54

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

Upper Limit = + 100 percent of internal standard area.
Lower Limit = - 50 percent of internal standard area.

8B

Semi-Volatile Internal Standard Area Summary

Lab Name: Paragon Analytics, Inc.
Work Order Number: 9711014
Client Name: Washington State Dept. of Ecol
ClientProject ID:

Date Analyzed: 11/12/97
Time Analyzed: 14:59
Reported on: Monday, November 17, 1997

Instrument ID: HPSV-2
Lab File ID: P0248

	IS1(DCB)		IS2(NPT)		IS3(ANT)		IS4(PHN)		IS5(CRY)		IS6(PRY)	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
12 Hour STD	288797	8.08	910248	10.79	573704	13.41	1033744	15.35	816952	18.67	532654	20.49
Upper Limit	577594	8.58	1820496	11.3	1147408	13.9	2067488	15.9	1633904	19.2	1065308	21
Lower Limit	144399	7.58	455124	10.3	286852	12.9	516872	14.9	408476	18.2	266327	20
Lab Sample ID												
9711014-3	175423	8.06	612729	10.78	365681	13.41	631374	15.34	487458	18.67	355521	20.49
9711014-2	163249	8.07	546285	10.79	352881	13.41	640849	15.34	537732	18.67	488447	20.49
9711014-1	221426	8.07	766091	10.78	460318	13.41	851370	15.34	700506	18.67	536317	20.49

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

Upper Limit = + 100 percent of internal standard area.
Lower Limit = - 50 percent of internal standard area.

Supporting Raw Data

Paragon Analytics Inc.

GC/MS SEMIVOLATILE INSTRUMENT RUN LOG

INSTRUMENT ID: HPSV-2

GC COLUMN: J+W DB-5.625

I.S. STANDARD USED: 1293.50.03

SOP #: 506

Date	Vial No.	Datafile	Sample ID	Dilution	Reanalysis Required	Comments
11.8.97	Instl.	Maint	enance cut	~ 6'in	Column	D'ding. port liner Bake 325°C 20 min
						CB 11.8.97
11 8 97	100	P0200	DFTPP	50 µg/ml		1293.50.01
		01	SSTD050	↓		
11-10-97	1	P0200	DFTPP	–	No	1283-50-1
	2	201	10 ng STD	–		1283-55-8
	3	202	20 ng STD	–		1283-55-7
	4	203	50 ng STD	–		1283-55-6
	5	204	80 ng STD	–		1283-55-5
	6	205	100 ng STD	–		1283-55-4
	7	206	120 ng STD	–		1283-55-3
	8	207	160 ng STD	–		1283-55-2
	9	208	WRB1 110697	–		
	10	209	WBS1 110697	–		
	11	210	WBS2 110697	–		
	12	211	9711017-1	–		
	13	212	9711024-3	–		
	14	213	2-picoline (50 ng)	–		
	15	214	WRB1 102197	–		check for 2-picoline by mass chrd.
	16	215	WBS1 102197	–		

FRM 528FC0 (03/SEP/97)

Analyst: C. Brook

Date: 11-10-97

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Paragon Analytics Inc.

GC/MS SEMIVOLATILE INSTRUMENT RUN LOG

INSTRUMENT ID: HPSV-2

GC COLUMN: J+W DB-5.625

I.S. STANDARD USED: 1283-50-3

SOP #: 506

Date	Vial No.	Datafile	Sample ID	Dilution	Reanalysis Required	Comments
11-10-97	17	P0216	WBS2 102197	–	No	check for 2-picoline by mass-chro.
	18	217	9710150-1	–		
	19	218	-2	–		
	20	219	-3	–		
11.11.97	1	P0220	DFTPP	50 ng/ml		
	2	21	8270 std			
	3	22	S-111097MB	NO	NO	9711014,080
	4	23	LCS			
	5	24	LCSD			
	6	25	9711014-1	10	YES	~~1st ES RR 100%~~ RR 100%. 9311.2211 1st ES RR 100%.
	7	26	2			RR 100%.
	8	27	3			
	9	28	9711080-1			
	10	29	2			PD12 CD12 RR 100%.
	11	30	3			RR 100%.
	12	31	4			3 LOW ES RR 100%.
	13	32	5			RR DL2
	14	33	6			RR 100%.
	15	34	7			RR DL2
	16	35	8			RR 100%. PD12 CD12

Analyst: G. Brook

Date: 11-10-97

FRM 528FC0 (03/SEP/97)

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Paragon Analytics Inc.

GC/MIS SEMIVOLATILE INSTRUMENT RUN LOG

INSTRUMENT ID: HP5V-2

GC COLUMN: J+W DB-5.625

I.S. STANDARD USED: 129-3-50-03

SOP #: 506

Date	Vial No.	Datafile	Sample ID	Dilution	Reanalysis Required	Comments
11/1/97	17	P0236	9711080-9	10	YES	PDR1/2 CD12 RR100%.
	18	237	10			" " "
	19	238	11			IS barely (OK) RR100%.
	20	239	12			RRDL2 PD12 CD12
	21	40	13			RR 100% " "
	22	41	14			" " " "
	23	42	15			RR DL2 " "
	24	43	16			RR 100% 12hr (OK) 1245
	25	44	17		YES	RR DL2 outside 12hr. 50116
		YCAB 11/2/97				
11-12-97	1	P0245	DFTPP	–	No	1283-50-1 1346
	2	246	10 ng STD	–		1283-55-8 1357
	3	247	20 ng STD	–		-7 1428
	4	248	50 ng STD	–		-6 1459
	5	249	80 ng STD	–		-5 Compliant 8270B & AFCEE 1536
	6	250	100 ng STD	–		-4 1602
	7	251	120 ng STD	–		-3 1633
	8	252	160 ng STD	–		-2 1704
	9	253	Inst. Blank	–	NO	~~11/13/97~~ ~~7-15-00~~ (Lacey)
	10	254	9711014-1	–		
	11	255	-2	–		

FRM 528FC0 (03/SEP/97)

Analyst: [illegible]

Date: 11/13/97

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Paragon Analytics Inc.

GC/MS SEMIVOLATILE INSTRUMENT RUN LOG

INSTRUMENT ID: HPSV -2

GC COLUMN: J+W DB-5.625

I.S. STANDARD USED: 1283-50-3

SOP #: 506

Date	Vial No.	Datafile	Sample ID	Dilution	Reanalysis Required	Comments
11-12-97	12	P0256	9711014-3	–	NO	11:13 ~~11:43~~ ~~1.75 out~~
	13	257	9711080-1	–		
	14	258	-2	–		
	15	259	-3	–	YES	PD12↓ CD12↓ RRDL2
	16	260	-4	–		Low SS RR to Confirm
	17	261	-5	2	YES	PD12↓ RR to Confirm
	18	262	-6	–		PD12↓ " " "
	19	263	-7	2		PD12↓ " " "
	20	264	-8	–	NO	PD12↓ Confirmed by 1st Run P0235
	21	265	-9	–		
	22	266	-10	–		PD12↓ CD12↓ Confirmed by 1st Run P0237
	23	267	-11	–	YES	PD12↓ CD12↓ RRDL2 to Confirm 12hr ok 1254

Analyst: _____ Date: _____

FRM 528FC0 (03/SEP/97)

Page: _____

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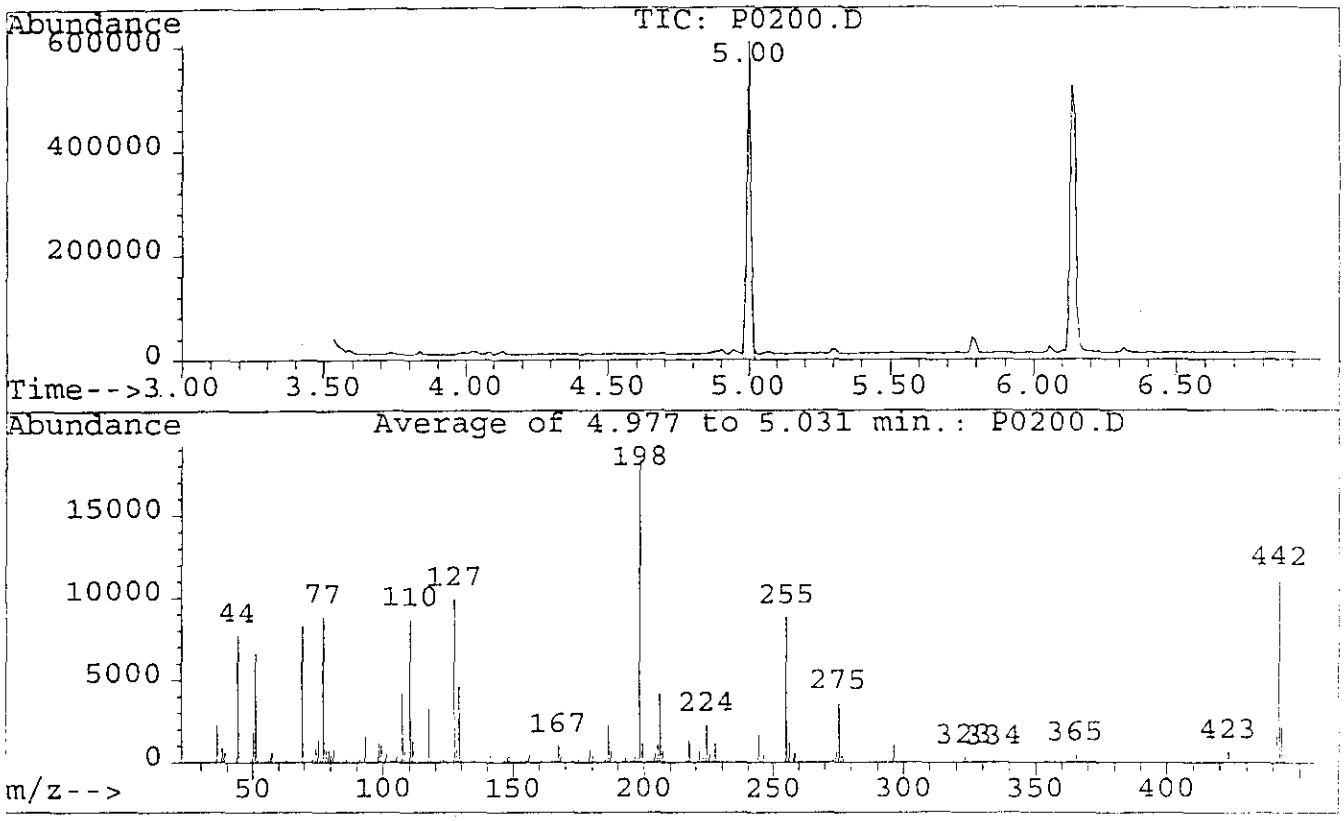
Calibration Raw Data

DFTPP

Data File : C:\HPCHEM\1\DATA\111097\P0200.D
Acq On : 10 Nov 97 12:52 pm
Sample : 50 NG DFTPP +PCP +BENZIDINE
Misc : 1283-38-03

Vial: 1
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\DFTPP.M
Title : DFTPP



Peak Apex is scan: 136

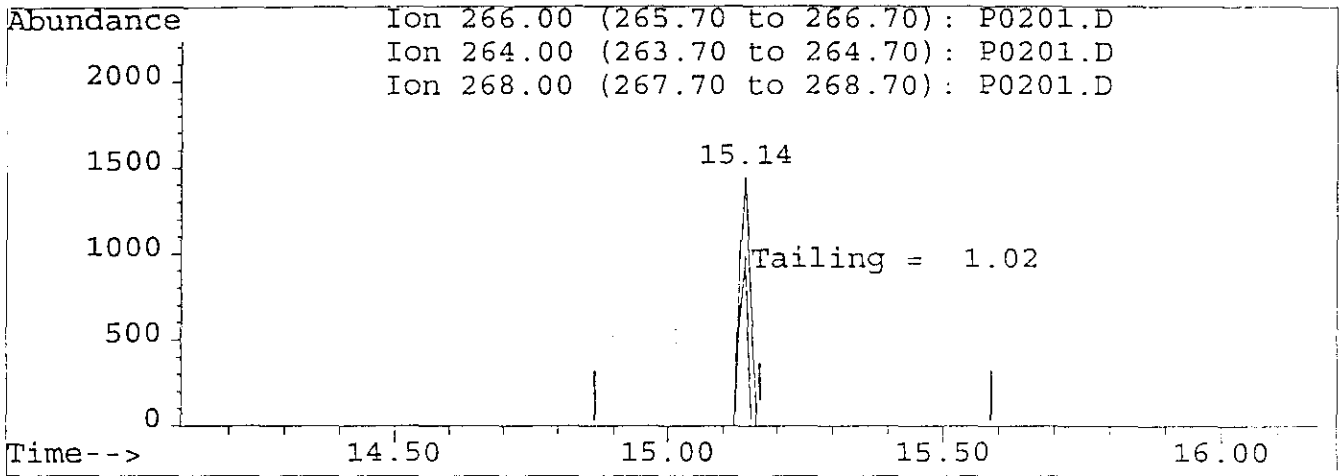
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.0	6593	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	45.3	8298	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	54.1	9911	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	18314	PASS
199	198	5	9	6.4	1174	PASS
275	198	10	30	19.6	3582	PASS
365	198	1	100	2.5	465	PASS
441	443	>0	100	73.4	1616	PASS
442	198	40	100	60.5	11089	PASS
443	442	17	23	19.9	2203	PASS

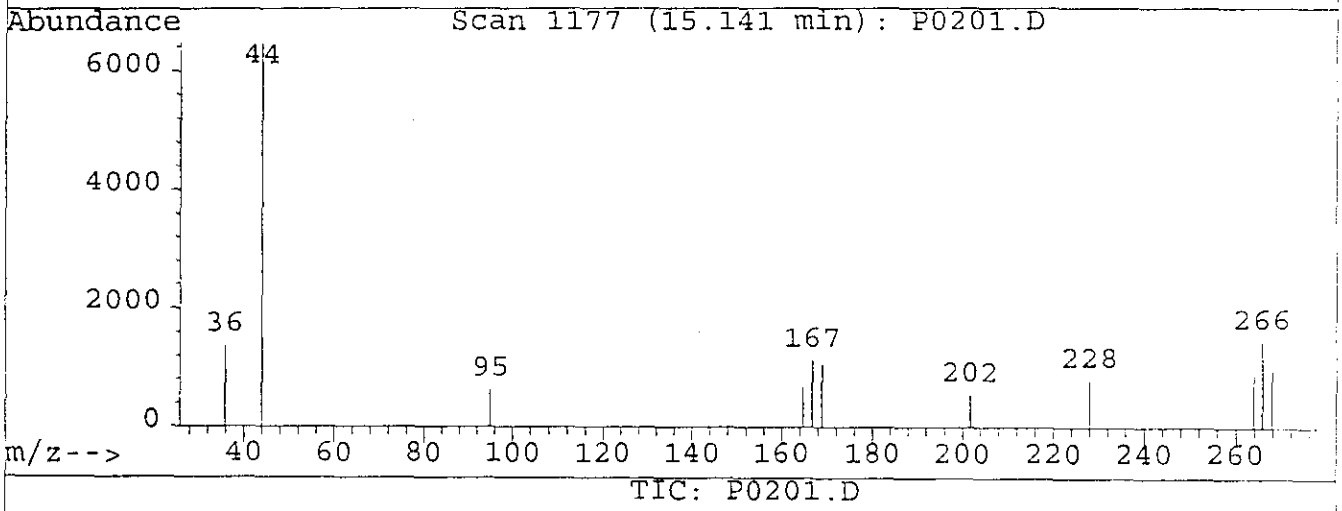
P0200.D DFTPP.M Mon Nov 10 13:02:34 1997 CHEM

Data File : C:\HPCHEM\1\DATA\111097\P0201.D
Acq On : 10 Nov 97 1:06 pm
Sample : 10 ng 8270 std
Misc : 1283-55-08
Quant Time: Nov 10 13:34 1997

Vial: 2
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 06 12:22:24 1997
Response via : Multiple Level Calibration





(63) Pentachlorophenol (TMC)
15.14min 0.97ng/uL
response 1944

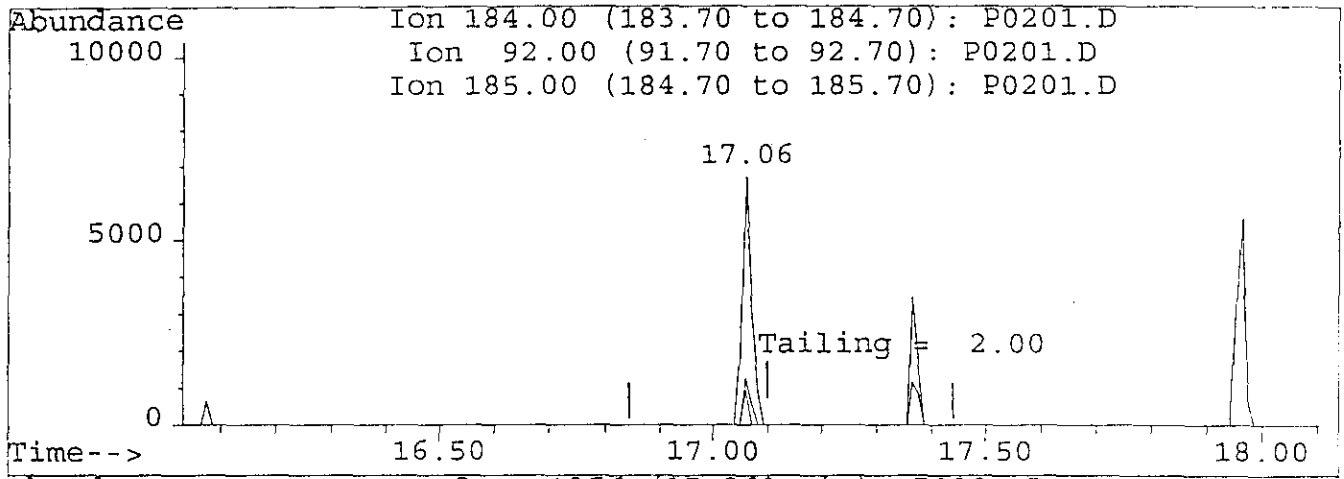
Ion	Exp%	Act%
266.00	100	100
264.00	63.60	51.18
268.00	64.70	50.51
0.00	0.00	0.00

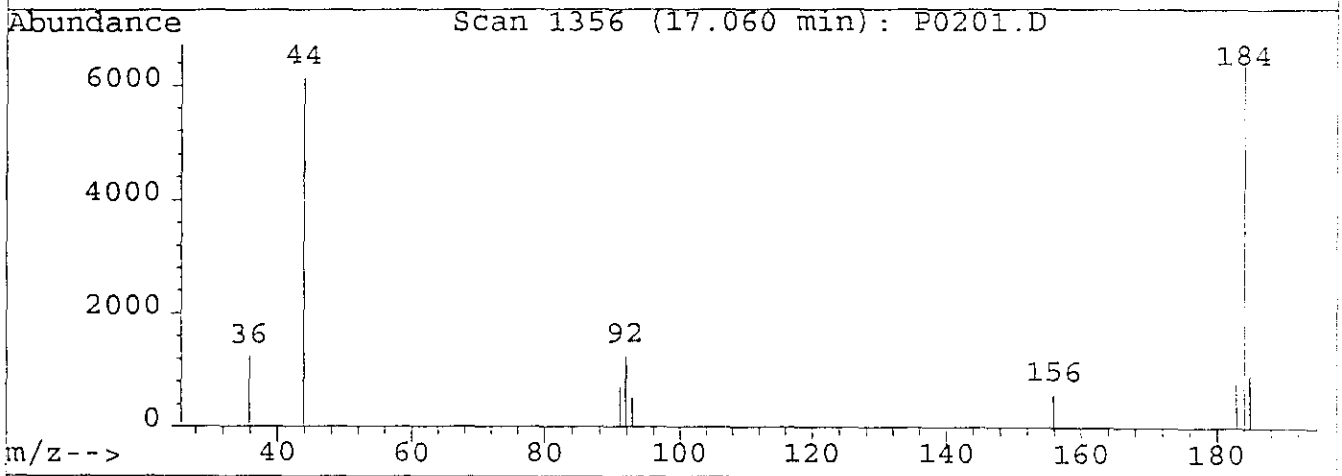
P0201.D 111097.M Mon Nov 10 13:36:14 1997 CHEM

Data File : C:\HPCHEM\1\DATA\111097\P0201.D
Acq On : 10 Nov 97 1:06 pm
Sample : 10 ng 8270 std
Misc : 1283-55-08
Quant Time: Nov 10 13:34 1997

Vial: 2
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 06 12:22:24 1997
Response via : Multiple Level Calibration





TIC: P0201.D

(70) Benzidine (T)
17.06min 15.45ng/uL
response 8175

Ion	Exp%	Act%
184.00	100	100
92.00	6.90	14.65#
185.00	7.20	7.52
0.00	0.00	0.00

P0201.D 111097.M Mon Nov 10 13:36:32 1997 CHEM

Data File : C:\HPCHEM\1\DATA\111097\P0201.D
Acq On : 10 Nov 97 1:06 pm
Sample : 10 ng 8270 std
Misc : 1283-55-08
Quant Time: Nov 10 13:36 1997

Vial: 2
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 06 12:22:24 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.15	152	170261	40.00	ng/uL	-0.09
21) Naphthalene-d8	10.84	136	569956	40.00	ng/uL	-0.05
36) Acenaphthene-d10	13.45	164	306527	40.00	ng/uL	-0.05
58) Phenanthrene-d10	15.38	188	513966	40.00	ng/uL	-0.05
69) Chrysene-d12	18.71	240	231213	40.00	ng/uL	-0.06
78) Perylene-d12	20.55	264	134899	40.00	ng/uL	-0.07
System Monitoring Compounds						%Recovery
4) 2-Fluorophenol	5.16	112	125885	18.07	ng/uL	24.09%
5) 2-Chlorophenol-d4	7.52	132	55243	9.51	ng/uL	12.68%
7) Phenol-d5	7.18	99	157161	18.86	ng/uL	25.15%
13) 1,2-Dichlorobenzene-d4	8.55	152	44141	12.75	ng/uL	25.50%
22) Nitrobenzene-d5	9.48	82	88800	11.32	ng/uL	22.64%
40) 2-Fluorobiphenyl	12.51	172	110113	11.87	ng/uL	23.74%
57) 2,4,6-Tribromophenol	14.48	330	9702	5.19	ng/uL	6.92%
72) p-Terphenyl-d14	17.38	244	81551	14.82	ng/uL	29.63%
Target Compounds						Qvalue
2) Pyridine	2.83	79	103359	10.90	ng/uL	100
3) n-Nitrosodimethylamine	2.79	74	57262	8.91	ng/uL	90
6) Aniline	7.29	93	165553	20.24	ng/uL#	65
8) Phenol	7.21	94	181248	19.12	ng/uL#	67
9) Bis(2-chloroethyl)ether	7.46	93	134953	17.63	ng/uL#	66
10) 2-Chlorophenol	7.56	128	66114	10.20	ng/uL	85
11) 1,3-Dichlorobenzene	7.99	146	71870	10.81	ng/uL#	95
12) 1,4-Dichlorobenzene	8.20	146	75929	10.97	ng/ul#	90
14) 1,2-Dichlorobenzene	8.58	146	68858	11.51	ng/uL#	92
15) Benzyl Alcohol	8.53	108	82771	23.77	ng/uL#	64
16) Bis(2-chloroisopropyl)ethe	8.90	45	79554	6.82	ng/uLm GB 11-10-97	76
17) 2-Methylphenol	8.81	108	109370	20.02	ng/uL#	88
18) n-Nitroso-di-n-propylamine	9.18	70	49282	9.11	ng/uL	97
19) 4-Methylphenol	9.18	108	116895	21.52	ng/uL#	93
20) Hexachloroethane	9.36	117	51551	16.21	ng/uL	86
23) Nitrobenzene	9.52	77	84415	10.27	ng/uL#	85
24) Isophorone	10.01	82	193626	13.18	ng/uL#	93
25) 2-Nitrophenol	10.16	139	31664	8.39	ng/uL#	73
26) 2,4-Dimethylphenol	10.25	122	64447	12.49	ng/uL#	58
27) Bis(2-chloroethoxy)methane	10.44	93	146205	17.58	ng/uL#	95
28) 2,4-Dichlorophenol	10.59	162	42766	9.92	ng/uL#	84
29) Benzoic acid	0.00	105		Not Detected		
30) 1,2,4-Trichlorobenzene	10.74	180	57826	13.56	ng/uL	96

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

Data File : C:\HPCHEM\1\DATA\111097\P0201.D
Acq On : 10 Nov 97 1:06 pm
Sample : 10 ng 8270 std
Misc : 1283-55-08
Quant Time: Nov 10 13:36 1997

Vial: 2
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 06 12:22:24 1997
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Naphthalene	10.87	128	163645	11.97 ng/uL	99
32) 4-Chloroaniline	10.97	127	68741	11.46 ng/uL	96
33) Hexachlorobutadiene	11.08	225	37667	13.29 ng/uL	99
34) 4-Chloro-3-methylphenol	11.75	107	94800	20.27 ng/uL#	60
35) 2-Methylnaphthalene	11.98	142	91815	11.74 ng/uL#	87
37) Hexachlorocyclopentadiene	12.21	237	16621	6.52 ng/uL	96
38) 2,4,6-Trichlorophenol	12.40	196	16222	5.28 ng/uL	97
39) 2,4,5-Trichlorophenol	12.44	196	23275	7.60 ng/uL	100
41) 2-Chloronaphthalene	12.68	162	101324	11.33 ng/uL	98
42) 2-Nitroaniline	12.82	65	28917	6.63 ng/uL#	59
43) Dimethylphthalate	13.07	163	117851	10.99 ng/uL	98
44) 2,6-Dinitrotoluene	13.16	165	22795	8.63 ng/uL#	83
45) Acenaphthylene	13.26	152	139639	10.70 ng/uL	99
46) 3-Nitroaniline	13.38	138	24297	7.68 ng/uL#	39
47) Acenaphthene	13.49	153	86785	10.62 ng/uL	94
48) 2,4-Dinitrophenol	0.00	184		Not Detected	
49) 4-Nitrophenol	13.59	109	17015	8.38 ng/uL#	33
50) Dibenzofuran	13.72	168	132938	12.13 ng/uL	99
51) 2,4-Dinitrotoluene	13.69	165	26451	8.33 ng/uL	82
52) Diethylphthalate	14.01	149	120132	11.22 ng/uL	99
53) Fluorene	14.18	166	104127	13.62 ng/uL	99
54) 4-Chlorophenyl phenyl ethe	14.17	204	51538	14.16 ng/uL	86
55) 4-Nitroaniline	14.18	138	25019	8.30 ng/uL#	33
56) Azobenzene	14.37	77	144824	9.93 ng/uL#	87
59) 4,6-Dinitro-2-methylphenol	14.23	198	7851	3.56 ng/uL#	93
60) n-Nitrosodiphenylamine	14.32	169	66391	9.40 ng/uL	97
61) 4-Bromophenyl phenyl ether	14.80	248	25838	10.09 ng/uL	95
62) Hexachlorobenzene	14.89	284	32667	8.35 ng/uL	96
63) Pentachlorophenol	0.00	266		Not Detected	
64) Phenanthrene	15.41	178	134639	9.82 ng/uL	99
65) Anthracene	15.48	178	132523	9.68 ng/uL	98
66) Carbazole	15.67	167	120305	8.92 ng/uL#	93
67) Di-n-butylphthalate	16.08	149	183452	9.15 ng/uL#	97
68) Fluoranthene	16.92	202	138808	10.01 ng/uL#	80
70) Benzidine	17.06	184	8175	15.45 ng/uL#	88
71) Pyrene	17.21	202	136234	15.82 ng/uL#	77
73) Butylbenzylphthalate	17.96	149	57263	10.38 ng/uL#	78
74) Benzo[a]anthracene	18.70	228	80897	10.97 ng/uL	98
75) 3,3'-Dichlorobenzidine	18.64	252	27773	10.29 ng/uL	97
76) Chrysene	18.74	228	75529	10.86 ng/uL	97
77) Bis(2-ethylhexyl)phthalate	18.65	149	61897	9.20 ng/uL	100

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

Data File : C:\HPCHEM\1\DATA\111097\P0201.D
Acq On : 10 Nov 97 1:06 pm
Sample : 10 ng 8270 std
Misc : 1283-55-08
Quant Time: Nov 10 13:36 1997

Vial: 2
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 06 12:22:24 1997
Response via : Multiple Level Calibration

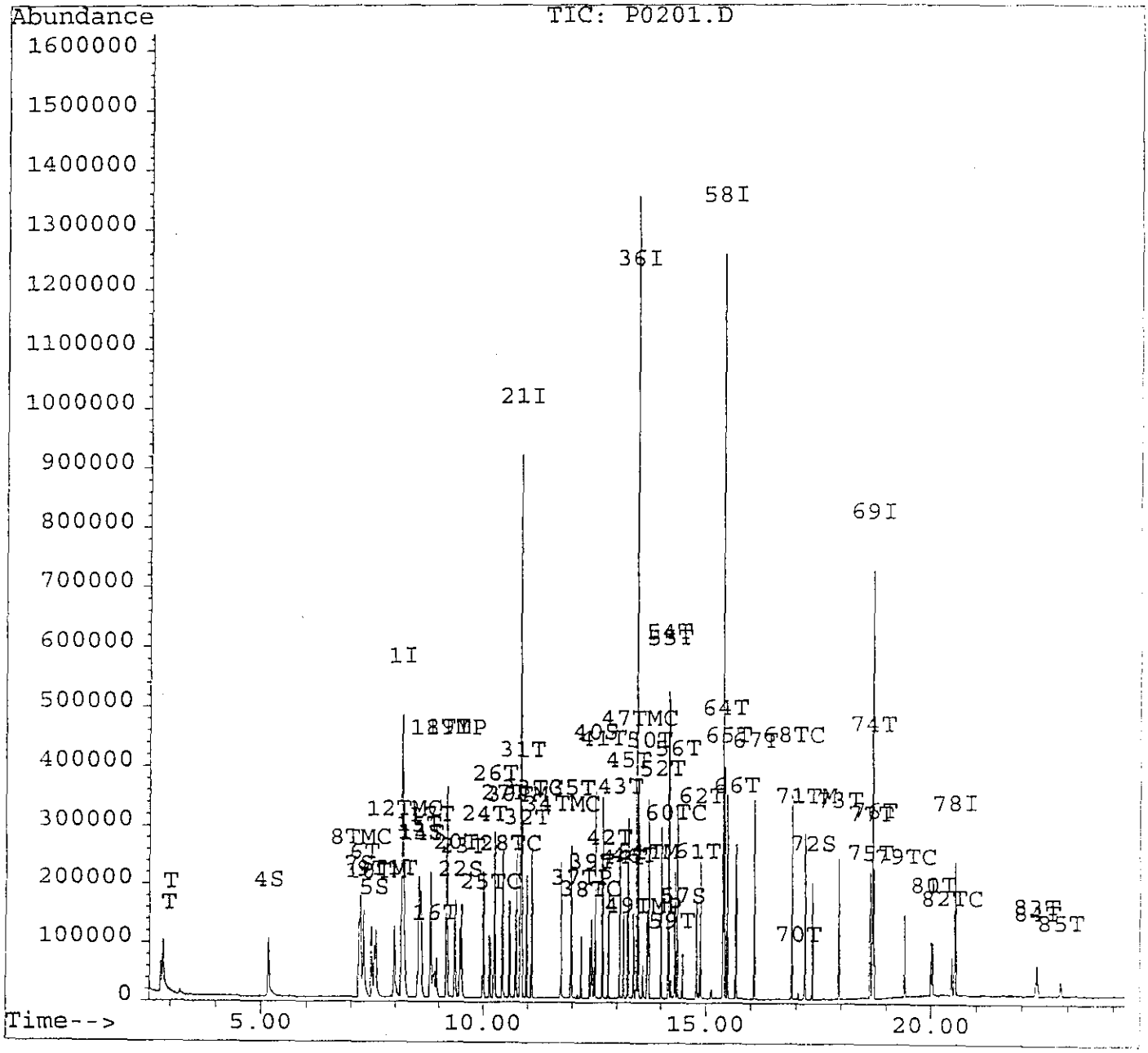
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79) Di-n-octylphthalate	19.42	149	74440	7.16 ng/uL	95
80) Benzo[b]fluoranthene	20.05	252	94650	9.21 ng/uLmGB 11-10-97	95
81) Benzo[k]fluoranthene	20.05	252	43817	4.57 ng/uL	95
82) Benzo[a]pyrene	20.46	252	38536	9.14 ng/uL#	88
83) Indeno(1,2,3-c,d)pyrene	22.32	276	34015	8.84 ng/uL#	73
84) Dibenzo[a,h]anthracene	22.33	278	26676	7.92 ng/uL#	85
85) Benzo[g,h,i]perylene	22.85	276	27003	9.21 ng/uL#	69

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

Data File : C:\HPCHEM\1\DATA\111097\P0201.D
Acq On : 10 Nov 97 1:06 pm
Sample : 10 ng 8270 std
Misc : 1283-55-08
Quant Time: Nov 10 13:36 1997

Vial: 2
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 06 12:22:24 1997
Response via : Multiple Level Calibration



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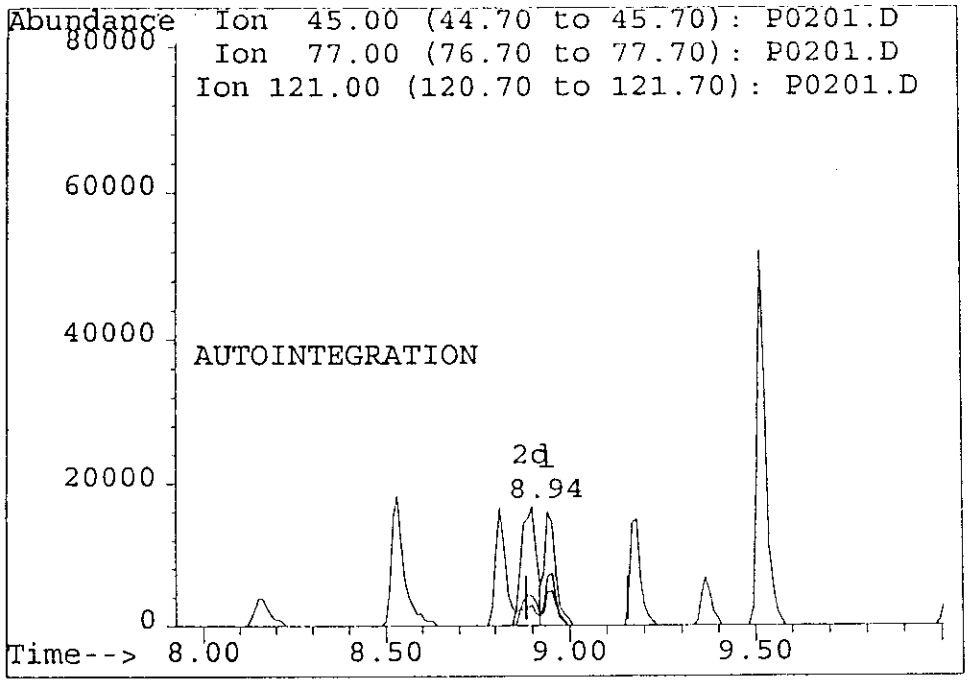


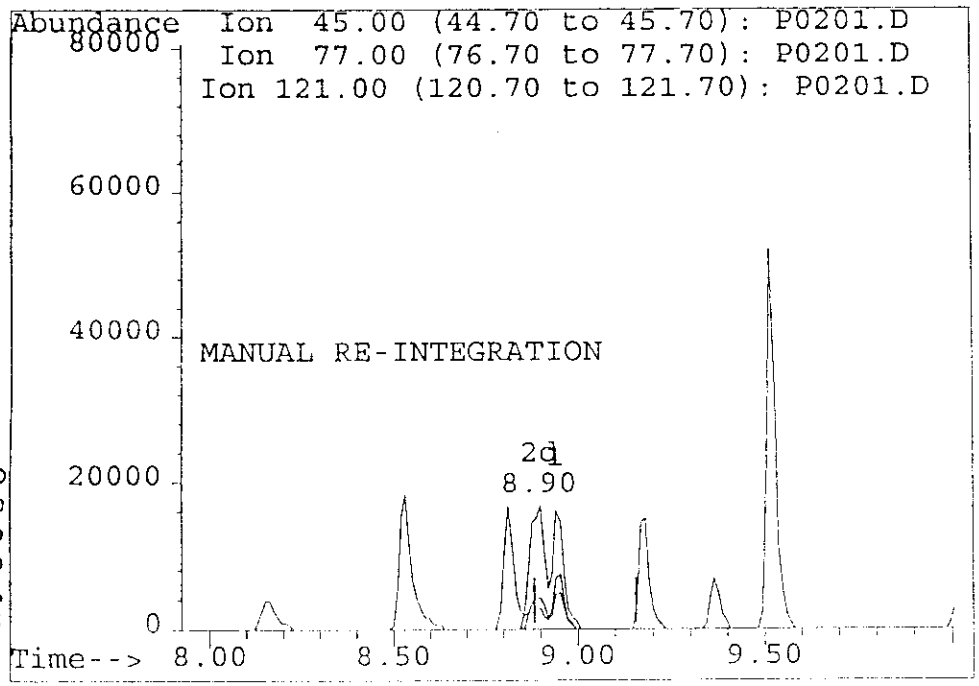
TIC: P0201.D

(16) Bis(2-chloroisopropyl)ether

8.94min 2.87ng/uL

response 33531

Ion	Exp%	Act%
45.00	100	100
77.00	32.60	45.01
121.00	18.70	31.00#
0.00	0.00	0.00



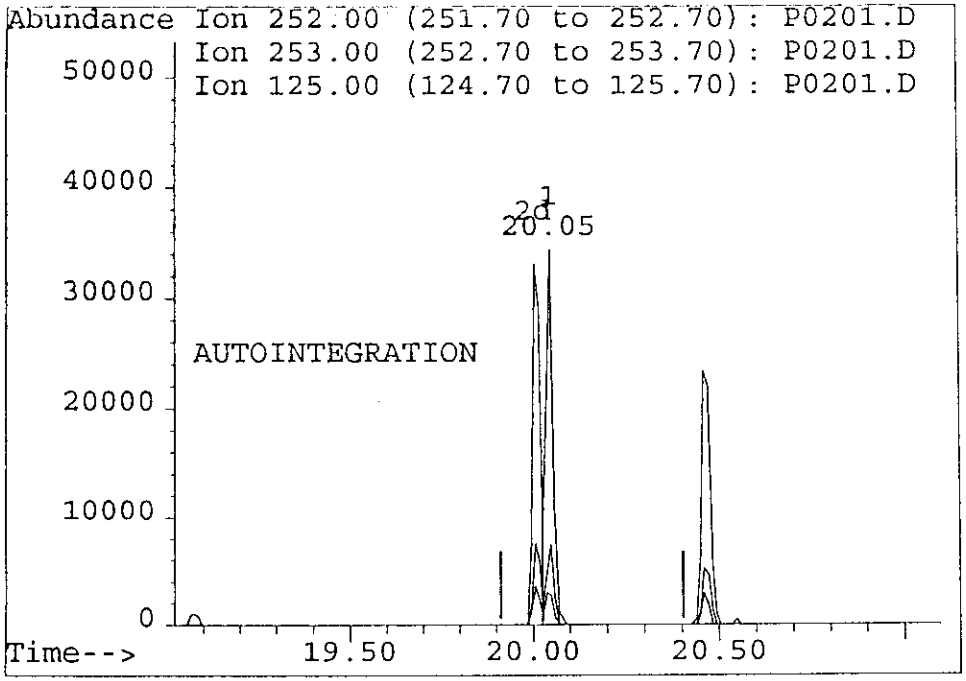
TIC: P0201.D

(16) Bis(2-chloroisopropyl)ether

8.90min 6.82ng/uL m

response 79554

Ion	Exp%	Act%
45.00	100	100
77.00	32.60	17.05
121.00	18.70	24.96
0.00	0.00	0.00



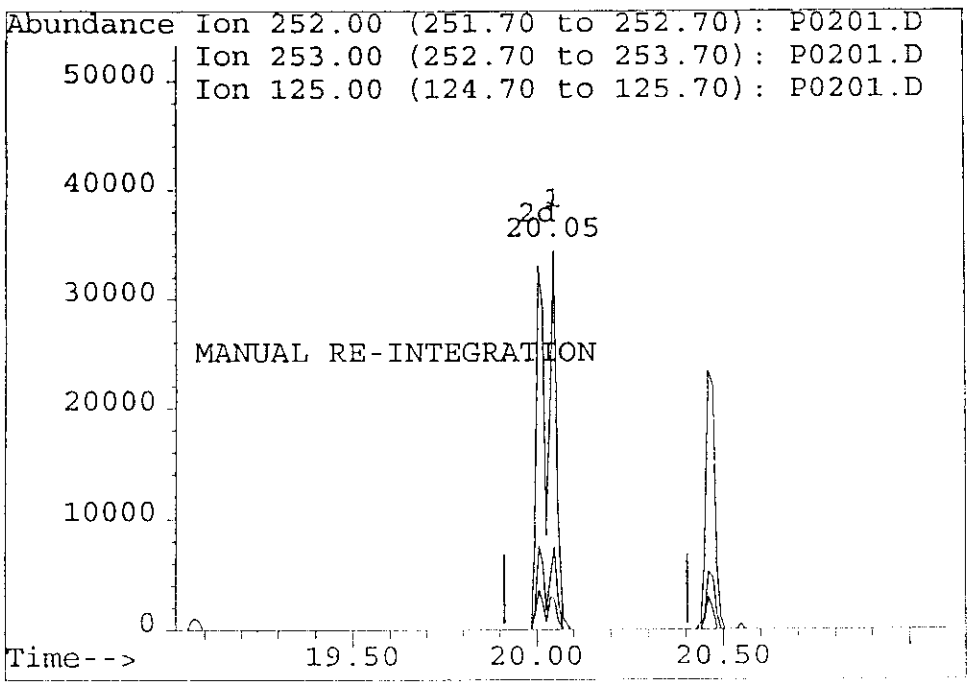
TIC: P0201.D

(80) Benzo[b]fluoranthene (T)

20.05min 4.26ng/uL

response 43817

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.30
125.00	13.70	9.70
0.00	0.00	0.00



TIC: P0201.D

(80) Benzo[b]fluoranthene (T)

20.05min 9.21ng/uL m

response 94650

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	21.74
125.00	13.70	7.98
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\111097\P0202.D
Acq On : 10 Nov 97 1:37 pm
Sample : 20 ng 8270 std
Misc : 1283-55-07
Quant Time: Nov 10 14:08 1997

Vial: 3
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 13:41:29 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.16	152	154803	40.00 ng/uL	0.00
21) Naphthalene-d8	10.83	136	526985	40.00 ng/uL	0.00
36) Acenaphthene-d10	13.45	164	317020	40.00 ng/uL	0.00
58) Phenanthrene-d10	15.38	188	553109	40.00 ng/uL	0.00
69) Chrysene-d12	18.72	240	237204	40.00 ng/uL	0.00
78) Perylene-d12	20.55	264	131667	40.00 ng/uL	0.00
System Monitoring Compounds					%Recovery
4) 2-Fluorophenol	5.17	112	216025	30.66 ng/uL	40.88%
5) 2-Chlorophenol-d4	7.53	132	98804	19.12 ng/uL	25.49%
7) Phenol-d5	7.19	99	285977	33.87 ng/uL	45.16%
13) 1,2-Dichlorobenzene-d4	8.55	152	83692	26.70 ng/uL	53.41%
22) Nitrobenzene-d5	9.48	82	192438	26.06 ng/uL	52.12%
40) 2-Fluorobiphenyl	12.51	172	240355	25.20 ng/uL	50.40%
57) 2,4,6-Tribromophenol	14.49	330	28804	15.48 ng/uL	20.64%
72) p-Terphenyl-d14	17.37	244	173643	29.20 ng/uL	58.40%
Target Compounds					Qvalue
2) Pyridine	2.84	79	180697	20.80 ng/uL	100
3) n-Nitrosodimethylamine	2.78	74	99484	17.32 ng/uL	93
6) Aniline	7.28	93	285387	34.74 ng/uL#	66
8) Phenol	7.22	94	317281	33.22 ng/uL#	68
9) Bis(2-chloroethyl)ether	7.46	93	249908	32.87 ng/uL#	64
10) 2-Chlorophenol	7.58	128	119973	20.73 ng/uL	87
11) 1,3-Dichlorobenzene	7.99	146	129770	21.67 ng/uL#	94
12) 1,4-Dichlorobenzene	8.20	146	145242	23.36 ng/ul#	92
14) 1,2-Dichlorobenzene	8.59	146	128892	24.16 ng/uL#	93
15) Benzyl Alcohol	8.54	108	159143	43.69 ng/uL#	66
16) Bis(2-chloroisopropyl)ethe	8.95	45	155693	15.57 ng/uLm	56
17) 2-Methylphenol	8.82	108	212029	38.19 ng/uL#	88
18) n-Nitroso-di-n-propylamine	9.19	70	95446	19.89 ng/uL	95
19) 4-Methylphenol	9.18	108	231018	41.25 ng/uL#	93
20) Hexachloroethane	9.36	117	102628	33.26 ng/uL	84
23) Nitrobenzene	9.52	77	172827	22.99 ng/uL	93
24) Isophorone	10.02	82	386386	27.54 ng/uL#	93
25) 2-Nitrophenol	10.16	139	62354	18.51 ng/uL#	75
26) 2,4-Dimethylphenol	10.26	122	130049	26.94 ng/uL#	52
27) Bis(2-chloroethoxy)methane	10.44	93	305055	36.85 ng/uL#	94
28) 2,4-Dichlorophenol	10.59	162	82435	21.18 ng/uL#	86
29) Benzoic acid	0.00	105		Not Detected	
30) 1,2,4-Trichlorobenzene	10.75	180	115064	28.71 ng/uL	97

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

11-10-97

Data File : C:\HPCHEM\1\DATA\111097\P0202.D
Acq On : 10 Nov 97 1:37 pm
Sample : 20 ng 8270 std
Misc : 1283-55-07
Quant Time: Nov 10 14:08 1997

Vial: 3
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 13:41:29 1997
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31)	Naphthalene	10.87	128	341805	27.55 ng/uL	99
32)	4-Chloroaniline	10.97	127	144811	26.43 ng/uL	93
33)	Hexachlorobutadiene	11.09	225	80163	29.40 ng/uL	99
34)	4-Chloro-3-methylphenol	11.75	107	207906	42.78 ng/uL#	60
35)	2-Methylnaphthalene	11.97	142	206404	28.79 ng/uL#	85
37)	Hexachlorocyclopentadiene	12.21	237	37109	14.09 ng/uL	100
38)	2,4,6-Trichlorophenol	12.39	196	47185	16.07 ng/uL	96
39)	2,4,5-Trichlorophenol	12.45	196	67130	22.17 ng/uL	99
41)	2-Chloronaphthalene	12.68	162	208629	22.67 ng/uL	97
42)	2-Nitroaniline	12.82	65	61793	14.31 ng/uL#	59
43)	Dimethylphthalate	13.08	163	252319	23.02 ng/uL	99
44)	2,6-Dinitrotoluene	13.16	165	49946	18.72 ng/uL#	78
45)	Acenaphthylene	13.26	152	296345	22.41 ng/uL	100
46)	3-Nitroaniline	13.39	138	55533	17.56 ng/uL#	23
47)	Acenaphthene	13.50	153	200178	24.22 ng/uL	95
48)	2,4-Dinitrophenol	13.53	184	9358	6.02 ng/uL#	17
49)	4-Nitrophenol	13.59	109	50290	23.64 ng/uL#	35
50)	Dibenzofuran	13.72	168	294709	26.25 ng/uL	98
51)	2,4-Dinitrotoluene	13.70	165	65293	20.75 ng/uL	80
52)	Diethylphthalate	14.00	149	281842	25.74 ng/uL	99
53)	Fluorene	14.18	166	239640	30.23 ng/uL	98
54)	4-Chlorophenyl phenyl ethe	14.17	204	122322	31.59 ng/uL	86
55)	4-Nitroaniline	14.19	138	59829	19.68 ng/uL#	33
56)	Azobenzene	14.37	77	328465	22.56 ng/uL#	87
59)	4,6-Dinitro-2-methylphenol	14.23	198	27328	12.26 ng/uL	98
60)	n-Nitrosodiphenylamine	14.32	169	163292	22.32 ng/uL	97
61)	4-Bromophenyl phenyl ether	14.80	248	66638	23.88 ng/uL	91
62)	Hexachlorobenzene	14.89	284	79596	18.97 ng/uL	97
63)	Pentachlorophenol	15.13	266	20326	10.01 ng/uL	96
64)	Phenanthrene	15.41	178	312882	21.89 ng/uL	100
65)	Anthracene	15.48	178	324934	22.91 ng/uL	99
66)	Carbazole	15.67	167	283088	20.49 ng/uL#	93
67)	Di-n-butylphthalate	16.08	149	388588	18.84 ng/uL#	96
68)	Fluoranthene	16.92	202	322508	21.97 ng/uL#	81
70)	Benzidine	17.06	184	12234	22.52 ng/uL#	79
71)	Pyrene	17.21	202	316594	34.08 ng/uL#	79
73)	Butylbenzylphthalate	17.96	149	130641	23.63 ng/uL#	74
74)	Benzo[a]anthracene	18.70	228	178477	23.57 ng/uL	98
75)	3,3'-Dichlorobenzidine	18.65	252	61900	22.69 ng/uL	98
76)	Chrysene	18.75	228	171837	24.19 ng/uL	97
77)	Bis(2-ethylhexyl)phthalate	18.66	149	122578	18.62 ng/uL	98

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

Data File : C:\HPCHEM\1\DATA\111097\P0202.D
Acq On : 10 Nov 97 1:37 pm
Sample : 20 ng 8270 std
Misc : 1283-55-07
Quant Time: Nov 10 14:08 1997

Vial: 3
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 13:41:29 1997
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	Di-n-octylphthalate	19.42	149	153001	15.41 ng/uL	93
80)	Benzo[b]fluoranthene	20.05	252	209866	36.89 ng/uLm	95
81)	Benzo[k]fluoranthene	20.05	252	100491	11.53 ng/uL	95
82)	Benzo[a]pyrene	20.47	252	86683	21.20 ng/uL#	89
83)	Indeno(1,2,3-c,d)pyrene	22.32	276	72642	19.82 ng/uL#	73
84)	Dibenzo[a,h]anthracene	22.33	278	57760	18.09 ng/uL#	85
85)	Benzo[g,h,i]perylene	22.85	276	56948	20.85 ng/uL#	72

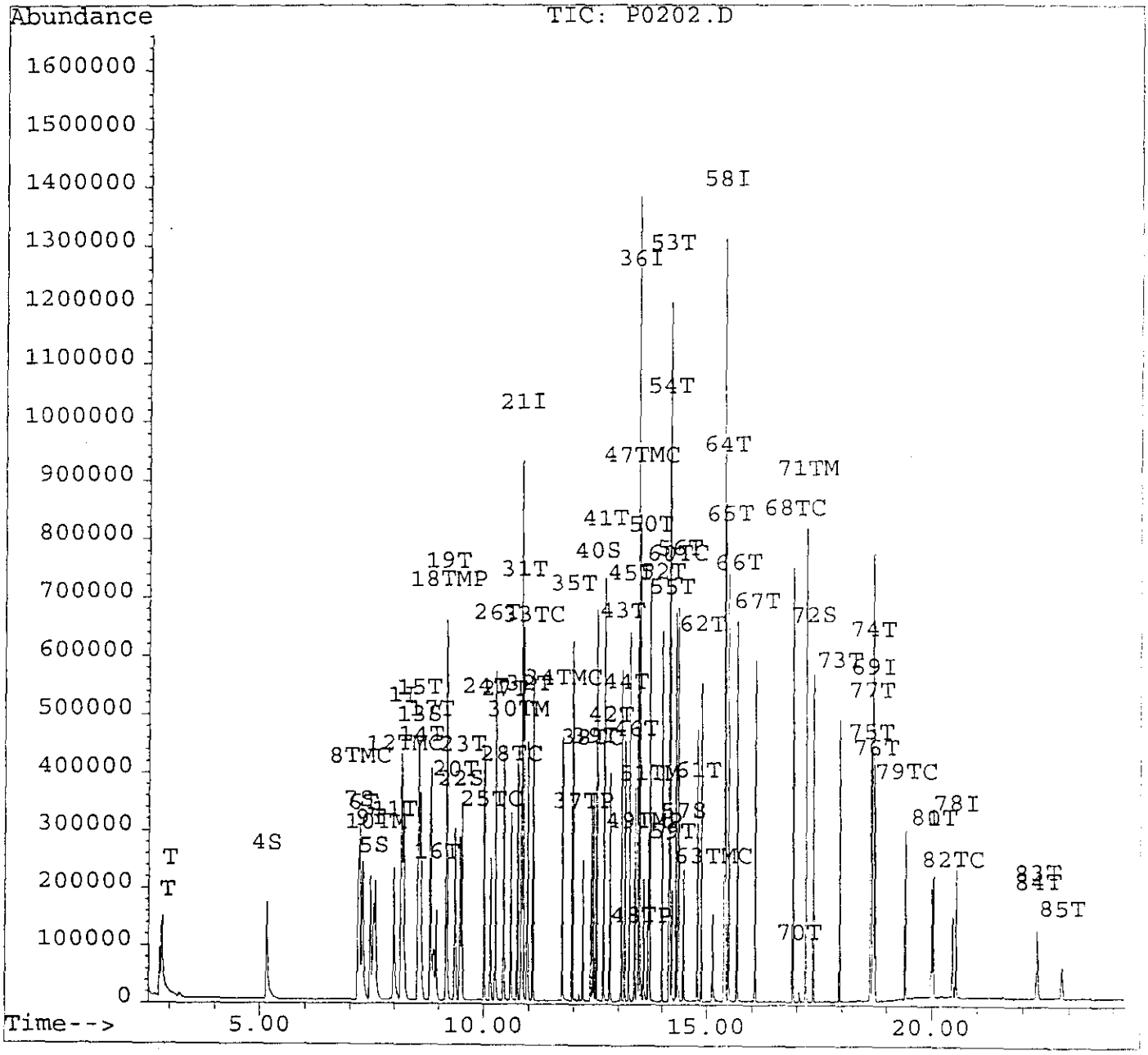
GB 11-10-97

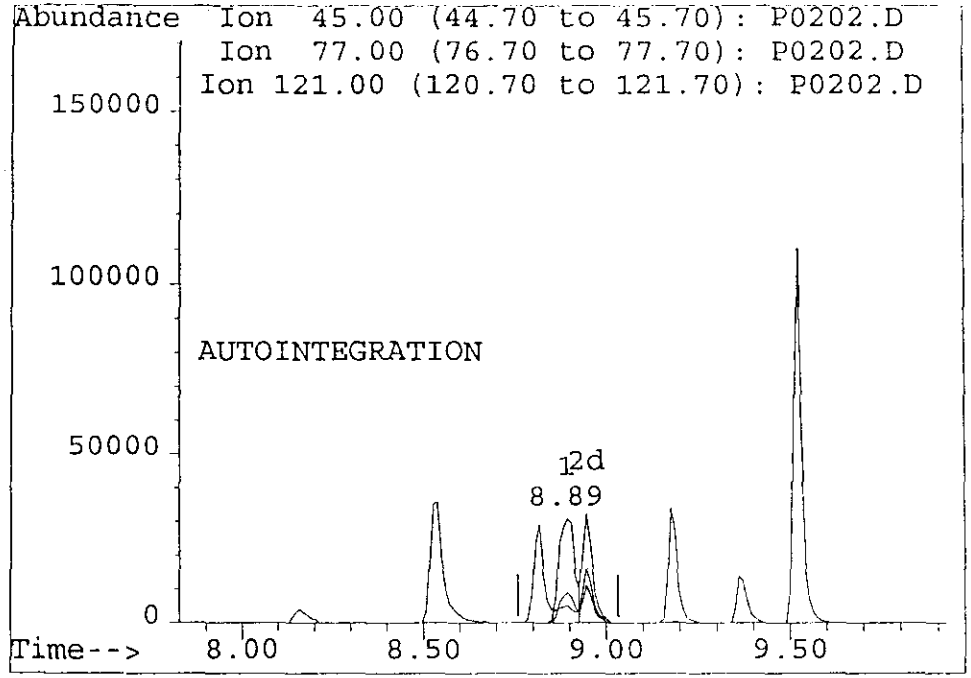
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\111097\P0202.D
Acq On : 10 Nov 97 1:37 pm
Sample : 20 ng 8270 std
Misc : 1283-55-07
Quant Time: Nov 10 14:08 1997

Vial: 3
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 13:41:29 1997
Response via : Multiple Level Calibration





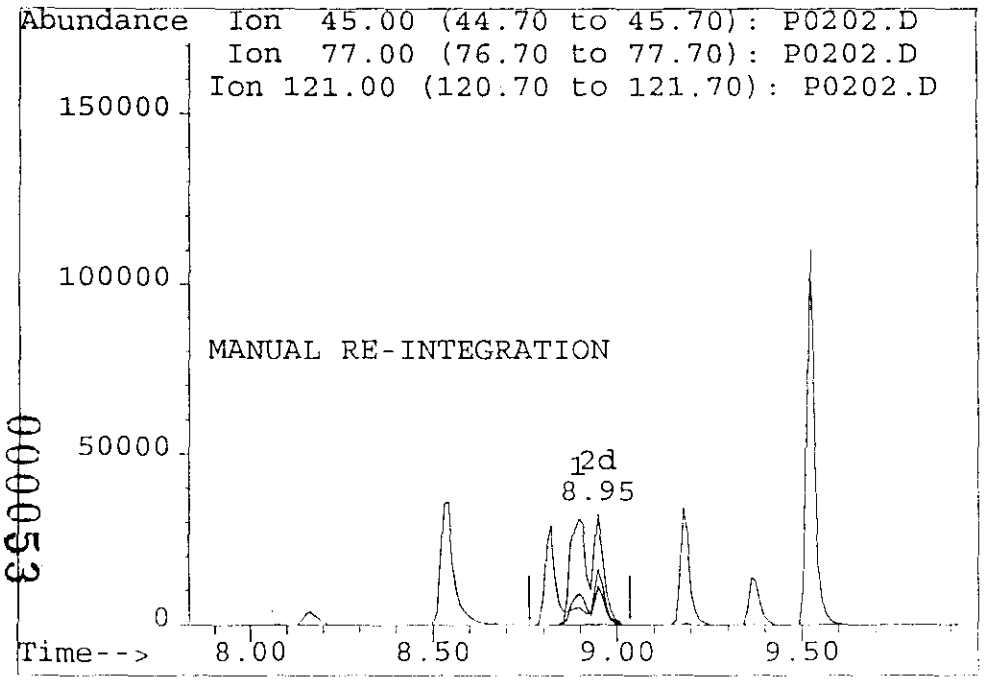
TIC: P0202.D

(16) Bis(2-chloroisopropyl)ether

8.89min 9.55ng/uL

response 95461

Ion	Exp%	Act%
45.00	100	100
77.00	32.60	0.00#
121.00	18.70	27.46#
0.00	0.00	0.00



TIC: P0202.D

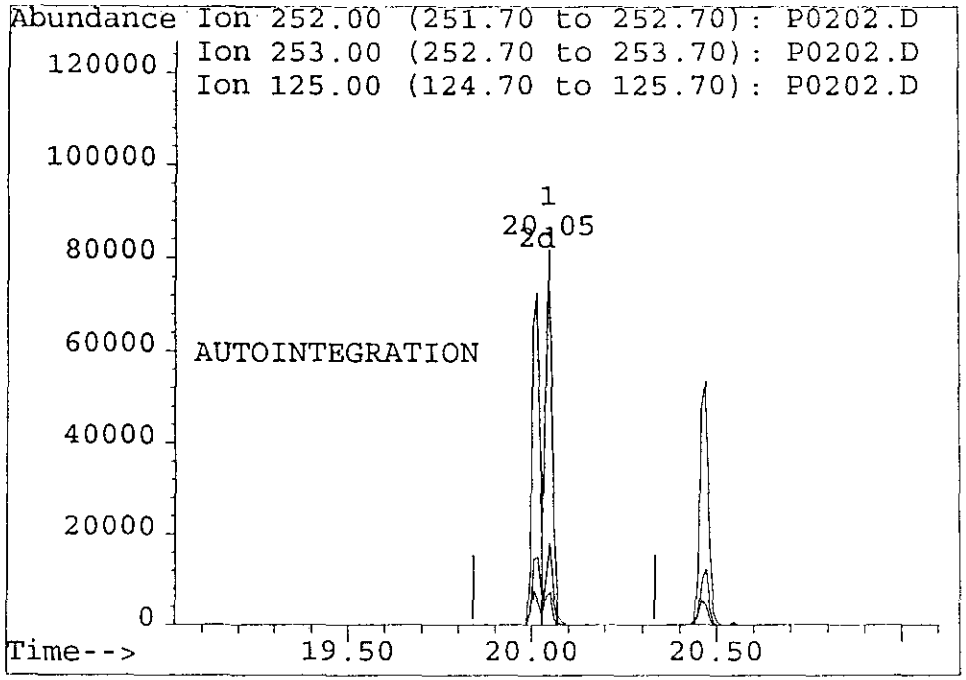
(16) Bis(2-chloroisopropyl)ether

8.95min 15.57ng/uL m

response 155693

Ion	Exp%	Act%
45.00	100	100
77.00	32.60	49.64
121.00	18.70	34.77
0.00	0.00	0.00

000053



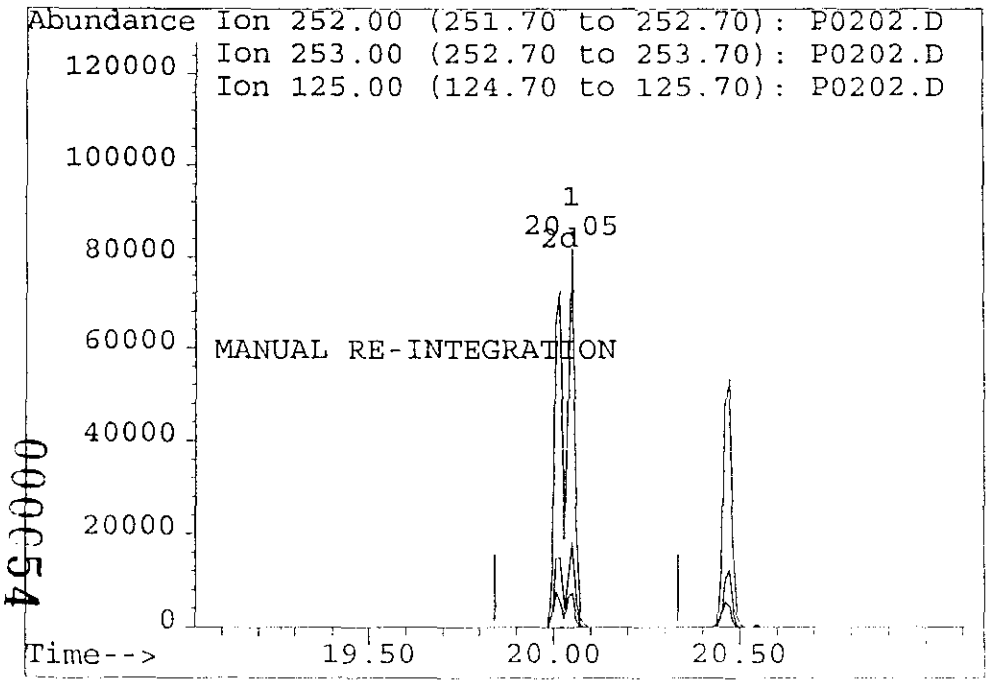
TIC: P0202.D

(80) Benzo[b]fluoranthene (T)

20.05min 17.66ng/uL

response 100491

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.47
125.00	13.70	9.96
0.00	0.00	0.00



TIC: P0202.D

(80) Benzo[b]fluoranthene (T)

20.05min 36.89ng/uL m

response 209866

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.17
125.00	13.70	9.02
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\111097\P0203.D
Acq On : 10 Nov 97 2:08 pm
Sample : 50 ng 8270 std
Misc : 1283-55-06
Quant Time: Nov 10 14:53 1997

Vial: 4
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 14:12:12 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.16	152	147409	40.00 ng/uL	0.00
21) Naphthalene-d8	10.83	136	420307	40.00 ng/uL	0.00
36) Acenaphthene-d10	13.45	164	253014	40.00 ng/uL	0.00
58) Phenanthrene-d10	15.39	188	458872	40.00 ng/uL	0.00
69) Chrysene-d12	18.71	240	189154	40.00 ng/uL	0.00
78) Perylene-d12	20.54	264	105420	40.00 ng/uL	0.00
System Monitoring Compounds					**%Recovery**
4) 2-Fluorophenol	5.16	112	499492	69.09 ng/uL	92.12%
5) 2-Chlorophenol-d4	7.53	132	216096	45.26 ng/uL	60.34%
7) Phenol-d5	7.20	99	657000	74.31 ng/uL	99.08%
13) 1,2-Dichlorobenzene-d4	8.55	152	180538	60.12 ng/uL	120.24%
22) Nitrobenzene-d5	9.49	82	416296	68.37 ng/uL	136.74%
40) 2-Fluorobiphenyl	12.52	172	499559	65.25 ng/uL	130.49%
57) 2,4,6-Tribromophenol	14.49	330	66710	45.82 ng/uL	61.09%
72) p-Terphenyl-d14	17.37	244	336613	66.71 ng/uL	133.43%
Target Compounds					**Qvalue**
2) Pyridine	2.83	79	436793	53.08 ng/uL	100
3) n-Nitrosodimethylamine	2.79	74	231042	43.52 ng/uL	99
6) Aniline	7.30	93	577341	68.01 ng/uL	97
8) Phenol	7.23	94	719234	72.01 ng/uL	100
9) Bis(2-chloroethyl)ether	7.47	93	557619	70.60 ng/uL	98
10) 2-Chlorophenol	7.58	128	273308	50.35 ng/uL	98
11) 1,3-Dichlorobenzene	7.99	146	297028	52.84 ng/uL	98
12) 1,4-Dichlorobenzene	8.21	146	318437	53.80 ng/ul	97
14) 1,2-Dichlorobenzene	8.59	146	287526	57.10 ng/uL	99
15) Benzyl Alcohol	8.54	108	357181	89.27 ng/uL	100
16) Bis(2-chloroisopropyl)ethe	8.90	45	365916	40.53 ng/uLm	97
17) 2-Methylphenol	8.82	108	505454	84.54 ng/uL	98
18) n-Nitroso-di-n-propylamine	9.20	70	217909	48.55 ng/uL	98
19) 4-Methylphenol	9.19	108	529723	86.32 ng/uL	100
20) Hexachloroethane	9.36	117	234736	73.91 ng/uL	98
23) Nitrobenzene	9.53	77	375129	62.52 ng/uL	97
24) Isophorone	10.03	82	872898	75.22 ng/uL	99
25) 2-Nitrophenol	10.16	139	151432	58.22 ng/uL	98
26) 2,4-Dimethylphenol	10.26	122	299495	75.55 ng/uL	100
27) Bis(2-chloroethoxy)methane	10.44	93	661618	90.90 ng/uL	99
28) 2,4-Dichlorophenol	10.60	162	231249	76.25 ng/uL	98
29) Benzoic acid	10.52	105	30730	8.63 ng/uL#	40
30) 1,2,4-Trichlorobenzene	10.74	180	252691	76.41 ng/uL	98

GB 11-10-97

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

Data File : C:\HPCHEM\1\DATA\111097\P0203.D
Acq On : 10 Nov 97 2:08 pm
Sample : 50 ng 8270 std
Misc : 1283-55-06
Quant Time: Nov 10 14:53 1997

Vial: 4
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 14:12:12 1997
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Naphthalene	10.87	128	713269	71.80 ng/uL	99
32) 4-Chloroaniline	10.97	127	284354	64.04 ng/uL	99
33) Hexachlorobutadiene	11.09	225	171436	75.11 ng/uL	97
34) 4-Chloro-3-methylphenol	11.76	107	450947	100.05 ng/uL	99
35) 2-Methylnaphthalene	11.97	142	393789	68.06 ng/uL	100
37) Hexachlorocyclopentadiene	12.21	237	93386	44.96 ng/uL	98
38) 2,4,6-Trichlorophenol	12.39	196	152649	69.60 ng/uL	98
39) 2,4,5-Trichlorophenol	12.44	196	167570	70.66 ng/uL	98
41) 2-Chloronaphthalene	12.69	162	450942	62.62 ng/uL	98
42) 2-Nitroaniline	12.83	65	136046	41.50 ng/uL	97
43) Dimethylphthalate	13.08	163	549546	62.79 ng/uL	99
44) 2,6-Dinitrotoluene	13.17	165	115551	55.61 ng/uL	97
45) Acenaphthylene	13.26	152	607249	59.17 ng/uL	99
46) 3-Nitroaniline	13.39	138	109997	45.04 ng/uL	99
47) Acenaphthene	13.50	153	386988	59.66 ng/uL	97
48) 2,4-Dinitrophenol	13.54	184	44598	38.88 ng/uL#	100
49) 4-Nitrophenol	13.60	109	124796	70.37 ng/uL	95
50) Dibenzofuran	13.72	168	669326	74.38 ng/uL	98
51) 2,4-Dinitrotoluene	13.70	165	155558	63.18 ng/uL	96
52) Diethylphthalate	14.01	149	535281	59.99 ng/uL	99
53) Fluorene	14.18	166	478616	73.04 ng/uL	100
54) 4-Chlorophenyl phenyl ethe	14.17	204	251289	76.54 ng/uL	97
55) 4-Nitroaniline	14.20	138	114675	47.43 ng/uL	98
56) Azobenzene	14.38	77	698057	60.74 ng/uL	99
59) 4,6-Dinitro-2-methylphenol	14.24	198	79340	46.22 ng/uL	98
60) n-Nitrosodiphenylamine	14.32	169	326492	55.48 ng/uL	99
61) 4-Bromophenyl phenyl ether	14.80	248	127505	54.26 ng/uL	96
62) Hexachlorobenzene	14.89	284	158533	46.11 ng/uL	97
63) Pentachlorophenol	15.14	266	66053	41.15 ng/uL	94
64) Phenanthrene	15.42	178	661502	57.88 ng/uL	100
65) Anthracene	15.48	178	628079	54.44 ng/uL	100
66) Carbazole	15.68	167	570425	52.07 ng/uL	98
67) Di-n-butylphthalate	16.08	149	717187	44.24 ng/uL	100
68) Fluoranthene	16.92	202	594765	49.31 ng/uL	99
70) Benzidine	17.06	184	17016	39.62 ng/uL	92
71) Pyrene	17.21	202	584227	73.10 ng/uL	98
73) Butylbenzylphthalate	17.97	149	252100	57.35 ng/uL	99
74) Benzo[a]anthracene	18.70	228	342085	56.22 ng/uL	99
75) 3,3'-Dichlorobenzidine	18.64	252	123635	57.23 ng/uL	97
76) Chrysene	18.74	228	311952	54.55 ng/uL	99
77) Bis(2-ethylhexyl)phthalate	18.66	149	240174	48.88 ng/uL	100

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

Data File : C:\HPCHEM\1\DATA\111097\P0203.D
Acq On : 10 Nov 97 2:08 pm
Sample : 50 ng 8270 std
Misc : 1283-55-06
Quant Time: Nov 10 14:53 1997

Vial: 4
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 14:12:12 1997
Response via : Multiple Level Calibration

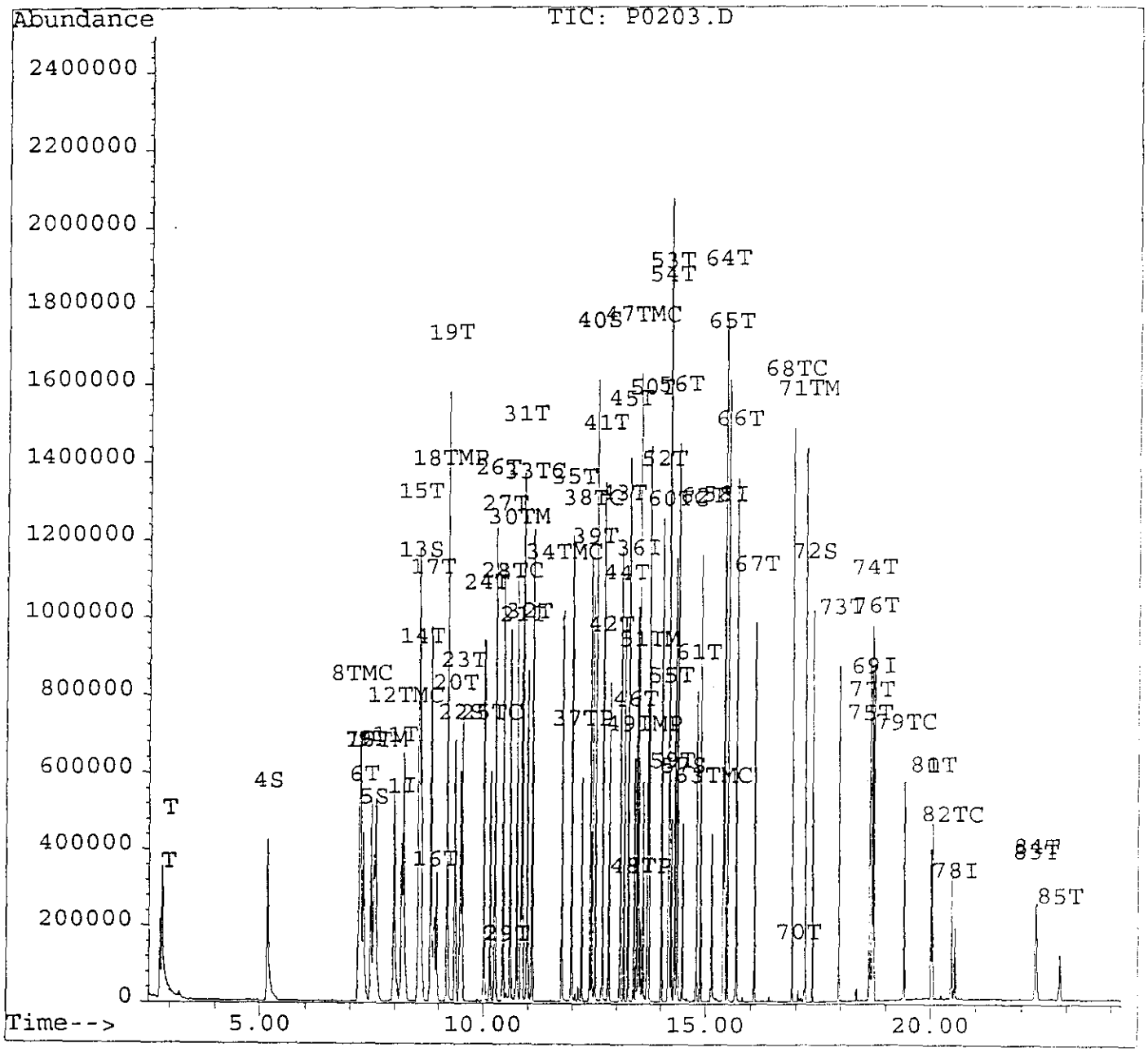
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79) Di-n-octylphthalate	19.43	149	333311	42.50 ng/uL	98
80) Benzo[b]fluoranthene	20.05	252	431066	92.52 ng/uLm GB 11-10-97	99
81) Benzo[k]fluoranthene	20.05	252	212340	32.37 ng/uL	97
82) Benzo[a]pyrene	20.47	252	174690	52.85 ng/uL	98
83) Indeno(1,2,3-c,d)pyrene	22.32	276	150502	51.29 ng/uL	98
84) Dibenzo[a,h]anthracene	22.33	278	124968	48.89 ng/uL	99
85) Benzo[g,h,i]perylene	22.86	276	115103	52.64 ng/uL	99

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

Data File : C:\HPCHEM\1\DATA\111097\P0203.D
Acq On : 10 Nov 97 2:08 pm
Sample : 50 ng 8270 std
Misc : 1283-55-06
Quant Time: Nov 10 14:53 1997

Vial: 4
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 14:12:12 1997
Response via : Multiple Level Calibration



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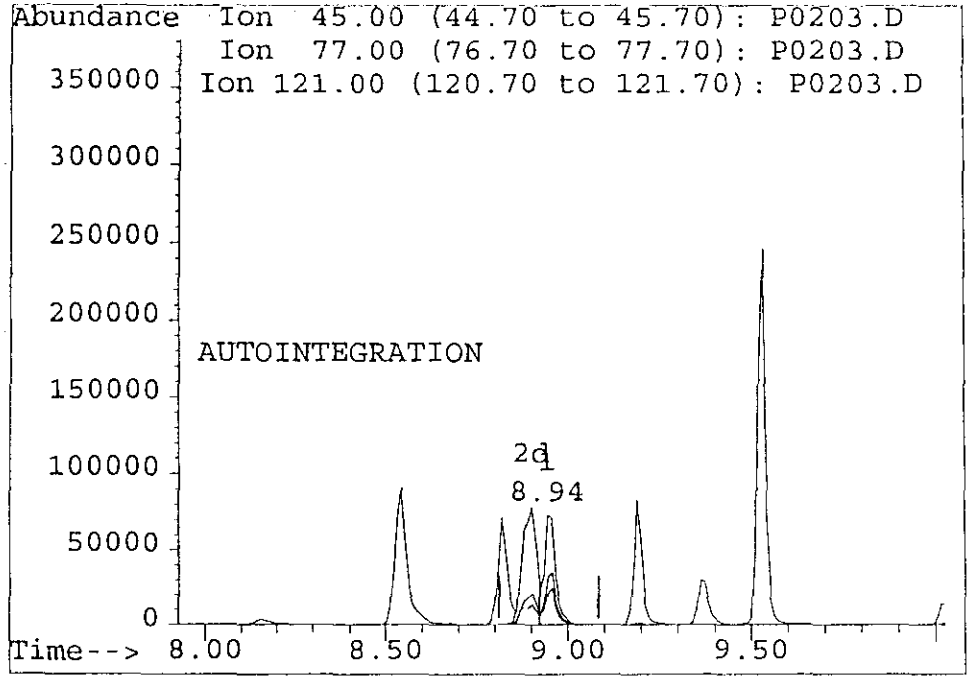


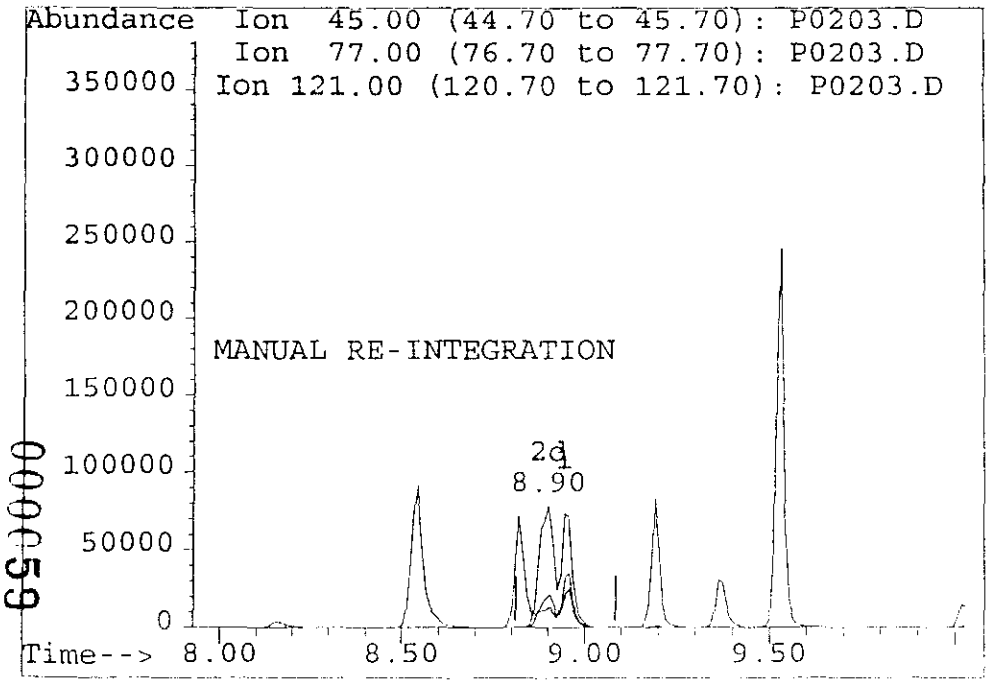
TIC: P0203.D

(16) Bis(2-chloroisopropyl)ether

8.94min 16.76ng/uL

response 151286

Ion	Exp%	Act%
45.00	100	100
77.00	49.60	47.22
121.00	34.80	32.75
0.00	0.00	0.00



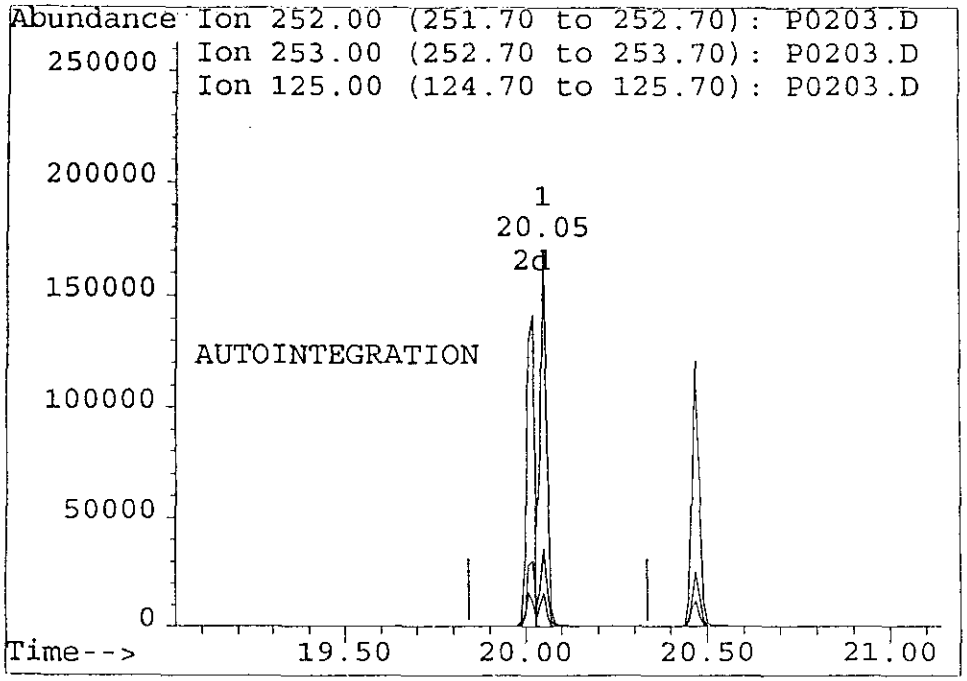
TIC: P0203.D

(16) Bis(2-chloroisopropyl)ether

8.90min 40.53ng/uL m

response 365916

Ion	Exp%	Act%
45.00	100	100
77.00	49.60	17.10
121.00	34.80	26.97
0.00	0.00	0.00



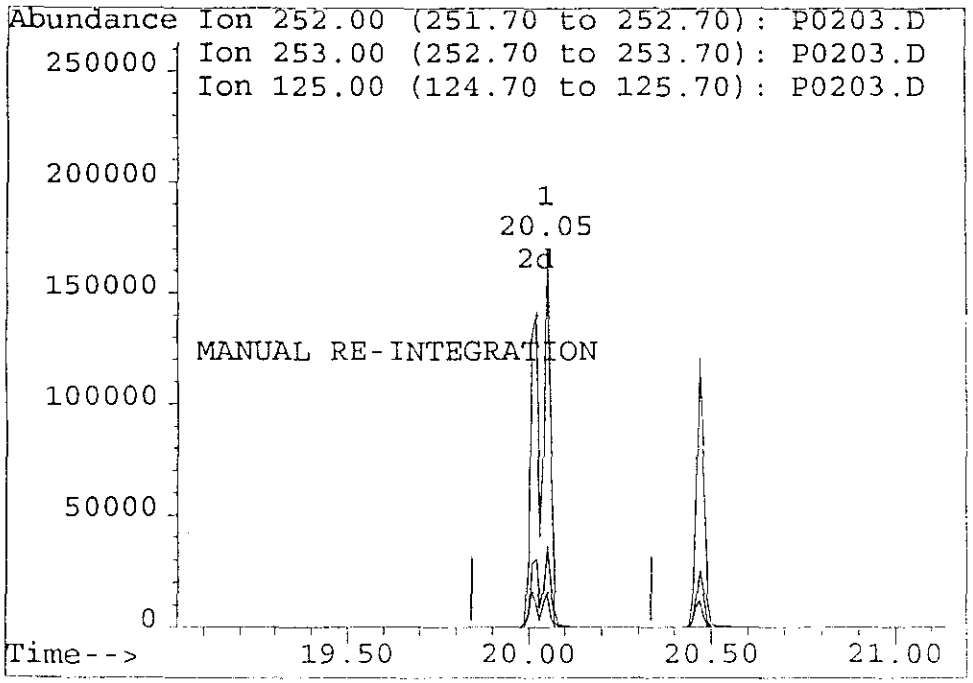
TIC: P0203.D

(80) Benzo[b]fluoranthene (T)

20.05min 45.58ng/uL

response 212340

Ion	Exp%	Act%
252.00	100	100
253.00	22.20	21.44
125.00	9.00	8.76
0.00	0.00	0.00



TIC: P0203.D

(80) Benzo[b]fluoranthene (T)

20.05min 92.52ng/uL m

response 431066

Ion	Exp%	Act%
252.00	100	100
253.00	22.20	21.24
125.00	9.00	9.23
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\111097\P0204.D
Acq On : 10 Nov 97 2:38 pm
Sample : 80 ng 8270 std
Misc : 1283-55-05
Quant Time: Nov 10 15:08 1997

Vial: 5
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 14:57:31 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.16	152	179422	40.00	ng/uL	0.00
21) Naphthalene-d8	10.84	136	561643	40.00	ng/uL	0.00
36) Acenaphthene-d10	13.46	164	322000	40.00	ng/uL	0.00
58) Phenanthrene-d10	15.39	188	562567	40.00	ng/uL	0.00
69) Chrysene-d12	18.72	240	289344	40.00	ng/uL	0.00
78) Perylene-d12	20.55	264	183336	40.00	ng/uL	0.00

System Monitoring Compounds						%Recovery
4) 2-Fluorophenol	5.17	112	967497	103.21	ng/uL	137.61%
5) 2-Chlorophenol-d4	7.54	132	424352	75.53	ng/uL	100.70%
7) Phenol-d5	7.21	99	1211962	103.54	ng/uL	138.05%
13) 1,2-Dichlorobenzene-d4	8.55	152	349608	94.49	ng/uL	188.98%
22) Nitrobenzene-d5	9.50	82	816284	95.76	ng/uL	191.52%
40) 2-Fluorobiphenyl	12.52	172	986191	97.80	ng/uL	195.60%
57) 2,4,6-Tribromophenol	14.50	330	136693	75.46	ng/uL	100.61%
72) p-Terphenyl-d14	17.37	244	725431	88.80	ng/uL	177.59%

Target Compounds						Qvalue
2) Pyridine	2.83	79	823851	82.09	ng/uL	100
3) n-Nitrosodimethylamine	2.80	74	432945	69.73	ng/uL	98
6) Aniline	7.31	93	1071694	96.30	ng/uL	100
8) Phenol	7.25	94	1377483	105.22	ng/uL	99
9) Bis(2-chloroethyl)ether	7.48	93	1042920	100.99	ng/uL	99
10) 2-Chlorophenol	7.59	128	523334	80.35	ng/uL	98
11) 1,3-Dichlorobenzene	7.99	146	575082	84.35	ng/uL	99
12) 1,4-Dichlorobenzene	8.20	146	602250	84.05	ng/ul	99
14) 1,2-Dichlorobenzene	8.59	146	549785	89.97	ng/uL	99
15) Benzyl Alcohol	8.55	108	682980	123.81	ng/uL	99
16) Bis(2-chloroisopropyl)ethe	8.95	45	681760	65.56	ng/uLm	82
17) 2-Methylphenol	8.84	108	908822	111.71	ng/uL	99
18) n-Nitroso-di-n-propylamine	9.21	70	388097	72.57	ng/uL	100
19) 4-Methylphenol	9.21	108	948094	112.50	ng/uL	99
20) Hexachloroethane	9.37	117	435688	104.95	ng/uL	97
23) Nitrobenzene	9.54	77	748213	91.60	ng/uL	99
24) Isophorone	10.03	82	1620217	97.18	ng/uL	100
25) 2-Nitrophenol	10.16	139	291256	84.24	ng/uL	99
26) 2,4-Dimethylphenol	10.28	122	553089	98.23	ng/uL	99
27) Bis(2-chloroethoxy)methane	10.45	93	1270346	116.15	ng/uL	99
28) 2,4-Dichlorophenol	10.61	162	450552	106.19	ng/uL	99
29) Benzoic acid	10.58	105	332214	83.95	ng/uL#	79
30) 1,2,4-Trichlorobenzene	10.75	180	472461	100.08	ng/uL	99

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

Data File : C:\HPCHEM\1\DATA\111097\P0204.D
Acq On : 10 Nov 97 2:38 pm
Sample : 80 ng 8270 std
Misc : 1283-55-05
Quant Time: Nov 10 15:08 1997

Vial: 5
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 14:57:31 1997
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) Naphthalene	10.88	128	1394887	100.83	ng/uL	100
32) 4-Chloroaniline	10.98	127	520932	85.24	ng/uL	100
33) Hexachlorobutadiene	11.09	225	335179	101.42	ng/uL	100
34) 4-Chloro-3-methylphenol	11.76	107	873253	124.85	ng/uL	100
35) 2-Methylnaphthalene	11.99	142	832102	104.58	ng/uL	97
37) Hexachlorocyclopentadiene	12.22	237	266031	101.83	ng/uL	99
38) 2,4,6-Trichlorophenol	12.40	196	320465	112.57	ng/uL	97
39) 2,4,5-Trichlorophenol	12.45	196	346006	110.89	ng/uL	99
41) 2-Chloronaphthalene	12.69	162	831979	89.43	ng/uL	99
42) 2-Nitroaniline	12.84	65	256735	64.93	ng/uL	99
43) Dimethylphthalate	13.09	163	1028719	90.21	ng/uL	100
44) 2,6-Dinitrotoluene	13.18	165	239870	91.71	ng/uL	99
45) Acenaphthylene	13.26	152	1188249	90.43	ng/uL	99
46) 3-Nitroaniline	13.41	138	225288	75.12	ng/uL	96
47) Acenaphthene	13.50	153	720796	87.12	ng/uL	98
48) 2,4-Dinitrophenol	13.54	184	117459	86.28	ng/uL#	100
49) 4-Nitrophenol	13.61	109	261254	108.86	ng/uL	99
50) Dibenzofuran	13.74	168	1257704	104.54	ng/uL	97
51) 2,4-Dinitrotoluene	13.71	165	306702	96.62	ng/uL	100
52) Diethylphthalate	14.02	149	1021696	88.94	ng/uL	100
53) Fluorene	14.19	166	946100	105.56	ng/uL	99
54) 4-Chlorophenyl phenyl ethe	14.18	204	486348	107.01	ng/uL	97
55) 4-Nitroaniline	14.22	138	214918	70.78	ng/uL	96
56) Azobenzene	14.38	77	1296989	88.28	ng/uL	99
59) 4,6-Dinitro-2-methylphenol	14.25	198	168704	84.01	ng/uL	100
60) n-Nitrosodiphenylamine	14.33	169	596169	83.65	ng/uL	99
61) 4-Bromophenyl phenyl ether	14.81	248	245948	84.28	ng/uL	96
62) Hexachlorobenzene	14.89	284	293069	70.66	ng/uL	97
63) Pentachlorophenol	15.14	266	149766	78.93	ng/uL	97
64) Phenanthrene	15.42	178	1250167	88.89	ng/uL	100
65) Anthracene	15.49	178	1161951	82.28	ng/uL	100
66) Carbazole	15.68	167	1041738	78.64	ng/uL	99
67) Di-n-butylphthalate	16.08	149	1513567	79.50	ng/uL	100
68) Fluoranthene	16.93	202	1311994	89.57	ng/uL	99
70) Benzidine	17.07	184	71316	103.15	ng/uL	97
71) Pyrene	17.22	202	1269434	95.95	ng/uL	98
73) Butylbenzylphthalate	17.97	149	562542	83.68	ng/uL	96
74) Benzo[a]anthracene	18.71	228	812344	85.94	ng/uL	99
75) 3,3'-Dichlorobenzidine	18.64	252	285716	85.45	ng/uL	99
76) Chrysene	18.75	228	728101	83.13	ng/uL	99
77) Bis(2-ethylhexyl)phthalate	18.66	149	585569	80.16	ng/uL	100

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

Data File : C:\HPCHEM\1\DATA\111097\P0204.D
Acq On : 10 Nov 97 2:38 pm
Sample : 80 ng 8270 std
Misc : 1283-55-05
Quant Time: Nov 10 15:08 1997

Vial: 5
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 14:57:31 1997
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	Di-n-octylphthalate	19.43	149	845502	63.65 ng/uL	98
80)	Benzo[b]fluoranthene	20.06	252	1096671	134.64 ng/uLm	100
81)	Benzo[k]fluoranthene	20.06	252	521900	50.16 ng/uL	99
82)	Benzo[a]pyrene	20.47	252	448223	77.58 ng/uL	98
83)	Indeno(1,2,3-c,d)pyrene	22.34	276	405253	80.01 ng/uL	99
84)	Dibenzo[a,h]anthracene	22.35	278	337708	77.13 ng/uL	99
85)	Benzo[g,h,i]perylene	22.87	276	333952	87.95 ng/uL	99

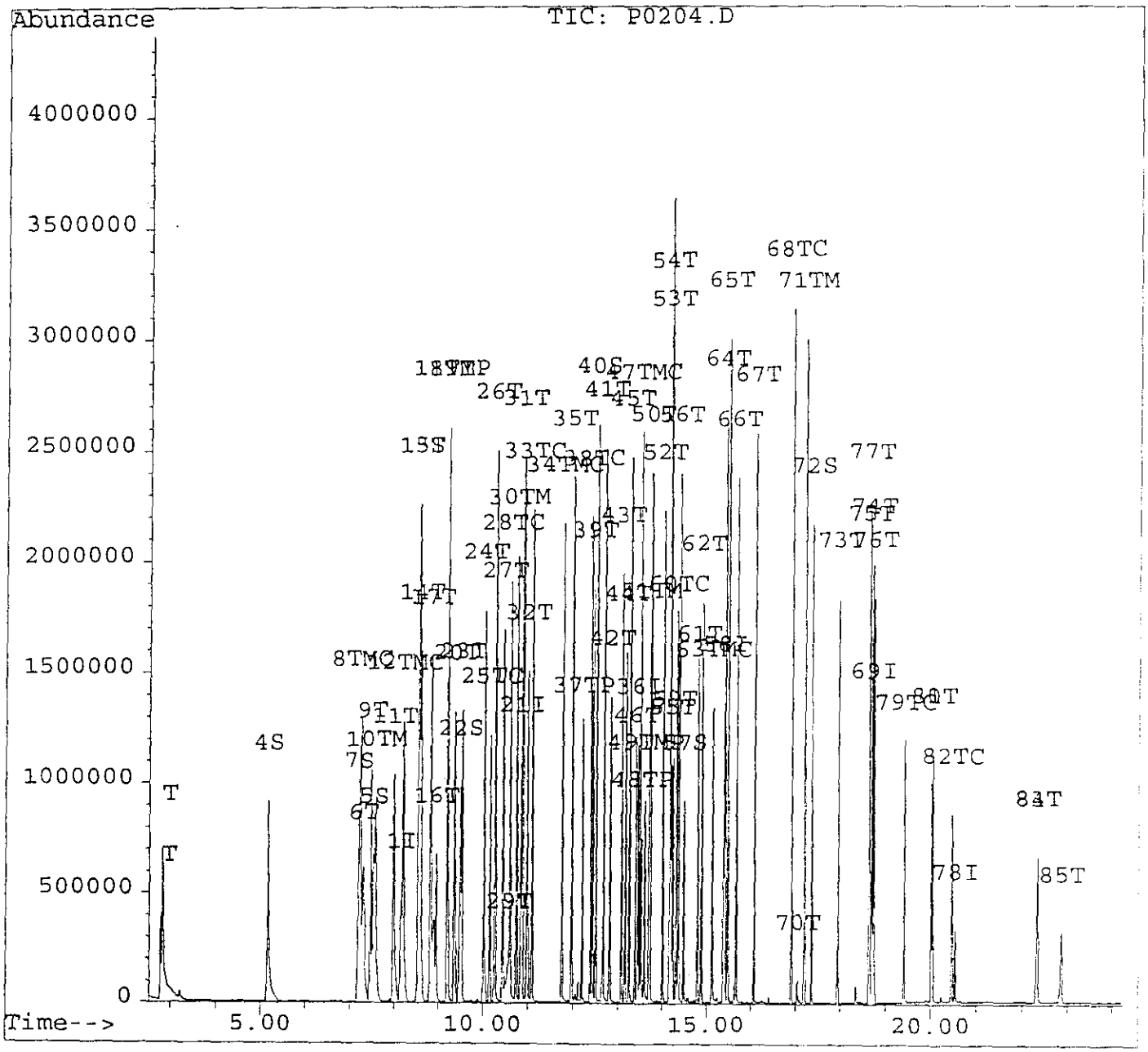
11-10-97

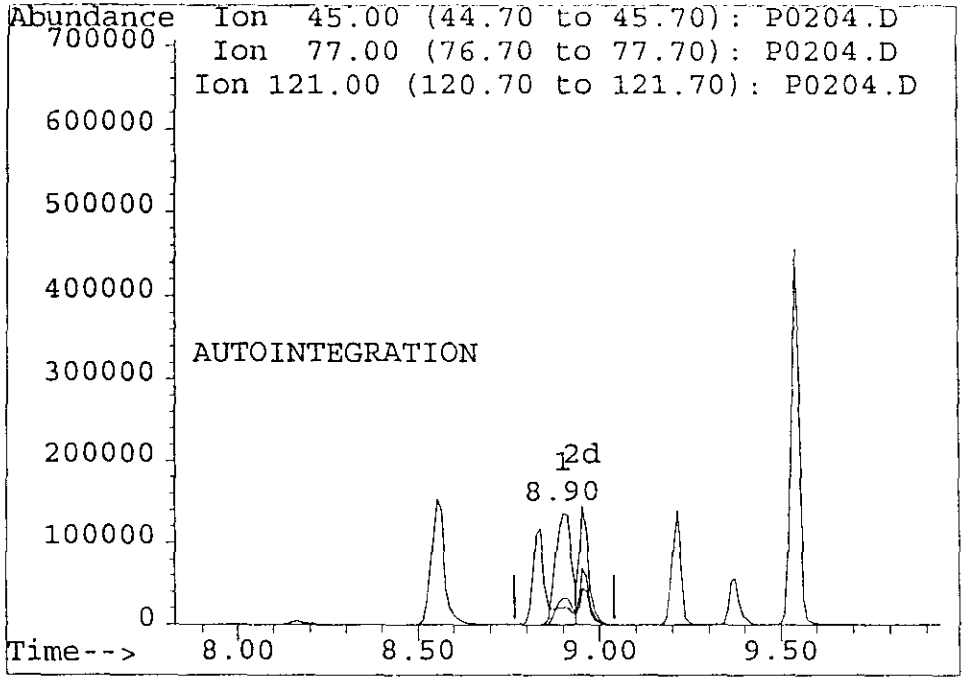
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\111097\P0204.D
Acq On : 10 Nov 97 2:38 pm
Sample : 80 ng 8270 std
Misc : 1283-55-05
Quant Time: Nov 10 15:08 1997

Vial: 5
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 14:57:31 1997
Response via : Multiple Level Calibration





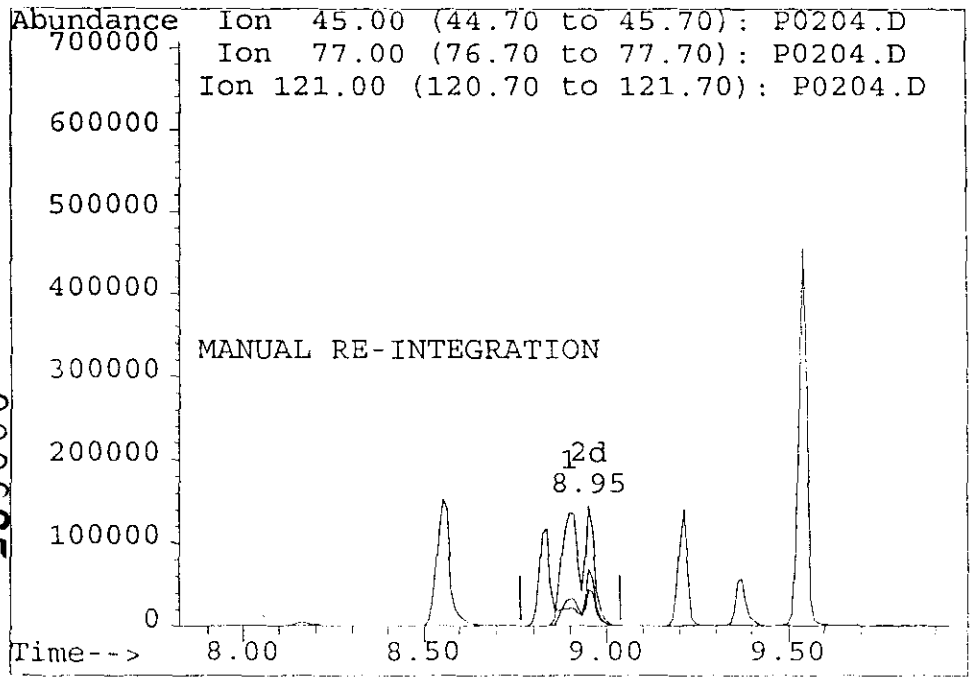
TIC: P0204.D

(16) Bis(2-chloroisopropyl)ether

8.90min 39.64ng/uL

response 412202

Ion	Exp%	Act%
45.00	100	100
77.00	17.10	0.00#
121.00	27.00	24.70
0.00	0.00	0.00



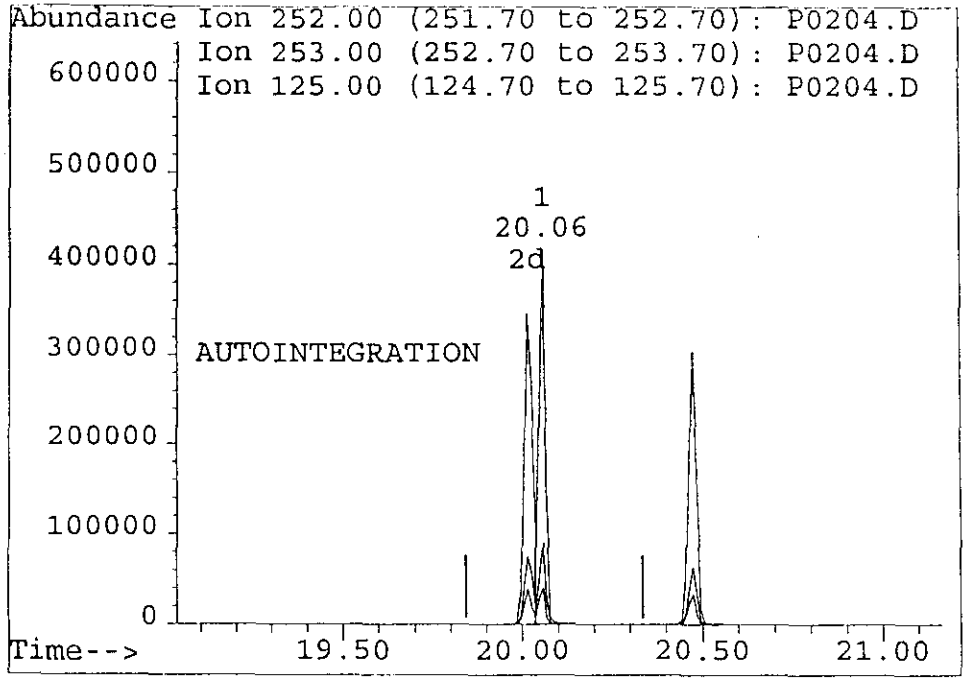
TIC: P0204.D

(16) Bis(2-chloroisopropyl)ether

8.95min 65.56ng/uL m

response 681760

Ion	Exp%	Act%
45.00	100	100
77.00	17.10	47.57
121.00	27.00	30.72
0.00	0.00	0.00



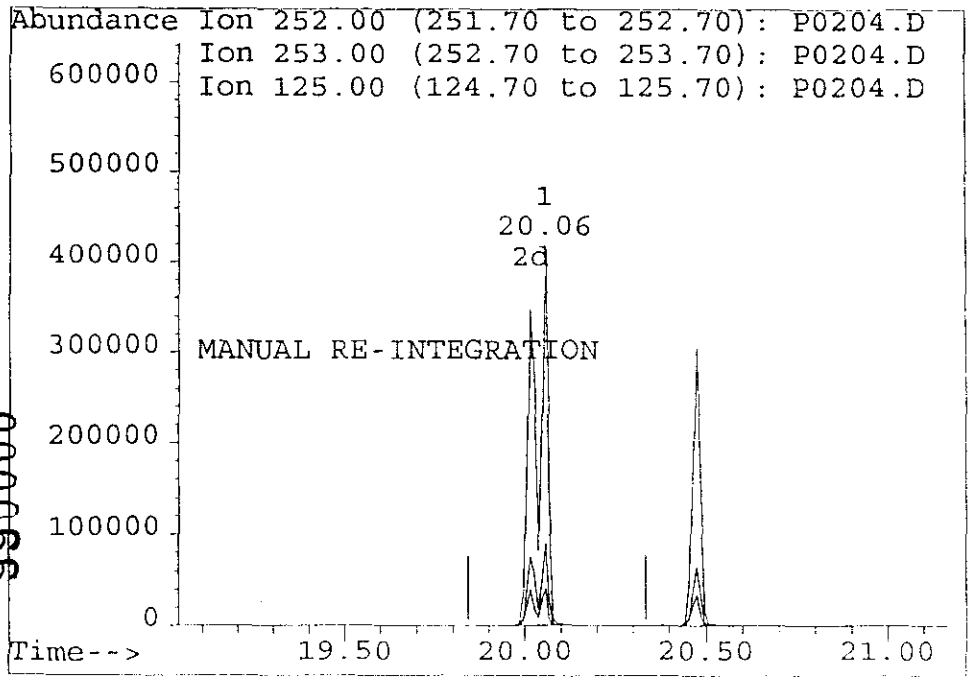
TIC: P0204.D

(80) Benzo[b]fluoranthene (T)

20.06min 64.08ng/uL

response 521900

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	20.93
125.00	9.20	9.19
0.00	0.00	0.00



TIC: P0204.D

(80) Benzo[b]fluoranthene (T)

20.06min 134.64ng/uL m

response 1096671

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.75
125.00	9.20	9.69
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\111097\P0205.D
Acq On : 10 Nov 97 3:10 pm
Sample : 100 ng 8270 std
Misc : 1283-55-04
Quant Time: Nov 10 15:48 1997

Vial: 6
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 15:16:31 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.16	152	201297	40.00	ng/uL	0.00
21) Naphthalene-d8	10.84	136	631294	40.00	ng/uL	0.00
36) Acenaphthene-d10	13.46	164	372895	40.00	ng/uL	0.00
58) Phenanthrene-d10	15.39	188	648836	40.00	ng/uL	0.00
69) Chrysene-d12	18.72	240	323395	40.00	ng/uL	0.00
78) Perylene-d12	20.55	264	198330	40.00	ng/uL	0.00

System Monitoring Compounds						%Recovery
4) 2-Fluorophenol	5.17	112	1331157	117.01	ng/uL	156.01%
5) 2-Chlorophenol-d4	7.55	132	609132	97.52	ng/uL	130.02%
7) Phenol-d5	7.22	99	1670098	117.14	ng/uL	156.18%
13) 1,2-Dichlorobenzene-d4	8.57	152	509939	119.71	ng/uL	239.43%
22) Nitrobenzene-d5	9.51	82	1162494	116.34	ng/uL	232.68%
40) 2-Fluorobiphenyl	12.53	172	1482648	121.99	ng/uL	243.99%
57) 2,4,6-Tribromophenol	14.50	330	210397	100.76	ng/uL	134.35%
72) p-Terphenyl-d14	17.38	244	993442	103.69	ng/uL	207.38%

Target Compounds						Qvalue
2) Pyridine	2.84	79	989737	87.40	ng/uL	100
3) n-Nitrosodimethylamine	2.80	74	508996	75.34	ng/uL	98
6) Aniline	7.33	93	1474477	110.59	ng/uL#	55
8) Phenol	7.26	94	1877653	117.93	ng/uL#	86
9) Bis(2-chloroethyl)ether	7.50	93	1436875	115.76	ng/uL	97
10) 2-Chlorophenol	7.60	128	766165	104.82	ng/uL	96
11) 1,3-Dichlorobenzene	8.00	146	789661	101.92	ng/uL	98
12) 1,4-Dichlorobenzene	8.21	146	861618	105.94	ng/ul	98
14) 1,2-Dichlorobenzene	8.60	146	796624	114.81	ng/uL	99
15) Benzyl Alcohol	8.57	108	972544	140.08	ng/uL	97
16) Bis(2-chloroisopropyl)ethe	8.96	45	952357	85.25	ng/uLm	84
17) 2-Methylphenol	8.84	108	1309951	130.25	ng/uL	96
18) n-Nitroso-di-n-propylamine	9.23	70	549258	93.17	ng/uL	98
19) 4-Methylphenol	9.24	108	1362263	129.57	ng/uL	100
20) Hexachloroethane	9.37	117	622883	125.32	ng/uL	97
23) Nitrobenzene	9.55	77	997823	106.08	ng/uL	96
24) Isophorone	10.04	82	2151642	109.64	ng/uL	99
25) 2-Nitrophenol	10.17	139	436262	113.33	ng/uL	97
26) 2,4-Dimethylphenol	10.29	122	830151	125.01	ng/uL	95
27) Bis(2-chloroethoxy)methane	10.46	93	1769904	131.38	ng/uL	100
28) 2,4-Dichlorophenol	10.62	162	683729	137.84	ng/uL	97
29) Benzoic acid	10.62	105	639319	147.77	ng/uL#	78
30) 1,2,4-Trichlorobenzene	10.76	180	704884	127.09	ng/uL	99

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

11-10-97

Data File : C:\HPCHEM\1\DATA\111097\P0205.D
Acq On : 10 Nov 97 3:10 pm
Sample : 100 ng 8270 std
Misc : 1283-55-04
Quant Time: Nov 10 15:48 1997

Vial: 6
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 15:16:31 1997
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Naphthalene	10.88	128	2101440	130.31 ng/uL	99
32) 4-Chloroaniline	10.99	127	773952	111.91 ng/uL	99
33) Hexachlorobutadiene	11.09	225	483940	122.32 ng/uL	100
34) 4-Chloro-3-methylphenol	11.77	107	1259228	142.74 ng/uL	97
35) 2-Methylnaphthalene	11.98	142	1270272	136.51 ng/uL	96
37) Hexachlorocyclopentadiene	12.21	237	418625	134.91 ng/uL	99
38) 2,4,6-Trichlorophenol	12.40	196	484273	141.13 ng/uL	98
39) 2,4,5-Trichlorophenol	12.46	196	523049	136.94 ng/uL	98
41) 2-Chloronaphthalene	12.70	162	1329107	120.76 ng/uL	98
42) 2-Nitroaniline	12.84	65	386459	88.85 ng/uL	97
43) Dimethylphthalate	13.10	163	1542489	113.81 ng/uL	100
44) 2,6-Dinitrotoluene	13.18	165	340753	110.02 ng/uL	95
45) Acenaphthylene	13.28	152	1969696	127.15 ng/uL	99
46) 3-Nitroaniline	13.41	138	333723	98.00 ng/uL	99
47) Acenaphthene	13.51	153	1118427	114.56 ng/uL	98
48) 2,4-Dinitrophenol	13.55	184	209161	137.03 ng/uL#	100
49) 4-Nitrophenol	13.62	109	403180	133.95 ng/uL	98
50) Dibenzofuran	13.74	168	1866159	127.34 ng/uL	96
51) 2,4-Dinitrotoluene	13.72	165	451809	120.48 ng/uL	95
52) Diethylphthalate	14.03	149	1600973	117.96 ng/uL	100
53) Fluorene	14.19	166	1371448	122.48 ng/uL	98
54) 4-Chlorophenyl phenyl ethe	14.18	204	679119	118.35 ng/uL	98
55) 4-Nitroaniline	14.23	138	326003	94.11 ng/uL	100
56) Azobenzene	14.39	77	1788524	103.38 ng/uL	98
59) 4,6-Dinitro-2-methylphenol	14.26	198	273049	121.65 ng/uL	100
60) n-Nitrosodiphenylamine	14.33	169	948506	115.23 ng/uL	100
61) 4-Bromophenyl phenyl ether	14.81	248	353644	102.41 ng/uL	94
62) Hexachlorobenzene	14.90	284	450177	95.22 ng/uL	99
63) Pentachlorophenol	15.15	266	273748	126.95 ng/uL	98
64) Phenanthrene	15.43	178	1800908	108.06 ng/uL	100
65) Anthracene	15.50	178	1864489	113.40 ng/uL	100
66) Carbazole	15.69	167	1682874	110.24 ng/uL	97
67) Di-n-butylphthalate	16.09	149	2240870	103.44 ng/uL	99
68) Fluoranthene	16.93	202	1824979	104.61 ng/uL	95
70) Benzidine	17.06	184	119979	147.79 ng/uL	96
71) Pyrene	17.22	202	1781204	112.41 ng/uL	96
73) Butylbenzylphthalate	17.96	149	767070	101.36 ng/uL	94
74) Benzo[a]anthracene	18.71	228	1111115	102.90 ng/uL	100
75) 3,3'-Dichlorobenzidine	18.65	252	402548	106.76 ng/uL	98
76) Chrysene	18.76	228	1097843	110.48 ng/uL	99
77) Bis(2-ethylhexyl)phthalate	18.66	149	822898	100.20 ng/uL	100

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

Data File : C:\HPCHEM\1\DATA\111097\P0205.D
Acq On : 10 Nov 97 3:10 pm
Sample : 100 ng 8270 std
Misc : 1283-55-04
Quant Time: Nov 10 15:48 1997

Vial: 6
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 15:16:31 1997
Response via : Multiple Level Calibration

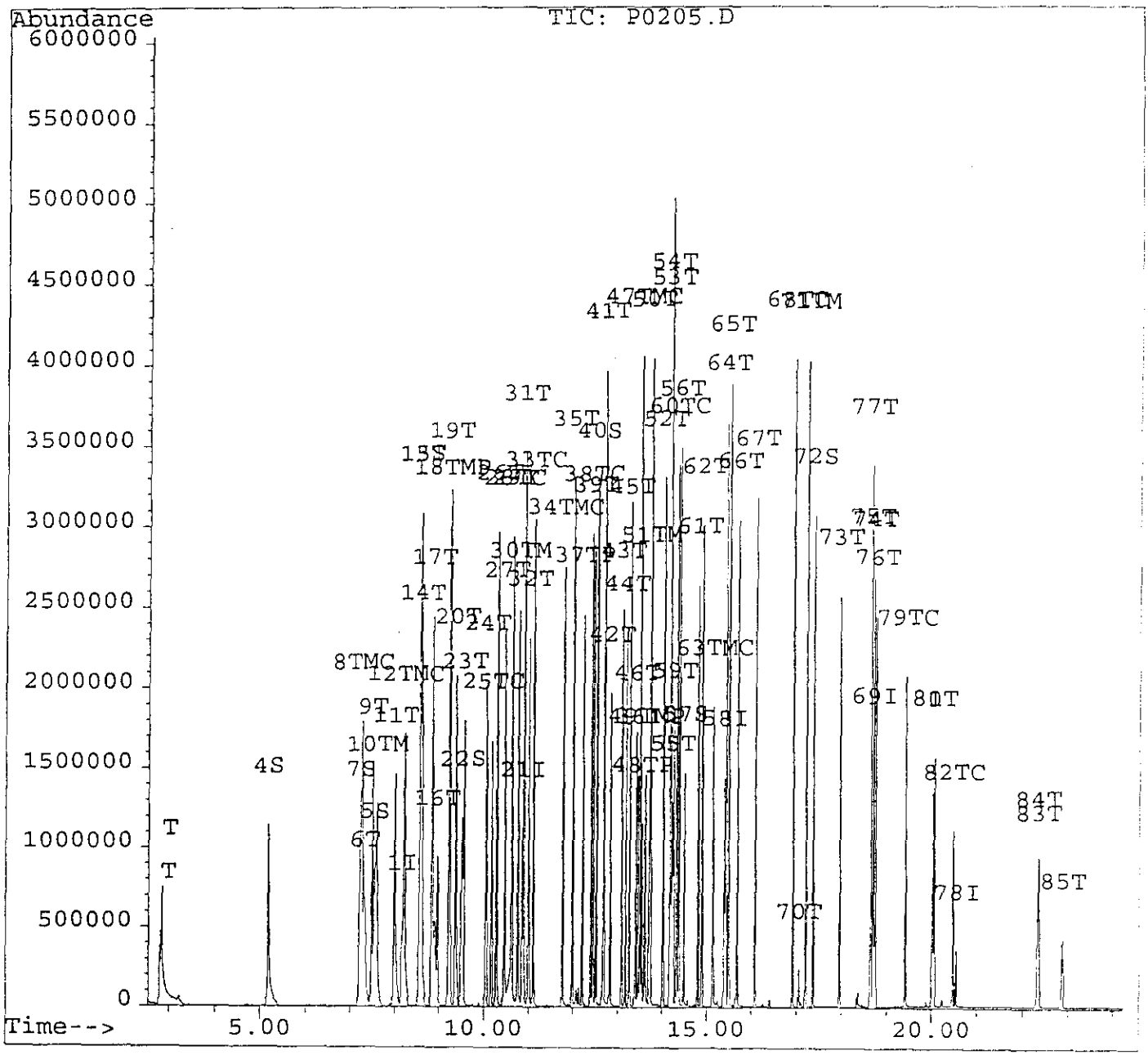
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79) Di-n-octylphthalate	19.42	149	1173898	83.44 ng/uL	98
80) Benzo[b]fluoranthene	20.06	252	1488359	167.51 ng/uLm GB 11-10-97	99
81) Benzo[k]fluoranthene	20.06	252	688203	60.93 ng/uL	99
82) Benzo[a]pyrene	20.48	252	617835	98.22 ng/uL	98
83) Indeno(1,2,3-c,d)pyrene	22.34	276	569506	104.55 ng/uL	99
84) Dibenzo[a,h]anthracene	22.36	278	481410	103.28 ng/uL	99
85) Benzo[g,h,i]perylene	22.89	276	463615	112.09 ng/uL	99

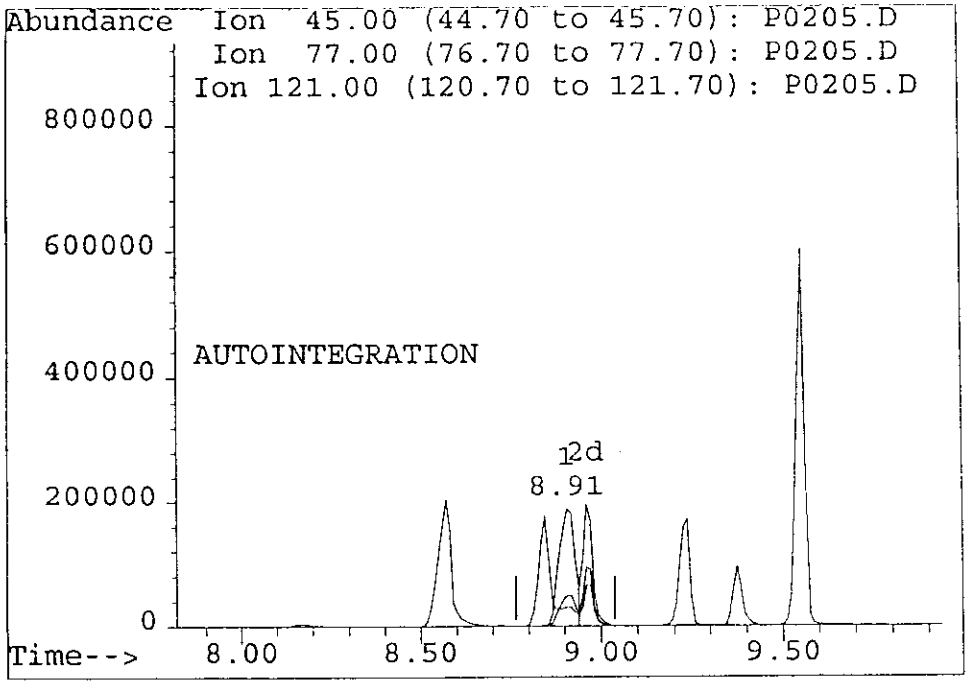
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\111097\P0205.D
Acq On : 10 Nov 97 3:10 pm
Sample : 100 ng 8270 std
Misc : 1283-55-04
Quant Time: Nov 10 15:48 1997

Vial: 6
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 15:16:31 1997
Response via : Multiple Level Calibration





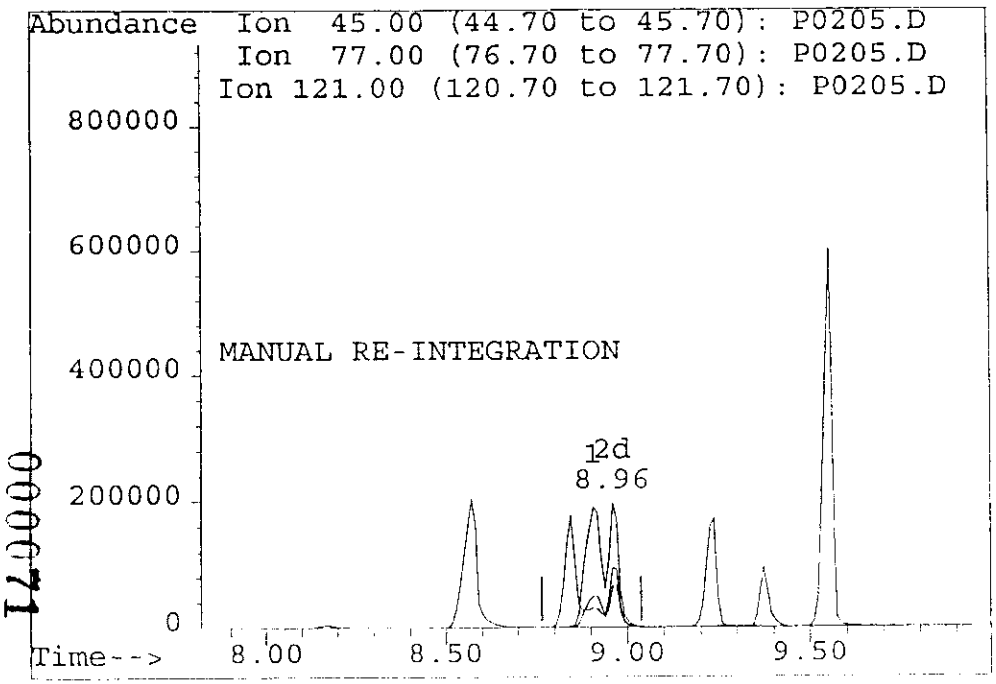
TIC: P0205.D

(16) Bis(2-chloroisopropyl)ether

8.91min 52.01ng/uL

response 580997

Ion	Exp%	Act%
45.00	100	100
77.00	17.10	0.00#
121.00	27.00	26.64
0.00	0.00	0.00



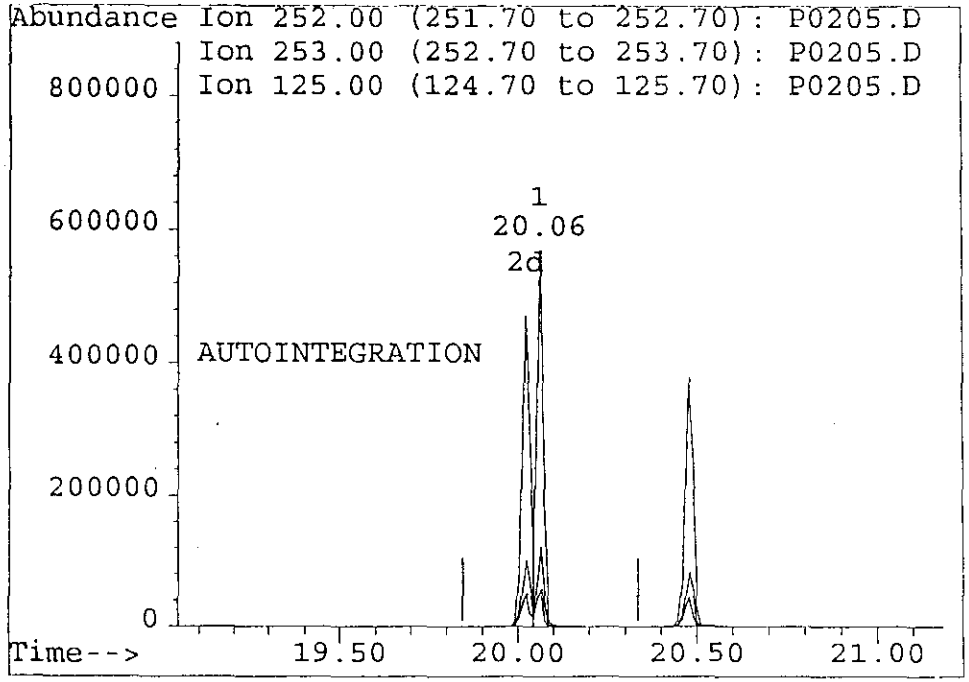
TIC: P0205.D

(16) Bis(2-chloroisopropyl)ether

8.96min 85.25ng/uL m

response 952357

Ion	Exp%	Act%
45.00	100	100
77.00	17.10	48.37
121.00	27.00	33.53
0.00	0.00	0.00



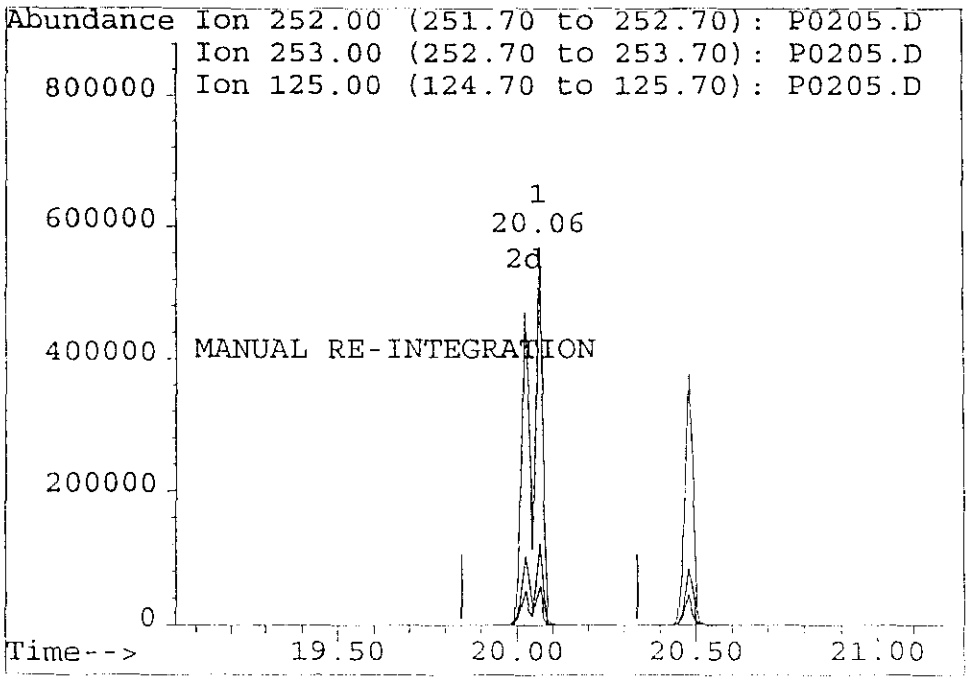
TIC: P0205.D

(80) Benzo[b]fluoranthene (T)

20.06min 77.46ng/uL

response 688203

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.60
125.00	9.20	9.92
0.00	0.00	0.00



TIC: P0205.D

(80) Benzo[b]fluoranthene (T)

20.06min 167.51ng/uL m

response 1488359

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.46
125.00	9.20	10.29
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\111097\P0206.D
Acq On : 10 Nov 97 3:41 pm
Sample : 120 ng 8270 std
Misc : 1283-55-03
Quant Time: Nov 10 16:08 1997

Vial: 7
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 15:50:48 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.16	152	187583	40.00	ng/uL	0.00
21) Naphthalene-d8	10.84	136	554577	40.00	ng/uL	0.00
36) Acenaphthene-d10	13.46	164	327095	40.00	ng/uL	0.00
58) Phenanthrene-d10	15.40	188	600459	40.00	ng/uL	0.00
69) Chrysene-d12	18.72	240	290006	40.00	ng/uL	0.01
78) Perylene-d12	20.55	264	175898	40.00	ng/uL	0.00
System Monitoring Compounds						%Recovery
4) 2-Fluorophenol	5.17	112	1478042	131.51	ng/uL	175.34%
5) 2-Chlorophenol-d4	7.56	132	665203	116.59	ng/uL	155.45%
7) Phenol-d5	7.23	99	1823100	128.22	ng/uL	170.96%
13) 1,2-Dichlorobenzene-d4	8.56	152	569011	136.57	ng/uL	273.15%
22) Nitrobenzene-d5	9.51	82	1204495	131.20	ng/uL	262.40%
40) 2-Fluorobiphenyl	12.53	172	1540707	136.53	ng/uL	273.05%
57) 2,4,6-Tribromophenol	14.51	330	227593	126.81	ng/uL	169.08%
72) p-Terphenyl-d14	17.38	244	1117326	125.65	ng/uL	251.31%
Target Compounds						Qvalue
2) Pyridine	2.83	79	1124898	109.18	ng/uL	100
3) n-Nitrosodimethylamine	2.80	74	567623	96.03	ng/uL	99
6) Aniline	7.30	93	1497738	114.48	ng/uL#	45
8) Phenol	7.27	94	2044201	129.02	ng/uL#	71
9) Bis(2-chloroethyl)ether	7.50	93	1632015	132.89	ng/uL	96
10) 2-Chlorophenol	7.60	128	798821	117.24	ng/uL	96
11) 1,3-Dichlorobenzene	8.00	146	834206	115.43	ng/uL	98
12) 1,4-Dichlorobenzene	8.21	146	926242	120.97	ng/ul	98
14) 1,2-Dichlorobenzene	8.60	146	879204	132.88	ng/uL	99
15) Benzyl Alcohol	8.57	108	1043730	143.51	ng/uL	96
16) Bis(2-chloroisopropyl)ethe	8.96	45	979549	99.41	ng/uLm	85
17) 2-Methylphenol	8.85	108	1387408	134.85	ng/uL	97
18) n-Nitroso-di-n-propylamine	9.23	70	553154	102.63	ng/uL	97
19) 4-Methylphenol	9.24	108	1426967	132.17	ng/uL	98
20) Hexachloroethane	9.37	117	668212	133.95	ng/uL	95
23) Nitrobenzene	9.56	77	1080770	128.47	ng/uL	97
24) Isophorone	10.05	82	2142035	118.71	ng/uL	99
25) 2-Nitrophenol	10.17	139	463889	134.76	ng/uL	96
26) 2,4-Dimethylphenol	10.28	122	867461	139.84	ng/uL	96
27) Bis(2-chloroethoxy)methane	10.46	93	1918606	147.84	ng/uL	99
28) 2,4-Dichlorophenol	10.62	162	710189	152.99	ng/uL	97
29) Benzoic acid	10.63	105	765175	192.15	ng/uL#	76
30) 1,2,4-Trichlorobenzene	10.76	180	768872	146.52	ng/uL	99

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

Data File : C:\HPCHEM\1\DATA\111097\P0206.D
Acq On : 10 Nov 97 3:41 pm
Sample : 120 ng 8270 std
Misc : 1283-55-03
Quant Time: Nov 10 16:08 1997

Vial: 7
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 15:50:48 1997
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Naphthalene	10.88	128	2160437	141.88 ng/uL	100
32) 4-Chloroaniline	10.99	127	779598	123.54 ng/uL	100
33) Hexachlorobutadiene	11.09	225	505384	135.88 ng/uL	98
34) 4-Chloro-3-methylphenol	11.76	107	1314927	150.79 ng/uL	98
35) 2-Methylnaphthalene	11.99	142	1313471	148.39 ng/uL	96
37) Hexachlorocyclopentadiene	12.21	237	453911	161.87 ng/uL	99
38) 2,4,6-Trichlorophenol	12.40	196	486238	152.55 ng/uL	98
39) 2,4,5-Trichlorophenol	12.45	196	531809	148.87 ng/uL	97
41) 2-Chloronaphthalene	12.70	162	1353942	133.81 ng/uL	99
42) 2-Nitroaniline	12.84	65	388792	107.41 ng/uL	95
43) Dimethylphthalate	13.10	163	1586080	129.19 ng/uL	99
44) 2,6-Dinitrotoluene	13.19	165	365889	134.36 ng/uL	97
45) Acenaphthylene	13.27	152	1903908	133.37 ng/uL	100
46) 3-Nitroaniline	13.41	138	350865	120.39 ng/uL	99
47) Acenaphthene	13.50	153	1215071	136.16 ng/uL	97
48) 2,4-Dinitrophenol	13.54	184	206438	154.99 ng/uL#	100
49) 4-Nitrophenol	13.62	109	402477	143.17 ng/uL	98
50) Dibenzofuran	13.73	168	1956959	142.58 ng/uL	96
51) 2,4-Dinitrotoluene	13.71	165	484427	144.27 ng/uL	91
52) Diethylphthalate	14.02	149	1625706	131.76 ng/uL	99
53) Fluorene	14.19	166	1489151	140.35 ng/uL	100
54) 4-Chlorophenyl phenyl ethe	14.17	204	753861	139.43 ng/uL	97
55) 4-Nitroaniline	14.23	138	341424	115.10 ng/uL	99
56) Azobenzene	14.39	77	1919578	125.58 ng/uL	98
59) 4,6-Dinitro-2-methylphenol	14.27	198	315707	155.04 ng/uL	100
60) n-Nitrosodiphenylamine	14.34	169	980957	126.08 ng/uL	99
61) 4-Bromophenyl phenyl ether	14.81	248	379345	116.86 ng/uL	97
62) Hexachlorobenzene	14.90	284	490359	114.60 ng/uL	96
63) Pentachlorophenol	15.14	266	298251	150.27 ng/uL	99
64) Phenanthrene	15.43	178	1958761	123.76 ng/uL	100
65) Anthracene	15.49	178	1986360	126.43 ng/uL	99
66) Carbazole	15.69	167	1845004	129.13 ng/uL	96
67) Di-n-butylphthalate	16.08	149	2424677	121.46 ng/uL	99
68) Fluoranthene	16.93	202	2009968	122.41 ng/uL	98
70) Benzidine	17.06	184	117039	149.42 ng/uL	99
71) Pyrene	17.22	202	1925174	127.58 ng/uL	96
73) Butylbenzylphthalate	17.96	149	816942	119.54 ng/uL	96
74) Benzo[a]anthracene	18.71	228	1238861	125.48 ng/uL	100
75) 3,3'-Dichlorobenzidine	18.65	252	428342	125.57 ng/uL	99
76) Chrysene	18.75	228	1164811	127.67 ng/uL	99
77) Bis(2-ethylhexyl)phthalate	18.66	149	875376	119.75 ng/uL	99

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

Data File : C:\HPCHEM\1\DATA\111097\P0206.D
Acq On : 10 Nov 97 3:41 pm
Sample : 120 ng 8270 std
Misc : 1283-55-03
Quant Time: Nov 10 16:08 1997

Vial: 7
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 15:50:48 1997
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	Di-n-octylphthalate	19.43	149	1271942	106.28 ng/uL	97
80)	Benzo[b]fluoranthene	20.07	252	1618731	206.94 ng/uLm	98
81)	Benzo[k]fluoranthene	20.07	252	1623689	182.65 ng/uLm	98
82)	Benzo[a]pyrene	20.48	252	672629	120.44 ng/uL	98
83)	Indeno(1,2,3-c,d)pyrene	22.34	276	574461	118.76 ng/uL	99
84)	Dibenzo[a,h]anthracene	22.35	278	494654	120.60 ng/uL	99
85)	Benzo[g,h,i]perylene	22.88	276	454542	121.48 ng/uL	100

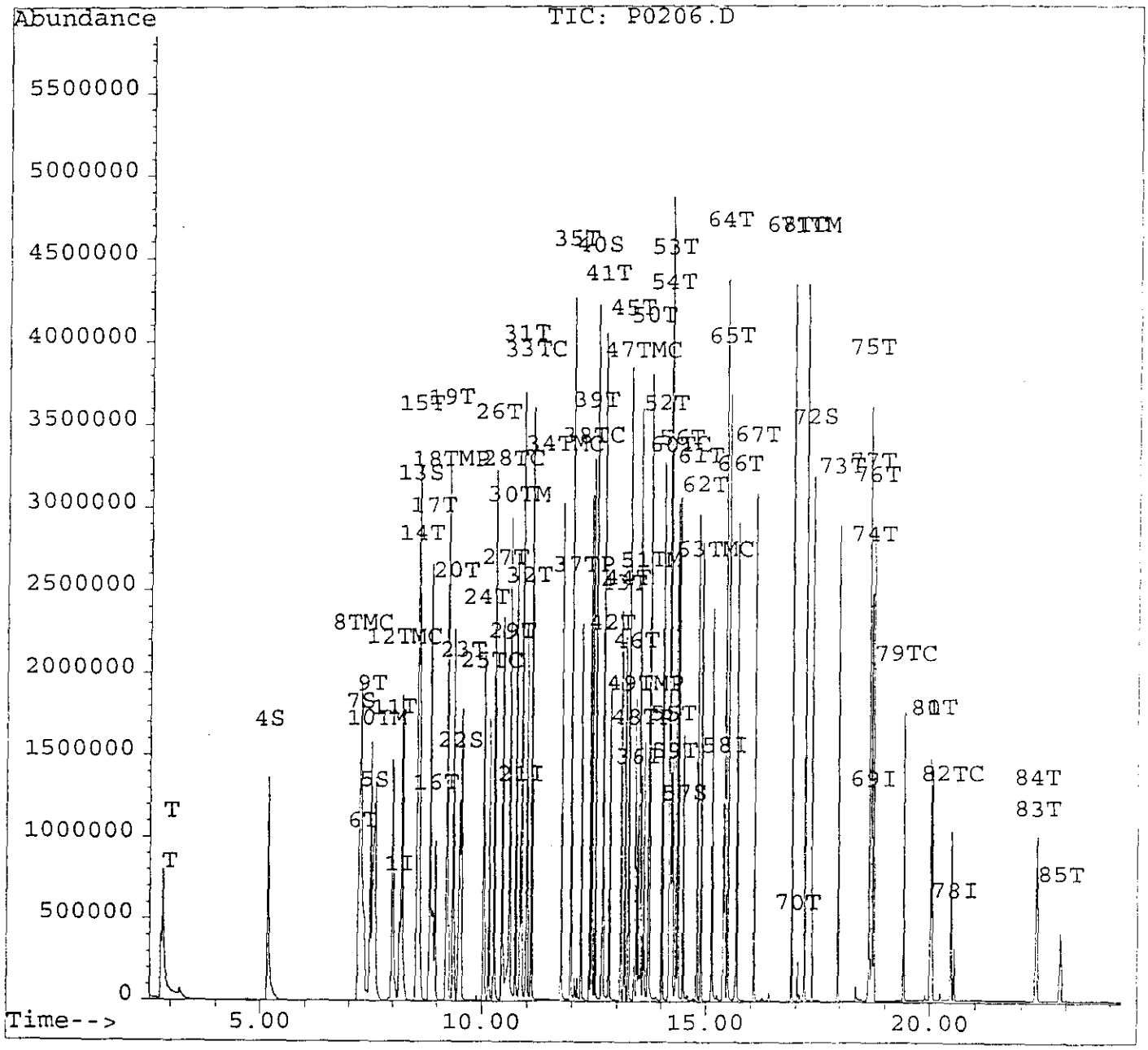
AS 11/10/97

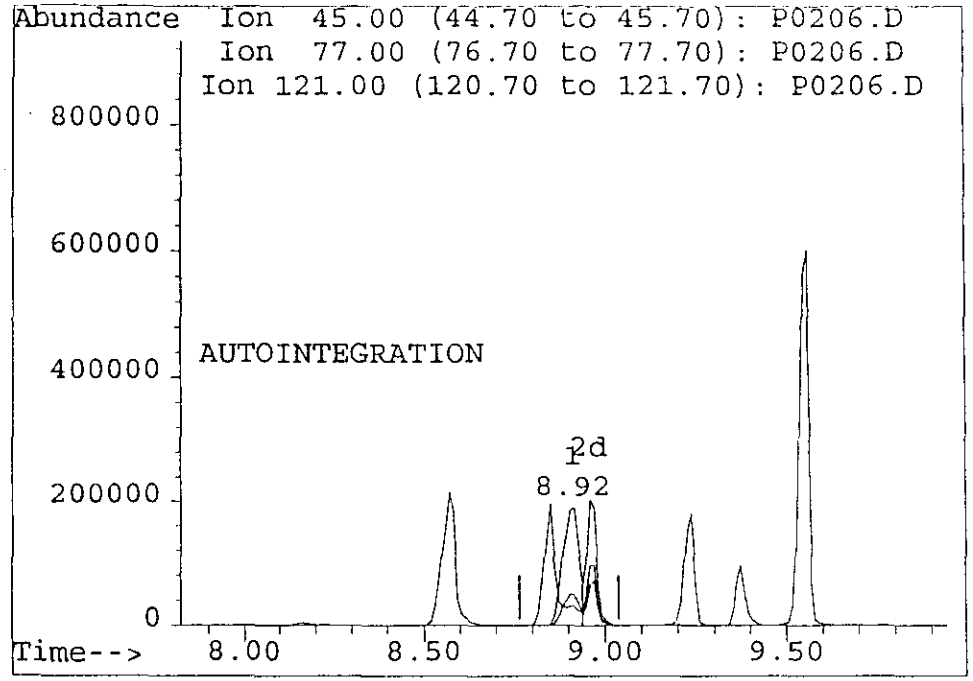
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\111097\P0206.D
Acq On : 10 Nov 97 3:41 pm
Sample : 120 ng 8270 std
Misc : 1283-55-03
Quant Time: Nov 10 16:08 1997

Vial: 7
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 15:50:48 1997
Response via : Multiple Level Calibration





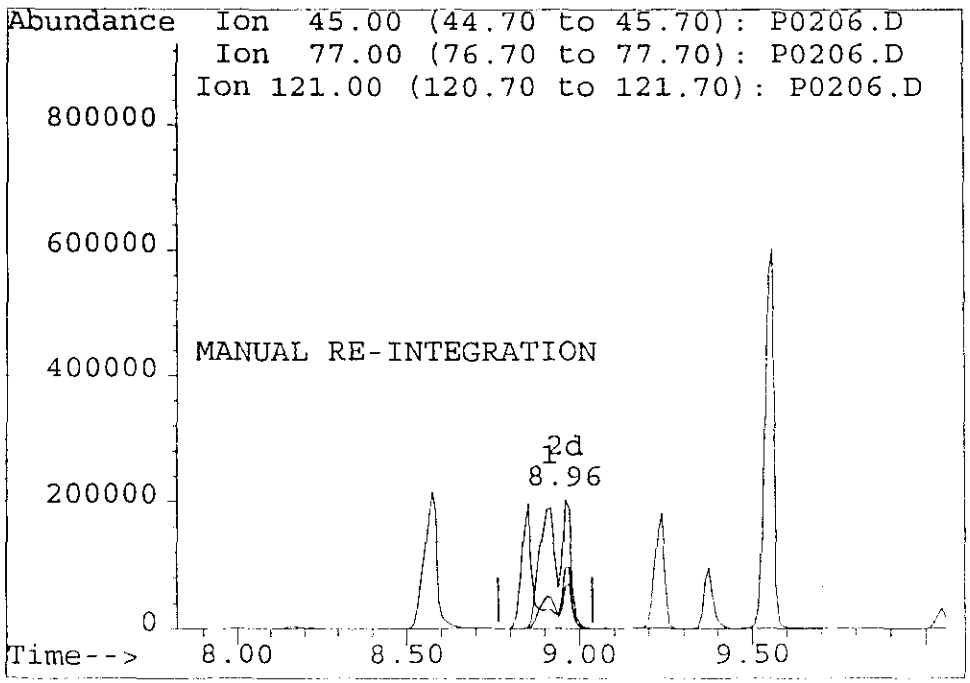
TIC: P0206.D

(16) Bis(2-chloroisopropyl)ether

8.92min 61.23ng/uL

response 603360

Ion	Exp%	Act%
45.00	100	100
77.00	17.10	0.00#
121.00	27.00	26.85
0.00	0.00	0.00



TIC: P0206.D

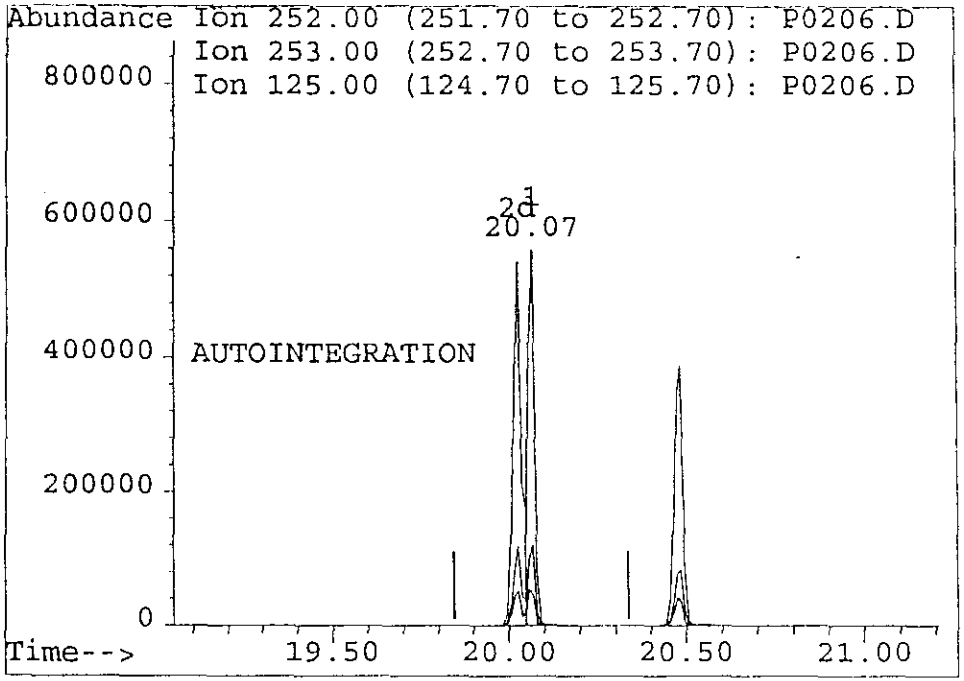
(16) Bis(2-chloroisopropyl)ether

8.96min 99.41ng/uL m

response 979549

Ion	Exp%	Act%
45.00	100	100
77.00	17.10	47.72
121.00	27.00	32.82
0.00	0.00	0.00

000077



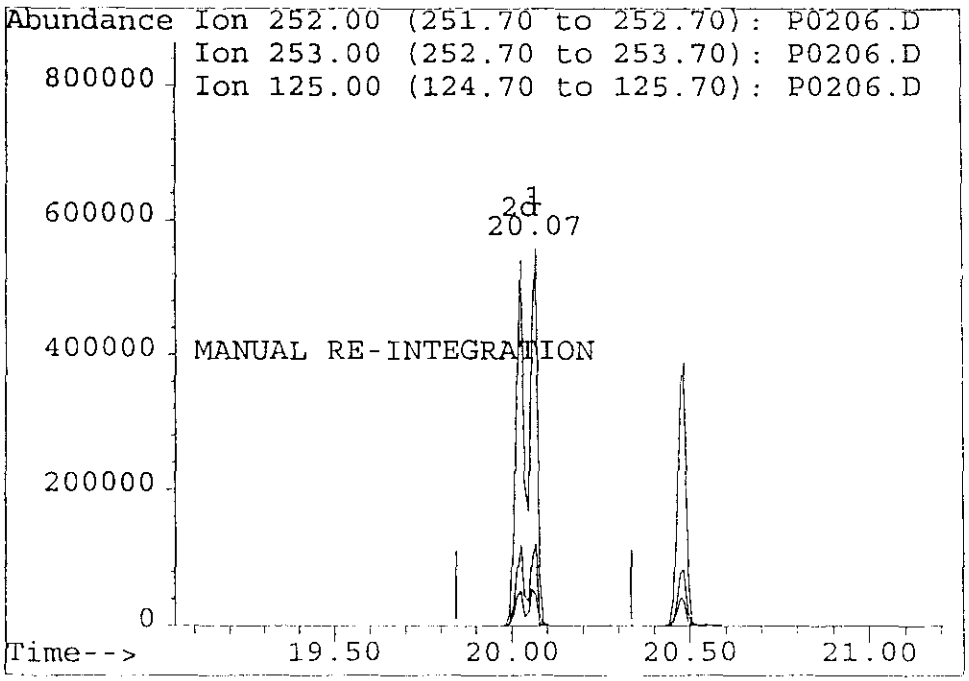
TIC: P0206.D

(80) Benzo[b]fluoranthene (T)

20.07min 89.81ng/uL

response 702518

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.63
125.00	9.20	11.18
0.00	0.00	0.00



TIC: P0206.D

(80) Benzo[b]fluoranthene (T)

20.07min 206.94ng/uL m

response 1618731

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.52
125.00	9.20	8.19
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\111097\P0207.D
Acq On : 10 Nov 97 4:12 pm
Sample : 160 ng 8270 std
Misc : 1283-55-02
Quant Time: Nov 10 16:40 1997

Vial: 8
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 15:50:48 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.16	152	191981	40.00	ng/uL	0.00
21) Naphthalene-d8	10.85	136	558960	40.00	ng/uL	0.02
36) Acenaphthene-d10	13.46	164	332501	40.00	ng/uL	0.00
58) Phenanthrene-d10	15.39	188	543639	40.00	ng/uL	0.00
69) Chrysene-d12	18.73	240	276466	40.00	ng/uL	0.01
78) Perylene-d12	20.55	264	155397	40.00	ng/uL	0.01

System Monitoring Compounds						%Recovery
4) 2-Fluorophenol	5.18	112	1976451	171.82	ng/uL	229.10%
5) 2-Chlorophenol-d4	7.58	132	927683	158.87	ng/uL	211.83%
7) Phenol-d5	7.25	99	2483063	170.63	ng/uL	227.51%
13) 1,2-Dichlorobenzene-d4	8.56	152	760679	178.39	ng/uL	356.79%
22) Nitrobenzene-d5	9.52	82	1761770	190.40	ng/uL	380.80%
40) 2-Fluorobiphenyl	12.53	172	2072526	180.67	ng/uL	361.33%
57) 2,4,6-Tribromophenol	14.50	330	285021	156.22	ng/uL	208.30%
72) p-Terphenyl-d14	17.38	244	1394574	164.51	ng/uL	329.03%

Target Compounds						Qvalue
2) Pyridine	2.83	79	1308526	124.10	ng/uL	100
3) n-Nitrosodimethylamine	2.80	74	764376	126.36	ng/uL	100
6) Aniline	7.30	93	1703424	127.22	ng/uLm	1
8) Phenol	7.29	94	2768090	170.71	ng/uL#	77
9) Bis(2-chloroethyl)ether	7.51	93	2128216	169.32	ng/uL	98
10) 2-Chlorophenol	7.62	128	1125149	161.35	ng/uL	95
11) 1,3-Dichlorobenzene	8.00	146	1173602	158.68	ng/uL	99
12) 1,4-Dichlorobenzene	8.21	146	1275802	162.80	ng/ul	98
14) 1,2-Dichlorobenzene	8.61	146	1207356	178.29	ng/uL	98
15) Benzyl Alcohol	8.59	108	1386019	186.20	ng/uL	96
16) Bis(2-chloroisopropyl)ethe	8.97	45	1335978	132.48	ng/uLm	84
17) 2-Methylphenol	8.86	108	1928399	183.14	ng/uL	97
18) n-Nitroso-di-n-propylamine	9.29	70	787804	142.82	ng/uL#	55
19) 4-Methylphenol	9.25	108	1970996	178.37	ng/uL	99
20) Hexachloroethane	9.38	117	928049	181.77	ng/uL	96
23) Nitrobenzene	9.57	77	1503292	177.29	ng/uL	97
24) Isophorone	10.06	82	3119065	171.50	ng/uL	99
25) 2-Nitrophenol	10.17	139	658438	189.78	ng/uL	97
26) 2,4-Dimethylphenol	10.29	122	1190169	190.35	ng/uL	96
27) Bis(2-chloroethoxy)methane	10.47	93	2567294	196.27	ng/uL	99
28) 2,4-Dichlorophenol	10.63	162	972601	207.88	ng/uL	96
29) Benzoic acid	10.67	105	1150940	286.76	ng/uL#	77
30) 1,2,4-Trichlorobenzene	10.75	180	1039393	196.52	ng/uL	99

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

Data File : C:\HPCHEM\1\DATA\111097\P0207.D
Acq On : 10 Nov 97 4:12 pm
Sample : 160 ng 8270 std
Misc : 1283-55-02
Quant Time: Nov 10 16:40 1997

Vial: 8
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 15:50:48 1997
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31)	Naphthalene	10.89	128	2830087	184.40	ng/uL	100
32)	4-Chloroaniline	10.99	127	981506	154.31	ng/uL	100
33)	Hexachlorobutadiene	11.10	225	701053	187.02	ng/uL	99
34)	4-Chloro-3-methylphenol	11.77	107	1716167	195.26	ng/uL	96
35)	2-Methylnaphthalene	11.99	142	1852991	207.71	ng/uL	95
37)	Hexachlorocyclopentadiene	12.21	237	599171	210.20	ng/uL	100
38)	2,4,6-Trichlorophenol	12.41	196	693599	214.07	ng/uL	97
39)	2,4,5-Trichlorophenol	12.46	196	747669	205.89	ng/uL	99
41)	2-Chloronaphthalene	12.70	162	1850113	179.88	ng/uL	98
42)	2-Nitroaniline	12.85	65	503041	136.72	ng/uL	95
43)	Dimethylphthalate	13.10	163	2021918	162.01	ng/uL	100
44)	2,6-Dinitrotoluene	13.19	165	501533	181.17	ng/uL	95
45)	Acenaphthylene	13.28	152	2677496	184.51	ng/uL	99
46)	3-Nitroaniline	13.42	138	418314	141.20	ng/uL	97
47)	Acenaphthene	13.51	153	1596324	175.97	ng/uL	98
48)	2,4-Dinitrophenol	13.55	184	305105	225.34	ng/uL#	100
49)	4-Nitrophenol	13.62	109	515343	180.33	ng/uL	99
50)	Dibenzofuran	13.74	168	2582254	185.07	ng/uL	94
51)	2,4-Dinitrotoluene	13.73	165	636505	186.48	ng/uL	88
52)	Diethylphthalate	14.03	149	2065015	164.65	ng/uL	99
53)	Fluorene	14.19	166	1890988	175.32	ng/uL	99
54)	4-Chlorophenyl phenyl ethe	14.18	204	958649	174.42	ng/uL	97
55)	4-Nitroaniline	14.24	138	424005	140.61	ng/uL	99
56)	Azobenzene	14.39	77	2350000	151.23	ng/uL	97
59)	4,6-Dinitro-2-methylphenol	14.27	198	393336	213.35	ng/uL	100
60)	n-Nitrosodiphenylamine	14.35	169	1290465	183.20	ng/uL	99
61)	4-Bromophenyl phenyl ether	14.81	248	499120	169.83	ng/uL	95
62)	Hexachlorobenzene	14.91	284	619270	159.85	ng/uL	96
63)	Pentachlorophenol	15.15	266	396181	220.48	ng/uL	98
64)	Phenanthrene	15.43	178	2377827	165.94	ng/uL	100
65)	Anthracene	15.51	178	2527588	177.70	ng/uL	99
66)	Carbazole	15.69	167	2162514	167.17	ng/uL	97
67)	Di-n-butylphthalate	16.09	149	2784716	154.07	ng/uL	100
68)	Fluoranthene	16.93	202	2538023	170.72	ng/uL	96
70)	Benzidine	17.07	184	133615	178.93	ng/uL	99
71)	Pyrene	17.22	202	2512168	174.63	ng/uL	94
73)	Butylbenzylphthalate	17.97	149	1008363	154.77	ng/uL	93
74)	Benzo[a]anthracene	18.72	228	1576792	167.53	ng/uL	100
75)	3,3'-Dichlorobenzidine	18.65	252	520832	160.16	ng/uL	99
76)	Chrysene	18.76	228	1435567	165.06	ng/uL	99
77)	Bis(2-ethylhexyl)phthalate	18.66	149	1094053	156.99	ng/uL	99

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

Data File : C:\HPCHEM\1\DATA\111097\P0207.D
Acq On : 10 Nov 97 4:12 pm
Sample : 160 ng 8270 std
Misc : 1283-55-02
Quant Time: Nov 10 16:40 1997

Vial: 8
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 15:50:48 1997
Response via : Multiple Level Calibration

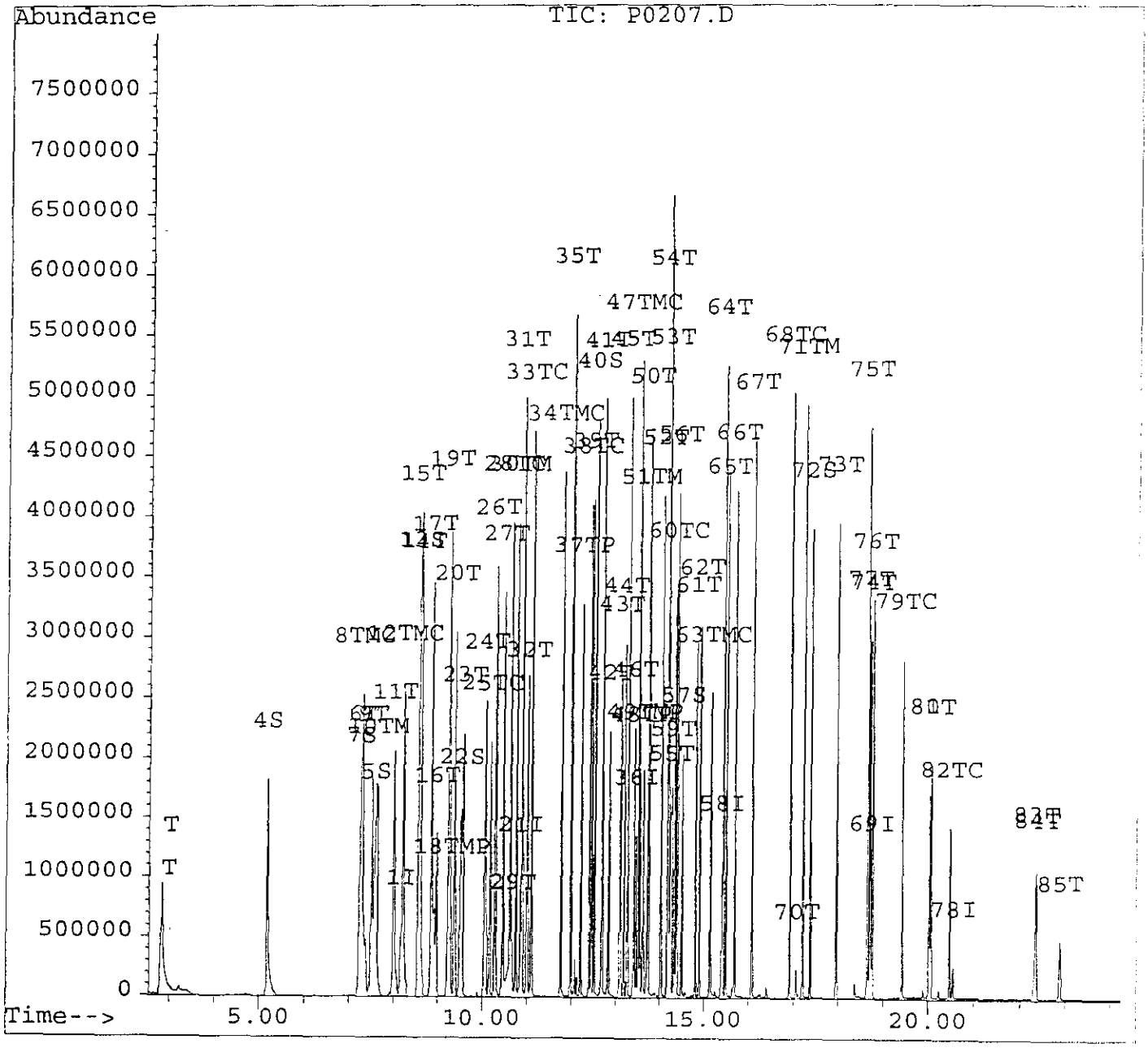
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79) Di-n-octylphthalate	19.43	149	1585734	149.98 ng/uL	97
80) Benzo[b]fluoranthene	20.07	252	1953474	282.68 ng/uLm	99
81) Benzo[k]fluoranthene	20.07	252	1958615	249.39 ng/uLm	99
82) Benzo[a]pyrene	20.48	252	801389	162.43 ng/uL	98
83) Indeno(1,2,3-c,d)pyrene	22.35	276	647347	151.49 ng/uL	99
84) Dibenzo[a,h]anthracene	22.36	278	548981	151.50 ng/uL	98
85) Benzo[g,h,i]perylene	22.88	276	514861	155.76 ng/uL	99

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

Data File : C:\HPCHEM\1\DATA\111097\P0207.D
Acq On : 10 Nov 97 4:12 pm
Sample : 160 ng 8270 std
Misc : 1283-55-02
Quant Time: Nov 10 16:40 1997

Vial: 8
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 15:50:48 1997
Response via : Multiple Level Calibration



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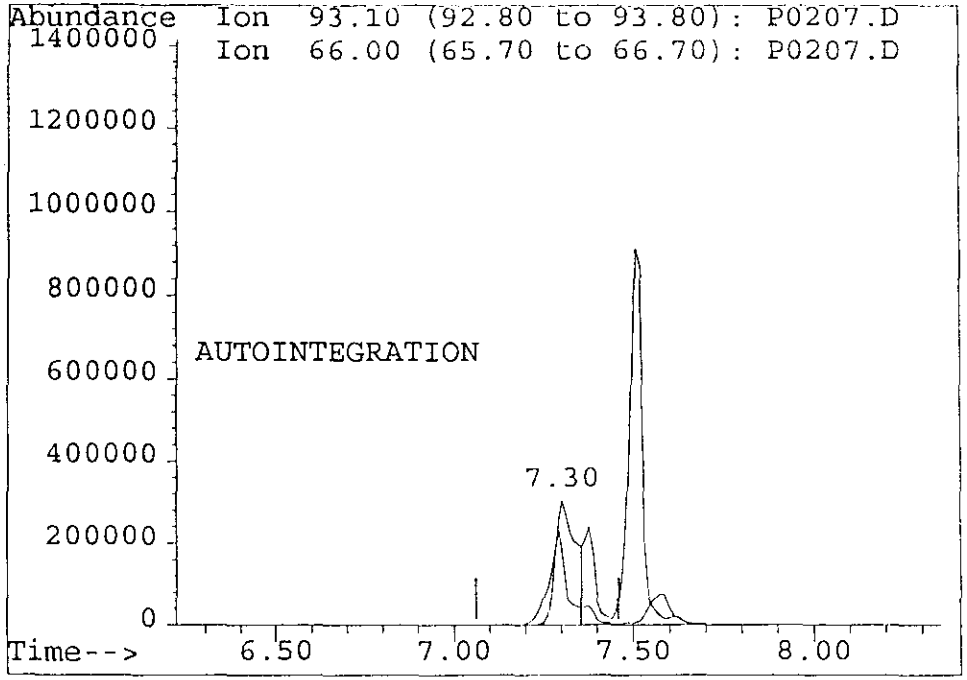


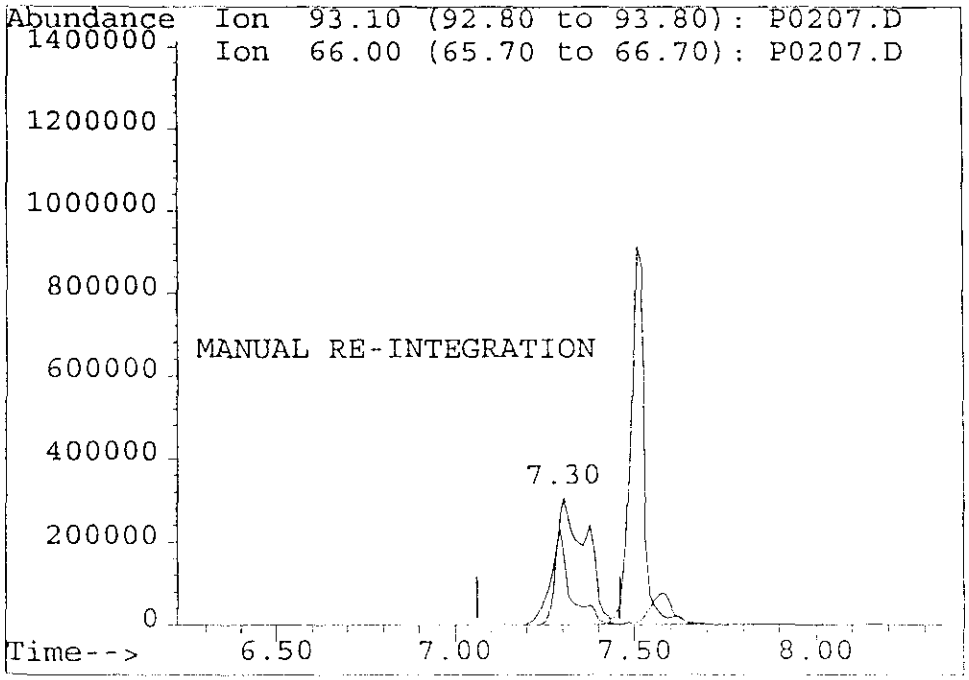
TIC: P0207.D

(6) Aniline (T)

7.30min 90.89ng/uL

response 1216964

Ion	Exp%	Act%
93.10	100	100
66.00	21.00	71.66#
0.00	0.00	0.00
0.00	0.00	0.00



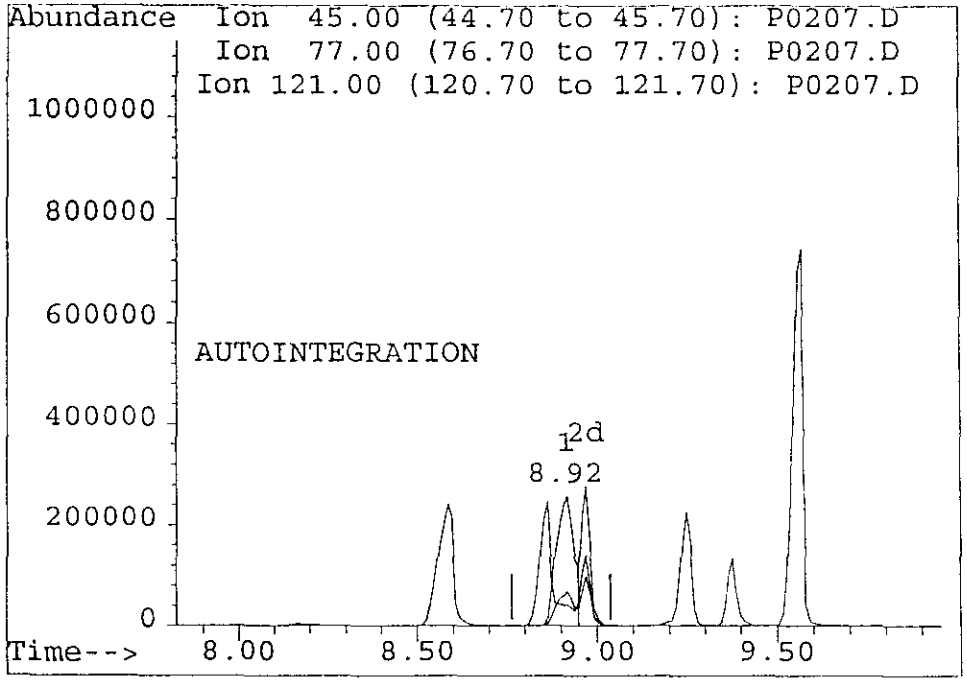
TIC: P0207.D

(6) Aniline (T)

7.30min 127.22ng/uL m

response 1703424

Ion	Exp%	Act%
93.10	100	100
66.00	21.00	55.84
0.00	0.00	0.00
0.00	0.00	0.00



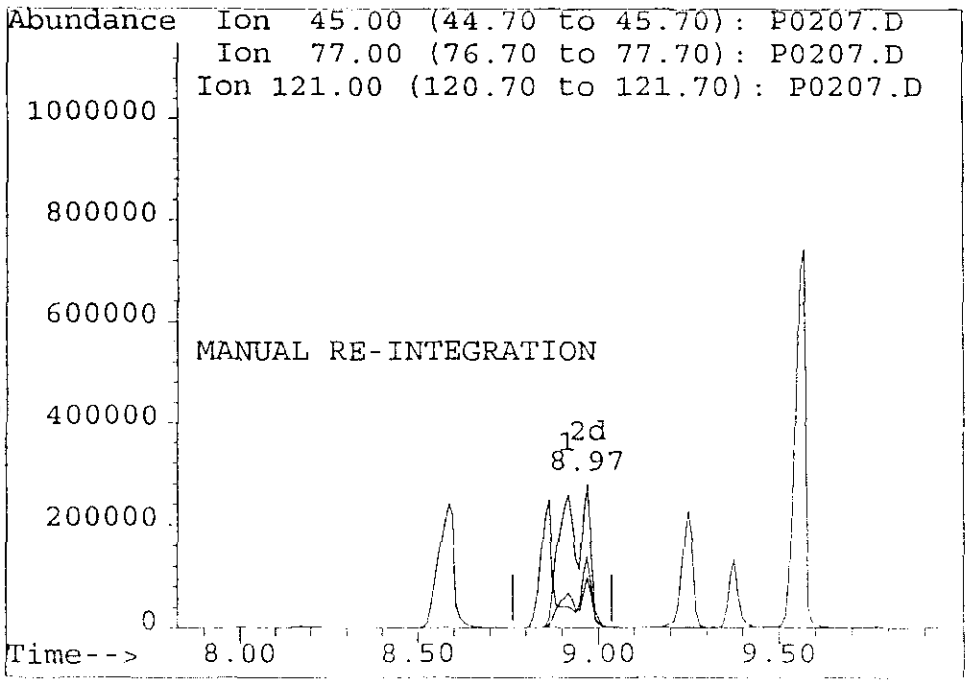
TIC: P0207.D

(16) Bis(2-chloroisopropyl)ether

8.92min 87.57ng/uL

response 883124

Ion	Exp%	Act%
45.00	100	100
77.00	17.10	0.00#
121.00	27.00	26.33
0.00	0.00	0.00



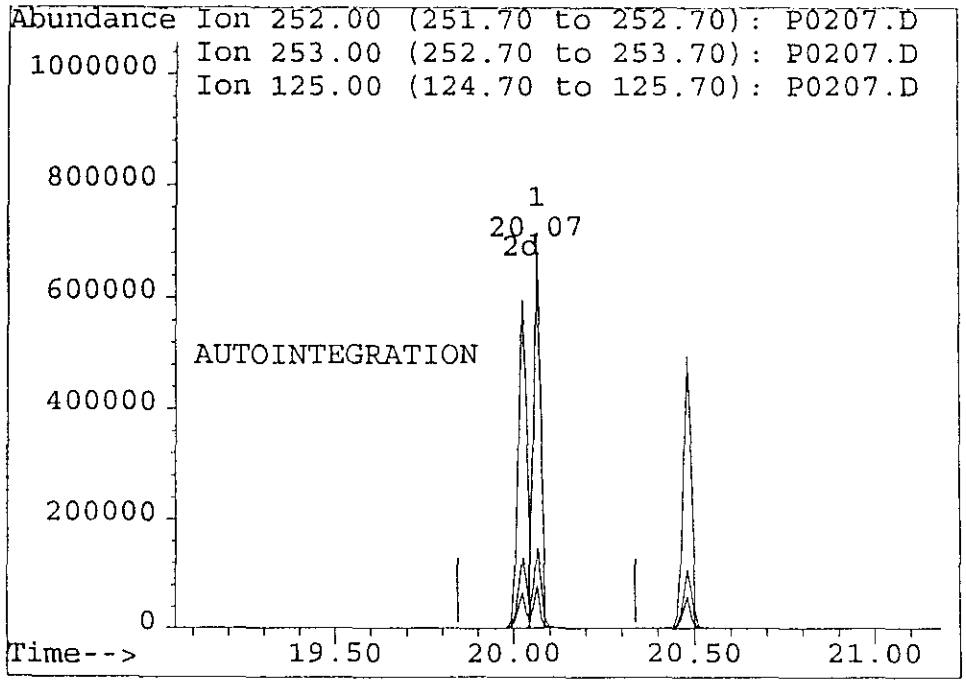
TIC: P0207.D

(16) Bis(2-chloroisopropyl)ether

8.97min 132.48ng/uL m

response 1335978

Ion	Exp%	Act%
45.00	100	100
77.00	17.10	50.11
121.00	27.00	35.52
0.00	0.00	0.00



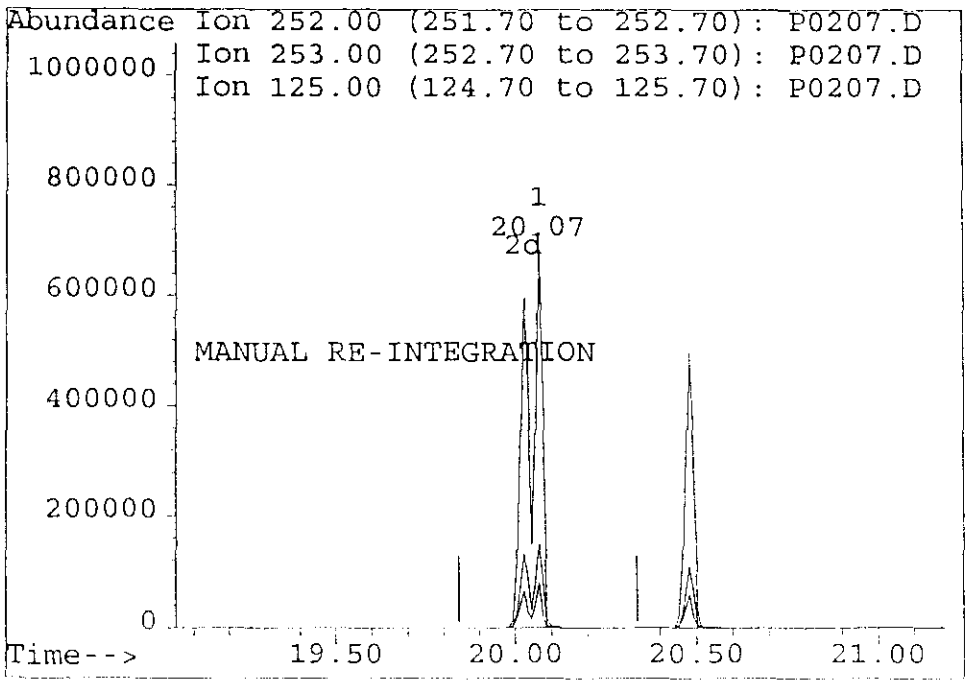
TIC: P0207.D

(80) Benzo[b]fluoranthene (T)

20.07min 133.22ng/uL

response 920641

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.42
125.00	9.20	9.49
0.00	0.00	0.00



TIC: P0207.D

(80) Benzo[b]fluoranthene (T)

20.07min 282.68ng/uL m

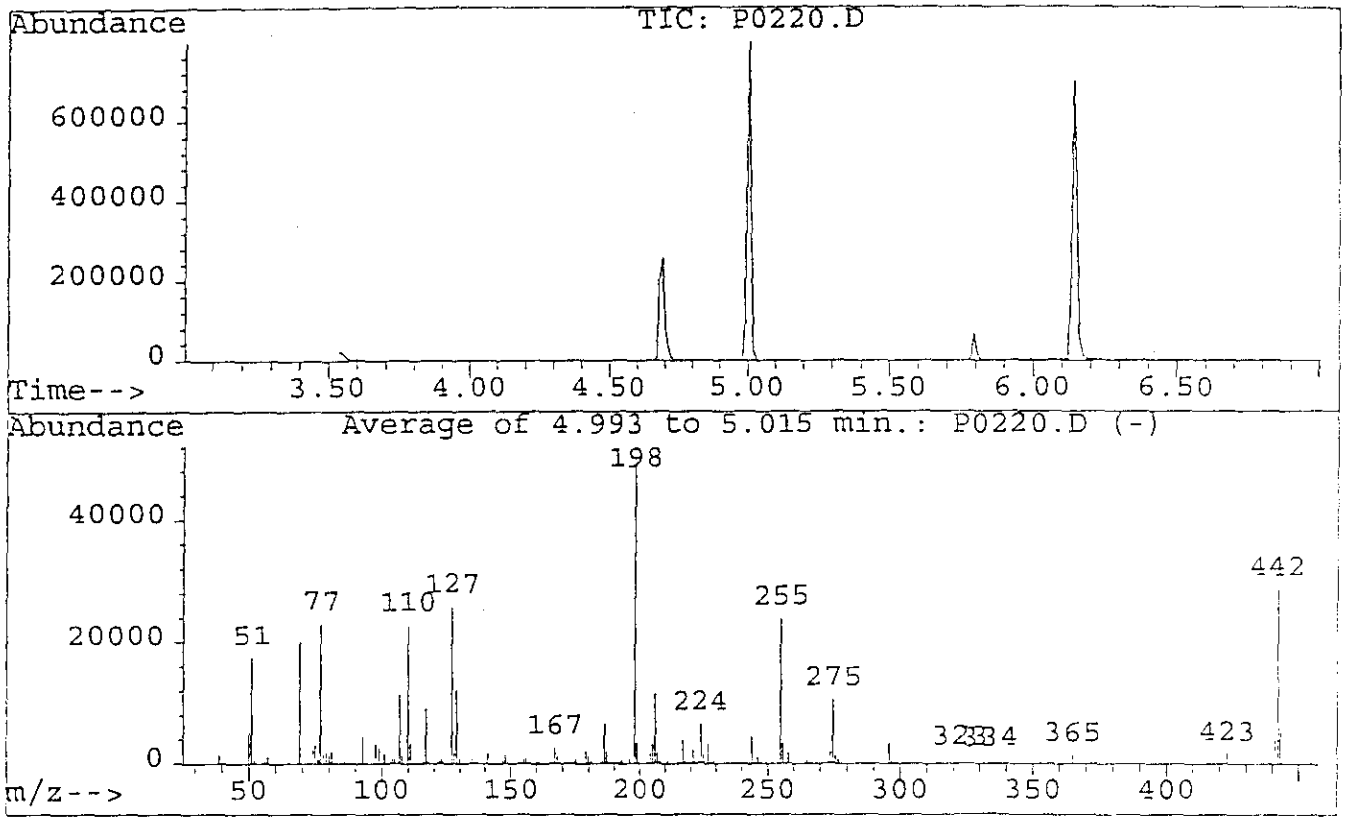
response 1953474

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.70
125.00	9.20	11.57
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\111197\P0220.D
Acq On : 11 Nov 97 1:02 pm
Sample : 50 NG DFTPP +PCP +BENZIDINE
Misc : 1283-38-03

Vial: 1
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\DFTPP.M
Title : DFTPP



Peak Apex is scan: 137

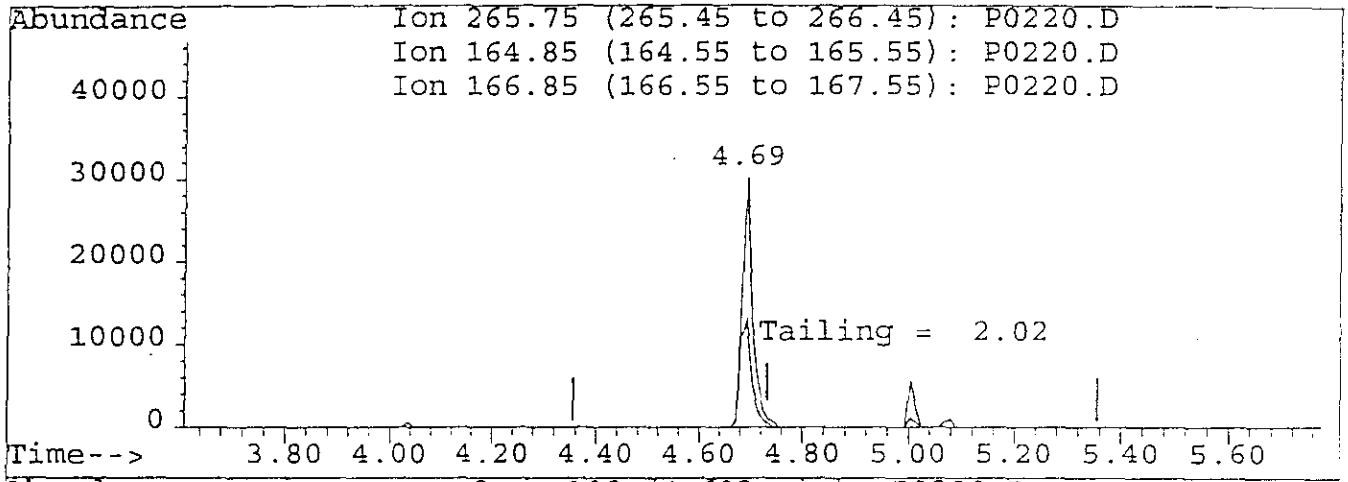
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	35.3	17480	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	40.5	20082	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	52.1	25820	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	49587	PASS
199	198	5	9	6.8	3388	PASS
275	198	10	30	21.2	10514	PASS
365	198	1	100	2.7	1353	PASS
441	443	>0	100	78.2	4165	PASS
442	198	40	100	57.6	28544	PASS
443	442	17	23	18.7	5327	PASS

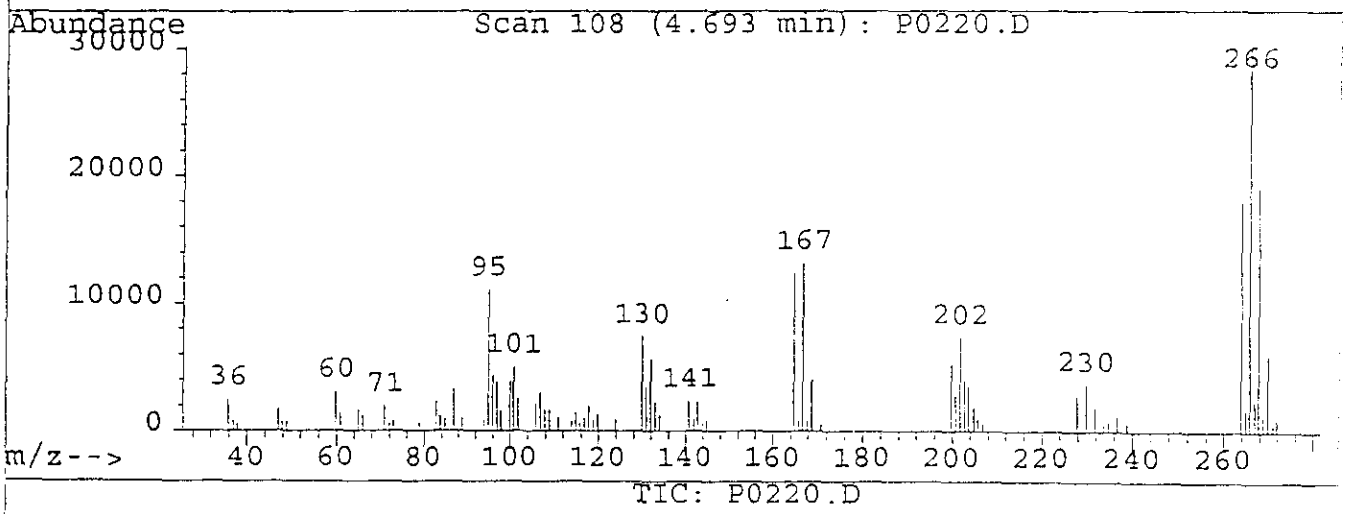
P0220.D DFTPP.M Tue Nov 11 13:09:48 1997 CHEM

Data File : C:\HPCHEM\1\DATA\111197\P0220.D
Acq On : 11 Nov 97 1:02 pm
Sample : 50 NG DFTPP +PCP +BENZIDINE
Misc : 1283-38-03
Quant Time: Nov 11 13:10 1997

Vial: 1
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\DFTPP.M
Title : DFTPP
Last Update : Tue Nov 11 13:11:11 1997
Response via : Single Level Calibration





(1) pentachlorophenol
4.69min 8.02 m
response 43462

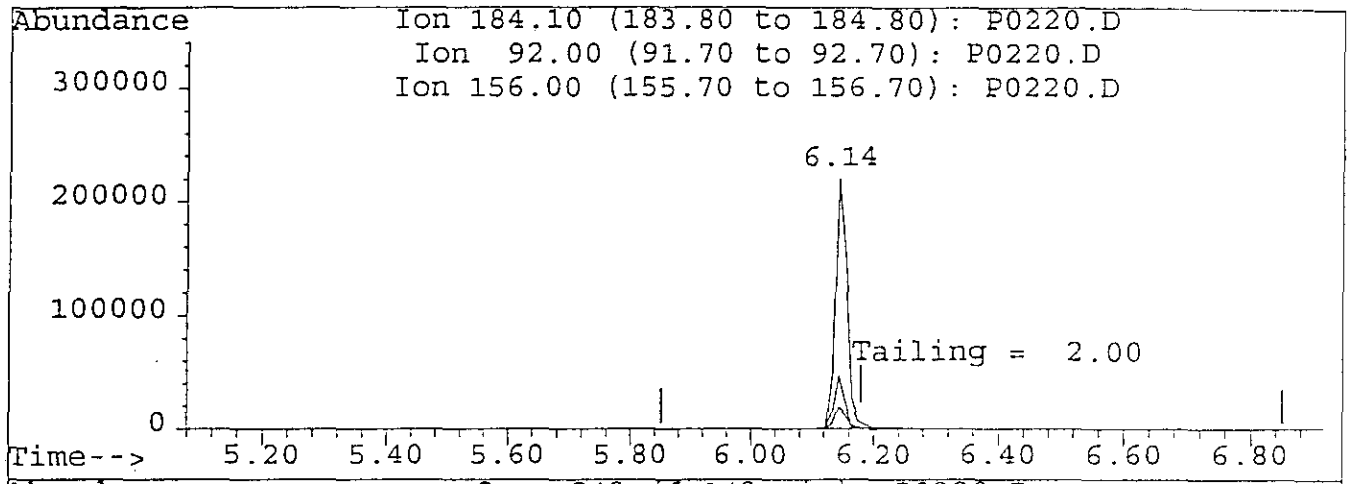
Ion	Exp%	Act%
265.75	100	100
164.85	38.20	41.08
166.85	38.70	43.63
0.00	0.00	0.00

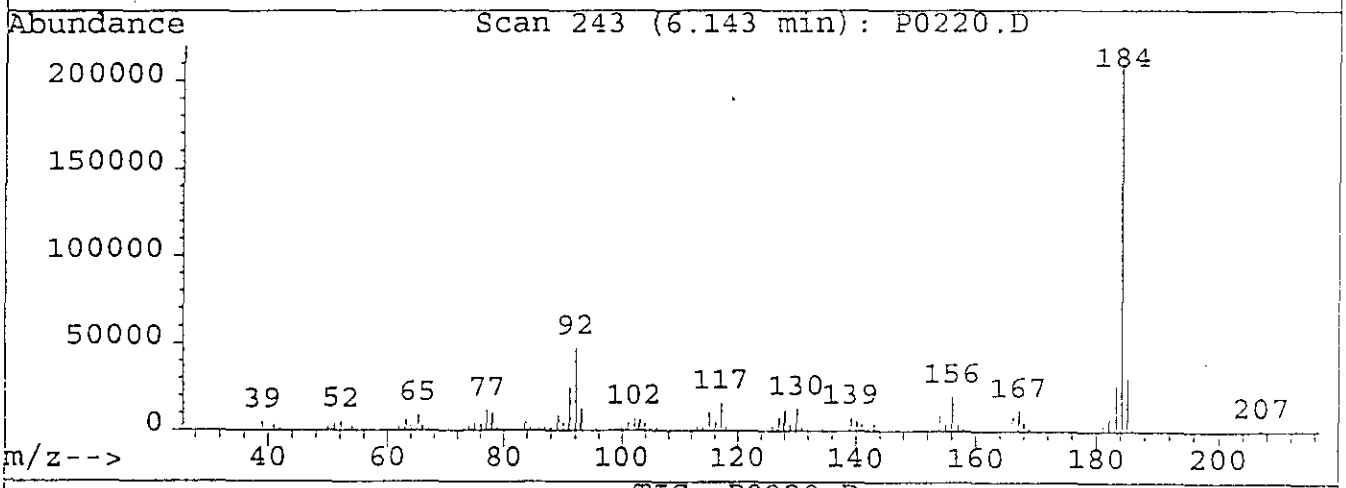
P0220.D DFTPP.M Tue Nov 11 13:51:46 1997 CHEM

Data File : C:\HPCHEM\1\DATA\111197\P0220.D
Acq On : 11 Nov 97 1:02 pm
Sample : 50 NG DFTPP +PCP +BENZIDINE
Misc : 1283-38-03
Quant Time: Nov 11 13:10 1997

Vial: 1
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\DFTPP.M
Title : DFTPP
Last Update : Tue Nov 11 13:11:11 1997
Response via : Single Level Calibration





TIC: P0220.D

(3) benzidine
6.14min 10.90 m
response 287017

Ion	Exp%	Act%
184.10	100	100
92.00	15.90	21.43
156.00	6.40	8.94
0.00	0.00	0.00

P0220.D DFTPP.M Tue Nov 11 13:52:17 1997 CHEM

Data File : C:\HPCHEM\1\DATA\111197\P0221.D
Acq On : 11 Nov 97 1:15 pm
Sample : 50 ng 8270 std
Misc : 1283-55-06
Quant Time: Nov 11 13:49 1997

Vial: 2
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.16	152	187841	40.00	ng/uL	0.00
21) Naphthalene-d8	10.85	136	547696	40.00	ng/uL	0.01
36) Acenaphthene-d10	13.46	164	324559	40.00	ng/uL	0.00
58) Phenanthrene-d10	15.39	188	558184	40.00	ng/uL	0.00
69) Chrysene-d12	18.72	240	260917	40.00	ng/uL	0.00
78) Perylene-d12	20.55	264	160471	40.00	ng/uL	0.00
System Monitoring Compounds						%Recovery
4) 2-Fluorophenol	5.16	112	680560	53.39	ng/uL	71.19%
5) 2-Chlorophenol-d4	7.54	132	298199	52.11	ng/uL	69.48%
7) Phenol-d5	7.21	99	842843	52.08	ng/uL	69.45%
13) 1,2-Dichlorobenzene-d4	8.57	152	239461	50.36	ng/uL	100.73%
22) Nitrobenzene-d5	9.50	82	603109	60.21	ng/uL	120.41%
40) 2-Fluorobiphenyl	12.52	172	626291	50.11	ng/uL	100.22%
57) 2,4,6-Tribromophenol	14.50	330	100767	61.94	ng/uL	82.59%
72) p-Terphenyl-d14	17.37	244	449440	51.72	ng/uL	103.43%
Target Compounds						Qvalue
2) Pyridine	2.84	79	530306	52.35	ng/uL	100
3) n-Nitrosodimethylamine	2.79	74	298686	54.92	ng/uL	98
6) Aniline	7.30	93	640301	44.38	ng/uL	99
8) Phenol	7.24	94	988851	54.46	ng/uL	99
9) Bis(2-chloroethyl)ether	7.47	93	746941	53.38	ng/uL	97
10) 2-Chlorophenol	7.59	128	359194	51.23	ng/uL	99
11) 1,3-Dichlorobenzene	7.99	146	371977	49.69	ng/uL	98
12) 1,4-Dichlorobenzene	8.21	146	404947	49.94	ng/ul	99
14) 1,2-Dichlorobenzene	8.60	146	374357	50.30	ng/uL	99
15) Benzyl Alcohol	8.55	108	474585	52.66	ng/uL	99
16) Bis(2-chloroisopropyl)ethe	8.91	45	446891	50.70	ng/uLm	83
17) 2-Methylphenol	8.83	108	648501	53.22	ng/uL	99
18) n-Nitroso-di-n-propylamine	9.21	70	251324	48.31	ng/uL	97
19) 4-Methylphenol	9.20	108	650988	50.92	ng/uL	98
20) Hexachloroethane	9.37	117	314109	54.07	ng/uL	99
23) Nitrobenzene	9.54	77	523986	58.45	ng/uL	98
24) Isophorone	10.03	82	1007111	51.62	ng/uL	99
25) 2-Nitrophenol	10.17	139	195846	53.94	ng/uL	96
26) 2,4-Dimethylphenol	10.27	122	364305	51.91	ng/uL	92
27) Bis(2-chloroethoxy)methane	10.45	93	844590	53.99	ng/uL	99
28) 2,4-Dichlorophenol	10.61	162	297395	55.30	ng/uL	99
29) Benzoic acid	10.53	105	379225	79.86	ng/uL#	79
30) 1,2,4-Trichlorobenzene	10.75	180	325262	53.34	ng/uL	99

GB 11-11-97

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

Data File : C:\HPCHEM\1\DATA\111197\P0221.D
Acq On : 11 Nov 97 1:15 pm
Sample : 50 ng 8270 std
Misc : 1283-55-06
Quant Time: Nov 11 13:49 1997

Vial: 2
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Naphthalene	10.88	128	861249	49.25 ng/uL	99
32) 4-Chloroaniline	10.98	127	332631	49.51 ng/uL	100
33) Hexachlorobutadiene	11.09	225	238549	57.60 ng/uL	99
34) 4-Chloro-3-methylphenol	11.76	107	571841	53.68 ng/uL	97
35) 2-Methylnaphthalene	11.99	142	527797	50.52 ng/uL	97
37) Hexachlorocyclopentadiene	12.21	237	110957	37.96 ng/uL	97
38) 2,4,6-Trichlorophenol	12.40	196	202708	57.79 ng/uL	99
39) 2,4,5-Trichlorophenol	12.45	196	222075	55.38 ng/uL	97
41) 2-Chloronaphthalene	12.69	162	578854	52.28 ng/uL	98
42) 2-Nitroaniline	12.83	65	182317	56.48 ng/uL	94
43) Dimethylphthalate	13.08	163	644140	49.37 ng/uL	100
44) 2,6-Dinitrotoluene	13.17	165	148855	52.08 ng/uL	96
45) Acenaphthylene	13.26	152	701258	44.74 ng/uL	99
46) 3-Nitroaniline	13.40	138	134741	48.53 ng/uL	86
47) Acenaphthene	13.50	153	489344	50.40 ng/uL	96
48) 2,4-Dinitrophenol	13.53	184	91722	57.23 ng/uL#	100
49) 4-Nitrophenol	13.61	109	177165	59.48 ng/uL	88
50) Dibenzofuran	13.73	168	757222	48.03 ng/uL	98
51) 2,4-Dinitrotoluene	13.70	165	190735	51.71 ng/uL	96
52) Diethylphthalate	14.02	149	667875	49.88 ng/uL	99
53) Fluorene	14.18	166	604596	50.82 ng/uL	99
54) 4-Chlorophenyl phenyl ethe	14.17	204	322305	53.35 ng/uL	100
55) 4-Nitroaniline	14.21	138	130112	46.45 ng/uL	80
56) Azobenzene	14.38	77	874354	54.56 ng/uL	99
59) 4,6-Dinitro-2-methylphenol	14.24	198	126728	59.78 ng/uL	99
60) n-Nitrosodiphenylamine	14.33	169	386404	49.33 ng/uL	99
61) 4-Bromophenyl phenyl ether	14.81	248	163224	53.13 ng/uL	98
62) Hexachlorobenzene	14.89	284	207392	54.37 ng/uL	98
63) Pentachlorophenol	15.14	266	124701	58.42 ng/uL	97
64) Phenanthrene	15.43	178	804230	52.16 ng/uL	100
65) Anthracene	15.49	178	747355	48.38 ng/uL	100
66) Carbazole	15.68	167	677447	48.99 ng/uL	100
67) Di-n-butylphthalate	16.08	149	886881	47.14 ng/uL	99
68) Fluoranthene	16.93	202	780747	49.84 ng/uL	98
70) Benzidine	17.06	184	9456	12.03 ng/uL	93
71) Pyrene	17.22	202	742281	48.64 ng/uL	96
73) Butylbenzylphthalate	17.97	149	310631	48.10 ng/uL	98
74) Benzo[a]anthracene	18.70	228	453515	48.77 ng/uL	99
75) 3,3'-Dichlorobenzidine	18.65	252	152676	47.08 ng/uL	100
76) Chrysene	18.75	228	461961	53.15 ng/uL	100
77) Bis(2-ethylhexyl)phthalate	18.66	149	322116	48.38 ng/uL	99

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

Data File : C:\HPCHEM\1\DATA\111197\P0221.D
Acq On : 11 Nov 97 1:15 pm
Sample : 50 ng 8270 std
Misc : 1283-55-06
Quant Time: Nov 11 13:49 1997

Vial: 2
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration

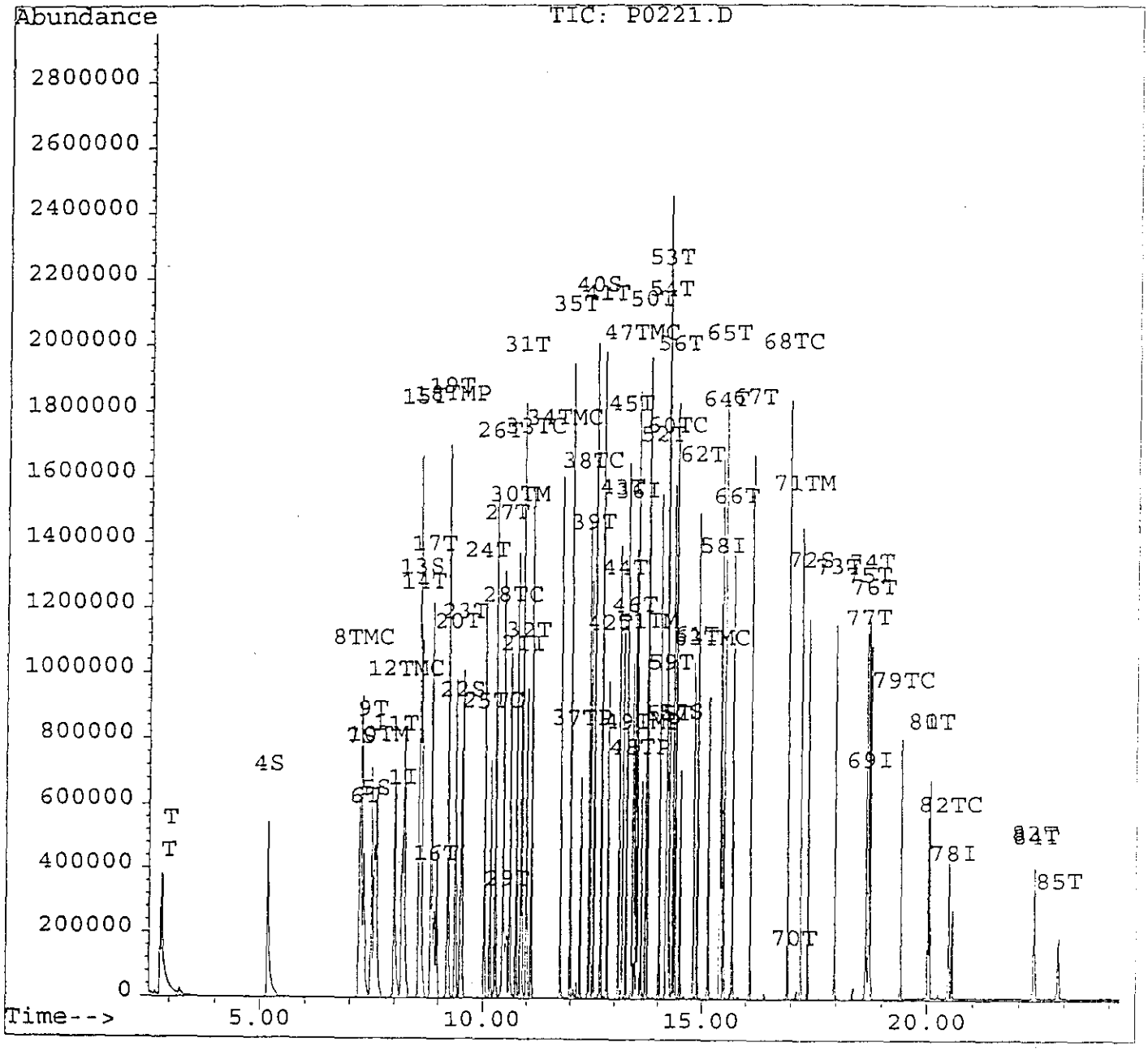
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79) Di-n-octylphthalate	19.43	149	465435	48.64 ng/uL	99
80) Benzo[b]fluoranthene	20.05	252	629555	91.87 ng/uLm 68 11-11-97	99
81) Benzo[k]fluoranthene	20.05	252	310779	40.24 ng/uL	100
82) Benzo[a]pyrene	20.48	252	265268	52.49 ng/uL	98
83) Indeno(1,2,3-c,d)pyrene	22.33	276	239213	54.75 ng/uL	99
84) Dibenzo[a,h]anthracene	22.35	278	205713	56.43 ng/uL	97
85) Benzo[g,h,i]perylene	22.87	276	193426	55.53 ng/uL	98

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

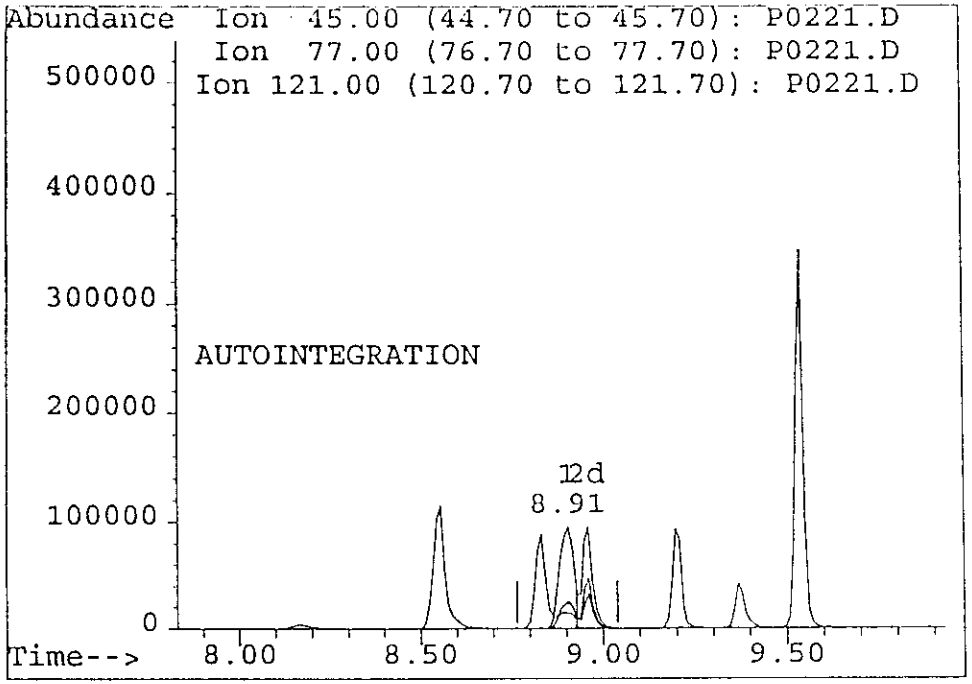
Data File : C:\HPCHEM\1\DATA\111197\P0221.D
Acq On : 11 Nov 97 1:15 pm
Sample : 50 ng 8270 std
Misc : 1283-55-06
Quant Time: Nov 11 13:49 1997

Operator : GB
Inst : HP-SV 2
Multiplier: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration



000092



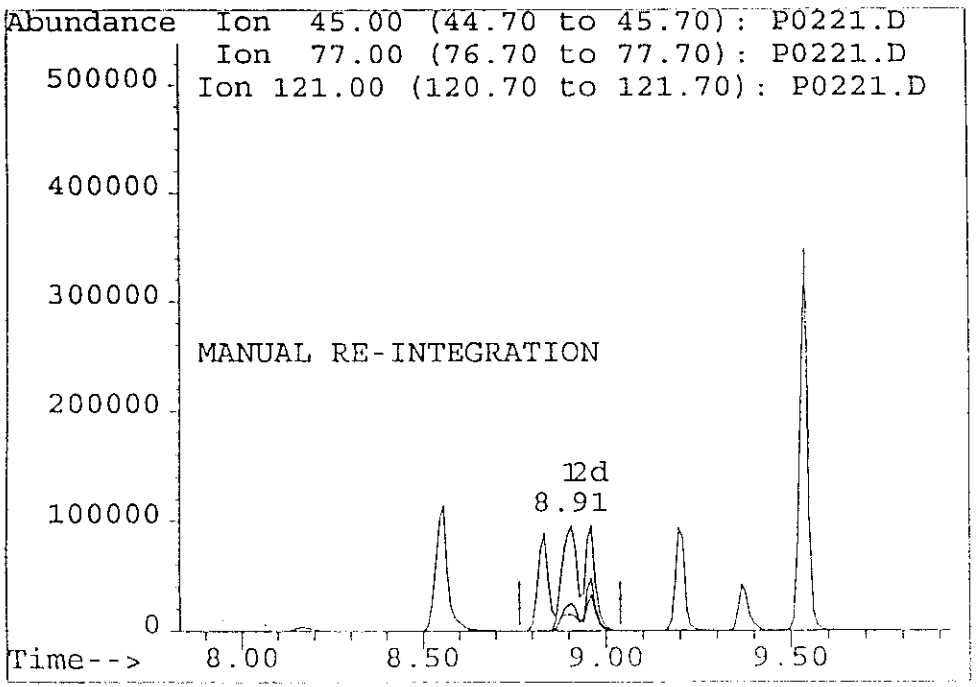
TIC: P0221.D

(16) Bis(2-chloroisopropyl)ether

8.91min 29.75ng/uL

response 262237

Ion	Exp%	Act%
45.00	100	100
77.00	17.10	0.00#
121.00	27.00	28.63
0.00	0.00	0.00



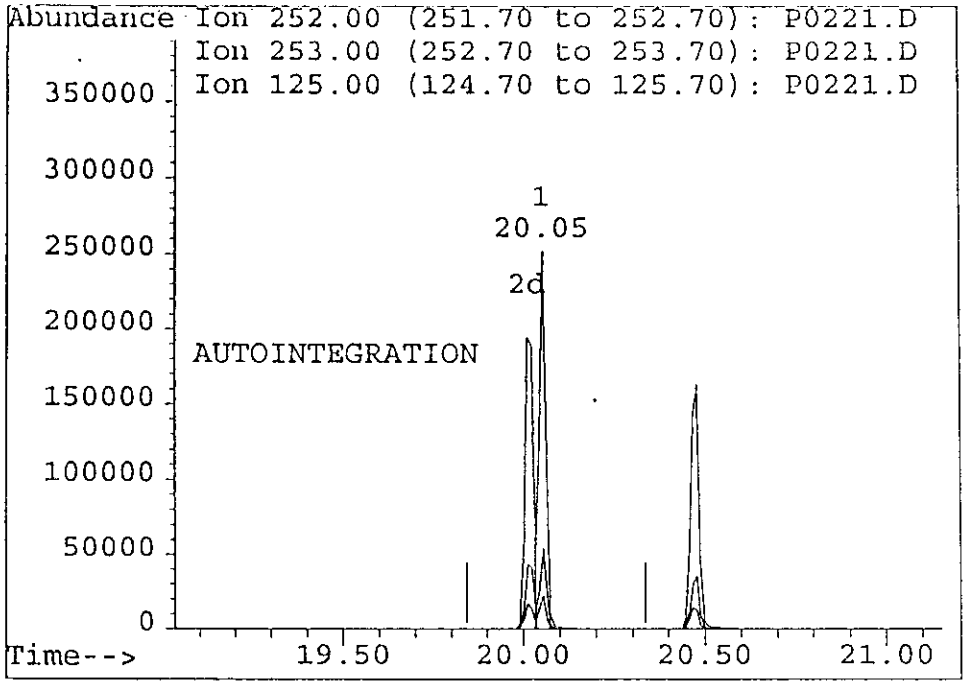
TIC: P0221.D

(16) Bis(2-chloroisopropyl)ether

8.91min 50.70ng/uL m

response 446891

Ion	Exp%	Act%
45.00	100	100
77.00	17.10	15.43
121.00	27.00	26.35
0.00	0.00	0.00



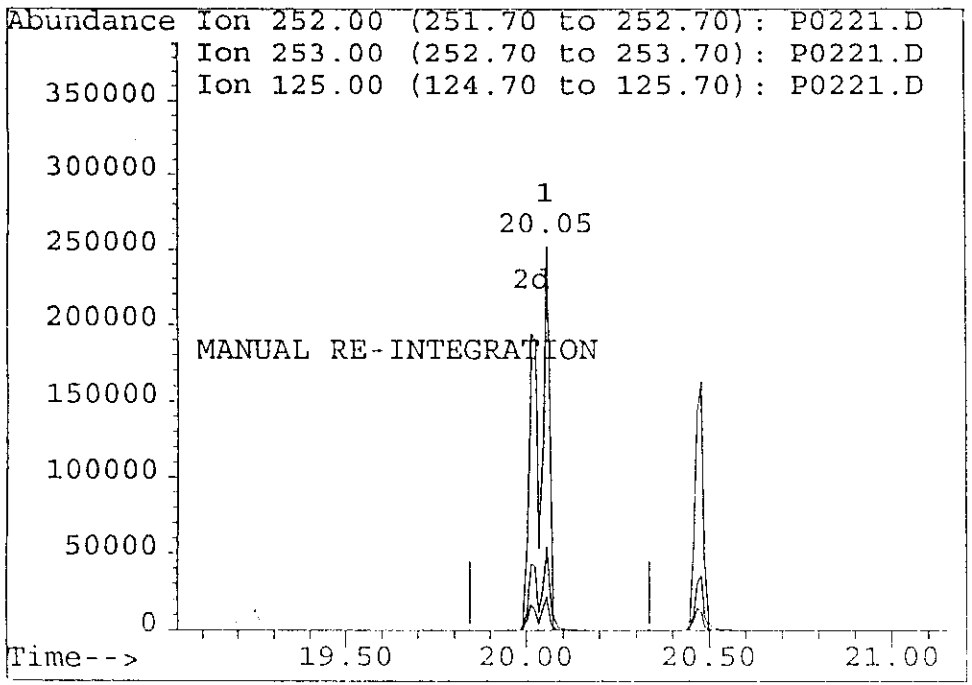
TIC: P0221.D

(80) Benzo[b]fluoranthene (T)

20.05min 45.35ng/uL

response 310779

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.41
125.00	9.20	8.54
0.00	0.00	0.00



TIC: P0221.D

(80) Benzo[b]fluoranthene (T)

20.05min 91.87ng/uL m

response 629555

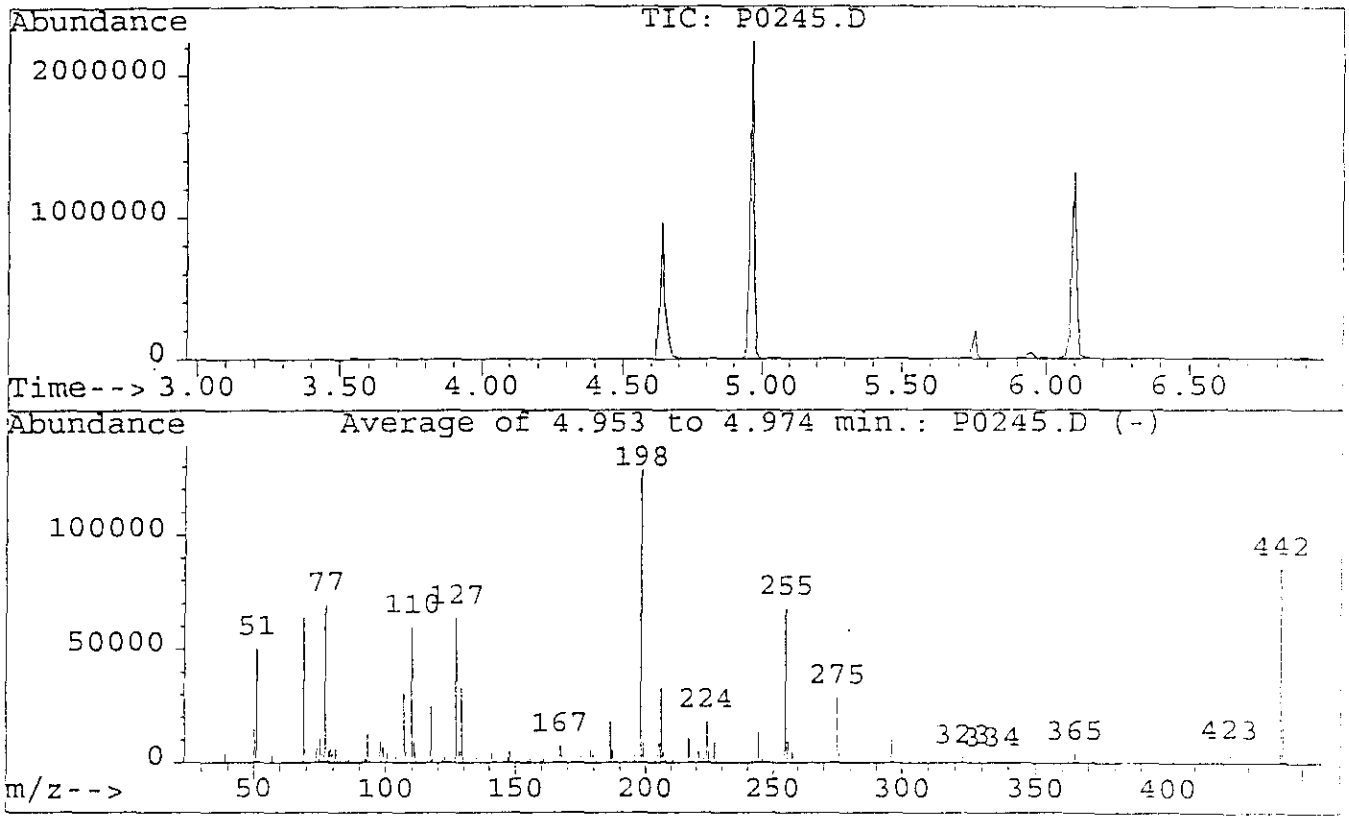
Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.50
125.00	9.20	8.69
0.00	0.00	0.00

DFTPP

Data File : C:\HPCHEM\1\DATA\111297\P0245.D
Acq On : 12 Nov 97 1:44 pm
Sample : 50 NG DFTPP +PCP +BENZIDINE
Misc : 1283-38-03

Vial: 1
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\DFTPP.M
Title : DFTPP



Peak Apex is scan: 133

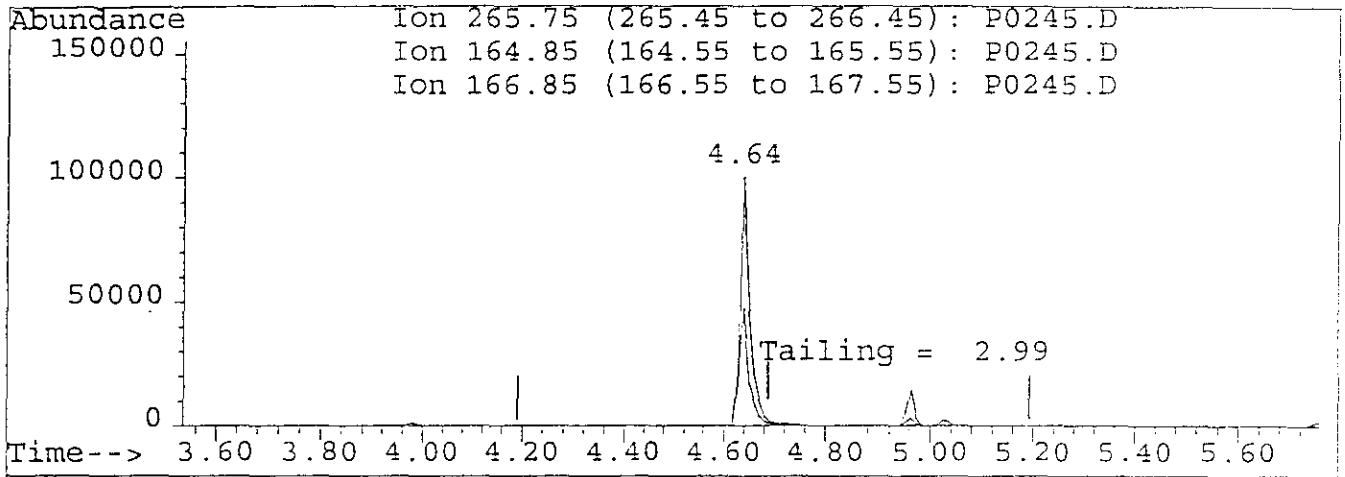
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	37.9	50204	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	48.3	63987	PASS
70	69	0	2	0.0	0	PASS
127	198	40	60	47.9	63456	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	132392	PASS
199	198	5	9	6.6	8705	PASS
275	198	10	30	21.8	28864	PASS
365	198	1	100	3.0	4034	PASS
441	443	>0	100	75.5	12092	PASS
442	198	40	100	64.3	85136	PASS
443	442	17	23	18.8	16015	PASS

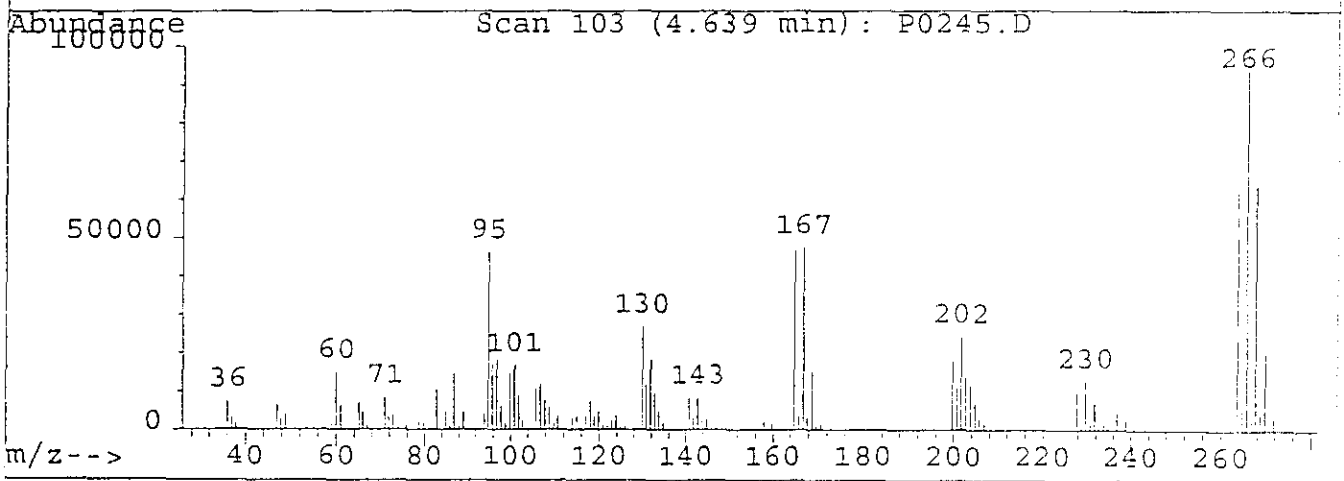
P0245.D DFTPP.M Wed Nov 12 13:51:35 1997 CHEM

Data File : C:\HPCHEM\1\DATA\111297\P0245.D
Acq On : 12 Nov 97 1:44 pm
Sample : 50 NG DFTPP +PCP +BENZIDINE
Misc : 1283-38-03
Quant Time: Nov 12 15:17 1997

Vial: 1
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\DFTPP.M
Title : DFTPP
Last Update : Tue Nov 11 13:11:11 1997
Response via : Single Level Calibration





TIC: P0245.D

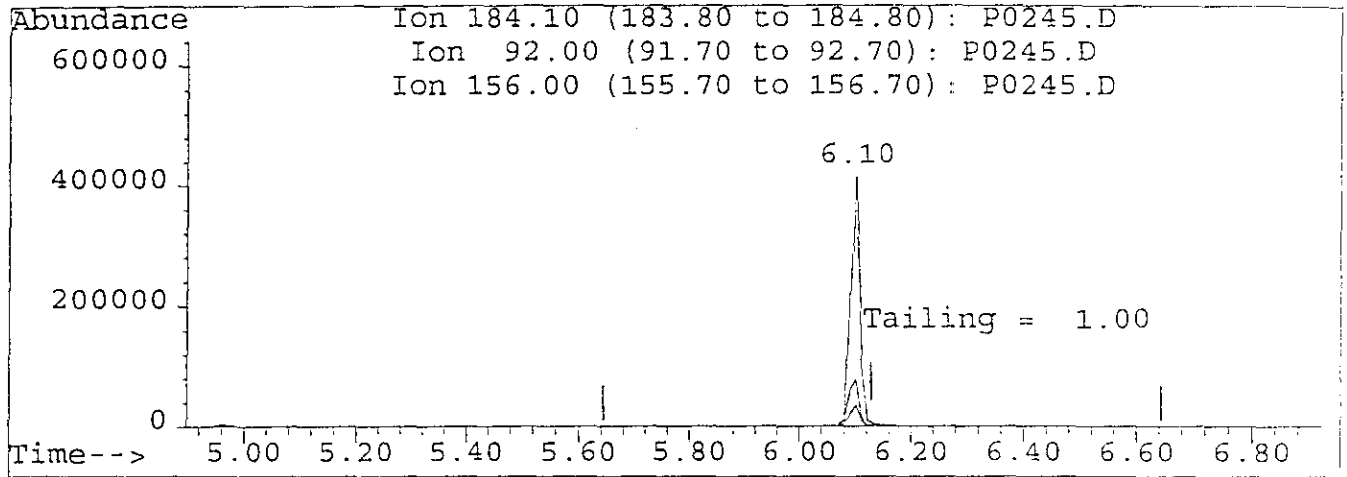
(1) pentachlorophenol
4.64min 154.99
response 134721

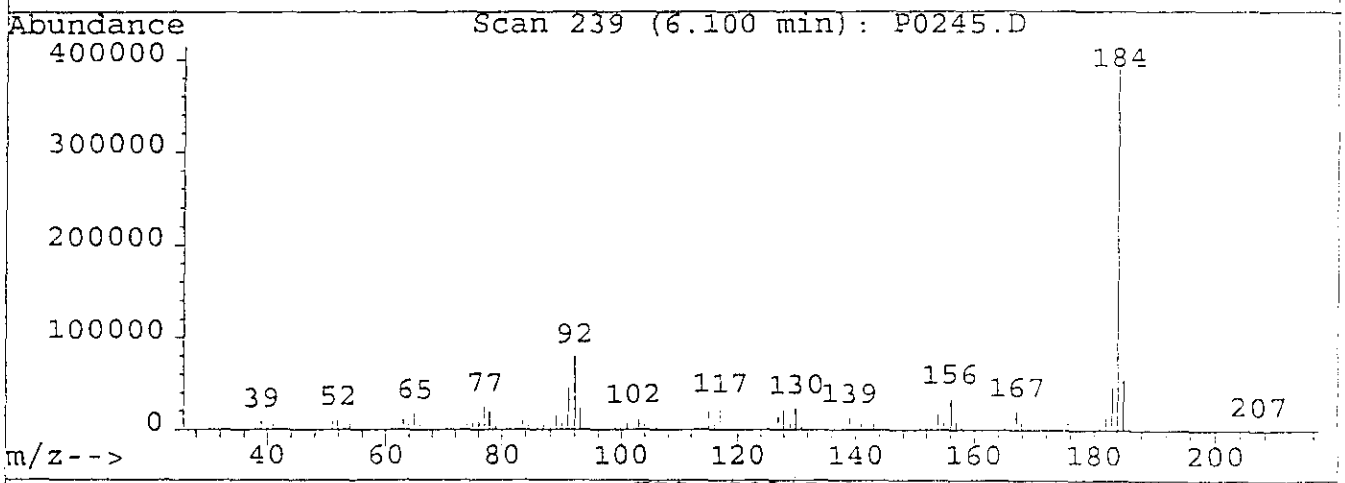
Ion	Exp%	Act%
265.75	100	100
164.85	41.10	46.58
166.85	43.60	48.04
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\111297\P0245.D
Acq On : 12 Nov 97 1:44 pm
Sample : 50 NG DFTPP +PCP +BENZIDINE
Misc : 1283-38-03
Quant Time: Nov 12 15:17 1997

Vial: 1
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\DFTPP.M
Title : DFTPP
Last Update : Tue Nov 11 13:11:11 1997
Response via : Single Level Calibration





TIC: P0245.D

(3) benzidine
6.10min 85.39
response 490149

Ion	Exp%	Act%
184.10	100	100
92.00	21.40	21.75
156.00	8.90	9.14
0.00	0.00	0.00

P0245.D DFTPP.M Wed Nov 12 15:18:14 1997 CHEM

Data File : C:\HPCHEM\1\DATA\111297\P0246.D
Acq On : 12 Nov 97 1:57 pm
Sample : 10 ng 8270 std
Misc : 1283-55-08
Quant Time: Nov 12 14:58 1997

Vial: 2
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.07	152	206912	40.00	ng/uL	-0.08
21) Naphthalene-d8	10.78	136	644111	40.00	ng/uL	-0.05
36) Acenaphthene-d10	13.41	164	362179	40.00	ng/uL	-0.05
58) Phenanthrene-d10	15.34	188	560045	40.00	ng/uL	-0.05
69) Chrysene-d12	18.67	240	410852	40.00	ng/uL	-0.04
78) Perylene-d12	20.49	264	308073	40.00	ng/uL	-0.06

System Monitoring Compounds						%Recovery
4) 2-Fluorophenol	5.08	112	140920	10.04	ng/uL	13.38%
5) 2-Chlorophenol-d4	7.45	132	59597	9.45	ng/uL	12.61%
7) Phenol-d5	7.11	99	202112	11.34	ng/uL	15.12%
13) 1,2-Dichlorobenzene-d4	8.47	152	50578	9.66	ng/uL	19.31%
22) Nitrobenzene-d5	9.42	82	149983	12.73	ng/uL	25.46%
40) 2-Fluorobiphenyl	12.46	172	140369	10.06	ng/uL	20.13%
57) 2,4,6-Tribromophenol	14.44	330	17427	9.60	ng/uL	12.80%
72) p-Terphenyl-d14	17.33	244	108487	7.93	ng/uL	15.86%

Target Compounds						Qvalue
2) Pyridine	2.78	79	149948	13.44	ng/uL	100
3) n-Nitrosodimethylamine	2.75	74	82375	13.75	ng/uL	94
6) Aniline	7.22	93	207345	13.05	ng/uL#	89
8) Phenol	7.14	94	243156	12.16	ng/uL	98
9) Bis(2-chloroethyl)ether	7.39	93	185597	12.04	ng/uL	97
10) 2-Chlorophenol	7.48	128	75406	9.76	ng/uL#	85
11) 1,3-Dichlorobenzene	7.90	146	77292	9.37	ng/uL	96
12) 1,4-Dichlorobenzene	8.12	146	87628	9.81	ng/ul	95
14) 1,2-Dichlorobenzene	8.51	146	80563	9.83	ng/uL	98
15) Benzyl Alcohol	8.46	108	99851	10.06	ng/uL#	82
16) Bis(2-chloroisopropyl)ethe	8.83	45	130504	13.44	ng/uLm	76
17) 2-Methylphenol	8.74	108	136466	10.17	ng/uL#	90
18) n-Nitroso-di-n-propylamine	9.12	70	72554	12.66	ng/uL	88
19) 4-Methylphenol	9.11	108	137769	9.78	ng/uL#	96
20) Hexachloroethane	9.30	117	69695	10.89	ng/uL	95
23) Nitrobenzene	9.46	77	133781	12.69	ng/uL	85
24) Isophorone	9.95	82	276155	12.03	ng/uL	97
25) 2-Nitrophenol	10.10	139	38409	9.00	ng/uL#	81
26) 2,4-Dimethylphenol	10.20	122	71296	8.64	ng/uL	93
27) Bis(2-chloroethoxy)methane	10.39	93	221044	12.02	ng/uL	98
28) 2,4-Dichlorophenol	10.53	162	60688	9.60	ng/uL	93
29) Benzoic acid	10.38	105	22830	4.09	ng/uL#	75
30) 1,2,4-Trichlorobenzene	10.69	180	69738	9.72	ng/uL	99

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

Data File : C:\HPCHEM\1\DATA\111297\P0246.D
Acq On : 12 Nov 97 1:57 pm
Sample : 10 ng 8270 std
Misc : 1283-55-08
Quant Time: Nov 12 14:58 1997

Vial: 2
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31)	Naphthalene	10.81	128	189049	9.19	ng/uL	99
32)	4-Chloroaniline	10.92	127	69317	8.77	ng/uL	98
33)	Hexachlorobutadiene	11.04	225	59603	12.24	ng/uL	99
34)	4-Chloro-3-methylphenol	11.71	107	126903	10.13	ng/uL	92
35)	2-Methylnaphthalene	11.93	142	100947	8.22	ng/uL	90
37)	Hexachlorocyclopentadiene	12.17	237	28768	8.82	ng/uL	94
38)	2,4,6-Trichlorophenol	12.35	196	45502	11.62	ng/uL	98
39)	2,4,5-Trichlorophenol	12.39	196	46720	10.44	ng/uL	99
41)	2-Chloronaphthalene	12.64	162	119752	9.69	ng/uL	98
42)	2-Nitroaniline	12.77	65	44848	12.45	ng/uL#	81
43)	Dimethylphthalate	13.03	163	140102	9.62	ng/uL	99
44)	2,6-Dinitrotoluene	13.12	165	30412	9.53	ng/uL	89
45)	Acenaphthylene	13.21	152	165160	9.44	ng/uL	99
46)	3-Nitroaniline	13.33	138	24872	8.03	ng/uL#	68
47)	Acenaphthene	13.44	153	98811	9.12	ng/uL	99
48)	2,4-Dinitrophenol	13.48	184	10102	5.65	ng/uL#	100
49)	4-Nitrophenol	13.54	109	30449	9.16	ng/uL#	85
50)	Dibenzofuran	13.68	168	141767	8.06	ng/uL	91
51)	2,4-Dinitrotoluene	13.65	165	35767	8.69	ng/uL#	69
52)	Diethylphthalate	13.96	149	140673	9.41	ng/uL	99
53)	Fluorene	14.13	166	104693	7.89	ng/uL	98
54)	4-Chlorophenyl phenyl ethe	14.12	204	67182	9.97	ng/uL	95
55)	4-Nitroaniline	14.14	138	21248	6.80	ng/uL#	62
56)	Azobenzene	14.33	77	210744	11.79	ng/uL#	94
59)	4,6-Dinitro-2-methylphenol	14.18	198	17448	8.20	ng/uL	99
60)	n-Nitrosodiphenylamine	14.27	169	73650	9.37	ng/uL	99
61)	4-Bromophenyl phenyl ether	14.76	248	37889	12.29	ng/uL	97
62)	Hexachlorobenzene	14.84	284	46246	12.08	ng/uL	97
63)	Pentachlorophenol	15.08	266	14974	6.99	ng/uL	94
64)	Phenanthrene	15.37	178	159645	10.32	ng/uL	99
65)	Anthracene	15.43	178	147574	9.52	ng/uL	99
66)	Carbazole	15.63	167	115050	8.29	ng/uL#	93
67)	Di-n-butylphthalate	16.04	149	184971	9.80	ng/uL	98
68)	Fluoranthene	16.87	202	158910	10.11	ng/uL	98
70)	Benzidine	17.02	184	6652	5.37	ng/uL#	88
71)	Pyrene	17.16	202	163252	6.79	ng/uL	94
73)	Butylbenzylphthalate	17.92	149	79560	7.82	ng/uL	83
74)	Benzo[a]anthracene	18.65	228	146283	9.99	ng/uL	99
75)	3,3'-Dichlorobenzidine	18.60	252	47207	9.24	ng/uL	100
76)	Chrysene	18.70	228	128346	9.38	ng/uL	99
77)	Bis(2-ethylhexyl)phthalate	18.62	149	98956	9.44	ng/uL	99

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

Data File : C:\HPCHEM\1\DATA\111297\P0246.D
Acq On : 12 Nov 97 1:57 pm
Sample : 10 ng 8270 std
Misc : 1283-55-08
Quant Time: Nov 12 14:58 1997

Vial: 2
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
79)	Di-n-octylphthalate	19.37	149	140925	7.67	ng/uL	94
80)	Benzo[b]fluoranthene	19.95	252	228702	17.38	ng/uLm	97
81)	Benzo[k]fluoranthene	19.95	252	228292	15.40	ng/uLm	98
82)	Benzo[a]pyrene	20.40	252	92262	9.51	ng/uL	95
83)	Indeno(1,2,3-c,d)pyrene	22.23	276	74234	8.85	ng/uL	94
84)	Dibenzo[a,h]anthracene	22.24	278	59242	8.47	ng/uL	97
85)	Benzo[g,h,i]perylene	22.76	276	59620	8.92	ng/uL	95

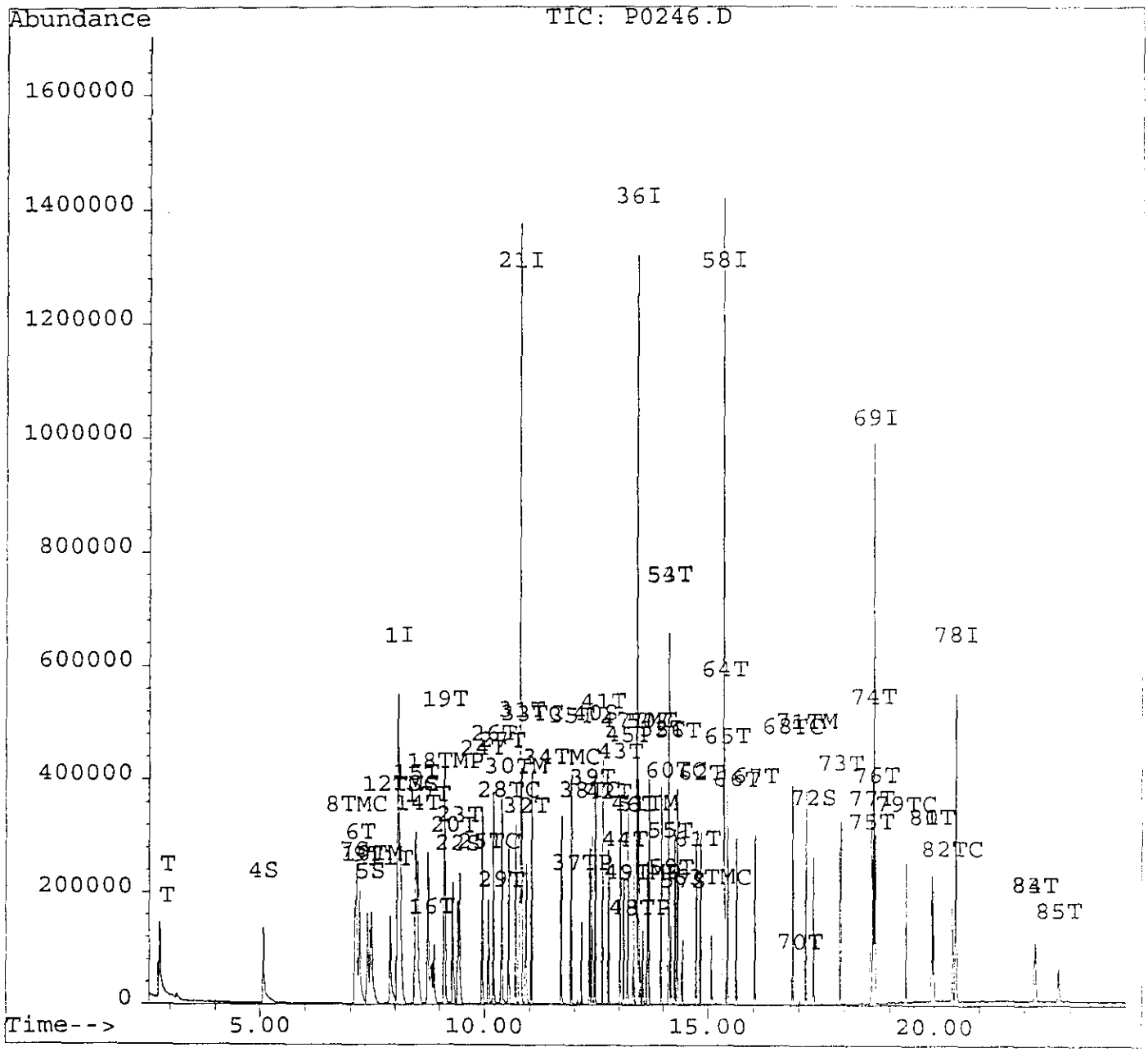
AB 11-12-97

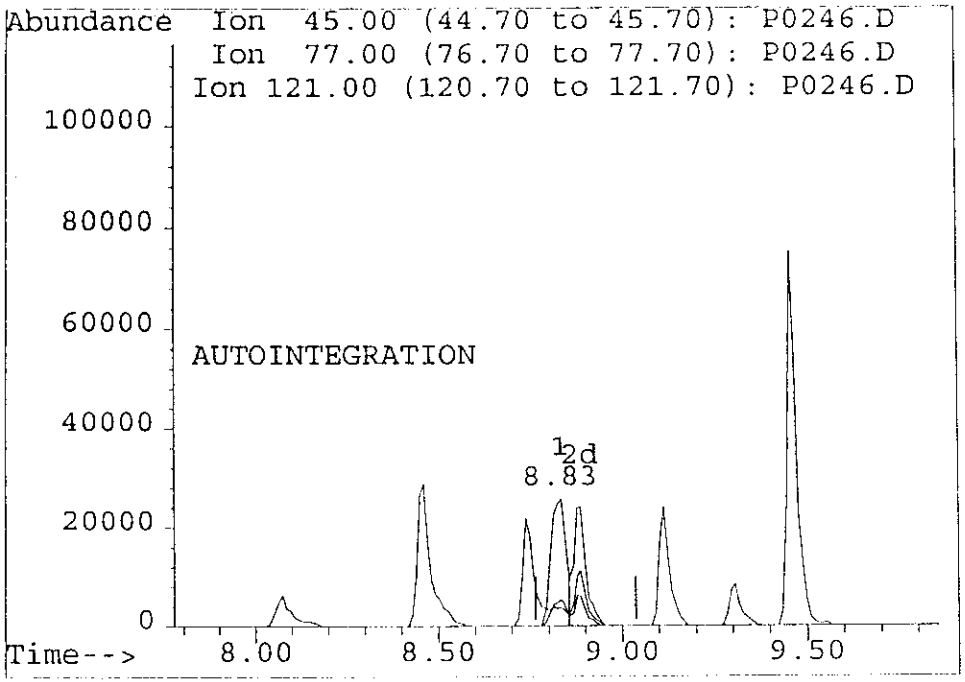
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\111297\P0246.D
Acq On : 12 Nov 97 1:57 pm
Sample : 10 ng 8270 std
Misc : 1283-55-08
Quant Time: Nov 12 14:58 1997

Vial: 2
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration





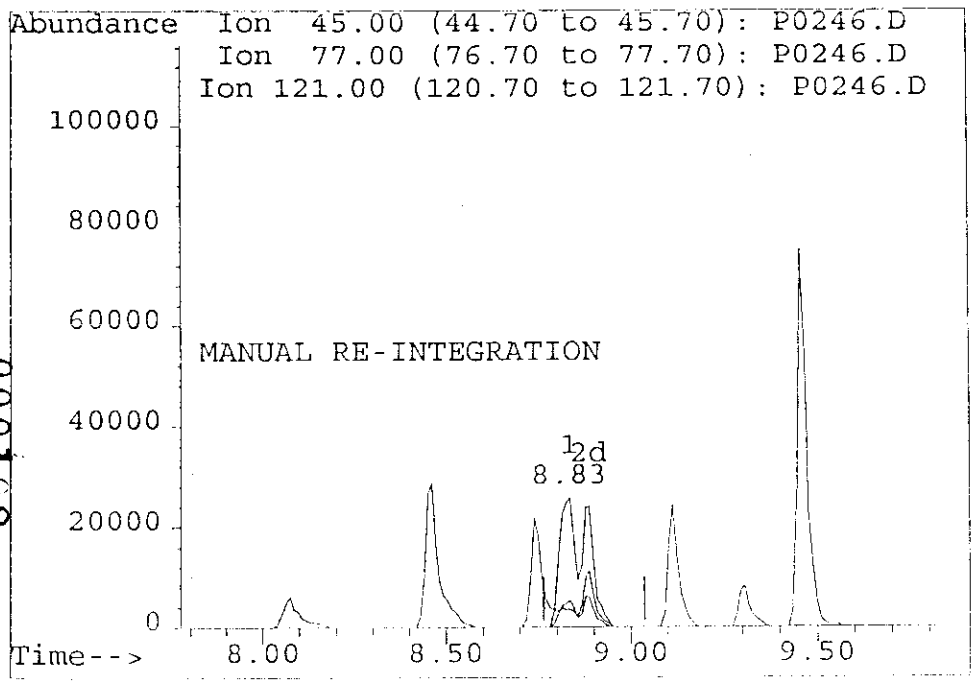
TIC: P0246.D

(16) Bis(2-chloroisopropyl)ether

8.83min 7.75ng/uL

response 75284

Ion	Exp%	Act%
45.00	100	100
77.00	17.10	0.00#
121.00	27.00	19.73#
0.00	0.00	0.00



TIC: P0246.D

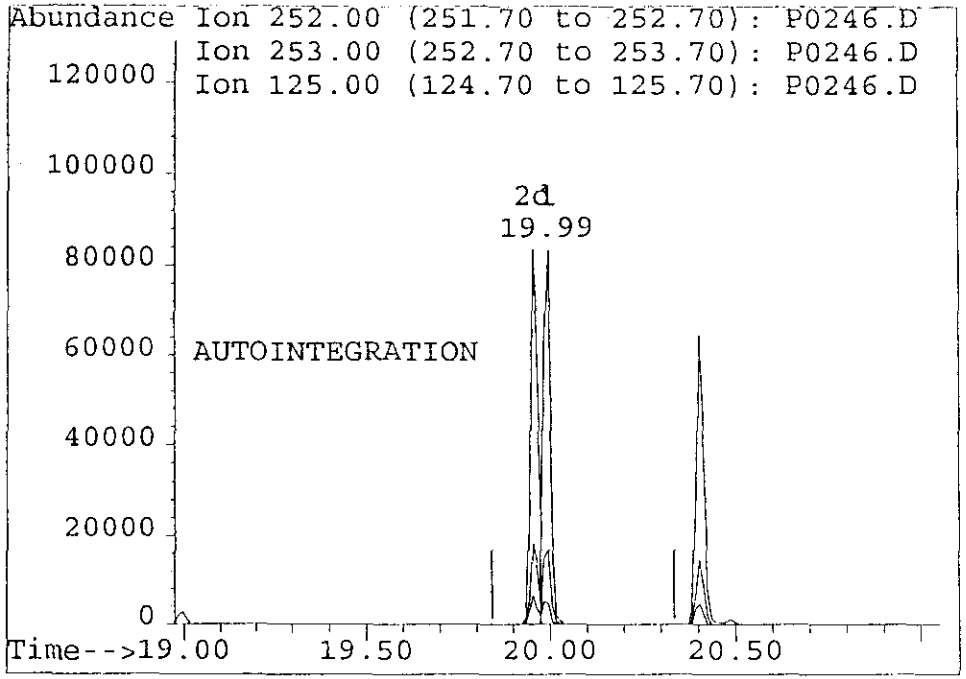
(16) Bis(2-chloroisopropyl)ether

8.83min 13.44ng/uL m

response 130504

Ion	Exp%	Act%
45.00	100	100
77.00	17.10	14.09
121.00	27.00	20.68
0.00	0.00	0.00

00102



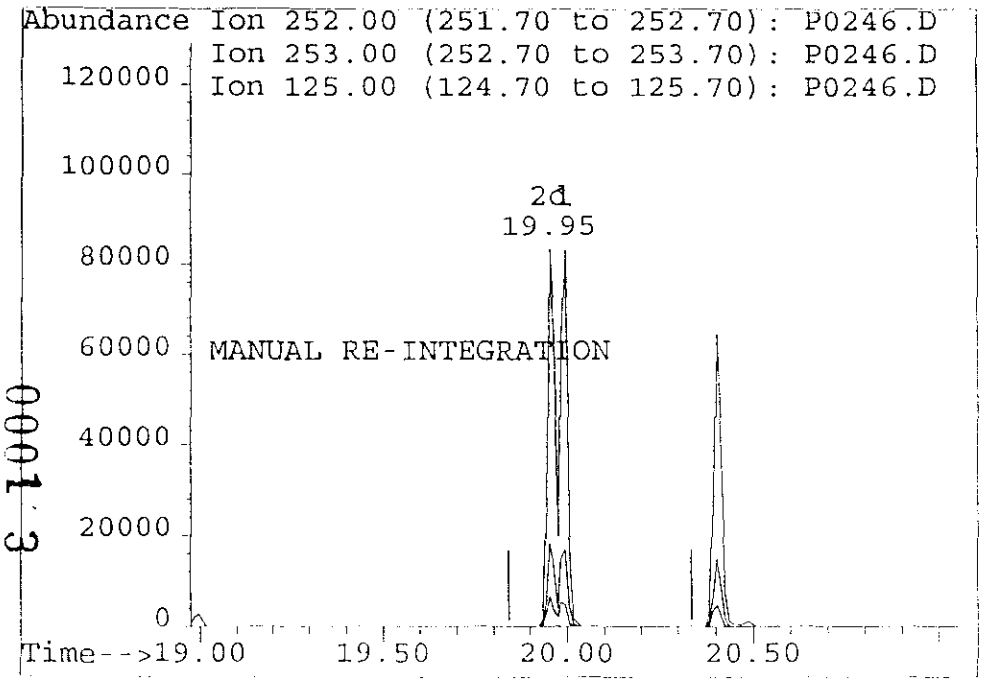
TIC: P0246.D

(80) Benzo[b]fluoranthene (T)

19.99min 8.07ng/uL

response 106225

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.53
125.00	9.20	6.30
0.00	0.00	0.00



TIC: P0246.D

(80) Benzo[b]fluoranthene (T)

19.95min 17.38ng/uL m

response 228702

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.69
125.00	9.20	7.77
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\111297\P0247.D
Acq On : 12 Nov 97 2:28 pm
Sample : 20 ng 8270 std
Misc : 1283-55-07
Quant Time: Nov 12 15:00 1997

Vial: 3
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.07	152	242714	40.00	ng/uL	-0.08
21) Naphthalene-d8	10.79	136	819266	40.00	ng/uL	-0.04
36) Acenaphthene-d10	13.41	164	526347	40.00	ng/uL	-0.05
58) Phenanthrene-d10	15.34	188	942884	40.00	ng/uL	-0.05
69) Chrysene-d12	18.67	240	768312	40.00	ng/uL	-0.04
78) Perylene-d12	20.49	264	499665	40.00	ng/uL	-0.05
System Monitoring Compounds						%Recovery
4) 2-Fluorophenol	5.08	112	317431	19.27	ng/uL	25.70%
5) 2-Chlorophenol-d4	7.45	132	145103	19.62	ng/uL	26.16%
7) Phenol-d5	7.12	99	485620	23.22	ng/uL	30.97%
13) 1,2-Dichlorobenzene-d4	8.48	152	127277	20.72	ng/uL	41.43%
22) Nitrobenzene-d5	9.42	82	394033	26.30	ng/uL	52.59%
40) 2-Fluorobiphenyl	12.47	172	397789	19.62	ng/uL	39.25%
57) 2,4,6-Tribromophenol	14.44	330	63815	24.19	ng/uL	32.25%
72) p-Terphenyl-d14	17.33	244	420142	16.42	ng/uL	32.84%
Target Compounds						Qvalue
2) Pyridine	2.78	79	342479	26.17	ng/uL	100
3) n-Nitrosodimethylamine	2.76	74	186675	26.57	ng/uL	95
6) Aniline	7.23	93	433127	23.23	ng/uL	92
8) Phenol	7.15	94	574412	24.48	ng/uL	96
9) Bis(2-chloroethyl)ether	7.39	93	431255	23.85	ng/uL	96
10) 2-Chlorophenol	7.49	128	184545	20.37	ng/uL#	81
11) 1,3-Dichlorobenzene	7.90	146	189880	19.63	ng/uL	97
12) 1,4-Dichlorobenzene	8.12	146	213406	20.37	ng/ul	95
14) 1,2-Dichlorobenzene	8.51	146	194433	20.22	ng/uL	99
15) Benzyl Alcohol	8.47	108	259194	22.26	ng/uL#	84
16) Bis(2-chloroisopropyl)ethe	8.88	45	332672	29.21	ng/uLm	75
17) 2-Methylphenol	8.75	108	349222	22.18	ng/uL#	96
18) n-Nitroso-di-n-propylamine	9.14	70	204109	30.36	ng/uL	86
19) 4-Methylphenol	9.12	108	372455	22.55	ng/uL#	97
20) Hexachloroethane	9.30	117	165493	22.05	ng/uL	93
23) Nitrobenzene	9.47	77	361946	26.99	ng/uL	83
24) Isophorone	9.96	82	740960	25.39	ng/uL	96
25) 2-Nitrophenol	10.10	139	103505	19.06	ng/uL#	76
26) 2,4-Dimethylphenol	10.21	122	202078	19.25	ng/uL	92
27) Bis(2-chloroethoxy)methane	10.39	93	544170	23.26	ng/uL	99
28) 2,4-Dichlorophenol	10.55	162	162328	20.18	ng/uL	90
29) Benzoic acid	10.43	105	166301	23.41	ng/uL#	76
30) 1,2,4-Trichlorobenzene	10.69	180	186263	20.42	ng/uL	100

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

Data File : C:\HPCHEM\1\DATA\111297\P0247.D
Acq On : 12 Nov 97 2:28 pm
Sample : 20 ng 8270 std
Misc : 1283-55-07
Quant Time: Nov 12 15:00 1997

Vial: 3
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Naphthalene	10.82	128	510138	19.50 ng/uL	98
32) 4-Chloroaniline	10.92	127	173648	17.28 ng/uL	96
33) Hexachlorobutadiene	11.04	225	152533	24.62 ng/uL	98
34) 4-Chloro-3-methylphenol	11.71	107	353937	22.21 ng/uL	95
35) 2-Methylnaphthalene	11.93	142	305875	19.57 ng/uL	91
37) Hexachlorocyclopentadiene	12.16	237	82894	17.49 ng/uL	98
38) 2,4,6-Trichlorophenol	12.35	196	130420	22.93 ng/uL	99
39) 2,4,5-Trichlorophenol	12.39	196	148451	22.83 ng/uL	99
41) 2-Chloronaphthalene	12.64	162	347267	19.34 ng/uL	98
42) 2-Nitroaniline	12.78	65	142798	27.28 ng/uL#	81
43) Dimethylphthalate	13.04	163	433798	20.50 ng/uL	100
44) 2,6-Dinitrotoluene	13.12	165	97720	21.08 ng/uL	83
45) Acenaphthylene	13.21	152	461897	18.17 ng/uL	99
46) 3-Nitroaniline	13.34	138	79326	17.62 ng/uL#	62
47) Acenaphthene	13.45	153	303879	19.30 ng/uL	96
48) 2,4-Dinitrophenol	13.48	184	55065	21.19 ng/uL#	100
49) 4-Nitrophenol	13.55	109	123287	25.52 ng/uL#	87
50) Dibenzofuran	13.68	168	481772	18.84 ng/uL	94
51) 2,4-Dinitrotoluene	13.66	165	127569	21.33 ng/uL#	77
52) Diethylphthalate	13.97	149	459631	21.17 ng/uL	99
53) Fluorene	14.13	166	364719	18.90 ng/uL	99
54) 4-Chlorophenyl phenyl ethe	14.13	204	217642	22.22 ng/uL	99
55) 4-Nitroaniline	14.15	138	72688	16.00 ng/uL#	67
56) Azobenzene	14.32	77	683193	26.29 ng/uL#	95
59) 4,6-Dinitro-2-methylphenol	14.19	198	87281	24.37 ng/uL	100
60) n-Nitrosodiphenylamine	14.27	169	230853	17.45 ng/uL	97
61) 4-Bromophenyl phenyl ether	14.75	248	116624	22.47 ng/uL	97
62) Hexachlorobenzene	14.84	284	148310	23.02 ng/uL	98
63) Pentachlorophenol	15.09	266	77052	21.37 ng/uL	100
64) Phenanthrene	15.37	178	553585	21.25 ng/uL	99
65) Anthracene	15.43	178	507643	19.46 ng/uL	100
66) Carbazole	15.63	167	381266	16.32 ng/uL#	92
67) Di-n-butylphthalate	16.03	149	681082	21.43 ng/uL	98
68) Fluoranthene	16.87	202	613002	23.17 ng/uL	97
70) Benzidine	17.02	184	6691	2.89 ng/uL	93
71) Pyrene	17.17	202	623463	13.87 ng/uL	94
73) Butylbenzylphthalate	17.92	149	300458	15.80 ng/uL	87
74) Benzo[a]anthracene	18.65	228	526830	19.24 ng/uL	99
75) 3,3'-Dichlorobenzidine	18.60	252	157577	16.50 ng/uL	100
76) Chrysene	18.71	228	517379	20.21 ng/uL	99
77) Bis(2-ethylhexyl)phthalate	18.61	149	333789	17.02 ng/uL	100

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

Data File : C:\HPCHEM\1\DATA\111297\P0247.D
Acq On : 12 Nov 97 2:28 pm
Sample : 20 ng 8270 std
Misc : 1283-55-07
Quant Time: Nov 12 15:00 1997

Vial: 3
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration

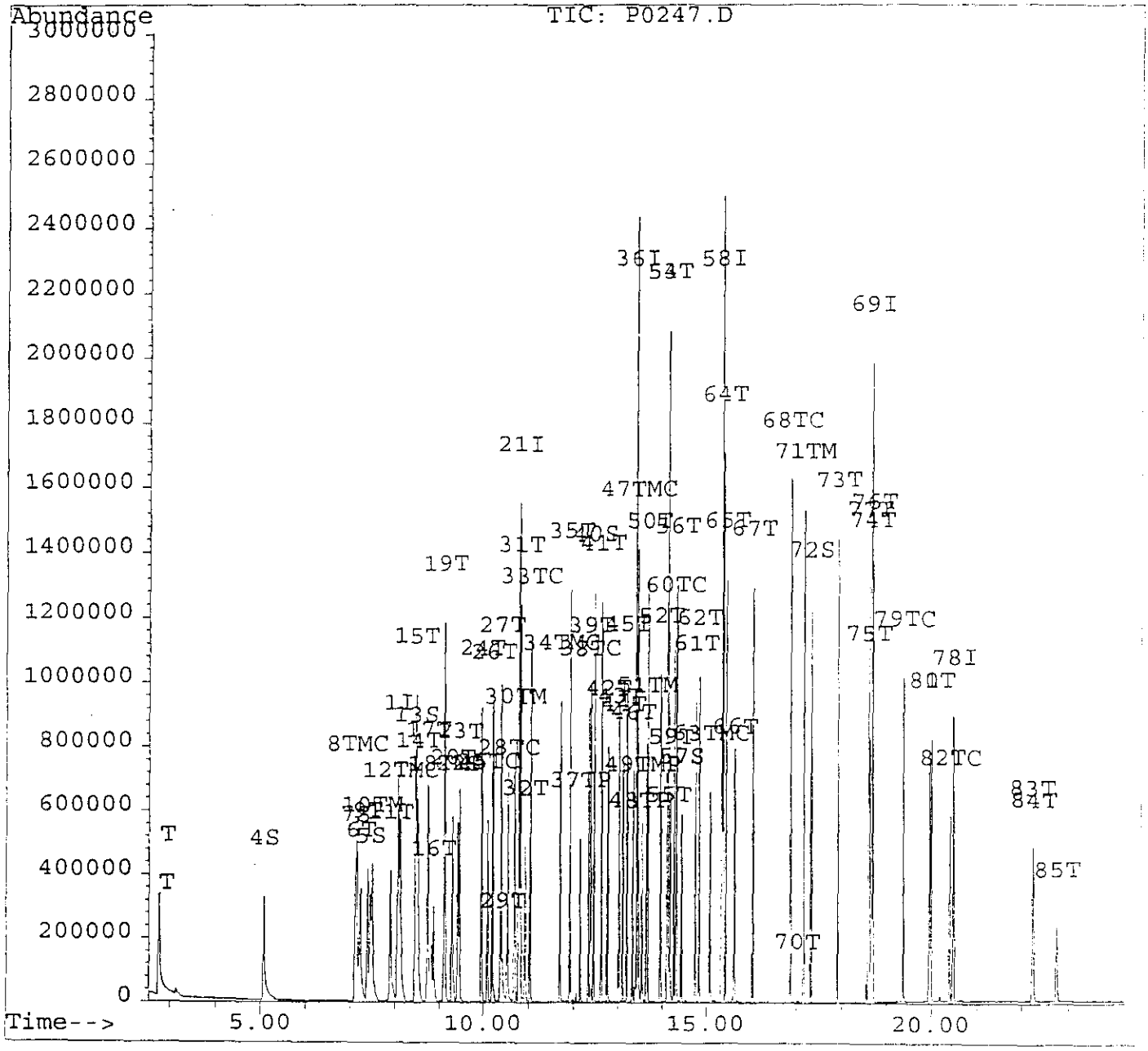
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	Di-n-octylphthalate	19.38	149	486524	16.33 ng/uL	94
80)	Benzo[b]fluoranthene	20.00	252	795722	37.29 ng/uLm	98
81)	Benzo[k]fluoranthene	20.00	252	794856	33.05 ng/uLm	98
82)	Benzo[a]pyrene	20.41	252	320771	20.39 ng/uL	96
83)	Indeno(1,2,3-c,d)pyrene	22.24	276	290702	21.37 ng/uL	96
84)	Dibenzo[a,h]anthracene	22.25	278	235983	20.79 ng/uL	97
85)	Benzo[g,h,i]perylene	22.76	276	234189	21.59 ng/uL	97

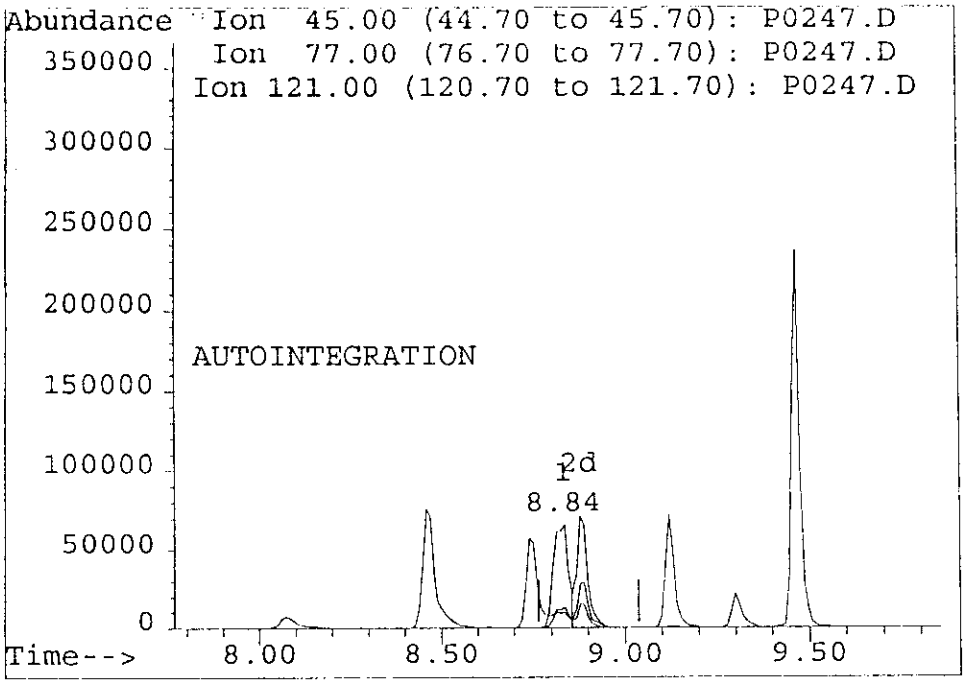
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\111297\P0247.D
Acq On : 12 Nov 97 2:28 pm
Sample : 20 ng 8270 std
Misc : 1283-55-07
Quant Time: Nov 12 15:00 1997

Vial: 3
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration





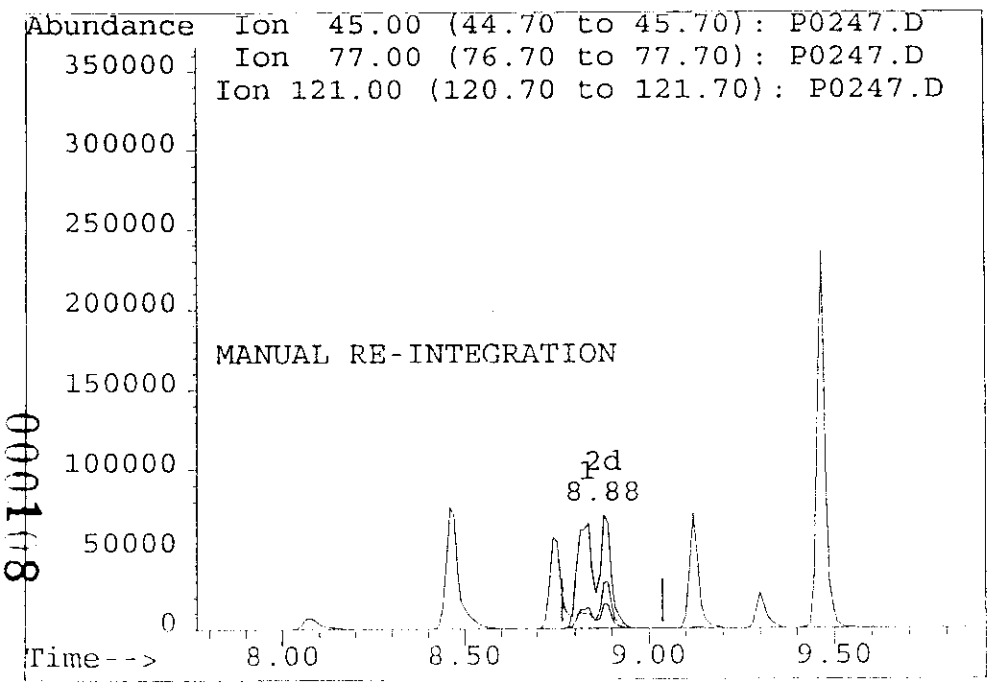
TIC: P0247.D

(16) Bis(2-chloroisopropyl)ether

8.84min 16.51ng/uL

response 188058

Ion	Exp%	Act%
45.00	100	100
77.00	17.10	0.00#
121.00	27.00	18.75#
0.00	0.00	0.00



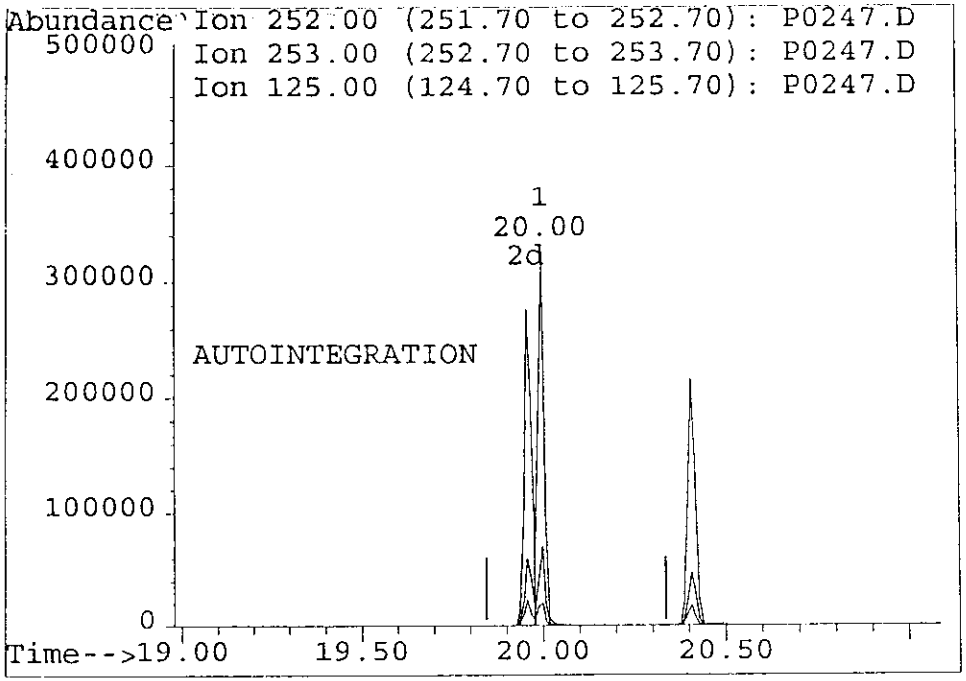
TIC: P0247.D

(16) Bis(2-chloroisopropyl)ether

8.88min 29.21ng/uL m

response 332672

Ion	Exp%	Act%
45.00	100	100
77.00	17.10	40.57
121.00	27.00	21.50
0.00	0.00	0.00



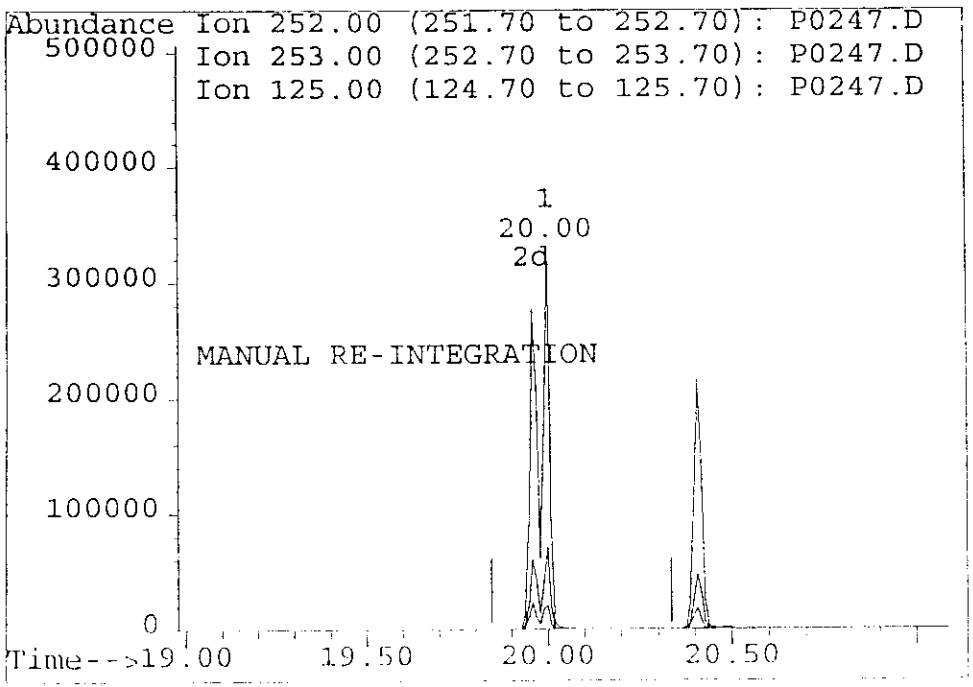
TIC: P0247.D

(80) Benzo[b]fluoranthene (T)

20.00min 18.13ng/uL

response 386794

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.40
125.00	9.20	6.57
0.00	0.00	0.00



TIC: P0247.D

(80) Benzo[b]fluoranthene (T)

20.00min 37.29ng/uL m

response 795722

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.51
125.00	9.20	6.12
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\111297\P0248.D
Acq On : 12 Nov 97 2:59 pm
Sample : 50 ng 8270 std
Misc : 1283-55-06
Quant Time: Nov 13 8:57 1997

Vial: 4
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.08	152	288797	40.00 ng/uL	-0.08
21) Naphthalene-d8	10.79	136	910248	40.00 ng/uL	-0.04
36) Acenaphthene-d10	13.41	164	573704	40.00 ng/uL	-0.05
58) Phenanthrene-d10	15.35	188	1033744	40.00 ng/uL	-0.04
69) Chrysene-d12	18.67	240	816952	40.00 ng/uL	-0.04
78) Perylene-d12	20.49	264	532654	40.00 ng/uL	-0.05
System Monitoring Compounds					%Recovery
4) 2-Fluorophenol	5.09	112	910211	46.44 ng/uL	61.93%
5) 2-Chlorophenol-d4	7.47	132	424703	48.27 ng/uL	64.36%
7) Phenol-d5	7.14	99	1348826	54.21 ng/uL	72.29%
13) 1,2-Dichlorobenzene-d4	8.48	152	368898	50.46 ng/uL	100.93%
22) Nitrobenzene-d5	9.44	82	1141002	68.54 ng/uL	137.07%
40) 2-Fluorobiphenyl	12.48	172	1110773	50.28 ng/uL	100.55%
57) 2,4,6-Tribromophenol	14.45	330	179150	62.30 ng/uL	83.07%
72) p-Terphenyl-d14	17.34	244	1127815	41.45 ng/uL	82.89%
Target Compounds					Qvalue
2) Pyridine	2.78	79	990034	63.57 ng/uL	100
3) n-Nitrosodimethylamine	2.76	74	503691	60.24 ng/uL	94
6) Aniline	7.26	93	1082866	48.82 ng/uL	95
8) Phenol	7.17	94	1623872	58.17 ng/uL	95
9) Bis(2-chloroethyl)ether	7.41	93	1276647	59.34 ng/uL	96
10) 2-Chlorophenol	7.51	128	538727	49.97 ng/uL#	82
11) 1,3-Dichlorobenzene	7.91	146	539237	46.85 ng/uL	97
12) 1,4-Dichlorobenzene	8.13	146	610717	48.99 ng/ul	99
14) 1,2-Dichlorobenzene	8.52	146	573632	50.14 ng/uL	100
15) Benzyl Alcohol	8.49	108	725929	52.39 ng/uL#	^85
16) Bis(2-chloroisopropyl)ethe	8.84	45	934056	68.92 ng/uLm	76
17) 2-Methylphenol	8.77	108	960737	51.28 ng/uL#	92
18) n-Nitroso-di-n-propylamine	9.17	70	547955	68.50 ng/uL	88
19) 4-Methylphenol	9.15	108	1014910	51.63 ng/uL#	96
20) Hexachloroethane	9.30	117	475348	53.23 ng/uL	91
23) Nitrobenzene	9.48	77	962833	64.63 ng/uL	84
24) Isophorone	9.98	82	2016224	62.18 ng/uL	97
25) 2-Nitrophenol	10.10	139	308885	51.19 ng/uL#	79
26) 2,4-Dimethylphenol	10.22	122	603523	51.74 ng/uL	96
27) Bis(2-chloroethoxy)methane	10.40	93	1468027	56.47 ng/uL	99
28) 2,4-Dichlorophenol	10.55	162	464111	51.93 ng/uL	92
29) Benzoic acid	10.52	105	677302	85.82 ng/uL#	76
30) 1,2,4-Trichlorobenzene	10.70	180	523894	51.69 ng/uL	100

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

Data File : C:\HPCHEM\1\DATA\111297\P0248.D
Acq On : 12 Nov 97 2:59 pm
Sample : 50 ng 8270 std
Misc : 1283-55-06
Quant Time: Nov 13 8:57 1997

Vial: 4
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Naphthalene	10.82	128	1422079	48.93 ng/uL	99
32) 4-Chloroaniline	10.93	127	357906	32.05 ng/uL	96
33) Hexachlorobutadiene	11.04	225	418359	60.78 ng/uL	99
34) 4-Chloro-3-methylphenol	11.71	107	905916	51.17 ng/uL	97
35) 2-Methylnaphthalene	11.94	142	871607	50.20 ng/uL	94
37) Hexachlorocyclopentadiene	12.16	237	289884	56.11 ng/uL	99
38) 2,4,6-Trichlorophenol	12.35	196	380952	61.44 ng/uL	98
39) 2,4,5-Trichlorophenol	12.39	196	389401	54.94 ng/uL	97
41) 2-Chloronaphthalene	12.65	162	967645	49.44 ng/uL	99
42) 2-Nitroaniline	12.79	65	399091	69.94 ng/uL#	82
43) Dimethylphthalate	13.05	163	1132693	49.11 ng/uL	100
44) 2,6-Dinitrotoluene	13.13	165	258319	51.13 ng/uL	85
45) Acenaphthylene	13.22	152	1269595	45.82 ng/uL	100
46) 3-Nitroaniline	13.36	138	124723	25.42 ng/uL#	57
47) Acenaphthene	13.46	153	824417	48.04 ng/uL	98
48) 2,4-Dinitrophenol	13.49	184	171079	60.39 ng/uL#	100
49) 4-Nitrophenol	13.57	109	341161	64.80 ng/uL#	86
50) Dibenzofuran	13.69	168	1351632	48.50 ng/uL	97
51) 2,4-Dinitrotoluene	13.66	165	352675	54.09 ng/uL	82
52) Diethylphthalate	13.97	149	1175076	49.65 ng/uL	98
53) Fluorene	14.14	166	1027418	48.86 ng/uL	99
54) 4-Chlorophenyl phenyl ethe	14.13	204	584715	54.76 ng/uL	98
55) 4-Nitroaniline	14.16	138	93610	18.90 ng/uL#	59
56) Azobenzene	14.34	77	1757601	62.05 ng/uL	95
59) 4,6-Dinitro-2-methylphenol	14.20	198	242995	61.89 ng/uL	100
60) n-Nitrosodiphenylamine	14.29	169	495657	34.17 ng/uL	100
61) 4-Bromophenyl phenyl ether	14.76	248	304004	53.43 ng/uL	97
62) Hexachlorobenzene	14.85	284	388891	55.05 ng/uL	96
63) Pentachlorophenol	15.10	266	249869	63.21 ng/uL	98
64) Phenanthrene	15.38	178	1461473	51.18 ng/uL	99
65) Anthracene	15.44	178	1422879	49.74 ng/uL	100
66) Carbazole	15.63	167	560890	21.90 ng/uL#	93
67) Di-n-butylphthalate	16.04	149	1922167	55.17 ng/uL	99
68) Fluoranthene	16.89	202	1767096	60.91 ng/uL	94
70) Benzidine	17.03	184	12034	4.89 ng/uL	88
71) Pyrene	17.17	202	1714274	35.87 ng/uL	92
73) Butylbenzylphthalate	17.93	149	877531	43.40 ng/uL	91
74) Benzo[a]anthracene	18.66	228	1399083	48.05 ng/uL	99
75) 3,3'-Dichlorobenzidine	18.61	252	424736	41.83 ng/uL	98
76) Chrysene	18.72	228	1354319	49.76 ng/uL	99
77) Bis(2-ethylhexyl)phthalate	18.61	149	1032706	49.54 ng/uL	98

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

Data File : C:\HPCHEM\1\DATA\111297\P0248.D
Acq On : 12 Nov 97 2:59 pm
Sample : 50 ng 8270 std
Misc : 1283-55-06
Quant Time: Nov 13 8:57 1997

Vial: 4
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	Di-n-octylphthalate	19.38	149	1458643	45.93 ng/uL	96
80)	Benzo[b]fluoranthene	20.01	252	2076013	91.27 ng/uLm	98
81)	Benzo[k]fluoranthene	20.01	252	2075235	80.95 ng/uLm	99
82)	Benzo[a]pyrene	20.42	252	858553	51.18 ng/uL	97
83)	Indeno(1,2,3-c,d)pyrene	22.26	276	731562	50.44 ng/uL	97
84)	Dibenzo[a,h]anthracene	22.27	278	609145	50.34 ng/uL	98
85)	Benzo[g,h,i]perylene	22.78	276	589238	50.96 ng/uL	97

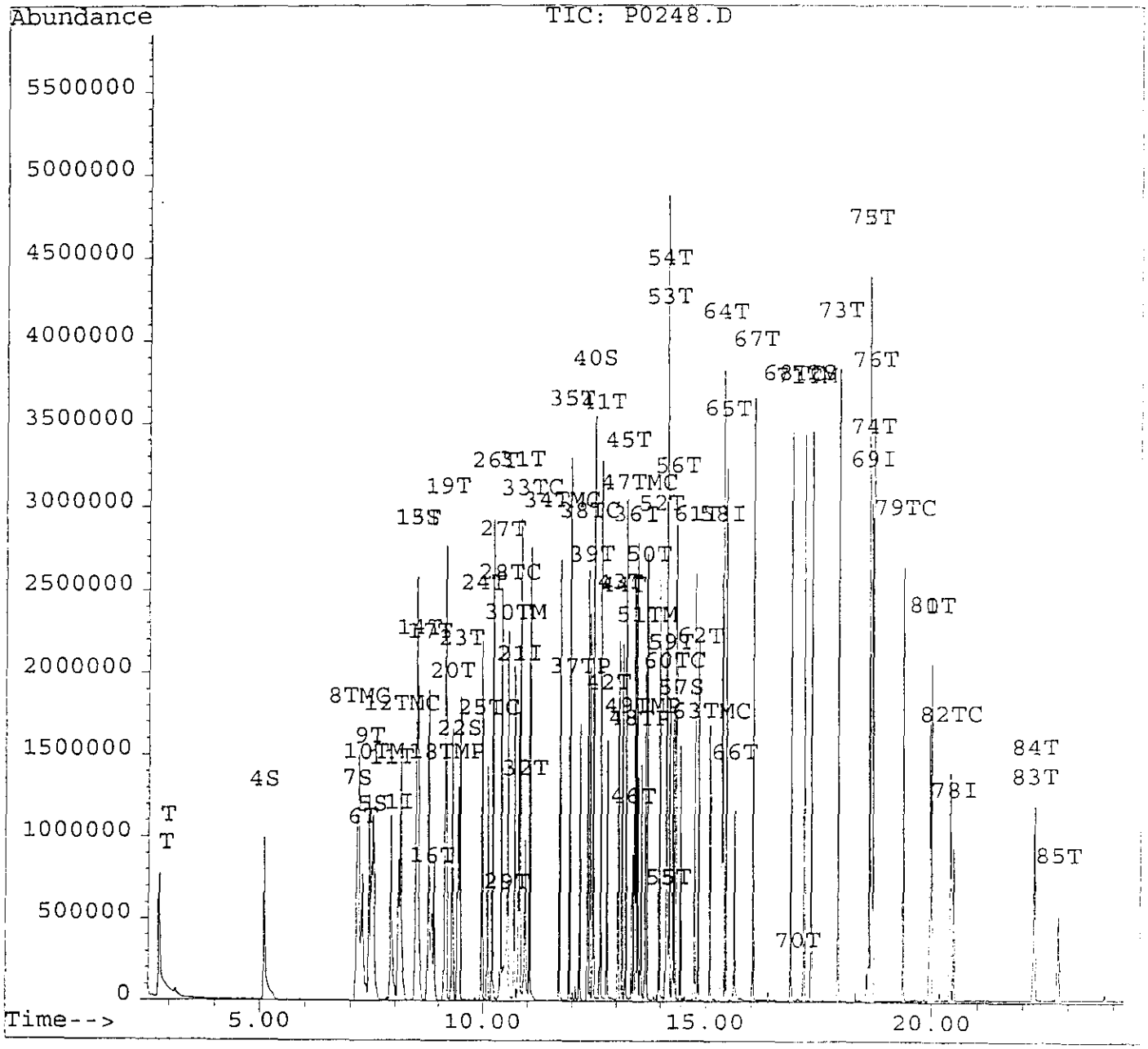
CB 11/13/97

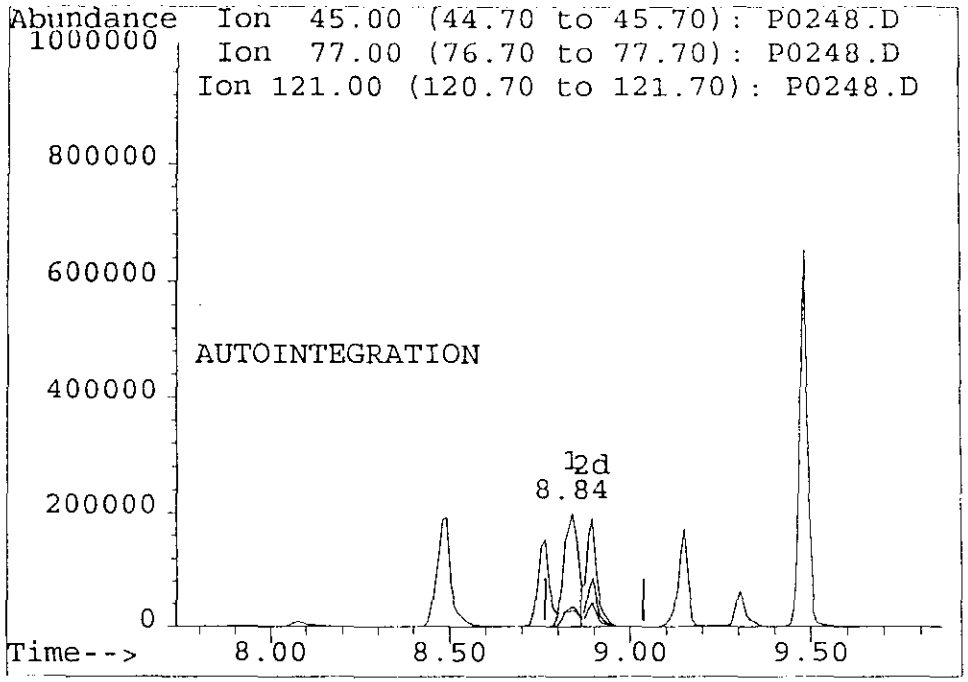
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\111297\P0248.D
Acq On : 12 Nov 97 2:59 pm
Sample : 50 ng 8270 std
Misc : 1283-55-06
Quant Time: Nov 13 8:57 1997

Vial: 4
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration





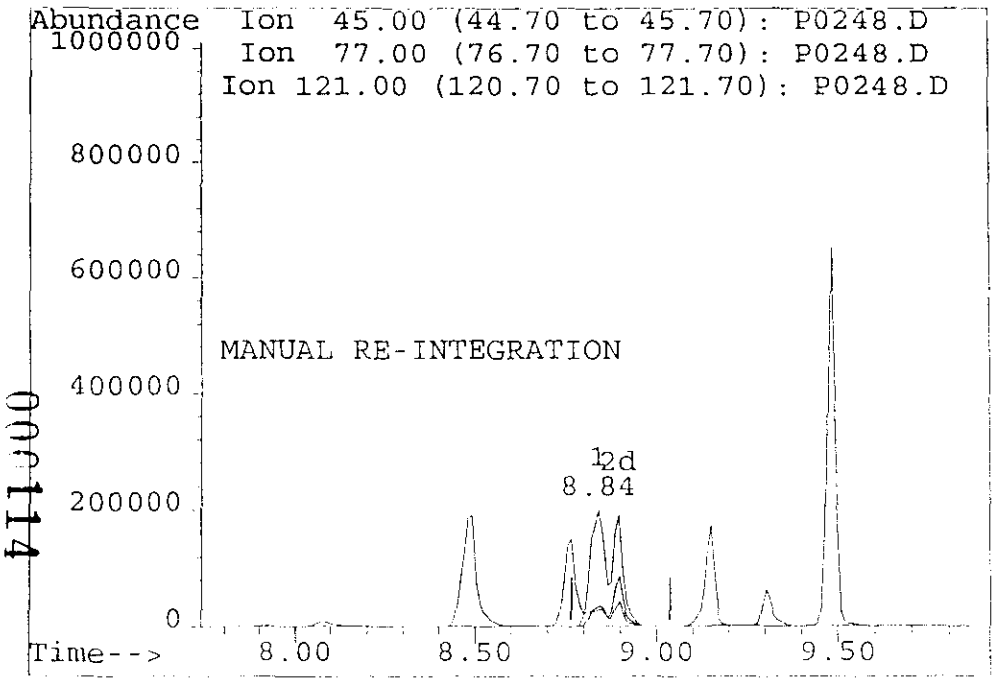
TIC: P0248.D

(16) Bis(2-chloroisopropyl)ether

8.84min 40.52ng/uL

response 549098

Ion	Exp%	Act%
45.00	100	100
77.00	17.10	0.00#
121.00	27.00	19.57#
0.00	0.00	0.00



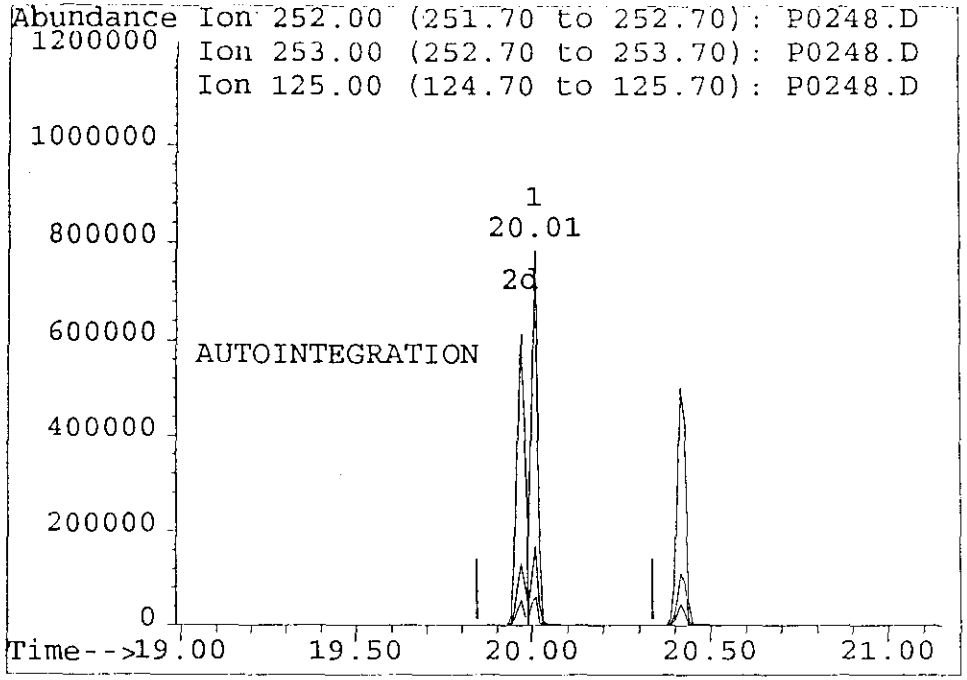
TIC: P0248.D

(16) Bis(2-chloroisopropyl)ether

8.84min 68.92ng/uL m

response 934056

Ion	Exp%	Act%
45.00	100	100
77.00	17.10	14.41
121.00	27.00	17.96
0.00	0.00	0.00



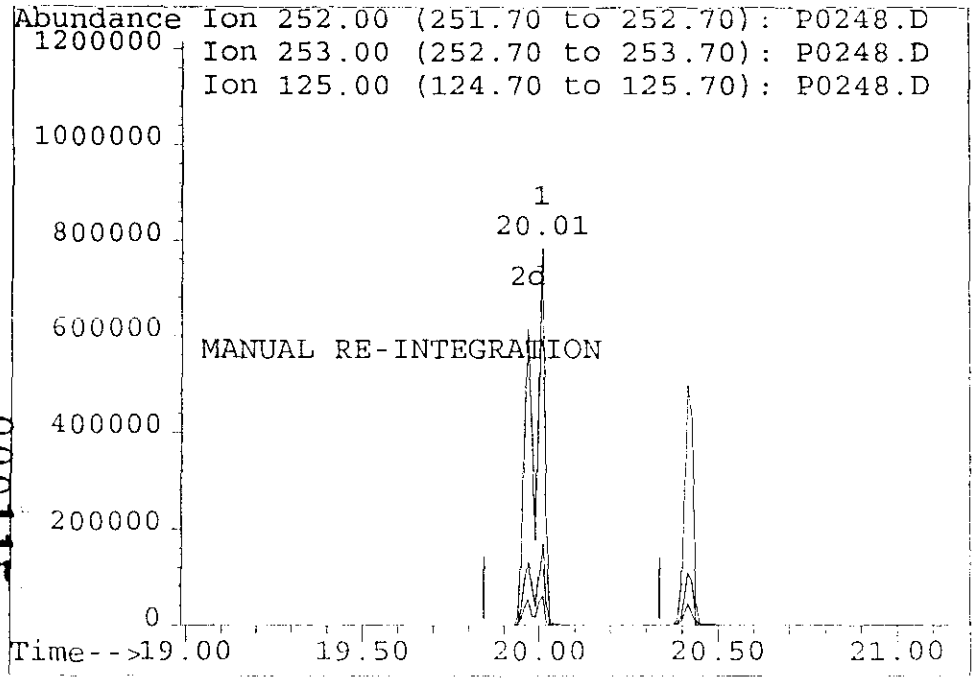
TIC: P0248.D

(80) Benzo[b]fluoranthene (T)

20.01min 42.78ng/uL

response 973048

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.22
125.00	9.20	7.32
0.00	0.00	0.00



TIC: P0248.D

(80) Benzo[b]fluoranthene (T)

20.01min 91.27ng/uL m

response 2076013

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.58
125.00	9.20	7.72
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\111297\P0249.D
Acq On : 12 Nov 97 3:30 pm
Sample : 80 ng 8270 std
Misc : 1283-55-05
Quant Time: Nov 13 8:48 1997

Vial: 5
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.07	152	228781	40.00	ng/uL	0.00
21) Naphthalene-d8	10.79	136	746827	40.00	ng/uL	0.00
36) Acenaphthene-d10	13.41	164	446727	40.00	ng/uL	0.00
58) Phenanthrene-d10	15.35	188	769232	40.00	ng/uL	0.00
69) Chrysene-d12	18.68	240	667871	40.00	ng/uL	0.00
78) Perylene-d12	20.50	264	419901	40.00	ng/uL	0.00
System Monitoring Compounds						%Recovery
4) 2-Fluorophenol	5.10	112	1143510	75.27	ng/uL	100.37%
5) 2-Chlorophenol-d4	7.47	132	520751	76.75	ng/uL	102.34%
7) Phenol-d5	7.14	99	1667260	82.80	ng/uL	110.40%
13) 1,2-Dichlorobenzene-d4	8.48	152	461355	80.71	ng/uL	161.43%
22) Nitrobenzene-d5	9.44	82	1403340	92.94	ng/uL	185.89%
40) 2-Fluorobiphenyl	12.48	172	1356414	78.06	ng/uL	156.12%
57) 2,4,6-Tribromophenol	14.45	330	205426	84.15	ng/uL	112.20%
72) p-Terphenyl-d14	17.34	244	1317601	64.22	ng/uL	128.45%
Target Compounds						Qvalue
2) Pyridine	2.77	79	1088845	82.99	ng/uL	100
3) n-Nitrosodimethylamine	2.75	74	589365	83.81	ng/uL	99
6) Aniline	7.27	93	1164115	66.25	ng/uL#	86
8) Phenol	7.19	94	1979196	86.07	ng/uL	97
9) Bis(2-chloroethyl)ether	7.42	93	1678539	95.10	ng/uL	94
10) 2-Chlorophenol	7.51	128	664134	78.71	ng/uL	97
11) 1,3-Dichlorobenzene	7.91	146	649463	73.24	ng/uL	100
12) 1,4-Dichlorobenzene	8.12	146	767042	79.03	ng/ul	95
14) 1,2-Dichlorobenzene	8.52	146	694900	77.53	ng/uL	99
15) Benzyl Alcohol	8.49	108	894458	81.09	ng/uL	98
16) Bis(2-chloroisopropyl)ethe	8.89	45	1185065	99.87	ng/uLm	92
17) 2-Methylphenol	8.77	108	1175535	78.31	ng/uL#	94
18) n-Nitroso-di-n-propylamine	9.18	70	686839	99.49	ng/uL	97
19) 4-Methylphenol	9.16	108	1270733	81.60	ng/uL	99
20) Hexachloroethane	9.30	117	565757	78.39	ng/uL	96
23) Nitrobenzene	9.49	77	1251588	92.94	ng/uL	98
24) Isophorone	9.98	82	2487345	87.37	ng/uL	99
25) 2-Nitrophenol	10.11	139	399831	79.38	ng/uL	97
26) 2,4-Dimethylphenol	10.22	122	727415	76.22	ng/uL	94
27) Bis(2-chloroethoxy)methane	10.41	93	1969097	86.71	ng/uL	99
28) 2,4-Dichlorophenol	10.56	162	591929	76.28	ng/uL	94
29) Benzoic acid	10.55	105	901677	139.25	ng/uL	97
30) 1,2,4-Trichlorobenzene	10.69	180	647033	76.69	ng/uL	99

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

Data File : C:\HPCHEM\1\DATA\111297\P0249.D
Acq On : 12 Nov 97 3:30 pm
Sample : 80 ng 8270 std
Misc : 1283-55-05
Quant Time: Nov 13 8:48 1997

Vial: 5
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Naphthalene	10.83	128	1904683	80.10 ng/uL	99
32) 4-Chloroaniline	10.94	127	470986	54.21 ng/uL	99
33) Hexachlorobutadiene	11.05	225	522857	85.56 ng/uL	99
34) 4-Chloro-3-methylphenol	11.72	107	1164673	77.37 ng/uL	96
35) 2-Methylnaphthalene	11.93	142	1101127	78.08 ng/uL	95
37) Hexachlorocyclopentadiene	12.17	237	431596	100.07 ng/uL	98
38) 2,4,6-Trichlorophenol	12.36	196	488734	87.15 ng/uL	99
39) 2,4,5-Trichlorophenol	12.40	196	481804	79.21 ng/uL	99
41) 2-Chloronaphthalene	12.64	162	1252755	82.17 ng/uL	97
42) 2-Nitroaniline	12.80	65	466459	95.68 ng/uL	100
43) Dimethylphthalate	13.05	163	1396354	77.30 ng/uL	100
44) 2,6-Dinitrotoluene	13.14	165	336108	82.28 ng/uL	95
45) Acenaphthylene	13.22	152	1716353	80.22 ng/uL	99
46) 3-Nitroaniline	13.36	138	111677	30.38 ng/uL	94
47) Acenaphthene	13.46	153	1083381	82.54 ng/uL	92
48) 2,4-Dinitrophenol	13.50	184	231239	104.83 ng/uL#	97
49) 4-Nitrophenol	13.57	109	441786	97.67 ng/uL	98
50) Dibenzofuran	13.69	168	1621431	75.82 ng/uL	95
51) 2,4-Dinitrotoluene	13.67	165	412622	78.26 ng/uL	95
52) Diethylphthalate	13.97	149	1432959	78.06 ng/uL	98
53) Fluorene	14.14	166	1306432	82.42 ng/uL	99
54) 4-Chlorophenyl phenyl ethe	14.13	204	725443	85.21 ng/uL	97
55) 4-Nitroaniline	14.17	138	96037	27.07 ng/uL	98
56) Azobenzene	14.34	77	2031570	86.12 ng/uL	99
59) 4,6-Dinitro-2-methylphenol	14.21	198	304661	95.26 ng/uL	100
60) n-Nitrosodiphenylamine	14.28	169	542576	51.46 ng/uL	100
61) 4-Bromophenyl phenyl ether	14.76	248	371930	83.72 ng/uL	97
62) Hexachlorobenzene	14.85	284	465068	83.96 ng/uL	99
63) Pentachlorophenol	15.10	266	302929	102.98 ng/uL	98
64) Phenanthrene	15.38	178	1801807	83.34 ng/uL	99
65) Anthracene	15.45	178	1780072	84.44 ng/uL	99
66) Carbazole	15.63	167	538225	29.65 ng/uL	97
67) Di-n-butylphthalate	16.04	149	2397436	93.14 ng/uL	99
68) Fluoranthene	16.88	202	2090732	94.58 ng/uL	96
70) Benzidine	17.03	184	19603	12.07 ng/uL#	82
71) Pyrene	17.18	202	2110651	60.76 ng/uL	99
73) Butylbenzylphthalate	17.93	149	1137177	74.56 ng/uL	95
74) Benzo[a]anthracene	18.66	228	1772282	75.28 ng/uL	98
75) 3,3'-Dichlorobenzidine	18.61	252	507801	63.59 ng/uL	99
76) Chrysene	18.72	228	1617747	73.37 ng/uL	98
77) Bis(2-ethylhexyl)phthalate	18.61	149	1386964	84.60 ng/uL	99

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

Data File : C:\HPCHEM\1\DATA\111297\P0249.D
Acq On : 12 Nov 97 3:30 pm
Sample : 80 ng 8270 std
Misc : 1283-55-05
Quant Time: Nov 13 8:48 1997

Vial: 5
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

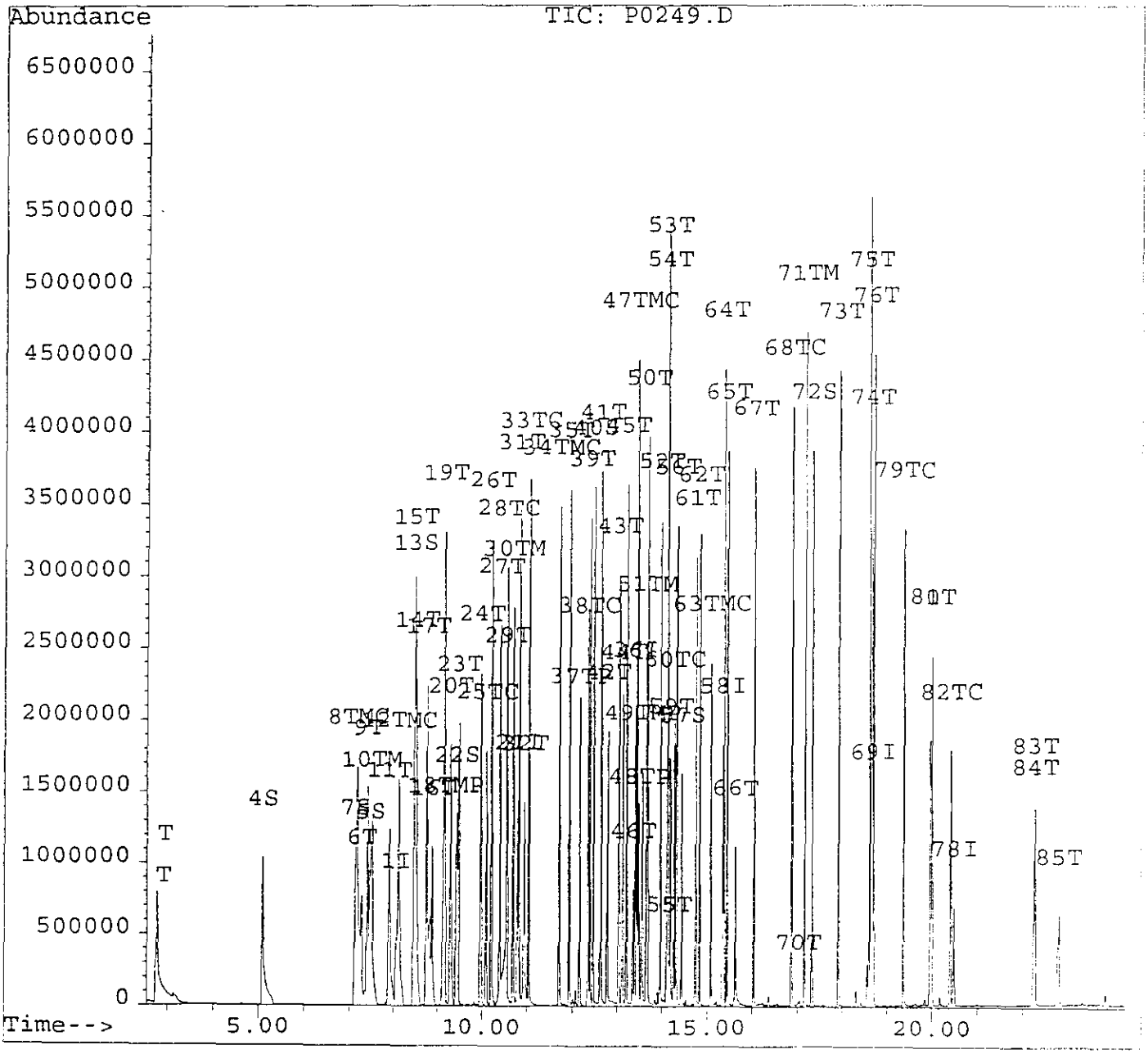
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
79)	Di-n-octylphthalate	19.38	149	1987384	83.13	ng/uL	97
80)	Benzo[b]fluoranthene	20.01	252	2519683	139.59	ng/uLm	98
81)	Benzo[k]fluoranthene	20.01	252	2535168	100.65	ng/uLm	99
82)	Benzo[a]pyrene	20.43	252	1028063	77.55	ng/uL	98
83)	Indeno(1,2,3-c,d)pyrene	22.27	276	899983	79.26	ng/uL	99
84)	Dibenzo[a,h]anthracene	22.28	278	753892	79.35	ng/uL	98
85)	Benzo[g,h,i]perylene	22.79	276	706447	77.90	ng/uL	99

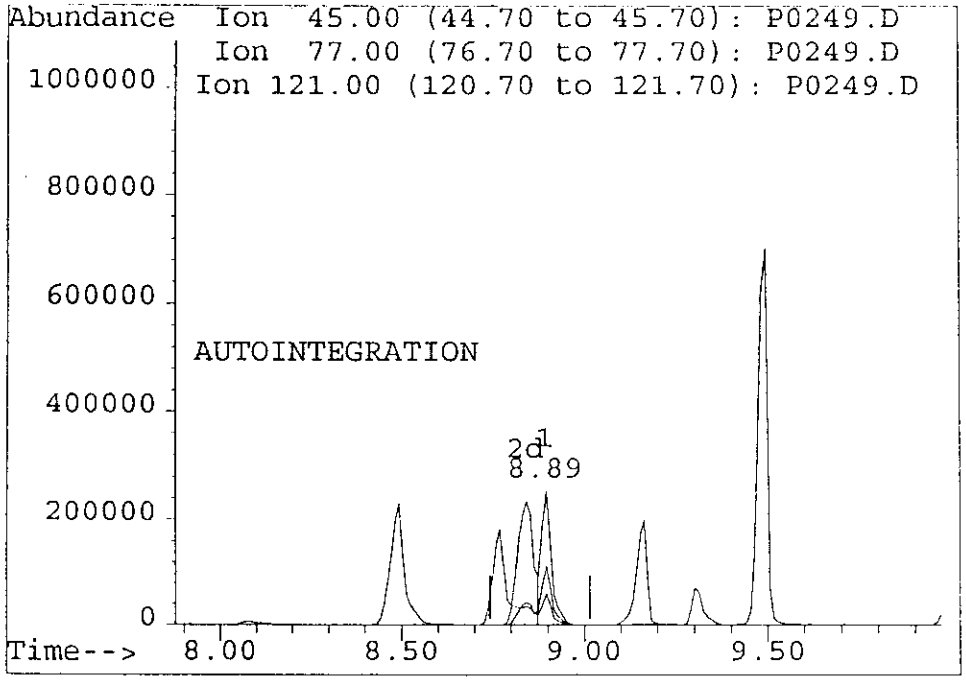
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\111297\P0249.D
Acq On : 12 Nov 97 3:30 pm
Sample : 80 ng 8270 std
Misc : 1283-55-05
Quant Time: Nov 13 8:48 1997

Vial: 5
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration





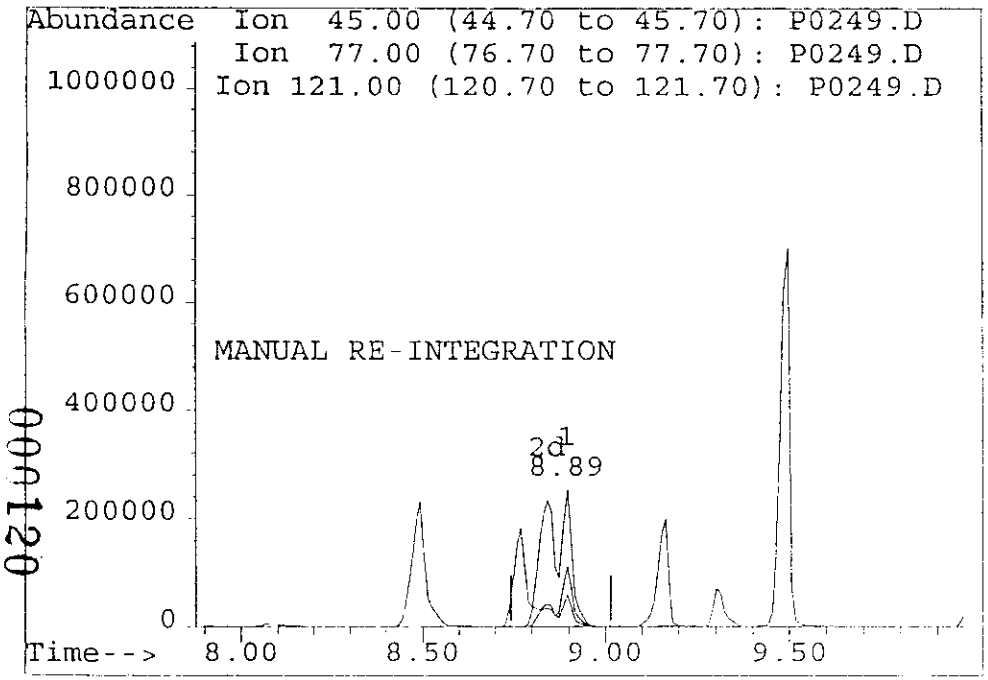
TIC: P0249.D

(16) Bis(2-chloroisopropyl)ether

8.89min 38.28ng/uL

response 454202

Ion	Exp%	Act%
45.00	100	100
77.00	40.60	47.63
121.00	21.50	22.92
0.00	0.00	0.00



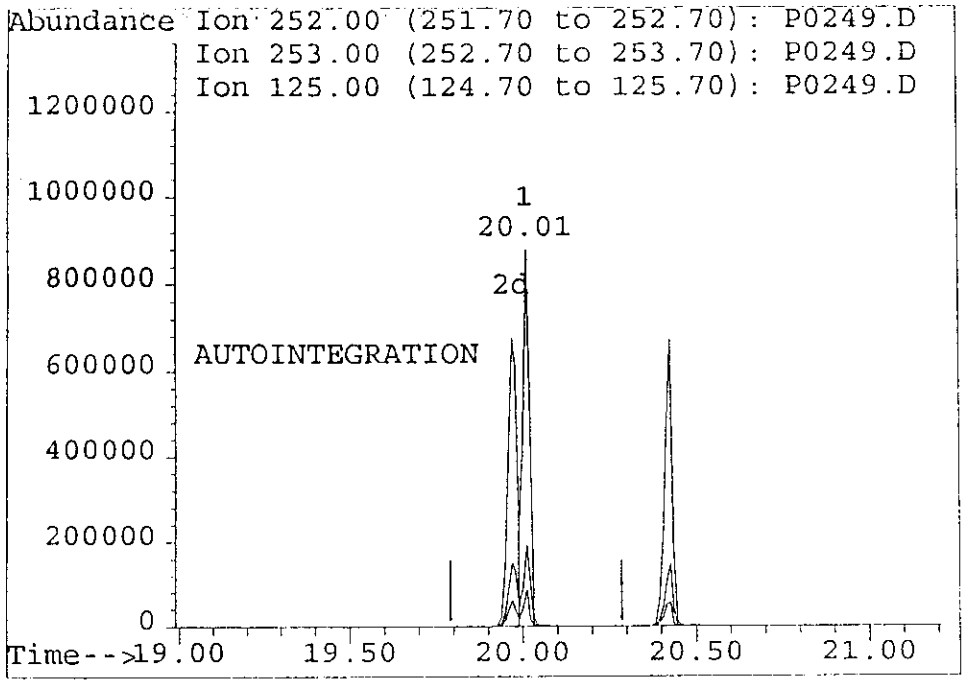
TIC: P0249.D

(16) Bis(2-chloroisopropyl)ether

8.89min 99.87ng/uL m

response 1185065

Ion	Exp%	Act%
45.00	100	100
77.00	40.60	44.11
121.00	21.50	23.26
0.00	0.00	0.00



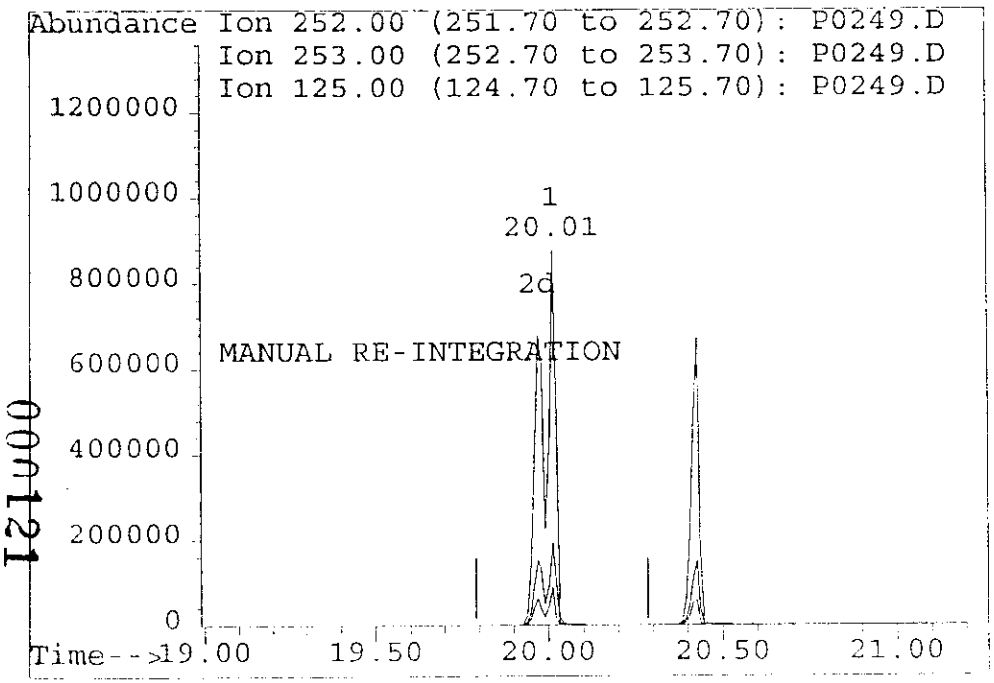
TIC: P0249.D

(80) Benzo[b]fluoranthene (T)

20.01min 65.84ng/uL

response 1188480

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	21.25
125.00	6.10	7.93
0.00	0.00	0.00



TIC: P0249.D

(80) Benzo[b]fluoranthene (T)

20.01min 139.59ng/uL m

response 2519683

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	21.94
125.00	6.10	9.97
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\111297\P0250.D
Acq On : 12 Nov 97 4:02 pm
Sample : 100 ng 8270 std
Misc : 1283-55-04
Quant Time: Nov 13 8:51 1997

Vial: 6
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.08	152	240016	40.00	ng/uL	0.00
21) Naphthalene-d8	10.80	136	727305	40.00	ng/uL	0.00
36) Acenaphthene-d10	13.41	164	473957	40.00	ng/uL	0.00
58) Phenanthrene-d10	15.35	188	897909	40.00	ng/uL	0.01
69) Chrysene-d12	18.69	240	663463	40.00	ng/uL	0.01
78) Perylene-d12	20.49	264	365012	40.00	ng/uL	0.00

System Monitoring Compounds						%Recovery
4) 2-Fluorophenol	5.11	112	1567313	98.34	ng/uL	131.12%
5) 2-Chlorophenol-d4	7.48	132	681948	95.81	ng/uL	127.74%
7) Phenol-d5	7.16	99	2338107	110.68	ng/uL	147.58%
13) 1,2-Dichlorobenzene-d4	8.50	152	623410	103.96	ng/uL	207.92%
22) Nitrobenzene-d5	9.45	82	1921020	130.64	ng/uL	261.29%
40) 2-Fluorobiphenyl	12.48	172	1799549	97.61	ng/uL	195.22%
57) 2,4,6-Tribromophenol	14.46	330	322960	124.70	ng/uL	166.26%
72) p-Terphenyl-d14	17.34	244	1943932	95.38	ng/uL	190.76%

Target Compounds						Qvalue
2) Pyridine	2.79	79	1512673	109.90	ng/uL	100
3) n-Nitrosodimethylamine	2.77	74	872630	118.28	ng/uL	99
6) Aniline	7.30	93	1577591	85.57	ng/uL#	77
8) Phenol	7.20	94	2771482	114.88	ng/uL	89
9) Bis(2-chloroethyl)ether	7.43	93	2229554	120.41	ng/uL	95
10) 2-Chlorophenol	7.52	128	872089	98.51	ng/uL	95
11) 1,3-Dichlorobenzene	7.91	146	916597	98.52	ng/uL	100
12) 1,4-Dichlorobenzene	8.14	146	1052357	103.35	ng/ul#	95
14) 1,2-Dichlorobenzene	8.53	146	994576	105.77	ng/uL	98
15) Benzyl Alcohol	8.51	108	1197758	103.50	ng/uL	97
16) Bis(2-chloroisopropyl)ethe	8.90	45	1564531	125.68	ng/uLm	91
17) 2-Methylphenol	8.78	108	1646636	104.56	ng/uL	95
18) n-Nitroso-di-n-propylamine	9.20	70	905057	124.97	ng/uL	97
19) 4-Methylphenol	9.18	108	1736035	106.26	ng/uL	100
20) Hexachloroethane	9.31	117	769237	101.60	ng/uL	96
23) Nitrobenzene	9.50	77	1660298	126.60	ng/uL	96
24) Isophorone	10.00	82	3399923	122.63	ng/uL	99
25) 2-Nitrophenol	10.11	139	523244	106.67	ng/uL	95
26) 2,4-Dimethylphenol	10.24	122	999049	107.49	ng/uL	92
27) Bis(2-chloroethoxy)methane	10.41	93	2481730	112.21	ng/uL	99
28) 2,4-Dichlorophenol	10.56	162	802313	106.16	ng/uL	93
29) Benzoic acid	10.59	105	1266982	200.92	ng/uL#	70
30) 1,2,4-Trichlorobenzene	10.70	180	899549	109.49	ng/uL	99

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

Data File : C:\HPCHEM\1\DATA\111297\P0250.D
Acq On : 12 Nov 97 4:02 pm
Sample : 100 ng 8270 std
Misc : 1283-55-04
Quant Time: Nov 13 8:51 1997

Vial: 6
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

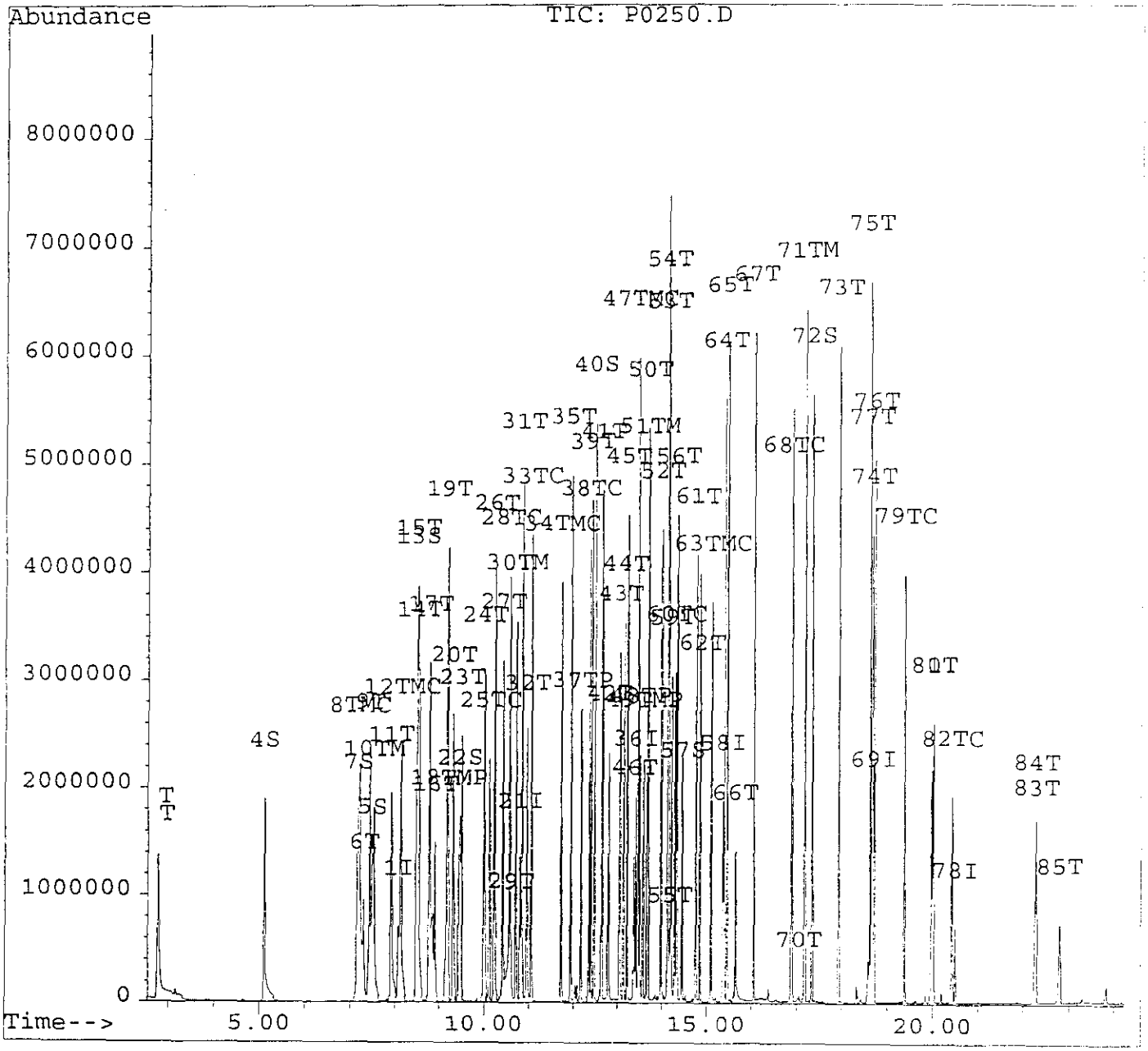
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
31) Naphthalene	10.84	128	2602220	112.38	ng/uL	97
32) 4-Chloroaniline	10.94	127	738459	87.28	ng/uL	99
33) Hexachlorobutadiene	11.04	225	678220	113.96	ng/uL	99
34) 4-Chloro-3-methylphenol	11.72	107	1581224	107.86	ng/uL	93
35) 2-Methylnaphthalene	11.94	142	1567556	114.14	ng/uL	92
37) Hexachlorocyclopentadiene	12.17	237	587757	128.45	ng/uL	100
38) 2,4,6-Trichlorophenol	12.35	196	666817	112.08	ng/uL	99
39) 2,4,5-Trichlorophenol	12.41	196	701038	108.63	ng/uL	98
41) 2-Chloronaphthalene	12.65	162	1690699	104.52	ng/uL	97
42) 2-Nitroaniline	12.80	65	663927	128.36	ng/uL	97
43) Dimethylphthalate	13.05	163	2017071	105.25	ng/uL	99
44) 2,6-Dinitrotoluene	13.15	165	486856	112.33	ng/uL	95
45) Acenaphthylene	13.23	152	2382479	104.95	ng/uL	99
46) 3-Nitroaniline	13.37	138	237103	60.80	ng/uL	99
47) Acenaphthene	13.47	153	1613790	115.88	ng/uL	93
48) 2,4-Dinitrophenol	13.51	184	363172	155.18	ng/uL#	95
49) 4-Nitrophenol	13.58	109	586033	122.11	ng/uL	96
50) Dibenzofuran	13.69	168	2312273	101.92	ng/uL	93
51) 2,4-Dinitrotoluene	13.68	165	661940	118.33	ng/uL	34
52) Diethylphthalate	13.99	149	2240378	115.03	ng/uL	98
53) Fluorene	14.14	166	1912015	113.70	ng/uL	98
54) 4-Chlorophenyl phenyl ethe	14.13	204	1016815	112.57	ng/uL	96
55) 4-Nitroaniline	14.18	138	144656	38.43	ng/uL	96
56) Azobenzene	14.35	77	2930768	117.10	ng/uL	99
59) 4,6-Dinitro-2-methylphenol	14.21	198	459355	123.04	ng/uL	100
60) n-Nitrosodiphenylamine	14.30	169	882080	71.68	ng/uL	98
61) 4-Bromophenyl phenyl ether	14.77	248	567619	109.46	ng/uL	97
62) Hexachlorobenzene	14.86	284	699174	108.13	ng/uL	98
63) Pentachlorophenol	15.10	266	472587	137.64	ng/uL	98
64) Phenanthrene	15.38	178	2797184	110.83	ng/uL	99
65) Anthracene	15.46	178	2813200	114.33	ng/uL	99
66) Carbazole	15.63	167	819931	38.70	ng/uL	97
67) Di-n-butylphthalate	16.04	149	3519569	117.14	ng/uL	98
68) Fluoranthene	16.90	202	3211047	124.45	ng/uL	95
70) Benzidine	17.05	184	25898	16.05	ng/uL#	73
71) Pyrene	17.18	202	2986592	86.54	ng/uL	100
73) Butylbenzylphthalate	17.93	149	1481549	97.78	ng/uL	92
74) Benzo[a]anthracene	18.67	228	2231830	95.43	ng/uL	98
75) 3,3'-Dichlorobenzidine	18.61	252	578488	72.93	ng/uL	98
76) Chrysene	18.72	228	2084539	95.95	ng/uL	98
77) Bis(2-ethylhexyl)phthalate	18.62	149	1779017	109.23	ng/uL	98

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

Data File : C:\HPCHEM\1\DATA\111297\P0250.D
Acq On : 12 Nov 97 4:02 pm
Sample : 100 ng 8270 std
Misc : 1283-55-04
Quant Time: Nov 13 8:51 1997

Vial: 6
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : C:\HPCHEM\1\DATA\111297\P0250.D
Acq On : 12 Nov 97 4:02 pm
Sample : 100 ng 8270 std
Misc : 1283-55-04
Quant Time: Nov 13 8:51 1997

Vial: 6
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

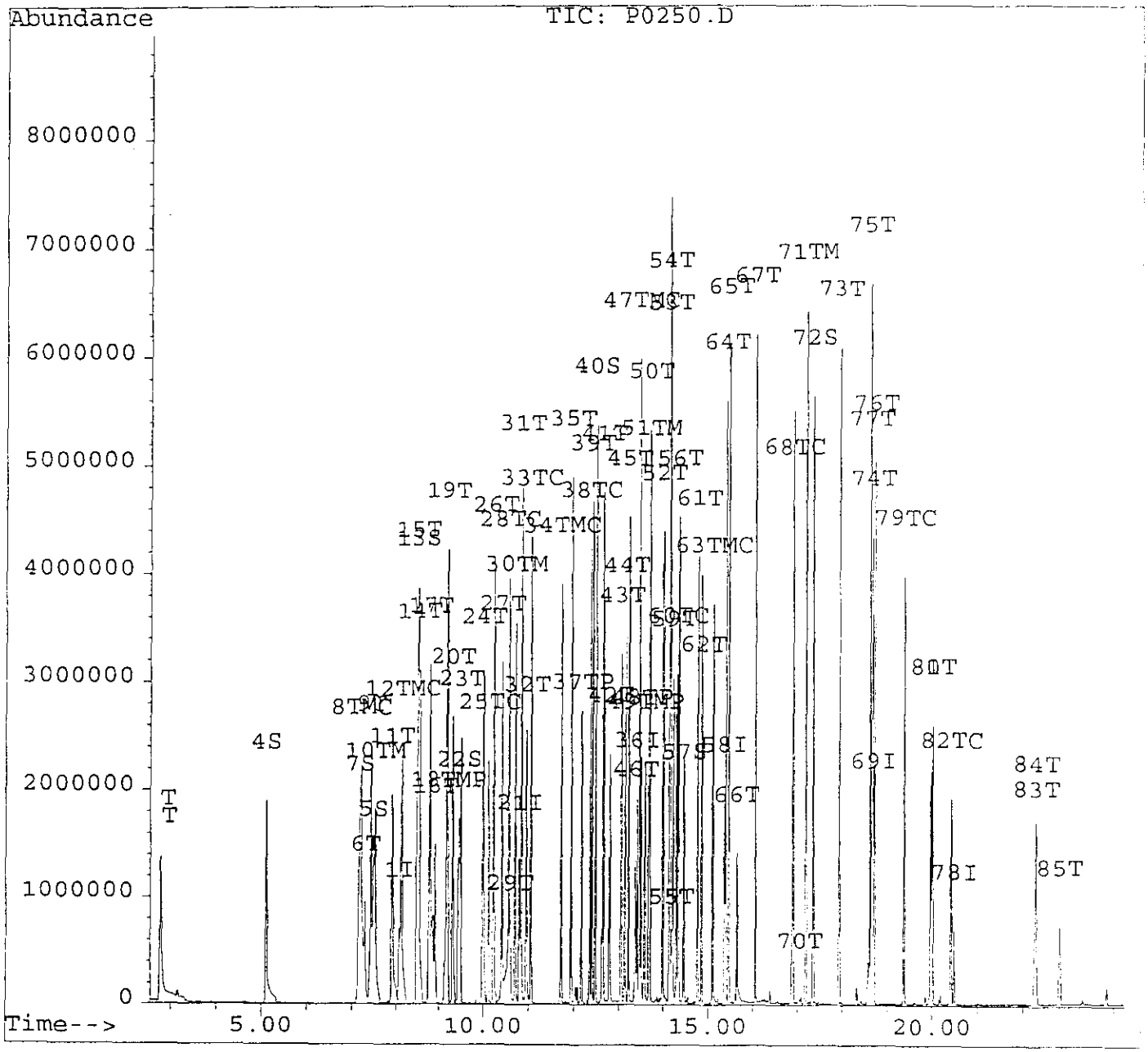
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	Di-n-octylphthalate	19.38	149	2304881	110.91 ng/uL	97
80)	Benzo[b]fluoranthene	20.02	252	2959876	188.64 ng/uLm	98
81)	Benzo[k]fluoranthene	20.02	252	2958607	135.12 ng/uLm	98
82)	Benzo[a]pyrene	20.42	252	1182483	102.61 ng/uL	99
83)	Indeno(1,2,3-c,d)pyrene	22.27	276	1020453	103.39 ng/uL	98
84)	Dibenzo[a,h]anthracene	22.28	278	845066	102.33 ng/uL	98
85)	Benzo[g,h,i]perylene	22.80	276	811362	102.93 ng/uL	99

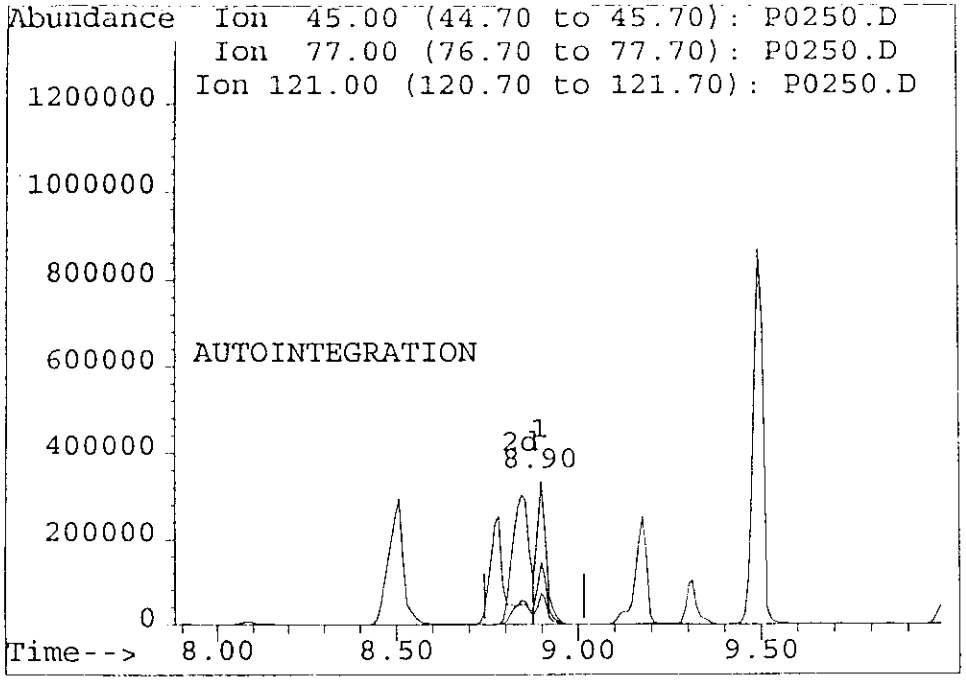
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\111297\P0250.D
Acq On : 12 Nov 97 4:02 pm
Sample : 100 ng 8270 std
Misc : 1283-55-04
Quant Time: Nov 13 8:51 1997

Vial: 6
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration





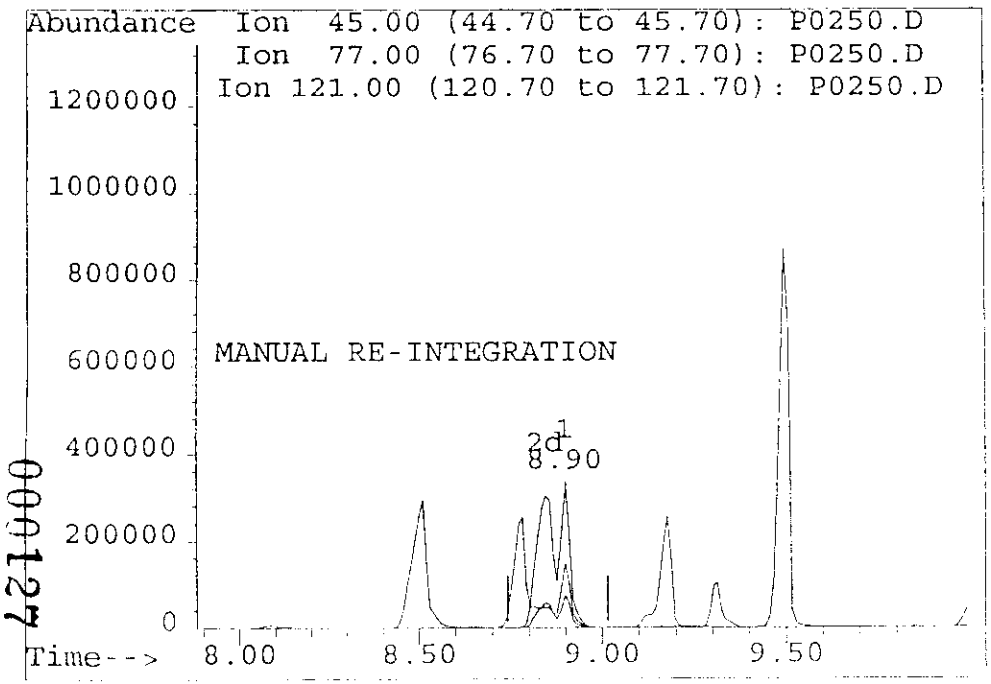
TIC: P0250.D

(16) Bis(2-chloroisopropyl)ether

8.90min 46.34ng/uL

response 576875

Ion	Exp%	Act%
45.00	100	100
77.00	40.60	48.43
121.00	21.50	22.71
0.00	0.00	0.00



TIC: P0250.D

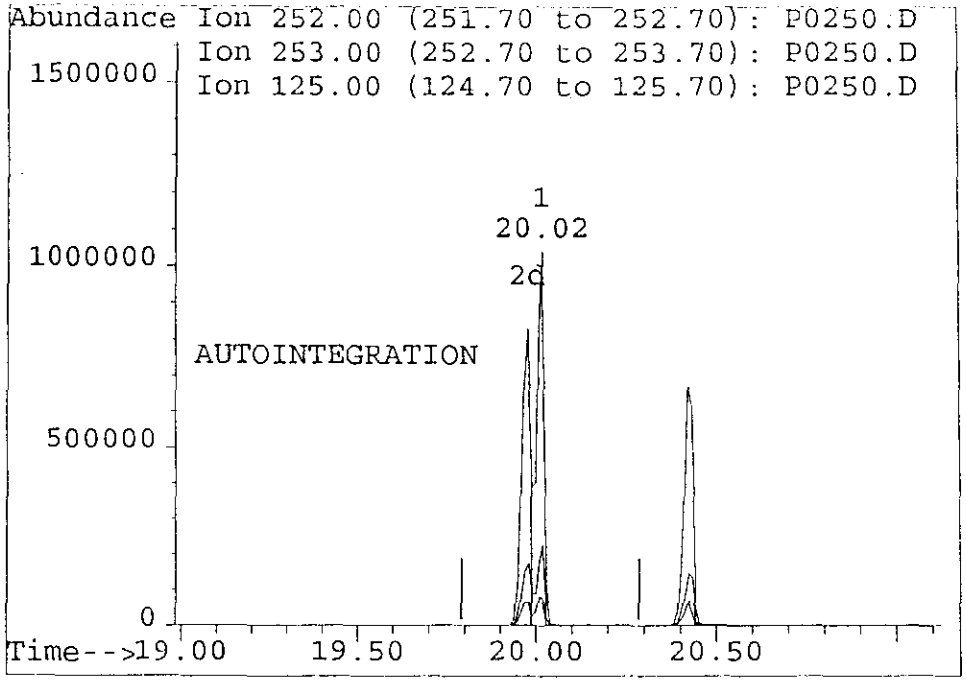
(16) Bis(2-chloroisopropyl)ether

8.90min 125.68ng/uL m

response 1564531

Ion	Exp%	Act%
45.00	100	100
77.00	40.60	43.63
121.00	21.50	21.86
0.00	0.00	0.00

000127



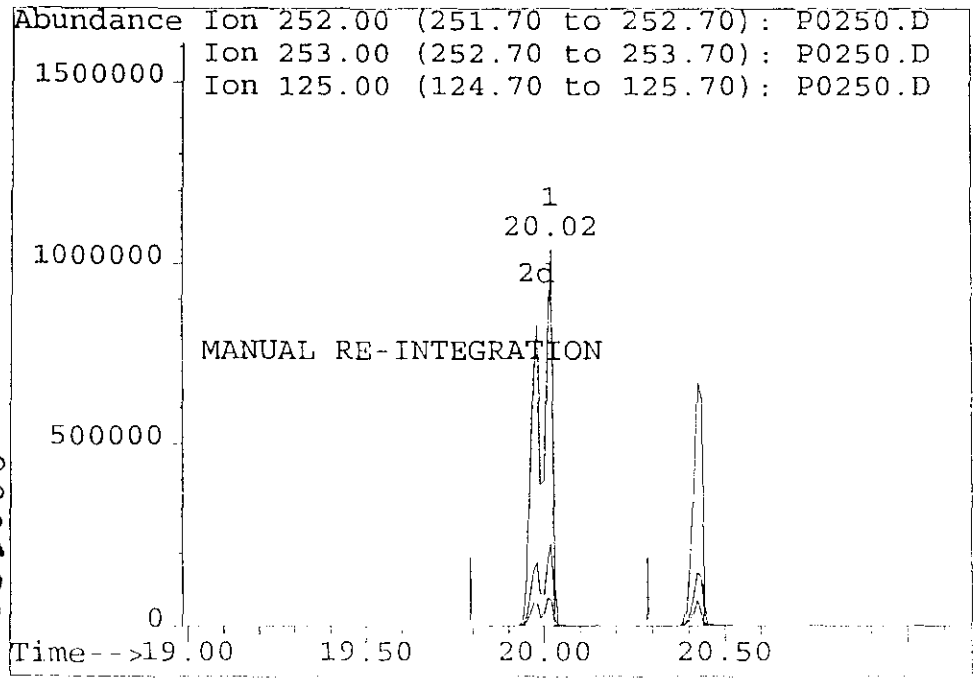
TIC: P0250.D

(80) Benzo[b]fluoranthene (T)

20.02min 94.05ng/uL

response 1475789

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.01
125.00	6.10	8.13
0.00	0.00	0.00



TIC: P0250.D

(80) Benzo[b]fluoranthene (T)

20.02min 188.64ng/uL m

response 2959876

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	21.70
125.00	6.10	6.88
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\111297\P0251.D
Acq On : 12 Nov 97 4:33 pm
Sample : 120 ng 8270 std
Misc : 1283-55-03
Quant Time: Nov 13 8:52 1997

Vial: 7
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.08	152	233913	40.00	ng/uL	0.00
21) Naphthalene-d8	10.80	136	790497	40.00	ng/uL	0.01
36) Acenaphthene-d10	13.41	164	476191	40.00	ng/uL	0.00
58) Phenanthrene-d10	15.35	188	927957	40.00	ng/uL	0.01
69) Chrysene-d12	18.69	240	740023	40.00	ng/uL	0.02
78) Perylene-d12	20.50	264	484274	40.00	ng/uL	0.01
System Monitoring Compounds						**%Recovery**
4) 2-Fluorophenol	5.11	112	1834835	118.13	ng/uL	157.51%
5) 2-Chlorophenol-d4	7.49	132	858520	123.76	ng/uL	165.02%
7) Phenol-d5	7.17	99	2730172	132.61	ng/uL	176.82%
13) 1,2-Dichlorobenzene-d4	8.49	152	777085	132.97	ng/uL	265.94%
22) Nitrobenzene-d5	9.46	82	2262477	141.57	ng/uL	283.13%
40) 2-Fluorobiphenyl	12.48	172	2414533	130.35	ng/uL	260.71%
57) 2,4,6-Tribromophenol	14.46	330	399065	153.36	ng/uL	204.48%
72) p-Terphenyl-d14	17.34	244	2429088	106.86	ng/uL	213.71%
Target Compounds						**Qvalue**
2) Pyridine	2.78	79	1671120	124.58	ng/uL	100
3) n-Nitrosodimethylamine	2.77	74	960026	133.52	ng/uL	99
6) Aniline	7.30	93	1967560	109.51	ng/uLm	1
8) Phenol	7.21	94	3251928	138.31	ng/uL	85
9) Bis(2-chloroethyl)ether	7.44	93	2587640	143.40	ng/uL	96
10) 2-Chlorophenol	7.53	128	1108051	128.43	ng/uL	95
11) 1,3-Dichlorobenzene	7.92	146	1079722	119.08	ng/uL	100
12) 1,4-Dichlorobenzene	8.14	146	1182979	119.21	ng/ul#	94
14) 1,2-Dichlorobenzene	8.53	146	1232201	134.46	ng/uL	97
15) Benzyl Alcohol	8.52	108	1507587	133.68	ng/uL	97
16) Bis(2-chloroisopropyl)ethe	8.90	45	1963092	161.81	ng/uLm	96
17) 2-Methylphenol	8.78	108	1942515	126.57	ng/uL	95
18) n-Nitroso-di-n-propylamine	9.21	70	1114577	157.91	ng/uL	96
19) 4-Methylphenol	9.18	108	2122089	133.28	ng/uL	100
20) Hexachloroethane	9.31	117	914473	123.93	ng/uL	95
23) Nitrobenzene	9.51	77	2032579	142.60	ng/uL	96
24) Isophorone	10.00	82	4284200	142.17	ng/uL	99
25) 2-Nitrophenol	10.13	139	672167	126.07	ng/uL	93
26) 2,4-Dimethylphenol	10.24	122	1264161	125.14	ng/uL	91
27) Bis(2-chloroethoxy)methane	10.42	93	3043982	126.63	ng/uL	100
28) 2,4-Dichlorophenol	10.57	162	1037633	126.32	ng/uL	92
29) Benzoic acid	10.62	105	1630052	237.84	ng/uL#	70
30) 1,2,4-Trichlorobenzene	10.71	180	1128223	126.34	ng/uL	98

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

Data File : C:\HPCHEM\1\DATA\111297\P0251.D
Acq On : 12 Nov 97 4:33 pm
Sample : 120 ng 8270 std
Misc : 1283-55-03
Quant Time: Nov 13 8:52 1997

Vial: 7
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Naphthalene	10.84	128	3320404	131.93 ng/uL	97
32) 4-Chloroaniline	10.95	127	986224	107.24 ng/uL	99
33) Hexachlorobutadiene	11.05	225	810927	125.37 ng/uL	99
34) 4-Chloro-3-methylphenol	11.72	107	1994662	125.19 ng/uL	93
35) 2-Methylnaphthalene	11.94	142	1999080	133.93 ng/uL	91
37) Hexachlorocyclopentadiene	12.17	237	785421	170.85 ng/uL	99
38) 2,4,6-Trichlorophenol	12.36	196	878733	147.00 ng/uL	99
39) 2,4,5-Trichlorophenol	12.41	196	882113	136.05 ng/uL	99
41) 2-Chloronaphthalene	12.66	162	2239839	137.82 ng/uL	97
42) 2-Nitroaniline	12.81	65	853429	164.22 ng/uL	98
43) Dimethylphthalate	13.06	163	2517381	130.74 ng/uL	100
44) 2,6-Dinitrotoluene	13.15	165	590687	135.65 ng/uL	91
45) Acenaphthylene	13.23	152	3178298	139.36 ng/uL	99
46) 3-Nitroaniline	13.38	138	347182	88.61 ng/uL	98
47) Acenaphthene	13.46	153	2047109	146.31 ng/uL	93
48) 2,4-Dinitrophenol	13.51	184	459727	195.52 ng/uL#	96
49) 4-Nitrophenol	13.59	109	741849	153.86 ng/uL	94
50) Dibenzofuran	13.70	168	3184678	139.71 ng/uL	90
51) 2,4-Dinitrotoluene	13.68	165	792843	141.07 ng/uL	87
52) Diethylphthalate	13.99	149	2633467	134.58 ng/uL	98
53) Fluorene	14.15	166	2337113	138.32 ng/uL	99
54) 4-Chlorophenyl phenyl ethe	14.14	204	1266356	139.54 ng/uL	97
55) 4-Nitroaniline	14.19	138	211216	55.85 ng/uL	91
56) Azobenzene	14.35	77	3684499	146.52 ng/uL	98
59) 4,6-Dinitro-2-methylphenol	14.22	198	557129	144.40 ng/uL	100
60) n-Nitrosodiphenylamine	14.29	169	1033713	81.28 ng/uL	99
61) 4-Bromophenyl phenyl ether	14.77	248	687017	128.20 ng/uL	97
62) Hexachlorobenzene	14.86	284	861747	128.96 ng/uL	97
63) Pentachlorophenol	15.10	266	588234	165.77 ng/uL	99
64) Phenanthrene	15.40	178	3523521	135.09 ng/uL	99
65) Anthracene	15.46	178	3230992	127.06 ng/uL	99
66) Carbazole	15.64	167	1074528	49.07 ng/uL	98
67) Di-n-butylphthalate	16.05	149	4513184	145.34 ng/uL	98
68) Fluoranthene	16.89	202	3604382	135.17 ng/uL	97
70) Benzidine	17.03	184	56316	31.28 ng/uL#	78
71) Pyrene	17.18	202	3954977	102.75 ng/uL	95
73) Butylbenzylphthalate	17.93	149	1967739	116.43 ng/uL	91
74) Benzo[a]anthracene	18.68	228	3168908	121.48 ng/uL	98
75) 3,3'-Dichlorobenzidine	18.63	252	870972	98.44 ng/uL	97
76) Chrysene	18.73	228	2877512	118.75 ng/uL	98
77) Bis(2-ethylhexyl)phthalate	18.63	149	2674846	147.25 ng/uL	98

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

Data File : C:\HPCHEM\1\DATA\111297\P0251.D
Acq On : 12 Nov 97 4:33 pm
Sample : 120 ng 8270 std
Misc : 1283-55-03
Quant Time: Nov 13 8:52 1997

Vial: 7
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
79) Di-n-octylphthalate	19.40	149	3780553	137.12	ng/uL	94
80) Benzo[b]fluoranthene	20.02	252	4545211	218.33	ng/uLm	98
81) Benzo[k]fluoranthene	20.02	252	4571649	157.37	ng/uLm	98
82) Benzo[a]pyrene	20.44	252	1848692	120.92	ng/uL	98
83) Indeno(1,2,3-c,d)pyrene	22.29	276	1674885	127.90	ng/uL	98
84) Dibenzo[a,h]anthracene	22.30	278	1428910	130.41	ng/uL	97
85) Benzo[g,h,i]perylene	22.81	276	1273566	121.77	ng/uL	99

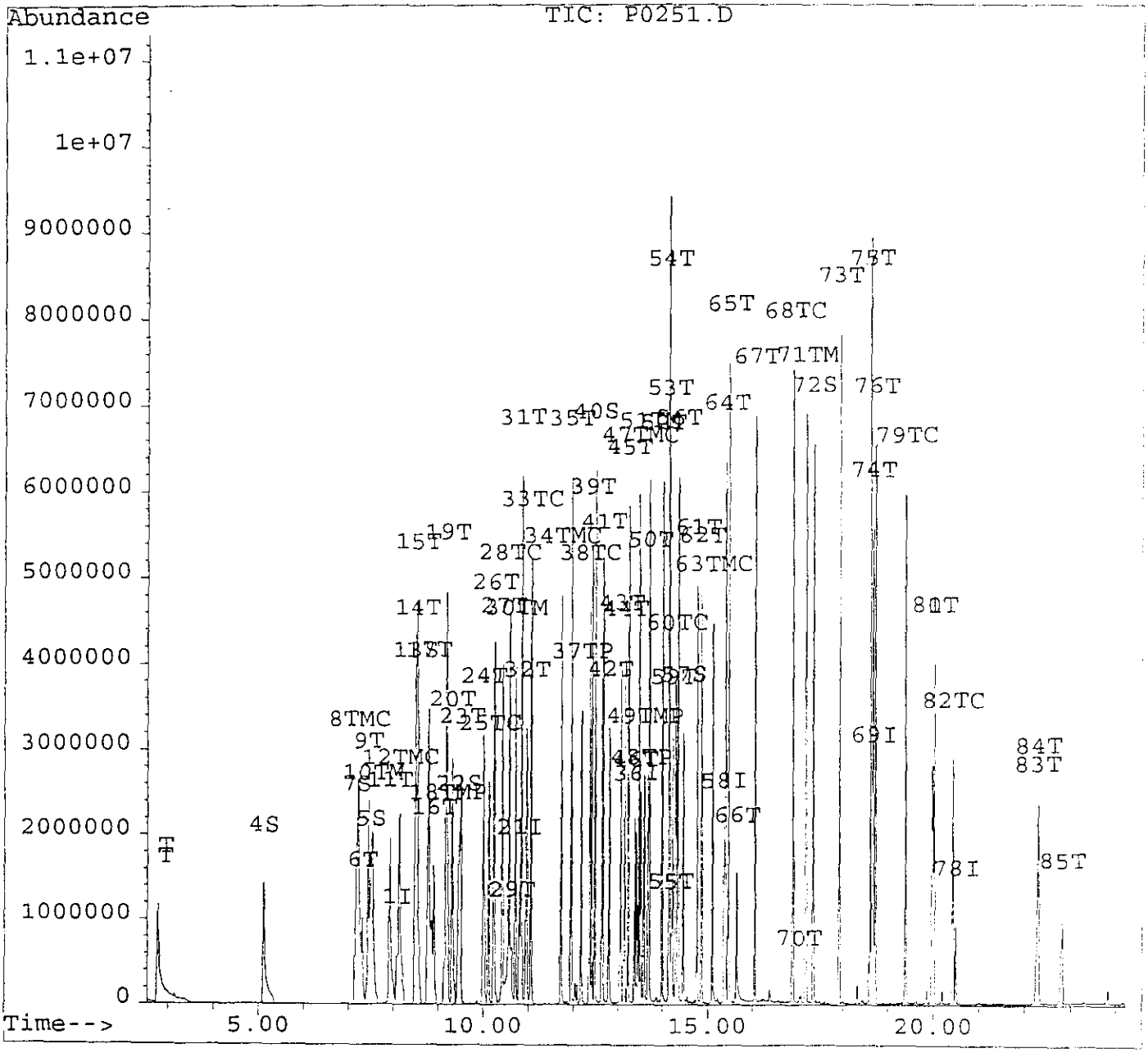
03 11/13/97

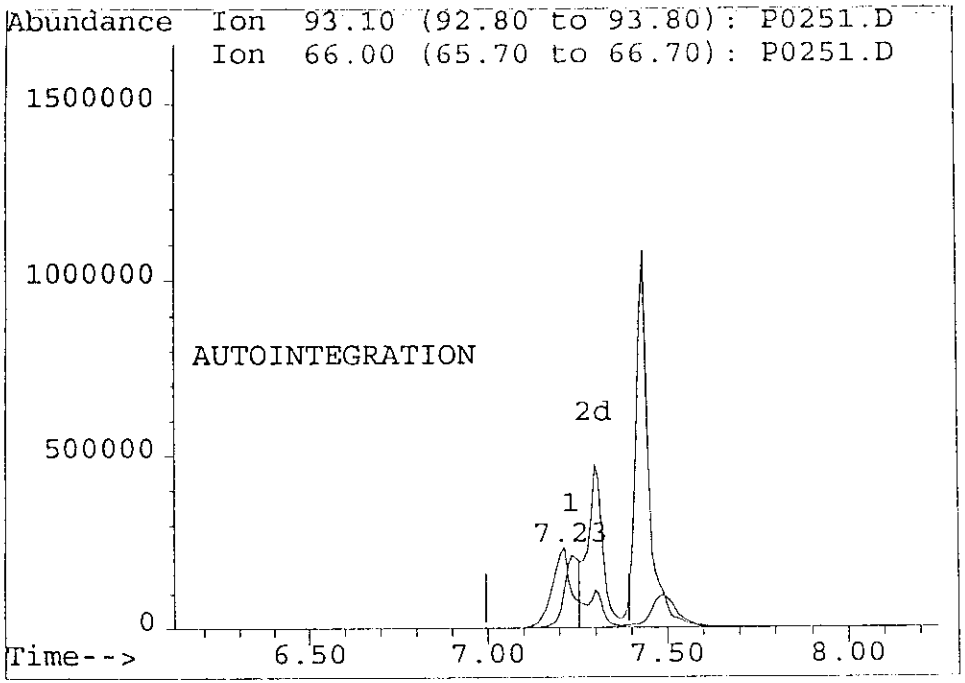
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\111297\P0251.D
Acq On : 12 Nov 97 4:33 pm
Sample : 120 ng 8270 std
Misc : 1283-55-03
Quant Time: Nov 13 8:52 1997

Vial: 7
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration





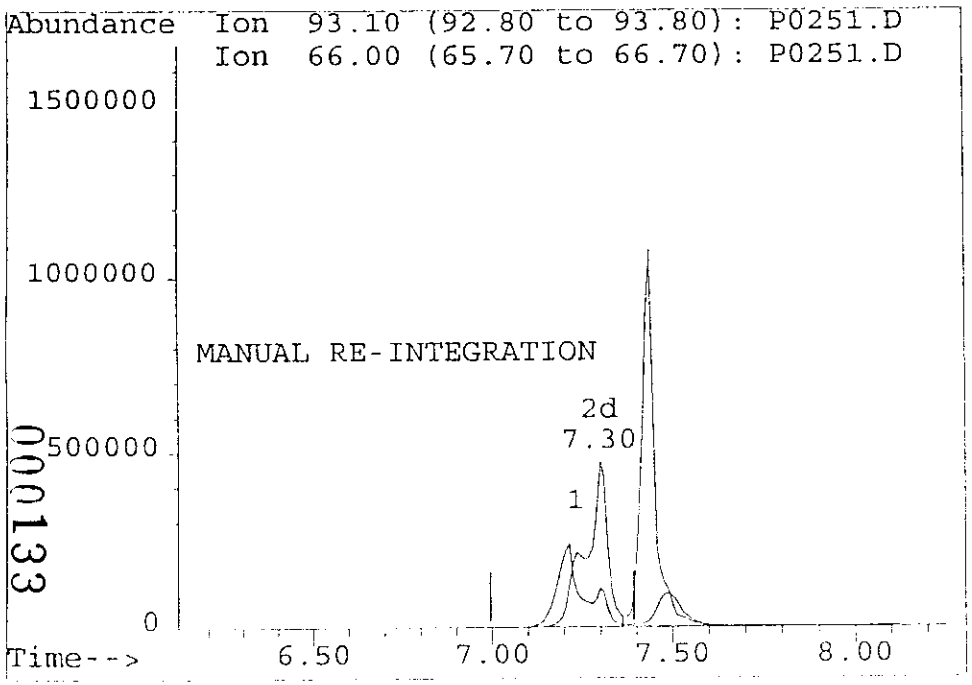
TIC: P0251.D

(6) Aniline (T)

7.23min 35.58ng/uL

response 639250

Ion	Exp%	Act%
93.10	100	100
66.00	24.70	147.89#
0.00	0.00	0.00
0.00	0.00	0.00



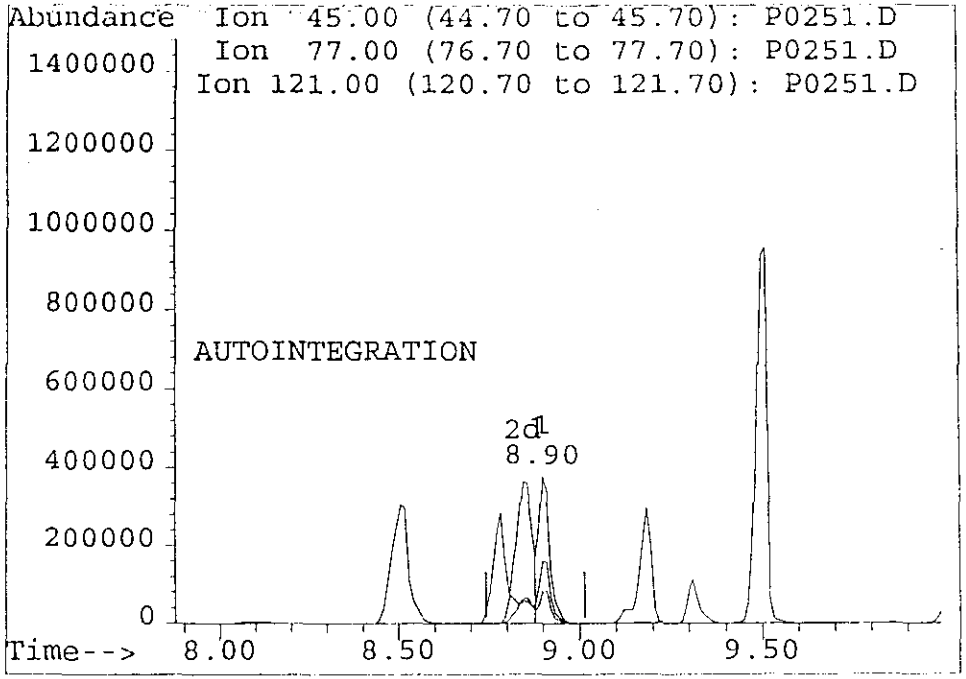
TIC: P0251.D

(6) Aniline (T)

7.30min 109.51ng/uL m

response 1967560

Ion	Exp%	Act%
93.10	100	100
66.00	24.70	23.21
0.00	0.00	0.00
0.00	0.00	0.00



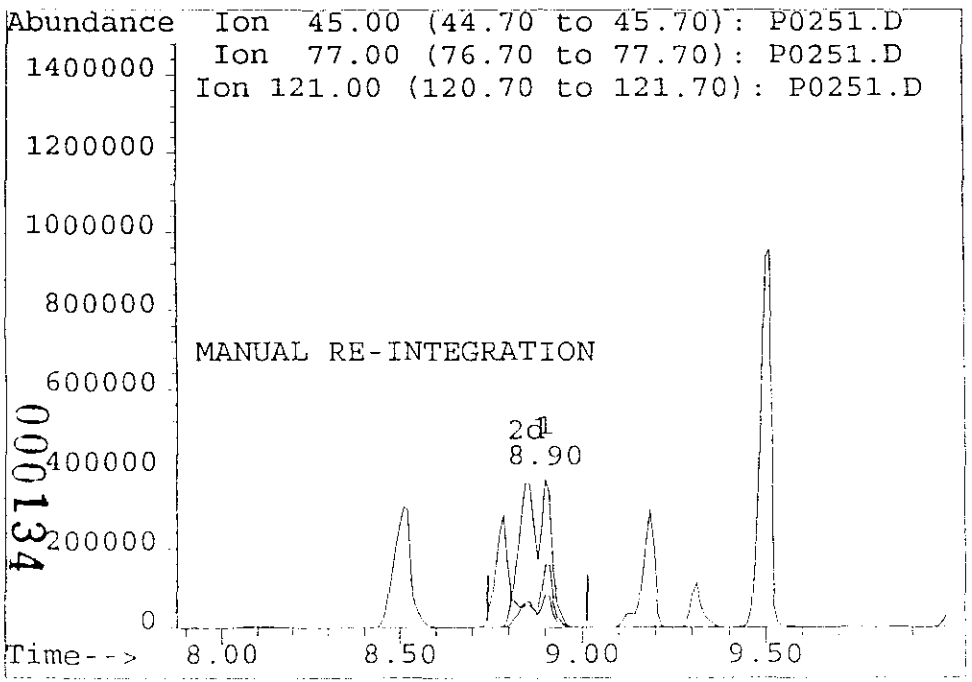
TIC: P0251.D

(16) Bis(2-chloroisopropyl)ether

8.90min 63.24ng/uL

response 767291

Ion	Exp%	Act%
45.00	100	100
77.00	40.60	43.19
121.00	21.50	22.69
0.00	0.00	0.00



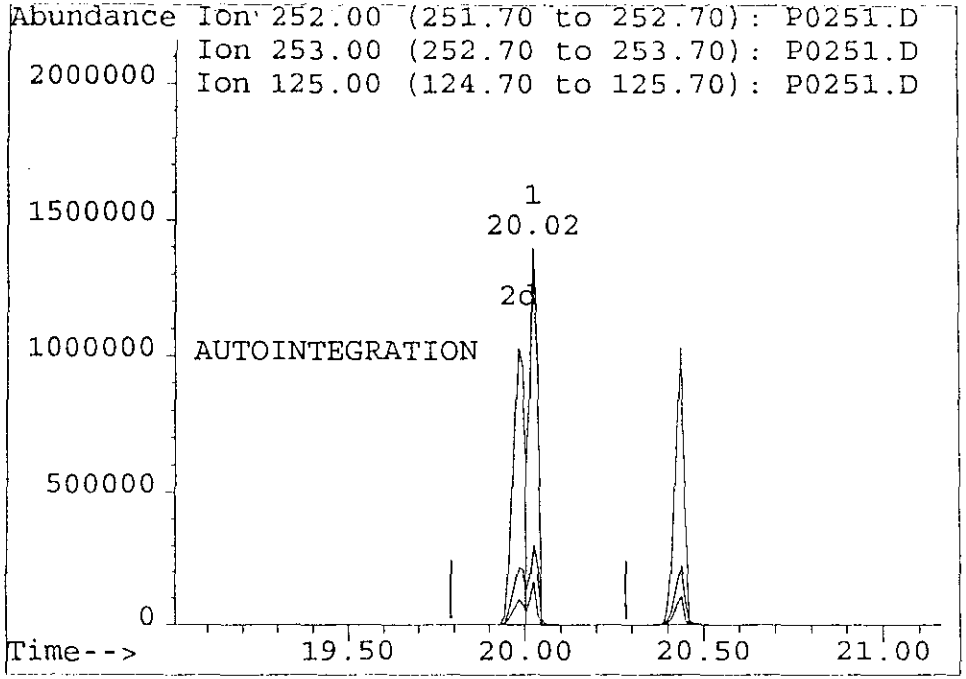
TIC: P0251.D

(16) Bis(2-chloroisopropyl)ether

8.90min 161.81ng/uL m

response 1963092

Ion	Exp%	Act%
45.00	100	100
77.00	40.60	42.60
121.00	21.50	22.22
0.00	0.00	0.00



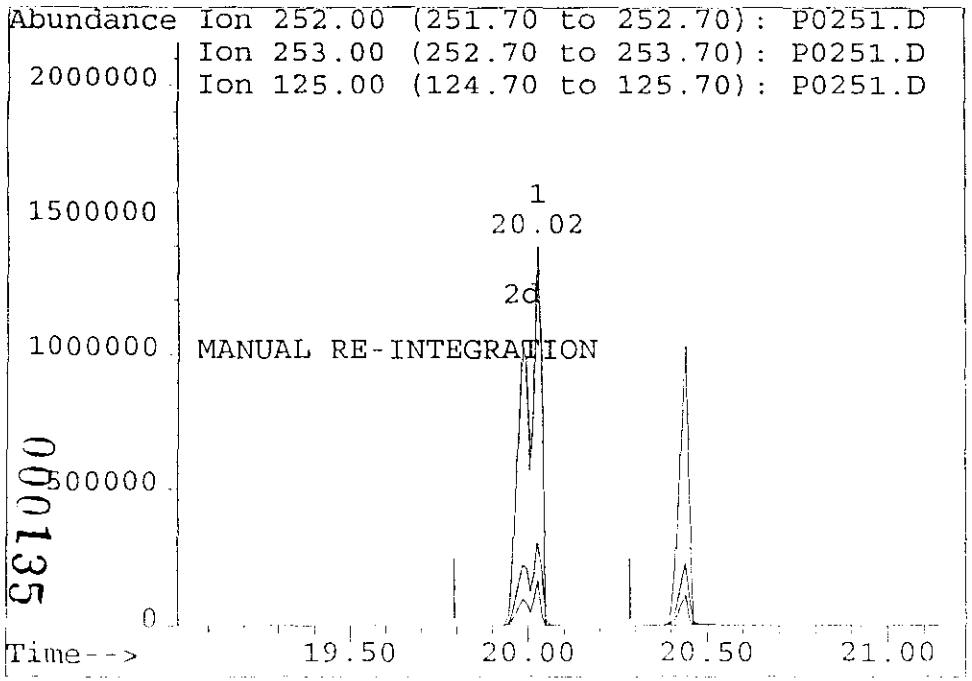
TIC: P0251.D

(80) Benzo[b]fluoranthene (T)

20.02min 98.25ng/uL

response 2045395

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	21.86
125.00	6.10	8.95#
0.00	0.00	0.00



TIC: P0251.D

(80) Benzo[b]fluoranthene (T)

20.02min 218.33ng/uL m

response 4545211

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	21.77
125.00	6.10	11.61
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\111297\P0252.D
Acq On : 12 Nov 97 5:04 pm
Sample : 160 ng 8270 std
Misc : 1283-55-04
Quant Time: Nov 13 8:53 1997

Vial: 8
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.08	152	284797	40.00	ng/uL	0.01
21) Naphthalene-d8	10.80	136	927729	40.00	ng/uL	0.02
36) Acenaphthene-d10	13.42	164	575062	40.00	ng/uL	0.02
58) Phenanthrene-d10	15.36	188	1023404	40.00	ng/uL	0.02
69) Chrysene-d12	18.70	240	843586	40.00	ng/uL	0.03
78) Perylene-d12	20.51	264	421621	40.00	ng/uL	0.02
System Monitoring Compounds						%Recovery
4) 2-Fluorophenol	5.12	112	3057155	161.66	ng/uL	215.55%
5) 2-Chlorophenol-d4	7.53	132	1502423	177.89	ng/uL	237.18%
7) Phenol-d5	7.20	99	4539671	181.11	ng/uL	241.48%
13) 1,2-Dichlorobenzene-d4	8.51	152	1276556	179.41	ng/uL	358.81%
22) Nitrobenzene-d5	9.48	82	3655177	194.88	ng/uL	389.75%
40) 2-Fluorobiphenyl	12.49	172	3724520	166.50	ng/uL	333.01%
57) 2,4,6-Tribromophenol	14.47	330	567421	180.57	ng/uL	240.76%
72) p-Terphenyl-d14	17.35	244	3789555	146.24	ng/uL	292.47%
Target Compounds						Qvalue
2) Pyridine	2.80	79	2613819	160.04	ng/uL	100
3) n-Nitrosodimethylamine	2.78	74	1578734	180.34	ng/uL	99
6) Aniline	7.35	93	2869266	131.16	ng/uLm	92
8) Phenol	7.24	94	5257452	183.66	ng/uL	83
9) Bis(2-chloroethyl)ether	7.47	93	3733941	169.95	ng/uL	97
10) 2-Chlorophenol	7.56	128	1841786	175.34	ng/uL	96
11) 1,3-Dichlorobenzene	7.93	146	1792952	162.42	ng/uL	98
12) 1,4-Dichlorobenzene	8.15	146	1974640	163.44	ng/ul#	95
14) 1,2-Dichlorobenzene	8.55	146	2031287	182.05	ng/uL	96
15) Benzyl Alcohol	8.54	108	2328952	169.61	ng/uL	95
16) Bis(2-chloroisopropyl)ethe	8.92	45	3172740	214.79	ng/uLm	53
17) 2-Methylphenol	8.81	108	3219900	172.32	ng/uL	95
18) n-Nitroso-di-n-propylamine	9.26	70	1706784	198.61	ng/uL	95
19) 4-Methylphenol	9.22	108	3329022	171.73	ng/uLm	99
20) Hexachloroethane	9.31	117	1426225	158.75	ng/uL	96
23) Nitrobenzene	9.52	77	3161982	189.02	ng/uL	94
24) Isophorone	10.03	82	6805615	192.44	ng/uL	100
25) 2-Nitrophenol	10.14	139	1078580	172.38	ng/uL	89
26) 2,4-Dimethylphenol	10.27	122	2097866	176.95	ng/uL	89
27) Bis(2-chloroethoxy)methane	10.43	93	4964541	175.98	ng/uL	99
28) 2,4-Dichlorophenol	10.60	162	1740796	180.58	ng/uL	89
29) Benzoic acid	10.69	105	2776488	345.19	ng/uLm	1
30) 1,2,4-Trichlorobenzene	10.71	180	1791465	170.94	ng/uL	99

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

Data File : C:\HPCHEM\1\DATA\111297\P0252.D
Acq On : 12 Nov 97 5:04 pm
Sample : 160 ng 8270 std
Misc : 1283-55-04
Quant Time: Nov 13 8:53 1997

Vial: 8
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Naphthalene	10.85	128	5483839	185.66 ng/uL	97
32) 4-Chloroaniline	10.97	127	1448303	134.19 ng/uL	100
33) Hexachlorobutadiene	11.06	225	1240743	163.44 ng/uL	99
34) 4-Chloro-3-methylphenol	11.74	107	3092976	165.41 ng/uL	88
35) 2-Methylnaphthalene	11.95	142	3277693	187.11 ng/uL	88
37) Hexachlorocyclopentadiene	12.17	237	1168545	210.48 ng/uL	99
38) 2,4,6-Trichlorophenol	12.37	196	1349652	186.96 ng/uL	99
39) 2,4,5-Trichlorophenol	12.42	196	1348186	172.19 ng/uL	97
41) 2-Chloronaphthalene	12.66	162	3381611	172.30 ng/uL	96
42) 2-Nitroaniline	12.82	65	1232888	196.45 ng/uL	98
43) Dimethylphthalate	13.08	163	3712866	159.67 ng/uL	99
44) 2,6-Dinitrotoluene	13.17	165	976069	185.61 ng/uL	89
45) Acenaphthylene	13.24	152	4899345	177.88 ng/uL	99
46) 3-Nitroaniline	13.39	138	648132	136.98 ng/uL	97
47) Acenaphthene	13.48	153	2882754	170.61 ng/uL	93
48) 2,4-Dinitrophenol	13.53	184	685722	241.49 ng/uL#	99
49) 4-Nitrophenol	13.61	109	1148014	197.16 ng/uL	94
50) Dibenzofuran	13.70	168	4738122	172.12 ng/uL	88
51) 2,4-Dinitrotoluene	13.70	165	1375812	202.71 ng/uL#	73
52) Diethylphthalate	14.00	149	3840941	162.54 ng/uL	98
53) Fluorene	14.16	166	3614101	177.12 ng/uL	98
54) 4-Chlorophenyl phenyl ethe	14.14	204	1917299	174.94 ng/uL	92
55) 4-Nitroaniline	14.22	138	400723	87.75 ng/uL	92
56) Azobenzene	14.36	77	5255730	173.07 ng/uL	97
59) 4,6-Dinitro-2-methylphenol	14.25	198	864449	203.16 ng/uL	99
60) n-Nitrosodiphenylamine	14.31	169	1757942	125.33 ng/uL	97
61) 4-Bromophenyl phenyl ether	14.77	248	1008910	170.71 ng/uL	94
62) Hexachlorobenzene	14.87	284	1223857	166.07 ng/uL	98
63) Pentachlorophenol	15.11	266	875484	223.71 ng/uL	98
64) Phenanthrene	15.40	178	5058530	175.86 ng/uL	99
65) Anthracene	15.47	178	5159084	183.96 ng/uL	99
66) Carbazole	15.65	167	2179774	90.27 ng/uL	96
67) Di-n-butylphthalate	16.06	149	7468038	218.07 ng/uL	97
68) Fluoranthene	16.90	202	5779634	196.52 ng/uL	96
70) Benzidine	17.03	184	127797	62.28 ng/uL#	86
71) Pyrene	17.20	202	5837951	133.04 ng/uL	96
73) Butylbenzylphthalate	17.94	149	3311653	171.89 ng/uL	84
74) Benzo[a]anthracene	18.68	228	4790245	161.09 ng/uL	98
75) 3,3'-Dichlorobenzidine	18.64	252	1340228	132.88 ng/uL#	97
76) Chrysene	18.74	228	4448595	161.04 ng/uL	98
77) Bis(2-ethylhexyl)phthalate	18.63	149	4567190	220.55 ng/uL	98

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

Data File : C:\HPCHEM\1\DATA\111297\P0252.D
Acq On : 12 Nov 97 5:04 pm
Sample : 160 ng 8270 std
Misc : 1283-55-04
Quant Time: Nov 13 8:53 1997

Vial: 8
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

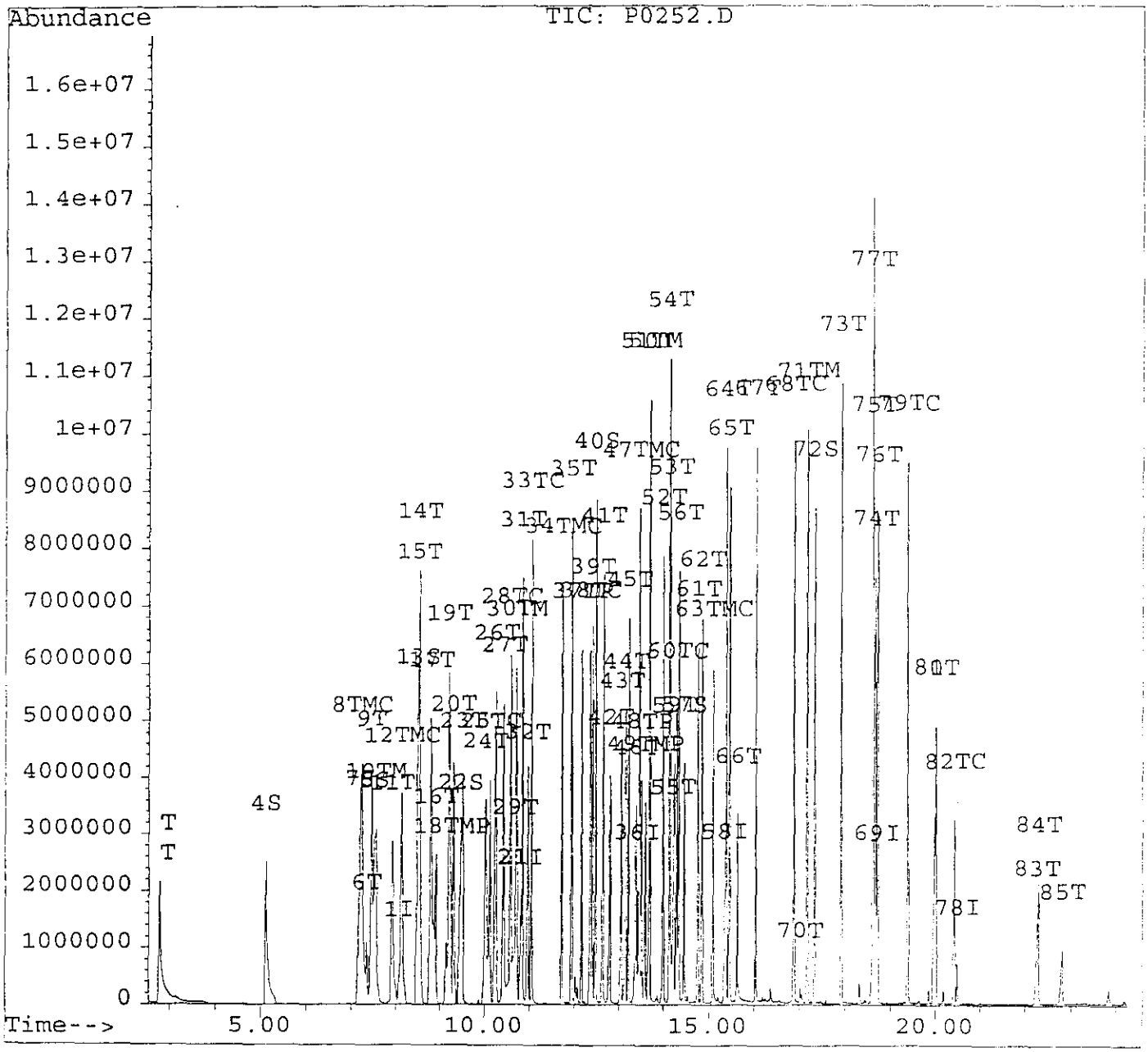
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	Di-n-octylphthalate	19.40	149	6626950	276.07 ng/uL	94
80)	Benzo[b]fluoranthene	20.04	252	5750310	317.27 ng/uL#	97
81)	Benzo[k]fluoranthene	20.04	252	5741704	227.02 ng/uL#	97
82)	Benzo[a]pyrene	20.44	252	2201687	165.40 ng/uL	98
83)	Indeno(1,2,3-c,d)pyrene	22.27	276	1546307	135.63 ng/uL	97
84)	Dibenzo[a,h]anthracene	22.30	278	1333334	139.77 ng/uL	98
85)	Benzo[g,h,i]perylene	22.81	276	1158468	127.23 ng/uL	99

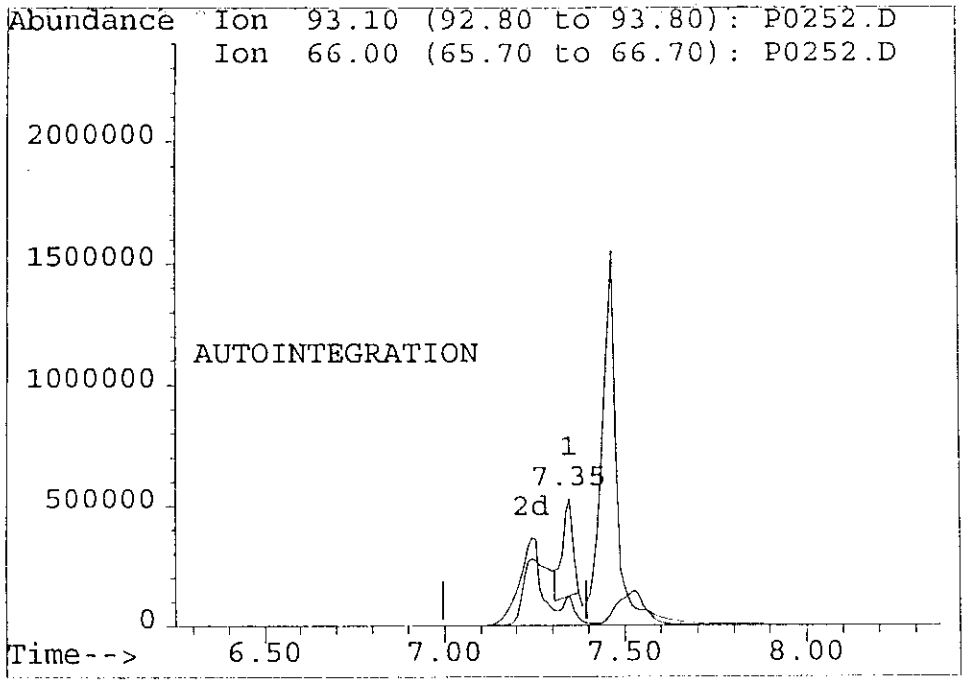
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\111297\P0252.D
Acq On : 12 Nov 97 5:04 pm
Sample : 160 ng 8270 std
Misc : 1283-55-04
Quant Time: Nov 13 8:53 1997

Vial: 8
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration





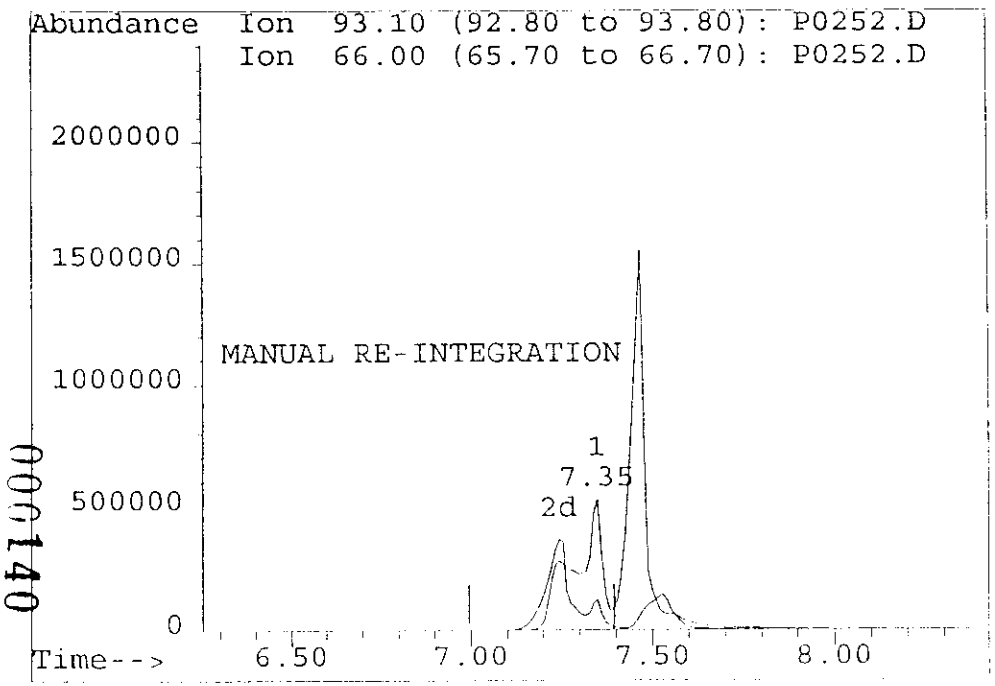
TIC: P0252.D

(6) Aniline (T)

7.35min 37.41ng/uL

response 818274

Ion	Exp%	Act%
93.10	100	100
66.00	24.70	20.57
0.00	0.00	0.00
0.00	0.00	0.00



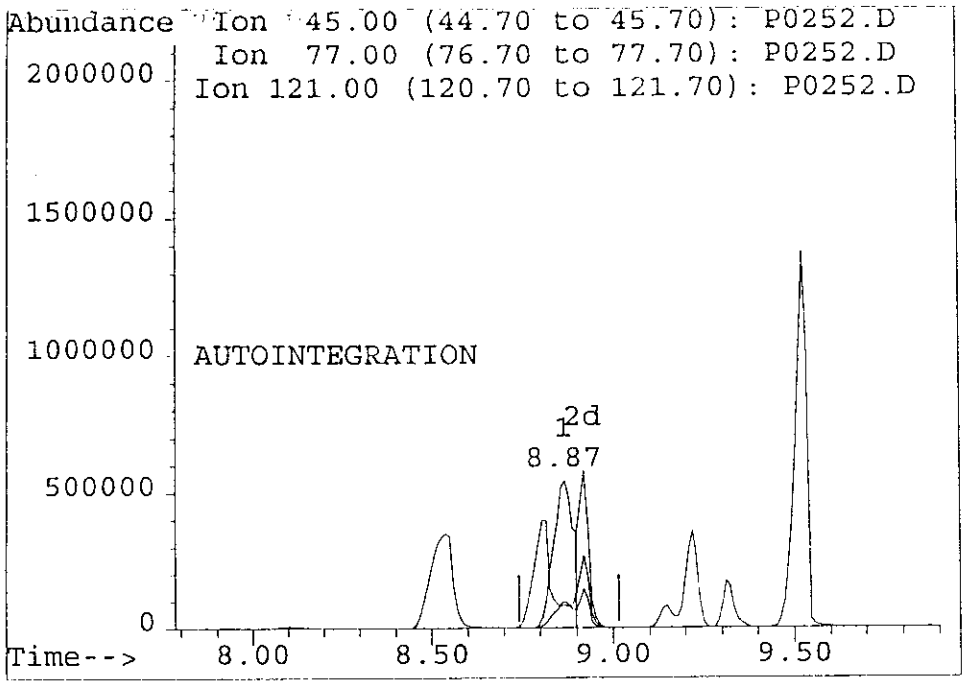
TIC: P0252.D

(6) Aniline (T)

7.35min 131.16ng/uL m

response 2869266

Ion	Exp%	Act%
93.10	100	100
66.00	24.70	23.41
0.00	0.00	0.00
0.00	0.00	0.00



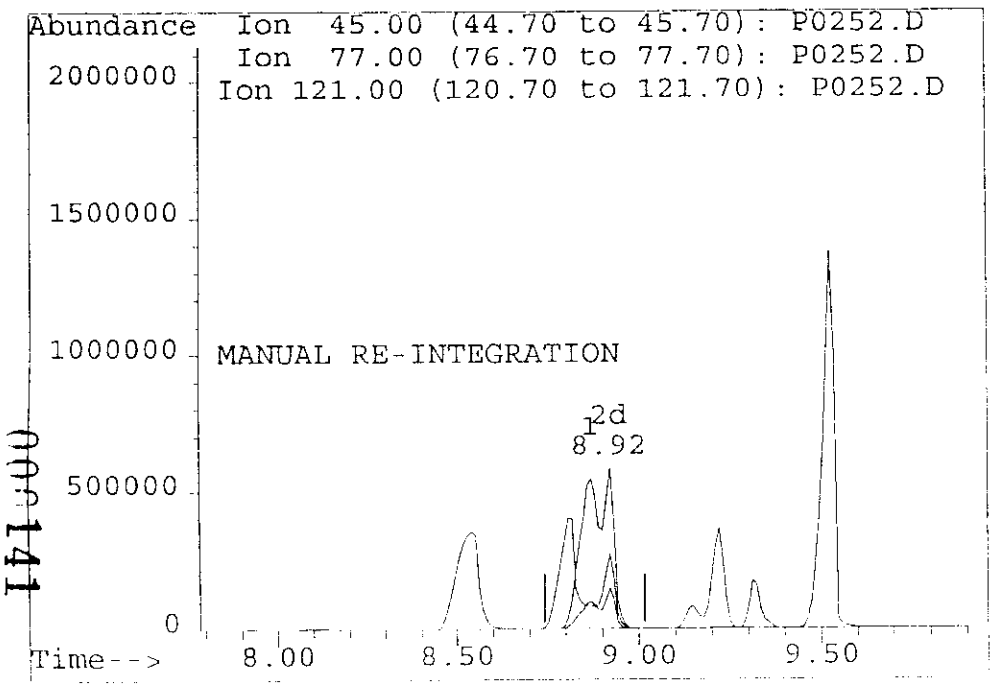
TIC: P0252.D

(16) Bis(2-chloroisopropyl)ether

8.87min 142.33ng/uL

response 2102417

Ion	Exp%	Act%
45.00	100	100
77.00	40.60	0.00#
121.00	21.50	15.90#
0.00	0.00	0.00



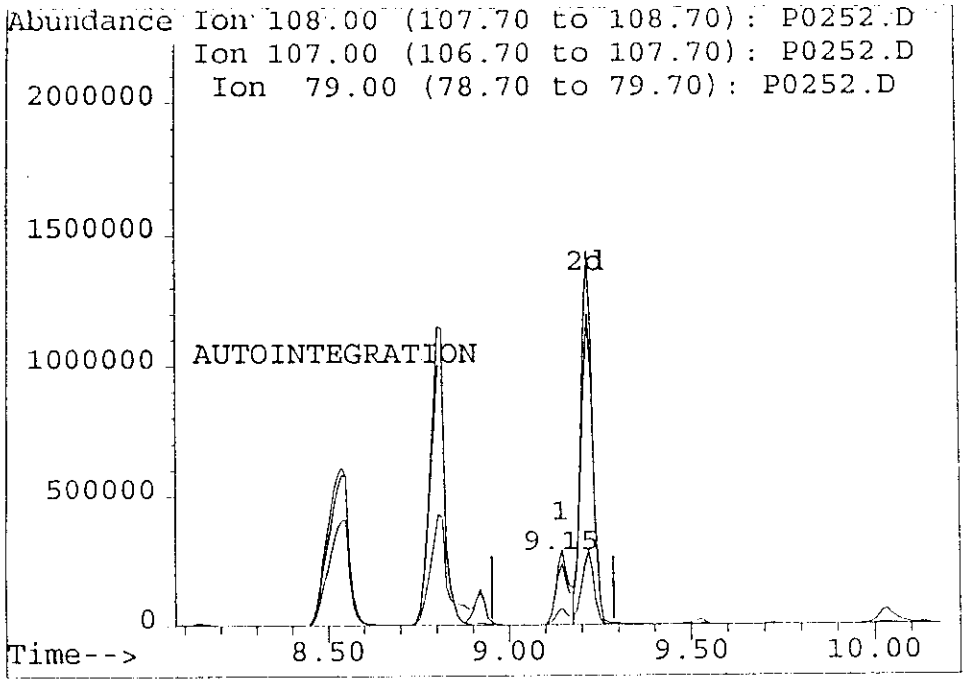
TIC: P0252.D

(16) Bis(2-chloroisopropyl)ether

8.92min 214.79ng/uL m

response 3172740

Ion	Exp%	Act%
45.00	100	100
77.00	40.60	46.21
121.00	21.50	24.98
0.00	0.00	0.00



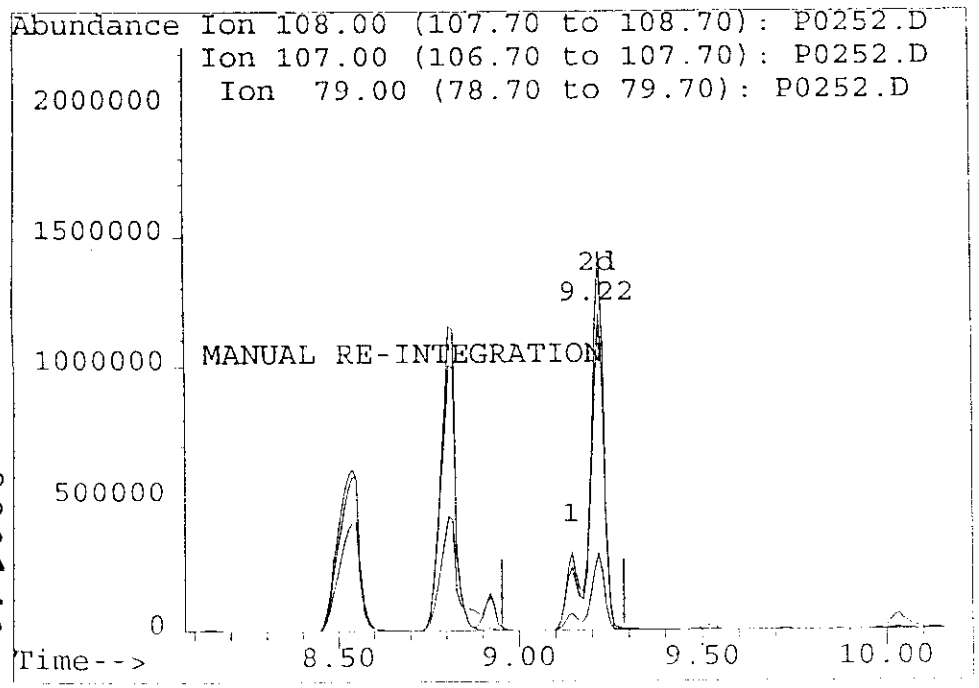
TIC: P0252.D

(19) 4-Methylphenol (T)

9.15min 32.25ng/uL

response 625122

Ion	Exp%	Act%
108.00	100	100
107.00	121.40	120.67
79.00	25.00	26.70
0.00	0.00	0.00



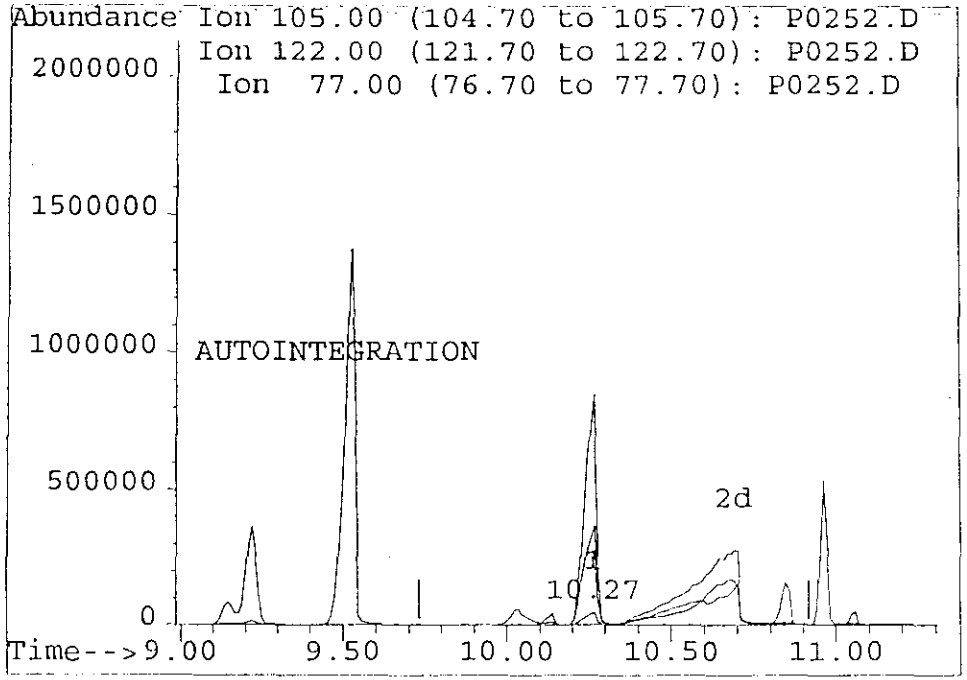
TIC: P0252.D

(19) 4-Methylphenol (T)

9.22min 171.73ng/uL m

response 3329022

Ion	Exp%	Act%
108.00	100	100
107.00	121.40	120.20
79.00	25.00	23.87
0.00	0.00	0.00



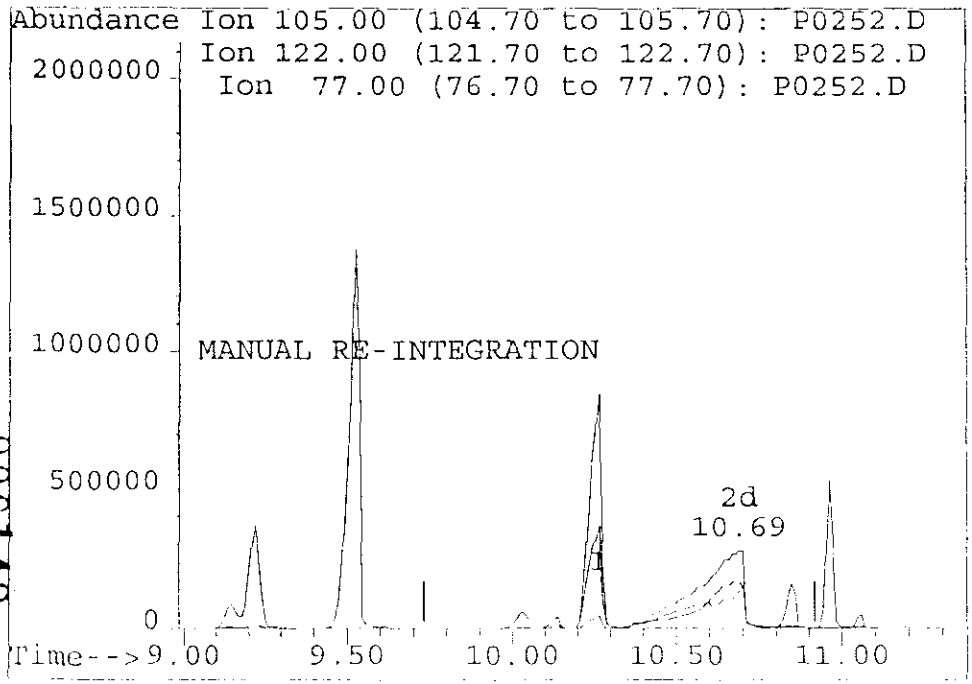
TIC: P0252.D

(29) Benzoic acid (T)

10.27min 15.03ng/uL

response 120928

Ion	Exp%	Act%
105.00	100	100
122.00	43.80	1734.81#
77.00	60.40	811.09#
0.00	0.00	0.00



TIC: P0252.D

(29) Benzoic acid (T)

10.69min 345.19ng/uL m

response 2776488

Ion	Exp%	Act%
105.00	100	100
122.00	43.80	47.47
77.00	60.40	60.09
0.00	0.00	0.00

Sample Raw Data

Data File : C:\HPCHEM\1\DATA\111197\P0222.D
Acq On : 11 Nov 97 1:49 pm
Sample : SRB1 111097
Misc : SRB1 111097
Quant Time: Nov 11 14:13 1997

Vial: 1
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.15	152	126036	40.00 ng/uL	0.00 OK
21) Naphthalene-d8	10.83	136	394416	40.00 ng/uL	0.00
36) Acenaphthene-d10	13.45	164	229303	40.00 ng/uL	0.00
58) Phenanthrene-d10	15.38	188	387550	40.00 ng/uL	0.00
69) Chrysene-d12	18.71	240	182499	40.00 ng/uL	0.00
78) Perylene-d12	20.54	264	118983	40.00 ng/uL	0.00

System Monitoring Compounds					%Recovery
4) 2-Fluorophenol	5.14	112	420767	49.20 ng/uL	65.60%
5) 2-Chlorophenol-d4	7.52	132	197785	51.51 ng/uL	68.68%
7) Phenol-d5	7.18	99	590724	54.41 ng/uL	72.54%
13) 1,2-Dichlorobenzene-d4	8.56	152	107892	33.82 ng/uL	67.64%
22) Nitrobenzene-d5	9.48	82	252360	34.98 ng/uL	69.97%
40) 2-Fluorobiphenyl	12.51	172	303520	34.37 ng/uL	68.74%
57) 2,4,6-Tribromophenol	14.49	330	54367	47.30 ng/uL	63.07%
72) p-Terphenyl-d14	17.38	244	221552	36.45 ng/uL	72.89%

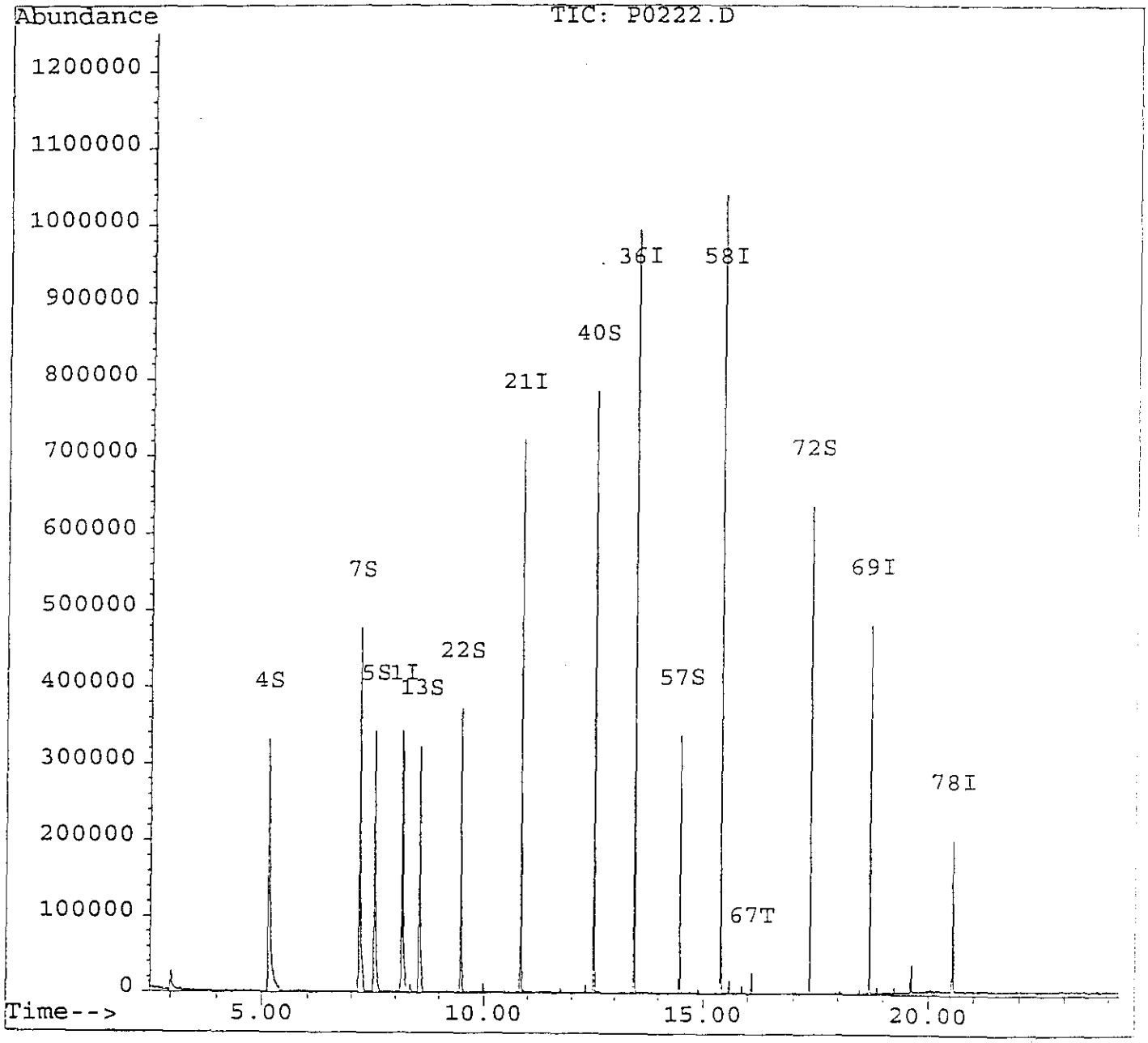
Target Compounds					Qvalue
67) Di-n-butylphthalate	16.07	149	19560	1.50 ng/uL	98

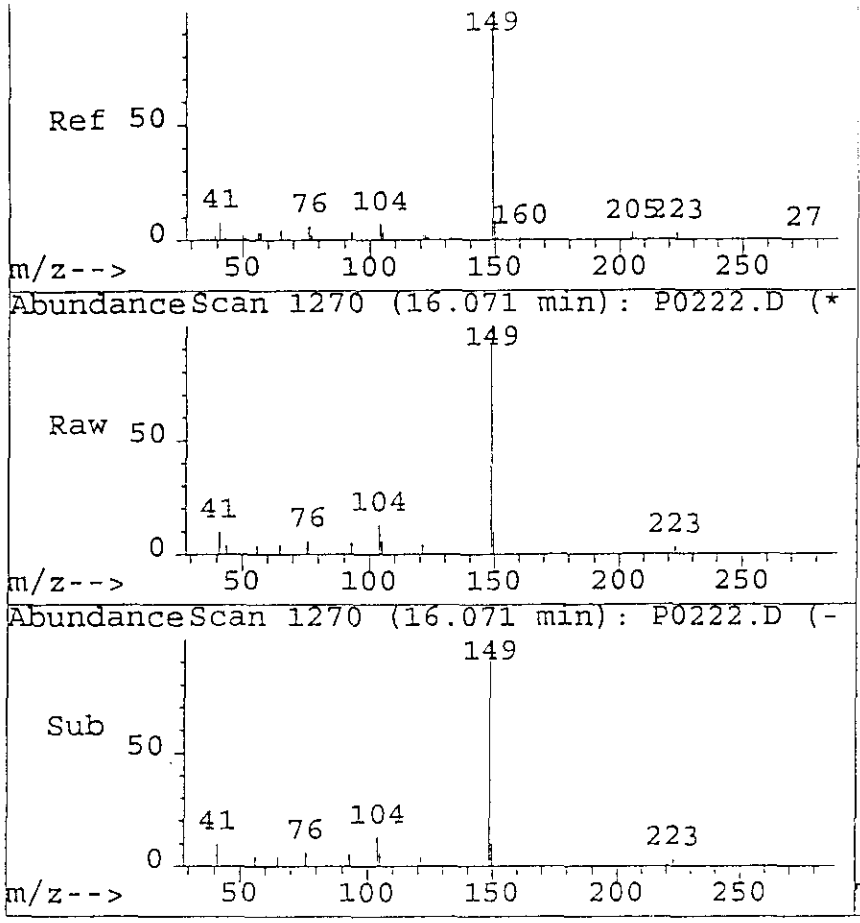
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\111197\P0222.D
Acq On : 11 Nov 97 1:49 pm
Sample : SRB1 111097
Misc : SRB1 111097
Quant Time: Nov 11 14:13 1997

Vial: 2
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration

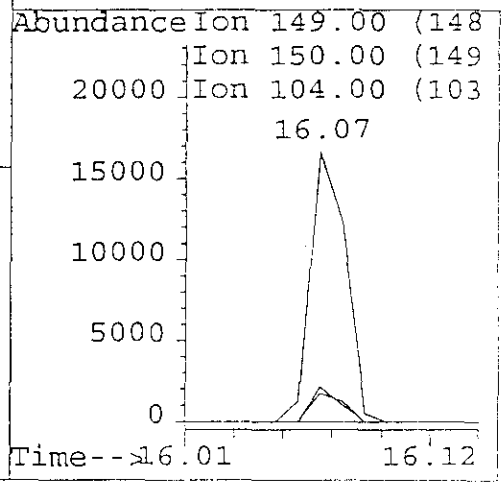




Di-n-Butylphthalate
Concen: 1.50 ng/uL
RT: 16.07 min Scan# 1270
Delta R.T. -0.01 min
Lab File: P0222.D
Acq: 11 Nov 97 1:49 pm

Tgt Ion:149 Resp: 19560

Ion	Ratio	Lower	Upper
149	100		
150	9.6	7.1	11.8
104	10.1	6.8	11.3
0	0.0	0.0	0.0



Data File : C:\HPCHEM\1\DATA\111297\P0254.D
Acq On : 12 Nov 97 6:07 pm
Sample : 9711014-1
Misc :
Quant Time: Nov 13 9:32 1997

Vial: 10
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

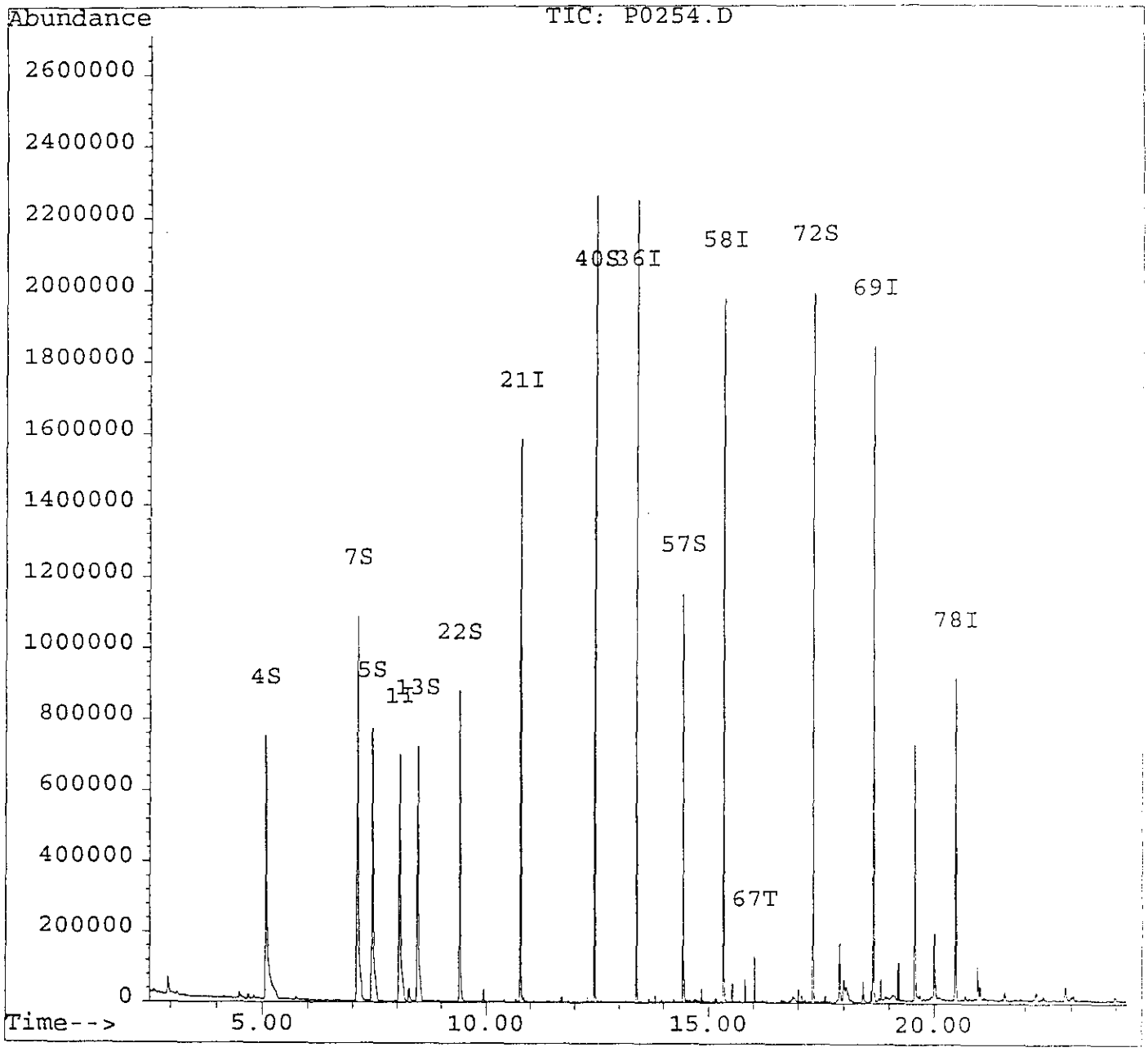
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.07	152	221426	40.00 ng/uL	0.00 OK
21) Naphthalene-d8	10.78	136	766091	40.00 ng/uL	-0.01
36) Acenaphthene-d10	13.41	164	460318	40.00 ng/uL	0.00
58) Phenanthrene-d10	15.34	188	851370	40.00 ng/uL	0.00
69) Chrysene-d12	18.67	240	700506	40.00 ng/uL	0.00
78) Perylene-d12	20.49	264	536317	40.00 ng/uL	0.00
System Monitoring Compounds					%Recovery
4) 2-Fluorophenol	5.08	112	702703	48.63 ng/uL	64.85%
5) 2-Chlorophenol-d4	7.45	132	359958	54.57 ng/uL	72.76%
7) Phenol-d5	7.12	99	1254948	58.64 ng/uL	78.19%
13) 1,2-Dichlorobenzene-d4	8.48	152	197473	34.10 ng/uL	68.19%
22) Nitrobenzene-d5	9.42	82	616339	32.98 ng/uL	65.95%
40) 2-Fluorobiphenyl	12.47	172	647785	35.96 ng/uL	71.92%
57) 2,4,6-Tribromophenol	14.45	330	169388	60.14 ng/uL	80.19%
72) p-Terphenyl-d14	17.34	244	744596	39.01 ng/uL	78.01%
Target Compounds					Qvalue
67) Di-n-butylphthalate	16.03	149	58636	1.78 ng/uL	97

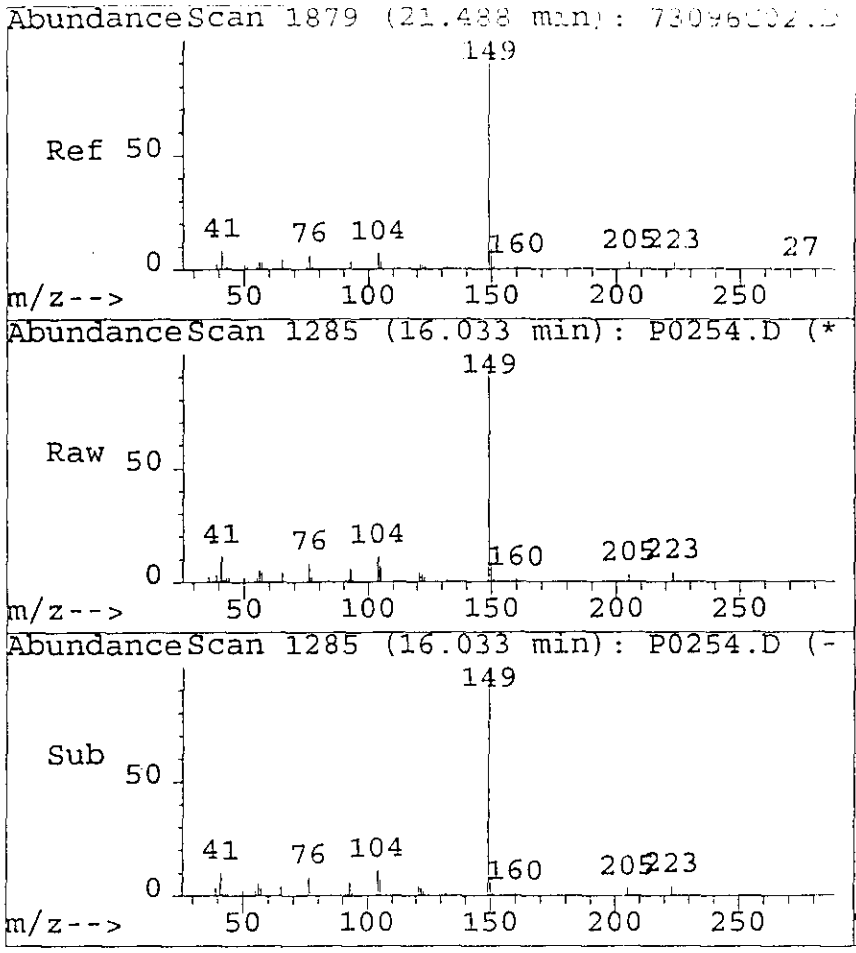
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\111297\P0254.D
Acq On : 12 Nov 97 6:07 pm
Sample : 9711014-1
Misc :
Quant Time: Nov 13 9:32 1997

Vial: 10
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

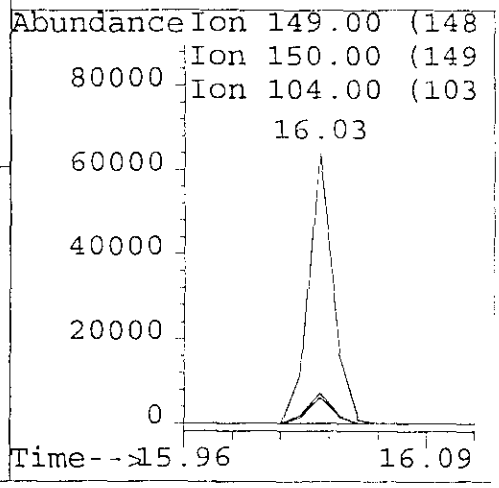




Di-n-butylphthalate
Concen 1.78 ng/uL
RT: 16 03 min Scan# 1285
Delta R.T. -0.01 min
Lab File: P0254.D
Acq: 12 Nov 97 6:07 pm

Tgt Ion:149 Resp: 58636

Ion	Ratio	Lower	Upper
149	100		
150	9.6	7.0	11.7
104	11.6	7.3	12.1
0	0.0	0.0	0.0



Data File : C:\HPCHEM\1\DATA\111297\P0255.D
Acq On : 12 Nov 97 6:38 pm
Sample : 9711014-2
Misc :
Quant Time: Nov 13 9:33 1997

Vial: 11
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.07	152	163249	40.00 ng/uL	0.00
21) Naphthalene-d8	10.79	136	546285	40.00 ng/uL	0.00
36) Acenaphthene-d10	13.41	164	352881	40.00 ng/uL	0.00
58) Phenanthrene-d10	15.34	188	640849	40.00 ng/uL	0.00
69) Chrysene-d12	18.67	240	537732	40.00 ng/uL	0.00
78) Perylene-d12	20.49	264	488447	40.00 ng/uL	0.00

OK

System Monitoring Compounds					%Recovery
4) 2-Fluorophenol	5.07	112	444380	41.72 ng/uL	55.62%
5) 2-Chlorophenol-d4	7.45	132	237152	48.77 ng/uL	65.02%
7) Phenol-d5	7.11	99	823906	52.22 ng/uL	69.63%
13) 1,2-Dichlorobenzene-d4	8.48	152	129825	30.40 ng/uL	60.81%
22) Nitrobenzene-d5	9.42	82	436124	32.72 ng/uL	65.45%
40) 2-Fluorobiphenyl	12.47	172	445254	32.24 ng/uL	64.49%
57) 2,4,6-Tribromophenol	14.45	330	120497	55.81 ng/uL	74.41%
72) p-Terphenyl-d14	17.33	244	517130	35.29 ng/uL	70.58%

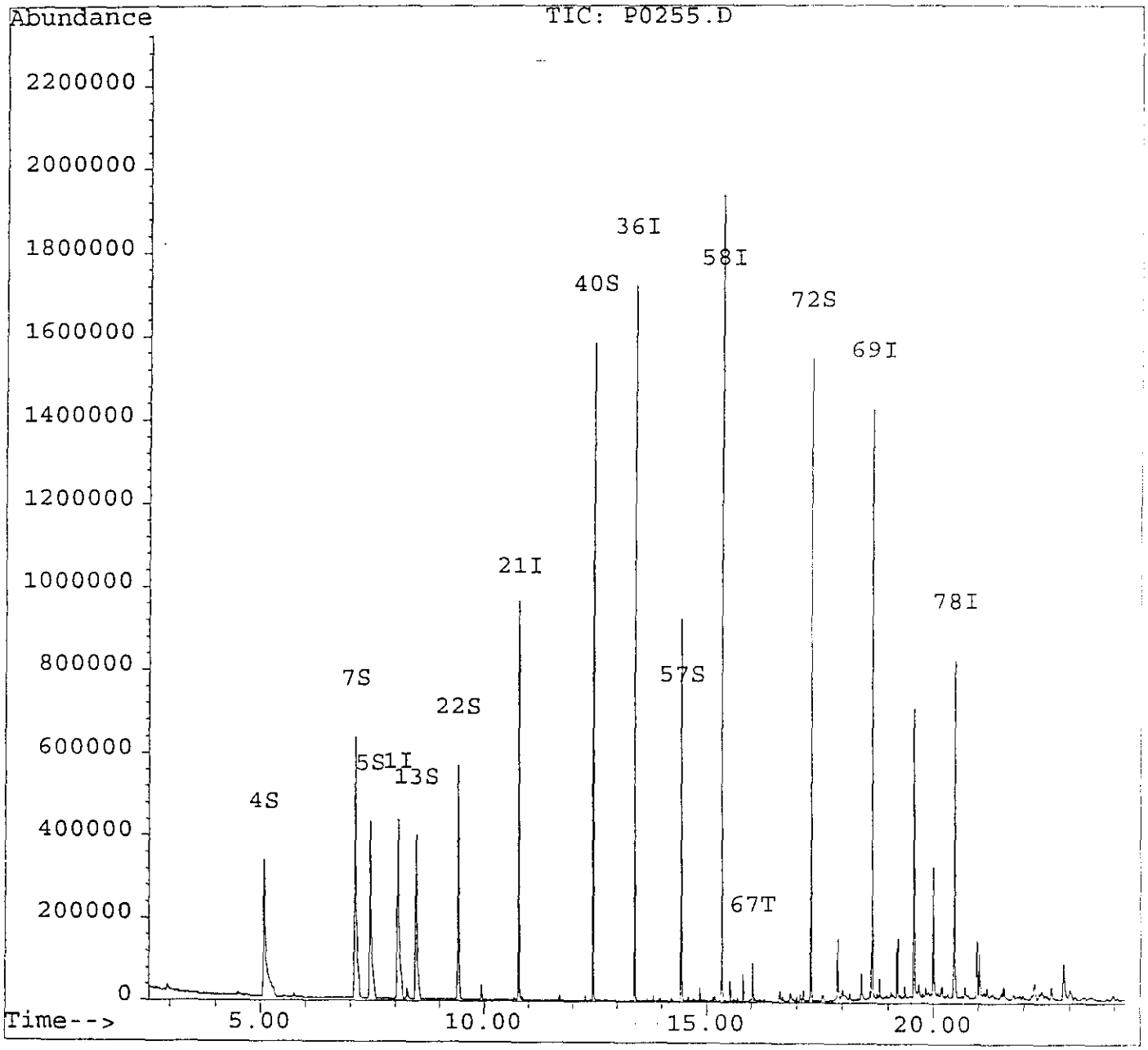
Target Compounds					Qvalue
67) Di-n-butylphthalate	16.03	149	47904	1.93 ng/uL	99

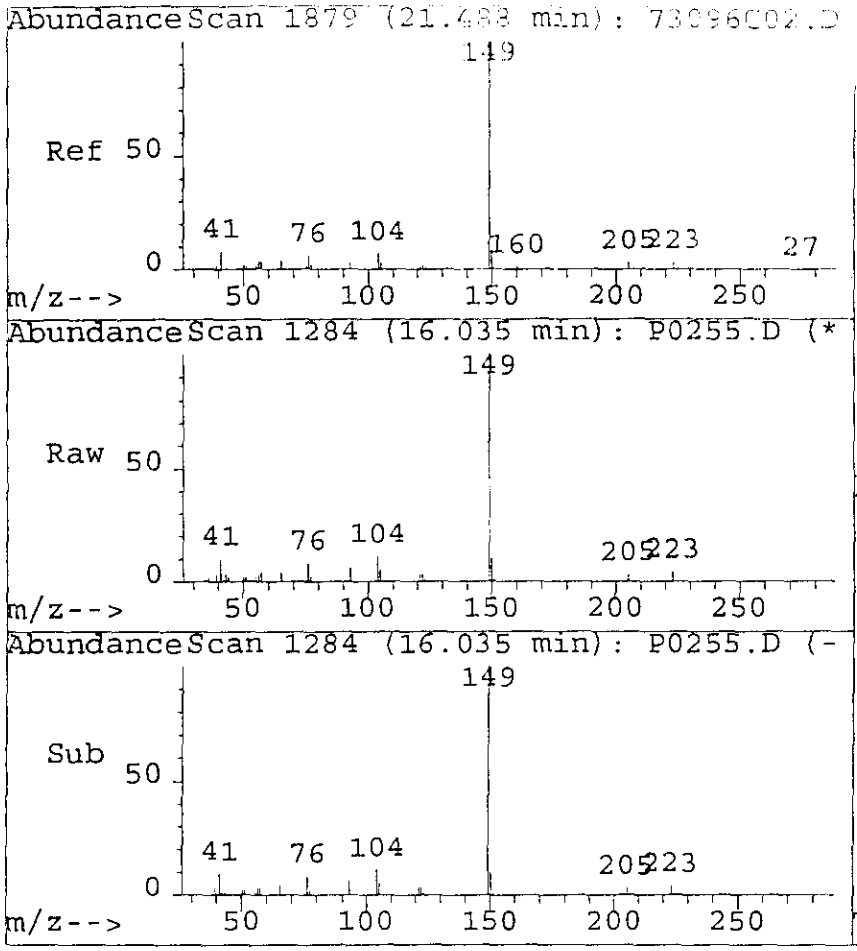
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\111297\P0255.D
Acq On : 12 Nov 97 6:38 pm
Sample : 9711014-2
Misc :
Quant Time: Nov 13 9:33 1997

Vial: 11
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

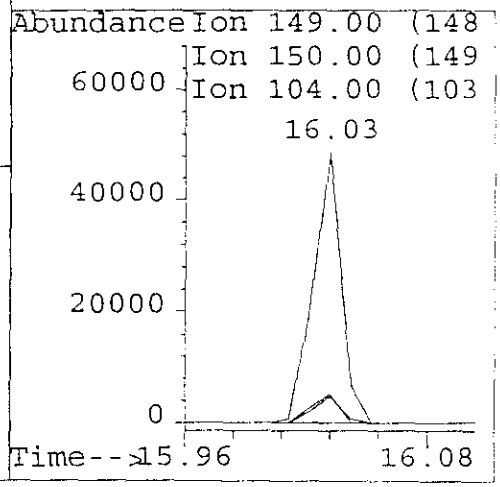




Di-n-butylphthalate
Concen: 1.93 ng/uL
RT: 16.03 min Scan# 1284
Delta R.T. -0.01 min
Lab File: P0255.D
Acq: 12 Nov 97 6:38 pm

Tgt Ion:149 Resp: 47904

Ion	Ratio	Lower	Upper
149	100		
150	9.6	7.0	11.7
104	10.4	7.3	12.1
0	0.0	0.0	0.0



Data File : C:\HPCHEM\1\DATA\111297\P0256.D
Acq On : 12 Nov 97 7:09 pm
Sample : 9711014-3
Misc :
Quant Time: Nov 13 9:34 1997

Vial: 12
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration

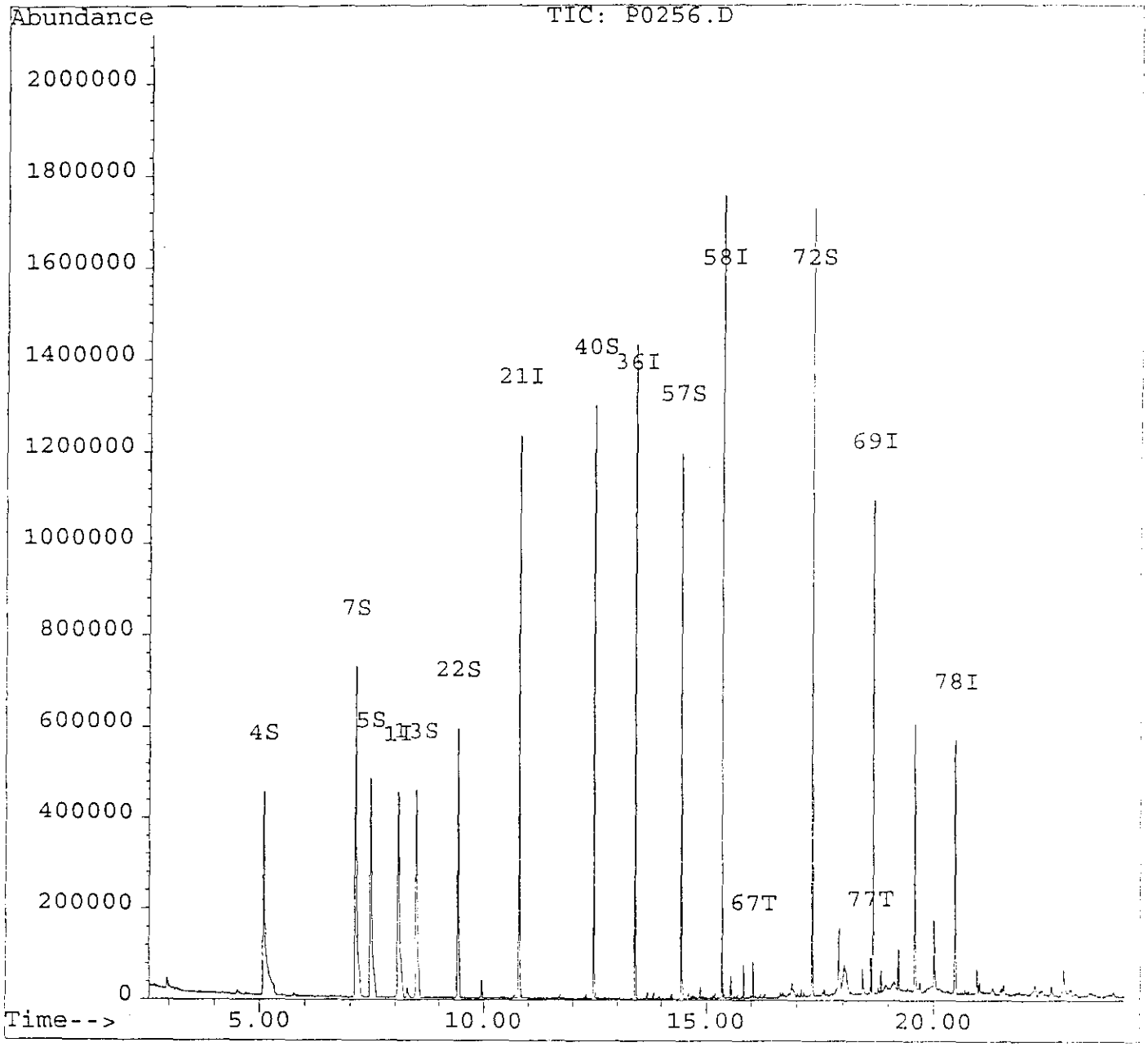
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.06	152	175423	40.00 ng/uL	-0.01 OK
21) Naphthalene-d8	10.78	136	612729	40.00 ng/uL	0.00
36) Acenaphthene-d10	13.41	164	365681	40.00 ng/uL	0.00
58) Phenanthrene-d10	15.34	188	631374	40.00 ng/uL	0.00
69) Chrysene-d12	18.67	240	487458	40.00 ng/uL	0.00
78) Perylene-d12	20.49	264	355521	40.00 ng/uL	0.00
System Monitoring Compounds					%Recovery
4) 2-Fluorophenol	5.08	112	530072	46.31 ng/uL	61.74%
5) 2-Chlorophenol-d4	7.45	132	258657	49.50 ng/uL	65.99%
7) Phenol-d5	7.11	99	877786	51.77 ng/uL	69.03%
13) 1,2-Dichlorobenzene-d4	8.47	152	143478	31.27 ng/uL	62.54%
22) Nitrobenzene-d5	9.42	82	459012	30.71 ng/uL	61.41%
40) 2-Fluorobiphenyl	12.47	172	487130	34.04 ng/uL	68.08%
57) 2,4,6-Tribromophenol	14.44	330	136963	61.21 ng/uL	81.61%
72) p-Terphenyl-d14	17.33	244	511347	38.50 ng/uL	76.99%
Target Compounds					Qvalue
67) Di-n-butylphthalate	16.03	149	42270	1.73 ng/uL	99
77) Bis(2-ethylhexyl)phthalate	18.61	149	21437	1.64 ng/uL	91

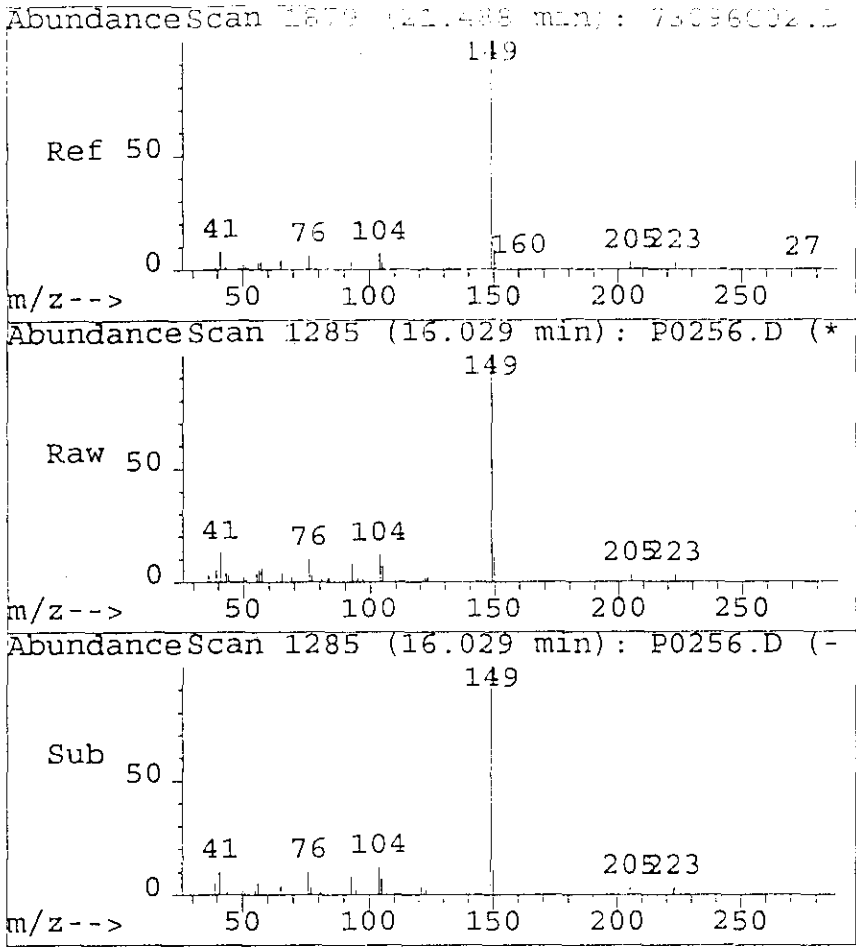
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\111297\P0256.D
Acq On : 12 Nov 97 7:09 pm
Sample : 9711014-3
Misc :
Quant Time: Nov 13 9:34 1997

Vial: 12
Operator: ab
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111297.M
Title : GC-MS Semivolatiles
Last Update : Thu Nov 13 08:59:34 1997
Response via : Multiple Level Calibration



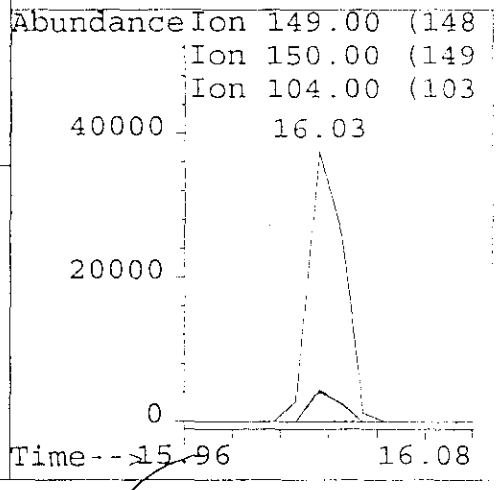


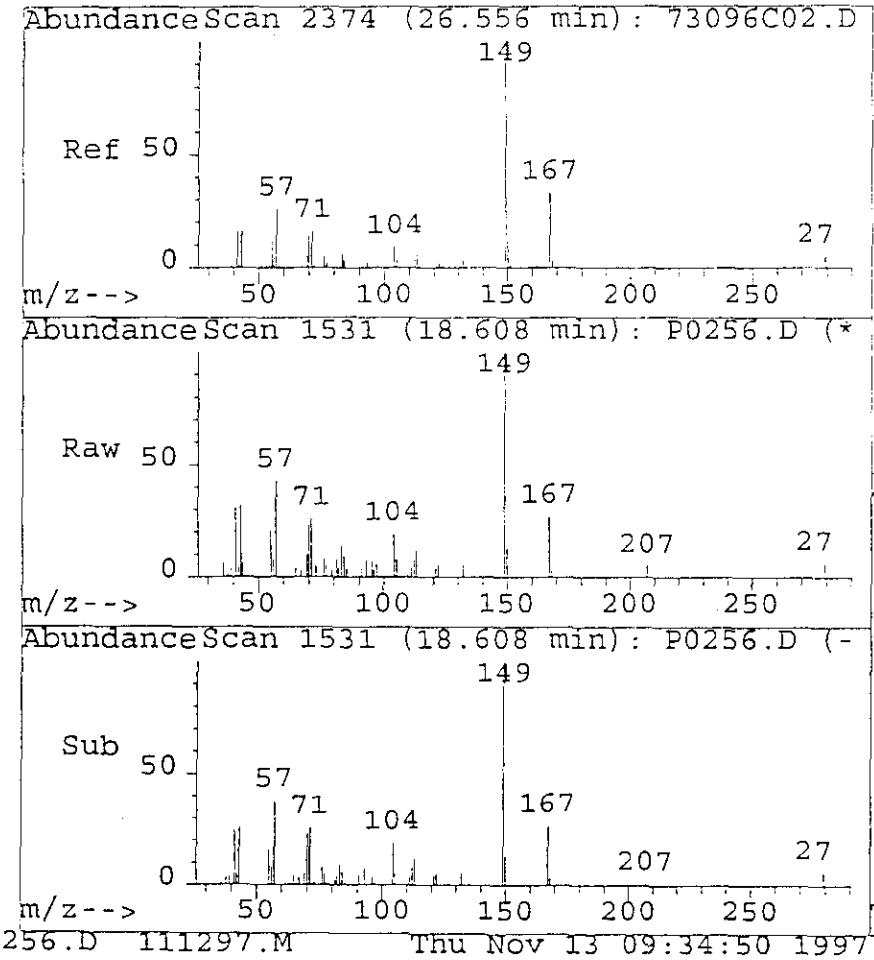
#57

Di-n-butylphthalate
Concen: 1.73 ng/uL
RT: 16.03 min Scan# 1285
Delta R.T. -0.01 min
Lab File: P0256.D
Acq: 12 Nov 97 7:09 pm

Tgt Ion:149 Resp: 42270

Ion	Ratio	Lower	Upper
149	100		
150	9.7	7.0	11.7
104	10.1	7.3	12.1
0	0.0	0.0	0.0



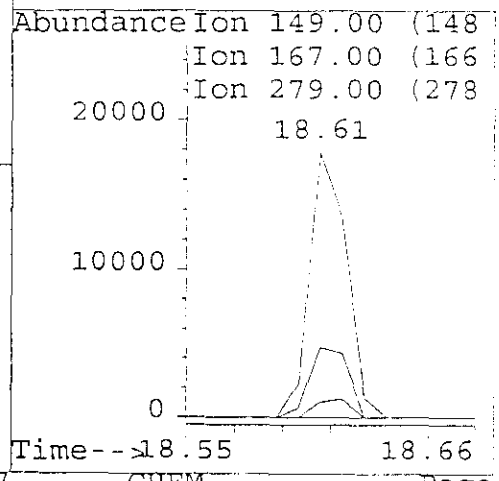


#77 YES

Bis(2-ethylhexyl)phthalate
Concen: 1.64 ng/uL
RT: 18.61 min Scan# 1531
Delta R.T. -0.00 min
Lab File: P0256.D
Acq: 12 Nov 97 7:09 pm

Tgt Ion:149 Resp: 21437

Ion	Ratio	Lower	Upper
149	100		
167	27.8	25.2	41.9
279	6.5	5.9	9.8
0	0.0	0.0	0.0



Raw Data Quality Control Samples

Data File : C:\[illegible]
Acq On : 11 Nov 97 [illegible] pm
Sample : S-111097LCS
Misc : SBS1 111097
Quant Time: Nov 11 14:45 1997

Operator : HB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.15	152	114346	40.00	ng/uL	0.00
21) Naphthalene-d8	10.84	136	367483	40.00	ng/uL	0.00
36) Acenaphthene-d10	13.45	164	217397	40.00	ng/uL	0.00
58) Phenanthrene-d10	15.39	188	378667	40.00	ng/uL	0.00
69) Chrysene-d12	18.70	240	183008	40.00	ng/uL	0.00
78) Perylene-d12	20.54	264	113749	40.00	ng/uL	0.00

OK

System Monitoring Compounds						%Recovery
4) 2-Fluorophenol	5.14	112	354697	45.71	ng/uL	60.95%
5) 2-Chlorophenol-d4	7.53	132	173509	49.81	ng/uL	66.41%
7) Phenol-d5	7.18	99	555906	56.43	ng/uL	75.24%
13) 1,2-Dichlorobenzene-d4	8.55	152	97533	33.70	ng/uL	67.40%
22) Nitrobenzene-d5	9.48	82	225415	33.54	ng/uL	67.08%
40) 2-Fluorobiphenyl	12.51	172	300085	35.84	ng/uL	71.69%
57) 2,4,6-Tribromophenol	14.49	330	67436	61.89	ng/uL	82.52%
72) p-Terphenyl-d14	17.38	244	257334	42.22	ng/uL	84.43%

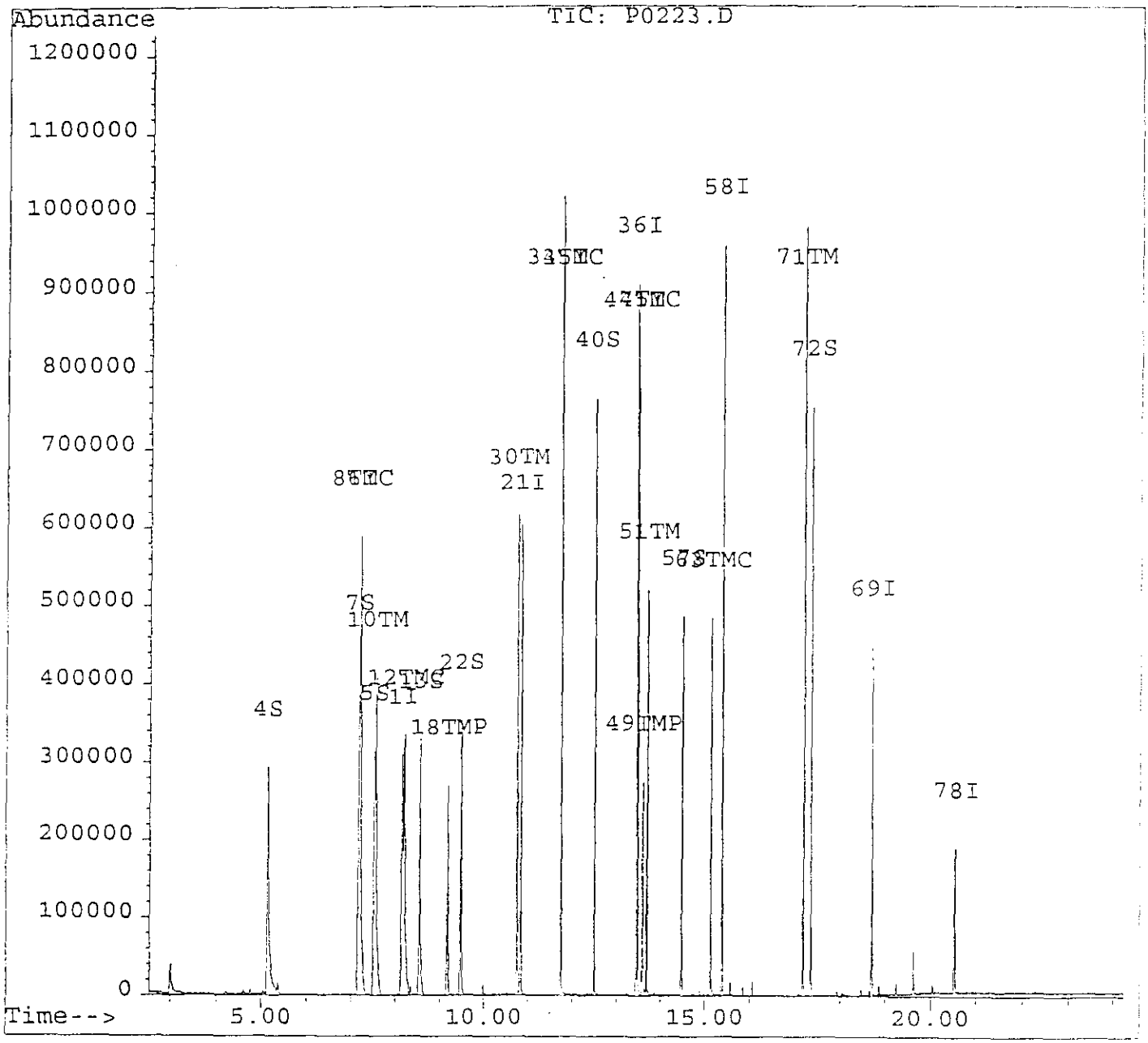
Target Compounds						Qvalue
6) Aniline	7.21	93	9434	1.07	ng/uL#	1
8) Phenol	7.21	94	551104	49.86	ng/uL	94
10) 2-Chlorophenol	7.57	128	216709	50.77	ng/uL	97
12) 1,4-Dichlorobenzene	8.20	146	150706	30.53	ng/ul	97
18) n-Nitroso-di-n-propylamine	9.18	70	100968	31.88	ng/uL	99
30) 1,2,4-Trichlorobenzene	10.74	180	144114	35.22	ng/uL	100
34) 4-Chloro-3-methylphenol	11.75	107	382490	53.51	ng/uL	95
35) 2-Methylnaphthalene	11.75	142	137059	19.55	ng/uL#	18
45) Acenaphthylene	13.49	152	106661	10.16	ng/uL#	1
47) Acenaphthene	13.49	153	213272	32.79	ng/uL	95
49) 4-Nitrophenol	13.60	109	94744	47.49	ng/uL	83
51) 2,4-Dinitrotoluene	13.69	165	90152	36.49	ng/uL#	73
63) Pentachlorophenol	15.13	266	69361	47.90	ng/uL	99
71) Pyrene	17.21	202	382528	35.73	ng/uL	95

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

Data File : C:\HPCHEM\1\DATA\111197\P0223.D
Acq On : 11 Nov 97 2:20 pm
Sample : S-111097LCS
Misc : SBS1 111097
Quant Time: Nov 11 14:45 1997

Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration



Data File : C:\HPCHEM\1\DATA\111197\P0224.D
Acq On : 11 Nov 97 2:51 pm
Sample : S-111097LCSD
Misc : SBS1 111097
Quant Time: Nov 11 15:16 1997

Vial: 5
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	8.15	152	111270	40.00 ng/uL	0.00
21) Naphthalene-d8	10.83	136	343427	40.00 ng/uL	0.00
36) Acenaphthene-d10	13.45	164	199406	40.00 ng/uL	0.00
58) Phenanthrene-d10	15.39	188	353178	40.00 ng/uL	0.00
69) Chrysene-d12	18.70	240	168943	40.00 ng/uL	-0.01
78) Perylene-d12	20.54	264	109111	40.00 ng/uL	0.00

System Monitoring Compounds					%Recovery
4) 2-Fluorophenol	5.15	112	352525	46.69 ng/uL	62.25%
5) 2-Chlorophenol-d4	7.53	132	170592	50.32 ng/uL	67.10%
7) Phenol-d5	7.18	99	514247	53.65 ng/uL	71.53%
13) 1,2-Dichlorobenzene-d4	8.55	152	94570	33.58 ng/uL	67.16%
22) Nitrobenzene-d5	9.48	82	214627	34.17 ng/uL	68.34%
40) 2-Fluorobiphenyl	12.51	172	283869	36.97 ng/uL	73.93%
57) 2,4,6-Tribromophenol	14.49	330	62990	63.02 ng/uL	84.03%
72) p-Terphenyl-d14	17.38	244	238654	42.41 ng/uL	84.82%

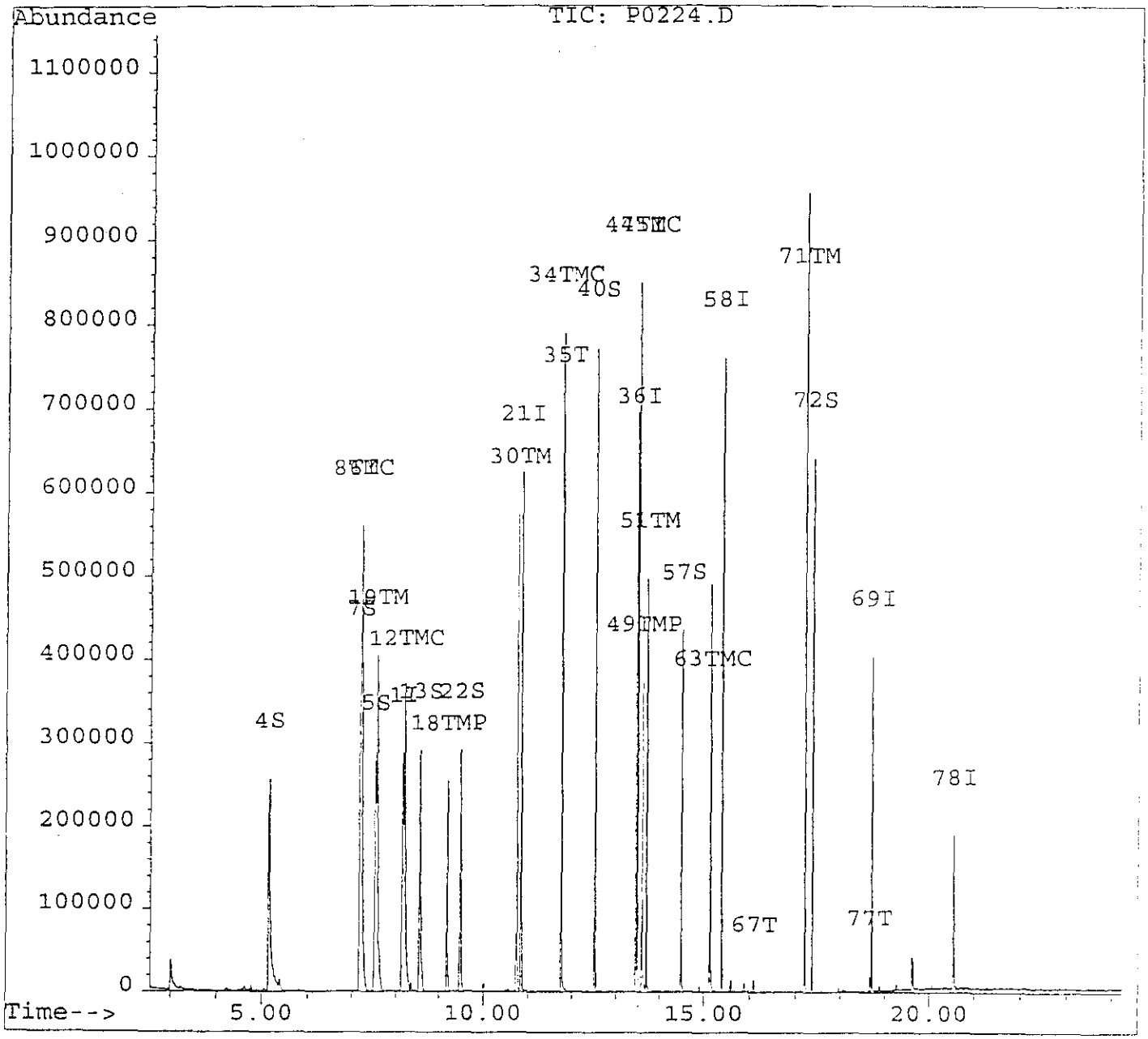
Target Compounds					Qvalue
6) Aniline	7.21	93	8905	1.04 ng/uL#	1
8) Phenol	7.21	94	540660	50.26 ng/uL	94
9) Bis(2-chloroethyl)ether	7.56	93	8589	1.04 ng/uL#	1
10) 2-Chlorophenol	7.56	128	216845	52.21 ng/uL	97
12) 1,4-Dichlorobenzene	8.19	146	156918	32.67 ng/ul	95
18) n-Nitroso-di-n-propylamine	9.18	70	90242	29.28 ng/uL	99
30) 1,2,4-Trichlorobenzene	10.74	180	143634	37.56 ng/uL	100
34) 4-Chloro-3-methylphenol	11.74	107	357431	53.51 ng/uL	95
35) 2-Methylnaphthalene	11.75	142	129281	19.73 ng/uL#	18
45) Acenaphthylene	13.49	152	101223	10.51 ng/uL#	1
47) Acenaphthene	13.49	153	206562	34.63 ng/uL	96
49) 4-Nitrophenol	13.59	109	92225	50.40 ng/uL	80
51) 2,4-Dinitrotoluene	13.69	165	80402	35.48 ng/uL#	74
63) Pentachlorophenol	15.14	266	66426	49.19 ng/uL	97
67) Di-n-butylphthalate	16.08	149	12166	1.02 ng/uL	98
71) Pyrene	17.21	202	358981	36.33 ng/uL	95
77) Bis(2-ethylhexyl)phthalate	18.65	149	6428	1.49 ng/uL#	91

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

Data File : C:\HPCHEM\1\DATA\111197\P0224.D
Acq On : 11 Nov 97 2:51 pm
Sample : S-111097LCSD
Misc : SBS1 111097
Quant Time: Nov 11 15:16 1997

Vial: 5
Operator: GB
Inst : HP-SV 2
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\111097.M
Title : GC-MS Semivolatiles
Last Update : Mon Nov 10 16:53:51 1997
Response via : Multiple Level Calibration



Miscellaneous

MPLE CONDITION FORM

NOB 8270 MATRIX Soil EXT. DATE 11/10/97 TECH TIB

RK ORDER #	SAMPLE #	SAMPLE CONDITION	SAMPLE ODOR
97-11-014	01	Brown sand	
	02		
	03		
97-11-080	01	Brown clay	
	02		
	03		
	04		
	05		
	06		
	07		
	08		
	09		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
	17		

ATI FRM 631 FC

8270 TCLP SV 625

WATER SOIL OTHER _____ CLE SONI SOX

SURROGATE CODE A: 1283-54-01C

MATRIX SPIKE A: 1283-44-01F

TUP DATE/ TIME: 11/6/97

WORKORDER #s 97-11-014, 080

TCH # _____

SAMPLE NUMBER	AMOUNT	PREP pH ADJUST INIT.	11 - 13	< 2	FINAL	EXTRACTION SURROGATE A VOL	SPKR/WIT	MATRIX SPIKE A VOL	SPKR/WIT	TIME OFF	EXTRACT INIT KD DATE	GPC DATE	FINAL KD DATE	FINAL VOL	VIAL DATE	COMMENTS
SRB.	30g	N/A	N/A	N/A	N/A	1ml	TB KP	N/A	N/A N/A	07:00	11/11/97	N/A	N/A	1ml	11/11/97	
014-01																
-02																
-03																
080-01																
-02																
-03																
-04																
-05																
-06																
-07																
-08																
-09																
-10																

ATIFRM609FC

000163

DCM Lot #: 37233

RECIEVED BY/DATE: GB 11-11-97

000099

8270 TCLP SV 625

WATER (SOIL) OTHER _____ CLE SONI (SOX)

ET UP DATE/ TIME: 11/10/97

SURROGATE CODE A: 1283-54-01C

ORKORDER #s 97-11-014,080

MATRIX SPIKE A: 1283-44-01F

ATCH #

PREP						EXTRACTION					EXTRACT					COMMENTS
NITIALS	TiA					SURROGATE		MATRIX SPIKE		JK	JK					
SAMPLE		pH ADJUST								TIME	INIT KD	GPC	FINAL KD	FINAL	VIAL	
NUMBER	AMOUNT	INIT.	11 - 13	< 2	FINAL	A VOL	SPKR/WIT	A VOL	SPKR/WIT	OFF	DATE	DATE	DATE	VOL	DATE	
080-11	30g	N/A	N/A	N/A	N/A	1ml	TiA/KMP	N/A	N/A	07:00	11/11/97	N/A	N/A	1ml	11/11/97	
-12																
-13																
-14																
-15																
-16																
-17																
-17MS								1ml	TiA/KMP							
-17MSD																
SBS1																
SBS2																
								JK 11/11/97								

ATIFRM609FC

CM Lot #: 3723

RECIEVED BY/DATE: GB 11-11-97

000100

000161

CONTROLLED

NCR # 001403

NON-CONFORMANCE REPORT

Initiated by: Tony Bunny
Date Initiated 11-18-97
Method/QA Procedure 8270
Workorders Affected 9711014

SECTION I

TYPE OF EVENT:	SPECIFY
____ 1. Spike/Surrogate Criteria Not Met	~~MS~~ SD
____ 2. Calibration Criteria Not Met (Type of Equipment)	
____ 3. Lab Contamination	
____ 4. Method Requirements Not Met	
____ 5. Purchased Materials Do Not Meet Quality Specs	
____ 6. Equipment Failure	
✓ 7. Deviation from QAP, SOP, Method	MS/MSD not performed on client samples.
____ 8. Other (Specify)	

SECTION II
CORRRECTIVE ACTION TAKEN:

____ 1. Submit for Re-Extraction (Re-work)
____ 2. Recalibrate (Re-work)
____ 3. Re-analyze (Re-work)
____ 4. Return to Vendor/Reject
____ 5. Service call/return for repair
____ 6. Retrain
✓ 7. Document in Narrative
____ 8. Other, describe ____

Approved by: ____

SECTION III
REQUEST FOR REWORK IN SAMPLE PREP OR DIGESTION

Initial date prepared, Page # ____
Date for Rework, Page # ____
Submitted by ____
Received by ____
Outcome of Re-analysis ____

Approved by: ____

COMMENTS: Samples could not be re-prepped within hold time.

DISPOSITION Use as is ☐ Reject ☐ Repair ☐

A new "folder" system is being implemented to facilitate the communication of client requested Q.C.

SIGNATURES

Approved by [signature] Date 11-18-97
Verification of Disposition [signature] Date 11/18/97
QA Dept Approval [signature] Date 18/Nov/97

CLOSEOUT DATE ____

COPIES TO: ____ Project Manager ____ Lab Manager

ATI FM 313FC2 (6/13/94)

AnalyticalTechnologies,Inc.
225 COMMERCE DRIVE
FORT COLLINS, CO
80524
(303) 490-1511
(303) 490-1522 FAX
1 (800) 443-1511

Chain of Custody

DATE 10-27-97 PAGE 1 OF 1

ACCESSION NUMBER: 97.11.014

PROJECT MANAGER: Jerry Foker
COMPANY: Ecology
ADDRESS: 1315 W 4TH
Kennewick, WA
99336
SAMPLER:
PHONE NUMBER: 736-3009
FAX NUMBER: -3030

SAMPLE ID	SAMPLE DATE	SAMPLE TIME	MATRIX	LAB ID
H97023	10-27	~~[illegible]~~	soil	01
H97024				02
H97025				03

ANALYSIS REQUESTED

SAMPLE ID	9070/9071 — Oil & Grease	418.1 — TRPH	8015 Mod. — Gasoline	8015 Mod. — Diesel	8015/8020 — Gasoline/BTEX	8020 — BTEX	8240 — GC/MS VOC's	8270 — GC/MS SVOC's TICS	8080 — Pesticides/PCB's	8080 — PCB Only	8310 — PNA's	8150 — Herbicides	8140 — OP Pesticides	TOX — EOX — TX	Total Metals:	TCLP:	Gross Alpha	Gross Beta	Radium 226	Radium 228	Tritium	Strontium	% Moisture							Number of Containers
H97023								X				X																		
H97024								X				X																		
H97025								X				X																		

PROJECT INFORMATION
PROJECT NUMBER:
PROJECT NAME:
PURCHASE ORDER NUMBER:
TAT: ☐ STANDARD ☐ RUSH DUE:

SAMPLE RECEIPT
TOTAL NUMBER OF CONTAINERS
CHAIN OF CUSTODY SEALS Y/N
SEALS INTACT? Y/N/NA
RECEIVED GOOD COND./COLD

SAMPLE DISPOSAL: ☐ HAZ WASTE $5.00 ☐ RAD CHEM $15.00 ☐ RETURN

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [illegible] Time: 10:[illegible]	Signature: Time:	Signature: Time:
Printed Name: Jerry Foker Date: 10.4.97	Printed Name: Date:	Printed Name: Date:
Company: Ecology	Company: DPS	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: Time:	Signature: Time: 1050	Signature: Time:
Printed Name: Date:	Printed Name: D. Hull Date: 10.4.97	Printed Name: Date:
Company: ETS	Company: PAE	Company:

DISTRIBUTION: White, Canary - ANALYTICAL TECHNOLOGIES, INC. • Pink - ORIGINATOR

Paragon Analytics, Inc. - Fort Collins, Colorado

CONDITION OF SAMPLE UPON RECEIPT

CLIENT: WDOE SHIPPING CONTAINER #: Cooler

WORKORDER NO. 97-11-014 INITIALS: [illegible] DATE: 11/4/97

1.	Does this project require special handling according to NEESA, Level 3, or CLP protocols? If yes, complete a. and b. a. Cooler Temperature_____ b. Lot No's._____ c. Airbill Number		Yes	(No)
2.	Are custody seals on the cooler intact? If so, how many _____	(N/A)	Yes	No
3.	Are custody seals on sample containers intact?	N/A	(Yes)	No
4.	Is there a Chain of Custody (COC) or other representative documents, letters or shipping memos?		(Yes)	No
5.	Is the COC complete? Relinquished: Yes ✓ No___ Requested Analysis: Yes ✓ No	N/A	(Yes)	No
6.	Is the COC in agreement with the samples received? No. of Samples: Yes ✓ No___ Sample ID's: Yes ✓ No___ Matrix: Yes ✓ No No. of Containers: Yes ✓ No		(Yes)	No
7.	Are the samples requiring chemical preservation preserved correctly?	(N/A)	Yes	No
8.	Is there enough sample? If so, are they in the proper containers?		(Yes)	No
9.	Are all samples within holding times for the requested analyses?		(Yes)	No
10.	Were the sample(s) shipped on ice?	N/A	Yes	(No)
11.	Were all sample containers received intact? (not broken or leaking, etc.)		(Yes)	No
12.	Are samples requiring no headspace, headspace free?	(N/A)	Yes	No
13.	Do the samples require quarantine?		Yes	(No)
14.	Do samples require Paragon disposal?		(Yes)	No
15.	Did the client return any unused bottles?		Yes	(No)

Describe "NO" items (except No's 1, 13, &14):_____

Was the client contacted? Yes____ No____

If yes, Date:_____ Name of person contacted:_____

Describe actions taken or client instructions:_____

Group Leader's Signature:_____ Date:_____

Cooler Temperature: 17°C

FRM 201FC7 (30/7/97)