H6I190404 Analytical Report 1

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Erie Coke

Lot #: H6I190404

William Cowell

Montrose Air Quality Services
1050 William Pitt Way
Pittsburgh, PA 15238

TESTAMERICA LABORATORIES, INC.

Courtney M. Adkins
Project Manager

October 26, 2016

ANALYTICAL METHODS SUMMARY

H6I190404

PARAMETER	ANALYTICAL METHOD
PAHs & Selected SVOCs by HRGC/MS-SIM	KNOX ID-0016

References:

KNOX TestAmerica Laboratories Inc., Knoxville Laboratory Standard Operating Procedure

SAMPLE SUMMARY

H6I190404

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
M88MX	001	PECS DUST #1	09/15/16	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H6I190404

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

The container for sample PECS DUST #1 was received with a crack along the side. The sample was transferred to a new container at the lab.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

The concentration of one or more target compounds in sample PECS DUST #1 exceeded the calibration level at the maximum fifty-fold dilution allowed by this isotope dilution method. Since compounds saturated the detector or were extremely high in concentrations, the sample was analyzed at a further dilution by using a post-dilution spike technique to bring the concentration of the compounds into the instrument calibration range. Due to the addition of the internal standards after extraction, isotope dilution technique correction does not apply to this analysis. The reporting limits have been adjusted accordingly.

The method blank (M88RK1AA) on batch 6264010 has results for phenanthrene, fluoranthene, pyrene, and chrysene greater than their reporting limits. However, the blank contamination level is insignificant because all associated sample results are at least 10 times higher than the blank.

This project was treated for sulfur interference that could affect the ability to accurately detect and quantitate analytes; all extracts were treated with copper to eliminate the sulfur. The associated method blank and laboratory control sample were also treated with copper.

General Comments:

The labeled internal standards added prior to extraction serve both as a measure of extraction efficiency and as a measure of cleanup recovery.

Solid and sediment samples are reported on a dry weight basis.

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	L-A-B	DoD ELAP		L2311
TestAmerica Knoxville	Arkansas DEQ	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana DOHH	State Program	6	LA150004
TestAmerica Knoxville	Louisiana DEQ	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina DENR	State Program	4	64
TestAmerica Knoxville	North Carolina DHHS	State Program	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	TN02014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-14-7
TestAmerica Knoxville	Federal	USDA		P330-11-00260
TestAmerica Knoxville	Utah	NELAC	8	TN000092014-5
TestAmerica Knoxville	Virginia	NELAC	3	460176
TestAmerica Knoxville	Virginia	State Program	3	00165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia DEP	State Program	3	345
TestAmerica Knoxville	West Virginia DHHR	State Program	3	9955C
TestAmerica Knoxville	Wisconsin	State Program	5	998044300

Accreditation may not be offered or required for all methods and analytes in this report. Please contact your project manager for the laboratory's current list of certified methods and analytes.

QC DATA ASSOCIATION SUMMARY

H6I190404

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	SOLID	KNOX ID-0016		6264010	6264002

Sample Data Summary

Montrose Air Quality Services LLC

Client Sample ID: PECS DUST #1

GC/MS Semivolatiles

Lot-Sample #...:	H6I190404-001	Work Order #...:	M88MX1AA	Matrix.....:	SOLID
Date Sampled...:	09/15/16	Date Received..:	09/16/2016		
Prep Date.....:	09/20/16	Analysis Date..:	09/27/2016		
Prep Batch #...:	6264010				
Dilution Factor:	400	Method.....:	KNOX ID-0016		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	2100	400	ng/g	84
Acenaphthylene	3700 B	400	ng/g	25
Anthracene	16000 B	400	ng/g	76
Benzo(a)anthracene	25000 B	400	ng/g	120
Benzo(b)fluoranthene	7100 B	400	ng/g	100
Benzo(k)fluoranthene	3100	400	ng/g	88
Benzo(ghi)perylene	590	400	ng/g	60
Benzo(a)pyrene	2200	400	ng/g	76
Chrysene	27000 B	400	ng/g	80
Dibenz(a,h)anthracene	410	400	ng/g	28
Fluoranthene	66000 B	400	ng/g	140
Fluorene	9200 B	400	ng/g	190
Indeno(1,2,3-cd)pyrene	600	400	ng/g	68
Naphthalene	26000	8000	ng/g	2100
Perylene	600	400	ng/g	48
Phenanthrene	64000 B	800	ng/g	640
Pyrene	44000 B	800	ng/g	440

Internal Standard	PERCENT RECOVERY	RECOVERY LIMITS
Fluorene d-10	98	(30 - 120)
Naphthalene-d8	94	(30 - 120)
Acenaphthylene-d8	106	(30 - 120)
Phenanthrene-d10	92	(30 - 120)
Anthracene-d10	99	(30 - 120)
Fluoranthene-d10	102	(30 - 120)
Chrysene-d12	94	(30 - 120)
Benzo(b)fluoranthene-d12	112	(30 - 120)
Benzo(k)fluoranthene-d12	95	(30 - 120)
Benzo(a)pyrene-d12	109	(30 - 120)
Perylene-d12	98	(30 - 120)
Indeno(1,2,3-cd)pyrene-d12	102	(30 - 120)
Dibenz(ah)anthracene-d14	100	(30 - 120)
Benzo(ghi)perylene-d12	96	(30 - 120)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: H6I190404
MB Lot-Sample #: H6I200000-010 **Work Order #...:** M88RK1AA **Matrix.....:** SOLID

Prep Date.....: 09/20/16 **Analysis Date..:** 09/27/2016
Prep Batch #...: 6264010
Dilution Factor: 1 **Method.....:** KNOX ID-0016

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	1.0	ng/g	0.21
Acenaphthylene	**0.16 J**	**1.0**	ng/g	0.063
Anthracene	**0.92 J**	**1.0**	ng/g	0.19
Benzo(a)anthracene	**0.99 J**	**1.0**	ng/g	0.29
Benzo(b)fluoranthene	**0.45 J**	**1.0**	ng/g	0.25
Benzo(k)fluoranthene	ND	1.0	ng/g	0.22
Benzo(ghi)perylene	ND	1.0	ng/g	0.15
Benzo(a)pyrene	ND	1.0	ng/g	0.19
Chrysene	**1.5**	**1.0**	ng/g	0.20
Dibenz(a,h)anthracene	ND	1.0	ng/g	0.070
Fluoranthene	**3.4**	**1.0**	ng/g	0.36
Fluorene	**0.59 J**	**1.0**	ng/g	0.47
Indeno(1,2,3-cd)pyrene	ND	1.0	ng/g	0.17
Naphthalene	ND	20	ng/g	5.3
Perylene	ND	1.0	ng/g	0.12
Phenanthrene	**4.1**	**2.0**	ng/g	1.6
Pyrene	**2.6**	**2.0**	ng/g	1.1

Internal Standard	PERCENT RECOVERY	RECOVERY LIMITS
Fluorene d-10	90	(30 - 120)
Naphthalene-d8	88	(30 - 120)
Acenaphthylene-d8	97	(30 - 120)
Phenanthrene-d10	85	(30 - 120)
Anthracene-d10	87	(30 - 120)
Fluoranthene-d10	98	(30 - 120)
Chrysene-d12	89	(30 - 120)
Benzo(b)fluoranthene-d12	106	(30 - 120)
Benzo(k)fluoranthene-d12	91	(30 - 120)
Benzo(a)pyrene-d12	98	(30 - 120)
Perylene-d12	85	(30 - 120)
Indeno(1,2,3-cd)pyrene-d12	98	(30 - 120)
Dibenz(ah)anthracene-d14	96	(30 - 120)
Benzo(ghi)perylene-d12	97	(30 - 120)

NOTE(S):

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: H6I190404 Work Order #...: M88RK1AC-LCS Matrix.....: SOLID
LCS Lot-Sample#: H6I200000-010
Prep Date .....: 09/20/16 Analysis Date..: 09/27/16
Prep Batch #...: 6264010
Dilution Factor: 1 Instrument ID..: MP Method.....: KNOX ID-0016

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS		RPD LIMITS
Acenaphthene	25.0	24.0	ng/g	96	(60 - 140)		
Acenaphthylene	25.0	24.2	ng/g	97	(60 - 140)		
Anthracene	25.0	24.0	ng/g	96	(60 - 140)		
Benzo(a)anthracene	25.0	29.1	ng/g	116	(60 - 140)		
Benzo(b)fluoranthene	25.0	24.0	ng/g	96	(60 - 140)		
Benzo(k)fluoranthene	25.0	23.7	ng/g	95	(60 - 140)		
Benzo(ghi)perylene	25.0	24.7	ng/g	99	(60 - 140)		
Benzo(a)pyrene	25.0	22.6	ng/g	90	(60 - 140)		
Chrysene	25.0	25.9	ng/g	104	(60 - 140)		
Dibenz(a,h)anthracene	25.0	24.0	ng/g	96	(60 - 140)		
Fluoranthene	25.0	23.9	ng/g	96	(60 - 140)		
Fluorene	25.0	25.0	ng/g	100	(60 - 140)		
Indeno(1,2,3-cd)pyrene	25.0	23.5	ng/g	94	(60 - 140)		
Naphthalene	25.0	27.6	ng/g	110	(60 - 140)		
Perylene	25.0	25.1	ng/g	100	(60 - 140)		
Phenanthrene	25.0	25.7	ng/g	103	(60 - 140)		
Pyrene	25.0	23.5	ng/g	94	(60 - 140)		

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
Fluorene d-10	94	(60 - 140)
Naphthalene-d8	90	(60 - 140)
Acenaphthylene-d8	100	(60 - 140)
Phenanthrene-d10	88	(60 - 140)
Anthracene-d10	91	(60 - 140)
Fluoranthene-d10	101	(60 - 140)
Chrysene-d12	91	(60 - 140)
Benzo(b)fluoranthene-d12	103	(60 - 140)
Benzo(k)fluoranthene-d12	102	(60 - 140)
Benzo(a)pyrene-d12	105	(60 - 140)
Perylene-d12	91	(60 - 140)
Indeno(1,2,3-cd)pyrene-d12	106	(60 - 140)
Dibenz(ah)anthracene-d14	105	(60 - 140)
Benzo(ghi)perylene-d12	100	(60 - 140)

Note(s):

Calculations are performed before rounding to avoid round-off errors in calculated results.
Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...:	H6I190404	Work Order #...:	M88MX1AC-MS	Matrix.....:	SOLID
OS Lot-Sample #:	H6I190404-001		M88MX1AD-MSD		
Prep Date.....:	09/20/16	Analysis Date..:	09/27/16		
Prep Batch #...:	6264010				
Dilution Factor:	400	Instrument ID..:	MP	Method.....:	KNOX ID-0016

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
Acenaphthene	2100	25.0	2010	ng/g	NC DIL	(60-140)		
	2100	25.0	2200	ng/g	NC DIL	(60-140)		(0-25)
Acenaphthylene	3700	25.0	3570	ng/g	NC DIL	(60-140)		
	3700	25.0	3910	ng/g	NC DIL	(60-140)		(0-25)
Anthracene	16000	25.0	15400	ng/g	NC DIL	(60-140)		
	16000	25.0	17200	ng/g	NC DIL	(60-140)		(0-25)
Benzo(a)anthracene	25000	25.0	21800	ng/g	NC DIL	(60-140)		
	25000	25.0	25700	ng/g	NC DIL	(60-140)		(0-25)
Benzo(b)fluoranthene	7100	25.0	6440	ng/g	NC DIL	(60-140)		
	7100	25.0	7890	ng/g	NC DIL	(60-140)		(0-25)
Benzo(k)fluoranthene	3100	25.0	2970	ng/g	NC DIL	(60-140)		
	3100	25.0	3580	ng/g	NC DIL	(60-140)		(0-25)
Benzo(ghi)perylene	590	25.0	541	ng/g	NC DIL	(60-140)		
	590	25.0	749	ng/g	NC DIL	(60-140)		(0-25)
Benzo(a)pyrene	2200	25.0	2040	ng/g	NC DIL	(60-140)		
	2200	25.0	2500	ng/g	NC DIL	(60-140)		(0-25)
Chrysene	27000	25.0	27000	ng/g	NC DIL	(60-140)		
	27000	25.0	30900	ng/g	NC DIL	(60-140)		(0-25)
Dibenz(a,h)anthracene	410	25.0	381	ng/g	NC DIL	(60-140)		
	410	25.0	493	ng/g	NC DIL	(60-140)		(0-25)
Fluoranthene	66000	25.0	60300	ng/g	NC DIL	(60-140)		
	66000	25.0	67300	ng/g	NC DIL	(60-140)		(0-25)
Fluorene	9200	25.0	8730	ng/g	NC DIL	(60-140)		
	9200	25.0	9620	ng/g	NC DIL	(60-140)		(0-25)
Indeno(1,2,3-cd)pyrene	600	25.0	564	ng/g	NC DIL	(60-140)		
	600	25.0	762	ng/g	NC DIL	(60-140)		(0-25)
Naphthalene	26000	25.0	24000	ng/g	NC DIL	(60-140)		
	26000	25.0	26600	ng/g	NC DIL	(60-140)		(0-25)
Perylene	600	25.0	518	ng/g	NC DIL	(60-140)		
	600	25.0	691	ng/g	NC DIL	(60-140)		(0-25)
Phenanthrene	64000	25.0	60800	ng/g	NC DIL	(60-140)		
	64000	25.0	66900	ng/g	NC DIL	(60-140)		(0-25)
Pyrene	44000	25.0	40700	ng/g	NC DIL	(60-140)		
	44000	25.0	45300	ng/g	NC DIL	(60-140)		(0-25)

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
Fluorene d-10	98	(30-120)
	99	(30-120)
Naphthalene-d8	95	(30-120)
	95	(30-120)

(Continued on next Page)

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H6I190404 **Work Order #...:** M88MX1AC-MS **Matrix.....:** SOLID
OS Lot-Sample #: H6I190404-001 M88MX1AD-MSD

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
Acenaphthylene-d8	105	(30-120)
	106	(30-120)
Phenanthrene-d10	90	(30-120)
	91	(30-120)
Anthracene-d10	97	(30-120)
	99	(30-120)
Fluoranthene-d10	101	(30-120)
	102	(30-120)
Chrysene-d12	90	(30-120)
	90	(30-120)
Benzo(b)fluoranthene-d12	108	(30-120)
	110	(30-120)
Benzo(k)fluoranthene-d12	97	(30-120)
	96	(30-120)
Benzo(a)pyrene-d12	109	(30-120)
	111	(30-120)
Perylene-d12	98	(30-120)
	100	(30-120)
Indeno(1,2,3-cd)pyrene-d12	100	(30-120)
	102	(30-120)
Dibenz(ah)anthracene-d14	99	(30-120)
	100	(30-120)
Benzo(ghi)perylene-d12	94	(30-120)
	94	(30-120)

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

NC The recovery and/or RPD were not calculated.

Sample Receipt Documentation

Analysis Request / Chain of Custody Form

Air/Compliance Consultants, Inc.
www.air-comp.com

1050 William Pitt Way
Pittsburgh, PA 15238
Phone: 412-826-3636
Fax: 412-826-3640

Please Print Neatly

H6I190404

Page 1 of 1

(1)
Client Name: Erie Coke
Project Location: Erie, PA
Project No.: 16-143
Project Manager (PM): Bill Cowell
PM Email: wcowell@montrose-env.com
Laboratory: Test America
PO #:
Lab Contact / Phone #: Ms. Courtney Adkins ~~291~~ (865) 291-3017

Sample Identification (2)	Date Collected	Time Collected	Grab (3)	Composite	Matrix (4): Dust in 250mL Amber	Air (☐ Source ☐ IH ☐ Ambient)	Total # of Containers	Canisters	Analysis Requested (5): PAH by SIM	Remarks (6)	Temperature of samples upon receipt (if requested)
PECs Dust #1	9/7-9/15, 2016	N/A		X	X		1		X		

RT CT
REC. @ 2.3°c 2.3°c
CUSTODY SEAL INTACT
1 COOLER RH 9-16-16
FED Ex # 784097778917

(7) **Turnaround Time Requested** (TAT)
(please circle): Normal Rush
Date results are needed:
If rush results requested please fax to:
Fax #

(8) **Notes:**

Please call (412) 826-3636 if there are any questions prior to proceeding. Please cc slindquist@air-comp.com with all laboratory results

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	9/15/16	14:20	Ryan Henry	9/16/16	0930

(10) Canister Pressure / Vacuum

Initial	Final	Units	Receipt

(11) **Project Manager Approval (Print & Sign)**
PM Sign: [signature]
PM Print: William P Cowell
COC completed by (initial): WPC Date 9/15/16

Instructions on reverse side correspond with circled numbers

WHITE - LAB • YELLOW - FILE
№ 003896

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Log In Number: HLI190404

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☐ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID : 5C61 Correction factor: 0	✓			☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact? DJS 9/19/16	✓	✓		☑ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?		✓		☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, lab will adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

5. JAR HAD CRACK ALONG SIDE, TRANSFERED TO NEW CONTAINER AT LAB

Labeling Verified by: **Date:**

pH test strip lot number:

Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:	
Lot Number:	
Exp Date:	
Analyst:	
Date:	
Time:	

Project #: 92425 PM Instructions: NA

Sample Receiving Associate: Ryan Henry Date: 9/16/16

QA026R30.doc, 080916

SIM PAH

Raw Sample Data

Montrose Air Quality Services LLC

Client Sample ID: PECS DUST #1

GC/MS Semivolatiles

Lot-Sample #...:	H6I190404-001	**Work Order #...:**	M88MX1AA	**Matrix.....:**	SOLID
Date Sampled...:	09/15/16	**Date Received..:**	09/16/2016		
Prep Date.....:	09/20/16	**Analysis Date..:**	09/27/2016		
Prep Batch #...:	6264010				
Dilution Factor:	400	**Method.....:**	KNOX ID-0016		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	**2100**	**400**	ng/g	84
Acenaphthylene	**3700 B**	**400**	ng/g	25
Anthracene	**16000 B**	**400**	ng/g	76
Benzo(a)anthracene	**25000 B**	**400**	ng/g	120
Benzo(b)fluoranthene	**7100 B**	**400**	ng/g	100
Benzo(k)fluoranthene	**3100**	**400**	ng/g	88
Benzo(ghi)perylene	**590**	**400**	ng/g	60
Benzo(a)pyrene	**2200**	**400**	ng/g	76
Chrysene	**27000 B**	**400**	ng/g	80
Dibenz(a,h)anthracene	**410**	**400**	ng/g	28
Fluoranthene	**66000 B**	**400**	ng/g	140
Fluorene	**9200 B**	**400**	ng/g	190
Indeno(1,2,3-cd)pyrene	**600**	**400**	ng/g	68
Naphthalene	**26000**	**8000**	ng/g	2100
Perylene	**600**	**400**	ng/g	48
Phenanthrene	**64000 B**	**800**	ng/g	640
Pyrene	**44000 B**	**800**	ng/g	440

Internal Standard	PERCENT RECOVERY	RECOVERY LIMITS
Fluorene d-10	98	(30 - 120)
Naphthalene-d8	94	(30 - 120)
Acenaphthylene-d8	106	(30 - 120)
Phenanthrene-d10	92	(30 - 120)
Anthracene-d10	99	(30 - 120)
Fluoranthene-d10	102	(30 - 120)
Chrysene-d12	94	(30 - 120)
Benzo(b)fluoranthene-d12	112	(30 - 120)
Benzo(k)fluoranthene-d12	95	(30 - 120)
Benzo(a)pyrene-d12	109	(30 - 120)
Perylene-d12	98	(30 - 120)
Indeno(1,2,3-cd)pyrene-d12	102	(30 - 120)
Dibenz(ah)anthracene-d14	100	(30 - 120)
Benzo(ghi)perylene-d12	96	(30 - 120)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d
Report Date: 27-Sep-2016 17:16

PECS DUST #1

TestAmerica Knoxville

SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d
Lab Smp Id: M88MX1AA
Inj Date : 27-SEP-2016 16:56
Operator : 11211 Inst ID: mp.i
Smp Info : ,,0,,PDS 1:400 TRT
Misc Info : SIM PAH ANALYSIS 100%
Comment :
Method : /var/chem/gcms/mp.i/P092716.b/SIMPAH10.m
Meth Date : 27-Sep-2016 14:19 cochranj Quant Type: ISTD
Cal Date : 15-SEP-2016 11:39 Cal File: pi15ical1.d
Als bottle: 9
Dil Factor: 400.00000
Integrator: HP RTE Compound Sublist: simpah.sub
Target Version: 3.50
Processing Host: qmidhp01

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

Name	Value	Description
DF	400.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ng/g)
* 256 1,4-Dichlorobenzene-d4	115	3.969	3.969	(1.000)	102906	0.50000	0.500
$ 257 1,4Dichlorobenzene-d4(SS)	115	3.969	3.969	(0.618)	102906	0.51845	25.9
254 1,4-Dichlorobenzene	146	3.981	3.981	(1.003)	99	0.000186	3.71(M)
* 234 1,2-Dichlorobenzene-d4	115	4.093	4.082	(1.000)	110297	0.50000	0.500
$ 235 1,2-Dichlorobenzene-d4(SS)	115	4.093	4.082	(0.637)	110297	0.49461	24.7
236 1,2-Dichlorobenzene	146	4.104	4.104	(1.003)	246	0.000493	9.85(M)
245 1,2,4-Trichlorobenzene	180	4.920	4.911	(0.991)	95	0.00025	5.00
* 1 Naphthalene-d8	136	4.966	4.957	(1.000)	646354	0.50000	0.500
$ 2 Naphthalene-d8(SS)	136	4.966	4.957	(0.773)	644771	0.46924	23.5
3 Naphthalene	128	4.975	4.975	(1.002)	1664393	1.27278	25500
* 10 2-Methylnaphthalene-d10	152	5.521	5.521	(1.000)	334554	0.50000	0.500
$ 11 2-Methylnaphthalene-d10(SS)	152	5.521	5.521	(0.860)	334554	0.48350	24.2
12 2-Methylnaphthalene	142	5.549	5.544	(1.005)	410853	0.44688	8940

Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d
Report Date: 27-Sep-2016 17:16

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ng/g)
* 13 1-Methylnaphthalene-d10	152	5.607	5.601	(1.000)	368233	0.50000	0.500
$ 14 1-Methylnaphthalene-d10(SS)	152	5.607	5.601	(0.873)	368233	0.48128	24.1
15 1-Methylnaphthalene	142	5.635	5.629	(1.005)	184693	0.22790	4560
16 Biphenyl	154	5.937	5.928	(0.984)	81797	0.07448	1490
* 17 2,6-Dimethylnaphthalene-d12	168	6.033	6.028	(1.000)	352228	0.50000	0.500
$ 18 2,6-Dimethylnaph-d12(SS)	168	6.033	6.028	(0.939)	351101	0.48505	24.3
19 2,6 Dimethylnaphthalene	156	6.074	6.064	(1.007)	166976	0.20679	4140
* 20 Acenaphthylene-d8	160	6.291	6.291	(1.000)	649421	0.50000	0.500
$ 21 Acenaphthylene-d8(SS)	160	6.291	6.291	(0.980)	649421	0.52707	26.4
22 Acenaphthylene	152	6.301	6.301	(1.002)	264375	0.18639	3730
* 23 Acenaphthene-d10	164	6.422	6.421	(1.000)	346927	0.50000	0.500
24 Acenaphthene	154	6.452	6.447	(1.026)	90824	0.10578	2120
246 Dibenzofuran	168	6.593	6.592	(1.093)	398572	0.34349	6870
25 2,3,5 Trimethylnaphthalene	170	6.767	6.762	(1.122)	57809	0.08443	1690(M)
* 26 Fluorene-d10	176	6.857	6.853	(1.000)	405980	0.50000	0.500
$ 233 Fluorene-d10(SS)	176	6.857	6.853	(1.068)	405980	0.49261	24.6
27 Fluorene	166	6.881	6.877	(1.003)	433661	0.46119	9220
243 Diphenylamine	169	6.960	6.964	(1.015)	12873	0.02036	407
* 34 Dibenzothiopene-d8	192	7.575	7.571	(1.000)	578230	0.50000	0.500
$ 35 Dibenzothiopene-d8(SS)	192	7.575	7.571	(0.842)	578230	0.45830	22.9
36 Dibenzothiophene	184	7.590	7.587	(1.002)	270443	0.21672	4330
* 41 Phenanthrene-d10	188	7.679	7.676	(1.000)	562630	0.50000	0.500
$ 42 Phenanthrene-d10(SS)	188	7.679	7.676	(0.854)	562630	0.45890	22.9
43 Phenanthrene	178	7.698	7.694	(1.002)	4548947	3.22591	64500
* 44 Anthracene-d10	188	7.725	7.722	(1.000)	557109	0.50000	0.500
$ 45 Anthracene-d10(SS)	188	7.725	7.722	(0.859)	557086	0.49431	24.7
46 Anthracene	178	7.744	7.740	(1.002)	1157954	0.81671	16300
247 3-Methylphenanthrene	191	8.125	8.120	(1.058)	345491	0.71800	14400
52 1-Methylphenanthrene	191	8.247	8.242	(1.074)	225297	0.47174	9430
* 53 Fluoranthene-d10	212	8.770	8.766	(1.000)	606586	0.50000	0.500
$ 54 Fluoranthene-d10(SS)	212	8.770	8.766	(0.975)	606586	0.51257	25.6
55 Fluoranthene	202	8.789	8.785	(1.002)	5079497	3.28483	65700
* 56 Pyrene-d10	212	8.995	8.988	(1.000)	532857	0.50000	0.500
57 Pyrene	202	9.011	9.007	(1.027)	3530370	2.21948	44400
62 Benzo(a)anthracene	228	10.229	10.219	(0.999)	1331313	1.26736	25300
* 63 Chrysene-d12	240	10.238	10.237	(1.000)	591820	0.50000	0.500
$ 64 Chrysene-d12(SS)	240	10.238	10.237	(1.138)	592030	0.47155	23.6
65 Chrysene	228	10.265	10.264	(1.003)	1688410	1.35272	27100
* 70 Benzo(b)fluoranthene-d12	264	11.383	11.376	(1.000)	497689	0.50000	0.500
$ 71 Benzo(b)fluoranthene-d12(SS)	264	11.383	11.376	(0.972)	497689	0.55738	27.9
72 Benzo(b)fluoranthene	252	11.413	11.400	(1.003)	510150	0.35478	7100(M)
* 73 Benzo(k)fluoranthene-d12	264	11.413	11.406	(1.000)	525670	0.50000	0.500
$ 74 Benzo(k)fluoranthene-d12(SS)	264	11.413	11.406	(0.975)	525670	0.47611	23.8
75 Benzo(k)fluoranthene	252	11.431	11.430	(1.002)	193723	0.15656	3130(M)
* 76 Benzo(e)pyrene-d12	264	11.706	11.699	(1.000)	425422	0.50000	0.500
77 Benzo(e)pyrene	252	11.742	11.729	(0.997)	228259	0.18072	3610
* 78 Benzo(a)pyrene-d12	264	11.778	11.771	(1.000)	411423	0.50000	0.500

Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d
Report Date: 27-Sep-2016 17:16

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ng/g)
$ 79 Benzo(a)pyrene-d12(SS)	264	11.778	11.771	(1.006)	411423	0.54534	27.3
80 Benzo(a)pyrene	252	11.802	11.795	(1.002)	120515	0.10988	2200
* 81 Perylene-d12	264	11.873	11.866	(1.000)	424840	0.50000	0.500
$ 82 Perylene-d12(SS)	264	11.873	11.866	(1.014)	424840	0.49127	24.6
83 Perylene	252	11.903	11.896	(1.002)	30304	0.03018	604
* 84 Indeno(123-cd)pyrene-d12	288	13.281	13.274	(1.000)	455036	0.50000	0.500
$ 85 Indeno(123-cd)pyrene-d12(SS)	288	13.281	13.274	(1.135)	455036	0.50748	25.4
86 Indeno(1,2,3-cd)pyrene	276	13.315	13.307	(1.003)	36599	0.02989	598
* 87 Dibenz(ah)anthracene-d14	292	13.281	13.274	(1.000)	358885	0.50000	0.500
$ 88 Dibenz(ah)anthracene-d14(SS)	292	13.281	13.274	(1.135)	358885	0.50066	25.0
89 Dibenz(a,h)anthracene	278	13.322	13.314	(1.003)	20869	0.02069	414(M)
* 90 Benzo(ghi)perylene-d12	288	13.621	13.607	(1.000)	422845	0.50000	0.500
$ 91 Benzo(ghi)perylene-d12(SS)	288	13.621	13.607	(1.164)	422845	0.47779	23.9
92 Benzo(g,h,i)perylene	276	13.655	13.641	(1.002)	31322	0.02944	589
* 230 Coronene-d12	312	15.506	15.491	(1.000)	320067	0.50000	0.500
$ 231 Coronene-d12 (SS)	312	15.506	15.491	(1.325)	320067	0.48020	24.0
238 Coronene	300	15.540	15.532	(1.002)	1871	0.00206	41.2(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d
Report Date: 27-Sep-2016 17:16

TestAmerica Knoxville

RECOVERY REPORT

Client Name: ITSBUR
Sample Matrix: SOLID
Lab Smp Id: M88MX1AA
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: simpah.sub
Method File: /var/chem/gcms/mp.i/P092716.b/SIMPAH10.m
Misc Info: SIM PAH ANALYSIS 100%

Client SDG: P092716
Fraction: SV

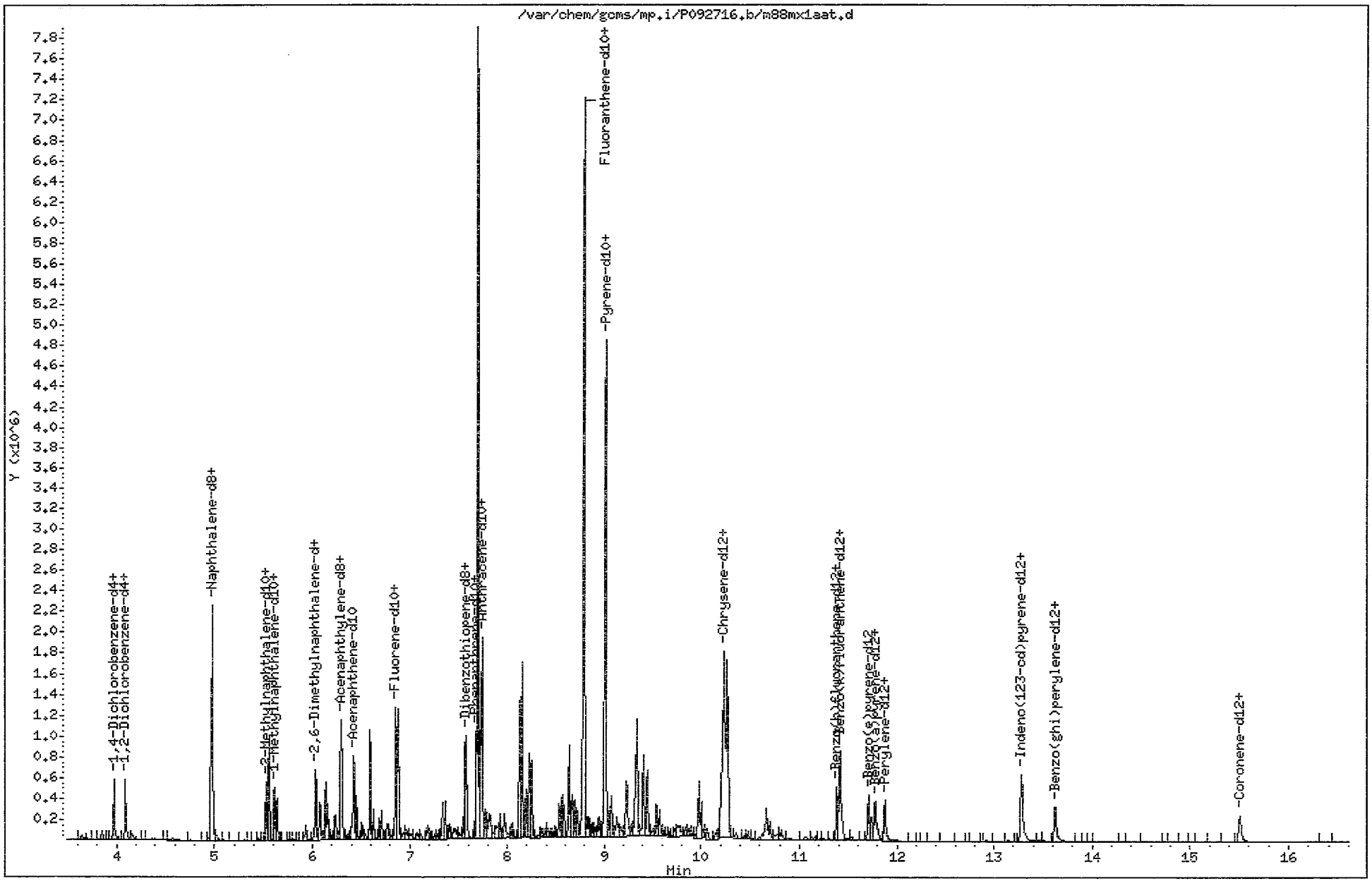
Operator: 11211
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ng/g	CONC RECOVERED ng/g	% RECOVERED	LIMITS
$ 257 1,4Dichlorobenzene	25.0	25.9	103.69	30-120
$ 235 1,2-Dichlorobenzen	25.0	24.7	98.92	30-120
$ 2 Naphthalene-d8(SS)	25.0	23.5	93.85	30-130
$ 222 13C6-Naphthalene	~~50.0~~	0.00	*	50-150
$ 11 2-Methylnaphthalen	25.0	24.2	96.70	30-120
$ 14 1-Methylnaphthalen	25.0	24.1	96.26	30-120
$ 18 2,6-Dimethylnaph-d	25.0	24.3	97.01	30-120
$ 21 Acenaphthylene-d8(	25.0	26.4	105.41	30-120
$ 233 Fluorene-d10(SS)	25.0	24.6	98.52	30-120
$ 35 Dibenzothiopene-d8	25.0	22.9	91.66	30-120
$ 42 Phenanthrene-d10(S	25.0	22.9	91.78	30-120
$ 45 Anthracene-d10(SS)	25.0	24.7	98.86	30-120
$ 54 Fluoranthene-d10(S	25.0	25.6	102.51	30-120
$ 58 Terphenyl-d14	~~25.0~~	0.00	*	30-120
$ 64 Chrysene-d12(SS)	25.0	23.6	94.31	30-120
$ 71 Benzo(b)fluoranthe	25.0	27.9	111.48	30-120
$ 74 Benzo(k)fluoranthe	25.0	23.8	95.22	30-120
$ 79 Benzo(a)pyrene-d12	25.0	27.3	109.07	30-120
$ 82 Perylene-d12(SS)	25.0	24.6	98.25	30-120
$ 85 Indeno(123-cd)pyre	25.0	25.4	101.50	30-120
$ 88 Dibenz(ah)anthrace	25.0	25.0	100.13	30-120
$ 91 Benzo(ghi)perylene	25.0	23.9	95.56	30-120
$ 231 Coronene-d12 (SS)	25.0	24.0	96.04	30-120

JPG 28-16

Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d
Date : 27-SEP-2016 16:56
Client ID:
Sample Info: ,,0,,PDS 1:400 TRT
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

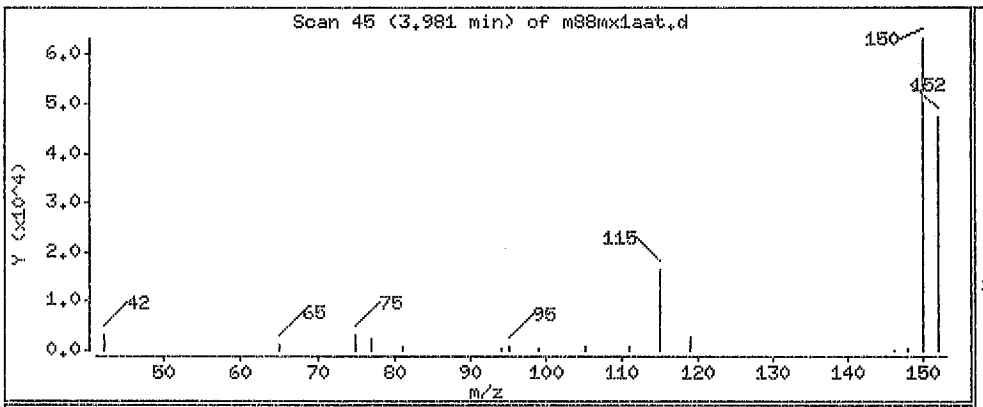
Operator: 11211

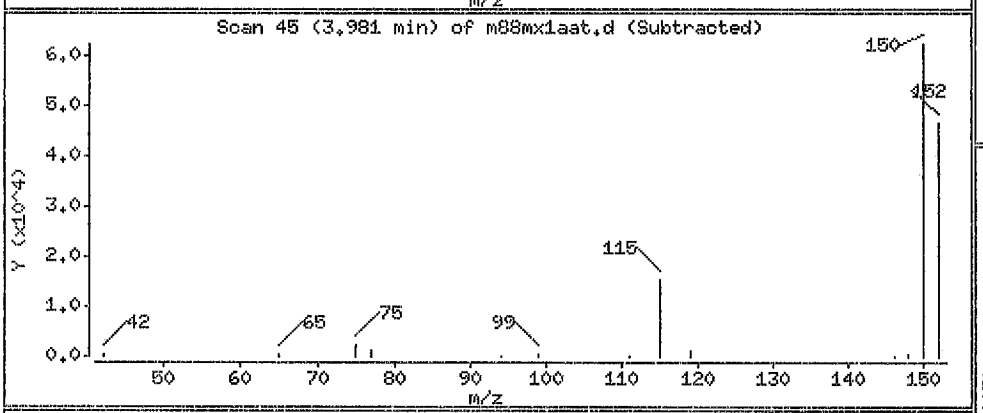
Column phase: Rxi-5SIL MS w/Guard

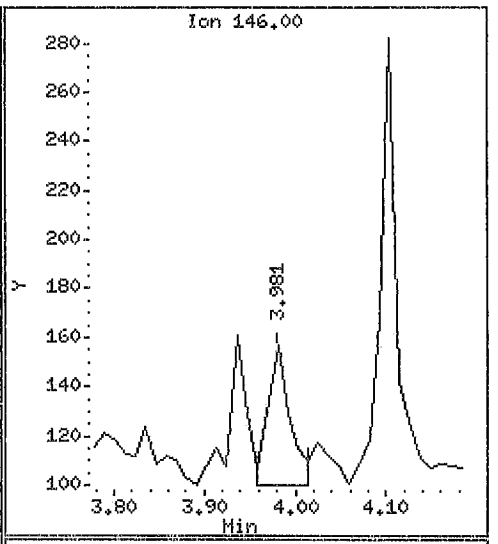
Column diameter: 0.25

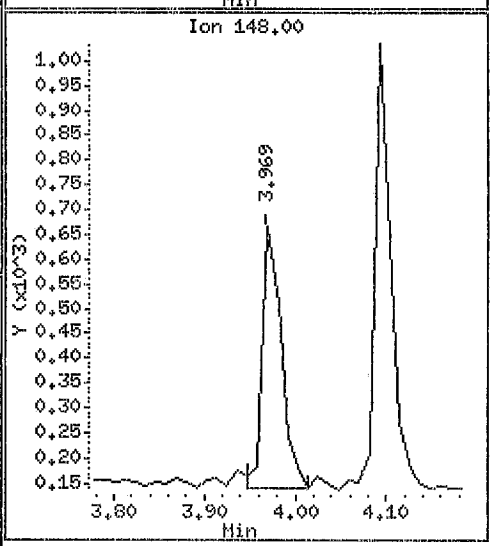
254 1,4-Dichlorobenzene

Concentration: 3.71 ng/g









Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

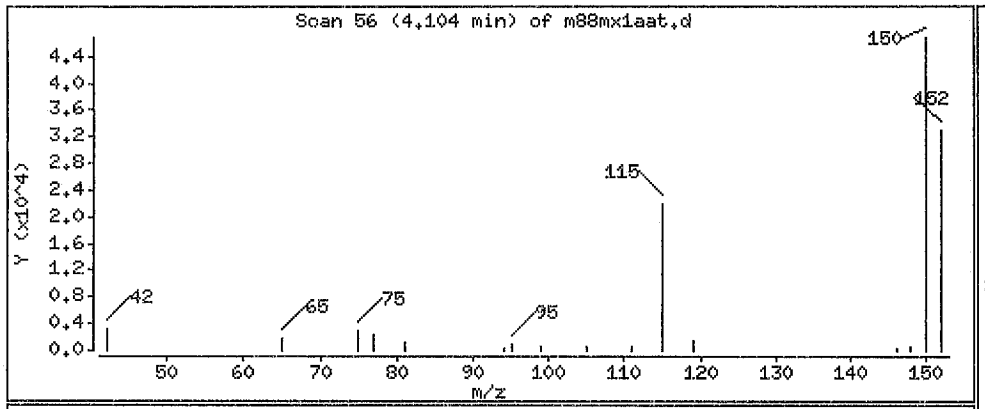
Operator: 11211

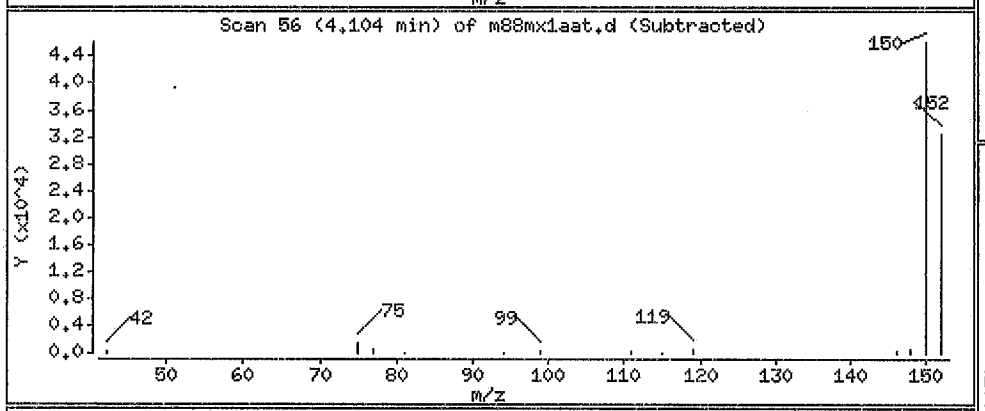
Column phase: Rxi-5SIL MS w/Guard

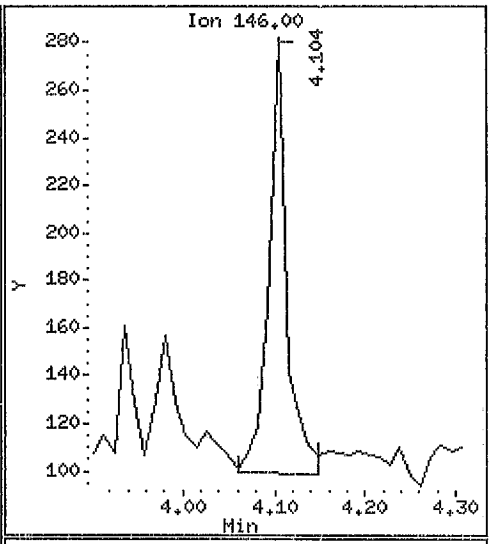
Column diameter: 0.25

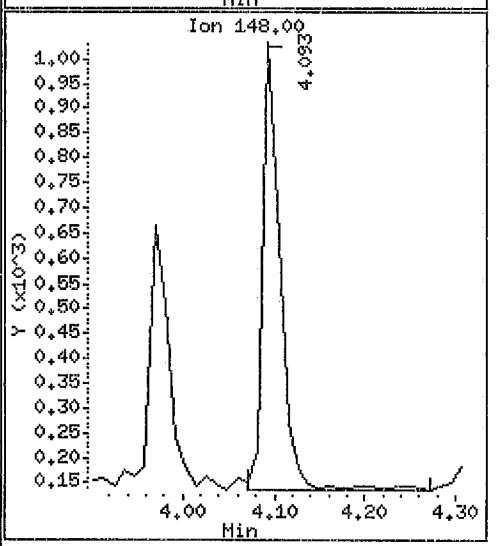
236 1,2-Dichlorobenzene

Concentration: 9.85 ng/g









Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

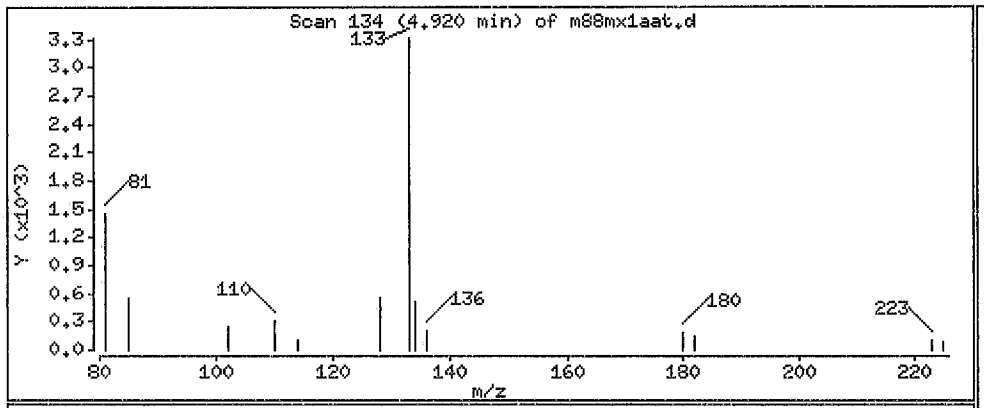
Operator: 11211

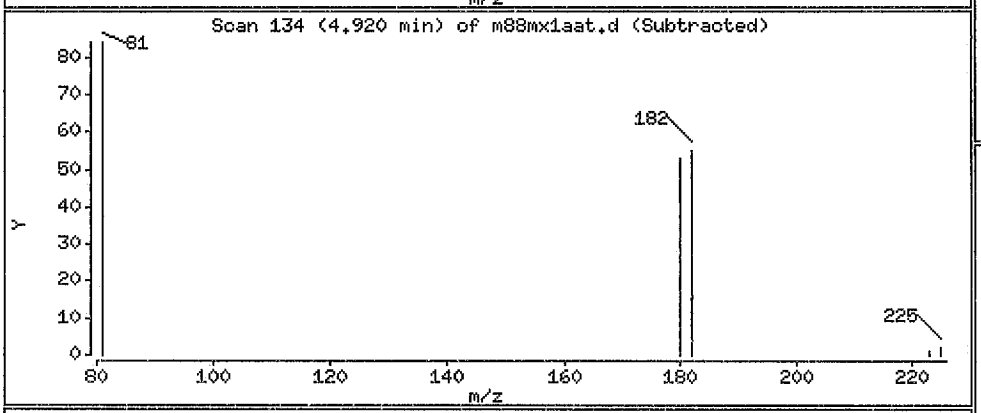
Column phase: Rxi-5SIL MS w/Guard

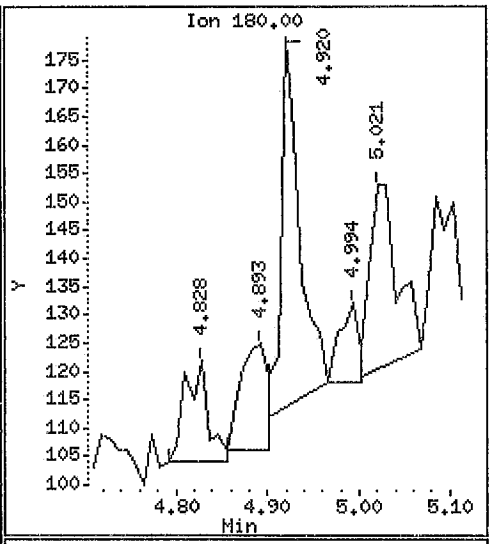
Column diameter: 0.25

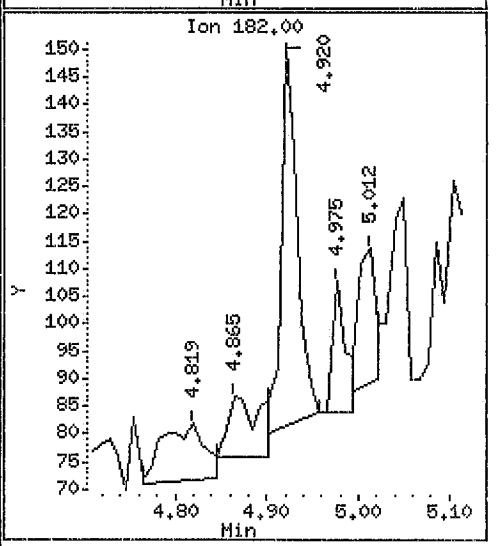
245 1,2,4-Trichlorobenzene

Concentration: 5.00 ng/g









Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ..0..PDS 1:400 TRT

Purge Volume: 10.0

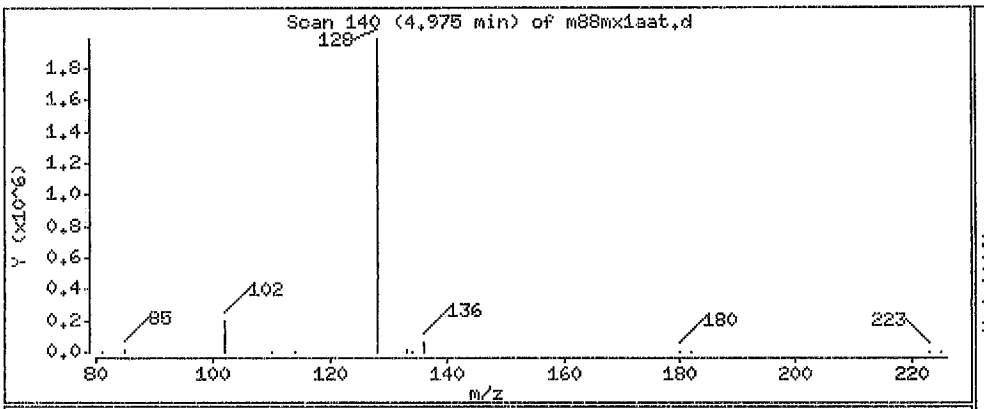
Operator: 11211

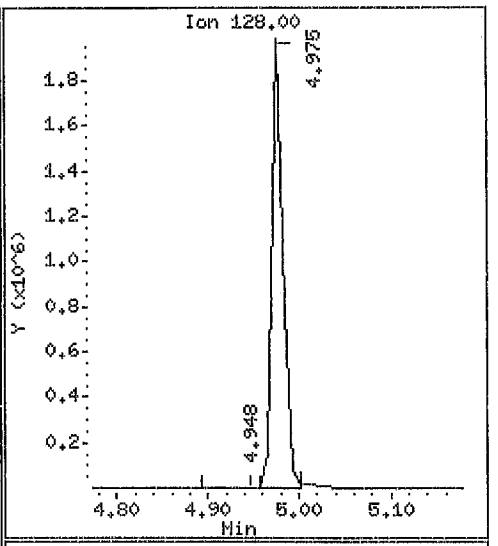
Column phase: Rxi-5SIL MS w/Guard

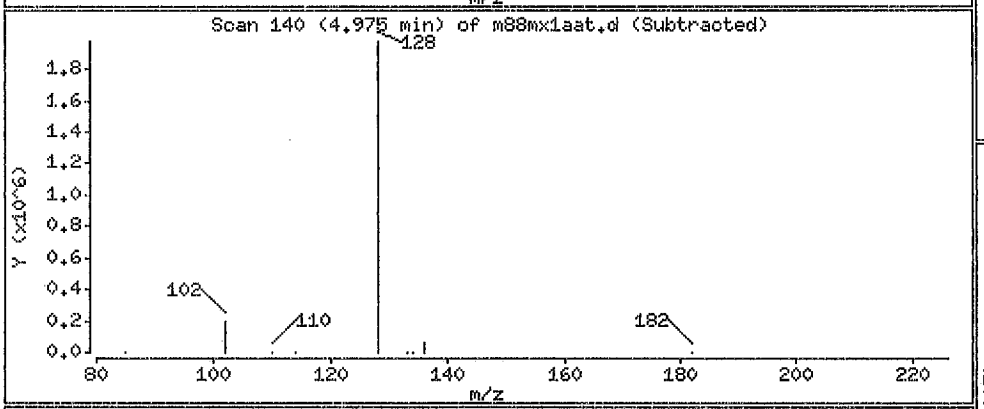
Column diameter: 0.25

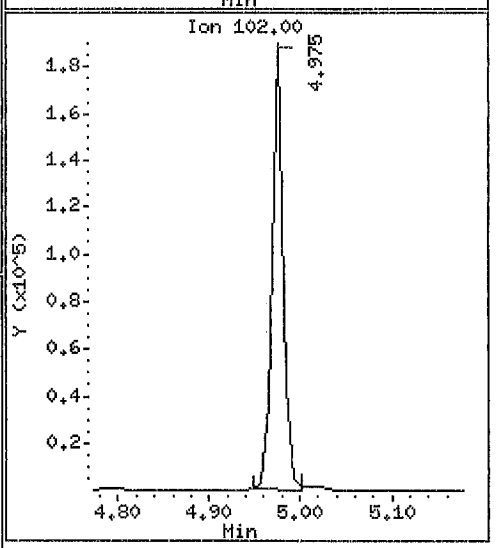
3 Naphthalene

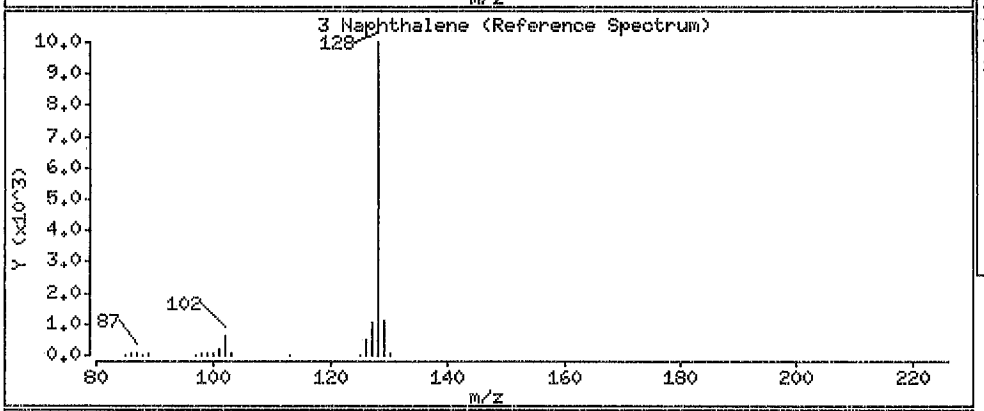
Concentration: 25500 ng/g

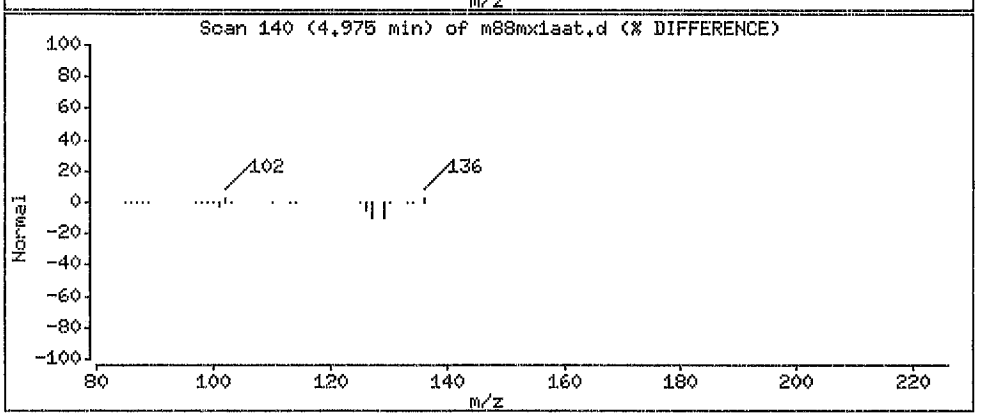












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Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

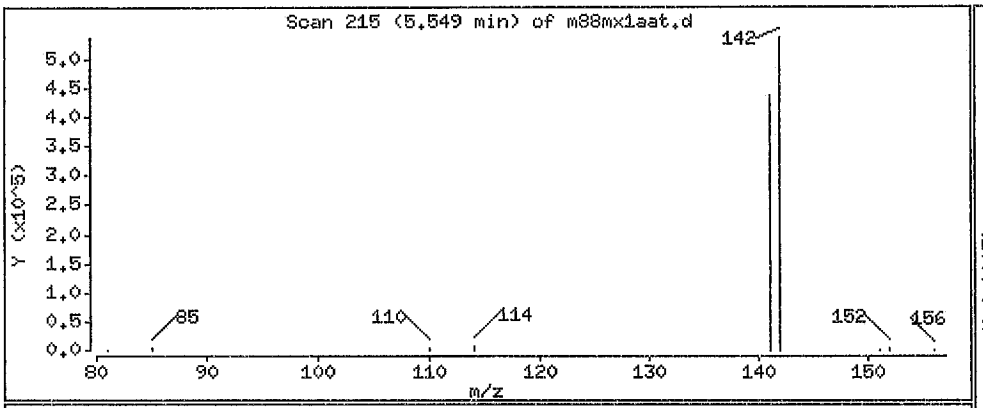
Operator: 11211

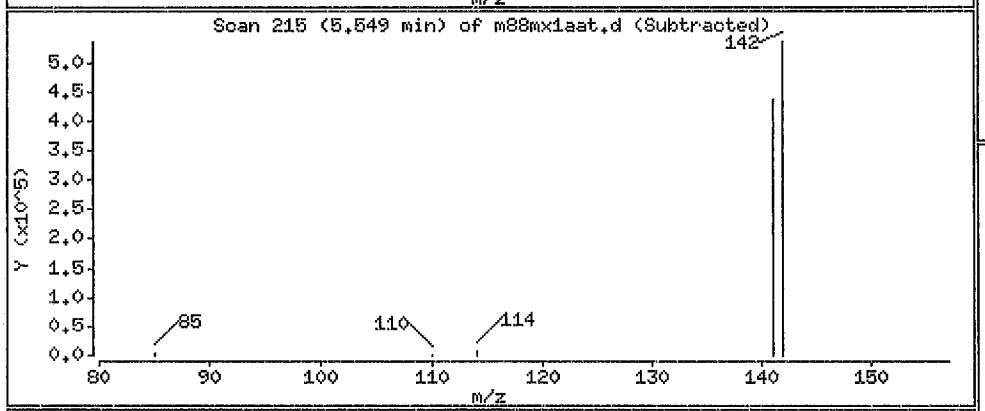
Column phase: Rxi-5SIL MS w/Guard

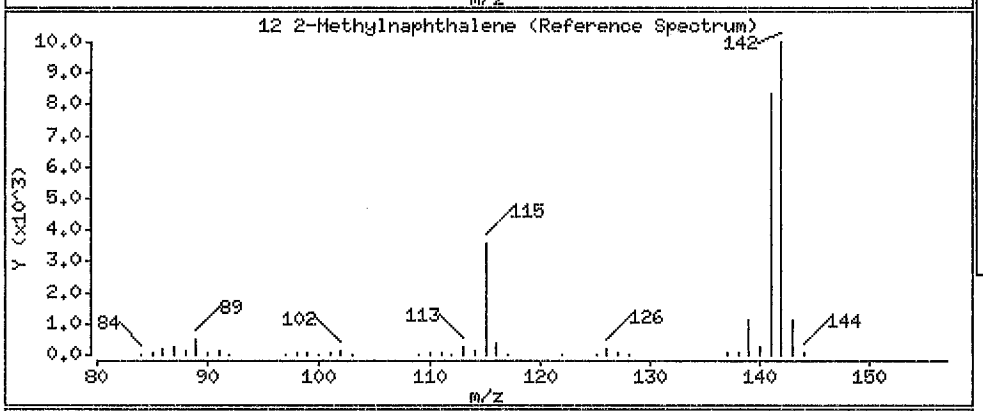
Column diameter: 0.25

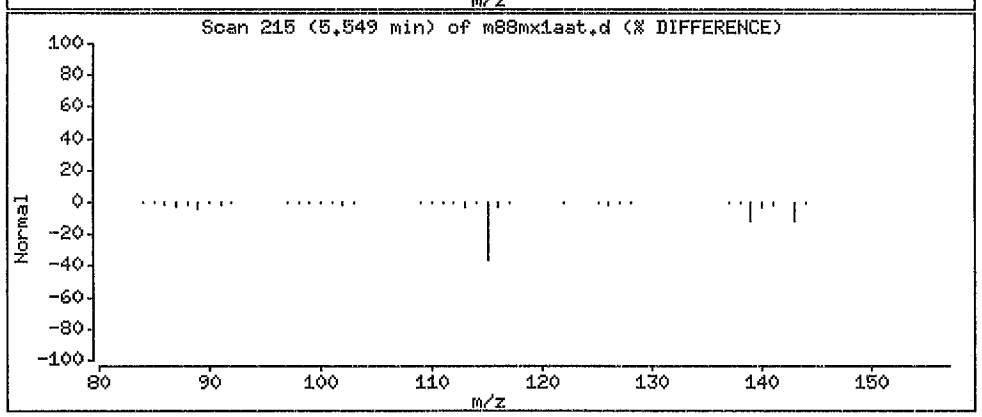
12 2-Methylnaphthalene

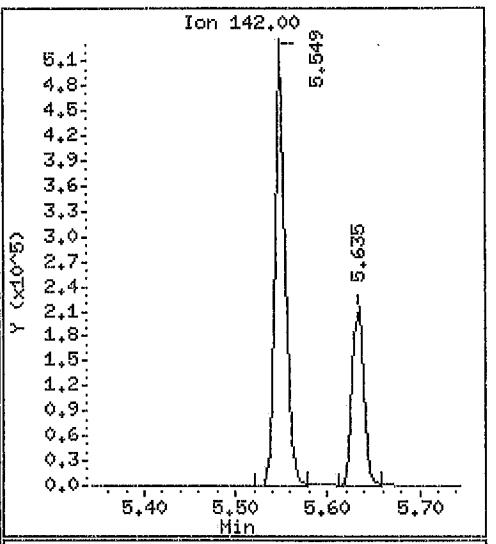
Concentration: 8940 ng/g

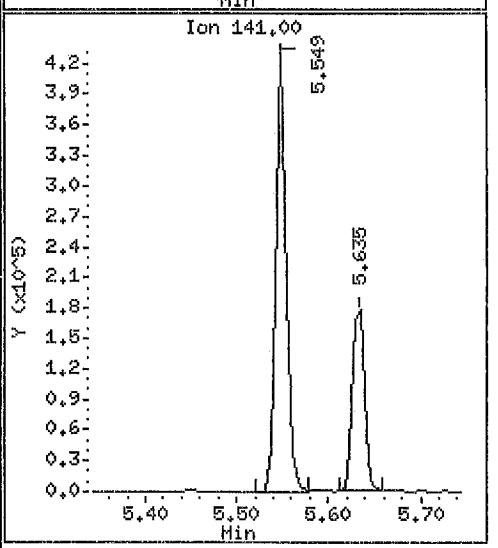












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Date : 27-SEP-2016 16:56

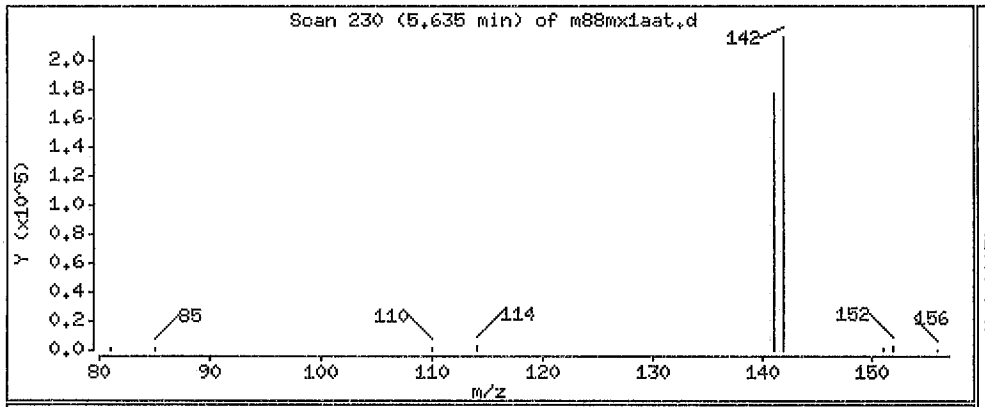
Client ID: | Instrument: mp.i

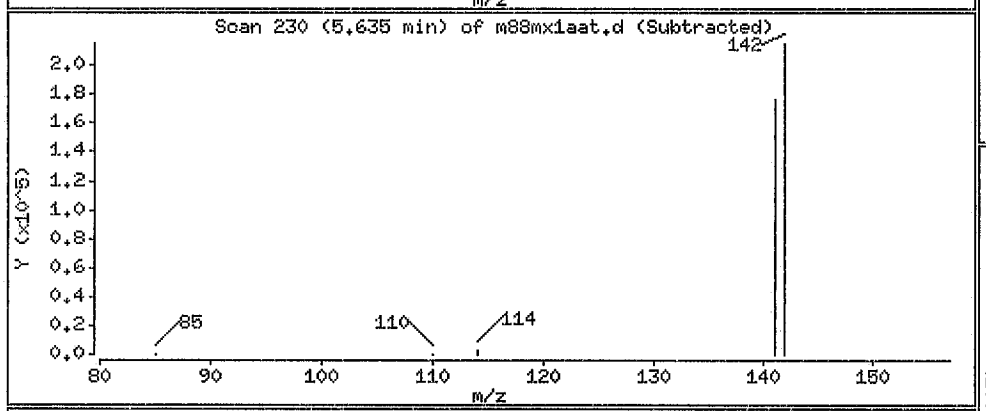
Sample Info: ,,0,,PDS 1:400 TRT

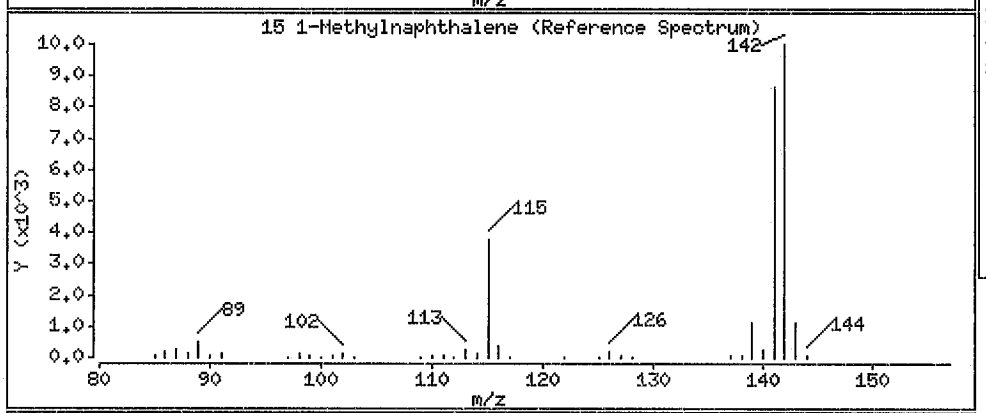
Purge Volume: 10.0 | Operator: 11211

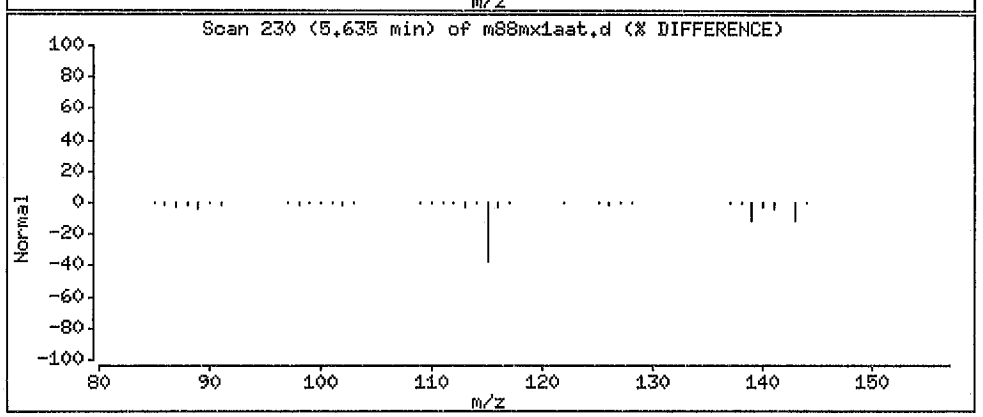
Column phase: Rxi-5SIL MS w/Guard | Column diameter: 0.25

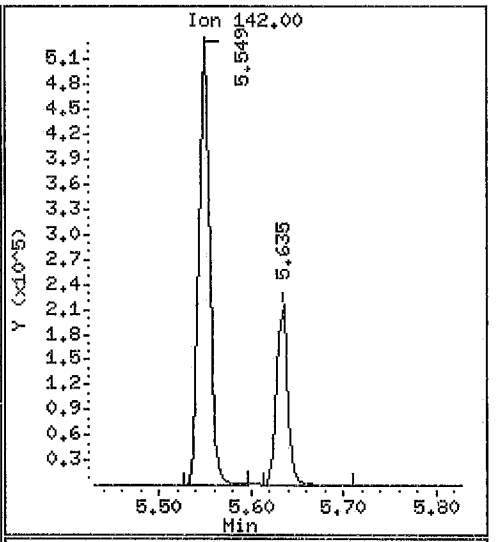
15 1-Methylnaphthalene | Concentration: 4560 ng/g

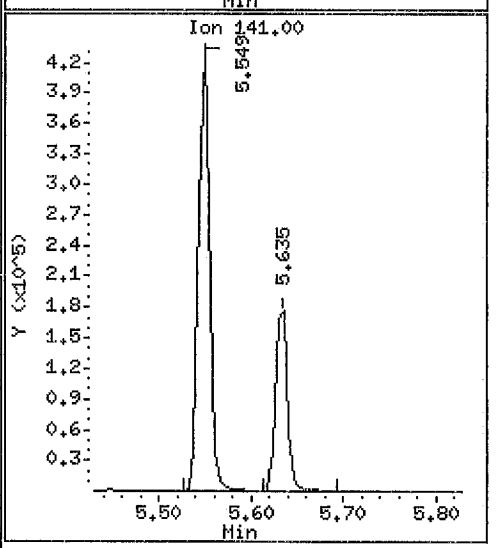












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Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

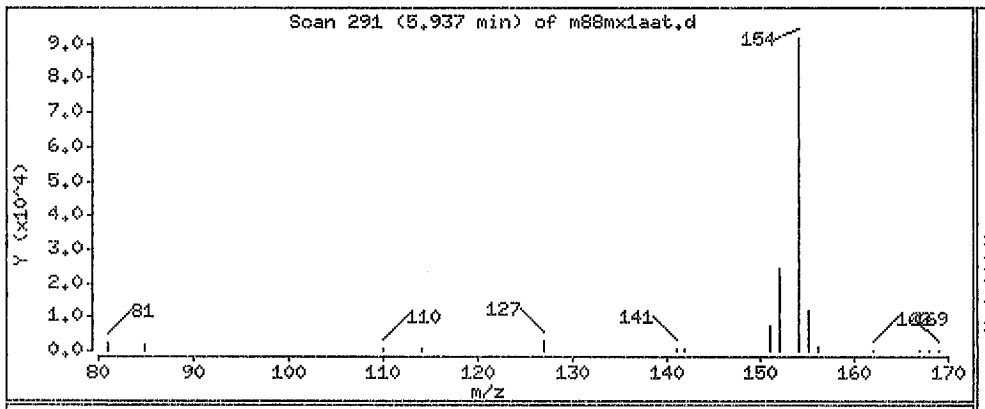
Operator: 11211

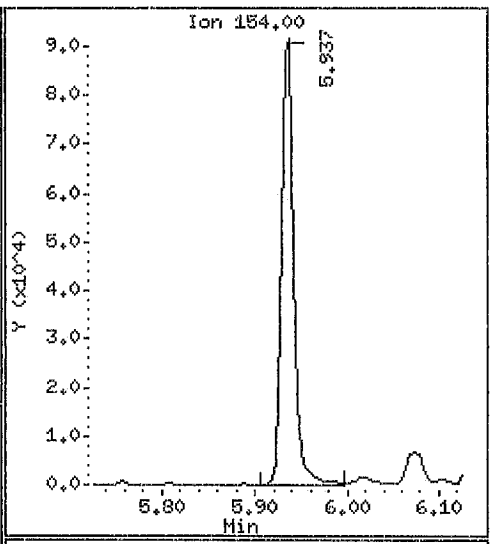
Column phase: Rxi-5SIL MS w/Guard

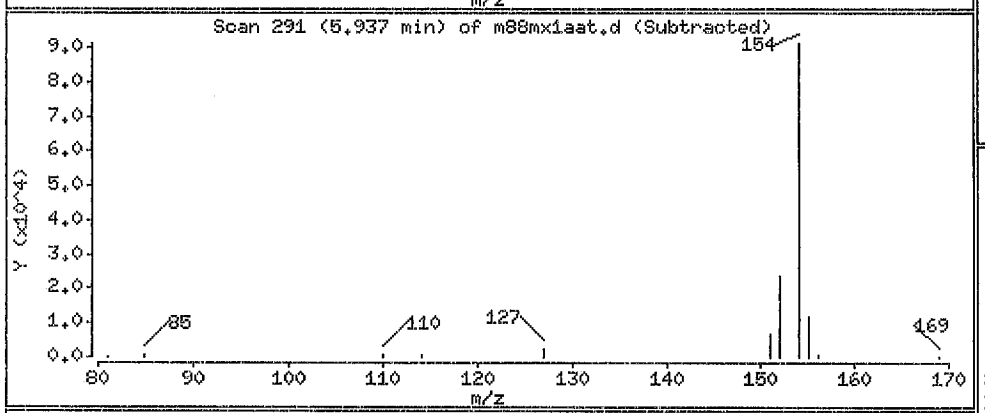
Column diameter: 0.25

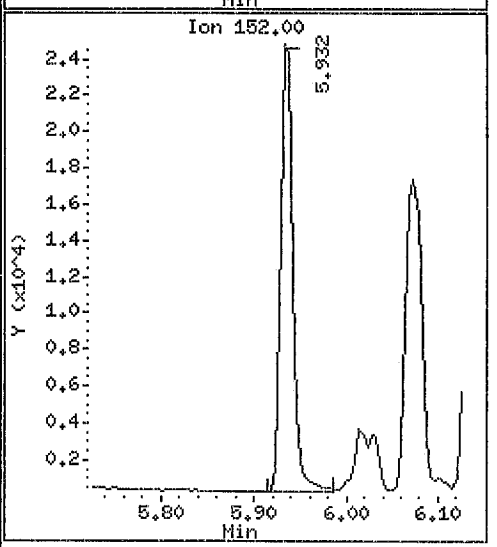
16 Biphenyl

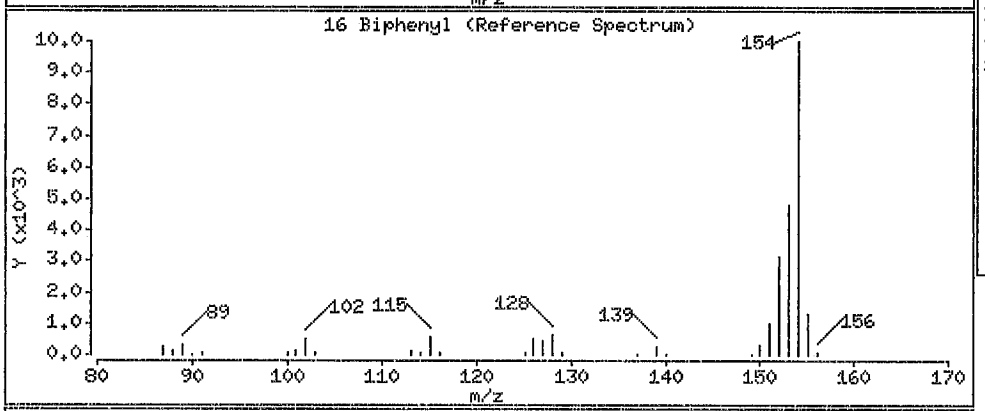
Concentration: 1490 ng/g

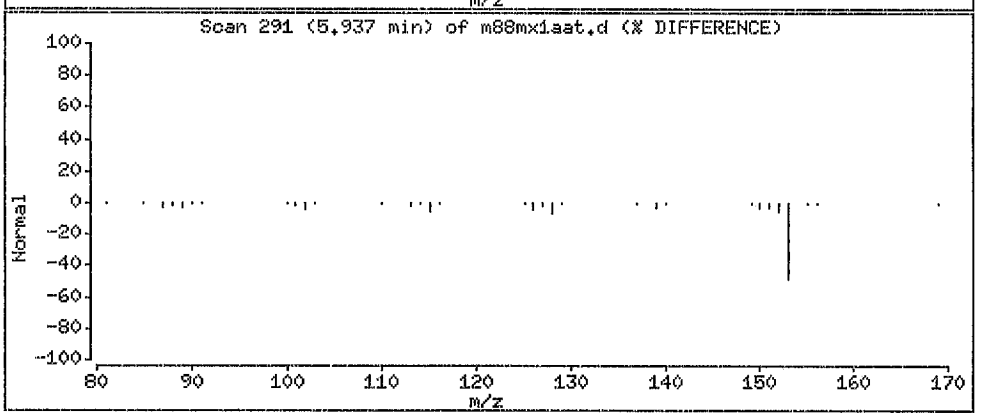












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Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

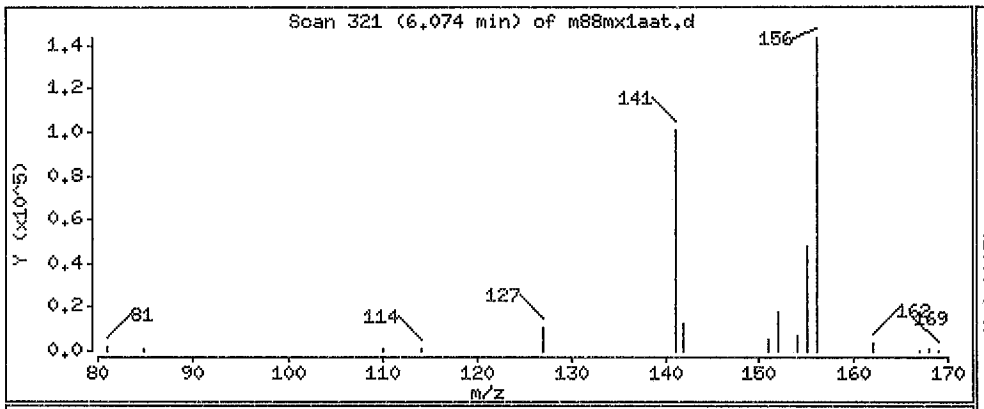
Operator: 11211

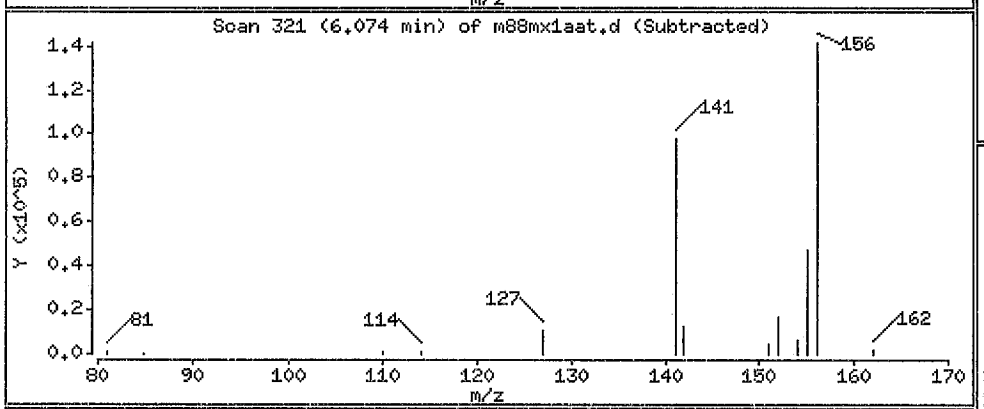
Column phase: Rxi-5SIL MS w/Guard

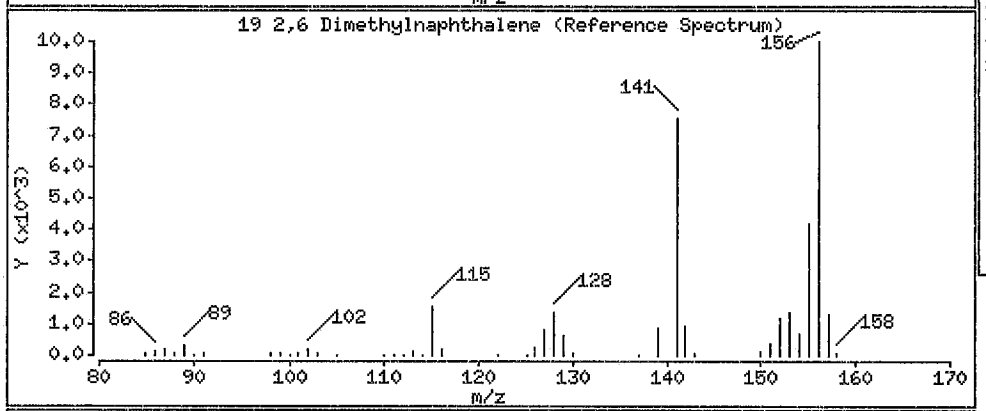
Column diameter: 0.25

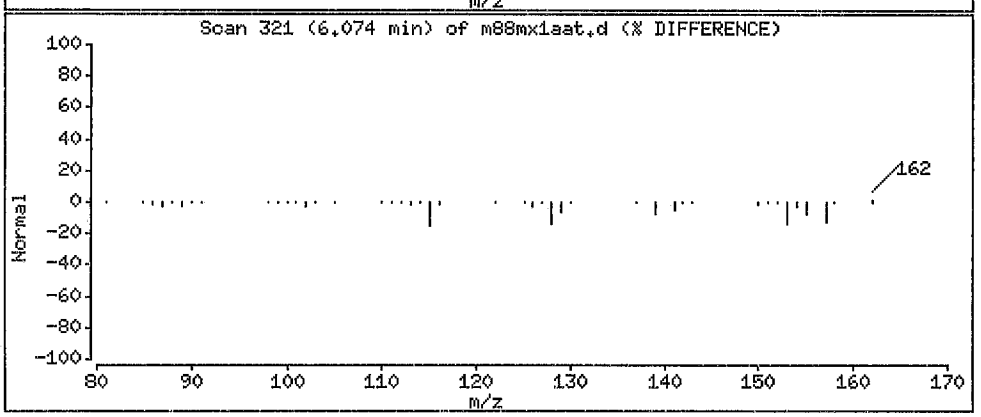
19 2,6 Dimethylnaphthalene

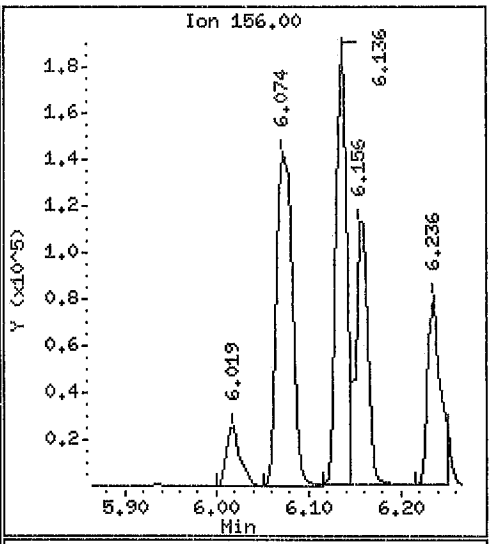
Concentration: 4140 ng/g

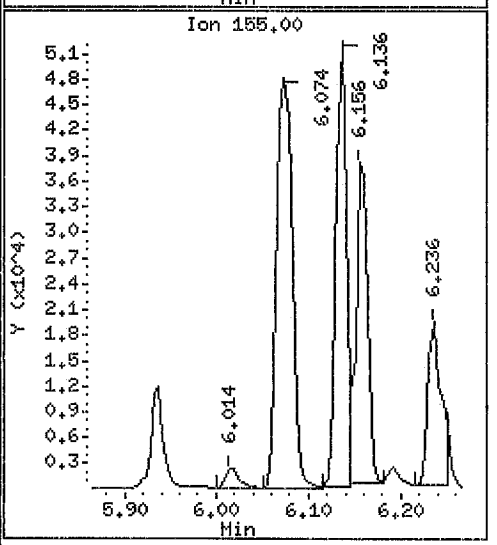












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Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

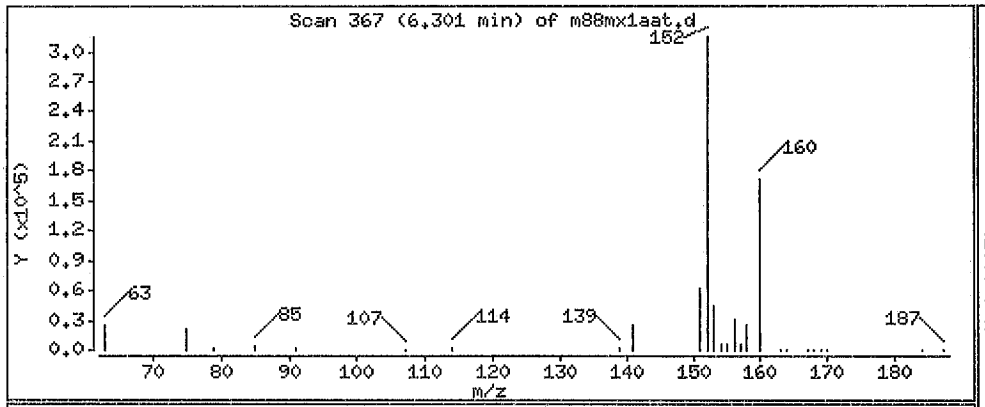
Operator: 11211

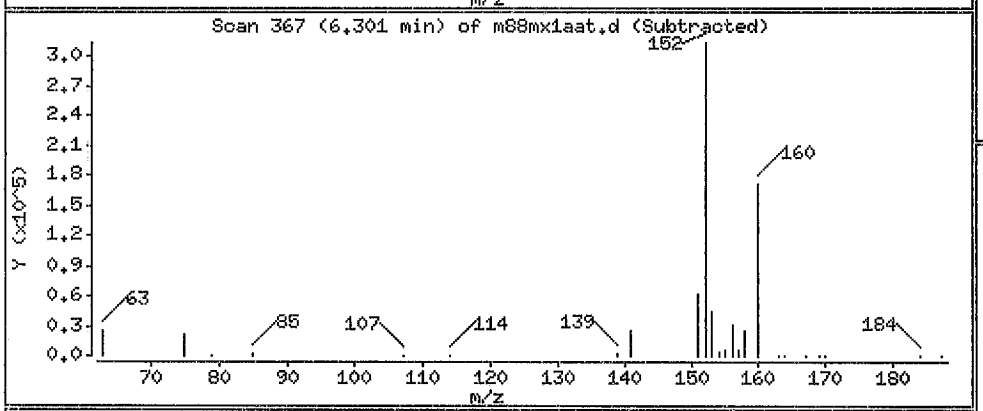
Column phase: Rxi-5SIL MS w/Guard

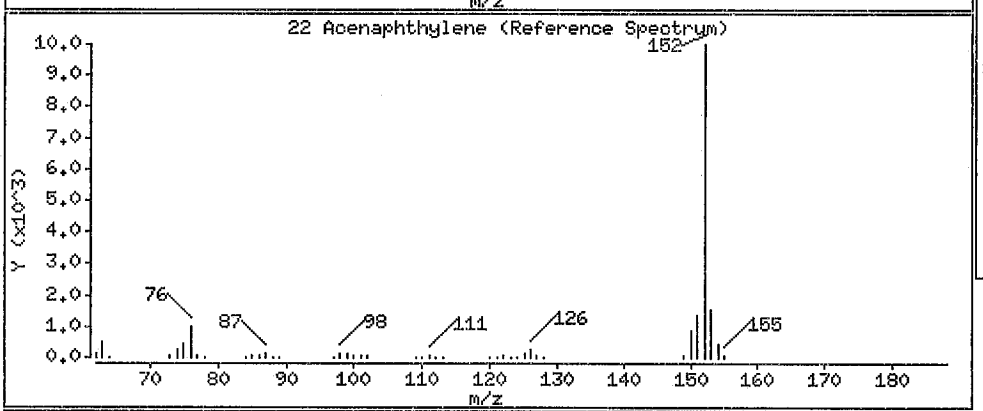
Column diameter: 0.25

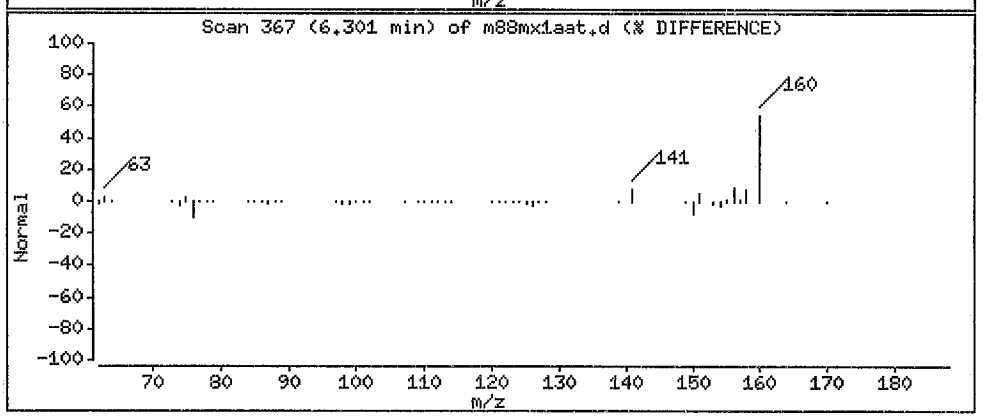
22 Acenaphthylene

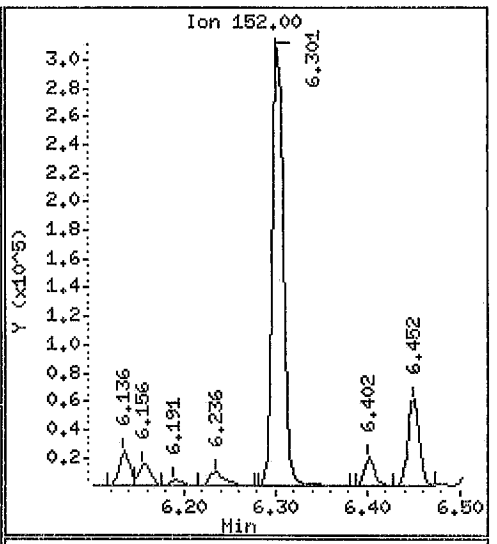
Concentration: 3730 ng/g

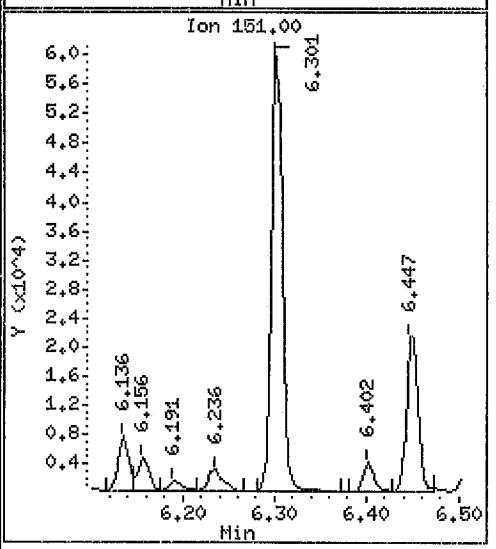












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Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

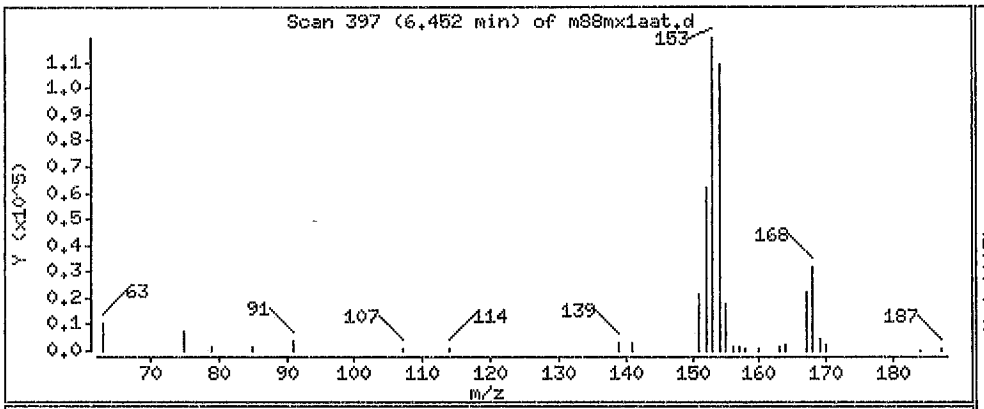
Operator: 11211

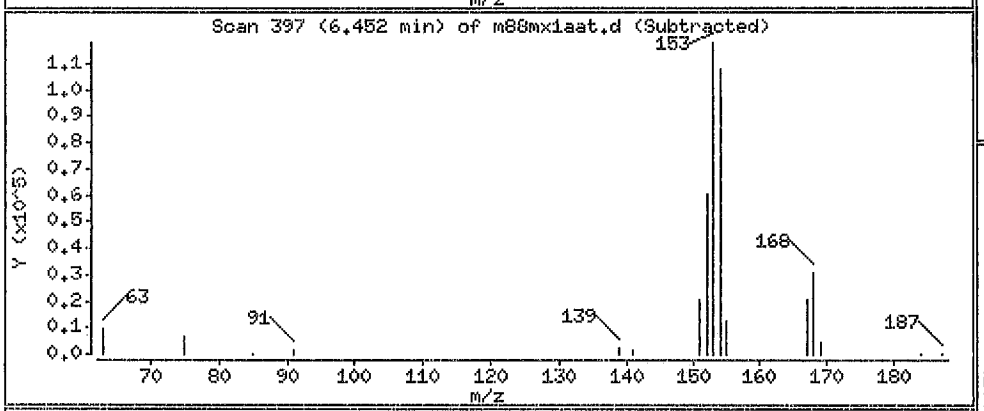
Column phase: Rxi-5SIL MS w/Guard

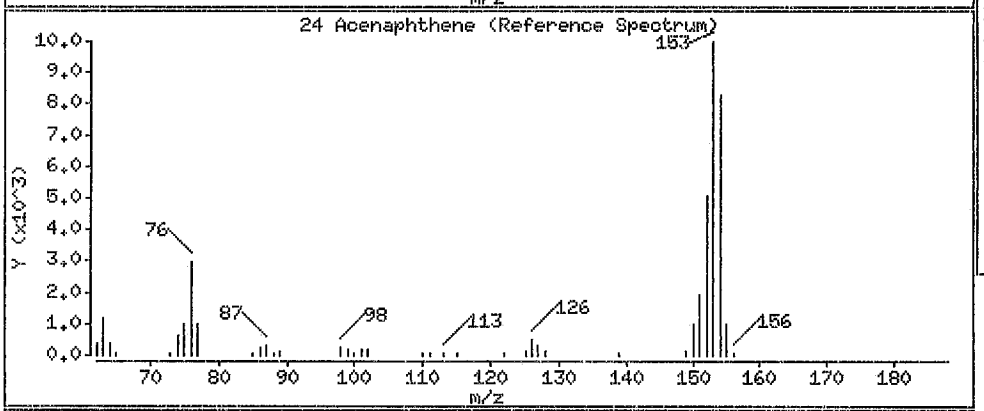
Column diameter: 0.25

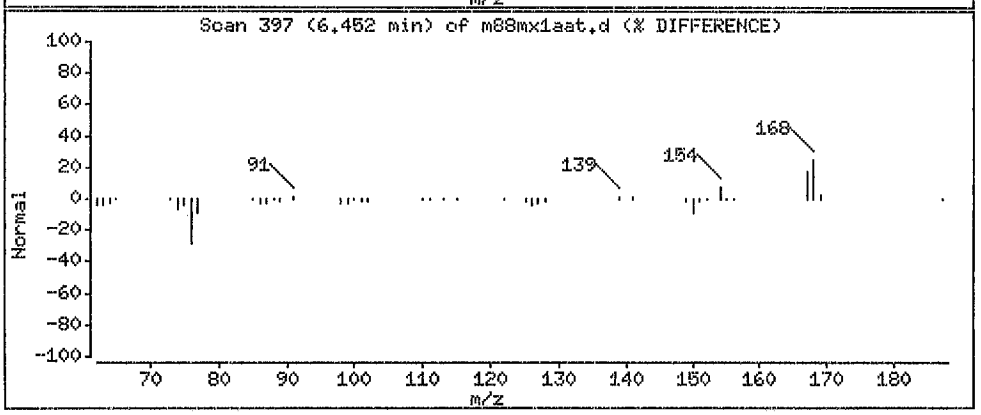
24 Acenaphthene

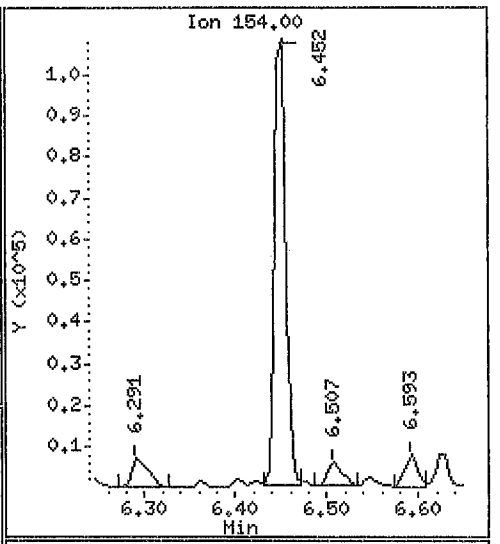
Concentration: 2120 ng/g

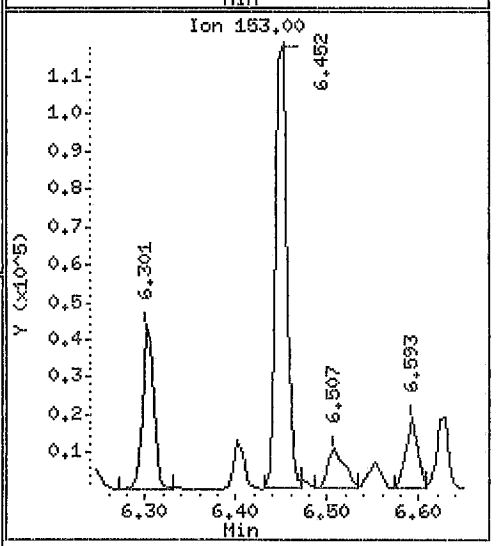












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

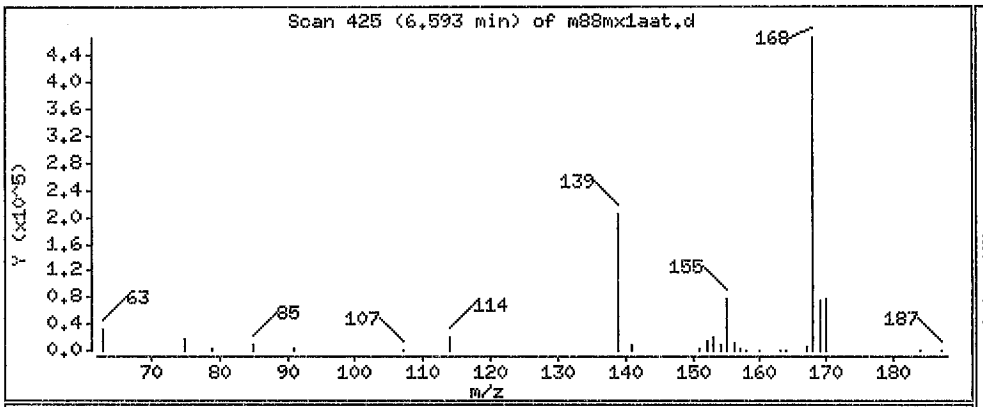
Operator: 11211

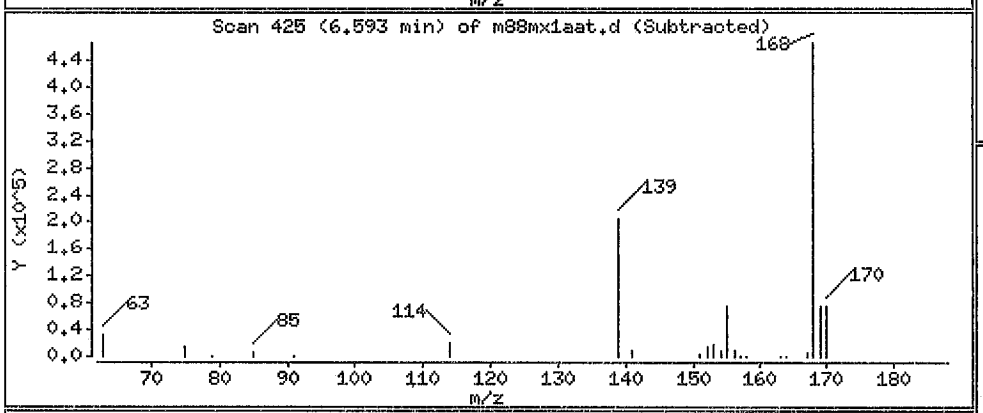
Column phase: Rxi-5SIL MS w/Guard

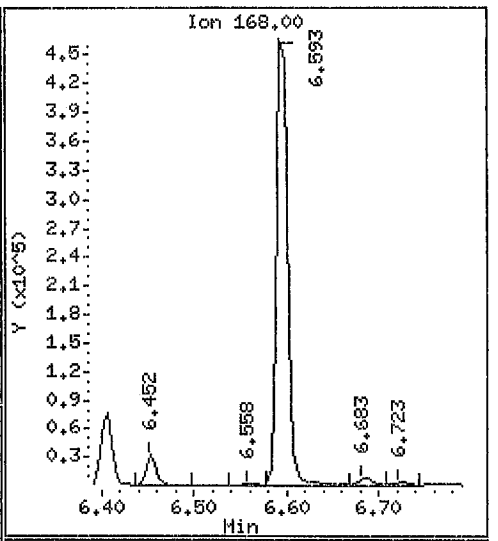
Column diameter: 0.25

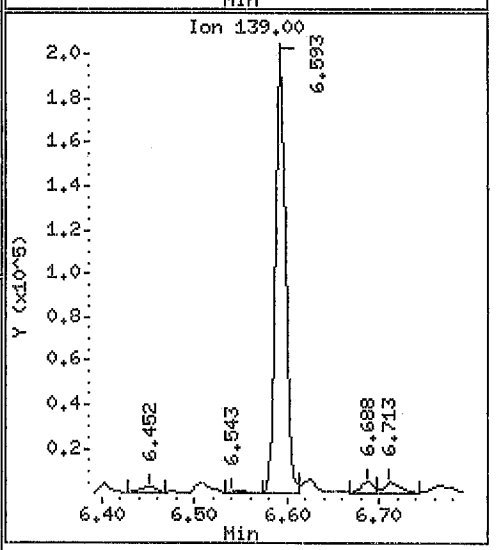
246 Dibenzofuran

Concentration: 6870 ng/g









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Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

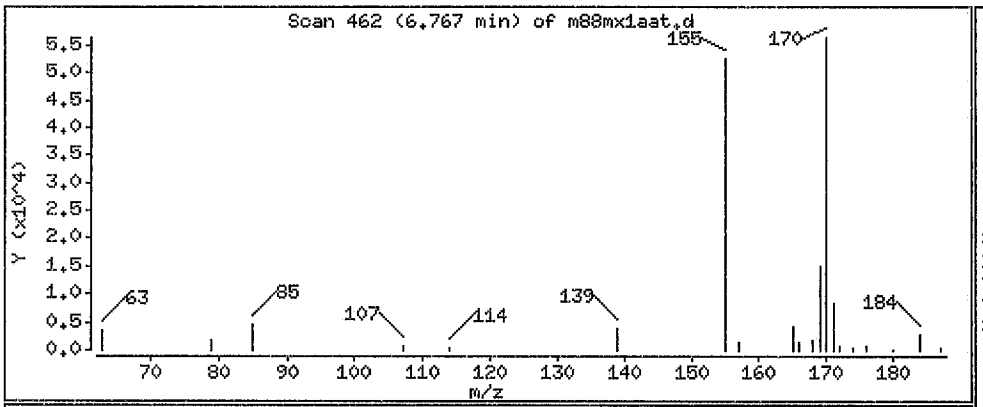
Operator: 11211

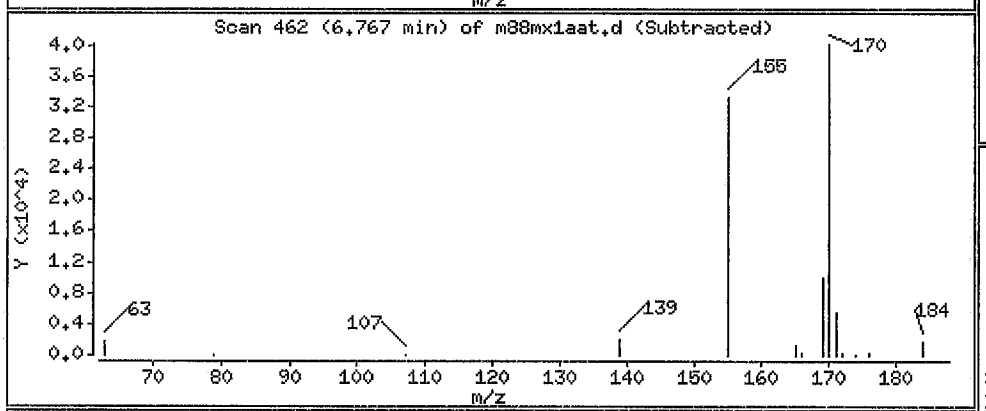
Column phase: Rxi-5SIL MS w/Guard

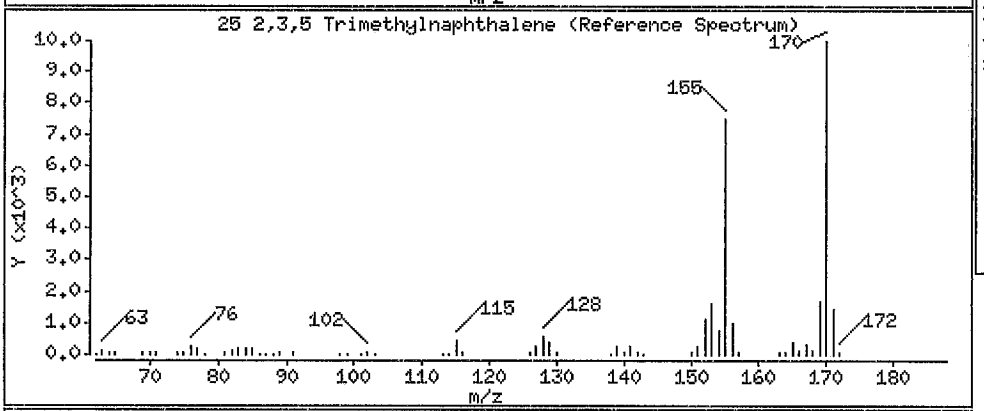
Column diameter: 0.25

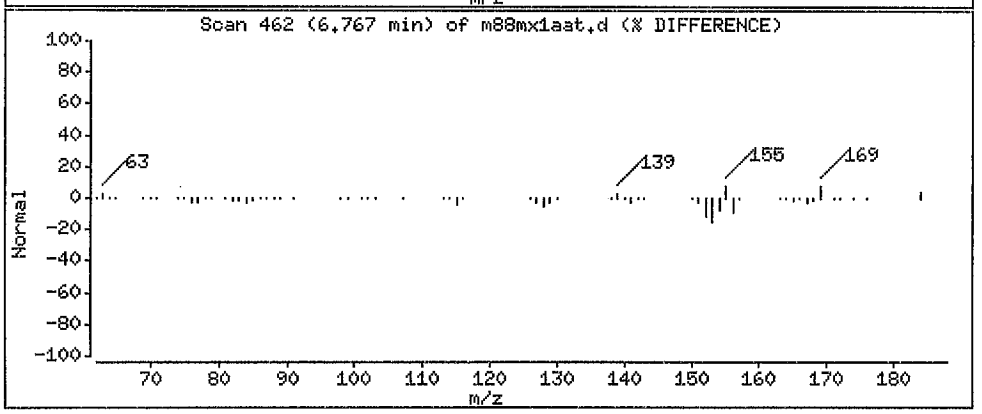
25 2,3,5 Trimethylnaphthalene

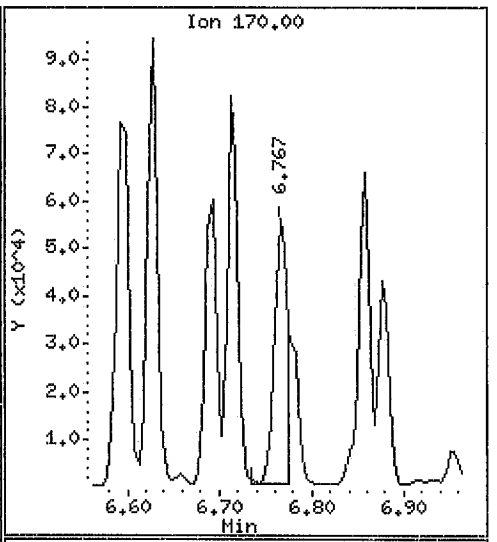
Concentration: 1690 ng/g

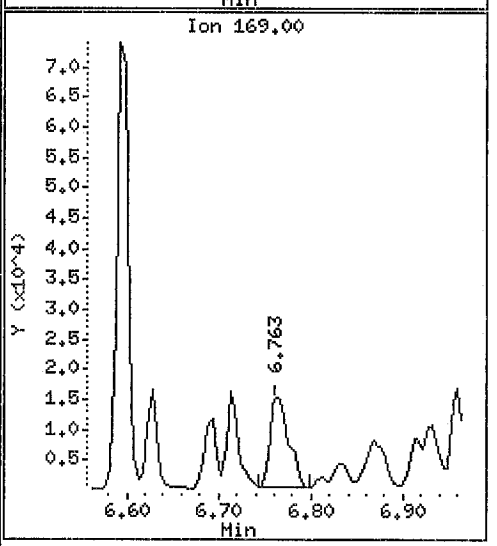












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Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

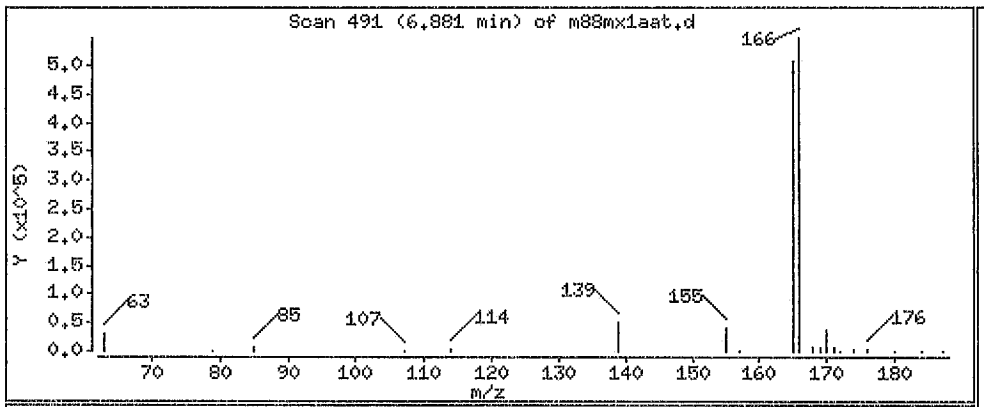
Operator: 11211

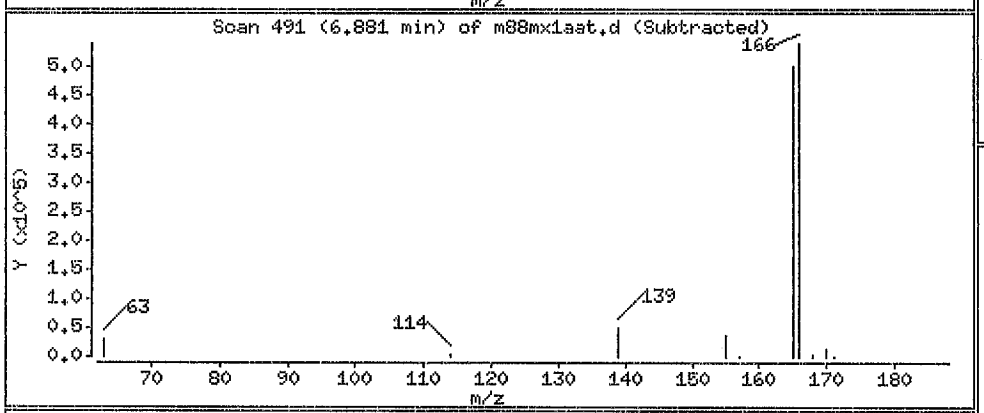
Column phase: Rxi-5SIL MS w/Guard

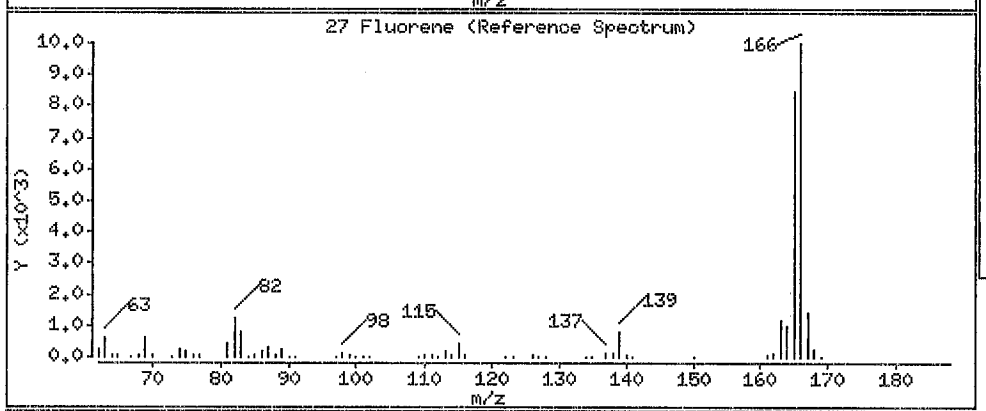
Column diameter: 0.25

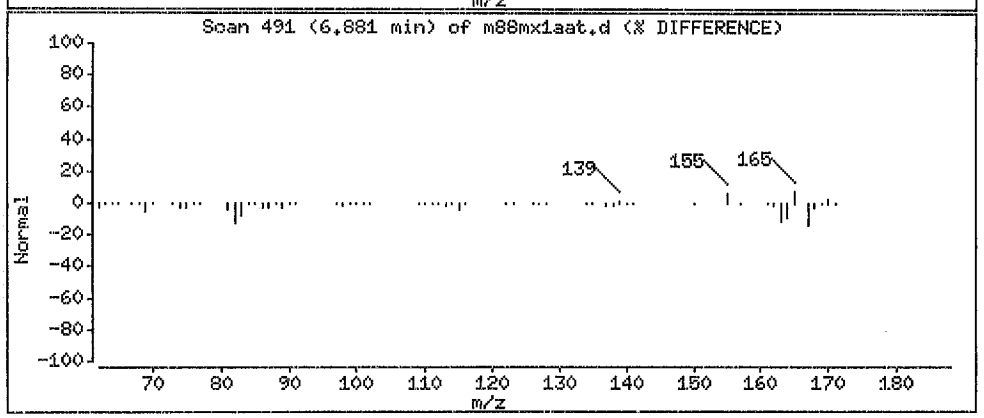
27 Fluorene

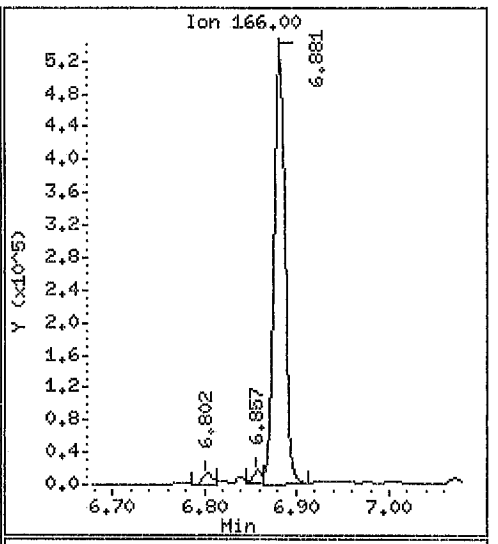
Concentration: 9220 ng/g

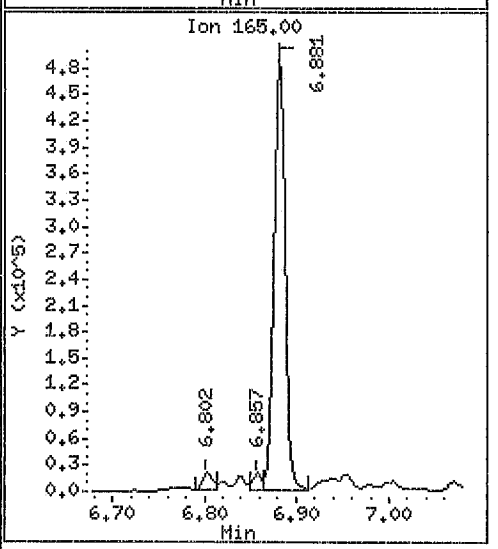












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

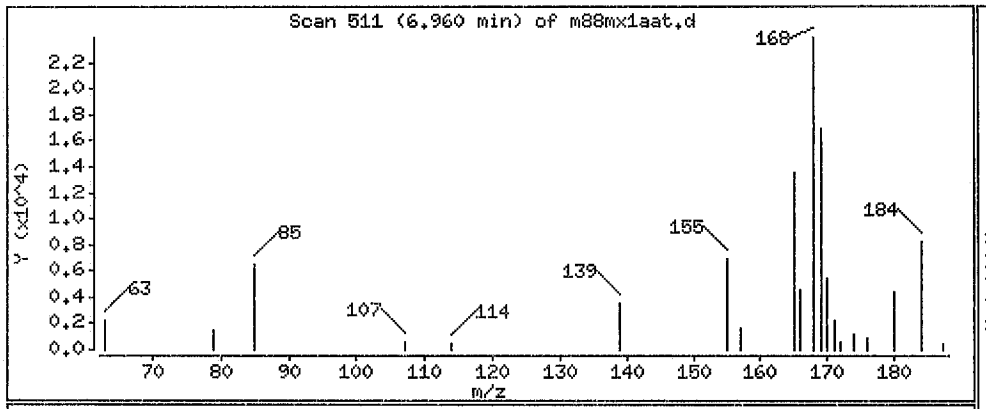
Client ID: | Instrument: mp.i

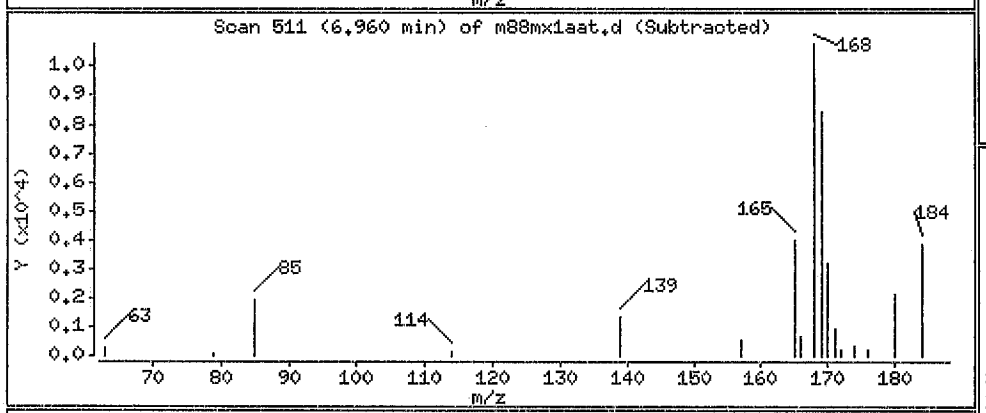
Sample Info: ,,0,,PDS 1:400 TRT

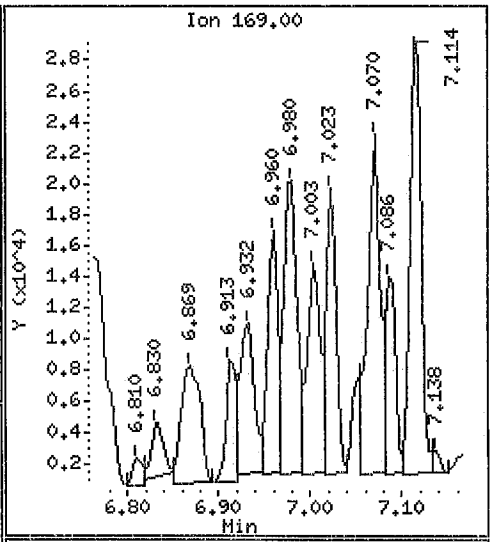
Purge Volume: 10.0 | Operator: 11211

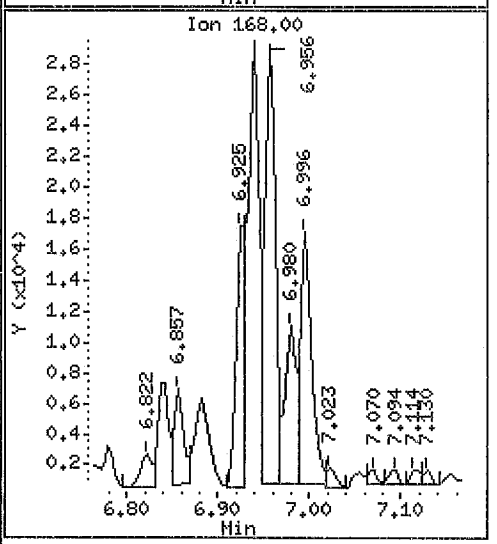
Column phase: Rxi-5SIL MS w/Guard | Column diameter: 0.25

243 Diphenylamine | Concentration: 407 ng/g









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Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

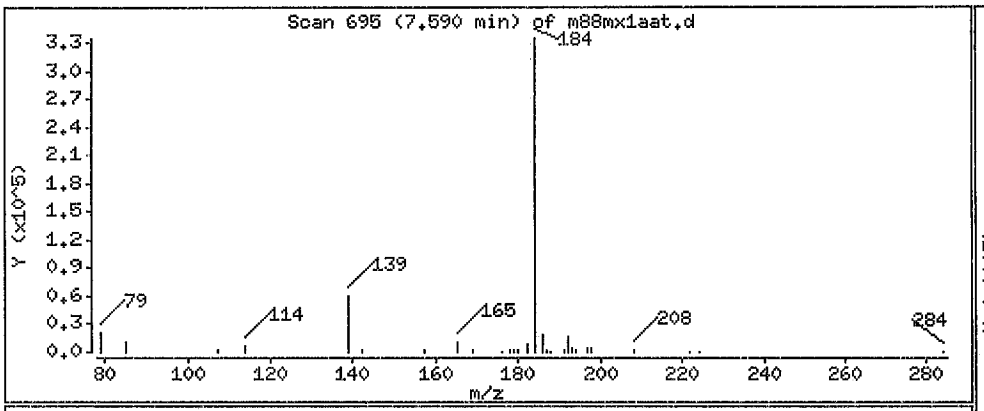
Operator: 11211

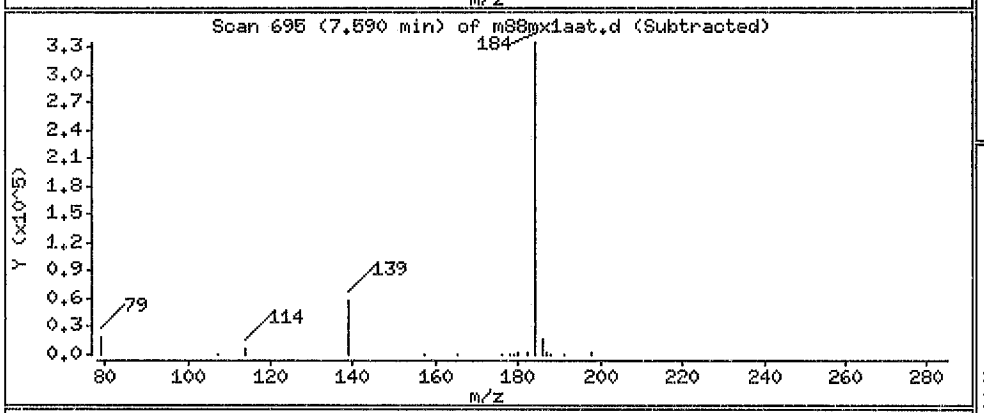
Column phase: Rxi-5SIL MS w/Guard

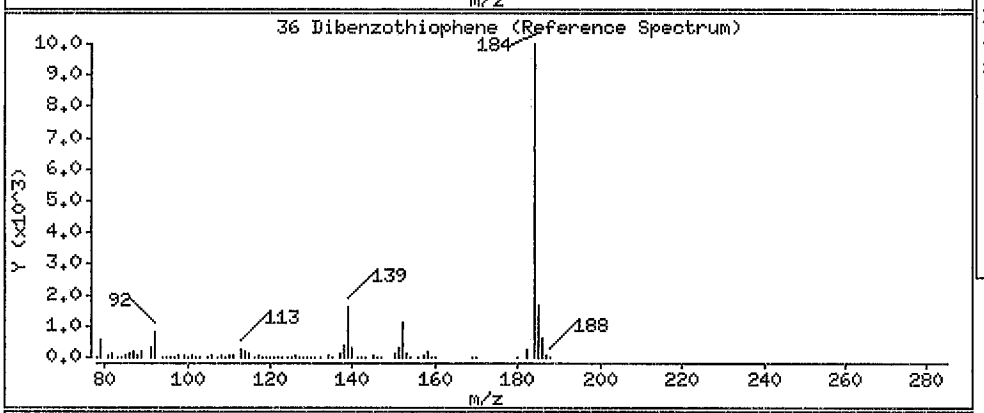
Column diameter: 0.25

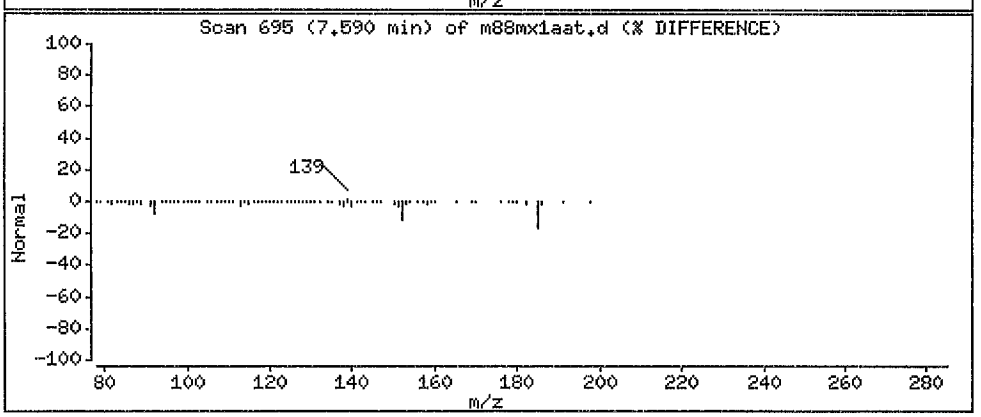
36 Dibenzothiophene

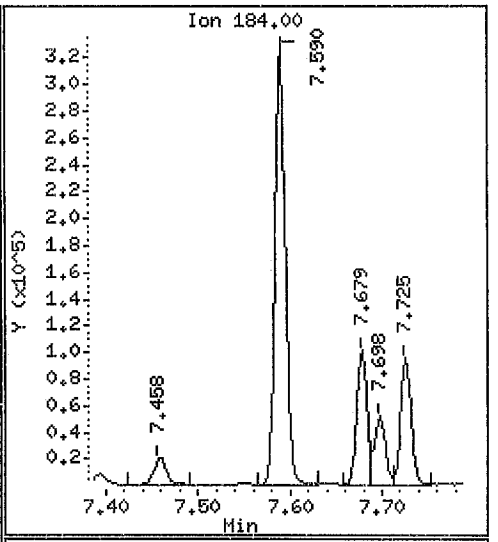
Concentration: 4330 ng/g

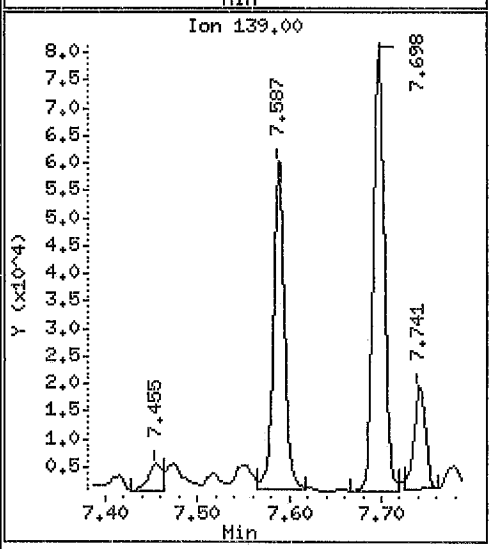












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

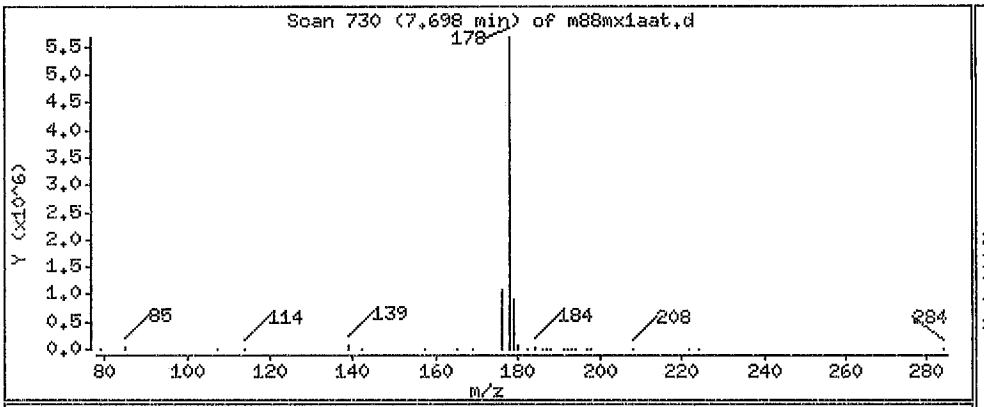
Client ID: | Instrument: mp.i

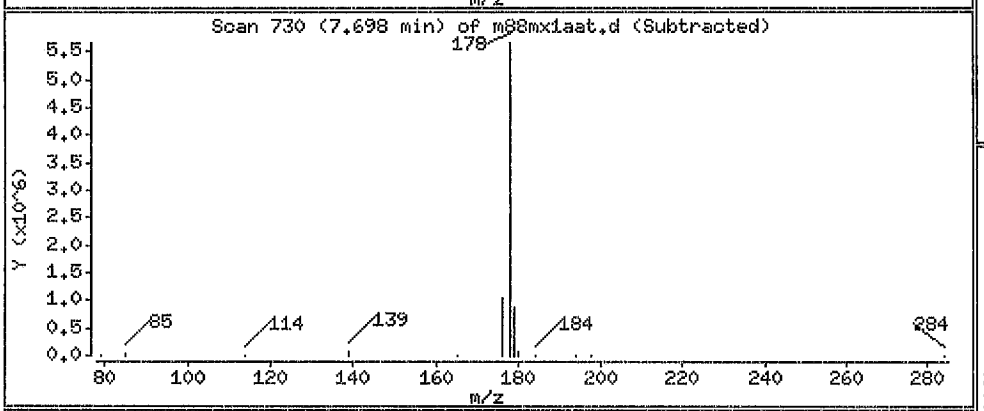
Sample Info: ,,0,,PDS 1:400 TRT

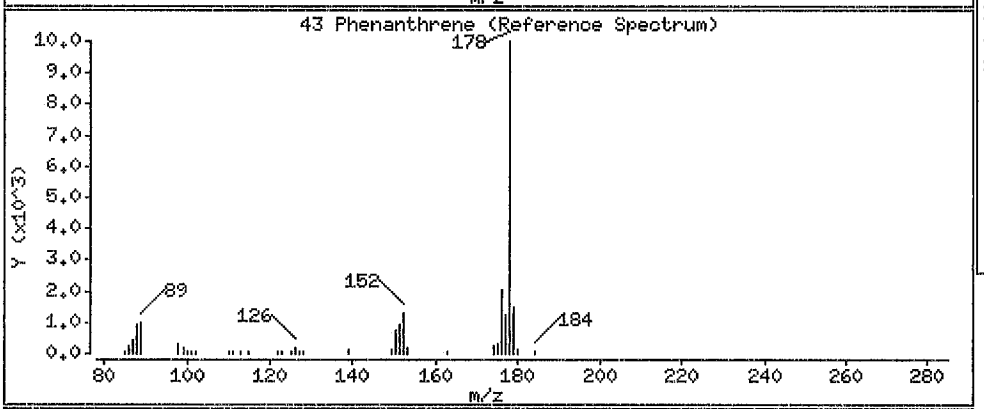
Purge Volume: 10.0 | Operator: 11211

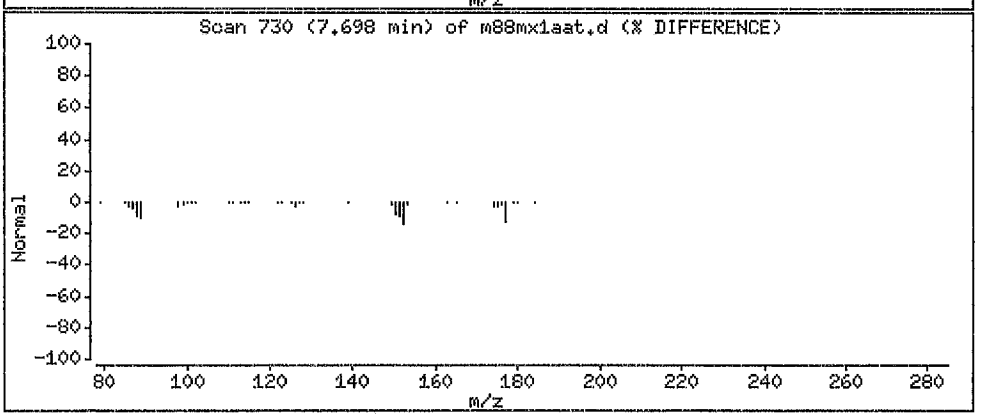
Column phase: Rxi-5SIL MS w/Guard | Column diameter: 0.25

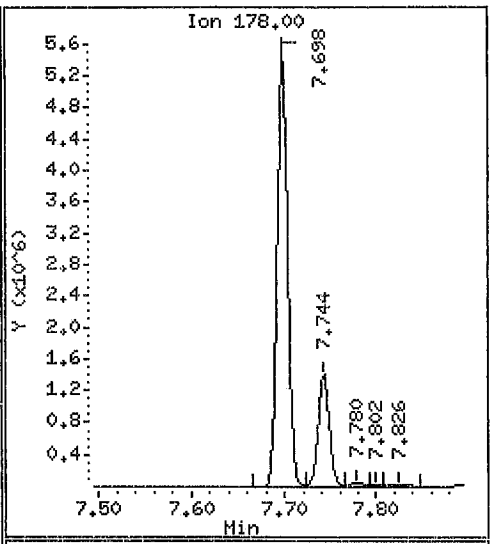
43 Phenanthrene | Concentration: 64500 ng/g

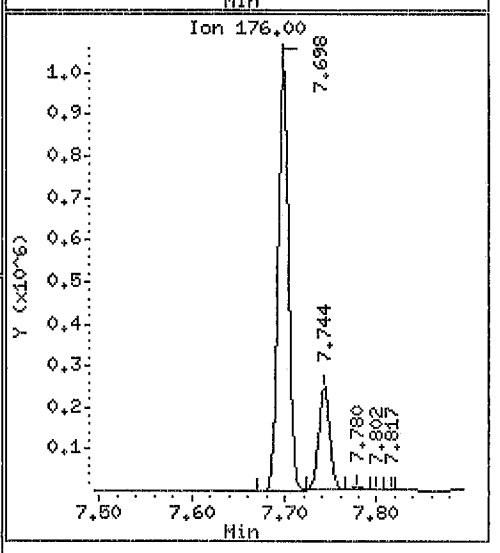












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

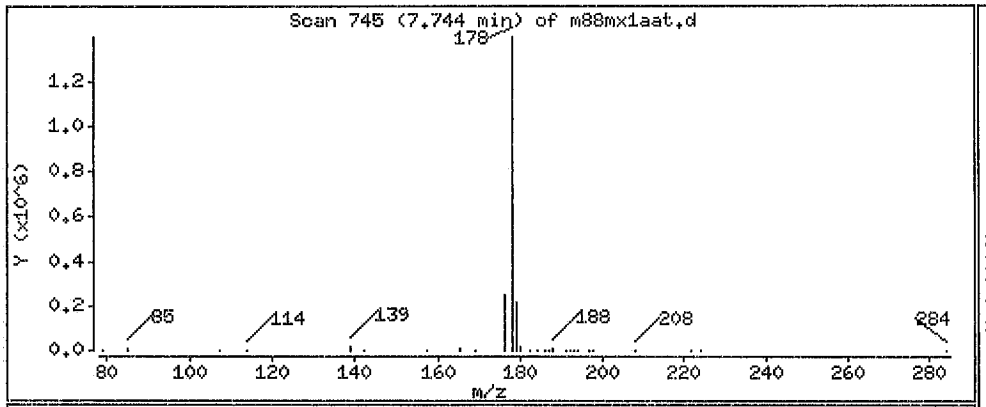
Operator: 11211

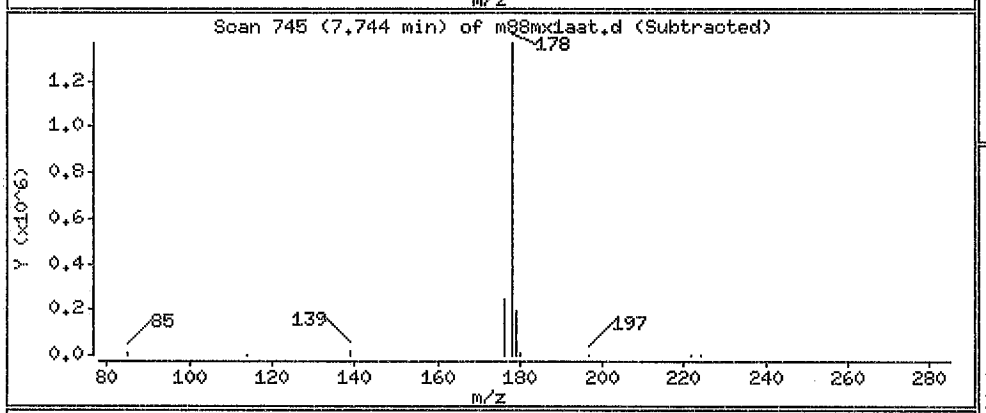
Column phase: Rxi-5SIL MS w/Guard

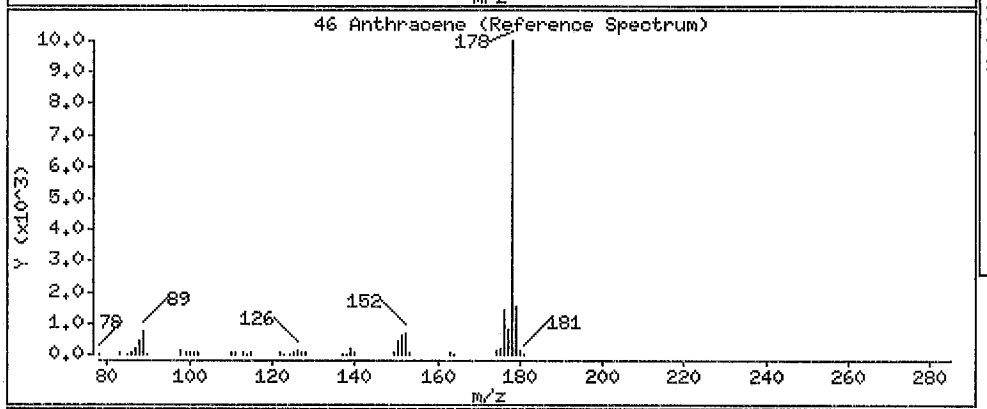
Column diameter: 0.25

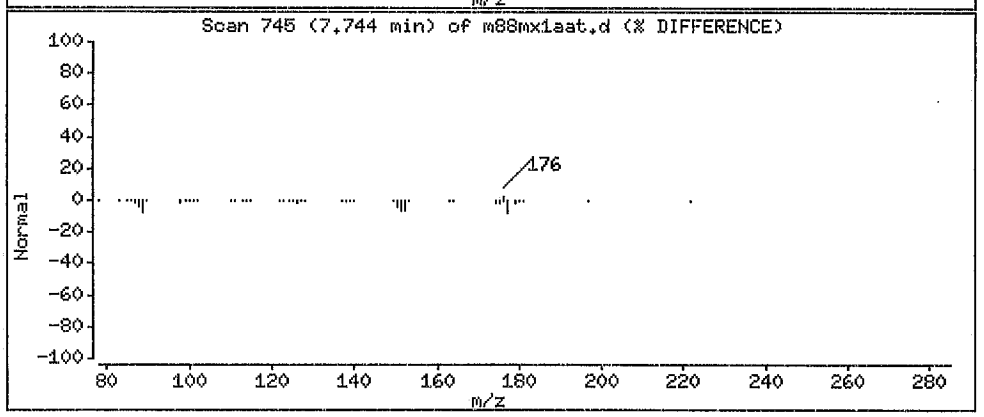
46 Anthracene

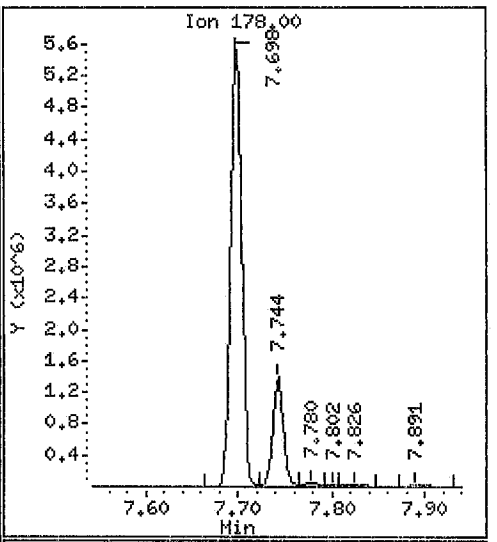
Concentration: 16300 ng/g

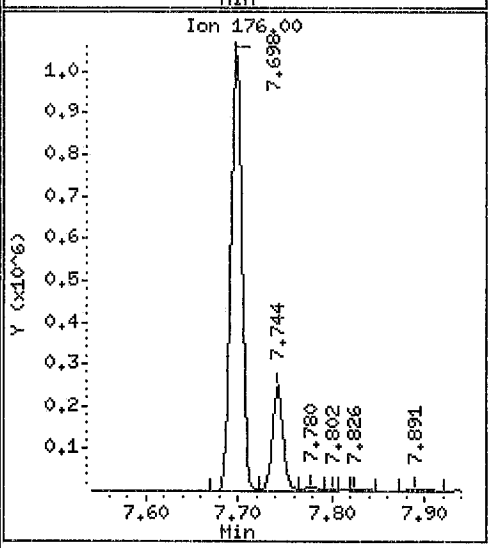












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

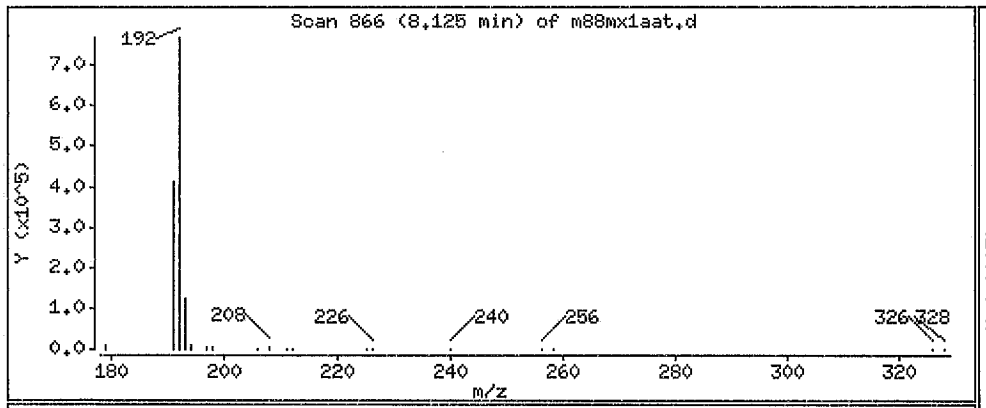
Client ID: Instrument: mp.i

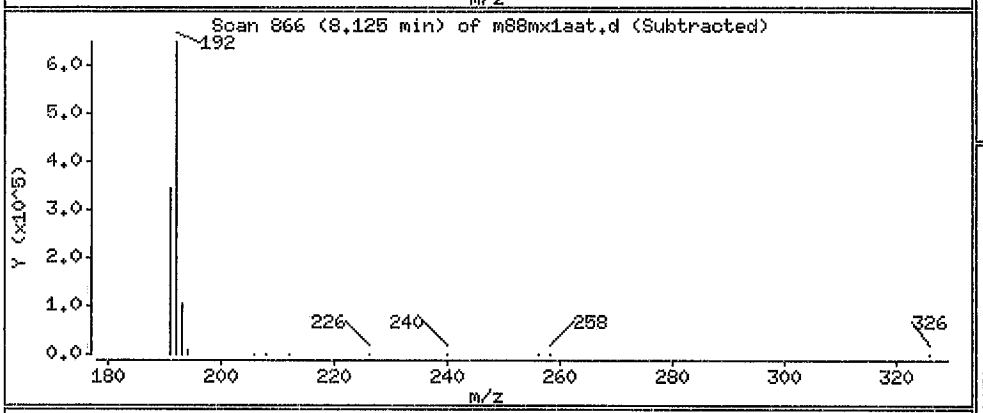
Sample Info: ,,0,,PDS 1:400 TRT

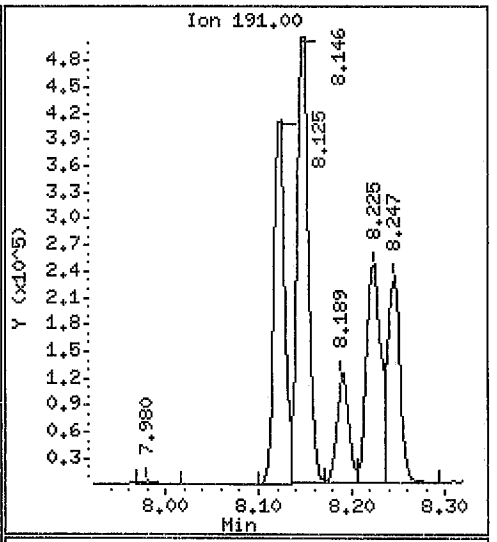
Purge Volume: 10.0 Operator: 11211

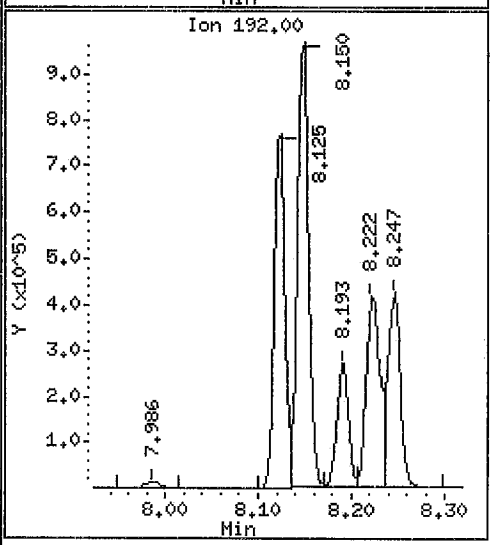
Column phase: Rxi-5SIL MS w/Guard Column diameter: 0.25

247 3-Methylphenanthrene Concentration: 14400 ng/g









Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

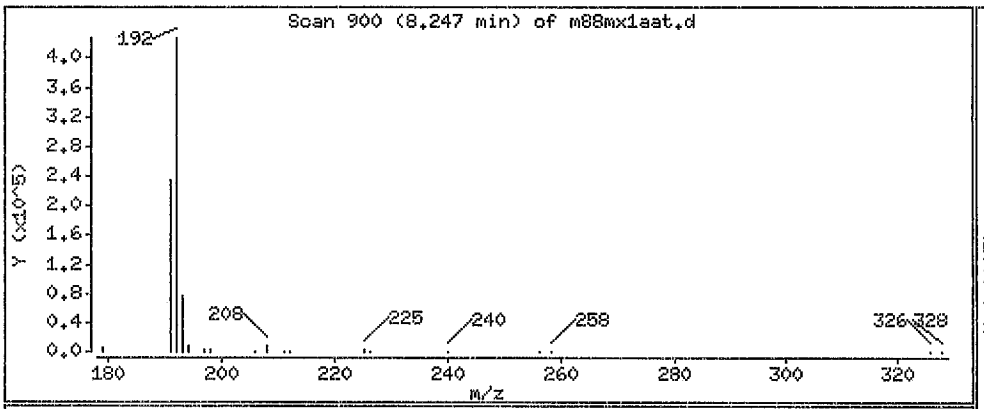
Client ID: | Instrument: mp.i

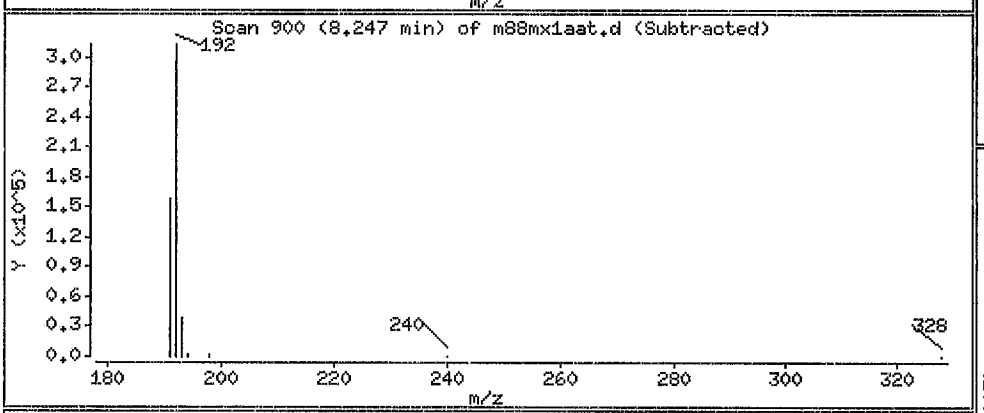
Sample Info: ,,0,,PDS 1:400 TRT

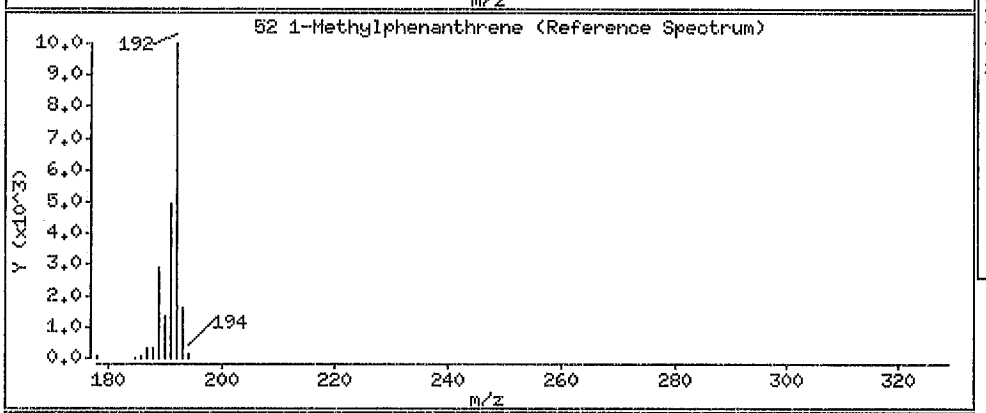
Purge Volume: 10.0 | Operator: 11211

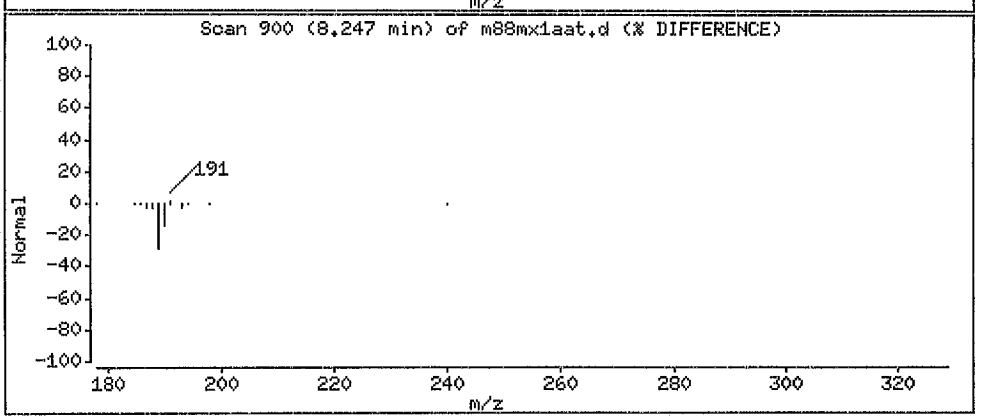
Column phase: Rxi-5SIL MS w/Guard | Column diameter: 0.25

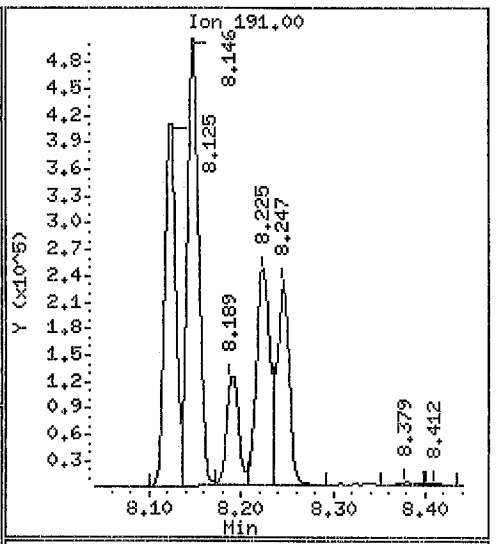
52 1-Methylphenanthrene | Concentration: 9430 ng/g

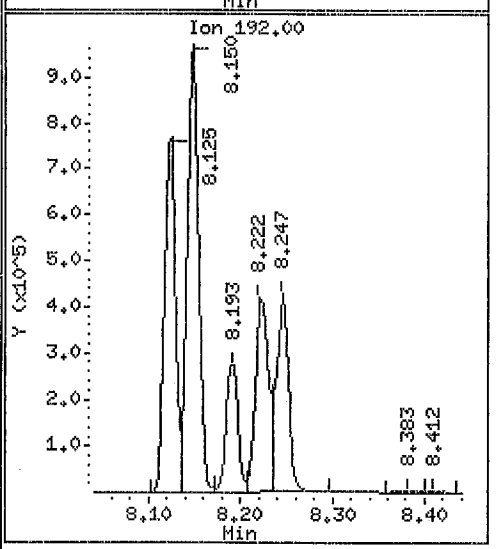












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

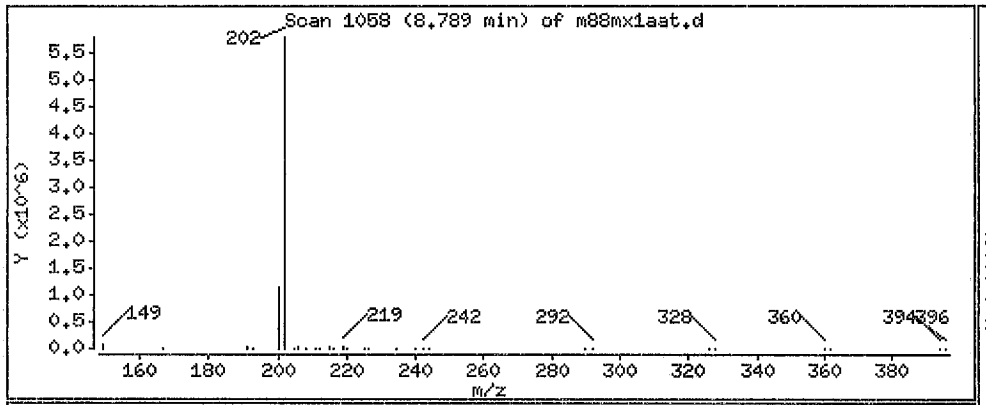
Operator: 11211

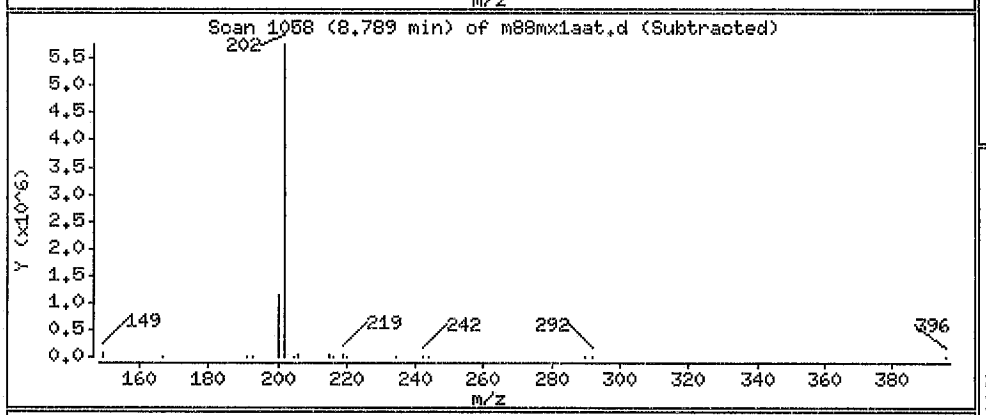
Column phase: Rxi-5SIL MS w/Guard

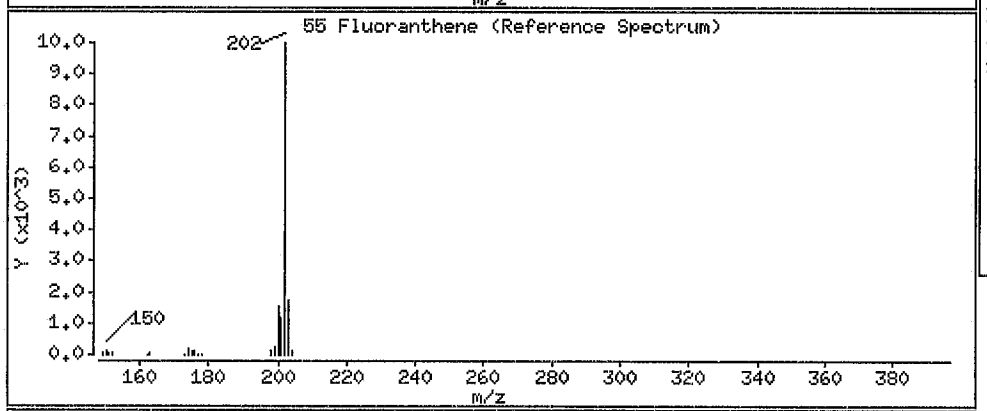
Column diameter: 0.25

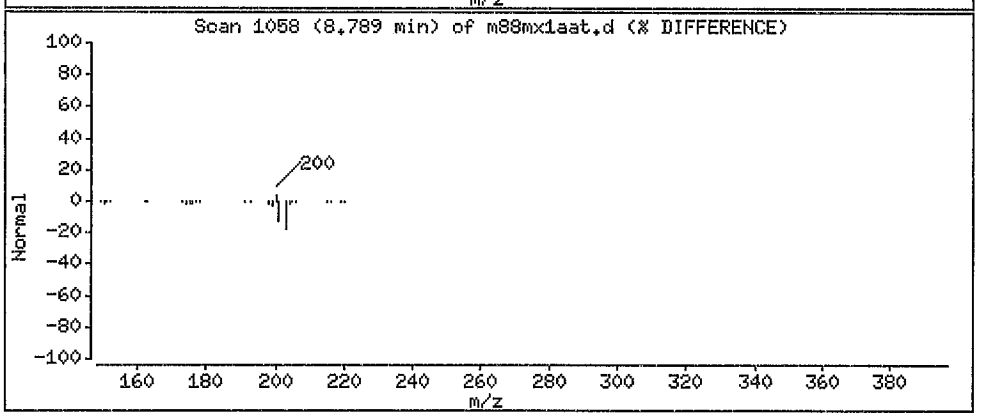
55 Fluoranthene

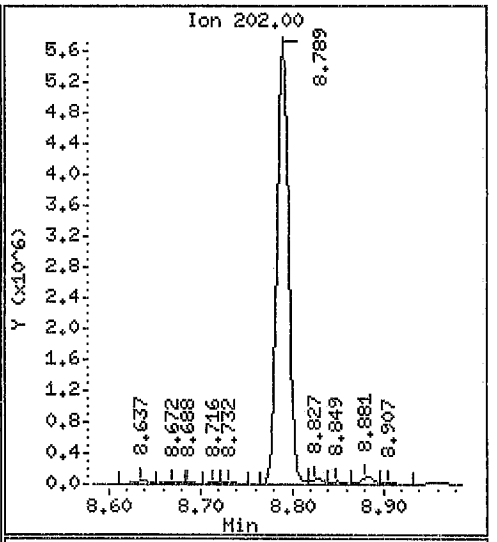
Concentration: 65700 ng/g

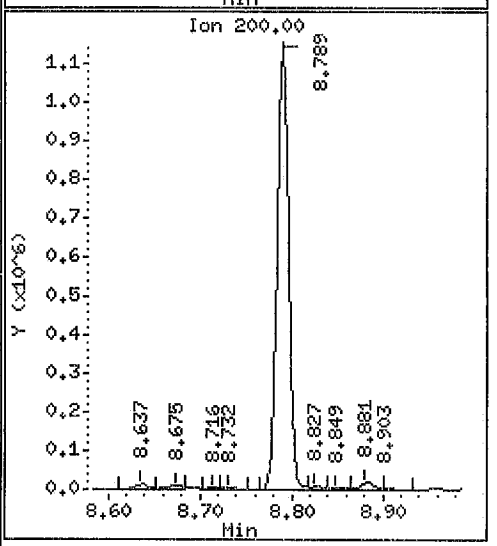












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

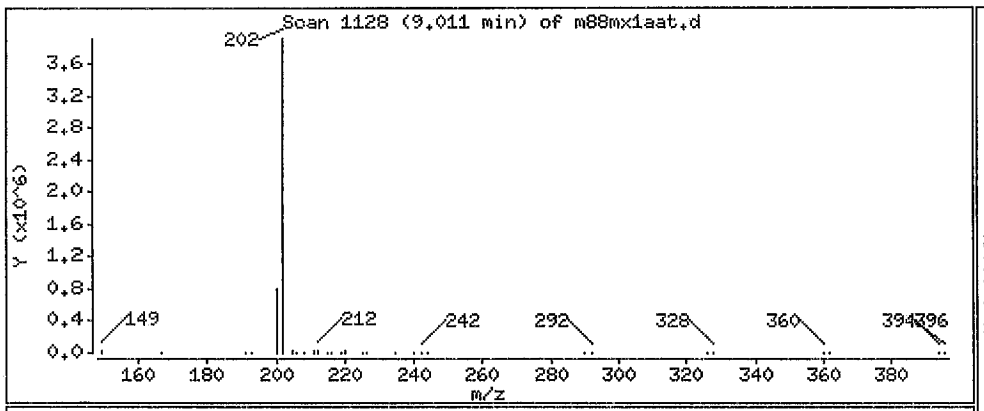
Operator: 11211

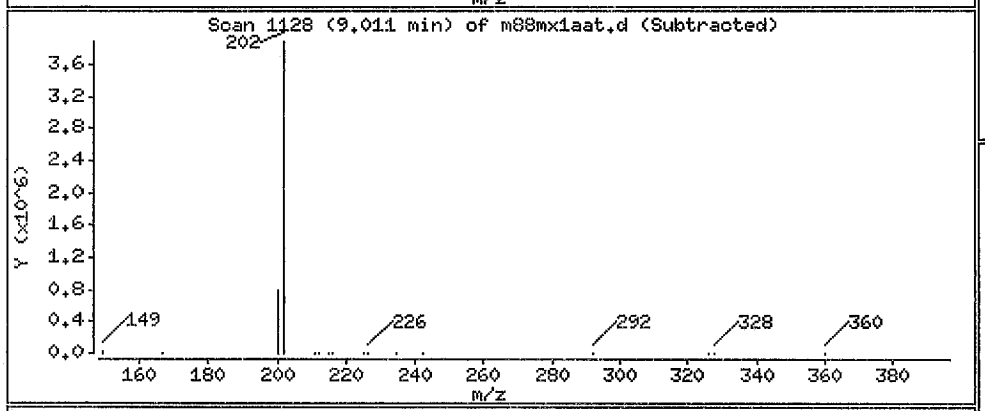
Column phase: Rxi-5SIL MS w/Guard

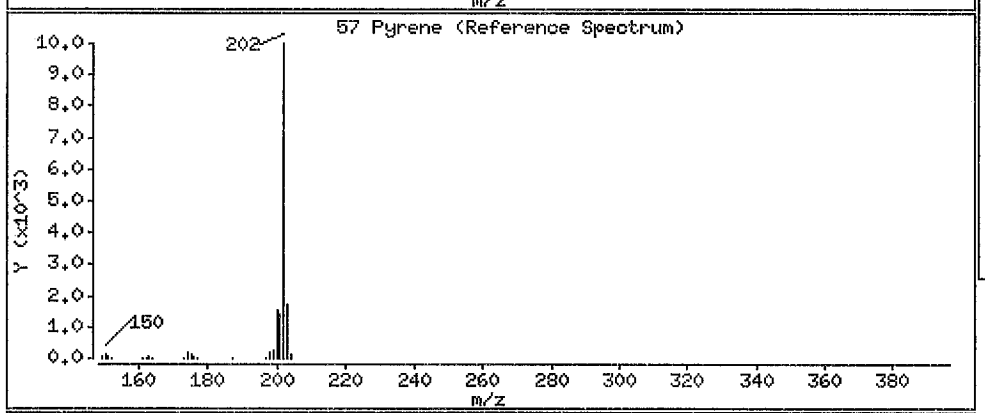
Column diameter: 0.25

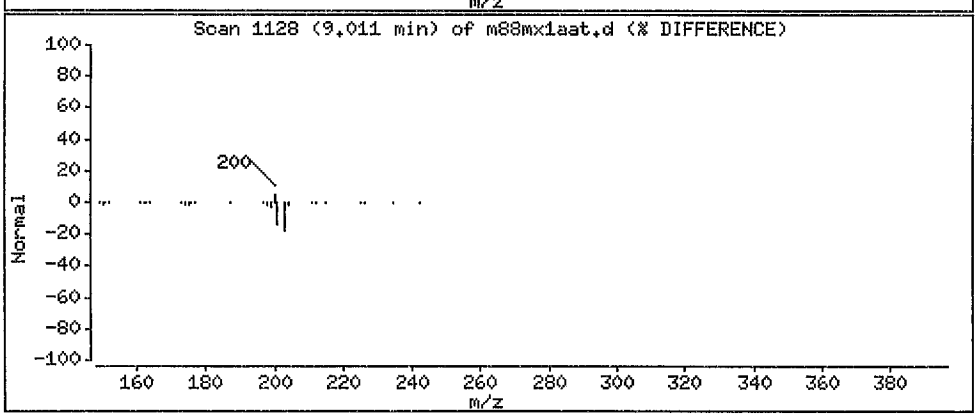
57 Pyrene

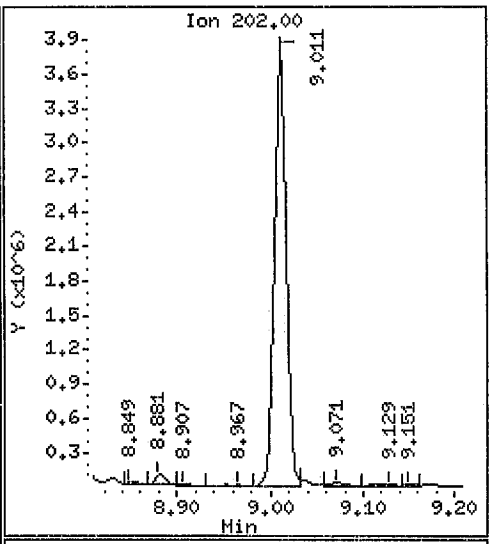
Concentration: 44400 ng/g

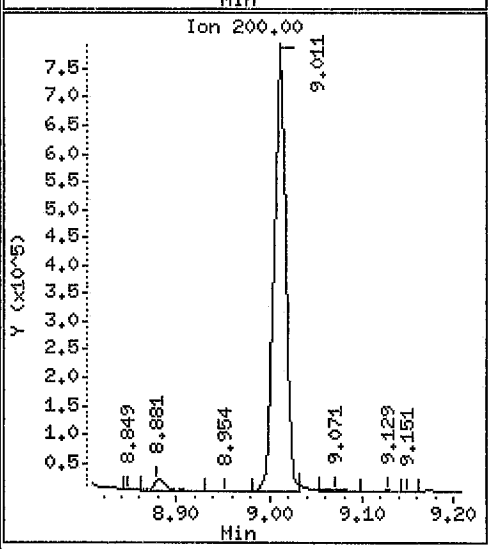












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

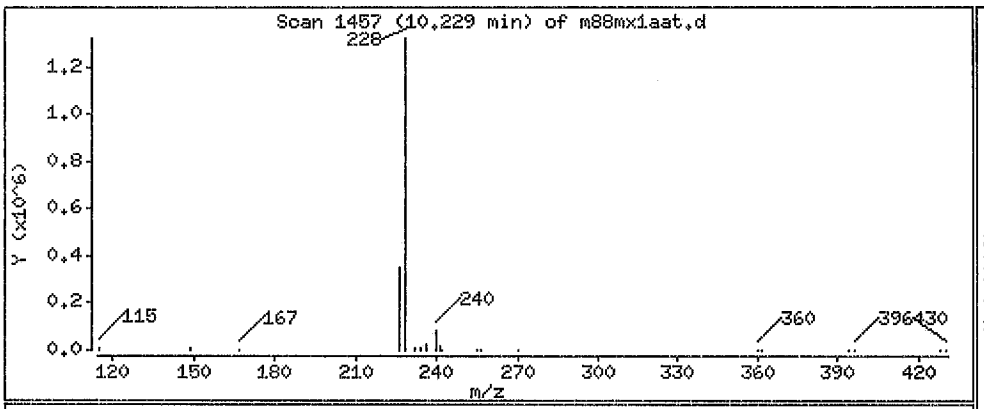
Client ID: | Instrument: mp.i

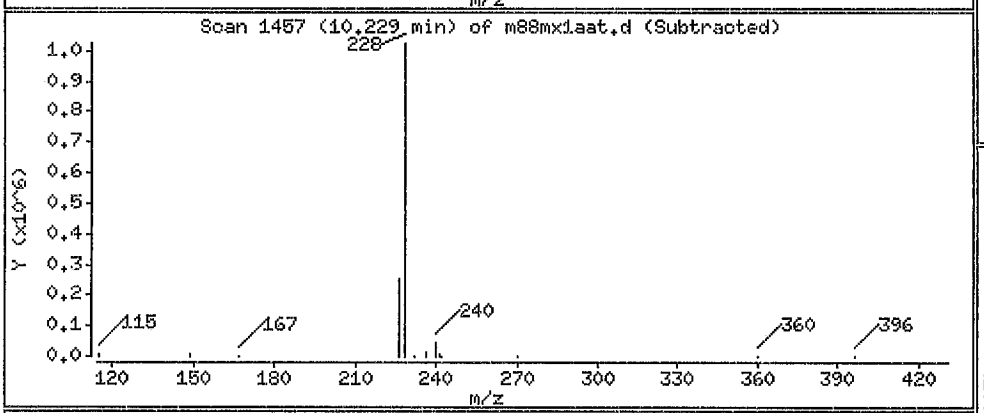
Sample Info: ,,0,,PDS 1:400 TRT

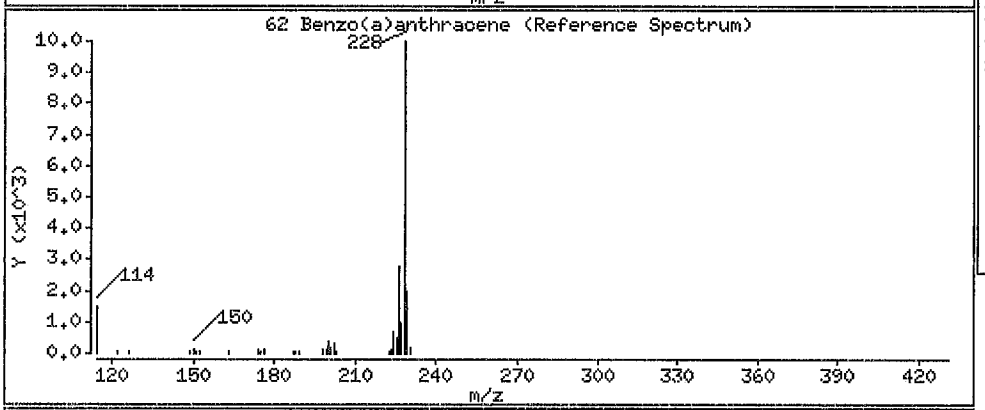
Purge Volume: 10.0 | Operator: 11211

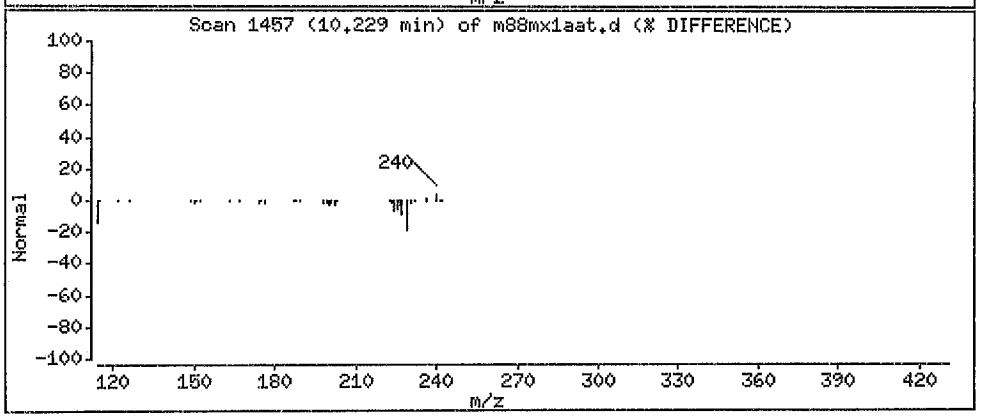
Column phase: Rxi-5SIL MS w/Guard | Column diameter: 0.25

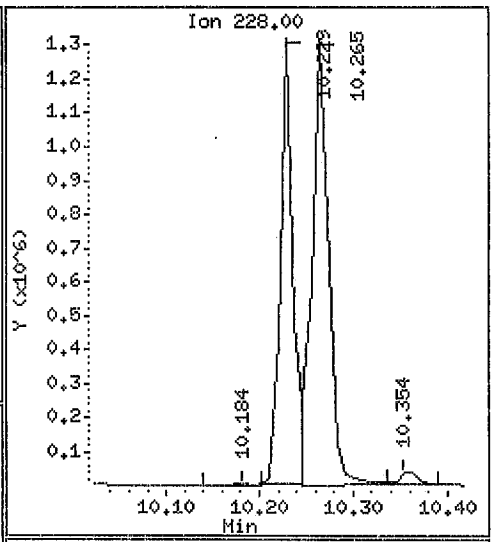
62 Benzo(a)anthracene | Concentration: 25300 ng/g

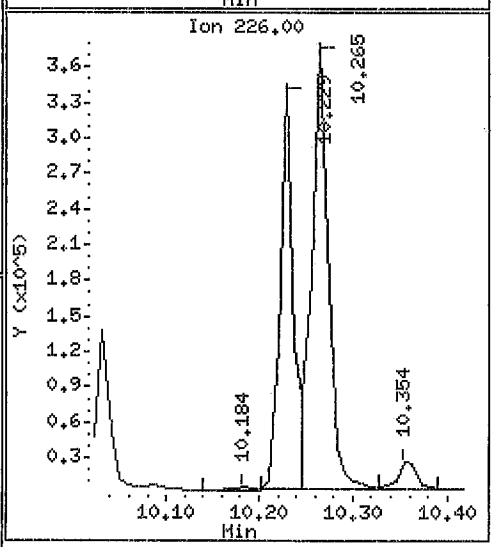












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

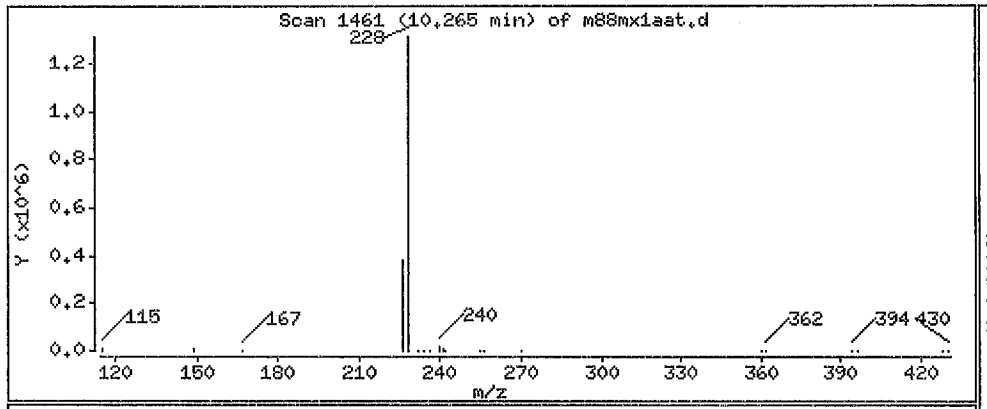
Operator: 11211

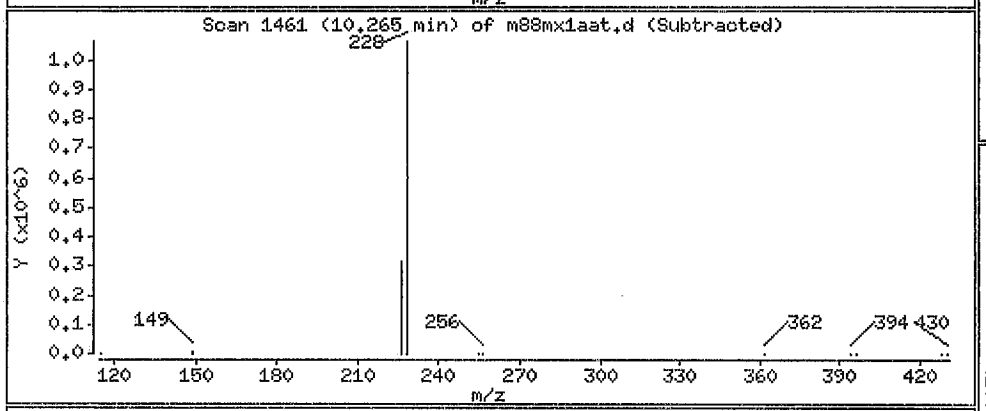
Column phase: Rxi-5SIL MS w/Guard

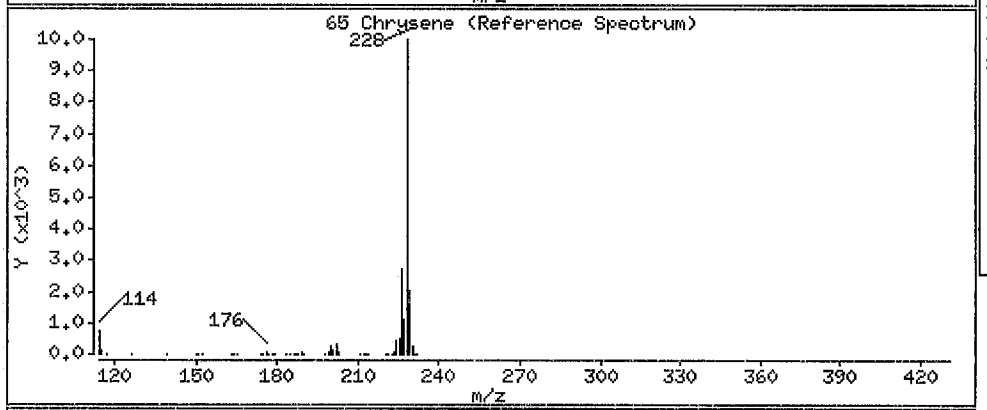
Column diameter: 0.25

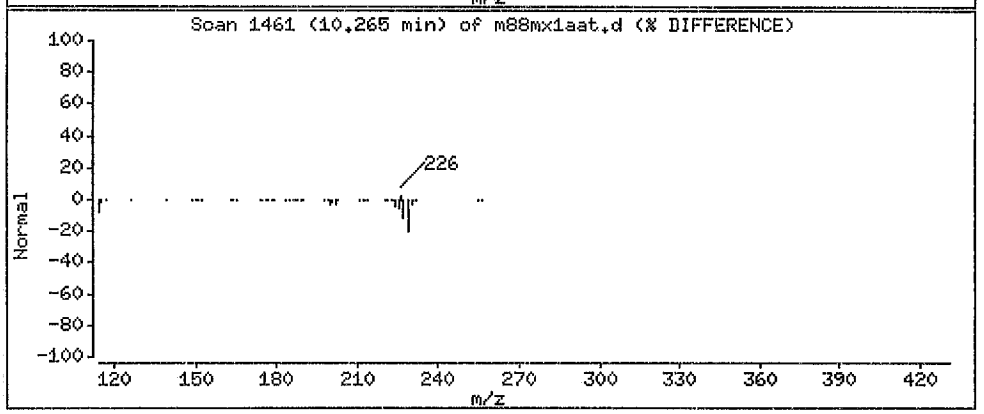
65 Chrysene

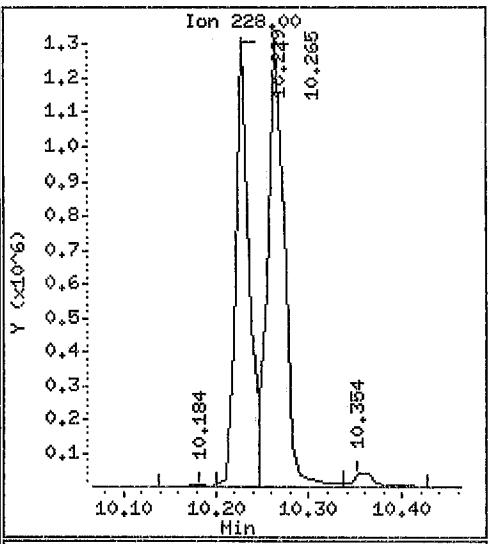
Concentration: 27100 ng/g

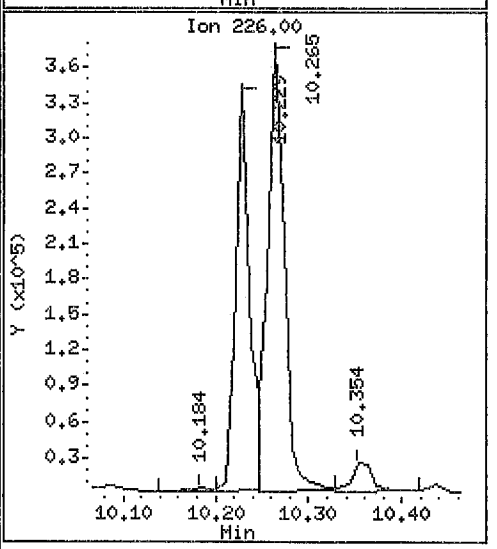












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

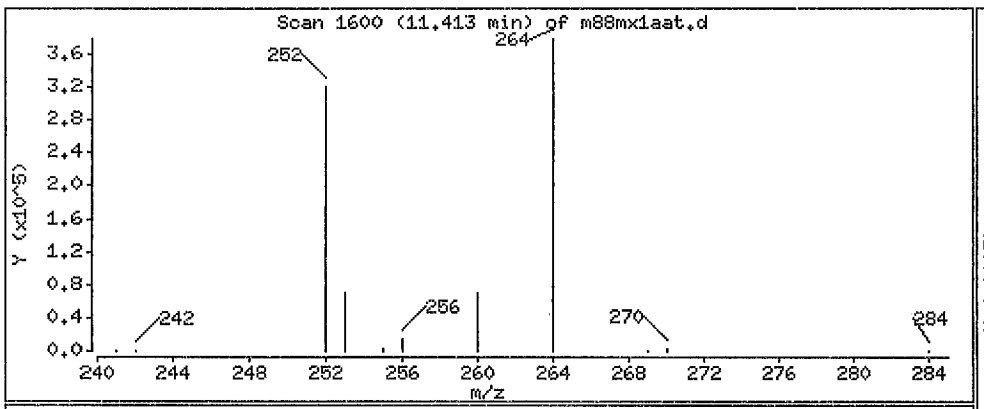
Operator: 11211

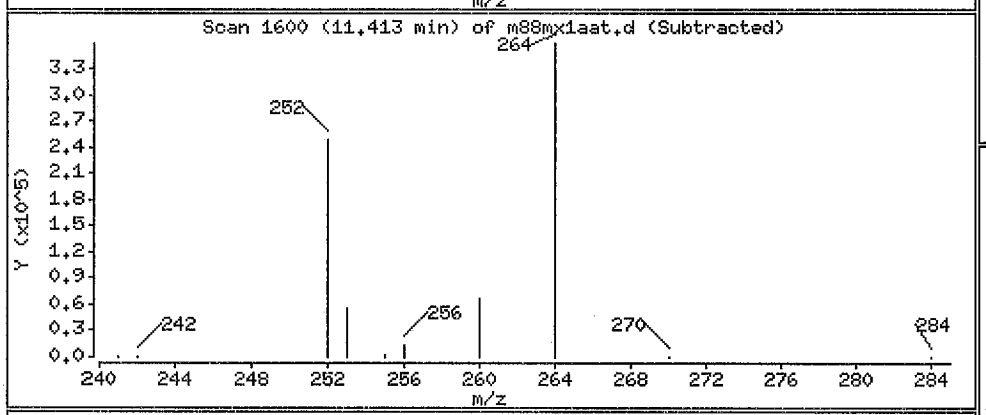
Column phase: Rxi-5SIL MS w/Guard

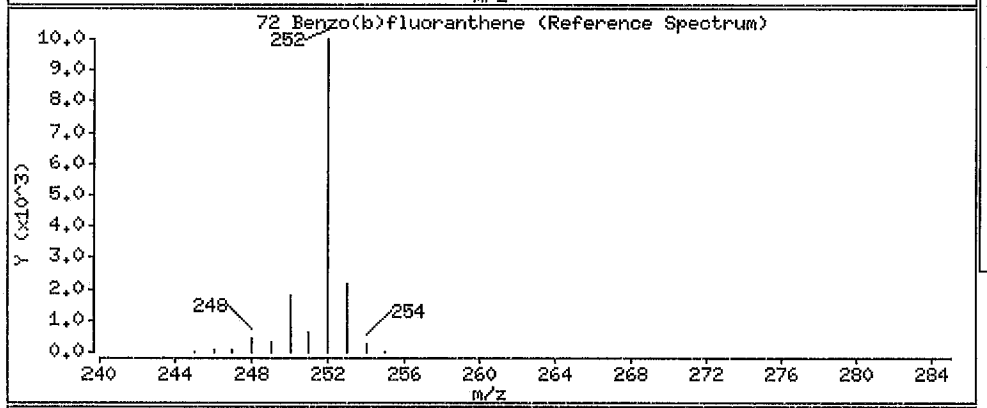
Column diameter: 0.25

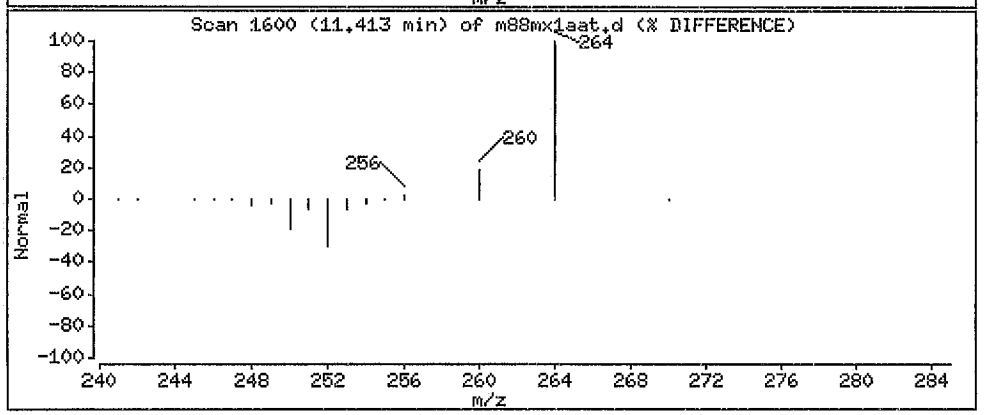
72 Benzo(b)fluoranthene

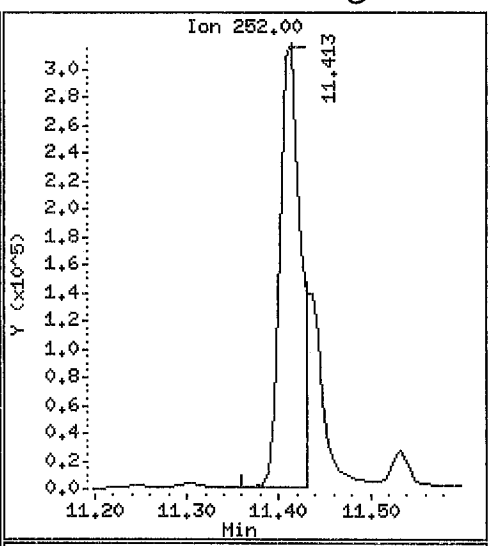
Concentration: 7100 ng/g

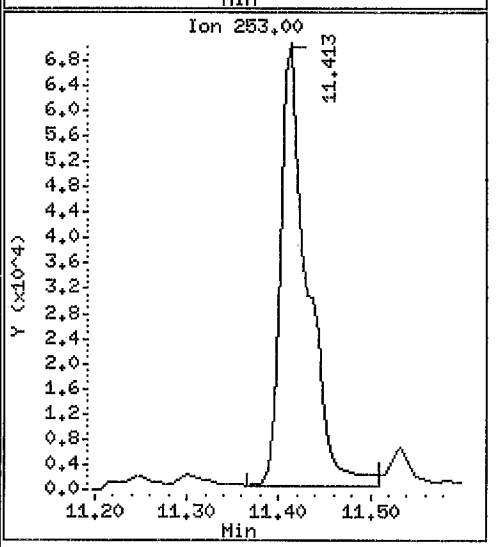












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

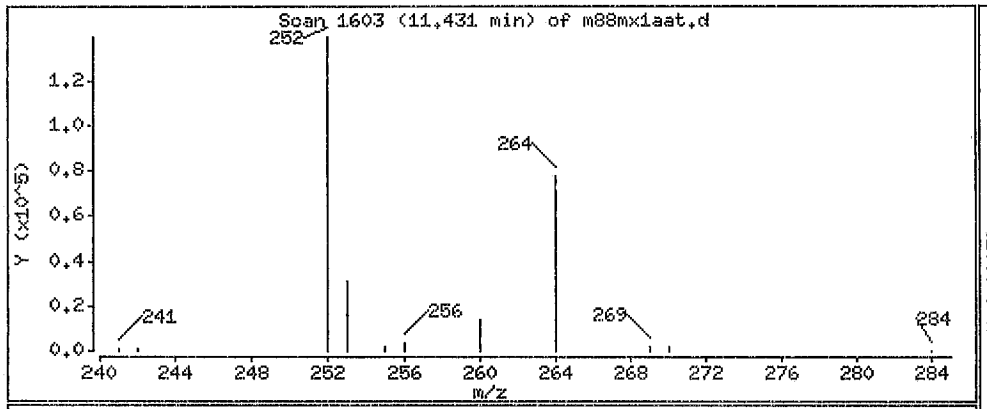
Operator: 11211

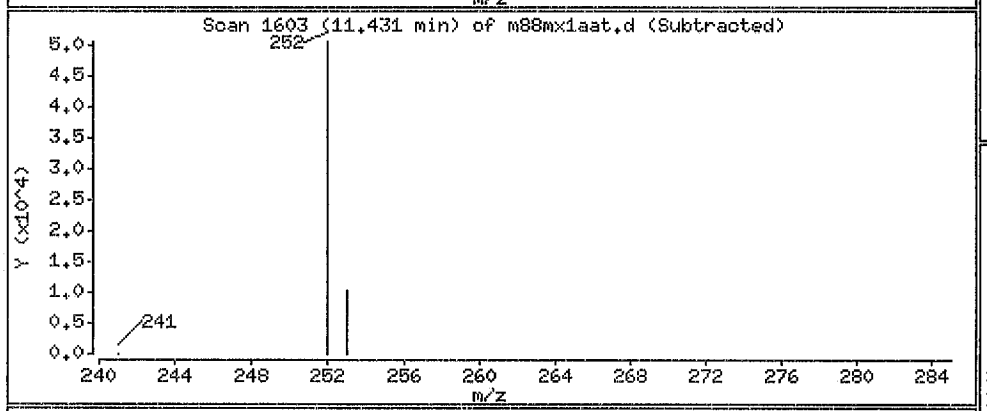
Column phase: Rxi-5SIL MS w/Guard

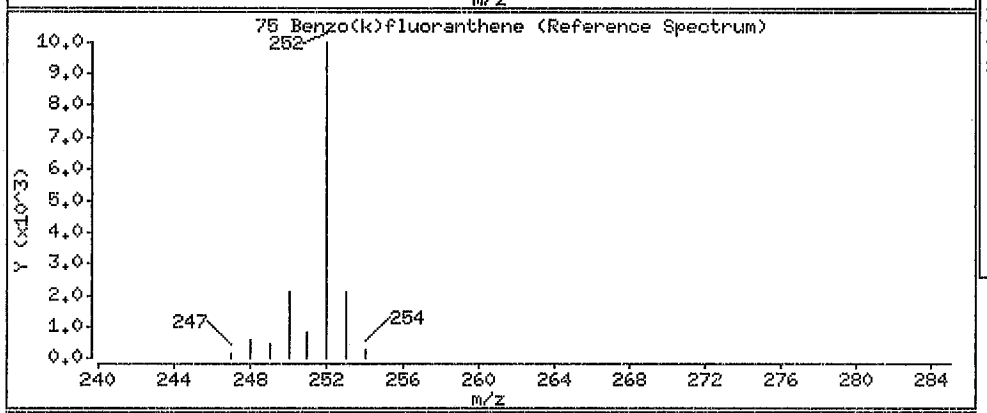
Column diameter: 0.25

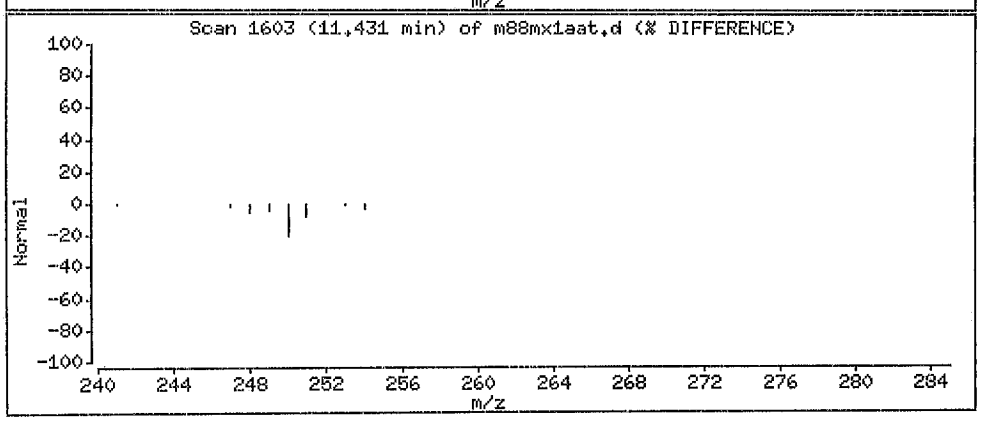
75 Benzo(k)fluoranthene

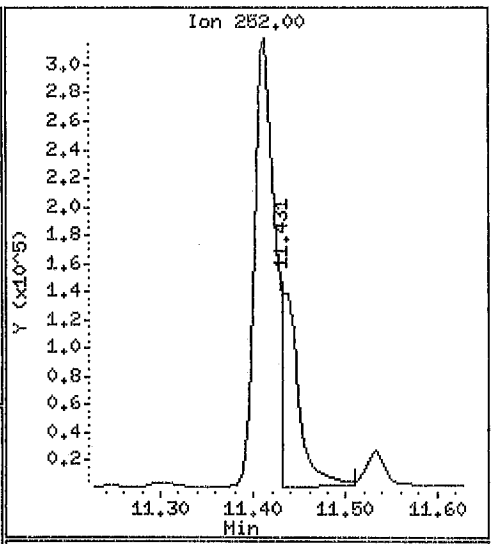
Concentration: 3130 ng/g

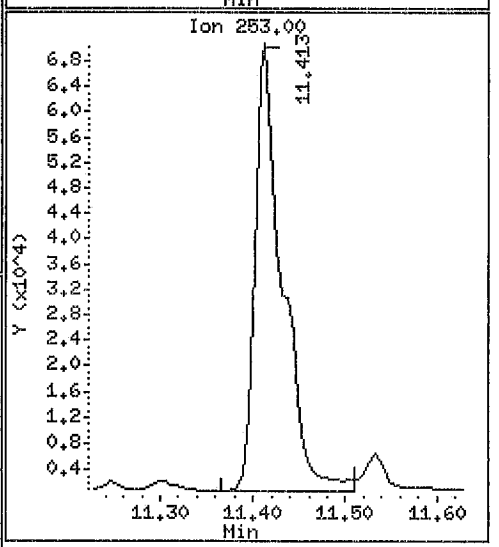












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

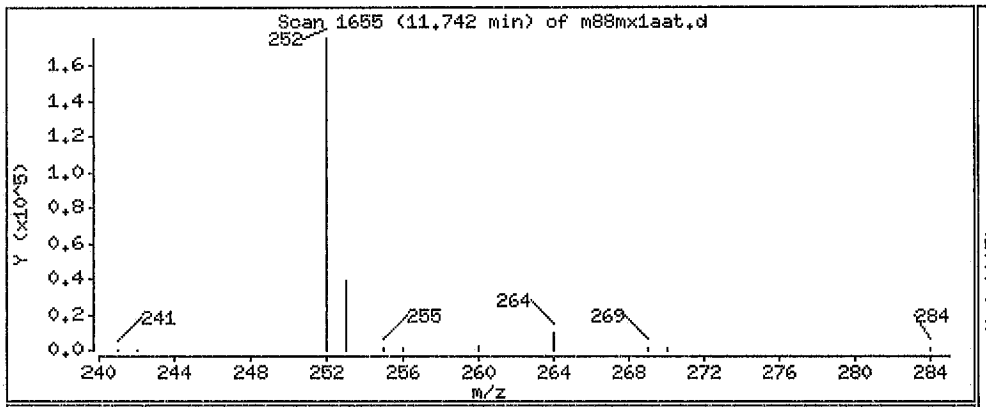
Operator: 11211

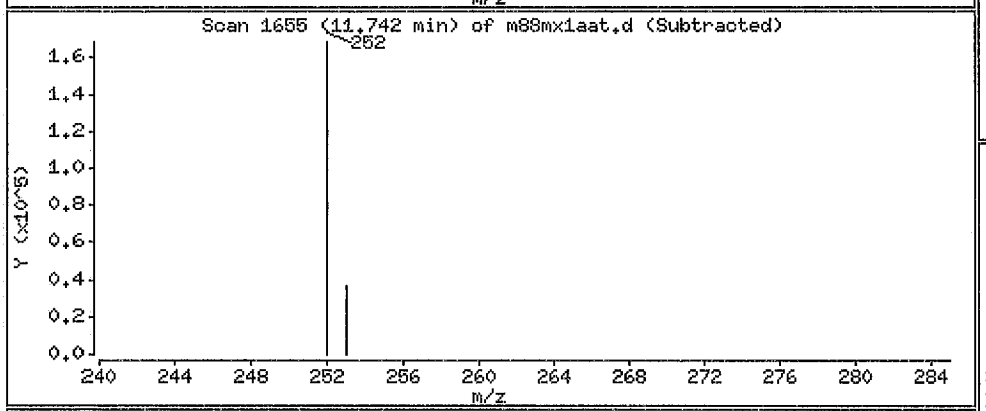
Column phase: Rxi-5SIL MS w/Guard

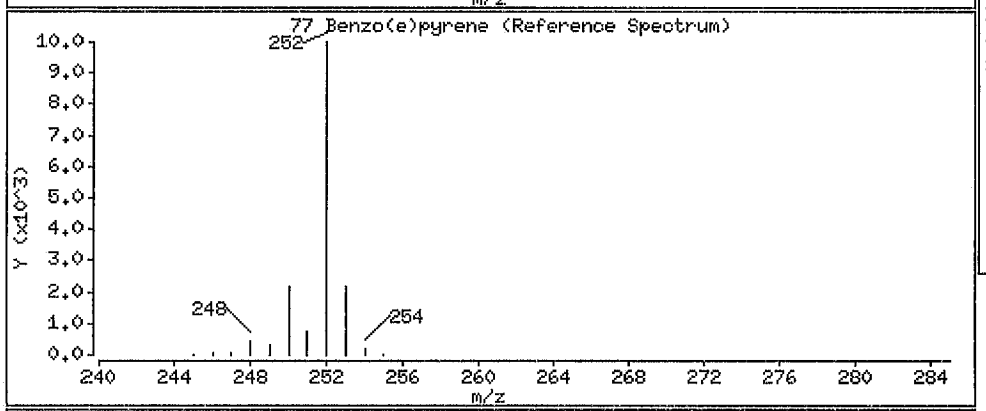
Column diameter: 0.25

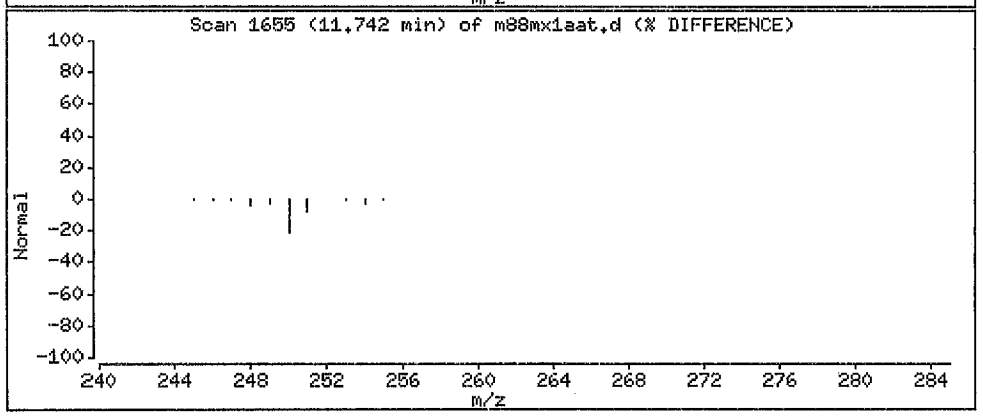
77 Benzo(e)pyrene

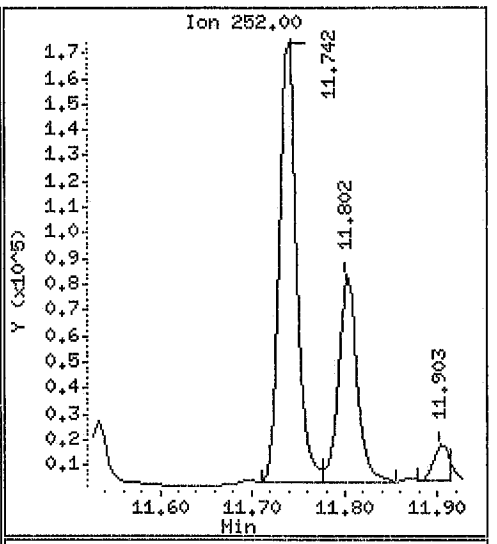
Concentration: 3610 ng/g

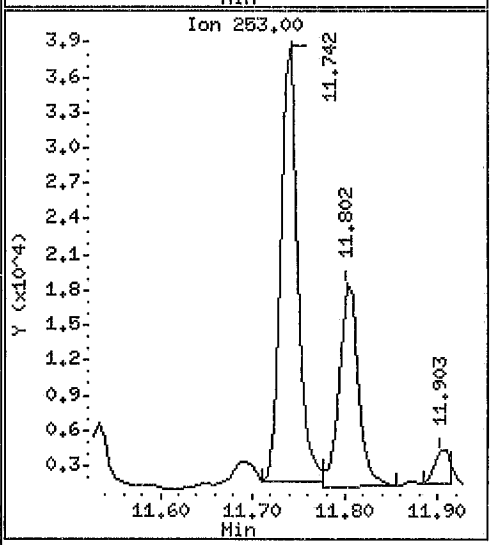












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

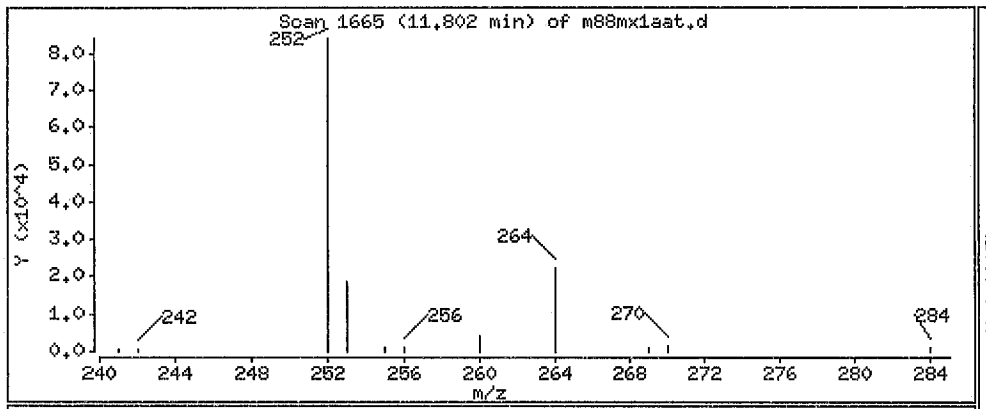
Client ID: Instrument: mp.i

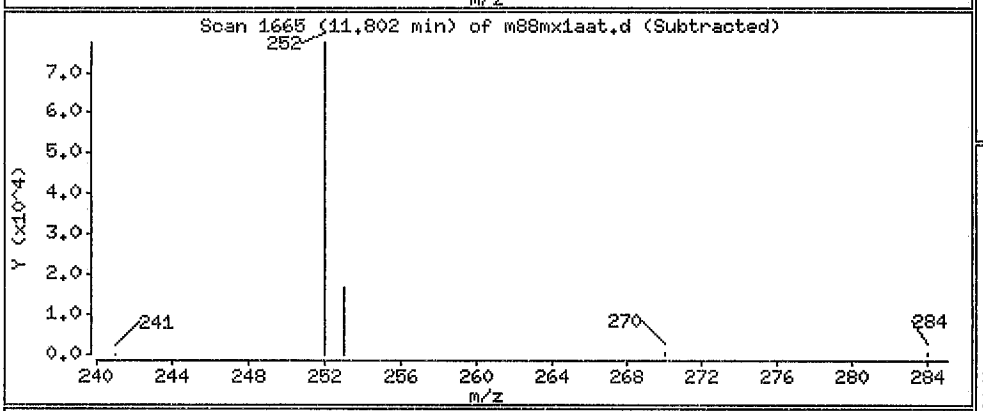
Sample Info: ,,0,,PDS 1:400 TRT

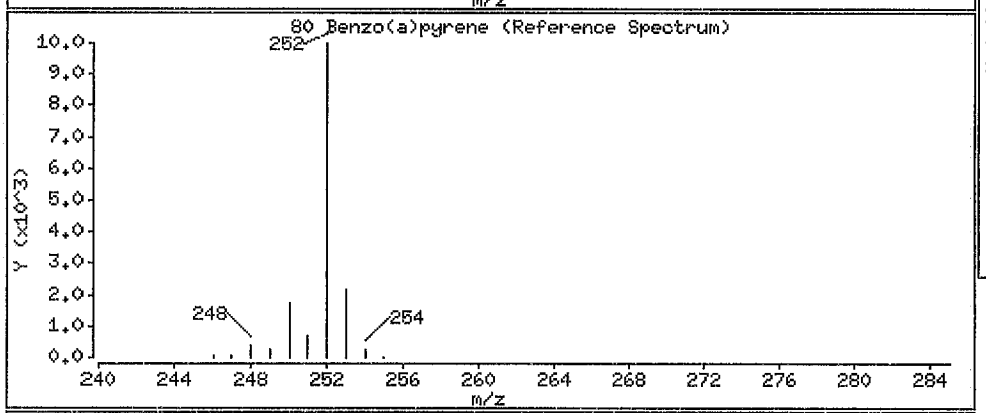
Purge Volume: 10.0 Operator: 11211

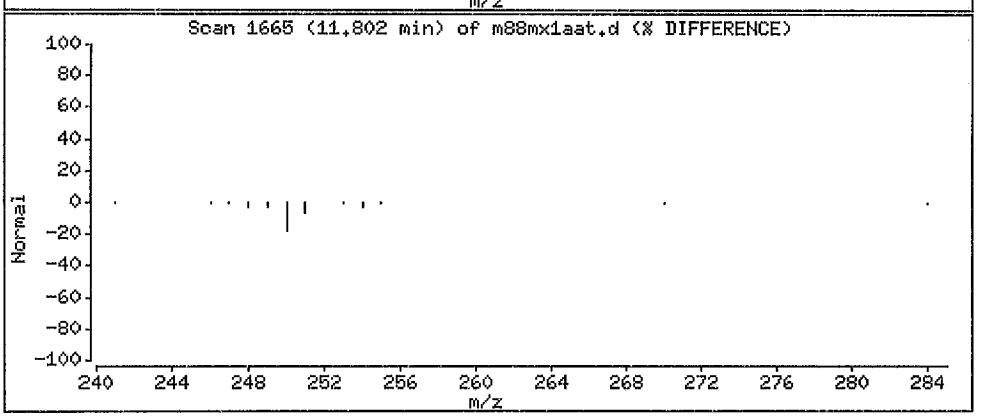
Column phase: Rxi-5SIL MS w/Guard Column diameter: 0.25

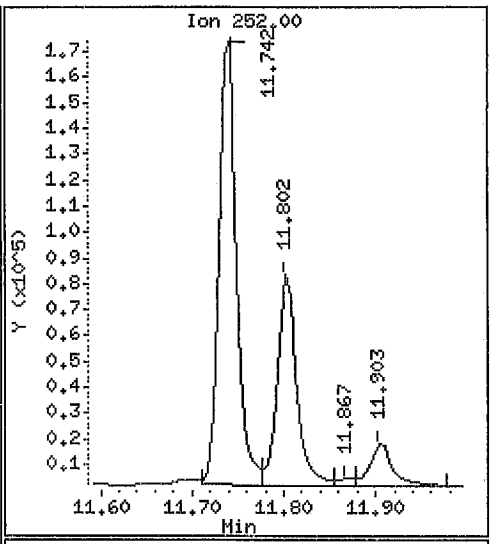
80 Benzo(a)pyrene Concentration: 2200 ng/g

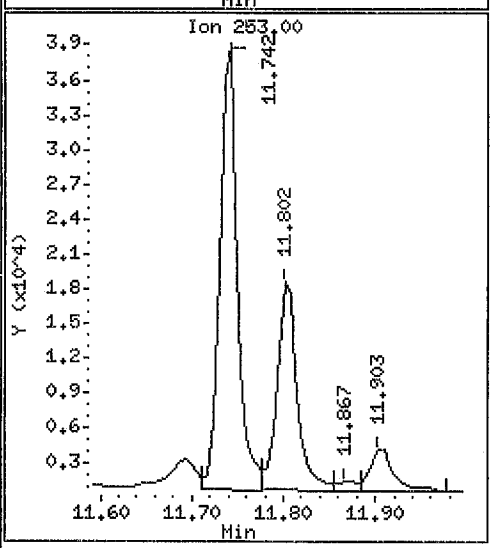












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

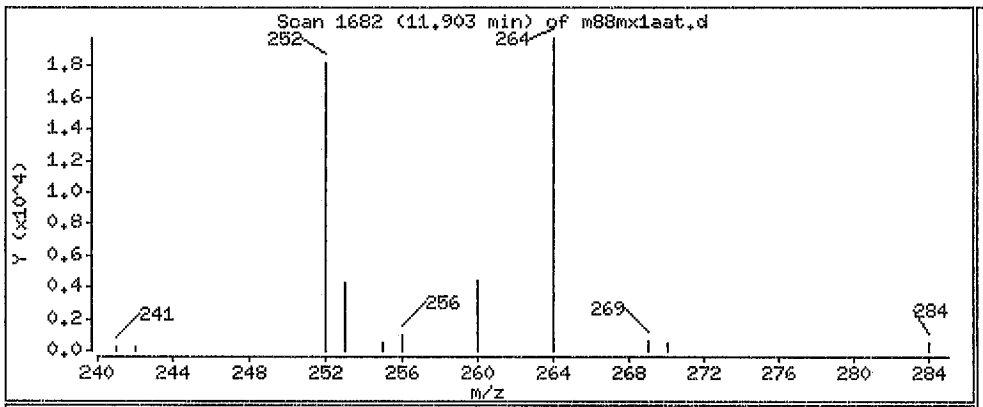
Client ID: | Instrument: mp.i

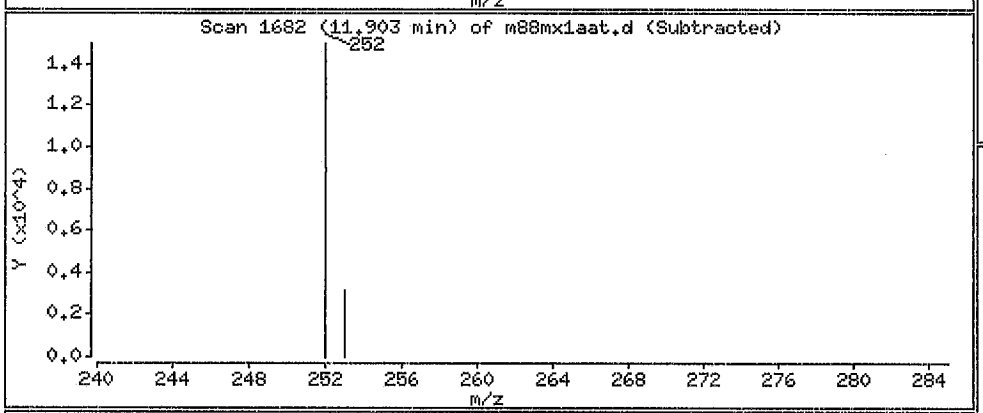
Sample Info: ,,0,,PDS 1:400 TRT

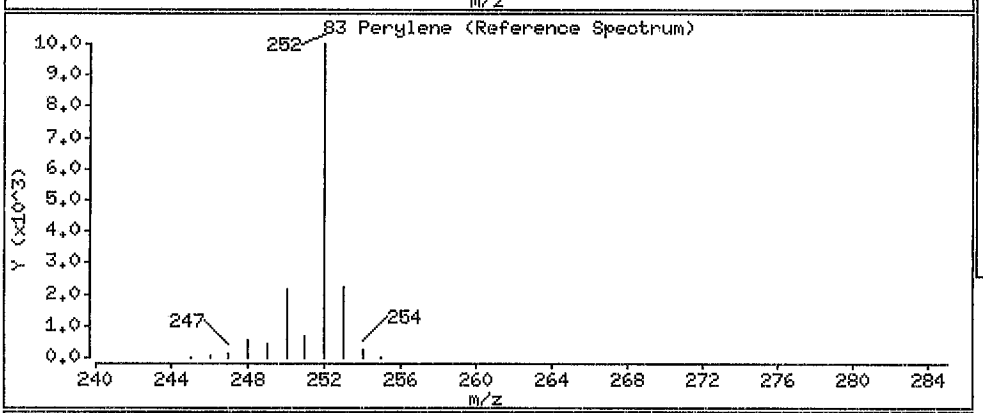
Purge Volume: 10.0 | Operator: 11211

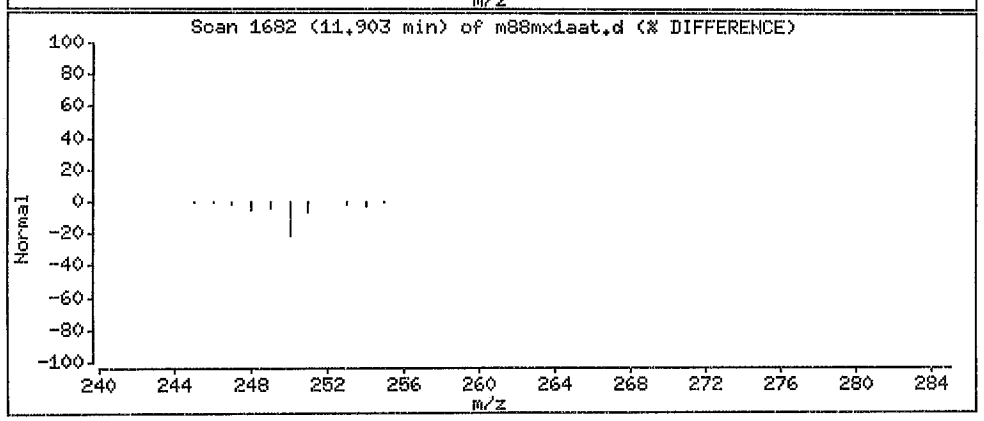
Column phase: Rxi-5SIL MS w/Guard | Column diameter: 0.25

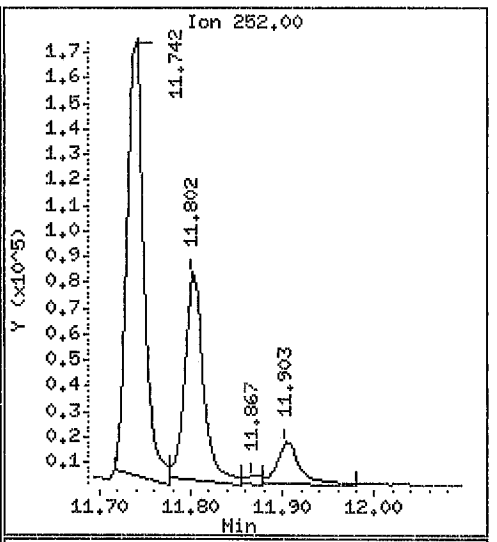
83 Perylene | Concentration: 604 ng/g

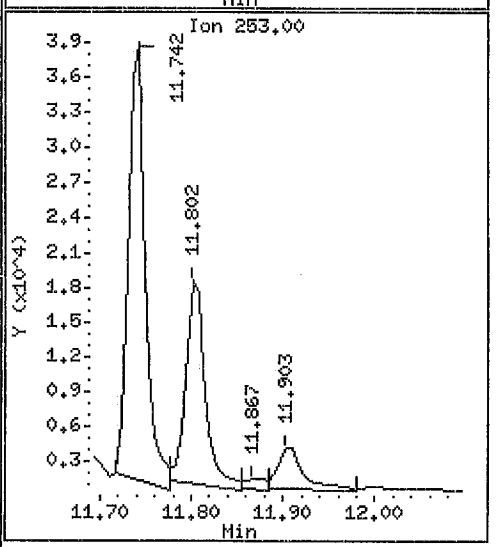












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

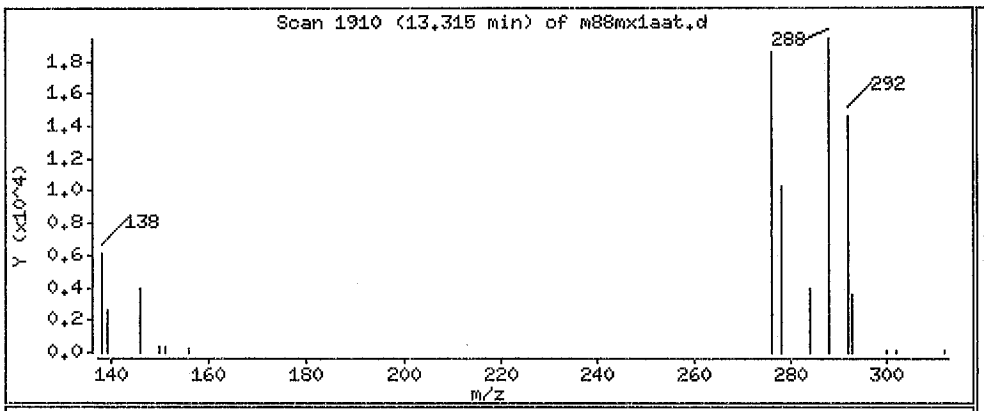
Client ID: | Instrument: mp.i

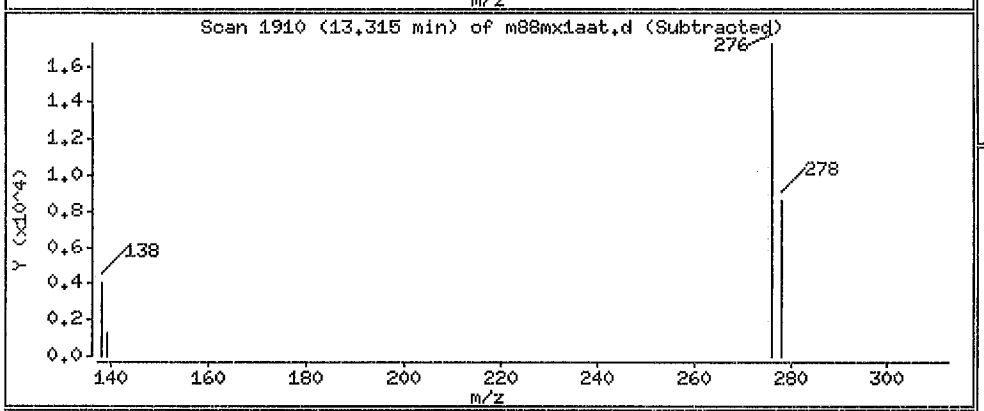
Sample Info: ,,0,,PDS 1:400 TRT

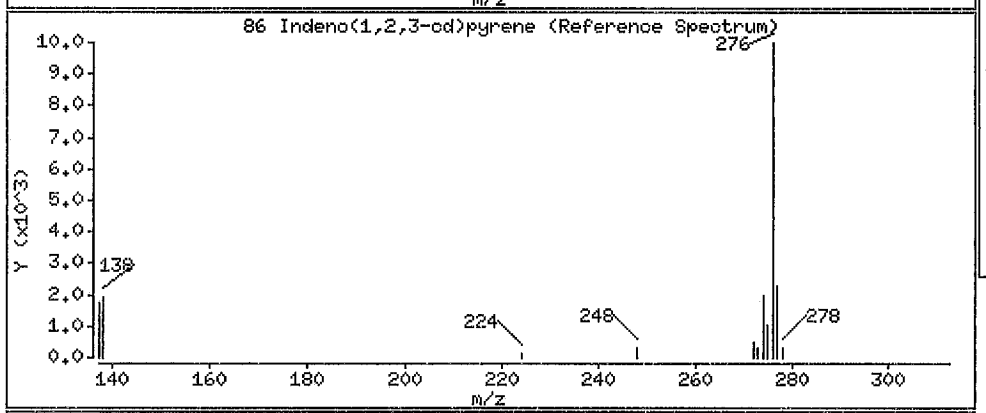
Purge Volume: 10.0 | Operator: 11211

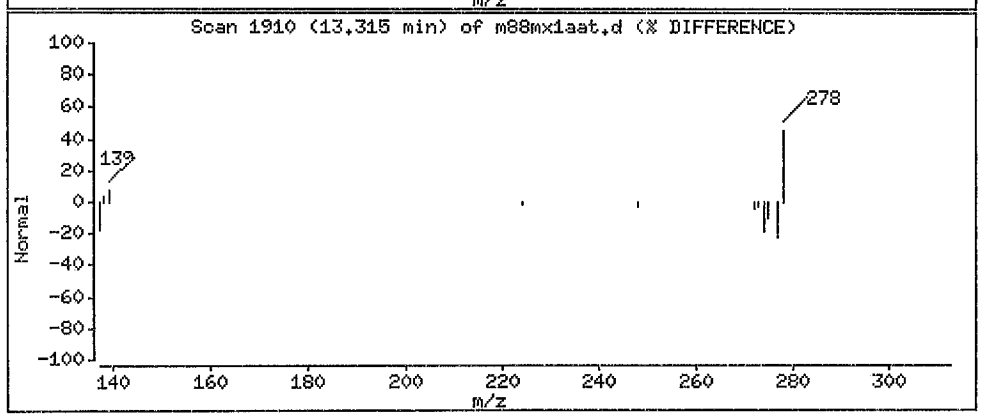
Column phase: Rxi-5SIL MS w/Guard | Column diameter: 0.25

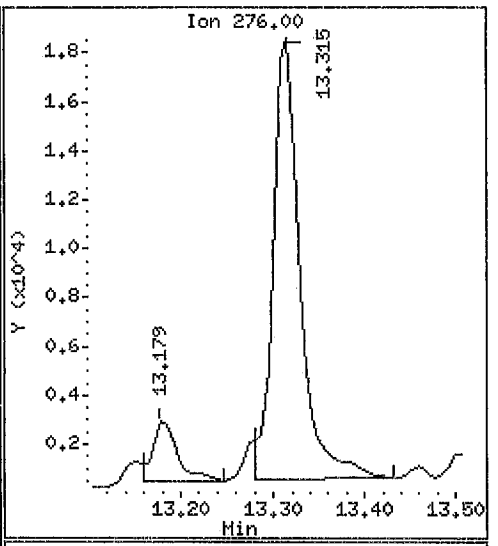
86 Indeno(1,2,3-cd)pyrene | Concentration: 598 ng/g

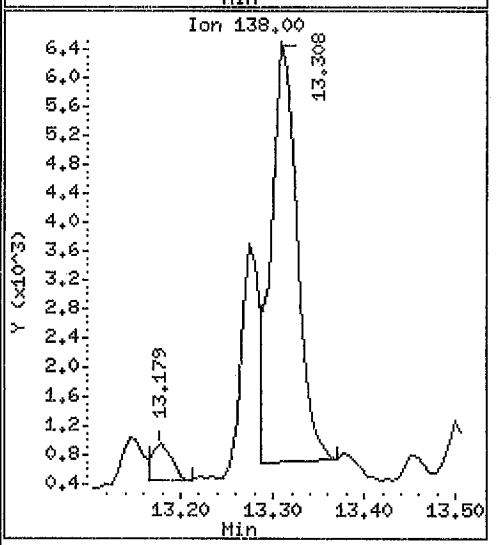












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

Operator: 11211

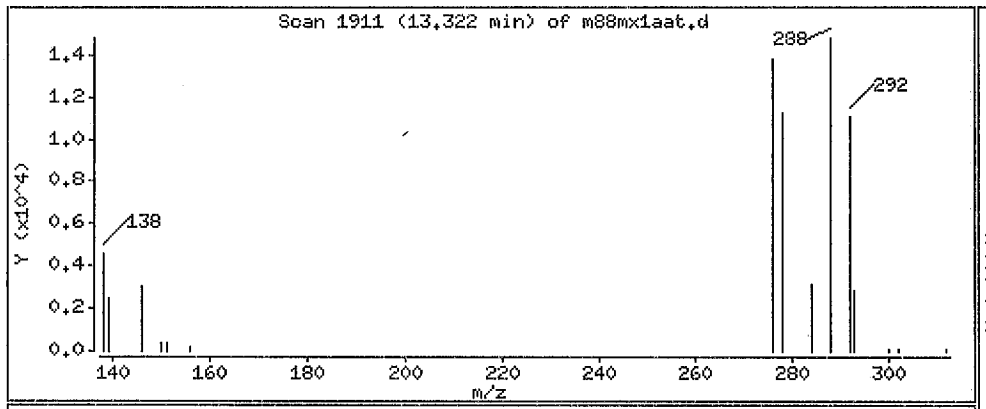
Column phase: Rxi-5SIL MS w/Guard

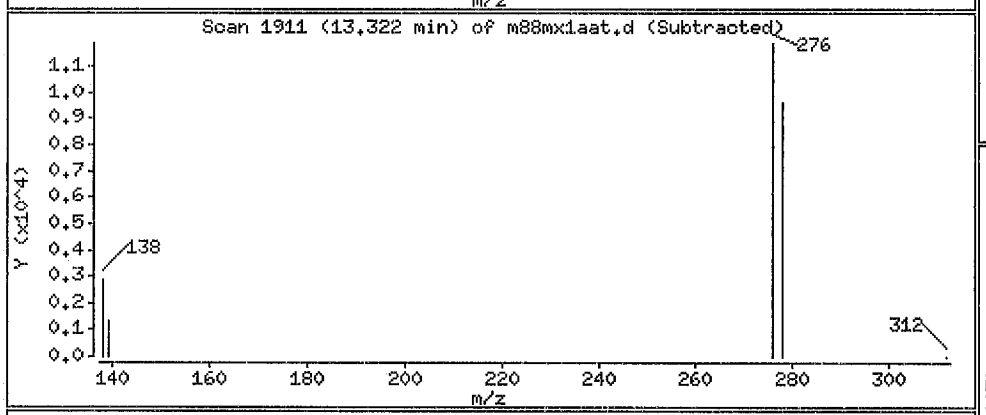
Column diameter: 0.25

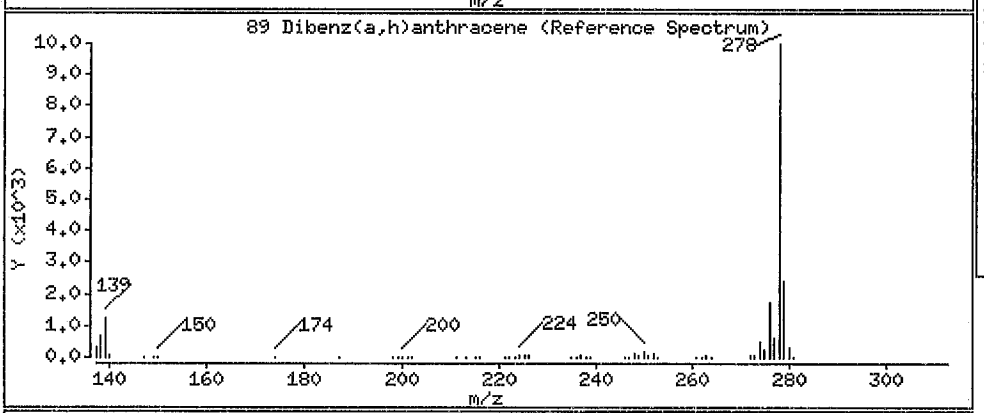
9/27/16

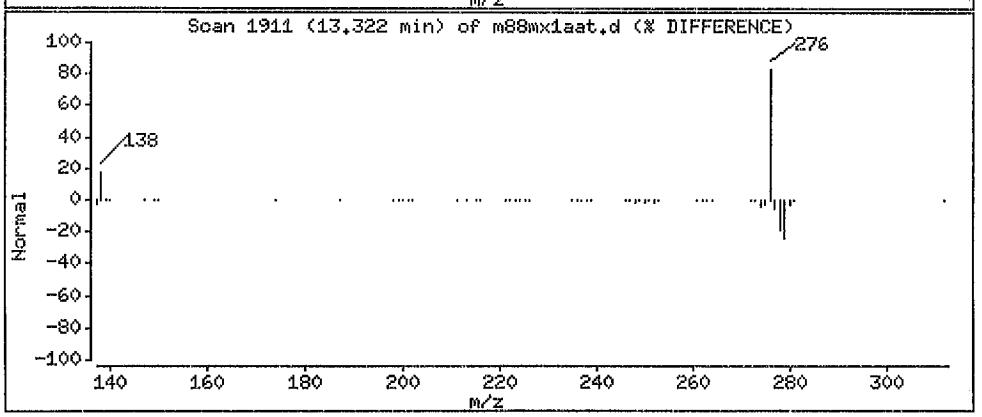
89 Dibenz(a,h)anthracene

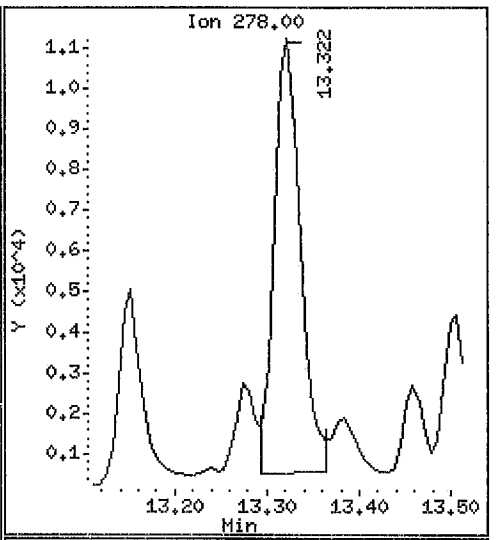
Concentration: 414 ng/g

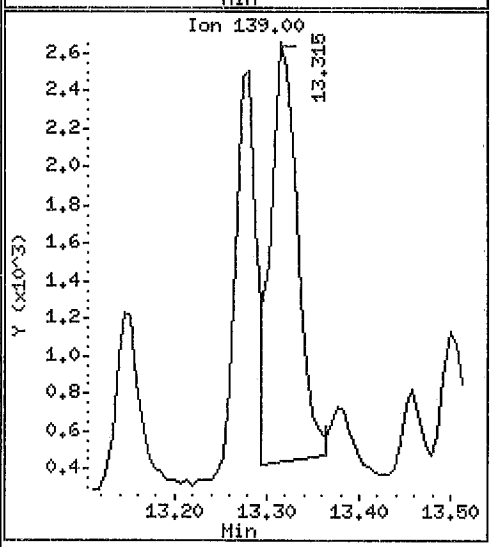












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

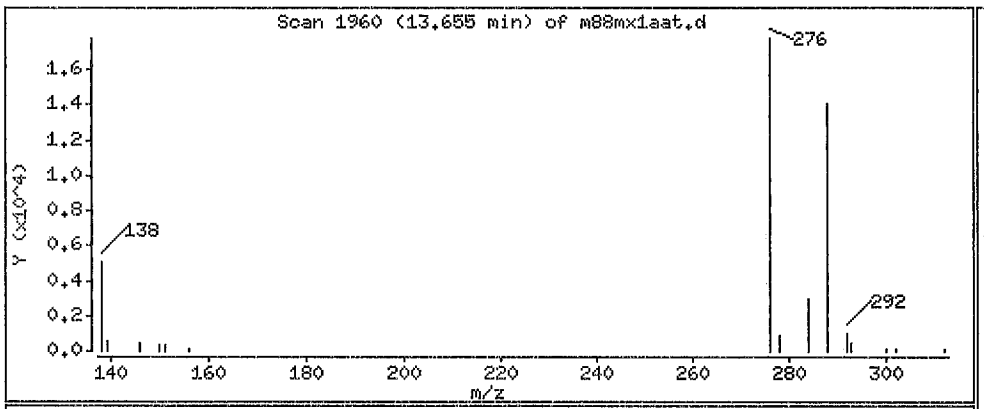
Operator: 11211

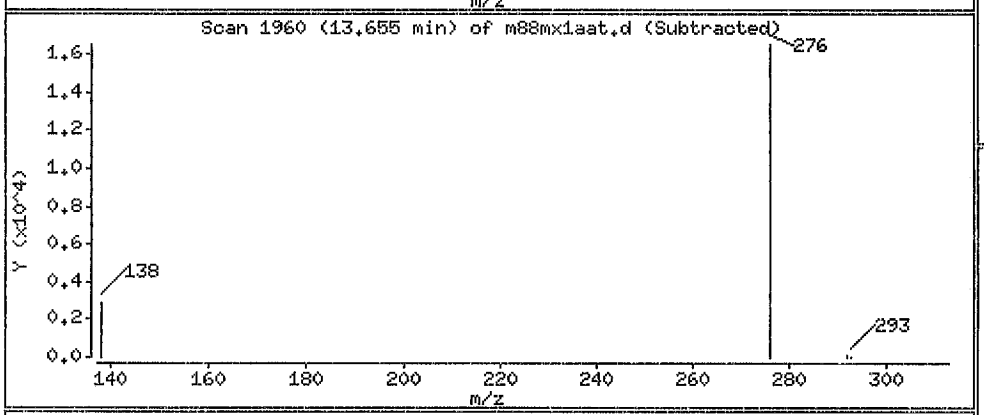
Column phase: Rxi-5SIL MS w/Guard

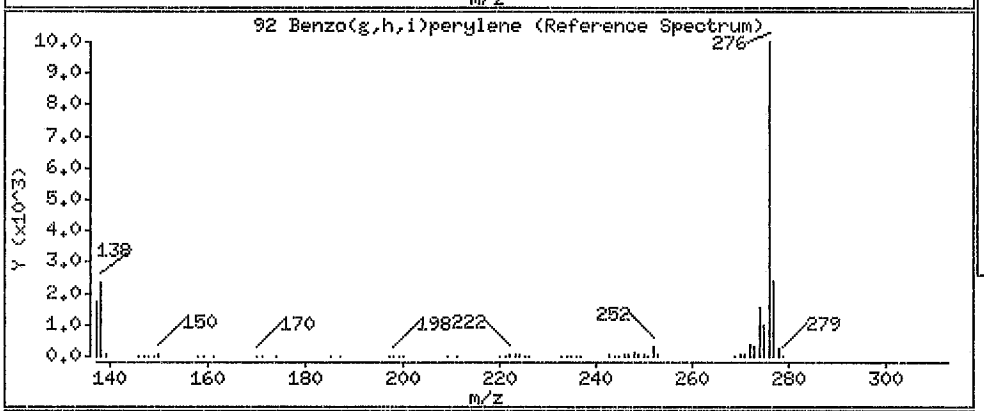
Column diameter: 0.25

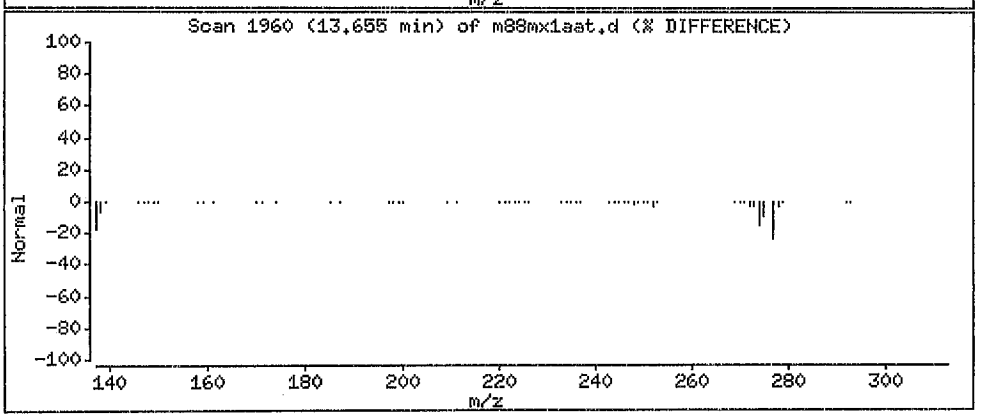
92 Benzo(g,h,i)perylene

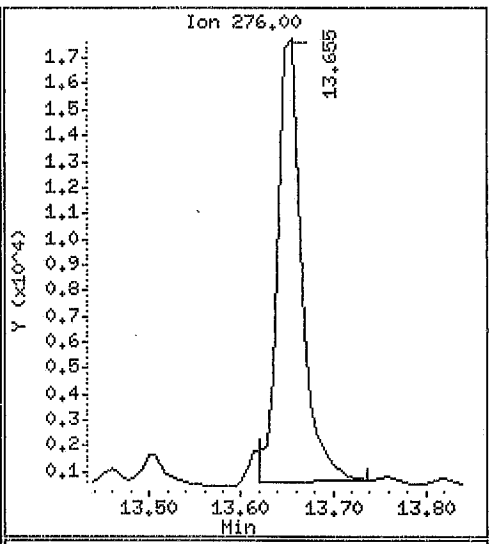
Concentration: 589 ng/g

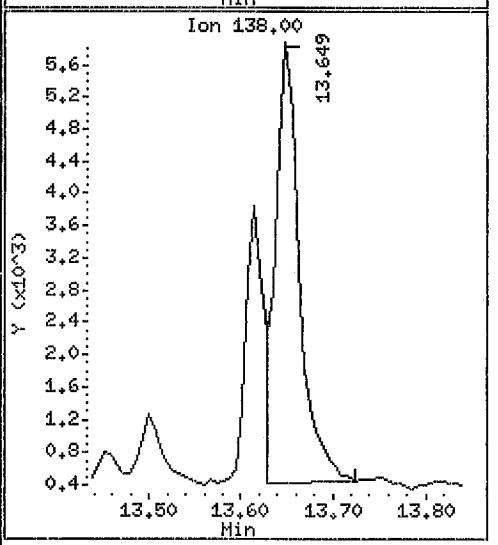












Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1aat.d

Date : 27-SEP-2016 16:56

Client ID:

Instrument: mp.i

Sample Info: ,,0,,PDS 1:400 TRT

Purge Volume: 10.0

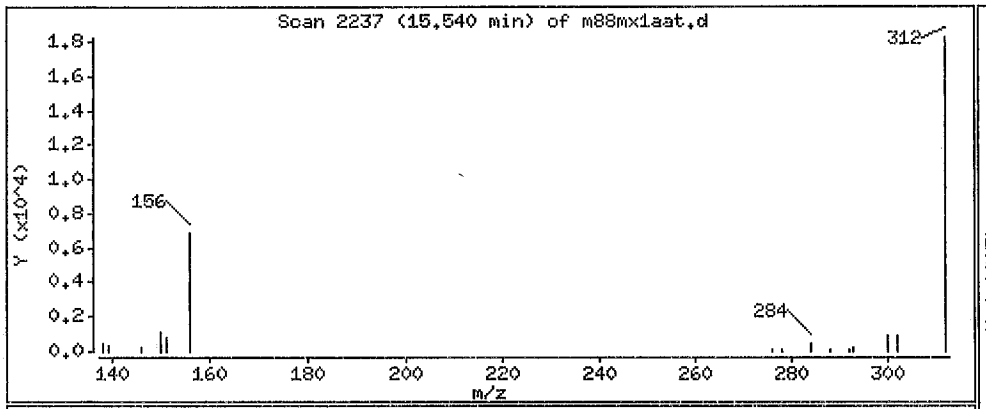
Operator: 11211

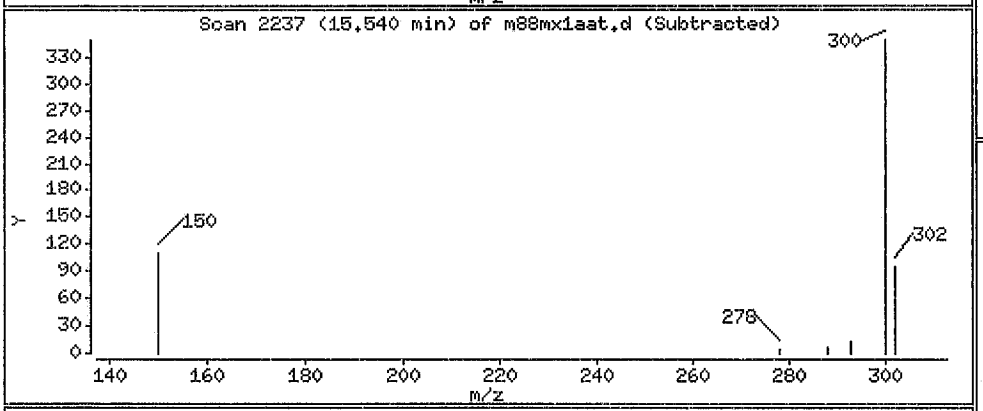
Column phase: Rxi-5SIL MS w/Guard

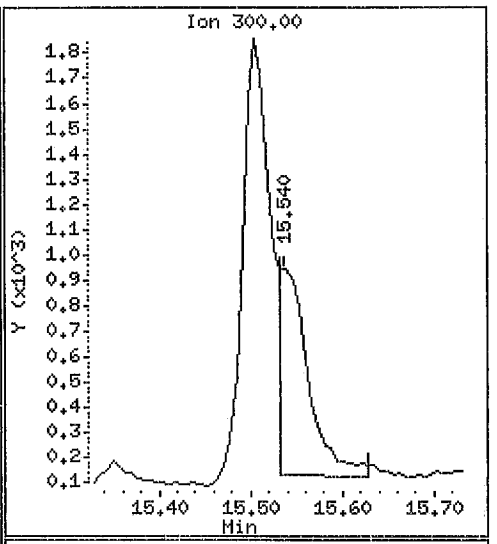
Column diameter: 0.25

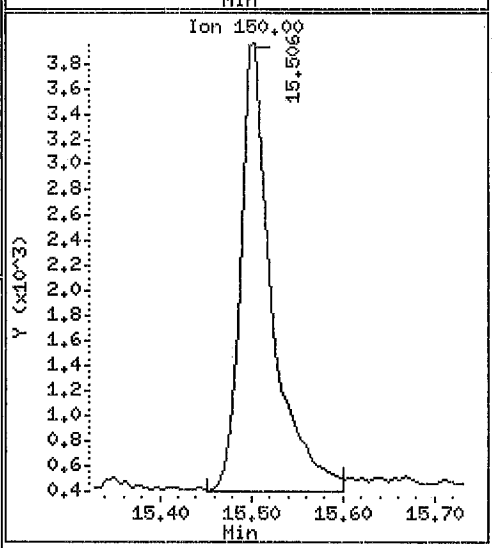
238 Coronene

Concentration: 41.2 ng/g









Standards Data

TestAmerica Knoxville GC/MS-SIM Initial Calibration Data Review / Narrative Checklist
Method: PAHs and Selected SVOCs - KNOX-ID-0016, Revision 11

Analysis Date:	9/14/16 9/15/16	Instrument::	MP	ICAL Batch/Scan Name:	P091516 I	Scanned ☐

A. Review Items	N/A	Yes	No	Why is data reportable?	2nd √
1. Were all injections in sequence within 12 hr of first calibration standard?		✓			✓
2. Was date/time of analysis verified between header and logbook?		✓			✓
3. Are peak integrations appropriate?		✓			✓
4. Were ≥ 5 levels of each analyte/IS analyzed?		✓			✓
5. Was the high point standard checked for saturation?		✓			✓
6. Was low level standard at or below RL?		✓			✓
7. Are all %RSD ≤30% ?		✓		except EUPAH *	✓
8. Are the MID descriptors properly set?		✓			✓
9. Are correct RFs listed in ICAL summary?		✓			✓
10. Was ICAL summary form processed using the correct method?		✓			✓
11. Are the ICAL start and end dates/times correct on ICAL summary?		✓			✓
12. Elution order checked on isomeric pairs?					
• 1,4 dichlorobenzene before 1,2 dichlorobenzene (& d4 isomers)		✓			✓
• 2-methylnaphthalene before 1-methylnaphthalene (& d10 isomers)		✓			✓
• acenaphthylene before acenaphthene (& d10 isomers)		✓			✓
• dibenzothiophene before anthracene		✓			✓
• phenanthrene before anthracene (& d10 isomers)		✓			✓
• fluoranthene before pyrene (& d10 isomers)		✓			✓
• benzo(a)anthracene before chrysene (& d12 isomers)		✓			✓
• benzo(b)fluoranthene before benzo(k)fluoranthene (& d12 isomers)		✓			✓
• benzo(e)pyrene before benzo(a)pyrene benzo(a)pyrene before perylene (& d12 isomers)		✓			✓
• Indeno(1,2,3-cd)pyrene before benzo(g,h,i)perylene (& d12 isomers)		✓			✓
13. Is the 2nd source ICV with +/- 30% of the expected value?		✓			✓
14. Are the Alkyl RFs correct (i.e., same as the parent RF)?		✓			✓
15. If criteria were not met, was a NCM generated and approved by supervisor?	✓				NA
16. Does the ICAL folder contain **complete** data in the following order? ICAL data review checklist, runlog, Target Initial Calibration Report, followed by the quan report and chromatograms for all calibration and 2nd source standards.		✓			✓

1st Level Reviewer:	Date: 9/15/16
Comments:	

2nd Level Reviewer: DW	Date: 9/16/16
Comments: * high pt dropped for several EUPAH cmpds & used Quad → Ø	

TestAmerica Knoxville
Instrument MP Run/Maintenance Log

Date/Time Verified ☑
Preventive Maintenance Performed: ☑ septa ☑ liner ☑ seal ☑ clip column ☐ other: see below / maint. log

Target Batch	P091416I			Date	9/14/16
ICAL Batch	P091416I			Analyst	JRL
Method	☑ KNOX-ID-0016			IS ID & vol.	n/a

Lot	Filename	Time	Dil.	Matrix	Batch	Comments
	PI14Hex01	13:21				
PAH	PI14ICAL 1	13:46				PAH0980 (miss injection) n/a
	2	14:11				PAH0981 n/a
	3	14:36				PAH0982
	4	15:01				PAH0983
	5	15:26				PAH0984
	6	15:52				PAH0985
	7	16:17				PAH0986
	PI14Hex02	16:42				
ICV	PI14ICV	17:08				PAH0987
	PI14Hex03	17:33				
EU	PI14ICAL 1EU	17:58				PAH0989
	2EU	18:24				PAH0990
	3EU	18:49				PAH0991
	4EU	19:14				PAH0992
	5EU	19:39				PAH0993
	6EU	20:04				PAH0994
	7EU	20:29				PAH0995
	PI14Hex04	20:54				
PCB	PI14ICAL 1PCB	21:19				PAH0924
	2PCB	21:45				PAH0925
	3PCB	22:10				PAH0926
	4PCB	22:35				PAH0927
	5PCB	23:00 9/21/16				PAH0928
	6PCB	23:25				PAH0929
	7PCB	23:50				PAH0930
	PI14Hex05	00:15				
Window	PI14WIN	00:40				PAH0921
	PI14Hex06	01:05				
	PI14Hex07	01:29				

Comments:

TestAmerica Knoxville
Instrument MP Run/Maintenance Log

Date/Time Verified ☑

Preventive Maintenance Performed: ☐ septa ☐ liner ☐ seal ☐ clip column ☐ other: see below / maint. log

Target Batch	P091516I			Date	9/15/16
ICAL Batch	P091516I			Analyst	JRL
Method	☑ KNOX-ID-0016			IS ID & vol.	n/a

Lot	Filename	Time	Dil.	Matrix	Batch	Comments
	PI15Hex01	11:24				
PAH ICAL	PI15ICAL1	11:39				PAH 0980
	2	12:04				PAH 0981
	3	12:29				PAH 0982
	4	12:54				PAH 0983
	5	13:19				PAH 0984
	6	13:44				PAH 0985
	7	14:09				PAH 0986
	~~PB5~~ PI15Hex02	14:34				
ICV	PI15ICV	15:00				PAH 0987

9/15/16

Comments:

ID086R1.doc, 042314

Report Date: 15-Sep-2016 15:41

Calibration History

Method : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Start Cal Date: 14-SEP-2016 17:58
End Cal Date : 15-SEP-2016 14:09

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.02000		
15-SEP-2016 11:39	simpah	pi15ical1.d
14-SEP-2016 21:19	pcb	pi14ical1pcb.d
14-SEP-2016 17:58	simpaheu	pi14ical1eu.d
Cal Level: 2 , Cal Amount: 0.10000		
15-SEP-2016 12:04	simpah	pi15ical2.d
14-SEP-2016 21:45	pcb	pi14ical2pcb.d
14-SEP-2016 18:24	simpaheu	pi14ical2eu.d
Cal Level: 3 , Cal Amount: 0.25000		
15-SEP-2016 12:29	simpah	pi15ical3.d
14-SEP-2016 22:10	pcb	pi14ical3pcb.d
14-SEP-2016 18:49	simpaheu	pi14ical3eu.d
Cal Level: 4 , Cal Amount: 0.50000		
15-SEP-2016 12:54	simpah	pi15ical4.d
14-SEP-2016 22:35	pcb	pi14ical4pcb.d
14-SEP-2016 19:14	simpaheu	pi14ical4eu.d
Cal Level: 5 , Cal Amount: 1.00000		
15-SEP-2016 13:19	simpah	pi15ical5.d
14-SEP-2016 23:00	pcb	pi14ical5pcb.d
14-SEP-2016 19:39	simpaheu	pi14ical5eu.d
Cal Level: 6 , Cal Amount: 2.50000		
15-SEP-2016 13:44	simpah	pi15ical6.d
14-SEP-2016 23:25	pcb	pi14ical6pcb.d
14-SEP-2016 20:04	simpaheu	pi14ical6eu.d

Cal Level: 7 , Cal Amount: 5.00000		
15-SEP-2016 14:09	simpah	pi15ical7.d
14-SEP-2016 23:50	pcb	pi14ical7pcb.d

14-SEP-2016 20:29	simpaheu	pi14ical7eu.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 0.500		
15-SEP-2016 12:54	simpah	pi15ical4.d

Report Date : 15-Sep-2016 15:39

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 14-SEP-2016 17:58
End Cal Date : 15-SEP-2016 14:09
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Cal Date : 15-Sep-2016 15:38 cochranj

Calibration File Names:
Level 1: /var/chem/gcms/mp.i/P091516I.b/pi15ical1.d
Level 2: /var/chem/gcms/mp.i/P091516I.b/pi15ical2.d
Level 3: /var/chem/gcms/mp.i/P091516I.b/pi15ical3.d
Level 4: /var/chem/gcms/mp.i/P091516I.b/pi15ical4.d
Level 5: /var/chem/gcms/mp.i/P091516I.b/pi15ical5.d
Level 6: /var/chem/gcms/mp.i/P091516I.b/pi15ical6.d
Level 7: /var/chem/gcms/mp.i/P091516I.b/pi15ical7.d

Compound	0.0200 Level 1 / 5 Level 7	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
3 Naphthalene	1.06191 0.85925	1.10716	1.07713	1.03704	0.99486	0.94376	AVRG		1.01159		8.53219
4 C2-Naphthalenes	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.01159		0.000e+00
5 C3-Naphthalenes(a)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.01159		0.000e+00
6 C3-Naphthalenes(b)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.01159		0.000e+00

Report Date : 15-Sep-2016 15:39

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Target Version : 3.50
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Method file : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Cal Date : 15-Sep-2016 15:38 cochranj

Compound	0.0200 Level 1 / 5 Level 7	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
7 C3-Naphthalenes(c)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.01159		0.000e+00
M 8 C3-Naphthalenes(total)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.01159		0.000e+00
9 C4-Naphthalenes	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.01159		0.000e+00
12 2-Methylnaphthalene	1.36510 1.25656	1.44015	1.43752	1.41436	1.37299	1.33160	AVRG		1.37404		4.76406
15 1-Methylnaphthalene	1.11805 0.99969	1.17052	1.14384	1.12525	1.08094	1.06448	AVRG		1.10040		5.18688
16 Biphenyl	1.54718 1.42858	1.63874	1.61939	1.62646	1.52120	1.53170	AVRG		1.55904		4.81988
19 2,6 Dimethylnaphthalene	1.08452 1.04947	1.19552	1.21241	1.21476	1.13255	1.13436	AVRG		1.14623		5.63196

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Cal Date : 15-Sep-2016 15:38 cochranj

Compound	0.0200 Level 1 / 5 Level 7	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
22 Acenaphthylene	1.06358	1.13387	1.12849	1.12128	1.10057	1.07898					
	1.01757						AVRG		1.09205		3.83647
24 Acenaphthene	0.66564	0.69608	0.68628	0.67519	0.65737	0.63955					
	0.60723						AVRG		0.66105		4.56216
25 2,3,5 Trimethylnaphthalene	0.88501	0.96192	0.98185	1.01394	0.97657	1.01627					
	0.96829						AVRG		0.97198		4.50821
27 Fluorene	1.15674	1.19369	1.18885	1.17924	1.15965	1.14370					
	1.08463						AVRG		1.15807		3.20567
29 C1-Fluorenes(a)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		1.15807		0.000e+00
30 C1-Fluorenes(b)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		1.15807		0.000e+00
M 31 C1-Fluorenes(total)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		1.15807		0.000e+00

Report Date : 15-Sep-2016 15:39

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Integrator : HP RTE
Method file : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Cal Date : 15-Sep-2016 15:38 cochranj

Compound	0.0200 Level 1 / 5 Level 7	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
32 C2-Fluorenes	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.15807		0.000e+00
33 C3-Fluorenes	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.15807		0.000e+00
232 Hexachlorobenzene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
36 Dibenzothiophene	1.06722 1.01703	1.11759	1.10997	1.09949	1.07740	1.06464	AVRG		1.07905		3.17796
37 C1-Dibenzothiophenes	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.07905		0.000e+00
38 C2-Dibenzothiophenes	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.07905		0.000e+00
39 C3-Dibenzothiophenes(a)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.07905		0.000e+00

n/a
9/15/16

Report Date : 15-Sep-2016 15:39

TestAmerica Knoxville

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Method file : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Cal Date : 15-Sep-2016 15:38 cochranj

Compound	0.0200 Level 1 / 5 Level 7	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
228 C3-Dibenzothiophenes(b)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		1.07905		0.000e+00
M 229 C3-Dibenothiophenes(total)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		1.07905		0.000e+00
40 C4-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		1.07905		0.000e+00
43 Phenanthrene	1.26427	1.29862	1.29571	1.28263	1.24538	1.22648					
	1.15902						AVRG		1.25316		3.92343
46 Anthracene	1.23043	1.29190	1.31428	1.33320	1.28318	1.26206					
	1.19235						AVRG		1.27248		3.82623
48 C1-Phenan/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		1.25316		0.000e+00
49 C2-Phenan/Anthracenes(a)	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		1.25316		0.000e+00

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Cal Date : 15-Sep-2016 15:38 cochranj

Compound	0.0200 Level 1 / 5 Level 7	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
220 C2-Phenan/Anthracenes(b)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.25316		0.000e+00
M 221 C2-Phenan/Anthracenes(total)	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.25316		0.000e+00
50 C3-Phenan/Anthracenes	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.25316		0.000e+00
51 C4-Phenan/Anthracenes	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.25316		0.000e+00
52 1-Methylphenanthrene	0.36713 0.43159	0.39970	0.42996	0.44368	0.44721	0.45167	AVRG		0.42442		7.20306
55 Fluoranthene	1.24032 1.20129	1.29525	1.30692	1.29849	1.28762	1.29253	AVRG		1.27463		3.05242
57 Pyrene	1.29662 1.21949	1.33490	1.34688	1.33822	1.32230	1.31952	AVRG		1.31113		3.32156

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Method file : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Cal Date : 15-Sep-2016 15:38 cochranj

Compound	0.0200 Level 1 / 5 Level 7	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
59 C1-Fluoran/Pyrenes	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.31113		0.000e+00
62 Benzo(a)anthracene	0.80277 0.99626	0.80084	0.85059	0.86173	0.89965	1.00054	AVRG		0.88748		9.36783
65 Chrysene	1.03119 1.03209	1.07241	1.08678	1.05807	1.03089	1.07016	AVRG		1.05451		2.19834
66 C1-Benz(a)anthraceneChrysenes	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.05451		0.000e+00
67 C2-Benz(a)anthraceneChrysenes	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.05451		0.000e+00
68 C3-Benz(a)anthraceneChrysenes	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.05451		0.000e+00
69 C4-Benz(a)anthraceneChrysenes	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		1.05451		0.000e+00

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Cal Date : 15-Sep-2016 15:38 cochranj

Compound	0.0200 Level 1	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5 Level 7										
72 Benzo(b)fluoranthene	1.38190	1.49054	1.46770	1.48369	1.37173	1.45236					
	1.46431						AVRG		1.44460		3.32725
75 Benzo(k)fluoranthene	1.16278	1.16931	1.19630	1.21429	1.22759	1.18731					
	1.08111						AVRG		1.17695		4.08713
77 Benzo(e)pyrene	1.41192	1.63372	1.63732	1.66003	1.52596	1.49679					
	1.37932						AVRG		1.53501		7.36916
80 Benzo(a)pyrene	1.19738	1.21540	1.30839	1.38694	1.39189	1.45580					
	1.37426						AVRG		1.33286		7.24747
83 Perylene	1.06901	1.15125	1.16899	1.21535	1.25380	1.23380					
	1.18022						AVRG		1.18177		5.22028
86 Indeno(1,2,3-cd)pyrene	1.20584	1.27197	1.32914	1.38750	1.42643	1.43236					
	1.36505						AVRG		1.34547		6.17519
89 Dibenz(a,h)anthracene	1.15000	1.29657	1.43676	1.47020	1.50691	1.53537					
	1.44264						AVRG		1.40549		9.67048

Report Date : 15-Sep-2016 15:39

TestAmerica Knoxville

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Method file : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Cal Date : 15-Sep-2016 15:38 cochranj

Compound	0.0200 Level 1	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5 Level 7										
92 Benzo(g,h,i)perylene	1.14339	1.23879	1.26967	1.30075	1.28511	1.31035					
	1.25845						AVRG		1.25807		4.46633
223 Benzo(j)fluoranthene	0.97467	0.90653	0.94430	0.92829	0.95420	0.93734					
	0.91116						AVRG		0.93664		2.55624
227 Dibenz(a,l)pyrene	6149	32466	97289	216935	495556	1424920					
	+++++						QUAD	0.000e+00	1.53987	-0.07380	0.99974
224 Dibenz(a,e)pyrene	12483	54916	149412	303276	688025	1868823					
	+++++						QUAD	0.000e+00	1.07967	-0.02497	0.99987
226 Dibenz(a,i)pyrene	5396	27759	92227	183477	493427	1434253					
	+++++						QUAD	0.000e+00	1.61456	-0.09409	0.99856
225 Dibenz(a,h)pyrene	5032	27986	88680	186838	528496	1604316					
	+++++						QUAD	0.000e+00	1.54042	-0.09668	0.99791
238 Coronene	1.34710	1.43292	1.42080	1.41679	1.40305	1.45272					
	1.44722						AVRG		1.41723		2.50086

Report Date : 15-Sep-2016 15:39

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 14-SEP-2016 17:58
End Cal Date : 15-SEP-2016 14:09
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Cal Date : 15-Sep-2016 15:38 cochranj

Compound	0.0200 Level 1 / 5 Level 7	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
236 1,2-Dichlorobenzene	2.28740	2.42039	2.35345	2.31426	2.21760	2.18684					
	2.06439						AVRG		2.26347		5.21132
239 2-Chloronaphthalene	0.61092	0.64189	0.63700	0.63190	0.61301	0.60701					
	0.57526						AVRG		0.61671		3.70696
243 Diphenylamine	0.56917	0.65522	0.73644	0.80655	0.87180	0.91419					
	0.89676						AVRG		0.77859		16.80125
M 240 Benzo(b+k+j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00 <- n/a 9/15/16
245 1,2,4-Trichlorobenzene	0.29879	0.30566	0.30491	0.30003	0.29056	0.28614					
	0.27010						AVRG		0.29374		4.30332
246 Dibenzofuran	1.59105	1.68913	1.69034	1.70699	1.63569	1.65320					
	1.56390						AVRG		1.64719		3.27438
247 3-Methylphenanthrene	0.37854	0.41073	0.43007	0.44258	0.44704	0.45273					
	0.43166						AVRG		0.42762		5.99885

Report Date : 15-Sep-2016 15:39

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INITIAL CALIBRATION DATA

Start Cal Date : 14-SEP-2016 17:58
End Cal Date : 15-SEP-2016 14:09
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Cal Date : 15-Sep-2016 15:38 cochranj

Compound	0.0200 Level 1 / 5 Level 7	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
249 Bis(2-ethylhexyl)phthalate	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
250 Hydroquinone	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
251 Acetophenone	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
253 Hexachlorobutadiene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
252 Phenol	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
254 1,4-Dichlorobenzene	2.54677 2.47287	2.74787	2.61702	2.65621	2.62052	2.47880	AVRG		2.59143		3.82355	
255 2,4-Dinitrophenol	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<- N/A

N/A 9/15/16

Report Date : 15-Sep-2016 15:39

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INITIAL CALIBRATION DATA

Start Cal Date : 14-SEP-2016 17:58
End Cal Date : 15-SEP-2016 14:09
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Cal Date : 15-Sep-2016 15:38 cochranj

Compound	0.0200 Level 1 / 5 Level 7	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
259 PCE 14	0.56628	0.51439	0.53610	0.58048	0.58459	0.58293					
	0.57944						AVRG		0.56346		4.87955
260 PCE 36	0.38540	0.37099	0.37880	0.40466	0.42347	0.42386					
	0.42019						AVRG		0.40105		5.61746
261 PCB 78	0.22677	0.22642	0.24919	0.28360	0.28214	0.29183					
	0.29207						AVRG		0.26458		11.22348
262 PCB 104	0.26019	0.25357	0.27069	0.29454	0.30209	0.29893					
	0.29604						AVRG		0.28229		7.16706
263 PCB 121	0.27097	0.23535	0.26160	0.28675	0.29976	0.30529					
	0.30668						AVRG		0.28092		9.41254
264 PCB 142	0.09933	0.09772	0.11447	0.12729	0.14268	0.15304					
	0.15459						AVRG		0.12702		18.92004
265 PCB 155	0.26558	0.21495	0.22544	0.24002	0.24721	0.25106					
	0.25272						AVRG		0.24243		7.12233

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INITIAL CALIBRATION DATA

Start Cal Date : 14-SEP-2016 17:58
End Cal Date : 15-SEP-2016 14:09
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Cal Date : 15-Sep-2016 15:38 cochranj

Compound	0.0200 Level 1 / 5 Level 7	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
269 PCB 169	0.11671	0.12239	0.14754	0.18162	0.20278	0.21613					
	0.22106						AVRG		0.17261		25.37216
266 PCB 184	0.14469	0.12676	0.15030	0.17034	0.17903	0.18819					
	0.18776						AVRG		0.16387		14.44821
267 PCB 192	0.12254	0.11547	0.13585	0.15421	0.16473	0.17271					
	0.17611						AVRG		0.14880		16.38823
268 PCB 204	0.11963	0.10706	0.11527	0.13782	0.14007	0.14484					
	0.14625						AVRG		0.13013		12.13912
$ 2 Naphthalene-d8(SS)	1.97030	1.99538	1.95397	1.97641	2.01127	1.96904					
	1.98614						AVRG		1.98036		0.95725
$ 222 13C6-Naphthalene	+++++	1.57692	1.25665	1.16709	1.07188	0.97166					
	0.87474						AVRG		1.15316		21.50704
$ 241 13C6-1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00 <- N/A 9/15/16

Report Date : 15-Sep-2016 15:39

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INITIAL CALIBRATION DATA

Start Cal Date : 14-SEP-2016 17:58
End Cal Date : 15-SEP-2016 14:09
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Cal Date : 15-Sep-2016 15:38 cochranj

Compound	0.0200 Level 1 / 5 Level 7	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 11 2-Methylnaphthalene-d10(SS)	0.99009	0.99939	0.98422	0.99579	1.01615	0.99682					
	0.99823						AVRG		0.99724		0.99131
$ 14 1-Methylnaphthalene-d10(SS)	1.09609	1.10843	1.09328	1.10060	1.12399	1.09406					
	1.10237						AVRG		1.10269		0.97785
$ 18 2,6-Dimethylnaph-d12(SS)	1.04898	1.05722	1.03908	1.02273	1.08245	1.02459					
	1.02745						AVRG		1.04322		2.07122
$ 21 Acenaphthylene-d8(SS)	1.71985	1.75968	1.74397	1.76448	1.81141	1.80779					
	1.82325						AVRG		1.77577		2.18997
$ 233 Fluorene-d10(SS)	1.16429	1.18686	1.17007	1.18058	1.20706	1.20187					
	1.20360						AVRG		1.18776		1.43313
$ 28 13C6-Fluorene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00
$ 35 Dibenzothiopene-d8(SS)	1.21599	1.23304	1.17842	1.18394	1.18786	1.15376					
	1.13414						AVRG		1.18388		2.85919

n/a 8/15/16

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INITIAL CALIBRATION DATA

Start Cal Date : 14-SEP-2016 17:58
End Cal Date : 15-SEP-2016 14:09
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Cal Date : 15-Sep-2016 15:38 cochranj

Compound	0.0200 Level 1 / 5 Level 7	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
$ 42 Phenanthrene-d10(SS)	1.17607	1.18693	1.14117	1.15024	1.16189	1.12760						
	1.10925						AVRG		1.15045		2.36016	
$ 45 Anthracene-d10(SS)	1.03895	1.06161	1.02678	1.03430	1.08367	1.08098						
	1.07623						AVRG		1.05750		2.26099	
$ 47 13C6-Anthracene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	w/a
$ 54 Fluoranthene-d10(SS)	1.11782	1.12939	1.08938	1.10453	1.12717	1.10025						
	1.10455						AVRG		1.11044		1.33082	
$ 58 Terphenyl-d14	0.47035	0.51844	0.52038	0.55349	0.56616	0.56217						
	0.54803						AVRG		0.53414		6.34130	
$ 61 Benzo(a)anthracene-d12(SS)	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<- w/a
$ 64 Chrysene-d12(SS)	1.17010	1.20348	1.16728	1.20520	1.23327	1.14290						
	1.12425						AVRG		1.17807		3.24012	

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INITIAL CALIBRATION DATA

Start Cal Date : 14-SEP-2016 17:58
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Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Cal Date : 15-Sep-2016 15:38 cochranj

Compound	0.0200 Level 1 / 5 Level 7	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 71 Benzo(b)fluoranthene-d12(SS)	1.09093	1.07070	1.05377	1.00968	1.08031	1.02441					
	1.01629						AVRG		1.04944		3.12464
$ 74 Benzo(k)fluoranthene-d12(SS)	1.24683	1.23831	1.24238	1.30279	1.36471	1.35541					
	1.33308						AVRG		1.29764		4.25291
$ 79 Benzo(a)pyrene-d12(SS)	0.82406	0.81333	0.83225	0.85782	0.94734	0.95652					
	0.97554						AVRG		0.88669		7.91465
$ 82 Perylene-d12(SS)	0.91783	0.93618	0.96584	1.00641	1.05980	1.11148					
	1.11712						AVRG		1.01638		8.02079
$ 85 Indeno(123-cd)pyrene-d12(SS)	1.04562	1.03159	1.02633	1.03845	1.06106	1.08289					
	1.09096						AVRG		1.05384		2.39733
$ 88 Dibenz(ah)anthracene-d14(SS)	0.84444	0.83113	0.81755	0.82303	0.85256	0.85960					
	0.86913						AVRG		0.84249		2.29207
$ 91 Benzo(ghi)perylene-d12(SS)	1.06249	1.03364	1.01169	1.01279	1.05175	1.04972					
	1.05886						AVRG		1.04014		2.03035

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INITIAL CALIBRATION DATA

Start Cal Date : 14-SEP-2016 17:58
End Cal Date : 15-SEP-2016 14:09
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Cal Date : 15-Sep-2016 15:38 cochranj

Compound	0.0200 Level 1 / 5 Level 7	0.1000 Level 2	0.2500 Level 3	0.5000 Level 4	1 Level 5	2 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
$ 231 Coronene-d12 (SS)	0.80111	0.80298	0.76661	0.77530	0.79322	0.77565						
	0.76870						AVRG		0.78337		1.96194	
$ 235 1,2-Dichlorobenzene-d4(SS)	0.32661	0.32071	0.31943	0.31545	0.32495	0.32121						
	0.32138						AVRG		0.32139		1.13299	
$ 237 13C6-Benzo(a)anthracene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
$ 273 Hydroquinone-6 (SS)	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
$ 271 Phenol-d5 (SS)	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
$ 275 2,4-Dinitrophenol-d3 (SS)	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
$ 257 1,4Dichlorobenzene-d4(SS)	0.29862	0.29350	0.29009	0.28144	0.28603	0.28317						
	0.26963						AVRG		0.28607		3.28159	

N/A
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Report Date : 15-Sep-2016 15:39

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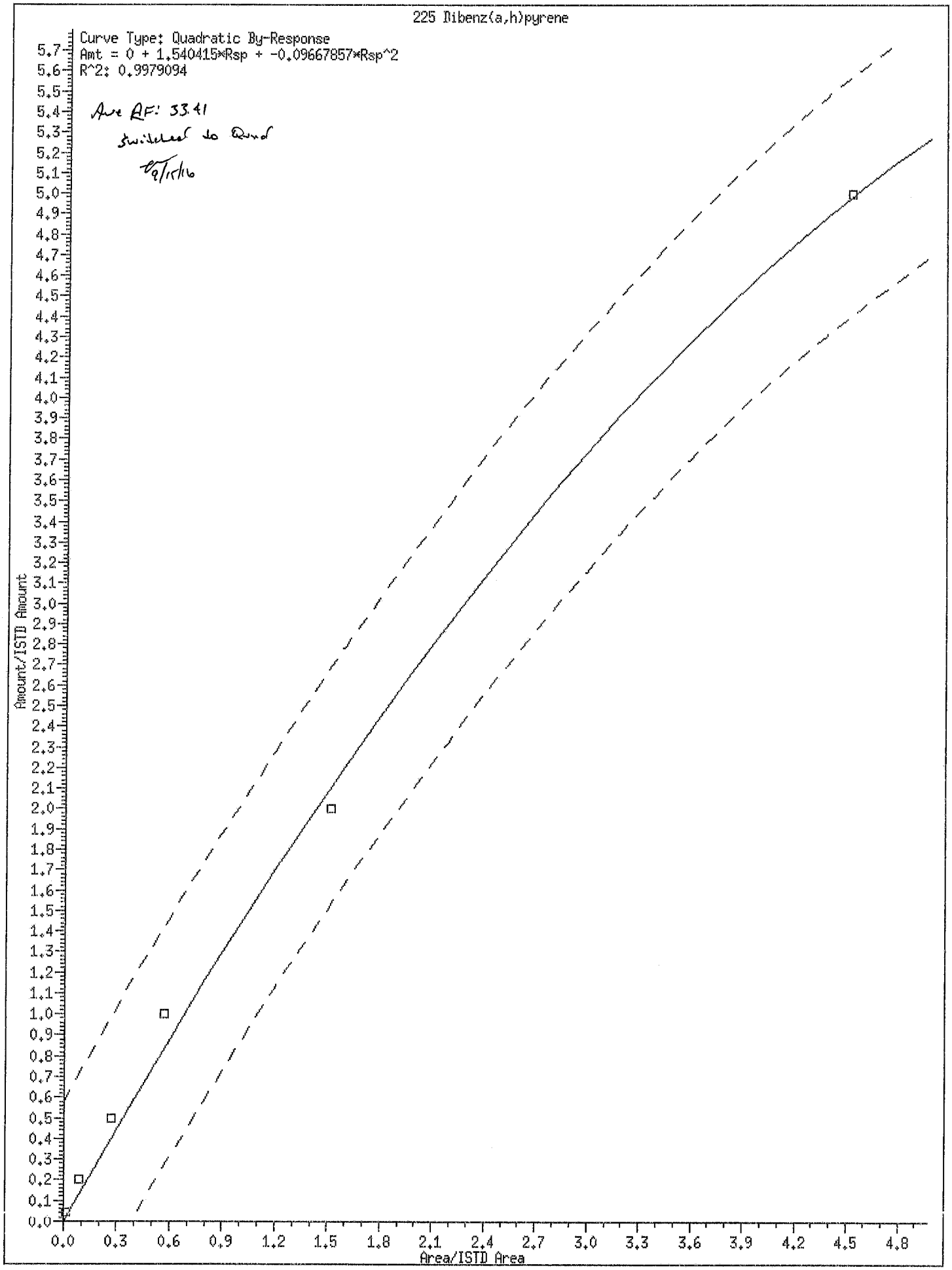
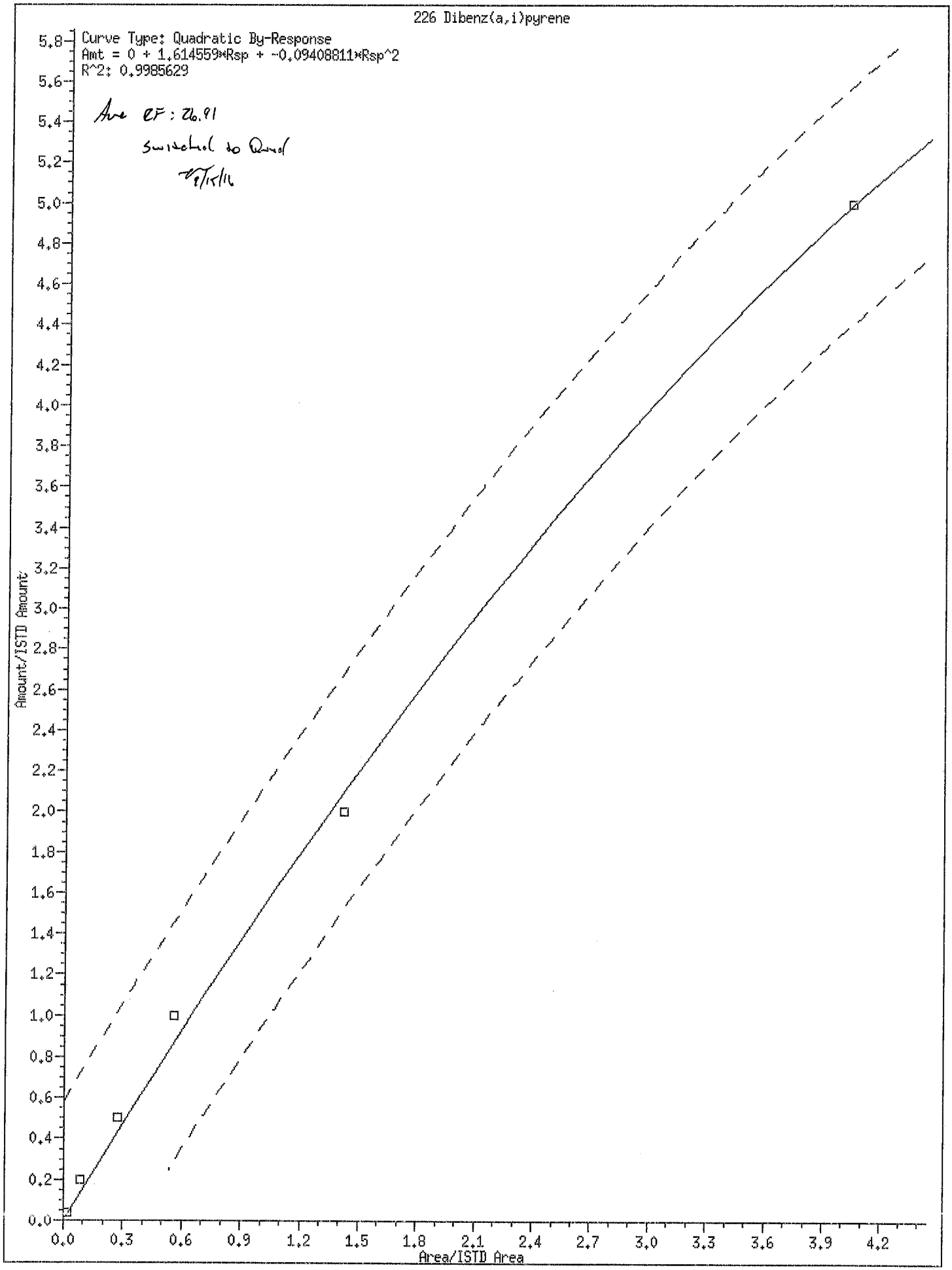
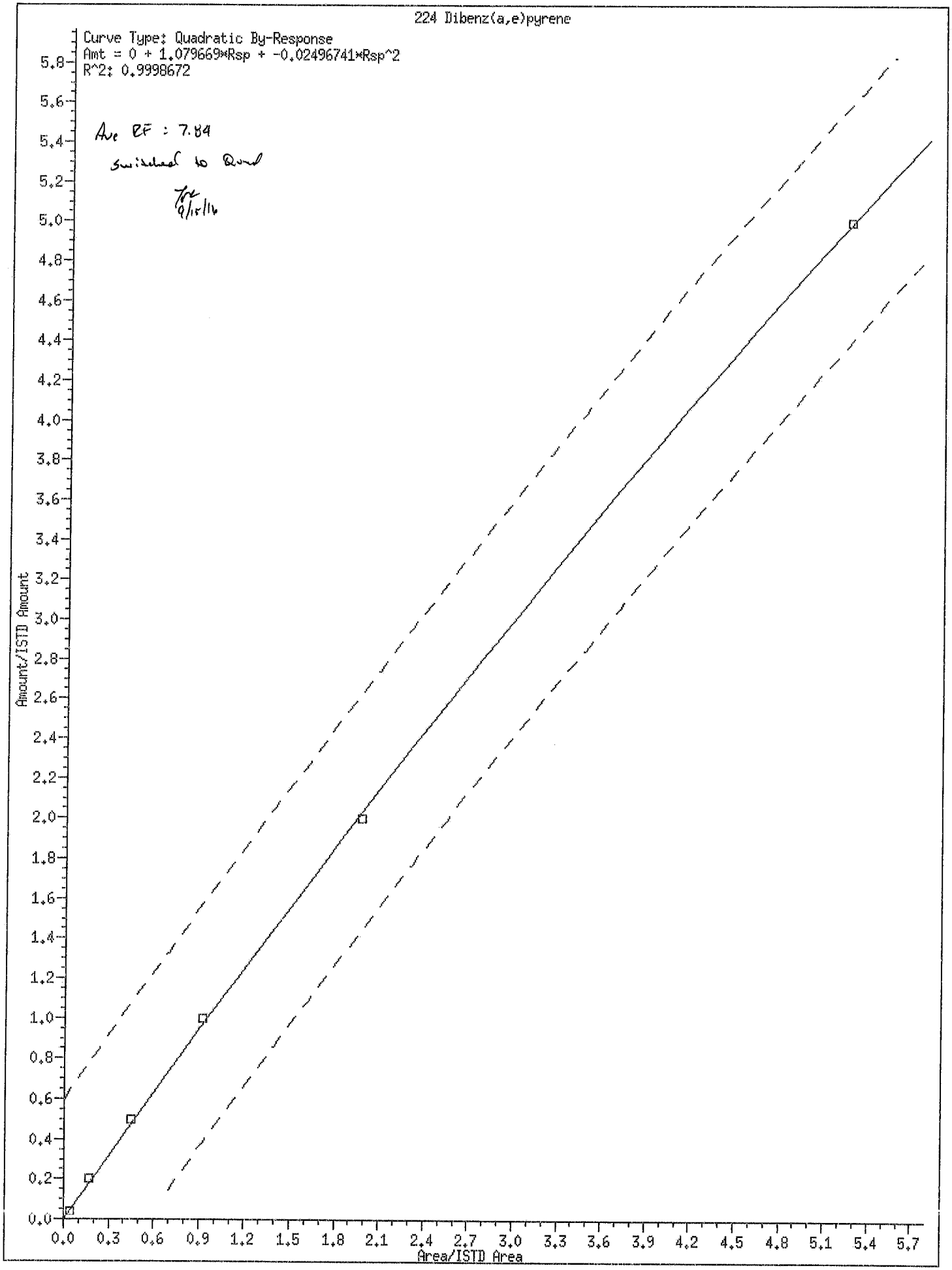
INITIAL CALIBRATION DATA

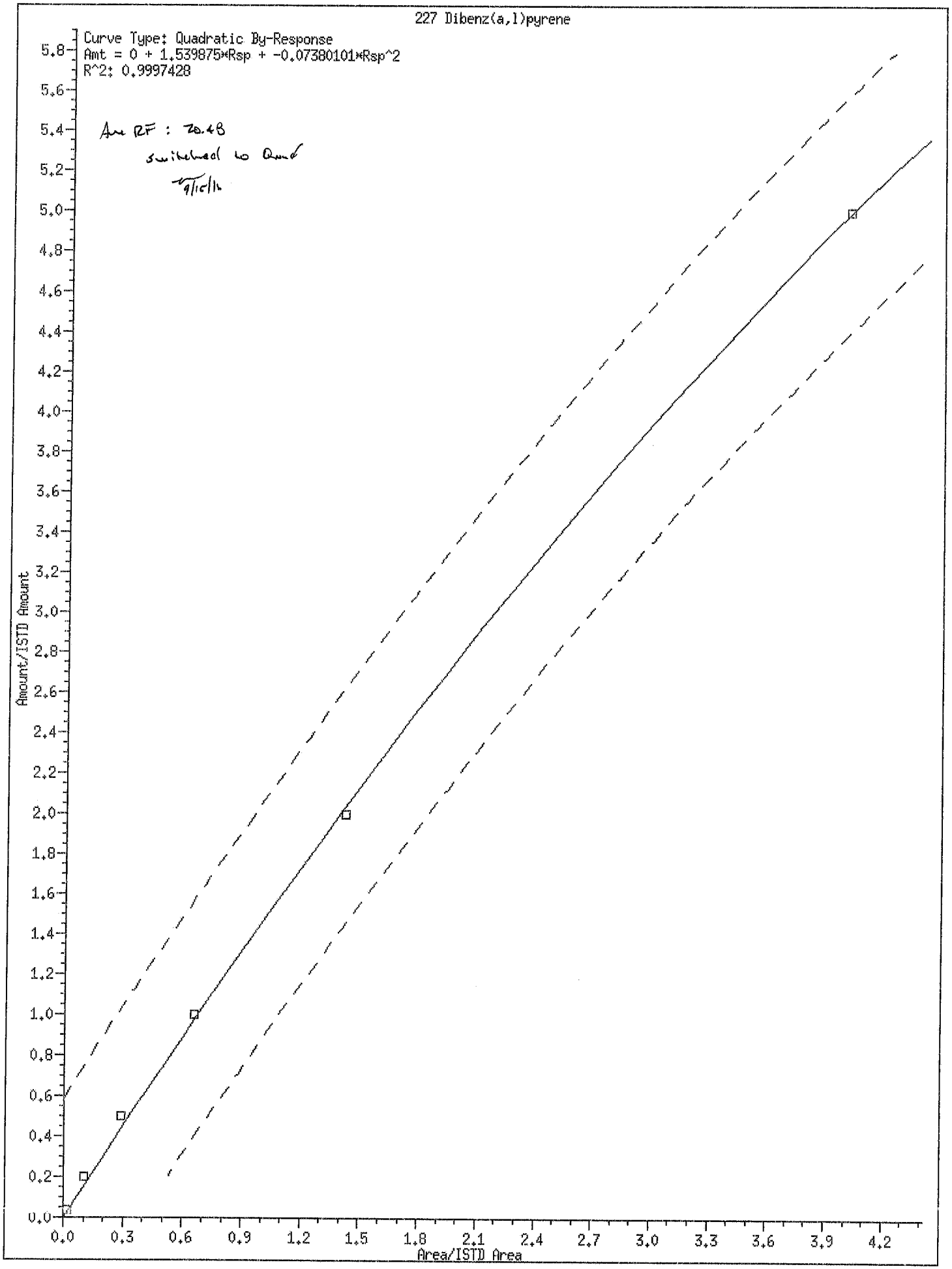
Start Cal Date : 14-SEP-2016 17:58
End Cal Date : 15-SEP-2016 14:09
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Cal Date : 15-Sep-2016 15:38 cochranj

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response


225 Dibenz(a,h)pyrene
Curve Type: Quadratic By-Response
Amt = 0 + 1.540415*Rsp + -0.09667857*Rsp^2
R^2: 0.9979094
Ave RF: 33.41
Switched to Quad
9/15/16
Amount/ISTD Amount
Area/ISTD Area


226 Dibenz(a,i)pyrene
Curve Type: Quadratic By-Response
Amt = 0 + 1.614559*Rsp + -0.09408811*Rsp^2
R^2: 0.9985629
Ave RF: 26.91
switched to Quad
9/15/16
Amount/ISTD Amount
Area/ISTD Area
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0
4.2
4.4
4.6
4.8
5.0
5.2
5.4
5.6
5.8
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2


224 Dibenz(a,e)pyrene
Curve Type: Quadratic By-Response
Amt = 0 + 1.079669*Rsp + -0.02496741*Rsp^2
R^2: 0.9998672
Ave RF : 7.84
switched to Quad
TR
9/15/16
Amount/ISTD Amount
Area/ISTD Area
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0
4.2
4.4
4.6
4.8
5.0
5.2
5.4
5.6
5.8
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4 5.7


227 Dibenz(a,l)pyrene
Curve Type: Quadratic By-Response
Amt = 0 + 1.539875*Rsp + -0.07380101*Rsp^2
R^2: 0.9997428
Ave RF : 20.48
switched to Quad
9/10/11
Amount/ISTD Amount
Area/ISTD Area
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0
4.2
4.4
4.6
4.8
5.0
5.2
5.4
5.6
5.8
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2

Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical1eu.d
Report Date: 15-Sep-2016 12:38

TestAmerica Knoxville

SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091416I.b/pi14ical1eu.d
Lab Smp Id: PT1
Inj Date : 14-SEP-2016 17:58
Operator : 11211 Inst ID: mp.i
Smp Info : PT1,,1,1,PAH0989
Misc Info : P091416I,SIMPAH10,simpaheu.sub
Comment :
Method : /var/chem/gcms/mp.i/P091416I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 12:38 cochranj Quant Type: ISTD
Cal Date : 14-SEP-2016 21:19 Cal File: pi14ical1pcb.d
Als bottle: 12 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpaheu.sub
Target Version: 3.50

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

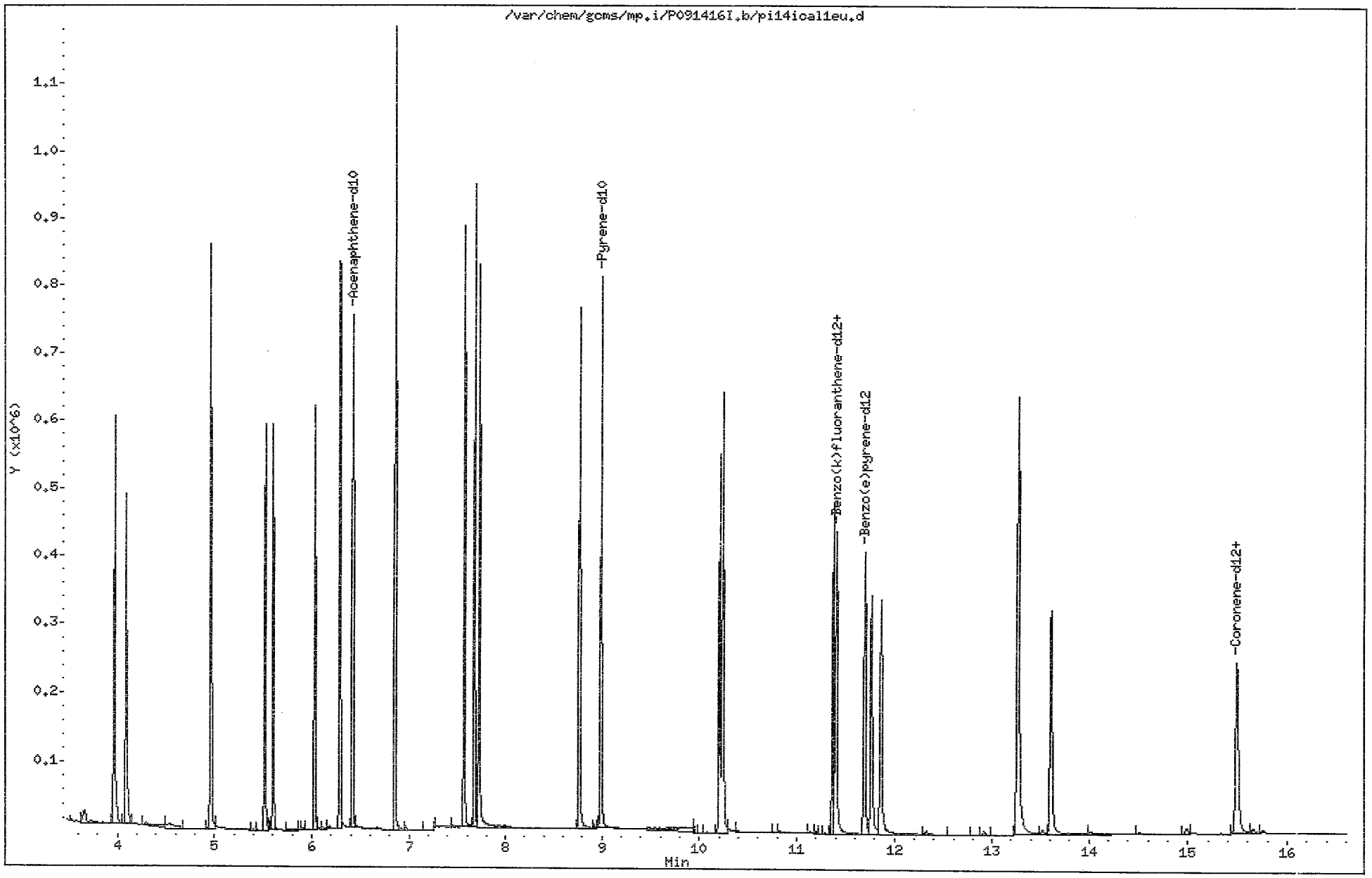
Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 23 Acenaphthene-d10	164	6.422	6.417	(1.000)	350844	0.50000	0.500
* 56 Pyrene-d10	212	8.986	8.985	(1.000)	488142	0.50000	0.500
* 73 Benzo(k)fluoranthene-d12	264	11.407	11.403	(1.000)	467695	0.50000	0.500
223 Benzo(j)fluoranthene	252	11.407	11.410	(1.000)	18234	0.02000	0.0200
* 76 Benzo(e)pyrene-d12	264	11.700	11.696	(1.000)	389844	0.50000	0.500
227 Dibenz(a,l)pyrene	302	14.989	14.993	(0.968)	6149	0.02000	0.0200
224 Dibenz(a,e)pyrene	302	15.472	15.475	(0.999)	12483	0.02000	0.0200
* 230 Coronene-d12	312	15.492	15.488	(1.000)	325312	0.50000	0.500
226 Dibenz(a,i)pyrene	302	15.662	15.652	(1.011)	5396	0.02000	0.0200
225 Dibenz(a,h)pyrene	302	15.750	15.754	(1.017)	5032	0.02000	0.0200

Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical1eu.d
Date : 14-SEP-2016 17:58
Client ID:
Sample Info: PT1,,1,1,PAH0989
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical2eu.d
Report Date: 15-Sep-2016 12:38

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SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091416I.b/pi14ical2eu.d
Lab Smp Id: PT2
Inj Date : 14-SEP-2016 18:24
Operator : 11211 Inst ID: mp.i
Smp Info : PT2,,1,2,PAH0990
Misc Info : P091416I,SIMPAH10,simpaheu.sub
Comment :
Method : /var/chem/gcms/mp.i/P091416I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 12:38 cochranj Quant Type: ISTD
Cal Date : 14-SEP-2016 21:45 Cal File: pi14ical2pcb.d
Als bottle: 13 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpaheu.sub
Target Version: 3.50

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

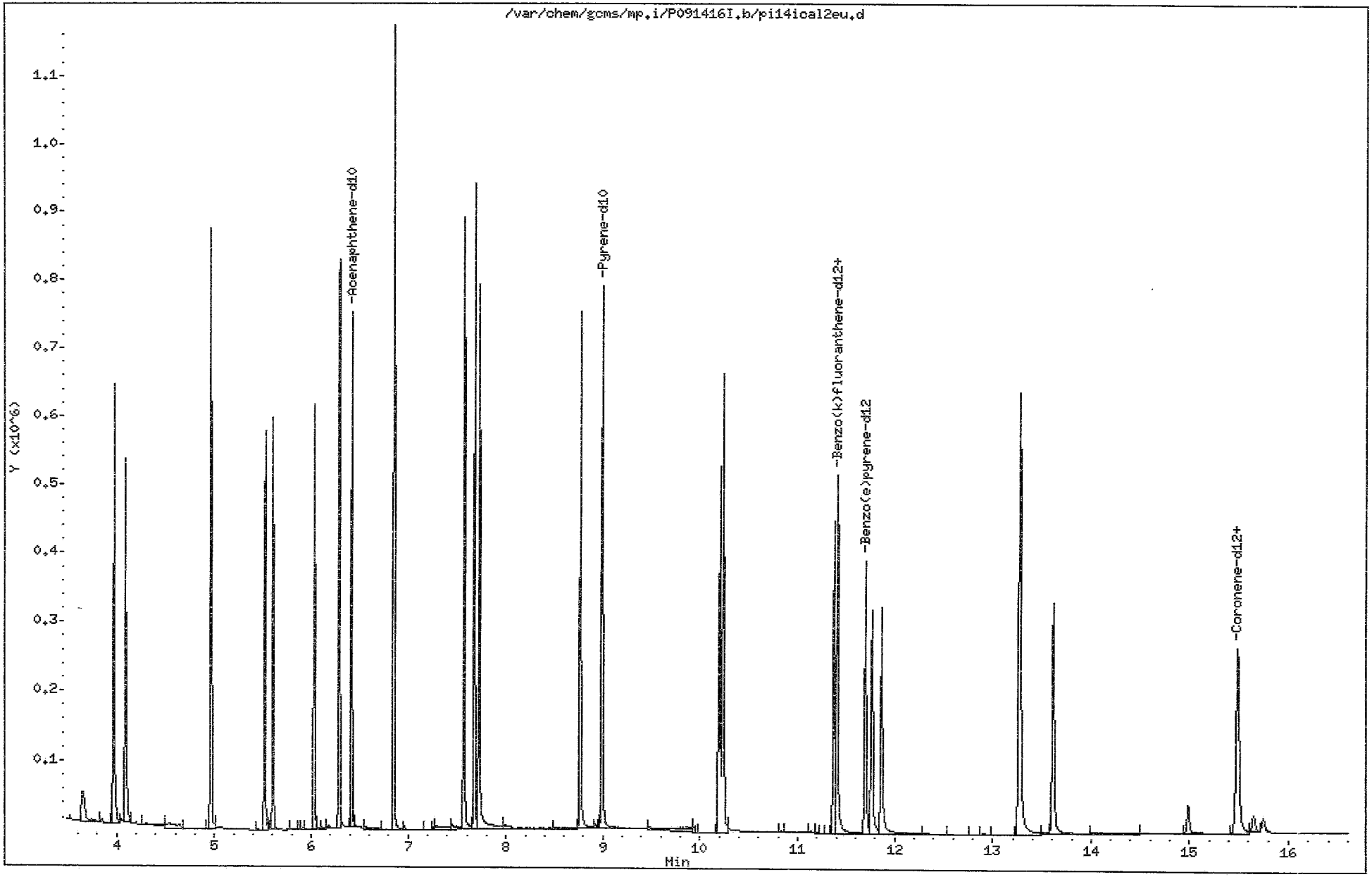
Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 23 Acenaphthene-d10	164	6.421	6.417	(1.000)	346528	0.50000	0.500
* 56 Pyrene-d10	212	8.988	8.985	(1.000)	478352	0.50000	0.500
* 73 Benzo(k)fluoranthene-d12	264	11.406	11.403	(1.000)	476095	0.50000	0.500
223 Benzo(j)fluoranthene	252	11.412	11.410	(1.001)	86319	0.10000	0.0964
* 76 Benzo(e)pyrene-d12	264	11.699	11.696	(1.000)	381118	0.50000	0.500
227 Dibenz(a,l)pyrene	302	14.988	14.993	(0.968)	32466	0.10000	0.100
224 Dibenz(a,e)pyrene	302	15.471	15.475	(0.999)	54916	0.10000	0.0994
* 230 Coronene-d12	312	15.491	15.488	(1.000)	324475	0.50000	0.500
226 Dibenz(a,i)pyrene	302	15.654	15.652	(1.011)	27759	0.10000	0.100
225 Dibenz(a,h)pyrene	302	15.749	15.754	(1.017)	27986	0.10000	0.100

Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical2eu.d
Date : 14-SEP-2016 18:24
Client ID:
Sample Info: PT2,,1,2,PAH0990
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical3eu.d
Report Date: 15-Sep-2016 12:38

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SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091416I.b/pi14ical3eu.d
Lab Smp Id: PT3
Inj Date : 14-SEP-2016 18:49
Operator : 11211 Inst ID: mp.i
Smp Info : PT3,,1,3,PAH0991
Misc Info : P091416I,SIMPAH10,simpaheu.sub
Comment :
Method : /var/chem/gcms/mp.i/P091416I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 12:38 cochranj Quant Type: ISTD
Cal Date : 14-SEP-2016 22:10 Cal File: pi14ical3pcb.d
Als bottle: 14 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpaheu.sub
Target Version: 3.50

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

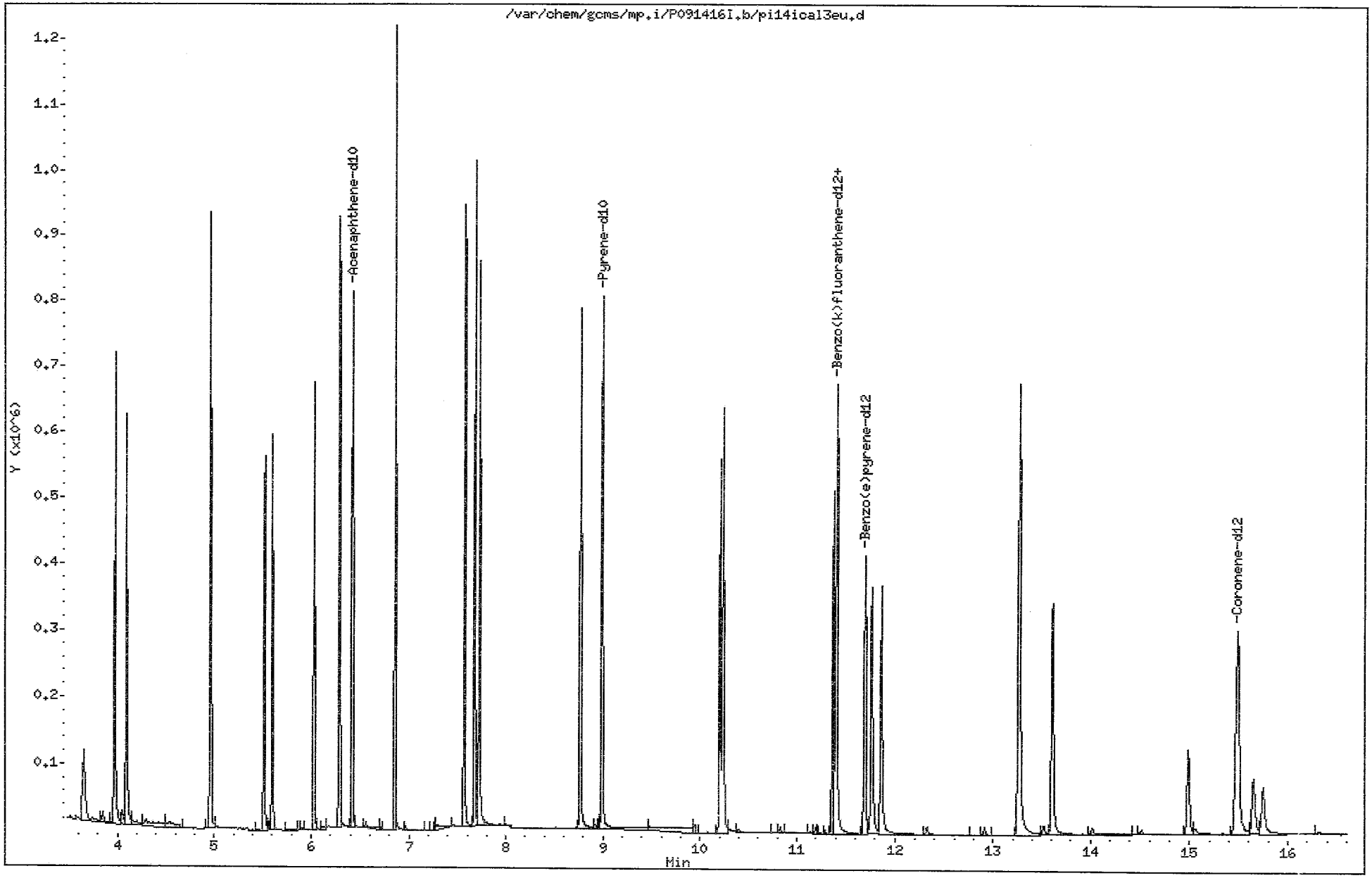
Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 23 Acenaphthene-d10	164	6.417	6.417	(1.000)	358676	0.50000	0.500
* 56 Pyrene-d10	212	8.985	8.985	(1.000)	500257	0.50000	0.500
* 73 Benzo(k)fluoranthene-d12	264	11.407	11.403	(1.000)	505515	0.50000	0.500
223 Benzo(j)fluoranthene	252	11.413	11.410	(1.001)	238680	0.25000	0.251
* 76 Benzo(e)pyrene-d12	264	11.700	11.696	(1.000)	406842	0.50000	0.500
227 Dibenz(a,l)pyrene	302	14.981	14.993	(0.967)	97289	0.25000	0.250
224 Dibenz(a,e)pyrene	302	15.464	15.475	(0.999)	149412	0.25000	0.250
* 230 Coronene-d12	312	15.485	15.488	(1.000)	335575	0.50000	0.500
226 Dibenz(a,i)pyrene	302	15.648	15.652	(1.011)	92227	0.25000	0.250
225 Dibenz(a,h)pyrene	302	15.743	15.754	(1.017)	88680	0.25000	0.250

Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical3eu.d
Date : 14-SEP-2016 18:49
Client ID:
Sample Info: PT3,,1,3,PAH0991
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical4eu.d
Report Date: 15-Sep-2016 12:38

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SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091416I.b/pi14ical4eu.d
Lab Smp Id: PT4
Inj Date : 14-SEP-2016 19:14
Operator : 11211 Inst ID: mp.i
Smp Info : PT4,,1,4,PAH0992
Misc Info : P091416I,SIMPAH10,simpaheu.sub
Comment :
Method : /var/chem/gcms/mp.i/P091416I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 12:38 cochranj Quant Type: ISTD
Cal Date : 14-SEP-2016 22:35 Cal File: pi14ical4pcb.d
Als bottle: 15 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpaheu.sub
Target Version: 3.50

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

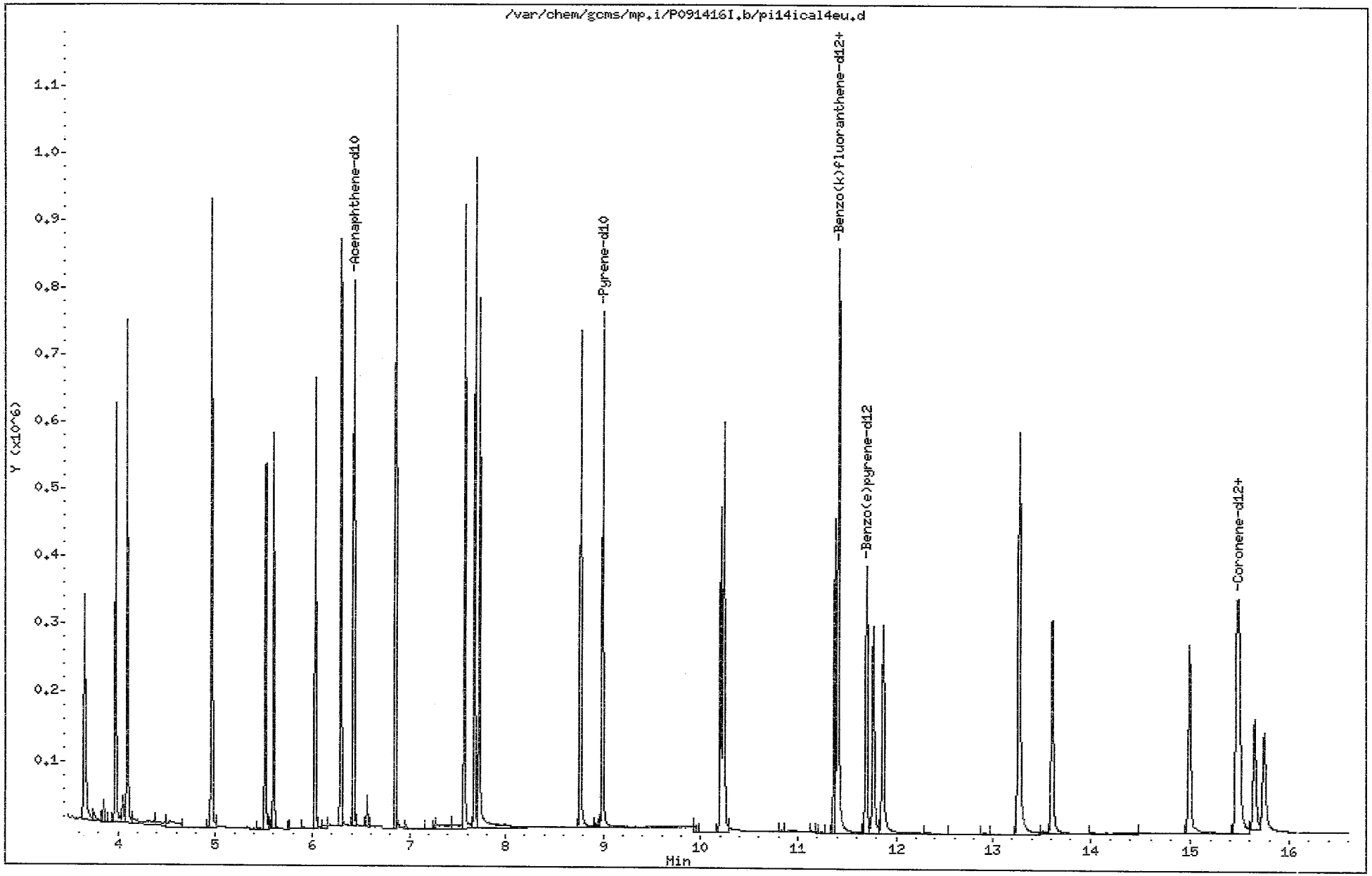
Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 23 Acenaphthene-d10	164	6.417	6.417	(1.000)	355891	0.50000	0.500
* 56 Pyrene-d10	212	8.986	8.985	(1.000)	486086	0.50000	0.500
* 73 Benzo(k)fluoranthene-d12	264	11.407	11.403	(1.000)	481012	0.50000	0.500
223 Benzo(j)fluoranthene	252	11.413	11.410	(1.001)	446520	0.50000	0.495
* 76 Benzo(e)pyrene-d12	264	11.700	11.696	(1.000)	383986	0.50000	0.500
227 Dibenz(a,l)pyrene	302	14.982	14.993	(0.967)	216935	0.50000	0.499
224 Dibenz(a,e)pyrene	302	15.465	15.475	(0.999)	303276	0.50000	0.500
* 230 Coronene-d12	312	15.485	15.488	(1.000)	331438	0.50000	0.500
226 Dibenz(a,i)pyrene	302	15.648	15.652	(1.011)	183477	0.50000	0.498
225 Dibenz(a,h)pyrene	302	15.744	15.754	(1.017)	186838	0.50000	0.499

Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical4eu.d
Date : 14-SEP-2016 19:14
Client ID:
Sample Info: PT4,,1,4,PAH0992
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical5eu.d
Report Date: 15-Sep-2016 12:38

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SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091416I.b/pi14ical5eu.d
Lab Smp Id: PT5
Inj Date : 14-SEP-2016 19:39
Operator : 11211 Inst ID: mp.i
Smp Info : PT5,,1,5,PAH0993
Misc Info : P091416I,SIMPAH10,simpaheu.sub
Comment :
Method : /var/chem/gcms/mp.i/P091416I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 12:38 cochranj Quant Type: ISTD
Cal Date : 14-SEP-2016 23:00 Cal File: pi14ical5pcb.d
Als bottle: 16 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpaheu.sub
Target Version: 3.50

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

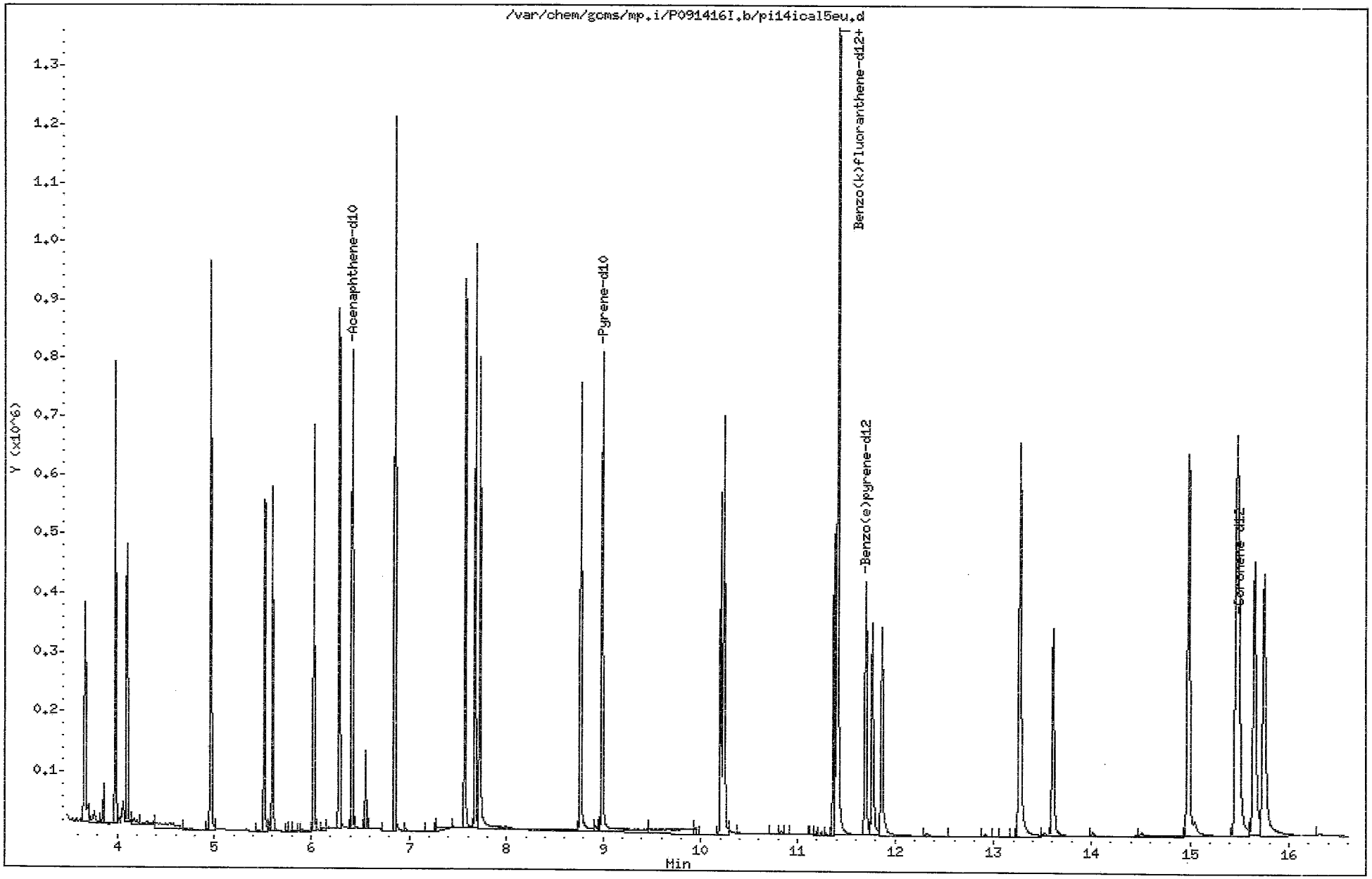
Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 23 Acenaphthene-d10	164	6.416	6.417	(1.000)	357964	0.50000	0.500
* 56 Pyrene-d10	212	8.988	8.985	(1.000)	497657	0.50000	0.500
* 73 Benzo(k)fluoranthene-d12	264	11.406	11.403	(1.000)	519875	0.50000	0.500
223 Benzo(j)fluoranthene	252	11.412	11.410	(1.001)	992131	1.00000	1.01
* 76 Benzo(e)pyrene-d12	264	11.699	11.696	(1.000)	403738	0.50000	0.500
227 Dibenz(a,l)pyrene	302	14.987	14.993	(0.968)	495556	1.00000	0.998
224 Dibenz(a,e)pyrene	302	15.463	15.475	(0.998)	688025	1.00000	1.000
* 230 Coronene-d12	312	15.490	15.488	(1.000)	349159	0.50000	0.500
226 Dibenz(a,i)pyrene	302	15.646	15.652	(1.010)	493427	1.00000	1.00
225 Dibenz(a,h)pyrene	302	15.742	15.754	(1.016)	528496	1.00000	1.000

Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical5eu.d
Date : 14-SEP-2016 19:39
Client ID:
Sample Info: PT5,,1,5,PAH0993
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical6eu.d
Report Date: 15-Sep-2016 12:39

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SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091416I.b/pi14ical6eu.d
Lab Smp Id: PT6
Inj Date : 14-SEP-2016 20:04
Operator : 11211 Inst ID: mp.i
Smp Info : PT6,,1,6,PAH0994
Misc Info : P091416I,SIMPAH10,simpaheu.sub
Comment :
Method : /var/chem/gcms/mp.i/P091416I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 12:38 cochranj Quant Type: ISTD
Cal Date : 14-SEP-2016 23:25 Cal File: pi14ical6pcb.d
Als bottle: 17 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpaheu.sub
Target Version: 3.50

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

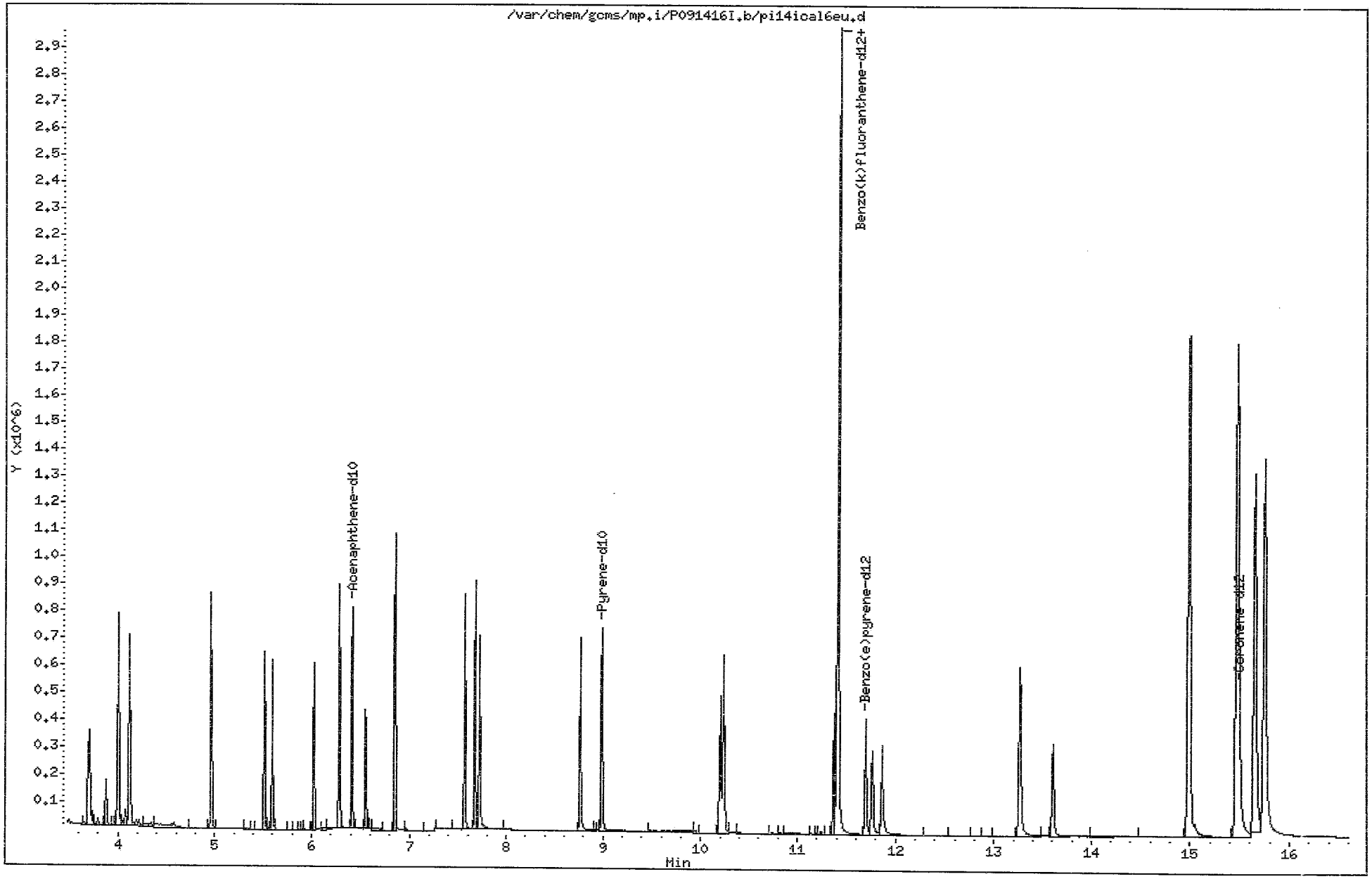
Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 23 Acenaphthene-d10	164	6.417	6.417	(1.000)	352369	0.50000	0.500
* 56 Pyrene-d10	212	8.985	8.985	(1.000)	485960	0.50000	0.500
* 73 Benzo(k)fluoranthene-d12	264	11.406	11.403	(1.000)	524528	0.50000	0.500
223 Benzo(j)fluoranthene	252	11.412	11.410	(1.001)	2458314	2.50000	2.49
* 76 Benzo(e)pyrene-d12	264	11.699	11.696	(1.000)	393912	0.50000	0.500
227 Dibenz(a,l)pyrene	302	14.988	14.993	(0.968)	1424920	2.50000	2.50
224 Dibenz(a,e)pyrene	302	15.471	15.475	(0.999)	1868823	2.50000	2.50
* 230 Coronene-d12	312	15.491	15.488	(1.000)	354576	0.50000	0.500
226 Dibenz(a,i)pyrene	302	15.648	15.652	(1.010)	1434253	2.50000	2.50
225 Dibenz(a,h)pyrene	302	15.750	15.754	(1.017)	1604316	2.50000	2.50

Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical6eu.d
Date : 14-SEP-2016 20:04
Client ID:
Sample Info: PT6,,1,6,PAH0994
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical7eu.d
Report Date: 15-Sep-2016 12:39

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SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091416I.b/pi14ical7eu.d
Lab Smp Id: PT7
Inj Date : 14-SEP-2016 20:29
Operator : 11211 Inst ID: mp.i
Smp Info : PT7,,1,7,PAH0995
Misc Info : P091416I,SIMPAH10,simpaheu.sub
Comment :
Method : /var/chem/gcms/mp.i/P091416I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 12:38 cochranj Quant Type: ISTD
Cal Date : 14-SEP-2016 23:50 Cal File: pi14ical7pcb.d
Als bottle: 18 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpaheu.sub
Target Version: 3.50

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

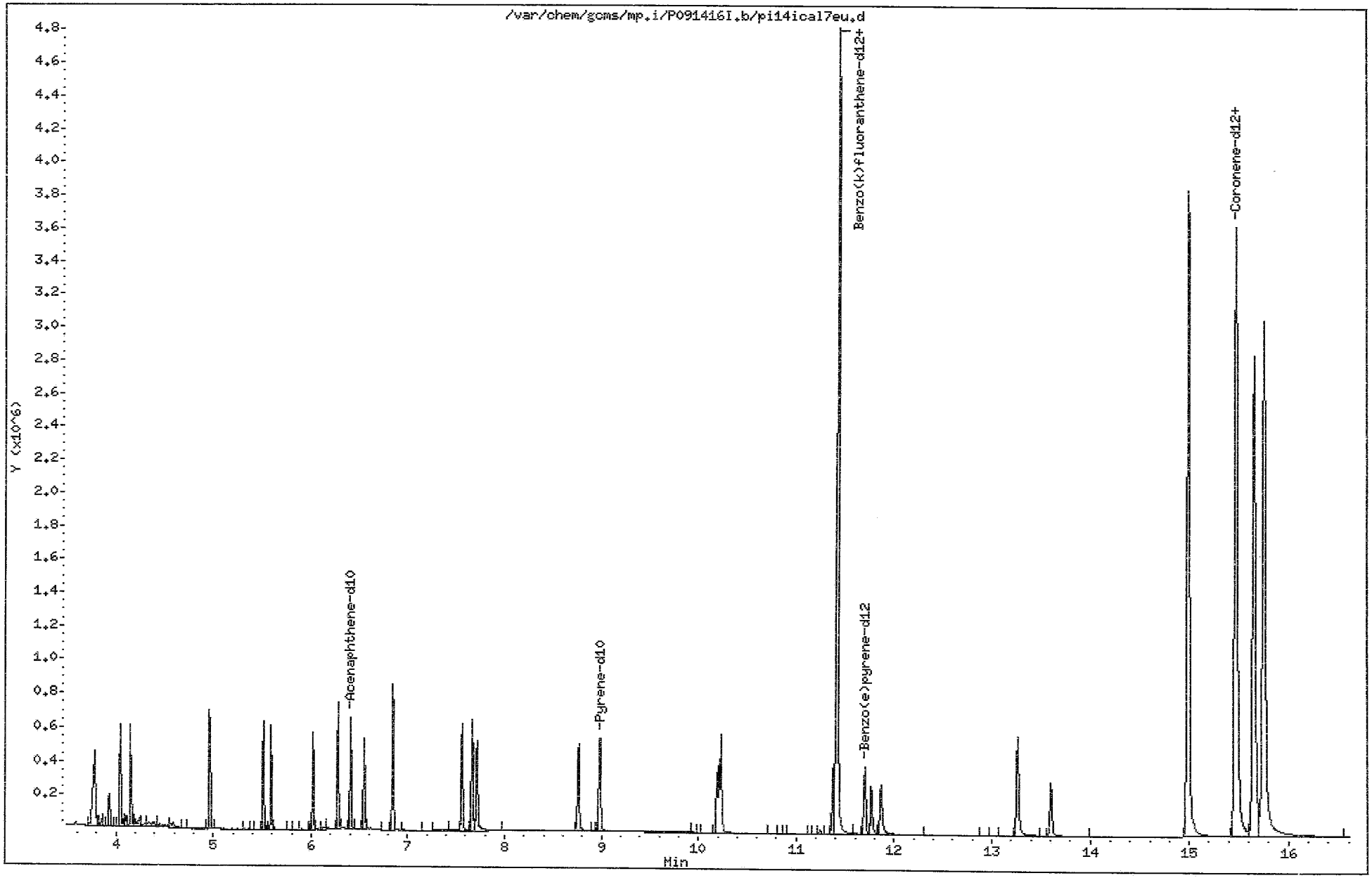
Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 23 Acenaphthene-d10	164	6.407	6.417	(1.000)	355189	0.50000	0.500
* 56 Pyrene-d10	212	8.983	8.985	(1.000)	488691	0.50000	0.500
* 73 Benzo(k)fluoranthene-d12	264	11.404	11.403	(1.000)	525018	0.50000	0.500
223 Benzo(j)fluoranthene	252	11.410	11.410	(1.001)	4783762	5.00000	4.86
* 76 Benzo(e)pyrene-d12	264	11.697	11.696	(1.000)	387877	0.50000	0.500
227 Dibenz(a,l)pyrene	302	14.993	14.993	(0.968)	3074264	5.00000	3.90
224 Dibenz(a,e)pyrene	302	15.475	15.475	(0.999)	3833244	5.00000	4.38
* 230 Coronene-d12	312	15.489	15.488	(1.000)	354525	0.50000	0.500
226 Dibenz(a,i)pyrene	302	15.652	15.652	(1.011)	3129305	5.00000	3.46
225 Dibenz(a,h)pyrene	302	15.754	15.754	(1.017)	3604169	5.00000	2.83

Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical7eu.d
Date : 14-SEP-2016 20:29
Client ID:
Sample Info: PT7,,1,7,PAH0995
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical1pcb.d
Report Date: 15-Sep-2016 12:39

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SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091416I.b/pi14ical1pcb.d
Lab Smp Id: PT1
Inj Date : 14-SEP-2016 21:19
Operator : 11211 Inst ID: mp.i
Smp Info : PT1,,1,1,PAH0924
Misc Info : P091416I,SIMPAH10,pcb.sub
Comment :
Method : /var/chem/gcms/mp.i/P091416I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 12:38 cochranj Quant Type: ISTD
Cal Date : 14-SEP-2016 21:19 Cal File: pi14ical1pcb.d
Als bottle: 20 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pcb.sub
Target Version: 3.50

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

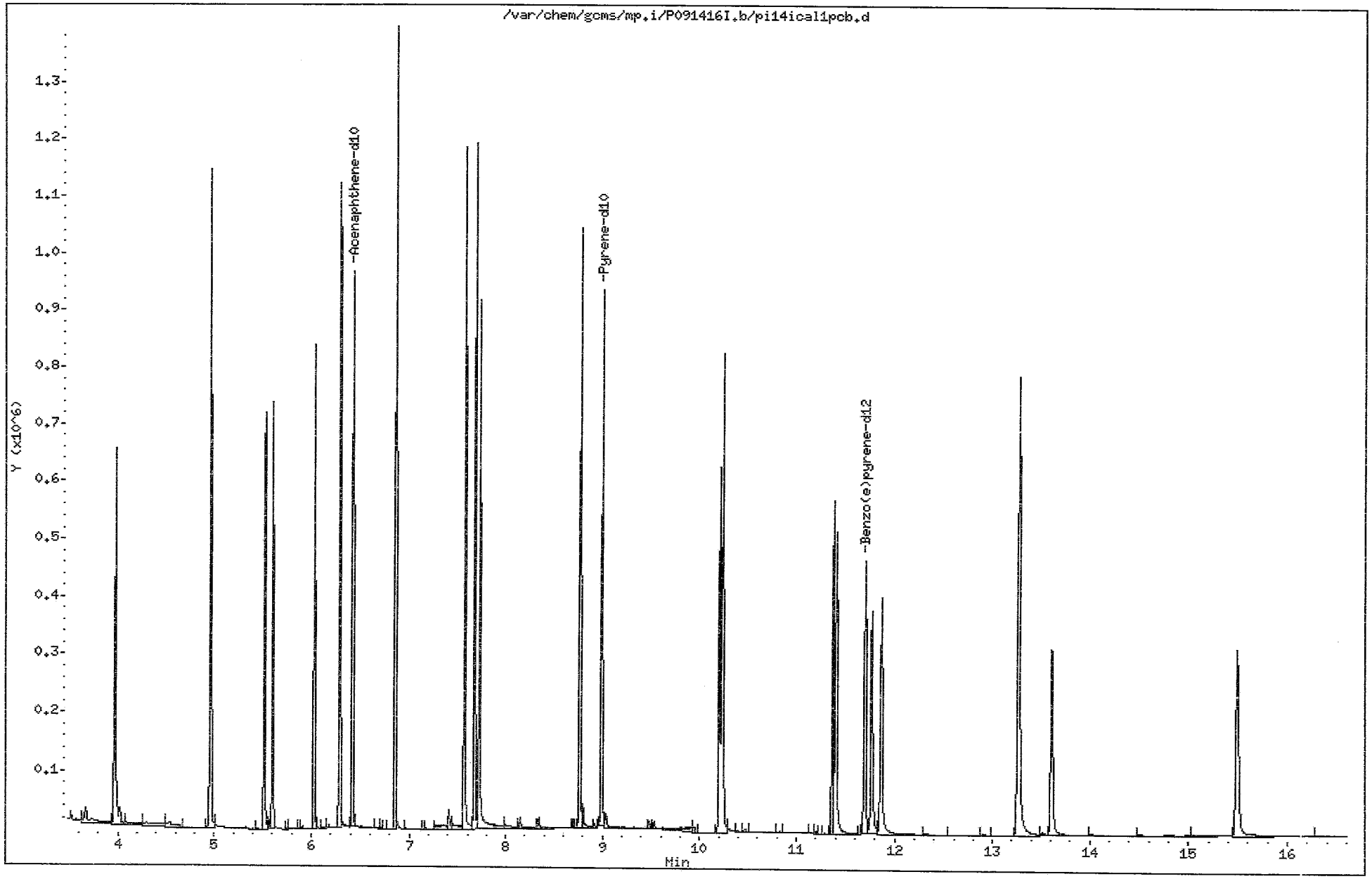
Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 23 Acenaphthene-d10	164	6.417	6.417	(1.000)	427173	0.50000	0.500
* 56 Pyrene-d10	212	8.986	8.985	(1.000)	588250	0.50000	0.500
* 76 Benzo(e)pyrene-d12	264	11.700	11.696	(1.000)	468574	0.50000	0.500
259 PCB 14	222	7.409	7.406	(0.825)	11659	0.01750	0.0175
260 PCB 36	256	8.150	8.145	(0.907)	7935	0.01750	0.0175
261 PCB 78	290	9.037	9.029	(1.006)	4669	0.01750	0.0175
262 PCB 104	326	8.344	8.339	(0.928)	5357	0.01750	0.0175
263 PCB 121	326	8.704	8.699	(0.969)	5579	0.01750	0.0175
264 PCB 142	360	9.481	9.480	(1.055)	2045	0.01750	0.0175
265 PCB 155	360	8.802	8.798	(0.980)	5468	0.01750	0.0175
269 PCB 169	360	10.480	10.470	(1.166)	2403	0.01750	0.0175
266 PCB 184	394	9.531	9.530	(1.061)	2979	0.01750	0.0175
267 PCB 192	394	10.238	10.237	(1.139)	2523	0.01750	0.0175
268 PCB 204	428	10.211	10.210	(1.136)	2463	0.01750	0.0175

Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical1pcb.d
Date : 14-SEP-2016 21:19
Client ID:
Sample Info: PT1,,1,1,PAH0924
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical2pcb.d
Report Date: 15-Sep-2016 12:39

TestAmerica Knoxville

SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091416I.b/pi14ical2pcb.d
Lab Smp Id: PT1
Inj Date : 14-SEP-2016 21:45
Operator : 11211 Inst ID: mp.i
Smp Info : PT1,,1,2,PAH0925
Misc Info : P091416I,SIMPAH10,pcb.sub
Comment :
Method : /var/chem/gcms/mp.i/P091416I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 12:38 cochranj Quant Type: ISTD
Cal Date : 14-SEP-2016 21:45 Cal File: pi14ical2pcb.d
Als bottle: 21 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pcb.sub
Target Version: 3.50

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

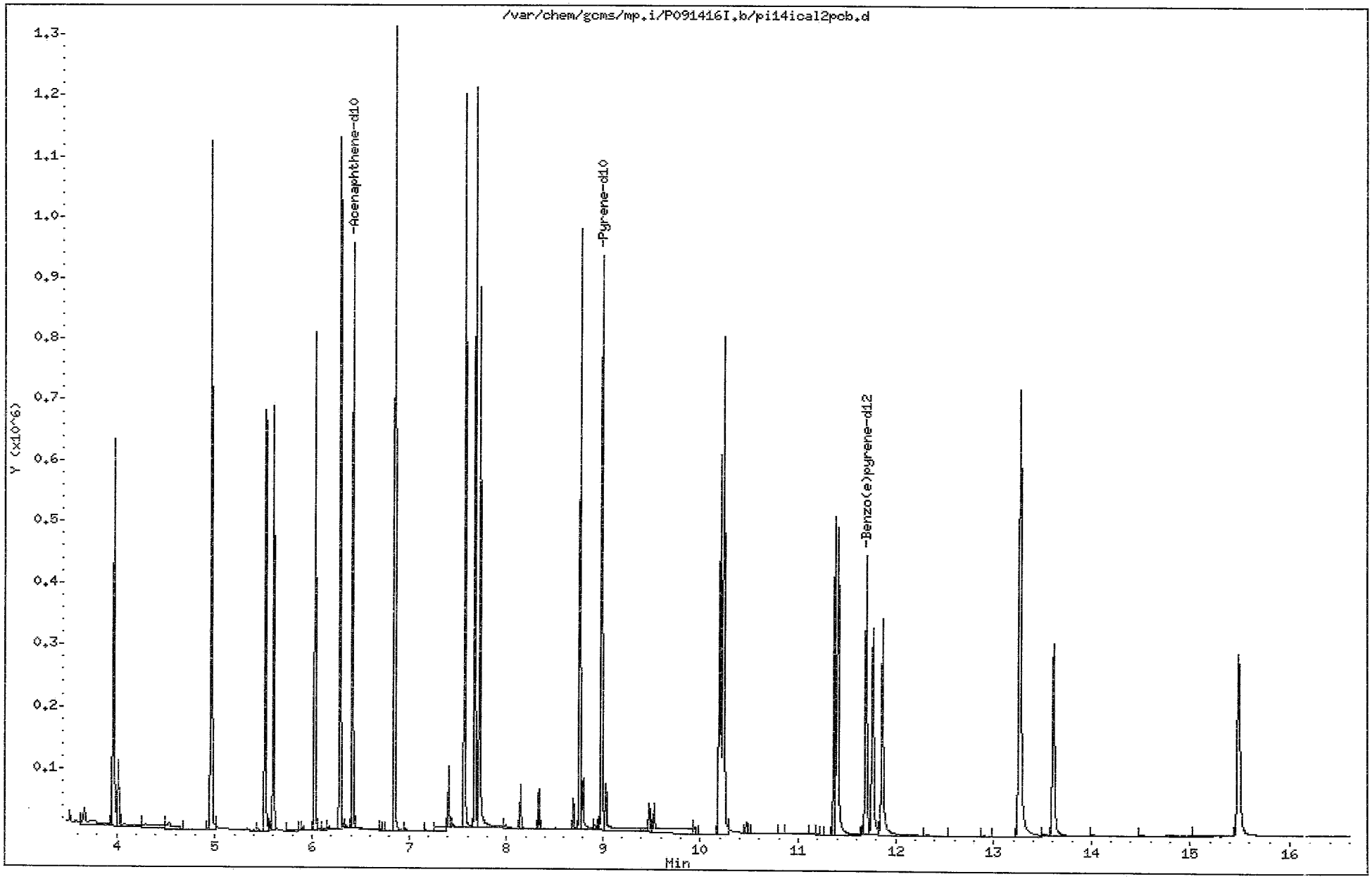
Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 23 Acenaphthene-d10	164	6.416	6.417	(1.000)	418506	0.50000	0.500
* 56 Pyrene-d10	212	8.985	8.985	(1.000)	574153	0.50000	0.500
* 76 Benzo(e)pyrene-d12	264	11.699	11.696	(1.000)	445187	0.50000	0.500
259 PCB 14	222	7.409	7.406	(0.825)	41347	0.07000	0.0666
260 PCB 36	256	8.149	8.145	(0.907)	29821	0.07000	0.0687
261 PCB 78	290	9.032	9.029	(1.005)	18200	0.07000	0.0699
262 PCB 104	326	8.342	8.339	(0.928)	20382	0.07000	0.0691
263 PCB 121	326	8.703	8.699	(0.969)	18918	0.07000	0.0651
264 PCB 142	360	9.483	9.480	(1.055)	7855	0.07000	0.0694
265 PCB 155	360	8.801	8.798	(0.980)	17278	0.07000	0.0626
269 PCB 169	360	10.470	10.470	(1.165)	9838	0.07000	0.0702
266 PCB 184	394	9.530	9.530	(1.061)	10189	0.07000	0.0654
267 PCB 192	394	10.237	10.237	(1.139)	9282	0.07000	0.0679
268 PCB 204	428	10.210	10.210	(1.136)	8606	0.07000	0.0661

Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical2pcb.d
Date : 14-SEP-2016 21:45
Client ID:
Sample Info: PT1,,1,2,PAH0925
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical3pcb.d
Report Date: 15-Sep-2016 12:39

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SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091416I.b/pi14ical3pcb.d
Lab Smp Id: PT1
Inj Date : 14-SEP-2016 22:10
Operator : 11211 Inst ID: mp.i
Smp Info : PT1,,1,3,PAH0926
Misc Info : P091416I,SIMPAH10,pcb.sub
Comment :
Method : /var/chem/gcms/mp.i/P091416I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 12:38 cochranj Quant Type: ISTD
Cal Date : 14-SEP-2016 22:10 Cal File: pi14ical3pcb.d
Als bottle: 22 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pcb.sub
Target Version: 3.50

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

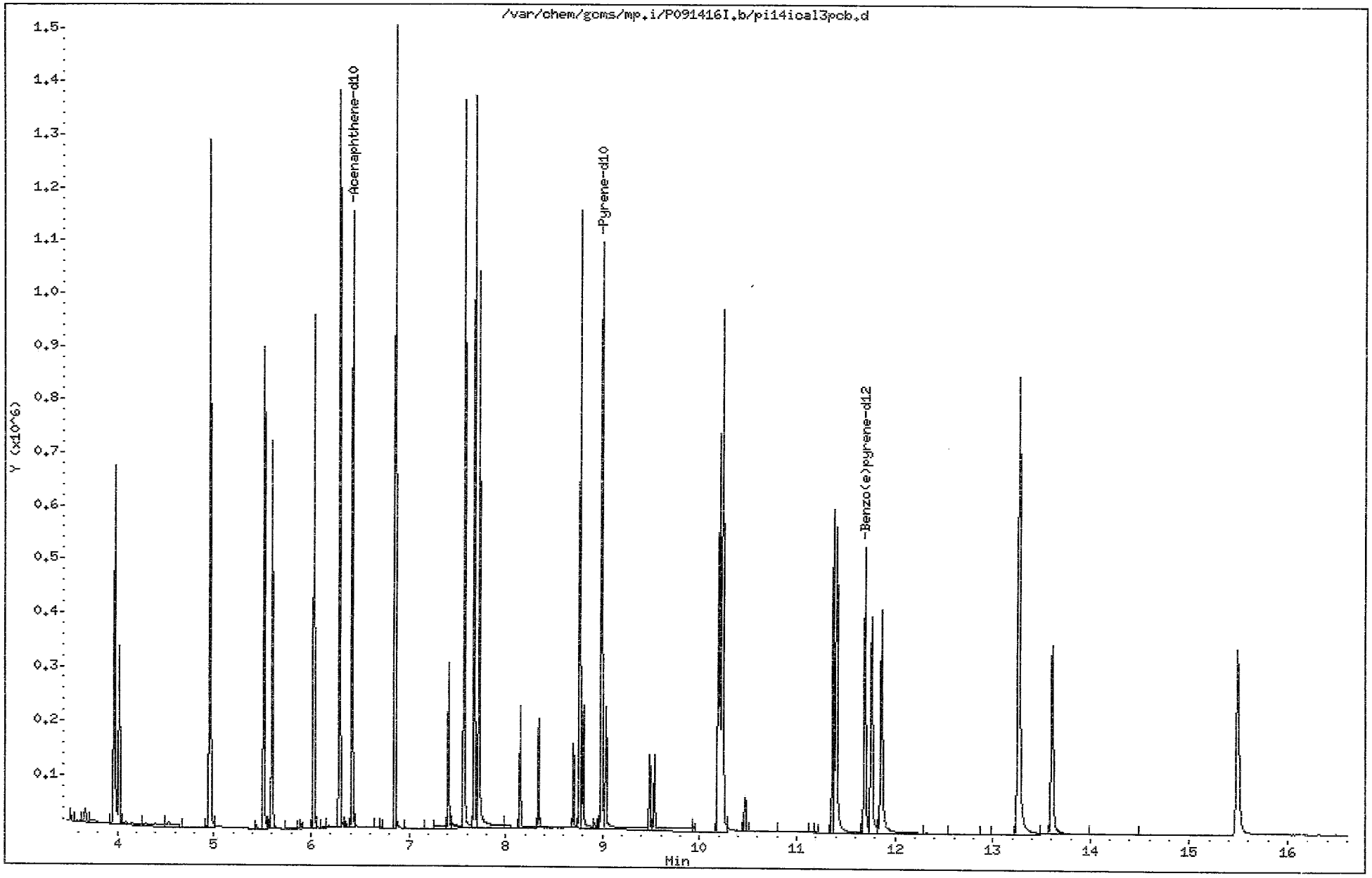
Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 23 Acenaphthene-d10	164	6.416	6.417	(1.000)	481835	0.50000	0.500
* 56 Pyrene-d10	212	8.985	8.985	(1.000)	670930	0.50000	0.500
* 76 Benzo(e)pyrene-d12	264	11.693	11.696	(1.000)	520480	0.50000	0.500
259 PCB 14	222	7.409	7.406	(0.825)	125889	0.17500	0.174
260 PCB 36	256	8.149	8.145	(0.907)	88952	0.17500	0.175
261 PCB 78	290	9.032	9.029	(1.005)	58517	0.17500	0.186
262 PCB 104	326	8.342	8.339	(0.928)	63565	0.17500	0.181
263 PCB 121	326	8.703	8.699	(0.969)	61431	0.17500	0.179
264 PCB 142	360	9.483	9.480	(1.055)	26880	0.17500	0.193
265 PCB 155	360	8.801	8.798	(0.980)	52940	0.17500	0.168
269 PCB 169	360	10.470	10.470	(1.165)	34647	0.17500	0.175
266 PCB 184	394	9.530	9.530	(1.061)	35294	0.17500	0.187
267 PCB 192	394	10.237	10.237	(1.139)	31902	0.17500	0.191
268 PCB 204	428	10.210	10.210	(1.136)	27068	0.17500	0.177

Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical3pcb.d
Date : 14-SEP-2016 22:10
Client ID:
Sample Info: PT1,,1,3,PAH0926
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical4pcb.d
Report Date: 15-Sep-2016 12:39

TestAmerica Knoxville

SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091416I.b/pi14ical4pcb.d
Lab Smp Id: PT1
Inj Date : 14-SEP-2016 22:35
Operator : 11211 Inst ID: mp.i
Smp Info : PT1,,1,4,PAH0927
Misc Info : P091416I,SIMPAH10,pcb.sub
Comment :
Method : /var/chem/gcms/mp.i/P091416I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 12:38 cochranj Quant Type: ISTD
Cal Date : 14-SEP-2016 22:35 Cal File: pi14ical4pcb.d
Als bottle: 23 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pcb.sub
Target Version: 3.50

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

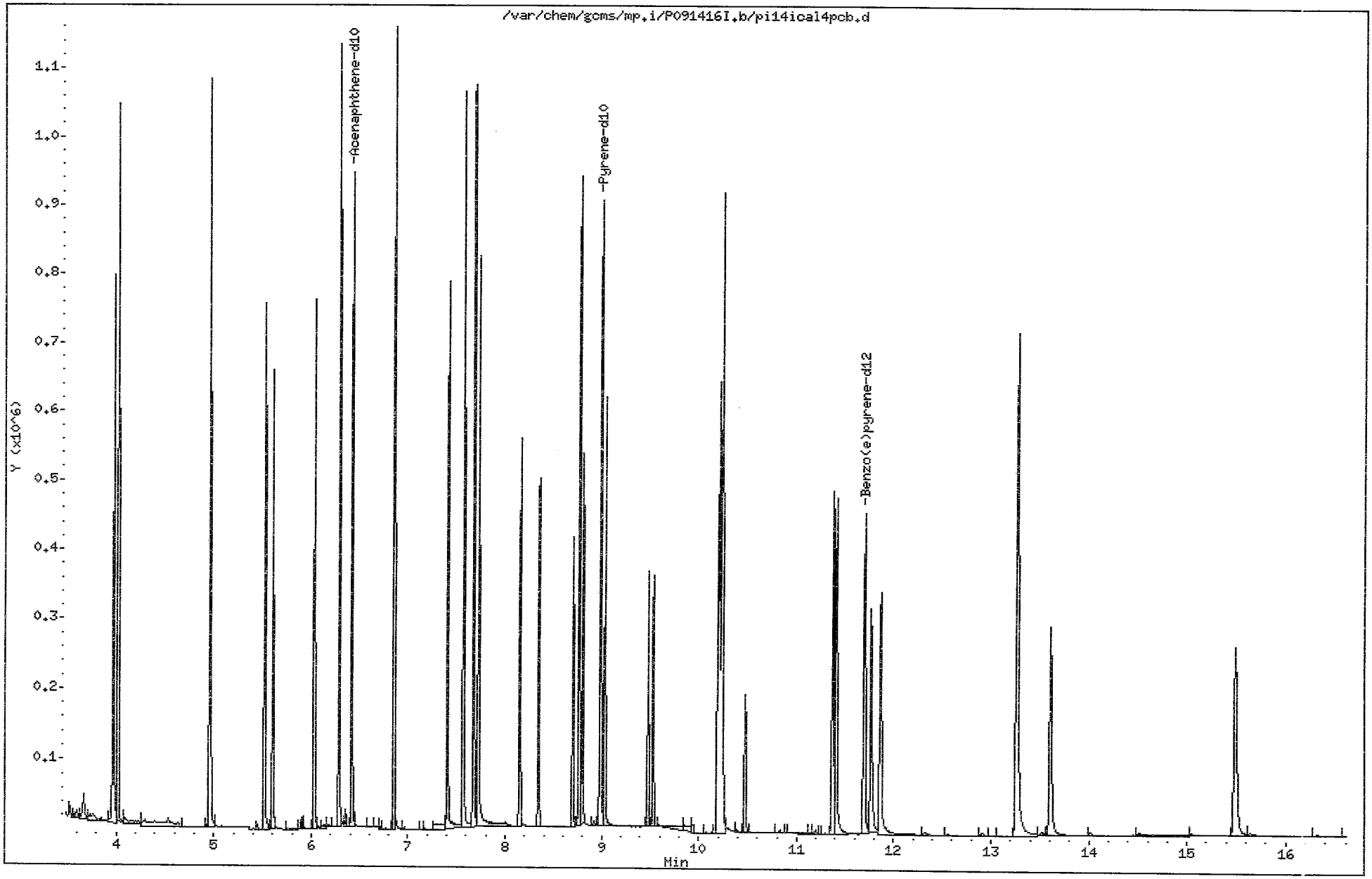
Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 23 Acenaphthene-d10	164	6.417	6.417	(1.000)	393773	0.50000	0.500
* 56 Pyrene-d10	212	8.985	8.985	(1.000)	540500	0.50000	0.500
* 76 Benzo(e)pyrene-d12	264	11.697	11.696	(1.000)	423467	0.50000	0.500
259 PCB 14	222	7.409	7.406	(0.825)	329438	0.52500	0.555
260 PCB 36	256	8.146	8.145	(0.907)	229655	0.52500	0.552
261 PCB 78	290	9.033	9.029	(1.005)	160952	0.52500	0.604
262 PCB 104	326	8.343	8.339	(0.928)	167157	0.52500	0.573
263 PCB 121	326	8.700	8.699	(0.968)	162740	0.52500	0.571
264 PCB 142	360	9.480	9.480	(1.055)	72239	0.52500	0.609
265 PCB 155	360	8.801	8.798	(0.980)	136215	0.52500	0.533
269 PCB 169	360	10.471	10.470	(1.165)	103075	0.52500	0.525
266 PCB 184	394	9.531	9.530	(1.061)	96672	0.52500	0.604
267 PCB 192	394	10.237	10.237	(1.139)	87519	0.52500	0.613
268 PCB 204	428	10.210	10.210	(1.136)	78217	0.52500	0.603

Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical4pcb.d
Date : 14-SEP-2016 22:35
Client ID:
Sample Info: PT1,,1,4,PAH0927
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical5pcb.d
Report Date: 15-Sep-2016 12:39

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SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091416I.b/pi14ical5pcb.d
Lab Smp Id: PT1
Inj Date : 14-SEP-2016 23:00
Operator : 11211 Inst ID: mp.i
Smp Info : PT1,,1,5,PAH0928
Misc Info : P091416I,SIMPAH10,pcb.sub
Comment :
Method : /var/chem/gcms/mp.i/P091416I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 12:38 cochranj Quant Type: ISTD
Cal Date : 14-SEP-2016 23:00 Cal File: pi14ical5pcb.d
Als bottle: 24 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pcb.sub
Target Version: 3.50

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

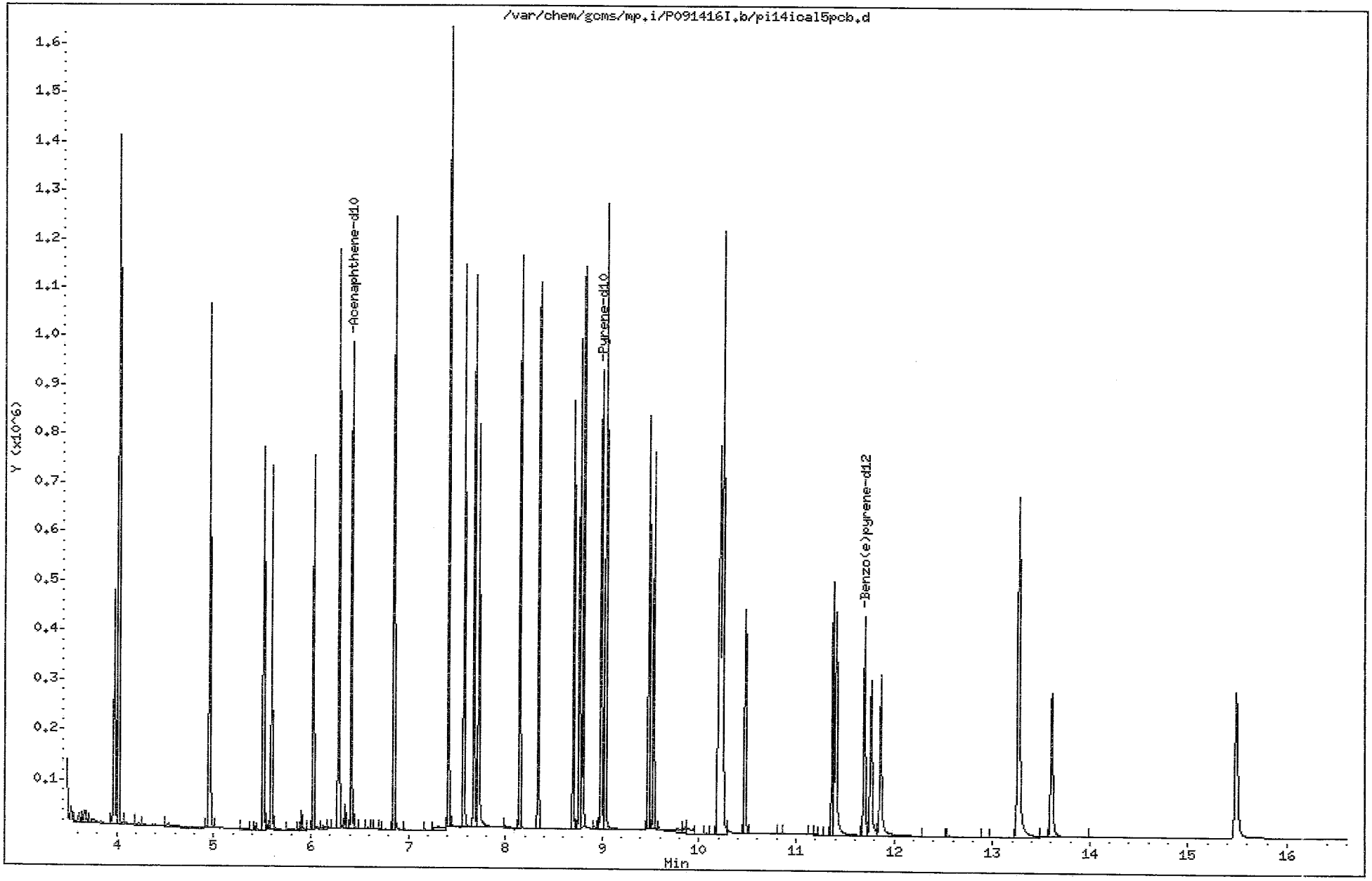
Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 23 Acenaphthene-d10	164	6.416	6.417	(1.000)	407544	0.50000	0.500
* 56 Pyrene-d10	212	8.985	8.985	(1.000)	563426	0.50000	0.500
* 76 Benzo(e)pyrene-d12	264	11.693	11.696	(1.000)	430946	0.50000	0.500
259 PCB 14	222	7.409	7.406	(0.825)	691683	1.05000	1.10
260 PCB 36	256	8.145	8.145	(0.907)	501049	1.05000	1.13
261 PCB 78	290	9.032	9.029	(1.005)	333826	1.05000	1.17
262 PCB 104	326	8.342	8.339	(0.928)	357431	1.05000	1.15
263 PCB 121	326	8.699	8.699	(0.968)	354674	1.05000	1.16
264 PCB 142	360	9.480	9.480	(1.055)	168821	1.05000	1.29
265 PCB 155	360	8.801	8.798	(0.980)	292503	1.05000	1.09
269 PCB 169	360	10.470	10.470	(1.165)	239923	1.05000	1.05
266 PCB 184	394	9.530	9.530	(1.061)	211829	1.05000	1.22
267 PCB 192	394	10.237	10.237	(1.139)	194906	1.05000	1.25
268 PCB 204	428	10.210	10.210	(1.136)	165733	1.05000	1.19

Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical5pcb.d
Date : 14-SEP-2016 23:00
Client ID:
Sample Info: PT1,,1,5,PAH0928
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical6pcb.d
Report Date: 15-Sep-2016 12:39

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SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091416I.b/pi14ical6pcb.d
Lab Smp Id: PT1
Inj Date : 14-SEP-2016 23:25
Operator : 11211 Inst ID: mp.i
Smp Info : PT1,,1,6,PAH0929
Misc Info : P091416I,SIMPAH10,pcb.sub
Comment :
Method : /var/chem/gcms/mp.i/P091416I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 12:38 cochranj Quant Type: ISTD
Cal Date : 14-SEP-2016 23:25 Cal File: pi14ical6pcb.d
Als bottle: 25 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pcb.sub
Target Version: 3.50

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

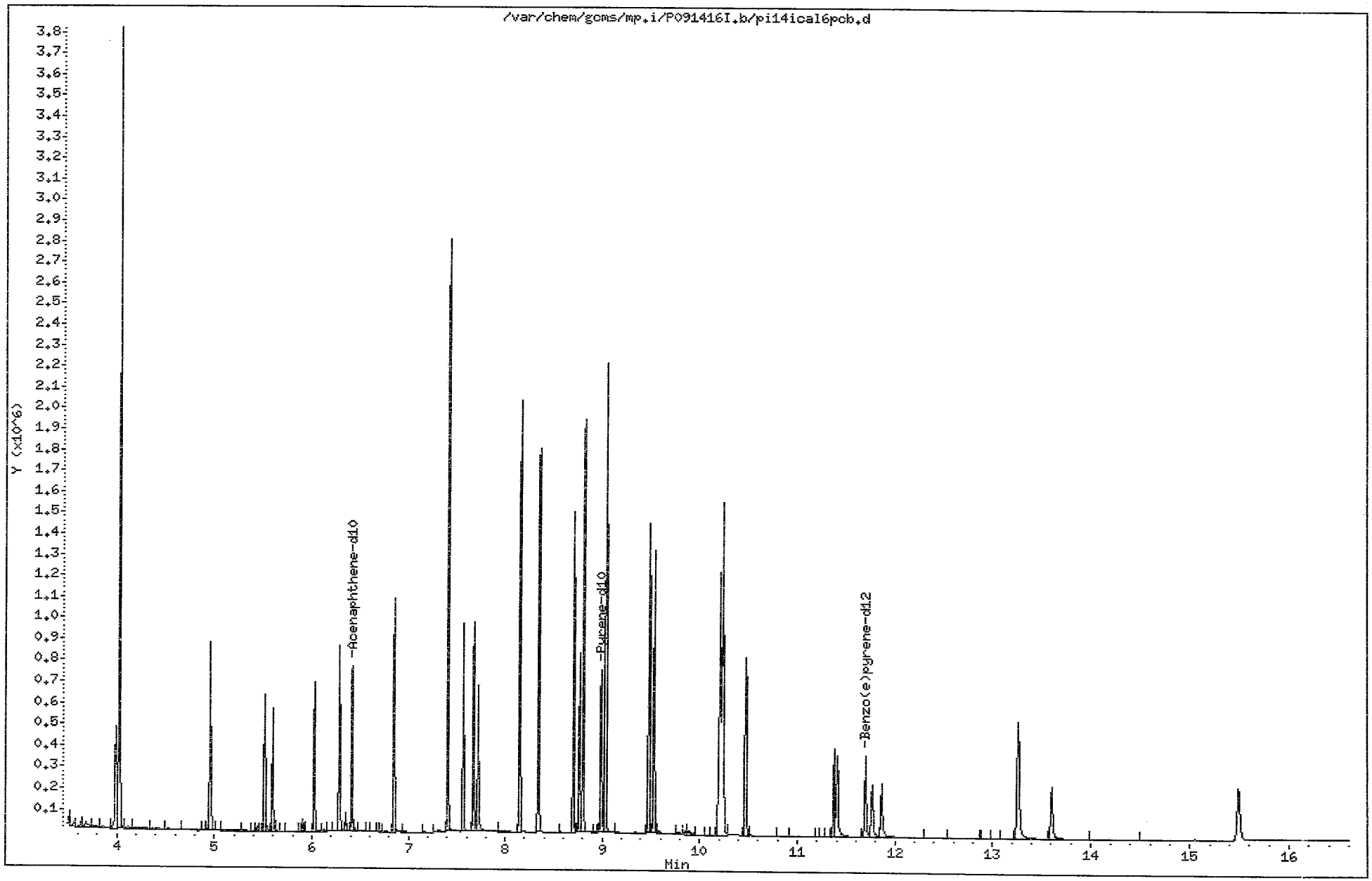
Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 23 Acenaphthene-d10	164	6.417	6.417	(1.000)	363809	0.50000	0.500
* 56 Pyrene-d10	212	8.985	8.985	(1.000)	496772	0.50000	0.500
* 76 Benzo(e)pyrene-d12	264	11.699	11.696	(1.000)	375322	0.50000	0.500
259 PCB 14	222	7.406	7.406	(0.824)	1216241	2.10000	2.18
260 PCB 36	256	8.145	8.145	(0.907)	884350	2.10000	2.24
261 PCB 78	290	9.033	9.029	(1.005)	608888	2.10000	2.36
262 PCB 104	326	8.343	8.339	(0.928)	623706	2.10000	2.24
263 PCB 121	326	8.700	8.699	(0.968)	636972	2.10000	2.32
264 PCB 142	360	9.483	9.480	(1.055)	319304	2.10000	2.63
265 PCB 155	360	8.801	8.798	(0.980)	523816	2.10000	2.19
269 PCB 169	360	10.470	10.470	(1.165)	450941	2.10000	2.10
266 PCB 184	394	9.530	9.530	(1.061)	392644	2.10000	2.47
267 PCB 192	394	10.237	10.237	(1.139)	360357	2.10000	2.51
268 PCB 204	428	10.210	10.210	(1.136)	302202	2.10000	2.39

Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical6pcb.d
Date : 14-SEP-2016 23:25
Client ID:
Sample Info: PT1,,1,6,PAH0929
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical7pcb.d
Report Date: 15-Sep-2016 12:39

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SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091416I.b/pi14ical7pcb.d
Lab Smp Id: PT1
Inj Date : 14-SEP-2016 23:50
Operator : 11211 Inst ID: mp.i
Smp Info : PT1,,1,7,PAH0930
Misc Info : P091416I,SIMPAH10,pcb.sub
Comment :
Method : /var/chem/gcms/mp.i/P091416I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 12:38 cochranj Quant Type: ISTD
Cal Date : 14-SEP-2016 23:50 Cal File: pi14ical7pcb.d
Als bottle: 26 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pcb.sub
Target Version: 3.50

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

Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

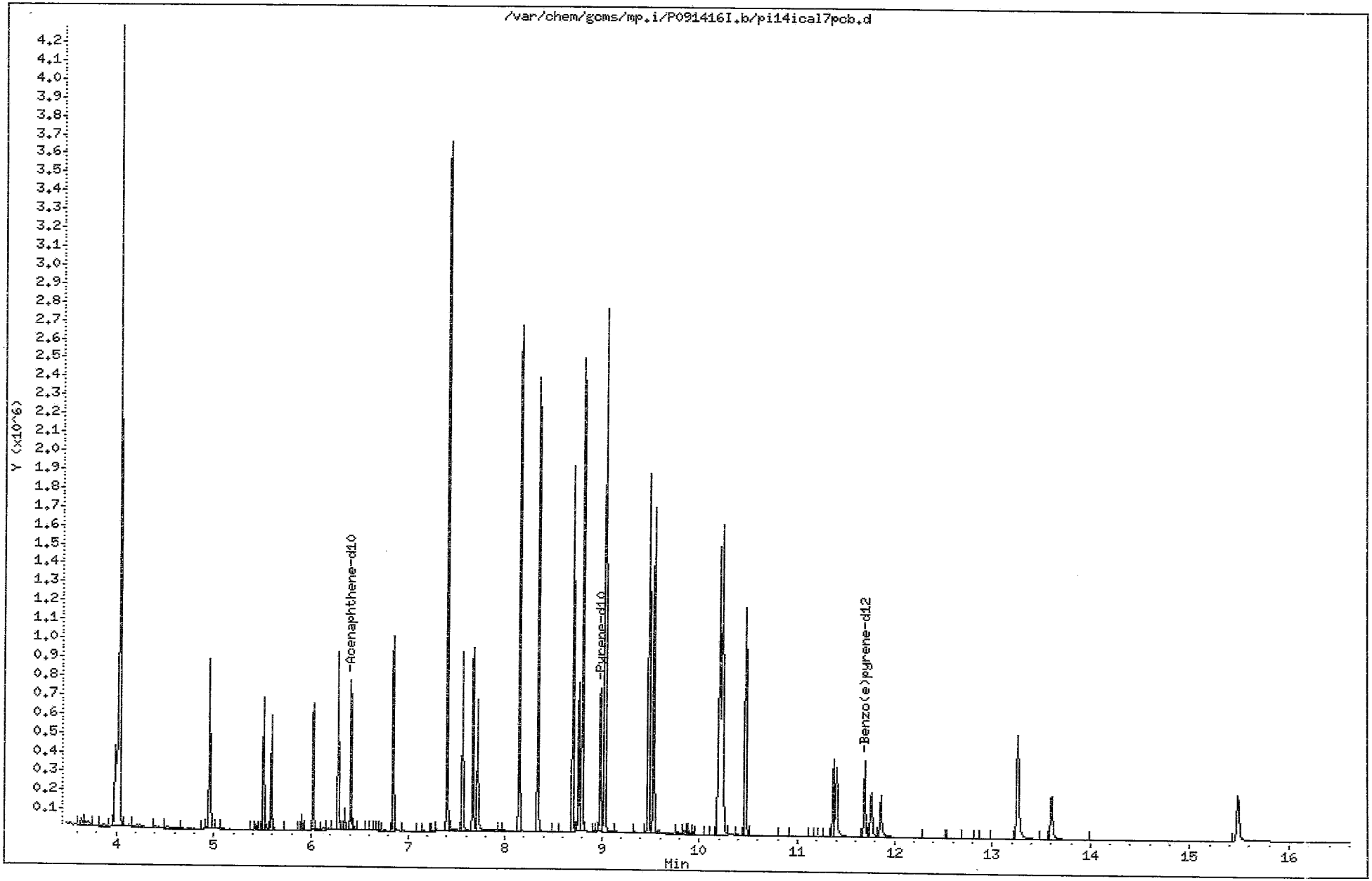
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 23 Acenaphthene-d10	164	6.411	6.417	(1.000)	352153	0.50000	0.500
* 56 Pyrene-d10	212	8.985	8.985	(1.000)	490158	0.50000	0.500
* 76 Benzo(e)pyrene-d12	264	11.693	11.696	(1.000)	373321	0.50000	0.500
259 PCB 14	222	7.406	7.406	(0.824)	1590496	2.80000	2.88
260 PCB 36	256	8.145	8.145	(0.907)	1153370	2.80000	2.93
261 PCB 78	290	9.029	9.029	(1.005)	801695	2.80000	3.09
262 PCB 104	326	8.339	8.339	(0.928)	812591	2.80000	2.94
263 PCB 121	326	8.699	8.699	(0.968)	841797	2.80000	3.06
264 PCB 142	360	9.480	9.480	(1.055)	424319	2.80000	3.41
265 PCB 155	360	8.798	8.798	(0.979)	693697	2.80000	2.92
269 PCB 169	360	10.470	10.470	(1.165)	606793	2.80000	2.79
266 PCB 184	394	9.530	9.530	(1.061)	515387	2.80000	3.21
267 PCB 192	394	10.237	10.237	(1.139)	483394	2.80000	3.31
268 PCB 204	428	10.210	10.210	(1.136)	401429	2.80000	3.15

Data File: /var/chem/gcms/mp.i/P091416I.b/pi14ical7pcb.d
Date : 14-SEP-2016 23:50
Client ID:
Sample Info: PT1,,1,7,PAH0930
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i

Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical1.d
Report Date: 15-Sep-2016 15:42

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SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091516I.b/pi15ical1.d
Lab Smp Id: PT1
Inj Date : 15-SEP-2016 11:39
Operator : 11211 Inst ID: mp.i
Smp Info : PT1,,1,1,PAH0980
Misc Info : P091516I,SIMPAH10,simpah.sub
Comment :
Method : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 15:42 cochranj Quant Type: ISTD
Cal Date : 15-SEP-2016 11:39 Cal File: pi15ical1.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpah.sub
Target Version: 3.50

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

Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 256 1,4-Dichlorobenzene-d4	115	3.958	3.958	(1.000)	97987	0.50000	0.500
$ 257 1,4Dichlorobenzene-d4(SS)	115	3.958	3.958	(0.617)	97987	0.50000	0.522
254 1,4-Dichlorobenzene	146	3.981	3.981	(1.006)	9982	0.02000	0.0197
* 234 1,2-Dichlorobenzene-d4	115	4.082	4.082	(1.000)	107174	0.50000	0.500
$ 235 1,2-Dichlorobenzene-d4(SS)	115	4.082	4.082	(0.636)	107174	0.50000	0.508
236 1,2-Dichlorobenzene	146	4.093	4.093	(1.003)	9806	0.02000	0.0202
245 1,2,4-Trichlorobenzene	180	4.911	4.911	(0.991)	7727	0.02000	0.0203
* 1 Naphthalene-d8	136	4.957	4.957	(1.000)	646526	0.50000	0.500
$ 2 Naphthalene-d8(SS)	136	4.957	4.957	(0.772)	646526	0.50000	0.497
3 Naphthalene	128	4.975	4.975	(1.004)	27462	0.02000	0.0210
* 10 2-Methylnaphthalene-d10	152	5.515	5.515	(1.000)	324884	0.50000	0.500
$ 11 2-Methylnaphthalene-d10(SS)	152	5.515	5.515	(0.859)	324884	0.50000	0.496
12 2-Methylnaphthalene	142	5.544	5.544	(1.005)	17740	0.02000	0.0199
* 13 1-Methylnaphthalene-d10	152	5.595	5.595	(1.000)	359443	0.50000	0.500

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical1.d
Report Date: 15-Sep-2016 15:42

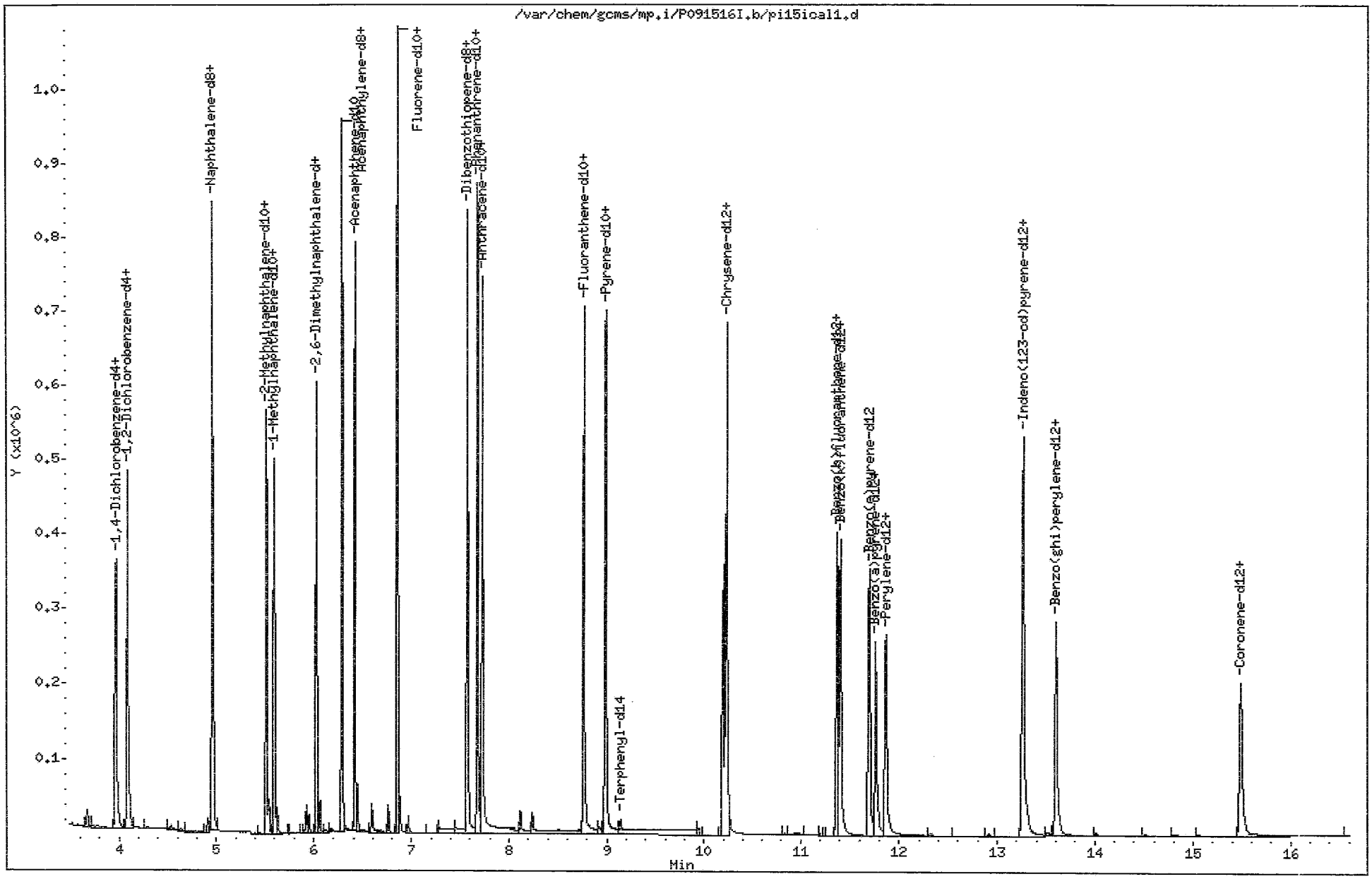
							AMOUNTS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
$	14 1-Methylnaphthalene-d10(SS)	152	5.595	5.595	(0.872)	359667	0.50000	0.497
	15 1-Methylnaphthalene	142	5.629	5.629	(1.006)	16075	0.02000	0.0203
	16 Biphenyl	154	5.928	5.928	(0.983)	21302	0.02000	0.0198
	239 2-Chloronaphthalene	162	5.955	5.955	(1.201)	15799	0.02000	0.0198
*	17 2,6-Dimethylnaphthalene-d12	168	6.028	6.028	(1.000)	344207	0.50000	0.500
$	18 2,6-Dimethylnaph-d12(SS)	168	6.028	6.028	(0.939)	344207	0.50000	0.503
	19 2,6 Dimethylnaphthalene	156	6.064	6.064	(1.006)	14932	0.02000	0.0189
*	20 Acenaphthylene-d8	160	6.286	6.286	(1.000)	564346	0.50000	0.500
$	21 Acenaphthylene-d8(SS)	160	6.286	6.286	(0.980)	564346	0.50000	0.484
	22 Acenaphthylene	152	6.296	6.296	(1.002)	24009	0.02000	0.0195
*	23 Acenaphthene-d10	164	6.417	6.417	(1.000)	328136	0.50000	0.500
	24 Acenaphthene	154	6.442	6.442	(1.025)	15026	0.02000	0.0201
	246 Dibenzofuran	168	6.593	6.593	(1.094)	21906	0.02000	0.0193
	25 2,3,5 Trimethylnaphthalene	170	6.763	6.763	(1.122)	12185	0.02000	0.0182
*	26 Fluorene-d10	176	6.850	6.850	(1.000)	382045	0.50000	0.500
$	233 Fluorene-d10(SS)	176	6.850	6.850	(1.067)	382045	0.50000	0.490
	27 Fluorene	166	6.877	6.877	(1.004)	17677	0.02000	0.0200
	243 Diphenylamine	169	6.964	6.964	(1.017)	8698	0.02000	0.0146
*	34 Dibenzothiopene-d8	192	7.566	7.566	(1.000)	530374	0.50000	0.500
$	35 Dibenzothiopene-d8(SS)	192	7.566	7.566	(0.842)	530374	0.50000	0.514
	36 Dibenzothiophene	184	7.584	7.584	(1.002)	22641	0.02000	0.0198
*	41 Phenanthrene-d10	188	7.670	7.670	(1.000)	512962	0.50000	0.500
$	42 Phenanthrene-d10(SS)	188	7.670	7.670	(0.854)	512962	0.50000	0.511
	43 Phenanthrene	178	7.691	7.691	(1.003)	25941	0.02000	0.0202
*	44 Anthracene-d10	188	7.719	7.719	(1.000)	453155	0.50000	0.500
$	45 Anthracene-d10(SS)	188	7.719	7.719	(0.859)	453155	0.50000	0.491
	46 Anthracene	178	7.737	7.737	(1.002)	22303	0.02000	0.0193
	247 3-Methylphenanthrene	191	8.118	8.118	(1.058)	7767	0.02000	0.0177
	52 1-Methylphenanthrene	191	8.239	8.239	(1.074)	7533	0.02000	0.0173
*	53 Fluoranthene-d10	212	8.764	8.764	(1.000)	487555	0.50000	0.500
$	54 Fluoranthene-d10(SS)	212	8.764	8.764	(0.975)	487555	0.50000	0.503
	55 Fluoranthene	202	8.780	8.780	(1.002)	24189	0.02000	0.0195
*	56 Pyrene-d10	212	8.986	8.986	(1.000)	436167	0.50000	0.500
	57 Pyrene	202	9.002	9.002	(1.027)	25287	0.02000	0.0198
$	58 Terphenyl-d14	244	9.138	9.138	(1.017)	8206	0.02000	0.0176
	62 Benzo(a)anthracene	228	10.220	10.220	(0.999)	16388	0.02000	0.0181
*	63 Chrysene-d12	240	10.229	10.229	(1.000)	510359	0.50000	0.500
$	64 Chrysene-d12(SS)	240	10.229	10.229	(1.138)	510359	0.50000	0.497
	65 Chrysene	228	10.256	10.256	(1.003)	21051	0.02000	0.0196
*	70 Benzo(b)fluoranthene-d12	264	11.368	11.368	(1.000)	368695	0.50000	0.500
$	71 Benzo(b)fluoranthene-d12(SS)	264	11.368	11.368	(0.972)	368695	0.50000	0.520
	72 Benzo(b)fluoranthene	252	11.398	11.398	(1.003)	20380	0.02000	0.0191
*	73 Benzo(k)fluoranthene-d12	264	11.404	11.404	(1.000)	421383	0.50000	0.500
$	74 Benzo(k)fluoranthene-d12(SS)	264	11.404	11.404	(0.975)	421383	0.50000	0.480
	75 Benzo(k)fluoranthene	252	11.428	11.428	(1.002)	19599	0.02000	0.0198
*	76 Benzo(e)pyrene-d12	264	11.697	11.697	(1.000)	337964	0.50000	0.500
	77 Benzo(e)pyrene	252	11.727	11.727	(0.997)	15729	0.02000	0.0184

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical1.d
Report Date: 15-Sep-2016 15:42

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 78 Benzo(a)pyrene-d12	264	11.763	11.763	(1.000)	278503	0.50000	0.500
$ 79 Benzo(a)pyrene-d12(SS)	264	11.763	11.763	(1.006)	278503	0.50000	0.465
80 Benzo(a)pyrene	252	11.793	11.793	(1.003)	13339	0.02000	0.0180
* 81 Perylene-d12	264	11.864	11.864	(1.000)	310194	0.50000	0.500
$ 82 Perylene-d12(SS)	264	11.864	11.864	(1.014)	310194	0.50000	0.452
83 Perylene	252	11.894	11.894	(1.003)	13264	0.02000	0.0181
* 84 Indeno(123-cd)pyrene-d12	288	13.265	13.265	(1.000)	353383	0.50000	0.500
$ 85 Indeno(123-cd)pyrene-d12(SS)	288	13.265	13.265	(1.134)	353383	0.50000	0.496
86 Indeno(1,2,3-cd)pyrene	276	13.299	13.299	(1.003)	17045	0.02000	0.0179
* 87 Dibenz(ah)anthracene-d14	292	13.265	13.265	(1.000)	285392	0.50000	0.500
$ 88 Dibenz(ah)anthracene-d14(SS)	292	13.265	13.265	(1.134)	285392	0.50000	0.501
89 Dibenz(a,h)anthracene	278	13.306	13.306	(1.003)	13128	0.02000	0.0164
* 90 Benzo(ghi)perylene-d12	288	13.605	13.605	(1.000)	359085	0.50000	0.500
$ 91 Benzo(ghi)perylene-d12(SS)	288	13.605	13.605	(1.163)	359085	0.50000	0.511
92 Benzo(g,h,i)perylene	276	13.639	13.639	(1.002)	16423	0.02000	0.0182
* 230 Coronene-d12	312	15.489	15.489	(1.000)	270748	0.50000	0.500
$ 231 Coronene-d12 (SS)	312	15.489	15.489	(1.324)	270748	0.50000	0.511
238 Coronene	300	15.523	15.523	(1.002)	14589	0.02000	0.0190

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical1.d
Date : 15-SEP-2016 11:39
Client ID:
Sample Info: PT1,,1,1,PAH0980
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical2.d
Report Date: 15-Sep-2016 15:42

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SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091516I.b/pi15ical2.d
Lab Smp Id: PT2
Inj Date : 15-SEP-2016 12:04
Operator : 11211 Inst ID: mp.i
Smp Info : PT2,,1,2,PAH0981
Misc Info : P091516I,SIMPAH10,simpah.sub
Comment :
Method : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 15:42 cochranj Quant Type: ISTD
Cal Date : 15-SEP-2016 12:04 Cal File: pi15ical2.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpah.sub
Target Version: 3.50

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

Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

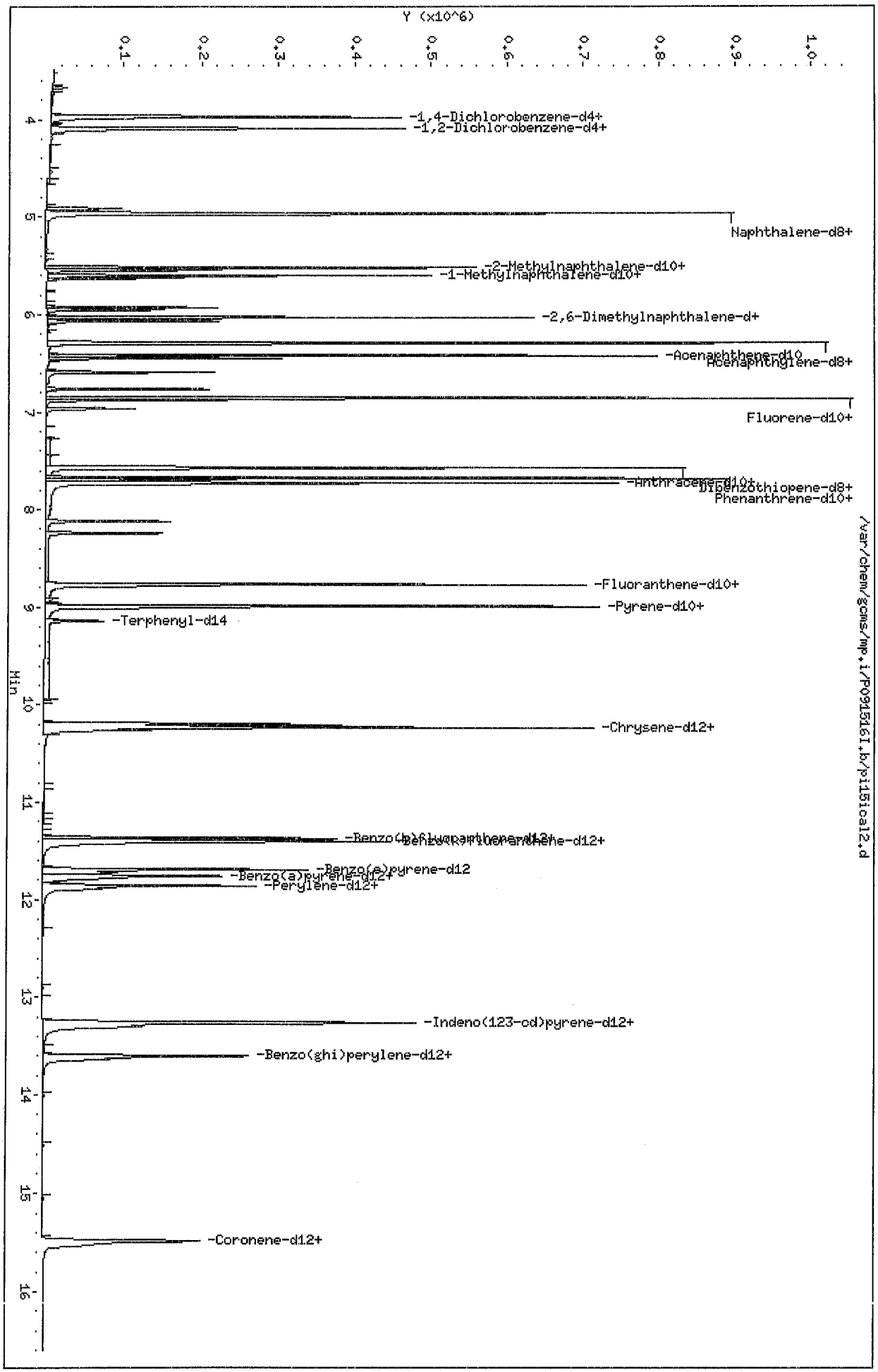
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 256 1,4-Dichlorobenzene-d4	115	3.958	3.958	(1.000)	95727	0.50000	0.500
$ 257 1,4Dichlorobenzene-d4(SS)	115	3.958	3.958	(0.617)	95727	0.50000	0.513
254 1,4-Dichlorobenzene	146	3.981	3.981	(1.006)	52609	0.10000	0.106
* 234 1,2-Dichlorobenzene-d4	115	4.082	4.082	(1.000)	104603	0.50000	0.500
$ 235 1,2-Dichlorobenzene-d4(SS)	115	4.082	4.082	(0.636)	104603	0.50000	0.499
236 1,2-Dichlorobenzene	146	4.093	4.093	(1.003)	50636	0.10000	0.107
245 1,2,4-Trichlorobenzene	180	4.911	4.911	(0.991)	39785	0.10000	0.104
* 1 Naphthalene-d8	136	4.957	4.957	(1.000)	650815	0.50000	0.500
$ 2 Naphthalene-d8(SS)	136	4.957	4.957	(0.773)	650815	0.50000	0.504
3 Naphthalene	128	4.976	4.975	(1.004)	144111	0.10000	0.109
$ 222 13C6-Naphthalene	134	4.976	4.976	(1.004)	205257	0.10000	0.137
* 10 2-Methylnaphthalene-d10	152	5.515	5.515	(1.000)	325963	0.50000	0.500
$ 11 2-Methylnaphthalene-d10(SS)	152	5.515	5.515	(0.860)	325963	0.50000	0.501
12 2-Methylnaphthalene	142	5.544	5.544	(1.005)	93887	0.10000	0.105

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical2.d
Report Date: 15-Sep-2016 15:42

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 13 1-Methylnaphthalene-d10	152	5.595	5.595	(1.000)	361526	0.50000	0.500
$ 14 1-Methylnaphthalene-d10(SS)	152	5.595	5.595	(0.872)	361526	0.50000	0.502
15 1-Methylnaphthalene	142	5.629	5.629	(1.006)	84635	0.10000	0.106
16 Biphenyl	154	5.928	5.928	(0.983)	113016	0.10000	0.105
239 2-Chloronaphthalene	162	5.951	5.955	(1.200)	83550	0.10000	0.104
* 17 2,6-Dimethylnaphthalene-d12	168	6.028	6.028	(1.000)	344825	0.50000	0.500
$ 18 2,6-Dimethylnaph-d12(SS)	168	6.028	6.028	(0.939)	344825	0.50000	0.507
19 2,6 Dimethylnaphthalene	156	6.065	6.064	(1.006)	82449	0.10000	0.104
* 20 Acenaphthylene-d8	160	6.286	6.286	(1.000)	573938	0.50000	0.500
$ 21 Acenaphthylene-d8(SS)	160	6.286	6.286	(0.980)	573938	0.50000	0.495
22 Acenaphthylene	152	6.296	6.296	(1.002)	130154	0.10000	0.104
* 23 Acenaphthene-d10	164	6.417	6.417	(1.000)	326161	0.50000	0.500
24 Acenaphthene	154	6.442	6.442	(1.025)	79901	0.10000	0.105
246 Dibenzofuran	168	6.587	6.593	(1.093)	116491	0.10000	0.103
25 2,3,5 Trimethylnaphthalene	170	6.762	6.763	(1.122)	66339	0.10000	0.0990
* 26 Fluorene-d10	176	6.853	6.850	(1.000)	385418	0.50000	0.500
$ 233 Fluorene-d10(SS)	176	6.853	6.850	(1.068)	387106	0.50000	0.500
27 Fluorene	166	6.877	6.877	(1.003)	92014	0.10000	0.103
243 Diphenylamine	169	6.964	6.964	(1.016)	50507	0.10000	0.0842
* 34 Dibenzothiopene-d8	192	7.568	7.566	(1.000)	536172	0.50000	0.500
$ 35 Dibenzothiopene-d8(SS)	192	7.568	7.566	(0.842)	536172	0.50000	0.521
36 Dibenzothiophene	184	7.584	7.584	(1.002)	119844	0.10000	0.104
* 41 Phenanthrene-d10	188	7.670	7.670	(1.000)	516123	0.50000	0.500
$ 42 Phenanthrene-d10(SS)	188	7.670	7.670	(0.854)	516123	0.50000	0.516
43 Phenanthrene	178	7.691	7.691	(1.003)	134050	0.10000	0.104
* 44 Anthracene-d10	188	7.719	7.719	(1.000)	461627	0.50000	0.500
$ 45 Anthracene-d10(SS)	188	7.719	7.719	(0.859)	461627	0.50000	0.502
46 Anthracene	178	7.737	7.737	(1.002)	119275	0.10000	0.102
247 3-Methylphenanthrene	191	8.117	8.118	(1.058)	42397	0.10000	0.0960
52 1-Methylphenanthrene	191	8.239	8.239	(1.074)	41259	0.10000	0.0942
* 53 Fluoranthene-d10	212	8.763	8.764	(1.000)	491101	0.50000	0.500
$ 54 Fluoranthene-d10(SS)	212	8.763	8.764	(0.975)	491101	0.50000	0.509
55 Fluoranthene	202	8.779	8.780	(1.002)	127220	0.10000	0.102
* 56 Pyrene-d10	212	8.985	8.986	(1.000)	434837	0.50000	0.500
57 Pyrene	202	9.004	9.002	(1.028)	131114	0.10000	0.102
$ 58 Terphenyl-d14	244	9.137	9.138	(1.017)	45087	0.10000	0.0971
62 Benzo(a)anthracene	228	10.219	10.220	(0.999)	83819	0.10000	0.0886
* 63 Chrysene-d12	240	10.228	10.229	(1.000)	523318	0.50000	0.500
$ 64 Chrysene-d12(SS)	240	10.228	10.229	(1.138)	523318	0.50000	0.511
65 Chrysene	228	10.255	10.256	(1.003)	112242	0.10000	0.102
* 70 Benzo(b)fluoranthene-d12	264	11.371	11.368	(1.000)	355556	0.50000	0.500
$ 71 Benzo(b)fluoranthene-d12(SS)	264	11.371	11.368	(0.972)	355556	0.50000	0.510
72 Benzo(b)fluoranthene	252	11.394	11.398	(1.002)	105994	0.10000	0.103
* 73 Benzo(k)fluoranthene-d12	264	11.400	11.404	(1.000)	411216	0.50000	0.500
$ 74 Benzo(k)fluoranthene-d12(SS)	264	11.400	11.404	(0.975)	411216	0.50000	0.477
75 Benzo(k)fluoranthene	252	11.424	11.428	(1.002)	96168	0.10000	0.0994
* 76 Benzo(e)pyrene-d12	264	11.693	11.697	(1.000)	332079	0.50000	0.500

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical2.d
Report Date: 15-Sep-2016 15:42

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
77 Benzo(e)pyrene	252	11.723	11.727	(0.996)	88250	0.10000	0.106
* 78 Benzo(a)pyrene-d12	264	11.765	11.763	(1.000)	270089	0.50000	0.500
$ 79 Benzo(a)pyrene-d12(SS)	264	11.765	11.763	(1.006)	270089	0.50000	0.459
80 Benzo(a)pyrene	252	11.789	11.793	(1.002)	65653	0.10000	0.0911
* 81 Perylene-d12	264	11.861	11.864	(1.000)	310885	0.50000	0.500
$ 82 Perylene-d12(SS)	264	11.861	11.864	(1.014)	310885	0.50000	0.461
83 Perylene	252	11.890	11.894	(1.003)	71581	0.10000	0.0974
* 84 Indeno(123-cd)pyrene-d12	288	13.260	13.265	(1.000)	340936	0.50000	0.500
$ 85 Indeno(123-cd)pyrene-d12(SS)	288	13.260	13.265	(1.134)	342570	0.50000	0.490
86 Indeno(1,2,3-cd)pyrene	276	13.294	13.299	(1.003)	86732	0.10000	0.0943
* 87 Dibenz(ah)anthracene-d14	292	13.260	13.265	(1.000)	276002	0.50000	0.500
$ 88 Dibenz(ah)anthracene-d14(SS)	292	13.260	13.265	(1.134)	276002	0.50000	0.493
89 Dibenz(a,h)anthracene	278	13.308	13.306	(1.004)	71571	0.10000	0.0922
* 90 Benzo(ghi)perylene-d12	288	13.600	13.605	(1.000)	343251	0.50000	0.500
$ 91 Benzo(ghi)perylene-d12(SS)	288	13.600	13.605	(1.163)	343251	0.50000	0.497
92 Benzo(g,h,i)perylene	276	13.634	13.639	(1.002)	85043	0.10000	0.0985
* 230 Coronene-d12	312	15.484	15.489	(1.000)	266654	0.50000	0.500
$ 231 Coronene-d12 (SS)	312	15.484	15.489	(1.324)	266654	0.50000	0.513
238 Coronene	300	15.518	15.523	(1.002)	76419	0.10000	0.101


Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical2.d
Date : 15-SEP-2016 12:04
Client ID:
Sample Info: PT2,1,2,PAH0981
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard
Instrument: mp.i
Operator: 11211
Column diameter: 0.25
Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Min
4
5
6
7
8
9
10
11
12
13
14
15
16
-1,4-Dichlorobenzene-d4+
-1,2-Dichlorobenzene-d4+
Naphthalene-d8+
-2-Methylnaphthalene-d10+
-1-Methylnaphthalene-d10+
-2,6-Dimethylnaphthalene-d+
-Acenaphthene-d10
Acenaphthylene-d8+
Fluorene-d10+
-Anthracene-d10+
Dibenzothiopene-d8+
Phenanthrene-d10+
-Fluoranthene-d10+
-Pyrene-d10+
-Terphenyl-d14
-Chrysene-d12+
-Benzo(b)fluoranthene-d12+
-Benzo(k)fluoranthene-d12+
-Benzo(e)pyrene-d12
-Benzo(a)pyrene-d12+
-Perylene-d12+
-Indeno(123-cd)pyrene-d12+
-Benzo(ghi)perylene-d12+
-Coronene-d12+
/var/chem/gcms/mp.i/P091516I.b/pi15ical2.d

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical3.d
Report Date: 15-Sep-2016 15:42

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SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091516I.b/pi15ical3.d
Lab Smp Id: PT3
Inj Date : 15-SEP-2016 12:29
Operator : 11211 Inst ID: mp.i
Smp Info : PT3,,1,3,PAH0982
Misc Info : P091516I,SIMPAH10,simpah.sub
Comment :
Method : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 15:42 cochranj Quant Type: ISTD
Cal Date : 15-SEP-2016 12:29 Cal File: pi15ical3.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpah.sub
Target Version: 3.50

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

Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 256 1,4-Dichlorobenzene-d4	115	3.958	3.958	(1.000)	98587	0.50000	0.500
$ 257 1,4Dichlorobenzene-d4(SS)	115	3.958	3.958	(0.617)	98587	0.50000	0.507
254 1,4-Dichlorobenzene	146	3.981	3.981	(1.006)	129002	0.25000	0.252
* 234 1,2-Dichlorobenzene-d4	115	4.082	4.082	(1.000)	108558	0.50000	0.500
$ 235 1,2-Dichlorobenzene-d4(SS)	115	4.082	4.082	(0.636)	108558	0.50000	0.497
236 1,2-Dichlorobenzene	146	4.093	4.093	(1.003)	127743	0.25000	0.260
245 1,2,4-Trichlorobenzene	180	4.911	4.911	(0.991)	101238	0.25000	0.260
* 1 Naphthalene-d8	136	4.957	4.957	(1.000)	664059	0.50000	0.500
$ 2 Naphthalene-d8(SS)	136	4.957	4.957	(0.773)	664059	0.50000	0.493
3 Naphthalene	128	4.976	4.975	(1.004)	357638	0.25000	0.266
$ 222 13C6-Naphthalene	134	4.976	4.976	(1.004)	417245	0.25000	0.272
* 10 2-Methylnaphthalene-d10	152	5.515	5.515	(1.000)	334488	0.50000	0.500
$ 11 2-Methylnaphthalene-d10(SS)	152	5.515	5.515	(0.860)	334488	0.50000	0.493
12 2-Methylnaphthalene	142	5.544	5.544	(1.005)	240417	0.25000	0.262

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical3.d
Report Date: 15-Sep-2016 15:42

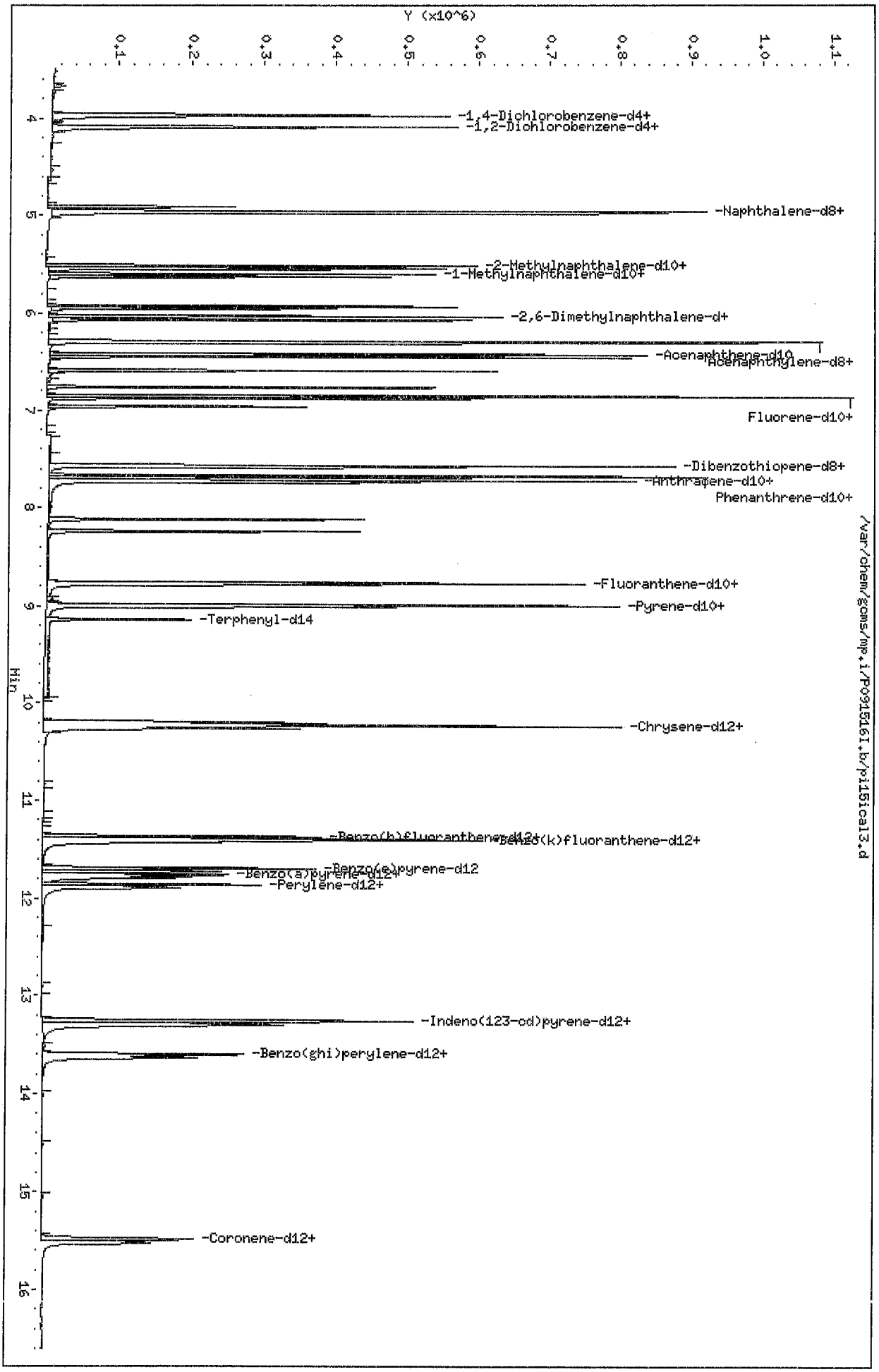
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 13 1-Methylnaphthalene-d10	152	5.595	5.595	(1.000)	371554	0.50000	0.500
$ 14 1-Methylnaphthalene-d10(SS)	152	5.595	5.595	(0.872)	371554	0.50000	0.496
15 1-Methylnaphthalene	142	5.624	5.629	(1.005)	212500	0.25000	0.260
16 Biphenyl	154	5.928	5.928	(0.983)	285931	0.25000	0.260
239 2-Chloronaphthalene	162	5.951	5.955	(1.200)	211503	0.25000	0.258
* 17 2,6-Dimethylnaphthalene-d12	168	6.028	6.028	(1.000)	353135	0.50000	0.500
$ 18 2,6-Dimethylnaph-d12(SS)	168	6.028	6.028	(0.939)	353135	0.50000	0.498
19 2,6 Dimethylnaphthalene	156	6.065	6.064	(1.006)	214072	0.25000	0.264
* 20 Acenaphthylene-d8	160	6.286	6.286	(1.000)	592690	0.50000	0.500
$ 21 Acenaphthylene-d8(SS)	160	6.286	6.286	(0.980)	592690	0.50000	0.491
22 Acenaphthylene	152	6.296	6.296	(1.002)	334422	0.25000	0.258
* 23 Acenaphthene-d10	164	6.417	6.417	(1.000)	339852	0.50000	0.500
24 Acenaphthene	154	6.442	6.442	(1.025)	203376	0.25000	0.260
246 Dibenzofuran	168	6.587	6.593	(1.093)	298459	0.25000	0.257
25 2,3,5 Trimethylnaphthalene	170	6.763	6.763	(1.122)	173362	0.25000	0.253
* 26 Fluorene-d10	176	6.849	6.850	(1.000)	397652	0.50000	0.500
$ 233 Fluorene-d10(SS)	176	6.849	6.850	(1.067)	397652	0.50000	0.493
27 Fluorene	166	6.873	6.877	(1.003)	236375	0.25000	0.257
243 Diphenylamine	169	6.960	6.964	(1.016)	146423	0.25000	0.236
* 34 Dibenzothiopene-d8	192	7.565	7.566	(1.000)	546786	0.50000	0.500
$ 35 Dibenzothiopene-d8(SS)	192	7.565	7.566	(0.842)	546786	0.50000	0.498
36 Dibenzothiophene	184	7.581	7.584	(1.002)	303457	0.25000	0.257
* 41 Phenanthrene-d10	188	7.670	7.670	(1.000)	529501	0.50000	0.500
$ 42 Phenanthrene-d10(SS)	188	7.670	7.670	(0.854)	529501	0.50000	0.496
43 Phenanthrene	178	7.691	7.691	(1.003)	343040	0.25000	0.258
* 44 Anthracene-d10	188	7.719	7.719	(1.000)	476424	0.50000	0.500
$ 45 Anthracene-d10(SS)	188	7.719	7.719	(0.859)	476424	0.50000	0.485
46 Anthracene	178	7.737	7.737	(1.002)	313077	0.25000	0.258
247 3-Methylphenanthrene	191	8.116	8.118	(1.058)	113861	0.25000	0.251
52 1-Methylphenanthrene	191	8.238	8.239	(1.074)	113833	0.25000	0.253
* 53 Fluoranthene-d10	212	8.763	8.764	(1.000)	505473	0.50000	0.500
$ 54 Fluoranthene-d10(SS)	212	8.763	8.764	(0.975)	505473	0.50000	0.491
55 Fluoranthene	202	8.779	8.780	(1.002)	330306	0.25000	0.256
* 56 Pyrene-d10	212	8.985	8.986	(1.000)	463999	0.50000	0.500
57 Pyrene	202	9.001	9.002	(1.027)	340405	0.25000	0.257
$ 58 Terphenyl-d14	244	9.137	9.138	(1.017)	120727	0.25000	0.244
62 Benzo(a)anthracene	228	10.219	10.220	(0.999)	230346	0.25000	0.240
* 63 Chrysene-d12	240	10.228	10.229	(1.000)	541616	0.50000	0.500
$ 64 Chrysene-d12(SS)	240	10.228	10.229	(1.138)	541616	0.50000	0.495
65 Chrysene	228	10.255	10.256	(1.003)	294310	0.25000	0.258
* 70 Benzo(b)fluoranthene-d12	264	11.370	11.368	(1.000)	372865	0.50000	0.500
$ 71 Benzo(b)fluoranthene-d12(SS)	264	11.370	11.368	(0.972)	372865	0.50000	0.502
72 Benzo(b)fluoranthene	252	11.394	11.398	(1.002)	273627	0.25000	0.254
* 73 Benzo(k)fluoranthene-d12	264	11.400	11.404	(1.000)	439602	0.50000	0.500
$ 74 Benzo(k)fluoranthene-d12(SS)	264	11.400	11.404	(0.975)	439602	0.50000	0.479
75 Benzo(k)fluoranthene	252	11.424	11.428	(1.002)	262947	0.25000	0.254
* 76 Benzo(e)pyrene-d12	264	11.693	11.697	(1.000)	353838	0.50000	0.500

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical3.d
Report Date: 15-Sep-2016 15:42

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	77 Benzo(e)pyrene	252	11.723	11.727	(0.997)	241080	0.25000	0.267
*	78 Benzo(a)pyrene-d12	264	11.759	11.763	(1.000)	294482	0.50000	0.500
$	79 Benzo(a)pyrene-d12(SS)	264	11.759	11.763	(1.006)	294482	0.50000	0.469
	80 Benzo(a)pyrene	252	11.789	11.793	(1.003)	192648	0.25000	0.246
*	81 Perylene-d12	264	11.861	11.864	(1.000)	341752	0.50000	0.500
$	82 Perylene-d12(SS)	264	11.861	11.864	(1.014)	341752	0.50000	0.475
	83 Perylene	252	11.890	11.894	(1.003)	199752	0.25000	0.247
*	84 Indeno(123-cd)pyrene-d12	288	13.260	13.265	(1.000)	363154	0.50000	0.500
$	85 Indeno(123-cd)pyrene-d12(SS)	288	13.260	13.265	(1.134)	363154	0.50000	0.487
	86 Indeno(1,2,3-cd)pyrene	276	13.294	13.299	(1.003)	241342	0.25000	0.247
*	87 Dibenz(ah)anthracene-d14	292	13.260	13.265	(1.000)	289281	0.50000	0.500
$	88 Dibenz(ah)anthracene-d14(SS)	292	13.260	13.265	(1.134)	289281	0.50000	0.485
	89 Dibenz(a,h)anthracene	278	13.308	13.306	(1.004)	207814	0.25000	0.256
*	90 Benzo(ghi)perylene-d12	288	13.600	13.605	(1.000)	357976	0.50000	0.500
$	91 Benzo(ghi)perylene-d12(SS)	288	13.600	13.605	(1.163)	357976	0.50000	0.486
	92 Benzo(g,h,i)perylene	276	13.634	13.639	(1.002)	227256	0.25000	0.252
*	230 Coronene-d12	312	15.484	15.489	(1.000)	271257	0.50000	0.500
$	231 Coronene-d12 (SS)	312	15.484	15.489	(1.324)	271257	0.50000	0.489
	238 Coronene	300	15.518	15.523	(1.002)	192701	0.25000	0.251

Data File: /var/chem/gcms/mp.i/P0915161.b/pi15ical3.d
Date : 15-SEP-2016 12:29
Client ID:
Sample Info: PT3,1,3,PAH0982
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical4.d
Report Date: 15-Sep-2016 15:42

TestAmerica Knoxville

SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091516I.b/pi15ical4.d
Lab Smp Id: PT4
Inj Date : 15-SEP-2016 12:54
Operator : 11211 Inst ID: mp.i
Smp Info : PT4,,1,4,PAH0983
Misc Info : P091516I,SIMPAH10,simpah.sub
Comment :
Method : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 15:42 cochranj Quant Type: ISTD
Cal Date : 15-SEP-2016 12:54 Cal File: pi15ical4.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpah.sub
Target Version: 3.50

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

Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

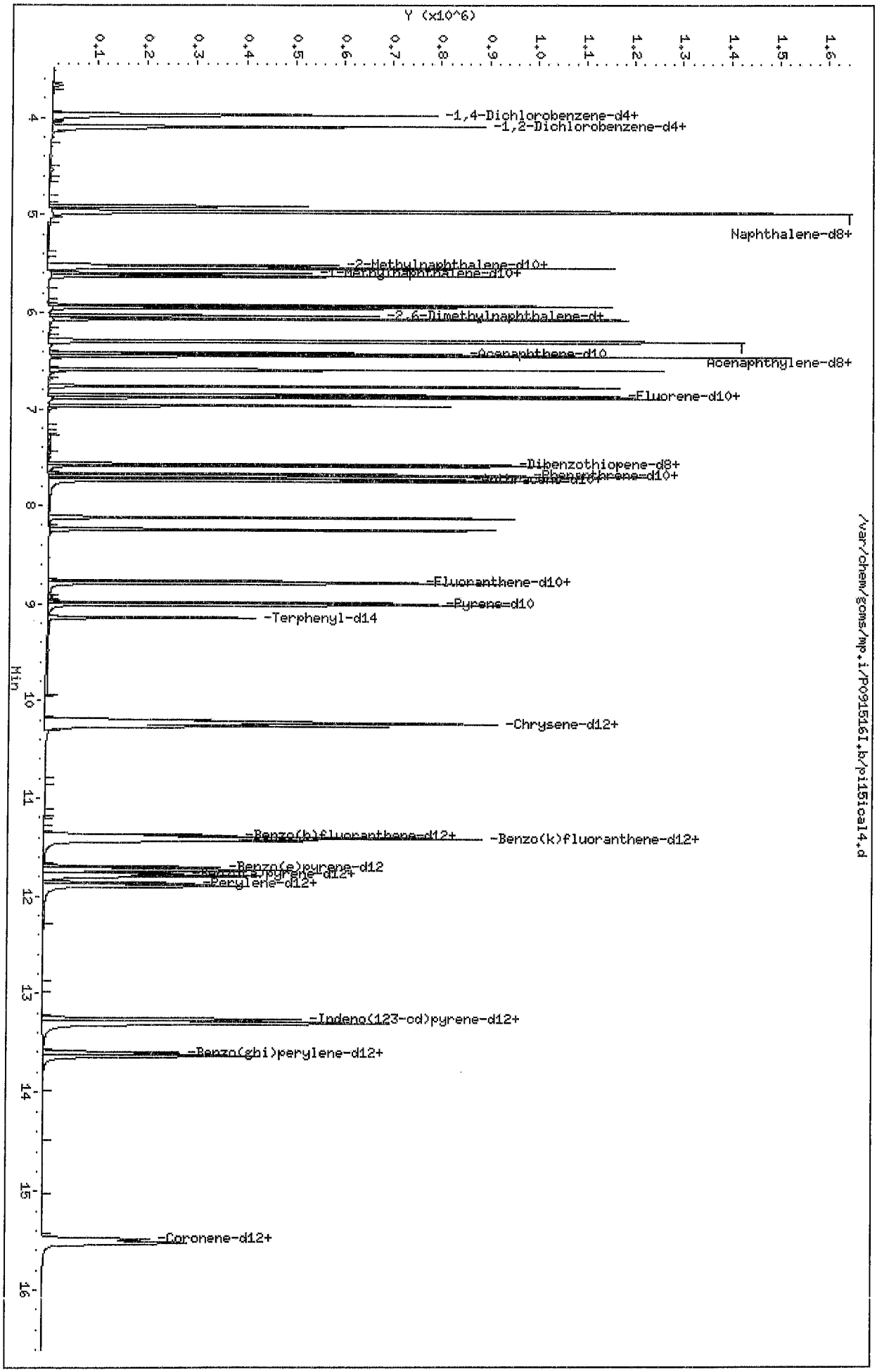
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 256 1,4-Dichlorobenzene-d4	115	3.958	3.958	(1.000)	96584	0.50000	0.500
$ 257 1,4Dichlorobenzene-d4(SS)	115	3.958	3.958	(0.617)	96584	0.50000	0.492
254 1,4-Dichlorobenzene	146	3.981	3.981	(1.006)	256547	0.50000	0.512
* 234 1,2-Dichlorobenzene-d4	115	4.082	4.082	(1.000)	108256	0.50000	0.500
$ 235 1,2-Dichlorobenzene-d4(SS)	115	4.082	4.082	(0.636)	108256	0.50000	0.491
236 1,2-Dichlorobenzene	146	4.093	4.093	(1.003)	250532	0.50000	0.511
245 1,2,4-Trichlorobenzene	180	4.911	4.911	(0.991)	203499	0.50000	0.511
* 1 Naphthalene-d8	136	4.957	4.957	(1.000)	678258	0.50000	0.500
$ 2 Naphthalene-d8(SS)	136	4.957	4.957	(0.773)	678258	0.50000	0.499
3 Naphthalene	128	4.975	4.975	(1.004)	703382	0.50000	0.513
$ 222 13C6-Naphthalene	134	4.975	4.976	(1.004)	791591	0.50000	0.506
* 10 2-Methylnaphthalene-d10	152	5.515	5.515	(1.000)	341731	0.50000	0.500
$ 11 2-Methylnaphthalene-d10(SS)	152	5.515	5.515	(0.860)	341731	0.50000	0.499
12 2-Methylnaphthalene	142	5.544	5.544	(1.005)	483330	0.50000	0.515

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical4.d
Report Date: 15-Sep-2016 15:42

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 13 1-Methylnaphthalene-d10	152	5.601	5.595	(1.000)	377699	0.50000	0.500
$ 14 1-Methylnaphthalene-d10(SS)	152	5.601	5.595	(0.873)	377699	0.50000	0.499
15 1-Methylnaphthalene	142	5.629	5.629	(1.005)	425005	0.50000	0.511
16 Biphenyl	154	5.928	5.928	(0.983)	570847	0.50000	0.522
239 2-Chloronaphthalene	162	5.951	5.955	(1.200)	428594	0.50000	0.512
* 17 2,6-Dimethylnaphthalene-d12	168	6.028	6.028	(1.000)	350975	0.50000	0.500
$ 18 2,6-Dimethylnaph-d12(SS)	168	6.028	6.028	(0.939)	350975	0.50000	0.490
19 2,6 Dimethylnaphthalene	156	6.064	6.064	(1.006)	426352	0.50000	0.530
* 20 Acenaphthylene-d8	160	6.286	6.286	(1.000)	605526	0.50000	0.500
$ 21 Acenaphthylene-d8(SS)	160	6.286	6.286	(0.980)	605526	0.50000	0.497
22 Acenaphthylene	152	6.296	6.296	(1.002)	678963	0.50000	0.513
* 23 Acenaphthene-d10	164	6.416	6.417	(1.000)	343176	0.50000	0.500
24 Acenaphthene	154	6.442	6.442	(1.025)	408845	0.50000	0.511
246 Dibenzofuran	168	6.587	6.593	(1.093)	599110	0.50000	0.518
25 2,3,5 Trimethylnaphthalene	170	6.762	6.763	(1.122)	355869	0.50000	0.522
* 26 Fluorene-d10	176	6.853	6.850	(1.000)	405148	0.50000	0.500
$ 233 Fluorene-d10(SS)	176	6.853	6.850	(1.068)	405148	0.50000	0.497
27 Fluorene	166	6.877	6.877	(1.003)	477768	0.50000	0.509
243 Diphenylamine	169	6.960	6.964	(1.016)	326774	0.50000	0.518
* 34 Dibenzothiopene-d8	192	7.568	7.566	(1.000)	556678	0.50000	0.500
$ 35 Dibenzothiopene-d8(SS)	192	7.568	7.566	(0.842)	556678	0.50000	0.500
36 Dibenzothiophene	184	7.584	7.584	(1.002)	612060	0.50000	0.509
* 41 Phenanthrene-d10	188	7.673	7.670	(1.000)	540832	0.50000	0.500
$ 42 Phenanthrene-d10(SS)	188	7.673	7.670	(0.854)	540832	0.50000	0.500
43 Phenanthrene	178	7.691	7.691	(1.002)	693686	0.50000	0.512
* 44 Anthracene-d10	188	7.722	7.719	(1.000)	486317	0.50000	0.500
$ 45 Anthracene-d10(SS)	188	7.722	7.719	(0.859)	486317	0.50000	0.489
46 Anthracene	178	7.737	7.737	(1.002)	648357	0.50000	0.524
247 3-Methylphenanthrene	191	8.117	8.118	(1.058)	239360	0.50000	0.517
52 1-Methylphenanthrene	191	8.238	8.239	(1.074)	239955	0.50000	0.523
* 53 Fluoranthene-d10	212	8.763	8.764	(1.000)	519339	0.50000	0.500
$ 54 Fluoranthene-d10(SS)	212	8.763	8.764	(0.975)	519339	0.50000	0.497
55 Fluoranthene	202	8.782	8.780	(1.002)	674359	0.50000	0.509
* 56 Pyrene-d10	212	8.985	8.986	(1.000)	470190	0.50000	0.500
57 Pyrene	202	9.004	9.002	(1.028)	694989	0.50000	0.510
$ 58 Terphenyl-d14	244	9.137	9.138	(1.017)	260245	0.50000	0.518
62 Benzo(a)anthracene	228	10.219	10.220	(0.999)	488318	0.50000	0.485
* 63 Chrysene-d12	240	10.228	10.229	(1.000)	566673	0.50000	0.500
$ 64 Chrysene-d12(SS)	240	10.228	10.229	(1.138)	566673	0.50000	0.512
65 Chrysene	228	10.255	10.256	(1.003)	599579	0.50000	0.502
* 70 Benzo(b)fluoranthene-d12	264	11.370	11.368	(1.000)	361772	0.50000	0.500
$ 71 Benzo(b)fluoranthene-d12(SS)	264	11.370	11.368	(0.972)	361772	0.50000	0.481
72 Benzo(b)fluoranthene	252	11.400	11.398	(1.003)	536757	0.50000	0.514
* 73 Benzo(k)fluoranthene-d12	264	11.406	11.404	(1.000)	466797	0.50000	0.500
$ 74 Benzo(k)fluoranthene-d12(SS)	264	11.406	11.404	(0.975)	466797	0.50000	0.502
75 Benzo(k)fluoranthene	252	11.424	11.428	(1.002)	566825	0.50000	0.516
* 76 Benzo(e)pyrene-d12	264	11.693	11.697	(1.000)	358305	0.50000	0.500

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical4.d
Report Date: 15-Sep-2016 15:42

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	77 Benzo(e)pyrene	252	11.729	11.727	(0.997)	510230	0.50000	0.541
*	78 Benzo(a)pyrene-d12	264	11.765	11.763	(1.000)	307362	0.50000	0.500
$	79 Benzo(a)pyrene-d12(SS)	264	11.765	11.763	(1.006)	307362	0.50000	0.484
	80 Benzo(a)pyrene	252	11.789	11.793	(1.002)	426292	0.50000	0.520
*	81 Perylene-d12	264	11.860	11.864	(1.000)	360602	0.50000	0.500
$	82 Perylene-d12(SS)	264	11.860	11.864	(1.014)	360602	0.50000	0.495
	83 Perylene	252	11.890	11.894	(1.003)	438257	0.50000	0.514
*	84 Indeno(123-cd)pyrene-d12	288	13.267	13.265	(1.000)	372082	0.50000	0.500
$	85 Indeno(123-cd)pyrene-d12(SS)	288	13.267	13.265	(1.135)	372082	0.50000	0.493
	86 Indeno(1,2,3-cd)pyrene	276	13.301	13.299	(1.003)	516265	0.50000	0.516
*	87 Dibenz(ah)anthracene-d14	292	13.267	13.265	(1.000)	294895	0.50000	0.500
$	88 Dibenz(ah)anthracene-d14(SS)	292	13.267	13.265	(1.135)	294895	0.50000	0.488
	89 Dibenz(a,h)anthracene	278	13.307	13.306	(1.003)	433555	0.50000	0.523
*	90 Benzo(ghi)perylene-d12	288	13.607	13.605	(1.000)	362889	0.50000	0.500
$	91 Benzo(ghi)perylene-d12(SS)	288	13.607	13.605	(1.164)	362889	0.50000	0.487
	92 Benzo(g,h,i)perylene	276	13.634	13.639	(1.002)	472028	0.50000	0.517
*	230 Coronene-d12	312	15.484	15.489	(1.000)	277795	0.50000	0.500
$	231 Coronene-d12 (SS)	312	15.484	15.489	(1.324)	277795	0.50000	0.495
	238 Coronene	300	15.518	15.523	(1.002)	393577	0.50000	0.500


Data File: /var/chem/gcms/mp.i/P0915161.b/pi15ical4.d
Date : 15-SEP-2016 12:54
Client ID:
Sample Info: PT4,.1,4,PAH0983
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard
Instrument: mp.i
Operator: 11211
Column diameter: 0.25
Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
Min
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16
-1,4-Dichlorobenzene-d4+
-1,2-Dichlorobenzene-d4+
Naphthalene-d8+
-2-Methylnaphthalene-d10+
-1-Methylnaphthalene-d10+
-2,6-Dimethylnaphthalene-d1
-Acenaphthene-d10
Acenaphthylene-d8+
-Fluorene-d10+
-Dibenzothiopene-d8+
-Phenanthrene-d10+
-Fluoranthene-d10+
-Pyrene-d10
-Terphenyl-d14
-Chrysene-d12+
-Benzo(b)fluoranthene-d12+
-Benzo(k)fluoranthene-d12+
-Benzo(e)pyrene-d12
-Perylene-d12+
-Indeno(123-cd)pyrene-d12+
-Benzo(ghi)perylene-d12+
-Coronene-d12+
/var/chem/gcms/mp.i/P0915161.b/pi15ical4.d

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical5.d
Report Date: 15-Sep-2016 15:42

TestAmerica Knoxville

SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091516I.b/pi15ical5.d
Lab Smp Id: PT5
Inj Date : 15-SEP-2016 13:19
Operator : 11211 Inst ID: mp.i
Smp Info : PT5,,1,5,PAH0984
Misc Info : P091516I,SIMPAH10,simpah.sub
Comment :
Method : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 15:42 cochranj Quant Type: ISTD
Cal Date : 15-SEP-2016 13:19 Cal File: pi15ical5.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpah.sub
Target Version: 3.50

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

Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

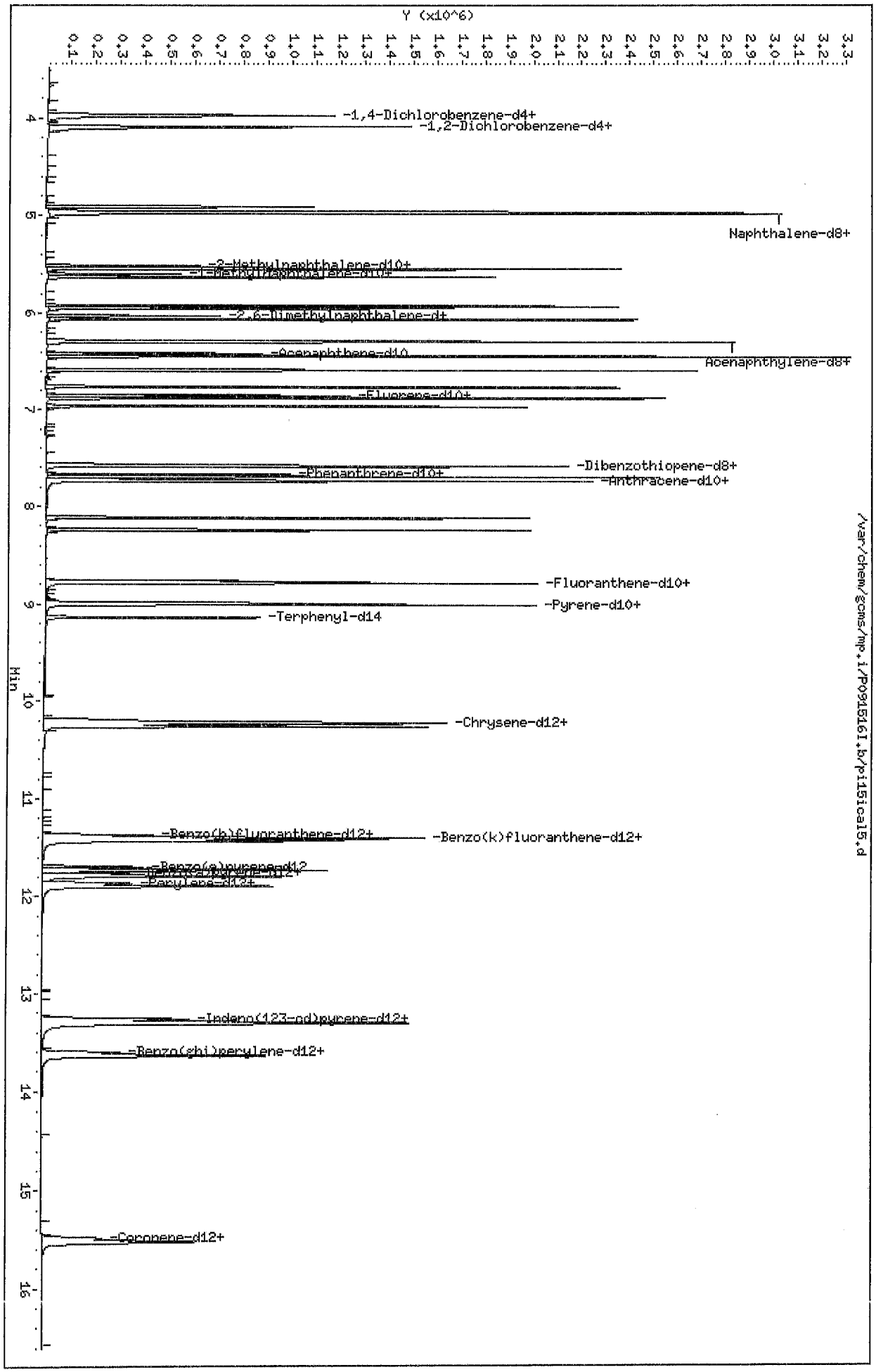
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 256 1,4-Dichlorobenzene-d4	115	3.958	3.958	(1.000)	100929	0.50000	0.500
$ 257 1,4Dichlorobenzene-d4(SS)	115	3.958	3.958	(0.617)	100929	0.50000	0.500
254 1,4-Dichlorobenzene	146	3.981	3.981	(1.006)	528972	1.00000	1.01
* 234 1,2-Dichlorobenzene-d4	115	4.082	4.082	(1.000)	114662	0.50000	0.500
$ 235 1,2-Dichlorobenzene-d4(SS)	115	4.082	4.082	(0.636)	114662	0.50000	0.506
236 1,2-Dichlorobenzene	146	4.093	4.093	(1.003)	508548	1.00000	0.980
245 1,2,4-Trichlorobenzene	180	4.911	4.911	(0.991)	412419	1.00000	0.989
* 1 Naphthalene-d8	136	4.957	4.957	(1.000)	709700	0.50000	0.500
$ 2 Naphthalene-d8(SS)	136	4.957	4.957	(0.772)	709700	0.50000	0.508
3 Naphthalene	128	4.975	4.975	(1.004)	1412106	1.00000	0.983
$ 222 13C6-Naphthalene	134	4.975	4.976	(1.004)	1521425	1.00000	0.930
* 10 2-Methylnaphthalene-d10	152	5.515	5.515	(1.000)	358561	0.50000	0.500
$ 11 2-Methylnaphthalene-d10(SS)	152	5.515	5.515	(0.859)	358561	0.50000	0.509
12 2-Methylnaphthalene	142	5.544	5.544	(1.005)	984600	1.00000	0.999

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical5.d
Report Date: 15-Sep-2016 15:42

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
*	13 1-Methylnaphthalene-d10	152	5.595	5.595	(1.000)	396612	0.50000	0.500
$	14 1-Methylnaphthalene-d10(SS)	152	5.595	5.595	(0.872)	396612	0.50000	0.510
	15 1-Methylnaphthalene	142	5.629	5.629	(1.006)	857429	1.00000	0.982
	16 Biphenyl	154	5.928	5.928	(0.983)	1162065	1.00000	0.976
	239 2-Chloronaphthalene	162	5.951	5.955	(1.200)	870110	1.00000	0.994
*	17 2,6-Dimethylnaphthalene-d12	168	6.028	6.028	(1.000)	381956	0.50000	0.500
$	18 2,6-Dimethylnaph-d12(SS)	168	6.028	6.028	(0.939)	381956	0.50000	0.519
	19 2,6 Dimethylnaphthalene	156	6.064	6.064	(1.006)	865168	1.00000	0.988
*	20 Acenaphthylene-d8	160	6.286	6.286	(1.000)	639176	0.50000	0.500
$	21 Acenaphthylene-d8(SS)	160	6.286	6.286	(0.980)	639176	0.50000	0.510
	22 Acenaphthylene	152	6.296	6.296	(1.002)	1406921	1.00000	1.01
*	23 Acenaphthene-d10	164	6.417	6.417	(1.000)	352861	0.50000	0.500
	24 Acenaphthene	154	6.442	6.442	(1.025)	840350	1.00000	0.994
	246 Dibenzofuran	168	6.588	6.593	(1.093)	1249521	1.00000	0.993
	25 2,3,5 Trimethylnaphthalene	170	6.763	6.763	(1.122)	746011	1.00000	1.00
*	26 Fluorene-d10	176	6.850	6.850	(1.000)	425926	0.50000	0.500
$	233 Fluorene-d10(SS)	176	6.850	6.850	(1.067)	425926	0.50000	0.508
	27 Fluorene	166	6.873	6.877	(1.003)	987851	1.00000	1.00
	243 Diphenylamine	169	6.960	6.964	(1.016)	742642	1.00000	1.12
*	34 Dibenzothiopene-d8	192	7.566	7.566	(1.000)	586084	0.50000	0.500
$	35 Dibenzothiopene-d8(SS)	192	7.566	7.566	(0.842)	586084	0.50000	0.502
	36 Dibenzothiophene	184	7.581	7.584	(1.002)	1262888	1.00000	0.998
*	41 Phenanthrene-d10	188	7.670	7.670	(1.000)	573269	0.50000	0.500
$	42 Phenanthrene-d10(SS)	188	7.670	7.670	(0.854)	573269	0.50000	0.505
	43 Phenanthrene	178	7.691	7.691	(1.003)	1427877	1.00000	0.994
*	44 Anthracene-d10	188	7.719	7.719	(1.000)	534675	0.50000	0.500
$	45 Anthracene-d10(SS)	188	7.719	7.719	(0.859)	534675	0.50000	0.512
	46 Anthracene	178	7.734	7.737	(1.002)	1372166	1.00000	1.01
	247 3-Methylphenanthrene	191	8.117	8.118	(1.058)	512548	1.00000	1.05
	52 1-Methylphenanthrene	191	8.239	8.239	(1.074)	512743	1.00000	1.05
*	53 Fluoranthene-d10	212	8.763	8.764	(1.000)	556141	0.50000	0.500
$	54 Fluoranthene-d10(SS)	212	8.763	8.764	(0.975)	556141	0.50000	0.508
	55 Fluoranthene	202	8.779	8.780	(1.002)	1432193	1.00000	1.01
*	56 Pyrene-d10	212	8.985	8.986	(1.000)	493395	0.50000	0.500
	57 Pyrene	202	9.001	9.002	(1.027)	1470766	1.00000	1.01
$	58 Terphenyl-d14	244	9.134	9.138	(1.017)	558677	1.00000	1.06
	62 Benzo(a)anthracene	228	10.219	10.220	(0.999)	1094854	1.00000	1.01
*	63 Chrysene-d12	240	10.228	10.229	(1.000)	608490	0.50000	0.500
$	64 Chrysene-d12(SS)	240	10.228	10.229	(1.138)	608490	0.50000	0.523
	65 Chrysene	228	10.255	10.256	(1.003)	1254568	1.00000	0.978
*	70 Benzo(b)fluoranthene-d12	264	11.368	11.368	(1.000)	415824	0.50000	0.500
$	71 Benzo(b)fluoranthene-d12(SS)	264	11.368	11.368	(0.972)	415824	0.50000	0.515
	72 Benzo(b)fluoranthene	252	11.398	11.398	(1.003)	1140796	1.00000	0.950
*	73 Benzo(k)fluoranthene-d12	264	11.404	11.404	(1.000)	525293	0.50000	0.500
$	74 Benzo(k)fluoranthene-d12(SS)	264	11.404	11.404	(0.975)	525293	0.50000	0.526
	75 Benzo(k)fluoranthene	252	11.428	11.428	(1.002)	1289691	1.00000	1.04
*	76 Benzo(e)pyrene-d12	264	11.696	11.697	(1.000)	384911	0.50000	0.500

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical5.d
Report Date: 15-Sep-2016 15:42

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
77 Benzo(e)pyrene	252	11.726	11.727	(0.997)	1112863	1.00000	0.994
* 78 Benzo(a)pyrene-d12	264	11.762	11.763	(1.000)	364643	0.50000	0.500
$ 79 Benzo(a)pyrene-d12(SS)	264	11.762	11.763	(1.006)	364643	0.50000	0.534
80 Benzo(a)pyrene	252	11.792	11.793	(1.003)	1015086	1.00000	1.04
* 81 Perylene-d12	264	11.864	11.864	(1.000)	407927	0.50000	0.500
$ 82 Perylene-d12(SS)	264	11.864	11.864	(1.014)	407927	0.50000	0.521
83 Perylene	252	11.894	11.894	(1.003)	1022917	1.00000	1.06
* 84 Indeno(123-cd)pyrene-d12	288	13.264	13.265	(1.000)	408414	0.50000	0.500
$ 85 Indeno(123-cd)pyrene-d12(SS)	288	13.264	13.265	(1.134)	408414	0.50000	0.503
86 Indeno(1,2,3-cd)pyrene	276	13.298	13.299	(1.003)	1165150	1.00000	1.06
* 87 Dibenz(ah)anthracene-d14	292	13.264	13.265	(1.000)	328159	0.50000	0.500
$ 88 Dibenz(ah)anthracene-d14(SS)	292	13.264	13.265	(1.134)	328159	0.50000	0.506
89 Dibenz(a,h)anthracene	278	13.305	13.306	(1.003)	989015	1.00000	1.07
* 90 Benzo(ghi)perylene-d12	288	13.604	13.605	(1.000)	404832	0.50000	0.500
$ 91 Benzo(ghi)perylene-d12(SS)	288	13.604	13.605	(1.163)	404832	0.50000	0.506
92 Benzo(g,h,i)perylene	276	13.638	13.639	(1.002)	1040506	1.00000	1.02
* 230 Coronene-d12	312	15.482	15.489	(1.000)	305320	0.50000	0.500
$ 231 Coronene-d12 (SS)	312	15.482	15.489	(1.324)	305320	0.50000	0.506
238 Coronene	300	15.522	15.523	(1.003)	856758	1.00000	0.990


Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical5.d
Date : 15-SEP-2016 13:19
Client ID:
Sample Info: PT5,1,5,PAH0984
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard
Instrument: mp.i
Operator: 11211
Column diameter: 0.25
Y (x10^6)
Min
-1,4-Dichlorobenzene-d4+
-1,2-Dichlorobenzene-d4+
Naphthalene-d8+
-2-Methylnaphthalene-d10+
-1-Methylnaphthalene-d10+
-2,6-Dimethylnaphthalene-d+
-Acenaphthene-d10
Acenaphthylene-d8+
-Fluorene-d10+
-Dibenzothiopene-d8+
-Phenanthrene-d10+
-Anthracene-d10+
-Fluoranthene-d10+
-Pyrene-d10+
-Terphenyl-d14
-Chrysene-d12+
-Benzo(b)fluoranthene-d12+
-Benzo(k)fluoranthene-d12+
-Benzo(a)pyrene-d12
-Perylene-d12+
-Indeno(123-cd)pyrene-d12+
-Benzo(ghi)perylene-d12+
-Coronene-d12+
/var/chem/gcms/mp.i/P091516I.b/pi15ical5.d

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical6.d
Report Date: 15-Sep-2016 15:43

TestAmerica Knoxville

SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091516I.b/pi15ical6.d
Lab Smp Id: PT6
Inj Date : 15-SEP-2016 13:44
Operator : 11211 Inst ID: mp.i
Smp Info : PT6,,1,6,PAH0985
Misc Info : P091516I,SIMPAH10,simpah.sub
Comment :
Method : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 15:42 cochranj Quant Type: ISTD
Cal Date : 15-SEP-2016 13:44 Cal File: pi15ical6.d
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpah.sub
Target Version: 3.50

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

Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

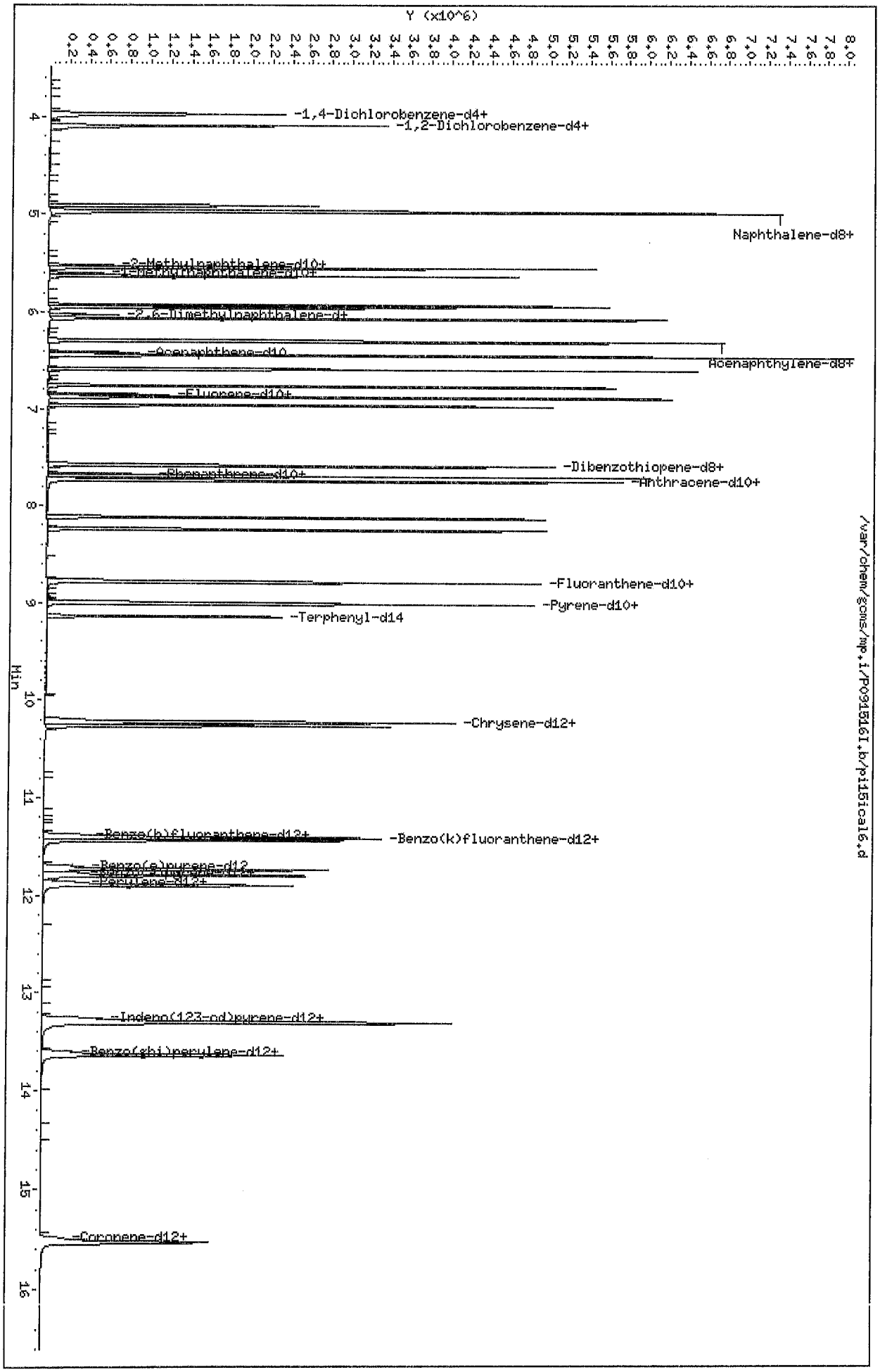
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 256 1,4-Dichlorobenzene-d4	115	3.958	3.958	(1.000)	100219	0.50000	0.500
$ 257 1,4Dichlorobenzene-d4(SS)	115	3.958	3.958	(0.617)	100219	0.50000	0.495
254 1,4-Dichlorobenzene	146	3.981	3.981	(1.006)	1242114	2.50000	2.39
* 234 1,2-Dichlorobenzene-d4	115	4.082	4.082	(1.000)	113684	0.50000	0.500
$ 235 1,2-Dichlorobenzene-d4(SS)	115	4.082	4.082	(0.636)	113684	0.50000	0.500
236 1,2-Dichlorobenzene	146	4.093	4.093	(1.003)	1243044	2.50000	2.42
245 1,2,4-Trichlorobenzene	180	4.911	4.911	(0.991)	997023	2.50000	2.44
* 1 Naphthalene-d8	136	4.957	4.957	(1.000)	696884	0.50000	0.500
$ 2 Naphthalene-d8(SS)	136	4.957	4.957	(0.773)	696884	0.50000	0.497
3 Naphthalene	128	4.976	4.975	(1.004)	3288458	2.50000	2.33
$ 222 13C6-Naphthalene	134	4.976	4.976	(1.004)	3385685	2.50000	2.11
* 10 2-Methylnaphthalene-d10	152	5.515	5.515	(1.000)	352795	0.50000	0.500
$ 11 2-Methylnaphthalene-d10(SS)	152	5.515	5.515	(0.860)	352795	0.50000	0.500
12 2-Methylnaphthalene	142	5.544	5.544	(1.005)	2348902	2.50000	2.42

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical6.d
Report Date: 15-Sep-2016 15:43

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 13 1-Methylnaphthalene-d10	152	5.595	5.595	(1.000)	387210	0.50000	0.500
$ 14 1-Methylnaphthalene-d10(SS)	152	5.595	5.595	(0.872)	387210	0.50000	0.496
15 1-Methylnaphthalene	142	5.624	5.629	(1.005)	2060884	2.50000	2.42
16 Biphenyl	154	5.928	5.928	(0.983)	2777160	2.50000	2.46
239 2-Chloronaphthalene	162	5.951	5.955	(1.200)	2115075	2.50000	2.46
* 17 2,6-Dimethylnaphthalene-d12	168	6.028	6.028	(1.000)	362624	0.50000	0.500
$ 18 2,6-Dimethylnaph-d12(SS)	168	6.028	6.028	(0.939)	362624	0.50000	0.491
19 2,6 Dimethylnaphthalene	156	6.065	6.064	(1.006)	2056738	2.50000	2.47
* 20 Acenaphthylene-d8	160	6.286	6.286	(1.000)	639813	0.50000	0.500
$ 21 Acenaphthylene-d8(SS)	160	6.286	6.286	(0.980)	639813	0.50000	0.509
22 Acenaphthylene	152	6.296	6.296	(1.002)	3451719	2.50000	2.47
* 23 Acenaphthene-d10	164	6.417	6.417	(1.000)	353920	0.50000	0.500
24 Acenaphthene	154	6.442	6.442	(1.025)	2045966	2.50000	2.42
246 Dibenzofuran	168	6.587	6.593	(1.093)	2997449	2.50000	2.51
25 2,3,5 Trimethylnaphthalene	170	6.762	6.763	(1.122)	1842624	2.50000	2.61
* 26 Fluorene-d10	176	6.853	6.850	(1.000)	425099	0.50000	0.500
$ 233 Fluorene-d10(SS)	176	6.853	6.850	(1.068)	425365	0.50000	0.506
27 Fluorene	166	6.877	6.877	(1.003)	2430926	2.50000	2.47
243 Diphenylamine	169	6.960	6.964	(1.016)	1943103	2.50000	2.94
* 34 Dibenzothiopene-d8	192	7.568	7.566	(1.000)	582612	0.50000	0.500
$ 35 Dibenzothiopene-d8(SS)	192	7.568	7.566	(0.842)	582612	0.50000	0.487
36 Dibenzothiophene	184	7.584	7.584	(1.002)	3101367	2.50000	2.47
* 41 Phenanthrene-d10	188	7.673	7.670	(1.000)	569401	0.50000	0.500
$ 42 Phenanthrene-d10(SS)	188	7.673	7.670	(0.854)	569401	0.50000	0.490
43 Phenanthrene	178	7.691	7.691	(1.002)	3491789	2.50000	2.45
* 44 Anthracene-d10	188	7.719	7.719	(1.000)	545861	0.50000	0.500
$ 45 Anthracene-d10(SS)	188	7.719	7.719	(0.859)	545861	0.50000	0.511
46 Anthracene	178	7.737	7.737	(1.002)	3444557	2.50000	2.48
247 3-Methylphenanthrene	191	8.117	8.118	(1.058)	1288923	2.50000	2.65
52 1-Methylphenanthrene	191	8.239	8.239	(1.074)	1285895	2.50000	2.66
* 53 Fluoranthene-d10	212	8.763	8.764	(1.000)	555591	0.50000	0.500
$ 54 Fluoranthene-d10(SS)	212	8.763	8.764	(0.975)	555591	0.50000	0.495
55 Fluoranthene	202	8.782	8.780	(1.002)	3590599	2.50000	2.54
* 56 Pyrene-d10	212	8.985	8.986	(1.000)	504967	0.50000	0.500
57 Pyrene	202	9.004	9.002	(1.028)	3665566	2.50000	2.52
$ 58 Terphenyl-d14	244	9.137	9.138	(1.017)	1419394	2.50000	2.63
62 Benzo(a)anthracene	228	10.219	10.220	(0.999)	2887212	2.50000	2.82
* 63 Chrysene-d12	240	10.228	10.229	(1.000)	577129	0.50000	0.500
$ 64 Chrysene-d12(SS)	240	10.228	10.229	(1.138)	577129	0.50000	0.485
65 Chrysene	228	10.255	10.256	(1.003)	3088094	2.50000	2.54
* 70 Benzo(b)fluoranthene-d12	264	11.371	11.368	(1.000)	401267	0.50000	0.500
$ 71 Benzo(b)fluoranthene-d12(SS)	264	11.371	11.368	(0.972)	401267	0.50000	0.488
72 Benzo(b)fluoranthene	252	11.400	11.398	(1.003)	2913915	2.50000	2.51
* 73 Benzo(k)fluoranthene-d12	264	11.406	11.404	(1.000)	530921	0.50000	0.500
$ 74 Benzo(k)fluoranthene-d12(SS)	264	11.406	11.404	(0.975)	530921	0.50000	0.522
75 Benzo(k)fluoranthene	252	11.424	11.428	(1.002)	3151826	2.50000	2.52
* 76 Benzo(e)pyrene-d12	264	11.699	11.697	(1.000)	391705	0.50000	0.500

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical6.d
Report Date: 15-Sep-2016 15:43

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
77 Benzo(e)pyrene	252	11.729	11.727	(0.997)	2803635	2.50000	2.44
* 78 Benzo(a)pyrene-d12	264	11.765	11.763	(1.000)	374619	0.50000	0.500
$ 79 Benzo(a)pyrene-d12(SS)	264	11.765	11.763	(1.006)	374674	0.50000	0.539
80 Benzo(a)pyrene	252	11.789	11.793	(1.002)	2726857	2.50000	2.73
* 81 Perylene-d12	264	11.861	11.864	(1.000)	435371	0.50000	0.500
$ 82 Perylene-d12(SS)	264	11.861	11.864	(1.014)	435371	0.50000	0.547
83 Perylene	252	11.890	11.894	(1.003)	2685800	2.50000	2.61
* 84 Indeno(123-cd)pyrene-d12	288	13.267	13.265	(1.000)	424172	0.50000	0.500
$ 85 Indeno(123-cd)pyrene-d12(SS)	288	13.267	13.265	(1.134)	424172	0.50000	0.514
86 Indeno(1,2,3-cd)pyrene	276	13.301	13.299	(1.003)	3037835	2.50000	2.66
* 87 Dibenz(ah)anthracene-d14	292	13.267	13.265	(1.000)	336708	0.50000	0.500
$ 88 Dibenz(ah)anthracene-d14(SS)	292	13.267	13.265	(1.134)	336708	0.50000	0.510
89 Dibenz(a,h)anthracene	278	13.308	13.306	(1.003)	2584855	2.50000	2.73
* 90 Benzo(ghi)perylene-d12	288	13.607	13.605	(1.000)	411182	0.50000	0.500
$ 91 Benzo(ghi)perylene-d12(SS)	288	13.607	13.605	(1.163)	411182	0.50000	0.505
92 Benzo(g,h,i)perylene	276	13.641	13.639	(1.002)	2693967	2.50000	2.60
* 230 Coronene-d12	312	15.484	15.489	(1.000)	303825	0.50000	0.500
$ 231 Coronene-d12 (SS)	312	15.484	15.489	(1.324)	303825	0.50000	0.495
238 Coronene	300	15.525	15.523	(1.003)	2206863	2.50000	2.56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Date : 15-SEP-2016 13:44
Client ID:
Sample Info: PT6,1,6,PAH0985
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard
Instrument: mp.i
Operator: 11211
Column diameter: 0.25
/var/chem/gcms/mp.i/P091516I.b/pi15ical6.d
Y (x10^6)
Min
-1,4-Dichlorobenzene-d4+
-1,2-Dichlorobenzene-d4+
Naphthalene-d8+
-2-Methylnaphthalene-d10+
-1-Methylnaphthalene-d10+
-2,6-Dimethylnaphthalene-d+
-Acenaphthene-d10
Acenaphthylene-d8+
-Fluorene-d10+
-Dibenzothiopene-d8+
-Phenanthrene-d10+
-Anthracene-d10+
-Fluoranthene-d10+
-Pyrene-d10+
-Terphenyl-d14
-Chrysene-d12+
-Benzo(b)fluoranthene-d12+
-Benzo(k)fluoranthene-d12+
-Benzo(a)pyrene-d12
-Perylene-d12+
-Indeno(123-cd)pyrene-d12+
-Benzo(ghi)perylene-d12+
-Coronene-d12+

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical7.d
Report Date: 15-Sep-2016 15:43

TestAmerica Knoxville

SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091516I.b/pi15ical7.d
Lab Smp Id: PT7
Inj Date : 15-SEP-2016 14:09
Operator : 11211 Inst ID: mp.i
Smp Info : PT7,,1,7,PAH0986
Misc Info : P091516I,SIMPAH10,simpah.sub
Comment :
Method : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 15:42 cochranj Quant Type: ISTD
Cal Date : 15-SEP-2016 14:09 Cal File: pi15ical7.d
Als bottle: 8 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpah.sub
Target Version: 3.50

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

Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

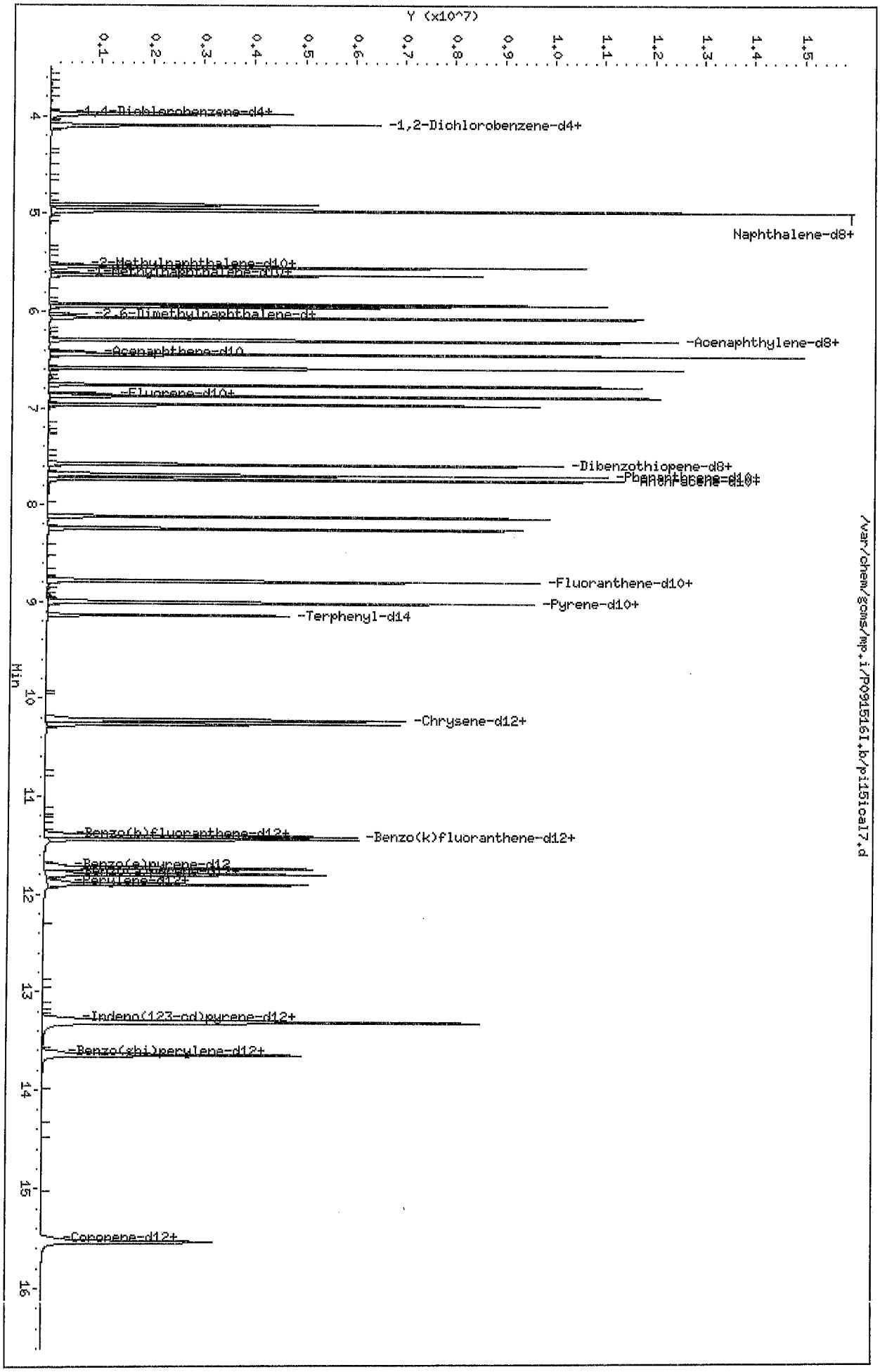
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 256 1,4-Dichlorobenzene-d4	115	3.958	3.958	(1.000)	98923	0.50000	0.500
$ 257 1,4Dichlorobenzene-d4(SS)	115	3.958	3.958	(0.617)	98923	0.50000	0.471
254 1,4-Dichlorobenzene	146	3.981	3.981	(1.006)	2446234	5.00000	4.77
* 234 1,2-Dichlorobenzene-d4	115	4.082	4.082	(1.000)	117908	0.50000	0.500
$ 235 1,2-Dichlorobenzene-d4(SS)	115	4.082	4.082	(0.636)	117908	0.50000	0.500
236 1,2-Dichlorobenzene	146	4.093	4.093	(1.003)	2434077	5.00000	4.56
245 1,2,4-Trichlorobenzene	180	4.911	4.911	(0.991)	1968131	5.00000	4.60
* 1 Naphthalene-d8	136	4.957	4.957	(1.000)	728678	0.50000	0.500
$ 2 Naphthalene-d8(SS)	136	4.957	4.957	(0.773)	728678	0.50000	0.501
3 Naphthalene	128	4.976	4.975	(1.004)	6261145	5.00000	4.25
$ 222 13C6-Naphthalene	134	4.976	4.976	(1.004)	6374028	5.00000	3.79
* 10 2-Methylnaphthalene-d10	152	5.515	5.515	(1.000)	366233	0.50000	0.500
$ 11 2-Methylnaphthalene-d10(SS)	152	5.515	5.515	(0.860)	366233	0.50000	0.500
12 2-Methylnaphthalene	142	5.544	5.544	(1.005)	4601934	5.00000	4.57

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical7.d
Report Date: 15-Sep-2016 15:43

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 13 1-Methylnaphthalene-d10	152	5.595	5.595	(1.000)	404437	0.50000	0.500
$ 14 1-Methylnaphthalene-d10(SS)	152	5.595	5.595	(0.872)	404437	0.50000	0.500
15 1-Methylnaphthalene	142	5.630	5.629	(1.006)	4043097	5.00000	4.54
16 Biphenyl	154	5.928	5.928	(0.983)	5385076	5.00000	4.58
239 2-Chloronaphthalene	162	5.951	5.955	(1.200)	4191798	5.00000	4.66
* 17 2,6-Dimethylnaphthalene-d12	168	6.028	6.028	(1.000)	376953	0.50000	0.500
$ 18 2,6-Dimethylnaph-d12(SS)	168	6.028	6.028	(0.939)	376953	0.50000	0.492
19 2,6 Dimethylnaphthalene	156	6.065	6.064	(1.006)	3956014	5.00000	4.58
* 20 Acenaphthylene-d8	160	6.286	6.286	(1.000)	668914	0.50000	0.500
$ 21 Acenaphthylene-d8(SS)	160	6.286	6.286	(0.980)	668914	0.50000	0.513
22 Acenaphthylene	152	6.296	6.296	(1.002)	6806699	5.00000	4.66
* 23 Acenaphthene-d10	164	6.417	6.417	(1.000)	366881	0.50000	0.500
24 Acenaphthene	154	6.442	6.442	(1.025)	4061832	5.00000	4.59
246 Dibenzofuran	168	6.587	6.593	(1.093)	5895176	5.00000	4.75
25 2,3,5 Trimethylnaphthalene	170	6.763	6.763	(1.122)	3650006	5.00000	4.98
* 26 Fluorene-d10	176	6.853	6.850	(1.000)	441577	0.50000	0.500
$ 233 Fluorene-d10(SS)	176	6.853	6.850	(1.068)	441577	0.50000	0.507
27 Fluorene	166	6.877	6.877	(1.003)	4789474	5.00000	4.68
243 Diphenylamine	169	6.960	6.964	(1.016)	3959894	5.00000	5.76
* 34 Dibenzothiopene-d8	192	7.568	7.566	(1.000)	605485	0.50000	0.500
$ 35 Dibenzothiopene-d8(SS)	192	7.568	7.566	(0.842)	605485	0.50000	0.479
36 Dibenzothiophene	184	7.584	7.584	(1.002)	6157965	5.00000	4.71
* 41 Phenanthrene-d10	188	7.673	7.670	(1.000)	592200	0.50000	0.500
$ 42 Phenanthrene-d10(SS)	188	7.673	7.670	(0.854)	592200	0.50000	0.482
43 Phenanthrene	178	7.691	7.691	(1.002)	6863715	5.00000	4.62
* 44 Anthracene-d10	188	7.722	7.719	(1.000)	574570	0.50000	0.500
$ 45 Anthracene-d10(SS)	188	7.722	7.719	(0.859)	574570	0.50000	0.509
46 Anthracene	178	7.737	7.737	(1.002)	6850876	5.00000	4.69
247 3-Methylphenanthrene	191	8.117	8.118	(1.058)	2556294	5.00000	5.05
52 1-Methylphenanthrene	191	8.239	8.239	(1.074)	2555888	5.00000	5.08
* 53 Fluoranthene-d10	212	8.763	8.764	(1.000)	589687	0.50000	0.500
$ 54 Fluoranthene-d10(SS)	212	8.763	8.764	(0.975)	589687	0.50000	0.497
55 Fluoranthene	202	8.782	8.780	(1.002)	7083842	5.00000	4.71
* 56 Pyrene-d10	212	8.985	8.986	(1.000)	533872	0.50000	0.500
57 Pyrene	202	9.004	9.002	(1.028)	7191186	5.00000	4.65
$ 58 Terphenyl-d14	244	9.137	9.138	(1.017)	2925774	5.00000	5.13
62 Benzo(a)anthracene	228	10.219	10.220	(0.998)	5979630	5.00000	5.61
* 63 Chrysene-d12	240	10.237	10.229	(1.000)	600206	0.50000	0.500
$ 64 Chrysene-d12(SS)	240	10.237	10.229	(1.139)	600206	0.50000	0.477
65 Chrysene	228	10.264	10.256	(1.003)	6194647	5.00000	4.89
* 70 Benzo(b)fluoranthene-d12	264	11.371	11.368	(1.000)	431016	0.50000	0.500
$ 71 Benzo(b)fluoranthene-d12(SS)	264	11.371	11.368	(0.972)	431016	0.50000	0.484
72 Benzo(b)fluoranthene	252	11.400	11.398	(1.003)	6311405	5.00000	5.07
* 73 Benzo(k)fluoranthene-d12	264	11.406	11.404	(1.000)	565367	0.50000	0.500
$ 74 Benzo(k)fluoranthene-d12(SS)	264	11.406	11.404	(0.975)	565367	0.50000	0.514
75 Benzo(k)fluoranthene	252	11.430	11.428	(1.002)	6112262	5.00000	4.59
* 76 Benzo(e)pyrene-d12	264	11.699	11.697	(1.000)	424107	0.50000	0.500

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15ical7.d
Report Date: 15-Sep-2016 15:43

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	77 Benzo(e)pyrene	252	11.735	11.727	(0.997)	5706675	5.00000	4.49
*	78 Benzo(a)pyrene-d12	264	11.765	11.763	(1.000)	413732	0.50000	0.500
$	79 Benzo(a)pyrene-d12(SS)	264	11.765	11.763	(1.006)	413732	0.50000	0.550
	80 Benzo(a)pyrene	252	11.795	11.793	(1.003)	5685738	5.00000	5.16
*	81 Perylene-d12	264	11.867	11.864	(1.000)	473779	0.50000	0.500
$	82 Perylene-d12(SS)	264	11.867	11.864	(1.014)	473779	0.50000	0.550
	83 Perylene	252	11.896	11.894	(1.003)	5591637	5.00000	4.99
*	84 Indeno(123-cd)pyrene-d12	288	13.267	13.265	(1.000)	462682	0.50000	0.500
$	85 Indeno(123-cd)pyrene-d12(SS)	288	13.267	13.265	(1.134)	462682	0.50000	0.518
	86 Indeno(1,2,3-cd)pyrene	276	13.308	13.299	(1.003)	6315836	5.00000	5.07
*	87 Dibenz(ah)anthracene-d14	292	13.267	13.265	(1.000)	368606	0.50000	0.500
$	88 Dibenz(ah)anthracene-d14(SS)	292	13.267	13.265	(1.134)	368606	0.50000	0.516
	89 Dibenz(a,h)anthracene	278	13.314	13.306	(1.004)	5317675	5.00000	5.13
*	90 Benzo(ghi)perylene-d12	288	13.607	13.605	(1.000)	449068	0.50000	0.500
$	91 Benzo(ghi)perylene-d12(SS)	288	13.607	13.605	(1.163)	449068	0.50000	0.509
	92 Benzo(g,h,i)perylene	276	13.648	13.639	(1.003)	5651294	5.00000	5.00
*	230 Coronene-d12	312	15.491	15.489	(1.000)	326012	0.50000	0.500
$	231 Coronene-d12 (SS)	312	15.491	15.489	(1.324)	326012	0.50000	0.491
	238 Coronene	300	15.539	15.523	(1.003)	4718106	5.00000	5.11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Date : 15-SEP-2016 14:09
Client ID:
Sample Info: PT7,1,7,PAH0986
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard
Instrument: mp.i
Operator: 11241
Column diameter: 0.25
Y (x10^7)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
Min
4
5
6
7
8
9
10
11
12
13
14
15
16
-1,4-Dichlorobenzene-d4+
-1,2-Dichlorobenzene-d4+
Naphthalene-d8+
-2-Methylnaphthalene-d10+
-2,6-Dimethylnaphthalene-d+
-Acenaphthylene-d8+
-Acenaphthene-d10
-Fluorene-d10+
-Dibenzothiopene-d8+
-Phenanthrene-d10+
-Fluoranthene-d10+
-Pyrene-d10+
-Terphenyl-d14
-Chrysene-d12+
-Benzo(b)fluoranthene-d12+
-Benzo(k)fluoranthene-d12+
-Benzo(e)pyrene-d12
-Perylene-d12+
-Indeno(123-cd)pyrene-d12+
-Benzo(ghi)perylene-d12+
-Coronene-d12+
/var/chem/gcms/mp.i/P0915161.b/pi15ical7.d

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15icv.d
Report Date: 15-Sep-2016 15:14

TestAmerica Knoxville

SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P091516I.b/pi15icv.d
Lab Smp Id: ICV
Inj Date : 15-SEP-2016 15:00
Operator : 11211 Inst ID: mp.i
Smp Info : ICV,,3,,PAH0987
Misc Info : P091516I,SIMPAH10,simpah.sub
Comment :
Method : /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Meth Date : 15-Sep-2016 15:12 cochranj Quant Type: ISTD
Cal Date : 15-SEP-2016 11:39 Cal File: pi15ical1.d
Als bottle: 10 QC Sample: PAH0987
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpah.sub
Target Version: 3.50
Processing Host: qmidhp01

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

Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ng/g)
* 256 1,4-Dichlorobenzene-d4	115	3.969	3.958	(1.000)	93742	0.50000	0.500
$ 257 1,4Dichlorobenzene-d4(SS)	115	3.969	3.958	(0.619)	93742	0.49869	24.9
* 234 1,2-Dichlorobenzene-d4	115	4.082	4.082	(1.000)	104525	0.50000	0.500
$ 235 1,2-Dichlorobenzene-d4(SS)	115	4.082	4.082	(0.636)	104525	0.49494	24.7
* 1 Naphthalene-d8	136	4.957	4.957	(1.000)	661375	0.50000	0.500
$ 2 Naphthalene-d8(SS)	136	4.957	4.957	(0.772)	661375	0.50824	25.4
3 Naphthalene	128	4.975	4.975	(1.004)	659771	0.49307	24.7
* 10 2-Methylnaphthalene-d10	152	5.515	5.515	(1.000)	331390	0.50000	0.500
$ 11 2-Methylnaphthalene-d10(SS)	152	5.515	5.515	(0.859)	331390	0.50571	25.3
12 2-Methylnaphthalene	142	5.544	5.544	(1.005)	428597	0.47063	23.5
* 13 1-Methylnaphthalene-d10	152	5.601	5.595	(1.000)	367919	0.50000	0.500
$ 14 1-Methylnaphthalene-d10(SS)	152	5.601	5.595	(0.873)	367919	0.50777	25.4
15 1-Methylnaphthalene	142	5.629	5.629	(1.005)	395184	0.48805	24.4

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15icv.d
Report Date: 15-Sep-2016 15:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ng/g)
	16 Biphenyl	154	5.928	5.928	(0.983)	507722	0.47559	23.8
*	17 2,6-Dimethylnaphthalene-d12	168	6.028	6.028	(1.000)	342378	0.50000	0.500
$	18 2,6-Dimethylnaph-d12(SS)	168	6.028	6.028	(0.939)	342378	0.49946	25.0
	19 2,6 Dimethylnaphthalene	156	6.064	6.064	(1.006)	416013	0.53003	26.5
*	20 Acenaphthylene-d8	160	6.286	6.286	(1.000)	604250	0.50000	0.500
$	21 Acenaphthylene-d8(SS)	160	6.286	6.286	(0.980)	604250	0.51784	25.9
	22 Acenaphthylene	152	6.296	6.296	(1.002)	641283	0.48592	24.3
*	23 Acenaphthene-d10	164	6.417	6.417	(1.000)	328552	0.50000	0.500
	24 Acenaphthene	154	6.442	6.442	(1.025)	382456	0.47874	23.9
	246 Dibenzofuran	168	6.588	6.593	(1.093)	534909	0.47424	23.7
	25 2,3,5 Trimethylnaphthalene	170	6.763	6.763	(1.122)	346023	0.51989	26.0
*	26 Fluorene-d10	176	6.854	6.850	(1.000)	394526	0.50000	0.500
$	233 Fluorene-d10(SS)	176	6.854	6.850	(1.068)	395687	0.50698	25.3
	27 Fluorene	166	6.877	6.877	(1.003)	448380	0.49069	24.5
*	34 Dibenzothiopene-d8	192	7.569	7.566	(1.000)	541193	0.50000	0.500
$	35 Dibenzothiopene-d8(SS)	192	7.569	7.566	(0.842)	541193	0.50856	25.4
	36 Dibenzothiophene	184	7.584	7.584	(1.002)	631494	0.54069	27.0
*	41 Phenanthrene-d10	188	7.673	7.670	(1.000)	528274	0.50000	0.500
$	42 Phenanthrene-d10(SS)	188	7.673	7.670	(0.854)	528274	0.51085	25.5
	43 Phenanthrene	178	7.691	7.691	(1.002)	627157	0.47368	23.7
*	44 Anthracene-d10	188	7.722	7.719	(1.000)	494470	0.50000	0.500
$	45 Anthracene-d10(SS)	188	7.722	7.719	(0.859)	494470	0.52019	26.0
	46 Anthracene	178	7.737	7.737	(1.002)	600266	0.47700	23.9
	52 1-Methylphenanthrene	191	8.239	8.239	(1.074)	228051	0.50857	25.4
*	53 Fluoranthene-d10	212	8.763	8.764	(1.000)	507375	0.50000	0.500
$	54 Fluoranthene-d10(SS)	212	8.763	8.764	(0.975)	507375	0.50832	25.4
	55 Fluoranthene	202	8.782	8.780	(1.002)	621189	0.48026	24.0
*	56 Pyrene-d10	212	8.985	8.986	(1.000)	449438	0.50000	0.500
	57 Pyrene	202	9.004	9.002	(1.028)	637696	0.47930	24.0(M)
	62 Benzo(a)anthracene	228	10.219	10.220	(0.999)	455101	0.49838	24.9
*	63 Chrysene-d12	240	10.228	10.229	(1.000)	514467	0.50000	0.500
$	64 Chrysene-d12(SS)	240	10.228	10.229	(1.138)	514467	0.48583	24.3
	65 Chrysene	228	10.255	10.256	(1.003)	575632	0.53053	26.5
*	70 Benzo(b)fluoranthene-d12	264	11.374	11.368	(1.000)	340924	0.50000	0.500
$	71 Benzo(b)fluoranthene-d12(SS)	264	11.374	11.368	(0.972)	340924	0.47091	23.5
	72 Benzo(b)fluoranthene	252	11.398	11.398	(1.002)	470318	0.47748	23.9
*	73 Benzo(k)fluoranthene-d12	264	11.404	11.404	(1.000)	471913	0.50000	0.500
$	74 Benzo(k)fluoranthene-d12(SS)	264	11.404	11.404	(0.975)	471913	0.52717	26.4
	75 Benzo(k)fluoranthene	252	11.428	11.428	(1.002)	547539	0.49291	24.6
*	76 Benzo(e)pyrene-d12	264	11.697	11.697	(1.000)	344927	0.50000	0.500
	77 Benzo(e)pyrene	252	11.726	11.727	(0.997)	490348	0.51927	26.0
*	78 Benzo(a)pyrene-d12	264	11.762	11.763	(1.000)	307586	0.50000	0.500
$	79 Benzo(a)pyrene-d12(SS)	264	11.762	11.763	(1.006)	307586	0.50285	25.1
	80 Benzo(a)pyrene	252	11.792	11.793	(1.003)	391580	0.47757	23.9
*	81 Perylene-d12	264	11.864	11.864	(1.000)	351598	0.50000	0.500
$	82 Perylene-d12(SS)	264	11.864	11.864	(1.014)	351598	0.50146	25.1
	83 Perylene	252	11.894	11.894	(1.003)	441581	0.53137	26.6

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15icv.d
Report Date: 15-Sep-2016 15:14

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ng/g)
* 84 Indeno(123-cd)pyrene-d12	288	13.264	13.265	(1.000)	363732	0.50000	0.500
$ 85 Indeno(123-cd)pyrene-d12(SS)	288	13.264	13.265	(1.134)	363732	0.50032	25.0
86 Indeno(1,2,3-cd)pyrene	276	13.298	13.299	(1.003)	463901	0.47396	23.7
* 87 Dibenz(ah)anthracene-d14	292	13.264	13.265	(1.000)	287520	0.50000	0.500
$ 88 Dibenz(ah)anthracene-d14(SS)	292	13.264	13.265	(1.134)	287520	0.49470	24.7
89 Dibenz(a,h)anthracene	278	13.305	13.306	(1.003)	404797	0.50085	25.0
* 90 Benzo(ghi)perylene-d12	288	13.604	13.605	(1.000)	352158	0.50000	0.500
$ 91 Benzo(ghi)perylene-d12(SS)	288	13.604	13.605	(1.163)	352158	0.49078	24.5
92 Benzo(g,h,i)perylene	276	13.638	13.639	(1.002)	429605	0.48484	24.2
* 230 Coronene-d12	312	15.488	15.489	(1.000)	253221	0.50000	0.500
$ 231 Coronene-d12 (SS)	312	15.488	15.489	(1.324)	253221	0.46857	23.4

QC Flag Legend

M - Compound response manually integrated.

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15icv.d
Report Date: 15-Sep-2016 15:14

TestAmerica Knoxville

RECOVERY REPORT

Client Name: ITSBUR
Sample Matrix: SOLID
Lab Smp Id: ICV
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: simpah.sub
Method File: /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Misc Info: P091516I,SIMPAH10,simpah.sub

Client SDG: P091516I
Fraction: SV

Operator: 11211
SampleType: PAH0987
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ng/g	CONC RECOVERED ng/g	% RECOVERED	LIMITS
254 1,4-Dichlorobenze	25.0	0.00	*	70-130
236 1,2-Dichlorobenze	25.0	0.00	*	70-130
245 1,2,4-Trichlorobe	25.0	0.00	*	70-130
3 Naphthalene	25.0	24.7	98.61	70-130
12 2-Methylnaphthalen	25.0	23.5	94.13	70-130
15 1-Methylnaphthalen	25.0	24.4	97.61	70-130
16 Biphenyl	25.0	23.8	95.12	70-130
19 2,6 Dimethylnaphth	25.0	26.5	106.01	70-130
22 Acenaphthylene	25.0	24.3	97.18	70-130
24 Acenaphthene	25.0	23.9	95.75	70-130
246 Dibenzofuran	25.0	23.7	94.85	70-130
25 2,3,5 Trimethylnap	25.0	26.0	103.98	70-130
27 Fluorene	25.0	24.5	98.14	70-130
243 Diphenylamine	25.0	0.00	*	70-130
36 Dibenzothiophene	25.0	27.0	108.14	70-130
43 Phenanthrene	25.0	23.7	94.74	70-130
46 Anthracene	25.0	23.9	95.40	70-130
52 1-Methylphenanthre	25.0	25.4	101.71	70-130
55 Fluoranthene	25.0	24.0	96.05	70-130
57 Pyrene	25.0	24.0	95.86	70-130
62 Benzo(a)anthracene	25.0	24.9	99.68	70-130
65 Chrysene	25.0	26.5	106.11	70-130
72 Benzo(b)fluoranthe	25.0	23.9	95.50	70-130
75 Benzo(k)fluoranthe	25.0	24.6	98.58	70-130
77 Benzo(e)pyrene	25.0	26.0	103.85	70-130
80 Benzo(a)pyrene	25.0	23.9	95.51	70-130
83 Perylene	25.0	26.6	106.27	70-130
86 Indeno(1,2,3-cd)py	25.0	23.7	94.79	70-130
89 Dibenz(a,h)anthrac	25.0	25.0	100.17	70-130
92 Benzo(g,h,i)peryle	25.0	24.2	96.97	70-130
238 Coronene	25.0	0.00	*	70-130

Data File: /var/chem/gcms/mp.i/P091516I.b/pi15icv.d
Report Date: 15-Sep-2016 15:14

TestAmerica Knoxville

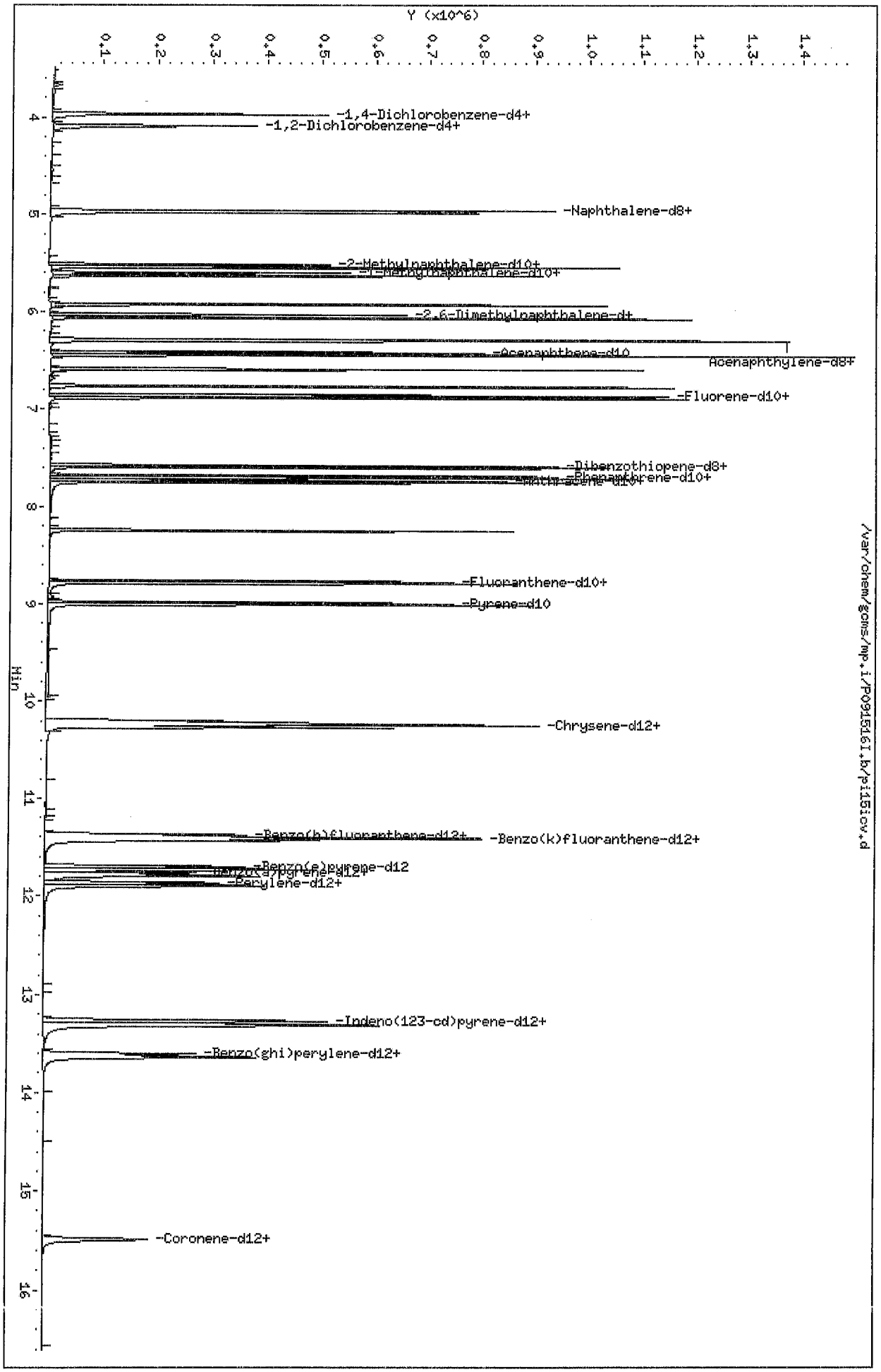
RECOVERY REPORT

Client Name: ITSBUR
Sample Matrix: SOLID
Lab Smp Id: ICV
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: simpah.sub
Method File: /var/chem/gcms/mp.i/P091516I.b/SIMPAH10.m
Misc Info: P091516I,SIMPAH10,simpah.sub

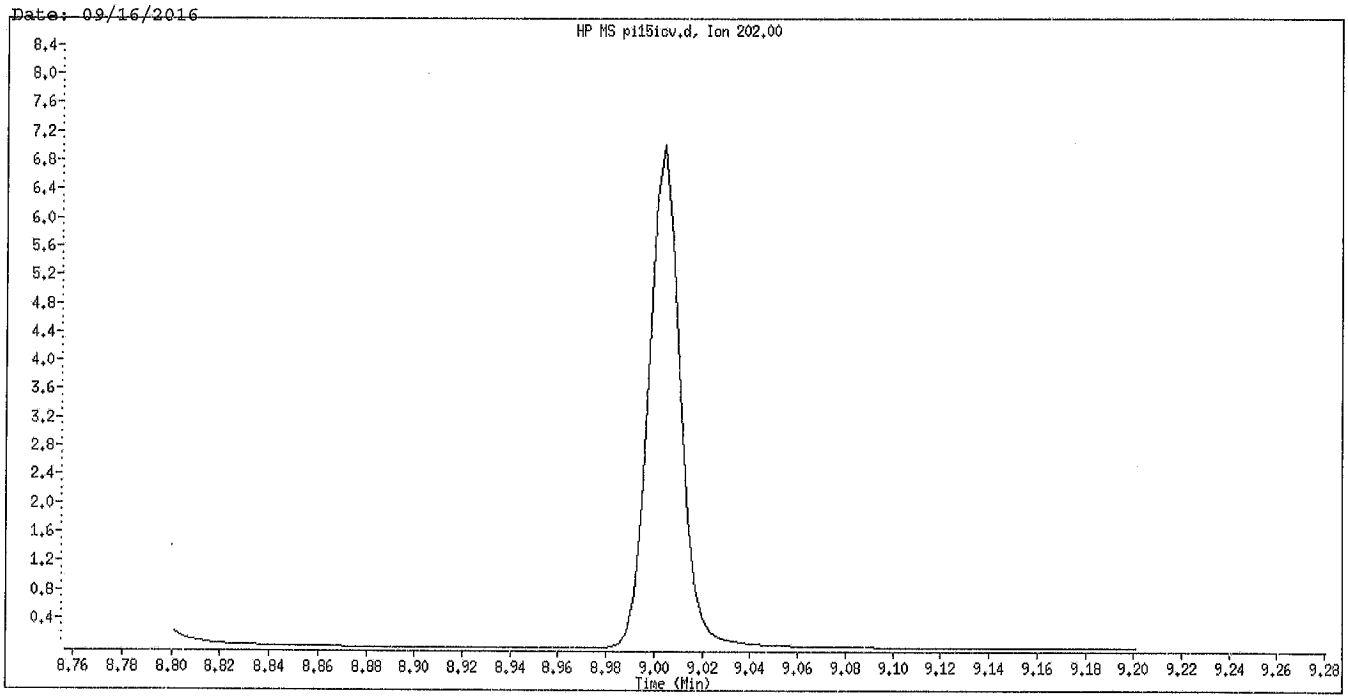
Client SDG: P091516I
Fraction: SV

Operator: 11211
SampleType: PAH0987
Quant Type: ISTD

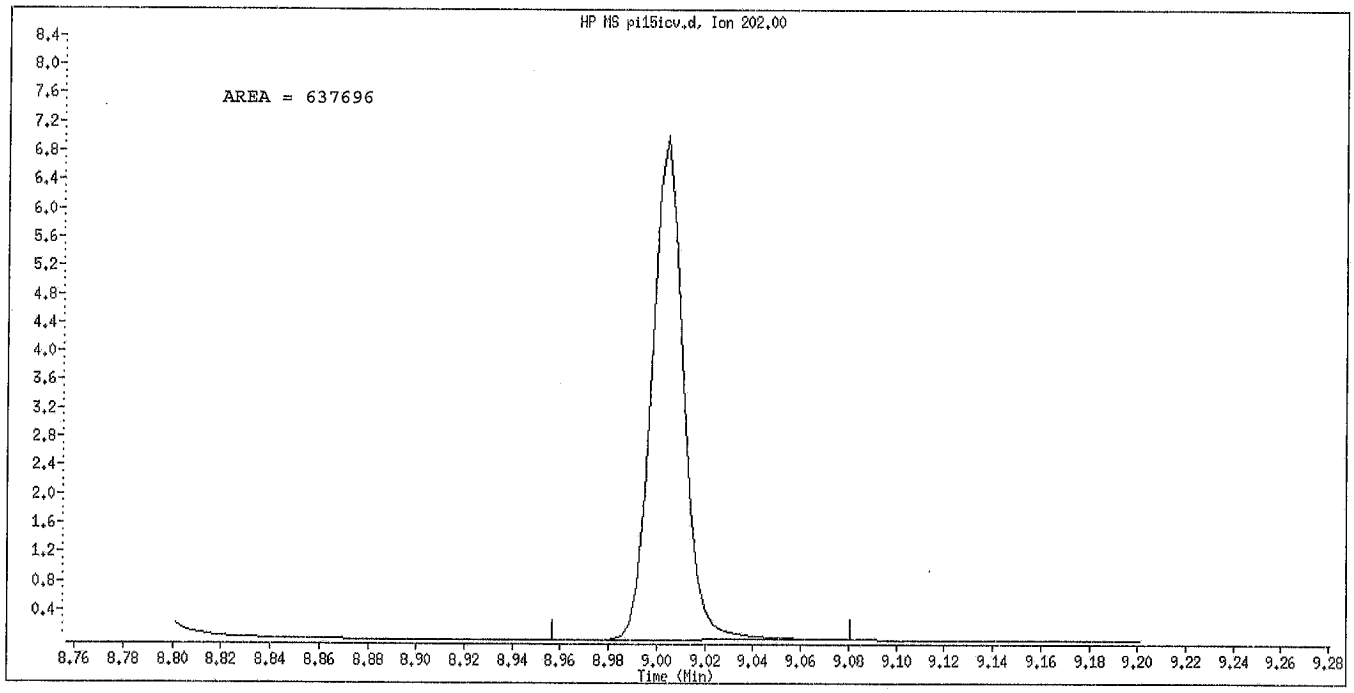
SURROGATE COMPOUND	CONC ADDED ng/g	CONC RECOVERED ng/g	% RECOVERED	LIMITS
$ 257 1,4Dichlorobenzene	25.0	24.9	99.74	30-120
$ 235 1,2-Dichlorobenzen	25.0	24.7	98.99	30-120
$ 2 Naphthalene-d8(SS)	25.0	25.4	101.65	30-130
$ 222 13C6-Naphthalene	25.0	0.00	*	50-150
$ 11 2-Methylnaphthalen	25.0	25.3	101.14	30-120
$ 14 1-Methylnaphthalen	25.0	25.4	101.55	30-120
$ 18 2,6-Dimethylnaph-d	25.0	25.0	99.89	30-120
$ 21 Acenaphthylene-d8(	25.0	25.9	103.57	30-120
$ 233 Fluorene-d10(SS)	25.0	25.3	101.40	30-120
$ 35 Dibenzothiopene-d8	25.0	25.4	101.71	30-120
$ 42 Phenanthrene-d10(S	25.0	25.5	102.17	30-120
$ 45 Anthracene-d10(SS)	25.0	26.0	104.04	30-120
$ 54 Fluoranthene-d10(S	25.0	25.4	101.66	30-120
$ 58 Terphenyl-d14	25.0	0.00	*	30-120
$ 64 Chrysene-d12(SS)	25.0	24.3	97.17	30-120
$ 71 Benzo(b)fluoranthe	25.0	23.5	94.18	30-120
$ 74 Benzo(k)fluoranthe	25.0	26.4	105.43	30-120
$ 79 Benzo(a)pyrene-d12	25.0	25.1	100.57	30-120
$ 82 Perylene-d12(SS)	25.0	25.1	100.29	30-120
$ 85 Indeno(123-cd)pyre	25.0	25.0	100.06	30-120
$ 88 Dibenz(ah)anthrace	25.0	24.7	98.94	30-120
$ 91 Benzo(ghi)perylene	25.0	24.5	98.16	30-120
$ 231 Coronene-d12 (SS)	25.0	23.4	93.71	30-120


Data File: /var/chem/gcms/mp.i/P091516I.b/pi15icv.d
Date : 15-SEP-2016 15:00
Client ID:
Sample Info: ICV,3,,PAH0987
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard
Instrument: mp.i
Operator: 11211
Column diameter: 0.25
/var/chem/gcms/mp.i/P091516I.b/pi15icv.d
Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
Min
4
5
6
7
8
9
10
11
12
13
14
15
16
-1,4-Dichlorobenzene-d4+
-1,2-Dichlorobenzene-d4+
-Naphthalene-d8+
-2-Methylnaphthalene-d10+
-1-Methylnaphthalene-d10+
-2,6-Dimethylnaphthalene-d+
-Acenaphthene-d10
Acenaphthylene-d8+
-Fluorene-d10+
-Dibenzothiopene-d8+
-Phenanthrene-d10+
-Anthracene-d10+
-Fluoranthene-d10+
-Pyrene-d10
-Chrysene-d12+
-Benzo(b)fluoranthene-d12+
-Benzo(k)fluoranthene-d12+
-Benzo(e)pyrene-d12
-Benzo(a)pyrene-d12+
-Perylene-d12+
-Indeno(123-cd)pyrene-d12+
-Benzo(ghi)perylene-d12+
-Coronene-d12+

Data File Name: pi15icv.d
Inj. Date and Time: 15-SEP-2016 15:00
Instrument ID: mp.i
Client ID:
Compound Name: Pyrene
CAS #: 129-00-0
Report Date: 09/16/2016



Original Integration



Manual Integration

Manually Integrated By: cochranj
Manual Integration Reason: Analyte Misidentified by the Data System

TestAmerica Knoxville GC/MS-SIM Continuing Calibration Review / Narrative Checklist
Method: LRPAH PAHs and Selected SVOCs - KNOX-ID-0016, Revision 11

Analysis Date:	9/27/16	CCAL Batch/ Scan Name:	P092716	Instrument:	MP	ICAL Batch/ Scan Name:	P091516 I	Scanned ☐

A. Review Items	N/A	Yes	No	Why is data reportable?	2nd √
1. Were all injections in sequence within 12 hr of CCAL?		✓			✓
2. Was date/time of analysis verified between header and logbook?		✓			✓
3. Are peak integrations appropriate?		✓			✓
4. Is the %D or drift <30% for all analytes		✓			✓
5. Are the recovery standards within 50-200% of the ICAL CS4 level?		✓			✓
6. Are the MID descriptors properly set?		✓			✓
7. Are correct RFs listed in CCAL summary?		✓			✓
8. Was the correct ICAL used for quantitation? (Verify 1 RF.)		✓			✓
9. Elution order checked on isomeric pairs/coeluters?					
• 1,4 dichlorobenzene before 1,2 dichlorobenzene (& d4 isomers)		✓			✓
• 2-methylnaphthalene before 1-methylnaphthalene (& d10 isomers)		✓			✓
• acenaphthylene before acenaphthene (& d10 isomers)		✓			✓
• dibenzothiophene before anthracene		✓			✓
• phenanthrene before anthracene (& d10 isomers)		✓			✓
• fluoranthene before pyrene (& d10 isomers)		✓			✓
• benzo(a)anthracene before chrysene (& d12 isomers)		✓			✓
• benzo(b)fluoranthene before benzo(k)fluoranthene (& d12 isomers)		✓			✓
• benzo(e)pyrene before benzo(a)pyrene benzo(a)pyrene before perylene (& d12 isomers)		✓			✓
• Indeno(1,2,3-cd)pyrene before benzo(g,h,i)perylene (& d12 isomers)		✓			✓
10. Were the first/last RTs for each alkyl PAH homologue group properly identified and indicated on the chromatogram?	✓				NA
11. If criteria were not met, was a NCM generated and approved by supervisor?	✓				NA
12. Does the CCAL folder contain **complete** data in the following order? CCAL data review checklist, runlog, Target Continuing Calibration Report, followed by the quan report and chromatograms for the CCAL and window standard.		✓			✓

1st Level Reviewer: [signature]	Date: 9/28/16
Comments:	

2nd Level Reviewer: [signature]	Date: 9/28/16
Comments:	

TestAmerica Knoxville
Instrument MP Run/Maintenance Log

Date/Time Verified ☑

Preventive Maintenance Performed: ☐ septa ☐ liner ☐ seal ☐ clip column ☐ other: see below / maint. log

Target Batch	P092714			Date	9/27/14
ICAL Batch	P091514J			Analyst	JRL
Method	☑ KNOX-ID-0016			IS ID & vol.	N/A

Lot	Filename	Time	Dil.	Matrix	Batch	Comments
	PI27Hex01	13:11				
CCV	PI27CCV	13:36				PAH1022
	PI27Hex02	14:01				
MB	MB8RK1AA	14:26		Solid	6264010	
LCS	MB8RK1AC	14:51				TRT
H6I190409	MB8MX1AA (screen)	15:17	20			10 ml to 200 ml R/R TRT
	PI27Hex03	15:42	—	—	—	
H6I190409	MB8MX1AAR	16:07	250	Solid	6264010	① PDS* R/R TRT
	MB8MX1AAT OS	16:56	400			② *PDS
	MB8MX1AC MS	17:22	400			*PDS
	MB8MX1AD MSD	17:47	400			*PDS
	PI27Hex04	18:12	—	—	—	
MB	MB8231AA	18:37		Cond	6265022	
LCS	MB8231AC	19:02				
LCSD	MB8231AD	19:27				
H6I210402	MB8071AA	19:52				
	MB81A1AA	20:17				
	MB81AE1AA	20:42				
	MB81H1AA	21:07				
	MB81L1AA	21:32				
	MB81P1AA	21:57				
	MB81T1AA	22:22				

9/29/14

Comments: * Post Dilution Spike ①: extract 4ml to 1000ml of Hexane w/ 50ml of PAH 1019 (Recovery) & 25ml of PAH 1024 (IDA)
Total Dilution = 250

OS/MS/MSD ② 10ml of extract to 200ml of Hexane : Dl:20
50ml of Dl:20 extract to 1000ml of hexane w/ 50ml of PAH1019 (Recovery)
25ml of PAH 1024 (IDA)
Total Dilution = Dl:400

Data File: /var/chem/gcms/mp.i/P092716.b/pi27ccv.d
Report Date: 27-Sep-2016 13:49

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mp.i
Lab File ID: pi27ccv.d
Analysis Type: SOIL
Lab Sample ID:
Method: /var/chem/gcms/mp.i/P092716.b/SIMPAH10.m

Injection Date: 27-SEP-2016 13:36
Init. Cal. Date(s): 14-SEP-2016 15-SEP-2016
Init. Cal. Times: 17:58 14:09
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF0.500	CCAL RRF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 257 1,4Dichlorobenzene-d4(SS)	0.28607	0.30290	0.30290	0.000	-5.88242	30.00000	Averaged
254 1,4-Dichlorobenzene	2.59143	2.73863	2.73863	0.000	-5.68028	30.00000	Averaged
$ 235 1,2-Dichlorobenzene-d4(SS)	0.32139	0.31037	0.31037	0.000	3.43021	30.00000	Averaged
236 1,2-Dichlorobenzene	2.26347	2.38254	2.38254	0.000	-5.26015	30.00000	Averaged
245 1,2,4-Trichlorobenzene	0.29374	0.29700	0.29700	0.000	-1.11074	30.00000	Averaged
$ 2 Naphthalene-d8(SS)	1.98036	2.03300	2.03300	0.000	-2.65823	30.00000	Averaged
3 Naphthalene	1.01159	1.04271	1.04271	0.000	-3.07690	30.00000	Averaged
$ 222 13C6-Naphthalene	1.15316	1.15747	1.15747	0.000	-0.37417	30.00000	Averaged
$ 11 2-Methylnaphthalene-d10(SS)	0.99724	1.02070	1.02070	0.000	-2.35187	30.00000	Averaged
12 2-Methylnaphthalene	1.37404	1.39431	1.39431	0.000	-1.47544	30.00000	Averaged
$ 14 1-Methylnaphthalene-d10(SS)	1.10269	1.12828	1.12828	0.000	-2.32096	30.00000	Averaged
15 1-Methylnaphthalene	1.10040	1.06938	1.06938	0.000	2.81818	30.00000	Averaged
16 Biphenyl	1.55904	1.62521	1.62521	0.000	-4.24433	30.00000	Averaged
239 2-Chloronaphthalene	0.61671	0.62804	0.62804	0.000	-1.83602	30.00000	Averaged
$ 18 2,6-Dimethylnaph-d12(SS)	1.04322	1.09076	1.09076	0.000	-4.55745	30.00000	Averaged
19 2,6 Dimethylnaphthalene	1.14623	1.16507	1.16507	0.000	-1.64356	30.00000	Averaged
$ 21 Acenaphthylene-d8(SS)	1.77577	1.97634	1.97634	0.000	-11.29471	30.00000	Averaged
22 Acenaphthylene	1.09205	1.07380	1.07380	0.000	1.67128	30.00000	Averaged
24 Acenaphthene	0.66105	0.61024	0.61024	0.000	7.68634	30.00000	Averaged
246 Dibenzofuran	1.64719	1.66327	1.66327	0.000	-0.97642	30.00000	Averaged
25 2,3,5 Trimethylnaphthalene	0.97198	0.99291	0.99291	0.000	-2.15346	30.00000	Averaged
$ 233 Fluorene-d10(SS)	1.18776	1.18324	1.18324	0.000	0.38058	30.00000	Averaged
27 Fluorene	1.15807	1.17220	1.17220	0.000	-1.21986	30.00000	Averaged
243 Diphenylamine	0.77859	0.78298	0.78298	0.000	-0.56382	30.00000	Averaged
$ 35 Dibenzothiopene-d8(SS)	1.18388	1.29386	1.29386	0.000	-9.28990	30.00000	Averaged
36 Dibenzothiophene	1.07905	1.08354	1.08354	0.000	-0.41630	30.00000	Averaged
$ 42 Phenanthrene-d10(SS)	1.15045	1.24759	1.24759	0.000	-8.44389	30.00000	Averaged
43 Phenanthrene	1.25316	1.26717	1.26717	0.000	-1.11824	30.00000	Averaged
$ 45 Anthracene-d10(SS)	1.05750	1.17475	1.17475	0.000	-11.08756	30.00000	Averaged
46 Anthracene	1.27248	1.27109	1.27109	0.000	0.10968	30.00000	Averaged
247 3-Methylphenanthrene	0.42762	0.43772	0.43772	0.000	-2.36246	30.00000	Averaged
52 1-Methylphenanthrene	0.42442	0.43957	0.43957	0.000	-3.56954	30.00000	Averaged
$ 54 Fluoranthene-d10(SS)	1.11044	1.22096	1.22096	0.000	-9.95242	30.00000	Averaged
55 Fluoranthene	1.27463	1.28308	1.28308	0.000	-0.66259	30.00000	Averaged
57 Pyrene	1.31113	1.30643	1.30643	0.000	0.35861	30.00000	Averaged
$ 58 Terphenyl-d14	0.53414	0.57810	0.57810	0.000	-8.22949	30.00000	Averaged

Data File: /var/chem/gcms/mp.i/P092716.b/pi27ccv.d
Report Date: 27-Sep-2016 13:49

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mp.i
Lab File ID: pi27ccv.d
Analysis Type: SOIL
Lab Sample ID:
Injection Date: 27-SEP-2016 13:36
Init. Cal. Date(s): 14-SEP-2016 15-SEP-2016
Init. Cal. Times: 17:58 14:09
Quant Type: ISTD
Method: /var/chem/gcms/mp.i/P092716.b/SIMPAH10.m

COMPOUND	RRF / AMOUNT	RF0.500	CCAL RRF0.500	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
62 Benzo(a)anthracene	0.88748	0.92018	0.92018	0.000	-3.68373	30.00000	Averaged
$ 64 Chrysene-d12(SS)	1.17807	1.24855	1.24855	0.000	-5.98280	30.00000	Averaged
65 Chrysene	1.05451	1.06252	1.06252	0.000	-0.75969	30.00000	Averaged
$ 71 Benzo(b)fluoranthene-d12(SS	1.04944	1.14653	1.14653	0.000	-9.25102	30.00000	Averaged
72 Benzo(b)fluoranthene	1.44460	1.44567	1.44567	0.000	-0.07396	30.00000	Averaged
$ 74 Benzo(k)fluoranthene-d12(SS	1.29764	1.42747	1.42747	0.000	-10.00472	30.00000	Averaged
75 Benzo(k)fluoranthene	1.17695	1.18638	1.18638	0.000	-0.80050	30.00000	Averaged
77 Benzo(e)pyrene	1.53501	1.57970	1.57970	0.000	-2.91169	30.00000	Averaged
$ 79 Benzo(a)pyrene-d12(SS)	0.88669	0.96523	0.96523	0.000	-8.85717	30.00000	Averaged
80 Benzo(a)pyrene	1.33286	1.37233	1.37233	0.000	-2.96091	30.00000	Averaged
$ 82 Perylene-d12(SS)	1.01638	1.11702	1.11702	0.000	-9.90158	30.00000	Averaged
83 Perylene	1.18177	1.19964	1.19964	0.000	-1.51165	30.00000	Averaged
$ 85 Indeno(123-cd)pyrene-d12(SS	1.05384	1.15314	1.15314	0.000	-9.42242	30.00000	Averaged
86 Indeno(1,2,3-cd)pyrene	1.34547	1.37415	1.37415	0.000	-2.13165	30.00000	Averaged
$ 88 Dibenz(ah)anthracene-d14(SS	0.84249	0.90857	0.90857	0.000	-7.84364	30.00000	Averaged
89 Dibenz(a,h)anthracene	1.40549	1.47701	1.47701	0.000	-5.08804	30.00000	Averaged
$ 91 Benzo(ghi)perylene-d12(SS)	1.04014	1.20630	1.20630	0.000	-15.97528	30.00000	Averaged
92 Benzo(g,h,i)perylene	1.25807	1.24791	1.24791	0.000	0.80758	30.00000	Averaged
$ 231 Coronene-d12 (SS)	0.78337	0.95074	0.95074	0.000	-21.36500	30.00000	Averaged
238 Coronene	1.41723	1.41412	1.41412	0.000	0.21912	30.00000	Averaged

Data File: /var/chem/gcms/mp.i/P092716.b/pi27ccv.d
Report Date: 27-Sep-2016 13:49

TestAmerica Knoxville

SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P092716.b/pi27ccv.d
Lab Smp Id:
Inj Date : 27-SEP-2016 13:36
Operator : 11211 Inst ID: mp.i
Smp Info : CCV,,2,4,PAH1022
Misc Info : SIM PAH ANALYSIS 100%
Comment :
Method : /var/chem/gcms/mp.i/P092716.b/SIMPAH10.m
Meth Date : 27-Sep-2016 13:49 cochranj Quant Type: ISTD
Cal Date : 15-SEP-2016 11:39 Cal File: pi15ical1.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpah.sub
Target Version: 3.50
Processing Host: qmidhp01

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

Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 256 1,4-Dichlorobenzene-d4	115	3.969	3.969	(1.000)	110275	0.50000	0.500
$ 257 1,4Dichlorobenzene-d4(SS)	115	3.969	3.969	(0.618)	110194	0.50000	0.529
254 1,4-Dichlorobenzene	146	3.981	3.981	(1.003)	302003	0.50000	0.528
* 234 1,2-Dichlorobenzene-d4	115	4.082	4.082	(1.000)	112516	0.50000	0.500
$ 235 1,2-Dichlorobenzene-d4(SS)	115	4.082	4.082	(0.636)	112913	0.50000	0.483
236 1,2-Dichlorobenzene	146	4.104	4.104	(1.005)	268075	0.50000	0.526
245 1,2,4-Trichlorobenzene	180	4.911	4.911	(0.991)	218943	0.50000	0.506
* 1 Naphthalene-d8	136	4.957	4.957	(1.000)	737179	0.50000	0.500
$ 2 Naphthalene-d8(SS)	136	4.957	4.957	(0.772)	739616	0.50000	0.513
3 Naphthalene	128	4.975	4.975	(1.004)	768665	0.50000	0.515
$ 222 13C6-Naphthalene	134	4.975	4.975	(1.004)	853265	0.50000	0.502
* 10 2-Methylnaphthalene-d10	152	5.521	5.521	(1.000)	372283	0.50000	0.500
$ 11 2-Methylnaphthalene-d10(SS)	152	5.521	5.521	(0.860)	371334	0.50000	0.512

Data File: /var/chem/gcms/mp.i/P092716.b/pi27ccv.d
Report Date: 27-Sep-2016 13:49

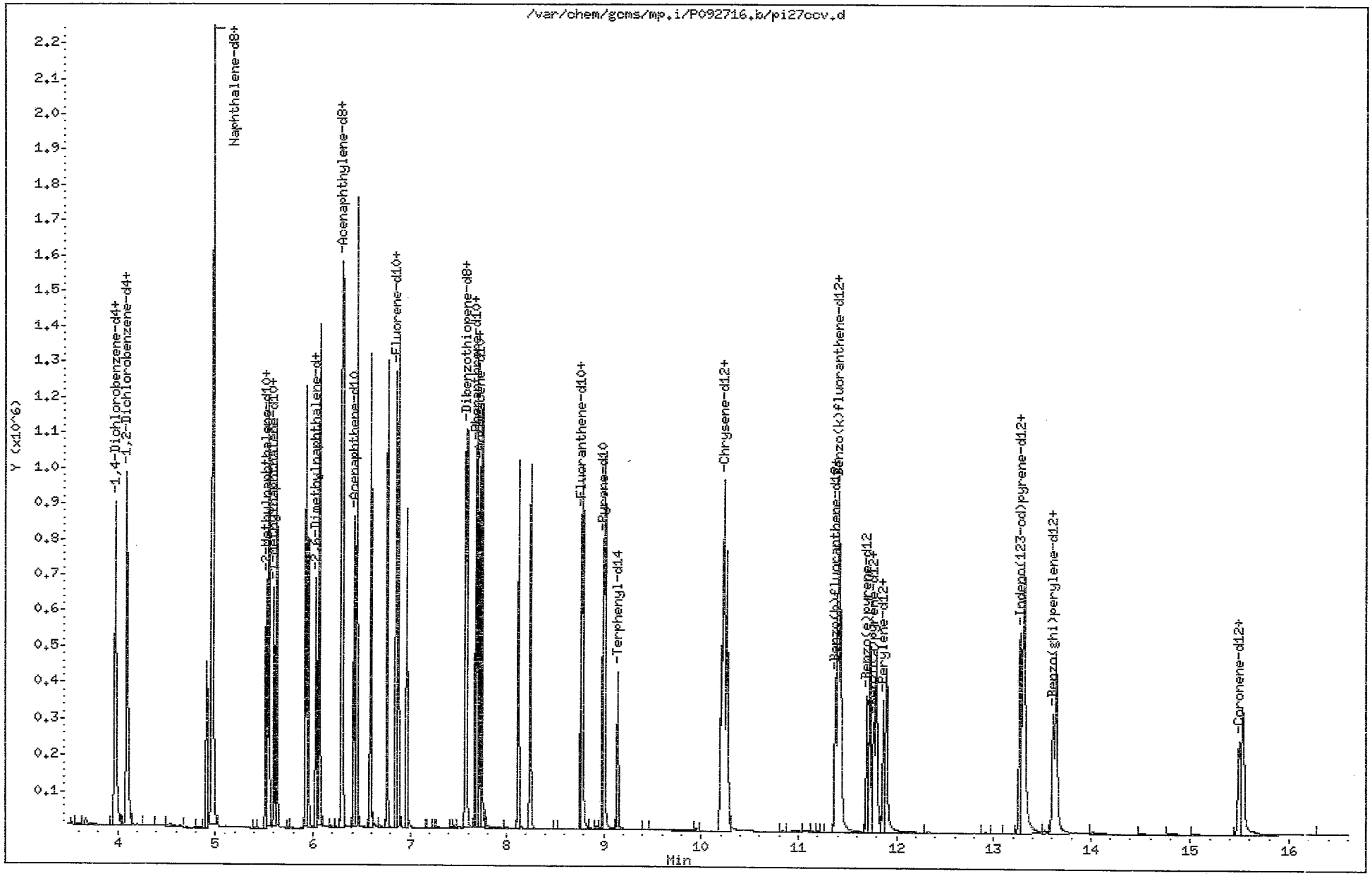
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	12 2-Methylnaphthalene	142	5.544	5.544	(1.004)	519079	0.50000	0.507
*	13 1-Methylnaphthalene-d10	152	5.601	5.601	(1.000)	410474	0.50000	0.500
$	14 1-Methylnaphthalene-d10(SS)	152	5.601	5.601	(0.872)	410474	0.50000	0.512
	15 1-Methylnaphthalene	142	5.629	5.629	(1.005)	438954	0.50000	0.486
	16 Biphenyl	154	5.928	5.928	(0.983)	644921	0.50000	0.521
	239 2-Chloronaphthalene	162	5.955	5.955	(1.201)	462975	0.50000	0.509
*	17 2,6-Dimethylnaphthalene-d12	168	6.028	6.028	(1.000)	396823	0.50000	0.500
$	18 2,6-Dimethylnaph-d12(SS)	168	6.028	6.028	(0.939)	396823	0.50000	0.523
	19 2,6 Dimethylnaphthalene	156	6.064	6.064	(1.006)	462326	0.50000	0.508
*	20 Acenaphthylene-d8	160	6.291	6.291	(1.000)	719003	0.50000	0.500
$	21 Acenaphthylene-d8(SS)	160	6.291	6.291	(0.980)	719003	0.50000	0.556
	22 Acenaphthylene	152	6.301	6.301	(1.002)	772063	0.50000	0.492
*	23 Acenaphthene-d10	164	6.421	6.421	(1.000)	363804 ✓	0.50000	0.500
	24 Acenaphthene	154	6.447	6.447	(1.025)	438762	0.50000	0.462
	246 Dibenzofuran	168	6.592	6.592	(1.094)	660024	0.50000	0.505
	25 2,3,5 Trimethylnaphthalene	170	6.762	6.762	(1.122)	394010	0.50000	0.511
*	26 Fluorene-d10	176	6.853	6.853	(1.000)	429844	0.50000	0.500
$	233 Fluorene-d10(SS)	176	6.853	6.853	(1.067)	430469	0.50000	0.498
	27 Fluorene	166	6.877	6.877	(1.003)	503863	0.50000	0.506
	243 Diphenylamine	169	6.964	6.964	(1.016)	336560	0.50000	0.503
*	34 Dibenzothiopene-d8	192	7.571	7.571	(1.000)	620708	0.50000	0.500
$	35 Dibenzothiopene-d8(SS)	192	7.571	7.571	(0.842)	620708	0.50000	0.546
	36 Dibenzothiophene	184	7.587	7.587	(1.002)	672562	0.50000	0.502
*	41 Phenanthrene-d10	188	7.676	7.676	(1.000)	598512	0.50000	0.500
$	42 Phenanthrene-d10(SS)	188	7.676	7.676	(0.854)	598512	0.50000	0.542
	43 Phenanthrene	178	7.694	7.694	(1.002)	758419	0.50000	0.506
*	44 Anthracene-d10	188	7.722	7.722	(1.000)	563569	0.50000	0.500
$	45 Anthracene-d10(SS)	188	7.722	7.722	(0.859)	563569	0.50000	0.555
	46 Anthracene	178	7.740	7.740	(1.002)	716346	0.50000	0.499
	247 3-Methylphenanthrene	191	8.120	8.120	(1.058)	261982	0.50000	0.512
	52 1-Methylphenanthrene	191	8.242	8.242	(1.074)	263088	0.50000	0.518
*	53 Fluoranthene-d10	212	8.766	8.766	(1.000)	585734	0.50000	0.500
$	54 Fluoranthene-d10(SS)	212	8.766	8.766	(0.975)	585734	0.50000	0.550
	55 Fluoranthene	202	8.785	8.785	(1.002)	751543	0.50000	0.503
*	56 Pyrene-d10	212	8.988	8.988	(1.000)	479733 ✓	0.50000	0.500
	57 Pyrene	202	9.007	9.007	(1.027)	765221	0.50000	0.498
$	58 Terphenyl-d14	244	9.140	9.140	(1.017)	277334	0.50000	0.541
	62 Benzo(a)anthracene	228	10.219	10.219	(0.998)	551159	0.50000	0.518
*	63 Chrysene-d12	240	10.237	10.237	(1.000)	598972	0.50000	0.500
$	64 Chrysene-d12(SS)	240	10.237	10.237	(1.139)	598972	0.50000	0.530
	65 Chrysene	228	10.264	10.264	(1.003)	636421	0.50000	0.504
*	70 Benzo(b)fluoranthene-d12	264	11.376	11.376	(1.000)	417464	0.50000	0.500
$	71 Benzo(b)fluoranthene-d12(SS)	264	11.376	11.376	(0.972)	417464	0.50000	0.546
	72 Benzo(b)fluoranthene	252	11.400	11.400	(1.002)	603517	0.50000	0.500
*	73 Benzo(k)fluoranthene-d12	264	11.406	11.406	(1.000)	519760	0.50000	0.500
$	74 Benzo(k)fluoranthene-d12(SS)	264	11.406	11.406	(0.975)	519760	0.50000	0.550
	75 Benzo(k)fluoranthene	252	11.430	11.430	(1.002)	616631	0.50000	0.504

Data File: /var/chem/gcms/mp.i/P092716.b/pi27ccv.d
Report Date: 27-Sep-2016 13:49

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
* 76 Benzo(e)pyrene-d12	264	11.699	11.699	(1.000)	364113 ✓	0.50000	0.500
77 Benzo(e)pyrene	252	11.729	11.729	(0.996)	555191	0.50000	0.515
* 78 Benzo(a)pyrene-d12	264	11.771	11.771	(1.000)	351453	0.50000	0.500
$ 79 Benzo(a)pyrene-d12(SS)	264	11.771	11.771	(1.006)	351453	0.50000	0.544
80 Benzo(a)pyrene	252	11.795	11.795	(1.002)	482309	0.50000	0.515
* 81 Perylene-d12	264	11.866	11.866	(1.000)	406720	0.50000	0.500
$ 82 Perylene-d12(SS)	264	11.866	11.866	(1.014)	406720	0.50000	0.550
83 Perylene	252	11.896	11.896	(1.003)	487916	0.50000	0.508
* 84 Indeno(123-cd)pyrene-d12	288	13.274	13.274	(1.000)	419873	0.50000	0.500
$ 85 Indeno(123-cd)pyrene-d12(SS)	288	13.274	13.274	(1.135)	419873	0.50000	0.547
86 Indeno(1,2,3-cd)pyrene	276	13.307	13.307	(1.003)	576969	0.50000	0.511
* 87 Dibenz(ah)anthracene-d14	292	13.274	13.274	(1.000)	330823	0.50000	0.500
$ 88 Dibenz(ah)anthracene-d14(SS)	292	13.274	13.274	(1.135)	330823	0.50000	0.539
89 Dibenz(a,h)anthracene	278	13.314	13.314	(1.003)	488628	0.50000	0.525
* 90 Benzo(ghi)perylene-d12	288	13.607	13.607	(1.000)	439230	0.50000	0.500
$ 91 Benzo(ghi)perylene-d12(SS)	288	13.607	13.607	(1.163)	439230	0.50000	0.580
92 Benzo(g,h,i)perylene	276	13.641	13.641	(1.002)	548121	0.50000	0.496
* 230 Coronene-d12	312	15.491	15.491	(1.000)	346175	0.50000	0.500
$ 231 Coronene-d12 (SS)	312	15.491	15.491	(1.324)	346175	0.50000	0.607
238 Coronene	300	15.532	15.532	(1.003)	489535	0.50000	0.499

Data File: /var/chem/gcms/mp.i/P092716.b/pi27ccv.d
Date : 27-SEP-2016 13:36
Client ID:
Sample Info: CCV,,2,4,PAH1022
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Raw QC Data

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: H6I190404
MB Lot-Sample #: H6I200000-010 **Work Order #...:** M88RK1AA **Matrix.....:** SOLID

Prep Date.....: 09/20/16 **Analysis Date..:** 09/27/2016
Prep Batch #...: 6264010
Dilution Factor: 1 **Method.....:** KNOX ID-0016

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	1.0	ng/g	0.21
Acenaphthylene	**0.16 J**	**1.0**	ng/g	0.063
Anthracene	**0.92 J**	**1.0**	ng/g	0.19
Benzo(a)anthracene	**0.99 J**	**1.0**	ng/g	0.29
Benzo(b)fluoranthene	**0.45 J**	**1.0**	ng/g	0.25
Benzo(k)fluoranthene	ND	1.0	ng/g	0.22
Benzo(ghi)perylene	ND	1.0	ng/g	0.15
Benzo(a)pyrene	ND	1.0	ng/g	0.19
Chrysene	**1.5**	**1.0**	ng/g	0.20
Dibenz(a,h)anthracene	ND	1.0	ng/g	0.070
Fluoranthene	**3.4**	**1.0**	ng/g	0.36
Fluorene	**0.59 J**	**1.0**	ng/g	0.47
Indeno(1,2,3-cd)pyrene	ND	1.0	ng/g	0.17
Naphthalene	ND	20	ng/g	5.3
Perylene	ND	1.0	ng/g	0.12
Phenanthrene	**4.1**	**2.0**	ng/g	1.6
Pyrene	**2.6**	**2.0**	ng/g	1.1

Internal Standard	PERCENT RECOVERY	RECOVERY LIMITS
Fluorene d-10	90	(30 - 120)
Naphthalene-d8	88	(30 - 120)
Acenaphthylene-d8	97	(30 - 120)
Phenanthrene-d10	85	(30 - 120)
Anthracene-d10	87	(30 - 120)
Fluoranthene-d10	98	(30 - 120)
Chrysene-d12	89	(30 - 120)
Benzo(b)fluoranthene-d12	106	(30 - 120)
Benzo(k)fluoranthene-d12	91	(30 - 120)
Benzo(a)pyrene-d12	98	(30 - 120)
Perylene-d12	85	(30 - 120)
Indeno(1,2,3-cd)pyrene-d12	98	(30 - 120)
Dibenz(ah)anthracene-d14	96	(30 - 120)
Benzo(ghi)perylene-d12	97	(30 - 120)

NOTE(S):

J Estimated result. Result is less than RL.

Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d
Report Date: 27-Sep-2016 14:42

TestAmerica Knoxville

SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d
Lab Smp Id: M88RK1AA
Inj Date : 27-SEP-2016 14:26
Operator : 11211 Inst ID: mp.i
Smp Info : ,,3,,MB TRT
Misc Info : SIM PAH ANALYSIS 100%
Comment :
Method : /var/chem/gcms/mp.i/P092716.b/SIMPAH10.m
Meth Date : 27-Sep-2016 14:19 cochranj Quant Type: ISTD
Cal Date : 15-SEP-2016 11:39 Cal File: pi15ical1.d
Als bottle: 4 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpah.sub
Target Version: 3.50
Processing Host: qmidhp01

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

Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ng/g)
* 256 1,4-Dichlorobenzene-d4	115	3.970	3.969	(1.000)	85914	0.50000	0.500
$ 257 1,4Dichlorobenzene-d4(SS)	115	3.970	3.969	(0.618)	85914	0.43298	21.6
254 1,4-Dichlorobenzene	146	3.981	3.981	(1.003)	838	0.00188	0.0941(M)
* 234 1,2-Dichlorobenzene-d4	115	4.093	4.082	(1.000)	86150	0.50000	0.500
$ 235 1,2-Dichlorobenzene-d4(SS)	115	4.093	4.082	(0.637)	86150	0.38645	19.3
236 1,2-Dichlorobenzene	146	4.104	4.104	(1.003)	323	0.000828	0.0414(M)
245 1,2,4-Trichlorobenzene	180	4.920	4.911	(0.993)	145	0.000411	0.0206
* 1 Naphthalene-d8	136	4.957	4.957	(1.000)	600335	0.50000	0.500
$ 2 Naphthalene-d8(SS)	136	4.957	4.957	(0.772)	603057	0.43902	22.0
3 Naphthalene	128	4.976	4.975	(1.004)	41242	0.03396	1.70
* 10 2-Methylnaphthalene-d10	152	5.521	5.521	(1.000)	315077	0.50000	0.500
$ 11 2-Methylnaphthalene-d10(SS)	152	5.521	5.521	(0.860)	315077	0.45550	22.8
12 2-Methylnaphthalene	142	5.550	5.544	(1.005)	11346	0.01310	0.655

Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d
Report Date: 27-Sep-2016 14:42

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ng/g)
* 13 1-Methylnaphthalene-d10	152	5.601	5.601	(1.000)	346344	0.50000	0.500
$ 14 1-Methylnaphthalene-d10(SS)	152	5.601	5.601	(0.872)	346344	0.45282	22.6
15 1-Methylnaphthalene	142	5.635	5.629	(1.006)	6205	0.00814	0.407
* 17 2,6-Dimethylnaphthalene-d12	168	6.033	6.028	(1.000)	333043	0.50000	0.500
$ 18 2,6-Dimethylnaph-d12(SS)	168	6.033	6.028	(0.939)	331451	0.45806	22.9
* 20 Acenaphthylene-d8	160	6.291	6.291	(1.000)	598567	0.50000	0.500
$ 21 Acenaphthylene-d8(SS)	160	6.291	6.291	(0.980)	598567	0.48596	24.3
22 Acenaphthylene	152	6.301	6.301	(1.002)	4129	0.00316	0.158
* 23 Acenaphthene-d10	164	6.422	6.421	(1.000)	346813	0.50000	0.500
246 Dibenzofuran	168	6.597	6.592	(1.094)	12011	0.01095	0.547
* 26 Fluorene-d10	176	6.857	6.853	(1.000)	369973	0.50000	0.500
$ 233 Fluorene-d10(SS)	176	6.857	6.853	(1.068)	369973	0.44907	22.5
27 Fluorene	166	6.881	6.877	(1.003)	10117	0.01181	0.590
243 Diphenylamine	169	6.968	6.964	(1.016)	6948	0.01206	0.603
* 34 Dibenzothiopene-d8	192	7.571	7.571	(1.000)	211267	0.50000	0.500
$ 35 Dibenzothiopene-d8(SS)	192	7.571	7.571	(0.842)	211267	0.16316	8.16
36 Dibenzothiophene	184	7.587	7.587	(1.002)	4518	0.00991	0.495
* 41 Phenanthrene-d10	188	7.676	7.676	(1.000)	533359	0.50000	0.500
$ 42 Phenanthrene-d10(SS)	188	7.676	7.676	(0.854)	533359	0.42387	21.2
43 Phenanthrene	178	7.697	7.694	(1.003)	109501	0.08191	4.10
* 44 Anthracene-d10	188	7.725	7.722	(1.000)	504520	0.50000	0.500
$ 45 Anthracene-d10(SS)	188	7.725	7.722	(0.859)	504520	0.43619	21.8
46 Anthracene	178	7.743	7.740	(1.002)	23704	0.01846	0.923
247 3-Methylphenanthrene	191	8.117	8.120	(1.057)	13550	0.02971	1.49
52 1-Methylphenanthrene	191	8.246	8.242	(1.074)	5431	0.01200	0.600
* 53 Fluoranthene-d10	212	8.766	8.766	(1.000)	597279	0.50000	0.500
$ 54 Fluoranthene-d10(SS)	212	8.766	8.766	(0.975)	597279	0.49177	24.6
55 Fluoranthene	202	8.785	8.785	(1.002)	104408	0.06857	3.43
* 56 Pyrene-d10	212	8.991	8.988	(1.000)	546873	0.50000	0.500
57 Pyrene	202	9.007	9.007	(1.027)	81125	0.05180	2.59
62 Benzo(a)anthracene	228	10.228	10.219	(0.999)	20087	0.01978	0.989(M)
* 63 Chrysene-d12	240	10.237	10.237	(1.000)	572253	0.50000	0.500
$ 64 Chrysene-d12(SS)	240	10.237	10.237	(1.139)	572241	0.44411	22.2
65 Chrysene	228	10.264	10.264	(1.003)	36449	0.03020	1.51
* 70 Benzo(b)fluoranthene-d12	264	11.376	11.376	(1.000)	484161	0.50000	0.500
$ 71 Benzo(b)fluoranthene-d12(SS)	264	11.376	11.376	(0.972)	484161	0.53285	26.6
72 Benzo(b)fluoranthene	252	11.406	11.400	(1.003)	12666	0.00905	0.453(M)
* 73 Benzo(k)fluoranthene-d12	264	11.406	11.406	(1.000)	510482	0.50000	0.500
$ 74 Benzo(k)fluoranthene-d12(SS)	264	11.406	11.406	(0.975)	510482	0.45436	22.7
* 76 Benzo(e)pyrene-d12	264	11.699	11.699	(1.000)	432908	0.50000	0.500
77 Benzo(e)pyrene	252	11.735	11.729	(0.997)	6072	0.00526	0.263(M)
* 78 Benzo(a)pyrene-d12	264	11.771	11.771	(1.000)	376080	0.50000	0.500
$ 79 Benzo(a)pyrene-d12(SS)	264	11.771	11.771	(1.006)	376080	0.48987	24.5
* 81 Perylene-d12	264	11.866	11.866	(1.000)	373839	0.50000	0.500
$ 82 Perylene-d12(SS)	264	11.866	11.866	(1.014)	373839	0.42482	21.2
* 84 Indeno(123-cd)pyrene-d12	288	13.274	13.274	(1.000)	446262	0.50000	0.500
$ 85 Indeno(123-cd)pyrene-d12(SS)	288	13.274	13.274	(1.135)	446262	0.48909	24.5

Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d
Report Date: 27-Sep-2016 14:42

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ng/g)
* 87 Dibenz(ah)anthracene-d14	292	13.274	13.274	(1.000)	349054	0.50000	0.500
$ 88 Dibenz(ah)anthracene-d14(SS)	292	13.274	13.274	(1.135)	349054	0.47852	23.9
* 90 Benzo(ghi)perylene-d12	288	13.607	13.607	(1.000)	437965	0.50000	0.500
$ 91 Benzo(ghi)perylene-d12(SS)	288	13.607	13.607	(1.163)	437965	0.48632	24.3
* 230 Coronene-d12	312	15.491	15.491	(1.000)	304742	0.50000	0.500
$ 231 Coronene-d12 (SS)	312	15.491	15.491	(1.324)	304742	0.44930	22.5

QC Flag Legend

M - Compound response manually integrated.

Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d
Report Date: 27-Sep-2016 14:42

TestAmerica Knoxville

RECOVERY REPORT

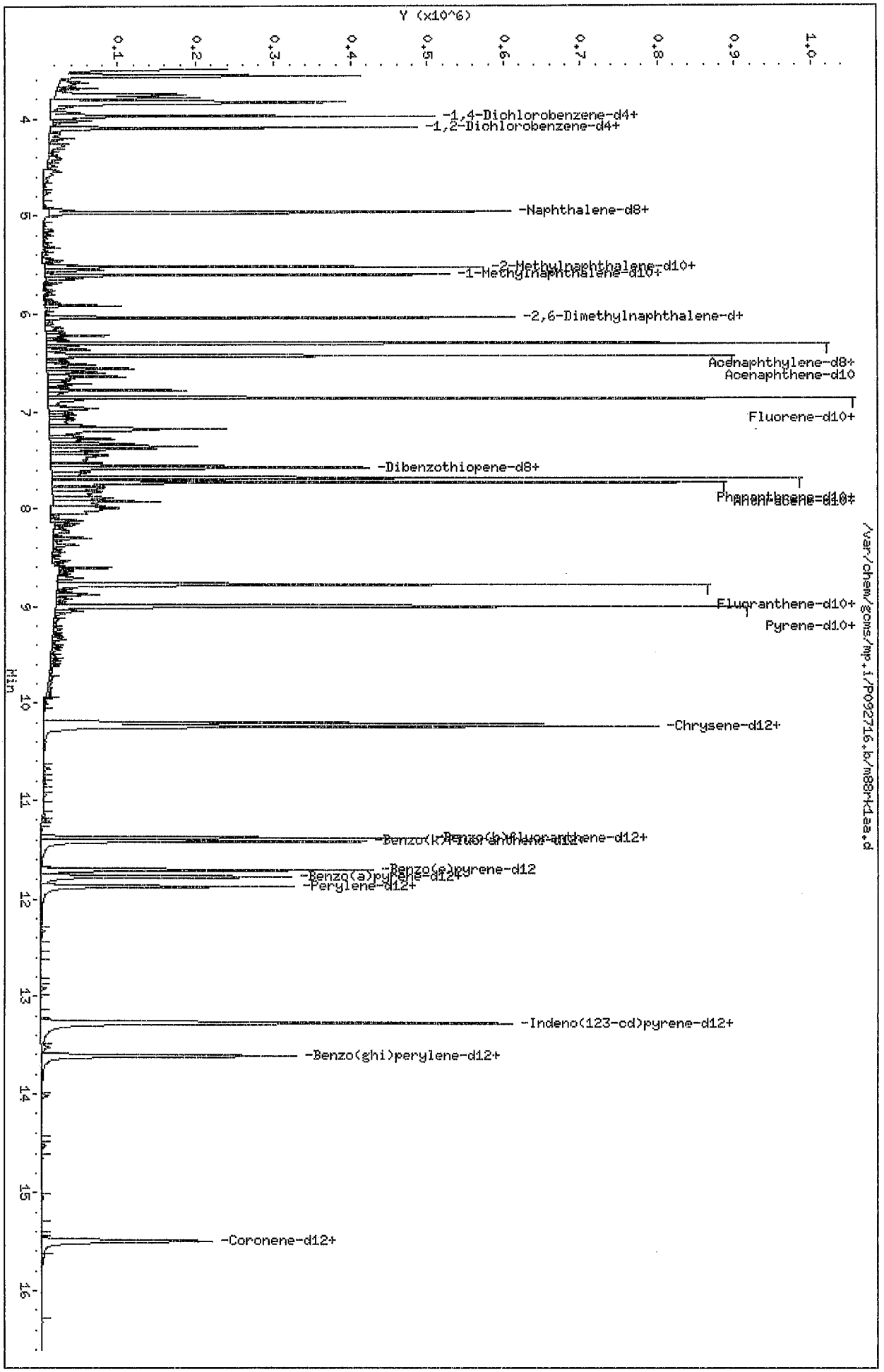
Client Name: ITSBUR
Sample Matrix: SOLID
Lab Smp Id: M88RK1AA
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: simpah.sub
Method File: /var/chem/gcms/mp.i/P092716.b/SIMPAH10.m
Misc Info: SIM PAH ANALYSIS 100%

Client SDG: P092716
Fraction: SV

Operator: 11211
SampleType: METHSPIKE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ng/g	CONC RECOVERED ng/g	% RECOVERED	LIMITS
$ 257 1,4Dichlorobenzene	25.0	21.6	86.60	~~30-120~~
$ 235 1,2-Dichlorobenzen	25.0	19.3	77.29	30-120
$ 2 Naphthalene-d8(SS)	25.0	22.0	87.80	30-130
$ 222 13C6-Naphthalene	50.0	0.00	*	50-150
$ 11 2-Methylnaphthalen	25.0	22.8	91.10	30-120
$ 14 1-Methylnaphthalen	25.0	22.6	90.56	30-120
$ 18 2,6-Dimethylnaph-d	25.0	22.9	91.61	30-120
$ 21 Acenaphthylene-d8(	25.0	24.3	97.19	30-120
$ 233 Fluorene-d10(SS)	25.0	22.5	89.81	30-120
$ 35 Dibenzothiopene-d8	25.0	8.16	NA - 32.63	30-120
$ 42 Phenanthrene-d10(S	25.0	21.2	84.77	30-120
$ 45 Anthracene-d10(SS)	25.0	21.8	87.24	30-120
$ 54 Fluoranthene-d10(S	25.0	24.6	98.35	30-120
$ 58 Terphenyl-d14	25.0	0.00	*	30-120
$ 64 Chrysene-d12(SS)	25.0	22.2	88.82	30-120
$ 71 Benzo(b)fluoranthe	25.0	26.6	106.57	30-120
$ 74 Benzo(k)fluoranthe	25.0	22.7	90.87	30-120
$ 79 Benzo(a)pyrene-d12	25.0	24.5	97.97	30-120
$ 82 Perylene-d12(SS)	25.0	21.2	84.96	30-120
$ 85 Indeno(123-cd)pyre	25.0	24.5	97.82	30-120
$ 88 Dibenz(ah)anthrace	25.0	23.9	95.70	30-120
$ 91 Benzo(ghi)perylene	25.0	24.3	97.26	30-120
$ 231 Coronene-d12 (SS)	25.0	22.5	89.86	~~30-120~~

60-140 ok 9/27/16


Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d
Date : 27-SEP-2016 14:26
Client ID:
Sample Info: ,,3,,MB TRT
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard
Instrument: mp.i
Operator: 11211
Column diameter: 0.25
/var/chem/gcms/mp.i/P092716.b/m88rk1aa.d
Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Min
4
5
6
7
8
9
10
11
12
13
14
15
16
-1,4-Dichlorobenzene-d4+
-1,2-Dichlorobenzene-d4+
-Naphthalene-d8+
-2-Methylnaphthalene-d10+
-1-Methylnaphthalene-d10+
-2,6-Dimethylnaphthalene-d+
Acenaphthylene-d8+
Acenaphthene-d10
Fluorene-d10+
-Dibenzothiopene-d8+
Phenanthrene-d10+
Anthracene-d10+
Fluoranthene-d10+
Pyrene-d10+
-Chrysene-d12+
-Benzo(k)fluoranthene-d12+
-Benzo(b)fluoranthene-d12+
-Benzo(e)pyrene-d12
-Benzo(a)pyrene-d12+
-Perylene-d12+
-Indeno(123-cd)pyrene-d12+
-Benzo(ghi)perylene-d12+
-Coronene-d12+

Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

Client ID:

Instrument: mp.i

Sample Info: ,,3,,MB TRT

Purge Volume: 10.0

Operator: 11211

Column phase: Rxi-5SIL MS w/Guard

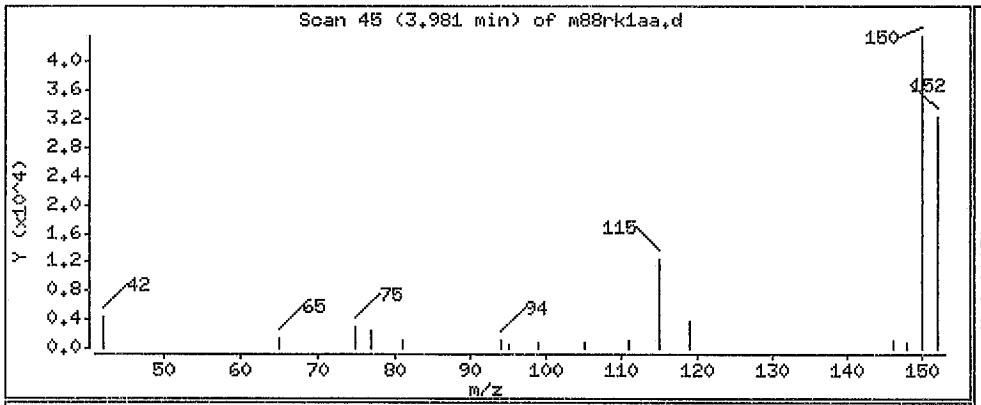
Column diameter: 0.25

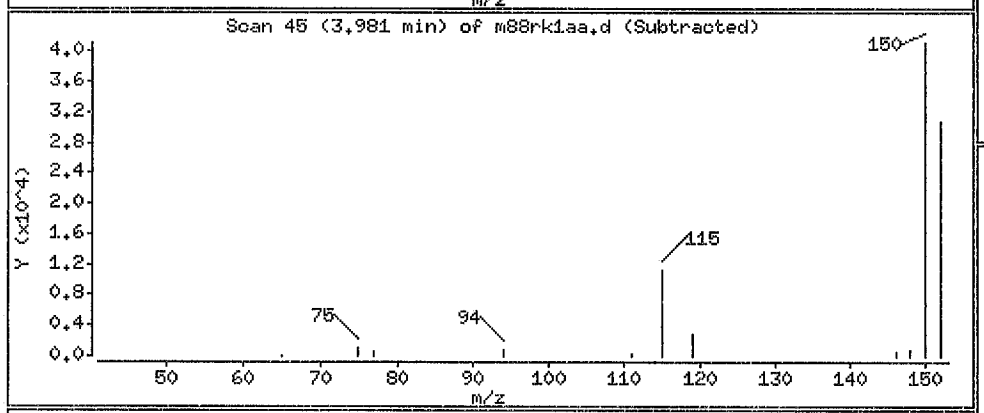
9/27/16

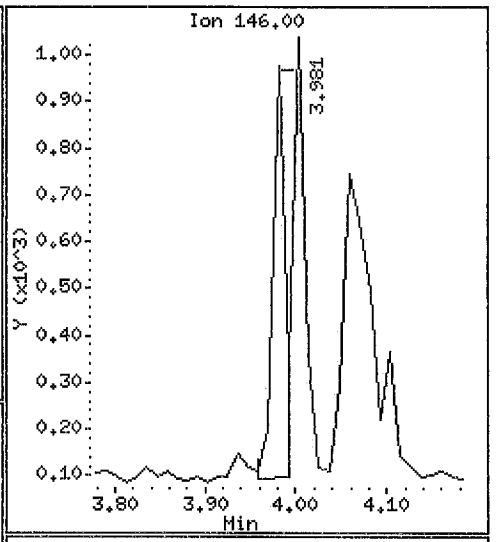
2

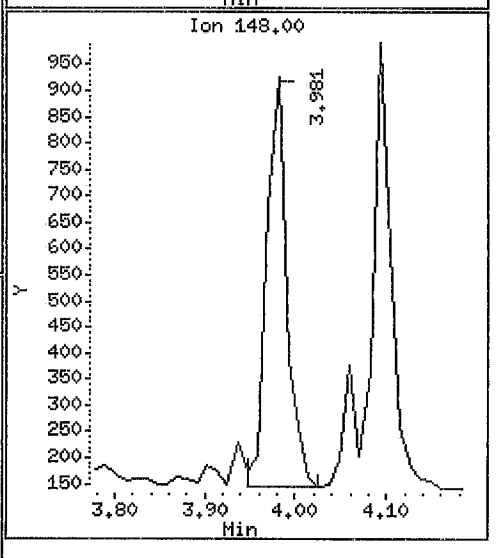
254 1,4-Dichlorobenzene

Concentration: 0.0941 ng/g









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Date : 27-SEP-2016 14:26

Client ID:

Instrument: mp.i

Sample Info: ,,3,,MB TRT

Purge Volume: 10.0

Operator: 11211

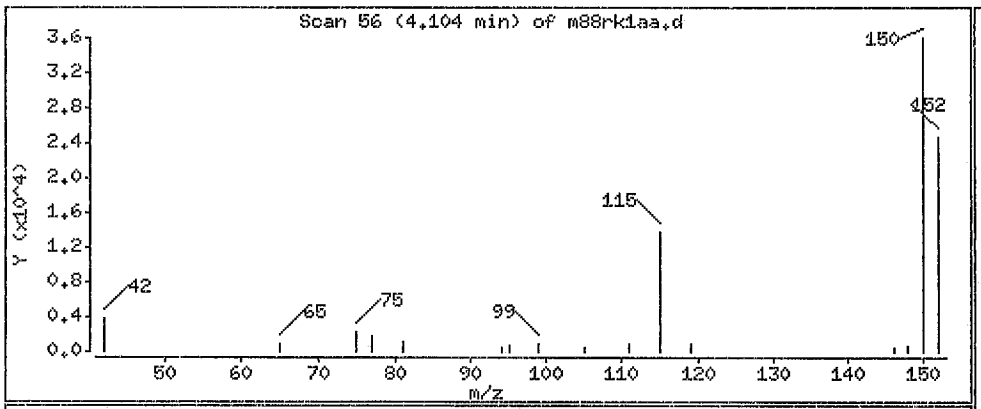
Column phase: Rxi-5SIL MS w/Guard

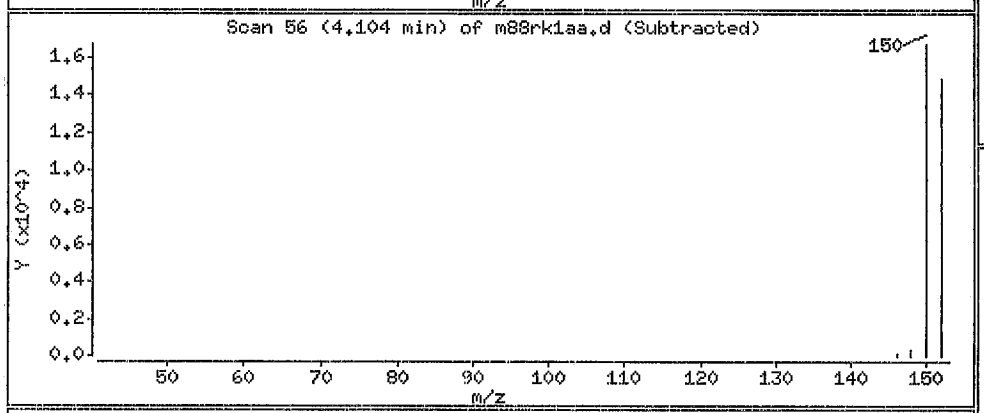
Column diameter: 0.25

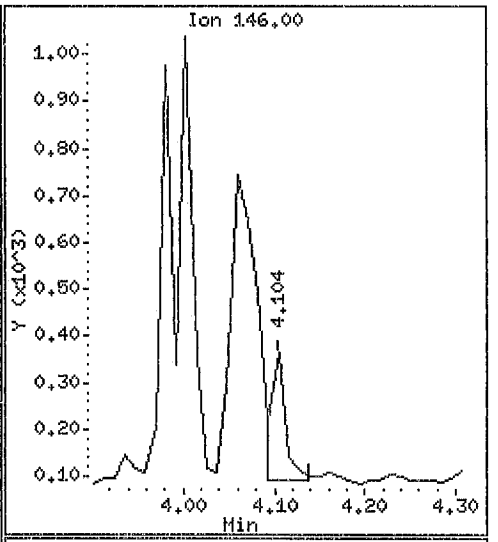
236 1,2-Dichlorobenzene

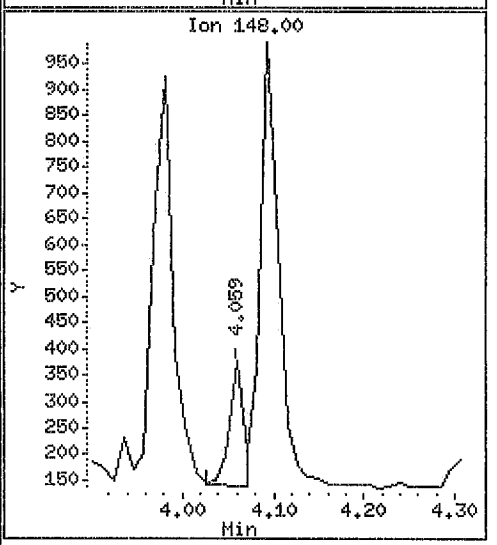
Concentration: 0.0414 ng/g

9/27/16









Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

Client ID:

Instrument: mp.i

Sample Info: ,,3,,MB TRT

Purge Volume: 10.0

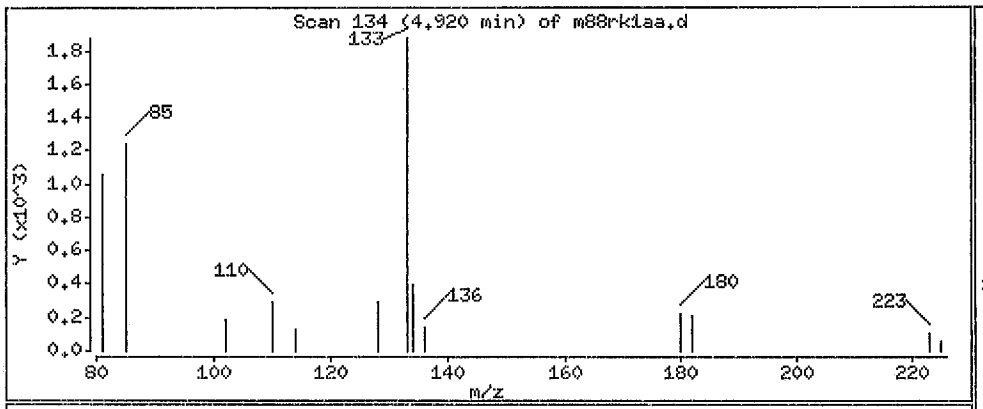
Operator: 11211

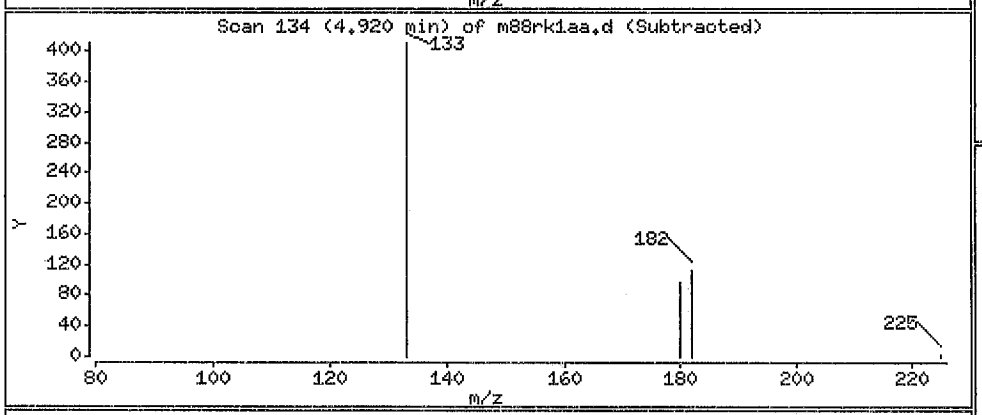
Column phase: Rxi-5SIL MS w/Guard

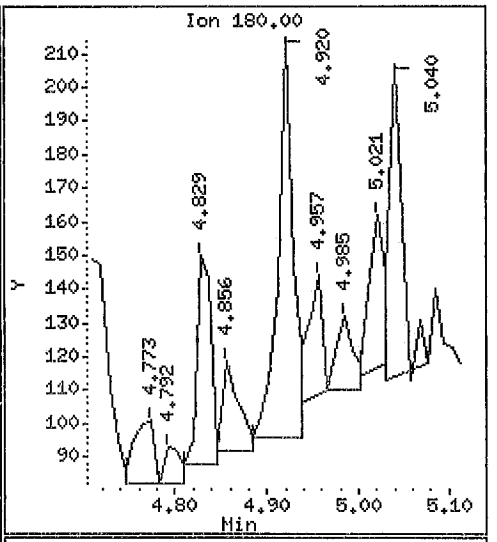
Column diameter: 0.25

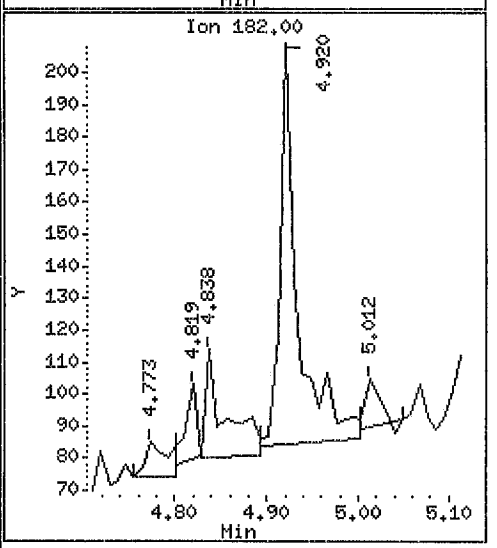
245 1,2,4-Trichlorobenzene

Concentration: 0.0206 ng/g









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Date : 27-SEP-2016 14:26

Client ID:

Instrument: mp.i

Sample Info: ,,3,,MB TRT

Purge Volume: 10.0

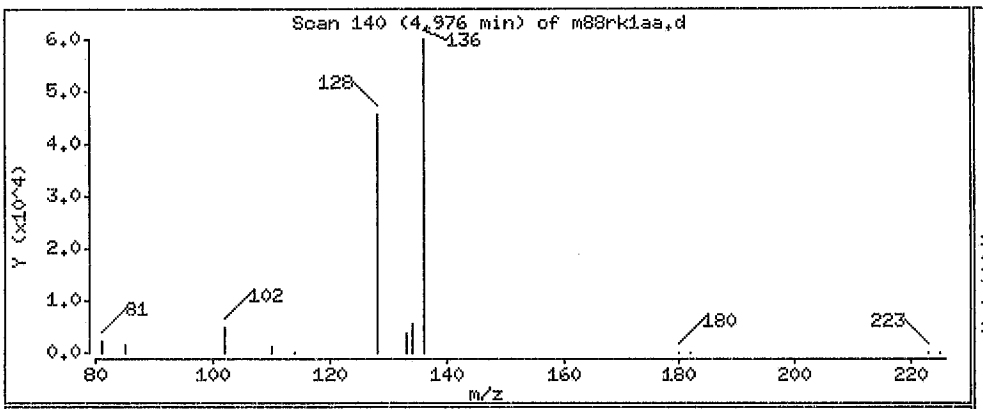
Operator: 11211

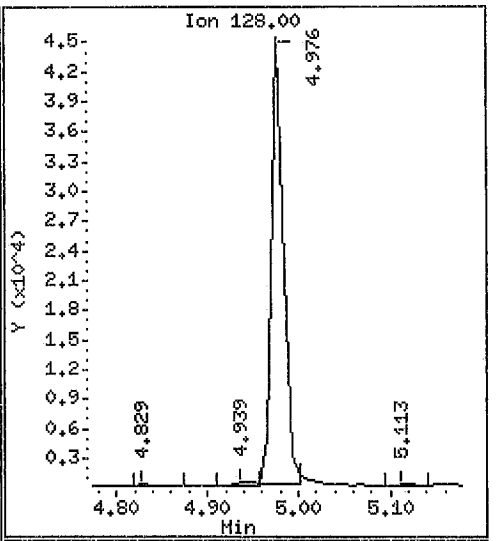
Column phase: Rxi-5SIL MS w/Guard

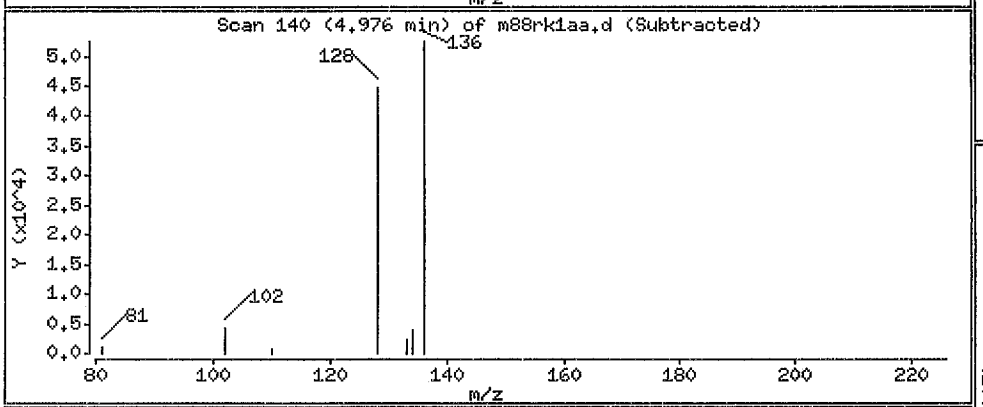
Column diameter: 0.25

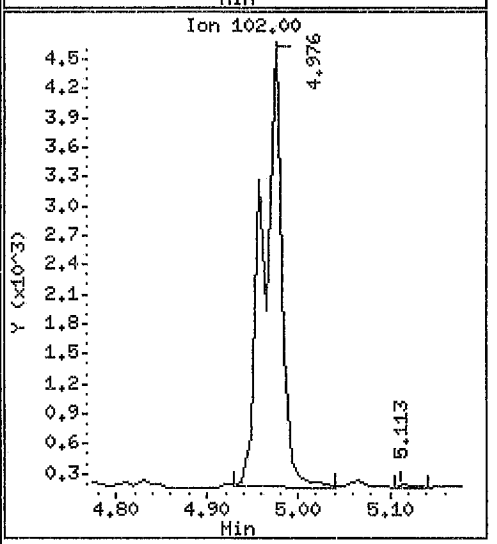
3 Naphthalene

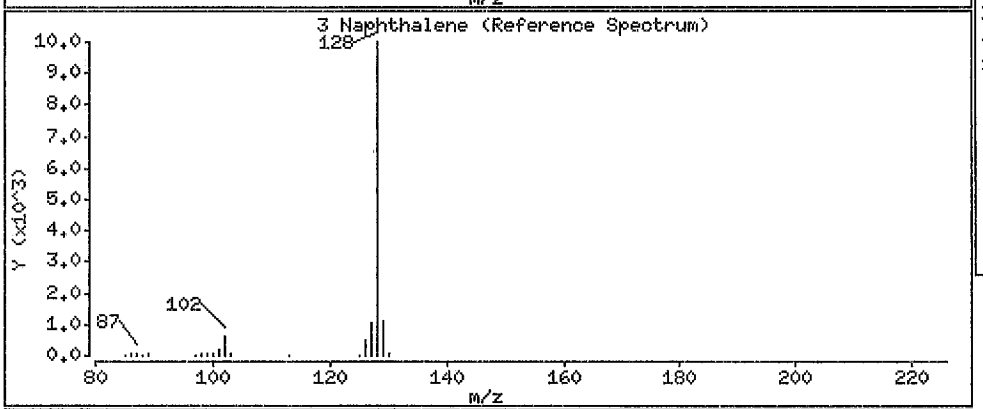
Concentration: 1.70 ng/g

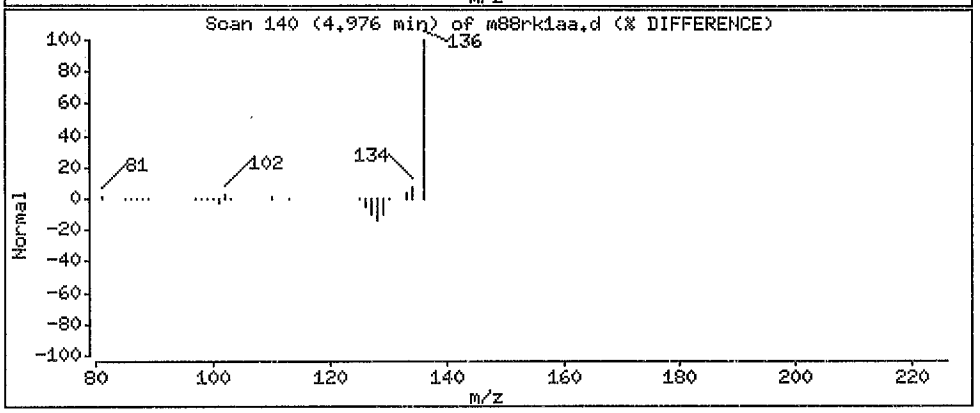












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Date : 27-SEP-2016 14:26

Client ID:

Instrument: mp.i

Sample Info: ,,3,,MB TRT

Purge Volume: 10.0

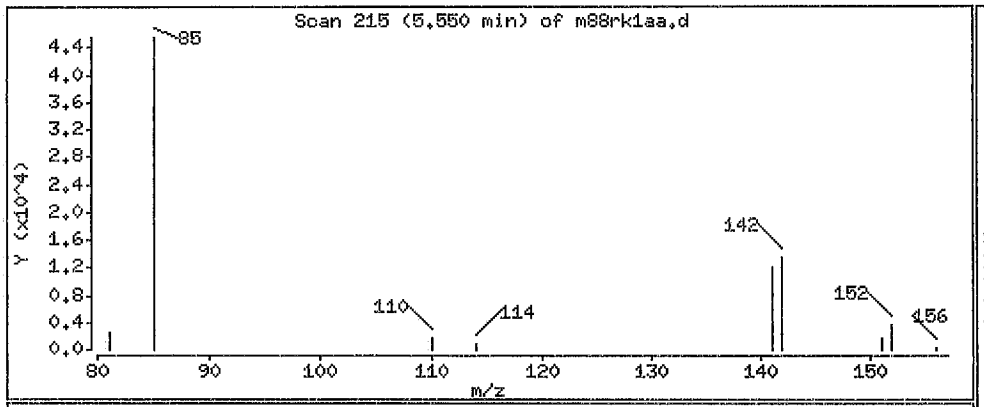
Operator: 11211

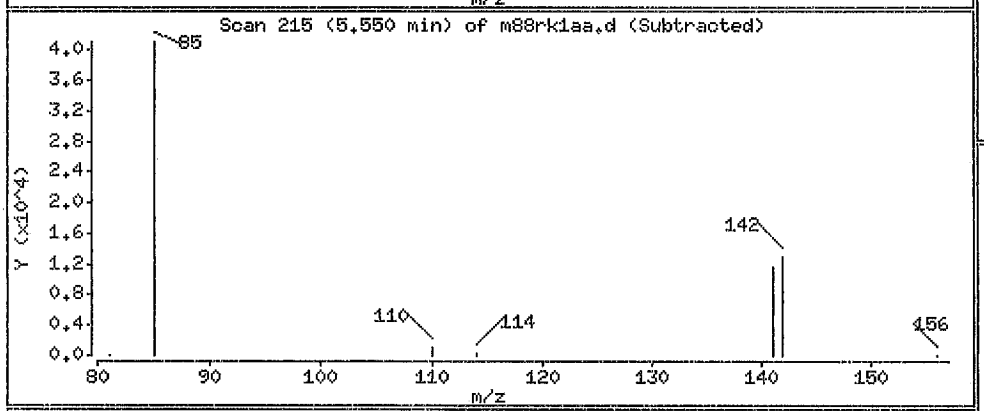
Column phase: Rxi-5SIL MS w/Guard

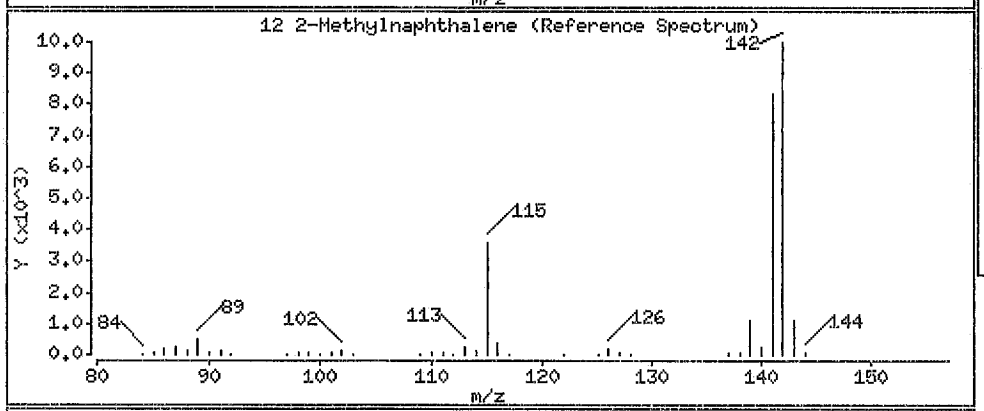
Column diameter: 0.25

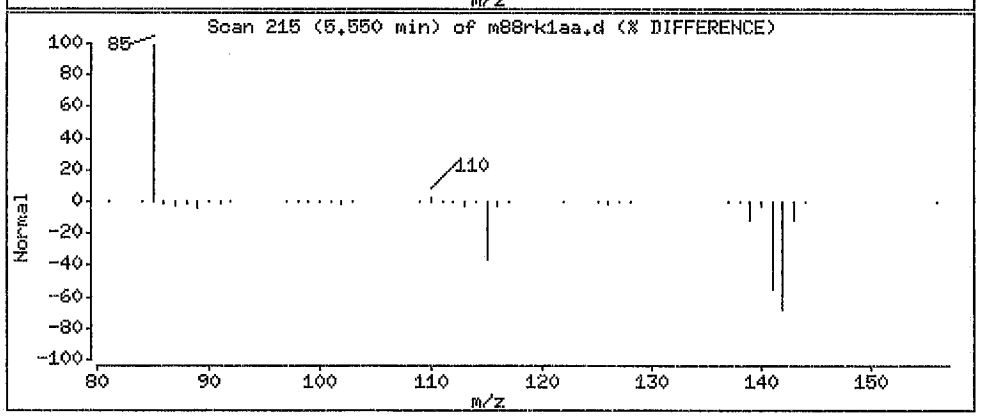
12 2-Methylnaphthalene

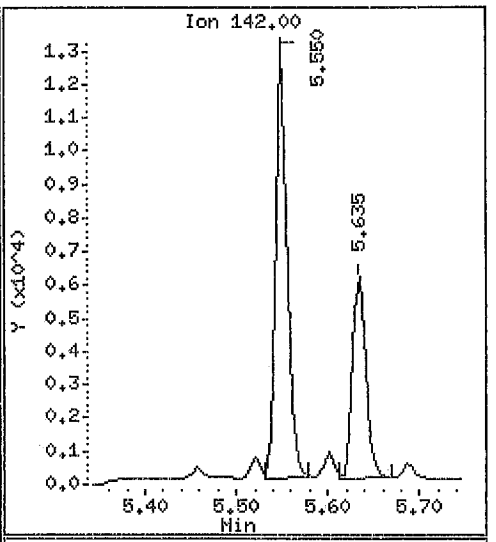
Concentration: 0.655 ng/g

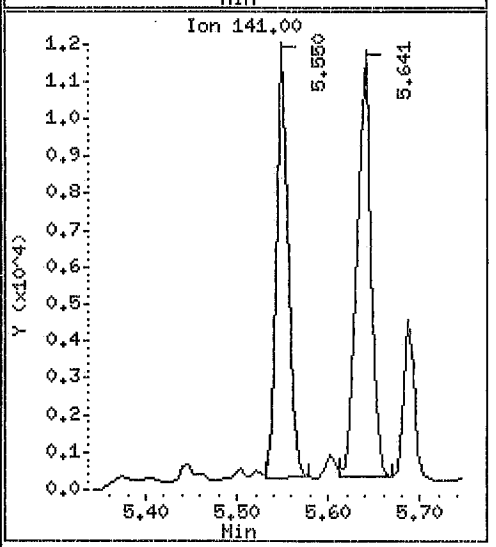












Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

Client ID:

Instrument: mp.i

Sample Info: ,,3,,MB TRT

Purge Volume: 10.0

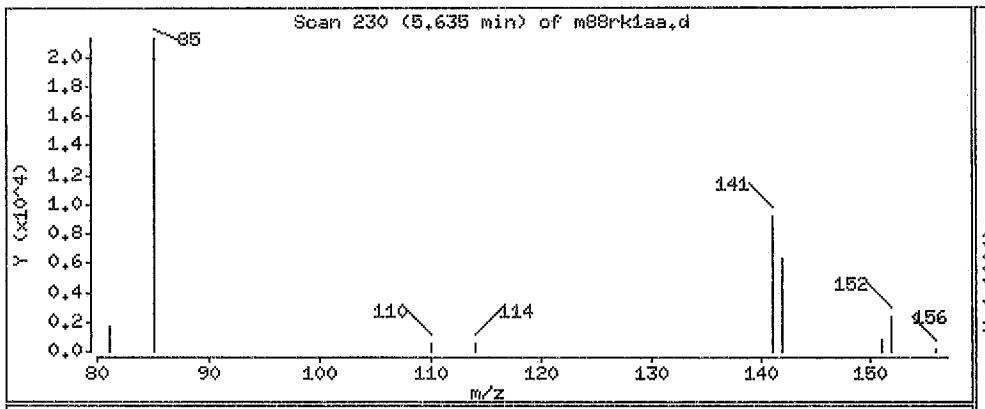
Operator: 11211

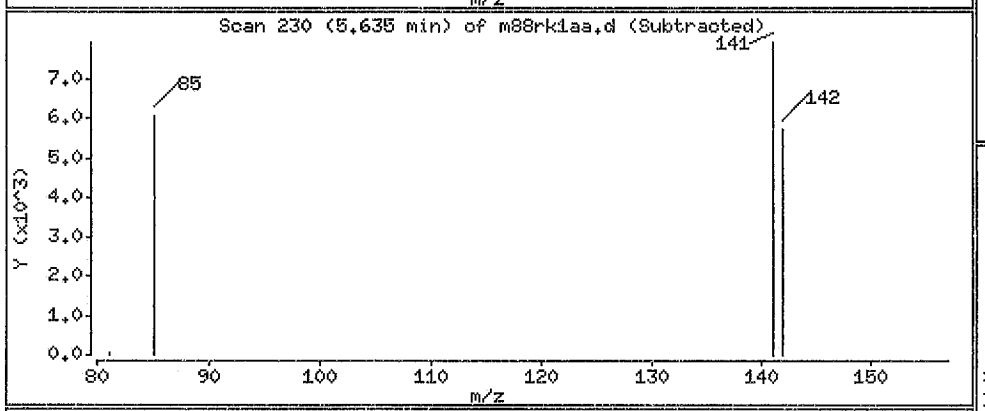
Column phase: Rxi-5SIL MS w/Guard

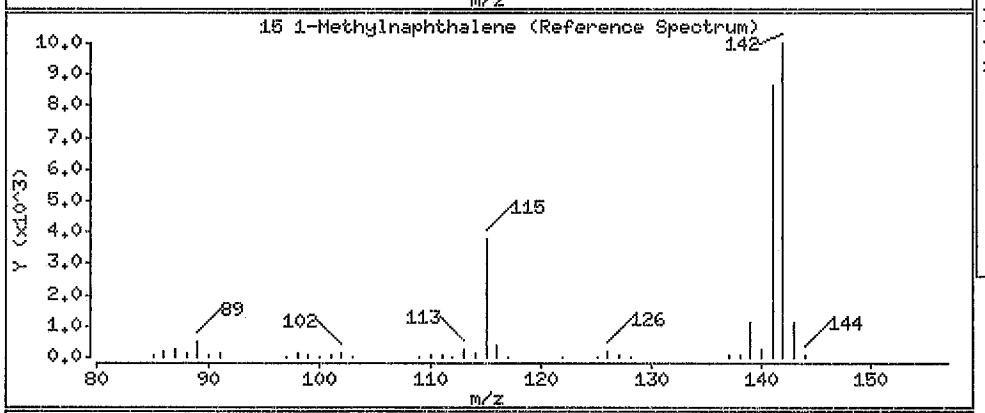
Column diameter: 0.25

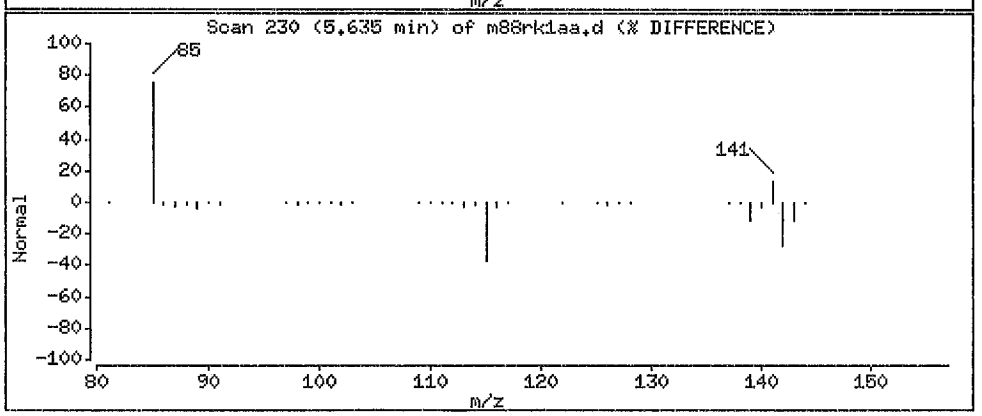
15 1-Methylnaphthalene

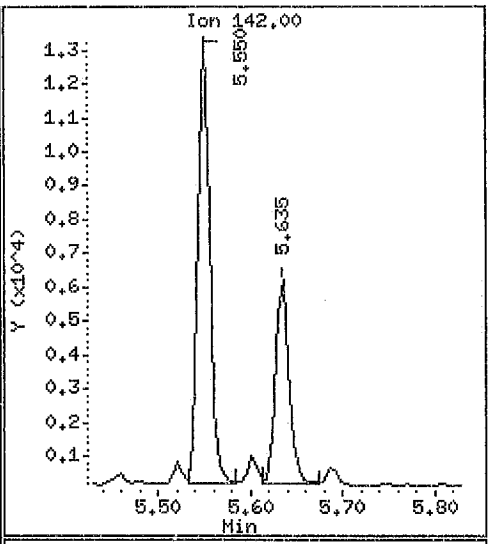
Concentration: 0.407 ng/g

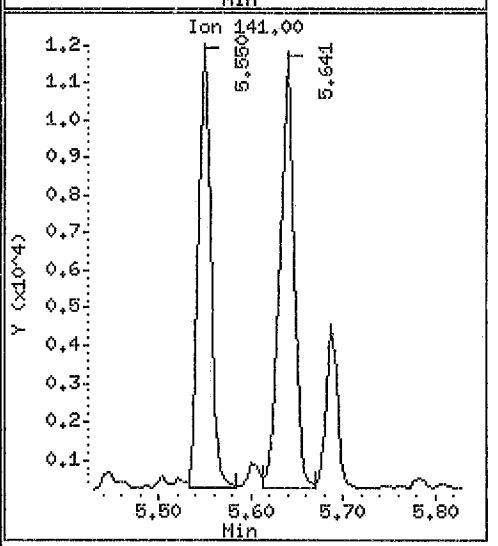












Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

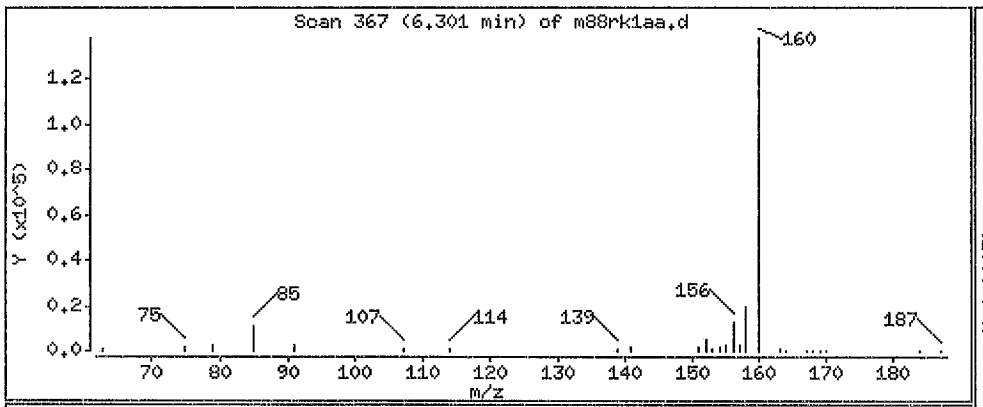
Client ID: | Instrument: mp.i

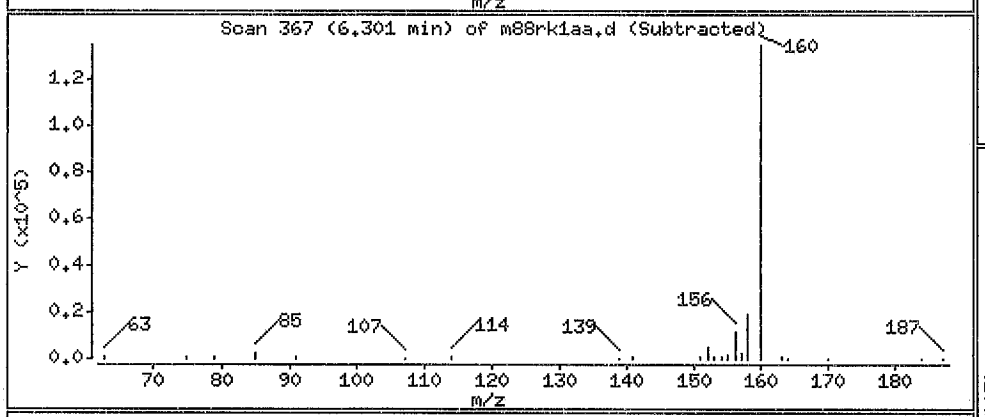
Sample Info: ,,3,,MB TRT

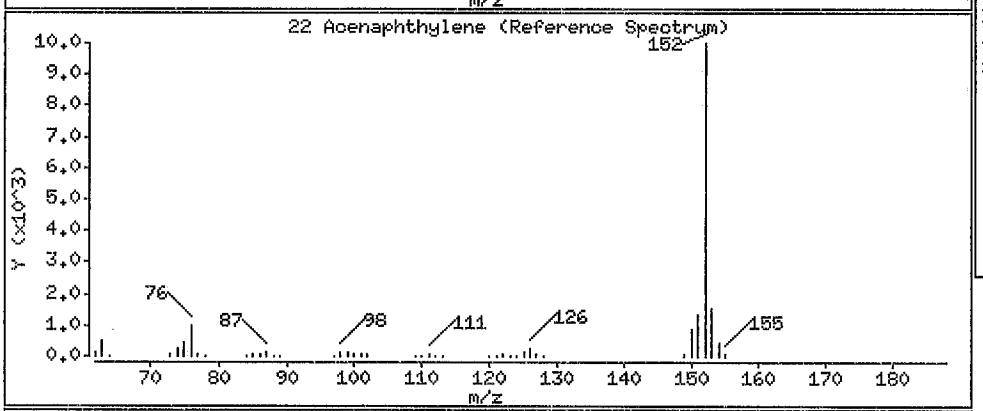
Purge Volume: 10.0 | Operator: 11211

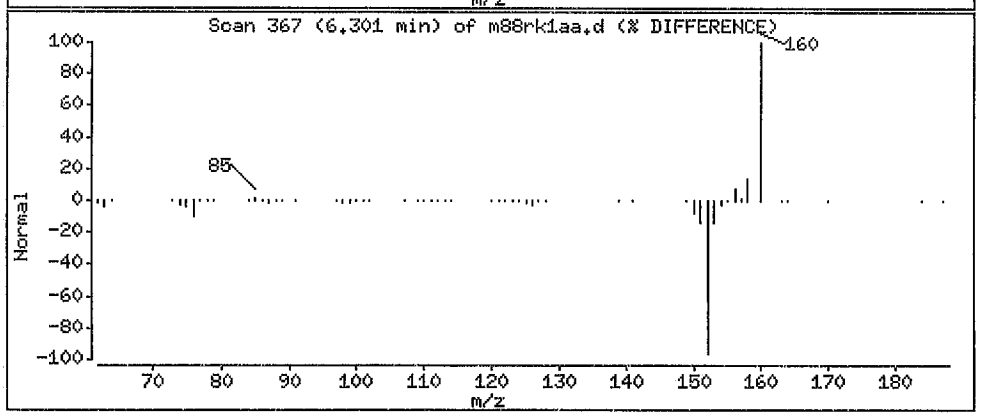
Column phase: Rxi-5SIL MS w/Guard | Column diameter: 0.25

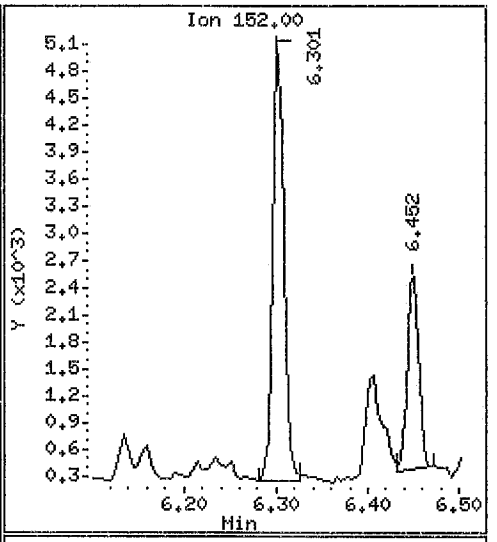
22 Acenaphthylene | Concentration: 0.158 ng/g

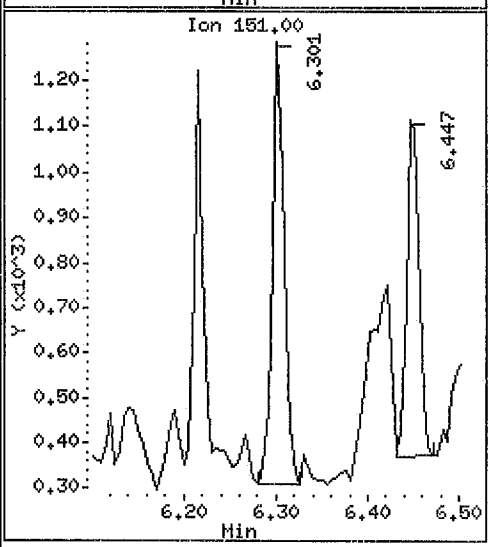












Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

Client ID:

Instrument: mp.i

Sample Info: ,,3,,MB TRT

Purge Volume: 10.0

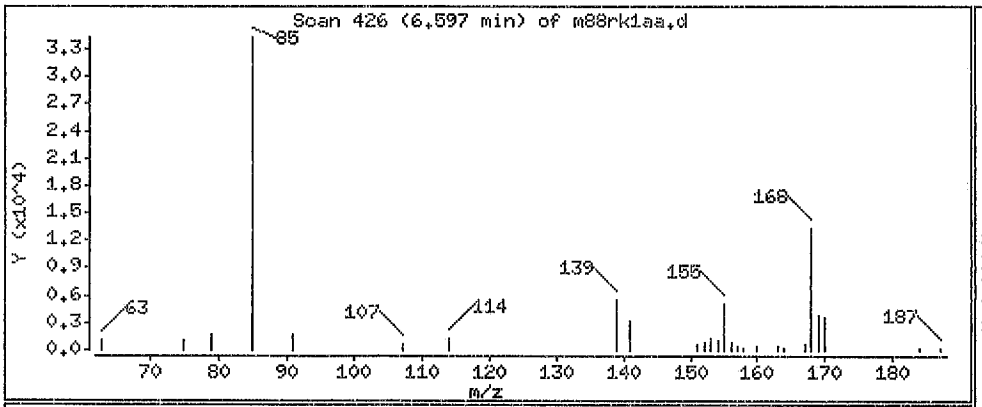
Operator: 11211

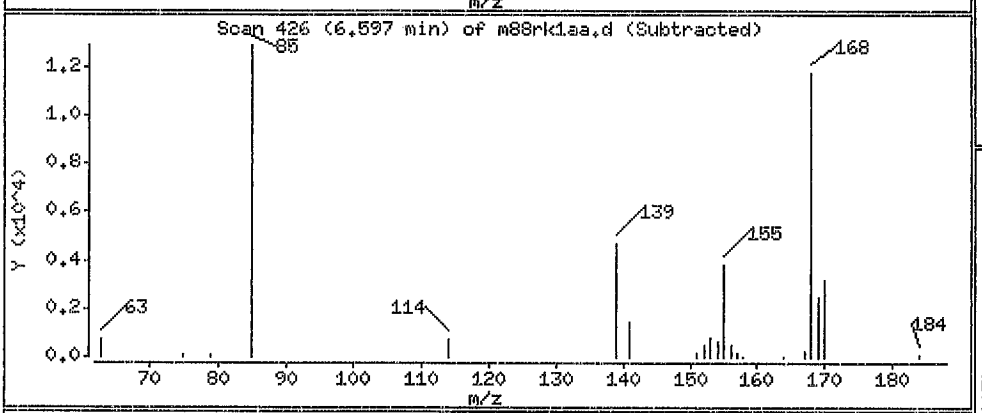
Column phase: Rxi-5SIL MS w/Guard

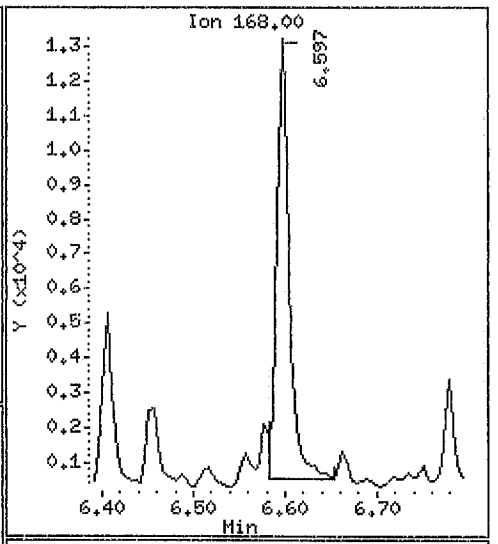
Column diameter: 0.25

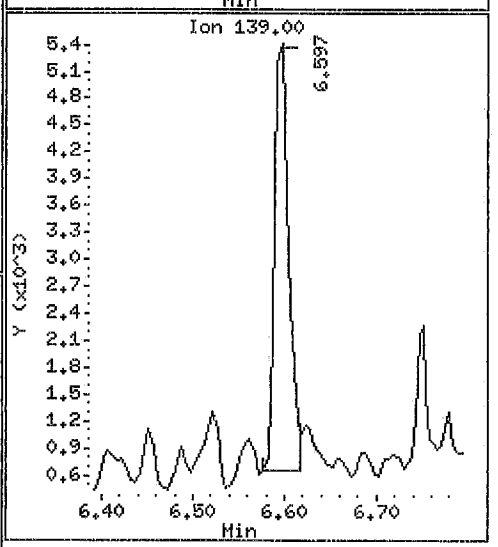
246 Dibenzofuran

Concentration: 0.547 ng/g









Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

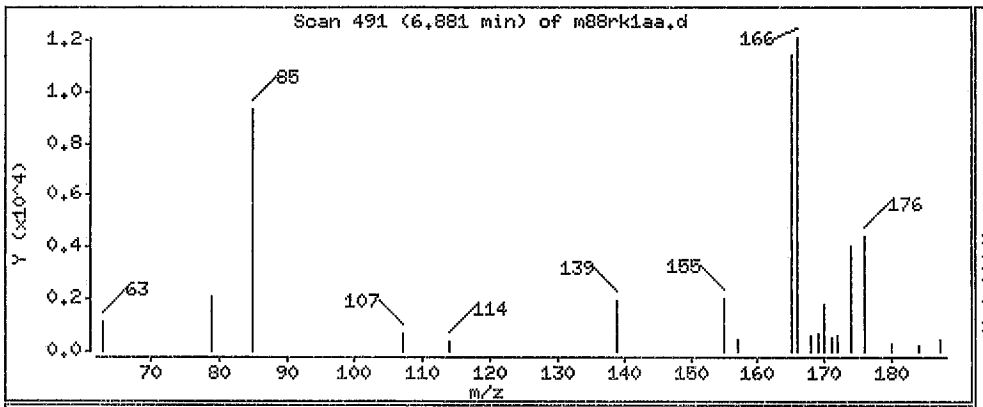
Client ID: | Instrument: mp.i

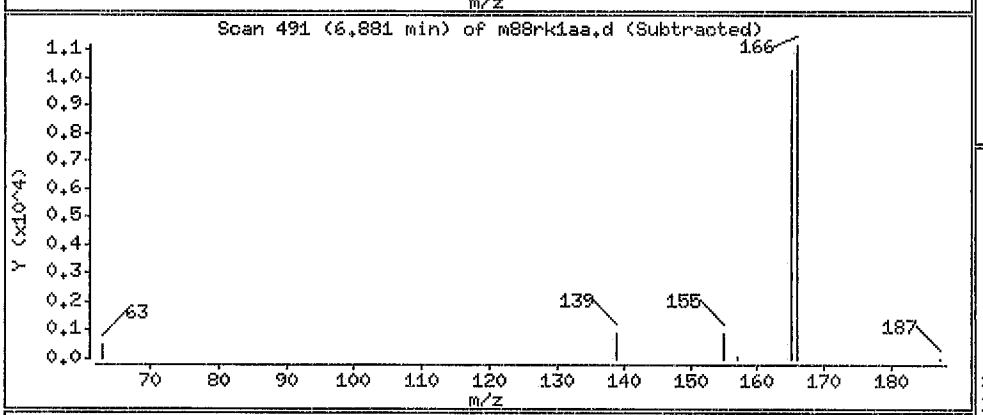
Sample Info: ,,3,,MB TRT

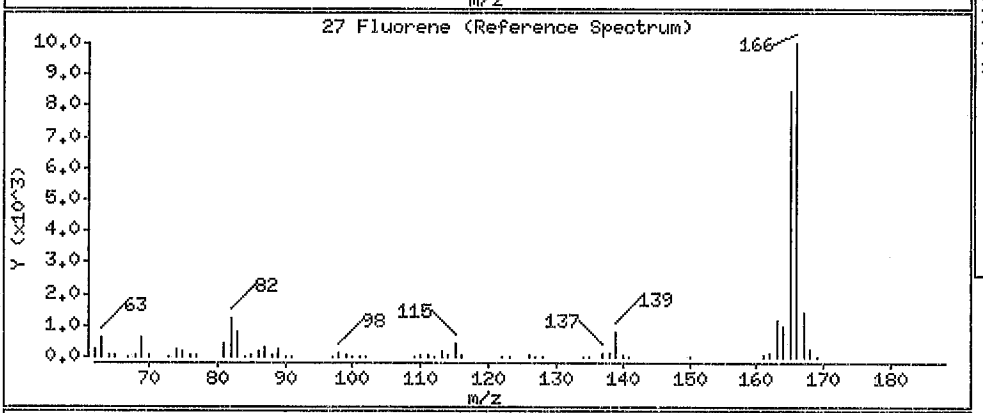
Purge Volume: 10.0 | Operator: 11211

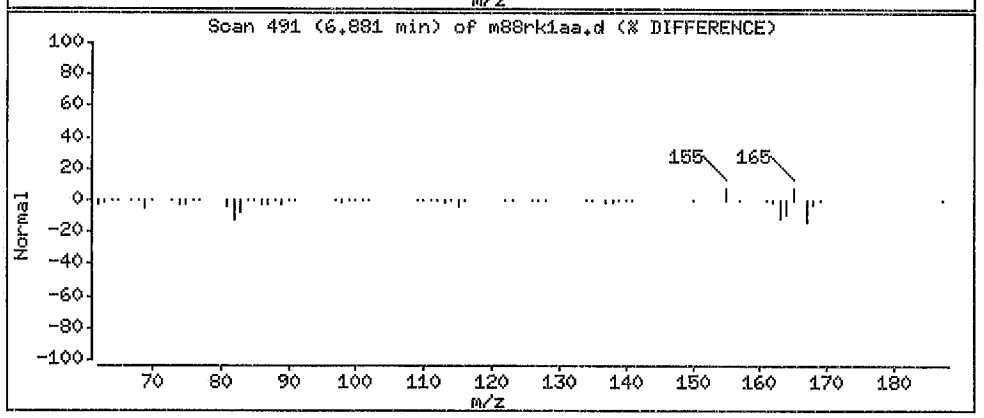
Column phase: Rxi-5SIL MS w/Guard | Column diameter: 0.25

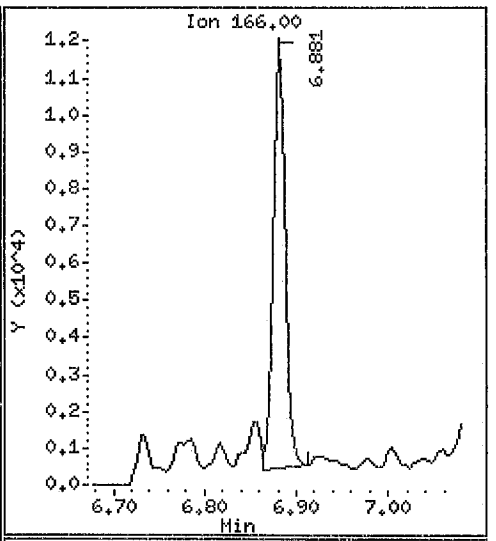
27 Fluorene | Concentration: 0.590 ng/g

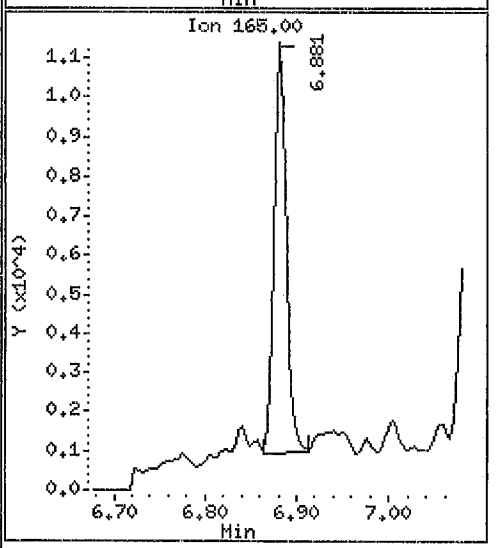












Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

Client ID:

Instrument: mp.i

Sample Info: ,,3,,MB TRT

Purge Volume: 10.0

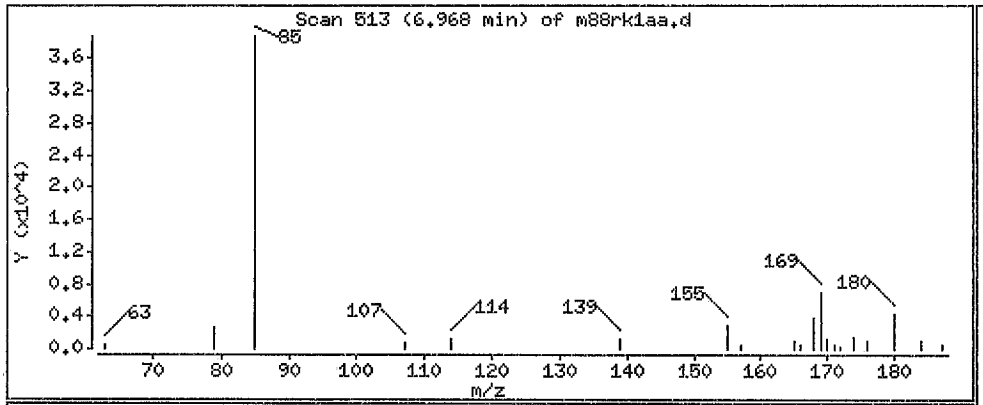
Operator: 11211

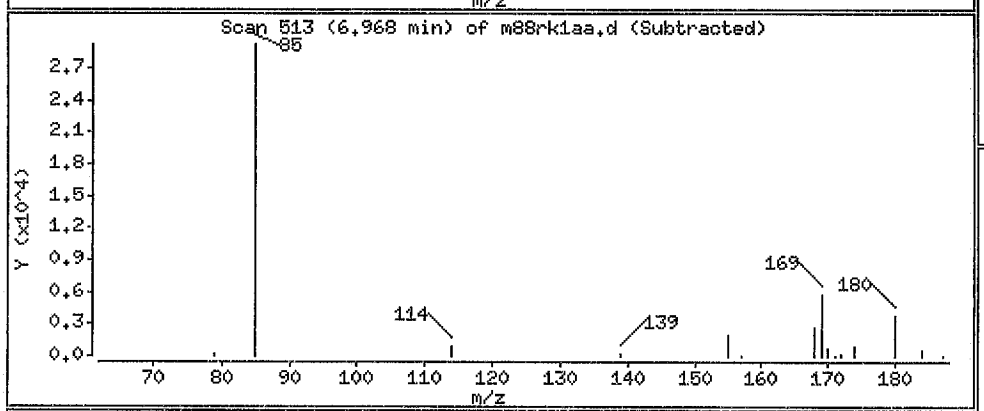
Column phase: Rxi-5SIL MS w/Guard

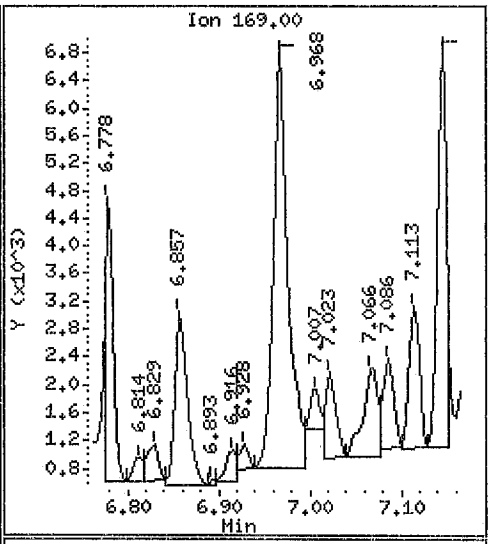
Column diameter: 0.25

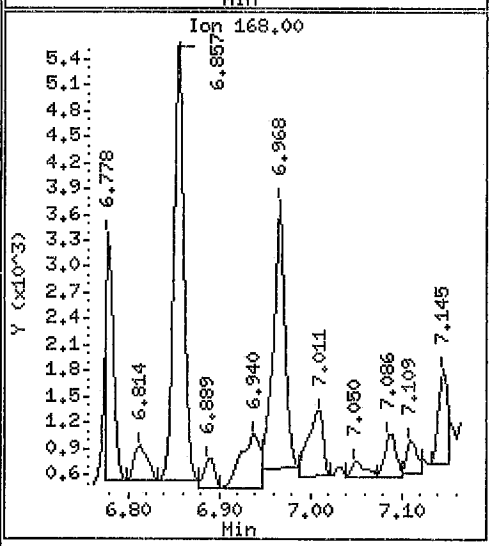
243 Diphenylamine

Concentration: 0.603 ng/g









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Date : 27-SEP-2016 14:26

Client ID:

Instrument: mp.i

Sample Info: ,,3,,MB TRT

Purge Volume: 10.0

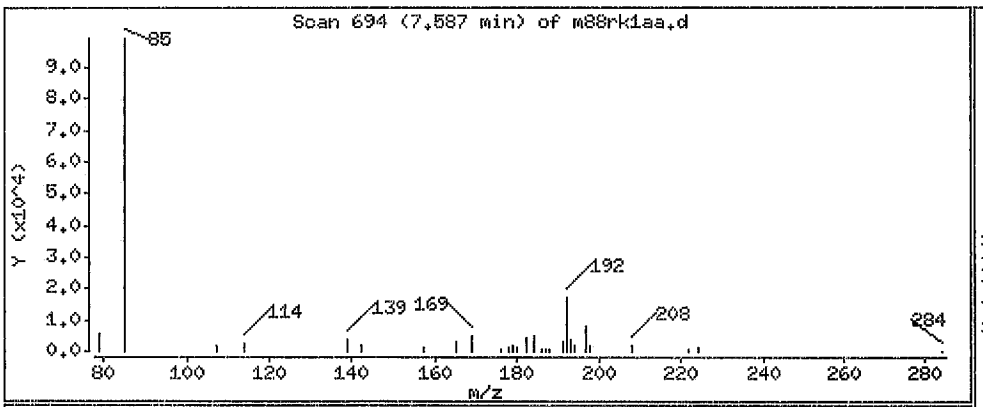
Operator: 11211

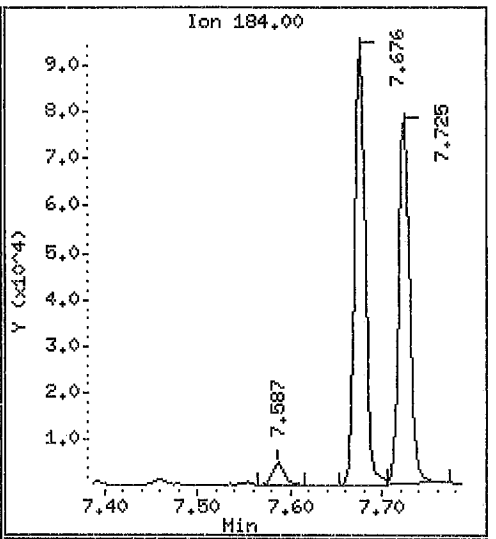
Column phase: Rxi-5SIL MS w/Guard

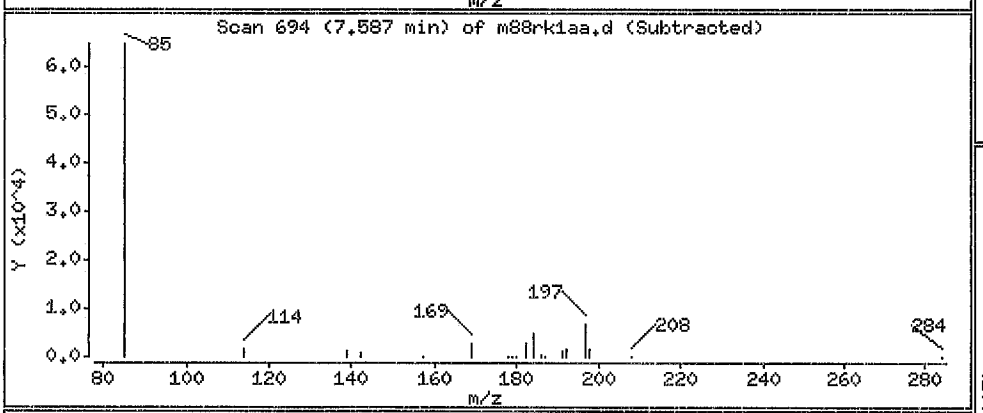
Column diameter: 0.25

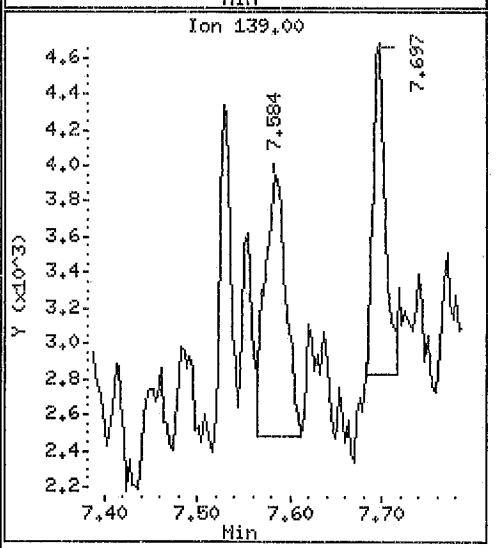
36 Dibenzothiophene

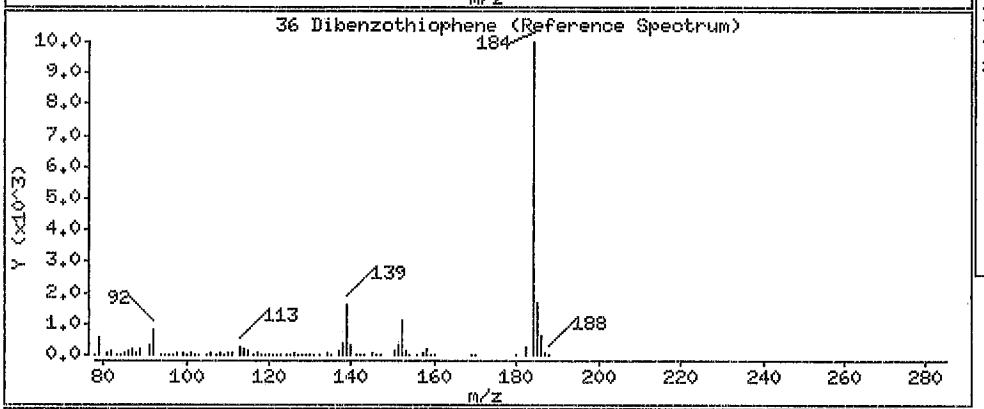
Concentration: 0.495 ng/g

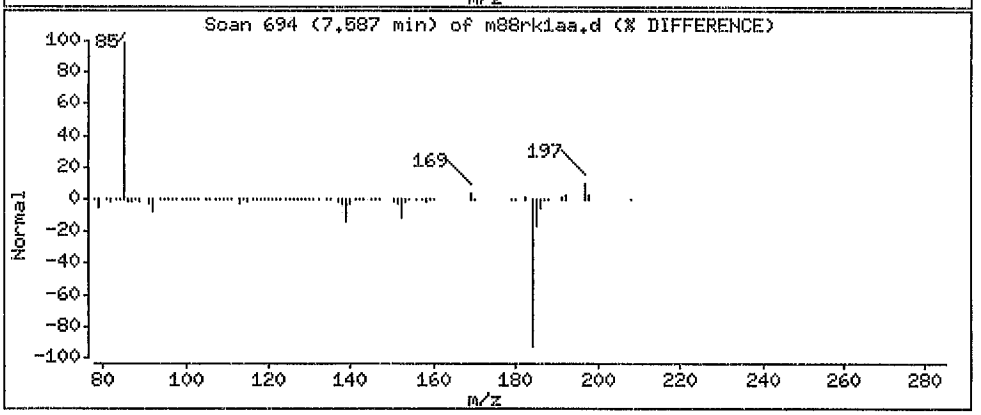












Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

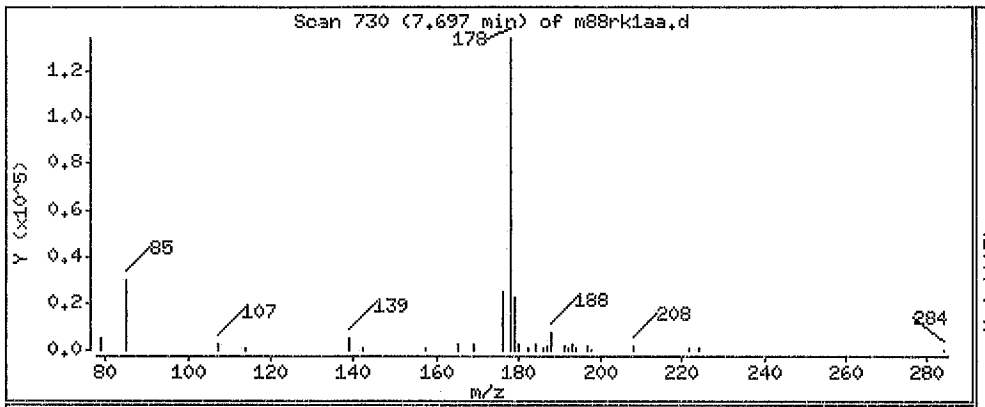
Client ID: | Instrument: mp.i

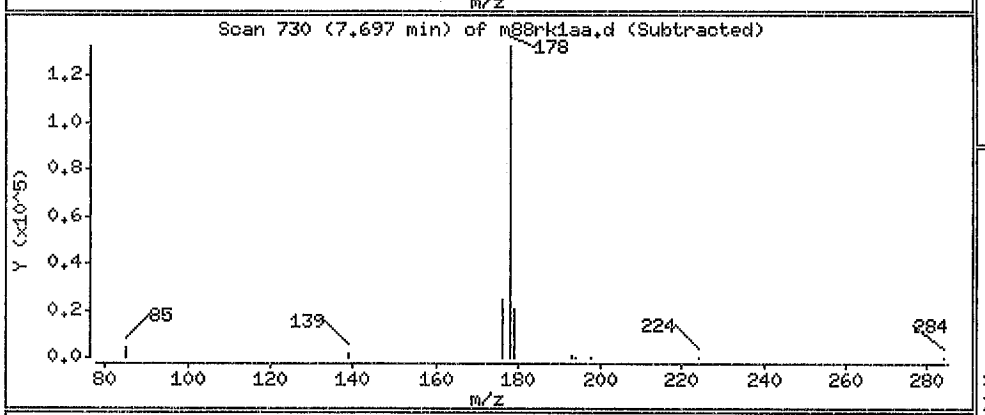
Sample Info: ,,3,,MB TRT

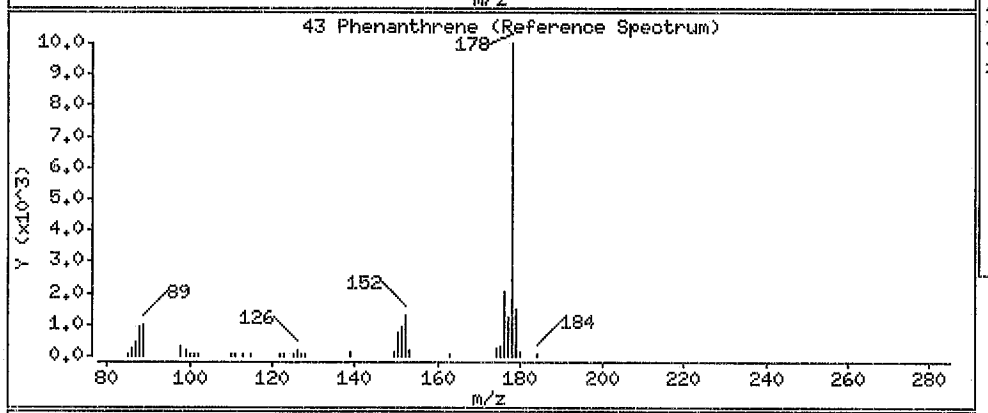
Purge Volume: 10.0 | Operator: 11211

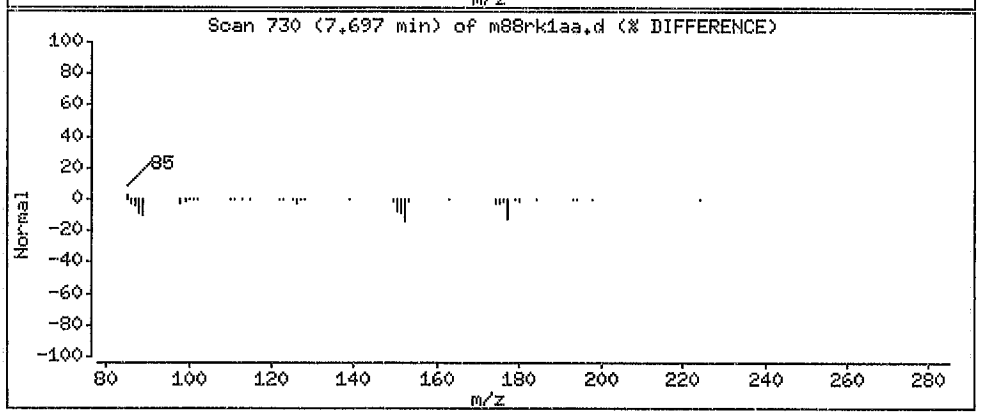
Column phase: Rxi-5SIL MS w/Guard | Column diameter: 0.25

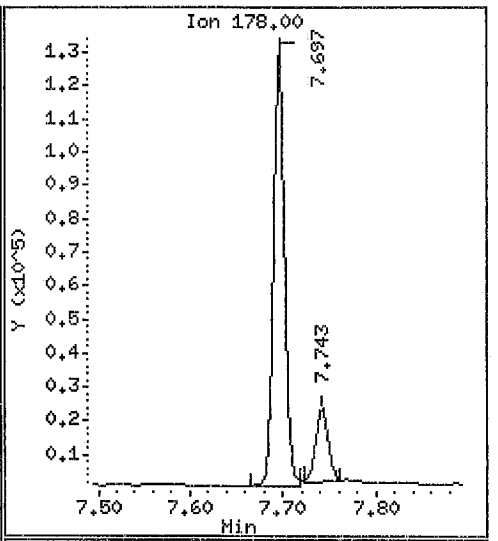
43 Phenanthrene | Concentration: 4.10 ng/g

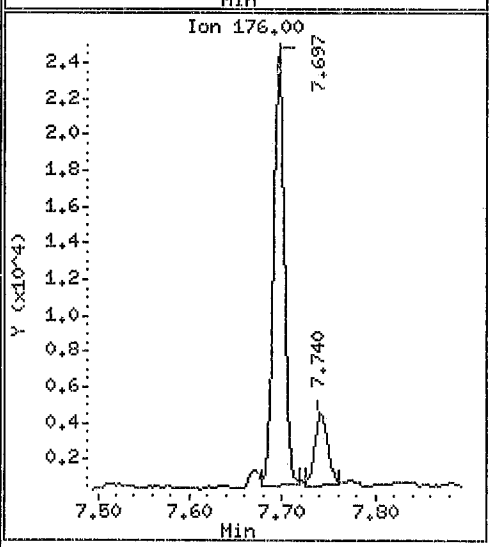












Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

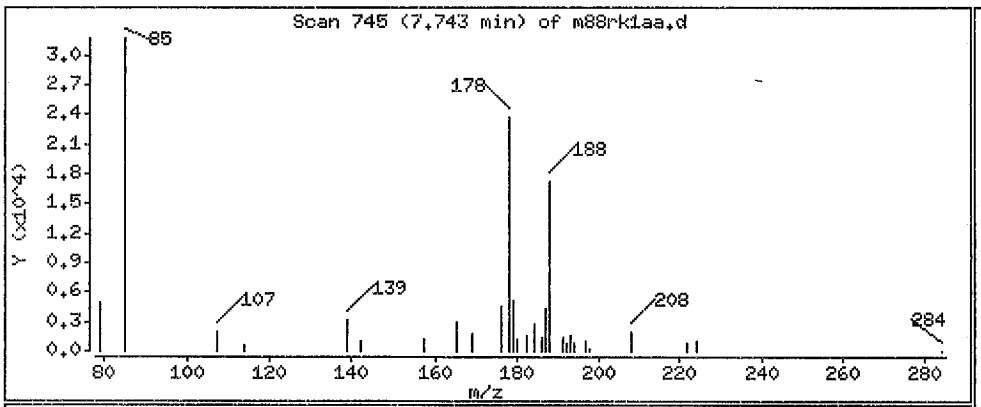
Client ID: | Instrument: mp.i

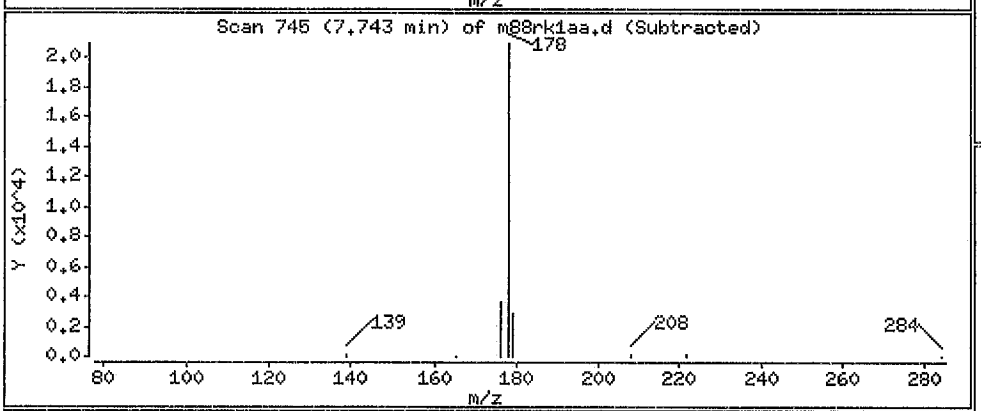
Sample Info: ,,3,,MB TRT

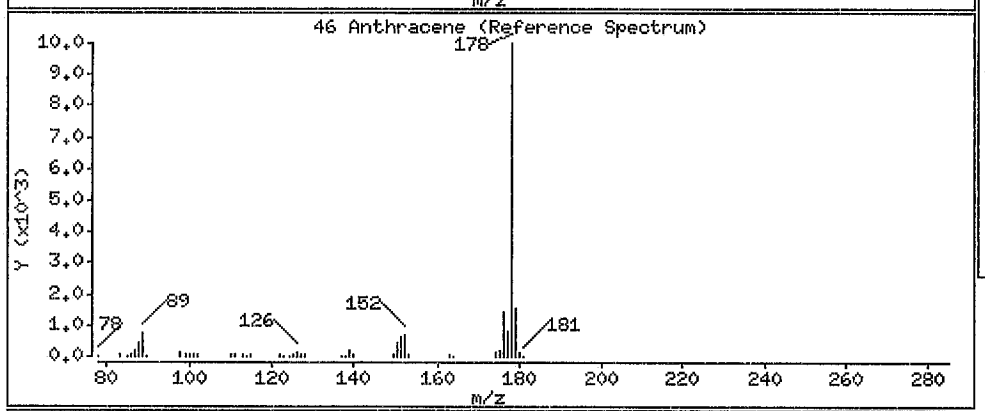
Purge Volume: 10.0 | Operator: 11211

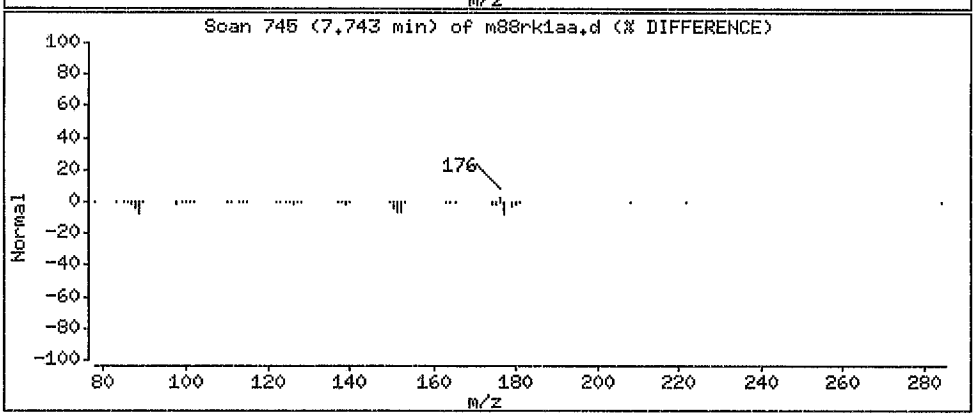
Column phase: Rxi-5SIL MS w/Guard | Column diameter: 0.25

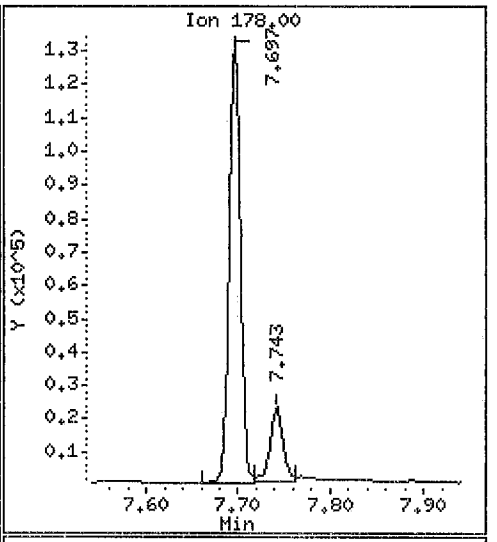
46 Anthracene | Concentration: 0.923 ng/g

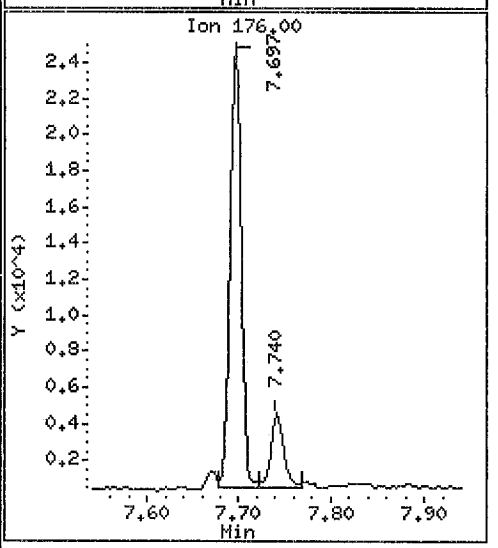












Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

Client ID:

Instrument: mp.i

Sample Info: ,,3,,MB TRT

Purge Volume: 10.0

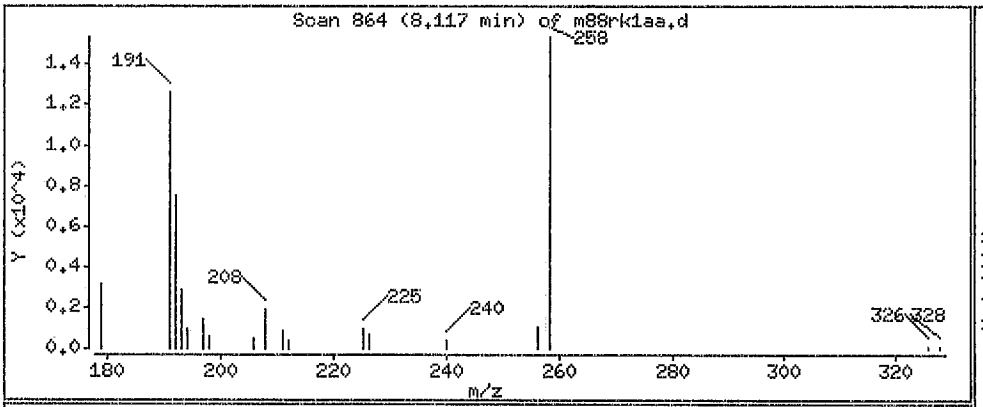
Operator: 11211

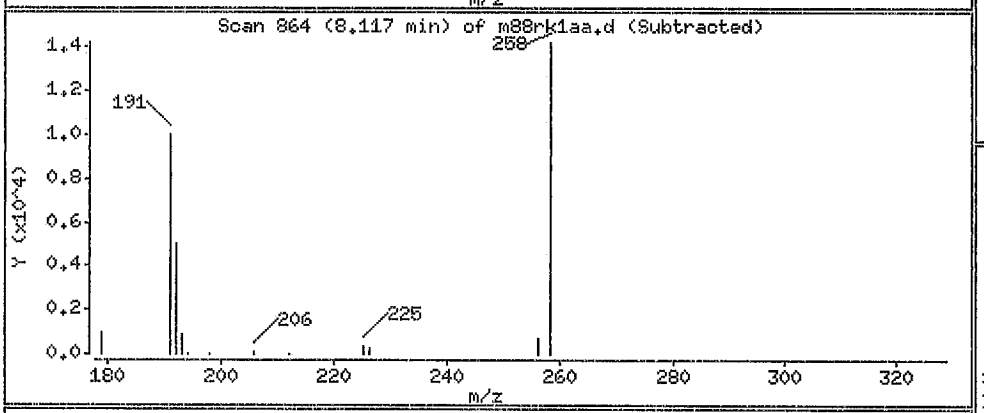
Column phase: Rxi-5SIL MS w/Guard

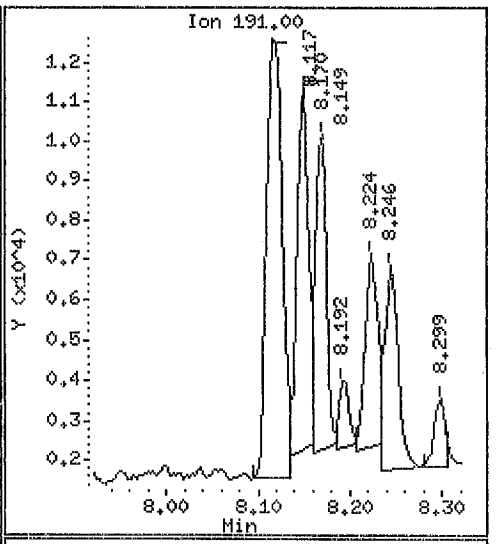
Column diameter: 0.25

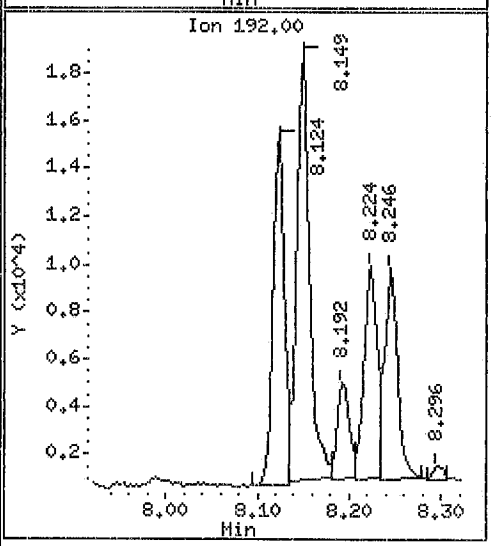
247 3-Methylphenanthrene

Concentration: 1.49 ng/g









Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

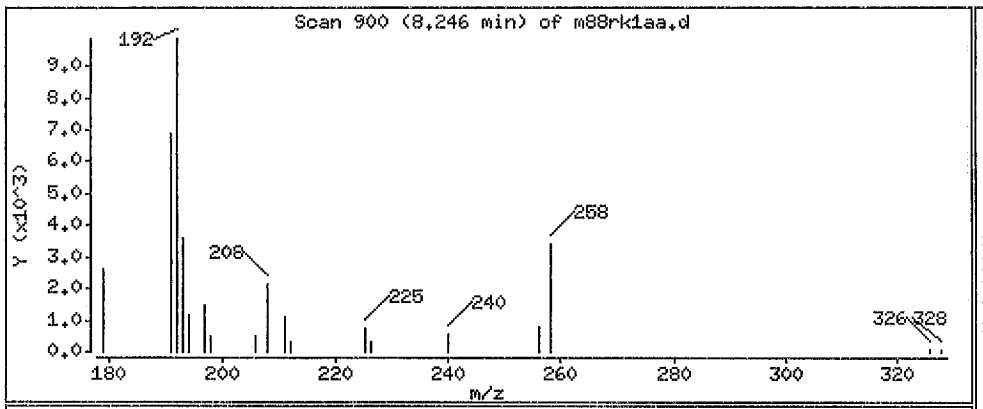
Client ID: | Instrument: mp.i

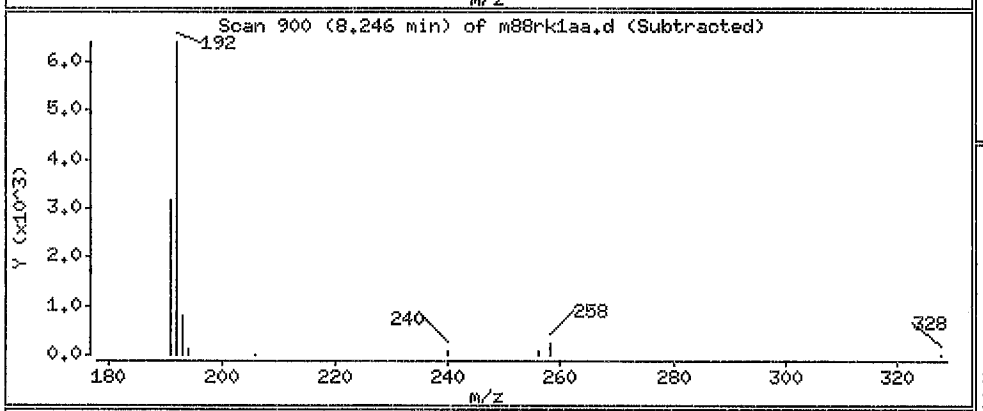
Sample Info: ,,3,,MB TRT

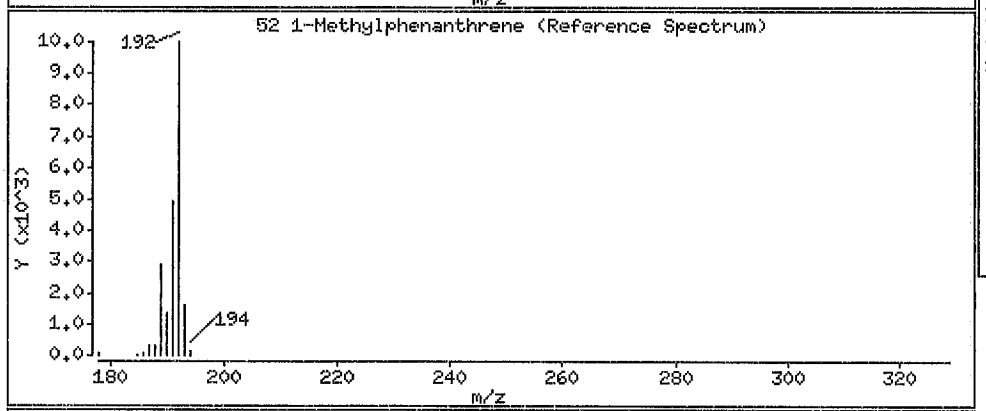
Purge Volume: 10.0 | Operator: 11211

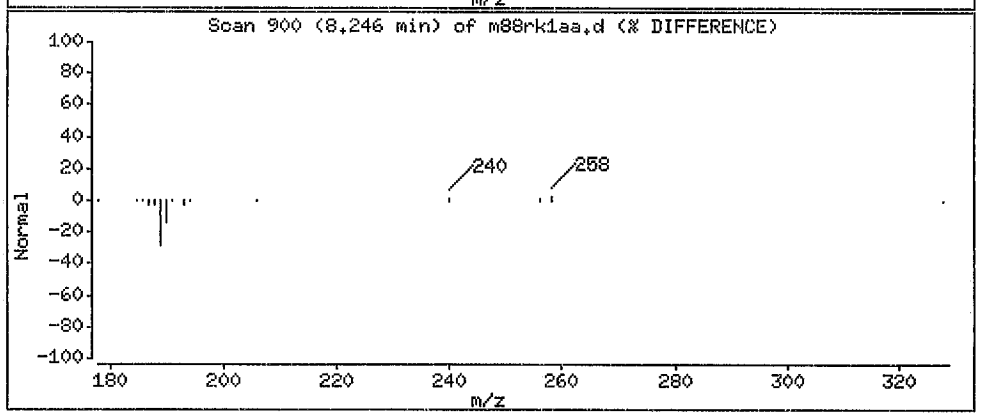
Column phase: Rxi-5SIL MS w/Guard | Column diameter: 0.25

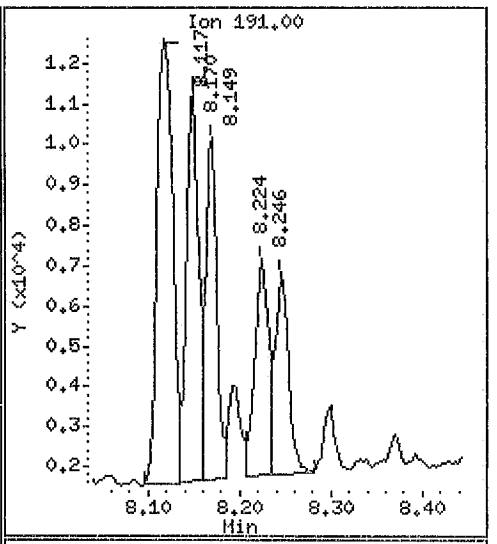
52 1-Methylphenanthrene | Concentration: 0.600 ng/g

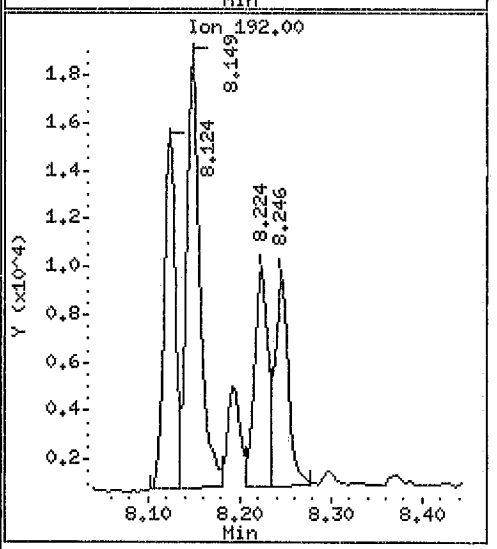












Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

Client ID:

Instrument: mp.i

Sample Info: ,,3,,MB TRT

Purge Volume: 10.0

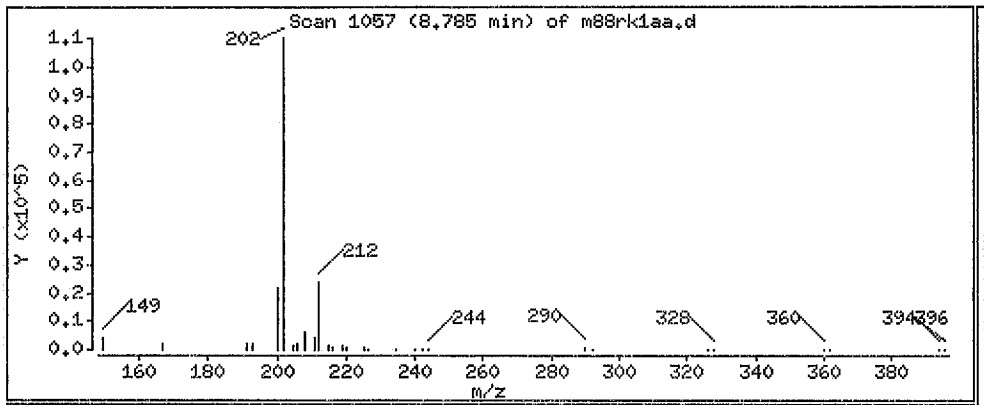
Operator: 11211

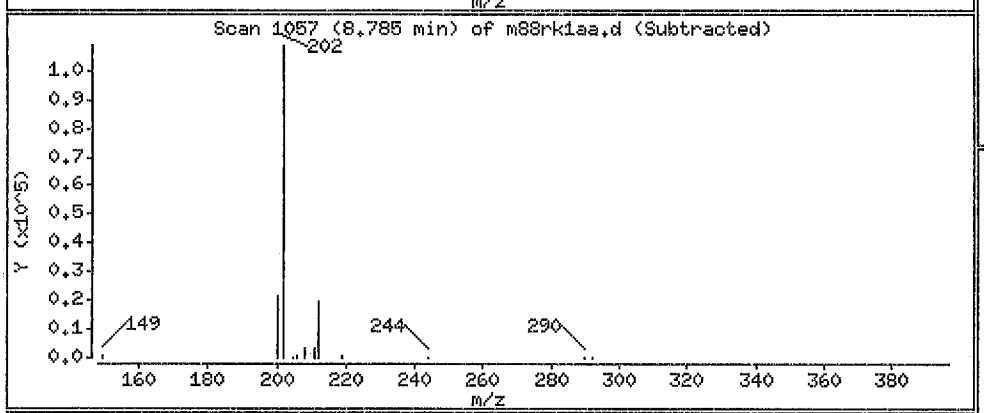
Column phase: Rxi-5SIL MS w/Guard

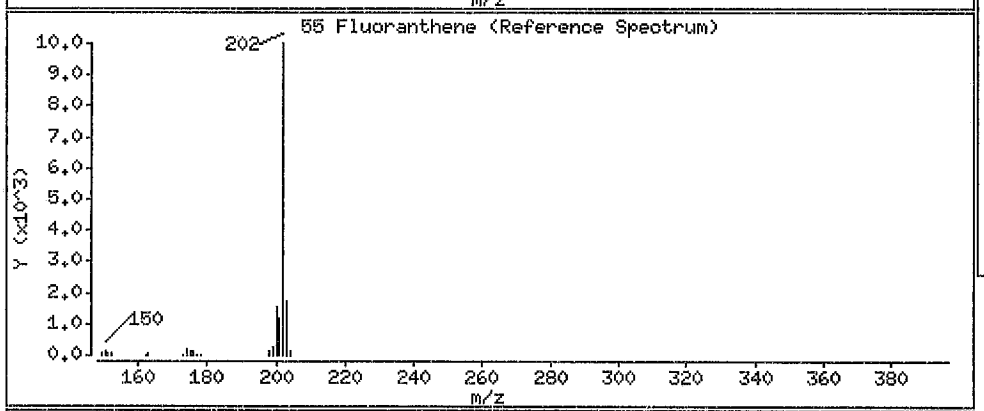
Column diameter: 0.25

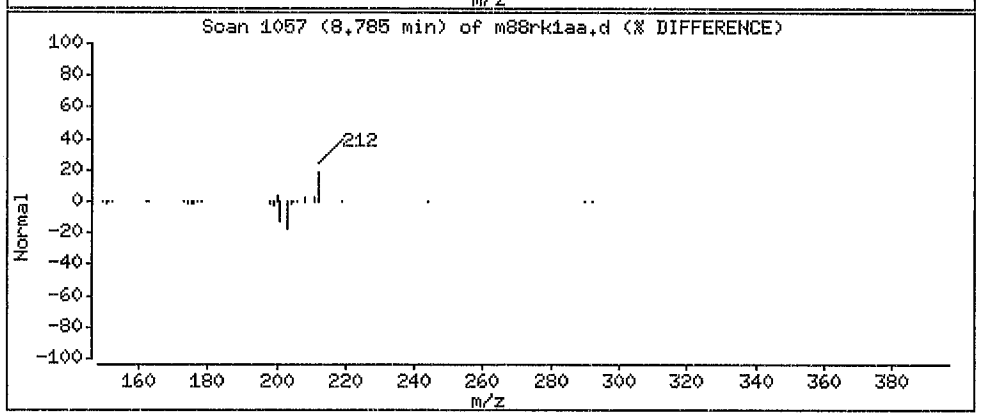
55 Fluoranthene

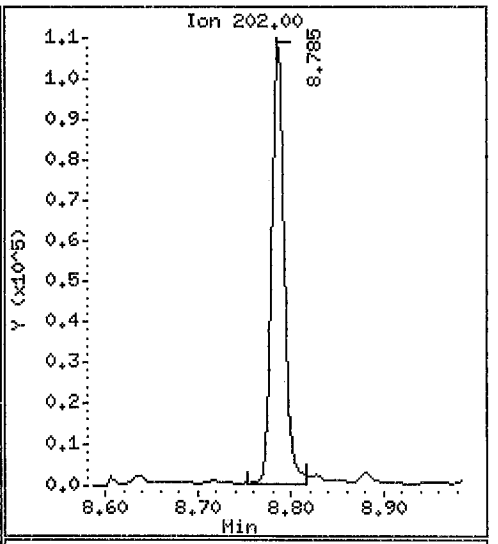
Concentration: 3.43 ng/g

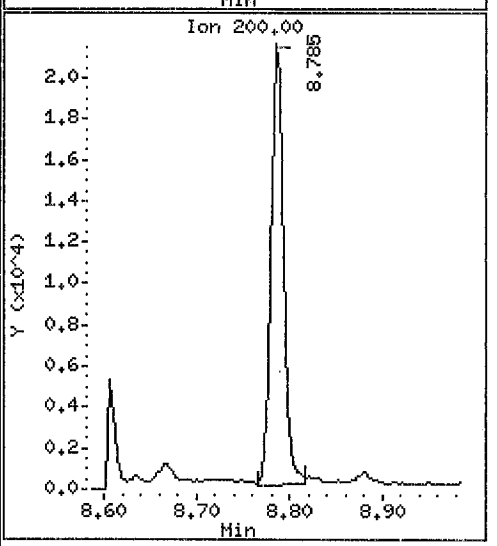












Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

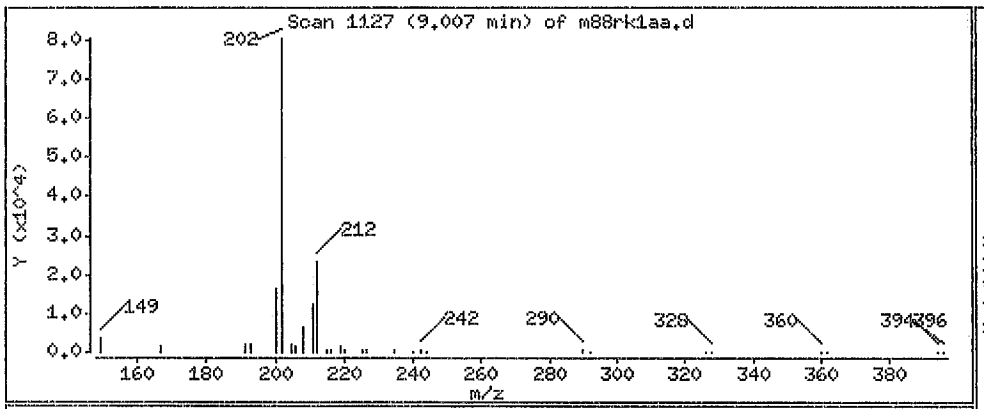
Client ID: Instrument: mp.i

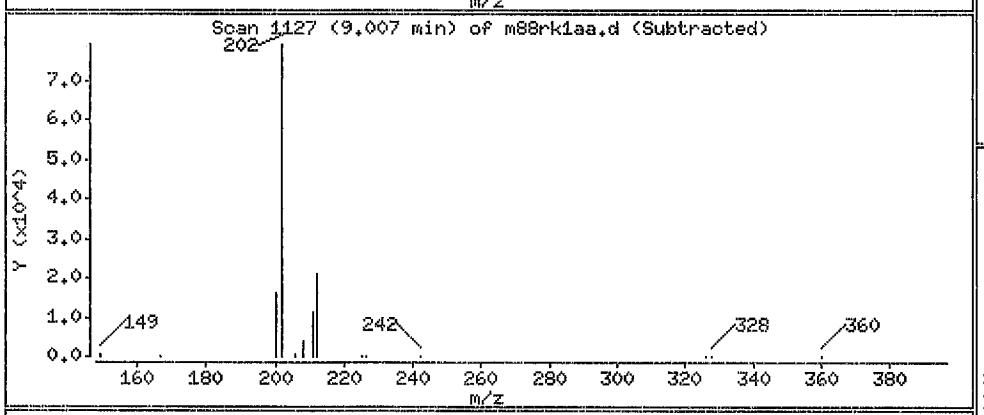
Sample Info: ,,3,,MB TRT

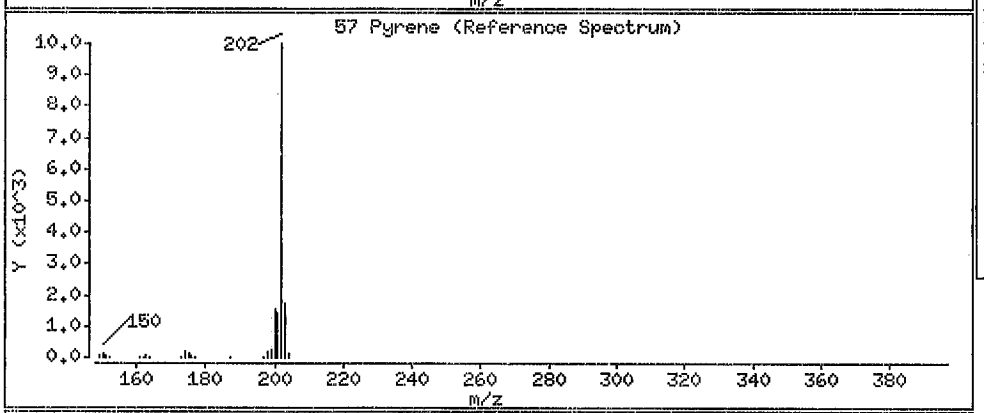
Purge Volume: 10.0 Operator: 11211

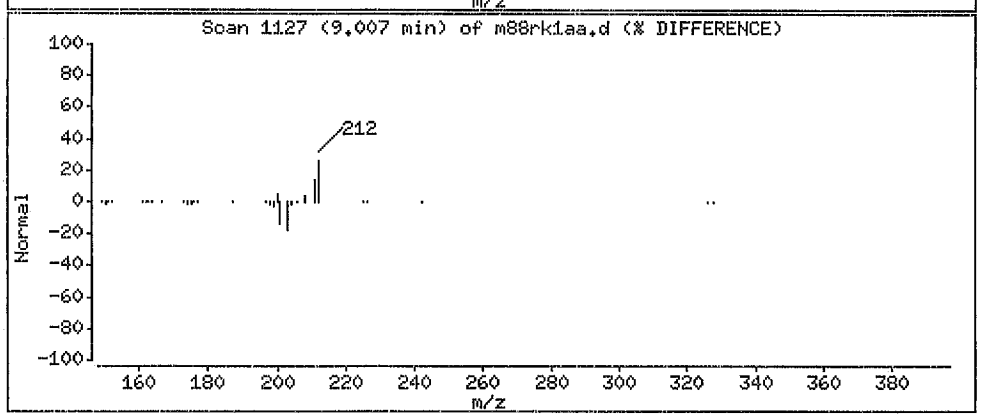
Column phase: Rxi-5SIL MS w/Guard Column diameter: 0.25

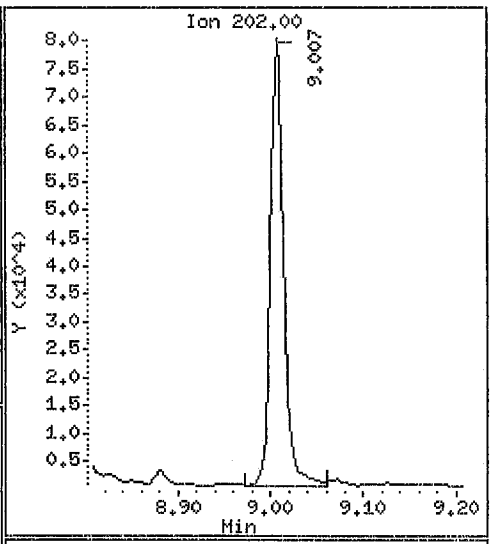
57 Pyrene Concentration: 2.59 ng/g

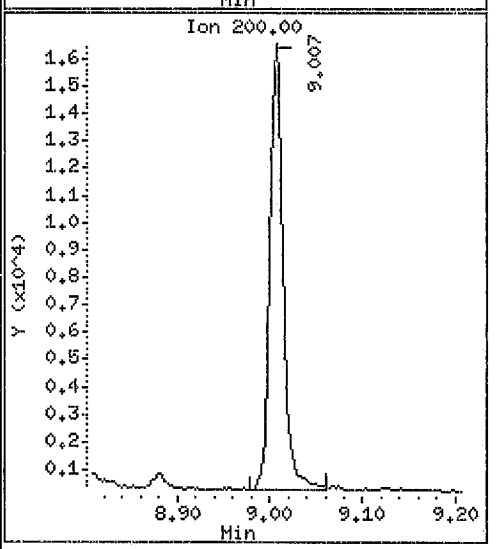












Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

Client ID:

Instrument: mp.i

Sample Info: ,,3,,MB TRT

Purge Volume: 10.0

Operator: 11211

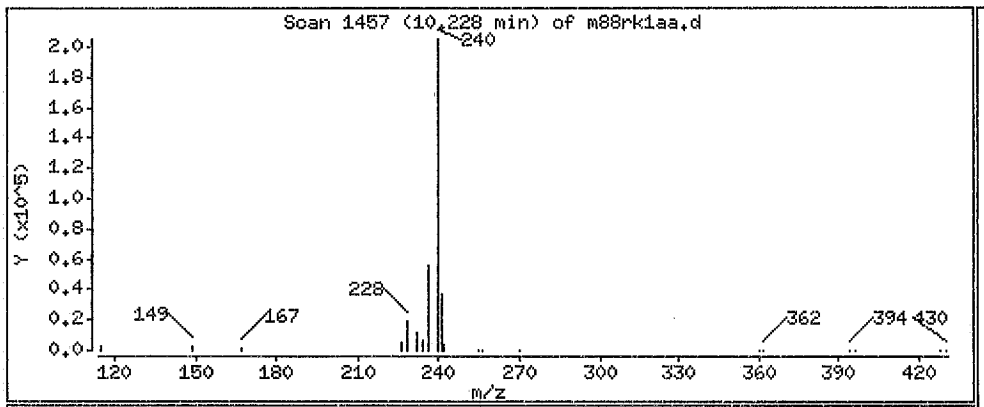
Column phase: Rxi-5SIL MS w/Guard

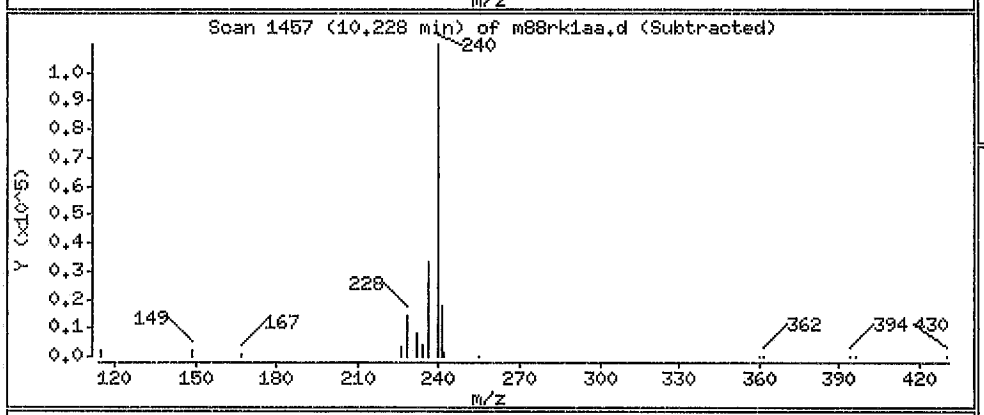
Column diameter: 0.25

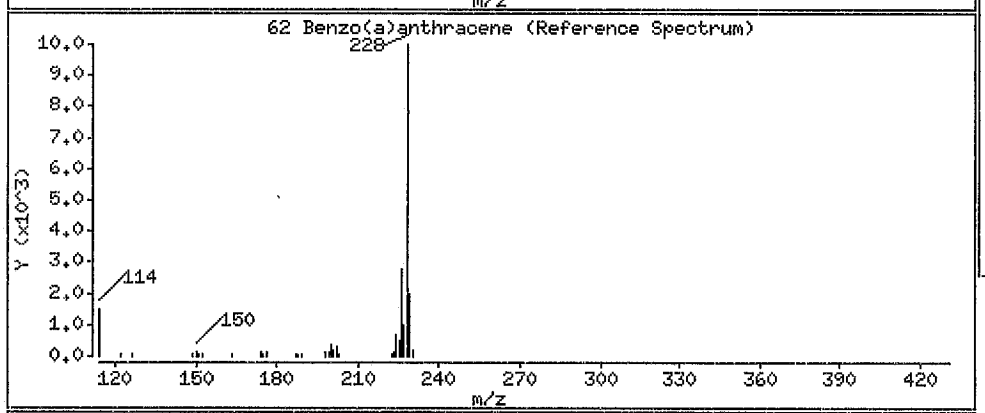
9/27/16

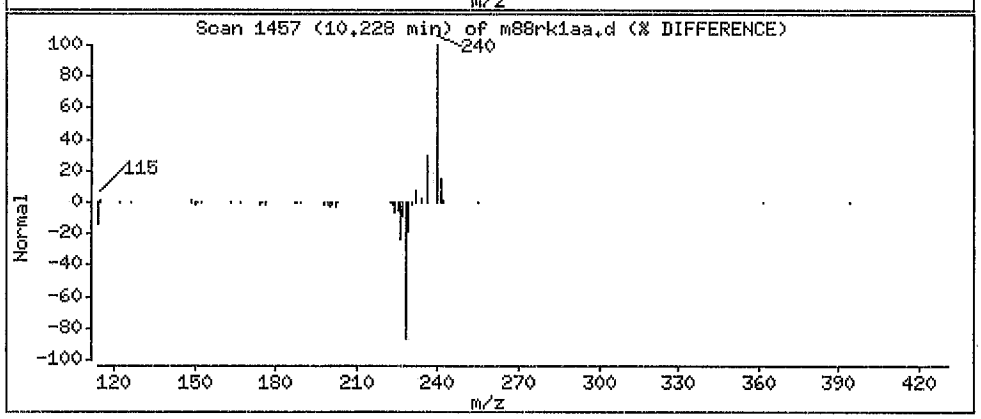
62 Benzo(a)anthracene

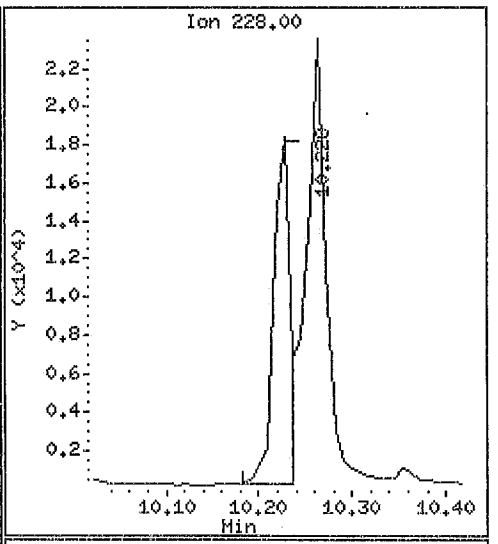
Concentration: 0.989 ng/g

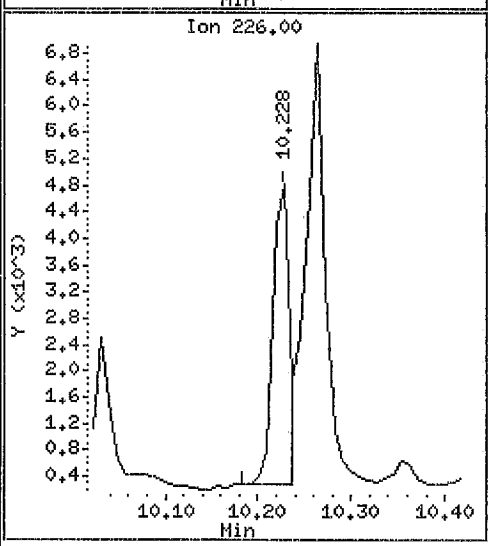












Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

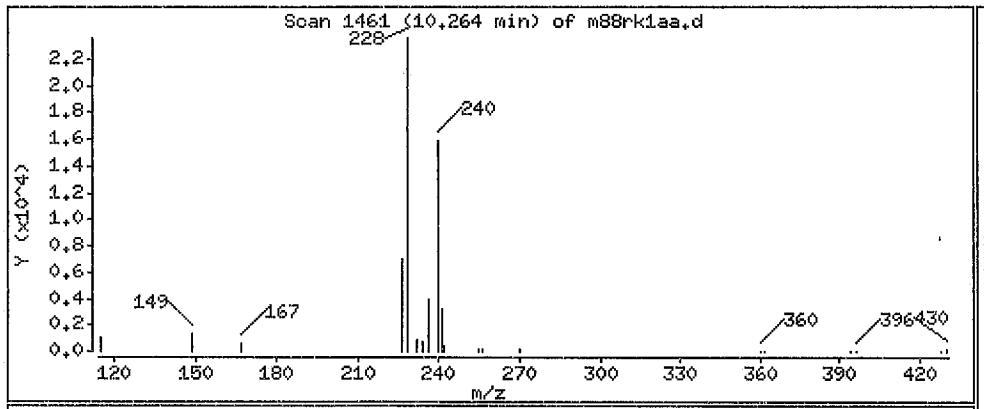
Client ID: | Instrument: mp.i

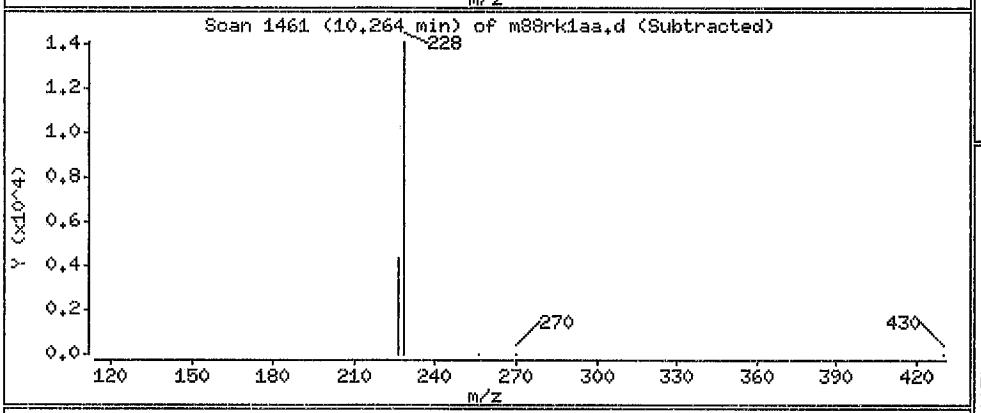
Sample Info: ,,3,,MB TRT

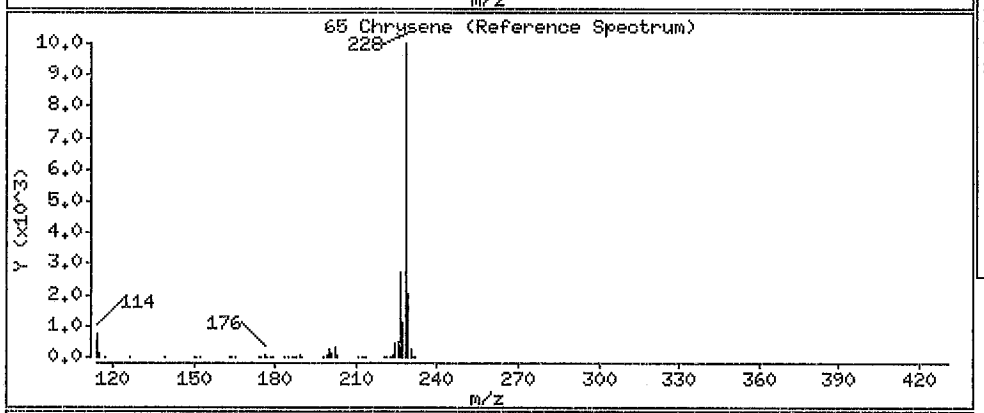
Purge Volume: 10.0 | Operator: 11211

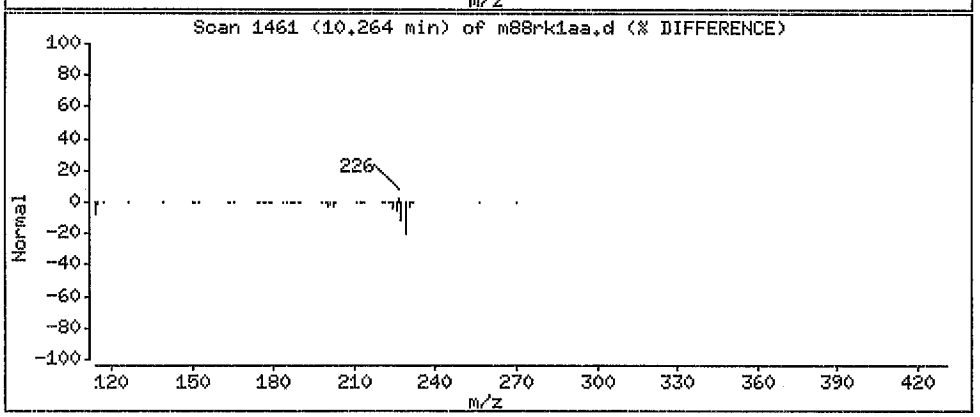
Column phase: Rxi-5SIL MS w/Guard | Column diameter: 0.25

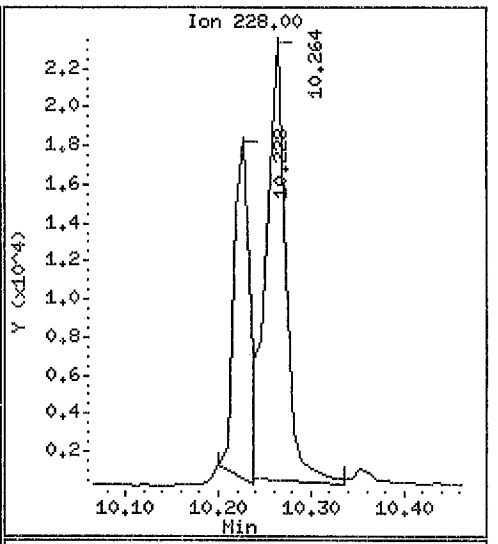
65 Chrysene | Concentration: 1.51 ng/g

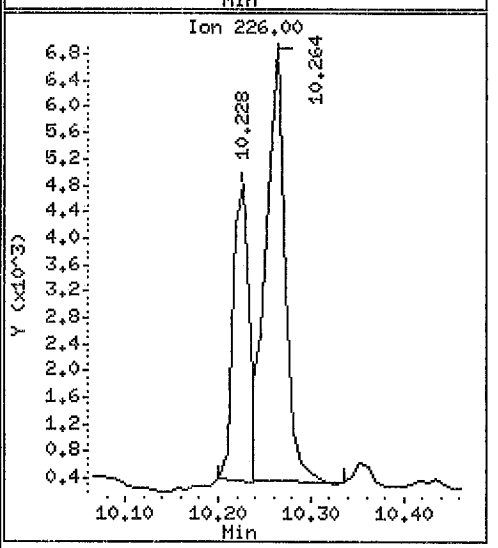












Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

Client ID:

Instrument: mp.i

Sample Info: ,,3,,MB TRT

Purge Volume: 10.0

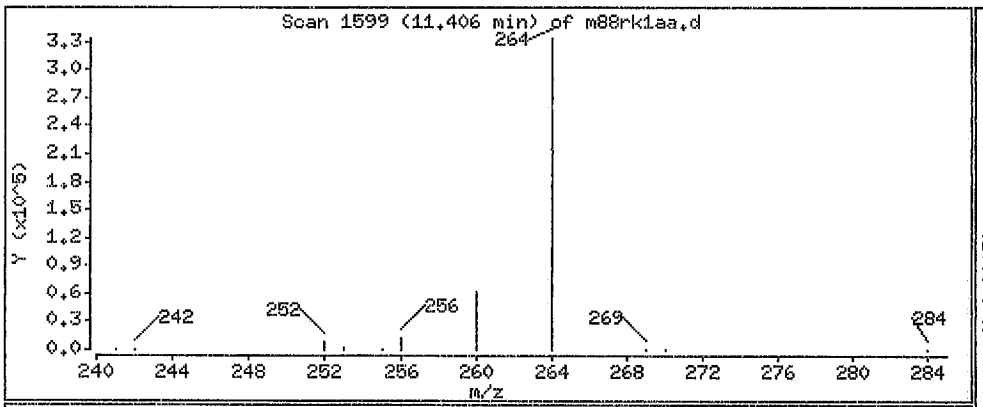
Operator: 11211

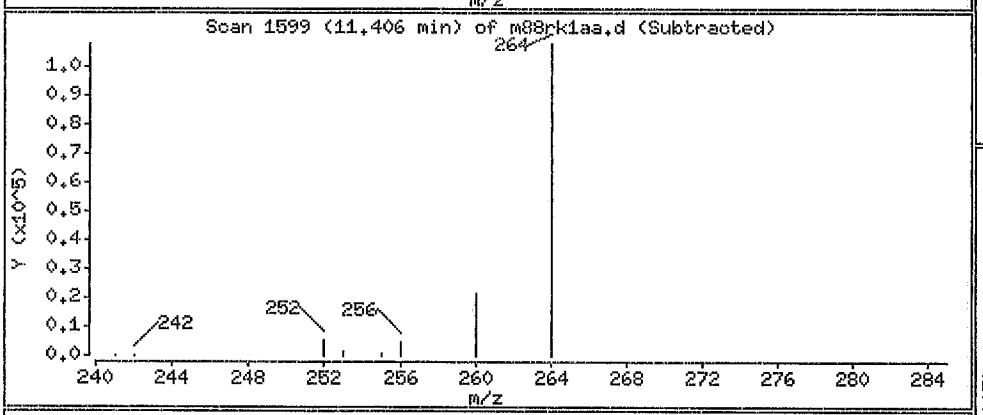
Column phase: Rxi-5SIL MS w/Guard

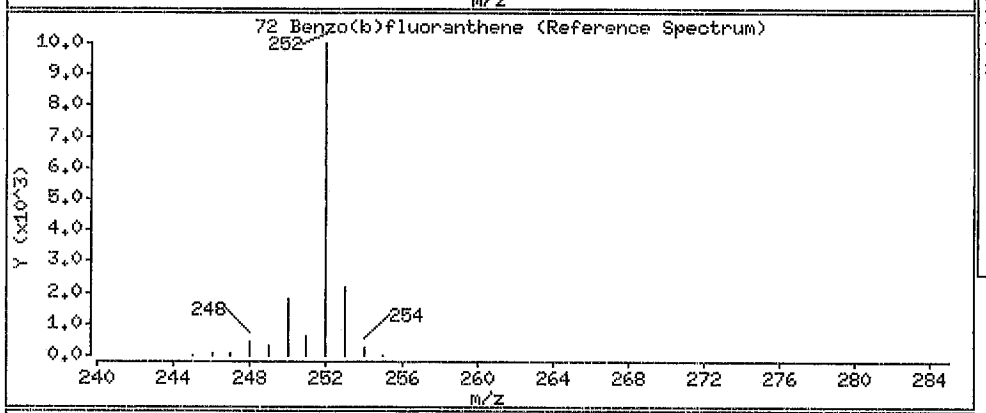
Column diameter: 0.25

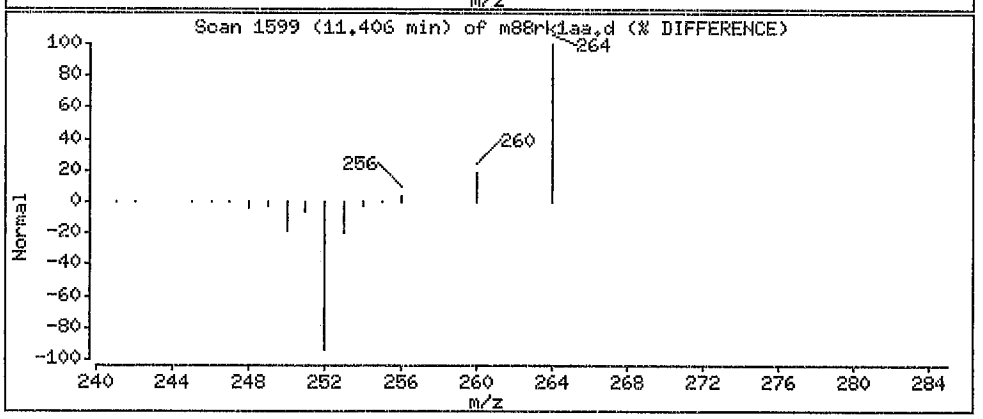
72 Benzo(b)fluoranthene

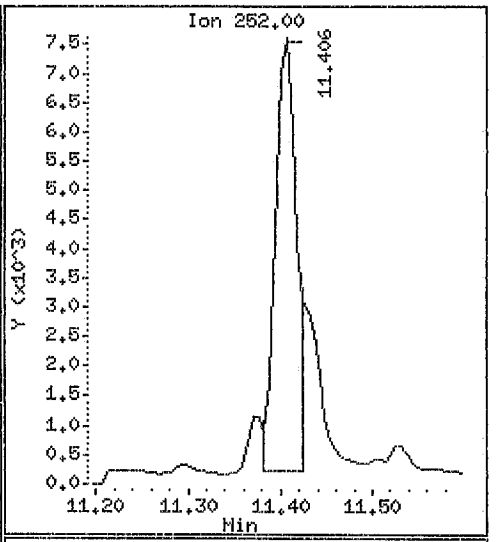
Concentration: 0.453 ng/g

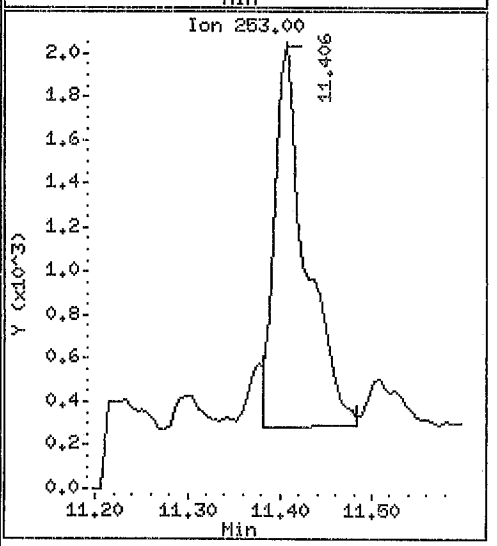












Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1aa.d

Date : 27-SEP-2016 14:26

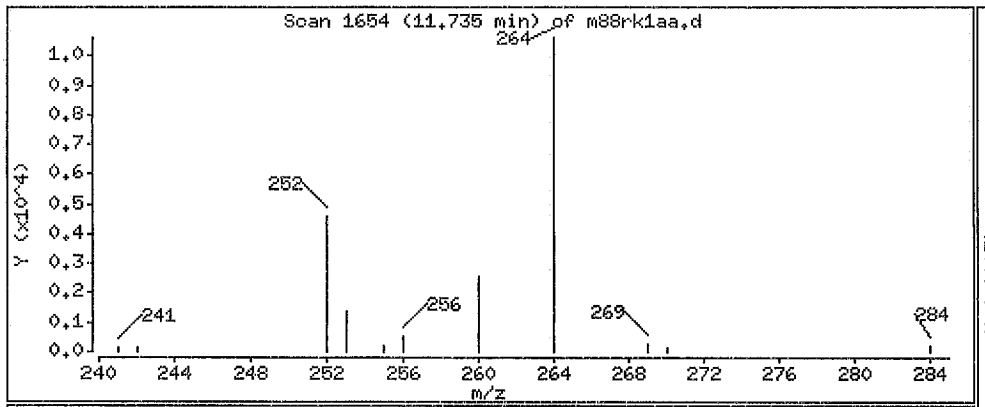
Client ID: | Instrument: mp.i

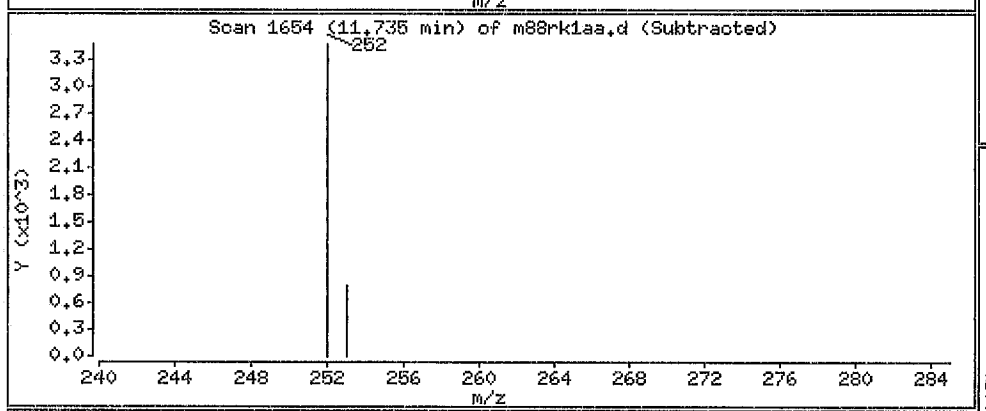
Sample Info: ,,3,,MB TRT

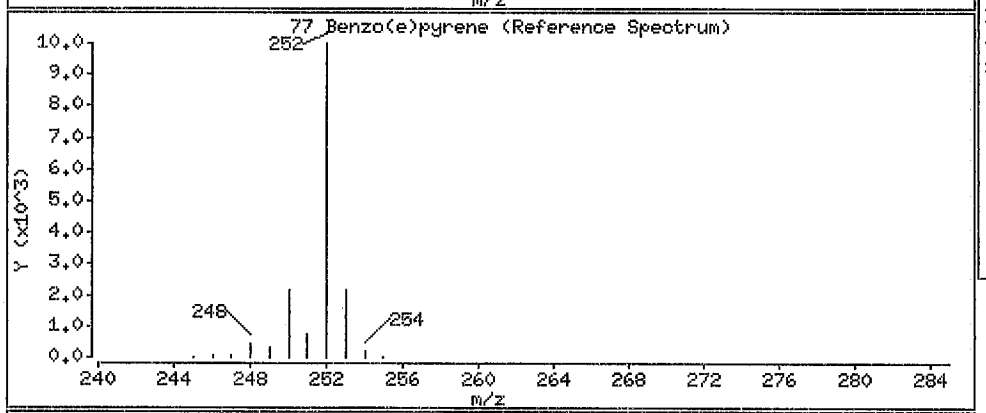
Purge Volume: 10.0 | Operator: 11211

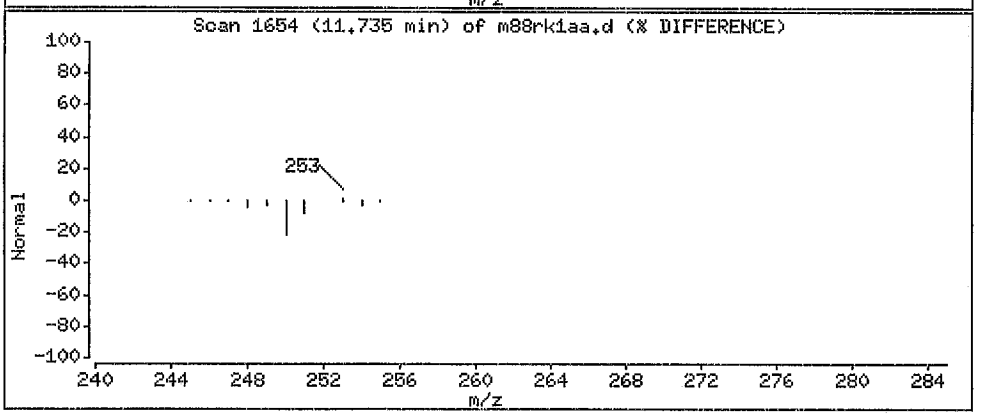
Column phase: Rxi-5SIL MS w/Guard | Column diameter: 0.25

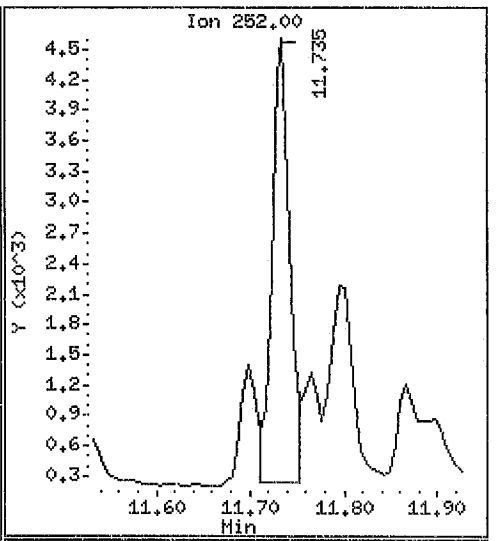
77 Benzo(e)pyrene | Concentration: 0.263 ng/g

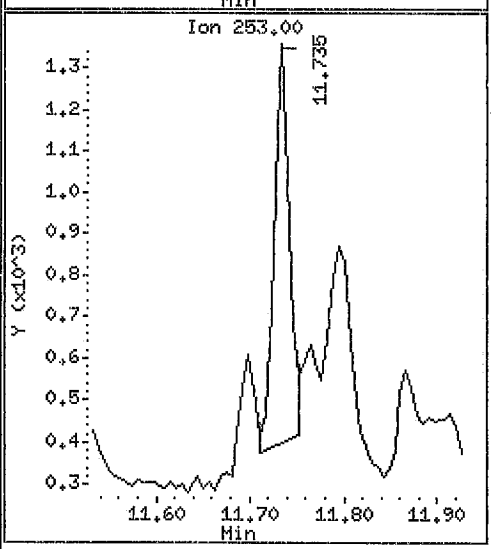












LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...:	H6I190404	**Work Order #...:**	M88RK1AC-LCS	**Matrix.....:**	SOLID
LCS Lot-Sample#:	H6I200000-010				
Prep Date .....:	09/20/16	**Analysis Date..:**	09/27/16		
Prep Batch #...:	6264010				
Dilution Factor:	1	**Instrument ID..:**	MP	**Method.....:**	KNOX ID-0016

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS		RPD LIMITS
Acenaphthene	25.0	24.0	ng/g	96	(60 - 140)		
Acenaphthylene	25.0	24.2	ng/g	97	(60 - 140)		
Anthracene	25.0	24.0	ng/g	96	(60 - 140)		
Benzo(a)anthracene	25.0	29.1	ng/g	116	(60 - 140)		
Benzo(b)fluoranthene	25.0	24.0	ng/g	96	(60 - 140)		
Benzo(k)fluoranthene	25.0	23.7	ng/g	95	(60 - 140)		
Benzo(ghi)perylene	25.0	24.7	ng/g	99	(60 - 140)		
Benzo(a)pyrene	25.0	22.6	ng/g	90	(60 - 140)		
Chrysene	25.0	25.9	ng/g	104	(60 - 140)		
Dibenz(a,h)anthracene	25.0	24.0	ng/g	96	(60 - 140)		
Fluoranthene	25.0	23.9	ng/g	96	(60 - 140)		
Fluorene	25.0	25.0	ng/g	100	(60 - 140)		
Indeno(1,2,3-cd)pyrene	25.0	23.5	ng/g	94	(60 - 140)		
Naphthalene	25.0	27.6	ng/g	110	(60 - 140)		
Perylene	25.0	25.1	ng/g	100	(60 - 140)		
Phenanthrene	25.0	25.7	ng/g	103	(60 - 140)		
Pyrene	25.0	23.5	ng/g	94	(60 - 140)		

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
Fluorene d-10	94	(60 - 140)
Naphthalene-d8	90	(60 - 140)
Acenaphthylene-d8	100	(60 - 140)
Phenanthrene-d10	88	(60 - 140)
Anthracene-d10	91	(60 - 140)
Fluoranthene-d10	101	(60 - 140)
Chrysene-d12	91	(60 - 140)
Benzo(b)fluoranthene-d12	103	(60 - 140)
Benzo(k)fluoranthene-d12	102	(60 - 140)
Benzo(a)pyrene-d12	105	(60 - 140)
Perylene-d12	91	(60 - 140)
Indeno(1,2,3-cd)pyrene-d12	106	(60 - 140)
Dibenz(ah)anthracene-d14	105	(60 - 140)
Benzo(ghi)perylene-d12	100	(60 - 140)

Note(s):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1ac.d
Report Date: 27-Sep-2016 15:09

TestAmerica Knoxville

SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P092716.b/m88rk1ac.d
Lab Smp Id: M88RK1AC
Inj Date : 27-SEP-2016 14:51
Operator : 11211 Inst ID: mp.i
Smp Info : ,,3,,LCS TRT
Misc Info : SIM PAH ANALYSIS 100%
Comment :
Method : /var/chem/gcms/mp.i/P092716.b/SIMPAH10.m
Meth Date : 27-Sep-2016 14:19 cochranj Quant Type: ISTD
Cal Date : 15-SEP-2016 11:39 Cal File: pi15ical1.d
Als bottle: 5 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: simpah.sub
Target Version: 3.50
Processing Host: qmidhp01

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

Name	Value	Description
DF	1.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ng/g)
* 256 1,4-Dichlorobenzene-d4	115	3.969	3.969	(1.000)	99066	0.50000	0.500
$ 257 1,4Dichlorobenzene-d4(SS)	115	3.969	3.969	(0.618)	99066	0.44264	22.1
254 1,4-Dichlorobenzene	146	3.981	3.981	(1.003)	254916	0.49648	24.8
* 234 1,2-Dichlorobenzene-d4	115	4.093	4.082	(1.000)	99443	0.50000	0.500
$ 235 1,2-Dichlorobenzene-d4(SS)	115	4.093	4.082	(0.637)	99443	0.39548	19.8
236 1,2-Dichlorobenzene	146	4.104	4.104	(1.003)	234839	0.52166	26.1
245 1,2,4-Trichlorobenzene	180	4.920	4.911	(0.993)	204240	0.49968	25.0
* 1 Naphthalene-d8	136	4.957	4.957	(1.000)	695755	0.50000	0.500
$ 2 Naphthalene-d8(SS)	136	4.957	4.957	(0.772)	698188	0.45063	22.5
3 Naphthalene	128	4.975	4.975	(1.004)	777824	0.55258	27.6
* 10 2-Methylnaphthalene-d10	152	5.521	5.521	(1.000)	366872	0.50000	0.500
$ 11 2-Methylnaphthalene-d10(SS)	152	5.521	5.521	(0.860)	366872	0.47022	23.5
12 2-Methylnaphthalene	142	5.549	5.544	(1.005)	519056	0.51484	25.7

Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1ac.d
Report Date: 27-Sep-2016 15:09

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ng/g)
* 13 1-Methylnaphthalene-d10	152	5.601	5.601	(1.000)	405198	0.50000	0.500
$ 14 1-Methylnaphthalene-d10(SS)	152	5.601	5.601	(0.872)	405198	0.46968	23.5
15 1-Methylnaphthalene	142	5.629	5.629	(1.005)	454629	0.50981	25.5
16 Biphenyl	154	5.932	5.928	(0.983)	610567	0.51172	25.6
239 2-Chloronaphthalene	162	5.955	5.955	(1.201)	451559	0.52619	26.3
* 17 2,6-Dimethylnaphthalene-d12	168	6.033	6.028	(1.000)	382658	0.50000	0.500
$ 18 2,6-Dimethylnaph-d12(SS)	168	6.033	6.028	(0.939)	382661	0.46885	23.4
19 2,6 Dimethylnaphthalene	156	6.069	6.064	(1.006)	443015	0.50502	25.3
* 20 Acenaphthylene-d8	160	6.291	6.291	(1.000)	696484	0.50000	0.500
$ 21 Acenaphthylene-d8(SS)	160	6.291	6.291	(0.980)	696484	0.50132	25.1
22 Acenaphthylene	152	6.301	6.301	(1.002)	734899	0.48311	24.2
* 23 Acenaphthene-d10	164	6.421	6.421	(1.000)	391183	0.50000	0.500
24 Acenaphthene	154	6.447	6.447	(1.025)	442084	0.48010	24.0
246 Dibenzofuran	168	6.592	6.592	(1.093)	654718	0.51936	26.0
25 2,3,5 Trimethylnaphthalene	170	6.766	6.762	(1.122)	407295	0.54753	27.4
* 26 Fluorene-d10	176	6.857	6.853	(1.000)	437716	0.50000	0.500
$ 233 Fluorene-d10(SS)	176	6.857	6.853	(1.068)	437716	0.47103	23.6
27 Fluorene	166	6.881	6.877	(1.003)	506081	0.49919	25.0
243 Diphenylamine	169	6.967	6.964	(1.016)	137554	0.20181	10.1(R) - NP
* 34 Dibenzothiopene-d8	192	7.571	7.571	(1.000)	425077	0.50000	0.500
$ 35 Dibenzothiopene-d8(SS)	192	7.571	7.571	(0.842)	425077	0.29219	14.6
36 Dibenzothiophene	184	7.587	7.587	(1.002)	467482	0.50960	25.5
* 41 Phenanthrene-d10	188	7.676	7.676	(1.000)	620646	0.50000	0.500
$ 42 Phenanthrene-d10(SS)	188	7.676	7.676	(0.854)	620646	0.43901	22.0
43 Phenanthrene	178	7.694	7.694	(1.002)	800117	0.51437	25.7
* 44 Anthracene-d10	188	7.725	7.722	(1.000)	590732	0.50000	0.500
$ 45 Anthracene-d10(SS)	188	7.725	7.722	(0.859)	590732	0.45458	22.7
46 Anthracene	178	7.740	7.740	(1.002)	722988	0.48090	24.0
247 3-Methylphenanthrene	191	8.120	8.120	(1.058)	312705	0.58912	29.5
52 1-Methylphenanthrene	191	8.242	8.242	(1.074)	297891	0.56544	28.3
* 53 Fluoranthene-d10	212	8.766	8.766	(1.000)	691722	0.50000	0.500
$ 54 Fluoranthene-d10(SS)	212	8.766	8.766	(0.975)	691722	0.50692	25.3
55 Fluoranthene	202	8.785	8.785	(1.002)	844327	0.47881	23.9
* 56 Pyrene-d10	212	8.988	8.988	(1.000)	614425	0.50000	0.500
57 Pyrene	202	9.007	9.007	(1.027)	851613	0.46950	23.5(M)
62 Benzo(a)anthracene	228	10.219	10.219	(0.998)	681405	0.58138	29.1
* 63 Chrysene-d12	240	10.237	10.237	(1.000)	660320	0.50000	0.500
$ 64 Chrysene-d12(SS)	240	10.237	10.237	(1.139)	660320	0.45613	22.8
65 Chrysene	228	10.264	10.264	(1.003)	720134	0.51710	25.9
* 70 Benzo(b)fluoranthene-d12	264	11.376	11.376	(1.000)	530937	0.50000	0.500
$ 71 Benzo(b)fluoranthene-d12(SS)	264	11.376	11.376	(0.972)	530937	0.51424	25.7
72 Benzo(b)fluoranthene	252	11.400	11.400	(1.002)	735218	0.47929	24.0
* 73 Benzo(k)fluoranthene-d12	264	11.406	11.406	(1.000)	648844	0.50000	0.500
$ 74 Benzo(k)fluoranthene-d12(SS)	264	11.406	11.406	(0.975)	648844	0.50824	25.4
75 Benzo(k)fluoranthene	252	11.430	11.430	(1.002)	724577	0.47441	23.7
* 76 Benzo(e)pyrene-d12	264	11.699	11.699	(1.000)	491915	0.50000	0.500
77 Benzo(e)pyrene	252	11.729	11.729	(0.997)	660815	0.46866	23.4

Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1ac.d
Report Date: 27-Sep-2016 15:09

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ng/g)
* 78 Benzo(a)pyrene-d12	264	11.765	11.771	(1.000)	459281	0.50000	0.500
$ 79 Benzo(a)pyrene-d12(SS)	264	11.765	11.771	(1.006)	459281	0.52648	26.3
80 Benzo(a)pyrene	252	11.795	11.795	(1.003)	553874	0.45239	22.6
* 81 Perylene-d12	264	11.866	11.866	(1.000)	453438	0.50000	0.500
$ 82 Perylene-d12(SS)	264	11.866	11.866	(1.014)	453438	0.45346	22.7
83 Perylene	252	11.896	11.896	(1.003)	538187	0.50217	25.1
* 84 Indeno(123-cd)pyrene-d12	288	13.267	13.274	(1.000)	550316	0.50000	0.500
$ 85 Indeno(123-cd)pyrene-d12(SS)	288	13.267	13.274	(1.134)	550316	0.53078	26.5
86 Indeno(1,2,3-cd)pyrene	276	13.301	13.307	(1.003)	695660	0.46976	23.5
* 87 Dibenz(ah)anthracene-d14	292	13.267	13.274	(1.000)	433539	0.50000	0.500
$ 88 Dibenz(ah)anthracene-d14(SS)	292	13.267	13.274	(1.134)	433539	0.52305	26.2
89 Dibenz(a,h)anthracene	278	13.314	13.314	(1.004)	586110	0.48094	24.0
* 90 Benzo(ghi)perylene-d12	288	13.607	13.607	(1.000)	512861	0.50000	0.500
$ 91 Benzo(ghi)perylene-d12(SS)	288	13.607	13.607	(1.163)	512861	0.50117	25.1
92 Benzo(g,h,i)perylene	276	13.641	13.641	(1.002)	637975	0.49439	24.7
* 230 Coronene-d12	312	15.491	15.491	(1.000)	379085	0.50000	0.500
$ 231 Coronene-d12 (SS)	312	15.491	15.491	(1.324)	379085	0.49187	24.6
238 Coronene	300	15.525	15.532	(1.002)	496346	0.46193	23.1

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1ac.d
Report Date: 27-Sep-2016 15:09

TestAmerica Knoxville

RECOVERY REPORT

Client Name: ITSBUR
Sample Matrix: SOLID
Lab Smp Id: M88RK1AC
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: simpah.sub
Method File: /var/chem/gcms/mp.i/P092716.b/SIMPAH10.m
Misc Info: SIM PAH ANALYSIS 100%

Client SDG: P092716
Fraction: SV

Operator: 11211
SampleType: METHSPIKE
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ng/g	CONC RECOVERED ng/g	% RECOVERED	LIMITS
254 1,4-Dichlorobenzen	25.0	24.8	99.30	~~70-130~~
236 1,2-Dichlorobenzen	25.0	26.1	104.33	70-130
245 1,2,4-Trichloroben	25.0	25.0	99.94	70-130
3 Naphthalene	25.0	27.6	110.52	70-130
12 2-Methylnaphthalen	25.0	25.7	102.97	70-130
15 1-Methylnaphthalen	25.0	25.5	101.96	70-130
16 Biphenyl	25.0	25.6	102.34	70-130
19 2,6 Dimethylnaphth	25.0	25.3	101.00	70-130
22 Acenaphthylene	25.0	24.2	96.62	70-130
24 Acenaphthene	25.0	24.0	96.02	70-130
246 Dibenzofuran	25.0	26.0	103.87	70-130
25 2,3,5 Trimethylnap	25.0	27.4	109.51	70-130 40-140 ✓ 9/27/16
27 Fluorene	25.0	25.0	99.84	70-130
243 Diphenylamine	25.0	10.1	NA - 40.36*	70-130
36 Dibenzothiophene	25.0	25.5	101.92	70-130
43 Phenanthrene	25.0	25.7	102.87	70-130
46 Anthracene	25.0	24.0	96.18	70-130
52 1-Methylphenanthre	25.0	28.3	113.09	70-130
55 Fluoranthene	25.0	23.9	95.76	70-130
57 Pyrene	25.0	23.5	93.90	70-130
62 Benzo(a)anthracene	25.0	29.1	116.28	70-130
65 Chrysene	25.0	25.9	103.42	70-130
72 Benzo(b)fluoranthe	25.0	24.0	95.86	70-130
75 Benzo(k)fluoranthe	25.0	23.7	94.88	70-130
77 Benzo(e)pyrene	25.0	23.4	93.73	70-130
80 Benzo(a)pyrene	25.0	22.6	90.48	70-130
83 Perylene	25.0	25.1	100.43	70-130
86 Indeno(1,2,3-cd)py	25.0	23.5	93.95	70-130
89 Dibenz(a,h)anthrac	25.0	24.0	96.19	70-130
92 Benzo(g,h,i)peryle	25.0	24.7	98.88	70-130
238 Coronene	25.0	23.1	92.39	~~70-130~~

Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1ac.d
Report Date: 27-Sep-2016 15:09

TestAmerica Knoxville

RECOVERY REPORT

Client Name: ITSBUR
Sample Matrix: SOLID
Lab Smp Id: M88RK1AC
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: simpah.sub
Method File: /var/chem/gcms/mp.i/P092716.b/SIMPAH10.m
Misc Info: SIM PAH ANALYSIS 100%

Client SDG: P092716
Fraction: SV

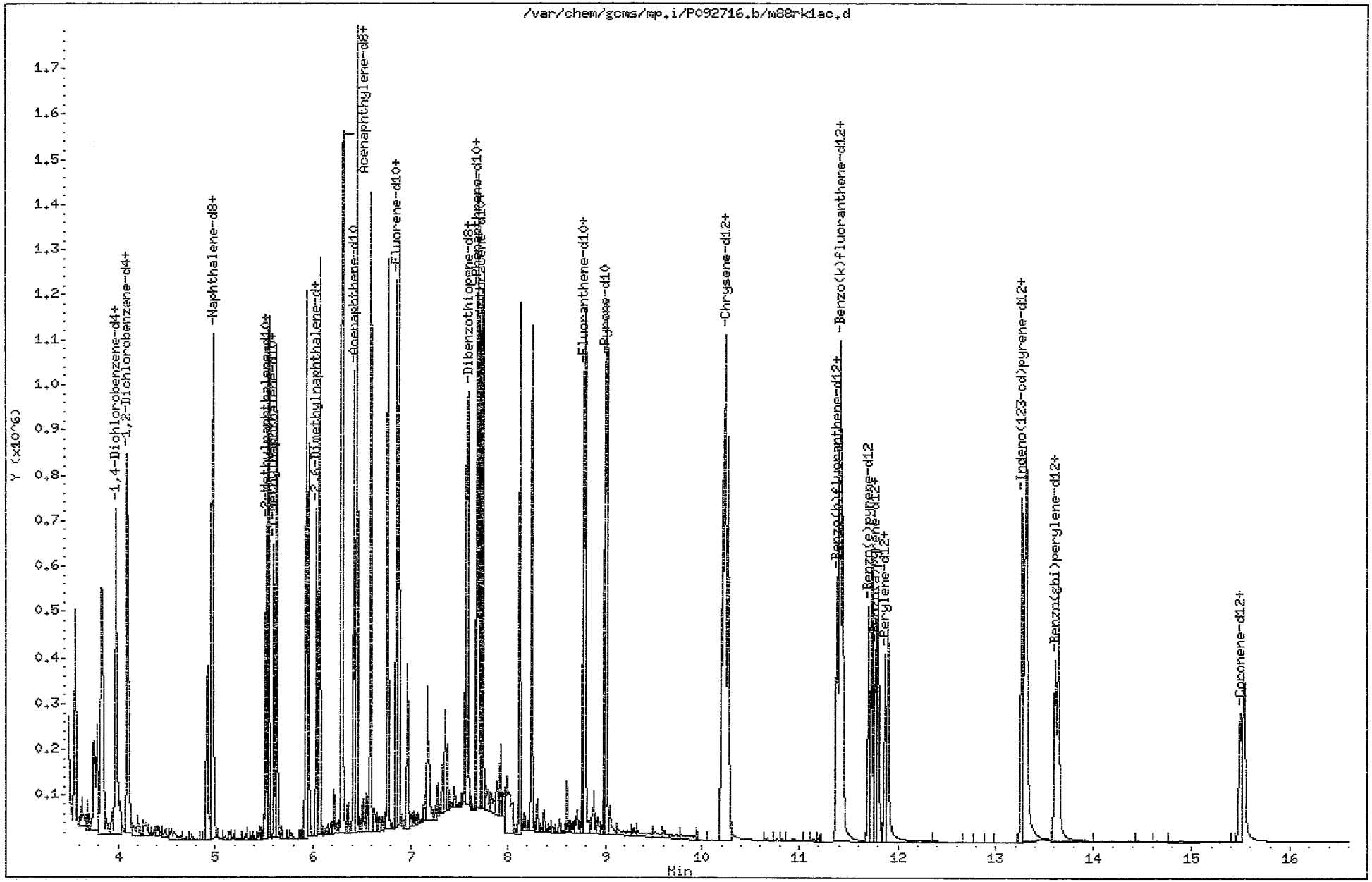
Operator: 11211
SampleType: METHSPIKE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ng/g	CONC RECOVERED ng/g	% RECOVERED	LIMITS
$ 257 1,4Dichlorobenzene	25.0	22.1	88.53	~~30-120~~
$ 235 1,2-Dichlorobenzen	25.0	19.8	79.10	30-120
$ 2 Naphthalene-d8(SS)	25.0	22.5	90.13	30-130
$ 222 13C6-Naphthalene	50.0	0.00	*	50-150
$ 11 2-Methylnaphthalen	25.0	23.5	94.04	30-120
$ 14 1-Methylnaphthalen	25.0	23.5	93.94	30-120
$ 18 2,6-Dimethylnaph-d	25.0	23.4	93.77	30-120
$ 21 Acenaphthylene-d8(	25.0	25.1	100.26	30-120
$ 233 Fluorene-d10(SS)	25.0	23.6	94.21	30-120
$ 35 Dibenzothiopene-d8	25.0	14.6	58.44	30-120
$ 42 Phenanthrene-d10(S	25.0	22.0	87.80	30-120
$ 45 Anthracene-d10(SS)	25.0	22.7	90.92	30-120
$ 54 Fluoranthene-d10(S	25.0	25.3	101.38	30-120
$ 58 Terphenyl-d14	25.0	0.00	*	30-120
$ 64 Chrysene-d12(SS)	25.0	22.8	91.23	30-120
$ 71 Benzo(b)fluoranthe	25.0	25.7	102.85	30-120
$ 74 Benzo(k)fluoranthe	25.0	25.4	101.65	30-120
$ 79 Benzo(a)pyrene-d12	25.0	26.3	105.30	30-120
$ 82 Perylene-d12(SS)	25.0	22.7	90.69	30-120
$ 85 Indeno(123-cd)pyre	25.0	26.5	106.16	30-120
$ 88 Dibenz(ah)anthrace	25.0	26.2	104.61	30-120
$ 91 Benzo(ghi)perylene	25.0	25.1	100.23	30-120
$ 231 Coronene-d12 (SS)	25.0	24.6	98.37	30-120

60-140%
9/27/16

Data File: /var/chem/gcms/mp.i/P092716.b/m88rk1ac.d
Date : 27-SEP-2016 14:51
Client ID:
Sample Info: ,,3,,LCS TRT
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File Name: m88rk1ac.d

Inj. Date and Time: 27-SEP-2016 14:51

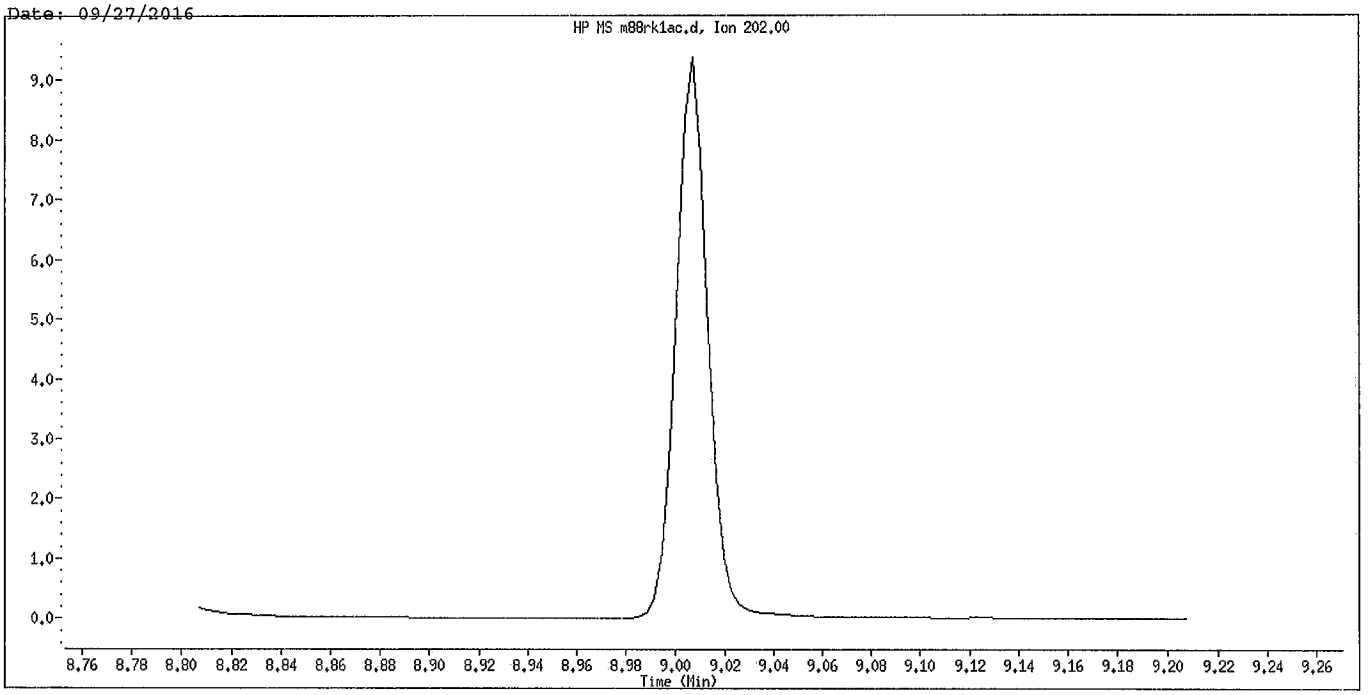
Instrument ID: mp.i

Client ID:

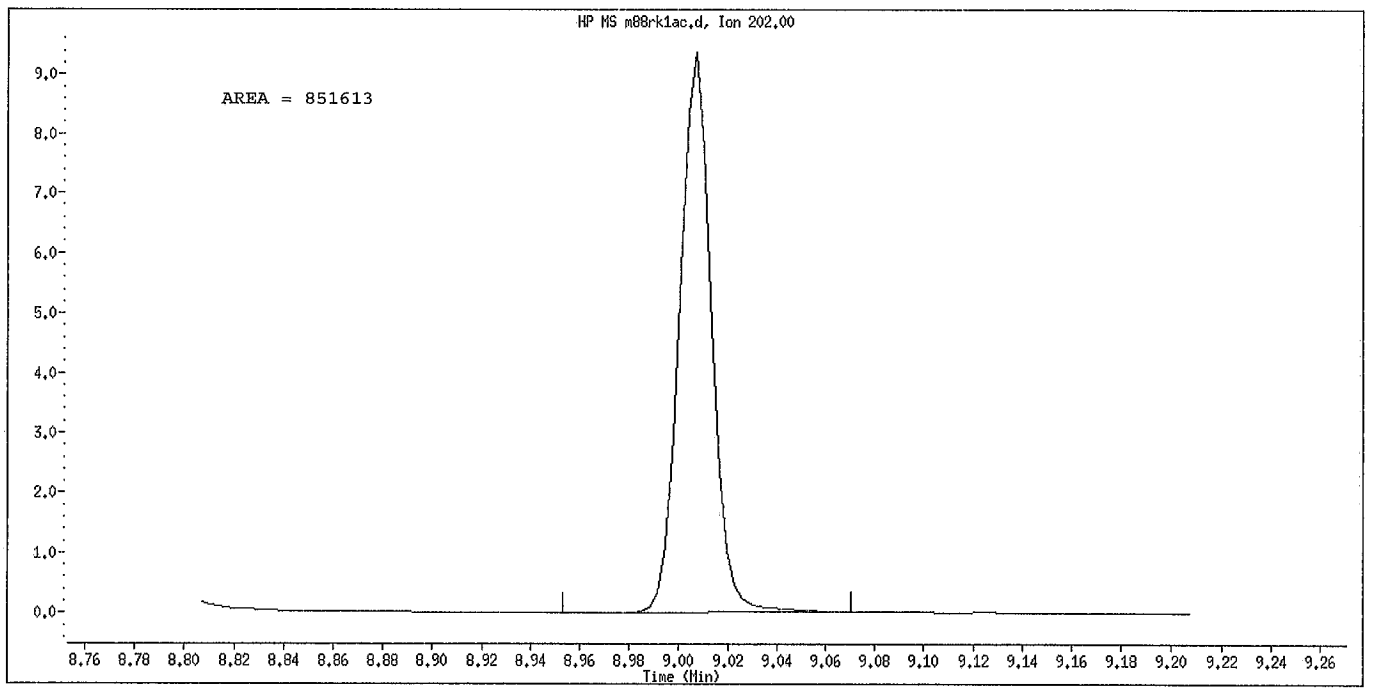
Compound Name: Pyrene

CAS #: 129-00-0

Report Date: 09/27/2016



Original Integration



Manual Integration

Manually Integrated By: cochranj

Manual Integration Reason: Analyte Misidentified by the Data System

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...:	H6I190404	Work Order #...:	M88MX1AC-MS	Matrix.....:	SOLID
OS Lot-Sample #:	H6I190404-001		M88MX1AD-MSD		
Prep Date.....:	09/20/16	Analysis Date..:	09/27/16		
Prep Batch #...:	6264010				
Dilution Factor:	400	Instrument ID..:	MP	Method.....:	KNOX ID-0016

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
Acenaphthene	2100	25.0	2010	ng/g	NC DIL	(60-140)		
	2100	25.0	2200	ng/g	NC DIL	(60-140)		(0-25)
Acenaphthylene	3700	25.0	3570	ng/g	NC DIL	(60-140)		
	3700	25.0	3910	ng/g	NC DIL	(60-140)		(0-25)
Anthracene	16000	25.0	15400	ng/g	NC DIL	(60-140)		
	16000	25.0	17200	ng/g	NC DIL	(60-140)		(0-25)
Benzo(a)anthracene	25000	25.0	21800	ng/g	NC DIL	(60-140)		
	25000	25.0	25700	ng/g	NC DIL	(60-140)		(0-25)
Benzo(b)fluoranthene	7100	25.0	6440	ng/g	NC DIL	(60-140)		
	7100	25.0	7890	ng/g	NC DIL	(60-140)		(0-25)
Benzo(k)fluoranthene	3100	25.0	2970	ng/g	NC DIL	(60-140)		
	3100	25.0	3580	ng/g	NC DIL	(60-140)		(0-25)
Benzo(ghi)perylene	590	25.0	541	ng/g	NC DIL	(60-140)		
	590	25.0	749	ng/g	NC DIL	(60-140)		(0-25)
Benzo(a)pyrene	2200	25.0	2040	ng/g	NC DIL	(60-140)		
	2200	25.0	2500	ng/g	NC DIL	(60-140)		(0-25)
Chrysene	27000	25.0	27000	ng/g	NC DIL	(60-140)		
	27000	25.0	30900	ng/g	NC DIL	(60-140)		(0-25)
Dibenz(a,h)anthracene	410	25.0	381	ng/g	NC DIL	(60-140)		
	410	25.0	493	ng/g	NC DIL	(60-140)		(0-25)
Fluoranthene	66000	25.0	60300	ng/g	NC DIL	(60-140)		
	66000	25.0	67300	ng/g	NC DIL	(60-140)		(0-25)
Fluorene	9200	25.0	8730	ng/g	NC DIL	(60-140)		
	9200	25.0	9620	ng/g	NC DIL	(60-140)		(0-25)
Indeno(1,2,3-cd)pyrene	600	25.0	564	ng/g	NC DIL	(60-140)		
	600	25.0	762	ng/g	NC DIL	(60-140)		(0-25)
Naphthalene	26000	25.0	24000	ng/g	NC DIL	(60-140)		
	26000	25.0	26600	ng/g	NC DIL	(60-140)		(0-25)
Perylene	600	25.0	518	ng/g	NC DIL	(60-140)		
	600	25.0	691	ng/g	NC DIL	(60-140)		(0-25)
Phenanthrene	64000	25.0	60800	ng/g	NC DIL	(60-140)		
	64000	25.0	66900	ng/g	NC DIL	(60-140)		(0-25)
Pyrene	44000	25.0	40700	ng/g	NC DIL	(60-140)		
	44000	25.0	45300	ng/g	NC DIL	(60-140)		(0-25)

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
Fluorene d-10	98	(30-120)
	99	(30-120)
Naphthalene-d8	95	(30-120)
	95	(30-120)

(Continued on next Page)

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: H6I190404 **Work Order #...:** M88MX1AC-MS **Matrix.....:** SOLID
OS Lot-Sample #: H6I190404-001 M88MX1AD-MSD

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
Acenaphthylene-d8	105	(30-120)
	106	(30-120)
Phenanthrene-d10	90	(30-120)
	91	(30-120)
Anthracene-d10	97	(30-120)
	99	(30-120)
Fluoranthene-d10	101	(30-120)
	102	(30-120)
Chrysene-d12	90	(30-120)
	90	(30-120)
Benzo(b)fluoranthene-d12	108	(30-120)
	110	(30-120)
Benzo(k)fluoranthene-d12	97	(30-120)
	96	(30-120)
Benzo(a)pyrene-d12	109	(30-120)
	111	(30-120)
Perylene-d12	98	(30-120)
	100	(30-120)
Indeno(1,2,3-cd)pyrene-d12	100	(30-120)
	102	(30-120)
Dibenz(ah)anthracene-d14	99	(30-120)
	100	(30-120)
Benzo(ghi)perylene-d12	94	(30-120)
	94	(30-120)

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

NC The recovery and/or RPD were not calculated.

Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1ac.d
Report Date: 27-Sep-2016 18:07

TestAmerica Knoxville

SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P092716.b/m88mx1ac.d
Lab Smp Id: M88MX1AC
Inj Date : 27-SEP-2016 17:22
Operator : 11211 Inst ID: mp.i
Smp Info : ,,3,,PDS 1:400 TRT
Misc Info : SIM PAH ANALYSIS 100%
Comment :
Method : /var/chem/gcms/mp.i/P092716.b/SIMPAH10.m
Meth Date : 27-Sep-2016 14:19 cochranj Quant Type: ISTD
Cal Date : 15-SEP-2016 11:39 Cal File: pi15ical1.d
Als bottle: 10 QC Sample: METHSPIKE
Dil Factor: 400.00000
Integrator: HP RTE Compound Sublist: simpah.sub
Target Version: 3.50
Processing Host: qmidhp01

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

Name	Value	Description
DF	400.00000 ✓	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ng/g)
* 256 1,4-Dichlorobenzene-d4	115	3.970	3.969	(1.000)	102938	0.50000	0.500
$ 257 1,4Dichlorobenzene-d4(SS)	115	3.970	3.969	(0.618)	102938	0.52048	26.0
254 1,4-Dichlorobenzene	146	3.981	3.981	(1.003)	527	0.000988	19.8
* 234 1,2-Dichlorobenzene-d4	115	4.093	4.082	(1.000)	109570	0.50000	0.500
$ 235 1,2-Dichlorobenzene-d4(SS)	115	4.093	4.082	(0.637)	109570	0.49312	24.7
236 1,2-Dichlorobenzene	146	4.104	4.104	(1.003)	626	0.00126	25.2(M)
245 1,2,4-Trichlorobenzene	180	4.920	4.911	(0.993)	491	0.00129	25.8
* 1 Naphthalene-d8	136	4.957	4.957	(1.000)	646768	0.50000	0.500
$ 2 Naphthalene-d8(SS)	136	4.957	4.957	(0.772)	649096	0.47410	23.7
3 Naphthalene	128	4.976	4.975	(1.004)	1573228	1.20229	24000(R)
* 10 2-Methylnaphthalene-d10	152	5.521	5.521	(1.000)	334570	0.50000	0.500
$ 11 2-Methylnaphthalene-d10(SS)	152	5.521	5.521	(0.860)	334570	0.48527	24.3
12 2-Methylnaphthalene	142	5.550	5.544	(1.005)	388085	0.42210	8440(R)

Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1ac.d
Report Date: 27-Sep-2016 18:07

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ng/g)
* 13 1-Methylnaphthalene-d10	152	5.601	5.601	(1.000)	367915	0.50000	0.500
$ 14 1-Methylnaphthalene-d10(SS)	152	5.601	5.601	(0.872)	367915	0.48261	24.1
15 1-Methylnaphthalene	142	5.630	5.629	(1.005)	174512	0.21553	4310(R)
16 Biphenyl	154	5.933	5.928	(0.983)	77946	0.07209	1440(R)
* 17 2,6-Dimethylnaphthalene-d12	168	6.033	6.028	(1.000)	346767	0.50000	0.500
$ 18 2,6-Dimethylnaph-d12(SS)	168	6.033	6.028	(0.939)	346767	0.48080	24.0
19 2,6 Dimethylnaphthalene	156	6.074	6.064	(1.007)	157281	0.19785	3960(R)
* 20 Acenaphthylene-d8	160	6.291	6.291	(1.000)	645903	0.50000	0.500
$ 21 Acenaphthylene-d8(SS)	160	6.291	6.291	(0.980)	645903	0.52611	26.3
22 Acenaphthylene	152	6.301	6.301	(1.002)	251547	0.17831	3570(R)
* 23 Acenaphthene-d10	164	6.422	6.421	(1.000)	345676	0.50000	0.500
24 Acenaphthene	154	6.447	6.447	(1.025)	85814	0.10049	2010(R)
246 Dibenzofuran	168	6.592	6.592	(1.093)	374970	0.32824	6560(R)
25 2,3,5 Trimethylnaphthalene	170	6.766	6.762	(1.122)	57816	0.08577	1720(RM)
* 26 Fluorene-d10	176	6.857	6.853	(1.000)	402346	0.50000	0.500
$ 233 Fluorene-d10(SS)	176	6.857	6.853	(1.068)	402346	0.48997	24.5
27 Fluorene	166	6.881	6.877	(1.003)	406717	0.43644	8730(R)
243 Diphenylamine	169	6.975	6.964	(1.017)	17841	0.02848	570(R)
* 34 Dibenzothiopene-d8	192	7.571	7.571	(1.000)	573164	0.50000	0.500
$ 35 Dibenzothiopene-d8(SS)	192	7.571	7.571	(0.842)	573164	0.45333	22.7
36 Dibenzothiophene	184	7.587	7.587	(1.002)	251853	0.20361	4070(R)
* 41 Phenanthrene-d10	188	7.676	7.676	(1.000)	555594	0.50000	0.500
$ 42 Phenanthrene-d10(SS)	188	7.676	7.676	(0.854)	555594	0.45220	22.6
43 Phenanthrene	178	7.697	7.694	(1.003)	4234228	3.04075	60800(R)
* 44 Anthracene-d10	188	7.725	7.722	(1.000)	547765	0.50000	0.500
$ 45 Anthracene-d10(SS)	188	7.725	7.722	(0.859)	547765	0.48502	24.3
46 Anthracene	178	7.740	7.740	(1.002)	1076078	0.77191	15400(R)
247 3-Methylphenanthrene	191	8.120	8.120	(1.058)	309995	0.65239	13000
52 1-Methylphenanthrene	191	8.242	8.242	(1.074)	192923	0.40907	8180(R)
* 53 Fluoranthene-d10	212	8.769	8.766	(1.000)	599381	0.50000	0.500
$ 54 Fluoranthene-d10(SS)	212	8.769	8.766	(0.975)	599381	0.50542	25.3
55 Fluoranthene	202	8.785	8.785	(1.002)	4605381	3.01403	60300(R)
* 56 Pyrene-d10	212	8.991	8.988	(1.000)	533982	0.50000	0.500
57 Pyrene	202	9.007	9.007	(1.027)	3195465	2.03308	40700(R)
62 Benzo(a)anthracene	228	10.228	10.219	(0.999)	1093429	1.08973	21800(R)
* 63 Chrysene-d12	240	10.237	10.237	(1.000)	565301	0.50000	0.500
$ 64 Chrysene-d12(SS)	240	10.237	10.237	(1.139)	565301	0.44932	22.5
65 Chrysene	228	10.264	10.264	(1.003)	1607950	1.34869	27000(R)
* 70 Benzo(b)fluoranthene-d12	264	11.377	11.376	(1.000)	479617	0.50000	0.500
$ 71 Benzo(b)fluoranthene-d12(SS)	264	11.377	11.376	(0.972)	479617	0.53994	27.0
72 Benzo(b)fluoranthene	252	11.406	11.400	(1.003)	446236	0.32203	6440(RM)
* 73 Benzo(k)fluoranthene-d12	264	11.412	11.406	(1.000)	533456	0.50000	0.500
$ 74 Benzo(k)fluoranthene-d12(SS)	264	11.412	11.406	(0.975)	533456	0.48568	24.3
75 Benzo(k)fluoranthene	252	11.424	11.430	(1.001)	186467	0.14850	2970(RM)
* 76 Benzo(e)pyrene-d12	264	11.705	11.699	(1.000)	423213	0.50000	0.500
77 Benzo(e)pyrene	252	11.735	11.729	(0.997)	206326	0.16473	3290(R)
* 78 Benzo(a)pyrene-d12	264	11.771	11.771	(1.000)	407981	0.50000	0.500

Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1ac.d
Report Date: 27-Sep-2016 18:07

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ng/g)
$ 79 Benzo(a)pyrene-d12(SS)	264	11.771	11.771	(1.006)	407981	0.54360	27.2
80 Benzo(a)pyrene	252	11.795	11.795	(1.002)	110729	0.10181	2040(R)
* 81 Perylene-d12	264	11.867	11.866	(1.000)	421895	0.50000	0.500
$ 82 Perylene-d12(SS)	264	11.867	11.866	(1.014)	421895	0.49041	24.5
83 Perylene	252	11.902	11.896	(1.003)	25822	0.02590	518(R)
* 84 Indeno(123-cd)pyrene-d12	288	13.274	13.274	(1.000)	440634	0.50000	0.500
$ 85 Indeno(123-cd)pyrene-d12(SS)	288	13.274	13.274	(1.134)	448629	0.50295	25.1
86 Indeno(1,2,3-cd)pyrene	276	13.308	13.307	(1.003)	33415	0.02818	564(R)
* 87 Dibenz(ah)anthracene-d14	292	13.274	13.274	(1.000)	352352	0.50000	0.500
$ 88 Dibenz(ah)anthracene-d14(SS)	292	13.274	13.274	(1.134)	352352	0.49411	24.7
89 Dibenz(a,h)anthracene	278	13.314	13.314	(1.003)	18864	0.01905	381(RM)
* 90 Benzo(ghi)perylene-d12	288	13.614	13.607	(1.000)	412823	0.50000	0.500
$ 91 Benzo(ghi)perylene-d12(SS)	288	13.614	13.607	(1.163)	412834	0.46892	23.4
92 Benzo(g,h,i)perylene	276	13.648	13.641	(1.002)	28096	0.02705	541(R)
* 230 Coronene-d12	312	15.498	15.491	(1.000)	309607	0.50000	0.500
$ 231 Coronene-d12 (SS)	312	15.498	15.491	(1.324)	309607	0.46693	23.3
238 Coronene	300	15.539	15.532	(1.003)	1370	0.00156	31.2(M)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1ac.d
Report Date: 27-Sep-2016 18:07

TestAmerica Knoxville

RECOVERY REPORT

Client Name: ITSBUR
Sample Matrix: SOLID
Lab Smp Id: M88MX1AC
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: simpah.sub
Method File: /var/chem/gcms/mp.i/P092716.b/SIMPAH10.m
Misc Info: SIM PAH ANALYSIS 100%

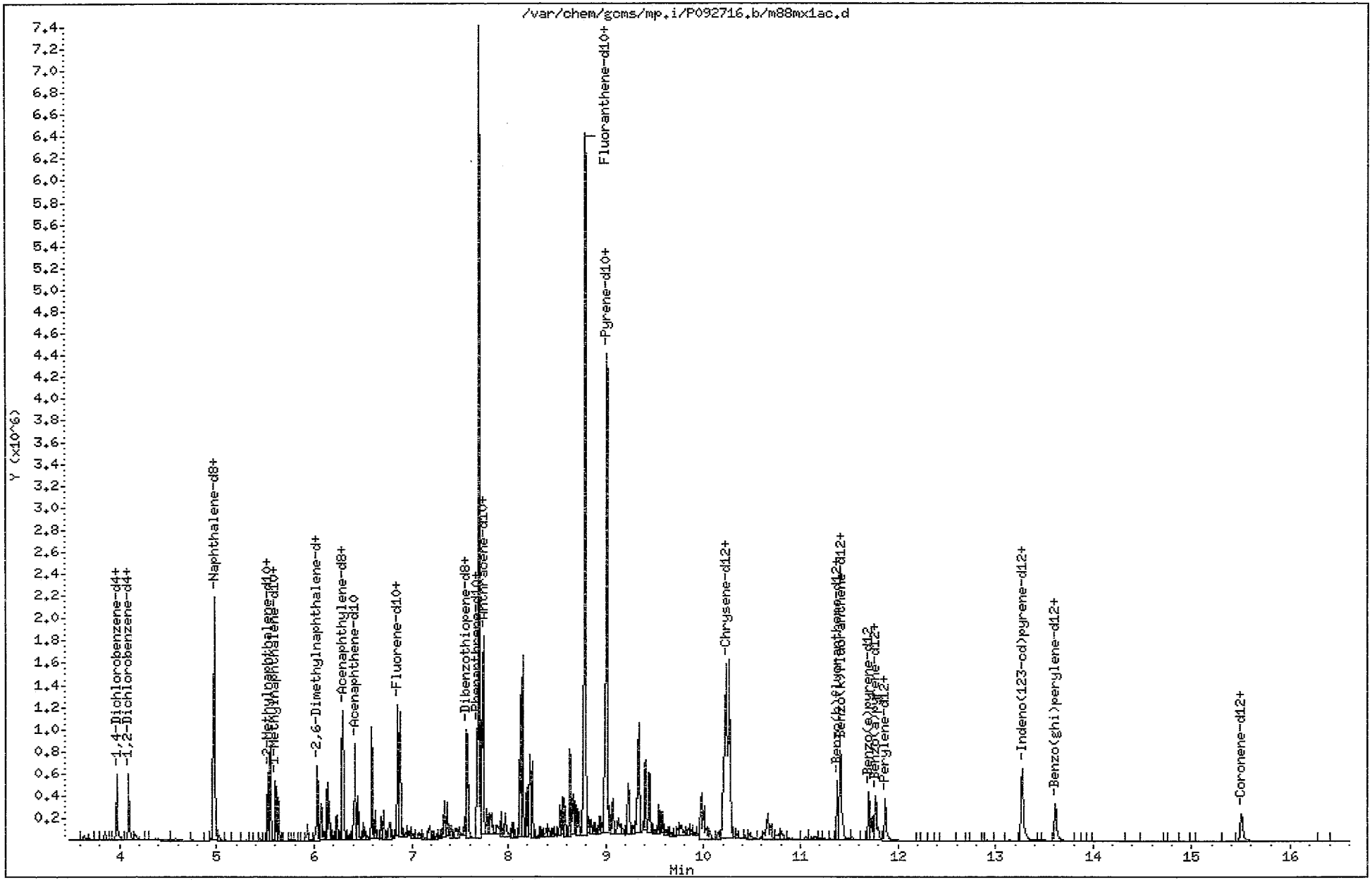
Client SDG: P092716
Fraction: SV

Operator: 11211
SampleType: METHSPIKE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ng/g	CONC RECOVERED ng/g	% RECOVERED	LIMITS
$ 257 1,4Dichlorobenzene	25.0	26.0	104.10	30-120
$ 235 1,2-Dichlorobenzen	25.0	24.7	98.62	30-120
$ 2 Naphthalene-d8(SS)	25.0	23.7	94.82	30-130
$ 222 13C6-Naphthalene	50.0	0.00	*	50-150
$ 11 2-Methylnaphthalen	25.0	24.3	97.05	30-120
$ 14 1-Methylnaphthalen	25.0	24.1	96.52	30-120
$ 18 2,6-Dimethylnaph-d	25.0	24.0	96.16	30-120
$ 21 Acenaphthylene-d8(	25.0	26.3	105.22	30-120
$ 233 Fluorene-d10(SS)	25.0	24.5	97.99	30-120
$ 35 Dibenzothiopene-d8	25.0	22.7	90.67	30-120
$ 42 Phenanthrene-d10(S	25.0	22.6	90.44	30-120
$ 45 Anthracene-d10(SS)	25.0	24.3	97.00	30-120
$ 54 Fluoranthene-d10(S	25.0	25.3	101.08	30-120
$ 58 Terphenyl-d14	25.0	0.00	*	30-120
$ 64 Chrysene-d12(SS)	25.0	22.5	89.86	30-120
$ 71 Benzo(b)fluoranthe	25.0	27.0	107.99	30-120
$ 74 Benzo(k)fluoranthe	25.0	24.3	97.14	30-120
$ 79 Benzo(a)pyrene-d12	25.0	27.2	108.72	30-120
$ 82 Perylene-d12(SS)	25.0	24.5	98.08	30-120
$ 85 Indeno(123-cd)pyre	25.0	25.1	100.59	30-120
$ 88 Dibenz(ah)anthrace	25.0	24.7	98.82	30-120
$ 91 Benzo(ghi)perylene	25.0	23.4	93.78	30-120
$ 231 Coronene-d12 (SS)	25.0	23.3	93.39	30-120

Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1ac.d
Date : 27-SEP-2016 17:22
Client ID:
Sample Info: ,,3,,PDS 1:400 TRT
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File Name: m88mx1ac.d

Inj. Date and Time: 27-SEP-2016 17:22

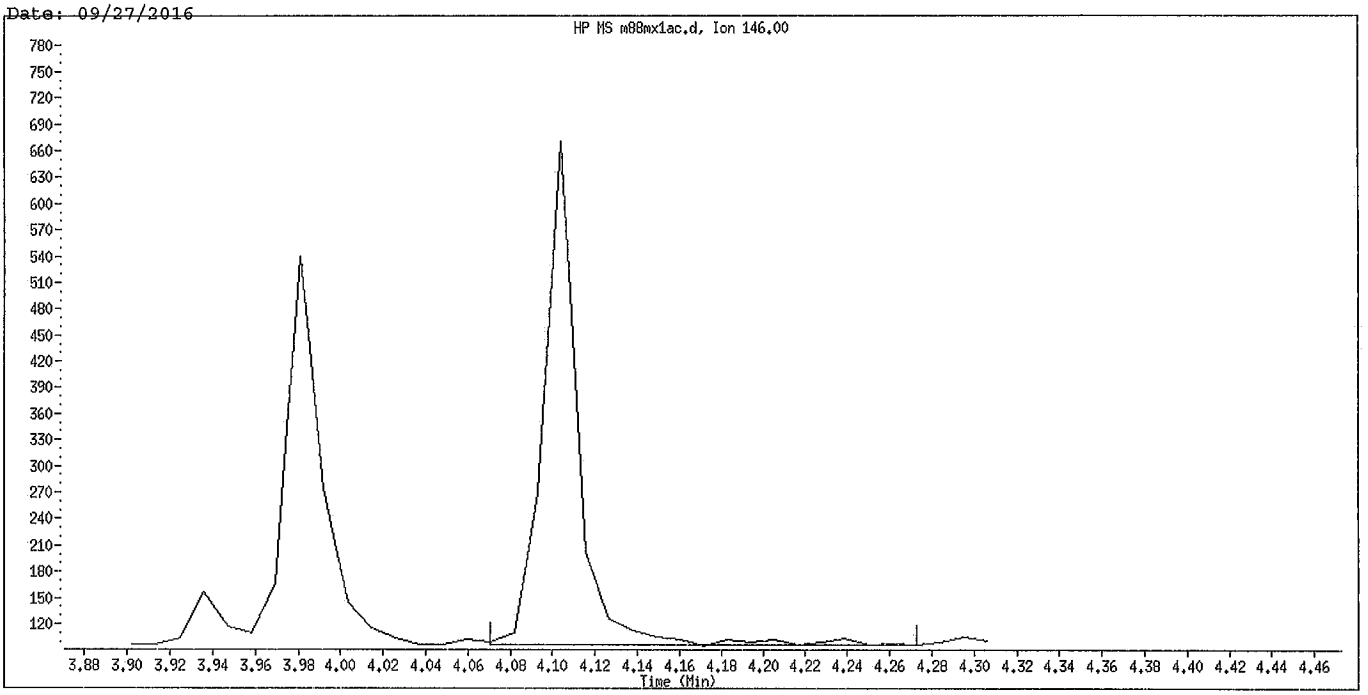
Instrument ID: mp.i

Client ID:

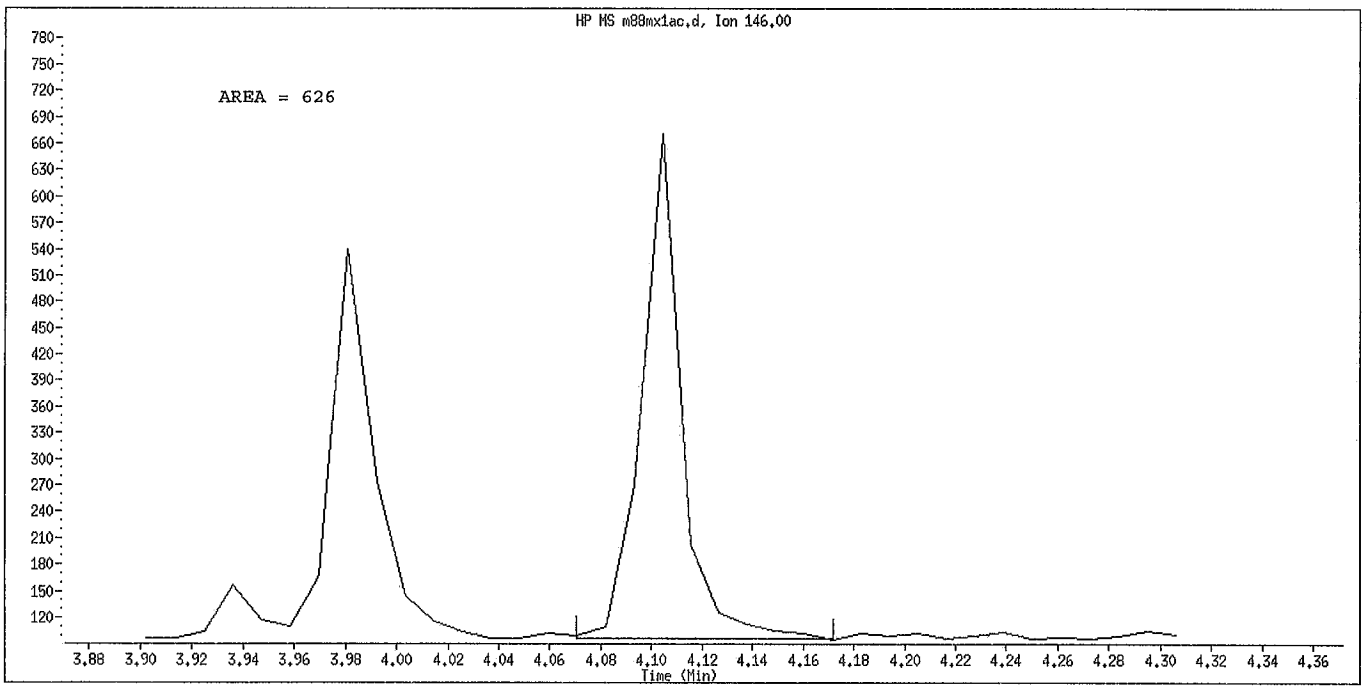
Compound Name: 1,2-Dichlorobenzene

CAS #: 95-50-1

Report Date: 09/27/2016



Original Integration



Manual Integration

Manually Integrated By: cochranj

Manual Integration Reason: Target Peak Misintegrated (extraneous area removed)

Data File Name: m88mx1ac.d

Inj. Date and Time: 27-SEP-2016 17:22

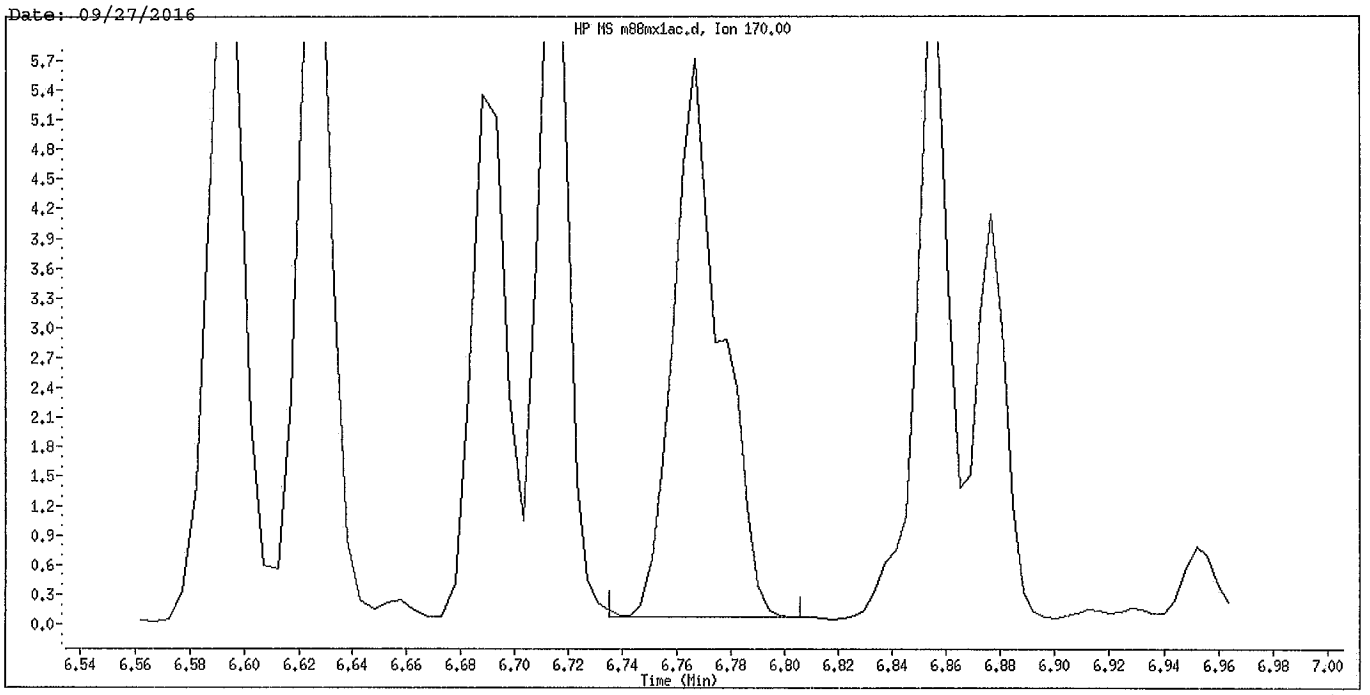
Instrument ID: mp.i

Client ID:

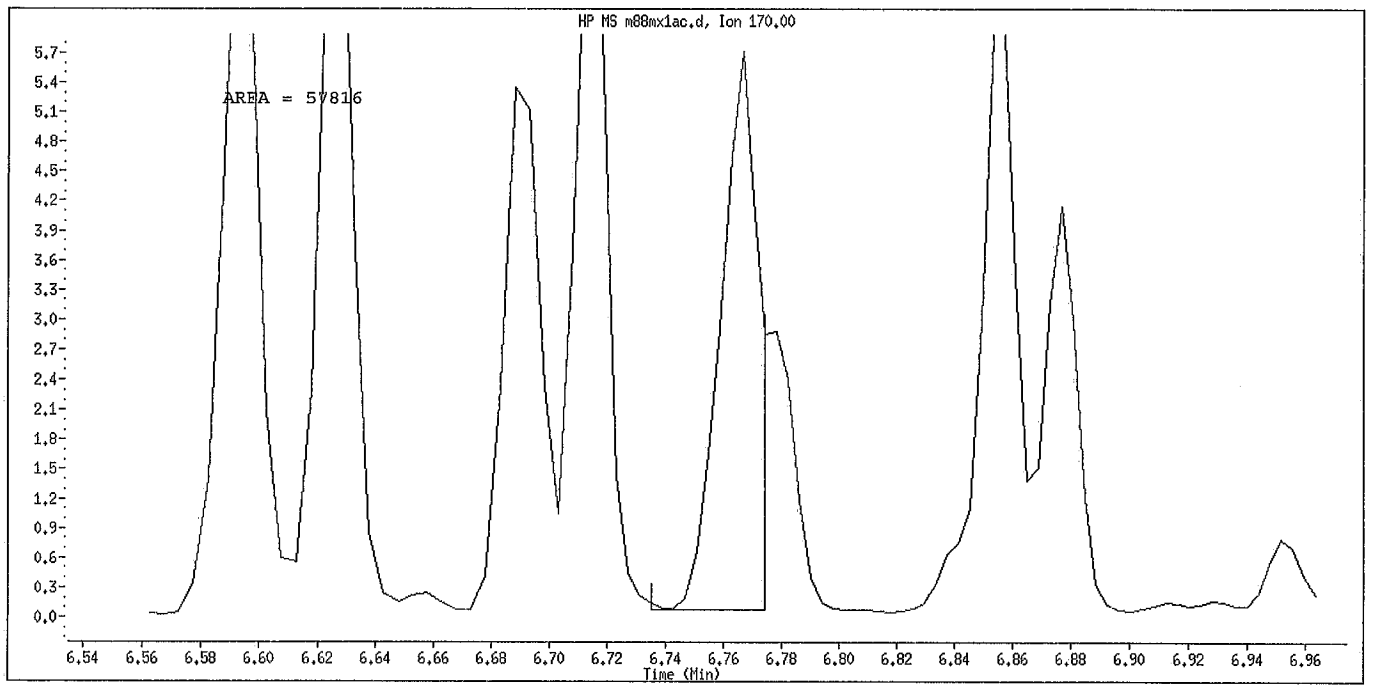
Compound Name: 2,3,5 Trimethylnaphthalene

CAS #: 2245-38-7

Report ~~Date: 09/27/2016~~



Original Integration



Manual Integration

Manually Integrated By: cochranj

Manual Integration Reason: Target Peak Misintegrated (extraneous area removed)

Data File Name: m88mx1ac.d

Inj. Date and Time: 27-SEP-2016 17:22

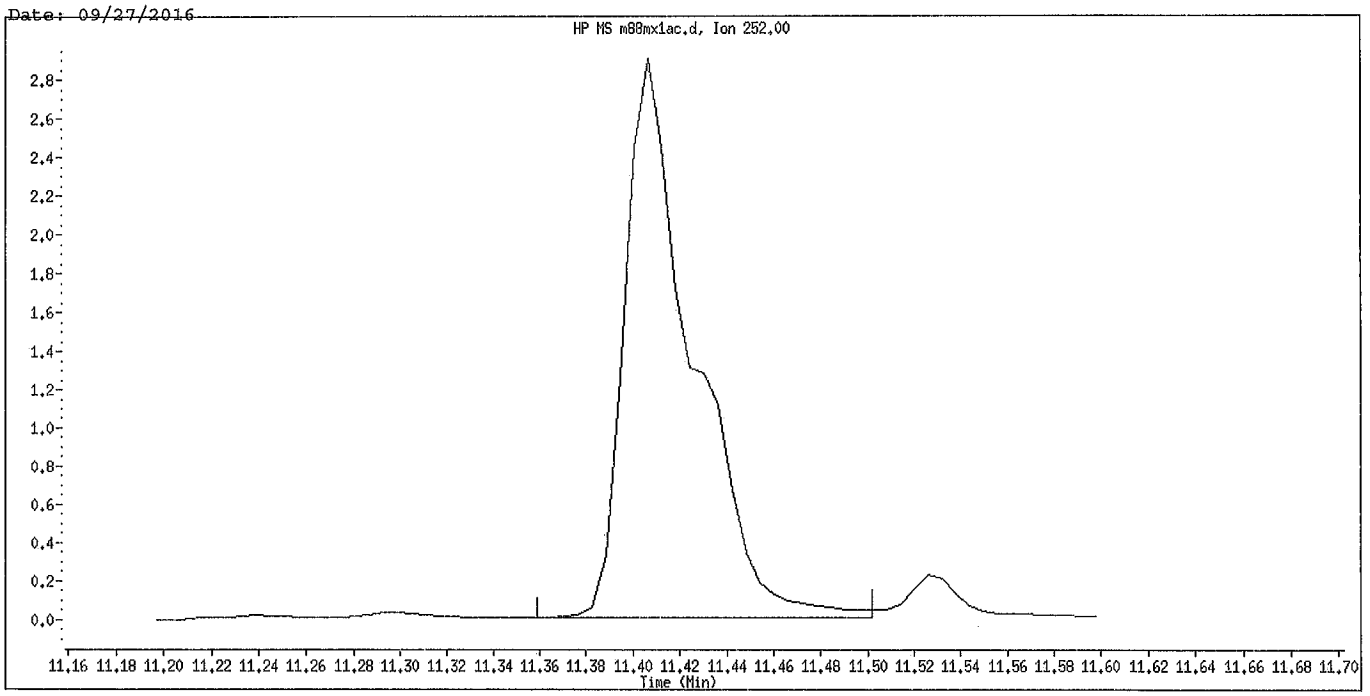
Instrument ID: mp.i

Client ID:

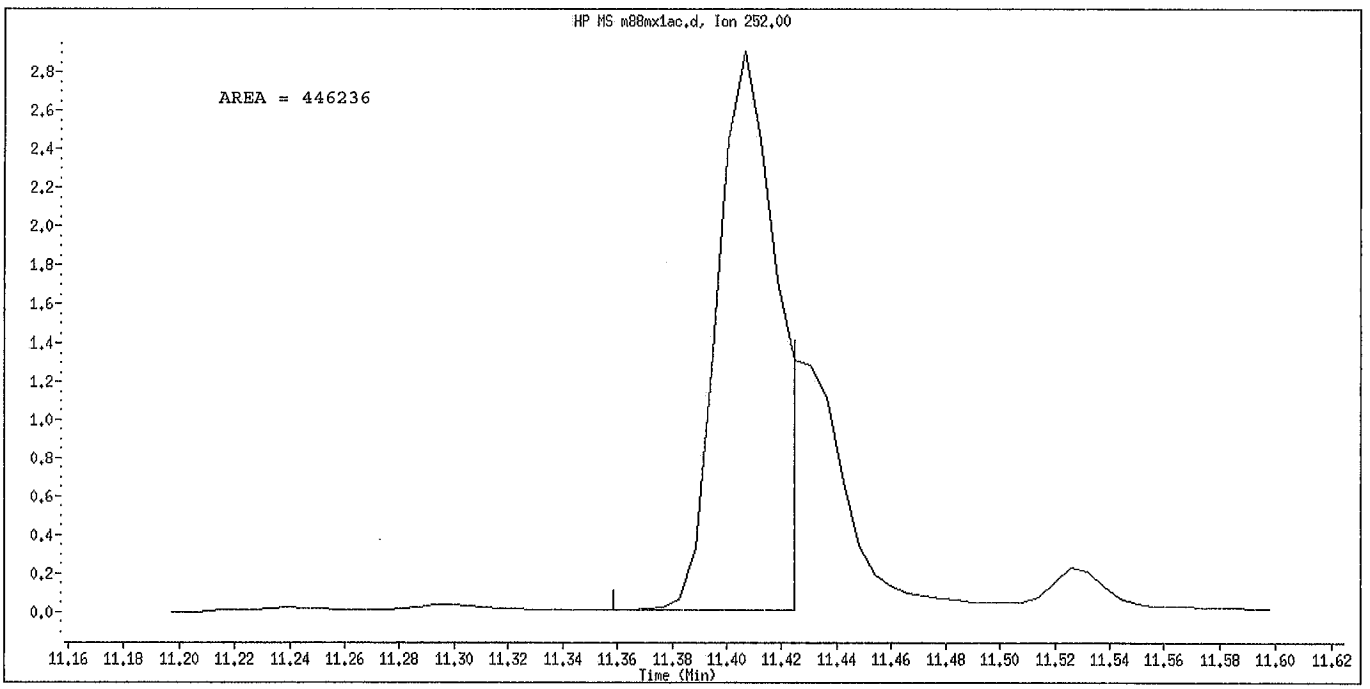
Compound Name: Benzo(b)fluoranthene

CAS #: 205-99-2

Report Date: 09/27/2016



Original Integration



Manual Integration

Manually Integrated By: cochranj

Manual Integration Reason: Splitting a peak

Data File Name: m88mx1ac.d

Inj. Date and Time: 27-SEP-2016 17:22

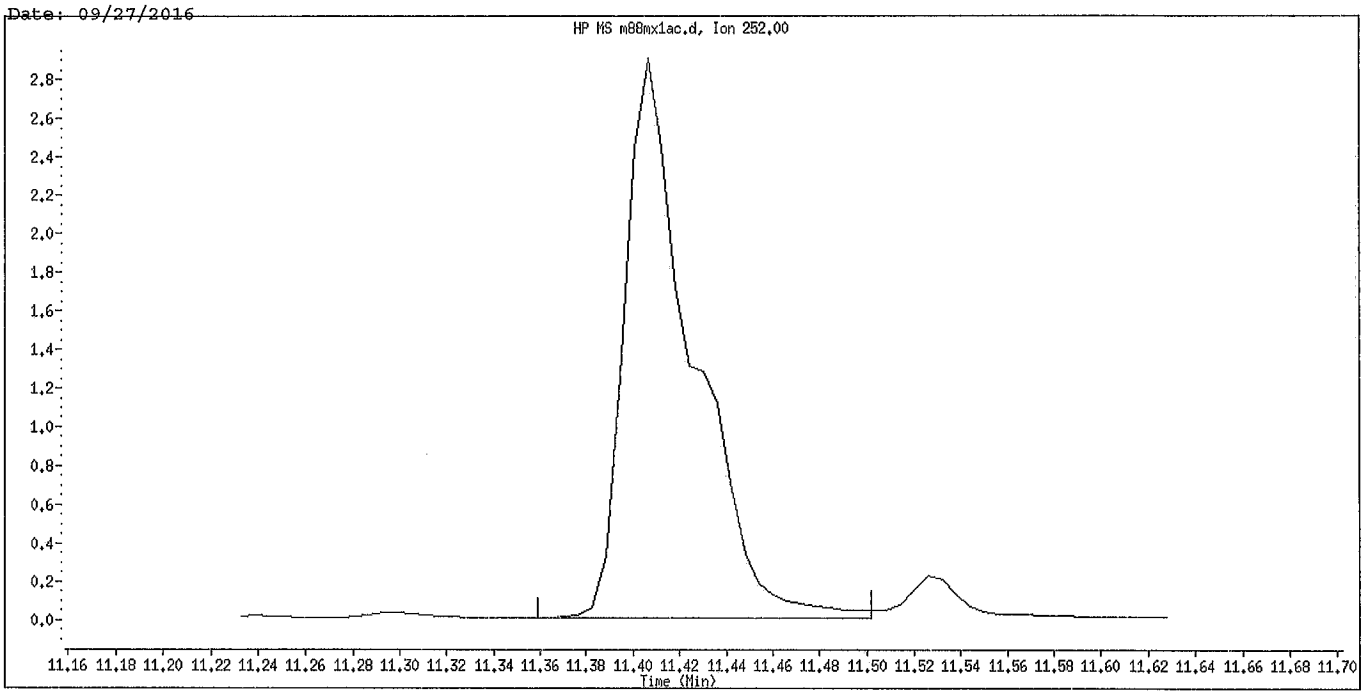
Instrument ID: mp.i

Client ID:

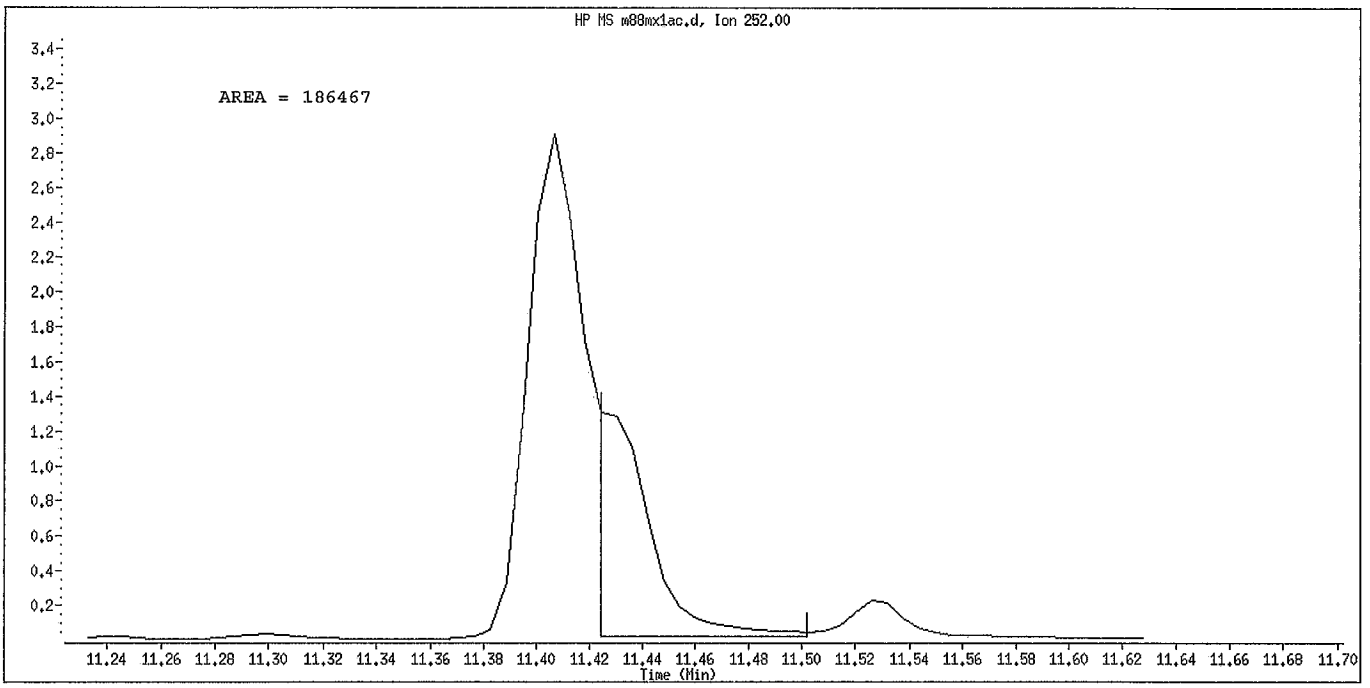
Compound Name: Benzo(k)fluoranthene

CAS #: 207-08-9

Report Date: 09/27/2016



Original Integration



Manual Integration

Manually Integrated By: cochranj

Manual Integration Reason: Splitting a peak

Data File Name: m88mx1ac.d

Inj. Date and Time: 27-SEP-2016 17:22

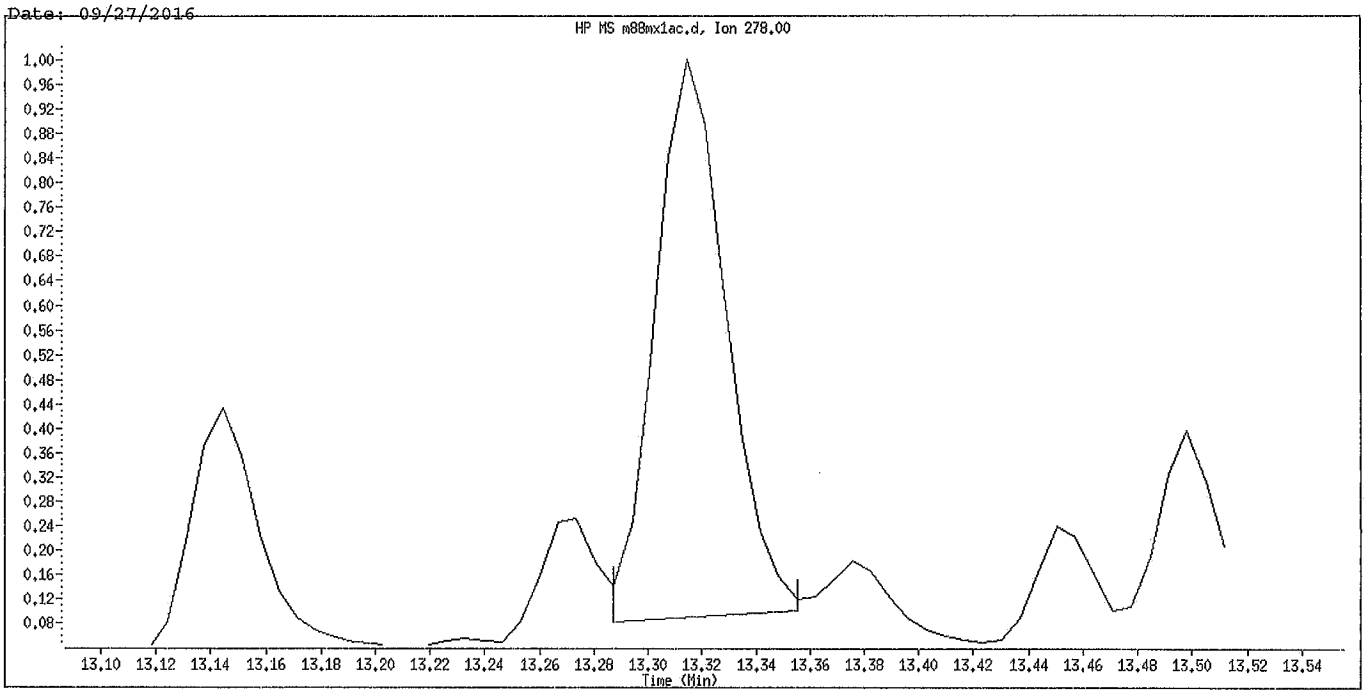
Instrument ID: mp.i

Client ID:

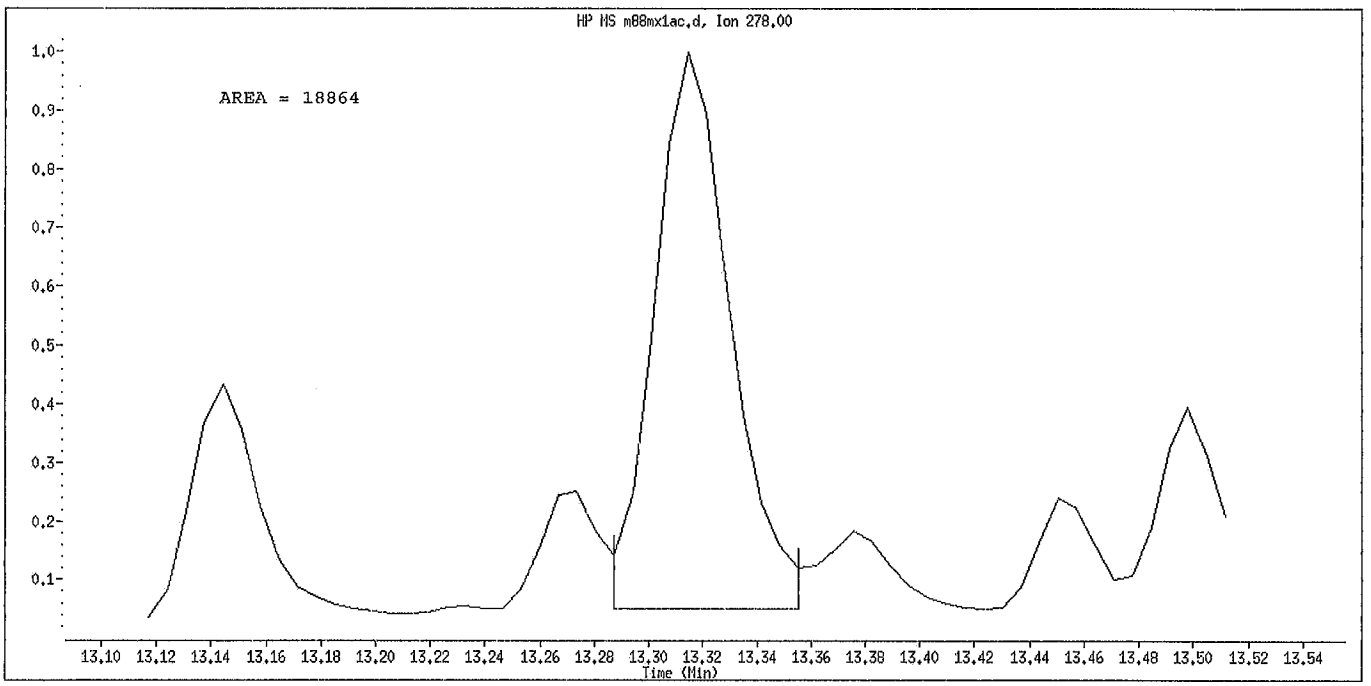
Compound Name: Dibenz(a,h)anthracene

CAS #: 53-70-3

Report Date: 09/27/2016



Original Integration



Manual Integration

Manually Integrated By: cochranj

Manual Integration Reason: Baseline Event

Data File Name: m88mx1ac.d

Inj. Date and Time: 27-SEP-2016 17:22

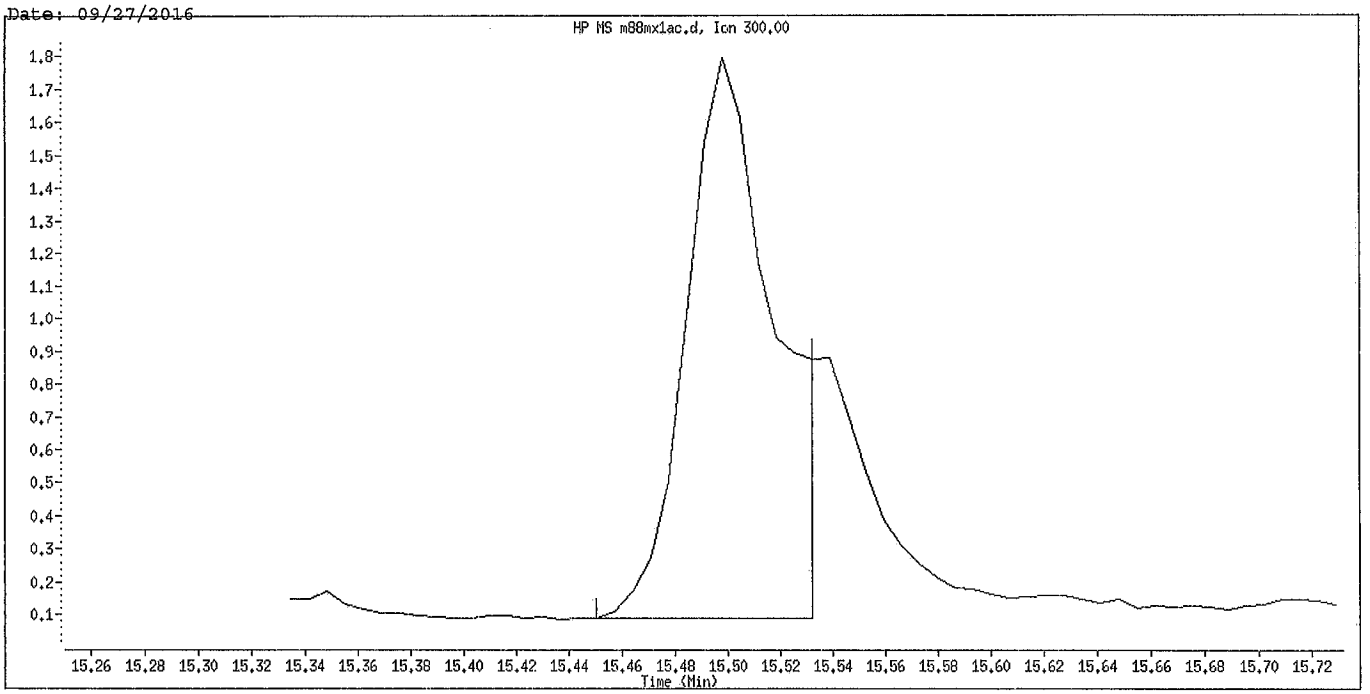
Instrument ID: mp.i

Client ID:

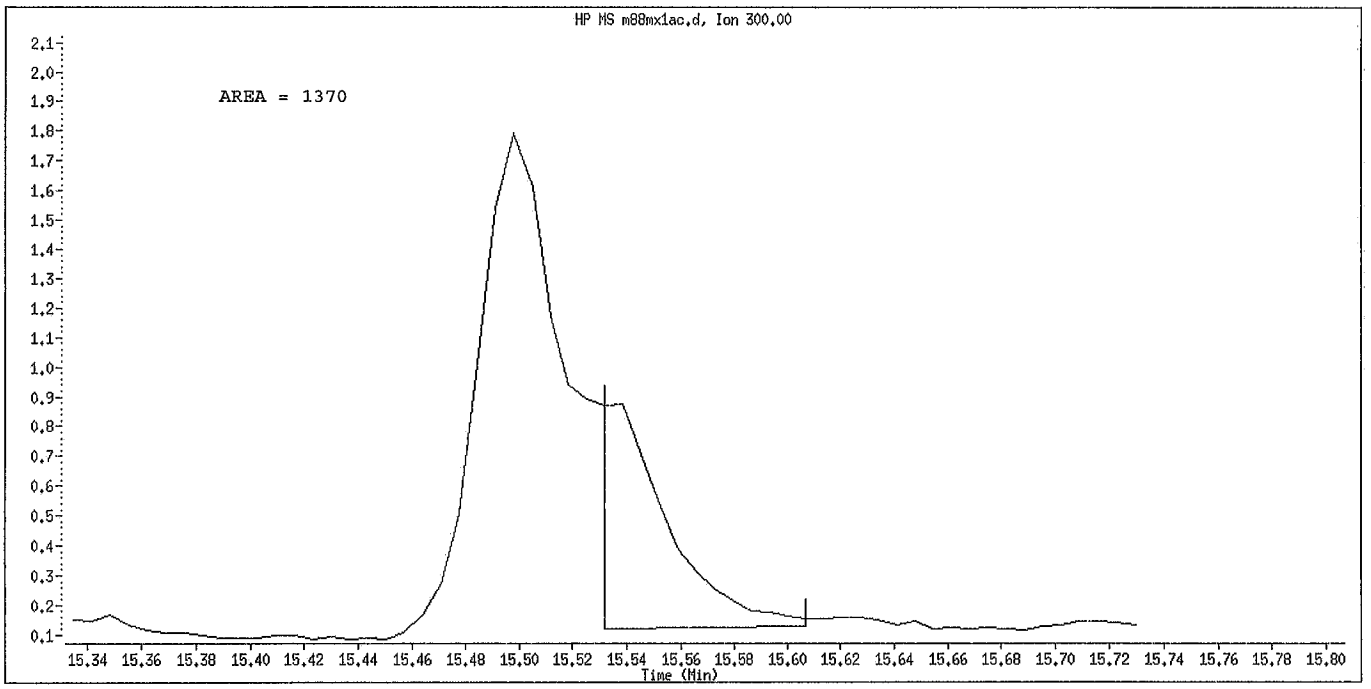
Compound Name: Coronene

CAS #: 191-07-1

Report Date: 09/27/2016



Original Integration



Manual Integration

Manually Integrated By: cochranj

Manual Integration Reason: Analyte Misidentified by the Data System

Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1ad.d
Report Date: 27-Sep-2016 18:07

TestAmerica Knoxville

SEMIVOLATILE QUANTITATION REPORT

Data file : /var/chem/gcms/mp.i/P092716.b/m88mx1ad.d
Lab Smp Id: M88MX1AD
Inj Date : 27-SEP-2016 17:47
Operator : 11211 Inst ID: mp.i
Smp Info : ,,3,,PDS 1:400 TRT
Misc Info : SIM PAH ANALYSIS 100%
Comment :
Method : /var/chem/gcms/mp.i/P092716.b/SIMPAH10.m
Meth Date : 27-Sep-2016 14:19 cochranj Quant Type: ISTD
Cal Date : 15-SEP-2016 11:39 Cal File: pi15ical1.d
Als bottle: 11 QC Sample: METHSPIKE
Dil Factor: 400.00000
Integrator: HP RTE Compound Sublist: simpah.sub
Target Version: 3.50
Processing Host: qmidhp01

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

Name	Value	Description
DF	400.00000	Dilution Factor
Is	1.00000	Volume of internal std added
Vt	500.00000	Volume of final extract (uL)
Vo	10.00000	Weight of sample extract
Sf	1.00000	Split Factor

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ng/g)
* 256 1,4-Dichlorobenzene-d4	115	3.970	3.969	(1.000)	105590	0.50000	0.500
$ 257 1,4Dichlorobenzene-d4(SS)	115	3.970	3.969	(0.618)	105590	0.53973	27.0
254 1,4-Dichlorobenzene	146	3.981	3.981	(1.003)	557	0.00102	20.4
* 234 1,2-Dichlorobenzene-d4	115	4.093	4.082	(1.000)	113693	0.50000	0.500
$ 235 1,2-Dichlorobenzene-d4(SS)	115	4.093	4.082	(0.637)	113693	0.51727	25.9
236 1,2-Dichlorobenzene	146	4.104	4.104	(1.003)	727	0.00141	28.3(M)
245 1,2,4-Trichlorobenzene	180	4.920	4.911	(0.991)	517	0.00137	27.4
* 1 Naphthalene-d8	136	4.966	4.957	(1.000)	641271	0.50000	0.500
$ 2 Naphthalene-d8(SS)	136	4.966	4.957	(0.773)	643646	0.47525	23.8
3 Naphthalene	128	4.976	4.975	(1.002)	1727288	1.33134	26600(R)
* 10 2-Methylnaphthalene-d10	152	5.521	5.521	(1.000)	334514	0.50000	0.500
$ 11 2-Methylnaphthalene-d10(SS)	152	5.521	5.521	(0.860)	334514	0.49049	24.5
12 2-Methylnaphthalene	142	5.550	5.544	(1.005)	426472	0.46392	9280(R)

Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1ad.d
Report Date: 27-Sep-2016 18:07

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ng/g)
* 13 1-Methylnaphthalene-d10	152	5.607	5.601	(1.000)	367346	0.50000	0.500
$ 14 1-Methylnaphthalene-d10(SS)	152	5.607	5.601	(0.873)	367346	0.48713	24.4
15 1-Methylnaphthalene	142	5.630	5.629	(1.004)	190667	0.23584	4720(R)
16 Biphenyl	154	5.933	5.928	(0.983)	85952	0.07943	1590(R)
* 17 2,6-Dimethylnaphthalene-d12	168	6.033	6.028	(1.000)	347044	0.50000	0.500
$ 18 2,6-Dimethylnaph-d12(SS)	168	6.033	6.028	(0.939)	347044	0.48644	24.3
19 2,6 Dimethylnaphthalene	156	6.074	6.064	(1.007)	175022	0.21999	4400(R)
* 20 Acenaphthylene-d8	160	6.291	6.291	(1.000)	646479	0.50000	0.500
$ 21 Acenaphthylene-d8(SS)	160	6.291	6.291	(0.980)	646479	0.53234	26.6
22 Acenaphthylene	152	6.301	6.301	(1.002)	275994	0.19547	3910(R)
* 23 Acenaphthene-d10	164	6.422	6.421	(1.000)	341941	0.50000	0.500
24 Acenaphthene	154	6.447	6.447	(1.025)	94154	0.11016	2200(R)
246 Dibenzofuran	168	6.593	6.592	(1.093)	415929	0.36380	7280(R)
25 2,3,5 Trimethylnaphthalene	170	6.767	6.762	(1.122)	63044	0.09345	1870(RM)
* 26 Fluorene-d10	176	6.858	6.853	(1.000)	403170	0.50000	0.500
$ 233 Fluorene-d10(SS)	176	6.858	6.853	(1.068)	403170	0.49634	24.8
27 Fluorene	166	6.881	6.877	(1.003)	449345	0.48120	9620(R)
243 Diphenylamine	169	6.976	6.964	(1.017)	19712	0.03140	628(R)
* 34 Dibenzothiopene-d8	192	7.572	7.571	(1.000)	571705	0.50000	0.500
$ 35 Dibenzothiopene-d8(SS)	192	7.572	7.571	(0.842)	571705	0.45801	22.9
36 Dibenzothiophene	184	7.587	7.587	(1.002)	278069	0.22538	4510(R)
* 41 Phenanthrene-d10	188	7.676	7.676	(1.000)	554061	0.50000	0.500
$ 42 Phenanthrene-d10(SS)	188	7.676	7.676	(0.854)	554061	0.45677	22.8
43 Phenanthrene	178	7.698	7.694	(1.003)	4644388	3.34453	66900(R)
* 44 Anthracene-d10	188	7.725	7.722	(1.000)	550257	0.50000	0.500
$ 45 Anthracene-d10(SS)	188	7.725	7.722	(0.859)	550257	0.49351	24.7
46 Anthracene	178	7.741	7.740	(1.002)	1202317	0.85856	17200(R)
247 3-Methylphenanthrene	191	8.121	8.120	(1.058)	346278	0.73077	14600
52 1-Methylphenanthrene	191	8.243	8.242	(1.074)	237548	0.50509	10100(R)
* 53 Fluoranthene-d10	212	8.767	8.766	(1.000)	599198	0.50000	0.500
$ 54 Fluoranthene-d10(SS)	212	8.767	8.766	(0.975)	599282	0.51185	25.6
55 Fluoranthene	202	8.786	8.785	(1.002)	5137608	3.36338	67300(R)
* 56 Pyrene-d10	212	8.992	8.988	(1.000)	527184	0.50000	0.500
57 Pyrene	202	9.008	9.007	(1.027)	3557285	2.26398	45300(R)
62 Benzo(a)anthracene	228	10.229	10.219	(0.999)	1271312	1.28650	25700(R)
* 63 Chrysene-d12	240	10.238	10.237	(1.000)	556742	0.50000	0.500
$ 64 Chrysene-d12(SS)	240	10.238	10.237	(1.139)	557790	0.44906	22.5
65 Chrysene	228	10.265	10.264	(1.003)	1813664	1.54462	30900(R)
* 70 Benzo(b)fluoranthene-d12	264	11.378	11.376	(1.000)	484379	0.50000	0.500
$ 71 Benzo(b)fluoranthene-d12(SS)	264	11.378	11.376	(0.972)	484379	0.54775	27.4
72 Benzo(b)fluoranthene	252	11.407	11.400	(1.003)	551822	0.39431	7890(RM)
* 73 Benzo(k)fluoranthene-d12	264	11.413	11.406	(1.000)	527864	0.50000	0.500
$ 74 Benzo(k)fluoranthene-d12(SS)	264	11.413	11.406	(0.975)	527864	0.48275	24.1
75 Benzo(k)fluoranthene	252	11.431	11.430	(1.002)	222609	0.17916	3580(RM)
* 76 Benzo(e)pyrene-d12	264	11.706	11.699	(1.000)	421321	0.50000	0.500
77 Benzo(e)pyrene	252	11.736	11.729	(0.997)	254049	0.20014	4000(R)
* 78 Benzo(a)pyrene-d12	264	11.772	11.771	(1.000)	413471	0.50000	0.500

Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1ad.d
Report Date: 27-Sep-2016 18:07

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ng/g)
$ 79 Benzo(a)pyrene-d12(SS)	264	11.772	11.771	(1.006)	413471	0.55339	27.7
80 Benzo(a)pyrene	252	11.796	11.795	(1.002)	137735	0.12496	2500(R)
* 81 Perylene-d12	264	11.868	11.866	(1.000)	426249	0.50000	0.500
$ 82 Perylene-d12(SS)	264	11.868	11.866	(1.014)	426249	0.49770	24.9
83 Perylene	252	11.897	11.896	(1.002)	34787	0.03453	691(R)
* 84 Indeno(123-cd)pyrene-d12	288	13.275	13.274	(1.000)	450994	0.50000	0.500
$ 85 Indeno(123-cd)pyrene-d12(SS)	288	13.275	13.274	(1.134)	450994	0.50787	25.4
86 Indeno(1,2,3-cd)pyrene	276	13.309	13.307	(1.003)	46250	0.03811	762(R)
* 87 Dibenz(ah)anthracene-d14	292	13.275	13.274	(1.000)	354477	0.50000	0.500
$ 88 Dibenz(ah)anthracene-d14(SS)	292	13.275	13.274	(1.134)	354477	0.49932	25.0
89 Dibenz(a,h)anthracene	278	13.315	13.314	(1.003)	24568	0.02466	493(RM)
* 90 Benzo(ghi)perylene-d12	288	13.615	13.607	(1.000)	413327	0.50000	0.500
$ 91 Benzo(ghi)perylene-d12(SS)	288	13.615	13.607	(1.163)	413327	0.47159	23.6
92 Benzo(g,h,i)perylene	276	13.649	13.641	(1.002)	38969	0.03747	749(R)
* 230 Coronene-d12	312	15.499	15.491	(1.000)	309372	0.50000	0.500
$ 231 Coronene-d12 (SS)	312	15.499	15.491	(1.324)	309372	0.46867	23.4
238 Coronene	300	15.533	15.532	(1.002)	2384	0.00272	54.4(RM)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1ad.d
Report Date: 27-Sep-2016 18:07

TestAmerica Knoxville

RECOVERY REPORT

Client Name: ITSBUR
Sample Matrix: SOLID
Lab Smp Id: M88MX1AD
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: simpah.sub
Method File: /var/chem/gcms/mp.i/P092716.b/SIMPAH10.m
Misc Info: SIM PAH ANALYSIS 100%

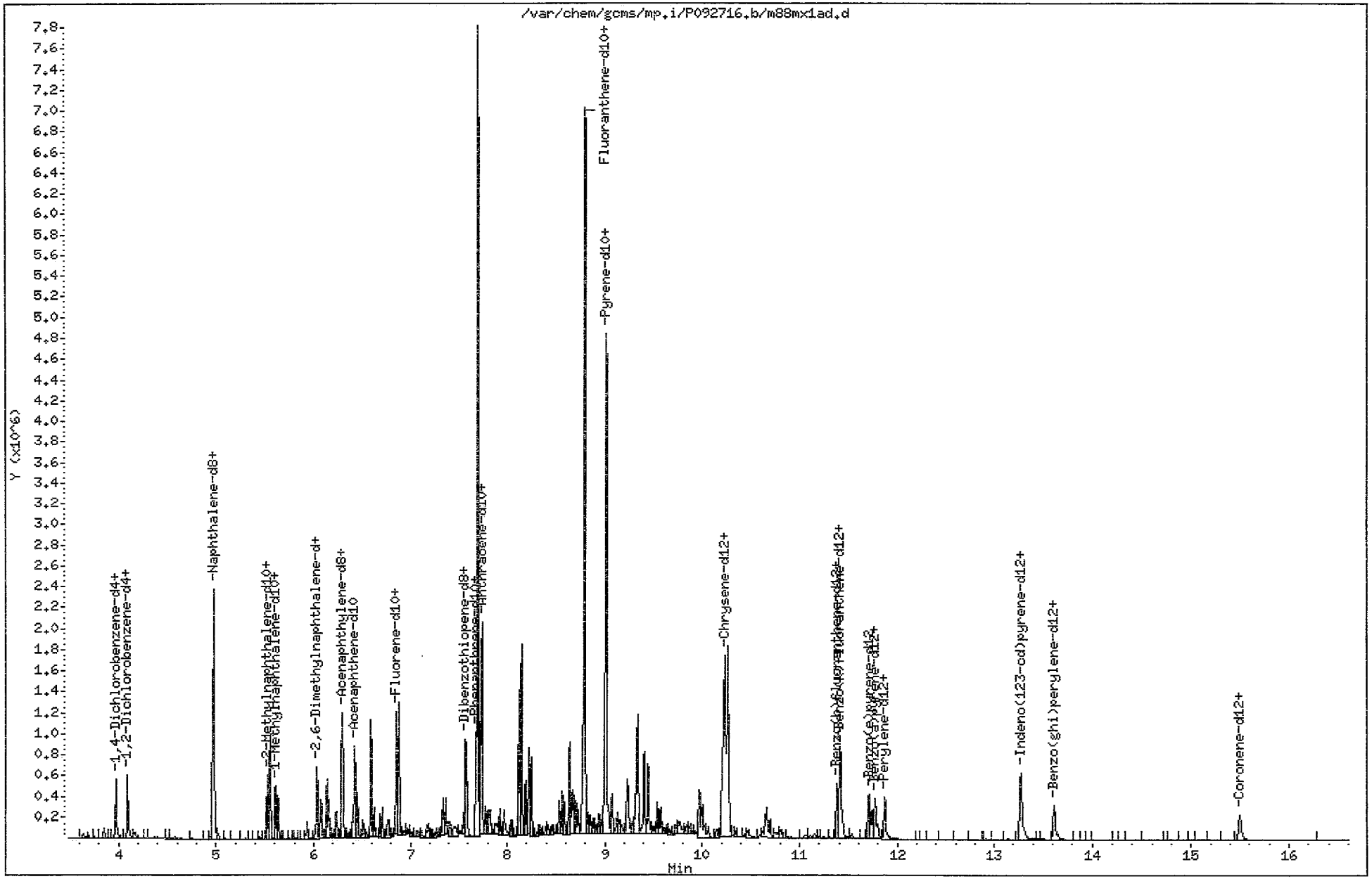
Client SDG: P092716
Fraction: SV

Operator: 11211
SampleType: METHSPIKE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ng/g	CONC RECOVERED ng/g	% RECOVERED	LIMITS
$ 257 1,4Dichlorobenzene	25.0	27.0	107.95	30-120
$ 235 1,2-Dichlorobenzen	25.0	25.9	103.45	30-120
$ 2 Naphthalene-d8(SS)	25.0	23.8	95.05	30-130
$ 222 13C6-Naphthalene	50.0	0.00	*	50-150
$ 11 2-Methylnaphthalen	25.0	24.5	98.10	30-120
$ 14 1-Methylnaphthalen	25.0	24.4	97.43	30-120
$ 18 2,6-Dimethylnaph-d	25.0	24.3	97.29	30-120
$ 21 Acenaphthylene-d8(	25.0	26.6	106.47	30-120
$ 233 Fluorene-d10(SS)	25.0	24.8	99.27	30-120
$ 35 Dibenzothiopene-d8	25.0	22.9	91.60	30-120
$ 42 Phenanthrene-d10(S	25.0	22.8	91.35	30-120
$ 45 Anthracene-d10(SS)	25.0	24.7	98.70	30-120
$ 54 Fluoranthene-d10(S	25.0	25.6	102.37	30-120
$ 58 Terphenyl-d14	25.0	0.00	*	30-120
$ 64 Chrysene-d12(SS)	25.0	22.5	89.81	30-120
$ 71 Benzo(b)fluoranthe	25.0	27.4	109.55	30-120
$ 74 Benzo(k)fluoranthe	25.0	24.1	96.55	30-120
$ 79 Benzo(a)pyrene-d12	25.0	27.7	110.68	30-120
$ 82 Perylene-d12(SS)	25.0	24.9	99.54	30-120
$ 85 Indeno(123-cd)pyre	25.0	25.4	101.57	30-120
$ 88 Dibenz(ah)anthrace	25.0	25.0	99.86	30-120
$ 91 Benzo(ghi)perylene	25.0	23.6	94.32	30-120
$ 231 Coronene-d12 (SS)	25.0	23.4	93.73	30-120

Data File: /var/chem/gcms/mp.i/P092716.b/m88mx1ad.d
Date : 27-SEP-2016 17:47
Client ID:
Sample Info: ,,3,,PDS 1:400 TRT
Purge Volume: 10.0
Column phase: Rxi-5SIL MS w/Guard

Instrument: mp.i
Operator: 11211
Column diameter: 0.25



Data File Name: m88mx1ad.d

Inj. Date and Time: 27-SEP-2016 17:47

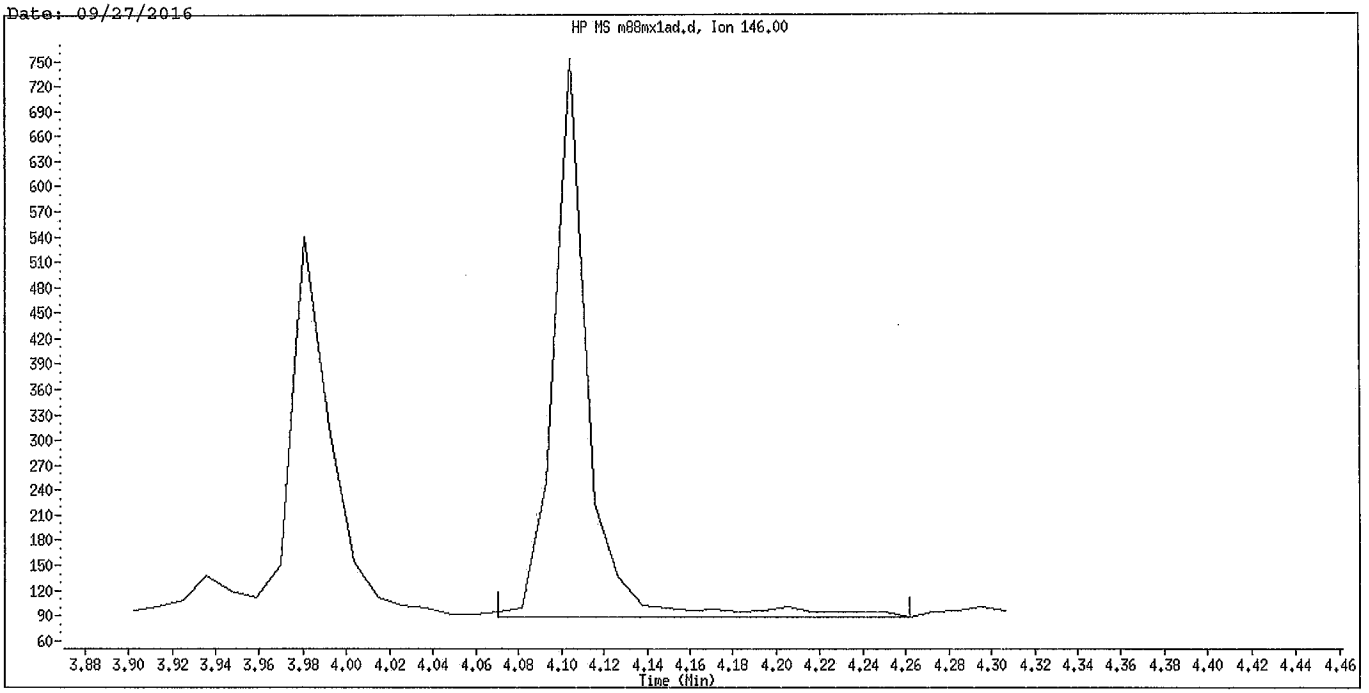
Instrument ID: mp.i

Client ID:

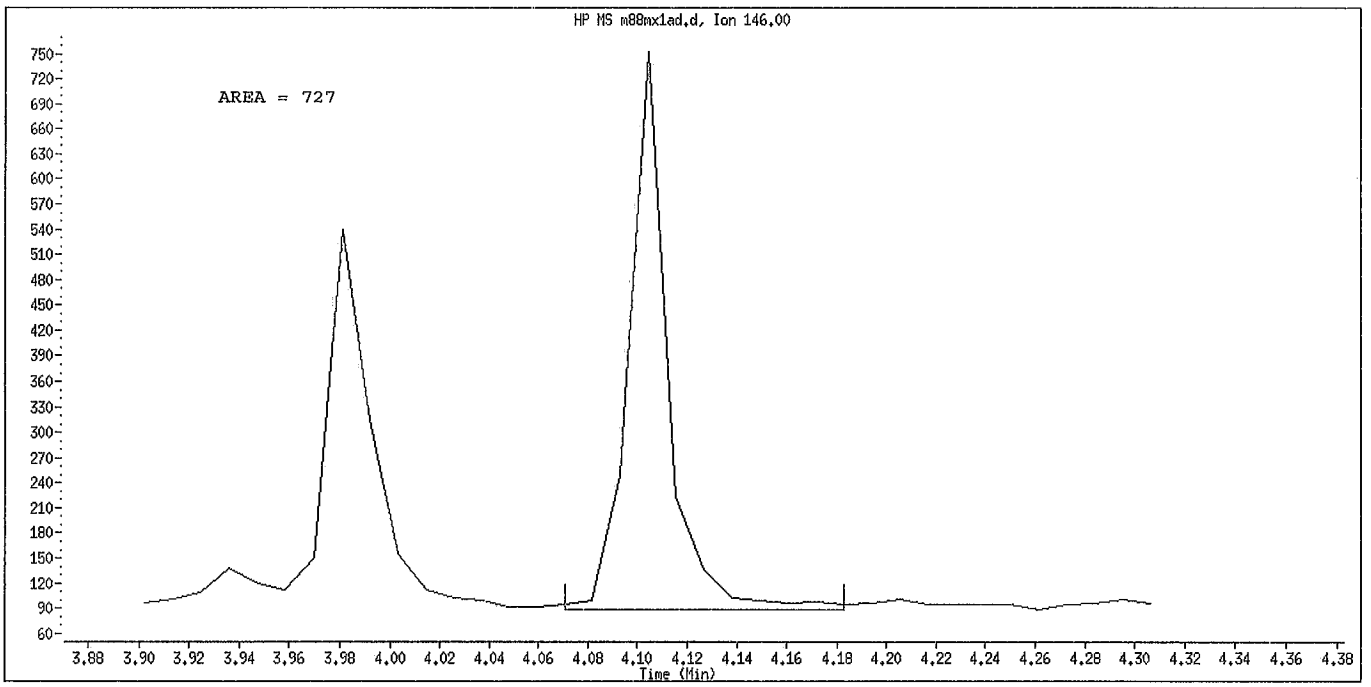
Compound Name: 1,2-Dichlorobenzene

CAS #: 95-50-1

Report ~~Date: 09/27/2016~~



Original Integration



Manual Integration

Manually Integrated By: cochranj

Manual Integration Reason: Target Peak Misintegrated (extraneous area removed)

Data File Name: m88mx1ad.d

Inj. Date and Time: 27-SEP-2016 17:47

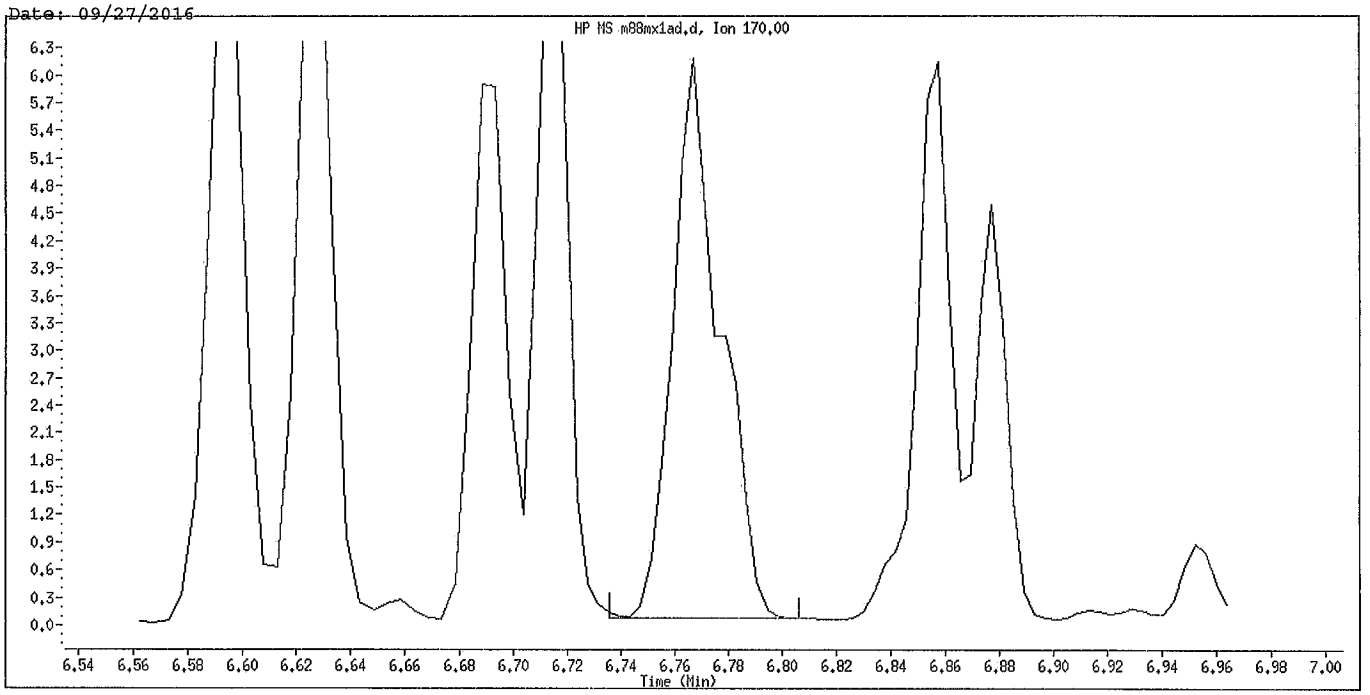
Instrument ID: mp.i

Client ID:

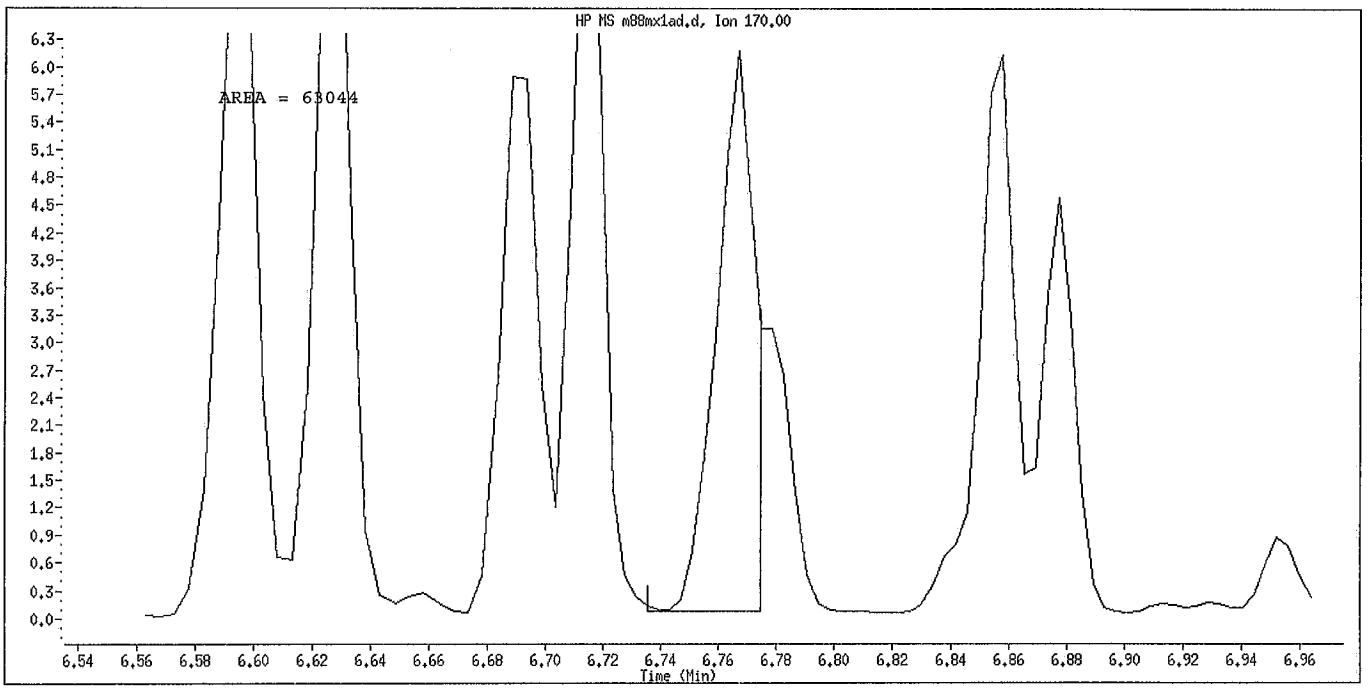
Compound Name: 2,3,5 Trimethylnaphthalene

CAS #: 2245-38-7

Report Date: 09/27/2016



Original Integration



Manual Integration

Manually Integrated By: cochranj

Manual Integration Reason: Target Peak Misintegrated (extraneous area removed)

Data File Name: m88mx1ad.d

Inj. Date and Time: 27-SEP-2016 17:47

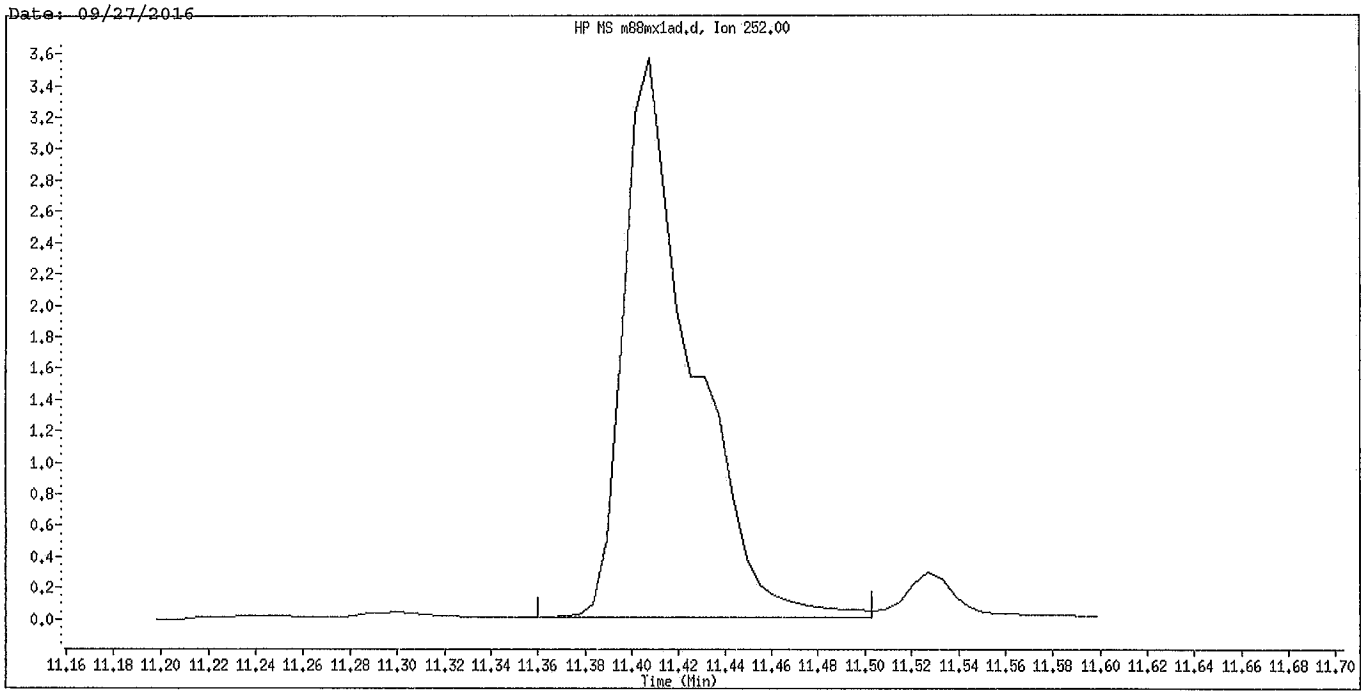
Instrument ID: mp.i

Client ID:

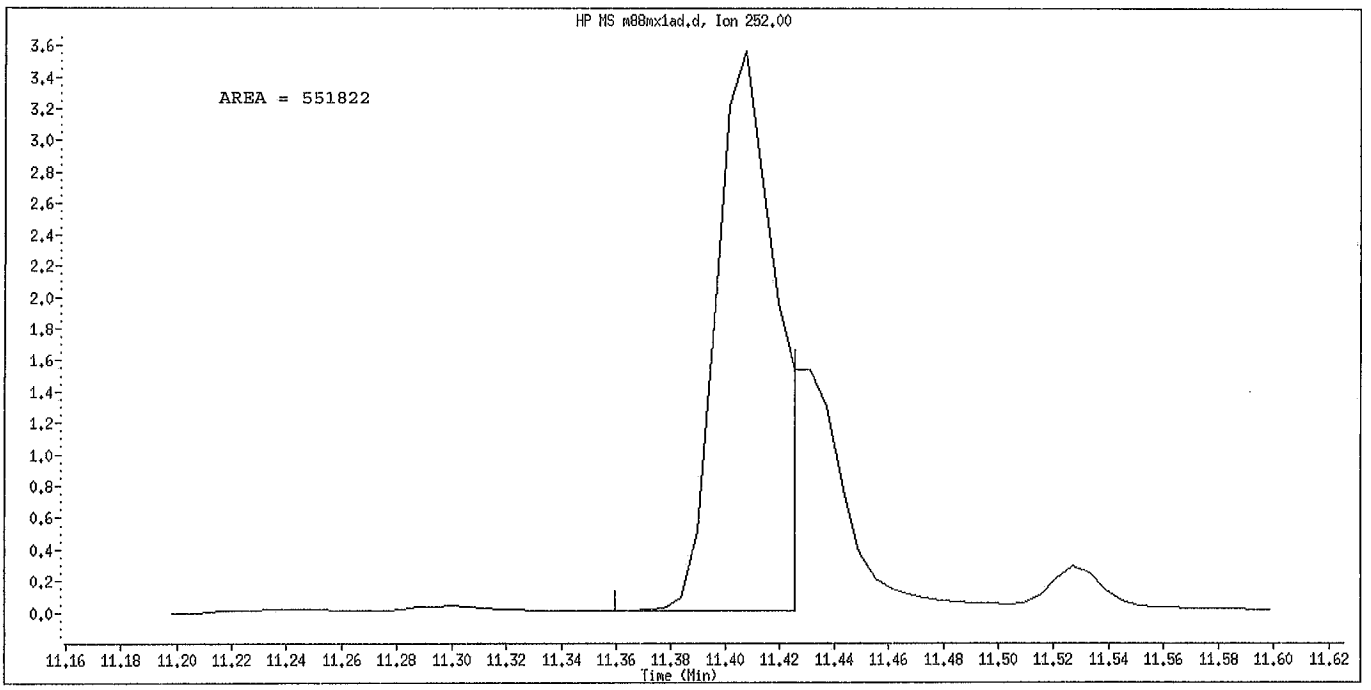
Compound Name: Benzo(b)fluoranthene

CAS #: 205-99-2

Report Date: 09/27/2016



Original Integration



Manual Integration

Manually Integrated By: cochranj

Manual Integration Reason: Splitting a peak

Data File Name: m88mx1ad.d

Inj. Date and Time: 27-SEP-2016 17:47

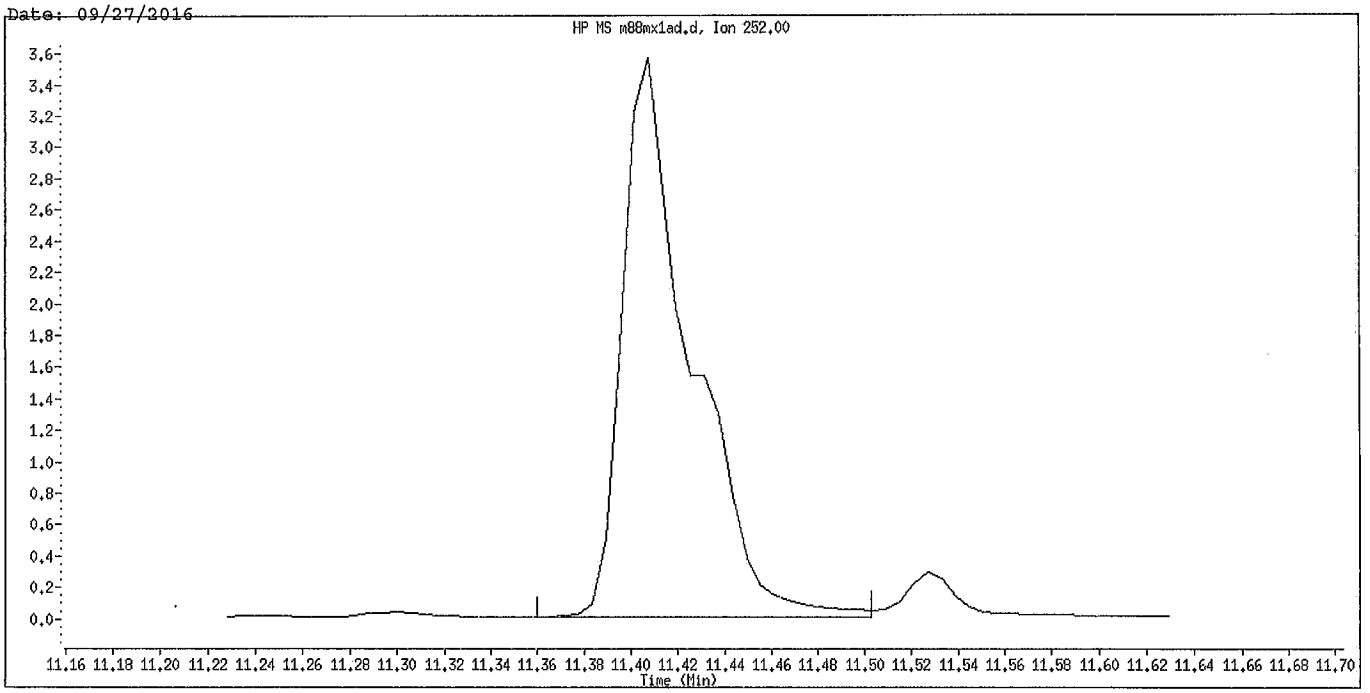
Instrument ID: mp.i

Client ID:

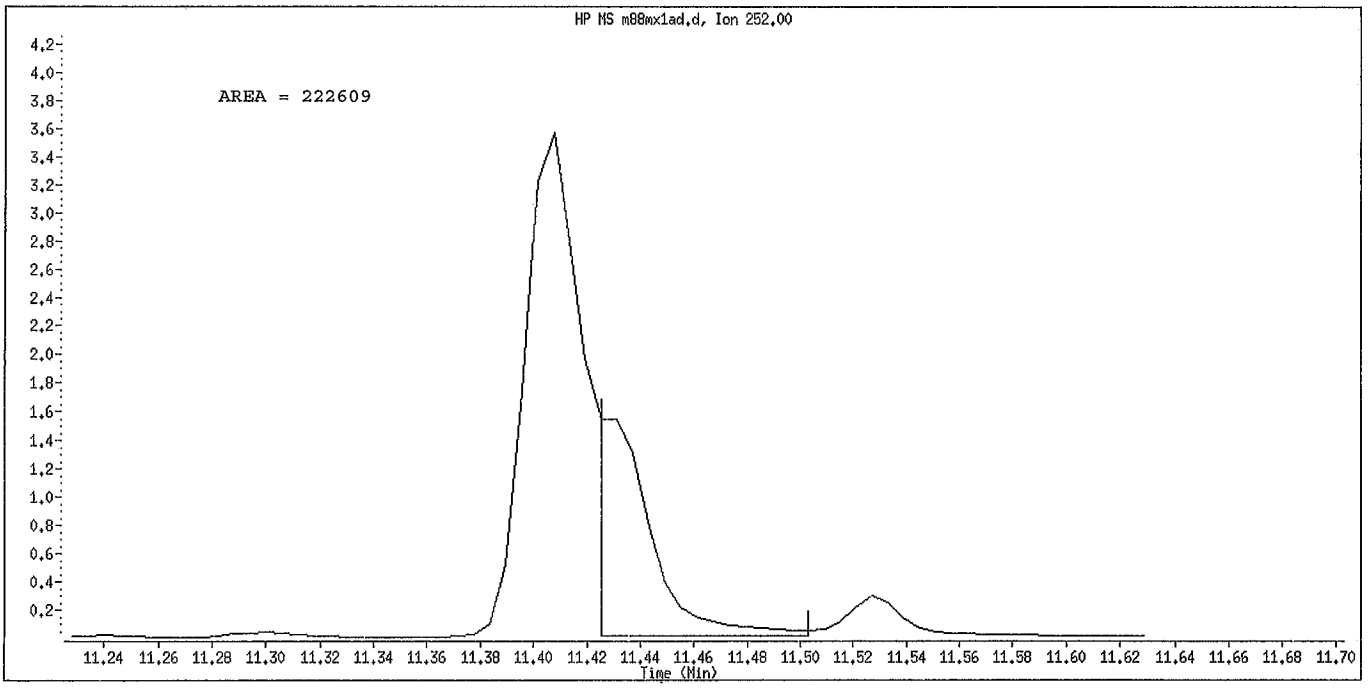
Compound Name: Benzo(k)fluoranthene

CAS #: 207-08-9

Report Date: 09/27/2016



Original Integration



Manual Integration

Manually Integrated By: cochranj

Manual Integration Reason: Splitting a peak

Data File Name: m88mx1ad.d

Inj. Date and Time: 27-SEP-2016 17:47

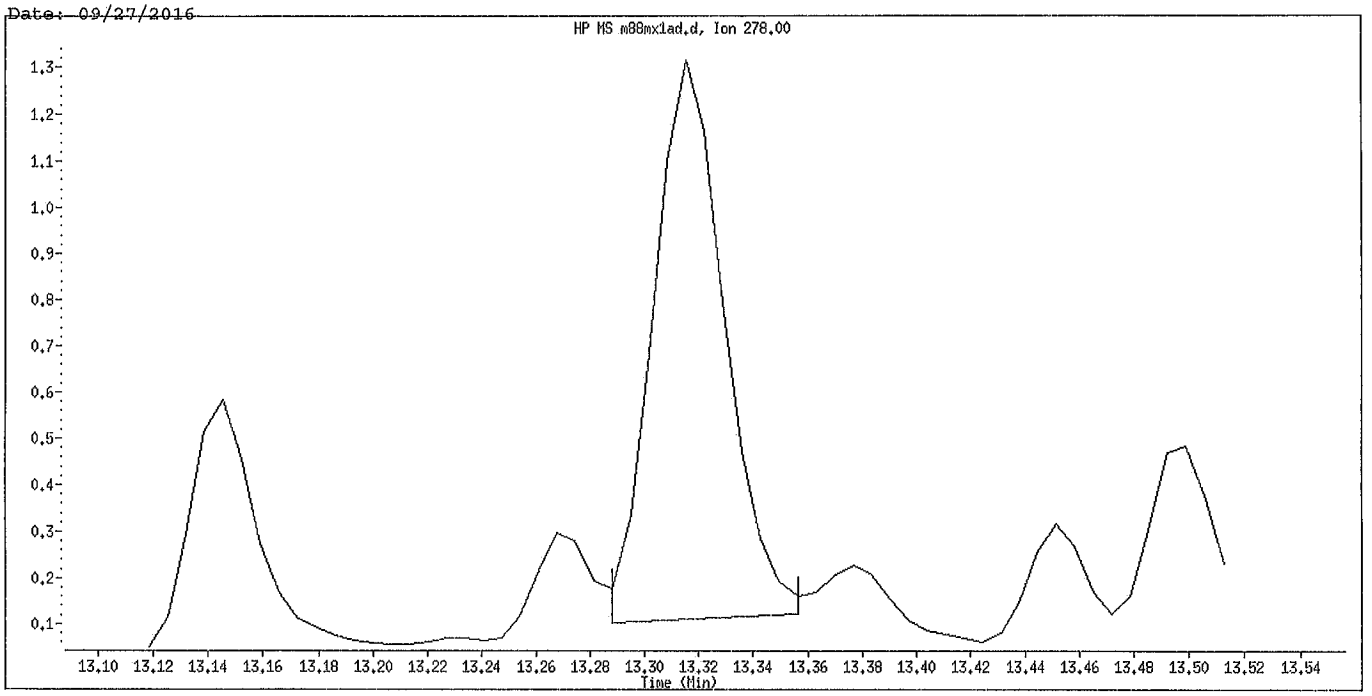
Instrument ID: mp.i

Client ID:

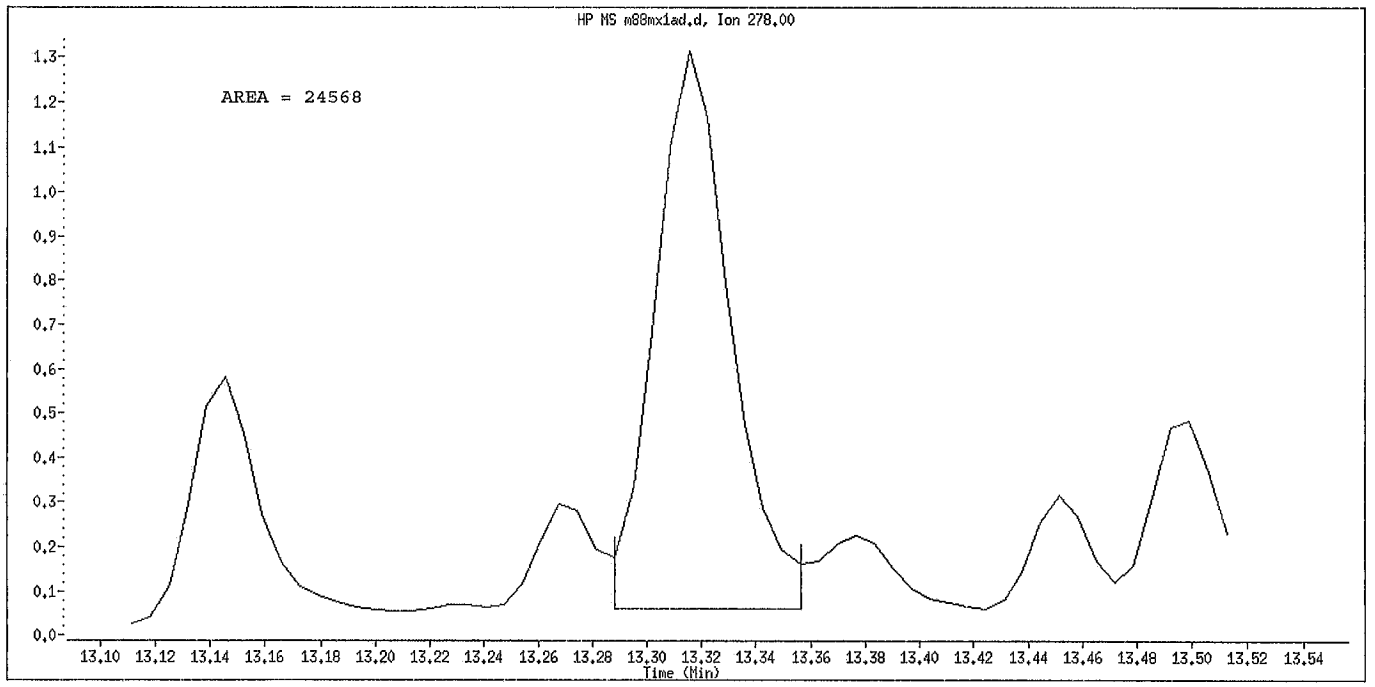
Compound Name: Dibenz(a,h)anthracene

CAS #: 53-70-3

Report Date: 09/27/2016



Original Integration



Manual Integration

Manually Integrated By: cochranj

Manual Integration Reason: Baseline Event

Data File Name: m88mx1ad.d

Inj. Date and Time: 27-SEP-2016 17:47

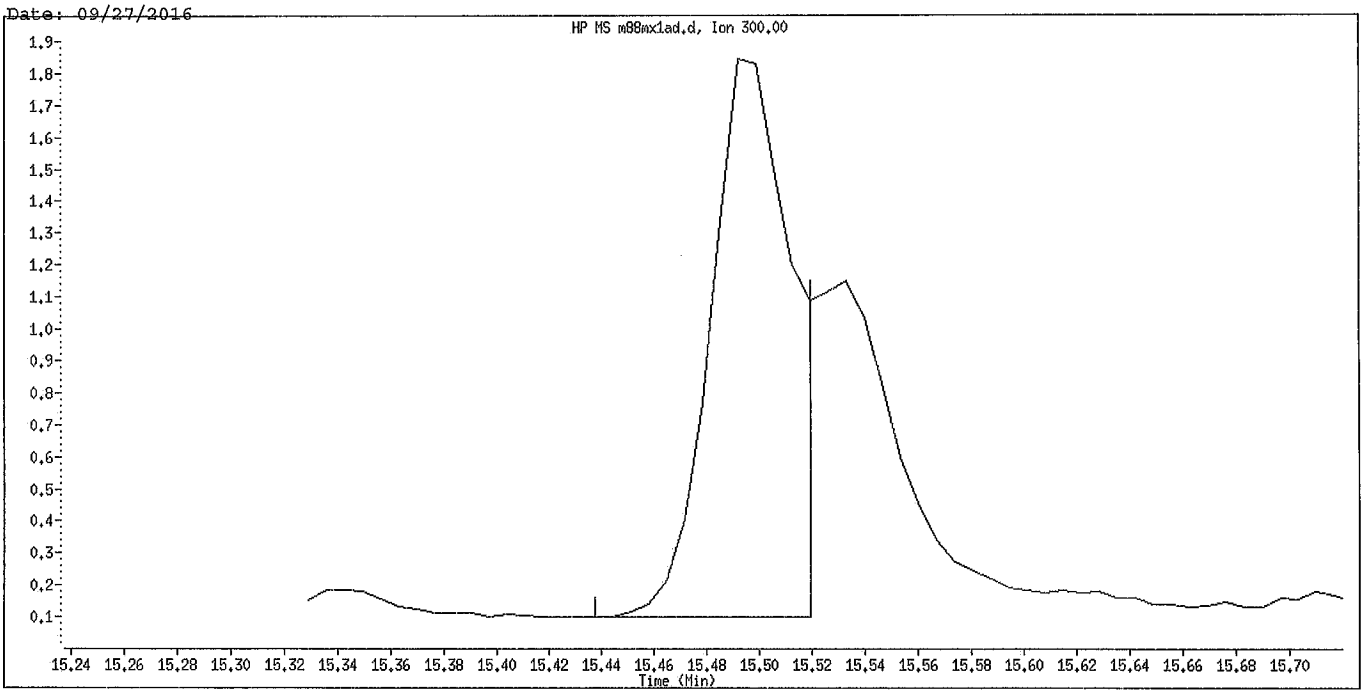
Instrument ID: mp.i

Client ID:

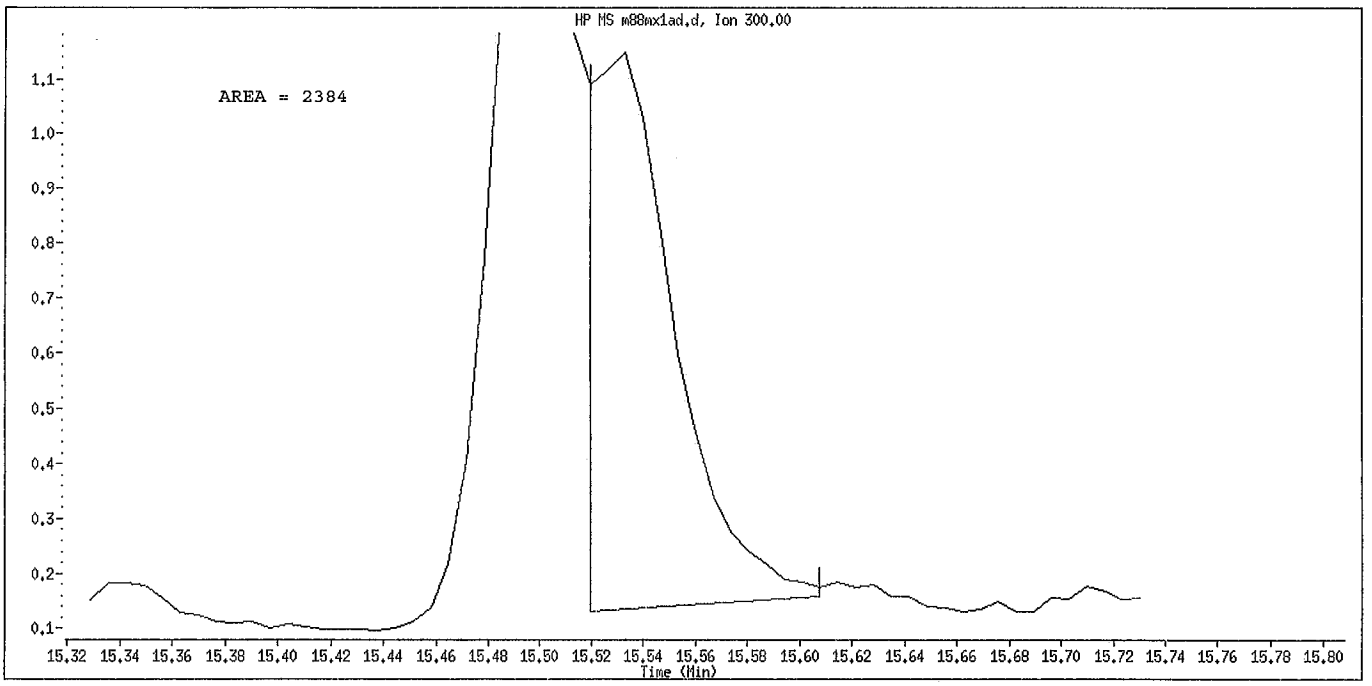
Compound Name: Coronene

CAS #: 191-07-1

Report Date: 09/27/2016



Original Integration



Manual Integration

Manually Integrated By: cochranj

Manual Integration Reason: Analyte Misidentified by the Data System

Miscellaneous Data

TestAmerica Knoxville GC/MS-SIM Data Review / Narrative Checklist
Method: LRPAH PAHs and Selected SVOCs - KNOX-ID-0016, Revision 11

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9/20/16

Lot Number:	~~H6I190280~~ H6I190401		Instrument:	MP	
Scanned Filenames:	P091516I				
	P092716				

A. Calibration	N/A	Yes	No	Why is data reportable?	2nd √
1. Were all samples injected within 12 hr of CCAL?		✓			✓
2. Was the correct ICAL used for quantitation? (Check 1 RF per processing batch.)		✓			✓
B. Sample Results	**N/A**	**Yes**	**No**	**Why is data reportable?**	**2nd √**
1. Were all special project requirements met?		✓			✓
2. Were sample preparation and analytical HTs met? If no, list NCM#_____		✓		☐ [ht1] HT expired upon receipt. ☐ [ht2] Client requested analysis after HT expired.* ☐ **Re-extraction done after HT expired.**	✓
3. Was prep info (sample amount, final vol, split factors, units, prep dates/times) verified?		✓			✓
4. For sediment samples, were the RLs and MDLs adjusted for % moisture using QuantIMS DF?	✓				NA
5. Was date/time of analysis verified between header and logbook?		✓			✓
6. Was header information (WO#, data file, initial wt/vol, extract vol, DF) verified?		✓			✓
7. Were peaks properly identified?		✓			✓
8. Are peak integrations appropriate?		✓			✓
9. Were alkyl group start/end times and patterns verified?	✓			☐ [AP] ☐ [AP 2]	NA
10. Are internal standards & alternate standards (30-120% R), sampling surrogates (50-150% R) within QC limits for samples and matrix spikes? Sample / Reason / Sample / Reason		✓		☐ **[is1] IS above QC limits.** ☐ **[is2] IS below QC limts.** ☐ **[sur1] Surrogates outside QC limits.**	✓
11. If amount extracted was <80% of nominal amount, were the RLs/MDLs adjusted? List samples:_____		✓		☐ [elev6] Elevated RLs for all analytes due to insufficient sample amount received.	✓
12. For initial analysis that's a dilution, was the largest analyte >20% of calibration range? List diluted samples and reason (e.g elev1) Sample / Reason / Sample / Reason 001 / Elev4		✓		☐ [elev1] Elevated RL for (ANALYTE) due to sample matrix interferences. ☐ [elev2] Elevated RL for (ANALYTE) due to interfering analyte. ☐ [elev3] Elevated RLs for all analytes due to difficult sample matrix. ☑ [elev4] Diluted based on screening results. ☐ [elev5] Elevated RLs for all analytes due to presence of non-target compounds.	✓

TestAmerica Knoxville GC/MS-SIM Data Review / Narrative Checklist
Method: LRPAH PAHs and Selected SVOCs - KNOX-ID-0016, Revision 11
Page 2 of 3

Lot Number: H6I190280	N/A	Yes	No	Why is data reportable?	2nd √
13. If bench dilutions were required, were results within calibration range at maximum dilution? Sample: 001 (S-D) Reason: E3			✓	☐ [E1] 1 g reprep performed. ☐ [E2] 1 g multi-spike reprep performed. ☑ [E3] Post-extraction spike performed. ☐ [E4] E values reported per client.	✓
14. For secondary diluted analyses to bring compounds in calibration range, was the largest analyte targeted to be above 50% of calibration range? List diluted samples and reason (e.g., dil1): Sample Reason Sample Reason	✓			☐ [dil1] Conc. of (ANALYTE) > calibration range. RLs adjusted accordingly. ☐ [dil2] Conc. of several compounds > calibration range. RLs adjusted accordingly. ☐ [dil3] Conc. of (ANALYTE) > calibration range. Both analyses reported to provide lowest RLs. ☐ [dil4] Conc. of several compounds > calibration range. Both analyses reported to provide lowest RLs.	✓ K
15. Was the upper calibration range (UCL) calculated correctly and were hits >UCL flagged with "E"?		✓			✓
16. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?		✓		Reasons: 1) Corrected split peak; 2) Unresolved peak; 3) Tailing; 4) RT shift; 5) Wrong peak selected; 6) Other	✓
17. Have alternate hits and manual integrations been verified as correct?		✓			✓
C. Preparation/Matrix QC Results	**N/A**	**Yes**	**No**	**Why is data reportable?**	**2nd √**
1. LCS native analyte %R within QC limits (60-140%)? If no, list NCM#:: _____		✓		☐ [lcs1] Insufficient sample for reanalysis. ☐ [lcs2] Samples consumed during prep. ☐ [lcs3] LCS %R high but analyte <RL in associated samples.	✓
2. LCS IS %R within QC limits (60-140%)?		✓		☐ [is3] IS above QC limits. ☐ [is4] IS below QC limts.	✓
3. Method blank done per prep batch and method blank or instrument blank analyzed with each sequence?		✓			✓
4. Method blank IS %R within QC limits (60-140%)?.		✓		☐ [is5] IS above QC limits. ☐ [is6] IS below QC limts.	✓
5. Are all analytes present in the method blank ≤ RL? NCM# 13280			✓	☐ [mb1] Reported blank after client consultation. ☐ [mb3] Analyte < RL in associated samples. ☑ [mb4] Sample results >10x blank. ☐ [mb5] Insufficient sample for reanalysis. ☐ [mb7] Samples consumed during prep.	NO
6. Were MS run #'s assigned correctly?		✓		DW 9.29.16	✓ AK
7. Are MS/MSD or sample duplicate recoveries and RPDs within QC limits?			✓	☑ [ms1] LCS acceptable. High native analyte concentration relative to spike level and/or lack of sample homogeneity.	NC DIL
D. Final Report	**N/A**	**Yes**	**No**	**Why is data reportable?**	**2nd √**
1. Final report acceptable? (Results correct, RLs calculated correctly, units correct, IS %R correct, appropriate flags used, dilution factor correct, and extraction/analysis dates correct.)		✓			✓

TestAmerica Knoxville GC/MS-SIM Data Review / Narrative Checklist
Method: LRPAH PAHs and Selected SVOCs - KNOX-ID-0016, Revision 11
Page 3 of 3

Lot Number: H6I190280	N/A	Yes	No	Why is data reportable?	2nd √
2. If samples were split, are the dilution factors & prep factors applied properly & MDL/RLs adjusted	✓			☐ [elev7] Elevated RLs for all analytes due to split; list samples: _____ _____	NA
3. Was a calculation verification performed on at least one sample?		✓			✓
4. For alkyl PAHs, are hits fagged with EST?	✓				NA
5. Were all non-associated internal standards turned to 'NA'?		✓			✓
6. Was a narrative prepared and all deviations noted?		✓			✓
7. Are all non-conformances documented appropriately and copy included with deliverable?		✓			✓
8. Are the correct scanned file names listed?		✓			✓
9. Were all CCALs and window standards scanned?					✓

1st Level Reviewer: [illegible] Date: 9/28/16

Comments:

MBBMX1AA & MS/MSD were analyzed at a first dilution spike due to high concentrations of target analytes.

All extracts were treated with copper for the interference of sulfur.

Method Blank (MBBRK1AA) had one or more analytes over the reporting limit NCM 13280.

2nd Level Reviewer: [illegible] Date: 9/29/16

Comments:

TestAmerica Knoxville Extraction Sheet
SIM PAH Solids by Soxhlet - KNOX-OP-0023

Batch Number: 6264010 AS 9/20/16
Start Date/Time: 9/20/16 1525
Compl Date/Time: 9/21/16 735

Native Spike ID: 52176
Internal Std ID: 52177
Spiker: [illegible]
Witness: RWS

$MeCl_2$ Lot #: 146040
Na_2SO_4 ID: C5118:9
Hexane Lot #: 146278

Recovery Std ID: PAH1019
Spiker: SDO
Witness: SDO

Delivered: SDO 9/27/16 13:20
Initials/Date/Time

Received: [illegible] 9/27/16 13:30
Initials/Date/Time

Lot Sample Number	Work Order Number	Suffix	SAC	Water layer decanted? (Y,N,NA)	Record sample aliquot weight in g. Mix sample with Na_2SO_4 and add to Soxhlet thimble.	Add 1.0 mL (250 ng/mL) PAH IS mix to all samples and QC.	Add 1.0 mL (250 ng/mL) native spike to LCS, LCSD, MS, MSD.	Extract 16 hr with $MeCl_2$.	Conc to appropriate volume in KD.	Record the percentage of extract taken through GPC cleanup.	Concentrate/solvent exchange to hexane by KD to appropriate volume.	Perform silica gel column cleanup.	Conc to >10 mL on heating mantle. Conc to 0.5 to 1 mL by N-EVAP.	Add 25 µL recovery std (10 µg/mL) to 2 mL vial. Transfer sample extract to vial.	Conc to 500 µL hexane by N-EVAP.
H6I190404 - 001	M88MX1AA		4W-YA	N	10.0	1.0mL	NA	✓	✓	✓	✓	✓	✓	25µL	500µL
H6I190404 - 001	M88MX1AD	D	4W-YA	↓	10.0	↓	1.0mL	↓	↓	↓	↓	↓	↓	↓	↓
H6I190404 - 001	M88MX1AC	S	4W-YA	↓	10.0	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
H6I200000 - 010	M88RK1AA	B	4W-YA	NA	10.0	↓	NA	↓	↓	↓	↓	↓	↓	↓	↓
H6I200000 - 010	M88RK1AC	C	4W-YA	↓	10.0	↓	1.0mL	↓	↓	↓	↓	↓	↓	↓	↓
				[illegible]	[illegible]	[illegible]	[illegible]	RWS	JPA	BKK	SDO	SDO	SDO	SDO	SDO
				9/20	9/20	9/20	9/20	9/20	9/21	9/22	9/26	9/26	9/26	9/27	9/27

SDO 9/27/16

Balance ID: 02
Comments:

SG Col Reagents	Hexane Lot #: 146278	Silic Gel ID: A5118:9
	2:3 $MeCl_2$/Hexane ID: A5118:10	Na_2SO_4 ID: C5118:8

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/27/16
Time: 11:03:03

LEV 1	LEV 2		LEV 1	LEV 2	
Y	Y	Blank	Y	Y	Weights/Volumes
Y	Y	Check	Y	Y	Spike & Surrogate Worksheet
Y	Y	MS/MSD	Y	Y	Vial contains correct volume
			Y	Y	Labels, greenbars, worksheets computer batch: correct & all match
			_	_	Anomalies to Extraction Method

Y Expanded Deliverable
Y COC Completed
Y Bench Sheet Copied
Y Package Submitted to AnalyticalGroup
Y Bench Sheet Copied per COC

Extractionist: 430806 Crystal Ivey
403884 David Stout

Concentrationist: 013451 Susan D. Oxendine

QC BATCH: 6264010

PREP DATE: 9/20/16 15:25
COMP DATE: 9/27/16 13:00

Reviewer/Date: OXENDINS / 9/27/16

PAHs & Selected SVOCs (HRGC/MS-SIM)
SOXHLET (NOMINAL)

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	VOL	SOLVENTS EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
9/29/16	10/04/16	H6I190404-001 **M88MX-1-AA**	D	4W	YA	SOLID	**10.0g** .50mL	NA	NA	NA	MECL2	450.0	HEXANE	50.0	52177 1.0ML
COMMENTS:															
9/29/16	10/04/16	H6I190404-001 **M88MX-1-ACS**	D	4W	YA	SOLID	**10.0g** .50mL	NA	NA	NA	MECL2	450.0	HEXANE	50.0	52176 1.0ML 52177 1.0ML
COMMENTS:															
9/29/16	10/04/16	H6I190404-001 **M88MX-1-ADD**	D	4W	YA	SOLID	**10.0g** .50mL	NA	NA	NA	MECL2	450.0	HEXANE	50.0	52176 1.0ML 52177 1.0ML
COMMENTS:															
9/29/16	0/00/00	H6I200000-010 **M88RK-1-AAB**		4W	YA	SOLID	**10.0g** .50mL	NA	NA	NA	MECL2	450.0	HEXANE	50.0	52177 1.0ML
COMMENTS:															
9/29/16	0/00/00	H6I200000-010 **M88RK-1-ACC**		4W	YA	SOLID	**10.0g** .50mL	NA	NA	NA	MECL2	450.0	HEXANE	50.0	52176 1.0ML 52177 1.0ML
COMMENTS:															

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 5

TestAmerica Knoxville Prep Batch Review Checklist **Batch #** 626401D

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd Level
1. Were the samples extracted within the required holding times?		✓		If No, NCM #: _____	✓
2. Are the final extracts free of water, precipitates, multiple phases, and for HRMS - color?			✓	M88MX-1AA, MS, MSD have color, Had all cleanups	✓
3. Were all project specific requirements met as noted on the Lot Checklists (L40) and the Sample List report?		✓			✓
4. Were MS Run numbers assigned properly?		✓			✓
5. Were the correct weights and volumes entered into QuantIMS for all samples and QC?		✓			✓
6. Were the correct start and completion dates entered into QuantIMS?		✓			✓
7. Were the spike IDs and volumes entered correctly into QuantIMS?		✓			✓
8. Were all appropriate notes and observations recorded on the extraction benchsheet and in QuantIMS?		✓			✓
9. Was the extraction batch reviewed in QuantIMS using LIM L21?		✓			✓
10. Does the prep batch paperwork package contain all required documentation which has been properly and completely filled out, including: • Extraction Benchsheet • QuantIMS Benchsheet • Lot Checklists (L40) for all lots in batch • Sample List • Compound List Report • ~~SOG Sample Tracking Sheet~~ SD 09/27/16		✓			✓
11. Are all nonconformances documented appropriately and copy included with deliverable?	✓			If Yes, NCM#: _____	NA

Analyst : SDO **Date:** 9/27/16

Comments:

2nd Level Reviewer: JPQ **Date:** 9/27/16

Comments:

Sample Receipt Documentation

Analysis Request / Chain of Custody Form

Air/Compliance Consultants, Inc.
www.air-comp.com

1050 William Pitt Way
Pittsburgh, PA 15238
Phone: 412-826-3636
Fax: 412-826-3640

Please Print Neatly

H4I190404

Page 1 of 1

(1)
Client Name: Erie Coke
Project Location: Erie, PA
Project No.: 16-143
Project Manager (PM): Bill Cowell
PM Email: wcowell@montrose-env.com
Laboratory: Test America
PO #:
Lab Contact / Phone #: Ms. Courtney Adkins ~~291~~ (865) 291-3017

Sample Identification (2)	Date Collected	Time Collected	Grab (3)	Composite	Matrix (4): Dust in 250mL Amber			Air (☐ Source ☐ Ambient ☐ IH)	Total # of Containers	Canisters*	Analysis Requested (5): PAH by Sim										Remarks (6)	Temperature of samples upon receipt (if requested)
PECs Dust #1	9/7-9/15, 2016	N/A		X	X				1		X											

RT CT
REC. @ 2.3°c 2.3°c
CUSTODY SEAL INTACT
1 COOLER RH 9-16-16
FED Ex # 784097778917

(7) **Turnaround Time Requested** (TAT)
(please circle): Normal Rush
Date results are needed:
If rush results requested please fax to:
Fax #

(8) **Notes:**

Please call (412) 826-3636 if there are any questions prior to proceeding. Please cc slindquist@air-comp.com with all laboratory results

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	9/15/16	14:20	Ryan Henry	9/16/16	0930

(10) *Canister Pressure / Vacuum

Initial	Final	Units	Receipt

(11) **Project Manager Approval (Print & Sign)**
PM Sign: [signature]
PM Print: William P Cowell
COC completed by (initial): WPC Date 9/15/16

Instructions on reverse side correspond with circled numbers

WHITE - LAB • YELLOW - FILE
№ 003896

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Log In Number: HLI190404

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☐ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID : 5C61 Correction factor: 0	✓			☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact? DJS 9-19-16	✓	✓		☑ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?		✓		☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, lab will adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

5. JAR HAD CRACK ALONG SIDE, TRANSFERED TO NEW CONTAINER AT LAB

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 92425 PM Instructions: NA

Sample Receiving Associate: Ryan Henry Date: 9/16/16

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